

APPENDIX A

Notice of Preparation and NOP Comments



NOTICE OF PREPARATION

FOR THE

SPECIFIC PLAN OF THE WEST AREA

JULY 2019

Prepared for:



Development and Resources Management Department
2600 Fresno Street, Room 3065
Fresno, CA 93721
(559) 621-2485

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818



D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm



NOTICE OF PREPARATION

FOR THE

SPECIFIC PLAN OF THE WEST AREA

JULY 2019

Prepared for:



Development and Resources Management Department
2600 Fresno Street, Room 3065
Fresno, CA 93721
(559) 621-8003

Prepared by:

De Novo Planning Group
1020 Suncoast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING

DATE: July 2, 2019

To: State Clearinghouse
State Responsible Agencies
State Trustee Agencies
Other Public Agencies
Organizations and Interested Persons

SUBJECT: Notice of Preparation of an Environmental Impact Report and Scoping Meeting for the Specific Plan of the West Area

LEAD AGENCY: City of Fresno, Development and Resources Management Department
2600 Fresno Street, Room 3065
Fresno, CA 93721
(559) 621-2485

PROJECT PLANNER: Rodney Horton
rodney.horton@fresno.gov
(559) 621-8181

PURPOSE OF NOTICE

This is to notify public agencies and the general public that the City of Fresno, as the Lead Agency, will prepare an Environmental Impact Report (EIR) for the Specific Plan of the West Area. The City of Fresno is interested in the input and/or comments of public agencies and the public as to the scope and content of the environmental information that is germane to the agencies' statutory responsibilities in connection with the proposed project, and public input. Responsible/trustee agencies will need to use the EIR prepared by the City of Fresno when considering applicable permits, or other approvals for the proposed project.

COMMENT PERIOD

Consistent with the time limits mandated by State law, your input, comments or responses must be received in writing and sent at the earliest possible date, but not later than 5:00 PM, August 2, 2019.

Please send your comments/input (including the name for a contact person in your agency) to: Attn: Rodney Horton at the City of Fresno, 2600 Fresno Street, Room 3065, Fresno, CA 93721; or by e-mail to rodney.horton@fresno.gov.

SCOPING MEETING

On July 24, 2019, the City of Fresno will conduct a public scoping meeting to solicit input and comments from public agencies and the general public on the proposed project and scope of the EIR. This meeting will be held at the Glacier Point Middle School, Cafeteria, located at 4055 N. Bryan Avenue, Fresno, CA 93722, from 6:00 PM to 7:30 PM.

This meeting will be an open house format and interested parties may drop in to review the proposed project exhibits and submit written comments at any time between 6:00 PM and 7:30 PM. Representatives from the City of Fresno and the EIR consultant will be available to address questions regarding the EIR process and scope. Members of the public may provide written comments throughout the meeting.

If you have any questions regarding the scoping meeting, contact Rodney Horton, Project Planner, at (559) 621-8181 or rodney.horton@fresno.gov.

PROJECT LOCATION

The Specific Plan of the West Area (also-known-as “Specific Plan” or “West Area”) encompasses approximately 7,077 acres (or a little more than 11 square miles) in the City of Fresno city limits and unincorporated Fresno County. The footprint of the Specific Plan is referred to as the “Plan Area.” Of the eleven square miles within the Plan Area, 6.9 square miles are in the city limits and 4.1 square miles are in the growth area. The growth area is land outside the city limits but within the City’s Sphere of Influence (SOI) boundary, which is the adopted limit for future growth.

The Plan Area is triangular in shape and located west of State Route 99. It is bounded on the south by West Clinton Avenue, and to the west by Grantland and Garfield Avenues. The Plan Area includes the southwest portion of Highway City adjacent to State Route 99. See Figure 1 for the regional location map and Figure 2 for the Plan Area vicinity map.

PROJECT SETTING

EXISTING SITE CONDITIONS

The Plan Area is relatively flat with natural gentle slope near State Route 99. The Plan Area topography ranges in elevation from approximately 283 to 315 feet above mean sea level. A significant amount of land in the Plan Area is farmland or rural residential lots with large, uneven, and underutilized parcels. The West Area has approximately 3,070.95 acres of land that is classified as Urban and Built-Up, according to the State Department of Conservation. Prime farmland is principally located outside of the Plan Area. The West Area has 285.65 acres of Farmland of Statewide Importance which is located primarily in the western edge of the Plan Area. Approximately 509.39 acres of Unique Farmland is located within the Plan Area, most of which is within the southwest portion of the Plan Area. Farmland of Local Importance is located throughout the entire Plan Area, and totals approximately 1,562.82 acres. Vacant or Disturbed Land and Rural Residential Land account for approximately 1,650.17 acres within the growth area. See Figure 3 for an aerial view of the Plan Area.

SURROUNDING LAND USES

Surrounding land uses include State Route 99, the unincorporated communities of Herndon, Highway City, and Muscatel, and incorporated areas of the City of Fresno to the north (including mostly industrial uses), incorporated areas of the City of Fresno to the east (also including mostly industrial uses), unincorporated Fresno County and incorporated areas of the City of Fresno to the south (including farmland uses, rural residential uses, low density residential uses, and underutilized parcels) and unincorporated Fresno County to the west (including farmland and rural residential uses).

EXISTING LAND USES AND ZONING

A portion of the Plan Area is located within the City of Fresno city limits, and a portion is within unincorporated Fresno County (but within the City's SOI). The City of Fresno General Plan designates the Plan Area as: Low Density Residential, Medium Low Density Residential, Medium Density Residential, Urban Neighborhood Residential, High Density Residential, Community Commercial, General Commercial, Recreation Commercial, Office, Business Park, Light Industrial, Corridor/Center Mixed Use, Regional Mixed Use, Community Park, Open Space – Ponding Basin, Neighborhood Park, Open Space, Public/Quasi-Public Facility, Special School, Elementary School, Elementary, Middle & High School, and High School. See Figure 4 for the existing City General Plan land use designations.

The City of Fresno Zoning Map provides zoning for those portions of the Plan Area located within the city limits, but not for areas within the unincorporated County. Zoning designations are generally consistent with the existing General Plan land uses. The City zoning designations for the Plan Area include: Residential Estate (RE), Residential Single-Family, Extremely Low Density (RS-1), Residential Single-Family, Very Low Density (RS-2), Residential Single-Family, Low Density (RS-3), Residential Single-Family, Medium Low Density (RS-4), Residential Single-Family, Medium Density (RS-5), Residential Multi-Family, Medium High Density (RM-1), Residential Multi-Family, Urban Neighborhood (RM-2), Residential Multi-Family, High Density (RM-3), Mobile Home Park (RM-MH), Commercial Community (CC), Commercial General (CG), Commercial Regional (CR), Commercial Recreation (CRC), Light Industrial (IL), Corridor/Center Mixed Use (CMX), Neighborhood Mixed Use (NMX), Regional Mixed Use (RMX), Business Park (BP), Office (O), Open Space (OS), and Park and Recreation (PR). See Figure 5 for the existing zoning designations.

The Fresno County Zoning Map designates the portions of the Plan Area outside the city limits as: Rural Commercial Center (RCC), Central Trading (C4), General Commercial (C6), Light Industrial (M1), Exclusive Agricultural (AE20), Limited Agricultural (AL20), Rural Residential (RR), Single Family Residential Agricultural (RA), Single Family Residential (12,500) (R1B), and Trailer Park Residential (TP). Upon a proposal to annex unincorporated land into the city limits, the City of Fresno would prezone the land to a zone that is consistent with the General Plan land use. Once annexation occurs, the County zoning would not apply to the parcel.

PROJECT GOALS AND OBJECTIVES

Consistent with the California Environmental Quality Act (CEQA), Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the proposed project shall be discussed. The objectives of the proposed project include future development of land for a wide variety of land uses including: Low Density Residential, Medium Low Density Residential, Medium Density Residential, Medium High Density Residential, Urban Neighborhood Residential, High Density Residential, Community Commercial, Recreation Commercial, General Commercial, Regional Commercial, Office, Business Park, Light Industrial, Corridor/Center Mixed Use, Regional Mixed Use, Pocket Park, Neighborhood Park, Community Park, Open Space, Ponding Basin, Public Facility, Church, Special School, Elementary School, Elementary, Middle & High School, High School, and Fire Station uses, as well as the required transportation and utility improvements.

Other objectives and purposes of the Specific Plan are summarized as follows:

- Accommodate and improve roadway access, connectivity and mobility among all modes of transportation, and prioritize roadway widening where bottlenecking exists.
- Accommodate planned transit services in the West Area by locating routes near or adjacent to the community centers, schools, parks, and retail centers.
- Provide a complete, safe, and well-maintained sidewalk network from residential neighborhoods to commercial centers, schools, parks, and community centers.
- Provide a complete, safe, and well-maintained roadway network that allows for efficient and smooth access from the West Area to other sections of the City and region.
- Create parks that are within existing and planned neighborhoods that are easily accessed by community members using pedestrian and bicycle pathways, transit services, or motor vehicles, consistent with the City of Fresno's Parks Master Plan.
- Provide for the location of a flagship Regional Park in the Plan Area that has components of the Plan Area's agricultural history through the planting of drought-resistant vegetation or trees, and the creation of public art that exhibits the Plan Area's contribution to the agricultural industry.
- Incorporate elements of agriculture in future parks by planting a mixture of native drought tolerant vegetation, shrubs, and trees that can serve to provide shade and enhance the streetscape.
- Encourage and provide land use opportunities for agri-tourism ventures to occur in the West Area.
- Encourage the development of harvest – producing community gardens.
- Attract desired and needed local retail establishments to serve the needs of the West Area community. Such establishments include grocery stores, bakeries, restaurants other than fast food places, and boutiques.
- Discourage the expansion of undesirable retail establishments such as liquor stores, tobacco and vapor stores, short-term loan and pawn shops, and adult stores.
- Encourage the development of retail establishments along commercial corridors.

- Encourage the orderly and consistent development of civic, parkland, retail and commercial, mixed-use, and multi-family uses along West Shaw Avenue, West Ashlan Avenue, Veterans Boulevard, West Shields Avenue, West Clinton Avenue, and Blythe Avenue.
- Encourage a variety of housing types and styles.
- Encourage the development of housing to accommodate an aging population including, multi-generational houses and other elder housing options.
- Reaffirm the City's commitment and obligation to affirmatively further access to fair and affordable housing opportunities by strongly encouraging equitable and fair housing opportunities to be located in strategic proximity to employment, recreational facilities, schools, neighborhood commercial areas, and transportation routes.
- Attract much needed educational opportunities for the residents of the West Area, especially for post-secondary education, and access to programs for life-long learners.
- Provide for safe routes to schools for children, with the City and County working together with residents, to provide sidewalks in neighborhood that have sporadic access.
- Work to promote Neighborhood Watch in all neighborhoods, and further assess the need for the location of emergency response facilities west of State Route 99.

PROJECT CHARACTERISTICS AND DESCRIPTION

BACKGROUND

The proposed Specific Plan process officially started in September 2017 with the drafting of the existing conditions report. That document provides a detailed overview of the existing land uses within the Plan Area. Outreach to the West Area community started in early 2018 with individual meetings between City staff and community stakeholders, including residents, local agencies, institutional partners, elected officials, land owners, and developers. Public outreach included community stakeholder interviews, Steering Committee orientation sessions and meetings, community meetings and workshops, and an on-line survey.

The 11-member Steering Committee, established in March 2018 by the Fresno City Council, held regular public meetings to provide recommendations to the draft land use map and guiding principles based on input received from community members. Additionally, approximately 25 community stakeholders were interviewed from January 2018 to April 2018. Next, a kick-off survey regarding the Plan Area was released in April 2018. The survey covered topics such as quality of life, needed improvements, needed housing and commercial development, agri-tourism, and the overall future vision for the Plan Area. Two community conversations (i.e., workshops) were also held in order to receive feedback: Community Conversation No. 1 was held in May 2018, and Community Conversation No. 2 was held in June 2018. The Steering Committee then held meetings in June, July, August, November, and January 2018 in order to review and select the conceptual land use options. The draft land use map and guiding principles were released to the public on November 28, 2018. The draft land use map was then amended by the Steering Committee in January 2019. Lastly, an agri-tourism workshop was held in the spring of 2019.

INTRODUCTION

The proposed Specific Plan will establish the land use planning and regulatory guidance, including the land use and zoning designations and policies, for the approximately 7,077-acre Plan Area. The Specific Plan will serve as a bridge between the Fresno General Plan and individual development applications in the Plan Area.

The Specific Plan of the West Area seeks to provide for the orderly and consistent development that promotes and establishes the West Area as a complete neighborhood with enhanced transportation infrastructure, development of core commercial centers, creation of additional parkland, and encouraging the development of a diverse housing stock. The Plan Area does not currently have needed commercial amenities, forcing residents to travel east of State Route 99 for retail services. The Plan Area also lacks a complete roadway network and parkland.

LAND USE MAP AND MAXIMUM BUILDOUT POTENTIAL

The proposed Specific Plan refines the General Plan's land use vision for the West Area. The draft land use map proposes the relocation of higher density land uses away from the most western and southwestern portions of the Plan Area where they are distant from public transit and community amenities and transfers those higher density land use designations to major corridors. The Specific Plan of the West Area land use plan utilizes the City's existing General Plan land use designations to maintain or re-designate some parcels in the West Area. Some of the designation changes include: Low Density Residential (1 to 3.5 dwelling units per acre [DU/AC]), Medium Low Density Residential (3.5 to 6 DU/AC), Medium Density Residential (5 to 12 DU/AC), Medium High Density Residential (12 to 16 DU/AC), Urban Neighborhood Residential (16 to 30 DU/AC), High Density Residential (30 to 45 DU/AC), Community Commercial (1.0 maximum floor-area-ratio [FAR]), Recreation Commercial (0.5 maximum FAR), General Commercial (2.0 maximum FAR), Regional Commercial (1.0 maximum FAR), Office (2.0 maximum FAR), Business Park (1.0 maximum FAR), Light Industrial (1.0 maximum FAR), Corridor/Center Mixed Use (16 to 30 UD/AC and 1.5 maximum FAR), Regional Mixed Use (30 to 45 UD/AC and 2.0 maximum FAR), Pocket Park, Neighborhood Park, Community Park, Open Space, Ponding Basin, Public Facility, Church, Special School, Elementary School, Elementary, Middle & High School, High School, and Fire Station. See Table 1 for a summary of the existing and proposed land uses within the city limits, growth area, and Plan Area. See Figure 6 for the proposed General Plan land use designations.

As previously indicated, the City of Fresno Zoning Map designates the Plan Area as: RE, RS-1, RS-2, RS-3, RS-4, RS-5, RM-1, RM-2, RM-3, RM-MH, CC, CG, CR, CRC, IL, CMX, NMX, RMX, BP, O, OS, and PR. The Fresno County Zoning Map designates the portions of the Plan Area outside the city limits as: RCC, C4, C6, M1, AE20, AL20, RR, RA, R1B, and TP. In conjunction with the approval of the Specific Plan, the parcels in the City which would have a changed land use designation as a result of the Specific Plan would be rezoned to the corresponding City zoning designation.

TABLE 1: PARCEL ACREAGES BY LAND USE CLASSIFICATION FOR GENERAL PLAN AND PROPOSED SPECIFIC PLAN

GENERAL PLAN LAND USE DESIGNATIONS	CITY LIMITS			GROWTH AREA			PLAN AREA TOTAL		
	GENERAL PLAN ACRES	SPECIFIC PLAN ACRES	DIFFERENCE IN CITY	GENERAL PLAN ACRES	SPECIFIC PLAN ACRES	DIFFERENCE IN GROWTH AREA	GENERAL PLAN ACRES	SPECIFIC PLAN ACRES	OVERALL CHANGE
Low	146.20	95.82	- 163.47	671.59	420.76	- 143.64	817.79	516.57	- 307.11
Medium Low	582.37	821.03		243.59	635.94		825.97	1,456.98	
Medium	1,460.88	1,240.70		896.13	824.67		2,357.00	2,065.37	
Medium High	261.09	224.31		88.33	51.24		349.42	275.55	
Urban Neighborhood	214.65	96.53		213.96	75.11		428.61	171.64	
High	28.00	51.33		37.76	0.00		65.76	51.33	
<i>Subtotal - Residential</i>	<i>2,693.19</i>	<i>2,529.72</i>		<i>2,151.36</i>	<i>2,007.72</i>		<i>4,844.55</i>	<i>4,537.44</i>	
Community	81.87	27.40	- 40.68	56.79	25.34	+ 36.56	138.66	52.74	- 4.11
Recreation	41.34	41.34		0.00	0.00		41.34	41.34	
General	141.59	155.38		1.63	65.40		143.21	220.78	
Regional	0.00	0.00		0.00	4.24		0.00	4.24	
<i>Subtotal - Commercial</i>	<i>264.80</i>	<i>224.12</i>		<i>58.42</i>	<i>94.98</i>		<i>323.21</i>	<i>319.10</i>	
Office	7.51	42.94	+ 32.91	0.00	45.87	+ 26.92	7.51	88.81	+ 59.84
Business Park	22.71	20.57		54.40	35.45		77.11	56.02	
Light Industrial	33.13	32.75		0.00	0.00		33.13	32.75	
<i>Subtotal - Employment</i>	<i>63.35</i>	<i>96.26</i>		<i>54.40</i>	<i>81.32</i>		<i>117.75</i>	<i>177.59</i>	
Neighborhood	0.00	211.12	+ 114.60	0.00	44.83	+ 69.06	0.00	255.95	+ 183.66
Corridor/Center	106.19	71.78		0.00	24.23		106.19	96.00	
Regional	144.72	82.61		0.00	0.00		144.72	82.61	
<i>Subtotal - Mixed Use</i>	<i>250.90</i>	<i>365.50</i>		<i>0.00</i>	<i>69.06</i>		<i>250.90</i>	<i>434.56</i>	
Pocket Park	2.45	1.55	+ 24.58	0.00	0.00	+ 14.49	2.45	1.55	+ 10.09
Neighborhood Park	36.67	39.22		47.04	47.04		83.71	86.26	
Community Park	24.20	24.20		13.98	0.00		38.18	24.20	
Regional Park	0.00	0.00		0.00	0.00		0.00	0.00	
Open Space	5.03	5.03		1.76	1.76		6.79	6.79	
Ponding Basin	67.06	89.99		40.12	39.60		107.18	129.59	
<i>Subtotal - Open Space</i>	<i>135.41</i>	<i>159.99</i>		<i>102.90</i>	<i>88.41</i>		<i>238.31</i>	<i>248.40</i>	
Public Facility	4.98	12.64	+ 32.05	16.81	14.78	+ 25.59	21.78	27.42	+ 57.65
Church	9.93	21.20		1.66	34.60		11.59	55.80	
Special School	4.50	4.50		13.88	13.88		18.38	18.38	
Elem. School	56.18	66.17		25.65	25.65		81.82	91.82	
Elem./Middle/High School	145.37	145.37		0.00	0.00		145.37	145.37	
High School	46.95	46.95		0.00	0.00		46.95	46.95	
Fire Station	0.20	3.32		5.32	0.00		5.52	3.32	
<i>Subtotal - Public Facilities</i>	<i>268.10</i>	<i>300.15</i>		<i>63.32</i>	<i>88.91</i>		<i>331.41</i>	<i>389.06</i>	
Grand Total	3,675.75	3,675.75	--	2,430.39	2,430.39	--	6,106.14	6,106.14	--

The parcels that are currently within the County will not be rezoned. Instead, upon a proposal to annex unincorporated land into the city limits, the City of Fresno would prezone the land to a zone that is consistent with the General Plan land use. Once annexation occurs, the County zoning would not apply to the parcel.

Table 2 summarizes the acreages of each land use, the maximum number of units, and the maximum non-residential square footage that would be allowed under the proposed Specific Plan.

TABLE 2: MAXIMUM DEVELOPMENT POTENTIAL WITHIN SPECIFIC PLAN OF THE WEST AREA

GENERAL PLAN LAND USE DESIGNATIONS (AND DENSITY/INTENSITY)	SPECIFIC PLAN ACRES	MAXIMUM DEVELOPMENT POTENTIAL	
		DWELLING UNITS	NON-RESIDENTIAL SF
Low (1-3.5 DU/AC)	516.57	1,807	--
Medium Low (3.5-6 DU/AC)	1,456.98	8,741	--
Medium (5-12 DU/AC)	2,065.37	24,784	--
Medium High (12-16 DU/AC)	275.55	4,408	--
Urban Neighborhood (16-30 DU/AC)	171.64	5,149	--
High (30-45 DU/AC)	51.33	2,309	--
<i>Subtotal - Residential</i>	<i>4,537.44</i>	<i>47,199</i>	<i>--</i>
Community (1.0 Max. FAR)	52.74	--	2,297,354.40
Recreation (0.5 Max. FAR)	41.34	--	900,385.20
General (2.0 Max. FAR)	220.78	--	19,234,353.60
Regional (1.0 Max. FAR)	4.24	--	184,694.40
<i>Subtotal - Commercial</i>	<i>319.10</i>	<i>--</i>	<i>22,616,787.60</i>
Office (2.0 Max. FAR)	88.81	--	--
Business Park (1.0 Max. FAR)	56.02	--	--
Light Industrial (1.0 Max. FAR)	32.75	--	--
<i>Subtotal - Employment</i>	<i>177.59</i>	<i>--</i>	<i>--</i>
Neighborhood (12-16 DU/AC; 1.5 Max. FAR)	255.95	4,095	16,723,773.00
Corridor/Center (16-30 UD/AC; 1.5 Max. FAR)	96.00	2,880	6,272,640.00
Regional (30-45 UD/AC; 2.0 Max. FAR)	82.61	3,717	7,196,983.20
<i>Subtotal - Mixed Use</i>	<i>434.56</i>	<i>10,692</i>	<i>30,193,396.20</i>
Pocket Park	1.55	--	--
Neighborhood Park	86.26	--	--
Community Park	24.20	--	--
Regional Park	0.00	--	--
Open Space	6.79	--	--
Ponding Basin	129.59	--	--
<i>Subtotal - Open Space</i>	<i>248.40</i>	<i>--</i>	<i>--</i>
Public Facility	27.42	--	--
Church	55.80	--	--
Special School	18.38	--	--
Elem. School	91.82	--	--
Elem./Middle/High School	145.37	--	--
High School	46.95	--	--
Fire Station	3.32	--	--
<i>Subtotal - Public Facilities</i>	<i>389.06</i>	<i>--</i>	<i>--</i>
Grand Total	6,106.14	57,891 DU	52,810,183.80 SF

As shown in the table, the Specific Plan would allow for the future development of up to 57,891 DU (including 47,199 DU in the residential category and 10,692 DU in the mixed use category) and 52,810,183.80 SF of non-residential uses. The proposed land use plan also designates public facility uses that are currently existing within the Plan Area, including schools and churches. In the northern portion of the Plan Area, Fire Station No. 18 is located off of West Bullard Avenue at 5938 North La Ventana Avenue. Fire Station 18 will be relocated to a permanent location on

the south side of the 6000 block of West Shaw Avenue to maximize the department's "4 Minutes to Excellence" response time goal. Additionally, the proposed land use plan would allow for approximately 248 acres of park, open space, and ponding basin uses. The Specific Plan also includes circulation and utility improvements, some of which are planned in the City's current program for capital improvements.

The Specific Plan is designed to provide flexibility, so there is an extensive number of hypothetical variations/combinations for residential and non-residential development. However, the data within the above table represents the maximum density allowed without an amendment approved by the City. In effect, this is very likely an overestimate of what will actually be developed, but for purposes of environmental analysis in the EIR it represents the worst-case scenario.

It is noted that the proposed Specific Plan would amend the land uses for approximately half of the land within the Plan Area. The remaining parcels would maintain their existing land use and zoning designations. The parcels that are proposed for change by the proposed land use map are shown in Figure 7.

REVISIONS TO CORE GOALS

In addition to the proposed land use plan, the following are revisions to the core goals provided in the General Plan for the West Area:

1. West Shaw Avenue Town Center: The West Shaw Avenue Town Center (the Town Center) will extend from State Route 99 to the east side of Grantland Avenue and is envisioned to be comprised of mixed-use development supported by enhanced transit service. Land on the south side of West Shaw Avenue will provide additional neighborhood and commercial mixed-use opportunities.
2. Catalytic Corridors: The proposed Specific Plan designates higher density land uses along corridors for the purpose of providing easy access to major arterials and streets, retail centers, and community amenities. Catalytic corridors will include transit services. The corridors are designed to include neighborhood and pocket parks, commercial and retail uses, educational facilities, multi-family dwelling units, and professional offices. The corridors are located on the following streets:
 - a) West Shaw Avenue, from State Route 99 to the east side of Grantland Avenue;
 - b) West Ashlan Avenue, from State Route 99 to the commercial nodes located on the west side of Grantland Avenue;
 - c) North Blythe Avenue, from West Shields to West Ashlan Avenue;
 - d) West Clinton Avenue from State Route 99 to North Brawley Avenue; and
 - e) Veterans Boulevard, from West Gettysburg Avenue to West Barstow Avenue.

PROJECT ALTERNATIVES

CEQA requires that an EIR analyze a reasonable range of feasible alternatives that meet most or all project objectives while reducing or avoiding one or more significant environmental effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that

requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed.

Alternatives that are evaluated in the EIR must be potentially feasible alternatives. However, not all possible alternatives need to be analyzed. An EIR must “set forth only those alternatives necessary to permit a reasoned choice.” (CEQA Guidelines, Section 15126.6(f).) The CEQA Guidelines provide a definition for a “range of reasonable alternatives” and, thus limit the number and type of alternatives that need to be evaluated in an EIR. An EIR need not include any action alternatives inconsistent with the lead agency’s fundamental underlying purpose in proposing a project. (In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings (2008) 43 Cal.4th 1143, 1166.)

First and foremost, alternatives in an EIR must be potentially feasible. In the context of CEQA, “feasible” is defined as:

... capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (CEQA Guidelines 15364)

The inclusion of an alternative in an EIR is not evidence that it is feasible as a matter of law, but rather reflects the judgment of lead agency staff that the alternative is potentially feasible. The final determination of feasibility will be made by the lead agency decision-making body through the adoption of CEQA Findings at the time of action on the Project. (Mira Mar Mobile Community v. City of Oceanside (2004) 119 Cal.App.4th 477, 489 see also CEQA Guidelines, §§ 15091(a)) (3) (findings requirement, where alternatives can be rejected as infeasible); 15126.6 ([an EIR] must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation”).) The following factors may be taken into consideration in the assessment of the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, general plan consistency, other plan or regulatory limitations, jurisdictional boundaries, and the ability of the proponent to attain site control (Section 15126.6 (f) (1)).

ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Equally important to attaining the project objectives is the reduction of some or all significant impacts, particularly those that could not be mitigated to a less-than-significant level. The exact alternatives that will be evaluated in the Draft EIR will be determined through the Notice of Preparation (NOP) and Scoping Process. Through preliminary discussions, there are three alternatives to the proposed Specific Plan that are being contemplated for evaluation in the Draft EIR. The alternatives being considered include the following:

- **No Project (Existing General Plan) Alternative:** Under this alternative, the Plan Area would remain in its current General Plan land use and zoning designations. Future development allowed under the existing General Plan land use map would be permitted in the Plan Area.
- **Regional Park Alternative:** Under this alternative, future development in the Plan Area would occur similar to what would be allowed under the proposed land use map. However, this alternative would provide a Regional Park within the Plan Area, which would be a minimum of 40 acres in size.
- **Lower Density Alternative:** Under this alternative, future development in the Plan Area would occur similar to what would be allowed under the proposed land use map, but at lower densities.

It is noted that the final alternatives selected for analysis in the Draft EIR will be based on the public scoping process, including input received through public comment.

PLAN ADOPTION AND REGULATION

The Specific Plan may include certain development regulations and standards that are intended to be specific to the Specific Plan Area. Where there is a matter or issue not specifically covered by the Specific Plan development regulations and design standards, the Fresno Zoning Code would apply. Where there is a conflict between the Specific Plan and the Zoning Code, the Specific Plan would prevail.

The Specific Plan is intended to be adopted by the City Council and to serve as a tool for the City of Fresno to implement. The Specific Plan is to be used by designers, developers, builders, and planners, to guide development of the Plan Area. The land use, development standards, and design guidelines are provided to ensure that all proposed developments remain consistent with the vision established by the Specific Plan as the Project is built over time. The Specific Plan development concepts, design guidelines, and standards are in accordance with the City's General Plan, Municipal Ordinances, and City Specifications. The Specific Plan shall be used to review, process, and approve development proposals for the Project site including but not limited to site specific development applications and site improvement plans.

TYPE OF EIR

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Program EIR pursuant to CEQA Guidelines Section 15168. The program-level analysis considers the broad environmental effects of the proposed project as a whole.

It is noted that the Specific Plan provides a very broad level of planning detail. To the extent that sufficient detail is available in the Specific Plan, a more detailed level of analysis is provided in this EIR. Examples of a more detailed level of analysis would include topics that are related to the physical acreage affected (i.e. the project footprint), maximum number of units (or FAR), land uses/zoning, or other design parameters. In many cases, there will be site specific uses that

will have design details developed at a later date. These details are unknown at this time and cannot reasonably be analyzed at a project-level at this time.

This EIR examines the planning, construction and operation of the project. The program-level approach, with limited project-level analysis, is appropriate for the proposed project because it allows comprehensive consideration of the reasonably anticipated scope of the development plan; however, as discussed above, not all design aspects of the future development phases are known at this stage in the planning process. Subsequent individual development that requires further discretionary approvals will be examined in light of this EIR to determine whether additional environmental documentation must be prepared.

CEQA Guidelines Section 15168 states that a program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

1. Geographically,
2. As logical parts in the chain of contemplated actions,
3. In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program, or
4. As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

According to CEQA Guidelines section 15168, subdivision (c)(5), “[a] program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible.” Later environmental documents (EIRs, mitigated negative declarations, or negative declarations) can incorporate by reference materials from the program EIR regarding regional influences, secondary impacts, cumulative impacts, broad alternatives, and other factors (CEQA Guidelines Section 15168[d][2]). These later documents need only focus on new impacts that have not been considered before (CEQA Guidelines Section 15168[d][3]).

Section 15168(c), entitled “Use with Later Activities,” provides, in pertinent part, as follows:

Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared:

1. If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.
2. If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activities as being within the scope of the project covered by the program EIR, and no new environmental document would be required.
3. An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.

4. Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

Here, the City anticipates preparing an initial study whenever landowners within the Plan Area submit applications for site-specific approvals (i.e. tentative maps, conditional use permits, or other discretionary entitlements). The initial study would serve in part as a consistency checklist to determine if the application for site specific approval is consistent with the General Plan, Specific Plan, Conditions of Approval, and Mitigation Measures, and it would also include a review of the project details relative to what was anticipated and analyzed in the program EIR (i.e. are there new environmental effects that were not covered by the program EIR). The City's expectation, at least at present, is that the initial study will conclude that most components of the Specific Plan can be developed with no new analysis of environmental effects given that there has been analysis in this program EIR. In some cases, however, a site-specific application (i.e. commercial use) may have specific issues associated with the project, or business, that this program EIR could not anticipate given the information that was available at this time. In those situations, the detailed site-specific information from that application could have site-specific effects not wholly anticipated in this EIR and would require some additional environmental review. (See also CEQA Guidelines section 15063, subd. (b)(1)(C).)

Future site-specific approvals may also be narrowed pursuant to the rules for tiering set forth in CEQA Guidelines Section 15152. "[T]iering is a process by which agencies can adopt programs, plans, policies, or ordinances with EIRs focusing on 'the big picture,' and can then use streamlined CEQA review for individual projects that are consistent with such...[first tier decisions] and are...consistent with local agencies' governing general plans and zoning.'" (*Koster v. County of San Joaquin* (1996) 47 Cal.App.4th 29, 36.) Section 15152 provides that, where a first-tier EIR has "adequately addressed" the subject of cumulative impacts, such impacts need not be revisited in second- and third-tier documents. Furthermore, second- and third-tier documents may limit the examination of impacts to those that "were not examined as significant effects" in the prior EIR or "[a]re susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means." In general, significant environmental effects have been "adequately addressed" if the lead agency determines that:

1. they have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental impact report; or
2. they have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

Here, as noted above, the City anticipates preparing Initial Study whenever landowners within the Plan Area submit applications for site-specific approvals (i.e. tentative maps, conditional use

permits, or other discretionary entitlements). The checklist would serve in part as a consistency checklist to determine if the application for site specific approval is consistent with the General Plan, Specific Plan, Conditions of Approval, and Mitigation Measures, and it would also include a review of the project details relative to what was anticipated and analyzed in the program EIR (i.e. have all significant environmental impacts identified been “adequately addressed” in the program EIR). Thus, if a new analysis is required for these site-specific actions, it would focus on impacts that cannot be “avoided or mitigated” by mitigation measures that either (i) were adopted in connection with the Specific Plan or (ii) were formulated based on information in this EIR.

In addition, because the EIR addresses the effects of rezoning the land within the proposed Plan Area, future environmental review can also be streamlined pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183. These provisions, which are similar but not identical to the tiering provisions, generally limit the scope of necessary environmental review for site-specific approvals following the preparation of an EIR for a “zoning action.” For such site-specific approvals, CEQA generally applies only to impacts that are “peculiar to the parcel or to the project” and have not been previously disclosed, except where “substantial new information” shows that previously identified impacts would be more significant than previously assumed. Notably, impacts are considered not to be “peculiar to the parcel or to the project” if they can be substantially mitigated pursuant to previously adopted, uniformly applied development policies or standards. As noted above, the City anticipates that, in assessing the extent to which the Specific Plan EIR has previously addressed significant impacts that might occur with individual projects, the City may conclude that in some instances (e.g., with respect to agricultural resources, cultural resources, geology, soils, and paleontological resources), no further analysis beyond that found in the program EIR will be necessary.

Finally, for purely residential projects consistent with the Specific Plan, the City intends to preserve its ability to treat such projects as exempt from CEQA pursuant to Government Code section 65457. Subdivision (a) of that statute provides that “[a]ny residential development project, including any subdivision, or any zoning change that is undertaken to implement and is consistent with a specific plan for which an [EIR] has been certified after January 1, 1980, is exempt from the requirements of [CEQA].” The statutes go on to say, moreover, that “if after adoption of the specific plan, an event as specified in Section 21166 of the Public Resources Code occurs, the exemption provided by this subdivision does not apply unless and until a supplemental [EIR] for the specific plan is prepared and certified in accordance with the provisions of [CEQA]. After a supplemental [EIR] is certified, the exemption ... applies to projects undertaken pursuant to the specific plan.” (See also CEQA Guidelines section 15182.)

When purely residential projects are proposed, the City will consider whether they qualify for this exemption or whether the Specific Plan EIR must be updated through a supplement to this EIR or a subsequent EIR as required by Public Resources Code section 21166 and CEQA Guidelines sections 15162 and 15163.

PROJECT ENTITLEMENTS

The City of Fresno will be the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. Actions that would be required from the City include, but are not limited to the following:

- Certification of the EIR and adoption of the Mitigation Monitoring and Reporting Program (MMRP);
- Approval of the Specific Plan of the West Area;
- Approval of the General Plan amendment modifying land uses.
- Approval of the Zoning Ordinance amendment modifying zoning.

The EIR analyzes the impacts of the Specific Plan and the anticipated subsequent filing of maps and other development applications in the future. Therefore, the EIR analyzes the maximum impacts of the Specific Plan, including these applications yet unfiled, so that future filings will not require separate environmental analysis, as long as development proposed does not substantially deviate from the approved Specific Plan.

ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR will involve the following general procedural steps:

NOTICE OF PREPARATION

The City must circulate a NOP of an EIR for the proposed project to responsible and trustee agencies, the State Clearinghouse, and the public. A public scoping meeting must be held during the public review period to present the project description to the public and interested agencies, and to receive comments from the public and interested agencies regarding the scope of the environmental analysis to be included in the Draft EIR. Concerns raised in response to the NOP will be considered during preparation of the Draft EIR. The NOP and responses to the NOP by interested parties will be presented in an appendix to the EIR.

DRAFT EIR

The Draft EIR will contain a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The Draft EIR will identify issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP will be considered in preparing the analysis in the EIR. Upon completion of the Draft EIR, the City will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor's Office of Planning and Research to begin the 45-day public review period.

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to significant environmental issues raised either in written comments received during the public review period or in oral comments received at a public hearing during such review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

CEQA Guidelines Section 15090 requires lead agencies to certify the final EIR prior to approving a project. The lead agency decision making body shall certify that (i) the Final EIR has been completed in compliance with CEQA; (ii) that the Final EIR was presented to the decision-making body, which reviewed and considered the information contained in the Final EIR prior to approving the project; and (iii) that the Final EIR reflects the lead agency's independent judgment and analysis.

For the proposed project, the City Council shall be the City's ultimate decision-making body. The Council will therefore review and consider the Final EIR and make a determination regarding whether the document is "adequate and complete." In general, a Final EIR meets this standard if:

1. The EIR shows a good faith effort at full disclosure of environmental information; and
2. The EIR provides sufficient analysis to allow decisions to be made regarding the proposed project in contemplation of environmental considerations.

The level of detail contained throughout the EIR is intended to be consistent with Section 15151 of the CEQA Guidelines and recent court decisions, which provide the standard of adequacy on which the document is based. The Guidelines state as follows:

"An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of the environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

Following review and consideration of the Final EIR, the City may take action to approve, modify, or reject the project. As part of project approval, the City also is also required to adopt a Mitigation Monitoring and Reporting Program, as described below, prepared in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097. This Mitigation Monitoring and Reporting Program must include all of the mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects on the environment, and would be designed to ensure that these measures are actually carried out during project implementation.

USES OF THE EIR AND REQUIRED AGENCY APPROVALS

The City of Fresno will be the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. Other agencies may be required to issue permits or approve certain aspects of the proposed project.

Actions that would be required from the City include, but are not limited to, the following:

- Certification of the EIR;
- Adoption of the Mitigation Monitoring and Reporting Program;
- Approval of City of Fresno General Plan Amendments;
- Approval of City of Fresno rezoning;
- Approval of Specific Plan;
- Approval of Development Agreement;
- Approval of future tentative and final maps;
- Approval of future improvement plans;
- Approval of future grading plans;
- Approval of future building permits;
- Approval of future site plan and design review;
- City review and approval of future project utility plans.

The other governmental agencies that may require approvals in connection with the project include, but are not limited to, the following:

- California Department of Fish and Wildlife;
- California Department of Transportation;
- Central Valley Regional Water Quality Control Board - Storm Water Pollution Prevention Plan approval prior to construction activities pursuant to the Clean Water Act;
- San Joaquin Valley Air Pollution Control District - Approval of construction-related air quality permits;
- San Joaquin Valley Air Pollution Control District - Authority to Construct, Permit to Operate for stationary sources of air pollution;
- State Water Resources Control Board.

AREAS OF POTENTIAL IMPACTS

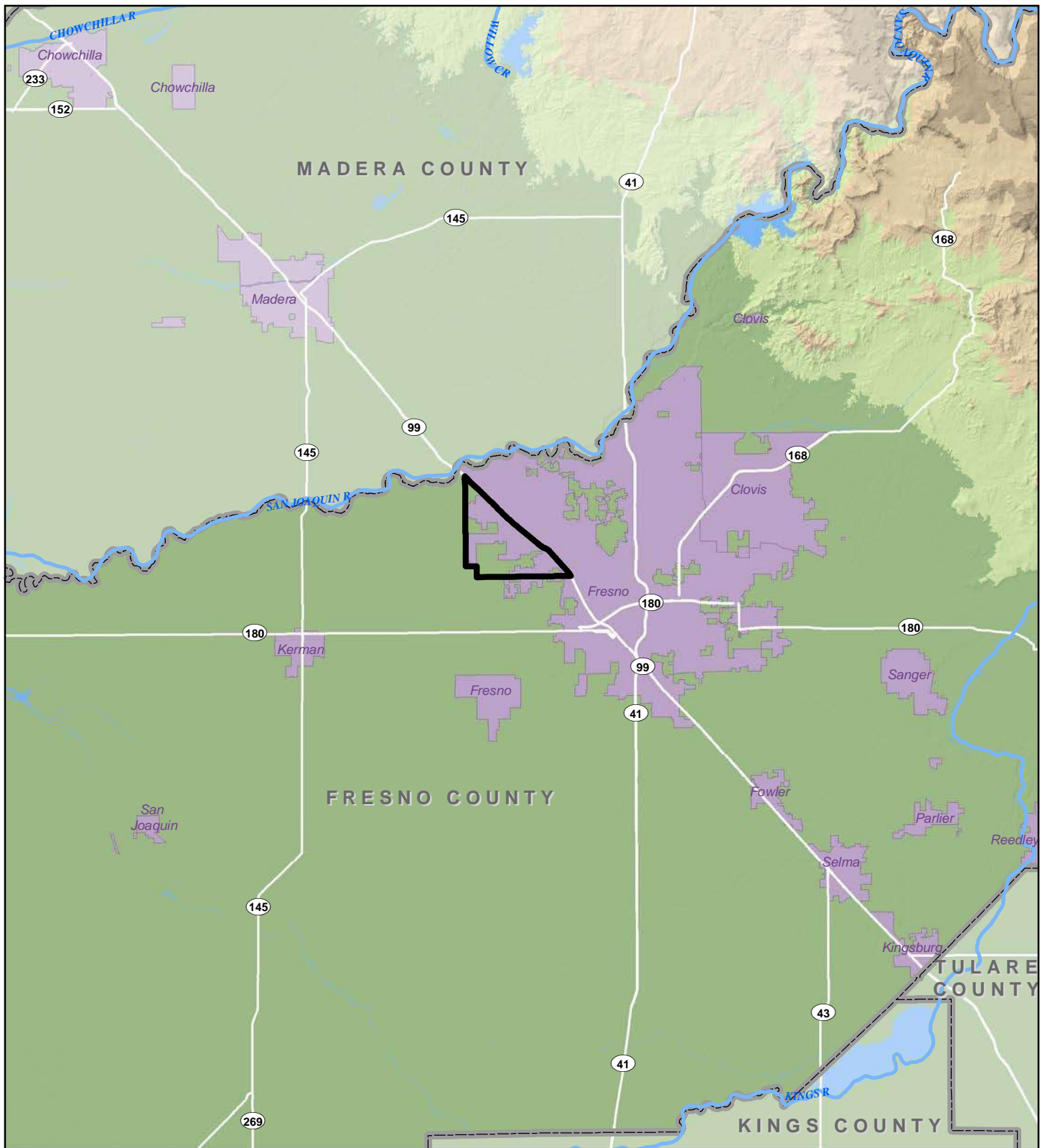
An Initial Study has not been prepared for this project. All environmental topics identified in Appendix G of the State CEQA Guidelines will be analyzed in the EIR, including: Aesthetics, Agricultural and Forest Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gases and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, Utilities, Wildfire, Cumulative Impacts, and Growth Inducing Impacts.

Date: June 28, 2019




Signature: 

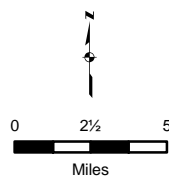
Name/Title: Rodney L. Horton, MPA, Project Planner

Phone/Email: 559-621-8181/Rodney.Horton@fresno.gov



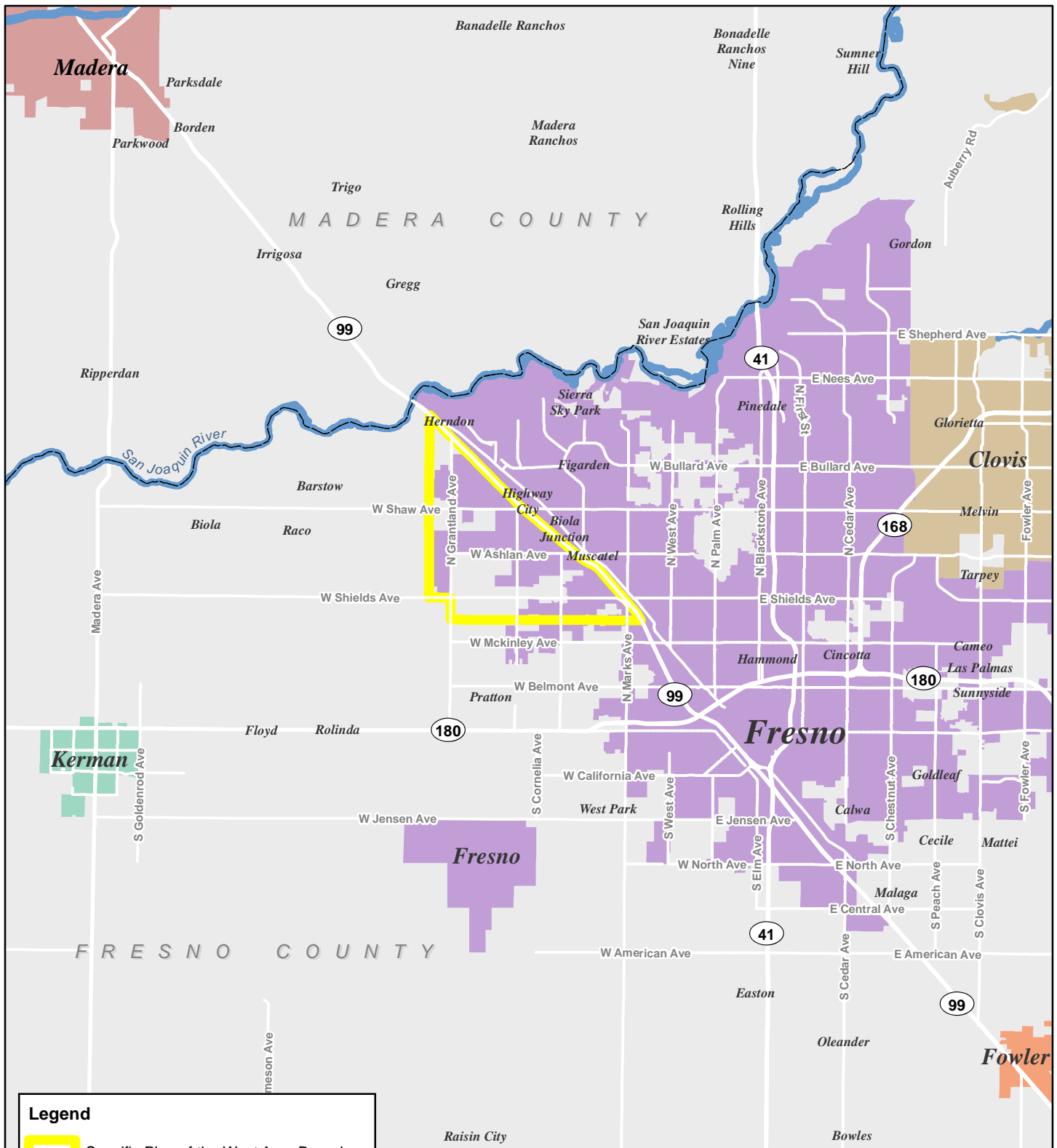
Legend

-  Specific Plan of the West Area
-  City Area
-  County Boundary



CITY OF FRESNO SPECIFIC PLAN OF THE WEST AREA

Figure 1. Regional Location Map



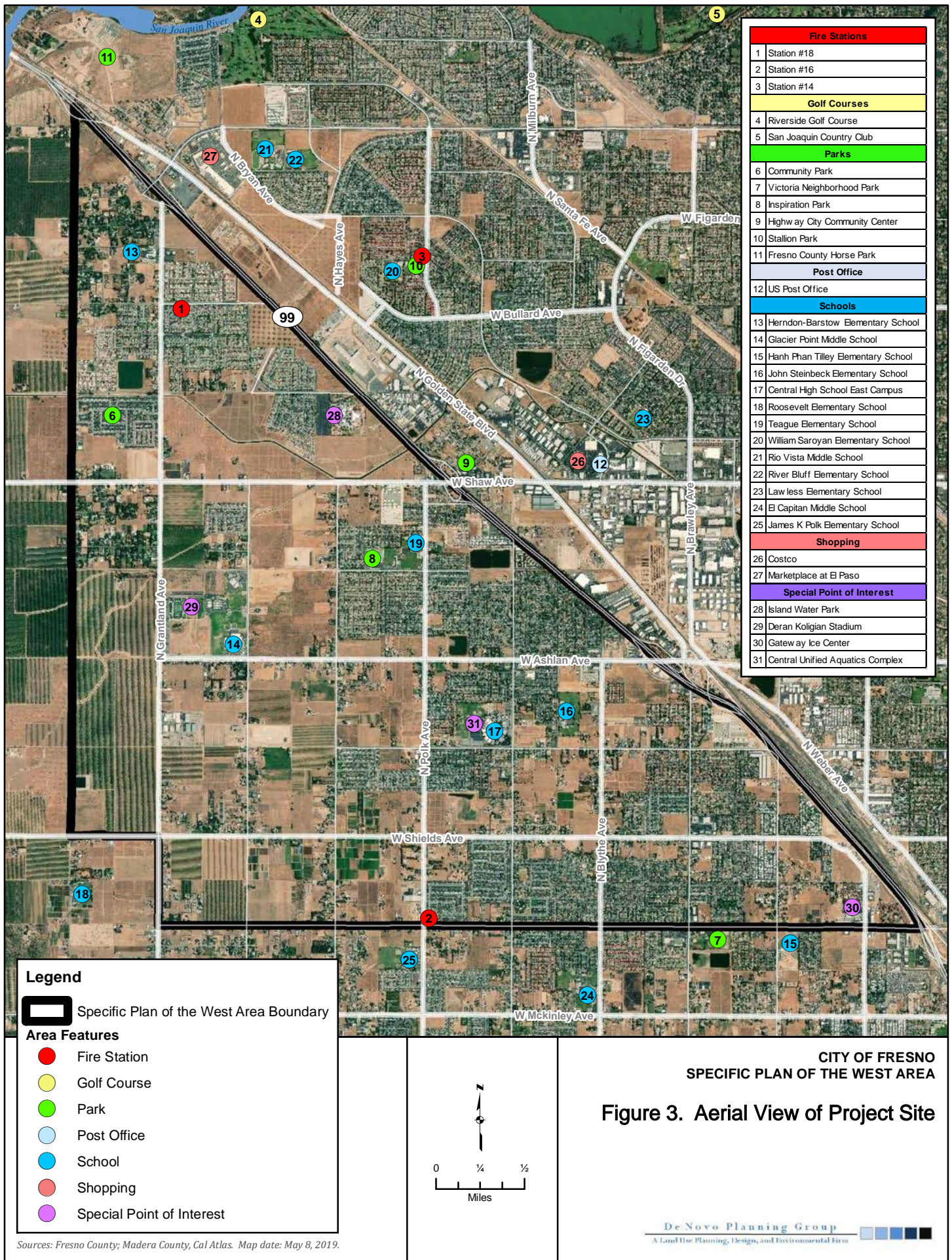
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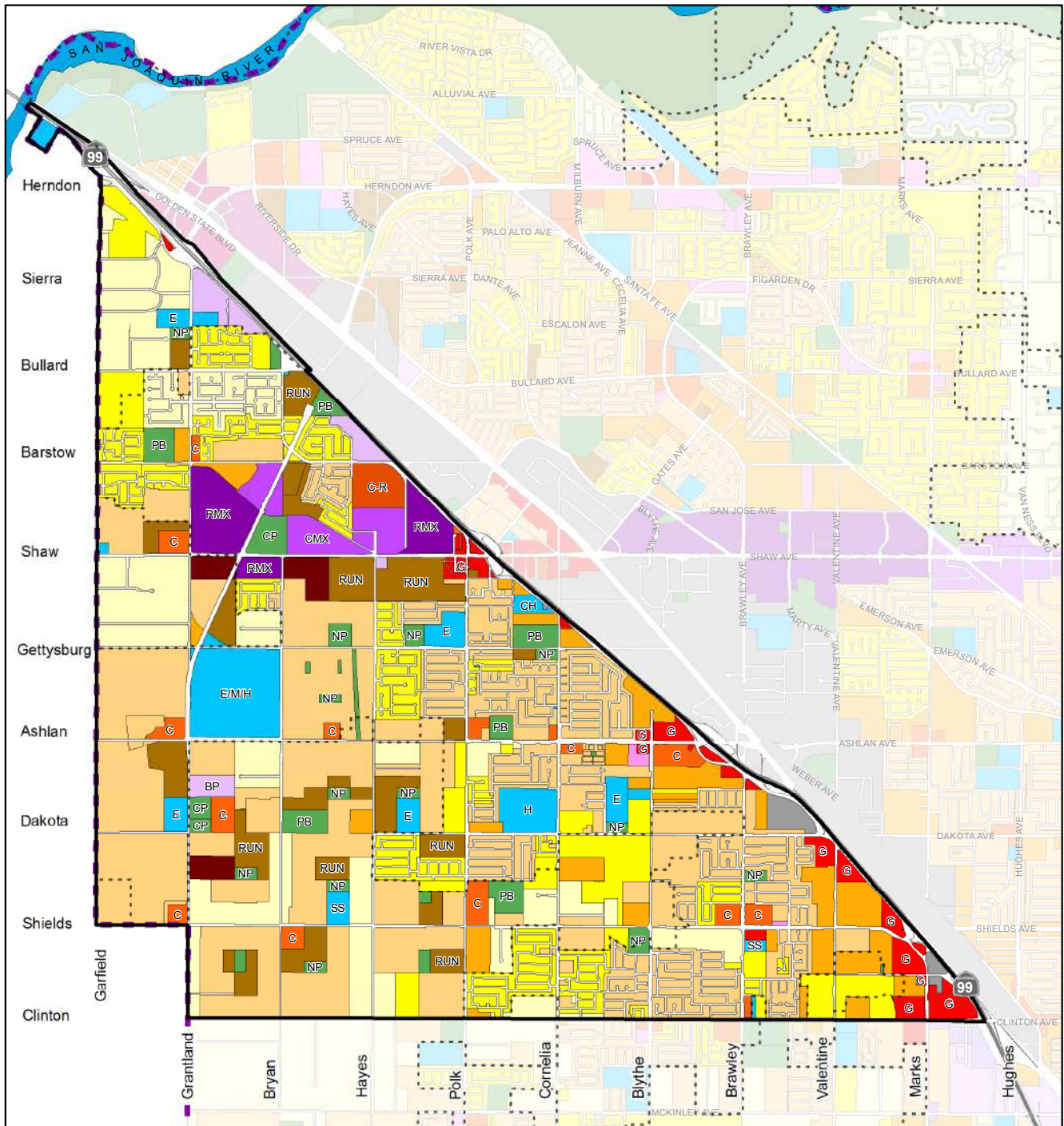
- Specific Plan of the West Area Boundary
- County Boundary
- City Areas**
 - Clovis
 - Fowler
 - Fresno
 - Kerman
 - Madera



CITY OF FRESNO SPECIFIC PLAN OF THE WEST AREA

Figure 2. Vicinity Map





BOUNDARIES

- City Limits
- West Area Specific Plan Boundary
- Sphere Of Influence

RESIDENTIAL

- Low Density (1-3.5 D.U./acre)
- Medium Low Density (3.5-6 D.U./acre)
- Medium Density (5.0-12 D.U./acre)
- Medium High Density (12-16 D.U./acre)
- Urban Neighborhood (16-30 D.U./acre)
- High Density (30-45 D.U./acre)

PUBLIC FACILITIES

- Public/Quasi-public Facility
- SS Special School
- E Elementary School
- E/M/H Elementary, Middle & High School
- H High School
- CH Church
- FS Fire Station

EMPLOYMENT

- Office
- BP Business Park
- Light Industrial

MIXED USE

- CMX Corridor/Center Mixed Use
- RMX Regional Mixed Use

OPEN SPACE

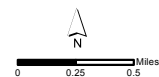
- CP Community Park
- PB Open Space - Ponding Basin
- NP Neighborhood Park
- Open Space
- P Park

COMMERCIAL

- Community
- Recreation
- General

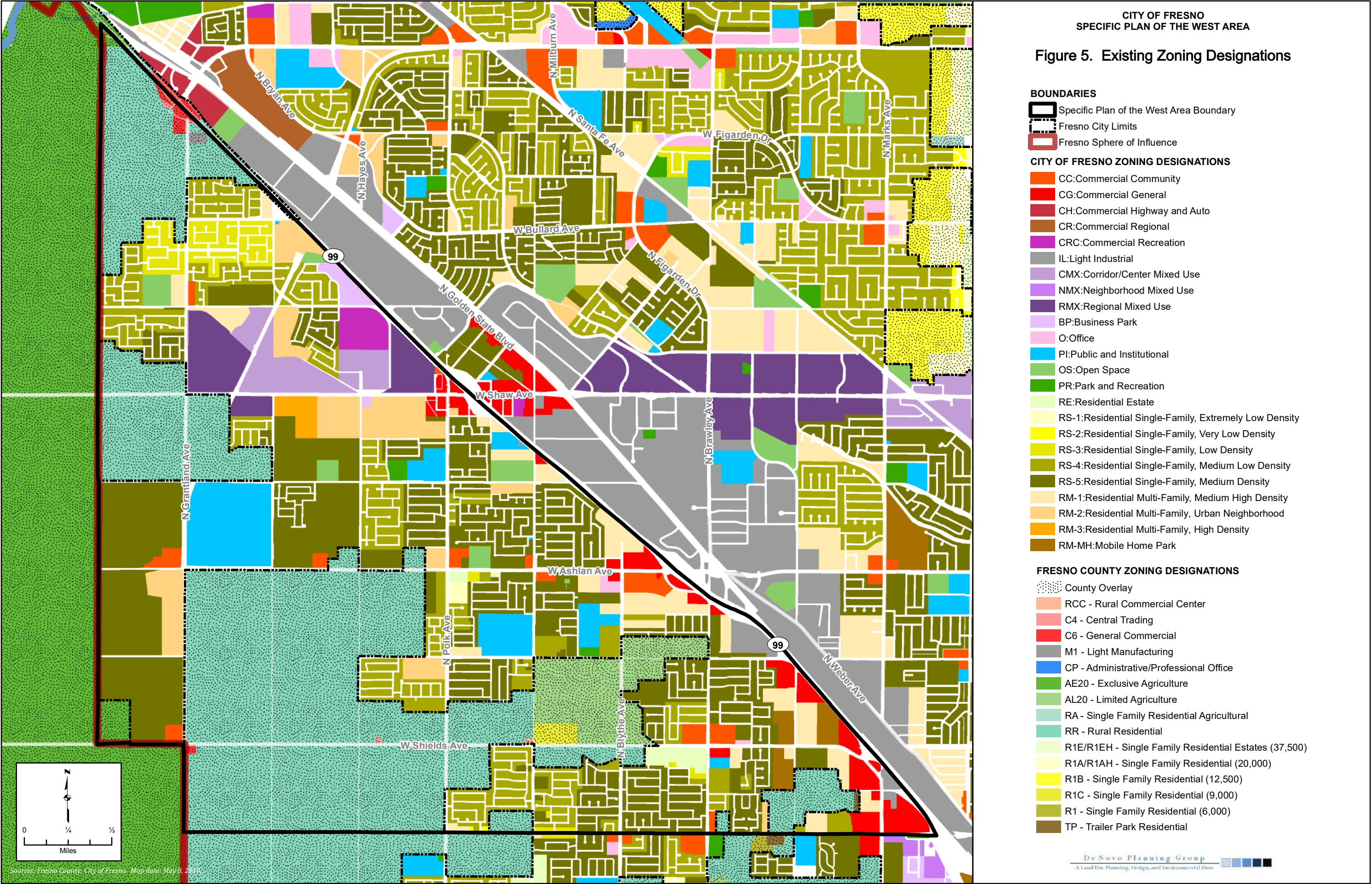
CITY OF FRESNO SPECIFIC PLAN OF THE WEST AREA

**Figure 4. Existing General
Plan Land Use Designations**



CITY OF FRESNO
SPECIFIC PLAN OF THE WEST AREA

Figure 5. Existing Zoning Designations



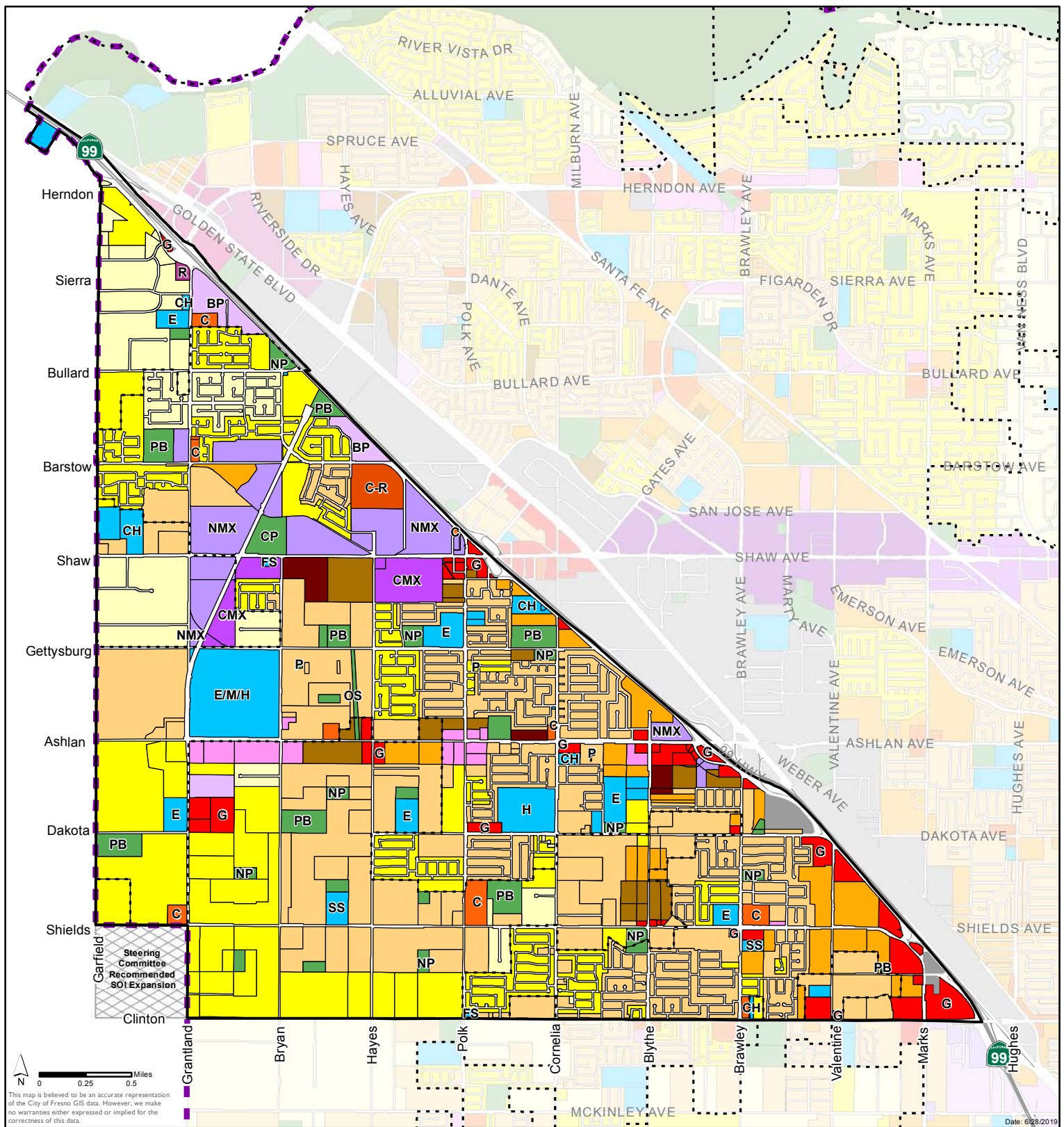


Figure 6. Proposed General Plan Land Use Designations

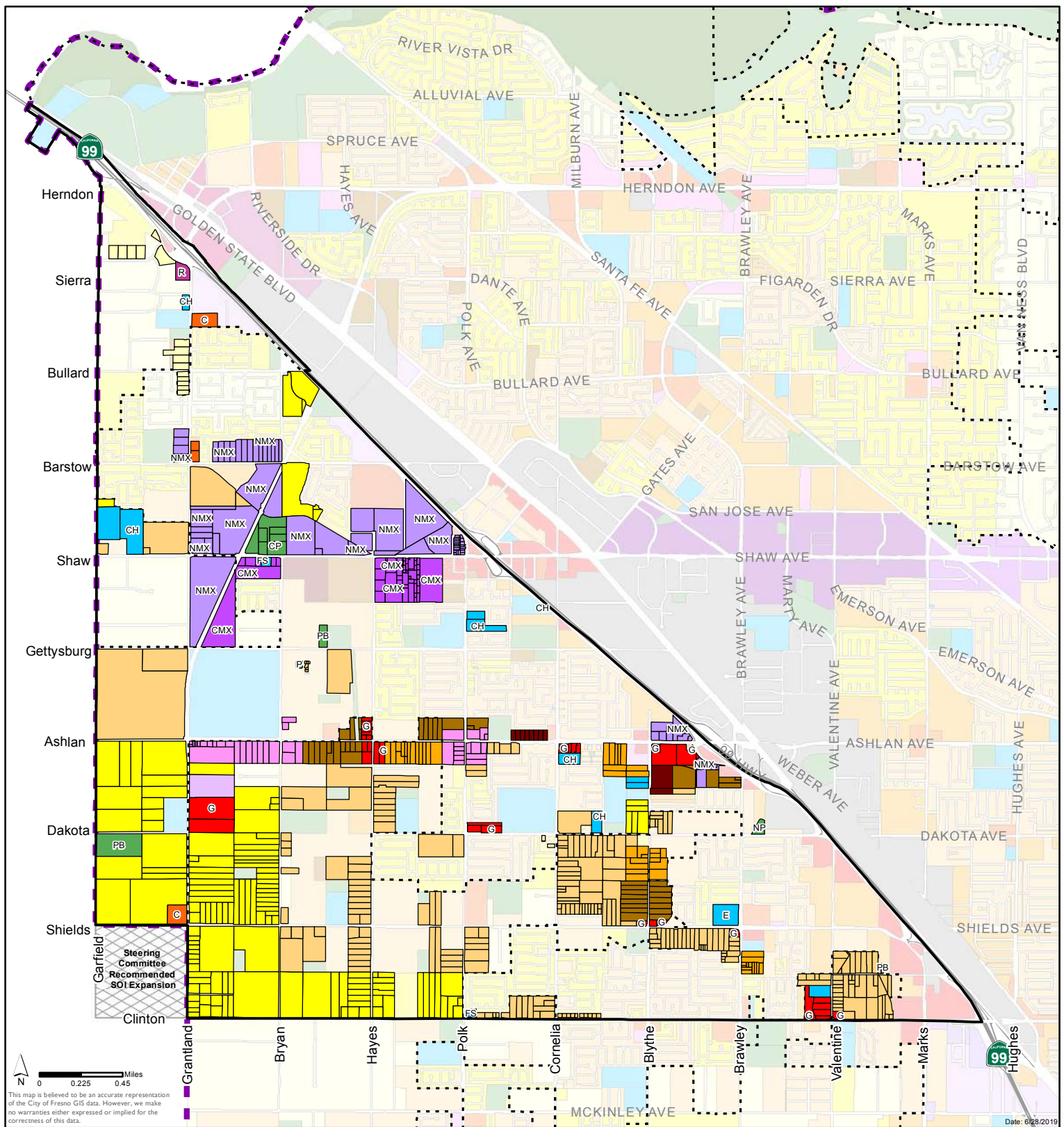


Figure 7. Parcels Proposed for Change in Proposed Land Use Map

Elise Carroll

From: Steve McMurtry <smcmurtry@denovoplanning.com>
Sent: Thursday, August 1, 2019 4:22 PM
To: 'Elise Carroll'; 'Josh Smith'
Subject: FW: Notice of Preparation for the Specific Plan of the West Area
Attachments: image001.png

NOP comments

Steve McMurtry | Principal
De Novo Planning Group | www.denovoplanning.com
smcmurtry@denovoplanning.com | 916.580.9818
Northern California | 1020 Suncast Lane #106 | El Dorado Hills, CA 95762
Southern California | 180 East Main Street # 108 | Tustin, CA 92780

From: Rodney Horton <Rodney.Horton@fresno.gov>
Sent: Thursday, August 1, 2019 11:48 AM
To: 'smcmurtry@denovoplanning.com' <smcmurtry@denovoplanning.com>
Subject: FW: Notice of Preparation for the Specific Plan of the West Area

Please see the comments below.

Rodney

From: April Henry [<mailto:april.hccd@gmail.com>]
Sent: Thursday, August 01, 2019 9:57 AM
To: Rodney Horton
Subject: Re: Notice of Preparation for the Specific Plan of the West Area

Rodney,

As I am becoming intimately involved with DRIVE for a 10 year plan, and am sitting specifically on the core team of "Civic Infrastructure for Low Opportunity Neighborhoods", as a community leader and community member, I am really concerned that this plan is riddled with a lack of true community input. It became so academically wordy that only those on the committee who seem to have personal agendas for what they wanted to see done, it lost what really needs to be done in forgotten Fresno, and makes huge assumptions based on land use (that plan also was not the voice of the community) and assumes large chunks of land owners will want to change their zoning/use. I don't know how to change that but it can cause initiative changes that really don't accomplish the overall wish of the neighborhoods and then work against this 20 year plan.

On Fri, Jun 28, 2019, 4:50 PM Rodney Horton <Rodney.Horton@fresno.gov> wrote:



Dear Friends of the West Area and Interested Parties,

I am pleased to provide you with an electronic copy of the Notice of Preparation for the Specific Plan of the West Area. This is to notify public agencies and the general public that the City of Fresno, as the Lead Agency, will prepare an Environmental Impact Report (EIR) for the Specific Plan of the West Area. The City of Fresno is interested in the input and/or comments of public agencies and the general public as to the scope and content of the environmental information that is germane to the agencies' statutory responsibilities in connection with the proposed project, and public input. Responsible/trustee agencies will need to use the EIR prepared by the City of Fresno when considering applicable permits, or other approvals for the proposed project. Consistent with the time limits prescribed by California State law, your input, comments or responses must be received in writing and sent at the earliest possible date, but not later than 5:00 p.m., August 2, 2019. Please send your comments/input (including the name for a contact person in your agency) to me. You may use the following methods:

Mail:

City of Fresno – DARM

Attn: Rodney Horton

2600 Fresno Street, Suite 3065

Fresno, CA 93721-3604

Electronic mail:

rodney.horton@fresno.gov

Also, on July 24, 2019, the City of Fresno will conduct a public scoping meeting to solicit input and comments from public agencies and the general public on the proposed project and scope of the EIR. This meeting will be held at the Glacier Point Middle School, Cafeteria, located at 4055 N. Bryan Avenue, Fresno, CA 93722, from 6:00 PM to 7:30 PM. This meeting will be an open house format and interested parties may drop in to review the proposed project exhibits and submit written comments at any time between 6:00 PM and 7:30 PM. Representatives from the City of Fresno and the EIR consultant will be available to address questions regarding the EIR process and scope. Members of the public may provide written comments throughout the meeting.

If you have any questions regarding the scoping meeting, contact me at (559) 621-8181 or rodney.horton@fresno.gov.

Thank you,

Rodney L. Horton, MPA

Planner III

Development and Resource Management Department

Rodney.Horton@fresno.gov

559.621.8181

Disclaimer:

This email is for informational purposes, and is not intended to spark a dialogue between Steering Committee members with or without the public, which may infringe on the Brown Act. These matters may be discussed at future public Steering Committee meetings or with City staff.

Please be advised, in accordance with the applicable provisions of the Brown Act, all forms of community feedback and public input that is provided to the City of Fresno will be made available to the general public.

Elise Carroll

From: Steve McMurtry <smcmurtry@denovoplanning.com>
Sent: Friday, August 2, 2019 3:15 PM
To: 'Elise Carroll'
Subject: FW: Concerned citizen of Herndon Acres

Steve McMurtry | Principal

De Novo Planning Group | www.denovoplanning.com smcmurtry@denovoplanning.com | 916.580.9818 Northern California | 1020 Suncast Lane #106 | El Dorado Hills, CA 95762 Southern California | 180 East Main Street # 108 | Tustin, CA 92780

-----Original Message-----

From: Rodney Horton <Rodney.Horton@fresno.gov>
Sent: Friday, August 2, 2019 9:02 AM
To: 'smcmurtry@denovoplanning.com' <smcmurtry@denovoplanning.com>
Subject: FW: Concerned citizen of Herndon Acres

-----Original Message-----

From: Lydia [<mailto:creole10@sbcglobal.net>]
Sent: Friday, August 02, 2019 9:01 AM
To: Rodney Horton
Cc: creole10@sbcglobal.net
Subject: Concerned citizen of Herndon Acres

Good morning Mr. Horton,

I hope your having a great day. My husband and I moved to this quiet neighborhood we call "Herndon Acres" 18 years ago because it was so peaceful here. We were hoping we would continue to be the Forgotten neighborhood as said by the Fresno Sheriffs Department called us but when things started to change and houses were being built we were in fact "The Forgotten neighborhood" now named "Forgotten FRESNO". No fault of ours, just left out of the loop of everything being built around us. It's truly disgusting the traffic issues are out here. I cringed every school day just waiting for something horrific to happen. Praying it doesn't.

I would especially talk about all the traffic at the 76 station and the 18 wheelers that take Grantland as an alternate route. It's getting worse by the day. This traffic and blocking the streets is a constant each and every day. I'm sickened by it. We are. Asking as a safety measure that you and your constituents an remedy this problem. Please help us instead of allowing people to disregard us. We are all very proud tax paying citizens and would love to see our stress flow like they are supposed to. Thank you.

Carl & Lydia Franklin
7061 W. Tenaya Avenue
Fresno, CA 93723
559-907-1136

August 1, 2019

TO: Rodney Horton
City of Fresno
FROM: Cathy Caples
7232 W Dovewood Lane
Fresno CA 93723
(559) 304 2687
cathybcaples@gmail.com

RE: West Area Specific Plan EIR Scope

Thank you for the opportunity to provide comment during this phase of the West Area Specific Planning Process. It has been an interesting and eye-opening experience to serve on the West Area Steering Committee representing Council District 2 which is the area north of Shaw and West of 99 and so as you read my comments think more specifically about this area within the planning area as it is the area I am most familiar with.

Aesthetics:

- One of the concerns of this area is the view of travelers coming through Fresno on Hwy 99. We get a bad rap as a city because people view the entire community from this perspective and it's really ugly. This area also has the first exits off of Hwy 99 into Fresno County. There has been discussion about creation of a Welcome Center in this area that could welcome travelers highlighting local business & agricultural economy to increase tourism including visitor's information for wineries, agricultural products like raisins, stone fruit, nuts, restaurants and attractions. Although Herndon is the first exit and someday may have an Aquarium at the River, with the right type of Urban Corridor at Shaw or Bullard exits, the Welcome Center may offer more benefits to Fresno County with a better traffic flow from Hwy 99 to the West.
- Because this area was agricultural and Rural Residential (RR) and many of the orchards have been eliminated, this area has no aesthetics and is in great need of landscape and trees. Tree Fresno has been working on a plan for south of Shaw but the area to the north is not included in that planning process. The RR properties along Shaw are real eyesores with collections of junk, or in one case the property has become a truck stop with sometimes 18 semi trucks parked on the property which could become hazardous if there is every a fuel leak.
- We value our agricultural roots, there has been discussion of art and planting to reflect that history. Italian farmers mostly settled in this area and to the west of 99 we have Forestiere Underground Gardens, a significant historical feature and tourist attraction for Fresno. The Highway City village just west of 99 exit is in need of beautification and/or redevelopment to enhance the entrance to Fresno for tourists.

Agricultural Resources:

- Within the area most of the agricultural that remains is new orchards that were planted during the Recession to give a developer a tax break until it was time to tear them out and build. There is a treasured farm stand with strawberries and garden vegetables on the NE corner of Grantland and Shaw. It is hoped that we can improve the aesthetics of the Farm Stand and it will remain under the NMX land use designation as a feature of the transition from urban corridor along Shaw to transition to agriculture

Air Quality:

- We have air pollution from Highway 99, trains to the east and agriculture to the west. And lots of dust from construction.

Biological Resources:

- We are on the edge of the country and still have animals living in our midst. One of our neighbors who is a bird watcher has sighted 28 different kinds of birds with a large flock Canadian Geese that live year round in the ponding basin on Herndon. That basin also has a multi-generational troop of fox. Lots of lizards, an occasional snake, bobcat and coyote.
- Not sure if there is something to consider environmentally in the torn down orchard (North of Shaw, Parkway to Grantland) that has left the trees to rot since at least 2008.
- The San Joaquin River is on the northern point of this area with a planned Aquarium by a nonprofit in the fundraising stage. There is not much of the land in the City of Fresno but it would be nice if the land surrounding the Aquarium could be preserved as trail or park. One landowner owns much of the Bluff property and has a horse stable and event area at the Western part of his land.

Cultural and Tribal Resources:

- There is a large Sikh population in the WASP area as it is also home to the Sikh Institute of Fresno. Our Sikh neighbors, especially the gentleman, spend a lot of time in the pocket parks and walking in the neighborhood. It would be great if there were enough benches or gathering spots with chairs for them to sit upon.

Geology, soils and seismicity:

- Hardpan often taking at least 3-5 feet to break through for proper planting and drainage.
- There is an existing canal that runs along Barstow and cuts down to almost Shaw between Grantland. It is currently used as a dusty dirt trail by residents. We are hopeful that this will become a permanent landscaped trail along the canal that will connect with the planned trail system for Veterans Blvd and the proposed park.

Greenhouse Gas Emissions and Energy: Many of the new homes have solar. As development happens, it is hoped that future technology would be taken into consideration with charging stations for cars. Including underground parking in the urban corridors to eliminate the need for so much hot tar to pave parking lots.

Hazards and Hazardous Materials

- There is a property on northside of Shaw near Bryan that has become a truck stop with sometimes 18 semi-trucks parked on the property which could become hazardous if there is every a fuel leak.

Hydrology and Water Quality

- Much concern has been expressed by the longtime RR residents about the amount of water being used for new construction and how that will impact their wells.

Land Use and Planning

- City of Fresno has a huge deficit in the inventory of affordable housing. A concern of residents has been that the first time home buyer homes are causing a more transient population in the schools in the area as people move away to areas with larger homes as families grow.
- There is also concern that affordable housing not be concentrated in any one particular area of the planning area but spread equitably throughout.
- As the Urban Corridor is developed along Shaw Avenue it is hoped that we will consider this more an urban center like Santana Row in San Jose or Whittier Blvd near the college without Big Box Stores like WalMart, Costco, Ikea with big tar parking lots. It is desired that it be a more eco friendly shopping environment with underground parking, local businesses, restaurants, maybe a local theater, museum or art galleries featuring local artists with a architectural feel of the tribute to agriculture we desire. In the NW area we already have El Paseo with a growing variety of chain stores and larger retailers. We would like to be able to walk to and through this village with patios facing the trail and green space.

Noise

- In addition to trains and cars, for some atmospheric reason we hear the gunfire from the Sheriff's Gun Range on the E side of 99 and the first day of dove season each year it's like a war zone.

Population and Housing

- There is a large Sikh population in the WASP area as it is also home to the Sikh Institute of Fresno. Our Sikh neighbors, especially the gentleman, spend a lot of time in the pocket parks and walking in the neighborhood. It would be great if there were enough benches or gathering spots with chairs for them to sit upon.
- There is an aging population in our area with no senior services, extremely limited public transportation and medical care
- This area also has a very young population with limited day care and enrichment services.
- Although our income is higher than the rest of Fresno, our education levels are lower with less people with post high school education than the rest of Fresno and we are the further from any higher education opportunities. For the seniors, it would be great to connect the Mosher Learning at CSUF to our area along the Urban Corridor which will have public transportation. We discussed having an educational center along Grantland south of Shaw close the new High School to allow students an opportunity for enrichment as well, perhaps a satellite Community College Campus.

Public Services and Recreation

- The park choices: there are 3 sites to be studied as a regional park for this area. I would recommend that the scoping consultants study the Park Master Plan adopted by the City of Fresno and take into consideration that information in studying the area and these sites. I would like to call attention to the large aging population in addition to the younger population needs to be considered.
 - Park by the River – which will cause traffic congestion in the area with not enough space for parking etc and close to regional park on the general plan on the east side of 99 at the River. It is remote and has no planned access to public transportation.
 - Park in the SW corner of the area, which is close to the largest park already in the study area and close to Roeding and Kearny regional parks as well as the Sports complex in the Southwest Area Specific Plan. It is also away from the majority of the population and not easily accessible by most.
 - Park currently show adjacent to Parkway on the map. This park discussion was first raised by my neighborhood as part of the discussion of where we could dream to live. We envisioned a park as a feature of the urban corridor being planned along Shaw Avenue.
 - The vision was to create a feature for the City of Fresno that would highlight agriculture, spur economic development, raise the opinion of the drive through visitors AND include a canopied walking, fitness and play space for residents at the same time.
 - The only green space north of Shaw currently are pocket parks in neighborhoods that have no room for family parties and the most of the yards are too small as well.
 - When we first raised the idea – the park was closer to the center of the vacant land north of Shaw with a Shaw entrance and was moved to Parkway when we were told that it needed to serve a lower social economic population (a misconception of the elected officials).

- One advantage to this location, is that it is adjacent to a seasonal water park that might have potential for public private partnership over parking and event space for Holiday Ice Rink or Harvest and Blossom Festivals.
- We would love to see an old fashioned bandstand type amphitheater for Friday night concerts in a non-alcoholic venue (currently only wineries offer this option) and basketball courts so we stop getting cited by code enforcement for having street basketball hoops.
- If you have any questions about this vision, please contact me. I was disheartened to hear at the scoping meeting that already this site has air quality issues etc – we would happily consider other locations in the urban corridor. It could just as easily be in the current general plan location with a connector to the trails along veteran's and the canal.

Transportation and Circulation:

- My biggest transportation concern is the zipper streets throughout the planned area where new development meets old with routes to schools that do not allow for safe routes to schools for our children.
- Congestion on Grantland north of Shaw is horrible and I know you have heard from many residents on this issue so I am not going to dwell on it. It is of particular concern when county land use change is under consideration. The County planning commission makes a decision that effects the City of Fresno. Such an instance is in the courts right now when the county approved an animal shelter on zoned RR land changing the land use to a specific purpose.

Utilities and Service Systems

- Police Department – we are covered by NW and there are too few officers to cover our area and the rest of the NW with substation at Marks and W Shaw.
- Fire Station is currently in planned construction stage.

Wildfire

- There was a grass fire last year in the torn down orchard (North of Shaw, Parkway to Grantland)
- There is currently no fire station in the NW section of the planned area (one is in the works on the South side of Shaw at Bryan)



Central Grizzlies Youth Football & Cheer

My name is Ashleigh Garrett, I am the President of a non-profit youth organization called the Central Grizzlies Youth Football and Cheer. Parents and children for the CGYF program are families of the Northwest community. Our biggest issue as an organization is trying to find a location for our program to not only have a practice field but also somewhere to have home games. This past 8 months alone we have not been able to find somewhere to accommodate not just my program but other outside organizations as well. We have attempted to request the use school facility fields in the Central Unified School District with resistance. One being there is high demand in facility field request from outside organizations making it almost impossible to accommodate school related activities and outside organizations. Although we may have several parks in the Northwest Area, we only have one park with proper lightening for sports during nighttime use. That park alone cannot accommodate multiple sport organizations at one time during its season. As the Northwest community continues to grow at rapid pace, we are in desperate need of a lightened park space in our community. I am in hopes that approved developers that are coming into our community be required to assist in offsetting a park for our children to have a safe, productive place to engage in activities and promote a healthy lifestyle for our children.

Thank you,

Ashleigh Garrett



DEPARTMENT OF TRANSPORTATION

DATE: July 29, 2019

TO: Jennifer Clark, Director, Department of Planning and Development

FROM: GREGORY A. BARFIELD, Director
Department of Transportation

SUBJECT: Environmental Impact Report for West Area Specific Plan

The City of Fresno Transportation Department, Fresno Area Express (FAX) received the copy of the Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the West Area Specific Plan.

The West Area Specific Plan includes a wide variety of proposed land uses, ranging from low density residential to high density residential, regional mixed use, recreation commercial, schools, fire stations and other land uses, as well as the required transportation and utility improvements. An accessible and well-connected transportation network is a critical component of the area's quality of life.

Given that FAX currently provides only one transit route west of State Route 99 and that this area is projected for growth, FAX requests that the EIR include a coordinated analysis of transportation alternatives, as well as consideration of potential mitigation measures to help fund transit operations should the EIR determine that transit is a feasible component of the long-term transportation network.

In providing transit service, FAX must continually balance the competing needs of productivity and coverage, meaning the performance of its existing transit routes versus service expansions to new and developing areas that are not within proximity of existing services. Ongoing financial constraints must be taken into consideration when evaluating the financial sustainability of operating new transit services. In short, if FAX adds new transit service to any given area, it must remove or reduce service to other areas to keep the operational costs of the system in check. FAX is looking forward to better understanding the environmental impacts of the planned land uses on transportation, traffic congestion, and air quality, as well as the proposed mitigation measures that will support the operation of the most effective transportation network.



INTER OFFICE MEMO

Fresno County Public Library

Date: July 8, 2019

To: Rodney Horton, MPA, Project Manager

From: Karen Coletti, Executive Secretary

Subject: Notice of Preparation of an Environmental Impact Report and Scoping West Area

Reviewed and had no comments.

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836

SACRAMENTO, CA 94236-0001

(916) 653-5791

**JUL 19 2019**

Mr. Rodney Horton
City of Fresno, Development and Resources Management Department
2600 Fresno Street, Room 3065
Fresno, California 93721

Notice of Completion and Environmental Document Transmittal for the Specific Plan of
the West Area, SCH2019069117
Fresno County

Dear Mr. Horton:

The Division of Safety of Dams (DSOD) has reviewed the Notice of Completion and Environmental Document Transmittal for the Specific Plan of the West Area which describes land use planning for the approximate 7,077 acre-foot tract of land for the future development of residential and non-residential uses.

Insufficient information is provided to determine if any of the ponding basins are subject to State jurisdiction for dam safety. Therefore, the City needs to submit preliminary plans so that DSOD can make a jurisdictional determination.

As defined in sections 6002 and 6003, Division 3, of the California Water Code, dams 25 feet or higher with a storage capacity of more than 15 acre-feet, and dams higher than 6 feet with a storage capacity of greater than 50 acre-feet or more are subject to State jurisdiction. The dam height is the vertical distance measured from the maximum possible water storage level to the downstream toe of the barrier.

If any of the ponding basins are subject to State jurisdiction, a construction application, together with plans, specifications, and the appropriate filing fee must be filed with DSOD for this project. All dam safety related issues must be resolved prior to approval of the application, and the work must be performed under the direction of a Civil Engineer registered in California. Erik Malvick, our Design Engineering Branch Chief, is responsible for the application process and can be reached at (916) 565-7840.

If you have any questions or need additional information, you may contact, Area Engineer William Vogler at (916) 565-7828 or me at (916) 565-7827.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ernie M. Tapia'.

Ernie. M. Tapia, Acting Regional Engineer
Southern Region
Field Engineering Branch
Division of Safety of Dams

cc: Governor's Office of Planning and Research
State Clearinghouse
state.clearinghouse@opr.ca.gov

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FORGOTTEN FRESNO
FORGOTTENFRESNO@GMAIL.COM
EIN 83-2685199

Wednesday, July 17, 2019

City of Fresno – DARM
Attn: Rodney Horton
2600 Fresno Street, Suite 3065
Fresno, CA 93721-3604

Dear Mr. Horton,

We the undersigned residents of Forgotten Fresno appreciate the opportunity to comment on the Notice of Preparation for the Specific Plan of the West Area. As the City of Fresno proceeds with the Environmental Impact Report (EIR) for the Specific Plan of the West Area, we would like to request attention to the matters detailed below.

1. The infrastructure of our community has not kept pace with the rapid housing development of the past, present, and future. Commonly Initial Studies submitted to the Development and Resource Management Department during the application process are recommend by staff that the Mitigated Negative Declarations (MND) be approved. Often the MND fails to consider what we constituents consider common sense. Traffic concerns have been severely downplayed in the past for our community. We are currently in litigation for a rezone item with Fresno County where an MND with a traffic study done on a Wednesday was approved. Wednesday's are early out days for Central Unified School District; therefore, typical traffic occurs earlier in the day. This is a clever way to downplay our traffic plight. We would like to request that any future traffic studies submitted are not permitted to be executed on a Wednesday.
2. In speaking to a neighbor that works for the Fresno Fire Department it was alarming to find out that Shaw Avenue traffic signals do not have the ability to be changed during an emergency. Not only are the Levels of Service (LOS) at stoplights utilized to travel our community reprehensible, emergency services are delayed when a response is required. It is very common to see police officers, the fire department, or ambulances stuck on Shaw or Herndon at Golden State or Highway 99. It is abysmal that this has perpetuated as long as it has and we would like to have the widening of the Shaw Avenue at Highway 99 and the underpass at Herndon Avenue and Highway 99 be priorities in the future. We would also like to have the traffic signals improved to have the ability to be controlled by emergency services when required.
3. We are in desperate need of lighted park spaces in our community. Developers should have to mitigate benches, tables, lights, playground structures, and fields for sports activities. To help promote healthier lifestyles a community should be designed to promote that vision. The housing tracts are produced to optimize the number of units therefore resulting in small yard spaces. Many local youth teams do not have a place to adequately practice or play their games. The majority of green space in the West Area is owned by Central Unified School District and it is not the school district's responsibility to provide such spaces for the community at large. Rather than Code Enforcement issuing notices for basketball hoops in the streets the city can have playground spaces mitigated by housing developers.

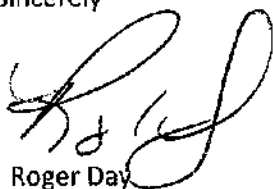
We'd like to request that offsite improvements be near completion before a developer begins their construction. This would be applicable to both commercial and residential construction. For far too many years construction workers and material supply trucks have overwhelmed our roads. With the development of High Speed Rail and Veteran's Boulevard in the works our community will suffer without such mitigation.

4. We are against the intensification of land uses outside of the General Plan. Many of us have been attending the West Side Steering Committee Meetings and have voiced our desires on the record. Serving the personal interests of private developers and corporations at the expense of our constituency is unwelcome.

We are not against development, but we do appeal that the City of Fresno request all necessary mitigation in relation to traffic and public safety for future development applications for the West Area.

We thank you for your time and consideration.

Sincerely



Roger Day

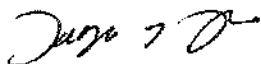


Gurbinder S. Dhaliwal

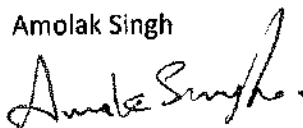
Jagir S. Gill


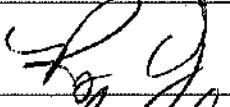
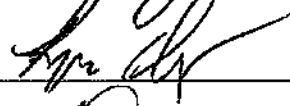

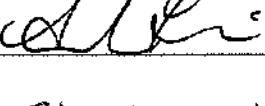
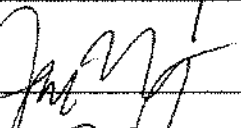
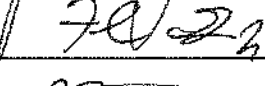
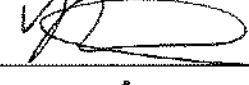

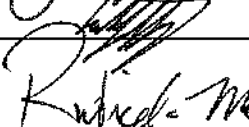
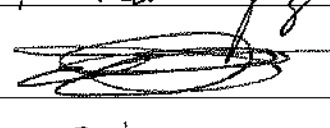
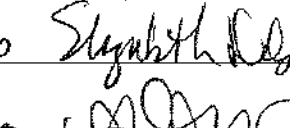
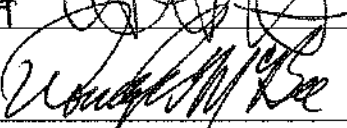
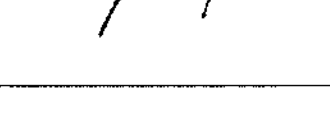
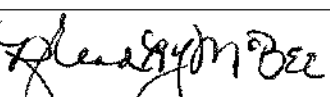


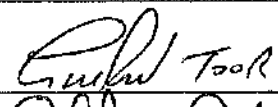


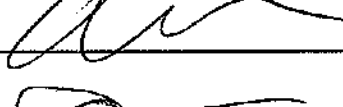

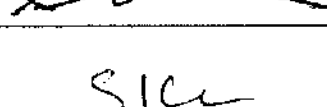
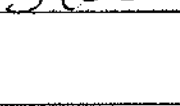
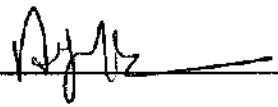
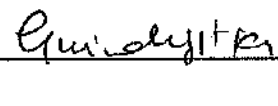
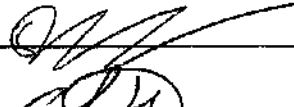
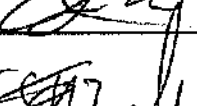
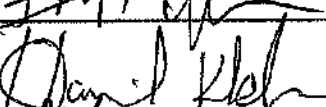
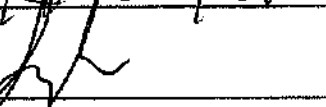


Elisa Bilios



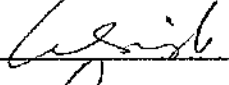
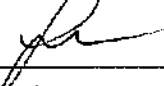
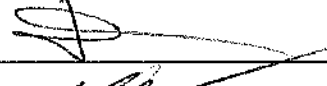
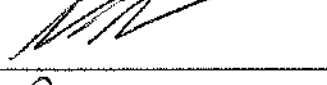
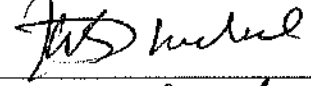
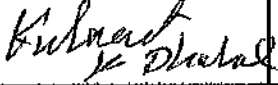
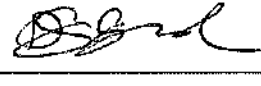
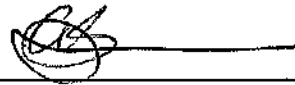
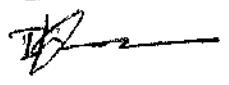



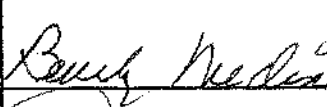
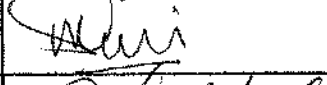
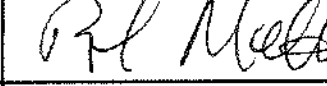

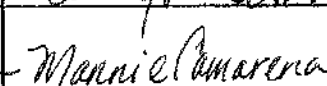
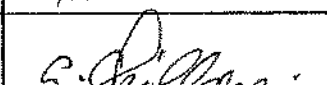
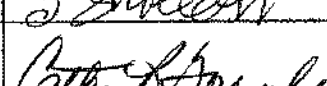
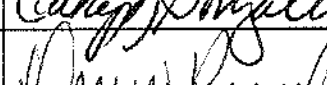
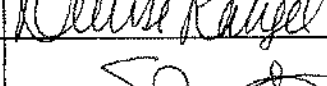
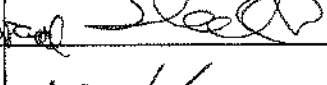
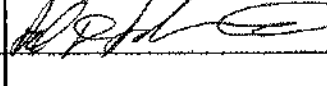
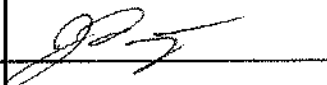
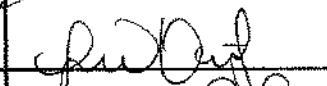
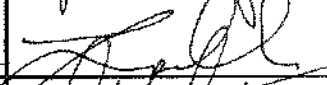
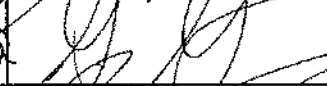



Amolak Singh

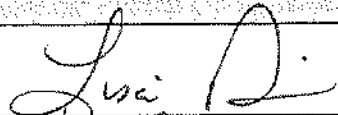
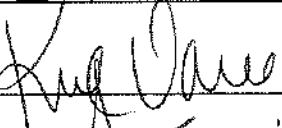

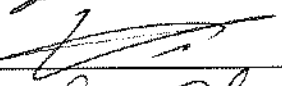

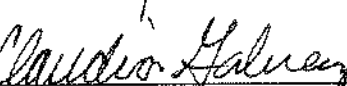
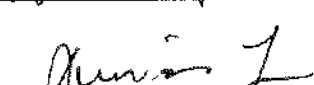
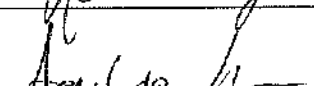
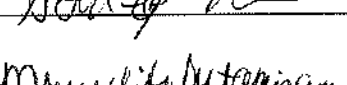
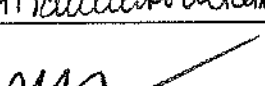

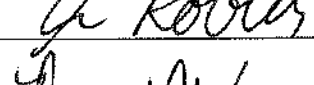
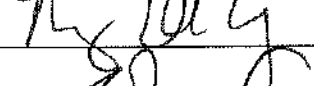
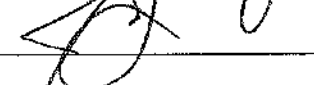
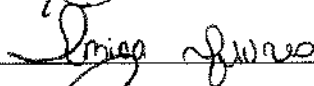







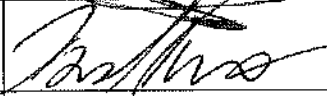
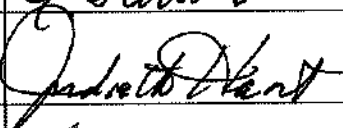
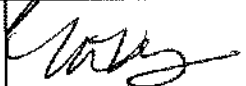
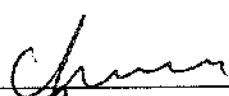

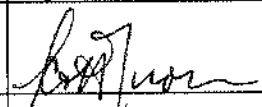
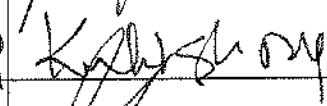

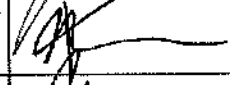
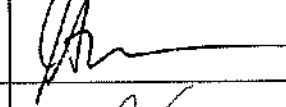
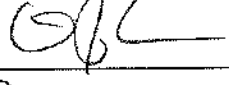

Printed Name	Signature	Address	Date
Elisa Biliou		5323 N. Tisha Ave. Fresno CA 93723	7.14.19
Roger Day		7206 W. Menlo Ave. Fresno, CA. 93723	7-24-19
Ryan Day		7162 W. San Ramon Ave. Fresno, Calif 93723	7-24-19
Jeara Day		7206 W. Menlo Ave. Fresno CA 93723	7-31-19
Amanda Francis		7260 W. San Ramon Fresno CA 93723	7.31.19
Shirley Lee	Shirley Lee	7335 W. San Bruno Ave Fresno, CA 93723	8/01/19
Justin Hickey		7335 W. San Bruno Ave Fresno, CA 93723	
Frank Carson		5187 N. Tisha Fresno CA 93723	8/1/19
Barbir Kaur		5367 N. Madelyn Ave Fresno, CA 93723	8/1/19
Hilda Medrano		7417 W. San Ramon Ave. Fresno, CA	8/1/19
CARLOS ARTIZ		7438 W. San Ramon Ave 93723	8/1/19
Ruby Marquez		7353 W. San Jose Ave	8/1/19
David Delgado		5232 N. Annapolis Ave.	8-1-19
Elizabeth Delgado	Elizabeth Delgado	5232 N. Annapolis Ave	8-1-19
Ashleigh Garrett		5218 N. Phoenix Ave	8-1-19
Douglas McBee		5218 N. Phoenix Ave	8/01/19
Brenda McBee		5218 N. Phoenix Ave	8-1-19

Printed Name	Signature	Address	Date
GURPREET TOOR		5922 N. La Ventana Ave FRESNO CA 93723	8-1-19
Sukhdeep Sethi		3470 N. Gregory Ave Fresno CA 93722	8-1-19 \$40.00
GARY MANN		6809 W. Robinwood Fresno, CA 93723	
Bobby Dhalwal		5451 N. SYCAMORE AVE Fresno CA 93722	
Jay Sengh		11328 N. SAGEBERRY FRESNO, CA 93730	8-1-19
SANDEEP MEHTA		10865 N. WHITNEY AVE FRESNO CA 93730	8-1-19
Sarbjit Kaur		3337 W. Princeton Ave Fresno CA 93722	8-1-19
Simrajit Kaur		7840 N Gregory Ave Fresno CA 93722	
Rajwinder Kaur		7568 N Hanna. Ave. 93722	
Parnjit Kaur		4618 W GRANT AVE 93722	
Aman Kaur		7562 N SUMRIVER DR. 93722	
GURINDERJIT Kaur		6078 N. TORREY PINES AVE, 93723	
Sharan Dhalwal		5897 W. Ramona Way Fresno, CA 93722	
Charanjit Toor		6953 W. OSWEGO AVE FRESNO, CA 93723	
AJMER MANA		5547 Torrey Pines Fresno CA 93723	8-19
HARMAIL KHELA		6678 N. OLINDA AVE FRESNO CA 93722	8-1-19
GARY SIOTH		6083 N. Figsdale Dr. #387 Fresno, CA 93722	8-1-19
Isk Rahurra		4744 W Cornell Ave	8-1-19

Printed Name	Signature	Address	Date
Tarinder Nijhar	T. Nijhar	536 West Normal Ave	8-1-19
KARN DEEP SAKH		4757 W. SPRUCE AVE #105	8-1-19
Sarbjit S. Deol		6609 W. Celeste Ave HERMAN, CA 93636	8/1/19
Sunny Boparai	Sunny Boparai	5839 N. Sycamore Ave	8-1-19
GURJIT SINGH		5140 W. Michigan Ave	8-1-19
Gurvendra Singh		6649 W. Wrenwood Ln	8-1-19
Gurdev Singh	Gurdev S.	5438 N. Shiraz Ave	8-1-19
Jasvinder Singh		5458 N. Shiraz Ave	8-1-19
Vik Mann		5847 Torrey Pines Ave	8-1-19
GURBINDER S. DHALWAL		5951 N SYCAMORE FRESNO, CA 93723	8-1-19
KULWANT K DHALWAL		5951 N SYCAMORE FRESNO	8-1-19
D.S. SAGHERA		5950 N SYCAMORE AVE FRESNO	8-1-19
GURCHARAN D SINGH		5951 N SYCAMORE AVE FRESNO	8-1-19
INDERJIT KARR		5951 N SYCAMORE AVE FRESNO	8-1-19

Printed Name	Signature	Address	Date
Brandon Camarena		5316 N. Madelyn Ave	7/19/19
Beverly Medina		Same as above	7/19/19
Manpreet Kaberwal		7440 W. San Bruno Ave. Fresno	7-19-19
ROB MELTON		7365 W San JOSE	7-19-19
Cathy Melton		7365 W. San Jose Ave	7-19-19
Manni Camarena		5316 N Madelyn Ave	7/19/19
Sandra S. Shollen		5304 N. Madelyn Ave.	7/19/19
Cathy R Gonzales		5366 N San Clemente ⁹³²²³ Fresno	7/20/19
Denise Rangel		5350 N. TISHA AVE.	7/21/19
Shawna Hildebrand		5371 W TISHA AVE	7/21/19
HALE HILDBRAND		5371 N TISHA AVE	7/21/19
JEREMY DOTY		7338 W SAN JOSE AVE	7/21/19
Janel Ortiz		73233 W. San Jose Ave	7/21/19
Lupe Mendez		5265 N. Madelyn Ave	7/21/19
Guillermo Escobar		5265 N Madelyn Ave	7/21/19
RAVINDER SINGH		5277 N MADRYN AVE	7/21/19
Manuel Carbajal		5301 N Madelyn Ave	7/21/19
Raymond Ramirez		Lucas Acres	7-21-19
Darvin Jones		7377 W San Jose Ave	7-21-19

Printed Name	Signature	Address	Date
Lisa Pierson		7340 W. San Ramon Ave.	7/22/19
Kennie Vaccaro		7113 W. Scott Ave.	7/22/19
DANIEL VACCARO		7113 W. Scott Ave	7/22/19
Robert Watkins		7424 W. San Bruno	7/22/19
Nancy Bluhm		7424 W. San Bruno	7/22/19
Claudia Galvez		5313 N. Madelyn Ave	7/22/19
Junior Lugo		7415 W. San Bruno	7/22/19
Sandy Kaur Alhambra		7431 W. San Bruno Ave	7/22/19
Margelita		5313 W. Madelyn Ave.	7/22/19
Cathryn Wilkinson		7338 W. San Jose Ave	7/22/19
Damien Robles		7322 W. San Jose	7/23/19
Roy Delacruz		7250 W. San Jose Ave.	7/23/19
JEDD INGRAHAM		7202 W. SAN JOSE AVE	07/23/2019
Erica Flores		7259 W. San Madele Ave	7/23/19
Paul Alaniz		7259 W. San Madele Ave	7/23/2019
Phil Gonzales		5366 W. San Clemente	7-24-19
Dena Curtis		7258 W. San Jose Ave	7-25-19
Marcu A. Diori		7061 W. San Madele Ave	7/27/19

Printed Name	Signature	Address	Date
Christina Diez		5374 N Tisha FRESNO 93723	7/27/19
Gustavo Diez		5374 N Tisha FRESNO CA 93723	7/27/19
Raymond Aquino		5335 N TISHA AVE FRESNO CA 93723	7/27/19
Raul Trevino	Raul Trevino	5383 N. TISHA AVE FRESNO, CA 93723	7/27/19
LYSSA TREVINO	E Trevino	11 11 11	11
Judith Haret		5388 N Madelyn Ave FRESNO, CA 93723	7/27/19
Milania Salas		7148 W. San Bruno Fresno, CA 93723	7/28/19
Leanyit Lu		7249 W San Jose Ave FRESNO	7/28/19
Shawn Campbell		7250 W San Jose	7/28/19
Scott Wilson		5359 N. Tisha Ave.	7/28/19
Karlwant John		5343 N Madelyn Ave	7/29/19
John Lally		5355 N. Madelyn Ave	7/29/19
KARINA VERA		7495 W San Bruno Ave FRESNO CA 93723	7/30/19
Jose Vera		7495 W San Bruno Ave FRESNO CA 93723	7/30/19
DEAN'S KATHIRIK		7292 W SAN RAMON AVE FRESNO CA 93723	7/29/19
Carolina Mora	Carolina Mora	5866 N. Shiraz FRESNO, CA 93723	7/31/19
MICHAEL SANTOYA		7292 W San Bruno FRESNO 93723	7/31/19
Shirley Jackson	Shirley Jackson	7260 W. San Bruno	7/31/19



Fresno Metropolitan Flood Control District

Capturing Stormwater since 1956

File 420.214

August 1, 2019

Rodney Horton, Project Planner
City of Fresno
Development and Resources Management Department
2600 Fresno Street, Room 3065
Fresno, CA 93721

Dear Mr. Horton,

**Fresno Metropolitan Flood Control District Comments
on the City of Fresno Notice of Preparation of an
Environmental Impact Report and Scoping Meeting
for the Specific Plan of the West Area**

**Drainage Areas "EJ", "EM", "EN", "AI", "CD", "EO",
"AJ", "CG", "CH", "CI", "AK", "AN", "AL", "AH" and "XX"**

This letter is in response to the City's request for comments regarding the Notice of Preparation of an Environmental Impact Report and Scoping Meeting for the Specific Plan of the West Area. Fresno Metropolitan Flood Control District (FMFCD) bears responsibility for storm water management within the Fresno-Clovis metropolitan area, including the area within the Plan boundary. Within this area, the community has developed and adopted Storm Drainage and Flood Control Master Plans as shown in the attached (Storm Drainage Master Plan Map). In general, each property contributes its pro-rata share to the cost of the public drainage system. All properties are required to participate in the community system for everyone. It is this form of participation in the cost and/or construction of the drainage system that will mitigate the impact of development. The subject property shall pay drainage fees pursuant to the Drainage Fee Ordinance prior to approval of any final maps and/or issuance of building permits at the rates in effect at the time of such approval. Please contact FMFCD for a final fee obligation prior to issuance of the construction permits within the Plan area.

The grading of proposed development within the Plan area shall be designed such that there are not adverse impacts to the passage of said major storm through that development. Additionally, the development shall provide any surface flowage easements or covenants for any portions of the development area that cannot convey storm water to public right of way without crossing private property.

If there are to be storm water discharges from the private facilities to FMFCD's storm drainage system, they shall consist only of storm water runoff and shall be free of solids and debris. Landscape and/or area drains are not allowed to connect directly onto FMFCD's facilities.

Rodney Horton
City of Fresno
Notice of Preparation of an EIR and
Scoping Meeting for the Specific Plan of the West Area
August 1, 2019
Page 2 of 3

FMFCD will need to review and approve the final improvement plans for all development (i.e. grading, street improvement and storm drain facilities) within the boundaries of the proposed project to insure consistency with the future Storm Drainage Master Plan.

Storm drain easements will be required whenever storm drain facilities are located on private property. No encroachments into the easement will be permitted including, but not limited to, foundations, roof overhangs, swimming pools, and trees.

Permanent drainage service is available in those areas where Master Plan facilities exist provided the developer can verify to the satisfaction of the City and FMFCD that runoff can be safely conveyed to existing the Master Plan facilities. Permanent drainage service will not be available if the downstream Master Plan facilities are not constructed or operational and in this instance FMFCD recommends the City require temporary drainage facilities until permanent drainage service is available. Prior to submitting any development proposal, it is recommended FMFCD be contacted for information regarding the status of the Master Plan drainage facilities and the availability of permanent drainage service.

In Master Plan areas where no drainage facilities have been constructed, the drainage plans can be revised to accommodate new land uses and pipe alignments that respect the City's Plan. For areas of the Plan that have existing drainage facilities and propose changing to land uses that generate more runoff than originally planned, some type of mitigation to accommodate the increased flow such as parallel pipes and/or on-site retention may be required. FMFCD has identified properties within the Plan area that may require some form of mitigation. (See the attached Potential Areas for Mitigation Map). Contact FMFCD to verify mitigation requirements that may apply to development.

FMFCD may require the developer to construct certain storm drain facilities as described in the Storm Drain Master Plan. The cost of construction of Master Plan facilities excluding dedication of storm drainage easements is eligible for credit against the drainage fee of the drainage area served by the facilities. A development agreement shall be executed with FMFCD to affect such credit. Reimbursement provisions, in accordance with the Drainage Fee Ordinance, will be included to the extent that developer's Master Plan costs for an individual drainage area exceed the fee of said area. Should the facilities cost for such individual development total less than the fee of said area, the difference shall be paid upon demand to the City or FMFCD.

Rodney Horton
City of Fresno
Notice of Preparation of an EIR and
Scoping Meeting for the Specific Plan of the West Area
August 1, 2019
Page 3 of 3

Within the Plan area there are no flood prone areas designated on the most current official Flood Insurance Rate Maps. However, it is responsibility of the developer to review and verify the information at the time of the development proposal. The official Flood Insurance Rate Maps are available at the Federal Emergency Management Agency (FEMA) Flood Map Service Center.

In an effort to improve storm runoff quality, outdoor storage areas shall be constructed and maintained such that material that may generate contaminants will be prevented from contact with rainfall and runoff and thereby prevent the conveyance of contaminants in runoff into the storm drain system.

FMFCD encourages, but does not require that roof drains from non-residential development be constructed such that they are directed onto and through a landscaped grassy swale area to filter out pollutants from roof runoff.

Runoff from areas where industrial activities, product, or merchandise come into contact with and may contaminate storm water must be directed through landscaped areas or otherwise treated before discharging it off-site or into a storm drain. Roofs covering such areas are recommended. Cleaning of such areas by sweeping instead of washing is to be required unless such wash water can be directed to the sanitary sewer system. Storm drains receiving untreated runoff from such areas that directly connect to FMFCD's system will not be permitted. Loading docks, depressed areas, and areas servicing or fueling vehicles are specifically subject to these requirements. FMFCD's policy governing said industrial site NPDES program requirements are available. Contact FMFCD's Environmental Department for further information regarding these policies related to industrial site requirements.

Thank you for your consideration of these comments and for allowing us to be a part of the Specific Plan process. We continue to look forward to working with you and the City of Fresno on the Plan process.

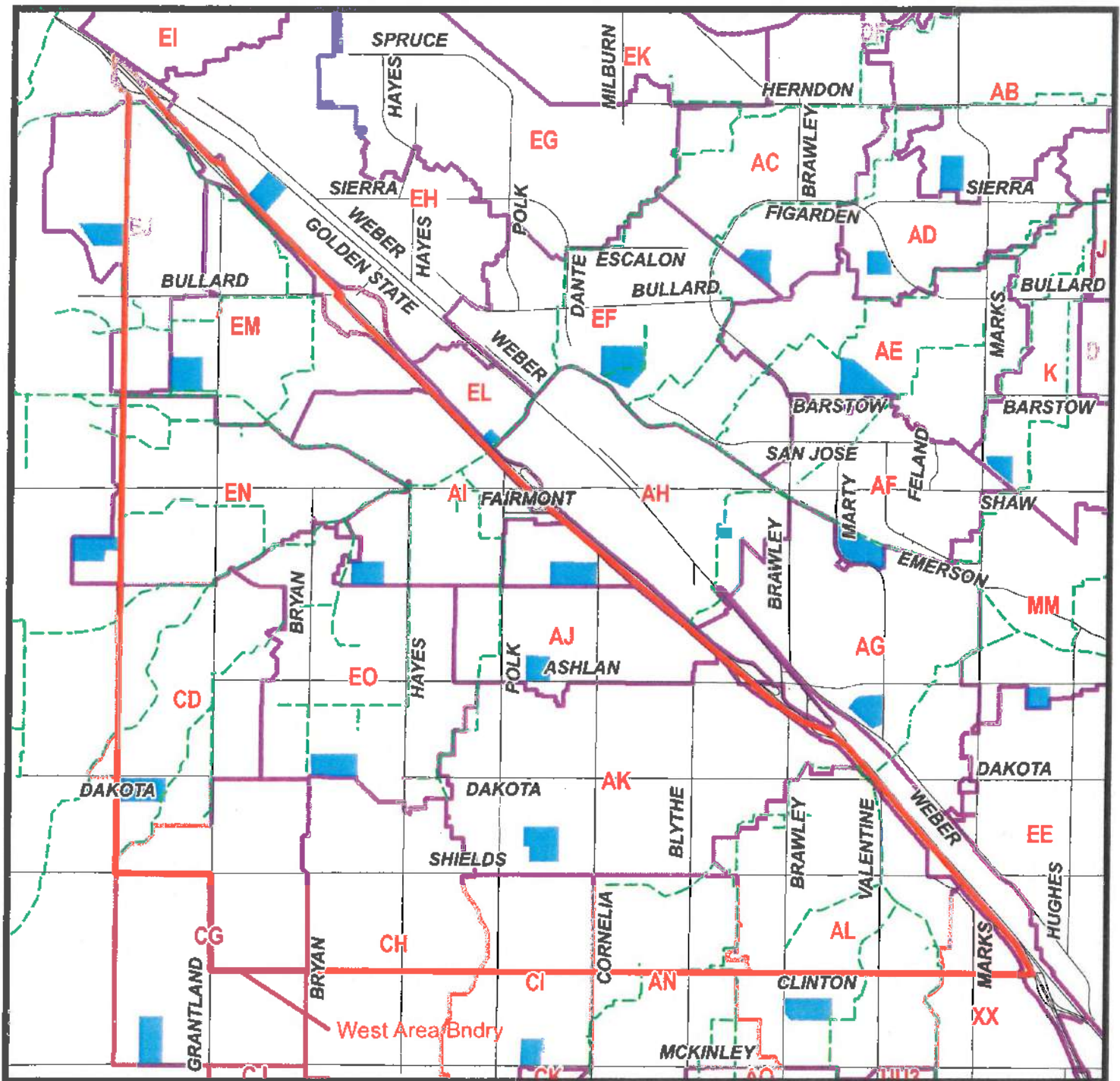
Very Truly Yours,



Wendell Lum
Master Plan Special Projects Manager

WL/lrl

Attachments



SYMBOL LEGEND

- | | | | |
|--------------------------------|-------------------------------|---------------------------------------|-----------------------------|
| ◦ PRIVATE INLET * | — PRIVATE PIPE * | ▭ PARCELS | ◆ EXISTING TYPE "E" INLET |
| ▭ DESIGN INLET | — DESIGN PIPE | ▭ EXISTING BASIN | ◆ PUMP STATION |
| ■ EXISTING INLET | — EXISTING PIPE | ▭ PROPOSED BASIN | ◆ EXISTING OUTFALL |
| ◦ EXISTING MANHOLE | — FUTURE PIPE | ▭ DRAINAGE AREA | — EXISTING TOP OF CURB ELEV |
| ▭ FUTURE INLET | — FUTURE PIPE W/ CONTRACT | ▭ INLET BOUNDARY | — FUTURE TOP OF CURB ELEV |
| ▭ FUTURE INLET W/ CONTRACT | — NON MASTER PLAN FUTURE PIPE | ▭ LANDUSE BOUNDARY | — EXISTING CURB |
| ▭ NON MASTER PLAN FUTURE INLET | | ▭ SPECIFIC PLAN OF WEST AREA BOUNDARY | |
- * Non-District Facilities

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT

STORM DRAINAGE MASTER PLAN

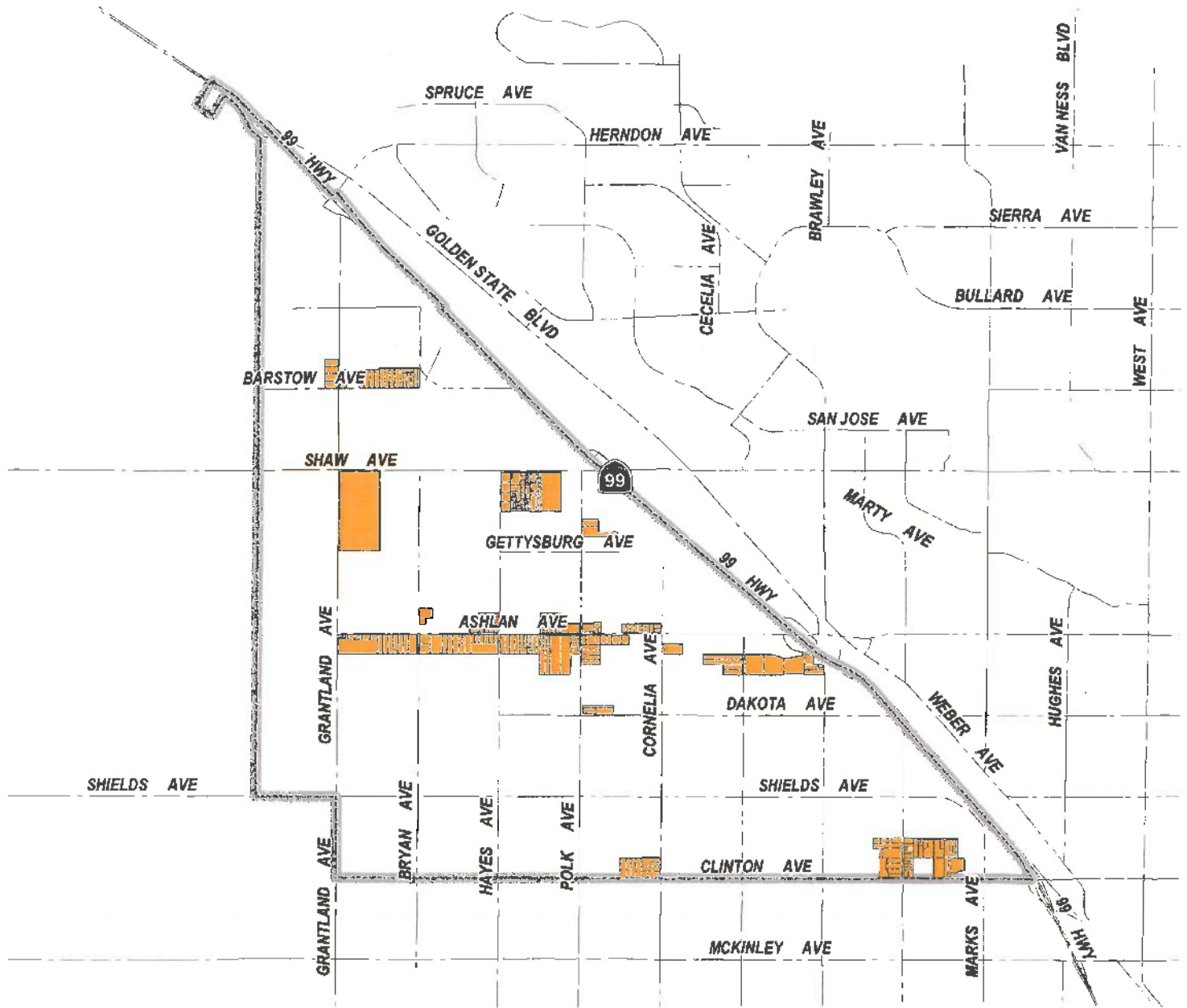
FRESNO COUNTY

CALIFORNIA



1" = 4000'

NOTE: THIS MAP IS SCHEMATIC.
DISTANCES, AMOUNT OF CREDITABLE
FACILITIES, AND LOCATION OF INLET
BOUNDARIES ARE APPROXIMATE.



LEGEND

 Potential Areas for Mitigation



1" = 5000'

Specific Plan of the West Area



POTENTIAL AREAS FOR MITIGATION FRESNO METROPOLITAN FLOOD CONTROL DISTRICT

Prepared by: rickh
Date: 8/1/2019
Path: K:\Autocad\DWGS\0EXHIBIT\MITIGATION\West Specific Plan.mxd



SPECIFIC PLAN OF THE WEST AREA

SCOPING MEETING AGENDA

WEDNESDAY, JULY 24, 2019 - 6:00 PM

1. **Registration Period:** Attendees will sign in and give his/her name, association, address, and email. This information will be put on a mailing list for future mailings.
2. **Format:** Short Presentation and Open House
 - a. **Brief Presentation:** 6:00-6:15pm - A brief presentation will be provided at the beginning of the meeting. The presentation will provide an overview of the project, the purpose of the meeting, and opportunities for community input/participation during the environmental review process.
 - b. **Open House:** 6:15-7:30pm - Stations will be provided throughout the room with maps and information. Each station will be staffed with a Planner. The intent of each station is to provide you with an opportunity to review some materials, ask some questions, and provide some comments if desired.
3. **Questions/Comments:** De Novo Planning Group and City of Fresno staff will accept questions and comments concerning the project and scope of the EIR. The intent is to record comments/concerns so they can be addressed within the Draft EIR.

Please write any comment or concern regarding this project in the space provided below.

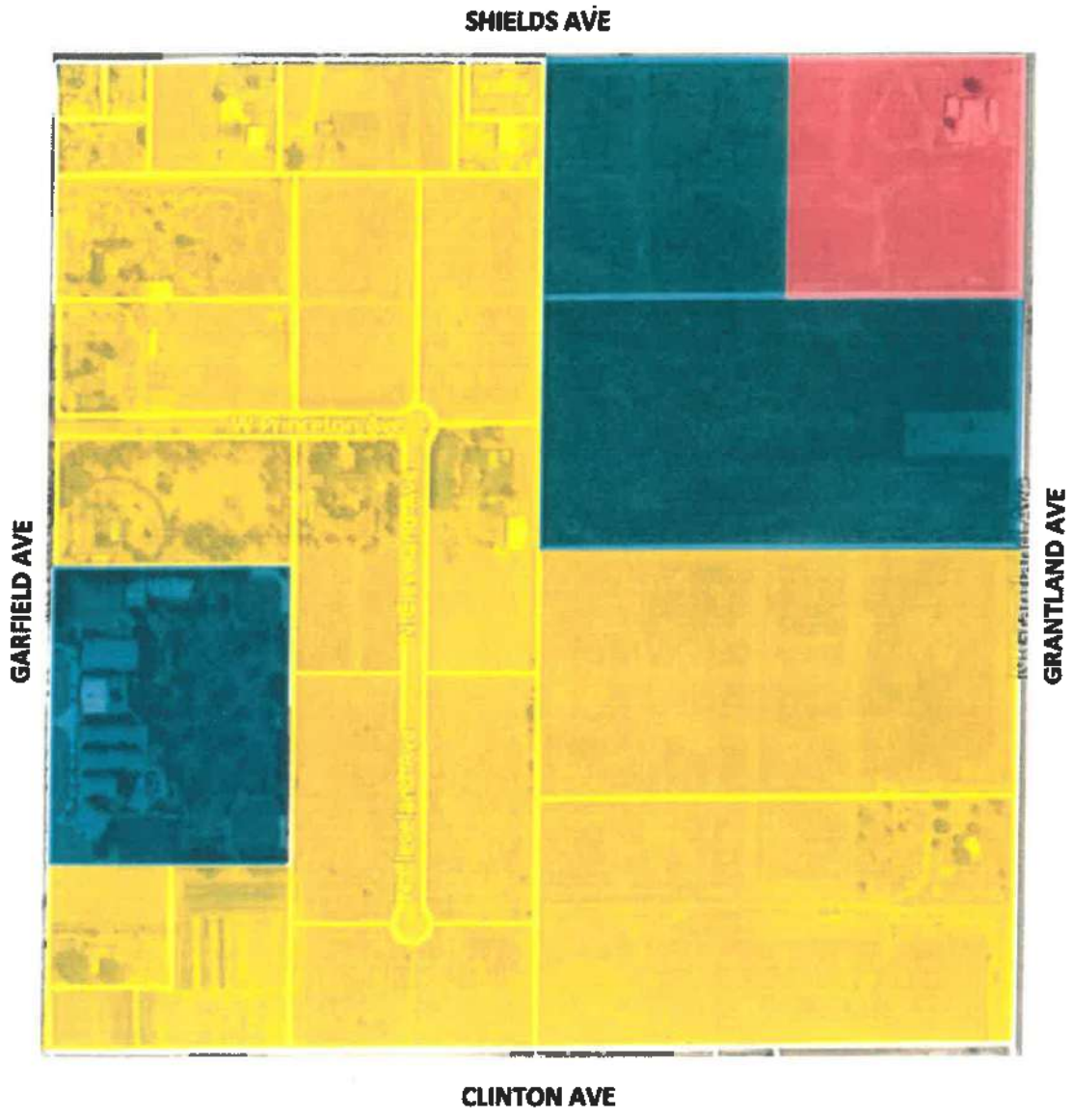
Re: 160 acres @ SW Corner of
W. Shields Ave and N. Grantland Ave.

I am interested in what land use
patterns will be used to analyze potential
environmental impacts for this area




This should be provided as an 'Exhibit'
within the Draft EIR document. An
example (Exhibit 'A') is attached to illustrate
proposed land use designations

Jeff Roberts
Committee Member

"Exhibit A"



Legend

-  Medium Low Density Residential
-  Commercial (Community)
-  Public Facility





Gavin Newsom
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Kate Gordon
Director

Notice of Preparation

June 28, 2019

To: Reviewing Agencies

Re: Specific Plan of the West Area
SCH# 2019069117

Attached for your review and comment is the Notice of Preparation (NOP) for the Specific Plan of the West Area draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Rodney Horton
Fresno, City of
2600 Fresno Street, Room 3065
Fresno, CA 93721

with a copy to the State Clearinghouse in the Office of Planning and Research at state.clearinghouse@opr.ca.gov. Please refer to the SCH number noted above in all correspondence concerning this project on our website: <https://ceqanet.opr.ca.gov/2019069117/2>.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Lead Agency

2019069117

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
 For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # _____

Project Title: Specific Plan of the West Area**Lead Agency:** City of Fresno, Development and Resources Mgmt. Dept.**Contact Person:** Rodney Horton**Mailing Address:** 2600 Fresno Street, Room 3065**Phone:** (559) 621-2485**City:** Fresno**Zip:** 93721**County:** Fresno**Project Location:** County: Fresno

City/Nearest Community: Fresno

Cross Streets: See NOP**Zip Code:** 93721**Lat. / Long.:** 36 ° 47 ' 41.8 " N / 119 ° 53 ' 57.5 " W**Total Acres:** 7,077**Assessor's Parcel No.:** See NOP**Section:** Various **Twp.:** 13S **Range:** 19E **Base:** MDBM**Within 2 Miles:** State Hwy #: SR 99**Waterways:** San Joaquin River**Airports:** N/A**Railways:** UPRR**Schools:** See NOP**Document Type:**

CEQA: ☒ NOP
☐ Early Cons
☐ Neg Dec
☐ Mit Neg Dec

☐ Draft EIR
☐ Supplement/Subsequent EIR
 (Prior SCH No.)
 Other

Governor's Office of Planning & Research

NEPA: ☐ NOI
☐ EA
☐ Draft EIS
☐ FONSI

Other: ☐ Joint Document
☐ Final Document
☐ Other

JUN 28 2019

STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update
☒ General Plan Amendment
☐ General Plan Element
☐ Community Plan

☒ Specific Plan
☐ Master Plan
☐ Planned Unit Development
☐ Site Plan

☒ Rezone
☐ Prezone
☐ Use Permit
☐ Land Division (Subdivision, etc.)

☐ Annexation
☐ Redevelopment
☐ Coastal Permit
☐ Other

Development Type:

☒ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☒ Commercial: Sq.ft. _____ Acres _____ Employees _____
☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
☐ Educational _____
☒ Recreational _____

☐ Water Facilities: Type _____ MGD _____
☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____ MW _____
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____
☒ Other: See Table 2 of NOP

Project Issues Discussed in Document:

<input checked="" type="checkbox"/> Aesthetic/Visual	<input type="checkbox"/> Fiscal	<input checked="" type="checkbox"/> Recreation/Parks	<input checked="" type="checkbox"/> Vegetation
<input checked="" type="checkbox"/> Agricultural Land	<input checked="" type="checkbox"/> Flood Plain/Flooding	<input checked="" type="checkbox"/> Schools/Universities	<input checked="" type="checkbox"/> Water Quality
<input checked="" type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Forest Land/Fire Hazard	<input checked="" type="checkbox"/> Septic Systems	<input checked="" type="checkbox"/> Water Supply/Groundwater
<input checked="" type="checkbox"/> Archeological/Historical	<input checked="" type="checkbox"/> Geologic/Seismic	<input checked="" type="checkbox"/> Sewer Capacity	<input checked="" type="checkbox"/> Wetland/Riparian
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Minerals	<input checked="" type="checkbox"/> Soil Erosion/Compaction/Grading	<input checked="" type="checkbox"/> Wildlife
<input type="checkbox"/> Coastal Zone	<input checked="" type="checkbox"/> Noise	<input checked="" type="checkbox"/> Solid Waste	<input checked="" type="checkbox"/> Growth Inducing
<input checked="" type="checkbox"/> Drainage/Absorption	<input checked="" type="checkbox"/> Population/Housing Balance	<input checked="" type="checkbox"/> Toxic/Hazardous	<input checked="" type="checkbox"/> Land Use
<input checked="" type="checkbox"/> Economic/Jobs	<input checked="" type="checkbox"/> Public Services/Facilities	<input checked="" type="checkbox"/> Traffic/Circulation	<input checked="" type="checkbox"/> Cumulative Effects
<input checked="" type="checkbox"/> Other Green House Gas Emissions			

Present Land Use/Zoning/General Plan Designation:

See NOP

Project Description: (please use a separate page if necessary)

The proposed Specific Plan will establish the land use planning and regulatory guidance, including the land use and zoning designations and policies, for the approximately 7,077-acre Plan Area. The Specific Plan would allow for the future development of residential and non-residential uses. The proposed land use plan also designates public facility uses that are currently existing within the Plan Area, including schools and churches. Additionally, the proposed land use plan would allow for approximately 248 acres of park, open space, and ponding basin uses. The Specific Plan also includes circulation and utility improvements, some of which are planned in the City's current program for capital improvements.

1000

Board (RWQCB)

RWQCB 1
Cathleen Hudson
North Coast Region (1)

RWQCB 2
Environmental Document
Coordinator


San Francisco Bay Region (2010) RWQCB 3


Central Coast Region (3)

Teresa Rodgers
Los Angeles Region (4)

RWQCB 5S
Central Valley Region (5)
RWQCB 5F

RWQCB 5R

 **RWQCB 6**
Central Valley Region (R)
Redding Branch Office

 **RWQCB 6V**
Lahontan Region (6)
Victorville Branch Office

RWQCB 7
Colorado River Basin Region

RWQCB 8
Santa Ana Region (8)

RWQCB 9
San Diego Region (9)

Other _____

1

Conservancy

last Updated 5/22/18

Last Updated 5/22/18



SPECIFIC PLAN OF THE WEST AREA

SCOPING MEETING AGENDA

WEDNESDAY, JULY 24, 2019 - 6:00 PM

1. **Registration Period:** Attendees will sign in and give his/her name, association, address, and email. This information will be put on a mailing list for future mailings.
2. **Format:** Short Presentation and Open House
 - a. **Brief Presentation:** 6:00-6:15pm - A brief presentation will be provided at the beginning of the meeting. The presentation will provide an overview of the project, the purpose of the meeting, and opportunities for community input/participation during the environmental review process.
 - b. **Open House:** 6:15-7:30pm - Stations will be provided throughout the room with maps and information. Each station will be staffed with a Planner. The intent of each station is to provide you with an opportunity to review some materials, ask some questions, and provide some comments if desired.
3. **Questions/Comments:** De Novo Planning Group and City of Fresno staff will accept questions and comments concerning the project and scope of the EIR. The intent is to record comments/concerns so they can be addressed within the Draft EIR.

Please write any comment or concern regarding this project in the space provided below.

Traffic has increased tremendously on Ashlan due to the building of Harvest Elementary, Glavin & now the new high school. We can't get out of our yard in the early morning hours or afternoon hrs. when school is released or beginning. This should be studied.
Patricia and Clifford Upton
6117 W. Ashlan
Fresno, Ca 93723
559 275 6041

SPECIFIC PLAN OF THE WEST AREA

SCOPING MEETING AGENDA

WEDNESDAY, JULY 24, 2019 - 6:00 PM

1. **Registration Period:** Attendees will sign in and give his/her name, association, address, and email. This information will be put on a mailing list for future mailings.
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3. **Questions/Comments:** De Novo Planning Group and City of Fresno staff will accept questions and comments concerning the project and scope of the EIR. The intent is to record comments/concerns so they can be addressed within the Draft EIR.

Please write any comment or concern regarding this project in the space provided below.

- ① We would prefer that the City limits end on Grantland not on Garfield Ave
- ② we do not want Garfield Avenue opened up thru between Shaw Ave + Shields, It would destroy the safety and quietness of our neighborhood.
- ③ we do not want to be on poisoned chlorinated Fresno City water, our well water is great and flavorful to drink
- ④ we do not want light pollution brought into our neighborhood with street lights
- ⑤ we do not want to be under the policies of Fresno City Council, we moved out of Fresno city in the 1970's to get away from city politics

Dave Ebrafi
275-1618



July 15, 2019

Rodney Horton
City of Fresno
Development & Resource Management
2600 Fresno Street, Third Floor
Fresno 93721-3604

Project: NOP – Specific Plan of the West Area – SCH # 2019069117

District CEQA Reference No: 20190888

Dear Mr. Horton:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Notice of Preparation for the above referenced project. The Specific Plan of the West Area (also known as "Specific Plan" or "West Area") encompasses approximately 7,077 acres in the City of Fresno city limits and unincorporated Fresno County (Project). Of the approximately 11 square miles within the Plan Area, 6.9 square miles are in the city limits and 4.1 square miles are in the growth area. The growth area is land outside the city limits but within the City's Sphere of Influence (SOI) boundary, which is the adopted limit for future growth. The Plan Area is located west of State Route 99 and bounded on the south by West Clinton Avenue and to the west by Grantland and Garfield Avenues. The Plan area includes the southwest portion of Highway City adjacent to State Route 99. The Specific Plan of the West Area (Plan) is a master level Project and, while Project-specific data may not be available until specific approvals are being granted, the Environmental Impact Report (EIR) should include a discussion of policies, which when implemented, will reduce or mitigate impacts on air quality at the individual project level. To aid the Lead Agency in addressing project specific issues at the program level the District offers the following comments and recommendations:

Land Use Planning

1. Nearly all development projects within the San Joaquin Valley Air Basin, from general plans to individual development projects have the potential to generate air pollutants, making it more difficult to attain state and federal ambient air quality standards. Land

Samir Sheikh

Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

use decisions are critical to improving air quality within the San Joaquin Valley Air Basin because land use patterns greatly influence transportation needs and motor vehicle emissions are the largest source of air pollution. Land use decisions and project design elements such as preventing urban sprawl, encouraging mix-use development, and project designs that reduce vehicle miles traveled (VMT) have proven benefit for air quality. The District recommends that the Specific Plan include or incorporate by reference, policies that will reduce or mitigate VMT impacts to the extent feasible. VMT can be reduced through encouragement of mixed-use development, walkable communities, etc. Recommended design elements can be found on the District's website at:

<http://www.valleyair.org/ISR/ISROnSiteMeasures.htm>.

To aid agencies in addressing VMT impacts the District has prepared the following guidance documents: *Air Quality Guidelines for General Plans*, and *AB 170 Requirements for General Plans*. These documents provide general information and recommendations for policies that are effective in reducing impacts from growth and development projects. These documents are available on the District's web site at: http://www.valleyair.org/transportation/Guidelines_for_General_Plans.htm.

Emissions Analysis

- 1) At the federal level for the National Ambient Air Quality Standards (NAAQS), the District is currently designated as extreme nonattainment for the 8-hour ozone standards; nonattainment for the PM_{2.5} standards; and attainment for the 1-Hour ozone, PM₁₀ and CO standards. At the state level, the District is currently designated as nonattainment for the 8-hour ozone, PM₁₀, and PM_{2.5} California Ambient Air Quality Standards (CAAQS). The District recommends that the Air Quality section of an Environmental Impact Report (EIR) include a discussion of the following impacts:
 - a) **Criteria Pollutants:** Project related criteria pollutant emissions should be identified and quantified. The discussion should include existing and post-project emissions.
 - i) **Construction Emissions:** Construction emissions are short-term emissions and should be evaluated separately from operational emissions. For reference, the District's annual criteria thresholds of significance for construction are: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NO_x), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SO_x), 15 tons per year of particulate matter of 10 microns or less in size (PM₁₀), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM_{2.5}).
 - *Recommended Mitigation Measure if needed:* To reduce impacts from construction related exhaust emissions, the District recommends feasible mitigation for the Project to utilize off-road construction fleets that can

achieve fleet average emissions equal to or cleaner than the Tier III emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. This can be achieved through any combination of uncontrolled engines and engines complying with Tier III and above engine standards.

- ii) **Operational Emissions:** Permitted (stationary sources) and non-permitted (mobile sources) sources should be analyzed separately. For reference, the annual criteria thresholds of significance for operation of permitted and non-permitted sources each are: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5).
 - iii) **Recommended Model:** Project related criteria pollutant emissions from construction and operation non-permitted (limited to equipment not subject to District permits) should be identified and quantified. Emissions analysis should be performed using CalEEMod (**California Emission Estimator Model**), which uses the most recent approved version of relevant Air Resources Board (ARB) emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com.
- b) **Nuisance Odors:** The Project should be evaluated to determine the likelihood that the Project would result in nuisance odors. Nuisance odors are subjective, thus the District has not established thresholds of significance for nuisance odors. Nuisance odors may be assessed qualitatively taking into consideration of project design elements and proximity to off-site receptors that potentially would be exposed objectionable odors.
- c) **Health Risk Screening/Assessment:** A Health Risk Screening/Assessment identifies potential Toxic Air Contaminants (TAC's) impact on surrounding sensitive receptors such as hospitals, daycare centers, schools, work-sites, and residences. TAC's are air pollutants identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) (<https://www.arb.ca.gov/toxics/healthval/healthval.htm>) that pose a present or potential hazard to human health. A common source of TACs can be attributed to diesel exhaust emitted from both mobile and stationary sources. Industry specific TACs generated must also be identified and quantified.

The District recommends the Project be evaluated for potential health impacts to surrounding receptors (on-site and off-site) resulting from operational and multi-year construction TAC emissions.

- i) The District recommends conducting a screening analysis that includes all sources of emissions. A screening analysis is used to identify projects which may have a significant health impact. A prioritization, using CAPCOA's updated methodology, is the recommended screening method. A prioritization score of 10 or greater is considered to be significant and a refined Health Risk Assessment (HRA) should be performed. The prioritization calculator can be found at:
http://www.valleyair.org/busind/pto/emission_factors/Criteria/Toxics/Utilities/PRIORITIZATION%20RMR%202016.XLS.
- ii) The District recommends a refined HRA for projects that result in a prioritization score of 10 or greater. It is recommended that the Project proponent contact the District to review the proposed modeling protocol. The Project would be considered to have a significant health risk if the HRA demonstrates that the project related health impacts would exceed the District's significance threshold of 20 in a million for carcinogenic risk and 1.0 for the Acute and Chronic Hazard Indices.

Please provide the following information electronically to the District for review:

- HRA AERMOD model files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodology.

More information on toxic emission factors, prioritizations and HRAs can be obtained by:

- E-Mailing inquiries to: hramodeler@valleyair.org; or
- The District can be contacted at (559) 230-6000 for assistance; or
- Visiting the District's website (Modeling Guidance) at http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm

- d) **Ambient Air Quality Analysis:** An ambient air quality analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a Project will cause or contribute to a violation of the ambient air quality standards. The District recommends that an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

If an AAQA is performed, the analysis should include emissions from both Project specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis. Specific information for assessing significance, including screening tools and modeling guidance is available online at the District's website www.valleyair.org/ceqa.

- 2) In addition to the discussions on potential impacts identified above, a preliminary review indicates that an EIR should be prepared, the District recommends the EIR also include the following discussions:
- a) A discussion of the methodology, model assumptions, inputs and results used in characterizing the Project's impact on air quality. To comply with CEQA requirements for full disclosure, the District recommends that the modeling outputs be provided as appendices to the EIR. The District further recommends that the District be provided with an electronic copy of all input and output files for any modeling referenced in the EIR.
 - b) A discussion of the components and phases of the Project and the associated emission projections, including ongoing emissions from each previous phase.
 - c) A discussion of Project design elements and mitigation measures, including characterization of the effectiveness of each mitigation measure incorporated into the Project.
 - i) The following policies/mitigation measures are recommended to reduce or mitigate impacts from criteria pollutant emissions:
 - (1) Use of off-road construction fleets that can achieve fleet average emissions equal to or less than the Tier III emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. The District recommends incorporating, as a condition of Project approval, a requirement that off-road construction equipment used on site achieve fleet average emissions equal to or less than the Tier III emissions standard of 4.8 NO_x g/hp-hr. This can be achieved through any combination of uncontrolled engines and engines complying with Tier III and above engine standards.
 - (2) For projects exceeding the applicability thresholds identified in Section 2.0 of District Rule 9510, a condition of Project approval requiring demonstration of compliance with Rule 9510, prior to the issuance of grading and/or building permits.
 - (3) For projects subject to District permitting requirements, demonstration of compliance with District Rule 2201, such as a copy of the Authority to Construct (ATC), before issuance of the first building permit, be made a condition of project approval.
 - ii) The following policies/mitigation measures are recommended to mitigate potential health impacts of individual projects:

- (1) Development projects resulting in toxic air contaminant emissions will be located an adequate distance from residential areas and other sensitive receptors in accordance to ARB's *Air Quality and Land Use Handbook: A Community Health Perspective*.
 - (2) A health risk screening and/or assessment will be performed to assess potential risks to sensitive receptors for the following projects:
 - (3) Projects whose proposed locations are within the established buffer distances identified in ARB's handbook;
 - (4) Projects whose land uses are not specifically identified in ARB's handbook (such as shopping centers), but there is sufficient information to reasonably conclude that sensitive receptors would be exposed to significant sources of toxic air contaminants; and
 - (5) Projects that would otherwise appear to be exempt from CEQA requirements, but there is sufficient information to reasonably conclude that sensitive receptors would be exposed to significant sources of toxic air contaminants, such as industrial use projects allowed by right.
- d) A discussion of whether the Project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment. More information on the District's attainment status can be found online by visiting the District's website at:
<http://valleyair.org/aqinfo/attainment.htm>.

District Rules and Regulations

- 3) District Rule 9510 (Indirect Source Review) is intended to mitigate a project's impact on air quality through project design elements or by payment of applicable off-site fees.

Future individual development project(s) within the Project would be subject to District Rule 9510 if (1) upon full build-out the project would receive a project-level discretionary approval from a public agency and would equal or exceed any one of the applicability thresholds below for example, or (2) would equal or exceed any of the applicability thresholds in section 2.0 of the rule:

- 50 dwelling units
- 2,000 square feet of commercial space;
- 25,000 square feet of light industrial space;
- 100,000 square feet of heavy industrial space;
- 20,000 square feet of medical office space;
- 39,000 square feet of general office space; or

- 9,000 square feet of educational space; or
- 10,000 square feet of government space; or
- 20,000 square feet of recreational space; or
- 9,000 square feet of space not identified above

District Rule 9510 also applies to any transportation or transit development projects where construction exhaust emissions equal or exceed two (2.0) tons of NOx or two (2.0) tons of PM10.

In the case the individual development project(s) are subject to District Rule 9510, an Air Impact Assessment (AIA) application is required and the District recommends that demonstration of compliance with District Rule 9510, before issuance of the first building permit, be made a condition of Project approval. Information about how to comply with District Rule 9510 can be found online at: <http://www.valleyair.org/ISR/ISRHome.htm>. The AIA application form can be found online at: <http://www.valleyair.org/ISR/ISRFormsAndApplications.htm>.

District staff is available to provide assistance with determining if future individual development projects will be subject to Rule 9510, and can be reached at (559) 230-6000 or by email at ISR@valleyair.org.

- 4) Particulate Matter 2.5 microns or less in size (PM2.5) from under-fired charbroilers pose immediate health risk. Since the cooking of meat can release carcinogenic PM2.5 species like polycyclic aromatic hydrocarbons, controlling emissions from under-fired charbroilers will have a substantial positive impact on public health.

Charbroiling emissions occur in populated areas, near schools and residential neighborhoods, resulting in high exposure levels for sensitive Valley residents. The air quality impacts on neighborhoods near restaurants with under-fired charbroilers can be significant on days when meteorological conditions are stable, when dispersion is limited and emissions are trapped near the surface within the surrounding neighborhoods. This potential for neighborhood-level concentration of emissions during evening or multi-day stagnation events raises environmental concerns.

Furthermore, the latest photochemical modeling indicates that reducing commercial charbroiling emissions is critical to achieving attainment of multiple federal PM2.5 standards and associated health benefits in the Valley.

Therefore, the District strongly recommends new restaurants that will operate under-fired charbroilers install emission control systems during the construction phase since installing charbroiler emissions control systems during construction of new facilities is likely to result in substantial economic benefit compared to costly retrofitting. To ease the financial burden for Valley businesses that wish to install control equipment before it is required by District Rule 4692 (Commercial Charbroiling), the District is currently offering substantial incentive funding that covers the full cost of purchasing, installing,

and maintaining the system for up to two years. Please contact the District at (559) 230-5800 or technology@valleyair.org for more information.

- 5) Future individual development projects may also be subject to District regulations including, but limited to: Regulation VIII (Fugitive PM10 Prohibitions), District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 4002 (National Emission Standards for Hazardous Air Pollutants), Rule 4102 (Nuisance), Rule 4601 (Architectural Coatings), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). To avoid potential delays in project development, the District strongly encourages project proponents to contact the District's Small Business Assistance (SBA) Office early in the planning phase to discuss whether an Authority to Construct (ATC) and Permit to Operate (PTO) are required, and to identify other District rules or regulations that apply to their project.

The District recommends that a mitigation measure be included that requires, for any project within the scope of this EIR that is subject to District permits, demonstration of compliance with District permitting requirements, such as a copy of the ATC, before issuance of the first building permit, be made a condition of project approval.

- 6) Future individual development Project may be subject to District Rule 9410 (Employer Based Trip Reduction) if the Project would result in employment of 100 or more "eligible" employees. District Rule 9410 requires employers with 100 or more "eligible" employees at a worksite to establish an Employer Trip Reduction Implementation Plan (eTRIP) that encourages employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. Under an eTRIP plan, employers have the flexibility to select the options that work best for their worksites and their employees. Information about how District Rule 9410 can be found online at: www.valleyair.org/tripreduction.htm. For additional information, you can contact the District by phone at 559-230-6000 or by e-mail at etrip@valleyair.org
- 7) The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this Project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888. Current District rules can be found online at the District's website at: www.valleyair.org/rules/1ruleslist.htm.

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please call Georgia Stewart at (559) 230-5937 or email Georgia.Stewart@valleyair.org. When calling or emailing the District, please reference District CEQA number 20190888.

Sincerely,

Arnaud Marjollet
Director of Permit Services

A handwritten signature in blue ink, appearing to read 'Brian Clements', with a long horizontal flourish extending to the right.

Brian Clements
Program Manager

AM: gs



NOTICE OF PREPARATION

FOR THE

SPECIFIC PLAN OF THE WEST AREA

JULY 2019

Prepared for:



Development and Resources Management Department
2600 Fresno Street, Room 3065
Fresno, CA 93721
(559) 621-2485

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818



D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm



NOTICE OF PREPARATION

FOR THE

SPECIFIC PLAN OF THE WEST AREA

JULY 2019

Prepared for:



Development and Resources Management Department
2600 Fresno Street, Room 3065
Fresno, CA 93721
(559) 621-8003

Prepared by:

De Novo Planning Group
1020 Suncast Lane, Suite 106
El Dorado Hills, CA 95762
(916) 580-9818

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING

DATE: July 2, 2019

To: State Clearinghouse
State Responsible Agencies
State Trustee Agencies
Other Public Agencies
Organizations and Interested Persons

SUBJECT: Notice of Preparation of an Environmental Impact Report and Scoping Meeting for the Specific Plan of the West Area

LEAD AGENCY: City of Fresno, Development and Resources Management Department
2600 Fresno Street, Room 3065
Fresno, CA 93721
(559) 621-2485

PROJECT PLANNER: Rodney Horton
rodney.horton@fresno.gov
(559) 621-8181

PURPOSE OF NOTICE

This is to notify public agencies and the general public that the City of Fresno, as the Lead Agency, will prepare an Environmental Impact Report (EIR) for the Specific Plan of the West Area. The City of Fresno is interested in the input and/or comments of public agencies and the public as to the scope and content of the environmental information that is germane to the agencies' statutory responsibilities in connection with the proposed project, and public input. Responsible/trustee agencies will need to use the EIR prepared by the City of Fresno when considering applicable permits, or other approvals for the proposed project.

COMMENT PERIOD

Consistent with the time limits mandated by State law, your input, comments or responses must be received in writing and sent at the earliest possible date, but not later than 5:00 PM, August 2, 2019.

Please send your comments/input (including the name for a contact person in your agency) to: Attn: Rodney Horton at the City of Fresno, 2600 Fresno Street, Room 3065, Fresno, CA 93721; or by e-mail to rodney.horton@fresno.gov.

SCOPING MEETING

On July 24, 2019, the City of Fresno will conduct a public scoping meeting to solicit input and comments from public agencies and the general public on the proposed project and scope of the EIR. This meeting will be held at the Glacier Point Middle School, Cafeteria, located at 4055 N. Bryan Avenue, Fresno, CA 93722, from 6:00 PM to 7:30 PM.

This meeting will be an open house format and interested parties may drop in to review the proposed project exhibits and submit written comments at any time between 6:00 PM and 7:30 PM. Representatives from the City of Fresno and the EIR consultant will be available to address questions regarding the EIR process and scope. Members of the public may provide written comments throughout the meeting.

If you have any questions regarding the scoping meeting, contact Rodney Horton, Project Planner, at (559) 621-8181 or rodney.horton@fresno.gov.

PROJECT LOCATION

The Specific Plan of the West Area (also-known-as “Specific Plan” or “West Area”) encompasses approximately 7,077 acres (or a little more than 11 square miles) in the City of Fresno city limits and unincorporated Fresno County. The footprint of the Specific Plan is referred to as the “Plan Area.” Of the eleven square miles within the Plan Area, 6.9 square miles are in the city limits and 4.1 square miles are in the growth area. The growth area is land outside the city limits but within the City’s Sphere of Influence (SOI) boundary, which is the adopted limit for future growth.

The Plan Area is triangular in shape and located west of State Route 99. It is bounded on the south by West Clinton Avenue, and to the west by Grantland and Garfield Avenues. The Plan Area includes the southwest portion of Highway City adjacent to State Route 99. See Figure 1 for the regional location map and Figure 2 for the Plan Area vicinity map.

PROJECT SETTING

EXISTING SITE CONDITIONS

The Plan Area is relatively flat with natural gentle slope near State Route 99. The Plan Area topography ranges in elevation from approximately 283 to 315 feet above mean sea level. A significant amount of land in the Plan Area is farmland or rural residential lots with large, uneven, and underutilized parcels. The West Area has approximately 3,070.95 acres of land that is classified as Urban and Built-Up, according to the State Department of Conservation. Prime farmland is principally located outside of the Plan Area. The West Area has 285.65 acres of Farmland of Statewide Importance which is located primarily in the western edge of the Plan Area. Approximately 509.39 acres of Unique Farmland is located within the Plan Area, most of which is within the southwest portion of the Plan Area. Farmland of Local Importance is located throughout the entire Plan Area, and totals approximately 1,562.82 acres. Vacant or Disturbed Land and Rural Residential Land account for approximately 1,650.17 acres within the growth area. See Figure 3 for an aerial view of the Plan Area.

SURROUNDING LAND USES

Surrounding land uses include State Route 99, the unincorporated communities of Herndon, Highway City, and Muscatel, and incorporated areas of the City of Fresno to the north (including mostly industrial uses), incorporated areas of the City of Fresno to the east (also including mostly industrial uses), unincorporated Fresno County and incorporated areas of the City of Fresno to the south (including farmland uses, rural residential uses, low density residential uses, and underutilized parcels) and unincorporated Fresno County to the west (including farmland and rural residential uses).

EXISTING LAND USES AND ZONING

A portion of the Plan Area is located within the City of Fresno city limits, and a portion is within unincorporated Fresno County (but within the City's SOI). The City of Fresno General Plan designates the Plan Area as: Low Density Residential, Medium Low Density Residential, Medium Density Residential, Urban Neighborhood Residential, High Density Residential, Community Commercial, General Commercial, Recreation Commercial, Office, Business Park, Light Industrial, Corridor/Center Mixed Use, Regional Mixed Use, Community Park, Open Space – Ponding Basin, Neighborhood Park, Open Space, Public/Quasi-Public Facility, Special School, Elementary School, Elementary, Middle & High School, and High School. See Figure 4 for the existing City General Plan land use designations.

The City of Fresno Zoning Map provides zoning for those portions of the Plan Area located within the city limits, but not for areas within the unincorporated County. Zoning designations are generally consistent with the existing General Plan land uses. The City zoning designations for the Plan Area include: Residential Estate (RE), Residential Single-Family, Extremely Low Density (RS-1), Residential Single-Family, Very Low Density (RS-2), Residential Single-Family, Low Density (RS-3), Residential Single-Family, Medium Low Density (RS-4), Residential Single-Family, Medium Density (RS-5), Residential Multi-Family, Medium High Density (RM-1), Residential Multi-Family, Urban Neighborhood (RM-2), Residential Multi-Family, High Density (RM-3), Mobile Home Park (RM-MH), Commercial Community (CC), Commercial General (CG), Commercial Regional (CR), Commercial Recreation (CRC), Light Industrial (IL), Corridor/Center Mixed Use (CMX), Neighborhood Mixed Use (NMX), Regional Mixed Use (RMX), Business Park (BP), Office (O), Open Space (OS), and Park and Recreation (PR). See Figure 5 for the existing zoning designations.

The Fresno County Zoning Map designates the portions of the Plan Area outside the city limits as: Rural Commercial Center (RCC), Central Trading (C4), General Commercial (C6), Light Industrial (M1), Exclusive Agricultural (AE20), Limited Agricultural (AL20), Rural Residential (RR), Single Family Residential Agricultural (RA), Single Family Residential (12,500) (R1B), and Trailer Park Residential (TP). Upon a proposal to annex unincorporated land into the city limits, the City of Fresno would prezone the land to a zone that is consistent with the General Plan land use. Once annexation occurs, the County zoning would not apply to the parcel.

PROJECT GOALS AND OBJECTIVES

Consistent with the California Environmental Quality Act (CEQA), Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the proposed project shall be discussed. The objectives of the proposed project include future development of land for a wide variety of land uses including: Low Density Residential, Medium Low Density Residential, Medium Density Residential, Medium High Density Residential, Urban Neighborhood Residential, High Density Residential, Community Commercial, Recreation Commercial, General Commercial, Regional Commercial, Office, Business Park, Light Industrial, Corridor/Center Mixed Use, Regional Mixed Use, Pocket Park, Neighborhood Park, Community Park, Open Space, Ponding Basin, Public Facility, Church, Special School, Elementary School, Elementary, Middle & High School, High School, and Fire Station uses, as well as the required transportation and utility improvements.

Other objectives and purposes of the Specific Plan are summarized as follows:

- Accommodate and improve roadway access, connectivity and mobility among all modes of transportation, and prioritize roadway widening where bottlenecking exists.
- Accommodate planned transit services in the West Area by locating routes near or adjacent to the community centers, schools, parks, and retail centers.
- Provide a complete, safe, and well-maintained sidewalk network from residential neighborhoods to commercial centers, schools, parks, and community centers.
- Provide a complete, safe, and well-maintained roadway network that allows for efficient and smooth access from the West Area to other sections of the City and region.
- Create parks that are within existing and planned neighborhoods that are easily accessed by community members using pedestrian and bicycle pathways, transit services, or motor vehicles, consistent with the City of Fresno's Parks Master Plan.
- Provide for the location of a flagship Regional Park in the Plan Area that has components of the Plan Area's agricultural history through the planting of drought-resistant vegetation or trees, and the creation of public art that exhibits the Plan Area's contribution to the agricultural industry.
- Incorporate elements of agriculture in future parks by planting a mixture of native drought tolerant vegetation, shrubs, and trees that can serve to provide shade and enhance the streetscape.
- Encourage and provide land use opportunities for agri-tourism ventures to occur in the West Area.
- Encourage the development of harvest – producing community gardens.
- Attract desired and needed local retail establishments to serve the needs of the West Area community. Such establishments include grocery stores, bakeries, restaurants other than fast food places, and boutiques.
- Discourage the expansion of undesirable retail establishments such as liquor stores, tobacco and vapor stores, short-term loan and pawn shops, and adult stores.
- Encourage the development of retail establishments along commercial corridors.

- Encourage the orderly and consistent development of civic, parkland, retail and commercial, mixed-use, and multi-family uses along West Shaw Avenue, West Ashlan Avenue, Veterans Boulevard, West Shields Avenue, West Clinton Avenue, and Blythe Avenue.
- Encourage a variety of housing types and styles.
- Encourage the development of housing to accommodate an aging population including, multi-generational houses and other elder housing options.
- Reaffirm the City's commitment and obligation to affirmatively further access to fair and affordable housing opportunities by strongly encouraging equitable and fair housing opportunities to be located in strategic proximity to employment, recreational facilities, schools, neighborhood commercial areas, and transportation routes.
- Attract much needed educational opportunities for the residents of the West Area, especially for post-secondary education, and access to programs for life-long learners.
- Provide for safe routes to schools for children, with the City and County working together with residents, to provide sidewalks in neighborhood that have sporadic access.
- Work to promote Neighborhood Watch in all neighborhoods, and further assess the need for the location of emergency response facilities west of State Route 99.

PROJECT CHARACTERISTICS AND DESCRIPTION

BACKGROUND

The proposed Specific Plan process officially started in September 2017 with the drafting of the existing conditions report. That document provides a detailed overview of the existing land uses within the Plan Area. Outreach to the West Area community started in early 2018 with individual meetings between City staff and community stakeholders, including residents, local agencies, institutional partners, elected officials, land owners, and developers. Public outreach included community stakeholder interviews, Steering Committee orientation sessions and meetings, community meetings and workshops, and an on-line survey.

The 11-member Steering Committee, established in March 2018 by the Fresno City Council, held regular public meetings to provide recommendations to the draft land use map and guiding principles based on input received from community members. Additionally, approximately 25 community stakeholders were interviewed from January 2018 to April 2018. Next, a kick-off survey regarding the Plan Area was released in April 2018. The survey covered topics such as quality of life, needed improvements, needed housing and commercial development, agri-tourism, and the overall future vision for the Plan Area. Two community conversations (i.e., workshops) were also held in order to receive feedback: Community Conversation No. 1 was held in May 2018, and Community Conversation No. 2 was held in June 2018. The Steering Committee then held meetings in June, July, August, November, and January 2018 in order to review and select the conceptual land use options. The draft land use map and guiding principles were released to the public on November 28, 2018. The draft land use map was then amended by the Steering Committee in January 2019. Lastly, an agri-tourism workshop was held in the spring of 2019.

INTRODUCTION

The proposed Specific Plan will establish the land use planning and regulatory guidance, including the land use and zoning designations and policies, for the approximately 7,077-acre Plan Area. The Specific Plan will serve as a bridge between the Fresno General Plan and individual development applications in the Plan Area.

The Specific Plan of the West Area seeks to provide for the orderly and consistent development that promotes and establishes the West Area as a complete neighborhood with enhanced transportation infrastructure, development of core commercial centers, creation of additional parkland, and encouraging the development of a diverse housing stock. The Plan Area does not currently have needed commercial amenities, forcing residents to travel east of State Route 99 for retail services. The Plan Area also lacks a complete roadway network and parkland.

LAND USE MAP AND MAXIMUM BUILDOUT POTENTIAL

The proposed Specific Plan refines the General Plan's land use vision for the West Area. The draft land use map proposes the relocation of higher density land uses away from the most western and southwestern portions of the Plan Area where they are distant from public transit and community amenities and transfers those higher density land use designations to major corridors. The Specific Plan of the West Area land use plan utilizes the City's existing General Plan land use designations to maintain or re-designate some parcels in the West Area. Some of the designation changes include: Low Density Residential (1 to 3.5 dwelling units per acre [DU/AC]), Medium Low Density Residential (3.5 to 6 DU/AC), Medium Density Residential (5 to 12 DU/AC), Medium High Density Residential (12 to 16 DU/AC), Urban Neighborhood Residential (16 to 30 DU/AC), High Density Residential (30 to 45 DU/AC), Community Commercial (1.0 maximum floor-area-ratio [FAR]), Recreation Commercial (0.5 maximum FAR), General Commercial (2.0 maximum FAR), Regional Commercial (1.0 maximum FAR), Office (2.0 maximum FAR), Business Park (1.0 maximum FAR), Light Industrial (1.0 maximum FAR), Corridor/Center Mixed Use (16 to 30 UD/AC and 1.5 maximum FAR), Regional Mixed Use (30 to 45 UD/AC and 2.0 maximum FAR), Pocket Park, Neighborhood Park, Community Park, Open Space, Ponding Basin, Public Facility, Church, Special School, Elementary School, Elementary, Middle & High School, High School, and Fire Station. See Table 1 for a summary of the existing and proposed land uses within the city limits, growth area, and Plan Area. See Figure 6 for the proposed General Plan land use designations.

As previously indicated, the City of Fresno Zoning Map designates the Plan Area as: RE, RS-1, RS-2, RS-3, RS-4, RS-5, RM-1, RM-2, RM-3, RM-MH, CC, CG, CR, CRC, IL, CMX, NMX, RMX, BP, O, OS, and PR. The Fresno County Zoning Map designates the portions of the Plan Area outside the city limits as: RCC, C4, C6, M1, AE20, AL20, RR, RA, R1B, and TP. In conjunction with the approval of the Specific Plan, the parcels in the City which would have a changed land use designation as a result of the Specific Plan would be rezoned to the corresponding City zoning designation.

TABLE 1: PARCEL ACREAGES BY LAND USE CLASSIFICATION FOR GENERAL PLAN AND PROPOSED SPECIFIC PLAN

GENERAL PLAN LAND USE DESIGNATIONS	CITY LIMITS			GROWTH AREA			PLAN AREA TOTAL		
	GENERAL PLAN ACRES	SPECIFIC PLAN ACRES	DIFFERENCE IN CITY	GENERAL PLAN ACRES	SPECIFIC PLAN ACRES	DIFFERENCE IN GROWTH AREA	GENERAL PLAN ACRES	SPECIFIC PLAN ACRES	OVERALL CHANGE
Low	146.20	95.82	- 163.47	671.59	420.76	- 143.64	817.79	516.57	- 307.11
Medium Low	582.37	821.03		243.59	635.94		825.97	1,456.98	
Medium	1,460.88	1,240.70		896.13	824.67		2,357.00	2,065.37	
Medium High	261.09	224.31		88.33	51.24		349.42	275.55	
Urban Neighborhood	214.65	96.53		213.96	75.11		428.61	171.64	
High	28.00	51.33		37.76	0.00		65.76	51.33	
<i>Subtotal - Residential</i>	<i>2,693.19</i>	<i>2,529.72</i>		<i>2,151.36</i>	<i>2,007.72</i>		<i>4,844.55</i>	<i>4,537.44</i>	
Community	81.87	27.40	- 40.68	56.79	25.34	+ 36.56	138.66	52.74	- 4.11
Recreation	41.34	41.34		0.00	0.00		41.34	41.34	
General	141.59	155.38		1.63	65.40		143.21	220.78	
Regional	0.00	0.00		0.00	4.24		0.00	4.24	
<i>Subtotal - Commercial</i>	<i>264.80</i>	<i>224.12</i>		<i>58.42</i>	<i>94.98</i>		<i>323.21</i>	<i>319.10</i>	
Office	7.51	42.94	+ 32.91	0.00	45.87	+ 26.92	7.51	88.81	+ 59.84
Business Park	22.71	20.57		54.40	35.45		77.11	56.02	
Light Industrial	33.13	32.75		0.00	0.00		33.13	32.75	
<i>Subtotal - Employment</i>	<i>63.35</i>	<i>96.26</i>		<i>54.40</i>	<i>81.32</i>		<i>117.75</i>	<i>177.59</i>	
Neighborhood	0.00	211.12	+ 114.60	0.00	44.83	+ 69.06	0.00	255.95	+ 183.66
Corridor/Center	106.19	71.78		0.00	24.23		106.19	96.00	
Regional	144.72	82.61		0.00	0.00		144.72	82.61	
<i>Subtotal - Mixed Use</i>	<i>250.90</i>	<i>365.50</i>		<i>0.00</i>	<i>69.06</i>		<i>250.90</i>	<i>434.56</i>	
Pocket Park	2.45	1.55	+ 24.58	0.00	0.00	+ 14.49	2.45	1.55	+ 10.09
Neighborhood Park	36.67	39.22		47.04	47.04		83.71	86.26	
Community Park	24.20	24.20		13.98	0.00		38.18	24.20	
Regional Park	0.00	0.00		0.00	0.00		0.00	0.00	
Open Space	5.03	5.03		1.76	1.76		6.79	6.79	
Ponding Basin	67.06	89.99		40.12	39.60		107.18	129.59	
<i>Subtotal - Open Space</i>	<i>135.41</i>	<i>159.99</i>		<i>102.90</i>	<i>88.41</i>		<i>238.31</i>	<i>248.40</i>	
Public Facility	4.98	12.64	+ 32.05	16.81	14.78	+ 25.59	21.78	27.42	+ 57.65
Church	9.93	21.20		1.66	34.60		11.59	55.80	
Special School	4.50	4.50		13.88	13.88		18.38	18.38	
Elem. School	56.18	66.17		25.65	25.65		81.82	91.82	
Elem./Middle/High School	145.37	145.37		0.00	0.00		145.37	145.37	
High School	46.95	46.95		0.00	0.00		46.95	46.95	
Fire Station	0.20	3.32		5.32	0.00		5.52	3.32	
<i>Subtotal - Public Facilities</i>	<i>268.10</i>	<i>300.15</i>		<i>63.32</i>	<i>88.91</i>		<i>331.41</i>	<i>389.06</i>	
Grand Total	3,675.75	3,675.75	--	2,430.39	2,430.39	--	6,106.14	6,106.14	--

The parcels that are currently within the County will not be rezoned. Instead, upon a proposal to annex unincorporated land into the city limits, the City of Fresno would prezone the land to a zone that is consistent with the General Plan land use. Once annexation occurs, the County zoning would not apply to the parcel.

Table 2 summarizes the acreages of each land use, the maximum number of units, and the maximum non-residential square footage that would be allowed under the proposed Specific Plan.

TABLE 2: MAXIMUM DEVELOPMENT POTENTIAL WITHIN SPECIFIC PLAN OF THE WEST AREA

GENERAL PLAN LAND USE DESIGNATIONS (AND DENSITY/INTENSITY)	SPECIFIC PLAN ACRES	MAXIMUM DEVELOPMENT POTENTIAL	
		DWELLING UNITS	NON-RESIDENTIAL SF
Low (1-3.5 DU/AC)	516.57	1,807	--
Medium Low (3.5-6 DU/AC)	1,456.98	8,741	--
Medium (5-12 DU/AC)	2,065.37	24,784	--
Medium High (12-16 DU/AC)	275.55	4,408	--
Urban Neighborhood (16-30 DU/AC)	171.64	5,149	--
High (30-45 DU/AC)	51.33	2,309	--
<i>Subtotal - Residential</i>	<i>4,537.44</i>	<i>47,199</i>	<i>--</i>
Community (1.0 Max. FAR)	52.74	--	2,297,354.40
Recreation (0.5 Max. FAR)	41.34	--	900,385.20
General (2.0 Max. FAR)	220.78	--	19,234,353.60
Regional (1.0 Max. FAR)	4.24	--	184,694.40
<i>Subtotal - Commercial</i>	<i>319.10</i>	<i>--</i>	<i>22,616,787.60</i>
Office (2.0 Max. FAR)	88.81	--	--
Business Park (1.0 Max. FAR)	56.02	--	--
Light Industrial (1.0 Max. FAR)	32.75	--	--
<i>Subtotal - Employment</i>	<i>177.59</i>	<i>--</i>	<i>--</i>
Neighborhood (12-16 DU/AC; 1.5 Max. FAR)	255.95	4,095	16,723,773.00
Corridor/Center (16-30 UD/AC; 1.5 Max. FAR)	96.00	2,880	6,272,640.00
Regional (30-45 UD/AC; 2.0 Max. FAR)	82.61	3,717	7,196,983.20
<i>Subtotal - Mixed Use</i>	<i>434.56</i>	<i>10,692</i>	<i>30,193,396.20</i>
Pocket Park	1.55	--	--
Neighborhood Park	86.26	--	--
Community Park	24.20	--	--
Regional Park	0.00	--	--
Open Space	6.79	--	--
Ponding Basin	129.59	--	--
<i>Subtotal - Open Space</i>	<i>248.40</i>	<i>--</i>	<i>--</i>
Public Facility	27.42	--	--
Church	55.80	--	--
Special School	18.38	--	--
Elem. School	91.82	--	--
Elem./Middle/High School	145.37	--	--
High School	46.95	--	--
Fire Station	3.32	--	--
<i>Subtotal - Public Facilities</i>	<i>389.06</i>	<i>--</i>	<i>--</i>
Grand Total	6,106.14	57,891 DU	52,810,183.80 SF

As shown in the table, the Specific Plan would allow for the future development of up to 57,891 DU (including 47,199 DU in the residential category and 10,692 DU in the mixed use category) and 52,810,183.80 SF of non-residential uses. The proposed land use plan also designates public facility uses that are currently existing within the Plan Area, including schools and churches. In the northern portion of the Plan Area, Fire Station No. 18 is located off of West Bullard Avenue at 5938 North La Ventana Avenue. Fire Station 18 will be relocated to a permanent location on

the south side of the 6000 block of West Shaw Avenue to maximize the department's "4 Minutes to Excellence" response time goal. Additionally, the proposed land use plan would allow for approximately 248 acres of park, open space, and ponding basin uses. The Specific Plan also includes circulation and utility improvements, some of which are planned in the City's current program for capital improvements.

The Specific Plan is designed to provide flexibility, so there is an extensive number of hypothetical variations/combinations for residential and non-residential development. However, the data within the above table represents the maximum density allowed without an amendment approved by the City. In effect, this is very likely an overestimate of what will actually be developed, but for purposes of environmental analysis in the EIR it represents the worst-case scenario.

It is noted that the proposed Specific Plan would amend the land uses for approximately half of the land within the Plan Area. The remaining parcels would maintain their existing land use and zoning designations. The parcels that are proposed for change by the proposed land use map are shown in Figure 7.

REVISIONS TO CORE GOALS

In addition to the proposed land use plan, the following are revisions to the core goals provided in the General Plan for the West Area:

1. West Shaw Avenue Town Center: The West Shaw Avenue Town Center (the Town Center) will extend from State Route 99 to the east side of Grantland Avenue and is envisioned to be comprised of mixed-use development supported by enhanced transit service. Land on the south side of West Shaw Avenue will provide additional neighborhood and commercial mixed-use opportunities.
2. Catalytic Corridors: The proposed Specific Plan designates higher density land uses along corridors for the purpose of providing easy access to major arterials and streets, retail centers, and community amenities. Catalytic corridors will include transit services. The corridors are designed to include neighborhood and pocket parks, commercial and retail uses, educational facilities, multi-family dwelling units, and professional offices. The corridors are located on the following streets:
 - a) West Shaw Avenue, from State Route 99 to the east side of Grantland Avenue;
 - b) West Ashlan Avenue, from State Route 99 to the commercial nodes located on the west side of Grantland Avenue;
 - c) North Blythe Avenue, from West Shields to West Ashlan Avenue;
 - d) West Clinton Avenue from State Route 99 to North Brawley Avenue; and
 - e) Veterans Boulevard, from West Gettysburg Avenue to West Barstow Avenue.

PROJECT ALTERNATIVES

CEQA requires that an EIR analyze a reasonable range of feasible alternatives that meet most or all project objectives while reducing or avoiding one or more significant environmental effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that

requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed.

Alternatives that are evaluated in the EIR must be potentially feasible alternatives. However, not all possible alternatives need to be analyzed. An EIR must “set forth only those alternatives necessary to permit a reasoned choice.” (CEQA Guidelines, Section 15126.6(f).) The CEQA Guidelines provide a definition for a “range of reasonable alternatives” and, thus limit the number and type of alternatives that need to be evaluated in an EIR. An EIR need not include any action alternatives inconsistent with the lead agency’s fundamental underlying purpose in proposing a project. (In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings (2008) 43 Cal.4th 1143, 1166.)

First and foremost, alternatives in an EIR must be potentially feasible. In the context of CEQA, “feasible” is defined as:

... capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (CEQA Guidelines 15364)

The inclusion of an alternative in an EIR is not evidence that it is feasible as a matter of law, but rather reflects the judgment of lead agency staff that the alternative is potentially feasible. The final determination of feasibility will be made by the lead agency decision-making body through the adoption of CEQA Findings at the time of action on the Project. (Mira Mar Mobile Community v. City of Oceanside (2004) 119 Cal.App.4th 477, 489 see also CEQA Guidelines, §§ 15091(a)) (3) (findings requirement, where alternatives can be rejected as infeasible); 15126.6 ([an EIR] must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation”).) The following factors may be taken into consideration in the assessment of the feasibility of alternatives: site suitability, economic viability, availability of infrastructure, general plan consistency, other plan or regulatory limitations, jurisdictional boundaries, and the ability of the proponent to attain site control (Section 15126.6 (f) (1)).

ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Equally important to attaining the project objectives is the reduction of some or all significant impacts, particularly those that could not be mitigated to a less-than-significant level. The exact alternatives that will be evaluated in the Draft EIR will be determined through the Notice of Preparation (NOP) and Scoping Process. Through preliminary discussions, there are three alternatives to the proposed Specific Plan that are being contemplated for evaluation in the Draft EIR. The alternatives being considered include the following:

- **No Project (Existing General Plan) Alternative:** Under this alternative, the Plan Area would remain in its current General Plan land use and zoning designations. Future development allowed under the existing General Plan land use map would be permitted in the Plan Area.
- **Regional Park Alternative:** Under this alternative, future development in the Plan Area would occur similar to what would be allowed under the proposed land use map. However, this alternative would provide a Regional Park within the Plan Area, which would be a minimum of 40 acres in size.
- **Lower Density Alternative:** Under this alternative, future development in the Plan Area would occur similar to what would be allowed under the proposed land use map, but at lower densities.

It is noted that the final alternatives selected for analysis in the Draft EIR will be based on the public scoping process, including input received through public comment.

PLAN ADOPTION AND REGULATION

The Specific Plan may include certain development regulations and standards that are intended to be specific to the Specific Plan Area. Where there is a matter or issue not specifically covered by the Specific Plan development regulations and design standards, the Fresno Zoning Code would apply. Where there is a conflict between the Specific Plan and the Zoning Code, the Specific Plan would prevail.

The Specific Plan is intended to be adopted by the City Council and to serve as a tool for the City of Fresno to implement. The Specific Plan is to be used by designers, developers, builders, and planners, to guide development of the Plan Area. The land use, development standards, and design guidelines are provided to ensure that all proposed developments remain consistent with the vision established by the Specific Plan as the Project is built over time. The Specific Plan development concepts, design guidelines, and standards are in accordance with the City's General Plan, Municipal Ordinances, and City Specifications. The Specific Plan shall be used to review, process, and approve development proposals for the Project site including but not limited to site specific development applications and site improvement plans.

TYPE OF EIR

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a Program EIR pursuant to CEQA Guidelines Section 15168. The program-level analysis considers the broad environmental effects of the proposed project as a whole.

It is noted that the Specific Plan provides a very broad level of planning detail. To the extent that sufficient detail is available in the Specific Plan, a more detailed level of analysis is provided in this EIR. Examples of a more detailed level of analysis would include topics that are related to the physical acreage affected (i.e. the project footprint), maximum number of units (or FAR), land uses/zoning, or other design parameters. In many cases, there will be site specific uses that

will have design details developed at a later date. These details are unknown at this time and cannot reasonably be analyzed at a project-level at this time.

This EIR examines the planning, construction and operation of the project. The program-level approach, with limited project-level analysis, is appropriate for the proposed project because it allows comprehensive consideration of the reasonably anticipated scope of the development plan; however, as discussed above, not all design aspects of the future development phases are known at this stage in the planning process. Subsequent individual development that requires further discretionary approvals will be examined in light of this EIR to determine whether additional environmental documentation must be prepared.

CEQA Guidelines Section 15168 states that a program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:

1. Geographically,
2. As logical parts in the chain of contemplated actions,
3. In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program, or
4. As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

According to CEQA Guidelines section 15168, subdivision (c)(5), “[a] program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible.” Later environmental documents (EIRs, mitigated negative declarations, or negative declarations) can incorporate by reference materials from the program EIR regarding regional influences, secondary impacts, cumulative impacts, broad alternatives, and other factors (CEQA Guidelines Section 15168[d][2]). These later documents need only focus on new impacts that have not been considered before (CEQA Guidelines Section 15168[d][3]).

Section 15168(c), entitled “Use with Later Activities,” provides, in pertinent part, as follows:

Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared:

1. If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.
2. If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activities as being within the scope of the project covered by the program EIR, and no new environmental document would be required.
3. An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.

4. Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

Here, the City anticipates preparing an initial study whenever landowners within the Plan Area submit applications for site-specific approvals (i.e. tentative maps, conditional use permits, or other discretionary entitlements). The initial study would serve in part as a consistency checklist to determine if the application for site specific approval is consistent with the General Plan, Specific Plan, Conditions of Approval, and Mitigation Measures, and it would also include a review of the project details relative to what was anticipated and analyzed in the program EIR (i.e. are there new environmental effects that were not covered by the program EIR). The City's expectation, at least at present, is that the initial study will conclude that most components of the Specific Plan can be developed with no new analysis of environmental effects given that there has been analysis in this program EIR. In some cases, however, a site-specific application (i.e. commercial use) may have specific issues associated with the project, or business, that this program EIR could not anticipate given the information that was available at this time. In those situations, the detailed site-specific information from that application could have site-specific effects not wholly anticipated in this EIR and would require some additional environmental review. (See also CEQA Guidelines section 15063, subd. (b)(1)(C).)

Future site-specific approvals may also be narrowed pursuant to the rules for tiering set forth in CEQA Guidelines Section 15152. "[T]iering is a process by which agencies can adopt programs, plans, policies, or ordinances with EIRs focusing on 'the big picture,' and can then use streamlined CEQA review for individual projects that are consistent with such...[first tier decisions] and are...consistent with local agencies' governing general plans and zoning.'" (*Koster v. County of San Joaquin* (1996) 47 Cal.App.4th 29, 36.) Section 15152 provides that, where a first-tier EIR has "adequately addressed" the subject of cumulative impacts, such impacts need not be revisited in second- and third-tier documents. Furthermore, second- and third-tier documents may limit the examination of impacts to those that "were not examined as significant effects" in the prior EIR or "[a]re susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means." In general, significant environmental effects have been "adequately addressed" if the lead agency determines that:

1. they have been mitigated or avoided as a result of the prior environmental impact report and findings adopted in connection with that prior environmental impact report; or
2. they have been examined at a sufficient level of detail in the prior environmental impact report to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project.

Here, as noted above, the City anticipates preparing Initial Study whenever landowners within the Plan Area submit applications for site-specific approvals (i.e. tentative maps, conditional use

permits, or other discretionary entitlements). The checklist would serve in part as a consistency checklist to determine if the application for site specific approval is consistent with the General Plan, Specific Plan, Conditions of Approval, and Mitigation Measures, and it would also include a review of the project details relative to what was anticipated and analyzed in the program EIR (i.e. have all significant environmental impacts identified been “adequately addressed” in the program EIR). Thus, if a new analysis is required for these site-specific actions, it would focus on impacts that cannot be “avoided or mitigated” by mitigation measures that either (i) were adopted in connection with the Specific Plan or (ii) were formulated based on information in this EIR.

In addition, because the EIR addresses the effects of rezoning the land within the proposed Plan Area, future environmental review can also be streamlined pursuant to Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183. These provisions, which are similar but not identical to the tiering provisions, generally limit the scope of necessary environmental review for site-specific approvals following the preparation of an EIR for a “zoning action.” For such site-specific approvals, CEQA generally applies only to impacts that are “peculiar to the parcel or to the project” and have not been previously disclosed, except where “substantial new information” shows that previously identified impacts would be more significant than previously assumed. Notably, impacts are considered not to be “peculiar to the parcel or to the project” if they can be substantially mitigated pursuant to previously adopted, uniformly applied development policies or standards. As noted above, the City anticipates that, in assessing the extent to which the Specific Plan EIR has previously addressed significant impacts that might occur with individual projects, the City may conclude that in some instances (e.g., with respect to agricultural resources, cultural resources, geology, soils, and paleontological resources), no further analysis beyond that found in the program EIR will be necessary.

Finally, for purely residential projects consistent with the Specific Plan, the City intends to preserve its ability to treat such projects as exempt from CEQA pursuant to Government Code section 65457. Subdivision (a) of that statute provides that “[a]ny residential development project, including any subdivision, or any zoning change that is undertaken to implement and is consistent with a specific plan for which an [EIR] has been certified after January 1, 1980, is exempt from the requirements of [CEQA].” The statutes go on to say, moreover, that “if after adoption of the specific plan, an event as specified in Section 21166 of the Public Resources Code occurs, the exemption provided by this subdivision does not apply unless and until a supplemental [EIR] for the specific plan is prepared and certified in accordance with the provisions of [CEQA]. After a supplemental [EIR] is certified, the exemption ... applies to projects undertaken pursuant to the specific plan.” (See also CEQA Guidelines section 15182.)

When purely residential projects are proposed, the City will consider whether they qualify for this exemption or whether the Specific Plan EIR must be updated through a supplement to this EIR or a subsequent EIR as required by Public Resources Code section 21166 and CEQA Guidelines sections 15162 and 15163.

PROJECT ENTITLEMENTS

The City of Fresno will be the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. Actions that would be required from the City include, but are not limited to the following:

- Certification of the EIR and adoption of the Mitigation Monitoring and Reporting Program (MMRP);
- Approval of the Specific Plan of the West Area;
- Approval of the General Plan amendment modifying land uses.
- Approval of the Zoning Ordinance amendment modifying zoning.

The EIR analyzes the impacts of the Specific Plan and the anticipated subsequent filing of maps and other development applications in the future. Therefore, the EIR analyzes the maximum impacts of the Specific Plan, including these applications yet unfiled, so that future filings will not require separate environmental analysis, as long as development proposed does not substantially deviate from the approved Specific Plan.

ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR will involve the following general procedural steps:

NOTICE OF PREPARATION

The City must circulate a NOP of an EIR for the proposed project to responsible and trustee agencies, the State Clearinghouse, and the public. A public scoping meeting must be held during the public review period to present the project description to the public and interested agencies, and to receive comments from the public and interested agencies regarding the scope of the environmental analysis to be included in the Draft EIR. Concerns raised in response to the NOP will be considered during preparation of the Draft EIR. The NOP and responses to the NOP by interested parties will be presented in an appendix to the EIR.

DRAFT EIR

The Draft EIR will contain a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. The Draft EIR will identify issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP will be considered in preparing the analysis in the EIR. Upon completion of the Draft EIR, the City will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor's Office of Planning and Research to begin the 45-day public review period.

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to significant environmental issues raised either in written comments received during the public review period or in oral comments received at a public hearing during such review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

CEQA Guidelines Section 15090 requires lead agencies to certify the final EIR prior to approving a project. The lead agency decision making body shall certify that (i) the Final EIR has been completed in compliance with CEQA; (ii) that the Final EIR was presented to the decision-making body, which reviewed and considered the information contained in the Final EIR prior to approving the project; and (iii) that the Final EIR reflects the lead agency's independent judgment and analysis.

For the proposed project, the City Council shall be the City's ultimate decision-making body. The Council will therefore review and consider the Final EIR and make a determination regarding whether the document is "adequate and complete." In general, a Final EIR meets this standard if:

1. The EIR shows a good faith effort at full disclosure of environmental information; and
2. The EIR provides sufficient analysis to allow decisions to be made regarding the proposed project in contemplation of environmental considerations.

The level of detail contained throughout the EIR is intended to be consistent with Section 15151 of the CEQA Guidelines and recent court decisions, which provide the standard of adequacy on which the document is based. The Guidelines state as follows:

"An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of the environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

Following review and consideration of the Final EIR, the City may take action to approve, modify, or reject the project. As part of project approval, the City also is also required to adopt a Mitigation Monitoring and Reporting Program, as described below, prepared in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097. This Mitigation Monitoring and Reporting Program must include all of the mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects on the environment, and would be designed to ensure that these measures are actually carried out during project implementation.

USES OF THE EIR AND REQUIRED AGENCY APPROVALS

The City of Fresno will be the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of CEQA, Section 15050. Other agencies may be required to issue permits or approve certain aspects of the proposed project.

Actions that would be required from the City include, but are not limited to, the following:

- Certification of the EIR;
- Adoption of the Mitigation Monitoring and Reporting Program;
- Approval of City of Fresno General Plan Amendments;
- Approval of City of Fresno rezoning;
- Approval of Specific Plan;
- Approval of Development Agreement;
- Approval of future tentative and final maps;
- Approval of future improvement plans;
- Approval of future grading plans;
- Approval of future building permits;
- Approval of future site plan and design review;
- City review and approval of future project utility plans.

The other governmental agencies that may require approvals in connection with the project include, but are not limited to, the following:

- California Department of Fish and Wildlife;
- California Department of Transportation;
- Central Valley Regional Water Quality Control Board - Storm Water Pollution Prevention Plan approval prior to construction activities pursuant to the Clean Water Act;
- San Joaquin Valley Air Pollution Control District - Approval of construction-related air quality permits;
- San Joaquin Valley Air Pollution Control District - Authority to Construct, Permit to Operate for stationary sources of air pollution;
- State Water Resources Control Board.

AREAS OF POTENTIAL IMPACTS

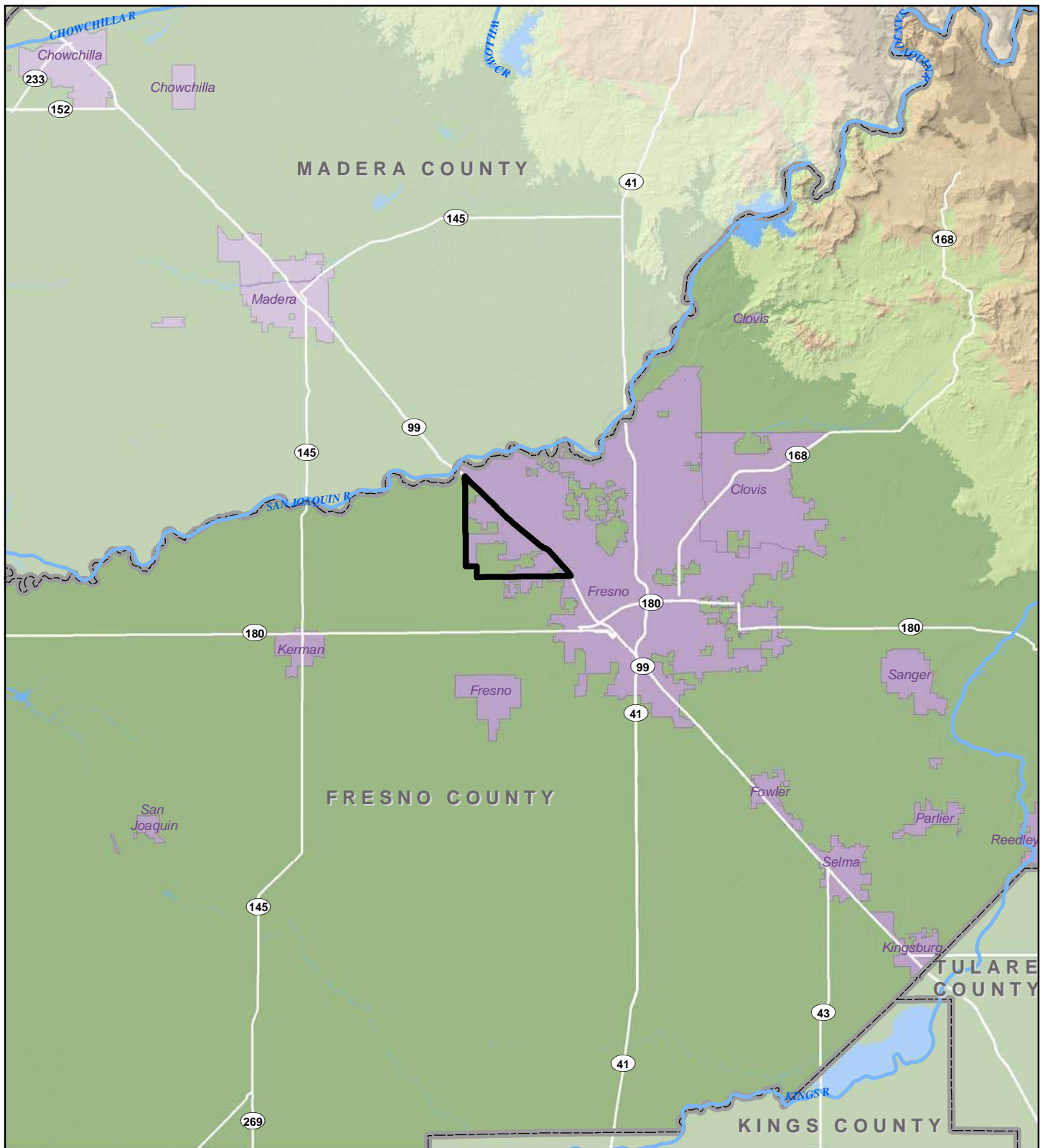
An Initial Study has not been prepared for this project. All environmental topics identified in Appendix G of the State CEQA Guidelines will be analyzed in the EIR, including: Aesthetics, Agricultural and Forest Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gases and Climate Change, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, Utilities, Wildfire, Cumulative Impacts, and Growth Inducing Impacts.

Date: June 28, 2019




Signature: 

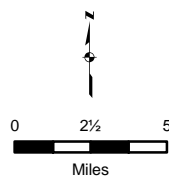
Name/Title: Rodney L. Horton, MPA, Project Planner

Phone/Email: 559-621-8181/Rodney.Horton@fresno.gov



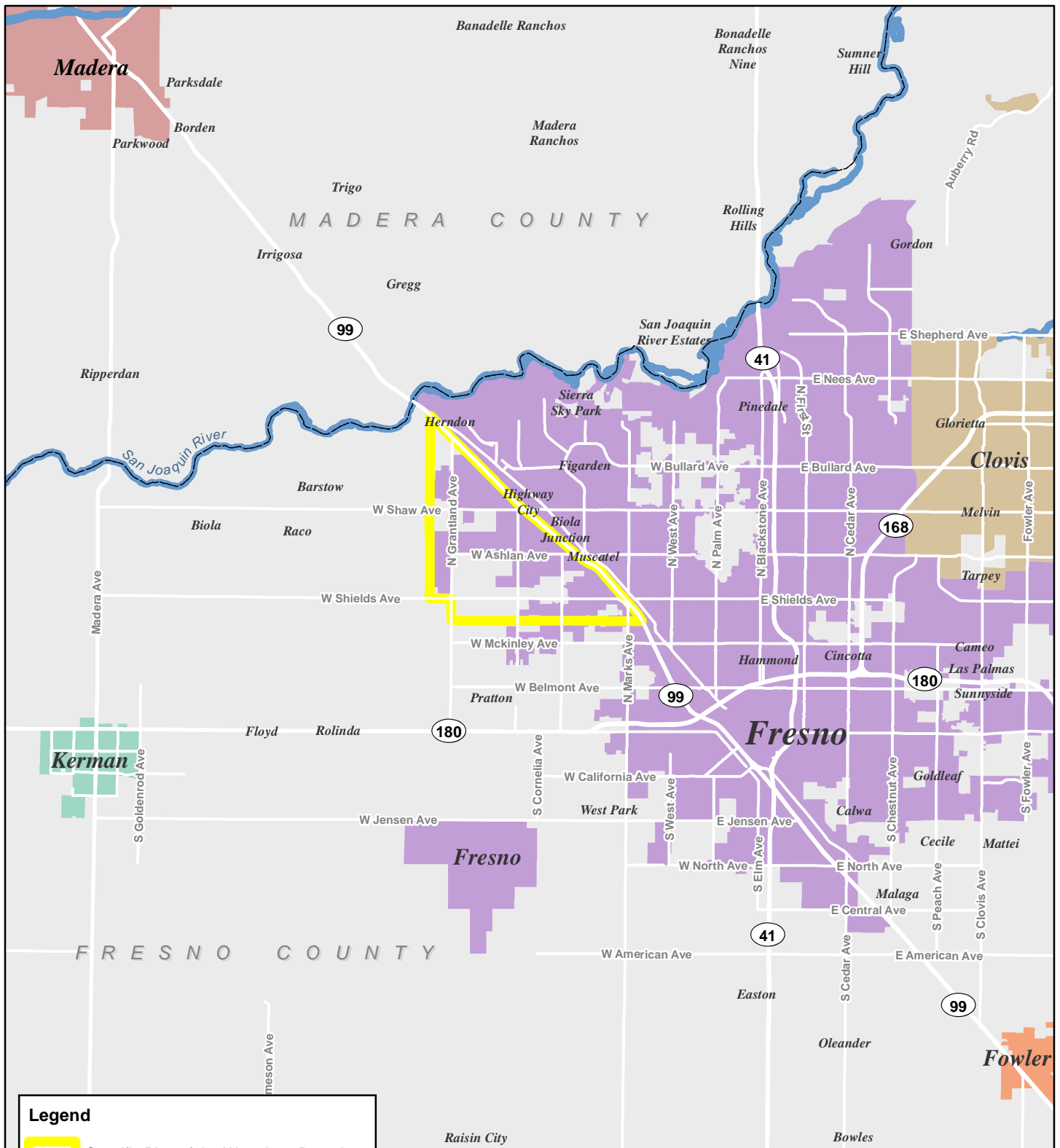
Legend

-  Specific Plan of the West Area
-  City Area
-  County Boundary



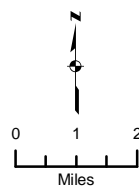
CITY OF FRESNO SPECIFIC PLAN OF THE WEST AREA

Figure 1. Regional Location Map



Legend

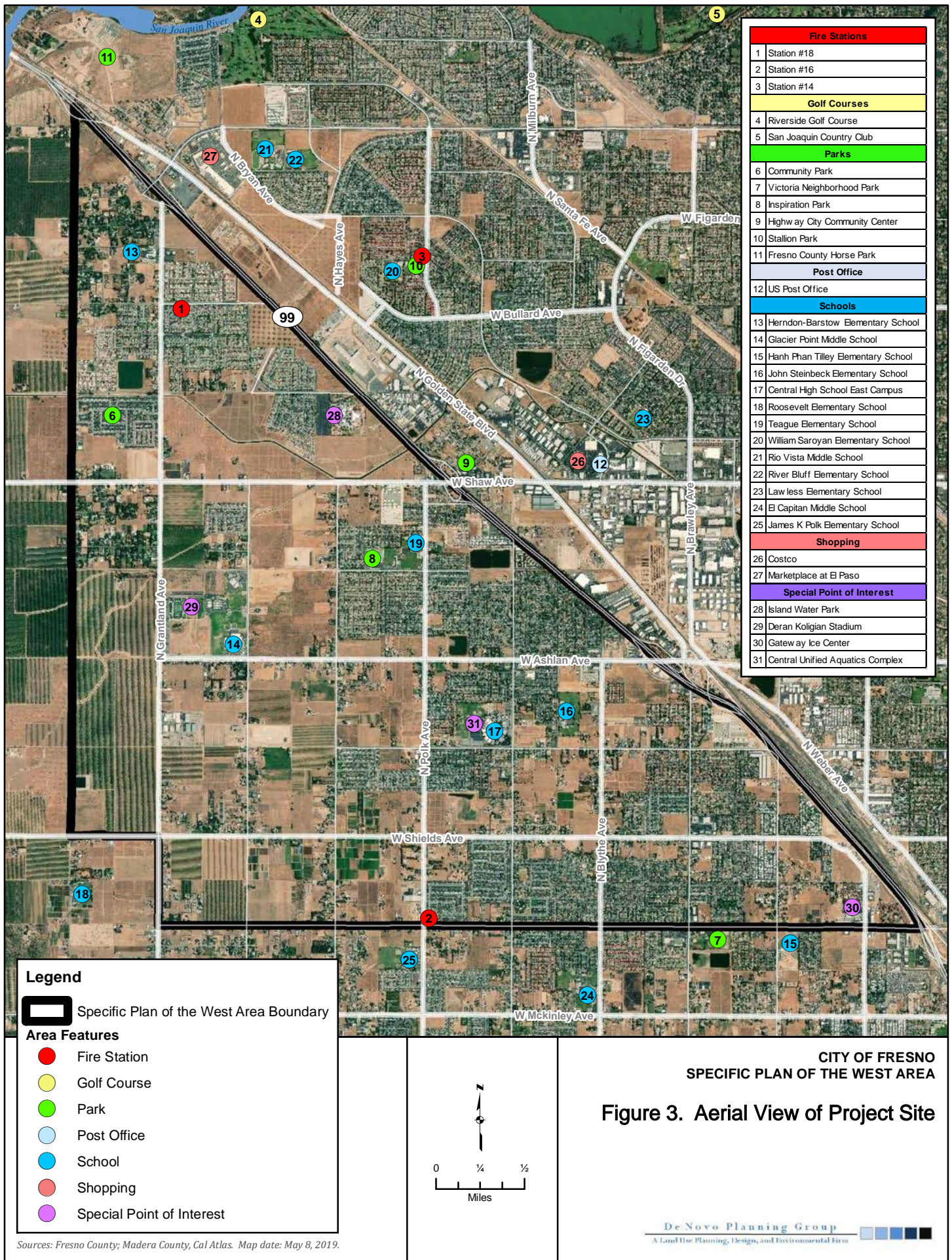
- Specific Plan of the West Area Boundary
- County Boundary
- City Areas**
 - Clovis
 - Fowler
 - Fresno
 - Kerman
 - Madera

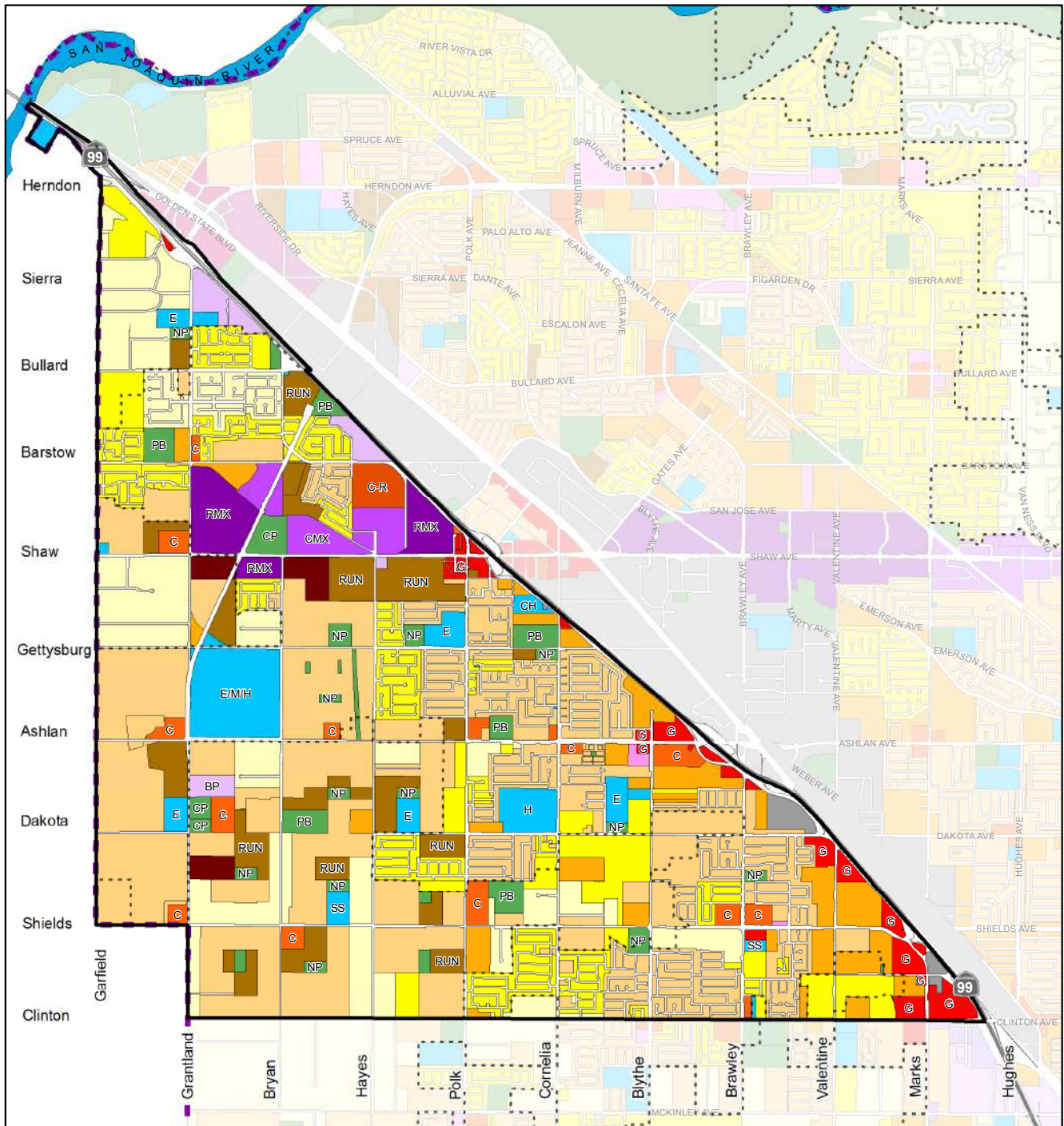


**CITY OF FRESNO
SPECIFIC PLAN OF THE WEST AREA**

Figure 2. Vicinity Map

Sources: Fresno County; Madera County, Cal Atlas. Map date: May 7, 2019.





BOUNDARIES

- City Limits
- West Area Specific Plan Boundary
- Sphere Of Influence

RESIDENTIAL

- Low Density (1-3.5 D.U./acre)
- Medium Low Density (3.5-6 D.U./acre)
- Medium Density (5.0-12 D.U./acre)
- Medium High Density (12-16 D.U./acre)
- Urban Neighborhood (16-30 D.U./acre)
- High Density (30-45 D.U./acre)

PUBLIC FACILITIES

- Public/Quasi-public Facility
- SS Special School
- E Elementary School
- E/M/H Elementary, Middle & High School
- H High School
- CH Church
- FS Fire Station

EMPLOYMENT

- Office
- BP Business Park
- Light Industrial

MIXED USE

- CMX Corridor/Center Mixed Use
- RMX Regional Mixed Use

OPEN SPACE

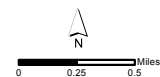
- CP Community Park
- PB Open Space - Ponding Basin
- NP Neighborhood Park
- Open Space
- P Park

COMMERCIAL

- Community
- Recreation
- General

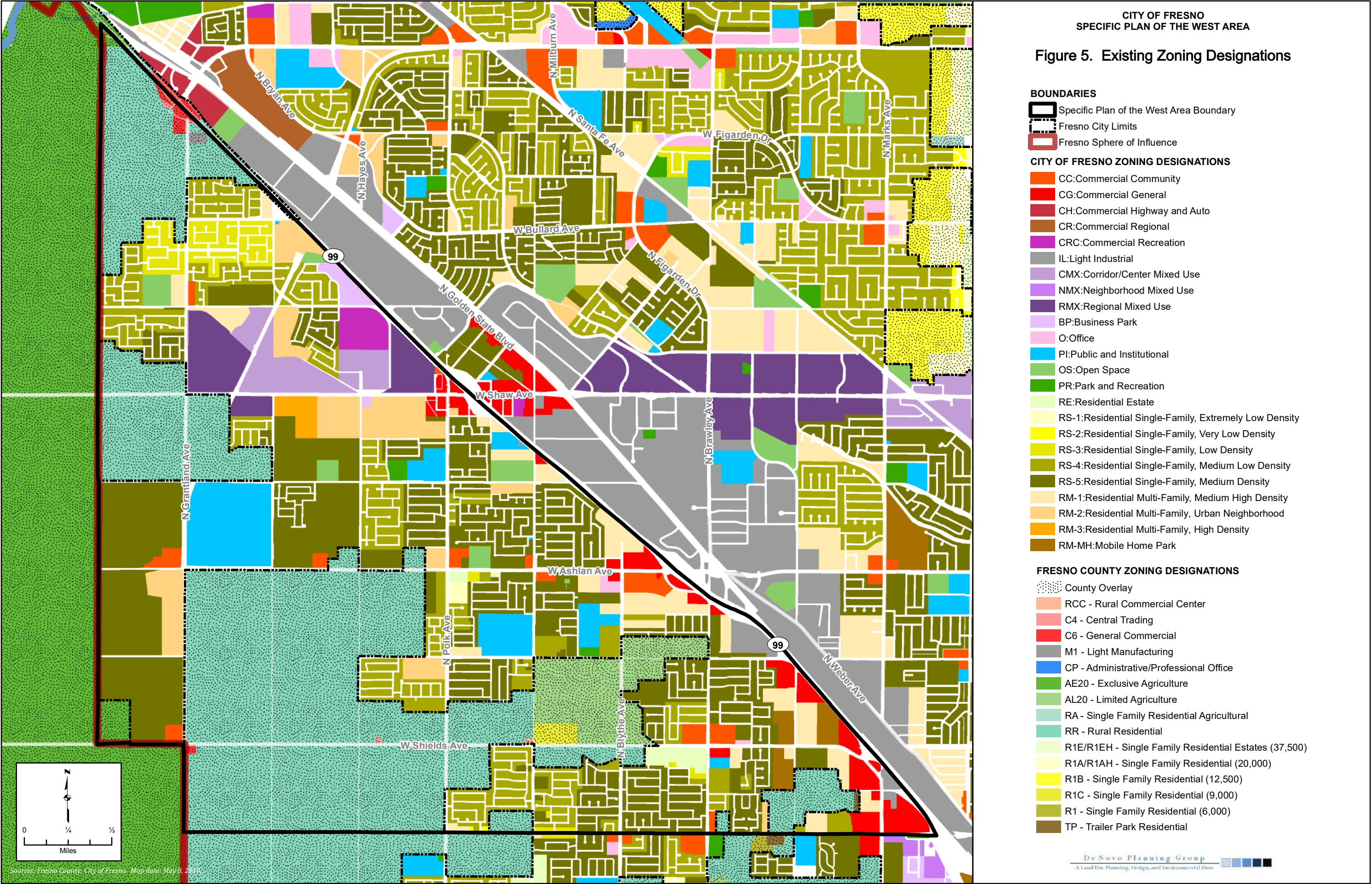
CITY OF FRESNO SPECIFIC PLAN OF THE WEST AREA

**Figure 4. Existing General
Plan Land Use Designations**



CITY OF FRESNO
SPECIFIC PLAN OF THE WEST AREA

Figure 5. Existing Zoning Designations



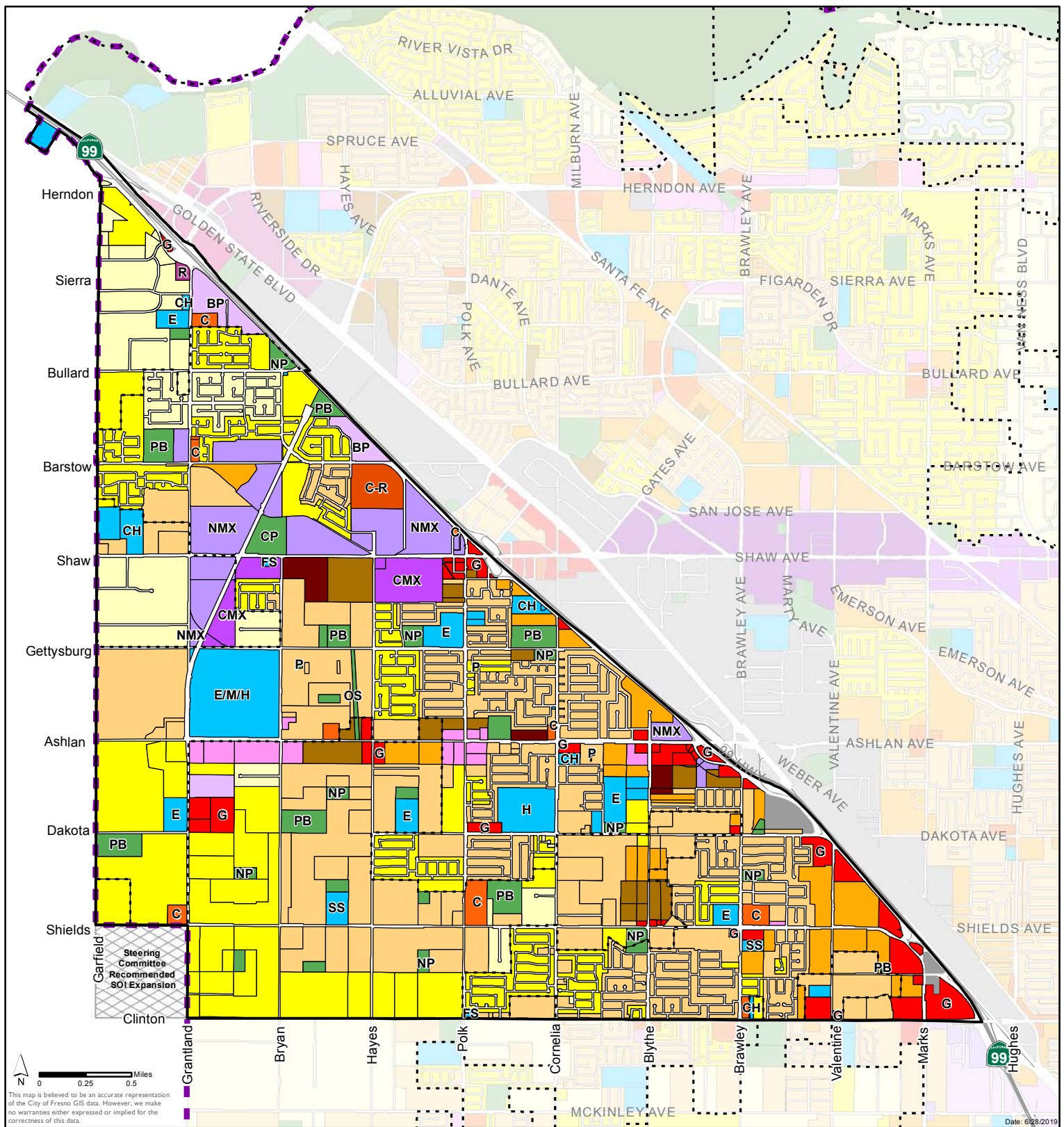


Figure 6. Proposed General Plan Land Use Designations

APPENDIX B

Criteria Air Pollutant, Greenhouse Gas, and Energy Modeling Results

CONTENTS

Appendix B.1: CalEEMod Outputs

Appendix B.2: Energy Outputs

Appendix B.3: Analysis of Models and Tools to Correlate Project-Generated Pollutants to Health End Points

APPENDIX B.1

CalEEMod Outputs

Fresno SPWA - Fresno County, Annual

Fresno SPWA
Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Fresno SPWA - Fresno County, Annual

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,810.00	Dwelling Unit	517.22	3,258,000.00	5177
Single Family Housing	8,564.00	Dwelling Unit	1,427.41	15,415,200.00	24493
Single Family Housing	25,100.00	Dwelling Unit	2,091.66	45,180,000.00	71786
Apartments Low Rise	4,458.00	Dwelling Unit	278.63	4,458,000.00	12750
Apartments Mid Rise	4,593.00	Dwelling Unit	153.10	4,593,000.00	13136
Apartments High Rise	2,097.00	Dwelling Unit	46.61	2,097,000.00	5997
Regional Shopping Center	2,515.59	1000sqft	57.75	2,515,590.00	0
Regional Shopping Center	900.39	1000sqft	41.34	900,385.00	0
Regional Shopping Center	18,800.50	1000sqft	215.80	18,800,496.00	0
Apartments Mid Rise	68.00	Dwelling Unit	1.79	68,000.00	194
General Office Building	7,165.62	1000sqft	82.25	7,165,620.00	0
Office Park	3,266.13	1000sqft	74.98	3,266,129.00	0
Regional Shopping Center	184.69	1000sqft	4.24	184,694.00	0
General Light Industry	1,427.46	1000sqft	32.77	1,427,461.00	0
Regional Shopping Center	20,195.29	1000sqft	309.08	20,195,287.00	0
Regional Shopping Center	6,293.55	1000sqft	96.32	6,293,549.00	0
City Park	243.63	Acre	243.63	10,612,522.80	0
Library	0.00	1000sqft	26.84	0.00	0
Place of Worship	758.91	1000sqft	60.14	758,910.00	0
Junior College (2Yr)	0.00	1000sqft	18.38	0.00	0
Elementary School	15,631.00	Student	91.83	1,306,804.28	0
Junior High School	7,815.00	Student	145.37	918,744.56	0
High School	9,815.00	Student	46.95	1,302,067.49	0
Library	0.00	1000sqft	3.32	0.00	0
Other Asphalt Surfaces	1,010.00	Acre	1,010.00	43,995,600.00	0

1.2 Other Project Characteristics

Fresno SPWA - Fresno County, Annual

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Buildout year = 2035 (note: consistent with traffic report from Kittelson). Assumes construction starts as early as March 1, 2021 (as conservative estimate).

Land Use - Land uses, unit amounts, and acreages are consistent with VMT analysis. Population est. based on 2.97 persons per du (consistent with the City's GP Housing Element). Shopping center uses assumed for mixed use (highest trip gen).

Construction Phase - Construction schedule assumed based on project characteristics. Actual construction schedule will depend on market conditions.

Demolition - Assumption of 1,000,000 sf of building square footage demolished. Actual demolition will depend on market conditions.

Grading - Assume Plan Area is graded.

Vehicle Trips - Operational mobile trip rates as provided by Kittelson & Associates (VMT Analysis).

Trips and VMT - Default values for construction trips and VMT

Woodstoves - No woodstoves per SJVAPCD Rule 4901.

Energy Use -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
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tblConstructionPhase	NumDays	6,000.00	65.00
tblConstructionPhase	NumDays	11,000.00	85.00
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tblConstructionPhase	NumDays	11,000.00	3,656.00
tblConstructionPhase	PhaseEndDate	6/27/2059	3/26/2021
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tblFireplaces	NumberNoFireplace	15,963.30	19,510.70
tblGrading	AcresOfGrading	162.50	7,077.00
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tblLandUse	LandUseSquareFeet	3,266,130.00	3,266,129.00
tblLandUse	LandUseSquareFeet	1,427,460.00	1,427,461.00
tblLandUse	LandUseSquareFeet	20,195,300.00	20,195,287.00
tblLandUse	LandUseSquareFeet	6,293,550.00	6,293,549.00
tblLandUse	LotAcreage	587.66	517.22
tblLandUse	LotAcreage	2,780.52	1,427.41
tblLandUse	LotAcreage	8,149.35	2,091.66
tblLandUse	LotAcreage	120.87	153.10
tblLandUse	LotAcreage	33.82	46.61

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tblLandUse	LotAcreage	20.67	41.34
tblLandUse	LotAcreage	431.60	215.80
tblLandUse	LotAcreage	164.50	82.25
tblLandUse	LotAcreage	463.62	309.08
tblLandUse	LotAcreage	144.48	96.32
tblLandUse	LotAcreage	17.42	60.14
tblLandUse	LotAcreage	30.00	91.83
tblLandUse	LotAcreage	21.09	145.37
tblLandUse	LotAcreage	29.89	46.95
tblLandUse	LotAcreage	0.00	18.38
tblLandUse	LotAcreage	0.00	26.84
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tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	ST_TR	0.00	1.60
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	ST_TR	10.37	5.21
tblVehicleTrips	SU_TR	3.65	3.34
tblVehicleTrips	SU_TR	6.07	5.49
tblVehicleTrips	SU_TR	5.86	4.08
tblVehicleTrips	SU_TR	8.62	7.08
tblVehicleTrips	SU_TR	25.24	12.46
tblVehicleTrips	SU_TR	0.68	3.72
tblVehicleTrips	SU_TR	1.05	7.31
tblVehicleTrips	SU_TR	0.76	5.21
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	0.00	1.42
tblVehicleTrips	SU_TR	0.25	1.52
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	SU_TR	0.00	1.60
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	SU_TR	36.63	5.21
tblVehicleTrips	WD_TR	4.20	3.34
tblVehicleTrips	WD_TR	6.59	5.49
tblVehicleTrips	WD_TR	6.65	4.08
tblVehicleTrips	WD_TR	9.52	7.08
tblVehicleTrips	WD_TR	42.70	12.46
tblVehicleTrips	WD_TR	6.97	3.72
tblVehicleTrips	WD_TR	11.03	7.31

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tblVehicleTrips	WD_TR	11.42	5.21
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	1.29	1.42
tblVehicleTrips	WD_TR	1.71	1.52
tblVehicleTrips	WD_TR	27.49	0.00
tblVehicleTrips	WD_TR	1.62	1.60
tblVehicleTrips	WD_TR	56.24	0.00
tblVehicleTrips	WD_TR	9.11	5.21
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	33.9694	293.7545	209.4875	1.0856	61.9020	1.8679	63.7700	16.7936	1.7745	18.5681	0.0000	101,058.1779	101,058.1779	8.5656	0.0000	101,272.3168
2021	46.0718	389.0586	275.5323	1.5438	94.6154	1.7146	96.3300	25.2131	1.6160	26.8291	0.0000	143,753.5164	143,753.5164	11.9907	0.0000	144,053.2848
2022	131.0966	365.8712	287.4536	1.6191	102.4712	1.4608	103.9320	27.7253	1.3777	29.1030	0.0000	150,529.0297	150,529.0297	11.5953	0.0000	150,818.9121
2023	124.3786	288.3532	256.9434	1.5690	102.4667	0.8342	103.3009	27.7241	0.7796	28.5037	0.0000	145,921.9249	145,921.9249	8.1747	0.0000	146,126.2917
2024	122.8681	286.3713	239.5917	1.5468	103.2553	0.8135	104.0688	27.9375	0.7601	28.6976	0.0000	143,929.6771	143,929.6771	8.1566	0.0000	144,133.5925
2025	120.2748	281.2971	221.6340	1.5078	102.8616	0.7860	103.6476	27.8310	0.7343	28.5654	0.0000	140,375.2440	140,375.2440	8.0344	0.0000	140,576.1039
2026	118.4711	277.7312	208.5360	1.4820	102.8620	0.7751	103.6371	27.8312	0.7241	28.5553	0.0000	138,019.4139	138,019.4139	7.9289	0.0000	138,217.6353
2027	116.7170	274.2725	195.6893	1.4557	102.8624	0.7499	103.6123	27.8313	0.7008	28.5321	0.0000	135,633.0955	135,633.0955	7.8184	0.0000	135,828.5548
2028	114.4693	270.5286	183.8922	1.4274	102.4686	0.7158	103.1844	27.7248	0.6692	28.3940	0.0000	133,051.3790	133,051.3790	7.6612	0.0000	133,242.9101
2029	113.0134	268.9554	174.1904	1.4128	102.8630	0.6886	103.5517	27.8316	0.6441	28.4757	0.0000	131,732.5749	131,732.5749	7.5537	0.0000	131,921.4165
2030	111.1402	266.0176	164.9095	1.3958	102.8633	0.6073	103.4706	27.8317	0.5690	28.4006	0.0000	130,187.2965	130,187.2965	7.3579	0.0000	130,371.2448
2031	109.1778	263.9639	156.1351	1.3808	102.8635	0.5815	103.4450	27.8317	0.5451	28.3769	0.0000	128,821.9942	128,821.9942	7.2436	0.0000	129,003.0830
2032	107.8353	263.2006	149.0522	1.3734	103.2579	0.5597	103.8175	27.9384	0.5251	28.4635	0.0000	128,168.2124	128,168.2124	7.1785	0.0000	128,347.6747
2033	105.5094	259.7060	141.3687	1.3522	102.4698	0.5338	103.0036	27.7252	0.5011	28.2264	0.0000	126,225.5881	126,225.5881	7.0242	0.0000	126,401.1928
2034	104.3121	258.4726	135.5110	1.3432	102.4700	0.5140	102.9839	27.7253	0.4828	28.2081	0.0000	125,417.5984	125,417.5984	6.9458	0.0000	125,591.2423
2035	85.8113	2.2523	16.7508	0.0890	13.9395	0.0444	13.9838	3.7069	0.0409	3.7478	0.0000	8,076.9828	8,076.9828	0.1026	0.0000	8,079.5468
Maximum	131.0966	389.0586	287.4536	1.6191	103.2579	1.8679	104.0688	27.9384	1.7745	29.1030	0.0000	150,529.0297	150,529.0297	11.9907	0.0000	150,818.9121

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2.1 Overall Construction

Mitigated Construction

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	33.9694	293.7545	209.4875	1.0856	61.9020	1.8679	63.7700	16.7936	1.7745	18.5681	0.0000	101,058.1776	101,058.1776	8.5656	0.0000	101,272.3165
2021	46.0718	389.0586	275.5323	1.5438	91.8502	1.7146	93.5648	24.7126	1.6160	26.3285	0.0000	143,753.5155	143,753.5155	11.9907	0.0000	144,053.2839
2022	131.0966	365.8712	287.4536	1.6191	102.4712	1.4608	103.9320	27.7253	1.3777	29.1030	0.0000	150,529.0292	150,529.0292	11.5953	0.0000	150,818.9116
2023	124.3786	288.3532	256.9434	1.5690	102.4667	0.8342	103.3009	27.7241	0.7796	28.5037	0.0000	145,921.9245	145,921.9245	8.1747	0.0000	146,126.2913
2024	122.8681	286.3713	239.5917	1.5468	103.2553	0.8135	104.0688	27.9375	0.7601	28.6976	0.0000	143,929.6767	143,929.6767	8.1566	0.0000	144,133.5921
2025	120.2748	281.2971	221.6340	1.5078	102.8616	0.7860	103.6476	27.8310	0.7343	28.5654	0.0000	140,375.2436	140,375.2436	8.0344	0.0000	140,576.1035
2026	118.4711	277.7312	208.5360	1.4820	102.8620	0.7751	103.6371	27.8312	0.7241	28.5553	0.0000	138,019.4135	138,019.4135	7.9289	0.0000	138,217.6349
2027	116.7170	274.2725	195.6893	1.4557	102.8624	0.7499	103.6123	27.8313	0.7008	28.5321	0.0000	135,633.0951	135,633.0951	7.8184	0.0000	135,828.5544
2028	114.4693	270.5286	183.8922	1.4274	102.4686	0.7158	103.1844	27.7248	0.6692	28.3940	0.0000	133,051.3786	133,051.3786	7.6612	0.0000	133,242.9097
2029	113.0134	268.9554	174.1904	1.4128	102.8630	0.6886	103.5517	27.8316	0.6441	28.4757	0.0000	131,732.5745	131,732.5745	7.5537	0.0000	131,921.4161
2030	111.1402	266.0176	164.9095	1.3958	102.8633	0.6073	103.4706	27.8317	0.5690	28.4006	0.0000	130,187.2961	130,187.2961	7.3579	0.0000	130,371.2444
2031	109.1778	263.9639	156.1351	1.3808	102.8635	0.5815	103.4450	27.8317	0.5451	28.3769	0.0000	128,821.9937	128,821.9937	7.2436	0.0000	129,003.0826
2032	107.8353	263.2006	149.0522	1.3734	103.2579	0.5597	103.8175	27.9384	0.5251	28.4635	0.0000	128,168.2120	128,168.2120	7.1785	0.0000	128,347.6743
2033	105.5094	259.7060	141.3687	1.3522	102.4698	0.5338	103.0036	27.7252	0.5011	28.2264	0.0000	126,225.5877	126,225.5877	7.0242	0.0000	126,401.1923
2034	104.3121	258.4726	135.5110	1.3432	102.4700	0.5140	102.9839	27.7253	0.4828	28.2081	0.0000	125,417.5979	125,417.5979	6.9458	0.0000	125,591.2418
2035	85.8113	2.2523	16.7508	0.0890	13.9395	0.0444	13.9838	3.7069	0.0409	3.7478	0.0000	8,076.9827	8,076.9827	0.1026	0.0000	8,079.5467
Maximum	131.0966	389.0586	287.4536	1.6191	103.2579	1.8679	104.0688	27.9384	1.7745	29.1030	0.0000	150,529.0292	150,529.0292	11.9907	0.0000	150,818.9116

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.18	0.00	0.18	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	3-1-2021	5-31-2021	109.8220	109.8220
2	6-1-2021	8-31-2021	109.1470	109.1470
3	9-1-2021	11-30-2021	108.1750	108.1750
4	12-1-2021	2-28-2022	120.4846	120.4846
5	3-1-2022	5-31-2022	126.2386	126.2386
6	6-1-2022	8-31-2022	125.1211	125.1211
7	9-1-2022	11-30-2022	124.3415	124.3415
8	12-1-2022	2-28-2023	109.8559	109.8559
9	3-1-2023	5-31-2023	104.7775	104.7775
10	6-1-2023	8-31-2023	104.6141	104.6141
11	9-1-2023	11-30-2023	103.7986	103.7986
12	12-1-2023	2-29-2024	102.8211	102.8211
13	3-1-2024	5-31-2024	103.0529	103.0529
14	6-1-2024	8-31-2024	102.8980	102.8980
15	9-1-2024	11-30-2024	102.0844	102.0844
16	12-1-2024	2-28-2025	100.0865	100.0865
17	3-1-2025	5-31-2025	101.4734	101.4734
18	6-1-2025	8-31-2025	101.3275	101.3275
19	9-1-2025	11-30-2025	100.5132	100.5132
20	12-1-2025	2-28-2026	98.6503	98.6503
21	3-1-2026	5-31-2026	100.0853	100.0853
22	6-1-2026	8-31-2026	99.9455	99.9455
23	9-1-2026	11-30-2026	99.1341	99.1341

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24	12-1-2026	2-28-2027	97.3059	97.3059
25	3-1-2027	5-31-2027	98.7390	98.7390
26	6-1-2027	8-31-2027	98.6065	98.6065
27	9-1-2027	11-30-2027	97.7953	97.7953
28	12-1-2027	2-29-2028	97.1506	97.1506
29	3-1-2028	5-31-2028	97.5660	97.5660
30	6-1-2028	8-31-2028	97.4397	97.4397
31	9-1-2028	11-30-2028	96.6290	96.6290
32	12-1-2028	2-28-2029	94.9271	94.9271
33	3-1-2029	5-31-2029	96.3913	96.3913
34	6-1-2029	8-31-2029	96.2712	96.2712
35	9-1-2029	11-30-2029	95.4612	95.4612
36	12-1-2029	2-28-2030	93.7179	93.7179
37	3-1-2030	5-31-2030	95.1402	95.1402
38	6-1-2030	8-31-2030	95.0256	95.0256
39	9-1-2030	11-30-2030	94.2183	94.2183
40	12-1-2030	2-28-2031	92.6094	92.6094
41	3-1-2031	5-31-2031	94.0867	94.0867
42	6-1-2031	8-31-2031	93.9780	93.9780
43	9-1-2031	11-30-2031	93.1703	93.1703
44	12-1-2031	2-29-2032	92.6652	92.6652
45	3-1-2032	5-31-2032	93.1611	93.1611
46	6-1-2032	8-31-2032	93.0575	93.0575
47	9-1-2032	11-30-2032	92.2498	92.2498
48	12-1-2032	2-28-2033	90.8236	90.8236
49	3-1-2033	5-31-2033	92.3712	92.3712
50	6-1-2033	8-31-2033	92.2717	92.2717

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51	9-1-2033	11-30-2033	91.4646	91.4646
52	12-1-2033	2-28-2034	90.1403	90.1403
53	3-1-2034	5-31-2034	91.7258	91.7258
54	6-1-2034	8-31-2034	91.6267	91.6267
55	9-1-2034	11-30-2034	90.8258	90.8258
56	12-1-2034	2-28-2035	45.8234	45.8234
57	3-1-2035	5-31-2035	21.9675	21.9675
58	6-1-2035	8-31-2035	21.9609	21.9609
59	9-1-2035	9-30-2035	7.1612	7.1612
		Highest	126.2386	126.2386

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	682.4791	49.7412	365.8045	0.3104		5.6244	5.6244		5.6244	5.6244	0.0000	53,548.8404	53,548.8404	1.5590	0.9713	53,877.2665
Energy	10.2345	89.8859	55.0159	0.5583		7.0711	7.0711		7.0711	7.0711	0.0000	365,420.0277	365,420.0277	13.8847	4.3280	367,056.8766
Mobile	191.9281	3,044.9622	1,879.5865	16.4121	1,179.9408	6.2605	1,186.2013	317.7573	5.8824	323.6397	0.0000	1,536,405.1288	1,536,405.1288	112.2711	0.0000	1,539,211.9062
Waste						0.0000	0.0000		0.0000	0.0000	23,324.9770	0.0000	23,324.9770	1,378.4667	0.0000	57,786.6433
Water						0.0000	0.0000		0.0000	0.0000	2,846.2240	20,087.2080	22,933.4321	293.2428	7.0906	32,377.4923
Total	884.6418	3,184.5893	2,300.4068	17.2808	1,179.9408	18.9560	1,198.8968	317.7573	18.5779	336.3352	26,171.2011	1,975,461.2049	2,001,632.4060	1,799.4242	12.3899	2,050,310.1849

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	682.4791	49.7412	365.8045	0.3104		5.6244	5.6244		5.6244	5.6244	0.0000	53,548.8404	53,548.8404	1.5590	0.9713	53,877.2665
Energy	10.2345	89.8859	55.0159	0.5583		7.0711	7.0711		7.0711	7.0711	0.0000	365,420.0277	365,420.0277	13.8847	4.3280	367,056.8766
Mobile	191.9281	3,044.9622	1,879.5865	16.4121	1,179.9408	6.2605	1,186.2013	317.7573	5.8824	323.6397	0.0000	1,536,405.1288	1,536,405.1288	112.2711	0.0000	1,539,211.9062
Waste						0.0000	0.0000		0.0000	0.0000	23,324.9770	0.0000	23,324.9770	1,378.4667	0.0000	57,786.6433
Water						0.0000	0.0000		0.0000	0.0000	2,846.2240	20,087.2080	22,933.4321	293.2428	7.0906	32,377.4923
Total	884.6418	3,184.5893	2,300.4068	17.2808	1,179.9408	18.9560	1,198.8968	317.7573	18.5779	336.3352	26,171.2011	1,975,461.2049	2,001,632.4060	1,799.4242	12.3899	2,050,310.1849

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/23/2020	1/1/2035	5	3833	
2	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
3	Site Preparation	Site Preparation	3/27/2021	6/25/2021	5	65	
4	Grading	Grading	6/26/2021	9/24/2021	5	65	
5	Underground Utilities	Trenching	9/25/2021	12/24/2021	5	65	
6	Paving	Paving	12/25/2021	4/22/2022	5	85	
7	Architectural Coating	Architectural Coating	12/25/2021	12/31/2035	5	3656	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7077

Acres of Paving: 1010

**Residential Indoor: 152,015,130; Residential Outdoor: 50,671,710; Non-Residential Indoor: 97,553,606; Non-Residential Outdoor: 32,517,869;
Striped Parking Area: 2,639,736 (Architectural Coating – sqft)**

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Scrapers	2	8.00	367	0.48
Underground Utilities	Pavers	2	8.00	130	0.42
Underground Utilities	Paving Equipment	2	8.00	132	0.36
Underground Utilities	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Underground Utilities	Pavers	2	8.00	130	0.42
Underground Utilities	Paving Equipment	2	8.00	132	0.36
Underground Utilities	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4,548.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	12	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13,033.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	65,164.00	24,601.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	12	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

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3.2 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1919	1.7363	1.5248	2.4400e-003		0.1011	0.1011		0.0951	0.0951	0.0000	209.6070	209.6070	0.0511	0.0000	210.8855
Total	0.1919	1.7363	1.5248	2.4400e-003		0.1011	0.1011		0.0951	0.0951	0.0000	209.6070	209.6070	0.0511	0.0000	210.8855

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.3203	275.8707	44.0529	0.6315	14.7545	1.4636	16.2181	4.2622	1.4002	5.6624	0.0000	60,042.5798	60,042.5798	7.4210	0.0000	60,228.1057
Worker	25.4572	16.1475	163.9098	0.4517	47.1476	0.3032	47.4508	12.5314	0.2793	12.8107	0.0000	40,805.9911	40,805.9911	1.0934	0.0000	40,833.3256
Total	33.7776	292.0182	207.9627	1.0832	61.9020	1.7668	63.6689	16.7936	1.6794	18.4730	0.0000	100,848.5708	100,848.5708	8.5144	0.0000	101,061.4313

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3.2 Building Construction - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1919	1.7363	1.5248	2.4400e-003		0.1011	0.1011		0.0951	0.0951	0.0000	209.6068	209.6068	0.0511	0.0000	210.8852
Total	0.1919	1.7363	1.5248	2.4400e-003		0.1011	0.1011		0.0951	0.0951	0.0000	209.6068	209.6068	0.0511	0.0000	210.8852

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.3203	275.8707	44.0529	0.6315	14.7545	1.4636	16.2181	4.2622	1.4002	5.6624	0.0000	60,042.5798	60,042.5798	7.4210	0.0000	60,228.1057
Worker	25.4572	16.1475	163.9098	0.4517	47.1476	0.3032	47.4508	12.5314	0.2793	12.8107	0.0000	40,805.9911	40,805.9911	1.0934	0.0000	40,833.3256
Total	33.7776	292.0182	207.9627	1.0832	61.9020	1.7668	63.6689	16.7936	1.6794	18.4730	0.0000	100,848.5708	100,848.5708	8.5144	0.0000	101,061.4313

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3.2 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7003	361.3784	55.0571	0.9020	21.2763	0.9701	22.2464	6.1462	0.9280	7.0742	0.0000	85,765.43 47	85,765.43 47	10.3484	0.0000	86,024.14 38
Worker	33.9150	20.7169	214.4470	0.6287	67.9863	0.4232	68.4095	18.0702	0.3897	18.4598	0.0000	56,825.37 71	56,825.37 71	1.4031	0.0000	56,860.45 46
Total	43.6153	382.0953	269.5041	1.5308	89.2625	1.3933	90.6559	24.2164	1.3177	25.5341	0.0000	142,590.8 118	142,590.8 118	11.7515	0.0000	142,884.5 984

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3.2 Building Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	9.7003	361.3784	55.0571	0.9020	21.2763	0.9701	22.2464	6.1462	0.9280	7.0742	0.0000	85,765.43 47	85,765.43 47	10.3484	0.0000	86,024.14 38
Worker	33.9150	20.7169	214.4470	0.6287	67.9863	0.4232	68.4095	18.0702	0.3897	18.4598	0.0000	56,825.37 71	56,825.37 71	1.4031	0.0000	56,860.45 46
Total	43.6153	382.0953	269.5041	1.5308	89.2625	1.3933	90.6559	24.2164	1.3177	25.5341	0.0000	142,590.8 118	142,590.8 118	11.7515	0.0000	142,884.5 984

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3.2 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.9922	341.1029	50.7842	0.8900	21.1953	0.8310	22.0263	6.1229	0.7949	6.9178	0.0000	84,621.2534	84,621.2534	9.9989	0.0000	84,871.2267
Worker	31.3735	18.4240	194.7574	0.6036	67.7258	0.4094	68.1351	18.0009	0.3769	18.3778	0.0000	54,574.3318	54,574.3318	1.2467	0.0000	54,605.4991
Total	40.3657	359.5269	245.5415	1.4936	88.9211	1.2404	90.1614	24.1238	1.1718	25.2956	0.0000	139,195.5851	139,195.5851	11.2456	0.0000	139,476.7258

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3.2 Building Construction - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.9922	341.1029	50.7842	0.8900	21.1953	0.8310	22.0263	6.1229	0.7949	6.9178	0.0000	84,621.2534	84,621.2534	9.9989	0.0000	84,871.2267
Worker	31.3735	18.4240	194.7574	0.6036	67.7258	0.4094	68.1351	18.0009	0.3769	18.3778	0.0000	54,574.3318	54,574.3318	1.2467	0.0000	54,605.4991
Total	40.3657	359.5269	245.5415	1.4936	88.9211	1.2404	90.1614	24.1238	1.1718	25.2956	0.0000	139,195.5851	139,195.5851	11.2456	0.0000	139,476.7258

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3.2 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1627	266.5284	41.2198	0.8682	21.1955	0.2554	21.4510	6.1229	0.2443	6.3672	0.0000	82,553.7765	82,553.7765	6.7663	0.0000	82,722.9346
Worker	29.2254	16.4877	177.8133	0.5808	67.7258	0.3989	68.1246	18.0009	0.3671	18.3681	0.0000	52,527.8739	52,527.8739	1.1122	0.0000	52,555.6797
Total	35.3880	283.0162	219.0330	1.4490	88.9213	0.6543	89.5756	24.1239	0.6114	24.7353	0.0000	135,081.6504	135,081.6504	7.8786	0.0000	135,278.6142

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3.2 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.1627	266.5284	41.2198	0.8682	21.1955	0.2554	21.4510	6.1229	0.2443	6.3672	0.0000	82,553.7765	82,553.7765	6.7663	0.0000	82,722.9346
Worker	29.2254	16.4877	177.8133	0.5808	67.7258	0.3989	68.1246	18.0009	0.3671	18.3681	0.0000	52,527.8739	52,527.8739	1.1122	0.0000	52,555.6797
Total	35.3880	283.0162	219.0330	1.4490	88.9213	0.6543	89.5756	24.1239	0.6114	24.7353	0.0000	135,081.6504	135,081.6504	7.8786	0.0000	135,278.6142

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3.2 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7223	303.7223	0.0718	0.0000	305.5179

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0451	266.5354	39.5055	0.8681	21.3590	0.2547	21.6136	6.1702	0.2436	6.4137	0.0000	82,555.5158	82,555.5158	6.8791	0.0000	82,727.4932
Worker	27.5438	14.9292	164.7756	0.5623	68.2467	0.3921	68.6388	18.1394	0.3609	18.5003	0.0000	50,864.0294	50,864.0294	1.0032	0.0000	50,889.1088
Total	33.5889	281.4646	204.2811	1.4304	89.6057	0.6468	90.2525	24.3096	0.6044	24.9140	0.0000	133,419.5452	133,419.5452	7.8823	0.0000	133,616.6020

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3.2 Building Construction - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175
Total	0.1928	1.7611	2.1179	3.5300e-003		0.0803	0.0803		0.0756	0.0756	0.0000	303.7220	303.7220	0.0718	0.0000	305.5175

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.0451	266.5354	39.5055	0.8681	21.3590	0.2547	21.6136	6.1702	0.2436	6.4137	0.0000	82,555.5158	82,555.5158	6.8791	0.0000	82,727.4932
Worker	27.5438	14.9292	164.7756	0.5623	68.2467	0.3921	68.6388	18.1394	0.3609	18.5003	0.0000	50,864.0294	50,864.0294	1.0032	0.0000	50,889.1088
Total	33.5889	281.4646	204.2811	1.4304	89.6057	0.6468	90.2525	24.3096	0.6044	24.9140	0.0000	133,419.5452	133,419.5452	7.8823	0.0000	133,616.6020

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3.2 Building Construction - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.8850	263.3982	37.8062	0.8587	21.2779	0.2509	21.5287	6.1468	0.2399	6.3867	0.0000	81,655.0860	81,655.0860	6.8815	0.0000	81,827.1226
Worker	25.7950	13.4351	151.2435	0.5377	67.9863	0.3830	68.3693	18.0702	0.3525	18.4226	0.0000	48,653.3615	48,653.3615	0.9000	0.0000	48,675.8608
Total	31.6800	276.8333	189.0497	1.3964	89.2641	0.6339	89.8980	24.2169	0.5924	24.8093	0.0000	130,308.4476	130,308.4476	7.7814	0.0000	130,502.9834

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3.2 Building Construction - 2025**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.8850	263.3982	37.8062	0.8587	21.2779	0.2509	21.5287	6.1468	0.2399	6.3867	0.0000	81,655.0860	81,655.0860	6.8815	0.0000	81,827.1226
Worker	25.7950	13.4351	151.2435	0.5377	67.9863	0.3830	68.3693	18.0702	0.3525	18.4226	0.0000	48,653.3615	48,653.3615	0.9000	0.0000	48,675.8608
Total	31.6800	276.8333	189.0497	1.3964	89.2641	0.6339	89.8980	24.2169	0.5924	24.8093	0.0000	130,308.4476	130,308.4476	7.7814	0.0000	130,502.9834

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3.2 Building Construction - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7652	261.2514	36.5521	0.8531	21.2783	0.2477	21.5260	6.1469	0.2369	6.3838	0.0000	81,128.5230	81,128.5230	6.8653	0.0000	81,300.1555
Worker	24.3918	12.2525	141.3735	0.5208	67.9863	0.3765	68.3628	18.0702	0.3464	18.4166	0.0000	47,128.9761	47,128.9761	0.8255	0.0000	47,149.6135
Total	30.1570	273.5039	177.9257	1.3739	89.2645	0.6242	89.8888	24.2171	0.5833	24.8004	0.0000	128,257.4992	128,257.4992	7.6908	0.0000	128,449.7690

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3.2 Building Construction - 2026**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.7652	261.2514	36.5521	0.8531	21.2783	0.2477	21.5260	6.1469	0.2369	6.3838	0.0000	81,128.5230	81,128.5230	6.8653	0.0000	81,300.1555
Worker	24.3918	12.2525	141.3735	0.5208	67.9863	0.3765	68.3628	18.0702	0.3464	18.4166	0.0000	47,128.9761	47,128.9761	0.8255	0.0000	47,149.6135
Total	30.1570	273.5039	177.9257	1.3739	89.2645	0.6242	89.8888	24.2171	0.5833	24.8004	0.0000	128,257.4992	128,257.4992	7.6908	0.0000	128,449.7690

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3.2 Building Construction - 2027**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6657	259.0861	35.5515	0.8483	21.2786	0.2444	21.5231	6.1471	0.2338	6.3808	0.0000	80,670.9855	80,670.9855	6.8462	0.0000	80,842.1397
Worker	23.0130	11.1746	131.5019	0.5029	67.9863	0.3583	68.3445	18.0702	0.3296	18.3998	0.0000	45,521.6629	45,521.6629	0.7494	0.0000	45,540.3971
Total	28.6787	270.2608	167.0534	1.3512	89.2649	0.6027	89.8676	24.2172	0.5634	24.7806	0.0000	126,192.6484	126,192.6484	7.5955	0.0000	126,382.5367

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3.2 Building Construction - 2027**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6657	259.0861	35.5515	0.8483	21.2786	0.2444	21.5231	6.1471	0.2338	6.3808	0.0000	80,670.9855	80,670.9855	6.8462	0.0000	80,842.1397
Worker	23.0130	11.1746	131.5019	0.5029	67.9863	0.3583	68.3445	18.0702	0.3296	18.3998	0.0000	45,521.6629	45,521.6629	0.7494	0.0000	45,540.3971
Total	28.6787	270.2608	167.0534	1.3512	89.2649	0.6027	89.8676	24.2172	0.5634	24.7806	0.0000	126,192.6484	126,192.6484	7.5955	0.0000	126,382.5367

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3.2 Building Construction - 2028**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671
Total	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4953	301.4953	0.0709	0.0000	303.2671

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5652	256.5462	34.6548	0.8412	21.1975	0.2412	21.4387	6.1236	0.2306	6.3543	0.0000	80,001.5546	80,001.5546	6.7708	0.0000	80,170.8253
Worker	21.4900	10.1770	122.4257	0.4853	67.7258	0.3328	68.0586	18.0009	0.3062	18.3071	0.0000	43,929.1684	43,929.1684	0.6814	0.0000	43,946.2044
Total	27.0552	266.7232	157.0805	1.3265	88.9233	0.5740	89.4972	24.1246	0.5368	24.6614	0.0000	123,930.7229	123,930.7229	7.4523	0.0000	124,117.0297

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3.2 Building Construction - 2028**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667
Total	0.1778	1.6211	2.0910	3.5000e-003		0.0686	0.0686		0.0645	0.0645	0.0000	301.4949	301.4949	0.0709	0.0000	303.2667

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5652	256.5462	34.6548	0.8412	21.1975	0.2412	21.4387	6.1236	0.2306	6.3543	0.0000	80,001.5546	80,001.5546	6.7708	0.0000	80,170.8253
Worker	21.4900	10.1770	122.4257	0.4853	67.7258	0.3328	68.0586	18.0009	0.3062	18.3071	0.0000	43,929.1684	43,929.1684	0.6814	0.0000	43,946.2044
Total	27.0552	266.7232	157.0805	1.3265	88.9233	0.5740	89.4972	24.1246	0.5368	24.6614	0.0000	123,930.7229	123,930.7229	7.4523	0.0000	124,117.0297

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3.2 Building Construction - 2029**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335
Total	0.1785	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6549	302.6549	0.0711	0.0000	304.4335

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5137	255.9705	34.1021	0.8411	21.2793	0.2394	21.5187	6.1473	0.2289	6.3762	0.0000	79,990.2869	79,990.2869	6.7329	0.0000	80,158.6083
Worker	20.0533	9.3401	114.7940	0.4731	67.9863	0.3114	68.2977	18.0702	0.2865	18.3566	0.0000	42,838.4847	42,838.4847	0.6232	0.0000	42,854.0648
Total	25.5670	265.3106	148.8961	1.3142	89.2656	0.5508	89.8164	24.2175	0.5154	24.7328	0.0000	122,828.7716	122,828.7716	7.3561	0.0000	123,012.6731

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3.2 Building Construction - 2029**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331
Total	0.1784	1.6273	2.0991	3.5200e-003		0.0689	0.0689		0.0648	0.0648	0.0000	302.6545	302.6545	0.0711	0.0000	304.4331

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.5137	255.9705	34.1021	0.8411	21.2793	0.2394	21.5187	6.1473	0.2289	6.3762	0.0000	79,990.2869	79,990.2869	6.7329	0.0000	80,158.6083
Worker	20.0533	9.3401	114.7940	0.4731	67.9863	0.3114	68.2977	18.0702	0.2865	18.3566	0.0000	42,838.4847	42,838.4847	0.6232	0.0000	42,854.0648
Total	25.5670	265.3106	148.8961	1.3142	89.2656	0.5508	89.8164	24.2175	0.5154	24.7328	0.0000	122,828.7716	122,828.7716	7.3561	0.0000	123,012.6731

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3.2 Building Construction - 2030**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4552	254.6141	33.5748	0.8385	21.2796	0.2367	21.5163	6.1474	0.2264	6.3738	0.0000	79,739.3384	79,739.3384	6.6601	0.0000	79,905.8403
Worker	18.5517	8.5469	107.4927	0.4608	67.9863	0.2905	68.2767	18.0702	0.2672	18.3373	0.0000	41,726.2304	41,726.2304	0.5690	0.0000	41,740.4542
Total	24.0069	263.1610	141.0675	1.2992	89.2659	0.5272	89.7930	24.2176	0.4936	24.7111	0.0000	121,465.5688	121,465.5688	7.2290	0.0000	121,646.2945

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3.2 Building Construction - 2030**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4552	254.6141	33.5748	0.8385	21.2796	0.2367	21.5163	6.1474	0.2264	6.3738	0.0000	79,739.3384	79,739.3384	6.6601	0.0000	79,905.8403
Worker	18.5517	8.5469	107.4927	0.4608	67.9863	0.2905	68.2767	18.0702	0.2672	18.3373	0.0000	41,726.2304	41,726.2304	0.5690	0.0000	41,740.4542
Total	24.0069	263.1610	141.0675	1.2992	89.2659	0.5272	89.7930	24.2176	0.4936	24.7111	0.0000	121,465.5688	121,465.5688	7.2290	0.0000	121,646.2945

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3.2 Building Construction - 2031**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777
Total	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0336	343.0336	0.0138	0.0000	343.3777

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4109	253.4596	33.1733	0.8365	21.2798	0.2346	21.5145	6.1475	0.2244	6.3719	0.0000	79,548.1846	79,548.1846	6.6065	0.0000	79,713.3476
Worker	16.9533	7.7976	100.5154	0.4499	67.9863	0.2707	68.2570	18.0702	0.2490	18.3191	0.0000	40,747.7758	40,747.7758	0.5183	0.0000	40,760.7324
Total	22.3642	261.2571	133.6886	1.2863	89.2661	0.5053	89.7714	24.2176	0.4734	24.6910	0.0000	120,295.9604	120,295.9604	7.1248	0.0000	120,474.0801

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3.2 Building Construction - 2031**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773
Total	0.1708	1.0355	2.1085	4.0400e-003		0.0193	0.0193		0.0193	0.0193	0.0000	343.0332	343.0332	0.0138	0.0000	343.3773

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4109	253.4596	33.1733	0.8365	21.2798	0.2346	21.5145	6.1475	0.2244	6.3719	0.0000	79,548.1846	79,548.1846	6.6065	0.0000	79,713.3476
Worker	16.9533	7.7976	100.5154	0.4499	67.9863	0.2707	68.2570	18.0702	0.2490	18.3191	0.0000	40,747.7758	40,747.7758	0.5183	0.0000	40,760.7324
Total	22.3642	261.2571	133.6886	1.2863	89.2661	0.5053	89.7714	24.2176	0.4734	24.6910	0.0000	120,295.9604	120,295.9604	7.1248	0.0000	120,474.0801

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3.2 Building Construction - 2032**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933
Total	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3479	344.3479	0.0138	0.0000	344.6933

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3964	253.4317	32.9958	0.8384	21.3616	0.2335	21.5950	6.1711	0.2233	6.3944	0.0000	79,735.0655	79,735.0655	6.5920	0.0000	79,899.8655
Worker	15.5802	7.1811	94.7534	0.4421	68.2467	0.2535	68.5002	18.1394	0.2331	18.3725	0.0000	40,046.0237	40,046.0237	0.4761	0.0000	40,057.9262
Total	20.9767	260.6127	127.7492	1.2805	89.6083	0.4869	90.0952	24.3105	0.4564	24.7669	0.0000	119,781.0892	119,781.0892	7.0681	0.0000	119,957.7918

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3.2 Building Construction - 2032**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929
Total	0.1715	1.0394	2.1166	4.0600e-003		0.0194	0.0194		0.0194	0.0194	0.0000	344.3475	344.3475	0.0138	0.0000	344.6929

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3964	253.4317	32.9958	0.8384	21.3616	0.2335	21.5950	6.1711	0.2233	6.3944	0.0000	79,735.0655	79,735.0655	6.5920	0.0000	79,899.8655
Worker	15.5802	7.1811	94.7534	0.4421	68.2467	0.2535	68.5002	18.1394	0.2331	18.3725	0.0000	40,046.0237	40,046.0237	0.4761	0.0000	40,057.9262
Total	20.9767	260.6127	127.7492	1.2805	89.6083	0.4869	90.0952	24.3105	0.4564	24.7669	0.0000	119,781.0892	119,781.0892	7.0681	0.0000	119,957.7918

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3.2 Building Construction - 2033**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621
Total	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3307	250.6631	32.5194	0.8312	21.1987	0.2300	21.4287	6.1241	0.2200	6.3441	0.0000	79,048.9103	79,048.9103	6.4873	0.0000	79,211.0917
Worker	14.2296	6.5833	88.7625	0.4305	67.7258	0.2349	67.9607	18.0009	0.2161	18.2170	0.0000	39,001.3721	39,001.3721	0.4349	0.0000	39,012.2445
Total	19.5602	257.2465	121.2818	1.2617	88.9245	0.4649	89.3894	24.1250	0.4360	24.5610	0.0000	118,050.2824	118,050.2824	6.9222	0.0000	118,223.3362

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3.2 Building Construction - 2033**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617
Total	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3307	250.6631	32.5194	0.8312	21.1987	0.2300	21.4287	6.1241	0.2200	6.3441	0.0000	79,048.9103	79,048.9103	6.4873	0.0000	79,211.0917
Worker	14.2296	6.5833	88.7625	0.4305	67.7258	0.2349	67.9607	18.0009	0.2161	18.2170	0.0000	39,001.3721	39,001.3721	0.4349	0.0000	39,012.2445
Total	19.5602	257.2465	121.2818	1.2617	88.9245	0.4649	89.3894	24.1250	0.4360	24.5610	0.0000	118,050.2824	118,050.2824	6.9222	0.0000	118,223.3362

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3.2 Building Construction - 2034**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621
Total	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7193	341.7193	0.0137	0.0000	342.0621

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3097	249.9468	32.3207	0.8308	21.1989	0.2285	21.4273	6.1241	0.2185	6.3426	0.0000	79,006.4381	79,006.4381	6.4484	0.0000	79,167.6481
Worker	13.2493	6.1524	84.0467	0.4234	67.7258	0.2197	67.9454	18.0009	0.2020	18.2030	0.0000	38,363.4424	38,363.4424	0.4019	0.0000	38,373.4904
Total	18.5590	256.0993	116.3673	1.2541	88.9246	0.4481	89.3728	24.1251	0.4205	24.5456	0.0000	117,369.8805	117,369.8805	6.8503	0.0000	117,541.1385

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3.2 Building Construction - 2034**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617
Total	0.1702	1.0315	2.1004	4.0200e-003		0.0193	0.0193		0.0193	0.0193	0.0000	341.7189	341.7189	0.0137	0.0000	342.0617

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.3097	249.9468	32.3207	0.8308	21.1989	0.2285	21.4273	6.1241	0.2185	6.3426	0.0000	79,006.4381	79,006.4381	6.4484	0.0000	79,167.6481
Worker	13.2493	6.1524	84.0467	0.4234	67.7258	0.2197	67.9454	18.0009	0.2020	18.2030	0.0000	38,363.4424	38,363.4424	0.4019	0.0000	38,373.4904
Total	18.5590	256.0993	116.3673	1.2541	88.9246	0.4481	89.3728	24.1251	0.4205	24.5456	0.0000	117,369.8805	117,369.8805	6.8503	0.0000	117,541.1385

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3.2 Building Construction - 2035**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1000e-004	3.5800e-003	8.0600e-003	2.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	1.3143	1.3143	5.0000e-005	0.0000	1.3155
Total	6.1000e-004	3.5800e-003	8.0600e-003	2.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	1.3143	1.3143	5.0000e-005	0.0000	1.3155

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0204	0.9589	0.1237	3.1900e-003	0.0815	8.7000e-004	0.0824	0.0236	8.4000e-004	0.0244	0.0000	303.7787	303.7787	0.0247	0.0000	304.3952
Worker	0.0477	0.0224	0.3080	1.6100e-003	0.2605	7.9000e-004	0.2613	0.0692	7.3000e-004	0.0700	0.0000	145.4597	145.4597	1.4400e-003	0.0000	145.4957
Total	0.0681	0.9813	0.4317	4.8000e-003	0.3420	1.6600e-003	0.3437	0.0928	1.5700e-003	0.0944	0.0000	449.2383	449.2383	0.0261	0.0000	449.8908

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3.2 Building Construction - 2035**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.1000e-004	3.5800e-003	8.0600e-003	2.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	1.3143	1.3143	5.0000e-005	0.0000	1.3155
Total	6.1000e-004	3.5800e-003	8.0600e-003	2.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	1.3143	1.3143	5.0000e-005	0.0000	1.3155

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0204	0.9589	0.1237	3.1900e-003	0.0815	8.7000e-004	0.0824	0.0236	8.4000e-004	0.0244	0.0000	303.7787	303.7787	0.0247	0.0000	304.3952
Worker	0.0477	0.0224	0.3080	1.6100e-003	0.2605	7.9000e-004	0.2613	0.0692	7.3000e-004	0.0700	0.0000	145.4597	145.4597	1.4400e-003	0.0000	145.4957
Total	0.0681	0.9813	0.4317	4.8000e-003	0.3420	1.6600e-003	0.3437	0.0928	1.5700e-003	0.0944	0.0000	449.2383	449.2383	0.0261	0.0000	449.8908

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3.3 Demolition - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4922	0.0000	0.4922	0.0745	0.0000	0.0745	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0008	34.0008	9.5700e-003	0.0000	34.2400
Total	0.0317	0.3144	0.2157	3.9000e-004	0.4922	0.0155	0.5077	0.0745	0.0144	0.0889	0.0000	34.0008	34.0008	9.5700e-003	0.0000	34.2400

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0171	0.5888	0.0827	1.8000e-003	0.0389	1.9300e-003	0.0408	0.0107	1.8500e-003	0.0125	0.0000	171.0998	171.0998	0.0148	0.0000	171.4703
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.7000e-004	3.7800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total	0.0177	0.5892	0.0865	1.8100e-003	0.0401	1.9400e-003	0.0420	0.0110	1.8600e-003	0.0129	0.0000	172.1021	172.1021	0.0148	0.0000	172.4732

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3.3 Demolition - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2215	0.0000	0.2215	0.0335	0.0000	0.0335	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0007	34.0007	9.5700e-003	0.0000	34.2400
Total	0.0317	0.3144	0.2157	3.9000e-004	0.2215	0.0155	0.2370	0.0335	0.0144	0.0479	0.0000	34.0007	34.0007	9.5700e-003	0.0000	34.2400

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0171	0.5888	0.0827	1.8000e-003	0.0389	1.9300e-003	0.0408	0.0107	1.8500e-003	0.0125	0.0000	171.0998	171.0998	0.0148	0.0000	171.4703
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	3.7000e-004	3.7800e-003	1.0000e-005	1.2000e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	1.0023	1.0023	2.0000e-005	0.0000	1.0030
Total	0.0177	0.5892	0.0865	1.8100e-003	0.0401	1.9400e-003	0.0420	0.0110	1.8600e-003	0.0129	0.0000	172.1021	172.1021	0.0148	0.0000	172.4732

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3.4 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.5872	0.0000	0.5872	0.3228	0.0000	0.3228	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1264	1.3162	0.6875	1.2400e-003		0.0664	0.0664		0.0611	0.0611	0.0000	108.6661	108.6661	0.0351	0.0000	109.5447
Total	0.1264	1.3162	0.6875	1.2400e-003	0.5872	0.0664	0.6536	0.3228	0.0611	0.3839	0.0000	108.6661	108.6661	0.0351	0.0000	109.5447

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3300e-003	1.4300e-003	0.0148	4.0000e-005	4.6800e-003	3.0000e-005	4.7100e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.9091	3.9091	1.0000e-004	0.0000	3.9115
Total	2.3300e-003	1.4300e-003	0.0148	4.0000e-005	4.6800e-003	3.0000e-005	4.7100e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.9091	3.9091	1.0000e-004	0.0000	3.9115

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3.4 Site Preparation - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2642	0.0000	0.2642	0.1452	0.0000	0.1452	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1264	1.3162	0.6875	1.2400e-003		0.0664	0.0664		0.0611	0.0611	0.0000	108.6660	108.6660	0.0351	0.0000	109.5446
Total	0.1264	1.3162	0.6875	1.2400e-003	0.2642	0.0664	0.3307	0.1452	0.0611	0.2064	0.0000	108.6660	108.6660	0.0351	0.0000	109.5446

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3300e-003	1.4300e-003	0.0148	4.0000e-005	4.6800e-003	3.0000e-005	4.7100e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.9091	3.9091	1.0000e-004	0.0000	3.9115
Total	2.3300e-003	1.4300e-003	0.0148	4.0000e-005	4.6800e-003	3.0000e-005	4.7100e-003	1.2400e-003	3.0000e-005	1.2700e-003	0.0000	3.9091	3.9091	1.0000e-004	0.0000	3.9115

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3.5 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9483	0.0000	3.9483	0.5128	0.0000	0.5128	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1362	1.5080	1.0036	2.0200e-003		0.0645	0.0645		0.0594	0.0594	0.0000	177.1087	177.1087	0.0573	0.0000	178.5407
Total	0.1362	1.5080	1.0036	2.0200e-003	3.9483	0.0645	4.0128	0.5128	0.0594	0.5721	0.0000	177.1087	177.1087	0.0573	0.0000	178.5407

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5900e-003	1.5800e-003	0.0164	5.0000e-005	5.2000e-003	3.0000e-005	5.2300e-003	1.3800e-003	3.0000e-005	1.4100e-003	0.0000	4.3435	4.3435	1.1000e-004	0.0000	4.3462
Total	2.5900e-003	1.5800e-003	0.0164	5.0000e-005	5.2000e-003	3.0000e-005	5.2300e-003	1.3800e-003	3.0000e-005	1.4100e-003	0.0000	4.3435	4.3435	1.1000e-004	0.0000	4.3462

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3.5 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7767	0.0000	1.7767	0.2308	0.0000	0.2308	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1362	1.5080	1.0036	2.0200e-003		0.0645	0.0645		0.0594	0.0594	0.0000	177.1085	177.1085	0.0573	0.0000	178.5405
Total	0.1362	1.5080	1.0036	2.0200e-003	1.7767	0.0645	1.8413	0.2308	0.0594	0.2901	0.0000	177.1085	177.1085	0.0573	0.0000	178.5405

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5900e-003	1.5800e-003	0.0164	5.0000e-005	5.2000e-003	3.0000e-005	5.2300e-003	1.3800e-003	3.0000e-005	1.4100e-003	0.0000	4.3435	4.3435	1.1000e-004	0.0000	4.3462
Total	2.5900e-003	1.5800e-003	0.0164	5.0000e-005	5.2000e-003	3.0000e-005	5.2300e-003	1.3800e-003	3.0000e-005	1.4100e-003	0.0000	4.3435	4.3435	1.1000e-004	0.0000	4.3462

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3.6 Underground Utilities - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0816	0.8397	0.9525	1.4800e-003		0.0441	0.0441		0.0405	0.0405	0.0000	130.1526	130.1526	0.0421	0.0000	131.2050
Total	0.0816	0.8397	0.9525	1.4800e-003		0.0441	0.0441		0.0405	0.0405	0.0000	130.1526	130.1526	0.0421	0.0000	131.2050

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8900e-003	2.3800e-003	0.0246	7.0000e-005	0.0145	5.0000e-005	0.0146	3.7300e-003	4.0000e-005	3.7700e-003	0.0000	6.5152	6.5152	1.6000e-004	0.0000	6.5192
Total	3.8900e-003	2.3800e-003	0.0246	7.0000e-005	0.0145	5.0000e-005	0.0146	3.7300e-003	4.0000e-005	3.7700e-003	0.0000	6.5152	6.5152	1.6000e-004	0.0000	6.5192

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3.6 Underground Utilities - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0816	0.8397	0.9525	1.4800e-003		0.0441	0.0441		0.0405	0.0405	0.0000	130.1525	130.1525	0.0421	0.0000	131.2048
Total	0.0816	0.8397	0.9525	1.4800e-003		0.0441	0.0441		0.0405	0.0405	0.0000	130.1525	130.1525	0.0421	0.0000	131.2048

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8900e-003	2.3800e-003	0.0246	7.0000e-005	0.0145	5.0000e-005	0.0146	3.7300e-003	4.0000e-005	3.7700e-003	0.0000	6.5152	6.5152	1.6000e-004	0.0000	6.5192
Total	3.8900e-003	2.3800e-003	0.0246	7.0000e-005	0.0145	5.0000e-005	0.0146	3.7300e-003	4.0000e-005	3.7700e-003	0.0000	6.5152	6.5152	1.6000e-004	0.0000	6.5192

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3.7 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1400e-003	0.0323	0.0366	6.0000e-005		1.6900e-003	1.6900e-003		1.5600e-003	1.5600e-003	0.0000	5.0059	5.0059	1.6200e-003	0.0000	5.0464
Paving	0.0778					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0810	0.0323	0.0366	6.0000e-005		1.6900e-003	1.6900e-003		1.5600e-003	1.5600e-003	0.0000	5.0059	5.0059	1.6200e-003	0.0000	5.0464

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	9.0000e-005	9.5000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2506	0.2506	1.0000e-005	0.0000	0.2507
Total	1.5000e-004	9.0000e-005	9.5000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2506	0.2506	1.0000e-005	0.0000	0.2507

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3.7 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1400e-003	0.0323	0.0366	6.0000e-005		1.6900e-003	1.6900e-003		1.5600e-003	1.5600e-003	0.0000	5.0059	5.0059	1.6200e-003	0.0000	5.0463
Paving	0.0778					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0810	0.0323	0.0366	6.0000e-005		1.6900e-003	1.6900e-003		1.5600e-003	1.5600e-003	0.0000	5.0059	5.0059	1.6200e-003	0.0000	5.0463

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	9.0000e-005	9.5000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2506	0.2506	1.0000e-005	0.0000	0.2507
Total	1.5000e-004	9.0000e-005	9.5000e-004	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2506	0.2506	1.0000e-005	0.0000	0.2507

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3.7 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0441	0.4450	0.5832	9.1000e-004		0.0227	0.0227		0.0209	0.0209	0.0000	80.1102	80.1102	0.0259	0.0000	80.7580
Paving	1.2453					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2894	0.4450	0.5832	9.1000e-004		0.0227	0.0227		0.0209	0.0209	0.0000	80.1102	80.1102	0.0259	0.0000	80.7580

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3000e-003	0.0138	4.0000e-005	4.8000e-003	3.0000e-005	4.8300e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	3.8654	3.8654	9.0000e-005	0.0000	3.8676
Total	2.2200e-003	1.3000e-003	0.0138	4.0000e-005	4.8000e-003	3.0000e-005	4.8300e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	3.8654	3.8654	9.0000e-005	0.0000	3.8676

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3.7 Paving - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0441	0.4450	0.5832	9.1000e-004		0.0227	0.0227		0.0209	0.0209	0.0000	80.1101	80.1101	0.0259	0.0000	80.7579
Paving	1.2453					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2894	0.4450	0.5832	9.1000e-004		0.0227	0.0227		0.0209	0.0209	0.0000	80.1101	80.1101	0.0259	0.0000	80.7579

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	1.3000e-003	0.0138	4.0000e-005	4.8000e-003	3.0000e-005	4.8300e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	3.8654	3.8654	9.0000e-005	0.0000	3.8676
Total	2.2200e-003	1.3000e-003	0.0138	4.0000e-005	4.8000e-003	3.0000e-005	4.8300e-003	1.2700e-003	3.0000e-005	1.3000e-003	0.0000	3.8654	3.8654	9.0000e-005	0.0000	3.8676

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3.8 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5945					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	1.5951	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1299	0.0794	0.8217	2.4100e-003	0.2605	1.6200e-003	0.2621	0.0692	1.4900e-003	0.0707	0.0000	217.7251	217.7251	5.3800e-003	0.0000	217.8595
Total	0.1299	0.0794	0.8217	2.4100e-003	0.2605	1.6200e-003	0.2621	0.0692	1.4900e-003	0.0707	0.0000	217.7251	217.7251	5.3800e-003	0.0000	217.8595

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3.8 Architectural Coating - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.5945					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	1.5951	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1299	0.0794	0.8217	2.4100e-003	0.2605	1.6200e-003	0.2621	0.0692	1.4900e-003	0.0707	0.0000	217.7251	217.7251	5.3800e-003	0.0000	217.8595
Total	0.1299	0.0794	0.8217	2.4100e-003	0.2605	1.6200e-003	0.2621	0.0692	1.4900e-003	0.0707	0.0000	217.7251	217.7251	5.3800e-003	0.0000	217.8595

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3.8 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
Total	82.9427	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2748	3.6849	38.9521	0.1207	13.5454	0.0819	13.6272	3.6002	0.0754	3.6756	0.0000	10,915.0339	10,915.0339	0.2493	0.0000	10,921.2674
Total	6.2748	3.6849	38.9521	0.1207	13.5454	0.0819	13.6272	3.6002	0.0754	3.6756	0.0000	10,915.0339	10,915.0339	0.2493	0.0000	10,921.2674

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3.8 Architectural Coating - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
Total	82.9427	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2748	3.6849	38.9521	0.1207	13.5454	0.0819	13.6272	3.6002	0.0754	3.6756	0.0000	10,915.0339	10,915.0339	0.2493	0.0000	10,921.2674
Total	6.2748	3.6849	38.9521	0.1207	13.5454	0.0819	13.6272	3.6002	0.0754	3.6756	0.0000	10,915.0339	10,915.0339	0.2493	0.0000	10,921.2674

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3.8 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	82.9410	0.1694	0.2355	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8452	3.2976	35.5632	0.1162	13.5454	0.0798	13.6251	3.6002	0.0734	3.6737	0.0000	10,505.7360	10,505.7360	0.2225	0.0000	10,511.2972
Total	5.8452	3.2976	35.5632	0.1162	13.5454	0.0798	13.6251	3.6002	0.0734	3.6737	0.0000	10,505.7360	10,505.7360	0.2225	0.0000	10,511.2972

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3.8 Architectural Coating - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419
Total	82.9410	0.1694	0.2354	3.9000e-004		9.2100e-003	9.2100e-003		9.2100e-003	9.2100e-003	0.0000	33.1923	33.1923	1.9900e-003	0.0000	33.2419

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8452	3.2976	35.5632	0.1162	13.5454	0.0798	13.6251	3.6002	0.0734	3.6737	0.0000	10,505.73 60	10,505.73 60	0.2225	0.0000	10,511.29 72
Total	5.8452	3.2976	35.5632	0.1162	13.5454	0.0798	13.6251	3.6002	0.0734	3.6737	0.0000	10,505.73 60	10,505.73 60	0.2225	0.0000	10,511.29 72

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3.8 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.5539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	83.5776	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5088	2.9859	32.9556	0.1125	13.6496	0.0784	13.7280	3.6279	0.0722	3.7001	0.0000	10,172.9620	10,172.9620	0.2006	0.0000	10,177.9779
Total	5.5088	2.9859	32.9556	0.1125	13.6496	0.0784	13.7280	3.6279	0.0722	3.7001	0.0000	10,172.9620	10,172.9620	0.2006	0.0000	10,177.9779

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3.8 Architectural Coating - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.5539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0237	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947
Total	83.5776	0.1597	0.2371	3.9000e-004		7.9800e-003	7.9800e-003		7.9800e-003	7.9800e-003	0.0000	33.4476	33.4476	1.8800e-003	0.0000	33.4947

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.5088	2.9859	32.9556	0.1125	13.6496	0.0784	13.7280	3.6279	0.0722	3.7001	0.0000	10,172.9620	10,172.9620	0.2006	0.0000	10,177.9779
Total	5.5088	2.9859	32.9556	0.1125	13.6496	0.0784	13.7280	3.6279	0.0722	3.7001	0.0000	10,172.9620	10,172.9620	0.2006	0.0000	10,177.9779

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3.8 Architectural Coating - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	83.2573	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1591	2.6871	30.2492	0.1076	13.5975	0.0766	13.6741	3.6141	0.0705	3.6846	0.0000	9,730.8216	9,730.8216	0.1800	0.0000	9,735.3216
Total	5.1591	2.6871	30.2492	0.1076	13.5975	0.0766	13.6741	3.6141	0.0705	3.6846	0.0000	9,730.8216	9,730.8216	0.1800	0.0000	9,735.3216

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3.8 Architectural Coating - 2025**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	83.2573	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1591	2.6871	30.2492	0.1076	13.5975	0.0766	13.6741	3.6141	0.0705	3.6846	0.0000	9,730.8216	9,730.8216	0.1800	0.0000	9,735.3216
Total	5.1591	2.6871	30.2492	0.1076	13.5975	0.0766	13.6741	3.6141	0.0705	3.6846	0.0000	9,730.8216	9,730.8216	0.1800	0.0000	9,735.3216

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3.8 Architectural Coating - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	83.2573	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8784	2.4505	28.2751	0.1042	13.5975	0.0753	13.6728	3.6141	0.0693	3.6834	0.0000	9,425.9399	9,425.9399	0.1651	0.0000	9,430.0674
Total	4.8784	2.4505	28.2751	0.1042	13.5975	0.0753	13.6728	3.6141	0.0693	3.6834	0.0000	9,425.9399	9,425.9399	0.1651	0.0000	9,430.0674

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3.8 Architectural Coating - 2026**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	83.2573	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.8784	2.4505	28.2751	0.1042	13.5975	0.0753	13.6728	3.6141	0.0693	3.6834	0.0000	9,425.9399	9,425.9399	0.1651	0.0000	9,430.0674
Total	4.8784	2.4505	28.2751	0.1042	13.5975	0.0753	13.6728	3.6141	0.0693	3.6834	0.0000	9,425.9399	9,425.9399	0.1651	0.0000	9,430.0674

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3.8 Architectural Coating - 2027**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	83.2573	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6027	2.2350	26.3008	0.1006	13.5975	0.0717	13.6691	3.6141	0.0659	3.6800	0.0000	9,104.4723	9,104.4723	0.1499	0.0000	9,108.2192
Total	4.6027	2.2350	26.3008	0.1006	13.5975	0.0717	13.6691	3.6141	0.0659	3.6800	0.0000	9,104.4723	9,104.4723	0.1499	0.0000	9,108.2192

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3.8 Architectural Coating - 2027**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	83.2573	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6027	2.2350	26.3008	0.1006	13.5975	0.0717	13.6691	3.6141	0.0659	3.6800	0.0000	9,104.472 3	9,104.472 3	0.1499	0.0000	9,108.219 2
Total	4.6027	2.2350	26.3008	0.1006	13.5975	0.0717	13.6691	3.6141	0.0659	3.6800	0.0000	9,104.472 3	9,104.472 3	0.1499	0.0000	9,108.219 2

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3.8 Architectural Coating - 2028**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376
Total	82.9383	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2376

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2981	2.0354	24.4855	0.0971	13.5454	0.0666	13.6119	3.6002	0.0612	3.6615	0.0000	8,785.9685	8,785.9685	0.1363	0.0000	8,789.3758
Total	4.2981	2.0354	24.4855	0.0971	13.5454	0.0666	13.6119	3.6002	0.0612	3.6615	0.0000	8,785.9685	8,785.9685	0.1363	0.0000	8,789.3758

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3.8 Architectural Coating - 2028**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0222	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375
Total	82.9383	0.1489	0.2352	3.9000e-004		6.7000e-003	6.7000e-003		6.7000e-003	6.7000e-003	0.0000	33.1923	33.1923	1.8100e-003	0.0000	33.2375

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2981	2.0354	24.4855	0.0971	13.5454	0.0666	13.6119	3.6002	0.0612	3.6615	0.0000	8,785.9685	8,785.9685	0.1363	0.0000	8,789.3758
Total	4.2981	2.0354	24.4855	0.0971	13.5454	0.0666	13.6119	3.6002	0.0612	3.6615	0.0000	8,785.9685	8,785.9685	0.1363	0.0000	8,789.3758

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3.8 Architectural Coating - 2029**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654
Total	83.2573	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3200	33.3200	1.8200e-003	0.0000	33.3654

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0107	1.8680	22.9591	0.0946	13.5975	0.0623	13.6597	3.6141	0.0573	3.6714	0.0000	8,567.8284	8,567.8284	0.1246	0.0000	8,570.9445
Total	4.0107	1.8680	22.9591	0.0946	13.5975	0.0623	13.6597	3.6141	0.0573	3.6714	0.0000	8,567.8284	8,567.8284	0.1246	0.0000	8,570.9445

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3.8 Architectural Coating - 2029**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0223	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654
Total	83.2573	0.1495	0.2361	3.9000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003	0.0000	33.3199	33.3199	1.8200e-003	0.0000	33.3654

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0107	1.8680	22.9591	0.0946	13.5975	0.0623	13.6597	3.6141	0.0573	3.6714	0.0000	8,567.8284	8,567.8284	0.1246	0.0000	8,570.9445
Total	4.0107	1.8680	22.9591	0.0946	13.5975	0.0623	13.6597	3.6141	0.0573	3.6714	0.0000	8,567.8284	8,567.8284	0.1246	0.0000	8,570.9445

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3.8 Architectural Coating - 2030**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	83.2520	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7104	1.7094	21.4989	0.0922	13.5975	0.0581	13.6556	3.6141	0.0534	3.6675	0.0000	8,345.374 1	8,345.374 1	0.1138	0.0000	8,348.219 0
Total	3.7104	1.7094	21.4989	0.0922	13.5975	0.0581	13.6556	3.6141	0.0534	3.6675	0.0000	8,345.374 1	8,345.374 1	0.1138	0.0000	8,348.219 0

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3.8 Architectural Coating - 2030**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	83.2520	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7104	1.7094	21.4989	0.0922	13.5975	0.0581	13.6556	3.6141	0.0534	3.6675	0.0000	8,345.374 1	8,345.374 1	0.1138	0.0000	8,348.219 0
Total	3.7104	1.7094	21.4989	0.0922	13.5975	0.0581	13.6556	3.6141	0.0534	3.6675	0.0000	8,345.374 1	8,345.374 1	0.1138	0.0000	8,348.219 0

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3.8 Architectural Coating - 2031**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537
Total	83.2520	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3200	33.3200	1.3500e-003	0.0000	33.3537

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3907	1.5595	20.1034	0.0900	13.5975	0.0541	13.6516	3.6141	0.0498	3.6639	0.0000	8,149.6802	8,149.6802	0.1037	0.0000	8,152.2716
Total	3.3907	1.5595	20.1034	0.0900	13.5975	0.0541	13.6516	3.6141	0.0498	3.6639	0.0000	8,149.6802	8,149.6802	0.1037	0.0000	8,152.2716

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3.8 Architectural Coating - 2031**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536
Total	83.2520	0.1117	0.2346	3.9000e-004		2.6500e-003	2.6500e-003		2.6500e-003	2.6500e-003	0.0000	33.3199	33.3199	1.3500e-003	0.0000	33.3536

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3907	1.5595	20.1034	0.0900	13.5975	0.0541	13.6516	3.6141	0.0498	3.6639	0.0000	8,149.6802	8,149.6802	0.1037	0.0000	8,152.2716
Total	3.3907	1.5595	20.1034	0.0900	13.5975	0.0541	13.6516	3.6141	0.0498	3.6639	0.0000	8,149.6802	8,149.6802	0.1037	0.0000	8,152.2716

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3.8 Architectural Coating - 2032**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.5539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4815
Total	83.5710	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4815

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1161	1.4362	18.9510	0.0884	13.6496	0.0507	13.7003	3.6279	0.0466	3.6746	0.0000	8,009.3276	8,009.3276	0.0952	0.0000	8,011.7082
Total	3.1161	1.4362	18.9510	0.0884	13.6496	0.0507	13.7003	3.6279	0.0466	3.6746	0.0000	8,009.3276	8,009.3276	0.0952	0.0000	8,011.7082

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3.8 Architectural Coating - 2032**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.5539					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0171	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4814
Total	83.5710	0.1122	0.2355	3.9000e-004		2.6600e-003	2.6600e-003		2.6600e-003	2.6600e-003	0.0000	33.4476	33.4476	1.3500e-003	0.0000	33.4814

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.1161	1.4362	18.9510	0.0884	13.6496	0.0507	13.7003	3.6279	0.0466	3.6746	0.0000	8,009.3276	8,009.3276	0.0952	0.0000	8,011.7082
Total	3.1161	1.4362	18.9510	0.0884	13.6496	0.0507	13.7003	3.6279	0.0466	3.6746	0.0000	8,009.3276	8,009.3276	0.0952	0.0000	8,011.7082

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3.8 Architectural Coating - 2033**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2259
Total	82.9331	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2259

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8460	1.3167	17.7528	0.0861	13.5454	0.0470	13.5923	3.6002	0.0432	3.6435	0.0000	7,800.3941	7,800.3941	0.0870	0.0000	7,802.5686
Total	2.8460	1.3167	17.7528	0.0861	13.5454	0.0470	13.5923	3.6002	0.0432	3.6435	0.0000	7,800.3941	7,800.3941	0.0870	0.0000	7,802.5686

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3.8 Architectural Coating - 2033**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2258
Total	82.9331	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2258

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8460	1.3167	17.7528	0.0861	13.5454	0.0470	13.5923	3.6002	0.0432	3.6435	0.0000	7,800.3941	7,800.3941	0.0870	0.0000	7,802.5686
Total	2.8460	1.3167	17.7528	0.0861	13.5454	0.0470	13.5923	3.6002	0.0432	3.6435	0.0000	7,800.3941	7,800.3941	0.0870	0.0000	7,802.5686

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3.8 Architectural Coating - 2034**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2259
Total	82.9331	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2259

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6499	1.2305	16.8096	0.0847	13.5454	0.0439	13.5893	3.6002	0.0404	3.6407	0.0000	7,672.806 2	7,672.806 2	0.0804	0.0000	7,674.815 9
Total	2.6499	1.2305	16.8096	0.0847	13.5454	0.0439	13.5893	3.6002	0.0404	3.6407	0.0000	7,672.806 2	7,672.806 2	0.0804	0.0000	7,674.815 9

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3.8 Architectural Coating - 2034**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	82.9161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2258
Total	82.9331	0.1113	0.2337	3.9000e-004		2.6400e-003	2.6400e-003		2.6400e-003	2.6400e-003	0.0000	33.1923	33.1923	1.3400e-003	0.0000	33.2258

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6499	1.2305	16.8096	0.0847	13.5454	0.0439	13.5893	3.6002	0.0404	3.6407	0.0000	7,672.8062	7,672.8062	0.0804	0.0000	7,674.8159
Total	2.6499	1.2305	16.8096	0.0847	13.5454	0.0439	13.5893	3.6002	0.0404	3.6407	0.0000	7,672.8062	7,672.8062	0.0804	0.0000	7,674.8159

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3.8 Architectural Coating - 2035**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3200	33.3200	1.2300e-003	0.0000	33.3507
Total	83.2504	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3200	33.3200	1.2300e-003	0.0000	33.3507

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4923	1.1685	16.0770	0.0838	13.5975	0.0414	13.6388	3.6141	0.0380	3.6521	0.0000	7,593.110 1	7,593.110 1	0.0752	0.0000	7,594.989 7
Total	2.4923	1.1685	16.0770	0.0838	13.5975	0.0414	13.6388	3.6141	0.0380	3.6521	0.0000	7,593.110 1	7,593.110 1	0.0752	0.0000	7,594.989 7

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3.8 Architectural Coating - 2035**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	83.2350					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0154	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3199	33.3199	1.2300e-003	0.0000	33.3507
Total	83.2504	0.0989	0.2342	3.9000e-004		1.2900e-003	1.2900e-003		1.2900e-003	1.2900e-003	0.0000	33.3199	33.3199	1.2300e-003	0.0000	33.3507

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4923	1.1685	16.0770	0.0838	13.5975	0.0414	13.6388	3.6141	0.0380	3.6521	0.0000	7,593.110 1	7,593.110 1	0.0752	0.0000	7,594.989 7
Total	2.4923	1.1685	16.0770	0.0838	13.5975	0.0414	13.6388	3.6141	0.0380	3.6521	0.0000	7,593.110 1	7,593.110 1	0.0752	0.0000	7,594.989 7

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	191.9281	3,044.962 2	1,879.586 5	16.4121	1,179.940 8	6.2605	1,186.201 3	317.7573	5.8824	323.6397	0.0000	1,536,405. 1288	1,536,405. 1288	112.2711	0.0000	1,539,211. 9062
Unmitigated	191.9281	3,044.962 2	1,879.586 5	16.4121	1,179.940 8	6.2605	1,186.201 3	317.7573	5.8824	323.6397	0.0000	1,536,405. 1288	1,536,405. 1288	112.2711	0.0000	1,539,211. 9062

4.2 Trip Summary Information

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Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	7,003.98	7,003.98	7003.98	23,077,610	23,077,610
Apartments Low Rise	24,474.42	24,474.42	24474.42	80,641,452	80,641,452
Apartments Mid Rise	18,739.44	18,739.44	18739.44	61,745,106	61,745,106
Apartments Mid Rise	277.44	277.44	277.44	914,145	914,145
Single Family Housing	12,814.80	12,814.80	12814.80	42,223,843	42,223,843
Single Family Housing	60,633.12	60,633.12	60633.12	199,781,765	199,781,765
Single Family Housing	177,708.00	177,708.00	177708.00	585,535,065	585,535,065
Regional Shopping Center	31,344.25	31,344.25	31344.25	87,379,322	87,379,322
Regional Shopping Center	11,218.80	11,218.80	11218.80	31,274,982	31,274,982
Regional Shopping Center	234,254.18	234,254.18	234254.18	653,037,499	653,037,499
Regional Shopping Center	2,301.29	2,301.29	2301.29	6,415,368	6,415,368
Regional Shopping Center	251,633.28	251,633.28	251633.28	701,485,733	701,485,733
Regional Shopping Center	78,417.62	78,417.62	78417.62	218,607,185	218,607,185
General Light Industry	5,310.15	5,310.15	5310.15	16,619,043	16,619,043
General Office Building	52,380.68	52,380.68	52380.68	153,028,277	153,028,277
Office Park	17,016.53	17,016.53	17016.53	49,713,186	49,713,186
City Park	0.00	0.00	0.00		
Elementary School	22,196.02	22,196.02	22196.02	70,532,737	70,532,737
High School	14,918.80	14,918.80	14918.80	48,936,982	48,936,982
Junior College (2Yr)	0.00	0.00	0.00		
Junior High School	12,504.00	12,504.00	12504.00	40,515,241	40,515,241
Library	0.00	0.00	0.00		
Library	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Place of Worship	3,953.92	3,953.92	3953.92	10,506,359	10,506,359
Total	1,039,100.72	1,039,100.72	1,039,100.72	3,081,970,900	3,081,970,900

4.3 Trip Type Information

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Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Apartments Low Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Apartments Mid Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Apartments Mid Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Single Family Housing	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Single Family Housing	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Single Family Housing	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	100	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	100	0	0
High School	9.50	7.30	7.30	77.80	17.20	5.00	100	0	0
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	100	0	0
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Place of Worship	9.50	7.30	7.30	0.00	95.00	5.00	100	0	0

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Apartments Low Rise	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Apartments Mid Rise	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Single Family Housing	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Regional Shopping Center	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
General Light Industry	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
General Office Building	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Office Park	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
City Park	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Elementary School	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
High School	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Junior College (2Yr)	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Junior High School	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Library	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Other Asphalt Surfaces	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Place of Worship	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Fresno SPWA - Fresno County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	264,133.4203	264,133.4203	11.9434	2.4710	265,168.3736
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	264,133.4203	264,133.4203	11.9434	2.4710	265,168.3736
NaturalGas Mitigated	10.2345	89.8859	55.0159	0.5583		7.0711	7.0711		7.0711	7.0711	0.0000	101,286.6073	101,286.6073	1.9413	1.8569	101,888.5030
NaturalGas Unmitigated	10.2345	89.8859	55.0159	0.5583		7.0711	7.0711		7.0711	7.0711	0.0000	101,286.6073	101,286.6073	1.9413	1.8569	101,888.5030

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Fresno SPWA - Fresno County, Annual

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	3.28139e+007	0.1769	1.6085	1.3512	9.6500e-003		0.1223	0.1223		0.1223	0.1223	0.0000	1,751.0723	1,751.0723	0.0336	0.0321	1,761.4780
General Light Industry	2.97911e+007	0.1606	1.4604	1.2267	8.7600e-003		0.1110	0.1110		0.1110	0.1110	0.0000	1,589.7671	1,589.7671	0.0305	0.0292	1,599.2143
General Office Building	9.35113e+007	0.5042	4.5839	3.8505	0.0275		0.3484	0.3484		0.3484	0.3484	0.0000	4,990.1213	4,990.1213	0.0956	0.0915	5,019.7751
High School	3.26949e+007	0.1763	1.6027	1.3463	9.6200e-003		0.1218	0.1218		0.1218	0.1218	0.0000	1,744.7252	1,744.7252	0.0334	0.0320	1,755.0932
Junior College (2Yr)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Junior High School	2.30697e+007	0.1244	1.1309	0.9499	6.7900e-003		0.0860	0.0860		0.0860	0.0860	0.0000	1,231.0858	1,231.0858	0.0236	0.0226	1,238.4015
Library	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	7.44024e+007	0.4012	3.6472	3.0636	0.0219		0.2772	0.2772		0.2772	0.2772	0.0000	3,970.3964	3,970.3964	0.0761	0.0728	3,993.9905
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	1.58385e+007	0.0854	0.7764	0.6522	4.6600e-003		0.0590	0.0590		0.0590	0.0590	0.0000	845.2001	845.2001	0.0162	0.0155	850.2227
Regional Shopping Center	1.97623e+006	0.0107	0.0969	0.0814	5.8000e-004	7.3600e-003		7.3600e-003		7.3600e-003	7.3600e-003	0.0000	105.4589	105.4589	2.0200e-003	1.9300e-003	106.0856
Regional Shopping Center	2.01165e+008	1.0847	9.8610	8.2833	0.0592		0.7494	0.7494		0.7494	0.7494	0.0000	10,734.9469	10,734.9469	0.2058	0.1968	10,798.7393
Regional Shopping Center	2.1609e+008	1.1652	10.5926	8.8978	0.0636		0.8050	0.8050		0.8050	0.8050	0.0000	11,531.3624	11,531.3624	0.2210	0.2114	11,599.8875
Regional Shopping Center	2.69168e+007	0.1451	1.3195	1.1083	7.9200e-003		0.1003	0.1003		0.1003	0.1003	0.0000	1,436.3837	1,436.3837	0.0275	0.0263	1,444.9194
Regional Shopping Center	6.7341e+007	0.3631	3.3010	2.7729	0.0198		0.2509	0.2509		0.2509	0.2509	0.0000	3,593.5708	3,593.5708	0.0689	0.0659	3,614.9256
Regional Shopping Center	9.63412e+006	0.0520	0.4723	0.3967	2.8300e-003		0.0359	0.0359		0.0359	0.0359	0.0000	514.1133	514.1133	9.8500e-003	9.4300e-003	517.1684
Single Family Housing	2.23908e+008	1.2074	10.3173	4.3904	0.0659		0.8342	0.8342		0.8342	0.8342	0.0000	11,948.5748	11,948.5748	0.2290	0.2191	12,019.5792
Single Family Housing	4.73229e+007	0.2552	2.1806	0.9279	0.0139		0.1763	0.1763		0.1763	0.1763	0.0000	2,525.3293	2,525.3293	0.0484	0.0463	2,540.3361

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	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	6.56246e+008	3.5386	30.2388	12.8676	0.1930		2.4448	2.4448		2.4448	2.4448	0.0000	35,019.7603	35,019.7603	0.6712	0.6420	35,227.8652
Total		10.2346	89.8859	55.0159	0.5583		7.0712	7.0712		7.0712	7.0712	0.0000	101,286.6074	101,286.6074	1.9413	1.8569	101,888.5030

5.2 Energy by Land Use - NaturalGas

Mitigated

[illegible]

Fresno SPWA - Fresno County, Annual

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Junior High School	2.30697e+007	0.1244	1.1309	0.9499	6.7900e-003		0.0860	0.0860		0.0860	0.0860	0.0000	1,231.0858	1,231.0858	0.0236	0.0226	1,238.4015
Library	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	7.44024e+007	0.4012	3.6472	3.0636	0.0219		0.2772	0.2772		0.2772	0.2772	0.0000	3,970.3964	3,970.3964	0.0761	0.0728	3,993.9905
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	1.58385e+007	0.0854	0.7764	0.6522	4.6600e-003		0.0590	0.0590		0.0590	0.0590	0.0000	845.2001	845.2001	0.0162	0.0155	850.2227
Regional Shopping Center	1.97623e+006	0.0107	0.0969	0.0814	5.8000e-004		7.3600e-003	7.3600e-003		7.3600e-003	7.3600e-003	0.0000	105.4589	105.4589	2.0200e-003	1.9300e-003	106.0856
Regional Shopping Center	2.01165e+008	1.0847	9.8610	8.2833	0.0592		0.7494	0.7494		0.7494	0.7494	0.0000	10,734.9469	10,734.9469	0.2058	0.1968	10,798.7393
Regional Shopping Center	2.1609e+008	1.1652	10.5926	8.8978	0.0636		0.8050	0.8050		0.8050	0.8050	0.0000	11,531.3624	11,531.3624	0.2210	0.2114	11,599.8875
Regional Shopping Center	2.69168e+007	0.1451	1.3195	1.1083	7.9200e-003		0.1003	0.1003		0.1003	0.1003	0.0000	1,436.3837	1,436.3837	0.0275	0.0263	1,444.9194
Regional Shopping Center	6.7341e+007	0.3631	3.3010	2.7729	0.0198		0.2509	0.2509		0.2509	0.2509	0.0000	3,593.5708	3,593.5708	0.0689	0.0659	3,614.9256
Regional Shopping Center	9.63412e+006	0.0520	0.4723	0.3967	2.8300e-003		0.0359	0.0359		0.0359	0.0359	0.0000	514.1133	514.1133	9.8500e-003	9.4300e-003	517.1684
Single Family Housing	2.23908e+008	1.2074	10.3173	4.3904	0.0659		0.8342	0.8342		0.8342	0.8342	0.0000	11,948.5748	11,948.5748	0.2290	0.2191	12,019.5792
Single Family Housing	4.73229e+007	0.2552	2.1806	0.9279	0.0139		0.1763	0.1763		0.1763	0.1763	0.0000	2,525.3293	2,525.3293	0.0484	0.0463	2,540.3361
Single Family Housing	6.56246e+008	3.5386	30.2388	12.8676	0.1930		2.4448	2.4448		2.4448	2.4448	0.0000	35,019.7603	35,019.7603	0.6712	0.6420	35,227.8652
Total		10.2346	89.8859	55.0159	0.5583		7.0712	7.0712		7.0712	7.0712	0.0000	101,286.6074	101,286.6074	1.9413	1.8569	101,888.5030

5.3 Energy by Land Use - Electricity

Unmitigated

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	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	9.42864e+006	2,742.8984	0.1240	0.0257	2,753.6459
Apartments Low Rise	2.08524e+007	6,066.1977	0.2743	0.0568	6,089.9668
Apartments Mid Rise	2.06513e+007	6,007.6931	0.2717	0.0562	6,031.2330
Apartments Mid Rise	305745	88.9447	4.0200e-003	8.3000e-004	89.2932
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	9.17377e+006	2,668.7537	0.1207	0.0250	2,679.2107
General Light Industry	1.25902e+007	3,662.6353	0.1656	0.0343	3,676.9866
General Office Building	6.53505e+007	19,011.1965	0.8596	0.1779	19,085.6881
High School	9.14051e+006	2,659.0803	0.1202	0.0249	2,669.4993
Junior College (2Yr)	0	0.0000	0.0000	0.0000	0.0000
Junior High School	6.44959e+006	1,876.2588	0.0848	0.0176	1,883.6105
Library	0	0.0000	0.0000	0.0000	0.0000
Office Park	3.80831e+007	11,078.8000	0.5010	0.1037	11,122.2101
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	6.69359e+006	1,947.2410	0.0881	0.0182	1,954.8709
Regional Shopping Center	1.50526e+006	437.8963	0.0198	4.1000e-003	439.6121
Regional Shopping Center	1.53224e+008	44,574.6309	2.0155	0.4170	44,749.2875
Regional Shopping Center	1.64592e+008	47,881.5805	2.1651	0.4479	48,069.1948

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	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Regional Shopping Center	2.05021e+007	5,964.2839	0.2697	0.0558	5,987.6537
Regional Shopping Center	5.12924e+007	14,921.5544	0.6747	0.1396	14,980.0215
Regional Shopping Center	7.33814e+006	2,134.7484	0.0965	0.0200	2,143.1130
Single Family Housing	1.58569e+007	4,612.9655	0.2086	0.0432	4,631.0405
Single Family Housing	2.19895e+008	63,969.8530	2.8925	0.5985	64,220.5059
Single Family Housing	7.5027e+007	21,826.2080	0.9869	0.2042	21,911.7296
Total		264,133.4204	11.9434	2.4711	265,168.3736

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	9.42864e+006	2,742.8984	0.1240	0.0257	2,753.6459
Apartments Low Rise	2.08524e+007	6,066.1977	0.2743	0.0568	6,089.9668
Apartments Mid Rise	2.06513e+007	6,007.6931	0.2717	0.0562	6,031.2330
Apartments Mid Rise	305745	88.9447	4.0200e-003	8.3000e-004	89.2932
City Park	0	0.0000	0.0000	0.0000	0.0000

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	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Elementary School	9.17377e+006	2,668.7537	0.1207	0.0250	2,679.2107
General Light Industry	1.25902e+007	3,662.6353	0.1656	0.0343	3,676.9866
General Office Building	6.53505e+007	19,011.1965	0.8596	0.1779	19,085.6881
High School	9.14051e+006	2,659.0803	0.1202	0.0249	2,669.4993
Junior College (2Yr)	0	0.0000	0.0000	0.0000	0.0000
Junior High School	6.44959e+006	1,876.2588	0.0848	0.0176	1,883.6105
Library	0	0.0000	0.0000	0.0000	0.0000
Office Park	3.80831e+007	11,078.8000	0.5010	0.1037	11,122.2101
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	6.69359e+006	1,947.2410	0.0881	0.0182	1,954.8709
Regional Shopping Center	1.50526e+006	437.8963	0.0198	4.1000e-003	439.6121
Regional Shopping Center	1.53224e+008	44,574.6309	2.0155	0.4170	44,749.2875
Regional Shopping Center	1.64592e+008	47,881.5805	2.1651	0.4479	48,069.1948
Regional Shopping Center	2.05021e+007	5,964.2839	0.2697	0.0558	5,987.6537
Regional Shopping Center	5.12924e+007	14,921.5544	0.6747	0.1396	14,980.0215
Regional Shopping Center	7.33814e+006	2,134.7484	0.0965	0.0200	2,143.1130
Single Family Housing	1.58569e+007	4,612.9655	0.2086	0.0432	4,631.0405
Single Family Housing	2.19895e+008	63,969.8530	2.8925	0.5985	64,220.5059

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	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	7.5027e+007	21,826.2080	0.9869	0.2042	21,911.7296
Total		264,133.4204	11.9434	2.4711	265,168.3736

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	682.4791	49.7412	365.8045	0.3104		5.6244	5.6244		5.6244	5.6244	0.0000	53,548.8404	53,548.8404	1.5590	0.9713	53,877.2665
Unmitigated	682.4791	49.7412	365.8045	0.3104		5.6244	5.6244		5.6244	5.6244	0.0000	53,548.8404	53,548.8404	1.5590	0.9713	53,877.2665

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	116.5928					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	550.1236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.3535	45.7477	19.4671	0.2920		3.6988	3.6988		3.6988	3.6988	0.0000	52,980.83 12	52,980.83 12	1.0155	0.9713	53,295.66 98
Landscaping	10.4094	3.9935	346.3373	0.0184		1.9256	1.9256		1.9256	1.9256	0.0000	568.0092	568.0092	0.5435	0.0000	581.5967
Total	682.4791	49.7412	365.8045	0.3104		5.6244	5.6244		5.6244	5.6244	0.0000	53,548.84 04	53,548.84 04	1.5590	0.9713	53,877.26 65

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	116.5928					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	550.1236					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.3535	45.7477	19.4671	0.2920		3.6988	3.6988		3.6988	3.6988	0.0000	52,980.83 12	52,980.83 12	1.0155	0.9713	53,295.66 98
Landscaping	10.4094	3.9935	346.3373	0.0184		1.9256	1.9256		1.9256	1.9256	0.0000	568.0092	568.0092	0.5435	0.0000	581.5967
Total	682.4791	49.7412	365.8045	0.3104		5.6244	5.6244		5.6244	5.6244	0.0000	53,548.84 04	53,548.84 04	1.5590	0.9713	53,877.26 65

7.0 Water Detail**7.1 Mitigation Measures Water**

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	22,933.43 21	293.2428	7.0906	32,377.49 23
Unmitigated	22,933.43 21	293.2428	7.0906	32,377.49 23

7.2 Water by Land Use**Unmitigated**

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	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	136.628 / 86.135	346.1167	4.4657	0.1080	489.9300
Apartments Low Rise	290.457 / 183.114	735.8075	9.4936	0.2295	1,041.5394
Apartments Mid Rise	303.683 / 191.452	769.3133	9.9259	0.2400	1,088.9671
City Park	0 / 290.281	295.5608	0.0134	2.7700e-003	296.7189
Elementary School	37.8933 / 97.4399	170.8828	1.2419	0.0306	211.0624
General Light Industry	330.1 / 0	624.3434	10.7798	0.2588	970.9734
General Office Building	1273.57 / 780.577	3,203.5797	41.6260	1.0061	4,544.0409
High School	43.2347 / 111.175	194.9702	1.4170	0.0350	240.8134
Junior College (2Yr)	0 / 0	0.0000	0.0000	0.0000	0.0000
Junior High School	18.9454 / 48.7168	85.4359	0.6209	0.0153	105.5244
Library	0 / 0	0.0000	0.0000	0.0000	0.0000
Office Park	580.502 / 355.791	1,460.2097	18.9734	0.4586	2,071.1994
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Place of Worship	23.7455 / 37.1403	82.7275	0.7772	0.0190	107.8102
Regional Shopping Center	3621.41 / 2219.57	9,109.3844	118.3635	2.8608	12,920.9879
Single Family Housing	2311.27 / 1457.11	5,855.1000	75.5445	1.8262	8,287.9248
Total		22,933.4320	293.2428	7.0906	32,377.4923

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7.2 Water by Land Use

Mitigated

Fresno SPWA - Fresno County, Annual

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	136.628 / 86.135	346.1167	4.4657	0.1080	489.9300
Apartments Low Rise	290.457 / 183.114	735.8075	9.4936	0.2295	1,041.5394
Apartments Mid Rise	303.683 / 191.452	769.3133	9.9259	0.2400	1,088.9671
City Park	0 / 290.281	295.5608	0.0134	2.7700e-003	296.7189
Elementary School	37.8933 / 97.4399	170.8828	1.2419	0.0306	211.0624
General Light Industry	330.1 / 0	624.3434	10.7798	0.2588	970.9734
General Office Building	1273.57 / 780.577	3,203.5797	41.6260	1.0061	4,544.0409
High School	43.2347 / 111.175	194.9702	1.4170	0.0350	240.8134
Junior College (2Yr)	0 / 0	0.0000	0.0000	0.0000	0.0000
Junior High School	18.9454 / 48.7168	85.4359	0.6209	0.0153	105.5244
Library	0 / 0	0.0000	0.0000	0.0000	0.0000
Office Park	580.502 / 355.791	1,460.2097	18.9734	0.4586	2,071.1994
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Place of Worship	23.7455 / 37.1403	82.7275	0.7772	0.0190	107.8102
Regional Shopping Center	3621.41 / 2219.57	9,109.3844	118.3635	2.8608	12,920.9879
Single Family Housing	2311.27 / 1457.11	5,855.1000	75.5445	1.8262	8,287.9248
Total		22,933.4320	293.2428	7.0906	32,377.4923

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8.0 Waste Detail

8.1 Mitigation Measures Waste**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	23,324.97 70	1,378.466 7	0.0000	57,786.64 33
Unmitigated	23,324.97 70	1,378.466 7	0.0000	57,786.64 33

8.2 Waste by Land Use**Unmitigated**

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	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	964.62	195.8091	11.5720	0.0000	485.1089
Apartments Low Rise	2050.68	416.2695	24.6008	0.0000	1,031.2901
Apartments Mid Rise	2144.06	435.2248	25.7211	0.0000	1,078.2510
City Park	20.95	4.2527	0.2513	0.0000	10.5358
Elementary School	2852.66	579.0642	34.2217	0.0000	1,434.6071
General Light Industry	1770.05	359.3042	21.2343	0.0000	890.1608
General Office Building	6664.03	1,352.7379	79.9445	0.0000	3,351.3508
High School	1791.24	363.6055	21.4885	0.0000	900.8173
Junior College (2Yr)	0	0.0000	0.0000	0.0000	0.0000
Junior High School	1426.24	289.5138	17.1098	0.0000	717.2583
Library	0	0.0000	0.0000	0.0000	0.0000
Office Park	3037.5	616.5851	36.4391	0.0000	1,527.5634
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	4325.79	878.0963	51.8940	0.0000	2,175.4464
Regional Shopping Center	51334.5	10,420.4396	615.8303	0.0000	25,816.1980
Single Family Housing	36524.2	7,414.0744	438.1592	0.0000	18,368.0555
Total		23,324.9770	1,378.4667	0.0000	57,786.6433

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8.2 Waste by Land Use

Mitigated

Fresno SPWA - Fresno County, Annual

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	964.62	195.8091	11.5720	0.0000	485.1089
Apartments Low Rise	2050.68	416.2695	24.6008	0.0000	1,031.2901
Apartments Mid Rise	2144.06	435.2248	25.7211	0.0000	1,078.2510
City Park	20.95	4.2527	0.2513	0.0000	10.5358
Elementary School	2852.66	579.0642	34.2217	0.0000	1,434.6071
General Light Industry	1770.05	359.3042	21.2343	0.0000	890.1608
General Office Building	6664.03	1,352.7379	79.9445	0.0000	3,351.3508
High School	1791.24	363.6055	21.4885	0.0000	900.8173
Junior College (2Yr)	0	0.0000	0.0000	0.0000	0.0000
Junior High School	1426.24	289.5138	17.1098	0.0000	717.2583
Library	0	0.0000	0.0000	0.0000	0.0000
Office Park	3037.5	616.5851	36.4391	0.0000	1,527.5634
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Place of Worship	4325.79	878.0963	51.8940	0.0000	2,175.4464
Regional Shopping Center	51334.5	10,420.4396	615.8303	0.0000	25,816.1980
Single Family Housing	36524.2	7,414.0744	438.1592	0.0000	18,368.0555
Total		23,324.9770	1,378.4667	0.0000	57,786.6433

9.0 Operational Offroad

Fresno SPWA - Fresno County, Annual

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Fresno SPWA - Fresno County, Summer

Fresno SPWA
Fresno County, Summer

1.0 Project Characteristics

1.1 Land Usage

Fresno SPWA - Fresno County, Summer

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,810.00	Dwelling Unit	517.22	3,258,000.00	5177
Single Family Housing	8,564.00	Dwelling Unit	1,427.41	15,415,200.00	24493
Single Family Housing	25,100.00	Dwelling Unit	2,091.66	45,180,000.00	71786
Apartments Low Rise	4,458.00	Dwelling Unit	278.63	4,458,000.00	12750
Apartments Mid Rise	4,593.00	Dwelling Unit	153.10	4,593,000.00	13136
Apartments High Rise	2,097.00	Dwelling Unit	46.61	2,097,000.00	5997
Regional Shopping Center	2,515.59	1000sqft	57.75	2,515,590.00	0
Regional Shopping Center	900.39	1000sqft	41.34	900,385.00	0
Regional Shopping Center	18,800.50	1000sqft	215.80	18,800,496.00	0
Apartments Mid Rise	68.00	Dwelling Unit	1.79	68,000.00	194
General Office Building	7,165.62	1000sqft	82.25	7,165,620.00	0
Office Park	3,266.13	1000sqft	74.98	3,266,129.00	0
Regional Shopping Center	184.69	1000sqft	4.24	184,694.00	0
General Light Industry	1,427.46	1000sqft	32.77	1,427,461.00	0
Regional Shopping Center	20,195.29	1000sqft	309.08	20,195,287.00	0
Regional Shopping Center	6,293.55	1000sqft	96.32	6,293,549.00	0
City Park	243.63	Acre	243.63	10,612,522.80	0
Library	0.00	1000sqft	26.84	0.00	0
Place of Worship	758.91	1000sqft	60.14	758,910.00	0
Junior College (2Yr)	0.00	1000sqft	18.38	0.00	0
Elementary School	15,631.00	Student	91.83	1,306,804.28	0
Junior High School	7,815.00	Student	145.37	918,744.56	0
High School	9,815.00	Student	46.95	1,302,067.49	0
Library	0.00	1000sqft	3.32	0.00	0
Other Asphalt Surfaces	1,010.00	Acre	1,010.00	43,995,600.00	0

1.2 Other Project Characteristics

Fresno SPWA - Fresno County, Summer

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Buildout year = 2035 (note: consistent with traffic report from Kittelson). Assumes construction starts as early as March 1, 2021 (as conservative estimate).

Land Use - Land uses, unit amounts, and acreages are consistent with VMT analysis. Population est. based on 2.97 persons per du (consistent with the City's GP Housing Element). Shopping center uses assumed for mixed use (highest trip gen).

Construction Phase - Construction schedule assumed based on project characteristics. Actual construction schedule will depend on market conditions.

Demolition - Assumption of 1,000,000 sf of building square footage demolished. Actual demolition will depend on market conditions.

Grading - Assume Plan Area is graded.

Vehicle Trips - Operational mobile trip rates as provided by Kittelson & Associates (VMT Analysis).

Trips and VMT - Default values for construction trips and VMT

Woodstoves - No woodstoves per SJVAPCD Rule 4901.

Energy Use -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10,000.00	20.00
tblConstructionPhase	NumDays	15,500.00	65.00
tblConstructionPhase	NumDays	6,000.00	65.00
tblConstructionPhase	NumDays	11,000.00	85.00
tblConstructionPhase	NumDays	155,000.00	3,833.00

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tblConstructionPhase	NumDays	11,000.00	3,656.00
tblConstructionPhase	PhaseEndDate	6/27/2059	3/26/2021
tblConstructionPhase	PhaseEndDate	11/24/2141	9/24/2021
tblConstructionPhase	PhaseEndDate	1/23/2184	12/24/2021
tblConstructionPhase	PhaseEndDate	6/26/2082	6/25/2021
tblConstructionPhase	PhaseStartDate	6/27/2082	6/26/2021
tblConstructionPhase	PhaseStartDate	11/25/2141	9/25/2021
tblConstructionPhase	PhaseStartDate	6/28/2059	3/27/2021
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberNoFireplace	943.65	1,153.35
tblFireplaces	NumberNoFireplace	2,006.10	2,451.90
tblFireplaces	NumberNoFireplace	2,097.45	2,563.55
tblFireplaces	NumberNoFireplace	15,963.30	19,510.70
tblGrading	AcresOfGrading	162.50	7,077.00
tblLandUse	LandUseSquareFeet	18,800,500.00	18,800,496.00
tblLandUse	LandUseSquareFeet	3,266,130.00	3,266,129.00
tblLandUse	LandUseSquareFeet	1,427,460.00	1,427,461.00
tblLandUse	LandUseSquareFeet	20,195,300.00	20,195,287.00
tblLandUse	LandUseSquareFeet	6,293,550.00	6,293,549.00
tblLandUse	LotAcreage	587.66	517.22
tblLandUse	LotAcreage	2,780.52	1,427.41
tblLandUse	LotAcreage	8,149.35	2,091.66
tblLandUse	LotAcreage	120.87	153.10
tblLandUse	LotAcreage	33.82	46.61

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tblLandUse	LotAcreage	20.67	41.34
tblLandUse	LotAcreage	431.60	215.80
tblLandUse	LotAcreage	164.50	82.25
tblLandUse	LotAcreage	463.62	309.08
tblLandUse	LotAcreage	144.48	96.32
tblLandUse	LotAcreage	17.42	60.14
tblLandUse	LotAcreage	30.00	91.83
tblLandUse	LotAcreage	21.09	145.37
tblLandUse	LotAcreage	29.89	46.95
tblLandUse	LotAcreage	0.00	18.38
tblLandUse	LotAcreage	0.00	26.84
tblLandUse	LotAcreage	0.00	3.32
tblTripsAndVMT	WorkerTripNumber	30.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	7.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	44.00	0.00

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tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	1.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00

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tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	82.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	63.00	100.00
tblVehicleTrips	PR_TP	75.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	63.00	100.00
tblVehicleTrips	PR_TP	44.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	64.00	100.00
tblVehicleTrips	ST_TR	4.98	3.34
tblVehicleTrips	ST_TR	7.16	5.49
tblVehicleTrips	ST_TR	6.39	4.08
tblVehicleTrips	ST_TR	9.91	7.08
tblVehicleTrips	ST_TR	49.97	12.46
tblVehicleTrips	ST_TR	1.32	3.72
tblVehicleTrips	ST_TR	2.46	7.31
tblVehicleTrips	ST_TR	1.64	5.21
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	0.00	1.42

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tblVehicleTrips	ST_TR	0.61	1.52
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	ST_TR	0.00	1.60
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	ST_TR	10.37	5.21
tblVehicleTrips	SU_TR	3.65	3.34
tblVehicleTrips	SU_TR	6.07	5.49
tblVehicleTrips	SU_TR	5.86	4.08
tblVehicleTrips	SU_TR	8.62	7.08
tblVehicleTrips	SU_TR	25.24	12.46
tblVehicleTrips	SU_TR	0.68	3.72
tblVehicleTrips	SU_TR	1.05	7.31
tblVehicleTrips	SU_TR	0.76	5.21
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	0.00	1.42
tblVehicleTrips	SU_TR	0.25	1.52
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	SU_TR	0.00	1.60
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	SU_TR	36.63	5.21
tblVehicleTrips	WD_TR	4.20	3.34
tblVehicleTrips	WD_TR	6.59	5.49
tblVehicleTrips	WD_TR	6.65	4.08
tblVehicleTrips	WD_TR	9.52	7.08
tblVehicleTrips	WD_TR	42.70	12.46
tblVehicleTrips	WD_TR	6.97	3.72
tblVehicleTrips	WD_TR	11.03	7.31

Fresno SPWA - Fresno County, Summer

tblVehicleTrips	WD_TR	11.42	5.21
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	1.29	1.42
tblVehicleTrips	WD_TR	1.71	1.52
tblVehicleTrips	WD_TR	27.49	0.00
tblVehicleTrips	WD_TR	1.62	1.60
tblVehicleTrips	WD_TR	56.24	0.00
tblVehicleTrips	WD_TR	9.11	5.21
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Fresno SPWA - Fresno County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	412.6975	3,192.0816	2,563.0768	12.5728	701.9987	20.4974	722.4961	189.9825	19.4709	209.4534	0.0000	1,288,712.3884	1,288,712.3884	100.9701	0.0000	1,291,236.6410
2021	1,099.9427	2,991.4723	2,708.2576	13.4001	823.6528	13.5586	837.1524	218.4146	12.7633	230.6116	0.0000	1,370,950.6635	1,370,950.6635	99.8070	0.0000	1,373,445.8377
2022	1,068.7477	2,782.7380	2,481.5573	13.1033	809.1928	11.5160	820.7088	218.4161	10.8501	229.2662	0.0000	1,341,286.0044	1,341,286.0044	95.5539	0.0000	1,343,674.8517
2023	992.0280	2,191.8789	2,224.6171	12.6779	809.0715	6.3977	815.4692	218.3841	5.9785	224.3626	0.0000	1,298,291.5309	1,298,291.5309	67.4002	0.0000	1,299,976.5349
2024	970.3711	2,161.3065	2,059.6108	12.3938	809.0744	6.1924	815.2668	218.3851	5.7857	224.1708	0.0000	1,269,867.1110	1,269,867.1110	66.5527	0.0000	1,271,530.9284
2025	951.7322	2,132.1494	1,912.4192	12.1187	809.0778	6.0072	815.0851	218.3864	5.6117	223.9981	0.0000	1,242,327.0667	1,242,327.0667	65.6557	0.0000	1,243,968.4580
2026	935.7807	2,106.0403	1,800.7864	11.9042	809.0808	5.9248	815.0056	218.3874	5.5347	223.9221	0.0000	1,220,812.2302	1,220,812.2302	64.6932	0.0000	1,222,429.5605
2027	920.3108	2,080.7569	1,689.6190	11.6863	809.0837	5.7330	814.8167	218.3885	5.3570	223.7454	0.0000	1,198,988.2439	1,198,988.2439	63.6845	0.0000	1,200,580.3570
2028	904.5874	2,060.9672	1,593.5393	11.4970	809.0866	5.4938	814.5804	218.3895	5.1359	223.5254	0.0000	1,180,044.0446	1,180,044.0446	62.5600	0.0000	1,181,608.0434
2029	888.1456	2,041.8460	1,503.4469	11.3297	809.0889	5.2654	814.3543	218.3903	4.9249	223.3152	0.0000	1,163,307.9709	1,163,307.9709	61.3677	0.0000	1,164,842.1639
2030	871.9026	2,020.1799	1,423.1193	11.1887	809.0909	4.6428	813.7337	218.3911	4.3498	222.7409	0.0000	1,149,157.1724	1,149,157.1724	59.6932	0.0000	1,150,649.5018
2031	854.9621	2,005.2394	1,347.2902	11.0637	809.0926	4.4457	813.5383	218.3917	4.1679	222.5596	0.0000	1,136,681.6773	1,136,681.6773	58.7015	0.0000	1,138,149.2158
2032	839.7662	1,992.4200	1,281.0394	10.9588	809.0943	4.2631	813.3573	218.3923	3.9993	222.3916	0.0000	1,126,228.6323	1,126,228.6323	57.8957	0.0000	1,127,676.0257
2033	826.6257	1,981.6435	1,224.0729	10.8698	809.0957	4.0974	813.1931	218.3928	3.8465	222.2393	0.0000	1,117,375.4378	1,117,375.4378	57.0415	0.0000	1,118,801.4744
2034	815.9120	1,972.7266	1,172.9916	10.7950	809.0970	3.9450	813.0421	218.3933	3.7059	222.0992	0.0000	1,109,951.8234	1,109,951.8234	56.3627	0.0000	1,111,360.8918
2035	806.6812	1,964.4224	1,129.9055	10.7323	809.0983	3.7397	812.8380	218.3937	3.5112	221.9049	0.0000	1,103,729.7711	1,103,729.7711	55.7511	0.0000	1,105,123.5496
Maximum	1,099.9427	3,192.0816	2,708.2576	13.4001	823.6528	20.4974	837.1524	218.4161	19.4709	230.6116	0.0000	1,370,950.6635	1,370,950.6635	100.9701	0.0000	1,373,445.8377

Fresno SPWA - Fresno County, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

Fresno SPWA - Fresno County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	412.6975	3,192.0816	2,563.0768	12.5728	701.9987	20.4974	722.4961	189.9825	19.4709	209.4534	0.0000	1,288,712.3884	1,288,712.3884	100.9701	0.0000	1,291,236.6409
2021	1,099.9427	2,991.4723	2,708.2576	13.4001	809.1886	13.5586	822.1231	218.4146	12.7633	230.6116	0.0000	1,370,950.6635	1,370,950.6635	99.8070	0.0000	1,373,445.8377
2022	1,068.7477	2,782.7380	2,481.5573	13.1033	809.1928	11.5160	820.7088	218.4161	10.8501	229.2662	0.0000	1,341,286.0044	1,341,286.0044	95.5539	0.0000	1,343,674.8517
2023	992.0280	2,191.8789	2,224.6171	12.6779	809.0715	6.3977	815.4692	218.3841	5.9785	224.3626	0.0000	1,298,291.5309	1,298,291.5309	67.4002	0.0000	1,299,976.5349
2024	970.3711	2,161.3065	2,059.6108	12.3938	809.0744	6.1924	815.2668	218.3851	5.7857	224.1708	0.0000	1,269,867.1110	1,269,867.1110	66.5527	0.0000	1,271,530.9284
2025	951.7322	2,132.1494	1,912.4192	12.1187	809.0778	6.0072	815.0851	218.3864	5.6117	223.9981	0.0000	1,242,327.0667	1,242,327.0667	65.6557	0.0000	1,243,968.4580
2026	935.7807	2,106.0403	1,800.7864	11.9042	809.0808	5.9248	815.0056	218.3874	5.5347	223.9221	0.0000	1,220,812.2302	1,220,812.2302	64.6932	0.0000	1,222,429.5605
2027	920.3108	2,080.7569	1,689.6190	11.6863	809.0837	5.7330	814.8167	218.3885	5.3570	223.7454	0.0000	1,198,988.2439	1,198,988.2439	63.6845	0.0000	1,200,580.3570
2028	904.5874	2,060.9672	1,593.5393	11.4970	809.0866	5.4938	814.5804	218.3895	5.1359	223.5254	0.0000	1,180,044.0446	1,180,044.0446	62.5600	0.0000	1,181,608.0434
2029	888.1456	2,041.8460	1,503.4469	11.3297	809.0889	5.2654	814.3543	218.3903	4.9249	223.3152	0.0000	1,163,307.9709	1,163,307.9709	61.3677	0.0000	1,164,842.1639
2030	871.9026	2,020.1799	1,423.1193	11.1887	809.0909	4.6428	813.7337	218.3911	4.3498	222.7409	0.0000	1,149,157.1724	1,149,157.1724	59.6932	0.0000	1,150,649.5018
2031	854.9621	2,005.2394	1,347.2902	11.0637	809.0926	4.4457	813.5383	218.3917	4.1679	222.5596	0.0000	1,136,681.6773	1,136,681.6773	58.7015	0.0000	1,138,149.2158
2032	839.7662	1,992.4200	1,281.0394	10.9588	809.0943	4.2631	813.3573	218.3923	3.9993	222.3916	0.0000	1,126,228.6323	1,126,228.6323	57.8957	0.0000	1,127,676.0257
2033	826.6257	1,981.6435	1,224.0729	10.8698	809.0957	4.0974	813.1931	218.3928	3.8465	222.2393	0.0000	1,117,375.4378	1,117,375.4378	57.0415	0.0000	1,118,801.4744
2034	815.9120	1,972.7266	1,172.9916	10.7950	809.0970	3.9450	813.0421	218.3933	3.7059	222.0992	0.0000	1,109,951.8234	1,109,951.8234	56.3627	0.0000	1,111,360.8917
2035	806.6812	1,964.4224	1,129.9055	10.7323	809.0983	3.7397	812.8380	218.3937	3.5112	221.9049	0.0000	1,103,729.7711	1,103,729.7711	55.7511	0.0000	1,105,123.5496
Maximum	1,099.9427	3,192.0816	2,708.2576	13.4001	809.1928	20.4974	822.1231	218.4161	19.4709	230.6116	0.0000	1,370,950.6635	1,370,950.6635	100.9701	0.0000	1,373,445.8377

Fresno SPWA - Fresno County, Summer

[illegible]

Fresno SPWA - Fresno County, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244
Energy	56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729
Mobile	1,236.8201	16,638.6949	11,294.0658	94.2709	6,655.7054	34.3510	6,690.0564	1,788.2637	32.2749	1,820.5386		9,718,550.8417	9,718,550.8417	651.0888		9,734,828.0614
Total	5,192.3715	18,291.3909	15,918.5231	104.6560	6,655.7054	184.7063	6,840.4117	1,788.2637	182.6301	1,970.8938	0.0000	11,761,708.7963	11,761,708.7963	696.7727	37.3304	11,790,252.5587

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244
Energy	56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729
Mobile	1,236.8201	16,638.6949	11,294.0658	94.2709	6,655.7054	34.3510	6,690.0564	1,788.2637	32.2749	1,820.5386		9,718,550.8417	9,718,550.8417	651.0888		9,734,828.0614
Total	5,192.3715	18,291.3909	15,918.5231	104.6560	6,655.7054	184.7063	6,840.4117	1,788.2637	182.6301	1,970.8938	0.0000	11,761,708.7963	11,761,708.7963	696.7727	37.3304	11,790,252.5587

Fresno SPWA - Fresno County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/23/2020	1/1/2035	5	3833	
2	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
3	Site Preparation	Site Preparation	3/27/2021	6/25/2021	5	65	
4	Grading	Grading	6/26/2021	9/24/2021	5	65	
5	Underground Utilities	Trenching	9/25/2021	12/24/2021	5	65	
6	Paving	Paving	12/25/2021	4/22/2022	5	85	
7	Architectural Coating	Architectural Coating	12/25/2021	12/31/2035	5	3656	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7077

Acres of Paving: 1010

Residential Indoor: 152,015,130; Residential Outdoor: 50,671,710; Non-Residential Indoor: 97,553,606; Non-Residential Outdoor: 32,517,869;
Striped Parking Area: 2,639,736 (Architectural Coating – sqft)

OffRoad Equipment

Fresno SPWA - Fresno County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Scrapers	2	8.00	367	0.48
Underground Utilities	Pavers	2	8.00	130	0.42
Underground Utilities	Paving Equipment	2	8.00	132	0.36
Underground Utilities	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Underground Utilities	Pavers	2	8.00	130	0.42
Underground Utilities	Paving Equipment	2	8.00	132	0.36
Underground Utilities	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Fresno SPWA - Fresno County, Summer

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4,548.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	12	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13,033.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	65,164.00	24,601.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	12	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	90.5121	3,006.680 9	450.6505	7.0709	166.6919	16.0296	182.7215	47.9942	15.3350	63.3291		741,066.9 105	741,066.9 105	85.5914		743,206.6 964
Worker	320.0656	166.2147	2,095.577 8	5.4749	535.3068	3.3508	538.6576	141.9883	3.0856	145.0740		545,092.4 149	545,092.4 149	14.7558		545,461.3 101
Total	410.5777	3,172.895 6	2,546.228 3	12.5459	701.9987	19.3804	721.3791	189.9825	18.4206	208.4031		1,286,159. 3254	1,286,159. 3254	100.3473		1,288,668. 0065

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	90.5121	3,006.680 9	450.6505	7.0709	166.6919	16.0296	182.7215	47.9942	15.3350	63.3291		741,066.9 105	741,066.9 105	85.5914		743,206.6 964
Worker	320.0656	166.2147	2,095.577 8	5.4749	535.3068	3.3508	538.6576	141.9883	3.0856	145.0740		545,092.4 149	545,092.4 149	14.7558		545,461.3 101
Total	410.5777	3,172.895 6	2,546.228 3	12.5459	701.9987	19.3804	721.3791	189.9825	18.4206	208.4031		1,286,159. 3254	1,286,159. 3254	100.3473		1,288,668. 0065

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	72.9742	2,737.0951	388.5894	7.0040	166.6956	7.3118	174.0074	47.9955	6.9945	54.9899		734,103.5606	734,103.5606	82.6925		736,170.8724
Worker	295.4805	147.9466	1,905.1482	5.2851	535.3068	3.2428	538.5497	141.9883	2.9858	144.9742		526,401.9107	526,401.9107	13.1352		526,730.2909
Total	368.4546	2,885.0417	2,293.7376	12.2892	702.0024	10.5547	712.5571	189.9838	9.9803	199.9641		1,260,505.4713	1,260,505.4713	95.8277		1,262,901.1632

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	72.9742	2,737.0951	388.5894	7.0040	166.6956	7.3118	174.0074	47.9955	6.9945	54.9899		734,103.5606	734,103.5606	82.6925		736,170.8724
Worker	295.4805	147.9466	1,905.1482	5.2851	535.3068	3.2428	538.5497	141.9883	2.9858	144.9742		526,401.9107	526,401.9107	13.1352		526,730.2909
Total	368.4546	2,885.0417	2,293.7376	12.2892	702.0024	10.5547	712.5571	189.9838	9.9803	199.9641		1,260,505.4713	1,260,505.4713	95.8277		1,262,901.1632

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	67.8693	2,595.9935	359.5814	6.9374	166.6998	6.2780	172.9778	47.9970	6.0054	54.0024		727,159.7463	727,159.7463	80.1456		729,163.3852
Worker	274.0443	132.1372	1,740.6770	5.0934	535.3068	3.1489	538.4557	141.9883	2.8989	144.8872		507,470.3707	507,470.3707	11.7178		507,763.3151
Total	341.9136	2,728.1307	2,100.2584	12.0307	702.0066	9.4268	711.4334	189.9853	8.9043	198.8896		1,234,630.1170	1,234,630.1170	91.8633		1,236,926.7003

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	67.8693	2,595.9935	359.5814	6.9374	166.6998	6.2780	172.9778	47.9970	6.0054	54.0024		727,159.7463	727,159.7463	80.1456		729,163.3852
Worker	274.0443	132.1372	1,740.6770	5.0934	535.3068	3.1489	538.4557	141.9883	2.8989	144.8872		507,470.3707	507,470.3707	11.7178		507,763.3151
Total	341.9136	2,728.1307	2,100.2584	12.0307	702.0066	9.4268	711.4334	189.9853	8.9043	198.8896		1,234,630.1170	1,234,630.1170	91.8633		1,236,926.7003

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	46.5543	2,034.2147	295.3826	6.7671	166.7017	1.9454	168.6471	47.9976	1.8603	49.8580		709,354.0593	709,354.0593	54.2315		710,709.8478
Worker	254.9105	118.3133	1,592.6453	4.9007	535.3068	3.0681	538.3749	141.9883	2.8241	144.8125		488,416.0956	488,416.0956	10.4533		488,677.4268
Total	301.4648	2,152.5280	1,888.0280	11.6678	702.0085	5.0135	707.0220	189.9860	4.6845	194.6704		1,197,770.1548	1,197,770.1548	64.6848		1,199,387.2746

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	46.5543	2,034.2147	295.3826	6.7671	166.7017	1.9454	168.6471	47.9976	1.8603	49.8580		709,354.0593	709,354.0593	54.2315		710,709.8478
Worker	254.9105	118.3133	1,592.6453	4.9007	535.3068	3.0681	538.3749	141.9883	2.8241	144.8125		488,416.0956	488,416.0956	10.4533		488,677.4268
Total	301.4648	2,152.5280	1,888.0280	11.6678	702.0085	5.0135	707.0220	189.9860	4.6845	194.6704		1,197,770.1548	1,197,770.1548	64.6848		1,199,387.2746

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	45.3090	2,019.0071	280.8883	6.7144	166.7046	1.9265	168.6311	47.9987	1.8423	49.8410		703,854.7644	703,854.7644	54.7051		705,222.3924
Worker	237.9942	106.3638	1,467.2842	4.7079	535.3068	2.9931	538.2999	141.9883	2.7546	144.7430		469,311.4660	469,311.4660	9.3561		469,545.3691
Total	283.3033	2,125.3709	1,748.1725	11.4223	702.0114	4.9195	706.9310	189.9870	4.5969	194.5839		1,173,166.2304	1,173,166.2304	64.0612		1,174,767.7616

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	45.3090	2,019.0071	280.8883	6.7144	166.7046	1.9265	168.6311	47.9987	1.8423	49.8410		703,854.7644	703,854.7644	54.7051		705,222.3924
Worker	237.9942	106.3638	1,467.2842	4.7079	535.3068	2.9931	538.2999	141.9883	2.7546	144.7430		469,311.4660	469,311.4660	9.3561		469,545.3691
Total	283.3033	2,125.3709	1,748.1725	11.4223	702.0114	4.9195	706.9310	189.9870	4.5969	194.5839		1,173,166.2304	1,173,166.2304	64.0612		1,174,767.7616

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	44.2701	2,003.177 1	269.8170	6.6657	166.7080	1.9062	168.6142	47.9999	1.8229	49.8228		698,756.8 869	698,756.8 869	54.9264		700,130.0 478
Worker	223.4227	96.1307	1,353.920 2	4.5193	535.3068	2.9350	538.2418	141.9883	2.7009	144.6892		450,609.0 620	450,609.0 620	8.4274		450,819.7 472
Total	267.6928	2,099.307 8	1,623.737 2	11.1849	702.0148	4.8412	706.8560	189.9883	4.5238	194.5121		1,149,365. 9489	1,149,365. 9489	63.3539		1,150,949. 7949

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2025**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	44.2701	2,003.177 1	269.8170	6.6657	166.7080	1.9062	168.6142	47.9999	1.8229	49.8228		698,756.8 869	698,756.8 869	54.9264		700,130.0 478
Worker	223.4227	96.1307	1,353.920 2	4.5193	535.3068	2.9350	538.2418	141.9883	2.7009	144.6892		450,609.0 620	450,609.0 620	8.4274		450,819.7 472
Total	267.6928	2,099.307 8	1,623.737 2	11.1849	702.0148	4.8412	706.8560	189.9883	4.5238	194.5121		1,149,365. 9489	1,149,365. 9489	63.3539		1,150,949. 7949

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	43.3599	1,987.171 3	260.8448	6.6218	166.7109	1.8837	168.5946	48.0010	1.8014	49.8024		694,173.1 137	694,173.1 137	54.7919		695,542.9 104
Worker	210.8883	87.7113	1,268.369 9	4.3770	535.3068	2.8850	538.1919	141.9883	2.6546	144.6429		436,499.8 787	436,499.8 787	7.7375		436,693.3 166
Total	254.2483	2,074.882 6	1,529.214 7	10.9988	702.0177	4.7687	706.7865	189.9893	4.4560	194.4453		1,130,672. 9923	1,130,672. 9923	62.5294		1,132,236. 2270

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2026**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	43.3599	1,987.171 3	260.8448	6.6218	166.7109	1.8837	168.5946	48.0010	1.8014	49.8024		694,173.1 137	694,173.1 137	54.7919		695,542.9 104
Worker	210.8883	87.7113	1,268.369 9	4.3770	535.3068	2.8850	538.1919	141.9883	2.6546	144.6429		436,499.8 787	436,499.8 787	7.7375		436,693.3 166
Total	254.2483	2,074.882 6	1,529.214 7	10.9988	702.0177	4.7687	706.7865	189.9893	4.4560	194.4453		1,130,672. 9923	1,130,672. 9923	62.5294		1,132,236. 2270

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2027**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.6029	1,971.106 9	253.6597	6.5839	166.7138	1.8596	168.5735	48.0020	1.7784	49.7804		690,203.2 777	690,203.2 777	54.6347		691,569.1 462
Worker	198.6276	80.0288	1,181.718 2	4.2271	535.3068	2.7453	538.0521	141.9883	2.5257	144.5140		421,621.4 581	421,621.4 581	7.0279		421,797.1 553
Total	241.2305	2,051.135 7	1,435.377 9	10.8109	702.0207	4.6049	706.6256	189.9904	4.3041	194.2944		1,111,824. 7359	1,111,824. 7359	61.6626		1,113,366. 3014

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2027**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.6029	1,971.106 9	253.6597	6.5839	166.7138	1.8596	168.5735	48.0020	1.7784	49.7804		690,203.2 777	690,203.2 777	54.6347		691,569.1 462
Worker	198.6276	80.0288	1,181.718 2	4.2271	535.3068	2.7453	538.0521	141.9883	2.5257	144.5140		421,621.4 581	421,621.4 581	7.0279		421,797.1 553
Total	241.2305	2,051.135 7	1,435.377 9	10.8109	702.0207	4.6049	706.6256	189.9904	4.3041	194.2944		1,111,824. 7359	1,111,824. 7359	61.6626		1,113,366. 3014

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2028**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.0015	1,959.514 9	248.1931	6.5538	166.7167	1.8425	168.5593	48.0031	1.7621	49.7651		687,057.5 875	687,057.5 875	54.2381		688,413.5 387
Worker	186.0259	73.1974	1,106.207 5	4.0944	535.3068	2.5602	537.8670	141.9883	2.3551	144.3434		408,456.0 676	408,456.0 676	6.4213		408,616.6 006
Total	228.0275	2,032.712 3	1,354.400 6	10.6482	702.0236	4.4027	706.4262	189.9914	4.1171	194.1085		1,095,513. 6551	1,095,513. 6551	60.6594		1,097,030. 1393

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2028**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.0015	1,959.514 9	248.1931	6.5538	166.7167	1.8425	168.5593	48.0031	1.7621	49.7651		687,057.5 875	687,057.5 875	54.2381		688,413.5 387
Worker	186.0259	73.1974	1,106.207 5	4.0944	535.3068	2.5602	537.8670	141.9883	2.3551	144.3434		408,456.0 676	408,456.0 676	6.4213		408,616.6 006
Total	228.0275	2,032.712 3	1,354.400 6	10.6482	702.0236	4.4027	706.4262	189.9914	4.1171	194.1085		1,095,513. 6551	1,095,513. 6551	60.6594		1,097,030. 1393

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2029**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	41.4471	1,947.878 4	243.2659	6.5273	166.7191	1.8227	168.5418	48.0039	1.7431	49.7470		684,286.7 125	684,286.7 125	53.7247		685,629.8 297
Worker	172.7866	66.9602	1,035.236 7	3.9771	535.3068	2.3863	537.6932	141.9883	2.1950	144.1833		396,818.4 317	396,818.4 317	5.8556		396,964.8 216
Total	214.2336	2,014.838 6	1,278.502 6	10.5044	702.0259	4.2090	706.2349	189.9922	3.9381	193.9304		1,081,105. 1442	1,081,105. 1442	59.5803		1,082,594. 6513

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2029**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	41.4471	1,947.878 4	243.2659	6.5273	166.7191	1.8227	168.5418	48.0039	1.7431	49.7470		684,286.7 125	684,286.7 125	53.7247		685,629.8 297
Worker	172.7866	66.9602	1,035.236 7	3.9771	535.3068	2.3863	537.6932	141.9883	2.1950	144.1833		396,818.4 317	396,818.4 317	5.8556		396,964.8 216
Total	214.2336	2,014.838 6	1,278.502 6	10.5044	702.0259	4.2090	706.2349	189.9922	3.9381	193.9304		1,081,105. 1442	1,081,105. 1442	59.5803		1,082,594. 6513

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2030**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	41.0003	1,937.8103	239.4643	6.5066	166.7211	1.8035	168.5246	48.0046	1.7248	49.7294		682,115.9350	682,115.9350	53.1421		683,444.4862
Worker	159.7050	61.3155	971.4144	3.8735	535.3068	2.2257	537.5326	141.9883	2.0472	144.0355		386,550.8802	386,550.8802	5.3529		386,684.7026
Total	200.7053	1,999.1258	1,210.8787	10.3801	702.0279	4.0292	706.0571	189.9930	3.7719	193.7649		1,068,666.8152	1,068,666.8152	58.4950		1,070,129.1888

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2030**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	41.0003	1,937.8103	239.4643	6.5066	166.7211	1.8035	168.5246	48.0046	1.7248	49.7294		682,115.9350	682,115.9350	53.1421		683,444.4862
Worker	159.7050	61.3155	971.4144	3.8735	535.3068	2.2257	537.5326	141.9883	2.0472	144.0355		386,550.8802	386,550.8802	5.3529		386,684.7026
Total	200.7053	1,999.1258	1,210.8787	10.3801	702.0279	4.0292	706.0571	189.9930	3.7719	193.7649		1,068,666.8152	1,068,666.8152	58.4950		1,070,129.1888

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2031**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	40.6604	1,929.2619	236.5592	6.4909	166.7228	1.7881	168.5109	48.0053	1.7100	49.7153		680,469.2619	680,469.2619	52.7129		681,787.0854
Worker	145.8713	55.9887	910.6445	3.7824	535.3068	2.0743	537.3811	141.9883	1.9079	143.8962		377,526.8849	377,526.8849	4.8841		377,648.9880
Total	186.5316	1,985.2506	1,147.2038	10.2733	702.0296	3.8624	705.8920	189.9936	3.6179	193.6115		1,057,996.1468	1,057,996.1468	57.5971		1,059,436.0734

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2031**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	40.6604	1,929.2619	236.5592	6.4909	166.7228	1.7881	168.5109	48.0053	1.7100	49.7153		680,469.2619	680,469.2619	52.7129		681,787.0854
Worker	145.8713	55.9887	910.6445	3.7824	535.3068	2.0743	537.3811	141.9883	1.9079	143.8962		377,526.8849	377,526.8849	4.8841		377,648.9880
Total	186.5316	1,985.2506	1,147.2038	10.2733	702.0296	3.8624	705.8920	189.9936	3.6179	193.6115		1,057,996.1468	1,057,996.1468	57.5971		1,059,436.0734

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2032**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	40.3891	1,921.9416	234.3345	6.4814	166.7244	1.7729	168.4973	48.0059	1.6954	49.7013		679,471.9449	679,471.9449	52.3946		680,781.8106
Worker	133.4341	51.4062	857.2897	3.7029	535.3068	1.9348	537.2416	141.9883	1.7795	143.7679		369,647.1318	369,647.1318	4.4779		369,759.0788
Total	173.8232	1,973.3477	1,091.6242	10.1842	702.0313	3.7077	705.7389	189.9942	3.4750	193.4692		1,049,119.0767	1,049,119.0767	56.8725		1,050,540.8894

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2032**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	40.3891	1,921.9416	234.3345	6.4814	166.7244	1.7729	168.4973	48.0059	1.6954	49.7013		679,471.9449	679,471.9449	52.3946		680,781.8106
Worker	133.4341	51.4062	857.2897	3.7029	535.3068	1.9348	537.2416	141.9883	1.7795	143.7679		369,647.1318	369,647.1318	4.4779		369,759.0788
Total	173.8232	1,973.3477	1,091.6242	10.1842	702.0313	3.7077	705.7389	189.9942	3.4750	193.4692		1,049,119.0767	1,049,119.0767	56.8725		1,050,540.8894

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2033**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	40.1953	1,915.8264	232.6546	6.4752	166.7259	1.7606	168.4865	48.0064	1.6837	49.6901		678,826.0698	678,826.0698	51.9576		680,125.0109
Worker	122.6452	47.5217	811.2176	3.6338	535.3068	1.8069	537.1138	141.9883	1.6620	143.6503		362,807.7163	362,807.7163	4.1302		362,910.9700
Total	162.8405	1,963.3481	1,043.8722	10.1091	702.0327	3.5676	705.6003	189.9947	3.3457	193.3404		1,041,633.7862	1,041,633.7862	56.0878		1,043,035.9809

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2033**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	40.1953	1,915.8264	232.6546	6.4752	166.7259	1.7606	168.4865	48.0064	1.6837	49.6901		678,826.0698	678,826.0698	51.9576		680,125.0109
Worker	122.6452	47.5217	811.2176	3.6338	535.3068	1.8069	537.1138	141.9883	1.6620	143.6503		362,807.7163	362,807.7163	4.1302		362,910.9700
Total	162.8405	1,963.3481	1,043.8722	10.1091	702.0327	3.5676	705.6003	189.9947	3.3457	193.3404		1,041,633.7862	1,041,633.7862	56.0878		1,043,035.9809

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2034**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	40.0289	1,910.6177	231.1490	6.4720	166.7272	1.7490	168.4762	48.0068	1.6726	49.6795		678,489.0003	678,489.0003	51.6454		679,780.1340
Worker	113.8558	44.4316	769.9045	3.5742	535.3068	1.6896	536.9965	141.9883	1.5541	143.5424		356,902.2774	356,902.2774	3.8248		356,997.8970
Total	153.8847	1,955.0492	1,001.0536	10.0462	702.0340	3.4386	705.4727	189.9952	3.2267	193.2218		1,035,391.2777	1,035,391.2777	55.4701		1,036,778.0310

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2034**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	40.0289	1,910.6177	231.1490	6.4720	166.7272	1.7490	168.4762	48.0068	1.6726	49.6795		678,489.0003	678,489.0003	51.6454		679,780.1340
Worker	113.8558	44.4316	769.9045	3.5742	535.3068	1.6896	536.9965	141.9883	1.5541	143.5424		356,902.2774	356,902.2774	3.8248		356,997.8970
Total	153.8847	1,955.0492	1,001.0536	10.0462	702.0340	3.4386	705.4727	189.9952	3.2267	193.2218		1,035,391.2777	1,035,391.2777	55.4701		1,036,778.0310

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2035**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	39.8827	1,906.0507	229.8885	6.4703	166.7285	1.7384	168.4668	48.0073	1.6624	49.6697		678,310.556	678,310.556	51.3480		679,594.2563
Worker	106.3729	42.0437	735.0856	3.5234	535.3068	1.5841	536.8910	141.9883	1.4570	143.4454		351,865.9507	351,865.9507	3.5707		351,955.2169
Total	146.2557	1,948.0945	964.9741	9.9937	702.0353	3.3225	705.3578	189.9956	3.1195	193.1151		1,030,176.5062	1,030,176.5062	54.9187		1,031,549.4732

Fresno SPWA - Fresno County, Summer

3.2 Building Construction - 2035**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	39.8827	1,906.0507	229.8885	6.4703	166.7285	1.7384	168.4668	48.0073	1.6624	49.6697		678,310.556	678,310.556	51.3480		679,594.2563
Worker	106.3729	42.0437	735.0856	3.5234	535.3068	1.5841	536.8910	141.9883	1.4570	143.4454		351,865.9507	351,865.9507	3.5707		351,955.2169
Total	146.2557	1,948.0945	964.9741	9.9937	702.0353	3.3225	705.3578	189.9956	3.1195	193.1151		1,030,176.5062	1,030,176.5062	54.9187		1,031,549.4732

Fresno SPWA - Fresno County, Summer

3.3 Demolition - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					49.2177	0.0000	49.2177	7.4520	0.0000	7.4520			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	49.2177	1.5513	50.7690	7.4520	1.4411	8.8931		3,747.9449	3,747.9449	1.0549		3,774.3174

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6853	57.5238	7.8394	0.1813	3.9814	0.1912	4.1726	1.0917	0.1829	1.2746		19,032.7739	19,032.7739	1.5488		19,071.4926
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0341	0.4385	1.2200e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		121.1716	121.1716	3.0200e-003		121.2472
Total	1.7533	57.5579	8.2779	0.1825	4.1046	0.1920	4.2966	1.1244	0.1836	1.3080		19,153.9456	19,153.9456	1.5518		19,192.7398

Fresno SPWA - Fresno County, Summer

3.3 Demolition - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					22.1480	0.0000	22.1480	3.3534	0.0000	3.3534			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4
Total	3.1651	31.4407	21.5650	0.0388	22.1480	1.5513	23.6993	3.3534	1.4411	4.7945	0.0000	3,747.944 9	3,747.944 9	1.0549		3,774.317 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.6853	57.5238	7.8394	0.1813	3.9814	0.1912	4.1726	1.0917	0.1829	1.2746		19,032.77 39	19,032.77 39	1.5488		19,071.49 26
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0341	0.4385	1.2200e- 003	0.1232	7.5000e- 004	0.1240	0.0327	6.9000e- 004	0.0334		121.1716	121.1716	3.0200e- 003		121.2472
Total	1.7533	57.5579	8.2779	0.1825	4.1046	0.1920	4.2966	1.1244	0.1836	1.3080		19,153.94 56	19,153.94 56	1.5518		19,192.73 98

Fresno SPWA - Fresno County, Summer

3.4 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0816	0.0409	0.5263	1.4600e-003	0.1479	9.0000e-004	0.1488	0.0392	8.2000e-004	0.0401		145.4060	145.4060	3.6300e-003		145.4967
Total	0.0816	0.0409	0.5263	1.4600e-003	0.1479	9.0000e-004	0.1488	0.0392	8.2000e-004	0.0401		145.4060	145.4060	3.6300e-003		145.4967

Fresno SPWA - Fresno County, Summer

3.4 Site Preparation - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	8.1298	2.0445	10.1743	4.4688	1.8809	6.3497	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0816	0.0409	0.5263	1.4600e-003	0.1479	9.0000e-004	0.1488	0.0392	8.2000e-004	0.0401		145.4060	145.4060	3.6300e-003		145.4967
Total	0.0816	0.0409	0.5263	1.4600e-003	0.1479	9.0000e-004	0.1488	0.0392	8.2000e-004	0.0401		145.4060	145.4060	3.6300e-003		145.4967

Fresno SPWA - Fresno County, Summer

3.5 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					121.4861	0.0000	121.4861	15.7776	0.0000	15.7776			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.043 4	6,007.043 4	1.9428		6,055.613 4
Total	4.1912	46.3998	30.8785	0.0620	121.4861	1.9853	123.4714	15.7776	1.8265	17.6041		6,007.043 4	6,007.043 4	1.9428		6,055.613 4

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0907	0.0454	0.5847	1.6200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		161.5622	161.5622	4.0300e-003		161.6630
Total	0.0907	0.0454	0.5847	1.6200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		161.5622	161.5622	4.0300e-003		161.6630

Fresno SPWA - Fresno County, Summer

3.5 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					54.6688	0.0000	54.6688	7.0999	0.0000	7.0999			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.043 4	6,007.043 4	1.9428		6,055.613 4
Total	4.1912	46.3998	30.8785	0.0620	54.6688	1.9853	56.6541	7.0999	1.8265	8.9264	0.0000	6,007.043 4	6,007.043 4	1.9428		6,055.613 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0907	0.0454	0.5847	1.6200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		161.5622	161.5622	4.0300e-003		161.6630
Total	0.0907	0.0454	0.5847	1.6200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		161.5622	161.5622	4.0300e-003		161.6630

Fresno SPWA - Fresno County, Summer

3.6 Underground Utilities - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5111	25.8382	29.3065	0.0456		1.3555	1.3555		1.2470	1.2470		4,414.4217	4,414.4217	1.4277		4,450.1146
Total	2.5111	25.8382	29.3065	0.0456		1.3555	1.3555		1.2470	1.2470		4,414.4217	4,414.4217	1.4277		4,450.1146

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1360	0.0681	0.8771	2.4300e-003	0.4606	1.4900e-003	0.4621	0.1179	1.3700e-003	0.1193		242.3433	242.3433	6.0500e-003		242.4945
Total	0.1360	0.0681	0.8771	2.4300e-003	0.4606	1.4900e-003	0.4621	0.1179	1.3700e-003	0.1193		242.3433	242.3433	6.0500e-003		242.4945

Fresno SPWA - Fresno County, Summer

3.6 Underground Utilities - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5111	25.8382	29.3065	0.0456		1.3555	1.3555		1.2470	1.2470	0.0000	4,414.4217	4,414.4217	1.4277		4,450.1146
Total	2.5111	25.8382	29.3065	0.0456		1.3555	1.3555		1.2470	1.2470	0.0000	4,414.4217	4,414.4217	1.4277		4,450.1146

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1360	0.0681	0.8771	2.4300e-003	0.4606	1.4900e-003	0.4621	0.1179	1.3700e-003	0.1193		242.3433	242.3433	6.0500e-003		242.4945
Total	0.1360	0.0681	0.8771	2.4300e-003	0.4606	1.4900e-003	0.4621	0.1179	1.3700e-003	0.1193		242.3433	242.3433	6.0500e-003		242.4945

Fresno SPWA - Fresno County, Summer

3.7 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	31.1318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	32.3873	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0341	0.4385	1.2200e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		121.1716	121.1716	3.0200e-003		121.2472
Total	0.0680	0.0341	0.4385	1.2200e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		121.1716	121.1716	3.0200e-003		121.2472

Fresno SPWA - Fresno County, Summer

3.7 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	31.1318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	32.3873	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0680	0.0341	0.4385	1.2200e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		121.1716	121.1716	3.0200e-003		121.2472
Total	0.0680	0.0341	0.4385	1.2200e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		121.1716	121.1716	3.0200e-003		121.2472

Fresno SPWA - Fresno County, Summer

3.7 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	31.1318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	32.2346	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0631	0.0304	0.4007	1.1700e-003	0.1232	7.2000e-004	0.1240	0.0327	6.7000e-004	0.0334		116.8138	116.8138	2.7000e-003		116.8813
Total	0.0631	0.0304	0.4007	1.1700e-003	0.1232	7.2000e-004	0.1240	0.0327	6.7000e-004	0.0334		116.8138	116.8138	2.7000e-003		116.8813

Fresno SPWA - Fresno County, Summer

3.7 Paving - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	31.1318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	32.2346	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0631	0.0304	0.4007	1.1700e-003	0.1232	7.2000e-004	0.1240	0.0327	6.7000e-004	0.0334		116.8138	116.8138	2.7000e-003		116.8813
Total	0.0631	0.0304	0.4007	1.1700e-003	0.1232	7.2000e-004	0.1240	0.0327	6.7000e-004	0.0334		116.8138	116.8138	2.7000e-003		116.8813

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	638.0348	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	59.0970	29.5898	381.0355	1.0570	107.0630	0.6486	107.7116	28.3981	0.5972	28.9953		105,281.9978	105,281.9978	2.6271		105,347.6748
Total	59.0970	29.5898	381.0355	1.0570	107.0630	0.6486	107.7116	28.3981	0.5972	28.9953		105,281.9978	105,281.9978	2.6271		105,347.6748

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	638.0348	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	59.0970	29.5898	381.0355	1.0570	107.0630	0.6486	107.7116	28.3981	0.5972	28.9953		105,281.9978	105,281.9978	2.6271		105,347.6748
Total	59.0970	29.5898	381.0355	1.0570	107.0630	0.6486	107.7116	28.3981	0.5972	28.9953		105,281.9978	105,281.9978	2.6271		105,347.6748

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	638.0205	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	54.8097	26.4278	348.1408	1.0187	107.0630	0.6298	107.6928	28.3981	0.5798	28.9779		101,495.6317	101,495.6317	2.3436		101,554.2214
Total	54.8097	26.4278	348.1408	1.0187	107.0630	0.6298	107.6928	28.3981	0.5798	28.9779		101,495.6317	101,495.6317	2.3436		101,554.2214

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	638.0205	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	54.8097	26.4278	348.1408	1.0187	107.0630	0.6298	107.6928	28.3981	0.5798	28.9779		101,495.6317	101,495.6317	2.3436		101,554.2214
Total	54.8097	26.4278	348.1408	1.0187	107.0630	0.6298	107.6928	28.3981	0.5798	28.9779		101,495.6317	101,495.6317	2.3436		101,554.2214

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	638.0076	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	50.9829	23.6630	318.5340	0.9802	107.0630	0.6136	107.6766	28.3981	0.5648	28.9629		97,684.7182	97,684.7182	2.0907		97,736.9852
Total	50.9829	23.6630	318.5340	0.9802	107.0630	0.6136	107.6766	28.3981	0.5648	28.9629		97,684.7182	97,684.7182	2.0907		97,736.9852

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	638.0076	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	50.9829	23.6630	318.5340	0.9802	107.0630	0.6136	107.6766	28.3981	0.5648	28.9629		97,684.7182	97,684.7182	2.0907		97,736.9852
Total	50.9829	23.6630	318.5340	0.9802	107.0630	0.6136	107.6766	28.3981	0.5648	28.9629		97,684.7182	97,684.7182	2.0907		97,736.9852

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	637.9967	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	47.5996	21.2731	293.4613	0.9416	107.0630	0.5986	107.6616	28.3981	0.5509	28.9490		93,863.73 36	93,863.73 36	1.8713		93,910.51 50
Total	47.5996	21.2731	293.4613	0.9416	107.0630	0.5986	107.6616	28.3981	0.5509	28.9490		93,863.73 36	93,863.73 36	1.8713		93,910.51 50

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	637.9967	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	47.5996	21.2731	293.4613	0.9416	107.0630	0.5986	107.6616	28.3981	0.5509	28.9490		93,863.73 36	93,863.73 36	1.8713		93,910.51 50
Total	47.5996	21.2731	293.4613	0.9416	107.0630	0.5986	107.6616	28.3981	0.5509	28.9490		93,863.73 36	93,863.73 36	1.8713		93,910.51 50

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	44.6852	19.2264	270.7882	0.9039	107.0630	0.5870	107.6500	28.3981	0.5402	28.9383		90,123.1954	90,123.1954	1.6855		90,165.3331
Total	44.6852	19.2264	270.7882	0.9039	107.0630	0.5870	107.6500	28.3981	0.5402	28.9383		90,123.1954	90,123.1954	1.6855		90,165.3331

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2025**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	44.6852	19.2264	270.7882	0.9039	107.0630	0.5870	107.6500	28.3981	0.5402	28.9383		90,123.1954	90,123.1954	1.6855		90,165.3331
Total	44.6852	19.2264	270.7882	0.9039	107.0630	0.5870	107.6500	28.3981	0.5402	28.9383		90,123.1954	90,123.1954	1.6855		90,165.3331

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	42.1783	17.5425	253.6779	0.8754	107.0630	0.5770	107.6400	28.3981	0.5309	28.9290		87,301.3154	87,301.3154	1.5475		87,340.0036
Total	42.1783	17.5425	253.6779	0.8754	107.0630	0.5770	107.6400	28.3981	0.5309	28.9290		87,301.3154	87,301.3154	1.5475		87,340.0036

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2026**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	42.1783	17.5425	253.6779	0.8754	107.0630	0.5770	107.6400	28.3981	0.5309	28.9290		87,301.3154	87,301.3154	1.5475		87,340.0036
Total	42.1783	17.5425	253.6779	0.8754	107.0630	0.5770	107.6400	28.3981	0.5309	28.9290		87,301.3154	87,301.3154	1.5475		87,340.0036

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2027**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	39.7261	16.0060	236.3473	0.8454	107.0630	0.5491	107.6121	28.3981	0.5051	28.9032		84,325.5857	84,325.5857	1.4056		84,360.7256
Total	39.7261	16.0060	236.3473	0.8454	107.0630	0.5491	107.6121	28.3981	0.5051	28.9032		84,325.5857	84,325.5857	1.4056		84,360.7256

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2027**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	39.7261	16.0060	236.3473	0.8454	107.0630	0.5491	107.6121	28.3981	0.5051	28.9032		84,325.5857	84,325.5857	1.4056		84,360.7256
Total	39.7261	16.0060	236.3473	0.8454	107.0630	0.5491	107.6121	28.3981	0.5051	28.9032		84,325.5857	84,325.5857	1.4056		84,360.7256

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2028**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	37.2058	14.6397	221.2449	0.8189	107.0630	0.5120	107.5751	28.3981	0.4710	28.8691		81,692.4671	81,692.4671	1.2843		81,724.5742
Total	37.2058	14.6397	221.2449	0.8189	107.0630	0.5120	107.5751	28.3981	0.4710	28.8691		81,692.4671	81,692.4671	1.2843		81,724.5742

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2028**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	37.2058	14.6397	221.2449	0.8189	107.0630	0.5120	107.5751	28.3981	0.4710	28.8691		81,692.4671	81,692.4671	1.2843		81,724.5742
Total	37.2058	14.6397	221.2449	0.8189	107.0630	0.5120	107.5751	28.3981	0.4710	28.8691		81,692.4671	81,692.4671	1.2843		81,724.5742

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2029**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	34.5578	13.3922	207.0505	0.7954	107.0630	0.4773	107.5403	28.3981	0.4390	28.8371		79,364.9043	79,364.9043	1.1711		79,394.1827
Total	34.5578	13.3922	207.0505	0.7954	107.0630	0.4773	107.5403	28.3981	0.4390	28.8371		79,364.9043	79,364.9043	1.1711		79,394.1827

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2029**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	34.5578	13.3922	207.0505	0.7954	107.0630	0.4773	107.5403	28.3981	0.4390	28.8371		79,364.9043	79,364.9043	1.1711		79,394.1827
Total	34.5578	13.3922	207.0505	0.7954	107.0630	0.4773	107.5403	28.3981	0.4390	28.8371		79,364.9043	79,364.9043	1.1711		79,394.1827

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2030**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	31.9415	12.2633	194.2859	0.7747	107.0630	0.4452	107.5082	28.3981	0.4094	28.8076		77,311.3624	77,311.3624	1.0706		77,338.1273
Total	31.9415	12.2633	194.2859	0.7747	107.0630	0.4452	107.5082	28.3981	0.4094	28.8076		77,311.3624	77,311.3624	1.0706		77,338.1273

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2030**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	31.9415	12.2633	194.2859	0.7747	107.0630	0.4452	107.5082	28.3981	0.4094	28.8076		77,311.3624	77,311.3624	1.0706		77,338.1273
Total	31.9415	12.2633	194.2859	0.7747	107.0630	0.4452	107.5082	28.3981	0.4094	28.8076		77,311.3624	77,311.3624	1.0706		77,338.1273

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2031**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	29.1747	11.1979	182.1317	0.7565	107.0630	0.4149	107.4779	28.3981	0.3816	28.7797		75,506.53 57	75,506.53 57	0.9768		75,530.95 67
Total	29.1747	11.1979	182.1317	0.7565	107.0630	0.4149	107.4779	28.3981	0.3816	28.7797		75,506.53 57	75,506.53 57	0.9768		75,530.95 67

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2031**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	29.1747	11.1979	182.1317	0.7565	107.0630	0.4149	107.4779	28.3981	0.3816	28.7797		75,506.53 57	75,506.53 57	0.9768		75,530.95 67
Total	29.1747	11.1979	182.1317	0.7565	107.0630	0.4149	107.4779	28.3981	0.3816	28.7797		75,506.53 57	75,506.53 57	0.9768		75,530.95 67

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2032**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	26.6872	10.2814	171.4606	0.7406	107.0630	0.3870	107.4500	28.3981	0.3559	28.7540		73,930.5609	73,930.5609	0.8956		73,952.9506
Total	26.6872	10.2814	171.4606	0.7406	107.0630	0.3870	107.4500	28.3981	0.3559	28.7540		73,930.5609	73,930.5609	0.8956		73,952.9506

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2032**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	26.6872	10.2814	171.4606	0.7406	107.0630	0.3870	107.4500	28.3981	0.3559	28.7540		73,930.5609	73,930.5609	0.8956		73,952.9506
Total	26.6872	10.2814	171.4606	0.7406	107.0630	0.3870	107.4500	28.3981	0.3559	28.7540		73,930.5609	73,930.5609	0.8956		73,952.9506

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2033**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	24.5294	9.5045	162.2460	0.7268	107.0630	0.3614	107.4244	28.3981	0.3324	28.7305		72,562.6568	72,562.6568	0.8260		72,583.3078
Total	24.5294	9.5045	162.2460	0.7268	107.0630	0.3614	107.4244	28.3981	0.3324	28.7305		72,562.6568	72,562.6568	0.8260		72,583.3078

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2033**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	24.5294	9.5045	162.2460	0.7268	107.0630	0.3614	107.4244	28.3981	0.3324	28.7305		72,562.6568	72,562.6568	0.8260		72,583.3078
Total	24.5294	9.5045	162.2460	0.7268	107.0630	0.3614	107.4244	28.3981	0.3324	28.7305		72,562.6568	72,562.6568	0.8260		72,583.3078

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2034**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	22.7715	8.8865	153.9833	0.7149	107.0630	0.3379	107.4009	28.3981	0.3108	28.7089		71,381.5509	71,381.5509	0.7650		71,400.6751
Total	22.7715	8.8865	153.9833	0.7149	107.0630	0.3379	107.4009	28.3981	0.3108	28.7089		71,381.5509	71,381.5509	0.7650		71,400.6751

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2034**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	22.7715	8.8865	153.9833	0.7149	107.0630	0.3379	107.4009	28.3981	0.3108	28.7089		71,381.5509	71,381.5509	0.7650		71,400.6751
Total	22.7715	8.8865	153.9833	0.7149	107.0630	0.3379	107.4009	28.3981	0.3108	28.7089		71,381.5509	71,381.5509	0.7650		71,400.6751

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2035**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	637.9338	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	21.2749	8.4089	147.0194	0.7047	107.0630	0.3168	107.3798	28.3981	0.2914	28.6895		70,374.2701	70,374.2701	0.7141		70,392.1236
Total	21.2749	8.4089	147.0194	0.7047	107.0630	0.3168	107.3798	28.3981	0.2914	28.6895		70,374.2701	70,374.2701	0.7141		70,392.1236

Fresno SPWA - Fresno County, Summer

3.8 Architectural Coating - 2035**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	637.9338	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	21.2749	8.4089	147.0194	0.7047	107.0630	0.3168	107.3798	28.3981	0.2914	28.6895		70,374.2701	70,374.2701	0.7141		70,392.1236
Total	21.2749	8.4089	147.0194	0.7047	107.0630	0.3168	107.3798	28.3981	0.2914	28.6895		70,374.2701	70,374.2701	0.7141		70,392.1236

4.0 Operational Detail - Mobile

Fresno SPWA - Fresno County, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1,236.820 1	16,638.69 49	11,294.06 58	94.2709	6,655.705 4	34.3510	6,690.056 4	1,788.263 7	32.2749	1,820.5386		9,718,550. 8417	9,718,550. 8417	651.0888		9,734,828. 0614
Unmitigated	1,236.820 1	16,638.69 49	11,294.06 58	94.2709	6,655.705 4	34.3510	6,690.056 4	1,788.263 7	32.2749	1,820.5386		9,718,550. 8417	9,718,550. 8417	651.0888		9,734,828. 0614

4.2 Trip Summary Information

Fresno SPWA - Fresno County, Summer

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	7,003.98	7,003.98	7003.98	23,077,610	23,077,610
Apartments Low Rise	24,474.42	24,474.42	24474.42	80,641,452	80,641,452
Apartments Mid Rise	18,739.44	18,739.44	18739.44	61,745,106	61,745,106
Apartments Mid Rise	277.44	277.44	277.44	914,145	914,145
Single Family Housing	12,814.80	12,814.80	12814.80	42,223,843	42,223,843
Single Family Housing	60,633.12	60,633.12	60633.12	199,781,765	199,781,765
Single Family Housing	177,708.00	177,708.00	177708.00	585,535,065	585,535,065
Regional Shopping Center	31,344.25	31,344.25	31344.25	87,379,322	87,379,322
Regional Shopping Center	11,218.80	11,218.80	11218.80	31,274,982	31,274,982
Regional Shopping Center	234,254.18	234,254.18	234254.18	653,037,499	653,037,499
Regional Shopping Center	2,301.29	2,301.29	2301.29	6,415,368	6,415,368
Regional Shopping Center	251,633.28	251,633.28	251633.28	701,485,733	701,485,733
Regional Shopping Center	78,417.62	78,417.62	78417.62	218,607,185	218,607,185
General Light Industry	5,310.15	5,310.15	5310.15	16,619,043	16,619,043
General Office Building	52,380.68	52,380.68	52380.68	153,028,277	153,028,277
Office Park	17,016.53	17,016.53	17016.53	49,713,186	49,713,186
City Park	0.00	0.00	0.00		
Elementary School	22,196.02	22,196.02	22196.02	70,532,737	70,532,737
High School	14,918.80	14,918.80	14918.80	48,936,982	48,936,982
Junior College (2Yr)	0.00	0.00	0.00		
Junior High School	12,504.00	12,504.00	12504.00	40,515,241	40,515,241
Library	0.00	0.00	0.00		
Library	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Place of Worship	3,953.92	3,953.92	3953.92	10,506,359	10,506,359
Total	1,039,100.72	1,039,100.72	1,039,100.72	3,081,970,900	3,081,970,900

4.3 Trip Type Information

Fresno SPWA - Fresno County, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Apartments Low Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Apartments Mid Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Apartments Mid Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Single Family Housing	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Single Family Housing	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Single Family Housing	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	100	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	100	0	0
High School	9.50	7.30	7.30	77.80	17.20	5.00	100	0	0
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	100	0	0
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Place of Worship	9.50	7.30	7.30	0.00	95.00	5.00	100	0	0

4.4 Fleet Mix

Fresno SPWA - Fresno County, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Apartments Low Rise	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Apartments Mid Rise	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Single Family Housing	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Regional Shopping Center	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
General Light Industry	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
General Office Building	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Office Park	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
City Park	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Elementary School	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
High School	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Junior College (2Yr)	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Junior High School	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Library	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Other Asphalt Surfaces	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Place of Worship	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Fresno SPWA - Fresno County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729
NaturalGas Unmitigated	56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	69964.3	0.7545	6.4477	2.7437	0.0412		0.5213	0.5213		0.5213	0.5213		8,231.0951	8,231.0951	0.1578	0.1509	8,280.0083
Apartments Low Rise	172658	1.8620	15.9117	6.7709	0.1016		1.2865	1.2865		1.2865	1.2865		20,312.7603	20,312.7603	0.3893	0.3724	20,433.4688
Apartments Mid Rise	153241	1.6526	14.1222	6.0095	0.0901		1.1418	1.1418		1.1418	1.1418		18,028.3355	18,028.3355	0.3455	0.3305	18,135.4689
Apartments Mid Rise	2268.75	0.0245	0.2091	0.0890	1.3300e-003		0.0169	0.0169		0.0169	0.0169		266.9120	266.9120	5.1200e-003	4.8900e-003	268.4981
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	89901	0.9695	8.8138	7.4036	0.0529		0.6699	0.6699		0.6699	0.6699		10,576.5852	10,576.5852	0.2027	0.1939	10,639.4365

Fresno SPWA - Fresno County, Summer

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	81619.5	0.8802	8.0019	6.7216	0.0480		0.6082	0.6082		0.6082	0.6082		9,602.2921	9,602.2921	0.1840	0.1760	9,659.3537
General Office Building	256195	2.7629	25.1172	21.0985	0.1507		1.9089	1.9089		1.9089	1.9089		30,140.6417	30,140.6417	0.5777	0.5526	30,319.7525
High School	89575.1	0.9660	8.7819	7.3768	0.0527		0.6674	0.6674		0.6674	0.6674		10,538.2481	10,538.2481	0.2020	0.1932	10,600.8716
Junior College (2Yr)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Junior High School	63204.6	0.6816	6.1965	5.2051	0.0372		0.4709	0.4709		0.4709	0.4709		7,435.8343	7,435.8343	0.1425	0.1363	7,480.0217
Library	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	203842	2.1983	19.9845	16.7870	0.1199		1.5188	1.5188		1.5188	1.5188		23,981.4403	23,981.4403	0.4596	0.4397	24,123.9500
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	43393	0.4680	4.2542	3.5735	0.0255		0.3233	0.3233		0.3233	0.3233		5,105.0610	5,105.0610	0.0979	0.0936	5,135.3978
Regional Shopping Center	184496	1.9897	18.0878	15.1938	0.1085		1.3747	1.3747		1.3747	1.3747		21,705.3906	21,705.3906	0.4160	0.3979	21,834.3749
Regional Shopping Center	26394.8	0.2847	2.5877	2.1737	0.0155		0.1967	0.1967		0.1967	0.1967		3,105.2762	3,105.2762	0.0595	0.0569	3,123.7293
Regional Shopping Center	5414.32	0.0584	0.5308	0.4459	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.9785	636.9785	0.0122	0.0117	640.7638
Regional Shopping Center	551138	5.9436	54.0331	45.3878	0.3242		4.1065	4.1065		4.1065	4.1065		64,839.7445	64,839.7445	1.2428	1.1887	65,225.0547
Regional Shopping Center	592026	6.3846	58.0418	48.7551	0.3483		4.4112	4.4112		4.4112	4.4112		69,650.1437	69,650.1437	1.3350	1.2769	70,064.0397
Regional Shopping Center	73744.7	0.7953	7.2299	6.0731	0.0434		0.5495	0.5495		0.5495	0.5495		8,675.8463	8,675.8463	0.1663	0.1591	8,727.4025
Single Family Housing	1.79793e+006	19.3895	165.6919	70.5072	1.0576		13.3964	13.3964		13.3964	13.3964		211,521.5226	211,521.5226	4.0542	3.8779	212,778.4893
Single Family Housing	129652	1.3982	11.9483	5.0844	0.0763		0.9660	0.9660		0.9660	0.9660		15,253.1457	15,253.1457	0.2924	0.2796	15,343.7875
Single Family Housing	613446	6.6156	56.5333	24.0567	0.3609		4.5708	4.5708		4.5708	4.5708		72,170.1323	72,170.1323	1.3833	1.3231	72,599.0033

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Total		56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729
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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	69.9643	0.7545	6.4477	2.7437	0.0412		0.5213	0.5213		0.5213	0.5213		8,231.0951	8,231.0951	0.1578	0.1509	8,280.0083
Apartments Low Rise	172.658	1.8620	15.9117	6.7709	0.1016		1.2865	1.2865		1.2865	1.2865		20,312.7603	20,312.7603	0.3893	0.3724	20,433.4688
Apartments Mid Rise	153.241	1.6526	14.1222	6.0095	0.0901		1.1418	1.1418		1.1418	1.1418		18,028.3355	18,028.3355	0.3455	0.3305	18,135.4689
Apartments Mid Rise	2.26875	0.0245	0.2091	0.0890	1.3300e-003		0.0169	0.0169		0.0169	0.0169		266.9120	266.9120	5.1200e-003	4.8900e-003	268.4981
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	89.901	0.9695	8.8138	7.4036	0.0529		0.6699	0.6699		0.6699	0.6699		10,576.5852	10,576.5852	0.2027	0.1939	10,639.4365
General Light Industry	81.6195	0.8802	8.0019	6.7216	0.0480		0.6082	0.6082		0.6082	0.6082		9,602.2921	9,602.2921	0.1840	0.1760	9,659.3537
General Office Building	256.195	2.7629	25.1172	21.0985	0.1507		1.9089	1.9089		1.9089	1.9089		30,140.6417	30,140.6417	0.5777	0.5526	30,319.7525
High School	89.5751	0.9660	8.7819	7.3768	0.0527		0.6674	0.6674		0.6674	0.6674		10,538.2481	10,538.2481	0.2020	0.1932	10,600.8716
Junior College (2Yr)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Junior High School	63.2046	0.6816	6.1965	5.2051	0.0372		0.4709	0.4709		0.4709	0.4709		7,435.8343	7,435.8343	0.1425	0.1363	7,480.0217
Library	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	203.842	2.1983	19.9845	16.7870	0.1199		1.5188	1.5188		1.5188	1.5188		23,981.4403	23,981.4403	0.4596	0.4397	24,123.9500

Fresno SPWA - Fresno County, Summer

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	43.393	0.4680	4.2542	3.5735	0.0255		0.3233	0.3233		0.3233	0.3233		5,105.0610	5,105.0610	0.0979	0.0936	5,135.3978
Regional Shopping Center	184.496	1.9897	18.0878	15.1938	0.1085		1.3747	1.3747		1.3747	1.3747		21,705.3906	21,705.3906	0.4160	0.3979	21,834.3749
Regional Shopping Center	26.3948	0.2847	2.5877	2.1737	0.0155		0.1967	0.1967		0.1967	0.1967		3,105.2762	3,105.2762	0.0595	0.0569	3,123.7293
Regional Shopping Center	5.41432	0.0584	0.5308	0.4459	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.9785	636.9785	0.0122	0.0117	640.7638
Regional Shopping Center	551.138	5.9436	54.0331	45.3878	0.3242		4.1065	4.1065		4.1065	4.1065		64,839.7445	64,839.7445	1.2428	1.1887	65,225.0547
Regional Shopping Center	592.026	6.3846	58.0418	48.7551	0.3483		4.4112	4.4112		4.4112	4.4112		69,650.1437	69,650.1437	1.3350	1.2769	70,064.0397
Regional Shopping Center	73.7447	0.7953	7.2299	6.0731	0.0434		0.5495	0.5495		0.5495	0.5495		8,675.8463	8,675.8463	0.1663	0.1591	8,727.4025
Single Family Housing	129.652	1.3982	11.9483	5.0844	0.0763		0.9660	0.9660		0.9660	0.9660		15,253.1457	15,253.1457	0.2924	0.2796	15,343.7875
Single Family Housing	1797.93	19.3895	165.6919	70.5072	1.0576		13.3964	13.3964		13.3964	13.3964		211,521.5226	211,521.5226	4.0542	3.8779	212,778.4893
Single Family Housing	613.446	6.6156	56.5333	24.0567	0.3609		4.5708	4.5708		4.5708	4.5708		72,170.1323	72,170.1323	1.3833	1.3231	72,599.0033
Total		56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729

6.0 Area Detail

6.1 Mitigation Measures Area

Fresno SPWA - Fresno County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244
Unmitigated	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	638.8644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,014.3757					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	130.5722	1,115.7985	474.8079	7.1221		90.2135	90.2135		90.2135	90.2135	0.0000	1,424,423.6471	1,424,423.6471	27.3015	26.1144	1,432,888.2846
Landscaping	115.6596	44.3722	3,848.1927	0.2041		21.3959	21.3959		21.3959	21.3959		6,956.9217	6,956.9217	6.6567		7,123.3398
Total	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244

Fresno SPWA - Fresno County, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	638.8644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,014.3757					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	130.5722	1,115.7985	474.8079	7.1221		90.2135	90.2135		90.2135	90.2135	0.0000	1,424,423.6471	1,424,423.6471	27.3015	26.1144	1,432,888.2846
Landscaping	115.6596	44.3722	3,848.1927	0.2041		21.3959	21.3959		21.3959	21.3959		6,956.9217	6,956.9217	6.6567		7,123.3398
Total	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fresno SPWA - Fresno County, Summer

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Fresno SPWA - Fresno County, Winter

Fresno SPWA
Fresno County, Winter

1.0 Project Characteristics

1.1 Land Usage

Fresno SPWA - Fresno County, Winter

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,810.00	Dwelling Unit	517.22	3,258,000.00	5177
Single Family Housing	8,564.00	Dwelling Unit	1,427.41	15,415,200.00	24493
Single Family Housing	25,100.00	Dwelling Unit	2,091.66	45,180,000.00	71786
Apartments Low Rise	4,458.00	Dwelling Unit	278.63	4,458,000.00	12750
Apartments Mid Rise	4,593.00	Dwelling Unit	153.10	4,593,000.00	13136
Apartments High Rise	2,097.00	Dwelling Unit	46.61	2,097,000.00	5997
Regional Shopping Center	2,515.59	1000sqft	57.75	2,515,590.00	0
Regional Shopping Center	900.39	1000sqft	41.34	900,385.00	0
Regional Shopping Center	18,800.50	1000sqft	215.80	18,800,496.00	0
Apartments Mid Rise	68.00	Dwelling Unit	1.79	68,000.00	194
General Office Building	7,165.62	1000sqft	82.25	7,165,620.00	0
Office Park	3,266.13	1000sqft	74.98	3,266,129.00	0
Regional Shopping Center	184.69	1000sqft	4.24	184,694.00	0
General Light Industry	1,427.46	1000sqft	32.77	1,427,461.00	0
Regional Shopping Center	20,195.29	1000sqft	309.08	20,195,287.00	0
Regional Shopping Center	6,293.55	1000sqft	96.32	6,293,549.00	0
City Park	243.63	Acre	243.63	10,612,522.80	0
Library	0.00	1000sqft	26.84	0.00	0
Place of Worship	758.91	1000sqft	60.14	758,910.00	0
Junior College (2Yr)	0.00	1000sqft	18.38	0.00	0
Elementary School	15,631.00	Student	91.83	1,306,804.28	0
Junior High School	7,815.00	Student	145.37	918,744.56	0
High School	9,815.00	Student	46.95	1,302,067.49	0
Library	0.00	1000sqft	3.32	0.00	0
Other Asphalt Surfaces	1,010.00	Acre	1,010.00	43,995,600.00	0

1.2 Other Project Characteristics

Fresno SPWA - Fresno County, Winter

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Buildout year = 2035 (note: consistent with traffic report from Kittelson). Assumes construction starts as early as March 1, 2021 (as conservative estimate).

Land Use - Land uses, unit amounts, and acreages are consistent with VMT analysis. Population est. based on 2.97 persons per du (consistent with the City's GP Housing Element). Shopping center uses assumed for mixed use (highest trip gen).

Construction Phase - Construction schedule assumed based on project characteristics. Actual construction schedule will depend on market conditions.

Demolition - Assumption of 1,000,000 sf of building square footage demolished. Actual demolition will depend on market conditions.

Grading - Assume Plan Area is graded.

Vehicle Trips - Operational mobile trip rates as provided by Kittelson & Associates (VMT Analysis).

Trips and VMT - Default values for construction trips and VMT

Woodstoves - No woodstoves per SJVAPCD Rule 4901.

Energy Use -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10,000.00	20.00
tblConstructionPhase	NumDays	15,500.00	65.00
tblConstructionPhase	NumDays	6,000.00	65.00
tblConstructionPhase	NumDays	11,000.00	85.00
tblConstructionPhase	NumDays	155,000.00	3,833.00

Fresno SPWA - Fresno County, Winter

tblConstructionPhase	NumDays	11,000.00	3,656.00
tblConstructionPhase	PhaseEndDate	6/27/2059	3/26/2021
tblConstructionPhase	PhaseEndDate	11/24/2141	9/24/2021
tblConstructionPhase	PhaseEndDate	1/23/2184	12/24/2021
tblConstructionPhase	PhaseEndDate	6/26/2082	6/25/2021
tblConstructionPhase	PhaseStartDate	6/27/2082	6/26/2021
tblConstructionPhase	PhaseStartDate	11/25/2141	9/25/2021
tblConstructionPhase	PhaseStartDate	6/28/2059	3/27/2021
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberNoFireplace	943.65	1,153.35
tblFireplaces	NumberNoFireplace	2,006.10	2,451.90
tblFireplaces	NumberNoFireplace	2,097.45	2,563.55
tblFireplaces	NumberNoFireplace	15,963.30	19,510.70
tblGrading	AcresOfGrading	162.50	7,077.00
tblLandUse	LandUseSquareFeet	18,800,500.00	18,800,496.00
tblLandUse	LandUseSquareFeet	3,266,130.00	3,266,129.00
tblLandUse	LandUseSquareFeet	1,427,460.00	1,427,461.00
tblLandUse	LandUseSquareFeet	20,195,300.00	20,195,287.00
tblLandUse	LandUseSquareFeet	6,293,550.00	6,293,549.00
tblLandUse	LotAcreage	587.66	517.22
tblLandUse	LotAcreage	2,780.52	1,427.41
tblLandUse	LotAcreage	8,149.35	2,091.66
tblLandUse	LotAcreage	120.87	153.10
tblLandUse	LotAcreage	33.82	46.61

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tblLandUse	LotAcreage	20.67	41.34
tblLandUse	LotAcreage	431.60	215.80
tblLandUse	LotAcreage	164.50	82.25
tblLandUse	LotAcreage	463.62	309.08
tblLandUse	LotAcreage	144.48	96.32
tblLandUse	LotAcreage	17.42	60.14
tblLandUse	LotAcreage	30.00	91.83
tblLandUse	LotAcreage	21.09	145.37
tblLandUse	LotAcreage	29.89	46.95
tblLandUse	LotAcreage	0.00	18.38
tblLandUse	LotAcreage	0.00	26.84
tblLandUse	LotAcreage	0.00	3.32
tblTripsAndVMT	WorkerTripNumber	30.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
tblVehicleTrips	DV_TP	7.00	0.00
tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	DV_TP	44.00	0.00

Fresno SPWA - Fresno County, Winter

tblVehicleTrips	DV_TP	25.00	0.00
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HO_TTP	35.70	36.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HS_TTP	15.90	16.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	HW_TTP	48.40	48.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	1.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00
tblVehicleTrips	PB_TP	12.00	0.00

Fresno SPWA - Fresno County, Winter

tblVehicleTrips	PB_TP	11.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	82.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	63.00	100.00
tblVehicleTrips	PR_TP	75.00	100.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	PR_TP	63.00	100.00
tblVehicleTrips	PR_TP	44.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	64.00	100.00
tblVehicleTrips	ST_TR	4.98	3.34
tblVehicleTrips	ST_TR	7.16	5.49
tblVehicleTrips	ST_TR	6.39	4.08
tblVehicleTrips	ST_TR	9.91	7.08
tblVehicleTrips	ST_TR	49.97	12.46
tblVehicleTrips	ST_TR	1.32	3.72
tblVehicleTrips	ST_TR	2.46	7.31
tblVehicleTrips	ST_TR	1.64	5.21
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	0.00	1.42

Fresno SPWA - Fresno County, Winter

tblVehicleTrips	ST_TR	0.61	1.52
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	ST_TR	0.00	1.60
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	ST_TR	10.37	5.21
tblVehicleTrips	SU_TR	3.65	3.34
tblVehicleTrips	SU_TR	6.07	5.49
tblVehicleTrips	SU_TR	5.86	4.08
tblVehicleTrips	SU_TR	8.62	7.08
tblVehicleTrips	SU_TR	25.24	12.46
tblVehicleTrips	SU_TR	0.68	3.72
tblVehicleTrips	SU_TR	1.05	7.31
tblVehicleTrips	SU_TR	0.76	5.21
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	0.00	1.42
tblVehicleTrips	SU_TR	0.25	1.52
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	SU_TR	0.00	1.60
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	SU_TR	36.63	5.21
tblVehicleTrips	WD_TR	4.20	3.34
tblVehicleTrips	WD_TR	6.59	5.49
tblVehicleTrips	WD_TR	6.65	4.08
tblVehicleTrips	WD_TR	9.52	7.08
tblVehicleTrips	WD_TR	42.70	12.46
tblVehicleTrips	WD_TR	6.97	3.72
tblVehicleTrips	WD_TR	11.03	7.31

Fresno SPWA - Fresno County, Winter

tblVehicleTrips	WD_TR	11.42	5.21
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	1.29	1.42
tblVehicleTrips	WD_TR	1.71	1.52
tblVehicleTrips	WD_TR	27.49	0.00
tblVehicleTrips	WD_TR	1.62	1.60
tblVehicleTrips	WD_TR	56.24	0.00
tblVehicleTrips	WD_TR	9.11	5.21
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

Fresno SPWA - Fresno County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	393.5771	3,255.9596	2,337.2917	11.6751	701.9987	20.8374	722.8361	189.9825	19.7962	209.7787	0.0000	1,198,169.0364	1,198,169.0364	110.5936	0.0000	1,200,933.8749
2021	1,078.3455	3,042.0025	2,439.6764	12.3967	823.6528	13.8496	837.4434	218.4146	13.0417	230.8900	0.0000	1,269,889.2392	1,269,889.2392	109.0877	0.0000	1,272,616.4318
2022	1,049.4088	2,828.7227	2,229.8426	12.1292	809.1928	11.7884	820.9813	218.4161	11.1108	229.5269	0.0000	1,243,135.3455	1,243,135.3455	104.8291	0.0000	1,245,756.0723
2023	973.9095	2,224.7590	1,971.0673	11.7391	809.0715	6.4439	815.5154	218.3841	6.0227	224.4068	0.0000	1,203,671.9682	1,203,671.9682	73.2798	0.0000	1,205,503.9640
2024	954.4443	2,191.2286	1,822.2435	11.4877	809.0744	6.2343	815.3088	218.3851	5.8258	224.2110	0.0000	1,178,519.0479	1,178,519.0479	72.6705	0.0000	1,180,335.8108
2025	937.6046	2,159.4528	1,691.3214	11.2444	809.0778	6.0455	815.1233	218.3864	5.6483	224.0347	0.0000	1,154,152.2013	1,154,152.2013	71.9492	0.0000	1,155,950.9309
2026	923.3788	2,131.0611	1,589.7808	11.0537	809.0808	5.9598	815.0405	218.3874	5.5682	223.9556	0.0000	1,135,026.0983	1,135,026.0983	71.0661	0.0000	1,136,802.7501
2027	909.5067	2,103.5250	1,491.3941	10.8603	809.0837	5.7652	814.8488	218.3885	5.3877	223.7762	0.0000	1,115,642.0351	1,115,642.0351	70.1453	0.0000	1,117,395.6663
2028	895.0116	2,081.9506	1,406.6277	10.6924	809.0866	5.5235	814.6101	218.3895	5.1644	223.5539	0.0000	1,098,831.9897	1,098,831.9897	69.0576	0.0000	1,100,558.4302
2029	879.7381	2,061.1082	1,326.9602	10.5437	809.0889	5.2929	814.3818	218.3903	4.9512	223.3416	0.0000	1,083,956.5901	1,083,956.5901	67.8775	0.0000	1,085,653.5276
2030	864.6087	2,037.8286	1,255.9805	10.4187	809.0909	4.6680	813.7589	218.3911	4.3739	222.7650	0.0000	1,071,395.1191	1,071,395.1191	66.1937	0.0000	1,073,049.9629
2031	848.6672	2,021.3478	1,188.8143	10.3073	809.0926	4.4692	813.5619	218.3917	4.1904	222.5821	0.0000	1,060,272.9369	1,060,272.9369	65.2079	0.0000	1,061,903.1357
2032	834.4160	2,007.1210	1,130.2994	10.2137	809.0943	4.2851	813.3794	218.3923	4.0204	222.4127	0.0000	1,050,944.4400	1,050,944.4400	64.4146	0.0000	1,052,554.8058
2033	822.1781	1,995.0822	1,080.0763	10.1341	809.0957	4.1184	813.2141	218.3928	3.8666	222.2594	0.0000	1,043,029.4693	1,043,029.4693	63.5464	0.0000	1,044,618.1282
2034	812.5227	1,985.0686	1,035.1662	10.0673	809.0970	3.9652	813.0622	218.3933	3.7252	222.1185	0.0000	1,036,385.7149	1,036,385.7149	62.8656	0.0000	1,037,957.3561
2035	804.1910	1,975.8598	997.3237	10.0112	809.0983	3.7591	812.8574	218.3937	3.5298	221.9235	0.0000	1,030,817.9298	1,030,817.9298	62.2470	0.0000	1,032,374.1033
Maximum	1,078.3455	3,255.9596	2,439.6764	12.3967	823.6528	20.8374	837.4434	218.4161	19.7962	230.8900	0.0000	1,269,889.2392	1,269,889.2392	110.5936	0.0000	1,272,616.4318

Fresno SPWA - Fresno County, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

Fresno SPWA - Fresno County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	393.5771	3,255.9596	2,337.2917	11.6751	701.9987	20.8374	722.8361	189.9825	19.7962	209.7787	0.0000	1,198,169.0364	1,198,169.0364	110.5936	0.0000	1,200,933.8749
2021	1,078.3455	3,042.0025	2,439.6764	12.3967	809.1886	13.8496	822.4141	218.4146	13.0417	230.8900	0.0000	1,269,889.2392	1,269,889.2392	109.0877	0.0000	1,272,616.4318
2022	1,049.4088	2,828.7227	2,229.8426	12.1292	809.1928	11.7884	820.9813	218.4161	11.1108	229.5269	0.0000	1,243,135.3455	1,243,135.3455	104.8291	0.0000	1,245,756.0723
2023	973.9095	2,224.7590	1,971.0673	11.7391	809.0715	6.4439	815.5154	218.3841	6.0227	224.4068	0.0000	1,203,671.9682	1,203,671.9682	73.2798	0.0000	1,205,503.9640
2024	954.4443	2,191.2286	1,822.2435	11.4877	809.0744	6.2343	815.3088	218.3851	5.8258	224.2110	0.0000	1,178,519.0479	1,178,519.0479	72.6705	0.0000	1,180,335.8108
2025	937.6046	2,159.4528	1,691.3214	11.2444	809.0778	6.0455	815.1233	218.3864	5.6483	224.0347	0.0000	1,154,152.2013	1,154,152.2013	71.9492	0.0000	1,155,950.9309
2026	923.3788	2,131.0611	1,589.7808	11.0537	809.0808	5.9598	815.0405	218.3874	5.5682	223.9556	0.0000	1,135,026.0983	1,135,026.0983	71.0661	0.0000	1,136,802.7501
2027	909.5067	2,103.5250	1,491.3941	10.8603	809.0837	5.7652	814.8488	218.3885	5.3877	223.7762	0.0000	1,115,642.0351	1,115,642.0351	70.1453	0.0000	1,117,395.6663
2028	895.0116	2,081.9506	1,406.6277	10.6924	809.0866	5.5235	814.6101	218.3895	5.1644	223.5539	0.0000	1,098,831.9897	1,098,831.9897	69.0576	0.0000	1,100,558.4302
2029	879.7381	2,061.1082	1,326.9602	10.5437	809.0889	5.2929	814.3818	218.3903	4.9512	223.3416	0.0000	1,083,956.5901	1,083,956.5901	67.8775	0.0000	1,085,653.5276
2030	864.6087	2,037.8286	1,255.9805	10.4187	809.0909	4.6680	813.7589	218.3911	4.3739	222.7650	0.0000	1,071,395.1191	1,071,395.1191	66.1937	0.0000	1,073,049.9629
2031	848.6672	2,021.3478	1,188.8143	10.3073	809.0926	4.4692	813.5619	218.3917	4.1904	222.5821	0.0000	1,060,272.9369	1,060,272.9369	65.2079	0.0000	1,061,903.1357
2032	834.4160	2,007.1210	1,130.2994	10.2137	809.0943	4.2851	813.3794	218.3923	4.0204	222.4127	0.0000	1,050,944.4400	1,050,944.4400	64.4146	0.0000	1,052,554.8058
2033	822.1781	1,995.0822	1,080.0763	10.1341	809.0957	4.1184	813.2141	218.3928	3.8666	222.2594	0.0000	1,043,029.4693	1,043,029.4693	63.5464	0.0000	1,044,618.1282
2034	812.5227	1,985.0686	1,035.1662	10.0673	809.0970	3.9652	813.0622	218.3933	3.7252	222.1185	0.0000	1,036,385.7149	1,036,385.7149	62.8656	0.0000	1,037,957.3561
2035	804.1910	1,975.8598	997.3237	10.0112	809.0983	3.7591	812.8574	218.3937	3.5298	221.9235	0.0000	1,030,817.9298	1,030,817.9298	62.2470	0.0000	1,032,374.1033
Maximum	1,078.3455	3,255.9596	2,439.6764	12.3967	809.1928	20.8374	822.4141	218.4161	19.7962	230.8900	0.0000	1,269,889.2392	1,269,889.2392	110.5936	0.0000	1,272,616.4318

Fresno SPWA - Fresno County, Winter

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Fresno SPWA - Fresno County, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244
Energy	56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729
Mobile	998.9121	16,690.3657	10,500.4190	87.8300	6,655.7054	34.5610	6,690.2664	1,788.2637	32.4758	1,820.7395		9,064,851.4107	9,064,851.4107	725.9589		9,083,000.3829
Total	4,954.4636	18,343.0617	15,124.8763	98.2151	6,655.7054	184.9163	6,840.6217	1,788.2637	182.8311	1,971.0948	0.0000	11,108,009.3653	11,108,009.3653	771.6428	37.3304	11,138,424.8802

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244
Energy	56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729
Mobile	998.9121	16,690.3657	10,500.4190	87.8300	6,655.7054	34.5610	6,690.2664	1,788.2637	32.4758	1,820.7395		9,064,851.4107	9,064,851.4107	725.9589		9,083,000.3829
Total	4,954.4636	18,343.0617	15,124.8763	98.2151	6,655.7054	184.9163	6,840.6217	1,788.2637	182.8311	1,971.0948	0.0000	11,108,009.3653	11,108,009.3653	771.6428	37.3304	11,138,424.8802

Fresno SPWA - Fresno County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	4/23/2020	1/1/2035	5	3833	
2	Demolition	Demolition	3/1/2021	3/26/2021	5	20	
3	Site Preparation	Site Preparation	3/27/2021	6/25/2021	5	65	
4	Grading	Grading	6/26/2021	9/24/2021	5	65	
5	Underground Utilities	Trenching	9/25/2021	12/24/2021	5	65	
6	Paving	Paving	12/25/2021	4/22/2022	5	85	
7	Architectural Coating	Architectural Coating	12/25/2021	12/31/2035	5	3656	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7077

Acres of Paving: 1010

Residential Indoor: 152,015,130; Residential Outdoor: 50,671,710; Non-Residential Indoor: 97,553,606; Non-Residential Outdoor: 32,517,869;
Striped Parking Area: 2,639,736 (Architectural Coating – sqft)

OffRoad Equipment

Fresno SPWA - Fresno County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Grading	Scrapers	2	8.00	367	0.48
Underground Utilities	Pavers	2	8.00	130	0.42
Underground Utilities	Paving Equipment	2	8.00	132	0.36
Underground Utilities	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Underground Utilities	Pavers	2	8.00	130	0.42
Underground Utilities	Paving Equipment	2	8.00	132	0.36
Underground Utilities	Rollers	2	8.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Fresno SPWA - Fresno County, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4,548.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	12	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	13,033.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	65,164.00	24,601.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Underground Utilities	12	30.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	94.5606	3,041.356 6	535.6267	6.8506	166.6919	16.3696	183.0615	47.9942	15.6602	63.6544		717,895.1 939	717,895.1 939	96.9726		720,319.5 087
Worker	296.8967	195.4170	1,784.816 5	4.7976	535.3068	3.3508	538.6576	141.9883	3.0856	145.0740		477,720.7 794	477,720.7 794	12.9981		478,045.7 318
Total	391.4573	3,236.773 6	2,320.443 2	11.6482	701.9987	19.7203	721.7190	189.9825	18.7458	208.7283		1,195,615. 9733	1,195,615. 9733	109.9707		1,198,365. 2405

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	94.5606	3,041.356 6	535.6267	6.8506	166.6919	16.3696	183.0615	47.9942	15.6602	63.6544		717,895.1 939	717,895.1 939	96.9726		720,319.5 087
Worker	296.8967	195.4170	1,784.816 5	4.7976	535.3068	3.3508	538.6576	141.9883	3.0856	145.0740		477,720.7 794	477,720.7 794	12.9981		478,045.7 318
Total	391.4573	3,236.773 6	2,320.443 2	11.6482	701.9987	19.7203	721.7190	189.9825	18.7458	208.7283		1,195,615. 9733	1,195,615. 9733	109.9707		1,198,365. 2405

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	76.7696	2,760.2421	466.7454	6.7854	166.6956	7.6028	174.2984	47.9955	7.2729	55.2683		711,114.1715	711,114.1715	93.8751		713,461.0490
Worker	274.3241	173.8291	1,616.2567	4.6313	535.3068	3.2428	538.5497	141.9883	2.9858	144.9742		461,354.5253	461,354.5253	11.5506		461,643.2905
Total	351.0937	2,934.0712	2,083.0021	11.4167	702.0024	10.8457	712.8481	189.9838	10.2587	200.2425		1,172,468.6968	1,172,468.6968	105.4257		1,175,104.3395

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	76.7696	2,760.2421	466.7454	6.7854	166.6956	7.6028	174.2984	47.9955	7.2729	55.2683		711,114.1715	711,114.1715	93.8751		713,461.0490
Worker	274.3241	173.8291	1,616.2567	4.6313	535.3068	3.2428	538.5497	141.9883	2.9858	144.9742		461,354.5253	461,354.5253	11.5506		461,643.2905
Total	351.0937	2,934.0712	2,083.0021	11.4167	702.0024	10.8457	712.8481	189.9838	10.2587	200.2425		1,172,468.6968	1,172,468.6968	105.4257		1,175,104.3395

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	71.4499	2,614.3614	432.4472	6.7193	166.6998	6.5504	173.2502	47.9970	6.2661	54.2631		704,237.4400	704,237.4400	91.1397		706,515.9331
Worker	254.9485	155.1468	1,470.2458	4.4635	535.3068	3.1489	538.4557	141.9883	2.8989	144.8872		444,792.2603	444,792.2603	10.2856		445,049.3995
Total	326.3983	2,769.5081	1,902.6930	11.1828	702.0066	9.6993	711.7059	189.9853	9.1650	199.1503		1,149,029.7003	1,149,029.7003	101.4253		1,151,565.3325

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	71.4499	2,614.3614	432.4472	6.7193	166.6998	6.5504	173.2502	47.9970	6.2661	54.2631		704,237.4400	704,237.4400	91.1397		706,515.9331
Worker	254.9485	155.1468	1,470.2458	4.4635	535.3068	3.1489	538.4557	141.9883	2.8989	144.8872		444,792.2603	444,792.2603	10.2856		445,049.3995
Total	326.3983	2,769.5081	1,902.6930	11.1828	702.0066	9.6993	711.7059	189.9853	9.1650	199.1503		1,149,029.7003	1,149,029.7003	101.4253		1,151,565.3325

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	48.9953	2,042.5091	345.9296	6.5553	166.7017	1.9916	168.6933	47.9976	1.9045	49.9022		687,086.1675	687,086.1675	61.6641		688,627.7701
Worker	237.7777	138.8013	1,339.2321	4.2949	535.3068	3.0681	538.3749	141.9883	2.8241	144.8125		428,123.1906	428,123.1906	9.1592		428,352.1702
Total	286.7730	2,181.3105	1,685.1617	10.8502	702.0085	5.0597	707.0682	189.9860	4.7287	194.7147		1,115,209.3581	1,115,209.3581	70.8233		1,116,979.9402

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	48.9953	2,042.5091	345.9296	6.5553	166.7017	1.9916	168.6933	47.9976	1.9045	49.9022		687,086.1675	687,086.1675	61.6641		688,627.7701
Worker	237.7777	138.8013	1,339.2321	4.2949	535.3068	3.0681	538.3749	141.9883	2.8241	144.8125		428,123.1906	428,123.1906	9.1592		428,352.1702
Total	286.7730	2,181.3105	1,685.1617	10.8502	702.0085	5.0597	707.0682	189.9860	4.7287	194.7147		1,115,209.3581	1,115,209.3581	70.8233		1,116,979.9402

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	47.6656	2,026.9398	329.0801	6.5064	166.7046	1.9684	168.6730	47.9987	1.8824	49.8811		681,992.4542	681,992.4542	62.2285		683,548.1672
Worker	222.7581	124.6882	1,229.3189	4.1262	535.3068	2.9931	538.2999	141.9883	2.7546	144.7430		411,406.8201	411,406.8201	8.1848		411,611.4403
Total	270.4237	2,151.6280	1,558.3990	10.6326	702.0114	4.9615	706.9729	189.9870	4.6371	194.6241		1,093,399.2742	1,093,399.2742	70.4133		1,095,159.6075

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	47.6656	2,026.9398	329.0801	6.5064	166.7046	1.9684	168.6730	47.9987	1.8824	49.8811		681,992.4542	681,992.4542	62.2285		683,548.1672
Worker	222.7581	124.6882	1,229.3189	4.1262	535.3068	2.9931	538.2999	141.9883	2.7546	144.7430		411,406.8201	411,406.8201	8.1848		411,611.4403
Total	270.4237	2,151.6280	1,558.3990	10.6326	702.0114	4.9615	706.9729	189.9870	4.6371	194.6241		1,093,399.2742	1,093,399.2742	70.4133		1,095,159.6075

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	46.5581	2,010.704 4	316.1608	6.4611	166.7080	1.9444	168.6524	47.9999	1.8595	49.8594		677,260.3 316	677,260.3 316	62.4999		678,822.8 295
Worker	209.7431	112.6108	1,131.052 8	3.9612	535.3068	2.9350	538.2418	141.9883	2.7009	144.6892		395,043.9 457	395,043.9 457	7.3608		395,227.9 654
Total	256.3012	2,123.315 1	1,447.213 5	10.4222	702.0148	4.8794	706.8943	189.9883	4.5604	194.5486		1,072,304. 2773	1,072,304. 2773	69.8607		1,074,050. 7949

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2025**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	46.5581	2,010.704 4	316.1608	6.4611	166.7080	1.9444	168.6524	47.9999	1.8595	49.8594		677,260.3 316	677,260.3 316	62.4999		678,822.8 295
Worker	209.7431	112.6108	1,131.052 8	3.9612	535.3068	2.9350	538.2418	141.9883	2.7009	144.6892		395,043.9 457	395,043.9 457	7.3608		395,227.9 654
Total	256.3012	2,123.315 1	1,447.213 5	10.4222	702.0148	4.8794	706.8943	189.9883	4.5604	194.5486		1,072,304. 2773	1,072,304. 2773	69.8607		1,074,050. 7949

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	45.5922	1,994.238 2	305.7086	6.4203	166.7109	1.9187	168.6296	48.0010	1.8349	49.8358		673,000.2 224	673,000.2 224	62.3621		674,559.2 748
Worker	198.6932	102.6728	1,055.145 9	3.8362	535.3068	2.8850	538.1919	141.9883	2.6546	144.6429		382,655.6 492	382,655.6 492	6.7397		382,824.1 420
Total	244.2854	2,096.911 0	1,360.854 6	10.2565	702.0177	4.8037	706.8214	189.9893	4.4895	194.4788		1,055,655. 8716	1,055,655. 8716	69.1018		1,057,383. 4168

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2026**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	45.5922	1,994.238 2	305.7086	6.4203	166.7109	1.9187	168.6296	48.0010	1.8349	49.8358		673,000.2 224	673,000.2 224	62.3621		674,559.2 748
Worker	198.6932	102.6728	1,055.145 9	3.8362	535.3068	2.8850	538.1919	141.9883	2.6546	144.6429		382,655.6 492	382,655.6 492	6.7397		382,824.1 420
Total	244.2854	2,096.911 0	1,360.854 6	10.2565	702.0177	4.8037	706.8214	189.9893	4.4895	194.4788		1,055,655. 8716	1,055,655. 8716	69.1018		1,057,383. 4168

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2027**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	44.7934	1,977.563 7	297.4101	6.3847	166.7138	1.8918	168.6056	48.0020	1.8092	49.8112		669,280.5 280	669,280.5 280	62.1956		670,835.4 185
Worker	187.7988	93.6216	980.0727	3.7047	535.3068	2.7453	538.0521	141.9883	2.5257	144.5140		369,602.0 419	369,602.0 419	6.1111		369,754.8 192
Total	232.5922	2,071.185 2	1,277.482 8	10.0894	702.0207	4.6370	706.6577	189.9904	4.3348	194.3252		1,038,882. 5700	1,038,882. 5700	68.3067		1,040,590. 2377

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2027**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	44.7934	1,977.563 7	297.4101	6.3847	166.7138	1.8918	168.6056	48.0020	1.8092	49.8112		669,280.5 280	669,280.5 280	62.1956		670,835.4 185
Worker	187.7988	93.6216	980.0727	3.7047	535.3068	2.7453	538.0521	141.9883	2.5257	144.5140		369,602.0 419	369,602.0 419	6.1111		369,754.8 192
Total	232.5922	2,071.185 2	1,277.482 8	10.0894	702.0207	4.6370	706.6577	189.9904	4.3348	194.3252		1,038,882. 5700	1,038,882. 5700	68.3067		1,040,590. 2377

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2028**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	44.1555	1,965.647 0	291.0639	6.3567	166.7167	1.8723	168.5890	48.0031	1.7905	49.7936		666,349.5 364	666,349.5 364	61.7536		667,893.3 754
Worker	176.2512	85.5735	914.7226	3.5881	535.3068	2.5602	537.8670	141.9883	2.3551	144.3434		358,036.1 934	358,036.1 934	5.5731		358,175.5 213
Total	220.4067	2,051.220 5	1,205.786 6	9.9448	702.0236	4.4324	706.4560	189.9914	4.1456	194.1370		1,024,385. 7298	1,024,385. 7298	67.3267		1,026,068. 8967

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2028**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	44.1555	1,965.647 0	291.0639	6.3567	166.7167	1.8723	168.5890	48.0031	1.7905	49.7936		666,349.5 364	666,349.5 364	61.7536		667,893.3 754
Worker	176.2512	85.5735	914.7226	3.5881	535.3068	2.5602	537.8670	141.9883	2.3551	144.3434		358,036.1 934	358,036.1 934	5.5731		358,175.5 213
Total	220.4067	2,051.220 5	1,205.786 6	9.9448	702.0236	4.4324	706.4560	189.9914	4.1456	194.1370		1,024,385. 7298	1,024,385. 7298	67.3267		1,026,068. 8967

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2029**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	43.5704	1,953.638 5	285.3806	6.3320	166.7191	1.8502	168.5693	48.0039	1.7694	49.7733		663,761.0 587	663,761.0 587	61.1761		665,290.4 603
Worker	164.0109	78.2118	853.0694	3.4849	535.3068	2.3863	537.6932	141.9883	2.1950	144.1833		347,797.1 179	347,797.1 179	5.0709		347,923.8 913
Total	207.5812	2,031.850 4	1,138.449 9	9.8168	702.0259	4.2366	706.2624	189.9922	3.9644	193.9567		1,011,558. 1766	1,011,558. 1766	66.2470		1,013,214. 3516

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2029**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	43.5704	1,953.638 5	285.3806	6.3320	166.7191	1.8502	168.5693	48.0039	1.7694	49.7733		663,761.0 587	663,761.0 587	61.1761		665,290.4 603
Worker	164.0109	78.2118	853.0694	3.4849	535.3068	2.3863	537.6932	141.9883	2.1950	144.1833		347,797.1 179	347,797.1 179	5.0709		347,923.8 913
Total	207.5812	2,031.850 4	1,138.449 9	9.8168	702.0259	4.2366	706.2624	189.9922	3.9644	193.9567		1,011,558. 1766	1,011,558. 1766	66.2470		1,013,214. 3516

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2030**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	43.1010	1,943.1819	281.0291	6.3124	166.7211	1.8287	168.5498	48.0046	1.7488	49.7535		661,711.8213	661,711.8213	60.5177		663,224.7630
Worker	151.8762	71.5463	797.4952	3.3937	535.3068	2.2257	537.5326	141.9883	2.0472	144.0355		338,752.7195	338,752.7195	4.6237		338,868.3118
Total	194.9772	2,014.7282	1,078.5243	9.7060	702.0279	4.0544	706.0823	189.9930	3.7960	193.7890		1,000,464.5408	1,000,464.5408	65.1414		1,002,093.0748

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2030**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	43.1010	1,943.1819	281.0291	6.3124	166.7211	1.8287	168.5498	48.0046	1.7488	49.7535		661,711.8213	661,711.8213	60.5177		663,224.7630
Worker	151.8762	71.5463	797.4952	3.3937	535.3068	2.2257	537.5326	141.9883	2.0472	144.0355		338,752.7195	338,752.7195	4.6237		338,868.3118
Total	194.9772	2,014.7282	1,078.5243	9.7060	702.0279	4.0544	706.0823	189.9930	3.7960	193.7890		1,000,464.5408	1,000,464.5408	65.1414		1,002,093.0748

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2031**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.7464	1,934.2633	277.7299	6.2974	166.7228	1.8117	168.5345	48.0053	1.7325	49.7378		660,141.3920	660,141.3920	60.0338		661,642.2375
Worker	138.8872	65.2444	744.2728	3.3133	535.3068	2.0743	537.3811	141.9883	1.9079	143.8962		330,792.9457	330,792.9457	4.2054		330,898.0807
Total	181.6335	1,999.5078	1,022.0027	9.6107	702.0296	3.8859	705.9156	189.9936	3.6404	193.6340		990,934.3377	990,934.3377	64.2392		992,540.3183

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2031**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.7464	1,934.2633	277.7299	6.2974	166.7228	1.8117	168.5345	48.0053	1.7325	49.7378		660,141.3920	660,141.3920	60.0338		661,642.2375
Worker	138.8872	65.2444	744.2728	3.3133	535.3068	2.0743	537.3811	141.9883	1.9079	143.8962		330,792.9457	330,792.9457	4.2054		330,898.0807
Total	181.6335	1,999.5078	1,022.0027	9.6107	702.0296	3.8859	705.9156	189.9936	3.6404	193.6340		990,934.3377	990,934.3377	64.2392		992,540.3183

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2032**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.4674	1,926.5320	275.2755	6.2880	166.7244	1.7950	168.5194	48.0059	1.7166	49.7224		659,156.5111	659,156.5111	59.6759		660,648.4087
Worker	127.2437	59.8316	697.5559	3.2431	535.3068	1.9348	537.2416	141.9883	1.7795	143.7679		323,839.9502	323,839.9502	3.8426		323,936.0143
Total	169.7111	1,986.3636	972.8314	9.5311	702.0313	3.7297	705.7610	189.9942	3.4961	193.4903		982,996.4613	982,996.4613	63.5185		984,584.4230

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2032**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.4674	1,926.5320	275.2755	6.2880	166.7244	1.7950	168.5194	48.0059	1.7166	49.7224		659,156.5111	659,156.5111	59.6759		660,648.4087
Worker	127.2437	59.8316	697.5559	3.2431	535.3068	1.9348	537.2416	141.9883	1.7795	143.7679		323,839.9502	323,839.9502	3.8426		323,936.0143
Total	169.7111	1,986.3636	972.8314	9.5311	702.0313	3.7297	705.7610	189.9942	3.4961	193.4903		982,996.4613	982,996.4613	63.5185		984,584.4230

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2033**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.2723	1,919.9886	273.4883	6.2816	166.7259	1.7816	168.5075	48.0064	1.7038	49.7102		658,483.9935	658,483.9935	59.1809		659,963.5165
Worker	117.2080	55.2521	657.1927	3.1822	535.3068	1.8069	537.1138	141.9883	1.6620	143.6503		317,804.5880	317,804.5880	3.5315		317,892.8753
Total	159.4803	1,975.2407	930.6810	9.4638	702.0327	3.5886	705.6212	189.9947	3.3657	193.3604		976,288.5815	976,288.5815	62.7124		977,856.3918

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2033**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.2723	1,919.9886	273.4883	6.2816	166.7259	1.7816	168.5075	48.0064	1.7038	49.7102		658,483.9935	658,483.9935	59.1809		659,963.5165
Worker	117.2080	55.2521	657.1927	3.1822	535.3068	1.8069	537.1138	141.9883	1.6620	143.6503		317,804.5880	317,804.5880	3.5315		317,892.8753
Total	159.4803	1,975.2407	930.6810	9.4638	702.0327	3.5886	705.6212	189.9947	3.3657	193.3604		976,288.5815	976,288.5815	62.7124		977,856.3918

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2034**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481		2,897.5468	2,897.5468	0.1162		2,900.4529

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.1075	1,914.3329	271.9331	6.2778	166.7272	1.7692	168.4964	48.0068	1.6919	49.6987		658,092.0129	658,092.0129	58.8280		659,562.7129
Worker	109.2992	51.6206	621.0638	3.1296	535.3068	1.6896	536.9965	141.9883	1.5541	143.5424		312,594.7899	312,594.7899	3.2583		312,676.2482
Total	151.4068	1,965.9535	892.9969	9.4074	702.0340	3.4588	705.4928	189.9952	3.2459	193.2411		970,686.8027	970,686.8027	62.0863		972,238.9611

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2034**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529
Total	1.3091	7.9346	16.1570	0.0310		0.1481	0.1481		0.1481	0.1481	0.0000	2,897.5468	2,897.5468	0.1162		2,900.4529

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	42.1075	1,914.3329	271.9331	6.2778	166.7272	1.7692	168.4964	48.0068	1.6919	49.6987		658,092.0129	658,092.0129	58.8280		659,562.7129
Worker	109.2992	51.6206	621.0638	3.1296	535.3068	1.6896	536.9965	141.9883	1.5541	143.5424		312,594.7899	312,594.7899	3.2583		312,676.2482
Total	151.4068	1,965.9535	892.9969	9.4074	702.0340	3.4588	705.4928	189.9952	3.2459	193.2411		970,686.8027	970,686.8027	62.0863		972,238.9611

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2035**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448
Total	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904		2,897.5468	2,897.5468	0.1079		2,900.2448

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	41.9630	1,909.3575	270.6511	6.2756	166.7285	1.7578	168.4863	48.0073	1.6810	49.6883		657,854.3409	657,854.3409	58.4917		659,316.6324
Worker	102.5642	48.8193	590.6323	3.0847	535.3068	1.5841	536.8910	141.9883	1.4570	143.4454		308,153.0402	308,153.0402	3.0308		308,228.8101
Total	144.5273	1,958.1767	861.2834	9.3603	702.0353	3.3419	705.3772	189.9956	3.1380	193.1337		966,007.3811	966,007.3811	61.5225		967,545.4425

Fresno SPWA - Fresno County, Winter

3.2 Building Construction - 2035**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448
Total	1.2168	7.1613	16.1178	0.0310		0.0904	0.0904		0.0904	0.0904	0.0000	2,897.5468	2,897.5468	0.1079		2,900.2448

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	41.9630	1,909.3575	270.6511	6.2756	166.7285	1.7578	168.4863	48.0073	1.6810	49.6883		657,854.3409	657,854.3409	58.4917		659,316.6324
Worker	102.5642	48.8193	590.6323	3.0847	535.3068	1.5841	536.8910	141.9883	1.4570	143.4454		308,153.0402	308,153.0402	3.0308		308,228.8101
Total	144.5273	1,958.1767	861.2834	9.3603	702.0353	3.3419	705.3772	189.9956	3.1380	193.1337		966,007.3811	966,007.3811	61.5225		967,545.4425

Fresno SPWA - Fresno County, Winter

3.3 Demolition - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					49.2177	0.0000	49.2177	7.4520	0.0000	7.4520			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	49.2177	1.5513	50.7690	7.4520	1.4411	8.8931		3,747.9449	3,747.9449	1.0549		3,774.3174

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7413	59.0185	8.8630	0.1774	3.9814	0.1952	4.1765	1.0917	0.1867	1.2784		18,622.6509	18,622.6509	1.7503		18,666.4074
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0632	0.0400	0.3720	1.0700e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		106.1985	106.1985	2.6600e-003		106.2650
Total	1.8044	59.0586	9.2350	0.1785	4.1046	0.1959	4.3005	1.1244	0.1874	1.3118		18,728.8493	18,728.8493	1.7529		18,772.6723

Fresno SPWA - Fresno County, Winter

3.3 Demolition - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					22.1480	0.0000	22.1480	3.3534	0.0000	3.3534			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	3.1651	31.4407	21.5650	0.0388	22.1480	1.5513	23.6993	3.3534	1.4411	4.7945	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7413	59.0185	8.8630	0.1774	3.9814	0.1952	4.1765	1.0917	0.1867	1.2784		18,622.6509	18,622.6509	1.7503		18,666.4074
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0632	0.0400	0.3720	1.0700e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		106.1985	106.1985	2.6600e-003		106.2650
Total	1.8044	59.0586	9.2350	0.1785	4.1046	0.1959	4.3005	1.1244	0.1874	1.3118		18,728.8493	18,728.8493	1.7529		18,772.6723

Fresno SPWA - Fresno County, Winter

3.4 Site Preparation - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	18.0663	2.0445	20.1107	9.9307	1.8809	11.8116		3,685.6569	3,685.6569	1.1920		3,715.4573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0758	0.0480	0.4465	1.2800e-003	0.1479	9.0000e-004	0.1488	0.0392	8.2000e-004	0.0401		127.4382	127.4382	3.1900e-003		127.5179
Total	0.0758	0.0480	0.4465	1.2800e-003	0.1479	9.0000e-004	0.1488	0.0392	8.2000e-004	0.0401		127.4382	127.4382	3.1900e-003		127.5179

Fresno SPWA - Fresno County, Winter

3.4 Site Preparation - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.1298	0.0000	8.1298	4.4688	0.0000	4.4688			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	3.8882	40.4971	21.1543	0.0380	8.1298	2.0445	10.1743	4.4688	1.8809	6.3497	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0758	0.0480	0.4465	1.2800e-003	0.1479	9.0000e-004	0.1488	0.0392	8.2000e-004	0.0401		127.4382	127.4382	3.1900e-003		127.5179
Total	0.0758	0.0480	0.4465	1.2800e-003	0.1479	9.0000e-004	0.1488	0.0392	8.2000e-004	0.0401		127.4382	127.4382	3.1900e-003		127.5179

Fresno SPWA - Fresno County, Winter

3.5 Grading - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					121.4861	0.0000	121.4861	15.7776	0.0000	15.7776			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.043 4	6,007.043 4	1.9428		6,055.613 4
Total	4.1912	46.3998	30.8785	0.0620	121.4861	1.9853	123.4714	15.7776	1.8265	17.6041		6,007.043 4	6,007.043 4	1.9428		6,055.613 4

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0842	0.0534	0.4961	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		141.5980	141.5980	3.5500e-003		141.6866
Total	0.0842	0.0534	0.4961	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		141.5980	141.5980	3.5500e-003		141.6866

Fresno SPWA - Fresno County, Winter

3.5 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					54.6688	0.0000	54.6688	7.0999	0.0000	7.0999			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.043 4	6,007.043 4	1.9428		6,055.613 4
Total	4.1912	46.3998	30.8785	0.0620	54.6688	1.9853	56.6541	7.0999	1.8265	8.9264	0.0000	6,007.043 4	6,007.043 4	1.9428		6,055.613 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0842	0.0534	0.4961	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		141.5980	141.5980	3.5500e-003		141.6866
Total	0.0842	0.0534	0.4961	1.4200e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		141.5980	141.5980	3.5500e-003		141.6866

Fresno SPWA - Fresno County, Winter

3.6 Underground Utilities - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5111	25.8382	29.3065	0.0456		1.3555	1.3555		1.2470	1.2470		4,414.4217	4,414.4217	1.4277		4,450.1146
Total	2.5111	25.8382	29.3065	0.0456		1.3555	1.3555		1.2470	1.2470		4,414.4217	4,414.4217	1.4277		4,450.1146

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1263	0.0800	0.7441	2.1300e-003	0.4606	1.4900e-003	0.4621	0.1179	1.3700e-003	0.1193		212.3970	212.3970	5.3200e-003		212.5299
Total	0.1263	0.0800	0.7441	2.1300e-003	0.4606	1.4900e-003	0.4621	0.1179	1.3700e-003	0.1193		212.3970	212.3970	5.3200e-003		212.5299

Fresno SPWA - Fresno County, Winter

3.6 Underground Utilities - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.5111	25.8382	29.3065	0.0456		1.3555	1.3555		1.2470	1.2470	0.0000	4,414.4217	4,414.4217	1.4277		4,450.1146
Total	2.5111	25.8382	29.3065	0.0456		1.3555	1.3555		1.2470	1.2470	0.0000	4,414.4217	4,414.4217	1.4277		4,450.1146

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1263	0.0800	0.7441	2.1300e-003	0.4606	1.4900e-003	0.4621	0.1179	1.3700e-003	0.1193		212.3970	212.3970	5.3200e-003		212.5299
Total	0.1263	0.0800	0.7441	2.1300e-003	0.4606	1.4900e-003	0.4621	0.1179	1.3700e-003	0.1193		212.3970	212.3970	5.3200e-003		212.5299

Fresno SPWA - Fresno County, Winter

3.7 Paving - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	31.1318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	32.3873	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0632	0.0400	0.3720	1.0700e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		106.1985	106.1985	2.6600e-003		106.2650
Total	0.0632	0.0400	0.3720	1.0700e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		106.1985	106.1985	2.6600e-003		106.2650

Fresno SPWA - Fresno County, Winter

3.7 Paving - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	31.1318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	32.3873	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235	0.0000	2,207.2109	2,207.2109	0.7139		2,225.0573

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0632	0.0400	0.3720	1.0700e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		106.1985	106.1985	2.6600e-003		106.2650
Total	0.0632	0.0400	0.3720	1.0700e-003	0.1232	7.5000e-004	0.1240	0.0327	6.9000e-004	0.0334		106.1985	106.1985	2.6600e-003		106.2650

Fresno SPWA - Fresno County, Winter

3.7 Paving - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	31.1318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	32.2346	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.660 3	2,207.660 3	0.7140		2,225.510 4

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0587	0.0357	0.3384	1.0300e-003	0.1232	7.2000e-004	0.1240	0.0327	6.7000e-004	0.0334		102.3860	102.3860	2.3700e-003		102.4452
Total	0.0587	0.0357	0.3384	1.0300e-003	0.1232	7.2000e-004	0.1240	0.0327	6.7000e-004	0.0334		102.3860	102.3860	2.3700e-003		102.4452

Fresno SPWA - Fresno County, Winter

3.7 Paving - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4
Paving	31.1318					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	32.2346	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.660 3	2,207.660 3	0.7140		2,225.510 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0587	0.0357	0.3384	1.0300e-003	0.1232	7.2000e-004	0.1240	0.0327	6.7000e-004	0.0334		102.3860	102.3860	2.3700e-003		102.4452
Total	0.0587	0.0357	0.3384	1.0300e-003	0.1232	7.2000e-004	0.1240	0.0327	6.7000e-004	0.0334		102.3860	102.3860	2.3700e-003		102.4452

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	638.0348	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	54.8657	34.7664	323.2563	0.9263	107.0630	0.6486	107.7116	28.3981	0.5972	28.9953		92,272.3211	92,272.3211	2.3102		92,330.0750
Total	54.8657	34.7664	323.2563	0.9263	107.0630	0.6486	107.7116	28.3981	0.5972	28.9953		92,272.3211	92,272.3211	2.3102		92,330.0750

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	638.0348	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	54.8657	34.7664	323.2563	0.9263	107.0630	0.6486	107.7116	28.3981	0.5972	28.9953		92,272.3211	92,272.3211	2.3102		92,330.0750
Total	54.8657	34.7664	323.2563	0.9263	107.0630	0.6486	107.7116	28.3981	0.5972	28.9953		92,272.3211	92,272.3211	2.3102		92,330.0750

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	638.0205	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	50.9905	31.0298	294.0537	0.8927	107.0630	0.6298	107.6928	28.3981	0.5798	28.9779		88,959.8172	88,959.8172	2.0571		89,011.2458
Total	50.9905	31.0298	294.0537	0.8927	107.0630	0.6298	107.6928	28.3981	0.5798	28.9779		88,959.8172	88,959.8172	2.0571		89,011.2458

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	638.0205	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	50.9905	31.0298	294.0537	0.8927	107.0630	0.6298	107.6928	28.3981	0.5798	28.9779		88,959.8172	88,959.8172	2.0571		89,011.2458
Total	50.9905	31.0298	294.0537	0.8927	107.0630	0.6298	107.6928	28.3981	0.5798	28.9779		88,959.8172	88,959.8172	2.0571		89,011.2458

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	638.0076	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	47.5563	27.7607	267.8505	0.8590	107.0630	0.6136	107.6766	28.3981	0.5648	28.9629		85,625.9521	85,625.9521	1.8319		85,671.7487
Total	47.5563	27.7607	267.8505	0.8590	107.0630	0.6136	107.6766	28.3981	0.5648	28.9629		85,625.9521	85,625.9521	1.8319		85,671.7487

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	638.0076	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	47.5563	27.7607	267.8505	0.8590	107.0630	0.6136	107.6766	28.3981	0.5648	28.9629		85,625.9521	85,625.9521	1.8319		85,671.7487
Total	47.5563	27.7607	267.8505	0.8590	107.0630	0.6136	107.6766	28.3981	0.5648	28.9629		85,625.9521	85,625.9521	1.8319		85,671.7487

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	637.9967	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	44.5523	24.9380	245.8676	0.8252	107.0630	0.5986	107.6616	28.3981	0.5509	28.9490		82,282.6267	82,282.6267	1.6370		82,323.5514
Total	44.5523	24.9380	245.8676	0.8252	107.0630	0.5986	107.6616	28.3981	0.5509	28.9490		82,282.6267	82,282.6267	1.6370		82,323.5514

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2024**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	637.9967	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	44.5523	24.9380	245.8676	0.8252	107.0630	0.5986	107.6616	28.3981	0.5509	28.9490		82,282.6267	82,282.6267	1.6370		82,323.5514
Total	44.5523	24.9380	245.8676	0.8252	107.0630	0.5986	107.6616	28.3981	0.5509	28.9490		82,282.6267	82,282.6267	1.6370		82,323.5514

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	41.9493	22.5225	226.2140	0.7922	107.0630	0.5870	107.6500	28.3981	0.5402	28.9383		79,010.00 16	79,010.00 16	1.4722		79,046.80 61
Total	41.9493	22.5225	226.2140	0.7922	107.0630	0.5870	107.6500	28.3981	0.5402	28.9383		79,010.00 16	79,010.00 16	1.4722		79,046.80 61

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2025**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	41.9493	22.5225	226.2140	0.7922	107.0630	0.5870	107.6500	28.3981	0.5402	28.9383		79,010.00 16	79,010.00 16	1.4722		79,046.80 61
Total	41.9493	22.5225	226.2140	0.7922	107.0630	0.5870	107.6500	28.3981	0.5402	28.9383		79,010.00 16	79,010.00 16	1.4722		79,046.80 61

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2026**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	39.7392	20.5349	211.0324	0.7673	107.0630	0.5770	107.6400	28.3981	0.5309	28.9290		76,532.30 43	76,532.30 43	1.3480		76,566.00 34
Total	39.7392	20.5349	211.0324	0.7673	107.0630	0.5770	107.6400	28.3981	0.5309	28.9290		76,532.30 43	76,532.30 43	1.3480		76,566.00 34

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2026**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	39.7392	20.5349	211.0324	0.7673	107.0630	0.5770	107.6400	28.3981	0.5309	28.9290		76,532.30 43	76,532.30 43	1.3480		76,566.00 34
Total	39.7392	20.5349	211.0324	0.7673	107.0630	0.5770	107.6400	28.3981	0.5309	28.9290		76,532.30 43	76,532.30 43	1.3480		76,566.00 34

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2027**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	37.5603	18.7246	196.0176	0.7409	107.0630	0.5491	107.6121	28.3981	0.5051	28.9032		73,921.5428	73,921.5428	1.2222		73,952.0987
Total	37.5603	18.7246	196.0176	0.7409	107.0630	0.5491	107.6121	28.3981	0.5051	28.9032		73,921.5428	73,921.5428	1.2222		73,952.0987

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2027**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	37.5603	18.7246	196.0176	0.7409	107.0630	0.5491	107.6121	28.3981	0.5051	28.9032		73,921.5428	73,921.5428	1.2222		73,952.0987
Total	37.5603	18.7246	196.0176	0.7409	107.0630	0.5491	107.6121	28.3981	0.5051	28.9032		73,921.5428	73,921.5428	1.2222		73,952.0987

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2028**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	35.2508	17.1150	182.9473	0.7176	107.0630	0.5120	107.5751	28.3981	0.4710	28.8691		71,608.3376	71,608.3376	1.1146		71,636.2036
Total	35.2508	17.1150	182.9473	0.7176	107.0630	0.5120	107.5751	28.3981	0.4710	28.8691		71,608.3376	71,608.3376	1.1146		71,636.2036

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2028**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	35.2508	17.1150	182.9473	0.7176	107.0630	0.5120	107.5751	28.3981	0.4710	28.8691		71,608.3376	71,608.3376	1.1146		71,636.2036
Total	35.2508	17.1150	182.9473	0.7176	107.0630	0.5120	107.5751	28.3981	0.4710	28.8691		71,608.3376	71,608.3376	1.1146		71,636.2036

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2029**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	32.8027	15.6426	170.6165	0.6970	107.0630	0.4773	107.5403	28.3981	0.4390	28.8371		69,560.49 10	69,560.49 10	1.0142		69,585.84 61
Total	32.8027	15.6426	170.6165	0.6970	107.0630	0.4773	107.5403	28.3981	0.4390	28.8371		69,560.49 10	69,560.49 10	1.0142		69,585.84 61

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2029**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	637.9868	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	32.8027	15.6426	170.6165	0.6970	107.0630	0.4773	107.5403	28.3981	0.4390	28.8371		69,560.49 10	69,560.49 10	1.0142		69,585.84 61
Total	32.8027	15.6426	170.6165	0.6970	107.0630	0.4773	107.5403	28.3981	0.4390	28.8371		69,560.49 10	69,560.49 10	1.0142		69,585.84 61

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2030**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	30.3757	14.3095	159.5015	0.6787	107.0630	0.4452	107.5082	28.3981	0.4094	28.8076		67,751.5836	67,751.5836	0.9248		67,774.7024
Total	30.3757	14.3095	159.5015	0.6787	107.0630	0.4452	107.5082	28.3981	0.4094	28.8076		67,751.5836	67,751.5836	0.9248		67,774.7024

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2030**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	30.3757	14.3095	159.5015	0.6787	107.0630	0.4452	107.5082	28.3981	0.4094	28.8076		67,751.5836	67,751.5836	0.9248		67,774.7024
Total	30.3757	14.3095	159.5015	0.6787	107.0630	0.4452	107.5082	28.3981	0.4094	28.8076		67,751.5836	67,751.5836	0.9248		67,774.7024

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2031**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	27.7779	13.0491	148.8568	0.6627	107.0630	0.4149	107.4779	28.3981	0.3816	28.7797		66,159.6044	66,159.6044	0.8411		66,180.6317
Total	27.7779	13.0491	148.8568	0.6627	107.0630	0.4149	107.4779	28.3981	0.3816	28.7797		66,159.6044	66,159.6044	0.8411		66,180.6317

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2031**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	27.7779	13.0491	148.8568	0.6627	107.0630	0.4149	107.4779	28.3981	0.3816	28.7797		66,159.6044	66,159.6044	0.8411		66,180.6317
Total	27.7779	13.0491	148.8568	0.6627	107.0630	0.4149	107.4779	28.3981	0.3816	28.7797		66,159.6044	66,159.6044	0.8411		66,180.6317

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2032**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	25.4491	11.9665	139.5133	0.6486	107.0630	0.3870	107.4500	28.3981	0.3559	28.7540		64,768.9840	64,768.9840	0.7685		64,788.1971
Total	25.4491	11.9665	139.5133	0.6486	107.0630	0.3870	107.4500	28.3981	0.3559	28.7540		64,768.9840	64,768.9840	0.7685		64,788.1971

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2032**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	25.4491	11.9665	139.5133	0.6486	107.0630	0.3870	107.4500	28.3981	0.3559	28.7540		64,768.9840	64,768.9840	0.7685		64,788.1971
Total	25.4491	11.9665	139.5133	0.6486	107.0630	0.3870	107.4500	28.3981	0.3559	28.7540		64,768.9840	64,768.9840	0.7685		64,788.1971

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2033**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	23.4420	11.0506	131.4406	0.6365	107.0630	0.3614	107.4244	28.3981	0.3324	28.7305		63,561.8930	63,561.8930	0.7063		63,579.5507
Total	23.4420	11.0506	131.4406	0.6365	107.0630	0.3614	107.4244	28.3981	0.3324	28.7305		63,561.8930	63,561.8930	0.7063		63,579.5507

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2033**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	23.4420	11.0506	131.4406	0.6365	107.0630	0.3614	107.4244	28.3981	0.3324	28.7305		63,561.8930	63,561.8930	0.7063		63,579.5507
Total	23.4420	11.0506	131.4406	0.6365	107.0630	0.3614	107.4244	28.3981	0.3324	28.7305		63,561.8930	63,561.8930	0.7063		63,579.5507

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2034**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203		281.4481	281.4481	0.0114		281.7328

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	21.8602	10.3243	124.2147	0.6259	107.0630	0.3379	107.4009	28.3981	0.3108	28.7089		62,519.9174	62,519.9174	0.6517		62,536.2093
Total	21.8602	10.3243	124.2147	0.6259	107.0630	0.3379	107.4009	28.3981	0.3108	28.7089		62,519.9174	62,519.9174	0.6517		62,536.2093

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2034**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1308	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328
Total	637.9467	0.8563	1.7977	2.9700e-003		0.0203	0.0203		0.0203	0.0203	0.0000	281.4481	281.4481	0.0114		281.7328

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	21.8602	10.3243	124.2147	0.6259	107.0630	0.3379	107.4009	28.3981	0.3108	28.7089		62,519.9174	62,519.9174	0.6517		62,536.2093
Total	21.8602	10.3243	124.2147	0.6259	107.0630	0.3379	107.4009	28.3981	0.3108	28.7089		62,519.9174	62,519.9174	0.6517		62,536.2093

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2035**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081
Total	637.9338	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003		281.4481	281.4481	0.0104		281.7081

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	20.5132	9.7640	118.1283	0.6170	107.0630	0.3168	107.3798	28.3981	0.2914	28.6895		61,631.5538	61,631.5538	0.6062		61,646.7080
Total	20.5132	9.7640	118.1283	0.6170	107.0630	0.3168	107.3798	28.3981	0.2914	28.6895		61,631.5538	61,631.5538	0.6062		61,646.7080

Fresno SPWA - Fresno County, Winter

3.8 Architectural Coating - 2035**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	637.8159					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1179	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081
Total	637.9338	0.7577	1.7943	2.9700e-003		9.9000e-003	9.9000e-003		9.9000e-003	9.9000e-003	0.0000	281.4481	281.4481	0.0104		281.7081

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	20.5132	9.7640	118.1283	0.6170	107.0630	0.3168	107.3798	28.3981	0.2914	28.6895		61,631.5538	61,631.5538	0.6062		61,646.7080
Total	20.5132	9.7640	118.1283	0.6170	107.0630	0.3168	107.3798	28.3981	0.2914	28.6895		61,631.5538	61,631.5538	0.6062		61,646.7080

4.0 Operational Detail - Mobile

Fresno SPWA - Fresno County, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	998.9121	16,690.3657	10,500.4190	87.8300	6,655.7054	34.5610	6,690.2664	1,788.2637	32.4758	1,820.7395		9,064,851.4107	9,064,851.4107	725.9589		9,083,000.3829
Unmitigated	998.9121	16,690.3657	10,500.4190	87.8300	6,655.7054	34.5610	6,690.2664	1,788.2637	32.4758	1,820.7395		9,064,851.4107	9,064,851.4107	725.9589		9,083,000.3829

4.2 Trip Summary Information

Fresno SPWA - Fresno County, Winter

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	7,003.98	7,003.98	7003.98	23,077,610	23,077,610
Apartments Low Rise	24,474.42	24,474.42	24474.42	80,641,452	80,641,452
Apartments Mid Rise	18,739.44	18,739.44	18739.44	61,745,106	61,745,106
Apartments Mid Rise	277.44	277.44	277.44	914,145	914,145
Single Family Housing	12,814.80	12,814.80	12814.80	42,223,843	42,223,843
Single Family Housing	60,633.12	60,633.12	60633.12	199,781,765	199,781,765
Single Family Housing	177,708.00	177,708.00	177708.00	585,535,065	585,535,065
Regional Shopping Center	31,344.25	31,344.25	31344.25	87,379,322	87,379,322
Regional Shopping Center	11,218.80	11,218.80	11218.80	31,274,982	31,274,982
Regional Shopping Center	234,254.18	234,254.18	234254.18	653,037,499	653,037,499
Regional Shopping Center	2,301.29	2,301.29	2301.29	6,415,368	6,415,368
Regional Shopping Center	251,633.28	251,633.28	251633.28	701,485,733	701,485,733
Regional Shopping Center	78,417.62	78,417.62	78417.62	218,607,185	218,607,185
General Light Industry	5,310.15	5,310.15	5310.15	16,619,043	16,619,043
General Office Building	52,380.68	52,380.68	52380.68	153,028,277	153,028,277
Office Park	17,016.53	17,016.53	17016.53	49,713,186	49,713,186
City Park	0.00	0.00	0.00		
Elementary School	22,196.02	22,196.02	22196.02	70,532,737	70,532,737
High School	14,918.80	14,918.80	14918.80	48,936,982	48,936,982
Junior College (2Yr)	0.00	0.00	0.00		
Junior High School	12,504.00	12,504.00	12504.00	40,515,241	40,515,241
Library	0.00	0.00	0.00		
Library	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Place of Worship	3,953.92	3,953.92	3953.92	10,506,359	10,506,359
Total	1,039,100.72	1,039,100.72	1,039,100.72	3,081,970,900	3,081,970,900

4.3 Trip Type Information

Fresno SPWA - Fresno County, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Apartments Low Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Apartments Mid Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Apartments Mid Rise	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Single Family Housing	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Single Family Housing	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Single Family Housing	10.80	7.30	7.50	48.00	16.00	36.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
Regional Shopping Center	9.50	7.30	7.30	16.30	64.70	19.00	100	0	0
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	100	0	0
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Office Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
City Park	9.50	7.30	7.30	33.00	48.00	19.00	100	0	0
Elementary School	9.50	7.30	7.30	65.00	30.00	5.00	100	0	0
High School	9.50	7.30	7.30	77.80	17.20	5.00	100	0	0
Junior College (2Yr)	9.50	7.30	7.30	6.40	88.60	5.00	100	0	0
Junior High School	9.50	7.30	7.30	72.80	22.20	5.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Library	9.50	7.30	7.30	52.00	43.00	5.00	100	0	0
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	100	0	0
Place of Worship	9.50	7.30	7.30	0.00	95.00	5.00	100	0	0

4.4 Fleet Mix

Fresno SPWA - Fresno County, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Apartments Low Rise	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Apartments Mid Rise	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Single Family Housing	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Regional Shopping Center	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
General Light Industry	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
General Office Building	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Office Park	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
City Park	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Elementary School	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
High School	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Junior College (2Yr)	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Junior High School	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Library	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Other Asphalt Surfaces	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405
Place of Worship	0.520477	0.028091	0.176473	0.089974	0.008253	0.003211	0.033872	0.130415	0.002306	0.001106	0.004464	0.000952	0.000405

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Fresno SPWA - Fresno County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729
NaturalGas Unmitigated	56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	69964.3	0.7545	6.4477	2.7437	0.0412		0.5213	0.5213		0.5213	0.5213		8,231.0951	8,231.0951	0.1578	0.1509	8,280.0083
Apartments Low Rise	172658	1.8620	15.9117	6.7709	0.1016		1.2865	1.2865		1.2865	1.2865		20,312.7603	20,312.7603	0.3893	0.3724	20,433.4688
Apartments Mid Rise	153241	1.6526	14.1222	6.0095	0.0901		1.1418	1.1418		1.1418	1.1418		18,028.3355	18,028.3355	0.3455	0.3305	18,135.4689
Apartments Mid Rise	2268.75	0.0245	0.2091	0.0890	1.3300e-003		0.0169	0.0169		0.0169	0.0169		266.9120	266.9120	5.1200e-003	4.8900e-003	268.4981
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	89901	0.9695	8.8138	7.4036	0.0529		0.6699	0.6699		0.6699	0.6699		10,576.5852	10,576.5852	0.2027	0.1939	10,639.4365

Fresno SPWA - Fresno County, Winter

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	81619.5	0.8802	8.0019	6.7216	0.0480		0.6082	0.6082		0.6082	0.6082		9,602.2921	9,602.2921	0.1840	0.1760	9,659.3537
General Office Building	256195	2.7629	25.1172	21.0985	0.1507		1.9089	1.9089		1.9089	1.9089		30,140.6417	30,140.6417	0.5777	0.5526	30,319.7525
High School	89575.1	0.9660	8.7819	7.3768	0.0527		0.6674	0.6674		0.6674	0.6674		10,538.2481	10,538.2481	0.2020	0.1932	10,600.8716
Junior College (2Yr)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Junior High School	63204.6	0.6816	6.1965	5.2051	0.0372		0.4709	0.4709		0.4709	0.4709		7,435.8343	7,435.8343	0.1425	0.1363	7,480.0217
Library	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	203842	2.1983	19.9845	16.7870	0.1199		1.5188	1.5188		1.5188	1.5188		23,981.4403	23,981.4403	0.4596	0.4397	24,123.9500
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	43393	0.4680	4.2542	3.5735	0.0255		0.3233	0.3233		0.3233	0.3233		5,105.0610	5,105.0610	0.0979	0.0936	5,135.3978
Regional Shopping Center	184496	1.9897	18.0878	15.1938	0.1085		1.3747	1.3747		1.3747	1.3747		21,705.3906	21,705.3906	0.4160	0.3979	21,834.3749
Regional Shopping Center	26394.8	0.2847	2.5877	2.1737	0.0155		0.1967	0.1967		0.1967	0.1967		3,105.2762	3,105.2762	0.0595	0.0569	3,123.7293
Regional Shopping Center	5414.32	0.0584	0.5308	0.4459	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.9785	636.9785	0.0122	0.0117	640.7638
Regional Shopping Center	551138	5.9436	54.0331	45.3878	0.3242		4.1065	4.1065		4.1065	4.1065		64,839.7445	64,839.7445	1.2428	1.1887	65,225.0547
Regional Shopping Center	592026	6.3846	58.0418	48.7551	0.3483		4.4112	4.4112		4.4112	4.4112		69,650.1437	69,650.1437	1.3350	1.2769	70,064.0397
Regional Shopping Center	73744.7	0.7953	7.2299	6.0731	0.0434		0.5495	0.5495		0.5495	0.5495		8,675.8463	8,675.8463	0.1663	0.1591	8,727.4025
Single Family Housing	1.79793e+006	19.3895	165.6919	70.5072	1.0576		13.3964	13.3964		13.3964	13.3964		211,521.5226	211,521.5226	4.0542	3.8779	212,778.4893
Single Family Housing	129652	1.3982	11.9483	5.0844	0.0763		0.9660	0.9660		0.9660	0.9660		15,253.1457	15,253.1457	0.2924	0.2796	15,343.7875
Single Family Housing	613446	6.6156	56.5333	24.0567	0.3609		4.5708	4.5708		4.5708	4.5708		72,170.1323	72,170.1323	1.3833	1.3231	72,599.0033

Fresno SPWA - Fresno County, Winter

Total		56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3 858	611,777.3 858	11.7257	11.2159	615,412.8 729
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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments High Rise	69.9643	0.7545	6.4477	2.7437	0.0412		0.5213	0.5213		0.5213	0.5213		8,231.095 1	8,231.095 1	0.1578	0.1509	8,280.008 3
Apartments Low Rise	172.658	1.8620	15.9117	6.7709	0.1016		1.2865	1.2865		1.2865	1.2865		20,312.76 03	20,312.76 03	0.3893	0.3724	20,433.46 88
Apartments Mid Rise	153.241	1.6526	14.1222	6.0095	0.0901		1.1418	1.1418		1.1418	1.1418		18,028.33 55	18,028.33 55	0.3455	0.3305	18,135.46 89
Apartments Mid Rise	2.26875	0.0245	0.2091	0.0890	1.3300e-003		0.0169	0.0169		0.0169	0.0169		266.9120	266.9120	5.1200e-003	4.8900e-003	268.4981
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Elementary School	89.901	0.9695	8.8138	7.4036	0.0529		0.6699	0.6699		0.6699	0.6699		10,576.58 52	10,576.58 52	0.2027	0.1939	10,639.43 65
General Light Industry	81.6195	0.8802	8.0019	6.7216	0.0480		0.6082	0.6082		0.6082	0.6082		9,602.292 1	9,602.292 1	0.1840	0.1760	9,659.353 7
General Office Building	256.195	2.7629	25.1172	21.0985	0.1507		1.9089	1.9089		1.9089	1.9089		30,140.64 17	30,140.64 17	0.5777	0.5526	30,319.75 25
High School	89.5751	0.9660	8.7819	7.3768	0.0527		0.6674	0.6674		0.6674	0.6674		10,538.24 81	10,538.24 81	0.2020	0.1932	10,600.87 16
Junior College (2Yr)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Junior High School	63.2046	0.6816	6.1965	5.2051	0.0372		0.4709	0.4709		0.4709	0.4709		7,435.834 3	7,435.834 3	0.1425	0.1363	7,480.021 7
Library	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Office Park	203.842	2.1983	19.9845	16.7870	0.1199		1.5188	1.5188		1.5188	1.5188		23,981.44 03	23,981.44 03	0.4596	0.4397	24,123.95 00

Fresno SPWA - Fresno County, Winter

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Place of Worship	43.393	0.4680	4.2542	3.5735	0.0255		0.3233	0.3233		0.3233	0.3233		5,105.0610	5,105.0610	0.0979	0.0936	5,135.3978
Regional Shopping Center	184.496	1.9897	18.0878	15.1938	0.1085		1.3747	1.3747		1.3747	1.3747		21,705.3906	21,705.3906	0.4160	0.3979	21,834.3749
Regional Shopping Center	26.3948	0.2847	2.5877	2.1737	0.0155		0.1967	0.1967		0.1967	0.1967		3,105.2762	3,105.2762	0.0595	0.0569	3,123.7293
Regional Shopping Center	5.41432	0.0584	0.5308	0.4459	3.1800e-003		0.0403	0.0403		0.0403	0.0403		636.9785	636.9785	0.0122	0.0117	640.7638
Regional Shopping Center	551.138	5.9436	54.0331	45.3878	0.3242		4.1065	4.1065		4.1065	4.1065		64,839.7445	64,839.7445	1.2428	1.1887	65,225.0547
Regional Shopping Center	592.026	6.3846	58.0418	48.7551	0.3483		4.4112	4.4112		4.4112	4.4112		69,650.1437	69,650.1437	1.3350	1.2769	70,064.0397
Regional Shopping Center	73.7447	0.7953	7.2299	6.0731	0.0434		0.5495	0.5495		0.5495	0.5495		8,675.8463	8,675.8463	0.1663	0.1591	8,727.4025
Single Family Housing	129.652	1.3982	11.9483	5.0844	0.0763		0.9660	0.9660		0.9660	0.9660		15,253.1457	15,253.1457	0.2924	0.2796	15,343.7875
Single Family Housing	1797.93	19.3895	165.6919	70.5072	1.0576		13.3964	13.3964		13.3964	13.3964		211,521.5226	211,521.5226	4.0542	3.8779	212,778.4893
Single Family Housing	613.446	6.6156	56.5333	24.0567	0.3609		4.5708	4.5708		4.5708	4.5708		72,170.1323	72,170.1323	1.3833	1.3231	72,599.0033
Total		56.0796	492.5253	301.4567	3.0589		38.7459	38.7459		38.7459	38.7459		611,777.3858	611,777.3858	11.7257	11.2159	615,412.8729

6.0 Area Detail

6.1 Mitigation Measures Area

Fresno SPWA - Fresno County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244
Unmitigated	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	638.8644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,014.3757					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	130.5722	1,115.7985	474.8079	7.1221		90.2135	90.2135		90.2135	90.2135	0.0000	1,424,423.6471	1,424,423.6471	27.3015	26.1144	1,432,888.2846
Landscaping	115.6596	44.3722	3,848.1927	0.2041		21.3959	21.3959		21.3959	21.3959		6,956.9217	6,956.9217	6.6567		7,123.3398
Total	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244

Fresno SPWA - Fresno County, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	638.8644					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3,014.3757					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	130.5722	1,115.7985	474.8079	7.1221		90.2135	90.2135		90.2135	90.2135	0.0000	1,424,423.6471	1,424,423.6471	27.3015	26.1144	1,432,888.2846
Landscaping	115.6596	44.3722	3,848.1927	0.2041		21.3959	21.3959		21.3959	21.3959		6,956.9217	6,956.9217	6.6567		7,123.3398
Total	3,899.4719	1,160.1707	4,323.0006	7.3263		111.6094	111.6094		111.6094	111.6094	0.0000	1,431,380.5688	1,431,380.5688	33.9582	26.1144	1,440,011.6244

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fresno SPWA - Fresno County, Winter

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

APPENDIX B.2

Energy Outputs

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: FRESNO

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption	MPG
FRESNO	2021	All Other Buses	Aggregated	Aggregated	DSL	163.3759123	9551.723599	1372.357664	1.066679031	8.95463708
FRESNO	2021	LDA	Aggregated	Aggregated	GAS	360187.0142	13826269.44	1691918.992	450.5829573	30.6852916
FRESNO	2021	LDA	Aggregated	Aggregated	DSL	2734.668836	113419.567	13041.16806	2.240176367	50.6297489
FRESNO	2021	LDA	Aggregated	Aggregated	ELEC	5771.621263	228949.6144	28804.39941	0	#DIV/0!
FRESNO	2021	LDT1	Aggregated	Aggregated	GAS	39099.95365	1354856.639	175754.8755	52.1252267	25.9923405
FRESNO	2021	LDT1	Aggregated	Aggregated	DSL	29.87393939	419.4733253	93.9839647	0.01653543	25.3681542
FRESNO	2021	LDT1	Aggregated	Aggregated	ELEC	129.7655311	5482.677129	660.2390481	0	#DIV/0!
FRESNO	2021	LDT2	Aggregated	Aggregated	GAS	129640.0253	4712300.458	596970.0264	198.0045045	23.7989558
FRESNO	2021	LDT2	Aggregated	Aggregated	DSL	548.3314518	23832.76525	2687.423482	0.640468806	37.211438
FRESNO	2021	LDT2	Aggregated	Aggregated	ELEC	713.4992138	23801.29738	3620.137061	0	#DIV/0!
FRESNO	2021	LHD1	Aggregated	Aggregated	GAS	10624.69394	355805.1831	158292.1089	42.963626	8.28154456
FRESNO	2021	LHD1	Aggregated	Aggregated	DSL	10656.82718	371708.625	134049.4796	21.02038574	17.6832447
FRESNO	2021	LHD2	Aggregated	Aggregated	GAS	1825.478029	59952.66741	27196.90267	8.323817429	7.20254474
FRESNO	2021	LHD2	Aggregated	Aggregated	DSL	3628.561563	128355.2011	45642.73974	8.141716014	15.7651287
FRESNO	2021	MCY	Aggregated	Aggregated	GAS	18423.29031	148923.4391	36846.58062	3.935963267	37.8365927
FRESNO	2021	MDV	Aggregated	Aggregated	GAS	124848.6639	4140987.568	564003.9311	215.1808357	19.244221
FRESNO	2021	MDV	Aggregated	Aggregated	DSL	2105.941898	86518.70538	10153.68686	3.196155058	27.0696208
FRESNO	2021	MDV	Aggregated	Aggregated	ELEC	312.4966737	10759.61149	1601.534031	0	#DIV/0!
FRESNO	2021	MH	Aggregated	Aggregated	GAS	1759.975585	15220.55632	176.0679576	3.213623157	4.73626047
FRESNO	2021	MH	Aggregated	Aggregated	DSL	722.7873095	6309.523058	72.27873095	0.651750843	9.68088209
FRESNO	2021	Motor Coach	Aggregated	Aggregated	DSL	59.76869668	7770.733598	872.6229715	1.242306715	6.2550846
FRESNO	2021	OBUS	Aggregated	Aggregated	GAS	343.9261828	17738.4867	6881.275066	3.81183852	4.65352522
FRESNO	2021	PTO	Aggregated	Aggregated	DSL	0	14761.34913	0	3.009193327	4.90541734
FRESNO	2021	SBUS	Aggregated	Aggregated	GAS	86.90521149	4894.756624	347.6208459	0.534550326	9.15677419
FRESNO	2021	SBUS	Aggregated	Aggregated	DSL	1106.638049	34721.91042	12770.44966	4.371790876	7.94226243 MHD
FRESNO	2021	T6 Ag	Aggregated	Aggregated	DSL	70.58470331	986.5981425	310.5726946	0.109064383	9.04601588 8.984019
FRESNO	2021	T6 CAIRP heavy	Aggregated	Aggregated	DSL	149.4455623	29407.45814	2181.90521	2.667127291	11.0258923
FRESNO	2021	T6 CAIRP small	Aggregated	Aggregated	DSL	78.24582375	4095.853786	1142.389027	0.394920925	10.3713263
FRESNO	2021	T6 instate construction heavy	Aggregated	Aggregated	DSL	517.3970346	35207.97972	2339.131877	4.381177142	8.03619178
FRESNO	2021	T6 instate construction small	Aggregated	Aggregated	DSL	2198.030381	113731.8796	9937.209892	14.05918199	8.08950902
FRESNO	2021	T6 instate heavy	Aggregated	Aggregated	DSL	1868.81872	241522.0626	21565.90893	24.86084134	9.71495933
FRESNO	2021	T6 instate small	Aggregated	Aggregated	DSL	4091.470089	205725.3141	47214.99757	21.86108511	9.41057194
FRESNO	2021	T6 OOS heavy	Aggregated	Aggregated	DSL	84.99599301	16840.98131	1240.941498	1.526099078	11.0353132
FRESNO	2021	T6 OOS small	Aggregated	Aggregated	DSL	45.86234765	2383.189166	669.5902756	0.229891569	10.3665793
FRESNO	2021	T6 Public	Aggregated	Aggregated	DSL	521.5352965	7851.259054	1581.990398	1.125424582	6.97626405
FRESNO	2021	T6 utility	Aggregated	Aggregated	DSL	110.1189523	1853.1229	1266.367952	0.205809786	9.0040563
FRESNO	2021	T6TS	Aggregated	Aggregated	GAS	926.1474538	51879.6628	18530.35826	10.96463468	4.73154504 HHD
FRESNO	2021	T7 Ag	Aggregated	Aggregated	DSL	54.1137815	830.8241065	238.1006386	0.145510213	5.70973055 5.379501
FRESNO	2021	T7 CAIRP	Aggregated	Aggregated	DSL	2654.271667	471356.3512	38752.36633	70.76853275	6.66053587
FRESNO	2021	T7 CAIRP construction	Aggregated	Aggregated	DSL	139.9590605	25290.19768	632.7494708	4.396813342	5.75193798
FRESNO	2021	T7 NNOOS	Aggregated	Aggregated	DSL	2864.474226	574611.4909	41821.3237	83.04795011	6.9190328
FRESNO	2021	T7 NOOS	Aggregated	Aggregated	DSL	1042.19486	185193.7786	15216.04496	28.45751002	6.50772954
FRESNO	2021	T7 other port	Aggregated	Aggregated	DSL	53.96604641	8643.165324	410.1419527	1.580636182	5.46815606
FRESNO	2021	T7 POAK	Aggregated	Aggregated	DSL	284.8967002	32755.92016	2165.214922	6.263997875	5.22923552
FRESNO	2021	T7 POLA	Aggregated	Aggregated	DSL	266.0142577	33509.94953	2021.708358	6.437710689	5.20525869
FRESNO	2021	T7 Public	Aggregated	Aggregated	DSL	770.5682866	15575.68186	2337.390467	2.845323791	5.47413335
FRESNO	2021	T7 Single	Aggregated	Aggregated	DSL	1037.685109	74341.10476	11974.74229	12.02959418	6.17985143
FRESNO	2021	T7 single construction	Aggregated	Aggregated	DSL	892.2981086	62740.3288	4034.045056	11.80656174	5.314022
FRESNO	2021	T7 SWCV	Aggregated	Aggregated	DSL	431.0296171	17588.1497	1681.015507	7.245638552	2.42741196
FRESNO	2021	T7 SWCV	Aggregated	Aggregated	NG	63.8381311	2604.304657	248.9687113	1.140120734	2.28423585
FRESNO	2021	T7 tractor	Aggregated	Aggregated	DSL	5014.592123	685159.73	63685.31996	95.1828025	7.19835634
FRESNO	2021	T7 tractor construction	Aggregated	Aggregated	DSL	745.1217937	51755.24755	3368.666659	9.809894294	5.27582113
FRESNO	2021	T7 utility	Aggregated	Aggregated	DSL	35.58888675	722.0536174	409.2721977	0.12285306	5.87737594
FRESNO	2021	T7IS	Aggregated	Aggregated	GAS	3.57827957	472.6745653	71.59421764	0.119101015	3.9686863
FRESNO	2021	UBUS	Aggregated	Aggregated	GAS	78.45019703	6763.939254	313.8007881	1.515811011	4.46225763
FRESNO	2021	UBUS	Aggregated	Aggregated	DSL	20.05814875	2067.837991	80.23259498	0.269484577	7.67330737
FRESNO	2021	UBUS	Aggregated	Aggregated	NG	119.5188953	13413.33	478.075581	3.087400739	4.34453805

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: FRESNO

Calendar Year: 2035

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption	MPG
FRESNO	2035	All Other Buses	Aggregated	Aggregated	DSL	260.2307667	14317.39	2185.93844	1.27483802	11.23075373
FRESNO	2035	LDA	Aggregated	Aggregated	GAS	493913.7993	16670157	2309399.37	404.8228832	41.17889023
FRESNO	2035	LDA	Aggregated	Aggregated	DSL	5827.359994	202680.4	27541.3535	3.110273543	65.16482526
FRESNO	2035	LDA	Aggregated	Aggregated	ELEC	27591.32946	997405.1	132204.242	0	#DIV/0!
FRESNO	2035	LDT1	Aggregated	Aggregated	GAS	51674.25227	1661711	236389.918	47.57234249	34.93018646
FRESNO	2035	LDT1	Aggregated	Aggregated	DSL	6.237866971	213.8223	29.3145386	0.006214707	34.40585396
FRESNO	2035	LDT1	Aggregated	Aggregated	ELEC	1524.63097	55806.35	7336.32143	0	#DIV/0!
FRESNO	2035	LDT2	Aggregated	Aggregated	GAS	161220.6123	5242951	741154.75	150.513615	34.83373485
FRESNO	2035	LDT2	Aggregated	Aggregated	DSL	1491.989477	51364.85	7033.64488	1.05635654	48.6245347
FRESNO	2035	LDT2	Aggregated	Aggregated	ELEC	5798.483974	145721.9	27823.8106	0	#DIV/0!
FRESNO	2035	LHD1	Aggregated	Aggregated	GAS	9311.148344	300877.2	138722.237	30.51142444	9.861132806
FRESNO	2035	LHD1	Aggregated	Aggregated	DSL	9481.188739	297019.9	119261.427	13.90652709	21.3583103
FRESNO	2035	LHD2	Aggregated	Aggregated	GAS	1441.297599	44618.08	21473.1867	5.245527004	8.50592929
FRESNO	2035	LHD2	Aggregated	Aggregated	DSL	3755.301612	114947	47236.9701	6.067006597	18.94624082
FRESNO	2035	MCY	Aggregated	Aggregated	GAS	20071.83675	140811.2	40143.6735	3.717301802	37.87959875
FRESNO	2035	MDV	Aggregated	Aggregated	GAS	112074.5647	3381137	505531.712	119.8799043	28.20436936
FRESNO	2035	MDV	Aggregated	Aggregated	DSL	3627.930111	117280.5	16840.6096	3.208550477	36.55247816
FRESNO	2035	MDV	Aggregated	Aggregated	ELEC	4126.535194	104730	19869.256	0	#DIV/0!
FRESNO	2035	MH	Aggregated	Aggregated	GAS	1370.582641	12987.15	137.113087	2.243633334	5.788444951
FRESNO	2035	MH	Aggregated	Aggregated	DSL	749.5520707	6063.058	74.9552071	0.536143115	11.30865522
FRESNO	2035	Motor Coach	Aggregated	Aggregated	DSL	78.91186401	9430.679	1152.11321	1.224355833	7.702564174
FRESNO	2035	OBUS	Aggregated	Aggregated	GAS	282.4845462	12618.23	5651.9508	2.21246803	5.703235352
FRESNO	2035	PTO	Aggregated	Aggregated	DSL	0	17983.12	0	2.999492583	5.995388364
FRESNO	2035	SBUS	Aggregated	Aggregated	GAS	156.7343254	7814.303	626.937302	0.733898751	10.64765784
FRESNO	2035	SBUS	Aggregated	Aggregated	DSL	967.5174127	30161.36	11165.0168	3.323463326	9.075279811 MHD
FRESNO	2035	T6 Ag	Aggregated	Aggregated	DSL	45.70128822	139.2407	201.085668	0.017459029	7.975281591 11.06356
FRESNO	2035	T6 CAIRP heavy	Aggregated	Aggregated	DSL	208.4807457	35678.9	3043.81889	2.440189833	14.62136412
FRESNO	2035	T6 CAIRP small	Aggregated	Aggregated	DSL	112.5273223	4979.393	1642.89891	0.381179183	13.06312855
FRESNO	2035	T6 instate construction heavy	Aggregated	Aggregated	DSL	729.431844	46076.68	3297.73301	4.958158545	9.293103872
FRESNO	2035	T6 instate construction small	Aggregated	Aggregated	DSL	2993.998037	148840.9	13535.7487	14.58287996	10.20655104
FRESNO	2035	T6 instate heavy	Aggregated	Aggregated	DSL	2586.929246	243998.5	29852.8048	20.28856453	12.02640288
FRESNO	2035	T6 instate small	Aggregated	Aggregated	DSL	5992.142637	276115.3	69148.4952	23.01603994	11.99664782
FRESNO	2035	T6 OOS heavy	Aggregated	Aggregated	DSL	118.5217241	20419.88	1730.41717	1.394876615	14.63920335
FRESNO	2035	T6 OOS small	Aggregated	Aggregated	DSL	66.5743768	2929.257	971.985901	0.224480773	13.04903084
FRESNO	2035	T6 Public	Aggregated	Aggregated	DSL	367.3514172	5601.17	1114.2993	0.648159822	8.641649728
FRESNO	2035	T6 utility	Aggregated	Aggregated	DSL	123.9642675	2067.982	1425.58908	0.180666625	11.44639599
FRESNO	2035	T6TS	Aggregated	Aggregated	GAS	1040.436799	58504.28	20817.0595	10.08004198	5.80397147 HHD
FRESNO	2035	T7 Ag	Aggregated	Aggregated	DSL	87.90283113	967.1513	386.772457	0.149836207	6.454723552 7.186775
FRESNO	2035	T7 CAIRP	Aggregated	Aggregated	DSL	2700.839925	571661.1	39432.2629	60.38837133	9.466409648
FRESNO	2035	T7 CAIRP construction	Aggregated	Aggregated	DSL	180.8160535	33097.28	817.462348	4.33447019	7.635830852
FRESNO	2035	T7 NNOOS	Aggregated	Aggregated	DSL	4052.029805	696833.2	59159.6352	75.94864084	9.175058231
FRESNO	2035	T7 NOOS	Aggregated	Aggregated	DSL	1074.662955	224620.9	15690.0791	24.32282277	9.234986915
FRESNO	2035	T7 other port	Aggregated	Aggregated	DSL	70.96911993	11710.04	539.365311	1.41473788	8.277181059
FRESNO	2035	T7 POAK	Aggregated	Aggregated	DSL	388.1436874	61324.36	2949.89202	7.610397843	8.057970503
FRESNO	2035	T7 POLA	Aggregated	Aggregated	DSL	306.2072059	59379.65	2327.17477	7.981010658	7.440116231
FRESNO	2035	T7 Public	Aggregated	Aggregated	DSL	1303.189364	26385.69	3953.00773	3.742132212	7.050977133
FRESNO	2035	T7 Single	Aggregated	Aggregated	DSL	1166.053923	90566.6	13456.1006	11.75063391	7.707380068
FRESNO	2035	T7 single construction	Aggregated	Aggregated	DSL	1102.466066	82108.27	4984.20622	12.36227506	6.641841138
FRESNO	2035	T7 SWCV	Aggregated	Aggregated	DSL	344.8042141	14063.32	1344.73643	4.59394473	3.061272502
FRESNO	2035	T7 SWCV	Aggregated	Aggregated	NG	57.27627472	2335.883	223.377471	0.848537751	2.752833573
FRESNO	2035	T7 tractor	Aggregated	Aggregated	DSL	7054.508476	855086.6	89592.2576	87.6312783	9.757778137
FRESNO	2035	T7 tractor construction	Aggregated	Aggregated	DSL	915.3455844	67732.09	4138.2418	10.08321537	6.717310795
FRESNO	2035	T7 utility	Aggregated	Aggregated	DSL	39.74790079	805.6322	457.100859	0.108356783	7.43499587
FRESNO	2035	T7IS	Aggregated	Aggregated	GAS	4.056587089	545.8966	81.1641945	0.102834257	5.308509236
FRESNO	2035	UBUS	Aggregated	Aggregated	GAS	93.07837613	8025.174	372.313505	1.436846062	5.585270559
FRESNO	2035	UBUS	Aggregated	Aggregated	DSL	32.93245691	3652.699	131.729828	0.487387176	7.494449904
FRESNO	2035	UBUS	Aggregated	Aggregated	NG	132.670755	14715.16	530.68302	3.355986499	4.384748845

On-road Mobile (Operational) Energy Usage

Unmitigated:

Step 1:

Therefore:
Average Daily VMT:
3,081,970,900 Source: CalEEMod

Step 2:

Given:

Fleet Mix (CalEEMod Output)

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
57.7209%	2.4156%	21.4776%	10.3225%	0.9844%	0.3830%	2.1383%	3.0701%	0.4268%	0.1869%	0.7043%	0.1207%	0.0491%

And:

Gasoline MPG Factors for each Vehicle Class - Year 2035 (EMFAC2017 Output)

LDA	LDT1	LDT2	MDV	MCY	MH
41.17889023	34.93019	34.83373	28.20436936	37.87995875	5.788444951

Diesel MPG Factors for each Vehicle Class - Year 2035 (EMFAC2017 Output)

LHD1	LHD2	MHD	HHD	OBUS	UBUS	SBUS
9.861132806	18.94624	11.06356	7.186775026	5.703235352	7.494449904	9.07528

Therefore:

Weighted Average MPG Factors

Gasoline:	38.1	Diesel:	8.7
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Step 3:

Therefore:

75,063,072	daily gallons of gasoline	25,808,784	daily gallons of diesel
or			
27,398,021,200	annual gallons of gasoline	9,420,206,008	annual gallons of diesel

Off-road Mobile (Construction) Energy Usage

Note: For the sake of simplicity, and as a conservative estimation, it was assumed that all off-road vehicles use diesel fuel as an energy source. Demolition, Site preparation and grading off-road mobile vehicle on-site gallons of fuel are calculated below.

Given Factor:	322.3	metric tons	CO2	(provided in CalEEMod Output File)
Conversion Factor:	2204.6262	pounds	per metric ton	
Intermediate Result:	710,607	pounds	CO2	
Conversion Factor:	22.38	pounds	CO2 per 1 gallon of diesel fuel	Source: U.S. EIA, 2016
Final Result:	31,751.88	gallons	diesel fuel	http://www.eia.gov/tools/faqs/faq.cfm?id=307&t=11

Mitigated Onsite Scenario	Total CO2 (MT/yr) (provided in CalEEMod Output File)
Demolition	34.24

On-road Mobile (Construction) Energy Usage - Demolition

Step 1: **Total Daily Worker Trips (CalEEMod output)**

15

Worker Trip Length (miles) (CalEEMod output)

10.8

Therefore:

Average Worker Daily VMT:

162

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMod)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class - Year 2021 (EMFAC2017 output)

LDA	LDT1	LDT2
41.17889	34.93019	34.83373

Therefore:

Weighted Average Worker MPG Factor

38.030425

Step 3: **Therefore:**

4.3 Worker daily gallons of gasoline (all workers)

Step 4: 21 # of Days (CalEEMod output)

Therefore:

Result: 89 Total gallons of gasoline (all workers)

On-road Mobile (Construction) Energy Usage - Site Preparation

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

18

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

194

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2021

LDA	LDT1	LDT2
30.685292	25.99234	23.798956

Therefore:

Weighted Average Worker MPG Factor

27.8

Step 3: **Therefore:**

7.0 Worker daily gallons of gasoline

Step 4: 65 # of Days (CalEEMod Output)

Therefore:

Result: 455 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Grading

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

20

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

216

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2040

LDA	LDT1	LDT2
30.685292	25.99234	23.798956

Therefore:

Weighted Average Worker MPG Factor

27.8

Step 3: **Therefore:**

7.8 Worker daily gallons of gasoline

Step 4: **65 # of Days (CalEEMod Output)**

Therefore:

Result: 505 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Underground Utilities

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

30

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

324

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2040

LDA	LDT1	LDT2
30.685292	25.99234	23.798956

Therefore:

Weighted Average Worker MPG Factor

27.8

Step 3: **Therefore:**

11.7 Worker daily gallons of gasoline

Step 4: 45 # of Days (CalEEMod Output)

Therefore:

Result: 525 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Paving

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

15

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

162

Step 2: **Given:**

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2040

LDA	LDT1	LDT2
30.685292	25.99234	23.798956

Therefore:

Weighted Average Worker MPG Factor

27.8

Step 3: **Therefore:**

5.8 Worker daily gallons of gasoline

Step 4: **85 # of Days (CalEEMod Output)**

Therefore:

Result: 495 Total gallons of gasoline

On-road Mobile (Construction) Energy Usage - Building Construction

Step 1:

Total Daily Worker Trips (CalEEMod Output)

65,164 5% 3258

Total Daily Vendor Trips (CalEEMod Output)

24,601 5% 1230

Note: Assumes 5% of Plan Area under construction at given point in time (on average) until buildout.

Worker Trip Length (miles) (CalEEMod Output)

10.8

Vendor Trip Length (miles) (CalEEMod Output)

7.3

Therefore:

Average Worker Daily VMT:

35,189

Average Vendor Daily VMT:

8,979

Step 2:

Given:

Assumed Fleet Mix for Workers

(Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA LDT1 LDT2
0.5 0.25 0.25

Fleet Mix for Workers (CalEEMod Output)

MHD HHD
0% 100%

Assumed Fleet Mix for Vendors

And:

MPG Factors for each Vehicle Class (from EMFAC2017) - Year 2040

Gasoline:

LDA LDT1 LDT2
30.68529162 25.99234 23.798956

Diesel:

MHD HHD
8.984018698 5.3795007

Therefore:

Weighted Average Worker (Gasoline) MPG Factor

27.8

Weighted Average Vendor (Diesel) MPG Factor

5.4

Step 3:

Therefore:

1,266 Worker daily gallons of gasoline

Therefore:

1,669 Vendor daily gallons of diesel

Step 4:

3833 # of Days (CalEEMod Output)

Therefore:

4,853,381 Total gallons of gasoline

Therefore:

6,397,974 Total gallons of diesel

On-road Mobile (Construction) Energy Usage - Architectural Coating

Step 1: **Total Daily Worker Trips (CalEEMod Output)**

13033	5%	652
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Note: Assumes 5% of Plan Area under construction at given point in time (on average) until buildout.

Worker Trip Length (miles) (CalEEMod Output)

10.8

Therefore:

Average Worker Daily VMT:

7,038

Step 2: Given:

Assumed Fleet Mix for Workers (Percentage mix is provided on Appendix A: Calculation Details for CalEEMOD p. 15)

LDA	LDT1	LDT2
0.5	0.25	0.25

And:

Gasoline MPG Factors for each Vehicle Class (EMFAC2017 Output) - Year 2040

LDA	LDT1	LDT2
30.685292	25.99234	23.798956

Therefore:

Weighted Average Worker MPG Factor

27.8

Step 3: **Therefore:**

253.2 Worker daily gallons of gasoline

Step 4:

3,656	# of Days (CalEEMod Output)
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Therefore:

Result:

925,867	Total gallons of gasoline
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APPENDIX B.3

Analysis of Models and Tools to Correlate Project-Generated Pollutants to Health End Points

APPENDIX B

Appendix B of the Draft EIR includes additional information regarding models and tools for correlating project-generated criteria pollutant emissions to health end points. The following table is an addition to Appendix B.

ANALYSIS OF MODELS AND TOOLS TO CORRELATE PROJECT-GENERATED CRITERIA POLLUTANT EMISSIONS TO HEALTH END POINTS

TOOL	CREATED BY	DESCRIPTION	RESOLUTION	POLLUTANTS ANALYZED	PROJECT-LEVEL CEQA APPLICABILITY
AERMOD Modeling System ^{1,2}	AERMIC	A steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. The modeling system incorporates air dispersion based on a planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain.	Project-level	SO ₂ , ROG, NO ₂ , Lead, PM _{2.5} , PM ₁₀ , NH ₃	This model operates at the project-level and provides air dispersion modeling for a project's emissions on the surrounding environment. However, even with supplementary (i.e. additional software), the model cannot estimate specific health effects on receptors from the air dispersion modeling. Moreover, it cannot model the (complex) chemical reactions that occur between the ozone precursors (e.g. NO _x and ROG) that generate ozone. Therefore, this model is not recommended for project-level CEQA analysis.
AirCounts ³	Abt Assoc.	Online tool that helps large and medium-sized cities quickly estimate the health benefits of PM _{2.5} emission reductions and economic value of those benefits. The tool estimates the number of deaths (mortality) avoided and economic value related to user-specified regional, annual PM _{2.5} emissions reduction.	City-level	Primary PM _{2.5}	This tool is only illustrative, as it is limited to certain cities and does not target specific sectors. The tool is not sector specific, and includes limited California data. It cannot provide results at a project-level. Therefore, the tool is not recommended for project-level CEQA analysis.
Air Pollution Emission Experiments and Policy analysis (APEEP) model ⁴	Mueller and Mendelsohn 2006, 2009	The Air Pollution Emission Experiments and Policy (APEEP) analysis model (Muller and Mendelsohn 2006, 2009) is a traditional integrated assessment model. Like other integrated assessment models, APEEP connects emissions of air pollution through air-quality modeling to exposures, physical effects, and monetary damages. Making these links requires the use of findings reported in the peer-reviewed literature across several scientific disciplines. The air-quality models in APEEP use the emission data provided by EPA to estimate corresponding ambient concentrations in each county in the coterminous states.	National or county-level	SO ₂ , ROG, NO _x , Ozone, PM _{2.5} , PM ₁₀	The model operates at the national scale but may be applied at the county-level (although it is not clear how this adjustment should be made). It cannot provide results at a project-level. The tool is also not commercially available. Therefore, the tool is not recommended for project-level CEQA analysis.

¹ See: <https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models>

² Note: May require additional software to estimate the level of each specific pollutant at the modeled receptors.

³ See: <https://www.abtassociates.com/tools>

⁴ See: <https://public.tepper.cmu.edu/nmuller/APModel.aspx>

TOOL	CREATED BY	DESCRIPTION	RESOLUTION	POLLUTANTS ANALYZED	PROJECT-LEVEL CEQA APPLICABILITY
CALINE3/ CAL3QHC/ CAL3QHCR ^{1,2}	USEPA	A steady-state Gaussian dispersion model designed to determine air pollution concentrations at receptor locations downwind of highways located in relatively uncomplicated terrain. CALINE3 is incorporated into the more refined CAL3QHC and CAL3QHCR models. CAL3QHCR is a more refined version based on CAL3QHC that requires local meteorological data.	Project-level	SO ₂ , ROG, NO ₂ , Lead, PM _{2.5} , PM ₁₀	This model operates at the project-level and provides air dispersion modeling for a project's emissions on the surrounding environment. However, even with supplementary (i.e. additional software), the model cannot estimate specific health effects on receptors from the air dispersion modeling. Moreover, it cannot model the (complex) chemical reactions that occur between the ozone precursors (e.g. NO _x and ROG) that generate ozone. Therefore, this model is not recommended for project-level CEQA analysis.
Complex Terrain Dispersion Model Plus Algorithms for Unstable Situations (CTDMPLUS) ^{1,2}	USEPA	A refined point source gaussian air quality model for use in all stability conditions for complex terrain. The purpose of the model is to provide a practical, refined plum model for elevated point sources near complex terrain.	Project-level	SO ₂ , ROG, NO ₂ , Lead, PM _{2.5} , PM ₁₀	This model operates at the project-level and provides air dispersion modeling for a project's emissions on the surrounding environment. However, even with supplementary (i.e. additional software), the model cannot estimate specific health effects on receptors from the air dispersion modeling. Moreover, it cannot model the (complex) chemical reactions that occur between the ozone precursors (e.g. NO _x and ROG) that generate ozone. Therefore, this model is not recommended for project-level CEQA analysis.
Co-Benefits Risk Assessment (COBRA) ⁵	USEPA	<p>Preliminary screening tool that contains baseline emission estimates of a variety of air pollutants for a single year. COBRA is targeted to state and local governments as a screening assessment for clean energy policies. EPA's CO-Benefits Risk Assessment (COBRA) screening model is a free tool that helps state and local governments:</p> <ul style="list-style-type: none"> • Explore how changes in air pollution from clean energy policies and programs; • Estimate the economic value of the health benefits associated with clean energy policies and programs to compare against program costs; • Map and visually represent the air quality, human health, and health-related economic benefits from reductions in emissions of particulate matter (PM_{2.5}), sulfur dioxide (SO₂), nitrogen oxides (NO_x), ammonia (NH₃), and volatile organic compounds (VOCs) that result from clean energy policies and programs. 	National, regional, state, or county-levels	PM _{2.5} , SO ₂ , NO _x , NH ₃ , and ROG	COBRA is a preliminary screening tool only and cannot be used at sub-county resolution. It cannot provide results at a project-level. It also does not account for secondary emission changes resulting from market responses. Accordingly, the tool is not recommended for project-level CEQA analysis.

⁵ See: <https://www.epa.gov/statelocalenergy/co-benefits-risk-assessment-cobra-health-impacts-screening-and-mapping-tool>

TOOL	CREATED BY	DESCRIPTION	RESOLUTION	POLLUTANTS ANALYZED	PROJECT-LEVEL CEQA APPLICABILITY
Environmental Benefits and Mapping Program-Community Edition (BenMAP-CE) ⁶	USEPA	The USEPA's detailed model for estimating the health impacts from air pollution. It relies on input concentrations and applies concentration-response (C-R) health impact functions, which relate a change in the concentration of a pollutant with a change in the incidence of a health endpoint, including premature mortality, heart attacks, chronic respiratory illnesses, asthma exacerbation and other adverse health effects. Detailed inputs are required for air quality changes (concentrations from AERMOD), population, baseline incidence rates, and effect estimates.	National, County, City, and sub-regional levels	Ozone, PM, NO ₂ , SO ₂ , CO	This tool is not well suited to analyze small or localized changes in pollutant concentrations associated with individual projects. Although this tool is under consideration by some California air districts for use towards project-level analysis, no air district in California has promulgated a methodology (using this tool or any other) that would correlate the expected air quality emissions of projects to the likely health consequences of the increased emissions. Accordingly, the tool is not recommended.
Fast Scenario Screening Tool (TM5-FASST) ⁷	Joint Research Centre (Italy)	A tool that allows users to evaluate how air pollutant emissions affect large scale pollutant concentrations and their impact on human health (mortality and years of life lost) and crop yield from national to regional air quality policies, such as climate policies. The target policy domains are national to regional air quality policies, or air pollutant scenarios linked to other policy domains (e.g. climate policy). The tool is web-based and does not require coding or modelling. Users must gain access through publishers.	Global and national-levels	PM _{2.5} , Ozone, NO _x , NH ₃ , CO, ROG, CH ₄ , SO ₂	This tool is applicable at national to global scales. It cannot provide results a project-level. Accordingly, the tool is not recommended for project-level CEQA analysis.
Long-range Energy Alternatives Planning System-Integrated Benefits Calculator (LEAP-IBC) ⁸	Climate and Clean Air Coalition (CCAC)	A calculator that allows users to rapidly estimate the impacts of reducing emissions on health, climate, and agriculture. The tool uses sensitivity coefficients that link gridded emissions of air pollutants and precursors to health, climate and agricultural impacts at a national level. The tool is primarily used for policy analysis. The tool is currently Excel-based and is available through the developers only. A web-based interface is currently under development.	National-level	PM _{2.5} , Ozone, NO ₂	This tool is applicable at national scale. Accordingly, the tool is not recommended for project-level CEQA analysis.
Methodology for Estimating Premature Deaths Associated with Long-Term Exposure to Fine Airborne Particulate Matter in California ⁹	California Air Resources Board	The staff report identifies a relative risk of premature death associated with PM _{2.5} exposure based on a review of all relevant scientific literature, and a new relative risk factor was developed. This new factor is a 10% increase in risk of premature death per 10 µg/m ³ increase in exposure to PM _{2.5} concentrations (uncertainty interval: 3% to 20%)	National	PM _{2.5}	The primary author of the CARB staff report notes that the analysis method is not suited for small projects and may yield unreliable results due to various uncertainties. The tool also cannot provide results on a project-level. Accordingly, the tool is not recommended for project-level CEQA analysis.

⁶ See: <https://www.epa.gov/benmap>

⁷ See: <http://tm5-fasst.jrc.ec.europa.eu/>

⁸ See: <https://www.ccacoalition.org/en/resources/long-range-energy-alternatives-planning-integrated-benefits-calculator-leap-ibc-factsheet>

⁹ See: <https://ww3.arb.ca.gov/research/health/pm-mort/pmmortalityreportfinalr10-24-08.pdf>

TOOL	CREATED BY	DESCRIPTION	RESOLUTION	POLLUTANTS ANALYZED	PROJECT-LEVEL CEQA APPLICABILITY
Multi-Pollutant Evaluation Method (MPEM) ¹⁰	BAAQMD	Estimates the impacts of control measures on pollutant concentration, population exposures, and health outcomes for criteria, toxic, and GHG pollutants. Monetizes the value of total health benefits from reductions in PM _{2.5} , ozone, and certain carcinogens, and the social value of GHG reductions. MPEM was designed for development of a Clean Air Plan for the San Francisco Bay Area. The inputs are specific to the SF region and are not appropriate for projects outside BAAQMD.	Regional level in the SFBAAB	Ozone, PM, air toxics, GHG	This tool is designed to support the BAAQMD in regional planning and emissions analysis within the San Francisco Bay Area Air Basin (SFBAAB). The model applies changes in pollutant concentrations over a four-square kilometer grid. The tool also cannot provide results on a project-level. Additionally, this tool is only applicable for the SFBAAB. Accordingly, the tool is not recommended for project-level CEQA analysis.
Offshore and Coastal Dispersion Model Version 5 (OCD) ^{1, 2}	USEPA	A straight-line Gaussian model developed to determine the impact of offshore emissions from point, area or line sources on the air quality of coastal regions. OCD incorporates overwater plume transport and dispersion as well as changes that occur as the plume crosses the shoreline. Hourly meteorological data are needed from both offshore and onshore locations.	Project-level	SO ₂ , ROG, NO ₂ , Lead, PM _{2.5} , PM ₁₀	This model operates at the project-level and provides air dispersion modeling for a project's emissions on the surrounding environment. However, even with supplementary (i.e. additional software), the model cannot estimate specific health effects on receptors from the air dispersion modeling. Moreover, it cannot model the (complex) chemical reactions that occur between the ozone precursors (e.g. NO _x and ROG) that generate ozone. Therefore, this model is not recommended for project-level CEQA analysis.
Response Surface Model (RSM)-based Benefit-per-Ton Estimates ¹¹	USEPA	Consists of tables reporting the monetized PM _{2.5} -related health benefits from reducing PM _{2.5} precursors from certain source types nationally and for 9 US cities/regions. Applying these estimates simply involves multiplying the emissions reduction by the relevant benefit per-ton metric. The resulting value is the PM mortality risk estimate at a 3% discount rate.	National or regional (San Joaquin County only) levels	SO _x , VOC, NH ₃ , NO _x	RSM includes regional values specific to San Joaquin County. The values are also dated. Accordingly, the tool is not recommended for project-level CEQA analysis.
Sector-based Benefit-per-Ton Estimates ¹²	USEPA	Two specific sets of Benefit-per-ton (BPT) estimates for 17 key source categories are available. Both are a reduced-form approach based on BenMAP modeling. Applying these factors involves multiplying the emissions reduction (in tons) by the relevant benefit (economic value) or incidence (rates of mortality and morbidity) per-ton metric. The resulting value is the economics, mortality, and morbidity of direct and indirect PM _{2.5} emissions.	National-scale	PM _{2.5} , SO ₂ , NO _x	The BPT estimates do not account for project-specific emissions or receptor locations, local dispersion characteristics, or regional photochemistry. The resultant health effects are therefore reflective of national averages and may not be accurate when applied to the project-level. Accordingly, the tool is not recommended for project-level CEQA analysis.

¹⁰ See: http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/mpem_nov_dec_2016-pdf.pdf?la=en

¹¹ See: <https://www.epa.gov/benmap/response-surface-model-rsm-based-benefit-ton-estimates>

¹² See: <https://www.epa.gov/benmap/sector-based-pm25-benefit-ton-estimates>. The updated Technical Support Document (February 2018) is available at: https://www.epa.gov/sites/production/files/2018-02/documents/sourceapportionmentbpttsd_2018.pdf

APPENDIX C

Cultural and Paleontological Resource Assessment



CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT FOR THE FRESNO WEST AREA SPECIFIC PLAN PROJECT, CITY OF FRESNO, FRESNO COUNTY, CALIFORNIA

Prepared for:

De Novo Planning Group
180 East Main Street #108
Tustin, CA 92780

Authors:

Holly Duke, B.A.
Sherri Gust, M.S., RPA
Shannon Lopez, M.A.
Kim Scott, M.S.

Principal Investigators:

Molly Valasik, M.A., RPA, Principal Investigator for Archaeology
Kim Scott, M.S., Principal Investigator for Paleontology

October 2019

Cogstone Project Number: 4669

Type of Study: Cultural and Paleontological Resources Assessment

Sites: P-10-3110, P-10-3111, P-10-3112, P-10-3113, P-10-3114, P-10-3115, P-10-3116, P-10-3117, P-10-3118, P-10-3119, P-10-3120, P-10-3121, P-10-3122, P-10-3123, P-10-3124, P-10-3125, P-10-3126, P-10-3127, P-10-3128, P-10-3129, P-10-3130, P-10-3131, P-10-3132, P-10-3133, P-10-3134, P-10-3135, P-10-3136, P-10-3137, P-10-3138, P-10-3139, P-10-3140, P-10-3141, P-10-3142, P-10-3143, P-10-3144, P-10-3145, P-10-3146, P-10-3147, P-10-3148, P-10-3149, P-10-3150, P-10-3151, P-10-3152, P-10-3153, P-10-3154, P-10-3155, P-10-3156, P-10-3157, P-10-3158, P-10-3159, P-10-3160, P-10-3161, P-10-3930, P-10-4701, P-10-4702, P-10-4975, P-10-4976, P-10-4977, P-10-4978, P-10-4988, P-10-5205, P-10-5391, P-10-5392, P-10-5573, P-10-5648, P-10-5816, P-10-5829, P-10-6002, P-10-6003, P-10-6004, P-10-6005, P-10-6006, P-10-6007, P-10-6008, P-10-6009, P-10-6010, P-10-6027, P-10-6028, P-10-6029, P-10-6030, P-10-6031, P-10-6130

USGS 7.5' Quadrangles: Fresno North, Herndon

Area: 7,077 acres

Key Words: Cultural Resources Assessment, Paleontological Resources Assessment, Specific Plan

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SUMMARY OF FINDINGS

The objective of this study is to review and summarize available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of Fresno's (City) West Area Specific Plan (Project). The purpose of the West Area Specific Plan is to implement and refine the City's vision for the West Area in order to guide future growth and development in the most northwest area of the City. The Project area is located within approximately 7,077 acres west of Highway 99 in the City of Fresno, Fresno County, California. The City is the lead agency under the California Environmental Quality Act (CEQA).

The Project surface is mapped as modern artificial fill, Holocene deposits of the San Joaquin River, the late Pleistocene Modesto Formation, and the middle Pleistocene Riverbank Formation. No fossils are known from the Fresno area. However, fossils have been found in the same formations as occur within the West Area SP. Although fossils may occur in artificial fill, any present would not be in situ and therefore not scientifically relevant. As such, artificial fill is assigned a very low Potential Fossil Yield Classification (PFYC 1). The Holocene river deposits are assigned a low potential for fossils (PFYC 2) based on age, and the Riverbank Formation is assigned a low potential for fossils (PFYC 2) based on the low number of fossils previously found in these sediments. The upper seven feet of the Modesto Formation are assigned a low potential for fossils (PFYC 2) due to the lack of fossils previously recovered. Modesto Formation sediments more than seven feet below the original ground surface are assigned a moderate but patchy potential for fossils (PFYC 3a) due the presence of numerous fossils found in other areas of the San Joaquin Valley. A mitigation measure is recommended

Cogstone requested a search of the California Historic Resources Inventory System at the Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield on July 18, 2019. Results of the record search indicate that 36 previous cultural resources studies have been completed within the boundaries of the West Area SP. The records search also determined 82 previously recorded cultural resources are located within the West Area SP. Of these, four are historic archaeological sites and 78 are historic built environment resources. The majority of the historic built environment resources are historic residences clustered around North Polk Avenue and West Acacia Avenue. Two mitigation measures are recommended

INTRODUCTION

PURPOSE OF STUDY

The objective of this study is to review and summarize available information regarding known paleontological, archaeological, and historical resources within the boundaries of the West Area Specific Plan (SP). The West Area SP consists of approximately 7,077 acres located west of Highway 99 in the City of Fresno (City) in Fresno County, California (Figure 1). The City is the lead agency under the California Environmental Quality Act (CEQA).

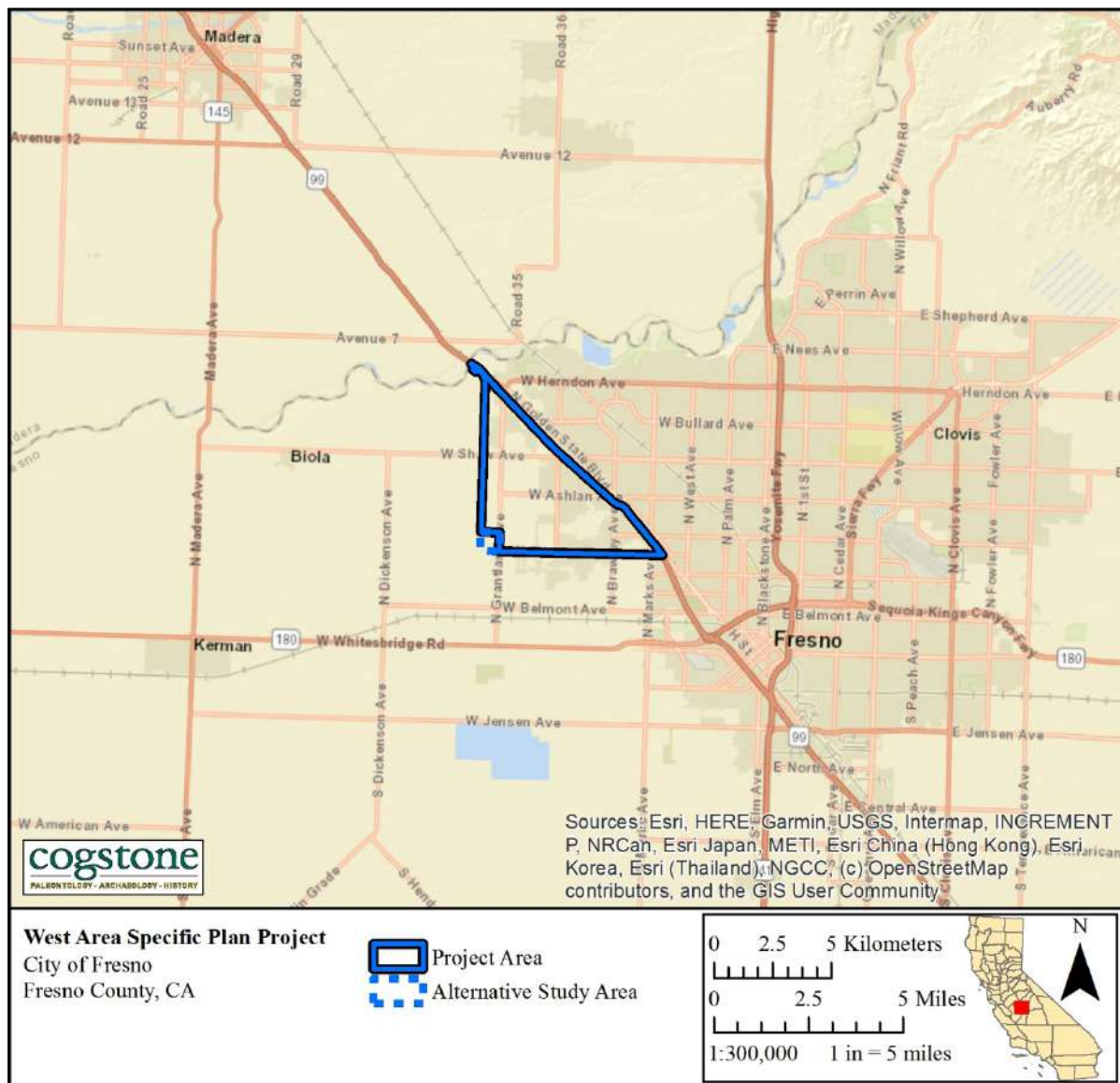


Figure 1. Project vicinity map

PROJECT LOCATION AND DESCRIPTION

The City of Fresno is located within the San Joaquin Valley in Fresno County, California (Figure 1). The Fresno West Area SP is located in the western portion of the City and is bounded by North Golden State Boulevard (Highway 99) to the north and east, North Garfield Avenue to the west, and West Clinton Avenue to the south. Specifically, the West Area SP is located within the Herndon and Fresno North United States Geological Survey (USGS) 7.5' topographic maps (Table 1; Figures 2a-3f).

Table 1. Fresno West SP Cadastral Information

USGS 7.5 TOPOGRAPHIC QUAD(S)	TOWNSHIP	RANGE	SECTION(S)
Herndon	12S	19E	31, 32
	13S	19E	4, 5, 8, 9, 10, 15, 16, 17, 20, 21, 22, 27, 28, 29
Fresno North	13S	19E	14, 23, 24, 25, 26
	13S	20E	30

The proposed SP will establish the land use planning and regulatory guidance, including the land use and zoning designations and policies, for the approximately 7,077-acre SP area. The SP will serve as a bridge between the Fresno General Plan and individual development applications in the Plan Area.

The SP seeks to provide for the orderly and consistent development that promotes and establishes the West Area as a complete neighborhood with enhanced transportation infrastructure, development of core commercial centers, creation of additional parkland, and encouraging the development of a diverse housing stock. The Plan Area does not currently have needed commercial amenities, forcing residents to travel east of State Route 99 for retail services. The Plan Area also lacks a complete roadway network and parkland.

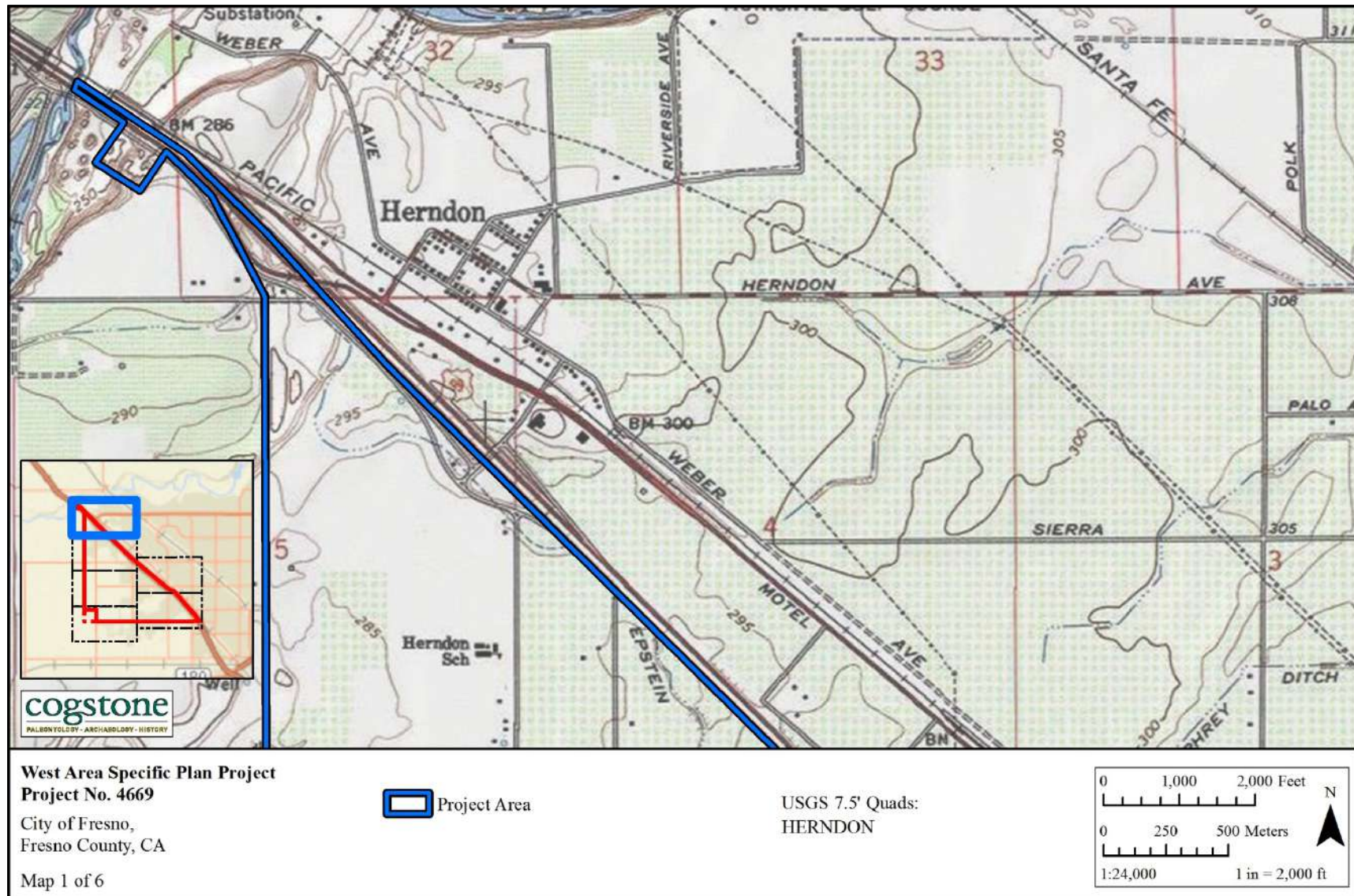


Figure 2a. Project location map

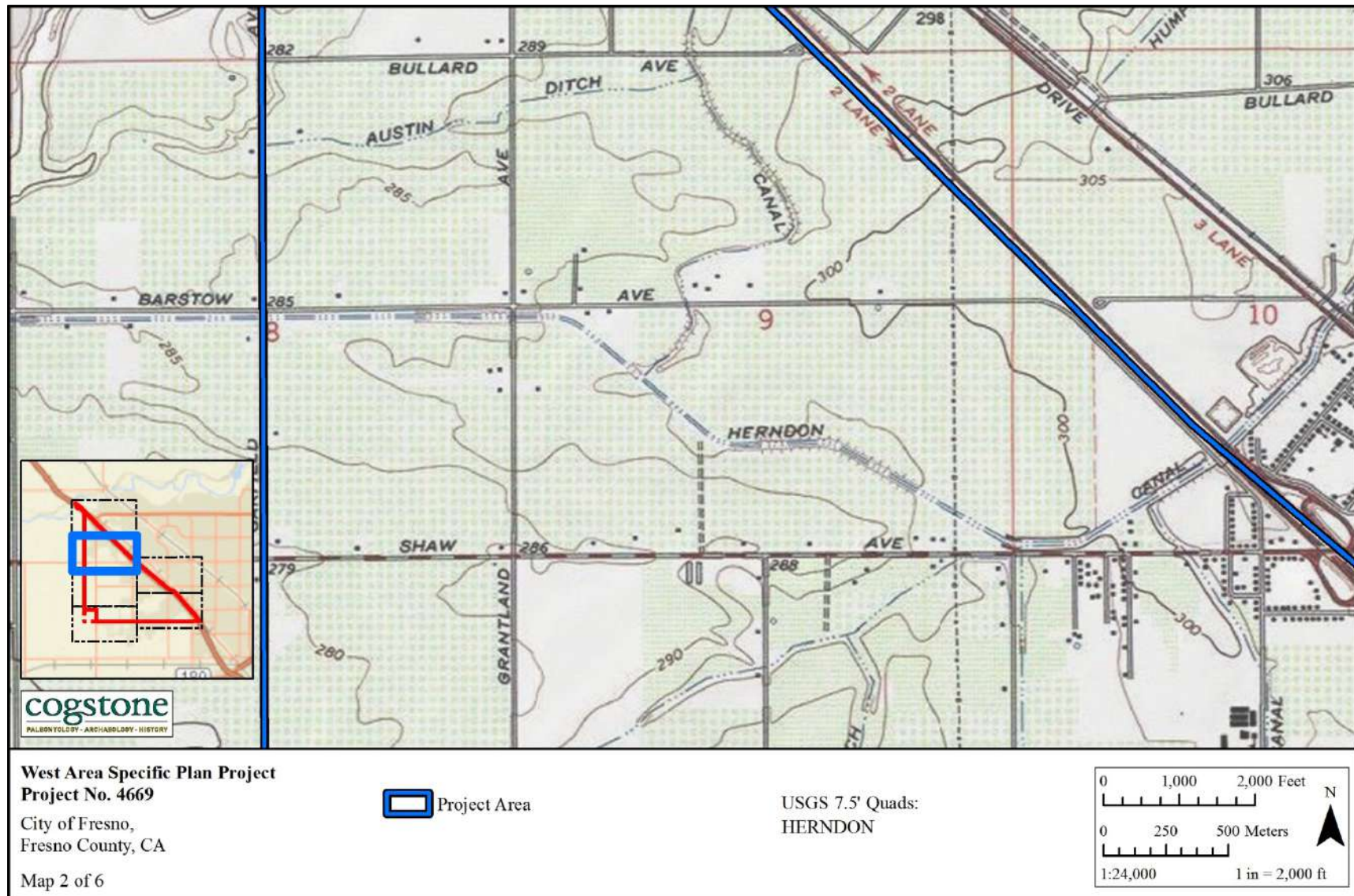


Figure 2b. Project location map

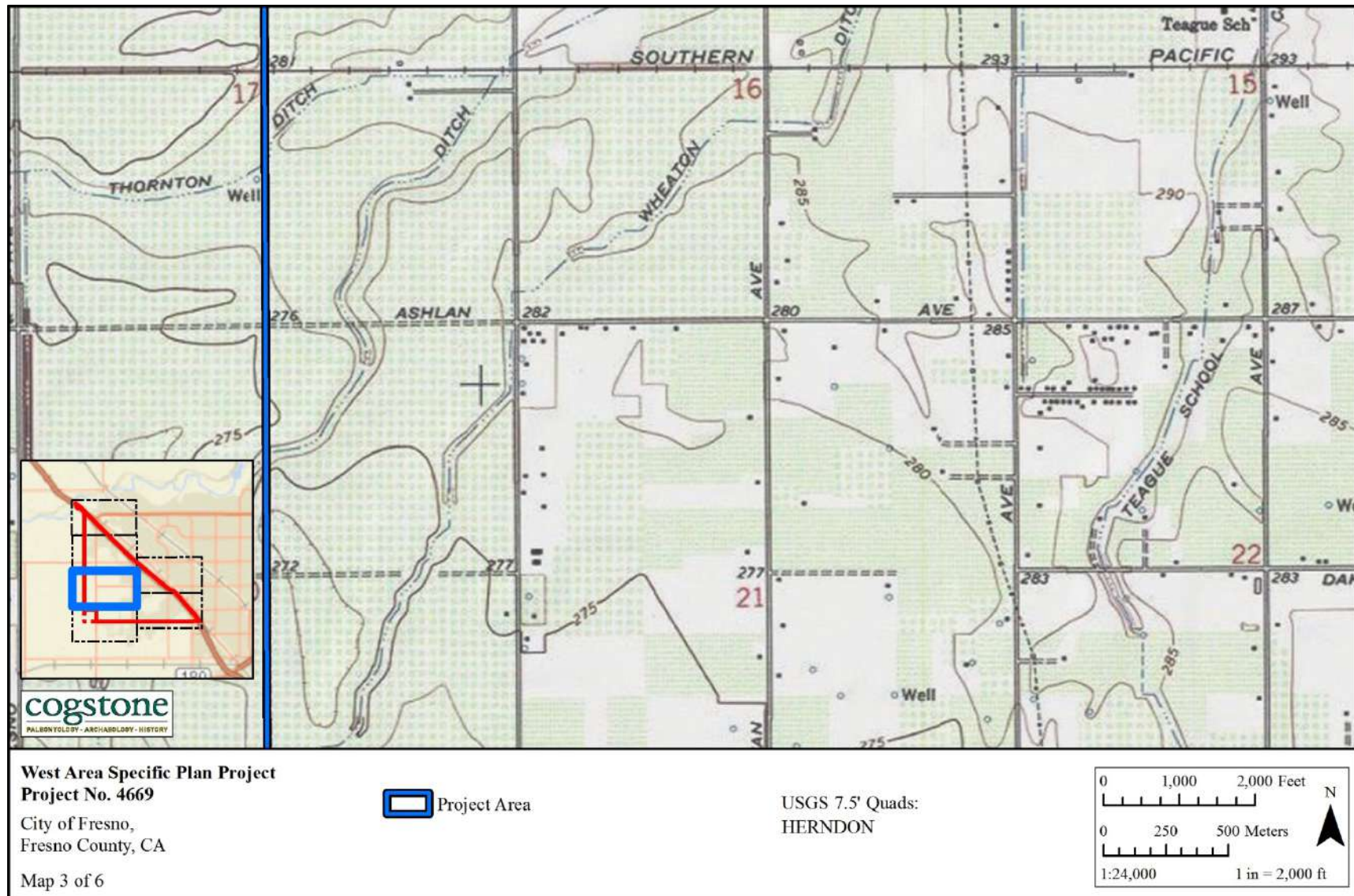


Figure 2c. Project location map

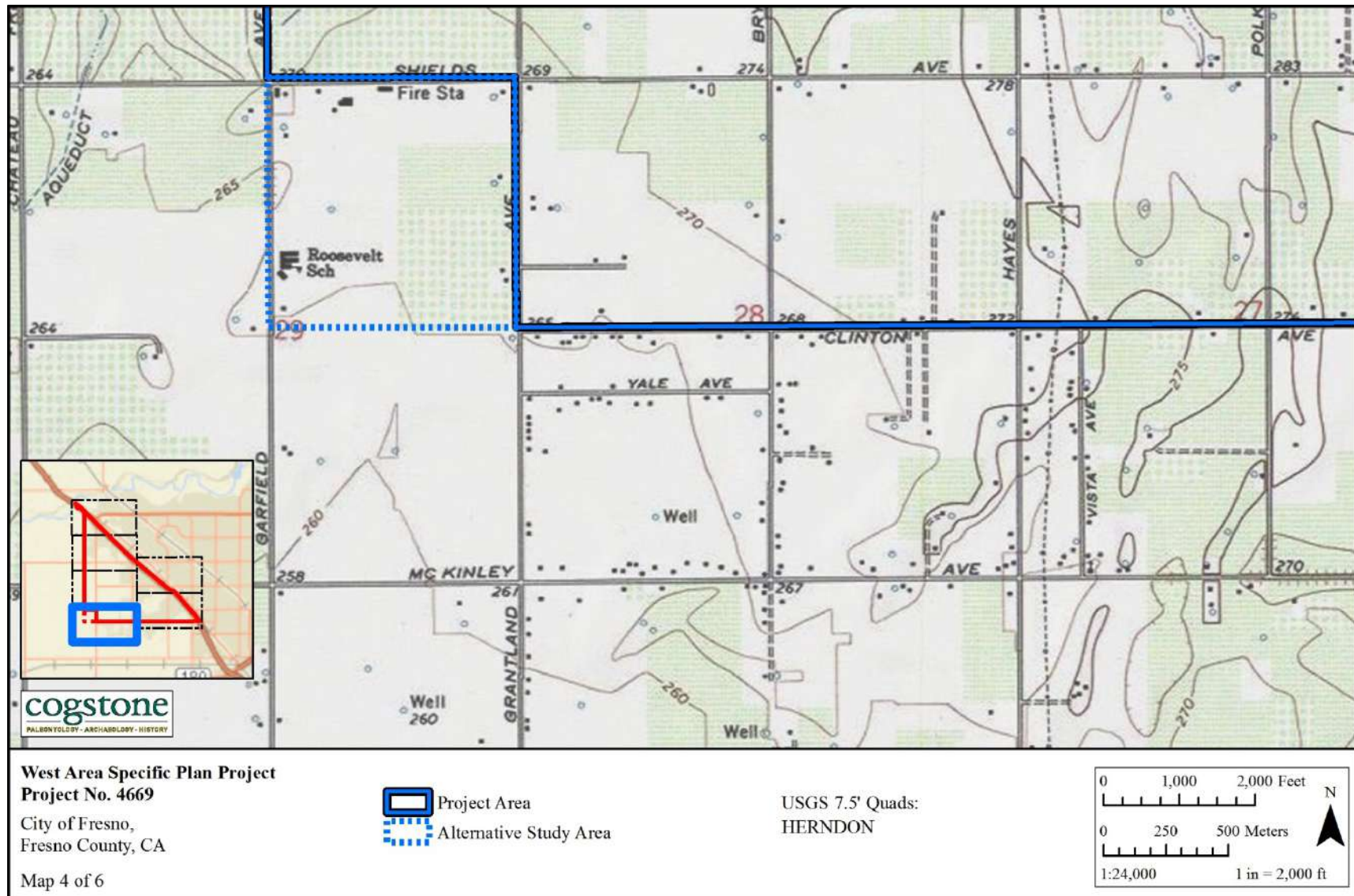


Figure 2d. Project location map

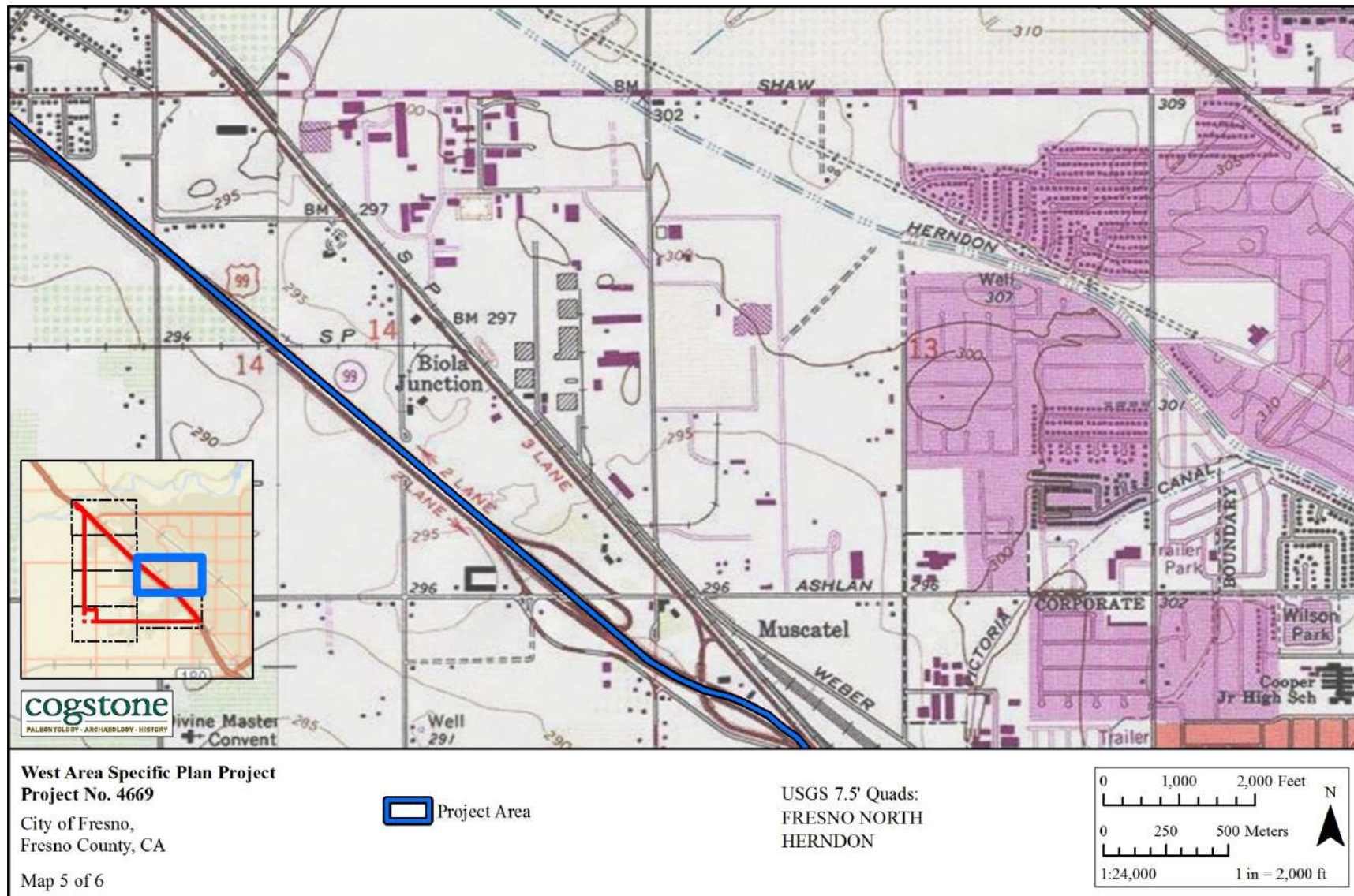


Figure 2e. Project location map

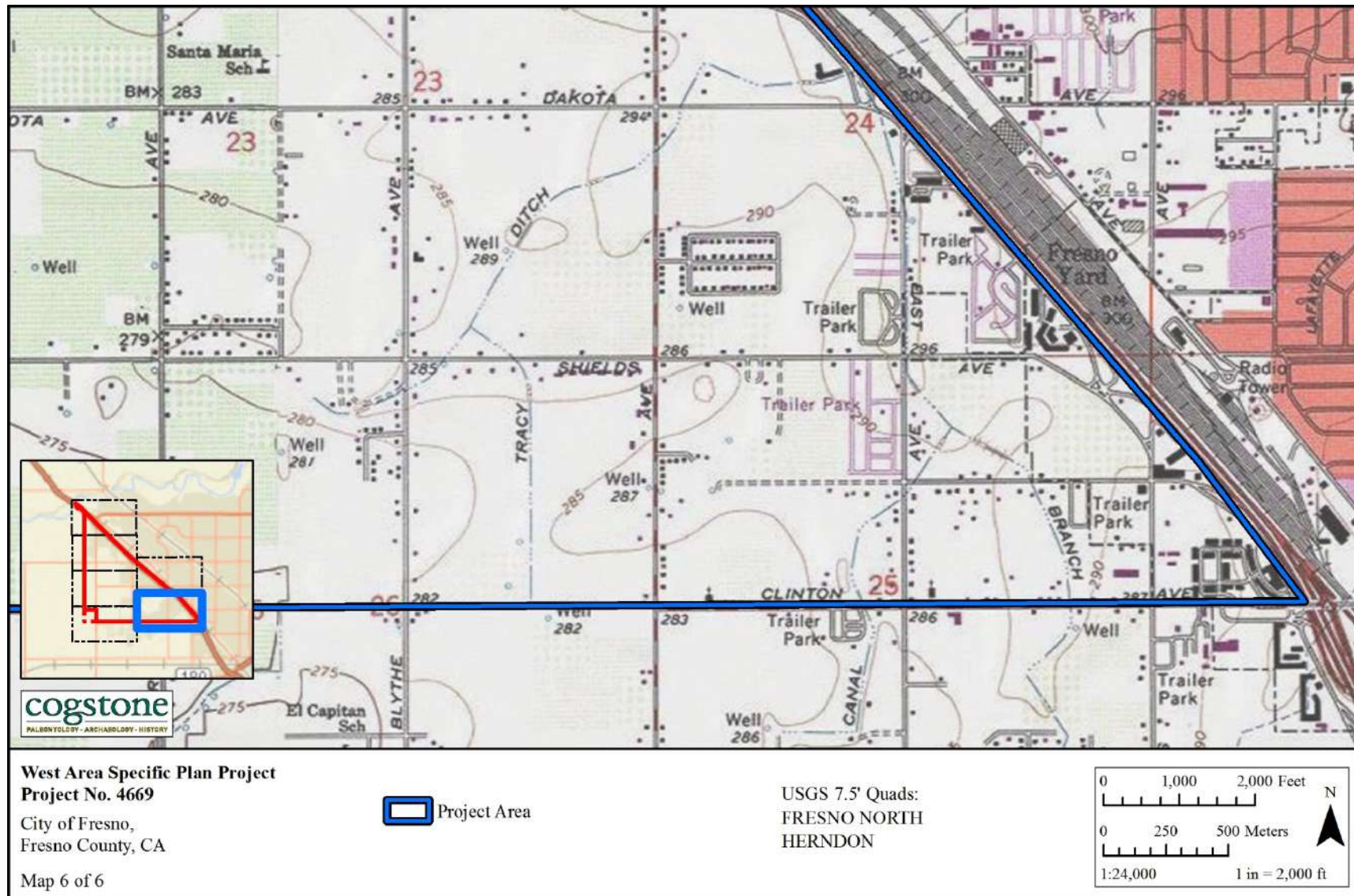


Figure 2f. Project location map

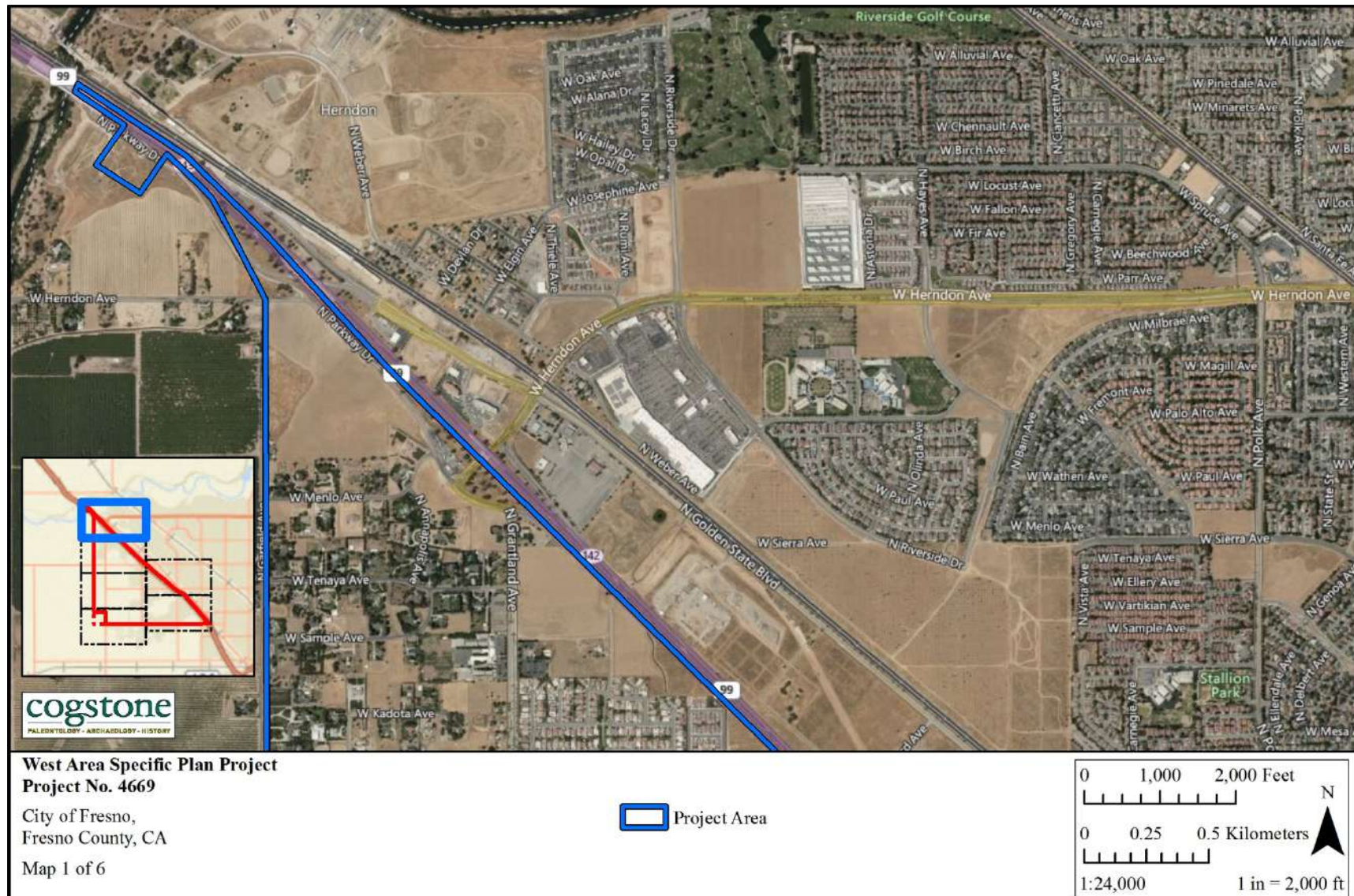


Figure 3a. Project aerial map

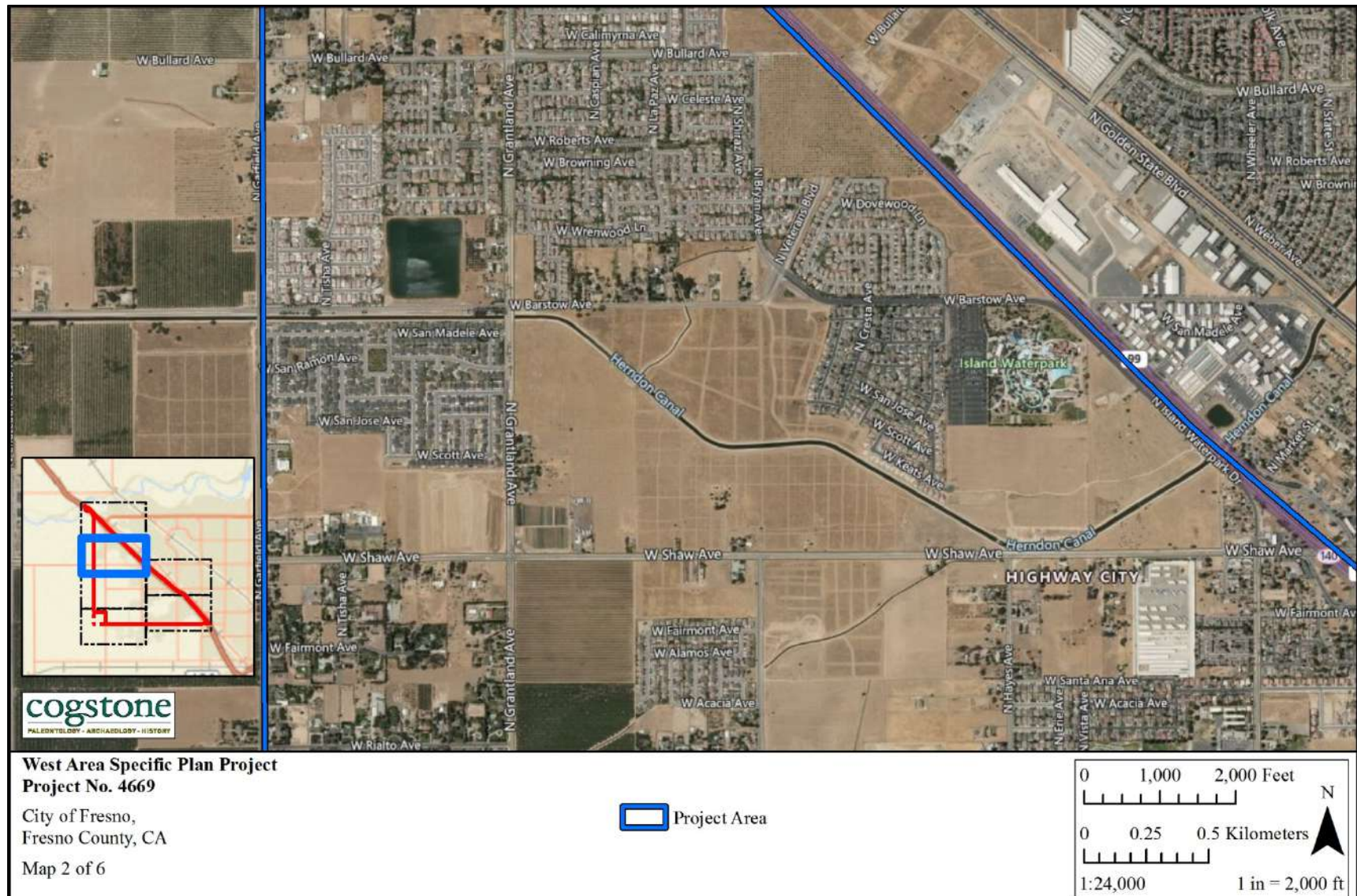


Figure 3b. Project aerial map

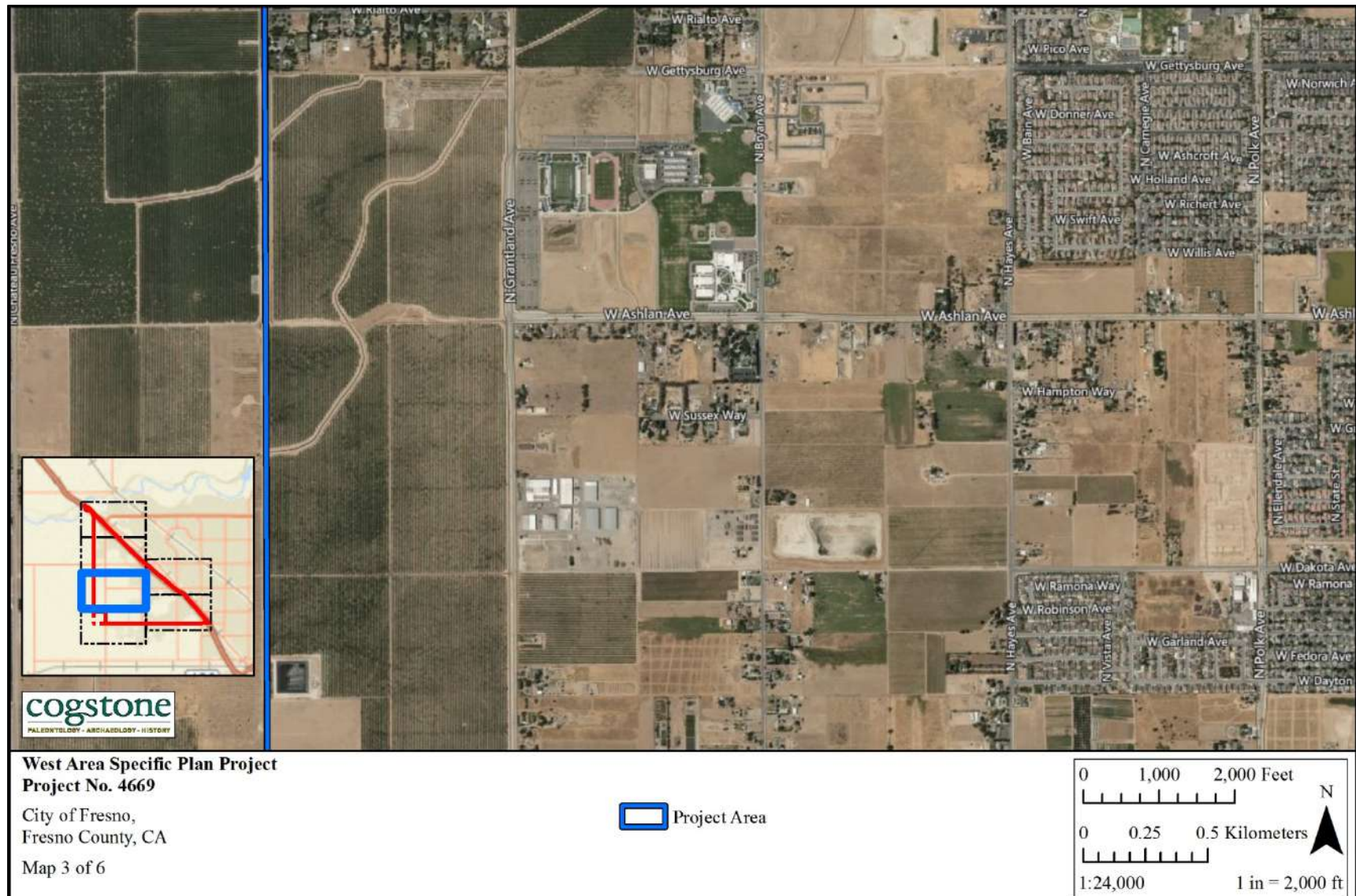


Figure 3c. Project aerial map

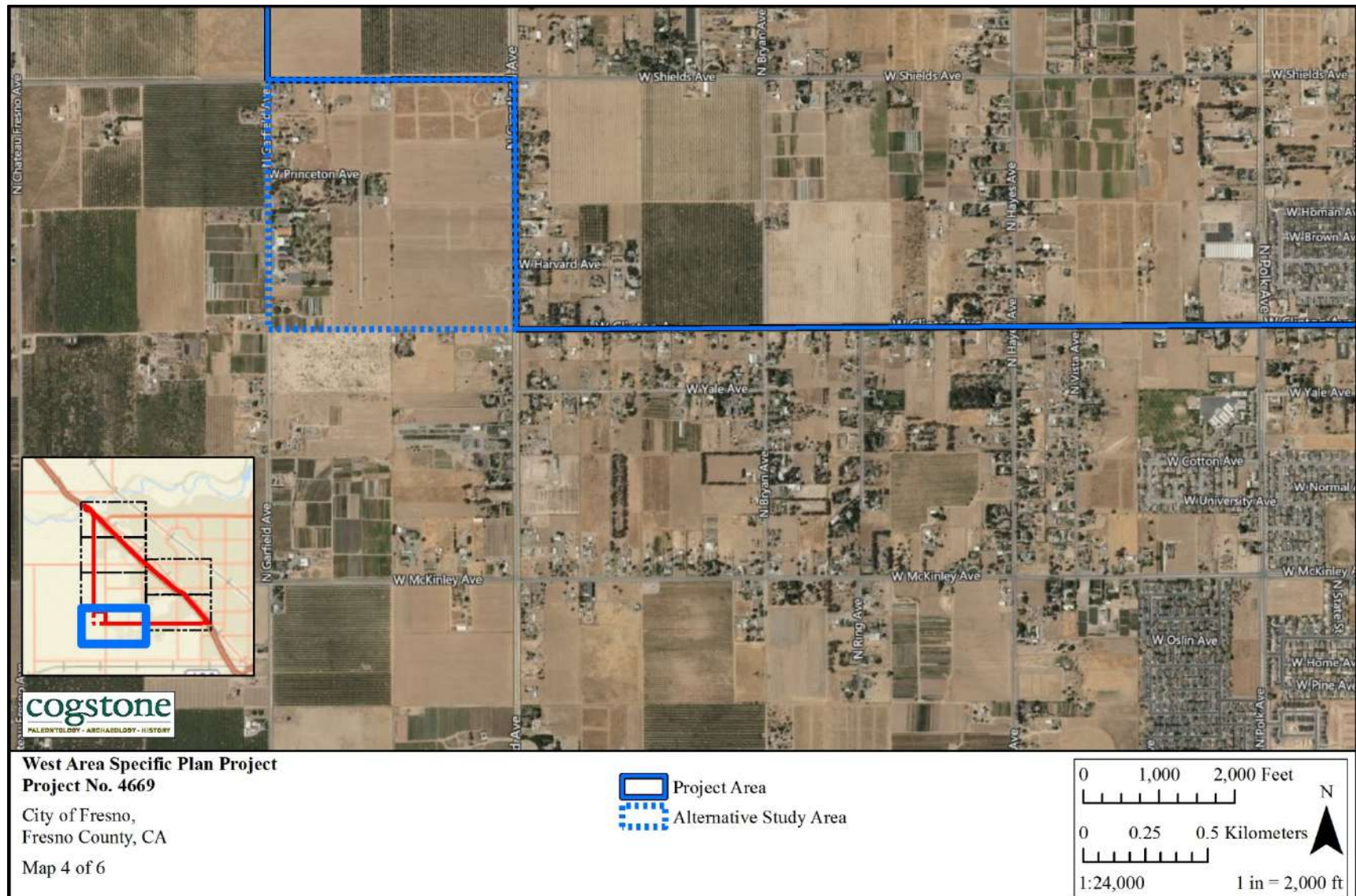


Figure 3d. Project aerial map



Figure 3e. Project aerial map



Figure 3f. Project aerial map

PROJECT PERSONNEL

Cogstone Resource Management Inc. (Cogstone) conducted the cultural and paleontological resources assessment study. Qualifications of Cogstone key personnel are provided (Appendix A).

- Desireé Martinez served as the Task Manager providing QA/QC while supervising all tasks for the Project. Ms. Martinez is a Registered Professional Archaeologist (RPA), has an M.A. in Anthropology from Harvard University, Cambridge and has more than 22 years of experience in southern California archaeology.
- Molly Valasik, RPA, served as the Principal Investigator for Archaeology and reviewed the report. Ms. Valasik has an M.A. in Anthropology from Kent State University and has more than 10 years of experience in southern California archaeology.
- Kim Scott served as the Principal Investigator for Paleontology, performed the survey, authored the paleontological portions of this assessment. Scott has an M.S. in Biology with an emphasis in paleontology from California State University (CSU) San Bernardino, a B.S. in Geology with an emphasis in paleontology from the University of California (UC) Los Angeles, and over 20 years of experience in California paleontology and geology.
- Holly Duke authored portions of the report. Ms. Duke has a B.A. in Archaeology/History from Simon Fraser University, British Columbia and has more than six years of experience in southern California archaeology.
- Logan Freeberg served as the Geographic Information System (GIS) technician and provided maps for this assessment. Mr. Freeberg has a B.A. from UC Santa Barbara and has more than 15 years of experience in southern California archaeology.
- Emily Barton consulted with Native American tribes for this Project. Mrs. Barton has a B.A. from CSU Sonoma in Anthropology with a minor in Paleontology and has more than 8 years of experience in southern California archaeology.
- Shannon Lopez wrote the historic context of this report. Ms. Lopez has an M.A. in History from CSU Fullerton and has more than four years of professional experience.
- Edgar Alvarez authored portions of the report. Mr. Alvarez has a B.A. in Anthropology from CSU Northridge and has more than three years of experience in southern California archaeology.
- Dr. John Harris reviewed the paleontological portions of this report for quality control. He has a Ph.D. in Geology with paleontology emphasis from the University of Bristol (U.K.), an M.A. in Geology with paleontology emphasis from the University of Texas, Austin, and a B.S. (Hons) in Geology from the University of Leicester (U.K.). Dr. Harris has over 40 years of field and research experience in North America and Africa.

REGULATORY ENVIRONMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA states that: It is the policy of the state that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required are intended to assist public agencies in systematically identifying both the significant effects of proposed project and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects.

CEQA declares that it is state policy to: "take all action necessary to provide the people of this state with...historic environmental qualities." It further states that public or private projects financed or approved by the state are subject to environmental review by the state. All such projects, unless entitled to an exemption, may proceed only after this requirement has been satisfied. CEQA requires detailed studies that analyze the environmental effects of a proposed project. In the event that a project is determined to have a potential significant environmental effect, the act requires that alternative plans and mitigation measures be considered.

TRIBAL CULTURAL RESOURCES

As of 2015, CEQA established that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Public Resources Code, § 21084.2). In order to be considered a "tribal cultural resource," a resource must be either:

- (1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or
- (2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource.

To help determine whether a project may have such an effect, the lead agency must consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code §20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources.

PUBLIC RESOURCES CODE

Section 5097.5: No person shall knowingly and willfully excavate upon, or remove, destroy,

injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands (lands under state, county, city, district or public authority jurisdiction, or the jurisdiction of a public corporation), except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

The California Register of Historical Resources (CRHR) is a listing of all properties considered to be significant historical resources in the state. The California Register includes all properties listed or determined eligible for listing on the National Register, including properties evaluated under Section 106, and State Historical Landmarks number No. 770 and above. The California Register statute specifically provides that historical resources listed, determined eligible for listing on the California Register by the State Historical Resources Commission, or resources that meet the California Register criteria are resources which must be given consideration under CEQA (see above). Other resources, such as resources listed on local registers of historic registers or in local surveys, may be listed if they are determined by the State Historic Resources Commission to be significant in accordance with criteria and procedures to be adopted by the Commission and are nominated; their listing in the California Register, is not automatic.

Resources eligible for listing include buildings, sites, structures, objects, or historic districts that retain historical integrity and are historically significant at the local, state or national level under one or more of the following four criteria:

- 1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- 2) It is associated with the lives of persons important to local, California, or national history;
- 3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
- 4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance.

Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or

appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register, if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.

NATIVE AMERICAN HUMAN REMAINS

Sites that may contain human remains important to Native Americans must be identified and treated in a sensitive manner, consistent with state law (i.e., Health and Safety Code §7050.5 and Public Resources Code §5097.98), as reviewed below:

In the event that human remains are encountered during project development and in accordance with the Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods.

CALIFORNIA ADMINISTRATIVE CODE, TITLE 14, SECTION 4307

This section states that “No person shall remove, injure, deface or destroy any object of paleontological, archeological or historical interest or value.”

CITY OF FRESNO HISTORIC DESIGNATION

The City of Fresno’s Historic Preservation Ordinance (Ordinance) was approved by the City Council in 1979 and revised in 1999 (Fresno Municipal Code Sect. 12, Art. 16). The purpose of the Ordinance is “to preserve, promote and improve the historic resources and districts of the City of Fresno for educational, cultural, economic and general welfare of the public....” The Ordinance establishes three categories of designation for properties in Fresno – *Historic Resource*, *Heritage Property*, and *Local Historic District*. The criteria for City of Fresno historic designation correspond closely with criteria established for State and National Register eligibility, and are as follows:

HISTORIC RESOURCE DESIGNATION

The City of Fresno Historic Preservation Commission and City Council may designate any building, structure, object or site as a Historic Resource if it is found to meet the following criteria:

It has been in existence more than 50 years and it possesses integrity of location, design, setting, materials, workmanship, feeling and association, and:

- a) It is associated with events that have made a significant contribution to the broad patterns of our history; or
- b) It is associated with the lives of persons significant in or past; or
- c) It embodies the distinctive characteristics of a type, period or method of construction,
- d) or represents the work of a master, or possesses high artistic values; or
- e) It has yielded or is likely to yield, information important in prehistory or history.

Additionally, a property may be eligible for designation as an Historic Resource if it is less than 50 years old and meets the above-listed criteria, and is found to have exceptional importance within an appropriate historical context at the local, state, or national level.

HERITAGE PROPERTY DESIGNATION

Any building, structure, object or site may also be eligible for designation as a Heritage Property by the City of Fresno Historic Preservation Commission if it is found by the Commission to be worthy of preservation because of its historical, architectural or aesthetic merit.

LOCAL HISTORIC DISTRICT DESIGNATION

In order for a group of properties to be designated as a Local Historic District (LHD) by the City of Fresno, there must be a finite group of resources related to one another in a clearly distinguishable way; or a geographically definable area that possesses a significant concentration, linkage or continuity of sites, buildings, structures or objects united historically or aesthetically by plan or physical development. Additionally, the proposed LHD must meet one or more of the following criteria:

- 1. It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering, or architectural heritage; or
- 2. It is identified with a person or group that contributed significantly to the culture and development of the city; or
- 3. It embodies the distinctive characteristics of a style, type, period or method of construction, or is a valuable example of the use of indigenous materials or
- 4. craftsmanship; or
- 5. Structures within the area exemplify a particular architectural style or way of life to the city; or

6. The area is related to a designated historic resource or district in such a way that it's preservation is essential to the integrity of the designated resource or Local Historic District; or
7. The area has potential for yielding information of archaeological interest.

DEFINITION OF SIGNIFICANCE FOR PALEONTOLOGICAL RESOURCES

Only qualified, trained paleontologists with specific expertise in the type of fossils being evaluated can determine the scientific significance of paleontological resources. Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life;
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer 2003, Scott et al. 2004).

BACKGROUND

GEOLOGICAL SETTING

The Fresno West Area SP is located in the Great Valley Geomorphic Province of California. The Great Valley or Central Valley is an alluvial plain which extends a distance of about 450 miles from the Tehachapi Mountains in the south to the Klamath Mountains in the north. Located between the Sierra Nevada to the east and the Coast Ranges to the west, the valley has

an average width of about 50 miles. The southern half of the Great Valley is also known as the San Joaquin Valley, while the northern half is also known as the Sacramento Valley.

The valley floor can be divided into four geomorphic units, dissected uplands, low alluvial plains and fans, river flood plains and channels, and overflow lands and lake bottoms (Poland and Evenson 1966). Structurally, the valley is a northwest trending elongated asymmetrical trough that has been filled with a thick sequence of sediments ranging in age from Jurassic through to modern times (Hackel 1966).

Beginning during the Pliocene approximately 4 million years ago, plate tectonic related uplift brought the oldest rocks of the Sierra Nevada to the surface and began to create the mountains we know today (Figueroa and Knott 2011). The east side of the Great Valley is a nearly continuous series of coalescing alluvial fans, with their apices located where streams drain the west slope of the Sierra Nevada. These fans are composed of undeformed to only slightly deformed alluvial deposits laid down primarily during Plio-Pleistocene time by the streams from the uplands of the Sierra Nevada. These low relief alluvial fans form a continuous belt between the dissected uplands of the Sierra Nevada and the nearly flat surface of the Central Valley floor.

STRATIGRAPHY

The SP surface is mapped as Holocene deposits of the San Joaquin River less than 11,700 years old, the late Pleistocene Modesto Formation is between 121,000 and 11,700 years old, and the middle Pleistocene Riverbank Formation is between 774,000 and 121,000 years old (Mathews and Burnett 1965; Figure 4). While unmapped by Mathews and Burnett (1965), modern artificial fill is present in most locations where construction has previously occurred.

ARTIFICIAL FILL, MODERN

Modern fill is frequently not mapped on geologic maps due to its ubiquitous nature. If mapped it is only the largest deposits. Although fill is typically less than a few feet thick, it can be substantially thicker in the areas of overpasses, freeways, and other large earthworks. Any fossils that may be encountered therein are not scientifically significant.

RIVER DEPOSITS, HOLOCENE

River and stream deposits of the eastern San Joaquin Valley are dominated by Mesozoic granitic and metamorphic rocks of the Sierra Nevada. Sediments are dominated by sands to gravels with silt and clay-rich deposits. Clasts coarsen upstream with boulders up to several meters across being deposited near the mountains during flash floods. These deposits are unconsolidated and typically are typically very light grey in color.

MODESTO FORMATION, LATE PLEISTOCENE

This formation is at least 9,000 years old (Janda and Croft 1967, Croft 1972) and wood from the lower member has been dated to 42,000 years old. Most of the farmland and towns in the eastern San Joaquin Valley is on young alluvium covering the Modesto Formation.

The Modesto Formation has been divided into informal upper and lower members. However, geologic mapping within the project area is not detailed enough to include this information. The upper member is usually 10 meters or less in thickness and consists of coarse arkosic sands and gravels. The lower member is typically 25 meters thick or more and consists primarily of sands with some gravels and stratified silts from channel deposits, interdistributary and floodbasin deposits, colluvium, and eolian sand (Marchand, 1976; Marchand and Allwardt, 1981).

RIVERBANK FORMATION, MIDDLE PLEISTOCENE

The middle Pleistocene Riverbank Formation is estimated to be between 130,000 and 450,000 years old. Overall the sediments of the Riverbank Formation coarsen upwards and are derived from the interior of the Sierra Nevada (Marchand 1976, Marchand and Allwardt 1981).

Three members of the Riverbank Formation have been recognized in the Fresno area. However, geologic mapping within the project area is not detailed enough to include this information. The upper member gravel was derived from the North Merced Gravel and other older gravels during later Riverbank deposition and crops out only in the north part of the project. This unit consists of upward grading alluvial silts and sands capped by a cobble conglomerate at the top. The upper member is divided from the middle member by a moderately developed paleosol. The middle member is characterized by red colored alluvial sand, silt, and gravel with paleosols. This unit is typically 1 – 4 meters thick, thickens to the west, and represents a single aggradational unit (Marchand 1976, Marchand and Allwardt 1981).

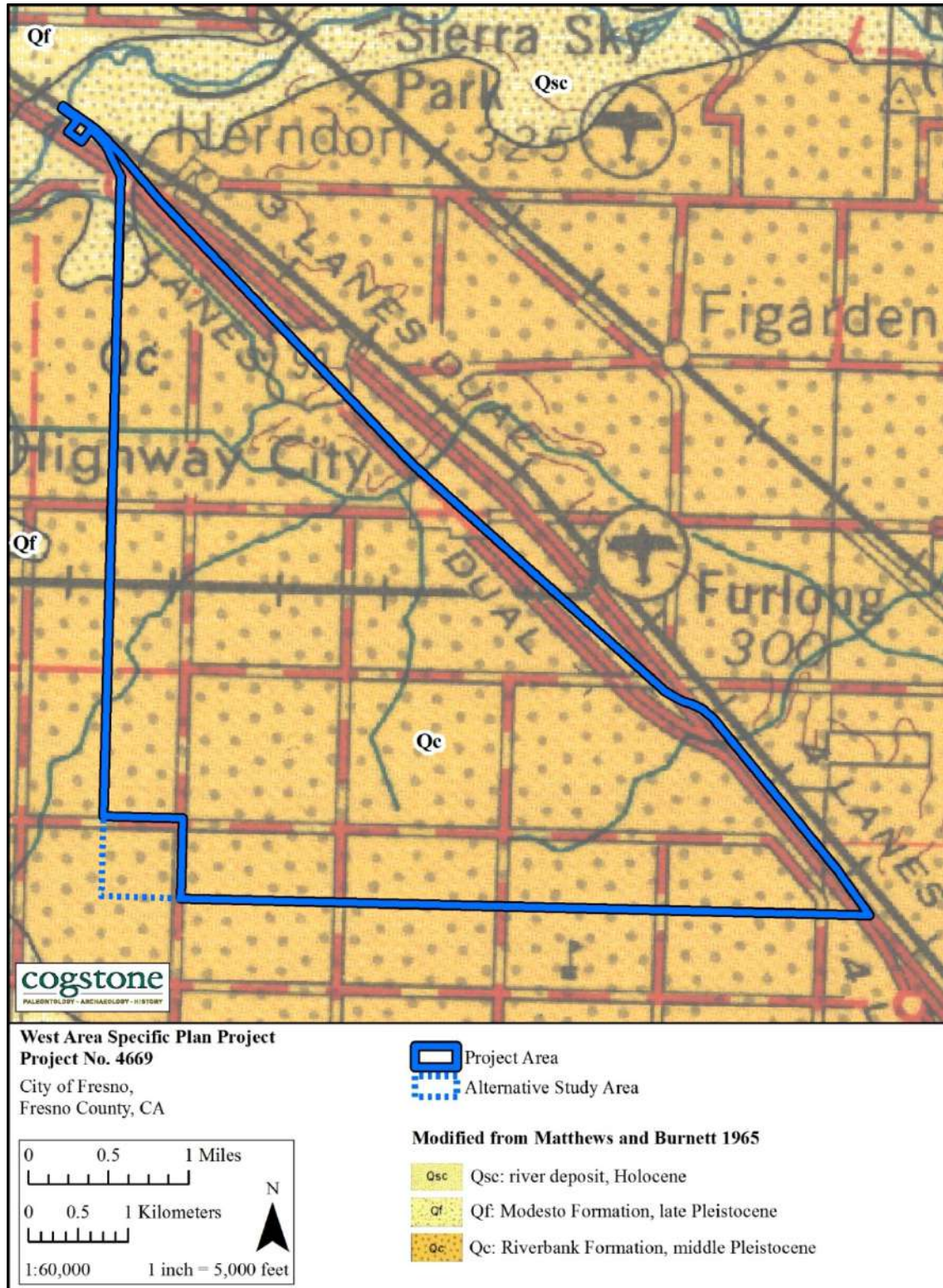


Figure 4. Geology of the Project area

PREHISTORIC SETTING

PALEOINDIAN AND LOWER ARCHAIC PERIODS (11,500–5,550 CAL B.C.)

Few archaeological sites that predate 5,000 years ago have been discovered in the region. Near the end of the Pleistocene (approximately 9,050 cal B.C.) and during the early Middle Holocene (approximately 5,550 cal B.C.), there were periods of climate change and associated alluvial deposition throughout the central California lowlands (Rosenthal et al. 2007:151). Recent geoarchaeological studies (e.g., Meyer and Rosenthal 2008; Rosenthal and Meyer 2004a, 2004b; White 2003) have verified that large segments of the Late Pleistocene landscape were removed or buried by periodic episodes of deposition or erosion during the Middle Holocene. This confirms hypotheses that Paleoindian and Lower Archaic sites were buried during the last 5,000 to 6,000 years by deposits of Holocene alluvium up to 10 meters thick along the lower stretches of the Sacramento River and San Joaquin River drainage systems. Archaeological evidence for the Paleoindian Period is scant, comprised primarily by fluted projectile points.

The Lower Archaic Period is also mainly represented by isolated finds, such as at the Tulare Lake basin in the southern San Joaquin Valley (Rosenthal et al. 2007:151-152). As a consequence of the natural alluvial deposition processes, only one site on the valley floor has produced cultural material dating to this period, and featured stone tools, remains of birds, fish and shellfish but no plant remains or milling tools. At two Lower Archaic Period sites in the foothills of Calaveras County, abundant handstones and milling slabs have been recovered.

MIDDLE ARCHAIC PERIOD (5550–550 CAL B.C.)

Middle Archaic Period archaeological sites are more common in the foothills, particularly in buried contexts between circa 4,050 and 2,050 cal B.C., and are relatively scarce on the valley floor due to burial by natural processes (Rosenthal et al. 2007:153). The change in climate and rising sea levels at the start of the Middle Holocene led to the development of the extensive marshland known as the Sacramento–San Joaquin Delta (Atwater and Belknap 1980; Goman and Wells 2000). The archaeological record indicates groups followed a seasonal foraging strategy and exploited a wide range of natural resources, including a variety of large and small mammals, fish, waterfowl, and plant resources (Fredrickson 1973; Heizer 1949; Ragir 1972; Moratto 1984). It is also likely that groups occupied higher elevations in the summer and shifted to lower elevations during the winters (Moratto 1984:206), and that residential stability along river corridors within the Central Valley increased during this period (Rosenthal et al. 2007:153). Faunal remains recovered from Middle Archaic sites include tule elk, deer, pronghorn, and rabbits, while fish remains include salmon, sturgeon, and smaller fishes. Seeds or acorns apparently formed an important part of the diet during this period (Moratto 1984:201; Rosenthal et al. 2007:153, 155), and milling implements found at sites include grinding slabs and handstones, as well as mortars and pestles.

Spears, angling hooks, composite bone hooks, and baked clay artifacts that may have been used as net or line sinkers represent the variety of fishing implements found at sites dating to this

period. Other baked clay items include pipes and discoids, as well as cooking “stones.” Impressions of twined basketry, bone tools, shell beads, and ground and polished charmstones have also been recovered. A variety of grave goods accompanied burials in cemetery areas, which were separate from habitation areas. The presence during the Middle Archaic of an established trade network is indicated by a variety of exotic cultural materials, including obsidian tools, quartz crystals, and *Olivella* shell beads.

UPPER ARCHAIC PERIOD (550 CAL B.C.–CAL A.D. 1100)

The Upper Archaic Period features more specialized technology, with innovations and new types of bone tools, *Olivella* shell beads, *Haliotis* ornaments, charmstones, and ceremonial blades. An abundance of grinding tools (mortars and pestles) and plant remains, accompanied by a decrease in slab milling stones and handstones, indicates a shift to a greater reliance on acorns as a dietary staple during the Upper Archaic Period (Fredrickson 1974:125; Moratto 1984:209; Wohlgemuth 2004; Rosenthal et al. 2007:156). A wide variety of natural resources were exploited during this period. Subsistence strategies varied regionally, focusing on seasonally available resources suited for harvesting in bulk, such as salmon, shellfish, deer, rabbits, and acorns (Rosenthal et al. 2007:156). Numerous large shell mounds dating to this period are located near fresh or salt water and indicate exploitation of aquatic resources was relatively intensive. The accumulations of cultural debris and habitation features, such as rock-lined ovens, house floors, burials, hearths, and fire-cracked rock, reflect long-term residential occupation (Bouey 1995:348-349).

In the western margins of the San Joaquin Valley, discrete cemeteries date to the Upper Archaic Period (Meyer and Rosenthal 1998; Olsen and Payen 1969; Pritchard 1970). In the southern San Joaquin Valley, villages on the shores of Buena Vista Lake were occupied year-round (Rosenthal et al. 2007:157). Trade in marine shell beads and obsidian, among other items, continued to be important.

EMERGENT/LATE PREHISTORIC PERIOD (CAL A.D. 1100–HISTORIC CONTACT)

The archaeological record in the Central Valley for the Emergent or Late Prehistoric Period documents an increase in the diversity and number of artifacts and in the number of archaeological sites (Rosenthal et al. 2007:157-159). Along with an increase in sedentism and population that led to the development of social stratification, with an elaborate ceremonial and social organization, a number of cultural innovations shaped the Emergent Period. These include the introduction of the bow and arrow and more diverse fishing equipment (bone fish hooks, harpoons, and gorge hooks). Fishing, hunting, and gathering plant foods continue as the foci of subsistence practices, including intensive harvesting of acorns and an increased emphasis on fishing (Rosenthal et al. 2007:158-159). Hopper mortars and shaped mortars and pestles, as well as bone awls used for producing coiled baskets, are common. Locally made Cosumnes Brownware has been recovered from some sites in the lower Sacramento Valley, while pottery in the Tulare basin was obtained through trade. Baked clay balls, probably used for cooking in the absence of stone, remain common.

Ceremonial and ritual items include flanged tubular pipes and baked clay effigies representing humans and animals. Clamshell disk beads were used as currency and accompanied the development of extensive exchange networks. Mortuary practices included flexed burials, the cremation of high-status individuals, and pre-interment burning of offerings in grave pits (Fredrickson 1973:127-129; Moratto 1984:211). Overall, the cultural patterns known from historic period Native American groups inhabiting the Central Valley are reflected in the subsistence and land use patterns practiced during the Emergent Period (Rosenthal et al. 2007:157-158).

ETHNOGRAPHY

The Fresno West Area SP is located within the traditional territory of the Yokuts. Historically, the Yokuts people collectively inhabited the San Joaquin Valley as well as the eastern foothills of the Sierra Nevada from the Calaveras River southward to the Kern River (Kroeber 1925). Ethnographers and linguists have traditionally divided Yokuts into three geographic groups, based on linguistic similarities and differences: Northern Valley, Southern Valley, and Foothill. The SP is located in the area historically occupied by the Northern Valley Yokuts according to Kroeber (1925: 462), who suggested that they lived along the San Joaquin River. The Northern Valley Yokuts tribes' territory extended southward from the Calaveras River to the upper San Joaquin River and from the crest of the Coast (Diablo) Range east to the Sierra Nevada foothills.

Information on the Yokuts lifeways has been compiled by Kroeber (1925:474-543), Wallace (1978:462-470), and Latta (1977) and is summarized here. The Northern Valley Yokuts grouping consisted of 11 or more tribes, each containing 300 or so people (Wallace 1978:462-466). Most members lived within a single settlement that often had the same name as the political unit. These were generally established on low rises along the major watercourses. The eastern side of the San Joaquin River was more heavily populated than the land to the west of the river, due to greater water availability. A village generally contained at least three types of structures – oval single-family dwellings made of tule, ceremonial chambers, and sweathouses (Wallace 1978:465). According to Kroeber's informants, a tribe of Yokuts known as the *Hewchi* lived close to the SP, near Fresno River (1925: 470).

The fundamental economy of the Yokuts was subsistence fishing, hunting, and collecting plant foods. Acorns, collected in the fall and then stored in granaries, were a staple food (Wallace 1978:464). During the fall and spring runs, salmon was a dietary mainstay. Wildfowl, such as geese and ducks, were also an important staple. Additional dietary plant parts included seeds, berries and tule roots. Large game included deer, elk, antelope, and black bears.

A wide variety of tools, implements, and enclosures were used by the Northern Valley Yokuts to gather, collect, and process food resources (Kroeber 1925:527; Latta 1977; Wallace 1978:464-465). These included bow and arrows, nets, traps, slings, and blinds for hunting land mammals and birds; and harpoons, hooks, and nets, as well as tule rafts. Sharpened digging sticks and woven tools (seed beaters, burden baskets, and carrying nets) would have been used to collect plant resources and a variety of implements (stone mortars and pestles, bedrock and portable mortars, stone knives, and bone tools) used for processing resources. The Northern Valley Yokuts traded with neighboring groups for bows and arrows, baskets, shell ornaments and beads, obsidian, and mussels and abalone (Wallace 1978:465).

The San Joaquin Valley was never settled during the Spanish and Mexican periods, but influences from the coastal missions and presidios were felt inland by the late 1700s. By 1805, Northern Valley Yokuts were transported to the San José, Santa Clara, Soledad, San Juan Bautista, and San Antonio missions that were established during the Spanish era (Wallace 1978:468-469). Later, disease and military raids claimed many lives during the Mexican period, followed by displacement during the early American Period by gold seekers and farmers.

Pre-contact population density for Northern Valley Yokuts has been estimated at 25,000 to 31,000 (Wallace 1978:463). In 1852, representatives of only three Northern Valley Yokuts tribes (including the *Heuchi*) remained to sign one of a series of statewide treaties (Wallace 1978:469). Today, people of Yokuts descent live on the Tule River Reservation in Tulare County and on three rancherias: Picayune in Madera County at Coarsegold, Santa Rosa in Kings County, and Table Mountain in Fresno County near Friant. Some Foothill Yokuts also live with Central Sierran Miwok on the Tuolumne Rancheria in Tuolumne County.

HISTORIC SETTING

SPANISH EXPLORATION

Juan Cabrillo was the first European to sail along the coast of California in 1542 and was followed in 1602 by Sebastian Vizcaino (Bean and Rawls 1993). The Spanish colonization of what was then known as Alta California began with the 1769 overland expedition, led by Gaspar de Portolá, with a crew of 63 men, in order to explore the land between San Diego and Monterey. Between 1769 and 1822, the Spanish had colonized California and established missions, presidios, and pueblos and documented the people and landscape along the way (McCawley 1996).

Following the Portolá Expedition, vast tracts of land were granted to the missions. The goals of the missions were tri-fold: they establish a Spanish presence on the west coast, proselytize Christianity to the native peoples, and served to exploit the native population as laborers. The Spanish also hoped each mission would become a town center, whereas, “the pueblo would

receive a ground of four square leagues of land... and other property would be parceled out among the Indians". The missionaries, or padres, would essentially serve as a mayor, or head of the town (Bean 1968).

MEXICAN PERIOD

In 1821, Mexico won its independence from Spain and worked to lessen the wealth and power held by the missions. The Secularization Act was passed in 1833, appropriating the vast mission lands to the Mexican governor and downgrading the missions' status to that of parish churches. The governor then redistributed the former mission lands, in the form of land grants, to private owners (Bean and Rawls 1993). The lands were typically granted to soldiers who proved their loyalty to the Mexican government once liberated from the Spanish crown.

CITY OF FRESNO

The County of Fresno was founded in 1856 from portions of Tulare, Merced, and Mariposa Counties. In 1872, Central Pacific Railroad, predecessor to the Southern Pacific Railroad Company, arrived in the San Joaquin Valley. The local train station, "Fresno Station," represented the epicenter of Fresno (Planning Resource Associates, Inc. 2008).

Fresno's original site plan was organized on a grid system which extended eastward from the Central Pacific Railroad tracks along what is currently H Street. In 1872, the Railroad began selling lots to entrepreneurs and by the end of the year Fresno consisted of a few residential homes, multiple livery stables, four restaurants and hotels, and two stores (Planning Resource Associates, Inc. 2008).

In 1874, the Fresno county seat was transferred from Millerton, which had experienced years of floods and a catastrophic fire, to the City of Fresno (Hoover & Kyle 2002). Fresno's new position as the county seat resulted in a boost of prosperity and by 1885 Fresno was incorporated with a population of approximately 2,000 (Victor Gruen Associates 1968).

Fresno's economic success came from its agricultural production in conjunction with the railroad. Fresno County became the number one agricultural producer in California in addition to one of the nation's best producers of cotton, figs, grapes, and raisins (Hoover & Kyle 2002). In 1911, the Sun-Maid Raisin Cooperative was founded in the City of Fresno as the principle-packing center and hosted multiple packinghouses throughout the City (Hattersley-Drayton 2013). To this day, Fresno County is ranked as the nation's highest agricultural producer with annual sales totaling over \$3 billion per annum.

By the late 1890s and early 1900s, Fresno's population and economy continued to grow with the U.S. Census showing the City's population doubling from 12,470 in 1900 to 24,892 in 1910 (U.S. Census 1910). The Fresno City Board of Trustees approved the establishment of the City's first planning commission in 1916, in anticipation of further growth. By 1923 the plans were

adopted and included parks and recreation centers, streets to accommodate the increased population (Planning Resource Associates, Inc. 2008).

Fresno's early 20th century residential development located north of the downtown area caused the expansion of the electric Fresno Street Railway established in 1888. The Railway was later taken over by the Fresno City Railway Company in 1901 and built northward to connect the suburban areas to the City's center. The electric streetcar would remain the primary form of mass transit in Fresno City until its replacement by the bus by 1939 (Planning Resource Associates, Inc. 2008).

During the Post-War Economic Boom (1945-1973), the population shifted from Fresno's center to the newly developed suburbs as a result of increased population and increase in personal car ownership. This shift in population caused the decline of the City's urban center and in the 1960s, Fresno began an urban revitalization project for downtown resulting in the construction of the Fulton Mall in 1964. This six-block pedestrian mall was considered an innovative model and effective response to what was considered at the time to be America's "Urban Crisis" (Victor Gruen Associates 1968).

During the 1970s to 1990s, development continued to expand outwards from Fresno's City center.

PROJECT AREA HISTORY

The Fresno West SP boundaries are defined by Clinton Avenue at its southern boundary, North Grantland Avenue at its western boundary, and the SR-99 running northwest/southeast connecting the northern end of Grantland Avenue to the eastern end of Clinton Avenue. Historic topographic maps, from 1923 (Bullard 7.5x15 minute) to approximately 1965 (Fresno North 7.5 minute) show the vast majority of the SP occupied by farmland and various farmhouses. The Post-War Economic Boom (1945-1973) is depicted in historic aerials from 1962 and 1972 as an increase in tract homes on previous agricultural land as the population shifted from urban to suburban locations. The tract homes spread west of SR-99 through the SP. By 1998, nearly a third of the Fresno West Area SP is developed and closely resembles the area's built environment at it exists today.

RECORD SEARCHES AND LITERATURE REVIEW

PALEONTOLOGY

A search for paleontological records was completed by the Natural History Museum of Los Angeles County (LACM; McLeod 2019; Appendix B). Published literature, unpublished

paleontological reports, and fossil databases were also searched for fossil records (Jefferson 1991a, 1991b; Hilton et al. 2000; Finger 2017; UCMP 2019; PBDB 2019).

No fossils are known from the Fresno area. However, fossils have been found in the same formations as occur within the Fresno West Area SP.

ARTIFICIAL FILL

Although fossils may occur in artificial fill, any present would not be *in situ* and therefore not scientifically relevant.

RIVER DEPOSITS

Being less than 11,700 years old, these sediments are too young to contain the remains of extinct animals.

MODESTO FORMATION LOCALITIES

In Fresno County, the Modesto Formation has produced fossils of mammoth (¹†*Mammuthus* sp.) and a camel (†*Camelidae*) from two localities (UCMP V99829, UCMP V99830; UCMP 2019).

The number of fossils recovered from the Modesto Formation in Merced County has increased greatly in the past few years. Along State Route 99 (SR-99) 1,667 late Pleistocene fossils were found between 7 and 26 feet below the original ground surface in excavations associated with the construction of the new Le Grand Road overpass:

Except for one locality found in a paleosol, all fossils were recovered from sandy stream and adjacent slow moving water and flooding (overbank) environments. Most fossils were not recovered from the streams themselves but instead were from the adjacent sediments. The presence of abundant root traces and caliche (calcium carbonate) provides evidence of plants and occasional drying events.

Large mammals identified include Columbian mammoth (†*Mammuthus columbi*), giant ground sloth (†*Paramylodon harlani*), yesterday's camel (†*Camelops hesternus*), llama (†*Hemiauchenia* sp.), ancient bison (†*Bison antiquus*), horses of at least two types (†*Equus occidentalis* and †*E. conversidens*), and deer (*Odocoileus hemionius*). In addition, partial specimens were assigned to †Proboscidea (fossil elephant, probably mammoth), and undifferentiated hooved mammal (Ungulata). Carnivores identified include dire wolf (†*Canis dirus*), coyote (*Canis latrans*) and cougar (*Felis concolor*).

Small mammals identified include jackrabbit (*Lepus californicus*), Audubon's and

¹ † - Indicates that the species, or for higher taxonomy, the species that could be present is extinct.

Bachman's rabbits (*Sylvilagus auduboni* and *S. bachmani*), rabbits of indeterminate species (*Sylvilagus* sp.), ground squirrel (*Spermophilus* sp.), kangaroo rat (*Dipodomys* sp.), pack rat (*Neotoma* sp.), and pocket gopher (*Thomomys bottae*). Mice include the meadow mouse or vole (*Microtus* sp.), pocket mouse (*Perognathus* sp.), deer mouse (*Peromyscus* sp.), and harvest mouse (*Reithrodontomys* sp.).

Birds identified include Canada goose (*Branta canadensis*), California quail (*Calipepla californica*), western scrub jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), American robin (*Turdus migratorius*), western meadowlark (*Sturnella neglecta*) and sparrow (*Zonotrichia* sp.). Fishes were restricted to minnows (Cyprinidae) and three-spine stickleback (*Gasterosteus aculeatus*).

Western pond turtle (*Actinemys marmorata*) appears to be the only type of turtle present. Other reptiles were only identified to group. These are snakes of the gopher snake family (Colubridae) and rattlesnake (*Crotalus* sp.). Similarly, specimens of frog and toad are present but could not be identified more specifically.

The presence of bison and dire wolf together indicates the fossil fauna is within the Rancholabrean Land Mammal Age. The overall assemblage indicates a grassland environment with creeks and streams. [Gust, Scott, and Richards 2012]

A fossil of elephant (†Proboscidea) is known from the Modesto Formation in Ash Slough just northeast of Chowchilla (LACM 7254), Madera County (McLeod 2019).

Based on the number of fossils recovered from the Modesto Formation along SR-99 at Le Grand Road in Merced County, fossils recovered during excavations for the new Sandy Mush Road overpass are most likely from the Modesto Formation as well. Numerous Pleistocene fossils including the palate and tusk of a subadult mammoth were found during construction (Stewart personal communication 2015).

Locally, a records search for the City of Clovis in Fresno County from the University of California Museum of Paleontology (UCMP) reported no fossil localities within the city limits in either the Modesto and/or Riverbank formation (Finger 2017). While the City of Clovis General Plan update (City of Clovis 2014) stated that fossils have been recovered within the City previously, further investigations found that the source of this statement was a technical study prepared by the San Bernardino County Museum for the 1993 General Plan update. This study references the fact that fossils have been found in the Great Valley in the Riverbank and Turlock Lake Formations and from Pleistocene river terraces. The study inaccurately attributes large mammal fossils as having been recovered within the City of Clovis from river terraces and no fossils are currently known within the City of Clovis.

RIVERBANK FORMATION LOCALITIES

In Fresno, County the Riverbank Formation has produced fossils of horse (†*Equus* sp.; UCMP 2019). Fossils previously attributed to the Riverbank formation at Fairmead Landfill in Madera County have been reassigned to the middle to early Pleistocene Turlock Lake Formation (Dundas et al. 1996) which does not appear in the current study area. In Sacramento County, the Riverbank Formation has produced fossils of Harlan’s ground sloth (†*Paramylodon harlani*), dire wolf (†*Canis dirus*), coyote (*Canis latrans*), Columbian mammoth (†*Mammuthus columbi*), horse (†*Equus* sp.), yesterday’s camel (†*Camelops hesternus*), ancient bison (†*Bison antiquus*), antelope (Antilocapridae), deer (Cervidae), rabbit (Leporidae), pocket gopher (*Thomomys* sp.), woodrat (*Neotoma* sp.), squirrel (*Sciurus* sp.), broad-footed mole (*Scapanus latimanus*), gartersnake (*Thamnophis* sp.), and Sacramento blackfish (*Orthodon* sp.; Hilton et al. 2000).

CULTURAL

CALIFORNIA HISTORIC RESOURCES INFORMATION SYSTEM

The purpose of the cultural records search is to identify all previously recorded cultural resources (prehistoric and historic archaeological sites, historic buildings, structures, objects, or districts) within the Fresno West Area SP. All cultural resources, as well as cultural resource surveys, performed within the Fresno West Area SP boundaries were reviewed.

Cogstone archaeologist, Holly Duke, requested a search of the California Historic Resources Information System (CHRIS) from the Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield on July 30, 2019, which included the entire SP. Results of the record search indicate that 36 previous studies have been completed within the SP (Table 2).

Table 2. Previous Studies within the Fresno West Area SP

REPORT NO. (FR-)	AUTHOR(S)	TITLE	YEAR
00069	Hudlow, Scott M. and de la Garza, Theresa	A Phase I Architectural Survey for the Highway City Specific Plan Area City of Fresno, California	1996
00135	Hatoff, Brian, Voss, Barb, Waechter, Sharon, Benté, Vance, and Wee, Stephen	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project.	1995
00166	Kus, James S.	Negative Archaeological Survey Report for Proposed Fresno Housing Authority Clinton Avenue Project	1994
00191	Wren, Donald G.	An Archaeological Survey: Central Unified School District Stadium Project	1998
00271	Bissonnette, Linda Dick	Cultural Resources Survey for Central unified School District Adult School, Fresno County, California	1991

REPORT NO. (FR-)	AUTHOR(S)	TITLE	YEAR
00287	Bissonnette, Linda Dick	Phase I Cultural Resources Assessment: Central Unified School District, Milburn/Dakota Elementary School Site, Fresno County, California	1992
00294	Bissonnette, Linda Dick	Cultural Resources Assessment for the Central Unified School District, New High School Project, Northwest of Dakota and Cornelia Avenues, Fresno County	1993
00302	Bissonnette, Linda Dick	Grantland Avenue Sewer Trunk and Herndon Expressway Cultural Resources Assessment	1994
00393	Dondero, Steven	Negative Archaeological Survey Report for the Herndon Avenue Overcrossing, Fresno County	1988
00433	Davis, Alan, Dick, Linda, and Varner, Dudley	An Archaeological Reconnaissance of the Gates Substation to the Proposed Gregg Substation 500 KV Transmission Line, Fresno and Madera Counties	1977
00447	Jackson, Scott R.	Environmental Impact Evaluation: An Archaeological Assessment of God's Family Church Property, Fresno County, California	1990
00677	Roop, William	A Cultural Resources Evaluation of Tracts 4488 (APN 311-031-24) and 4581 (APN 404-071-17), Fresno, Fresno County, California	1993
00760	Varner, Dudley M.	Highway City Sewer Project (Improvement Dist. #166)	1974
01640	Binning, Jeanne Day	Negative Archaeological Survey Report Installation of Traffic Surveillance Stations along Interstate 5, State Route 41, and State Route 99 in Madera and Fresno Counties	1999
01656	Wren, Donald G.	A Cultural Resource Study: Stormwater Retention Basin EN and EO, Fresno County, California	2000
01702	Wren, Donald G.	A Cultural Resource Study: Basin CD Project, Fresno County, California	2001
01710	Szeto, Andy	Site Location Map and Site Description for PL-754-01	1998
01808	Wren, Donald G.	An Archaeological Survey Central Unified Education Center, Fresno County, California	2002
01811	Hildebrand, Karen and Roper, C. Kristina	Hardpan and Adobe Brick: A National Register Evaluation of Two Highway City Adobe Buildings, Fresno, California	1997
01942	Hudlow, Scott M. and de la Garza, Theresa	A Phase I Architectural Survey for the Highway City Specific Plan Area, City of Fresno, California	1996
01953	Wren, Donald G.	Draft Environmental Impact Report: Central Unified Education Center: State Clearinghouse No. 2002021064	2002
02029	Brady, Jon L.	Historic Property Survey for the Proposed La Estancia Housing Project, Fresno, California	2004
02212	Nettles, Wendy M.	Phase I Cultural Resources Study of Assessor's Parcel No. 311-140-14, 5901 W. Shaw Avenue, Fresno, California	2006
02227	Losee, Caroyln	New Tower Submission Packet, FCC Form 620	2006
02256	Hobbs, Kelly	Historic Property Survey Report: State Route 99/Shaw Avenue Interchange Improvement Project, Fresno, California	2002
02256	Brady, Jon	Underground Caverns 4951 N. Dale, Fresno California, Historic Evaluation and Determination of Significance	2000
02256	Kiaha, Krista	Archaeological Survey Report for the Shaw Avenue Interchange Reconstruction at State Route 99 Fresno County, California	2001
02256	Hobbs, Kelly	Historic Architecture Survey Report/Historic Resource Evaluation for State Route 99/Shaw Avenue Interchange Improvements	2002

REPORT NO. (FR-)	AUTHOR(S)	TITLE	YEAR
02256	Unknown	Public Information Meeting Summary Report State Route 99/Shaw Avenue Interchange Reconstruction Project	2001
02336	Brady, Jon L.	Historic Property Survey for the Horizon Enterprises Property 6785 & 6825 West Barstow Avenue in the City of Fresno, California	2008
02348	Roper, C. Kristina	A Cultural Resources Survey of the Bella Serra Residential / Commercial Development, Herndon, Fresno County, California	2007
02405	Lanner, David	Archaeological Survey Report Herndon Interchange Improvements Project, Fresno County	2010
02408	Lanner, David	Archaeological Survey Report for the Island Park and North Fresno Six Lane Expansion in Fresno County and Madera County	2008
02408	Deocampo, Daniel	First Supplemental Extended Phase I Report Geoarchaeological Investigations for the Island Park Six-Lane Project, Fresno and Madera Counties, California	2008
02408	Deocampo, Daniel	Final Extended Phase I Report Geoarchaeological Investigations for the Island Park Six-Lane Project, Fresno and Madera Counties, California	2007
02408	Vallejo, Philip	Historical Resource Evaluation Report Island Park Six-Lane Project, Fresno and Madera Counties, California	2008
02408	Lanner, David	Historic Property Survey Report Proposed Highway 99 Six-Lane Expansion, Fresno County and Madera County, California	2008
02431	Hibma, Michael	Historical Resources Evaluation Report for the Veterans Boulevard/State Route 99 Interchange and Grade Separations Project, Fresno, Fresno County, California	2010
02454	Whitehouse, John and Blind, Heather	Historic Property Survey Report for the Veterans Boulevard/State Route 99 Interchange and Grade Separations Project, Fresno, Fresno County, California, Caltrans District 6, EA#06-OH3600	2010
02711	Stoyka, Michael	Survey for Island Park ASR and HPSR for the Bridge Replacement at Highway 99 and the San Joaquin River, Fresno County, California	2013
02721	Brady, Jon L. and Brady, Justin M.	Archaeological Survey Report for the Proposed New Community Health Center, 4711 West Ashlan Avenue, Fresno, Fresno County, California	2015
02722	Anderson, Katherine and Vader, Michael	Fresno Recycled Water Distribution System Project, Phase I Cultural Resources Study, Fresno County, California	2015
02728	Anderson, Katherine and Vader, Michael	Recycled Water Distribution System, Southwest Quadrant: Phase I Cultural Resources Study	2017
02775	Losee, Carolyn	Cultural Resources Investigation for AT&T Mobility CVL02290 "Polk" 5957 West Shields Avenue, Fresno City and County, California	2016

The results of the records search indicates a total of 82 cultural resources have been previously recorded within the SP (Table 3). Of these cultural resources, four are historic archaeological sites and 78 are historic built environment resources.

Table 3. Previously Recorded Cultural Resources within the Fresno West Area SP

PRIMARY NO. (P-10)	TRINOMIAL NO. (CA-FRE-)	RESOURCE TYPE	RESOURCE DESCRIPTION	YEAR RECORDED	NRHP/ CRHR STATUS
003110	-	Historic Resource	Single-family residence constructed in 1935 located at Parkway Drive (Building 14).	1996	Unevaluated
003111	-	Historic Resource	Single-family residence constructed in 1940 located at 5055 Parkway Drive.	1996	Unevaluated
003112	-	Historic Resource	Parkway Mini Mart constructed in 1920 located at 5510 Parkway Drive.	1996	Unevaluated
003113	-	Historic Resource	Single-family residence constructed between 1935 and 1940 located at 5085 Parkway Drive.	1996	Unevaluated
003114	-	Historic Resource	Single-family residence constructed in 1940 located at 5100 Lola Street.	1996	Unevaluated
003115	-	Historic Resource	Single-family residence constructed in 1935 located at 5086 Lola Street.	1996	Unevaluated
003116	-	Historic Resource	Single-family residence constructed in 1940 located at 5070 Lola Street.	1996	Unevaluated
003117	-	Historic Resource	Single-family residence constructed in 1940 located at 5066 Lola Street.	1996	Unevaluated
003118	-	Historic Resource	Single-family residence constructed in 1945 located at 5060 Lola Street.	1996	Unevaluated
003119	-	Historic Resource	Single-family residence constructed in 1910 located at 5040 Lola Street.	1996	Unevaluated
003120	-	Historic Resource	Single-family residence constructed in 1930 located at 5010 Lola Street.	1996	Unevaluated
003121	-	Historic Resource	Single-family residence constructed in 1925 located at 5945 W. Shaw Avenue.	1996	Unevaluated

PRIMARY NO. (P-10)	TRINOMIAL NO. (CA-FRE-)	RESOURCE TYPE	RESOURCE DESCRIPTION	YEAR RECORDED	NRHP/ CRHR STATUS
003122	-	Historic Resource	Farm with single-family residence, sales shed, carport and associated farm buildings constructed in 1935 located at 5507 W Shaw Avenue.	1996	Unevaluated
003123	-	Historic Resource	Farm with frame farmhouse constructed 1900-1910 and Adobe structure constructed 1885, located at 5901 W. Shaw Avenue.	1996	Unevaluated
003124	-	Historic Resource	Single-family residence constructed in 1930 located at 5865 W. Shaw Avenue.	1996	Unevaluated
003125	-	Historic Resource	Single-family residence constructed in 1930 located at 5807 W. Shaw Avenue.	1996	Unevaluated
003126	-	Historic Resource	Adobe structure constructed in 1900 located at UTM 11S 241850 mE, 4077145 mN.	1996	Unevaluated
003127	-	Historic Resource	Single-family residence constructed in 1920 located at 5765 W. Shaw Avenue.	1996	Unevaluated
003128	-	Historic Resource	Single-family residence, half adobe structure half stucco covered frame, constructed in 1940 located at 5787 West Shaw Avenue.	1996	Unevaluated
003129	-	Historic Resource	Single-family residence constructed in 1930 located at 5739 West Shaw Avenue	1996	Unevaluated
003130	-	Historic Resource	West Shaw Market constructed in 1930 and located at 5591 West Shaw Avenue	1996	Unevaluated
003131	-	Historic Resource	Single-family residence constructed in 1930 located at 5585 West Shaw Avenue.	1996	Unevaluated
003132	-	Historic Resource	Highway City Feed & Pet Supplies constructed in 1930 and located at 5525 West Shaw Avenue.	1996	Unevaluated

PRIMARY NO. (P-10)	TRINOMIAL NO. (CA-FRE-)	RESOURCE TYPE	RESOURCE DESCRIPTION	YEAR RECORDED	NRHP/ CRHR STATUS
003133	-	Historic Resource	Single-family residence constructed in 1925 located at 4943 Lola Street.	1996	Unevaluated
003134	-	Historic Resource	Single-family residence constructed in 1940 located at 4933 Lola Street.	1996	Unevaluated
003135	-	Historic Resource	Single-family residence constructed in 1930 located at 4921 Lola Street.	1996	Unevaluated
003136	-	Historic Resource	Single-family residence constructed in 1940 located at 4978 Polk Avenue.	1996	Unevaluated
003137	-	Historic Resource	Single-family residence constructed in 1930 located at 4966 Lola Street.	1996)	Unevaluated
003138	-	Historic Resource	Single-family residence constructed in 1945 located at 5540 Fairmont Avenue.	1996	Unevaluated
003139	-	Historic Resource	Single-family residence constructed in 1930 located at 5530 Fairmont Avenue.	1996	Unevaluated
003140	-	Historic Resource	Peluso's Grocery constructed in 1920 and located at 5495 West Shaw Avenue.	1996	Unevaluated
003141	-	Historic Resource	Single-family residence constructed in 1930 located at 4965 Polk Avenue.	1996	Unevaluated
003142	-	Historic Resource	Single-family residence constructed in 1940 located at 4953 Polk Avenue.	1996	Unevaluated
003143	-	Historic Resource	Single-family residence constructed in 1925 located at 4947 Polk Avenue.	1996	Unevaluated
003144	-	Historic Resource	Single-family residence constructed in 1940 located at 4937 Polk Avenue.	1996	Unevaluated
003145	-	Historic Resource	Two single-family residences constructed in 1900-1925 located at 5490 Fairmont Street.	1996	Unevaluated

PRIMARY NO. (P-10)	TRINOMIAL NO. (CA-FRE-)	RESOURCE TYPE	RESOURCE DESCRIPTION	YEAR RECORDED	NRHP/ CRHR STATUS
003146	-	Historic Resource	Single-family residence constructed in 1930 located at 5474 Fairmont Avenue.	1996	Unevaluated
003147	-	Historic Resource	Single-family residence constructed in 1930 located at 5464 Fairmont Avenue.	1996	Unevaluated
003148	-	Historic Resource	Single-family residence constructed in 1935 located at 5440 Fairmont Avenue.	1996	Unevaluated
003149	-	Historic Resource	Single-family residence constructed in 1940 located at 4966 Polk Avenue.	1996	Unevaluated
003150	-	Historic Resource	Single-family residence constructed in 1940 located at 4960 Polk Avenue.	1996	Unevaluated
003151	-	Historic Resource	Single-family residence constructed in 1930 located at 4950 Polk Avenue.	1996	Unevaluated
003152	-	Historic Resource	Single-family residence constructed in 1920 located at 4907 State Avenue.	1996	Unevaluated
003153	-	Historic Resource	Single-family residence constructed in 1930 located at 4917 North State Avenue.	1996	Unevaluated
003154	-	Historic Resource	Single-family residence constructed in 1930 located at 4925 N. State Avenue.	1996	Unevaluated
003155	-	Historic Resource	Single-family residence constructed in 1935 located at 4935 State Avenue.	1996	Unevaluated
003156	-	Historic Resource	Single-family residence constructed in 1910 located at 5463 Fairmont Avenue.	1996	Unevaluated
003157	-	Historic Resource	Single-family residence constructed in 1910-1920 located at 5383 Fairmont Avenue.	1996	Unevaluated
003158	-	Historic Resource	Single-family residence constructed in 1930 located at 4846 Cornelia Street.	1996	Unevaluated

PRIMARY NO. (P-10)	TRINOMIAL NO. (CA-FRE-)	RESOURCE TYPE	RESOURCE DESCRIPTION	YEAR RECORDED	NRHP/ CRHR STATUS
003159	-	Historic Resource	Single-family residence constructed in 1925 located at 4843 North Parkway Drive.	1996	Unevaluated
003160	-	Historic Resource	Single-family residence constructed in 1925 located at 4853 N. Parkway Drive.	1996	Unevaluated
003161	-	Historic Resource	Single-family residence constructed in 1930 located at 4884 Barcus Street.	1996	Unevaluated
003930	003109H	Historic Archaeological Site	Biola Branch Extension Railroad connecting Biola to Kerman in Fresno County. Consists of a 1,417 foot long and 14 foot wide segment with three features: concrete flow-control irrigation box, concrete irrigation culvert and concrete pad constructed in 1929-1930 located 0.5 miles south of the intersection of West Shaw Avenue and Howard Avenue.	1998 1999 2002 2004 2009 2010 2013 2015 2016 2018	Unevaluated
004701	003194	Historic Archaeological Site	Two adjacent concrete pads and broken glass scatter located on the south side of West Shaw Avenue, east of Polk Avenue.	2001	Unevaluated
004702	003195H	Historic Archaeological Site	Empty field with sparse historic artifact scatter. Dating to late 19 th to late 20 th century, artifacts include a well casing and pump, glass, PVC pipe, marble fragments, tile, ceramics, porcelain and concrete fragments.	2001	Unevaluated
004975	-	Historic Resource	Single-family residence constructed in 1922 located at 5453 West Fairmont Avenue.	1997	Unevaluated
004976	-	Historic Resource	Single-family residence constructed in 1939 located at 4858 North Barcus Avenue.	1997	Unevaluated

PRIMARY NO. (P-10)	TRINOMIAL NO. (CA-FRE-)	RESOURCE TYPE	RESOURCE DESCRIPTION	YEAR RECORDED	NRHP/ CRHR STATUS
004977	-	Historic Resource	Single-family residence constructed in 1946 located at 5531 West Fairmont Avenue.	1997	Unevaluated
004978	-	Historic Resource	Single-family residence constructed in 1932 located at 4909 North Polk Avenue.	1997	Unevaluated
004988	-	Historic Resource	Single-family residence constructed in 1926 located at 5463 West Fairmont Avenue.	1997	Unevaluated
005205	-	Historic Resource	Single-family residence constructed in 1910 located at 4884 North Barcus Avenue.	1997	Unevaluated
005391	-	Historic Resource	Single-family residence and vineyard constructed in 1925-1948 located at 3646 North Cornelia Avenue.	2004	Unevaluated
005392	-	Historic Resource	St. Mary's Parish Church, Parsonage, and ancillary buildings constructed in 1945 located at 4636 West Dakota Avenue.	2004	Unevaluated
005573	CA-FRE-003608H	Historic Resource	Herndon Canal, constructed with earthen levees shored with poured concrete or rock and cement. Constructed circa 1891 and is located within APNs 50506008, 50506074, 50506007, 50506016S, 50506043 and 50506017.	2001 2006 2009 2010	Unevaluated
005648	CA-FRE-003424H	Historic Archaeological Site	Historic San Joaquin River Quarry site constructed in 1914-1945 consisting of four features: two subsurface oil tanks, one subsurface oil tank with four-chambered concrete oil sump, one weight scale (concrete pad) and one concrete support structure. Loose historic artifact scatter consisting of broken glass, iron pipe, milled lumber, broken concrete and cast	2007	Unevaluated

PRIMARY NO. (P-10)	TRINOMIAL NO. (CA-FRE-)	RESOURCE TYPE	RESOURCE DESCRIPTION	YEAR RECORDED	NRHP/ CRHR STATUS
			iron fragments. The site is located 300 feet to the west of Highway 99.		
005816	-	Historic Resource	Property consisting of eight buildings: one adobe residence, one wood frame residence, two detached garages, one barn, one shed, one adobe fumigating building one pump house, and one metal pole barn. Constructed in 1943 and located at 6785 West Barstow Avenue.	2008 2010	Unevaluated
005829	-	Historic Resource	Epstein Canal; Fresno Irrigation District, 1943.	2008 2010	Unevaluated
006002	-	Historic Resource	Unnamed canal/aqueduct consisting of an approximately 2000 foot segment of earthen-lined, above ground canal, in between shallow levees. Constructed circa 1915 and located at 6506 West Barstow Avenue.	2010	Unevaluated
006003	-	Historic Resource	Single-family residence constructed in 1959 located at 6572 West Barstow Avenue.	2010	Unevaluated
006004	-	Historic Resource	Single-family residence constructed in 1948 located at 6594 West Barstow Avenue.	2010	Unevaluated
006005	-	Historic Resource	Single-family residence constructed in 1951 located at 6610 W. Barstow Avenue.	2010	Unevaluated
006006	-	Historic Resource	Single-family residence constructed in 1956 locates at 6844 West Barstow Avenue.	2010	Unevaluated
006007	-	Historic Resource	Single-family residence constructed in 1924 located at 7018 West Barstow Avenue.	2010	Unevaluated
006008	-	Historic Resource	Single-family residence constructed in 1957 located at 6526 West Shaw Avenue.	2010	Unevaluated

PRIMARY NO. (P-10)	TRINOMIAL NO. (CA-FRE-)	RESOURCE TYPE	RESOURCE DESCRIPTION	YEAR RECORDED	NRHP/ CRHR STATUS
006009	-	Historic Resource	Single-family residence constructed in 1920 located at 6665 West Shaw Avenue.	2010	Unevaluated
006010	-	Historic Resource	Single-family residence constructed in 1954 located at 6730 West Shaw Avenue.	2010	Unevaluated
006027	-	Historic Resource	Single-family residence constructed in 1949 located at 4901 North Polk Avenue.	2001	Unevaluated
006028	-	Historic Resource	Single-family residence constructed in 1930 located at 4951 North Lola Avenue.	2001	Unevaluated
006029	-	Historic Resource	Single-family residence constructed in 1945 located at 4967 North Lola Avenue.	2001	Unevaluated
006030	-	Historic Resource	Single-family residence constructed in 1949 located at 5075 North Parkway Avenue.	2001	Unevaluated
006031	-	Historic Resource	Marcelli Terrace is a 12 building housing complex consisting of single story wood framed duplexes. Constructed in 1952 and located at 5323 West Fairmont Avenue.	2001	Unevaluated
006130	CA-FRE-003609H	Historic Resource	Herndon-Kearney Transmission Line is an approximately one-mile segment consisting of six steel lattice towers with each tower conveying a single circuit, of two sets of three, conductors and a pair of aerial ground wires. Constructed in 1946-1963 located south of the Herndon Substation crossing over State Route 99.	2010	Unevaluated

OTHER SOURCES

In addition to the SSJVIC records search, a variety of sources were consulted in August 2019 to obtain information regarding the cultural context of the Project Area (Table 4). Sources included the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), California Historical Resources Inventory (CHRI), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI). Specific information about the Project Area, obtained from historic-era maps and aerial photographs, is presented in the Project Area History section.

Table 4. Additional Sources Consulted

SOURCE	RESULTS
National Register of Historic Places (NRHP; 1979-2002 & supplements)	Negative.
Historic USGS Topographic Maps	Historic topographic maps, from 1923 (Bullard 7.5x15 minute) to approximately 1965 (Fresno North 7.5 minute map) the vast majority of the Project area was occupied by farmland and various farmhouses. By 1972-1981 (Fresno North, 7.5 min.), significant development is shown spreading throughout the Project Area, appearing similar in development density as it does today.
Historic US Department of Agriculture (USDA) Aerial Photographs	As seen in the earliest historic aerials, from 1962 and 1972 tract homes are slowly replacing farmland as they spread west of SR-99 through the Project Area. By 1998, nearly a third of the Project Area has been developed which closely resembles the area's built environment at it exists today.
California Register of Historical Resources (CRHR; 1992-2014)	Negative.
California Historical Resources Inventory (CHRI; 1976-2014)	Negative.
California Historical Landmarks (CHL; 1995 & supplements to 2014)	Negative.
California Points of Historical Interest (CPHI; 1992 to 2014)	Negative.
Historical Societies	4 historical societies were contacted. No one has responded with concerns regarding the SP.
Bureau of Land Management (BLM) General Land Office Records	Negative.

Local historical societies and libraries were contacted in August 2019 and included the Fresno Historical Society, Eastern Fresno County Historical Society, Fresno County Historical Museum, and the Hiebert Library at Fresno Pacific University. No additional information or comments were provided.

NATIVE AMERICAN CONSULTATION

Cogstone submitted a Sacred Lands File (SLF) search request to the Native American Heritage Commission (NAHC) on July 18, 2019. The NAHC responded on August 13, 2019, that there are known sacred lands within the Fresno West Area SP. The NAHC recommended that 13 representatives from local Native American tribal organizations be contacted for further information regarding the Project vicinity.

Consultation letters were sent via certified mail on August 20, 2019 requesting information related to cultural resources or heritage sites within the Fresno West Area SP. Additional attempts at contact were made by email or phone on September 6 and September 19, 2019. To date, three responses have been received and are summarized below. All consultation correspondence and a contact log are provided in Appendix C.

- On 8/26/2019 Mr. Charley, tribal secretary for the Dunlap Band of Mono Indians, responded via phone that the SP is outside the Tribe's interest and that they would not be commenting or requesting consultation. Mr. Charley recommended contacting Big Sandy or Table Mountain Rancheria for comments.
- On 9/19/2019 Mr. Alec of the Kings River Choinumni Farm Tribe, responded via phone that the Tribe has no concerns with the SP.
- On 8/6/2019, Mr. Pennell, Cultural Resources Director of the Table Mountain Rancheria, responded with by letter stating that the Tribe is interested in the SP and requested any cultural resource reports received from the record search. Mr. Pennell requested that the City contact the Tribal office to coordinate a discussion and meeting date for the SP. On 10/7/2019 Cogstone replied to Mr. Pennell with the results of the cultural records search.

SENSITIVITY

PALEONTOLOGICAL SENSITIVITY

A multilevel ranking system was developed by professional resource managers within the BLM as a practical tool to assess the sensitivity of sediments for fossils. The Potential Fossil Yield Classification (PFYC) system (BLM 2016; Appendix D) has a multi-level scale based on demonstrated yield of fossils. The PFYC system provides additional guidance regarding assessment and management for different fossil yield rankings.

Fossil resources occur in geologic units (e.g., formations or members). The probability for finding significant fossils in a project area can be broadly predicted from previous records of

fossils recovered from the geologic units present in and/or adjacent to the study area. The geological setting and the number of known fossil localities help determine the paleontological sensitivity according to PFYC criteria

All alluvial deposits may increase or decrease in fossiliferous potential depending on how coarse the sediments are. Sediments that are close to their basement rock source are typically coarse; those farther from the basement rock source are finer. The chance of fossils being preserved greatly increases once the average size of the sediment particles is reduced to 5 mm or less in diameter. Moreover, fossil preservation also greatly increases with rapid burial in flood-plains, rivers, lakes, oceans, etc. Remains left on the ground surface become weathered by the sun or consumed by scavengers and bacterial activity, usually within 20 years or less. So the sands, silts, and clays of flood-plains, rivers, lakes, and oceans are the most likely sediments to contain fossils.

Using the PFYC system, geologic units are classified according to the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts within the known extent of the geological unit. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher PFYC value; instead, the relative abundance of localities is intended to be the major determinant for the value assignment.

No fossils are known from the study area or the Fresno area proper (City of Clovis 2014, Finger 2017, Dundas 2019, McLeod 2019). Although fossils may occur in artificial fill, any present would not be *in situ* and therefore not scientifically relevant. As such all fill has a very low potential for fossils (PFYC 1). The river deposits are assigned a low potential for fossils (PFYC 2) due to the Holocene age. While numerous fossils have been recovered from the Modesto Formation, all fossils where the depth was known were recovered more than seven feet below the original ground surface. The upper seven feet of the Modesto Formation are assigned a low potential for fossils (PFYC 2) due to the lack of fossils previously recovered. Modesto Formation sediments more than seven feet below the original ground surface are assigned a moderate but patchy potential for fossils (PFYC 3a) due to the presence of numerous fossils found in other areas of the San Joaquin Valley. The Riverbank Formation is assigned a low potential for fossils (PFYC 2) based on the lack of fossils recovered previously (Table 5, Figure 2).

Table 5. Paleontological Sensitivity Rankings

Rock Unit	PFYC rankings					
	5 very high	4 high	3a moderate; patchy	3b moderate; undemonstrated	2 low	1 very low
artificial fill, modern						X
river deposits, Holocene					X	
Modesto Formation, late Pleistocene			more than 7 feet deep		less than 7 feet deep	
Riverbank Formation, middle Pleistocene					X	

ARCHAEOLOGICAL RESOURCES SENSITIVITY

No prehistoric archaeological sites have been previously recorded within the Fresno West Area SP. Unknown resources may be present.

Only four historical archaeological sites have been recorded in the Fresno West SP. Three of the historic archaeological sites are in the vicinity of the Teague School and one historic archaeological site, the San Joaquin River Quarry, is located just south of Highway 99 in the northern portion of the SP.

HISTORICAL RESOURCE SENSITIVITY

Historical resources include current and former locations of historic buildings, historical archaeological sites (often near historic use areas) and the location of extant historic homes more than 45 years old. The majority of the historic built resources are historic residences clustered around North Polk Avenue and West Acacia Avenue.

MITIGATION MEASURES

MM PAL-1. Planned mass excavations more than seven feet below the original ground surface into the Modesto Formation shall require a paleontological assessment and potentially paleontological mitigation. “Mass excavations” includes excavations conducted by excavator, scrapers, dozers, etc. which allow the context of the fossil to be observed. Context includes information such as depth/elevation, formation identification, and other data that can be critical to scientific significance. Mass excavations excludes all work conducted by augers, pile drivers, pot-holing or other similar activities where context cannot be accurately determined. If unanticipated discoveries of paleontological resources occur during construction, all work within

50 feet of the discovery should be halted until the find has been evaluated by a qualified paleontologist.

MM CUL-1. City staff shall require applicants for future proposed projects with intact extant building(s) more than 45 years old to provide a historic resource technical study evaluating the significance and data potential of the resource. If significance criteria are met, detailed mitigation recommendations are required as part of the technical study. All work shall be performed by a qualified architectural historian meeting Secretary of the Interior Standards.

MM CUL-2. The City shall have a standard condition in every grading and excavation permit that requires applicants to halt work upon discovery of any unanticipated buried cultural resources until it can be evaluated by qualified professionals. Work may resume immediately at least 50 feet away from the discovery. A list of qualified cultural resources consultants is maintained by the California Office of Historic Preservation at www.chrisinfo.org.

MM CUL-3. Unanticipated discoveries of human remains shall require immediate cessation of ground disturbance within 50 feet and notification to City staff and the Coroner and shall follow state law as stated in Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98.

REFERENCES CITED

Atwater, Brian F., and David F. Belknap

1980 Tidal–Wetland Deposits of the Sacramento–San Joaquin Delta, California. In *Quaternary Depositional Environments of the Pacific Coast*. Pacific Coast Paleogeography Symposium 4, edited by M.E. Field, R.G. Douglas, A.H. Bouma, J.C. Ingle, and I.P. Colburn, pp. 89–103. The Pacific Section of the Society of Economic Paleontologists and Mineralogists, Los Angeles.

Bean, W. and J.J. Rawls

1993 *California: An Interpretive History*. 4th Edition. McGraw Hill, New York.

BLM (Bureau of Land Management)

2016 Potential Fossil Yield Classification (PFYC) System. Online at:
<https://www.blm.gov/policy/im-2016-124>

Boren, Jim

2002 “Lessons learned from Redzone can’t be forgotten”, *The Fresno Bee*. Published December 15, 2002. Copy available at
<https://web.archive.org/web/20021228095048/http://fresnobee.com/columnists/boren/story/5599730p-6576567c.html>. Accessed September 5, 2019.

Bouey, P. D.

1995 *Final Report on the Archaeological Analysis of CA-SAC-43, Cultural Resources Mitigation for the Sacramento Urban Area Levee Reconstruction Project, Sacramento County, California*. Prepared by Far Western Anthropological Research Group, Davis, California. On file, North Central Information Center.

City of Clovis

2014 General Plan and Development Code Update Environmental Impact Report. Chapter 5, Cultural Resources.
<https://www.ci.clovis.ca.us/Portals/0/Documents/Planning/GeneralPlanUpdate/June2014Review/Ch%2005-05%20CUL.pdf?ver=2014-06-23-140418-577>

Croft, M. G.

1972 Subsurface geology of the late Tertiary and Quaternary water-bearing deposits of the southern part of the San Joaquin Valley, California: U.S. Geological Survey Water-Supply Paper 1999-H, 29 p.

Dundas, R. G. (California State University, Fresno, Department of Earth and Environmental Sciences)

2019 Personal communications on the fossils recovered from the Fresno area, California.

Dundas, R. G., R. B. Smith, and K. L. Verosub

1996 The Fairmead Landfill Locality (Pleistocene, Irvingtonian), Madera County, California: preliminary report and significance. *Paleobios* 17(2-4):50-58.

Figueroa, A., J. Knott

2011 Tectonic Geomorphology of the western Sierra Nevada Mountains, CA. Friends of the Pleistocene

Finger, K

2017 Re: Paleo records search request for the Enterprise Canal Project, City of Clovis, Fresno County. Email Response.

Fredrickson, David A.

1973 Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

1974 Cultural Diversity in Early California: A View from the North Coast Ranges. *Journal of California Anthropology* 1(1):41–53.

Goman, Michelle, and Lisa Wells

2000 Trends in River Flow Affecting the Northeastern Reach of the San Francisco Bay Estuary over the Past 7000 Years. *Quaternary Research* 54:206–217.

Gust, S. and K. Scott

2012 Paleontological mitigation plan for the Plainsburg at State Route 99 project, Merced County, California (10-MER-99; PM 0.0-5.1) EA 10-415801 Project No. 10-0000-0431. On file with Caltrans District 6.

Gust, S., K. Scott, C. Richards

2012 Paleontological monitoring report for the Arboleda Drive Freeway project, State Route 99, Merced County, California (10-MER-99; P.M. 4.6/10.5; KP 7.4/16.9) EA 10-415701 Contract 06A1320.15. On file with Caltrans District 6.

Hackel, O.

1966 Summary of the geology of the Great Valley, in Bailey, E. H., ed., Geology of northern California, *California Division of Mines and Geology Bulletin* 190: 217-238.

Hay, O. P.

1927 Pleistocene of the Western Region of North America and its vertebrated animals. Carnegie Institution of Washington, Publication no. 322B.

Heizer, Robert F.

1949 The Archaeology of Central California, I: The Early Horizon. *University of California Anthropological Records* 12(1):1–83. Berkeley.

- Hilton, R.P., Dailey, D.C., and H. G. McDonald
 2000 A Late Pleistocene Biota from the ARCO Arena site, Sacramento California. *Paleobios* 20(1):7-12.
- Hattersley-Drayton, Karana
 2013 "Garden of Eden: A Historic Context for Fresno's Fig Gardens". Copy available at <https://www.fresno.gov/darm/historic-surveys/>.
- Hoover, M. B., & Kyle, D. E.
 2002 *Historic spots in California*. Stanford, CA: Stanford University Press.
- Janda, R. J.
 1965 Quaternary alluvium near Friant, California: International Association of Quaternary Research Guidebook for Field Conference I, northern Great Basin and California, p. 128-133.
 1966 Pleistocene history and hydrology of the upper San Joaquin River, California: California Univ., Berkeley, Ph.D. thesis, 425 p.
- Janda, R. J. and M. G. Croft
 1967 The stratigraphic significance of a sequence of noncalcic brown soils formed on the Quaternary alluvium of the northeastern San Joaquin Valley, California, in International Association Quaternary Research, Quaternary Soils: International Association of Quaternary Research, VII Cong., Reno, Nev., Proc., v. 9, p. 158-190.
- Jefferson, G. T.
 1991a A Catalogue of late Quaternary Vertebrates from California: Part one, nonmarine lower vertebrate and avian taxa. *Natural History Museum of Los Angeles, Technical Report #5*.
 1991b A Catalogue of late Quaternary Vertebrates from California: Part two, Mammals. *Natural History Museum of Los Angeles, Technical Report #7*.
- Marchand, D. E.
 1976 Preliminary geologic maps showing Quaternary deposits of the Madera area, eastern San Joaquin Valley, Madera and Fresno Counties, California. U.S. Geological Survey, Open-File Report OF-76-841, scale 1:24000.
- Marchand, D. E. and Allwardt, A.
 1981 Late Cenozoic Stratigraphic Units, Northeastern San Joaquin Valley, California, U.S. *Geological Survey Bulletin* 1470.
- Mathews, R. A. and J. L. Burnett
 1965 Geologic map of California, Fresno Sheet. California Division of Mines and Geology and the Department of Conservation, scale 1:250,000.

Meyer, Jack, D. Craig Young and Jeffrey S., Rosenthal

2010 Cultural Resources Inventory of Caltrans District 6/9, Rural Conventional Highways. In *Volume I: A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9*. Report prepared by Far Western Anthropological Research Group, Davis, California, for California Department of Transportation, District 6, Fresno, CA.

McCawley, W.

1996 *The First Angelinos: The Gabrielino Indians of Los Angeles*. Malki Museum Press/Ballena Press, Banning, California.

McLeod, S. (Natural History Museum of Los Angeles County)

2019 Vertebrate Paleontology Records Check for paleontological resources for the proposed Fresno West Project, Cogstone Project # 4669, in the City of Fresno, Fresno County, project area. See Appendix B.

Meyer, Jack, and Jeffrey S. Rosenthal

1998 *An Archaeological Investigation of Artifacts and Human Remains from CA-CCO-637, Los Vaqueros Project Area, Contra Costa County, California*. Report prepared by Anthropological Studies Center, Sonoma State University Academic Foundation, Rohnert Park, California. On file, North Central Information Center.

2008 *A Geoarchaeological Overview and Assessment of Caltrans District 3: Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways*. Report prepared by Far Western Anthropological Research Group, Davis, California, for California Department of Transportation, District 3, Marysville, CA.

Meyer, Jack, D. Craig Young and Jeffrey S., Rosenthal

2010 Cultural Resources Inventory of Caltrans District 6/9, Rural Conventional Highways. In *Volume I: A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9*. Report prepared by Far Western Anthropological Research Group, Davis, California, for California Department of Transportation, District 6, Fresno, CA.

Moratto, Michael J.

1984 *California Archaeology*. Academic Press, San Diego.

Olsen, W. H., and L. A. Payen

1969 *Archaeology of the Grayson Site, Merced County, California*. Archaeological Reports 12. California Department of Parks and Recreation, Sacramento

Paleobiology Database (PBDB)

2019 Online records search, September 2019, <http://paleodb.org/>

Pritchard, W. E.

- 1970 *Archaeology of the Mejoulet Site, Merced County, California*. Archaeological Reports 13. California Department of Parks and Recreation, Sacramento.

Planning Resource Associates, Inc.

- 2008 *City of Fresno mid-century Modernism Historic Context : mid-century Modernism Historic Context*. Prepared for the City of Fresno Planning & Development Department.

Poland, J. F. and Evenson, R. E.

- 1966 Hydrogeology and land subsidence, Great Central Valley, California, in Bailey, E. H., ed., *Geology of northern California, California Division of Mines and Geology Bulletin* 190: 239-247.

Ragir, Sonia

- 1972 *The Early Horizon in Central California Prehistory*. Contributions of the University of California Archaeological Research Facility No. 15. University of California, Berkeley.

Rosenthal, Jeffrey S., and Jack Meyer

- 2004a *Landscape Evolution and the Archaeological Record: A Geoarchaeological Study of the Southern Santa Clara Valley and Surrounding Region*. Center for Archaeological Research at Davis Publication No. 14. University of California, Davis.

- 2004b *Cultural Resources Inventory of Caltrans District 10, Rural Conventional Highways. In Geoarchaeological Study, Vol 3., Landscape Evolution and the Archaeological Record of Central California*. Report prepared by Far Western Anthropological Research Group, Davis, California.

Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton

- 2007 The Central Valley: A View from the Catbird's Seat. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 147–163. AltaMira Press, Lanham, Maryland.

Scott, E. and K. Springer

- 2003 CEQA and fossil preservation in southern California. *The Environmental Monitor*, Winter: 4-10, 17.

Scott, E., K. Springer, and J.C. Sagebiel

- 2004 Vertebrate paleontology in the Mojave Desert: the continuing importance of 'follow through' in preserving paleontologic resources, p. 65-70, in M. W. Allen and J. Reed (eds.), *The human journey and ancient life in California's Deserts: Proceedings from the 2001 Millennium Conference*. Maturango Museum Publication No. 15, Ridgecrest, California, USA.

Stewart, Richard (Central Region Paleontology Branch California Department of Transportation, District 6)

2015 Personal communications on the fossils recovered during excavations for the new Sandy Mush Road overpass, between Chowchilla and Merced, California.

University of California, Museum of Paleontology (UCMP)

2019 Online records search of the University of California, Berkeley paleontology database, September 2019, <https://ucmpdb.berkeley.edu/advanced.html>

Victor Gruen Associates

1968 “Fresno: A City Reborn”. https://www.youtube.com/watch?v=bdTS_LLJvcw.

Wagner, D. L.

2002 California Geomorphic Provinces. California Geologic Survey Note 36. Website: http://www.conservation.ca.gov/cgs/Documents/Publications/Note_36.pdf

White, Gregory G.

2003 *Testing and Mitigation at Four Sites on Level (3) Long Haul Fibre Optic Alignment, Colusa County, California*. Archaeological Research Program, California State University, Chico. Report prepared for Kiewit Pacific, Concord.

U.S. Census Bureau

1910 “Thirteenth Census of the United States Taken in the Year 1910: California, Chapter 1. Number of Inhabitation.” Washington: Government Printing Office.

USGS Historic Topographic Map Explorer

1923 USGS Bullard, 7.5x15 minute map, accessed online at <http://historicalmaps.arcgis.com/usgs/> on August 2019

1965 USGS Fresno North, 7.5 minute map, accessed online at <http://historicalmaps.arcgis.com/usgs/> on August 2019

1972 USGS Fresno North, 7.5 minute map, accessed online <http://historicalmaps.arcgis.com/usgs/> on September 2019

1981 USGS Fresno North, 7.5 minute map, accessed online <http://historicalmaps.arcgis.com/usgs/> on September 2019

APPENDIX A. QUALIFICATIONS

EDUCATION

2009 M.A., Anthropology, Kent State University, Kent, Ohio
2006 B.A., Anthropology, Ohio State University, Columbus, Ohio

SUMMARY QUALIFICATIONS

Ms. Valasik is a Registered Professional Archaeologist (RPA) with over 10 years of professional and academic archaeological field and research experience. She has conducted technical studies and prepared cultural resources reports for CEQA/EIR compliance documents for project-level and program-level Specific Plans, General Plans, Master Plans, and Zoning Amendments for mixed-use, residential, commercial, and industrial developments. She meets the qualifications required by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* and is well-versed in the compliance procedures of CEQA and Section 106 of the NHPA and in working with a variety of federal, state, and local agencies throughout California. She is accepted as a principal investigator for prehistoric archaeology by the State Office of Historic Preservation's Information Centers.

SELECTED PROJECTS

Irvine General Plan Update - Phase II, City of Irvine, Orange County, CA. Cogstone conducted a study to review and summarize available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of Irvine to support the Phase II update of the City's General Plan. A general analysis of impacts of future projects within the City of Irvine that may adversely affect paleontological, archaeological, or historic resources was provided along with mitigation recommendations. Sub to Placeworks. Principal Investigator for Archaeology. 2018-2019

La Verne General Plan Update, City of La Verne, Los Angeles County, CA. Cogstone reviewed and summarized available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of La Verne to support an update of the City's General Plan. Cogstone conducted archaeological and paleontological record searches, extensive historical research at City Hall, a Sacred Lands File (SLF) search was requested from the Native American Heritage Commission (NAHC), and a general analysis of impacts of future projects within the city that may adversely affect paleontological, archaeological, or historic resources was provided along with mitigation recommendations. Sub to De Novo. Principal Investigator for Archaeology. 2018

Agora Town Center Mixed-Use EIR, Laguna Niguel, Orange County, CA. Conducted due diligence review of the previous environmental document. Prepared updated cultural and paleontological sections, including updated records search. The project also involved preparation of a new Tribal cultural resources section; and assisting the City of Laguna Niguel with combined SB 18/AB52 consultation and outreach. Sub to PlaceWorks. Principal Investigator for Archaeology. 2016

Lyon Subdivision EIR, City of Coto de Caza, Orange County, CA. Conducted a cultural resources technical study to support preparation of an EIR on behalf of the developer for the proposed subdivision of an existing large estate for development of 28 new residential lots on approximately 50-57 acres of land. The existing land is predominantly a citrus orchard. Services included records search, Sacred Lands search, Native American consultation, GIS mapping, and intensive-level pedestrian survey with negative results. The lead agency for the Project is the City of Coto de Caza. Sub to CAA Planning. Principal Investigator for Archaeology. 2015

Shoppes at Corona Vista Specific Plan, City of Corona, Riverside County, CA. The Project involves the construction of a shopping center and a church, and includes a specific plan amendment for a 7.25-acre site situated within a former citrus growing community. Services included archaeological, paleontological and historical records searches, NAHC consultation, pedestrian survey and prepared technical reports. One historic resource, a Craftsman bungalow, was recorded. A DPR 523 site record was completed. The building was evaluated for eligibility for listing on the California Register of Historic Resources (CRHR) and determined not eligible. Sub to Applied Planning. Principal Investigator for Archaeology & Co-Author. 2015

EDUCATION

2013 M.S., Biology, with paleontology emphasis, California State University, San Bernardino
2000 B.S., Geology, with paleontology emphasis, University of California, Los Angeles

SUMMARY QUALIFICATIONS

Ms. Scott has 21 years of experience in California as a paleontologist and sedimentary geologist. She has worked extensively in the field surveying, monitoring, and salvaging fossils on over 100 projects. In addition, she has special skills in fossil preparation (cleaning and stabilization) and in the preparation of stratigraphic sections and other documentation for fossil localities. She has written over 100 assessments and monitoring compliance reports to all agency requirements. Ms. Scott serves as company safety officer and is the author of the company safety and paleontology manuals. She is a Member of the Society of Vertebrate Paleontology and the Geological Society of America.

SELECTED PROJECTS

Irvine General Plan Update - Phase II, City of Irvine, Orange County, CA. Cogstone conducted a study to review and summarize available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of Irvine to support the Phase II update of the City's General Plan. A general analysis of impacts of future projects within the City of Irvine that may adversely affect paleontological, archaeological, or historic resources was provided along with mitigation recommendations. Sub to Placeworks. Principal Paleontologist. 2018-2019

City of La Verne General Plan Update Project, Los Angeles County, CA. The project involved review and summary of available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of La Verne to support an update of the City's General Plan. Scott co-authored the Cultural and Paleontological Assessment. Sub to De Novo Planning Group. Principal Paleontologist/Report Co-author. 2018

Westminster General Plan Update EIR, City of Westminster, Orange County, CA. Prepared paleontological resources assessment to support the General Plan Update. The study area included the entire city, spanning 6,590 acres. Services involved records search, GIS mapping. Impact analysis determined negative results. Sub to PlaceWorks. Principal Investigator/Author of Paleontological Report. 2015-2016

Temecula Gateway EIR, City of Temecula, Riverside County, CA. A Planned Development Overlay/Zone Change and General Plan Amendment. The applicant intended to change the General Plan designation to Community Commercial. The Planned Development Overlay would allow for a mixture of uses intended to provide for the development of a variety of local and tourist-serving commercial development. Prepared an assessment report for a 9-acre parcel for the EIR. Sub to PMC. Co-Principal Investigator/Report Co-author. 2015

Valley Boulevard Specific Plan and EIR, Cities of Fontana and Bloomington, San Bernardino County, CA. The Project proposes to maintain and improve existing private and community assets with land use change. Land use changes would involve replacing current conventional zoning districts with five Specific Plan land use districts; Mixed Use, Bloomington Enterprise, Commercial, Low and Medium Residential, and Medium and High Residential districts. Co-Principal Paleontologist/Report Co-author. 2015

Yucaipa General Plan Update and Program EIR, City of Yucaipa, San Bernardino County, CA. The project involved a comprehensive update to the Yucaipa General Plan, an Initial Study, a Program Environmental Impact Report (EIR), a Mitigation Monitoring or Reporting Program (MMRP), and the Findings of Fact and Statement of Overriding Considerations (SOC) for an advanced planning project proposal on behalf of the City of Yucaipa Community Development Department. Conducted record search, Sacred Lands search, NAHC consultation, GIS mapping, cultural and paleontological resources sensitivity analysis, and reporting. Sub to PlaceWorks. Co-Principal Investigator/Report Co-author. 2014

EDUCATION

1994 M. S., Anatomy, University of Southern California, Los Angeles
1979 B. S., Anthropology (Physical), University of California, Davis

SUMMARY QUALIFICATIONS

Ms. Gust is a Registered Professional Archaeologist and Qualified Principal Paleontologist with more than 35 years of experience in cultural resources management and consulting in California. She has conducted technical studies and prepared cultural resources chapters for CEQA/EIR compliance documents for project-level and program-level Specific Plans, General Plans, Master Plans, and Zoning Amendments for mixed-use, residential, commercial and industrial developments. She meets the qualifications required by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*. Ms. Gust holds current BLM permits for cultural and paleontology in California and is certified by all counties and cities in California that maintain lists. She is accepted as a principal investigator for both prehistoric and historical archaeology by the State Office of Historic Preservation's Information Centers.

SELECTED PROJECTS

Tustin Downtown Commercial Core Specific Plan Project, City of Tustin, Orange County, CA. Cogstone performed archaeological and paleontological resources assessments in compliance with CEQA for a 220-acre portion of the City of Tustin. The assessment included an inventory of all historic-era buildings, the preparation of GIS Maps for the entire Specific Plan area, and preparation of a combined cultural and paleontological assessment report with recommendations. Sub to EPD Solutions, Inc. Principal Investigator for Archaeology & Co-Author. 2017

Westminster General Plan EIR, City of Westminster, Orange County, CA. Performed archaeological and paleontological programmatic technical study including record searches, Native American consultation, and prepared report with recommendations. Sub to Placemarks. Principal Investigator for Archaeology and Paleontology. 2016

Alton Parkway Mixed Use Development, City of Irvine, Orange County, CA. Cogstone conducted a literature review followed by archaeological and paleontological monitoring during ground disturbing activities for construction of a four-story residential development on a 3.7-acre site. Subsequently, Cogstone prepared a monitoring compliance report to fulfill the City of Irvine's Existing Plans, Programs, and Policies mitigation measure. Project Manager. 2016

Hidden Oaks Country Club Specific Plan and TT 18869, City of Chino Hills, San Bernardino County, CA. Managed cultural and paleontological resources assessments, assisted the City with SB 18 compliance, and responded to the cultural section of the project EIR comment for this proposed 537-acre residential project with minimum 5-acre per lot constraints. Services included records search, Sacred Lands search, NAHC consultation, field survey, and mitigation recommendations. Principal Investigator. 2015-2016

Paradise Valley Specific Plan, Glorious Land Company, unincorporated Riverside County, CA. The project involves construction of a 5,411 acre resort community. Prepared Supplemental Phase I Cultural Resources Assessment Report and Final Paleontological Assessment Report. Sub to Envicom. Principal Investigator. 2011-2014

Historic Town Center Master Plan Update EIR, City of San Juan Capistrano, Orange County CA. Conducted a survey and assessment to determine the potential effects on cultural resources of potential changes to the Historic Town Center Master Plan area in support of a project-level EIR. Managed archaeological and paleontological record searches, research, and survey plus Native American consultation for the 31-acre town center. Evaluated resources, including updated site records and impact assessment. Sub to Templeton Planning Group. Principal Archaeologist/Paleontologist & Author. 2011

EDUCATION

2018 M.A., History (with an emphasis in architecture), California State University, Fullerton
2012 B.A., History, Minor in Asian-Pacific Studies, California State University, Dominguez Hills

SUMMARY QUALIFICATIONS

Ms. Lopez is a qualified historian and she meets the Secretary of the Interior's *Professional Qualifications for Standards* for history. Ms. Lopez is experienced in architectural history research and surveys along with photo documentation and recording of built environment resources for local and federal projects. Additionally, she is an approved Reader at the Huntington Library by the Los Angeles Office of Historic Resources.

SELECTED PROJECTS

Irvine General Plan Update, Phase II, City of Irvine, Orange County, CA. Cogstone conducted a study to review and summarize available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of Irvine to support the Phase II update of the City's General Plan. A general analysis of impacts of future projects within the City of Irvine that may adversely affect paleontological, archaeological, or historic resources was provided along with mitigation recommendations. Sub to Placeworks. Architectural Historian. 2018-2019

737 S. Oxford Ave. Apartments Project, City of Los Angeles, Los Angeles County, CA. The purpose of this study was to determine the potential effects to cultural and paleontological resources resulting from the construction of a new seven-story, 92-unit apartment building with a single level subterranean parking garage. The project area was open ranching and agricultural lands until development began in the early 20th century. By 1918, two single family homes with detached garages were present on the property with nearly two dozen homes around the project area as well a handful of empty lots. Cogstone conducted a survey, documented the building proposed for demolition within the project area, and prepared a cultural resources assessment. Architectural Historian. 2018

Rhode Island Historical Resource Archive of Melville Naval Historic District and U.S. Naval Hospital, Newport Historic District, Naval Station Newport, R.I. This purpose of this project is to produce Rhode Island Historical Resources Archive (RIHRA) documentation of the Melville Naval Historic District and the U.S. Naval Hospital Newport Historic District, at Naval Station (NAVSTA) Newport, Newport, Rhode Island. Conducted research, form contributor, and assistant Architectural Historian. 2018

2525 N. Main, City of Santa Ana, Orange County, CA. The project proposed demolition of existing building and the construction of a five-story multi-family residential apartment complex. Cogstone conducted a cultural and historic resources records search, a field visit to known historic homes and Santiago Park, evaluation of the historic resources, and produced a built environment report. Conducted research, evaluation and co-author. Architectural Historian. 2018

La Verne General Plan Update, City of La Verne, Los Angeles County, CA. Cogstone reviewed and summarized available information regarding known paleontological, archaeological, and historical resources within the boundaries of the City of La Verne to support an update of the City's General Plan. Ms. Lopez guided the extensive historical research at City Hall where building records, Mills Acts, photographs and other documents were reviewed. Sub to De Novo. Co-Architectural Historian. 2018

Accelerated Charter Elementary School, Los Angeles Unified School District, City of Los Angeles, Los Angeles County, CA. The project involved the construction of a new facility on a 2.3-acre site in South Central Los Angeles. Cogstone conducted paleontological and cultural resources monitoring. Five new archaeological sites were defined and updated one building record. Updated building DPR. Sub to Gafon. Assistant Architectural Historian. 2017

EDUCATION

2009 B.A., Archaeology/History, Simon Fraser University, Canada

SUMMARY QUALIFICATIONS

Ms. Duke is a qualified archaeologist and cross-trained paleontologist with six and a half years of experience in pedestrian survey, monitoring, excavation and burial recovery, as well as the identification of human and faunal skeletal remains. She is proficient in the preparation of cultural resources assessment reports for a variety of state and local agencies throughout California. Duke is responsible for the organization of field data, lab supervision and organization, as well as identifying and cataloging prehistoric and historic artifacts. She also has experience with preparing artifact collections for curation at a variety of different repositories as well as fossil preparation and stabilization.

SELECTED PROJECTS

TetraGro Lancaster Project, City of Lancaster, Los Angeles County, CA. The project consisted of a cultural resources assessment for the construction of a 22,000 square foot medical cannabis cultivation center with a clean anodized aluminum façade. Provided task management and supervised all work for the project which included a records search and an intensive pedestrian survey. Authored the Cultural Resources Assessment Report. Task Manager. 2018

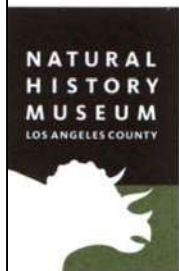
West Bastanchury Residential Subdivision Project, City of Yorba Linda, Orange County, CA. The project consisted of a cultural and paleontological resources assessment for the creation of a tentative tract map to subdivide a 13-acre City-owned lot into 23 residential lots. Provided task management and supervised all work for the project which included a records search and an intensive pedestrian survey. Authored the Cultural Resources Assessment Report. Task Manager. 2017

Crowder Canyon, Caltrans District 8, San Bernardino County, CA. The project consisted of the realignment of SR-138. Participated in the archaeological testing and data recovery of two archaeological sites near Hesperia. Conducted excavation and data recovery of more than six prehistoric features. Sub to Applied Earthworks. Archaeologist. 2016

Cold Canyon Landfill Expansion, South Berm Soil Removal Module 11, Arroyo Grande, San Luis Obispo County, CA. Conducted archaeological testing of the historic Patchett-Weir family site (CA-SLO-2559H) to assess its eligibility for listing on the National Register of Historic Places. The site would be impacted by landfill expansion and Army Corps of Engineers wetland restoration. Supervised the excavation of mechanically excavated trenches and hand excavated a unit within the site. Cataloged 20 historic-age artifacts recovered during excavation. Archaeologist. 2016

Fisher House and Golf Course Parking Lot Project, Veterans Affairs Long Beach Healthcare System, City of Long Beach, Los Angeles County, CA. In compliance with the Historic Properties Treatment Plan, supported an archaeological testing program to identify cultural resources by utilizing ground penetrating radar and magnetometry, shovel test pits, and mechanical excavation. Recovered numerous historic artifacts from a trash dump during ground disturbing activities within the Golf Course Parking Lot project area. Cleaned, identified, and cataloged all recovered artifacts. Monitored excavation for utilities at Golf Course Parking Lot project. Prime. Archaeologist/Lab and Data Manager. 2015-2016

APPENDIX B. MUSEUM PALEONTOLOGICAL RECORDS SEARCH



Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007
tel 213.763.DINO
www.nhm.org

Vertebrate Paleontology Section
Telephone: (213) 763-3325

e-mail: smcleod@nhm.org

1 August 2019

Cogstone Resource Management, Inc.
1518 West Taft Avenue
Orange, CA 92865-4157

Attn: Logan Freeberg, GIS Technician

re: Vertebrate Paleontology Records Check for paleontological resources for the proposed
Fresno West Project, Cogstone Project # 4669, in the City of Fresno, Fresno
County, project area

Dear Logan:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed Fresno West Project, Cogstone Project # 4669, in the City of Fresno, Fresno County, project area as outlined on the portions of the Herndon and Fresno North USGS topographic quadrangle maps that you sent to me via e-mail on 18 July 2019. We do not have any vertebrate fossil localities that lie directly within the proposed project area boundaries, but we do have fossil vertebrate localities somewhat nearby that occur in sedimentary deposits similar to those that occur in the proposed project area.

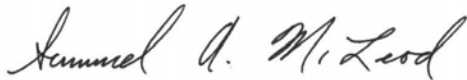
According to the geologic mapping surface deposits for the entire proposed project area consist of soil on top of late Pleistocene deposits of the Riverbank Formation. We do not have any vertebrate fossil localities specifically designated as coming from the Riverbank Formation, but our closest vertebrate fossil locality from these deposits, LACM 7254, northwest of the proposed project area on the south side of Ash Slough northeast of Chowchilla, produced a fossil specimen of elephantoid, Proboscidea.

Shallow excavations in the soil and Riverbank Formation deposits that occur superficially throughout the proposed project area may not uncover significant fossil vertebrate remains.

Deeper excavations that extend down into older sedimentary deposits, however, may well encounter significant vertebrate fossil remains. Any substantial excavations in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossil materials uncovered during mitigation activities should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

A handwritten signature in cursive script that reads "Samuel A. McLeod".

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

APPENDIX C. NATIVE AMERICAN CONSULTATIONS

Tribal Consultation Log for the Fresno West Area Specific Plan

Native American Group	First Name	Last Name	Title	Date(s) and Method of First Contact Attempt	Date(s) and Method of Second Attempt	Date(s) and Method of Third Attempt	Date(s) of Replies Rec'd	Comments
Big Sandy Rancheria	Elizabeth D.	Kipp	Chairperson	8/20/2019, Certified US Mail	9/4/2019, email	9/19/2019, Phone/voicemail message	No Response	
Cold Springs Rancheria	Carol	Bill	Chairperson	8/20/2019, Certified US Mail	9/6/2019, email	9/19/2019, Phone, email	No Response	Cold Springs Rancheria has a new Chair, Helena Alarcon. Follow up email was sent to her emai
Dumna/Wo-Wah Tribal Government	Robert	Ledger Sr.	Chairperson	8/20/2019, Certified US Mail	9/6/2019, email	9/19/2019, Phone, email	No Response	Chairperson Ledger requested email with original letter to be resent to his email for review. The letter was resent.
Dunlap Band of Mono Indians	Benjamin	Charley Jr.	Tribal Chair	8/20/2019, Certified US Mail	-	-	8/26/2019 phone	On 8/26/2019 Mr. Charley, tribal secretary for the Dunlap Band of Mono Indians, responded via phone that the SP is outside the Tribe's interest and that they would not be commenting or requesting consultation. Mr. Charley recommended contacting Big Sandy or Table Mountain Rancheria for comments.
Dunlap Band of Mono Indians	Dick	Charley	Tribal Secretary	8/20/2019, Certified US Mail	-	-	8/26/2019 phone	See above for Mr. Charley
Kings River Choinumni Farm Tribe	Stan	Alec		8/20/2019, Certified US Mail		9/19/2019, Phone	9/19/2019 phone	On 9/19/2019 Mr. Alec of the Kings River Choinumni Farm Tribe, responded via phone that the Tribe has no concerns with the SP.
North Fork Mono Tribe	Ron	Goode	Chairperson	8/20/2019, Certified US Mail	9/6/2019, email	9/19/2019, Phone/voicemail message	No Response	
Santa Rosa Rancheria, Tachi Yokut Tribe	Rueben	Barrios Sr.	Chairperson	8/20/2019, Certified US Mail		9/19/2019, Phone/voicemail message	No Response	
Table Mountain Rancheria	Leanne	Walker-Grant	Chairperson	8/20/2019, Certified US Mail		-	No Response	

Native American Group	First Name	Last Name	Title	Date(s) and Method of First Contact Attempt	Date(s) and Method of Second Attempt	Date(s) and Method of Third Attempt	Date(s) of Replies Rec'd	Comments
Table Mountain Rancheria	Bob	Pennell	Cultural Resources Director	8/20/2019, Certified US Mail	9/6/2019, email	-	8/6/2019 Letter	On 8/6/2019, Mr. Pennell, Cultural Resources Director of the Table Mountain Rancheria, responded with by letter stating that the Tribe is interested in the SP and requested any cultural resource reports received from the record search. Mr. Pennell requested that the City contact the Tribal office to coordinate a discussion and meeting date for the SP. On 10/7/2019 Cogstone replied to Mr. Pennell with the results of the cultural records search.
Traditional Choinumni Tribe	David	Alvarez	Chairperson	8/20/2019, Certified US Mail	9/6/2019, email undeliverable	-	No Response	
Traditional Choinumni Tribe	Rick	Osborne	Cultural Resources	8/20/2019, Certified US Mail	9/6/2019, email	9/19/2019, Phone/voicemail message	No Response	
Wuksache Indian Tribe/Eshom Valley Band	Kenneth	Woodrow	Chairperson	8/20/2019, Certified US Mail	9/6/2019, email	9/19/2019, Phone/voicemail message	No Response	



2600 Fresno Street, Room 3065
Fresno, California 93721-3604
(559) 621-8003
www.fresno.gov

Planning and Development Department

Jennifer K. Clark, AICP, HDPP
Director

[MONTH, DAY, YEAR]

[FIRST LAST]

[TRIBE]

[TITLE/ROLE]

[ADDRESS, STREET]

[CITY, CA, ZIP]

RE: CEQA and SB 18 Consultation Request for the Specific Plan of the West Area, City of Fresno, Fresno County, California.

[TITLE & LAST NAME]:

The City of Fresno (City) proposes to develop the Specific Plan of the West Area Project (Project). The Project will refine the City's General Plan for the West Area by implementing a specific development plan including roadway and sidewalk networks and maintenance as well as an updated designated zoning plan for land use areas including but not limited to commercial, residential, employment (i.e. business park), mixed use, open space (i.e. parks), and public facilities (i.e. school and emergency response) for the continued growth, safety, and necessity of the City's residents (see Figure 1). The Project encompasses an approximately 7,077-acre triangular portion of the northwest area of the City west of State Route 99 with a 160-acre "alternative study area" in the southwest corner. It is bounded by State Route 99 to the northeast; Garfield Avenue to the west and Clinton Avenue to the south (see Figures 2-6). This Project will comply with CEQA regulations and an Environmental Impact Report that is being prepared. The City of Fresno will be the lead CEQA Agency.

We are contacting you because the [TRIBE] requested to be notified and provided information, under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)), also known as AB 52, regarding projects with the City of Fresno's jurisdiction and within the traditional territory of the [TRIBE]. Please consider this letter and preliminary Project information as the formal notification of the proposed Project. The City of Fresno is requesting to consult with the [TRIBE] in order to identify tribal cultural resources that may be impacted by the proposed Project. The point of contact for the City of Fresno is below.

City of Fresno Point of Contact Information	
Name/Title:	Rodney L. Horton, MPA Planner III Planning and Development Department
Address:	2600 Fresno Street, Rm 3065
City:	Fresno, CA 93721
Tel:	(Office) 559-621-8181
E-Mail:	Rodney.Horton@fresno.gov

Additionally, the City of Fresno is requesting consultation under Senate Bill 18 (Chapter 905, Statutes of 2004) which requires local governments to consult with tribes prior to making certain planning decisions and requires consultation and notice for a general and specific plan adoption or amendment in order to preserve, or mitigate impacts to, cultural places that may be affected. The Native American Heritage Commission (NAHC) provided us with a list of tribal entities and individuals who have requested to be placed on the SB 18 consultation list. The [TRIBE] is on the list provided. As a result, please consider this letter as a notice of the Project and an invitation to provide comments regarding the Project.

Cogstone Resource Management, Inc. (Cogstone) has been retained to assist the City of Fresno with their cultural resources assessment of the Project area

The Native American Heritage Commission (NAHC) was contacted on July 18, 2019 to perform a search of the Sacred Lands File. The NAHC responded on August 13, 2019 and reported positive for Native American sacred sites and/or heritage resources located within the Project area or the immediate vicinity.

Cogstone requested a record search of the entire Project area from the Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield on July 18, 2019. Cogstone received the results of the records search on July 30, 2019. A total of 82 cultural resources are located within the Project area, all of which are historic resources. Of these, 78 are historic built environment resources and four are historic archaeological sites. No prehistoric archaeological sites have been recorded within the Project area. A pedestrian survey is not required for this Project.

We would appreciate receiving any comments, issues and/or concerns relating to cultural resources, sacred lands, and tribal cultural resources that you may have within the Project area. All information provided will be kept confidential.

Please respond within 30 days, pursuant to PRC 21080.3.1(d), if you would like to consult on this Project under CEQA. For consultation under SB 18, **you have 90 days to respond**. If you have any questions please contact Emily Barton, Cogstone, by phone (714-974-8300), email (cogstoneconsult@cogstone.com), or fax (714-974-8303) or you can contact me at the address and phone number above.

Thank you for your assistance.

Rodney L. Horton, MPA
Planner III
Planning and Development Department

Attachments: Project vicinity map
Project location maps (5)

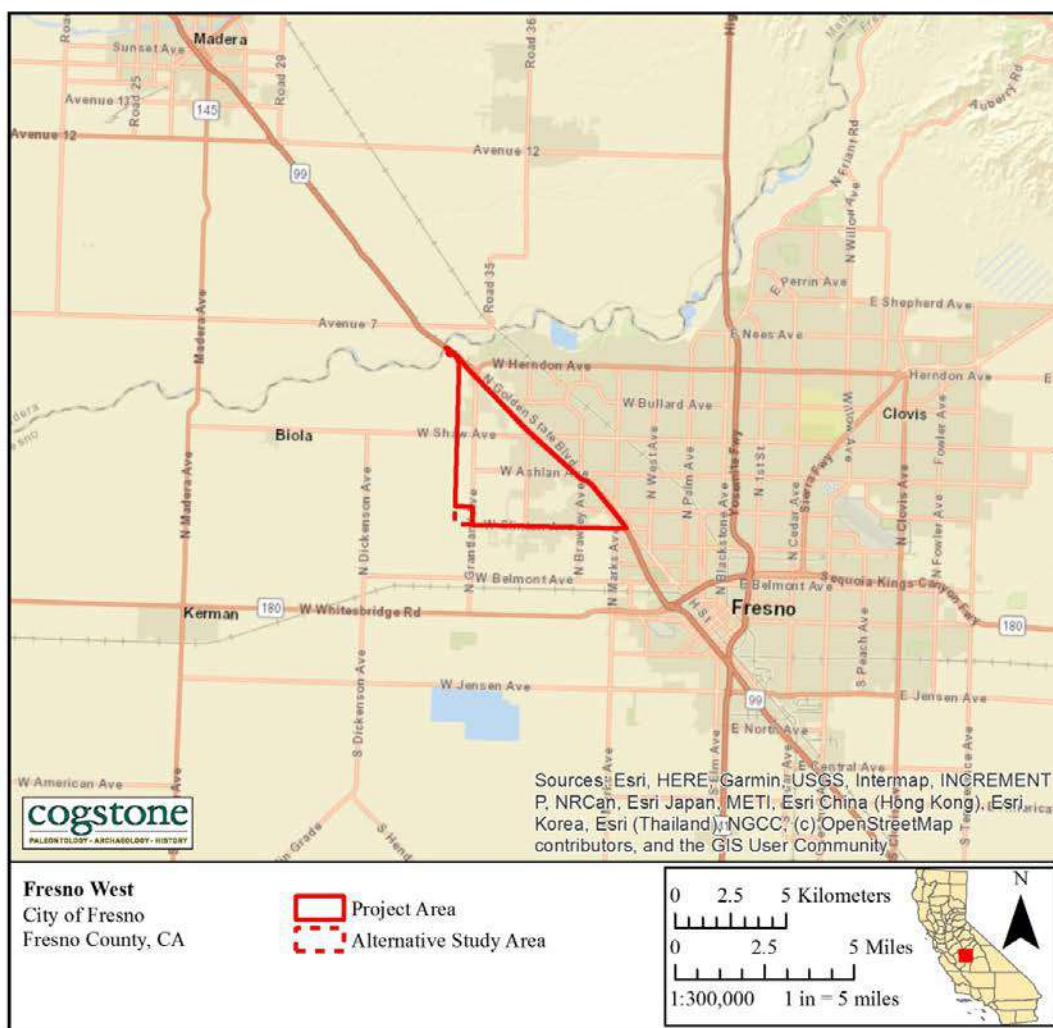


Figure 1. Project vicinity map

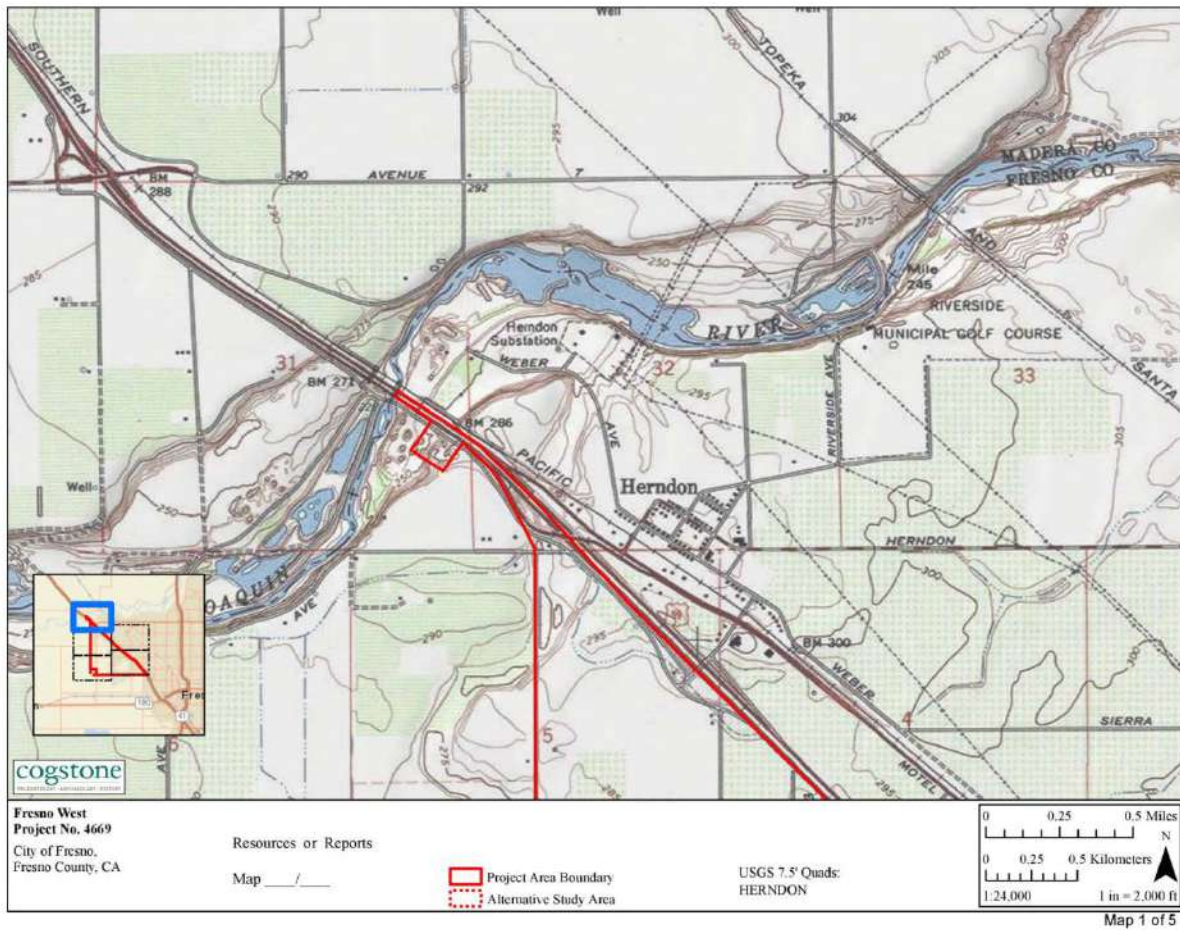


Figure 2. Project location map 1

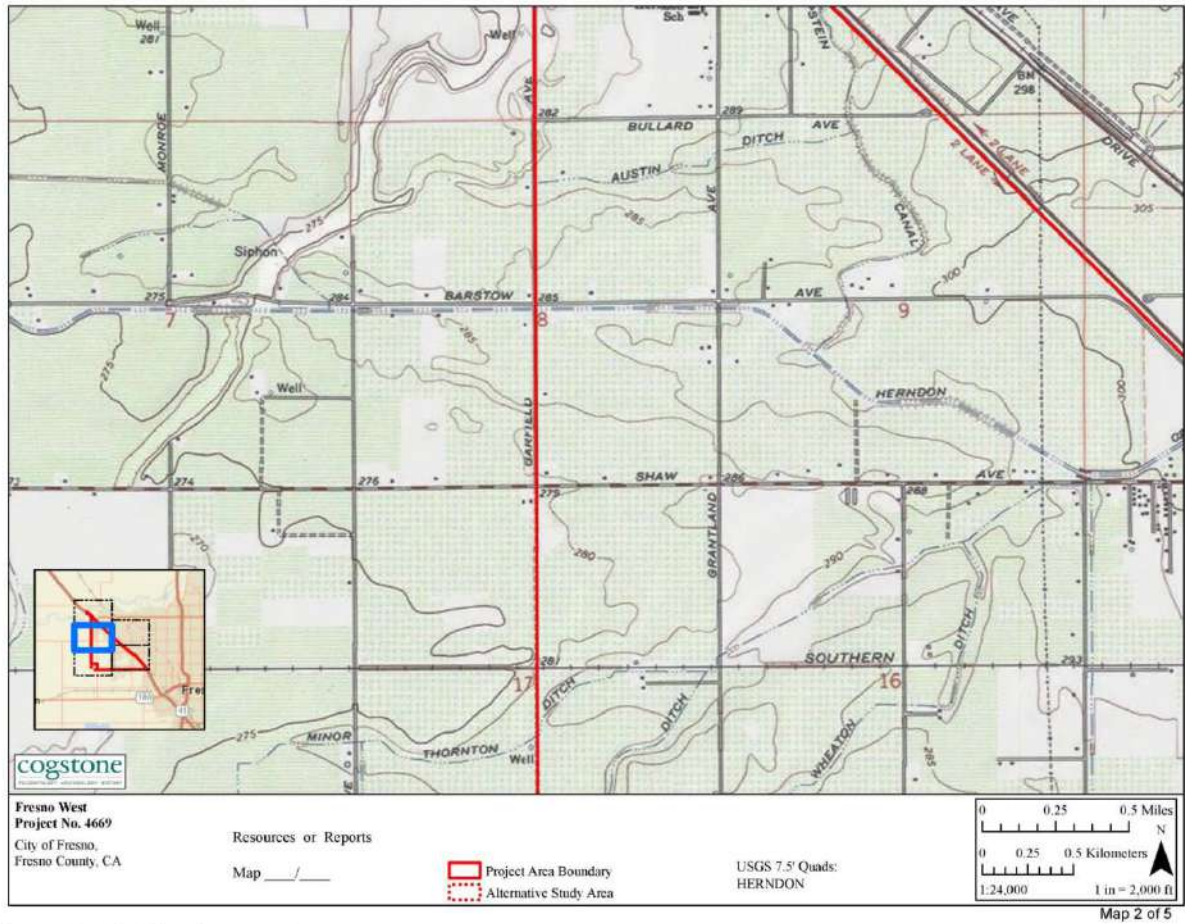


Figure 3. Project location map 2



Figure 4. Project location map 3

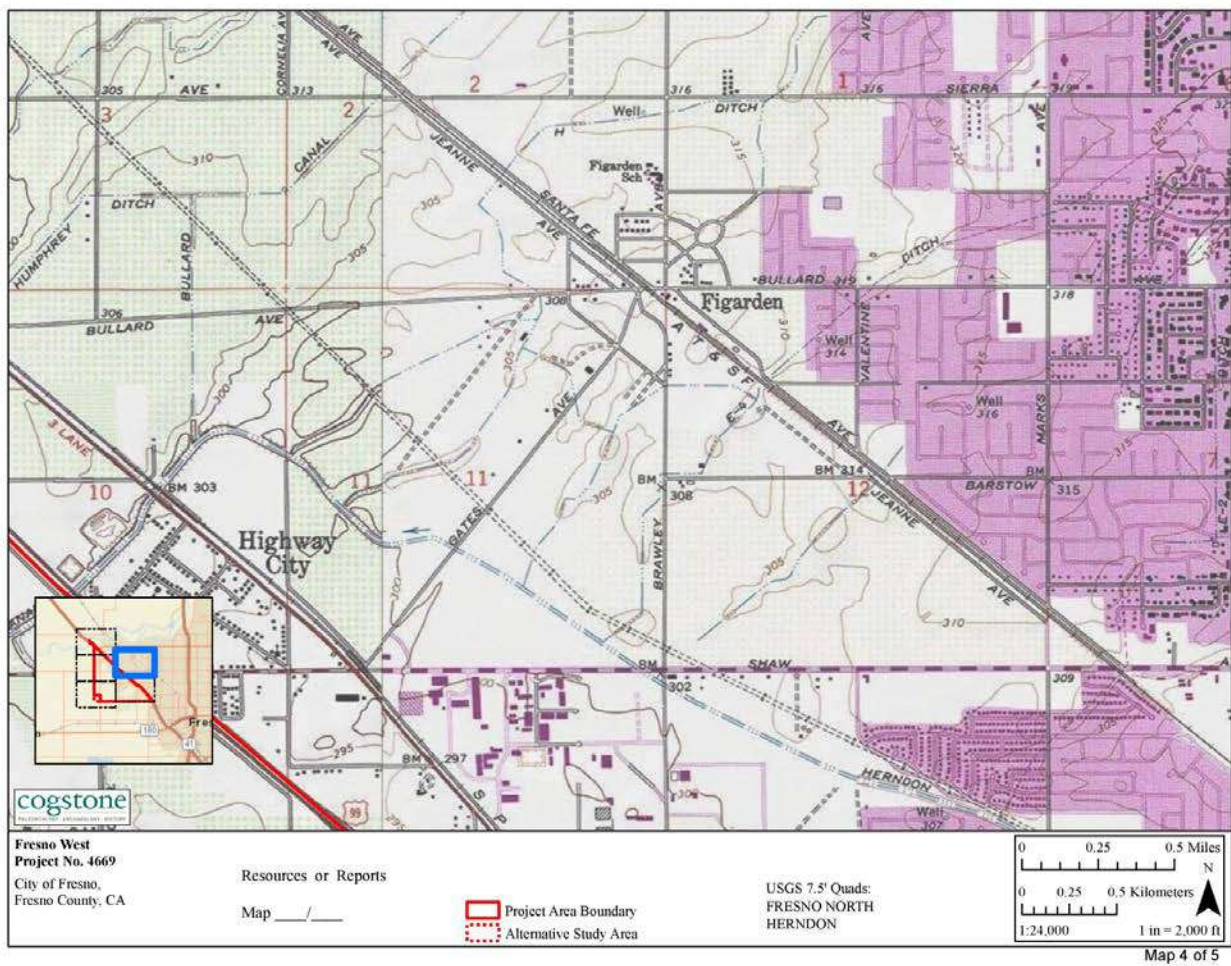


Figure 5. Project location map 4

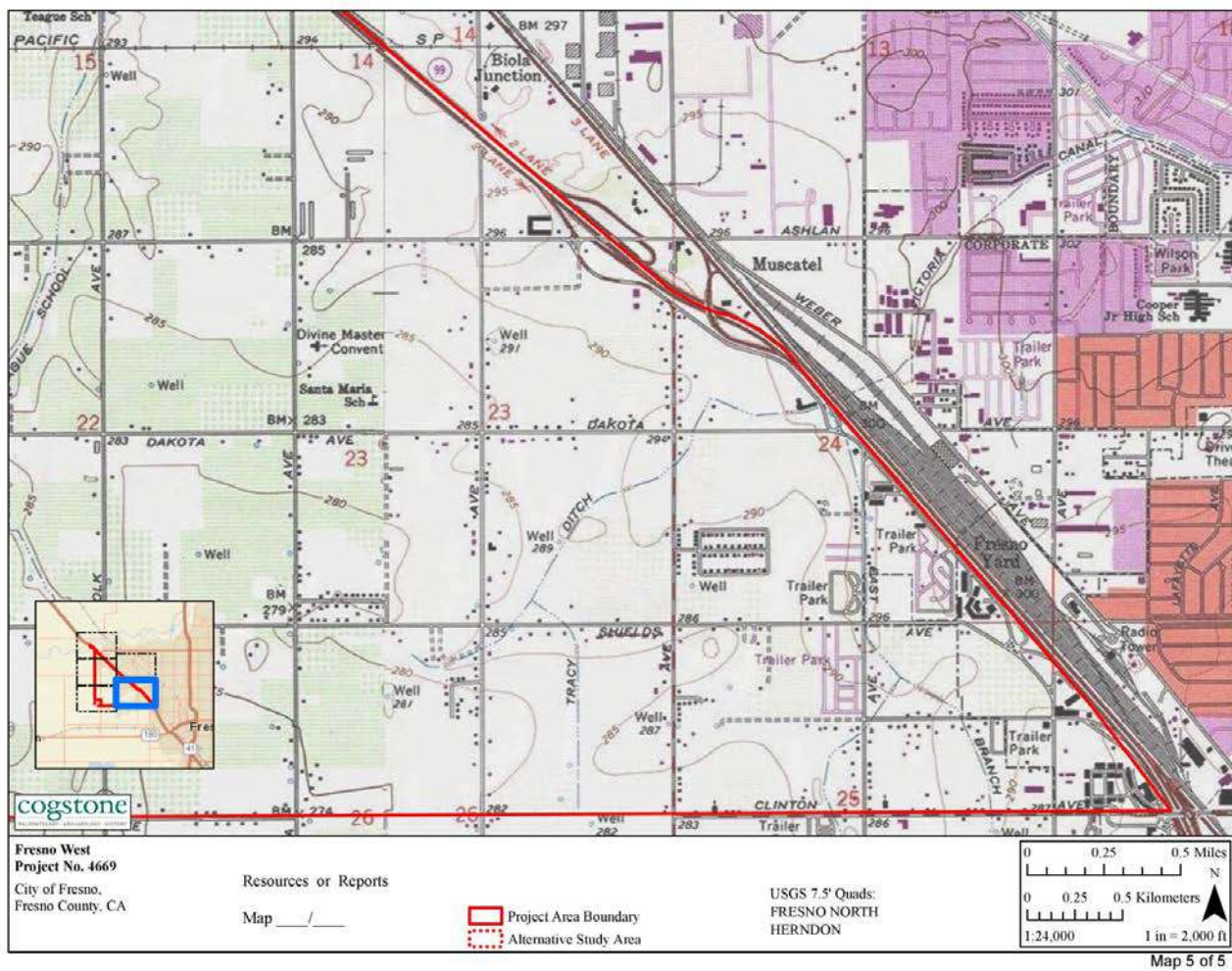


Figure 6. Project location map 5



TABLE MOUNTAIN RANCHERIA

TRIBAL GOVERNMENT OFFICE

CERTIFIED 3675 4654

August 6, 2019

Leanne Walker-Grant
Tribal Chairperson

Beverly J. Hunter
Tribal Vice-Chairperson

Craig Martinez
Tribal Secretary/Treasurer

Matthew W. Jones
Tribal Council Member

Richard L. Jones
Tribal Council Member

Rodney L. Horton, MPA, Planner III
City of Fresno
Planning and Development Department
2600 Fresno Street, Rm 3065
Fresno, Ca. 93721

RE: CEQA and SB 18 Consultation Request for the Specific Plan of the
West Area, City of Fresno, Fresno County

Dear: Rodney L. Horton

Table Mountain Rancheria is responding to your letter dated, August 19, 2019, regarding, CEQA and SB 18 Consultation Request for the Specific Plan of the West Area, City of Fresno, Fresno County. Thank you for notifying Table Mountain Rancheria of the potential development and request for consultation. The Rancheria is very interested in this project as it lies within our cultural area of interest.

If you have already conducted a record search, please provide Table Mountain Rancheria with copies of any cultural resource report you may have.

At this time, please contact our office at (559) 325-0351 or rpennell@tmr.org to coordinate a discussion and meeting date regarding your project.

Sincerely,

Robert Pennell
Tribal Cultural Resources Director

23736
Sky Harbour Road
Post Office
Box 410
Friant
California
93626
(559) 822-2587
Fax
(559) 822-2693

Molly Valasik

From: Molly Valasik <mvalasik@cogstone.com>
Sent: Monday, October 07, 2019 11:04 AM
To: 'rpennell@tmr.org'
Cc: 'Emily Barton'
Subject: Fresno West Area Specific Plan
Attachments: 19-287 Results Letter.pdf

Hi Mr. Pennell,

The City of Fresno forwarded your August 6, 2019 response regarding the Specific Plan of the West Area, City of Fresno to me. We are currently drafting the cultural resources assessment report for the Specific Plan and will provide you a copy once it is complete.

I have attached the results of the records search conducted by the SSJVIC on July 30, 2019. Results of the record search indicate that 36 previous studies and 82 cultural resources have been previously recorded within the Specific Plan. The cultural resources include four historic archaeological sites and 78 historic built environment resources.

Please let me know if I can provide you with any more information. Thank you.



Molly Valasik, MA, RPA
Principal Investigator/Project Manager II
1518 W Taft Ave, Orange, CA 92865
419-344-3622 cell
mvalasik@cogstone.com www.cogstone.com
Field Offices in San Diego, Riverside, Morro Bay, San Francisco

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APPENDIX D. SENSITIVITY RANKING CRITERIA

PFYC Description	PFYC Rank
Very Low. The occurrence of significant fossils is non-existent or extremely rare. Includes igneous or metamorphic and Precambrian or older rocks. Assessment or mitigation of paleontological resources is usually unnecessary.	1
Low. Sedimentary geologic units that are not likely to contain vertebrate fossils or scientifically significant nonvertebrate fossils. Includes rock units too young to produce fossils, sediments with significant physical and chemical changes (e.g., diagenetic alteration) and having few to no fossils known. Assessment or mitigation of paleontological resources is not likely to be necessary.	2
Potentially Moderate but Undemonstrated Potential. Units exhibit geologic features and preservational conditions that suggest fossils could be present, but no vertebrate fossils or only common types of plant and invertebrate fossils are known. Surface-disturbing activities may require field assessment to determine appropriate course of action.	3b
Moderate Potential. Units are known to contain vertebrate fossils or scientifically significant nonvertebrate fossils, but these occurrences are widely scattered and of low abundance. Common invertebrate or plant fossils may be found. Surface-disturbing activities may require field assessment to determine appropriate course of action.	3a
High. Geologic units containing a high occurrence of significant fossils. Fossils must be abundant per locality. Vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability. If impacts to significant fossils can be anticipated, on-the-ground surveys prior to authorizing the surface disturbing action will usually be necessary. On-site monitoring or spot-checking may be necessary during construction activities.	4
Very High. Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils. Vertebrate fossils or scientifically significant invertebrate fossils are known or can reasonably be expected to occur in the impacted area. On-the-ground surveys prior to authorizing any surface disturbing activities will usually be necessary. On-site monitoring may be necessary during construction activities.	5

**Potential Fossil Yield Classification (PFYC) rankings are as per the Bureau of Land Management (BLM 2016)*

APPENDIX D

Utility Background Summary

TECHNICAL MEMORANDUM

DATE: January 20, 2022

Project No.: 487-60-19-16

SENT VIA: EMAIL

TO: Steve McMurtry, De Novo Planning Group

FROM: Jim Connell, RCE# 63052

REVIEWED BY: Doug Moore, RCE# 58122

SUBJECT: City of Fresno West Area Neighborhood Specific Plan Utility Background Summary



This Technical Memorandum (TM) presents background information on wet utility infrastructure for the City of Fresno's (City) West Area Neighborhood Specific Plan. This TM includes the following sections:

- Potable Water Treatment and Distribution
- Wastewater Collection and Treatment
- Stormwater and Flood Control

The focus of this TM is on the West Area, as shown in Figure 1. However, because the West Area is dependent on the available capacities of potable water, recycled water, sewer, wastewater treatment and the regional flood control systems, overviews of these City-wide systems are also provided. Because there is minimal recycled water infrastructure conveying recycled water to the West Area, the City's recycled water program is discussed as part of the wastewater collection and treatment section.

The City is anticipating considerable growth over its buildout horizon. According to the General Plan developed in 2014 (Dyett & Bhatia, 2014), the City's population is expected to increase from approximately 495,000 in the 2010 Census to approximately 771,000 people by the year 2035 (General Plan Horizon) and 970,000 people by Buildout of the Sphere of Influence (SOI), which is expected after 2035. The City's 2018 West Area Specific Plan Existing Conditions Report estimates the current population of the West Area to be approximately 38,503 people.

The maximum buildout potential allowed under the West Area Neighborhood Specific Plan would allow for the future development of up to 54,953 dwelling units (including 47,072 dwelling units in the residential category, 67 dwelling units in the commercial category, and 7,814 dwelling units in the mixed use category) and approximately 48.8 million square feet of non-residential uses.

Based on the City's General Plan Housing Element estimate of approximately 2.97 persons per dwelling unit, the proposed Specific Plan is estimated to accommodate 163,211 new residents in the City at buildout under the maximum development potential allowed under the Specific Plan. Therefore, the West Area is expected to have a total population of 201,714 people by buildout of the Specific Plan under the

maximum development potential. The 2014 General Plan included the West Area, and thus previous infrastructure evaluations are helpful in determining the future infrastructure needs of the West Area.

POTABLE WATER TREATMENT AND DISTRIBUTION

The potable water facilities are discussed below.

Summary of the Water System

The City's Water Division serves the City and several County islands (unincorporated areas within the City, West Yost, 2014) through nearly 1,800 miles of transmission and distribution pipelines with approximately 133,000 service connections (Provost & Pritchard, 2016). More than 39,100 million gallons of potable water were delivered in 2018 (Fresno, 2019). The City's water supply comes from groundwater wells, surface water treatment facilities, and contracts for surface water supplies from the United States Bureau of Reclamation (USBR) and the Fresno Irrigation District (FID).

The West Area is served by nearly 96 miles of distribution pipelines and just under a mile of recycled water service (in North Cornelia Avenue between West Clinton Avenue and West Shields Avenue). The West Area's potable water system is shown on Figure 2.

In addition to the City's water system, there are four independent water systems located within the City limits, including Bakman Water Company, Pinedale County Water District, California State University Fresno, and Park Van Ness Mutual Water Company. These independent water systems have their own water supplies, and do not receive water from the City, with the exception of a portion of the Pinedale County Water District east of Highway 41 and south of Herndon Avenue.

The City has emergency interties with the City of Clovis and California State University Fresno that provides additional water supply flexibility.

Water Demands and Supplies

In 2016, The City of Fresno adopted its 2015 Urban Water Management Plan (UWMP) (Provost & Pritchard, 2016). This UWMP documented the past, current, and projected future water demands and supplies through 2040, as shown in Table 1. In 2015, the City served approximately 132,844 acre-feet (af) of potable water. The City's water demands are projected to increase to over 301,000 af per year (af/yr) by 2040 (based on the growth in the 2014 General Plan). However, available water supply is also projected to increase to over 366,000 af/yr by 2040. Thus, the City should continue to have a surplus supply in excess of 65,000 af/yr. The West Area is included in the City's water supply and demand projections. Therefore, the City will have enough water to meet the full water demands of the West Area starting in 2020 and continuing beyond 2040.

Table 1. City of Fresno Past and Projected Water Demands, Supplies, and Surpluses, af/yr^(a)						
	Actual 2015	Projected 2020	Projected 2025	Projected 2030	Projected 2035	Projected 2040
Potable Demand	132,844	14,500	229,600	239,700	254,300	262,500
Recycled Water Demand	8,762	21,200	34,400	34,400	38,600	38,600
Total Demands	141,606	235,700	264,000	274,100	292,900	301,100
Groundwater Supply	83,360	130,400	135,100	139,700	44,300	148,900
Surface Water – Fresno Irrigation District (FID) Contract Supply ^(b)	-	106,200	111,200	116,200	121,200	126,200
Surface Water – United States Bureau of Reclamation (USBR) Contract Supply	41,525	52,600	52,600	52,600	52,600	52,600
Recycled Water Supply	8,750	19,500	31,000	33,500	36,000	38,500
Purchased	3,000	-	-	-	-	-
Total Supply	136,635	308,700	329,900	342,000	354,100	366,200
Surplus	(4,971)^(c)	73,000	65,900	67,900	61,200	65,100
<p>(a) Source: City of Fresno 2015 UWMP, Tables 4-3, 4-4, and 4-5 for Demands and Tables 6-7, 6-13, and 6-14 for Supply</p> <p>(b) The quantity of water available to the City of Fresno from FID is not explicitly quantified. On May 25, 1976, the City signed a contract with FID for delivery of the City's pro rata share of FID's water entitlements on the Kings River. The contract specifically excludes any of FID's Class 2 USBR entitlement and any water stored in Pine Flat Reservoir by FID. The Kings River Water Association (KRWA) allocates entitlements to Kings River contractors on a daily basis; these entitlements are allocated among the contractors using a methodology that estimates the flow in the Kings River before construction of Pine Flat Reservoir (i.e., the project). Once KRWA calculates the "pre-project" entitlement, FID has the option of releasing the entire entitlement for downstream diversion or storing a portion of the entitlement within Pine Flat Reservoir for use at a later date.</p> <p>(c) The values provided in the City's 2015 UWMP do not balance exactly for the year 2015.</p>						

Recent groundwater and surface water production is shown in Table 2.

Table 2. Recent Groundwater and Surface Water Production, af/yr^(a)				
Water Source	2016	2017	2018	2019
Groundwater	99,107	105,211	76,796	54,608
Surface Water	13,162	15,869	43,269	60,936
Total	112,269	121,079	120,066	115,544
(a) Some numbers do not add up exactly due to rounding.				

City Groundwater Facilities

Until 2004, groundwater was the sole source of potable water supply for the City. As of 2018, there were approximately 250 operational groundwater wells with a total production of 25,000 million gallons per year (Fresno, 2018). Local groundwater comes from the Kings Sub-basin of the San Joaquin Valley Groundwater Basin. This sub-basin has been classified by the California Department of Water Resources (DWR) as critically over drafted (DWR, 2018), but supplementing supplies with surface water has reduced drawdown. The West Area is served by eight active wells, as summarized in Table 3.

Table 3. Summary of Active City Wells Serving the West Area

Well Number	Pump Horsepower	Rated Capacity gallons per minute ^(a)
Well 104	125	1,500
Well 138	125	1,800
Well 169	200	2,400
Well 171-1	60	600
Well 171-2	150	1,750
Well 192	150	2,000
Well 358 (has backup power)	200	2,100
Well 364	100	1,000
Total Well Pumping Capacity [gpm]		13,150
(a) Pump capacity and backup power information provided by City Staff.		

Groundwater within the Kings Sub-basin generally meets primary and secondary drinking water standards¹ for municipal water use. However, groundwater contamination has caused the City to close over 30 wells and to construct well-head treatment facilities to other wells. Wellhead treatment and blending for 1,2-dibromo-3-chloropropane; ethylene dibromide; 1,2,3-trichloropropane; volatile organic compounds (including trichloroethylene, tetrachloroethylene), nitrate, manganese, radon, chloride, and iron are required in some areas of the City. Nitrates are an important cause of groundwater contamination in the City. Nitrates come primarily from on-site wastewater treatment systems (septic tanks and leach fields) and fertilizer. Water contaminated with nitrate is difficult to treat. A transmission grid main (TGM) system on a half-mile grid decreases water quality variation between wells. While most wells discharge directly to the TGM system, there are some that are treated or blended first to address specific water quality issues. Twelve well sites City-wide have de-aeration facilities where groundwater is pumped to a tank to allow for de-aeration before entering the TGM (West Yost, 2014). **With wellhead treatment and blending, the water supplied by the City meets all the primary and secondary drinking water standards for municipal water use and is safe and healthy to consume.**

The West Area tends to have better ground water quality than the City as a whole (Dyett & Bhatia, 2014), with only a small portion of the West Area (near Highway 99) having nitrates in excess of the allowable limit

¹ EPA has established National Primary Drinking Water Regulations (NPDWRs) that set mandatory water quality standards for drinking water contaminants. These are enforceable standards called "maximum contaminant levels (MCLs) which are established to protect the public against consumption of drinking water contaminants that present a risk to human health. An MCL is the maximum allowable amount of a contaminant in drinking water which is delivered to the consumer.

In addition, EPA has established National Secondary Drinking Water Regulations (NSDWRs) that set non-mandatory water quality standards for 15 contaminants. EPA does not enforce these "secondary maximum contaminant levels" (SMCLs). They are established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor. These contaminants are not considered to present a risk to human health at the SMCL. (EPA website, <https://www.epa.gov/sdwa/secondary-drinking-water-standards-guidance-nuisance-chemicals>, accessed February 21, 2020)

of 45 mg/L as NO₃ or 10 mg/L as NO₃-N. Well 171-2 is the only well that requires treatment within the West Area, and uses granular activated carbon (GAC). The City proposes to construct 15 new wells as needed in the West Area to help meet buildout demand. In addition, nearly 3 miles of distribution pipelines are planned, including expansions to the TGM (West Yost, 2014).

Surface Water Facilities

Historically, about one third of the water supplied to the City comes from surface water from the Kings and San Joaquin river through rain and snow melt from the Sierra Nevada Mountains via the Friant-Kern Canal and the 4.5-mile-long Friant-Kern canal pipeline. Recent expansion of surface water treatment capacity has resulted in a larger share of City water supplies coming from surface water (53 percent in 2019).

Since mid-2004, the City has operated the North East Surface Water Treatment Facility (NESWTF) to treat this water to supplement the City's groundwater supplies. The NESWTF has a rated capacity of 30 million gallons per day (mgd) (Provost & Pritchard, 2016). In 2015, the City brought a new Water Storage and Treatment Facility (T3) online with a capacity of 4 mgd. The T3 was a temporary facility until the Southeast Surface Water Treatment Facility (SESWTF) began full operation in July 2018. The SESWTF has a rated capacity of 54 mgd and receives raw water from the Kings River through the thirteen-mile-long Kings River Pipeline. Expansion of the facility is planned to increase capacity to 80 mgd by 2021 (Fresno, 2019).

The City purchases surface water from the USBR's Central Valley Project (CVP) – Friant Division with an agreement of 60,000 acre-feet of water per year (19,551 million gallons per year). This agreement was renewed in 2010 with no expiration date (Provost & Pritchard, 2016). The surface water is imported to constructed recharge basins and used for "intentional recharge" to the groundwater basin.

In May of 1976 the City of Fresno and FID executed an agreement that stipulated that as land is annexed to the City, the City will receive a pro rata share of FID's Kings River entitlement. The agreement was specific that FID's USBR Class 2 water was excluded and that the City could not store allocated water behind Pine Flat Dam. The pro rata share is based on the area annexed to the City, and within FID's boundaries, as compared to the total area of FID's water service area (Provost & Pritchard, 2016). The historical and projected volume of water available from FID is shown in Table 4, which is copied from the City's 2015 UWMP Table 6-5.

Table 4. Projected Allocation of FID's Kings River Water for City of Fresno in Normal Years^(a)							
Year	2010^(b)	2015^(b)	2020	2025	2030	2035	2040
Projected City Allocation, %	25.41	25.94	27.23	28.51	29.80	31.09	32.37
Projected Water Quantity to City in Normal Year, af/yr	108,200	110,500	116,000	121,500	126,900	132,400	137,900
Actual Allocation for City, af	125,543	42,935	-	-	-	-	-
(a) Source: Table 6-5 from City of Fresno 2015 UWMP. According to communications with City staff in June 2020, the 2016 renegotiated contract with FID limits available allocation 29%, or approximately 123,540 AFY. This allocation limit will be addressed in the City's 2020 UWMP.							
(b) Allocations for 2010 and 2015 were provided by FID. Allocation for all other years is based on interpolation between 2015 and SOI buildout at 2056. With General Plan Update SOI buildout has shifted from 2025 to 2056 as reflected here.							

Recycled (Non-Potable) Water Facilities

Recycled water is wastewater that has been treated to be used again. Even though the treated water is clean, it is not used for potable water (drinking water). The City operates and maintains a recycled water system that disposes of the treated wastewater (called effluent) by using it for agricultural irrigation of non-food crops. The recycled water system is further discussed in the Sewer and Wastewater Treatment Section, below.

Distribution System Facilities

The City's potable water distribution facilities consist of the following components (West Yost, 2014):

- 4 Quasi-Pressure Zones
- 26 SCADA zones
- 4 Water Storage Tanks
- 8 Booster Pump Stations
- 1,740 miles of Transmission and Distribution Pipelines

The City's four quasi-pressure zones were created to control flow from higher elevation to lower elevation areas of the City. The pressure zones are separated by "gates" of closed or partially closed valves that are named after the street alignment they most closely follow: Shepherd Gate, Sierra Gate, and Highway 41 Gate. These quasi-pressure zones help to regulate minimum and maximum system pressures. The entire West Area falls within the Westside quasi-pressure zone.

The distribution system is monitored and controlled through a Supervisory Control and Data Acquisition (SCADA) system. The SCADA system is split into zones within the quasi-pressure zones where it controls the operation of the system. The City operates groundwater wells using an algorithm that calculates the average pressure over SCADA zones and determines which wells will operate based on cost-efficiency. Zones 1 and 5 serve the current West Area. These zones will need to be expanded, or new zones will be needed to cover the area at buildout.

Treated water storage is provided by four tanks, including 1.5 million gallons (MG) at the NESWTF, 3 MG at the intersection of Clovis Avenue and California Avenue (the Southeast Tank), 3MG at South Clovis Avenue near California Avenue (tank T3) and 3MG at the intersection of H Street and San Benito Street in Downtown (tank T4). There are no potable water storage facilities within the West Area.

There are eight booster pump stations (BPSs) located within the water distribution system. These are the NESWTF Tank BPS, SESWTF Tank BPS, Southeast Tank BPS, T3 BPS, T4 BPS, Booster Pump 1 (BP01), Booster Pump 2 (BP02), and Booster Pump 4 (BP04). Booster Pump 3 was budgeted, but never built. BP01 and BP02 boost water from SCADA Zone 8 to Zone 4. BP04 boosts water from Zone 11 to the eastside of Zone 14 through a dedicated 24-inch diameter pipeline and subsequent 12-, 14-, and 16-inch diameter pipelines. The characteristics of each of these pumping facilities are summarized in Table 5.

Table 5. Existing Booster Pump Station Design Characteristics^(a)						
Pump Station	Supply Source/ Location	Rated Capacity, mgd	Pumps Capacity, gpm/Power, Hp			
			Unit 1	Unit 2	Unit 3	Unit 4
NESWTF	NESWTF Tank	40	7,000/400	7,000/400	7,000/400	7,000/400
SESWTF	SESWTF Tank	80	13,889/700	13,889/700	13,889/700	13,889/700
SE BPS	Southeast Tank (T1)	7.2	1,000/50	2,000/100	2,000/100	1,000/50
T3 BPS	T3 Tank (Clovis Inter-tie)	6	2,085/100	2,085/100	-	-
T4 BPS	T4 Tank (H Street)	11	2,500/125	2,500/125	2,500/125	-
BP01	Shepherd/Sierra A	6.9	4,800/125	-	-	-
BP02	Shepherd/Sierra A	3.2	2,200/50	-	-	-
BP04	Highway 41	8.6	6,000/200	-	-	-
(a) Source: City of Fresno Water Master Plan, West Yost 2014 and City 2015 UWMP, Provost and Pritchard 2016, gpm = gallons per minute						

The City has approximately 9.2 million lineal feet (or about 1,740 miles) of water system pipelines. These pipelines generally range from 6 to 48 inches in diameter and are made up of a variety of materials including asbestos-cement, cast iron, concrete, copper, ductile iron, steel and polyvinyl chloride (PVC). Much of the City's potable water distribution system consists of old steel and cast-iron pipe, with over 20 percent of the pipes greater than 50 years old.

Major Water System Issues and Opportunities

Significant issues and opportunities are discussed below:

Future surface water supply for treatment and groundwater recharge is provided through the purchase and utilization of surface water allocations from the USBR at Friant Dam and FID from the Kings River. However, "Water Made Available" under the City's contracts with Reclamation and FID could affect the amount of surface water delivered.

Groundwater contamination has caused the City to close over 30 wells and to construct well-head treatment facilities to other wells. The city is committed to providing a safe water supply to its residents and businesses. It is possible that additional wells will have to be closed, which would reduce the City's water supply and some wells may need treatment facilities to continue to supply water into the distribution system.

More than 15 percent (42 wells out of 270) of the City's wells were constructed prior to 1960 (over 60 years ago) and almost 40 percent (98 of 270) were constructed prior to 1970 (over 50 years ago). It has been recommended that the wells be replaced after 45 to 50 years; thus, about 40 percent of the City's wells are overdue for replacement. Also, mechanical and electrical well component upgrades are required about every 20 to 25 years. Therefore, it is anticipated that significant well installations, replacements and upgrades may be needed to these systems in the near future to maintain existing groundwater supply capacity and meet increased water demands.

One of the greatest challenges facing the City's water distribution system is conveying water from areas of high water production to areas of high water demand. The water production and distribution system

historically has been a distributed system whereby groundwater wells would be constructed on an as-needed basis in the area where the water was needed. This distributed water system does not require large diameter transmission mains to convey water from one portion of the City to another.

SEWER AND WASTEWATER TREATMENT

The City is the sewer agency for the Fresno-Clovis Metropolitan Area (FCMA). The City also owns and operates the Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF) (Carollo, 2015) and the North Fresno Wastewater Treatment Facility (NRWTF). The City's current sanitary sewer collection system, the RWRF, and the NRWTF are discussed below.

Wastewater is composed of sanitary flow and Infiltration and Inflow (I&I).

- The sanitary flow is the actual wastewater that is generated in the homes and businesses that are connected to the sewer system. The sewer system (or collection system) is intended to collect and convey all the sanitary flow from the homes and businesses to the wastewater treatment plant. The sanitary flow is often called the Average Dry Weather Flow (ADWF) because it is the primary source of wastewater during dry weather.
- I&I is stormwater that enters the wastewater collection system through flooded maintenance holes; defects in pipes, pipe joints, and sewer structures; or as inflow through illicitly connected downspouts, area drains, and catch basins. Sewer systems are intended to prevent (or minimize) the I&I that enters the sewer system so that the stormwater does not cause the sewer capacities to be exceeded or result in treating stormwater at the wastewater treatment plant. The combined ADWF and I&I is called the peak wet weather flow (PWWF).

Collection System

Collection systems are sized, designed, and constructed to convey the PWWF to the City's wastewater treatment plants. The City's wastewater collection system has roughly 23,000 manholes, 15 lift stations, 1.7 force mains, and 1,500 miles of gravity sewer pipes (Carollo, 2015). Generally, the collection system flows from northeast to southwest across the entire City. In the West Area, wastewater generally flows from the north to the south. Clovis has four connections to the City's collection system. Each of these connections have flow meters that measure the flow from the Clovis sewer system into the City's sewer system. The City's collection system in and near the West Area is shown on Figure 3.

Fresno-Clovis Regional Wastewater Reclamation Facility (RWRF)

Wastewater treatment plant capacities are typically rated based on the ADWF flow. The RWRF has an ADWF capacity of 92 mgd (California Regional Water Quality Control Board, 2018), however it can treat the PWWF that occurs during storm events, which is higher than the ADWF but lasts for short duration (Carollo, 2010).

Wastewater from the West Area is treated at the RWRF, which has an average annual flow of approximately 56 mgd (Fresno, 2019). The RWRF receives and treats wastewater from three additional service areas, including: the City of Clovis, Pinedale County Water District, and Pinedale Public Utility District. The City of Clovis owns 9.3 mgd of ADWF capacity, while the remaining capacity belongs to the

City. The RWRF is located at the intersection of Jensen and Cornelia Streets in southwest Fresno and is shown on Figure 3.

The facility includes the following major processes/facilities:

- **Headworks and Grit Chambers** – The screening facilities remove the larger trash and grit from the raw wastewater. From the headworks, the wastewater is pumped into pipes that flow to the primary clarifiers.
- **Primary Clarifiers** – These six tanks allow finer sediment to settle out of the effluent and skim fats, oils and grease from the top. Wastewater leaving the settling tanks is called primary effluent and either flows to the aeration basins or is diverted for additional screening prior to tertiary treatment.
- **Aeration Basins** – In the aeration basins air is pumped into the wastewater to increase the growth of bacteria and other micro-organisms that consume the organic waste. From the aeration basins the partially treated wastewater flows to the Secondary Clarifiers.
- **Secondary Clarifiers** – The secondary clarifiers are basins where the bacteria and micro-organisms settle out of the wastewater. There are 16 secondary clarifiers. Effluent leaving the secondary clarifiers is called secondary effluent, and it flows to storage ponds. There is currently no disinfection system for the secondary effluent.
- **Membrane Bioreactor Tanks** – Primary effluent designated for tertiary treatment is passed through a fine screen and two pre-aeration basins before entering four membrane bioreactor (MBR) tanks. MBRs combine biological treatment with membrane filtration. Effluent leaving the MBRs flows to ultraviolet (UV) disinfection vessels.
- **UV Disinfection** – Effluent from the MBRs is exposed to UV light to inactivate pathogens. There are four in-vessel UV disinfection trains. After disinfection, effluent is called tertiary effluent and is sent to recycled water storage.
- **Storage Ponds** – There are 1,720 acres of storage ponds where the effluent percolates into the groundwater, evaporates, or is pumped for irrigation of non-food crops.
- **Solids Treatment** – The bacteria and micro-organisms that settle out of the wastewater in the clarifiers are called the solids. Flotation thickeners, digesters, and belt filter presses are used to extract liquid from the solids. The liquid is returned to the settling tanks. The remaining solids are then stored in silos to await disposal.

North Fresno Wastewater Treatment Facility

Located in the north east of the City of Fresno, the NFWTF is a tertiary level wastewater treatment facility that treats wastewater from the northern portion of the City. The plant was constructed with sequencing batch reactor (SBR) technology for secondary treatment, cloth media filtration for tertiary treatment, and sodium hypochlorite for disinfection. The plant produces recycled water at a quality that can be used for irrigation of facilities such as golf courses. The permitted capacity of the plant is 0.71 mgd average monthly flow and 1.07 mgd maximum daily flow. Treatment processes include a sequencing batch reactor for secondary treatment, cloth media filtration for tertiary treatment and sodium hypochlorite for disinfection. The tertiary treated wastewater is currently used for landscaping irrigation (Carollo 2010). Although the NFWTF does not serve the West Area directly, it contributes to the City's total wastewater treatment capacity.

Effluent Disposal and the Recycled Water System

The RWRF includes preliminary, primary, secondary, and tertiary treatment units with disinfection. Secondary treatment consists of three treatment trains with an annual average capacity of 87 mgd, consisting of 30 mgd for Train A and 57 mgd for Trains B and C combined. In 2017, a 5-mgd tertiary treatment system — the Tertiary Treatment and Disinfection Facility — was completed. The system can be expanded to 15 mgd and ultimately to 30 mgd (Water Systems Consulting Inc., 2021).

The City has three primary means of effluent disposal:

1. Undisinfected secondary effluent to on-site and off-site farmland for restricted irrigation
2. Undisinfected secondary effluent to percolation ponds
3. Disinfected tertiary effluent to the recycled water distribution system

The percolated effluent has been deemed equivalent to Title 22 tertiary treated water by the State Water Resources Control Board Division of Drinking Water (DDW). The City has been extracting this water for reuse in areas within and surrounding the RWRF, as well as to FID's canals, through an exchange agreement for delivery to FID agricultural customers.

The discharged effluent is disposed within the City boundaries and just southwest of the metropolitan area. The treated effluent percolation ponds are within the City's SOI and hydrologic sphere that benefit the City's overall regional water budget.

In addition to the RWRF the NFWTF serves the residential and commercial development and golf course in a portion of northeast Fresno. Since the treatment includes filtration and disinfection producing water quality that meets Title 22 tertiary criteria, it is suitable for additional future uses such as landscape irrigation, freeway irrigation, and many industrial water reuse opportunities.

Future Wastewater Flow and Effluent Disposal

The City has the capacity to produce more recycled water than it can currently use. The City will continue to expand the recycled water delivery system. The City's most recent Collection System Master Plan (Carollo, 2015) was based on land uses from the City's 2014 General Plan. At General Plan build-out, the City will encompass approximately 156.6 square miles and is projected to generate 202.4 mgd of future PWWF.

Sewer Collection System and WWTP Issues and Opportunities

Sewer Collection System and WWTP Issues and Opportunities are discussed below:

At build out, the City's wastewater flows are expected to increase substantially. As such, there are some areas of the existing collection system that cannot convey the build out PWWF within the established maximum flow to full flow (q/Q) ratio of 1.15. There are several localized driven improvements needed in the Downtown area (C-1 through C-7), and an additional upsizing for the pipeline along the City's southern border that feeds the RWRF (C-8, C-10).

Four development driven projects (D-26A, D-26B, D-27A, D-27B) are identified within or along the borders of the West Area. Approximately 3.6 miles of public and privately-owned (i.e., homeowner's responsibility) sewer system drainage lines are proposed to serve the West Area at buildout. The City does not currently collect supervisory control and data acquisition (SCADA) data for their lift stations. Were feasible, Collection System Master Plan (Carollo, 2015) recommends that upgrades be performed to allow for proper flow monitoring data acquisition, which will help confirm lift station capacity and monitor lift station performance.

Additional agricultural or urban water reuse in the future is a possibility with additional distribution and/or treatment facilities. The RWRF currently delivers approximately 4,700 AFY (Water Systems Consulting Inc., 2021) of undisinfected secondary effluent to growers of non-food crops within the City. An additional 1,400 acres could be served with an expansion of the conveyance system or the establishment of an exchange agreement with FID. Within the West Area, approximately 6.3 miles of new recycled water distribution pipelines are planned to be constructed by buildout.

The 2010 Recycled Water Master Plan outlines three locations for potential regional recharge areas. Also referenced as a "super recharge basin", one of the regional recharge areas is located partially within the West Area. If the basins are constructed, a portion of the recharge water could be made up of recycled water, provided there is at least 6 months travel time from the super recharge basin to the nearest drinking water well (Carollo, 2010).

STORMWATER AND FLOOD CONTROL

The stormwater and flood control systems are discussed below.

General Description and Summary of the Storm Drain System

The Fresno Metropolitan Flood Control District (FMFCD) has primary responsibility for managing the local stormwater flows for the City, as well as a large area beyond the City's boundaries. The City's stormwater drains to urban stormwater basins, where it is retained for groundwater recharge or pumped to local irrigation canals owned by Fresno Irrigation District (FID) and then conveyed away from the municipal area.

The City of Fresno is located in the alluvial fans of numerous foothill streams and creeks that drain the western slope of the Sierra Nevada foothills. These streams include Big Dry Creek, Alluvial Drain, Pup Creek, Dog Creek, Redbank Creek, Mud Creek, and Fancher Creek. The City has hot dry summers and cool mild winters, with temperatures of mid-90°F in the summer and 60°F in the winter. The precipitation averages 11 inches per year (FMFCD, 2019) and occurs almost entirely in the fall, winter, and spring.

Regionally, the City is protected by the U.S. Army Corps of Engineers' (Corps) Redbank-Fancher Creeks Flood Control Project. This project includes dams, detention basins, and levees designed to control upstream flood flows to approximately the 200-year storm event. Major facilities of this project include levee systems, the Big Dry Creek, Fancher Creek, and Redbank Creek dams and reservoirs, and the Alluvial Drain, Redbank Creek, Pup Creek, Fancher Creek, Big Dry Creek, Pup Creek Enterprise, and Dry Creek Extension detention basins.

Locally, the District's drainage system consists of approximately 680 miles of pipeline and more than 150 stormwater retention basins. The storm drainage pipeline system is designed to accept the peak flow rate of runoff from a two-year intensity storm event (a storm that has a 50 percent probability of occurring in any given year). When storm events occur that exceed the two-year intensity, ponding begins to occur in the streets until the pipeline system can remove the water. In the event of larger storms, "major storm breakover", the District has planned for streets or other conveyance to move the excess runoff to the basins (FMFCD, 2019).

The drainage system discharges to a system of irrigation canals, creeks, and the San Joaquin River, but is designed to retain and infiltrate as much runoff as possible into the underlying groundwater aquifer. The local drainage service area is subdivided into over 160 drainage areas, most of which drain to a retention basin. Drainage channels within the West Area include:

- East Branch Victoria Canal
- Epstein Canal
- Herndon Canal
- Minor Thornton Ditch
- Silvia Ditch
- Teague School Canal
- Tracy Ditch
- West Branch Victoria Canal
- Wheaton Ditch
- Austin Ditch

The West Area is drained by 15 drainage watersheds, six of which are fully within the West Area, and nine of which drain to areas immediately south or west of the West Area. There are seven existing retention basins within the West Area and an additional five that serve the West Area. An additional basin is planned to serve the drainage shed in the far southwestern corner of the West Area. The West Area's storm drain system is shown on Figure 4.

Floodplain Mapping

Flood Hazards in the City are described in the Federal Emergency Management Agency (FEMA)'s January 20, 2016 Flood Insurance Study but are largely based on hydraulic modeling performed in 1981 (FEMA, 2016). Although the West Area's northern boundary is very near the San Joaquin River, the area is not within a Special Flood Hazard Area. Local flooding can occur for events larger than a 2-year event, but runoff is generally contained in the streets or other breakover easements. Such flooding is not reflected on FEMA's maps.

Improvements to storm drainage facilities are accomplished either as a part of privately funded on-site developments or as a part of the master plan, funded by drainage fees. FMFCD maintains an on-going update to the system hydraulic model for flood control and prepares a capital improvement plan update every 5 years.

Climate Change

Climate change is likely to increase the volume, frequency, and intensity of events in the future in the Central Valley (DWR, 2017).

Stormwater and Flood Control Issues and Opportunities

Stormwater and Flood Control Issues and Opportunities are discussed below.

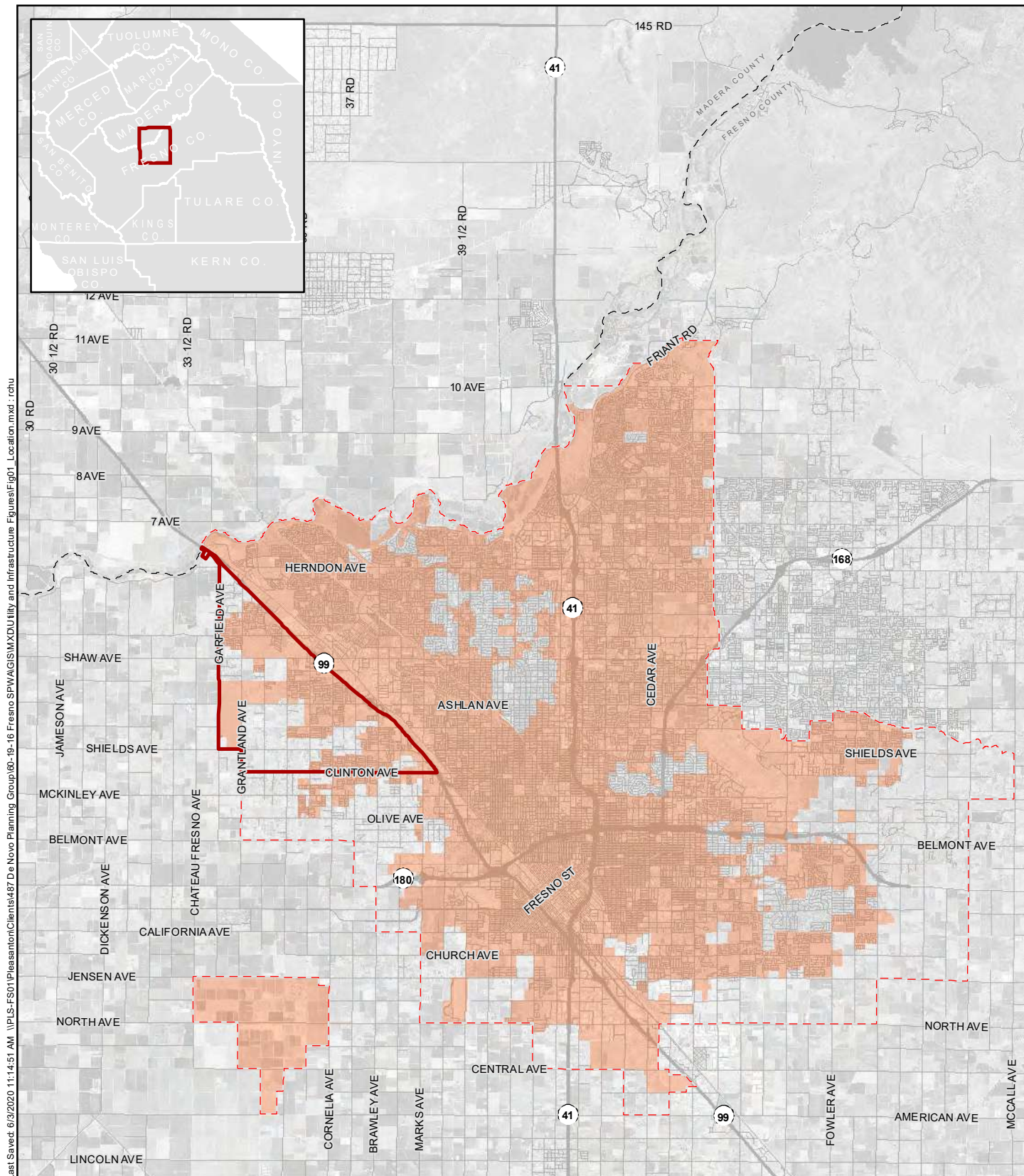
Stormwater represents a water supply opportunity that the City is currently leveraging with its extensive recharge basin system. Infiltration of captured stormwater allows groundwater to be recharged, improves overall water quality, and reduces the need for additional other water supplies.

Since the system is designed to handle approximately a two-year event within the underground drainage system, a significant amount of drainage is conveyed in the streets or through “major storm breakover” conveyances to detention/retention flood basins. This tends to result in shallow flooding over significant areas during larger events, but coupled with large regional flood control projects, the system can handle up to a 200-year, 30-day event.

There is significant storm drainage infrastructure remaining to be constructed to serve the West Area. About 32 miles of additional drainage pipelines is anticipated to be constructed to meet buildout needs.

REFERENCES

- California Regional Water Quality Control Board, Central Valley Region, 2019. *Waste Discharge Requirements for Cities of Fresno and Clovis Regional Wastewater Reclamation Facility – Fresno County*.
- Carollo, 2010. *City of Fresno Recycled Water Master Plan*. Carollo Engineers. December, 2010.
- Carollo, 2015. *City of Fresno Wastewater Collection System Master Plan Update*. Carollo Engineers. September, 2015.
- DWR, 2018. *Bulletin 118 Groundwater Basins Subject to Critical Conditions of Overdraft – Update based on 2018 Final Basin Boundary Modification*.
- Dyett & Bhatia, 2014. *Fresno General Plan*. Dyett & Bhatia. December 18, 2014.
- Fresno, 2017. *Fresno General Plan 2015-2023 Housing Element*. Revised January 2017.
- Fresno, 2018. *Better Process, Better Product from Undisinfected Secondary Effluent to Tertiary Disinfected Recycled Water Production and Distribution*. City of Fresno. July 19, 2018.
- Fresno, 2019. *Mayor’s Proposed Fiscal Year 2020 Budget City of Fresno California*. May 22, 2019.
- FMFCD, 2019. *Draft Annual Budget Fiscal Year Ending June 30, 2020*. Fresno Metropolitan Flood Control District. 2019. Pp. 4-5.
- Provost & Pritchard, 2016. *City of Fresno 2015 Urban Water Management Plan*. Provost & Pritchard Consulting Group. June 2016.
- Water Solutions, 2015. *Water Supply Augmentation Feasibility Report*.
- Water Systems Consulting, 2021. *City of Fresno Urban Water Management Plan*. Water Systems Consulting, Inc. September 2021
- West Yost, 2014. *City of Fresno Water Master Plan Draft*. West Yost Associates. August 2014.



Symbology

- Fresno West Area Boundary
- Fresno City Limits
- Sphere of Influence
- County Line

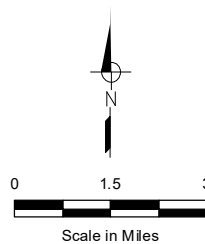





Figure 1
Location Map
Fresno SPWA




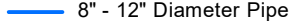




CITY OF FRESNO SPECIFIC PLAN OF THE WEST AREA

Figure 2 Water Facilities




LEGEND

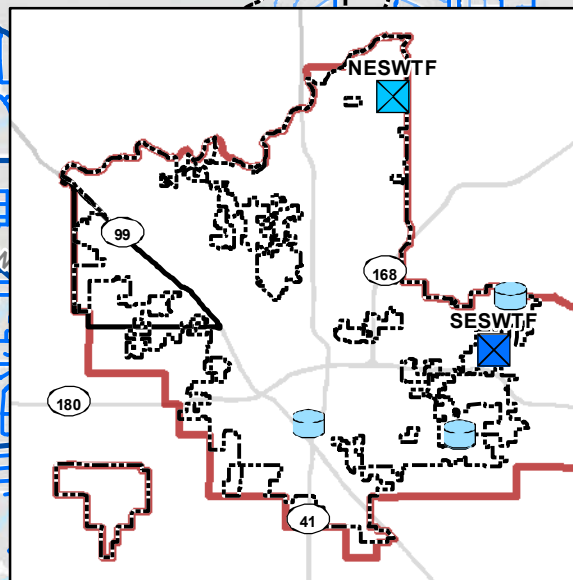
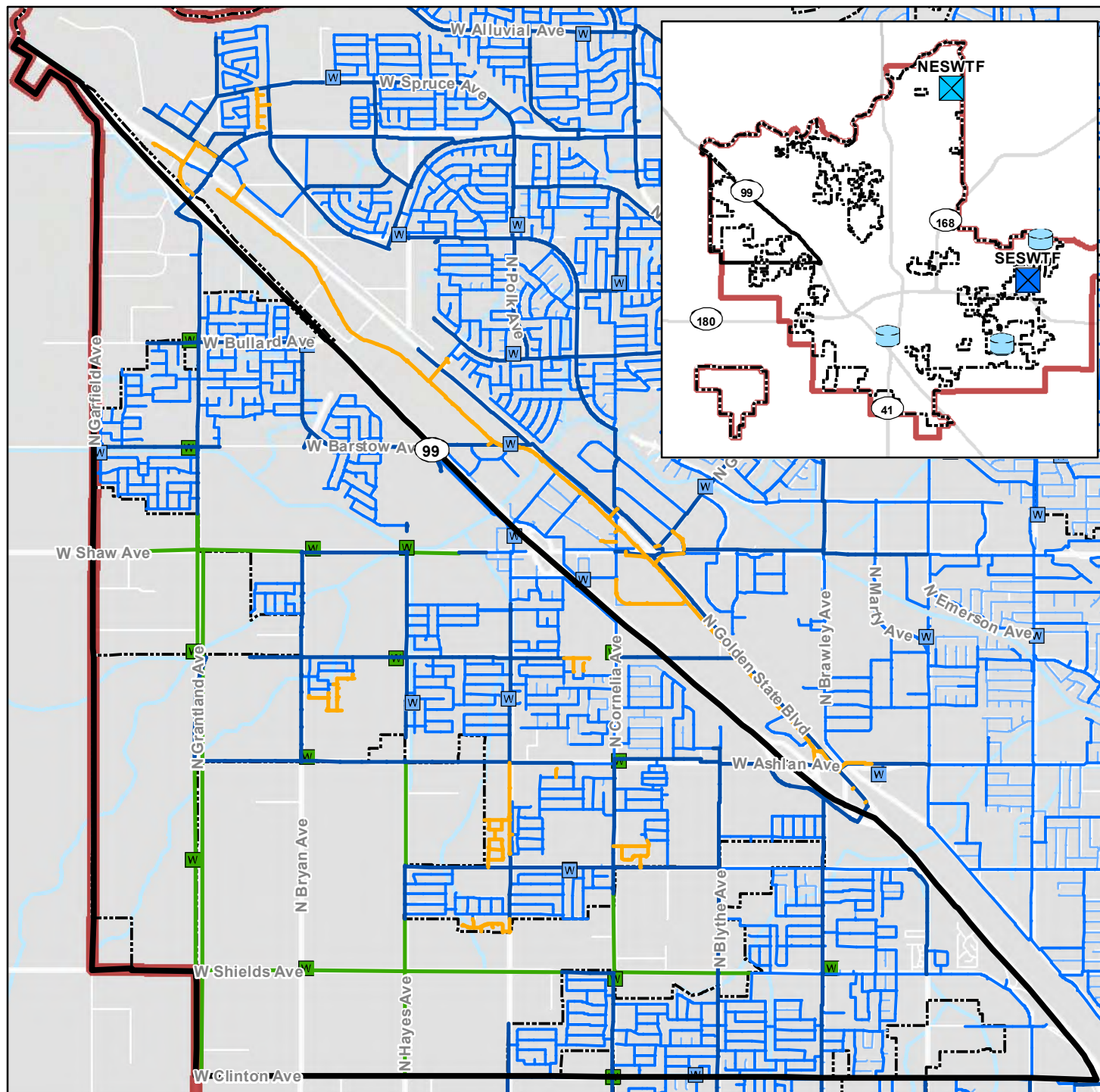
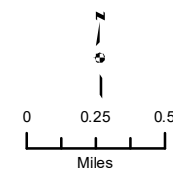
-  Specific Plan of the West Area Boundary
-  Fresno City Limits
-  Fresno Sphere of Influence (SOI)

Existing Water Facilities

-  Well
-  Tank
-  ≤ 6" Diameter Pipe
-  8" - 12" Diameter Pipe
-  > 12" Diameter Pipe
-  Abandoned Pipe
-  Northeast Surface Water Treatment Facility
-  Southeast Surface Water Treatment Facility

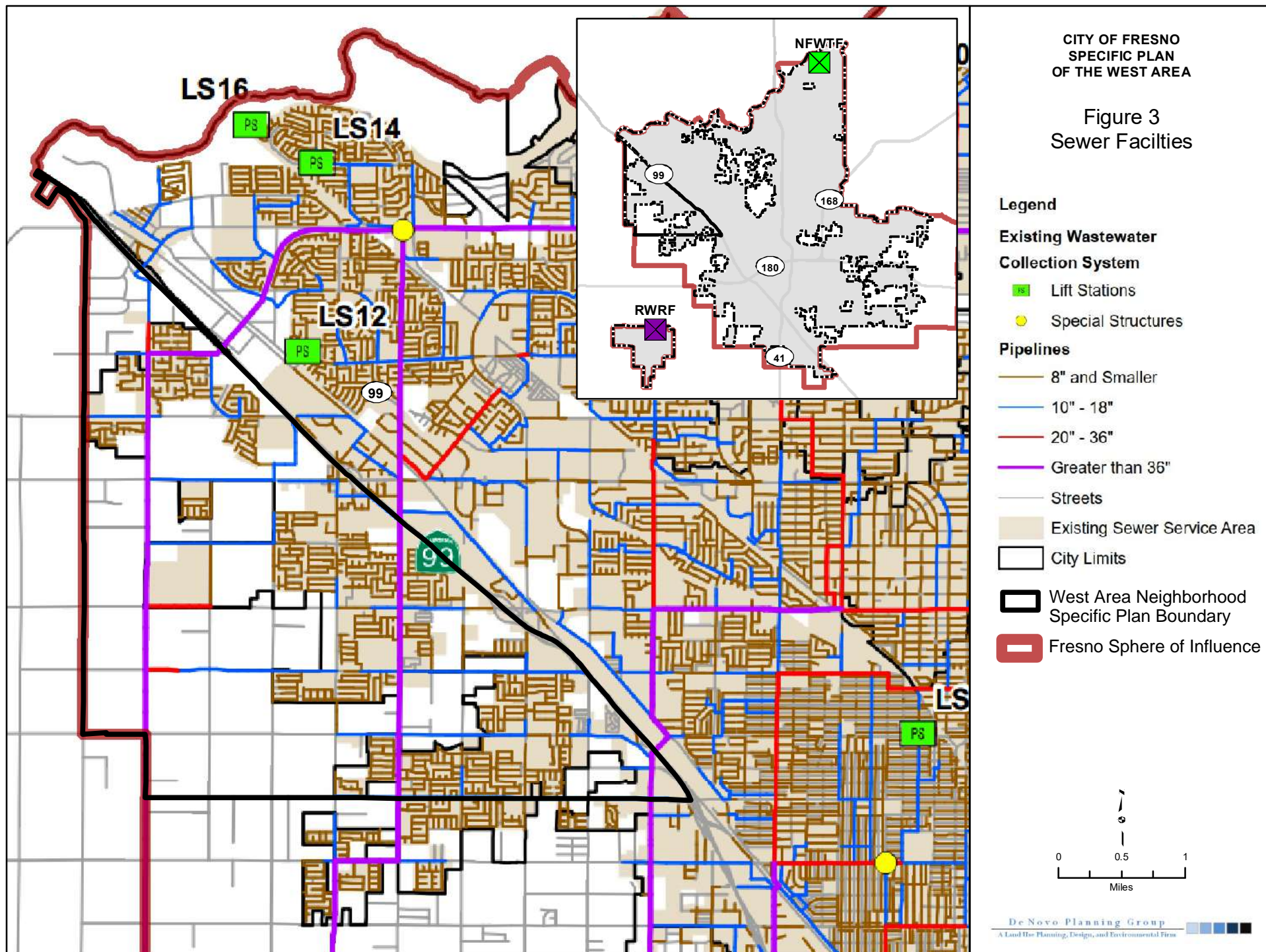
Future Water Facilities

-  Near-term Pipe Improvements
-  Transmission Main (2010 MP)
-  Future Well (2010 MP)



CITY OF FRESNO
SPECIFIC PLAN
OF THE WEST AREA

Figure 3
Sewer Facilities

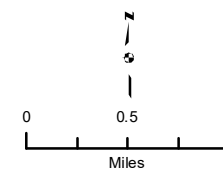


CITY OF FRESNO SPECIFIC PLAN OF THE WEST AREA

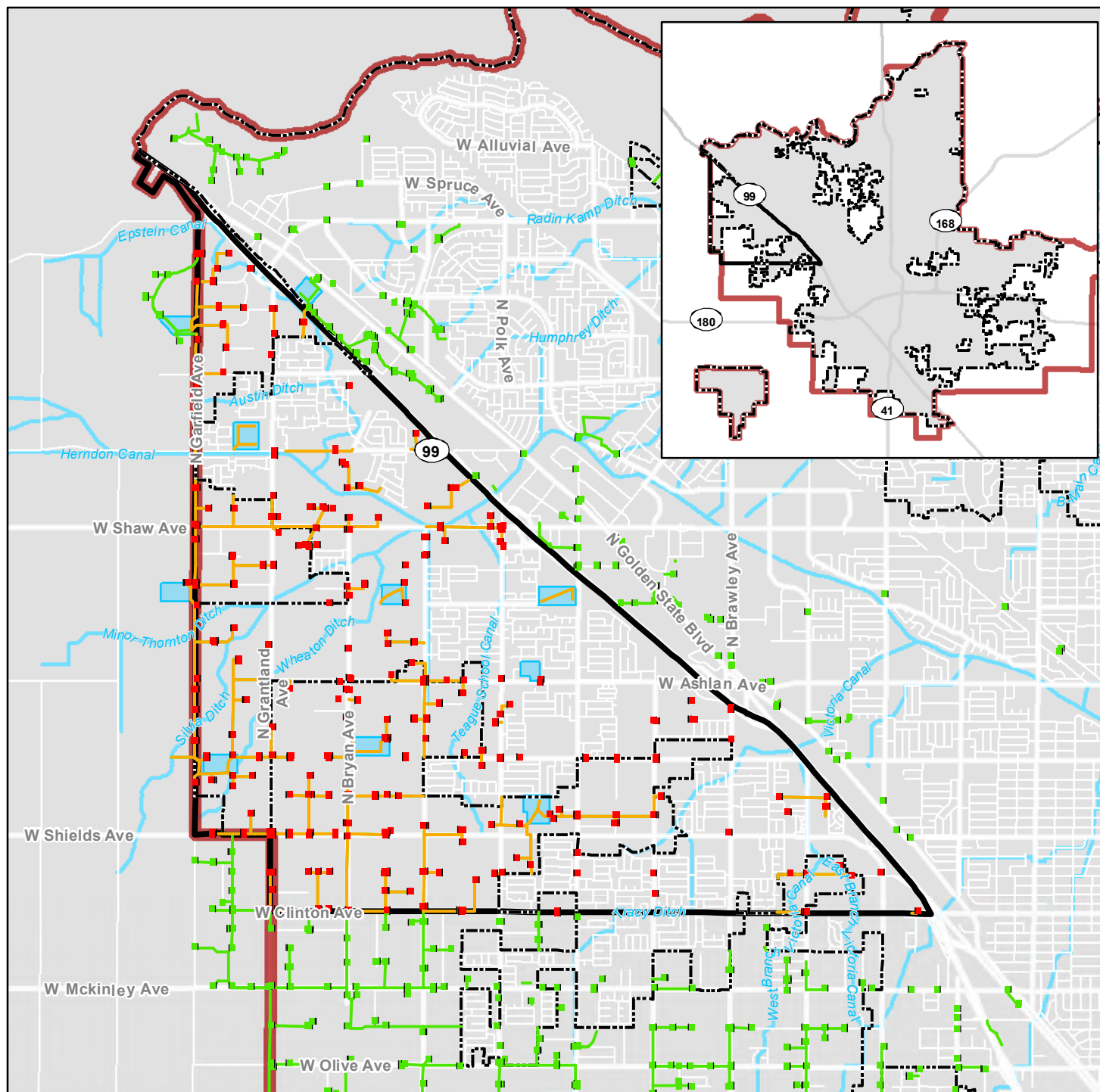
Figure 4 Storm Facilities

LEGEND

- Waterway
- Specific Plan of the West Area Boundary
- Fresno City Limits
- Fresno Sphere of Influence (SOI)
- Stormwater Basin
- Future Inlet Inside West Area
- Future Inlet Outside West Area
- Future Pipe Inside West Area
- Future Pipe Outside West Area



De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm



APPENDIX E

Water Supply Assessment

West Area Neighborhood Specific Plan Water Supply Assessment

PREPARED FOR

City of Fresno



PREPARED BY



West Area Neighborhood Specific Plan Water Supply Assessment

Prepared for

City of Fresno

Project No. 487-60-19-16



Project Manager: Jim P. Connell, PE

January 2022

Date

A handwritten signature in blue ink, reading "Elizabeth T. Drayer".

QA/QC Review: Elizabeth T. Drayer, PE

January 2022

Date

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LIST OF ACRONYMS AND ABBREVIATIONS

af/yr	Acre-Feet Per Year
CASGEM	California Statewide Groundwater Elevation Monitoring
CEQA	California Environmental Quality Act
City	City of Fresno
CVP	Central Valley Project
DWR	Department of Water Resources
EIR	Environmental Impact Report
FARGMP	Fresno Area Regional Groundwater Management Plan
FID	Fresno Irrigation District
FMFCD	Fresno Metropolitan Flood Control District
GSP	Groundwater Sustainability Plan
mgd	Million Gallons Per Day
NESWTF	Northeast Surface Water Treatment Facility
NFWRF	North Fresno Wastewater Reclamation Facility
NKGSA	North Kings Groundwater Sustainability Agency
Proposed Project	Proposed West Area Neighborhood Specific Plan
RWRF	Fresno/Clovis Regional Wastewater Reclamation Facility
SB 221	Senate Bill 221
SB 610	Senate Bill 610
SESWTF	Southeast Surface Water Treatment Facility
SGMA	Sustainable Groundwater Management Act
SOI	Sphere of Influence
SWRCB	State Water Resources Control Board
USBR	United States Bureau of Reclamation
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment
WSCP	Water Shortage Contingency Plan

West Area Neighborhood Specific Plan Water Supply Assessment

EXECUTIVE SUMMARY

Purpose of Water Supply Assessment

The purpose of this Water Supply Assessment (WSA) is to perform the evaluation required by California Water Code sections 10910 through 10915, as established by Senate Bill 610 (SB 610), in connection with the City of Fresno's (City) proposed West Area Neighborhood Specific Plan (Proposed Project), and to support the Environmental Impact Report (EIR) being prepared for the Proposed Project. This WSA evaluates the adequacy of the City's total projected water supplies, including existing water supplies and future planned water supplies, to meet the City's existing and projected future water demands, including those future water demands associated with the Proposed Project, under all hydrologic conditions (Normal Years, Single Dry Years, and Multiple Dry Years).

Proposed Project Overview

The Proposed Project is a Specific Plan that includes residential land use at various densities, commercial areas, various public facilities, parks, and light industrial land uses. The Proposed Project area encompasses approximately 7,077 acres within the City of Fresno's Sphere of Influence (SOI) and resides partially within the City Limits. The Proposed Project is located west of State Route 99. It is bounded on the south by West Clinton Avenue and to the west by Grantland and Garfield Avenues. The northern boundary of the Proposed Project is also south of the San Joaquin River.

The Proposed Project meets the definition of a "Project" per California Water Code sections 10910 through 10915, as established by SB 610 in 2001, thus requiring the preparation of this WSA (see Section 3.1 below).

Water Demands and Supply Availability

Projected water demands for buildout of the Proposed Project total approximately 23,349 acre-feet per year (af/yr). This projected water demand is 381 af/yr less than the water demand projected for the Plan Area under the General Plan land use. The water demand for the land use documented in the General Plan was included in the City's 2020 Urban Water Management Plan (UWMP) as part of the general projections for future population and water demand growth.

It is anticipated that the Proposed Project, if approved by the City, would be served from the City's existing and future portfolio of water supplies. The City currently receives water from four water supply sources:

- Surface water that is delivered to the city by two separate sources:
 - Fresno Irrigation District (FID) Agreement for Kings River water.
 - United States Bureau of Reclamation (USBR) Central Valley Project (CVP) Friant Division Contract for San Joaquin River water.
- Groundwater that is pumped from groundwater wells located within the City.
- Recycled water that is treated at the Fresno/Clovis Regional Wastewater Reclamation Facility (RWRF) and North Fresno Wastewater Reclamation Facility (NFWRF). This water is planned to be used for non-potable uses.

The City has always met system water demand, regardless of regional hydrology. The City expects reductions from normal-year supply during single or multiple dry years but is still projected to meet demands. In the event of a water shortage, the City would implement demand reduction measures as outlined in its Water Shortage Contingency Plan, which would apply to all customers, including those within the Proposed Project area. The projected available water supplies and water demands (including the Proposed Project) through 2045 are shown in Table ES-1. As shown in Table ES-1, available water supplies are more than sufficient to meet the projected water demands for the next 20 years.

Pursuant to Water Code section 10910(c)(4), and based on the technical analyses described in this Water Supply Assessment, this Water Supply Assessment demonstrates that the City's existing and additional planned future water supplies are sufficient to meet the City's existing and projected future water demands, including those future water demands associated with the Proposed Project, to the year 2045 under all hydrologic conditions (including Normal Years, Single Dry Years, and Multiple Dry Years).

Table ES-1. City of Fresno Water Demand Versus Water Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years, af/yr						
Hydrologic Condition		2025	2030	2035	2040	2045
Normal Year^(a)						
Available Water Supply		329,030	341,140	346,610	352,000	357,330
Total Water Demand		199,204	212,756	222,310	231,876	241,447
Potential Surplus (Deficit)		129,826	128,384	124,300	120,124	115,883
Percent Shortfall of Demand		-	-	-	-	-
Single Dry Year^(b)						
Available Water Supply		189,852	195,392	200,862	206,252	211,582
Total Water Demand		164,092	176,132	184,174	192,228	200,287
Potential Surplus (Deficit)		25,760	19,260	16,688	14,024	11,295
Percent Shortfall of Demand		-	-	-	-	-
Multiple Dry Years^(c)						
Multiple Dry Year 1	Available Water Supply	273,725	279,265	284,735	290,125	295,455
	Total Water Demand	199,204	212,756	222,310	231,876	241,447
	Potential Surplus (Deficit)	74,521	66,509	62,425	58,249	54,008
	Percent Shortfall of Demand	-	-	-	-	-
Multiple Dry Year 2	Available Water Supply	274,626	280,166	285,636	291,026	296,356
	Total Water Demand	199,204	212,756	222,310	231,876	241,447
	Potential Surplus (Deficit)	75,422	67,410	63,326	59,150	54,909
	Percent Shortfall of Demand	-	-	-	-	-

Table ES-1. City of Fresno Water Demand Versus Water Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years, af/yr						
Hydrologic Condition		2025	2030	2035	2040	2045
Multiple Dry Year 3	Available Water Supply	217,568	223,108	228,578	233,968	239,298
	Total Water Demand	190,267	193,637	197,736	201,753	205,708
	Potential Surplus (Deficit)	27,301	29,471	30,842	32,215	33,590
	Percent Shortfall of Demand	-	-	-	-	-
Multiple Dry Year 4	Available Water Supply	189,852	195,392	200,862	206,252	211,582
	Total Water Demand	162,551	165,920	170,020	174,036	177,992
	Potential Surplus (Deficit)	27,301	29,472	30,842	32,216	33,590
	Percent Shortfall of Demand	-	-	-	-	-
Multiple Dry Year 5	Available Water Supply	314,840	320,380	325,850	331,240	336,570
	Total Water Demand	199,204	212,756	222,310	231,876	241,447
	Potential Surplus (Deficit)	115,636	107,624	103,540	99,364	95,123
	Percent Shortfall of Demand	-	-	-	-	-
(a) From the City of Fresno 2020 UWMP, Table 7-1. (b) From the City of Fresno 2020 UWMP, Table 7-2. (c) From the City of Fresno 2020 UWMP, Table 7-3.						

Water Supply Assessment Approval Process

The Fresno City Council must approve this WSA at a regular or special meeting. Furthermore, the City must include this WSA in the Draft EIR that is being prepared for the Proposed Project.

In addition, SB 221 applies to residential subdivisions of over 500 dwelling units and requires that the water supplier provide a written verification that the water supply for the project is sufficient, prior to issuance of the final permits. Because the Proposed Project includes up to 57,891 residential dwelling units, it is subject to the requirements of SB 221 (Government Code section 66473.7).

1.0 INTRODUCTION

1.1 Legal Requirement for Water Supply Assessment

California Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221) amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 were companion measures which sought to promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects. The purpose of this coordination is to ensure that prudent water supply planning has been conducted, and that planned water supplies are adequate to meet existing demands, anticipated demands from approved projects and tentative maps, and the demands of proposed projects.

SB 610 amended California Water Code sections 10910 through 10915 (inclusive) to require land use led agencies to:

- Identify any public water purveyor that may supply water for a proposed development project; and
- Request a WSA from the identified water purveyor.

The purpose of the WSA is to demonstrate the sufficiency of the purveyor's water supplies to satisfy the water demands of the proposed project, while still meeting the water purveyor's existing and planned future uses. Water Code sections 10910 through 10915 delineate the specific information that must be included in the WSA.

1.2 Need for and Purpose of Water Supply Assessment

The purpose of this WSA is to perform the evaluation required by Water Code sections 10910 through 10915 in connection with the City's Proposed Project. It is not to reserve water, or to function as a "will serve" letter or any other form of commitment to supply water (see Water Code section 10914). The provision of water service will continue to be undertaken in a manner consistent with applicable City policies and procedures, consistent with existing law.

1.3 Water Supply Assessment Preparation, Format and Organization

The format of this WSA is intended to follow Water Code sections 10910 through 10915 to clearly delineate compliance with the specific requirements for a WSA. The WSA includes the following sections:

- Section 1: Introduction
- Section 2: Description of Proposed Project
- Section 3: Required Determinations
- Section 4: City of Fresno Water Service Area
- Section 5: City of Fresno Water Demands
- Section 6: City of Fresno Water Supplies

- Section 7: Determination of Water Supply Sufficiency Based on the Requirements of SB 610
- Section 8: Water Supply Assessment Approval Process
- Section 9: References

Relevant citations of Water Code sections 10910 through 10915 are included throughout this WSA in *italics* to demonstrate compliance with the specific requirements of SB 610.

2.0 DESCRIPTION OF PROPOSED PROJECT

2.1 Proposed Project Location

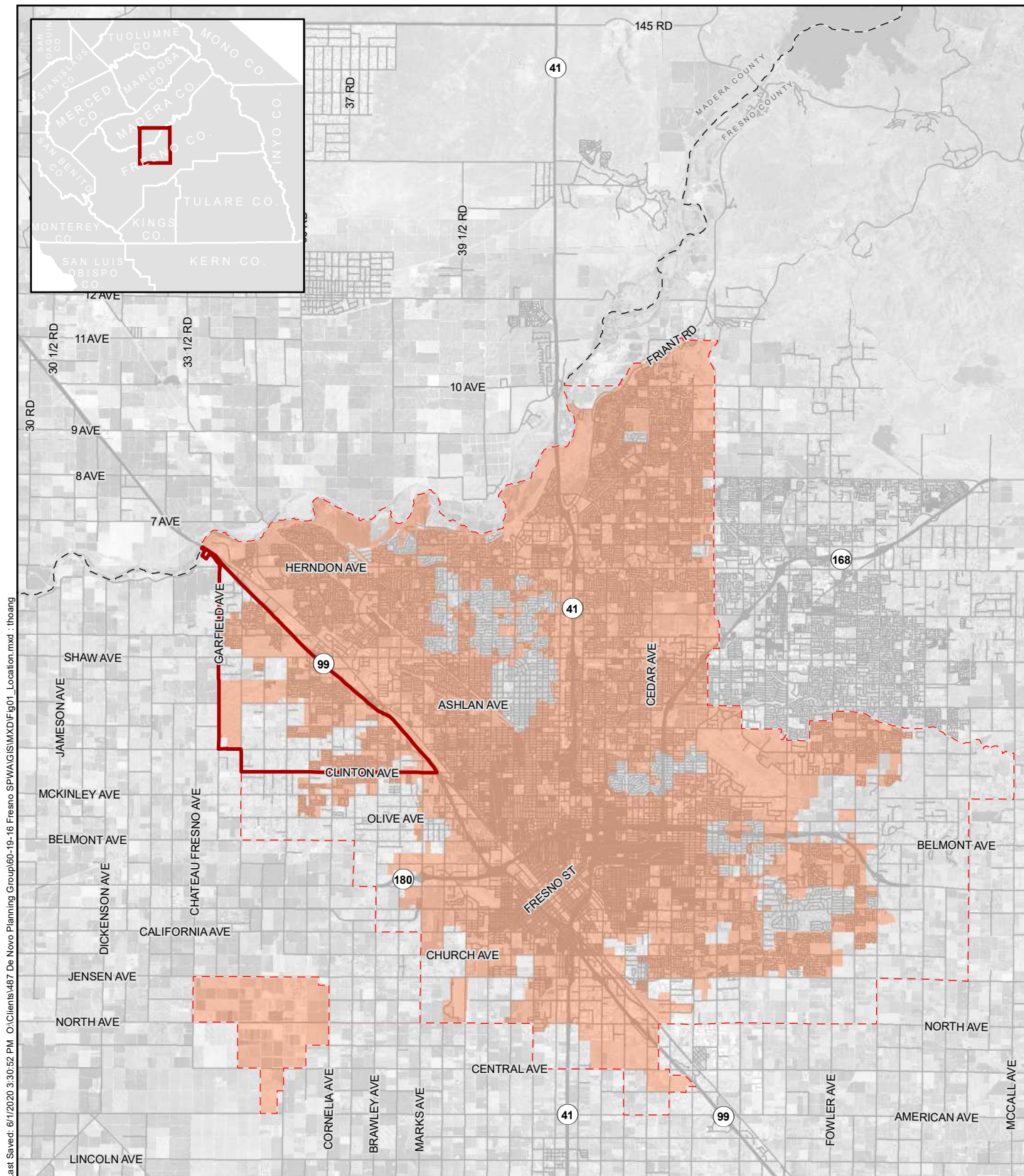
The Proposed Project is located within the City's SOI and partially within the City Limits. The Proposed Project area encompasses approximately 7,077 acres of land, with approximately 63 percent residing within the City Limits. The Proposed Project is located west of State Route 99. It is bounded on the south by West Clinton Avenue, and to the west by Grantland and Garfield Avenues. The Plan Area includes the southwest portion of the unincorporated community of Highway City adjacent to State Route 99. The Proposed Project is also south of the San Joaquin River. Figure 2-1 depicts the vicinity of the Proposed Project.

Currently, the Proposed Project area consists of both Urban and Built-Up land, farmland, or rural residential lots. The Proposed Project has approximately 3,070 acres of Urban and Built-Up land, 286 acres of Farmland of Statewide Importance, 509 acres of Unique Farmland, 1,563 acres of Farmland of Local Importance, and 1,650 acres of Vacant or Disturbed land and Rural Residential land in the Plan Area (De Novo, 2019).

The Proposed Project seeks to provide for the orderly and consistent development that promotes and establishes the West Area as a complete neighborhood with enhanced transportation infrastructure, development of core commercial centers, creation of additional parkland, and encouraging the development of a diverse housing stock. To fulfill this objective the Proposed Project will develop the Plan area for a wide variety of land uses including residential, commercial, office space, parks, and public facilities, as well as the required transportation and utility improvements (De Novo, 2019).

2.2 Proposed Land Uses and Unit Factors

The Proposed project land use plan utilizes the City's existing 2014 General Plan (Dyett & Bhatia 2014) land use designations to maintain or re-designate some parcels in the West Area. However, the land uses in the General Plan don't have assigned water demand factors. To remedy this, land uses from the General Plan were matched to the City's 2014 Water Master Plan (West Yost, 2014) land uses, which have water demand factors, as shown in Table 2-1. These water use factors were derived from existing water consumption by existing land use in the 2007 Metropolitan Water Resources Management Plan Update Phase 1 Baseline System Characterization (West Yost, 2007). The 2025-unit water demand factors were selected for the calculation of water demands, because they are more representative of future demands than the other unit factors from the Master Plan.



Symbology

- Fresno West Area Boundary
- Fresno City Limits
- Sphere of Influence
- County Line

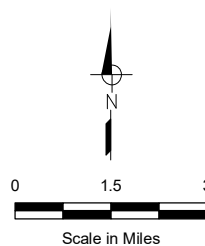


Figure 2-1
Location Map

Fresno West Area
Neighborhood Specific
Plan

Table 2-1. Land Use and Unit Factors for the Proposed Project

General Plan Land Use Designation ^(a)	Water Master Plan Land Use ^(b)	Water Master Plan 2025 Unit Factor, af/ac/yr ^(b)
Low, Medium Low, and Medium	Single Family Residential	3.2
Medium High, Urban Neighborhood, High, and Mixed Use	Multi-Family Residential ^(c)	6.2
Office, Business Park, Mixed Use, and Public Facilities	Commercial/Institutional ^(c)	1.9
Light Industrial	Industrial	1.9
Pocket Park, Neighborhood Park, Community Park, and Regional Park	Landscape Irrigation	2.9
Open Space and Ponding Basin	Open Space ^(d)	-
<p>(a) From Notice of Preparation for the Specific Plan of the West Area (De Novo, 2019).</p> <p>(b) City of Fresno 2014 Water Master Plan, Table 3-5.</p> <p>(c) Mixed Use land use included in both Multi-Family Residential and Commercial/Industrial Land Uses to account for multiple levels of development.</p> <p>(d) Open Space does not have a water demands so it does not have a unit demand factor.</p>		

2.3 Projected Water Demand

2.3.1 Acreage and Assumptions

The Proposed Project will be a mixed-use development that will include various densities of residential units, commercial areas, various public facilities, parks, and light industrial land uses. The Proposed Project will include up to 57,891 Residential and Mixed-Use dwelling units, 319.1 acres of Commercial, 177.58 acres of Employment, up to 434.56 acres of Mixed-Use, 248.39 acres of Open Space, and 389.06 acres of Public Facilities. The Proposed Project land use differs from the General Plan land use for the Plan Area and is shown in detail in Table 2-2 For Mixed Use it was assumed for both the General Plan and Proposed Project that the area was both Multi-Family Residential and Commercial to provide a conservative estimate of water demands.

Losses were assumed to be 8 percent of total water deliveries, based on raw and potable water use data from the City's 2020 UWMP (UWMP, 2020).

Land uses and water demands for the Plan Area under the General Plan and for the Proposed Project are summarized in Table 2-2. The proposed land uses for the Plan Area under the General Plan are shown on Figure 2-2 and the proposed land uses for the Proposed Project are shown in Figure 2-3.

2.3.2 Water Demand Calculations

Based on the water use factors described above, the projected water demand at buildout of the Proposed Project is shown in Table 2-2 The total water demand for the Proposed Project at buildout is projected to be approximately 23,349 af/yr. The Proposed Project is projected to use 381 af/yr less than the water demand projected using General Plan land uses for the Plan Area.

Table 2-2. Land Uses and Projected Demands for the Proposed Project

Land Use	General Plan, Acres ^(a,b)	General Plan Demand ac/yr ^(c)	Specific Plan, acres ^(a,b)	Specific Plan Demand, ac/yr ^(c)
Low	817.79	2,616.9	516.57	1,653.0
Medium Low	825.97	2,643.1	1,456.98	4,662.3
Medium	2,357.00	7,542.4	2,065.37	6,609.2
Medium High	349.42	2,166.4	275.55	1,708.4
Urban Neighborhood	428.61	2,657.4	171.64	1,064.2
High	65.76	407.7	51.33	318.2
Subtotal - Residential	4,844.55	18,033.9	4,537.44	16,015.3
Community	138.66	263.5	52.74	100.2
Recreation	41.34	78.5	41.34	78.5
General	143.21	272.1	220.78	419.5
Regional	0.00	0.0	4.24	8.1
Subtotal - Commercial	323.21	614.1	319.10	606.3
Office	7.51	14.3	88.81	168.7
Business Park	77.11	146.5	56.02	106.4
Light Industrial	33.13	0.0	32.75	0.0
Subtotal - Employment	117.75	160.8	177.58	275.1
Neighborhood	0.00	0.0	255.95	2,073.2
Corridor/Center	106.19	860.1	96.00	777.6
Regional	144.72	1,172.2	82.61	669.1
Subtotal - Mixed Use	250.91	2,032.3	434.56	3,519.9
Pocket Park	2.45	7.1	1.55	4.5
Neighborhood Park	83.71	242.8	86.26	250.2
Community Park	38.18	110.7	24.20	70.2
Regional Park	0.00	0.0	0.00	0.0
Open Space	6.79	0.0	6.79	0.0
Ponding Basin	107.18	0.0	129.59	0.0
Subtotal - Open Space	238.31	360.6	248.39	324.9
Public Facility	21.78	41.4	27.42	52.1
Church	11.59	22.0	55.80	106.0
Special School	18.38	34.9	18.38	34.9
Elementary School	81.82	155.5	91.82	174.5

Table 2-2. Land Uses and Projected Demands for the Proposed Project

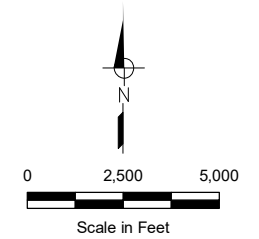
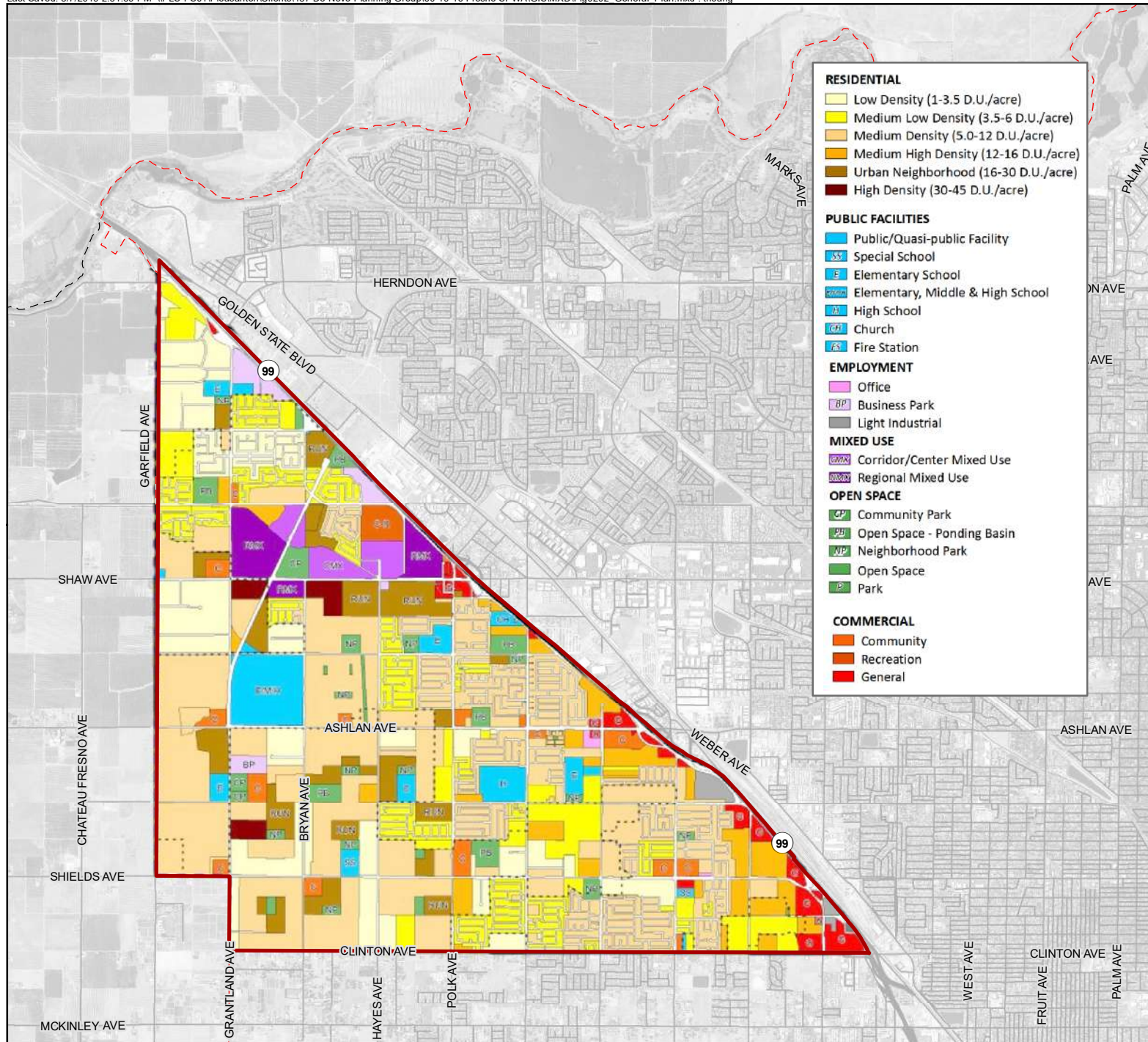
Land Use	General Plan, Acres ^(a,b)	General Plan Demand ac/yr ^(c)	Specific Plan, acres ^(a,b)	Specific Plan Demand, ac/yr ^(c)
Elementary/Middle/ High School	145.37	276.2	145.37	276.2
High School	46.95	89.2	46.95	89.2
Fire Station	5.52	10.5	3.32	6.3
Subtotal - Public Facilities	331.41	629.7	389.06	739.2
Losses ^(d)	-	1,898.4	-	1,867.9
Total	6,106.14	23,729.8	6,106.13	23,348.6

(a) From Notice of Preparation for the Specific Plan of the West Area (De Novo, 2019), Table 1.

(b) Totals and Subtotals may differ from the Notice of Preparation due to rounding.

(c) Demands calculated using unit demand factors from Table 2-1.

(d) Losses are assumed to be 8 percent of water use. Based on the City of Fresno 2020 UWMP, Table 4-1 and Section 4.2.2.



Symbology

- Fresno West Area Boundary
- Sphere of Influence
- County Line

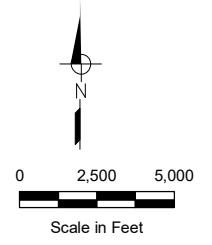
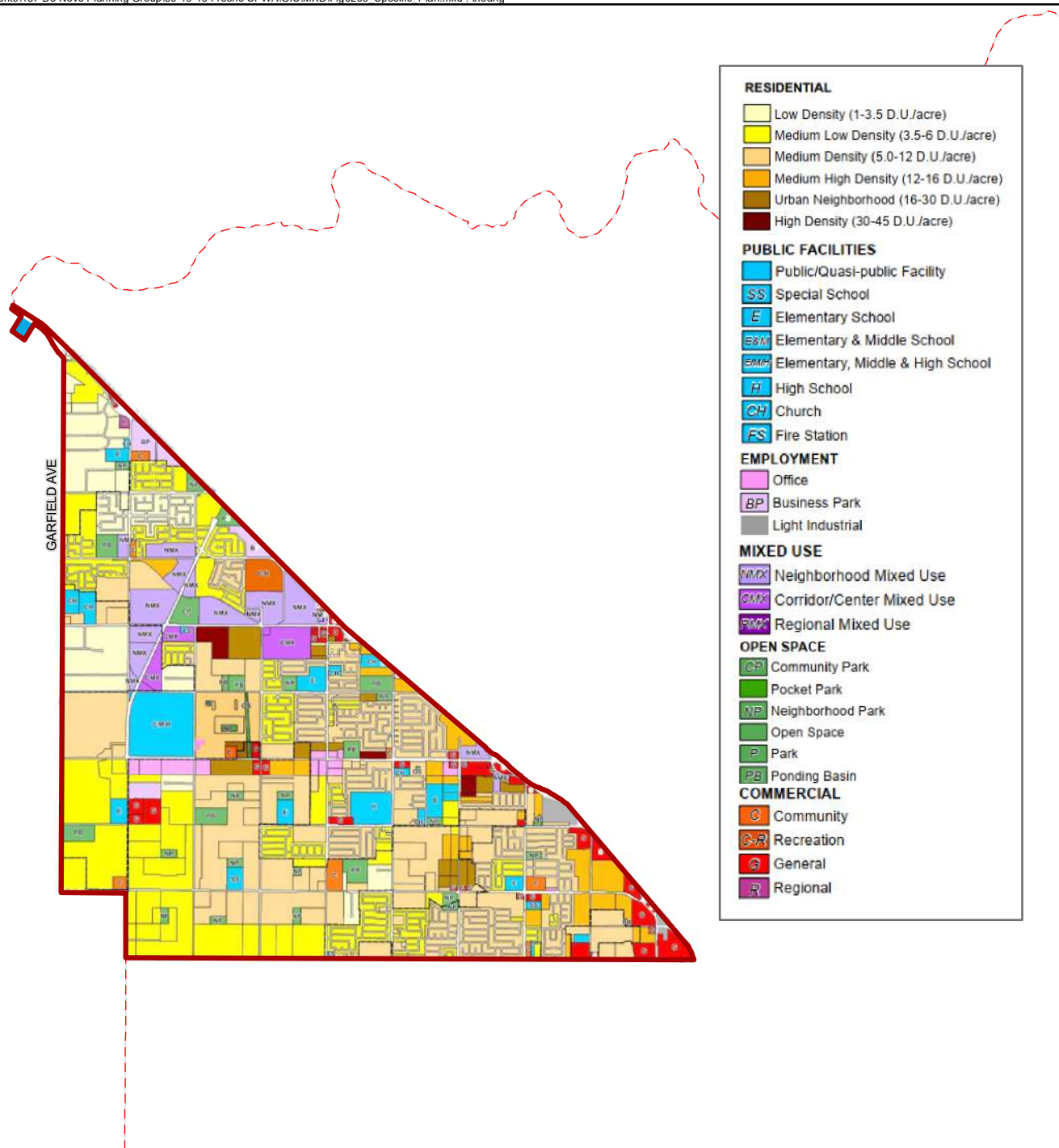
Notes:

- General Plan land uses and land use type for the West Area come from Figure 4 in the Specific Plan of the West Area, prepared by De Novo, 2019.



Figure 2-2
General Plan Land Uses

Fresno West Area
Neighborhood Specific Plan



- Symbology**
- Fresno West Area Boundary
 - Sphere of Influence
 - County Line

Notes:
 1. Specific Plan land uses and land use type for the West Area come from Figure 6 in the Specific Plan of the West Area, prepared by De Novo, 2019.



Figure 2-3
Specific Plan Land Uses
 Fresno West Area
 Neighborhood Specific Plan

3.0 REQUIRED DETERMINATIONS

3.1 Does SB 610 apply to the Proposed Project?

10910 (a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

10912 (a) "Project" means any of the following:

- (1) A proposed residential development of more than 500 dwelling units.*
- (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.*
- (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.*
- (4) A proposed hotel or motel, or both, having more than 500 rooms.*
- (5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.*
- (6) A mixed-use project that includes one or more of the projects specified in this subdivision.*
- (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.*

Based on the following facts, SB 610 does apply to the Proposed Project.

- The City of Fresno has determined that the Proposed Project is subject to the California Environmental Quality Act (CEQA) and that an EIR is required.
- The Proposed Project includes residential, commercial, and light industrial land uses, and therefore is a mixed-use project. The Proposed Project includes up to 57,891 residential dwelling units, up to 52,810,184 sf of retail, and up to 3,868,564 sf of commercial office buildings therefore meets the definition of a "Project" as specified in Water Code section 10912(a) paragraph (1), paragraph (3), and possibly others. The Proposed Project therefore meets the definition of a "Project" as specified in Water Code section 10912(a) paragraph (6) for mixed-use projects.

The Proposed Project has not been the subject of a previously adopted WSA and has not been included in an adopted WSA for a larger project. Therefore, according to Water Code section 10910(a), a WSA is required for the Proposed Project.

3.2 Who is the Identified Public Water System?

10910(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined by Section 10912, that may supply water for the project

10912 (c) "Public water system" means a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections.

As shown on Figure 2-1, the majority of the Proposed Project is located within the City of Fresno's Limits. The City's water system service area includes most areas within the City Limits. Therefore, the City is the identified public water system for the Proposed Project.

3.3 Does the City have an adopted Urban Water Management Plan (UWMP) and does the UWMP include the projected water demand for the Proposed Project?

10910(c)(1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).

The City's most recently adopted UWMP was adopted by the Fresno City Council in July 2021 and is incorporated by reference into this WSA¹. The City's 2020 UWMP included water demand projections for current water demands within the City (baseline demand) and anticipated water demands associated with future development projects and planning areas within the City's General Plan SOI through 2045.

Water demands for the Proposed Project are not specifically designated in the City's 2020 UWMP. However, the General Plan planning area (the SOI) was included in the UWMP and the Specific Plan is the implementation of the General Plan with slightly different land use types, so the Proposed Project is included in the City's 2020 UWMP. The City's ability to meet the projected water demands for the Proposed Project is described in Section 7 of this WSA.

¹ City of Fresno 2020 Urban Water Management Plan, prepared by Water Systems Consulting, Inc., July 2021.

4.0 CITY OF FRESNO WATER SERVICE AREA

4.1 Water Service Area

The City of Fresno is located in San Joaquin Valley in Fresno County, California, and was incorporated in 1885. The existing incorporated area of the City encompasses approximately 115 square miles (2020 UWMP). The City's General Plan includes the City's SOI, the area outside of the City limits that the City expects to annex and urbanize in the future.

With a few exceptions, the City's water service area is coterminous with the City Limits. As future developments within the SOI, but outside the City Limits, are approved, they will be annexed into the City and served by the City water system. Figure 2-1 illustrates the current City Limits and the SOI.

4.2 Population

The City experienced rapid growth since it was founded by the Central Pacific Railroad in 1872 up through the mid-1990s, when the City's annual growth rate was typically greater than 2 percent. From 1995 to 2015, the annual growth rate has decreased to an average of 1.3 percent, and since 2015, the rate has not surpassed 1.0 percent.

The population served by the City Water Division is slightly higher than the City's population after adding unincorporated areas served by the City and removing areas within the City limits served by private water companies, special districts, or private wells. The City acquired County service areas and facilities in 1989, which increased the service area population to slightly greater than the City population since 1990.

According to the City's Planning and Development Department, the City's water service area population is anticipated to continue to grow along with the City, with some slightly higher growth years anticipated within the next 10 years due to multiple large developments planned for completion in the near term. The long-term water service area population annual growth rate is expected to be 1.44 percent between 2020 and 2056 to account for absorbing these areas into the City's water system. Population buildout is expected by 2056.

Table 4-1 shows the City's projected population in five-year increments to the year 2045.

Table 4-1. City of Fresno Existing and Projected Population						
Years	2020	2025	2030	2035	2040	2045
Population Projection ^(a)	550,217	609,433	674,677	719,327	765,278	812,529
(a) From the City of Fresno 2020 UWMP, Table 3-3.						

4.3 Climate

The City's service area is in California's San Joaquin Valley in Fresno County along Highway 99. The climate of the area is best described as Mediterranean, characterized by hot dry summers and cool winters. Precipitation in the area averages around 11 inches per year, as shown in Table 4-2. As shown by the average evapotranspiration (ET_o) and temperature values in Table 4-2, the City's water use in the summer months is significantly higher than in the winter, reflecting increased water use for irrigation purposes during the hot, dry summers.

Table 4-2. City of Fresno Climate Data^(a)

Month	Average ET _o , inches	Average Rainfall, inches	Average Min Temperature, F	Average Max Temperature, F
January	1.17	2.33	56.9	37.4
February	1.98	1.8	62.6	39.8
March	3.73	1.99	68.4	43.6
April	5.43	0.99	73.7	46.9
May	7.33	0.54	81.3	53.2
June	8.41	0.19	89.6	59.1
July	8.8	0.02	95.7	63.8
August	7.82	0.01	94.6	62.5
September	5.69	0.07	89.6	57.9
October	3.68	0.59	79.3	49.3
November	1.85	0.98	66.2	40.6
December	1.1	1.83	56.5	36.1
Annual Totals/Average	56.99	11.34	76.2	49.2

(a) From the City of Fresno 2020 UWMP, Table 3-2.

5.0 CITY OF FRESNO WATER DEMANDS

10910(c)(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

The descriptions provided below for the City's water demands have been taken, for the most part, from the City's 2020 UWMP, which was adopted in July 2021. Supplemental information from other available reports has been included to provide the most recent data available and to meet the specific requirements of SB 610.

5.1 Historical and Existing Water Demand

The City's water demand has decreased as a result of the economic downturn of 2008 through 2011, water use reductions in response to recent drought conditions, and metering of residential properties. Since 2013, all water services in the City's water service area have been metered. Single family residential water use has decreased since the Single-Family Metering Program was completed in 2013. Landscape irrigation demands did decrease in 2015 and 2016, likely due to the drought restrictions, and continue to recover after the drought ended in 2017. Table 5-1 shows the City's historical water demands for 2005, 2010, and 2013-2020.

Table 5-1. Historical Water Demand, af/yr								
	2013 ^(a)	2014 ^(a)	2015 ^(a)	2016 ^(a)	2017 ^(a)	2018 ^(a)	2019 ^(a)	2020 ^(b)
Total Potable and Raw Water Demand	133,692	122,191	102,308	103,045	110,525	110,725	106,500	121,993
(a) City of Fresno 2020 UWMP, Figure-4-1.								
(b) City of Fresno 2020 UWMP, Table 4-2.								

5.2 Future Water Demand

The City's 2045 projected water demand at buildout (based on existing water demand, the projected demands for the West Area under the General Plan, the difference in demands for the West Area between the Specific Plan and the General Plan, and undefined future developments) is summarized in Table 5-2. The General Plan is expected to be built out by 2056, but for the purposes of this WSA the West Area was assumed to be annexed and built out by 2045. The City's preliminary water demand projections for the West Area under the General Plan were higher than for the Specific Plan, resulting in a negative value if the Proposed Project is built instead of the General Plan.

Table 5-2. Projected Future Water Demand at 2045

Units, af/yr	Water Demand
Current (2020) Water Demand ^(a)	121,993
General Plan for West Area ^(b)	23,730
Subtotal (without Project)	145,723
Project (West Area Neighborhood Specific Plan) ^(b,c)	-381
Subtotal (with Project)	145,723
Undefined Future Developments ^(d)	95,724
Total Water Demand	241,447
(a) Data from Table 5-1 of this WSA. (b) Data from Table 2-2 of this WSA. (c) Difference between West Area Neighborhood Specific Plan and General Plan for West Area. (d) Balance between Subtotal (with Project) and Total Water Demand.	

5.3 Dry Year Water Demand

As shown in Table 5-1, the City's 2015 water demand was significantly lower than the 2013 demand in response to the drought and the Governor's April 2015 Executive Order B-29-15 mandating 25 percent water conservation statewide. To reduce water use by 25 percent statewide, the State Water Resources Control Board (SWRCB) adopted a regulation which placed each urban water supplier into one of nine tiers which are assigned a conservation standard, ranging between 4 percent and 36 percent. Each month, the SWRCB compared every urban water suppliers' water use with their use for the same month in 2013 to determine if they were on track for meeting their conservation standard. The City of Fresno was initially placed into Tier 7 with a water conservation standard of 28 percent as compared to 2013 use (the City's conservation standard was reduced to 25 percent in early 2016) (SWRCB, 2015; SWRCB, 2016).

The City has adopted a set of restrictions on water usage that helps promote water conservation and overall water use consumption. The City Municipal Code contains sections on water conservation that are to take place under normal water supply conditions. These measures are mandated year-round and can be found in detail in Section 6-520(a) of the City's Municipal Code. The City's Water Shortage Contingency Plan, outlined in Section 8 and Appendix J of the City's 2020 UWMP, includes a five-stage plan describing specific actions to reduce water demand more than 50 percent in the event of a water supply shortage or emergency. Demand is expected to decrease as the City implements water conservation measures in response to multiple dry years or other supply changes (City of Fresno 2020 UWMP).

Table 5-3 presents the projected future dry year potable water demand.

Table 5-3. Projected Future Dry Year Water Demand, af/yr

Hydrologic Condition	2025	2030	2035	2040	2045
Single Dry Year ^(a)	164,092	176,132	184,174	192,228	200,287
Multiple Dry Year First Year ^(b)	199,204	212,756	222,310	231,876	241,447
Multiple Dry Years Second Year ^(b)	199,204	212,756	222,310	231,876	241,447
Multiple Dry Years Third Year ^(b)	190,267	193,637	197,736	201,753	205,708
Multiple Dry Years Fourth Year ^(b)	162,551	165,920	170,020	174,036	177,992
Multiple Dry Years Fifth Year ^(b)	199,204	212,756	222,310	231,876	241,447
(a) From the City of Fresno 2020 UWMP, Table 7-2.					
(b) From the City of Fresno 2020 UWMP, Table 7-3.					

6.0 CITY OF FRESNO WATER SUPPLIES

10910(c)(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f) and (g).

10910(d)(1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts

10910(d)(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

- (A) Written contracts or other proof of entitlement to an identified water supply.*
- (B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.*
- (C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.*
- (D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.*

10910(e) If no water has been received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts, the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contract-holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has identified as a source of water supply within its water supply assessments.

It is anticipated that the Proposed Project, if approved by the City, would be served from City's existing and future portfolio of water supplies. The inclusion of existing and planned future water supplies is specifically allowed by the Water Code:

Water Code section 10631(b): Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).

The water supply for the Proposed Project will have the same water supply reliability and water quality as the water supply available to the City's other existing and future water customers. Proponents of individual developments within the Proposed Project area will provide their proportionate share of required funding to the City for the acquisition and delivery of treated potable and recycled water supplies to the Proposed Project area.

The water supplies needed to serve the Proposed Project (together with existing water demands and planned future uses) are described in the City's 2020 UWMP. Therefore, the descriptions provided below for the City's water supplies have been taken, for the most part, from the City's 2020 UWMP, which was adopted in July 2021. Supplemental information from other available reports has also been included to provide the most recent data available and to meet the specific requirements of SB 610.

6.1 Existing Water Supplies

The City currently receives water supplies from four sources:

- Surface water contract water that is delivered to the City by two separate sources:
 - FID Agreement for Kings River water.
 - USBR Central Valley Project (CVP) Friant Division Contract for San Joaquin River water.
- Groundwater that is pumped from groundwater wells located within the City.
- Recycled water that is treated at the RWRF and NFWRF. This water may only be used for non-potable uses.

Each of these existing supplies is described below.

6.1.1 Surface Water Contracts

The cumulative supply these contracts bring to the City provide the opportunity to construct surface water treatment facilities and optimize the use of these supplies. This conjunctive use approach continues the process of allowing the groundwater system to recover. Each of the surface water supplies is summarized in the following two sections (City of Fresno 2020 UWMP).

6.1.1.1 Surface Water Supplies through FID Agreement

In May of 1976 the City of Fresno and FID executed an agreement that stipulated that as land is annexed to the City, the City will receive a pro rata share of FID's Kings River entitlement; this agreement was revised, amended, and restated in December, 2016². The pro rata share is based on the area annexed to the City, and within FID's boundaries, as compared to the total area of FID's water service area. The agreement stipulates the allocation amount will be reviewed each year by the two agencies to address new annexations to the City. So, as the City annexes new areas the allocation will increase up to the limits stipulated in the 2016 agreement. Utilizing GIS, there will be approximately 71,925 acres of land within the SOI and within FID's water service boundaries at SOI buildout, excluding Bakman Water Company, CSU Fresno, and County islands.

As the City incorporates new land area into its service area, the percentage of FID supply increases. However, the 2016 FID Agreement sets the maximum percentage as 29.0 percent, although the City's service area is anticipated to expand and encompass more than 29.0 percent of FID's service area between 2025 and 2030. In 2020, the City's percentage of overall FID Kings deliveries was 25.79 percent. The supply projections in this plan limit the City's FID supply with the 29.0 percent cap, but if the agreement were revised in the future the City's FID allocation percentage could grow beyond 29.0 percent as the water service area expands (City of Fresno 2020 UWMP).

6.1.1.2 Surface Water Supplies through USBR Contract

The City, through an agreement originally executed in January of 1961, secured a surface water supply from USBR CVP - Friant Division. This agreement, for an annual water supply of 60,000 af of Class 1 water, was last renewed in 2010 as a Section 9(d) Contract that provides water from the San Joaquin River in perpetuity. The USBR CVP – Friant Division facilities generally include: Friant Dam (Millerton Reservoir);

² Revised, Amended, and Restated Cooperative Agreement between Fresno Irrigation District and City of Fresno for Water Utilization and Conveyance, dated December 20, 2016.

the Friant Kern Canal; and the Madera Canal. The Friant-Kern Canal is maintained and operated by the Friant Water Authority. The USBR water supply is a wholesale supply.

Class 1 water was intended to be a supply that would be dependable in practically every year, regardless of the type of hydrologic water year. Class 2 water is essentially excess water available as determined by USBR and less reliable than Class 1 water. Class 1 water has historically been very reliable until the San Joaquin River Restoration Settlement and more recently by the restrictions on diversions from the Delta due to concerns over the declining health of Delta ecosystem (City of Fresno 2020 UWMP).

6.1.2 Groundwater

10910(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment.

10910(f)(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

10910(f)(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

10910(f)(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historical use records.

A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historical use records.

10910(f)(4) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.

A water assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

6.1.2.1 Groundwater Overview

The City pumps groundwater from a portion of the Kings Subbasin underlying the City. The City's 2020 UWMP states that the City has a network of over 270 municipal wells and currently operates approximately 202 municipal supply wells within the Kings Subbasin. Groundwater quality is a concern because the groundwater basin has several major contaminant plumes involving organic compounds, inorganic compounds, solvents, pesticides, and other contaminants. A number of the City's wells are currently being treated or blended to address various contaminants. The total well capacity, when the City's WMP was written, was approximately 460 mgd.

6.1.2.2 Basin Description

The City's wells are located within the northern part of the Kings Subbasin of the San Joaquin Valley Groundwater Basin. The following section describes the Kings Subbasin, including its water-bearing formations, water levels, and water quality. Much of the following information has been incorporated from the City's 2020 UWMP. Except where noted, the description of the sub-basin is based largely on information provided in the 2016 Department of Water Resources (DWR) Bulletin 118 Interim Update, in which the groundwater basin description was last updated in December 2016.

The Kings Subbasin is not adjudicated and there are no legal restrictions to groundwater pumping. The Kings Subbasin is generally bounded: on the north by the San Joaquin River; on the west by the Fresno Slough; on the south by the Kings River and Cottonwood Creek; and on the east by the Sierra foothills. The upper several hundred feet within the Kings Subbasin generally consists of highly permeable, coarse-grained deposits, which are termed older alluvium. Coarse-grained stream channel deposits, associated with deposits by the ancestral San Joaquin and Kings Rivers, underlie much of the northwest portions of the City. Below the older alluvium to depths ranging from about 600 to 1,200 feet below ground surface, the finer-grained sediments of the Tertiary-Quaternary continental deposits are typically encountered. Substantial groundwater has been produced and utilized from these depths by the City; however, deeper deposits located in the southeastern and northern portions of the City have produced less groundwater. There are also reduced deposits in the northern and eastern portions of the City, at depths generally below 700 or 800 feet, which are associated with high concentrations of iron, manganese, arsenic, hydrogen sulfide, and methane gas. Groundwater at these depths does not generally provide a significant source for municipal supply wells. The City's average groundwater depth in 2015 is approximately 130 below the ground surface.

6.1.2.3 Conditions of Overdraft

The Sustainable Groundwater Management Act (SGMA) directs DWR to identify groundwater basins and subbasins that are in conditions of critical overdraft. This designation is determined based upon the presence of "undesirable impacts" such as seawater intrusion, land subsidence, groundwater depletion, and chronic lowering of groundwater levels. Per DWR's current list of critically overdrafted basins, finalized in February 2019, the Kings Subbasin is designated as a critically overdrafted basin.

As part of the California Statewide Groundwater Elevation Monitoring (CASGEM) Program, DWR is required to prioritize California groundwater basins to help identify, evaluate, and determine the need for additional groundwater level monitoring. Per the current CASGEM draft prioritization, completed in April 2019, the Kings Subbasin is a high priority subbasin (DWR, 2019).

The City has long made efforts toward offsetting the decline of groundwater levels and minimizing overdraft conditions through an active intentional recharge program that started in 1971. Through cooperative agreements with Fresno Metropolitan Flood Control District (FMFCD) and FID, the City has access to not only City-owned basins, but also those of these two agencies. The City has averaged over 60,000 af/yr the previous five years and plans to gradually increase recharge by about 540 af/yr each year. However, during wet years the City will recharge more water when it is available to allow to the City to draw on additional groundwater during dry years when surface water is not available.

6.1.2.4 Groundwater Management

As part of a partnership of local municipal water purveyors, irrigation districts, a flood control district, and the overlying county, the Fresno Area Regional Groundwater Management Plan (FARGMP) was prepared in conformance with AB 3030 and SB 1938. The objectives of the FARGMP have been developed to

monitor, protect, and sustain groundwater within the region. The City of Fresno and the other participating agencies subsequently adopted the groundwater management plan in 2006 (City of Fresno 2020 UWMP). The City of Fresno falls within the North Kings Groundwater Sustainability Agency (NKGSA). The NKGSA prepared and submitted its GSP on January 28, 2020 and is awaiting completion of DWR's review (DWR SGMA Portal GSP Status Summary).

6.1.2.5 Historical Groundwater Use

As discussed previously, the City has a network of over 270 municipal wells and currently operates approximately 202 municipal supply wells within the Kings Subbasin, according to the 2020 UWMP. The City's groundwater production over the last 18 years is provided in Table 6-1.

Table 6-1. City of Fresno Historical Groundwater Production, af/yr	
Year	Total Groundwater Production
2003	165,200
2004	160,000
2005	141,500
2006	136,000
2007	146,300
2008	148,700
2009	138,200
2010	128,600
2011	119,900
2012	119,500
2013	123,200
2014	106,800
2015	82,500
2016	99,100
2017	105,200
2018	76,800
2019	54,600
2020	55,000
(a) From the City of Fresno 2020 UWMP, Figure-6-7.	

6.1.2.6 Projected Future Groundwater Use

The amount of groundwater pumped during dry years is not projected to differ from the amount pumped during normal years. The City's projected future groundwater production through 2045 is provided in Table 6-2.

**Table 6-2. City of Fresno Projected Future Groundwater Production
in Normal and Dry Years^(a), af/yr**

	2025	2030	2035	2040	2045
Total Groundwater Production During a Normal Year ^(a)	138,090	143,630	149,100	154,490	159,820
Total Groundwater Production During Dry Years ^(b)	138,090	143,630	149,100	154,490	159,820
(a) From the City of Fresno 2020 UWMP, Table 7-1.					
(b) From the City of Fresno 2020 UWMP, Table 7-2.					

6.1.2.7 Groundwater Sufficiency

The City's 2020 UWMP addressed the sufficiency of the City's groundwater supplies, in conjunction with the City's other existing and additional water supplies, to meet the City's existing and planned future uses. Based on the information provided above and that included in the City's 2020 UWMP, the City's groundwater supply, together with the City's other existing and additional planned future water supplies, is sufficient to meet the water demands of the Proposed Project, in addition to the City's existing and planned future uses. See Section 7 for a detailed determination of the sufficiency of the City's water supply portfolio, including groundwater, to meet the demands of the Proposed Project.

6.2 Future Water Projects

The inclusion of planned future water supplies in this WSA is specifically allowed by the Water Code:

Water Code section 10631(b): Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a).

The City has a number of future capital improvement projects planned to maintain and upgrade existing water supply and distribution facilities. The City is also undergoing a large capital improvement program outlined in their 2014 Metropolitan Water Resources Management Plan (Metro Plan). The timing for groundwater recharge capacity expansion will be examined as part of the Metro Plan update and is assumed to increase to allow for an additional 540 af/yr of recharge to occur on average each year. The City has constructed an 80 mgd surface water treatment plant, called the Southeast Surface Water Treatment Facility (SES WTF). The City upgraded their Northeast Surface Water Treatment Facility (NES WTF) from 30 mgd to 60 mgd. The City expects to implement construction on the final portion of the Southwest recycled water distribution system in 2021. The completed distribution system will allow an additional 5,000 AF of recycled water use in the City to offset potable demands that can be used in all hydrological year types. The expansion is projected to be completed by 2025. In addition, the City is evaluating future beneficial transfers and exchanges of the City's USBR water in normal water years when available water supplies exceed demands.

6.3 Summary of Existing and Additional Planned Future Water Supplies

Table 6-3 provides a summary of the City’s 2020 actual water supply deliveries and projected future available water supply available. A discussion of the future anticipated availability of these existing and additional planned future water supplies during dry years is provided in the next section.

Table 6-3. City of Fresno Historical and Projected Water Supplies						
Units: af/yr	2020 ^(a)	2025 ^(b)	2030 ^(b)	2035 ^(b)	2040 ^(b)	2045 ^(b)
Groundwater	55,028	138,090	143,630	149,100	154,490	159,820
USB R CVP	37,447	60,000	60,000	60,000	60,000	60,000
FID Kings River	71,292	125,030	131,600	131,600	131,600	131,600
Total Potable Water Supply	163,767	323,120	335,230	340,700	346,090	351,420
Recycled Water, RWRF	858	5,800	5,800	5,800	5,800	5,800
Recycled Water, NFWRF	54	110	110	110	110	110
Total Recycled Water Supply	912	5,910	5,910	5,910	5,910	5,910
Total Water Supply	164,679	329,030	341,140	346,610	352,000	357,330
(a) From City of Fresno 2020 UWMP, Table 6-7.						
(b) From City of Fresno 2020 UWMP, Table 6-8.						

6.4 Water Supply Availability and Reliability

Water Code section 10910 (c)(4) requires that a WSA include a discussion with regard to “whether total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.” Accordingly, this WSA addresses these three hydrologic conditions through the year 2045.

Also, in response to historical drought conditions and the (now expired) State of Emergency proclaimed by Governor Brown, first in January 2014 and most recently in April 2015, this WSA provides a discussion of the availability and reliability of the City’s available water supplies to meet the City’s water demands in the event that the City’s surface water supplies are limited under emergency water supply conditions.

6.4.1 Normal, Single Dry, and Multiple Dry Years

The reliability of each of the City’s existing and additional planned water supplies and their projected availability during normal, single dry, and multiple dry years, as described in Section 7 of the City’s 2020 UWMP, is described below and summarized in Table 6-4. The City expects to meet system water demand, regardless of regional hydrology (City of Fresno 2020 UWMP).

The City’s surface water supply could face constraints during dry years.

Water supplied from the FID contract is most susceptible to annual hydrologic conditions. The annual variability of precipitation, snowpack, and river flow conditions will then influence, and may constrain, the City's allocation from this source. Another factor that may constrain the availability of Kings River water supply is scheduled maintenance of FID's vast canal network. FID typically terminates water deliveries to the City's water treatment facilities in the months of November and/or December so they may perform necessary infrastructure repairs and maintenance. To ensure year-round delivery of water to the SESWTF a raw water pipeline is being constructed.

The City also has a contract for 60,000 af/yr of Class 1 water from the USBR's CVP, which is affected by required downstream flows for the San Joaquin River and the imposed restrictions on water diversions from the Delta. These restrictions have resulted in years where the CVP - Friant Division contractors, such as the City of Fresno, receives zero allocations. The water supply is also restricted by maintenance of infrastructure, which results in termination of water supply during the months of November and/or December. To improve delivery reliability and to protect the source water from deleterious impacts from environmental and other malicious acts, the City completed a 4.6-mile long raw water pipeline that will permit the delivery of USBR water from the Friant-Kern Canal directly to the NESWTF (Recharge Fresno 2019).

Groundwater has long been the primary water supply source for the City. The continued use of groundwater is key to the sustainable use of all supplies, which is inclusive of surface water and recycled water. The groundwater supply has declined over the last eighty years, requiring new deeper wells and the lowering of pumps in existing wells. A constraint to lowering the pumps in existing wells is the limited depth of numerous existing municipal water wells. If the declining groundwater trend isn't reversed, it may cause a reduction in pumping capacity of the City's water system. Another constraint to the use of groundwater is the negative impacts from contamination. To ensure the continued beneficial use of the groundwater supply, the City will have to remain proactive in pursuing responsible parties so the proper remediation is conducted to preserve the groundwater system as a viable and sustainable resource in perpetuity. Despite these concerns, groundwater supply during normal and dry years was assumed to be constant, as shown in Table 6-2.

The supply of recycled water produced by the City's recycled water facilities is expected to be unaffected by single or multiple dry years. While the supply of wastewater used to produce the recycled water may decrease somewhat if voluntary or mandatory conservation measures are enacted.

Table 6-4. Multiple Dry Year Water Supply, af-ft/yr

	2025	2030	2035	2040	2045
Normal Year ^(a)	329,030	341,140	346,610	352,000	357,330
Single Dry Year ^(b)	189,852	195,392	200,862	206,252	211,582
Multiple Dry Year 1 ^(c)	273,725	279,265	284,735	290,125	295,455
Multiple Dry Year 2 ^(c)	274,626	280,166	285,636	291,026	296,356
Multiple Dry Year 3 ^(c)	217,568	223,108	228,578	233,968	239,298
Multiple Dry Year 4 ^(c)	189,852	195,392	200,862	206,252	211,582
Multiple Dry Year 5 ^(c)	314,840	320,380	325,850	331,240	336,570

(a) City of Fresno 2020 UWMP, Table 7-1.

(b) City of Fresno 2020 UWMP, Table 7-2.

(c) City of Fresno 2020 UWMP, Table 7-3.

6.4.2 Emergency Water Supply Conditions

In addition to the water conservation measures outlined in Section 6-520 of the Fresno Municipal Code, the City's 2020 UWMP includes a Water Shortage Contingency Plan (WSCP) to address situations when catastrophic water supply interruptions occur due to regional power outage, earthquake, or other disasters; and when drought occurs. The City's WSCP includes an analysis of existing and projected water demands and supplies, a water conservation and rationing plan with mandatory prohibitions and penalties, and an analysis of projected revenues and expenditures. The WSCP outlines five stages of action to be undertaken in response to water supply shortages, including more than 50 percent reduction in water supply and an outline of specific water supply conditions that are applicable to each stage. The City also has a Water Quality Emergency Notification Plan in place to coordinate the City's response in the event of a catastrophic water supply interruption.

Triggering from one stage to the next is done based on water supply conditions. Factors to take into consideration include decreases in surface water from USBR and FID, from reductions in infrastructure capacity related to the water treatment plants or pipelines, decrease in groundwater levels in 30 key wells, or climate or state political conditions that would impact the allotment of water supply. Consumption reduction methods outlined in the WSCP include limiting or prohibiting the watering of lawns and other landscape areas, restricting water use at outdoor facilities, restrictions on water use for decorative water features, and prohibiting car washes or laundries which do not use recycled or recirculated water. Rate changes and fees may be implemented to penalize excessive water use or violation of water use ordinances (City of Fresno 2020 UWMP).

If an emergency were to occur, requiring the City to implement its WSCP, all of the City's customers, including those within the Proposed Project area, would be subject to the same water conservation measures and water use restrictions as included in City's WSCP.

7.0 DETERMINATION OF WATER SUPPLY SUFFICIENCY BASED ON THE REQUIREMENTS OF SB 610

Water Code section 10910 states:

10910(c)(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

Pursuant to Water Code section 10910(c)(4) and based on the technical analyses described in this Water Supply Assessment, the City finds that the total projected water supplies determined to be available for the Proposed Project during Normal, Single Dry, and Multiple Dry water years during a 20-year projection will meet the projected water demand associated with the Proposed Project, in addition to existing and planned future uses.

Table 7-1 summarizes the projected availability of the City's existing and planned future potable water supplies and the City's projected water demands in normal, single dry and multiple dry years through 2045. As shown in Table 7-1, demand within the City's service area is not expected to exceed the City's supplies in any normal, single dry, or multiple dry year between 2020 and 2045.

Table 7-1. City of Fresno Water Demand Versus Water Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years, af/yr						
Hydrologic Condition		2025	2030	2035	2040	2045
Normal Year^(a)						
Available Water Supply		329,030	341,140	346,610	352,000	357,330
Total Water Demand		199,204	212,756	222,310	231,876	241,447
Potential Surplus (Deficit)		129,826	128,384	124,300	120,124	115,883
Percent Shortfall of Demand		-	-	-	-	-
Single Dry Year^(b)						
Available Water Supply		189,852	195,392	200,862	206,252	211,582
Total Water Demand		164,092	176,132	184,174	192,228	200,287
Potential Surplus (Deficit)		25,760	19,260	16,688	14,024	11,295
Percent Shortfall of Demand		-	-	-	-	-
Multiple Dry Years^(c)						
Multiple Dry Year 1	Available Water Supply	273,725	279,265	284,735	290,125	295,455
	Total Water Demand	199,204	212,756	222,310	231,876	241,447
	Potential Surplus (Deficit)	74,521	66,509	62,425	58,249	54,008
	Percent Shortfall of Demand	-	-	-	-	-

Table 7-1. City of Fresno Water Demand Versus Water Supply During Hydrologic Normal, Single Dry, and Multiple Dry Years, af/yr						
Hydrologic Condition		2025	2030	2035	2040	2045
Multiple Dry Year 2	Available Water Supply	274,626	280,166	285,636	291,026	296,356
	Total Water Demand	199,204	212,756	222,310	231,876	241,447
	Potential Surplus (Deficit)	75,422	67,410	63,326	59,150	54,909
	Percent Shortfall of Demand	-	-	-	-	-
Multiple Dry Year 3	Available Water Supply	217,568	223,108	228,578	233,968	239,298
	Total Water Demand	190,267	193,637	197,736	201,753	205,708
	Potential Surplus (Deficit)	27,301	29,471	30,842	32,215	33,590
	Percent Shortfall of Demand	-	-	-	-	-
Multiple Dry Year 4	Available Water Supply	189,852	195,392	200,862	206,252	211,582
	Total Water Demand	162,551	165,920	170,020	174,036	177,992
	Potential Surplus (Deficit)	27,301	29,472	30,842	32,216	33,590
	Percent Shortfall of Demand	-	-	-	-	-
Multiple Dry Year 5	Available Water Supply	314,840	320,380	325,850	331,240	336,570
	Total Water Demand	199,204	212,756	222,310	231,876	241,447
	Potential Surplus (Deficit)	115,636	107,624	103,540	99,364	95,123
	Percent Shortfall of Demand	-	-	-	-	-
(a) From the City of Fresno 2020 UWMP, Table 7-1. (b) From the City of Fresno 2020 UWMP, Table 7-2. (c) From the City of Fresno 2020 UWMP, Table 7-3.						

8.0 WATER SUPPLY ASSESSMENT APPROVAL PROCESS

10910 (g)(1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

10911 (b) The city or county shall include the water supply assessment provided pursuant to Section 10910, and any information provided pursuant to subdivision (a), in any environmental document prepared for the project pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.

The Fresno City Council must approve this WSA at a regular or special meeting. Furthermore, the City must include this WSA in the Draft EIR that is being prepared for the Proposed Project.

In addition, SB 221 applies to residential subdivisions of over 500 dwelling units and requires that the water supplier provide a written verification that the water supply for the project is sufficient, prior to issuance of the final permits. Because the Proposed Project includes up to 57,891 residential dwelling units, it is subject to the requirements of SB 221 (Government Code section 66473.7).

9.0 REFERENCES

- California Department of Water Resources, *SGMA Basin Prioritization Dashboard*, Department of Water Resources, Accessed August 2019, <https://gis.water.ca.gov/app/bp-dashboard/p2/>
- California Department of Water Resources, *Bulletin 118 Interim Update 2016*, Department of Water Resources, December 2016.
- California Department of Water Resources, *Groundwater Sustainability Plan (GSP) Emergency Regulations Guide*, Department of Water Resources, July 2016.
- De Novo Planning Group, *Notice of Preparation for the Specific Plan of the West Area*, prepared for the City of Fresno, July 2019.
- Dyett & Bhatia, *City of Fresno General Plan*, prepared for the City of Fresno, December 2014.
- North Kings Groundwater Sustainability Agency, *Groundwater Sustainability Plan*, North Kings Groundwater Sustainability Agency, Accessed August 2019, <https://www.northkingsgsa.org/groundwater-sustainability-plan/>
- Recharge Fresno, *Friant-Kern Canal Pipeline*, Accessed August 2019, <http://www.rechargefresno.com/fkc/>
- State Water Resources Control Board, *Urban Water Supplier Conservation Tiers*, California Water Boards, July 2017, https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/supplier_tiers.pdf
- State Water Resources Control Board, *Urban Water Supplier Conservation Standard for Extended Emergency Regulation Rulemaking – 2016*, California Water Boards, March 2016, https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/emergency_reg/supplier_standards_effective030116.pdf
- Water Systems Consulting, Inc., *City of Fresno 2020 Urban Water Management Plan*, prepared for the City of Fresno, July 2021.
- West Yost Associates, *City of Fresno Metropolitan Water Resources Management Plan Update Phase 1 Baseline System Characterization*, prepared for the City of Fresno, December 2007.
- West Yost Associates, *City of Fresno Water Master Plan*, prepared for the City of Fresno, August 2014.

Concord

1001 Galaxy Way, Suite 310
Concord CA 95420
925-949-5800

Davis

2020 Research Park Drive, Suite 100
Davis CA 95618
530-756-5905

Eugene

1650 W 11th Avenue, Suite 1-A
Eugene OR 97402
541-431-1280

Lake Forest

23692 Birtcher Drive
Lake Forest CA 92630
949-420-3030

Lake Oswego

5 Centerpointe Drive, Suite 130
Lake Oswego OR 97035
503-451-4500

Oceanside

804 Pier View Way, Suite 100
Oceanside CA 92054
760-795-0365

Phoenix

4505 E Chandler Boulevard, Suite 230
Phoenix AZ 85048
602-337-6110

Pleasanton

6800 Koll Center Parkway, Suite 150
Pleasanton CA 94566
925-426-2580

Sacramento

8950 Cal Center Drive, Bldg. 1, Suite 363
Sacramento CA 95826
916-306-2250

San Diego

11939 Rancho Bernardo Road, Suite 100
San Diego CA 92128
858-505-0075

Santa Rosa

2235 Mercury Way, Suite 105
Santa Rosa CA 95407
707-543-8506

APPENDIX F

Noise Impact Study

West Area Specific Plan

Noise Impact Study

City of Fresno, CA

Prepared for:

De Novo Planning Group
180 East Main Street, #108
Tustin, CA 92780

Prepared by:

MD Acoustics, LLC
Mike Dickerson, INCE
Roma Stromberg, M.S.
1197 Los Angeles Ave, Ste C-256
Simi Valley, CA 93065

Date: 2/5/2021



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P) AZ - 602.774.1950

P) CA - 805.426.4477

www.mdacoustics.com
info@mdacoustics.com

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1.0 Introduction

1.1 Purpose of Analysis and Study Objectives

This noise assessment was prepared to evaluate the potential noise impacts for the project study area and to recommend noise mitigation measures, if necessary, to minimize the potential noise impacts. The assessment was conducted and compared to the noise standards set-forth by the Federal, State and Local agencies. Consistent with the City's Noise Guidelines, the project must demonstrate compliance to the applicable noise criterion as outlined within the City's Noise Element and Municipal Code.

The following is provided in this report:

- A description of the study area and the proposed project
- Information regarding the fundamentals of noise
- A description of the local noise guidelines and standards
- An analysis of traffic noise impacts to and from the project site
- An analysis of stationary noise impacts to and from the project site
- An analysis of construction noise impacts

1.2 Site Location and Study Area

The Specific Plan of the West Area (also-known-as "Specific Plan", "West Area") encompasses approximately 7,077 acres (or a little more than 11 square miles) in the City of Fresno city limits and unincorporated Fresno County. The footprint of the Specific Plan is referred to as the "Plan Area." Of the eleven square miles within the Plan Area, 6.9 square miles are in the city limits and 4.1 square miles are in the growth area. The growth area is land outside the city limits but within the City's Sphere of Influence (SOI) boundary, which is the adopted limit for future growth.

The Plan Area is triangular in shape and located west of State Route 99. It is bounded on the south by West Clinton Avenue and to the west by Grantland and Garfield Avenues. The Plan Area includes the southwest portion of Highway City adjacent to State Route 99. See Exhibit A for the Regional Location map and Exhibit B for the West Area Specific Plan Land Use Plan.

The Plan Area is relatively flat with a natural gentle slope near State Route 99. The Plan Area topography ranges in elevation from approximately 283 to 315 feet above mean sea level. A large amount of land in the Plan Area is either farmland or rural residential lots with large, uneven, and underutilized parcels.

1.3 Existing Land Uses

The Plan Area has eight different existing land uses which include the following:

- Rural/Estate Residential: Approximately 27 percent, or 1,911 acres, of the existing land uses within the Plan Area are currently used as rural/estate residential. Of the 6,109 acres of developable lands within the Plan Area, 1,640.68 acres are low-density single-family homes on two to nine acre lots.

- Multiple Family Residential: Approximately two percent, or 141 acres, of the Plan Area are occupied by multi-family residential development. These uses are primarily located adjacent to arterial roads with easy access to State Route 99 and Fresno Area Express (FAX) service lines.
- Single-Family Residential: Approximately 21 percent of the existing uses within the Plan Area are currently developed with single-family residential uses, which are located primarily within the city limits.
- Vacant Land: Approximately 15 percent of the land in the Plan Area, or 911.34 acres, are occupied by vacant lands. Vacant lands are located throughout the Plan Area, in both the city limits and SOI. Vacant areas within the Plan Area's densest neighborhoods represent infill opportunities .
- Public/Government Facilities: Approximately six percent, or 337.83 acres, of land within the Plan Area contain public or government facilities. These land uses include Central Unified School District facilities, churches, the Dante Club, and the Hacienda facility.
- Open Space/Agricultural Land: Approximately 25 percent, or 1,554.06 acres, in the Plan Area contain open space or agricultural land. While there are some open space land uses within the City, most of these uses are primarily located in the SOI. These uses also include parks and ponding basins.
- Industrial Uses: Approximately one percent, or 57.33 acres, of the Plan Area are occupied by industrial uses. The largest industrial land use in the Plan Area contains an agricultural business located at the intersection of West Dakota Avenue and North Grantland Avenue.
- Commercial Uses: Approximately three percent, or 219.76 acres, of the Plan Area are occupied by commercial uses. Commercial uses are spread throughout the eastern and southeastern portions of the Plan Area, closer to State Route 99.

Surrounding land uses include State Route 99, the unincorporated communities of Herndon, Highway City, and Muscatel, and incorporated areas of the City of Fresno to the north (including mostly industrial uses), incorporated areas of the City of Fresno to the east (also including mostly industrial uses), unincorporated Fresno County and incorporated areas of the City of Fresno to the south (including farmland uses, rural residential uses, low density residential uses, and underutilized parcels) and unincorporated Fresno County to the west (including farmland and rural residential uses).

1.4 Proposed Project Description

The proposed Specific Plan refines the General Plan's land use vision for the West Area. The draft land use map proposes the relocation of higher density land uses away from the most western and southwestern portions of the Plan Area where they are distant from public transit and community amenities and transfers those higher density land use designations to major corridors. The Specific Plan would result in an increase in land designated for employment, mixed use, open space and public facilities uses and a decrease in land designated for residential and commercial uses.

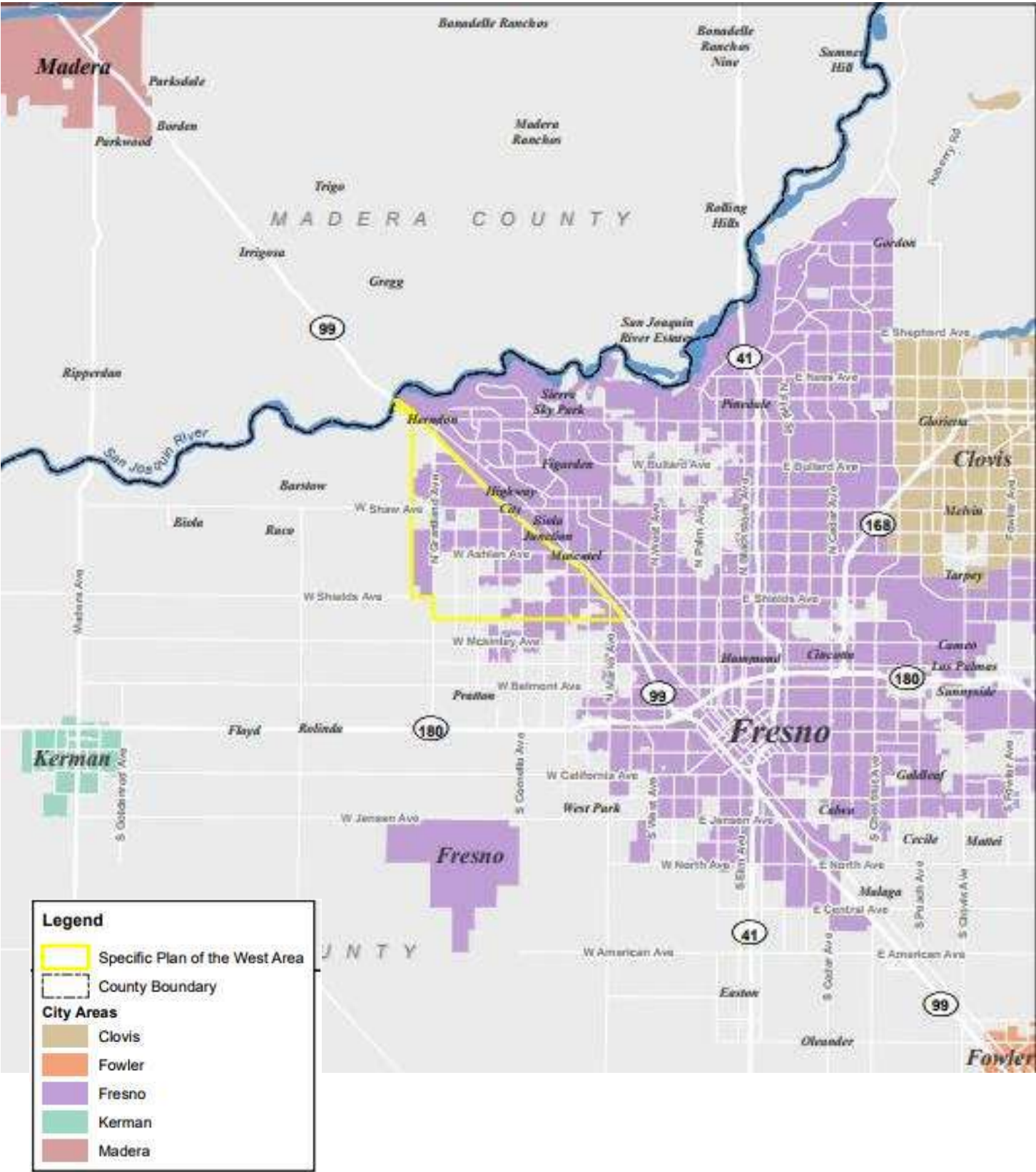
1.5 Revisions to Core Goals

In addition to the proposed land use plan, the following are revisions to the core goals provided in the General Plan for the West Area:

West Shaw Avenue Town Center: The West Shaw Avenue Town Center (the Town Center) will extend from State Route 99 to the east side of Grantland Avenue and is envisioned to be mixed-use development supported by enhanced transit service. Land on the south side of West Shaw Avenue will provide additional neighborhood and commercial mixed-use opportunities.

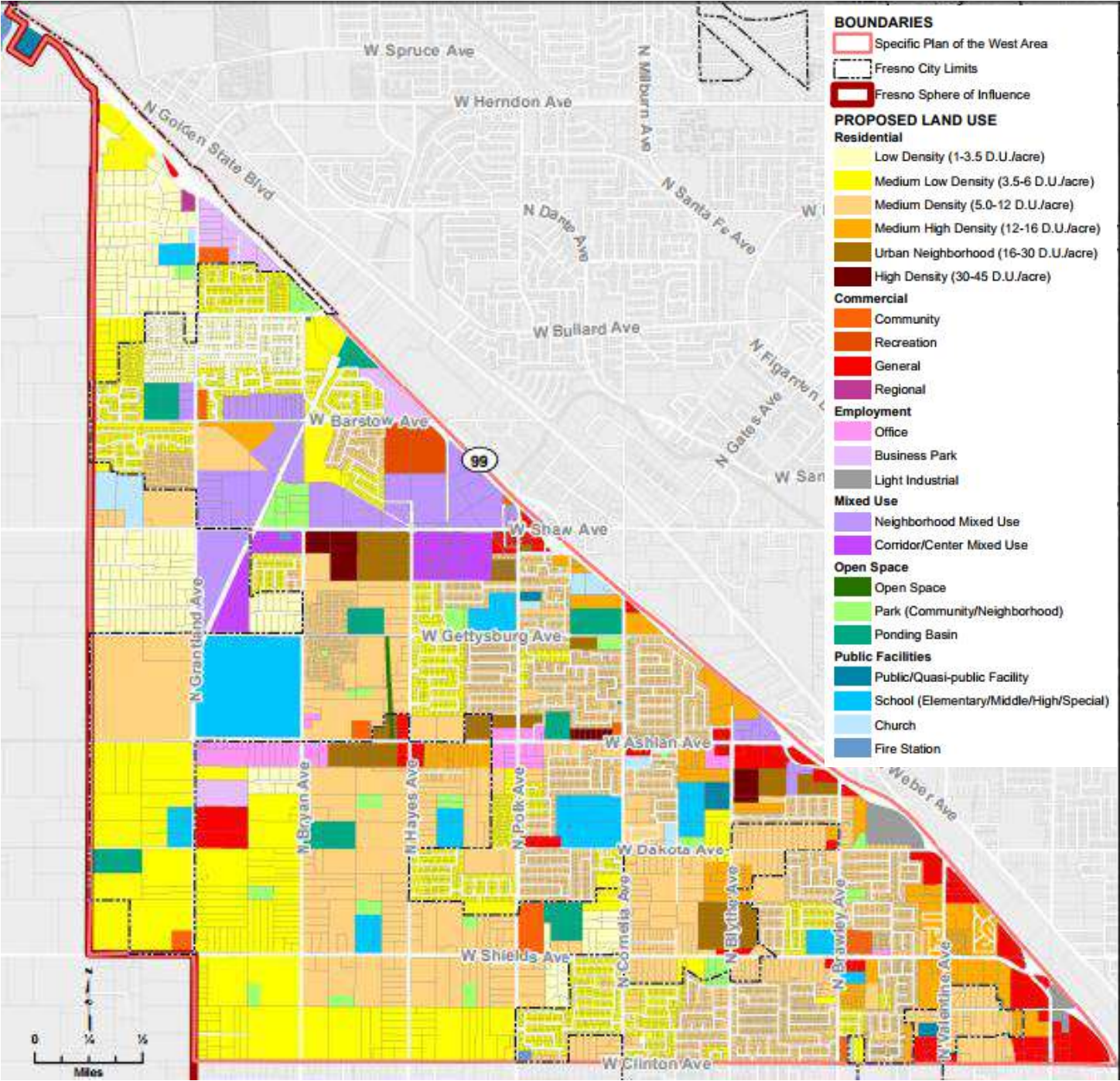
Catalytic Corridors: The proposed Specific Plan designates higher density land uses along corridors with the purpose of providing easy access to major arterials and streets, retail centers, and community amenities. Catalytic corridors will include transit services. The corridors are designed to include neighborhood and pocket parks, commercial and retail uses, educational facilities, multi-family dwelling units, and professional offices. The corridors are located on the following streets:

- a) West Shaw Avenue, from State Route 99 to the east side of Grantland Avenue;
- b) West Ashlan Avenue, from State Route 99 to the commercial nodes located on the west side of Grantland Avenue;
- c) North Blythe Avenue, from West Shields to West Ashlan Avenue;
- d) West Clinton Avenue, from State Route 99 to North Brawley Avenue; and
- e) Veterans Boulevard, from West Gettysburg Avenue to West Barstow Avenue.



Sources: Fresno County; Madera County, Cal Atlas.
Map date: May 7, 2019. Revised May 29, 2020.

Exhibit A
West Area Specific Plan
Proposed Land Uses



2.0 Fundamentals of Noise

This section of the report provides basic information about noise and presents some of the terms used within the report.

2.1 Sound, Noise and Acoustics

Sound is a disturbance created by a moving or vibrating source and is capable of being detected by the hearing organs. Sound may be thought of as mechanical energy of a moving object transmitted by pressure waves through a medium to a human ear. For traffic, or stationary noise, the medium of concern is air. *Noise* is defined as sound that is loud, unpleasant, unexpected, or unwanted.

2.2 Frequency and Hertz

A continuous sound is described by its *frequency* (pitch) and its *amplitude* (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch (bass sounding) and high-frequency sounds are high in pitch (squeak). These oscillations per second (cycles) are commonly referred to as Hertz (Hz). The human ear can hear from the bass pitch starting out at 20 Hz all the way to the high pitch of 20,000 Hz.

2.3 Sound Pressure Levels and Decibels

The *amplitude* of a sound determines its loudness. The loudness of sound increases or decreases as the amplitude increases or decreases. Sound pressure amplitude is measured in units of micro-Newton per square meter (N/m²), also called micro-Pascal (μPa). One μPa is approximately one hundred billionths (0.0000000001) of normal atmospheric pressure. Sound pressure level (SPL or L_p) is used to describe in logarithmic units the ratio of actual sound pressures to a reference pressure squared. These units are called decibels abbreviated dB.

2.4 Addition of Decibels

Because decibels are on a logarithmic scale, sound pressure levels cannot be added or subtracted by simple plus or minus addition. When two sounds of equal SPL are combined, they will produce an SPL 3 dB greater than the original single SPL. In other words, sound energy must be doubled to produce a 3 dB increase. If two sounds differ by approximately 10 dB, the higher sound level is the predominant sound. When combining sound levels, estimates shown in Table 1 may be utilized.

Table 1: Decibel Addition

When Two Decibel Values Differ by:	Add This Amount	Example
0 or 1 dB	3 dB	70+69=73 dB
2 or 3 dB	2 dB	74+71=76 dB
4 to 9 dB	1 dB	66+60=67 dB
10 dB or more	0 dB	65+55=65 dB

Source: Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol. Caltrans, 2013a

2.5 Human Response to Changes in Noise Levels

In general, the healthy human ear is most sensitive to sounds between 1,000 Hz and 5,000 Hz, and it perceives a sound within that range as being more intense than a sound with a higher or lower frequency with the same magnitude. For purposes of this report as well as with most environmental documents, A-scale weighting is typically used and is reported in terms of the A-weighted decibel (dBA). The A-scale was designed to account for the frequency-dependent sensitivity of the human ear. Typical A-weighted noise levels are shown in Table 2. In general, the human ear can barely perceive a change in noise level of 3 dB. As shown in Table 3, a change in 5 dB is readily perceptible, and a change in 10 dB is perceived as being twice or half as loud. As previously discussed, a doubling of sound energy results in a 3 dB increase in sound, which means that a doubling of sound energy (e.g. doubling the volume of traffic on a highway) would result in a barely perceptible change in sound level.

Table 2: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor
	110	Rock Band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck at 50 feet at 50 mph	80	Food blender at 3 feet
		Garbage disposal at 3 feet
Noisy urban area, daytime	70	Vacuum cleaner at 3 feet
Gas lawnmower, 100 feet		
Commercial area	60	Normal speech at 3 feet
Heavy traffic at 300 feet		
	50	Large Business Office
Quiet urban daytime		Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural nighttime	20	Bedroom at night, concert hall (background)
	10	Broadcasting studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol. Caltrans, 2013a.

<Table 3, next page>

Table 3: Perceived Changes in Noise Levels

Changes in Intensity Level, dBA	Changes in Apparent Loudness
1	Not perceptible
3	Just perceptible
5	Clearly noticeable
10	Twice (or half) as loud
Source: Caltrans Technical Noise Supplement to the Traffic Noise Analysis Protocol. Caltrans, 2013a.	

2.6 Noise Descriptors

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns, others are random. Some noise levels are constant while others are sporadic. Noise descriptors were created to describe the different time-varying noise levels.

A-Weighted Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighted filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear. A numerical method of rating human judgment of loudness.

Ambient Noise Level: The composite of noise from all sources, near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five (5) decibels to sound levels in the evening from 7:00 to 10:00 PM and after addition of ten (10) decibels to sound levels in the night before 7:00 AM and after 10:00 PM.

Decibel (dB): A unit for measuring the amplitude of a sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micro-pascals.

dB(A): A-weighted sound level (see definition above).

Equivalent Sound Level (LEQ): The sound level corresponding to a steady noise level over a given sample period with the same amount of acoustic energy as the actual time varying noise level. The energy average noise level during the sample period.

Habitable Room: Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms and similar spaces.

L(n): The A-weighted sound level exceeded during a certain percentage of the sample time. For example, L10 in the sound level exceeded 10 percent of the sample time. Similarly, L50, L90 and L99, etc.

Noise: Any unwanted sound or sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. The State Noise Control Act defines noise as "...excessive undesirable sound...".

Outdoor Living Area: Outdoor spaces that are associated with residential land uses typically used for passive recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and, outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas).

Percent Noise Levels: See L(n).

Sound Level (Noise Level): The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

Sound Level Meter: An instrument, including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement and determination of noise and sound levels.

Single Event Noise Exposure Level (SENEL): The dB(A) level which, if it lasted for one second, would produce the same A-weighted sound energy as the actual event.

2.7 Tonal Sounds

A pure tone sound is a sound produced at or near a single frequency. Laboratory tests have shown the humans are more perceptible to changes in sound levels of a pure tone (Caltrans 1998). For a noise source to contain a "pure tone," there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to "stand out" against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by: 5 dB for center frequencies of 500 Hertz (Hz) and above; by 8 dB for center frequencies between 160 and 400 Hz; and by 15 dB for center frequencies of 125 Hz or less.

2.8 Sound Propagation

As sound propagates from a source it spreads geometrically. Sound from a small, localized source (i.e., a point source) radiates uniformly outward as it travels away from the source in a spherical pattern. The

sound level attenuates at a rate of 6 dB per doubling of distance. The movement of vehicles down a roadway makes the source of the sound appear to propagate from a line (i.e., line source) rather than a point source. This line source results in the noise propagating from a roadway in a cylindrical spreading versus a spherical spreading that results from a point source. The sound level attenuates for a line source at a rate of 3 dB per doubling of distance.

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity and turbulence can further impact how far sound can travel.

2.9 Ground Absorption

As noise propagates from the source, it is affected by the ground and atmosphere. Noise models use hard site (reflective surfaces) and soft site (absorptive surfaces) to help calculate predicted noise levels. Hard site conditions assume no excessive ground absorption between the noise source and the receiver. Soft site conditions such as grass, soft dirt, or landscaping attenuate noise at a rate of 1.5 dB per doubling of distance. When added to the geometric spreading, the excess ground attenuation results in an overall noise attenuation of 4.5 dB per doubling of distance for a line source and 7.5 dB per doubling of distance for a point source.

Research has demonstrated that atmospheric conditions can have a significant effect on noise levels when noise receivers are located 200 feet from a noise source. Wind, temperature, air humidity, and turbulence can further impact how far sound can travel.

2.10 Sound Attenuation

Noise-related land use issues are typically composed of three basic elements: (1) the noise source, (2) a transmission path, and (3) a receiver.

The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. When the potential for a noise-related problem is present, either avoidance of the noise-related problem or noise control techniques should be selected to provide an acceptable noise environment for the receiver while remaining consistent with local aesthetic standards and practical structural and economic limits. Fundamental noise control options are described below.

2.10.1 Noise Barriers

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. For a noise barrier to work, it must be high enough and long enough to block the view of a road. A noise barrier is most effective when placed close to the noise source or receiver. A noise barrier can achieve a 5-dBA noise level reduction when it is tall enough to not allow a line-of-sight view of the road. When the noise barrier is an earthen berm instead of a wall, the noise attenuation can be increased by another 3 dBA.

2.10.2 Setbacks

Noise exposure may be reduced by increasing the setback distance between the noise source and the receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, and storage yards. The available noise attenuation from this technique is limited by the characteristics of the noise source, but generally ranges between 4 and 6 dBA.

2.10.3 Site Design

Buildings can be placed on a property to shield other structures or areas affected by noise and to prevent an increase in noise levels caused by reflections. The use of one building to shield another can significantly reduce overall noise control costs, particularly if the shielding structure is insensitive to noise. An example would be placing a detached garage nearest the noise source to shield the house or backyard. Site design should guard against creating reflecting surfaces that may increase onsite noise levels. For example, two buildings placed at an angle facing a noise source may cause noise levels within that angle to increase by up to 3 dBA. The open end of U-shaped buildings should point away from noise sources for the same reason. Landscaping walls or noise barriers located within a development may inadvertently reflect noise back to a noise-sensitive area unless carefully located.

2.10.4 Building Facades

When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through acoustical design of building facades. Standard construction practices provide a noise reduction of 10–15 dBA for building facades with open windows, and a noise reduction of approximately 25 dBA when windows are closed (Table 4). An exterior-to-interior noise reduction of 25 dBA can be obtained by requiring that building design include adequate ventilation systems, which would allow windows facing a noise source to remain closed, even during periods of excessively warm weather.

<Table 3, next page>

Table 4: Noise Reduction Afforded by Common Building Construction

Construction Type	Typical Occupancy	General Description	Range of Noise Reduction (dB) ¹
1	Residential, Commercial, Schools	Wood frame, stucco or wood sheathing exterior. Interior drywall or plaster. Sliding glass windows, with windows partially open.	15-20
2	Same as 1 above	Same as 1 above, but with windows closed.	25-30
3	Commercial, Schools	Same as 1 above, but with fixed 0.25-inch plate glass windows.	30-35
4	Commercial, Industrial	Steel or concrete frame, curtain wall, or masonry exterior wall. Fixed 0.25-inch plate glass windows.	35-40

Source: California Airport Land Use Planning Handbook, 2002.

Where greater noise reduction is required, acoustical treatment of the building facade may be necessary. Reducing relative window area is the most effective control technique, followed by providing acoustical glazing (e.g., thicker glass or increased air space between panes) within frames with low air infiltration rates, using fixed (i.e., non-movable) acoustical glazing, or eliminating windows altogether. Noise transmitted through walls can be reduced by increasing wall mass (e.g., using stucco or brick in lieu of wood siding), or isolating wall members by using double or staggered stud walls, while noise transmitted through doorways can be lessened by reducing door area, using solid-core doors, or sealing door perimeters with suitable gaskets. Noise-reducing roof treatments include using plywood sheathing under roofing materials.

2.10.5 Landscaping

While the use of trees and other vegetation is often thought to provide significant noise attenuation, approximately 100 feet of dense foliage – with no visual path extending through the foliage – is required to achieve a 5-dBA attenuation of traffic noise. Thus, the use of vegetation as a noise barrier is not considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

Vegetation can be used, however, to acoustically “soften” intervening ground between a noise source and a receiver, increasing ground absorption of sound, and thus, increasing the attenuation of sound with distance. Planting trees and shrubs also offers aesthetic and psychological value, and it may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels would be largely unaffected.

3.0 Ground-Borne Vibration Fundamentals

3.1 Vibration Descriptors

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels, damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

Several different methods are used to quantify vibration amplitude.

PPV – Known as the peak particle velocity (PPV) which is the maximum instantaneous peak in vibration velocity, typically given in inches per second.

RMS – Known as root mean squared (RMS) can be used to denote vibration amplitude

VdB – A commonly used abbreviation to describe the vibration level (VdB) for a vibration source.

3.2 Vibration Perception

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Outdoor sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration. To counter the effects of ground-borne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts. According to the FTA, fragile buildings can be exposed to ground-borne vibration levels of 0.3 inches per second without experiencing structural damage.

3.3 Vibration Propagation

There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be

effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 Regulatory Setting

The proposed project is located in the City of Fresno and noise regulations are addressed through the efforts of various federal, state and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

4.1.1 Noise Control Act of 1972

The Federal Office of Noise Abatement and Control (ONAC) originally was tasked with implementing the Noise Control Act. However, it was eventually eliminated leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows:

- The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies.
- The Federal Aviation Agency (FAA) is responsible to regulate noise from aircraft and airports.
- The Federal Highway Administration (FHWA) is responsible to regulate noise from the interstate highway system.
- The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

The federal government advocates that local jurisdiction use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being constructed adjacent to a highway, or alternatively that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation source, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement Codes and land use planning.

4.2 State Regulations

4.2.1 State of California General Plan Guidelines

Though not adopted by law, the State of California General Plan Guidelines (2017), published by the California Governor’s Office of Planning and Research (OPR) (OPR Guidelines), provide guidance for the compatibility of projects within areas of specific noise exposure. The OPR Guidelines identify the suitability of various types of construction relative to a range of outdoor noise levels and provide each local community some flexibility in setting local noise standards that allow for the variability in community preferences. Findings presented in the Levels of Environmental Noise Document (EPA 1974) influenced the recommendations of the OPR Guidelines, most importantly in the choice of noise exposure metrics (i.e., Ldn or CNEL) and in the upper limits for the Normally Acceptable outdoor exposure of noise-sensitive uses. The OPR Guidelines include a Noise and Land Use Compatibility Matrix identifies acceptable and unacceptable community noise exposure limits for various land use categories.

The City of Fresno has adopted their own version of this matrix which is discussed below under Section 4.3.

4.2.2 Title 24 of the Uniform Building Code

Section 1206.4 of the California Building Code (2019), Title 24, Part 2, Chapter 12 (Interior Environment), establishes an interior noise criteria of 45 dBA CNEL for “dwelling units”. Per California Building Code, Title 24, Part 2, Chapter 2 (Definitions), a residential dwelling unit is intended to be used as a residence that is primarily long-term in nature. Residential dwelling units do not include transient lodging, inpatient medical care, licensed long-term care, and detention or correctional facilities.

California Building Code (2019), Title 24, Part 2, Chapter 5 (Nonresidential Mandatory Measures), applies to all proposed buildings that people may occupy but are not residential dwelling units, with the exception of factories, stadiums, storage, enclosed parking structures, and utility buildings. Section 5.507.4.1 requires wall and roof-ceiling assemblies exposed to the noise source making up the building, or addition envelope or altered envelope, shall meet a composite Sound Transmission Class (STC) rating of at least 50 or a composite Outdoor to Indoor Transmission Class (OITC) rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30.

4.2.3 California Environmental Quality Act

The California Environmental Quality Act Guidelines (Appendix G) establishes thresholds for noise impact analysis as presented below:

(a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise Code, or applicable standards of other agencies?

Discussion/Explanation

Substantial increases in ambient noise levels are usually associated with project construction noise (temporary), and project on-site and off-site operational noise (permanent).

Project Construction Noise (temporary): Construction noise sources are regulated within the City of Fresno Municipal Code Section 10.24.020, Definitions and Examples of Prohibited Noise, which states that the erection or demolition of buildings (excluding owner resident additions or remodeling), and the grading and excavation of land including the use of blasting, the start-up and use of heavy equipment such as dump trucks and graders, and the use of jack hammers, are prohibited, except on week days Monday through Friday between the hours of 7:00 a.m. and 6:00 p.m. and on Saturdays 8:00 a.m. to 5:00 p.m. The City Manager may waive any or all of the provisions of this subsection in cases of urgent necessity, or in the interest of public health and safety. The provisions of this subsection may also be waived or modified pursuant to a Conditional Use Permit or other development entitlement processed and issued in accordance with the applicable City requirements and procedures. The City does not have explicit limits on the sound levels of construction equipment.

Therefore, temporary substantial increases in ambient noise levels that occur within the allowed hours of operation (Monday through Friday between the hours of 7:00 a.m. and 6:00 p.m. and on Saturdays 8:00 a.m. to 5:00 p.m.) are not considered to be significant.

Project Operational Noise (permanent): Development projects that may occur with implementation of the proposed General Plan may result in permanent increases in ambient noise levels. For stationary noise sources, Sections 10-102-109 of the City of Fresno Municipal Code will apply. If it is likely that the project may result in regular violations of the noise standards, the project is likely to result in long-term substantial increases in ambient noise levels.

City of Fresno General Plan Noise Element Policy NS-1-j (Significance Threshold), states that a threshold of significance should be developed for the City's environmental review process, specifically a significant increase in ambient noise levels should be assumed if the project would increase noise levels in the immediate vicinity by 3 dB Ldn or CNEL or more above the ambient noise limits established in this General Plan Update. For clarity, the following threshold will be utilized for analysis purposed in this noise and vibration study.

For project generated off-site noise, i.e. project generated vehicle trips, the impact is considered substantial if it results in an increase of at least 3 dBA CNEL and: (1) the existing noise levels already exceed the applicable land use compatibility standard (See Table 6) for the affected sensitive receptors set forth in the Noise Element of the City's General Plan; or (2) the project increases noise levels by at least 3 dBA CNEL and raises the ambient noise level from below the 65 dBA CNEL standard to above 65 dBA CNEL.

b) Generate excessive ground-borne vibration or ground-borne noise levels?

Exhibit C illustrates common vibration sources and the human and structural responses to ground-borne vibration. As shown in the exhibit, the threshold of perception for human response is approximately 65 VdB; however, human response to vibration is not usually substantial unless the vibration exceeds 70 VdB. Vibration tolerance limits for sensitive instruments such as magnetic resonance imaging (MRI) or electron microscopes could be much lower than the human vibration perception threshold.

As shown in Table 5, a peak particle velocity (PPV) of 0.20 is the threshold at which there is a risk to "architectural" damage to normal dwellings. It also the level at which ground-borne vibration are annoying to people in buildings. Impacts would be significant if construction activities result in ground-borne vibration of 0.20 or higher at a sensitive receptor.

<Exhibit C, next page>

Exhibit C Typical Ground-Borne Vibration Levels

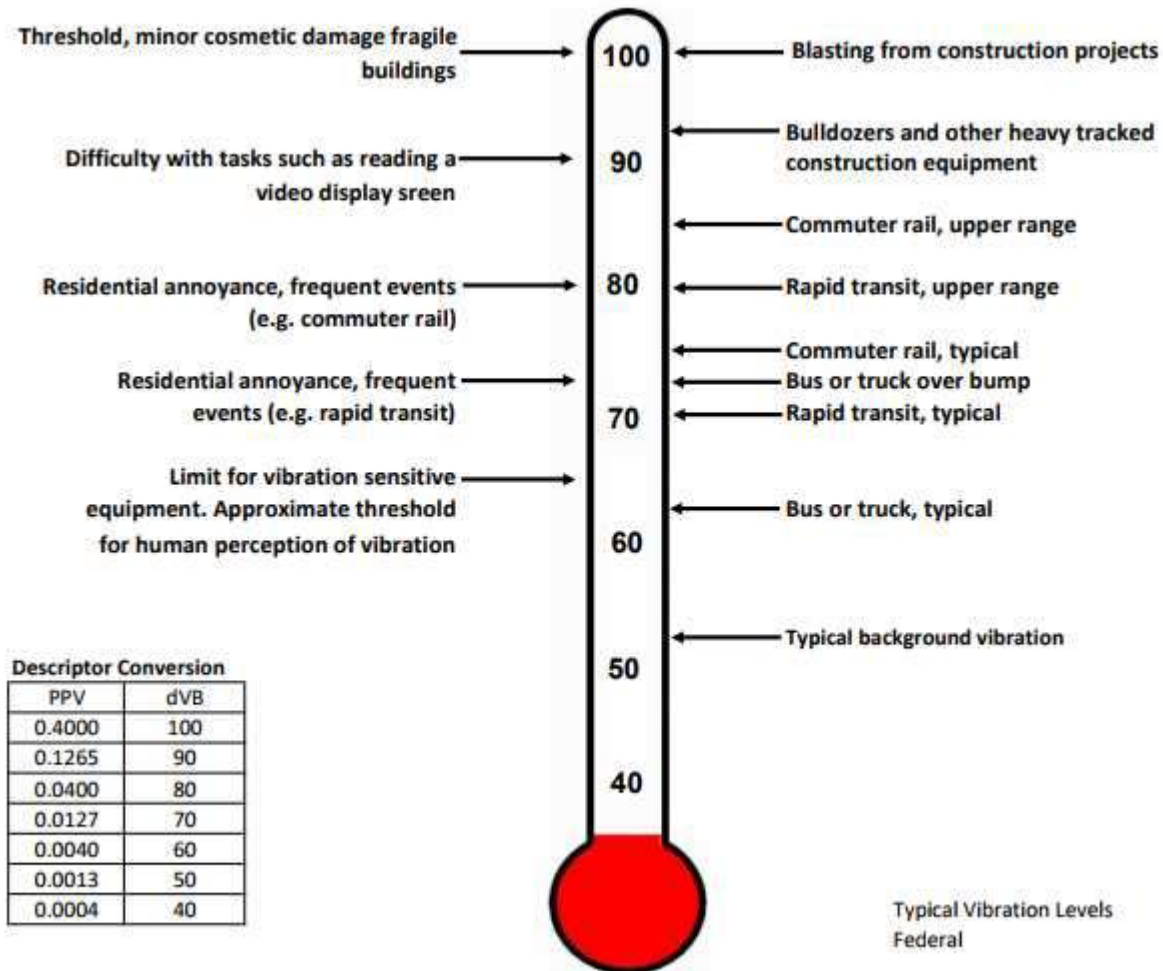


Table 5: Typical Human Reaction and Effect on Buildings Due to Ground-Borne Vibration

Vibration Level Peak Particle Velocity (PPV)	Human Reaction	Effect on Buildings
0.006–0.019 in/sec	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08 in/sec	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10 in/sec	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e., not structural) damage to normal buildings
0.20 in/sec	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6 in/sec	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage
Source: California Department of Transportation, 2013b		

4.3 City of Fresno

Planning policies and noise regulations applicable to noise within the City of Fresno are presented in the Noise Element of the City of Fresno General Plan and within the City of Fresno Municipal Code. Applicable goals, policies, and regulations are presented below.

4.3.1 City of Fresno General Plan

The City of Fresno General Plan Noise Element sets forth noise standards for transportation noise sources. Ideally, proposed land uses would be developed in areas where future noise levels due to transportation noise sources (except aircraft) would not exceed those presented in Table 6.

<Table 6, next page>

Table 6: Transportation (Non-Aircraft Noise Sources)

Noise Sensitive Land Use	Outdoor Activity Areas ¹⁻³	Interior Spaces	
	Ldn/CNEL, dB	Ldn/CNEL, dB	Leq dB ²
Residential	65	45	-
Transient Lodging	65	45	-
Hospitals, Nursing Homes	65	45	-
Theaters, Auditoriums, Music Halls	-	-	35
Churches, Meeting Halls	65	-	45
Office Buildings	-	-	45
Schools, Libraries, Museums	-	-	45

Source: City of Fresno General Plan Noise Element Table 9-2, 2014.

Notes:

- Where the location of outdoor activity areas is unknown or is not applicable, the exterior noise level standard shall be applied to the property line of the receiving land use.
- Excludes front or side yard areas, and front or side porches. Balconies or roof decks facing front and side yards shall be included in designated areas to be protected from noise where these spaces are used to calculate compliance with required outdoor living area as required by adopted development standards.
- Residential and noise sensitive uses located along Bus Rapid Transit corridors or within Activity Centers as identified in the City of Fresno General Plan, are exempt from exterior noise standards where it is determined application of noise mitigation measures will be detrimental to the realization of the General Plan's mixed use policies. Interior noise level standards shall still apply.
- As determined for a typical worst-case hour during periods of use.

The City of Fresno General Plan Element also includes standards for stationary noise sources to regulate noise emanating from one property to another. Stationary Noise Standards are presented in Table 7.

Table 7: Stationary Noise Source Standards

	Daytime (7:00 AM - 10:00 PM)	Nighttime (10:00 PM -7:00 AM)
Hourly Equivalent Sound Level (Leq), dBA	50	45
Maximum Sound Level (Lmax), dBA	70	60

Notes:

- The Department of Development and Resource Management Director, on a case-by-case basis, may designate land uses other than those shown in this table to be noise-sensitive, and may require appropriate noise mitigation measures.
- As determined at outdoor activity areas. Where the location of outdoor activity areas is unknown or not applicable, the noise exposure standard shall be applied at the property line of the receiving land use. When ambient noise levels exceed or equal the levels in this table, mitigation shall only be required to limit noise to the ambient plus five dBA.

In addition to the noise guidelines presented above in Tables 6 and 7, the City has adopted Objectives and Policies as part of their General Plan to minimize noise impacts in the community, as follows.

NS-1 Protect the citizens of the City from the harmful and annoying effects of exposure to excessive noise.

NS-1-a Desirable and Generally Acceptable Exterior Noise Environment.

Establish 65 dBA Ldn or CNEL as the standard for the desirable maximum average exterior noise levels for defined usable exterior areas of residential and noise-sensitive uses for noise, but designate 60 dBA

Ldn or CNEL (measured at the property line) for noise generated by stationary sources impinging upon residential and noise sensitive uses. Maintain 65 dBA Ldn or CNEL as the maximum average exterior noise levels for non-sensitive commercial land uses, and maintain 70 dBA Ldn or CNEL as maximum average exterior noise level for industrial land uses, both to be measured at the property line of parcels where noise is generated which may impinge on neighboring properties.

Commentary: The Noise Ordinance will define usable exterior areas for single family and multiple family residential and noise sensitive uses to include rear yards and other outdoor areas intended to accommodate leisure or active use, excluding front or side yard areas, and front or side porches. Balconies or roof decks facing front and side yards shall be included in designated areas to be protected from noise where these spaces are used to calculate compliance with required outdoor living area as required by adopted development standards.

NS-1-b Conditionally Acceptable Exterior Noise Exposure Range.

Establish the conditionally acceptable noise exposure level range for residential and other noise sensitive uses to be 65 dB Ldn or require appropriate noise reducing mitigation measures as determined by a site specific acoustical analysis to comply with the desirable and conditionally acceptable exterior noise level and the required interior noise level standards set in Table 9-2 (Table 6 in this report).

NS-1-c Generally Unacceptable Exterior Noise Exposure Range.

Establish the exterior noise exposure of greater than 65 dB Ldn or CNEL to be generally unacceptable for residential and other noise sensitive uses for noise generated by sources in Policy NS-1-a, and study alternative less noise-sensitive uses for these areas if otherwise appropriate. Require appropriate noise reducing mitigation measures as determined by a site specific acoustical analysis to comply with the generally desirable or generally acceptable exterior noise level and the required 45 dB interior noise level standards set in Table 9-2 (Table 6 in this report) as conditions of permit approval.

NS-1-d Allowable Exterior Noise Environment for Bus Rapid Transit and Activity Centers.

Exclude residential and noise sensitive uses located along Bus Rapid Transit corridors or within Activity Centers identified by this General Plan, from exterior noise standards in Policies NS-1-a through NS-1-c where it is determined application of noise mitigation measures will be detrimental to the realization of the General Plan's mixed use policies.

Commentary: Interior noise level standards of Table 9-2 (Table 6 in this report) will still apply.

NS-1-e Update Noise Ordinance.

Update the Noise Ordinance to ensure that noise exposure information and specific standards for both exterior and interior noise and measurement criteria are consistent with this General Plan and changing conditions within the city and with noise control regulations or policies enacted after the adoption of this element.

NS-1-f Performance Standards.

Implement performance standards for noise reduction for new residential and noise sensitive uses exposed to exterior community noise levels from transportation sources above 65 dB Ldn or CNEL, as shown on Exhibit NS-3: Future Noise Contours, or as identified by a project-specific acoustical analysis based on the target acceptable noise levels set in Table 9-2 (Table 6 in this report) and Policies NS-1-a through NS-1-c.

NS-1-g Noise Mitigation Measures.

Noise mitigation measures which help achieve the noise level targets of this plan include, but are not limited to, the following:

- Façades with substantial weight and insulation;
- Installation of sound-rated windows for primary sleeping and activity areas;
- Installation of sound-rated doors for all exterior entries at primary sleeping and activity areas;
- Greater building setbacks and exterior barriers;
- Acoustic baffling of vents for chimneys, attic and gable ends;
- Installation of mechanical ventilation systems that provide fresh air under closed window conditions.

The aforementioned measures are not exhaustive and alternative designs may be approved by the City, provided that a qualified Acoustical Consultant submits information demonstrating that the alternative design(s) will achieve and maintain the specific targets for outdoor activity areas and interior spaces.

NS-1-h Interior Noise Level Requirement.

Comply with the State Code requirement that any new multifamily residential, hotel, or dorm buildings must be designed to incorporate noise reduction measures to meet the 45 dB Ldn interior noise criterion, and apply this standard as well to all new single-family residential and noise sensitive uses.

NS-1-i Mitigation by New Development.

Require an acoustical analysis where new development of industrial, commercial or other noise generating land uses (including transportation facilities such as roadways, railroads, and airports) may result in noise levels that exceed the noise level exposure criteria established by Tables 9-2 and 9-3 (Tables 6 and 7 in this report) to determine impacts, and require developers to mitigate these impacts in conformance Tables 6 and 7 in this report as a condition of permit approval through appropriate means. Noise mitigation measures may include:

- The screening of noise sources such as parking and loading facilities, outdoor activities, and mechanical equipment;
- Providing increased setbacks for noise sources from adjacent dwellings;
- Installation of walls and landscaping that serve as noise buffers;
- Installation of soundproofing materials and double-glazed windows; and
- Regulating operations, such as hours of operation, including deliveries and trash pickup.

Alternative acoustical designs that achieve the prescribed noise level reduction may be approved by the City, provided a qualified acoustical consultant submits information demonstrating that the alternative designs will achieve and maintain the specific targets for outdoor activity areas and interior spaces. As a last resort, developers may propose to construct noise walls along roadways when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility, with no City funding.

NS-1-j Significance Threshold.

Establish, as a threshold of significance for the City's environmental review process, that a significant increase in ambient noise levels is assumed if the project would increase noise levels in the immediate vicinity by 3 dB Ldn or CNEL or more above the ambient noise limits established in this General Plan Update.

Commentary: When an increase in noise would result in a “significant” impact (increase of three dBA or more) to residents or businesses, then noise mitigation would be required to reduce noise exposure. If the increase in noise is less than three dBA, then the noise impact is considered insignificant and no noise mitigation is needed.

By setting a specific threshold of significance in the General Plan, this policy facilitates making a determination of environmental impact, as required by the California Environmental Quality Act. It helps the City determine whether (1) the potential impact of a development project on the noise environment warrants mitigation, or (2) a statement of overriding considerations will be required.

NS-1-k Proposal Review.

Review all new public and private development proposals that may potentially be affected by or cause a significant increase in noise levels, per Policy NS-1-i, to determine conformance with the policies of this Noise Element. Require developers to reduce the noise impacts of new development on adjacent properties through appropriate means.

NS-1-l Enforcement.

Continue to enforce applicable State Noise Insulation Standards and Uniform Building Code noise requirements, as adopted by the City.

NS-1-m Transportation Related Noise Impacts.

For projects subject to City approval, require that the project sponsor mitigate noise created by new transportation and transportation-related stationary noise sources, including roadway improvement projects, so that resulting noise levels do not exceed the City's adopted standards for noise sensitive land uses.

NS-1-n Best Available Technology.

Require new noise sources to use best available control technology to minimize noise emissions.

Commentary: Noise from mechanical equipment can be reduced by soundproofing materials and sound-deadening installation; controlling hours of operation will also reduce noise impacts during the morning or evening.

NS-1-o Sound Wall Guidelines.

Acoustical studies and noise mitigation measures for projects shall specify the heights, materials, and design for sound walls and other noise barriers. Aesthetic considerations shall also be addressed in these studies and mitigation measures such as variable noise barrier heights, a combination of a landscaped berm with wall, and reduced barrier height in combination with increased distance or elevation differences between noise source and noise receptor, with a maximum allowable height of 15 feet. The City will develop guidelines for aesthetic design measures of sound walls, and may commission area wide noise mitigation studies that can serve as templates for acoustical treatment that can be applied to similar situations in the urban area.

Commentary: While acoustical studies need to be site-specific in order to appropriately assess particular settings, having prototypical design measures and noise control templates that can be applied for similar situations and contexts can facilitate infill and other development. These can be provided in this noise report and carried forward into the Specific Plan.

NS-1-p Airport Noise Compatibility.

Implement the land use and noise exposure compatibility provisions of the adopted Fresno Yosemite International Airport Land Use Compatibility Plan, the Fresno Chandler Executive Airport Master and Environs Specific Plan, and the Sierra Sky Park Land Use Policy Plan to assess noise compatibility of proposed uses and improvements within airport influence and environs areas.

4.3.2 West Area Community Plan

The City of Fresno is divided into nine community planning areas. The project site is within the West Area Community Plan Area. The West Area Community Plan includes a few land use related policies that encourage good design and avoidance of potential noise issues. These policies are presented below.

W-7-e. Policy: All loading spaces shall be located not less than 150 feet from the boundary of any residential property; however, the proximity of loading areas may be reduced when adequate design and operational measures (such as restricted hours for loading activities) are approved to mitigate noise, lights, and other nuisances associated with loading areas, in order to protect adjacent residential uses. In all cases, loading areas shall be screened from view of adjoining property zoned, planned, or approved for residential uses. This screening shall be accomplished by either placing loading docks and areas on the sides of buildings that face away from residential property, or by a combination of landscape planting and a solid masonry wall. Where possible, loading areas should not be visible from, nor take access from, local streets with residential frontage.

W-7-f. Policy: Roof-mounted and detached mechanical equipment for commercial and office uses should be screened from view of adjacent residential areas, and acoustically baffled to prevent the noise level

rating for the equipment from exceeding the applicable city standard for ambient noise at residential property lines.

4.3.3 City of Fresno Noise Ordinance

The City of Fresno has adopted several ordinances to regulate unwanted sounds. Those applicable to this analysis are presented below.

SEC. 10-102. Definitions.

- (b) Ambient Noise. “Ambient noise” is the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far. For the purpose of this ordinance, ambient noise level is the level obtained when the noise level is averaged over a period of fifteen minutes, without inclusion of the offending noise, at the location and time of day at which a comparison with the offending noise is to be made. Where the ambient noise level is less than what is presented in Table 8 for the applicable type of land use, the sound level presented in Table 8, shall be deemed to be the ambient noise level for that location.

Table 8: Ambient Noise

District	Time	Sound Level Decibels
Residential	10:00 PM to 7:00 AM	50
	7:00 PM to 10:00 PM	55
	7:00 AM to 7:00 PM	60
Commercial	10:00 PM-7:00 AM	60
	7:00 AM to 10:00 PM	65
Industrial	Anytime	70

Source: Fresno Municipal Code Section 10-102(b)

Section 10-105. Excessive Noise Prohibited. No person shall make, cause, or suffer or permit to be made or caused upon any premises or upon any public street, alley, or place within the city, any sound or noise which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing or working in the area, unless such noise or sound is specifically authorized by or in accordance with this article. The provisions of this section shall apply to, but shall be limited to, the control, use, and operation of the following noise sources:

- (a) Radios, musical instruments, phonographs, television sets, or other machines or devices used for the amplification, production, or reproduction of sound or the human voice.
- (b) Animals or fowl creating, generating, or emitting any cry or behavioral sound.
- (c) Machinery or equipment, such as fans, pumps, air conditioning units, engines, turbines, compressors, generators, motors or similar devices, equipment, or apparatus.

- (d) Construction equipment or work, including the operation, use or employment of pile drivers, hammers, saws, drills, derricks, hoists, or similar construction equipment or tools.

Section 10-107. School, Hospitals, and Churches. No person shall create any noise on any street, sidewalk, or public place adjacent to any school, institution of learning, or church while the same is in use, or adjacent to any hospital, which noise unreasonably interferes with the workings of such institution or which disturbs or unduly annoys patients in the hospital, provided conspicuous signs are displayed in such street, sidewalk, or public place indicating the presence of a school, church, or hospital.

Section 10-109. Exceptions. The provisions of this article shall not apply to:

- (a) Construction, repair or remodeling work accomplished pursuant to a building, electrical, plumbing, mechanical, or other construction permit issued by the city or other governmental agency, or to site preparation and grading, provided such work takes place between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday.
- (b) Emergency work.
- (c) Any act or acts which are prohibited by any law of the State of California or the United States.

5.0 Study Method and Procedure

The following section describes the noise modeling procedures and assumptions used for this assessment.

5.1 Noise Measurement Procedure and Criteria

Noise measurements are taken to determine the existing noise levels. A noise receiver or receptor is any location in the noise analysis in which noise might produce an impact. The following criteria are used to select measurement locations and receptors:

- Locations expected to receive the highest noise impacts, such as first row of houses
- Locations that are acoustically representative and equivalent of the area of concern
- Human land usage
- Sites clear of major obstruction and contamination

MD conducted the sound level measurements in accordance to the City and CalTrans technical noise specifications. All measurements equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA). The following gives a brief description of the Caltrans Technical Noise Supplement procedures for sound level measurements:

- Microphones for sound level meters were placed 5-feet above the ground for all measurements
- Sound level meters were calibrated (Larson Davis CAL 200) before and after each measurement
- Following the calibration of equipment, a wind screen was placed over the microphone
- Frequency weighting was set on “A” and slow response
- Results of the long-term noise measurements were recorded on field data sheets
- During any short-term noise measurements any noise contaminations such as barking dogs, local traffic, lawn mowers, or aircraft fly-overs were noted
- Temperature and sky conditions were observed and documented

5.2 SoundPLAN Noise Modeling

SoundPLAN acoustical modeling software was utilized to create existing and existing plus project plus cumulative traffic noise level contours for all General Plan designated roadways. Model parameters included average daily traffic volumes, day/evening/night split, roadway classification, width, speed, and truck mix. Surfaces adjacent to all modeled roadways were assumed to have a “hard site” to predict worst-case, conservative noise levels. A hard site, such as pavement, is highly reflective and does not attenuate noise as quickly as grass or other soft sites. Possible reductions in noise levels due to intervening topography and buildings were not accounted for in this analysis. Roadway modeling assumptions utilized for the technical study are provided in Table 9 (Existing Conditions) and Table 10 (Existing Plus Project Plus Cumulative Conditions) and in Appendix A.

A summary of the model parameters and REMEL adjustments are presented below.

- Roadway classification – (e.g. freeway, major arterial, arterial, secondary, collector, etc.),
- Roadway Active Width – (distance between the center of the outer most travel lanes on each side of the roadway)
- Average Daily Traffic Volumes (ADT), Travel Speeds, Percentages of automobiles, medium trucks and heavy trucks
- Roadway grade and angle of view
- Site Conditions (e.g. soft vs. hard)
- Percentage of total ADT which flows each hour through-out a 24-hour period

Rail noise was modeled using the Create Freight Noise and Vibration Model/Spreadsheet. CREATE assumptions include one rail yard, two locomotives per train, 43,100 feet of rail cars, and an average speed of 45 mph. Current data shows that approximately 14 trains travel along this rail line during each 24-hour period. The Create Noise Model output was entered into the SoundPLAN noise model as a line source. SoundPLAN input and output is provided in Appendix A.

5.3 FHWA Traffic Noise Prediction Model

The FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) was utilized to model and to compare existing traffic noise levels to existing plus project plus cumulative traffic noise levels. The FHWA model arrives at the predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). Roadway modeling assumptions utilized for the technical study are provided in Table 9 (Existing Conditions) and Table 10 (Existing Plus Project Plus Cumulative Conditions) indicates the roadway parameters and vehicle distribution utilized for this study.

<Table 9, next page>

Table 9: Roadway Segment Modeling Assumptions - Existing Conditions

Roadway	Segment Limits	Existing ADT ^{1,2}	Speed ³	West Area Plan Designation ⁴
State Route 99	W. Herndon Ave to W. Shaw Ave	81,000	65	Freeway
State Route 99	W. Shaw Ave to W. Ashlan Ave	77,000	65	Freeway
State Route 99	W. Ashlan Ave to W. Dakota Ave	105,000	65	Freeway
State Route 99	W. Dakota Ave to W. Shields Ave	104,000	65	Freeway
State Route 99	W. Shields Ave to W. Clinton Ave	107,000	45	Freeway
W. Herndon Ave	N. Garfield Ave to N. Parkway Drive	No Data	35	Collector
W. Bullard Ave	N Garfield Ave to N. Grantland Ave	600	35	Collector
W. Bullard Ave	N. Grantland Ave to N. Bryan Ave	2,900	35	Collector
W. Bullard Ave	N. Bryan Ave to SR-99	No Data	45	Collector
W. Barstow Ave	N Garfield to N. Grantland Ave	1,200	45	Collector
W. Barstow Ave	N. Grantland Ave to N. Bryan Ave	800	35	Collector
W. Barstow Ave	N. Bryan Ave to N. Contessa Ave	No Data	50	Collector
W. Barstow Ave	N. Contessa Ave to N. Island Waterpark Drive	No Data	45	Collector
W. Shaw Ave	N Garfield Ave to N. Grantland Ave	6,000	35	Arterial
W. Shaw Ave	N. Grantland Ave to N. Bryan Ave	7,100	35	Arterial
W. Shaw Ave	N. Bryan Ave to 1,300 ft east of N. Hayes Ave	8,250	35	Arterial
W. Shaw Ave	1,300 ft east of N. Hayes Ave to N. Polk Ave	9,200	45	Arterial
W. Shaw Ave	N. Polk Ave to State Route 99	18,200	45	Arterial
W. Gettysburg Ave	1,300 ft west of N. Bryan Ave to Bryan Ave	1,200	35	Collector
W. Gettysburg Ave	N. Bryan Ave to N. Hayes Ave	1,700	35	Collector
W. Gettysburg Ave	N. Hayes Ave to N. Polk Ave	1,950	35	Collector
W. Gettysburg Ave	N. Polk Ave to N. Barcus	1,200	45	Collector
W. Ashlan Ave	N. Garfield to N. Grantland	No Data	45	Arterial
W. Ashlan Ave	N. Grantland Ave to N. Bryan Ave	3,200	45	Arterial
W. Ashlan Ave	N. Bryan Ave to N. Hayes Ave	3,100	35	Arterial
W. Ashlan Ave	N. Hayes Ave to N. Polk Ave	2,050	35	Arterial
W. Ashlan Ave	N. Polk Ave to N. Cornelia Ave	6,500	35	Arterial
W. Ashlan Ave	N. Cornelia Ave to N. Blythe Ave	16,350	35	Arterial
W. Ashlan Ave	N. Blythe Ave to State Route 99	23,600	35	Arterial
W. Dakota Ave	N. Hayes Ave to N. Barcus Ave	1,950	35	Collector
W. Dakota Ave	N. Barcus Ave to N. Polk Ave	1,950	45	Collector
W. Dakota Ave	N. Polk Ave to N. Cornelia Ave	5,100	35	Collector
W. Dakota Ave	N. Cornelia Ave to N. Blythe Ave	4,250	35	Collector
W. Dakota Ave	N. Blythe Ave to N Brawley Ave	3,150	35	Collector
W. Dakota Ave	N Brawley Ave to N. Parkway Drive	2,400	35	Collector
W. Shields Ave	N. Garfield Ave to Grantland Ave	2,700	35	Collector
W. Shields Ave	N. Grantland Ave to N. Bryan Ave	2,750	35	Collector

Table 9: Roadway Segment Modeling Assumptions - Existing Conditions

Roadway	Segment Limits	Existing ADT ^{1,2}	Speed ³	West Area Plan Designation ⁴
W. Shields Ave	N. Bryan Ave to N. Hayes Ave	3,550	35	Collector
W. Shields Ave	N. Hayes Ave to N. Polk Ave	3,250	35	Collector
W. Shields Ave	N. Polk Ave to N. Dante Ave	3,750	45	Collector
W. Shields Ave	N. Dante Ave to N. Cornelia Ave	3,750	45	Collector
W. Shields Ave	N. Cornelia Ave to N. Blythe Ave	4,600	35	Collector
W. Shields Ave	N. Blythe Ave to N. Brawley Ave	4,400	35	Collector
W. Shields Ave	N Brawley Ave to N. Valentine Ave	5,800	35	Collector
W. Shields Ave	N. Valentine Ave to N. Marks Ave	6,900	35	Collector
W. Clinton Ave	N. Grantland Ave to N. Bryan Ave	400	35	Super Arterial
W. Clinton Ave	N. Bryan Ave to N. Hayes Ave	700	35	Super Arterial
W. Clinton Ave	N. Hayes Ave to N. Polk Ave	1,050	35	Super Arterial
W. Clinton Ave	N. Polk Ave to 1900 ft east of N. Polk Ave	1,050	35	Super Arterial
W. Clinton Ave	1900 east of N. Polk Ave to N. Cornelia Ave	3,400	45	Super Arterial
W. Clinton Ave	N. Cornelia Ave to N. Milburn Ave	6,400	50	Super Arterial
W. Clinton Ave	N. Milburn Ave to N. Blythe Ave	6,400	45	Super Arterial
W. Clinton Ave	N. Blythe Ave to N Sonora Ave	9,300	50	Super Arterial
W. Clinton Ave	N. Sonora Ave to N Brawley Ave	9,300	45	Super Arterial
W. Clinton Ave	N Brawley Ave to N. Knoll Ave	9,850	45	Super Arterial
W. Clinton Ave	N. Knoll Ave to 850 ft east of N. Knoll Ave	9,850	45	Super Arterial
W. Clinton Ave	850 east of N. Knoll Ave to N. Valentine Ave	9,850	35	Super Arterial
W. Clinton Ave	N. Valentine Ave to N. Marks Ave	11,300	45	Super Arterial
W. Clinton Ave	N. Marks Ave to W. Vassar Ave	20,000	50	Super Arterial
N Garfield Ave	W. Herndon Ave to W. Bullard Ave	No Data	35	Super Arterial
N Garfield Ave	W. Bullard Ave to W. Barstow Ave	No Data	35	Super Arterial
N Garfield Ave	W. Barstow Ave to 1,000 ft south of W. Barstow Ave	No Data	45	Super Arterial
N Garfield Ave	1,000 ft south of W. Barstow Ave to W. Shaw Ave	No Data	45	Super Arterial
N Garfield Ave	W. Shaw Ave to W. Gettysburg Ave	No Data	35	Super Arterial
N Garfield Ave	W. Gettysburg Ave to W. Ashlan Ave	5,381	35	Super Arterial
N Garfield Ave	W. Ashlan Ave to W. Dakota Ave	No Data	35	Super Arterial
N Garfield Ave	W. Dakota Ave to W. Shields Ave	4,998	35	Super Arterial
N. Parkway Drive	N Herndon Ave to W. Herndon Ave	No Data	35	Arterial
N. Grantland Ave	N. Parkway Drive to W. Bullard Ave	No Data	35	Collector
N. Grantland Ave	W. Bullard Ave to W. Barstow Ave	No Data	45	Arterial
N. Grantland Ave	W. Barstow Ave to W. Shaw Ave	6,700	45	Arterial
N. Grantland Ave	W. Shaw Ave to W. Gettysburg Ave	3,900	35	Arterial
N. Grantland Ave	W. Gettysburg Ave to W. Ashlan Ave	4,000	45	Super Arterial
N. Grantland Ave	W. Ashlan Ave to W Dakota Ave	3,050	45	Super Arterial

Table 9: Roadway Segment Modeling Assumptions - Existing Conditions

Roadway	Segment Limits	Existing ADT ^{1,2}	Speed ³	West Area Plan Designation ⁴
N. Grantland Ave	W. Dakota Ave to W. Shields Ave	No Data	45	Super Arterial
N. Grantland Ave	W Shields Ave to W. Clinton Ave	2,300	45	Super Arterial
N. Bryan Ave	W. Shaw Ave to W. Santa Ana Ave	2,400	35	Collector
N. Bryan Ave	W. Santa Ana Ave to W. Gettysburg Ave	2,400	35	Collector
N. Bryan Ave	W. Gettysburg Ave to W. Ashlan Ave	3,100	45	Collector
N. Bryan Ave	W. Ashlan Ave to W. Dakota Ave	1,750	45	Collector
N. Bryan Ave	W. Dakota Ave to W Shields Ave	1,750	35	Collector
N. Bryan Ave	W Shields Ave to W. Clinton Ave	650	35	Collector
N. Hayes Ave	W. Shaw Ave to W. Santa Ana Ave	2,700	45	Collector
N. Hayes Ave	W. Santa Ana Ave to W. Gettysburg Ave	2,700	45	Collector
N. Hayes Ave	W. Gettysburg Ave to W. Swift Ave	1,700	45	Collector
N. Hayes Ave	W. Swift Ave to W. Ashlan Ave	1,700	35	Collector
N. Hayes Ave	W. Ashland Ave to W. Dakota Ave	2,400	35	Collector
N. Hayes Ave	W. Dakota Ave to 1,300 ft South of W. Dakota Ave	2,150	35	Collector
N. Hayes Ave	1,300 ft South of W. Dakota Ave to W Shields Ave	2,150	45	Collector
N. Hayes Ave	W Shields Ave to W. Clinton Ave	1,650	35	Collector
N. Polk Ave	North of W. Shaw Ave	4,400	45	Arterial
N. Polk Ave	W. Shaw Ave to W. Acacia Ave	7,300	45	Arterial
N. Polk Ave	W. Acacia Ave to W. Gettysburg Ave	7,300	45	Arterial
N. Polk Ave	W. Gettysburg Ave to W. Ashlan Ave	4,850	35	Arterial
N. Polk Ave	W. Ashland Ave to W. Griffith Way	5,600	35	Arterial
N. Polk Ave	W. Griffith Way to W. Dakota Ave	5,600	45	Arterial
N. Polk Ave	W. Dakota Ave to W Shields Ave	4,900	35	Arterial
N. Polk Ave	W Shields Ave to W. Clinton Ave	3,750	35	Arterial
N. Cornelia Ave	N. Parkway Drive to W. Gettysburg Ave	5,700	45	Collector
N. Cornelia Ave	W. Gettysburg to W. Ashlan Ave	5,700	45	Collector
N. Cornelia Ave	W. Ashland Ave to W. Bellaire Way	7,800	45	Collector
N. Cornelia Ave	W. Bellaire Way to W. Dakota Ave	7,800	45	Collector
N. Cornelia Ave	W. Dakota Ave to W Shields Ave	5,800	35	Collector
N. Cornelia Ave	W Shields Ave to W. Clinton Ave	5,600	45	Collector
N. Blythe Ave	W. Ashlan Ave to W. Dakota Ave	6,700	35	Arterial
N. Blythe Ave	W. Dakota Ave to W Shields Ave	4,750	35	Collector
N. Blythe Ave	W Shields Ave to W. Clinton Ave	4,900	35	Collector
N Brawley Ave	N. Parkway Drive to W. Dakota Ave	6,600	35	Collector
N Brawley Ave	W. Dakota Ave to W. Dayton Ave	6,350	35	Collector
N Brawley Ave	W. Dayton Ave to W. Cortland Ave	6,350	45	Collector
N Brawley Ave	W. Cortland Ave to W. Shields Ave	6,350	35	Collector

Table 9: Roadway Segment Modeling Assumptions - Existing Conditions

Roadway	Segment Limits	Existing ADT ^{1,2}	Speed ³	West Area Plan Designation ⁴
N Brawley Ave	W Shields Ave to W. Clinton Ave	6,000	35	Collector
N. Valentine Ave	N. Parkway Drive to W Shields Ave	2,600	35	Collector
N. Valentine Ave	W Shields Ave to W. Clinton Ave	2,100	35	Collector
N. Marks Ave	W Princeton Ave to W. Clinton Ave	9,100	35	Collector
Notes: 1) Traffic Study for the West Area Specific Plan, Kittleson Associates, 2020 2) Traffic volumes and vehicle mix for State Route 99 source: https://dot.ca.gov/programs/traffic-operations/census . 3) Speed was modeled as posted. 4) West Area Planned Circulation Network, City of Fresno West Area Specific Plan Existing Conditions Report, March 2018				

Table 10: Road Segment Modeling Assumptions – Existing Plus Project Plus Cumulative

Roadway	Segment Limits	Existing Plus Project Plus Cumulative ADT ^{1,2}	Speed ³	West Area Plan Designation ⁴
State Route 99	W. Herndon Ave to W. Shaw Ave	81,000	65	Freeway
State Route 99	W. Shaw Ave to W. Ashlan Ave	77,000	65	Freeway
State Route 99	W. Ashlan Ave to W. Dakota Ave	105,000	65	Freeway
State Route 99	W. Dakota Ave to W. Shields Ave	104,000	65	Freeway
State Route 99	W. Shields Ave to W. Clinton Ave	107,000	65	Freeway
W. Herndon Ave	N. Garfield Ave to N. Parkway Drive	No Data	35	Collector
W. Bullard Ave	N Garfield Ave to N. Grantland Ave	6,683	35	Collector
W. Bullard Ave	N. Grantland Ave to N. Bryan Ave	9,706	35	Collector
W. Bullard Ave	N. Bryan Ave to SR-99	No Data	45	Collector
W. Barstow Ave	N Garfield to N. Grantland Ave	1,310	45	Collector
W. Barstow Ave	N. Grantland Ave to N. Bryan Ave	14,804	35	Collector
W. Barstow Ave	N. Bryan Ave to N. Contessa Ave	No Data	50	Collector
W. Barstow Ave	N. Contessa Ave to N. Island Waterpark Drive	No Data	45	Collector
W. Shaw Ave	N Garfield Ave to N. Grantland Ave	16,820	35	Arterial
W. Shaw Ave	N. Grantland Ave to N. Bryan Ave	47,627	35	Arterial
W. Shaw Ave	N. Bryan Ave to 1,300 ft east of N. Hayes Ave	45,973	35	Arterial
W. Shaw Ave	1,300 ft east of N. Hayes Ave to N. Polk Ave	54,592	45	Arterial
W. Shaw Ave	N. Polk Ave to State Route 99	88,601	45	Arterial
W. Gettysburg Ave	1,300 ft west of N. Bryan Ave to Bryan Ave	6,954	35	Collector
W. Gettysburg Ave	N. Bryan Ave to N. Hayes Ave	11,025	35	Collector
W. Gettysburg Ave	N. Hayes Ave to N. Polk Ave	18,739	35	Collector

Table 10: Road Segment Modeling Assumptions – Existing Plus Project Plus Cumulative

Roadway	Segment Limits	Existing Plus Project Plus Cumulative ADT ^{1,2}	Speed ³	West Area Plan Designation ⁴
W. Gettysburg Ave	N. Polk Ave to N. Barcus	9,002	45	Collector
W. Ashlan Ave	N. Garfield to N. Grantland	14,056	45	Arterial
W. Ashlan Ave	N. Grantland Ave to N. Bryan Ave	46,920	45	Arterial
W. Ashlan Ave	N. Bryan Ave to N. Hayes Ave	40,410	35	Arterial
W. Ashlan Ave	N. Hayes Ave to N. Polk Ave	44,366	35	Arterial
W. Ashlan Ave	N. Polk Ave to N. Cornelia Ave	43,099	35	Arterial
W. Ashlan Ave	N. Cornelia Ave to N. Blythe Ave	58,827	35	Arterial
W. Ashlan Ave	N. Blythe Ave to State Route 99	66,788	35	Arterial
W. Dakota Ave	N. Hayes Ave to N. Barcus Ave	16,139	35	Collector
W. Dakota Ave	N. Barcus Ave to N. Polk Ave	16,139	45	Collector
W. Dakota Ave	N. Polk Ave to N. Cornelia Ave	14,878	35	Collector
W. Dakota Ave	N. Cornelia Ave to N. Blythe Ave	14,338	35	Collector
W. Dakota Ave	N. Blythe Ave to N Brawley Ave	13,124	35	Collector
W. Dakota Ave	N Brawley Ave to N. Parkway Drive	7,448	35	Collector
W. Shields Ave	N. Garfield Ave to Grantland Ave	No Data	35	Collector
W. Shields Ave	N. Grantland Ave to N. Bryan Ave	13,365	35	Collector
W. Shields Ave	N. Bryan Ave to N. Hayes Ave	15,656	35	Collector
W. Shields Ave	N. Hayes Ave to N. Polk Ave	12,337	35	Collector
W. Shields Ave	N. Polk Ave to N. Dante Ave	21,436	45	Collector
W. Shields Ave	N. Dante Ave to N. Cornelia Ave	21,436	45	Collector
W. Shields Ave	N. Cornelia Ave to N. Blythe Ave	19,552	35	Collector
W. Shields Ave	N. Blythe Ave to N. Brawley Ave	21,141	35	Collector
W. Shields Ave	N Brawley Ave to N. Valentine Ave	19,787	35	Collector
W. Shields Ave	N. Valentine Ave to N. Marks Ave	19,278	35	Collector
W. Clinton Ave	N. Grantland Ave to N. Bryan Ave	2,448	35	Arterial
W. Clinton Ave	N. Bryan Ave to N. Hayes Ave	10,251	35	Arterial
W. Clinton Ave	N. Hayes Ave to N. Polk Ave	11,239	35	Arterial
W. Clinton Ave	N. Polk Ave to 1900 ft east of N. Polk Ave	13,878	35	Arterial
W. Clinton Ave	1900 east of N. Polk Ave to N. Cornelia Ave	21,298	45	Arterial
W. Clinton Ave	N. Cornelia Ave to N. Milburn Ave	24,727	50	Arterial
W. Clinton Ave	N. Milburn Ave to N. Blythe Ave	29,368	45	Arterial
W. Clinton Ave	N. Blythe Ave to N Sonora Ave	24,727	50	Arterial
W. Clinton Ave	N. Sonora Ave to N Brawley Ave	24,727	45	Arterial
W. Clinton Ave	N Brawley Ave to N. Knoll Ave	29,368	45	Arterial
W. Clinton Ave	N. Knoll Ave to 850 ft east of N. Knoll Ave	29,368	45	Arterial

Table 10: Road Segment Modeling Assumptions – Existing Plus Project Plus Cumulative

Roadway	Segment Limits	Existing Plus Project Plus Cumulative ADT ^{1,2}	Speed ³	West Area Plan Designation ⁴
W. Clinton Ave	850 east of N. Knoll Ave to N. Valentine Ave	29,368	35	Arterial
W. Clinton Ave	N. Valentine Ave to N. Marks Ave	39,715	45	Arterial
W. Clinton Ave	N. Marks Ave to W. Vassar Ave	58,312	50	Arterial
N Garfield Ave	W. Herndon Ave to W. Bullard Ave	4,249	35	Arterial
N Garfield Ave	W. Bullard Ave to W. Barstow Ave	4,862	35	Arterial
N Garfield Ave	W. Barstow Ave to 1,000 ft south of W. Barstow Ave	5,253	45	Arterial
N Garfield Ave	1,000 ft south of W. Barstow Ave to W. Shaw Ave	5,253	45	Arterial
N Garfield Ave	W. Shaw Ave to W. Gettysburg Ave	5,702	35	Arterial
N Garfield Ave	W. Gettysburg Ave to W. Ashlan Ave	5,381	35	Arterial
N Garfield Ave	W. Ashlan Ave to W. Dakota Ave	No Data	35	Arterial
N Garfield Ave	W. Dakota Ave to W. Shields Ave	4,998	35	Arterial
N. Parkway Drive	N Herndon Ave to W. Herndon Ave	4,166	35	Arterial
N. Grantland Ave	N. Parkway Drive to W. Bullard Ave	No Data	35	Collector
N. Grantland Ave	W. Bullard Ave to W. Barstow Ave	11,947	45	Arterial
N. Grantland Ave	W. Barstow Ave to W. Shaw Ave	15,386	45	Arterial
N. Grantland Ave	W. Shaw Ave to W. Gettysburg Ave	45,056	35	Arterial
N. Grantland Ave	W. Gettysburg Ave to W. Ashlan Ave	55,863	45	Arterial
N. Grantland Ave	W. Ashlan Ave to W Dakota Ave	No Data	45	Arterial
N. Grantland Ave	W. Dakota Ave to W. Shields Ave	40,268	45	Arterial
N. Grantland Ave	W Shields Ave to W. Clinton Ave	25,521	45	Arterial
N. Bryan Ave	W. Shaw Ave to W. Santa Ana Ave	21,311	35	Collector
N. Bryan Ave	W. Santa Ana Ave to W. Gettysburg Ave	21,311	35	Collector
N. Bryan Ave	W. Gettysburg Ave to W. Ashlan Ave	18,216	45	Collector
N. Bryan Ave	W. Ashlan Ave to W. Dakota Ave	No Data	45	Collector
N. Bryan Ave	W. Dakota Ave to W Shields Ave	18,966	35	Collector
N. Bryan Ave	W Shields Ave to W. Clinton Ave	13,631	35	Collector
N. Hayes Ave	W. Shaw Ave to W. Santa Ana Ave	22,778	45	Collector
N. Hayes Ave	W. Santa Ana Ave to W. Gettysburg Ave	22,778	45	Collector
N. Hayes Ave	W. Gettysburg Ave to W. Swift Ave	25,950	45	Collector
N. Hayes Ave	W. Swift Ave to W. Ashlan Ave	25,950	35	Collector
N. Hayes Ave	W. Ashland Ave to W. Dakota Ave	29,995	35	Collector
N. Hayes Ave	W. Dakota Ave to 1,300 ft South of W. Dakota Ave	21,197	35	Collector
N. Hayes Ave	1,300 ft South of W. Dakota Ave to W Shields Ave	21,197	45	Collector
N. Hayes Ave	W Shields Ave to W. Clinton Ave	17,552	35	Collector
N. Polk Ave	North of W. Shaw Ave	6,568	45	Arterial

Table 10: Road Segment Modeling Assumptions – Existing Plus Project Plus Cumulative

Roadway	Segment Limits	Existing Plus Project Plus Cumulative ADT ^{1,2}	Speed ³	West Area Plan Designation ⁴
N. Polk Ave	W. Shaw Ave to W. Acacia Ave	25,762	45	Arterial
N. Polk Ave	W. Acacia Ave to W. Gettysburg Ave	25,762	45	Arterial
N. Polk Ave	W. Gettysburg Ave to W. Ashlan Ave	31,612	35	Arterial
N. Polk Ave	W. Ashland Ave to W. Griffith Way	31,840	35	Arterial
N. Polk Ave	W. Griffith Way to W. Dakota Ave	31,840	45	Arterial
N. Polk Ave	W. Dakota Ave to W Shields Ave	23,801	35	Arterial
N. Polk Ave	W Shields Ave to W. Clinton Ave	21,944	35	Arterial
N. Cornelia Ave	N. Parkway Drive to W. Gettysburg Ave	9,222	45	Collector
N. Cornelia Ave	W. Gettysburg to W. Ashlan Ave	22,141	45	Collector
N. Cornelia Ave	W. Ashland Ave to W. Bellaire Way	15,700	45	Collector
N. Cornelia Ave	W. Bellaire Way to W. Dakota Ave	15,700	45	Collector
N. Cornelia Ave	W. Dakota Ave to W Shields Ave	17,844	35	Collector
N. Cornelia Ave	W Shields Ave to W. Clinton Ave	15,071	45	Collector
N. Blythe Ave	W. Ashlan Ave to W. Dakota Ave	17,215	35	Arterial
N. Blythe Ave	W. Dakota Ave to W Shields Ave	17,269	35	Collector
N. Blythe Ave	W Shields Ave to W. Clinton Ave	16,106	35	Collector
N Brawley Ave	N. Parkway Drive to W. Dakota Ave	20,943	35	Collector
N Brawley Ave	W. Dakota Ave to W. Dayton Ave	16,396	35	Collector
N Brawley Ave	W. Dayton Ave to W. Cortland Ave	16,396	45	Collector
N Brawley Ave	W. Cortland Ave to W. Shields Ave	16,396	35	Collector
N Brawley Ave	W Shields Ave to W. Clinton Ave	16,935	35	Collector
N. Valentine Ave	N. Parkway Drive to W Shields Ave	12,354	35	Collector
N. Valentine Ave	W Shields Ave to W. Clinton Ave	11,825	35	Collector
N. Marks Ave	W Princeton Ave to W. Clinton Ave	15,475	35	Collector

Notes:

1) Traffic Study for the West Area Specific Plan, Kittleson Associates, 2020

2) Traffic volumes and vehicle mix for State Route 99 source: <https://dot.ca.gov/programs/traffic-operations/census>.

3) Speed was modeled as posted.

4) West Area Planned Circulation Network, City of Fresno West Area Specific Plan Existing Conditions Report, March 2018

6.0 Existing Noise Environment

6.1 Noise Sources in the Plan Area

6.1.1 General Land Use Noise

Existing land uses within the Plan Area include single and multiple family residential development, commercial, recreational, and industrial land uses. Noise sources associated with existing land uses include residential maintenance, parking lot noise, heating and cooling system (HVAC) noise, property maintenance noise, trash truck noise, loading and unloading noise, and recreational noise.

6.1.2 Roadway Noise

The primary noise source in the community is vehicle traffic traveling on surface streets and on State Route 99. Existing modeled and measured noise levels associated with acoustically significant roadways within the Plan Area are shown on Exhibit D. The modeled noise levels do not take into account factors such as existing buildings, walls, etc. that may reduce or in some cases, amplify noise sources. The measured noise levels do take into account existing structures as well as other noise sources.

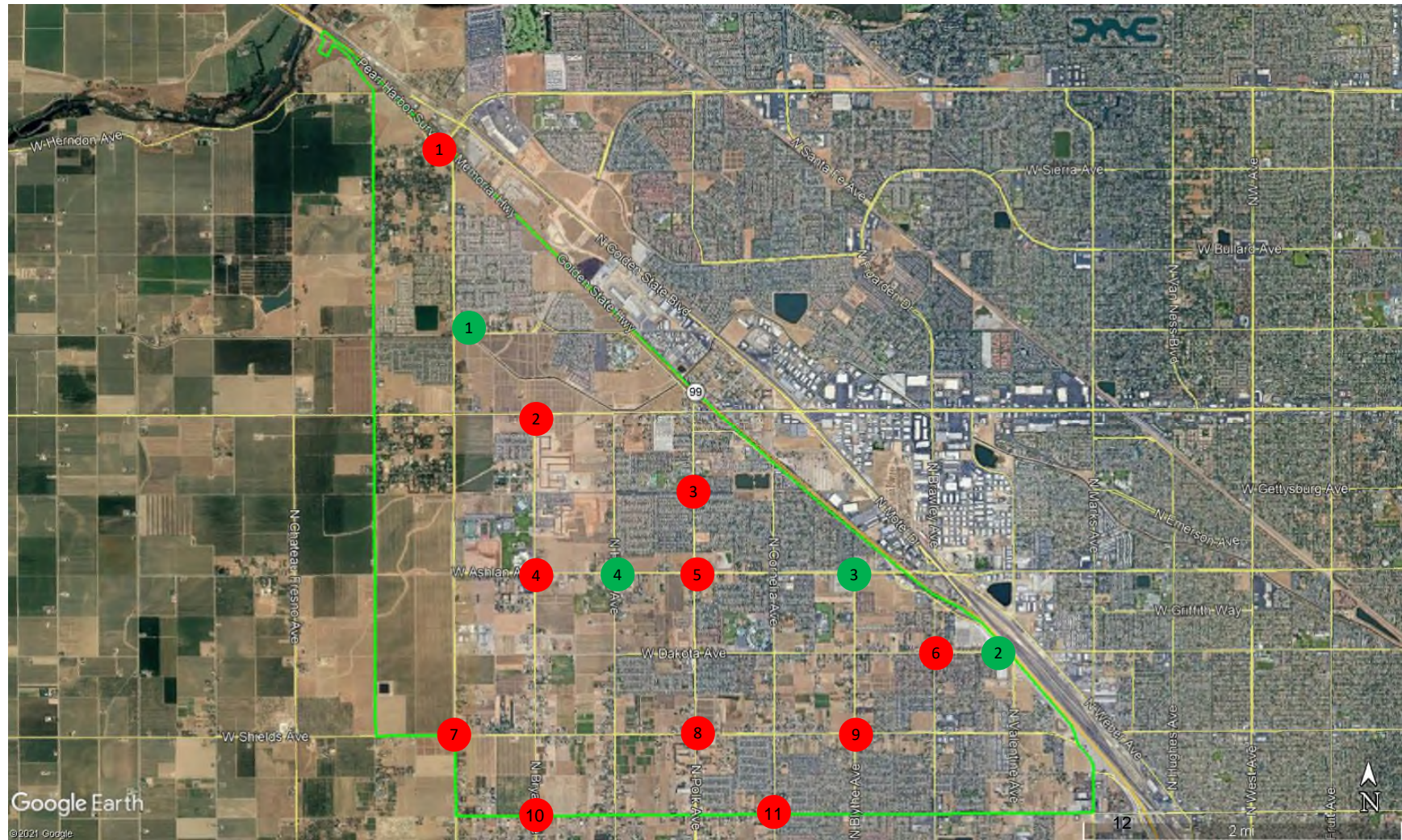
Those areas in the City that currently experience sound levels greater than 60 dBA Ldn are typically near major vehicular traffic corridors. Highway traffic noise levels typically depend on three factors: (1) the volume of traffic, (2) the average speed of traffic, and (3) the vehicle mix (i.e., the percentage of trucks versus automobiles in the traffic flow). Vehicle noise includes noises produced by the engine, exhaust, tires, and wind generated by taller vehicles. Other factors that affect the perception of traffic noise include the distance from the highway, terrain, vegetation, and natural and structural obstacles. While tire noise from automobiles is generally located at ground level, some truck noise sources may emanate from 12 feet or more above the ground.

Vehicle traffic generated noise associated with State Route 99 is the dominant noise source in the eastern portion of the Plan Area with average daily vehicle trips (ADTs) ranging between 77,000-107,000 adjacent to the Plan Area. Existing modeled noise contours shown in Exhibit D show that traffic noise associated with SR-99 dominates the noise environment of the easternmost portion of the Plan Area. Most noise sensitive land uses adjacent to State Route 99 are shielded by existing sound walls, topography, or buildings, however, the attenuation provided by them is not represented in the noise contour map.

<Exhibit D, next page>

Exhibit D Noise Measurement Location Map

- = West Area Specific Plan Boundary
- 1 = Long Term measurement (24-Hour)
- 1 = Short Term measurement (10-Minute)



6.1.3 Rail Noise

Noise associated with the existing Union Pacific Railroad (UPRR) line that generally runs parallel to State Route 99 also contributes to noise in the Plan Area. The Union Pacific Railroad extends in a southeast/northwest direction ranging between 320 and 2,100 feet east of the project area. Based on count data available provided by the Federal Railroad Administration (FRA 2020) fourteen train trips per day (split evenly between daytime and nighttime hours) utilize the rail lines located east of the project area and State Route 99 and north of West Ashlan Avenue. There are existing residential land uses located within the project area as close as 380 feet to the rail lines north of West Ashlan Avenue and 380 feet from the rail lines south of West Ashlan Avenue. There is a rail yard east of State Route 99 that extends from approximately 450 feet north of Clinton Avenue to West Ashlan Avenue. Noise level contours associated with the UPRR are shown in Exhibit E.

6.1.4 Airport/Aircraft Noise

There are no airports located within the Plan Area and the Plan Area is not located within any airport noise contours (City of Fresno 2014). The Plan Area is however, affected by fly-over noise associated with the Fresno Yosemite International airport, the Fresno-Chandler Downtown airport, and the Sierra Sky Park Airport. Commercial jet aircraft operations are limited to the Fresno Yosemite International Airport. The Air National Guard is also stationed there and operates military jets and other aircraft. Private and commercial operations with smaller aircraft use the Fresno Chandler Downtown Airport, while only small private aircraft use the Sierra Sky Park Airport.

6.1.4 Agricultural Noise

The project area is also exposed agricultural noise including field and crop maintenance, hauling, and crop dusting from small aircraft. The noise from these sources mostly occurs within the confines of the agricultural fields, and is seasonal. A characteristic of agricultural noise is short periods of noisy activities separated by long periods of little or no noise-producing activities. The FAA regulates noise associated with aircraft once they leave the ground. FAA regulations require that all aircraft maintain a height of at least 500 feet above ground or objects on the ground, like a house. A crop duster can go below this height only to operate to apply chemicals and for no other reason.

6.2 Noise Measurement Results

Four (4) long-term 24-hour noise measurements and twelve (12) short-term noise measurements were conducted throughout the Plan Area to document the existing noise environment. Noise measurement locations are shown in Exhibit F.

6.2.1 Short-Term Noise Measurements

Measured noise levels within the Plan Area ranged between 54.4 and 74.8 dBA Leq. Vehicle noise associated with surface streets, State Route 99, the existing rail line were the primary sources of ambient noise. Secondary noise sources included typical residential activities and landscaping equipment. Noise measurement results are presented in Table 11. Field notes and meter output are provided in Appendix B.

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Table 11: Short-Term Noise Measurement Summary

Noise Measurement Location	Approximate Address	Date	Time	A-Weighted Sound Level (dBA)						
				Leq	Lmax	Lmin	L2	L8	L25	L50
1	Herndon Avenue & N. Parkway Drive	June 3, 2020	9:28 AM	67.6	78.3	54.5	74.7	71.3	68.0	65.6
2	N. Bryan Avenue & W Shaw Avenue	June 3, 2020	9:48 AM	69.5	84.1	40.9	78.3	75.8	69.4	60.4
3	N Polk Avenue and W Gettysburg Avenue	June 3, 2020	10:15 AM	61.5	82.5	41.3	68.1	62.2	58.8	54.2
4	N. Bryan Avenue & W. Ashlan Avenue	June 3, 2020	10:32 AM	54.4	69.5	37.8	63.1	58.4	53.7	50.0
5	N. Polk Avenue & W. Ashlan Avenue	June 3, 2020	12:13 PM	64.6	86.5	45.4	71.6	67.7	64.3	60.8
6	N. Dakota Avenue & W. Brawley Avenue	June 3, 2020	2:19 PM	74.8	99.8	50.2	79.2	72.6	67.5	64.3
7	N. Grantland Avenue & W. Shields Avenue	June 3, 2020	12:38 PM	72.8	93.4	37.5	81.4	74.7	65.0	56.2
8	N. Polk Avenue & W. Shields Avenue	June 3, 2020	12:54 PM	66.1	86.3	51.5	75.5	70.1	62.6	58.9
9	N. Blythe Avenue & W. Shields Avenue	June 3, 2020	1:09 PM	64.4	79.9	48.1	73.5	68.9	63.4	59.5
10	N. Bryan Avenue & W. Clinton Avenue	June 3, 2020	1:26 PM	59.6	79.5	31.9	70.4	61.6	52.7	43.8
11	N. Cornelia Avenue & W. Clinton Avenue	June 3, 2020	1:42 PM	65.8	85.0	44.7	73.4	68.7	64.7	60.4
12	N. Marks Avenue & W. Clinton Avenue	June 3, 2020	2:00 PM	68.8	85.2	55.2	75.9	72.7	69.6	65.6
Notes: dBA = A-weighted decibels Leq = equivalent noise level Lmax = maximum noise level Lmin = minimum noise level Ln = noise level exceeded n percent of the measurement period										

6.2.2 Long-Term Noise Measurements

Four (4) long-term noise measurements (24 consecutive hours) were taken in order to document the Community Noise Equivalent Level (CNEL) at different locations throughout the Plan Area. As shown in Table 12, the measured CNEL ranged between 60.5 and 70.2 dBA. The primary noise source was vehicle traffic. Table 12 also outlines the daytime (7AM to 7PM), evening (7PM to 10PM), and nighttime (10PM to 7AM) Leq levels at each location. These represent the average level over each time period (day/evening/night). Field notes and meter output are provided in Appendix B.

Table 12: Long-Term Noise Measurement Summary

Noise Measurement Location	Approximate Address	Date	Description	A-Weighted Sound Level (dBA)			
				Daytime Leq	Evening Leq	Nighttime Leq	CNEL
LT1	N. Grantland Avenue & W. Barstow Avenue	6/3/20 - 6/4/20	Vehicle traffic traveling on N. Valentine Avenue and SR-99	58.8	56.1	52.7	60.7
LT2	N. Valentine Avenue & W. Shields Avenue	6/3/20-6/4/20	Vehicle traffic traveling on N. Grantland Avenue and W. Barstow Avenue	65.4	62.1	63.4	70.8
LT3	N. Blythe Avenue & W. Ashlan Avenue	6/4/20-6/5/20	Vehicle traffic traveling on N. Blythe Avenue and W. Ashlan Avenue	67.3	65.5	61.5	69.1
LT4	N. Hayes Avenue & W. Ashlan Avenue	6/3/20-6/4/20	Vehicle Noise traveling on N. Hayes Avenue and W. Ashlan Avenue	65.8	61.3	58.6	67.1
Notes: dBA = A-weighted decibels Leq = equivalent noise level Lmax = maximum noise level Lmin = minimum noise level Ln = noise level exceeded n percent of the measurement period							

Exhibit E Existing Roadway Noise Level Contours (CNEL)

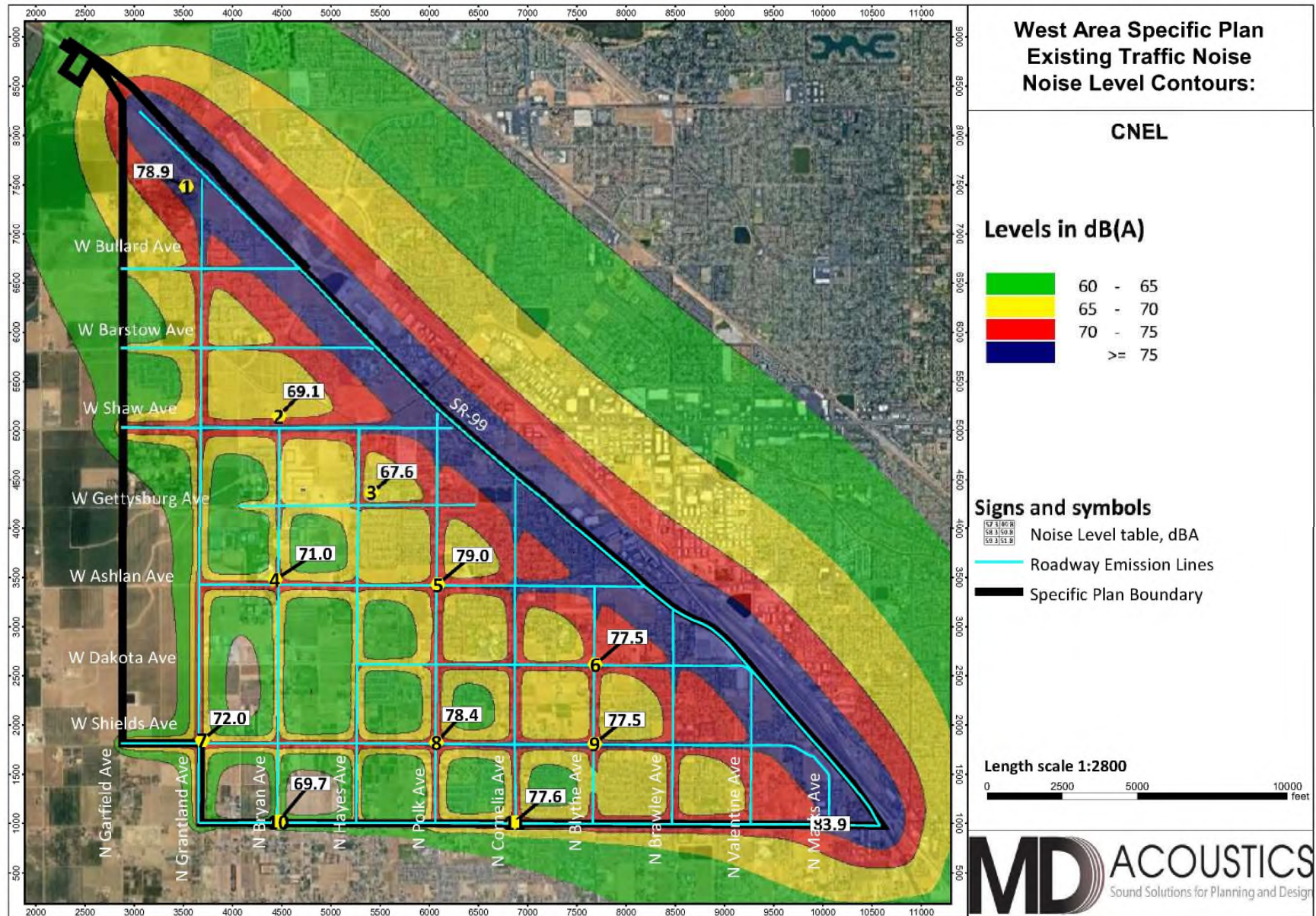
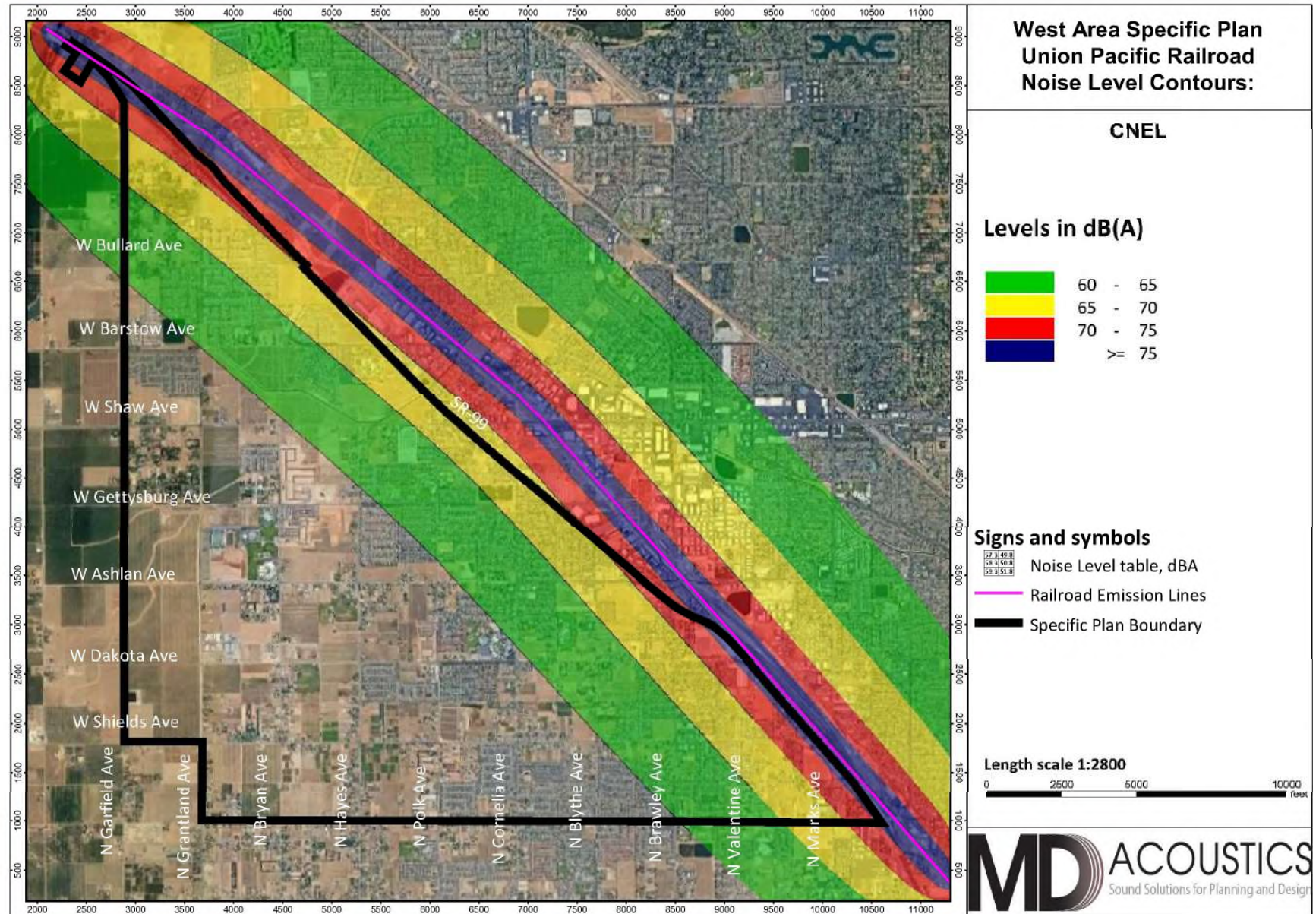


Exhibit F Union Pacific Railroad Noise Level Contours (CNEL)



6.3 Vibration Sources in the Plan Area

The main sources of vibration in the project area are related to vehicles, rail, and construction. Typical roadway traffic, including heavy trucks, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage. However, there have been cases in which heavy trucks traveling over potholes or other discontinuities in the pavement have caused vibration high enough to result in complaints from nearby residents. These types of issues typically can be resolved by smoothing the roadway surface (Caltrans 2013b).

Construction activities that produce vibration that can be felt by adjacent land uses include the use vibratory equipment, large bull dozers, and pile drivers. The primary source of vibration during construction is usually from a bull dozer. A large bull dozer has a peak particle velocity of 0.089 inches per second at 25 feet.

7.0 Future Noise Environment Impacts and Mitigation

This assessment analyzes future noise impacts to and from the project compares the results to the City’s Noise Standards. The analysis details the estimated exterior noise levels associated with traffic from adjacent roadways and from on-site stationary noise sources.

7.1 Future Exterior Noise

Each future noise source related to the project was evaluated in light of applicable City of Fresno and West Area Specific Plan policies and ordinances and programmatic mitigation measures are provided as applicable.

7.1.1 Stationary General Land Use Noise

The West Area Plan proposes the relocation of higher density land uses away from the most western and southwestern portions of the Plan Area where they are distant from public transit and community amenities and transfers those higher density land use designations to major corridors. The Specific Plan would result in an increase in land designated for employment, mixed use, open space and public facilities uses and a decrease in land designated for residential and commercial uses. Typical stationary noise sources and associated noise levels as measured ten-feet from the source are presented below¹.

- Parking lot noise 50-75 dBA
- HVAC 55-100 dBA
- Property maintenance 75-95 dBA
- Trash truck 85-90 dBA
- Loading/unloading 65-82 dBA
- Recreational noise 50-90 dBA
- Amplified music 80-105 dBA
- Car wash 85-100 dBA
- Event venue 65-75 dBA
- Idling heavy truck 72 dBA

Due to the suburban/rural nature of the Plan Area, development of the West Area Specific Plan will result in a substantial increase in existing ambient noise conditions. Enforcement of the Sections 10-105 through 10-109 of the City’s Noise Ordinance and analysis of noise producing projects, along with any needed mitigation measures, will reduce noise impacts associated with future development. Increases in ambient noise levels associated with existing and future stationary noise impacts may result in

¹ The noise ranges presented are intended to give a general idea of typical urban/suburban stationary noise sources. Depending on the number of patrons and the specific activity, i.e. outdoor winery concert vs. a rock band, noise levels will vary.

significant impacts. The following measures should be implemented to reduce impacts associated with stationary noise sources in the Plan Area.

Mitigation Measures for Traffic Noise Impacts- Exterior Environment

1. Avoid the placement of new noise-producing uses in proximity to noise-sensitive land uses.
2. Apply noise level performance standards provided in Table 6 to proposed new noise producing uses.
3. Require new noise-sensitive uses in near proximity to noise-producing facilities include mitigation measures that would ensure compliance with noise performance standards presented in Table 6.

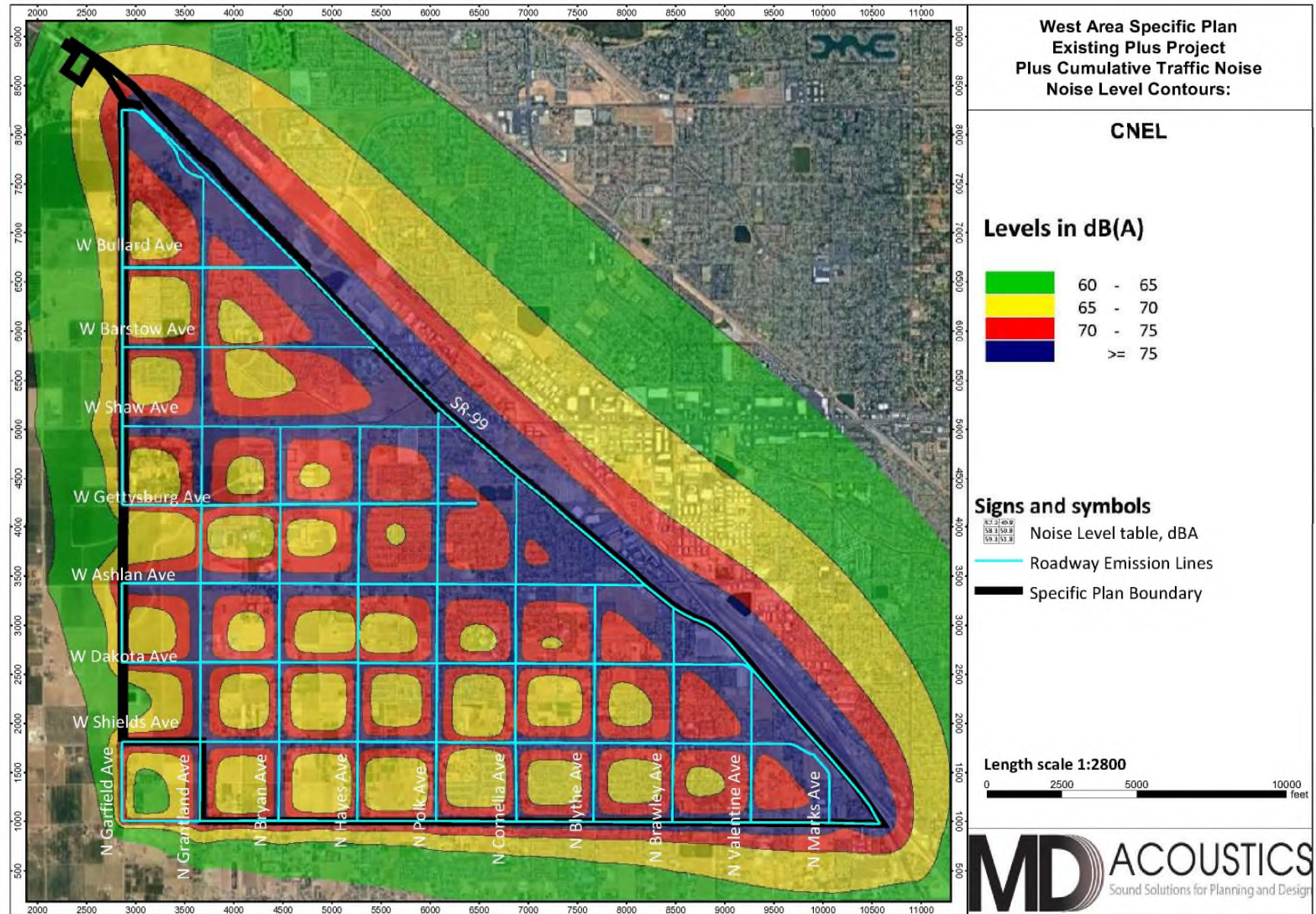
7.1.2 Roadway Noise

The primary noise source in the community will continue to be vehicle traffic traveling on surface streets and on State Route 99. Future noise levels associated with acoustically significant roadways within the Plan Area are shown on Exhibit G. Vehicle traffic generated noise associated with State Route 99 will continue to be the dominant noise source in the eastern portion of the Plan Area with ADTs ranging between 77,000-107,000 adjacent to the Plan Area.

Although most noise sensitive land uses adjacent to State Route 99 are shielded by existing sound walls, topography or buildings, there are still some noise sensitive land uses where existing plus project plus cumulative noise levels will exceed the City's 60 dBA Ldn noise standard. Noise levels in the Plan Area are expected to exceed 65 dBA CNEL in most areas where shielding from traffic noise is not provided. This is a significant impact and will require mitigation. Mitigation measures are provided at the end of this impact discussion.

Exhibit G

Existing Plus Project Plus Cumulative Roadway Noise Level Contours (CNEL)



Buildout of the Plan Area will also result in substantial increases in ambient noise levels. Existing exterior noise levels along Plan Area roadways are presented in Table 13, Existing plus project, plus cumulative traffic noise levels are presented in Table 14 and a comparison of the two conditions is presented in Table 15.

Table 13: Existing Exterior Noise Levels Along Roadways (dBA, CNEL)

Roadway	Segment Limits	Distances to Contour:				
		@100 ft	70	65	60	55
State Route 99	W. Herndon Ave to W. Shaw Ave	83	695	1,497	3,225	6,948
State Route 99	W. Shaw Ave to W. Ashlan Ave	82	672	1,447	3,118	6,718
State Route 99	W. Ashlan Ave to W. Dakota Ave	84	826	1,780	3,834	8,261
State Route 99	W. Dakota Ave to W. Shields Ave	84	821	1,768	3,810	8,208
State Route 99	W. Shields Ave to W. Clinton Ave	82	615	1,324	2,852	6,145
W. Herndon Ave	N. Garfield Ave to N. Parkway Drive	No Data	No Data	No Data	No Data	No Data
W. Bullard Ave	N Garfield Ave to N. Grantland Ave	48	3	7	16	33
W. Bullard Ave	N. Grantland Ave to N. Bryan Ave	55	10	21	44	96
W. Bullard Ave	N. Bryan Ave to SR-99	23	0	0	0	1
W. Barstow Ave	N Garfield to N. Grantland Ave	53	8	17	37	79
W. Barstow Ave	N. Grantland Ave to N. Bryan Ave	49	4	9	19	41
W. Barstow Ave	N. Bryan Ave to N. Contessa Ave	No Data	No Data	No Data	No Data	No Data
W. Barstow Ave	N. Contessa Ave to N. Island Waterpark Drive	No Data	No Data	No Data	No Data	No Data
W. Shaw Ave	N Garfield Ave to N. Grantland Ave	59	19	41	89	193
W. Shaw Ave	N. Grantland Ave to N. Bryan Ave	60	22	46	100	215
W. Shaw Ave	N. Bryan Ave to 1,300 ft east of N. Hayes Ave	61	24	51	110	238
W. Shaw Ave	1,300 ft east of N. Hayes Ave to N. Polk Ave	63	36	77	166	358
W. Shaw Ave	N. Polk Ave to State Route 99	66	57	124	266	574
W. Gettysburg Ave	1,300 ft west of N. Bryan Ave to Bryan Ave	51	5	11	25	53
W. Gettysburg Ave	N. Bryan Ave to N. Hayes Ave	52	7	14	31	67
W. Gettysburg Ave	N. Hayes Ave to N. Polk Ave	53	7	16	34	73
W. Gettysburg Ave	N. Polk Ave to N. Barcus	54	8	17	37	80
W. Ashlan Ave	N. Garfield to N. Grantland	No Data	No Data	No Data	No Data	No Data
W. Ashlan Ave	N. Grantland Ave to N. Bryan Ave	59	18	38	82	177
W. Ashlan Ave	N. Bryan Ave to N. Hayes Ave	56	12	27	58	124
W. Ashlan Ave	N. Hayes Ave to N. Polk Ave	55	9	20	44	94
W. Ashlan Ave	N. Polk Ave to N. Cornelia Ave	60	20	44	94	203
W. Ashlan Ave	N. Cornelia Ave to N. Blythe Ave	64	38	81	174	376

Table 13: Existing Exterior Noise Levels Along Roadways (dBA, CNEL)

Roadway	Segment Limits	Distances to Contour:				
		@100 ft	70	65	60	55
W. Ashlan Ave	N. Blythe Ave to State Route 99	65	48	103	223	480
W. Dakota Ave	N. Hayes Ave to N. Barcus Ave	53	7	16	34	73
W. Dakota Ave	N. Barcus Ave to N. Polk Ave	56	11	24	51	109
W. Dakota Ave	N. Polk Ave to N. Cornelia Ave	57	14	30	65	139
W. Dakota Ave	N. Cornelia Ave to N. Blythe Ave	56	12	27	57	123
W. Dakota Ave	N. Blythe Ave to N Brawley Ave	55	10	22	47	101
W. Dakota Ave	N Brawley Ave to N. Parkway Drive	54	8	18	39	84
W. Shields Ave	N. Garfield Ave to Grantland Ave	54	9	20	42	91
W. Shields Ave	N. Grantland Ave to N. Bryan Ave	54	9	20	43	92
W. Shields Ave	N. Bryan Ave to N. Hayes Ave	56	11	24	51	109
W. Shields Ave	N. Hayes Ave to N. Polk Ave	55	10	22	48	103
W. Shields Ave	N. Polk Ave to N. Dante Ave	58	17	36	78	169
W. Shields Ave	N. Dante Ave to N. Cornelia Ave	58	17	36	78	169
W. Shields Ave	N. Cornelia Ave to N. Blythe Ave	57	13	28	60	130
W. Shields Ave	N. Blythe Ave to N. Brawley Ave	57	13	27	59	126
W. Shields Ave	N Brawley Ave to N. Valentine Ave	58	15	33	70	152
W. Shields Ave	N. Valentine Ave to N. Marks Ave	58	17	37	79	170
W. Clinton Ave	N. Grantland Ave to N. Bryan Ave	48	3	7	15	32
W. Clinton Ave	N. Bryan Ave to N. Hayes Ave	50	5	10	21	46
W. Clinton Ave	N. Hayes Ave to N. Polk Ave	52	6	13	28	60
W. Clinton Ave	N. Polk Ave to 1900 ft east of N. Polk Ave	52	6	13	28	60
W. Clinton Ave	1900 east of N. Polk Ave to N. Cornelia Ave	59	18	40	86	184
W. Clinton Ave	N. Cornelia Ave to N. Milburn Ave	63	34	74	159	343
W. Clinton Ave	N. Milburn Ave to N. Blythe Ave	62	29	62	133	286
W. Clinton Ave	N. Blythe Ave to N Sonora Ave	65	44	95	204	440
W. Clinton Ave	N. Sonora Ave to N Brawley Ave	63	37	79	170	367
W. Clinton Ave	N Brawley Ave to N. Knoll Ave	64	38	82	177	381
W. Clinton Ave	N. Knoll Ave to 850 ft east of N. Knoll Ave	64	37	81	174	374
W. Clinton Ave	850 east of N. Knoll Ave to N. Valentine Ave	61	27	58	124	268
W. Clinton Ave	N. Valentine Ave to N. Marks Ave	64	41	88	190	410
W. Clinton Ave	N. Marks Ave to W. Vassar Ave	68	73	158	340	733
N Garfield Ave	W. Herndon Ave to W. Bullard Ave	No Data	No Data	No Data	No Data	No Data
N Garfield Ave	W. Bullard Ave to W. Barstow Ave	No Data	No Data	No Data	No Data	No Data
N Garfield Ave	W. Barstow Ave to 1,000 ft south of W. Barstow Ave	No Data	No Data	No Data	No Data	No Data
N Garfield Ave	1,000 ft south of W. Barstow Ave to W. Shaw Ave	No Data	No Data	No Data	No Data	No Data

Table 13: Existing Exterior Noise Levels Along Roadways (dBA, CNEL)

Roadway	Segment Limits	Distances to Contour:				
		@100 ft	70	65	60	55
N Garfield Ave	W. Shaw Ave to W. Gettysburg Ave	No Data	No Data	No Data	No Data	No Data
N Garfield Ave	W. Gettysburg Ave to W. Ashlan Ave	No Data	No Data	No Data	No Data	No Data
N Garfield Ave	W. Ashlan Ave to W. Dakota Ave	No Data	No Data	No Data	No Data	No Data
N Garfield Ave	W. Dakota Ave to W. Shields Ave	No Data	No Data	No Data	No Data	No Data
N. Parkway Drive	N Herndon Ave to W. Herndon Ave	No Data	No Data	No Data	No Data	No Data
N. Grantland Ave	N. Parkway Drive to W. Bullard Ave	No Data	No Data	No Data	No Data	No Data
N. Grantland Ave	W. Bullard Ave to W. Barstow Ave	62	31	68	146	315
N. Grantland Ave	W. Barstow Ave to W. Shaw Ave	62	29	62	134	290
N. Grantland Ave	W. Shaw Ave to W. Gettysburg Ave	57	14	31	67	144
N. Grantland Ave	W. Gettysburg Ave to W. Ashlan Ave	60	21	44	95	205
N. Grantland Ave	W. Ashlan Ave to W Dakota Ave	59	17	37	80	171
N. Grantland Ave	W. Dakota Ave to W. Shields Ave	No Data	No Data	No Data	No Data	No Data
N. Grantland Ave	W Shields Ave to W. Clinton Ave	57	14	31	66	142
N. Bryan Ave	W. Shaw Ave to W. Santa Ana Ave	54	8	18	39	84
N. Bryan Ave	W. Santa Ana Ave to W. Gettysburg Ave	54	8	18	39	84
N. Bryan Ave	W. Gettysburg Ave to W. Ashlan Ave	58	15	32	69	149
N. Bryan Ave	W. Ashlan Ave to W. Dakota Ave	55	10	22	47	102
N. Bryan Ave	W. Dakota Ave to W Shields Ave	53	7	15	32	68
N. Bryan Ave	W Shields Ave to W. Clinton Ave	48	4	8	16	35
N. Hayes Ave	W. Shaw Ave to W. Santa Ana Ave	57	14	30	64	138
N. Hayes Ave	W. Santa Ana Ave to W. Gettysburg Ave	57	14	29	63	136
N. Hayes Ave	W. Gettysburg Ave to W. Swift Ave	55	10	21	46	100
N. Hayes Ave	W. Swift Ave to W. Ashlan Ave	52	7	14	31	67
N. Hayes Ave	W. Ashland Ave to W. Dakota Ave	54	8	18	39	84
N. Hayes Ave	W. Dakota Ave to 1,300 ft South of W. Dakota Ave	53	8	17	36	78
N. Hayes Ave	1,300 ft South of W. Dakota Ave to W Shields Ave	56	12	25	54	116
N. Hayes Ave	W Shields Ave to W. Clinton Ave	52	7	14	30	66
N. Polk Ave	North of W. Shaw Ave	60	22	47	102	219
N. Polk Ave	W. Shaw Ave to W. Acacia Ave	62	31	66	142	307
N. Polk Ave	W. Acacia Ave to W. Gettysburg Ave	62	31	67	145	312
N. Polk Ave	W. Gettysburg Ave to W. Ashlan Ave	58	17	36	78	167
N. Polk Ave	W. Ashland Ave to W. Griffith Way	59	18	40	85	184
N. Polk Ave	W. Griffith Way to W. Dakota Ave	61	26	55	119	257
N. Polk Ave	W. Dakota Ave to W Shields Ave	58	17	36	78	168
N. Polk Ave	W Shields Ave to W. Clinton Ave	57	14	30	65	141

Table 13: Existing Exterior Noise Levels Along Roadways (dBA, CNEL)

Roadway	Segment Limits	Distances to Contour:				
		@100 ft	70	65	60	55
N. Cornelia Ave	N. Parkway Drive to W. Gettysburg Ave	60	22	48	104	223
N. Cornelia Ave	W. Gettysburg to W. Ashlan Ave	60	22	48	104	223
N. Cornelia Ave	W. Ashland Ave to W. Bellaire Way	62	27	59	128	275
N. Cornelia Ave	W. Bellaire Way to W. Dakota Ave	62	27	59	128	275
N. Cornelia Ave	W. Dakota Ave to W Shields Ave	58	15	33	70	152
N. Cornelia Ave	W Shields Ave to W. Clinton Ave	60	22	47	102	220
N. Blythe Ave	W. Ashlan Ave to W. Dakota Ave	60	21	45	96	207
N. Blythe Ave	W. Dakota Ave to W Shields Ave	57	13	29	62	133
N. Blythe Ave	W Shields Ave to W. Clinton Ave	57	14	29	63	136
N Brawley Ave	N. Parkway Drive to W. Dakota Ave	58	17	36	77	165
N Brawley Ave	W. Dakota Ave to W. Dayton Ave	58	16	35	75	161
N Brawley Ave	W. Dayton Ave to W. Cortland Ave	61	24	52	111	240
N Brawley Ave	W. Cortland Ave to W. Shields Ave	58	16	35	75	161
N Brawley Ave	W Shields Ave to W. Clinton Ave	58	16	33	72	155
N. Valentine Ave	N. Parkway Drive to W Shields Ave	54	9	19	41	89
N. Valentine Ave	W Shields Ave to W. Clinton Ave	53	8	17	36	77
N. Marks Ave	W Princeton Ave to W. Clinton Ave	59	20	44	95	205
Notes: 1. Exterior noise levels calculated at 5-feet above ground. 2. Noise levels calculated from centerline of subject roadway. 3. Refer to Appendix C for projected noise level calculations. 4. The projected noise levels at 100 ft are theoretical and do not take into consideration the effect of topography, noise barriers, structures or other factors which will reduce the actual noise level in the outdoor living areas. These factors can reduce the actual noise levels by 5-10 dBA from what is shown in the table. Therefore, the levels that are shown are for comparative purposes only to show the difference in projected noise levels without and with the project.						

Table 14: Existing Plus Project Plus Cumulative Exterior Noise Levels Along Roadways (dBA , CNEL)

Roadway	Segment Limits	Distance to Noise Contour:				
		@ 100ft	70	65	60	55
State Route 99	W. Herndon Ave to W. Shaw Ave	82.6	695	1,497	3,225	6,948
State Route 99	W. Shaw Ave to W. Ashlan Ave	82.4	672	1,447	3,118	6,718
State Route 99	W. Ashlan Ave to W. Dakota Ave	83.8	826	1,780	3,834	8,261
State Route 99	W. Dakota Ave to W. Shields Ave	83.7	821	1,768	3,810	8,208
State Route 99	W. Shields Ave to W. Clinton Ave	83.8	837	1,802	3,883	8,365
W. Herndon Ave	N. Garfield Ave to N. Parkway Drive	No Data	No Data	No Data	No Data	No Data

Table 14: Existing Plus Project Plus Cumulative Exterior Noise Levels Along Roadways (dBA , CNEL)

Roadway	Segment Limits	Distance to Noise Contour:				
		@ 100ft	70	65	60	55
W. Bullard Ave	N Garfield Ave to N. Grantland Ave	58.3	17	36	77	167
W. Bullard Ave	N. Grantland Ave to N. Bryan Ave	60.0	21	46	99	214
W. Bullard Ave	N. Bryan Ave to SR-99	22.7	0	0	0	0
W. Barstow Ave	N Garfield to N. Grantland Ave	53.8	8	18	39	84
W. Barstow Ave	N. Grantland Ave to N. Bryan Ave	61.8	28	61	132	283
W. Barstow Ave	N. Bryan Ave to N. Contessa Ave	No Data	No Data	No Data	No Data	No Data
W. Barstow Ave	N. Contessa Ave to N. Island Waterpark Drive	No Data	No Data	No Data	No Data	No Data
W. Shaw Ave	N Garfield Ave to N. Grantland Ave	63.7	38	82	178	383
W. Shaw Ave	N. Grantland Ave to N. Bryan Ave	68.3	77	165	356	766
W. Shaw Ave	N. Bryan Ave to 1,300 ft east of N. Hayes Ave	68.1	75	161	347	748
W. Shaw Ave	1,300 ft east of N. Hayes Ave to N. Polk Ave	71.0	117	253	544	1,173
W. Shaw Ave	N. Polk Ave to State Route 99	73.3	165	355	765	1,648
W. Gettysburg Ave	1,300 ft west of N. Bryan Ave to Bryan Ave	58.5	17	37	79	171
W. Gettysburg Ave	N. Bryan Ave to N. Hayes Ave	60.5	23	50	108	233
W. Gettysburg Ave	N. Hayes Ave to N. Polk Ave	62.8	33	71	154	332
W. Gettysburg Ave	N. Polk Ave to N. Barcus	62.3	31	66	143	308
W. Ashlan Ave	N. Garfield to N. Grantland	64.3	41	89	192	414
W. Ashlan Ave	N. Grantland Ave to N. Bryan Ave	70.4	106	228	492	1,060
W. Ashlan Ave	N. Bryan Ave to N. Hayes Ave	67.5	69	148	319	687
W. Ashlan Ave	N. Hayes Ave to N. Polk Ave	68.0	73	157	339	731
W. Ashlan Ave	N. Polk Ave to N. Cornelia Ave	67.8	72	154	333	717
W. Ashlan Ave	N. Cornelia Ave to N. Blythe Ave	69.2	88	190	409	882
W. Ashlan Ave	N. Blythe Ave to State Route 99	69.7	96	207	445	960
W. Dakota Ave	N. Hayes Ave to N. Barcus Ave	62.2	30	65	139	300
W. Dakota Ave	N. Barcus Ave to N. Polk Ave	64.7	45	96	207	446
W. Dakota Ave	N. Polk Ave to N. Cornelia Ave	61.8	28	61	132	284
W. Dakota Ave	N. Cornelia Ave to N. Blythe Ave	61.6	28	60	129	277
W. Dakota Ave	N. Blythe Ave to N Brawley Ave	61.3	26	56	121	262
W. Dakota Ave	N Brawley Ave to N. Parkway Drive	58.8	18	39	83	179
W. Shields Ave	N. Garfield Ave to Grantland Ave	No Data	No Data	No Data	No Data	No Data
W. Shields Ave	N. Grantland Ave to N. Bryan Ave	61.3	26	57	123	265
W. Shields Ave	N. Bryan Ave to N. Hayes Ave	62.0	29	63	137	294
W. Shields Ave	N. Hayes Ave to N. Polk Ave	61.0	25	54	116	251
W. Shields Ave	N. Polk Ave to N. Dante Ave	66.0	54	116	250	539

Table 14: Existing Plus Project Plus Cumulative Exterior Noise Levels Along Roadways (dBA , CNEL)

Roadway	Segment Limits	Distance to Noise Contour:				
		@ 100ft	70	65	60	55
W. Shields Ave	N. Dante Ave to N. Cornelia Ave	66.0	54	116	250	539
W. Shields Ave	N. Cornelia Ave to N. Blythe Ave	63.0	34	73	158	341
W. Shields Ave	N. Blythe Ave to N. Brawley Ave	63.3	36	77	167	359
W. Shields Ave	N Brawley Ave to N. Valentine Ave	63.0	34	74	160	344
W. Shields Ave	N. Valentine Ave to N. Marks Ave	62.9	34	73	157	338
W. Clinton Ave	N. Grantland Ave to N. Bryan Ave	55.4	11	23	49	106
W. Clinton Ave	N. Bryan Ave to N. Hayes Ave	61.6	28	59	128	275
W. Clinton Ave	N. Hayes Ave to N. Polk Ave	62.0	29	63	136	293
W. Clinton Ave	N. Polk Ave to 1900 ft east of N. Polk Ave	62.9	34	73	156	337
W. Clinton Ave	1900 east of N. Polk Ave to N. Cornelia Ave	66.9	63	135	291	626
W. Clinton Ave	N. Cornelia Ave to N. Milburn Ave	68.9	84	182	392	844
W. Clinton Ave	N. Milburn Ave to N. Blythe Ave	68.5	79	170	366	789
W. Clinton Ave	N. Blythe Ave to N Sonora Ave	68.9	84	182	392	844
W. Clinton Ave	N. Sonora Ave to N Brawley Ave	67.7	70	152	327	704
W. Clinton Ave	N Brawley Ave to N. Knoll Ave	68.5	79	170	366	789
W. Clinton Ave	N. Knoll Ave to 850 ft east of N. Knoll Ave	68.3	78	167	360	776
W. Clinton Ave	850 east of N. Knoll Ave to N. Valentine Ave	66.2	55	120	258	555
W. Clinton Ave	N. Valentine Ave to N. Marks Ave	69.7	95	204	440	949
W. Clinton Ave	N. Marks Ave to W. Vassar Ave	72.6	149	322	694	1,495
N Garfield Ave	W. Herndon Ave to W. Bullard Ave	57.8	15	33	71	153
N Garfield Ave	W. Bullard Ave to W. Barstow Ave	58.4	17	36	78	167
N Garfield Ave	W. Barstow Ave to 1,000 ft south of W. Barstow Ave	60.9	25	53	114	246
N Garfield Ave	1,000 ft south of W. Barstow Ave to W. Shaw Ave	60.9	25	53	114	246
N Garfield Ave	W. Shaw Ave to W. Gettysburg Ave	59.0	19	40	86	186
N Garfield Ave	W. Gettysburg Ave to W. Ashlan Ave	58.8	18	39	83	179
N Garfield Ave	W. Ashlan Ave to W. Dakota Ave	21.5	No Data	No Data	No Data	No Data
N Garfield Ave	W. Dakota Ave to W. Shields Ave	58.5	17	37	79	170
N. Parkway Drive	N Herndon Ave to W. Herndon Ave	57.7	15	33	70	151
N. Grantland Ave	N. Parkway Drive to W. Bullard Ave	No Data	No Data	No Data	No Data	No Data
N. Grantland Ave	W. Bullard Ave to W. Barstow Ave	64.4	43	92	198	426
N. Grantland Ave	W. Barstow Ave to W. Shaw Ave	65.5	50	109	234	504
N. Grantland Ave	W. Shaw Ave to W. Gettysburg Ave	68.0	74	159	343	738
N. Grantland Ave	W. Gettysburg Ave to W. Ashlan Ave	71.1	119	257	553	1,191
N. Grantland Ave	W. Ashlan Ave to W Dakota Ave	No Data	No Data	No Data	No Data	No Data

Table 14: Existing Plus Project Plus Cumulative Exterior Noise Levels Along Roadways (dBA , CNEL)

Roadway	Segment Limits	Distance to Noise Contour:				
		@ 100ft	70	65	60	55
N. Grantland Ave	W. Dakota Ave to W. Shields Ave	69.7	96	206	444	957
N. Grantland Ave	W Shields Ave to W. Clinton Ave	67.7	71	152	328	706
N. Bryan Ave	W. Shaw Ave to W. Santa Ana Ave	63.4	36	78	168	361
N. Bryan Ave	W. Santa Ana Ave to W. Gettysburg Ave	63.4	36	78	168	361
N. Bryan Ave	W. Gettysburg Ave to W. Ashlan Ave	65.3	48	104	225	484
N. Bryan Ave	W. Ashlan Ave to W. Dakota Ave	No Data	No Data	No Data	No Data	No Data
N. Bryan Ave	W. Dakota Ave to W Shields Ave	62.9	33	72	155	334
N. Bryan Ave	W Shields Ave to W. Clinton Ave	61.4	27	58	124	268
N. Hayes Ave	W. Shaw Ave to W. Santa Ana Ave	66.4	57	123	265	572
N. Hayes Ave	W. Santa Ana Ave to W. Gettysburg Ave	66.2	56	121	261	562
N. Hayes Ave	W. Gettysburg Ave to W. Swift Ave	66.8	61	132	284	613
N. Hayes Ave	W. Swift Ave to W. Ashlan Ave	64.2	41	89	191	412
N. Hayes Ave	W. Ashland Ave to W. Dakota Ave	64.9	45	98	211	454
N. Hayes Ave	W. Dakota Ave to 1,300 ft South of W. Dakota Ave	63.3	36	78	167	360
N. Hayes Ave	1,300 ft South of W. Dakota Ave to W Shields Ave	65.9	54	115	249	535
N. Hayes Ave	W Shields Ave to W. Clinton Ave	62.5	32	68	147	317
N. Polk Ave	North of W. Shaw Ave	61.8	29	62	133	286
N. Polk Ave	W. Shaw Ave to W. Acacia Ave	67.8	71	153	330	711
N. Polk Ave	W. Acacia Ave to W. Gettysburg Ave	67.9	72	156	336	723
N. Polk Ave	W. Gettysburg Ave to W. Ashlan Ave	66.5	58	126	271	583
N. Polk Ave	W. Ashland Ave to W. Griffith Way	66.5	59	126	272	586
N. Polk Ave	W. Griffith Way to W. Dakota Ave	68.7	82	176	380	819
N. Polk Ave	W. Dakota Ave to W Shields Ave	65.3	48	104	224	482
N. Polk Ave	W Shields Ave to W. Clinton Ave	64.9	46	98	212	457
N. Cornelia Ave	N. Parkway Drive to W. Gettysburg Ave	62.3	31	66	143	307
N. Cornelia Ave	W. Gettysburg to W. Ashlan Ave	66.1	55	119	256	551
N. Cornelia Ave	W. Ashland Ave to W. Bellaire Way	64.6	44	94	203	438
N. Cornelia Ave	W. Bellaire Way to W. Dakota Ave	64.6	44	94	203	438
N. Cornelia Ave	W. Dakota Ave to W Shields Ave	62.6	32	69	149	321
N. Cornelia Ave	W Shields Ave to W. Clinton Ave	64.4	43	92	198	426
N. Blythe Ave	W. Ashlan Ave to W. Dakota Ave	63.8	39	84	180	389
N. Blythe Ave	W. Dakota Ave to W Shields Ave	62.5	31	68	146	314
N. Blythe Ave	W Shields Ave to W. Clinton Ave	62.2	30	65	139	300
N Brawley Ave	N. Parkway Drive to W. Dakota Ave	63.3	36	77	166	357
N Brawley Ave	W. Dakota Ave to W. Dayton Ave	62.2	30	65	141	303

Table 14: Existing Plus Project Plus Cumulative Exterior Noise Levels Along Roadways (dBA , CNEL)

Roadway	Segment Limits	Distance to Noise Contour:				
		@ 100ft	70	65	60	55
N Brawley Ave	W. Dayton Ave to W. Cortland Ave	64.7	45	97	209	451
N Brawley Ave	W. Cortland Ave to W. Shields Ave	62.0	30	65	141	303
N Brawley Ave	W Shields Ave to W. Clinton Ave	62.1	31	67	144	310
N. Valentine Ave	N. Parkway Drive to W Shields Ave	60.7	25	54	117	251
N. Valentine Ave	W Shields Ave to W. Clinton Ave	60.4	24	53	113	244
N. Marks Ave	W Princeton Ave to W. Clinton Ave	61.5	29	63	135	292
Notes: 1. Exterior noise levels calculated at 5-feet above ground. 2. Noise levels calculated from centerline of subject roadway. 3. Refer to Appendix C for projected noise level calculations. 4. The projected noise levels at 100 ft are theoretical and do not take into consideration the effect of topography, noise barriers, structures or other factors which will reduce the actual noise level in the outdoor living areas. These factors can reduce the actual noise levels by 5-10 dBA from what is shown in the table. Therefore, the levels that are shown are for comparative purposes only to show the difference in projected noise levels without and with the project.						

Table 15: Change in Noise Along Roadways Due to West Area Specific Plan (dBA, CNEL)

Roadway ¹	Segment	CNEL at 100 Feet dBA ²				
		Existing Without Project	Existing Plus Project Plus Cumulative	Change in Noise Level	Exceeds Compatibility Criteria ³	Potential Significant Impact ⁴
State Route 99	W. Herndon Ave to W. Shaw Ave	82.6	82.6	0.0	Yes	No
State Route 99	W. Shaw Ave to W. Ashlan Ave	82.4	82.4	0.0	Yes	No
State Route 99	W. Ashlan Ave to W. Dakota Ave	83.8	83.8	0.0	Yes	No
State Route 99	W. Dakota Ave to W. Shields Ave	83.7	83.7	0.0	Yes	No
State Route 99	W. Shields Ave to W. Clinton Ave	81.8	83.8	2.0	Yes	No
W. Herndon Ave	N. Garfield Ave to N. Parkway Drive	No Data	No Data	n/a	n/a	n/a
W. Bullard Ave	N Garfield Ave to N. Grantland Ave	47.9	58.3	10.5	No	No
W. Bullard Ave	N. Grantland Ave to N. Bryan Ave	54.7	60.0	5.2	No	No
W. Bullard Ave	N. Bryan Ave to SR-99	No Data	No Data	n/a	n/a	n/a
W. Barstow Ave	N Garfield to N. Grantland Ave	53.5	53.8	0.4	No	No
W. Barstow Ave	N. Grantland Ave to N. Bryan Ave	49.1	61.8	12.7	No	No

Table 15: Change in Noise Along Roadways Due to West Area Specific Plan (dBA, CNEL)

Roadway ¹	Segment	CNEL at 100 Feet dBA ²				
		Existing Without Project	Existing Plus Project Plus Cumulative	Change in Noise Level	Exceeds Compatibility Criteria ³	Potential Significant Impact ⁴
W. Barstow Ave	N. Bryan Ave to N. Contessa Ave	No Data	No Data	n/a	n/a	n/a
W. Barstow Ave	N. Contessa Ave to N. Island Waterpark Drive	No Data	No Data	n/a	n/a	n/a
W. Shaw Ave	N Garfield Ave to N. Grantland Ave	59.3	63.7	4.5	No	No
W. Shaw Ave	N. Grantland Ave to N. Bryan Ave	60.0	68.3	8.3	Yes	Yes
W. Shaw Ave	N. Bryan Ave to 1,300 ft east of N. Hayes Ave	60.6	68.1	7.5	Yes	Yes
W. Shaw Ave	1,300 ft east of N. Hayes Ave to N. Polk Ave	63.3	71.0	7.7	Yes	Yes
W. Shaw Ave	N. Polk Ave to State Route 99	66.4	73.3	6.9	Yes	Yes
W. Gettysburg Ave	1,300 ft west of N. Bryan Ave to Bryan Ave	50.9	58.5	7.6	No	No
W. Gettysburg Ave	N. Bryan Ave to N. Hayes Ave	52.4	60.5	8.1	No	No
W. Gettysburg Ave	N. Hayes Ave to N. Polk Ave	53.0	62.8	9.8	No	No
W. Gettysburg Ave	N. Polk Ave to N. Barcus	53.6	62.3	8.8	No	No
W. Ashlan Ave	N. Garfield to N. Grantland	No Data	64.3	n/a	n/a	n/a
W. Ashlan Ave	N. Grantland Ave to N. Bryan Ave	58.7	70.4	11.7	Yes	Yes
W. Ashlan Ave	N. Bryan Ave to N. Hayes Ave	56.4	67.5	11.2	Yes	Yes
W. Ashlan Ave	N. Hayes Ave to N. Polk Ave	54.6	68.0	13.4	Yes	Yes
W. Ashlan Ave	N. Polk Ave to N. Cornelia Ave	59.6	67.8	8.2	Yes	Yes
W. Ashlan Ave	N. Cornelia Ave to N. Blythe Ave	63.6	69.2	5.6	Yes	Yes
W. Ashlan Ave	N. Blythe Ave to State Route 99	65.2	69.7	4.5	Yes	No
W. Dakota Ave	N. Hayes Ave to N. Barcus Ave	53.0	62.2	9.2	No	No
W. Dakota Ave	N. Barcus Ave to N. Polk Ave	55.6	64.7	9.2	No	No
W. Dakota Ave	N. Polk Ave to N. Cornelia Ave	57.2	61.8	4.6	No	No
W. Dakota Ave	N. Cornelia Ave to N. Blythe Ave	56.4	61.6	5.3	No	No
W. Dakota Ave	N. Blythe Ave to N Brawley Ave	55.1	61.3	6.2	No	No
W. Dakota Ave	N Brawley Ave to N. Parkway Drive	53.9	58.8	4.9	No	No
W. Shields Ave	N. Garfield Ave to Grantland Ave	54.4	No Data	n/a	n/a	n/a
W. Shields Ave	N. Grantland Ave to N. Bryan Ave	54.5	61.3	6.9	No	No

Table 15: Change in Noise Along Roadways Due to West Area Specific Plan (dBA, CNEL)

Roadway ¹	Segment	CNEL at 100 Feet dBA ²				
		Existing Without Project	Existing Plus Project Plus Cumulative	Change in Noise Level	Exceeds Compatibility Criteria ³	Potential Significant Impact ⁴
W. Shields Ave	N. Bryan Ave to N. Hayes Ave	55.6	62.0	6.4	No	No
W. Shields Ave	N. Hayes Ave to N. Polk Ave	55.2	61.0	5.8	No	No
W. Shields Ave	N. Polk Ave to N. Dante Ave	58.4	66.0	7.6	Yes	Yes
W. Shields Ave	N. Dante Ave to N. Cornelia Ave	58.4	66.0	7.6	Yes	Yes
W. Shields Ave	N. Cornelia Ave to N. Blythe Ave	56.7	63.0	6.3	No	No
W. Shields Ave	N. Blythe Ave to N. Brawley Ave	56.5	63.3	6.8	No	No
W. Shields Ave	N Brawley Ave to N. Valentine Ave	57.7	63.0	5.3	No	No
W. Shields Ave	N. Valentine Ave to N. Marks Ave	58.5	62.9	4.5	No	No
W. Clinton Ave	N. Grantland Ave to N. Bryan Ave	47.5	55.4	7.9	No	No
W. Clinton Ave	N. Bryan Ave to N. Hayes Ave	49.9	61.6	11.7	No	No
W. Clinton Ave	N. Hayes Ave to N. Polk Ave	51.7	62.0	10.3	No	No
W. Clinton Ave	N. Polk Ave to 1900 ft east of N. Polk Ave	51.7	62.9	11.2	No	No
W. Clinton Ave	1900 east of N. Polk Ave to N. Cornelia Ave	59.0	66.9	8.0	Yes	Yes
W. Clinton Ave	N. Cornelia Ave to N. Milburn Ave	63.0	68.9	5.9	Yes	Yes
W. Clinton Ave	N. Milburn Ave to N. Blythe Ave	61.8	68.5	6.6	Yes	Yes
W. Clinton Ave	N. Blythe Ave to N Sonora Ave	64.6	68.9	4.2	Yes	No
W. Clinton Ave	N. Sonora Ave to N Brawley Ave	63.5	67.7	4.2	Yes	No
W. Clinton Ave	N Brawley Ave to N. Knoll Ave	63.7	68.5	4.7	Yes	No
W. Clinton Ave	N. Knoll Ave to 850 ft east of N. Knoll Ave	63.6	68.3	4.7	Yes	No
W. Clinton Ave	850 east of N. Knoll Ave to N. Valentine Ave	61.4	66.2	4.7	Yes	No
W. Clinton Ave	N. Valentine Ave to N. Marks Ave	64.2	69.7	5.5	Yes	Yes
W. Clinton Ave	N. Marks Ave to W. Vassar Ave	68.0	72.6	4.6	Yes	No
N Garfield Ave	W. Herndon Ave to W. Bullard Ave	No Data	57.8	n/a	n/a	n/a
N Garfield Ave	W. Bullard Ave to W. Barstow Ave	No Data	58.4	n/a	n/a	n/a
N Garfield Ave	W. Barstow Ave to 1,000 ft south of W. Barstow Ave	No Data	60.9	n/a	n/a	n/a

Table 15: Change in Noise Along Roadways Due to West Area Specific Plan (dBA, CNEL)

Roadway ¹	Segment	CNEL at 100 Feet dBA ²				
		Existing Without Project	Existing Plus Project Plus Cumulative	Change in Noise Level	Exceeds Compatibility Criteria ³	Potential Significant Impact ⁴
N Garfield Ave	1,000 ft south of W. Barstow Ave to W. Shaw Ave	No Data	60.9	n/a	n/a	n/a
N Garfield Ave	W. Shaw Ave to W. Gettysburg Ave	No Data	59.0	n/a	n/a	n/a
N Garfield Ave	W. Gettysburg to W. Ashlan Ave	No Data	58.8	n/a	n/a	n/a
N Garfield Ave	W. Ashlan Ave to W. Dakota Ave	No Data	21.5	n/a	n/a	n/a
N Garfield Ave	W. Dakota Ave to W. Shields Ave	No Data	58.5	n/a	n/a	n/a
N. Parkway Drive	N Herndon Ave to W. Herndon Ave	No Data	57.7	n/a	n/a	n/a
N. Grantland Ave	N. Parkway Drive to W. Bullard Ave	No Data	No Data	n/a	n/a	n/a
N. Grantland Ave	W. Bullard Ave to W. Barstow Ave	62.5	64.4	2.0	Yes	No
N. Grantland Ave	W. Barstow Ave to W. Shaw Ave	61.9	65.5	3.6	Yes	No
N. Grantland Ave	W. Shaw Ave to W. Gettysburg Ave	57.4	68.0	10.6	Yes	Yes
N. Grantland Ave	W. Gettysburg Ave to W. Ashlan Ave	59.7	71.1	11.5	Yes	Yes
N. Grantland Ave	W. Ashlan Ave to W Dakota Ave	58.5	No Data	n/a	n/a	n/a
N. Grantland Ave	W. Dakota Ave to W. Shields Ave	No Data	69.7	n/a	n/a	n/a
N. Grantland Ave	W Shields Ave to W. Clinton Ave	57.3	67.7	10.5	Yes	Yes
N. Bryan Ave	W. Shaw Ave to W. Santa Ana Ave	53.9	63.4	9.5	No	No
N. Bryan Ave	W. Santa Ana Ave to W. Gettysburg Ave	53.9	63.4	9.5	No	No
N. Bryan Ave	W. Gettysburg Ave to W. Ashlan Ave	57.6	65.3	7.7	Yes	Yes
N. Bryan Ave	W. Ashlan Ave to W. Dakota Ave	55.1	No Data	n/a	n/a	n/a
N. Bryan Ave	W. Dakota Ave to W Shields Ave	52.5	62.9	10.3	No	No
N. Bryan Ave	W Shields Ave to W. Clinton Ave	48.2	61.4	13.2	No	No
N. Hayes Ave	W. Shaw Ave to W. Santa Ana Ave	57.1	66.4	9.3	Yes	Yes
N. Hayes Ave	W. Santa Ana Ave to W. Gettysburg Ave	57.0	66.2	9.3	Yes	Yes
N. Hayes Ave	W. Gettysburg Ave to W. Swift Ave	55.0	66.8	11.8	Yes	Yes

Table 15: Change in Noise Along Roadways Due to West Area Specific Plan (dBA, CNEL)

Roadway ¹	Segment	CNEL at 100 Feet dBA ²				
		Existing Without Project	Existing Plus Project Plus Cumulative	Change in Noise Level	Exceeds Compatibility Criteria ³	Potential Significant Impact ⁴
N. Hayes Ave	W. Swift Ave to W. Ashlan Ave	52.4	64.2	11.8	Yes	No
N. Hayes Ave	W. Ashland Ave to W. Dakota Ave	53.9	64.9	11.0	Yes	No
N. Hayes Ave	W. Dakota Ave to 1,300 ft South of W. Dakota Ave	53.4	63.3	9.9	Yes	No
N. Hayes Ave	1,300 ft South of W. Dakota Ave to W Shields Ave	56.0	65.9	9.9	Yes	Yes
N. Hayes Ave	W Shields Ave to W. Clinton Ave	52.3	62.5	10.3	Yes	No
N. Polk Ave	North of W. Shaw Ave	60.1	61.8	1.7	Yes	No
N. Polk Ave	W. Shaw Ave to W. Acacia Ave	62.3	67.8	5.5	Yes	Yes
N. Polk Ave	W. Acacia Ave to W. Gettysburg Ave	62.4	67.9	5.5	Yes	Yes
N. Polk Ave	W. Gettysburg Ave to W. Ashlan Ave	58.3	66.5	8.1	Yes	Yes
N. Polk Ave	W. Ashland Ave to W. Griffith Way	59.0	66.5	7.5	Yes	Yes
N. Polk Ave	W. Griffith Way to W. Dakota Ave	61.1	68.7	7.5	Yes	Yes
N. Polk Ave	W. Dakota Ave to W Shields Ave	58.4	65.3	6.9	Yes	Yes
N. Polk Ave	W Shields Ave to W. Clinton Ave	57.2	64.9	7.7	No	No
N. Cornelia Ave	N. Parkway Drive to W. Gettysburg Ave	60.2	62.3	2.1	No	No
N. Cornelia Ave	W. Gettysburg to W. Ashlan Ave	60.2	66.1	5.9	Yes	Yes
N. Cornelia Ave	W. Ashland Ave to W. Bellaire Way	61.6	64.6	3.0	No	No
N. Cornelia Ave	W. Bellaire Way to W. Dakota Ave	61.6	64.6	3.0	No	No
N. Cornelia Ave	W. Dakota Ave to W Shields Ave	57.7	62.6	4.9	No	No
N. Cornelia Ave	W Shields Ave to W. Clinton Ave	60.1	64.4	4.3	No	No
N. Blythe Ave	W. Ashlan Ave to W. Dakota Ave	59.7	63.8	4.1	No	No
N. Blythe Ave	W. Dakota Ave to W Shields Ave	56.8	62.5	5.6	No	No
N. Blythe Ave	W Shields Ave to W. Clinton Ave	57.0	62.2	5.2	No	No
N Brawley Ave	N. Parkway Drive to W. Dakota Ave	58.3	63.3	5.0	No	No
N Brawley Ave	W. Dakota Ave to W. Dayton Ave	58.0	62.2	4.1	No	No
N Brawley Ave	W. Dayton Ave to W. Cortland Ave	60.6	64.7	4.1	No	No

Table 15: Change in Noise Along Roadways Due to West Area Specific Plan (dBA, CNEL)

Roadway ¹	Segment	CNEL at 100 Feet dBA ²				
		Existing Without Project	Existing Plus Project Plus Cumulative	Change in Noise Level	Exceeds Compatibility Criteria ³	Potential Significant Impact ⁴
N Brawley Ave	W. Cortland Ave to W. Shields Ave	57.9	62.0	4.1	No	No
N Brawley Ave	W Shields Ave to W. Clinton Ave	57.6	62.1	4.5	No	No
N. Valentine Ave	N. Parkway Drive to W Shields Ave	53.9	60.7	6.8	No	No
N. Valentine Ave	W Shields Ave to W. Clinton Ave	52.9	60.4	7.5	No	No
N. Marks Ave	W Princeton Ave to W. Clinton Ave	59.2	61.5	2.3	No	No
Notes: ¹ Exterior noise levels calculated at 5 feet above ground level. ² Noise levels calculated from centerline of subject roadway. ³ See Table 6. ⁴ Significant if results in a 3 dB increase in ambient noise levels and exceeds standard in Table 6 (65 CNEL).						

As shown in Table 15 existing plus project plus cumulative traffic conditions will result in significant increases in ambient noise levels along the following road segments. This impact is significant and mitigation is required.

- Traffic noise levels along W. Shaw Avenue are expected to range between 68.1 and 73.3 dBA CNEL at a distance of 100 feet from the centerline of the road, resulting in increases ranging between 6.9 and 8.3 dBA CNEL.
- Traffic noise levels along W. Ashlan Avenue between N. Grantland Avenue and N. Blythe Avenue are expected to range between 67.5 and 70.4 dBA CNEL at a distance of 100 feet from the centerline of the road, resulting in increases ranging between 5.6 and 13.4 dBA CNEL.
- Traffic noise levels along W. Shields Avenue between N. Polk Avenue and N. Cornelia Avenue are expected to reach up to 66 dBA CNEL at a distance of 100 feet from the centerline of the road, resulting in an increase in ambient noise level of 7.6 dBA CNEL.
- Traffic noise levels along W. Clinton Avenue between N. Polk Avenue and N. Blythe Avenue and between N. Valentine Avenue and N. Marks Avenue are expected to range between 66.9 and 69.7 dBA CNEL at a distance of 100 feet from the centerline of the road, resulting in an increases in ambient noise levels ranging between 5.5 and 8.0 dBA CNEL.

- Traffic noise levels along N. Grantland Avenue between W. Gettysburg Avenue and W. Dakota Avenue and between W. Shields Avenue and W. Clinton Avenue are expected to range between 67.7 and 71.0 dBA CNEL at a distance of 100 feet from the centerline of the road, resulting in an increases in ambient noise levels between 10.5 and 11.5 dBA CNEL.
- Traffic noise levels along N. Bryan Avenue between W. Gettysburg Avenue and W. Ashlan Avenue are expected to reach up to 65.3 dBA CNEL, resulting in an increase of 7.7 dBA CNEL in ambient noise levels.
- Traffic noise levels along N. Hayes Avenue between W. Shaw Avenue and W. Swift Avenue and between W. Dakota Avenue and W. Shields Avenue are expected to range between 65.9 and 66.8 dBA CNEL at a distance of 100 feet from the centerline of the road, resulting in an increases in ambient noise levels ranging between 9.3 and 11.8 dBA CNEL.
- Traffic noise levels along N. Polk Avenue between W. Shaw Avenue and W. Shields Avenue are expected to range between 65.3 and 68.7 dBA CNEL at a distance of 100 feet from the centerline of the road, resulting in an increases in ambient noise levels between 5.5 and 8.1 dBA CNEL.
- Traffic noise levels along N. Cornelia Avenue between W. Gettysburg Avenue and W. Ashlan Avenue are expected to reach up to 66.1 dBA CNEL, resulting in an increase of 5.9 dBA CNEL in ambient noise levels.

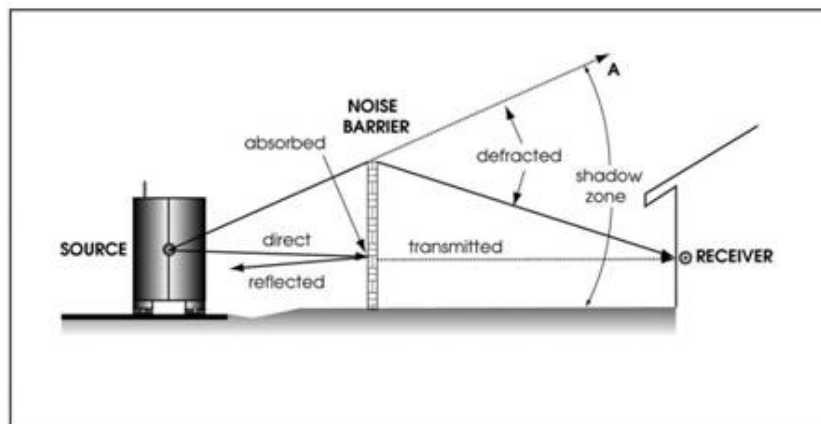
Mitigation Measures for Traffic Noise Impacts- Exterior Environment

The following mitigation measures should be implemented to minimize the impact associated with a substantial increase in ambient noise levels and to ensure compliance with the standards presented in Table 6.

1. Implement performance standards for noise reduction for new residential and noise sensitive uses exposed to exterior community noise levels from transportation sources above 65 dB Ldn or CNEL, as shown on Exhibit G: Existing Plus Project Plus Cumulative Noise Contours, or as identified by a project-specific acoustical analysis based on the target acceptable noise levels set in Table 6 in this report. If future exterior noise levels are expected to exceed the applicable standards presented in Table 6, the mitigation measure presented below shall be implemented, as applicable. A qualified Acoustical Consultant shall provide information demonstrating that site specific mitigation will be effective at reaching the applicable noise standard.
 - Install noise walls, berms and/or a combination of a landscaped berm with wall, and reduced barrier height in combination with increased distance or elevation differences between noise source and noise receptor. The City of Fresno has established a maximum allowable height of 15 feet.

Establishing distance between a noise source and a receiver is an effective way to reduce noise levels at the receiver. Traffic noise is not a single, stationary point source but a line source. Therefore a drop-off rate of 3 dB occurs with every doubling of distance from the receiver. The movement of a vehicle makes the noise source of the sound appear to be emanate from a line rather than from a point when viewed over a time interval.

As shown below, when a noise barrier is inserted between a noise source and receiver, the direct noise path along the line of sight between the two is interrupted. Some of the acoustical energy will be transmitted through the barrier material and continue to the source, although at a reduced level. The amount of this reduction depends on the material's mass and rigidity, and is called the transmission loss (TL), which is expressed in decibels. To be effective, noise barriers need to be solid, without holes and cracks. Concrete walls and earthen berms tend to provide the most noise attenuation, but other materials can be used. The exact amount of reduction provided by a barrier will range depending on the material, location and height of the barrier but barriers can be used to mitigate significant noise impacts to sensitive receptors in outdoor activity areas.



Source: Caltrans 2013a

7.1.3 Rail Noise

Noise associated with the existing Union Pacific Railroad (UPRR) line is expected to remain the same or end altogether. The California High-Speed Train Project (CAHST), which is currently under construction east of State Route 99 will introduce more noise into the eastern portion of the Plan Area. According to the Noise and Vibration Technical Report prepared for the Merced to Fresno Section of the High Speed Train (CAHST, FRA 2012), trains in the Fresno area are expected to result in noise levels between 65 to 76 dB Ldn at nearby receptors. All of the receptors to be moderately or severely impacted by the HST are located outside of the Plan Area to the east. HST noise is not expected to result in significant noise impacts within the Plan Area.

7.1.4 Airport/Aircraft Noise

Noise Contours associated with airports in the vicinity of the Plan Area are not expected to encroach into the Plan Area. The Plan Area will however, continue to be affected by fly-over noise associated with the

Fresno Yosemite International airport, the Fresno-Chandler Downtown airport, and the Sierra Sky Park Airport. Airport and aircraft noise is not expected to result in significant impacts in the Plan Area.

7.1.5 Agricultural Noise

Development of the Specific Plan Area may result in the exposure of sensitive receptors to agricultural noise. Crop cultivation however, is specifically exempt from compliance with the noise regulations presented in Section 15-2506 of the City of Fresno Municipal Code.

7.2 Future Interior Noise

Interior noise levels at future land uses exposed to exterior noise levels exceeding 65 dBA CNEL may exceed the City's standards presented in Table 6 without mitigation.

Based on the data provided in the Environmental Protection Agency's (EPA) Protective Noise Levels (EPA 550/9-79-100, Nov 1979), standard homes in Southern California provide at least 12 dBA of noise exterior to interior noise attenuation with windows open and 20 dBA with windows closed. Therefore, residences would need to be exposed to exterior noise levels exceeding 65 dBA CNEL ($45 \text{ dBA} + 20 \text{ dBA} = 65 \text{ dBA}$) to potentially exceed the interior noise standard of 45 dBA CNEL with windows closed. A windows closed condition is defined as: the interior noise level with the windows closed. Upgrades are required for residential structures that would experience interior noise levels exceeding the 45 dBA CNEL noise standard when windows are closed (e.g. higher grade of insulation in outdoor walls, and/or double-paned windows and air condition units).

Mitigation Measures for Traffic Noise Impacts – Interior Noise Environment

1. Prior to approval, site-specific noise analyses projects are required to fine-tune and finalize noise reduction features. The site-specific noise analyses must demonstrate the interior noise level will not exceed the City's 45 dBA CNEL noise limit.

A qualified Acoustical Consultant shall provide information demonstrating that site specific mitigation will be effective at reaching the applicable noise standard.

- Install noise walls, berms and/or a combination of a landscaped berm with wall, and reduced barrier height in combination with increased distance or elevation differences between noise source and noise receptor. The City of Fresno has established a maximum allowable height of 15 feet.
- Utilize façades with substantial weight and insulation.
- stall sound-rated windows for primary sleeping and activity areas.
- Install sound-rated doors for all exterior entries at primary sleeping and activity areas.
- Install acoustic baffling of vents for chimneys, attic and gable ends.
- Install mechanical ventilation systems that provide fresh air under closed window conditions.

The aforementioned measures are not exhaustive and alternative designs may be approved by the City, provided that a qualified Acoustical Consultant submits information demonstrating that the alternative design(s) will achieve and maintain the specific targets for outdoor activity areas and interior spaces.

8.0 Construction Noise Impact

The degree of construction noise may vary for different areas of the project site and also vary depending on the construction activities. Noise levels associated with the construction will vary with the different phases of construction.

8.1 Construction Noise

The Environmental Protection Agency (EPA) has compiled data regarding the noise generated characteristics of typical construction activities. The data is presented in Table 16. These noise levels would diminish rapidly with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 86 dBA measured 50 feet from the noise source would reduce to 80 dBA at 100 feet. At 200 feet from the noise source the noise level would reduce to 74 dBA. At 400 feet the noise source would reduce by another 6 dBA to 68 dBA. Contractors are required to comply with the City of Fresno's Noise Ordinance during construction described in Section 10-109.

Table 16: Typical Construction Noise Levels

Equipment Powered by Internal Combustion Engines	
Type	Noise Levels (dBA) at 50 Feet
Earth Moving	
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Materials Handling	
Concrete Mixers	72 - 87
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Stationary	
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86
Impact Equipment	
Type	Noise Levels (dBA) at 50 Feet
Saws	71 - 82
Vibrators	68 - 82
Notes: Source: Reference Noise Levels from the Environmental Protection Agency (EPA)	

8.1.1 Construction Traffic

The proposed project would result in short-term noise impacts associated with construction activities. Two types of short-term noise impacts could occur during construction of the proposed project. First, construction crew commute and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. Truck traffic associated with project construction should be limited to within the permitted construction hours, as listed in the City's Municipal Code. Although there would be a relatively high single-event noise exposure potential at a maximum of 87 dBA L_{max} at 50 ft from passing trucks, causing possible short-term intermittent annoyances, the effect on ambient noise levels would be less than 1 dBA when averaged over one hour or 24 hours. In other words, the changes in noise levels over 1 hour or 24 hours attributable to passing trucks would not be perceptible to the normal human ear. Therefore, short-term construction-related impacts associated with worker commute and equipment transport on local streets leading to the project site would result in a less than significant impact on noise-sensitive receptors along the access routes.

8.1.2 Construction Activities

The site preparation phase, which includes grading and paving, tends to generate the highest noise levels, since the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backhoes, bulldozers, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings. Construction of the proposed project is expected to require the use of scrapers, bulldozers, motor grader, and water and pickup trucks. Noise associated with the use of construction equipment is estimated to reach between 79 and 89 dBA L_{max} at a distance of 50 ft from the active construction area for the grading phase. The maximum noise level generated by each scraper is assumed to be approximately 87 dBA L_{max} at 50 ft from the scraper in operation. Each bulldozer would also generate approximately 85 dBA L_{max} at 50 ft. The maximum noise level generated by the sound sources with equal strength increases the noise level by 3 dBA. The worst-case combined noise level during this phase of construction would be 91 dBA L_{max} at a distance of 50 ft from an active construction area. Noise reduction potential will be project and site specific. Section 8.3 outlines measures would reduce noise impacts during the project construction.

Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Noise levels will be loudest during grading phase. A likely worst-case construction noise scenario during grading assumes the use of a grader, a dozer, and two (2) excavators, two (2) backhoes and a scrapper operating at 50 feet from the nearest sensitive receptor.

Assuming a usage factor of 40 percent for each piece of equipment, unmitigated noise levels at 50 feet have the potential to reach 90 dBA L_{eq} and 92 dBA L_{max} at the nearest sensitive receptors during grading. Noise levels for the other construction phases would be lower and range between 85 to 90 dBA.

Measures to minimize construction noise impacts associated with Plan Area development are listed below.

1. Construction must follow the City's Municipal Noise Code Section 10-109 which exempts construction, repair or remodeling work accomplished pursuant to a building, electrical, plumbing, mechanical, or other construction permit issued by the city or other governmental agency, or to site preparation and grading, provided such work takes place between the hours of 7:00 a.m. and 10:00 p.m. on any day except Sunday.
2. Truck traffic associated with project construction should be limited to within the permitted construction hours, as listed in the City's Municipal Code above.
3. Stationary construction noise sources such as generators or pumps should be located at least 300 feet from sensitive land uses, as feasible.
4. Construction staging areas should be located as far from noise sensitive land uses as feasible.
5. During construction, the contractor shall ensure all construction equipment is equipped with appropriate noise attenuating devices. The use of manufacturer certified mufflers would generally reduce the construction equipment noise by 8 to 10 dBA.
6. Idling equipment shall be turned off when not in use.
7. Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

8.2 Construction Vibration

The effects of vibration on structures have been the subject of extensive research. The Federal Transit Administration has compiled data regarding the vibration levels for various construction equipment and activities and is detailed in Table 17. The Transportation and Construction Induced Vibration Guidance Manual for the California Department of Transportation has various recommended vibration thresholds for various types of projects and land uses. According to the Konan Vibration Criteria for Historic and Sensitive Buildings the criteria for transient vibration sources should not exceed 0.3 peak particle velocity (PPV) (Section 6 – Structures, Table 11). 0.035 inches per second is barely perceptible. Construction activities can produce vibration that may be felt by adjacent land uses. Construction of the proposed project is unlikely to require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. The primary source vibration during construction will likely be from a bull dozer. A large bull dozer has a vibration impact of 0.089 inches per second PPV at 25 feet. The use of vibratory equipment should be evaluated on a project by project basis. As shown in Table 5, a peak particle velocity (PPV) of 0.20 is the threshold at which there is a risk to "architectural" damage to normal dwellings. It is also the level at which ground-borne vibration are annoying to people in buildings. Impacts would be significant if construction activities result in ground-borne vibration of 0.20 or higher at a sensitive receptors. Mitigation measures to reduce construction related ground-borne vibration are presented below.

Table 17: Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity	Approximate Vibration Level
	(inches/second) at 25 feet	LV (VdB) at 25 feet
Pile driver (impact)	1.518 (upper range)	112
	0.644 (typical)	104
Pile driver (sonic)	0.734 upper range	105
	0.170 typical	93
Clam shovel drop (slurry wall)	0.202	94
Hydromill	0.008 in soil	66
(slurry wall)	0.017 in rock	75
Vibratory Roller	0.21	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, May 2006.		

Measures to Reduce Impacts Related to Construction Generated Ground-borne Vibration

1. If it is necessary to operate highly vibratory equipment in the Plan Area an additional analysis shall be conducted by a noise and vibration specialist prior to project approval, in order to evaluate potential ground-borne vibration impacts to existing structures and sensitive receptors; and to recommend additional mitigation measures as necessary.

9.0 References

California, State of, Building Standards Commission

2019 California Uniform Building Code (UBC), Title 24.

California Department of Transportation (Caltrans)

1995 California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELS) in STAMINA 2.0. Technical Advisory, Noise TAN 95-03.

2002 California Airport Land Use Planning Handbook.

2013a Technical Noise Supplement to the Traffic Noise Analysis Protocol.

2013b Transportation and Construction Vibration Guidance Manual. September.

2018 Caltrans Traffic Counts <https://dot.ca.gov/programs/traffic-operations/census>

California High Speed Train Project

2010 High Speed Train Sound Fact Sheet

Environmental Protection Agency (EPA)

1974 Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Prepared by the EPA, Office of Noise Abatement and Control.

Federal Transit Administration

2006 Transit Noise and Vibration Impact Assessment. Typical Construction Equipment Vibration Emissions. FTAVA-90-1003-06.

Federal Railroad Administration

2006 Create Rail Noise Model

2012 Noise and Vibration Technical Report prepared for the Merced to Fresno Section of the High Speed Train

2020 <https://safetydata.fra.dot.gov/OfficeofSafety/PublicSite/Crossing/Crossing.aspx>

Office of Planning and Research, State of California

2017 Office of Planning and Research, General Plan Guidelines.

Fresno, City of

2014 City of Fresno General Plan Noise Element.

2017 City of Fresno Code of Ordinance

Appendix A:
SoundPLAN Data

Fresno West EIR

Emission calculation road - Situation 1: Outdoor SP

16

Road	Section name	KM	ADT	Gradient	
		km	Veh/24h	%	
W. Gettysburg Ave - West of N. Bryan Ave		0.000	1200	0.0	
SR99 - W. Shields Avenue to W. Clinton A		0.000	107000	0.0	
SR99 - W. Dakota Avenue to W. Shields Av		0.000	104000	0.0	
SR99 - W. Shields Avenue to W. Clinton A		0.000	107000	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave		0.000	105000	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave		0.000	105000	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu		0.000	77000	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenue		0.000	77000	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu		0.000	77000	0.0	
W. Dakota Ave - N Brawley Avenue to N. P		0.000	2400	0.0	
W. Dakota Ave - N Brawley Avenue to N. P		0.000	2400	0.0	
W. Dakota Ave - N Brawley Avenue to N. P		0.004	2400	0.0	
W. Dakota Ave - N Brawley Avenue to N. P		0.000	2400	0.0	
W. Dakota Ave - N Brawley Avenue to N. P		0.000	2400	0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven		0.000	81000	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave		0.000	105000	0.0	
		0.000	3050	0.0	

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Fresno West EIR
Emission calculation road - Situation 1: Outdoor SP

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Road	Section name	KM	ADT	Gradient	
		km	Veh/24h	%	
W. Shaw Ave - N. Bryan Ave to N. Hayes A		0.000	8250	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av		0.000	9200	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro		0.000	18200	0.0	
W. Shaw Ave - N. Grantland Ave to N.		0.000	7100	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha		0.000	3100	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po		0.000	2050	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia		0.000	6500	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl		0.000	16350	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N		0.000	1700	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po		0.000	1950	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba		0.000	1200	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br		0.000	3200	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99		0.000	23600	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po		0.000	1950	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor		0.000	5100	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.		0.000	4250	0.0	

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Fresno West EIR
Emission calculation road - Situation 1: Outdoor SP

16

Road	Section name	KM	ADT	Gradient	
		km	Veh/24h	%	
W. Dakota Ave - N. Blythe Avenue to N Br		0.000	3150	0.0	
W. Dakota Ave - N Brawley Avenue to N. P		0.000	2400	0.0	
W. Sheilds Ave - N. Polk Avenue to N. Co		0.000	3750	0.0	
W. Sheilds Ave - N. Hayes Avenue to N. P		0.000	3250	0.0	
W. Sheilds Ave - N. Bryan Avenue to N. H		0.000	3550	0.0	
W. Sheilds Ave - N. Grantland Ave to Bry		0.000	2750	0.0	
W. Sheilds Ave - N. Cornelia Ave to N Bl		0.000	4600	0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra		0.000	4400	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val		0.000	5800	0.0	
W. Sheilds Ave - N. Valentine Ave to N.		0.000	6900	0.0	
W. Clinton Ave - N. Polk Avenue to N. Co		0.000	3400	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk		0.000	1050	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye		0.000	700	0.0	
W. Clinton Ave - N. Grantland Ave to Bry		0.000	400	0.0	
W. Clinton Ave - N. Cornelia Avenue to N		0.000	6400	0.0	
W. Clinton Ave - N. Blythe Avenue to N B		0.000	9300	0.0	

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Fresno West EIR
Emission calculation road - Situation 1: Outdoor SP

16

Road	Section name	KM	ADT	Gradient	
		km	Veh/24h	%	
W. Shaw Ave - N Garfield Avenue to N. Gr		0.000	6000	0.0	
N. Grantland Ave - W. Barstow Ave to Sha		0.000	6700	0.0	
N. Grantland Ave - W. Ashlan Avenue to W		0.000	4000	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett		0.000	2400	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett		0.000	2700	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty		0.000	7300	0.0	
N. Polk Ave - North of W. Shaw Avenue		0.000	4400	0.0	
Bullard Ave - N Garfield to N. Grantland		0.000	1200	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont		0.000	800	0.0	
N. Grantland Ave - W. Bullard Ave to Bar		0.000	7150	0.0	
Bullard Ave - N Garfield Avenue to N. Gr		0.000	600	0.0	
Bullard Ave - N. Grantland Avenue to N.		0.000	2900	0.0	
N. Grantland Ave - N. Parkway Drive to W		0.000	10500	0.0	
N. Bryan Ave - W. Gettysburg Ave to W As		0.000	3100	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi		0.000	1750	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da		0.000	3050	0.0	

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Fresno West EIR
Emission calculation road - Situation 1: Outdoor SP

16

Road	Section name	KM	ADT	Gradient	
		km	Veh/24h	%	
N. Hayes Ave - W. Gettysburg Avenue to W.		0.000	1700	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.		0.000	4850	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D		0.000	2400	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da		0.000	5600	0.0	
N. Cornelia Ave - N. Parkway Drive to W.		0.000	5700	0.0	
N. Cornelia Ave - W. Ashland Avenue to W		0.000	7800	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D		0.000	6700	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99		0.000	23600	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi		0.000	2150	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie		0.000	4900	0.0	
N. Cornelia Ave - W. Dakota Avenue to W		0.000	5800	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh		0.000	4750	0.0	
N Brawley Ave - N. Parkway Drive to W. D		0.000	6600	0.0	
N Brawley Ave - W Shields Avenue to W. C		0.000	6000	0.0	
W. Sheilds Ave - West of N. Grantland Av		0.000	2700	0.0	
N. Grantland Ave - W Shields Avenue to W		0.000	2300	0.0	

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Fresno West EIR
Emission calculation road - Situation 1: Outdoor SP

16

Road	Section name	KM	ADT	Gradient	
		km	Veh/24h	%	
N. Bryan Ave - W Shields Avenue to W. Cl		0.000	650	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl		0.000	1650	0.0	
N. Polk Ave - W Shields Avenue to W. Cl		0.000	3750	0.0	
N. Cornelia Ave - W Shields Avenue to W.		0.000	5700	0.0	
N. Blythe Ave - W Shields Avenue to W. C		0.000	4900	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh		0.000	6350	0.0	
N. Valentine Ave - N. Parkway Drive to W		0.000	2600	0.0	
N. Valentine Ave - W Shields Avenue to W		0.000	2100	0.0	
W. Clinton Ave - N Brawley Ave to N. Val		0.000	9850	0.0	
W. Clinton Ave - N. Valentine Ave to N.		0.000	11300	0.0	
N. Marks Ave - W Princeton Avenue to W.		0.000	9100	0.0	
N. Marks Ave - W Princeton Avenue to W.		0.000	9100	0.0	
W. Clinton Ave - N. Marks Avenue to SR99		0.000	20000	0.0	
Bullard Ave - N. Grantland Ave to N. Bry		0.000	800	0.0	
N. Grantland Ave - W. Shaw Avenue to W.		0.000	3900	0.0	
N. Grantland Ave - W. Dakota Avenue to W		0.000	3050	0.0	

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Fresno West EIR

Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
Receiver 1	Fl G	LrD,lim	dB(A)	LrD 78.9	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		19.6	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Dakota Avenue to W. Shields Av	Road			0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road			0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		45.0	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road			0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		44.3	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		78.8	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road			0.0	
	Road			0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		34.9	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		33.2	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		25.1	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		35.5	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		24.8	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		22.0	0.0	

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Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

9

Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		22.4	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road			0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		22.4	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		22.5	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		16.2	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		25.5	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road			0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road			0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road			0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road			0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Sheilds Ave - N. Polk Avenue to N. Co	Road			0.0	
W. Sheilds Ave - N. Hayes Avenue to N. P	Road			0.0	
W. Sheilds Ave - N. Bryan Avenue to N. H	Road			0.0	
W. Sheilds Ave - N. Grantland Ave to Bry	Road			0.0	
W. Sheilds Ave - N. Cornelia Ave to N Bl	Road			0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road			0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road			0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road			0.0	
Shields Ave & Valentine Ave East	Road			0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road			0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road			0.0	

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Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road			0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road			0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road			0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road			0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		35.1	0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road		36.4	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		25.5	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		26.8	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		25.8	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		27.6	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		19.1	0.0	
Bullard Ave - N Garfield to N. Grantland	Road		30.9	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		28.1	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road		42.7	0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road		34.6	0.0	
Bullard Ave - N. Grantland Avenue to N.	Road		40.7	0.0	
N. Grantland Ave - N. Parkway Drive to W	Road		61.6	0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		24.9	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		20.8	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		24.3	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		21.4	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		25.6	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		18.5	0.0	

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Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		21.6	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		22.9	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road			0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road			0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road			0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road			0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road			0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road			0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road			0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road			0.0	
N Brawley Ave - W Shields Avenue to W. C	Road			0.0	
W. Sheilds Ave - West of N. Grantland Av	Road			0.0	
N. Grantland Ave - W Shields Avenue to W	Road			0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road			0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road			0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road			0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road			0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road			0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road			0.0	
N. Valentine Ave - N. Parkway Drive to W	Road			0.0	
N. Valentine Ave - W Shields Avenue to W	Road			0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road			0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road			0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road			0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		29.5	0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		29.8	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road			0.0	
Receiver 2	Fl G	LrD,lim	dB(A)	LrD 69.1	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		34.1	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Dakota Avenue to W. Sheilds Av	Road			0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		43.1	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		53.3	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		42.0	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		52.7	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		64.8	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		41.8	0.0	
	Road			0.0	

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Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		63.4	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		46.6	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		34.6	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		63.0	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		36.1	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		32.4	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		33.7	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. BI	Road		34.9	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		36.7	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		34.3	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		25.6	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		36.3	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		31.0	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		25.7	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		28.1	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		25.2	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		21.8	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		15.9	0.0	
W. Sheilds Ave - N. Polk Avenue to N. Co	Road		26.0	0.0	
W. Sheilds Ave - N. Hayes Avenue to N. P	Road		26.7	0.0	
W. Sheilds Ave - N. Bryan Avenue to N. H	Road		27.8	0.0	
W. Sheilds Ave - N. Grantland Ave to Bry	Road		26.7	0.0	
W. Sheilds Ave - N. Cornelia Ave to N BI	Road		25.3	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road		19.5	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road			0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road			0.0	
Shields Ave & Valentine Ave East	Road			0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		23.5	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		19.3	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		18.0	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		15.6	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		22.4	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road			0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		44.9	0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road		45.5	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		36.3	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		54.8	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		40.6	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		37.4	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		28.4	0.0	
Bullard Ave - N Garfield to N. Grantland	Road		33.3	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		38.7	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road		41.2	0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road		26.4	0.0	
Bullard Ave - N. Grantland Avenue to N.	Road		36.5	0.0	
N. Grantland Ave - N. Parkway Drive to W	Road		38.4	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

9

Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		41.1	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		33.4	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		33.4	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		33.8	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		35.5	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		28.2	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		33.0	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		33.4	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		31.0	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		28.0	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		21.5	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		26.3	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		29.5	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		27.5	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		23.8	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		23.0	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road			0.0	
W. Sheilds Ave - West of N. Grantland Av	Road		25.9	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		25.2	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		19.4	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		22.0	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		25.7	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		24.3	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

9

Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Blythe Ave - W Shields Avenue to W. C	Road		20.9	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		21.4	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road			0.0	
N. Valentine Ave - W Shields Avenue to W	Road			0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road			0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road			0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		37.9	0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		42.1	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		29.5	0.0	
Receiver 3	FI G	LrD,lim	dB(A)	LrD 67.6	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		32.6	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Dakota Avenue to W. Sheilds Av	Road		45.1	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		43.6	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		47.2	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		59.3	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		46.9	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		58.5	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		14.5	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

9

Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Dakota Ave - N Brawley Avenue to N. P	Road		14.1	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		9.5	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		12.4	0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		63.6	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		46.3	0.0	
	Road		13.6	0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		49.0	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		51.0	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		39.9	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		42.0	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		41.4	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		40.5	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		41.1	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road		40.7	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		47.9	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		56.4	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		35.9	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		37.4	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		35.8	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		31.3	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		33.8	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		30.3	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		26.2	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Dakota Ave - N Brawley Avenue to N. P	Road		19.7	0.0	
W. Sheilds Ave - N. Polk Avenue to N. Co	Road		30.7	0.0	
W. Sheilds Ave - N. Hayes Avenue to N. P	Road		31.0	0.0	
W. Sheilds Ave - N. Bryan Avenue to N. H	Road		31.2	0.0	
W. Sheilds Ave - N. Grantland Ave to Bry	Road		28.8	0.0	
W. Sheilds Ave - N. Cornelia Ave to N Bl	Road		29.8	0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road		26.6	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road		25.6	0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road		21.0	0.0	
Shields Ave & Valentine Ave East	Road		16.3	0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		27.1	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		22.6	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		20.6	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		17.4	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		28.7	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		28.8	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		36.5	0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road		36.1	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		34.0	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		39.5	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		57.8	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		46.5	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		33.5	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
Bullard Ave - N Garfield to N. Grantland	Road		25.8	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		31.7	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road		33.7	0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road		20.4	0.0	
Bullard Ave - N. Grantland Avenue to N.	Road		30.5	0.0	
N. Grantland Ave - N. Parkway Drive to W	Road		33.0	0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		39.8	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		34.4	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		33.6	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		49.9	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		45.6	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		34.6	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		40.0	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		40.1	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		37.2	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		32.9	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		26.0	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		30.9	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		34.6	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		32.6	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		28.2	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		27.0	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		25.0	0.0	

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Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Sheilds Ave - West of N. Grantland Av	Road		26.7	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		26.6	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		20.8	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		25.6	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		29.6	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		28.3	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		26.0	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		28.0	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road		20.1	0.0	
N. Valentine Ave - W Shields Avenue to W	Road		18.2	0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road		27.4	0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road			0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		27.9	0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		35.3	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		30.7	0.0	
Receiver 4	FI G	LrD,lim	dB(A)	LrD 71.0	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		36.3	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Dakota Avenue to W. Sheilds Av	Road		36.0	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

9

Source	Source ty	Tr. lane	LrD dB(A)	A dB	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		41.2	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		44.4	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		53.0	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		43.2	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		49.9	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		12.4	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		12.1	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		7.5	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		10.5	0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		56.9	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		43.1	0.0	
	Road		11.6	0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		41.5	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		39.6	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		30.6	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		40.9	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		62.3	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		40.8	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		38.2	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road		37.6	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		38.3	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		34.7	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		25.8	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		66.1	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		32.9	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		33.4	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		33.0	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		28.5	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		24.0	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		17.6	0.0	
W. Sheilds Ave - N. Polk Avenue to N. Co	Road		31.5	0.0	
W. Sheilds Ave - N. Hayes Avenue to N. P	Road		33.8	0.0	
W. Sheilds Ave - N. Bryan Avenue to N. H	Road		36.3	0.0	
W. Sheilds Ave - N. Grantland Ave to Bry	Road		35.3	0.0	
W. Sheilds Ave - N. Cornelia Ave to N BI	Road		29.3	0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road		25.6	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road		24.3	0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road			0.0	
Shields Ave & Valentine Ave East	Road			0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		28.4	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		25.2	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		24.6	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		22.2	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		29.0	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		28.5	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		38.1	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

9

Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Grantland Ave - W. Barstow Ave to Sha	Road		35.9	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		42.5	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		40.7	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		36.4	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		35.5	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		24.2	0.0	
Bullard Ave - N Garfield to N. Grantland	Road		25.5	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		26.5	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road		32.3	0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road		19.4	0.0	
Bullard Ave - N. Grantland Avenue to N.	Road		27.8	0.0	
N. Grantland Ave - N. Parkway Drive to W	Road		31.2	0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		67.2	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		57.5	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		43.8	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		39.2	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		37.9	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		37.7	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		38.3	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		34.3	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		34.3	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		30.1	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		23.2	0.0	

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Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

9

Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		34.9	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		35.5	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		31.8	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		26.7	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		24.6	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		24.2	0.0	
W. Sheilds Ave - West of N. Grantland Av	Road		33.2	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		32.5	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		27.3	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		29.2	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		31.4	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		28.7	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		25.5	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		26.3	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road		15.6	0.0	
N. Valentine Ave - W Shields Avenue to W	Road			0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road		24.2	0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road			0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		25.6	0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		38.3	0.0	

Fresno West EIR

Assessed contribution level - Situation 1: Outdoor SP

9

Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Grantland Ave - W. Dakota Avenue to W	Road		38.4	0.0	
Receiver 5	FI G	LrD,lim	dB(A)	LrD 79.0	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		26.0	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		39.1	0.0	
SR99 - W. Dakota Avenue to W. Shields Av	Road		48.6	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		44.9	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		47.3	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		51.2	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		61.3	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		51.2	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		55.7	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		18.2	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		17.8	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		13.0	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		15.9	0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		57.8	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		50.7	0.0	
	Road		17.1	0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		39.1	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		41.6	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		34.9	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		35.3	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		44.0	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		66.3	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		76.0	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. BI	Road		50.4	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		33.0	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		39.5	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		35.2	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		37.1	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		42.4	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		38.5	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		42.8	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		37.3	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		31.3	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		23.8	0.0	
W. Shields Ave - N. Polk Avenue to N. Co	Road		36.9	0.0	
W. Shields Ave - N. Hayes Avenue to N. P	Road		36.2	0.0	
W. Shields Ave - N. Bryan Avenue to N. H	Road		34.5	0.0	
W. Shields Ave - N. Grantland Ave to Bry	Road		30.3	0.0	
W. Shields Ave - N. Cornelia Ave to N BI	Road		35.7	0.0	
W. Shields Ave - N. Blythe Ave to N. Bra	Road		31.5	0.0	
W. Shields Ave - N Brawley Ave to N. Val	Road		29.6	0.0	
W. Shields Ave - N. Valentine Ave to N.	Road		26.4	0.0	
Shields Ave & Valentine Ave East	Road		19.8	0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		31.7	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		26.6	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		23.6	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		19.3	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		33.3	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		33.0	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		31.6	0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road		30.7	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		30.5	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		31.8	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		36.3	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		43.6	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		29.4	0.0	
Bullard Ave - N Garfield to N. Grantland	Road		21.2	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		25.3	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road		28.9	0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road		16.3	0.0	
Bullard Ave - N. Grantland Avenue to N.	Road		25.8	0.0	
N. Grantland Ave - N. Parkway Drive to W	Road		28.9	0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		35.1	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		34.7	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		32.1	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		39.2	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		73.3	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		38.1	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		70.2	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		45.4	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		46.1	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		38.4	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		31.9	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		35.2	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		44.2	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		39.7	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		33.8	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		31.3	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		29.2	0.0	
W. Shields Ave - West of N. Grantland Av	Road		27.1	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		27.7	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		23.1	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		29.4	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		36.3	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		33.8	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		30.9	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		32.5	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road		23.6	0.0	
N. Valentine Ave - W Shields Avenue to W	Road		22.1	0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road		31.1	0.0	

Fresno West EIR

Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Clinton Ave - N. Valentine Ave to N.	Road		29.5	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		23.9	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		21.5	0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road		28.4	0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		22.1	0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		30.3	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		30.9	0.0	
Receiver 6	FI G	LrD,lim	dB(A)	LrD 77.5	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		17.9	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		46.5	0.0	
SR99 - W. Dakota Avenue to W. Sheilds Av	Road		57.3	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		52.2	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		56.8	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		61.2	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		61.0	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		58.8	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		49.2	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		31.0	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		29.8	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		24.6	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		25.3	0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		50.9	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		60.3	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
	Road		26.3	0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		31.1	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		33.8	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		28.1	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		28.2	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		30.1	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		32.2	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		41.0	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road		50.0	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		23.5	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		27.9	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		24.8	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		27.0	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		48.9	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		32.0	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		43.0	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		67.1	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		71.3	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		38.3	0.0	
W. Shields Ave - N. Polk Avenue to N. Co	Road		38.7	0.0	
W. Shields Ave - N. Hayes Avenue to N. P	Road		33.4	0.0	
W. Shields Ave - N. Bryan Avenue to N. H	Road		29.8	0.0	
W. Shields Ave - N. Grantland Ave to Bry	Road		25.4	0.0	

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Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Sheilds Ave - N. Cornelia Ave to N Bl	Road		44.5	0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road		43.3	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road		39.7	0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road		34.3	0.0	
Shields Ave & Valentine Ave East	Road		28.6	0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		34.2	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		26.1	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		21.4	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		16.2	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		39.0	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		40.7	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		22.9	0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road		24.1	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		23.5	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		23.5	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		26.6	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		32.6	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		21.2	0.0	
Bullard Ave - N Garfield to N. Grantland	Road			0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		19.2	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road			0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road			0.0	
Bullard Ave - N. Grantland Avenue to N.	Road			0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Grantland Ave - N. Parkway Drive to W	Road			0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		26.1	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		27.3	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		25.5	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		26.7	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		35.9	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		27.1	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		38.5	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		40.3	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		45.8	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		74.1	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		38.9	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		28.8	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		37.9	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		44.5	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		67.7	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		43.3	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		38.7	0.0	
W. Shields Ave - West of N. Grantland Av	Road		22.6	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		23.7	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		19.3	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		26.5	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		34.6	0.0	

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Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Cornelia Ave - W Shields Avenue to W.	Road		38.4	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		42.5	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		45.1	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road		32.6	0.0	
N. Valentine Ave - W Shields Avenue to W	Road		30.3	0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road		38.9	0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road		36.5	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		30.6	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		28.7	0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road		34.6	0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		16.3	0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		23.6	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		25.5	0.0	
Receiver 7	Fl G	LrD,lim	dB(A)	LrD 72.0	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		23.5	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Dakota Avenue to W. Sheilds Av	Road			0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road			0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		47.5	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		39.5	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		42.9	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		48.9	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		39.9	0.0	
	Road			0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		32.3	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		31.3	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		23.7	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		32.3	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		35.0	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		30.2	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		31.3	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road		32.6	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		25.9	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		25.5	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		18.7	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		37.3	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		29.0	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		29.4	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		29.7	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		25.7	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		21.7	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
W. Shields Ave - N. Polk Avenue to N. Co	Road		31.8	0.0	
W. Shields Ave - N. Hayes Avenue to N. P	Road		36.1	0.0	
W. Shields Ave - N. Bryan Avenue to N. H	Road		43.5	0.0	
W. Shields Ave - N. Grantland Ave to Bry	Road		67.6	0.0	
W. Shields Ave - N. Cornelia Ave to N BI	Road		28.9	0.0	
W. Shields Ave - N. Blythe Ave to N. Bra	Road		24.7	0.0	
W. Shields Ave - N Brawley Ave to N. Val	Road		20.9	0.0	
W. Shields Ave - N. Valentine Ave to N.	Road			0.0	
Shields Ave & Valentine Ave East	Road			0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		29.8	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		28.6	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		31.4	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		33.4	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		29.4	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		28.3	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		31.6	0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road		29.5	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		34.6	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		27.3	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		26.4	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		28.1	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Polk Ave - North of W. Shaw Avenue	Road		17.2	0.0	
Bullard Ave - N Garfield to N. Grantland	Road		20.0	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		19.4	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road		26.9	0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road		14.6	0.0	
Bullard Ave - N. Grantland Avenue to N.	Road		22.3	0.0	
N. Grantland Ave - N. Parkway Drive to W	Road			0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		32.5	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		41.2	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		43.4	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		27.7	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		30.5	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		29.9	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		33.0	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		28.6	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		30.3	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		27.0	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		19.6	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		33.9	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		33.6	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		29.8	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		24.9	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		22.1	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N Brawley Ave - W Shields Avenue to W. C	Road		23.4	0.0	
W. Shields Ave - West of N. Grantland Av	Road		62.2	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		62.0	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		35.5	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		32.6	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		32.4	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		28.6	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		25.0	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		24.6	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road			0.0	
N. Valentine Ave - W Shields Avenue to W	Road			0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road			0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road			0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		18.9	0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		30.7	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		68.3	0.0	
Receiver 8	FI G	LrD,lim	dB(A)	LrD 78.4	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		20.9	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		41.6	0.0	
SR99 - W. Dakota Avenue to W. Shields Av	Road		49.2	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
SR99 - W. Shields Avenue to W. Clinton A	Road		46.2	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		47.0	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		49.9	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		54.0	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		47.6	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		46.9	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		18.2	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		17.8	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		13.0	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		16.0	0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		50.0	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		48.2	0.0	
	Road		17.3	0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		32.2	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		33.3	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		26.6	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		30.1	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		34.8	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		35.2	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		39.3	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road		41.2	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		25.7	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		28.4	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		23.4	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		31.9	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		37.0	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		38.9	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		43.0	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		37.3	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		31.3	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		23.8	0.0	
W. Sheilds Ave - N. Polk Avenue to N. Co	Road		72.9	0.0	
W. Sheilds Ave - N. Hayes Avenue to N. P	Road		68.7	0.0	
W. Sheilds Ave - N. Bryan Avenue to N. H	Road		43.5	0.0	
W. Sheilds Ave - N. Grantland Ave to Bry	Road		35.6	0.0	
W. Sheilds Ave - N. Cornelia Ave to N Bl	Road		44.6	0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road		36.3	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road		32.6	0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road		27.7	0.0	
Shields Ave & Valentine Ave East	Road		22.1	0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		42.9	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		37.8	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		31.2	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		24.2	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		40.9	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		37.9	0.0	

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Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		27.8	0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road		26.5	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		27.4	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		25.8	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		27.7	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		32.9	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		20.9	0.0	
Bullard Ave - N Garfield to N. Grantland	Road		14.7	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		19.4	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road		22.2	0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road			0.0	
Bullard Ave - N. Grantland Avenue to N.	Road			0.0	
N. Grantland Ave - N. Parkway Drive to W	Road			0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		30.0	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		34.8	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		31.0	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		29.8	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		38.3	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		33.5	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		45.8	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		35.7	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		41.1	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		36.4	0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		27.3	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		40.3	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		75.5	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		44.8	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		36.0	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		30.4	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		32.3	0.0	
W. Sheilds Ave - West of N. Grantland Av	Road		30.6	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		30.9	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		28.3	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		39.1	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		68.0	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		43.4	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		36.1	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		33.7	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road		24.5	0.0	
N. Valentine Ave - W Shields Avenue to W	Road		24.1	0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road		34.3	0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road		31.7	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		25.5	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		22.8	0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road		30.1	0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		17.3	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Grantland Ave - W. Shaw Avenue to W.	Road		26.3	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		32.2	0.0	
Receiver 9	FI G	LrD,lim	dB(A)	LrD 77.5	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		16.6	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		47.8	0.0	
SR99 - W. Dakota Avenue to W. Sheilds Av	Road		57.0	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		53.4	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		54.8	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		57.1	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		55.9	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		52.6	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		45.9	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		26.6	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		25.9	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		20.9	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		23.9	0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		47.5	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		54.4	0.0	
	Road		25.3	0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		29.1	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		31.2	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		25.3	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		25.6	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		28.7	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		29.9	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		37.1	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. BI	Road		43.2	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		21.7	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		25.3	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		21.6	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		26.1	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		41.7	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		29.1	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		38.0	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		42.2	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		40.9	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		32.7	0.0	
W. Shields Ave - N. Polk Avenue to N. Co	Road		43.9	0.0	
W. Shields Ave - N. Hayes Avenue to N. P	Road		36.1	0.0	
W. Shields Ave - N. Bryan Avenue to N. H	Road		31.6	0.0	
W. Shields Ave - N. Grantland Ave to Bry	Road		26.8	0.0	
W. Shields Ave - N. Cornelia Ave to N BI	Road		69.9	0.0	
W. Shields Ave - N. Blythe Ave to N. Bra	Road		73.4	0.0	
W. Shields Ave - N Brawley Ave to N. Val	Road		44.8	0.0	
W. Shields Ave - N. Valentine Ave to N.	Road		36.5	0.0	
Shields Ave & Valentine Ave East	Road		32.0	0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		38.0	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		28.4	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		22.7	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		17.2	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		45.7	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		47.3	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road			0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road			0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		22.6	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		21.9	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		24.4	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		29.7	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		18.5	0.0	
Bullard Ave - N Garfield to N. Grantland	Road			0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		14.7	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road			0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road			0.0	
Bullard Ave - N. Grantland Avenue to N.	Road			0.0	
N. Grantland Ave - N. Parkway Drive to W	Road			0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		24.7	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		27.0	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		25.0	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		24.8	0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		32.9	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		25.9	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		36.4	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		35.7	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		41.0	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		44.7	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		32.7	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		28.9	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		37.9	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		44.5	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		71.9	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		38.4	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		43.7	0.0	
W. Sheilds Ave - West of N. Grantland Av	Road		23.5	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		24.3	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		20.0	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		27.7	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		36.7	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		43.4	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		67.4	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		45.2	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road		32.8	0.0	
N. Valentine Ave - W Shields Avenue to W	Road		32.4	0.0	

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Clinton Ave - N Brawley Ave to N. Val	Road		42.8	0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road		38.8	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		32.1	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		29.7	0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road		36.1	0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road			0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		19.8	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		25.5	0.0	
Receiver 10	FI G	LrD,lim	dB(A)	LrD 69.7	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road		20.0	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Dakota Avenue to W. Sheilds Av	Road			0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		40.6	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		43.1	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		47.6	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		40.4	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		42.0	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		12.0	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		11.7	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		7.1	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		45.2	0.0	

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Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		41.1	0.0	
	Road			0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		29.9	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		29.8	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		22.7	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		29.2	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		32.3	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		29.3	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		31.5	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road		33.3	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		23.4	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		24.1	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		18.0	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		32.4	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		29.9	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		30.0	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		31.1	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		27.4	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		23.4	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		17.1	0.0	
W. Shields Ave - N. Polk Avenue to N. Co	Road		34.2	0.0	
W. Shields Ave - N. Hayes Avenue to N. P	Road		38.3	0.0	
W. Shields Ave - N. Bryan Avenue to N. H	Road		43.6	0.0	

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Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Sheilds Ave - N. Grantland Ave to Bry	Road		42.5	0.0	
W. Sheilds Ave - N. Cornelia Ave to N Bl	Road		31.1	0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road		26.7	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road		25.1	0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road			0.0	
Shields Ave & Valentine Ave East	Road		15.6	0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		36.7	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		38.5	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		66.7	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		59.1	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		34.7	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		32.5	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		28.0	0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road		26.0	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		28.4	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		25.4	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		24.4	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		27.1	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		16.1	0.0	
Bullard Ave - N Garfield to N. Grantland	Road		14.3	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		17.4	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road			0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road			0.0	

Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
Bullard Ave - N. Grantland Avenue to N.	Road			0.0	
N. Grantland Ave - N. Parkway Drive to W	Road			0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		30.4	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		40.5	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		34.0	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		25.9	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		29.9	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		28.9	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		33.5	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		28.7	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		31.4	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		28.3	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		20.6	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		35.5	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		36.0	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		32.1	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		27.0	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		23.5	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		25.8	0.0	
W. Shields Ave - West of N. Grantland Av	Road		37.4	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		42.3	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		65.5	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		39.4	0.0	

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Fresno West EIR
Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Polk Ave - W Shields Avenue to W. Cli	Road		36.9	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		32.1	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		27.9	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		26.5	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road		18.7	0.0	
N. Valentine Ave - W Shields Avenue to W	Road		18.8	0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road		29.6	0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road			0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		16.3	0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		26.3	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		38.7	0.0	
Receiver 11	Fl G	LrD,lim	dB(A)	LrD 77.6 dB(A)	
W. Gettysburg Ave - West of N. Bryan Ave	Road		16.7	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		44.6	0.0	
SR99 - W. Dakota Avenue to W. Sheilds Av	Road		51.6	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		49.1	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		48.5	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		50.6	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		51.7	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		46.8	0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		43.6	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		19.9	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		19.5	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		14.8	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		17.8	0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		44.6	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		48.1	0.0	
	Road		19.3	0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		28.4	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		29.8	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		23.5	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		23.8	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		29.1	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		29.3	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		34.7	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road		38.7	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		21.4	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		24.1	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		19.6	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		27.0	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		36.0	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		29.9	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		36.2	0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		35.5	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		32.1	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		25.3	0.0	
W. Sheilds Ave - N. Polk Avenue to N. Co	Road		43.9	0.0	
W. Sheilds Ave - N. Hayes Avenue to N. P	Road		38.2	0.0	
W. Sheilds Ave - N. Bryan Avenue to N. H	Road		33.9	0.0	
W. Sheilds Ave - N. Grantland Ave to Bry	Road		28.8	0.0	
W. Sheilds Ave - N. Cornelia Ave to N BI	Road		44.9	0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road		38.6	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road		35.0	0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road		30.4	0.0	
Shields Ave & Valentine Ave East	Road		24.4	0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		68.4	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		38.3	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		29.8	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		22.5	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		74.6	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		48.0	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road			0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road			0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		23.3	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		21.7	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		23.5	0.0	

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Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		28.0	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		16.8	0.0	
Bullard Ave - N Garfield to N. Grantland	Road			0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road			0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road			0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road			0.0	
Bullard Ave - N. Grantland Avenue to N.	Road			0.0	
N. Grantland Ave - N. Parkway Drive to W	Road			0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		25.1	0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road		29.0	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		26.5	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		24.4	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		31.3	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		26.7	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		35.7	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		34.0	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		39.5	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		35.6	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		26.8	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		31.5	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		39.8	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		45.0	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		37.8	0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N Brawley Ave - N. Parkway Drive to W. D	Road		31.2	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		37.0	0.0	
W. Shields Ave - West of N. Grantland Av	Road		25.4	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		27.3	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		23.8	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		32.4	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		43.4	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		73.2	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		42.8	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		36.2	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road		27.0	0.0	
N. Valentine Ave - W Shields Avenue to W	Road		27.8	0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road		41.3	0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road		37.1	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		28.6	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		25.7	0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road		34.4	0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road			0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		22.7	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		27.8	0.0	
Receiver 12	FI G	LrD,lim	dB(A)	LrD 83.9	dB(A)
W. Gettysburg Ave - West of N. Bryan Ave	Road			0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		70.2	0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
SR99 - W. Dakota Avenue to W. Sheilds Av	Road		62.1	0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road		71.0	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		53.4	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		52.2	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		48.0	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		44.7	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road			0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		23.3	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		23.9	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		19.8	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		23.5	0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		47.2	0.0	
	Road		25.5	0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road			0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road			0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road			0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road			0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road			0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		18.2	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		27.1	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road		33.3	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road			0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road			0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		14.0	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road			0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		33.3	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		18.9	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		25.4	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		27.3	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		29.0	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		26.8	0.0	
W. Sheilds Ave - N. Polk Avenue to N. Co	Road		26.9	0.0	
W. Sheilds Ave - N. Hayes Avenue to N. P	Road		23.5	0.0	
W. Sheilds Ave - N. Bryan Avenue to N. H	Road			0.0	
W. Sheilds Ave - N. Grantland Ave to Bry	Road			0.0	
W. Sheilds Ave - N. Cornelia Ave to N Bl	Road		31.0	0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road		33.9	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road		39.7	0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road		44.4	0.0	
Shields Ave & Valentine Ave East	Road		34.2	0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		28.0	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		19.8	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road			0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road			0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		34.6	0.0	

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Assessed contribution level - Situation 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
W. Clinton Ave - N. Blythe Avenue to N B	Road		41.0	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road			0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road			0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road			0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road			0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road			0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road			0.0	
N. Polk Ave - North of W. Shaw Avenue	Road			0.0	
Bullard Ave - N Garfield to N. Grantland	Road			0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road			0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road			0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road			0.0	
Bullard Ave - N. Grantland Avenue to N.	Road			0.0	
N. Grantland Ave - N. Parkway Drive to W	Road			0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road			0.0	
N. Bryan Ave - W. Ashlan Avenue to W Shi	Road			0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road			0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road			0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		23.0	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road			0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		26.0	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		26.8	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		28.8	0.0	

Fresno West EIR
Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		30.8	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		25.3	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		16.5	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		26.3	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		28.8	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		30.1	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		31.2	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		36.9	0.0	
W. Sheilds Ave - West of N. Grantland Av	Road			0.0	
N. Grantland Ave - W Shields Avenue to W	Road			0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road			0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		18.6	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		25.7	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		28.5	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		31.4	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		36.2	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road		34.7	0.0	
N. Valentine Ave - W Shields Avenue to W	Road		39.0	0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road		48.1	0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road		74.1	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		75.6	0.0	
N. Marks Ave - W Princeton Avenue to W.	Road		45.7	0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road		81.9	0.0	

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Assessed contribution level - Situatiion 1: Outdoor SP

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Source	Source ty	Tr. lane	LrD dB(A)	A dB	
Bullard Ave - N. Grantland Ave to N. Bry	Road			0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road			0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road			0.0	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Receive 1	Fl G	LrD,linr	dB(A)	LrC	78.9	dB(A)																					
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	19.6	-6.2	1.7	6.0	8.0	9.0	9.8	10.5	11.1	10.4	9.5	9.7	8.3	1.7	-3.9	-18.8	-30.9	-45.1	-63.4	-78.3						
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	45.0	16.2	25.5	30.2	32.4	33.6	34.9	36.1	37.0	36.2	34.7	35.1	33.4	30.2	27.2	20.8	9.8	-5.9	-30.7	-68.6						
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	44.3	14.4	23.6	28.4	30.6	31.8	33.1	34.5	36.0	35.6	34.5	35.2	33.8	31.2	28.6	23.0	13.1	-0.7	-22.4	-56.2	-98.0					
SR99 - W. Herndon Avenue to W. Shaw Aven	CNEL	78.8	40.8	50.2	55.1	57.4	58.9	60.6	62.8	66.4	67.5	68.2	70.7	71.5	70.3	69.6	66.9	63.5	60.7	57.3	55.5	51.5	45.7	47.0	43.5	37.7	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	34.9	6.5	15.1	19.7	21.8	23.0	23.9	24.8	25.8	25.9	25.7	26.3	25.4	19.4	14.2	0.2	-11.0	-23.5	-38.3	-52.0	-78.6		-82.7	-86.0	-91.2	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	33.2	5.6	14.1	18.7	20.8	21.9	22.8	23.6	24.3	24.1	23.8	24.3	23.2	16.9	11.6	-3.2	-15.0	-28.5	-46.9	-62.7	-93.4		-97.5			
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	25.1	0.5	7.9	12.1	14.0	15.0	15.8	16.5	16.9	15.8	14.4	14.2	12.5	5.6	0.6	-14.8	-24.2	-37.3	-59.3	-77.8						
W. Shaw Ave - N. Grantland Ave to N.	CNEL	35.5	6.7	15.3	19.9	22.1	23.2	24.2	25.1	26.4	26.5	26.5	27.2	26.4	20.4	15.4	2.1	-8.6	-20.8	-33.7	-46.0	-70.3		-74.4	-77.7	-82.9	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	24.8	-1.6	6.9	11.5	13.6	14.7	15.5	16.0	15.9	15.3	14.5	14.5	13.0	6.1	0.1	-15.5	-29.5	-46.2	-72.1	-93.0						
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	22.0	-4.0	4.5	9.1	11.2	12.2	13.0	13.5	13.1	12.3	11.3	11.2	9.6	2.4	-3.4	-19.4	-31.8	-47.7	-77.7							
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	22.4	-2.5	5.7	10.1	12.1	13.1	13.8	14.2	13.5	12.4	11.0	10.6	8.7	1.1	-4.7	-21.3	-33.5	-50.1	-82.3							
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	22.4	-2.3	5.1	9.2	11.2	12.2	13.0	13.7	14.2	13.1	11.8	11.7	10.0	3.3	-2.5	-17.7	-30.1	-44.6	-62.8	-78.5						
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	22.5	-2.6	5.2	9.5	11.5	12.5	13.2	13.8	14.0	13.1	11.9	11.8	10.2	3.2	-2.2	-17.7	-28.5	-42.6	-66.6	-86.1						
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	16.2	-8.6	-0.8	3.5	5.5	6.5	7.2	7.7	7.6	6.5	5.1	4.9	3.1	-4.1	-9.6	-25.6	-36.4	-51.3	-79.0							
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	25.5	-1.0	7.5	12.1	14.2	15.2	16.0	16.6	16.7	16.1	15.4	15.5	14.0	7.3	1.4	-13.9	-27.4	-43.9	-70.5	-88.7						
W. Shaw Ave - N Garfield Avenue to N. Gr	CNEL	35.1	6.2	14.8	19.4	21.6	22.7	23.7	24.7	26.0	26.1	26.1	26.9	26.1	20.2	15.1	1.7	-9.4	-20.8	-32.9	-45.5	-69.3		-73.5	-76.8	-82.0	
N. Grantland Ave - W. Barstow Ave to Sha	CNEL	36.4	8.6	16.5	20.9	22.9	24.0	25.0	26.0	27.6	27.4	27.2	27.8	26.8	22.1	20.5	15.1	8.7	-0.6	-12.9	-29.9	-47.1	-72.3	-51.0	-54.1	-58.8	
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	25.5	0.5	8.3	12.6	14.5	15.4	15.9	16.1	15.6	15.7	15.7	15.7	14.4	8.0	6.1	-2.1	-10.7	-23.4	-43.7	-75.9						

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	26.8	-0.1	8.1	12.6	14.6	15.6	16.3	16.7	16.8	17.3	17.7	18.2	17.3	10.6	6.5	-7.5	-15.0	-26.6	-45.0	-68.1	-96.4					
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	25.8	-0.6	7.6	12.1	14.1	15.1	15.7	16.1	15.9	16.3	16.5	16.8	15.9	9.0	4.3	-10.6	-19.7	-32.4	-54.4	-77.2						
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	27.6	3.2	10.6	14.7	16.6	17.6	18.4	19.0	19.3	18.1	16.6	16.4	14.6	7.6	2.2	-13.3	-23.8	-37.5	-59.9	-78.7						
N. Polk Ave - North of W. Shaw Avenue	CNEL	19.1	-5.6	1.8	5.9	7.8	8.9	9.7	10.4	10.9	9.8	8.5	8.4	6.8	0.0	-5.7	-20.9	-33.2	-47.2	-65.3	-81.7						
Bullard Ave - N Garfield to N. Grantland	CNEL	30.9	2.8	10.7	15.1	17.1	18.3	19.3	20.4	22.1	22.1	22.0	22.7	21.7	16.0	10.7	-0.2	-10.5	-18.5	-24.0	-31.1	-46.6	-70.1	-50.4	-53.5	-58.3	
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	28.1	-0.3	7.9	12.4	14.5	15.6	16.6	17.7	19.1	19.2	19.1	19.8	19.0	13.1	8.2	-4.6	-14.8	-24.9	-33.8	-43.3	-62.2	-90.3	-66.2	-69.4	-74.4	
N. Grantland Ave - W. Bullard Ave to Bar	CNEL	42.7	13.6	21.5	25.9	27.9	29.1	30.2	31.4	33.4	33.6	33.7	34.6	33.9	29.9	27.6	24.4	19.1	11.6	2.8	-3.5	-12.5	-25.7	-16.4	-19.5	-24.2	
Bullard Ave - N Garfield Avenue to N. Gr	CNEL	34.6	5.4	13.3	17.6	19.7	20.9	22.0	23.3	25.4	25.7	26.0	26.9	26.3	21.1	15.8	12.2	2.1	-2.6	-5.5	-7.5	-15.4	-27.5	-19.2	-22.4	-27.1	
Bullard Ave - N. Grantland Avenue to N.	CNEL	40.7	11.7	19.6	24.0	26.0	27.2	28.3	29.6	31.6	31.8	32.0	32.9	32.1	26.7	21.3	16.2	8.5	2.8	-1.2	-3.9	-12.3	-25.0	-16.2	-19.3	-24.0	
N. Grantland Ave - N. Parkway Drive to W	CNEL	61.6	28.4	36.4	40.8	42.9	44.2	45.5	47.0	49.4	50.3	51.2	53.2	54.2	52.2	51.6	49.2	46.2	44.0	41.3	39.6	35.4	28.6	31.3	28.3	24.1	
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	24.9	-0.9	7.3	11.8	13.7	14.7	15.3	15.5	15.0	15.2	15.3	15.4	14.2	7.1	2.5	-12.7	-21.8	-35.2	-60.3	-85.6						
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	20.8	-4.0	4.2	8.6	10.6	11.5	12.0	12.1	10.7	10.5	10.2	10.0	8.4	0.7	-4.5	-20.7	-31.4	-46.8	-78.0							
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	24.3	-2.0	6.5	11.1	13.2	14.3	15.0	15.6	15.4	14.7	13.8	13.7	12.1	6.2	3.6	-4.7	-15.0	-30.0	-54.7	-90.3						
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	21.4	-4.1	4.1	8.5	10.5	11.4	12.0	12.2	11.4	11.5	11.5	11.5	10.2	3.0	-2.3	-18.0	-28.7	-43.1	-72.3	-95.5						
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	25.6	0.2	8.4	12.8	14.9	15.9	16.6	17.1	16.8	15.9	14.7	14.6	12.9	5.7	-0.1	-16.1	-28.1	-43.5	-72.2	-94.0						
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	18.5	-4.2	3.1	7.2	8.9	9.7	10.0	9.9	8.4	7.8	7.1	6.6	4.7	-3.2	-9.2	-25.7	-38.1	-54.2	-89.0							
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	21.6	-3.2	4.9	9.4	11.4	12.4	13.0	13.4	12.7	11.6	10.2	9.7	7.8	0.2	-5.8	-22.4	-35.1	-51.9	-84.6							
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	22.9	-2.0	6.2	10.7	12.7	13.6	14.0	14.1	12.8	12.6	12.3	12.1	10.6	3.1	-3.4	-19.2	-34.1	-51.6	-82.7							
Bullard Ave - N. Grantland Ave to N. Bry	CNEL	29.5	0.5	8.7	13.3	15.4	16.5	17.6	18.7	20.4	20.6	20.7	21.5	20.7	15.1	10.0	-1.5	-11.0	-20.3	-26.7	-34.4	-50.2	-74.3	-54.2	-57.4	-62.4	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz		
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	29.8	3.3	11.1	15.4	17.5	18.5	19.4	20.2	21.2	20.8	20.1	20.4	19.2	13.6	12.0	4.9	-2.5	-13.5	-29.5	-53.5	-79.6			-83.5	-86.6	-91.3	
Receive 2	Fl	G	LrD,lirr	dB(A)	LrC	69.1	dB(A)																					
W. Gettysburg Ave - West of N. Bryan Ave	CNEL		34.1	5.0	12.9	17.3	19.4	20.5	21.7	23.0	25.0	25.3	25.5	26.3	25.6	20.2	14.7	7.5	1.4	-3.8	-6.8	-9.6	-18.0	-31.0	-21.9	-25.0	-29.7	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL		43.1	14.8	24.0	28.7	30.9	32.1	33.3	34.5	35.3	34.4	32.6	32.7	30.7	24.7	21.2	10.6	-0.4	-16.5	-43.7	-76.2						
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL		53.3	22.3	31.6	36.3	38.6	39.9	41.3	42.8	45.1	45.0	44.1	45.1	43.8	38.5	34.5	22.1	13.5	2.3	-11.4	-24.3	-47.6	-81.0	-52.0	-55.6	-61.7	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL		42.0	12.7	22.0	26.7	29.0	30.2	31.4	32.8	34.2	33.6	32.2	32.6	30.9	25.0	19.9	4.5	-5.7	-20.0	-45.0	-65.4						
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL		52.7	20.3	29.6	34.5	36.7	38.1	39.6	41.4	44.1	44.3	43.9	45.1	44.0	39.1	35.3	25.3	17.6	8.0	-2.0	-12.6	-31.1	-58.1	-35.5	-39.1	-45.2	
SR99 - W. Herndon Avenue to W. Shaw Avenue	CNEL		64.8	31.8	41.1	45.9	48.2	49.6	51.1	53.0	56.0	56.4	56.2	57.5	56.6	51.8	46.5	39.5	32.7	25.1	19.5	13.7	1.6	-16.2	-2.8	-6.4	-12.5	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL		41.8	13.0	22.2	27.0	29.2	30.4	31.6	32.9	34.0	33.2	31.7	32.0	30.1	23.8	19.9	6.4	-3.2	-18.0	-44.0	-71.5						
W. Shaw Avenue - N. Bryan Avenue to N. Hayes Avenue	CNEL		63.4	27.2	35.8	40.6	42.8	44.2	45.5	47.1	49.6	50.9	52.4	54.7	56.1	54.6	54.4	52.6	50.1	48.0	44.8	41.7	36.4	30.1	31.6	28.5	24.8	
W. Shaw Avenue - N. Hayes Avenue to N. Polk Avenue	CNEL		46.6	14.7	23.4	28.0	30.3	31.5	32.7	34.0	36.0	36.8	37.5	38.8	38.5	35.9	34.6	31.8	26.4	19.0	8.8	1.1	-9.1	-22.1	-13.3	-16.6	-21.6	
W. Shaw Avenue - N. Polk Avenue to State Road	CNEL		34.6	7.2	14.7	18.9	20.9	22.0	23.1	24.2	25.9	25.6	25.2	25.8	24.8	21.0	19.4	15.3	9.0	0.3	-11.0	-26.8	-42.8	-66.7	-46.6	-49.6	-54.0	
W. Shaw Avenue - N. Grantland Avenue to N. Bryan Avenue	CNEL		63.0	26.7	35.3	40.1	42.3	43.7	45.0	46.6	49.1	50.4	51.9	54.2	55.6	54.1	53.9	52.1	49.7	47.6	44.4	41.4	36.0	29.8	31.1	28.1	24.4	
W. Ashlan Avenue - N. Bryan Avenue to N. Hayes Avenue	CNEL		36.1	6.2	14.8	19.5	21.7	22.9	23.9	25.1	26.8	27.2	27.5	28.4	27.8	22.2	17.3	5.6	-3.8	-13.0	-20.6	-29.3	-45.8	-70.9	-49.9	-53.2	-58.4	
W. Ashlan Avenue - N. Hayes Avenue to N. Polk Avenue	CNEL		32.4	3.0	11.6	16.2	18.4	19.6	20.6	21.7	23.2	23.5	23.6	24.5	23.7	18.0	13.8	2.4	-4.9	-14.6	-26.3	-38.9	-58.3	-86.8	-62.4	-65.7	-70.9	
W. Ashlan Avenue - N. Polk Avenue to N. Cornelia Avenue	CNEL		33.7	6.1	14.3	18.8	20.9	22.0	22.9	23.8	24.9	24.8	24.5	25.0	24.0	17.8	13.3	0.1	-8.2	-19.1	-33.4	-48.2	-72.3		-76.3	-79.5	-84.5	
W. Ashlan Avenue - N. Cornelia Avenue to N. Bryan Avenue	CNEL		34.9	8.1	16.3	20.8	22.9	23.9	24.8	25.5	26.2	25.8	25.1	25.4	24.2	17.6	12.9	-2.0	-11.0	-23.5	-43.3	-60.6	-91.3		-95.3	-98.5		
W. Gettysburg Avenue - N. Bryan Avenue to N. Hayes Avenue	CNEL		36.7	8.7	16.3	20.5	22.5	23.7	24.8	26.1	28.1	28.0	27.9	28.5	27.5	22.0	16.3	8.7	3.0	-2.1	-4.9	-7.6	-16.0	-29.2	-19.8	-22.8	-27.2	
W. Gettysburg Avenue - N. Hayes Avenue to N. Polk Avenue	CNEL		34.3	5.9	13.9	18.2	20.3	21.4	22.5	23.6	25.4	25.5	25.5	26.2	25.2	19.5	14.2	7.3	0.2	-7.8	-14.4	-21.0	-33.1	-51.4	-37.0	-40.1	-44.8	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

23

Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	25.6	-1.9	6.0	10.3	12.3	13.4	14.4	15.5	17.0	16.8	16.5	17.1	16.1	10.0	6.3	-4.5	-11.2	-20.6	-31.8	-43.4	-61.8	-89.4	-65.6	-68.7	-73.5	
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	36.3	6.4	15.0	19.6	21.8	23.0	24.1	25.2	26.9	27.4	27.7	28.6	28.0	22.4	17.5	5.8	-3.7	-12.7	-20.3	-28.9	-45.5	-70.6	-49.7	-53.0	-58.2	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	31.0	5.8	13.7	18.0	19.9	20.9	21.7	22.3	22.5	21.6	20.4	20.3	18.7	11.8	6.3	-9.4	-21.0	-35.5	-60.3	-77.4						
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	25.7	-0.3	7.5	11.8	13.7	14.6	15.3	15.7	15.8	16.3	16.6	17.0	16.0	9.4	4.7	-8.8	-17.3	-28.7	-45.9	-67.3	-94.6		-98.9			
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	28.1	2.6	10.4	14.7	16.6	17.5	18.1	18.4	18.2	18.5	18.6	18.8	17.8	10.9	6.0	-8.7	-18.3	-30.9	-51.7	-73.4						
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	25.2	0.4	8.2	12.5	14.4	15.3	15.7	16.0	15.3	15.4	15.3	15.3	14.0	6.8	1.6	-14.0	-24.6	-38.6	-65.8	-87.2						
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	21.8	-2.3	5.5	9.8	11.6	12.5	12.9	13.0	11.8	11.6	11.2	11.0	9.4	1.8	-3.8	-20.0	-31.8	-47.3	-80.6							
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	15.9	-7.7	0.1	4.3	6.2	7.0	7.4	7.4	5.7	5.3	4.7	4.2	2.4	-5.5	-11.6	-28.3	-41.1	-58.1	-96.8							
W. Shields Ave - N. Polk Avenue to N. Co	CNEL	26.0	-0.6	7.9	12.6	14.7	15.7	16.3	16.7	16.1	16.3	16.5	16.7	15.6	8.5	3.6	-11.7	-22.0	-36.1	-63.1	-88.6						
W. Shields Ave - N. Hayes Avenue to N. P	CNEL	26.7	-0.4	8.1	12.8	14.9	15.9	16.6	17.0	16.7	17.1	17.5	17.8	16.9	10.2	4.7	-10.2	-23.1	-38.1	-63.4	-82.8						
W. Shields Ave - N. Bryan Avenue to N. H	CNEL	27.8	0.4	9.0	13.7	15.8	16.8	17.5	18.0	17.8	18.3	18.7	19.2	18.3	11.7	6.2	-8.5	-21.1	-35.8	-59.4	-78.2						
W. Shields Ave - N. Grantland Ave to Bry	CNEL	26.7	-0.7	7.9	12.6	14.7	15.7	16.4	16.9	16.7	17.2	17.6	18.1	17.2	10.6	5.1	-9.6	-22.4	-36.9	-60.2	-79.3						
W. Shields Ave - N. Cornelia Ave to N Bl	CNEL	25.3	-0.8	7.8	12.4	14.5	15.5	16.1	16.3	15.3	15.4	15.4	15.4	14.1	6.8	1.2	-14.7	-26.8	-42.4	-76.0	-98.8						
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	19.5	-5.2	3.0	7.5	9.5	10.4	10.8	10.9	9.5	9.2	8.8	8.6	6.9	-0.7	-6.6	-23.1	-35.6	-52.2	-91.3							
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	23.5	-1.7	6.4	10.9	12.9	13.9	14.6	15.0	14.6	13.6	12.4	12.2	10.4	3.0	-2.6	-18.5	-30.0	-45.7	-75.1							
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	19.3	-6.2	1.9	6.4	8.4	9.4	10.2	10.7	10.5	9.6	8.6	8.4	6.8	-0.2	-6.4	-22.1	-35.9	-52.3	-78.1	-99.1						
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	18.0	-7.7	0.5	4.9	7.0	8.0	8.7	9.3	9.2	8.4	7.4	7.4	5.8	-1.1	-7.2	-22.7	-36.4	-52.4	-77.9	-97.5						
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	15.6	-10.0	-1.9	2.5	4.5	5.6	6.3	6.8	6.8	6.0	5.0	5.0	3.4	-3.5	-9.7	-25.2	-39.0	-55.0	-79.4	-100.0						
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	22.4	-2.5	5.6	10.1	12.1	13.1	13.7	14.1	13.5	12.3	11.0	10.6	8.6	1.1	-4.7	-21.3	-33.4	-50.0	-82.5							

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

23

Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Shaw Ave - N Garfield Avenue to N. Gr	CNEL	44.9	13.1	21.7	26.4	28.6	29.9	31.0	32.3	34.4	35.1	35.9	37.1	36.9	34.2	32.8	30.1	24.8	17.5	7.3	0.6	-10.0	-22.7	-14.2	-17.5	-22.5	
N. Grantland Ave - W. Barstow Ave to Sha	CNEL	45.5	16.1	24.0	28.4	30.5	31.6	32.8	34.1	36.2	36.5	36.8	37.8	37.3	32.2	27.2	24.4	14.7	9.6	6.0	4.4	-3.1	-14.6	-7.0	-10.1	-14.8	
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	36.3	8.3	16.2	20.5	22.5	23.5	24.3	25.1	26.0	27.0	27.9	28.7	28.0	22.0	16.5	8.0	-0.3	-8.5	-16.6	-26.4	-39.1	-57.8	-43.3	-46.4	-50.7	
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	54.8	19.1	27.5	32.1	34.2	35.5	36.6	37.8	39.5	41.5	43.6	45.9	47.5	45.9	46.1	44.6	42.4	40.1	36.0	31.3	25.5	19.3	20.4	17.6	14.7	
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	40.6	10.4	18.7	23.3	25.4	26.5	27.5	28.5	29.8	31.1	32.4	33.5	33.1	27.8	22.6	18.3	8.7	2.5	-4.4	-9.4	-18.7	-31.4	-23.3	-26.4	-30.7	
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	37.4	10.4	17.8	22.0	24.0	25.1	26.2	27.3	29.0	28.7	28.2	28.7	27.6	21.7	16.5	5.8	-3.7	-12.6	-18.0	-24.7	-39.8	-63.2	-43.5	-46.6	-51.0	
N. Polk Ave - North of W. Shaw Avenue	CNEL	28.4	1.2	8.7	12.9	14.9	16.0	17.1	18.2	19.9	19.7	19.2	19.8	18.7	12.8	7.4	-2.8	-12.8	-20.1	-25.0	-31.5	-46.3	-69.0	-50.0	-53.1	-57.5	
Bullard Ave - N Garfield to N. Grantland	CNEL	33.3	4.8	12.7	17.0	19.1	20.3	21.3	22.5	24.4	24.5	24.5	25.3	24.3	18.7	13.5	6.9	1.3	-6.0	-12.2	-18.1	-28.6	-44.6	-32.4	-35.6	-40.2	
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	38.7	8.0	16.3	20.8	23.0	24.2	25.4	26.7	28.8	29.5	30.1	31.3	31.0	26.4	21.7	17.6	9.0	4.3	0.5	-1.5	-8.1	-18.3	-12.1	-15.4	-20.3	
N. Grantland Ave - W. Bullard Ave to Bar	CNEL	41.2	12.6	20.5	24.9	27.0	28.1	29.2	30.4	32.3	32.4	32.4	33.2	32.2	26.6	21.3	14.6	9.0	1.8	-4.2	-9.9	-20.3	-36.3	-24.2	-27.3	-32.0	
Bullard Ave - N Garfield Avenue to N. Gr	CNEL	26.4	-1.3	6.6	10.9	13.0	14.1	15.1	16.2	17.7	17.6	17.4	18.0	17.0	11.1	6.8	-3.3	-10.4	-19.4	-29.1	-39.6	-56.5	-81.8	-60.3	-63.5	-68.2	
Bullard Ave - N. Grantland Avenue to N.	CNEL	36.5	8.3	16.2	20.5	22.6	23.7	24.8	25.9	27.7	27.7	27.7	28.3	27.4	21.7	16.2	6.5	-3.8	-11.2	-16.0	-22.3	-36.5	-58.0	-40.3	-43.4	-48.2	
N. Grantland Ave - N. Parkway Drive to W	CNEL	38.4	10.9	18.8	23.1	25.2	26.3	27.3	28.3	29.8	29.6	29.3	29.9	28.9	22.8	18.9	8.2	1.4	-7.7	-18.1	-29.2	-46.2	-71.7	-50.1	-53.2	-57.9	
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	41.1	8.8	17.1	21.6	23.7	24.9	25.8	26.8	28.1	29.6	31.3	33.2	34.4	31.9	31.0	27.4	21.8	13.5	2.8	-16.8	-26.2	-42.0	-31.1	-34.0	-37.4	
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	33.4	3.5	11.8	16.3	18.4	19.4	20.2	20.9	21.6	22.7	23.9	25.4	26.3	23.0	21.6	17.1	10.4	0.2	-13.3	-38.4	-63.4	-91.7	-68.0	-71.0	-74.7	
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	33.4	4.2	12.7	17.4	19.5	20.7	21.7	22.7	24.2	24.4	24.5	25.3	24.5	18.6	15.4	4.7	-1.7	-11.5	-24.4	-39.4	-59.2	-88.1	-63.3	-66.6	-71.8	
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	33.8	4.6	12.9	17.4	19.5	20.6	21.4	22.3	23.3	24.5	25.5	26.4	25.8	20.0	14.8	7.7	0.6	-7.7	-16.5	-29.2	-42.0	-60.9	-46.5	-49.6	-53.9	
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	35.5	7.0	15.3	19.8	21.9	23.0	24.0	25.0	26.5	26.6	26.6	27.3	26.4	20.5	16.4	5.4	-1.7	-11.2	-22.5	-34.6	-53.3	-81.0	-57.3	-60.5	-65.4	
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	28.2	2.5	9.9	14.0	15.9	16.8	17.4	17.9	18.4	18.9	19.3	19.7	18.8	12.3	8.2	-4.1	-10.6	-20.4	-33.4	-50.6	-70.4	-99.3	-74.4	-77.4	-81.6	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz		
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)		
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	33.0	5.4	13.6	18.1	20.2	21.3	22.2	23.1	24.2	24.1	23.8	24.3	23.3	17.1	12.6	-0.6	-8.9	-19.8	-34.1	-49.0	-73.0			-77.0	-80.3	-85.2	
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	33.4	6.0	14.2	18.7	20.8	21.8	22.5	23.0	23.3	24.0	24.5	25.1	24.3	17.9	12.7	-1.3	-12.2	-24.8	-41.9	-57.5	-83.0			-87.4	-90.6	-95.1	
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	31.0	4.4	12.7	17.2	19.2	20.1	20.8	21.2	21.1	21.5	21.8	22.2	21.2	14.5	9.6	-5.0	-14.6	-27.2	-48.0	-70.1							
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	28.0	2.9	10.7	15.0	17.0	18.0	18.7	19.3	19.5	18.6	17.4	17.3	15.7	8.7	3.6	-11.8	-22.0	-35.9	-60.1	-79.8							
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	21.5	-3.4	4.4	8.7	10.7	11.7	12.4	13.0	13.0	12.0	10.7	10.5	8.8	1.7	-4.0	-19.8	-31.8	-46.9	-73.9	-91.9							
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	26.3	-0.6	7.6	12.1	14.1	15.1	15.8	16.2	16.3	16.8	17.2	17.6	16.8	10.1	5.6	-9.1	-17.6	-29.5	-48.9	-69.7	-97.7						
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	29.5	2.8	11.0	15.5	17.5	18.6	19.4	20.1	20.8	20.3	19.7	20.0	18.7	12.2	7.5	-7.5	-16.5	-29.1	-49.0	-66.6	-97.3						
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	27.5	1.7	9.9	14.4	16.4	17.3	17.9	18.1	17.6	17.8	17.8	17.9	16.8	9.7	4.5	-11.0	-21.7	-35.7	-63.2	-85.1							
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	23.8	-0.4	7.4	11.7	13.6	14.4	14.8	14.9	13.8	13.6	13.3	13.0	11.5	4.0	-1.7	-17.8	-29.9	-45.4	-78.5								
N Brawley Ave - N. Parkway Drive to W. D	CNEL	23.0	-0.9	6.9	11.1	13.0	13.8	14.2	14.3	12.9	12.6	12.2	11.8	10.2	2.6	-3.8	-19.7	-34.3	-52.0	-82.4								
W. Shields Ave - West of N. Grantland Av	CNEL	25.9	-1.3	7.3	12.0	14.1	15.1	15.8	16.2	15.9	16.3	16.6	17.0	16.0	9.3	3.8	-11.1	-23.8	-38.9	-64.5	-83.7							
N. Grantland Ave - W Shields Avenue to W	CNEL	25.2	-1.8	6.7	11.4	13.5	14.5	15.3	16.0	16.3	15.9	15.2	15.4	14.2	7.3	3.3	-10.6	-19.1	-32.4	-55.7	-80.4							
N. Bryan Ave - W Shields Avenue to W. Cl	CNEL	19.4	-7.6	0.5	5.0	7.0	8.0	8.6	9.0	8.7	9.2	9.8	10.6	10.8	6.5	4.1	-1.8	-10.8	-24.5	-44.9	-78.8							
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	22.0	-3.8	4.4	8.9	10.9	11.8	12.4	12.6	12.1	12.2	12.3	12.4	11.3	4.0	-0.6	-15.7	-24.9	-38.3	-63.6	-89.4							
N. Polk Ave - W Shields Avenue to W. Cli	CNEL	25.7	-0.1	8.0	12.5	14.5	15.5	16.3	16.9	16.9	16.2	15.2	15.2	13.7	6.7	1.4	-14.3	-24.9	-39.3	-65.6	-85.5							
N. Cornelia Ave - W Shields Avenue to W.	CNEL	24.3	0.2	8.0	12.3	14.2	15.0	15.4	15.5	14.3	14.1	13.7	13.4	11.8	4.3	-1.5	-17.7	-29.9	-45.5	-79.9								
N. Blythe Ave - W Shields Avenue to W. C	CNEL	20.9	-2.8	5.0	9.2	11.1	11.9	12.3	12.3	10.7	10.3	9.8	9.3	7.6	-0.3	-6.3	-22.9	-35.8	-52.5	-90.9								
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	21.4	-3.2	5.0	9.4	11.4	12.3	12.8	12.8	11.3	11.0	10.6	10.2	8.6	0.8	-5.0	-21.6	-34.1	-50.8	-88.8								
Bullard Ave - N. Grantland Ave to N. Bry	CNEL	37.9	7.2	15.5	20.0	22.2	23.4	24.6	25.9	28.0	28.7	29.3	30.6	30.3	25.7	21.0	17.2	8.4	3.6	-0.2	-2.2	-8.8	-19.1	-12.8	-16.0	-21.0		

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	42.1	12.9	20.8	25.2	27.3	28.5	29.6	30.9	32.9	33.2	33.5	34.4	33.7	28.6	23.5	19.8	10.9	5.5	1.4	-0.7	-8.5	-20.4	-12.4	-15.5	-20.2	
N. Grantland Ave - W. Dakota Avenue to W	CNEL	29.5	1.5	10.1	14.7	16.8	17.9	18.8	19.7	20.6	20.5	20.2	20.8	19.8	13.4	9.6	-3.9	-11.5	-23.1	-41.0	-59.8	-87.2		-91.4	-94.7	-99.9	
Receive 3	FI	G	LrD,liir	dB(A)	LrC ^{67.6}	dB(A)																					
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	32.6	3.3	11.2	15.6	17.6	18.8	19.9	21.2	23.1	23.3	23.5	24.4	23.7	20.5	18.6	15.5	10.1	2.3	-6.5	-15.9	-25.2	-39.9	-29.1	-32.2	-36.8	
SR99 - W. Dakota Avenue to W. Sheilds Av	CNEL	45.1	16.8	26.0	30.8	33.0	34.2	35.4	36.5	37.4	36.4	34.7	34.9	32.9	26.5	21.5	6.4	-4.0	-19.5	-46.9	-73.6						
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	43.6	14.4	23.7	28.4	30.7	31.9	33.1	34.4	35.8	35.1	33.7	34.1	32.4	26.4	20.9	5.1	-6.4	-21.4	-46.1	-66.0						
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	47.2	17.4	26.6	31.4	33.6	34.9	36.2	37.6	39.3	38.9	37.7	38.3	36.8	31.0	27.0	12.9	4.6	-8.4	-29.4	-49.5	-82.8	-87.2	-90.8	-96.9		
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	59.3	26.5	35.8	40.7	43.0	44.3	45.8	47.7	50.6	50.9	50.6	51.8	50.9	46.1	41.4	33.4	25.9	17.5	10.9	4.0	-9.3	-28.8	-13.7	-17.4	-23.4	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	46.9	15.9	25.1	29.9	32.2	33.5	34.9	36.5	38.7	38.6	37.8	38.7	37.5	32.1	27.9	14.5	5.9	-5.7	-21.0	-36.0	-62.9	-67.3	-70.9	-77.0		
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	58.5	25.0	34.3	39.2	41.5	42.9	44.5	46.4	49.6	50.1	50.0	51.4	50.5	45.9	40.1	32.6	27.7	21.5	16.7	11.8	0.8	-15.5	-3.7	-7.3	-13.3	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	14.5	-10.1	-2.3	2.0	3.8	4.7	5.2	5.3	4.6	4.5	4.4	4.3	2.9	-4.3	-9.9	-25.6	-37.7	-52.8	-85.2							
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	14.1	-10.3	-2.5	1.8	3.6	4.5	5.0	5.1	4.2	4.1	3.9	3.8	2.4	-4.9	-10.6	-26.4	-38.9	-54.4	-87.9							
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	9.5	-14.8	-7.0	-2.8	-0.9	0.0	0.4	0.5	-0.4	-0.5	-0.8	-0.9	-2.4	-9.8	-15.5	-31.4	-44.0	-59.6	-94.4							
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	12.4	-11.8	-4.0	0.3	2.2	3.0	3.5	3.6	2.5	2.3	2.0	1.7	0.2	-7.5	-11.5	-25.8	-35.0	-49.5	-76.3							
SR99 - W. Herndon Avenue to W. Shaw Aven	CNEL	63.6	30.6	40.0	44.8	47.1	48.4	50.0	51.8	54.7	55.1	54.9	56.2	55.3	50.7	45.8	38.8	33.5	26.5	20.8	15.2	4.4	-11.5	0.0	-3.6	-9.6	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	46.3	15.8	25.1	29.9	32.1	33.4	34.8	36.3	38.3	38.1	37.0	37.8	36.4	30.9	28.4	17.7	10.0	-2.1	-20.9	-43.1	-74.0	-78.4	-82.0	-88.0		
	CNEL	13.6	-12.7	-4.2	0.4	2.5	3.5	4.3	4.8	4.7	4.1	3.2	3.2	1.7	-5.4	-10.4	-26.3	-36.6	-51.7	-81.2							
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	49.0	17.1	25.8	30.5	32.7	34.0	35.2	36.6	38.7	39.6	40.4	41.8	41.7	37.2	33.1	29.7	22.4	17.4	11.3	8.2	1.5	-8.7	-2.7	-6.0	-11.1	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	51.0	18.7	27.4	32.1	34.3	35.6	36.8	38.3	40.5	41.4	42.3	43.8	43.9	39.6	35.5	31.0	23.0	19.3	14.4	12.1	5.8	-3.8	1.6	-1.7	-6.8	
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	39.9	11.9	19.4	23.6	25.7	26.8	28.0	29.2	31.2	31.2	31.0	31.7	30.7	25.5	21.3	15.3	11.9	5.4	-0.4	-4.3	-13.0	-26.6	-16.7	-19.7	-24.2	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Shaw Ave - N. Grantland Ave to N.	CNEL	42.0	11.6	20.2	24.9	27.1	28.3	29.4	30.6	32.5	33.1	33.5	34.5	33.9	28.4	23.5	17.2	10.6	2.6	-5.0	-12.9	-24.7	-42.2	-28.8	-32.1	-37.3	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	41.4	10.5	19.1	23.8	26.0	27.3	28.4	29.7	31.7	32.4	33.0	34.1	33.5	28.2	22.5	14.2	9.0	2.5	-2.2	-6.6	-16.1	-30.4	-20.2	-23.6	-28.7	
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	40.5	9.5	18.1	22.8	25.0	26.2	27.4	28.8	30.8	31.5	32.2	33.3	32.7	27.5	21.8	12.0	8.4	2.7	-1.5	-5.5	-14.6	-28.4	-18.8	-22.1	-27.2	
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	41.1	11.6	19.9	24.4	26.6	27.7	28.8	30.0	31.9	32.2	32.5	33.4	32.6	27.1	21.9	15.8	9.1	1.2	-5.9	-13.0	-24.6	-42.1	-28.6	-31.8	-36.7	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	CNEL	40.7	12.2	20.5	25.0	27.1	28.2	29.2	30.3	31.8	31.9	31.8	32.5	31.7	25.7	21.7	10.5	3.5	-5.9	-16.8	-28.3	-46.0	-72.4	-50.0	-53.2	-58.1	
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	47.9	16.5	24.1	28.3	30.4	31.6	32.9	34.4	36.7	37.2	37.8	39.4	40.1	38.0	37.2	35.0	32.1	29.7	26.1	23.9	20.3	14.7	16.5	13.5	9.3	
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	56.4	22.7	30.7	35.1	37.3	38.5	39.8	41.4	43.8	44.7	45.7	47.8	48.9	47.1	46.8	44.8	42.3	40.4	37.7	35.6	30.7	23.9	26.4	23.4	19.5	
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	35.9	5.7	13.6	18.0	20.1	21.3	22.4	23.8	25.8	26.3	26.7	27.9	27.7	24.9	23.5	21.2	16.1	10.2	1.1	-3.5	-11.5	-22.0	-15.4	-18.5	-23.1	
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	37.4	7.2	15.8	20.5	22.7	23.9	25.0	26.2	27.9	28.4	28.8	29.8	29.1	23.6	18.7	10.7	3.5	-4.9	-13.1	-22.0	-35.7	-56.0	-39.8	-43.1	-48.3	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	35.8	9.1	17.0	21.3	23.3	24.4	25.3	26.2	27.2	26.8	26.2	26.6	25.4	19.1	14.6	0.9	-7.3	-18.4	-33.2	-47.3	-72.3		-76.1	-79.3	-84.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	31.3	3.7	11.5	15.9	17.8	18.8	19.6	20.3	21.1	22.0	22.7	23.4	22.8	16.7	11.6	-0.9	-10.3	-19.9	-29.5	-40.6	-57.6	-83.0	-61.8	-64.9	-69.2	
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	33.8	6.6	14.5	18.8	20.8	21.7	22.4	23.1	23.7	24.5	25.1	25.8	25.0	18.8	14.1	0.9	-6.8	-16.9	-28.9	-43.0	-62.1	-90.2	-66.4	-69.5	-73.8	
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	30.3	3.9	11.8	16.1	18.0	18.9	19.6	20.1	20.4	21.0	21.4	21.9	21.0	14.5	9.9	-3.7	-11.9	-22.8	-38.0	-56.6	-80.3		-84.6	-87.7	-92.0	
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	26.2	0.6	8.5	12.8	14.7	15.6	16.1	16.5	16.3	16.6	16.8	17.0	15.9	9.0	4.4	-10.3	-19.0	-31.2	-51.6	-73.5						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	19.7	-5.2	2.6	6.9	8.8	9.7	10.2	10.4	9.8	9.9	9.8	9.8	8.5	1.3	-3.6	-19.2	-29.0	-42.7	-70.2	-92.0						
W. Shields Ave - N. Polk Avenue to N. Co	CNEL	30.7	2.4	11.0	15.7	17.8	18.9	19.6	20.2	20.5	21.3	21.9	22.6	21.9	15.6	10.7	-3.3	-12.9	-24.9	-42.9	-62.5	-89.7		-94.4	-97.7		
W. Shields Ave - N. Hayes Avenue to N. P	CNEL	31.0	2.4	11.0	15.7	17.8	18.9	19.7	20.4	20.8	21.6	22.4	23.1	22.5	16.3	11.2	-2.7	-13.8	-26.2	-42.6	-58.7	-84.1		-88.8	-92.1	-96.6	
W. Shields Ave - N. Bryan Avenue to N. H	CNEL	31.2	2.7	11.2	15.9	18.1	19.2	19.9	20.6	21.0	21.8	22.5	23.2	22.6	16.4	11.2	-2.6	-13.3	-26.2	-43.6	-59.4	-85.2		-89.9	-93.2	-97.8	
W. Shields Ave - N. Grantland Ave to Bry	CNEL	28.8	0.7	9.3	13.9	16.1	17.1	17.9	18.5	18.7	19.4	19.9	20.5	19.8	13.4	8.8	-4.9	-13.7	-25.5	-43.7	-66.3	-95.0		-99.7			

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Shields Ave - N. Cornelia Ave to N Bl	CNEL	29.8	2.1	10.7	15.4	17.5	18.5	19.2	19.7	19.8	20.3	20.8	21.3	20.5	13.9	9.1	-5.4	-15.2	-27.8	-48.7	-70.7						
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	26.6	0.7	8.9	13.4	15.4	16.3	16.9	17.2	16.7	16.9	17.0	17.2	16.1	9.0	4.0	-11.4	-21.9	-35.7	-62.2	-84.2						
W. Shields Ave - N Brawley Ave to N. Val	CNEL	25.6	0.4	8.6	13.1	15.1	16.0	16.5	16.7	15.6	15.6	15.4	15.4	14.0	6.6	1.0	-15.0	-26.9	-42.3	-76.0	-97.2						
W. Shields Ave - N. Valentine Ave to N.	CNEL	21.0	-3.6	4.6	9.1	11.0	11.9	12.4	12.4	10.9	10.7	10.2	9.9	8.2	0.5	-5.4	-22.0	-34.8	-51.6	-90.9							
Shields Ave & Valentine Ave East	CNEL	16.3	-8.5	-0.3	4.2	6.2	7.1	7.5	7.6	6.3	6.0	5.7	5.4	3.9	-3.8	-9.6	-26.0	-38.5	-54.9	-93.3							
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	27.1	0.6	8.8	13.3	15.4	16.4	17.2	17.9	18.4	17.8	17.1	17.3	16.0	9.4	3.9	-11.3	-23.3	-37.6	-58.5	-75.1						
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	22.6	-4.0	4.2	8.6	10.7	11.7	12.6	13.3	13.9	13.4	12.8	13.0	11.8	5.3	-0.2	-15.2	-27.2	-41.0	-60.3	-76.7						
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	20.6	-5.9	2.3	6.8	8.8	9.8	10.7	11.4	11.9	11.5	10.8	11.0	9.7	3.2	-2.1	-17.3	-28.8	-43.1	-64.3	-79.3						
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	17.4	-8.8	-0.7	3.8	5.8	6.9	7.7	8.3	8.7	8.1	7.4	7.5	6.2	-0.5	-6.0	-21.3	-33.4	-48.0	-69.9	-86.7						
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	28.7	2.6	10.8	15.3	17.3	18.3	19.1	19.7	20.0	19.3	18.4	18.5	17.0	10.1	5.1	-10.2	-20.2	-34.1	-58.8	-79.4						
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	28.8	3.3	11.5	15.9	17.9	18.9	19.7	20.2	20.1	19.2	18.1	18.0	16.3	9.2	3.7	-12.2	-23.7	-38.8	-67.1	-88.1						
W. Shaw Ave - N Garfield Avenue to N. Gr	CNEL	36.5	7.2	15.8	20.5	22.6	23.8	24.8	25.9	27.3	27.6	27.7	28.5	27.7	21.8	18.4	7.6	1.1	-8.6	-21.1	-35.5	-54.8	-83.1	-58.9	-62.3	-67.5	
N. Grantland Ave - W. Barstow Ave to Sha	CNEL	36.1	8.5	16.4	20.7	22.8	23.9	24.9	25.9	27.4	27.2	26.9	27.5	26.5	20.5	16.1	4.5	-3.2	-12.6	-22.7	-33.3	-51.8	-79.5	-55.7	-58.8	-63.5	
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	34.0	6.5	14.4	18.7	20.7	21.7	22.4	23.1	23.9	24.8	25.5	26.2	25.5	19.4	14.4	1.3	-7.1	-17.5	-27.8	-39.0	-56.2	-82.1	-60.4	-63.5	-67.8	
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	39.5	9.5	17.8	22.4	24.5	25.6	26.6	27.5	28.8	30.1	31.3	32.3	31.8	26.3	20.5	10.9	6.1	0.0	-6.5	-12.7	-22.3	-36.4	-26.8	-30.0	-34.3	
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	57.8	23.0	31.3	35.9	38.1	39.3	40.4	41.6	43.4	45.3	47.3	49.5	51.0	48.9	48.5	46.3	43.4	41.0	37.3	33.5	28.5	22.9	23.3	20.4	17.4	
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	46.5	17.7	25.2	29.4	31.5	32.7	33.9	35.2	37.4	37.5	37.7	38.7	38.3	33.7	29.3	24.8	16.7	13.4	10.3	9.2	3.4	-6.1	-0.4	-3.4	-7.8	
N. Polk Ave - North of W. Shaw Avenue	CNEL	33.5	5.5	13.0	17.2	19.2	20.4	21.5	22.8	24.8	24.8	24.6	25.3	24.2	19.1	14.9	8.8	5.5	-1.1	-6.8	-10.7	-19.5	-33.1	-23.2	-26.2	-30.6	
Bullard Ave - N Garfield to N. Grantland	CNEL	25.8	-1.0	6.9	11.2	13.2	14.3	15.2	16.1	17.2	16.9	16.3	16.7	15.6	9.3	4.8	-8.3	-16.7	-27.3	-40.6	-54.2	-77.3		-81.2	-84.3	-89.0	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	31.7	2.5	10.8	15.3	17.4	18.6	19.6	20.8	22.5	22.9	23.0	23.9	23.1	17.5	12.1	2.4	-7.8	-15.8	-21.2	-27.8	-42.0	-63.4	-46.0	-49.2	-54.2	
N. Grantland Ave - W. Bullard Ave to Bar	CNEL	33.7	6.8	14.7	19.0	21.1	22.1	23.0	24.0	25.1	24.8	24.3	24.7	23.5	17.3	12.7	-0.4	-9.0	-19.6	-32.6	-45.9	-69.0		-72.8	-75.9	-80.7	
Bullard Ave - N Garfield Avenue to N. Gr	CNEL	20.4	-5.6	2.2	6.5	8.5	9.5	10.4	11.2	11.9	11.3	10.5	10.7	9.4	2.9	-2.1	-16.5	-26.2	-38.4	-55.4	-71.6						
Bullard Ave - N. Grantland Avenue to N.	CNEL	30.5	3.7	11.6	15.9	17.9	19.0	19.9	20.8	21.9	21.6	21.0	21.4	20.3	14.2	8.8	-4.6	-16.1	-27.9	-39.2	-50.8	-74.7		-78.5	-81.7	-86.4	
N. Grantland Ave - N. Parkway Drive to W	CNEL	33.0	7.0	14.8	19.1	21.1	22.2	23.0	23.8	24.5	23.8	23.0	23.2	21.8	15.2	10.3	-4.5	-14.0	-26.2	-44.0	-60.1	-89.2		-93.1	-96.2		
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	39.8	10.0	18.3	22.8	24.9	26.1	27.0	28.0	29.2	30.5	31.6	32.6	32.1	26.4	20.7	12.2	6.2	-0.9	-7.6	-14.4	-24.3	-38.9	-28.8	-32.0	-36.3	
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	34.4	5.7	14.0	18.5	20.6	21.6	22.4	23.2	24.1	25.1	26.0	26.8	26.2	20.2	15.4	6.2	-1.0	-9.8	-19.3	-32.9	-47.0	-67.6	-51.5	-54.6	-59.0	
N. Grantland Ave - W. Ashlan Avenue to W Da	CNEL	33.6	4.3	12.9	17.5	19.7	20.9	21.9	22.9	24.3	24.6	24.7	25.5	24.8	18.9	15.1	3.9	-3.1	-13.0	-25.6	-39.8	-60.2	-90.0	-64.3	-67.7	-72.8	
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	49.9	16.0	24.3	28.9	31.0	32.2	33.3	34.5	36.2	37.9	39.9	41.9	43.1	40.7	40.0	37.6	34.7	32.2	27.6	22.5	16.5	10.3	11.5	8.6	5.4	
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	45.6	14.9	23.2	27.8	29.9	31.1	32.3	33.7	35.8	36.4	37.0	38.2	38.0	33.3	28.8	25.0	16.8	11.7	7.2	5.1	-1.5	-11.6	-5.5	-8.7	-13.6	
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	34.6	7.3	14.8	18.9	20.8	21.8	22.5	23.3	24.3	25.2	26.0	26.7	26.0	21.3	18.7	15.0	9.6	1.6	-7.8	-21.8	-31.2	-46.4	-35.3	-38.3	-42.3	
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	40.0	10.7	18.9	23.5	25.6	26.8	27.8	29.0	30.8	31.2	31.4	32.3	31.5	25.9	21.0	14.9	8.4	0.4	-7.0	-14.6	-26.3	-43.8	-30.3	-33.5	-38.4	
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	40.1	10.9	19.2	23.7	25.8	26.9	27.8	28.6	29.6	30.7	31.7	32.6	32.1	26.3	20.8	11.0	1.3	-7.5	-15.8	-25.9	-40.5	-62.0	-45.0	-48.2	-52.5	
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	37.2	8.7	17.0	21.5	23.6	24.6	25.4	26.2	26.9	27.8	28.7	29.4	28.8	22.7	18.6	7.4	0.8	-8.6	-20.6	-37.6	-55.9	-82.5	-60.4	-63.6	-67.9	
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	32.9	6.2	14.1	18.4	20.4	21.5	22.4	23.3	24.4	24.0	23.4	23.8	22.6	16.3	11.9	-0.7	-8.8	-19.6	-34.1	-49.6	-74.3		-78.2	-81.3	-86.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	26.0	-0.4	7.5	11.8	13.8	14.9	15.7	16.5	17.5	16.9	16.2	16.5	15.2	8.7	4.3	-10.1	-18.4	-30.1	-47.3	-63.1	-91.3		-95.2	-98.3		
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	30.9	2.5	10.7	15.3	17.3	18.4	19.1	19.8	20.5	21.4	22.2	22.9	22.3	17.0	15.6	9.6	3.3	-6.3	-19.5	-43.1	-64.2	-91.7	-68.7	-71.9	-76.1	
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	34.6	6.4	14.6	19.1	21.2	22.3	23.3	24.3	25.7	25.7	25.6	26.3	25.4	19.3	15.8	4.6	-2.1	-11.7	-24.0	-37.4	-56.7	-85.1	-60.7	-63.9	-68.8	
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	32.6	5.1	13.3	17.8	19.9	20.9	21.6	22.2	22.5	23.2	23.8	24.4	23.6	17.2	12.7	-1.0	-9.1	-20.1	-35.6	-54.9	-79.0		-83.5	-86.7	-91.2	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	28.2	2.6	10.4	14.7	16.6	17.5	18.1	18.5	18.4	18.7	18.9	19.1	18.1	11.3	6.3	-8.3	-18.0	-30.5	-50.7	-71.0						
N Brawley Ave - N. Parkway Drive to W. D	CNEL	27.0	1.8	9.6	13.9	15.8	16.7	17.2	17.5	17.2	17.4	17.4	17.6	16.5	9.6	4.0	-10.9	-23.2	-37.9	-61.9	-79.4						
N Brawley Ave - W Shields Avenue to W. C	CNEL	25.0	0.8	8.6	12.9	14.8	15.6	16.0	16.1	15.1	14.9	14.6	14.4	12.9	5.5	-0.2	-16.2	-28.1	-43.4	-75.8	-97.2						
W. Shields Ave - West of N. Grantland Av	CNEL	26.7	-0.7	7.8	12.5	14.6	15.7	16.4	16.8	16.7	17.2	17.6	18.0	17.1	10.4	6.1	-8.2	-16.8	-29.4	-51.0	-76.4						
N. Grantland Ave - W Shields Avenue to W	CNEL	26.6	-0.8	7.7	12.3	14.4	15.5	16.4	17.1	17.7	17.5	17.0	17.4	16.2	9.7	5.2	-9.8	-18.5	-31.3	-52.8	-72.1						
N. Bryan Ave - W Shields Avenue to W. Cl	CNEL	20.8	-5.9	2.2	6.7	8.7	9.7	10.4	10.8	10.8	11.3	11.6	12.0	11.1	4.4	0.2	-14.2	-22.1	-33.9	-53.3	-76.3						
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	25.6	-1.5	6.7	11.2	13.2	14.2	14.9	15.4	15.5	16.0	16.4	16.8	16.0	10.2	8.7	1.5	-6.0	-17.2	-34.1	-63.0	-94.9		-99.5			
N. Polk Ave - W Shields Avenue to W. Cl	CNEL	29.6	2.5	10.7	15.2	17.3	18.3	19.2	20.0	20.9	20.6	20.1	20.5	19.4	12.8	9.2	-3.8	-11.2	-22.6	-40.0	-59.1	-86.4		-90.4	-93.6	-98.5	
N. Cornelia Ave - W Shields Avenue to W.	CNEL	28.3	2.9	10.8	15.0	16.9	17.8	18.4	18.7	18.5	18.7	18.8	19.0	17.9	11.0	6.3	-8.7	-17.6	-30.1	-51.6	-73.2						
N. Blythe Ave - W Shields Avenue to W. C	CNEL	26.0	1.1	9.0	13.2	15.1	16.0	16.5	16.7	16.1	16.2	16.1	16.2	14.9	7.7	2.6	-13.0	-23.5	-37.3	-63.8	-85.1						
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	28.0	2.1	10.3	14.8	16.8	17.8	18.3	18.6	18.1	18.3	18.3	18.5	17.3	10.2	5.2	-10.2	-20.6	-34.6	-61.3	-84.3						
N. Valentine Ave - N. Parkway Drive to W	CNEL	20.1	-3.9	3.9	8.1	10.0	10.8	11.3	11.3	10.1	9.9	9.4	9.2	7.6	0.0	-6.0	-21.9	-35.1	-51.3	-82.6							
N. Valentine Ave - W Shields Avenue to W	CNEL	18.2	-5.4	2.4	6.6	8.5	9.3	9.7	9.7	8.1	7.7	7.1	6.7	4.9	-2.9	-9.1	-25.5	-38.7	-55.6	-91.3							
W. Clinton Ave - N Brawley Ave to N. Val	CNEL	27.4	2.4	10.6	15.1	17.1	18.1	18.7	19.1	18.5	17.5	16.1	15.8	13.9	6.5	0.4	-16.0	-28.7	-45.2	-77.2							
Bullard Ave - N. Grantland Ave to N. Bry	CNEL	27.9	-0.7	7.5	12.0	14.1	15.3	16.3	17.3	18.9	19.0	19.0	19.7	18.9	13.1	8.3	-4.2	-13.9	-23.5	-31.7	-40.6	-58.2	-84.8	-62.2	-65.5	-70.4	
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	35.3	7.4	15.3	19.6	21.7	22.8	23.8	24.9	26.5	26.5	26.3	27.0	26.0	20.2	15.2	3.5	-6.2	-14.8	-21.3	-29.1	-45.5	-70.6	-49.4	-52.5	-57.2	
N. Grantland Ave - W. Dakota Avenue to W	CNEL	30.7	2.3	10.8	15.5	17.6	18.8	19.7	20.6	21.7	21.7	21.6	22.2	21.3	15.2	10.5	-3.6	-12.8	-24.6	-40.1	-54.3	-79.7		-83.8	-87.2	-92.4	
Receive 4	FI	G	LrD,lirr	dB(A)	LrC	71.0	dB(A)																				
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	36.3	6.6	14.5	18.9	21.0	22.2	23.3	24.7	26.8	27.2	27.6	28.7	28.3	23.5	18.7	16.4	6.9	1.6	-2.1	-3.4	-10.3	-21.1	-14.1	-17.3	-22.0	

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
SR99 - W. Dakota Avenue to W. Shields Av	CNEL	36.0	8.0	17.3	22.0	24.2	25.4	26.5	27.7	28.2	27.2	25.2	25.2	23.0	16.4	11.8	-2.6	-13.4	-29.9	-59.5	-91.2						
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	41.2	13.0	22.2	27.0	29.2	30.4	31.6	32.7	33.5	32.5	30.7	30.9	28.8	22.6	16.2	0.1	-13.9	-31.3	-61.4	-82.5						
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	44.4	15.6	24.9	29.6	31.8	33.0	34.3	35.5	36.6	35.9	34.3	34.6	32.7	26.6	21.4	5.9	-4.8	-20.3	-50.1	-68.7						
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	53.0	22.1	31.4	36.2	38.4	39.7	41.1	42.6	44.8	44.7	43.8	44.7	43.5	38.2	33.3	19.7	9.3	-2.5	-16.2	-30.1	-56.1	-94.0	-60.5	-64.1	-70.2	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	43.2	13.5	22.7	27.5	29.7	31.0	32.3	33.7	35.3	34.9	33.6	34.3	32.8	27.1	21.5	6.1	-5.8	-19.9	-39.7	-57.8	-93.5		-97.9			
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	49.9	18.4	27.7	32.5	34.7	36.0	37.5	39.1	41.6	41.6	41.0	42.0	40.9	35.8	30.9	18.6	7.1	-4.1	-14.9	-26.9	-51.0	-86.5	-55.5	-59.1	-65.2	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	12.4	-11.5	-3.7	0.6	2.4	3.3	3.7	3.7	2.4	2.0	1.6	1.2	-0.5	-8.3	-13.4	-29.6	-40.1	-55.7	-87.6							
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	12.1	-11.7	-3.9	0.4	2.3	3.1	3.5	3.5	2.0	1.7	1.1	0.7	-1.0	-8.8	-14.4	-31.0	-42.6	-58.8	-94.4							
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	7.5	-16.2	-8.4	-4.1	-2.3	-1.5	-1.1	-1.1	-2.6	-3.0	-3.6	-4.1	-5.8	-13.7	-19.4	-36.0	-47.8	-64.2								
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	10.5	-13.1	-5.3	-1.0	0.8	1.6	2.0	2.0	0.4	-0.1	-0.7	-1.3	-3.1	-11.2	-15.8	-30.9	-41.2	-57.3	-87.3							
SR99 - W. Herndon Avenue to W. Shaw Ave	CNEL	56.9	26.1	35.3	40.1	42.4	43.6	45.0	46.6	48.7	48.6	47.7	48.6	47.4	42.1	37.7	25.5	16.5	5.5	-8.1	-22.1	-46.3	-81.5	-50.7	-54.4	-60.4	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	43.1	13.8	23.0	27.8	30.0	31.2	32.5	33.8	35.3	34.7	33.3	33.8	32.0	26.3	21.2	7.0	-4.1	-20.1	-53.0	-63.1						
	CNEL	11.6	-14.0	-5.5	-0.9	1.2	2.2	2.9	3.3	2.6	1.7	0.5	0.2	-1.7	-9.2	-13.9	-29.2	-39.8	-56.1	-86.5							
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	41.5	11.3	19.9	24.6	26.8	28.0	29.1	30.3	32.0	32.6	32.9	33.9	33.3	27.8	22.8	12.8	3.7	-5.9	-13.0	-20.5	-35.5	-57.9	-39.6	-42.9	-48.1	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	39.6	10.0	18.6	23.2	25.4	26.6	27.6	28.7	30.3	30.6	30.9	31.7	31.0	25.3	21.2	10.2	3.2	-6.2	-17.1	-29.1	-46.9	-73.5	-51.0	-54.3	-59.5	
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	30.6	4.4	11.9	16.1	18.0	19.1	20.1	21.0	22.4	21.8	21.0	21.3	20.1	13.7	10.0	-1.7	-8.9	-18.9	-31.7	-45.0	-67.0	-99.8	-70.7	-73.7	-78.2	
W. Shaw Ave - N. Grantland Ave to N.	CNEL	40.9	10.7	19.3	24.0	26.2	27.4	28.5	29.7	31.4	32.0	32.4	33.3	32.7	27.2	22.0	11.9	2.2	-6.0	-12.5	-20.1	-35.1	-57.6	-39.2	-42.6	-47.7	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	62.3	24.8	33.5	38.2	40.5	41.8	43.2	44.8	47.3	48.7	50.4	52.8	54.4	53.3	53.7	52.5	50.9	49.4	46.4	43.0	38.8	33.5	33.9	31.0	27.8	
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	40.8	8.1	16.7	21.4	23.6	24.9	26.1	27.4	29.4	30.3	31.2	32.7	32.8	31.6	30.7	28.0	22.4	14.8	4.3	-5.6	-16.3	-29.7	-20.6	-23.8	-28.7	
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	38.2	8.5	16.8	21.3	23.4	24.5	25.5	26.6	28.2	28.5	28.8	29.8	29.4	27.5	25.9	22.4	15.8	6.4	-6.3	-27.7	-46.4	-71.7	-50.5	-53.7	-58.5	

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Ashlan Ave - N. Cornelia Ave to N. BI	CNEL	37.6	9.5	17.7	22.2	24.3	25.4	26.3	27.2	28.3	28.2	28.1	28.7	28.0	25.4	23.3	19.1	11.3	0.2	-15.7	-43.4	-72.4		-76.5	-79.6	-84.3	
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	38.3	9.9	17.4	21.6	23.7	24.8	26.0	27.3	29.4	29.5	29.4	30.3	29.6	24.5	19.7	16.4	7.3	1.8	-1.6	-2.9	-9.8	-20.8	-13.6	-16.6	-21.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	34.7	6.3	14.2	18.6	20.6	21.8	22.9	24.0	25.8	25.9	25.9	26.6	25.7	20.0	14.8	8.3	1.8	-6.0	-12.5	-18.8	-30.1	-47.3	-34.0	-37.1	-41.8	
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	25.8	-1.8	6.1	10.4	12.5	13.6	14.6	15.6	17.1	17.0	16.7	17.3	16.3	10.2	6.6	-3.6	-10.1	-19.4	-30.6	-42.6	-60.7	-88.1	-64.6	-67.7	-72.4	
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	66.1	28.3	37.0	41.7	44.0	45.3	46.7	48.3	50.8	52.2	53.8	56.2	57.8	56.9	57.3	56.5	55.1	53.9	51.2	48.6	44.1	39.9	39.5	36.6	33.5	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	32.9	6.7	14.6	18.9	20.9	21.9	22.8	23.5	24.1	23.5	22.7	22.9	21.6	18.4	16.0	10.9	2.0	-10.7	-30.0	-61.7	-99.7					
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	33.4	5.3	13.2	17.6	19.5	20.6	21.4	22.2	23.1	24.1	25.0	25.8	25.1	19.1	13.8	6.6	-0.7	-9.0	-17.5	-28.9	-41.2	-59.7	-45.5	-48.6	-52.8	
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	33.0	6.0	13.9	18.2	20.2	21.1	21.8	22.5	23.0	23.7	24.3	24.9	24.1	17.7	13.8	1.8	-4.5	-14.3	-27.2	-44.9	-64.3	-92.4	-68.5	-71.6	-76.0	
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	28.5	2.6	10.5	14.8	16.7	17.6	18.2	18.6	18.6	19.0	19.3	19.6	18.6	11.8	7.6	-6.3	-13.8	-25.3	-43.4	-65.5	-92.9		-97.2			
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	24.0	-0.8	7.0	11.3	13.2	14.1	14.6	14.8	14.2	14.2	14.2	14.2	12.9	5.6	1.1	-14.0	-22.9	-36.2	-60.8	-85.9						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	17.6	-6.6	1.2	5.5	7.4	8.2	8.6	8.7	7.6	7.4	7.1	6.8	5.2	-2.4	-7.3	-23.2	-33.2	-48.2	-78.5							
W. Shields Ave - N. Polk Avenue to N. Co	CNEL	31.5	2.9	11.5	16.2	18.3	19.4	20.2	20.9	21.3	22.1	22.8	23.5	22.9	16.5	12.1	-1.3	-9.3	-20.4	-36.3	-56.9	-81.8		-86.5	-89.8	-94.3	
W. Shields Ave - N. Hayes Avenue to N. P	CNEL	33.8	4.4	13.0	17.7	19.9	21.0	21.8	22.6	23.4	24.5	25.4	26.3	25.8	19.8	15.6	3.7	-3.2	-12.9	-25.5	-43.2	-62.9	-91.3	-67.7	-70.9	-75.4	
W. Shields Ave - N. Bryan Avenue to N. H	CNEL	36.3	6.3	15.0	19.7	21.8	23.0	23.9	24.8	25.8	27.0	28.0	29.0	28.5	22.8	17.9	5.8	-2.7	-13.0	-23.1	-34.7	-51.5	-76.1	-56.2	-59.4	-63.9	
W. Shields Ave - N. Grantland Ave to Bry	CNEL	35.3	5.3	13.9	18.6	20.8	22.0	22.9	23.8	24.8	25.9	27.0	28.0	27.6	21.8	16.8	5.1	-4.5	-13.8	-23.5	-35.1	-51.9	-76.5	-56.6	-59.9	-64.3	
W. Shields Ave - N. Cornelia Ave to N BI	CNEL	29.3	1.8	10.4	15.0	17.2	18.2	18.9	19.4	19.3	19.8	20.3	20.7	19.8	13.2	8.6	-6.3	-15.4	-28.1	-50.0	-72.4						
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	25.6	0.0	8.2	12.7	14.7	15.6	16.1	16.4	15.6	15.7	15.7	15.7	14.5	7.2	2.1	-13.7	-24.4	-38.8	-68.6	-90.6						
W. Shields Ave - N Brawley Ave to N. Val	CNEL	24.3	-0.4	7.8	12.2	14.2	15.1	15.6	15.6	14.2	14.0	13.6	13.4	11.8	4.1	-1.6	-18.0	-30.2	-46.4	-83.0							
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	28.4	1.5	9.7	14.2	16.3	17.3	18.2	18.9	19.7	19.3	18.7	19.0	17.9	11.4	6.6	-7.9	-16.9	-29.2	-48.0	-65.8	-95.9		-99.9			

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	25.2	-2.2	6.0	10.5	12.5	13.6	14.5	15.4	16.4	16.2	15.9	16.3	15.3	9.0	4.6	-8.5	-16.8	-28.0	-43.7	-60.4	-86.6		-90.6	-93.8	-98.8	
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	24.6	-3.2	5.0	9.5	11.6	12.7	13.6	14.6	15.8	15.7	15.4	16.0	15.0	8.9	4.0	-9.1	-18.9	-31.1	-44.7	-56.6	-80.8		-84.8	-88.0	-93.0	
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	22.2	-5.5	2.6	7.1	9.2	10.3	11.2	12.2	13.4	13.3	13.1	13.6	12.7	6.6	1.7	-11.9	-22.3	-33.5	-46.0	-58.7	-82.7		-86.7	-89.9	-94.8	
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	29.0	2.9	11.0	15.5	17.6	18.6	19.4	20.0	20.3	19.7	18.9	18.9	17.5	10.7	5.7	-9.8	-19.7	-33.4	-57.5	-76.6						
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	28.5	3.1	11.3	15.7	17.7	18.7	19.5	19.9	19.7	18.8	17.7	17.5	15.8	8.7	3.1	-12.9	-24.3	-39.6	-69.0	-89.9						
W. Shaw Ave - N Garfield Avenue to N. Gr	CNEL	38.1	8.4	17.0	21.7	23.9	25.0	26.1	27.2	28.8	29.2	29.4	30.3	29.6	23.9	19.9	9.8	2.9	-6.2	-17.0	-29.2	-46.8	-72.8	-51.0	-54.3	-59.5	
N. Grantland Ave - W. Barstow Ave to Sha	CNEL	35.9	8.4	16.3	20.6	22.6	23.7	24.7	25.8	27.2	27.1	26.8	27.3	26.3	20.2	16.4	5.8	-0.8	-10.0	-20.9	-32.5	-50.1	-76.4	-53.9	-57.0	-61.8	
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	42.5	13.2	21.1	25.5	27.5	28.6	29.5	30.4	31.7	33.0	34.2	35.2	34.9	29.7	24.6	21.6	11.8	5.7	-0.8	-4.8	-13.2	-24.8	-17.5	-20.6	-24.8	
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	40.7	8.8	17.1	21.7	23.8	24.9	25.9	26.9	28.2	29.7	31.2	32.6	32.9	31.4	30.6	27.9	22.7	15.6	4.7	-3.2	-19.1	-32.3	-23.8	-26.7	-30.4	
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	36.4	7.1	15.3	19.9	22.0	23.1	23.9	24.8	25.9	27.1	28.1	29.0	28.5	22.7	17.5	11.0	4.2	-3.9	-12.4	-24.4	-36.2	-54.0	-40.8	-43.9	-48.2	
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	35.5	8.9	16.4	20.5	22.5	23.6	24.6	25.7	27.2	26.7	26.1	26.5	25.3	19.3	15.0	4.4	-2.8	-12.0	-22.0	-32.5	-50.3	-77.3	-54.1	-57.1	-61.6	
N. Polk Ave - North of W. Shaw Avenue	CNEL	24.2	-2.0	5.5	9.6	11.6	12.7	13.7	14.6	15.9	15.4	14.6	14.9	13.6	7.3	3.6	-8.0	-15.1	-25.2	-38.1	-51.3	-73.4		-77.1	-80.1	-84.6	
Bullard Ave - N Garfield to N. Grantland	CNEL	25.5	-1.1	6.7	11.0	13.0	14.1	15.0	15.9	17.0	16.6	16.0	16.4	15.3	9.0	4.4	-8.2	-16.7	-27.5	-41.7	-57.0	-81.7		-85.6	-88.7	-93.4	
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	26.5	-1.4	6.8	11.3	13.4	14.5	15.5	16.4	17.7	17.6	17.4	18.0	17.0	11.1	6.0	-6.8	-17.5	-30.1	-42.0	-52.5	-75.9		-79.9	-83.2	-88.1	
N. Grantland Ave - W. Bullard Ave to Bar	CNEL	32.3	5.9	13.7	18.0	20.0	21.1	22.0	22.8	23.8	23.3	22.6	22.9	21.7	15.2	11.3	-1.7	-9.1	-20.1	-35.8	-52.7	-78.0		-81.8	-85.0	-89.7	
Bullard Ave - N Garfield Avenue to N. Gr	CNEL	19.4	-6.3	1.5	5.8	7.8	8.8	9.6	10.3	10.9	10.2	9.3	9.4	8.0	1.4	-4.3	-19.1	-31.8	-46.1	-63.4	-79.2						
Bullard Ave - N. Grantland Avenue to N.	CNEL	27.8	1.9	9.7	14.0	16.0	17.0	17.9	18.6	19.3	18.7	17.9	18.1	16.7	10.3	4.7	-9.6	-21.2	-35.6	-52.6	-67.1	-98.0					
N. Grantland Ave - N. Parkway Drive to W	CNEL	31.2	5.8	13.6	17.9	19.9	20.9	21.7	22.3	22.7	21.9	20.8	20.8	19.3	12.3	7.9	-6.7	-15.2	-28.1	-49.8	-70.6						
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	67.2	30.5	38.9	43.5	45.6	46.9	48.0	49.2	51.0	52.9	55.1	57.3	58.7	57.8	58.2	57.5	56.5	55.7	53.3	50.4	46.7	42.5	40.7	38.0	35.3	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	57.5	21.3	29.7	34.3	36.4	37.7	38.8	40.0	41.8	43.7	45.9	48.2	49.9	48.4	48.7	47.5	45.8	44.2	41.1	37.6	33.1	27.7	28.0	25.2	22.5	
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	43.8	12.2	20.8	25.5	27.7	29.0	30.2	31.5	33.7	34.5	35.2	36.5	36.3	31.5	27.0	24.1	15.6	9.5	3.5	0.9	-6.9	-18.5	-11.1	-14.4	-19.5	
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	39.2	8.9	17.2	21.8	23.9	25.0	26.0	27.0	28.3	29.7	30.9	32.0	31.7	26.4	21.2	17.3	7.3	1.4	-5.3	-10.2	-19.4	-32.1	-23.9	-27.1	-31.4	
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	37.9	8.8	17.1	21.6	23.7	24.9	25.9	27.1	28.7	29.0	29.1	29.9	29.2	23.5	18.4	7.5	-2.2	-10.7	-17.2	-24.9	-40.6	-64.3	-44.6	-47.8	-52.7	
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	37.7	10.0	17.5	21.6	23.5	24.5	25.3	26.2	27.3	28.4	29.3	30.2	29.6	24.0	18.8	14.1	4.8	-1.6	-8.1	-12.3	-21.0	-33.4	-25.0	-28.0	-32.1	
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	38.3	9.3	17.5	22.1	24.2	25.3	26.4	27.5	29.2	29.4	29.5	30.3	29.5	23.9	19.0	8.2	-0.7	-10.8	-18.1	-25.8	-41.0	-64.8	-45.0	-48.2	-53.2	
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	34.3	6.6	14.9	19.4	21.4	22.4	23.1	23.7	24.1	24.9	25.5	26.1	25.4	19.2	14.0	0.1	-10.8	-22.9	-38.2	-53.6	-77.9		-82.4	-85.6	-90.0	
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	34.3	6.7	14.9	19.4	21.5	22.5	23.2	23.8	24.2	25.0	25.6	26.2	25.4	19.2	14.1	0.6	-9.3	-22.2	-38.8	-53.3	-77.8		-82.3	-85.5	-89.9	
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	30.1	4.3	12.1	16.4	18.4	19.5	20.3	21.0	21.6	21.0	20.1	20.2	18.8	12.3	6.9	-8.0	-19.2	-33.8	-53.5	-66.8	-98.7					
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	23.2	-2.6	5.3	9.6	11.5	12.6	13.4	14.0	14.4	13.7	12.8	12.8	11.5	8.1	5.5	0.1	-9.3	-22.7	-43.4	-76.8						
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	34.9	5.7	14.0	18.5	20.6	21.7	22.5	23.4	24.5	25.6	26.6	27.5	27.0	21.1	15.6	7.4	-1.1	-9.3	-17.5	-27.6	-40.3	-58.9	-44.8	-48.0	-52.3	
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	35.5	7.0	15.3	19.8	21.9	23.0	24.0	25.1	26.6	26.7	26.6	27.3	26.4	20.6	16.4	5.1	-2.2	-11.8	-22.9	-34.6	-53.1	-80.8	-57.1	-60.3	-65.3	
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	31.8	4.5	12.8	17.3	19.3	20.3	21.0	21.5	21.8	22.4	22.9	23.4	22.6	16.2	11.4	-2.2	-11.1	-22.8	-39.8	-60.4	-87.2		-91.7	-94.9	-99.3	
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	26.7	1.6	9.4	13.7	15.6	16.5	17.0	17.3	16.9	17.1	17.1	17.2	16.0	9.0	4.1	-10.5	-20.2	-33.4	-56.0	-80.3						
N Brawley Ave - N. Parkway Drive to W. D	CNEL	24.6	0.1	7.9	12.2	14.1	14.9	15.4	15.5	14.6	14.5	14.3	14.2	12.7	5.5	-0.4	-15.9	-29.4	-46.0	-75.2	-96.1						
N Brawley Ave - W Shields Avenue to W. C	CNEL	24.2	0.2	8.0	12.3	14.2	15.0	15.4	15.4	14.1	13.9	13.4	13.1	11.4	3.8	-2.0	-18.1	-30.2	-46.0	-78.7							
W. Shields Ave - West of N. Grantland Av	CNEL	33.2	3.7	12.3	17.0	19.2	20.3	21.2	22.0	22.8	23.8	24.8	25.6	25.2	19.2	15.4	5.1	-1.3	-10.8	-23.5	-42.8	-62.6	-90.6	-67.3	-70.6	-75.0	
N. Grantland Ave - W Shields Avenue to W	CNEL	32.5	3.2	11.8	16.4	18.6	19.7	20.8	21.8	23.3	23.5	23.7	24.5	23.7	17.8	14.6	4.1	-2.3	-11.9	-24.4	-38.9	-58.0	-86.0	-62.1	-65.5	-70.6	
N. Bryan Ave - W Shields Avenue to W. CI	CNEL	27.3	-2.2	6.0	10.5	12.6	13.6	14.5	15.2	16.0	17.1	18.2	19.2	19.0	16.9	15.4	11.9	5.3	-4.1	-17.0	-41.5	-64.6	-91.3	-69.2	-72.3	-76.1	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	29.2	1.1	9.3	13.8	15.9	16.9	17.7	18.4	19.0	19.8	20.6	21.3	20.6	14.4	10.4	-2.0	-8.5	-18.3	-31.4	-49.3	-69.1	-97.7	-73.6	-76.8	-81.2	
N. Polk Ave - W Shields Avenue to W. Cli	CNEL	31.4	3.8	12.0	16.5	18.5	19.6	20.6	21.5	22.6	22.5	22.2	22.7	21.7	15.5	11.0	-2.3	-10.8	-21.7	-35.8	-50.1	-73.9		-77.9	-81.1	-86.1	
N. Cornelia Ave - W Shields Avenue to W.	CNEL	28.7	3.2	11.0	15.3	17.2	18.1	18.7	19.0	18.8	19.1	19.3	19.5	18.4	11.6	6.6	-8.1	-17.9	-30.6	-51.5	-72.2						
N. Blythe Ave - W Shields Avenue to W. C	CNEL	25.5	0.8	8.7	12.9	14.8	15.7	16.2	16.4	15.7	15.7	15.5	15.5	14.2	6.9	1.8	-13.8	-24.3	-38.5	-65.8	-88.6						
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	26.3	1.0	9.2	13.7	15.7	16.6	17.1	17.3	16.3	16.3	16.2	16.1	14.7	7.5	1.5	-14.0	-28.0	-44.9	-74.4	-97.4						
N. Valentine Ave - N. Parkway Drive to W	CNEL	15.6	-7.9	-0.2	4.1	6.0	6.8	7.2	7.1	5.4	5.0	4.3	3.8	2.0	-5.8	-12.5	-28.7	-43.9	-62.6	-93.7							
W. Clinton Ave - N Brawley Ave to N. Val	CNEL	24.2	-0.7	7.4	11.9	13.9	14.9	15.6	15.9	15.3	14.1	12.8	12.4	10.4	2.9	-2.9	-19.6	-31.8	-48.4	-81.8							
Bullard Ave - N. Grantland Ave to N. Bry	CNEL	25.6	-2.4	5.8	10.3	12.4	13.5	14.5	15.4	16.7	16.7	16.5	17.1	16.2	10.3	5.1	-8.1	-19.6	-30.8	-41.4	-53.0	-75.9		-79.9	-83.1	-88.1	
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	38.3	9.8	17.7	22.0	24.1	25.3	26.3	27.5	29.4	29.5	29.5	30.2	29.3	23.6	17.9	10.3	3.7	-3.2	-8.4	-13.5	-24.3	-40.6	-28.2	-31.3	-36.0	
N. Grantland Ave - W. Dakota Avenue to W	CNEL	38.4	8.0	16.6	21.3	23.5	24.7	25.8	27.1	28.9	29.5	29.9	30.9	30.3	24.8	19.7	13.0	6.2	-1.8	-9.2	-16.5	-28.3	-46.0	-32.5	-35.8	-40.9	
Receive 5	FI	G	LrD,lirr	dB(A)	LrC	79.0	dB(A)																				
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	26.0	-1.6	6.3	10.6	12.7	13.8	14.8	15.8	17.3	17.2	16.9	17.5	16.5	10.4	6.7	-4.0	-10.7	-19.9	-30.9	-42.5	-60.6	-87.9	-64.5	-67.6	-72.3	
SR99 - W. Shields Avenue to W. Clinton A	CNEL	39.1	11.1	20.3	25.1	27.3	28.4	29.6	30.7	31.3	30.3	28.4	28.5	26.3	19.8	13.8	-2.7	-15.4	-32.3	-63.3	-88.6						
SR99 - W. Dakota Avenue to W. Sheilds Av	CNEL	48.6	18.9	28.2	33.0	35.2	36.4	37.7	39.1	40.8	40.3	39.0	39.6	38.0	32.2	28.2	15.2	6.7	-6.4	-27.3	-50.1	-84.5		-88.9	-92.6	-98.6	
SR99 - W. Shields Avenue to W. Clinton A	CNEL	44.9	16.3	25.6	30.3	32.5	33.7	34.9	36.2	37.2	36.3	34.7	35.0	33.1	26.9	21.2	5.3	-6.4	-22.2	-50.2	-71.5						
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	47.3	16.8	26.1	30.8	33.1	34.4	35.7	37.2	39.3	39.0	38.0	38.9	37.5	32.1	27.2	12.2	2.6	-10.2	-27.4	-42.6	-72.9		-77.3	-80.9	-87.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	51.2	20.0	29.2	34.0	36.3	37.6	39.0	40.6	43.0	42.9	42.1	43.1	41.9	36.6	33.0	21.2	13.3	2.1	-12.8	-27.7	-52.5	-88.3	-57.0	-60.6	-66.6	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	CNEL	61.3	28.2	37.5	42.3	44.6	46.0	47.6	49.5	52.5	52.9	52.7	54.0	53.1	48.4	42.9	35.6	27.8	19.9	14.5	7.9	-5.6	-25.4	-10.0	-13.6	-19.7	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	CNEL	51.2	18.9	28.2	33.0	35.3	36.6	38.1	39.9	42.7	42.9	42.5	43.7	42.7	37.8	33.4	22.3	13.1	4.0	-4.6	-14.5	-33.4	-61.2	-37.8	-41.4	-47.5	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	55.7	22.7	32.0	36.8	39.1	40.5	42.0	43.9	46.9	47.3	47.1	48.4	47.5	42.8	37.4	29.2	20.3	12.7	7.2	0.3	-14.1	-35.4	-18.6	-22.2	-28.2	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	18.2	-7.6	0.3	4.6	6.5	7.4	8.0	8.4	8.4	8.7	9.0	9.3	8.3	1.5	-3.0	-17.7	-26.2	-38.3	-58.3	-78.8						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	17.8	-7.9	0.0	4.3	6.2	7.1	7.6	8.0	7.9	8.2	8.4	8.7	7.6	0.8	-3.8	-18.8	-27.6	-40.0	-61.4	-82.0						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	13.0	-12.5	-4.7	-0.4	1.5	2.4	3.0	3.3	3.2	3.5	3.6	3.8	2.8	-4.2	-8.7	-23.8	-32.5	-45.0	-67.2	-88.5						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	15.9	-9.5	-1.6	2.7	4.6	5.5	6.0	6.3	6.1	6.3	6.4	6.5	5.4	-1.7	-4.8	-17.3	-24.8	-37.0	-57.6	-85.4						
SR99 - W. Herndon Avenue to W. Shaw Avenue	CNEL	57.8	26.4	35.6	40.4	42.7	44.0	45.4	47.0	49.4	49.5	48.8	49.9	48.8	43.8	39.8	29.9	21.8	12.0	2.1	-7.7	-24.7	-49.8	-29.2	-32.8	-38.9	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	50.7	18.7	28.0	32.8	35.1	36.4	37.9	39.6	42.2	42.4	41.8	43.0	42.0	37.4	33.7	24.8	15.8	2.9	-12.2	-20.2	-43.8	-74.9	-48.2	-51.8	-57.9	
	CNEL	17.1	-10.4	-1.9	2.7	4.9	5.9	6.8	7.6	8.2	8.0	7.6	7.9	6.8	0.2	-3.2	-16.5	-24.1	-36.6	-57.6	-80.5						
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	39.1	9.5	18.1	22.7	24.9	26.1	27.1	28.2	29.8	30.1	30.4	31.2	30.5	24.8	20.6	9.6	2.5	-6.9	-18.0	-30.0	-48.1	-75.0	-52.2	-55.6	-60.7	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	41.6	11.5	20.1	24.8	27.0	28.2	29.3	30.5	32.2	32.7	33.1	34.0	33.4	27.9	23.0	12.7	3.9	-6.3	-13.8	-21.5	-36.7	-59.8	-40.9	-44.2	-49.3	
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	34.9	7.7	15.2	19.4	21.4	22.5	23.6	24.7	26.4	26.2	25.8	26.3	25.2	19.4	13.9	3.9	-6.1	-13.6	-18.4	-24.7	-39.4	-61.8	-43.1	-46.1	-50.6	
W. Shaw Ave - N. Grantland Ave to N.	CNEL	35.3	6.6	15.2	19.8	22.0	23.1	24.1	25.0	26.2	26.3	26.3	27.0	26.2	20.1	15.7	2.5	-5.9	-16.8	-30.7	-45.1	-68.5		-72.6	-76.0	-81.2	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	44.0	10.0	18.7	23.4	25.6	26.9	28.1	29.5	31.7	32.7	33.8	36.0	37.3	35.0	34.3	30.8	25.4	17.4	6.3	-4.0	-16.4	-28.9	-20.7	-23.9	-28.5	
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	66.3	28.3	37.0	41.7	43.9	45.3	46.6	48.0	50.2	51.7	53.5	55.9	57.3	57.0	57.8	57.2	56.3	54.9	52.4	49.9	46.4	42.2	39.7	36.9	33.8	
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	76.0	39.2	47.5	52.1	54.3	55.5	56.6	57.8	59.3	61.2	62.4	64.3	66.6	67.3	68.1	66.7	66.0	64.6	62.4	59.8	56.0	51.8	50.6	47.7	44.4	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	CNEL	50.4	17.6	25.9	30.5	32.6	33.8	35.0	36.4	38.6	39.4	40.3	42.3	43.5	41.2	40.4	36.9	31.6	23.8	12.8	4.5	-8.1	-19.9	-12.2	-15.3	-19.9	
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	33.0	5.7	13.2	17.3	19.4	20.5	21.6	22.8	24.6	24.4	24.0	24.6	23.5	17.7	12.3	5.6	-1.1	-8.7	-14.6	-20.2	-31.4	-48.7	-35.2	-38.2	-42.6	
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	39.5	10.1	18.1	22.4	24.5	25.7	26.9	28.2	30.2	30.5	30.8	31.7	31.2	26.1	21.3	17.6	8.5	2.6	-1.7	-3.8	-11.5	-23.2	-15.3	-18.5	-23.1	
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	35.2	5.7	13.7	18.0	20.1	21.3	22.5	23.8	25.9	26.2	26.5	27.5	27.0	22.0	17.0	14.7	4.3	-0.7	-4.2	-5.7	-13.3	-25.0	-17.2	-20.3	-25.0	
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	37.1	5.4	14.0	18.7	20.9	22.0	23.1	24.3	26.0	26.7	27.4	29.1	29.9	27.3	26.0	21.8	15.3	5.4	-7.5	-30.7	-49.5	-74.9	-53.7	-57.0	-61.9	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	42.4	12.5	20.4	24.8	26.9	28.0	29.1	30.2	32.0	32.3	32.6	34.2	34.9	32.0	30.6	26.4	20.0	10.4	-2.0	-23.7	-40.8	-65.0	-44.7	-47.8	-52.4	
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	38.5	9.4	17.4	21.7	23.7	24.8	25.7	26.6	27.8	29.1	30.2	31.2	30.9	25.5	20.7	16.7	7.0	0.5	-6.6	-11.2	-20.1	-32.3	-24.4	-27.5	-31.7	
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	42.8	13.7	21.6	26.0	28.0	29.1	29.9	30.9	32.1	33.4	34.5	35.5	35.1	29.7	24.4	20.8	10.7	4.9	-1.6	-5.9	-14.8	-27.1	-19.1	-22.2	-26.4	
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	37.3	9.1	17.0	21.4	23.3	24.4	25.2	26.0	27.0	28.0	28.9	29.7	29.0	23.1	17.7	10.8	3.9	-4.1	-12.4	-23.3	-34.9	-52.4	-39.2	-42.3	-46.5	
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	31.3	4.2	12.1	16.4	18.3	19.3	20.0	20.7	21.3	22.0	22.6	23.2	22.4	16.1	12.1	0.2	-6.2	-15.8	-28.3	-45.3	-64.1	-91.4	-68.3	-71.4	-75.7	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	23.8	-2.4	5.5	9.8	11.7	12.6	13.2	13.7	13.9	14.4	14.7	15.1	14.2	7.4	3.6	-9.7	-16.6	-27.8	-44.9	-67.0	-93.6		-97.8			
W. Shields Ave - N. Polk Avenue to N. Co	CNEL	36.9	6.9	15.5	20.2	22.4	23.5	24.4	25.3	26.4	27.6	28.6	29.6	29.2	23.4	18.4	7.1	-2.6	-11.8	-21.2	-32.6	-49.0	-73.0	-53.7	-57.0	-61.4	
W. Shields Ave - N. Hayes Avenue to N. P	CNEL	36.2	6.2	14.8	19.5	21.7	22.9	23.8	24.7	25.7	26.9	27.9	28.9	28.5	22.8	17.9	6.4	-1.8	-12.4	-22.5	-33.9	-50.2	-74.2	-55.0	-58.2	-62.6	
W. Shields Ave - N. Bryan Avenue to N. H	CNEL	34.5	5.0	13.6	18.3	20.4	21.6	22.4	23.2	24.1	25.1	26.0	26.9	26.4	20.5	16.3	4.6	-2.1	-11.8	-24.2	-41.7	-60.9	-88.6	-65.6	-68.9	-73.3	
W. Shields Ave - N. Grantland Ave to Bry	CNEL	30.3	1.7	10.3	15.0	17.1	18.2	19.0	19.7	20.1	20.9	21.7	22.4	21.8	15.5	11.0	-2.6	-10.8	-21.8	-37.4	-57.3	-81.6		-86.3	-89.6	-94.1	
W. Shields Ave - N. Cornelia Ave to N Bl	CNEL	35.7	6.2	14.8	19.5	21.6	22.8	23.6	24.5	25.3	26.3	27.3	28.2	27.7	21.7	17.6	6.0	-0.7	-10.3	-22.6	-40.1	-59.2	-86.7	-63.9	-67.2	-71.6	
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	31.5	4.0	12.2	16.7	18.8	19.8	20.5	21.1	21.5	22.2	22.8	23.3	22.6	16.2	11.7	-1.9	-10.1	-21.0	-36.3	-55.5	-79.4		-83.9	-87.1	-91.5	
W. Shields Ave - N Brawley Ave to N. Val	CNEL	29.6	3.0	11.3	15.8	17.8	18.8	19.4	19.8	19.7	20.1	20.4	20.7	19.8	13.0	8.4	-6.4	-15.4	-27.8	-48.9	-70.8						
W. Shields Ave - N. Valentine Ave to N.	CNEL	26.4	0.7	8.9	13.4	15.3	16.3	16.8	17.1	16.5	16.6	16.6	16.7	15.5	8.3	3.4	-12.3	-22.4	-36.5	-65.6	-88.2						
Shields Ave & Valentine Ave East	CNEL	19.8	-6.2	2.0	6.5	8.5	9.5	10.0	10.4	9.9	10.1	10.3	10.4	9.3	2.2	-2.5	-18.0	-27.6	-41.3	-68.2	-90.7						
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	31.7	3.8	12.1	16.6	18.6	19.7	20.7	21.6	22.9	22.8	22.6	23.2	22.3	16.2	11.3	-2.2	-12.5	-23.6	-35.8	-48.2	-71.8		-75.8	-79.0	-84.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	26.6	-1.2	7.0	11.5	13.5	14.6	15.6	16.5	17.7	17.7	17.5	18.0	17.0	11.0	6.2	-6.5	-15.9	-28.4	-42.3	-53.6	-77.5		-81.5	-84.7	-89.7	
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	23.6	-3.8	4.3	8.8	10.9	12.0	12.9	13.8	14.8	14.7	14.3	14.8	13.7	7.5	3.1	-9.8	-17.9	-29.1	-44.6	-61.1	-86.9		-90.9	-94.1	-99.1	
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	19.3	-7.6	0.6	5.1	7.1	8.2	9.0	9.8	10.6	10.2	9.6	10.0	8.8	2.3	-2.4	-17.0	-26.2	-38.5	-57.1	-74.2						

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	33.3	5.8	14.0	18.5	20.6	21.7	22.6	23.4	24.5	24.4	24.0	24.5	23.5	17.3	12.9	0.2	-7.9	-19.0	-34.3	-51.1	-76.7		-80.7	-83.9	-88.9	
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	33.0	6.1	14.3	18.8	20.8	21.9	22.8	23.5	24.3	24.0	23.4	23.8	22.6	16.2	11.4	-3.2	-12.3	-24.5	-42.8	-59.9	-89.4		-93.3	-96.6		
W. Shaw Ave - N Garfield Avenue to N. Gr	CNEL	31.6	3.9	12.4	17.1	19.2	20.3	21.2	22.0	22.7	22.5	22.2	22.6	21.6	15.1	10.7	-3.9	-12.4	-24.7	-44.1	-62.5	-92.3		-96.5	-99.8		
N. Grantland Ave - W. Barstow Ave to Sha	CNEL	30.7	4.7	12.5	16.9	18.9	19.9	20.7	21.5	22.3	21.6	20.8	21.0	19.7	13.1	8.4	-5.9	-14.6	-26.7	-44.8	-61.9	-91.4		-95.2	-98.3		
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	30.5	3.9	11.8	16.1	18.0	19.0	19.6	20.2	20.5	21.1	21.6	22.1	21.3	15.0	9.7	-4.2	-15.0	-27.0	-41.7	-56.3	-80.1		-84.4	-87.5	-91.8	
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	31.8	3.4	11.7	16.2	18.2	19.3	20.1	20.8	21.5	22.5	23.3	24.0	23.4	17.4	13.0	1.4	-5.5	-15.0	-27.2	-43.9	-62.8	-90.2	-67.3	-70.5	-74.9	
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	36.3	6.9	15.2	19.8	21.8	22.9	23.8	24.7	25.8	26.9	28.0	28.9	28.3	22.5	17.3	10.8	3.8	-4.3	-12.9	-24.9	-36.9	-54.8	-41.4	-44.6	-48.8	
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	43.6	13.8	21.3	25.5	27.6	28.7	29.9	31.2	33.3	33.4	33.7	35.2	35.7	33.4	32.4	29.1	23.6	15.9	5.4	-2.8	-12.8	-25.0	-16.5	-19.5	-23.8	
N. Polk Ave - North of W. Shaw Avenue	CNEL	29.4	0.9	8.4	12.6	14.6	15.7	16.8	17.9	19.7	19.7	19.7	20.8	21.0	18.5	17.1	13.2	6.9	-2.2	-13.9	-34.8	-49.7	-73.1	-53.5	-56.5	-60.8	
Bullard Ave - N Garfield to N. Grantland	CNEL	21.2	-4.2	3.6	7.9	9.9	10.9	11.7	12.3	12.7	11.8	10.8	10.7	9.2	2.3	-3.0	-18.4	-29.0	-42.7	-64.8	-82.8						
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	25.3	-2.2	6.0	10.4	12.5	13.6	14.5	15.4	16.5	16.4	16.1	16.6	15.6	9.5	4.2	-9.5	-20.9	-33.3	-46.1	-58.5	-83.5		-87.5	-90.8	-95.7	
N. Grantland Ave - W. Bullard Ave to Bar	CNEL	28.9	3.5	11.3	15.6	17.6	18.6	19.4	20.0	20.4	19.5	18.5	18.4	16.9	10.0	4.8	-10.7	-21.0	-34.6	-57.2	-75.2						
Bullard Ave - N Garfield Avenue to N. Gr	CNEL	16.3	-8.4	-0.6	3.6	5.6	6.6	7.3	7.8	7.7	6.6	5.2	5.0	3.2	-4.0	-9.7	-25.6	-37.3	-52.4	-79.5	-99.9						
Bullard Ave - N. Grantland Avenue to N.	CNEL	25.8	0.4	8.3	12.6	14.5	15.5	16.3	16.9	17.2	16.4	15.3	15.3	13.7	7.0	1.0	-14.1	-27.3	-42.5	-62.8	-79.6						
N. Grantland Ave - N. Parkway Drive to W	CNEL	28.9	4.2	12.0	16.3	18.3	19.3	20.0	20.5	20.2	19.1	17.7	17.4	15.6	8.4	2.5	-13.5	-25.4	-40.7	-68.7	-88.7						
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	35.1	6.2	14.5	19.0	21.1	22.2	23.0	23.8	24.7	25.8	26.8	27.6	27.1	21.2	16.1	4.7	-5.0	-14.2	-23.3	-34.3	-50.4	-74.3	-54.9	-58.1	-62.5	
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	34.7	5.9	14.2	18.7	20.8	21.9	22.7	23.5	24.3	25.3	26.2	27.0	26.5	20.6	15.8	3.9	-4.1	-15.0	-25.7	-36.9	-53.3	-77.3	-57.8	-61.0	-65.3	
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	32.1	3.3	11.9	16.5	18.7	19.8	20.8	21.7	23.0	23.2	23.2	23.9	23.0	17.2	12.4	-0.2	-9.6	-22.1	-36.5	-48.3	-72.4		-76.6	-79.9	-85.1	
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	39.2	9.0	17.3	21.8	23.9	25.1	26.0	27.0	28.3	29.7	31.0	32.1	31.8	26.5	21.4	17.7	7.6	1.7	-5.0	-9.8	-19.0	-31.5	-23.5	-26.7	-30.9	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	73.3	36.7	45.0	49.6	51.7	53.0	54.1	55.3	56.7	58.5	60.1	62.0	62.8	64.1	65.5	64.4	63.0	62.2	59.8	57.7	54.2	49.8	48.4	45.6	42.4	
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	38.1	10.3	17.8	21.9	23.8	24.8	25.6	26.5	27.7	28.8	29.7	30.6	30.1	24.6	19.6	15.6	5.9	-0.5	-7.2	-11.2	-19.8	-31.9	-23.9	-26.9	-31.0	
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	70.2	33.6	42.0	46.5	48.7	50.0	51.2	52.6	54.5	55.8	57.6	59.7	60.8	60.7	61.5	61.0	60.1	58.7	56.4	54.1	50.9	46.9	44.6	41.7	38.5	
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	45.4	15.2	23.5	28.0	30.1	31.3	32.2	33.2	34.5	35.9	37.2	38.3	38.1	32.8	27.6	24.2	14.4	8.2	1.4	-3.2	-12.2	-24.3	-16.8	-19.9	-24.2	
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	46.1	15.7	24.0	28.6	30.7	31.8	32.8	33.8	35.1	36.5	37.9	39.0	38.9	33.7	29.1	25.5	15.9	9.3	2.0	-2.6	-11.7	-23.7	-16.3	-19.4	-23.6	
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	38.4	10.3	18.3	22.6	24.7	25.8	26.8	28.0	29.6	29.7	29.5	30.2	29.3	23.6	18.5	8.4	-0.6	-10.6	-17.1	-23.8	-38.7	-61.5	-42.6	-45.7	-50.4	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	31.9	2.6	10.5	14.9	16.9	18.0	19.1	20.2	21.8	21.9	22.2	23.6	24.2	21.1	19.5	15.1	8.3	-1.9	-15.6	-37.2	-62.8	-92.0	-66.7	-69.8	-74.3	
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	35.2	5.9	14.2	18.8	20.8	21.9	22.8	23.7	24.8	25.9	27.0	27.9	27.3	21.5	16.2	9.4	2.2	-6.0	-14.5	-26.2	-38.3	-56.4	-42.9	-46.0	-50.3	
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	44.2	12.1	20.5	25.0	27.1	28.3	29.5	30.8	32.8	33.5	34.4	36.0	36.6	34.8	33.9	30.8	25.3	17.6	6.9	-2.0	-13.0	-25.6	-17.0	-20.2	-24.9	
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	39.7	10.4	18.7	23.2	25.3	26.4	27.3	28.2	29.2	30.4	31.5	32.4	31.8	26.0	20.7	13.9	6.9	-1.1	-9.5	-21.1	-33.0	-50.7	-37.5	-40.7	-45.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	33.8	6.6	14.4	18.8	20.7	21.7	22.4	23.1	23.7	24.5	25.2	25.8	25.1	18.9	14.5	2.9	-3.9	-13.4	-25.3	-41.4	-59.9	-86.9	-64.1	-67.2	-71.5	
N Brawley Ave - N. Parkway Drive to W. D	CNEL	31.3	4.7	12.5	16.9	18.8	19.7	20.4	20.9	21.3	21.9	22.4	22.9	22.0	15.7	10.5	-3.3	-13.6	-26.0	-41.3	-55.4	-79.3		-83.5	-86.6	-91.0	
N Brawley Ave - W Shields Avenue to W. C	CNEL	29.2	3.6	11.4	15.7	17.6	18.5	19.1	19.4	19.3	19.6	19.8	20.1	19.1	12.3	7.3	-7.4	-17.1	-29.6	-49.8	-70.3						
W. Shields Ave - West of N. Grantland Av	CNEL	27.1	-0.4	8.1	12.8	14.9	16.0	16.7	17.1	17.1	17.6	18.1	18.5	17.7	11.0	6.7	-7.7	-16.2	-28.5	-49.2	-73.6						
N. Grantland Ave - W Shields Avenue to W	CNEL	27.7	-0.1	8.4	13.1	15.2	16.3	17.2	18.0	18.8	18.7	18.3	18.8	17.8	11.4	6.7	-7.8	-17.0	-29.3	-48.1	-66.0	-95.8		-99.9			
N. Bryan Ave - W Shields Avenue to W. Cl	CNEL	23.1	-4.3	3.9	8.4	10.4	11.4	12.1	12.7	13.0	13.7	14.3	14.9	14.2	7.8	3.2	-10.5	-18.6	-29.6	-45.1	-64.4	-88.5		-93.0	-96.2		
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	29.4	1.3	9.5	14.0	16.1	17.1	17.9	18.6	19.2	20.1	20.8	21.6	20.9	14.7	10.7	-1.4	-7.8	-17.6	-30.4	-48.1	-67.4	-95.3	-71.9	-75.1	-79.5	
N. Polk Ave - W Shields Avenue to W. Cl	CNEL	36.3	6.2	14.5	19.0	21.1	22.2	23.3	24.4	26.0	26.3	26.8	28.0	28.2	25.8	24.4	20.6	14.0	4.4	-8.3	-30.7	-48.8	-73.7	-52.8	-56.0	-60.8	
N. Cornelia Ave - W Shields Avenue to W.	CNEL	33.8	6.7	14.6	18.9	20.9	21.8	22.5	23.2	23.7	24.5	25.1	25.7	24.9	18.6	14.6	2.6	-3.9	-13.5	-26.0	-43.1	-62.1	-89.7	-66.3	-69.4	-73.7	

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz		
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)		
N. Blythe Ave - W Shields Avenue to W. C	CNEL	30.9	4.5	12.3	16.6	18.6	19.5	20.1	20.7	21.0	21.5	22.0	22.4	21.6	15.1	10.4	-3.3	-11.4	-22.3	-37.5	-56.0	-79.6			-83.9	-87.0	-91.3	
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	32.5	5.1	13.4	17.9	19.9	20.9	21.6	22.1	22.4	23.1	23.6	24.1	23.4	17.0	11.8	-2.2	-13.1	-25.8	-43.2	-58.9	-84.8			-89.3	-92.4	-96.9	
N. Valentine Ave - N. Parkway Drive to W	CNEL	23.6	-1.6	6.2	10.5	12.4	13.3	13.8	14.1	13.8	13.9	14.0	14.1	13.0	6.1	0.5	-14.4	-26.9	-41.7	-65.8	-83.4							
N. Valentine Ave - W Shields Avenue to W	CNEL	22.1	-2.7	5.1	9.4	11.3	12.2	12.6	12.8	12.2	12.2	12.1	12.1	10.8	3.6	-1.5	-17.0	-27.4	-41.3	-67.9	-90.9							
W. Clinton Ave - N Brawley Ave to N. Val	CNEL	31.1	4.9	13.1	17.5	19.6	20.6	21.4	22.0	22.4	21.8	21.0	21.1	19.7	13.0	8.0	-7.4	-17.2	-30.7	-54.1	-73.2							
W. Clinton Ave - N. Valentine Ave to N.	CNEL	29.5	4.0	12.2	16.7	18.7	19.7	20.4	20.9	20.8	19.9	18.8	18.7	17.0	9.9	4.4	-11.6	-22.9	-38.0	-66.5	-87.5							
N. Marks Ave - W Princeton Avenue to W.	CNEL	23.9	0.0	7.8	12.1	13.9	14.7	15.2	15.2	13.9	13.6	13.2	12.9	11.3	3.7	-2.6	-18.4	-33.1	-50.6	-80.8								
N. Marks Ave - W Princeton Avenue to W.	CNEL	21.5	-2.6	5.2	9.5	11.3	12.2	12.6	12.7	11.6	11.4	11.0	10.8	9.3	1.7	-3.7	-19.7	-31.0	-46.3	-77.4								
W. Clinton Ave - N. Marks Avenue to SR99	CNEL	28.4	3.5	11.7	16.1	18.1	19.1	19.8	20.2	19.5	18.4	17.0	16.7	14.7	7.2	1.4	-15.2	-27.4	-43.9	-76.9								
Bullard Ave - N. Grantland Ave to N. Bry	CNEL	22.1	-4.8	3.4	7.9	9.9	11.0	11.9	12.6	13.4	13.1	12.5	12.9	11.7	5.4	0.0	-14.7	-26.5	-40.0	-56.7	-71.3							
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	30.3	3.7	11.5	15.8	17.9	18.9	19.8	20.7	21.7	21.3	20.7	21.1	19.9	13.7	8.4	-5.4	-16.6	-28.6	-41.3	-53.9	-79.2			-83.1	-86.2	-90.9	
N. Grantland Ave - W. Dakota Avenue to W	CNEL	30.9	2.4	11.0	15.6	17.8	18.9	19.9	20.8	21.9	21.9	21.8	22.5	21.6	15.5	10.6	-3.4	-13.7	-25.6	-40.4	-54.2	-80.0			-84.1	-87.4	-92.6	
Receive 6	FI	G	LrD,lim	dB(A)	LrC	77.5	dB(A)																					
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	17.9	-7.3	0.5	4.8	6.8	7.8	8.5	9.2	9.4	8.5	7.4	7.3	5.7	-1.3	-6.3	-21.9	-31.6	-45.5	-70.2	-89.2							
SR99 - W. Shields Avenue to W. Clinton A	CNEL	46.5	16.1	25.3	30.1	32.4	33.6	35.0	36.5	38.5	38.2	37.1	38.0	36.6	31.1	26.2	11.0	1.3	-11.6	-29.5	-45.3	-76.7			-81.2	-84.8	-90.8	
SR99 - W. Dakota Avenue to W. Shields Av	CNEL	57.3	24.8	34.1	38.9	41.2	42.6	44.1	45.9	48.7	49.0	48.5	49.8	48.8	44.1	40.2	31.7	23.6	13.6	3.7	-5.8	-21.5	-45.0	-25.9	-29.5	-35.6		
SR99 - W. Shields Avenue to W. Clinton A	CNEL	52.2	21.0	30.3	35.0	37.3	38.6	40.0	41.6	44.0	43.9	43.2	44.1	42.9	37.6	34.0	22.2	14.1	3.0	-11.7	-26.5	-51.0	-86.6	-55.4	-59.1	-65.1		
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	56.8	23.6	33.0	37.8	40.1	41.5	43.0	44.9	48.0	48.4	48.2	49.5	48.6	43.9	38.2	31.1	23.1	15.3	10.0	3.5	-10.0	-29.9	-14.4	-18.0	-24.1		
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	61.2	27.6	36.9	41.8	44.1	45.5	47.1	49.1	52.2	52.8	52.7	54.1	53.2	48.8	43.5	36.2	32.3	26.0	21.4	16.7	6.7	-7.9	2.3	-1.3	-7.4		

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	61.0	27.9	37.2	42.0	44.3	45.7	47.3	49.2	52.2	52.6	52.4	53.8	52.9	48.4	43.5	36.4	29.7	22.1	16.6	11.4	0.4	-15.7	-4.0	-7.6	-13.7	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	58.8	24.9	34.3	39.1	41.4	42.8	44.5	46.5	49.7	50.3	50.3	51.7	50.9	46.8	42.6	36.1	32.7	26.3	20.9	16.5	7.1	-6.9	2.7	-1.0	-7.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	49.2	17.9	27.2	32.0	34.3	35.6	37.0	38.6	41.0	41.0	40.2	41.2	40.0	34.7	30.9	18.6	10.2	-0.8	-15.0	-29.5	-54.3	-90.4	-58.7	-62.3	-68.4	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	31.0	0.1	8.0	12.3	14.3	15.4	16.3	17.2	18.4	19.8	21.3	23.0	24.1	21.4	20.4	16.7	11.0	2.5	-7.5	-30.0	-42.7	-61.5	-47.2	-50.1	-53.6	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	29.8	-0.7	7.2	11.5	13.5	14.6	15.4	16.3	17.4	18.8	20.2	21.9	22.9	20.1	19.1	15.3	9.5	0.7	-9.7	-34.0	-48.3	-68.4	-52.7	-55.6	-59.2	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	24.6	-5.7	2.2	6.6	8.5	9.6	10.4	11.3	12.4	13.6	15.0	16.7	17.6	14.8	13.7	9.8	3.9	-5.0	-15.9	-40.4	-57.1	-78.2	-61.6	-64.4	-67.9	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	25.3	-2.8	5.1	9.4	11.4	12.4	13.2	13.9	14.9	15.9	16.7	17.6	17.4	11.6	8.0	-0.4	-6.3	-18.4	-31.2	-43.6	-58.5	-79.6	-62.8	-65.9	-70.0	
SR99 - W. Herndon Avenue to W. Shaw Ave	CNEL	50.9	21.3	30.5	35.3	37.5	38.7	40.0	41.4	43.0	42.5	41.3	41.9	40.4	34.6	31.0	18.4	10.1	-2.5	-21.7	-41.1	-71.0		-75.4	-79.0	-85.1	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	60.3	26.3	35.7	40.5	42.8	44.3	45.9	47.9	51.1	51.7	51.8	53.3	52.5	48.3	43.0	35.1	30.9	25.7	22.7	19.2	10.1	-3.3	5.6	2.0	-4.0	
	CNEL	26.3	-3.9	4.7	9.3	11.5	12.7	13.8	15.0	16.8	17.3	17.7	18.7	18.1	12.6	8.0	-1.2	-9.1	-19.8	-28.5	-36.0	-50.7	-72.8	-54.8	-58.2	-63.3	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	31.1	4.0	12.6	17.2	19.3	20.4	21.2	21.9	22.3	21.9	21.3	21.6	20.3	13.7	8.6	-6.7	-17.1	-30.9	-54.6	-73.4						
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	33.8	5.9	14.5	19.1	21.2	22.3	23.2	24.0	24.8	24.7	24.4	24.9	23.9	17.5	12.8	-1.6	-10.9	-23.2	-41.8	-59.4	-89.1		-93.2	-96.5		
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	28.1	2.6	10.0	14.2	16.1	17.2	18.1	18.9	19.9	19.1	18.1	18.2	16.8	10.4	5.0	-9.3	-20.6	-33.0	-46.4	-59.4	-86.7		-90.4	-93.5	-97.9	
W. Shaw Ave - N. Grantland Ave to N.	CNEL	28.2	1.9	10.4	15.0	17.1	18.1	18.9	19.4	19.3	18.6	17.8	17.8	16.3	9.3	3.7	-12.3	-24.1	-39.4	-68.7	-89.3						
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	30.1	1.9	10.4	15.1	17.2	18.3	19.2	20.1	21.1	21.1	20.9	21.4	20.5	14.1	10.4	-2.8	-10.2	-21.5	-38.4	-56.9	-83.3		-87.5	-90.8	-96.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	32.2	2.8	11.4	16.1	18.2	19.4	20.4	21.5	23.0	23.3	23.4	24.2	23.5	17.6	14.0	3.0	-3.7	-13.2	-25.1	-38.5	-57.1	-84.6	-61.2	-64.6	-69.8	
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	41.0	11.5	19.8	24.3	26.4	27.6	28.7	29.9	31.7	32.1	32.3	33.2	32.4	26.9	21.7	15.3	8.7	0.9	-6.2	-13.1	-24.6	-42.0	-28.6	-31.9	-36.8	
W. Ashlan Ave - N. Cornelia Ave to N. BI	CNEL	50.0	19.5	27.8	32.3	34.5	35.7	36.9	38.2	40.3	40.9	41.4	42.6	42.2	37.3	32.8	29.3	20.4	14.1	9.0	6.7	-1.1	-12.7	-5.1	-8.3	-13.2	
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	23.5	-1.6	5.9	10.0	11.9	13.0	13.8	14.6	15.3	14.3	13.1	13.1	11.6	4.9	0.0	-14.9	-23.8	-36.0	-53.9	-69.9	-99.3					
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	27.9	1.1	8.9	13.3	15.3	16.3	17.3	18.2	19.3	18.9	18.4	18.8	17.7	11.4	7.0	-5.9	-14.0	-24.7	-38.3	-52.3	-75.7		-79.5	-82.6	-87.3	

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Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	24.8	-2.5	5.3	9.7	11.7	12.8	13.8	14.8	16.2	16.0	15.6	16.2	15.2	9.2	4.3	-8.5	-18.2	-28.4	-37.8	-47.6	-67.9	-98.0	-71.7	-74.9	-79.6	
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	27.0	-0.1	8.4	13.0	15.2	16.2	17.1	17.7	18.1	17.8	17.2	17.4	16.2	9.4	5.1	-9.5	-18.2	-31.3	-54.3	-76.6						
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	48.9	19.3	27.3	31.7	33.8	35.0	36.1	37.4	39.5	39.9	40.2	41.2	40.7	35.8	30.8	28.6	18.5	13.4	9.7	8.2	0.8	-10.7	-3.1	-6.2	-10.9	
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	32.0	2.7	10.6	15.0	16.9	17.9	18.7	19.4	20.2	21.3	22.5	24.0	24.8	21.6	20.3	16.0	9.6	-0.2	-13.0	-37.3	-60.0	-86.0	-64.3	-67.2	-71.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	43.0	11.7	19.6	24.0	26.0	27.0	27.9	28.9	30.2	31.6	33.2	35.0	36.2	33.5	32.7	29.2	23.8	16.0	5.0	-5.5	-20.9	-34.7	-25.4	-28.3	-31.7	
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	67.1	31.8	39.8	44.2	46.3	47.4	48.4	49.6	51.1	52.9	54.8	56.7	57.8	57.5	58.5	57.7	56.7	55.5	53.2	50.6	47.2	42.8	41.0	38.3	35.6	
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	71.3	36.0	43.9	48.3	50.3	51.4	52.4	53.3	54.6	56.0	57.6	60.0	63.1	62.7	62.9	61.9	61.2	59.8	57.1	54.2	49.8	44.6	44.3	41.6	38.8	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	38.3	6.7	14.6	19.0	21.0	22.1	23.0	24.0	25.3	26.8	28.5	30.4	31.6	29.1	28.3	25.0	19.8	12.4	1.2	-7.0	-23.1	-36.5	-27.7	-30.5	-33.9	
W. Shields Ave - N. Polk Avenue to N. Co	CNEL	38.7	8.2	16.9	21.6	23.8	25.0	25.9	26.9	28.0	29.3	30.5	31.5	31.1	25.4	20.2	13.4	6.2	-1.9	-10.5	-22.8	-35.1	-53.3	-39.8	-43.1	-47.4	
W. Shields Ave - N. Hayes Avenue to N. P	CNEL	33.4	4.0	12.6	17.4	19.5	20.6	21.5	22.2	23.0	24.0	24.9	25.7	25.2	19.1	15.4	3.9	-2.4	-12.0	-25.0	-44.0	-63.6	-91.5	-68.3	-71.5	-76.0	
W. Shields Ave - N. Bryan Avenue to N. H	CNEL	29.8	1.7	10.3	15.0	17.1	18.2	18.9	19.5	19.7	20.4	21.0	21.5	20.8	14.2	10.3	-3.4	-10.8	-22.2	-40.2	-63.6	-91.3		-96.0	-99.3		
W. Shields Ave - N. Grantland Ave to Bry	CNEL	25.4	-1.5	7.1	11.7	13.8	14.8	15.5	15.9	15.5	15.8	16.0	16.3	15.3	8.3	4.0	-11.1	-19.8	-33.1	-57.8	-83.7						
W. Shields Ave - N. Cornelia Ave to N Bl	CNEL	44.5	13.0	21.6	26.4	28.6	29.8	30.8	31.9	33.3	34.8	36.3	37.5	37.4	32.3	27.5	23.6	13.8	7.4	0.0	-5.2	-14.8	-27.4	-19.6	-22.8	-27.1	
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	43.3	13.0	21.3	25.9	28.0	29.1	30.1	31.1	32.4	33.8	35.1	36.2	35.9	30.6	25.5	21.9	11.8	5.9	-0.8	-5.6	-14.8	-27.2	-19.3	-22.5	-26.7	
W. Shields Ave - N Brawley Ave to N. Val	CNEL	39.7	10.3	18.6	23.2	25.2	26.3	27.2	28.1	29.2	30.3	31.4	32.3	31.7	25.9	20.6	13.8	6.8	-1.2	-9.6	-21.2	-33.1	-50.9	-37.6	-40.8	-45.1	
W. Shields Ave - N. Valentine Ave to N.	CNEL	34.3	6.0	14.3	18.8	20.9	21.9	22.7	23.4	24.1	24.9	25.7	26.4	25.8	19.9	17.1	8.7	2.2	-7.8	-21.7	-43.0	-63.4	-92.1	-67.9	-71.1	-75.5	
Shields Ave & Valentine Ave East	CNEL	28.6	-0.1	8.2	12.7	14.8	15.8	16.6	17.4	18.3	19.2	20.1	20.9	20.3	14.2	10.6	0.3	-5.7	-14.9	-26.9	-44.3	-62.3	-88.8	-66.8	-70.0	-74.4	
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	34.2	5.6	13.9	18.4	20.5	21.6	22.6	23.6	25.2	25.3	25.2	26.0	25.1	19.2	15.0	3.4	-3.9	-13.4	-24.0	-35.1	-53.3	-80.4	-57.3	-60.5	-65.4	
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	26.1	-1.6	6.6	11.1	13.2	14.3	15.2	16.1	17.3	17.2	16.9	17.4	16.4	10.2	6.1	-6.7	-14.4	-25.1	-39.2	-54.4	-77.8		-81.8	-85.0	-90.0	

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	21.4	-5.4	2.8	7.2	9.3	10.3	11.2	11.9	12.6	12.3	11.7	11.9	10.7	4.2	-0.2	-14.8	-23.1	-35.4	-54.7	-72.9						
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	16.2	-9.6	-1.5	3.0	5.0	6.0	6.8	7.4	7.5	6.8	5.9	5.9	4.4	-2.6	-7.5	-23.0	-32.8	-46.7	-72.3	-92.9						
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	39.0	10.0	18.2	22.7	24.9	26.0	27.1	28.2	29.9	30.2	30.3	31.1	30.3	24.6	19.9	9.5	1.2	-8.5	-16.3	-24.3	-39.5	-62.9	-43.5	-46.7	-51.7	
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	40.7	11.6	19.9	24.4	26.5	27.7	28.7	29.9	31.6	31.8	32.0	32.8	32.0	26.3	21.4	10.8	2.0	-6.5	-13.7	-21.7	-37.2	-60.7	-41.2	-44.4	-49.4	
W. Shaw Ave - N Garfield Avenue to N. Gr	CNEL	22.9	-2.8	5.7	10.3	12.4	13.4	14.1	14.6	14.0	13.1	12.0	11.7	10.0	2.6	-3.2	-19.7	-32.0	-48.6	-82.1							
N. Grantland Ave - W. Barstow Ave to Sha	CNEL	24.1	0.0	7.8	12.0	14.0	14.9	15.6	16.0	15.3	14.0	12.4	11.8	9.8	2.2	-3.9	-20.3	-33.2	-49.8	-80.5							
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	23.5	-0.8	7.0	11.3	13.1	14.0	14.4	14.5	13.5	13.4	13.1	13.0	11.5	4.2	-2.0	-17.5	-31.6	-48.3	-76.7	-99.3						
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	23.5	-2.3	5.9	10.4	12.4	13.3	13.9	14.2	13.6	13.8	13.8	13.9	12.7	5.6	0.7	-14.6	-24.7	-38.5	-64.7	-89.4						
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	26.6	-0.1	8.2	12.7	14.7	15.6	16.3	16.7	16.7	17.1	17.4	17.8	16.9	10.2	5.4	-9.0	-18.3	-30.7	-50.9	-73.1						
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	32.6	6.7	14.1	18.3	20.3	21.3	22.3	23.2	24.3	23.7	22.8	23.0	21.7	15.3	10.7	-2.2	-10.6	-21.2	-34.1	-47.1	-70.2		-73.9	-76.9	-81.4	
N. Polk Ave - North of W. Shaw Avenue	CNEL	21.2	-4.2	3.3	7.4	9.4	10.4	11.3	12.1	13.0	12.1	11.1	11.1	9.7	3.0	-1.3	-15.5	-23.4	-35.0	-52.2	-68.4	-96.8					
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	19.2	-6.3	1.8	6.3	8.3	9.3	10.0	10.6	10.5	9.7	8.6	8.6	6.9	0.0	-6.1	-21.6	-35.6	-52.0	-76.8	-96.4						
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	26.1	-0.2	8.0	12.5	14.5	15.5	16.1	16.5	16.2	16.5	16.7	17.0	15.9	9.2	3.7	-11.2	-23.8	-38.5	-63.0	-81.3						
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	27.3	0.8	9.1	13.5	15.5	16.5	17.1	17.5	17.4	17.8	18.1	18.4	17.5	10.8	5.4	-9.2	-21.3	-35.8	-58.8	-76.4						
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	25.5	-1.1	7.4	12.0	14.1	15.2	15.9	16.5	16.6	16.1	15.4	15.5	14.2	7.4	1.5	-13.9	-27.4	-43.2	-67.8	-87.8						
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	26.7	-0.6	7.7	12.2	14.2	15.2	15.9	16.4	16.7	17.3	17.9	18.4	17.6	11.2	6.7	-6.0	-14.0	-25.1	-41.6	-64.1	-90.8		-95.3	-98.5		
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	35.9	7.3	15.5	20.0	22.2	23.3	24.3	25.4	26.9	27.0	27.0	27.7	26.8	21.0	16.9	6.2	-0.8	-10.1	-21.1	-33.0	-51.1	-78.1	-55.1	-58.3	-63.3	
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	27.1	1.7	9.1	13.2	15.0	15.9	16.5	17.0	17.3	17.7	18.0	18.4	17.5	11.0	5.7	-8.3	-19.1	-31.0	-45.3	-59.2	-82.8		-86.8	-89.8	-94.0	
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	38.5	9.4	17.7	22.2	24.3	25.5	26.5	27.7	29.4	29.6	29.8	30.6	29.8	24.2	19.1	8.2	-1.4	-9.9	-16.4	-24.0	-39.5	-62.9	-43.5	-46.7	-51.6	

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	40.3	11.1	19.3	23.9	26.0	27.0	27.9	28.8	29.8	30.9	32.0	32.8	32.3	26.5	21.5	14.8	8.0	-0.1	-8.8	-21.5	-33.4	-51.3	-37.9	-41.1	-45.3	
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	45.8	15.5	23.8	28.4	30.5	31.6	32.6	33.6	34.9	36.3	37.6	38.7	38.4	33.1	27.9	24.3	14.2	8.3	1.6	-3.2	-12.4	-24.8	-16.9	-20.1	-24.3	
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	74.1	38.8	46.7	51.1	53.2	54.4	55.5	56.7	58.1	59.8	60.9	62.6	64.5	65.3	66.0	64.5	63.8	62.5	60.3	57.9	54.6	50.2	49.2	46.4	43.1	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	38.9	9.8	17.7	22.1	24.2	25.3	26.5	27.8	29.8	30.1	30.3	31.2	30.5	25.2	19.8	13.3	6.8	1.6	-1.5	-4.1	-12.6	-25.4	-16.4	-19.6	-24.2	
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	28.8	1.2	9.4	13.9	16.0	17.0	17.7	18.3	18.7	19.5	20.1	20.7	20.0	13.8	8.7	-4.7	-14.5	-27.4	-43.7	-58.3	-82.6		-87.0	-90.2	-94.7	
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	37.9	8.8	17.1	21.6	23.7	24.9	25.9	27.1	28.8	29.0	29.2	30.0	29.2	23.6	18.7	8.2	-0.7	-10.7	-18.0	-25.4	-40.6	-63.9	-44.6	-47.8	-52.8	
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	44.5	14.2	22.5	27.0	29.1	30.3	31.2	32.2	33.6	34.9	36.2	37.4	37.1	31.9	27.1	23.2	13.5	7.0	-0.3	-5.2	-14.4	-26.8	-19.0	-22.2	-26.4	
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	67.7	32.5	40.5	44.9	47.0	48.1	49.1	50.3	51.8	53.6	55.4	57.3	58.4	58.2	59.2	58.4	57.4	56.2	53.9	51.4	47.9	43.6	41.8	39.2	36.4	
N Brawley Ave - N. Parkway Drive to W. D	CNEL	43.3	14.0	22.0	26.3	28.3	29.4	30.3	31.2	32.5	33.8	35.0	36.0	35.7	30.5	25.4	22.6	12.2	6.3	-0.2	-4.1	-12.8	-24.7	-17.1	-20.2	-24.4	
N Brawley Ave - W Shields Avenue to W. C	CNEL	38.7	10.6	18.5	22.8	24.8	25.8	26.6	27.4	28.4	29.5	30.3	31.1	30.5	24.5	19.1	12.2	5.2	-2.8	-11.0	-21.9	-33.6	-51.2	-37.9	-41.0	-45.2	
W. Shields Ave - West of N. Grantland Av	CNEL	22.6	-3.4	5.2	9.8	11.9	12.9	13.5	13.7	12.6	12.6	12.5	12.4	11.1	3.5	-1.2	-16.8	-26.8	-41.8	-71.3							
N. Grantland Ave - W Shields Avenue to W	CNEL	23.7	-2.7	5.8	10.4	12.5	13.6	14.3	14.9	14.9	14.3	13.5	13.5	12.1	5.2	-0.7	-16.3	-29.7	-46.0	-72.8	-92.7						
N. Bryan Ave - W Shields Avenue to W. Cl	CNEL	19.3	-6.9	1.2	5.7	7.7	8.7	9.3	9.6	9.3	9.7	9.9	10.1	9.1	2.3	-3.2	-18.0	-30.5	-45.4	-70.0	-88.2						
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	26.5	-0.8	7.4	11.9	14.0	15.0	15.7	16.2	16.5	17.1	17.6	18.2	17.4	11.0	6.0	-7.6	-16.9	-28.7	-45.5	-65.0	-91.3		-95.8	-99.0		
N. Polk Ave - W Shields Avenue to W. Cli	CNEL	34.6	6.1	14.3	18.8	20.9	22.0	23.0	24.1	25.6	25.7	25.7	26.4	25.6	19.7	15.5	4.4	-2.8	-12.2	-23.0	-34.6	-52.7	-79.9	-56.7	-60.0	-64.9	
N. Cornelia Ave - W Shields Avenue to W.	CNEL	38.4	10.3	18.2	22.5	24.5	25.5	26.3	27.2	28.2	29.2	30.1	30.8	30.2	24.2	18.9	11.9	4.8	-3.2	-11.5	-22.5	-34.3	-52.0	-38.6	-41.7	-45.9	
N. Blythe Ave - W Shields Avenue to W. C	CNEL	42.5	11.5	19.4	23.8	25.8	26.9	27.7	28.7	29.9	31.3	32.8	34.5	35.4	33.0	32.2	28.8	23.5	15.7	4.8	-5.7	-20.7	-34.4	-25.2	-28.1	-31.6	
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	45.1	14.7	23.1	27.6	29.7	30.9	31.8	32.8	34.2	35.6	36.9	38.0	37.8	32.6	27.9	24.3	14.5	8.1	0.8	-3.8	-13.0	-25.1	-17.5	-20.7	-24.9	
N. Valentine Ave - N. Parkway Drive to W	CNEL	32.6	4.8	12.7	17.1	19.0	20.0	20.8	21.6	22.4	23.3	24.1	24.8	24.2	18.2	13.0	1.6	-7.6	-17.2	-26.1	-36.2	-51.9	-75.3	-56.1	-59.2	-63.6	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Valentine Ave - W Shields Avenue to W	CNEL	30.3	3.0	10.9	15.2	17.1	18.1	18.8	19.5	20.2	20.9	21.6	22.3	21.5	15.3	11.0	-0.7	-7.4	-16.9	-28.9	-45.1	-63.6	-90.6	-67.8	-70.9	-75.2	
W. Clinton Ave - N Brawley Ave to N. Val	CNEL	38.9	10.3	18.5	23.0	25.1	26.3	27.3	28.4	29.9	30.0	30.0	30.7	29.9	24.0	20.0	9.2	2.4	-7.0	-17.9	-29.9	-48.0	-75.0	-52.0	-55.2	-60.2	
W. Clinton Ave - N. Valentine Ave to N.	CNEL	36.5	8.8	17.0	21.5	23.6	24.7	25.6	26.5	27.7	27.6	27.3	27.9	26.9	20.7	16.5	3.6	-4.3	-15.0	-28.9	-43.4	-66.6		-70.6	-73.8	-78.8	
N. Marks Ave - W Princeton Avenue to W.	CNEL	30.6	4.5	12.3	16.6	18.5	19.5	20.1	20.5	20.7	21.2	21.6	22.0	21.1	14.5	9.2	-5.0	-16.0	-28.8	-46.5	-62.3	-88.9		-93.1	-96.2		
N. Marks Ave - W Princeton Avenue to W.	CNEL	28.7	2.2	10.0	14.4	16.3	17.2	17.9	18.4	18.7	19.3	19.7	20.2	19.3	12.8	8.1	-5.9	-14.5	-25.8	-41.8	-59.2	-83.7		-87.9	-91.0	-95.4	
W. Clinton Ave - N. Marks Avenue to SR99	CNEL	34.6	7.6	15.8	20.3	22.4	23.4	24.3	25.1	25.9	25.5	25.0	25.3	24.2	17.7	13.3	-1.1	-9.3	-21.3	-40.0	-57.9	-87.4		-91.3	-94.6	-99.5	
Bullard Ave - N. Grantland Ave to N. Bry	CNEL	16.3	-8.6	-0.5	3.9	5.9	6.9	7.6	8.0	7.4	6.3	5.0	4.6	2.8	-4.6	-11.1	-27.2	-42.2	-60.0	-88.6							
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	23.6	-0.9	6.9	11.2	13.2	14.1	14.8	15.3	15.0	13.7	12.3	11.9	10.0	2.7	-3.0	-18.9	-30.6	-46.0	-74.4	-97.7						
N. Grantland Ave - W. Dakota Avenue to W	CNEL	25.5	-1.1	7.4	12.0	14.1	15.2	15.9	16.5	16.6	16.1	15.4	15.5	14.0	7.3	1.7	-13.8	-26.4	-42.6	-71.5	-87.8						
Receive 7	FI	G	LrD,lir	dB(A)	LrC	72.0	dB(A)																				
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	23.5	-3.4	4.4	8.7	10.7	11.8	12.8	13.7	14.9	14.6	14.1	14.6	13.5	7.4	2.2	-11.1	-22.4	-33.3	-44.0	-55.9	-79.2		-83.0	-86.2	-90.9	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	CNEL	47.5	18.6	27.9	32.6	34.8	36.1	37.3	38.5	39.7	38.9	37.4	37.7	35.9	29.9	23.7	8.1	-5.4	-21.3	-45.0	-66.4						
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	39.5	11.2	20.4	25.2	27.4	28.5	29.7	30.9	31.7	30.8	29.0	29.2	27.1	20.7	15.8	0.7	-9.8	-25.7	-54.3	-82.4						
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	42.9	13.8	23.1	27.8	30.0	31.2	32.5	33.8	35.1	34.4	32.9	33.4	31.6	25.8	19.6	4.1	-9.7	-25.7	-47.6	-68.1						
SR99 - W. Herndon Avenue to W. Shaw Aven	CNEL	48.9	20.3	29.5	34.3	36.5	37.7	38.9	40.1	41.1	40.3	38.7	39.0	37.1	31.0	25.1	9.5	-2.4	-17.7	-42.9	-65.8						
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	39.9	11.8	21.0	25.8	28.0	29.2	30.3	31.5	32.1	31.1	29.3	29.5	27.4	21.1	14.4	-1.7	-16.8	-34.5	-61.6	-86.0						
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	32.3	4.8	13.3	18.0	20.1	21.2	22.0	22.8	23.4	23.1	22.7	23.1	22.0	15.7	10.1	-4.7	-17.1	-31.3	-50.6	-67.3						
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	31.3	4.3	12.8	17.4	19.6	20.6	21.4	22.1	22.5	22.1	21.5	21.7	20.5	13.8	8.7	-6.6	-16.9	-30.6	-54.6	-75.0						
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	23.7	-0.5	6.9	11.0	13.0	13.9	14.7	15.3	15.4	14.1	12.5	12.2	10.3	3.1	-2.2	-18.0	-28.2	-42.4	-67.5	-87.9						

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Shaw Ave - N. Grantland Ave to N.	CNEL	32.3	4.6	13.1	17.7	19.9	21.0	21.8	22.6	23.4	23.2	22.9	23.4	22.4	16.1	10.6	-3.9	-16.3	-30.0	-47.5	-63.7	-94.9		-99.0			
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	35.0	5.4	14.0	18.6	20.8	22.0	23.0	24.1	25.7	26.1	26.3	27.2	26.5	20.8	16.7	5.9	-1.2	-10.3	-21.0	-33.0	-50.9	-77.2	-55.0	-58.3	-63.5	
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	30.2	1.4	10.0	14.6	16.8	17.9	18.9	19.8	21.1	21.2	21.2	21.9	21.2	15.1	10.7	-2.3	-10.6	-21.2	-34.7	-49.3	-72.1		-76.2	-79.5	-84.7	
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	31.3	4.4	12.6	17.1	19.2	20.2	21.1	21.8	22.6	22.2	21.7	22.0	20.8	14.3	9.8	-4.7	-13.3	-25.3	-43.8	-61.6	-90.8		-94.8	-98.0		
W. Ashlan Ave - N. Cornelia Ave to N. BI	CNEL	32.6	6.6	14.8	19.3	21.3	22.3	23.1	23.7	23.9	23.2	22.3	22.4	20.9	14.0	8.8	-6.7	-17.0	-31.0	-55.7	-75.4						
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	25.9	0.2	7.6	11.7	13.7	14.8	15.7	16.6	17.7	17.0	16.0	16.2	14.9	8.5	3.8	-8.9	-17.5	-28.3	-42.1	-56.8	-81.7		-85.4	-88.4	-92.9	
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	25.5	-0.6	7.3	11.6	13.6	14.6	15.4	16.2	17.0	16.4	15.6	15.8	14.5	8.0	3.0	-11.4	-21.2	-33.3	-50.3	-66.5	-95.4		-99.2			
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	18.7	-6.9	0.9	5.2	7.2	8.2	9.0	9.7	10.2	9.4	8.4	8.4	6.9	0.1	-4.6	-19.9	-29.0	-42.0	-63.9	-83.0						
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	37.3	7.1	15.7	20.4	22.6	23.8	24.9	26.1	27.8	28.3	28.7	29.7	29.1	23.5	18.4	8.0	-1.7	-9.8	-16.5	-24.4	-39.7	-62.7	-43.9	-47.2	-52.4	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	29.0	4.4	12.3	16.5	18.5	19.5	20.2	20.6	20.3	19.1	17.6	17.3	15.4	8.0	2.5	-13.7	-24.7	-40.1	-69.6	-92.5						
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	29.4	2.3	10.2	14.5	16.4	17.4	18.1	18.7	19.4	20.1	20.8	21.4	20.7	14.3	10.3	-1.5	-8.0	-17.4	-29.6	-46.3	-64.7	-91.5	-68.9	-72.0	-76.3	
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	29.7	3.7	11.5	15.8	17.7	18.7	19.2	19.7	19.8	20.2	20.5	20.9	20.0	13.1	9.2	-4.3	-11.5	-22.6	-39.7	-62.2	-88.7		-93.0	-96.1		
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	25.7	0.7	8.5	12.8	14.7	15.6	16.1	16.3	15.8	15.9	15.9	16.0	14.7	7.5	3.0	-12.0	-20.8	-33.8	-57.5	-82.5						
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	21.7	-2.3	5.5	9.7	11.6	12.4	12.9	12.9	11.7	11.5	11.1	10.8	9.3	1.6	-3.6	-19.4	-29.8	-44.6	-74.2							
W. Sheilds Ave - N. Polk Avenue to N. Co	CNEL	31.8	2.5	11.1	15.8	17.9	19.0	19.8	20.5	20.9	21.8	22.7	23.5	23.2	20.6	18.8	14.7	7.0	-4.0	-19.7	-48.8	-82.1		-87.0	-90.1	-93.6	
W. Sheilds Ave - N. Hayes Avenue to N. P	CNEL	36.1	5.0	13.6	18.3	20.5	21.6	22.5	23.4	24.4	25.6	26.9	28.1	28.1	26.1	24.8	21.4	15.0	5.7	-6.8	-31.0	-53.1	-78.5	-57.9	-61.0	-64.8	
W. Sheilds Ave - N. Bryan Avenue to N. H	CNEL	43.5	10.3	19.0	23.7	25.9	27.1	28.2	29.3	30.7	32.2	33.9	35.5	35.8	34.5	33.7	31.1	25.8	18.7	7.6	-0.6	-17.0	-30.5	-21.9	-25.0	-28.5	
W. Sheilds Ave - N. Grantland Ave to Bry	CNEL	67.6	29.4	38.1	42.9	45.2	46.5	47.7	49.0	50.9	52.9	55.2	57.5	59.1	58.2	58.7	58.1	57.1	56.2	53.7	50.8	46.9	42.5	40.5	37.7	35.2	
W. Sheilds Ave - N. Cornelia Ave to N BI	CNEL	28.9	1.1	9.6	14.3	16.4	17.5	18.2	18.6	18.5	19.1	19.6	20.0	19.3	16.2	14.0	9.0	0.1	-12.6	-32.0	-64.9						

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	24.7	-0.8	7.4	11.9	13.8	14.8	15.3	15.5	14.7	14.7	14.6	14.6	13.3	9.5	6.6	0.7	-9.5	-24.1	-47.4	-84.3						
W. Shields Ave - N Brawley Ave to N. Val	CNEL	20.9	-3.9	4.3	8.8	10.7	11.6	12.1	12.2	10.7	10.5	10.1	9.7	8.1	3.9	0.6	-6.0	-17.4	-33.7	-60.0							
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	29.8	2.5	10.7	15.2	17.3	18.3	19.2	20.1	21.0	20.8	20.4	20.8	19.7	13.2	9.9	-2.4	-9.4	-20.5	-37.0	-56.1	-82.1		-86.1	-89.3	-94.3	
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	28.6	0.2	8.4	12.9	15.0	16.1	17.1	18.1	19.6	19.7	19.6	20.3	19.4	13.4	10.0	-0.5	-7.0	-16.4	-28.2	-41.2	-59.3	-86.3	-63.3	-66.6	-71.5	
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	31.4	2.0	10.2	14.7	16.9	18.0	19.1	20.3	22.2	22.5	22.8	23.6	22.9	17.3	12.3	6.4	0.1	-7.8	-15.1	-22.4	-33.8	-51.1	-37.9	-41.1	-46.0	
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	33.4	3.2	11.5	16.0	18.1	19.3	20.5	21.8	23.9	24.4	24.9	26.0	25.4	20.3	15.3	11.7	3.4	-2.3	-7.1	-9.7	-18.0	-30.3	-22.0	-25.2	-30.1	
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	29.4	3.1	11.3	15.8	17.8	18.8	19.6	20.3	20.7	20.1	19.3	19.4	18.0	11.1	7.3	-6.7	-14.9	-27.8	-49.9	-72.6						
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	28.3	3.0	11.1	15.6	17.6	18.6	19.3	19.8	19.6	18.6	17.5	17.3	15.5	8.2	3.6	-11.3	-21.0	-35.8	-63.1	-89.9						
W. Shaw Ave - N Garfield Avenue to N. Gr	CNEL	31.6	3.9	12.4	17.1	19.2	20.3	21.2	22.0	22.7	22.5	22.2	22.6	21.5	15.3	10.2	-4.0	-14.5	-29.4	-50.4	-64.5	-96.3					
N. Grantland Ave - W. Barstow Ave to Sha	CNEL	29.5	3.5	11.4	15.7	17.7	18.7	19.5	20.2	20.7	20.1	19.3	19.4	18.2	14.9	12.4	7.3	-1.8	-14.5	-34.0	-65.8						
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	34.6	6.0	13.9	18.3	20.2	21.2	22.0	22.7	23.5	24.5	25.4	26.4	26.2	24.0	22.5	18.9	12.4	3.2	-9.2	-33.0	-54.4	-79.5	-58.7	-61.7	-65.5	
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	27.3	0.2	8.5	13.0	15.0	16.0	16.7	17.2	17.3	17.9	18.3	18.8	18.0	11.3	7.5	-6.0	-13.2	-24.4	-41.7	-65.0	-92.0		-96.4	-99.6		
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	26.4	-0.2	8.0	12.5	14.5	15.5	16.1	16.5	16.4	16.9	17.2	17.6	16.7	9.9	5.3	-9.4	-18.1	-30.2	-50.7	-73.4						
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	28.1	3.5	11.0	15.1	17.0	18.0	18.8	19.5	19.9	18.7	17.3	17.1	15.4	8.5	3.2	-12.1	-22.2	-35.4	-56.5	-74.9						
N. Polk Ave - North of W. Shaw Avenue	CNEL	17.2	-6.9	0.5	4.6	6.5	7.5	8.3	8.8	8.9	7.6	6.0	5.7	3.8	-3.4	-8.8	-24.6	-35.1	-49.5	-74.5	-94.8						
Bullard Ave - N Garfield to N. Grantland	CNEL	20.0	-4.9	2.9	7.2	9.1	10.1	10.9	11.4	11.5	10.5	9.3	9.1	7.4	0.5	-5.4	-20.5	-33.2	-49.8	-76.3	-92.2						
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	19.4	-6.2	1.9	6.4	8.4	9.4	10.2	10.7	10.6	9.8	8.8	8.8	7.2	0.3	-6.0	-21.3	-35.7	-52.2	-75.1	-96.3						
N. Grantland Ave - W. Bullard Ave to Bar	CNEL	26.9	2.0	9.8	14.1	16.0	17.0	17.8	18.3	18.2	17.2	16.0	15.7	14.1	10.3	7.3	1.3	-9.1	-23.7	-46.9	-83.1						
Bullard Ave - N Garfield Avenue to N. Gr	CNEL	14.6	-9.5	-1.8	2.5	4.5	5.4	6.1	6.5	5.9	4.5	2.9	2.4	0.3	-7.0	-13.4	-29.2	-43.3	-61.8	-91.8							

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Bullard Ave - N. Grantland Avenue to N.	CNEL	22.3	-1.9	5.9	10.2	12.2	13.1	13.8	14.2	13.6	12.2	10.6	10.2	8.2	0.8	-6.2	-21.9	-37.8	-55.9	-80.7							
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	32.5	4.2	12.5	17.0	19.1	20.1	20.9	21.6	22.3	23.2	24.0	24.7	24.1	17.9	14.0	2.6	-3.8	-13.3	-25.7	-43.5	-62.3	-89.4	-66.8	-70.0	-74.4	
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	41.2	11.0	19.3	23.8	25.9	27.1	28.0	29.0	30.3	31.6	32.9	34.0	33.8	28.5	23.4	19.8	10.3	4.0	-2.8	-7.4	-16.2	-28.0	-20.7	-23.9	-28.2	
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	43.4	10.3	19.0	23.7	25.9	27.1	28.3	29.7	31.7	32.6	33.6	35.2	35.6	34.3	33.5	30.8	25.4	18.1	7.4	0.3	-11.5	-23.9	-15.7	-19.0	-23.9	
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	27.7	0.1	8.3	12.8	14.9	15.9	16.6	17.2	17.6	18.3	18.9	19.5	18.9	12.5	8.0	-5.3	-13.2	-23.8	-38.6	-58.3	-81.8		-86.2	-89.4	-93.9	
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	30.5	3.5	11.7	16.2	18.2	19.3	20.2	20.9	21.8	21.4	20.9	21.3	20.1	13.7	8.9	-5.4	-14.8	-26.8	-44.2	-61.5	-90.4		-94.4	-97.6		
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	29.9	3.8	11.2	15.3	17.1	18.0	18.7	19.3	20.0	20.6	21.1	21.7	20.9	14.6	9.6	-3.6	-12.8	-22.5	-32.9	-44.2	-61.8	-88.0	-65.8	-68.8	-73.0	
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	33.0	5.4	13.6	18.1	20.2	21.3	22.2	23.1	24.2	24.1	23.8	24.3	23.3	17.1	12.5	-0.4	-8.9	-19.9	-34.5	-50.3	-75.3		-79.3	-82.5	-87.5	
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	28.6	2.9	11.1	15.5	17.5	18.5	19.0	19.3	18.7	18.9	18.9	19.1	17.9	10.8	5.5	-9.6	-20.6	-34.5	-59.8	-84.3						
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	30.3	4.0	12.2	16.7	18.7	19.6	20.2	20.6	20.4	20.7	20.9	21.2	20.3	13.5	8.0	-6.8	-19.4	-34.0	-57.5	-75.9						
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	27.0	2.2	10.0	14.3	16.3	17.2	18.0	18.5	18.5	17.4	16.2	16.0	14.2	7.2	1.0	-14.5	-28.6	-44.7	-67.4	-87.8						
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	19.6	-4.7	3.1	7.4	9.3	10.3	11.0	11.4	10.8	9.5	8.0	7.5	5.5	-2.1	-7.9	-24.3	-36.1	-52.2	-83.1							
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	33.9	4.9	13.1	17.7	19.7	20.8	21.7	22.5	23.5	24.6	25.5	26.4	25.9	20.0	14.8	4.0	-5.9	-14.8	-23.6	-34.2	-49.9	-73.0	-54.3	-57.5	-61.9	
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	33.6	5.7	13.9	18.4	20.5	21.6	22.5	23.5	24.7	24.7	24.5	25.1	24.2	18.3	13.2	-0.1	-11.2	-22.2	-33.3	-45.1	-68.1		-72.1	-75.3	-80.3	
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	29.8	3.2	11.4	15.9	17.9	18.9	19.5	19.9	19.8	20.3	20.6	21.0	20.1	13.4	7.9	-6.7	-19.2	-33.2	-54.8	-72.9						
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	24.9	0.4	8.2	12.5	14.3	15.2	15.7	15.8	15.0	14.9	14.8	14.7	13.4	6.1	0.0	-15.2	-29.3	-45.5	-71.8	-93.9						
N Brawley Ave - N. Parkway Drive to W. D	CNEL	22.1	-1.5	6.3	10.6	12.4	13.2	13.6	13.6	12.0	11.5	10.9	10.5	8.7	1.0	-5.8	-21.8	-37.3	-55.7	-85.8							
N Brawley Ave - W Shields Avenue to W. C	CNEL	23.4	-0.3	7.5	11.8	13.6	14.5	14.9	14.8	13.3	12.9	12.4	11.9	10.1	2.5	-4.0	-20.0	-34.8	-53.2	-84.1							
W. Sheilds Ave - West of N. Grantland Av	CNEL	62.2	24.2	33.0	37.7	40.0	41.3	42.5	43.9	45.7	47.9	50.2	52.7	54.6	53.2	53.7	52.6	51.0	49.5	46.6	43.3	38.9	33.7	33.5	30.7	28.1	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

23

Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Grantland Ave - W Shields Avenue to W	CNEL	62.0	24.3	33.0	37.7	40.0	41.3	42.7	44.3	46.8	48.2	49.9	52.3	54.1	52.9	53.4	52.3	50.7	49.3	46.4	43.5	39.1	34.5	34.3	31.4	28.3	
N. Bryan Ave - W Shields Avenue to W. Cl	CNEL	35.5	5.1	13.3	17.9	20.0	21.1	22.1	23.1	24.5	25.9	27.2	28.4	28.2	23.0	18.2	14.9	5.1	-1.2	-8.4	-12.9	-21.7	-33.5	-26.3	-29.4	-33.7	
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	32.6	3.7	11.9	16.5	18.5	19.6	20.5	21.3	22.3	23.3	24.3	25.1	24.6	18.7	13.6	2.6	-6.4	-16.2	-25.4	-36.0	-51.8	-74.8	-56.3	-59.4	-63.8	
N. Polk Ave - W Shields Avenue to W. Cl	CNEL	32.4	4.5	12.7	17.2	19.3	20.4	21.3	22.3	23.5	23.5	23.3	23.9	22.9	17.0	11.9	-1.0	-11.5	-23.7	-35.6	-46.5	-69.8		-73.8	-77.0	-82.0	
N. Cornelia Ave - W Shields Avenue to W.	CNEL	28.6	3.1	10.9	15.2	17.1	18.0	18.6	18.9	18.7	19.0	19.2	19.4	18.3	11.5	6.1	-8.5	-20.2	-34.8	-57.8	-74.3						
N. Blythe Ave - W Shields Avenue to W. C	CNEL	25.0	0.5	8.3	12.6	14.4	15.3	15.8	15.9	15.1	15.0	14.8	14.7	13.3	6.1	0.3	-15.1	-28.4	-44.8	-73.5	-93.9						
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	24.6	-0.1	8.1	12.6	14.5	15.4	15.9	16.0	14.5	14.3	13.9	13.6	12.0	4.4	-2.3	-18.0	-33.7	-51.8	-81.3							
Bullard Ave - N. Grantland Ave to N. Bry	CNEL	18.9	-6.9	1.2	5.7	7.7	8.7	9.5	10.0	10.1	9.4	8.5	8.5	7.0	0.2	-6.0	-21.1	-35.5	-51.5	-72.9	-93.6						
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	30.7	3.5	11.3	15.7	17.7	18.7	19.7	20.5	21.6	21.4	21.0	21.5	20.6	18.0	15.9	11.6	3.9	-7.0	-22.6	-49.4	-77.0		-81.0	-84.0	-88.6	
N. Grantland Ave - W. Dakota Avenue to W	CNEL	68.3	30.3	39.0	43.7	46.0	47.4	48.7	50.2	52.6	54.0	55.8	58.1	59.6	59.0	59.5	58.9	57.6	56.7	54.3	51.6	47.6	43.5	41.8	39.0	35.9	
Receive 8	FI	G	LrD,lirr	dB(A)	LrC	78.4	dB(A)																				
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	20.9	-5.3	2.6	6.9	8.9	9.9	10.8	11.6	12.4	11.8	11.1	11.3	10.0	3.5	-1.2	-15.6	-24.5	-36.5	-54.0	-70.1	-99.1					
SR99 - W. Shields Avenue to W. Clinton A	CNEL	41.6	13.0	22.2	27.0	29.2	30.4	31.6	32.8	33.8	32.9	31.3	31.6	29.6	23.4	17.5	1.5	-10.9	-27.1	-56.1	-76.7						
SR99 - W. Dakota Avenue to W. Sheilds Av	CNEL	49.2	19.3	28.6	33.3	35.6	36.8	38.1	39.5	41.3	40.9	39.7	40.4	38.9	33.2	28.2	13.1	3.2	-10.0	-29.8	-48.2	-81.8		-86.2	-89.8	-95.9	
SR99 - W. Shields Avenue to W. Clinton A	CNEL	46.2	17.1	26.4	31.1	33.3	34.6	35.8	37.1	38.4	37.7	36.3	36.7	34.8	29.0	24.4	10.8	0.4	-15.2	-43.0	-62.6						
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	47.0	16.6	25.8	30.6	32.9	34.1	35.5	37.0	39.0	38.7	37.6	38.4	37.0	31.6	27.2	13.8	4.9	-7.6	-26.2	-44.7	-76.0		-80.4	-84.0	-90.1	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	49.9	19.1	28.4	33.2	35.4	36.7	38.1	39.6	41.8	41.6	40.7	41.6	40.4	35.0	30.4	16.6	7.0	-4.7	-20.1	-35.7	-63.8		-68.2	-71.8	-77.9	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	CNEL	54.0	22.8	32.1	36.9	39.2	40.4	41.9	43.5	45.8	45.7	44.9	45.9	44.8	39.6	34.6	21.5	10.0	-1.6	-13.7	-27.0	-52.9	-90.7	-57.3	-60.9	-67.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	CNEL	47.6	16.4	25.6	30.4	32.7	34.0	35.4	37.0	39.4	39.4	38.6	39.6	38.4	33.1	29.3	17.2	9.1	-2.0	-16.9	-32.4	-58.1	-95.9	-62.5	-66.2	-72.2	

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	46.9	16.3	25.6	30.4	32.6	33.9	35.2	36.8	38.8	38.6	37.6	38.4	37.1	31.7	26.5	11.9	0.5	-12.3	-27.6	-43.1	-73.4		-77.8	-81.4	-87.5	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	18.2	-7.6	0.2	4.5	6.5	7.4	8.0	8.4	8.4	8.8	9.0	9.3	8.4	1.5	-3.0	-17.7	-26.2	-38.1	-57.9	-78.7						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	17.8	-7.9	0.0	4.3	6.2	7.1	7.6	8.0	7.9	8.2	8.4	8.7	7.7	0.8	-3.8	-18.6	-27.2	-39.4	-60.4	-81.9						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	13.0	-12.5	-4.7	-0.4	1.5	2.4	3.0	3.3	3.2	3.5	3.6	3.9	2.8	-4.1	-8.8	-23.9	-32.9	-45.4	-67.3	-88.6						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	16.0	-9.4	-1.6	2.7	4.6	5.5	6.1	6.4	6.2	6.4	6.6	6.8	5.8	-1.1	-6.6	-21.4	-33.5	-47.4	-69.6	-87.5						
SR99 - W. Herndon Avenue to W. Shaw Avenue	CNEL	50.0	20.7	30.0	34.8	37.0	38.2	39.5	40.8	42.2	41.6	40.2	40.8	39.1	33.3	28.2	13.0	3.1	-11.0	-33.2	-49.9	-83.8		-88.2	-91.8	-97.9	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	48.2	17.1	26.4	31.1	33.4	34.7	36.1	37.7	40.0	40.0	39.2	40.2	39.0	33.8	28.7	15.5	4.0	-7.7	-20.0	-33.4	-59.8	-98.6	-64.2	-67.8	-73.9	
	CNEL	17.3	-10.3	-1.8	2.9	5.0	6.1	6.9	7.7	8.4	8.2	7.9	8.3	7.3	0.9	-4.4	-19.3	-31.0	-44.5	-63.6	-80.1						
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	32.2	4.7	13.3	17.9	20.0	21.1	21.9	22.7	23.3	23.0	22.6	23.0	21.8	15.4	10.0	-5.0	-17.1	-31.6	-52.0	-68.0						
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	33.3	5.6	14.2	18.8	20.9	22.0	22.9	23.7	24.4	24.2	23.9	24.3	23.2	16.9	11.7	-3.0	-14.1	-28.7	-49.2	-63.2	-95.0		-99.1			
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	26.6	1.5	9.0	13.1	15.1	16.1	16.9	17.7	18.4	17.5	16.3	16.3	14.8	8.2	2.6	-12.3	-24.3	-38.0	-53.8	-68.2	-99.0					
W. Shaw Ave - N. Grantland Ave to N.	CNEL	30.1	3.1	11.6	16.3	18.4	19.4	20.2	20.9	21.2	20.8	20.2	20.4	19.1	12.4	7.4	-7.9	-18.2	-32.1	-56.8	-76.8						
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	34.8	5.2	13.8	18.5	20.6	21.8	22.8	23.9	25.5	25.9	26.1	26.9	26.2	20.5	16.4	5.4	-1.7	-11.1	-22.1	-34.2	-52.3	-79.2	-56.4	-59.7	-64.9	
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	35.2	5.1	13.7	18.3	20.5	21.7	22.8	24.0	25.7	26.2	26.6	27.6	26.9	21.5	16.7	6.6	-2.0	-12.4	-20.3	-28.0	-43.2	-66.2	-47.3	-50.7	-55.8	
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	39.3	10.2	18.4	22.9	25.1	26.2	27.3	28.4	30.1	30.4	30.5	31.4	30.6	24.9	19.8	9.2	-0.5	-8.8	-15.2	-22.6	-38.0	-61.2	-42.0	-45.2	-50.2	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	CNEL	41.2	12.6	20.8	25.3	27.4	28.6	29.6	30.7	32.2	32.3	32.3	33.0	32.2	26.3	22.1	11.1	4.0	-5.3	-15.8	-27.2	-45.2	-71.9	-49.2	-52.4	-57.4	
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	25.7	0.0	7.5	11.6	13.6	14.6	15.6	16.4	17.5	16.8	15.8	16.0	14.6	8.3	3.5	-9.4	-18.0	-29.1	-43.3	-57.8	-83.0		-86.7	-89.8	-94.2	
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	28.4	1.5	9.3	13.7	15.7	16.8	17.7	18.6	19.8	19.5	19.0	19.4	18.3	12.2	7.1	-5.5	-15.7	-28.4	-40.7	-51.1	-74.8		-78.7	-81.8	-86.5	
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	23.4	-3.6	4.3	8.6	10.6	11.7	12.6	13.5	14.8	14.5	14.0	14.5	13.4	7.3	2.1	-11.1	-22.3	-33.4	-44.1	-55.5	-78.7		-82.5	-85.7	-90.4	
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	31.9	3.2	11.7	16.4	18.5	19.7	20.6	21.6	22.8	22.9	22.9	23.6	22.8	16.7	12.3	-0.8	-9.2	-20.0	-33.9	-48.5	-71.8		-76.0	-79.3	-84.5	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	37.0	10.0	17.8	22.2	24.2	25.3	26.2	27.1	28.4	28.1	27.6	28.0	26.9	20.7	16.5	4.1	-3.6	-13.9	-27.1	-41.1	-63.8	-97.6	-67.7	-70.8	-75.5	
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	38.9	9.7	17.6	22.0	24.0	25.0	25.9	26.9	28.1	29.4	30.6	31.6	31.4	26.1	21.4	17.7	8.2	1.6	-5.6	-9.9	-18.7	-30.6	-23.1	-26.1	-30.3	
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	43.0	13.9	21.8	26.2	28.2	29.3	30.1	31.1	32.3	33.6	34.8	35.8	35.4	30.1	24.9	21.6	11.6	5.6	-0.9	-5.0	-13.7	-25.7	-18.0	-21.1	-25.3	
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	37.3	9.2	17.1	21.4	23.4	24.4	25.2	26.0	27.1	28.1	29.0	29.8	29.1	23.2	17.8	10.8	4.0	-3.9	-12.1	-22.8	-34.4	-51.8	-38.7	-41.8	-46.0	
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	31.3	4.2	12.1	16.4	18.4	19.3	20.0	20.7	21.3	22.0	22.6	23.2	22.5	16.1	12.1	0.1	-6.4	-15.9	-28.4	-45.2	-64.0	-91.3	-68.2	-71.3	-75.6	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	23.8	-2.4	5.5	9.8	11.7	12.6	13.2	13.7	13.9	14.4	14.7	15.1	14.3	7.5	3.7	-9.6	-16.6	-27.7	-44.7	-67.0	-93.5		-97.7			
W. Shields Ave - N. Polk Avenue to N. Co	CNEL	72.9	34.6	43.3	48.1	50.3	51.6	52.7	54.0	55.5	57.4	59.2	61.0	62.6	64.0	65.4	64.2	62.9	62.2	59.4	56.7	52.7	47.5	46.6	43.8	41.2	
W. Shields Ave - N. Hayes Avenue to N. P	CNEL	68.7	30.4	39.1	43.9	46.1	47.4	48.6	49.9	51.7	53.7	55.9	58.0	59.3	59.2	60.3	59.7	58.8	57.4	55.0	52.2	48.4	43.9	41.4	38.6	36.1	
W. Shields Ave - N. Bryan Avenue to N. H	CNEL	43.5	10.0	18.6	23.4	25.6	26.8	27.8	28.9	30.3	32.0	33.7	35.5	36.5	34.5	33.8	30.8	25.4	17.7	6.6	-3.8	-19.7	-33.9	-24.7	-27.7	-31.1	
W. Shields Ave - N. Grantland Ave to Bry	CNEL	35.6	4.1	12.7	17.4	19.6	20.7	21.6	22.5	23.5	24.8	26.2	27.6	28.3	25.7	24.5	20.6	14.2	4.6	-8.3	-33.0	-56.3	-82.5	-61.1	-64.2	-67.9	
W. Shields Ave - N. Cornelia Ave to N Bl	CNEL	44.6	11.2	19.9	24.6	26.8	28.0	29.1	30.2	31.6	33.2	34.9	36.6	37.4	35.7	34.9	32.0	26.7	19.2	8.0	-1.4	-17.7	-31.6	-22.7	-25.7	-29.2	
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	36.3	6.3	14.6	19.1	21.2	22.3	23.1	23.9	24.7	25.9	27.0	28.2	28.3	26.0	24.6	21.0	14.5	5.1	-7.5	-31.7	-54.0	-79.7	-58.6	-61.6	-65.5	
W. Shields Ave - N Brawley Ave to N. Val	CNEL	32.6	4.3	12.6	17.1	19.1	20.1	20.9	21.4	21.8	22.6	23.3	24.1	23.9	21.0	19.1	14.8	7.1	-4.0	-19.8	-49.0	-82.5		-87.2	-90.2	-93.7	
W. Shields Ave - N. Valentine Ave to N.	CNEL	27.7	1.2	9.4	13.9	15.9	16.9	17.5	17.8	17.5	17.8	18.1	18.4	17.5	13.2	10.7	5.0	-3.9	-16.7	-36.3	-69.4						
Shields Ave & Valentine Ave East	CNEL	22.1	-5.2	3.0	7.5	9.5	10.5	11.2	11.6	11.6	12.2	12.7	13.2	12.7	9.5	7.4	2.4	-6.1	-18.5	-37.2	-69.4						
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	42.9	12.5	20.8	25.4	27.5	28.7	29.9	31.2	33.3	33.9	34.4	35.4	34.9	29.9	24.9	21.8	13.3	7.6	2.6	0.1	-7.9	-20.0	-12.0	-15.2	-20.1	
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	37.8	7.4	15.7	20.2	22.4	23.6	24.8	26.1	28.1	28.7	29.2	30.3	29.9	25.0	20.4	17.0	8.6	2.4	-3.3	-5.9	-13.9	-25.8	-17.9	-21.1	-26.1	
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	31.2	1.8	10.1	14.6	16.7	17.9	19.0	20.2	22.0	22.3	22.6	23.4	22.6	17.1	12.2	6.3	-0.2	-8.2	-15.7	-23.2	-34.8	-52.3	-38.8	-42.1	-47.0	
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	24.2	-4.1	4.1	8.5	10.6	11.8	12.7	13.8	15.2	15.3	15.2	15.8	15.0	8.9	5.6	-4.9	-11.4	-21.0	-33.0	-46.4	-64.9	-92.4	-68.9	-72.1	-77.1	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	40.9	11.5	19.8	24.3	26.4	27.6	28.7	29.9	31.7	32.1	32.3	33.2	32.4	26.8	21.9	16.0	9.7	1.8	-5.7	-13.1	-24.6	-41.9	-28.6	-31.8	-36.7	
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	37.9	9.5	17.8	22.3	24.4	25.5	26.5	27.5	29.0	29.0	29.0	29.6	28.7	22.7	19.3	8.9	2.4	-7.1	-19.0	-32.2	-50.6	-77.8	-54.6	-57.8	-62.7	
W. Shaw Ave - N Garfield Avenue to N. Gr	CNEL	27.8	1.4	9.9	14.5	16.6	17.7	18.4	19.0	18.9	18.3	17.5	17.5	16.0	9.1	3.6	-12.2	-23.6	-38.7	-67.1	-88.5						
N. Grantland Ave - W. Barstow Ave to Sha	CNEL	26.5	1.8	9.6	13.9	15.9	16.8	17.6	18.1	17.9	16.7	15.4	15.1	13.3	6.1	0.4	-15.6	-27.2	-42.3	-70.0	-90.5						
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	27.4	1.8	9.7	14.0	15.9	16.8	17.3	17.7	17.6	17.9	18.1	18.3	17.3	10.5	5.6	-8.9	-18.5	-30.8	-50.5	-72.0						
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	25.8	-0.8	7.4	11.9	13.9	14.9	15.5	15.9	15.8	16.3	16.6	16.9	15.9	9.2	4.6	-10.1	-18.8	-31.2	-52.1	-74.6						
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	27.7	0.6	8.9	13.4	15.4	16.4	17.0	17.5	17.7	18.2	18.7	19.1	18.3	11.6	7.7	-5.9	-13.2	-24.5	-42.2	-65.4	-92.8		-97.3			
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	32.9	5.9	13.4	17.5	19.5	20.6	21.5	22.5	23.7	23.3	22.8	23.8	23.9	20.3	18.2	13.1	5.4	-6.1	-22.0	-49.3	-79.1		-82.9	-85.9	-90.1	
N. Polk Ave - North of W. Shaw Avenue	CNEL	20.9	-5.1	2.3	6.5	8.4	9.5	10.3	11.1	12.0	11.4	10.7	11.4	11.3	7.3	4.9	-0.8	-9.3	-22.2	-40.8	-71.4						
Bullard Ave - N Garfield to N. Grantland	CNEL	14.7	-9.5	-1.7	2.6	4.5	5.5	6.2	6.5	6.0	4.6	3.0	2.5	0.5	-7.1	-12.9	-29.4	-41.3	-57.6	-89.1							
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	19.4	-6.2	1.9	6.4	8.4	9.4	10.2	10.7	10.6	9.8	8.8	8.8	7.2	0.3	-5.9	-21.3	-35.4	-52.1	-76.3	-96.2						
N. Grantland Ave - W. Bullard Ave to Bar	CNEL	22.2	-2.0	5.9	10.1	12.1	13.0	13.7	14.1	13.5	12.1	10.5	10.0	7.9	0.3	-5.7	-22.3	-34.9	-51.5	-83.8							
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	30.0	2.5	10.7	15.2	17.3	18.3	19.0	19.6	20.0	20.7	21.3	21.8	21.1	14.7	10.3	-3.1	-11.0	-21.8	-37.1	-56.9	-80.8		-85.3	-88.5	-92.9	
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	34.8	6.0	14.3	18.8	20.9	22.0	22.8	23.6	24.4	25.4	26.3	27.2	26.6	20.7	15.7	3.7	-5.8	-15.2	-24.8	-35.9	-52.2	-76.1	-56.7	-59.9	-64.3	
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	31.0	2.5	11.1	15.7	17.9	19.0	19.9	20.8	22.0	22.0	21.9	22.6	21.7	15.7	10.7	-3.2	-13.5	-25.3	-39.8	-53.7	-79.2		-83.3	-86.7	-91.9	
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	29.8	1.6	9.8	14.3	16.4	17.4	18.2	18.9	19.6	20.4	21.2	21.9	21.3	15.1	11.2	-0.6	-6.9	-16.5	-29.2	-47.1	-66.1	-93.7	-70.6	-73.8	-78.2	
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	38.3	7.5	15.8	20.3	22.4	23.5	24.6	25.8	27.5	28.0	28.6	30.2	31.1	28.2	26.8	22.5	16.0	6.1	-6.7	-29.2	-47.3	-72.2	-51.3	-54.5	-59.3	
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	33.5	6.6	14.1	18.2	20.1	21.0	21.8	22.5	23.5	24.3	25.1	25.7	24.9	18.8	13.4	6.4	-0.6	-8.5	-16.5	-26.5	-37.9	-55.2	-42.0	-45.0	-49.1	
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	45.8	12.9	21.2	25.8	27.9	29.1	30.3	31.7	33.9	34.7	35.7	37.7	38.9	36.6	35.7	32.2	26.8	19.0	8.0	-0.7	-13.3	-25.2	-17.5	-20.6	-25.1	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	35.7	7.6	15.9	20.4	22.5	23.5	24.3	24.9	25.5	26.4	27.1	27.8	27.2	20.9	17.1	5.4	-1.0	-10.6	-23.4	-41.6	-60.7	-88.0	-65.1	-68.3	-72.7	
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	41.1	11.8	20.1	24.6	26.7	27.8	28.7	29.6	30.6	31.8	32.9	33.8	33.2	27.4	22.1	15.2	8.4	0.5	-7.9	-19.2	-31.0	-48.5	-35.5	-38.7	-43.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	36.4	8.7	16.6	21.0	23.0	24.1	25.1	26.1	27.7	27.5	27.3	27.8	26.9	20.9	16.6	5.7	-1.6	-10.7	-20.9	-31.7	-49.5	-76.1	-53.3	-56.4	-61.1	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	27.3	0.6	8.4	12.8	14.8	15.8	16.8	17.6	18.8	18.4	17.8	18.2	17.0	10.8	5.7	-8.0	-18.3	-29.7	-42.9	-55.7	-80.8		-84.7	-87.8	-92.5	
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	40.3	10.0	18.3	22.8	24.9	26.1	27.0	28.0	29.4	30.7	32.0	33.2	32.9	27.6	22.5	19.0	8.9	3.0	-3.8	-8.5	-17.6	-30.0	-22.2	-25.3	-29.6	
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	75.5	38.6	47.0	51.5	53.7	54.9	56.1	57.3	59.0	60.7	61.7	64.0	67.0	66.8	67.2	66.3	65.4	64.0	61.5	58.9	54.8	50.6	49.4	46.6	43.2	
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	44.8	14.4	22.8	27.3	29.4	30.5	31.5	32.5	33.9	35.3	36.6	37.7	37.5	32.2	27.1	23.9	13.9	7.8	1.1	-3.4	-12.5	-24.7	-17.0	-20.2	-24.5	
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	36.0	8.2	16.1	20.4	22.4	23.4	24.2	24.9	25.8	26.7	27.5	28.3	27.6	21.6	16.4	5.2	-4.7	-13.6	-22.3	-32.6	-48.3	-71.7	-52.6	-55.7	-60.0	
N Brawley Ave - N. Parkway Drive to W. D	CNEL	30.4	4.1	11.9	16.2	18.1	19.1	19.7	20.2	20.4	21.0	21.4	21.8	21.0	14.5	9.2	-4.9	-15.8	-28.3	-44.6	-60.0	-85.3		-89.6	-92.7	-97.1	
N Brawley Ave - W Shields Avenue to W. C	CNEL	32.3	5.8	13.6	17.9	19.9	20.8	21.5	22.0	22.4	23.0	23.5	23.9	23.1	16.8	11.7	-1.7	-11.4	-24.3	-40.2	-54.1	-78.0		-82.3	-85.4	-89.7	
W. Shields Ave - West of N. Grantland Av	CNEL	30.6	0.9	9.5	14.2	16.3	17.4	18.2	18.9	19.3	20.3	21.3	22.5	22.9	19.6	17.9	13.3	5.7	-5.7	-21.7	-51.2	-85.9		-91.0	-93.9	-97.2	
N. Grantland Ave - W Shields Avenue to W	CNEL	30.9	2.1	10.7	15.3	17.5	18.6	19.6	20.6	21.8	22.0	22.0	22.7	21.9	16.0	11.2	-1.7	-11.3	-23.5	-37.4	-49.3	-73.2		-77.4	-80.7	-85.9	
N. Bryan Ave - W Shields Avenue to W. Cl	CNEL	28.3	-0.5	7.7	12.2	14.3	15.4	16.2	17.0	18.0	19.0	20.0	20.8	20.3	14.4	9.4	-2.0	-10.3	-20.8	-30.6	-41.5	-57.5	-81.1	-62.0	-65.2	-69.5	
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	39.1	8.7	17.0	21.6	23.7	24.8	25.8	26.8	28.1	29.5	30.8	31.9	31.7	26.5	21.7	17.9	8.2	1.7	-5.6	-10.5	-19.7	-32.1	-24.3	-27.5	-31.7	
N. Polk Ave - W Shields Avenue to W. Cli	CNEL	68.0	31.4	39.8	44.3	46.5	47.8	49.0	50.4	52.4	53.7	55.4	57.6	58.8	58.6	59.4	58.8	57.8	56.4	54.2	51.9	48.5	44.4	42.4	39.6	36.3	
N. Cornelia Ave - W Shields Avenue to W.	CNEL	43.4	14.2	22.2	26.5	28.5	29.6	30.5	31.4	32.7	33.9	35.1	36.1	35.8	30.5	25.7	21.9	12.4	5.8	-1.4	-5.7	-14.6	-26.6	-18.9	-22.0	-26.1	
N. Blythe Ave - W Shields Avenue to W. C	CNEL	36.1	8.3	16.2	20.5	22.5	23.5	24.2	25.0	25.9	26.8	27.6	28.3	27.7	21.7	16.6	5.4	-3.0	-13.4	-22.9	-33.1	-48.8	-72.1	-53.1	-56.2	-60.5	
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	33.7	6.0	14.2	18.7	20.8	21.8	22.5	23.1	23.6	24.3	25.0	25.6	25.0	18.7	13.6	-0.3	-11.1	-23.0	-37.7	-52.9	-76.8		-81.2	-84.4	-88.9	
N. Valentine Ave - N. Parkway Drive to W	CNEL	24.5	-1.0	6.8	11.1	13.0	13.9	14.5	14.8	14.6	14.9	15.1	15.3	14.3	7.5	1.9	-12.8	-25.3	-39.4	-60.5	-78.2						

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Valentine Ave - W Shields Avenue to W	CNEL	24.1	-1.3	6.5	10.8	12.7	13.6	14.2	14.5	14.3	14.6	14.7	14.9	13.8	7.1	1.7	-12.9	-24.6	-39.2	-62.7	-79.2						
W. Clinton Ave - N Brawley Ave to N. Val	CNEL	34.3	7.0	15.3	19.7	21.8	22.9	23.8	24.6	25.6	25.3	24.9	25.3	24.2	17.7	14.2	1.6	-5.6	-16.8	-33.5	-52.2	-78.6		-82.6	-85.8	-90.8	
W. Clinton Ave - N. Valentine Ave to N.	CNEL	31.7	5.5	13.7	18.2	20.2	21.2	22.0	22.7	23.1	22.5	21.7	21.8	20.4	13.5	9.6	-4.5	-12.7	-25.8	-48.2	-71.0						
N. Marks Ave - W Princeton Avenue to W.	CNEL	25.5	1.0	8.9	13.1	15.0	15.9	16.3	16.5	15.6	15.5	15.3	15.2	13.8	6.6	0.6	-14.8	-28.4	-44.8	-73.2	-94.2						
N. Marks Ave - W Princeton Avenue to W.	CNEL	22.8	-1.8	6.0	10.3	12.2	13.1	13.5	13.7	12.9	12.9	12.7	12.7	11.2	4.1	-1.4	-16.9	-28.9	-45.0	-76.7	-94.5						
W. Clinton Ave - N. Marks Avenue to SR99	CNEL	30.1	4.6	12.8	17.2	19.3	20.3	21.0	21.5	21.3	20.4	19.3	19.1	17.4	10.1	5.9	-8.5	-17.9	-32.7	-59.6	-87.5						
Bullard Ave - N. Grantland Ave to N. Bry	CNEL	17.3	-8.0	0.2	4.6	6.6	7.6	8.4	8.8	8.5	7.6	6.4	6.2	4.5	-2.6	-9.0	-24.6	-39.3	-56.7	-82.6							
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	26.3	0.9	8.7	13.0	15.0	16.0	16.8	17.4	17.8	16.9	15.9	15.8	14.3	7.5	1.9	-13.5	-25.7	-40.2	-61.2	-77.9						
N. Grantland Ave - W. Dakota Avenue to W	CNEL	32.2	3.3	11.9	16.6	18.7	19.9	20.8	21.8	23.1	23.2	23.3	24.0	23.2	17.3	12.5	-1.0	-11.2	-22.4	-35.1	-47.8	-71.4		-75.6	-78.9	-84.1	
Receive 9 FI G LrD,lir dB(A) LrC 77.5 dB(A)																											
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	16.6	-8.2	-0.4	3.9	5.8	6.8	7.5	8.1	8.0	6.9	5.6	5.4	3.6	-3.6	-9.1	-25.1	-36.3	-51.2	-78.8	-98.9						
SR99 - W. Shields Avenue to W. Clinton A	CNEL	47.8	16.9	26.2	31.0	33.2	34.5	35.9	37.4	39.6	39.5	38.6	39.5	38.2	32.9	28.0	13.7	3.3	-9.1	-23.8	-38.1	-66.6		-71.0	-74.7	-80.7	
SR99 - W. Dakota Avenue to W. Shields Av	CNEL	57.0	24.6	33.9	38.7	41.0	42.4	43.9	45.7	48.5	48.7	48.3	49.5	48.5	43.6	39.4	29.1	20.8	11.8	2.8	-7.2	-25.0	-51.3	-29.4	-33.1	-39.1	
SR99 - W. Shields Avenue to W. Clinton A	CNEL	53.4	21.6	30.9	35.7	38.0	39.3	40.7	42.4	44.9	45.0	44.3	45.5	44.7	40.1	37.3	28.6	20.9	8.3	-7.6	-21.5	-46.7	-79.6	-51.1	-54.7	-60.8	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	54.8	22.1	31.4	36.2	38.5	39.8	41.4	43.2	46.1	46.4	46.1	47.4	46.4	41.6	37.6	29.0	21.6	12.8	4.0	-5.4	-22.0	-46.6	-26.4	-30.0	-36.1	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	57.1	24.3	33.6	38.4	40.7	42.1	43.6	45.5	48.4	48.8	48.5	49.8	48.8	44.1	39.5	31.2	23.3	15.0	7.5	-0.8	-16.5	-39.6	-20.9	-24.5	-30.6	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	55.9	24.0	33.3	38.1	40.4	41.7	43.2	44.9	47.4	47.5	47.0	48.1	47.2	42.4	38.3	28.5	19.9	7.6	-3.9	-12.8	-32.6	-60.5	-37.0	-40.6	-46.7	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	52.6	19.9	29.2	34.0	36.3	37.7	39.2	41.0	43.9	44.2	43.8	45.1	44.1	39.2	35.6	26.9	19.7	10.8	1.4	-8.6	-25.4	-50.4	-29.8	-33.5	-39.5	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	45.9	15.7	25.0	29.8	32.0	33.2	34.6	36.0	37.9	37.6	36.5	37.2	35.8	30.2	25.3	10.1	0.4	-12.6	-31.6	-48.2	-80.4		-84.9	-88.5	-94.6	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	26.6	-1.4	6.5	10.8	12.8	13.8	14.6	15.4	16.4	17.4	18.2	19.0	18.3	12.3	6.7	-1.7	-10.1	-18.4	-26.9	-37.7	-51.8	-72.9	-56.1	-59.1	-63.4	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	25.9	-2.0	5.9	10.2	12.2	13.2	14.0	14.7	15.6	16.6	17.4	18.2	17.5	11.4	6.4	-3.4	-11.4	-20.1	-29.5	-41.3	-56.6	-79.4	-60.8	-63.9	-68.2	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	20.9	-6.8	1.1	5.4	7.4	8.4	9.1	9.9	10.7	11.7	12.5	13.2	12.5	6.4	1.6	-9.2	-17.0	-25.9	-35.9	-48.3	-64.4	-88.5	-68.7	-71.8	-76.1	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	23.9	-3.8	4.1	8.4	10.4	11.4	12.1	12.9	13.7	14.6	15.4	16.1	15.4	9.4	4.3	-7.6	-17.0	-26.2	-35.6	-46.7	-63.2	-88.1	-67.5	-70.6	-74.9	
SR99 - W. Herndon Avenue to W. Shaw Ave	CNEL	47.5	18.6	27.8	32.6	34.8	36.0	37.2	38.5	39.8	39.0	37.5	38.0	36.2	30.1	25.3	10.2	0.6	-13.6	-37.8	-58.9	-96.2					
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	54.4	21.5	30.9	35.7	38.0	39.3	40.9	42.7	45.7	46.0	45.8	47.1	46.2	41.4	36.4	27.0	17.5	9.7	3.8	-3.8	-19.5	-42.7	-23.9	-27.5	-33.6	
	CNEL	25.3	-4.7	3.9	8.6	10.7	11.9	13.0	14.2	15.9	16.3	16.7	17.6	17.0	11.3	6.7	-4.5	-12.9	-21.7	-30.0	-39.1	-55.5	-80.4	-59.7	-63.0	-68.2	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	29.1	2.7	11.3	15.9	18.0	19.0	19.8	20.3	20.3	19.6	18.8	18.8	17.3	10.4	4.8	-11.0	-22.8	-38.1	-66.7	-87.4						
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	31.2	4.2	12.7	17.3	19.5	20.5	21.3	22.0	22.3	21.9	21.3	21.5	20.2	13.5	8.5	-6.6	-16.6	-30.4	-54.9	-75.9						
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	25.3	0.6	8.0	12.2	14.1	15.1	15.9	16.6	17.0	15.9	14.6	14.5	12.8	6.0	0.2	-15.0	-27.6	-42.2	-61.2	-77.0						
W. Shaw Ave - N. Grantland Ave to N.	CNEL	25.6	-0.2	8.3	12.9	15.0	16.0	16.7	17.2	16.6	15.8	14.8	14.6	12.8	5.6	-0.3	-16.7	-29.2	-45.7	-78.9							
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	28.7	1.0	9.5	14.1	16.3	17.4	18.2	19.0	19.8	19.6	19.3	19.7	18.6	12.2	7.7	-7.0	-15.8	-28.2	-47.6	-65.6	-95.4		-99.6			
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	29.9	1.2	9.8	14.4	16.6	17.7	18.7	19.6	20.9	21.0	20.9	21.6	20.8	14.7	10.6	-2.3	-10.1	-20.8	-35.1	-50.6	-74.2		-78.3	-81.7	-86.9	
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	37.1	8.5	16.7	21.2	23.4	24.5	25.5	26.6	28.1	28.2	28.2	28.9	28.1	22.2	18.0	7.0	-0.2	-9.5	-20.3	-31.8	-49.8	-76.7	-53.8	-57.0	-61.9	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	CNEL	43.2	14.1	22.4	26.9	29.1	30.2	31.3	32.4	34.1	34.4	34.5	35.3	34.6	29.0	24.0	13.8	4.9	-5.1	-12.3	-19.6	-34.7	-57.8	-38.7	-41.9	-46.9	
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	21.7	-2.8	4.6	8.8	10.7	11.7	12.5	13.1	13.5	12.3	10.9	10.7	9.0	2.0	-3.3	-18.9	-29.4	-43.0	-64.5	-82.0						
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	25.3	-0.7	7.1	11.4	13.4	14.5	15.3	16.1	16.8	16.2	15.4	15.6	14.2	7.7	2.8	-11.7	-21.1	-33.4	-51.1	-67.6	-97.1					
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	21.6	-4.9	3.0	7.3	9.3	10.3	11.2	12.0	13.0	12.6	11.9	12.2	11.0	4.7	-0.6	-14.7	-25.9	-38.3	-52.1	-65.3	-92.2		-96.0	-99.2		
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	26.1	-0.7	7.8	12.4	14.5	15.6	16.4	17.0	17.2	16.7	16.1	16.2	14.9	8.1	3.0	-12.6	-23.0	-37.2	-63.1	-83.2						
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	41.7	13.5	21.4	25.8	27.8	29.0	30.0	31.1	32.8	32.9	32.8	33.4	32.5	26.8	21.5	11.2	1.5	-6.4	-12.1	-19.0	-34.0	-56.9	-37.9	-41.0	-45.7	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	29.1	2.1	9.9	14.3	16.2	17.2	17.9	18.5	19.1	19.8	20.4	21.0	20.3	13.9	9.9	-1.9	-8.3	-17.8	-30.4	-47.8	-66.7	-94.3	-71.0	-74.1	-78.4	
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	38.0	9.8	17.7	22.1	24.1	25.1	25.9	26.7	27.7	28.7	29.6	30.4	29.7	23.8	18.5	11.9	5.0	-3.0	-11.4	-22.8	-34.5	-52.1	-38.8	-41.8	-46.0	
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	42.2	13.0	21.0	25.3	27.3	28.4	29.3	30.2	31.5	32.7	33.9	34.9	34.6	29.3	24.5	20.8	11.1	4.7	-2.4	-6.7	-15.6	-27.5	-19.9	-22.9	-27.1	
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	40.9	11.8	19.7	24.1	26.1	27.1	28.0	29.0	30.2	31.5	32.6	33.6	33.3	27.9	22.7	19.3	9.3	3.4	-3.0	-7.2	-15.9	-28.0	-20.2	-23.3	-27.5	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	32.7	4.4	12.3	16.6	18.6	19.6	20.5	21.3	22.4	23.5	24.4	25.2	24.5	18.7	13.1	7.2	0.6	-7.2	-15.2	-25.8	-37.2	-54.5	-41.5	-44.6	-48.8	
W. Shields Ave - N. Polk Avenue to N. Co	CNEL	43.9	10.2	18.8	23.6	25.8	27.0	28.0	29.1	30.6	32.2	34.0	35.9	37.1	35.0	34.3	31.1	25.7	17.9	6.8	-4.0	-20.0	-34.3	-25.0	-28.0	-31.3	
W. Shields Ave - N. Hayes Avenue to N. P	CNEL	36.1	4.7	13.4	18.1	20.3	21.4	22.3	23.2	24.1	25.4	26.8	28.2	28.7	26.3	25.0	21.2	14.8	5.2	-7.7	-32.4	-55.8	-82.1	-60.6	-63.7	-67.4	
W. Shields Ave - N. Bryan Avenue to N. H	CNEL	31.6	2.1	10.7	15.4	17.5	18.6	19.4	20.0	20.5	21.4	22.4	23.4	23.5	20.5	18.8	14.3	6.6	-4.7	-20.7	-50.2	-84.7		-89.7	-92.7	-96.1	
W. Shields Ave - N. Grantland Ave to Bry	CNEL	26.8	-1.3	7.3	11.9	14.1	15.1	15.8	16.3	16.1	16.7	17.3	18.0	17.9	14.2	12.0	6.5	-2.4	-15.6	-35.5	-68.9						
W. Shields Ave - N. Cornelia Ave to N BI	CNEL	69.9	31.6	40.4	45.1	47.4	48.7	49.9	51.2	53.0	55.0	57.2	59.4	60.7	60.5	61.5	61.0	60.1	58.7	56.2	53.4	49.6	45.1	42.6	39.9	37.3	
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	73.4	36.6	44.9	49.5	51.6	52.8	53.9	55.0	56.3	58.0	59.6	61.6	64.1	64.8	65.7	64.2	63.6	62.2	59.8	56.8	52.7	47.4	47.0	44.3	41.6	
W. Shields Ave - N Brawley Ave to N. Val	CNEL	44.8	12.3	20.6	25.2	27.3	28.4	29.4	30.4	31.8	33.3	35.0	36.8	38.0	35.7	34.9	31.6	26.3	18.7	7.5	-1.8	-18.1	-31.8	-22.9	-25.8	-29.2	
W. Shields Ave - N. Valentine Ave to N.	CNEL	36.5	6.7	14.9	19.5	21.5	22.6	23.4	24.2	25.0	26.1	27.3	28.5	29.0	25.5	24.0	19.7	13.4	3.7	-9.0	-33.3	-56.7	-83.9	-61.3	-64.3	-68.1	
Shields Ave & Valentine Ave East	CNEL	32.0	0.8	9.1	13.7	15.8	16.9	17.7	18.6	19.7	21.0	22.5	24.1	25.0	22.3	21.1	17.3	11.2	2.0	-9.9	-33.6	-54.7	-79.1	-59.3	-62.3	-66.0	
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	38.0	8.6	16.9	21.4	23.6	24.7	25.8	27.0	28.8	29.2	29.4	30.3	29.5	23.9	19.0	13.1	6.6	-1.3	-8.8	-16.4	-28.0	-45.5	-32.0	-35.2	-40.1	
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	28.4	0.0	8.2	12.7	14.8	16.0	16.9	18.0	19.4	19.5	19.4	20.0	19.2	13.1	9.8	-0.5	-6.9	-16.4	-28.5	-42.2	-60.7	-88.2	-64.7	-67.9	-72.9	
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	22.7	-4.5	3.7	8.2	10.3	11.3	12.2	13.1	14.0	13.7	13.3	13.7	12.6	6.1	2.7	-9.9	-17.0	-28.2	-45.1	-64.0	-90.4		-94.4	-97.6		
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	17.2	-9.0	-0.8	3.6	5.7	6.7	7.5	8.1	8.5	7.9	7.1	7.1	5.7	-1.2	-5.0	-19.0	-27.2	-40.3	-62.8	-86.1						
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	45.7	15.3	23.6	28.1	30.2	31.5	32.6	33.9	36.0	36.6	37.1	38.2	37.8	32.8	28.2	24.9	16.4	10.2	4.6	2.1	-5.9	-17.8	-9.9	-13.2	-18.1	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	47.3	17.0	25.3	29.8	32.0	33.2	34.3	35.7	37.7	38.3	38.8	39.9	39.4	34.4	29.5	26.4	17.8	12.1	7.1	4.7	-3.3	-15.3	-7.3	-10.5	-15.4	
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	22.6	-1.4	6.4	10.6	12.5	13.3	13.8	13.8	12.5	12.3	11.9	11.5	9.9	2.3	-3.3	-19.3	-30.9	-46.4	-77.2							
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	21.9	-3.3	4.9	9.3	11.3	12.2	12.7	12.9	11.9	11.9	11.7	11.7	10.3	3.0	-2.6	-18.5	-30.4	-45.7	-76.9							
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	24.4	-1.5	6.7	11.2	13.1	14.1	14.7	15.0	14.5	14.7	14.8	14.9	13.8	6.7	1.8	-13.6	-23.8	-37.5	-63.6	-86.4						
N. Polk Ave - W. Shaw Avenue to W. Gett	CNEL	29.7	4.6	12.1	16.2	18.2	19.2	20.0	20.8	21.5	20.5	19.3	19.3	17.8	11.0	6.3	-8.5	-17.1	-29.3	-47.4	-63.8	-93.4		-97.1			
N. Polk Ave - North of W. Shaw Avenue	CNEL	18.5	-6.1	1.4	5.5	7.4	8.4	9.2	9.9	10.2	9.1	7.7	7.5	5.7	-1.3	-6.2	-21.6	-30.9	-44.3	-67.4	-85.7						
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	14.7	-10.4	-2.2	2.2	4.2	5.2	5.9	6.3	5.8	4.8	3.5	3.2	1.3	-5.9	-12.5	-28.4	-43.5	-61.4	-88.5							
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	24.7	-1.0	7.2	11.6	13.6	14.6	15.1	15.4	14.8	15.0	15.0	15.2	14.0	6.9	1.9	-13.3	-23.4	-37.2	-63.2	-88.1						
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	27.0	0.6	8.8	13.3	15.3	16.3	16.9	17.3	17.1	17.4	17.7	18.0	17.1	10.3	4.8	-9.9	-22.5	-37.0	-59.7	-78.0						
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	25.0	-1.5	7.1	11.7	13.8	14.8	15.6	16.2	16.1	15.5	14.7	14.8	13.4	6.5	0.5	-15.0	-28.7	-44.8	-70.7	-91.3						
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	24.8	-1.9	6.3	10.8	12.8	13.8	14.4	14.9	14.8	15.3	15.6	16.0	15.1	8.4	3.6	-10.9	-20.2	-32.6	-52.7	-74.9						
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	32.9	5.1	13.4	17.9	19.9	21.0	22.0	22.9	24.1	24.0	23.7	24.2	23.3	17.1	12.7	-0.2	-8.4	-19.1	-32.9	-47.3	-70.6		-74.6	-77.8	-82.7	
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	25.9	0.9	8.3	12.4	14.2	15.0	15.6	16.0	16.1	16.5	16.7	17.0	15.9	9.2	4.5	-8.8	-17.1	-28.3	-44.5	-64.6	-90.5		-94.5	-97.5		
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	36.4	7.9	16.1	20.6	22.7	23.8	24.9	25.9	27.4	27.6	27.5	28.3	27.4	21.6	17.2	5.9	-1.6	-11.0	-21.4	-32.5	-50.6	-77.5	-54.6	-57.8	-62.7	
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	35.7	7.6	15.8	20.4	22.4	23.4	24.2	24.9	25.5	26.3	27.0	27.7	27.1	20.8	16.9	5.2	-1.1	-10.8	-23.7	-42.0	-61.2	-88.7	-65.7	-68.9	-73.3	
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	41.0	11.7	20.0	24.5	26.6	27.7	28.6	29.4	30.5	31.7	32.7	33.6	33.1	27.3	22.0	15.2	8.2	0.1	-8.3	-19.9	-31.8	-49.5	-36.3	-39.5	-43.7	
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	44.7	13.7	21.6	26.0	28.1	29.3	30.4	31.7	33.8	34.3	34.9	36.4	37.0	35.0	34.1	30.8	25.4	17.9	7.2	-0.6	-11.5	-23.6	-15.4	-18.5	-23.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	32.7	4.6	12.5	16.8	18.9	20.0	21.1	22.2	23.9	23.9	23.8	24.4	23.5	17.8	12.6	1.8	-8.0	-16.0	-21.9	-29.2	-44.6	-68.2	-48.5	-51.6	-56.3	
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	28.9	1.2	9.4	13.9	16.0	17.0	17.7	18.3	18.8	19.5	20.2	20.8	20.1	13.9	8.8	-5.1	-15.9	-27.9	-42.9	-58.1	-82.1		-86.5	-89.7	-94.2	

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	37.9	8.9	17.1	21.6	23.8	24.9	26.0	27.1	28.8	29.1	29.2	30.0	29.2	23.6	18.5	7.7	-2.0	-10.4	-16.9	-24.5	-40.0	-63.4	-44.0	-47.2	-52.2	
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	44.5	14.2	22.6	27.1	29.2	30.4	31.3	32.3	33.7	35.0	36.3	37.4	37.2	31.9	26.7	23.1	13.1	7.1	0.4	-4.3	-13.5	-25.9	-18.1	-21.2	-25.5	
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	71.9	36.6	44.6	49.0	51.0	52.1	53.1	54.1	55.4	57.0	58.5	60.2	62.3	63.1	64.1	62.6	61.7	60.6	58.1	55.4	51.5	46.4	46.1	43.4	40.7	
N Brawley Ave - N. Parkway Drive to W. D	CNEL	38.4	10.1	18.0	22.4	24.3	25.4	26.2	27.0	28.1	29.1	30.0	30.8	30.2	24.3	18.8	12.8	6.1	-1.7	-10.0	-21.2	-32.7	-50.2	-37.0	-40.1	-44.3	
N Brawley Ave - W Shields Avenue to W. C	CNEL	43.7	14.5	22.5	26.8	28.8	29.9	30.8	31.7	33.0	34.2	35.4	36.4	36.1	30.8	26.0	22.4	12.6	6.2	-0.8	-5.1	-13.9	-25.8	-18.2	-21.3	-25.4	
W. Shields Ave - West of N. Grantland Av	CNEL	23.5	-3.4	5.2	9.8	11.9	12.9	13.5	13.8	13.1	13.4	13.6	13.9	13.5	9.2	6.5	0.2	-10.0	-25.2	-48.8	-86.3						
N. Grantland Ave - W Shields Avenue to W	CNEL	24.3	-2.3	6.2	10.8	12.9	13.9	14.7	15.3	15.4	14.9	14.2	14.2	12.8	6.1	0.5	-15.0	-27.6	-43.8	-72.8	-89.0						
N. Bryan Ave - W Shields Avenue to W. Cl	CNEL	20.0	-6.4	1.8	6.2	8.2	9.2	9.8	10.2	10.1	10.5	10.8	11.1	10.1	3.5	-1.8	-16.2	-27.5	-42.4	-66.4	-83.8						
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	27.7	0.1	8.3	12.8	14.8	15.9	16.6	17.2	17.6	18.4	19.0	19.6	18.9	12.7	7.6	-5.7	-15.4	-28.4	-44.8	-59.4	-83.7		-88.2	-91.3	-95.8	
N. Polk Ave - W Shields Avenue to W. Cli	CNEL	36.7	7.7	15.9	20.4	22.6	23.7	24.8	25.9	27.6	27.9	28.0	28.8	28.0	22.5	17.6	7.2	-1.5	-11.8	-19.2	-26.6	-41.8	-65.1	-45.8	-49.0	-53.9	
N. Cornelia Ave - W Shields Avenue to W.	CNEL	43.4	14.2	22.2	26.5	28.5	29.6	30.5	31.4	32.7	33.9	35.0	36.1	35.8	30.4	25.7	21.8	12.2	5.7	-1.5	-5.9	-14.9	-27.0	-19.2	-22.2	-26.4	
N. Blythe Ave - W Shields Avenue to W. C	CNEL	67.4	32.2	40.1	44.5	46.6	47.7	48.8	49.9	51.5	53.3	55.2	57.1	58.2	57.8	58.6	58.0	57.0	55.7	53.5	50.9	47.5	43.3	41.1	38.5	35.7	
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	45.2	14.8	23.1	27.7	29.8	30.9	31.9	32.9	34.2	35.6	36.9	38.1	37.8	32.6	27.5	24.2	14.2	8.2	1.4	-3.1	-12.2	-24.4	-16.7	-19.9	-24.2	
N. Valentine Ave - N. Parkway Drive to W	CNEL	32.8	5.0	12.9	17.2	19.2	20.2	21.0	21.7	22.6	23.6	24.4	25.1	24.5	18.5	13.2	2.2	-7.7	-16.5	-25.0	-35.0	-50.6	-73.8	-54.8	-57.9	-62.2	
N. Valentine Ave - W Shields Avenue to W	CNEL	32.4	4.6	12.5	16.9	18.8	19.8	20.6	21.3	22.2	23.1	24.0	24.7	24.0	18.0	12.9	1.7	-6.9	-17.1	-26.4	-36.7	-52.4	-75.5	-56.6	-59.7	-64.0	
W. Clinton Ave - N Brawley Ave to N. Val	CNEL	42.8	13.4	21.7	26.2	28.3	29.5	30.6	31.8	33.6	34.0	34.2	35.1	34.3	28.7	23.8	17.9	11.6	3.7	-3.7	-11.0	-22.4	-39.7	-26.4	-29.7	-34.6	
W. Clinton Ave - N. Valentine Ave to N.	CNEL	38.8	10.4	18.6	23.1	25.2	26.4	27.4	28.4	29.8	29.9	29.9	30.5	29.6	23.6	20.2	9.6	3.2	-6.3	-18.1	-31.1	-49.3	-76.3	-53.3	-56.5	-61.5	
N. Marks Ave - W Princeton Avenue to W.	CNEL	32.1	5.5	13.3	17.7	19.6	20.5	21.2	21.7	22.1	22.7	23.2	23.7	22.9	16.5	11.3	-2.5	-13.1	-25.2	-40.4	-54.8	-78.6		-82.9	-86.0	-90.3	
N. Marks Ave - W Princeton Avenue to W.	CNEL	29.7	2.9	10.8	15.1	17.0	18.0	18.7	19.2	19.7	20.3	20.9	21.4	20.6	14.3	9.4	-4.1	-13.0	-24.9	-39.7	-54.0	-76.9		-81.1	-84.2	-88.6	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz		
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)		
W. Clinton Ave - N. Marks Avenue to SR99	CNEL	36.1	8.6	16.9	21.3	23.4	24.5	25.4	26.3	27.3	27.1	26.7	27.2	26.1	19.7	16.4	4.2	-2.8	-13.8	-30.2	-49.0	-75.0			-79.0	-82.2	-87.2	
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	19.8	-4.5	3.3	7.6	9.6	10.5	11.2	11.6	11.0	9.7	8.1	7.6	5.6	-1.8	-8.5	-24.5	-39.6	-57.4	-84.3								
N. Grantland Ave - W. Dakota Avenue to W	CNEL	25.5	-1.1	7.4	12.0	14.1	15.2	16.0	16.6	16.6	16.1	15.4	15.6	14.2	7.4	1.5	-13.9	-27.4	-43.1	-67.7	-87.8							
Receive	10	FI	G	LrD,lim	dB(A)	LrC	69.7	dB(A)																				
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	20.0	-5.9	1.9	6.3	8.2	9.3	10.1	10.8	11.5	10.9	10.0	10.1	8.7	2.3	-3.0	-17.5	-28.0	-42.8	-63.2	-75.7							
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	40.6	12.6	21.8	26.6	28.8	29.9	31.1	32.2	32.8	31.7	29.8	29.9	27.7	21.2	15.4	-1.0	-13.0	-29.8	-60.7	-87.3							
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	43.1	14.8	24.0	28.8	31.0	32.2	33.3	34.5	35.3	34.3	32.6	32.8	30.7	24.4	18.3	2.0	-10.9	-27.5	-56.1	-79.4							
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	47.6	18.7	28.0	32.7	34.9	36.1	37.4	38.6	39.8	39.0	37.5	37.9	36.0	30.0	23.9	8.3	-5.0	-20.9	-45.3	-66.5							
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	40.4	11.8	21.0	25.8	28.0	29.2	30.4	31.6	32.7	31.9	30.2	30.5	28.6	22.4	17.4	2.2	-8.1	-23.3	-50.5	-75.7							
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	42.0	13.3	22.5	27.3	29.5	30.7	31.9	33.1	34.2	33.4	31.9	32.2	30.3	24.3	18.0	2.3	-11.9	-28.6	-52.2	-74.0							
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	12.0	-11.8	-4.0	0.2	2.1	2.9	3.3	3.3	1.9	1.5	1.0	0.6	-1.2	-9.0	-14.8	-31.3	-43.4	-59.7	-95.8								
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	11.7	-11.9	-4.2	0.1	2.0	2.8	3.2	3.1	1.6	1.1	0.5	0.1	-1.7	-9.5	-15.8	-32.3	-46.0	-63.2									
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	7.1	-16.5	-8.7	-4.4	-2.6	-1.7	-1.4	-1.4	-3.1	-3.5	-4.2	-4.6	-6.5	-14.3	-20.8	-37.3	-51.4	-68.8									
SR99 - W. Herndon Avenue to W. Shaw Aven	CNEL	45.2	16.9	26.1	30.9	33.1	34.3	35.5	36.6	37.4	36.5	34.8	35.0	32.9	26.7	20.7	4.9	-7.2	-23.1	-50.7	-75.9							
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	41.1	12.5	21.8	26.5	28.7	29.9	31.1	32.3	33.3	32.5	30.8	31.1	29.2	23.1	16.7	1.0	-13.5	-30.5	-54.9	-77.3							
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	29.9	3.2	11.8	16.4	18.5	19.5	20.3	20.9	21.0	20.5	19.8	20.0	18.6	11.9	5.8	-9.4	-23.5	-39.4	-62.3	-83.2							
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	29.8	3.3	11.8	16.4	18.5	19.6	20.3	20.9	20.9	20.3	19.5	19.6	18.2	11.3	5.2	-10.2	-24.3	-40.7	-64.9	-86.3							
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	22.7	-1.2	6.2	10.3	12.2	13.2	13.9	14.4	14.2	12.8	11.1	10.6	8.5	1.1	-4.1	-19.8	-30.0	-44.8	-72.1	-95.6							
W. Shaw Ave - N. Grantland Ave to N.	CNEL	29.2	2.5	11.0	15.6	17.8	18.8	19.6	20.2	20.3	19.8	19.1	19.2	17.8	11.0	5.3	-10.0	-23.1	-39.5	-66.4	-83.8							

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	32.3	3.4	12.0	16.6	18.8	19.9	20.9	21.9	23.2	23.3	23.4	24.1	23.4	17.5	12.4	-0.9	-12.0	-23.3	-35.2	-47.6	-71.1		-75.3	-78.6	-83.8	
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	29.3	0.8	9.4	14.0	16.1	17.3	18.2	19.1	20.3	20.3	20.2	20.9	20.0	13.9	9.5	-3.4	-11.9	-22.9	-38.3	-55.1	-80.7		-84.8	-88.1	-93.3	
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	31.5	4.6	12.8	17.2	19.3	20.4	21.2	22.0	22.8	22.4	21.9	22.3	21.1	14.7	9.8	-4.5	-13.9	-26.1	-44.0	-61.3	-90.6		-94.6	-97.8		
W. Ashlan Ave - N. Cornelia Ave to N. Bl	CNEL	33.3	7.1	15.3	19.8	21.8	22.8	23.6	24.3	24.7	24.1	23.3	23.4	22.0	15.3	10.1	-5.3	-15.6	-29.3	-52.2	-70.9						
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	23.4	-1.6	5.8	9.9	11.9	12.9	13.8	14.5	15.2	14.2	13.0	13.0	11.5	4.9	-0.8	-15.5	-28.1	-41.5	-56.9	-72.4						
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	24.1	-1.5	6.3	10.6	12.6	13.6	14.4	15.1	15.6	14.9	14.0	14.0	12.6	6.0	0.3	-14.7	-27.3	-41.4	-59.4	-76.0						
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	18.0	-7.3	0.5	4.8	6.8	7.8	8.5	9.2	9.5	8.6	7.5	7.5	5.9	-1.1	-5.7	-20.8	-29.8	-43.2	-66.8	-87.3						
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	32.4	3.5	12.1	16.8	18.9	20.1	21.0	22.0	23.3	23.4	23.5	24.2	23.4	17.5	12.6	-0.3	-10.6	-23.1	-36.3	-47.7	-71.5		-75.6	-79.0	-84.2	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	29.9	5.1	12.9	17.2	19.1	20.1	20.9	21.4	21.3	20.2	18.9	18.7	16.9	9.7	4.3	-11.6	-22.4	-37.2	-64.6	-85.5						
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	30.0	2.7	10.6	14.9	16.8	17.8	18.5	19.2	19.9	20.7	21.3	22.0	21.3	15.0	10.7	-0.9	-7.7	-17.1	-29.0	-45.1	-63.6	-90.5	-67.8	-70.9	-75.2	
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	31.1	4.7	12.5	16.9	18.8	19.7	20.4	20.9	21.2	21.7	22.2	22.7	21.8	15.3	10.8	-2.7	-10.6	-21.3	-36.3	-55.4	-79.0		-83.3	-86.4	-90.7	
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	27.4	1.9	9.7	14.0	15.9	16.8	17.3	17.7	17.5	17.8	17.9	18.2	17.1	10.2	5.5	-9.4	-18.4	-30.8	-51.5	-72.8						
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	23.4	-1.3	6.6	10.8	12.7	13.6	14.0	14.2	13.5	13.4	13.3	13.2	11.9	4.6	-0.7	-16.4	-27.0	-41.2	-69.5	-91.5						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	17.1	-6.9	0.9	5.2	7.0	7.9	8.3	8.3	7.1	6.8	6.4	6.1	4.5	-3.2	-8.8	-25.1	-36.7	-52.3	-87.1							
W. Shields Ave - N. Polk Avenue to N. Co	CNEL	34.2	4.8	13.4	18.1	20.3	21.4	22.2	23.0	23.8	24.8	25.7	26.6	26.1	20.0	16.2	4.5	-1.8	-11.4	-24.1	-42.6	-61.8	-89.5	-66.6	-69.8	-74.3	
W. Shields Ave - N. Hayes Avenue to N. P	CNEL	38.3	7.8	16.4	21.2	23.3	24.5	25.5	26.4	27.6	28.9	30.1	31.1	30.7	25.0	19.8	13.0	6.1	-1.9	-10.4	-22.4	-34.4	-52.1	-39.1	-42.4	-46.7	
W. Shields Ave - N. Bryan Avenue to N. H	CNEL	43.6	12.1	20.7	25.5	27.7	28.9	29.9	31.0	32.5	34.0	35.4	36.7	36.6	31.4	26.4	23.1	13.1	7.1	0.1	-4.8	-14.2	-26.6	-19.0	-22.2	-26.5	
W. Shields Ave - N. Grantland Ave to Bry	CNEL	42.5	10.9	19.6	24.3	26.6	27.8	28.8	29.9	31.3	32.8	34.3	35.6	35.5	30.4	25.8	22.2	12.4	5.9	-1.5	-6.5	-16.1	-28.4	-20.9	-24.1	-28.3	
W. Shields Ave - N. Cornelia Ave to N Bl	CNEL	31.1	2.9	11.5	16.2	18.3	19.4	20.1	20.7	20.9	21.7	22.2	22.8	22.1	15.6	11.7	-2.0	-9.3	-20.6	-38.3	-61.7	-89.1		-93.8	-97.1		

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	26.7	0.8	9.0	13.4	15.4	16.4	17.0	17.3	16.8	17.0	17.1	17.3	16.2	9.1	4.6	-10.4	-19.2	-32.3	-56.5	-82.0						
W. Shields Ave - N Brawley Ave to N. Val	CNEL	25.1	0.1	8.3	12.8	14.8	15.7	16.1	16.3	15.1	15.0	14.8	14.6	13.2	5.6	0.5	-15.4	-25.8	-40.8	-71.0	-98.9						
Shields Ave & Valentine Ave East	CNEL	15.6	-8.9	-0.7	3.7	5.7	6.6	7.0	7.1	5.5	5.2	4.7	4.4	2.7	-5.2	-10.8	-27.2	-38.8	-55.2	-89.0							
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	36.7	5.9	14.1	18.6	20.8	21.9	23.0	24.1	25.9	26.4	26.9	28.6	29.5	26.6	25.2	20.9	14.4	4.5	-8.3	-30.8	-49.0	-74.0	-53.0	-56.2	-61.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	38.5	5.7	14.0	18.5	20.7	21.9	23.1	24.4	26.6	27.5	28.4	30.4	31.7	29.3	28.5	25.0	19.6	11.8	0.8	-7.8	-20.4	-32.3	-24.6	-27.7	-32.2	
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	66.7	29.9	38.2	42.8	44.9	46.1	47.3	48.5	50.3	52.0	52.9	55.2	58.3	58.0	58.4	57.4	56.7	55.2	52.7	50.1	45.8	41.7	40.6	37.7	34.3	
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	59.1	22.6	30.9	35.4	37.6	38.9	40.1	41.4	43.2	44.7	46.4	48.5	49.6	49.8	50.8	50.0	48.8	47.7	45.4	43.1	39.7	35.6	33.8	31.0	27.8	
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	34.7	5.6	13.8	18.3	20.4	21.5	22.4	23.4	24.6	24.7	24.9	26.2	26.7	23.3	21.4	16.4	8.7	-2.8	-18.8	-46.8	-77.7		-81.8	-85.0	-89.4	
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	32.5	4.9	13.1	17.6	19.6	20.7	21.5	22.3	22.9	22.7	22.5	23.4	23.5	19.5	17.1	11.3	2.4	-11.0	-30.8	-63.2						
W. Shaw Ave - N Garfield Avenue to N. Gr	CNEL	28.0	1.5	10.1	14.7	16.8	17.8	18.6	19.2	19.1	18.5	17.8	17.8	16.4	9.6	3.5	-11.9	-25.8	-42.4	-67.7	-88.0						
N. Grantland Ave - W. Barstow Ave to Sha	CNEL	26.0	1.5	9.3	13.6	15.6	16.5	17.2	17.7	17.4	16.2	14.7	14.4	12.5	5.0	0.0	-15.5	-25.6	-40.5	-68.3	-93.1						
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	28.4	2.5	10.3	14.6	16.6	17.5	18.1	18.5	18.5	19.0	19.2	19.6	18.6	11.8	7.8	-5.8	-13.1	-24.4	-41.9	-64.5	-91.5		-95.8	-98.9		
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	25.4	-1.8	6.4	10.9	12.9	13.9	14.5	14.9	14.7	15.3	15.8	16.6	16.7	12.6	10.3	4.5	-4.3	-17.7	-37.6	-70.9						
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	24.4	-1.5	6.7	11.2	13.2	14.1	14.7	15.0	14.5	14.7	14.8	15.0	13.9	6.7	2.3	-12.6	-21.3	-34.5	-58.5	-84.6						
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	27.1	2.9	10.3	14.4	16.3	17.3	18.1	18.7	18.8	17.5	16.0	15.7	13.9	6.8	1.4	-14.2	-24.5	-38.3	-61.9	-81.4						
N. Polk Ave - North of W. Shaw Avenue	CNEL	16.1	-7.7	-0.3	3.8	5.7	6.7	7.4	7.9	7.7	6.2	4.5	4.0	1.9	-5.5	-11.0	-27.1	-38.0	-53.1	-80.8							
Bullard Ave - N Garfield to N. Grantland	CNEL	14.3	-9.8	-2.0	2.3	4.2	5.2	5.9	6.2	5.5	4.1	2.5	2.0	-0.1	-7.6	-14.4	-30.4	-45.8	-64.3	-91.5							
Bullard Ave - N. Bryan Avenue to N. Cont	CNEL	17.4	-7.6	0.6	5.0	7.0	8.0	8.7	9.1	8.5	7.4	6.1	5.7	3.9	-3.5	-10.3	-26.1	-42.0	-60.2	-86.0							
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	30.4	1.7	9.9	14.5	16.5	17.5	18.2	18.8	19.2	20.1	21.1	22.2	22.7	19.2	17.4	12.5	4.9	-6.5	-22.5	-51.8	-86.4		-91.2	-94.0	-97.3	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	40.5	8.4	16.7	21.2	23.3	24.4	25.4	26.3	27.6	29.1	30.7	32.6	33.7	31.2	30.4	27.0	21.6	13.7	2.5	-7.0	-23.5	-37.2	-28.3	-31.2	-34.5	
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	34.0	4.6	13.2	17.8	20.0	21.2	22.2	23.2	24.7	25.0	25.2	26.0	25.3	19.3	15.7	4.3	-2.4	-12.1	-24.0	-36.7	-55.1	-82.5	-59.3	-62.6	-67.8	
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	25.9	-1.2	7.0	11.5	13.6	14.6	15.2	15.7	15.8	16.4	16.9	17.3	16.5	9.8	5.9	-7.6	-14.9	-26.1	-43.6	-67.0	-94.2		-98.7			
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	29.9	3.1	11.3	15.8	17.9	18.9	19.8	20.5	21.2	20.8	20.3	20.6	19.4	12.8	8.3	-6.3	-14.9	-27.1	-46.0	-63.8	-93.4		-97.4			
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	28.9	3.0	10.4	14.5	16.4	17.3	17.9	18.5	19.0	19.6	20.1	20.5	19.7	13.2	8.8	-4.3	-11.6	-21.4	-33.4	-47.5	-65.8	-93.0	-69.8	-72.9	-77.1	
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	33.5	5.7	14.0	18.5	20.5	21.6	22.6	23.5	24.7	24.6	24.3	24.9	23.9	17.8	13.3	0.2	-8.3	-18.9	-32.5	-46.5	-69.6		-73.6	-76.8	-81.8	
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	28.7	2.9	11.1	15.6	17.6	18.5	19.1	19.4	18.8	19.0	19.1	19.2	18.1	11.0	5.8	-9.6	-20.4	-34.3	-60.0	-82.6						
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	31.4	4.7	12.9	17.4	19.4	20.4	21.0	21.5	21.4	21.9	22.3	22.6	21.8	15.1	10.2	-4.4	-14.2	-26.6	-46.8	-68.0	-98.1					
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	28.3	3.0	10.9	15.2	17.1	18.1	18.9	19.5	19.8	18.9	17.8	17.7	16.1	9.2	4.0	-11.4	-21.8	-35.6	-59.0	-78.1						
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	20.6	-4.1	3.8	8.1	10.0	11.0	11.7	12.2	11.9	10.8	9.4	9.1	7.2	0.0	-6.2	-22.1	-35.8	-52.2	-78.5	-99.5						
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	35.5	6.1	14.4	19.0	21.0	22.1	23.0	23.9	25.0	26.2	27.2	28.1	27.6	21.8	16.4	9.6	2.7	-5.2	-13.6	-25.1	-36.9	-54.5	-41.4	-44.5	-48.8	
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	36.0	7.3	15.6	20.1	22.2	23.3	24.3	25.4	26.9	27.1	27.1	27.8	27.0	21.1	16.9	5.9	-1.2	-10.5	-21.1	-32.5	-50.4	-77.1	-54.4	-57.6	-62.6	
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	32.1	4.8	13.0	17.5	19.5	20.5	21.2	21.8	22.1	22.7	23.2	23.8	23.0	16.6	12.0	-1.2	-9.4	-20.6	-37.0	-58.5	-84.8		-89.2	-92.4	-96.9	
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	27.0	1.8	9.6	13.9	15.8	16.7	17.2	17.5	17.1	17.3	17.4	17.6	16.4	9.5	3.9	-11.0	-23.6	-38.2	-61.8	-79.8						
N Brawley Ave - N. Parkway Drive to W. D	CNEL	23.5	-0.6	7.2	11.5	13.4	14.2	14.6	14.7	13.5	13.2	12.8	12.6	11.0	3.4	-2.3	-18.3	-30.2	-45.8	-77.2							
N Brawley Ave - W Shields Avenue to W. C	CNEL	25.8	1.3	9.1	13.4	15.3	16.1	16.6	16.7	15.9	15.8	15.6	15.6	14.2	6.9	0.9	-14.5	-28.4	-44.6	-72.1	-93.6						
W. Shields Ave - West of N. Grantland Av	CNEL	37.4	6.9	15.5	20.3	22.4	23.6	24.6	25.5	26.7	28.0	29.2	30.2	29.8	24.2	19.3	13.3	6.8	-1.3	-10.2	-23.6	-35.6	-53.5	-40.4	-43.6	-47.8	
N. Grantland Ave - W Shields Avenue to W	CNEL	42.3	10.8	19.5	24.2	26.4	27.6	28.8	30.2	32.3	33.1	33.8	35.1	34.7	29.8	25.1	22.1	13.4	7.5	1.9	-0.8	-9.1	-21.1	-13.2	-16.5	-21.7	
N. Bryan Ave - W Shields Avenue to W. CI	CNEL	65.5	28.6	37.0	41.5	43.7	44.8	45.8	46.9	48.3	49.8	51.5	53.8	56.9	56.9	57.4	56.2	55.8	54.1	51.6	48.6	44.2	38.4	38.4	35.6	32.9	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	39.4	9.0	17.3	21.8	23.9	25.1	26.0	27.1	28.4	29.8	31.1	32.3	32.0	26.8	21.9	18.5	8.6	2.4	-4.5	-9.1	-18.2	-30.3	-22.7	-25.9	-30.1	
N. Polk Ave - W Shields Avenue to W. Cl	CNEL	36.9	7.8	16.1	20.6	22.7	23.9	24.9	26.1	27.8	28.1	28.2	29.0	28.2	22.6	17.5	7.0	-2.6	-11.3	-17.8	-25.2	-40.4	-63.5	-44.4	-47.7	-52.6	
N. Cornelia Ave - W Shields Avenue to W.	CNEL	32.1	5.5	13.4	17.7	19.6	20.6	21.2	21.8	22.1	22.7	23.2	23.7	22.9	16.6	11.4	-2.5	-13.1	-25.2	-40.0	-54.4	-78.1		-82.3	-85.5	-89.8	
N. Blythe Ave - W Shields Avenue to W. C	CNEL	27.9	2.4	10.2	14.5	16.4	17.3	17.9	18.2	18.0	18.3	18.4	18.7	17.6	10.8	5.3	-9.4	-21.6	-35.9	-58.1	-75.2						
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	26.5	1.2	9.4	13.8	15.8	16.7	17.3	17.4	16.5	16.5	16.4	16.4	15.1	7.9	1.8	-13.6	-27.8	-44.4	-72.9	-96.0						
N. Valentine Ave - N. Parkway Drive to W	CNEL	18.7	-4.9	2.9	7.2	9.1	9.9	10.3	10.2	8.6	8.1	7.5	7.0	5.2	-2.5	-9.3	-25.3	-40.9	-59.4	-89.6							
N. Valentine Ave - W Shields Avenue to W	CNEL	18.8	-4.9	2.9	7.2	9.0	9.8	10.2	10.2	8.6	8.3	7.7	7.3	5.6	-2.1	-8.8	-24.8	-40.1	-58.4	-88.5							
W. Clinton Ave - N Brawley Ave to N. Val	CNEL	29.6	3.3	11.5	15.9	18.0	19.0	19.7	20.3	20.4	19.8	19.2	19.7	19.3	14.8	11.8	5.3	-4.9	-20.2	-43.5	-80.4						
Bullard Ave - N. Grantland Ave to N. Bry	CNEL	16.3	-8.6	-0.5	3.9	5.9	6.9	7.6	8.0	7.4	6.3	5.0	4.6	2.7	-4.6	-11.1	-27.0	-41.9	-60.3	-90.0							
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	26.3	0.9	8.7	13.0	15.0	16.0	16.8	17.4	17.8	16.9	15.9	15.8	14.3	7.4	2.6	-12.8	-22.1	-35.4	-58.2	-76.9						
N. Grantland Ave - W. Dakota Avenue to W	CNEL	38.7	8.2	16.8	21.5	23.7	24.9	26.0	27.3	29.1	29.7	30.2	31.2	30.6	25.1	20.4	14.7	8.4	0.4	-7.4	-15.7	-27.2	-44.6	-31.4	-34.7	-39.9	
Receive 11	FI G	LrD,liir	dB(A)	LrC	77.6	dB(A)																					
W. Gettysburg Ave - West of N. Bryan Ave	CNEL	16.7	-8.1	-0.3	4.0	5.9	6.9	7.7	8.2	8.1	7.1	5.8	5.6	3.8	-3.3	-8.8	-24.7	-35.7	-50.4	-77.5	-97.9						
SR99 - W. Shields Avenue to W. Clinton A	CNEL	44.6	14.9	24.1	28.9	31.1	32.4	33.7	35.1	36.7	36.3	35.0	35.7	34.1	28.4	23.2	7.6	-2.8	-16.6	-38.1	-56.3	-92.2		-96.6			
SR99 - W. Dakota Avenue to W. Shields Av	CNEL	51.6	20.8	30.1	34.9	37.1	38.4	39.8	41.3	43.5	43.3	42.4	43.3	42.0	36.6	31.8	17.7	7.8	-4.3	-19.9	-35.4	-64.3		-68.7	-72.3	-78.4	
SR99 - W. Shields Avenue to W. Clinton A	CNEL	49.1	19.0	28.2	33.0	35.2	36.5	37.8	39.3	41.2	40.8	39.7	40.5	39.1	33.4	28.9	14.4	5.6	-7.1	-26.4	-44.8	-77.0		-81.5	-85.1	-91.2	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	48.5	17.6	26.9	31.7	33.9	35.2	36.6	38.2	40.4	40.2	39.4	40.3	39.0	33.6	29.5	16.1	7.7	-4.0	-20.2	-36.1	-64.1		-68.5	-72.1	-78.2	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	50.6	19.6	28.9	33.7	35.9	37.2	38.6	40.2	42.5	42.4	41.5	42.5	41.3	36.0	31.5	18.2	8.9	-2.6	-17.4	-32.2	-59.2	-98.7	-63.6	-67.3	-73.3	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	CNEL	51.7	21.3	30.6	35.3	37.6	38.8	40.2	41.7	43.7	43.4	42.4	43.2	41.8	36.4	31.3	16.7	6.5	-6.2	-22.3	-37.5	-66.7		-71.1	-74.8	-80.8	

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	46.8	15.8	25.1	29.9	32.1	33.4	34.8	36.4	38.7	38.6	37.7	38.6	37.4	32.0	27.9	14.6	6.0	-5.6	-21.2	-36.7	-64.0		-68.4	-72.0	-78.1	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	43.6	14.3	23.5	28.3	30.5	31.7	33.0	34.3	35.8	35.2	33.8	34.3	32.7	26.9	21.0	5.5	-7.1	-22.0	-43.1	-62.9						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	19.9	-6.4	1.4	5.7	7.6	8.6	9.2	9.7	10.0	10.5	10.9	11.4	10.5	4.0	-1.0	-15.2	-25.1	-37.1	-53.7	-69.8	-95.2		-99.4			
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	19.5	-6.7	1.1	5.4	7.4	8.3	8.9	9.4	9.6	10.1	10.4	10.8	10.0	3.4	-1.7	-16.0	-26.1	-38.3	-56.0	-72.6	-99.1					
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	14.8	-11.3	-3.5	0.8	2.8	3.7	4.3	4.7	4.9	5.3	5.7	6.1	5.1	-1.5	-6.6	-21.0	-31.3	-43.7	-62.2	-79.0						
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	17.8	-8.2	-0.3	4.0	5.9	6.8	7.4	7.8	7.9	8.4	8.7	9.1	8.1	1.6	-3.8	-18.1	-29.5	-42.6	-61.0	-77.0						
SR99 - W. Herndon Avenue to W. Shaw Avenue	CNEL	44.6	16.1	25.3	30.0	32.2	33.4	34.7	35.9	36.9	36.0	34.4	34.7	32.8	26.6	20.8	4.8	-7.0	-22.5	-48.7	-71.3						
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	48.1	17.0	26.3	31.1	33.3	34.6	36.0	37.6	39.9	39.9	39.1	40.1	38.9	33.7	28.6	15.2	3.7	-8.3	-20.7	-34.0	-60.6	-99.7	-65.0	-68.7	-74.7	
	CNEL	19.3	-9.0	-0.5	4.2	6.3	7.4	8.4	9.2	10.3	10.3	10.1	10.7	9.8	3.7	-1.3	-15.6	-25.8	-38.1	-54.3	-68.9	-96.4					
W. Shaw Ave - N. Bryan Ave to N. Hayes A	CNEL	28.4	2.3	10.8	15.4	17.5	18.5	19.3	19.8	19.5	18.8	17.9	17.8	16.2	9.1	3.4	-12.5	-24.4	-40.1	-69.5	-93.0						
W. Shaw Ave - N. Hayes Ave to N. Polk Av	CNEL	29.8	3.3	11.8	16.4	18.5	19.6	20.3	20.9	20.9	20.3	19.5	19.6	18.2	11.3	5.3	-10.2	-24.2	-40.6	-65.1	-86.3						
W. Shaw Ave - N. Polk Avenue to State Ro	CNEL	23.5	-0.6	6.8	10.9	12.8	13.8	14.6	15.1	15.2	13.9	12.3	12.0	10.1	3.1	-3.3	-18.7	-32.8	-48.7	-69.4	-89.5						
W. Shaw Ave - N. Grantland Ave to N.	CNEL	23.8	-2.0	6.5	11.1	13.2	14.2	14.9	15.4	14.8	14.0	12.9	12.7	11.0	3.6	-2.1	-18.6	-30.8	-47.3	-79.7							
W. Ashlan Ave - N. Bryan Avenue to N. Ha	CNEL	29.1	1.2	9.8	14.4	16.5	17.6	18.5	19.3	20.2	20.0	19.7	20.2	19.2	12.9	8.1	-6.4	-16.1	-28.4	-46.8	-64.0	-93.5		-97.6			
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	29.3	0.8	9.3	14.0	16.1	17.3	18.2	19.1	20.2	20.3	20.2	20.8	20.0	13.9	9.5	-2.9	-11.1	-22.1	-37.6	-55.1	-80.7		-84.9	-88.2	-93.4	
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	34.7	6.7	15.0	19.5	21.5	22.6	23.6	24.5	25.8	25.7	25.5	26.1	25.2	19.2	14.1	0.8	-10.4	-21.5	-32.9	-44.9	-68.2		-72.2	-75.5	-80.4	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	CNEL	38.7	10.8	19.0	23.5	25.6	26.7	27.6	28.6	29.8	29.7	29.5	30.1	29.1	23.2	18.1	5.2	-5.2	-17.5	-29.9	-40.9	-64.5	-99.3	-68.5	-71.7	-76.7	
W. Gettysburg Ave - N. Bryan Avenue to N	CNEL	21.4	-3.0	4.4	8.5	10.5	11.5	12.3	12.9	13.1	11.9	10.5	10.2	8.5	1.5	-3.9	-19.4	-29.9	-43.6	-66.3	-85.0						
W. Gettysburg Ave - N. Hayes Ave to N Po	CNEL	24.1	-1.5	6.3	10.6	12.6	13.6	14.4	15.1	15.6	14.9	13.9	14.0	12.6	6.0	0.3	-14.7	-27.2	-41.4	-59.6	-76.0						
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	19.6	-6.3	1.5	5.8	7.8	8.9	9.7	10.4	11.1	10.4	9.5	9.7	8.3	1.8	-3.9	-18.6	-31.1	-44.9	-61.6	-77.5						

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Contribution spectra - Situatiiion 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Ashlan Ave - N. Grantland Ave to N Br	CNEL	27.0	-0.1	8.4	13.0	15.2	16.2	17.1	17.7	18.1	17.8	17.2	17.5	16.3	9.6	4.5	-10.9	-21.3	-34.9	-58.4	-77.5						
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	36.0	9.3	17.1	21.5	23.5	24.5	25.5	26.3	27.5	27.1	26.5	26.8	25.7	19.4	15.0	2.1	-5.9	-16.9	-31.6	-46.6	-71.5		-75.4	-78.5	-83.2	
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	29.9	2.7	10.5	14.9	16.8	17.8	18.5	19.2	19.9	20.6	21.3	21.9	21.2	15.0	10.8	-0.3	-6.9	-16.3	-28.3	-45.2	-63.7	-90.8	-68.0	-71.1	-75.4	
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	36.2	8.5	16.4	20.7	22.6	23.7	24.4	25.2	26.0	27.0	27.8	28.5	27.9	21.9	16.6	5.4	-4.4	-13.3	-22.1	-32.4	-48.2	-71.6	-52.4	-55.5	-59.8	
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	35.5	7.7	15.6	19.9	21.9	22.9	23.7	24.4	25.3	26.2	27.0	27.7	27.1	21.1	16.0	4.8	-3.8	-14.1	-23.4	-33.6	-49.3	-72.6	-53.6	-56.7	-60.9	
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	32.1	4.8	12.7	17.0	18.9	19.9	20.6	21.3	22.0	22.7	23.4	24.1	23.3	17.1	12.8	1.2	-5.6	-15.0	-27.0	-43.1	-61.5	-88.5	-65.8	-68.9	-73.2	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	25.3	-1.3	6.5	10.9	12.8	13.7	14.4	15.0	15.4	16.0	16.5	17.0	16.2	9.7	5.3	-8.0	-15.5	-26.1	-40.9	-59.5	-82.8		-87.0	-90.1	-94.4	
W. Sheilds Ave - N. Polk Avenue to N. Co	CNEL	43.9	12.3	21.0	25.7	28.0	29.2	30.2	31.3	32.7	34.2	35.7	37.0	36.8	31.7	26.7	23.4	13.5	7.4	0.5	-4.4	-13.8	-26.1	-18.6	-21.8	-26.1	
W. Sheilds Ave - N. Hayes Avenue to N. P	CNEL	38.2	7.7	16.4	21.1	23.3	24.4	25.4	26.4	27.5	28.8	30.0	31.0	30.6	25.0	19.8	13.3	6.5	-1.5	-10.2	-22.7	-34.8	-52.7	-39.5	-42.8	-47.1	
W. Sheilds Ave - N. Bryan Avenue to N. H	CNEL	33.9	4.5	13.1	17.8	20.0	21.1	21.9	22.7	23.5	24.5	25.4	26.2	25.8	19.6	15.8	3.8	-2.7	-12.3	-25.1	-43.2	-62.6	-90.4	-67.3	-70.6	-75.1	
W. Sheilds Ave - N. Grantland Ave to Bry	CNEL	28.8	0.7	9.3	13.9	16.1	17.1	17.9	18.4	18.7	19.4	19.9	20.5	19.9	13.3	9.3	-4.4	-11.8	-23.1	-40.9	-64.3	-91.8		-96.5	-99.7		
W. Sheilds Ave - N. Cornelia Ave to N Bl	CNEL	44.9	13.3	21.9	26.7	28.9	30.1	31.1	32.2	33.7	35.2	36.7	38.0	37.9	32.9	28.4	24.9	15.3	8.6	1.0	-4.0	-13.4	-25.6	-18.2	-21.5	-25.7	
W. Sheilds Ave - N. Blythe Ave to N. Bra	CNEL	38.6	9.3	17.6	22.1	24.2	25.3	26.2	27.0	28.1	29.3	30.3	31.2	30.7	24.9	19.6	12.8	5.9	-2.1	-10.5	-21.9	-33.7	-51.3	-38.2	-41.4	-45.7	
W. Sheilds Ave - N Brawley Ave to N. Val	CNEL	35.0	6.7	15.0	19.5	21.6	22.6	23.4	24.1	24.8	25.6	26.4	27.1	26.5	20.3	16.4	4.4	-2.1	-11.7	-24.3	-41.9	-60.9	-88.4	-65.4	-68.6	-73.0	
W. Sheilds Ave - N. Valentine Ave to N.	CNEL	30.4	3.3	11.6	16.1	18.1	19.1	19.7	20.2	20.4	21.0	21.4	21.9	21.1	14.5	10.1	-3.7	-11.6	-23.1	-41.0	-63.7	-91.8		-96.3	-99.5		
Shields Ave & Valentine Ave East	CNEL	24.4	-3.1	5.1	9.6	11.7	12.7	13.4	14.0	14.3	15.0	15.6	16.1	15.4	8.8	5.2	-7.6	-14.3	-25.1	-41.5	-64.3	-90.3		-94.8	-98.0		
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	68.4	31.8	40.1	44.7	46.9	48.1	49.3	50.7	52.5	53.9	55.7	57.8	58.9	59.0	60.0	59.2	58.2	56.9	54.7	52.3	49.0	44.9	43.0	40.2	37.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	38.3	5.5	13.8	18.4	20.5	21.7	22.9	24.3	26.5	27.3	28.3	30.3	31.5	29.1	28.3	24.7	19.3	11.4	0.4	-9.0	-21.2	-33.4	-25.4	-28.5	-33.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	CNEL	29.8	-1.0	7.2	11.7	13.8	15.0	16.0	17.2	18.9	19.4	20.0	21.6	22.5	19.6	18.2	13.9	7.4	-2.5	-15.4	-37.8	-56.3	-81.6	-60.3	-63.5	-68.3	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Clinton Ave - N. Grantland Ave to Bry	CNEL	22.5	-6.5	1.7	6.2	8.3	9.4	10.3	11.3	12.5	12.6	12.8	14.1	14.5	11.1	9.2	4.2	-3.5	-15.1	-31.1	-59.4	-90.4		-94.5	-97.7		
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	74.6	37.9	46.2	50.8	52.9	54.2	55.3	56.5	58.0	59.8	61.3	63.1	64.5	65.8	66.8	65.6	64.3	63.5	61.0	58.6	55.1	50.5	49.4	46.6	43.4	
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	48.0	15.1	23.4	27.9	30.1	31.3	32.5	33.9	36.1	36.9	37.9	39.9	41.1	38.7	37.9	34.4	29.0	21.2	10.2	1.5	-11.1	-23.0	-15.3	-18.4	-22.9	
N. Grantland Ave - W. Ashlan Avenue to W	CNEL	23.3	-0.9	6.9	11.1	13.0	13.8	14.3	14.4	13.3	13.2	12.9	12.7	11.2	3.7	-2.0	-17.8	-29.5	-44.6	-75.3	-98.9						
N. Bryan Ave - W. Shaw Avenue to W. Gett	CNEL	21.7	-3.5	4.7	9.2	11.2	12.1	12.6	12.8	11.7	11.7	11.5	11.4	10.0	2.6	-3.0	-19.0	-30.7	-46.0	-78.6							
N. Hayes Ave - W. Shaw Avenue to W. Gett	CNEL	23.5	-2.1	6.1	10.6	12.6	13.5	14.0	14.3	13.6	13.7	13.7	13.7	12.5	5.3	0.2	-15.4	-25.9	-40.0	-68.2	-91.5						
N. Polk Ave - W. Shaw Avenue to W. Getty	CNEL	28.0	3.5	10.9	15.0	16.9	17.9	18.7	19.4	19.7	18.6	17.2	17.0	15.3	8.2	3.6	-11.1	-19.7	-32.7	-54.3	-74.9						
N. Polk Ave - North of W. Shaw Avenue	CNEL	16.8	-7.2	0.2	4.3	6.2	7.2	7.9	8.5	8.4	7.1	5.4	5.0	3.1	-4.3	-9.2	-24.4	-34.0	-48.4	-74.0	-97.6						
N. Bryan Ave - W. Gettysburg Ave to W As	CNEL	25.1	-0.8	7.4	11.9	13.9	14.8	15.4	15.7	15.2	15.4	15.5	15.7	14.6	7.5	2.5	-12.8	-23.0	-36.6	-62.4	-85.4						
N. Bryan Ave - W. Ashlan Avenue to W Shi	CNEL	29.0	1.9	10.1	14.6	16.7	17.6	18.3	18.8	19.0	19.5	20.0	20.5	19.7	13.2	8.4	-5.3	-14.2	-25.6	-42.3	-63.7	-90.3		-94.7	-97.9		
N. Grantland Ave - W. Ashlan Ave to W Da	CNEL	26.5	-0.5	8.0	12.6	14.7	15.8	16.6	17.3	17.6	17.2	16.6	16.8	15.6	8.9	3.3	-12.0	-24.5	-39.3	-62.9	-80.8						
N. Hayes Ave - W. Gettysburg Avenue to W	CNEL	24.4	-2.1	6.1	10.6	12.6	13.6	14.2	14.6	14.5	14.9	15.2	15.6	14.6	7.8	3.3	-11.5	-20.2	-32.5	-53.3	-75.9						
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	31.3	4.1	12.3	16.7	18.8	19.9	20.8	21.6	22.6	22.3	21.9	22.3	21.2	14.8	11.0	-2.0	-9.4	-20.5	-37.0	-55.1	-81.2		-85.2	-88.4	-93.4	
N. Hayes Ave - W. Ashland Avenue to W. D	CNEL	26.7	1.4	8.8	12.9	14.7	15.6	16.2	16.6	16.8	17.2	17.5	17.9	16.9	10.3	5.5	-8.2	-16.4	-27.2	-42.1	-59.7	-83.0		-87.1	-90.1	-94.3	
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	35.7	7.3	15.6	20.1	22.2	23.3	24.3	25.3	26.8	26.9	26.8	27.5	26.6	20.6	16.8	5.6	-1.2	-10.7	-22.1	-34.4	-52.8	-80.0	-56.8	-60.0	-64.9	
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	34.0	5.3	13.5	18.0	20.1	21.1	21.8	22.4	22.7	23.6	24.5	25.7	26.3	22.6	20.8	15.7	8.1	-3.5	-19.6	-49.1	-84.0		-88.8	-91.7	-94.9	
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	39.5	8.8	17.1	21.6	23.7	24.7	25.6	26.4	27.3	28.6	29.9	31.6	32.5	29.5	28.2	24.0	17.6	7.8	-4.9	-29.4	-52.4	-78.3	-57.0	-59.9	-63.6	
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	35.6	8.2	16.0	20.4	22.4	23.5	24.5	25.5	26.9	26.8	26.4	26.9	25.9	19.8	16.0	4.8	-2.0	-11.4	-22.5	-34.1	-52.2	-79.3	-56.0	-59.2	-63.9	
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	26.8	0.3	8.1	12.4	14.4	15.5	16.4	17.3	18.3	17.9	17.3	17.6	16.4	10.2	4.9	-9.0	-20.1	-32.3	-45.4	-58.3	-84.3		-88.2	-91.3	-96.0	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

23

Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	31.5	3.0	11.3	15.8	17.9	18.9	19.7	20.4	21.2	22.1	22.9	23.7	23.1	17.0	12.8	1.2	-5.6	-15.1	-27.2	-44.0	-62.8	-90.1	-67.3	-70.5	-74.9	
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	39.8	10.4	18.6	23.2	25.3	26.5	27.6	28.8	30.6	31.0	31.2	32.1	31.3	25.7	20.5	13.9	7.4	-0.3	-7.2	-13.9	-25.4	-42.6	-29.4	-32.6	-37.6	
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	45.0	12.4	20.7	25.3	27.4	28.5	29.5	30.5	31.9	33.4	35.1	37.0	38.2	35.8	35.1	31.8	26.5	18.8	7.7	-1.4	-17.8	-31.5	-22.6	-25.5	-29.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	37.8	9.7	17.6	21.9	23.9	24.9	25.7	26.5	27.5	28.6	29.5	30.2	29.6	23.6	18.3	11.4	4.5	-3.4	-11.7	-22.5	-34.0	-51.4	-38.3	-41.4	-45.6	
N Brawley Ave - N. Parkway Drive to W. D	CNEL	31.2	4.6	12.5	16.8	18.7	19.7	20.3	20.9	21.2	21.8	22.3	22.8	21.9	15.4	11.1	-2.4	-9.9	-20.6	-35.7	-54.7	-78.3		-82.5	-85.7	-90.0	
N Brawley Ave - W Shields Avenue to W. C	CNEL	37.0	9.2	17.1	21.4	23.4	24.4	25.2	25.9	26.8	27.7	28.5	29.2	28.6	22.6	17.4	6.1	-3.6	-12.7	-21.4	-31.7	-47.4	-70.8	-51.7	-54.8	-59.1	
W. Shields Ave - West of N. Grantland Av	CNEL	25.4	-1.6	7.0	11.6	13.7	14.8	15.4	15.8	15.4	15.8	16.0	16.3	15.3	8.3	4.1	-10.5	-19.0	-32.1	-55.7	-82.9						
N. Grantland Ave - W Shields Avenue to W	CNEL	27.3	-0.4	8.2	12.8	14.9	16.0	16.9	17.7	18.4	18.2	17.9	18.3	17.3	11.0	5.7	-9.2	-20.8	-34.3	-53.4	-69.4						
N. Bryan Ave - W Shields Avenue to W. Cl	CNEL	23.8	-3.9	4.3	8.8	10.8	11.9	12.6	13.2	13.6	14.4	15.0	15.7	15.0	8.8	3.6	-10.2	-21.0	-33.0	-47.9	-63.0	-87.0		-91.4	-94.6	-99.1	
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	32.4	3.5	11.8	16.3	18.4	19.4	20.3	21.1	22.0	23.1	24.1	24.9	24.4	18.5	13.4	2.1	-7.6	-16.8	-25.9	-36.7	-52.8	-76.6	-57.3	-60.5	-64.9	
N. Polk Ave - W Shields Avenue to W. Cl	CNEL	43.4	13.1	21.4	25.9	28.1	29.3	30.4	31.8	33.8	34.4	34.9	36.0	35.5	30.5	25.4	22.1	12.6	7.3	3.2	0.9	-7.0	-18.9	-11.0	-14.3	-19.2	
N. Cornelia Ave - W Shields Avenue to W.	CNEL	73.2	37.9	45.9	50.2	52.3	53.4	54.3	55.3	56.6	58.1	59.6	61.6	64.5	64.6	65.1	63.7	63.3	61.6	59.3	56.5	52.4	46.8	46.8	44.1	41.3	
N. Blythe Ave - W Shields Avenue to W. C	CNEL	42.8	13.7	21.6	26.0	28.0	29.1	29.9	30.9	32.2	33.4	34.6	35.6	35.2	29.9	24.7	21.4	11.3	5.3	-1.2	-5.4	-14.1	-26.1	-18.4	-21.5	-25.7	
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	36.2	7.8	16.0	20.6	22.6	23.7	24.5	25.2	25.9	26.9	27.7	28.4	27.9	21.8	17.5	6.0	-0.8	-10.3	-22.4	-39.2	-57.9	-85.1	-62.4	-65.6	-70.0	
N. Valentine Ave - N. Parkway Drive to W	CNEL	27.0	0.7	8.6	12.9	14.8	15.7	16.3	16.8	17.1	17.6	18.0	18.4	17.5	11.0	6.3	-6.9	-15.1	-26.3	-42.4	-62.9	-88.7		-92.9	-96.0		
N. Valentine Ave - W Shields Avenue to W	CNEL	27.8	1.2	9.1	13.4	15.3	16.3	16.9	17.4	17.8	18.4	18.9	19.5	18.7	12.3	7.1	-6.8	-17.6	-29.4	-44.0	-58.6	-82.2		-86.5	-89.6	-93.9	
W. Clinton Ave - N Brawley Ave to N. Val	CNEL	41.3	10.5	18.7	23.3	25.4	26.5	27.6	28.7	30.5	31.0	31.6	33.2	34.1	31.2	29.8	25.5	19.0	9.2	-3.7	-26.1	-44.3	-69.3	-48.4	-51.5	-56.3	
W. Clinton Ave - N. Valentine Ave to N.	CNEL	37.1	8.0	16.2	20.7	22.8	23.9	24.9	25.8	27.0	27.2	27.4	28.7	29.1	25.7	23.8	18.8	11.1	-0.4	-16.3	-44.4	-75.3		-79.4	-82.6	-87.0	
N. Marks Ave - W Princeton Avenue to W.	CNEL	28.6	3.1	10.9	15.2	17.1	18.0	18.6	18.9	18.7	19.0	19.2	19.5	18.4	11.6	6.1	-8.6	-21.0	-35.1	-56.7	-74.2						

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

23

Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
N. Marks Ave - W Princeton Avenue to W.	CNEL	25.7	0.1	8.0	12.3	14.2	15.1	15.6	16.0	15.8	16.1	16.3	16.6	15.6	8.8	3.3	-11.4	-23.5	-37.3	-58.8	-76.3						
W. Clinton Ave - N. Marks Avenue to SR99	CNEL	34.4	6.6	14.9	19.3	21.4	22.4	23.3	24.1	24.9	24.7	24.5	25.5	25.6	21.7	19.4	13.7	4.9	-8.3	-27.7	-59.8						
N. Grantland Ave - W. Shaw Avenue to W.	CNEL	22.7	-1.5	6.3	10.5	12.5	13.5	14.1	14.5	13.9	12.6	11.0	10.5	8.5	1.1	-5.6	-21.7	-36.5	-54.0	-81.7							
N. Grantland Ave - W. Dakota Avenue to W	CNEL	27.8	0.4	8.9	13.5	15.6	16.7	17.6	18.3	18.9	18.6	18.2	18.6	17.5	11.0	5.7	-9.4	-21.2	-35.2	-55.8	-72.5						
Receive	12	FI	G	LrD,lirr	dB(A)	LrC _g	83.9	dB(A)																			
SR99 - W. Shields Avenue to W. Clinton A	CNEL	70.2	33.3	42.7	47.5	49.9	51.4	53.1	55.3	58.9	59.9	60.5	62.8	63.3	61.3	59.2	54.7	50.0	46.2	42.4	41.0	36.8	30.4	32.4	28.8	22.8	
SR99 - W. Dakota Avenue to W. Shields Av	CNEL	62.1	28.5	37.8	42.6	45.0	46.3	47.9	49.9	53.0	53.5	53.4	54.9	54.0	49.9	46.0	41.1	35.8	28.3	21.7	16.9	7.4	-6.3	3.0	-0.6	-6.6	
SR99 - W. Shields Avenue to W. Clinton A	CNEL	71.0	34.7	44.0	48.9	51.2	52.7	54.4	56.6	60.1	61.0	61.5	63.7	64.0	61.7	59.3	54.9	50.4	46.1	42.2	40.8	36.2	29.4	31.8	28.2	22.2	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	53.4	20.8	30.1	34.9	37.2	38.5	40.0	41.8	44.6	44.8	44.4	45.6	44.7	41.2	39.8	34.6	27.8	18.2	5.3	-12.2	-31.2	-58.6	-35.6	-39.2	-45.2	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	52.2	20.6	29.9	34.7	37.0	38.3	39.7	41.4	43.9	43.9	43.2	44.3	43.1	38.0	34.0	22.2	13.5	2.9	-9.7	-22.9	-45.9	-79.1	-50.3	-53.9	-60.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	48.0	18.9	28.2	32.9	35.1	36.4	37.6	38.9	40.2	39.5	38.0	38.5	36.7	30.6	26.6	12.9	4.0	-9.8	-32.8	-55.9	-92.2		-96.6			
SR99 - W. Shaw Avenue to W. Ashlan Avenue	CNEL	44.7	14.5	23.7	28.5	30.8	32.0	33.4	34.8	36.8	36.5	35.3	36.0	34.6	29.1	26.6	16.2	8.1	-4.4	-24.0	-48.0	-80.7		-85.1	-88.7	-94.8	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	23.3	-4.0	3.9	8.2	10.1	11.1	11.9	12.5	13.2	14.0	14.7	15.3	14.6	8.5	3.6	-10.1	-18.7	-29.0	-40.4	-52.8	-71.8		-76.0	-79.1	-83.4	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	23.9	-3.5	4.3	8.7	10.6	11.6	12.3	13.0	13.8	14.6	15.3	16.0	15.3	9.1	4.2	-9.2	-17.7	-27.9	-38.7	-50.5	-68.7	-95.9	-72.9	-76.0	-80.4	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	19.8	-7.7	0.2	4.6	6.5	7.5	8.2	8.9	9.7	10.5	11.2	11.9	11.2	4.9	1.1	-9.8	-15.9	-25.2	-37.0	-53.3	-71.1	-97.7	-75.4	-78.5	-82.8	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	23.5	-4.1	3.8	8.1	10.1	11.0	11.8	12.5	13.3	14.1	14.9	15.5	14.8	8.8	6.2	-1.2	-7.0	-16.1	-28.1	-47.8	-65.7	-91.5	-69.9	-73.0	-77.3	
SR99 - W. Ashlan Avenue to W. Dakota Ave	CNEL	47.2	16.4	25.7	30.5	32.7	34.0	35.4	37.0	39.1	39.0	38.0	38.9	37.6	32.2	29.4	18.3	10.7	-0.9	-18.4	-38.3	-67.0		-71.4	-75.1	-81.1	
	CNEL	25.5	-4.6	4.0	8.7	10.9	12.1	13.2	14.3	16.0	16.5	16.8	17.8	17.1	11.4	7.3	-2.5	-9.4	-18.4	-28.0	-38.5	-54.5	-78.9	-58.6	-61.9	-67.1	
W. Ashlan Ave - N. Hayes Avenue to N. Po	CNEL	18.2	-7.5	1.0	5.6	7.7	8.7	9.4	9.9	9.3	8.4	7.3	7.0	5.3	-2.1	-7.9	-24.4	-36.7	-53.3	-86.5							
W. Ashlan - N. Polk Ave to N. Cornelia	CNEL	27.1	1.6	9.8	14.3	16.3	17.3	18.0	18.5	18.4	17.5	16.4	16.3	14.6	7.5	1.8	-14.2	-26.0	-41.3	-69.5	-90.1						

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
W. Ashlan Ave - N. Cornelia Ave to N. BI	CNEL	33.3	7.1	15.3	19.8	21.8	22.8	23.6	24.3	24.6	24.0	23.2	23.4	22.0	15.2	10.2	-5.2	-15.2	-28.7	-51.8	-70.9						
W. Gettysburg Ave - N. Polk Ave to N. Ba	CNEL	14.0	-10.1	-2.3	2.0	4.0	4.9	5.6	5.9	5.1	3.7	2.1	1.5	-0.6	-8.2	-14.9	-31.2	-46.3	-64.3	-93.5							
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	33.3	7.4	15.2	19.5	21.5	22.5	23.4	24.1	24.8	24.1	23.3	23.4	22.1	15.5	10.1	-4.8	-16.3	-29.7	-47.3	-62.5	-93.4			-97.3		
W. Dakota Ave - N. Hayes Avenue to N. Po	CNEL	18.9	-4.9	2.9	7.1	9.0	9.8	10.2	10.2	8.8	8.5	8.0	7.6	5.9	-1.8	-7.6	-24.0	-36.0	-51.9	-86.4							
W. Dakota Ave - N. Polk Avenue to N. Cor	CNEL	25.4	0.8	8.6	12.9	14.8	15.6	16.1	16.3	15.5	15.5	15.3	15.3	13.9	6.6	1.4	-14.4	-25.0	-39.2	-67.6	-89.6						
W. Dakota Ave - N. Cornelia Avenue to N.	CNEL	27.3	1.8	9.7	14.0	15.9	16.8	17.3	17.7	17.5	17.8	17.9	18.1	17.1	10.2	5.4	-9.5	-18.5	-30.8	-51.7	-73.0						
W. Dakota Ave - N. Blythe Avenue to N Br	CNEL	29.0	2.6	10.5	14.8	16.7	17.6	18.3	18.8	19.1	19.6	20.1	20.6	19.7	13.2	8.7	-4.9	-12.8	-23.6	-38.8	-57.7	-81.4		-85.6	-88.7	-93.1	
W. Dakota Ave - N Brawley Avenue to N. P	CNEL	26.8	-0.3	7.6	11.9	13.9	14.8	15.5	16.2	16.7	17.5	18.1	18.7	18.0	11.7	6.8	-7.0	-16.0	-26.7	-39.1	-52.5	-72.9		-77.2	-80.3	-84.6	
W. Shields Ave - N. Polk Avenue to N. Co	CNEL	26.9	-0.1	8.4	13.1	15.2	16.2	16.9	17.3	16.9	17.2	17.5	17.8	16.8	9.8	5.4	-9.5	-18.3	-31.5	-55.8	-81.9						
W. Shields Ave - N. Hayes Avenue to N. P	CNEL	23.5	-2.5	6.0	10.7	12.8	13.8	14.3	14.5	13.5	13.5	13.4	13.3	12.0	4.5	-0.4	-16.2	-26.4	-41.5	-71.4							
W. Shields Ave - N. Cornelia Ave to N BI	CNEL	31.0	2.9	11.5	16.2	18.3	19.4	20.1	20.7	20.9	21.6	22.2	22.8	22.1	15.5	11.6	-2.1	-9.4	-20.8	-38.6	-62.0	-89.4		-94.1	-97.4		
W. Shields Ave - N. Blythe Ave to N. Bra	CNEL	33.9	5.6	13.9	18.4	20.4	21.5	22.3	23.0	23.6	24.5	25.3	26.0	25.4	19.2	15.2	3.2	-3.2	-12.8	-25.4	-43.0	-62.0	-89.6	-66.5	-69.7	-74.1	
W. Shields Ave - N Brawley Ave to N. Val	CNEL	39.7	10.3	18.7	23.2	25.3	26.4	27.2	28.1	29.2	30.4	31.4	32.3	31.8	26.0	20.8	14.2	7.4	-0.7	-9.2	-21.0	-32.8	-50.5	-37.4	-40.5	-44.8	
W. Shields Ave - N. Valentine Ave to N.	CNEL	44.4	13.8	22.2	26.7	28.8	30.0	30.9	32.0	33.3	34.7	36.1	37.3	37.1	32.0	27.3	23.7	15.1	9.1	1.6	-3.1	-11.7	-23.0	-16.3	-19.4	-23.6	
Shields Ave & Valentine Ave East	CNEL	34.2	4.4	12.7	17.3	19.4	20.5	21.4	22.4	23.6	24.9	26.0	27.0	26.4	20.7	14.8	5.8	0.5	-6.4	-13.1	-20.9	-31.5	-47.4	-36.1	-39.2	-43.5	
W. Clinton Ave - N. Polk Avenue to N. Co	CNEL	28.0	0.5	8.7	13.1	15.2	16.3	17.1	17.8	18.5	18.3	18.1	19.0	19.0	15.0	12.6	6.8	-2.1	-15.6	-35.4	-67.9						
W. Clinton Ave - N. Hayes Ave to N. Polk	CNEL	19.8	-6.4	1.7	6.2	8.2	9.3	10.0	10.6	10.6	10.0	9.4	9.9	9.5	5.0	2.0	-4.6	-14.8	-30.2	-53.5	-90.6						
W. Clinton Ave - N. Cornelia Avenue to N	CNEL	34.6	5.5	13.7	18.2	20.3	21.4	22.4	23.3	24.5	24.7	24.8	26.1	26.6	23.2	21.3	16.2	8.5	-3.0	-19.0	-47.3	-78.3		-82.4	-85.5	-90.0	
W. Clinton Ave - N. Blythe Avenue to N B	CNEL	41.0	10.2	18.5	23.0	25.1	26.3	27.3	28.5	30.2	30.7	31.3	32.9	33.8	30.9	29.5	25.2	18.7	8.8	-4.1	-26.5	-44.9	-70.1	-48.9	-52.1	-56.9	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
N. Polk Ave - W. Gettysburg Avenue to W.	CNEL	23.0	-1.9	6.2	10.7	12.7	13.7	14.4	14.8	14.1	13.0	11.7	11.3	9.4	1.9	-3.8	-20.3	-32.3	-48.7	-80.8							
N. Polk Ave - W. Ashland Avenue to W. Da	CNEL	26.0	0.7	8.9	13.3	15.3	16.3	17.0	17.5	17.2	16.3	15.1	14.9	13.2	5.9	0.2	-15.8	-27.7	-43.4	-72.3	-95.4						
N. Cornelia Ave - N. Parkway Drive to W.	CNEL	26.8	1.7	9.9	14.3	16.3	17.2	17.7	17.9	16.8	16.8	16.6	16.5	15.1	7.7	2.0	-13.8	-26.2	-41.6	-72.5	-96.4						
N. Cornelia Ave - W. Ashland Avenue to W	CNEL	28.8	3.0	11.2	15.6	17.6	18.6	19.1	19.4	18.8	19.0	19.1	19.2	18.0	10.9	5.8	-9.5	-20.0	-33.9	-60.6	-84.2						
N. Blythe Ave - W. Ashlan Avenue to W. D	CNEL	30.8	4.7	12.6	16.9	18.9	19.9	20.8	21.5	22.3	21.7	20.9	21.1	19.8	13.3	8.2	-6.3	-16.0	-28.3	-45.7	-61.7	-90.8		-94.7	-97.8		
W. Ashlan Ave - N. Blythe Avenue to SR99	CNEL	25.3	-0.8	7.0	11.3	13.3	14.4	15.2	16.0	16.8	16.2	15.4	15.6	14.3	7.9	2.6	-12.2	-23.4	-36.5	-52.8	-67.3	-97.0					
N. Hayes Ave - W. Dakota Avenue to W Shi	CNEL	16.5	-8.0	0.2	4.6	6.6	7.5	7.9	8.0	6.4	6.1	5.7	5.3	3.6	-4.0	-10.6	-26.6	-42.0	-60.6	-91.2							
N. Polk Ave - W. Dakota Avenue to W Shie	CNEL	26.3	0.7	8.9	13.3	15.4	16.4	17.1	17.7	17.6	16.8	15.8	15.7	14.1	7.2	1.0	-14.4	-28.5	-44.9	-69.0	-89.5						
N. Cornelia Ave - W. Dakota Avenue to W	CNEL	28.8	2.6	10.8	15.3	17.3	18.2	18.8	19.2	18.9	19.2	19.5	19.7	18.7	12.0	6.4	-8.4	-21.0	-35.7	-59.8	-78.3						
N. Blythe Ave - W. Dakota Avenue to W Sh	CNEL	30.1	3.9	11.8	16.1	18.0	18.9	19.5	20.0	20.2	20.7	21.1	21.5	20.6	14.1	9.4	-3.8	-12.1	-23.3	-39.6	-60.5	-86.6		-90.8	-93.9	-98.3	
N Brawley Ave - N. Parkway Drive to W. D	CNEL	31.2	4.6	12.5	16.8	18.7	19.7	20.3	20.9	21.2	21.8	22.3	22.8	21.9	15.4	11.1	-2.4	-9.9	-20.5	-35.6	-54.7	-78.3		-82.6	-85.7	-90.0	
N Brawley Ave - W Shields Avenue to W. C	CNEL	36.9	9.2	17.1	21.4	23.3	24.4	25.1	25.9	26.7	27.7	28.5	29.2	28.5	22.5	17.3	6.0	-3.4	-12.8	-21.8	-32.0	-47.8	-71.3	-52.1	-55.2	-59.5	
N. Hayes Ave - W Shields Avenue to W. Cl	CNEL	18.6	-6.0	2.2	6.7	8.6	9.5	10.0	10.0	8.5	8.3	7.9	7.6	5.9	-1.7	-8.2	-24.1	-39.3	-57.7	-88.4							
N. Polk Ave - W Shields Avenue to W. Cli	CNEL	25.7	-0.1	8.1	12.5	14.6	15.6	16.3	16.9	17.0	16.2	15.3	15.3	13.7	6.9	0.9	-14.4	-28.0	-44.2	-68.6	-87.2						
N. Cornelia Ave - W Shields Avenue to W.	CNEL	28.5	3.1	10.9	15.2	17.1	18.0	18.5	18.9	18.7	18.9	19.1	19.3	18.2	11.5	6.0	-8.6	-20.6	-35.0	-57.6	-74.6						
N. Blythe Ave - W Shields Avenue to W. C	CNEL	31.4	4.9	12.7	17.0	19.0	19.9	20.6	21.1	21.5	22.1	22.6	23.1	22.2	15.9	10.7	-3.0	-13.4	-25.7	-40.9	-55.1	-78.9		-83.1	-86.2	-90.6	
N Brawley Ave - W. Dakota Avenue to W Sh	CNEL	36.2	7.8	16.0	20.6	22.6	23.7	24.5	25.2	25.9	26.9	27.7	28.5	27.9	21.8	17.5	6.0	-0.8	-10.3	-22.3	-39.2	-57.8	-85.0	-62.3	-65.5	-69.9	
N. Valentine Ave - N. Parkway Drive to W	CNEL	34.7	6.6	14.5	18.8	20.8	21.8	22.6	23.4	24.5	25.5	26.4	27.2	26.5	20.6	15.1	8.4	1.3	-6.6	-14.7	-25.1	-36.7	-54.1	-40.9	-44.0	-48.3	
N. Valentine Ave - W Shields Avenue to W	CNEL	39.0	9.9	17.8	22.2	24.2	25.3	26.1	27.1	28.3	29.6	30.7	31.7	31.4	26.0	21.0	17.4	7.3	1.3	-5.5	-9.9	-18.8	-31.0	-23.2	-26.2	-30.4	

Fresno West EIR

Contribution spectra - Situation 1: Outdoor SP

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Source	Time slice	Sum	50Hz	63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1kHz	1.25kHz	1.6kHz	2kHz	2.5kHz	3.15kHz	4kHz	5kHz	6.3kHz	8kHz	10kHz	
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	
W. Clinton Ave - N Brawley Ave to N. Val	CNEL	48.1	15.2	23.5	28.1	30.2	31.5	32.6	34.0	36.2	37.0	38.0	40.0	41.2	38.8	38.0	34.4	29.0	21.1	10.1	0.7	-11.5	-23.6	-15.7	-18.8	-23.3	
W. Clinton Ave - N. Valentine Ave to N.	CNEL	74.1	37.4	45.8	50.3	52.5	53.7	54.9	56.3	58.0	59.5	61.2	63.3	64.4	64.8	65.8	64.9	63.7	62.7	60.3	58.0	54.5	50.3	48.5	45.7	42.5	
N. Marks Ave - W Princeton Avenue to W.	CNEL	75.6	40.2	48.2	52.5	54.6	55.6	56.6	57.6	58.8	60.2	61.8	64.2	67.4	66.9	67.1	66.1	65.5	63.9	61.4	58.5	53.9	48.7	48.4	45.8	43.0	
N. Marks Ave - W Princeton Avenue to W.	CNEL	45.7	14.9	22.9	27.3	29.3	30.4	31.3	32.4	33.8	35.3	36.9	38.5	39.1	35.1	32.5	27.3	24.5	17.9	10.1	3.3	-2.1	-10.8	-6.6	-9.6	-13.3	
W. Clinton Ave - N. Marks Avenue to SR99	CNEL	81.9	45.0	53.4	57.9	60.1	61.3	62.5	63.8	65.7	67.1	68.0	71.0	74.1	73.1	73.2	72.7	71.4	70.3	67.7	64.9	60.6	56.5	54.9	52.0	48.5	

Fresno West EIR
Assessed contribution level - Situation 2: Outdoor SP

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Source	Source ty	Tr. lane	CNEL dB(A)	A dB	
Receiver 4669,4766	FI	G	dB(A)	CNEI 71.3	dB(A)
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Dakota Avenue to W. Shields Av	Road			0.0	
SR99 - W. Shields Avenue to W. Clinton A	Road			0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		40.8	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		44.1	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		54.7	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		42.0	0.0	
SR99 - W. Shaw Avenue to W. Ashlan Avenu	Road		54.1	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		11.8	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		11.6	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road		7.0	0.0	
W. Dakota Ave - N Brawley Avenue to N. P	Road			0.0	
SR99 - W. Herndon Avenue to W. Shaw Aven	Road		63.6	0.0	
SR99 - W. Ashlan Avenue to W. Dakota Ave	Road		43.0	0.0	
N Garfield Ave - W. Herndon Avenue to W.	Road		33.1	0.0	
N Garfield Ave - W. Bullard Avenue to W.	Road		34.3	0.0	
N Garfield Ave - W. Barstow Avenue to W.	Road		37.6	0.0	
N Garfield Ave - W. Shaw Avenue to W. Ge	Road		37.3	0.0	
N Garfield Ave - W. Ashlan Avenue to W.	Road		33.3	0.0	
N Garfield Ave - W. Shields Avenue to W.	Road		27.0	0.0	
W. Clinton Ave - N. Garfield Ave to N. G	Road		22.9	0.0	
W. Gettysburg Ave - N Garfield Ave to Gr	Road		40.0	0.0	

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR
Assessed contribution level - Situation 2: Outdoor SP

9

Source	Source ty	Tr. lane	CNEL dB(A)	A dB	
W. Gettysburg Ave - N. Grantland Ave to	Road		49.2	0.0	
W. Ashlan Ave - N. Garfield Ave to N. Gr	Road		47.0	0.0	
W. Dakota Ave - N. Garfield Ave to N. Gr	Road		36.1	0.0	
W. Dakota Ave - N. Grantland Avenue to N	Road		37.7	0.0	
W. Dakota Ave - N. Bryan Avenue to N. Ha	Road		38.1	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road			0.0	
W. Shaw Ave - N. Bryan Ave to N. Hayes A	Road		66.7	0.0	
W. Shaw Ave - N. Hayes Ave to N. Polk Av	Road		56.7	0.0	
W. Shaw Ave - N. Polk Avenue to State Ro	Road		39.2	0.0	
W. Shaw Ave - N. Grantland Ave to N.	Road		60.7	0.0	
W. Ashlan Ave - N. Bryan Avenue to N. Ha	Road		50.6	0.0	
W. Ashlan Ave - N. Hayes Avenue to N. Po	Road		48.3	0.0	
W. Ashlan - N. Polk Ave to N. Cornelia	Road		46.2	0.0	
W. Ashlan Ave - N. Cornelia Ave to N. Bl	Road		43.4	0.0	
W. Gettysburg Ave - N. Bryan Avenue to N	Road		54.4	0.0	
W. Gettysburg Ave - N. Hayes Ave to N Po	Road		44.3	0.0	
W. Gettysburg Ave - N. Polk Ave to N. Ba	Road		38.4	0.0	
W. Ashlan Ave - N. Grantland Ave to N Br	Road		49.4	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		33.9	0.0	
W. Dakota Ave - N. Hayes Avenue to N. Po	Road		36.7	0.0	
W. Dakota Ave - N. Polk Avenue to N. Cor	Road		34.4	0.0	
W. Dakota Ave - N. Cornelia Avenue to N.	Road		31.6	0.0	
W. Dakota Ave - N. Blythe Avenue to N Br	Road		26.8	0.0	

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Fresno West EIR
Assessed contribution level - Situation 2: Outdoor SP

9

Source	Source ty	Tr. lane	CNEL dB(A)	A dB	
W. Dakota Ave - N Brawley Avenue to N. P	Road		16.9	0.0	
W. Sheilds Ave - N. Polk Avenue to N. Co	Road		27.7	0.0	
W. Sheilds Ave - N. Hayes Avenue to N. P	Road		36.7	0.0	
W. Sheilds Ave - N. Bryan Avenue to N. H	Road		35.0	0.0	
W. Sheilds Ave - N. Grantland Ave to Bry	Road		35.7	0.0	
W. Sheilds Ave - N. Cornelia Ave to N Bl	Road		33.4	0.0	
W. Sheilds Ave - N. Blythe Ave to N. Bra	Road		30.4	0.0	
W. Sheilds Ave - N Brawley Ave to N. Val	Road		25.8	0.0	
W. Sheilds Ave - N. Valentine Ave to N.	Road			0.0	
Shields Ave & Valentine Ave East	Road			0.0	
W. Clinton Ave - N. Polk Avenue to N. Co	Road		32.8	0.0	
W. Clinton Ave - N. Hayes Ave to N. Polk	Road		31.9	0.0	
W. Clinton Ave - N. Bryan Ave to N. Haye	Road		31.4	0.0	
W. Clinton Ave - N. Grantland Ave to Bry	Road		29.8	0.0	
W. Clinton Ave - N. Cornelia Avenue to N	Road		32.2	0.0	
W. Clinton Ave - N. Blythe Avenue to N B	Road		28.9	0.0	
W. Shaw Ave - N Garfield Avenue to N. Gr	Road		50.2	0.0	
N. Grantland Ave - W. Barstow Ave to Sha	Road		50.1	0.0	
N. Grantland Ave - W. Ashlan Avenue to W	Road		37.4	0.0	
N. Bryan Ave - W. Shaw Avenue to W. Gett	Road		63.7	0.0	
N. Hayes Ave - W. Shaw Avenue to W. Gett	Road		54.9	0.0	
N. Polk Ave - W. Shaw Avenue to W. Getty	Road		45.6	0.0	
N. Polk Ave - North of W. Shaw Avenue	Road		37.1	0.0	

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR
Assessed contribution level - Situation 2: Outdoor SP

9

Source	Source ty	Tr. lane	CNEL dB(A)	A dB	
Bullard Ave - N Garfield to N. Grantland	Road		40.4	0.0	
Bullard Ave - N. Bryan Avenue to N. Cont	Road		46.3	0.0	
N. Grantland Ave - W. Bullard Ave to Bar	Road		41.4	0.0	
Bullard Ave - N Garfield Avenue to N. Gr	Road		35.1	0.0	
Bullard Ave - N. Grantland Avenue to N.	Road		29.4	0.0	
N. Grantland Ave - N. Parkway Drive to W	Road		36.7	0.0	
N. Bryan Ave - W. Gettysburg Ave to W As	Road		42.9	0.0	
N. Bryan Ave - W. Dakota Avenue to W. Sh	Road		36.6	0.0	
N. Grantland Ave - W. Ashlan Ave to W Da	Road		46.0	0.0	
N. Hayes Ave - W. Gettysburg Avenue to W	Road		50.1	0.0	
N. Polk Ave - W. Gettysburg Avenue to W.	Road		45.1	0.0	
N. Hayes Ave - W. Ashland Avenue to W. D	Road		30.8	0.0	
N. Polk Ave - W. Ashland Avenue to W. Da	Road		41.5	0.0	
N. Cornelia Ave - N. Parkway Drive to W.	Road		37.9	0.0	
N. Cornelia Ave - W. Ashland Avenue to W	Road		36.4	0.0	
N. Blythe Ave - W. Ashlan Avenue to W. D	Road		33.5	0.0	
W. Ashlan Ave - N. Blythe Avenue to SR99	Road		24.3	0.0	
N. Hayes Ave - W. Dakota Avenue to W Shi	Road		37.3	0.0	
N. Polk Ave - W. Dakota Avenue to W Shie	Road		37.8	0.0	
N. Cornelia Ave - W. Dakota Avenue to W	Road		32.3	0.0	
N. Blythe Ave - W. Dakota Avenue to W Sh	Road		30.4	0.0	
N Brawley Ave - N. Parkway Drive to W. D	Road		28.9	0.0	
N Brawley Ave - W Shields Avenue to W. C	Road		23.1	0.0	

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR
Assessed contribution level - Situation 2: Outdoor SP

9

Source	Source ty	Tr. lane	CNEL dB(A)	A dB	
W. Shields Ave - West of N. Grantland Av	Road		33.9	0.0	
N. Grantland Ave - W Shields Avenue to W	Road		36.0	0.0	
N. Bryan Ave - W Shields Avenue to W. Cl	Road		35.1	0.0	
N. Hayes Ave - W Shields Avenue to W. Cl	Road		29.5	0.0	
N. Polk Ave - W Shields Avenue to W. Cli	Road		31.1	0.0	
N. Cornelia Ave - W Shields Avenue to W.	Road		30.5	0.0	
N. Blythe Ave - W Shields Avenue to W. C	Road		29.7	0.0	
N Brawley Ave - W. Dakota Avenue to W Sh	Road		28.6	0.0	
N. Valentine Ave - N. Parkway Drive to W	Road			0.0	
N. Valentine Ave - W Shields Avenue to W	Road			0.0	
W. Clinton Ave - N Brawley Ave to N. Val	Road			0.0	
W. Clinton Ave - N. Valentine Ave to N.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
N. Marks Ave - W Princeton Avenue to W.	Road			0.0	
W. Clinton Ave - N. Marks Avenue to SR99	Road			0.0	
N. Parkway Drive - W. Herndon Avenue to	Road		28.9	0.0	
N. Parkway Drive - W. Herndon Avenue to	Road		32.5	0.0	
N. Parkway Drive - W. Herndon Avenue to	Road		17.6	0.0	
Bullard Ave - N. Grantland Ave to N. Bry	Road		31.2	0.0	
N. Grantland Ave - W. Shaw Avenue to W.	Road		52.5	0.0	
N. Grantland Ave - W. Dakota Avenue to W	Road		40.1	0.0	
N. Bryan Ave - W. Ashlan Avenue to W. Da	Road		42.9	0.0	
N. Cornelia Ave - North of W. Gettysburg	Road		35.5	0.0	

MD Acoustics LLC 4960 S. Gilbert Rd Chandler, AZ 85249 Phone: 602 774 1950

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Fresno West EIR

Octave spectra of the sources in dB(A) - Situatiion 3: Outdoor GNM

3

Name	Source type	I or A	Li	R'w	L'w	Lw	KI	KT	LwMax	DO-Wall	Day histogram	Emission spectrum	500Hz	
		m,m²	dB(A)	dB	dB(A)	dB(A)	dB	dB	dB(A)	dB(A)			dB(A)	
Union Pacific Railroad	Line	12751.74			99.3	140.4	0.0	0.0		0	100%/24h		140.4	

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) 05 / 02 / 2019	B. Reporting Agency <input checked="" type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open </div> <div> <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only </div> <div> <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR </div> <div> <input type="checkbox"/> No Train Traffic <input checked="" type="checkbox"/> Admin. Correction </div> <div> <input type="checkbox"/> Quiet Zone Update </div> </div>	D. DOT Crossing Inventory Number 757313H
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Part I: Location and Classification Information

1. Primary Operating Railroad Union Pacific Railroad Company [UP]		2. State CALIFORNIA		3. County FRESNO	
4. City / Municipality <input checked="" type="checkbox"/> In <input type="checkbox"/> Near FRESNO		5. Street/Road Name & Block Number CARNEGIE AVENUE (Street/Road Name) * (Block Number)		6. Highway Type & No. LS	
7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
9. Railroad Division or Region <input type="checkbox"/> None NORTHERN CALIFORNIA		10. Railroad Subdivision or District <input type="checkbox"/> None Fresno Sub		11. Branch or Line Name <input checked="" type="checkbox"/> None	
12. RR Milepost 0197.190 (prefix) (nnnn.nnn) (suffix)		13. Line Segment *			
14. Nearest RR Timetable Station *		15. Parent RR (if applicable) <input checked="" type="checkbox"/> N/A		16. Crossing Owner (if applicable) <input type="checkbox"/> N/A UP	
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private		18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		19. Crossing Position <input checked="" type="checkbox"/> At Grade <input type="checkbox"/> RR Under <input type="checkbox"/> RR Over	
20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input type="checkbox"/> No		21. Type of Train <input checked="" type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other	
22. Average Passenger Train Count Per Day <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0					
23. Type of Land Use <input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
24. Is there an Adjacent Crossing with a Separate Number? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			25. Quiet Zone (FRA provided) <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
26. HSR Corridor ID <input checked="" type="checkbox"/> N/A		27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 36.821008		28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -119.895484	
29. Lat/Long Source <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated					
30.A. Railroad Use *			31.A. State Use * CPUC 001B-197.20		
30.B. Railroad Use *			31.B. State Use *		
30.C. Railroad Use *			31.C. State Use *		
30.D. Railroad Use *			31.D. State Use *		
32.A. Narrative (Railroad Use) *			32.B. Narrative (State Use) *		
33. Emergency Notification Telephone No. (posted) 800-848-8715		34. Railroad Contact (Telephone No.) 402-544-3721		35. State Contact (Telephone No.) 415-703-3722	

Part II: Railroad Information

1. Estimated Number of Daily Train Movements				
1.A. Total Day Thru Trains (6 AM to 6 PM) 7	1.B. Total Night Thru Trains (6 PM to 6 AM) 7	1.C. Total Switching Trains 4	1.D. Total Transit Trains 0	1.E. Check if Less Than One Movement Per Day <input type="checkbox"/> How many trains per week?
2. Year of Train Count Data (YYYY) 2016		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 60 3.B. Typical Speed Range Over Crossing (mph) From 30 to 60		
4. Type and Count of Tracks Main 1 Siding 0 Yard 0 Transit 0 Industry 0				
5. Train Detection (Main Track only) <input checked="" type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input type="checkbox"/> Other <input type="checkbox"/> None				
6. Is Track Signaled? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		7.A. Event Recorder <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) 05/02/2019		PAGE 2		D. Crossing Inventory Number (7 char.) 757313H	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 0		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count) 0	2.D. Advance Warning Signs (Check all that apply; include count) <input type="checkbox"/> None <input checked="" type="checkbox"/> W10-1 1 <input checked="" type="checkbox"/> W10-3 2 <input type="checkbox"/> W10-11 _____ <input type="checkbox"/> W10-2 _____ <input type="checkbox"/> W10-4 _____ <input type="checkbox"/> W10-12 _____	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count _____) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input checked="" type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input checked="" type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input checked="" type="checkbox"/> One Approach <input type="checkbox"/> None	
2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.I. ENS Sign (I-13) Displayed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
2.J. Other MUTCD Signs Specify Type _____ Count _____ Specify Type _____ Count _____ Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types) 0	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 2 Pedestrian 0		3.B. Gate Configuration <input checked="" type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) <input type="checkbox"/> 3 Quad Resistance <input type="checkbox"/> 4 Quad Median Gates		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED	
3.D. Mast Mounted Flashing Lights (count of masts) 2 <input type="checkbox"/> Incandescent <input checked="" type="checkbox"/> LED <input checked="" type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included		3.E. Total Count of Flashing Light Pairs 4			
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input checked="" type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input checked="" type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3.I. Bells (count) 2		3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input checked="" type="checkbox"/> None			
3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____		4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
4.B. Hwy Traffic Signal Interconnection <input checked="" type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs		4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance		5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____	
6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None		7. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None			
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad <input type="checkbox"/> One-way Traffic <input checked="" type="checkbox"/> Two-way Traffic Number of Lanes 2 <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input checked="" type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____			
6. Intersecting Roadway within 500 feet? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Approximate Distance (feet) 65		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input checked="" type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input checked="" type="checkbox"/> (08) Non-Federal Aid		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input checked="" type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input checked="" type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Highway Speed Limit 30 _____ MPH <input checked="" type="checkbox"/> Posted <input type="checkbox"/> Statutory		5. Linear Referencing System (LRS Route ID) *			
6. LRS Milepost *		7. Annual Average Daily Traffic (AADT) Year 2016 AADT 8683			
8. Estimated Percent Trucks 40 _____ %		9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day _____		10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No	
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____ Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) 05 / 02 / 2019	B. Reporting Agency <input checked="" type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open </div> <div> <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only </div> <div> <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR </div> <div> <input type="checkbox"/> No Train Traffic <input checked="" type="checkbox"/> Admin. Correction </div> <div> <input type="checkbox"/> Quiet Zone Update </div> </div>	D. DOT Crossing Inventory Number 760966M
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Part I: Location and Classification Information

1. Primary Operating Railroad Union Pacific Railroad Company [UP]		2. State CALIFORNIA		3. County FRESNO	
4. City / Municipality <input type="checkbox"/> In <input checked="" type="checkbox"/> Near HERNDON		5. Street/Road Name & Block Number AVENUE 7 (Street/Road Name) * (Block Number)		6. Highway Type & No. NA	
7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
9. Railroad Division or Region <input type="checkbox"/> None NORTHERN CALIFORN		10. Railroad Subdivision or District <input type="checkbox"/> None Fresno Sub		11. Branch or Line Name <input checked="" type="checkbox"/> None	
12. RR Milepost 0193.670 (prefix) (nnnn.nnn) (suffix)					
13. Line Segment *		14. Nearest RR Timetable Station *		15. Parent RR (if applicable) <input checked="" type="checkbox"/> N/A	
16. Crossing Owner (if applicable) <input type="checkbox"/> N/A UP					
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private		18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		19. Crossing Position <input type="checkbox"/> At Grade <input checked="" type="checkbox"/> RR Under <input type="checkbox"/> RR Over	
20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input type="checkbox"/> No		21. Type of Train <input checked="" type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other	
22. Average Passenger Train Count Per Day <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0					
23. Type of Land Use <input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
24. Is there an Adjacent Crossing with a Separate Number? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			25. Quiet Zone (FRA provided) <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
26. HSR Corridor ID <input checked="" type="checkbox"/> N/A		27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 36.8517145		28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -119.9456857	
29. Lat/Long Source <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated					
30.A. Railroad Use *			31.A. State Use *		
30.B. Railroad Use *			31.B. State Use *		
30.C. Railroad Use *			31.C. State Use *		
30.D. Railroad Use *			31.D. State Use *		
32.A. Narrative (Railroad Use) *			32.B. Narrative (State Use) *		
33. Emergency Notification Telephone No. (posted) 800-848-8715		34. Railroad Contact (Telephone No.) 402-544-3721		35. State Contact (Telephone No.) 415-703-3722	

Part II: Railroad Information

1. Estimated Number of Daily Train Movements				
1.A. Total Day Thru Trains (6 AM to 6 PM) 0	1.B. Total Night Thru Trains (6 PM to 6 AM) 0	1.C. Total Switching Trains 0	1.D. Total Transit Trains 0	1.E. Check if Less Than One Movement Per Day <input checked="" type="checkbox"/> How many trains per week? 1
2. Year of Train Count Data (YYYY) 2016		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 60 3.B. Typical Speed Range Over Crossing (mph) From 30 to 60		
4. Type and Count of Tracks Main 1 Siding 0 Yard 0 Transit 0 Industry 0				
5. Train Detection (Main Track only) <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input checked="" type="checkbox"/> Other <input type="checkbox"/> None				
6. Is Track Signaled? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7.A. Event Recorder <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) 05/02/2019		PAGE 2		D. Crossing Inventory Number (7 char.) 760966M	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 0		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input checked="" type="checkbox"/> None <input type="checkbox"/> W10-1 <input type="checkbox"/> W10-3 <input type="checkbox"/> W10-11 <input type="checkbox"/> W10-2 <input type="checkbox"/> W10-4 <input type="checkbox"/> W10-12	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count 0) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input type="checkbox"/> None	
2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
2.J. Other MUTCD Signs Specify Type _____ Count 0 Specify Type _____ Count 0 Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____		3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED	
3.D. Mast Mounted Flashing Lights (count of masts) 0 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included		3.E. Total Count of Flashing Light Pairs 0			
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input checked="" type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3.I. Bells (count) 0		3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None			
3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____					
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input type="checkbox"/> No		4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs		4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	
5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____		6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None			
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad Number of Lanes 0 <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory		5. Linear Referencing System (LRS Route ID) *			
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 1970 AADT 1		8. Estimated Percent Trucks _____ %		9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day 0	
10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No					
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____ Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) 05 / 02 / 2019	B. Reporting Agency <input checked="" type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open </div> <div> <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only </div> <div> <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR </div> <div> <input type="checkbox"/> No Train Traffic <input checked="" type="checkbox"/> Admin. Correction </div> <div> <input type="checkbox"/> Quiet Zone Update </div> </div>	D. DOT Crossing Inventory Number 757320T
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Part I: Location and Classification Information

1. Primary Operating Railroad Union Pacific Railroad Company [UP]		2. State CALIFORNIA		3. County FRESNO	
4. City / Municipality <input checked="" type="checkbox"/> In <input type="checkbox"/> Near FRESNO		5. Street/Road Name & Block Number West Clinton Avenue (Street/Road Name) * (Block Number)		6. Highway Type & No. NA	
7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
9. Railroad Division or Region <input type="checkbox"/> None NORTHERN CALIFORNIA		10. Railroad Subdivision or District <input type="checkbox"/> None Fresno Sub		11. Branch or Line Name <input checked="" type="checkbox"/> None	
12. RR Milepost 0201.910 (prefix) (nnnn.nnn) (suffix)		13. Line Segment *			
14. Nearest RR Timetable Station *		15. Parent RR (if applicable) <input checked="" type="checkbox"/> N/A		16. Crossing Owner (if applicable) <input type="checkbox"/> N/A UP	
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private		18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.		19. Crossing Position <input type="checkbox"/> At Grade <input checked="" type="checkbox"/> RR Under <input type="checkbox"/> RR Over	
20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input type="checkbox"/> No		21. Type of Train <input checked="" type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter		<input type="checkbox"/> Transit <input type="checkbox"/> Shared Use Transit <input type="checkbox"/> Tourist/Other	
22. Average Passenger Train Count Per Day <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0					
23. Type of Land Use <input checked="" type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
24. Is there an Adjacent Crossing with a Separate Number? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			25. Quiet Zone (FRA provided) <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
26. HSR Corridor ID <input checked="" type="checkbox"/> N/A		27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 36.7720002		28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -119.8372268	
29. Lat/Long Source <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated					
30.A. Railroad Use *			31.A. State Use *		
30.B. Railroad Use *			31.B. State Use *		
30.C. Railroad Use *			31.C. State Use *		
30.D. Railroad Use *			31.D. State Use *		
32.A. Narrative (Railroad Use) *			32.B. Narrative (State Use) *		
33. Emergency Notification Telephone No. (posted) 800-848-8715		34. Railroad Contact (Telephone No.) 402-544-3721		35. State Contact (Telephone No.) 415-703-3722	

Part II: Railroad Information

1. Estimated Number of Daily Train Movements				
1.A. Total Day Thru Trains (6 AM to 6 PM) 0	1.B. Total Night Thru Trains (6 PM to 6 AM) 0	1.C. Total Switching Trains 0	1.D. Total Transit Trains 0	1.E. Check if Less Than One Movement Per Day <input checked="" type="checkbox"/> How many trains per week? 1
2. Year of Train Count Data (YYYY) 2016		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 40 3.B. Typical Speed Range Over Crossing (mph) From 20 to 40		
4. Type and Count of Tracks Main 2 Siding 0 Yard 1 Transit 0 Industry 0				
5. Train Detection (Main Track only) <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input checked="" type="checkbox"/> Other <input type="checkbox"/> None				
6. Is Track Signaled? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7.A. Event Recorder <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) 05/02/2019		PAGE 2		D. Crossing Inventory Number (7 char.) 7573201	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 0		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input checked="" type="checkbox"/> None <input type="checkbox"/> W10-1 <input type="checkbox"/> W10-3 <input type="checkbox"/> W10-11 <input type="checkbox"/> W10-2 <input type="checkbox"/> W10-4 <input type="checkbox"/> W10-12	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count 0) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input type="checkbox"/> None	
2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
2.J. Other MUTCD Signs Specify Type _____ Count 0 Specify Type _____ Count 0 Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____		3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED	
3.D. Mast Mounted Flashing Lights (count of masts) 0 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included		3.E. Total Count of Flashing Light Pairs 0			
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input checked="" type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3.I. Bells (count) 0		3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None			
3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____					
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input type="checkbox"/> No		4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs		4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	
5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____		6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None			
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad Number of Lanes 0 <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory		5. Linear Referencing System (LRS Route ID) *			
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 1970 AADT 1		8. Estimated Percent Trucks _____ %		9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day 0	
10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No					
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

U. S. DOT CROSSING INVENTORY FORM

DEPARTMENT OF TRANSPORTATION

FEDERAL RAILROAD ADMINISTRATION

OMB No. 2130-0017

Instructions for the initial reporting of the following types of new or previously unreported crossings: For public highway-rail grade crossings, complete the entire inventory Form. For private highway-rail grade crossings, complete the Header, Parts I and II, and the Submission Information section. For public pathway grade crossings (including pedestrian station grade crossings), complete the Header, Parts I and II, and the Submission Information section. For Private pathway grade crossings, complete the Header, Parts I and II, and the Submission Information section. For grade-separated highway-rail or pathway crossings (including pedestrian station crossings), complete the Header, Part I, and the Submission Information section. For changes to existing data, complete the Header, Part I Items 1-3, and the Submission Information section, in addition to the updated data fields. Note: For private crossings only, Part I Item 20 and Part III Item 2.K. are required unless otherwise noted. An asterisk * denotes an optional field.

A. Revision Date (MM/DD/YYYY) 05 / 02 / 2019	B. Reporting Agency <input checked="" type="checkbox"/> Railroad <input type="checkbox"/> Transit <input type="checkbox"/> State <input type="checkbox"/> Other	C. Reason for Update (Select only one) <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Change in Data <input type="checkbox"/> Re-Open </div> <div> <input type="checkbox"/> New Crossing <input type="checkbox"/> Date Change Only </div> <div> <input type="checkbox"/> Closed <input type="checkbox"/> Change in Primary Operating RR </div> <div> <input type="checkbox"/> No Train Traffic <input checked="" type="checkbox"/> Admin. Correction </div> <div> <input type="checkbox"/> Quiet Zone Update </div> </div>	D. DOT Crossing Inventory Number 753317W
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Part I: Location and Classification Information

1. Primary Operating Railroad Union Pacific Railroad Company [UP]		2. State CALIFORNIA		3. County FRESNO	
4. City / Municipality <input checked="" type="checkbox"/> In <input type="checkbox"/> Near FRESNO		5. Street/Road Name & Block Number ASHLAN AVENUE (Street/Road Name) * (Block Number)		6. Highway Type & No. NA	
7. Do Other Railroads Operate a Separate Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR			8. Do Other Railroads Operate Over Your Track at Crossing? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Specify RR		
9. Railroad Division or Region <input type="checkbox"/> None NORTHERN CALIFORN		10. Railroad Subdivision or District <input type="checkbox"/> None Fresno Sub		11. Branch or Line Name <input checked="" type="checkbox"/> None	
12. RR Milepost 0199.950 (prefix) (nnnn.nnn) (suffix)		13. Line Segment *			
14. Nearest RR Timetable Station *		15. Parent RR (if applicable) <input checked="" type="checkbox"/> N/A		16. Crossing Owner (if applicable) <input type="checkbox"/> N/A UP	
17. Crossing Type <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private	18. Crossing Purpose <input checked="" type="checkbox"/> Highway <input type="checkbox"/> Pathway, Ped. <input type="checkbox"/> Station, Ped.	19. Crossing Position <input type="checkbox"/> At Grade <input checked="" type="checkbox"/> RR Under <input type="checkbox"/> RR Over	20. Public Access (if Private Crossing) <input type="checkbox"/> Yes <input type="checkbox"/> No	21. Type of Train <input checked="" type="checkbox"/> Freight <input type="checkbox"/> Intercity Passenger <input type="checkbox"/> Commuter	22. Average Passenger Train Count Per Day <input type="checkbox"/> Less Than One Per Day <input type="checkbox"/> Number Per Day 0
23. Type of Land Use <input type="checkbox"/> Open Space <input type="checkbox"/> Farm <input type="checkbox"/> Residential <input type="checkbox"/> Commercial <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Institutional <input type="checkbox"/> Recreational <input type="checkbox"/> RR Yard					
24. Is there an Adjacent Crossing with a Separate Number? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Provide Crossing Number			25. Quiet Zone (FRA provided) <input checked="" type="checkbox"/> No <input type="checkbox"/> 24 Hr <input type="checkbox"/> Partial <input type="checkbox"/> Chicago Excused Date Established		
26. HSR Corridor ID <input checked="" type="checkbox"/> N/A		27. Latitude in decimal degrees (WGS84 std: nn.nnnnnnn) 36.7934600		28. Longitude in decimal degrees (WGS84 std: -nnn.nnnnnnn) -119.8608629	
29. Lat/Long Source <input checked="" type="checkbox"/> Actual <input type="checkbox"/> Estimated					
30.A. Railroad Use *			31.A. State Use *		
30.B. Railroad Use *			31.B. State Use *		
30.C. Railroad Use *			31.C. State Use *		
30.D. Railroad Use *			31.D. State Use *		
32.A. Narrative (Railroad Use) *			32.B. Narrative (State Use) *		
33. Emergency Notification Telephone No. (posted) 800-848-8715		34. Railroad Contact (Telephone No.) 402-544-3721		35. State Contact (Telephone No.) 415-703-3722	

Part II: Railroad Information

1. Estimated Number of Daily Train Movements				
1.A. Total Day Thru Trains (6 AM to 6 PM) 0	1.B. Total Night Thru Trains (6 PM to 6 AM) 0	1.C. Total Switching Trains 0	1.D. Total Transit Trains 0	1.E. Check if Less Than One Movement Per Day <input checked="" type="checkbox"/> How many trains per week? 1
2. Year of Train Count Data (YYYY) 2016		3. Speed of Train at Crossing 3.A. Maximum Timetable Speed (mph) 40 3.B. Typical Speed Range Over Crossing (mph) From 20 to 40		
4. Type and Count of Tracks Main 2 Siding 0 Yard 2 Transit 0 Industry 0				
5. Train Detection (Main Track only) <input type="checkbox"/> Constant Warning Time <input type="checkbox"/> Motion Detection <input type="checkbox"/> AFO <input type="checkbox"/> PTC <input type="checkbox"/> DC <input checked="" type="checkbox"/> Other <input type="checkbox"/> None				
6. Is Track Signaled? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7.A. Event Recorder <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7.B. Remote Health Monitoring <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

U. S. DOT CROSSING INVENTORY FORM

A. Revision Date (MM/DD/YYYY) 05/02/2019		PAGE 2		D. Crossing Inventory Number (7 char.) 753317W	
Part III: Highway or Pathway Traffic Control Device Information					
1. Are there Signs or Signals? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2. Types of Passive Traffic Control Devices associated with the Crossing			
2.A. Crossbuck Assemblies (count) 0		2.B. STOP Signs (R1-1) (count) 0	2.C. YIELD Signs (R1-2) (count)	2.D. Advance Warning Signs (Check all that apply; include count) <input checked="" type="checkbox"/> None <input type="checkbox"/> W10-1 <input type="checkbox"/> W10-3 <input type="checkbox"/> W10-11 <input type="checkbox"/> W10-2 <input type="checkbox"/> W10-4 <input type="checkbox"/> W10-12	
2.E. Low Ground Clearance Sign (W10-5) <input type="checkbox"/> Yes (count 0) <input checked="" type="checkbox"/> No		2.F. Pavement Markings <input type="checkbox"/> Stop Lines <input type="checkbox"/> Dynamic Envelope <input type="checkbox"/> RR Xing Symbols <input type="checkbox"/> None		2.G. Channelization Devices/Medians <input type="checkbox"/> All Approaches <input type="checkbox"/> Median <input type="checkbox"/> One Approach <input type="checkbox"/> None	
2.H. EXEMPT Sign (R15-3) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		2.I. ENS Sign (I-13) Displayed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
2.J. Other MUTCD Signs Specify Type _____ Count 0 Specify Type _____ Count 0 Specify Type _____ Count _____		2.K. Private Crossing Signs (if private) <input type="checkbox"/> Yes <input type="checkbox"/> No		2.L. LED Enhanced Signs (List types)	
3. Types of Train Activated Warning Devices at the Grade Crossing (specify count of each device for all that apply)					
3.A. Gate Arms (count) Roadway 0 Pedestrian _____		3.B. Gate Configuration <input type="checkbox"/> 2 Quad <input type="checkbox"/> Full (Barrier) Resistance <input type="checkbox"/> 3 Quad <input type="checkbox"/> Median Gates		3.C. Cantilevered (or Bridged) Flashing Light Structures (count) Over Traffic Lane 0 <input type="checkbox"/> Incandescent Not Over Traffic Lane 0 <input type="checkbox"/> LED	
3.D. Mast Mounted Flashing Lights (count of masts) 0 <input type="checkbox"/> Incandescent <input type="checkbox"/> LED <input type="checkbox"/> Back Lights Included <input type="checkbox"/> Side Lights Included		3.E. Total Count of Flashing Light Pairs 0			
3.F. Installation Date of Current Active Warning Devices: (MM/YYYY) _____/_____/_____ <input checked="" type="checkbox"/> Not Required		3.G. Wayside Horn <input type="checkbox"/> Yes Installed on (MM/YYYY) ____/____/_____ <input type="checkbox"/> No		3.H. Highway Traffic Signals Controlling Crossing <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
3.I. Bells (count) 0		3.J. Non-Train Active Warning <input type="checkbox"/> Flagging/Flagman <input type="checkbox"/> Manually Operated Signals <input type="checkbox"/> Watchman <input type="checkbox"/> Floodlighting <input type="checkbox"/> None			
3.K. Other Flashing Lights or Warning Devices Count 0 Specify type _____					
4.A. Does nearby Hwy Intersection have Traffic Signals? <input type="checkbox"/> Yes <input type="checkbox"/> No		4.B. Hwy Traffic Signal Interconnection <input type="checkbox"/> Not Interconnected <input type="checkbox"/> For Traffic Signals <input type="checkbox"/> For Warning Signs		4.C. Hwy Traffic Signal Preemption <input type="checkbox"/> Simultaneous <input type="checkbox"/> Advance	
5. Highway Traffic Pre-Signals <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Storage Distance * _____ Stop Line Distance * _____		6. Highway Monitoring Devices (Check all that apply) <input type="checkbox"/> Yes - Photo/Video Recording <input type="checkbox"/> Yes - Vehicle Presence Detection <input type="checkbox"/> None			
Part IV: Physical Characteristics					
1. Traffic Lanes Crossing Railroad Number of Lanes 0 <input type="checkbox"/> One-way Traffic <input type="checkbox"/> Two-way Traffic <input type="checkbox"/> Divided Traffic		2. Is Roadway/Pathway Paved? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		3. Does Track Run Down a Street? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Is Crossing Illuminated? (Street lights within approx. 50 feet from nearest rail) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
5. Crossing Surface (on Main Track, multiple types allowed) Installation Date * (MM/YYYY) ____/____/_____ <input type="checkbox"/> 1 Timber <input type="checkbox"/> 2 Asphalt <input type="checkbox"/> 3 Asphalt and Timber <input type="checkbox"/> 4 Concrete <input type="checkbox"/> 5 Concrete and Rubber <input type="checkbox"/> 6 Rubber <input type="checkbox"/> 7 Metal <input type="checkbox"/> 8 Unconsolidated <input type="checkbox"/> 9 Composite <input type="checkbox"/> 10 Other (specify) _____					
6. Intersecting Roadway within 500 feet? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Approximate Distance (feet) _____		7. Smallest Crossing Angle <input type="checkbox"/> 0° - 29° <input type="checkbox"/> 30° - 59° <input type="checkbox"/> 60° - 90°		8. Is Commercial Power Available? * <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Part V: Public Highway Information					
1. Highway System <input type="checkbox"/> (01) Interstate Highway System <input type="checkbox"/> (02) Other Nat Hwy System (NHS) <input type="checkbox"/> (03) Federal AID, Not NHS <input type="checkbox"/> (08) Non-Federal AID		2. Functional Classification of Road at Crossing <input type="checkbox"/> (0) Rural <input type="checkbox"/> (1) Urban <input type="checkbox"/> (1) Interstate <input type="checkbox"/> (5) Major Collector <input type="checkbox"/> (2) Other Freeways and Expressways <input type="checkbox"/> (3) Other Principal Arterial <input type="checkbox"/> (6) Minor Collector <input type="checkbox"/> (4) Minor Arterial <input type="checkbox"/> (7) Local		3. Is Crossing on State Highway System? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
4. Highway Speed Limit _____ MPH <input type="checkbox"/> Posted <input type="checkbox"/> Statutory		5. Linear Referencing System (LRS Route ID) *			
6. LRS Milepost *					
7. Annual Average Daily Traffic (AADT) Year 1970 AADT 1		8. Estimated Percent Trucks _____ %		9. Regularly Used by School Buses? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Average Number per Day 0	
10. Emergency Services Route <input type="checkbox"/> Yes <input type="checkbox"/> No					
Submission Information - This information is used for administrative purposes and is not available on the public website.					
Submitted by _____ Organization _____ Phone _____ Date _____					
Public reporting burden for this information collection is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for information collection is 2130-0017. Send comments regarding this burden estimate or any other aspect of this collection, including for reducing this burden to: Information Collection Officer, Federal Railroad Administration, 1200 New Jersey Ave. SE, MS-25 Washington, DC 20590.					

Appendix B:
Noise Measurement Data and Field Sheets

10-Minute Continuous Noise Measurement Datasheet

Project: 04621901 Fresno West EIR **Site Observations:** Sunny, Ambient noise consisted of traffic along roads as lited for each measurement.

Site Address/Location: Fresno, CA

Date: 6/3/2019

Field Tech/Engineer: Mike Dickerson, INCE

General Location:

Sound Meter: XL2 **SN:** 08562-E0

Settings: A-weighted, fast, 1-sec, 10-minute duration

Meteorological Con.: Sunny, clear

Site ID: ST-1 thru ST-12

Table 1: Morning - Baseline Noise Measurement Summary

Location	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
1	9:28 AM	9:38 AM	67.6	78.3	54.5	74.7	71.3	68.0	65.6	59.8
2	9:48 AM	9:58 AM	69.5	84.1	40.9	78.3	75.8	69.4	60.4	45.7
3	10:15 AM	10:25 AM	61.5	82.5	41.3	68.1	62.2	58.8	54.2	46.0
4	10:32 AM	10:42 AM	54.4	69.5	37.8	63.1	58.4	53.7	50.0	43.7
5	12:13 PM	12:23 PM	64.6	86.5	45.4	71.6	67.7	64.3	60.8	51.7
6	2:19 PM	2:29 PM	74.8	99.8	50.2	79.2	72.6	67.5	64.3	58.5
7	12:38 PM	12:48 PM	72.8	93.4	37.5	81.4	74.7	65.0	56.2	43.2
8	12:54 PM	1:04 PM	66.1	86.3	51.5	75.5	70.1	62.6	58.9	54.4
9	1:09 PM	1:19 PM	64.4	79.9	48.1	73.5	68.9	63.4	59.5	52.4
10	1:26 PM	1:36 PM	59.6	79.5	31.9	70.4	61.6	52.7	43.8	34.5
11	1:42 PM	1:52 PM	65.8	85.0	44.7	73.4	68.7	64.7	60.4	51.8
12	2:00 PM	2:10 PM	68.8	85.2	55.2	75.9	72.7	69.6	65.6	58.7

Project:	04621901 Fresno West EIR
Site Address/Location:	Fresno, CA
Site ID:	ST-1 thru ST-12

10-Minute Continuous Noise Measurement Datasheet - ST-1

Project: 04621901 Fresno West EIR
Site Address/Location: Herdon Ave. & Parkway Dr.
Site ID: ST-1

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Herdon Ave. is 30ft from meter
C/L of Parkway Dr. is 50ft from meter

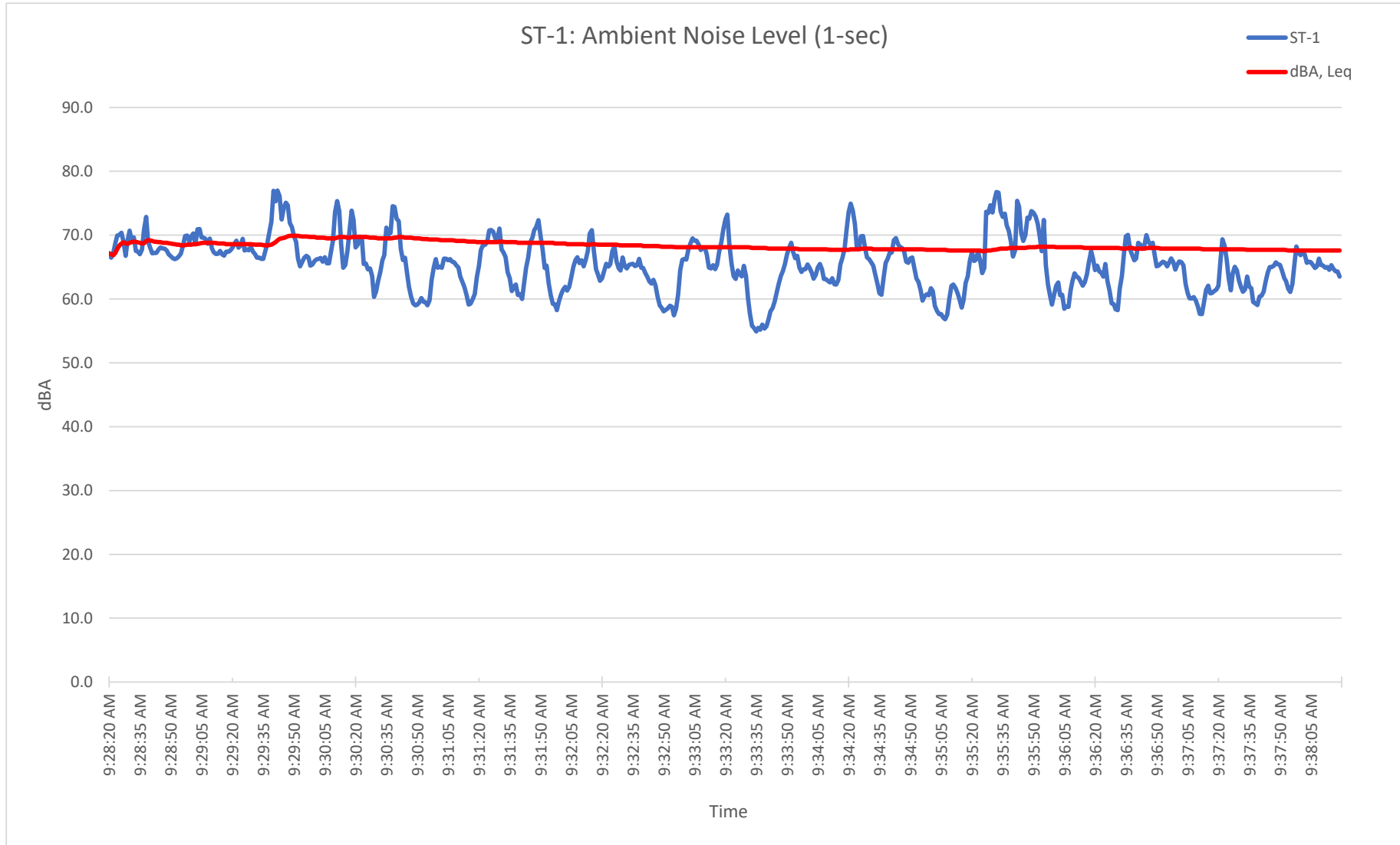


Figure 2-1: ST-1 Site

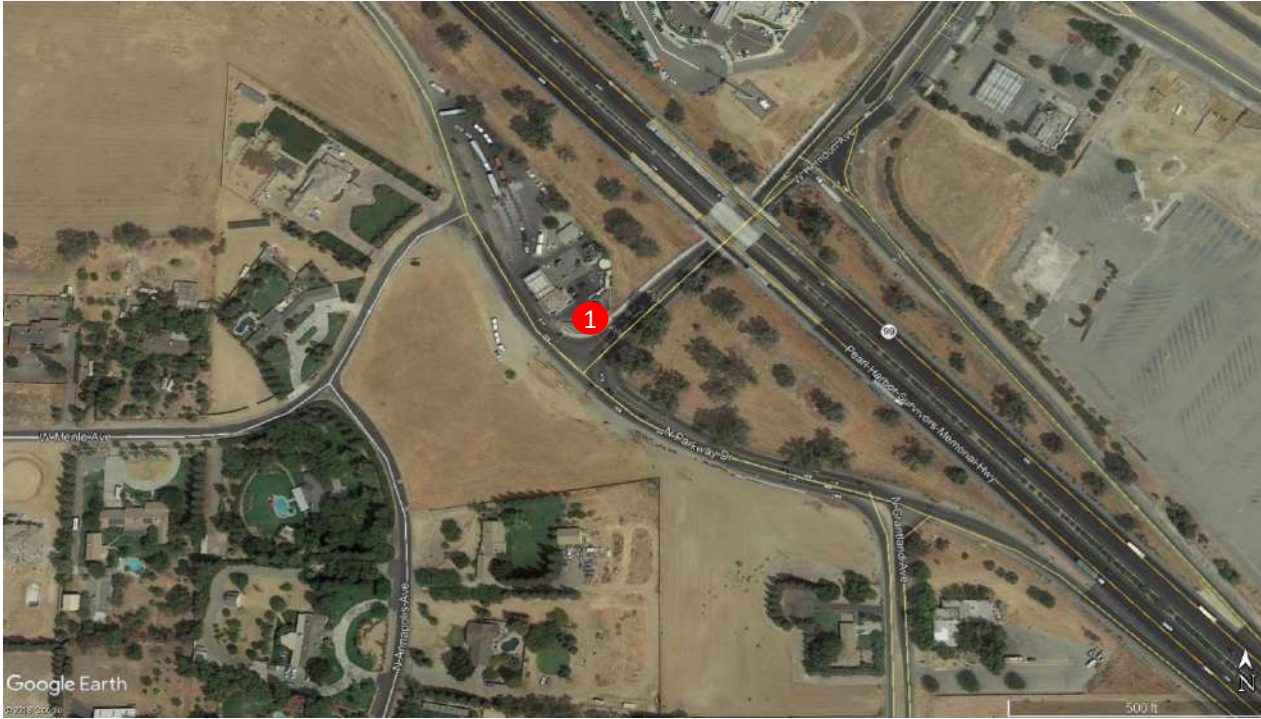


Figure 2-2: ST-1 Photo



Figure 2-3: ST-1 Photo



10-Minute Continuous Noise Measurement Datasheet - ST-2

Project: 04621901 Fresno West EIR
Site Address/Location: Bryan Ave. & Shaw Ave.
Site ID: ST-2

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Bryan Ave is 40ft from meter
C/L of Shaw Ave. is 40ft from meter

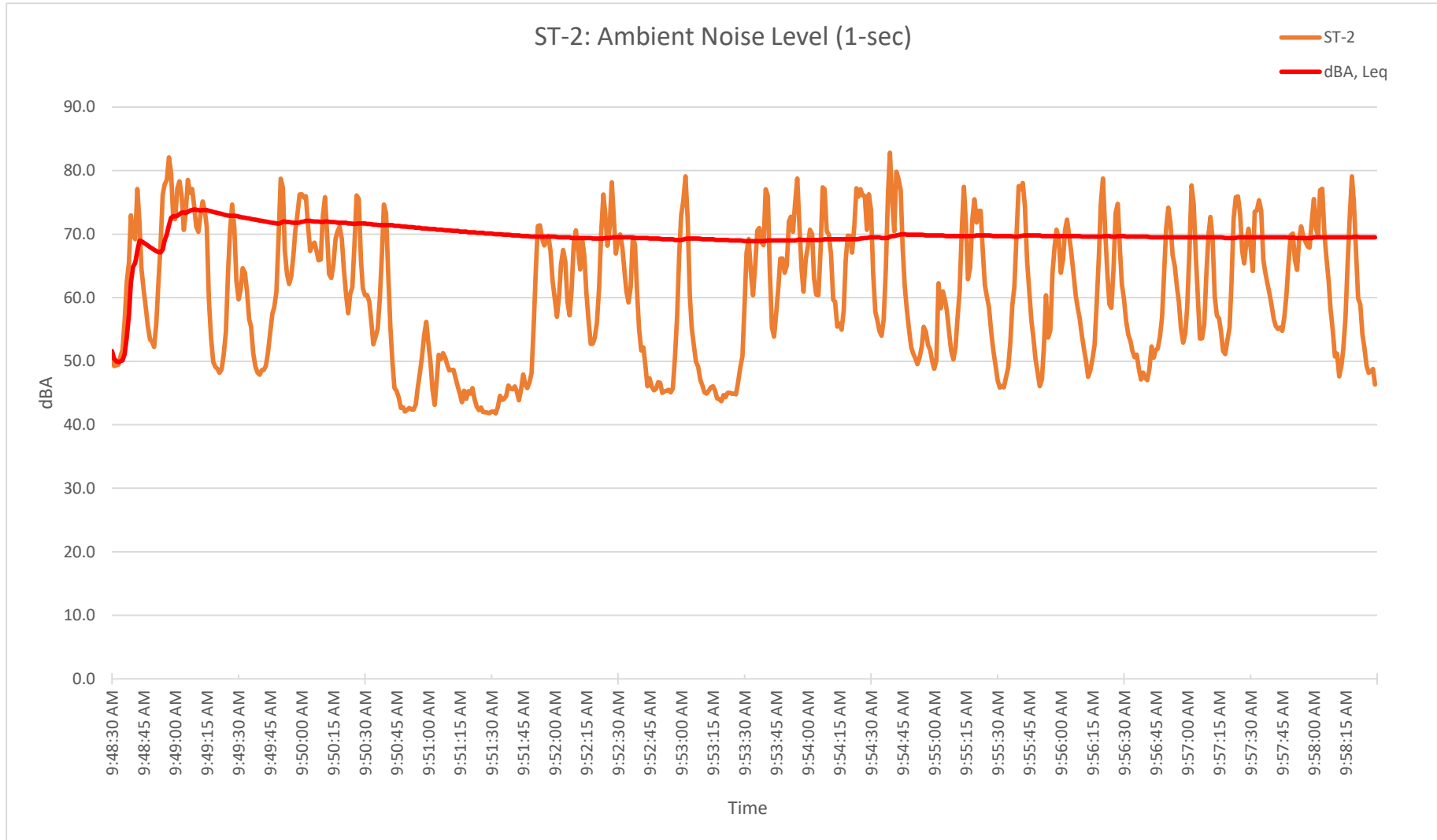


Figure 3-1: ST-2 Site

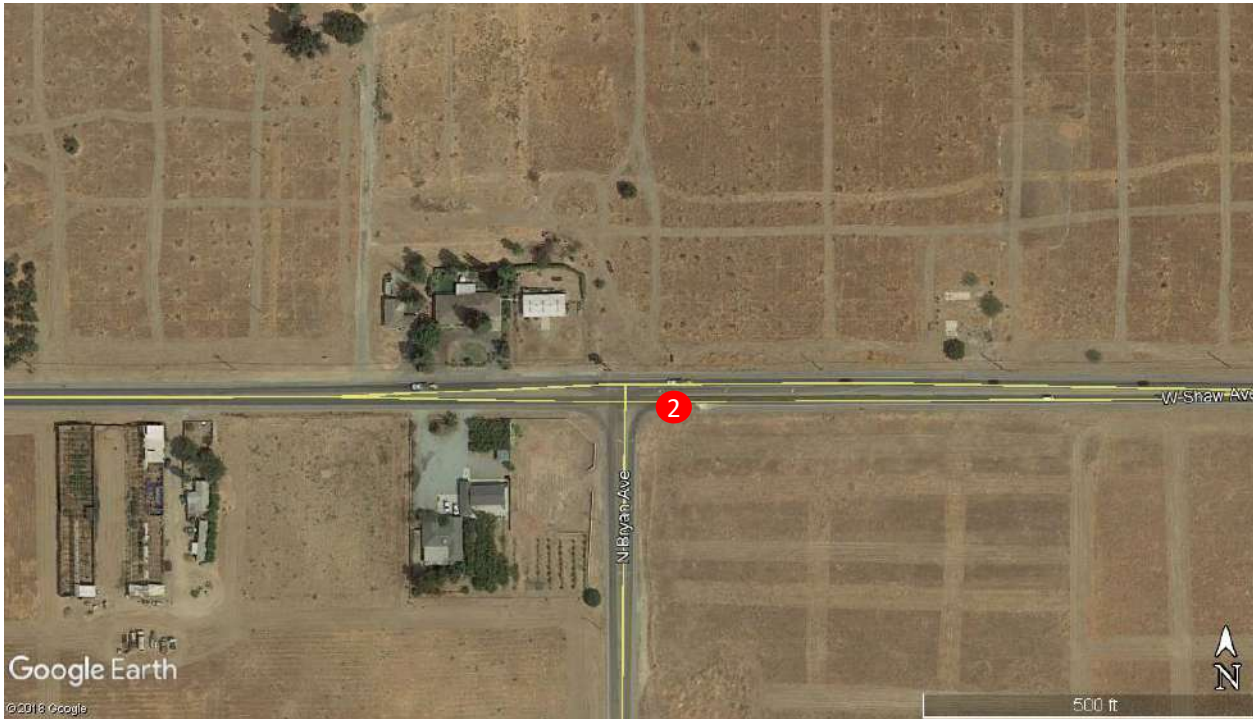


Figure 3-2: ST-2 Photo



Figure 3-3: ST-2 Photo



10-Minute Continuous Noise Measurement Datasheet - ST-3

Project: 04621901 Fresno West EIR
Site Address/Location: Polk Ave. & Gettysburg Ave.
Site ID: ST-3

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Hard site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Polk Ave. is 55ft from meter
C/L of Gettysburg Ave. is 55ft from meter

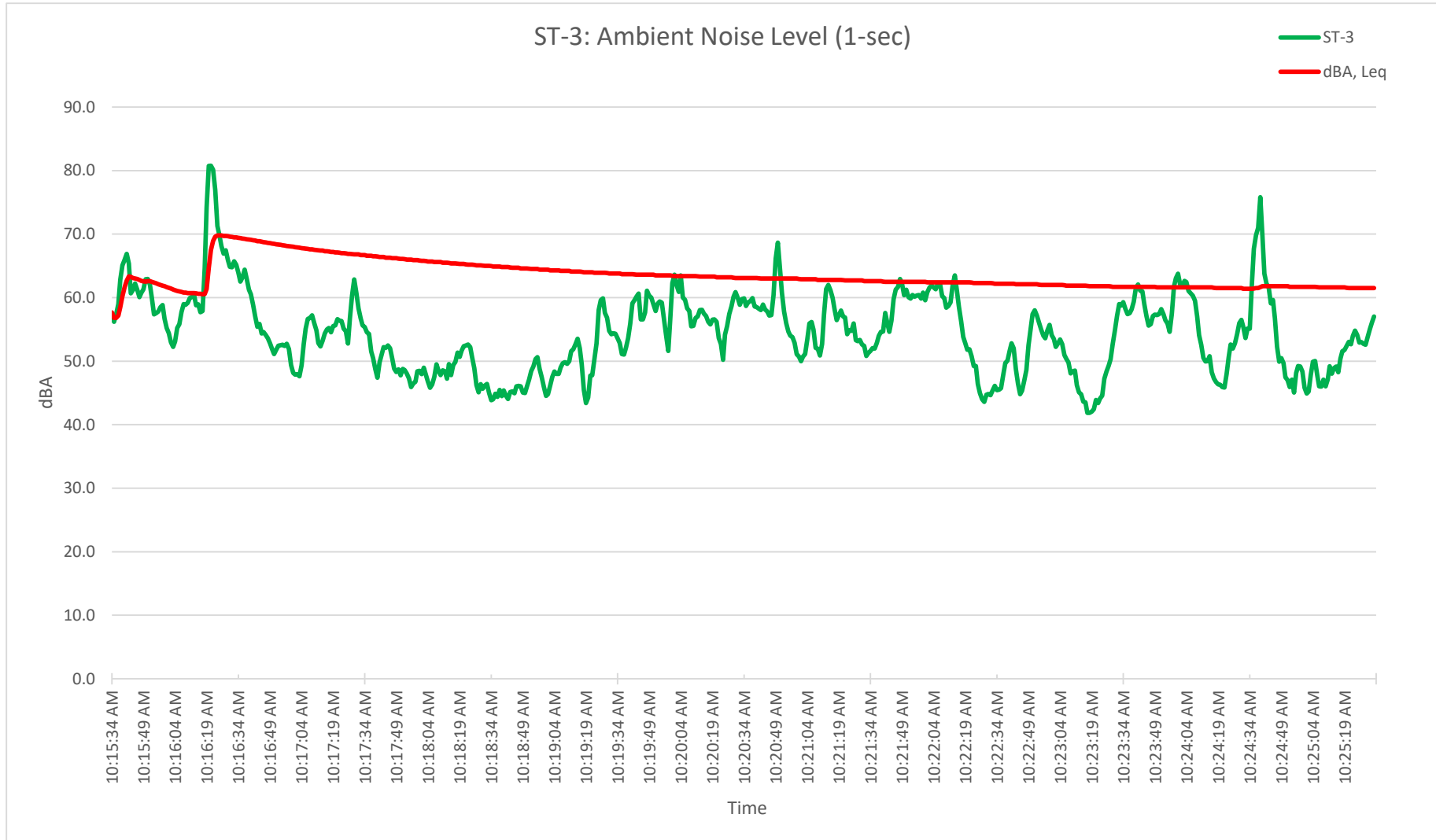


Figure 4-1: ST-3 Site

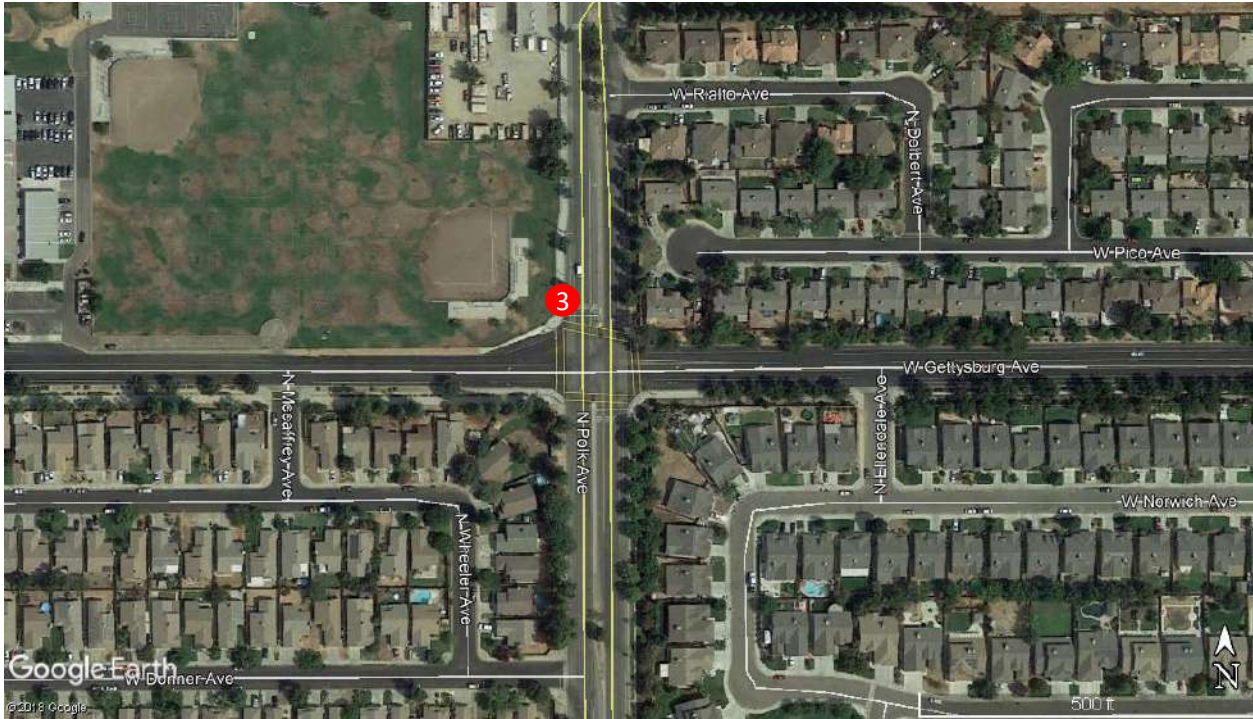


Figure 4-2: ST-3 Photo



Figure 4-3: ST-3 Photo



10-Minute Continuous Noise Measurement Datasheet - ST-4

Project: 04621901 Fresno West EIR
Site Address/Location: Bryan Ave. & Ashlan Ave.
Site ID: ST-4

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Bryan Ave. is 45ft from meter
C/L of Ashlan Ave. 50ft from meter

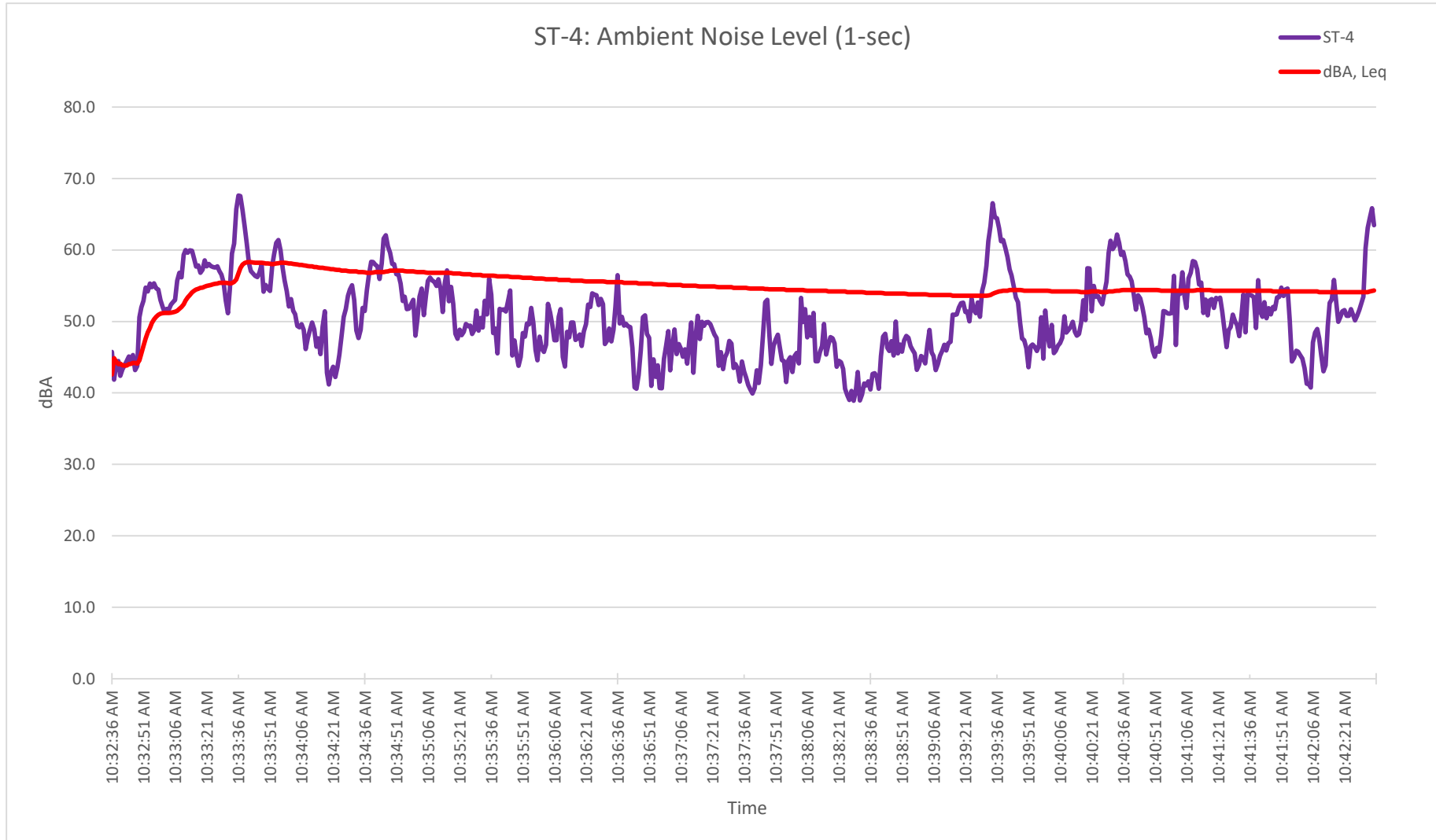


Figure 5-1: ST-4 Site

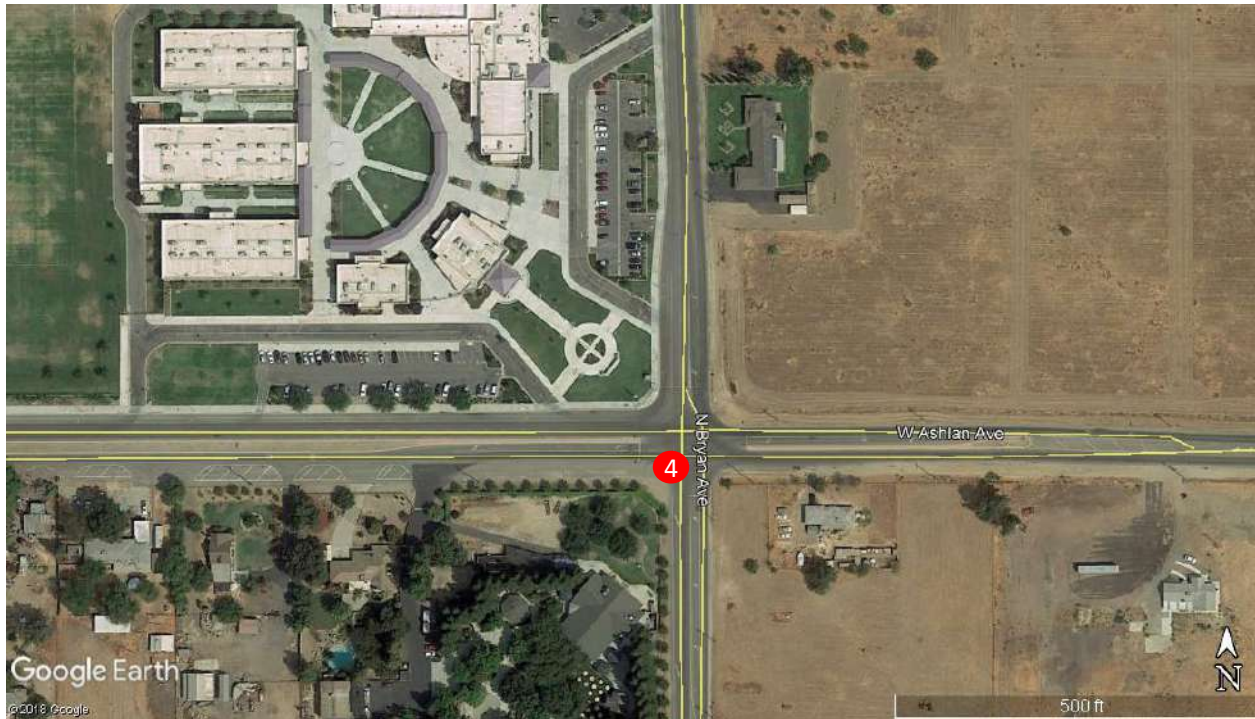


Figure 5-2: ST-4 Photo



Figure 5-3: ST-4 Photo



10-Minute Continuous Noise Measurement Datasheet - ST-5

Project: 04621901 Fresno West EIR
Site Address/Location: Polk Ave. & Ashlan Ave.
Site ID: ST-5

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Polk Ave. is 40ft from meter
C/L of Ashlan Ave. 40ft from meter

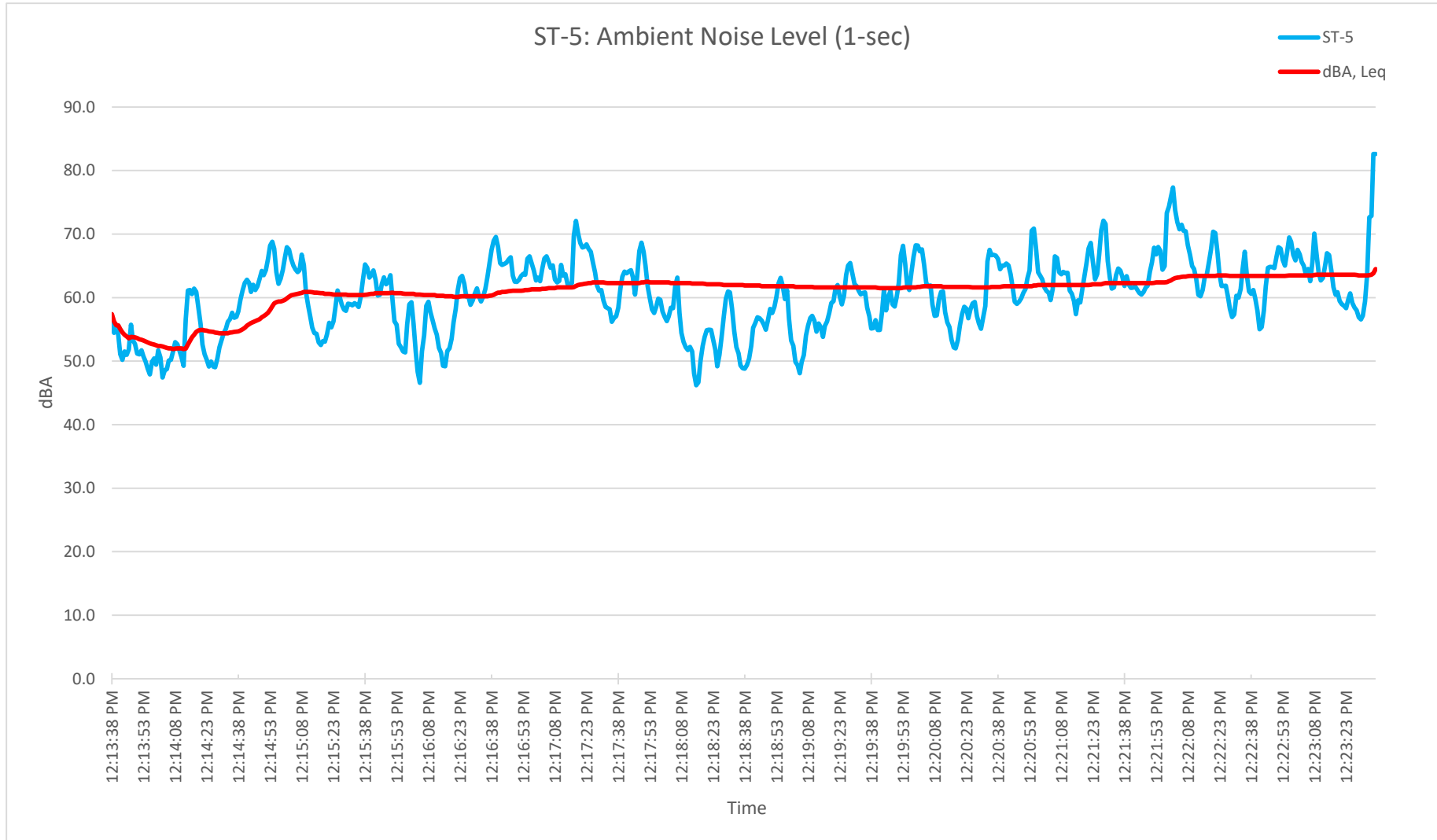


Figure 6-1: ST-5 Site

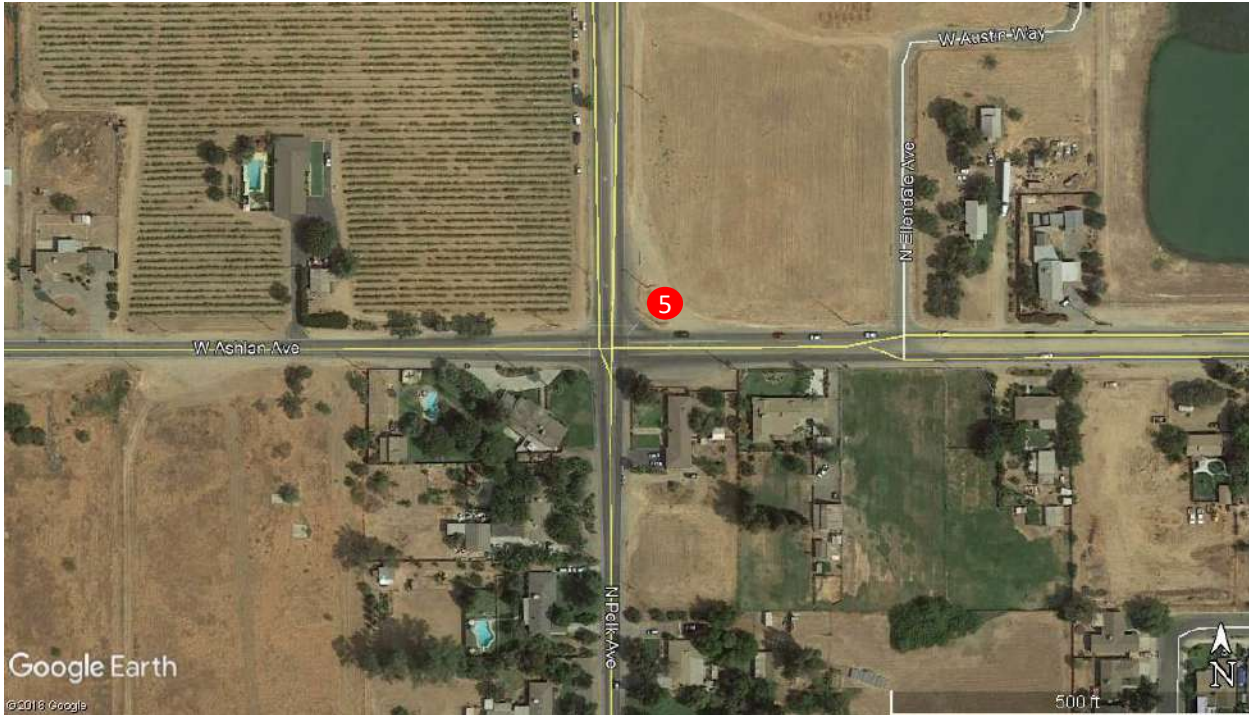


Figure 6-2: ST-5 Photo



Figure 6-3: ST-5 Photo



10-Minute Continuous Noise Measurement Datasheet - ST-6

Project: 04621901 Fresno West EIR
Site Address/Location: Dakota Ave & Brawley Ave
Site ID: ST-6

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Dakota Ave is 30ft from meter
C/L of Brawley Ave is 35ft from meter

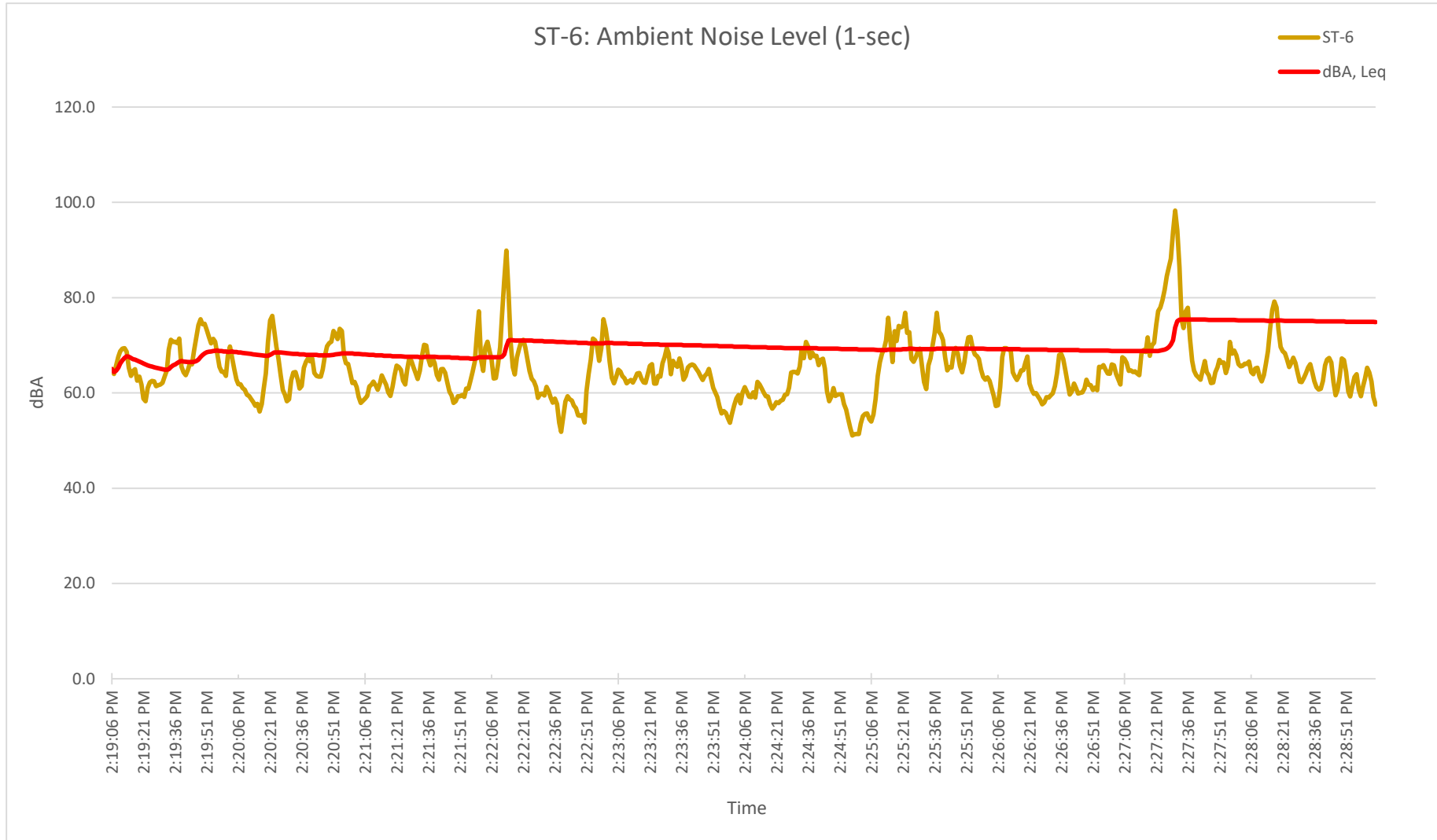


Figure 7-1: ST-6 Site



Figure 7-2: ST-6 Photo



Figure 7-3: ST-6 Photo



10-Minute Continuous Noise Measurement Datasheet - ST-7

Project: 04621901 Fresno West EIR
Site Address/Location: Grantlan Ave. & Shields Ave.
Site ID: ST-7

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Grantlan Ave. is 35ft from meter
C/L of Shields Ave. is 35ft from meter

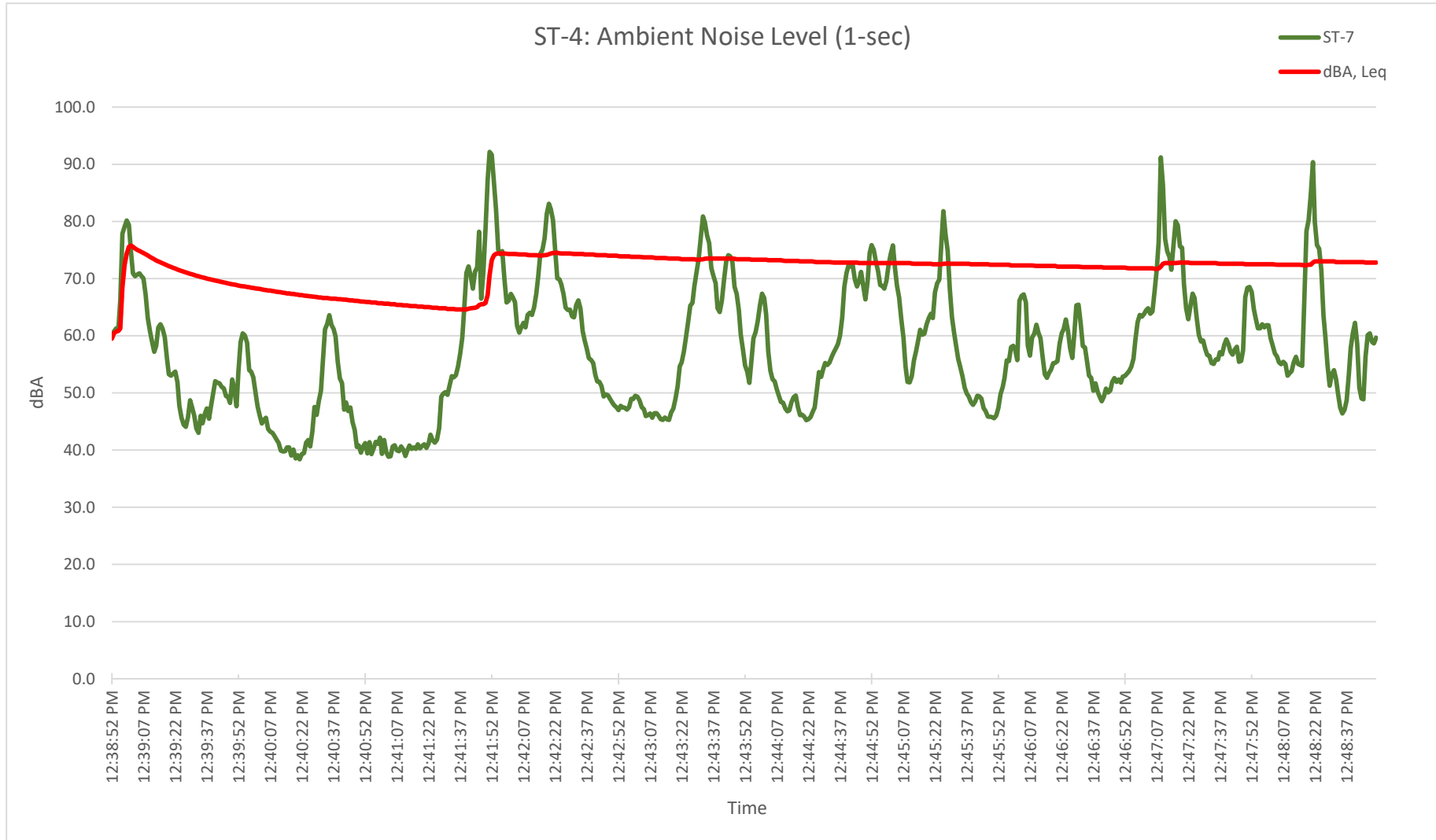


Figure 8-1: ST-7 Site



Figure 8-2: ST-7 Photo



Figure 8-3: ST-7 Photo



10-Minute Continuous Noise Measurement Datasheet - ST-8

Project: 04621901 Fresno West EIR
Site Address/Location: Polk Ave. & Shields Ave.
Site ID: ST-8

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Grantlan Ave. is 35ft from meter
C/L of Shields Ave. is 35ft from meter

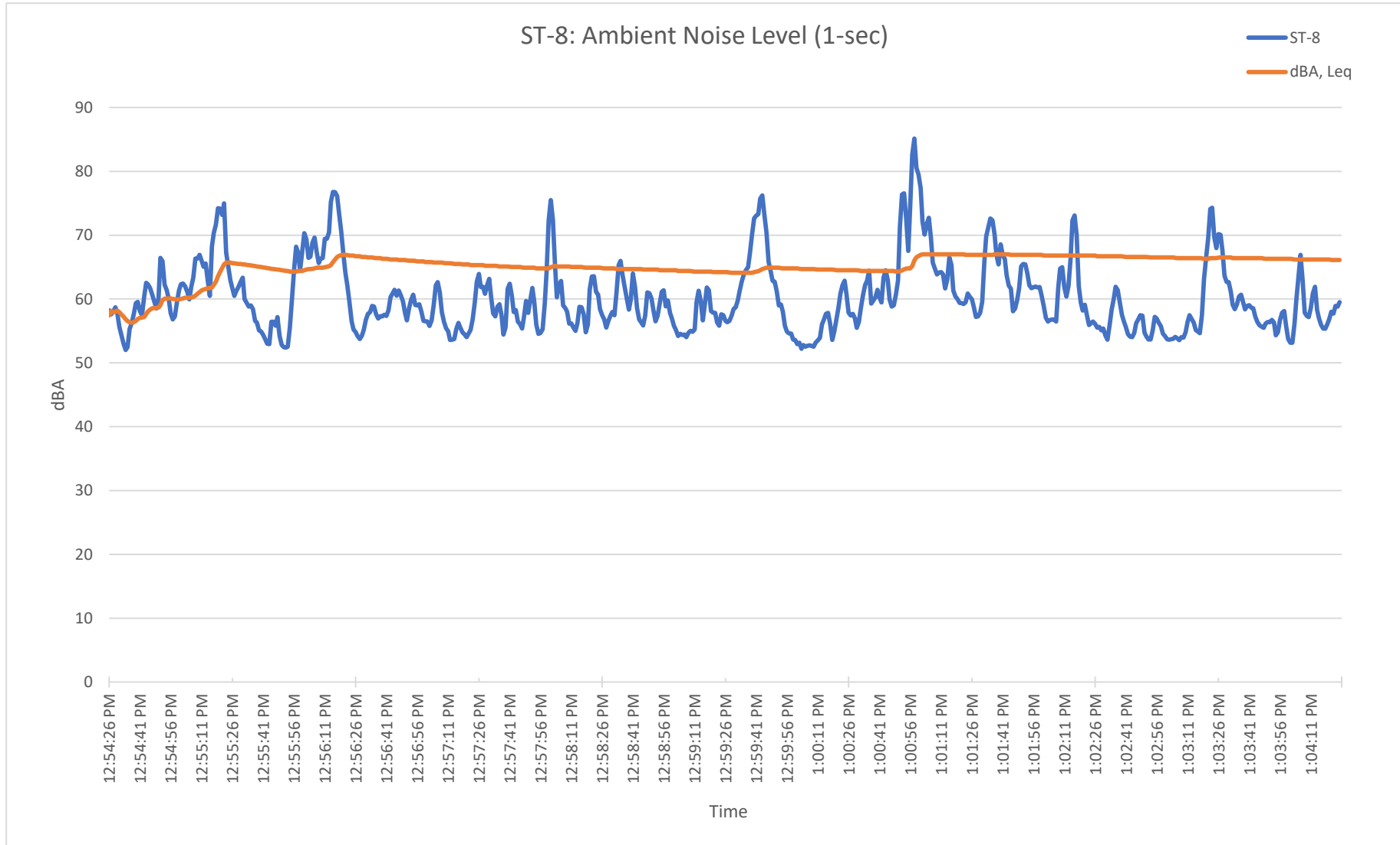


Figure 9-1: ST-8 Site



Figure 9-2: ST-8 Photo



Figure 9-3: ST-8 Photo



10-Minute Continuous Noise Measurement Datasheet - ST-9

Project: 04621901 Fresno West EIR
Site Address/Location: Blythe Ave. & Shields Ave.
Site ID: ST-9

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Blythe Ave is 50ft from meter
C/L of Shields Ave. is 45ft from meter

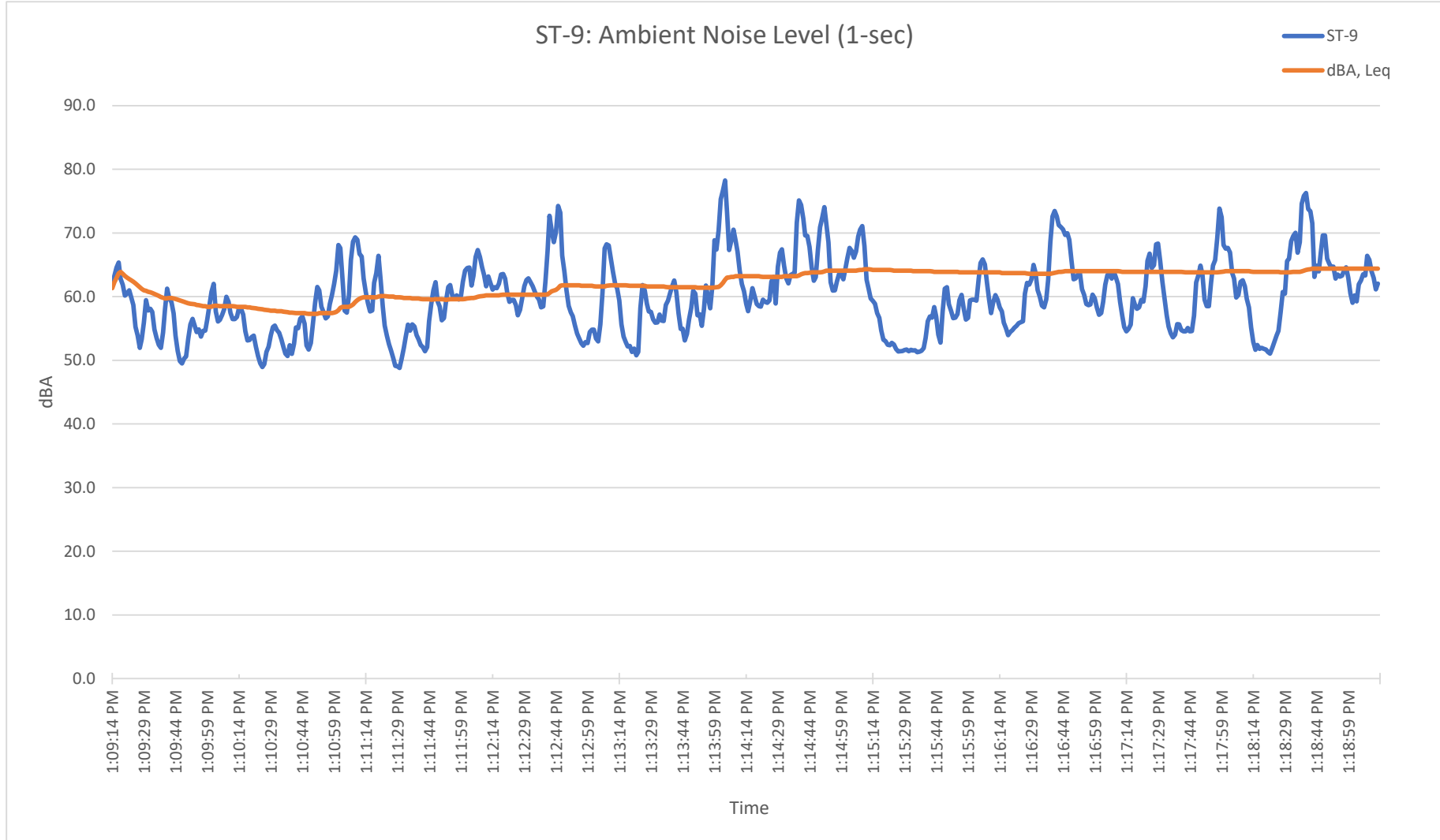


Figure 10-1: ST-9 Site

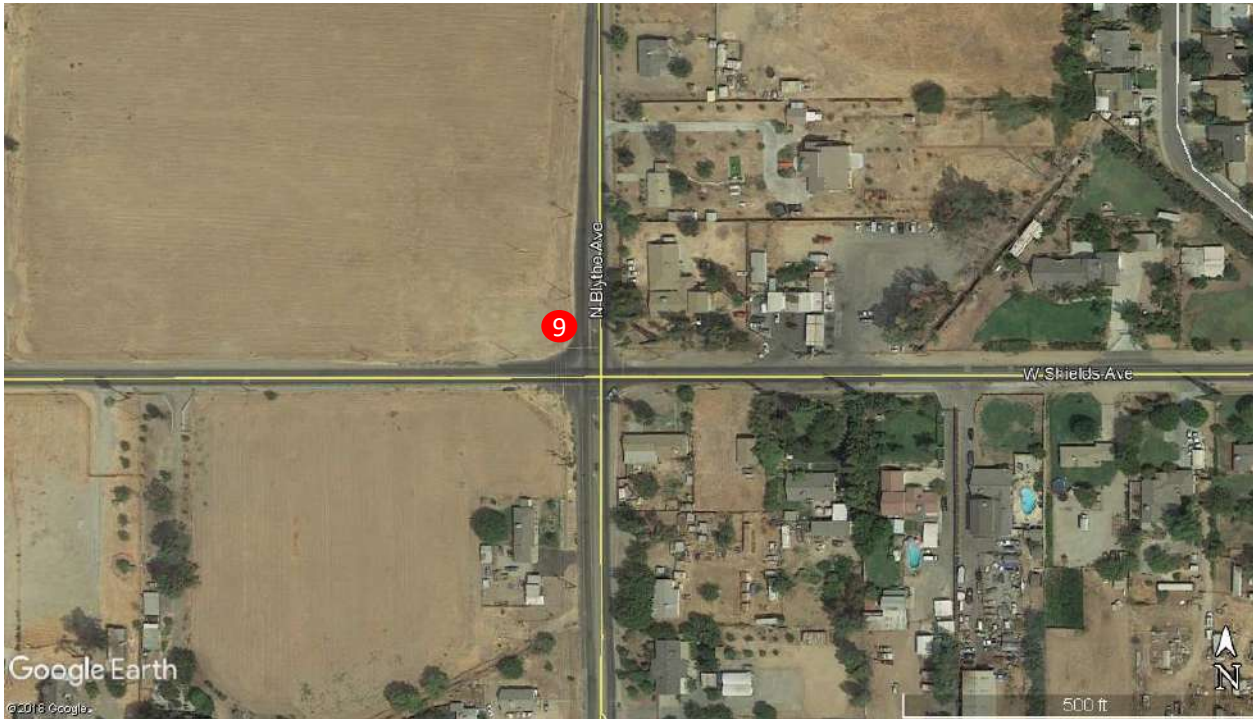


Figure 10-2: ST-9 Site



Figure 10-3: ST-9 Site



10-Minute Continuous Noise Measurement Datasheet - ST-10

Project: 04621901 Fresno West EIR
Site Address/Location: Clinton Ave. & Bryan Ave.
Site ID: ST-10

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Hard site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Clinton Ave. is 15ft from meter
C/L of Bryan Ave. is 25ft from meter

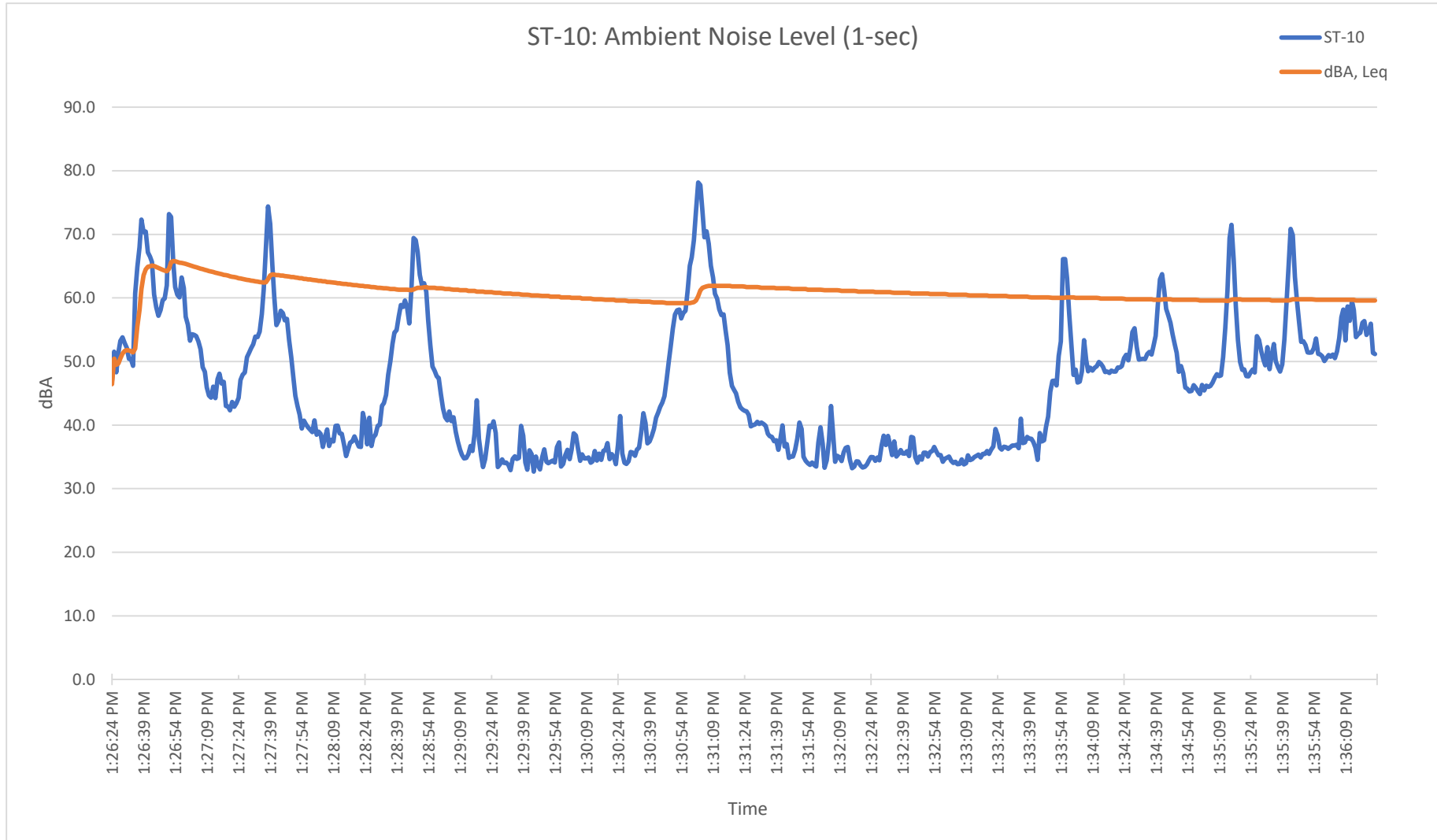


Figure 11-1: ST-10 Site

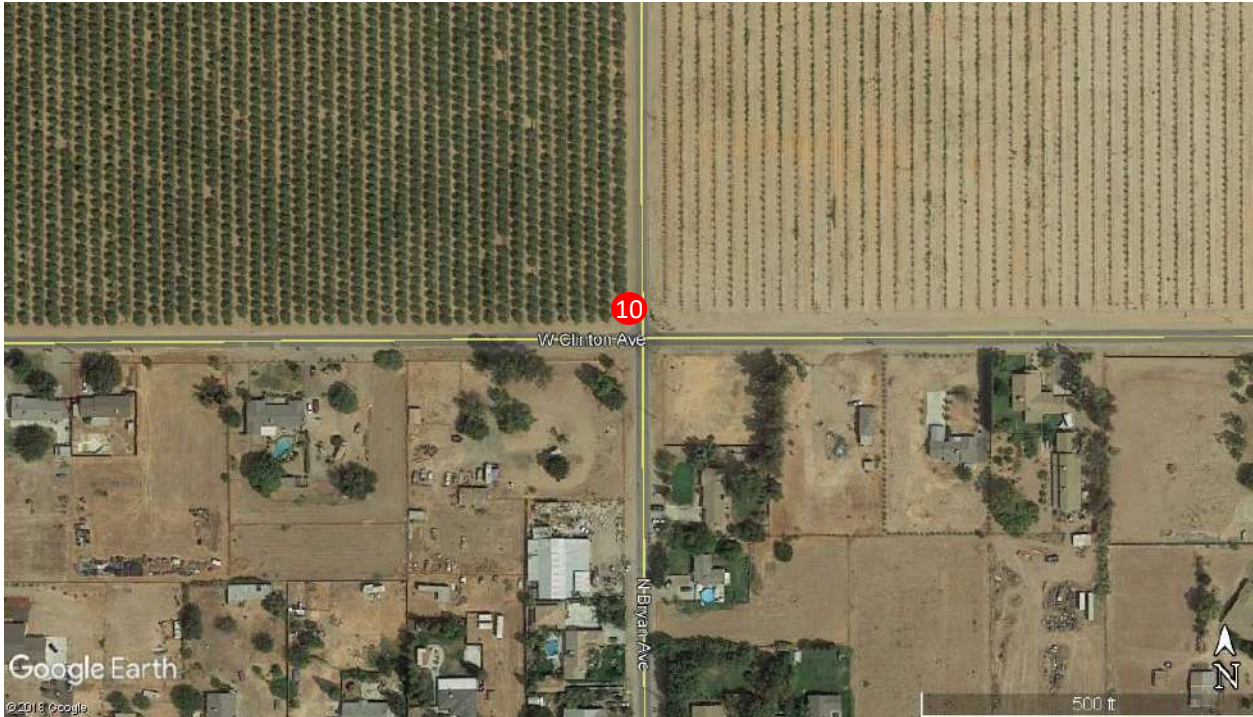


Figure 11-2: ST-10 Site



Figure 11-3: ST-10 Site



10-Minute Continuous Noise Measurement Datasheet - ST-11

Project: 04621901 Fresno West EIR
Site Address/Location: Cornelia Ave. & Clinton Ave.
Site ID: ST-11

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Cornelia Ave. is 35ft from meter
C/L of Clinton Ave. is 40ft from meter

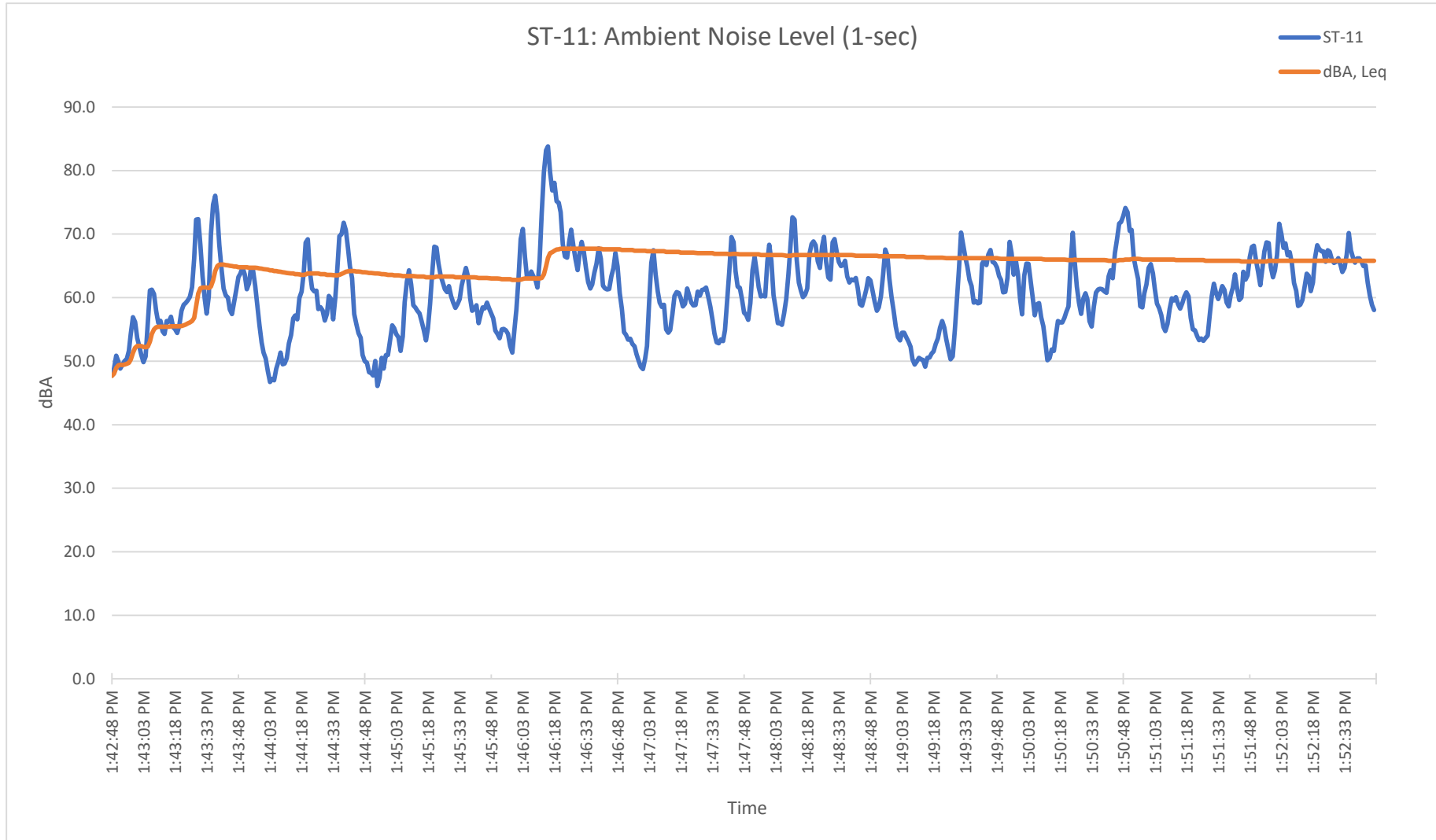


Figure 12-1: ST-11 Site



Figure 12-2: ST-11 Photo



Figure 12-3: ST-11 Photo



10-Minute Continuous Noise Measurement Datasheet - ST-12

Project: 04621901 Fresno West EIR
Site Address/Location: Clinton Ave. & Marks Ave.
Site ID: ST-12

Site Topo: 85 Degrees
Sunny, clear, 1-3 mph wind
Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:
C/L of Clinton Ave. is 45ft from meter
C/L of Marks Ave. 65ft from meter

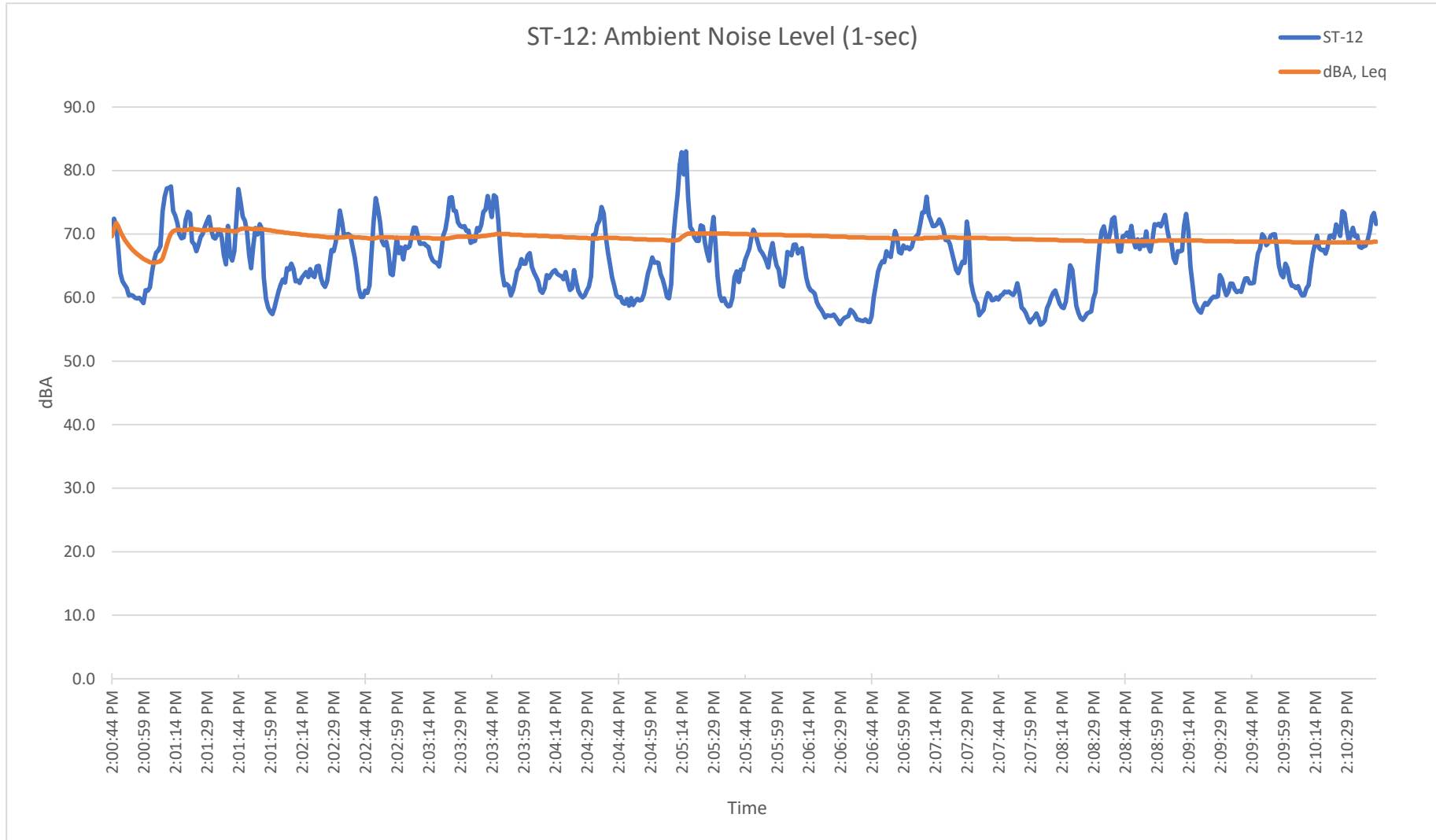


Figure 13-1: ST-12 Site

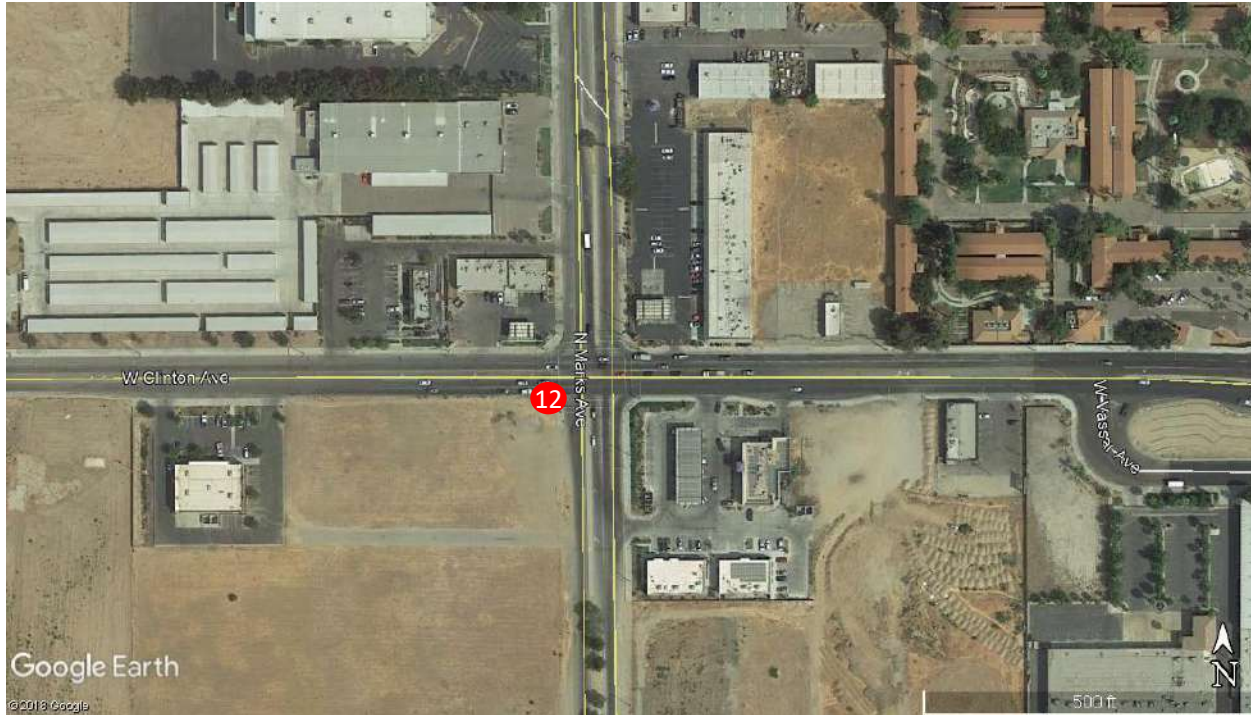


Figure 13-2: ST-12 Photo



Figure 13-3: ST-12 Photo



24-Hour Continuous Noise Measurement Datasheet

Project:	04621901 Fresno West EIR	Site Observations:	Sunny, Ambient noise consisted of traffic along Barstow Ave. and Grantland Ave.
Site Address/Location:	Barstow Ave. & Grantland Ave., Fresno, CA		
Date:	6/3/2019 to 6/4/2019		
Field Tech/Engineer:	Mike Dickerson, INCE		

General Location:

Sound Meter: LD 831 **SN:** 3713

Settings: A-weighted, slow, 1-min, 1-hour interval, 24-hour duration

Meteorological Con.: Sunny

Site ID: LT-1

Site Topo: Flat

Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:

C/L of Barstow Ave. is 35ft from meter

C/L of Grantland Ave. is 230ft from meter

Figure 1: LT-1 Monitoring Location

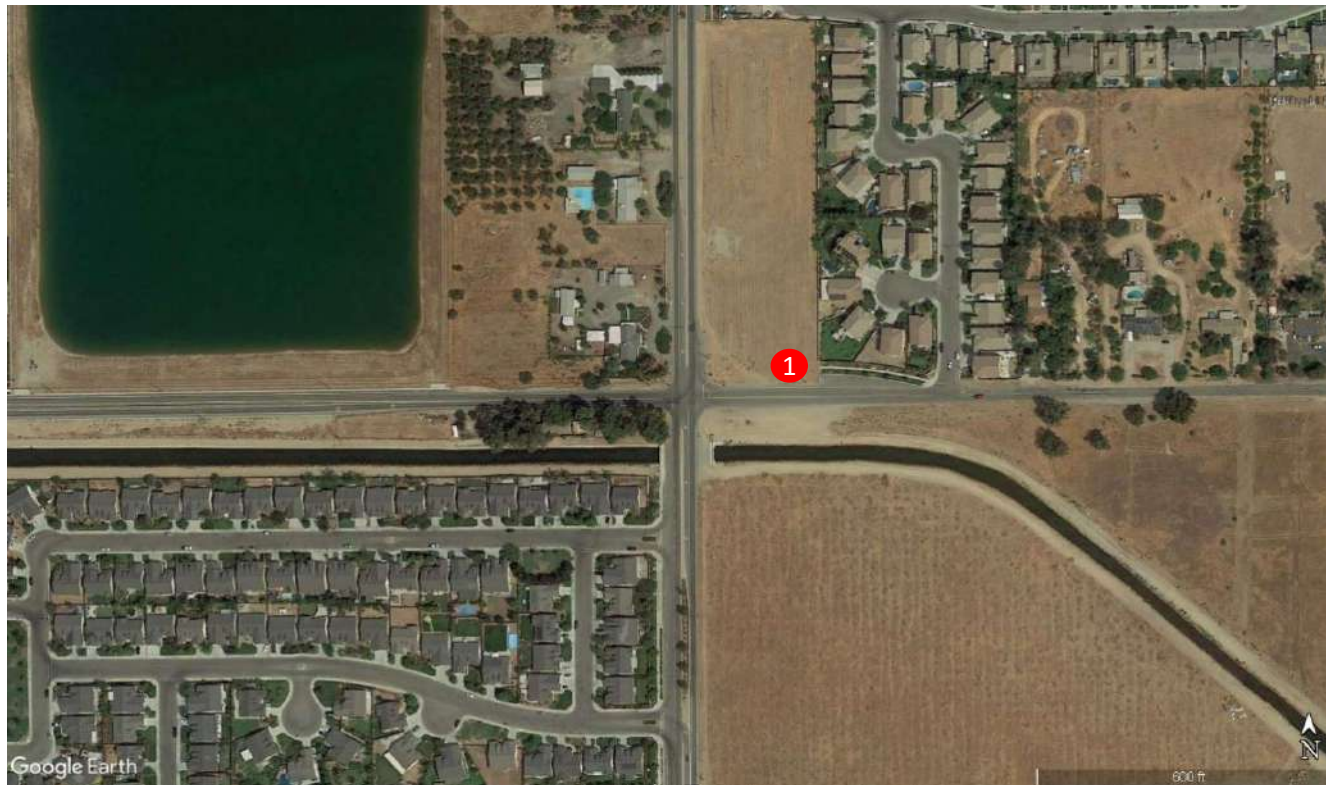


Figure 2: LT-1 Photo



24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR **Day:** 1 of 1
Site Address/Location: Barstow Ave. & Grantland Ave., Fresno, CA
Site ID: LT-1

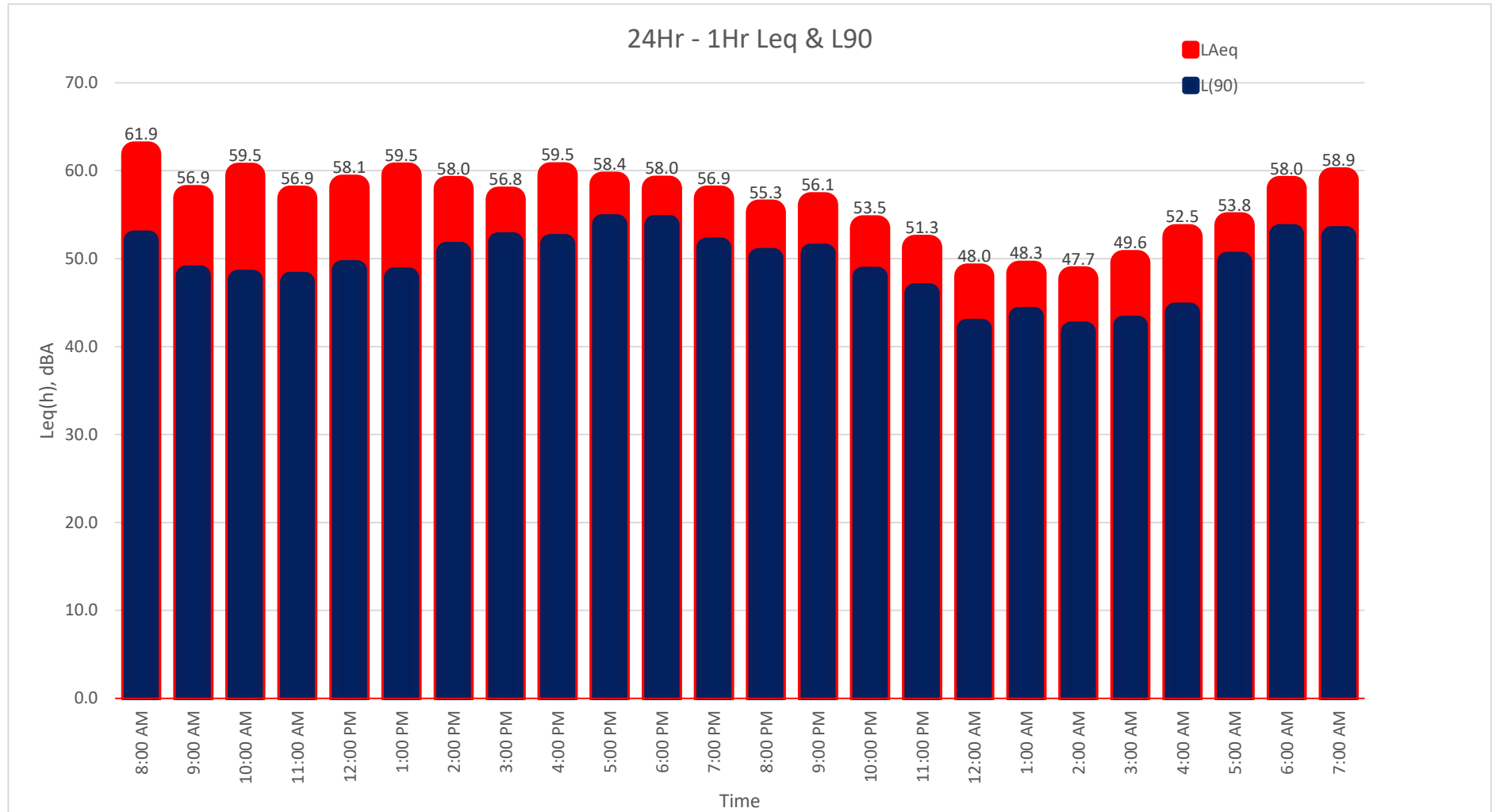
Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
6/3/2019	8:00 AM	9:00 AM	61.9	83.5	42.9	70.4	65.5	58.4	55.3	52.1
6/3/2019	9:00 AM	10:00 AM	56.9	75.6	36.7	63.5	61.2	57.9	55.3	48.1
6/3/2019	10:00 AM	11:00 AM	59.5	85.7	36.3	66.0	60.7	58.4	53.3	47.6
6/3/2019	11:00 AM	12:00 PM	56.9	79.4	35.2	63.0	60.5	57.2	54.0	47.3
6/3/2019	12:00 PM	1:00 PM	58.1	81.9	35.6	66.2	62.6	57.3	55.3	48.7
6/3/2019	1:00 PM	2:00 PM	59.5	86.2	36.1	66.1	62.0	57.7	55.0	47.8
6/3/2019	2:00 PM	3:00 PM	58.0	82.4	34.7	64.3	61.6	58.1	55.7	50.8
6/3/2019	3:00 PM	4:00 PM	56.8	70.5	39.6	60.7	59.7	57.7	56.1	51.9
6/3/2019	4:00 PM	5:00 PM	59.5	88.2	39.5	63.9	60.8	58.2	56.2	51.6
6/3/2019	5:00 PM	6:00 PM	58.4	71.0	41.0	61.7	60.9	59.7	58.3	53.9
6/3/2019	6:00 PM	7:00 PM	58.0	75.9	42.6	62.3	60.2	59.1	57.1	53.8
6/3/2019	7:00 PM	8:00 PM	56.9	76.1	39.0	62.4	59.8	57.1	55.6	51.2
6/3/2019	8:00 PM	9:00 PM	55.3	70.4	39.3	59.7	59.0	57.0	54.0	50.1
6/3/2019	9:00 PM	10:00 PM	56.1	77.5	42.8	63.3	58.2	56.2	53.8	50.6
6/3/2019	10:00 PM	11:00 PM	53.5	69.1	40.0	58.9	57.7	54.6	50.8	47.9
6/3/2019	11:00 PM	12:00 AM	51.3	72.9	40.1	58.7	53.9	51.3	49.5	46.0
6/4/2019	12:00 AM	1:00 AM	48.0	66.7	37.0	55.2	51.8	48.1	45.3	42.0
6/4/2019	1:00 AM	2:00 AM	48.3	68.9	36.5	54.3	51.5	48.2	46.5	43.4
6/4/2019	2:00 AM	3:00 AM	47.7	66.0	37.0	55.1	52.4	47.2	44.3	41.7
6/4/2019	3:00 AM	4:00 AM	49.6	70.0	36.4	56.7	53.9	49.0	45.7	42.4
6/4/2019	4:00 AM	5:00 AM	52.5	72.7	38.5	61.0	57.0	51.7	48.4	43.9
6/4/2019	5:00 AM	6:00 AM	53.8	73.5	45.8	57.5	57.2	54.7	52.3	49.6
6/4/2019	6:00 AM	7:00 AM	58.0	75.6	45.9	64.1	61.7	58.9	55.9	52.8
6/4/2019	7:00 AM	8:00 AM	58.9	76.4	42.7	62.7	61.6	60.1	58.0	52.5

CNEL: 60.5

24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR
Site Address/Location: Barstow Ave. & Grantland Ave., Fresno, CA
Site ID: LT-1

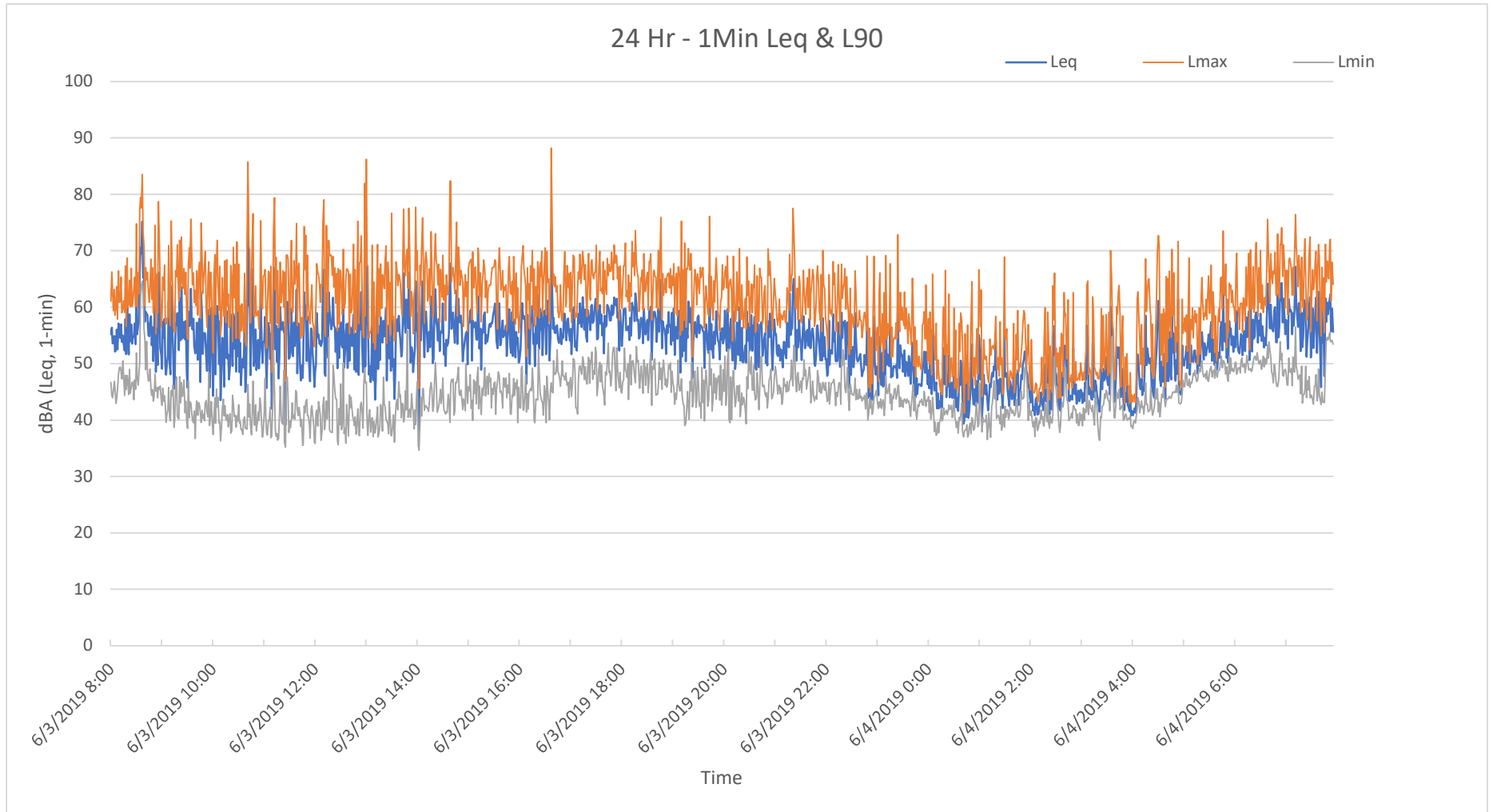
Day: 1 of 1



24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR
Site Address/Location: Barstow Ave. & Grantland Ave., Fresno, CA
Site ID: LT-1

Day: 1 of 1



24-Hour Continuous Noise Measurement Datasheet

Project:	04621901 Fresno West EIR	Site Observations:	Sunny, Ambient noise consisted of traffic along Valentine Ave and State Route 99.
Site Address/Location:	Shields Ave. & Valentine Ave., Fresno, CA		
Date:	6/3/2019 to 6/4/2019		
Field Tech/Engineer:	Mike Dickerson, INCE		

General Location:

Sound Meter: LD 831 **SN:** 3168

Settings: A-weighted, slow, 1-min, 1-hour interval, 24-hour duration

Meteorological Con.: Sunny

Site ID: LT-2

Site Topo: Flat

Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:

C/L of Valentine Ave. is 35ft from meter

C/L of State Route 99 is 300ft from meter

Figure 1: LT-1 Monitoring Location

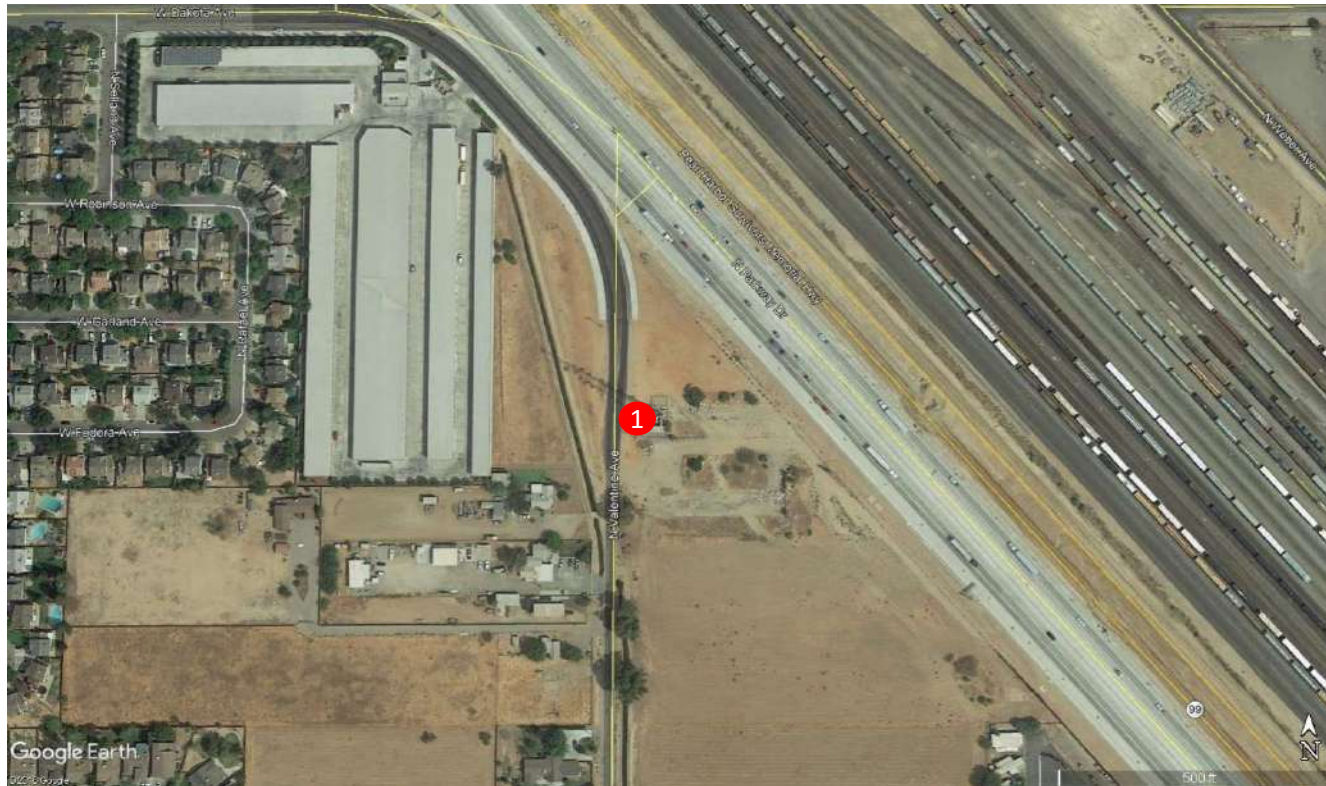


Figure 2: LT-1 Photo



24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR **Day:** 1 of 1
Site Address/Location: Shields Ave. & Valentine Ave., Fresno, CA
Site ID: LT-2

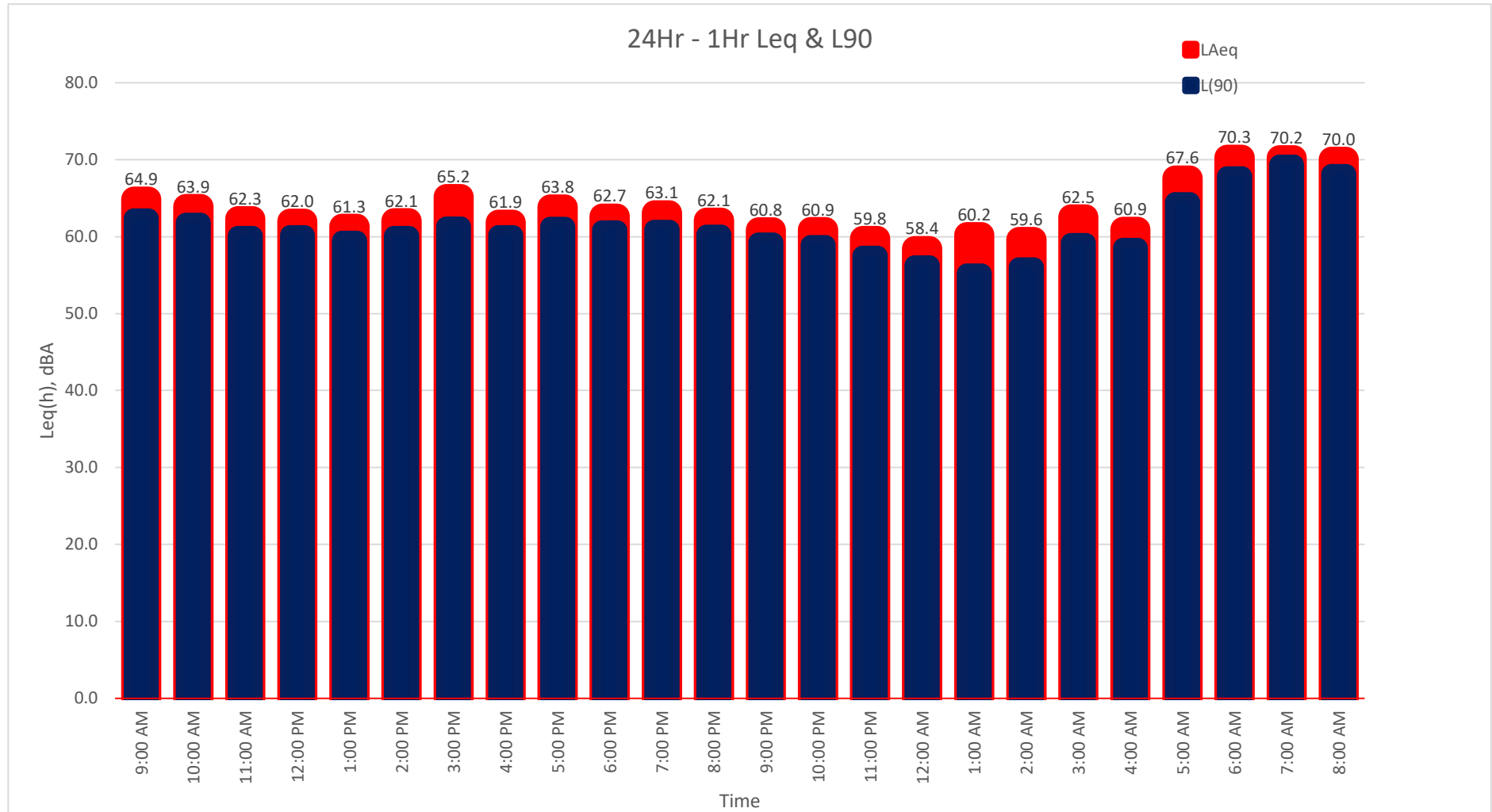
Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
6/3/2019	9:00 AM	10:00 AM	64.9	75.4	57.1	68.0	67.3	65.8	64.5	62.3
6/3/2019	10:00 AM	11:00 AM	63.9	79.7	56.5	66.8	65.7	64.6	63.5	61.8
6/3/2019	11:00 AM	12:00 PM	62.3	72.8	54.1	64.9	64.1	62.9	61.7	60.1
6/3/2019	12:00 PM	1:00 PM	62.0	74.2	54.2	64.5	63.5	62.9	61.5	60.2
6/3/2019	1:00 PM	2:00 PM	61.3	71.3	52.9	63.1	62.8	62.1	61.2	59.5
6/3/2019	2:00 PM	3:00 PM	62.1	73.5	53.5	64.1	63.6	62.6	61.7	60.1
6/3/2019	3:00 PM	4:00 PM	65.2	93.9	56.5	70.0	64.8	63.4	62.6	61.3
6/3/2019	4:00 PM	5:00 PM	61.9	73.2	53.5	63.8	63.3	62.6	61.6	60.2
6/3/2019	5:00 PM	6:00 PM	63.8	83.8	56.2	68.5	66.1	64.0	62.6	61.3
6/3/2019	6:00 PM	7:00 PM	62.7	82.8	54.4	65.3	63.6	62.9	62.1	60.8
6/3/2019	7:00 PM	8:00 PM	63.1	84.2	55.0	67.9	64.7	63.2	62.4	60.9
6/3/2019	8:00 PM	9:00 PM	62.1	73.8	51.0	64.3	63.9	62.8	62.0	60.3
6/3/2019	9:00 PM	10:00 PM	60.8	72.8	53.4	62.6	62.3	61.4	60.7	59.2
6/3/2019	10:00 PM	11:00 PM	60.9	71.0	52.2	63.6	63.0	61.6	60.7	58.9
6/3/2019	11:00 PM	12:00 AM	59.8	70.6	49.4	62.4	61.2	60.6	59.6	57.5
6/4/2019	12:00 AM	1:00 AM	58.4	69.7	48.6	60.8	60.4	59.5	58.1	56.3
6/4/2019	1:00 AM	2:00 AM	60.2	88.5	48.0	64.7	61.1	58.8	57.9	55.2
6/4/2019	2:00 AM	3:00 AM	59.6	70.0	49.0	63.6	62.3	60.6	58.8	56.0
6/4/2019	3:00 AM	4:00 AM	62.5	75.5	48.8	66.0	65.4	63.3	61.9	59.2
6/4/2019	4:00 AM	5:00 AM	60.9	69.5	52.3	63.9	63.1	62.0	60.3	58.5
6/4/2019	5:00 AM	6:00 AM	67.6	79.0	59.9	70.8	69.6	68.7	67.6	64.5
6/4/2019	6:00 AM	7:00 AM	70.3	85.6	63.3	72.4	71.9	71.4	70.4	67.8
6/4/2019	7:00 AM	8:00 AM	70.2	75.5	65.9	71.6	71.0	70.6	70.1	69.4
6/4/2019	8:00 AM	9:00 AM	70.0	88.8	61.3	72.3	71.2	70.6	69.6	68.1

CNEL: 68.6

24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR
Site Address/Location: Shields Ave. & Valentine Ave., Fresno, CA
Site ID: LT-2

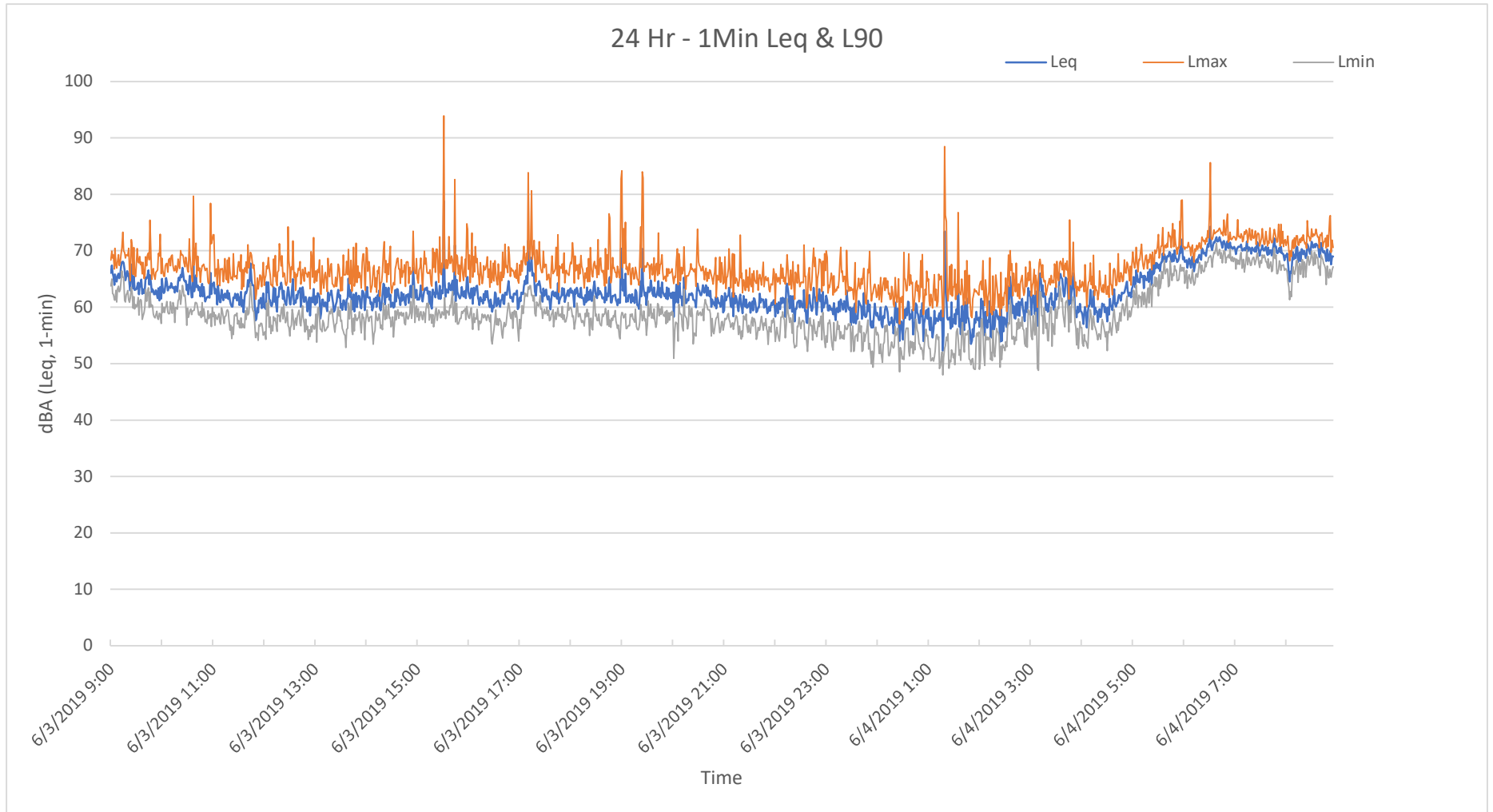
Day: 1 of 1



24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR
Site Address/Location: Shields Ave. & Valentine Ave., Fresno, CA
Site ID: LT-2

Day: 1 of 1



24-Hour Continuous Noise Measurement Datasheet

Project:	04621901 Fresno West EIR	Site Observations:	Sunny, Ambient noise consisted of traffic along Blythe Ave and Ashlan Ave.
Site Address/Location:	Blythe Ave. & Ashlan Ave., Fresno, CA		
Date:	6/4/2019 to 6/5/2019		
Field Tech/Engineer:	Mike Dickerson, INCE		

General Location:

Sound Meter: LD 831 **SN:** 3715

Settings: A-weighted, slow, 1-min, 1-hour interval, 24-hour duration

Meteorological Con.: Sunny

Site ID: LT-3

Site Topo: Flat

Ground Type: Soft site, w/ street surface hard

Noise Source(s) w/ Distance:

C/L of Blythe Ave. is 60ft from meter

C/L of Ashlan Ave. is 90ft from meter

Figure 1: LT-3 Monitoring Location

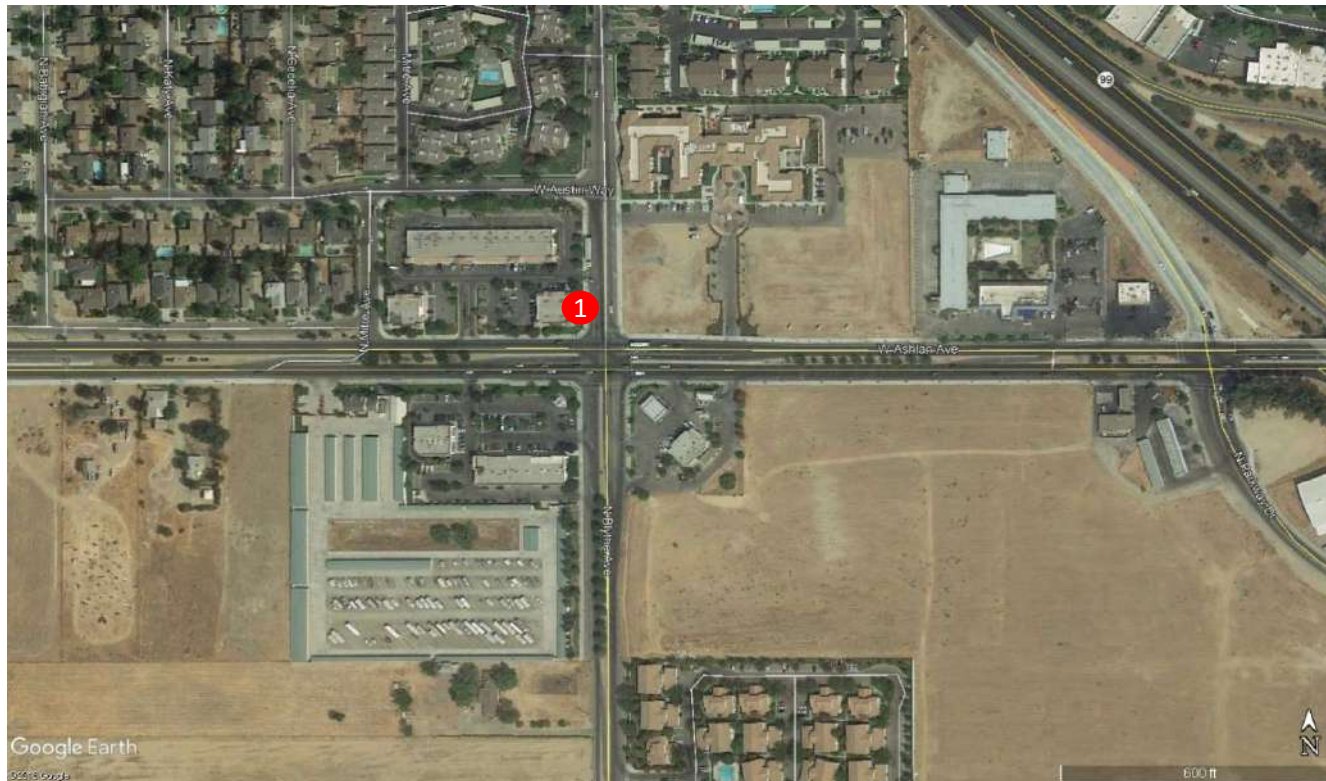


Figure 2: LT-3 Photo



24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR **Day:** 1 of 1
Site Address/Location: Blythe Ave. & Ashlan Ave., Fresno, CA
Site ID: LT-3

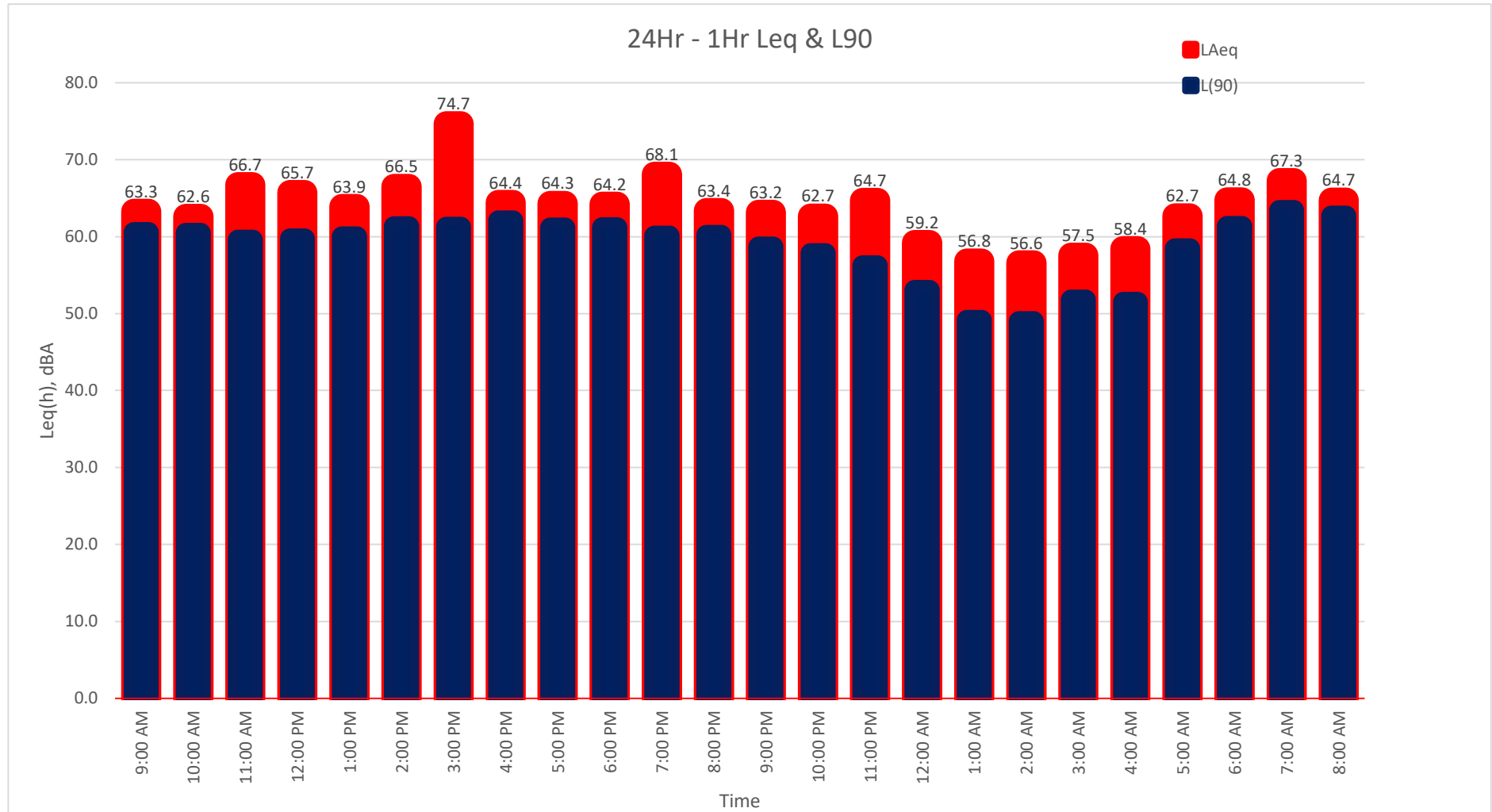
Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
6/4/2019	9:00 AM	10:00 AM	63.3	81.8	48.7	68.1	66.0	63.3	62.3	60.6
6/4/2019	10:00 AM	11:00 AM	62.6	76.9	48.7	66.1	64.8	63.1	62.1	60.5
6/4/2019	11:00 AM	12:00 PM	66.7	92.0	48.7	74.5	70.1	63.5	61.8	59.6
6/4/2019	12:00 PM	1:00 PM	65.7	86.5	48.0	75.3	67.0	63.8	62.8	59.8
6/4/2019	1:00 PM	2:00 PM	63.9	81.7	48.2	70.0	65.9	63.7	62.8	60.0
6/4/2019	2:00 PM	3:00 PM	66.5	92.0	50.2	74.8	68.1	64.8	63.6	61.4
6/4/2019	3:00 PM	4:00 PM	74.7	106.8	49.4	73.2	69.3	65.5	63.4	61.3
6/4/2019	4:00 PM	5:00 PM	64.4	79.4	50.1	68.6	67.2	65.0	63.7	62.1
6/4/2019	5:00 PM	6:00 PM	64.3	83.6	49.1	68.9	66.6	64.6	63.6	61.2
6/4/2019	6:00 PM	7:00 PM	64.2	83.0	49.4	69.1	67.0	64.8	63.0	61.2
6/4/2019	7:00 PM	8:00 PM	68.1	96.1	51.3	72.2	67.8	65.3	63.0	60.1
6/4/2019	8:00 PM	9:00 PM	63.4	80.6	50.4	68.2	65.9	63.6	62.6	60.2
6/4/2019	9:00 PM	10:00 PM	63.2	84.0	48.1	69.4	65.6	63.5	61.2	58.7
6/4/2019	10:00 PM	11:00 PM	62.7	89.0	47.4	66.9	64.2	62.0	60.7	57.9
6/4/2019	11:00 PM	12:00 AM	64.7	92.3	46.2	71.7	68.4	62.6	59.7	56.3
6/5/2019	12:00 AM	1:00 AM	59.2	85.5	43.2	65.5	62.0	58.4	56.9	53.1
6/5/2019	1:00 AM	2:00 AM	56.8	80.9	40.5	61.8	60.8	57.2	54.7	49.1
6/5/2019	2:00 AM	3:00 AM	56.6	79.5	41.4	63.3	59.8	57.2	54.1	49.0
6/5/2019	3:00 AM	4:00 AM	57.5	78.9	44.3	61.4	60.7	58.1	56.8	51.8
6/5/2019	4:00 AM	5:00 AM	58.4	80.1	45.1	65.2	61.0	58.7	56.8	51.5
6/5/2019	5:00 AM	6:00 AM	62.7	83.4	48.8	66.1	65.6	63.8	61.5	58.5
6/5/2019	6:00 AM	7:00 AM	64.8	81.2	54.9	68.2	66.7	65.5	64.3	61.4
6/5/2019	7:00 AM	8:00 AM	67.3	90.2	54.7	72.6	67.9	65.6	64.8	63.4
6/5/2019	8:00 AM	9:00 AM	64.7	82.3	54.8	68.4	66.9	64.9	64.2	62.7

CNEL: 70.2

24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR
Site Address/Location: Blythe Ave. & Ashlan Ave., Fresno, CA
Site ID: LT-3

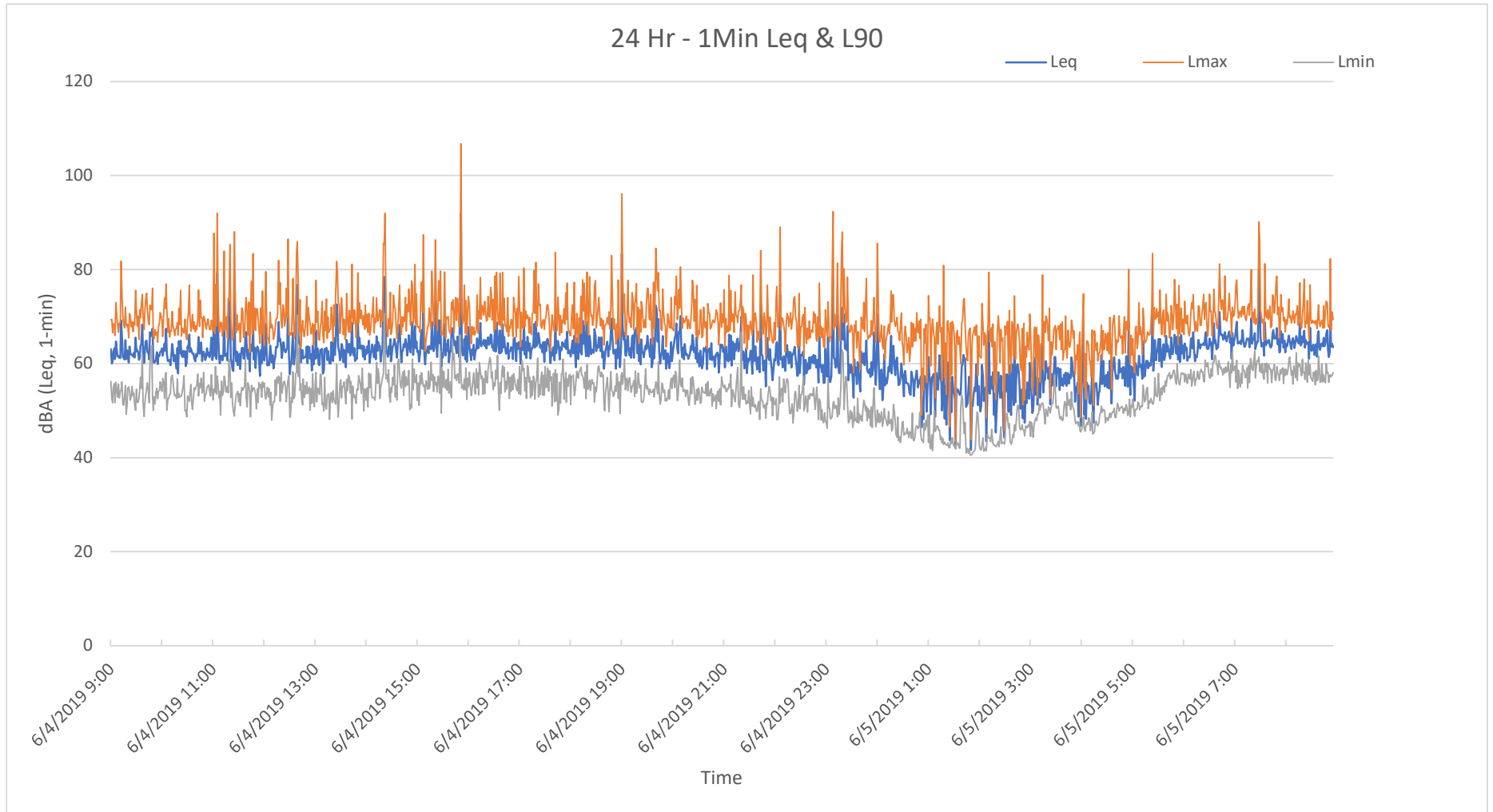
Day: 1 of 1



24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR
Site Address/Location: Blythe Ave. & Ashlan Ave., Fresno, CA
Site ID: LT-3

Day: 1 of 1



24-Hour Continuous Noise Measurement Datasheet

Project:	<u>04621901 Fresno West EIR</u>	Site Observations:	<u>Sunny, Ambient noise consisted of traffic along Ashlan Ave and Hayes Ave.</u>
Site Address/Location:	<u>Ashlan Ave. & Hayes Ave., Fresno, CA</u>		
Date:	<u>6/3/2019 to 6/4/2019</u>		
Field Tech/Engineer:	<u>Mike Dickerson, INCE</u>		

General Location:		
Sound Meter:	<u>LD 831</u>	SN: <u>3716</u>
Settings:	<u>A-weighted, slow, 1-min, 1-hour interval, 24-hour duration</u>	
Meteorological Con.:	<u>Sunny</u>	
Site ID:	<u>LT-4</u>	

Site Topo:	<u>Flat</u>
Ground Type:	<u>Soft site, w/ street surface hard</u>

Noise Source(s) w/ Distance:
<u>C/L of Ashlan Ave. is 20ft from meter</u>
<u>C/L of Hayes Ave. is 130ft from meter</u>

Figure 1: LT-1 Monitoring Location

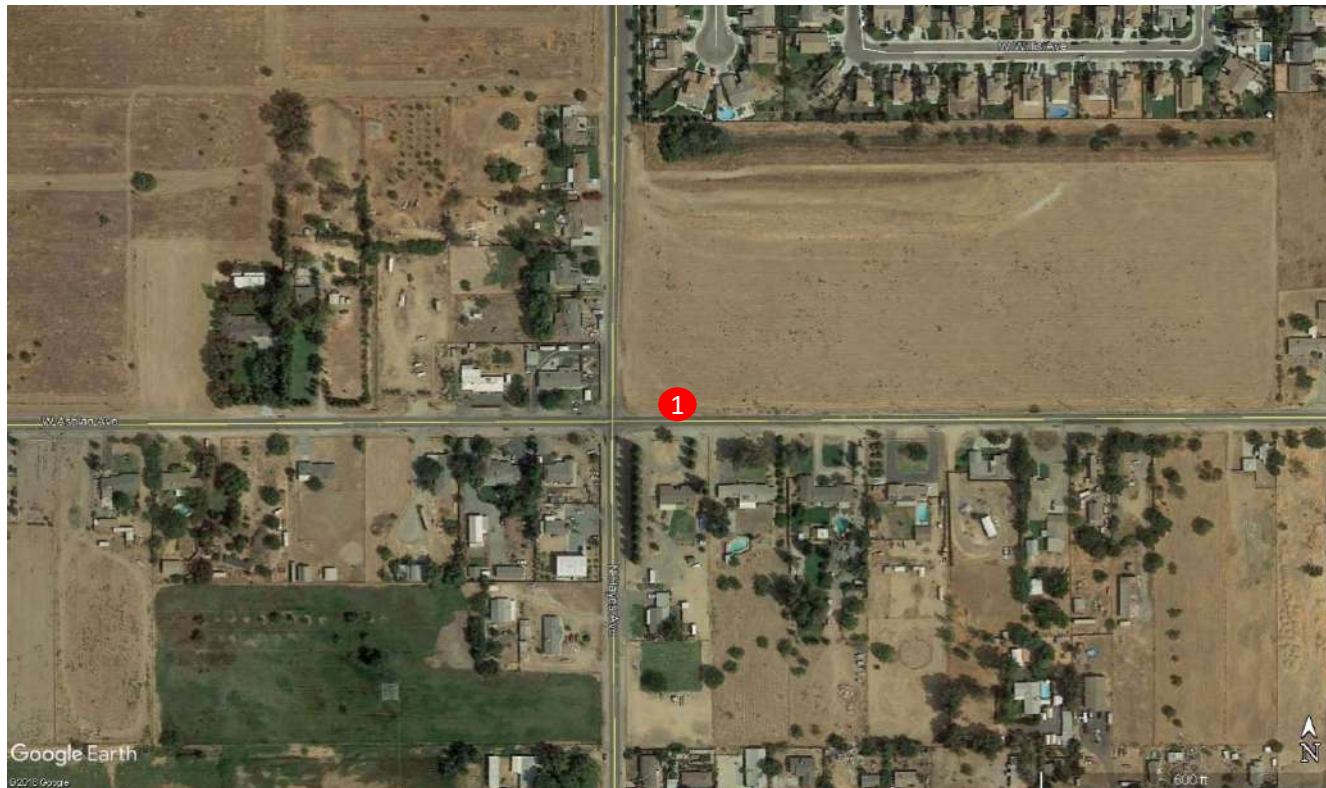


Figure 2: LT-1 Photo



24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR **Day:** 1 of 1
Site Address/Location: Ashlan Ave. & Hayes Ave., Fresno, CA
Site ID: LT-4

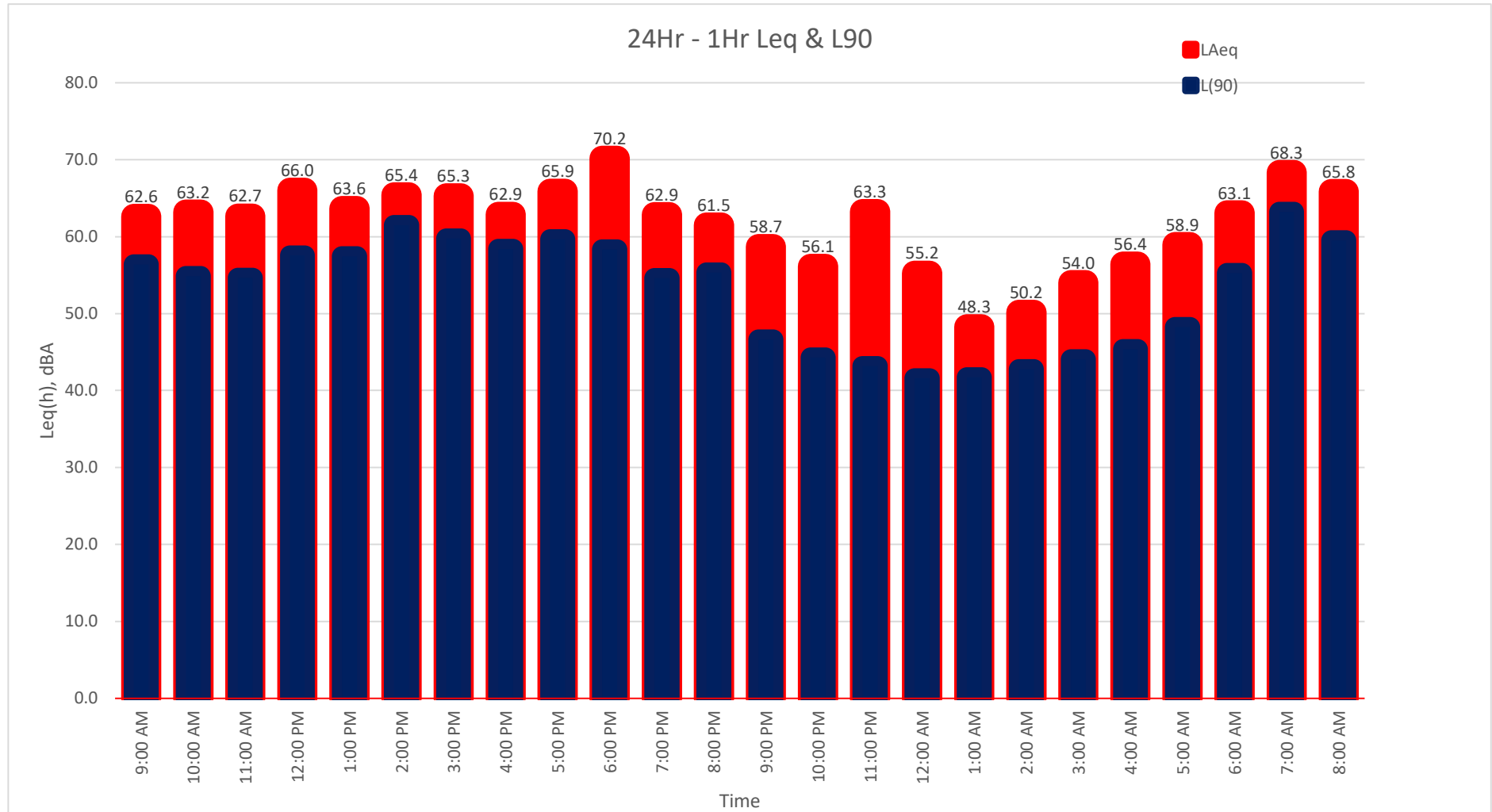
Date	Start	Stop	Leq	Lmax	Lmin	L2	L8	L25	L50	L90
6/3/2019	9:00 AM	10:00 AM	62.6	84.0	38.0	69.8	66.4	62.6	60.1	56.4
6/3/2019	10:00 AM	11:00 AM	63.2	86.7	35.7	71.7	66.3	62.8	60.5	54.9
6/3/2019	11:00 AM	12:00 PM	62.7	86.6	34.8	69.9	64.5	62.3	60.6	54.6
6/3/2019	12:00 PM	1:00 PM	66.0	94.7	40.4	71.2	69.1	64.3	61.4	57.6
6/3/2019	1:00 PM	2:00 PM	63.6	90.8	37.2	70.0	65.4	62.3	60.5	57.4
6/3/2019	2:00 PM	3:00 PM	65.4	82.0	36.7	71.2	68.9	65.5	63.9	61.5
6/3/2019	3:00 PM	4:00 PM	65.3	85.8	40.5	72.2	68.0	66.1	64.4	59.8
6/3/2019	4:00 PM	5:00 PM	62.9	79.8	39.2	68.8	65.9	63.7	61.8	58.4
6/3/2019	5:00 PM	6:00 PM	65.9	90.7	45.8	74.8	67.2	65.1	62.6	59.7
6/3/2019	6:00 PM	7:00 PM	70.2	99.3	43.2	78.1	68.7	65.0	62.1	58.3
6/3/2019	7:00 PM	8:00 PM	62.9	85.4	39.8	69.4	66.2	62.6	60.3	54.6
6/3/2019	8:00 PM	9:00 PM	61.5	83.9	40.1	67.6	64.4	61.9	59.6	55.3
6/3/2019	9:00 PM	10:00 PM	58.7	78.0	39.6	64.6	63.3	59.4	57.6	46.6
6/3/2019	10:00 PM	11:00 PM	56.1	75.8	39.8	62.1	60.1	57.4	54.5	44.3
6/3/2019	11:00 PM	12:00 AM	63.3	93.6	39.6	63.5	58.7	55.1	48.5	43.2
6/4/2019	12:00 AM	1:00 AM	55.2	82.6	38.0	62.1	59.6	55.1	46.9	41.6
6/4/2019	1:00 AM	2:00 AM	48.3	69.3	36.8	56.6	50.7	46.8	44.4	41.7
6/4/2019	2:00 AM	3:00 AM	50.2	69.4	39.3	57.3	55.6	50.1	44.8	42.8
6/4/2019	3:00 AM	4:00 AM	54.0	75.6	38.7	61.6	59.8	51.1	46.8	44.0
6/4/2019	4:00 AM	5:00 AM	56.4	82.7	41.7	66.4	60.0	55.1	48.5	45.4
6/4/2019	5:00 AM	6:00 AM	58.9	79.4	43.0	66.6	62.6	59.9	56.5	48.3
6/4/2019	6:00 AM	7:00 AM	63.1	81.7	46.3	68.8	67.0	63.6	61.0	55.3
6/4/2019	7:00 AM	8:00 AM	68.3	88.1	46.4	75.0	72.9	68.2	66.3	63.2
6/4/2019	8:00 AM	9:00 AM	65.8	87.6	40.5	70.1	69.5	67.8	64.6	59.5

CNEL: 67.1

24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR
Site Address/Location: Ashlan Ave. & Hayes Ave., Fresno, CA
Site ID: LT-4

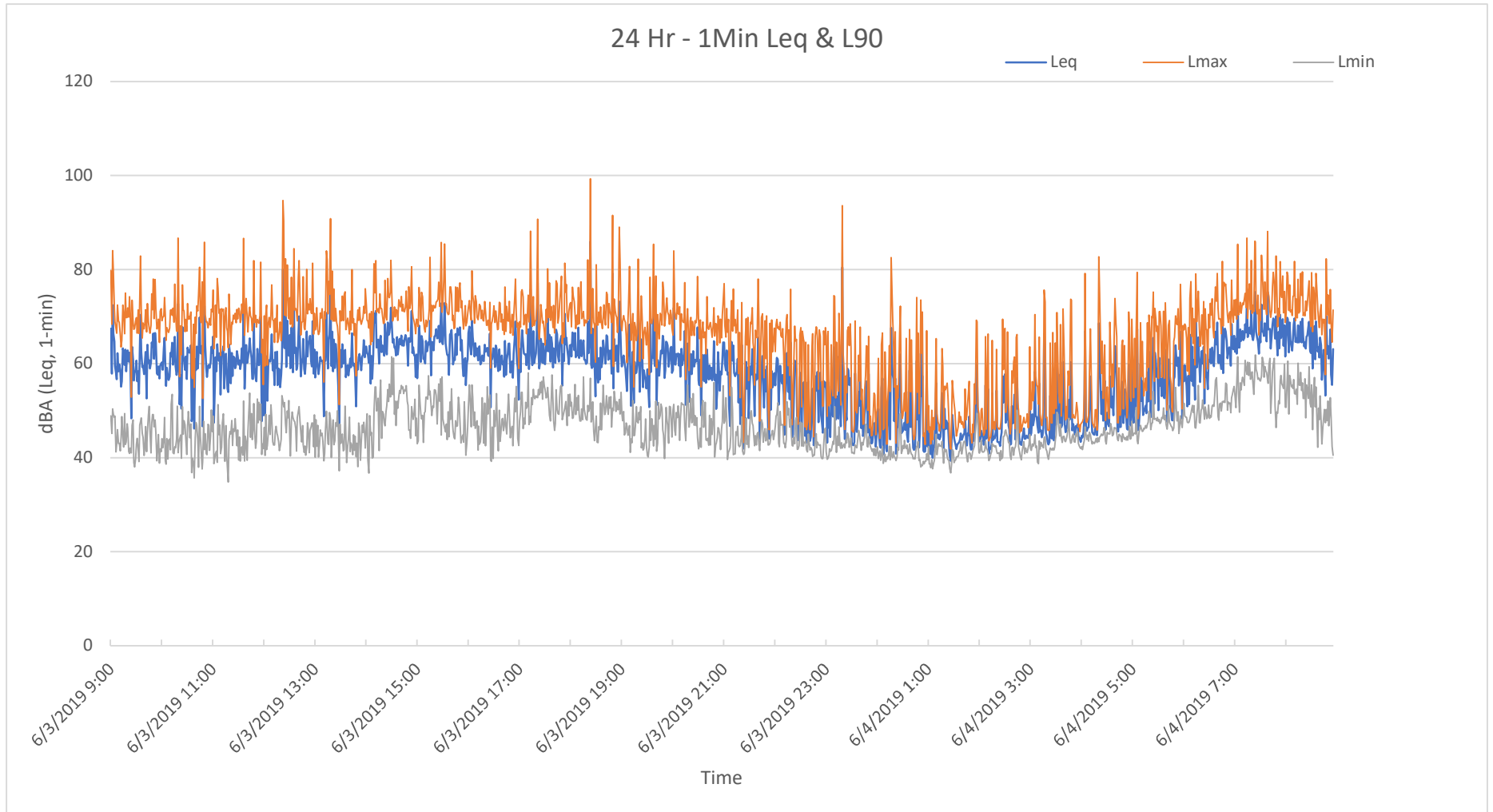
Day: 1 of 1



24-Hour Continuous Noise Measurement Datasheet - Cont.

Project: 04621901 Fresno West EIR
Site Address/Location: Ashlan Ave. & Hayes Ave., Fresno, CA
Site ID: LT-4

Day: 1 of 1



Appendix C:
FHWA Roadway Noise Worksheets

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: State Route 99
SEGMENT: W. Herndon Ave to W. Shaw Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 81,000
SPEED = 65
PK HR % = 10
NEAR LANE/FAR LANE DIST = 88
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 8,100

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.9	72.5	71.7	67.6	75.1	75.6
MEDIUM TRUCKS	69.1	66.0	64.6	64.2	70.9	71.2
HEAVY TRUCKS	78.3	74.9	70.7	74.8	81.2	81.3
VEHICULAR NOISE	80.3	77.2	74.7	75.9	82.4	82.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	695	1497	3225	6948
LDN	675	1453	3131	6745

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [State Route 99](#)
SEGMENT: [W. Shaw Ave to W. Ashlan Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [77,000](#)
SPEED = [65](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [88](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [7,700](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.7	72.3	71.5	67.4	74.9	75.4
MEDIUM TRUCKS	68.9	65.8	64.4	64.0	70.7	70.9
HEAVY TRUCKS	78.1	74.7	70.5	74.6	80.9	81.0
VEHICULAR NOISE	80.1	77.0	74.5	75.7	82.2	82.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	672	1447	3118	6718
LDN	652	1405	3027	6521

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [State Route 99](#)
SEGMENT: [W. Ashlan Ave to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [105,000](#)
SPEED = [65](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [88](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [10,500](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.1	73.7	72.8	68.7	76.2	76.7
MEDIUM TRUCKS	70.2	67.1	65.8	65.4	72.0	72.3
HEAVY TRUCKS	79.5	76.1	71.9	75.9	82.3	82.4
VEHICULAR NOISE	81.4	78.4	75.8	77.0	83.6	83.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	826	1780	3834	8261
LDN	802	1728	3722	8019

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [State Route 99](#)
SEGMENT: [W. Dakota Ave to W. Shields Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [104,000](#)
SPEED = [65](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [88](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [10,400](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.0	73.6	72.8	68.7	76.2	76.7
MEDIUM TRUCKS	70.2	67.1	65.7	65.3	72.0	72.3
HEAVY TRUCKS	79.4	76.0	71.8	75.9	82.2	82.3
VEHICULAR NOISE	81.4	78.3	75.8	77.0	83.5	83.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	821	1768	3810	8208
LDN	797	1717	3698	7968

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: State Route 99
SEGMENT: W. Shields Ave to W. Clinton Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 107,000
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 88
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 10,700

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.5	69.2	68.3	64.2	71.7	72.2
MEDIUM TRUCKS	67.8	64.7	63.3	63.0	69.6	69.9
HEAVY TRUCKS	78.1	74.7	70.5	74.5	80.9	81.0
VEHICULAR NOISE	79.3	76.1	73.0	75.2	81.7	81.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	615	1324	2852	6145
LDN	600	1292	2784	5998

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Herndon Ave](#)
SEGMENT: [N. Garfield Ave to N. Parkway Drive](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	18.3	16.4	14.6	8.8	17.3	17.9
MEDIUM TRUCKS	15.2	13.7	10.1	3.6	13.3	13.9
HEAVY TRUCKS	11.9	6.3	15.3	-15.6	8.1	12.0
VEHICULAR NOISE	20.6	18.5	18.7	10.0	19.1	20.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	0
LDN	0	0	0	0

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Bullard Ave
SEGMENT: N Garfield Ave to N. Grantland Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 600
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 60

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	46.1	44.2	42.4	36.6	45.1	45.7
MEDIUM TRUCKS	43.0	41.5	37.9	31.4	41.1	41.7
HEAVY TRUCKS	39.7	34.1	43.1	12.2	35.9	39.8
VEHICULAR NOISE	48.4	46.3	46.4	37.8	46.9	47.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	3	7	16	33
LDN	3	6	13	29

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Bullard Ave
SEGMENT: N. Grantland Ave to N. Bryan Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,900
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 290

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.9	51.0	49.2	43.4	51.9	52.5
MEDIUM TRUCKS	49.8	48.3	44.8	38.3	48.0	48.5
HEAVY TRUCKS	46.5	40.9	50.0	19.0	42.8	46.6
VEHICULAR NOISE	55.3	53.1	53.3	44.6	53.8	54.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	10	21	44	96
LDN	8	18	38	83

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Bullard Ave](#)
SEGMENT: [N. Bryan Ave to SR-99](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
 RT ANGLE [90](#)
 DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	21.5	19.6	17.8	12.0	20.5	21.1
MEDIUM TRUCKS	16.9	15.4	11.9	5.4	15.1	15.6
HEAVY TRUCKS	12.9	7.3	16.4	-14.6	9.2	13.0
VEHICULAR NOISE	23.2	21.2	20.8	12.9	21.8	22.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	1
LDN	0	0	0	1

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Barstow Ave
SEGMENT: N Garfield to N. Grantland Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,200
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 120

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.3	50.3	48.6	42.8	51.3	51.9
MEDIUM TRUCKS	47.7	46.2	42.7	36.2	45.9	46.4
HEAVY TRUCKS	43.7	38.1	47.2	16.2	40.0	43.8
VEHICULAR NOISE	54.0	51.9	51.5	43.7	52.6	53.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	17	37	79
LDN	7	15	32	69

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Barstow Ave](#)
SEGMENT: [N. Grantland Ave to N. Bryan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [800](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [80](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	47.3	45.4	43.6	37.9	46.3	46.9
MEDIUM TRUCKS	44.2	42.7	39.2	32.7	42.4	42.9
HEAVY TRUCKS	40.9	35.3	44.4	13.4	37.2	41.0
VEHICULAR NOISE	49.7	47.5	47.7	39.0	48.2	49.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	4	9	19	41
LDN	4	8	16	35

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Barstow Ave](#)
SEGMENT: [N. Bryan Ave to N. Contessa Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [50](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [66](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	94.4	--
MEDIUM TRUCKS=	4.00	94.4	--
HEAVY TRUCKS =	8.01	94.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	23.1	21.2	19.4	13.6	22.1	22.7
MEDIUM TRUCKS	18.0	16.5	12.9	6.4	16.1	16.7
HEAVY TRUCKS	13.7	8.1	17.1	-13.8	9.9	13.8
VEHICULAR NOISE	24.6	22.6	22.0	14.4	23.3	24.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	1
LDN	0	0	0	1

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Barstow Ave](#)
SEGMENT: [N. Contessa Ave to N. Island Waterpark Drive](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	21.6	19.7	17.9	12.1	20.6	21.2
MEDIUM TRUCKS	17.0	15.5	12.0	5.5	15.2	15.7
HEAVY TRUCKS	13.0	7.4	16.5	-14.5	9.3	13.1
VEHICULAR NOISE	23.3	21.3	20.9	13.0	22.0	22.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	1
LDN	0	0	0	1

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shaw Ave
SEGMENT: N Garfield Ave to N. Grantland Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 6,000
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 600

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.0	74.2	71.7	66.8	75.2	75.7
MEDIUM TRUCKS	71.1	69.6	66.1	61.3	70.0	70.5
HEAVY TRUCKS	76.6	75.1	69.5	66.5	75.3	75.6
VEHICULAR NOISE	79.9	78.3	74.4	70.2	78.9	79.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	415	894	1925	4147
LDN	390	840	1810	3900

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shaw Ave](#)
SEGMENT: [N. Grantland Ave to N. Bryan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [7,100](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [710](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.8	74.9	72.4	67.5	75.9	76.4
MEDIUM TRUCKS	71.8	70.3	66.8	62.0	70.8	71.2
HEAVY TRUCKS	77.3	75.8	70.2	67.2	76.1	76.4
VEHICULAR NOISE	80.7	79.0	75.1	71.0	79.6	80.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	464	1000	2154	4640
LDN	436	940	2025	4363

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shaw Ave](#)
SEGMENT: [N. Bryan Ave to 1,300 ft east of N. Hayes Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [8,250](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [825](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	77.4	75.6	73.0	68.2	76.6	77.0
MEDIUM TRUCKS	72.5	70.9	67.4	62.7	71.4	71.9
HEAVY TRUCKS	78.0	76.5	70.9	67.9	76.7	77.0
VEHICULAR NOISE	81.3	79.7	75.8	71.6	80.2	80.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	513	1105	2380	5128
LDN	482	1039	2238	4822

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shaw Ave
SEGMENT: 1,300 ft east of N. Hayes Ave to N. Polk Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 9,200
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 920

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	81.1	79.2	76.7	71.8	80.2	80.7
MEDIUM TRUCKS	74.7	73.2	69.7	64.9	73.6	74.1
HEAVY TRUCKS	79.5	78.0	72.4	69.4	78.2	78.5
VEHICULAR NOISE	83.9	82.2	78.6	74.3	82.9	83.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	771	1661	3578	7708
LDN	722	1557	3354	7225

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shaw Ave](#)
SEGMENT: [N. Polk Ave to State Route 99](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [18,200](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,820](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	84.2	82.3	79.8	74.9	83.3	83.8
MEDIUM TRUCKS	77.8	76.2	72.7	68.0	76.7	77.1
HEAVY TRUCKS	82.6	81.1	75.5	72.5	81.3	81.6
VEHICULAR NOISE	87.0	85.3	81.7	77.4	86.0	86.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1236	2663	5738	12362
LDN	1159	2496	5378	11587

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Gettysburg Ave
SEGMENT: 1,300 ft west of N. Bryan Ave to Bryan Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,200
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 120

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	49.1	47.2	45.4	39.6	48.1	48.7
MEDIUM TRUCKS	46.0	44.5	40.9	34.4	44.1	44.7
HEAVY TRUCKS	42.7	37.1	46.1	15.2	38.9	42.8
VEHICULAR NOISE	51.4	49.3	49.5	40.8	49.9	50.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	5	11	25	53
LDN	5	10	21	46

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Gettysburg Ave](#)
SEGMENT: [N. Bryan Ave to N. Hayes Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1,700](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [170](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	50.6	48.7	46.9	41.1	49.6	50.2
MEDIUM TRUCKS	47.5	46.0	42.4	35.9	45.7	46.2
HEAVY TRUCKS	44.2	38.6	47.7	16.7	40.4	44.3
VEHICULAR NOISE	53.0	50.8	51.0	42.3	51.4	52.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	7	14	31	67
LDN	6	12	27	58

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Gettysburg Ave
SEGMENT: N. Hayes Ave to N. Polk Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,950
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 195

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	51.2	49.3	47.5	41.7	50.2	50.8
MEDIUM TRUCKS	48.1	46.6	43.0	36.5	46.2	46.8
HEAVY TRUCKS	44.8	39.2	48.2	17.3	41.0	44.9
VEHICULAR NOISE	53.6	51.4	51.6	42.9	52.0	53.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	7	16	34	73
LDN	6	14	29	64

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Gettysburg Ave
SEGMENT: N. Polk Ave to N. Barcus
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,200
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 44
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 120

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.4	50.5	48.7	42.9	51.4	52.0
MEDIUM TRUCKS	47.8	46.3	42.8	36.3	46.0	46.5
HEAVY TRUCKS	43.8	38.2	47.3	16.3	40.1	43.9
VEHICULAR NOISE	54.1	52.1	51.7	43.8	52.7	53.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	17	37	80
LDN	7	15	33	71

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Ashlan Ave](#)
SEGMENT: [N. Garfield to N. Grantland](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	41.6	39.7	37.2	32.3	40.7	41.2
MEDIUM TRUCKS	35.2	33.6	30.1	25.4	34.1	34.5
HEAVY TRUCKS	40.0	38.5	32.9	29.9	38.7	39.0
VEHICULAR NOISE	44.4	42.7	39.1	34.8	43.4	43.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	2	4	8	18
LDN	2	4	8	17

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Ashlan Ave
SEGMENT: N. Grantland Ave to N. Bryan Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 3,200
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 320

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.5	74.6	72.1	67.2	75.6	76.1
MEDIUM TRUCKS	70.1	68.6	65.1	60.3	69.0	69.5
HEAVY TRUCKS	74.9	73.4	67.8	64.8	73.6	73.9
VEHICULAR NOISE	79.3	77.7	74.1	69.7	78.3	78.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	381	821	1769	3812
LDN	357	770	1659	3573

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Ashlan Ave](#)
SEGMENT: [N. Hayes Ave to N. Polk Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [2,050](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [205](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.4	69.5	67.0	62.1	70.5	71.0
MEDIUM TRUCKS	66.4	64.9	61.4	56.6	65.4	65.8
HEAVY TRUCKS	71.9	70.4	64.8	61.8	70.7	71.0
VEHICULAR NOISE	75.3	73.6	69.7	65.6	74.2	74.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	203	437	941	2027
LDN	191	411	885	1906

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Ashlan Ave
SEGMENT: N. Bryan Ave to N. Hayes Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 3,100
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 310

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	73.2	71.3	68.8	63.9	72.3	72.8
MEDIUM TRUCKS	68.2	66.7	63.2	58.4	67.2	67.6
HEAVY TRUCKS	73.7	72.2	66.6	63.6	72.5	72.8
VEHICULAR NOISE	77.1	75.4	71.5	67.4	76.0	76.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	267	575	1239	2670
LDN	251	541	1165	2511

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Ashlan Ave
SEGMENT: N. Polk Ave to N. Cornelia Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 6,500
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 650

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.4	74.5	72.0	67.1	75.5	76.0
MEDIUM TRUCKS	71.5	69.9	66.4	61.6	70.4	70.8
HEAVY TRUCKS	76.9	75.5	69.9	66.8	75.7	76.0
VEHICULAR NOISE	80.3	78.7	74.8	70.6	79.2	79.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	437	942	2031	4375
LDN	411	886	1909	4113

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Ashlan Ave
SEGMENT: N. Cornelia Ave to N. Blythe Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 16,350
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,635

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	80.4	78.5	76.0	71.1	79.5	80.0
MEDIUM TRUCKS	75.5	73.9	70.4	65.6	74.4	74.8
HEAVY TRUCKS	80.9	79.5	73.9	70.9	79.7	80.0
VEHICULAR NOISE	84.3	82.7	78.8	74.6	83.2	83.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	809	1743	3756	8091
LDN	761	1639	3531	7608

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
 ROADWAY: W. Ashlan Ave
 SEGMENT: N. Blythe Ave to State Route 99
 LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
 DATE: 9-Sep-20
 ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 23,600
 SPEED = 35
 PK HR % = 10
 NEAR LANE/FAR LANE DIST = 12
 ROAD ELEVATION = 0
 GRADE = 0
 PK HR VOL = 2,360

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
 DIST C/L TO WALL = 0
 RECEIVER HEIGHT = 5
 WALL DISTANCE FROM RECEIVER = 100
 PAD ELEVATION = 0
 ROADWAY VIEW: LF ANGLE -90
 RT ANGLE 90
 DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
 MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
 HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
 AMBIENT = 0
 BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	82.0	80.1	77.6	72.7	81.1	81.6
MEDIUM TRUCKS	77.1	75.5	72.0	67.2	76.0	76.4
HEAVY TRUCKS	82.5	81.1	75.5	72.4	81.3	81.6
VEHICULAR NOISE	85.9	84.3	80.4	76.2	84.8	85.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1033	2226	4797	10334
LDN	972	2093	4510	9717

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Dakota Ave
SEGMENT: N. Hayes Ave to N. Barcus Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,950
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 195

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	51.2	49.3	47.5	41.7	50.2	50.8
MEDIUM TRUCKS	48.1	46.6	43.0	36.5	46.2	46.8
HEAVY TRUCKS	44.8	39.2	48.2	17.3	41.0	44.9
VEHICULAR NOISE	53.6	51.4	51.6	42.9	52.0	53.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	7	16	34	73
LDN	6	14	29	64

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Dakota Ave](#)
SEGMENT: [N. Barcus Ave to N. Polk Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1,950](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [195](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
 RT ANGLE [90](#)
 DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.4	52.5	50.7	44.9	53.4	54.0
MEDIUM TRUCKS	49.8	48.3	44.8	38.3	48.0	48.5
HEAVY TRUCKS	45.8	40.2	49.3	18.3	42.1	45.9
VEHICULAR NOISE	56.1	54.1	53.7	45.8	54.7	55.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	11	24	51	109
LDN	10	21	45	96

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Dakota Ave](#)
SEGMENT: [N. Polk Ave to N. Cornelia Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [5,100](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [510](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.4	53.5	51.7	45.9	54.4	55.0
MEDIUM TRUCKS	52.3	50.7	47.2	40.7	50.4	51.0
HEAVY TRUCKS	49.0	43.3	52.4	21.5	45.2	49.1
VEHICULAR NOISE	57.7	55.6	55.7	47.1	56.2	57.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	14	30	65	139
LDN	12	26	56	121

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Dakota Ave](#)
SEGMENT: [N. Cornelia Ave to N. Blythe Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [4,250](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [425](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.6	52.7	50.9	45.1	53.6	54.2
MEDIUM TRUCKS	51.5	50.0	46.4	39.9	49.6	50.2
HEAVY TRUCKS	48.2	42.6	51.6	20.7	44.4	48.3
VEHICULAR NOISE	56.9	54.8	54.9	46.3	55.4	56.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	12	27	57	123
LDN	11	23	50	107

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Dakota Ave](#)
SEGMENT: [N. Blythe Ave to N Brawley Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [3,150](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [315](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	53.3	51.4	49.6	43.8	52.3	52.9
MEDIUM TRUCKS	50.2	48.7	45.1	38.6	48.3	48.9
HEAVY TRUCKS	46.9	41.3	50.3	19.4	43.1	47.0
VEHICULAR NOISE	55.6	53.5	53.6	45.0	54.1	55.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	10	22	47	101
LDN	9	19	41	87

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Dakota Ave
SEGMENT: N Brawley Ave to N. Parkway Drive
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,400
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 240

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.1	50.2	48.4	42.6	51.1	51.7
MEDIUM TRUCKS	49.0	47.5	43.9	37.4	47.2	47.7
HEAVY TRUCKS	45.7	40.1	49.2	18.2	41.9	45.8
VEHICULAR NOISE	54.5	52.3	52.5	43.8	52.9	53.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	18	39	84
LDN	7	16	34	73

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Garfield Ave to Grantland Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,700
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 270

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.6	50.7	48.9	43.1	51.6	52.2
MEDIUM TRUCKS	49.5	48.0	44.4	38.0	47.7	48.2
HEAVY TRUCKS	46.2	40.6	49.7	18.7	42.4	46.3
VEHICULAR NOISE	55.0	52.8	53.0	44.3	53.5	54.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	9	20	42	91
LDN	8	17	37	79

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Grantland Ave to N. Bryan Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,750
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 275

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.7	50.8	49.0	43.2	51.7	52.3
MEDIUM TRUCKS	49.6	48.1	44.5	38.0	47.7	48.3
HEAVY TRUCKS	46.3	40.7	49.7	18.8	42.5	46.4
VEHICULAR NOISE	55.0	52.9	53.1	44.4	53.5	54.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	9	20	43	92
LDN	8	17	37	80

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Bryan Ave to N. Hayes Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 3,550
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 355

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	53.8	51.9	50.1	44.3	52.8	53.4
MEDIUM TRUCKS	50.7	49.2	45.6	39.1	48.9	49.4
HEAVY TRUCKS	47.4	41.8	50.9	19.9	43.6	47.5
VEHICULAR NOISE	56.2	54.0	54.2	45.5	54.6	55.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	11	24	51	109
LDN	9	20	44	95

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Hayes Ave to N. Polk Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 3,250
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 325

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	53.4	51.5	49.7	43.9	52.4	53.0
MEDIUM TRUCKS	50.3	48.8	45.2	38.8	48.5	49.0
HEAVY TRUCKS	47.0	41.4	50.5	19.5	43.3	47.1
VEHICULAR NOISE	55.8	53.6	53.8	45.1	54.3	55.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	10	22	48	103
LDN	9	19	41	89

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Polk Ave to N. Dante Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 3,750
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 375

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	57.2	55.3	53.5	47.7	56.2	56.8
MEDIUM TRUCKS	52.7	51.2	47.6	41.1	50.8	51.4
HEAVY TRUCKS	48.7	43.1	52.1	21.2	44.9	48.8
VEHICULAR NOISE	59.0	56.9	56.5	48.6	57.6	58.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	36	78	169
LDN	15	32	69	149

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Dante Ave to N. Cornelia Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 3,750
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 375

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	57.2	55.3	53.5	47.7	56.2	56.8
MEDIUM TRUCKS	52.7	51.2	47.6	41.1	50.8	51.4
HEAVY TRUCKS	48.7	43.1	52.1	21.2	44.9	48.8
VEHICULAR NOISE	59.0	56.9	56.5	48.6	57.6	58.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	36	78	169
LDN	15	32	69	149

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shields Ave](#)
SEGMENT: [N. Cornelia Ave to N. Blythe Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [4,600](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [460](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.9	53.0	51.2	45.5	53.9	54.5
MEDIUM TRUCKS	51.8	50.3	46.8	40.3	50.0	50.5
HEAVY TRUCKS	48.5	42.9	52.0	21.0	44.8	48.6
VEHICULAR NOISE	57.3	55.1	55.3	46.6	55.8	56.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	13	28	60	130
LDN	11	24	52	113

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Blythe Ave to N. Brawley Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 4,400
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 440

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.7	52.8	51.0	45.3	53.8	54.3
MEDIUM TRUCKS	51.6	50.1	46.6	40.1	49.8	50.3
HEAVY TRUCKS	48.3	42.7	51.8	20.8	44.6	48.4
VEHICULAR NOISE	57.1	54.9	55.1	46.4	55.6	56.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	13	27	59	126
LDN	11	24	51	109

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N Brawley Ave to N. Valentine Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 5,800
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 580

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.9	54.0	52.2	46.5	55.0	55.5
MEDIUM TRUCKS	52.8	51.3	47.8	41.3	51.0	51.5
HEAVY TRUCKS	49.5	43.9	53.0	22.0	45.8	49.6
VEHICULAR NOISE	58.3	56.1	56.3	47.6	56.8	57.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	15	33	70	152
LDN	13	28	61	131

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shields Ave](#)
SEGMENT: [N. Valentine Ave to N. Marks Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [6,900](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [690](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	56.7	54.8	53.0	47.2	55.7	56.3
MEDIUM TRUCKS	53.6	52.1	48.5	42.0	51.7	52.3
HEAVY TRUCKS	50.3	44.7	53.7	22.8	46.5	50.4
VEHICULAR NOISE	59.0	56.9	57.0	48.4	57.5	58.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	37	79	170
LDN	15	32	68	147

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Grantland Ave to N. Bryan Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [400](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [40](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.3	62.4	59.9	55.0	63.4	63.9
MEDIUM TRUCKS	59.3	57.8	54.3	49.5	58.3	58.7
HEAVY TRUCKS	64.8	63.3	57.7	54.7	63.6	63.9
VEHICULAR NOISE	68.2	66.5	62.6	58.5	67.1	67.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	68	147	317	682
LDN	64	138	298	641

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Bryan Ave to N. Hayes Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [700](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [70](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.7	64.9	62.3	57.5	65.8	66.3
MEDIUM TRUCKS	61.8	60.2	56.7	52.0	60.7	61.1
HEAVY TRUCKS	67.3	65.8	60.2	57.2	66.0	66.3
VEHICULAR NOISE	70.6	69.0	65.1	60.9	69.5	69.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	99	213	460	990
LDN	93	201	432	931

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N. Hayes Ave to N. Polk Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,050
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 105

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.5	66.6	64.1	59.2	67.6	68.1
MEDIUM TRUCKS	63.5	62.0	58.5	53.7	62.5	62.9
HEAVY TRUCKS	69.0	67.5	61.9	58.9	67.8	68.1
VEHICULAR NOISE	72.4	70.7	66.8	62.7	71.3	71.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	130	280	602	1298
LDN	122	263	566	1220

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N. Polk Ave to 1900 ft east of N. Polk Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,050
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 105

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.5	66.6	64.1	59.2	67.6	68.1
MEDIUM TRUCKS	63.5	62.0	58.5	53.7	62.5	62.9
HEAVY TRUCKS	69.0	67.5	61.9	58.9	67.8	68.1
VEHICULAR NOISE	72.4	70.7	66.8	62.7	71.3	71.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	130	280	602	1298
LDN	122	263	566	1220

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [1900 east of N. Polk Ave to N. Cornelia Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [3,400](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [340](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.8	74.9	72.4	67.5	75.9	76.4
MEDIUM TRUCKS	70.4	68.8	65.3	60.6	69.3	69.7
HEAVY TRUCKS	75.2	73.7	68.1	65.1	73.9	74.2
VEHICULAR NOISE	79.6	77.9	74.3	70.0	78.6	79.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	397	855	1842	3969
LDN	372	802	1727	3721

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N. Cornelia Ave to N. Milburn Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 6,400
SPEED = 50
PK HR % = 10
NEAR LANE/FAR LANE DIST = 66
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 640

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	94.4	--
MEDIUM TRUCKS=	4.00	94.4	--
HEAVY TRUCKS =	8.01	94.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	81.1	79.3	76.8	71.9	80.3	80.8
MEDIUM TRUCKS	74.2	72.6	69.1	64.3	73.1	73.5
HEAVY TRUCKS	78.7	77.2	71.6	68.6	77.4	77.7
VEHICULAR NOISE	83.6	81.9	78.4	74.0	82.6	83.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	738	1591	3427	7383
LDN	691	1489	3208	6912

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N. Milburn Ave to N. Blythe Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 6,400
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 44
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 640

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	79.6	77.8	75.2	70.4	78.7	79.2
MEDIUM TRUCKS	73.2	71.7	68.2	63.4	72.2	72.6
HEAVY TRUCKS	78.0	76.5	70.9	67.9	76.8	77.1
VEHICULAR NOISE	82.5	80.8	77.2	72.9	81.4	81.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	616	1327	2859	6159
LDN	577	1244	2679	5773

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Blythe Ave to N Sonora Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [9,300](#)
SPEED = [50](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [66](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [930](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	94.4	--
MEDIUM TRUCKS=	4.00	94.4	--
HEAVY TRUCKS =	8.01	94.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	82.8	80.9	78.4	73.5	81.9	82.4
MEDIUM TRUCKS	75.8	74.2	70.7	66.0	74.7	75.2
HEAVY TRUCKS	80.3	78.8	73.2	70.2	79.0	79.3
VEHICULAR NOISE	85.2	83.5	80.1	75.7	84.2	84.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	947	2041	4397	9472
LDN	887	1911	4116	8868

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N. Sonora Ave to N Brawley Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 9,300
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 44
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 930

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	81.2	79.4	76.8	72.0	80.4	80.9
MEDIUM TRUCKS	74.9	73.3	69.8	65.0	73.8	74.2
HEAVY TRUCKS	79.6	78.2	72.6	69.6	78.4	78.7
VEHICULAR NOISE	84.1	82.4	78.8	74.5	83.0	83.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	790	1702	3667	7901
LDN	741	1596	3438	7406

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N Brawley Ave to N. Knoll Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 9,850
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 44
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 985

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	81.5	79.6	77.1	72.2	80.6	81.1
MEDIUM TRUCKS	75.1	73.6	70.1	65.3	74.0	74.5
HEAVY TRUCKS	79.9	78.4	72.8	69.8	78.6	78.9
VEHICULAR NOISE	84.3	82.7	79.1	74.7	83.3	83.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	821	1769	3811	8210
LDN	770	1658	3572	7695

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N. Knoll Ave to 850 ft east of N. Knoll Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 9,850
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 985

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	81.4	79.5	77.0	72.1	80.5	81.0
MEDIUM TRUCKS	75.0	73.4	69.9	65.2	73.9	74.4
HEAVY TRUCKS	79.8	78.3	72.7	69.7	78.5	78.8
VEHICULAR NOISE	84.2	82.5	78.9	74.6	83.2	83.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	807	1738	3744	8067
LDN	756	1629	3510	7561

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [850 east of N. Knoll Ave to N. Valentine Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [9,850](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [985](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	78.2	76.3	73.8	68.9	77.3	77.8
MEDIUM TRUCKS	73.3	71.7	68.2	63.4	72.2	72.6
HEAVY TRUCKS	78.7	77.3	71.7	68.7	77.5	77.8
VEHICULAR NOISE	82.1	80.5	76.6	72.4	81.0	81.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	577	1243	2679	5772
LDN	543	1169	2519	5427

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N. Valentine Ave to N. Marks Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 11,300
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,130

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	82.0	80.1	77.6	72.7	81.1	81.6
MEDIUM TRUCKS	75.6	74.0	70.5	65.8	74.5	75.0
HEAVY TRUCKS	80.4	78.9	73.3	70.3	79.1	79.4
VEHICULAR NOISE	84.8	83.1	79.5	75.2	83.8	84.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	884	1905	4103	8840
LDN	829	1785	3846	8286

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Marks Ave to W. Vassar Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [20,000](#)
SPEED = [50](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [66](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,000](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	94.4	--
MEDIUM TRUCKS=	4.00	94.4	--
HEAVY TRUCKS =	8.01	94.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	86.1	84.2	81.7	76.8	85.2	85.7
MEDIUM TRUCKS	79.1	77.6	74.1	69.3	78.0	78.5
HEAVY TRUCKS	83.6	82.1	76.5	73.5	82.3	82.6
VEHICULAR NOISE	88.6	86.9	83.4	79.0	87.5	88.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1578	3400	7325	15782
LDN	1477	3183	6858	14774

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [W. Herndon Ave to W. Bullard Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	38.3	36.4	33.9	29.0	37.4	37.9
MEDIUM TRUCKS	33.3	31.8	28.3	23.5	32.2	32.7
HEAVY TRUCKS	38.8	37.3	31.7	28.7	37.5	37.8
VEHICULAR NOISE	42.2	40.5	36.6	32.5	41.1	41.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1	3	6	13
LDN	1	3	5	12

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N Garfield Ave
SEGMENT: W. Bullard Ave to W. Barstow Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 0

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	38.3	36.4	33.9	29.0	37.4	37.9
MEDIUM TRUCKS	33.3	31.8	28.3	23.5	32.2	32.7
HEAVY TRUCKS	38.8	37.3	31.7	28.7	37.5	37.8
VEHICULAR NOISE	42.2	40.5	36.6	32.5	41.1	41.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1	3	6	13
LDN	1	3	5	12

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [W. Barstow Ave to 1,000 ft south of W. Barston Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	41.4	39.6	37.0	32.2	40.6	41.1
MEDIUM TRUCKS	35.1	33.5	30.0	25.2	34.0	34.4
HEAVY TRUCKS	39.8	38.4	32.8	29.8	38.6	38.9
VEHICULAR NOISE	44.3	42.6	39.0	34.7	43.2	43.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	2	4	8	18
LDN	2	4	8	16

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [1,000 ft south of W. Barstow Ave to W. Shaw Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	41.4	39.6	37.0	32.2	40.6	41.1
MEDIUM TRUCKS	35.1	33.5	30.0	25.2	34.0	34.4
HEAVY TRUCKS	39.8	38.4	32.8	29.8	38.6	38.9
VEHICULAR NOISE	44.3	42.6	39.0	34.7	43.2	43.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	2	4	8	18
LDN	2	4	8	16

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [W. Shaw Ave to W. Gettysburg Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	38.3	36.4	33.9	29.0	37.4	37.9
MEDIUM TRUCKS	33.3	31.8	28.3	23.5	32.2	32.7
HEAVY TRUCKS	38.8	37.3	31.7	28.7	37.5	37.8
VEHICULAR NOISE	42.2	40.5	36.6	32.5	41.1	41.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1	3	6	13
LDN	1	3	5	12

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N Garfield Ave
SEGMENT: W. Gettysburg Ave to W. Ashlan Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 5,381
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 538

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	75.6	73.7	71.2	66.3	74.7	75.2
MEDIUM TRUCKS	70.6	69.1	65.6	60.8	69.6	70.0
HEAVY TRUCKS	76.1	74.6	69.0	66.0	74.8	75.1
VEHICULAR NOISE	79.5	77.8	73.9	69.8	78.4	78.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	386	831	1790	3857
LDN	363	781	1683	3626

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [W. Ashlan Ave to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	38.3	36.4	33.9	29.0	37.4	37.9
MEDIUM TRUCKS	33.3	31.8	28.3	23.5	32.2	32.7
HEAVY TRUCKS	38.8	37.3	31.7	28.7	37.5	37.8
VEHICULAR NOISE	42.2	40.5	36.6	32.5	41.1	41.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1	3	6	13
LDN	1	3	5	12

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N Garfield Ave
SEGMENT: W. Dakota Ave to W. Shields Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 4,998
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 500

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	75.2	73.4	70.9	66.0	74.4	74.9
MEDIUM TRUCKS	70.3	68.8	65.3	60.5	69.2	69.7
HEAVY TRUCKS	75.8	74.3	68.7	65.7	74.5	74.8
VEHICULAR NOISE	79.1	77.5	73.6	69.5	78.1	78.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	367	791	1704	3672
LDN	345	744	1602	3452

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Parkway Drive
SEGMENT: N Herndon Ave to W. Herndon Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 0

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	38.3	36.4	33.9	29.0	37.4	37.9
MEDIUM TRUCKS	33.3	31.8	28.3	23.5	32.2	32.7
HEAVY TRUCKS	38.8	37.3	31.7	28.7	37.5	37.8
VEHICULAR NOISE	42.2	40.5	36.6	32.5	41.1	41.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	1	3	6	13
LDN	1	3	5	12

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Grantland Ave](#)
SEGMENT: [N. Parkway Drive to W. Bullard Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	18.3	16.4	14.6	8.8	17.3	17.9
MEDIUM TRUCKS	15.2	13.7	10.1	3.6	13.3	13.9
HEAVY TRUCKS	11.9	6.3	15.3	-15.6	8.1	12.0
VEHICULAR NOISE	20.6	18.5	18.7	10.0	19.1	20.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	0
LDN	0	0	0	0

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Grantland Ave](#)
SEGMENT: [W. Bullard Ave to W. Barstow Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	41.4	39.6	37.0	32.2	40.6	41.1
MEDIUM TRUCKS	35.1	33.5	30.0	25.2	34.0	34.4
HEAVY TRUCKS	39.8	38.4	32.8	29.8	38.6	38.9
VEHICULAR NOISE	44.3	42.6	39.0	34.7	43.2	43.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	2	4	8	18
LDN	2	4	8	16

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Grantland Ave
SEGMENT: W. Barstow Ave to W. Shaw Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 6,700
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 670

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	79.7	77.9	75.3	70.5	78.8	79.3
MEDIUM TRUCKS	73.3	71.8	68.3	63.5	72.2	72.7
HEAVY TRUCKS	78.1	76.6	71.0	68.0	76.8	77.1
VEHICULAR NOISE	82.5	80.9	77.3	72.9	81.5	81.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	624	1344	2896	6239
LDN	585	1260	2715	5848

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Grantland Ave
SEGMENT: W. Shaw Ave to W. Gettysburg Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 3,900
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 390

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.2	72.3	69.8	64.9	73.3	73.8
MEDIUM TRUCKS	69.2	67.7	64.2	59.4	68.2	68.6
HEAVY TRUCKS	74.7	73.2	67.6	64.6	73.5	73.7
VEHICULAR NOISE	78.1	76.4	72.5	68.4	77.0	77.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	311	670	1444	3112
LDN	293	630	1358	2926

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Grantland Ave
SEGMENT: W. Gettysburg Ave to W. Ashlan Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 4,000
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 400

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	77.5	75.6	73.1	68.2	76.6	77.1
MEDIUM TRUCKS	71.1	69.5	66.0	61.3	70.0	70.5
HEAVY TRUCKS	75.9	74.4	68.8	65.8	74.6	74.9
VEHICULAR NOISE	80.3	78.6	75.0	70.7	79.3	79.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	442	953	2053	4424
LDN	415	893	1925	4146

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Grantland Ave](#)
SEGMENT: [W. Ashlan Ave to W Dakota Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [3,050](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [305](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.3	74.4	71.9	67.0	75.4	75.9
MEDIUM TRUCKS	69.9	68.4	64.9	60.1	68.8	69.3
HEAVY TRUCKS	74.7	73.2	67.6	64.6	73.4	73.7
VEHICULAR NOISE	79.1	77.4	73.9	69.5	78.1	78.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	369	795	1714	3692
LDN	346	746	1606	3461

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Grantland Ave
SEGMENT: W. Dakota Ave to W. Shields Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 0

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	41.4	39.6	37.0	32.2	40.6	41.1
MEDIUM TRUCKS	35.1	33.5	30.0	25.2	34.0	34.4
HEAVY TRUCKS	39.8	38.4	32.8	29.8	38.6	38.9
VEHICULAR NOISE	44.3	42.6	39.0	34.7	43.2	43.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	2	4	8	18
LDN	2	4	8	16

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Grantland Ave
SEGMENT: W Shields Ave to W. Clinton Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,300
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 230

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	75.1	73.2	70.7	65.8	74.2	74.7
MEDIUM TRUCKS	68.7	67.1	63.6	58.9	67.6	68.0
HEAVY TRUCKS	73.5	72.0	66.4	63.4	72.2	72.5
VEHICULAR NOISE	77.9	76.2	72.6	68.3	76.9	77.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	306	659	1420	3059
LDN	287	618	1331	2867

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Bryan Ave](#)
SEGMENT: [W. Shaw Ave to W. Santa Ana Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [2,400](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [240](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.1	50.2	48.4	42.6	51.1	51.7
MEDIUM TRUCKS	49.0	47.5	43.9	37.4	47.2	47.7
HEAVY TRUCKS	45.7	40.1	49.2	18.2	41.9	45.8
VEHICULAR NOISE	54.5	52.3	52.5	43.8	52.9	53.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	18	39	84
LDN	7	16	34	73

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Bryan Ave](#)
SEGMENT: [W. Santa Ana Ave to W. Gettysburg Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [2,400](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [240](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.1	50.2	48.4	42.6	51.1	51.7
MEDIUM TRUCKS	49.0	47.5	43.9	37.4	47.2	47.7
HEAVY TRUCKS	45.7	40.1	49.2	18.2	41.9	45.8
VEHICULAR NOISE	54.5	52.3	52.5	43.8	52.9	53.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	18	39	84
LDN	7	16	34	73

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Bryan Ave
SEGMENT: W. Gettysburg Ave to W. Ashlan Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 3,100
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 310

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	56.4	54.5	52.7	46.9	55.4	56.0
MEDIUM TRUCKS	51.8	50.3	46.8	40.3	50.0	50.5
HEAVY TRUCKS	47.8	42.2	51.3	20.3	44.1	47.9
VEHICULAR NOISE	58.1	56.1	55.7	47.8	56.8	57.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	15	32	69	149
LDN	13	28	61	131

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Bryan Ave
SEGMENT: W. Ashlan Ave to W. Dakota Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,750
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 175

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	53.9	52.0	50.2	44.4	52.9	53.5
MEDIUM TRUCKS	49.4	47.8	44.3	37.8	47.5	48.0
HEAVY TRUCKS	45.3	39.7	48.8	17.8	41.6	45.4
VEHICULAR NOISE	55.6	53.6	53.2	45.3	54.3	55.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	10	22	47	102
LDN	9	19	41	89

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Bryan Ave](#)
SEGMENT: [W. Dakota Ave to W Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1,750](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [175](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	50.7	48.8	47.0	41.3	49.7	50.3
MEDIUM TRUCKS	47.6	46.1	42.6	36.1	45.8	46.3
HEAVY TRUCKS	44.3	38.7	47.8	16.8	40.6	44.4
VEHICULAR NOISE	53.1	50.9	51.1	42.4	51.6	52.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	7	15	32	68
LDN	6	13	27	59

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Bryan Ave
SEGMENT: W Shields Ave to W. Clinton Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 650
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 65

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	46.4	44.5	42.7	37.0	45.4	46.0
MEDIUM TRUCKS	43.3	41.8	38.3	31.8	41.5	42.0
HEAVY TRUCKS	40.0	34.4	43.5	12.5	36.3	40.1
VEHICULAR NOISE	48.8	46.6	46.8	38.1	47.3	48.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	4	8	16	35
LDN	3	7	14	31

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Hayes Ave](#)
SEGMENT: [W. Shaw Ave to W. Santa Ana Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [2,700](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [270](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.9	54.0	52.2	46.4	54.9	55.5
MEDIUM TRUCKS	51.4	49.8	46.3	39.8	49.5	50.0
HEAVY TRUCKS	47.3	41.7	50.8	19.8	43.6	47.4
VEHICULAR NOISE	57.6	55.6	55.2	47.3	56.3	57.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	14	30	64	138
LDN	12	26	56	121

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Hayes Ave](#)
SEGMENT: [W. Santa Ana Ave to W. Gettysburg Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [2,700](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [270](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.8	53.9	52.1	46.3	54.8	55.4
MEDIUM TRUCKS	51.2	49.7	46.2	39.7	49.4	49.9
HEAVY TRUCKS	47.2	41.6	50.7	19.7	43.5	47.3
VEHICULAR NOISE	57.5	55.5	55.1	47.2	56.2	57.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	14	29	63	136
LDN	12	26	55	119

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Hayes Ave
SEGMENT: W. Gettysburg Ave to W. Swift Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,700
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 170

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	53.8	51.9	50.1	44.3	52.8	53.4
MEDIUM TRUCKS	49.2	47.7	44.2	37.7	47.4	47.9
HEAVY TRUCKS	45.2	39.6	48.7	17.7	41.5	45.3
VEHICULAR NOISE	55.5	53.5	53.1	45.2	54.1	55.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	10	21	46	100
LDN	9	19	41	88

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Hayes Ave
SEGMENT: W. Swift Ave to W. Ashlan Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1,700
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 170

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	50.6	48.7	46.9	41.1	49.6	50.2
MEDIUM TRUCKS	47.5	46.0	42.4	35.9	45.7	46.2
HEAVY TRUCKS	44.2	38.6	47.7	16.7	40.4	44.3
VEHICULAR NOISE	53.0	50.8	51.0	42.3	51.4	52.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	7	14	31	67
LDN	6	12	27	58

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
 ROADWAY: N. Hayes Ave
 SEGMENT: W. Ashland Ave to W. Dakota Ave
 LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
 DATE: 9-Sep-20
 ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,400
 SPEED = 35
 PK HR % = 10
 NEAR LANE/FAR LANE DIST = 12
 ROAD ELEVATION = 0
 GRADE = 0
 PK HR VOL = 240

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
 DIST C/L TO WALL = 0
 RECEIVER HEIGHT = 5
 WALL DISTANCE FROM RECEIVER = 100
 PAD ELEVATION = 0
 ROADWAY VIEW: LF ANGLE -90
 RT ANGLE 90
 DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
 MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
 HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
 AMBIENT = 0
 BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.1	50.2	48.4	42.6	51.1	51.7
MEDIUM TRUCKS	49.0	47.5	43.9	37.4	47.2	47.7
HEAVY TRUCKS	45.7	40.1	49.2	18.2	41.9	45.8
VEHICULAR NOISE	54.5	52.3	52.5	43.8	52.9	53.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	18	39	84
LDN	7	16	34	73

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Hayes Ave
SEGMENT: W. Dakota Ave to 1,300 ft South of W. Dakota Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,150
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 215

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	51.6	49.7	47.9	42.1	50.6	51.2
MEDIUM TRUCKS	48.5	47.0	43.5	37.0	46.7	47.2
HEAVY TRUCKS	45.2	39.6	48.7	17.7	41.5	45.3
VEHICULAR NOISE	54.0	51.8	52.0	43.3	52.5	53.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	17	36	78
LDN	7	15	31	68

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Hayes Ave
SEGMENT: 1,300 ft South of W. Dakota Ave to W Shields Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,150
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 215

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.8	52.9	51.1	45.3	53.8	54.4
MEDIUM TRUCKS	50.3	48.7	45.2	38.7	48.4	48.9
HEAVY TRUCKS	46.2	40.6	49.7	18.7	42.5	46.3
VEHICULAR NOISE	56.5	54.5	54.1	46.2	55.2	56.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	12	25	54	116
LDN	10	22	48	103

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Hayes Ave](#)
SEGMENT: [W Shields Ave to W. Clinton Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1,650](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [165](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	50.5	48.6	46.8	41.0	49.5	50.1
MEDIUM TRUCKS	47.4	45.8	42.3	35.8	45.5	46.0
HEAVY TRUCKS	44.1	38.4	47.5	16.6	40.3	44.2
VEHICULAR NOISE	52.8	50.7	50.8	42.2	51.3	52.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	7	14	30	66
LDN	6	12	26	57

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Polk Ave
SEGMENT: North of W. Shaw Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 4,400
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 440

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	77.9	76.0	73.5	68.6	77.0	77.5
MEDIUM TRUCKS	71.5	69.9	66.4	61.7	70.4	70.9
HEAVY TRUCKS	76.3	74.8	69.2	66.2	75.0	75.3
VEHICULAR NOISE	80.7	79.0	75.4	71.1	79.7	80.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	471	1016	2188	4714
LDN	442	952	2051	4419

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [W. Shaw Ave to W. Acacia Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [7,300](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [730](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	80.1	78.2	75.7	70.8	79.2	79.7
MEDIUM TRUCKS	73.7	72.1	68.6	63.9	72.6	73.1
HEAVY TRUCKS	78.5	77.0	71.4	68.4	77.2	77.5
VEHICULAR NOISE	82.9	81.2	77.6	73.3	81.9	82.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	661	1423	3066	6606
LDN	619	1334	2874	6192

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Polk Ave
SEGMENT: W. Acaia Ave to W. Gettysburg Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 7,300
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 44
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 730

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	80.2	78.3	75.8	70.9	79.3	79.8
MEDIUM TRUCKS	73.8	72.3	68.8	64.0	72.7	73.2
HEAVY TRUCKS	78.6	77.1	71.5	68.5	77.3	77.6
VEHICULAR NOISE	83.0	81.3	77.8	73.4	82.0	82.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	672	1448	3121	6723
LDN	630	1358	2925	6302

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [W. Gettysburg Ave to W. Ashlan Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [4,850](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [485](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	75.1	73.3	70.7	65.9	74.2	74.7
MEDIUM TRUCKS	70.2	68.6	65.1	60.4	69.1	69.5
HEAVY TRUCKS	75.7	74.2	68.6	65.6	74.4	74.7
VEHICULAR NOISE	79.0	77.4	73.5	69.3	77.9	78.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	360	775	1670	3599
LDN	338	729	1571	3384

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Polk Ave
SEGMENT: W. Ashland Ave to W. Griffith Way
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 5,600
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 560

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	75.7	73.9	71.4	66.5	74.9	75.4
MEDIUM TRUCKS	70.8	69.3	65.8	61.0	69.7	70.2
HEAVY TRUCKS	76.3	74.8	69.2	66.2	75.0	75.3
VEHICULAR NOISE	79.6	78.0	74.1	69.9	78.6	79.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	396	853	1838	3961
LDN	372	802	1729	3724

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Polk Ave
SEGMENT: W. Griffith Way to W. Dakota Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 5,600
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 560

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	78.9	77.1	74.5	69.7	78.0	78.5
MEDIUM TRUCKS	72.5	71.0	67.5	62.7	71.5	71.9
HEAVY TRUCKS	77.3	75.8	70.2	67.2	76.1	76.4
VEHICULAR NOISE	81.8	80.1	76.5	72.2	80.7	81.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	554	1193	2570	5536
LDN	519	1118	2409	5189

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [W. Dakota Ave to W Shields Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [4,900](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [490](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	75.2	73.3	70.8	65.9	74.3	74.8
MEDIUM TRUCKS	70.2	68.7	65.2	60.4	69.1	69.6
HEAVY TRUCKS	75.7	74.2	68.6	65.6	74.4	74.7
VEHICULAR NOISE	79.1	77.4	73.5	69.4	78.0	78.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	362	781	1682	3624
LDN	341	734	1581	3407

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Polk Ave
SEGMENT: W Shields Ave to W. Clinton Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 3,750
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 375

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.0	72.2	69.6	64.8	73.1	73.6
MEDIUM TRUCKS	69.1	67.5	64.0	59.2	68.0	68.4
HEAVY TRUCKS	74.5	73.1	67.5	64.5	73.3	73.6
VEHICULAR NOISE	77.9	76.3	72.4	68.2	76.8	77.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	303	653	1407	3032
LDN	285	614	1323	2851

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Cornelia Ave
SEGMENT: N. Parkway Drive to W. Gettysburg Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 5,700
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 570

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.0	57.1	55.3	49.6	58.1	58.6
MEDIUM TRUCKS	54.5	53.0	49.4	42.9	52.6	53.2
HEAVY TRUCKS	50.5	44.9	53.9	23.0	46.7	50.6
VEHICULAR NOISE	60.8	58.7	58.3	50.4	59.4	60.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	22	48	104	223
LDN	20	42	91	196

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Cornelia Ave](#)
SEGMENT: [W. Gettysburg to W. Ashlan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [5,700](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [570](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.0	57.1	55.3	49.6	58.1	58.6
MEDIUM TRUCKS	54.5	53.0	49.4	42.9	52.6	53.2
HEAVY TRUCKS	50.5	44.9	53.9	23.0	46.7	50.6
VEHICULAR NOISE	60.8	58.7	58.3	50.4	59.4	60.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	22	48	104	223
LDN	20	42	91	196

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Cornelia Ave](#)
SEGMENT: [W. Ashland Ave to W. Bellaire Way](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [7,800](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [780](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.4	58.5	56.7	50.9	59.4	60.0
MEDIUM TRUCKS	55.9	54.3	50.8	44.3	54.0	54.5
HEAVY TRUCKS	51.8	46.2	55.3	24.3	48.1	51.9
VEHICULAR NOISE	62.1	60.1	59.7	51.8	60.8	61.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	27	59	128	275
LDN	24	52	112	242

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Cornelia Ave
SEGMENT: W. Bellaire Way to W. Dakota Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 7,800
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 780

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.4	58.5	56.7	50.9	59.4	60.0
MEDIUM TRUCKS	55.9	54.3	50.8	44.3	54.0	54.5
HEAVY TRUCKS	51.8	46.2	55.3	24.3	48.1	51.9
VEHICULAR NOISE	62.1	60.1	59.7	51.8	60.8	61.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	27	59	128	275
LDN	24	52	112	242

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Cornelia Ave](#)
SEGMENT: [W. Dakota Ave to W Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [5,800](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [580](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.9	54.0	52.2	46.5	55.0	55.5
MEDIUM TRUCKS	52.8	51.3	47.8	41.3	51.0	51.5
HEAVY TRUCKS	49.5	43.9	53.0	22.0	45.8	49.6
VEHICULAR NOISE	58.3	56.1	56.3	47.6	56.8	57.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	15	33	70	152
LDN	13	28	61	131

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Cornelia Ave](#)
SEGMENT: [W Shields Ave to W. Clinton Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [5,600](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [560](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
 RT ANGLE [90](#)
 DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.0	57.0	55.3	49.5	58.0	58.6
MEDIUM TRUCKS	54.4	52.9	49.4	42.9	52.6	53.1
HEAVY TRUCKS	50.4	44.8	53.9	22.9	46.7	50.5
VEHICULAR NOISE	60.7	58.6	58.2	50.3	59.3	60.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	22	47	102	220
LDN	19	42	90	194

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Blythe Ave](#)
SEGMENT: [W. Ashlan Ave to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [6,700](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [670](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	93.400
MEDIUM TRUCKS	0.840	0.094	0.094	3.200
HEAVY TRUCKS	0.853	0.059	0.088	3.400

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.5	74.7	72.1	67.3	75.6	76.1
MEDIUM TRUCKS	71.6	70.0	66.5	61.8	70.5	71.0
HEAVY TRUCKS	77.1	75.6	70.0	67.0	75.8	76.1
VEHICULAR NOISE	80.4	78.8	74.9	70.7	79.3	79.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	446	962	2072	4464
LDN	420	904	1948	4197

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
 ROADWAY: N. Blythe Ave
 SEGMENT: W. Dakota Ave to W Shields Ave
 LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
 DATE: 9-Sep-20
 ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 4,750
 SPEED = 35
 PK HR % = 10
 NEAR LANE/FAR LANE DIST = 12
 ROAD ELEVATION = 0
 GRADE = 0
 PK HR VOL = 475

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
 DIST C/L TO WALL = 0
 RECEIVER HEIGHT = 5
 WALL DISTANCE FROM RECEIVER = 100
 PAD ELEVATION = 0
 ROADWAY VIEW: LF ANGLE -90
 RT ANGLE 90
 DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
 MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
 HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
 AMBIENT = 0
 BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.1	53.1	51.4	45.6	54.1	54.7
MEDIUM TRUCKS	52.0	50.4	46.9	40.4	50.1	50.6
HEAVY TRUCKS	48.6	43.0	52.1	21.1	44.9	48.7
VEHICULAR NOISE	57.4	55.3	55.4	46.8	55.9	56.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	13	29	62	133
LDN	11	25	53	115

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Blythe Ave
SEGMENT: W Shields Ave to W. Clinton Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 4,900
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 490

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.2	53.3	51.5	45.7	54.2	54.8
MEDIUM TRUCKS	52.1	50.6	47.0	40.5	50.3	50.8
HEAVY TRUCKS	48.8	43.2	52.3	21.3	45.0	48.9
VEHICULAR NOISE	57.6	55.4	55.6	46.9	56.0	57.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	14	29	63	136
LDN	12	25	54	117

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Brawley Ave](#)
SEGMENT: [N. Parkway Drive to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [6,600](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [660](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	56.5	54.6	52.8	47.0	55.5	56.1
MEDIUM TRUCKS	53.4	51.9	48.3	41.8	51.5	52.1
HEAVY TRUCKS	50.1	44.5	53.5	22.6	46.3	50.2
VEHICULAR NOISE	58.8	56.7	56.9	48.2	57.3	58.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	36	77	165
LDN	14	31	66	143

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Brawley Ave](#)
SEGMENT: [W. Dakota Ave to W. Dayton Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [6,350](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [635](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [101](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [101](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	100.9	--
MEDIUM TRUCKS=	4.00	100.8	--
HEAVY TRUCKS =	8.01	100.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	56.3	54.3	52.6	46.8	55.3	55.9
MEDIUM TRUCKS	53.2	51.6	48.1	41.6	51.3	51.8
HEAVY TRUCKS	49.8	44.2	53.3	22.3	46.1	49.9
VEHICULAR NOISE	58.6	56.5	56.6	48.0	57.1	58.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	16	35	75	161
LDN	14	30	65	140

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Brawley Ave](#)
SEGMENT: [W. Dayton Ave to W. Cortland Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [6,350](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [635](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [102](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [102](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	101.3	--
MEDIUM TRUCKS=	4.00	101.3	--
HEAVY TRUCKS =	8.01	101.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.4	57.5	55.7	49.9	58.4	59.0
MEDIUM TRUCKS	54.8	53.3	49.8	43.3	53.0	53.5
HEAVY TRUCKS	50.8	45.2	54.3	23.3	47.1	50.9
VEHICULAR NOISE	61.1	59.1	58.6	50.8	59.7	60.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	24	52	111	240
LDN	21	45	98	211

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Brawley Ave](#)
SEGMENT: [W. Cortland Ave to W. Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [6,350](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [635](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [103](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [103](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	102.9	--
MEDIUM TRUCKS=	4.00	102.8	--
HEAVY TRUCKS =	8.01	102.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	56.1	54.2	52.4	46.7	55.2	55.7
MEDIUM TRUCKS	53.0	51.5	48.0	41.5	51.2	51.7
HEAVY TRUCKS	49.7	44.1	53.2	22.2	46.0	49.8
VEHICULAR NOISE	58.5	56.3	56.5	47.8	57.0	57.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	16	35	75	161
LDN	14	30	65	139

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N Brawley Ave
SEGMENT: W Shields Ave to W. Clinton Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 6,000
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 600

RECEIVER INPUT DATA

RECEIVER DISTANCE = 104
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 104
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	103.9	--
MEDIUM TRUCKS=	4.00	103.8	--
HEAVY TRUCKS =	8.01	103.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.8	53.9	52.1	46.4	54.8	55.4
MEDIUM TRUCKS	52.7	51.2	47.7	41.2	50.9	51.4
HEAVY TRUCKS	49.4	43.8	52.9	21.9	45.7	49.5
VEHICULAR NOISE	58.2	56.0	56.2	47.5	56.7	57.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	16	33	72	155
LDN	13	29	62	134

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Valentine Ave](#)
SEGMENT: [N. Parkway Drive to W Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [2,600](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [260](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [105](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [105](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	104.9	--
MEDIUM TRUCKS=	4.00	104.8	--
HEAVY TRUCKS =	8.01	104.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.1	50.2	48.4	42.7	51.1	51.7
MEDIUM TRUCKS	49.0	47.5	44.0	37.5	47.2	47.7
HEAVY TRUCKS	45.7	40.1	49.2	18.2	42.0	45.8
VEHICULAR NOISE	54.5	52.3	52.5	43.8	53.0	53.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	9	19	41	89
LDN	8	17	36	77

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Valentine Ave
SEGMENT: W Shields Ave to W. Clinton Ave
LOCATION: City of Fresno, CA SCENARIO: Existing

JOB #: 0462-19-01
DATE: 9-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,100
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 210

RECEIVER INPUT DATA

RECEIVER DISTANCE = 106
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 106
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	105.9	--
MEDIUM TRUCKS=	4.00	105.8	--
HEAVY TRUCKS =	8.01	105.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	51.1	49.2	47.4	41.7	50.2	50.7
MEDIUM TRUCKS	48.0	46.5	43.0	36.5	46.2	46.7
HEAVY TRUCKS	44.7	39.1	48.2	17.2	41.0	44.8
VEHICULAR NOISE	53.5	51.4	51.5	42.8	52.0	52.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	17	36	77
LDN	7	14	31	67

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Marks Ave](#)
SEGMENT: [W Princeton Ave to W. Clinton Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing](#)

JOB #: [0462-19-01](#)
DATE: [9-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [9,100](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [910](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [107](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [107](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	106.9	--
MEDIUM TRUCKS=	4.00	106.8	--
HEAVY TRUCKS =	8.01	106.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	57.5	55.5	53.8	48.0	56.5	57.1
MEDIUM TRUCKS	54.3	52.8	49.3	42.8	52.5	53.0
HEAVY TRUCKS	51.0	45.4	54.5	23.5	47.3	51.1
VEHICULAR NOISE	59.8	57.7	57.8	49.1	58.3	59.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	20	44	95	205
LDN	18	38	82	177

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: State Route 99
SEGMENT: W. Herndon Ave to W. Shaw Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 81,000
SPEED = 65
PK HR % = 10
NEAR LANE/FAR LANE DIST = 88
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 8,100

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.9	72.5	71.7	67.6	75.1	75.6
MEDIUM TRUCKS	69.1	66.0	64.6	64.2	70.9	71.2
HEAVY TRUCKS	78.3	74.9	70.7	74.8	81.2	81.3
VEHICULAR NOISE	80.3	77.2	74.7	75.9	82.4	82.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	695	1497	3225	6948
LDN	675	1453	3131	6745

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [State Route 99](#)
SEGMENT: [W. Shaw Ave to W. Ashlan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [77,000](#)
SPEED = [65](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [88](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [7,700](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	74.7	72.3	71.5	67.4	74.9	75.4
MEDIUM TRUCKS	68.9	65.8	64.4	64.0	70.7	70.9
HEAVY TRUCKS	78.1	74.7	70.5	74.6	80.9	81.0
VEHICULAR NOISE	80.1	77.0	74.5	75.7	82.2	82.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	672	1447	3118	6718
LDN	652	1405	3027	6521

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [State Route 99](#)
SEGMENT: [W. Ashlan Ave to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [105,000](#)
SPEED = [65](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [88](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [10,500](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.1	73.7	72.8	68.7	76.2	76.7
MEDIUM TRUCKS	70.2	67.1	65.8	65.4	72.0	72.3
HEAVY TRUCKS	79.5	76.1	71.9	75.9	82.3	82.4
VEHICULAR NOISE	81.4	78.4	75.8	77.0	83.6	83.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	826	1780	3834	8261
LDN	802	1728	3722	8019

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [State Route 99](#)
SEGMENT: [W. Dakota Ave to W. Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [104,000](#)
SPEED = [65](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [88](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [10,400](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.0	73.6	72.8	68.7	76.2	76.7
MEDIUM TRUCKS	70.2	67.1	65.7	65.3	72.0	72.3
HEAVY TRUCKS	79.4	76.0	71.8	75.9	82.2	82.3
VEHICULAR NOISE	81.4	78.3	75.8	77.0	83.5	83.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	821	1768	3810	8208
LDN	797	1717	3698	7968

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [State Route 99](#)
SEGMENT: [W. Shields Ave to W. Clinton Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [107,000](#)
SPEED = [65](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [88](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [10,700](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.692	0.142	0.166	0.770
MEDIUM TRUCKS	0.592	0.108	0.295	0.048
HEAVY TRUCKS	0.548	0.052	0.400	0.182

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	89.8	--
MEDIUM TRUCKS=	4.00	89.8	--
HEAVY TRUCKS =	8.01	89.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	76.1	73.8	72.9	68.8	76.3	76.8
MEDIUM TRUCKS	70.3	67.2	65.8	65.4	72.1	72.4
HEAVY TRUCKS	79.5	76.1	72.0	76.0	82.4	82.5
VEHICULAR NOISE	81.5	78.5	75.9	77.1	83.6	83.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	837	1802	3883	8365
LDN	812	1750	3769	8121

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Herndon Ave](#)
SEGMENT: [N. Garfield Ave to N. Parkway Drive](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	18.3	16.4	14.6	8.8	17.3	17.9
MEDIUM TRUCKS	15.2	13.7	10.1	3.6	13.3	13.9
HEAVY TRUCKS	11.9	6.3	15.3	-15.6	8.1	12.0
VEHICULAR NOISE	20.6	18.5	18.7	10.0	19.1	20.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	0
LDN	0	0	0	0

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Bullard Ave
SEGMENT: N Garfield Ave to N. Grantland Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 6,683
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 668

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	56.6	54.6	52.9	47.1	55.6	56.2
MEDIUM TRUCKS	53.4	51.9	48.4	41.9	51.6	52.1
HEAVY TRUCKS	50.1	44.5	53.6	22.6	46.4	50.2
VEHICULAR NOISE	58.9	56.8	56.9	48.2	57.4	58.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	36	77	167
LDN	14	31	67	144

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Bullard Ave](#)
SEGMENT: [N. Grantland Ave to N. Bryan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [9,706](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [971](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	58.2	56.2	54.5	48.7	57.2	57.8
MEDIUM TRUCKS	55.1	53.5	50.0	43.5	53.2	53.7
HEAVY TRUCKS	51.7	46.1	55.2	24.2	48.0	51.8
VEHICULAR NOISE	60.5	58.4	58.5	49.9	59.0	60.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	21	46	99	214
LDN	19	40	86	185

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Bullard Ave
SEGMENT: N. Bryan Ave to SR-99
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 0

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	21.5	19.6	17.8	12.0	20.5	21.1
MEDIUM TRUCKS	16.9	15.4	11.9	5.4	15.1	15.6
HEAVY TRUCKS	12.9	7.3	16.4	-14.6	9.2	13.0
VEHICULAR NOISE	23.2	21.2	20.8	12.9	21.8	22.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	1
LDN	0	0	0	1

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Barstow Ave](#)
SEGMENT: [N Garfield to N. Grantland Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1,310](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [131](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
 RT ANGLE [90](#)
 DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.7	50.7	49.0	43.2	51.7	52.3
MEDIUM TRUCKS	48.1	46.6	43.0	36.6	46.3	46.8
HEAVY TRUCKS	44.1	38.5	47.6	16.6	40.3	44.2
VEHICULAR NOISE	54.4	52.3	51.9	44.0	53.0	53.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	8	18	39	84
LDN	7	16	34	74

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Barstow Ave](#)
SEGMENT: [N. Grantland Ave to N. Bryan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [14,804](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,480](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.0	58.1	56.3	50.5	59.0	59.6
MEDIUM TRUCKS	56.9	55.4	51.8	45.3	55.1	55.6
HEAVY TRUCKS	53.6	48.0	57.1	26.1	49.8	53.7
VEHICULAR NOISE	62.4	60.2	60.4	51.7	60.8	61.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	28	61	132	283
LDN	25	53	114	245

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Barstow Ave](#)
SEGMENT: [N. Bryan Ave to N. Contessa Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [50](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [66](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	94.4	--
MEDIUM TRUCKS=	4.00	94.4	--
HEAVY TRUCKS =	8.01	94.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	23.1	21.2	19.4	13.6	22.1	22.7
MEDIUM TRUCKS	18.0	16.5	12.9	6.4	16.1	16.7
HEAVY TRUCKS	13.7	8.1	17.1	-13.8	9.9	13.8
VEHICULAR NOISE	24.6	22.6	22.0	14.4	23.3	24.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	1
LDN	0	0	0	1

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Barstow Ave
SEGMENT: N. Contessa Ave to N. Island Waterpark Drive
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 44
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 0

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	21.6	19.7	17.9	12.1	20.6	21.2
MEDIUM TRUCKS	17.0	15.5	12.0	5.5	15.2	15.7
HEAVY TRUCKS	13.0	7.4	16.5	-14.5	9.3	13.1
VEHICULAR NOISE	23.3	21.3	20.9	13.0	22.0	22.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	1
LDN	0	0	0	1

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shaw Ave](#)
SEGMENT: [N Garfield Ave to N. Grantland Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [16,820](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,682](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.5	58.7	56.1	51.3	59.6	60.1
MEDIUM TRUCKS	55.6	54.0	50.5	45.8	54.5	55.0
HEAVY TRUCKS	61.1	59.6	54.0	51.0	59.8	60.1
VEHICULAR NOISE	64.4	62.8	58.9	54.7	63.3	63.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	38	82	178	383
LDN	36	78	167	360

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shaw Ave](#)
SEGMENT: [N. Grantland Ave to N. Bryan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [47,627](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [4,763](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.0	63.2	60.6	55.8	64.2	64.7
MEDIUM TRUCKS	60.1	58.6	55.1	50.3	59.0	59.5
HEAVY TRUCKS	65.6	64.1	58.5	55.5	64.3	64.6
VEHICULAR NOISE	68.9	67.3	63.4	59.2	67.9	68.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	77	165	356	766
LDN	72	155	334	720

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shaw Ave](#)
SEGMENT: [N. Bryan Ave to 1,300 ft east of N. Hayes Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [45,973](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [4,597](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
 RT ANGLE [90](#)
 DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.9	63.0	60.5	55.6	64.0	64.5
MEDIUM TRUCKS	60.0	58.4	54.9	50.1	58.9	59.3
HEAVY TRUCKS	65.4	63.9	58.4	55.3	64.2	64.5
VEHICULAR NOISE	68.8	67.1	63.3	59.1	67.7	68.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	75	161	347	748
LDN	70	152	327	703

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shaw Ave
SEGMENT: 1,300 ft east of N. Hayes Ave to N. Polk Ave
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 54,592
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 5,459

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.8	67.0	64.4	59.6	67.9	68.4
MEDIUM TRUCKS	62.4	60.9	57.4	52.6	61.4	61.8
HEAVY TRUCKS	67.2	65.7	60.1	57.1	66.0	66.2
VEHICULAR NOISE	71.6	70.0	66.4	62.0	70.6	71.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	117	253	544	1173
LDN	110	237	510	1099

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shaw Ave
SEGMENT: N. Polk Ave to State Route 99
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 88,601
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 44
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 8,860

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	71.0	69.2	66.6	61.8	70.2	70.6
MEDIUM TRUCKS	64.7	63.1	59.6	54.8	63.6	64.0
HEAVY TRUCKS	69.4	68.0	62.4	59.3	68.2	68.5
VEHICULAR NOISE	73.9	72.2	68.6	64.3	72.8	73.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	165	355	765	1648
LDN	154	333	717	1545

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Gettysburg Ave
SEGMENT: 1,300 ft west of N. Bryan Ave to Bryan Ave
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 6,954
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 695

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	56.7	54.8	53.0	47.2	55.7	56.3
MEDIUM TRUCKS	53.6	52.1	48.6	42.1	51.8	52.3
HEAVY TRUCKS	50.3	44.7	53.8	22.8	46.6	50.4
VEHICULAR NOISE	59.1	56.9	57.1	48.4	57.6	58.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	37	79	171
LDN	15	32	69	148

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Gettysburg Ave
SEGMENT: N. Bryan Ave to N. Hayes Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 11,025
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,103

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	58.7	56.8	55.0	49.2	57.7	58.3
MEDIUM TRUCKS	55.6	54.1	50.6	44.1	53.8	54.3
HEAVY TRUCKS	52.3	46.7	55.8	24.8	48.6	52.4
VEHICULAR NOISE	61.1	58.9	59.1	50.4	59.6	60.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	23	50	108	233
LDN	20	43	94	202

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Gettysburg Ave](#)
SEGMENT: [N. Hayes Ave to N. Polk Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [18,739](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,874](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.0	59.1	57.3	51.6	60.0	60.6
MEDIUM TRUCKS	57.9	56.4	52.9	46.4	56.1	56.6
HEAVY TRUCKS	54.6	49.0	58.1	27.1	50.9	54.7
VEHICULAR NOISE	63.4	61.2	61.4	52.7	61.9	62.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	33	71	154	332
LDN	29	62	133	287

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Gettysburg Ave](#)
SEGMENT: [N. Polk Ave to N. Barcus](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [9,002](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [900](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
 RT ANGLE [90](#)
 DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.1	59.2	57.4	51.7	60.2	60.7
MEDIUM TRUCKS	56.6	55.1	51.5	45.0	54.7	55.3
HEAVY TRUCKS	52.6	47.0	56.0	25.1	48.8	52.7
VEHICULAR NOISE	62.9	60.8	60.4	52.5	61.5	62.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	31	66	143	308
LDN	27	58	126	271

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Ashlan Ave
SEGMENT: N. Garfield to N. Grantland
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 14,056
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 44
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,406

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.1	61.2	59.4	53.6	62.1	62.7
MEDIUM TRUCKS	58.5	57.0	53.5	47.0	56.7	57.2
HEAVY TRUCKS	54.5	48.9	58.0	27.0	50.8	54.6
VEHICULAR NOISE	64.8	62.7	62.3	54.5	63.4	64.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	41	89	192	414
LDN	36	79	169	365

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Ashlan Ave](#)
SEGMENT: [N. Grantland Ave to N. Bryan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [46,920](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [4,692](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.1	66.3	63.8	58.9	67.3	67.8
MEDIUM TRUCKS	61.8	60.2	56.7	52.0	60.7	61.1
HEAVY TRUCKS	66.6	65.1	59.5	56.5	65.3	65.6
VEHICULAR NOISE	71.0	69.3	65.7	61.4	70.0	70.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	106	228	492	1060
LDN	99	214	461	994

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Ashlan Ave
SEGMENT: N. Bryan Ave to N. Hayes Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 40,410
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 4,041

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.3	62.5	59.9	55.1	63.5	63.9
MEDIUM TRUCKS	59.4	57.8	54.3	49.6	58.3	58.8
HEAVY TRUCKS	64.9	63.4	57.8	54.8	63.6	63.9
VEHICULAR NOISE	68.2	66.6	62.7	58.5	67.1	67.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	69	148	319	687
LDN	65	139	300	646

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Ashlan Ave
SEGMENT: N. Hayes Ave to N. Polk Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 44,366
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 4,437

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.7	62.9	60.3	55.5	63.9	64.4
MEDIUM TRUCKS	59.8	58.2	54.7	50.0	58.7	59.2
HEAVY TRUCKS	65.3	63.8	58.2	55.2	64.0	64.3
VEHICULAR NOISE	68.6	67.0	63.1	58.9	67.6	68.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	73	157	339	731
LDN	69	148	319	687

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Ashlan Ave](#)
SEGMENT: [N. Polk Ave to N. Cornelia Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [43,099](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [4,310](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.6	62.8	60.2	55.4	63.7	64.2
MEDIUM TRUCKS	59.7	58.1	54.6	49.8	58.6	59.0
HEAVY TRUCKS	65.1	63.7	58.1	55.1	63.9	64.2
VEHICULAR NOISE	68.5	66.9	63.0	58.8	67.4	67.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	72	154	333	717
LDN	67	145	313	674

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Ashlan Ave](#)
SEGMENT: [N. Cornelia Ave to N. Blythe Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [58,827](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [5,883](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.0	64.1	61.6	56.7	65.1	65.6
MEDIUM TRUCKS	61.0	59.5	56.0	51.2	59.9	60.4
HEAVY TRUCKS	66.5	65.0	59.4	56.4	65.2	65.5
VEHICULAR NOISE	69.9	68.2	64.3	60.2	68.8	69.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	88	190	409	882
LDN	83	179	385	829

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Ashlan Ave](#)
SEGMENT: [N. Blythe Ave to State Route 99](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [66,788](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [6,679](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.5	64.7	62.1	57.3	65.6	66.1
MEDIUM TRUCKS	61.6	60.0	56.5	51.8	60.5	60.9
HEAVY TRUCKS	67.1	65.6	60.0	57.0	65.8	66.1
VEHICULAR NOISE	70.4	68.8	64.9	60.7	69.3	69.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	96	207	445	960
LDN	90	194	419	902

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Dakota Ave
SEGMENT: N. Hayes Ave to N. Barcus Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 16,139
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,614

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.4	58.5	56.7	50.9	59.4	60.0
MEDIUM TRUCKS	57.3	55.8	52.2	45.7	55.4	56.0
HEAVY TRUCKS	54.0	48.4	57.4	26.5	50.2	54.1
VEHICULAR NOISE	62.7	60.6	60.7	52.1	61.2	62.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	30	65	139	300
LDN	26	56	121	260

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Dakota Ave
SEGMENT: N. Barcus Ave to N. Polk Ave
LOCATION: City of Fresno, CA

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

SCENARIO: Existing + Project + Cumulative

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 16,139
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,614

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.6	61.6	59.9	54.1	62.6	63.2
MEDIUM TRUCKS	59.0	57.5	53.9	47.5	57.2	57.7
HEAVY TRUCKS	55.0	49.4	58.5	27.5	51.3	55.1
VEHICULAR NOISE	65.3	63.2	62.8	54.9	63.9	64.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	45	96	207	446
LDN	39	85	182	393

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Dakota Ave
SEGMENT: N. Polk Ave to N. Cornelia Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 14,878
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,488

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.0	58.1	56.3	50.6	59.0	59.6
MEDIUM TRUCKS	56.9	55.4	51.9	45.4	55.1	55.6
HEAVY TRUCKS	53.6	48.0	57.1	26.1	49.9	53.7
VEHICULAR NOISE	62.4	60.2	60.4	51.7	60.9	61.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	28	61	132	284
LDN	25	53	114	246

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Dakota Ave](#)
SEGMENT: [N. Cornelia Ave to N. Blythe Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [14,338](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,434](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.9	57.9	56.2	50.4	58.9	59.5
MEDIUM TRUCKS	56.8	55.2	51.7	45.2	54.9	55.4
HEAVY TRUCKS	53.4	47.8	56.9	25.9	49.7	53.5
VEHICULAR NOISE	62.2	60.1	60.2	51.6	60.7	61.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	28	60	129	277
LDN	24	52	111	240

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Dakota Ave](#)
SEGMENT: [N. Blythe Ave to N Brawley Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [13,124](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,312](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.5	57.6	55.8	50.0	58.5	59.1
MEDIUM TRUCKS	56.4	54.9	51.3	44.8	54.5	55.1
HEAVY TRUCKS	53.1	47.5	56.5	25.6	49.3	53.2
VEHICULAR NOISE	61.8	59.7	59.8	51.2	60.3	61.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	26	56	121	262
LDN	23	49	105	226

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Dakota Ave](#)
SEGMENT: [N Brawley Ave to N. Parkway Drive](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [7,448](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [745](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	57.0	55.1	53.3	47.5	56.0	56.6
MEDIUM TRUCKS	53.9	52.4	48.9	42.4	52.1	52.6
HEAVY TRUCKS	50.6	45.0	54.1	23.1	46.9	50.7
VEHICULAR NOISE	59.4	57.2	57.4	48.7	57.9	58.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	18	39	83	179
LDN	16	33	72	155

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shields Ave](#)
SEGMENT: [N. Garfield Ave to Grantland Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	18.3	16.4	14.6	8.8	17.3	17.9
MEDIUM TRUCKS	15.2	13.7	10.1	3.6	13.3	13.9
HEAVY TRUCKS	11.9	6.3	15.3	-15.6	8.1	12.0
VEHICULAR NOISE	20.6	18.5	18.7	10.0	19.1	20.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	0
LDN	0	0	0	0

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shields Ave](#)
SEGMENT: [N. Grantland Ave to N. Bryan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [13,365](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,337](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.6	57.6	55.9	50.1	58.6	59.2
MEDIUM TRUCKS	56.5	54.9	51.4	44.9	54.6	55.1
HEAVY TRUCKS	53.1	47.5	56.6	25.6	49.4	53.2
VEHICULAR NOISE	61.9	59.8	59.9	51.2	60.4	61.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	26	57	123	265
LDN	23	49	106	229

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Bryan Ave to N. Hayes Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 15,656
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,566

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.2	58.3	56.6	50.8	59.3	59.9
MEDIUM TRUCKS	57.1	55.6	52.1	45.6	55.3	55.8
HEAVY TRUCKS	53.8	48.2	57.3	26.3	50.1	53.9
VEHICULAR NOISE	62.6	60.5	60.6	51.9	61.1	62.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	29	63	137	294
LDN	25	55	118	255

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Hayes Ave to N. Polk Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 12,337
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,234

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.2	57.3	55.5	49.7	58.2	58.8
MEDIUM TRUCKS	56.1	54.6	51.0	44.6	54.3	54.8
HEAVY TRUCKS	52.8	47.2	56.3	25.3	49.0	52.9
VEHICULAR NOISE	61.6	59.4	59.6	50.9	60.1	61.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	25	54	116	251
LDN	22	47	101	217

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Polk Ave to N. Dante Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 21,436
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 2,144

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.8	62.9	61.1	55.3	63.8	64.4
MEDIUM TRUCKS	60.2	58.7	55.2	48.7	58.4	58.9
HEAVY TRUCKS	56.2	50.6	59.7	28.7	52.5	56.3
VEHICULAR NOISE	66.5	64.5	64.1	56.2	65.1	66.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	54	116	250	539
LDN	47	102	220	475

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Dante Ave to N. Cornelia Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 21,436
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 2,144

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.8	62.9	61.1	55.3	63.8	64.4
MEDIUM TRUCKS	60.2	58.7	55.2	48.7	58.4	58.9
HEAVY TRUCKS	56.2	50.6	59.7	28.7	52.5	56.3
VEHICULAR NOISE	66.5	64.5	64.1	56.2	65.1	66.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	54	116	250	539
LDN	47	102	220	475

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Cornelia Ave to N. Blythe Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 19,552
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,955

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.2	59.3	57.5	51.7	60.2	60.8
MEDIUM TRUCKS	58.1	56.6	53.0	46.6	56.3	56.8
HEAVY TRUCKS	54.8	49.2	58.3	27.3	51.0	54.9
VEHICULAR NOISE	63.6	61.4	61.6	52.9	62.1	63.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	34	73	158	341
LDN	30	64	137	295

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Blythe Ave to N. Brawley Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 21,141
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 2,114

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.6	59.6	57.9	52.1	60.6	61.2
MEDIUM TRUCKS	58.4	56.9	53.4	46.9	56.6	57.1
HEAVY TRUCKS	55.1	49.5	58.6	27.6	51.4	55.2
VEHICULAR NOISE	63.9	61.8	61.9	53.2	62.4	63.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	36	77	167	359
LDN	31	67	144	311

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Shields Ave](#)
SEGMENT: [N Brawley Ave to N. Valentine Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [19,787](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,979](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.3	59.3	57.6	51.8	60.3	60.9
MEDIUM TRUCKS	58.2	56.6	53.1	46.6	56.3	56.8
HEAVY TRUCKS	54.8	49.2	58.3	27.3	51.1	54.9
VEHICULAR NOISE	63.6	61.5	61.6	53.0	62.1	63.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	34	74	160	344
LDN	30	64	138	298

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Shields Ave
SEGMENT: N. Valentine Ave to N. Marks Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 19,278
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,928

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.2	59.2	57.5	51.7	60.2	60.8
MEDIUM TRUCKS	58.0	56.5	53.0	46.5	56.2	56.7
HEAVY TRUCKS	54.7	49.1	58.2	27.2	51.0	54.8
VEHICULAR NOISE	63.5	61.4	61.5	52.8	62.0	62.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	34	73	157	338
LDN	29	63	136	293

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N. Grantland Ave to N. Bryan Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 2,448
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 245

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	52.1	50.3	47.8	42.9	51.3	51.8
MEDIUM TRUCKS	47.2	45.7	42.2	37.4	46.1	46.6
HEAVY TRUCKS	52.7	51.2	45.6	42.6	51.4	51.7
VEHICULAR NOISE	56.0	54.4	50.5	46.4	55.0	55.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	11	23	49	106
LDN	10	21	46	100

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Bryan Ave to N. Hayes Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [10,251](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,025](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	58.4	56.5	54.0	49.1	57.5	58.0
MEDIUM TRUCKS	53.4	51.9	48.4	43.6	52.4	52.8
HEAVY TRUCKS	58.9	57.4	51.8	48.8	57.6	57.9
VEHICULAR NOISE	62.3	60.6	56.7	52.6	61.2	61.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	28	59	128	275
LDN	26	56	120	259

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: N. Hayes Ave to N. Polk Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 11,239
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,124

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	58.8	56.9	54.4	49.5	57.9	58.4
MEDIUM TRUCKS	53.8	52.3	48.8	44.0	52.8	53.2
HEAVY TRUCKS	59.3	57.8	52.2	49.2	58.0	58.3
VEHICULAR NOISE	62.7	61.0	57.1	53.0	61.6	62.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	29	63	136	293
LDN	28	59	128	275

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Polk Ave to 1900 ft east of N. Polk Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [13,878](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,388](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.7	57.8	55.3	50.4	58.8	59.3
MEDIUM TRUCKS	54.7	53.2	49.7	44.9	53.7	54.1
HEAVY TRUCKS	60.2	58.7	53.2	50.1	59.0	59.3
VEHICULAR NOISE	63.6	61.9	58.0	53.9	62.5	62.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	34	73	156	337
LDN	32	68	147	317

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: W. Clinton Ave
SEGMENT: 1900 east of N. Polk Ave to N. Cornelia Ave
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 21,298
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 2,130

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.7	62.9	60.3	55.5	63.9	64.3
MEDIUM TRUCKS	58.3	56.8	53.3	48.5	57.3	57.7
HEAVY TRUCKS	63.1	61.6	56.1	53.0	61.9	62.2
VEHICULAR NOISE	67.6	65.9	62.3	58.0	66.5	66.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	63	135	291	626
LDN	59	126	272	587

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Cornelia Ave to N. Milburn Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [24,727](#)
SPEED = [50](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [66](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,473](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	94.4	--
MEDIUM TRUCKS=	4.00	94.4	--
HEAVY TRUCKS =	8.01	94.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.0	65.2	62.6	57.8	66.1	66.6
MEDIUM TRUCKS	60.0	58.5	55.0	50.2	59.0	59.4
HEAVY TRUCKS	64.5	63.0	57.4	54.4	63.3	63.6
VEHICULAR NOISE	69.5	67.8	64.3	59.9	68.5	68.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	84	182	392	844
LDN	79	170	367	790

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Milburn Ave to N. Blythe Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [29,368](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,937](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.2	64.4	61.8	57.0	65.4	65.9
MEDIUM TRUCKS	59.9	58.3	54.8	50.0	58.8	59.2
HEAVY TRUCKS	64.6	63.2	57.6	54.6	63.4	63.7
VEHICULAR NOISE	69.1	67.4	63.8	59.5	68.0	68.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	79	170	366	789
LDN	74	159	343	740

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Blythe Ave to N Sonora Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [24,727](#)
SPEED = [50](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [66](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,473](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	94.4	--
MEDIUM TRUCKS=	4.00	94.4	--
HEAVY TRUCKS =	8.01	94.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.0	65.2	62.6	57.8	66.1	66.6
MEDIUM TRUCKS	60.0	58.5	55.0	50.2	59.0	59.4
HEAVY TRUCKS	64.5	63.0	57.4	54.4	63.3	63.6
VEHICULAR NOISE	69.5	67.8	64.3	59.9	68.5	68.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	84	182	392	844
LDN	79	170	367	790

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Sonora Ave to N Brawley Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [24,727](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,473](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.5	63.6	61.1	56.2	64.6	65.1
MEDIUM TRUCKS	59.1	57.6	54.1	49.3	58.0	58.5
HEAVY TRUCKS	63.9	62.4	56.8	53.8	62.6	62.9
VEHICULAR NOISE	68.3	66.6	63.1	58.7	67.3	67.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	70	152	327	704
LDN	66	142	306	660

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N Brawley Ave to N. Knoll Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [29,368](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,937](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.2	64.4	61.8	57.0	65.4	65.9
MEDIUM TRUCKS	59.9	58.3	54.8	50.0	58.8	59.2
HEAVY TRUCKS	64.6	63.2	57.6	54.6	63.4	63.7
VEHICULAR NOISE	69.1	67.4	63.8	59.5	68.0	68.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	79	170	366	789
LDN	74	159	343	740

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Knoll Ave to 850 ft east of N. Knoll Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [29,368](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,937](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.1	64.3	61.7	56.9	65.2	65.7
MEDIUM TRUCKS	59.7	58.2	54.7	49.9	58.7	59.1
HEAVY TRUCKS	64.5	63.0	57.4	54.4	63.3	63.6
VEHICULAR NOISE	69.0	67.3	63.7	59.4	67.9	68.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	78	167	360	776
LDN	73	157	337	727

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [850 east of N. Knoll Ave to N. Valentine Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [29,368](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,937](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.9	61.1	58.5	53.7	62.1	62.6
MEDIUM TRUCKS	58.0	56.5	53.0	48.2	56.9	57.4
HEAVY TRUCKS	63.5	62.0	56.4	53.4	62.2	62.5
VEHICULAR NOISE	66.8	65.2	61.3	57.1	65.8	66.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	55	120	258	555
LDN	52	112	242	522

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Valentine Ave to N. Marks Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [39,715](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [3,972](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.4	65.6	63.0	58.2	66.6	67.0
MEDIUM TRUCKS	61.1	59.5	56.0	51.2	60.0	60.4
HEAVY TRUCKS	65.8	64.4	58.8	55.7	64.6	64.9
VEHICULAR NOISE	70.3	68.6	65.0	60.7	69.2	69.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	95	204	440	949
LDN	89	192	413	889

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [W. Clinton Ave](#)
SEGMENT: [N. Marks Ave to W. Vassar Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [58,312](#)
SPEED = [50](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [66](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [5,831](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	94.4	--
MEDIUM TRUCKS=	4.00	94.4	--
HEAVY TRUCKS =	8.01	94.4	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	70.7	68.9	66.4	61.5	69.9	70.4
MEDIUM TRUCKS	63.8	62.2	58.7	53.9	62.7	63.1
HEAVY TRUCKS	68.3	66.8	61.2	58.2	67.0	67.3
VEHICULAR NOISE	73.2	71.5	68.0	63.6	72.2	72.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	149	322	694	1495
LDN	140	302	650	1400

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [W. Herndon Ave to W. Bullard Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [4,249](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [425](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.5	52.7	50.2	45.3	53.7	54.2
MEDIUM TRUCKS	49.6	48.1	44.6	39.8	48.5	49.0
HEAVY TRUCKS	55.1	53.6	48.0	45.0	53.8	54.1
VEHICULAR NOISE	58.4	56.8	52.9	48.8	57.4	57.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	15	33	71	153
LDN	14	31	67	144

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [W. Bullard Ave to W. Barstow Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [4,862](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [486](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.1	53.3	50.7	45.9	54.3	54.7
MEDIUM TRUCKS	50.2	48.6	45.1	40.4	49.1	49.6
HEAVY TRUCKS	55.7	54.2	48.6	45.6	54.4	54.7
VEHICULAR NOISE	59.0	57.4	53.5	49.3	58.0	58.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	36	78	167
LDN	16	34	73	157

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N Garfield Ave
SEGMENT: W. Barstow Ave to 1,000 ft south of W. Barstow Ave
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 5,253
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 525

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	58.6	56.8	54.3	49.4	57.8	58.3
MEDIUM TRUCKS	52.3	50.7	47.2	42.4	51.2	51.6
HEAVY TRUCKS	57.0	55.6	50.0	47.0	55.8	56.1
VEHICULAR NOISE	61.5	59.8	56.2	51.9	60.4	60.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	25	53	114	246
LDN	23	50	107	231

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [1,000 ft south of W. Barstow Ave to W. Shaw Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [5,253](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [525](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	58.6	56.8	54.3	49.4	57.8	58.3
MEDIUM TRUCKS	52.3	50.7	47.2	42.4	51.2	51.6
HEAVY TRUCKS	57.0	55.6	50.0	47.0	55.8	56.1
VEHICULAR NOISE	61.5	59.8	56.2	51.9	60.4	60.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	25	53	114	246
LDN	23	50	107	231

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N Garfield Ave
SEGMENT: W. Shaw Ave to W. Gettysburg Ave
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 5,702
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 570

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.8	54.0	51.4	46.6	54.9	55.4
MEDIUM TRUCKS	50.9	49.3	45.8	41.1	49.8	50.3
HEAVY TRUCKS	56.4	54.9	49.3	46.3	55.1	55.4
VEHICULAR NOISE	59.7	58.1	54.2	50.0	58.6	59.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	19	40	86	186
LDN	17	38	81	175

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [W. Gettysburg Ave to W. Ashlan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [5,381](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [538](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.6	53.7	51.2	46.3	54.7	55.2
MEDIUM TRUCKS	50.6	49.1	45.6	40.8	49.6	50.0
HEAVY TRUCKS	56.1	54.6	49.0	46.0	54.8	55.1
VEHICULAR NOISE	59.5	57.8	53.9	49.8	58.4	58.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	18	39	83	179
LDN	17	36	78	168

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [W. Ashlan Ave to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	18.3	16.4	13.9	9.0	17.4	17.9
MEDIUM TRUCKS	13.3	11.8	8.3	3.5	12.2	12.7
HEAVY TRUCKS	18.8	17.3	11.7	8.7	17.5	17.8
VEHICULAR NOISE	22.2	20.5	16.6	12.5	21.1	21.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	1
LDN	0	0	0	1

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Garfield Ave](#)
SEGMENT: [W. Dakota Ave to W. Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [4,998](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [500](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	55.2	53.4	50.9	46.0	54.4	54.9
MEDIUM TRUCKS	50.3	48.8	45.3	40.5	49.2	49.7
HEAVY TRUCKS	55.8	54.3	48.7	45.7	54.5	54.8
VEHICULAR NOISE	59.1	57.5	53.6	49.5	58.1	58.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	17	37	79	170
LDN	16	35	74	160

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Parkway Drive](#)
SEGMENT: [N Herndon Ave to W. Herndon Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [4,166](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [417](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	54.5	52.6	50.1	45.2	53.6	54.1
MEDIUM TRUCKS	49.5	48.0	44.5	39.7	48.4	48.9
HEAVY TRUCKS	55.0	53.5	47.9	44.9	53.7	54.0
VEHICULAR NOISE	58.4	56.7	52.8	48.7	57.3	57.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	15	33	70	151
LDN	14	31	66	142

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Grantland Ave](#)
SEGMENT: [N. Parkway Drive to W. Bullard Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	18.3	16.4	14.6	8.8	17.3	17.9
MEDIUM TRUCKS	15.2	13.7	10.1	3.6	13.3	13.9
HEAVY TRUCKS	11.9	6.3	15.3	-15.6	8.1	12.0
VEHICULAR NOISE	20.6	18.5	18.7	10.0	19.1	20.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	0
LDN	0	0	0	0

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Grantland Ave](#)
SEGMENT: [W. Bullard Ave to W. Barstow Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [11,947](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,195](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.2	60.4	57.8	53.0	61.3	61.8
MEDIUM TRUCKS	55.8	54.3	50.8	46.0	54.8	55.2
HEAVY TRUCKS	60.6	59.1	53.5	50.5	59.4	59.7
VEHICULAR NOISE	65.1	63.4	59.8	55.5	64.0	64.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	43	92	198	426
LDN	40	86	185	399

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Grantland Ave](#)
SEGMENT: [W. Barstow Ave to W. Shaw Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [15,386](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,539](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.3	61.5	58.9	54.1	62.4	62.9
MEDIUM TRUCKS	56.9	55.4	51.9	47.1	55.9	56.3
HEAVY TRUCKS	61.7	60.2	54.6	51.6	60.5	60.7
VEHICULAR NOISE	66.1	64.5	60.9	56.5	65.1	65.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	50	109	234	504
LDN	47	102	219	472

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Grantland Ave
SEGMENT: W. Shaw Ave to W. Gettysburg Ave
LOCATION: City of Fresno, CA

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

SCENARIO: Existing + Project + Cumulative

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 45,056
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 4,506

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.8	63.0	60.4	55.5	63.9	64.4
MEDIUM TRUCKS	59.9	58.3	54.8	50.0	58.8	59.2
HEAVY TRUCKS	65.3	63.9	58.3	55.3	64.1	64.4
VEHICULAR NOISE	68.7	67.1	63.2	59.0	67.6	68.0

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	74	159	343	738
LDN	69	150	322	694

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Grantland Ave
SEGMENT: W. Gettysburg Ave to W. Ashlan Ave
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 55,863
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 5,586

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	68.9	67.1	64.5	59.7	68.0	68.5
MEDIUM TRUCKS	62.5	61.0	57.5	52.7	61.5	61.9
HEAVY TRUCKS	67.3	65.8	60.2	57.2	66.1	66.3
VEHICULAR NOISE	71.7	70.1	66.5	62.1	70.7	71.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	119	257	553	1191
LDN	112	240	518	1116

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Grantland Ave
SEGMENT: W. Ashlan Ave to W Dakota Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 1
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 0

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	21.4	19.6	17.0	12.2	20.6	21.1
MEDIUM TRUCKS	15.1	13.5	10.0	5.2	14.0	14.4
HEAVY TRUCKS	19.8	18.4	12.8	9.8	18.6	18.9
VEHICULAR NOISE	24.3	22.6	19.0	14.7	23.2	23.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	1
LDN	0	0	0	1

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Grantland Ave](#)
SEGMENT: [W. Dakota Ave to W. Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [40,268](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [4,027](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	67.5	65.6	63.1	58.2	66.6	67.1
MEDIUM TRUCKS	61.1	59.6	56.1	51.3	60.0	60.5
HEAVY TRUCKS	65.9	64.4	58.8	55.8	64.6	64.9
VEHICULAR NOISE	70.3	68.7	65.1	60.7	69.3	69.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	96	206	444	957
LDN	90	193	416	897

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Grantland Ave](#)
SEGMENT: [W Shields Ave to W. Clinton Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [25,521](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,552](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.5	63.7	61.1	56.3	64.6	65.1
MEDIUM TRUCKS	59.1	57.6	54.1	49.3	58.1	58.5
HEAVY TRUCKS	63.9	62.4	56.8	53.8	62.6	62.9
VEHICULAR NOISE	68.3	66.7	63.1	58.7	67.3	67.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	71	152	328	706
LDN	66	143	307	662

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Bryan Ave](#)
SEGMENT: [W. Shaw Ave to W. Santa Ana Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [21,311](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,131](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.6	59.7	57.9	52.1	60.6	61.2
MEDIUM TRUCKS	58.5	57.0	53.4	46.9	56.6	57.2
HEAVY TRUCKS	55.2	49.6	58.6	27.7	51.4	55.3
VEHICULAR NOISE	63.9	61.8	61.9	53.3	62.4	63.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	36	78	168	361
LDN	31	67	145	313

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Bryan Ave
SEGMENT: W. Santa Ana Ave to W. Gettysburg Ave
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 21,311
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 2,131

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.6	59.7	57.9	52.1	60.6	61.2
MEDIUM TRUCKS	58.5	57.0	53.4	46.9	56.6	57.2
HEAVY TRUCKS	55.2	49.6	58.6	27.7	51.4	55.3
VEHICULAR NOISE	63.9	61.8	61.9	53.3	62.4	63.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	36	78	168	361
LDN	31	67	145	313

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Bryan Ave](#)
SEGMENT: [W. Gettysburg Ave to W. Ashlan Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [18,216](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,822](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.1	62.2	60.4	54.6	63.1	63.7
MEDIUM TRUCKS	59.5	58.0	54.5	48.0	57.7	58.2
HEAVY TRUCKS	55.5	49.9	59.0	28.0	51.8	55.6
VEHICULAR NOISE	65.8	63.8	63.4	55.5	64.4	65.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	48	104	225	484
LDN	43	92	198	426

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Bryan Ave](#)
SEGMENT: [W. Ashlan Ave to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [1](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [0](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	21.5	19.6	17.8	12.0	20.5	21.1
MEDIUM TRUCKS	16.9	15.4	11.9	5.4	15.1	15.6
HEAVY TRUCKS	12.9	7.3	16.4	-14.6	9.2	13.0
VEHICULAR NOISE	23.2	21.2	20.8	12.9	21.8	22.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	0	0	0	1
LDN	0	0	0	1

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Bryan Ave
SEGMENT: W. Dakota Ave to W Shields Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 18,966
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,897

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.1	59.2	57.4	51.6	60.1	60.7
MEDIUM TRUCKS	58.0	56.5	52.9	46.4	56.1	56.7
HEAVY TRUCKS	54.7	49.1	58.1	27.2	50.9	54.8
VEHICULAR NOISE	63.4	61.3	61.4	52.8	61.9	62.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	33	72	155	334
LDN	29	62	134	289

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Bryan Ave](#)
SEGMENT: [W Shields Ave to W. Clinton Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [13,631](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,363](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.6	57.7	55.9	50.2	58.7	59.3
MEDIUM TRUCKS	56.5	55.0	51.5	45.0	54.7	55.2
HEAVY TRUCKS	53.2	47.6	56.7	25.7	49.5	53.3
VEHICULAR NOISE	62.0	59.9	60.0	51.3	60.5	61.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	27	58	124	268
LDN	23	50	108	232

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Hayes Ave](#)
SEGMENT: [W. Shaw Ave to W. Santa Ana Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [22,778](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,278](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.2	63.2	61.5	55.7	64.2	64.8
MEDIUM TRUCKS	60.6	59.1	55.6	49.1	58.8	59.3
HEAVY TRUCKS	56.6	51.0	60.1	29.1	52.9	56.7
VEHICULAR NOISE	66.9	64.8	64.4	56.6	65.5	66.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	57	123	265	572
LDN	50	108	234	503

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Hayes Ave
SEGMENT: W. Santa Ana Ave to W. Gettysburg Ave
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 22,778
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 2,278

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.1	63.1	61.4	55.6	64.1	64.7
MEDIUM TRUCKS	60.5	59.0	55.4	49.0	58.7	59.2
HEAVY TRUCKS	56.5	50.9	60.0	29.0	52.7	56.6
VEHICULAR NOISE	66.8	64.7	64.3	56.4	65.4	66.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	56	121	261	562
LDN	49	107	230	495

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Hayes Ave](#)
SEGMENT: [W. Gettysburg Ave to W. Swift Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [25,950](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,595](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.6	63.7	61.9	56.1	64.6	65.2
MEDIUM TRUCKS	61.1	59.6	56.0	49.5	59.2	59.8
HEAVY TRUCKS	57.1	51.5	60.5	29.6	53.3	57.2
VEHICULAR NOISE	67.4	65.3	64.9	57.0	66.0	66.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	61	132	284	613
LDN	54	116	250	539

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Hayes Ave
SEGMENT: W. Swift Ave to W. Ashlan Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 25,950
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 2,595

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.4	60.5	58.7	53.0	61.5	62.0
MEDIUM TRUCKS	59.3	57.8	54.3	47.8	57.5	58.0
HEAVY TRUCKS	56.0	50.4	59.5	28.5	52.3	56.1
VEHICULAR NOISE	64.8	62.7	62.8	54.1	63.3	64.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	41	89	191	412
LDN	36	77	166	357

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
 ROADWAY: N. Hayes Ave
 SEGMENT: W. Ashland Ave to W. Dakota Ave
 LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
 DATE: 18-Sep-20
 ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 29,995
 SPEED = 35
 PK HR % = 10
 NEAR LANE/FAR LANE DIST = 12
 ROAD ELEVATION = 0
 GRADE = 0
 PK HR VOL = 3,000

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
 DIST C/L TO WALL = 0
 RECEIVER HEIGHT = 5
 WALL DISTANCE FROM RECEIVER = 100
 PAD ELEVATION = 0
 ROADWAY VIEW: LF ANGLE -90
 RT ANGLE 90
 DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
 MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
 HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
 AMBIENT = 0
 BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.1	61.1	59.4	53.6	62.1	62.7
MEDIUM TRUCKS	60.0	58.4	54.9	48.4	58.1	58.6
HEAVY TRUCKS	56.6	51.0	60.1	29.1	52.9	56.7
VEHICULAR NOISE	65.4	63.3	63.4	54.8	63.9	64.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	45	98	211	454
LDN	39	85	182	393

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Hayes Ave](#)
SEGMENT: [W. Dakota Ave to 1,300 ft South of W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [21,197](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,120](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.6	59.6	57.9	52.1	60.6	61.2
MEDIUM TRUCKS	58.5	56.9	53.4	46.9	56.6	57.1
HEAVY TRUCKS	55.1	49.5	58.6	27.6	51.4	55.2
VEHICULAR NOISE	63.9	61.8	61.9	53.3	62.4	63.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	36	78	167	360
LDN	31	67	145	312

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Hayes Ave
SEGMENT: 1,300 ft South of W. Dakota Ave to W Shields Ave
LOCATION: City of Fresno, CA SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 21,197
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 2,120

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.7	62.8	61.0	55.3	63.8	64.3
MEDIUM TRUCKS	60.2	58.7	55.1	48.6	58.3	58.9
HEAVY TRUCKS	56.2	50.6	59.7	28.7	52.4	56.3
VEHICULAR NOISE	66.5	64.4	64.0	56.1	65.1	65.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	54	115	249	535
LDN	47	102	219	471

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Hayes Ave
SEGMENT: W Shields Ave to W. Clinton Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 17,552
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,755

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.7	58.8	57.0	51.3	59.8	60.3
MEDIUM TRUCKS	57.6	56.1	52.6	46.1	55.8	56.3
HEAVY TRUCKS	54.3	48.7	57.8	26.8	50.6	54.4
VEHICULAR NOISE	63.1	61.0	61.1	52.4	61.6	62.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	32	68	147	317
LDN	27	59	128	275

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [North of W. Shaw Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [6,568](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [657](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	59.6	57.8	55.2	50.4	58.7	59.2
MEDIUM TRUCKS	53.2	51.7	48.2	43.4	52.2	52.6
HEAVY TRUCKS	58.0	56.5	50.9	47.9	56.8	57.1
VEHICULAR NOISE	62.5	60.8	57.2	52.9	61.4	61.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	29	62	133	286
LDN	27	58	124	268

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [W. Shaw Ave to W. Acacia Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [25,762](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,576](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.5	63.7	61.2	56.3	64.7	65.2
MEDIUM TRUCKS	59.2	57.6	54.1	49.4	58.1	58.5
HEAVY TRUCKS	64.0	62.5	56.9	53.9	62.7	63.0
VEHICULAR NOISE	68.4	66.7	63.1	58.8	67.4	67.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	71	153	330	711
LDN	67	144	309	666

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [W. Acaia Ave to W. Gettysburg Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [25,762](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [44](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,576](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	97.6	--
MEDIUM TRUCKS=	4.00	97.6	--
HEAVY TRUCKS =	8.01	97.6	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	65.7	63.8	61.3	56.4	64.8	65.3
MEDIUM TRUCKS	59.3	57.7	54.2	49.5	58.2	58.7
HEAVY TRUCKS	64.1	62.6	57.0	54.0	62.8	63.1
VEHICULAR NOISE	68.5	66.8	63.2	58.9	67.5	67.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	72	156	336	723
LDN	68	146	315	678

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [W. Gettysburg Ave to W. Ashlan Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [31,612](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [3,161](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.3	61.4	58.9	54.0	62.4	62.9
MEDIUM TRUCKS	58.3	56.8	53.3	48.5	57.2	57.7
HEAVY TRUCKS	63.8	62.3	56.7	53.7	62.5	62.8
VEHICULAR NOISE	67.2	65.5	61.6	57.5	66.1	66.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	58	126	271	583
LDN	55	118	254	548

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Polk Ave
SEGMENT: W. Ashland Ave to W. Griffith Way
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 31,840
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 3,184

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.3	61.4	58.9	54.0	62.4	62.9
MEDIUM TRUCKS	58.4	56.8	53.3	48.5	57.3	57.7
HEAVY TRUCKS	63.8	62.4	56.8	53.7	62.6	62.9
VEHICULAR NOISE	67.2	65.6	61.7	57.5	66.1	66.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	59	126	272	586
LDN	55	119	256	551

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [W. Griffith Way to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [31,840](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [3,184](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	66.5	64.6	62.1	57.2	65.6	66.1
MEDIUM TRUCKS	60.1	58.5	55.0	50.3	59.0	59.5
HEAVY TRUCKS	64.9	63.4	57.8	54.8	63.6	63.9
VEHICULAR NOISE	69.3	67.6	64.0	59.7	68.3	68.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	82	176	380	819
LDN	77	165	356	767

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [W. Dakota Ave to W Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [23,801](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,380](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	62.0	60.2	57.6	52.8	61.2	61.6
MEDIUM TRUCKS	57.1	55.5	52.0	47.3	56.0	56.5
HEAVY TRUCKS	62.6	61.1	55.5	52.5	61.3	61.6
VEHICULAR NOISE	65.9	64.3	60.4	56.2	64.8	65.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	48	104	224	482
LDN	45	98	211	454

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Polk Ave](#)
SEGMENT: [W Shields Ave to W. Clinton Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [21,944](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,194](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.7	59.8	57.3	52.4	60.8	61.3
MEDIUM TRUCKS	56.7	55.2	51.7	46.9	55.7	56.1
HEAVY TRUCKS	62.2	60.7	55.1	52.1	61.0	61.3
VEHICULAR NOISE	65.6	63.9	60.0	55.9	64.5	64.9

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	46	98	212	457
LDN	43	93	199	430

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Cornelia Ave](#)
SEGMENT: [N. Parkway Drive to W. Gettysburg Ave](#)
LOCATION: [City of Fresno, CA](#) SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [9,222](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [922](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.1	59.2	57.4	51.7	60.1	60.7
MEDIUM TRUCKS	56.6	55.1	51.5	45.0	54.7	55.3
HEAVY TRUCKS	52.6	47.0	56.0	25.1	48.8	52.7
VEHICULAR NOISE	62.9	60.8	60.4	52.5	61.5	62.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	31	66	143	307
LDN	27	58	126	271

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Cornelia Ave
SEGMENT: W. Gettysburg to W. Ashlan Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 22,141
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 2,214

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	64.9	63.0	61.2	55.5	63.9	64.5
MEDIUM TRUCKS	60.4	58.9	55.3	48.8	58.5	59.1
HEAVY TRUCKS	56.4	50.8	59.8	28.9	52.6	56.5
VEHICULAR NOISE	66.7	64.6	64.2	56.3	65.3	66.1

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	55	119	256	551
LDN	49	105	225	485

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Cornelia Ave](#)
SEGMENT: [W. Ashland Ave to W. Bellaire Way](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [15,700](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,570](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.4	61.5	59.7	54.0	62.5	63.0
MEDIUM TRUCKS	58.9	57.4	53.8	47.3	57.0	57.6
HEAVY TRUCKS	54.9	49.3	58.3	27.4	51.1	55.0
VEHICULAR NOISE	65.2	63.1	62.7	54.8	63.8	64.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	44	94	203	438
LDN	39	83	179	386

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Cornelia Ave](#)
SEGMENT: [W. Bellaire Way to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [15,700](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,570](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.4	61.5	59.7	54.0	62.5	63.0
MEDIUM TRUCKS	58.9	57.4	53.8	47.3	57.0	57.6
HEAVY TRUCKS	54.9	49.3	58.3	27.4	51.1	55.0
VEHICULAR NOISE	65.2	63.1	62.7	54.8	63.8	64.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	44	94	203	438
LDN	39	83	179	386

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Cornelia Ave](#)
SEGMENT: [W. Dakota Ave to W Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [17,844](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,784](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.8	58.9	57.1	51.3	59.8	60.4
MEDIUM TRUCKS	57.7	56.2	52.6	46.2	55.9	56.4
HEAVY TRUCKS	54.4	48.8	57.9	26.9	50.6	54.5
VEHICULAR NOISE	63.2	61.0	61.2	52.5	61.7	62.6

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	32	69	149	321
LDN	28	60	129	278

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Cornelia Ave](#)
SEGMENT: [W Shields Ave to W. Clinton Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [15,071](#)
SPEED = [45](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [24](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,507](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.3	--
MEDIUM TRUCKS=	4.00	99.3	--
HEAVY TRUCKS =	8.01	99.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.3	61.3	59.6	53.8	62.3	62.9
MEDIUM TRUCKS	58.7	57.2	53.7	47.2	56.9	57.4
HEAVY TRUCKS	54.7	49.1	58.2	27.2	51.0	54.8
VEHICULAR NOISE	65.0	62.9	62.5	54.6	63.6	64.4

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	43	92	198	426
LDN	38	81	174	375

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Blythe Ave
SEGMENT: W. Ashlan Ave to W. Dakota Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 17,215
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,722

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.785	0.109	0.107	0.934
MEDIUM TRUCKS	0.840	0.094	0.094	0.032
HEAVY TRUCKS	0.853	0.059	0.088	0.034

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.6	58.8	56.2	51.4	59.7	60.2
MEDIUM TRUCKS	55.7	54.1	50.6	45.9	54.6	55.1
HEAVY TRUCKS	61.2	59.7	54.1	51.1	59.9	60.2
VEHICULAR NOISE	64.5	62.9	59.0	54.8	63.4	63.8

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	39	84	180	389
LDN	37	79	170	365

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N. Blythe Ave](#)
SEGMENT: [W. Dakota Ave to W Shields Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [17,269](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,727](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.7	58.8	57.0	51.2	59.7	60.3
MEDIUM TRUCKS	57.6	56.0	52.5	46.0	55.7	56.2
HEAVY TRUCKS	54.3	48.6	57.7	26.7	50.5	54.3
VEHICULAR NOISE	63.0	60.9	61.0	52.4	61.5	62.5

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	31	68	146	314
LDN	27	59	126	272

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N. Blythe Ave
SEGMENT: W Shields Ave to W. Clinton Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 16,106
SPEED = 35
PK HR % = 10
NEAR LANE/FAR LANE DIST = 12
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,611

RECEIVER INPUT DATA

RECEIVER DISTANCE = 100
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 100
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.4	58.4	56.7	50.9	59.4	60.0
MEDIUM TRUCKS	57.3	55.7	52.2	45.7	55.4	55.9
HEAVY TRUCKS	53.9	48.3	57.4	26.4	50.2	54.0
VEHICULAR NOISE	62.7	60.6	60.7	52.1	61.2	62.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	30	65	139	300
LDN	26	56	120	259

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Brawley Ave](#)
SEGMENT: [N. Parkway Drive to W. Dakota Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [20,943](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [2,094](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [100](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [100](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	99.9	--
MEDIUM TRUCKS=	4.00	99.8	--
HEAVY TRUCKS =	8.01	99.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	61.5	59.6	57.8	52.0	60.5	61.1
MEDIUM TRUCKS	58.4	56.9	53.3	46.9	56.6	57.1
HEAVY TRUCKS	55.1	49.5	58.6	27.6	51.3	55.2
VEHICULAR NOISE	63.9	61.7	61.9	53.2	62.4	63.3

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	36	77	166	357
LDN	31	67	143	309

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: [West Area Specific Plan](#)
ROADWAY: [N Brawley Ave](#)
SEGMENT: [W. Dakota Ave to W. Dayton Ave](#)
LOCATION: [City of Fresno, CA](#)

SCENARIO: [Existing + Project + Cumulative](#)

JOB #: [0462-19-01](#)
DATE: [18-Sep-20](#)
ENGINEER: [M. Dickerson](#)

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = [16,396](#)
SPEED = [35](#)
PK HR % = [10](#)
NEAR LANE/FAR LANE DIST = [12](#)
ROAD ELEVATION = [0](#)
GRADE = [0](#)
PK HR VOL = [1,640](#)

RECEIVER INPUT DATA

RECEIVER DISTANCE = [101](#)
DIST C/L TO WALL = [0](#)
RECEIVER HEIGHT = [5](#)
WALL DISTANCE FROM RECEIVER = [101](#)
PAD ELEVATION = [0](#)
ROADWAY VIEW: LF ANGLE [-90](#)
RT ANGLE [90](#)
DF ANGLE [180](#)

SITE CONDITIONS

AUTOMOBILES [15](#)
MED TRUCKS [15](#) (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS [15](#)

WALL INFORMATION

HTH WALL = [0](#) FT
AMBIENT = [0](#)
BARRIER = [0](#) (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	100.9	--
MEDIUM TRUCKS=	4.00	100.8	--
HEAVY TRUCKS =	8.01	100.9	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	60.4	58.5	56.7	50.9	59.4	60.0
MEDIUM TRUCKS	57.3	55.8	52.2	45.7	55.4	56.0
HEAVY TRUCKS	54.0	48.4	57.4	26.5	50.2	54.1
VEHICULAR NOISE	62.7	60.6	60.7	52.1	61.2	62.2

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	30	65	141	303
LDN	26	57	122	263

FHWA-RD-77-108 ROADWAY TRAFFIC NOISE PREDICTION MODEL (CNEL) - CALVENO

PROJECT: West Area Specific Plan
ROADWAY: N Brawley Ave
SEGMENT: W. Dayton Ave to W. Cortland Ave
LOCATION: City of Fresno, CA

SCENARIO: Existing + Project + Cumulative

JOB #: 0462-19-01
DATE: 18-Sep-20
ENGINEER: M. Dickerson

NOISE INPUT DATA

ROADWAY CONDITIONS

ADT = 16,396
SPEED = 45
PK HR % = 10
NEAR LANE/FAR LANE DIST = 24
ROAD ELEVATION = 0
GRADE = 0
PK HR VOL = 1,640

RECEIVER INPUT DATA

RECEIVER DISTANCE = 102
DIST C/L TO WALL = 0
RECEIVER HEIGHT = 5
WALL DISTANCE FROM RECEIVER = 102
PAD ELEVATION = 0
ROADWAY VIEW: LF ANGLE -90
RT ANGLE 90
DF ANGLE 180

SITE CONDITIONS

AUTOMOBILES 15
MED TRUCKS 15 (HARD SITE=10, SOFT SITE=15)
HVY TRUCKS 15

WALL INFORMATION

HTH WALL = 0 FT
AMBIENT = 0
BARRIER = 0 (0=WALL,1=BERM)

VEHICLE MIX DATA

VEHICLE TYPE	DAY	EVE	NIGHT	DAILY
AUTOMOBILES	0.770	0.128	0.101	0.944
MEDIUM TRUCKS	0.846	0.093	0.063	0.049
HEAVY TRUCKS	0.330	0.667	0.002	0.007

MISC. VEHICLE INFO

VEHICLE TYPE	HEIGHT	SLE DISTANCE	GRADE ADJUSTMENT
AUTOMOBILES =	2.00	101.3	--
MEDIUM TRUCKS=	4.00	101.3	--
HEAVY TRUCKS =	8.01	101.3	0.0

NOISE OUTPUT DATA

NOISE IMPACTS (WITHOUT TOPO OR BARRIER SHIELDING)

VEHICLE TYPE	PK HR LEQ	DAY LEQ	EVEN LEQ	NIGHT LEQ	LDN	CNEL
AUTOMOBILES	63.5	61.6	59.8	54.0	62.5	63.1
MEDIUM TRUCKS	58.9	57.4	53.9	47.4	57.1	57.6
HEAVY TRUCKS	54.9	49.3	58.4	27.4	51.2	55.0
VEHICULAR NOISE	65.2	63.2	62.8	54.9	63.9	64.7

NOISE CONTOUR (FT)				
NOISE LEVELS	70 dBA	65 dBA	60 dBA	55 dBA
CNEL	45	97	209	451
LDN	40	86	184	397

APPENDIX G

Technical Memorandum – CEQA Impacts and Mitigations (VMT)

TECHNICAL MEMORANDUM

Fresno Specific Plan of the West Area

CEQA Impacts and Mitigations

Date: March 9, 2021
To: Steve McMurtry, De Novo Planning Group
From: Aaron Elias, Kittelson & Associates, Inc.
cc:

Project #: 23674

This memorandum presents the findings of the transportation impact analysis conducted for the Fresno Specific Plan of the West Area (herein referred to as the “Specific Plan”). The proposed Specific Plan will establish the land use planning and regulatory guidance, including the land use and zoning designations and policies, for the approximately 7,077-acre Specific Plan Area. The Specific Plan Area is triangular in shape and located west of State Route 99. It is bounded on the south by West Clinton Avenue, and to the west by Grantland and Garfield Avenues (Figure 1). The Specific Plan Area includes the southwest portion of Highway City adjacent to State Route 99. The Specific Plan will serve as a bridge between the Fresno General Plan and individual development applications in the Specific Plan Area.

The Specific Plan seeks to provide for the orderly and consistent development that promotes and establishes the West Area as a complete neighborhood with enhanced transportation infrastructure, development of core commercial centers, creation of additional parkland, and encouraging the development of a diverse housing stock. The Specific Plan Area does not currently have needed commercial amenities, forcing residents to travel east of State Route 99 for retail services. The Specific Plan Area also lacks a complete roadway network and parkland.

Ultimately, the Specific Plan will provide the blueprint to develop up to 54,521 dwelling units (DU) (including 46,620 DU in the residential category and 7,901 DU in the mixed-use category) and 48,890,001.60 square feet (SF) of non-residential uses. The proposed land use plan also designates public facility uses that are currently existing within the Specific Plan Area, including schools and churches.

 Project Boundary

Figure 1
Specific Plan Area

EXISTING CONDITIONS

A description of the existing roadway, transit, bicycle, and pedestrian components of the transportation system within the Specific Plan Area follow.

Roadway Network

The existing roadway network in the Specific Plan Area is composed of a street system made up of freeways, super arterials, arterial and collector roads. Roadway classifications listed are from the City of Fresno General Plan.

Freeways

State Route 99 (SR-99) is a six-lane freeway with a posted speed limit of 65 miles per hour. The northwest-southeast freeway connects most major cities in Central California including Chico, Bakersfield, Selma, Sacramento, Modesto, and Fresno. It also provides access to the greater freeway network with direct connections to State Route 180 and State Route 41.

The Project is bordered by SR-99 on the northeast side. The average daily traffic on SR-99 near the Project site ranges between approximately 82,000 and 112,000 vehicles per day. Bicyclists and pedestrians are not allowed on this facility.

Super Arterials

Grantland Avenue is a two-lane to four-lane north-south roadway with a posted speed limit of 40 miles per hour near the Project site. The facility extends from I-99 on the north to Kearny Blvd on the south. The facility is a four-lane roadway with a median north of Shaw Avenue, and a two-lane roadway south of Shaw Avenue. Sidewalks are limited, and additional sidewalks, Class I and Class II bikeways are planned along the roadway.

Veterans Boulevard is currently a single lane in each direction between Riverside Drive and N. Hayes Avenue east of SR 99 and a six-lane stub roadway west of SR 99. However, the Veterans Boulevard Interchange and Corridor Improvement Project is currently underway which will connect these two facilities and create a six-lane super arterial in northwest Fresno connecting Herndon Avenue in the north to Shaw Avenue in the south including the construction of an interchange with SR 99.

Arterials

North-South

Polk Avenue is a two-lane north-south roadway with a posted speed limit of 35 or 40 MPH near the Plan Area. The facility extends from SR-99 on the north to Olive Avenue on the south. Sidewalks and Class II bike lanes exist intermittently and are proposed along the roadway.

Shaw Avenue is a two-lane east-west roadway with a posted speed limit of 35 to 45 MPH near the Plan Area. The facility extends from the San Joaquin River on the west to the Friant-Kern Canal on the east. Sidewalks and Class II bike lanes are proposed along the roadway.

Ashlan Avenue is a two-lane to four-lane east-west roadway with a posted speed limit of 40 to 50 MPH near the Plan Area. The facility extends from Grantland Ave on the west and becomes Watts Valley Road on the east. Sidewalks and Class II bike lanes exist intermittently and are proposed along the roadway.

Grantland Avenue north of Shaw Avenue is a two lane north-south roadway with a posted speed limit of 40 MPH in the Plan Area. North of Shaw Avenue, Grantland Avenue extends north to SR 99 near the Herndon Avenue interchange. There are no sidewalks or bicycle facilities on this facility.

Blythe Avenue from Ashlan Avenue to Dakota Avenue is a two lane north-south roadway with a center median located along most of its length. The speed limit is posted as 40 MPH. Sidewalks are generally available along frontages that have been developed but no sidewalks are present along undeveloped parcels. Class II bicycle lane exist intermittently in both the northbound and southbound directions.

Collectors

Collectors in the Specific Plan Area include the following:

- North-South
 - Garfield Avenue
 - Bryan Avenue
 - Hayes Avenue
 - Cornelia Avenue
 - Blythe Avenue
 - Brawley Avenue
 - Valentine Avenue
 - Marks Avenue
- East-west
 - Bullard Avenue
 - Barstow Avenue
 - Gettysburg Avenue

- Dakota Avenue
- Shields Avenue
- Clinton Avenue

Collectors are generally two-lane roadways with posted speeds of 30 to 45 miles per hour. Sidewalks and bike lanes are generally not present but are proposed along most collectors.

Transit Facilities

Fresno is primarily served by the Fresno Area Express (FAX) transit system which operates bus service and paratransit operations servicing the city. Regional connections are provided by the Fresno County Rural Transit Agency (FCRTA) and Amtrak for travel outside of the Fresno-Clovis Metropolitan Area.

Fresno Area Express (FAX)

FAX provides the principal bus service in the City of Fresno. It operates seventeen routes and Handy Ride, a paratransit operation, with a fleet of over 100 buses, and Handy Ride, its paratransit operation, with a fleet of over 50 vehicles. FAX operates three routes that directly serve the Specific Plan Area through nearby street-side bus stops, with additional service coming into the Plan Area in 2021. Bus service on these routes is detailed in Table 1 with the routes near the Specific Plan Area shown in Figure 2.

Route 12 provides local commuter and weekend service with the route originating or terminating at Shields Avenue/Brawley Avenue and San Jose Avenue/Marty Avenue intersections where it converts into Route 35. Between these two origin/destinations, the route has fixed stops as it runs mostly along Brawley Avenue and Cornelia in the Plan Area, from Clinton Avenue to Shaw Avenue. Key destinations served include Central High School, Inspiration Park, and Forestiere Underground Gardens.

Route 35 provides local commuter and weekend service with the route originating or terminating in the Plan Area at Shields Avenue/Brawley Avenue where it converts into Route 12 and on the east side of Fresno at the intersection of Belmont Avenue/Clovis Avenue. In the Plan Area, the route provides fixed stops along Brawley and Clinton Avenues. Key destinations served by the route include the DMV, Talking Book Library, Post Office, and the Social Security Office.

Route 39 provides local commuter and weekend service with the route originating or terminating at Brawley Avenue/Shields Avenue intersection and Fresno Yosemite International Air Terminal. Between these two origin/destinations, Route 39 runs in a loop from Clinton Avenue/Marks Avenue to Brawley Avenue/Shields Avenue in the Plan Area where it has fixed stops. Key destinations served include by Fresno High School, Fresno City College, Veteran's Medical Center, and Alliant University.

Table 1: Bus Routes Serving the Project

Route	Serving	Day	Times		Frequency
12 & 35	Starting at Shaw and Brawley and serving Forestiere Underground Gardens, Teague Elementary School, Inspiration Park, Central High School East, Tower District, DMV, Roeding Park, Yosemite Middle School, and Social Security Office	Weekday	6:00 AM	10:00 PM	Every 30 Minutes
		Weekend	7:00 AM	7:30 PM	Every 30 Minutes
39	Starting at Brawley Avenue/ Shields Avenue and serving Hamilton K-8, Fresno High School, Fresno City College, VA Medical Center, McLane High School, Alliant University, and Fresno Yosemite International Air Terminal primarily along Clinton Avenue	Weekday	5:30 AM	10:00 PM	Every 30 Minutes
		Weekend	7:30 AM	7:00 PM	Every 30 Minutes
45	Along Ashlan Avenue serving Central High School East, Copper Middle School, Blackbeard’s Family Entertainment, Army Navy Reserve, and ARC Fresno Production Center	Weekday	6:00 AM	9:00 PM	Every 45 Minutes
		Weekend	6:45 AM	7:00 PM	Every 45 Minutes

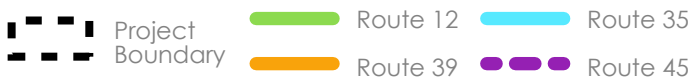
Source: FAX website, www.fresno.gov/fax, accessed March 9, 2021

Kittelson & Associates, Inc., 2021

Route 45 is a proposed route that will begin operation in 2021. It is shown has a dashed line in Figure 2

Truck Facilities

There are designated truck routes in the Specific Plan Area according to the City of Fresno Public Works. There are also County Permit routes in the Specific Plan Area which are the overweight vehicle corridors requiring special permit. Existing and future truck routes are shown in Figure 3.





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Bicycle and Pedestrian Facilities

Bicycle and pedestrian facilities are important components of the transportation network in the Specific Plan Area. They not only offer non-vehicular opportunities for both commute and recreational trips but also provide connections to the region's transit network.

Existing Bicycle Facilities

Bicycle facilities are defined by the following four classes¹:

- **Class I** – Provides a completely separated facility designed for the exclusive use of bicyclists and pedestrians with crossing points minimized.
- **Class II** – Provides a restricted right-of-way designated lane for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted.
- **Class III** – Provides a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.
- **Class IV** – Provides a restricted right-of-way designated lane for the exclusive use of bicyclists that is separated by a vertical element to provide further separation from motor vehicle traffic.

The City of Fresno adopted the Active Transportation Plan (ATP) in March 2017. This plan identifies existing and future planned bicycle facilities within the City's jurisdiction.

The following bikeways are currently present within the study area at intermittent locations on major roads. They are shown graphically in Figure 4:

- **Class II Bike Lanes**
 - East/West Streets
 - Bullard Avenue, east of Grantland Avenue
 - Barstow Avenue, west of Grantland Avenue
 - Gettysburg Avenue, east of Hayes Avenue
 - Ashlan Avenue, east of Cornelia Avenue
 - Dakota Avenue, east of Polk Avenue
 - Clinton Avenue, east of Cornelia Avenue
 - North/ South Streets
 - Grantland Avenue, south of SR-99
 - Bryan Avenue, south of Gettysburg Avenue
 - Hayes Avenue, south of Shaw Avenue
 - Polk Avenue, south of Shaw Avenue
 - Cornelia Avenue, south of Gettysburg Avenue

¹ As detailed in Chapter 1000 of the Highway Design Manual (Caltrans, 2015).

- Brawley Avenue, south of Dakota Avenue

Planned and Proposed Bicycle Facilities

The ATP includes planned and proposed bikeway facilities in the Plan Area. They are discussed below and shown in Figure 4:

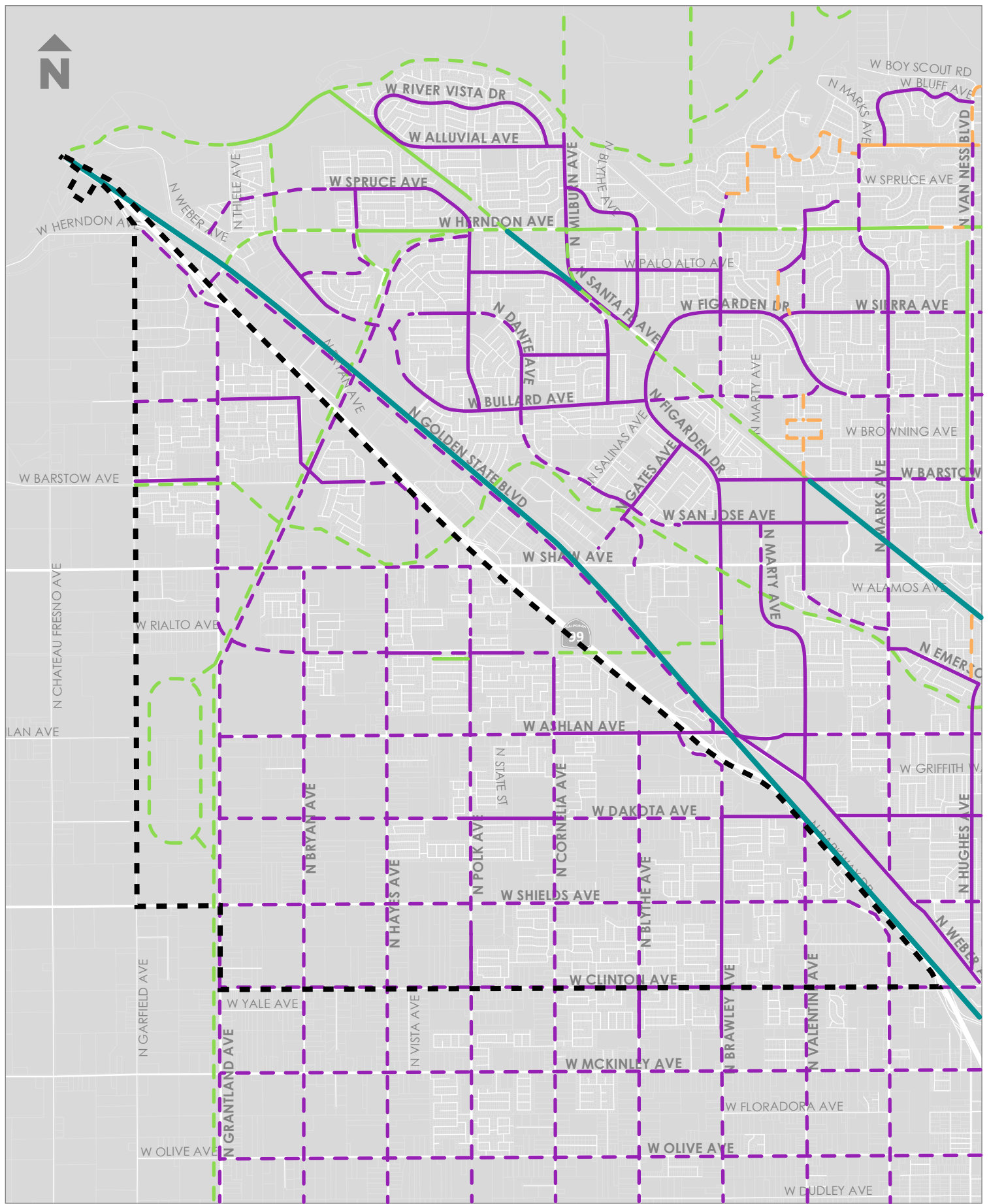
- **Class I Bike Paths**
 - Grantland Avenue, south of Gettysburg Avenue
 - Veteran's Boulevard (proposed), north of Gettysburg Avenue
 - Gettysburg Avenue, east of Cornelia Avenue
- **Class II Bike Lanes**
 - All arterials and collectors

Bike lanes on Veterans Blvd (proposed), Gettysburg Avenue, and Cornelia Avenue are identified as priority bikeways in the ATP.

Pedestrian Facilities

Pedestrian facilities are present in the Specific Plan Area. Sidewalks are present intermittently along some major roadways. Sidewalks are proposed on most arterials and collectors. Crosswalks are present intermittently at signalized and unsignalized intersections in the Specific Plan Area. Figure 5 shows existing and planned sidewalks in the Specific Plan Area.

The City of Fresno adopted the 2016 Update to the ADA Transition Plan for the Right of Way (ROW) in February 2016. The ROW Transition Plan incorporates retrofitting Curb Ramps, Sidewalks, and Accessible Pedestrian Signals and replaced the 2003 Amended Curb Ramp Transition Plan.



- | | | |
|--|--|------------------------------|
| <p>Project Boundary</p> <p>Existing Bicycle Facilities</p> <p>Class I Bike Path</p> <p>Class II Bike Lane</p> <p>Class III Bike Lane</p> | <p>Planned Bicycle Facilities</p> <p>Class I Bike Path</p> <p>Class II Bike Lane</p> <p>Class III Bike Lane</p> | <p>Rail-to-Trails</p> |
|--|--|------------------------------|

Figure 4
Existing and Proposed Bicycle Routes in the Specific Plan Area



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REGULATORY SETTING

This section summarizes applicable federal, state, regional, and local plans, laws, and regulations that are relevant to this analysis. This information provides a context for the discussion related to the Project's consistency with applicable policies, plans, laws, and regulations.

Federal

No federal plans, policies, regulations, or laws pertaining to transportation have been determined to be applicable to this Project.

State

Senate Bill 743 (SB 743) was signed into law in September 2013. Senate Bill 743 (Steinberg, 2013) required changes to the CEQA Guidelines regarding the analysis of transportation impacts. Historically, CEQA transportation analyses of individual projects determined impacts in the circulation system in terms of roadway delay and/or capacity at specific locations. SB 743 changes include the elimination of auto delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts. Those proposed changes identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. Since the bill has gone into effect, automobile delay, as measured by "level of service" and other similar metrics, no longer constitutes a significant environmental effect under CEQA. Auto-mobility (often expressed as "level of service") may continue to be a measure for planning purposes.²

In December 2018, the California Governor's Office of Planning and Research (OPR) and the State Natural Resources Agency submitted updated CEQA Guidelines to the Office of Administrative Law for final approval to implement SB 743. The Office of Administrative Law approved the updated CEQA Guidelines, thus implementing SB 743 and making VMT the primary metric used to analyze transportation impacts. The final text, final statement of reasons, and related materials are posted at <http://resources.ca.gov/ceqa>. The changes have been approved by the Office of the Administrative Law and are now in effect. For land use and transportation projects, SB 743-compliant CEQA analysis became mandatory on July 1, 2020.

² Governor's Office of Planning and Research, 2016. Technical Advisory on Evaluating Transportation Impacts in CEQA, Implementing Senate Bill 743 (Steinberg, 2013)

Regional

Fresno Council of Governments

The Fresno COG is a voluntary association of local governments and a regional planning agency comprised of 16 member jurisdictions, including the City of Fresno. The members are represented by a Policy Board consisting of mayors of each incorporated city, and the Chairman of the County Board of Supervisors, or their designated elected official. The Fresno COG's purpose is to establish a consensus on the needs of the Fresno County area and further action plans for issues related to the Fresno County region. The current regional transportation plan, known as the Fresno County Regional Transportation Plan (RTP) (2042), was adopted in 2018. The RTP addresses GHG emissions reductions and other air emissions related to transportation, with the goal of preparing for future growth in a sustainable way. The plan specifies how funding will be sourced and financed for the region's planned transportation investments, ongoing operations, and maintenance. The goals, objectives, and policies of the RTP are established to direct the courses of action that will provide efficient, integrated multimodal transportation systems to serve the mobility needs of people, including accessible pedestrian and bicycle facilities, and freight, while fostering economic prosperity and development, and minimizing mobile sources of air pollution. These goals, objectives, and policies are organized into six categories:

- General Transportation;
- Highway, Streets, and Roads;
- Mass Transportation;
- Aviation;
- Active Transportation; and
- Rail

Fresno County Congestion Management Process

In June 1990, California voters approved legislation that required Congestion Management Plans (CMP) be developed in urbanized counties to address congestion on California's highways and roads. The Fresno County Congestion Management Process (CMP) implements this requirement and its responsibilities include providing information on transportation system performance and assess alternative strategies for alleviating congestion and improving mobility for people and goods to levels that meet State and local needs. The Fresno County CMP identifies four general objectives:

1. Optimize the transportation facilities through efficient system management;
2. Invest in strategies that reduce travel demand, improve system performance, increase safety, and provide effective incident management;
3. Reduce VMT by encouraging alternative modes of transportation and promotion of sustainable land use development; and

4. improve public transit, extend bicycle and pedestrian systems, and promote car-sharing and bike-sharing programs to facilitate the development of an integrated multimodal transportation system in the Fresno region

Local

City of Fresno 2035 General Plan

The City of Fresno adopted the Fresno 2035 General Plan³ in December 2014 as an update to the previous Fresno General Plan approved in 2002. It serves as the City's guide for the continued development, enhancement, and revitalization of the Fresno metropolitan area. The following policies related to transportation and circulation are applicable to the Project:

- **Policy MT-1-d** - Integrate Land Use and Transportation Planning. Plan for and maintain a coordinated and well-integrated land use pattern, local circulation network and transportation system that accommodates planned growth, reduces impacts on adjacent land uses, and preserves the integrity of established neighborhoods.
- **Policy MT-1-f** - Match Travel Demand with Transportation Facilities. Designate the types and intensities of land uses at locations such that related travel demands can be accommodated by a variety of viable transportation modes and support Complete Neighborhoods while avoiding the rerouting of excessive or incompatible traffic through local residential streets.
- **Policy MT-1-g** - Complete Streets Concept Implementation. Provide transportation facilities based upon a Complete Streets concept that facilitates the balanced use of all viable travel modes (pedestrians, bicyclists, motor vehicle and transit users), meeting the transportation needs of all ages, income groups, and abilities and providing mobility for a variety of trip purposes, while also supporting other City goals.
- **Policy MT-1-m** - Standards for Planned Bus Rapid Transit Corridors and Activity Centers. Independent of the Traffic Impact Zones identified in MT-2-I and Figure MT-4, strive to maintain the following vehicle LOS standards on major roadway segments and intersections along Bus Rapid Transit Corridors and in Activity Centers:
 - LOS E or better at all times, including peak travel times, unless the City Traffic Engineer determines that mitigation to maintain this LOS would be infeasible and/or conflict with the achievement of other General Plan policies.
 - Accept LOS F conditions in Activity Centers and Bus Rapid Transit Corridors only if provisions are made to improve the overall system and/or promote non-vehicular transportation and transit as part of a development project or a City-initiated project. In accepting LOS F conditions, the City Traffic Engineer may request limited analyses of

³ City of Fresno General Plan 2035, December 18, 2014.

- operational issues at locations near Activity Centers and along Bus Rapid Transit Corridors, such as queuing or left-turn movements.
- Give priority to maintaining pedestrian service first, followed by transit service and then by vehicle LOS, where conflicts between objectives for service capacity between different transportation modes occur.
 - Identify pedestrian-priority and transit-priority streets where these modes would have priority in order to apply a multi-modal priority system, as part of the General Plan implementation
- **Policy MT-2-b** - Reduce Vehicle Miles Traveled and Trips. Partner with major employers and other responsible agencies, such the San Joaquin Valley Air Pollution Control District and the Fresno Council of Governments, to implement trip reduction strategies, such as eTRIP, to reduce total vehicle miles traveled and the total number of daily and peak hour vehicle trips, thereby making better use of the existing transportation system.
 - **Policy MT-2-c** - Reduce VMT through Infill Development. Provide incentives for infill development that would provide jobs and services closer to housing and multi-modal transportations corridors in order to reduce citywide vehicle miles travelled (VMT).
 - **Policy MT-2-d** - Street Redesign where Excess Capacity Exists. Evaluate opportunities to reduce right of way and/or redesign streets to support non-automobile travel modes along streets with excess roadway capacity where adjacent land use is not expected to change over the planning period
 - **Policy MT-2-e** - Driveway and Access Consolidation. Take advantage of opportunities to consolidate driveways, access points, and curb cuts along designated major roadways when a change in development or a change in intensity occurs or when traffic operation or safety warrants
 - **Policy MT-2-f** - Optimization of Roadway Operations. Optimize roadway operations by continuing to expand the use of techniques such as the City's intelligent transportation system (ITS) to manage traffic signal timing coordination in order to improve traffic operations and increase traffic-carrying capacity, while reducing unnecessary congestion and decreasing air pollution emissions. In order to facilitate roadway optimization and as a potential revenue source for the optimization, the following strategies need to be implemented:
 - Dig Once Policy. Install conduit for telecommunications use when trenching or construction occurs.
 - Telecommunications Strategy. Develop a costing mechanism for allowing the use of excess conduit within the City for use by communication carriers. The Policy shall follow regulations of the California Public Utilities Commission.
 - Grant Funding. Pursue grant funding to assist in construction and/or implementation of fiber-optic or other telecommunication infrastructure for additional public services such as education, economic development, reaching underserved populations, and public safety communications.
 - **Policy MT-2-g** - Transportation Demand Management and Transportation System Management. Pursue implementation of Transportation Demand Management and

Transportation System Management strategies to reduce peak hour vehicle traffic and supplement the capacity of the transportation system.

- **Policy MT-2-i** - Transportation Impact Studies. Require a Transportation Impact Study (currently named Traffic Impact Study) to assess the impacts of new development projects on existing and planned streets for projects meeting one or more of the following criteria, unless it is determined by the City Traffic Engineer that the project site and surrounding area already has appropriate multi-modal infrastructure improvements.
 - When a project includes a General Plan amendment that changes the General Plan Land Use Designation.
 - When the project will substantially change the off-site transportation system (auto, transit, bike or pedestrian) or connection to the system, as determined by the City Traffic Engineer.
 - Transportation impact criteria are tiered based on a project's location within the City's Sphere of Influence. This is to assist with areas being incentivized for development. The four zones, as defined on Figure MT-4, are listed below. The following criteria apply:
 - Traffic Impact Zone I (TIZ-I): TIZ-I represents the Downtown Planning Area. Maintain a peak hour LOS standard of F or better for all intersections and roadway segments. A TIS will be required for all development projected to generate 200 or more peak hour new vehicle trips.
 - Traffic Impact Zone II (TIZ-II): TIZ-II generally represents areas of the City currently built up and wanting to encourage infill development. Maintain a peak hour LOS standard of E or better for all intersections and roadway segments. A TIS will be required for all development projected to generate 200 or more peak hour new vehicle trips.
 - Traffic Impact Zone III (TIZ-III): TIZ-III generally represents areas near or outside the City Limits but within the SOI as of December 31, 2012. Maintain a peak hour LOS standard of D or better for all intersections and roadway segments. A TIS will be required for all development projected to generate 100 or more peak hour new vehicle trips.
 - Traffic Impact Zone IV (TIZ-IV): TIZ-IV represents the southern employment areas within and planned by the City. Maintain a peak hour LOS standard of E or better for all intersections and roadway segments. A TIS will be required for all development projected to generate 200 or more peak hour new vehicle trips.
- **Policy MT-2-I** - Region-Wide Transportation Impact Fees. Continue to support the implementation of metropolitan-wide and region-wide transportation impact fees sufficient to cover the proportional share of a development's impacts and need for a comprehensive multi-modal transportation system that is not funded by other sources. Work with the Council of Fresno County Governments, transportation agencies (e.g., Caltrans, Federal Transportation Agency) and other jurisdictions in the region to develop a method for determining:
 - Regional transportation impacts of new development;

- Regional highways, streets, rail, trails, public transportation, and goods movement system components, consistent with the General Plan, necessary to mitigate those impacts and serve projected demands;
 - Projected full lifetime costs of the regional transportation system components, including construction, operation, and maintenance; and
 - Costs covered by established funding sources.
- **Policy MT-4-b - Bikeway Improvements.** Establish and implement property development standards to assure that projects adjacent to designated bikeways provide adequate right-of-way and that necessary improvements are constructed to implement the planned bikeway system shown on Figure MT-2 to provide for bikeways, to the extent feasible, when existing roadways are reconstructed; and alternative bikeway alignments or routes where inadequate right-of-way is available.
- **Policy MT-4-d - Prioritization of Bikeway Improvements.** Prioritize bikeway components that link existing separated sections of the system, or that are likely to serve the highest concentration of existing or potential cyclists, particularly in those neighborhoods with low vehicle ownership rates, or that are likely to serve destination areas with the highest demand such as schools, shopping areas, recreational and park areas, and employment centers
- **Policy MT-5-a - Sidewalk Development.** Pursue funding and implement standards for development of sidewalks on public streets, with priority given to meeting the needs of persons with physical and vision limitations; providing safe routes to school; completing pedestrian improvements in established neighborhoods with lower vehicle ownership rates; or providing pedestrian access to public transportation routes
- **Policy MT-5-b - Sidewalk Requirements.** Assure adequate access for pedestrians and people with disabilities in new residential developments per adopted City policies, consistent with the California Building Code and the Americans with Disabilities Act.
- **Policy MT-5-d - Pedestrian Safety.** Minimize vehicular and pedestrian conflicts on both major and non-roadways through implementation of traffic access design and control standards addressing street intersections, median island openings and access driveways to facilitate accessibility while reducing congestion and increasing safety. Increase safety and accessibility for pedestrians with vision disabilities through the installation of Accessible Pedestrian Signals at signalized intersections
- **Policy MT-5-e - Traffic Management in Established Neighborhoods.** Establish acceptable design and improvement standards and provide traffic planning assistance to established neighborhoods to identify practical traffic management and calming methods to enhance the pedestrian environment with costs equitably assigned to properties receiving the benefits or generating excessive vehicle traffic
- **Policy MT-6-g - Path and Trail Development.** Require all projects to incorporate planned multi-purpose path and trail development standards and corridor linkages consistent with the General Plan, applicable law and case-by-case determinations as a condition of project approval

- **Policy MT-8-a** - Street Design Coordinated with Transit. Coordinate the planning, design, and construction of the major roadway network with transit operators to facilitate efficient direct transit routing throughout the Planning Area.
- **Policy MT-8-c** - New Development Facilitating Transit. Continue to review development proposals in transportation corridors to ensure they are designed to facilitate transit. Coordinate all projects that have residential or employment densities suitable for transit services, so they are located along existing or planned transit corridors or that otherwise have the potential for transit orientation to FAX, and consider FAX's comments in decision-making
- **Policy MT-11-c** - Truck Route Designations. Continue to plan and designate truck routes within the Metropolitan Area to facilitate access to and from goods production and processing areas while minimizing conflicts with other transportation priorities

The General Plan also has policies related to maintaining acceptable Levels of Service (LOS). However, LOS can no longer be used for CEQA evaluations and is therefore not relevant to this memorandum focusing on CEQA impacts. Additional analyses of the Specific Plan will be documented in another report that will detail LOS.

City of Fresno Active Transportation Plan

The City of Fresno Active Transportation Plan (ATP)⁴ is a comprehensive guide that creates a vision for active transportation in the City of Fresno. It is an update to the City of Fresno Bicycle, Pedestrian, & Trails, Master Plan that was adopted in 2010. This plan lays out specific goals to improve bicycle access and connectivity in Fresno. These goals include the following:

- Equitably improve the safety and perceived safety of walking and bicycling in Fresno;
- Increase walking and bicycling trips in Fresno by creating user friendly facilities;
- Improve the geographical equity of access to walking and bicycling facilities in Fresno; and
- Fill key gaps in Fresno's walking and bicycling networks.

City of Fresno ADA Transition Plan for the Right of Way (ROW)

On February 25, 2016 the City Council adopted the 2016 Update to the ADA Transition Plan for the Right of Way (ROW). The ROW Transition Plan incorporates retrofitting Curb Ramps, Sidewalks, and Accessible Pedestrian Signals and replaces the 2003 Amended Curb Ramp Transition Plan. The goal of the ADA Transition Plan for the ROW is to ensure that the City maintains accessible paths of travel in the ROW for people with disabilities.

⁴ City of Fresno Active Transportation Plan, December 2016.

City of Fresno VMT Guidelines

The City of Fresno adopted their VMT guidelines on June 25, 2020⁵. This document serves as a detailed guideline for preparing VMT analysis consistent with SB 743 requirements for development projects, transportation projects, and plans. Key elements of these guidelines include:

- The County of Fresno was selected as the region for assessing VMT impacts. Therefore, all projects will compare their VMT metrics against the county averages.
- The guidelines state the following significant thresholds for land development projects in the City of Fresno:
 - 13 percent below existing regional average VMT per capita for residential projects
 - 13 percent below existing regional average VMT per employee for office projects
 - No net increase in VMT for retail projects.
- For land use plans such as specific plans and general plans, the guidelines compare the existing VMT per capita and/or VMT per employee for the region with the expected horizon year VMT per capita and/or VMT per employee for the land use plan. If there is a net increase in the applicable VMT metrics (VMT/capita and VMT/employee) under horizon year conditions, then the project will have a significant impact.

⁵ <https://www.fresno.gov/darm/wp-content/uploads/sites/10/2020/06/CEQA-Guidelines-for-Vehicle-Miles-Traveled-Thresholds-June-18-2020-DRAFT.pdf>

TRANSPORTATION ANALYSIS

The transportation analysis assesses how the study area's transportation system would operate with the implementation of the proposed Specific Plan. This analysis includes effects that would result in significant impacts under the California Environmental Quality Act (CEQA) guidelines.

CEQA Significance Criteria

The Project's impact is not considered to be significant unless it would:

- a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- b. Conflict or be inconsistent with CEQA Guideline section 15064.3, subdivision (b).
- c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- d. Result in inadequate emergency access.

Significance criteria "b" is related to the implementation of vehicle miles traveled (VMT) as the primary performance metric. The following criteria are used to assess a significant impact related to VMT consistent with the City of Fresno "CEQA Guidelines for Vehicle Miles Traveled Thresholds" dated June 25, 2020:

- A proposed (residential) project exceeding a level of 13 percent below existing regional average⁶ VMT per capita may indicate a significant transportation impact.
- A similar threshold would apply to office projects (13 percent below existing regional average VMT per employee).
- VMT generated by retail projects would indicate a significant impact for any net increase in total VMT.
- Section 6 of the VMT guidelines includes Significance Criteria for Specific Plans: For land use plans such as the Specific Plan for the West Area, the recommended methodology for conducting VMT assessments is to compare the existing VMT per capita and/or VMT per employee for the region with the expected horizon year VMT per capita and/or VMT per employee for the land use plan. If there is a net increase in the VMT metric under horizon year conditions, then the project will have a significant impact.

⁶ The City of Fresno defines the region for applying these threshold as Fresno County

VMT Analysis

The Fresno Council of Governments' (COG) Activity Based travel demand model was used to estimate existing and horizon year average VMT per capita and VMT per employee for the traffic analysis zones (TAZs) that comprise the Specific Plan Area and Fresno County. The number of dwelling units and employment for the Specific Plan Area were calculated at buildout and provided to Fresno COG. Fresno COG used the buildout numbers to run a population synthesizer to generate land use input files for running the activity-based model. These land use input files were then run through the activity-based model to develop horizon year (2035) forecasts with the buildout of the Specific Plan Area.

Table 2 presents VMT per capita and VMT per employee findings for existing conditions in Fresno County and for the Specific Plan Area at buildout in the horizon year. Based on the City of Fresno VMT Guidelines, a specific plan would have a significant impact if the VMT per capita and VMT per employee of the Specific Plan Area exceeded the same metrics for existing conditions in all of Fresno County.

As Table 2 shows, the VMT per capita and VMT per employee in the Specific Plan Area are lower than existing conditions. VMT per capita is 7.4 lower or 46% while VMT per employee is 12.4 lower or 48%. The decrease in VMT is the result of the land use mix within the Specific Plan Area. The retail and employment opportunities keep the VMT per capita lower than the County average while the large number of dwelling units near the jobs allows employees to live close to work resulting in a VMT per employee that is lower than the County average today.

Table 2: VMT per Capita and VMT per Employee - Existing and Horizon Year Conditions

Trip Type	Fresno County (2019)	Specific Plan Area (2035)	Difference (%)
VMT Per Capita	16.1	8.7	-7.4 (46%)
VMT Per Employee	25.6	13.2	-12.4 (48%)
Note: These numbers are based on Fresno COG's Activity-Based Travel Demand Model, and the Land Use inputs obtained for horizon year 2035 from Fresno COG (assuming full buildout of the Fresno West area outlined in the specific plan)			
Source: Fresno COG Travel Demand Model, Kittelson & Associates, 2020.			

CEQA PROJECT IMPACTS AND PROPOSED MITIGATIONS

TRAF-1	The proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. This would be considered a less than significant impact.
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Development associated with the proposed Plan would increase the amount of multimodal transportation activity which would require the improvement and expansion of the local transportation network in the Specific Plan Area to serve the associated travel demand. The Specific Plan of the West Area Initiation Report includes the following guiding principles related to transit, bicycle and pedestrian travel:

- Accommodate and improve roadway access, connectivity and mobility among all modes of transportation, and prioritize roadway widening where bottlenecks exists.
- Accommodate planned transit services in the West Area by locating routes near or adjacent to the community centers, schools, parks, and retail centers.

These guiding principles are consistent with General Plan policies which detail how the circulation system will be improved to meet the needs of all users. Implementation of the proposed Specific Plan would promote the use of alternative transportation modes by accelerating development in the West Area which would in turn require development of a circulation system that address all user. General Plan policies that would have to followed to build out the Specific Plan and address transit, roadway, bicycle, and pedestrian travel are:

- **Policy MT-1-g** - Complete Streets Concept Implementation.
 - Requires transportation facilities be based upon a Complete Streets concept that facilitates the balanced use of all viable travel modes (pedestrians, bicyclists, motor vehicle and transit users), meeting the transportation needs of all ages, income groups, and abilities and providing mobility for a variety of trip purposes, while also supporting other City goals
- **Policy MT-1-m** - Standards for Planned Bus Rapid Transit Corridors and Activity Centers.
 - Requires intersections and roadways along transit corridor and in activity centers maintain acceptable operations to facilitate transit movement.
- **Policy MT-2-d** - Street Redesign where Excess Capacity Exists.
 - Requires roadways with extra capacity to be modified to “right size” the roadway.
- **Policy MT-4-b** - Bikeway Improvements.
 - Requires new development to set aside an adequate amount of right of way to construct bicycle facilities.
- **Policy MT-4-d** - Prioritization of Bikeway Improvements.

- Prioritizes connections between existing facilities to complete a comprehensive bicycle network.
- **Policy MT-5-a - Sidewalk Development.**
 - Establishes a goal of developing sidewalks to improve connectivity to transit
- **Policy MT-5-b - Sidewalk Requirements.**
 - Requires sidewalks to be constricted to the latest standards
- **Policy MT-6-g - Path and Trail Development.**
 - Requires planned multi use paths be constructed along with new development
- **Policy MT-8-a - Street Design Coordinated with Transit**
 - Requires coordination with roadway design and transit to ensure an efficient public transportation system
- **Policy MT-8-c - New Development Facilitating Transit.**
 - Requires new development to facilitate transit.

Additionally, the Specific Plan has a strong emphasis on Complete Neighborhoods, which is a tool to achieve environmental justice. The concept of Complete Neighborhoods is to enable residents of Fresno to live in communities with convenient access to services, employment, and recreation within walking distance. It provides residents with amenities that make their neighborhood mostly self-sufficient and interconnected. According to the Specific Plan, planning for Complete Neighborhoods will help support the provision of resources to neighborhoods where they are currently lacking or are under-resourced. Section 5.4 of the Specific Plan includes a series of maps which show a reasonable walkshed from existing and planned schools; bus stops and trails; commercial uses; and parks and open space.

Since the guiding principles of the Specific Plan support the policies of the General Plan, no conflict with policies, plans, and programs for alternative transportation would occur from future development and redevelopment under the proposed Specific Plan of the West Area. Therefore, the impact would be less than significant and no mitigation measures would be required.

TRAF-2	The proposed project would conflict with or be inconsistent with CEQA Guideline section 15064.3, subdivision (b). This would be considered a potentially significant impact.
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The Fresno COG Activity Based travel demand model was used to estimate existing and horizon year average VMT per capita and VMT per employee for the traffic analysis zones (TAZs) that comprise the Specific Plan Area and Fresno County. The number of dwelling units and employment for the Specific Plan Area were calculated at buildout and provided to Fresno COG. Fresno COG used the buildout numbers to run a population synthesizer to generate land use input files for running the activity-based

model. These land use input files were then run through the activity-based model to develop horizon year (2035) forecasts with the buildout of the Specific Plan Area.

Table 3 presents VMT per capita and VMT per employee findings for existing conditions in Fresno County and for the Plan Area at buildout in the horizon year. Based on the City of Fresno VMT Guidelines, a specific plan would have a significant impact if the VMT per capita and VMT per employee of the Specific Plan Area exceeded the same metrics for existing conditions in all of Fresno County.

Table 3: VMT PER CAPITA AND VMT PER EMPLOYEE - EXISTING AND HORIZON YEAR CONDITIONS

TRIP TYPES	FRESNO COUNTY (2019)	SPECIFIC PLAN AREA (2035)	DIFFERENCE (%)
VMT Per Capita	16.1	8.7	-7.4 (46%)
VMT Per Employee	25.6	13.2	-12.4 (48%)

NOTE: THESE NUMBERS ARE BASED ON FRESNO COG'S ACTIVITY-BASED TRAVEL DEMAND MODEL, AND THE LAND USE INPUTS OBTAINED FOR HORIZON YEAR 2035 FROM FRESNO COG (ASSUMING FULL BUILDOUT OF THE FRESNO WEST AREA OUTLINED IN THE SPECIFIC PLAN).
SOURCE: FRESNO COG TRAVEL DEMAND MODEL, AND KITTELSON & ASSOCIATES, INC., 2020.

As Table 3 shows, the projected VMT per capita and VMT per employee in the Plan Area are lower than existing conditions. Under the Specific Plan, VMT per capita is 7.4 lower, or 46% lower, while VMT per employee is 12.4 lower, or 48% lower. The decrease in VMT is the result of the proposed land use mix within the Plan Area. The retail and employment opportunities keep the VMT per capita lower than the County average, while the large number of dwelling units near the jobs allows employees to live close to work resulting in a VMT per employee that is lower than the County average today.

CONCLUSION

The City of Fresno VMT Guidelines state specific plans would have an impact if the VMT per capita or VMT per employee in the specific plan area for the horizon year increases compared to the existing VMT per capita or VMT per employee in the region (Fresno County). The VMT per capita in the Specific Plan Area during the horizon year is 8.7, while VMT per employee is 13.2. Under existing conditions in Fresno County, the VMT per capita is 16.1, while the VMT per employee is 25.6. Because the VMT per capita and VMT per employee in the Specific Plan Area during the horizon year is less than the VMT per capita and VMT per employee for existing conditions in Fresno County, the proposed Specific Plan would not result in a significant impact for residential and office projects. Therefore, impacts related to CEQA Guideline section 15064.3, subdivision (b), would be ***less than significant***.

TRAF-3 The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). This would be considered a less than significant impact.

The Specific Plan is proposing to increase the density in the plan area compared to the City's General Plan but is not proposing to change the types (i.e., residential, commercial, office, etc.) of land uses in the area. The Specific Plan of the West Area Initiation Report includes the following guiding principals related to transportation and hazards:

- Provide a complete, safe, and well-maintained sidewalk network from residential neighborhoods to commercial centers, schools, parks, and community centers.
- Provide a complete, safe, and well-maintained roadway network that allows for efficient and smooth access from the West Area to other sections of the city and region.

Buildout of the proposed Specific Plan would result in some changes to the City's circulation network, but would not increase hazards or incompatible uses due to design features. All future roadway system improvements associated with development and redevelopment activates under the Specific Plan would be designed in accordance with the established roadway design standards, some of which have also been incorporated into the Circulation Element of the General Plan.

General Plan policies that would address design and safety issues are:

- **Policy MT-2-e** - Driveway and Access Consolidation.
- **Policy MT-2-i** - Transportation Impact Studies.
- **Policy MT-5-d** - Pedestrian Safety.
- **Policy MT-5-e** - Traffic Management in Established Neighborhoods

These improvements will be subject to review and future consideration by the City of Fresno. An evaluation of the roadway alignments, intersection geometrics, and traffic control features will be needed. Roadway improvements would have to be made in accordance with the City's Circulation Plan, roadway functional design guidelines, and would have to meet design guidelines such as the accessibility requirements of Title 24 (California Building Code), ADA standards, California Manual of Uniform Traffic Control Devices (MUTCD), and the Caltrans Roadway Design Manual.

Implementation of the Specific Plan would not result in hazardous conditions, or create conflicting uses. With implementation of policies MT-2-e, MT-2-i, and application of the conditions of approval at the time of review of land development projects, the Specific Plan would be designed to ensure that no hazardous circulation conditions are created as a result of implementation of the proposed project. The Specific Plan would implement components of the roadway system consistent with the City's General Plan. Therefore, potential impacts related to hazards due to a geometric design feature or incompatible uses would be less than significant, and no mitigation measures would be required.

TRAF-4	The proposed project would result in inadequate emergency access. This would be considered a less than significant impact.
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Emergency response requires a balance of emergency response time and evacuation needs with other community concerns, such as urban design and traffic calming. Future roadway improvements associated with buildout of the Plan Area would be made in accordance with the City's Circulation Plan and roadway functional design guidelines.

With the application of the conditions of approval at the time of review of land development projects, the Specific Plan would be designed to ensure that adequate emergency access is provided. The Specific Plan would implement components of the roadway system consistent with the City's General Plan. Therefore, impacts related to inadequate emergency access would be less than significant, and no mitigation measures would be required.