

**CITY OF FRESNO - DEVELOPMENT AND RESOURCE MANAGEMENT DEPARTMENT
REQUEST FOR COMMENTS, CONDITIONS, ENVIRONMENTAL ASSESSMENT,
AND ENTITLEMENT APPLICATION REVIEW OF
CONDITIONAL USE PERMIT APPLICATION NO. C-13-045**

Return Completed Form to:
Bruce Barnes
Email: Bruce.Barnes@fresno.gov
Development & Resource Management
2600 Fresno Street, Third Floor
Fresno CA 93721-3604

PROJECT DESCRIPTION AND LOCATION:

Conditional Use Permit Application No. C-13-045 was filed by Alexia Inigues of Barghausen Consulting Engineers, Inc., on behalf of David Rogers of Costco Wholesale, and pertains to 14.95 acres of property located on the east side of North Abby Street between West Herndon Avenue and West Spruce Street. The applicant proposes the installation of a 1,200 gallon automated above-ground fuel additive storage tank (AST) at the existing Costco gasoline fueling facility for the purpose of storing and dispensing fuel additive to the existing underground storage tanks (USTs). The property is zoned C-6/UGM (*Heavy Commercial/Urban Growth Management*).

APN: 303-170-89

ZONING: C-6/UGM

ADDRESS: 7100 NORTH ABBY STREET

DATE ROUTED: April 10, 2013

COMMENT DEADLINE: April 30, 2013

If no response is received by the comment deadline, it will be assumed you have no comments to submit.

WILL THIS PROJECT AFFECT YOUR AGENCY/JURISDICTION? (If yes, specify.)

SUGGESTION(S) TO REDUCE IMPACTS/ADDRESS CONCERNS:

REQUIRED CONDITIONS OF APPROVAL:

IS ANY ADDITIONAL INFORMATION NEEDED FOR YOU TO COMPLETE YOUR REVIEW? (Be specific):

REVIEWED BY: _____
Name and Title Telephone Number Date

Master Application Form #: C-13-045

Check all that apply:

<input type="checkbox"/>	Plan Amendment	<input type="checkbox"/>	Site Plan Review	<input type="checkbox"/>	Amendment	<input type="checkbox"/>	Major	<input type="checkbox"/>	Minor
<input type="checkbox"/>	Rezone	<input type="checkbox"/>	Variance	<input checked="" type="checkbox"/>	Revised Exhibit	<input checked="" type="checkbox"/>	Major	<input type="checkbox"/>	Minor
<input checked="" type="checkbox"/>	Conditional Use Permit	<input type="checkbox"/>	Minor Deviation	<input type="checkbox"/>	Easement Encroachment				
<input type="checkbox"/>	Tentative Tract Map	<input type="checkbox"/>	Tentative Parcel Map	<input type="checkbox"/>	Lot Line Adjustment				
<input type="checkbox"/>	Voluntary Parcel Merger	<input type="checkbox"/>	Fresno Green Project	<input type="checkbox"/>	Public Art Project				
<input type="checkbox"/>	Annexation	<input type="checkbox"/>	Other:						

Project Name: Costco Gasoline (Loc. No. 657) Fuel Additive Tank Installation

Project Address: 7100 North Abby Street, Fresno, CA 93720 A.P.N 303-170-89

Size of Site: _____ Sq. Ft. 14.95 Ac. Historical Project? (Building on registry and/or over 50 yrs. old) No

Project Description (attach additional pages if necessary): _____

Installation of a 1,200-gallon automated aboveground fuel additive storage tank system, which includes minor excavation for the piping, access to the existing underground storage tank sumps, and access to spare conduits.

Zoning Designation: C-6 General Plan Designation: general heavy commercial

List all previously approved and/or pending entitlements, associated with this project/site (provide application number(s), if available): C-01-209, C-08-080, C-10-036

Please read carefully before signing or filing.

Submission of this application does not imply approval of this permit by the Planning and Development Department. Application approval will become null and void if it is determined that approval was based on omissions or inaccurate information submitted by the applicant.

PRIMARY CONTACT, check all that apply Applicant Owner Other _____

Name: Alexia Inigues, Project Planner Signature: [Signature]

Company/Organization: Barghausen Consulting Engineers, Inc.

Address: 18215 - 72nd Avenue South City: Kent, Washington Zip: 98032

Email: ainigues@barghausen.com Phone: (425) 251-6222

Check all that apply Applicant Owner Other _____

Name: Brett Wood or Darcy Judd (Property Managers) Signature: _____

Company/Organization: WP Gateway LLC c/o Robertson Property Group (Attn: Legal Department, Greg Swedelson)

Address: 120 North Robertson Boulevard City: Los Angeles Zip: 90048

Email: _____ Phone: (310) 855-8296

Check all that apply Applicant Owner Other Tenant _____

Name: David H Rogers Signature: [Signature] 4/3/13

Company/Organization: Costco Wholesale (Attn: Licensing)

Address: P.O. Box 35005 City: Seattle, WA Zip: 98124

Email: drogers@costco.com Phone: (425) 313-8100

Note: This application will not be accepted for processing without the mandatory attachments. Please see the corresponding **Application Submittal Requirements** for the checklist(s) of required documents.

FOR INTERNAL USE ONLY

DEVELOPMENT PARTNERSHIP CENTER			
Received By:	<u>JZ</u>	Date:	<u>4-10-13</u>
Verification By:		Date:	
Application Fee:	<u>\$2135.00</u>	EA Fee:	
PZ No:	<u>13-8000045</u>	Zone District:	<u>C-6</u>

Operational Statement for CUP Major Revised Exhibit Fuel Additive Tank Installation at Fueling Facility

**Costco Wholesale
7100 North Abby Street, Fresno, CA
Costco Loc. No. 657 / Our Job No. 10121**

April 1, 2013

Project Description:

A Conditional Use Permit – Major Revised Exhibit is being submitted by Alexia Inigues, Project Planner of Barghausen Consulting Engineers, Inc. on behalf of Costco Wholesale and pertains to a 14.95 acre property located at 7100 North Abby Street, Fresno, CA. The Assessor's Parcel Number for the site is 303-170-89. It is zoned C-6, with a General Plan land use designation of general heavy commercial, and is located within the Woodward Park Community Plan area.

Operational Narrative:

The project consists of installing a 1,200 gallon aboveground storage tank (AST) at the existing Costco Gasoline fueling facility, for the purposes of storing and dispensing fuel additive to the existing underground storage tanks (USTs). The fuel additive (LUBRIZOL® 9888) is a Class I flammable liquid and will be mixed with the gasoline in the existing USTs. The U.S. Environmental Protection Agency (EPA) requires the use of deposit control additives, such as LUBRIZOL® 9888, in all gasoline to keep engines clean for reduced emissions. LUBRIZOL® 9888 meets all of the EPA's requirements for deposit control additives.

This fuel additive AST installation includes minor excavation for the underground piping, access to the existing USTs and access to spare underground conduits. Approximately 400 square feet of existing landscaping (including 2 trees) will be removed and replaced.

The existing fueling facility is a members-only facility requiring a membership card to initiate a fuel purchase. There is at least one trained Costco employee on site at all times to provide assistance to members as necessary. The hours of operation for the fueling facility are 6:00am to 9:30pm Monday through Friday and 6:00am to 7:00pm Saturday and Sunday. Operations and hours will remain the same after the fuel additive tank installation is completed and no new employees will be necessary to accommodate the expansion.

This project does not propose any changes to the existing use of the site or number of parking spaces; two (2) parking spaces will, however, be modified to become compact spaces. Changes in traffic flow and number of customers are not expected as a result of this installation. Due to the limited scope of this project and the fact that it is a modification to an existing development with approved and allowed use, no contact has been made with neighbors to discuss the proposal. The new aboveground storage tank will be located within the same landscape island as the existing controller enclosure and will be screened by 18 new shrubs and two (2) replacement trees, and will therefore not be visible after construction. There are no reasonably foreseeable effects from construction that may impact neighbors.

SCOPE OF WORK

Costco Gasoline-Fuel Additive Program

Costco Wholesale is seeking a permit to install a 1,200-gallon aboveground fuel additive storage tank at their existing Costco Gasoline fueling facility. The purpose of the aboveground tank is for the storage and dispensing of a proprietary fuel additive into the gasoline product.

The fuel additive is a Class I-C flammable liquid. The fuel additive is a fuel enhancement to improve fuel efficiency and engine performance. Most retail gasoline includes additives that have solvent/lubricant mixture compositions that are unique to that particular brand. While the mixture is proprietary it is similar to the additives used by other petroleum companies. This product meets the requirements of the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) for additives.

The 1,200-gallon aboveground tank (AST) is a UL-2085 listed protected, concrete-lined, double-wall steel tank, with 110% containment. The new aboveground tank will be piped underground into a monitored single wall fiberglass transition sump where it will transition to a double wall fiberglass pipe that will extend into each of the existing gasoline fill sumps. Delivery of this product to the site will occur via delivery tanker trucks. From the delivery tanker truck the additive is transferred to the storage tank by pressurized operation through flexible hosing and tight fill connection.

Before gasoline is brought to the site and delivered into the existing underground gasoline storage tanks (UST) the "Costco Gasoline" attendant will program the new batch controller panel in the controller enclosure to inject a pre-determined amount of additive into each individual gasoline tank (e.g., 3.5 gallons of the liquid additive into Tank #1, etc.). Once the additive is in the USTs, the gasoline product is then delivered into the tanks resulting in the combined additive-gasoline mixture.

The specific scope of the work to be performed as part of the aboveground installation is as follows:

- Install one (1) 1,200-gallon UL-2085 concrete-lined double-wall steel aboveground tank, with 110% containment, for Class I-C liquid. Tank is pre-assembled with mechanical level gauge, lockable 15-gallon fill containment box and fittings, overfill protection drop tube, and emergency vents
- Remove approximately one-third of the existing UGST slab to accommodate the piping modification.
- Replace the existing tank manway lids at each existing gasoline fill sump to include additional bungs.
- Install 2" double-wall fiberglass product manifold line from the new transition sump at the 1,200-gallon additive AST, to the existing gasoline fill containment sumps. Slope the new additive piping down to the transition sump.
- Install 6" structural support slab for tank. Install additional concrete access walkway and curbing as may be required (when applicable)
- Install Veeder-Root electronic annular sensor and automatic tank level gauge, and program panel for high level alarm.
- Install bollards as may be required (when applicable)
- Install "Flow Dynamics" Batch controller panel in the existing controller enclosure.
- Install a flow meter at the new 1,200-gallon additive AST turbine's discharge.
- Install one (1) new 24-volt solenoid valve at each existing gasoline fill sump.
- Install one (1) conduit and wiring for electrical power to solenoid valves at existing gasoline fill sumps. Install one (1) conduit with power wiring to new 1,200-gallon additive AST for turbine pump power. Install one (1) new conduit and data wiring to new 1,200-gallon additive AST for

flow meter sensor. Install one (1) conduit and wiring to the new transition sump and 1,200-gallon AST for sump monitoring, annular monitoring and automatic tank gauge. New conduits to be equipped with seal-offs at hazardous zones.

- Install new single wall piping transition sump with Veeder-Root sensor at lowest point.
- Adjust landscaping and restore as required (when applicable).
- Patch and repair asphalt as may be required.



Prepared according to 29CFR 1910.1200.

1	Chemical Product and Company Identification
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*The Lubrizol Corporation
29400 Lakeland Boulevard
Wickliffe, Ohio 44092
Tel: (440) 943-4200*

Product Trade Name	LUBRIZOL® 9888
CAS Number	Not applicable for mixtures.
Synonyms	None.
Generic Chemical Name	Mixture.
Product Type	Multipurpose.
Preparation/Revision Date	29 July 2011
Transportation Emergency Phone No.	FOR TRANSPORT EMERGENCY call CHEMTREC: (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)
MSDS No.	31037240-3427457-0017111-102103

2	Hazards Identification
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Appearance	Clear liquid.
Odor	Aromatic hydrocarbon
Principal Hazards	Danger. <ul style="list-style-type: none"> • Flammable liquid. may create a flash fire hazard. • Harmful if inhaled. • Causes skin irritation. • Causes respiratory tract irritation. • May be harmful if absorbed through skin. • May cause eye irritation. • Contains components which may cause cancer. • May cause chronic health effects.

Target Organs: Blood Central nervous system Heart Kidney Liver

See Section 11 for complete health hazard information.

3	Composition/Information on Ingredients
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Hazardous Ingredients

Comp	CAS No.	Percentage (by wt.)	Carcinogen
Xylene	1330-20-7	38%	N/E
Ethyl benzene	100-41-4	9.5%	IARC Suspect Carcinogen
Petroleum naphtha	64742-94-5	From 1 to 4.9 percent	N/E
Polyether amine	Confidential.	From 1 to 4.9 percent	N/E
Naphthalene	91-20-3	0.5%	IARC Suspect Carcinogen NTP Carcinogen
Toluene	108-88-3	From 0.1 to 0.9 percent	N/E

(N/E) - None established

4	First Aid Measures
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Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
Skin	Immediately remove all contaminated clothing. Rinse skin with water / shower. Remove contaminated clothing. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. Call a poison center or doctor.
Oral	DO NOT INDUCE VOMITING. Get immediate medical attention. Never give anything by mouth to a person who is losing consciousness, unconscious or convulsing. Call a poison center or doctor if exposed or you feel unwell.
Additional Information	If exposed or concerned: Get medical attention.

5	Fire Fighting Measures
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Flash Point	32 °C, 89.6 °F PMCC (Typical)
Extinguishing Media	CO ₂ , dry chemical, or foam. Water can be used to cool and protect exposed material.
Firefighting Procedures	Recommend wearing self-contained breathing apparatus. Water may cause splattering.
Unusual Fire & Explosion Hazards	Toxic fumes, gases or vapors may evolve on burning. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Container may rupture on heating. See section 10 for additional information.

6	Accidental Release Measures
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Spill Procedures	May form explosive mixtures with air. Immediately evacuate all personnel from danger area. Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Take precautions to avoid release to the environment. Eliminate all sources of heat, sparks pilot lights, static electricity and open flames. Ventilate spill area. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation. Pick up free liquid for recycle and/or disposal if can be accomplished safely with explosion proof equipment. Residual liquid can be absorbed on inert material. Check under Transportation and Labeling (DOT/CERCLA) and Other Regulatory Information Section (SARA) for hazardous substances to determine regulatory reporting requirements for spills.
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7	Handling and Storage
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Pumping Temperature	Not determined.
Maximum Handling Temperature	Not determined.
Handling Procedures	Keep away from ignition sources such as heat, sparks and open flame. No smoking. Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. Avoid breathing dust, fume, gas, mist, vapors or spray. Ground / bond container and receiving equipment. Use explosion-proof equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty containers retain material residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition. Dispose of packaging or containers in accordance with local, regional, national and international regulations.
Maximum Storage Temperature	Not determined.
Storage Procedures	Do not store near potential sources of ignition. Isolated outside storage is preferred. Inside storage area should be in a flammable liquids cabinet or storage area. Take precautions to avoid release to the environment. Store in a well-ventilated place. Keep cool. Keep container tightly closed. See section 10 for incompatible materials.
Maximum Loading Temperature	Not determined.

8	Exposure Controls/Personal Protection
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Exposure Limits

Comp	Exposure Guidelines					
	OSHA		ACGIH		Other	
	TWA	STEL	TWA	STEL	TWA	STEL
Xylene	100 ppm	N/E	100 ppm	150 ppm	N/E	N/E
Ethyl benzene	100 ppm	N/E	100 ppm	125 ppm	N/E	N/E
Petroleum naphtha	N/E	N/E	N/E	N/E	100 ppm (l)	N/E
Naphthalene	10 ppm	N/E	10 ppm (s)	15 ppm	N/E	N/E
Toluene	200 ppm	300 ppm (e)	20 ppm	N/E	N/E	N/E

(s) - Skin exposure

(p) - Proposed limit

(c) - Ceiling exposure

(l) - Recommended exposure limit

(u) - Supplier recommended exposure limit

(N/E) - None established

Other Exposure Limits

None known.

Engineering Controls

Use local exhaust ventilation to control mists or vapors. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits. Use explosion proof equipment.

Gloves Procedures

Viton. Teflon. Polyvinyl alcohol. Note: polyvinyl alcohol gloves are water soluble and should not be used when there is potential for water contact.

Eye Protection

Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.

Respiratory Protection

Use NIOSH/MSHA approved full face respirator with a combination organic vapor and high efficiency filter cartridge if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.

Clothing Recommendation

Gloves, coveralls, apron, boots as necessary to minimize contact. Wear a chemically protective apron when contact with material may occur. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction. Launder contaminated clothing before reuse.

9	Physical and Chemical Properties
Flash Point	32 °C, 89.6 °F PMCC (Typical)
Upper Flammable Limit	Not determined.
Lower Flammable Limit	Not determined.
Autoignition Point	Not determined.
Explosion Data	Material does not have explosive properties in the liquid state, but vapors may form explosive mixtures with air.
Vapor Pressure	0.02503 psi (Calc) (0 °C) 0.03367 psi (Calc) (4 °C) 0.0886 psi (Calc) (20 °C) 0.23811 psi (Calc) (38 °C) 1.46259 psi (Calc) (77 °C)
pH	Not determined.
Specific Gravity	0.9 (15.6 °C)
Bulk Density	Not determined.
Water Solubility	Insoluble.
Percent Solid	Not determined.
Percent Volatile	Not determined.
Volatile Organic Compound	~ 53.7%
Vapor Density	Not determined.
Evaporation Rate	Not determined.
Odor	Aromatic hydrocarbon
Appearance	Clear liquid.
Viscosity	23 Centistokes (0 °C) 10 Centistokes (25 °C) 7 Centistokes (40 °C)
Odor Threshold	Not determined.
Boiling Point	137 °C, 278.6 °F(Initial)
Pour Point Temperature	< -40 °C, < -40 °F
Melting / Freezing Point	Not determined.

The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise noted.

10	Stability and Reactivity
Stability	Material is normally stable at moderately elevated temperatures and pressures.
Decomposition Temperature	Not determined.
Incompatibility	Strong oxidizing agents.
Polymerization	Will not occur.
Thermal Decomposition	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Nitrogen oxides.
Conditions to Avoid	Not determined.

11	Toxicological Information
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-- ACUTE EXPOSURE --

Eye Irritation	Weak to moderate eye irritant. Does not meet EU R36 criteria. Based on data from similar materials.
Skin Irritation	Skin irritant. Based on data from similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
Respiratory Irritation	Nose, throat and lung irritant. Based on data from components or similar materials. Exposure to a high concentration of vapor or mist is irritating to the respiratory tract.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials. Components of this material may be absorbed through the skin.
Inhalation Toxicity	The LC50 (1 hr.) in rats for vapors of this material is > 200 mg/l. Based on data from components or similar materials. High concentrations may cause headaches, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, other central nervous system effects leading to visual impairment, respiratory failure, unconsciousness and death.
Oral Toxicity	The LD50 in rats is 2000 – 5000 mg/Kg. Based on data from components or similar materials. The oral LD50 (rat) of xylene is 3.5 g/kg.
Dermal Sensitization	No data available to indicate product or components may be a skin sensitizer.
Inhalation Sensitization	No data available to indicate product or components may be respiratory sensitizers.

-- CHRONIC EXPOSURE --

Chronic Toxicity	Repeated overexposure to petroleum naphtha can cause nervous system damage. Xylene has been found to cause cardiac, liver and kidney effects, anemia and eye damage in laboratory animals. Prolonged and repeated inhalation of hydrocarbon
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solvents such as xylene can cause chronic neurological disturbances. Chronic exposure to xylene has been shown to cause hearing loss in experimental animals and is synergistically enhanced when xylene is combined with n-hexane.

Carcinogenicity

A two-year National Toxicology Program (NTP) study found an increased incidence of tumors of the nose in rats exposed to naphthalene by inhalation. In mice similarly exposed, increased incidences of alveolar/bronchiolar adenomas were observed. Naphthalene has been classified by the International Agency for Research on Cancer (IARC) as a possible human carcinogen (Group 2B) on the basis of sufficient evidence of carcinogenicity in experimental animals but inadequate evidence in exposed humans. A National Toxicology Program (NTP) study found an increased incidence of renal tubule neoplasms in male and female rats exposed to ethylbenzene by inhalation for two years. In male and female mice similarly exposed, increased incidences of alveolar/bronchiolar neoplasms, and hepatocellular neoplasms, respectively, were observed. Ethylbenzene has been classified by IARC as a possible human carcinogen (Group 2B) on the basis of sufficient evidence of carcinogenicity in experimental animals but inadequate evidence in exposed humans.

Mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive Toxicity

No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.

Teratogenicity

Xylene is fetotoxic in rats and rabbits in the absence of maternal toxicity. Prolonged and repeated exposure of pregnant animals to toluene by inhalation has been reported to cause adverse fetal developmental effects.

– ADDITIONAL INFORMATION –**Other**

No other health hazards known.

12	Ecological Information
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– ENVIRONMENTAL TOXICITY –

Freshwater Fish Toxicity	The acute LC50 is 1 - 10 mg/L based on component data.
Freshwater Invertebrates Toxicity	The acute EC50 is 1 - 10 mg/L based on component data.
Algal Inhibition	The acute EC50 is 1 - 10 mg/L based on component data.
Saltwater Fish Toxicity	Not determined.
Saltwater Invertebrates Toxicity	Not determined.
Bacteria Toxicity	Not determined.
Miscellaneous Toxicity	Not determined.

– ENVIRONMENTAL FATE –

Biodegradation	At least 25% of the components in this product show moderate biodegradation based on OECD 302-type test data.
Bioaccumulation	1 - 10% of the components potentially bioconcentrate, based on octanol/water coefficients.
Soil Mobility	Not determined.

13	Disposal Considerations
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Waste Disposal

This material, if discarded, is a hazardous waste under RCRA Regulation 40 CFR 261. Material, if discarded, is expected to be hazardous waste under RCRA due to ignitability (D001). 0.005% Benzene, CAS no. 71-43-2, D018. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

14	Transport Information
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ICAO/IATA I	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Xylene) , 3 , III
ICAO/IATA II	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Xylene) , 3 , III , Marine Pollutant (Petroleum naphtha)
IMDG	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Xylene) , 3 , III , Marine Pollutant (Petroleum naphtha)
IMDG EMS Fire	F-E
IMDG EMS Spill	<u>S-E</u>
IMDG MFAG	*Subsection 4.2
MARPOL Annex II	Not determined.
USCG Compatibility	Not determined.
U.S. DOT Bulk	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Xylene) 3 , III, Marine Pollutant (Petroleum naphtha), RQ (Ethylbenzene, Xylene)
DOT NAERG	128
U.S. DOT (Intermediate)	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Xylene) 3 , III, Marine Pollutant (Petroleum naphtha), RQ (Ethylbenzene, Xylene)
U.S. DOT Intermediate NAERG	128
U.S. DOT Non-Bulk	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Xylene) 3 , III, RQ (Xylene)
U.S. DOT Non-Bulk NAERG	128
Canada	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Xylene) , 3 , III, Marine Pollutant (Petroleum naphtha)
Mexico	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Xylene) , 3 , III , Marine Pollutant (Petroleum naphtha)
Bulk Quantity	85000 KG, 187391 lbs.
Intermediate Quantity	11000 KG, 24251 lbs.
Non-Bulk Quantity	400 KG, 882 lbs.

Review classification requirements before shipping materials at elevated temperatures.

15	Regulatory Information
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– Global Chemical Inventories –

USA All components of this material are on the US TSCA Inventory or are exempt.

Other TSCA Reg. Section 8D (Benzene, ethyl-).

EU All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC.

Japan This product requires notification in Japan.

Australia All components are in compliance with chemical notification requirements in Australia.

New Zealand May require notification before sale under New Zealand regulations.

Canada All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.

Switzerland All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Korea All components are in compliance in Korea.

Philippines All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).

China This product may be imported to China only by Lubrizol China.

Taiwan All components of this product are listed on the Taiwan inventory.

– Other U.S. Federal Regulations –

SARA Ext. Haz. Subst. This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.

SARA Section 313 38% Xylene (mixed isomers), CAS no. 1330-20-7; 9.5% Ethylbenzene, CAS no. 100-41-4; 0.5% Naphthalene, CAS no. 91-20-3

SARA 311 Classifications

Acute Hazard	Yes
Chronic Hazard	Yes
Fire Hazard	Yes
Reactivity Hazard	No

CERCLA Hazardous Substances

Transit Reportable Quantities

Component	Reportable Quantity RQ	Units	Reportable Quantity RQ	Units
Xylene	263	lbs.	119	KG
Ethylbenzene	10558	lbs.	4789	KG
Naphthalene	20704	lbs.	9391	KG

– State Regulations –

Cal. Prop. 65 This product contains the following chemical(s) known to the state of California to cause cancer and/or birth defects: 0.005% Benzene, CAS no. 71-43-2 0.377% Toluene, CAS no. 108-88-3 0.483% Naphthalene, CAS no. 91-20-3 9.5% Ethyl benzene, CAS no. 100-41-4

– Product Registrations –

U.S. Fuel Registration This fuel additive is registered in the United States.

Finnish Registration Number Not Registered

Swedish Registration Number Not Registered

Norwegian Registration Number Not Registered

Danish Registration Number Not Registered

Swiss Registration Number Not Registered

Italian Registration Number Not Registered

– Other / International –

Miscellaneous Regulatory Information Not determined.

16	Other Information
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US NFPA Codes

Health	Fire	Reactivity	Special
2	3	0	N/E

(N/E) - None established

HMIS Codes

Health	Fire	Reactivity
2*	3	0

LUBRIZOL® 9888

Precautionary Labels

Danger.

- Flammable liquid. may create a flash fire hazard.
- Harmful if inhaled.
- Causes skin irritation.
- Causes respiratory tract irritation.
- May be harmful if absorbed through skin.
- May cause eye irritation.
- Contains components which may cause cancer.
- May cause chronic health effects.

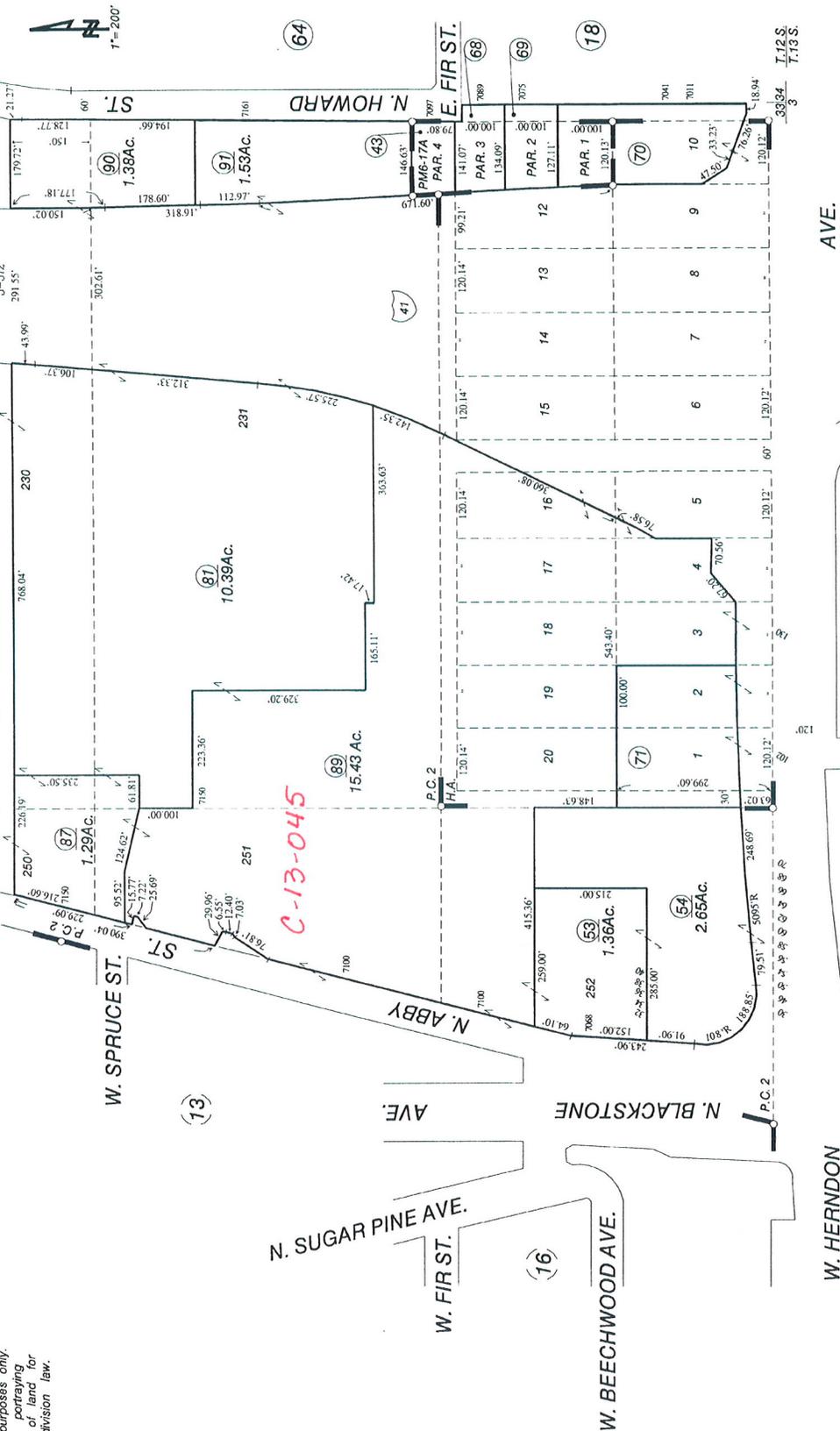
Revision Indicators

Section: 3 Hazardous ingredients.	Changed: 26 February 2011
Section: 4 Oral first aid.	Changed: 26 February 2011
Section: 8 Hazardous ingredients.	Changed: 26 February 2011
Section: 14 IMDG Code shipping description.	Changed: 29 July 2011
Section: 15 EU EINECS.	Changed: 1 December 2010
Section: 15 Other TSCA regulations.	Changed: 29 July 2011
Section: 15 Taiwan	Changed: 29 July 2011

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NOTE ---
 This map is for Assessment purposes only.
 It is not to be construed as portraying
 legal ownership or divisions of land for
 purposes of zoning or subdivision law.

SUBDIVIDED LAND IN POR. SEC. 33, T.12 S., R.20 E., M.D.B.&M. (02) Tax Rate Area 303-17



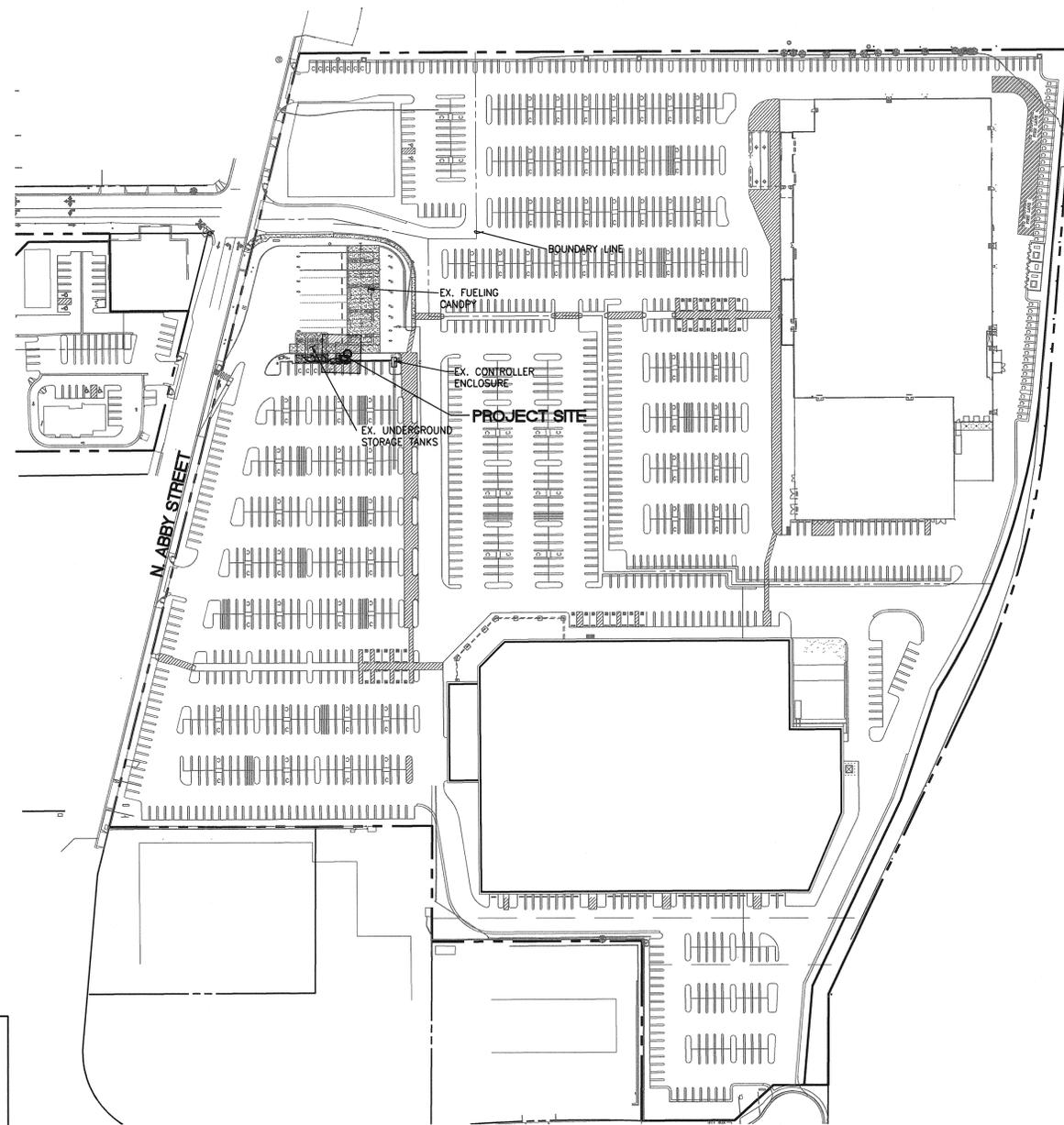
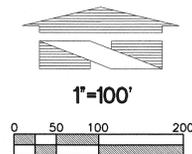
Bk. 408

Horn Addition To Pinedale - Plat Bk.10, Pg.18
 Perrin Colony No.2, Amended - Plat Bk.4, Pg.68
 Parcel Map No.1253 - Bk.6, Pg.17A

Assessor's Map Bk.303 - Pg. 17
 County of Fresno, Calif.

NOTE - Assessor's Block Numbers Shown in Ellipses.
 Assessor's Parcel Numbers Shown in Circles.

FRESNO, CA - ADDITIVE TANK ADDITION OVERALL SITE PLAN AND COVER SHEET



LEGEND			
[Pattern]	EXISTING ASPHALT	[Pattern]	PROPOSED ASPHALT
[Pattern]	EXISTING CONCRETE	[Pattern]	PROPOSED CONCRETE
[Pattern]	EXISTING ASPHALT TO BE DEMOLISHED	[Pattern]	PROPOSED BARRIER CURB
[Line]	CENTERLINE RIGHT-OF-WAY	[Line]	SAWCUT LINE
[Line]	EXISTING CONCRETE CURB	[Arrow]	FLOW PATH
[Line]	EXISTING EDGE OF PAVEMENT	[Line]	PROPOSED SPOT GRADE
		[Symbol]	M.E. MATCH EXISTING
		[Symbol]	FS FINISH SURFACE
		[Line]	2.0% PROPOSED GRADING SLOPE
		[Line]	POWER LINE

OWNER

COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027
PHONE: (425) 313-6010
CONTACT: TIM HURLLOCKER

ENGINEER/APPLICANT

BARGHAUSEN CONSULTING ENGINEERS, INC.
18215 72ND AVENUE SOUTH
KENT, WA 98032
PHONE: (425) 251-6222
FAX: (425) 251-8782
CONTACT: CHRIS TEBALDI

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS AND THE SPECIFICATIONS AND STANDARD DRAWINGS OF THE CITY OF FRESNO, INSTALLATION OF AN ABOVE GROUND STORAGE TANK FOR GASOLINE ADDITIVE.

GENERAL SITE DEVELOPMENT NOTES:

1. THE CONTRACTOR SHALL OBTAIN AND HAVE AVAILABLE COPIES OF THE APPLICABLE GOVERNING AGENCY STANDARDS AT THE JOB SITE DURING THE RELATED CONSTRUCTION OPERATIONS.
2. CONTRACTOR SHALL ASSURE THAT ALL NECESSARY PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION WHETHER SHOWN ON THESE PLANS OR NOT. UTILITIES OTHER THAN THOSE SHOWN MAY EXIST ON THIS SITE. ONLY THOSE UTILITIES WITH EVIDENCE OF THEIR INSTALLATION VISIBLE AT GROUND SURFACE OR SHOWN ON RECORD DRAWING PROVIDED BY OTHERS ARE SHOWN HEREON. EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE ONLY AND ARE SUBJECT TO A DEGREE OF UNKNOWN VARIATION. SOME UNDERGROUND LOCATIONS SHOWN HEREON MAY HAVE BEEN TAKEN FROM PUBLIC RECORDS. BARGHAUSEN CONSULTING ENGINEERS, INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF PUBLIC RECORDS OR RECORDS OF OTHERS. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC., TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.
4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE APPROPRIATE UTILITIES INVOLVED PRIOR TO CONSTRUCTION.
6. INSPECTION OF SITE WORK WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE GOVERNING JURISDICTION. INSPECTION OF PRIVATE FACILITIES WILL BE ACCOMPLISHED BY A REPRESENTATIVE OF THE OWNER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE INSPECTOR 24 HOURS IN ADVANCE OF BACKFILLING ALL CONSTRUCTION.
7. PRIOR TO ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY THE CONTRACTOR SHALL CONTACT THE AGENCY AND/OR UTILITY INSPECTION PERSONNEL AND ARRANGE ANY REQUIRED PRE-CONSTRUCTION MEETING(S). CONTRACTOR SHALL PROVIDE 72 HRS MIN. ADVANCE NOTIFICATION TO OWNER, FIELD ENGINEER AND ENGINEER OF PRE-CONSTRUCTION MEETINGS.
8. THE CONTRACTOR IS RESPONSIBLE FOR WORKER AND SITE SAFETY AND SHALL COMPLY WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED.
10. PROTECTIVE MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT ALL ADJACENT PUBLIC AND PRIVATE PROPERTIES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL EXISTING UTILITY SERVICES THAT ARE TO REMAIN OPERATIONAL WITHIN THE CONSTRUCTION AREA WHETHER SHOWN OR NOT SHOWN ON THE PLANS.
11. TWO (2) COPIES OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS. ONE (1) SET WITH RECORDS OF AS-BUILT INFORMATION SHALL BE SUBMITTED TO BARGHAUSEN CONSULTING ENGINEERS, INC. AT COMPLETION OF PROJECT.

HORIZONTAL AND VERTICAL DATUM:

THE HORIZONTAL AND VERTICAL DATUMS ARE BOTH LOCALIZED DATUMS. BOTH DATUMS ARE BASED ON HORIZONTAL AND VERTICAL INFORMATION DERIVED FROM CONSTRUCTION DRAWINGS FOR COSTCO GAS STATION EXPANSION PROJECT. THE CONTRACTOR SHALL HAVE ANY ADJACENT PROPERTY LINES LOCATED, STAKED AND THE SPATIAL RELATIONSHIP WITH EXISTING AND PROPOSED IMPROVEMENTS VERIFIED BY A PROFESSIONAL LAND SURVEYOR. IN ADDITION THE CONTRACTOR SHALL HAVE THE EXISTING SPOT ELEVATIONS SHOWN ON THE DRAWINGS VERIFIED BY A PROFESSIONAL LAND SURVEYOR PRIOR TO THE START OF CONSTRUCTION. BARGHAUSEN CONSULTING ENGINEERS SHALL IMMEDIATELY BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO THE START OF CONSTRUCTION.

CIVIL SHEET INDEX:

- C1 OVERALL SITE PLAN AND COVER SHEET
- C2 DEMOLITION AND EROSION CONTROL PLAN
- C3 ABOVEGROUND TANK INSTALLATION SITE PLAN
- C4 ABOVEGROUND TANK INSTALLATION DETAILS

LANDSCAPE SHEET INDEX:

- L1 LANDSCAPE PLANTING MODIFICATION PLAN

MECHANICAL SHEET INDEX:

- T-1 ADDITIVE TANK INSTALLATION NOTES AND DETAILS
- T-2 GASOLINE TANK SUMP RETROFIT DETAILS
- T-3 GASOLINE TANK SUMP RETROFIT DETAILS
- T-4 MATERIALS LIST

ELECTRICAL SHEET INDEX:

- E-1 PANEL SCHEDULES AND ELECTRICAL SINGLE LINE
- E-2 MISCELLANEOUS ELECTRICAL DETAILS
- E-3 SQUARE "D" POWERBOX DATA DISCONNECT PANEL
- E-4 ADDITIVE ELECTRICAL DIAGRAM

PROJECT AREA SUMMARY:

PROJECT SITE AREA: 674,506 (15.48 AC)
EXISTING BUILDING AREA: UNCHANGED
PROPOSED BUILDING AREA: N/A
BUILDING COVERAGE: UNCHANGED
PAVED AREA: +110 SF
LANDSCAPE AREA: -110 SF

PROJECT DATA:

PROJECT ADDRESS: 7100 NORTH ABBY
FRESNO, CA 93720
JURISDICTION: CITY OF FRESNO
IFC SETBACK: 20 FEET
GENERAL PLAN LAND USE: GENERAL HEAVY COMMERCIAL
ZONING: C-6
APN: 303-170-89

SCOPE OF WORK:

INSTALLATION OF 1,200 GALLON ABOVE GROUND STORAGE TANK FOR FUEL ADDITIVE ALONG WITH ASSOCIATED PIPING AND CONDUIT. WORK INCLUDES MINOR GRADING, PAVING AND LANDSCAPE ACTIVITIES ASSOCIATED WITH THE INSTALLATION OF THE ADDITIVE TANK.

UTILITY CONFLICT NOTE

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POT-HOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-227-2600 AND THEN POT-HOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.



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No.	Date	By	Chd.	Appr.	Revision
2	02/28/13	CMT	CMT	HPG	PRECONSTRUCTION RELEASE
1	11/06/12	CMT	CMT	HPG	PERMIT RELEASE

Title: OVERALL SITE PLAN AND COVER SHEET
ADDITIVE TANK ADDITION
7100 NORTH ABBY
FRESNO, CA 93720
COSTCO GASOLINE FACILITY #657

For: **COSTCO GASOLINE**
COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027



Scale: Horizontal 1"=100' Vertical N/A

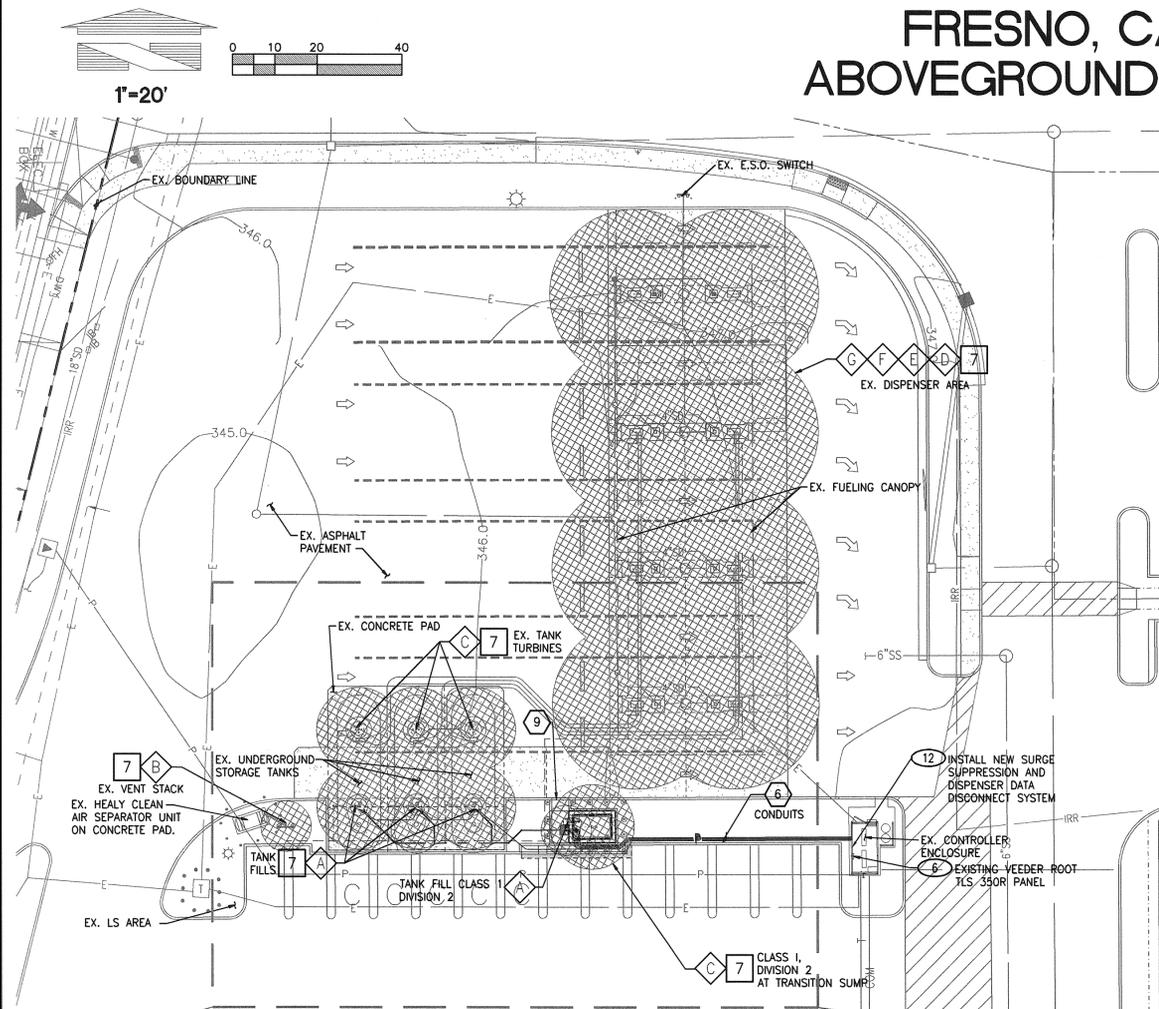
Design	Drawn	Checked	Approved	Date
CMT	CMT	CMT	HPG	1/5/12

18215 72ND AVENUE SOUTH
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CIVIL ENGINEERING, LAND PLANNING,
SURVEYING, ENVIRONMENTAL SERVICES

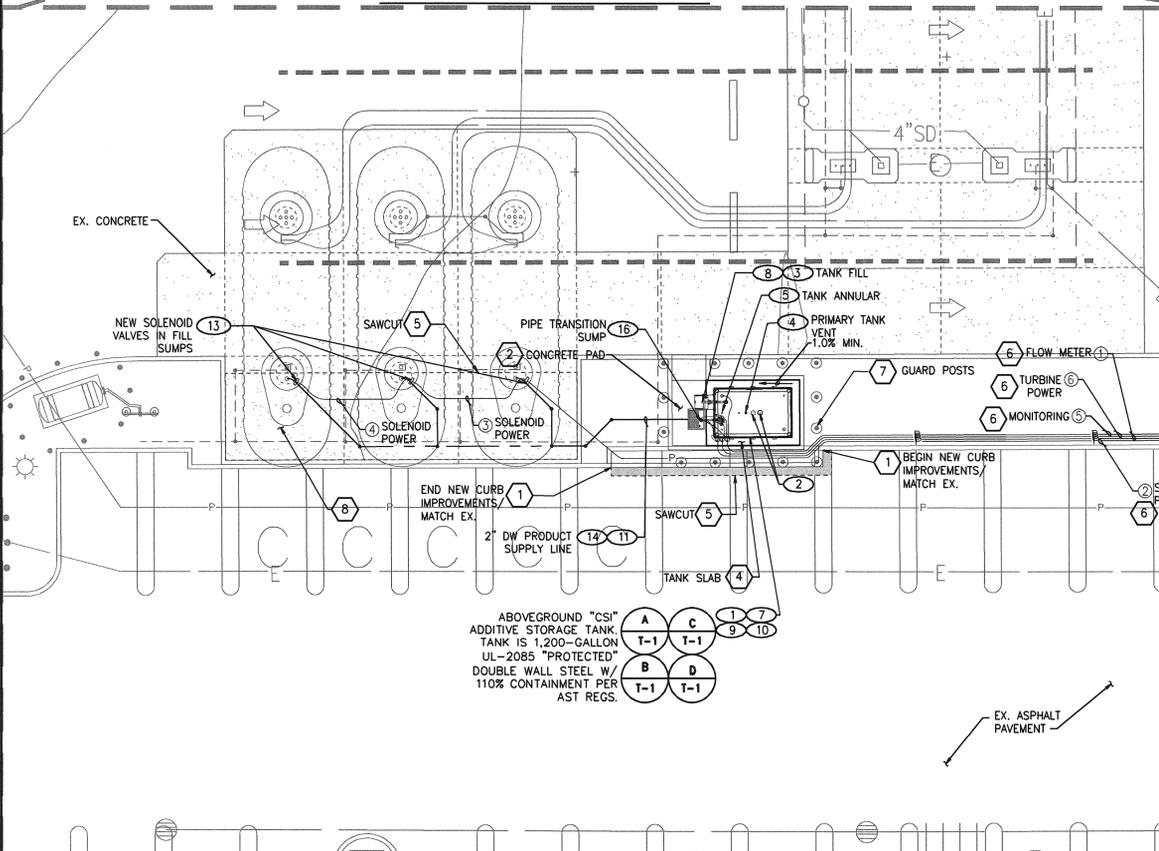


Job Number: 10121
Sheet: C1 of 13

FRESNO, CA - ADDITIVE TANK ADDITION ABOVEGROUND TANK INSTALLATION SITE PLAN



SITE PLAN



DETAIL SITE PLAN

ADDITIVE TANK INSTALLATION NOTES:

- INSTALL ONE (1) 1,200 GALLON "CONTAINMENT SOLUTIONS" UL-2085 "PROTECTED" DOUBLE WALL ABOVEGROUND STEEL TANK WITH ANNULAR SPACE MONITORED BY "VEEDER ROOT" TLS-350R TANK AND PIPING MONITORING AND ALARM SYSTEM. TANK TO BE SET AND ANCHORED AT GRADE. SEE DWG. T1 FOR ADDITIONAL INFORMATION. TANK INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- LOCATION OF FACTORY-INSTALLED 6" EMERGENCY VENTS FOR PRIMARY AND SECONDARY TANK.
- LOCATION OF FACTORY-INSTALLED 2" ADDITIVE FILL ADAPTER AND CAP INSIDE NEW SPILL BOX, LOCATED AT NEW TANK.
- TERMINATION POINT OF TANK VENT TO BE A MINIMUM OF 12' ABOVE GRADE AND NOT WITHIN 5' FROM ANY BUILDING OPENING OR PROPERTY LINE THAT CAN BE BUILT UPON. VENT RISERS SHALL BE INSTALLED IN ACCORDANCE WITH INTERNATIONAL FIRE CODE REQUIREMENTS.
- INSTALL ONE (1) DRY TANK ANNULAR SPACE MONITORING SENSOR AND TIE INTO EXISTING VEEDER-ROOT TLS-350 PANEL IN CONTROLLER ENCLOSURE.
- UPDATE EXISTING "VEEDER ROOT" TANK AND LINE ALARM CONTROL PANEL MODEL # TLS-350R IN EQUIPMENT ENCLOSURE BUILDING, DUE TO ADDITIONAL ADDITIVE SYSTEM MONITORING SENSOR REQUIREMENTS. SEE ELECTRICAL DRAWINGS FOR SCOPE.
- NEW ABOVEGROUND TANK TO BE GROUNDED TO NEW GROUND ROD. CONTRACTOR TO PROVIDE NEW 1/2"x10' GROUND ROD AS REQUIRED. SEE SHEET T1.
- TANK SHALL BE PROPERLY MARKED AND TAGGED WITH STANDARD API IDENTIFICATION MARKINGS AT NEW TANK FILL. INSTALL NFPA 704 AND EMERGENCY INFO PLACARDS PER CODE.
- CONTRACTOR TO INSTALL ONE (1) FE PETRO 3/4 HP TURBINE WITH MECHANICAL LINE LEAK DETECTOR ON TANK AS SHOWN. SEE SHEET T1 FOR INSTALLATION DETAILS. CONTRACTOR TO PURGE LINES THROUGH EACH NEW SOLENOID VALVE PER COSTCO'S "PURGING AND CALIBRATING" INSTRUCTIONS. ANY AIR POCKETS OR START UP PROBLEMS DUE TO IMPROPER INSTALLATION OR INCORRECT WIRING THAT DESTROYS ELECTRONICS WILL BE BILLED BACK TO THE CONTRACTOR.
- TANK TO BE EQUIPPED WITH FACTORY-INSTALLED KRUEGER LEVEL GAUGE.
- INSTALL ONE (1) 3" OVER 2" DOUBLE WALL FIBERGLASS (AMERON) ADDITIVE SUPPLY LINE HEADER TO ALL GASOLINE TANKS. PIPING SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. CONTRACTOR TO INSTALL TRACER WIRE WITH PRODUCT PIPING. TESTING OF PRODUCT LINE SHALL BE PERFORMED PRIOR TO BACKFILL, PRIOR TO PAVING AND BEFORE STATION OPERATION. BRAVO PIPING AND ELECTRICAL PENETRATIONS ON TANK SUMPS TO BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATION AND TESTING PROCEDURES. FIBERGLASS WRAP THE OUTSIDE OF ALL NEW PENETRATION FITTINGS WITH FOUR LAYERS OF FIBERGLASS. ALL BRAVO PENETRATIONS, GLUE AND FIBER GLASSING KITS TO BE SUPPLIED BY COSTCO.
- FOR EXISTING GASOLINE DISPENSING SYSTEM, INSTALL ONE DEDICATED RECEPTACLE TIED TO ESO SYSTEM AND INSTALL NEW DATA DISCONNECT AND SURGE SUPPRESSION DEVICE IN CONTROLLER ENCLOSURE.
- INSTALL NEW "FLOW DYNAMICS" ADDITIVE BATCH CONTROLLER INSIDE OF EXISTING CONTROLLER ENCLOSURE. INSTALL NEW FLOW METER AT NEW ADDITIVE TANK TURBINE SUMP, AND INSTALL NEW 24VOLT SOLENOID VALVE AT EACH EXISTING FILL SUMPS. SEE SHEET T-2 & T-3 FOR SUMP DETAILS. SEE SHEETS E-1 THROUGH E-4 FOR ELECTRICAL WIRING AND DETAILS.
- ALL NEW PIPING AND TANK TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS. CONTRACTOR SHALL USE FLEXIBLE CONNECTORS FROM THE TANK SUMPS TO THE VENT AND PRODUCT TANK CONNECTION. THERE SHALL BE A MINIMUM FOR 4 FEET OF PIPING RUN PRIOR TO PENETRATION INTO ANY SUMP OR CHANGE OF DIRECTION OF MORE THAN 30 DEGREES PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
- THE OWNER'S REAL ESTATE DEPARTMENT WILL IDENTIFY THE FIRE AGENCY HAVING JURISDICTION, ALL INITIAL DELIVERY REQUIREMENTS AND FORMS AND SEND TO CONSULTING CONSTRUCTION MANAGER (JONES COVEY) FOR DISTRIBUTION AND SIGNATURES. CONSULTING ENGINEER (BARGHAUSEN CONSULTING) SHALL SECURE THE OWNER'S AND INSTALLER'S SIGNATURES AND DISTRIBUTE FORMS TO THE REAL ESTATE DEPARTMENT, THE OWNER'S ADDITIVE BUYING DEPARTMENT, THE GENERAL CONTRACTOR AND THE AGENCY'S HAVING JURISDICTION. REQUIRED FORMS TYPICALLY INCLUDE, BUT ARE NOT LIMITED TO UST REGISTRATION AND LICENSING, MONITORING CERTIFICATION, ALL AHJ INITIAL DELIVERY REQUIREMENTS SHALL BE SATISFIED AND WRITTEN DOCUMENTATION SENT TO THE OWNER'S ADDITIVE BUYING GROUP/DEPT. PRIOR TO ORDERING ADDITIVE. ADDITIVE DELIVERY AND ALL TANK TESTING SHALL BE COMPLETE PRIOR TO OPERATION.
- INSTALL NEW BRAVO SINGLE WALL FIBERGLASS PIPING TRANSITION SUMP WITH VEEDER-ROOT SENSOR AT BASE OF NEW ABOVEGROUND ADDITIVE TANK. PREPARATION AND INSTALLATION OF NEW BRAVO TRANSITION SUMP AND PIPING PENETRATION FITTING TO BE PER THE MANUFACTURER'S RECOMMENDATION AND TESTING PROCEDURES. FIBERGLASS WRAP THE OUTSIDE OF ALL NEW PENETRATION FITTINGS WITH FOUR LAYERS OF FIBERGLASS. ALL BRAVO PENETRATIONS, GLUE AND FIBER GLASSING KITS TO BE SUPPLIED BY COSTCO.

ELECTRICAL NOTES:

- SEE MATERIALS LIST (T-4) FOR SPECIFICATIONS ON EQUIPMENT USED IN THIS CONSTRUCTION.
- CONDUIT ROUTING SHOWN ARE SCHEMATIC. CONTRACTOR TO FIELD DETERMINE BEST CONDUIT ROUTING AND PROVIDE FINAL LOCATIONS SHOWN ON AS-BUILT DRAWINGS.
- ALL EQUIPMENT SHALL BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.
- FUNCTIONS OF THE ADDITIVE TANK MONITORING:
-MONITORING OF TANK ANNULAR SPACE.
-PROVIDE CONTINUOUS TANK LEVEL MONITORING.
-MONITORING OF ADDITIVE TRANSITION SUMP
-MONITORING OF PIPING TRANSITION SUMP
THE CONTINUOUS MONITORING DEVICE SHALL PROVIDE AUDIBLE/VISUAL ALARM AUTOMATICALLY IN THE EVENT OF A LIQUID RELEASE AND A COMPLETE SHUTDOWN MANUALLY THROUGH THE ESO SWITCH LOCATED ON THE KIOSK ENCLOSURE AND REMOTE ESO SWITCH AS INDICATED ON SITE PLAN.
ALL WIRES ENTERING CONTROL PANELS, MAIN PANELS, AND SUB PANELS SHALL BE MARKED WITH PHASE TAPE CODING AS FOLLOWS:
"A" PHASE = BLACK
"B" PHASE = RED
"C" PHASE = BLUE
- ALL CONDUCTORS SHALL BE CONTINUOUS (WITH NO SPLICES) STRANDED COPPER WITH 75°C THWN INSULATION, OIL AND GAS RESISTANT.
A SEAL OFF MUST BE INSTALLED PRIOR TO ENTERING AND LEAVING A CLASSIFIED AREA. CONDUITS FIRST EMERGENCE FROM BELOW GRADE MUST BE CONNECTED TO A SEAL-OFF.
- ALL CONDUITS SHALL HAVE INSULATED GROUNDING BUSHINGS INSTALLED AND TIED TOGETHER W/ #6 BARE COPPER WIRE. BOND ALL INSULATED GROUNDING BUSHINGS AND GUTTER BOX BACK TO POWER CENTER GROUND.
- ALL INSTALLATIONS SHALL BE PER N.E.C., ARTICLE 514.
- ALL EQUIPMENT SHALL BE U.L. APPROVED.
- NOT USED
- NOT USED
- ALL ELECTRICAL JUNCTION BOXES SHALL BE EXPLOSION PROOF WITH SEAL-OFF ENTERING AND LEAVING. SEAL-OFFS TO BE A MAXIMUM OF 18" ABOVE GRADE. AT A MINIMUM, THE LAST 2' OF ANY CONDUIT RUN ENTERING OR LEAVING A HAZARDOUS AREA SHALL BE RIGID METAL CONDUIT (TYP.)
ALL NONMETALLIC CONDUIT (IF USED) SHALL HAVE THE LAST 2' (AT CONTROLLER ENCLOSURE) OR 10' (AT SUMPS) OF THE UNDERGROUND RUN TO THE POINT OF EMERGENCE OR TO THE POINT OF CONNECTION TO THE ABOVE GROUND RACEWAY TO BE THREADED RIGID METAL CONDUIT. THE RIGID NONMETALLIC CONDUIT INCLUDING RIGID NONMETALLIC CONDUIT ELBOWS & FITTINGS ARE REQUIRED TO BE LOCATED NOT LESS THAN 2' BELOW GRADE. TRANSITIONS TO STEEL OCCURS AT THE 90 DEGREE FITTING UP, INCLUDING THE ELBOW. ALL METAL CONDUIT & FITTINGS SHALL BE ROBROY, NO EXCEPTIONS. WRAPPED RIGID METALLIC IS NOT ALLOWED.

GENERAL NOTES:

- BOUNDARY INFORMATION SHOWN IS TAKEN DIRECTLY FROM COSTCO GAS STATION PLANS DATED 9/2/10 PREPARED BY BARGHAUSEN CONSULTING ENGINEERS, INC. CONTRACTOR TO HAVE BOUNDARY LINE ADJACENT TO TANK VERIFIED AND FIELD STAKED BY A PROFESSIONAL LAND SURVEYOR PRIOR TO CONSTRUCTION.
- REMOVE EXISTING LANDSCAPING AND RE-ROUTE EXISTING IRRIGATION SYSTEM AROUND TANK PAD IMPROVEMENTS AS NECESSARY TO MAINTAIN IRRIGATION TO BOTH SIDES OF TANK.
- ONE OR MORE PORTABLE FIRE EXTINGUISHERS HAVING A RATING OF NOT LESS THAN 40BC SHALL BE LOCATED AT/NEAR THE TANK STORAGE AREA PER FIRE DEPARTMENT DIRECTION.

COMPLIANCE NOTES:

- CIVIL DRAWINGS SHALL TAKE PRECEDENCE FOR REFERENCING ALL DIMENSIONS, PROPERTY LINES, ELEVATIONS AND EQUIPMENT LOCATIONS.
- ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BEFORE STARTING ANY WORK. ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE OWNER'S ENGINEER FOR HIS DECISION BEFORE PROCEEDING WITH THE WORK.
- GENERAL CONTRACTOR SHALL OBTAIN NECESSARY PERMIT FROM APPLICABLE AGENCIES FOR EXCAVATIONS OF TRENCHES 5'-0" OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND (IF REQUIRED).
- AN UNAUTHORIZED RELEASE RESPONSE PLAN SHALL BE SUBMITTED AND APPROVED BY GOVERNING AGENCY PRIOR TO TANK OPERATIONS (BY OWNER IF REQUIRED).
- THE ABOVEGROUND STORAGE TANK SYSTEM SHALL BE COMPATIBLE WITH THE PRODUCT STORED. ALL MATERIALS SHALL BE COMPATIBLE WITH USE FOR THE INTENDED PURPOSE AS PER NATIONALLY RECOGNIZED CODES, LOCAL CODES AND GOVERNING AUTHORITIES.
- ALL MONITORING DEVICES SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
- GENERAL CONTRACTOR IS REQUIRED TO PROVIDE 72 HOUR (TYPICAL) NOTIFICATION TO GOVERNING AGENCY PRIOR TO TANK INSTALLATION.
- TANK AND PIPING SYSTEM TO BE INSPECTED BY OWNER'S FUEL FACILITY INSTALLATION OVERSIGHT AGENT (JONES COVEY) & GOVERNING AGENCY.
- TANK SYSTEM MONITORING SYSTEM INTEGRITY TESTS FORWARDED AND APPROVED BY GOVERNING AGENCY PRIOR TO ADDITIVE SYSTEM BEING PLACED IN OPERATION.
- PAYMENT OF ALL APPLICABLE UST OPERATING FEES SHALL BE SUBMITTED TO THE GOVERNING JURISDICTION WITHIN 30 DAYS OF THE FINAL INSPECTION.
- EVIDENCE OF FINANCIAL RESPONSIBILITY SHALL BE SUBMITTED TO GOVERNING AGENCY (BY OWNER).
- NEW TRANSITION SUMP AND MODIFIED GASOLINE FILL SUMPS/SPILL BUCKETS SHALL BE HYDROSTATICALLY TESTED (LAKE TEST) WITH STANDING WATER FOR A PERIOD OF 24 HOURS TO INSURE THAT THE SUMP IS WATERTIGHT. RECORD THE TEST RESULTS AND SUBMIT TO OWNERS CONSTRUCTION PM (JONES COVEY).

N.E.C. HAZARDOUS AREA NOTES:

- A TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (TANK - FILL OPENING)
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
ANY PIT, BOX, OR SPACE BELOW GRADE LEVEL, ANY PART OF WHICH IS WITHIN THE DIVISION 1 OR 2 CLASSIFIED LOCATION.
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
UP TO 18 INCHES ABOVE GRADE LEVEL WITHIN A HORIZONTAL RADIUS OF 10 FEET FROM A LOOSE FILL CONNECTION AND WITHIN A HORIZONTAL RADIUS OF 5 FEET FROM A TIGHT FILL CONNECTION.
- B TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (TANK - VENT-DISCHARGING UPWARD)
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
WITHIN 3 FEET OF OPEN END OF VENT, EXTENDING IN ALL DIRECTIONS.
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
SPACE BETWEEN 3 FEET AND 5 FEET OF OPEN END OF VENT, EXTENDING IN ALL DIRECTIONS.
- C TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (REMOTE PUMP - OUTDOOR)
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
ANY PIT, BOX, OR SPACE BELOW GRADE LEVEL IF ANY PART IS WITHIN A HORIZONTAL DISTANCE OF 10 FT. FROM ANY EDGE OF PUMP.
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
WITHIN 3 FEET OF ANY EDGE OF PUMP, EXTENDING IN ALL DIRECTIONS. ALSO UP TO 18 INCHES ABOVE GRADE LEVEL WITHIN 10 FEET HORIZONTALLY FROM ANY EDGE OF PUMP.
- D TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - PITS)
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
ANY PIT, BOX, OR SPACE BELOW GRADE LEVEL, ANY PART OF WHICH IS WITHIN THE DIVISION 1 OR 2 CLASSIFIED LOCATION.
- E TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - DISPENSER)
EXTENT OF CLASS 1, GROUP D, DIVISION 1 LOCATION:
SPACE CLASSIFICATION INSIDE THE DISPENSER ENCLOSURE IS COVERED IN ANSI/UL 87, "POWER OPERATED DISPENSING DEVICES FOR PETROLEUM PRODUCTS."
- F TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - DISPENSER)
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
WITHIN 18 INCHES HORIZONTALLY IN ALL DIRECTIONS EXTENDING TO GRADE FROM (1) THE DISPENSER ENCLOSURE OR (2) THAT PORTION OF THE DISPENSER ENCLOSURE CONTAINING LIQUID HANDLING COMPONENTS.
- G TYPICAL N.E.C. ARTICLE 514 CLASS 1 LOCATION (DISPENSING DEVICE - OUTDOOR)
EXTENT OF CLASS 1, GROUP D, DIVISION 2 LOCATION:
UP TO 18 INCHES ABOVE GRADE LEVEL WITHIN 20 FEET HORIZONTALLY OF ANY EDGE OF ENCLOSURE.

SITE PLAN CONSTRUCTION NOTES:

- FLUSH CURB PER DETAIL 8, SHEET C4.
- CONCRETE PAD PER DETAIL 5, SHEET C4.
- CAST-IN-PLACE CONCRETE CURB PER DETAIL 6, SHEET C4.
- TANK SLAB PER DETAIL 1, SHEET C4.
- SAWCUT LINE. CONTRACTOR TO PROVIDE A SMOOTH, CLEAN EDGE FOR MATCHING INTO EXISTING PAVEMENT. REMOVE CURB ALONG FRONT OF TANK PAD AND SAW-CUT ONLY WHAT IS NECESSARY FOR PROVIDING A CLEAN EDGE.
- POWER, DATA AND MONITORING CONDUITS. ROUTE NEW CONDUITS TO EXISTING CONTROLLER ENCLOSURE AND PULL NEW WIRE AS REQUIRED.
- NEW GUARD POST (14) PER DETAIL 7, SHEET C4.
- TANK SLAB REPLACEMENT AREA PER DETAIL 8 SHEET C4.
- REPLACE EX. CURB IN-KIND AS NECESSARY.

FIRST ADDITIVE DROP REQUIREMENT:

PRIOR TO FUEL DROP, THE G.C. SHALL HAVE THE VEEDER ROOT MONITORING SYSTEM OPERATIONAL. OWNER WILL NOT SCHEDULE ADDITIVE FOR DELIVERY UNTIL THE JURISDICTION HAS AUTHORIZED THE SITE FOR FIRST DROP, VEEDER ROOT IS OPERATIONAL AND MONITORING THE NEW TANK AND THE SITE IS ACCESSIBLE FOR DELIVERY TRUCKS

CONDUIT SCHEDULE

CONDUIT #	SIZE	CONDUIT PURPOSE	CONDUIT FILL	COMMENTS
1	3/4"	ADDITIVE TANK FLOW METER	(1) BELDEN CABLE #88760	FROM CONTROLLER ENCLOSURE TO ADDITIVE AST
2	3/4"	ADDITIVE SOLENOID VALVE WIRING	(4) #12 THWN + (1) #12 GND. (24V)	FROM CONTROLLER ENCLOSURE TO GASOLINE FILL SUMP
3	3/4"	ADDITIVE SOLENOID VALVE WIRING	(3) #12 THWN + (1) #12 GND. (24V)	LOOP BETWEEN GASOLINE FILL SUMPS
4	3/4"	ADDITIVE SOLENOID VALVE WIRING	(2) #12 THWN + (1) #12 GND. (24V)	LOOP BETWEEN GASOLINE FILL SUMPS
5	1"	AST ANNULAR, ATG, TRANSITION SUMP	(3) BELDEN #88760 & (1) #12 GND.	FROM CONTROLLER ENCLOSURE TO ADDITIVE AST
6	3/4"	TURBINE PUMP POWER	(2) #10 THWN, (1) #10 GND.	FROM CONTROLLER ENCLOSURE TO ADDITIVE TANK TURBINE

CALL BEFORE DIGGING
1-800-227-2600

CAUTION! POTENTIAL UTILITY CONFLICT. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING AND NEW UTILITIES PRIOR TO CONSTRUCTION. SEE UTILITY CONFLICT NOTE.
THE EXISTING WATER, STORM, AND SANITARY SEWER SERVICE SHOWN IS APPROXIMATE, BASED ON FIELD SURVEYS AND "AS-BUILT" RECORDS. THE GENERAL CONTRACTOR SHALL "POTHOLE" THE EXISTING UTILITIES TO VERIFY THE DIAMETER AND LOCATION (INCL. ELEVATIONS) PRIOR TO CONSTRUCTION. ANY DISCREPANCIES IN THE LOCATION OF THE EXISTING PIPE OR INCOMPATIBILITY OF THE DESIGN SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNER'S REPRESENTATIVE, AND BARGHAUSEN CONSULTING ENGINEERS, INC. (425-251-6222).

UTILITY CONFLICT NOTE:

CAUTION!
THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POTHOLING THE UTILITIES AND SURVEYING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATOR @ 1-800-227-2600 AND THEN POTHOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT BARGHAUSEN CONSULTING ENGINEERS, INC. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

Revision
2 02/28/13 CMT HPC PRECONSTRUCTION RELEASE
1 11/05/12 CMT HPC PERMIT RELEASE
No. Date By Cmt. Appr.

Title: ABOVEGROUND TANK INSTALLATION SITE PLAN
ADDITIVE TANK ADDITION
7100 NORTH ABBY
FRESNO, CA 93720
COSTCO GASOLINE FACILITY #657

COSTCO GASOLINE
COSTCO WHOLESALER
999 LAKE DRIVE
ISSAQUAH, WA 98027

For:
HAL P. DRUBB
LICENSED PROFESSIONAL ENGINEER
6/30/10
CIVIL
STATE OF CALIFORNIA
4377

Scale:
Horizontal AS NOTED
Vertical N/A

Designed: CMT
Down: CMT
Checked: CMT
Approved: HPC
Date: 1/5/12

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222
(425)251-8782 FAX
CIVIL ENGINEERING, LAND PLANNING,
SURVEYING, ENVIRONMENTAL SERVICES

BARGHAUSEN CONSULTING ENGINEERS, INC.

Job Number: 10121
Sheet: C3 of 13

FRESNO, CA - ADDITIVE TANK ADDITION LANDSCAPE PLANTING MODIFICATION PLAN

LANDSCAPE PLANTING NOTES AND MATERIALS

SCOPE OF WORK

- FURNISH ALL MATERIALS, LABOR, EQUIPMENT AND RELATED ITEMS NECESSARY TO ACCOMPLISH THE TREATMENT AND PREPARATION OF SOIL, FINISH GRADING, PLACEMENT OF SPECIFIED PLANT MATERIALS, FERTILIZER, STAKING, MULCH, CLEAN-UP, AND DEBRIS REMOVAL.
- QUALIFICATIONS: LANDSCAPE CONTRACTOR TO BE SKILLED AND KNOWLEDGEABLE IN THE FIELD OF WORK AND HAVE A MINIMUM OF FIVE (5) YEARS EXPERIENCE INSTALLING SIMILAR WORK. CONTRACTOR TO BE LICENSED TO PERFORM THE WORK SPECIFIED WITHIN THE PRESIDING JURISDICTION.
- JOB CONDITIONS: IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE SITE AND REPORT ANY DISCREPANCIES TO THE OWNER. ALL PLANT MATERIAL AND FINISH GRADES ARE SUBJECT TO APPROVAL BY THE OWNER.
- PROTECTION: SAVE AND PROTECT ALL EXISTING PLANTINGS SHOWN TO REMAIN. DO NOT PLANT UNTIL OTHER CONSTRUCTION OPERATIONS WHICH CONFLICT HAVE BEEN COMPLETED. DO NOT PLANT UNTIL THE IRRIGATION SYSTEM HAS BEEN MODIFIED AND TESTED. HANDLE PLANTS WITH CARE - DO NOT DAMAGE OR BREAK ROOT SYSTEM, BARK, OR BRANCHES. REPAIR AND/OR REPLACE ITEMS DAMAGED AS A RESULT OF WORK, OR WORK NOT IN COMPLIANCE WITH PLANS AND SPECIFICATIONS, AS DIRECTED BY OWNER AT NO ADDITIONAL COST.
- REPAIR OF EXISTING PLANTINGS: DURING THE COURSE OF WORK, REPAIR ALL EXISTING PLANTING AREAS DAMAGED BY NEW CONSTRUCTION. RE-ESTABLISH FINISH GRADE AND RE-MULCHING TO SPECIFIED DEPTH.
- REPAIR OF EXISTING IRRIGATION SYSTEM: DURING THE COURSE OF WORK, REPAIR ALL EXISTING IRRIGATION SYSTEM DAMAGED BY NEW CONSTRUCTION AND RE-ESTABLISH FINISH GRADE.
- MATERIALS:

PLANT MATERIALS: PLANT MATERIALS TO BE GRADE NO. 1, SIZED IN ACCORDANCE WITH (AAA) AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z60.1-1999). PRIME PLANTS RECEIVED FROM THE NURSERY ONLY UPON AUTHORIZATION BY THE OWNER. "CONT." INDICATES CONTAINER, AND "GAL." INDICATES GALLON.

A) SPECIFIED PLANT CANOPY SIZE OR CALIPER IS THE MINIMUM ACCEPTABLE CONTAINER OR BALL SIZE ESTABLISHES MINIMUM PLANT CONDITION TO BE PROVIDED.

B) QUALITY: PLANT MATERIAL TO COMPLY WITH STATE AND FEDERAL LAWS FOR DISEASE INSPECTION, PLANTS TO BE FULLY LIVE, VIGOROUS, WELL FORMED, WITH WELL DEVELOPED FIBROUS ROOT SYSTEMS. ROOT BALLS OF PLANTS TO BE SOLID AND FIRMLY HELD TOGETHER, SECURELY CONTAINED AND PROTECTED FROM INJURY AND DESICCATION. PLANTS DETERMINED BY LANDSCAPE ARCHITECT TO HAVE BEEN DAMAGED; HAVE DEFORMITIES OF STEM, BRANCHES, OR ROOTS; LACK SYMMETRY; HAVE MULTIPLE LEADERS OR "Y" CROTCHES LESS THAN 30 DEGREES IN TREES; OR DO NOT MEET SIZE OR ANSI STANDARDS WILL BE REJECTED. PLANT MATERIAL TO BE FROM A SINGLE NURSERY SOURCE FOR EACH SPECIFIED SPECIES/HYBRID. NURSERY SOURCES TO BE THOSE LOCATED IN THE SAME REGION AS THE JOB SITE.

C) SUBSTITUTION: NO SUBSTITUTION OF PLANT MATERIAL, SPECIES OR VARIETY, WILL BE PERMITTED. SUBSTITUTIONS WHICH ARE PERMITTED TO BE IN WRITING FROM THE OWNER. THE SPECIFIED SIZE, SPECIES AND NEAREST VARIETY, AS APPROVED, TO BE FURNISHED. SUBSTITUTIONS MAY REQUIRE RE-SUBMITTAL OF A REVISED LANDSCAPE PLAN TO CITY FOR APPROVAL.

8. SOIL PREPARATION: AMENDED NATIVE SOIL ARE REQUIRED FOR ALL NEW AND DISTURBED LANDSCAPE AREAS.

A) NATIVE SURFACE SOIL: NATIVE SOIL TO BE USED FOR BACK FILL AND AMENDED AS INDICATED BELOW.

B) AMENDMENT

- SOIL FOR PLANTING AREAS SHALL CONTAIN A MINIMUM OF 10 PERCENT ORGANIC MATERIAL, BY VOLUME.
- ORGANIC COMPOST: USE BULK NITROGEN FORTIFIED GROUND FIR BARK SATISFYING THE ORGANIC MATERIAL REQUIREMENTS. COMPOST SHALL BE FREE FROM NON-FARM ANIMAL SOURCES, NOR FROM SOURCES CONTAINING REDWOOD/CEDAR PRODUCTS.
- FERTILIZER: INSTALLATION FERTILIZER SHALL BE 6-20-20. MAINTENANCE FERTILIZER SHALL BE 21-0-0. AGRIFORM TABLETS SHALL BE 21 AND 5 GRAM SIZE, 20-10-5 BY AGRIFORM INTERNATIONAL CHEMICALS, INC. OR EQUIVALENT.
- SOIL AMENDMENTS: SOIL SULFUR 20 POUNDS PER 1,000 SF. ORGANIC AMENDMENT 4 CUBIC YARDS PER 1,000 SF. N-P-K FERTILIZER 10 POUNDS PER 1,000 SF.

C) PLANTING BACKFILL: BACKFILL MIX FOR TREES, SHRUBS, AND GROUNDCOVERS SHALL BE PREMIXED AND CONSIST OF:

SITE SOIL 0.8 CUBIC YARDS
ORGANIC AMENDMENT 0.2 CUBIC YARDS
FERTILIZER 6-20-20 1.0 POUND
IRON SULFATE 2.0 POUNDS
SLOW RELEASE FERTILIZER TABLETS:

CONTAINER SIZE # OF TABLETS
FLAT 1 - 5 GRAM
1 GALLON 3 - 5 GRAM
5 GALLON 3 - 21 GRAM
15 GALLON 16 - 21 GRAM
24" BOX 32 - 21 GRAM

D) TOPSOIL PREPARATION: REMOVE FROM SITE ALL WEEDS AND DEBRIS WITHIN ALL PROPOSED LANDSCAPE AREAS. DO NOT WORK SOIL WHEN MOISTURE CONTENT IS SO GREAT THAT EXCESS COMPACTION WILL OCCUR NOR WHEN IT IS SO DRY THAT DUST WILL FORM IN THE AIR OR THAT CLOUDS WILL NOT BREAK EASILY. APPLY WATER IF NECESSARY TO PROVIDE IDEAL MOISTURE CONTENT FOR FILLING AND PLANTING AS SPECIFIED. REMOVE ALL SURFACE LUMPS, ROCKS, VEGETATION, AND/OR DEBRIS LARGER THAN 1-INCH FROM ALL PLANTING GRADES PRIOR TO ANY PLANT INSTALLATION. FINISH GRADE ALL PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE DRAINING AWAY FROM TANK PAD. FINISH GRADES TO BE APPROVED PRIOR TO PLACEMENT OF ANY PLANT MATERIAL.

9. STAKES: 2-INCH DIAMETER BY 10-FOOT MINIMUM LODGEPOLE PINE. ONE END POINTED.

10. GUYING MATERIAL: 1-INCH WIDE POLYETHYLENE CHAIN LOCK TYPE TIES; OR 3/8-INCH DIAMETER BLACK RUBBER. NO WIRE ALLOWED.

11. MULCH: NITULIZED BROKEN BARK MULCH, SHREDDED WOOD WILL NOT BE ALLOWED. MATCH EXISTING MULCH.

EXECUTION:

12. FINISH GRADES: FINE GRADE AND REMOVE ROCKS AND FOREIGN OBJECTS OVER TWO INCHES (2") DIAMETER FROM TOP THREE INCHES (3") OF PREPARED PLANTING BED. FINISH ELEVATION TO BE DEFINED AS THREE (3") BELOW PAVEMENT. ALL FINISH GRADES TO BE SMOOTH EVEN GRADES, LIGHTLY COMPACTED, AS SHOWN ON THE PLAN AND DETAILED. SITE CIVIL DRAWINGS IDENTIFY FINAL ELEVATIONS.

13. TREES AND SHRUBS: ARRANGE TREES AND SHRUBS ON SITE IN PROPOSED LOCATIONS PER DRAWINGS. EXCAVATE PIT, PLANT AND STAKE AND GUY AS CALLED OUT AND DETAILED. ALL TREES, SUPPORTS AND SHRUBS TO STAND VERTICAL. BACK FILL SHALL BE PIT SPOOLS. SETTLE BACKFILL USING WATER ONLY. NO MECHANICAL COMPACTION. PROVIDE TREE ROOT BARRIER ON BOTH SIDES OF TREE, 10 FOOT LENGTH CENTERED ON TREE TRUNK.

14. MULCH: MULCH NEW AND DISTURBED LANDSCAPE AREAS. APPLY SUFFICIENT QUANTITY TO PROVIDE A MINIMUM OF THREE INCHES (3") DEPTH. MATCH EXISTING LAYER DEPTH IF MORE THAN TWO INCHES.

15. IRRIGATION: THE MODIFIED IRRIGATION SYSTEM TO BE ADJUSTED FOR BALANCED, WATER DISTRIBUTION, AND PRECIPITATION. FAILED OR MALFUNCTIONING IRRIGATION EQUIPMENT TO BE REPLACED AND/OR CORRECTED.

16. EXISTING CONDITIONS: THIS PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF LANDSCAPE AND IRRIGATION RECORD OR AS-BUILT DRAWINGS NOR SITE VISITS. EXISTING INFORMATION HAS BEEN ASSUMED. CONTRACTOR TO VERIFY ALL CONDITIONS PRIOR TO STARTING ANY WORK AND NOTIFY OWNER OF ANY CONFLICTS.

PRUNE DAMAGED TWIGS AFTER PLANTING
PLACE IN VERT. POSITION: DOUBLE LEADERS WILL BE REJECTED

NOTE:
KEEP ROOTBALL MOIST AND PROTECTED AT ALL TIMES.
HOLD CROWN OF ROOTBALL AT OR JUST ABOVE FINISH GRADE.
PROTECT TRUNK AND LIMBS FROM INJURY.
BACKFILL TO BE SETTLED USING WATER ONLY - NO MECHANICAL COMPACTION.
REMOVE ALL WRAP, TIES & CONTAINERS, REGARDLESS OF MATERIAL.

(2) LODGEPOLE STAKES, PLUMB WITH ELASTIC CHAIN-LOCK TYPE OR RUBBER GUYS TIED IN FIGURE EIGHT; REMOVE AFTER ONE GROWING SEASON.
PROTECTIVE WRAPPING DURING SHIPMENT TO SITE AND INSTALLATION REMOVE AT COMPLETION OF PLANTING

HOLD MULCH LAYER BACK FROM TRUNK 6" TO 10"
FINISH GRADE

PREPARE PLANTING BED PER SPEC'S; AT MIN., LOSSEN AND MIX SOIL TO 18" OR DEPTH OF ROOTBALL AND 2 TIMES BALL DIA. SOIL TO 18" OR DEPTH OF ROOTBALL AND 2 TIMES BALL DIA.

REMOVE ALL WRAP, TIES, AND CONTAINERS
SCORE ROOTBALL AND WORK NURSERY SOIL AWAY FROM PERIMETER ROOTS

SET BALL ON UNDISTURBED BASE OR COMPACTED MOUND UNDER BALL
PENETRATION TO SUBBASE (+) 24"

NOT TO SCALE

PRUNE DAMAGED TWIGS AFTER PLANTING
PLACE IN VERT. POSITION

NOTE:
KEEP ROOTBALL MOIST AND PROTECTED AT ALL TIMES.
HOLD CROWN OF ROOTBALL AT OR JUST ABOVE FINISH GRADE.
PROTECT TRUNK AND LIMBS FROM INJURY.
BACKFILL TO BE SETTLED USING WATER ONLY - NO MECHANICAL COMPACTION.

(1) LODGEPOLE STAKE, PLUMB WITH CINCH TIES
INSTALL STAKE ON UNIT SIDE OF SHRUB

HOLD MULCH BACK 6" FROM TRUNK
FINISH GRADE

PREPARE PLANTING BED PER SPEC'S;
PIT TO BE 2 TIMES BALL DIA.

REMOVE ALL WRAP, TIES, AND CONTAINERS
SCORE ROOTBALL AND WORK NURSERY SOIL FROM PERIMETER ROOTS

SET BALL ON UNDISTURBED BASE OR COMPACTED MOUND UNDER BALL
PENETRATION TO SUBBASE (+) 24"

NOT TO SCALE

PLACE IN VERT. POSITION

NOTE:
KEEP ROOTBALL MOIST AND PROTECTED AT ALL TIMES.
HOLD CROWN OF ROOTBALL AT OR JUST ABOVE FINISH GRADE.
BACKFILL TO BE SETTLED USING WATER ONLY - NO MECHANICAL COMPACTION.

HOLD MULCH BACK 6" FROM SHRUB BASE
FINISH GRADE

PREPARE PLANTING BED PER SPEC'S;
PIT TO BE 2 TIMES BALL DIA.

REMOVE ALL WRAP, TIES, AND CONTAINERS
SCORE ROOTBALL AND WORK NURSERY SOIL FROM PERIMETER ROOTS

SET BALL ON UNDISTURBED BASE OR COMPACTED MOUND UNDER BALL
PENETRATION TO SUBBASE (+) 24"

NOT TO SCALE

SHRUB PLANTING DETAIL

NOT TO SCALE

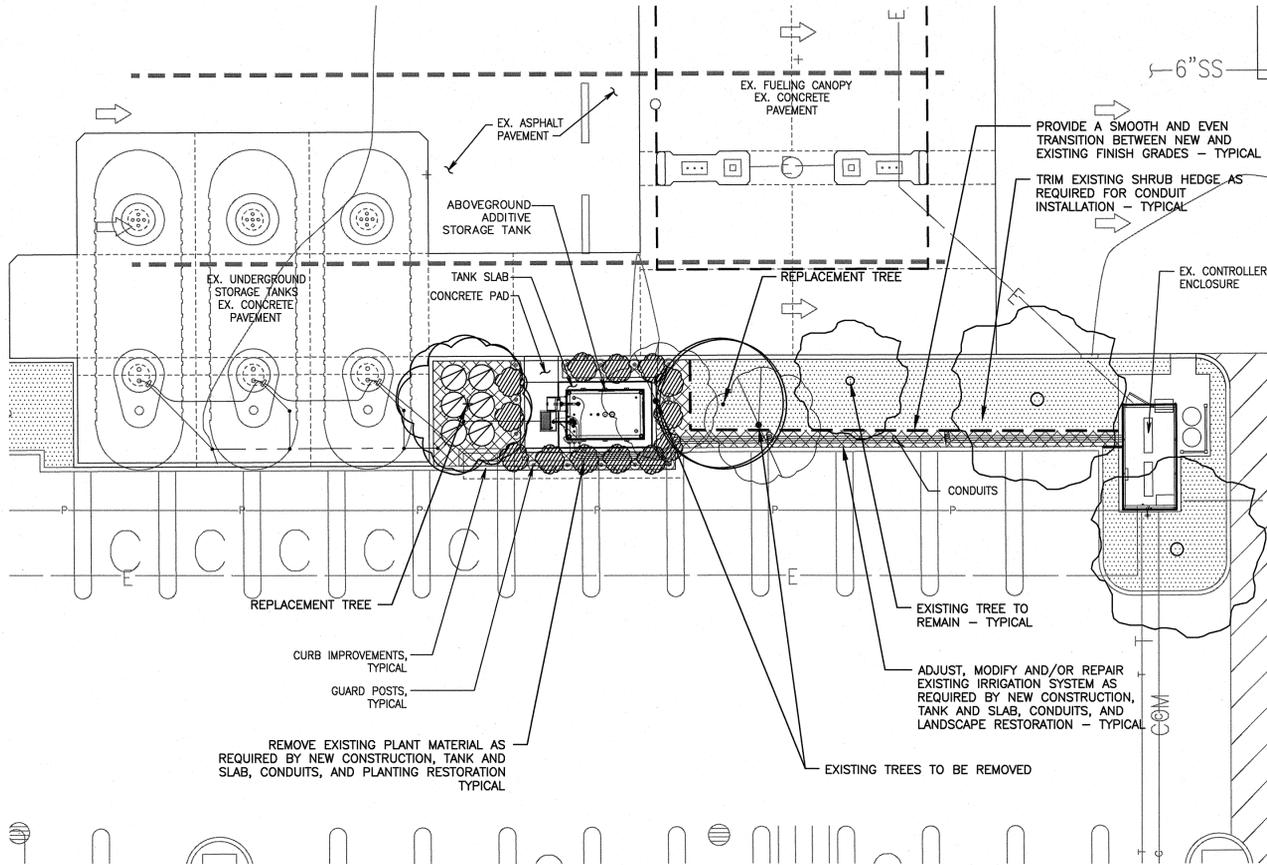
3" MIN. MULCH LAYER, MATCH EXISTING MULCH LAYER DEPTH

1" MAX. TOP OF CURB TO TOP OF MULCH

CURB

MULCH AT CURB DETAIL

NOT TO SCALE



LANDSCAPE PLANT MATERIAL LEGEND

SYMBOL	BOTANICAL / COMMON NAMES	SIZE CONDITION	SPACING	QUANTITY	REMARKS
(Symbol: Circle with dot)	TREES:				
(Symbol: Circle with dot)	EXISTING TREE				TO REMAIN, SAVE, AND PROTECT
(Symbol: Circle with cross)	EXISTING TREE			2	TO BE REMOVED
(Symbol: Circle with cross)	FRAXINUS OXCARPA 'RAYWOOD' / RAYWOOD ASH (REPLACEMENT TREE)	24" BOX	AS SHOWN	1	MATCH EXISTING TREE SPECIES, VERIFY SPECIES ON SITE, STAKE AND GUY ONE GROWING SEASON, BRANCHED AT 6', NURSERY GROWN FOR STREET TREE USE
(Symbol: Circle with cross)	LAGERSTROEMIA INDICA / GRAPE MYRTLE (REPLACEMENT TREE)	24" BOX	AS SHOWN	1	MATCH EXISTING TREE SPECIES, VERIFY SPECIES ON SITE, STAKE AND GUY ONE GROWING SEASON, BRANCHED AT 6', NURSERY GROWN FOR STREET TREE USE
(Symbol: Circle with cross)	SHRUBS:				
(Symbol: Circle with cross)	PODOCARPUS MACROPHYLLUS MAKI / SHRUBBY YEW PINE	15 GALLON 5'-7" HT. 1.5'-2" WIDE	AS SHOWN	13	MATCH FORM AND HEIGHT, FULL AND BUSHY, STAKE AS INDICATED ON DETAIL
(Symbol: Circle with cross)	PITTIOSPORUM TOBIRA 'VARIGATA' / VARIGATED TOBIRA	5 GALLON 24" HT.	3' O.C.	6	MATCH FORM AND HEIGHT, FULL AND BUSHY
(Symbol: Circle with cross)	GROUNDCOVERS:				
(Symbol: Circle with cross)	MULCH			COVER	3" LAYER, MATCH EXISTING MULCH MATERIAL, VERIFY MATERIAL ON SITE
(Symbol: Circle with cross)	EXISTING LANDSCAPE AND IRRIGATION				TO REMAIN, SAVE, PROTECT, AND/OR REPAIR AS REQUIRED BY NEW CONSTRUCTION

DENOTES LINE OF TRANSITION BETWEEN NEW CONSTRUCTION AND EXISTING CONDITIONS

Revision
2 10/15/13 USC PERMITS RELEASE
1 11/06/14 ANS CIVIL PERMITS RELEASE
No. 1 Date 1 By Cdr. Appr.

Title: LANDSCAPE PLANTING MODIFICATION PLAN
ADDITIVE TANK ADDITION
7100 NORTH ABBY
FRESNO, CA 93720
COSTCO GASOLINE FACILITY #657

For: **COSTCO GASOLINE**
COSTCO WHOLESALE
999 LAKE DRIVE
ISSAQUAH, WA 98027

REGISTERED LANDSCAPE ARCHITECT
ARTHUR M. SEITZ
1539
Signature
10/15/13
Exp. Date
STATE OF CALIFORNIA

Scale:
Horizontal 1"=10'-0"
Vertical N/A

Designed: JML
Drawn: JML
Checked: JMS
Approved: HEG
Date: 11/15/12

18215 72ND AVENUE SOUTH
KENT, WA 98032
(425)251-6222 FAX
(425)251-8782
CIVIL ENGINEERING, LAND PLANNING,
SURVEYING, ENVIRONMENTAL SERVICES

BARGHAUSEN CONSULTING ENGINEERS

Job Number: 10121
Sheet: L1 of 13