INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	TYPICAL CROSS SECTIONS
3-6	CONSTRUCTION DETAILS
7	CONSTRUCTION AREA SIGNS
8	SUMMARY OF QUANTITIES
9	EROSION CONTROL LEGEND AND QUANTITIES
10-12	REVISED STANDARD PLANS

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

STATE OF CALIFORNIA **ACHSNHPIG-005-5(146)433E**

DEPARTMENT OF TRANSPORTATION

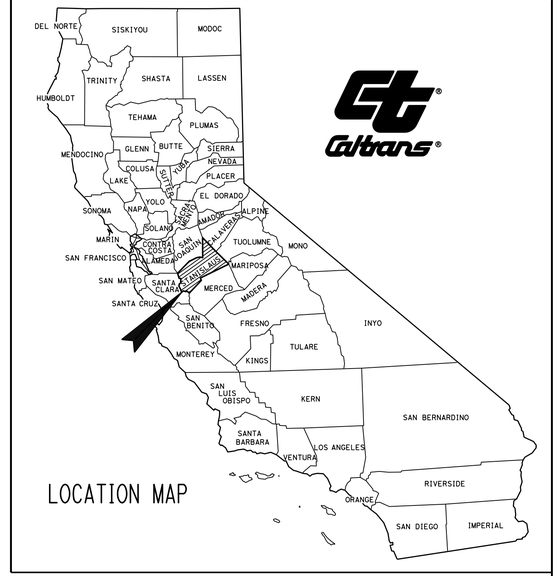
PROJECT PLANS FOR CONSTRUCTION ON

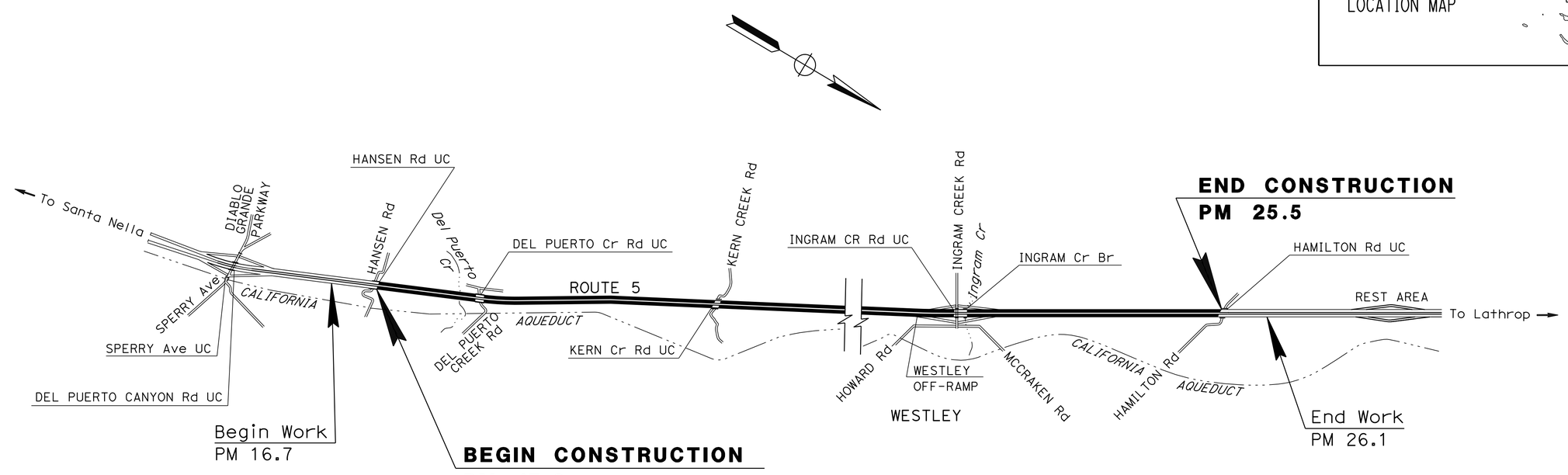
STATE HIGHWAY

IN STANISLAUS COUNTY
IN AND NEAR WESTLEY
FROM HANSEN ROAD UNDERCROSSING
TO HAMILTON ROAD UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta	5	17.3/25.5	1	12





PROJECT MANAGER: JOHN ROCCANOVA

DESIGN MANAGER: JOSE HUERTA

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

NO SCALE

7/22/15
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
HongLoan T. Luong
No. C63864
Exp. 9/30/16
CIVIL
STATE OF CALIFORNIA

August 24, 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.	**10-0Y6404**
PROJECT ID	**1013000270**

LAST REVISION 07-20-15
DATE PLOTTED => 02-NOV-2015
TIME PLOTTED => 15:41

BORDER LAST REVISED 10/4/2013 | CALTRANS WEB SITE IS: HTTP//WWW.DOT.CA.GOV/ | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | USERNAME => s120300 DGN FILE => 1013000270ab001.dgn | UNIT 1457 | PROJECT NUMBER & PHASE 10130002701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta	5	17.3/25.5	2	12

REGISTERED CIVIL ENGINEER — 7/22/15 DATE

HongLoan T. Luong No. C63864 Exp. 9/30/16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

8-24-15
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 ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. SEE SUMMARY OF QUANTITIES SHEET FOR LIMITS OF HTCB AND VEGETATION CONTROL (MINOR CONCRETE).

ABBREVIATIONS:

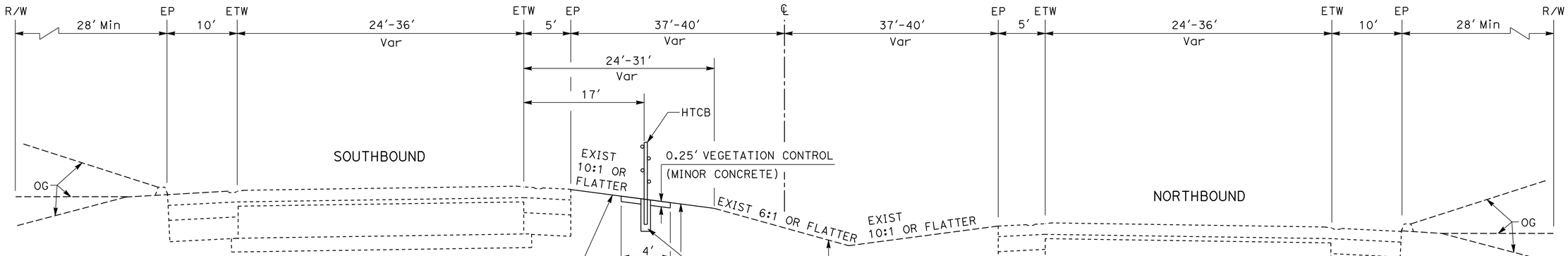
HTCB HIGH TENSION CABLE BARRIER

DESIGN DESIGNATION (ROUTE 5)

ADT (2015)	40,800	D	64%
ADT (2035)	61,800	T	25%
DVH	6,180	V	65 mph

PAVEMENT CLIMATE REGION

INLAND VALLEY



PM 17.3 TO PM 25.5

ROUTE 5

TYPICAL CROSS SECTIONS

NO SCALE

X-1

REVISED BY	DATE REVISED
HUY HA	07/20/15

CALCULATED-DESIGNED BY: HUY HA
CHECKED BY: HONGLOAN LUONG

FUNCTIONAL SUPERVISOR: JOSE HUERTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION 07-20-15
DATE PLOTTED => 02-SEP-2015
TIME PLOTTED => 13:03

BORDER LAST REVISED 7/2/2010

USERNAME => s120300
DGN FILE => 1013000270ca001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1457

PROJECT NUMBER & PHASE 10130002701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta	5	17.3/25.5	3	12

REGISTERED CIVIL ENGINEER — DATE 7/22/15

HongLoan T. Luong No. C63864 Exp. 9/30/16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

8-24-15
PLANS APPROVAL DATE

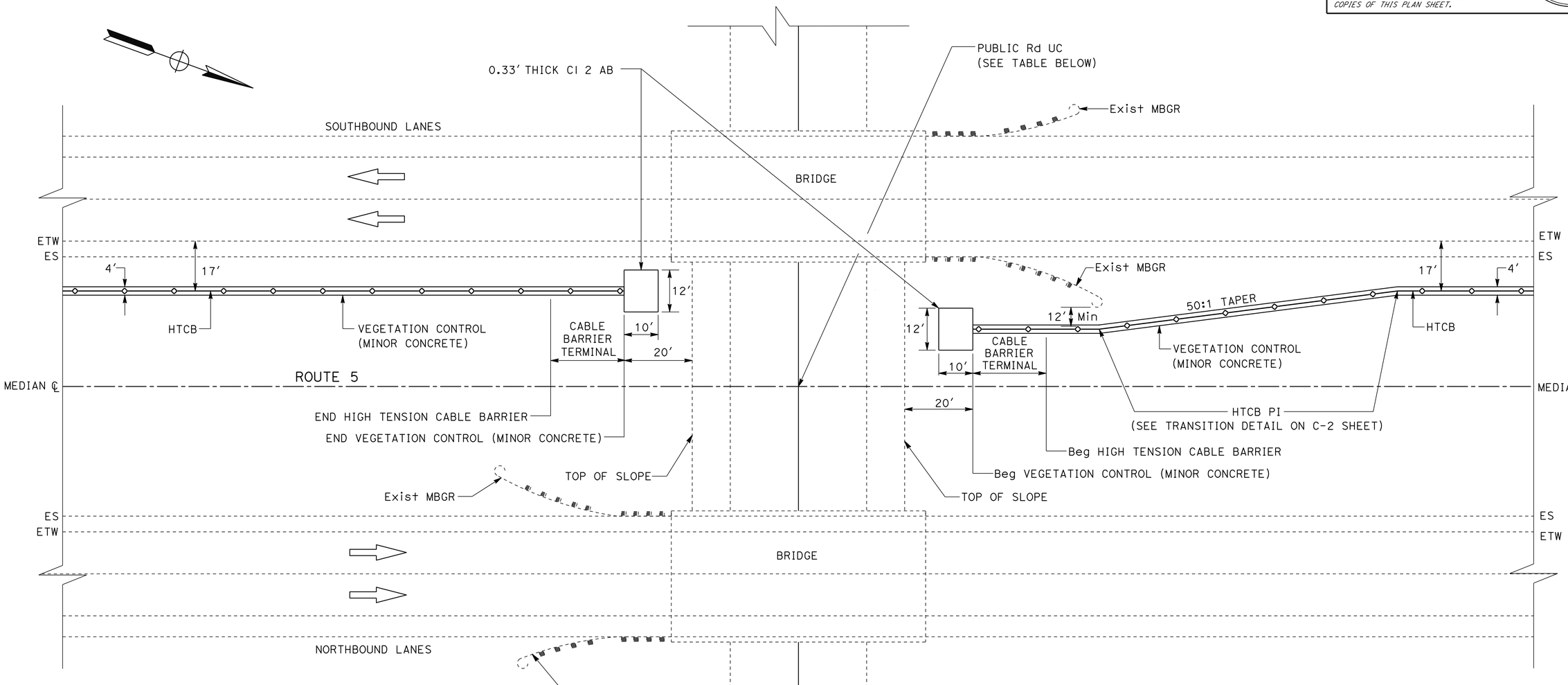
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR HIGH TENSION CABLE BARRIER LOCATIONS AND LENGTHS, SEE SUMMARY OF QUANTITIES.
2. TRANSITION TAPER BEGINNING AND ENDING LOCATIONS MUST BE VERIFIED IN FIELD.
3. HIGH TENSION CABLE BARRIER AND POSTS, CABLE BARRIER TERMINAL, POST FOUNDATION, AND CABLE BARRIER TERMINAL ANCHOR FOUNDATION, ARE PER MANUFACTURER'S SPECIFICATION.

ABBREVIATIONS:

HTCB: HIGH TENSION CABLE BARRIER



PUBLIC Rd UC

LOCATION PM	PUBLIC ROAD
17.25	HANSEN Rd
18.31	DEL PUERTO Cr
20.68	KERN Cr Rd
22.99	INGRAM Cr Rd
23.07	INGRAM Cr Br
25.52	HAMILTON Rd

PLAN

HIGH TENSION CABLE BARRIER AT UNDERCROSSING

(SEE C-2 SHEET FOR ELEVATION VIEW)

CONSTRUCTION DETAILS

NO SCALE

C-1

REVISED BY	HUY HA
DATE REVISED	07/20/15
CALCULATED-DESIGNED BY	HUY HA
CHECKED BY	HONGLOAN LUONG
FUNCTIONAL SUPERVISOR	JOSE HUERTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN

LAST REVISION 07-20-15 | DATE PLOTTED => 02-SEP-2015 | TIME PLOTTED => 13:03

BORDER LAST REVISED 7/2/2010 | USERNAME => s120300 | DGN FILE => 1013000270ga001.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1457 | PROJECT NUMBER & PHASE 10130002701

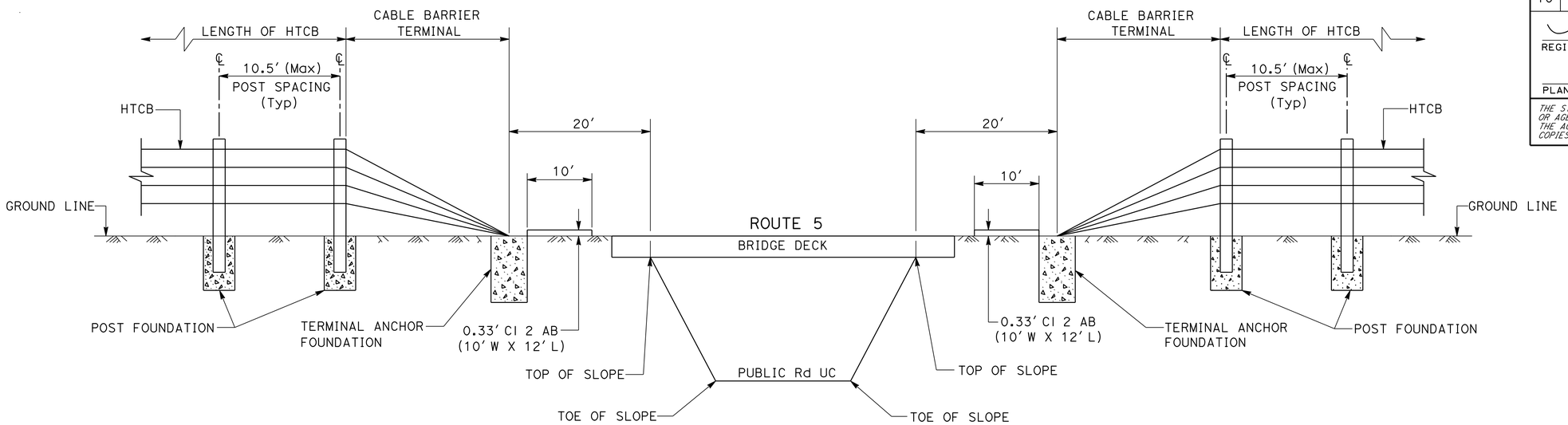
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta	5	17.3/25.5	4	12

REGISTERED CIVIL ENGINEER — DATE 7/22/15

HongLoan T. Luong No. C63864 Exp. 9/30/16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

8-24-15
PLANS APPROVAL DATE

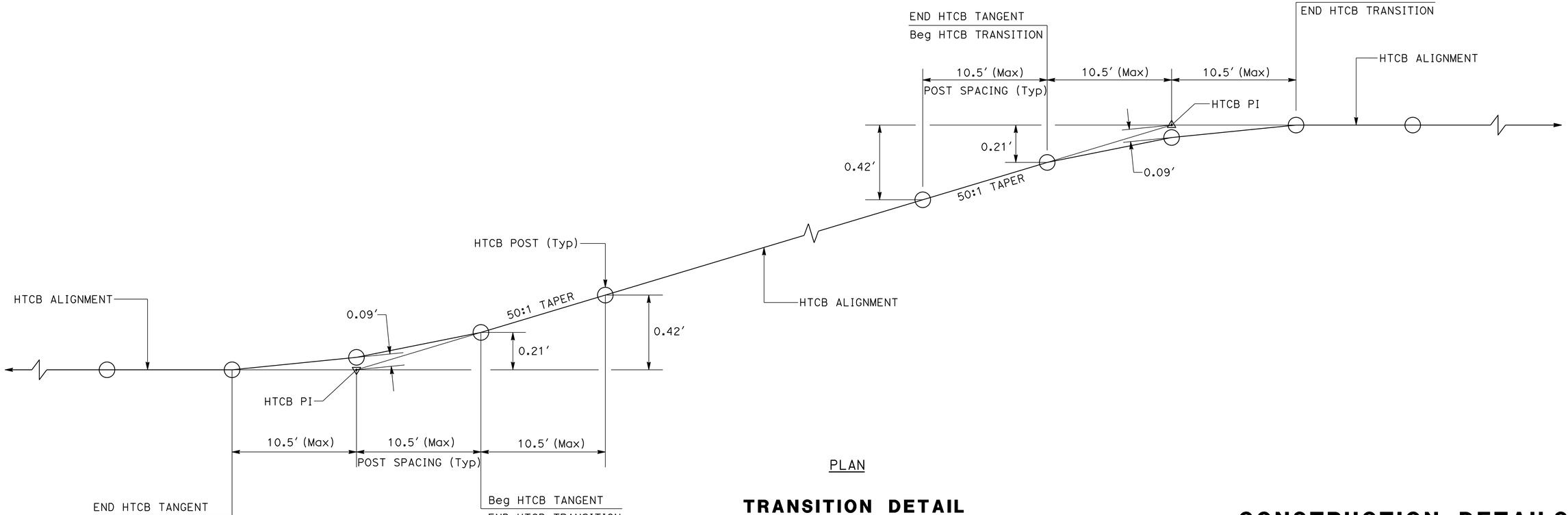
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



ELEVATION

HIGH TENSION CABLE BARRIER AT UNDERCROSSING

(SEE C-1 SHEET FOR PLAN VIEW)



PLAN

TRANSITION DETAIL

(SEE C-1 SHEET FOR MORE INFORMATION)

CONSTRUCTION DETAILS

NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: JOSE HUERTA
CALCULATED-DESIGNED BY:
CHECKED BY:
HONGLOAN LUONG
HUY HA
REVISED BY: HUY HA
DATE REVISED: 07/20/15

LAST REVISION 07-20-15 | DATE PLOTTED => 02-SEP-2015 | TIME PLOTTED => 13:03

BORDER LAST REVISED 7/2/2010 | USERNAME => s120300 | DGN FILE => 1013000270ga002.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1457 | PROJECT NUMBER & PHASE 10130002701

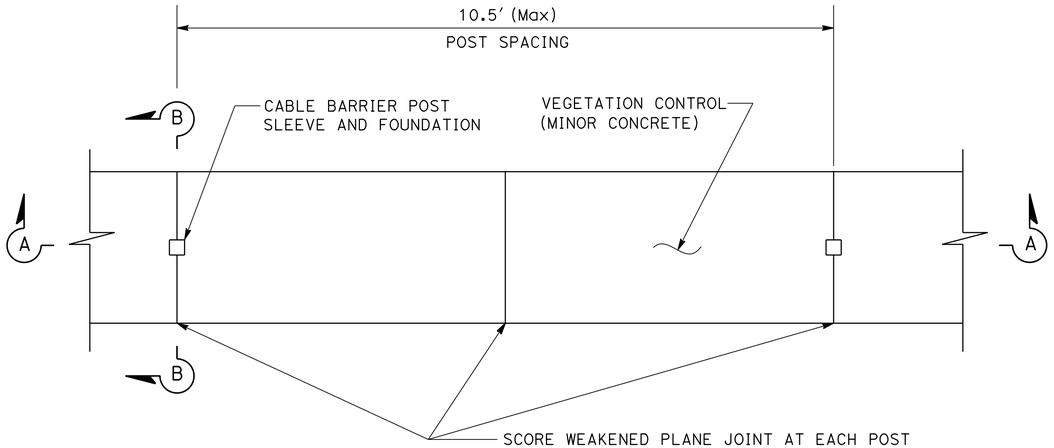
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta	5	17.3/25.5	5	12

7/22/15
REGISTERED CIVIL ENGINEER DATE

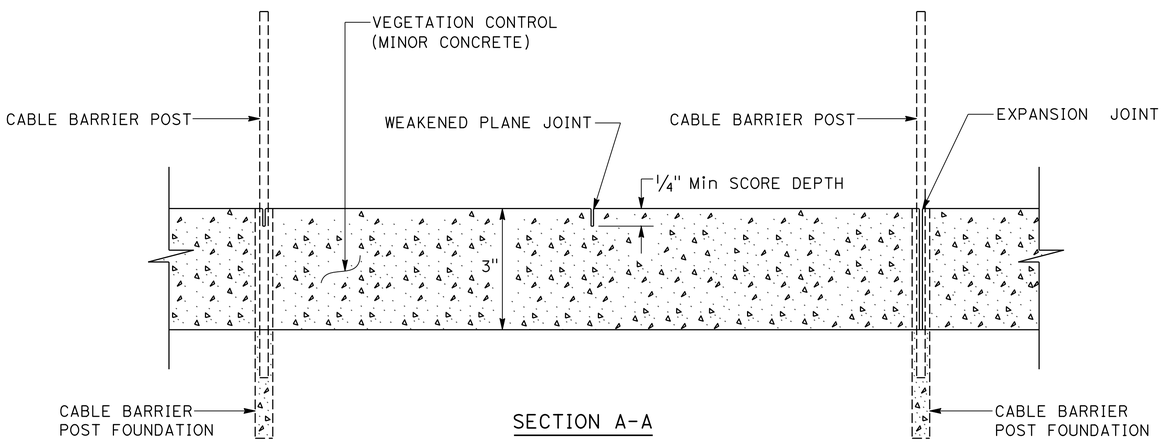
8-24-15
PLANS APPROVAL DATE

HongLoan T. Luong No. C63864 Exp. 9/30/16 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

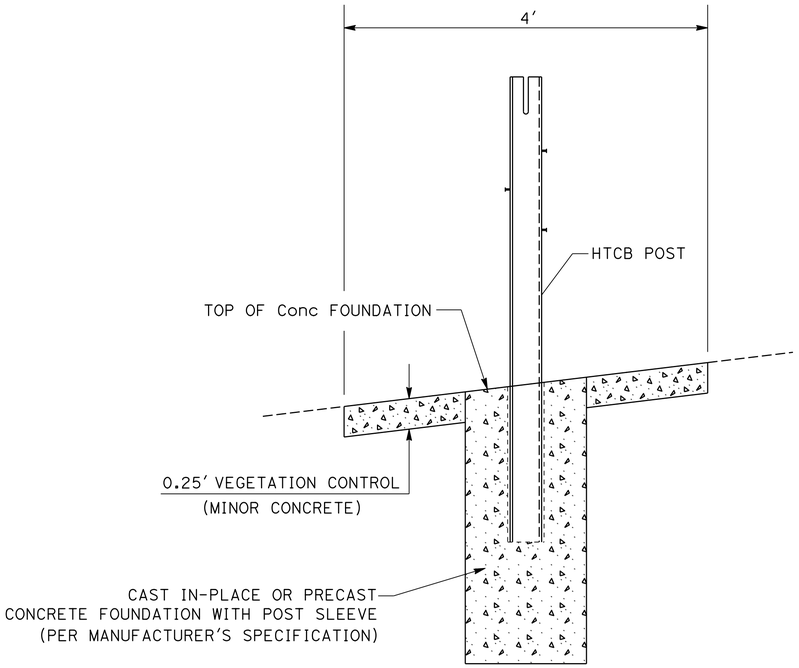
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



PLAN



SECTION A-A



SECTION B-B

VEGETATION CONTROL (MINOR CONCRETE) FOR HIGH TENSION CABLE BARRIER

CONSTRUCTION DETAILS

NO SCALE

C-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN
FUNCTIONAL SUPERVISOR: JOSE HUERTA
CALCULATED-DESIGNED BY: HUY HA
CHECKED BY: HONGLOAN LUONG
REVISED BY: HUY HA
DATE REVISED: 07/20/15

LAST REVISION DATE PLOTTED => 02-SEP-2015
07-20-15 TIME PLOTTED => 13:03

BORDER LAST REVISED 7/2/2010
USERNAME => s120300
DGN FILE => 1013000270ga003.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1457
PROJECT NUMBER & PHASE 10130002701

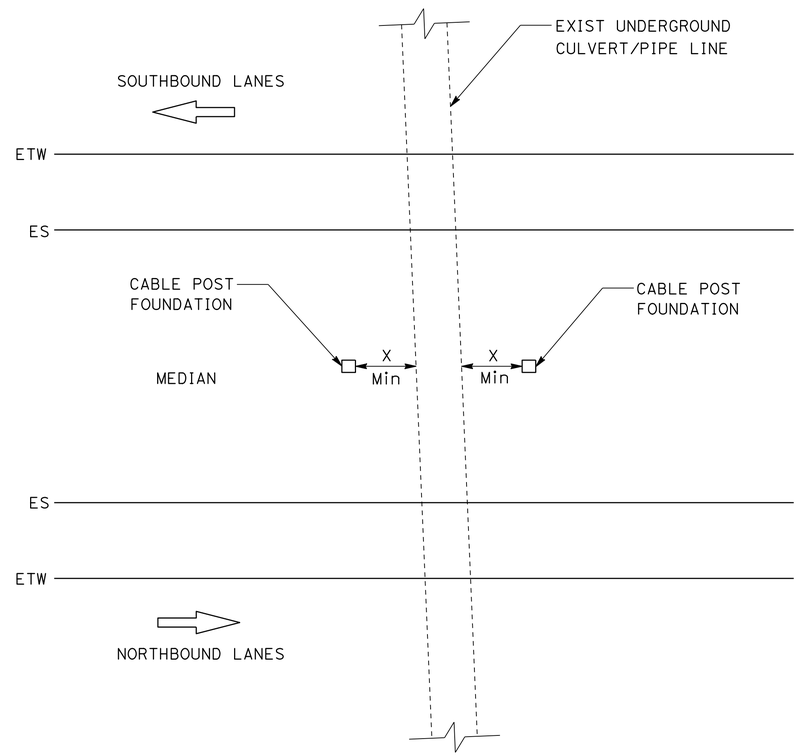
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta	5	17.3/25.5	6	12

REGISTERED CIVIL ENGINEER — DATE 7/22/15

PLANS APPROVAL DATE 8-24-15

REGISTERED PROFESSIONAL ENGINEER — HongLoan T. Luong — No. C63864 — Exp. 9/30/16 — 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.



PLAN

UNDERGROUND FACILITY

LOCATION PM	TYPE	SKEW DEGREE	SIZE LF	DEPTH LF	X LF
✱18.59	PETROLEUM PIPE LINE WITH 20" METAL CASING		1.3	10.0	4.0
20.13	CULVERT WITH DI IN MEDIAN		2.5	4.9	3.0
21.07	CULVERT WITHOUT DI IN MEDIAN	25 LT	3.5	4.1	3.0
21.13	CULVERT WITH DI IN MEDIAN		2.5	3.2	3.0
21.41	CULVERT WITH DI IN MEDIAN		3.0	3.5	3.0
21.90	CULVERT WITH DI IN MEDIAN		3.0	4.6	3.0
22.18	CULVERT WITH DI IN MEDIAN		2.0	2.6	3.0
22.46	CULVERT WITH DI IN MEDIAN		2.5	4.7	3.0
22.61	CULVERT WITH DI IN MEDIAN		2.5	3.6	3.0
22.81	CULVERT WITH DI IN MEDIAN		2.5	3.6	3.0
22.87	CALTRANS ELECTRICAL CONDUIT		0.2	2.5	3.0
23.14	CALTRANS ELECTRICAL CONDUIT		0.2	2.5	3.0
23.15	CULVERT WITH DI IN MEDIAN		2.0	2.7	3.0
23.36	CULVERT WITH DI IN MEDIAN		2.0	4.0	3.0
✱23.71	PETROLEUM PIPE LINE WITH 20" METAL CASING		1.3	15.0	4.0
23.72	CULVERT WITHOUT DI IN MEDIAN		3.0	4.0	3.0
24.11	CULVERT WITHOUT DI IN MEDIAN	30 LT	2.5	4.3	3.0
24.21	CULVERT WITH DI IN MEDIAN		2.5	2.6	3.0
24.31	CULVERT WITHOUT DI IN MEDIAN		2.0	5.0	3.0
24.97	CULVERT WITH DI IN MEDIAN	48 LT	5.0	4.9	3.0

✱THE PETROLEUM PIPE LINE IS A HIGH RISK FACILITY.

UNDERGROUND FACILITY

CONSTRUCTION DETAILS

NO SCALE — C-4

REVISED BY: HUY HA — DATE REVISED: 07/20/15
CALCULATED-DESIGNED BY: HUY HA — CHECKED BY: HONGLOAN LUONG
FUNCTIONAL SUPERVISOR: JOSE HUERTA
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — DESIGN

LAST REVISION 07-20-15 — DATE PLOTTED => 02-SEP-2015 — TIME PLOTTED => 13:03

BORDER LAST REVISED 7/2/2010 | USERNAME => s120300 | DGN FILE => 1013000270ga004.dgn | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 1457 | PROJECT NUMBER & PHASE 10130002701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta	5	17.3/25.5	7	12

REGISTERED CIVIL ENGINEER — DATE 7/20/15

PLANS APPROVAL DATE 8-24-15

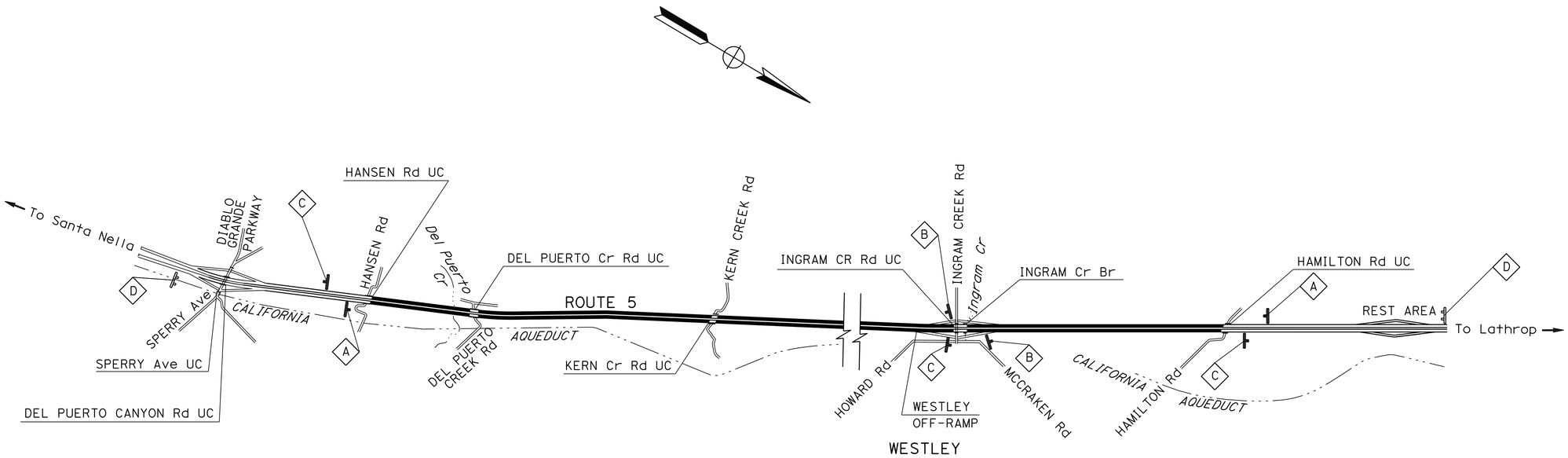
REGISTERED PROFESSIONAL ENGINEER — FAWZI YAGHMOUR — No. C-54750 — Exp. 12/31/15 — CIVIL — STATE OF CALIFORNIA

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.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN	SIGN CODE		PANEL SIZE	No. OF POSTS AND SIZE	No. OF SIGNS	SIGN MESSAGE
	CALIFORNIA	FEDERAL				
A	C23(CA)		48" x 48"	2-4" x 6"	2	ROAD WORK AHEAD
B	C23(CA)		36" x 36"	1-4" x 4"	2	ROAD WORK AHEAD
C		G20-2	24" x 36"	1-4" x 4"	3	END ROAD WORK
D		G20-1	60" x 48"	2-4" x 6"	2	ROAD WORK NEXT 8 MILES

EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.



APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans® **TRAFFIC DESIGN**

FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI

CALCULATED-DESIGNED BY:

CHECKED BY:

REVISED BY: FAWZI YAGHMOUR — DATE REVISED: 07-20-15

FAWZI YAGHMOUR — DAVID BLACK

LAST REVISION DATE PLOTTED => 02-SEP-2015
TIME PLOTTED => 13:03
07-20-15

BORDER LAST REVISED 7/2/2010

USERNAME => s120300
DGN FILE => 10130002701a001.dgn

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 1457

PROJECT NUMBER & PHASE 10130002701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta	5	17.3/25.5	8	12

7/22/15
REGISTERED CIVIL ENGINEER DATE

HongLoan T. Luong
No. C63864
Exp. 9/30/16
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

8-24-15
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.

HIGH TENSION CABLE BARRIER

LOCATION PM TO PM	HIGH TENSION CABLE BARRIER	HIGH TENSION CABLE BARRIER TERMINAL
	LF	EA
17.25 TO 18.31 (HANSEN Rd UC TO DEL PUERTO Cr UC)	5,445	2
18.31 TO 20.68 (DEL PUERTO Cr UC TO KERN Cr Rd UC)	12,362	2
20.68 TO 22.99 (KERN Cr Rd UC TO INGRAM Cr Rd UC)	12,045	2
23.07 TO 25.52 (INGRAM Cr Br TO HAMILTON Rd UC)	12,784	2
TOTAL	42,636	8

SEE CONTRUCTION DETAILS FOR MORE INFORMATION ON BEGIN AND END OF HIGH TENSION CABLE BARRIER AND HIGH TENSION CABLE BARRIER TERMINAL.

VEGETATION CONTROL (MINOR CONCRETE)

LOCATION PM TO PM	SQYD
17.25 TO 18.31 (HANSEN Rd UC TO DEL PUERTO Cr UC)	2,443
18.31 TO 20.68 (DEL PUERTO Cr UC TO KERN Cr Rd UC)	5,517
20.68 TO 22.99 (KERN Cr Rd UC TO INGRAM Cr Rd UC)	5,377
23.07 TO 25.52 (INGRAM Cr Br TO HAMILTON Rd UC)	5,705
TOTAL	19,042

SEE TYPICAL CROSS SECTIONS AND CONTRUCTION DETAILS FOR MORE INFORMATION ON VEGETATION CONTROL (MINOR CONCRETE).

CLASS 2 AGGREGATE BASE

LOCATION PM	CY
17.25 (HANSEN Rd UC)	2.0
18.31 (DEL PUERTO Cr UC)	3.0
20.68 (KERN Cr Rd UC)	3.0
22.99 (INGRAM Cr Rd UC)	2.0
23.07 (INGRAM Cr Br)	2.0
25.52 (HAMILTON Rd UC)	2.0
TOTAL	14.0

TEMPORARY DRAINAGE INLET PROTECTION

LOCATION PM	EA
17.50	1
17.64	1
17.92	1
18.63	1
18.76	1
19.04	1
19.22	1
19.49	1
19.69	1
19.97	1
20.13	1
21.13	1
21.41	1
21.68	1
21.90	1
22.18	1
22.46	1
22.61	1
22.81	1
23.15	1
23.36	1
23.55	1
23.95	1
24.21	1
24.49	1
24.74	1
24.97	1
25.39	1
25.50	1
TOTAL	29

SUMMARY OF QUANTITIES
Q-1

CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
HUY HA	HONGLOAN LUONG	HUY HA	07/20/15

FUNCTIONAL SUPERVISOR: JOSE HUERTA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
DESIGN

LAST REVISION 07-20-15
DATE PLOTTED => 02-SEP-2015
TIME PLOTTED => 13:03

BORDER LAST REVISED 7/2/2010
USERNAME => s120300
DGN FILE => 1013000270pa001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1457
PROJECT NUMBER & PHASE 10130002701

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
10	Sta	5	17.3/25.5	9	12

Agustin Escutia
LICENSED LANDSCAPE ARCHITECT

8-24-15
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT
AGUSTIN ESCUTIA 5065
Signature
5/31/16
Renewal Date
08/06/15
Date
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.

EROSION CONTROL

SEQUENCE	ITEM	MATERIAL		APPLICATION RATE	REMARKS
		DESCRIPTION	TYPE		
STEP 1	COMPOST	COMPOST	MEDIUM	135 CY/ACRE	PLACE ON DISTURBED SOIL AREAS, APPROXIMATELY 7 FEET ON EACH SIDE OF VEGETATION CONTROL (MINOR CONCRETE)
STEP 2	HYDROSEED	SEED	MIX	23.6 LB/ACRE	
		FIBER	CELLULOSE	1,000 LB/ACRE	
STEP 3	HYDROMULCH	FIBER	CELLULOSE	1,000 LB/ACRE	
		TACKIFIER	PSYLLIUM	100 LB/ACRE	

SEED MIX

BOTANICAL NAME (COMMON NAME)	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
ELYMUS GLAUCUS (BLUE WILDRYE)	80	10
ESCHSCHOLZIA CALIFORNICA (CALIFORNIA POPPY)	70	3
HORDEUM BRACHYANTHERUM CALIFORNICUM (CALIFORNIA BARLEY)	80	8
VULPIA MICROSTACHYS (SMALL FESCUE)	70	2
VULPIA OCTOFLORA (SIX WEEKS FESCUE)	70	0.6

EROSION CONTROL QUANTITIES

SHEET	LOCATION PM TO PM	DESCRIPTION	COMPOST	HYDROSEED	HYDROMULCH
			SQFT	SQFT	SQFT
NOT SHOWN ON PLANS	17.25 TO 18.31 (HANSEN Rd UC TO DEL PUERTO Cr UC)	EROSION CONTROL	78,355	78,355	78,355
	18.31 TO 20.68 (DEL PUERTO Cr UC TO KERN Cr Rd UC)		175,191	175,191	175,191
	20.68 TO 22.99 (KERN Cr Rd UC TO INGRAM Cr Rd UC)		170,755	170,755	170,755
	23.07 TO 25.52 (INGRAM Cr Br TO HAMILTON Rd UC)		181,104	181,104	181,104
		TOTAL	605,405	605,405	605,405

EROSION CONTROL LEGEND AND QUANTITIES

ECL-1

REVISED BY	DATE REVISED
G.E.	08-06-15
G.E.	07-17-15

CALCULATED-DESIGNED BY
CHECKED BY

GUS ESCUTIA
BILL DUTTERA

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT
BRAD COLE

LAST REVISION 08-06-15
DATE PLOTTED => 02-SEP-2015
TIME PLOTTED => 13:03

BORDER LAST REVISED 7/2/2010
USERNAME => s120300
DGN FILE => 1013000270tc001.dgn
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 1503
PROJECT NUMBER & PHASE 10130002701

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	Sta	5	17.3/25.5	10	12

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 8-24-15

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	Sta	5	17.3/25.5	11	12

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 8-24-15

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.

2010 REVISED STANDARD PLAN RSP T9

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	Sta	5	17.3/25.5	12	12

REGISTERED CIVIL ENGINEER

April 19, 2013
PLANS APPROVAL DATE

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

TO ACCOMPANY PLANS DATED 8-24-15

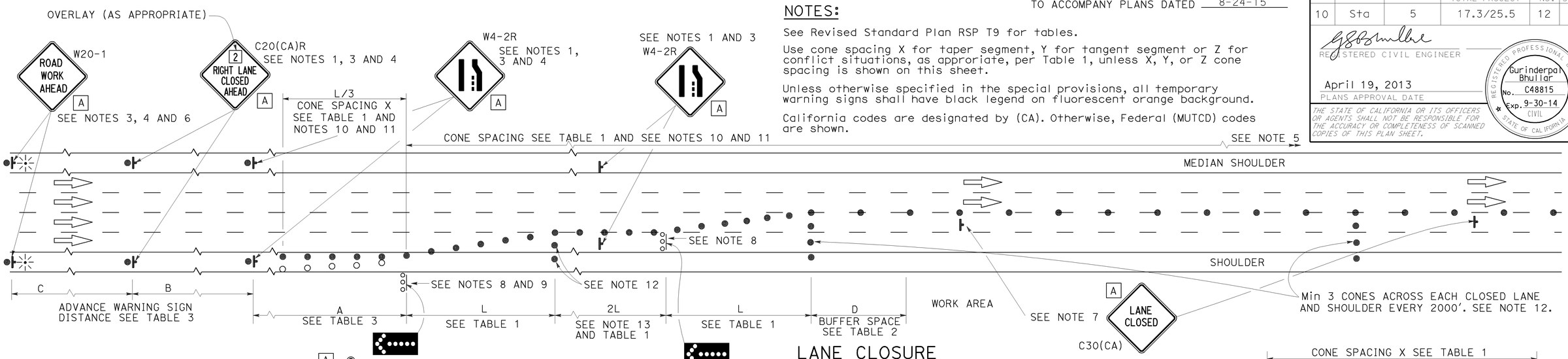
NOTES:

See Revised Standard Plan RSP T9 for tables.

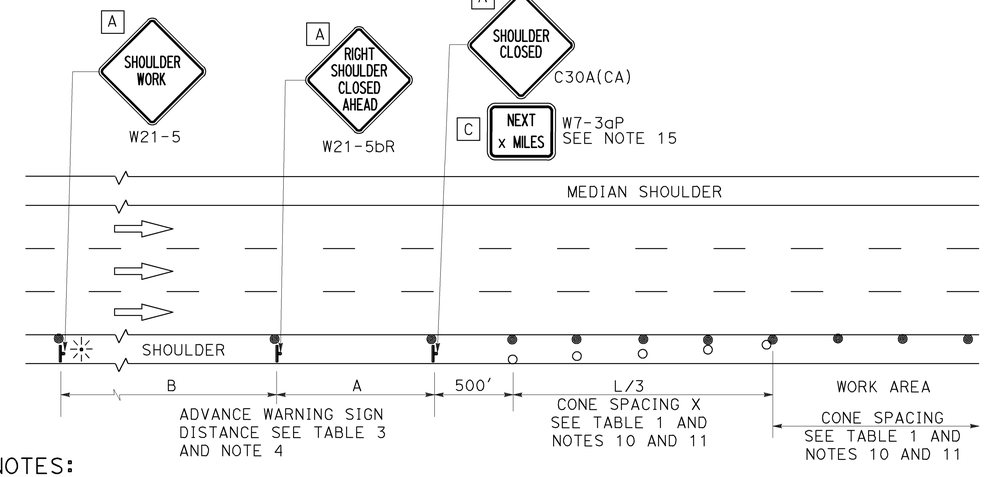
Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as approriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

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

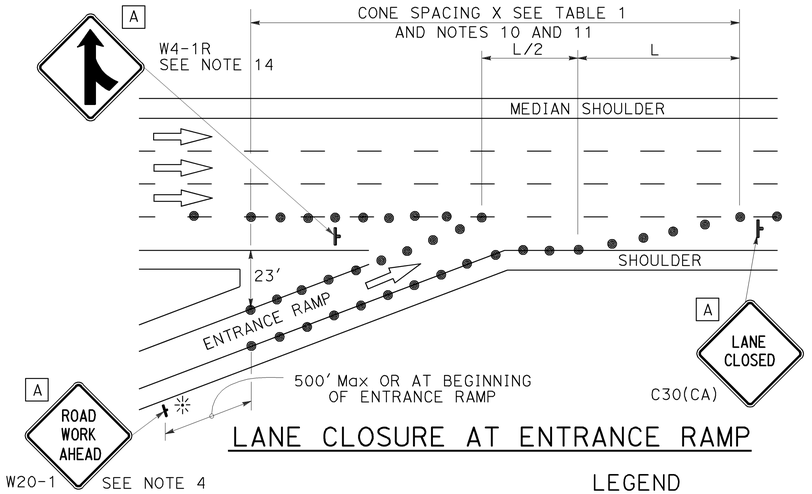
California codes are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.



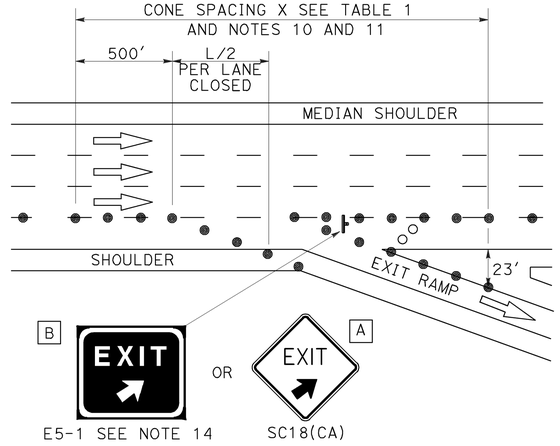
LANE CLOSURE



SHOULDER CLOSURE



LANE CLOSURE AT ENTRANCE RAMP



LANE CLOSURE AT EXIT RAMP

NOTES:

1. Median lane closures shall conform to the details as shown except that C20(CA)L and W4-2L signs shall be used.
2. At least one person shall be assigned to provide full time maintenance of traffic control devices for lane closures.
3. Duplicate sign installations are not required:
   a) On opposite shoulder if at least one-half of the available lanes remain open to traffic.
   b) In the median if the width of the median shoulder is less than 8' and the outside lanes are to be closed.
4. Each advance warning sign on each side of the roadway 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.
5. A G20-2 "END ROAD WORK" sign, with minimum size of 48" x 24" 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.
6. 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.
7. Place a C30(CA) sign every 2000' throughout length of lane closure.
8. One flashing arrow sign for each lane closed. The flashing arrow signs shall be Type I.
9. 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 top of crest vertical curve or on a horizontal curve.
10. All cones used for lane closures during the hours of darkness shall be fitted with retroreflective bands (or sleeves) as specified in the specifications.
11. Portable delineators, placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
12. Unless otherwise specified in the special provisions, a minimum of 3 cones shall be placed transversely across each closed lane and shoulder at each location where a taper across a traffic lane ends and every 2000' as shown on the "Lane Closure" detail. Two Type II barricades may be used instead of the 3 cones. The transverse alignment of the cones or barricades on the closed shoulder may be shifted from the transverse alignment to provide access to the work.
13. Unless otherwise specified in the special provisions, the 2L tangent shown along lane lines shall be used between the L tapers required for each closed traffic lane.
14. Unless otherwise specified in the special provisions, the E5-1 or SC18(CA) and W4-1 signs shall be used as shown.
15. A W7-3aP "NEXT___MILES" plaque must be used if theshoulder closure extends beyond the distance that can be perceived by road users.

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	72" x 60"
C	36" x 30"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE ON FREEWAYS AND EXPRESSWAYS

NO SCALE

RSP T10 DATED APRIL 19, 2013 SUPERSEDES STANDARD PLAN T10 DATED MAY 20, 2011 - PAGE 237 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP T10

2010 REVISED STANDARD PLAN RSP T10

12-18-12