



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-1803585
Date Issued: 10/11/2018
Start Date: 10/11/2018
Exp. Date: 12/01/2018
Project No: PWP7110005
Quad: SS

ENCROACHMENT PERMIT

To: OC COMMUNICATIONS
2204 KAUSEN DR., STE. 100
ELK GROVE, CA 95758

Encroachment Type:

TCP			
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Location:

1011 N BROADWAY AV

In compliance with your request of **10/11/2018**, 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: \$490.00

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, 3339, 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 9/11/2018

To: San Joaquin County
Department of Public Works

Sydney Saelee / O.C. Communications
(Applicant Name)

2204 Kausen Dr, Suite 100
(Mailing Address)

Elk Grove, CA 95758
(City, State, Zip Code)

916-514-9809
(Area Code - Telephone Number)
ssaelee@occom.com
(Email Address)

OFFICE USE ONLY

JOB #	<u>110005</u>	REF #	
APN		CR #	
EXP. DATE			
VALID		TO	
STREET	<u>Anita St</u>		
AREA	<u>Stockton</u>	QUAD	<u>SS</u>
TYPE			
FORMS	<u>SSWW</u>		
NOTES			

Sketch (Detailed plans may be submitted)

SEE ATTACHED

Additional Contact: Luis Ordaz 209-400-7887 luisordaz.cityrise@gmail.com

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the South side of E Anita St approximately 530 feet mile East of N Golden Gate Ave, by performing the following work (description of work):

Tie into existing pole and place 145' of new aerial fiber to existing pole on E Anita St.

Work will commence on or after 10/10/18 for approximately 3 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.

Sydney Saelee
Signature of Applicant - Title

09/11/18
Date

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, 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.

Work Address: 1011 North Broadway Ave, Stockton, CA

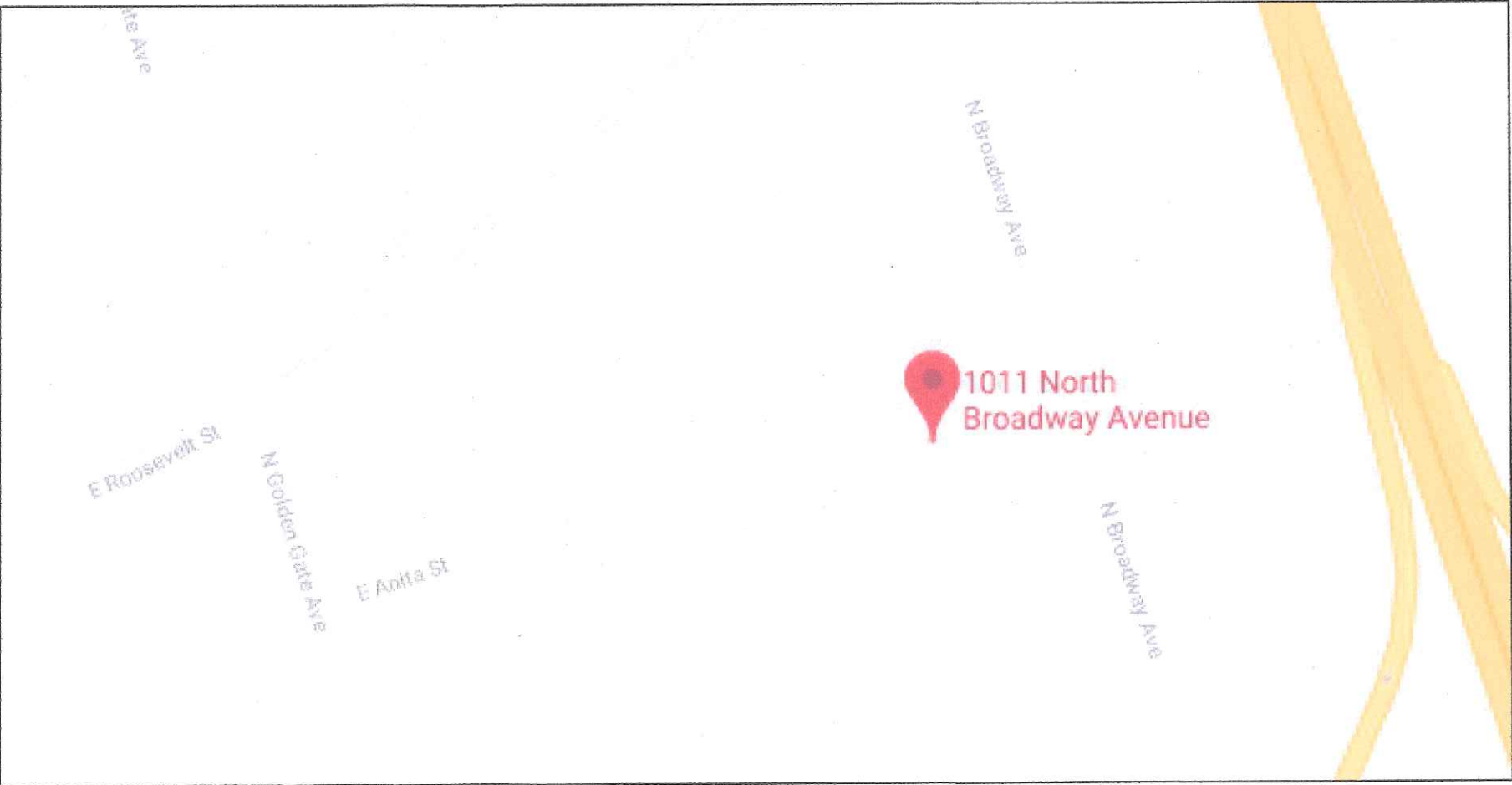
- Work Description: Tie into existing pole & place 145' of new aerial fiber to existing pole on E Anita St.



COMCAST

JT#: 273662

VICINITY MAP



BUILD



Aerial Footage:	~145'
Bore Pits:	0
Potholes (2X2):	0
New B36 Vaults:	0
Existing Vault(s):	0
New Pedestals:	0
Existing Poles:	2
Overpull Existing Conduit:	~0'

LEGEND

Cover-Title	#1
Symbology & Abbreviations	#2
Construction Plans	#2
Underground Details	#3

THIS IS AN COMCAST DOCUMENT, PROPRIETARY & CONFIDENTIAL				1011 N BROADWAY AVE, STOCKTON	
DESIGN:	REV	DESCRIPTION	DATE	PROJ#: 273662	
DRAWN BY:				CONSTRUCTION TYPE: Aerial	
APPROVED:				SYSTEM:	
APPROVED:				NODE:	SHEET: 1 OF 3

LINETYPES

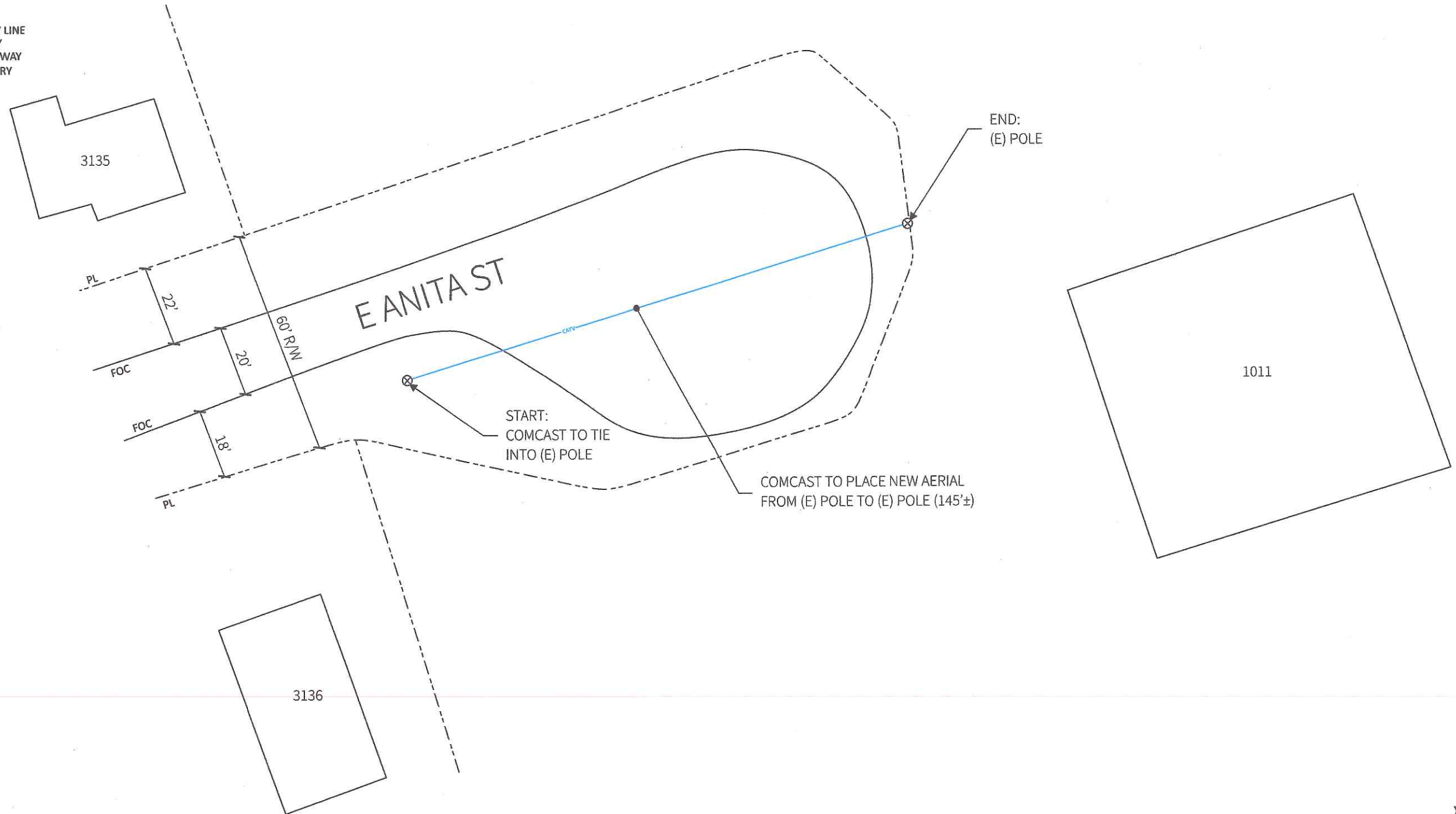
 PROPOSED AERIAL ROUTE
 PROPERTY LINE

ABBREVIATIONS

COMCAST	COMCAST	PL	PROPERTY LINE
FOC	FACE OF CURB	DWY	DRIVEWAY
(E)	EXISTING	R/W	RIGHT OF WAY
(N)	NEW	(T)	TEMPORARY

SYMBOLS

 EXISTING POLE

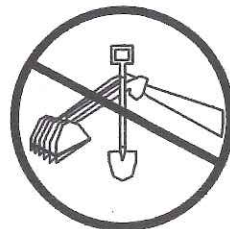


(1" = 30ft)
 0' 15' 30' 45' 60'



THIS IS AN COMCAST DOCUMENT, PROPRIETARY & CONFIDENTIAL

DESIGN:	REV	DESCRIPTION	DATE
DRAWN BY:			
APPROVED:			
APPROVED:			
APPROVED:			



IMPORTANT NOTICE

Section # 4216/4217 of the Government Code requires a Dig Alert Identification Number to be issued before a "Permit to Excavate" will be valid For your Dig Alert I.D.

CALL TOLL FREE
 48 HOURS BEFORE YOU DIG
 UNDERGROUND SERVICE ALERT
 1-800-227-2600

1011 N BROADWAY AVE, STOCKTON

PROJ#: 273662

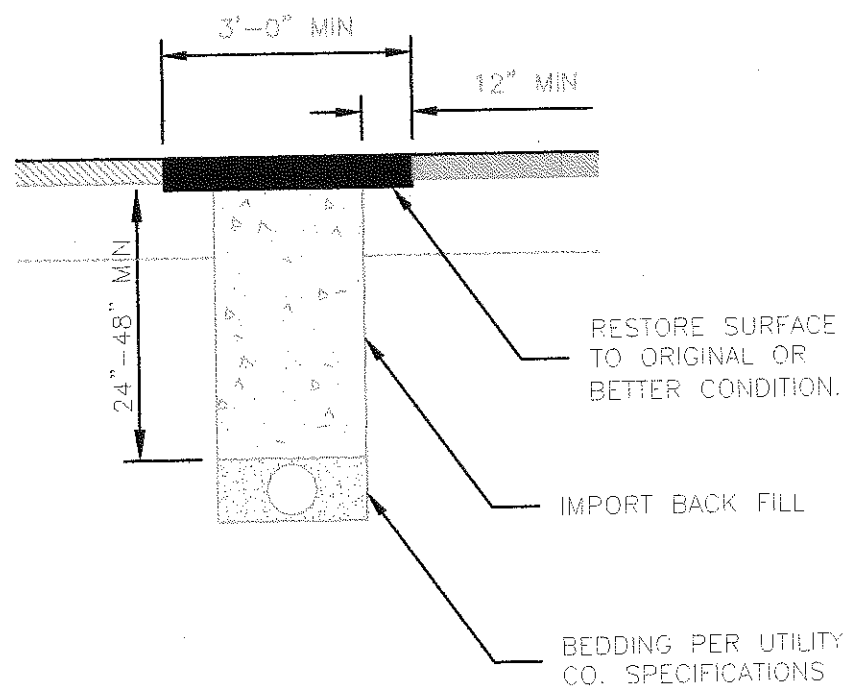
CONSTRUCTION TYPE: Aerial

SYSTEM:

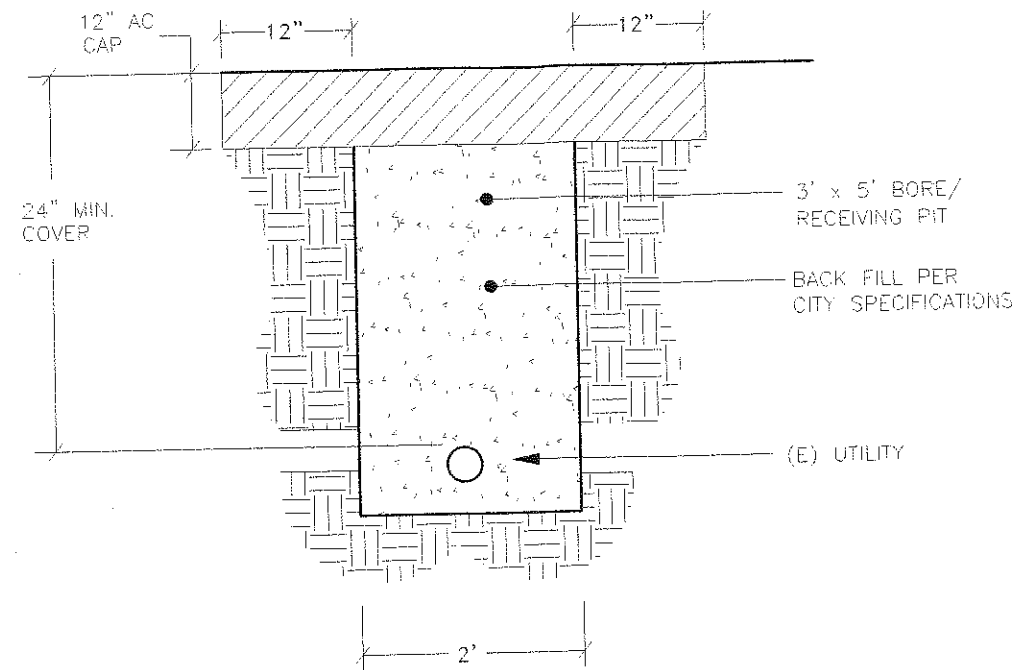
NODE:

SHEET: 2 OF 3

TRENCH DETAILS (TYP.)



BORE PIT DETAIL (TYP.)



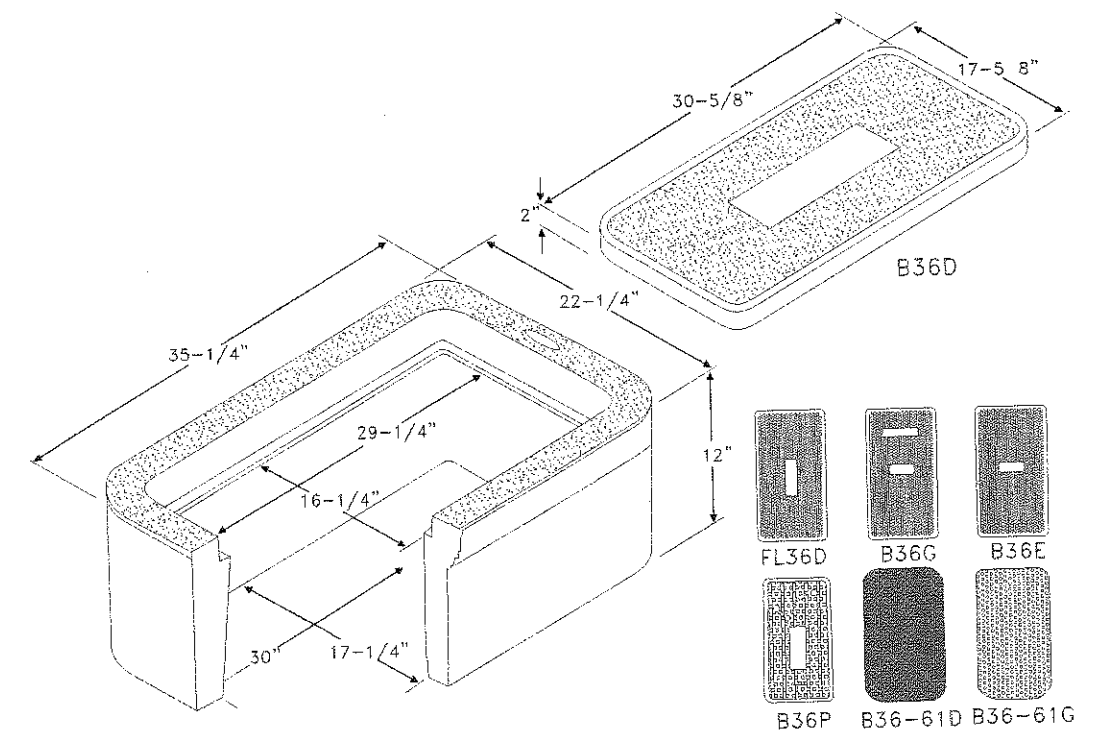
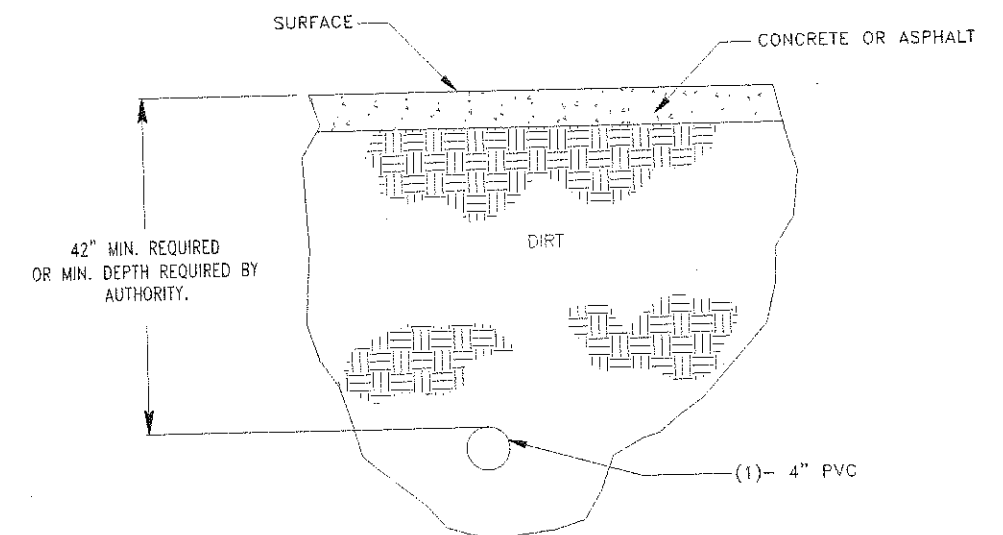
NOTE: ALL BORE DETAILS ARE TYPICAL
UNLESS OTHERWISE NOTED ON PLANS.

GENERAL NOTES

- ✧ CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA), AT LEAST 48 HOURS (AND NOT MORE THAN 14 DAYS) PRIOR TO THE START OF CONSTRUCTION BY CALLING (800) 227-2600
- ✧ CONTRACTOR SHALL POTHOLE/HAND DIG AND VERIFY ALL UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION. ALL UTILITY LOCATIONS ON PLANS ARE APPROXIMATE, CONTRACTOR MUST VERIFY.
- ✧ CONTRACTOR SHALL VERIFY ALL FOOTAGE ON SITE, PRIOR TO THE START OF CONSTRUCTION. ALL DIMENSIONS SHOWN ON PLAN ARE APPROXIMATE.
- ✧ CONTRACTOR SHALL KEEP A COPY OF APPROVED PLAN(S) AND PERMIT(S) AT THE JOB SITE AT ALL TIME AND PRESENT IT TO AN AUTHORIZED AGENT OF THE CITY/COUNTY AND/OR LAW ENFORCEMENT UPON REQUEST.
- ✧ CONTRACTOR SHALL ENSURE THAT ANY EXISTING FACILITIES DAMAGED OR REMOVED SHALL BE REPLACED IN KIND OR BETTER, INCLUDING BUT NOT LIMITED TO REPLACING EXISTING STRIPING AND REMOVING UNNECESSARY "USA" MARKINGS.
- ✧ CONTRACTOR SHALL WORK ONLY DURING APPROVED HOURS, UNLESS OTHERWISE APPROVE IN WRITING BY THE "CITY/COUNTY ENGINEER".

- ✓ CONTRACTOR SHALL PERFORM ALL WORK AND TRAFFIC CONTROL IN ACCORDANCE WITH THE CITY OF WORK AND STATE OF CALIFORNIA STANDARD PLANS AND SPECIFICATIONS, AND CURRENT CALIFORNIA DEPARTMENT OF TRANSPORTATION "MANUAL OF TRAFFIC CONTROLS AND MAINTENANCE OF HAZARD ZONE" AND "MANUAL OF WARNING SIGNS, LIGHTS, AND DEVICES" FOR USE IN PERFORMANCE OF WORK UPON HIGHWAYS. FLASHING ARROW SIGNS SHALL BE REQUIRED FOR ALL LANE CLOSURES.
- ✓ CONTRACTOR SHALL ENSURE ALL WORK PERFORMED IS IN ACCORDANCE WITH REGULATIONS AND STANDARDS SET BY ANY AND ALL REGULATORY AGENCIES HAVING JURISDICTION AT THIS WORK SITE, INCLUDING BUT NOT LIMITED TO THE STATE OF CALIFORNIA PUBLIC UTILITY COMMISSION (CPUC) AND THE STATE OF CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT (CAL OSHA).
- ✓ CONTRACTOR SHALL NOTIFY RESIDENTS AFFECTED BY THE WORK IN LANDSCAPED AREA IN ADVANCE OF CONSTRUCTION.
- ✓ CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS INSPECTOR 48 HOURS IN ADVANCE OF WORK COMMENCING.

DIRECTIONAL BORE UNDER SIDEWALK OR ROADWAY.
N.T.S.

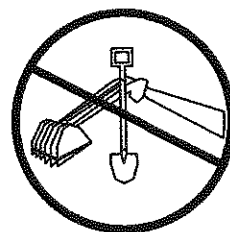


B-36 VAULT DETAIL

SCALE: NOT TO SCALE

THIS IS AN COMCAST DOCUMENT, PROPRIETARY & CONFIDENTIAL

DESIGN:	REV	DESCRIPTION	DATE
DRAWN BY:			
APPROVED:			
APPROVED:			
APPROVED:			



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Section # 4216/4217 of the Government Code requires a Dig Alert Identification Number to be issued before a "permit to Excavate" will be valid For your Dig Alert I.D.

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UNDERGROUND SERVICE ALERT
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1011 N BROADWAY AVE, STOCKTON

PROJ#: 273662

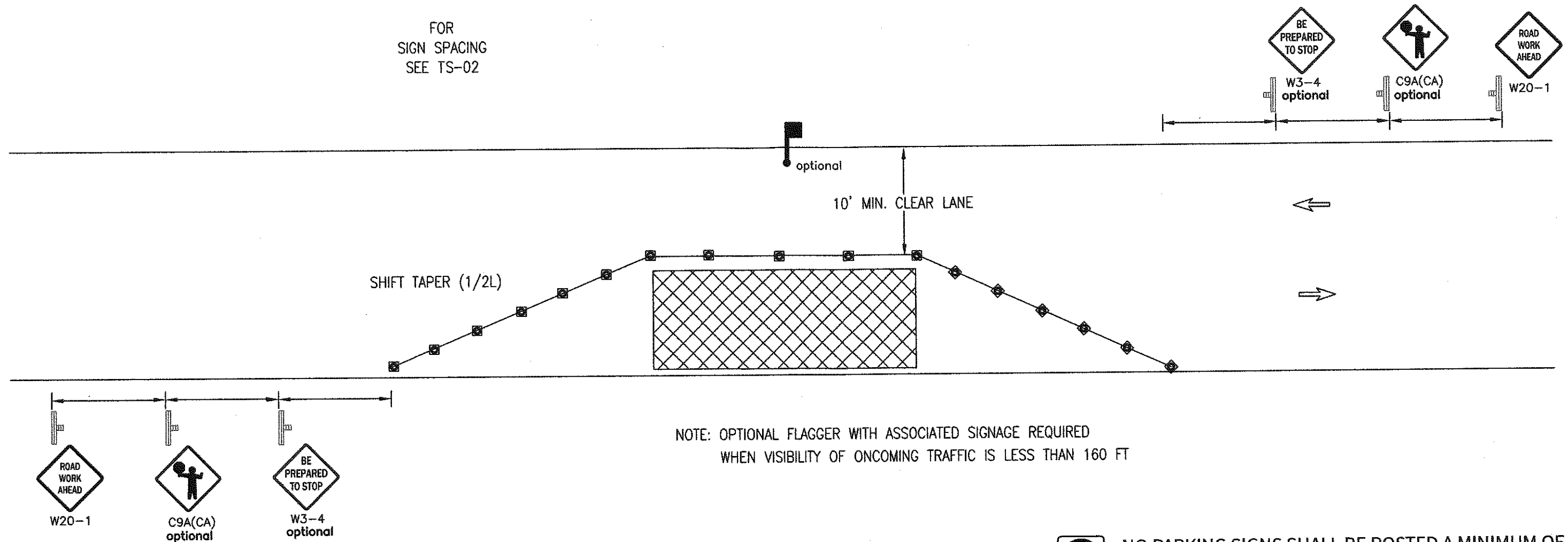
CONSTRUCTION TYPE: Aerial

SYSTEM:

NODE:

SHEET: 3 OF 3

FOR
SIGN SPACING
SEE TS-02

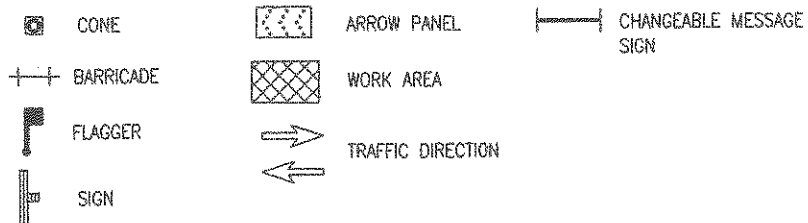


NOTE: OPTIONAL FLAGGER WITH ASSOCIATED SIGNAGE REQUIRED
WHEN VISIBILITY OF ONCOMING TRAFFIC IS LESS THAN 160 FT



NO PARKING SIGNS SHALL BE POSTED A MINIMUM OF
72 HRS IN ADVANCE OF THE RESTRICTION. THE DATE
AND TIME OF THE RESTRICTION SHALL BE POSTED
CLEARLY ON SIGNS

LEGEND



GENERAL NOTES

- See TS-03 for sign description. All warning signs shall have a black legend and border on an orange background unless otherwise noted on the drawing.
- See TS-02 for sign spacing, spacing of cones, taper and buffer lengths. Sign spacing may be increased and cone spacing may be decreased.
- Signs may not be substituted.
- Signs and Devices must be visible at 1000'.
- Share The Road signage required when outermost lane plus paved shoulder is less than 14'.
- The W13-1P(25) shall be used when the lane adjacent to work is less than 11 feet and when the work is not protected by a fixed barrier.

COMPETENT PERSON


NAME **SYDNIE SAELEE**

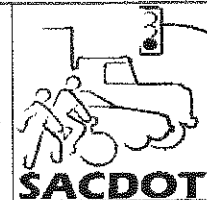
PHONE **916-514-9809**

POSTED SPEED LIMIT	*TAPER LENGTH	*SPACING OF CONES	*SIGN SPACING	*BUFFER LENGTH
25 MPH	63'	25' LONG. 13' TAPER	100' - 200'	N/A

* REFERENCE TABLES ON TS-02

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	-Revised Entire Sheet	GDK	2/14


REZA MOGHISSI, CHIEF
DEPARTMENT OF TRANSPORTATION





M & O TYPICAL TRAFFIC CONTROL PLANS

SIDE OF ROAD - WORK AREA

TWO LANE TRAFFIC CONTROL
WITHOUT CENTERLINE

JOB NO. _____
TEMPLATE NAME _____
DRAWN _____ LB _____
DESIGNED _____
CHECKED _____ SU/GK _____
SHEET DATE 7/1/2010

SCALE
HOR: N/A
VER: N/A
TRAFFIC SHEET
TS-01

Posted Speed	Formula	Buffer Space	Minimum Taper Lengths									Maximum *Cone Spacing		Sign Spacing 	LIDG (Ft) 
			10' Offset			11' Offset			12' Offset						
			L	½ L	1/3 L	L	½ L	1/3 L	L	½ L	1/3 L	Long.	Taper & LIDG		
			Merge	Shift	Shoulder	Merge	Shift	Shoulder	Merge	Shift	Shoulder				
25	$L = \frac{WS^2}{60}$	155'	104'	52'	35'	115'	57'	38'	125'	63'	42'	25'	13'	100' To 200'	94'
30		200'	150'	75'	50'	165'	83'	55'	180'	90'	60'	30'	15'	120' To 250'	113'
35		250'	204'	102'	68'	225'	112'	75'	245'	123'	82'	35'	18'	140' To 280'	131'
40		305'	267'	133'	89'	293'	147'	98'	320'	160'	107'	40'	20'	160' To 320'	150'
45	L = WS	360'	450'	225'	150'	495'	248'	165'	540'	270'	180'	45'	23'	360' To 540'	169'
50		425'	500'	250'	167'	550'	275'	183'	600'	300'	200'	50'	25'	400' To 600'	197'
55		495'	550'	275'	183'	605'	303'	202'	660'	330'	220'	50'	28'	440' To 660'	210'
60		570'	600'	300'	200'	660'	330'	220'	720'	360'	240'	50'	30'	480' To 720'	225'
65		645'	650'	325'	217'	715'	358'	238'	780'	390'	260'	50'	33'	520' To 700'	244'
70		730'	700'	350'	233'	770'	385'	257'	840'	420'	280'	50'	35'	560' To 820'	263'



Both are based on:

- 1.) 85th % or if not available, then use
- 2.) Posted Speed Limit (PSL)

L = Taper Length

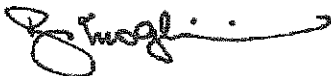
S = Speed

W = Width (Offset from path of travel)

LIDG = Lateral Intrusion Deterrence Gap (Ref: Ontario Traffic Manual -Book 7)

* Cones shown on templates are illustration purposes only. Exact number of cones required shall be based on cone spacing, taper lengths, actual field conditions, etc...

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	-Delete Low/High Spd / Add LIDG / Revise Sign Spacing	GDK	2/14



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DEPARTMENT OF TRANSPORTATION



M & O TYPICAL TRAFFIC CONTROL PLANS

DEVICE SPACING TABLE

SIGN SPACING, TAPER LENGTH AND CONE SPACING TABLE

JOB NO. _____
TEMPLATE NAME _____
DRAWN _____ LB
DESIGNED _____
CHECKED _____ SU/GK
SHEET DATE
7/1/2010

SCALE
HOR: N/A
VER: N/A
TRAFFIC SHEET
TS-02



C9A(CA)
(OB)



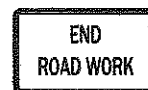
C12(CA)
(OB)



C17
(OB)



C30(CA)
(OB)



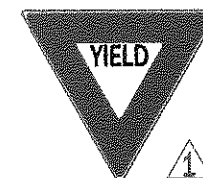
G20-2
(OB)



R1-1
(RW)



W3-5a (XX)
(OB)



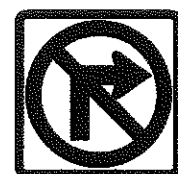
R1-2
(RW)



R1-2aP
(BW)

SIGN COLOR LEGEND

- (OB) ORANGE & BLACK
- (RW) RED & WHITE
- (BW) BLACK & WHITE
- (BY) BLACK & YELLOW
- (RBW) RED, BLACK & WHITE



R3-1
(RBW)



R3-2
(RBW)



R3-4
(RBW)



R3-5L
(BW)



R3-5R
(BW)



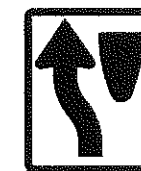
R3-7L
(BW)



R3-7R
(BW)



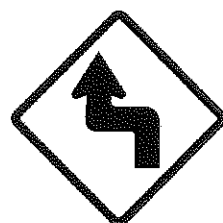
R4-7
(BW)



R4-8
(BW)



R9-3A
(RBW)



W1-3L
30 MPH Or Less
(OB)



W1-3R
30 MPH Or Less
(OB)



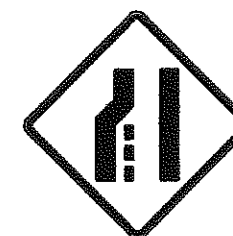
W1-4L
35 MPH Or Greater
(OB)



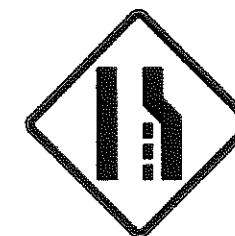
W1-4R
35 MPH Or Greater
(OB)



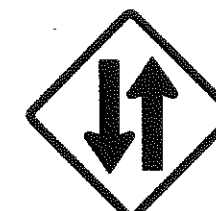
W3-4
(OB)



W4-2L
(OB)



W4-2R
(OB)



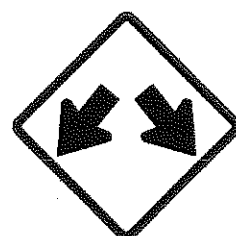
W6-3
(OB)



W9-3
(OB)



W11-1/W16-1
COMBO
(OB)



W12-1
(OB)



W13-1P(25)
(OB)



W20-1
(OB)



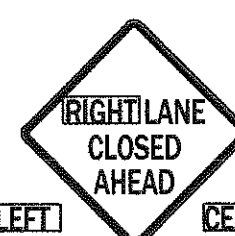
W20-2
(OB)



W20-3
(OB)



W20-4
(OB)



W20-5(L)
W20-5(R)
(OB)



W21-1
(OB)



C24
(OB)

REVISIONS			
REV.	DESCRIPTION	BY	DATE
1	-Add / Revise Signs	GDK	2/14

Reza Moghissi
 REZA MOGHISSI, CHIEF
 DEPARTMENT OF TRANSPORTATION



M & O TYPICAL TRAFFIC CONTROL PLANS
TYPICAL CONSTRUCTION SIGNS

JOB NO. _____
 TEMPLATE NAME _____
 DRAWN _____ LB _____
 DESIGNED _____
 CHECKED _____ SU/GK _____
 SHEET DATE 7/1/2010

SCALE
 HOR: N/A
 VER: N/A
 TRAFFIC SHEET
 TS-03