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-1601790**
Date Issued: 06/21/2016
Start Date: 06/22/2016
Exp. Date: 09/01/2016
Project No: PWP7110005
Quad: SS

ENCROACHMENT PERMIT

To: CALTRANS/ QUAN TRINH
611 SAN JUAN AVE.
STOCKTON, CA 95203

Encroachment Type:

Bell Hole	Bore (up to 12 inch Dia)	Trench	

Location:
S/S OF MARIPOSA RD. STARTING POINT SECTION AVE. (COUNTY LIMIT LINE) ENDING POINT SILVA AVE. (COUNTY LIMIT LINE)

In compliance with your request of **06/21/2016** , 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
@@ No pavement cuts shall be allowed within the San Joaquin County right-of-way. Trenching shall be allowed in the dirt shoulders within the San Joaquin County right-of-way. Boring shall be used under all intersections, paved driveways approaches and paved frontages @@

FORMS:	SS/WW, R-29	SPECIAL COND.	

Est. Permit Fee: [redacted] NO FEE

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

PLEASE PRINT:

Date 5/31/16

To: San Joaquin County
Department of Public Works

Quan Trinh (Caltrans)
(Applicant Name)

611 San Juan Ave
(Mailing Address)

Stockton, CA 95203
(City, State, Zip Code)

(209)471-4008
(Area Code - Telephone Number)

OFFICE USE ONLY

JOB #	PWP-7160005	REF #	
APN		CR #	
EXP. DATE	9-1-2016		
VALID	6-22-2016 TO 9-1-2016	DRIVEWAYS:	
STREET	Mariposa Rd	*	
AREA	Stockton QUAD 55	*	
TYPE	Trench(in Dwt) Bore	*	
FORMS	55(4,W),R29, Special Condition		
NOTES			

Sketch (Detailed plans may be submitted)

See attached

The undersigned hereby applies for permission to excavate, construct and/or otherwise encroach on County Highway Right-of-Way on the South side of Mariposa Rd approximately 2,000 feet/mile _____ of _____, _____, by performing the following work (description of work):
Lay fiber optic cable along Mariposa Rd between Section Ave and Silva Rd. The cable will be below ground. During construction, lane closure and reverse traffic control will be required.

Work will commence on or about 6/16/16 for approximately 20 working 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

5/31/16
Date

SPECIAL CONDITIONS FOR CALTRANS MARIPOSA RD. FIBER OPTIC 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.

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. 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)

7. All pipe and pipeline related facilities including, but not limited to, valves, utility boxes and vaults, and frames and covers shall be maintained by Caltrans, including any facilities that are abandoned in place. Caltrans 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 Caltrans' expense. (Streets and Highways Code Section 1463)

8. All future maintenance of the pipeline and related facilities within the County right-of-way will require a San Joaquin County Encroachment Permit.

9. Trenches shall be maintained in a smooth and even condition to the satisfaction of the County throughout the project limits at all times.

10. 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.

11. Class II Aggregate Base shoulder backing is required from the edge of pavement, a minimum of 4-inches thick by 4-feet wide.

12. 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.

13. 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.

14. 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.

15. The contractor shall not conduct construction operations in rain or heavy fog conditions.

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-3	TYPICAL CROSS SECTIONS
4-9	LAYOUTS
10-12	CONSTRUCTION DETAILS
13-28	UTILITY PLANS
29	CONSTRUCTION AREA SIGNS
30-34	TRAFFIC HANDLING PLANS AND QUANTITIES
35-36	PAVEMENT DELINEATION PLANS
37-38	SUMMARY OF QUANTITIES
39-74	ELECTRICAL PLANS
75-103	REVISED STANDARD PLAN

STRUCTURE PLANS

104-107	AIRPORT WAY UC, Br No. 29-0300R
108-111	WILSON WAY UC, Br No. 29-0306R
112	CROSSTOWN FREEWAY VIADUCT

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA

DEPARTMENT OF TRANSPORTATION

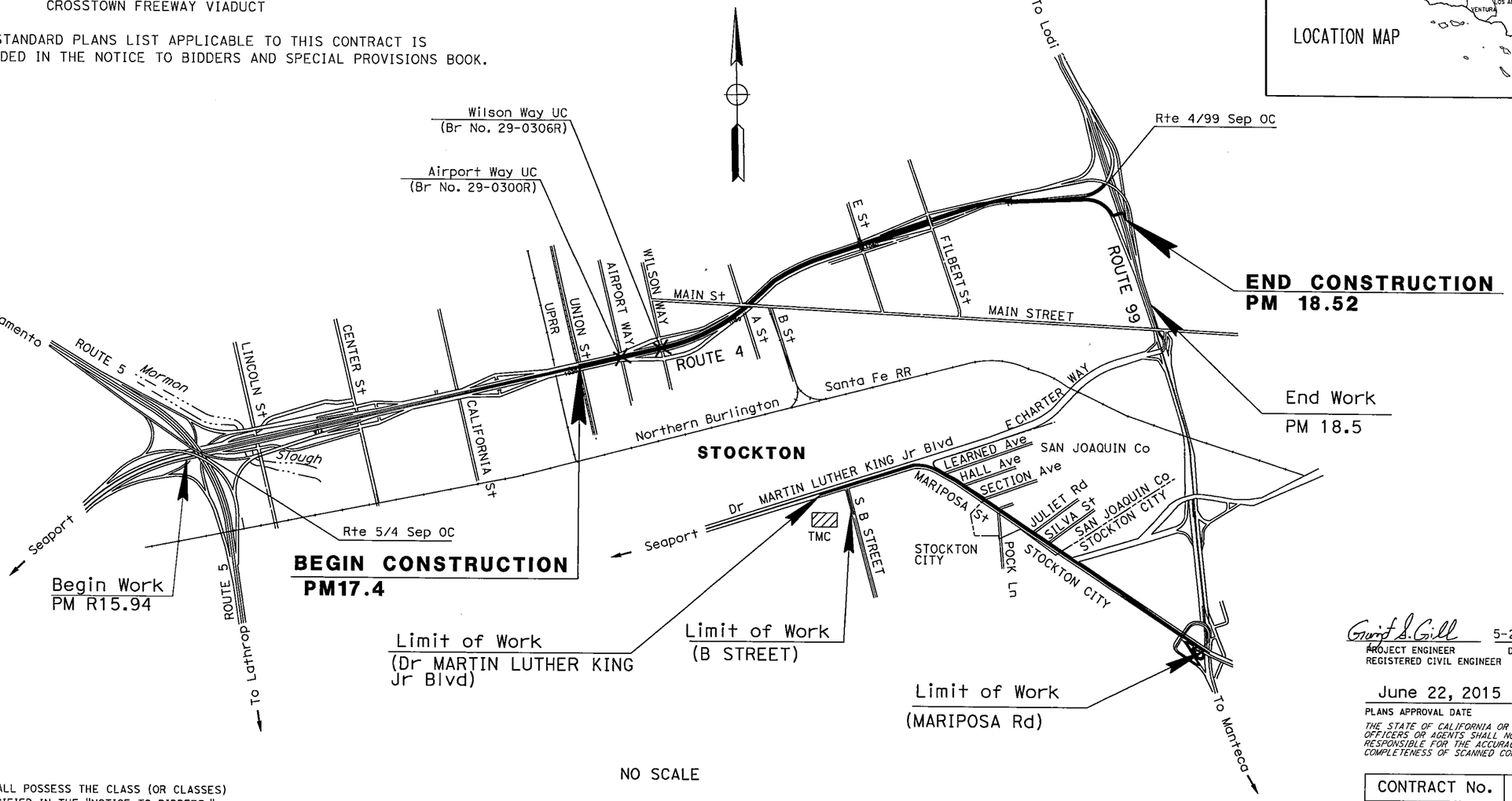
ACNHP-X077(024)E

PROJECT PLANS FOR CONSTRUCTION ON

STATE HIGHWAY
AND CITY STREET
IN SAN JOAQUIN COUNTY
IN STOCKTON
ON ROUTE 4 FROM UNION STREET UNDERCROSSING TO ROUTE 99 AND ON ROUTE 99 AT ROUTE 4/99 SEPERATION

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	1	112



NO SCALE

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

PROJECT MANAGER: ROBERT NAVARRO
DESIGN ENGINEER: ABDUL BAKER

Gurjot S. Gill 5-22-15
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — GURJOT GILL — No. 71647 — Exp. 12-31-15 — CIVIL — STATE OF CALIFORNIA

June 22, 2015
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No.	10-0X9704
PROJECT ID	1013000114

LAST REVISION 05-05-15
DATE PLOTTED => 04-SEP-2015
TIME PLOTTED => 14:06

LEGEND:

AB	ABANDON. IF APPLIED TO CONDUIT, REMOVE CONDUCTORS
BC	INSTALL PULL BOX IN EXISTING CONDUIT RUN
BP	PEDESTRIAN BARRICADE, TYPE AS INDICATED ON PLAN
CB	INSTALL CONDUIT INTO EXISTING PULL BOX
CC	CONNECT NEW AND EXISTING CONDUIT. REMOVE EXISTING CONDUCTORS AND INSTALL CONDUCTORS AS INDICATED
CF	CONDUIT TO REMAIN FOR FUTURE USE. REMOVE CONDUCTORS. INSTALL PULL TAPE
DH	DETECTOR HANDHOLE
FA	FOUNDATION TO BE ABANDONED
IS	INSTALL SIGN ON SIGNAL MAST ARM
NS	NO SLIP BASE ON STANDARD
PEC	PHOTOELECTRIC CONTROL
PEU	PHOTOELECTRIC UNIT
RC	EQUIPMENT OR MATERIAL TO BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR
RE	REMOVE ELECTROLIER, FUSES AND BALLAST. TAPE ENDS OF CONDUCTORS
RL	RELOCATE EQUIPMENT
RR	REMOVE AND REUSE EQUIPMENT
RS	REMOVE AND SALVAGE EQUIPMENT
SC	SPLICE NEW TO EXISTING CONDUCTORS
SD	SERVICE DISCONNECT
TSP	TELEPHONE SERVICE POINT

ABBREVIATIONS

APS	ACCESSIBLE PEDESTRIAN SIGNAL
BBS	BATTERY BACKUP SYSTEM
BC	BOLT CIRCLE
BPB	BICYCLE PUSH BUTTON
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
Ckt	CIRCUIT
CMS	CHANGEABLE MESSAGE SIGN
Ctid	CALTRANS IDENTIFICATION
Comm	COMMUNICATION
DLC	LOOP DETECTOR LEAD-IN CABLE
EMS	EXTINGUISHABLE MESSAGE SIGN
EVUC	EMERGENCY VEHICLE UNIT CABLE
EVUD	EMERGENCY VEHICLE UNIT DETECTOR
FB	FLASHING BEACON
FBCA	FLASHING BEACON CONTROL ASSEMBLY
FBS	FLASHING BEACON WITH SLIP BASE
FO	FIBER OPTIC
G	EQUIPMENT GROUNDING CONDUCTOR
GB	GROUND BUS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HAR	HIGHWAY ADVISORY RADIO
Hex	HEXAGONAL
HPS	HIGH PRESSURE SODIUM
IISNS	INTERNALLY ILLUMINATED STREET NAME SIGN
ISL	INDUCTION SIGN LIGHTING
LED	LIGHT EMITTING DIODE
LMA	LUMINAIRE MAST ARM
LPS	LOW PRESSURE SODIUM
Ltg	LIGHTING
Lum	LUMINAIRE
M	METERED
MAT	MAST ARM MOUNTING TOP ATTACHMENT
MAS	MAST ARM MOUNTING SIDE ATTACHMENT
M/M	MULTIPLE TO MULTIPLE TRANSFORMER
Mtg	MOUNTING
MV	MERCURY VAPOR LIGHTING FIXTURE
MVDS	MICROWAVE VEHICLE DETECTION SYSTEM
N	NEUTRAL (GROUNDED CONDUCTOR)
NB	NEUTRAL BUS
NC	NORMALLY CLOSE
NO	NORMALLY OPEN
P	CIRCUIT BREAKER'S POLE
PB	PULL BOX
PBA	PUSH BUTTON ASSEMBLY
PEC	PHOTOELECTRIC CONTROL
Ped	PEDESTRIAN
PEU	PHOTOELECTRIC UNIT
PT	CONDUIT WITH PULL TAPE
RE	RELOCATED EQUIPMENT
RM	RAMP METERING
RWIS	ROADSIDE WEATHER INFORMATION SYSTEM
SB	SLIP BASE
SIC	SIGNAL INTERCONNECT CABLE
Sig	SIGNAL
SMA	SIGNAL MAST ARM
SNS	STREET NAME SIGN
SP	SERVICE POINT
TDC	TELEPHONE DEMARCATION CABINET
TMS	TRAFFIC MONITORING STATION
TOS	TRAFFIC OPERATIONS SYSTEM
Veh	VEHICLE
VIVDS	VIDEO IMAGE VEHICLE DETECTION SYSTEM
WIM	WEIGH-IN-MOTION
Xfmr	TRANSFORMER

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4, 18.5	97	112

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — Theresa Aziz Gabriel — No. E15129 — Exp. 6-30-14 — ELECTRICAL — STATE OF CALIFORNIA

July 19, 2013
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 6-22-15

SOFFIT AND WALL MOUNTED LUMINAIRES

- PENDANT, 70 W HPS UNLESS OTHERWISE SPECIFIED
- FLUSH, 70 W HPS UNLESS OTHERWISE SPECIFIED
- WALL SURFACE, 70 W HPS UNLESS OTHERWISE SPECIFIED
- EXISTING SOFFIT OR WALL LUMINAIRE TO REMAIN UNMODIFIED
- (M) EXISTING SOFFIT OR WALL LUMINAIRE TO BE MODIFIED AS SPECIFIED

NOTE:
Arrow indicates "street side" of luminaire.

COMMONLY USED SYMBOLS FOR UNITED STATES CUSTOMARY UNITS OF MEASUREMENT:

SYMBOL USED	DEFINITIONS
Ω	OHMS
min	MINUTE
s	SECOND
bps	BITS PER SECOND
Bps	BYTES PER SECOND
A	AMPERE
V	VOLT
$V_{(dc)}$	VOLT (DIRECT CURRENT)
$V_{(ac)}$	VOLT (ALTERNATING CURRENT)
FC	FOOT - CANDLE
W	WATTS
VA	VOLT-AMPERE
M	MEGA
k	KILO
m	MILLI
μ	MICRO
P	PICO
Hz	HERTZ

MISCELLANEOUS ELECTROLIERS

NEW	EXISTING	
		LUMINAIRE ON WOOD POLE
		NON-STANDARD ELECTROLIER (SEE PROJECT NOTES OR PROJECT PLANS)
		CITY ELECTROLIER
		ELECTROLIER FOUNDATION (FUTURE INSTALLATION)

STANDARD ELECTROLIER

NEW	EXISTING	STANDARD TYPE
		15
		15D
		15 STRUCTURE
		15D STRUCTURE
		21
		21D
		21 STRUCTURE
		21D STRUCTURE
		30
		31
		32

NOTES:

1. HPS luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. HPS luminaires shall be 200 W when installed on other type standards or poles, unless otherwise specified.
2. LED luminaires shall be 235 W when installed on Type 21, 21D, 30, 31 and 32 Standards, unless otherwise specified. LED luminaires shall be 165 W when installed on other type standards or poles, unless otherwise specified.
3. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1A DATED MAY 20, 2011 - PAGE 425 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1A

2010 REVISED STANDARD PLAN RSP ES-1A

7-15-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4, 18.5	98	112

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER
July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Theresa Aziz Gabriel — No. E15129 — Exp. 6-30-14 — ELECTRICAL — STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 6-22-15

CONDUIT

NEW / EXISTING

- LIGHTING CONDUIT, UNLESS OTHERWISE INDICATED OR NOTED
- TRAFFIC SIGNAL CONDUIT
- COMMUNICATION CONDUIT (C / c)
- TELEPHONE CONDUIT (T / t)
- FIRE ALARM CONDUIT (F / f)
- FIBER OPTIC CONDUIT (FO / fo)
- CONDUIT TERMINATION
- CONDUIT RISER ATTACHED TO THE STRUCTURE OR SERVICE POLE (R / r)

SERVICE EQUIPMENT

NEW / EXISTING

- OVERHEAD LINES (OH / oh)
- WOOD POLE, "U" INDICATES UTILITY OWNED
- POLE GUY WITH ANCHOR
- UTILITY TRANSFORMER - GROUND MOUNTED
- SERVICE EQUIPMENT ENCLOSURE TYPE. DOOR INDICATES FRONT OF ENCLOSURE (III)
- TELEPHONE DEMARCATION CABINET (T / t)

POLE-MOUNTED SERVICE DESIGNATION

TYPE H SERVICE, 28'-10" — TYPE OF INSTALLATION AND POLE HEIGHT ABOVE GRADE

FLASHING BEACON

NEW / EXISTING

- FLASHING BEACON (ONE VEHICLE SIGNAL HEAD WITH BACKPLATE AND VISOR)
  "R" INDICATES RED INDICATION,
  "Y" INDICATES YELLOW INDICATION
- FLASHING BEACON WITH TYPE 15-FBS STANDARD AND A SIGN.
- FLASHING BEACON WITH TYPES 9, 9A OR 9B SIGN UNLESS OTHERWISE SPECIFIED OR INDICATED

SIGNAL EQUIPMENT

NEW / EXISTING

- PEDESTRIAN SIGNAL HEAD
  "C" INDICATES COUNTDOWN PEDESTRIAN HEAD
- PUSH BUTTON ASSEMBLY POST
- PEDESTRIAN BARRICADE
- VEHICLE SIGNAL HEAD (WITH BACKPLATE AND 3-SECTIONS: RED, YELLOW AND GREEN)
- VEHICLE SIGNAL HEAD WITH ANGLE VISOR
- MODIFICATIONS OF BASIC SYMBOL: (PV)
  "L" INDICATES ALL NON-ARROW SECTIONS LOUVERED
  "LG" INDICATES LOUVERED GREEN SECTION ONLY
  "PV" INDICATES ALL 12" SECTIONS PROGRAMMED VISIBILITY
  "8" INDICATES ALL 8" SECTIONS (ONLY WHEN SPECIFIED)
- VEHICLE SIGNAL HEAD CONSISTING OF RED, YELLOW AND GREEN LEFT ARROW SECTIONS
- VEHICLE SIGNAL HEAD CONSISTING OF RED AND YELLOW SECTIONS WITH AN UP GREEN ARROW SECTION
- VEHICLE SIGNAL HEAD (5 SECTION) CONSISTING OF RED, YELLOW AND GREEN SECTIONS WITH YELLOW AND GREEN RIGHT ARROW SECTIONS
- TYPE 15TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
- TYPE 21TS STANDARD WITH VEHICLE SIGNAL HEAD AND LUMINAIRE
- STANDARD WITH LUMINAIRE AND SIGNAL MAST ARMS AND ATTACHED VEHICLE SIGNAL HEADS
- TYPE 1 STANDARD WITH ATTACHED VEHICLE SIGNAL HEADS
- STANDARD WITH A SIGNAL MAST ARM, ATTACHED VEHICLE SIGNAL HEADS AND INTERNALLY ILLUMINATED STREET NAME SIGN
- CONTROLLER ASSEMBLY. DOOR INDICATES FRONT OF CABINET

SIGNAL EQUIPMENT Cont

NEW / EXISTING

- GUARD POST
- TYPE 1 STANDARD WITH RAMP METERING SIGN
- OPTICAL DETECTOR FOR THE EMERGENCY VEHICLE DETECTION SYSTEM

NOTES:

1. All signal sections shall be 12" unless shown otherwise.
2. Signal heads shall be provided with backplates unless shown otherwise.

ILLUMINATED OVERHEAD SIGN

NEW / EXISTING

- SINGLE POST, SINGLE ILLUMINATED SIGN, BALANCED BUTTERFLY
- SINGLE POST, DOUBLE ILLUMINATED SIGN, BALANCED BUTTERFLY
- SINGLE POST, SINGLE ILLUMINATED SIGN, FULL CANTILEVER
- DOUBLE POST, SINGLE ILLUMINATED SIGN
- SINGLE ILLUMINATED SIGN MOUNTED ON STRUCTURE
- DOUBLE POST, SINGLE ILLUMINATED SIGN WITH ELECTROLIER

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1B DATED MAY 20, 2011 - PAGE 426 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1B

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4, 18.5	99	112

Theresa Gabriel
REGISTERED ELECTRICAL ENGINEER

Theresa Aziz Gabriel No. E15129 Exp. 6-30-14 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

July 19, 2013
PLANS APPROVAL DATE

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TO ACCOMPANY PLANS DATED 6-22-15

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

SIGN No. 12345 — SIGN NUMBER - PLACE ON POST OR STRUCTURE

10 ISL SCI 1.0
- 1.0 — TRANSFORMER RATING (kVA)
- SCI — LIGHTING CONTROL TYPE
- ISL — NUMBER AND TYPE OF FIXTURES

} DO NOT PLACE ON STANDARD OR STRUCTURE

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"
- 15'-0" — MAST ARM LENGTH, IF SHOWN. DO NOT PLACE ON STANDARD OR STRUCTURE
- 12345 — EQUIPMENT NUMBER - PLACE ON STANDARD OR STRUCTURE. EXISTING EQUIPMENT NUMBERS ARE SHOWN IN PARENTHESIS

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC, 12P#18
- PAIR
- 2#10, 15#14, 2 DLC, 12P#18 — NUMBER AND SIZE OF CONDUCTORS AND CABLES
- 1½"C — SIZE OF CONDUIT IN INCHES

ø1, ø2, ø2P, etc.	TRAFFIC PHASE IDENTIFICATION FOR SIGNAL FACES, DETECTORS AND PHASE DIAGRAMS
[1] [2] [3]	LEGEND NUMBERS
(A) (B) (C)	EQUIPMENT, SIGNAL POLES, INSTALLATION OR ITEMS
△1 △2 △3	CONDUIT RUN NUMBERS

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100
- 100 — WIND VELOCITY = 100 mph
- 3 — CASE 3 ARM LOADING
- 19A — STANDARD TYPE
- STANDARD PLAN SHEET NUMBER
- DETAIL, NUMBER, SECTION, TYPE OR ELEVATION

MISCELLANEOUS EQUIPMENT

NEW	EXISTING	
CMS	cms	CHANGEABLE MESSAGE SIGN
		CLOSED CIRCUIT TELEVISION CAMERA
		HIGHWAY ADVISORY RADIO POLE AND ANTENNA
EMS	ems	EXTINGUISHABLE MESSAGE SIGN
M V	m v	DETECTION DEVICE M = MICROWAVE SENSOR V = VIDEO IMAGE SENSOR

WIRING DIAGRAM LEGEND

-----	EXTERNAL CONDUCTOR
———	CONDUCTOR OR BUS
—●—	TIE POINT
—⌇—	CONTACTOR COIL
—||—	CONTACTOR, NO CONTACT
⊗	TERMINAL BLOCKS
—|/—	CONTACTOR, NC CONTACT
⏚	ENCLOSURE BOND
⏚	GROUNDING ELECTRODE
—o/o—	CIRCUIT BREAKER
Ⓡ	RECEPTACLE

PULL BOXES

NEW	EXISTING	
		PULL BOX, No. 5 UNLESS OTHERWISE INDICATED OR NOTED
3	9A(21)	PULL BOX, ADDITIONAL DESIGNATIONS OR DESCRIPTIONS

3 No. 3½ PULL BOX
5 No. 5 PULL BOX
6 No. 6 PULL BOX
7 No. 7 (CEILING PULL BOX)
8 No. 8 (PENDANT SOFFIT PULL BOX)
9 No. 9 PULL BOX
9A No. 9A PULL BOX

(C) COMMUNICATIONS PULL BOX
(E) PULL BOX WITH EXTENSION
(S) SPRINKLER CONTROL PULL BOX
(21) ANCHOR BOLTS AND CONDUIT FOR FUTURE INSTALLATION OF TYPE 21 STANDARD
(T) TRAFFIC PULL BOX

VEHICLE DETECTORS

5 J 9 U
- 5 — VEHICLE DETECTOR DESIGNATION
- U — U = UPPER, L = LOWER
- 9 — SLOT NUMBER IN INPUT FILE
- J — INPUT FILE (I OR J)
- 5 — PHASE

NEW	EXISTING	
□	□	TYPE A DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
◇	◇	TYPE B DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
▭	▭	TYPE C DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
▨	▨	TYPE D DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
○	○	TYPE E DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
▭	▭	TYPE Q DETECTOR LOOP. OUTLINE OF SAWCUT SHOWN
◀	◁	MAGNETIC DETECTOR
● DH	○ dh	DETECTOR HANDHOLE
▨	▨	MICROWAVE OR VIDEO DETECTION ZONE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LEGEND AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN ES-1C DATED MAY 20, 2011 - PAGE 427 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP ES-1C

2010 REVISED STANDARD PLAN RSP ES-1C

7-11-13

M

Maint	MAINTENANCE
Max	MAXIMUM
MB	METAL BEAM
MBB	METAL BEAM BARRIER
MBGR	METAL BEAM GUARD RAILING
Med	MEDIAN
MGS	MIDWEST GUARDRAIL SYSTEM
MH	MANHOLE
Min	MINIMUM
Misc	MISCELLANEOUS
Misc I & S	MISCELLANEOUS IRON AND STEEL
Mkr	MARKER
Mod	MODIFIED,
	MODIFY
Mon	MONUMENT
MP	METAL PLATE
MPGR	METAL PLATE GUARD RAILING
MR	MOVEMENT RATING
MSE	MECHANICALLY STABILIZED EMBANKMENT
Mt	MOUNTAIN, MOUNT
Mtl	MATERIAL
MVP	MAINTENANCE VEHICLE PULLOUT

N

N	NORTH
NB	NORTHBOUND
No.	NUMBER (MUST HAVE PERIOD)
Nos.	NUMBERS (MUST HAVE PERIOD)
NPS	NOMINAL PIPE SIZE
NS	NEAR SIDE
NSP	NEW STANDARD PLAN
NTS	NOT TO SCALE

O

Oblr	OBLITERATE
OC	OVERCROSSING
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OG	ORIGINAL GROUND
OGAC	OPEN GRADED ASPHALT CONCRETE
OGFC	OPEN GRADED FRICTION COURSE
OH	OVERHEAD
OHWM	ORDINARY HIGH WATER MARK
O-O	OUT TO OUT
Opp	OPPOSITE
OSD	OVERSIDE DRAIN

P

P	PAGE
PAP	PERFORATED ALUMINUM PIPE
PB	PULL BOX
PC	POINT OF CURVATURE,
	PRECAST
PCC	POINT OF COMPOUND CURVE,
	PORTLAND CEMENT CONCRETE
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
PCP	PERFORATED CONCRETE PIPE,
	PRESTRESSED CONCRETE PIPE
PCVC	POINT OF COMPOUND VERTICAL CURVE
PEC	PERMIT TO ENTER AND CONSTRUCT
Ped	PEDESTRIAN
Ped OC	PEDESTRIAN OVERCROSSING
Ped UC	PEDESTRIAN UNDERCROSSING
Perm Mtl	PERMEABLE MATERIAL

P continued

PG	PROFILE GRADE
PI	POINT OF INTERSECTION
PJP	PARTIAL JOINT PENETRATION
Pkwy	PARKWAY
℄,PL	PLATE
P/L	PROPERTY LINE
PM	POST MILE,
	TIME FROM NOON TO MIDNIGHT
PN	PAVING NOTCH
POC	POINT OF HORIZONTAL CURVE
POT	POINT OF TANGENT
POVC	POINT OF VERTICAL CURVE
PP	PIPE PILE,
	PLASTIC PIPE,
	POWER POLE
PPL	PREFORMED PERMEABLE LINER
PPP	PERFORATED PLASTIC PIPE
PRC	POINT OF REVERSE CURVE
PRF	PAVEMENT REINFORCING FABRIC
PRVC	POINT OF REVERSE VERTICAL CURVE
PS&E	PLANS, SPECIFICATIONS AND ESTIMATES
PS, P/S	PRESTRESSED
PSP	PERFORATED STEEL PIPE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
Pvmt	PAVEMENT

Q

Qty	QUANTITY

R

R	RADIUS
R & D	REMOVE AND DISPOSE
R & S	REMOVE AND SALVAGE
R/C	RATE OF CHANGE
RCA	REINFORCED CONCRETE ARCH
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPA	REINFORCED CONCRETE PIPE ARCH
Rd	ROAD
Reinf	REINFORCED,
	REINFORCEMENT,
	REINFORCING
Rel	RELOCATE
Repl	REPLACEMENT
Ret	RETAINING
Rev	REVISED, REVISION
Rdwy	ROADWAY
RHMA	RUBBERIZED HOT MIX ASPHALT
Riv	RIVER
RM	ROAD-MIXED
RP	RADIUS POINT,
	REFERENCE POINT
RR	RAILROAD
RSP	ROCK SLOPE PROTECTION,
	REVISED STANDARD PLAN
Rt	RIGHT
Rte	ROUTE
RW	REDWOOD,
	RETAINING WALL
R/W	RIGHT OF WAY
Rwy	RAILWAY

S

S	SOUTH,
	SUPPLEMENT
SAE	STRUCTURE APPROACH EMBANKMENT
Salv	SALVAGE
SAPP	STRUCTURAL ALUMINUM PLATE PIPE
SB	SOUTHBOUND
SC	SAND CUSHION
SCSP	SLOTTED CORRUGATED STEEL PIPE
SD	STORM DRAIN
Sec	SECOND,
	SECTION
Sep	SEPARATION
SG	SUBGRADE
Shld	SHOULDER
Sht	SHEET
Sim	SIMILAR
℄	STATION LINE
SM	SELECTED MATERIAL
Spec	SPECIAL,
	SPECIFICATIONS
SPP	SLOTTED PLASTIC PIPE
SS	SLOPE STAKE
SSBM	STRAP AND SADDLE BRACKET METHOD
SSD	STRUCTURAL SECTION DRAIN
SSPA	STRUCTURAL STEEL PLATE ARCH
SSPP	STRUCTURAL STEEL PLATE PIPE
SSPPA	STRUCTURAL STEEL PLATE PIPE ARCH
SSRP	STEEL SPIRAL RIB PIPE
St	STREET
Sta	STATION
STBB	SINGLE THRIE BEAM BARRIER
Std	STANDARD
Str	STRUCTURE
Surf	SURFACING
SW	SIDEWALK,
	SOUND WALL
Swr	SEWER
Sym	SYMMETRICAL
S4S	SURFACE 4 SIDES

T

T	SEMI-TANGENT
Tan	TANGENT
TBB	THRIE BEAM BARRIER
Tbr	TIMBER
TC	TOP OF CURB
TCB	TRAFFIC CONTROL BOX
TCE	TEMPORARY CONSTRUCTION EASEMENT
Tel	TELEPHONE
Temp	TEMPORARY
TG	TOP OF GRADE
Tot	TOTAL
TP	TELEPHONE POLE
TPB	TREATED PERMEABLE BASE
TPM	TREATED PERMEABLE MATERIAL
Trans	TRANSITION

T continued

TS	TRANSVERSE,
	TRAFFIC SIGNAL,
	TUBULAR STEEL
Typ	TYPICAL

U

UC	UNDERCROSSING
UD	UNDERDRAIN
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UP	UNDERPASS

V

V	VALVE,
	DESIGN SPEED
Var	VARIABLE,
	VARIES
VC	VERTICAL CURVE
VCP	VITRIFIED CLAY PIPE
Vert	VERTICAL
Via	VIADUCT
Vol	VOLUME

W

W	WEST,
	WIDTH
WB	WESTBOUND
WH	WEEP HOLE
WM	WIRE MESH
WS	WATER SURFACE
WSP	WELDED STEEL PIPE
Wt	WEIGHT
WV	WATER VALVE
WW	WINGWALL
WWLOL	WINGWALL LAYOUT LINE

X

X Sec	CROSS SECTION
Xing	CROSSING

Y

Yr	YEAR
Yrs	YEARS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4, 18.5	75	112

Grace M. Tsushima
REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Grace M. Tsushima — No. C49814 — Exp. 9-30-14 — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 6-22-15

UNIT OF MEASUREMENT SYMBOLS:

Some of the symbols used in the project plan quantity tables and in the Bid Item List are:

TABLE A

SYMBOL USED	DEFINITIONS
ACRE	ACRE
CF	CUBIC FOOT
CY	CUBIC YARD
EA	EACH
GAL	GALLON
LB	POUND
LF	LINEAR FOOT
SQFT	SQUARE FOOT
SQYD	SQUARE YARD
STA	100 FEET
TAB	TABLET
TON	2,000 POUNDS

Some of the symbols used in the plans other than in the project plan quantity tables are:

TABLE B

SYMBOL USED	DEFINITIONS
ksi	KIPS PER SQUARE INCH
ksf	KIPS PER SQUARE FOOT
psi	POUNDS PER SQUARE INCH
psf	POUNDS PER SQUARE FOOT
lb/ft^3, pcf	POUNDS PER CUBIC FOOT
tsf	TONS PER SQUARE FOOT
mph, MPH *	MILES PER HOUR
ø	NOMINAL DIAMETER
oz	OUNCE
lb	POUND
kip	1,000 POUNDS
cal	CALORIE
ft	FOOT OR FEET
gal	GALLON

* For use on a sign panel only

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ABBREVIATIONS (SHEET 2 OF 2)

NO SCALE

RSP A10B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A10B DATED MAY 20, 2011 - PAGE 2 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A10B

2010 REVISED STANDARD PLAN RSP A10B

6-7-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	40	112

5-26-15
REGISTERED ELECTRICAL ENGINEER DATE

6-22-15
PLANS APPROVAL DATE

JASPAL SINGH No. 16657 Exp. 6/30/16 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

LEGEND: (FOR SHEETS E-1 THRU E-23)

27 2"C, 2 DLC

28 2"C, 6 DLC

29 3"C, 12 DLC, 1-12 SMFO

30 2-3"C, 12 DLC, 2#6 (TMS), 1-12 SMFO

31 1½"C, 2#6 (TMS)

32 SEE LOOP DETECTOR INDENTIFICATION AND SPACING DETAILS A ON THIS SHEET.

33 Exist 2"C, 3#2 (EEE), 2#8 (Ltg), 2#8 (Sign Ltg), 2#10 (EMS), RC 2#10 (EMS) ADD 2#6 (TMS)

34 Exist 2"C, 3#2 (EEE)

35 Exist 2"C, 2#8 (Ltg), 2#8 (Sign Ltg), 2#10 (EMS), RC 2#10 (EMS) ADD 2#6 (TMS)

36 Exist 2"C, 2#8 (Ltg), 2#8 (Sign Ltg), 2#10 (EMS), RC 2#10 (EMS), ADD 2#6 (TMS), 6 DLC, 1-HYBRID CABLE

37 EACH LOOP DETECTOR MUST HAVE 5 TURNS

38 3"C, 3#3 (SUB PANEL)

39 2"C, 6 DLC, 1-HYBRID CABLE

40 2-3"C, 2#6 (TMS), 6 DLC, 1-HYBRID CABLE, 1-12 SMFO

41 INSTALL 40' WOOD POLE WITH TYPE H SERVICE PER PG&E REQUIREMENTS.

42 120/240 V, 1Ø, 3-WIRE, TYPE III-AF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

SUB PANEL (CMS)

AMPERES	VOLTS	POLES	NAMEPLATE	METER
80	240	2	MAIN BREAKER	NO
50	120	1	CMS CABINET	NO
30	240	2	CMS LAMPS	NO
15	120	1	SPARE	NO
15	120	1	SPARE	NO

43 PB PER PG&E REQUIREMENTS.

44 Exist 2"C, 2#8 (Ltg), 2#10 (EMS), RC 2#10 (EMS)

45 Exist 120/240 V, 1Ø, 3-WIRE, TYPE III-AF SERVICE EQUIPMENT ENCLOSURE WITH THE FOLLOWING CIRCUIT BREAKERS:

Ctid No. 102909900185607

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN	YES	——
30	120	1	TMS	YES	——
30	120	1	FIBER	YES	——
15	120	1	SPARE	YES	66
——	——	6	SPACE	YES	——

Ctid No. 102909900185601

AMPERES	VOLTS	POLES	NAMEPLATE	METER	PHOTOELECTRIC CONTROL TYPE
100	240	2	MAIN	YES	——
30	240	2	HIGHWAY LIGHTING	YES	V
30	240	2	SIGN LIGHTING	YES	LC3
15	120	1	LIGHTING CONTROL	YES	——
30	240	2	SPARE	YES	——
——	——	6	SPACE	YES	——

46 Exist 2"C, 2#8 (Ltg), 2#6 (TMS), 2#6 (FIBER), ADD 2#8 (CCTV), 2#8 (SIGN Ltg)

47 2"C, 2#8 (CCTV), 2#8 (SIGN Ltg)

48 Exist 2"C, 2#6 (TMS)

49 Exist 2"C, 2#6 (FIBER)

50 Exist MODEL 334L CABINET FOR TMS

51 Exist MODEL 344LX CABINET FOR FIBER HUB

52 2"C, 2#8 (SIGN Ltg), 1-HYBRID CABLE

53 2-2"C, 2#8 (CCTV), 1-HYBRID CABLE, 1-12 SMFO

54 MODEL 334L CABINET FOR CCTV. FURNISH AND INSTALL VIDEO ENCODER UNIT AND CAMERA CONTROL UNIT.

55 TYPE CCTV 15 POLE WITH CAMERA ASSEMBLY ON TOP OF Exist OH SIGN POST.

56 SPLICE VAULT PER DETAILS ON SHEET E-31.

57 FIBER OPTIC CONDUIT PER DETAILS ON SHEET E-32.

58 FIBER OPTIC CONDUIT THROUGH STRUCTURE, SEE STRUCTURE PLAN FOR DETAILS.

59 Exist SPLICE VAULT.

60 COIL 50' OF FIBER OPTIC CABLES IN THE SV. ENDS OF THE FIBERS MUST BE PROTECTED WITH SPLICE ENCLOSURE.

61 COIL 15' OF 1-48 FIBER OPTIC CABLE IN THE PB. ENDS OF THE FIBERS MUST BE PROTECTED WITH SPLICE TRAY.

62 TERMINATE FIBER OPTIC CABLES IN FDU AS SHOWN ON SHEET E-30.

63 TERMINATE FIBER OPTIC CABLES IN FDU AS SHOWN ON SHEET E-29.

64 2"C, 2#6 (TMS), 6 DLC, 1-HYBRID CABLE

65 RENUMBER OH SIGN AS SHOWN.

66 RC Exist CB AND NAME PLATE, INSTALL 30 AMPERE, 120 V, 1P CIRCUIT BREAKER AND "CCTV" NAME PLATE.

67 DEPARTMENT-FURNISHED MODEL 344LX CABINET FOR FIBER HUB. SEE SHEET E-33 FOR FOUNDATION DETAILS.

68 COIL 200' OF FIBER OPTIC CABLES IN THE SV. ENDS OF THE FIBERS MUST BE PROTECTED WITH SPLICE ENCLOSURE.

69 USE DIRECTIONAL BORING METHOD TO INSTALL CONDUIT UNDER PAVEMENT.

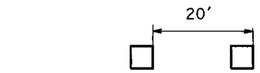
ABBREVIATIONS:

PG&E - PACIFIC GAS AND ELECTRIC
EEE - ELECTRICAL EQUIPMENT ENCLOSURE
HDPE - HIGH DENSITY POLYETHYLENE
SMFO - SINGLE MODE FIBER OPTIC CABLE
SV - SPLICE VAULT
DFM - DEPARTMENT-FURNISHED MATERIAL
(2E) - PULL BOX WITH TWO EXTENSIONS

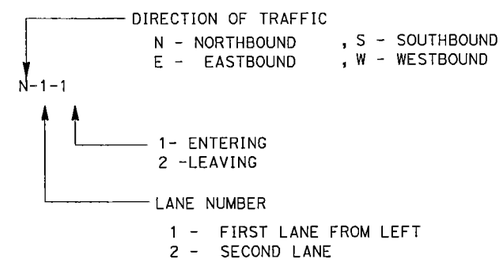
SYMBOLS:

V SPLICE VAULT

ⓜ Exist PUMP MOTOR



LOOP DETECTOR SPACING



LOOP DETECTOR IDENTIFICATION

DETAIL A

LEGEND, ABBREVIATIONS AND SYMBOLS

E-2

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
JASPAL SINGH	PAUL MATOS	JS	6/18/15

FUNCTIONAL SUPERVISOR: ALI BAKHDOUD

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans' ELECTRICAL DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => 04-SEP-2015 | TIME PLOTTED => 14:07

BORDER LAST REVISED 7/2/2010 | USERNAME => s113541 | DGN FILE => 1013000114ua002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1515 | PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	23	112

Gurjot S. Gill 5-22-15
REGISTERED CIVIL ENGINEER DATE

6-22-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GURJOT GILL
No. 71647
Exp. 12-31-15
CIVIL
STATE OF CALIFORNIA

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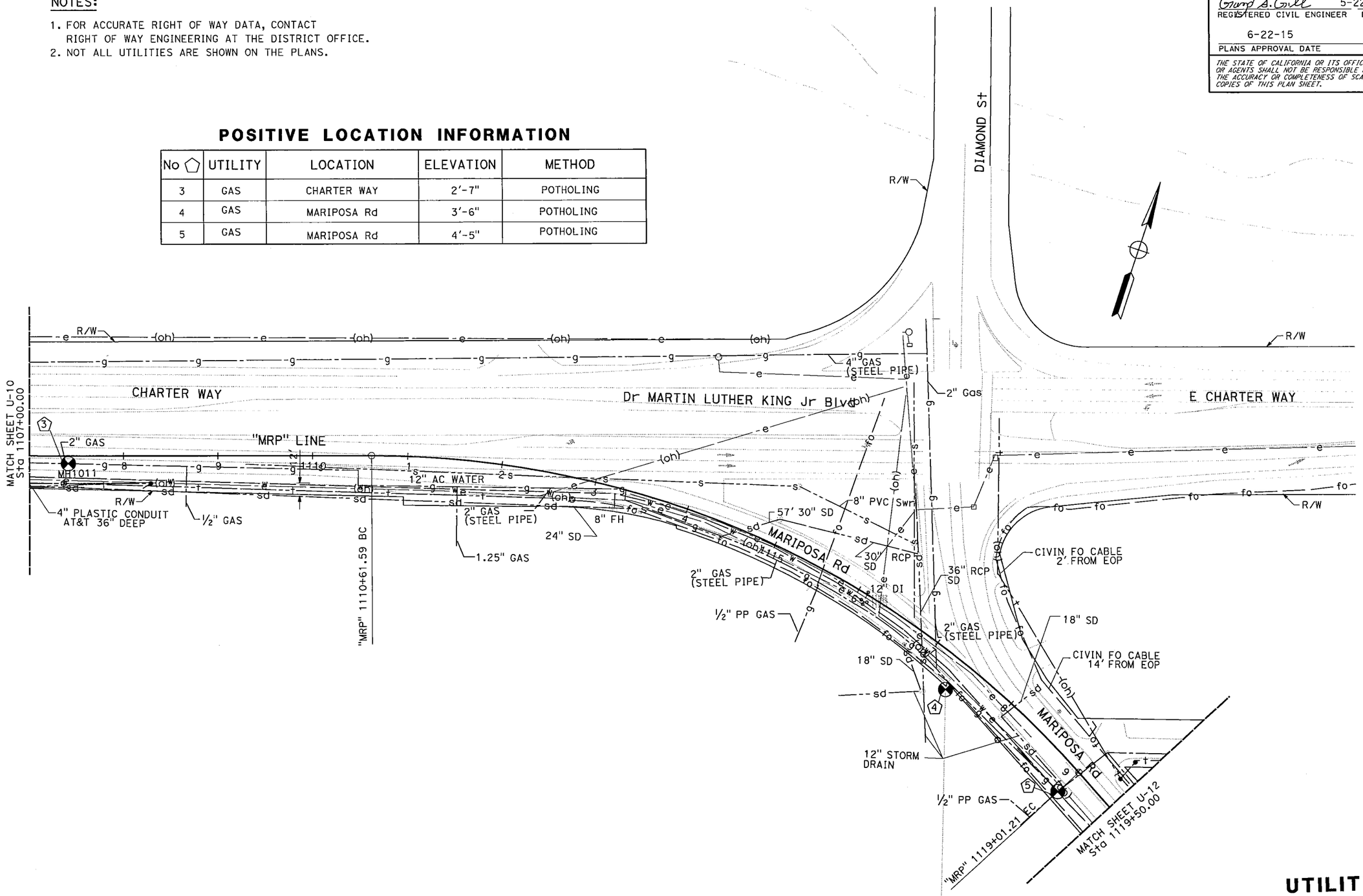
NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. NOT ALL UTILITIES ARE SHOWN ON THE PLANS.

POSITIVE LOCATION INFORMATION

No ⬠	UTILITY	LOCATION	ELEVATION	METHOD
3	GAS	CHARTER WAY	2'-7"	POTHOLING
4	GAS	MARIPOSA Rd	3'-6"	POTHOLING
5	GAS	MARIPOSA Rd	4'-5"	POTHOLING



APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN
U-11

SCALE: 1"=50'

CALCULATED-DESIGNED BY
CHECKED BY
FUNCTIONAL SUPERVISOR
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN
GURJOT GILL
ABDUL BAKER
ABDUL BAKER
REVISED BY
DATE REVISED

LAST REVISION 05-20-15
DATE PLOTTED => 04-SEP-2015
TIME PLOTTED => 14:06

BORDER LAST REVISED 7/2/2010
USERNAME => s113541
DGN FILE => 1013000114ka011.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1476
PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	24	112

Gurjot S. Gill 5-22-15
REGISTERED CIVIL ENGINEER DATE

6-22-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — GURJOT GILL — No. 71647 — Exp. 12-31-15 — CIVIL — STATE OF CALIFORNIA

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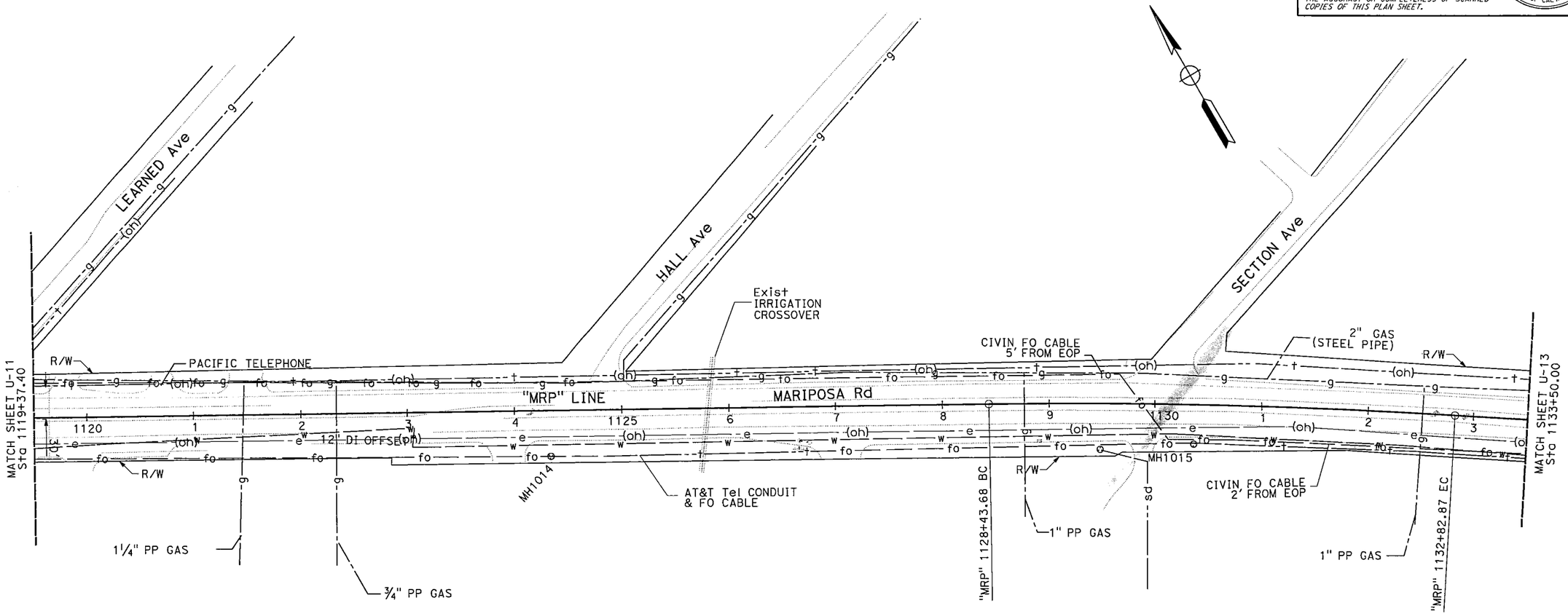
NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. NOT ALL UTILITIES ARE SHOWN ON THE PLANS.



APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1"=50'

U-12

LAST REVISION DATE PLOTTED => 04-SEP-2015
05-20-15 TIME PLOTTED => 14:06

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: GURJOT GILL
CHECKED BY: ABDUL BAKER
FUNCTIONAL SUPERVISOR: ABDUL BAKER

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Gates Gattans
06-DESIGN

BORDER LAST REVISED 7/2/2010

USERNAME => s113541
DGN FILE => 1013000114kq012.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1476

PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	25	112

Gurjot S. Gill 5-22-15
REGISTERED CIVIL ENGINEER DATE

6-22-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GURJOT GILL
No. 71647
Exp. 12-31-15
CIVIL
STATE OF CALIFORNIA

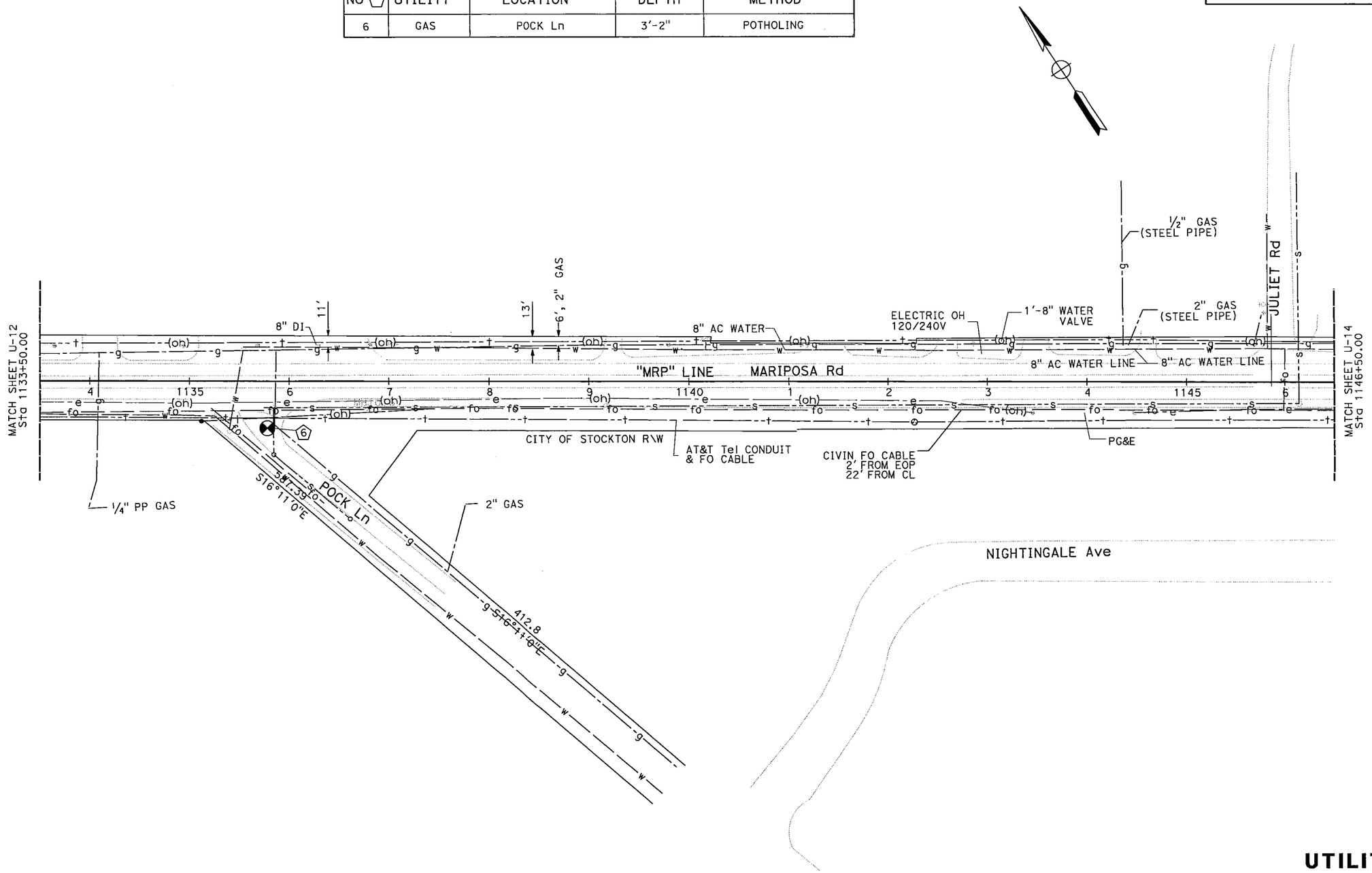
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. NOT ALL UTILITIES ARE SHOWN ON THE PLANS.

POSITIVE LOCATION INFORMATION

No ⬠	UTILITY	LOCATION	DEPTH	METHOD
6	GAS	POCK Ln	3'-2"	POTHOLING



APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE:1"=50'

U-13

LAST REVISION DATE PLOTTED => 04-SEP-2015
05-20-15 TIME PLOTTED => 14:06

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
06-DESIGN

FUNCTIONAL SUPERVISOR: ABDUL BAKER

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY: GURJOT GILL
CHECKED BY: ABDUL BAKER

BORDER LAST REVISED 7/2/2010

USERNAME => s113541
DGN FILE => 1013000114kc013.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1476

PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	26	112

REGISTERED CIVIL ENGINEER 5-22-15 DATE

PLANS APPROVAL DATE 6-22-15

REGISTERED PROFESSIONAL ENGINEER GURJOT GILL No. 71647 Exp. 12-31-15 CIVIL STATE OF CALIFORNIA

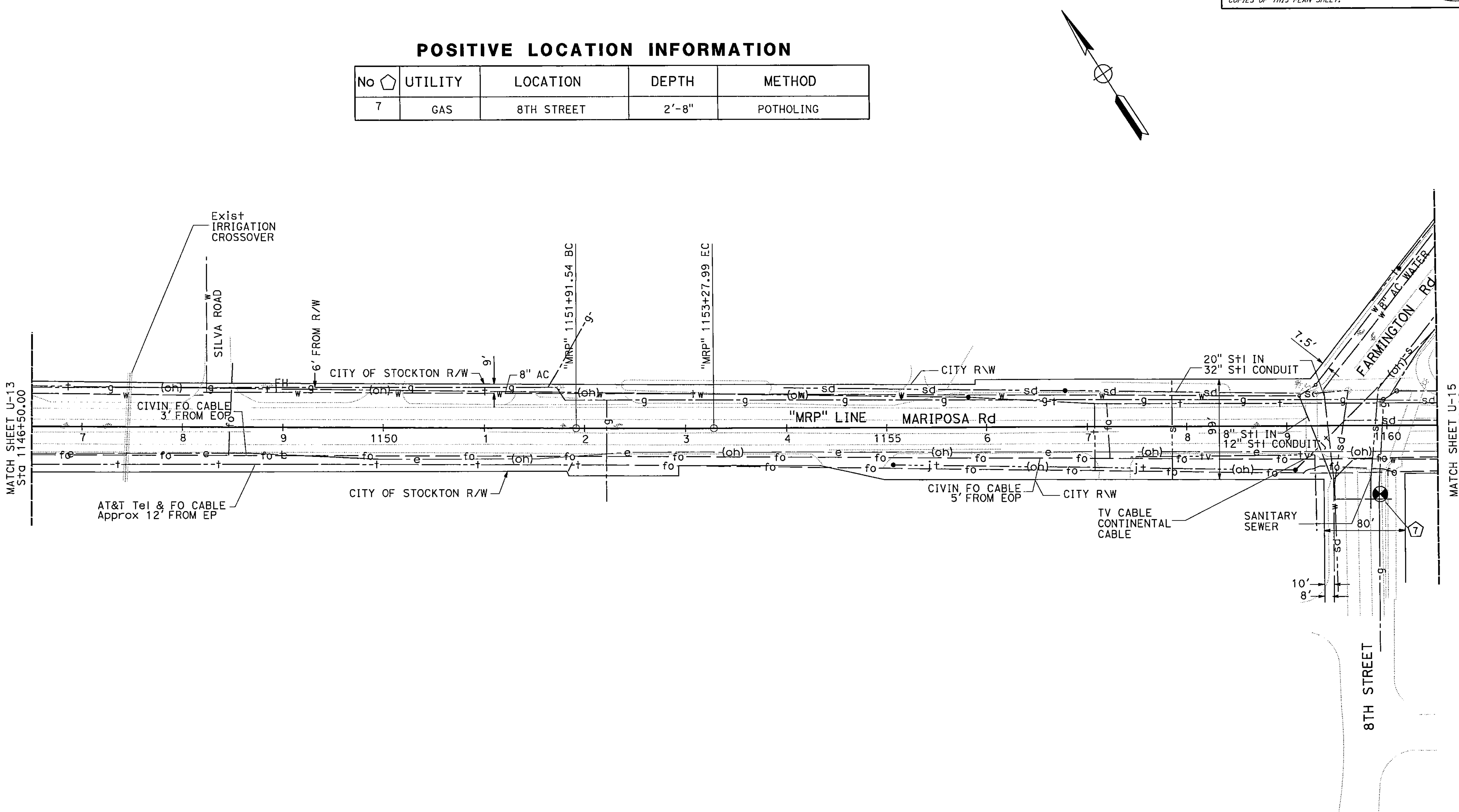
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. NOT ALL UTILITIES ARE SHOWN ON THE PLANS.

POSITIVE LOCATION INFORMATION

No ⬠	UTILITY	LOCATION	DEPTH	METHOD
7	GAS	8TH STREET	2'-8"	POTHOLING



UTILITY PLAN

U-14

SCALE: 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

06-DESIGN

FUNCTIONAL SUPERVISOR: ABDUL BAKER

CALCULATED-DESIGNED BY: GURJOT GILL

CHECKED BY: ABDUL BAKER

REVISED BY

DATE REVISED

LAST REVISION 05-20-15

DATE PLOTTED => 04-SEP-2015
TIME PLOTTED => 14:06

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	27	112

Gurjot S. Gill 5-22-15
REGISTERED CIVIL ENGINEER DATE

6-22-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GURJOT GILL
No. 71647
Exp. 12-31-15
CIVIL
STATE OF CALIFORNIA

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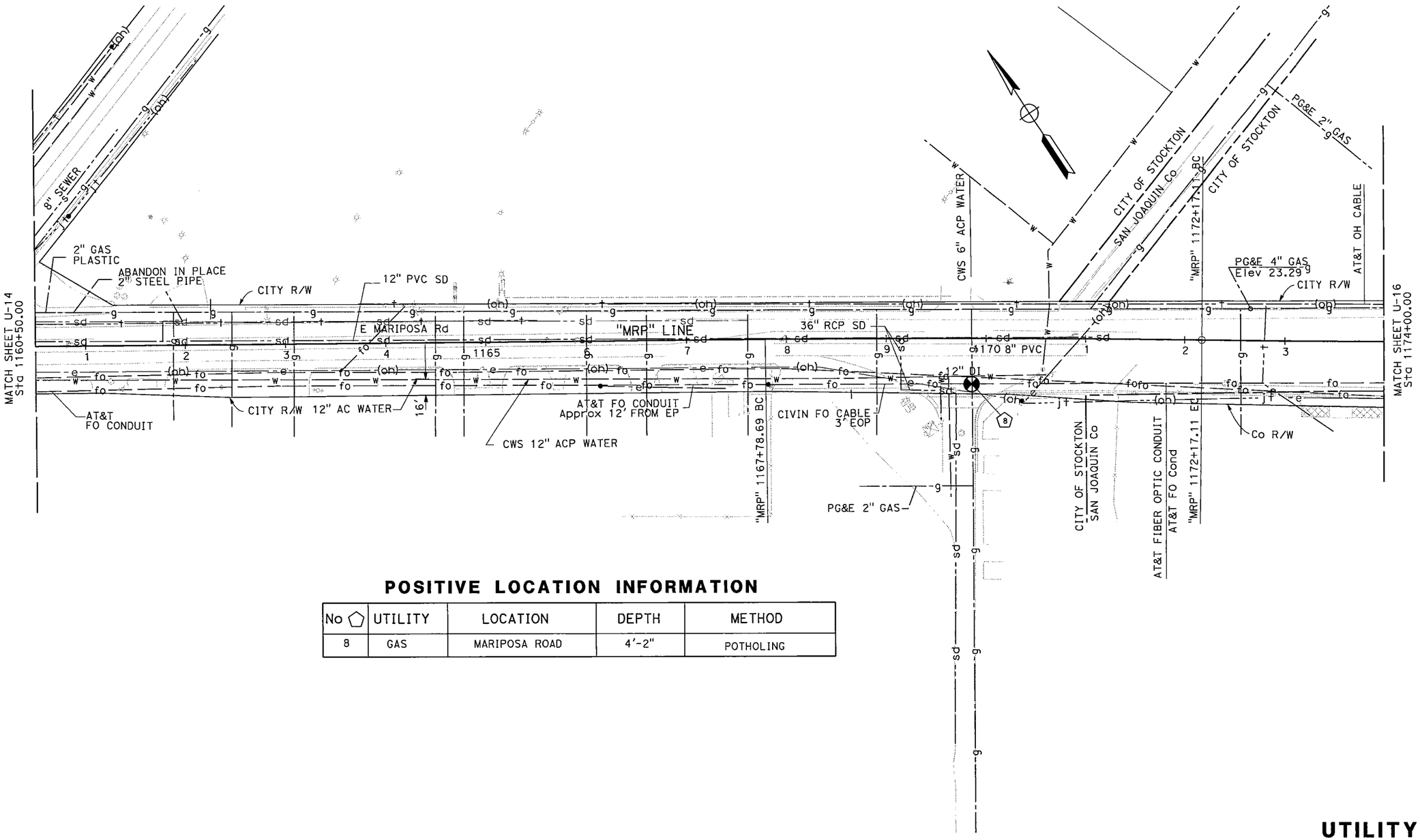

POSITIVE LOCATION INFORMATION

No ⬠	UTILITY	LOCATION	DEPTH	METHOD
8	GAS	MARIPOSA ROAD	4'-2"	POTHOLING

APPROVED FOR UTILITY INFORMATION ONLY

UTILITY PLAN

SCALE: 1"=50'

U-15

CALCULATED-DESIGNED BY	GURJOT GILL	REVISED BY	DATE REVISED
CHECKED BY	ABDUL BAKER		
FUNCTIONAL SUPERVISOR	ABDUL BAKER		
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	06-DESIGN		

LAST REVISION | DATE PLOTTED => 04-SEP-2015
05-20-15 | TIME PLOTTED => 14:06

BORDER LAST REVISED 7/2/2010 | USERNAME => s113541 | DGN FILE => 1013000114ka015.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1476 | PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	56	112

REGISTERED ELECTRICAL ENGINEER — DATE 5-26-15

PLANS APPROVAL DATE 6-22-15

JASPAL SINGH No. 16657 Exp. 6/30/16 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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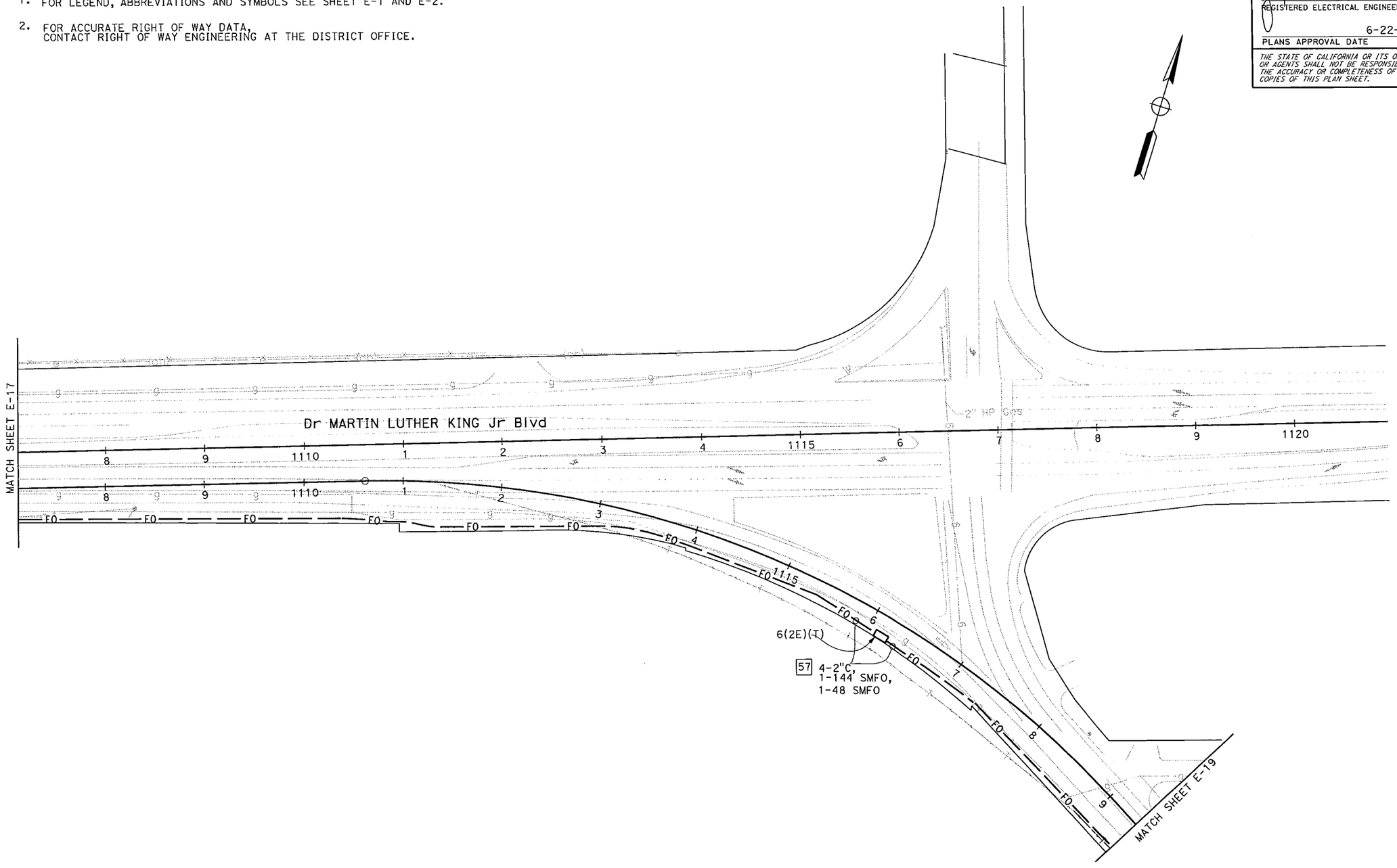
NOTES:

1. FOR LEGEND, ABBREVIATIONS AND SYMBOLS SEE SHEET E-1 AND E-2.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



APPROVED FOR ELECTRICAL WORK ONLY

FIBER OPTIC SYSTEM

SCALE: 1"=50'

E-18

CALCULATED-DESIGNED BY	JASPAL SINGH	REVISED BY	JS
CHECKED BY	PAUL MATOS	DATE REVISED	6/18/15
FUNCTIONAL SUPERVISOR	ALI BAKHDOUD		

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

LAST REVISION 00-00-00 DATE PLOTTED => 04-SEP-2015 TIME PLOTTED => 14:07

BORDER LAST REVISED 7/2/2010 | USERNAME => s113541 DGN FILE => 10130001141ua018.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1515 | PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	57	XX

5-26-15
REGISTERED ELECTRICAL ENGINEER DATE

JASPAL SINGH No. 16657 6/30/16 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

X-X-X
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

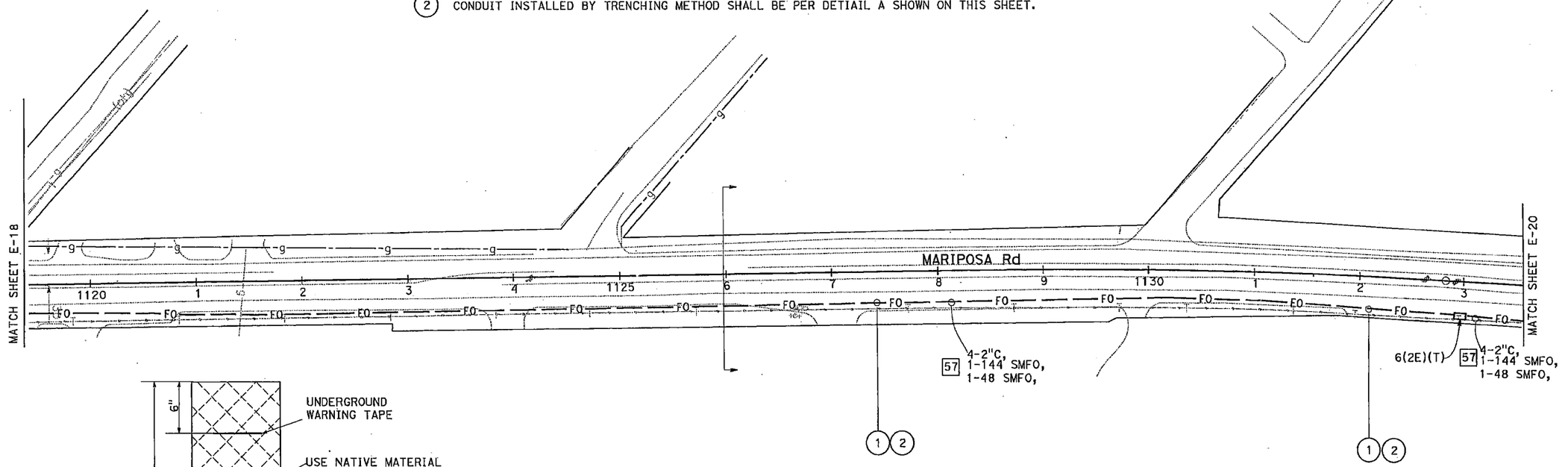
NOTES:

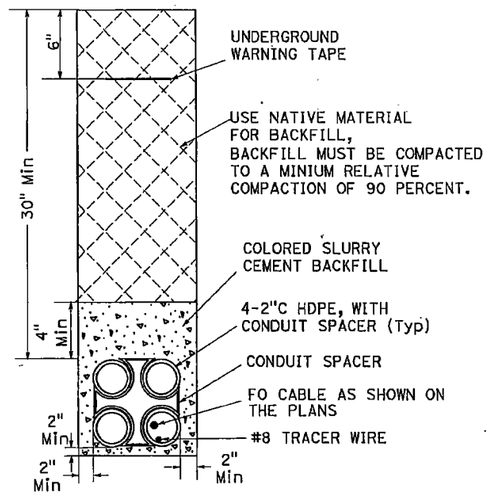
1. FOR LEGEND, ABBREVIATIONS AND SYMBOLS SEE SHEET E-1 AND E-2.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

NOTES: (ENCROACHMENT PERMIT FOR SHEET E-19 TO E-21)

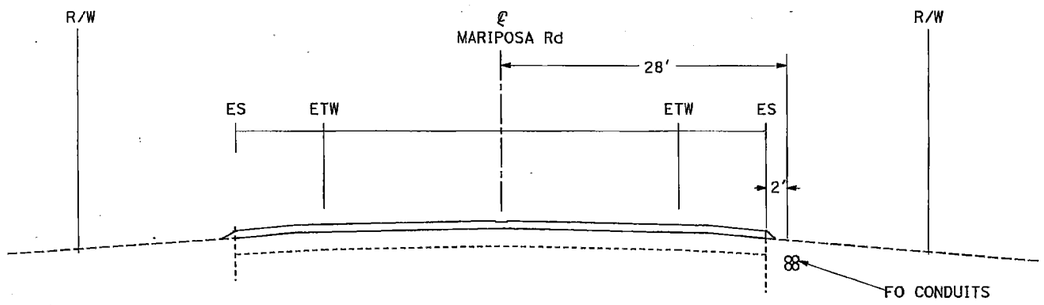
(1) FIBER OPTIC CONDUITS BETWEEN Stn 1126 AND Stn 1149 SHALL BE INSTALLED @ 28' FROM CENTRE LINE OR 2' FROM ES OF MARIPOSA Rd.

(2) CONDUIT INSTALLED BY TRENCHING METHOD SHALL BE PER DETIAIL A SHOWN ON THIS SHEET.





TRENCH IN DIRT DETAIL
4-2"C HDPE CONDUIT
DETAIL A



APPROVED FOR ELECTRICAL WORK ONLY

FIBER OPTIC SYSTEM

SCALE: 1"=50'

E-19

REVISED BY	JS
DATE REVISED	6/18/15
CALCULATED-DESIGNED BY	JASPAL SINGH
CHECKED BY	PAUL MATOS
FUNCTIONAL SUPERVISOR	ALI BAKHDOUD

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

LAST REVISION 08-18-14
DATE PLOTTED => 16-JUN-2016
TIME PLOTTED => 15:07

BORDER LAST REVISED 7/2/2010 | USERNAME => s128587 DGN FILE => 101300011 4ua019.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1515 | PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	58	112

REGISTERED ELECTRICAL ENGINEER — 5-26-15 DATE

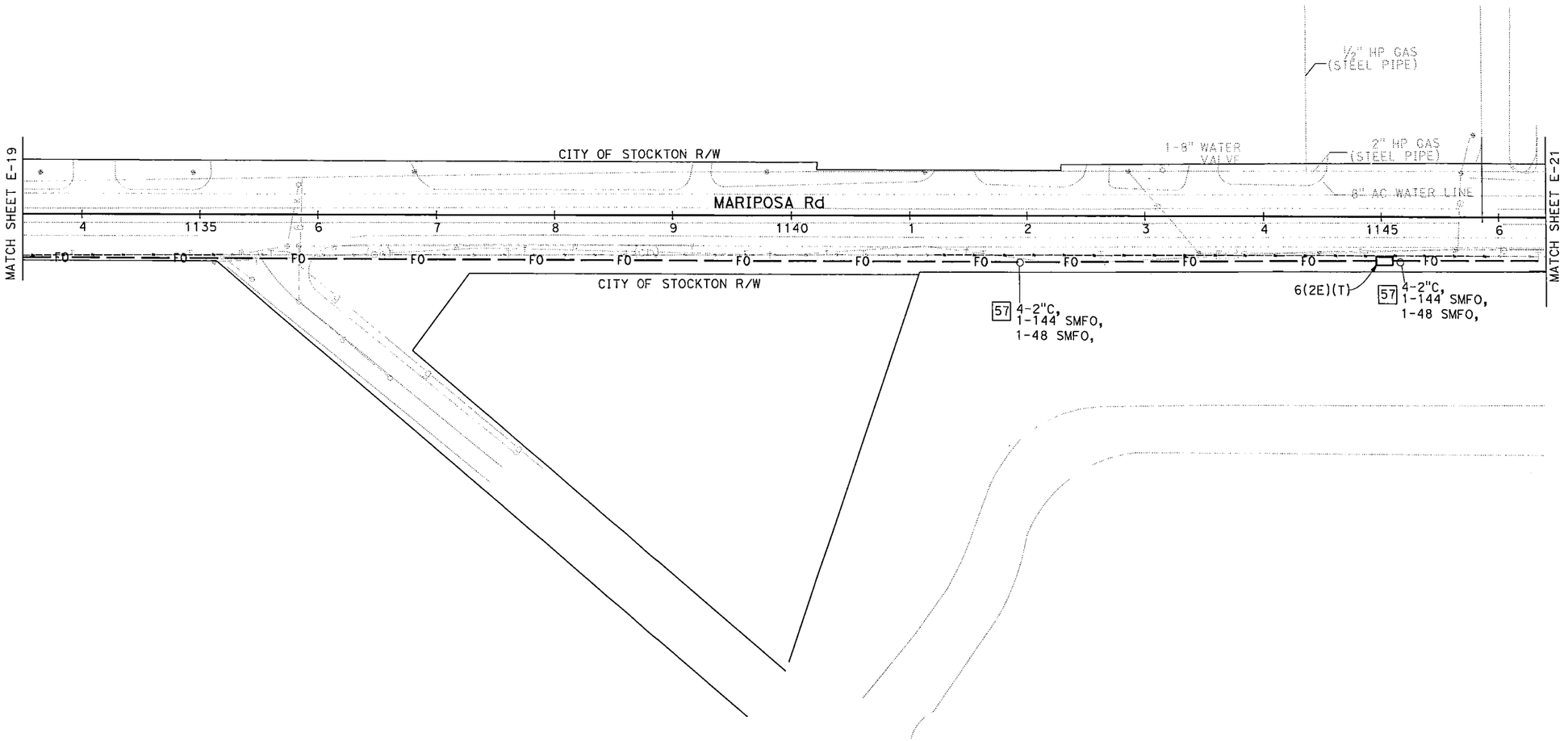
JASPAL SINGH No. 16657 Exp. 6/30/16 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

PLANS APPROVAL DATE — 6-22-15

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR LEGEND, ABBREVIATIONS AND SYMBOLS SEE SHEET E-1 AND E-2.
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



APPROVED FOR ELECTRICAL WORK ONLY

FIBER OPTIC SYSTEM

E-20

SCALE: 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR
Caltrans ELECTRICAL DESIGN	ALI BAKHDOUD
CALCULATED-DESIGNED BY	JASPAL SINGH
CHECKED BY	PAUL MATOS
REVISED BY	JS
DATE REVISED	6/18/15
LAST REVISION	08-00-00
DATE PLOTTED	=> 04-SEP-2015
TIME PLOTTED	=> 14:07

BORDER LAST REVISED 7/2/2010 | USERNAME => s113541 | DGN FILE => 1013000114ua020.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1515 | PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	59	112

5-26-15
REGISTERED ELECTRICAL ENGINEER DATE

6-22-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
JASPAL SINGH
No. 16657
Exp. 6/30/16
ELECTRICAL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

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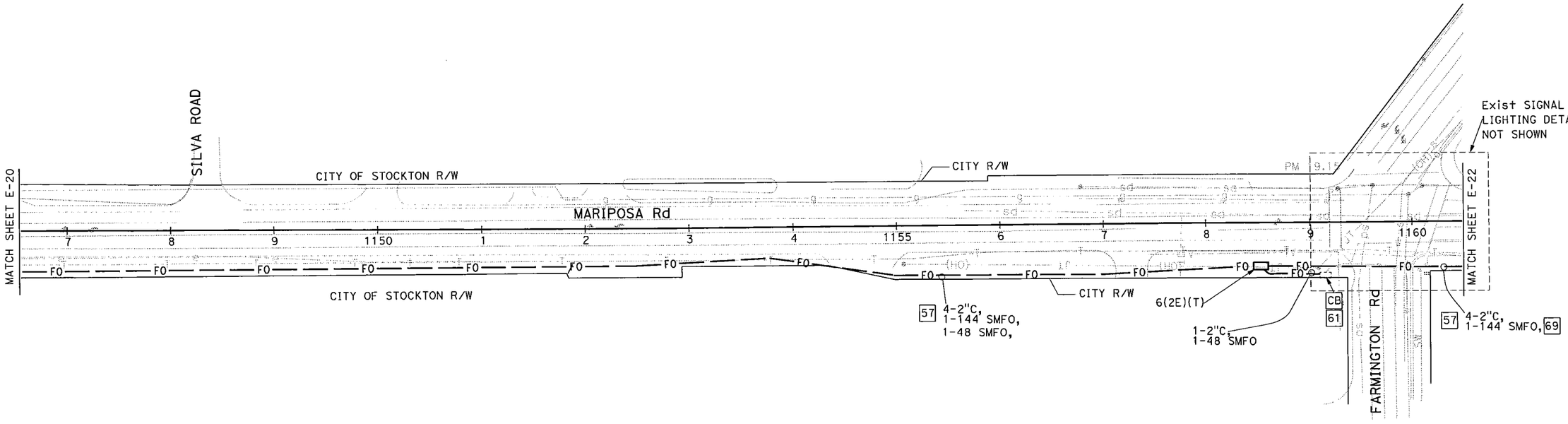
2. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



APPROVED FOR ELECTRICAL WORK ONLY

FIBER OPTIC SYSTEM
E-21

SCALE: 1"=50'

CALCULATED-DESIGNED BY	JASPAL SINGH
CHECKED BY	PAUL MATOS
FUNCTIONAL SUPERVISOR	ALI BAKHDOUD
REVISED BY	JS
DATE REVISED	6/18/15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN

LAST REVISION 00-00-00 | DATE PLOTTED => 04-SEP-2015 | TIME PLOTTED => 14:07

BORDER LAST REVISED 7/2/2010 | USERNAME => s113541 | DGN FILE => 1013000114ua021.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1515 | PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4,18.5	60	112

REGISTERED ELECTRICAL ENGINEER — DATE 5-26-15

PLANS APPROVAL DATE 6-22-15

JASPAL SINGH No. 16657 Exp. 6/30/16 ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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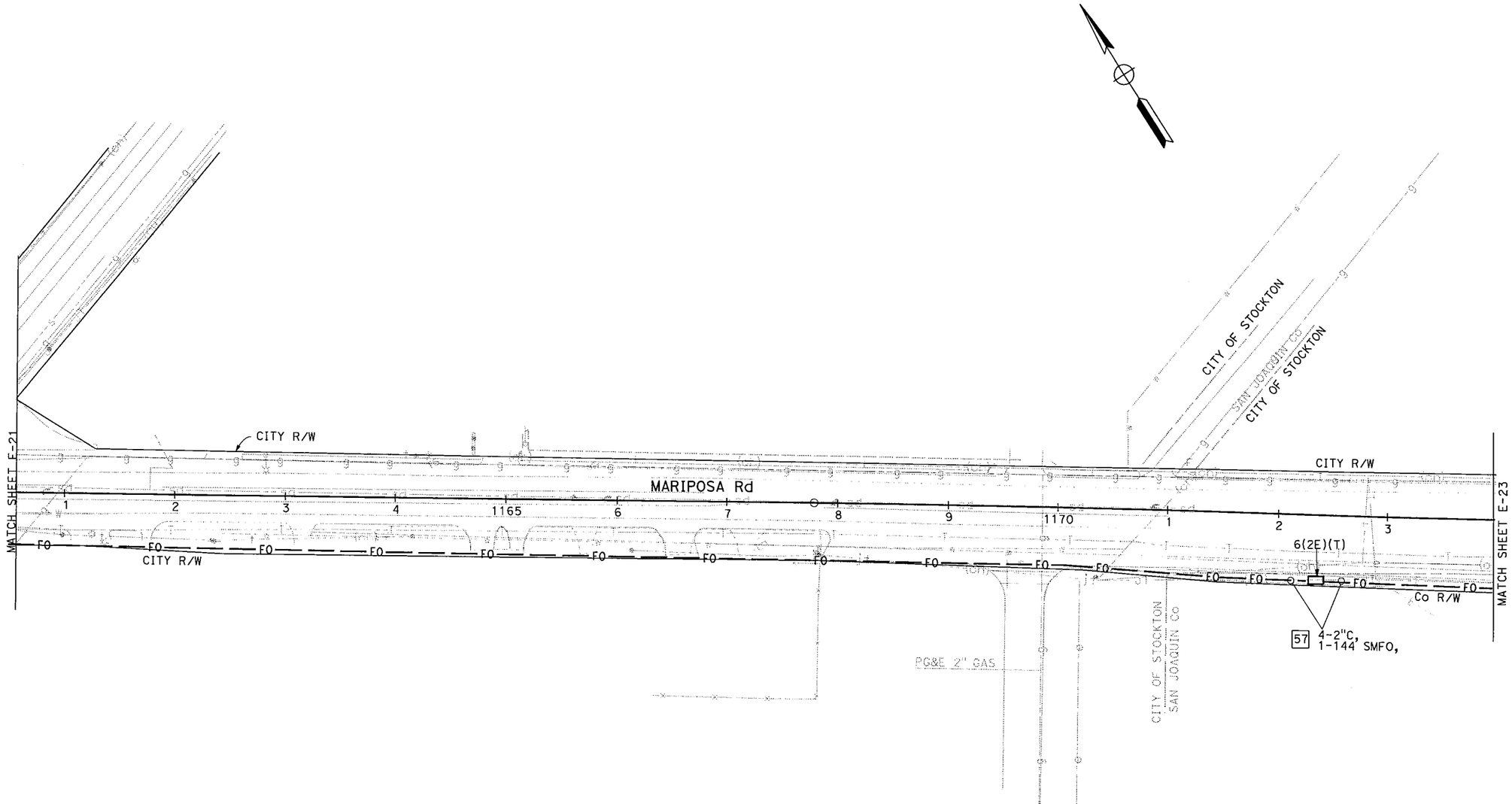


APPROVED FOR ELECTRICAL WORK ONLY

FIBER OPTIC SYSTEM

E-22

SCALE: 1"=50'

CALCULATED-DESIGNED BY	JASPAL SINGH	REVISED BY	JS
CHECKED BY	PAUL MATOS	DATE REVISED	6/18/15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
FUNCTIONAL SUPERVISOR: ALI BAKHDOUD

LAST REVISION 00-00-00 | DATE PLOTTED => 04-SEP-2015 | TIME PLOTTED => 14:07

BORDER LAST REVISED 7/2/2010 | USERNAME => s113541 | DGN FILE => 1013000114ug022.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1515 | PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4	16.0/19.4,18.5	29	112

Amarjit S Dhillon 04/08/15
REGISTERED CIVIL ENGINEER DATE

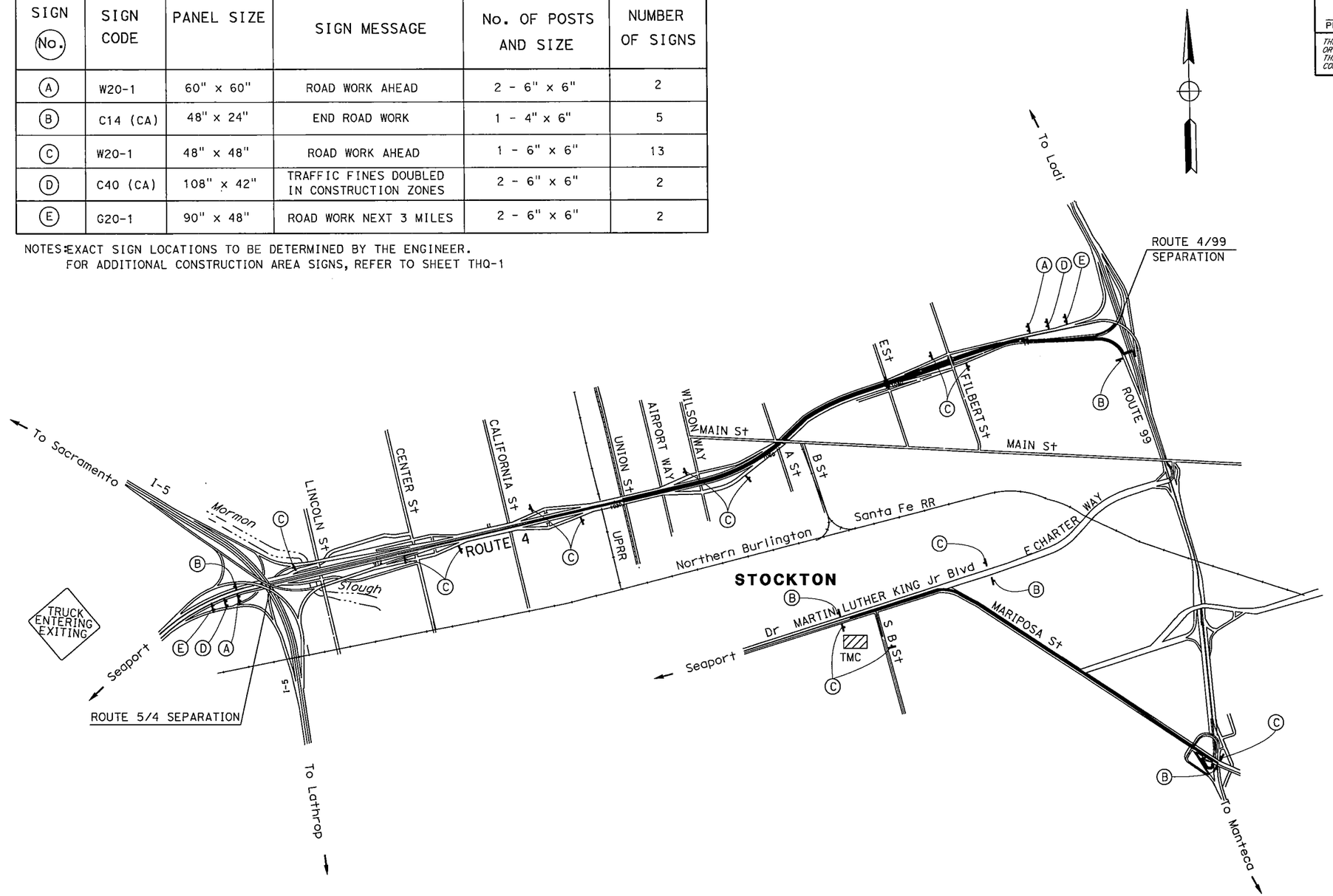
6-22-15
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — AMARJIT S. DHILLON No. 67458 Exp. 6/30/17 CIVIL — STATE OF CALIFORNIA

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN (No.)	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POSTS AND SIZE	NUMBER OF SIGNS
(A)	W20-1	60" x 60"	ROAD WORK AHEAD	2 - 6" x 6"	2
(B)	C14 (CA)	48" x 24"	END ROAD WORK	1 - 4" x 6"	5
(C)	W20-1	48" x 48"	ROAD WORK AHEAD	1 - 6" x 6"	13
(D)	C40 (CA)	108" x 42"	TRAFFIC FINES DOUBLED IN CONSTRUCTION ZONES	2 - 6" x 6"	2
(E)	G20-1	90" x 48"	ROAD WORK NEXT 3 MILES	2 - 6" x 6"	2

NOTES: EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
FOR ADDITIONAL CONSTRUCTION AREA SIGNS, REFER TO SHEET THQ-1



APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE **CS-1**

LAST REVISION 04-08-15 | DATE PLOTTED => 04-SEP-2015 | TIME PLOTTED => 14:06

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® 06-TRAFFIC DESIGN

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
AMARJIT S DHILLON	HASSAN TAHA		

FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI

BORDER LAST REVISED 7/2/2010 | USERNAME => s113541 | DGN FILE => 06000204011a001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1513 | PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4	16.0/19.4,18.5	34	112

Hassan Taha 03-13-15
REGISTERED CIVIL ENGINEER DATE

6-22-15
S APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
HASSAN M. TAHA
No. 60130
Exp. 06/30/16
CIVIL
STATE OF CALIFORNIA

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NOTE:

FOR ADDITIONAL CONSTRUCTION AREA SIGNS, REFER TO SHEET CS-1.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS (TRAFFIC HANDLING)

SHEET No.	SIGN No.	SIGN CODE	SIGN MESSAGE	PANEL SIZE	No. OF POST AND SIZE
TH-1	1-1	W21-5bL	LEFT SHOULDER CLOSED AHEAD	48" x 48"	1 - 6" x 6"
		C40(CA)	TRUCKS ENTERING EXITING	48" x 48"	
TH-2	2-1	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 6" x 6"
	2-2	W1-4	CURVE ARROW (R)	48" x 48"	1 - 6" x 6"
	2-3	W1-4	CURVE ARROW (R)	48" x 48"	1 - 6" x 6"
TH-3	3-1	W1-4	CURVE ARROW (L)	48" x 48"	1 - 6" x 6"
	3-2	W1-4	CURVE ARROW (L)	48" x 48"	1 - 6" x 6"
TH-4	4-1	W21-5bL	LEFT SHOULDER CLOSED AHEAD	48" x 48"	1 - 6" x 6"
	4-2	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 6" x 6"
	4-3	W21-5bL	LEFT SHOULDER CLOSED AHEAD	48" x 48"	1 - 6" x 6"
	4-4	C30A (CA)	SHOULDER CLOSED	48" x 48"	1 - 6" x 6"
		C40(CA)	TRUCKS ENTERING EXITING	48" x 48"	

TRAFFIC HANDLING QUANTITIES

SHEET No.	LOCATION	TEMPORARY RAILING (TYPE K)	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE
		LF	EA	EA
TH-2			3	
TH-2	Sta 1021+60 TO Sta 1024+20	260	37	42
	Sta 1021+00 TO Sta 1023+60	260		
TH-2 TO TH-3	Sta 1026+00 TO Sta 1038+00	1200	14	28
TH-4	Sta 1104+26 TO Sta 1108+26	400		
	Sta 1103+50 TO Sta 1107+70	420		
TOTAL		2540	54	70

TEMPORARY PAVEMENT DELINEATION QUANTITIES

SHEET No.	LOCATION Sta TO Sta	DETAIL No.	REMOVE PAVEMENT MARKER	REMOVE THERMOPLASTIC TRAFFIC STRIPE		Temp TRAFFIC STRIPE (TAPE)	Temp PAVEMENT MARKER
				WHITE	YELLOW (HAZARDOUS WASTE)		
			EA	LF	LF	LF	EA
TH-2 To TH-3	1022+40 TO 1041+45 (X2)	12	82	3,810		953	82
	1022+40 TO 1041+45	27B		1,905		1,905	
	1022+40 TO 1041+45	25	41		1,905	1,905	41
	1022+40 TO 1025+68	38	15	328			
	1025+68 TO 1028+50	36	26	1128			
	1022+40 TO 1026+12	38				372	17
	1026+12 TO 1028+50 (X2)	36				952	44
TOTAL			164	7171	1,905	6,087	184

TRAFFIC HANDLING QUANTITIES
THQ-1

LAST REVISION 05-14-15
DATE PLOTTED => 04-SEP-2015
TIME PLOTTED => 14:07

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans 06-TRAFFIC DESIGN
FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI
CALCULATED-DESIGNED BY: HASSAN TAHA
CHECKED BY: SANDY LE
REVISED BY
DATE REVISED

BORDER LAST REVISED 7/2/2010
USERNAME => s113541
DGN FILE => 1013000114mf001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1513
PROJECT NUMBER & PHASE 10130001141

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4, 18.5	90	112

REGISTERED CIVIL ENGINEER

July 19, 2013
PLANS APPROVAL DATE

Gurinderpal Bhullar
No. C48815
Exp. 9-30-14
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 6-22-15

2010 REVISED STANDARD PLAN RSP T9

TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING

SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
					X	Y	Z **
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	55	110	27
60	1440	720	360	240	60	120	30
65	1560	780	390	260	65	130	32
70	1680	840	420	280	70	140	35

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

Where: L = Taper length in feet
W = Width of offset in feet
S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

LONGITUDINAL BUFFER SPACE AND FLAGGER STATION SPACING

SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
mph	ft	ft	ft	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

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ADVANCE WARNING SIGN SPACING

ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommmended distances.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM TABLES FOR LANE AND RAMP CLOSURES

NO SCALE

RSP T9 DATED JULY 19, 2013 SUPERSEDES RSP T9 DATED APRIL 19, 2013 THAT SUPPLEMENTS THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T9

4-30-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4, 18.5	93	112

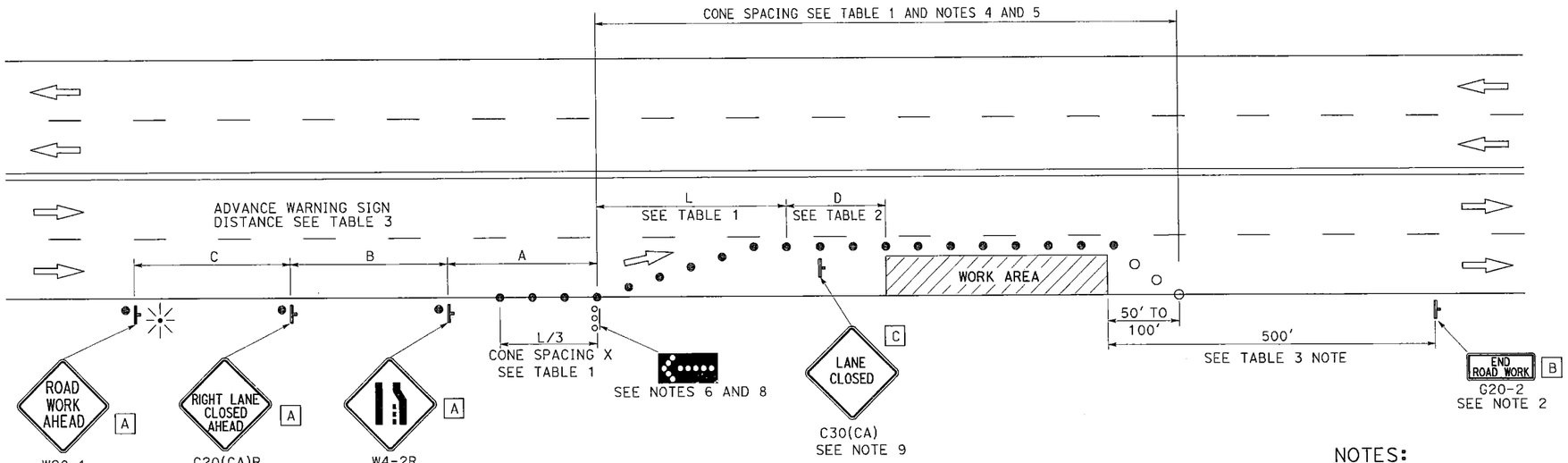
REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Gurinderpal Bhullar
No. C48815
Exp. 9-30-14
CIVIL
STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 6-22-15



TYPICAL LANE CLOSURE

NOTES:

See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

NOTES:

1. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
3. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a C20(CA) sign for the first advance warning sign.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Flashing arrow sign shall be either Type I or Type II.
7. For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
8. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.
9. Place a C30(CA) sign every 2000' throughout length of lane closure.
10. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
11. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closure unless, otherwise directed by the Engineer.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- TEMPORARY TRAFFIC CONTROL SIGN
- FLASHING ARROW SIGN (FAS)
- FAS SUPPORT OR TRAILER
- PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

A	48" x 48"
B	36" x 18"
C	30" x 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON MULTILANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T11 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T11 DATED MAY 20, 2011 - PAGE 239 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T11

2010 REVISED STANDARD PLAN RSP T11

4-2-13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	SJ	4,99	16.0/19.4, 18.5	94	112

Devinder Singh
REGISTERED CIVIL ENGINEER

October 17, 2014
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Devinder Singh — No. C50470 — Exp. 6-30-15 — CIVIL — STATE OF CALIFORNIA

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TO ACCOMPANY PLANS DATED 6-22-15

NOTES:

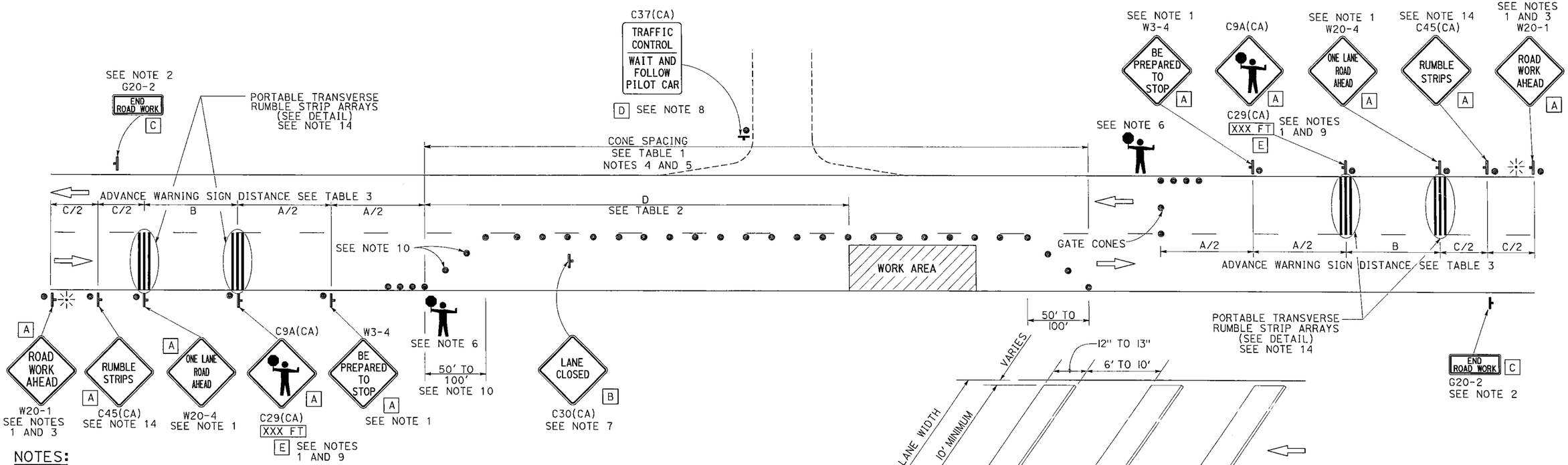
See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Unless otherwise specified in the special provisions, all temporary warning signs shall have black legend on fluorescent orange background.

California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.

TYPICAL LANE CLOSURE WITH REVERSIBLE CONTROL



NOTES:

1. Each advance warning sign in each direction of travel shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane control unless the end of work area is obvious, or ends within a larger project's limits.
3. If the W20-1 sign would follow within 2000' of a stationary W20-1 or G20-1 "ROAD WORK NEXT _____ MILES", use a W20-4 sign for the first advance warning sign.
4. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
5. Portable delineators, placed at one-half the spacing indicated for traffic cones, may be used instead of cones for daytime closures only.
6. Additional advance flaggers may be required. Flagger should stand in a conspicuous place, be visible to approaching traffic as well as approaching vehicles after the first vehicle has stopped. During the hours of darkness, the flagging-station and flagger shall be illuminated and clearly visible to approaching traffic. The illumination footprint of the lighting on the ground shall be at least 20' in diameter. Place a minimum of four cones at 50' intervals in advance of flagger station as shown.
7. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work areas. They are optional if the work area is visible from the flagger station.
8. When a pilot car is used, place a C37(CA) "TRAFFIC CONTROL-WAIT AND FOLLOW PILOT CAR" sign with black legend on white background at all intersections, driveways and alleys without a flagger within traffic control area. Signs shall be clean and visible at all times. Where traffic can not be effectively self-regulated, at least one flagger shall be used at each intersection within traffic control area.
9. An optional C29(CA) sign may be placed below the C9A(CA) sign.
10. Either traffic cones or barricades shall be placed on the taper. Barricades shall be Type I, II, or III.
11. The color of the portable transverse rumble strips shall be black or orange. Use 2 arrays, each array shall consist of 3 rumble strips.
12. Portable transverse rumble strips shall not be placed on sharp horizontal or vertical curves nor shall they be placed through pedestrian crossings.
13. If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.
14. Portable transverse rumble strips are not required if any one of the following conditions is satisfied:
    A. Work duration occupies a location for four hours or less
    B. Posted speed limit is below 45 MPH
    C. Work is of emergency nature
    D. Work zone is in snow or icy weather conditions

PORTABLE TRANSVERSE RUMBLE STRIP ARRAY DETAIL

LEGEND

- TRAFFIC CONE
- TEMPORARY TRAFFIC CONTROL SIGN
- PORTABLE FLASHING BEACON
- FLAGGER

SIGN PANEL SIZE (Min)

A	48" x 48"
B	30" x 30"
C	36" x 18"
D	36" x 42"
E	20" x 7"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON TWO LANE CONVENTIONAL HIGHWAYS

NO SCALE

RSP T13 DATED OCTOBER 17, 2014 SUPERSEDES RSP T13 DATED JULY 18, 2014 AND RSP T13 DATED APRIL 19, 2013 AND STANDARD PLAN T13 DATED MAY 20, 2011 - PAGE 241 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T13

2010 REVISED STANDARD PLAN RSP T13

9-26-14