



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-1701661
Date Issued: 06/02/2017
Start Date: 06/02/2017
Exp. Date: 10/01/2017
Project No: PWP7110005
Quad: SE

ENCROACHMENT PERMIT

To: PACIFIC GAS & ELECTRIC - STOCKTON
PO BOX 930
STOCKTON, CA 95201

Encroachment Type:

Trench

Location:

W/S S AIRPORT WY 40' S/O ZEPHYR ST

In compliance with your request of 06/02/2017, 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

Est. Permit Fee: \$458.20

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.

APPLICATION FOR ENCROACHMENT PERMIT

PLEASE PRINT:

Date 4/27/17

To: San Joaquin County
Department of Public Works

PGE

(Applicant Name)

4040 West Ln

(Mailing Address)

Stockton CA 95204

(City, State, Zip Code)

408 316-1767

(Area Code - Telephone Number)

OFFICE USE ONLY

JOB #	<u>730052</u>	REF #	
APN		CR #	
EXP. DATE	<u>10-1-17</u>		
VALID	<u>6-1-17</u>	TO	<u>10-1-17</u>
STREET	<u>Airport WY</u>		
AREA	<u>Stockton</u>	QUAD	<u>SE</u>
TYPE	<u>Bellhole</u>		
FORMS	<u>SSWH R29</u>		
NOTES			

DRIVEWAYS:

*

*

*

Sketch (Detailed plans may be submitted)

SEE ATTACHED SKETCH

PM 7400 6606

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the West side of S Airport Blvd Way approximately 40 feet/mile South of Zephyr ST, Stockton, by performing the following work (description of work):
to excavate a 12x20 bell hole on Airport to change valve

Work will commence on or about 6-1-17 for approximately 120 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

Date

4/27/17

SPECIAL CONDITIONS FOR
ENCROACHMENT PERMIT

1. Maintain traffic controls for all roads. Traffic control delays shall not exceed 15 minutes. Two-way traffic shall be maintained during non-working hours with excavated areas backfilled or plated. During working hours, two-way traffic control shall be maintained with one lane open and appropriate flaggers. The contractor shall submit traffic control plans for all signing, detours, and any lane closure impacting County right-of-way. Traffic control plans shall be submitted two weeks prior to the closure date.
2. Access to all properties shall be maintained at all times except when work is occurring at the access point. Minimal delays will be allowed to provide access within the work zone area. Driveway access shall be fully restored at the end of each workday. Driveways disturbed by the contractor shall be replaced with in-kind or better materials.
3. Residents and businesses shall be notified in writing, as approved by the County, 48 hours in advance of any impacts to their access.
4. Any areas where parking is to be restricted shall have signs noting the restrictions in place at least 48 hours in advance.
5. Existing fences shall not be removed without written consent of the property owner. Such consent shall be submitted to the County prior to the removal. Fences removed shall be restored with in-kind or better materials. Restored fences shall not encroach into County right-of-way.
6. All destroyed or obliterated pavement markings must be replaced in kind by the permittee. Typical pavement markings include but not limited to lane lines, centerlines, stop and stop ahead legends, limit lines, raised pavement markers and miscellaneous delineators.
7. 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)
8. All pipe and pipeline related facilities including, but not limited to, valves, utility boxes and vaults, and frames and covers shall be maintained by PACIFIC GAS & ELECTRIC, including any facilities that are abandoned in place. PACIFIC GAS & ELECTRIC shall be responsible for any and all costs associated with the removal, relocation and/or adjustment of these facilities as determined by the County at PACIFIC GAS & ELECTRIC's expense. (Streets and Highways Code Section 1463)
9. All future maintenance of the pipeline and related facilities within the County right-of-way will require a San Joaquin County Encroachment Permit.
10. Trenches shall be maintained in a smooth and even condition to the satisfaction of the County throughout the project limits at all times.

11. All trenches shall be completely backfilled or shored and plated at the end of each workday, and the roadway restored to two-way traffic. If plating is to be used, a trench shoring and plating plan suitable for traffic loadings shall be prepared by a registered civil engineer and submitted for prior approval by the County.
12. The contractor shall use San Joaquin County Improvement Standard R-29 when backfilling trenches within the County right-of-way. Where the existing road structural section is below standard, a minimum section of 3 inches of asphalt concrete over 8 inches of aggregate base shall be required.
13. Airport Way subject to pavement cuts shall receive a (1)-inch asphalt concrete overlay as per San Joaquin County Department of Public Works Improvement Standards Section 2-5.0 Trench Cut Policy. Shoulder areas shall be brought up to the finish grade as directed by the County.
14. No paving joints are allowed within paved shoulder; contractor shall pave all the way to outer edge of paved shoulder.
15. Class II Aggregate Base shoulder backing is required from the edge of pavement, a minimum of 4-inches thick by 4-feet wide.
16. Contractor shall establish existing roadway and drainage grades within the construction area. Any repair to roadways and adjacent areas shall match existing grades. Any proposed grade changes shall receive prior approval from County.
17. Above ground vaults, panels and/or other similar facilities will be allowed within the right-of-way if located as far to the outside edge as possible. Utility vaults shall be located a minimum of 4'-0" from edge of pavement.
18. County roads shall be kept clean from mud and debris at all times along the access points and work zone areas during entire project. All standard roadway striping and signage shall be clearly visible, maintained and restored throughout the construction zone during and after the project.
19. In addition to standard dust control measures, streets shall be maintained in a clean condition, free of dirt, mud and debris during construction activities. The contractor shall provide daily, or as needed, street sweeping using a modern mechanical or vacuum-assisted street sweeper.
20. The contractor shall not conduct construction operations in rain or heavy fog conditions.

2-5.0 TRENCH CUT POLICY

2-5.01 General Requirements

- A. Resurfacing requirements specified in this policy are in addition to the trench resurfacing requirements specified by County Standard Drawing No. R-29.
- B. For the purpose of this policy, "Surfacing Age" is defined as the age of the most recently completed roadway surfacing, including construction, reconstruction, or major overlay.
- C. Where the application of seal coats is required, a Type II Slurry Seal will be used in accordance with State Standard Specifications, Section 37-2.
- D. The permittee must post a one-year maintenance bond or cash deposit, in an amount specified by the Department.
- E. All pavement markings destroyed or obliterated must be replaced in kind by the permittee. Typical pavement markings include, but are not limited to, lane lines, centerlines, stop and stop ahead legends, limit lines, raised pavement markers, and miscellaneous delineators.
- F. The permittee is responsible for Survey Monuments disturbed by trenching and is required to file a corner record and to reestablish them using a Licensed Land Surveyor after the trench restoration is completed.
- G. Functional classification maps and Public Works Project Advertising Schedules are references for this policy.
- H. To facilitate scheduling and planning, Public Works staff will make available the most current Project Advertising Schedule at the monthly Utility Coordination Meeting and make it available to the public, at the Permits Counter, in January each year.

2-5.02 Collectors, Arterials and Expressways

- A. Surfacing Age less than Three (3) Years: No pavement cuts. Exceptions may be approved in accordance with Section 2-5.04 EXCEPTIONS.
- B. Surfacing Age Three (3) Years and Over:
 - 1. Longitudinal Trench Cutting in Paved Shoulder

Areas:

The entire shoulder of the road is to be resurfaced. The existing surfacing adjacent to the trenched area shall be planed to accommodate the overlay in a manner that does not cause drainage concerns. The nearest pavement cut shall be a minimum of three (3) feet from the edge of pavement, or the remaining pavement shall also be removed and replaced. (See County Standard Drawing No. R-37).

2. Longitudinal Trenches within Traveled Lanes:

The entire traveled lane where the trench is located is to be resurfaced with a one (1) inch asphalt concrete overlay. The existing surfacing adjacent to the trenched area shall be planed to accommodate the overlay in a manner that does not cause drainage concerns. The overlay shall be in accordance with State Standard Specifications, Section 39. Aggregate gradation shall be consistent with the existing surfacing material. (See County Standard Drawing No. R-37).

3. Cross-Cutting:

Cross-cutting is allowed at a minimum interval of 150 feet. At each cross-cut location a minimum of ten (10) feet on each side of trench shall be planed and resurfaced with one (1) inch asphalt concrete. If cross cuts are within the 150 feet minimum interval, the entire section between the first and last cross cut shall be planed and resurfaced with one (1) inch asphalt concrete. (See County Standard Drawing No. R-36).

4. The conditions described in paragraphs 1, 2 and 3 above will not apply if resurfacing is scheduled within two years.

2-5.03 Local Roads

A. Surfacing Age Under Three (3) years: No pavement cuts allowed. Exceptions may be approved in accordance with Section 2-5.04 EXCEPTIONS.

B. Surfacing Age Three (3) to Five (5) Years:

1. Longitudinal cuts are permitted. A seal coat is required for that half of the roadway containing the trench. (See County Standard Drawing No. R-37).

2. Cross-cutting is allowed under the same conditions as Section 2-5.02(B)(3). If cross-cuts occur within the 150 feet minimum interval, resurfacing may be substituted with a slurry seal for that half of the roadway. (See County Standard Drawing No. R-36).

2-5.04 Exceptions

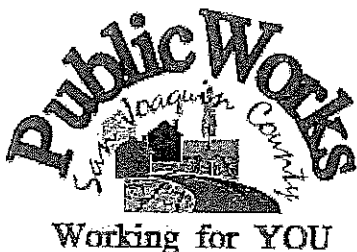
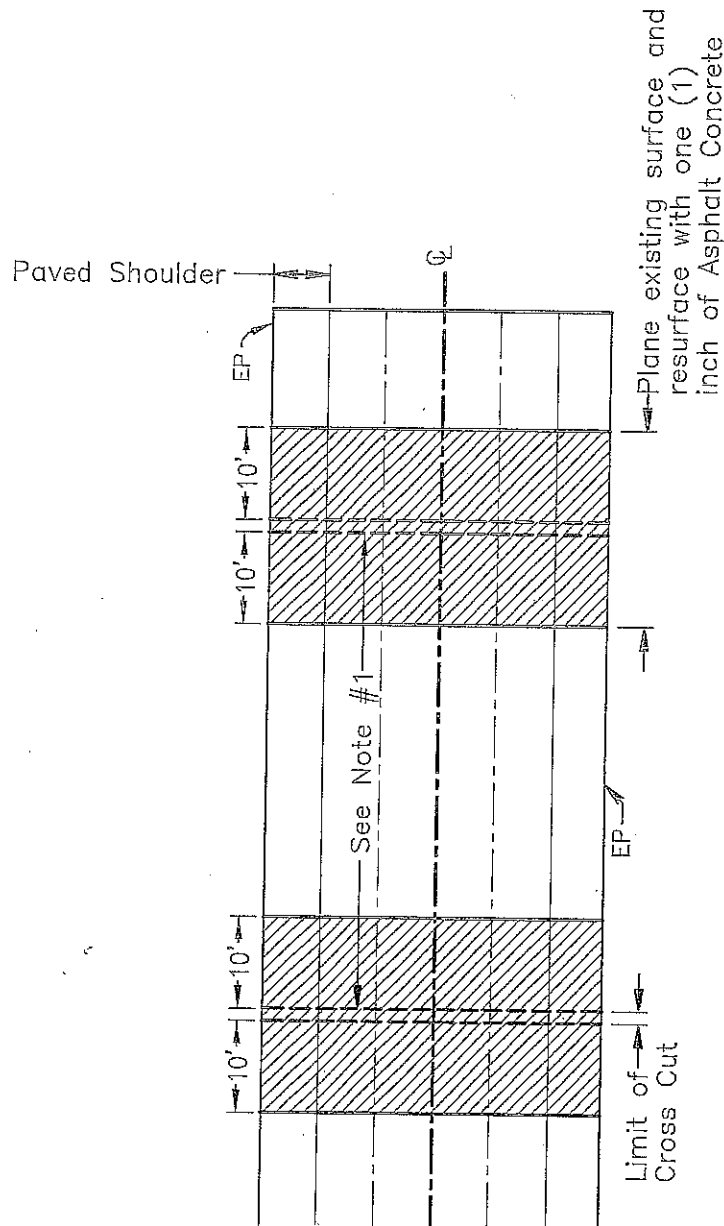
Excavation is prohibited in newly renovated County roadways for three (3) years after a notice of completion has been filed for a roadway improvement project, or a new roadway has been accepted. The Director of Public Works may approve exceptions that are in the best interest of the public, including but not limited to:

- A. An emergency that endangers life or property.
- B. For repair or modification to prevent interruption of essential utility service.
- C. For relocation work that is mandated by County, State or Federal law.
- D. For service for buildings where no other reasonable means of providing service exists.
- E. For potholing to verify utility depth or location.
- F. For trenchless excavations greater than three feet in depth of cover over the utility facility, and not requiring a significant surface incision greater than industry bore pit standards.

Exceptions must be requested and submitted in writing to the Department. Payment of a nonrefundable processing fee is also required. Exceptions will be reviewed using the Departments Action Approval process, which requires the recommendation of a Deputy Director.

NOTES:

1. If the distance between cross-cuts are less then 150' the entire area between corss-cuts shall be planed and resurfaced with one (1) inch of Asphalt Concrete.
2. The resurfacing requirements shall be in addition to County Standard Drawing No. R-29.
3. Resurfacing for Bell Holes shall meet these requirements. If excavation occurs within the shoulder or lane, only that area shall be resurfaced as shown.
4. If cross-cutting is performed on Local Roads at intervals less then 150' a Seal Coat for that half of the roadway containing the trench can be used in lieu of resurfacing. Section 2-5.03 (B-2).



**TRENCH CUTTING POLICY
CROSS CUTTING OF
COUNTY ROADWAYS**

COUNTY OF SAN JOAQUIN
DEPARTMENT OF PUBLIC WORKS

Date: MAY 2015

Approved by:

Michael Kellogg

No.	Revision	Description	Date

Std. Dwg. No.

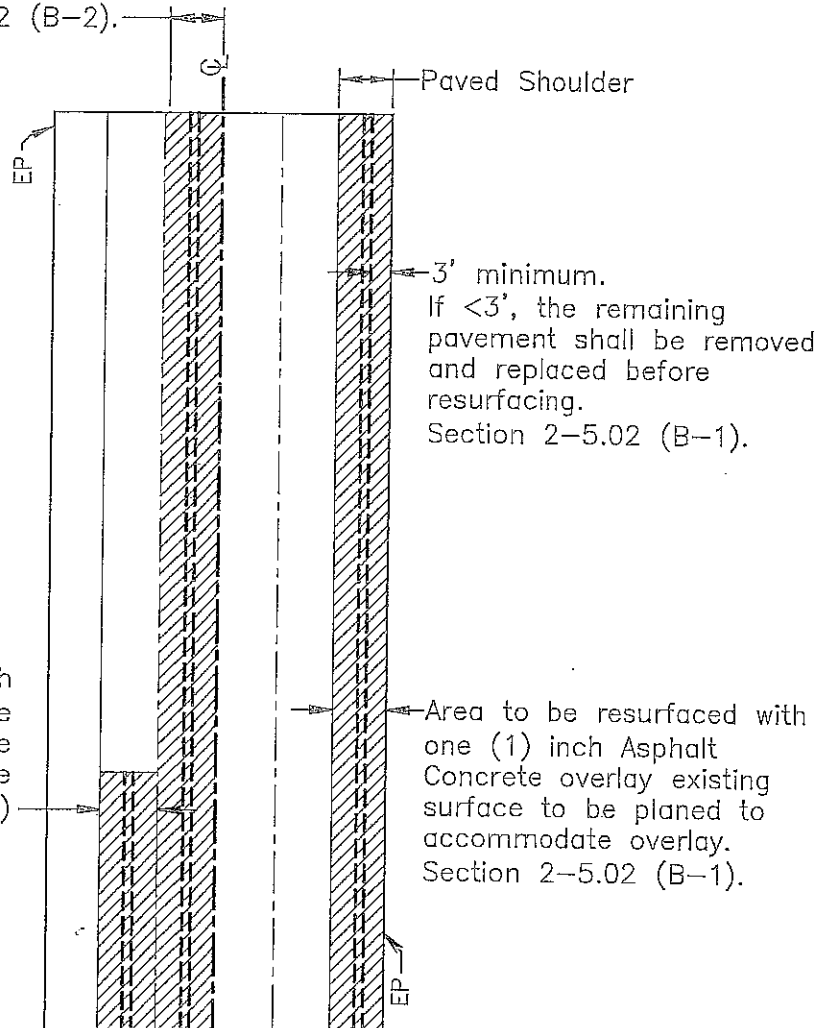
R-36

NOTES:

1. The resurfacing requirements shall be in addition to County Standard Drawing No. R-29.
2. If longitudinal cuts are required on a Local Road a Seal Coat can be used for that half of the roadway containing the trench. Section 2-5.03 (B-1).

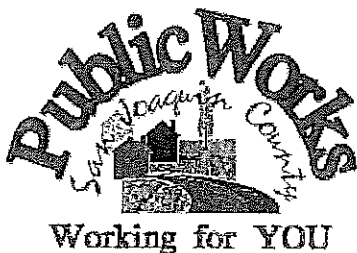
Area to be resurfaced with one (1) inch Asphalt Concrete overlay existing surface to be planed, to accommodate overlay.

Section 2-5.02 (B-2).



Area to be resurfaced with one (1) inch Asphalt Concrete overlay existing surface to be planed to accommodate overlay. Section 2-5.02 (B-2)

Area to be resurfaced with one (1) inch Asphalt Concrete overlay existing surface to be planed to accommodate overlay. Section 2-5.02 (B-1).



**TRENCH CUTTING POLICY
LONGITUDINAL CUTTING
OF COUNTY ROADWAYS**

COUNTY OF SAN JOAQUIN
DEPARTMENT OF PUBLIC WORKS

Approved by:

Michael J. King

No.	Revision	Description	Date

Date: MAY 2015

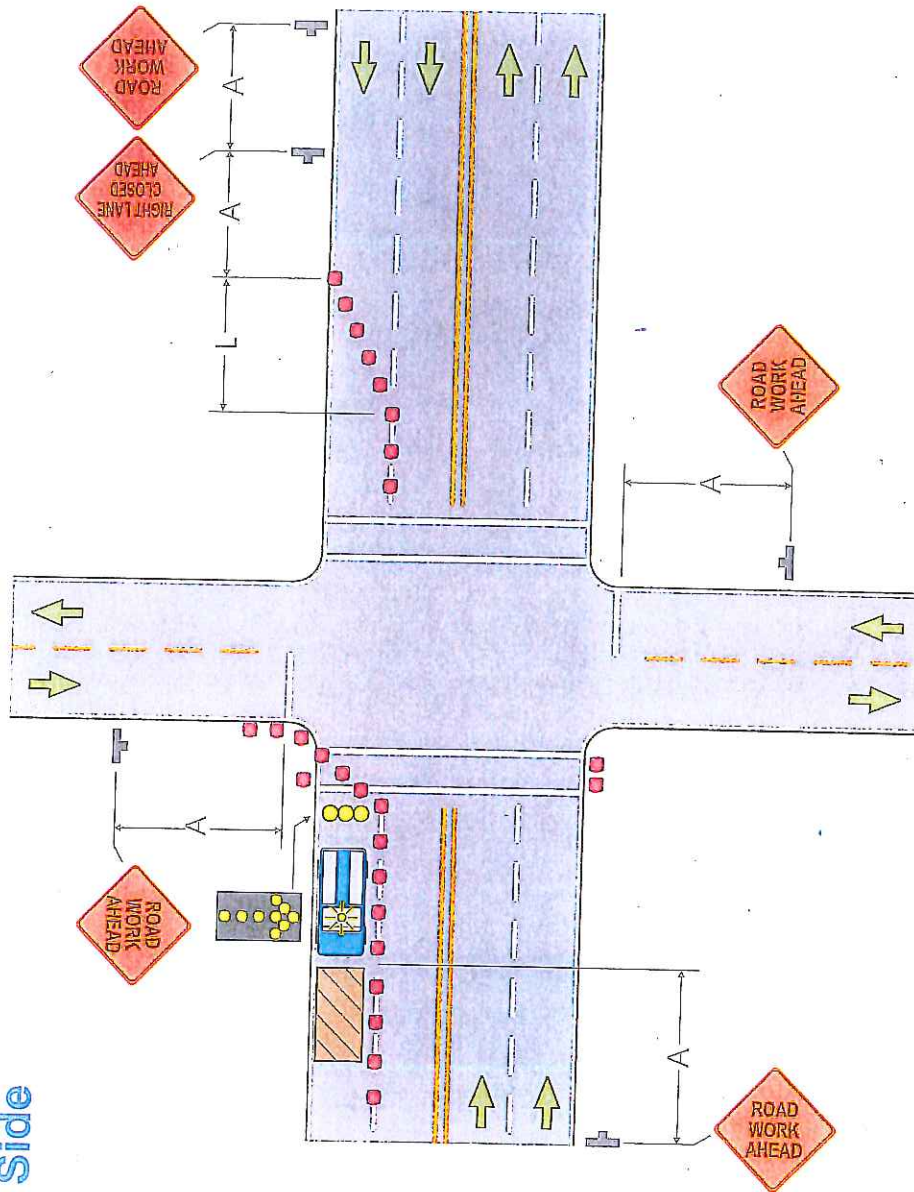
Std. Dwg. No.

R-37

UTILITY TYPICAL APPLICATIONS

UTA-10 Right lane Closure Far Side of Intersection

1. For intersection approaches reduced to a single lane, left turning movements may be prohibited to maintain capacity for through traffic.
2. The standard procedure is to close on the near side of the intersection any lane that is not carried through the intersection.
3. If the work space extends beyond a crosswalk then close the crosswalk.
4. Flashing warning lights may be used to call attention to the advance warning signs.



SIGN SPACING	DISTANCE
ROAD TYPE	A
Urban - 25 MPH or less	200'
Urban - 30 MPH or more	350'
Rural	500'
Expressway/Freeway	1000'

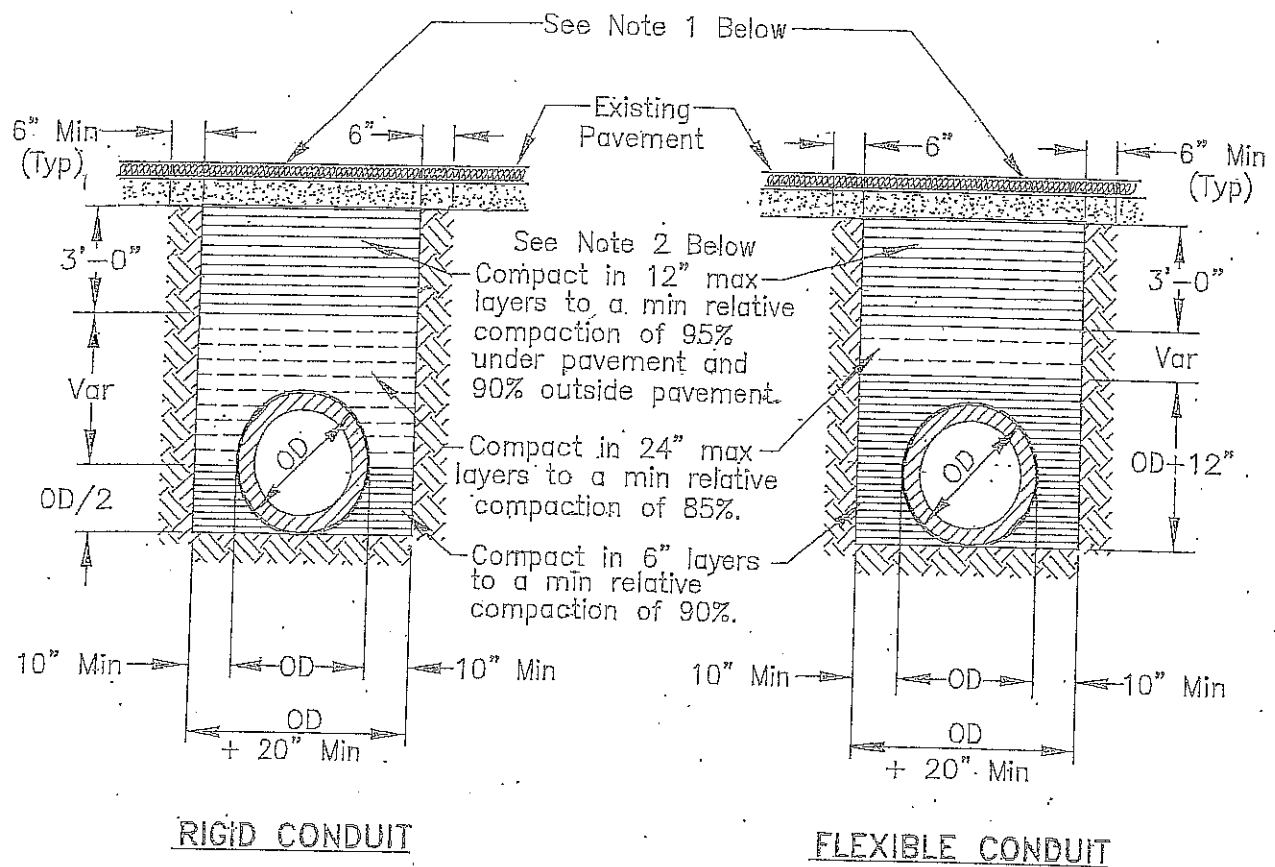
SEE:

- TABLE 1 for Buffer Length (page 20)
- TABLE 4 for "L" & Channelizer (cones, etc.) Quantity (page 28)

NOTE: LOCAL REGULATIONS MAY VARY.

PGEFM1A

© Copyright 2002 InCom, Inc. All rights reserved.



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 d. The local fire district
 - b. The County of San Joaquin Sheriff's Office e. The local school district
 - c. The local postal service 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

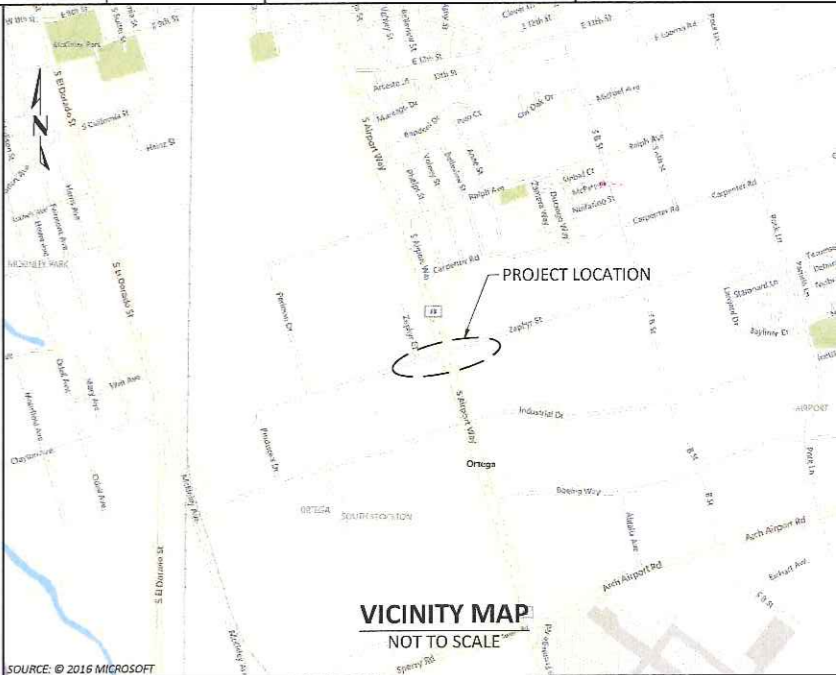
1. SUPERVISION: The utility company (permittee) shall furnish full-time supervision of all work to insure compliance with the permit provision.
2. START OF WORK: No work within the County right-of-way shall be started until the utility company representative has made an evaluation of weather conditions 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.

BTU AREA # X02
CP AREA # F-13
WALL MAP 3005
PLAT I4
SAN JOAQUIN COUNTY



REPLACEMENT RT-886
GCUST5838, MP 0.00

CAPITAL ORDER # 74006606



PLAN VIEW
(SCALE: 1" = 60')



SCHEDULE OF SHEETS

SHEET 1	--	TITLE / PLAN VIEW
SHEET 2	--	CONSTRUCTION NOTES
SHEET 3	--	CONSTRUCTION STAMPS / LEGEND
SHEET 4	--	LOCATION A / CONSTRUCTION DETAILS
SHEET 5	--	BILL OF MATERIALS / CONSTRUCTION DETAILS

WARNING:
THIS DOCUMENT CONTAINS
CONFIDENTIAL, PROPRIETARY
INFORMATION THAT IS THE SOLE
PROPERTY OF PACIFIC GAS AND
ELECTRIC COMPANY AND IS
INTENDED FOR USE ONLY BY
AUTHORIZED PACIFIC GAS AND
ELECTRIC COMPANY EMPLOYEES
AND ITS AGENTS.
© PG&E CO.



NO.	DATE	DESCRIPTION	PM/SPEC	DWN	CHKD	SUPV	APVD BY
A	02/10/17	90% ISSUED FOR BID	74006606	AJ	CC	RL	JP CS
REVISIONS							

APPROVED BY	PSRS 43186
SUPV	
DSGN	
DWN	
CHKD	
OK	RL
DATE	
SCALES	AS SHOWN

TITLE / PLAN VIEW
GCUST5838 MP 0.00
6" PIPE REPLACEMENT
STOCKTON, CALIFORNIA
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

COPY

SAFETY PLEDGE

I ALWAYS PUT SAFETY FIRST.
I LOOK FOR AND ACT TO
RESOLVE UNSAFE SITUATIONS.
I HELP AND ENCOURAGE
OTHERS TO ACT SAFELY.

GTS
Gas Transmission Systems
575 Lamon Lane, Suite 250
Walnut Creek, CA
(925) 476-0300
www.gtsinc.com
Project No. 16022

**ISSUED
FOR BID
NOT
APPROVED FOR
CONSTRUCTION**

BILL OF MATL	SHEET 5
DWG LIST	SHEET 1
TRACKING NUMBER	RT-88
SHEET NO.	1 OF 5
74006606	



LISTED IN ORDER OF PREFERENCE

MAIN LINE COATING	FBE
MINOR REPAIRS	3M SCOTCHKOTE 323, PROTAL 7200, FBE
TIE-IN WELDS	3M SCOTCHKOTE 323, PROTAL 7200, FBE
GIRTH WELDS	3M SCOTCHKOTE 323, PROTAL 7200, FBE
BUTT WELDED FITTINGS	3M SCOTCHKOTE 323, PROTAL 7200, FBE
VALVE ASSEMBLIES	3M SCOTCHKOTE 323, PROTAL 7200, DEVGRIP 238
SHORT SEGMENTS OF PIPE	3M SCOTCHKOTE 323, PROTAL 7200, FBE
AIR-TO-SOIL TRANSITIONS	PSX 700 OVER PROTAL 7200 OR 3M SCOTCHKOTE 323
PRESSURE CONTROL FITTINGS	BODY: PROTAL 7200 FLANGE: WAX TAPE
TIE-INS/COATING TRANSITIONS	PROTAL 7200, WAX TAPE, POLYKEN TAPE

LISTED IN ORDER OF PREFERENCE

MAIN LINE COATING	ARC APPLIED OVER FBE
MINOR REPAIRS	PROTAL 7200, POWERCRETE J, 3M SCOTCHKOTE 323
TIE-IN WELDS	ARC OVER FBE, PROTAL 7200, POWERCRETE J

NOTES:

1) CONTACT THE PIPELINE ENGINEER (PLE) TO REQUEST A VARIANCE FROM THE ABOVE COATING SELECTIONS.
2) ALL COATINGS ARE TO BE APPLIED IN ACCORDANCE WITH GS&S E-30 AND E-35.







INTERNAL CORROSION (IC)
DESIGN & CONSTRUCTION REVIEW

IC THREAT (PER RMP-16)	YES	NO
IC REVIEW COMPLETED BY (CORROSION ENGINEER OR DESIGNATE)	LAN ID	DATE
CORROSION ENGINEERING HAS REVIEWED THIS DESIGN AND INCORPORATED ANY NECESSARY IC DESIGN AND CONSTRUCTION CONSIDERATIONS. DOCUMENTATION OF THE REVIEW AND ACTIONS TAKEN ARE IN THE JOB PACKAGE AND INCORPORATED IN THIS DESIGN.		
EDRS ROUTING NUMBER:		

INSTALLATION TESTED OR INSPECTED AND
NOTED ON DRAWING.
ALL CORROSION LEVELS SATISFACTORY PER
PG&E GAS UTILITY STANDARD TD-4181S.

QUALIFIED EMPLOYEE	DATE
CORROSION MECHANIC'S SIGNATURE IS REQUIRED WHEN A CPA BOUNDARY IS WITHIN THE SCOPE OF THE PROJECT.	

	GAS TRANSMISSION LINE
	GAS DISTRIBUTION LINE
	GAS SERVICE LINE
	GAS TRANSMISSION LINE (RETIRED)
	GAS DISTRIBUTION LINE (RETIRED)
	GAS SERVICE LINE (RETIRED)
	ELECTRIC TRANSMISSION LINE
	ELECTRIC DISTRIBUTION LINE
	ELECTRIC SERVICE LINE
	TELEPHONE LINE
	FIBER OPTIC LINE
	CABLE TV LINE
	STORM DRAIN LINE
	SEWER LINE
	WATER LINE
	EDGE OF ROAD
	FACE OF CURB
	UNPAVED ROAD
	RAILROAD
	TEMPORARY EASEMENT
	PROPERTY BOUNDARY
	FENCE
	WALL
	BARRIER
	TEMPORARY BARRIER (TYPE K)
	GUARD RAIL
	DASHED PAVEMENT MARKINGS
	TOE OF SLOPE
	TOP OF SLOPE

	GAS LINE MARKER (ALL)		STORM DRAIN
	GAS LINE MARKER (PADDLE DUAL)		SEWER MANHOLE
	GAS LINE MARKER (PADDLE SINGLE)		FOREIGN MANHOLE
	GAS LINE MARKER (POST)		CABLE TV BOX
	GAS LINE INDICATOR (DISC)		TELECOMM BOX
	INSULATION JOINT		TELECOMM MANHOLE
	PRESSURE CONTROL FITTING		TELECOMM VAULT
	GAS BOX		STREET LIGHT BOX
	GAS HIGH PRESSURE REGULATOR		TREE
	GAS METER		ANODE
	GAS DISTRIBUTION REGULATOR		DEEPWELL ANODE
	PG&E GAS MANHOLE		COMPUTER AUTOMATED TEST STATION
	GAS VAULT		COUPON TEST STATION
	GAS VENT		ELECTROLYSIS TEST STATION
	PG&E ELECTRIC MANHOLE		POLE-MOUNTED RECTIFIER
	ELECTRIC VAULT		POTHOLE
	UTILITY POLE (ELECTRIC)		CITY/COUNTY MONUMENT
	UTILITY POLE (OTHER)		MONUMENT, SEE DESCRIPTION
	JOINT POLE		SURVEY CONTROL POINT
	EXISTING ELECTRIC TOWER		CENTERLINE
	WATER METER		
	WATER VALVE		

	PROPOSED GAS TRANSMISSION LINE
	EXISTING GAS TRANSMISSION LINE
	GAS TRANSMISSION LINE (TO BE DEACTIVATED)
	GAS TRANSMISSION LINE (TO BE RETIRED)
	GAS TRANSMISSION LINE (TO BE REMOVED)
	PIPE END CUT (SIDE)
	PIPE END CUT
	GAS VALVE
	FLOW ARROW
	TIE-IN WELD
	BILL OF MATERIAL ASSET
	MATERIAL OF RECORD ASSET

Acronym	Definition
(E)	Existing
(P)	Proposed
API	American Petroleum Institute
APN	Assessor's Parcel Number
ARC	Abrasion Resistant Coating
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing Materials
ATM	Atmosphere
B	Bare Steel
BBCL	Bell Bell Chill Ring
BC	Back of Curb
BD	Blowdown
BLDG	Building
BOM	Bill of Materials
BTU	British Thermal Units
BW	Back of Walk
BYP	Bypass
CATS	Computer Automated Test Station
CCV	Corrosion Control Volume
CI	Cast Iron
CL	Centerline
CNG	Compressed Natural Gas
CONTR	Contractor
CP	Cathodic Protection
CROP	Conditional Reduction of Pressure
CTR	Center
CTS	Coupon Test Station
CU	Copper
DE	Dead End
DCUST	Distribution Customer
DEG	Degree
DET	Detail
DF	Design Factor
DFM	Distribution Feeder Main

Acronym	Definition
DIST	Distribution
DP	Design Pressure
DPV	Damage Prevention Volume
DR	Distribution Regulator
DREG	District Regulator
DSAW	Double Submerged Arc-Welded
DWA	Deep Well Anode
ELE	Electric
ELEV	Elevation
EM	Electronic Marker
EMS	Engineering Material Specification
ER	Edge of Road
ERW	Electric Resistance Welded
ETS	Electrolysis Test Station
F	Filter
FBE	Fusion Bonded Epoxy
FC	Face of Curb
FDP	Future Design Pressure
FL	Fence Line
FLG	Flange
G	Natural Gas
GM	Natural Gas Main
GR	Grade
GS	Natural Gas Service
GS&S	Gas Standards and Specifications
GW	Natural Gas Well
H	Horizontal
HDD	Horizontal Directional Drill
HFW	High Frequency Welded
HPR	High Pressure Regulator
ILI	In-Line Inspection
JT	Joint Trench
L	Line Number
L/R	Left/Right
LAT	Latitude

Acronym	Definition
LNG	Liquid Natural Gas
LN	Lane
LNW	Linear Non-Weldable
LONG	Longitude
M	Monitor
MAOP	Maximum Allowable Operating Pressure
MAX	Maximum
MH	Manhole
MIN	Minimum
MLV	Main Line Valve
MOP	Maximum Operating Pressure
MP	Mile Point
MW	Working Monitor
NDE	Non-Destructive Examination
NOP	Normal Operating Pressure
NPC	Non-Protected/Native Coupon
NTS	Not to Scale
OC	On Center
OD	Outside Pipe Diameter
OH	Overhead
P	Pipeline
P/L	Property Line
PC	Protected/Polarized Coupon
PCF	Pressure Control Fitting
PL	Plastic
PLC	Programmable Logic Controllers
PSI	Pounds per Square Inch
RAD	Radius
RE	Reference
REG	Regulator
ROW	Right of Way
S	Screwed
SAWH	Submerged Arc-Welded Helical
SAWL	Submerged Arc-Welded Longitudinal
SCADA	Supervisory Control and Data Acquisition

Acronym	Definition
SD	Storm Drain
SHT	Sheet
SL	Sewer Lateral
SMLS	Seamless
SMYS	Specified Minimum Yield Strength
SPEC	Specification
SS	Sanitary Sewer
SSAW	Single Submerged Arc-Welded
STA	Station
STD	Standard
STL	Steel
STPR	Strength Test Pressure Report
T	Tied (Connected to System)
TCE	Temporary Construction Easement
TCF	Traffic Control Plan
TD	Technical Document
TD/W	T. D. Williamson
TSP	Transmission System Planning
TT	Top Tap
Typ	Typical
UG	Underground
UON	Unless Otherwise Noted
USA	Underground Service Alert
UT	Ultra-Sonic Test
V	Valve
VIF	Verify in Field
VOL	Volume
W	Water
WT	Wall Thickness
W/	With
W/O	Without
WOW	Without Locating Wire
WP	Work Procedure
WS	Water Service



Gas Transmission Systems, Inc.
575 Lannon Lane, Suite 250
Walnut Creek, CA
(925) 478-8530
www.gtaiinc.us
Project No. 16022

**ISSUED
FOR BID
NOT
APPROVED FOR
CONSTRUCTION**

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



A	02/10/17	90% ISSUED FOR BID	74006606	AJ	CC	RL	JP	CS			
NO.	DATE	DESCRIPTION	PM/SPEC	DWN	CHKD	SUPV	APVD BY				
R E V I S I O N S											

APPROVED BY	PSRS	43186
	SUPV	
	DSGN	
	DWN	
	CHKD	
	OK	RL
	DATE	
	SCALES	
	AS SHOWN	

GCUST5838 MP 0.00

6" PIPE REPLACEMENT

STOCKTON, CALIFORNIA

PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

BILL OF MATL SHEET 5

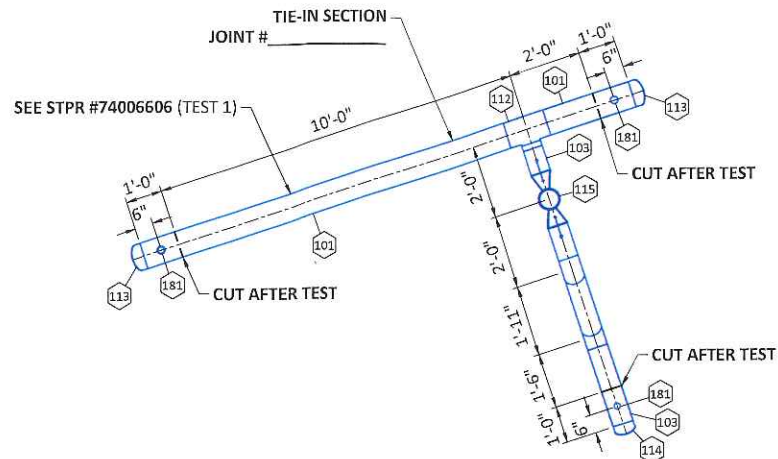
DWG LIST SHEET 1

TRACKING
NUMBER RT-886

SHEET NO. 3 OF 5 SHEET

74006606

S AIRPORT WAY & ZEPHYR ST, STOCKTON
WALL MAP - 3005; PLAT - 14; BLOCK - 14 15; MP - 0.00
(SCALE: 1" = 60')



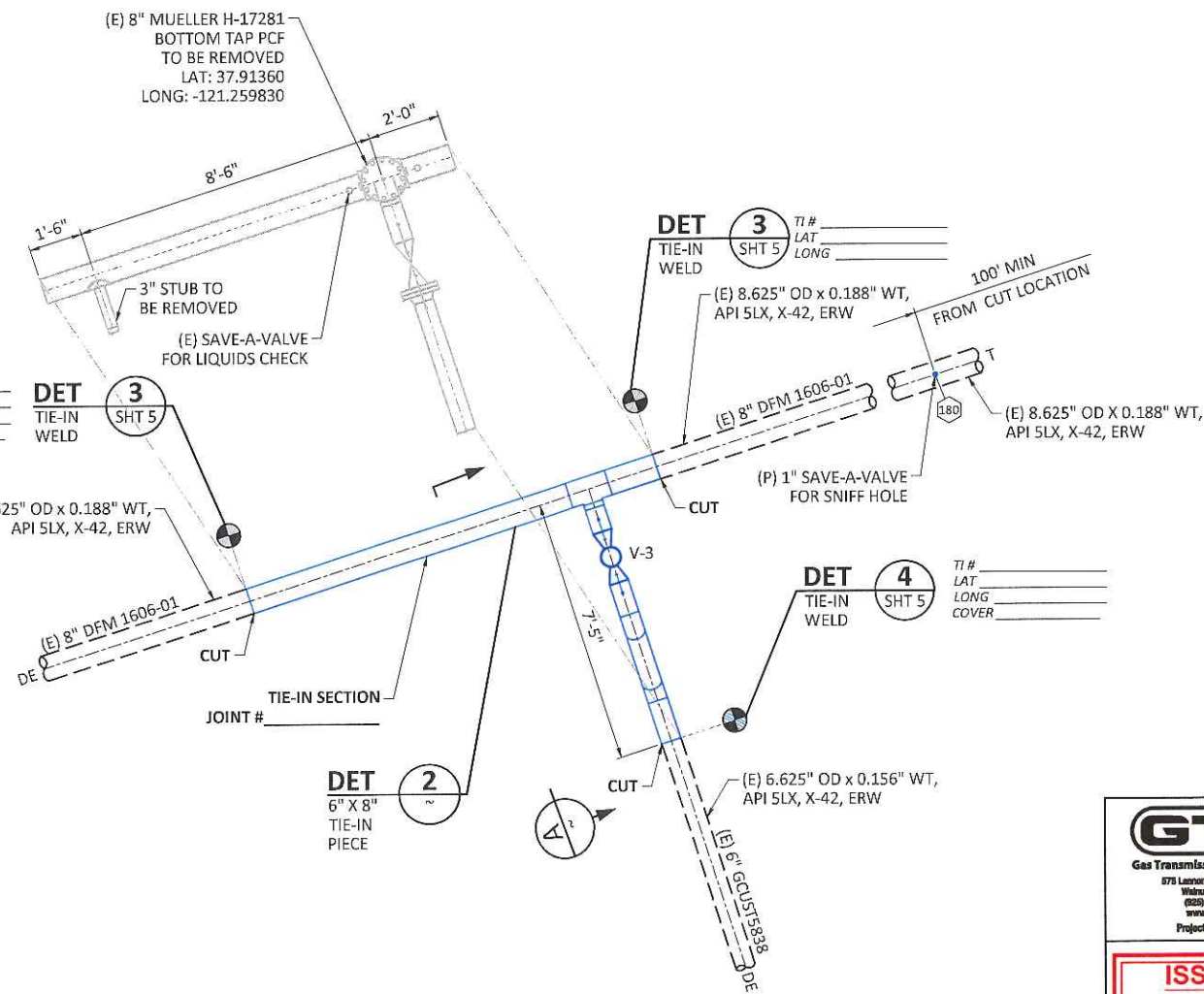
JOB#	74005506		
BOM ITEM#	101		
DESIGN CRITERIA			
CLASS LOCATION	3		
DESIGN FACTOR	0.5		
FDP	720	PSIG	23.88 % SMYS
MAOP	720	PSIG	23.88 % SMYS
STRENGTH TEST PRESSURE			
MIN	1132	PSIG	37.55 % SMYS
MAX	1332	PSIG	44.19 % SMYS
	2714	PSIG=90% SMYS	
TEST MEDIUM	WATER		
Pipe Spec.	API 5L X-52, HFW		
O.D.	8.625"	W.T.	0.250"

JOB#	74006606		
BOM ITEM#	102		
DESIGN CRITERIA			
CLASS LOCATION	3		
DESIGN FACTOR	0.5		
FDP	720	PSIG	24.40 % SMYS
MAOP	720	PSIG	24.40 % SMYS
STRENGTH TEST PRESSURE			
MIN	1132	PSIG	38.36 % SMYS
MAX	1332	PSIG	45.13 % SMYS
	2657	PSIG=90% SMYS	
TEST MEDIUM	WATER		
PIPE SPEC.	API 5L X-52, HFW		
O.D.	6.625"	W.T.	0.188"

JOB#	74006606		
BOM ITEM#	103		
DESIGN CRITERIA			
CLASS LOCATION	3		
DESIGN FACTOR	0.5		
FDP	720	PSIG	24.34 % SMYS
MAOP	720	PSIG	24.34 % SMYS
STRENGTH TEST PRESSURE			
MIN	1132	PSIG	38.26 % SMYS
MAX	1332	PSIG	45.02 % SMYS
	2663	PSIG=90% SMYS	
TEST MEDIUM	WATER		
S.D. SPEC.		API 5L GR B, SMLS	
O.P.E.	6.625"	W.T.	0.280"

JOB#	74006606			
BOM ITEM#	104			
DESIGN CRITERIA				
CLASS LOCATION		3		
DESIGN FACTOR		0.5		
FDP	720	PSIG	7.01	% SMYS
MAOP	720	PSIG	7.01	% SMYS
STRENGTH TEST PRESSURE				
MIN	1132	PSIG	11.03	% SMYS
MAX	1332	PSIG	12.97	% SMYS
	9240	PSIG=90% SMYS		
TEST MEDIUM		WATER		
PIPE SPEC.		API 5L GR. B, SMLS		
O.D.	1.050"	W.T.	0.154"	

SCALE: $3/8" = 1'-0"$ (~) HYDROTEST CONFIGURATION



SCALE: 3/8" = 1'-0"

HEADER PIPE SPECS	
HEADER SIZE: 8.625" WALL THICKNESS: 0.188"	
PIPE SPECS: API 5LX, X-42, ERW	
PERCENT MAOP: 72% F250	
% SMYS @ MAOP: 39.3%	
INSTALL IN:	GM 12-29 YEAR: 1967
MAXIMUM ALLOWABLE PRESSURE	
DURING WELDING (GS&S D-22)	
EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING.	
A) (659 PSIG)	WHEN WELDING ON BODY OF THE PIPE. UNLESS,
B) (366 PSIG)	WHEN WELDING WITHIN 3"
OF THE LONGITUDINAL SEAM (EXCEPT DSAW PIPE), THE CIRCUMFERENCE OF THE BODY OF THE WELD OR WITHIN 3" OF ANY DEFECT (GOUGES, CORROSION, LAMINATIONS, ETC) IN THE PIPE WHICH EXCEEDS 1/3 THE NOMINAL WALL THICKNESS IN DEPTH AND OR 1/4 OF THE NOMINAL PIPE DIAMETER IN LENGTH.	

HEADER PIPE SPECS	
HEADER SIZE: 6.625" WALL THICKNESS: 0.156"	
PIPE SPECS: API 5LX, X-42, ERW	
PRESENT MAOP: 720 PSIG	
5% SMYS @ MAOP: 1,440 PSIG	
INSTALL IN: GM 465-286 YEAR: 1987	
MAXIMUM ALLOWABLE PRESSURE	
DURING WELDING (GS&S D-22)	
EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM	
OPERATING PRESSURE PERMITTED DURING WELDING.	
A) (566 PSIG)	WHEN WELDING ON BODY OF THE PIPE. UNLESS,
B) (395 PSIG)	WHEN WELDING WITHIN 3"
OF THE LONGITUDINAL SEAM (EXCEPT DSAW PIPE),	
THE CIRCUMFERENCE OF ANY ANCHOR WELD OR	
WITHIN 3" OF ANY DEPT (GOUGES, CORROSION,	
LAMINATIONS, ETC.) IN THE PIPE WHICH EXCEEDS 1/3	
OF THE PIPE WALL THICKNESS IN DEPTH AND/OR	
1/4 OF THE NOMINAL PIPE DIAMETER IN LENGTH.	

VALVE DATA STAMP	
BOM#	115 VALVE SIZE 6.625"
TECH ID (VALVE #)	V-3
VALVE TYPE	BALL VALVE, ANSI 300
MANUFACTURER	
MODEL/FIGURE #	
SERIAL#	
COMMISSIONING	
VALVE TO BE COMMISSIONED BY GAS T&R OR DISTRICT PERSONNEL DURING 100 PSIG SOAP TEST AND PRIOR TO PLACING VALVE IN SERVICE	
COMMISSIONED BY	
DATE	
NUMBER OF TURNS OF HANDWHEEL (IF APPROPRIATE)	

HEADER PIPE SPECS	
HEADER SIZE: 6.625" WALL THICKNESS: 0.188"	
PIPE SPECS: 35,000 SMSYS*	
PRESENT MAOP: 720 PSIG	
% SMSYS @ MAOP: 36.25	
INSTALL IN:	GM 4656286 YEAR: 1987
MAXIMUM ALLOWABLE PRESSURE	
DURING WELDING (GS&S D-22)	
EVALUATE THE FOLLOWING OPERATING PRESSURE LIMITATIONS TO DETERMINE THE MAXIMUM OPERATING PRESSURE PERMITTED DURING WELDING.	
A) (715 PSIG)	WHEN WELDING ON BODY OF THE PIPE, UNLESS,
B) (397 PSIG)	WHEN WELDING WITHIN 3" OF THE LONGITUDINAL SEAM (EXCEPT DSAW PIPE), OR THE LONGITUDINAL SEAM OF ANY BRANCH, OR WITHIN 3" OF ANY FEED (GROUES, CORROSION, LAMINATIONS, ETC) IN THE PIPE WHICH EXCEEDS 1/3 THE NOMINAL WALL THICKNESS IN DEPTH AND/OR 1/4 OF THE NOMINAL PIPE DIAMETER IN LENGTH.

HEADER PIPE SPECS	
HEADER SIZE: 3.500" WALL THICKNESS: 0.216	
PIPE SPECS: API 5L, GR 60, SMLS	
PERMIT MAOP: 720 PSIG	
% SMYS @ MAOP:	
INSTALL IN:	GM 4379053 YEAR: 1984
MAXIMUM ALLOWABLE PRESSURE	
DURING WELDING (GS&S D-22)	
EVALUATE THE FOLLOWING OPERATING PRESSURE	
LIMITATIONS TO DETERMINE THE MAXIMUM	
OPERATING PRESSURE PERMITTED DURING WELDING.	
A) (720 PSIG)	WHEN WELDING ON BODY OF THE PIPE. UNLESS,
B) (720 PSIG)	WHEN WELDING WITHIN 3"
OF THE LONGITUDINAL SEAM (EXCEPT DAPD JOINTS, THE CIRCUMFERENCE AND ANY FISH TAIL, ELL, OR WITHIN 3" OF ANY DEFECT (GOUGES, CORROSION, LAMINATIONS, ETC.) IN THE PIPE WHICH EXCEEDS 1/3 OF THE NOMINAL PIPE WALL THICKNESS IN DEPTH AND/OR 1/4 OF THE NOMINAL PIPE DIAMETER IN LENGTH.	

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

[illegible]

APPROVED BY	P5RS 43186
	SUPV
	DSGN
	DWN
	CHKD
	OK RL
	DATE
	SCALES

LOCATION A / CONSTRUCTION DETAILS
GCU5838 MP 0.00
6" PIPE REPLACEMENT
STOCKTON, CALIFORNIA

GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

BILL OF MATL	SHEET 5
DWG LIST	SHEET 1
TRACKING NUMBER	RT-886
SHEET NO.	4 OF 5 SHEETS
74006606	A



**ISSUED
FOR BID
NOT
APPROVED FOR
CONSTRUCTION**

COPY

E

D

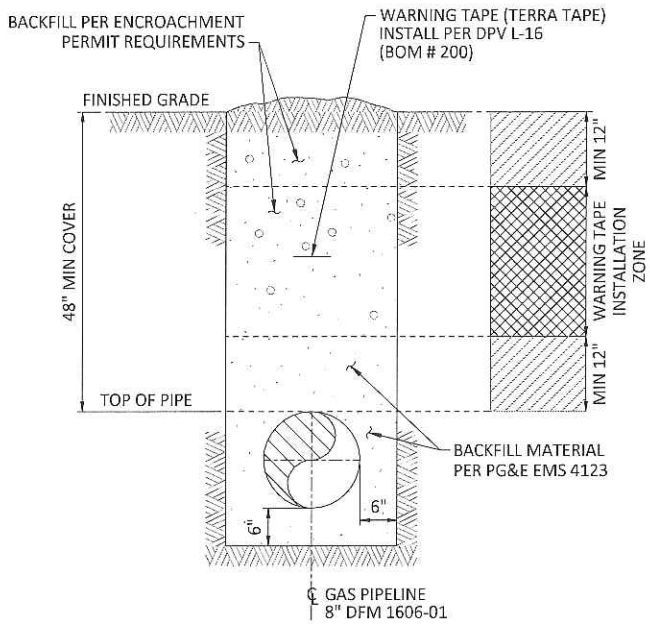
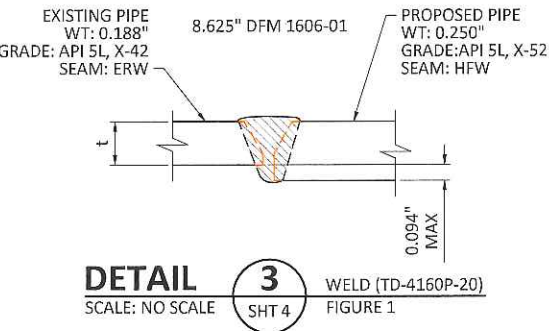
FOLD

C

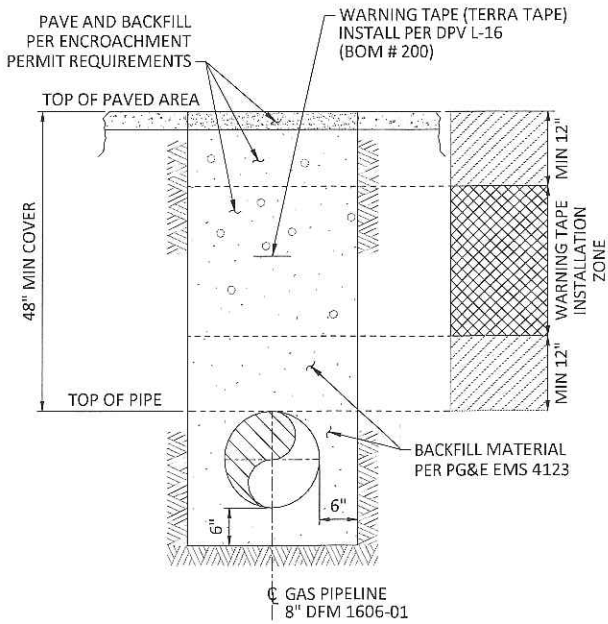
B

A

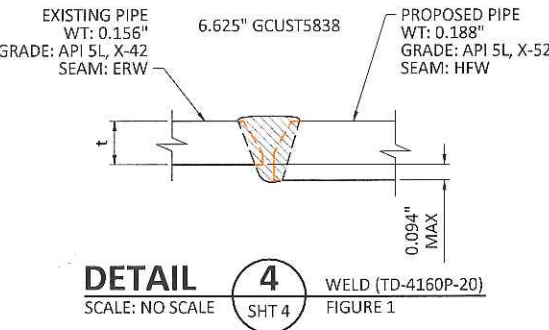
BILL OF MATERIAL							
Item Number	Description	PG&E Material Code	Units	Quantity	Catalog or Drawing Reference	Heat Number (As-Built for pipe & HY fittings)	Serial Number (As-Built for pipe & HY fittings)
CAPITAL ITEMS ORDER #74006606							
101	Pipe, 8.625" OD x 0.250" WT, API 5L, X-52, HFW, Bare	M011186	Ft	12	GS&S A-15		
102	Pipe, 6.625" OD x 0.188" WT, API 5L, X-52, HFW, FBE coated	M010944	Ft	2	GS&S A-15		
103	Pipe, 6.625" OD x 0.280" WT, API 5L, GR B, SMLS, FBE coated	M010014	Ft	6	GS&S A-15		
104	Pipe, 1.050" OD x 0.154" WT, API 5L, GR B, SMLS, Bare	M011951	Ft	10	GS&S A-15		
112	Tee, Reducing, Barred, 8.625" x 6.625" OD, 0.322" x 0.280" WT, GR-B	M024144	Ea	1	GS&S B-20		
113	Cap, 8.625" OD x 0.322" WT, GR-B	M022080	Ea	2	GS&S B-20		
114	Cap, 6.625" OD x 0.280" WT, GR-B	M022038	Ea	1	GS&S B-20		
115	Valve, 6.625", Ball, ANSI 300, Weld Ends, 0.280" WT, For buried service with extension, Exhibit 1 with "A" dimension 3.0", Manufactured in accordance with API 6D and PG&E GS&S F-21.1 Figure 3	M032327	Ea	1	GS&S F-21.1		
116	Elbow, 6.625" OD x 0.280" WT, GR-B, 45 deg, LR	M022158	Ea	2	GS&S B-20		
180	Save-A-Valve Nipple, 1"	M022287	Ea	1	GS&S C-14		
181	Save-A-Valve Nipple, 2"	M022289	Ea	3	GS&S C-14		
200	Terra Tape, 1 Roll	M379947	Ea	1	GS&S L-16		
201	Elbow, 3/4", 45°, Socket Weld, Forged Steel, 3000#	M022587	Ea	6	GS&S B-21		
202	Nipple, Swage, Concentric Reducing, Steel, XS wall, 3/4" End Beveled x 1/2" End Threaded, 3" Long, 2160 PSI	M022616	Ea	2	GS&S B-13.3		
203	Valve, 1/2", Ball, Threaded Ends, 2000#, with Locking Device	M034404	Ea	2	GS&S F-20		
204	Plug, 1/2" Steel, Hex Head, 6000#, Threaded	M021249	Ea	2	GS&S B-10.1		
205	Valve Tee, 1" Mueller # H-17656, 1440 PSI MAX GWP	M022445	Ea	2	GS&S G-11		
211	Box, Complete, Concrete, Full Traffic Assembly, with slip resistant cover, 24" x 36"x 2-6" Deep	M019598	Ea	1	-		



TYPICAL
SCALE: NO SCALE TRENCH NON-PAVED AREA
NATIVE BACKFILL



TYPICAL
SCALE: NO SCALE TRENCH PAVED AREA
NATIVE BACKFILL



**ISSUED
FOR BID
NOT
APPROVED FOR
CONSTRUCTION**

COPY

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



NO.	DATE	DESCRIPTION	PM/SPEC	DWN	CHKD	SUPV	APVD BY
A	02/10/17	90% ISSUED FOR BID	74006606	AJ	CC	RL	JP CS
REVISIONS							

APPROVED BY	PSRS 43186
SUPV	
DSGN	
DWN	
CHKD	
OK	RL
DATE	
SCALES	AS SHOWN

BILL OF MATERIALS / CONSTRUCTION DETAILS
GCUST5838 MP 0.00
6" PIPE REPLACEMENT
STOCKTON, CALIFORNIA
GAS TRANSMISSION & DISTRIBUTION
PACIFIC GAS AND ELECTRIC COMPANY
SAN FRANCISCO, CALIFORNIA

BILL OF MATL	SHEET 5
DWG LIST	SHEET 1
TRACKING NUMBER	RT-886
SHEET NO.	5 OF 5 SHEETS
74006606	A

