



Vehicle Miles Traveled Mitigation Program and Nexus Study

City of Fresno

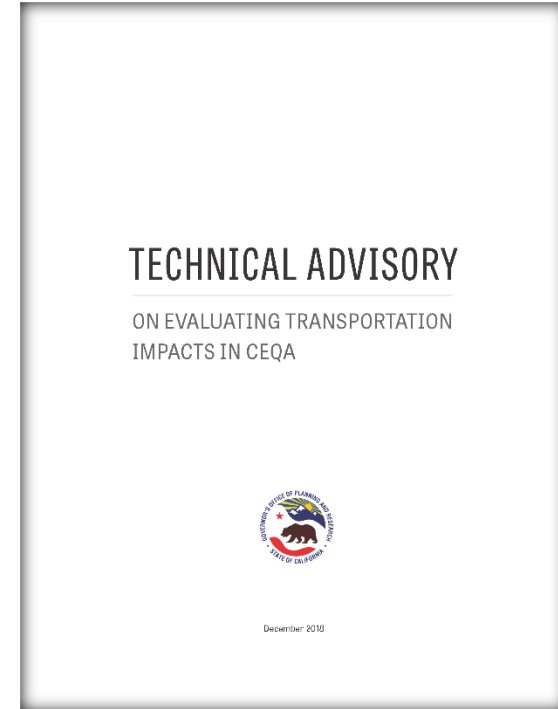
Kick-Off Workshop December 9th, 2021



Harris & Associates

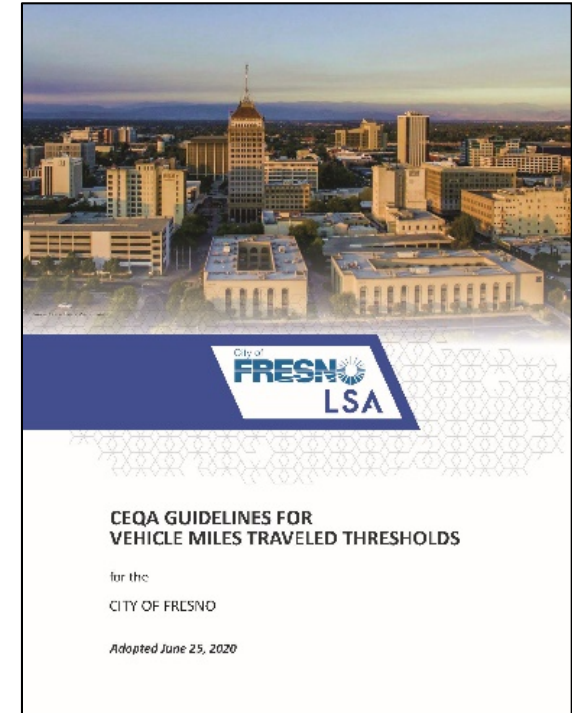
Background – Senate Bill (SB) 743

- Passed in 2013
- CEQA Transportation Impact Metric
 - Vehicle Miles Traveled (VMT)
 - Replacing delay and Levels of Service (LOS)
- In effect – July 1, 2020
- Better promote statewide policies
 - *Reduce GHG Emissions;*
 - *Encourage infill development and diversity;*
 - *Promote multi-modal transportation networks; and*
 - *Promote transportation safety.*



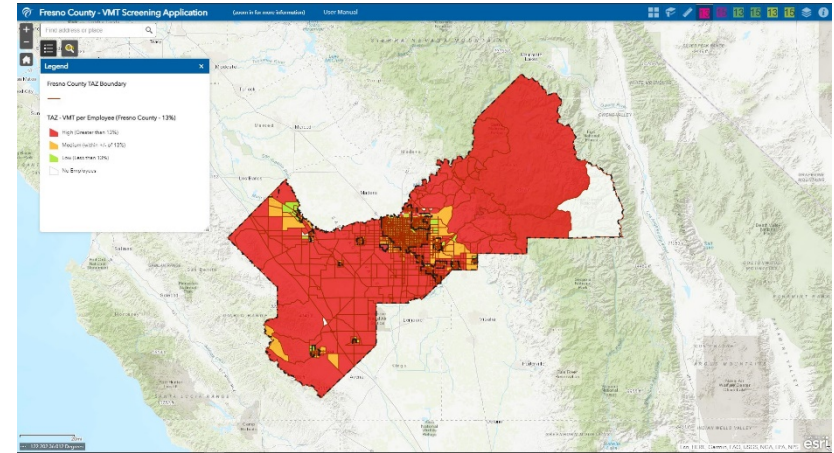
Senate Bill (SB) 743

- Projects subject to SB 743
 - *Development Projects*
 - *Redevelopment/Infill Projects*
 - *Transportation Projects*
 - *Land Use Plans (General Plans/Specific Plans)*



City of Fresno – Available VMT Analysis Tools

- City's VMT Analysis Guidelines, adopted June, 2020
 - *Screening criteria*
 - *Evaluation Methodologies*
- Screening Tool



City of Fresno – Available VMT Analysis Tools

- VMT Calculator Tool
- Fresno COG Activity Based Model (ABM)

Fresno COG Vehicle Miles Traveled (VMT) Calculator V 1.37 Clear All Instructions

Project Information

Project Name:

Jurisdiction:

TAZ / APN No. ☐ TAZ ID ☐ APN No.

TAZ ID:

APN No.:

Project Land Use

RESIDENTIAL

Single-family DU


Multi-family DU

Percent Affordable %

NON RESIDENTIAL

Office Emp

Project Location



Select Region

Only applicable for residential projects

Region: ☐ City (Jurisdiction) ☐ County

Select Threshold

Threshold: ☐ 13% Threshold ☐ 15% Threshold

TDM Programs

Vanpool is applicable for Office land use only

VANPOOL PROGRAM

☐ Implement Vanpool % expected participants

CARPPOOL PROGRAM

☐ Implement Carpool % expected participants

VMT Results

Residential

VMT per Capita

TAZ: Project: Project + TDM:

Jurisdiction Average: County Average:

Non Residential

VMT per Employee

TAZ: Project: Project + TDM:

Jurisdiction Average: County Average:

Following are the limitations of this tool

- This tool can be used for analysis of upto 500 Dwelling Units.
- This tool can be used for analysis of upto 325 Office employees
- For all other projects, please use FresnoCOG ABM

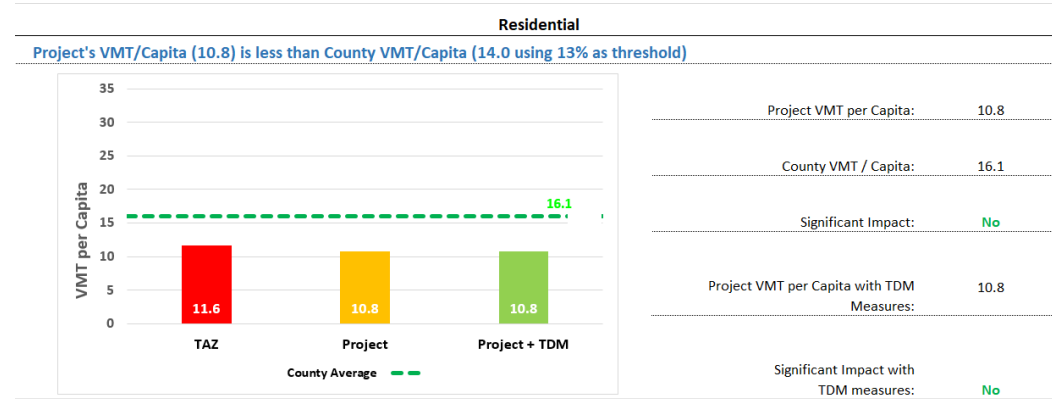
City of Fresno – Project Evaluation

- Evaluation methods

- Screening criteria
- VMT methodology
- Mitigations (if required)

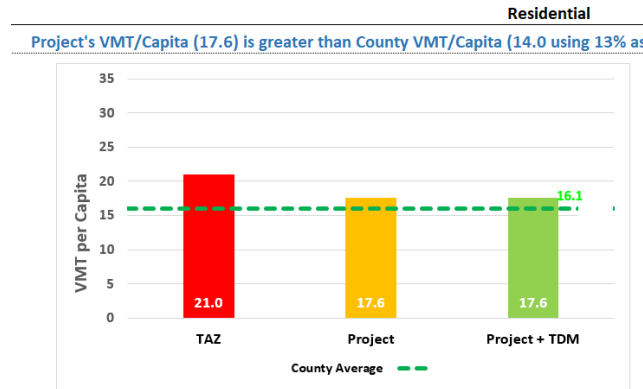
- Dependent on Project Type

- Applicable Metric
- VMT Thresholds
- Impact when project VMT > threshold



City of Fresno – Project Evaluation (Example LU project)

- Land Development Project
 - Single family 200 dwelling units
 - Location: S Armstrong Ave and E Church Ave
- Analysis Tool - VMT Calculator Tool
- Significant Impact - Yes
- Identify Mitigation Measures



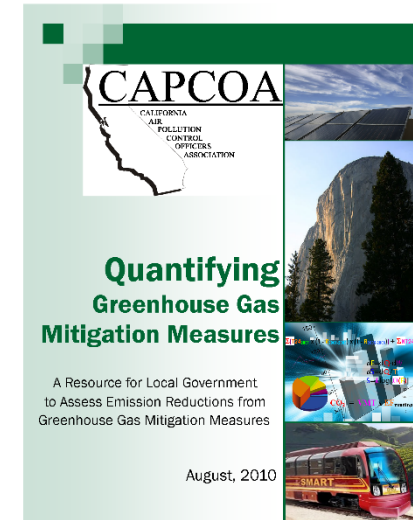
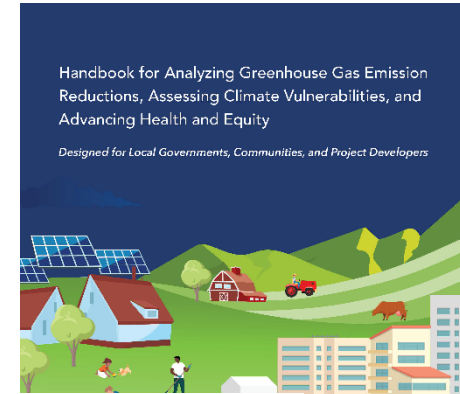
Project VMT per Capita:	17.6
County VMT / Capita:	16.1
Significant Impact:	Yes
Project VMT per Capita with TDM Measures:	17.6
Significant Impact with TDM measures:	Yes

City of Fresno Approach to VMT Mitigation

- Site Specific Improvements (Urban Design Calculator)
 - *Design features e.g., intersection density*
 - *Land use mixes, densities*
- Off-site Improvements (Fee Program)
 - *Active transportation improvements*
 - *Transit improvements*
 - *Other improvements such as ITS, TDM measures, safety, and broadband infrastructure*

VMT Mitigations - Challenges

- Current data sources
 - *California Air Pollution Control Officers Association (CAPCOA) Manual*
 - *California Air Resources Board (CARB) Research publications*
- Inadequate local context in CAPCOA
- Additional local data/analysis required as substantial evidence to determine efficacy of mitigation measures



VMT Mitigation Program - Task Overview

- VMT Mitigation Program
- Urban Design Calculator
- Nexus Study
- Stakeholder Outreach
- Planning Commission and City Council Meetings

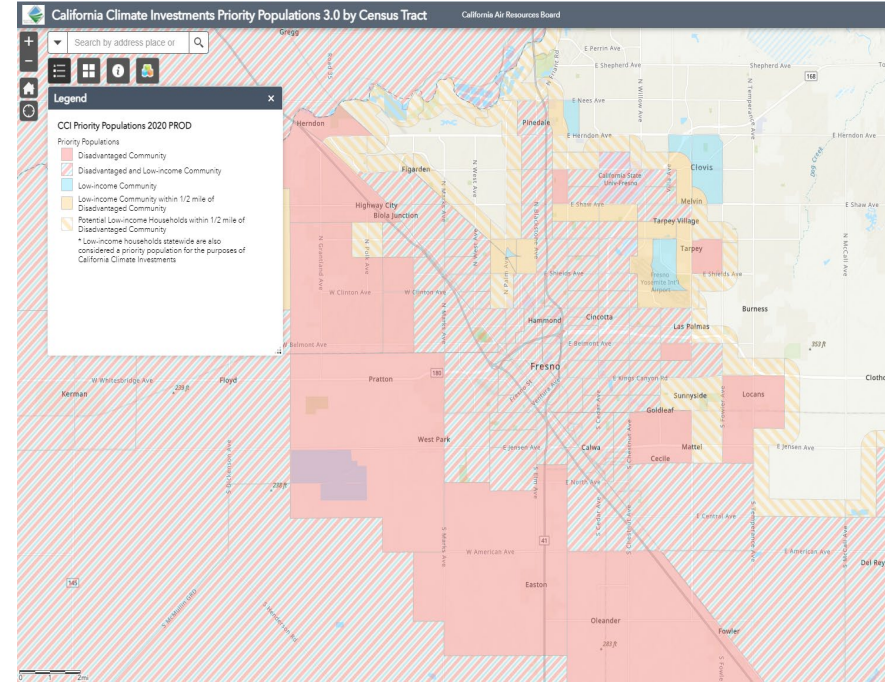


VMT Mitigation Program

- Identification of Applicable Mitigation Measures
- Quantification of Mitigation Measures
- Cost Estimates for the Mitigation Measures
- Prioritization of Mitigation Measures
- VMT Mitigation Program Report

Deliverables:

- *Prioritized list of selected mitigation measures and documentation of prioritization methodology*
- *VMT Mitigation Program Report*



VMT Mitigation Program – Example Applicable Mitigation Measures



Trails



Improved Bus Stop



Sharrows

Bike Facilities



Site Specific Improvements – Urban Design Calculator

- Review and Update of the Urban Design Calculator
- Review the associated VMT reductions
- Update with local data if available
- Upgrade calculator based on additional data and VMT reduction measures
- Possible recommendation about continuing data collections and periodic updates

Deliverables:

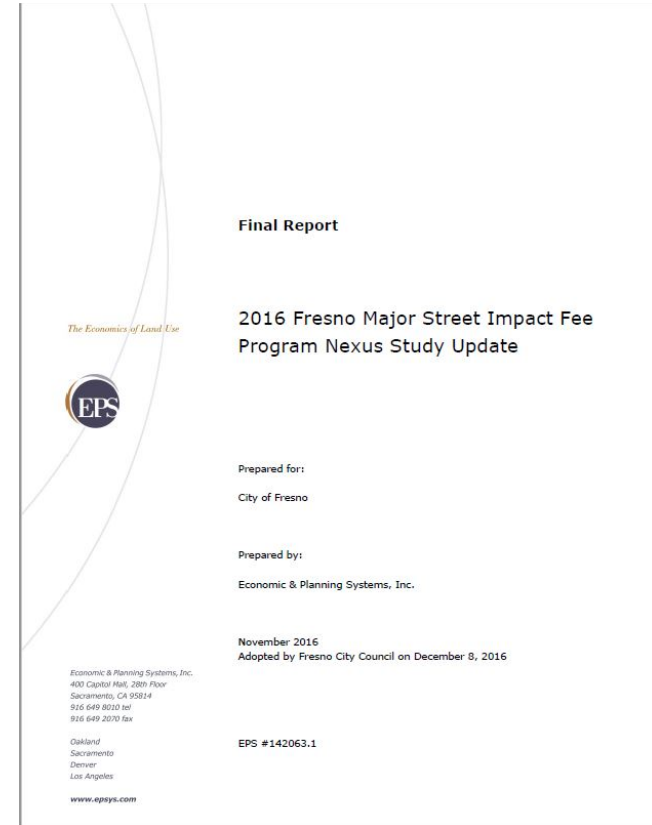
- *Updated Urban Design Calculator*

The screenshot shows the 'City of Fresno URBAN FORM VMT CALCULATOR' interface. It features a green header with the title. Below the header, the section 'Basic Information' is displayed. The form contains several input fields with the following data: Project Name: Orenco Station; Applicant/Developer: PacTrust; Major Cross Streets: Ashlan/Hayes; Project Address: 5945 W Ashlan Ave; APN(s): 51104012; Gross Project Site Area: 46 acres; Baseline VMT from COG Calculator: 17.52 per capita (with a link to <http://gis.lsa-assoc.com/FCOGVMT/>); Calculation Run By: DZ; Date of Calculation: 9/10/2020.

City of Fresno URBAN FORM VMT CALCULATOR	
Basic Information	
Project Name:	Orenco Station
Applicant/Developer:	PacTrust
Major Cross Streets:	Ashlan/Hayes
Project Address:	5945 W Ashlan Ave
APN(s):	51104012
Gross Project Site Area:	46 acres
Baseline VMT from COG Calculator:	17.52 per capita
http://gis.lsa-assoc.com/FCOGVMT/	
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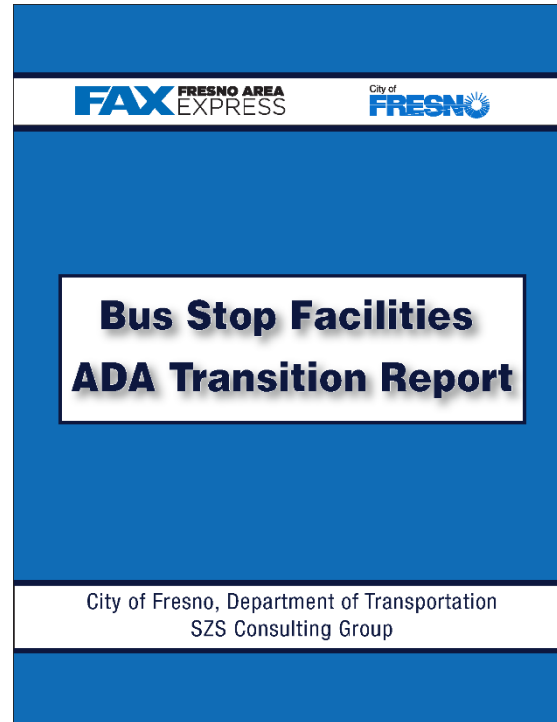
Off-Site Improvements – Fee Program

- Identify Mitigation Measures
- Develop Cost Estimates
- Prioritize Mitigation Measures
- Prepare Nexus Study



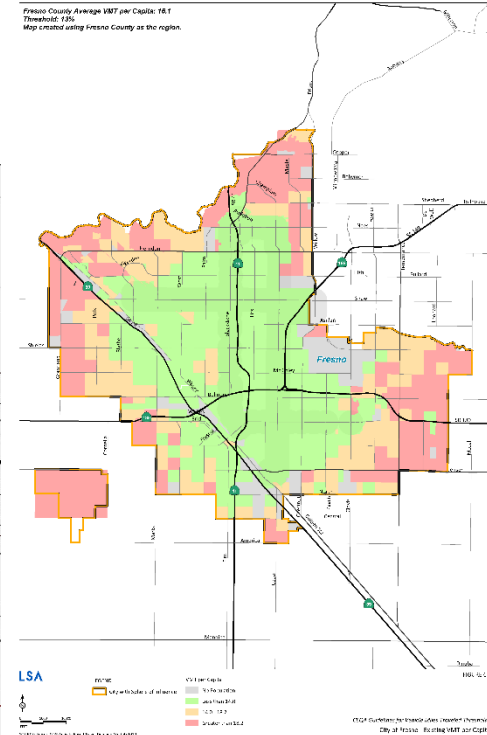
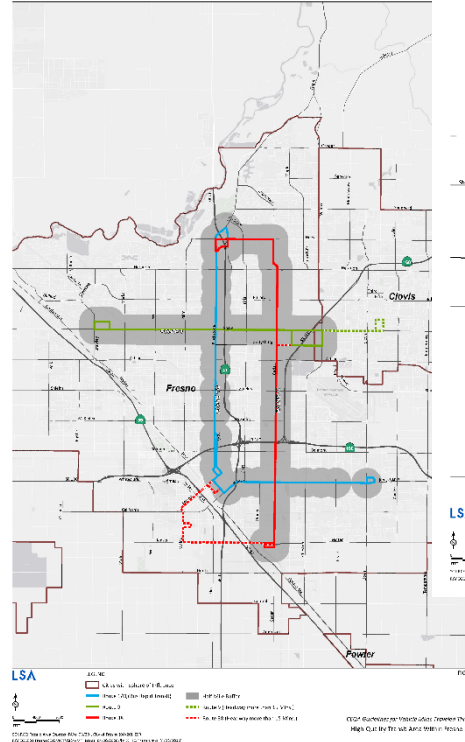
VMT Mitigation Program – Cost Estimates for Mitigation Measures

- Cost estimates being provided by City/FAX



VMT Mitigation Program – Mitigation Location and Prioritization

- Greatest cost benefit ratio
- Dense/urban areas
- Existing Low VMT locations
- High activity areas for biggest benefits
- Fill-in existing gaps (active transportation improvements)

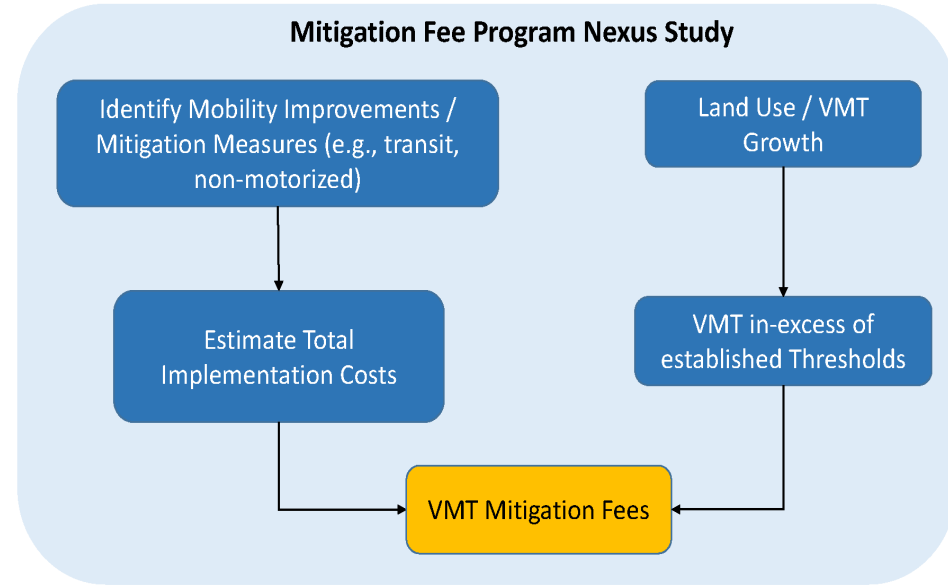


Nexus Study

- Development of Nexus for the Mitigation Measures
- Development of VMT Mitigation Fees
- Nexus Study Report

Deliverables:

- *Development of mitigation fees based on the Nexus and costs for identified mitigation measures*
- *Nexus Study Report*



Stakeholder Outreach

- Project Branding
- Stakeholder Engagement



Deliverables:

- *Project Branding (Program name and logo)*
- *Two Stakeholder Meetings/Workshops*

Next Steps

Ongoing Coordination

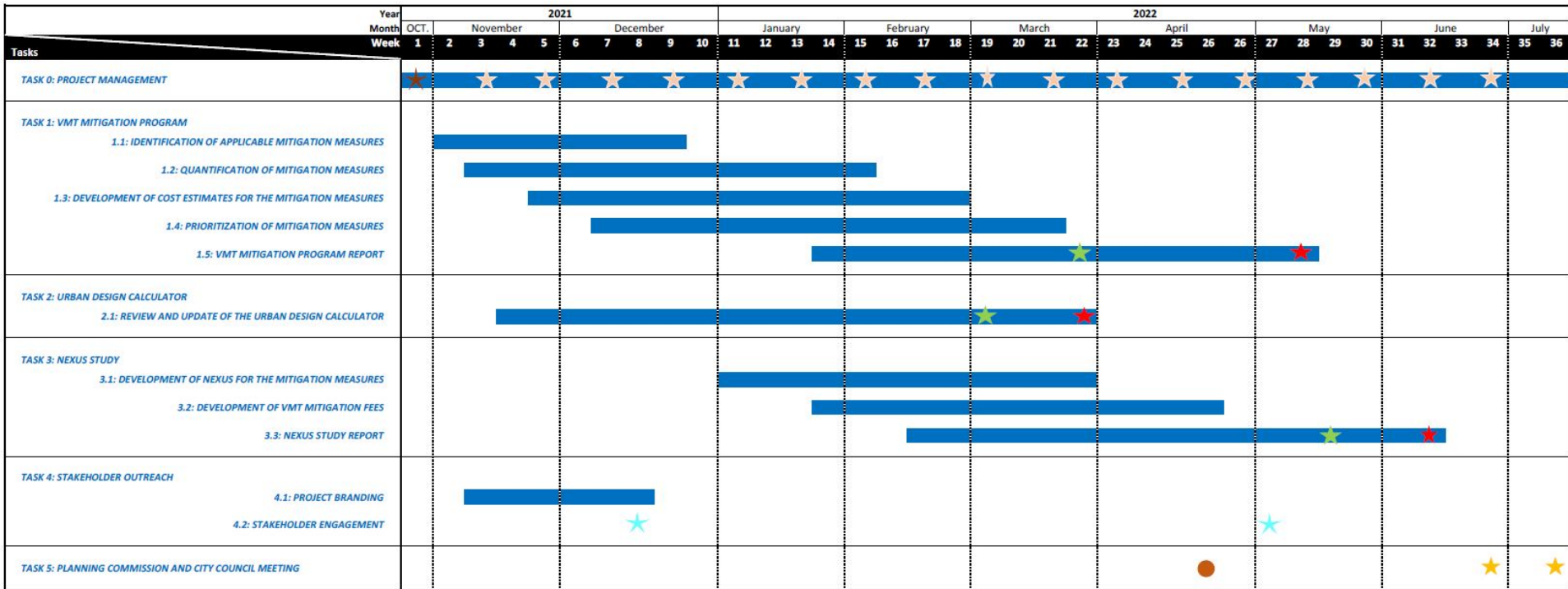
- Kick-Off Meeting (completed)
- Bi-weekly Technical Advisory Committee Meetings (on-going)
- Second Stakeholder Workshop

Planning Commission & City Council

- One workshop with Planning Commission and City Council
- Public Hearings – One Planning Commission and One City Council Meeting



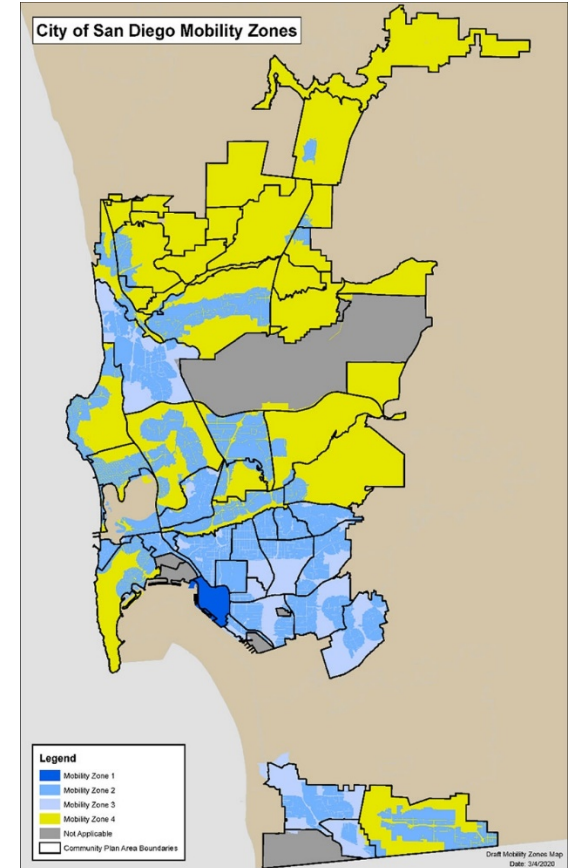
Project Schedule



-  Kick-Off Meeting
-  Biweekly Project Meetings
-  Stakeholders Meeting
-  Draft Deliverable
-  Final Deliverable
-  City Council Workshop
-  Planning Commission/City Council Meetings

VMT Mitigation Fee Program Projects

- Contra Costa Transportation Authority (CCTA)
 - *Vehicle Miles Traveled (VMT) Mitigation Program*
- City of San Diego
 - *Mobility Choices – Active Transportation In Lieu Fee Nexus Study*



Questions

