



COUNTY OF SAN JOAQUIN

DEPARTMENT OF PUBLIC WORKS
P.O. BOX 1810-1810 E. HAZELTON AVENUE
STOCKTON, CALIFORNIA 95201
(209) 468-3000
FAX # (209) 468-9324

Permit No: PS-1603469
Date Issued: 11/01/2016
Start Date: 11/01/2016
Exp. Date: 12/01/2016
Project No: PWP730052
Quad: SW

UE/CR/PM NO:31237356

ENCROACHMENT PERMIT

To: PACIFIC GAS & ELECTRIC - SAN RAMON
6121 BOLLINGER CANYON ROAD
SAN RAMON, CA 94583

Encroachment Type:

Trench			
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Location:

W/S CHRISMAN RD 2,800' N/O VERNALIS RD

In compliance with your request of 11/01/2016, permission is hereby granted to do work in County right-of-way as shown on attached application and subject to all the terms, conditions and restrictions written below or printed as general or special provisions on any part of this form. See reverse side and attached sheet, if any.

Trench excavations for service connections will not be permitted within ten feet (10') of pavement centerline unless otherwise approved by the Director. Surface of trench patches shall match in kind and be smooth and even with that of abutting surface. Special attention shall be given to depth of utilities through roadside area in anticipation of future drainage facilities, road profile and/or frontage development. All underground utility facilities are to be established and accurately dimensioned on sketches from surveyed centerline of road right of way, or from right of way (border) lines.

Permittee shall call the Department of Public Works, Field Engineering Division (Permit Inspections) at (209)953-7421 at least forty-eight hours prior to beginning any work within the County right of way. All work performed under this permit shall conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety and Cal-OSHA.

The jobsite shall be kept in a safe condition at all times by the daily removal of any excess dirt or debris which might be a hazard to either pedestrian or automobile traffic. All necessary traffic convenience and warning devices and personnel shall be provided, placed and maintained by and at the sole expense of the Permittee in accordance with the latest edition of the CALTRANS Manual of Traffic Control.

After completion of the work permitted herein, all debris, lumber, barricades, or any excess material shall be removed and the jobsite left in a neat workmanlike manner. Immediately following completion of construction permitted herein, Permittee shall fill out and mail notice of completion (see attached post card) provided by Grantor.

Special Comments:

Traffic Control Per MUTCD

FORMS:

SS/WW, R-29		
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Est. Permit Fee: \$768.00

WHITE	-Permittee
GOLDENROD	-PWD Central File
YELLOW	-Field Inspection
PINK	-Permit Section

KRIS BALAJI, Director
Department of Public Works

By: 
Permit Section

ENCROACHMENT PERMIT GENERAL PROVISIONS

13-1.

1. This permit is issued under and subject to all laws and ordinances of agencies governing the encroachment herein permitted. See the following references:
STREETS AND HIGHWAYS CODE
 1. Division 1, Chapter 3
 2. Division 2, Chapter 2, Section 942
 3. Division 2, Chapter 4, Section 1126
 4. Division 2, Chapter 5.5 and Chapter 6
SAN JOAQUIN COUNTY ORDINANCES NUMBERED: 324, 441, 648, 662, 672, 695, 700, 860, 892, 3359, and 3675.
2. It is understood and agreed by the Permittee that the performance of any work under this permit shall constitute an acceptance of all the provisions contained herein and failure on the Permittee's part to comply with any provision will be cause for revocation of this permit. Except as otherwise provided for public agencies and franchise holders, this permit is revocable on five days notice.
3. All work shall be done subject to the supervision of and the satisfaction of the grantor. The Permittee shall at all times during the progress of the work keep the County Highway in as neat and clean condition as is possible and upon completion of the work authorized herein, shall leave the County Highway in a thoroughly neat, clean and usable condition.
4. The Permittee also agrees by the acceptance of this permit to properly maintain any encroachment structure placed by the Permittee on any part of the County Highway and to immediately repair any damage to any portion of the highway, which occurs as a result of the maintenance of the said encroachment structure, until such time as the Permittee may be relieved of the responsibility for such maintenance by the County of San Joaquin.
5. The Permittee also agrees by the acceptance of this permit to make, at its own expense, such repairs as may be deemed necessary by the County Department of Public Works.
6. It is further agreed by the Permittee that whenever construction, reconstruction or maintenance work upon the highway is necessary, the installation provided for herein shall, upon request of the County Department of Public Works, be immediately moved or removed by and at the sole expense of the Permittee.
7. No material used for fill or backfill in the construction of the encroachment shall be borrowed or taken from within the County right of way.
8. All work shall be planned and carried out with as little inconvenience as possible to the traveling public. No material shall be stacked within eight feet (8') of the edge of the pavement or traveled way unless otherwise provided herein. Adequate provision shall be made for the protection of the traveling public. Traffic control standards shall be utilized including barricades; approved signs and lights; and flagmen, as required by the particular work in progress.
9. The Permittee, by the acceptance of this permit, shall assume full responsibility for all liability for personal injury or damage to property which may arise out of the work herein permitted or which may arise out of the failure of the part of the Permittee to properly perform the work provided under this permit. In the event any claim of such liability is made against the County of San Joaquin or any department, official or employee thereof, the Permittee shall defend, indemnify, and hold each of them harmless for such claim.
10. All backfill material is to be moistened as necessary and thoroughly compacted with mechanical means. If required by the County Director of Public Works, such backfill shall consist of gravel or crushed rock. The Permittee shall maintain the surface over structures placed hereunder as may be necessary to insure the return of the roadway to a completely stable condition and until relieved of such responsibility by the County Department of Public Works. Wherever a gravel, crushed rock or asphalt surface is removed or damaged in the course of work related to the permitted encroachment, such material shall either be separately stored and replaced in the roadway as nearly as possible in its original state or shall be replaced in kind, and the roadway shall be left in at least as good a condition as it was before the commencement of operations of placing the encroachment structure.
11. Whenever it becomes necessary to secure permission from abutting property owners for the proposed work, such authority must be secured by the Permittee prior to starting work.
12. The current and future safety and convenience of the traveling public shall be given every consideration in the location and methods of construction utilized.
13. The Permittee is responsible for the preservation of survey monuments located within the area of work herein permitted. Prior to the start of construction, survey monuments that potentially may be disturbed shall be located and referenced by a Licensed Land Surveyor, and a Corner Record filed with the County Surveyor. Any Survey Monuments disturbed during the course of construction shall be reestablished by a Licensed Land Surveyor and another Corner Record filed with the County Surveyor. (Land Surveyors' Act Section 8771)
14. Prior to any excavation, the Permittee shall notify USA North (Underground Service Alert of Northern California and Nevada) at 811 or 800-227-2600 forty-eight (48) hours in advance.

RECEIVED
SAN JOAQUIN COUNTY
APPLICATION FOR ENCROACHMENT PERMIT

2016 AUG 25 PM 2:17

PLEASE PRINT:

DEPT. OF PUBLIC WORKS

OFFICE USE ONLY

Date 8/23/16To: San Joaquin County
Department of Public Works

PG&E - Modesta Jacquez

(Applicant Name)

6121 Bollinger Canyon Rd., BR1Z4D

(Mailing Address)

San Ramon, CA 94583

(City, State, Zip Code)

925-244-3813

(Area Code - Telephone Number)

JOB #	<u>730052</u>	REF #	
APN		CR #	
EXP. DATE	<u>12-1-16</u>		
VALID	<u>11-1-16</u> TO <u>12-1-16</u>	DRIVEWAYS:	
STREET	<u>Chrisman</u>	*	
AREA	<u>Tracy</u> QUAD <u>SW</u>	*	
TYPE	<u>Trench</u>	*	
FORMS			
NOTES			

Sketch (Detailed plans may be submitted)

plan submitted

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the west side of N Chrisman Rd approximately 2800 feet feet/mile north of Vernalis Rd, by performing the following work (description of work):

Install a new cathodic protection system which includes a 300' extra deep well anode on North Chrisman Rd and attach to two existing gas transmission lines running perpendicular to Chrisman Rd. Install a tuft box on the shoulder of the road.


The new rectifier and anode junction box associated with the new well will be installed on an existing PG&E pole.

To perform work will need to excavate two 4'x4' bell holes and a 1' trench approximately 200' long.

traffic control required

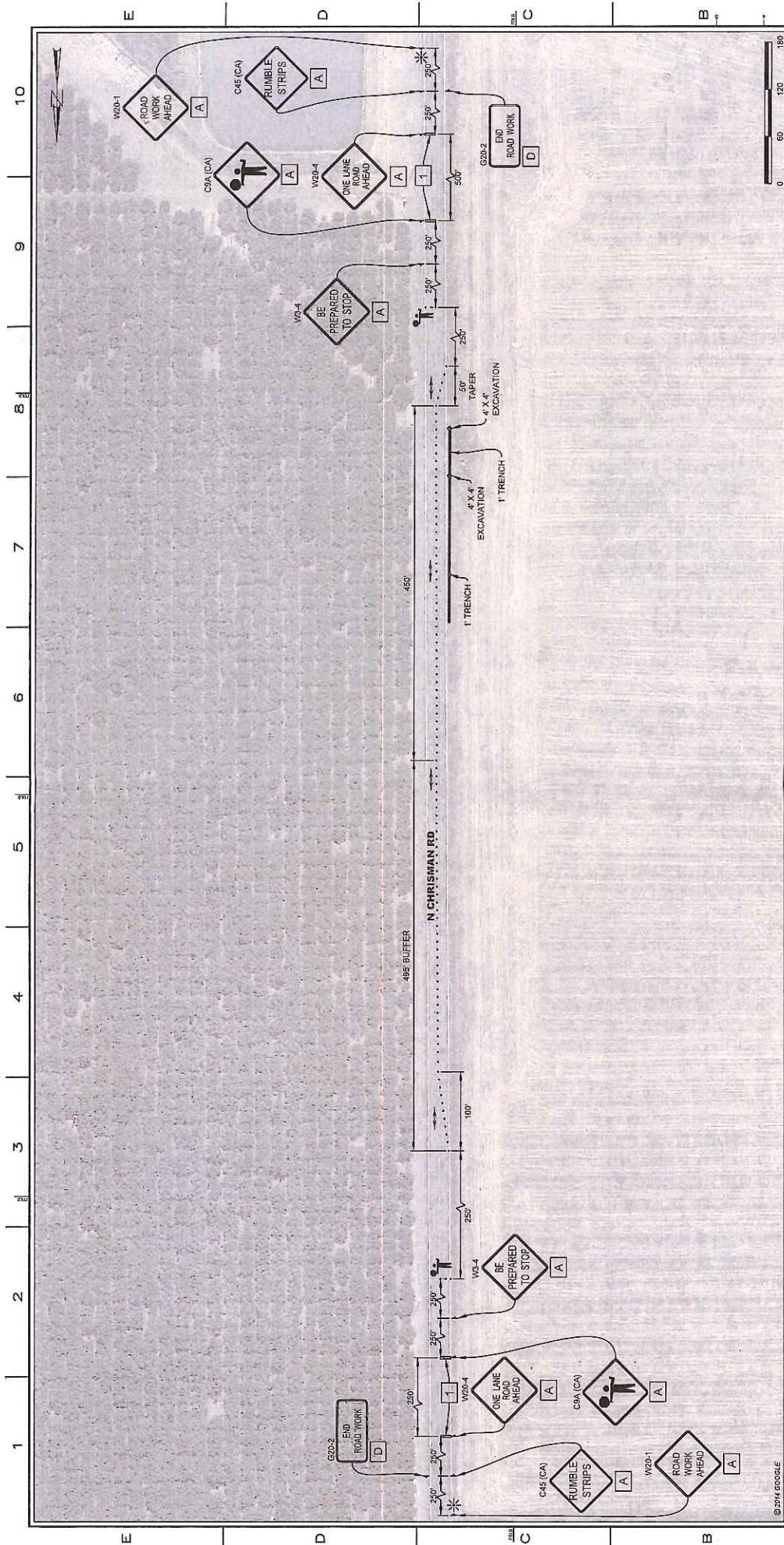
Work will commence on or about 9/27/16 for approximately 30 days.

I, the undersigned, certify that I am the owner of the respective property, or am qualified to represent the owner and agree to do the work described above in accordance with the rules and regulations of San Joaquin County and subject to inspection and approval.

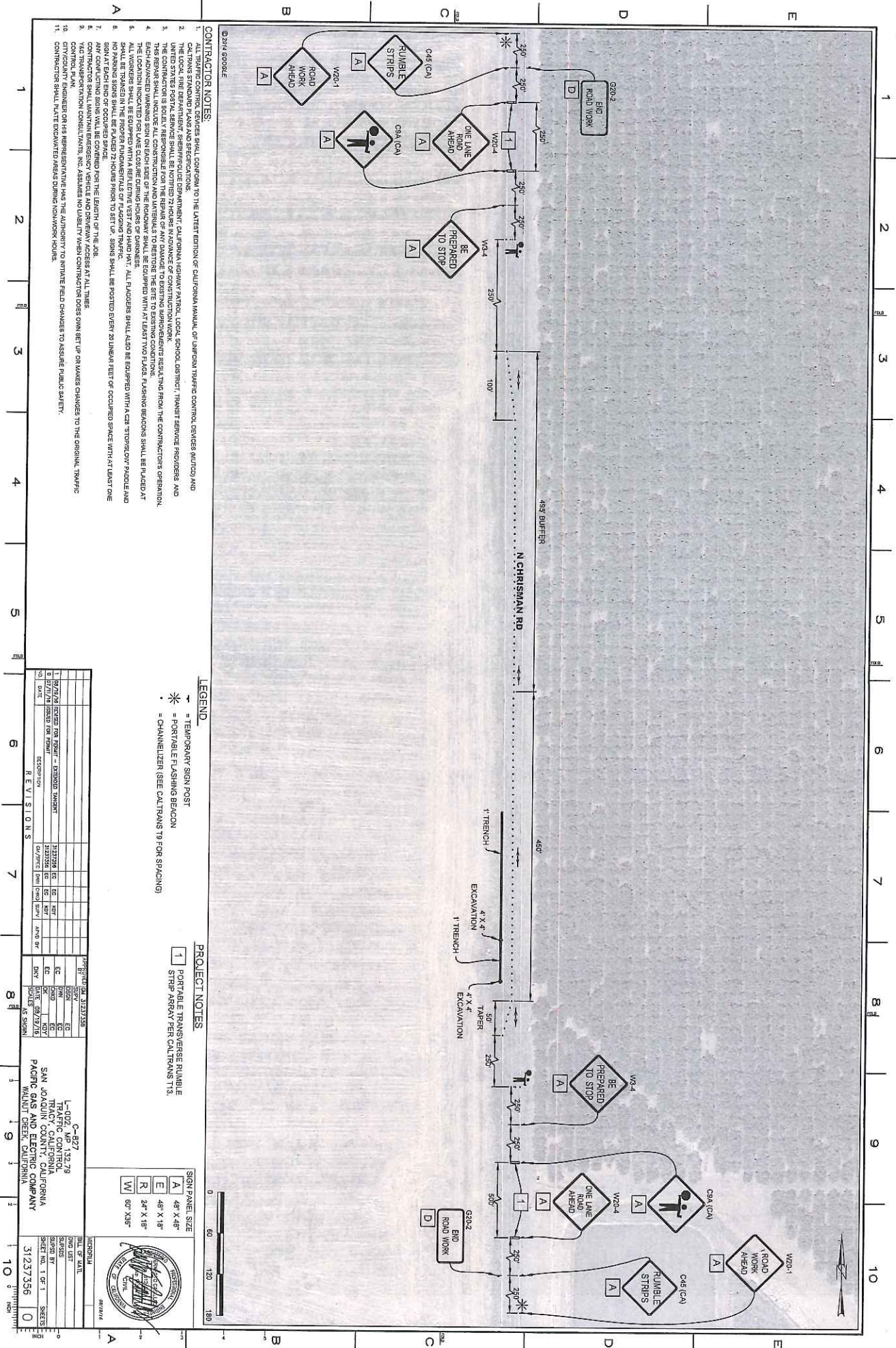

Signature of Applicant - Title

8/23/16

Date

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CONTRACTOR NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE LOCAL FIRE DEPARTMENT, BIRMINGHAM POLICE DEPARTMENT, CALIFORNIA HIGHWAY PATROL, LOCAL SCHOOL DISTRICT, TRANSIT SERVICE PROVIDER, AND THE CONTRACTOR SHALL BE NOTIFIED 72 HOURS IN ADVANCE OF CONSTRUCTION WORK.
2. THE CONTRACTOR SHALL MAINTAIN ADEQUATE TRAFFIC CONTROL THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL MAINTAIN ADEQUATE TRAFFIC CONTROL THROUGHOUT THE PROJECT.
3. THE REPAIR SHALL INCLUDE ALL CONSTRUCTION AND MATERIALS TO RESTORE THE SITE TO EXISTING CONDITIONS.
4. EACH ADVANCED WARNING SIGN ON EACH SIDE OF THE ROADWAY SHALL BE EQUIPPED WITH AT LEAST TWO FLASHING BEACONS. FLASHING BEACONS SHALL BE PLACED AT THE LOCATION INDICATED REGARDING TO THE DIRECTION OF TRAVEL. ALL FLASHERS SHALL ALSO BE EQUIPPED WITH A C28 STOP/SLOW PADDLE AND NO PARKING SIGNS SHALL BE PLACED 72 HOURS PRIOR TO SET UP. SIGNS SHALL BE POSTED EVERY 20 LINEAR FEET OF OCCUPIED SPACE WITH AT LEAST ONE SIGN AT EACH END OF OCCUPIED SPACE.
5. ALL ADVANCED WARNING SIGNS SHALL BE PLACED 100' FROM THE BEGINNING OF THE WORK AREA.
6. CONTRACTOR SHALL MAINTAIN ADEQUATE TRAFFIC CONTROL THROUGHOUT THE PROJECT.
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11. CONTRACTOR SHALL MAINTAIN ADEQUATE TRAFFIC CONTROL THROUGHOUT THE PROJECT.

LEGEND

- * = TEMPORARY SIGN POST
- * = PORTABLE FLASHING BEACON
- * = CHANNELIZER (SEE CALTRANS 19 FOR SPACING)

PROJECT NOTES

1. PORTABLE TRANSVERSE RUMBLE STRIP ARRAY PER CALTRANS T13.

REVISIONS				APPROVALS			
NO.	DATE	DESCRIPTION	BY	DATE	BY	DATE	BY
1	08/17/16	DESIGNED FOR PERMIT - EXISTING ALIGNMENT	31237356	EC	08/17/16	EC	08/17/16
2	07/17/16	REVISED FOR PERMIT	31237356	EC	07/17/16	EC	07/17/16
3	07/17/16	REVISED FOR PERMIT	31237356	EC	07/17/16	EC	07/17/16
4	07/17/16	REVISED FOR PERMIT	31237356	EC	07/17/16	EC	07/17/16
5	07/17/16	REVISED FOR PERMIT	31237356	EC	07/17/16	EC	07/17/16
6	07/17/16	REVISED FOR PERMIT	31237356	EC	07/17/16	EC	07/17/16
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8	07/17/16	REVISED FOR PERMIT	31237356	EC	07/17/16	EC	07/17/16
9	07/17/16	REVISED FOR PERMIT	31237356	EC	07/17/16	EC	07/17/16
10	07/17/16	REVISED FOR PERMIT	31237356	EC	07/17/16	EC	07/17/16
11	07/17/16	REVISED FOR PERMIT	31237356	EC	07/17/16	EC	07/17/16



C-827
TRAFFIC CONTROL
SAN JOAQUIN COUNTY, CALIFORNIA
PACIFIC GAS AND ELECTRIC COMPANY
WALNUT CREEK, CALIFORNIA

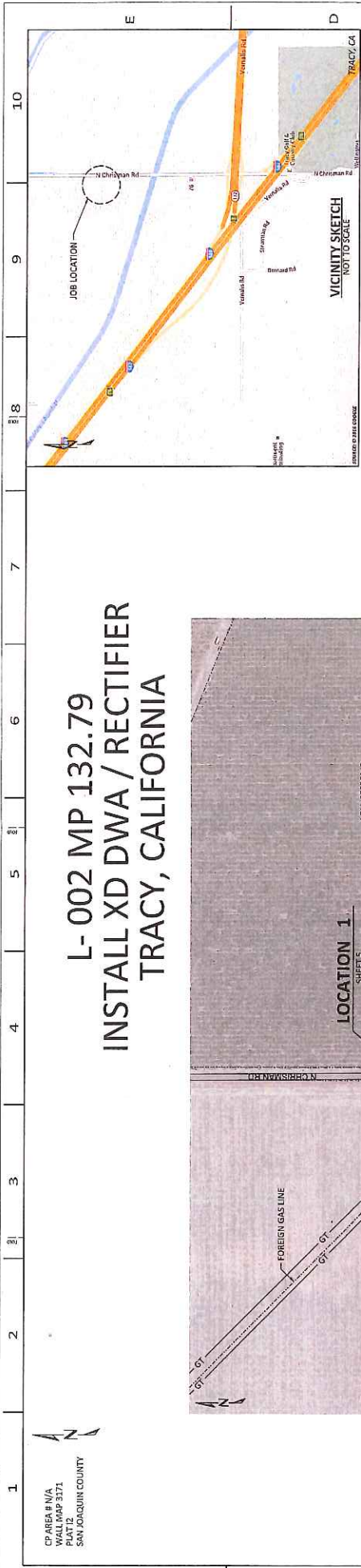
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4 SETS
OF PLANS

SCHEDULE OF SHEETS

- ## SCHEDULE OF SHEETS

[illegible]

SUMMARY OF PROPOSED WORK:

1. INSTALL 300' DEEP WELL ANODE ASSEMBLY AT LOCATION 1.
2. INSTALL ANODE JUNCTION TUBBOX.
3. INSTALL ANODE JUNCTION RECTIFIER, (IN AC DISCONNECT, BOX ON (E) POWER POLE.
4. INSTALL (2) GROUND RODS.

CONSTRUCTION NOTES:

GENERAL REQUIREMENTS:

1. UNDERGROUND SERVICE ALERT:
CALL 811 (4-800-227-260) A MINIMUM OF 5 BUSINESS DAYS (NOT INCLUDING INITIAL DAY OF CONTRACT) IN ADVANCE FOR THE MARKING OF UNDERGROUND UTILITIES, INCLUDING ALL NON-UTILITIES BEFORE YOU DIG, GRADE, OR EXCAVATE.
2. UTILITY NOTES: SHOWN ON THESE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION FROM SEVERAL SOURCES, AND SHALL BE VERIFIED IN THE FIELD BY CONSTRUCTION PERSONNEL PRIOR TO FABRICATION.
A. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UTILITIES IS FOR INFORMATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UTILITIES.
B. PROSPECTING IS REQUIRED AHEAD OF WORK. ALL OFFSETS OR ROPIING WILL NEED TO BE MADE AND CONSTRUCTION SHALL BE MADE IN ACCORDANCE WITH THE DETAILS SHOWN ON PROFILE AND EXCAVATIONS WITHIN EXISTING STATIONS SHALL BE HAND DUG OR EXCAVATED USING SOFT DIG METHODS (E.G. VACUUM EXCAVATIONS OR SIMILAR).
3. ELBOWS AND FIELD BENDS:
A. ALL BENDS ARE SMOOTH FIELD BENDS, EXCEPT WHERE ELBOWS ARE SHOWN. FIELD BENDS OF ELBOWS WHEN PREPARED BY THE FIELD SHALL BE SMOOTHED TO A MINIMUM RADIUS OF 10 FEET. IN ORDER TO AVOID EXCESSIVE STRAIN ON THE PIPELINE, THERE SHALL BE A MINIMUM BEND RADIUS OF 5 FEET BETWEEN A ROPE SECTION OF PIPELINE AND ANY ELBOWS OR FIELD BENDS.
B. ALL ANGLES SHOWN IN THE PLAN AND PROFILE ARE APPROXIMATE AND SHALL BE CUT TO SUIT FIELD CONDITIONS.
4. SEPARATION FROM OTHER STRUCTURES:
A. CROSSING CLEARANCE FROM ANY OTHER STRUCTURE/UTILITY NOT ASSOCIATED WITH THE PIPELINE SHALL BE MAINTAINED. THE PIPELINE MUST BE INSTALLED WITH AT LEAST 18" CLEARANCE FROM ANY OTHER UNDERGROUND STRUCTURE/UTILITY NOT ASSOCIATED WITH THE PIPELINE.
B. PARALLELING UNDERGROUND FACILITIES: THIS PIPELINE MUST BE INSTALLED WITH AT LEAST 18" CLEARANCE FROM ANY OTHER UNDERGROUND STRUCTURE/UTILITY NOT ASSOCIATED WITH THE PIPELINE (UNLESS NOTED ON THE DRAWINGS).
5. RESTORATION AND CLEAN UP:
A. THE CONTRACTOR SHALL RESTORE ALL AREAS DAMAGED BY THE PIPELINE TO ORIGINAL CONDITION OR BETTER. ALL GRASS OR SPOOLS SHALL BE A MINIMUM LENGTH OF ONE PIPE DIAMETER, WHERE EVER THERE ARE ROWS, THE TOPSOIL SHALL BE REMOVED TO A DEPTH OF 12" AND THE SOIL TO BE REPLACED TO ORIGINAL CONDITION AND SUBSOIL.
B. EXISTING GIRTH WELDS, AT THE IN LOCATIONS, SHALL BE IDENTIFIED AND REMOVED IF PRACTICAL.
6. WELDING REQUIREMENTS:
A. ALL WELDING IS TO BE PERFORMED IN ACCORDANCE WITH THE GAS WELDING CONTROL, WELDING PROCEDURE, ALL GASKETS OR SPOOLS SHALL BE A MINIMUM LENGTH OF ONE PIPE DIAMETER, WHERE EVER THERE ARE ROWS, THE TOPSOIL SHALL BE REMOVED TO A DEPTH OF 12" AND THE SOIL TO BE REPLACED TO ORIGINAL CONDITION AND SUBSOIL.
B. INSTALL TEST STATIONS WITH THERMITE WELD CONNECTION IN ACCORDANCE WITH GAS 1 & D CORROSION CONTROL MANUAL O-10, O-10.1 AND O-10.2.
7. WHEN INTERNAL MISALIGNMENT EXCEEDS 0.094", BACKWELD ANY GIRTH WELD WHERE THERE IS MACHINE BORING OR GRINDING. WHERE THERE IS NO ACCESS TO THE INSIDE OF THE WELD, DONE IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROCEDURE IN THE GAS WELDING CONTROL MANUAL TD-4180M.
8. STRENGTH TEST REQUIREMENTS:
A. STRENGTH TESTING SHALL MEET PRESSURE AND DURATION REQUIREMENTS OF GAS STANDARD TD-4180M.
B. ALL WELDS THAT HAVE NOT BEEN STRENGTH TESTED SHALL BE SOUP TESTED AT 100 PSI AND AT OPERATING PRESSURE BEFORE COATING CAN OCCUR.
9. PAINTING AND COATING REQUIREMENTS:
A. ALL EXPOSED PIPE AND FITTINGS ARE TO BE PAINTED IN ACCORDANCE WITH GAS STANDARD TD-4180M.
B. FOR COATING SELECTIONS ON BURIED PIPE, SEE DIRECT BURIAL COATING SELECTIONS TABLE.
10. DOCUMENTATION OF INSPECTION OF EXISTING PIPELINE:
A. WHENEVER EXISTING BURIED GAS FACILITIES ARE EXCAVATED DURING ENGINEERING OR DURING CONSTRUCTION, AN A-FOAM (TD-410P-03-101) SHALL BE COMPLETED FOR THE GENERAL INSPECTION. THIS ALSO APPLIES TO GAS FACILITIES BEING DEACTIVATED. THE COMPLETED A-FOAM SHALL BE SUBMITTED WITH THE AS-BUILT PACKAGE.
11. THE IN AND CLEARANCE PROCEDURE TO BE PREPARED AND PERFORMED IN ACCORDANCE WITH SHUT-DOWN AND TIE-IN.
A. WP 4100-01, HOT AND COLD WORK, METHODS FOR NATURAL GAS TRANSMISSION PIPELINE SHUT-DOWN AND TIE-IN.
B. WP 4100-10, GAS CLEARANCE PROCEDURES FOR FACILITIES OPERATING OVER 60 PSIG.

WARNINGS:

THIS DOCUMENT CONTAINS INFORMATION THAT IS THE PROPERTY OF PACIFIC GAS AND ELECTRIC COMPANY AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF PACIFIC GAS AND ELECTRIC COMPANY.

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REFERENCE DRAWINGS:

- OPERATING MAPS
OPERATING DIAGRAMS
PLAT SHEETS
- N/A
--- 384507 (REV 7/0) TRACY AREA
--- LINES 2, 101, 304, 401
--- 3173-2

CONTACT INFORMATION:

PROJECT MANAGER	PROJECT ENGINEER	CONSTRUCTION MANAGER	CORROSION AREA SUPERVISOR	CORROSION MECHANIC	ENGINEERING ESTIMATOR
BRENT MAEDA	RYAN WOOD	THE GILBERT	RYAN WOOD	JOHN GIGLIOTTI	KYLE BERGMANN
925 328 5637	925 328 5935	709 544 4293	925 328 5935	925 429 8086	209 210 0355
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SEQUENCE OF OPERATIONS:

1. READ ALL PROJECT DOCUMENTATION AND THE ACCOMPANYING NOTES PRIOR TO THE START OF WORK.
2. INSTALL BAY'S IDENTIFIED IN GENERAL AND SITE SPECIFIC SWPPP.
3. INSTALL (2) GROUND RODS.
4. INSTALL ANODE JUNCTION TUBBOX AND (IN RECTIFIER, TRENCH AND INSTALL ANODE WIRES.
5. TRENCH AND INSTALL ANODE WIRES.
6. CONNECT ANODE WIRES IN ANODE JUNCTION TUBBOX.
7. CONNECT ANODE WIRES IN ANODE JUNCTION TUBBOX.
8. CONNECT ANODE WIRES IN ANODE JUNCTION TUBBOX.
9. BACKFILL AND COMPACT.
10. REMOVE BAY'S.
11. CORRECT CORROSION MECHANIC PRIOR TO PUTTING INTO SERVICE.
12. TEST ONE SITE TO ORIGINAL CONDITION.

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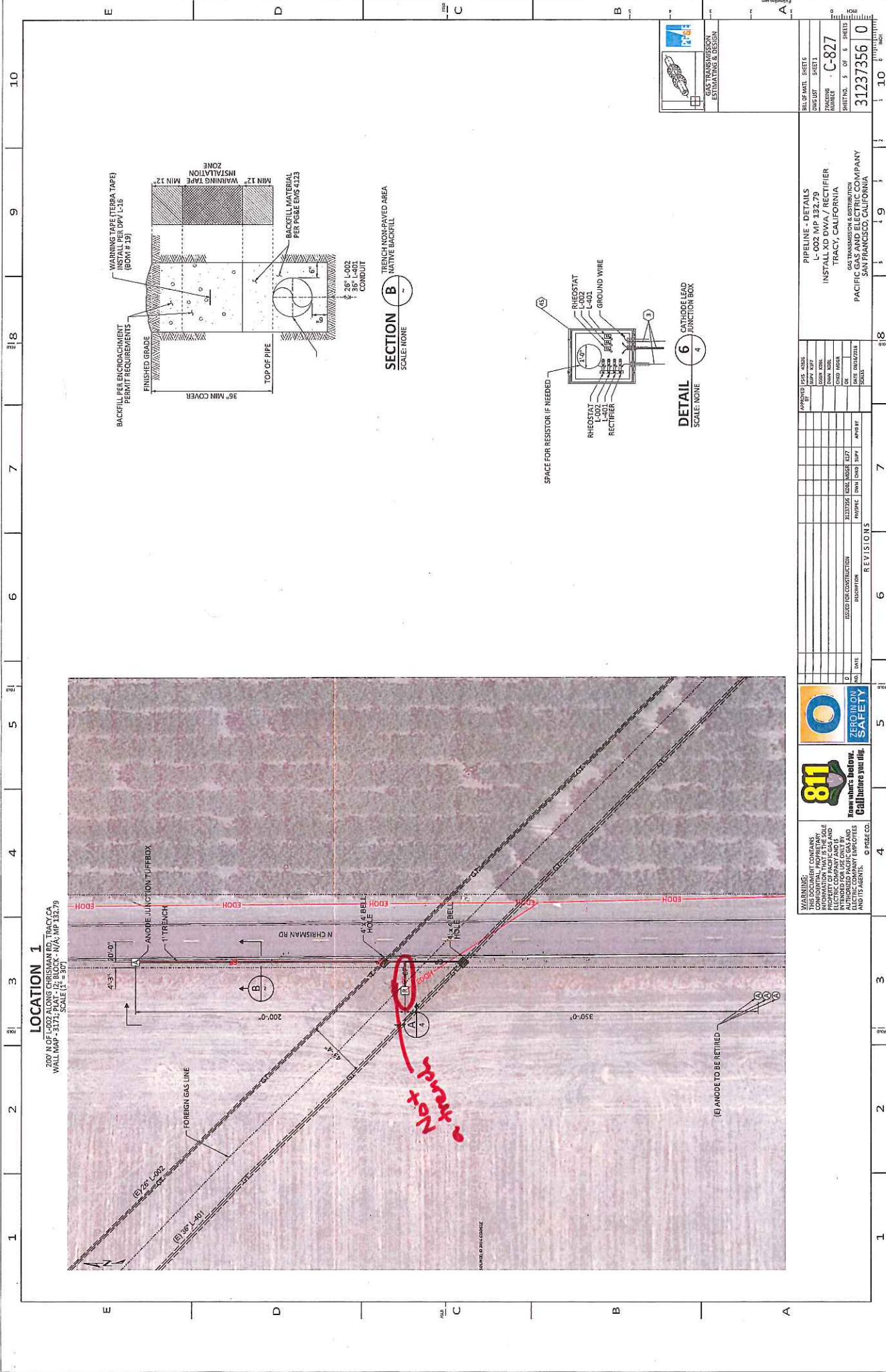
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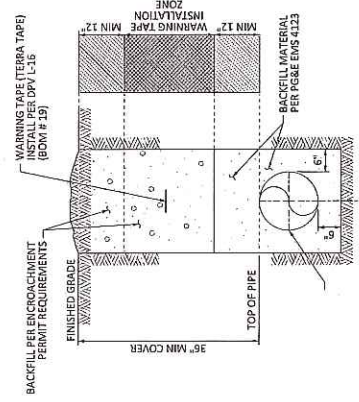
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INTERNAL CORROSION (IC) DESIGN & CONSTRUCTION REVIEW			
YES	NO	IC THREAT (per MMP-16)	LAN ID DATE
		IC REVIEW COMPLETED BY (CORROSION ENGINEER OR DESIGNATE)	
		CORROSION ENGINEERING HAS REVIEWED THIS DESIGN AND INCORPORATED ANY NECESSARY IC DESIGN AND CONSTRUCTION REVISIONS. THE REVIEW AND ACTIONS TAKEN ARE THE JOB PACKAGE AND INCORPORATED IN THIS DESIGN.	
EDS ROUTING NUMBER:			

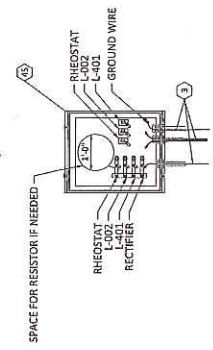
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2	2



LOCATION 1
 200' N OF L-002 ALONG CHRISTIAN RD, TRACY, CA
 WALL MAP - 3171 SCALE 1" = 30'



SECTION B
 TRENCH NON-PAVED AREA
 SCALE: NONE



DETAIL 6
 CATHODE LEAD
 JUNCTION BOX
 SCALE: NONE

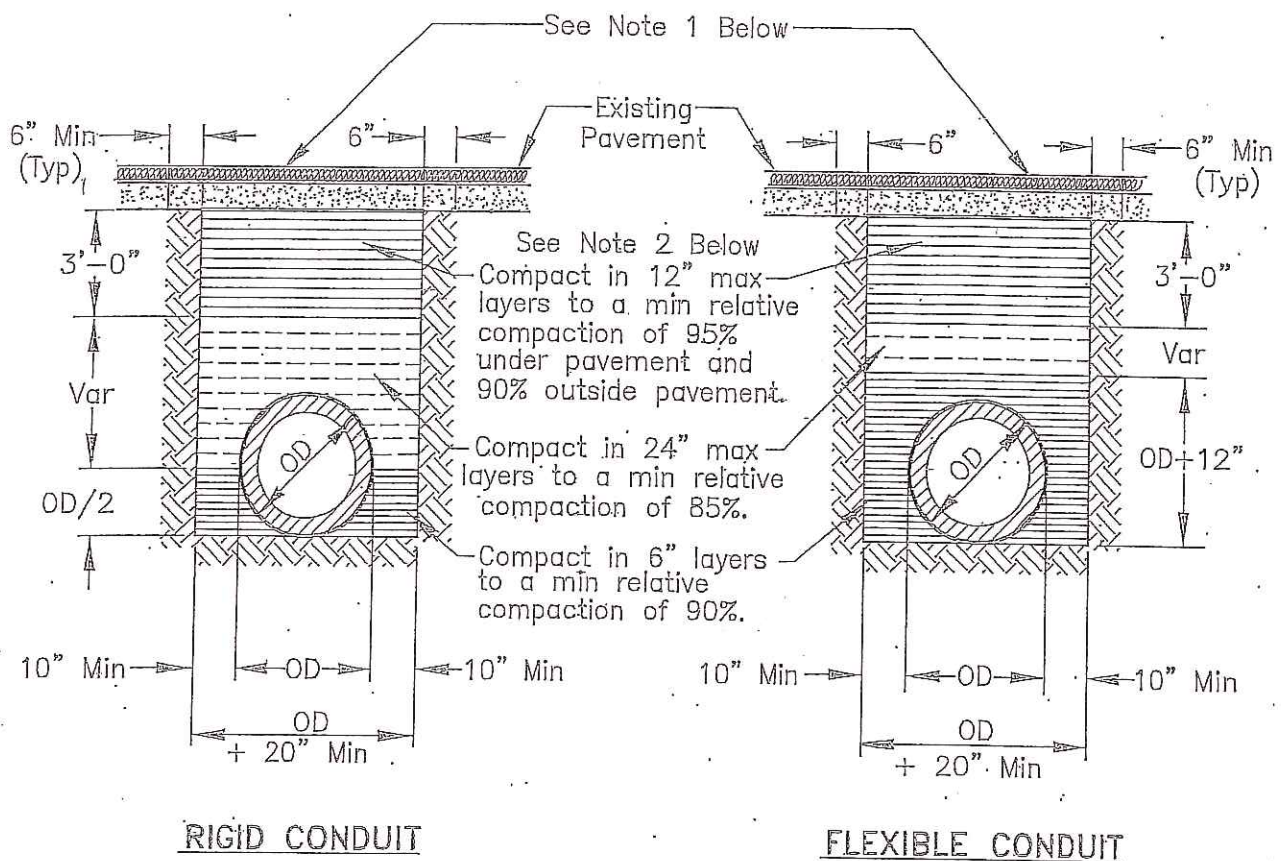
WARNING:
 THIS DOCUMENT CONTAINS
 INFORMATION THAT IS THE SOLE
 PROPERTY OF PACIFIC GAS AND
 ELECTRIC COMPANY AND IS
 INTENDED FOR USE ONLY BY
 ELECTRIC COMPANY EMPLOYEES
 AND ITS AGENTS.



REVISIONS			
NO.	DATE	DESCRIPTION	BY
1		ISSUED FOR CONSTRUCTION	
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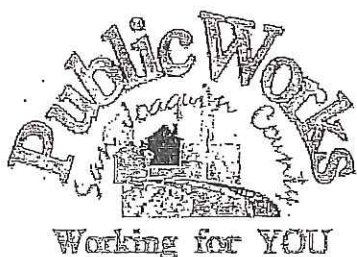
PIPELINE - DETAILS
 L-002 MP 132.79
 INSTALL XD DWA / RECTIFIER
 TRACY, CALIFORNIA
 GAS TRANSMISSION & DISTRIBUTION
 PACIFIC GAS AND ELECTRIC COMPANY
 SAN FRANCISCO, CALIFORNIA

REL OF MATL SHEETS
 C-827
 SHEET NO. 5 OF 6 SHEETS
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NOTES:

1. New pavement shall be 1" thicker than existing pavement, minimum. of 0.25 Ft. New base shall be 1" thicker than existing base, min of 0.50 Ft.
2. Select native material or imported granular material as approved by the Director of Public Works. Backfill with materials equal to or better than the existing pavement and base in quality.
3. Relative compaction of materials shall be tested in accordance with the State of California, Dept. of Transportation Testing Manuals, test method No. California 216 or 231.
4. All existing pavement shall be neatly cut to line prior to trench excavation.
5. Jetting or ponding will be permitted within the street right-of-way with a 3 year bond, when approved by the Director of Public Works.
6. When shown by soil composition and compactability, ninety percent (90%) compaction may be used, when approved by the Director of Public Works.
7. Special bedding and backfill requirements may be shown on the plans or specified in the special provisions.



TYPICAL TRENCH BACKFILL

COUNTY OF SAN JOAQUIN
DEPARTMENT OF PUBLIC WORKS

Approved by:

Thomas M. Gull

No.	Revision	Description	Date

Date: DEC 2014

Std. Dwg. No.

R-29

GENERAL PROVISIONS

GOVERNING INSTALLATION OF SUBSURFACE STRUCTURES AND PIPELINES WITHIN COUNTY ROAD-RIGHTS-OF-WAY

PUBLIC CONVENIENCE AND SAFETY:

- A. Before obstructing any private driveway entrance or County road traveled way with a trench, spoil bank, equipment or other barrier permitted for any prolonged period of time, the Permittee shall notify the known users of the respective thoroughfare(s) involved, and shall provide access for vehicular and pedestrian traffic to and from the road.
 - 1. Unless otherwise permitted, all work shall be conducted in such a manner that no less than one lane of the existing County road traveled way will be maintained open to public traffic during working hours in a smooth and safe riding condition(s). Two lanes shall be open after working hours.
 - 2. In cases where road closure is permitted, the permission to close the road will be granted under the condition that the Permittee notify the following persons and/or agencies of the time, the period of closure, and the detour route at least twenty-four (24) hours prior to said road closure.
 - a. The County of San Joaquin Public Works Department
 - b. The County of San Joaquin Sheriff's Office
 - c. The local postal service
 - d. The local fire district
 - e. The local school district
 - f. The local residents involved
- B. Should hazardous conditions relative to the installation operations warrant flagmen, as many capable flagmen as may be necessary shall be provided by the Permittee and stationed in advance of work to warn and direct traffic.
- C. Lights, signs and barricades shall be furnished, erected and maintained by the Permittee for the adequate warning and convenience of the public, with particular attention to be taken in this regard after dark.
- D. Any excess dirt and/or debris which might be a hazard to either automobile or pedestrian traffic, uncontrollable by lights, signs and barricades, shall be removed from the jobsite daily.

STRUCTURES:

- A. Walls of structures shall be such quality and strength that they will resist all pressures and will not crack or be deformed in such a way as to create a hazard or maintenance problem at any time. Therefore, the minimum structural requirements for concrete pipe placed under county road rights-of-way shall conform to the following American Association of State Highway and Transportation Officials (AASHTO) designations.
 - 1. For concrete pipe up to and including thirty-three inches (33") inside diameter, extra strength concrete conforming to AASHTO Designation M 170M.
 - 2. For concrete pipe thirty-six inches (36") inside diameter and larger, reinforced concrete pipe conforming to AASHTO Designation M 170M Class III.
 - 3. Plastic pipe conforming to AASHTO Designation M294.
- B. All concrete pipe joints with County road rights-of-way shall be sealed against leakage and/or infiltration with rubber gasket in conformance with Section 65-1:06 of the California Standard Specifications, or with other methods as may be permitted under the Special Provisions.
- C. Cast-in-place concrete pipe, vitrified clay pipe, spiral welded steel pipe, or corrugated aluminum alloy pipe shall not be installed within the County road rights-of-way unless specifically so stated in the Special Provisions, and only under the conditions as provided.
- D. All structures to be buried within the County rights-of-way shall be set at such elevations as to allow minimum coverage of thirty inches (30") to the centerline of the roadways and twelve inches (12") at the bottoms of borrow ditches each side of the roadways. The depths of structures shall be established below a flat plane extending across the rights-of-way, no part of which shall extend above the elevations stated above; manholes, lampholes, valves, etc. not included. Future surface elevations shall be anticipated as nearly as possible and structure elevations shall be established for future adjustments accordingly.
- E. The County hereby reserves the right to specify in the Special Provisions the gage and surface treatment of any galvanized corrugated metal pipe that is to be installed.
- F. All longitudinal utility facilities are to be established (and dimensioned on sketches) from surveyed centerline of road right-of-way, not from right-of-way (border) lines.

REPAIRS OF THE COUNTY RIGHT-OF-WAY:

- A. All excavations shall be backfilled and compacted immediately after work therein has been completed.
- B. Trenched shall not be left open farther than 300 feet in advance of pipe laying operations, or 200 feet to the rear thereof, unless otherwise permitted by the Engineer.
- C. Unless otherwise permitted under the Special Provisions, backfill shall be placed and mechanically compacted in such a manner that the relative compaction throughout the entire fill within the County road right-of-way shall conform to the percentages of compaction as shown on the Trench detail.
- D. Backfill material shall be placed in horizontal uniform layers not to exceed in thickness, before compaction, 0.67 foot in the bedding region, one foot where 90% compaction is required, and two feet where 80% compaction is required.
- E. No portion of the excavation(s) shall be compacted by ponding or jetting unless a maintenance bond is provided.
- F. Gravel backfill material shall be utilized only where specifically so stated on the face of the permit. It shall be compacted by means of a high-frequency internal vibrator, the compactor to be a size and type approved by the Engineer. Points of compaction shall not be greater than 18" centers and to the full depth of the lift.
- G. All pavements, curbs, gutters, sidewalks, borrow ditches, pipes, head walls, road signs, trees, shrubbery, and/or other permanent road facilities impaired by or as a result of construction operations at the construction site(s) occupied by materials and/or equipment, shall be restored immediately upon backfilling of the excavation to the original grades and cross sections, and to a condition as good as, or better than existing prior to construction.
- H. All surfacing materials of roadways and driveway approaches cut or damaged by or as a result of construction operations, shall be replaced within ONE WEEK following the backfilling of excavation, weather permitting, with compacted layers of surfacing materials at least as thick as the existing, and no less than two inches (2") of asphalt concrete over six inches (6") of aggregate base, both as specified below.
 - 1. Asphalt Concrete: Combined mineral aggregate shall conform to the quality and gradation requirements for Type "B" one-half inch (1/2) maximum aggregate, coarse or medium gradation as specified in Section 39 of the California Standard Specifications. The bituminous binder to be mixed with mineral aggregate shall be paving asphalt having (Grade PG 64-10), unless otherwise directed by the Engineer. Placement of asphalt concrete surfacing shall conform to the applicable provisions of Section 39 of the California Standard Specifications.
 - 2. Aggregate Base: Combined mineral aggregates shall conform to the quality and the grading for three-quarter inch (3/4") maximum size aggregate Class 2 Aggregate Base specified in Section 26 of the California Standard Specifications.
- I. Before acceptance of repairs to the County road rights-of-way, all unsightly and detrimental dirt, dust and/or debris shall be removed and the construction areas left in a neat and presentable condition(s).
 - 1. If necessary, County road traveled way and driveway pavements shall be washed with water to remove dirt and dust.
 - 2. Driveway approaches and field entrance pavements damaged by equipment or spoil banks shall be repaired as directed by the Engineer.
- J. Upon request by the County, any settlement, sagging of surface, or cracking of pavement shall be repaired immediately by and at the sole expense of the Permittee for a period of one year following acceptance of the work.

SPECIAL PROVISIONS

Winter Weather Utility Work

1. **SUPERVISION:** The utility company (permittee) shall furnish full-time supervision of all work to insure compliance with the permit provision.
2. **START OF WORK:** No work within the County right-of-way shall be started until the utility company representative has made an evaluation of weather conditions and has determined the work can be accomplished under the provisions of the permit.
3. **CLEAN PAVEMENT:** Dirt and mud shall not be deposited on the pavement outside the area of work, and if inadvertently tracked onto the road travel way shall be removed immediately.
4. **DAILY RESTORATION:** Private driveways and road intersections shall be restored daily.
5. **WEATHER-TIGHT CONDITIONS:** All trenches shall be filled and compacted, ditches and other drainage facilities regarded and opened, and the entire work area restored to weather-tight condition prior to any rain.