



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-1601793**
Date Issued: 06/22/2016
Start Date: 06/27/2016
Exp. Date: 07/15/2016
Project No: PWP730052
Quad: SE

UE/CR/PM NO:31243582

ENCROACHMENT PERMIT

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

Encroachment Type:

Anchor Rplacement			
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Location:

W/S ST JOHN RD 1639' S/O NARCISSUS

In compliance with your request of 06/22/2016, 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		
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Est. Permit Fee: \$436.00

KRIS BALAJI, Director
Department of Public Works

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

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

SAN JOAQUIN COUNTY
2013 JUN 21 PM 3:25
DEPT. OF PUBLIC WORKS

PLEASE PRINT:

Date 6/8/16

To: San Joaquin County
Department of Public Works

PG&E

(Applicant Name)

3185 M Street

(Mailing Address)

Merced, CA 95348

(City, State, Zip Code)

209-726-6367

(Area Code - Telephone Number)

OFFICE USE ONLY

JOB # 730052 REF # _____
APN _____ CR # _____
EXP. DATE 7-15-16
VALID 6-27-16 TO 7-15-16 DRIVEWAYS:
STREET St John * _____
AREA Escalon QUAD SE * _____
TYPE Bellhole * _____
FORMS SSWW R29
NOTES _____

Sketch (Detailed plans may be submitted)


PM# 31243582

Please see attached sketch

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the west side of Saint John Road approximately 1,639 feet 1/4 mile south of the south property line of Narcissus Road, by performing the following work (description of work):
PG&E to dig 5'x5' bell hole to cut off gas service to 19788 Saint John Rd., Escalon.

Work will commence on or about 6/27/16 for approximately 1 days.

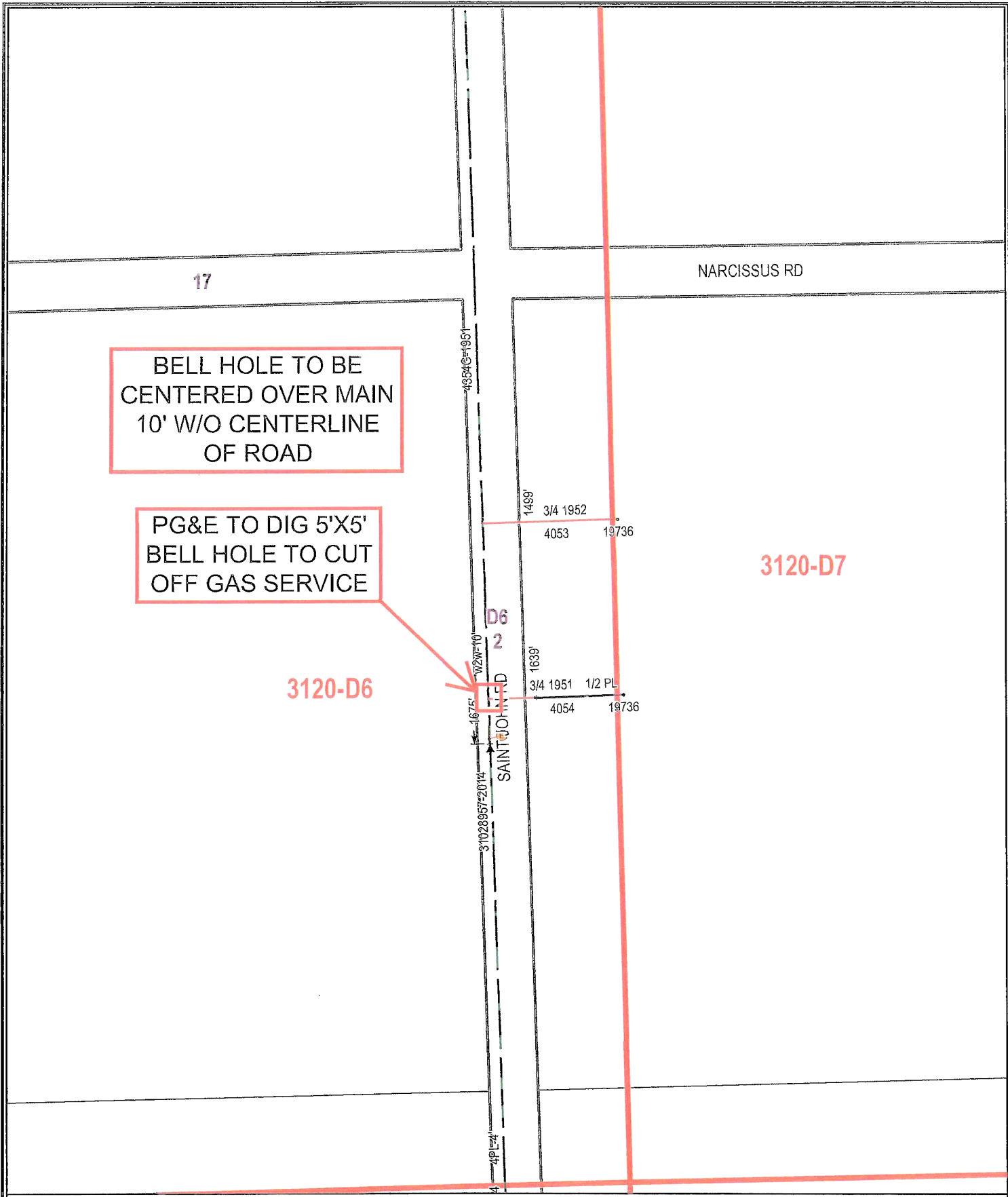
I, the undersigned, certify that I am the owner of the respective property, or am qualified to represent the owner and agree to do the work described above in accordance with the rules and regulations of San Joaquin County and subject to inspection and approval.



Signature of Applicant - Title

6/8/16

Date



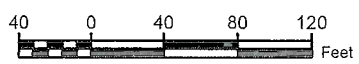
"WARNING: Confidential, Proprietary Information

This document contains confidential, proprietary information that is the sole property of Pacific Gas and Electric Company (PG&E) and is intended for use only by authorized PG&E employees and agents.

Copyright Pacific Gas and Electric Company 2016"

PACIFIC GAS & ELECTRIC COMPANY
19788 SAINT JOHN RD ESCALON


SCALE : 1 inch = 100 feet

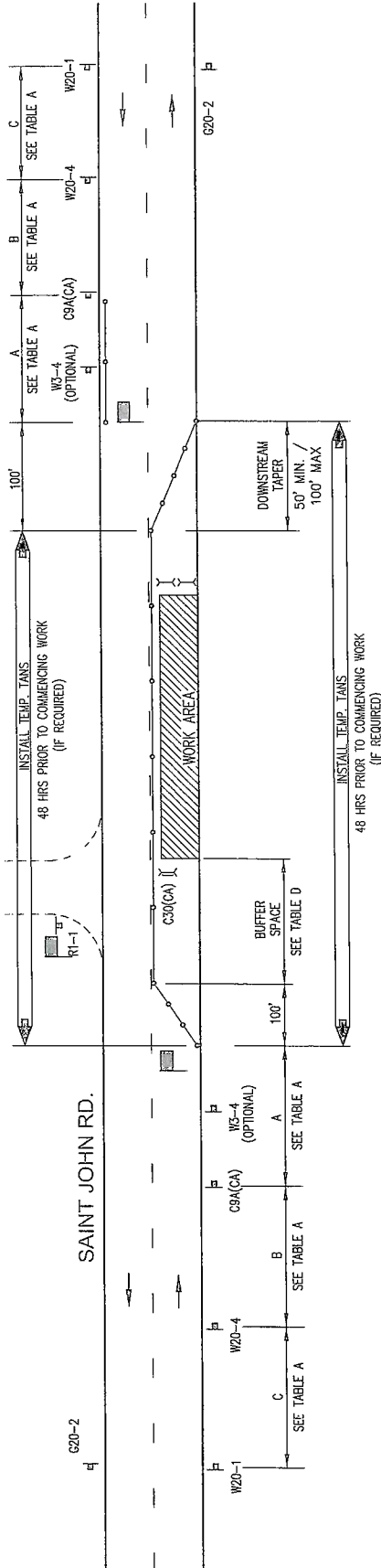


MAP FOR REFERENCE ONLY
 MAP LAST UPDATED: 6/2/2016

19788 SAINT JOHN RD., ESCALON

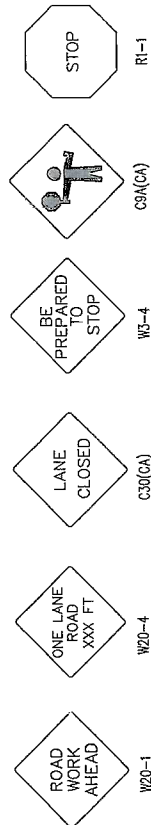
NARCISSUS RD. 

CLOUGH RD. 



LEGEND

- TYPE III BARRICADE W/SIGN
- TYPE III BARRICADE W/O SIGN
- TYPE II BARRICADE W/SIGN
- TYPE II BARRICADE W/O SIGN
- CHANNELIZING DEVICE - SEE TABLE "T" FOR SPACING
- TRAFFIC CONE WITH CLIP ON SIGN
- SIGN
- SIGNALIZED INTERSECTION
- ARROW PANEL (FLASHING ARROW) (WHERE REQUIRED)
- HIGH LEVEL WARNING DEVICE (FLAGTREE) (OPTIONAL)
- FLAGGER
- TANS TOW AWAY NO STOPPING --- TO --- (SHOW HOURS)
- TANSAT TOW AWAY NO STOPPING ANY TIME
- WORK ZONE (ACTIVITY AREA) LIMITS
- DIRECTION OF TRAFFIC (NOT PAVEMENT MARKING)
- ROADWAY DESIGNATION (A THROUGH D)



INDICATE NORTH WITH A "N" AND AN ARROW POINT

DATES OF TEMPORARY NO PARKING ZONE

WORKSITE TRAFFIC CONTROL PLAN
MIDBLOCK HALF STREET CLOSURE
FLAGGER CONTROL

DATE	SCALE	NONE	DRAWING NO.	4
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Table A - Recommended Advance Warning Sign Spacing

Posted Speed	Distance Between Signs **		
	A	B	C
Urban (low speed) 25 mph or less	100	100	100
Urban (high speed) more than 25 mph to 40 mph	250	250	250
Urban (high speed) more than 40 mph	350	350	350
Rural	500	500	500
55 mph & above	1,000	1,500	2,640

** Distances are shown in feet. The column headings **A, B, and C** are the dimensions shown on drawings No. 1-48. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The "first sign" is the sign in a three-sign series that is closest to the TTC zone. The third sign is one in a three sign series encountered by a driver/motorist approaching a TTC zone).

Table B - Taper Length Criteria for Temporary Traffic Control Zones

Type of Taper	Taper Length (L)
Merging Taper	at least L
Shifting Taper	at least 0.5L
Shoulder Taper	at least 0.33L
One-Lane, Two-Way Traffic Taper	50 feet minimum, 100 feet maximum
Downstream taper	50 feet min., 100 feet max. per lane

Table C - Formulas for Determining Taper Lengths

Speed Limit	Taper Length (L) Feet
40 mph or less	$L = WS^2/60$
45 mph or more	$L = WS$

Where: L = taper length in feet
W = width of offset feet
S = posted speed limit, or off peak 85th- percentile speed prior to work starting. Or the anticipated operating speed in mph

Table D – Longitudinal Buffer Space or Flagger Station Spacing on Downgrades

Speed (mph)	% Downgrade (Buffer Space)			
	0% (ft)	-3% (ft)	-6% (ft)	-9% (ft)
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891

Table E – Taper Length Criteria for Temporary Traffic Control zones for 12 feet Offset Width

Speed* S (mph)	Minimum Taper Length ** For Width of Offset 12 ft (W)			
	Merging L (ft)	Shifting L/2 (ft)	Shoulder L/3 (ft)	Down Stream (ft) ***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50

* Posted Speed, off peak 85th percentile speed prior to work starting, or the anticipated operating speed.

** For other offsets use the following merging taper length formula for L:
For speeds of (40 mph) or less ($L=WS^2/60$)
For speeds of (45 mph) or more ($L=WS$)

*** Maximum downstream taper length is 100 feet.

Channelizing Devices

Channelizing devices (cones, tubular markers, drums or vertical panels) are elements in a total system of temporary traffic control for use during construction and maintenance operations. These elements shall be preceded by a subsystem of warning devices, adequate in size, number and placement for the type of roadway on which the work will take place. See CA MUTCD Figure 6F-7 for channelizing devices requirements (see page 25).

Channelizing devices can be used as follows:

1. To channel and/or divert traffic in advance of a temporary traffic control zone (work zone).
2. To define traffic lanes through the work zone.
3. To define a change in the position of the lanes around a work zone.
4. On detours to define curves and the edges of the roadway.
5. To separate opposing lanes of traffic.

Table F – Maximum Spacing of Channelizing Devices

Speed (mph)	Maximum Channelizer Spacing		
	Taper* (ft)	Tangent (ft)	Conflict** (ft)
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	55	110	27
60	60	120	30
65	65	130	32
70	70	140	35

* Maximum channelizer spacing for all speeds on one-lane/two-way tapers is (20 ft). Maximum channelizer spacing for all speeds on downstream tapers is (20 ft). All other tapers are as shown.

** Use on intermediate and short term projects for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers.

Note: A minimum 10-ft drivable lane width should be provided where possible.

Crashworthy Temporary Traffic Barriers

“Crashworthy” is a characteristic of a roadside appurtenance that has been successfully crash tested in accordance with a national standard such as the NCHRP Report 350,

“Recommended Procedures for the Safety Performance Evaluation of Highway Features.”

Temporary traffic barriers, including their end treatments, shall be crashworthy. In order to mitigate the effect of striking the upstream end of a temporary traffic barrier, the end shall be installed in accordance with AASHTO's “Roadside Design Guide” (see Section 1A.11) by flaring until the end is outside the acceptable clear zone or by providing crashworthy end treatments.

Barricades

The function of barricades is to separate the motorist from objects or unusual situations created by construction or maintenance operations in or near the traveled way. Barricades should not be used to guide motorist through the transition or work zones.

The barricade would not be used where a collision with the barricade would be more severe than a collision with the object being separated. At such locations, channelizers or similar less rigid devices should be used.

Barricade design:

Barricades for vehicular traffic shall be of three types conforming to the CA MUTCD: Stripes on barricade rails shall be alternating orange and white retroreflective stripes sloping downward at an angle of 45 degrees in the direction road users are to pass. The stripes shall be 6 inches wide. When rail lengths are less than 36 inches, 4-inch wide stripes may be used.

The minimum length for Type 1 and Type 2 Barricades shall be 24 inches, and the minimum length for Type 3 Barricades shall be 48 inches. Each barricade rail shall be 8 to 12 inches wide. Barricades used on high-speed roadways shall have a minimum of 270 square inches of retroreflective area facing road users.

Note: The bottom of any barricade mounted signs shall be placed a minimum of 1-ft above the traveled way.

Arrow Boards

Excerpts from California MUTCD Section 6F.61 Arrow Boards:

Standard:

An arrow board shall be a sign with a matrix of elements capable of either flashing or sequential display. This sign shall provide additional warning and directional information to assist in merging and controlling road users through or around a Temporary Traffic Control (TTC) zone.

Guidance:

An arrow board in the arrow or chevron mode should be used to advise approaching traffic of a lane closure along major multi-lane roadways in situations involving heavy traffic volumes, high speeds and/or limited sight distances or at other locations and under the conditions where road users are less likely to expect such lane closures. If used, an arrow board should be used in combination with appropriate signs, channelizing devices, or other TTC

devices. An arrow board should be placed on the shoulder of the roadway or, if practical, further from the traveled lane. It should be delineated with retro reflective TTC devices. When the arrow board is not being used, it should be removed, if not removed, it should be shielded, or if the previous two options are not feasible, it should be delineated with retro reflective devices.

Standard:

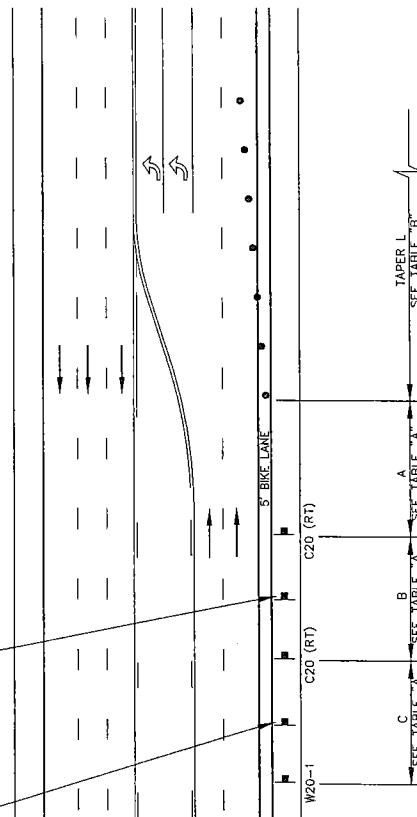
Arrow boards shall meet the minimum size, legibility, distance, number of elements, and other specifications shown in Figure 6F-6 (see page 26).

Standard:

When arrow boards are used to close multiple lanes, a separate arrow board shall be used for each closed lane.

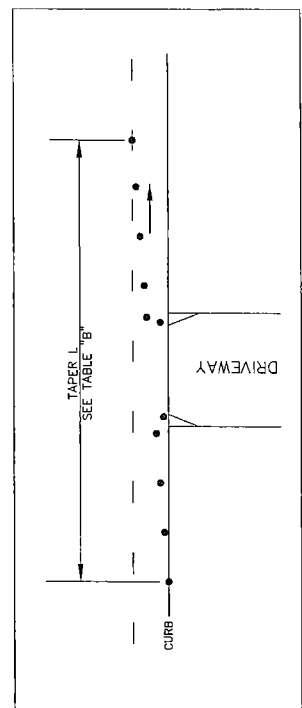
Guidance:

When arrow boards are used to close multiple lanes, if the first arrow board is placed on the shoulder, the second arrow board should be placed in the first closed lane at the beginning of the second merging taper. When the first arrow board is placed in the first closed lane, the second arrow board should be placed in the second closed lane at the downstream end of the second merging taper.

BIKE LANE CLOSURE SIGNAGE
(IF NECESSARY)

(IF NECESSARY)

CONSTRUCTION NOTE:
ALL DRIVEWAYS TO REMAIN OPEN
(WHENEVER POSSIBLE) THROUGHOUT
TRAFFIC CONTROL ZONE



SEE TABLE 'A'-'F' FOR SIGN AND CHANNELIZER DEVICE SPACING AND TAPER LENGTH

SPEED	APPROACH STREET	TAPER LENGTH	SIGN SPACING	CHANNELIZER SPACING

SEE TABLE 'A'-'I' FOR SIGN AND CHANNELIZER DEVICE SPACING AND TAPER LENGTH

SPEED	APPROACH STREET	TAPER LENGTH	SIGN SPACING	CHANNELIZER SPACING
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ABBREVIATIONS:

MIN	=	Minimum
LT	=	Left
RT	=	Right
LTP	=	Lane Traffic Panel
TANSAT	=	Tow Away, No Stopping, Anytime
TANS	=	Tow Away, No Stopping

MINIMUM RECOMMENDED DELINEATOR/CONE & SIGN PLACEMENT

POSTED SPEED LIMIT	TAPER LENGTH FOR 12-FT. LANE			CHANNELIZER SPACING		SIGN SPACING (ADVANCE OF TAPER & BETWEEN SIGNS)
	MERGING	SHIFTING	SHOULDER	TAPER	TANGENT	
20 MPH	80 FT.	40 FT.	27 FT.	20 FT.	40 FT.	100 FT.
25 MPH	125 FT.	63 FT.	42 FT.	25 FT.	63 FT.	100 FT.
30 MPH	180 FT.	90 FT.	60 FT.	30 FT.	90 FT.	250 FT.
35 MPH	245 FT.	123 FT.	82 FT.	35 FT.	123 FT.	250 FT.
40 MPH	320 FT.	160 FT.	107 FT.	40 FT.	160 FT.	250 FT.
* 45 MPH	540 FT.	270 FT.	180 FT.	45 FT.	270 FT.	350 FT.
* 50 MPH	600 FT.	300 FT.	200 FT.	50 FT.	300 FT.	350 FT.
* 55+ MPH	660 FT.	330 FT.	220 FT.	55 FT.	330 FT.	PER TABLE 'A'

NOTES

1. A Flashing Arrow sign shall be used for each lane closed.
- *2. Two lane closure signs (C-20) shall be used on the approach to a lane closure with speeds of 45 mph or greater.

NOTE: This chart based on 12-foot wide lanes. For lane widths greater than 12 feet, use the following formulae:

Taper formula:

$$L = S \times W \text{ for speeds of 45 mph or more.}$$

$$L = \frac{WS^2}{60}$$
 for speeds of 40 mph or less.

Where:

L = Minimum length of taper.

S = Numerical value of posted speed limit prior to work or 85 percentile speed.

W = Width of offset.

i.e.: 50 mph and 19' lane;

i.e.: $50 \text{ mph} \times 19 \text{ h} = 950 \text{ feet}$

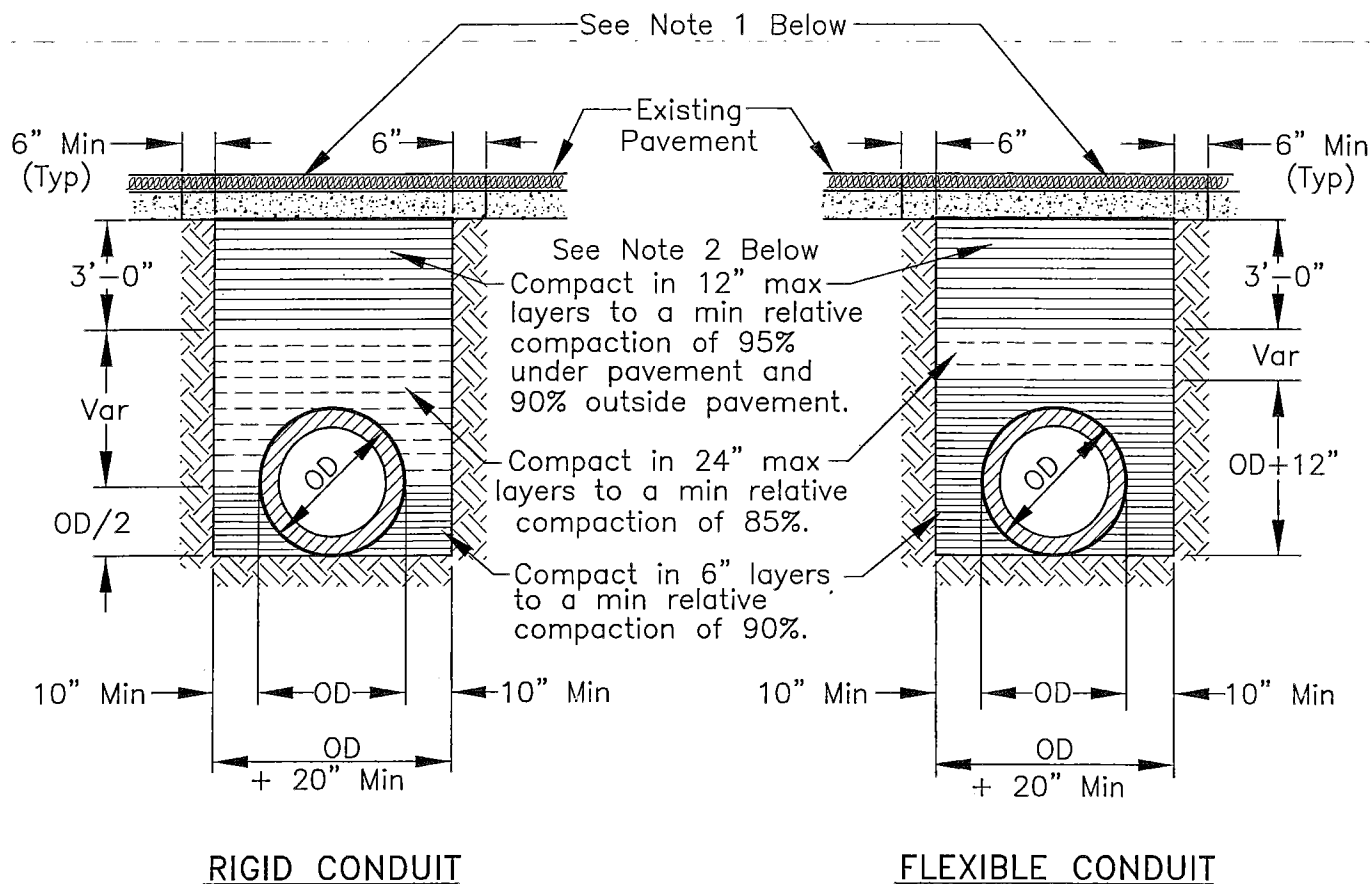
WORKSITE TRAFFIC CONTROL PLAN
STANDARD DETAILS, ABBREVIATIONS,
AND REFERENCE CHART

[illegible]

DAVE		
SCALL		NONE

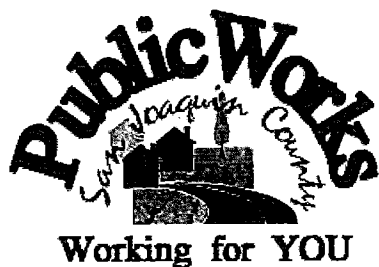
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DATE: 10/10/2018 10:10:10 AM



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:

No.	Revision	Description	Date

Std. Dwg. No.

R-29

Date: DEC 2014

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 within 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, lampoles, 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.