



STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PROJECT PLANS FOR CONSTRUCTION ON
 STATE HIGHWAY**
 IN ORANGE COUNTY
 IN THE CITY OF LAGUNA BEACH
 FROM 0.2 MILE SOUTH OF EL TORO ROAD
 TO ROUTE 73/133 SEPARATION

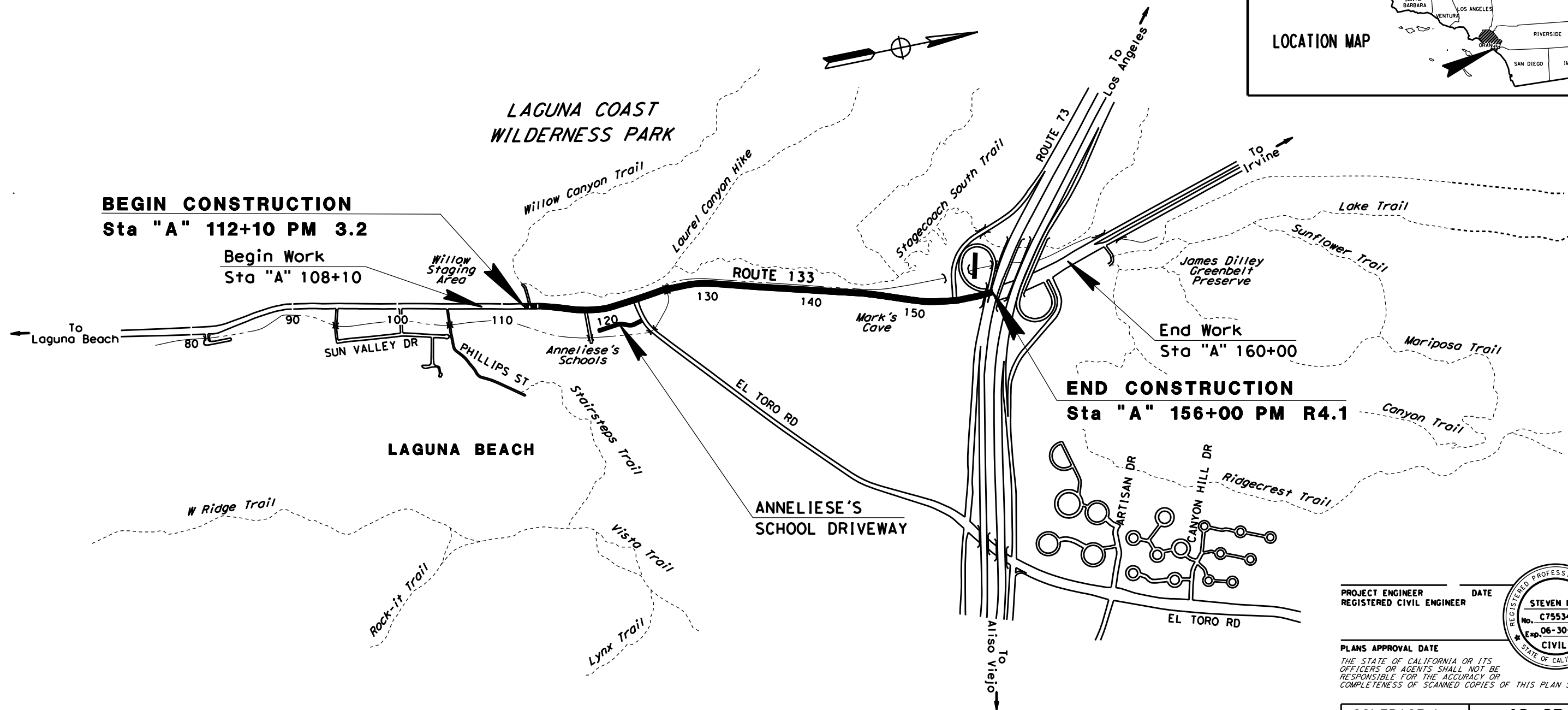
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2018

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		





LOCATION MAP



PROJECT MANAGER
MCGAHEY BARBARA
 DESIGN MANAGER
DAVID LAM

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

NO SCALE

PROJECT ENGINEER REGISTERED CIVIL ENGINEER DATE
STEVEN LE
 No. C75534
 Exp. 06-30-20
 CIVIL
 STATE OF CALIFORNIA

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.	12-0P94U4
PROJECT ID	1217000076

DATE PLOTTED => 11/19/2019
 TIME PLOTTED => 12:40:26 PM
 LAST REVISION 11-13-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DESIGN

STEVEN LE
DAVID LAM

DAVID LAM

- NOTES:**
1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
 2. EXACT LOCATIONS OF DIKE, CURB RAMP, AND MGS ARE SHOWN ON THE LAYOUTS AND IN THE SUMMARY OF QUANTITIES SHEETS.
 3. SUPERELEVATIONS AS SHOWN ON SUPERELEVATION DIAGRAMS OR AS DIRECTED BY THE ENGINEER.

TYPICAL PAVEMENT STRUCTURE SECTION: EXISTING PAVEMENT STRUCTURE SECTION:

- | | | | | | |
|---|--|---|---|---|---|
| 1 | 0.1' OGFG
0.2' RHMA-G
1.1' HMA TYPE A
0.5' AB CLASS 2 | 3 | 0.5' HMA TYPE A
1.5' AB CLASS 2
2.0' AS CLASS 2 | A | 0.2' RHMA-G
1.7' AC TYPE A
0.35' AS CLASS 3 |
| 2 | 0.1' OGFC | 4 | 0.5' DECOMPOSED GRANITE
1.5' AB CLASS 2
2.0' AS CLASS 2 | | |
| | | 5 | 0.4' ARTICULATED CONCRETE BLOCK
1.5' AB CLASS 2 | | |

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

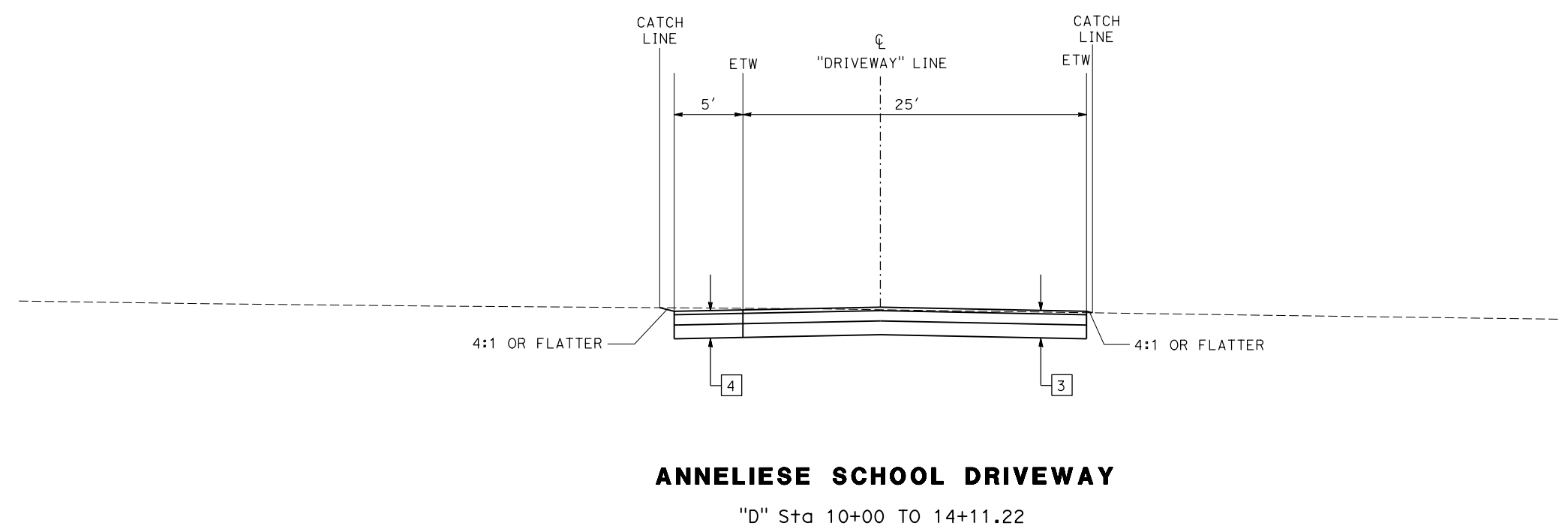
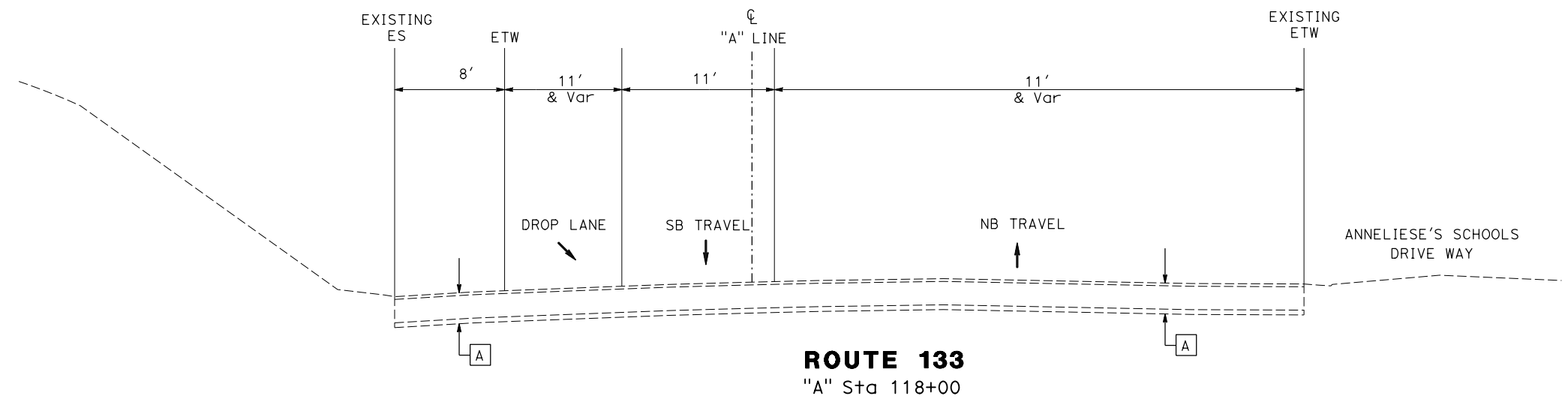
REGISTERED CIVIL ENGINEER DATE

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.

REGISTERED PROFESSIONAL ENGINEER
STEVEN LE
No. C75534
Exp. 06-30-20
CIVIL
STATE OF CALIFORNIA

Pavement Climate Region
South Coast



TYPICAL CROSS SECTIONS
NO SCALE X-1

LAST REVISION: DATE PLOTTED => 10-DEC-2019 TIME PLOTTED => 08:22

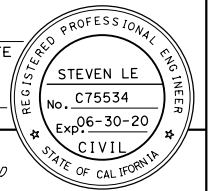
NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. EXACT LOCATIONS OF DIKE, CURB RAMP, AND MGS ARE SHOWN ON THE LAYOUTS AND IN THE SUMMARY OF QUANTITIES SHEETS.
3. SUPERELEVATIONS AS SHOWN ON SUPERELEVATION DIAGRAMS OR AS DIRECTED BY THE ENGINEER.

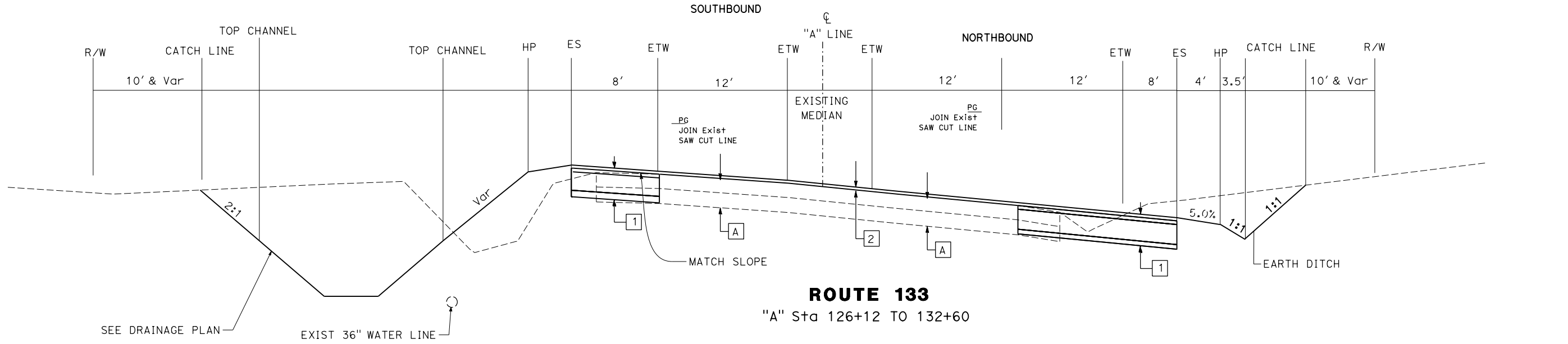
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
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.



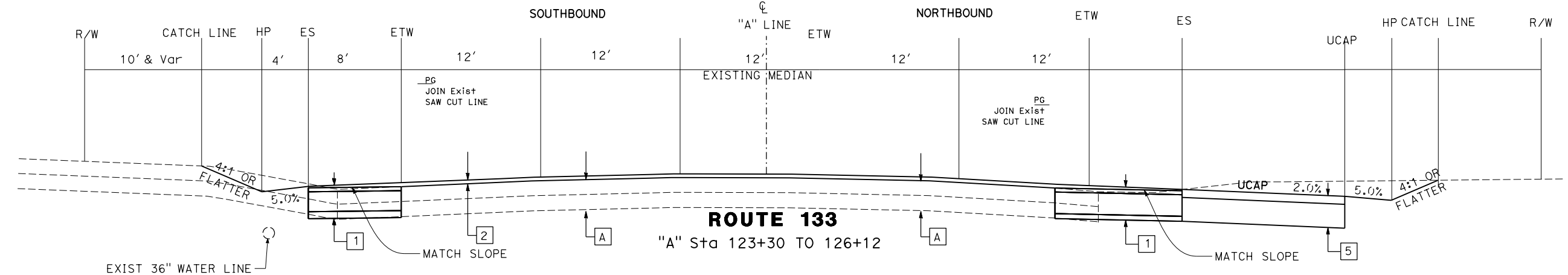
REVISOR: STEVEN LE, DAVID LAM
 CHECKED BY: DAVID LAM
 SUPERVISOR: DAVID LAM
 TRANSPORTATION DESIGN
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



SEE DRAINAGE PLAN

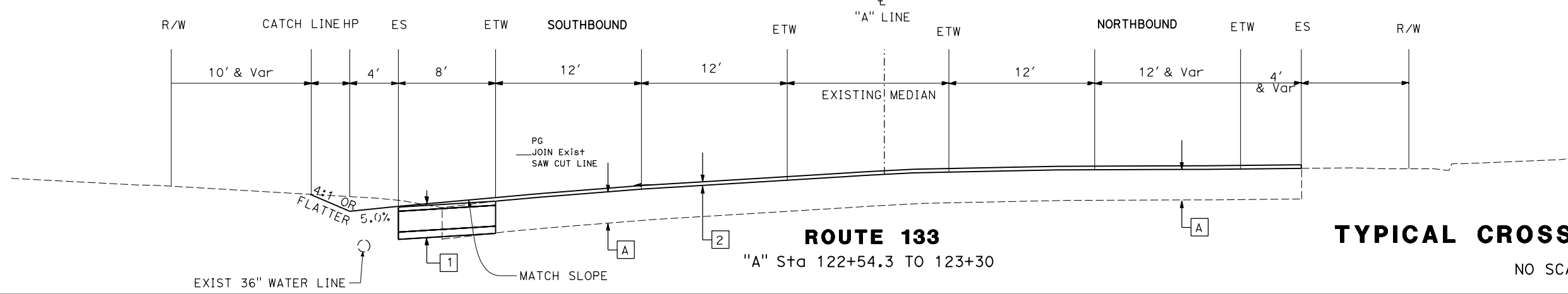
EXIST 36" WATER LINE

ROUTE 133
"A" Sta 126+12 TO 132+60



EXIST 36" WATER LINE

ROUTE 133
"A" Sta 123+30 TO 126+12



EXIST 36" WATER LINE

ROUTE 133
"A" Sta 122+54.3 TO 123+30

TYPICAL CROSS SECTIONS
NO SCALE X-2

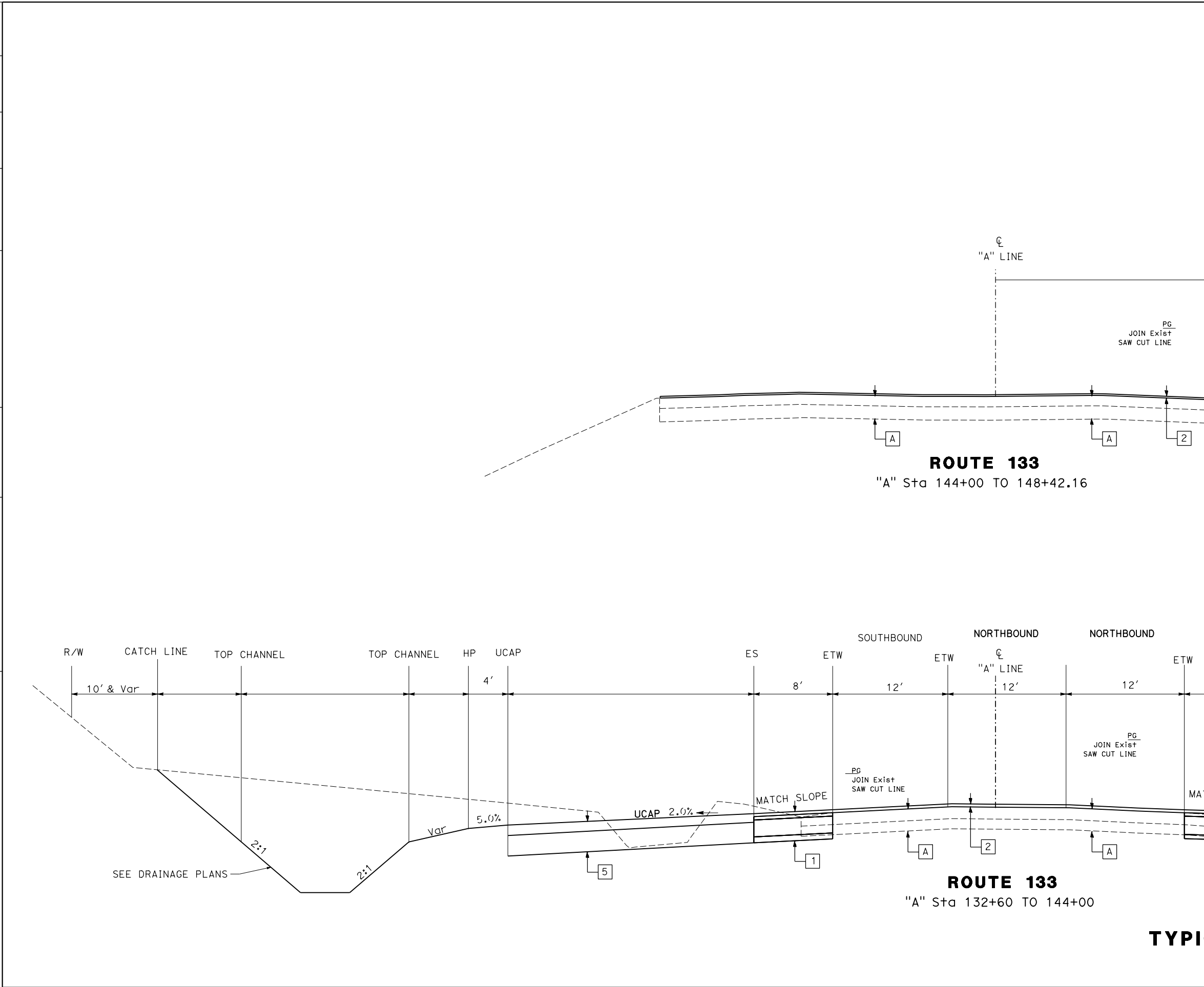
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
STEVEN LE	
No. C75534	
Exp. 06-30-20	
CIVIL	

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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN



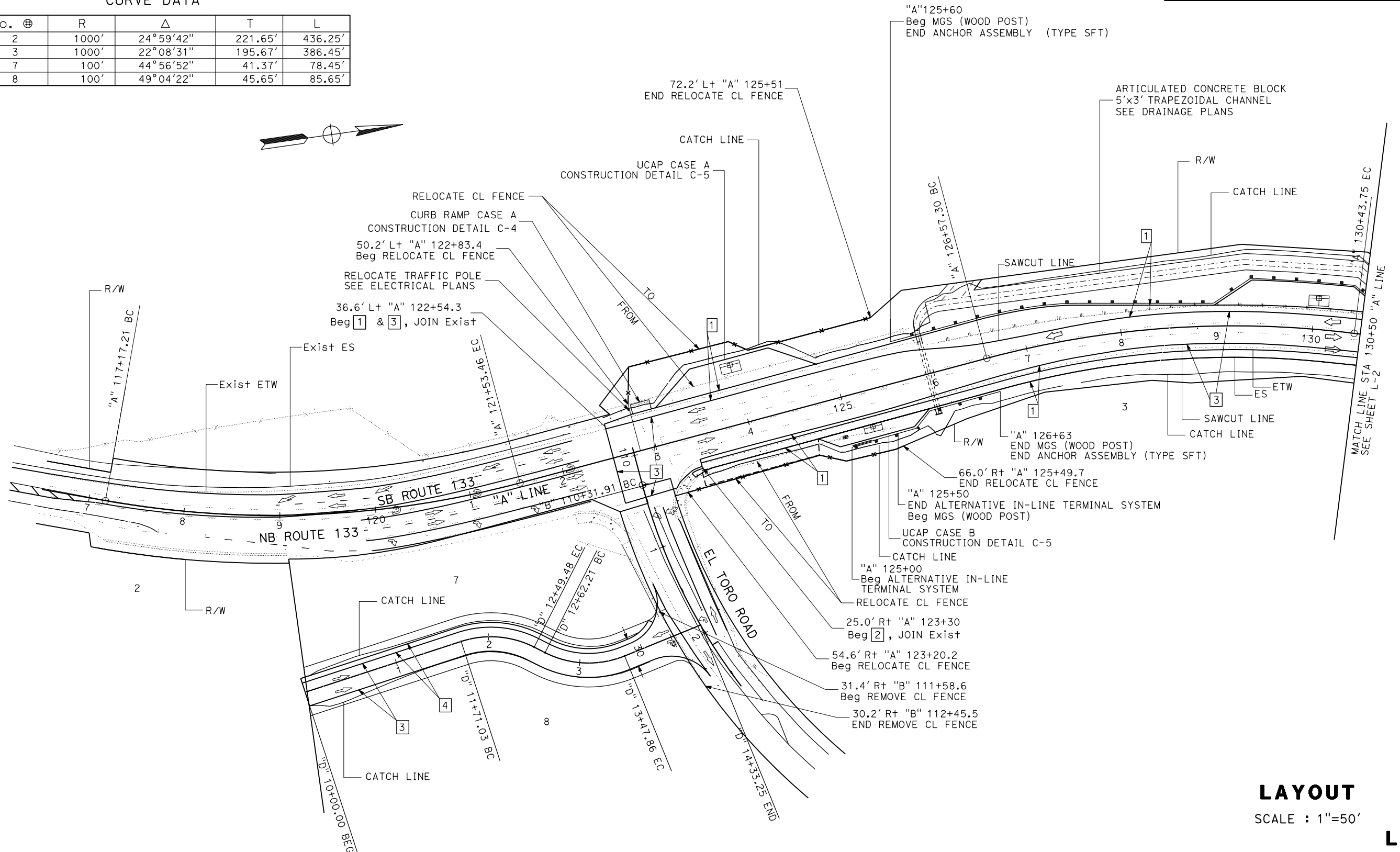
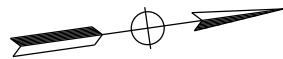
TYPICAL CROSS SECTIONS
 NO SCALE **X-3**

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. STAIN GALVANIZED SURFACES SHOULD BE APPLIED AT ALL METAL SERFACES.

CURVE DATA

No.	⊕	R	Δ	T	L
2		1000'	24°59'42"	221.65'	436.25'
3		1000'	22°08'31"	195.67'	386.45'
7		100'	44°56'52"	41.37'	78.45'
8		100'	49°04'22"	45.65'	85.65'



LAYOUT
SCALE : 1"=50'

L-1

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp. 06-30-20
 CIVIL
 STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

REVISOR: BY DATE
 STEVEN LE
 DAVID LAM
 DAVID LAM
 DAVID LAM

FUNCTIONAL SUPERVISOR
 DAVID LAM

CALCULATED-DESIGNED BY
 CHECKED BY

REVISOR: BY DATE

REVISOR: BY DATE

REVISOR: BY DATE

REVISOR: BY DATE

REVISOR: BY DATE

REVISOR: BY DATE

REVISOR: BY DATE

REVISOR: BY DATE

REVISOR: BY DATE

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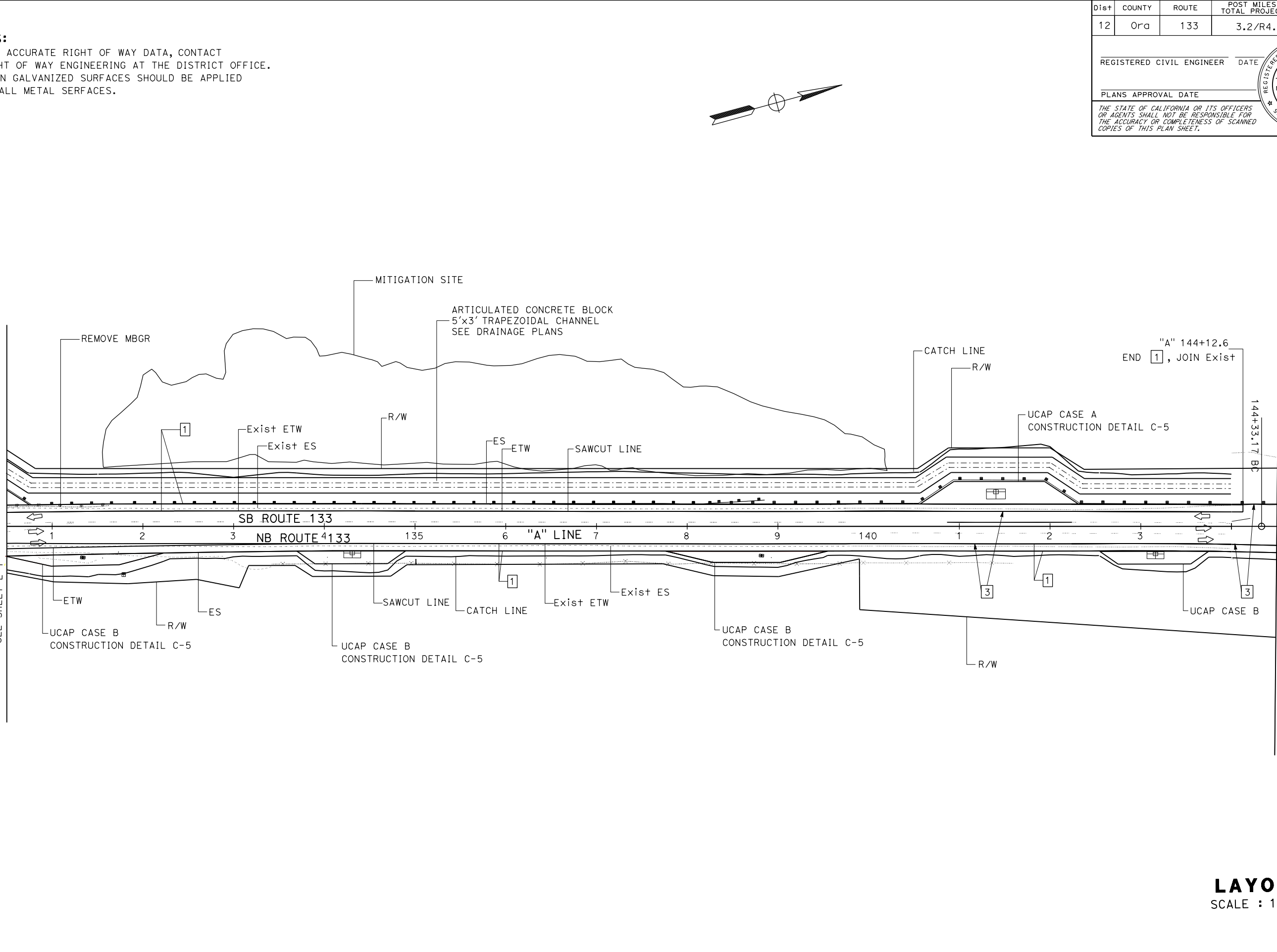
REVISOR: BY DATE

REVISOR: BY DATE

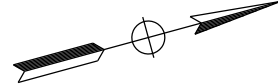
LAST REVISION: DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 09:06
 12-11-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED-DESIGNED BY: DAVID LAM
 CHECKED BY: DAVID LAM
 REVISIONS: (Grid with 'x' marks for revision tracking)



- NOTES:**
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 - STAIN GALVANIZED SURFACES SHOULD BE APPLIED AT ALL METAL SURFACES.



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE: _____
 PLANS APPROVAL DATE: _____

REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp. 06-30-20
 CIVIL
 STATE OF CALIFORNIA

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

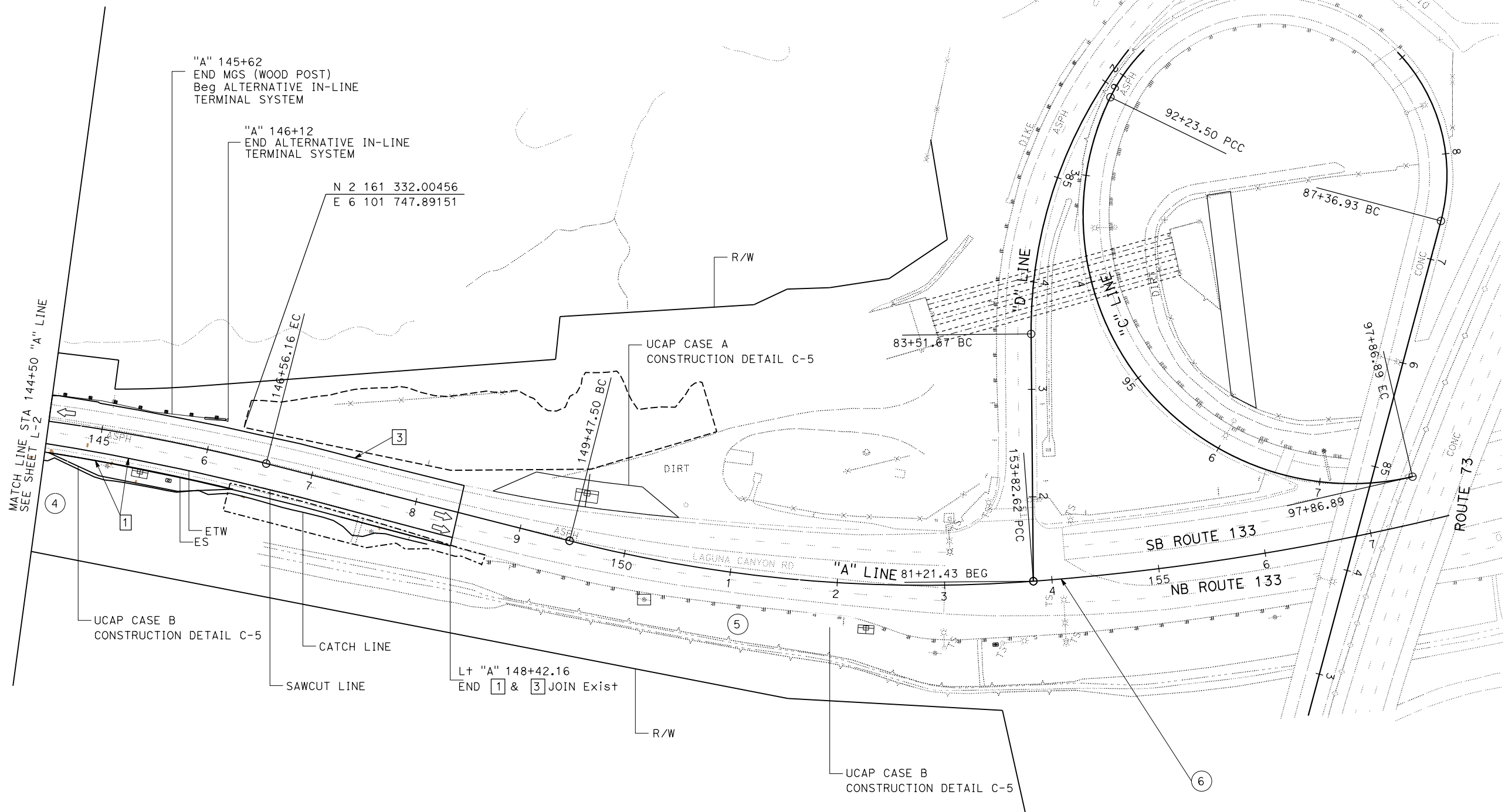
REGISTERED CIVIL ENGINEER	DATE
STEVEN LE	
No. C75534	
Exp. 06-30-20	
CIVIL	

PLANS APPROVAL DATE

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NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- STAIN GALVANIZED SURFACES SHOULD BE APPLIED AT ALL METAL SURFACES.



LAYOUT
SCALE : 1"=50'

L-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

REVISION	BY	DATE
1	STEVEN LE	
2	DAVID LAM	
3	DAVID LAM	
4	DAVID LAM	
5	DAVID LAM	
6	DAVID LAM	
7	DAVID LAM	
8	DAVID LAM	
9	DAVID LAM	

BORDER LAST REVISED 7/2/2010

USERNAME => s150288
DGN FILE => 1217000076ea003.dgn

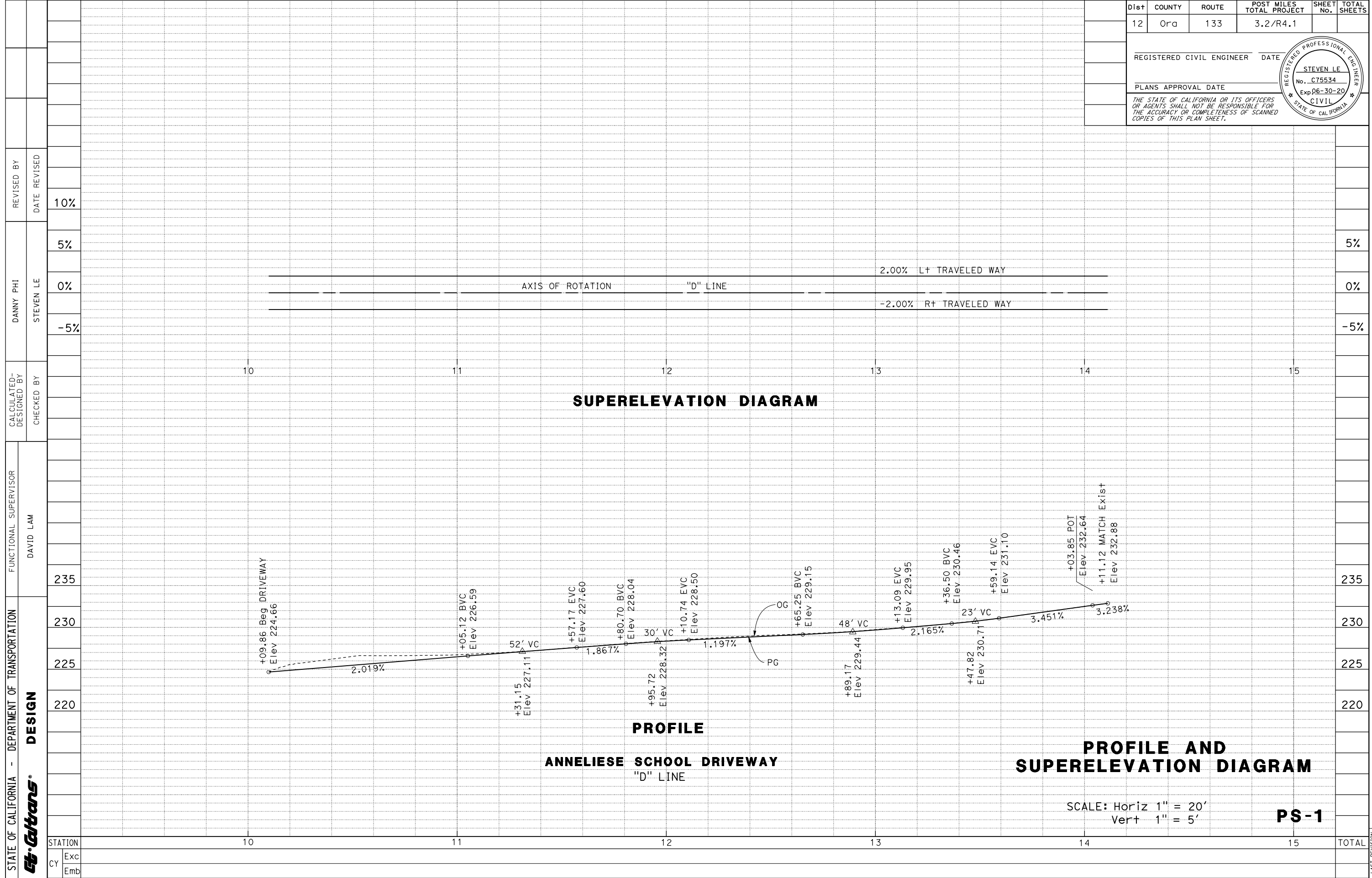
RELATIVE BORDER SCALE IS IN INCHES

UNIT 2994

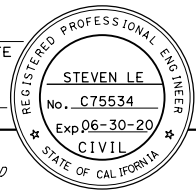
PROJECT NUMBER & PHASE

12170000761

LAST REVISION: DATE PLOTTED => 11-DEC-2019
12-11-19 TIME PLOTTED => 12:30

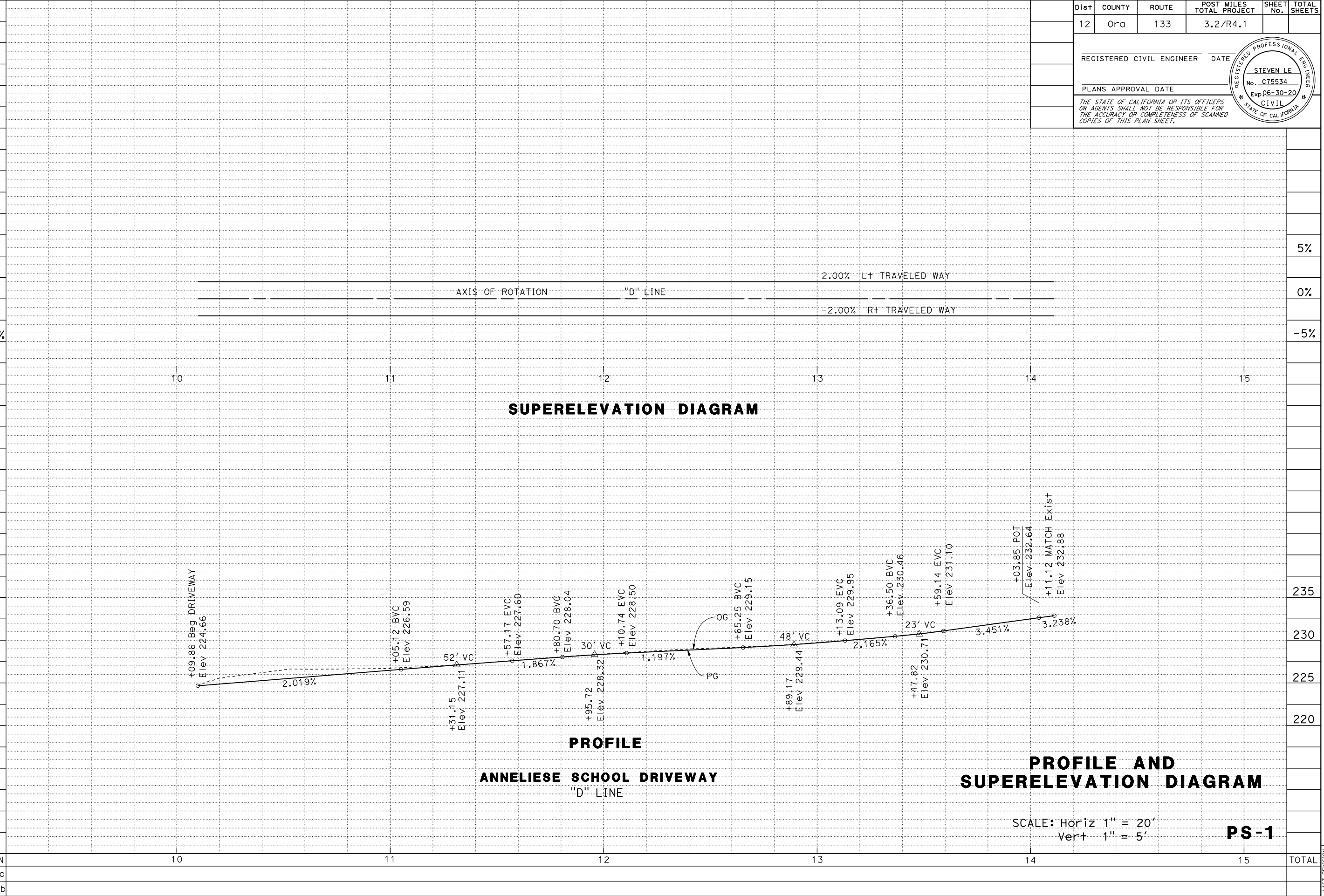


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		
REGISTERED CIVIL ENGINEER DATE					
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED-DESIGNED BY: [Blank]
 CHECKED BY: [Blank]
 DANNY PHI
 STEVEN LE
 REVISIONS: 10%
 5%
 0%
 -5%



LAST REVISION: DATE PLOTTED => 10-DEC-2019
 12-09-19 TIME PLOTTED => 09:02

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
STEVEN LE	
No. C75534	
Exp. 06-30-20	
CIVIL	

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.

NOTE:

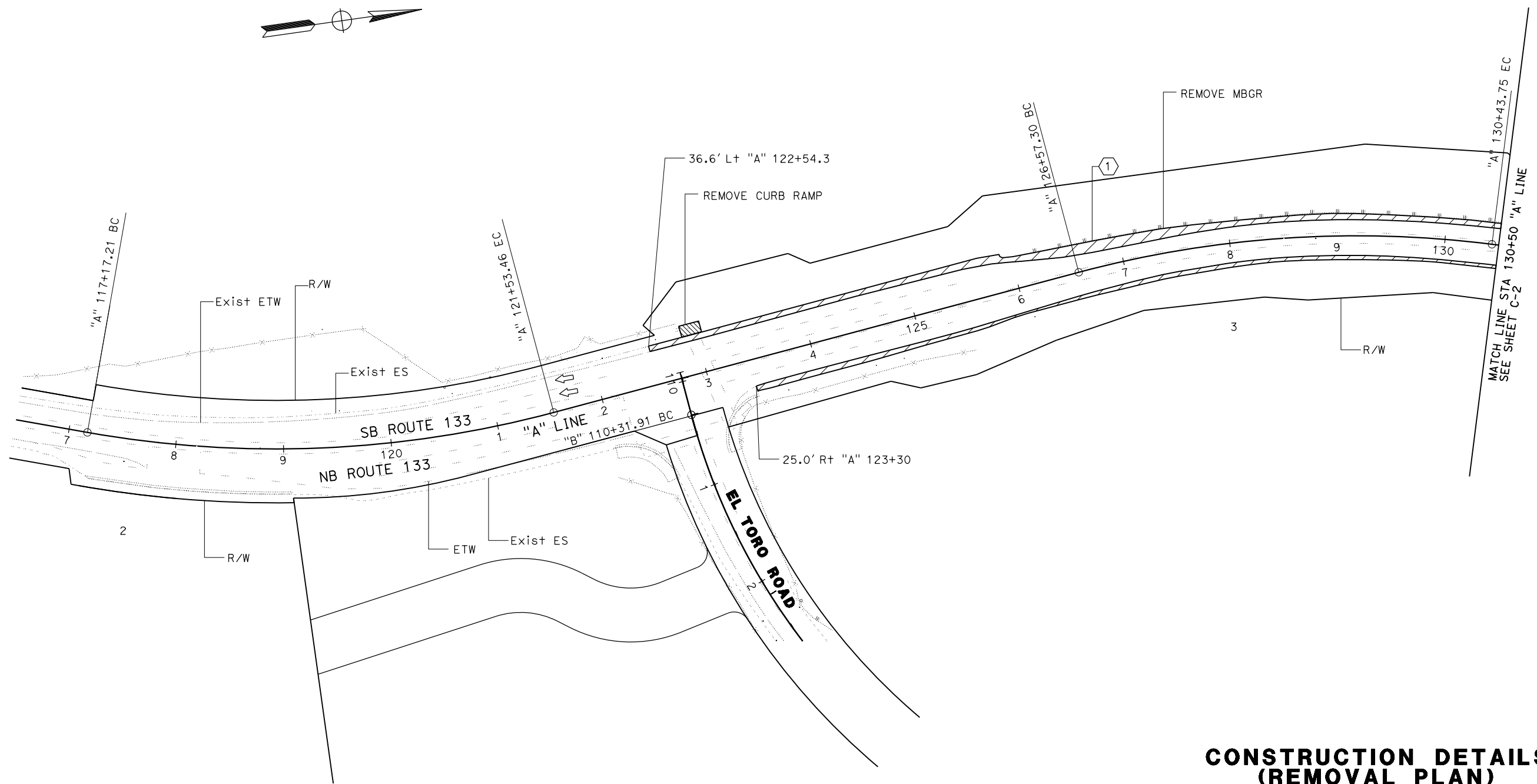
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

LEGEND:

-  REMOVE PAVEMENT
-  REMOVE GUARDRAIL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR	DAVID LAM
CALCULATED-DESIGNED BY	STEVEN LE
CHECKED BY	DAVID LAM
REVISOR	
REVISION	



CONSTRUCTION DETAILS (REMOVAL PLAN)

SCALE: 1" = 50'

C-1

LAST REVISION: DATE PLOTTED => 12-DEC-2019
 11-01-19 TIME PLOTTED => 09:08

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED-DESIGNED BY: STEVEN LE
 CHECKED BY: DAVID LAM
 REVISIONS: REVISION BY: STEVEN LE, DAVID LAM
 DATE: DATE REVISION: DATE

NOTE:

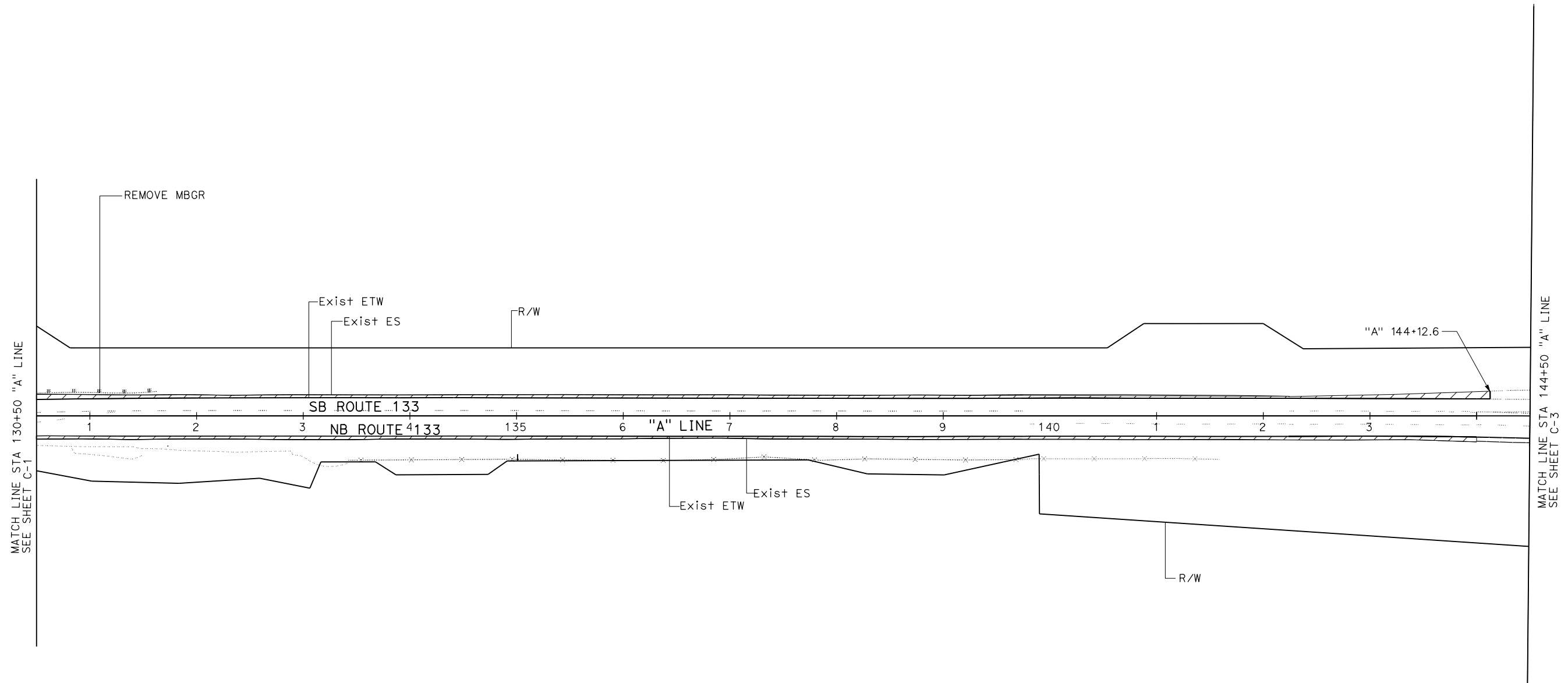
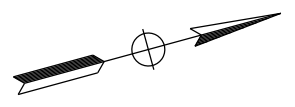
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE: _____
 PLANS APPROVAL DATE: _____

REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp. 06-30-20
 CIVIL
 STATE OF CALIFORNIA

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**CONSTRUCTION DETAILS
 (REMOVAL PLAN)**

SCALE : 1"=50'

C-2

LAST REVISION: 11-01-19 DATE PLOTTED => 05-DEC-2019 TIME PLOTTED => 09:29

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR	DAVID LAM
CALCULATED-DESIGNED BY	STEVEN LE
CHECKED BY	DAVID LAM
REVISOR	DATE

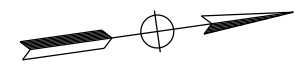
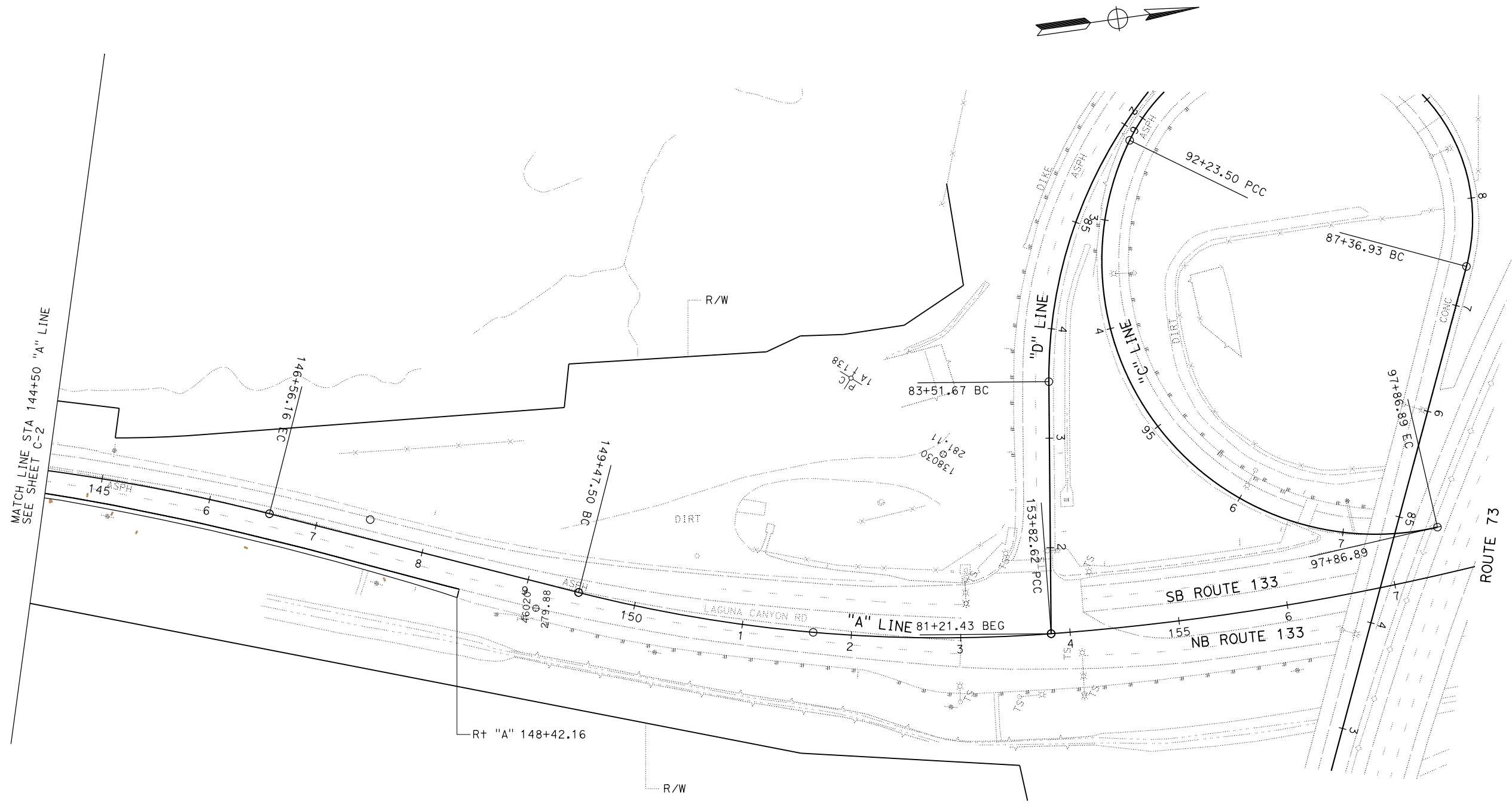
NOTE:
 1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp. 06-30-20
 CIVIL
 STATE OF CALIFORNIA

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**CONSTRUCTION DETAILS
 (REMOVAL PLAN)**
 SCALE : 1"=50'

C-3

LAST REVISION: DATE PLOTTED => 05-DEC-2019 TIME PLOTTED => 10:37

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR
 DAVID LAM

DESIGNED BY
 STEVEN LE

CHECKED BY
 DAVID LAM

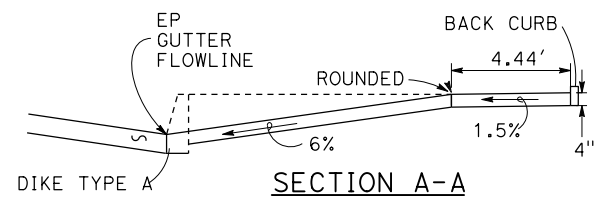
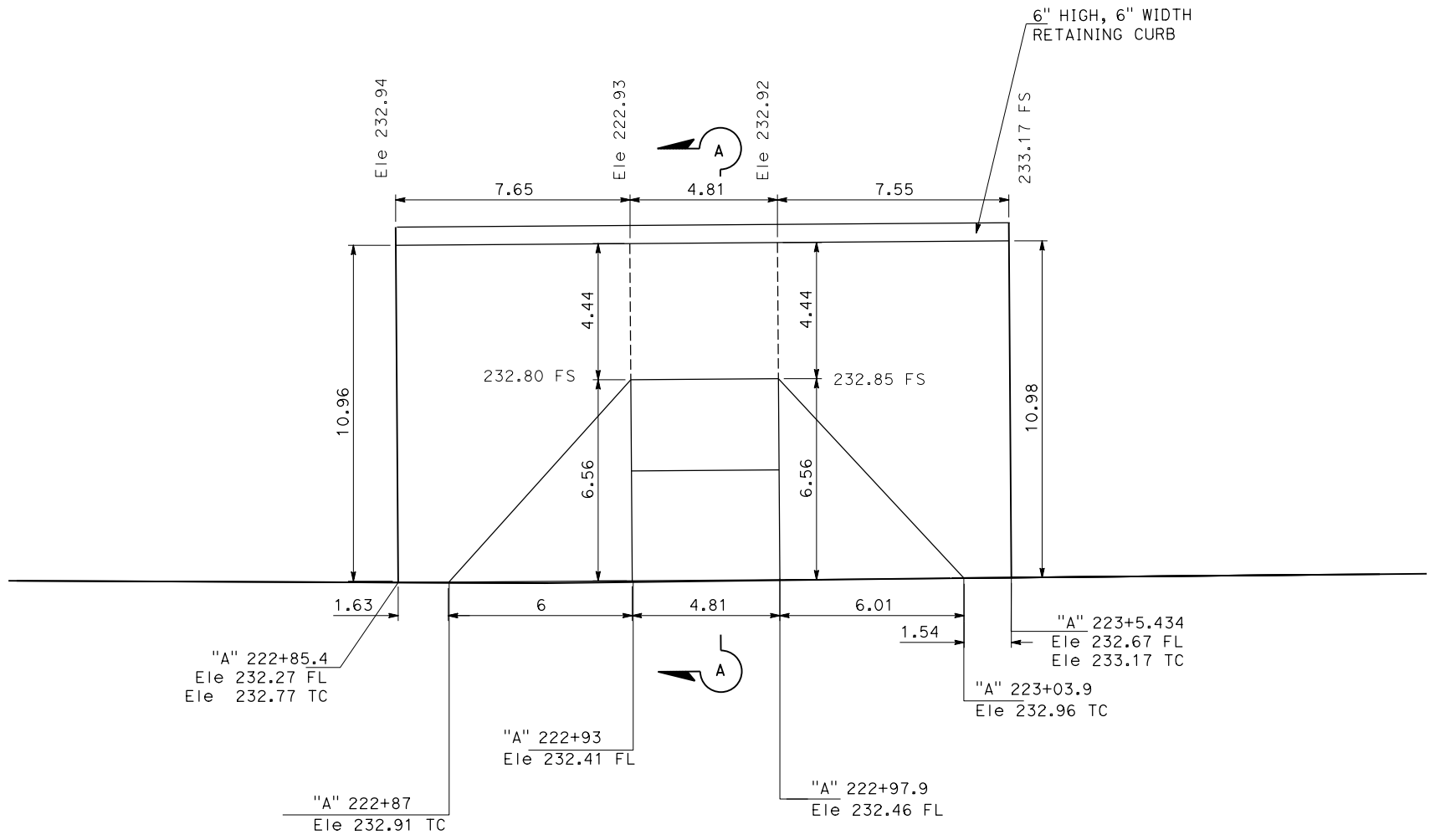
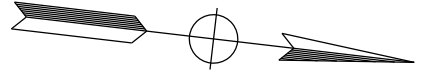
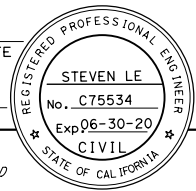
REVISION	DATE	BY	REASON

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Orca	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

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CURB RAMP (CASE A)
 NO SCALE

CONSTRUCTION DETAILS
 NO SCALE

C-4

LAST REVISION: DATE PLOTTED => 05-DEC-2019 TIME PLOTTED => 10:39

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

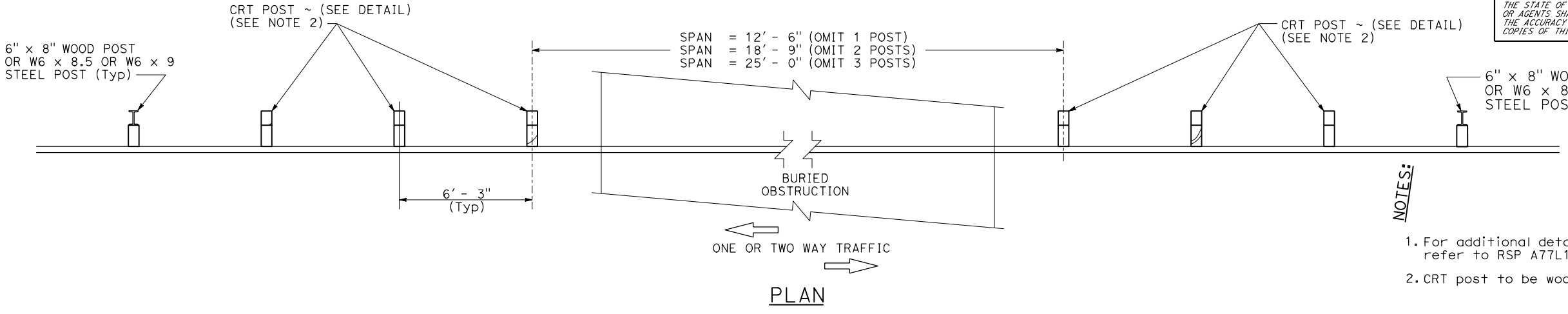
FUNCTIONAL SUPERVISOR: STEVEN LE
 CALCULATED-DESIGNED BY: STEVEN LE
 CHECKED BY: DAVID LAM
 REVISIONS: STEVEN LE, DAVID LAM

NOTE:

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

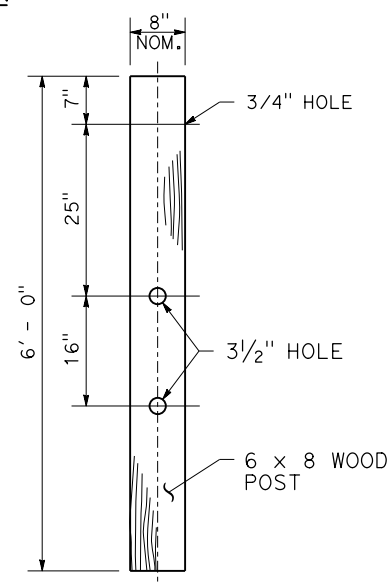
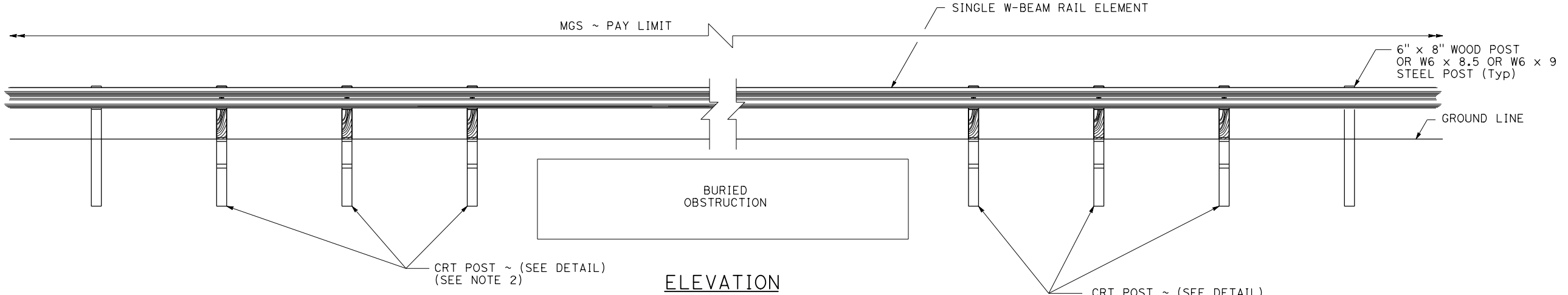
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE: _____
 STEVEN LE No. C75534 Exp. 06-30-20
 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 additional details not shown on this plan, refer to RSP A77L1 and RSP A77L2.
2. CRT post to be wood only.



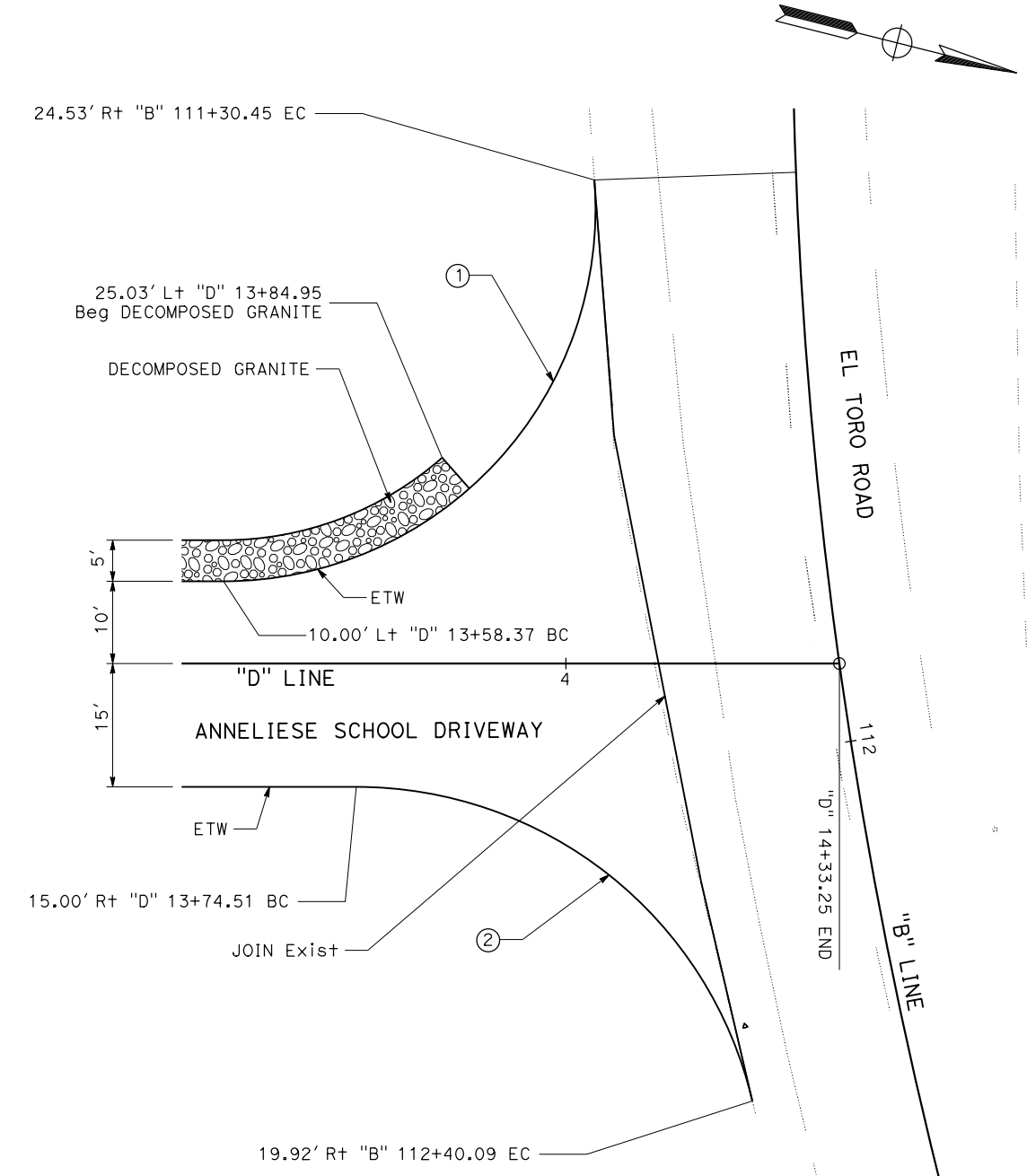
CONSTRUCTION DETAILS
MIDWEST GUARDRAIL SYSTEM DETAILS
 NO SCALE NO SCALE **C-6**

LAST REVISION: DATE PLOTTED => 05-DEC-2019 TIME PLOTTED => 10:41

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CHECKED BY: DAVID LAM
 DESIGNED BY: DANNY PHI
 REVISIONS: REVISOR, DATE, REVISIONS, DATE

CURVE DATA				
No.	⊕	R	Δ	L
1		45'	94°32'06"	74.62'
2		49'	76°50'51"	66.33'



DRIVEWAY DETAIL
NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

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REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp 06-30-20
 CIVIL
 STATE OF CALIFORNIA

CONSTRUCTION DETAILS
NO SCALE
C-7

LAST REVISION: DATE PLOTTED => 11-DEC-2019
 12-11-19 TIME PLOTTED => 15:45

WATER POLLUTION CONTROL

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

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REGISTERED PROFESSIONAL ENGINEER

STEVEN LE

No. C75534

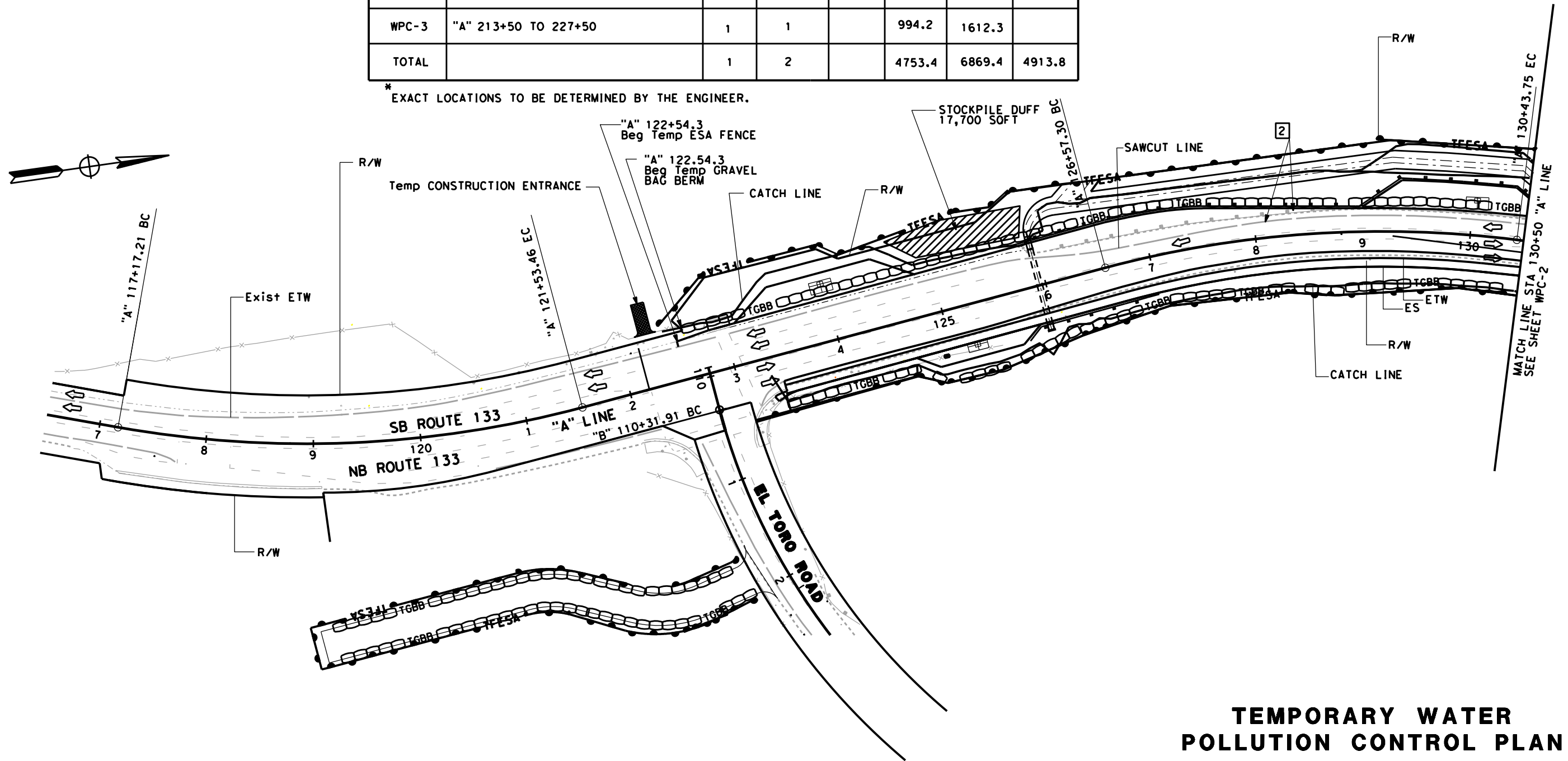
Exp. 06-30-20

CIVIL

STATE OF CALIFORNIA

PLAN SHEET		TEMPORARY CONCRETE WASHOUT	TEMPORARY CONSTRUCTION ENTRANCE*	TEMPORARY GRAVEL BAG BERM	TEMPORARY FENCE (TYPE ESA)	TEMPORARY SILT FENCE
WPC-1	"A" 122+54.3 TO 130+50	EA	EA	LF	LF	LF
WPC-2	"A" 199+50 TO 213+50			2835	2760.1	
WPC-3	"A" 213+50 TO 227+50	1	1	994.2	1612.3	
TOTAL		1	2	4753.4	6869.4	4913.8

* EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.



APPROVED FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

TEMPORARY WATER POLLUTION CONTROL PLAN

SCALE : 1"=50'

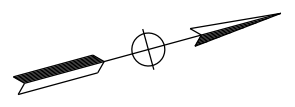
WPC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	DAVID LAM
CALCULATED/DESIGNED BY	CHECKED BY
REVISOR	DATE
STEVEN LE	DAVID LAM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED-DESIGNED BY: CHECKED BY:
 STEVEN LE DAVID LAM
 REVISIONS: REVISOR: DATE: REVISIONS: REVISOR: DATE:
 x
 x
 x
 x
 x

NOTE:
 1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

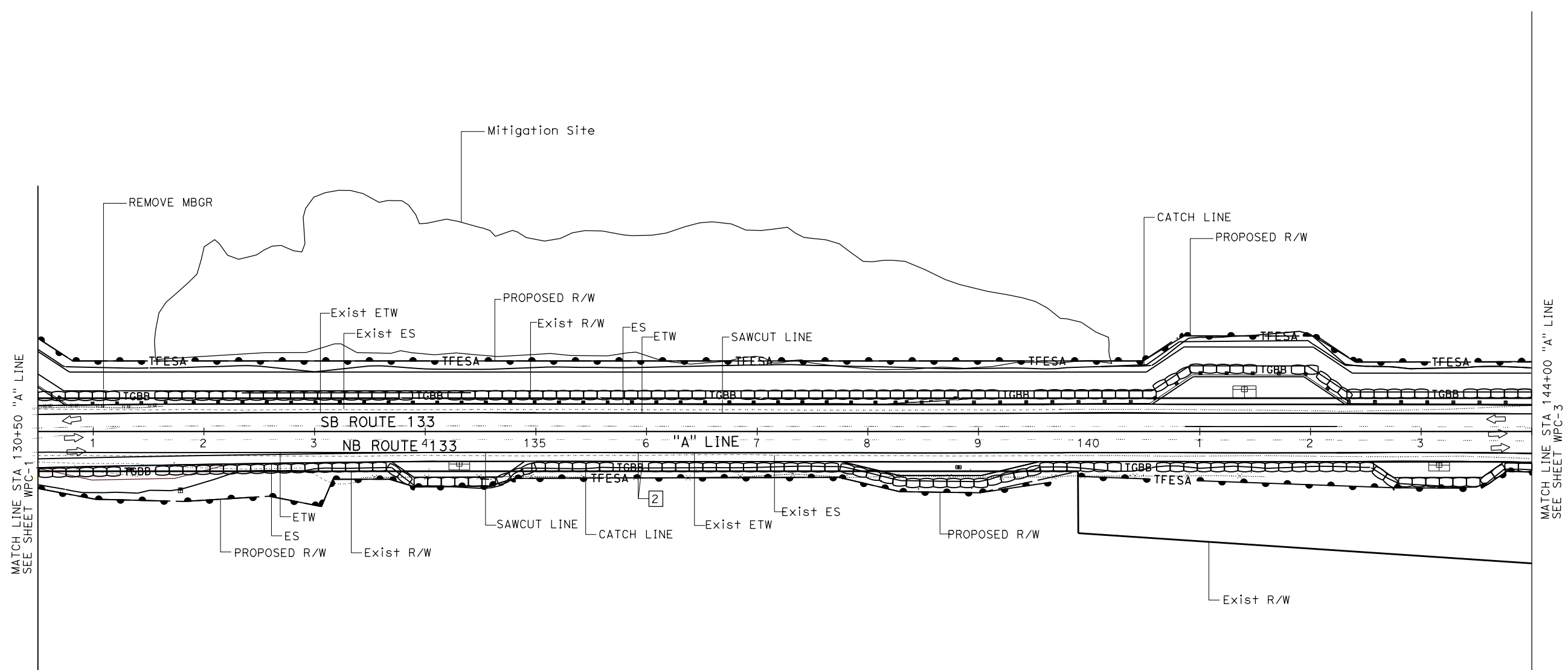


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE: _____
 PLANS APPROVAL DATE: _____

REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp. 06-30-20
 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.



TEMPORARY WATER POLLUTION CONTROL PLAN

SCALE : 1"=50'

APPROVED FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

WPC-2

NOTE:

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

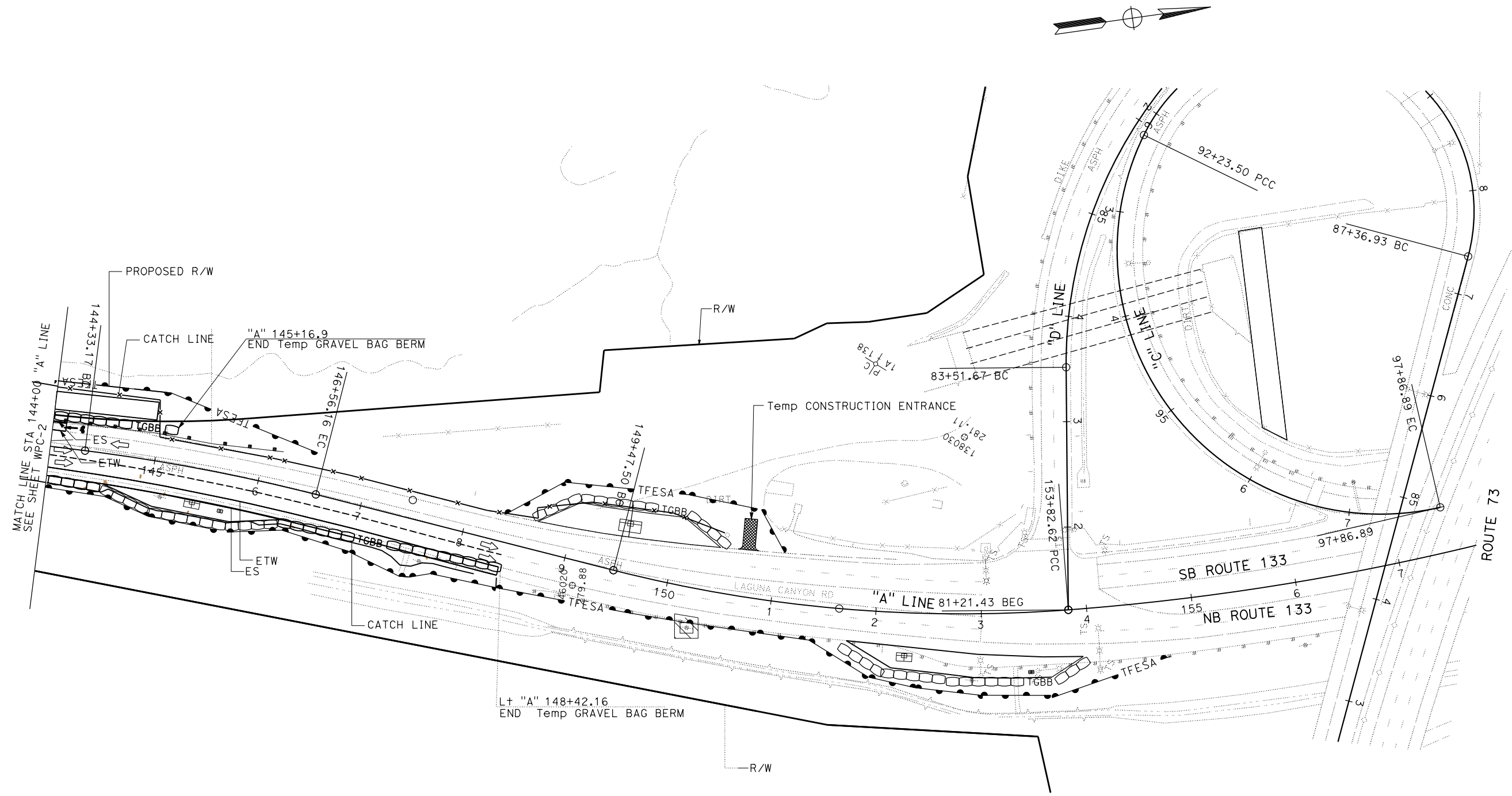
REGISTERED CIVIL ENGINEER	DATE
STEVEN LE	
No. C75534	
Exp. 06-30-20	
CIVIL	

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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DESIGN

REVISIONED BY	DATE	REVISION
STEVEN LE		
DAVID LAM		
CALCULATED-DISIGNED BY	CHECKED BY	
DAVID LAM		
FUNCTIONAL SUPERVISOR		
DAVID LAM		



TEMPORARY WATER POLLUTION CONTROL PLANS

SCALE : 1"=50'

APPROVED FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

WPC-3

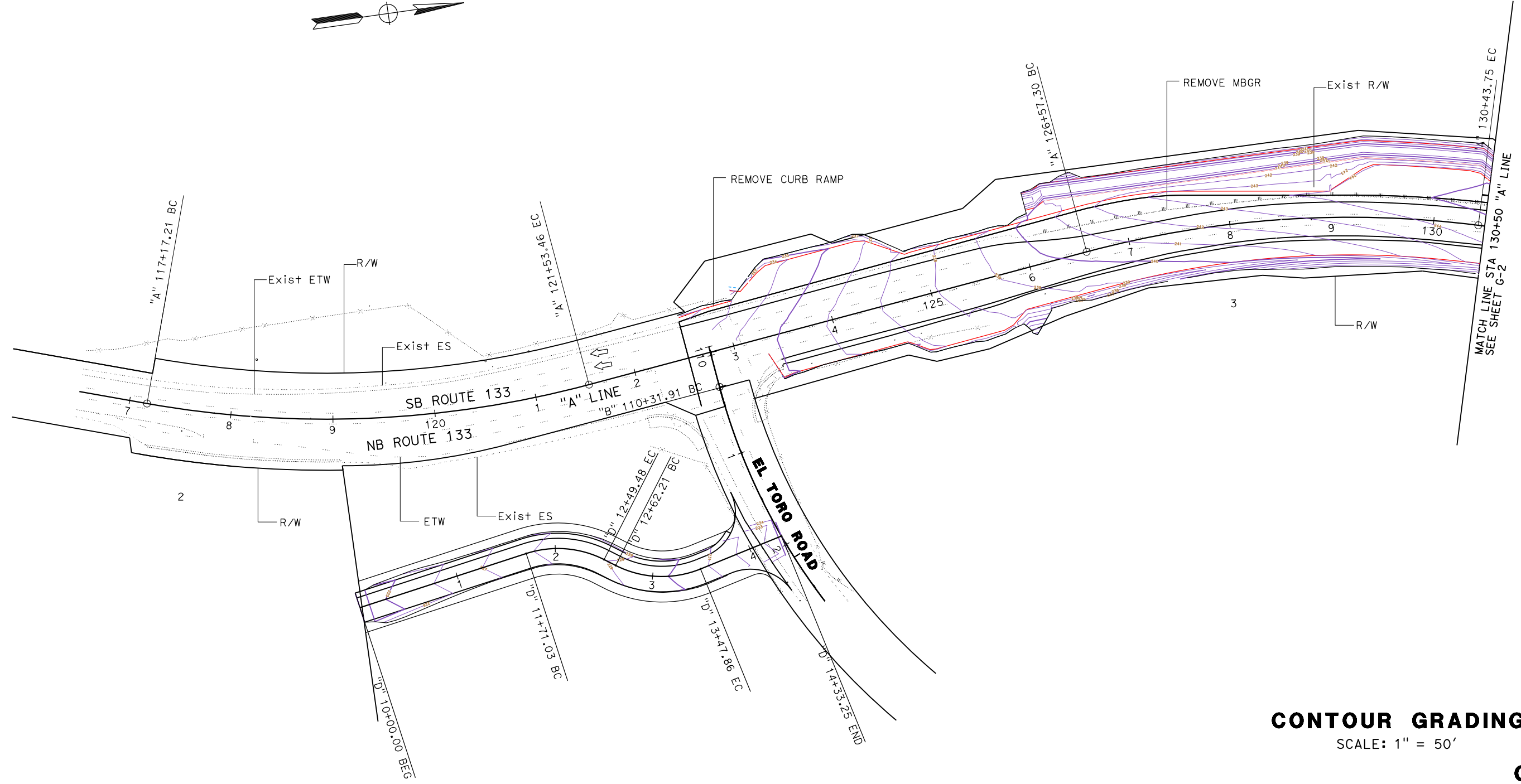
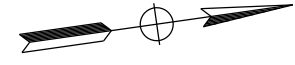
LAST REVISION: DATE PLOTTED => 05-DEC-2019 TIME PLOTTED => 10:44

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED/DESIGNED BY: DAVID LAM
 CHECKED BY: DAVID LAM
 REVISIONS: REVISION BY: STEVEN LE, DAVID LAM
 DATE: DATE REVISION: DATE

NOTE:

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



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
STEVEN LE	
No. C75534	
Exp. 06-30-20	
CIVIL	

PLANS APPROVAL DATE

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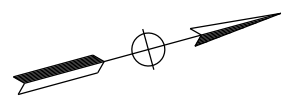
CONTOUR GRADING
 SCALE: 1" = 50'

G-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED-DESIGNED BY: DAVID LAM
 CHECKED BY: DAVID LAM
 REVISIONS:
 REVISION NO. | DATE | BY | DESCRIPTION

NOTE:
 1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

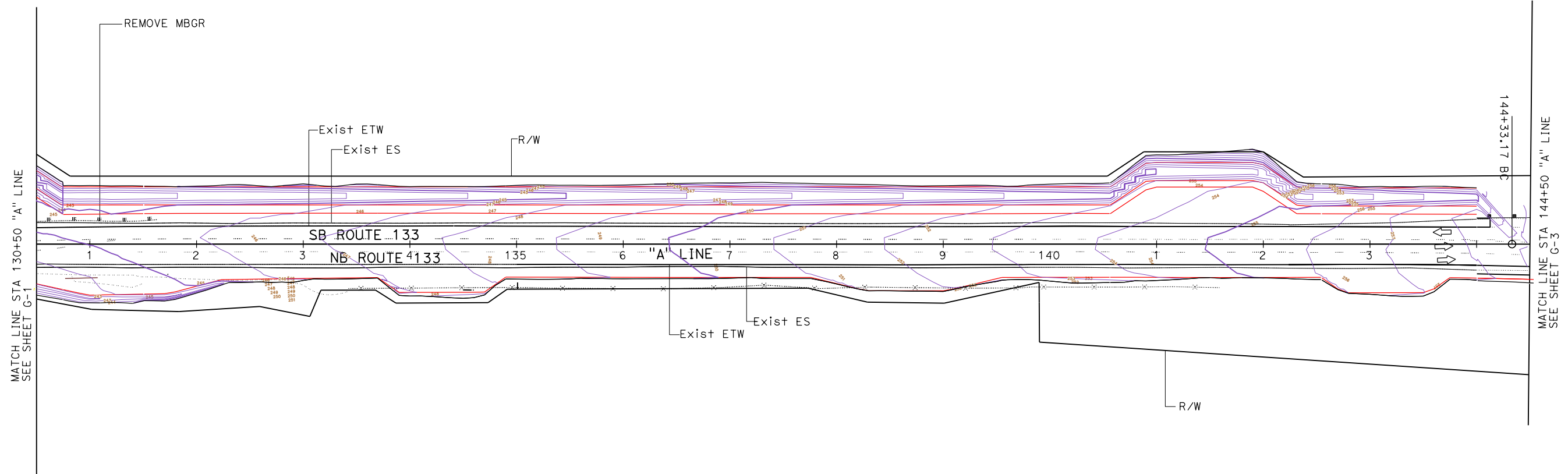


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
STEVEN LE	
No. C75534	
Exp. 06-30-20	
CIVIL	

PLANS APPROVAL DATE: _____

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CONTOUR GRADING
 SCALE : 1"=50'

G-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY	REVISIONS
		STEVEN LE	1
		DAVID LAM	2
			3
			4
			5
			6
			7
			8
			9
			10
			11
			12

NOTE:

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

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REGISTERED PROFESSIONAL ENGINEER

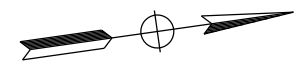
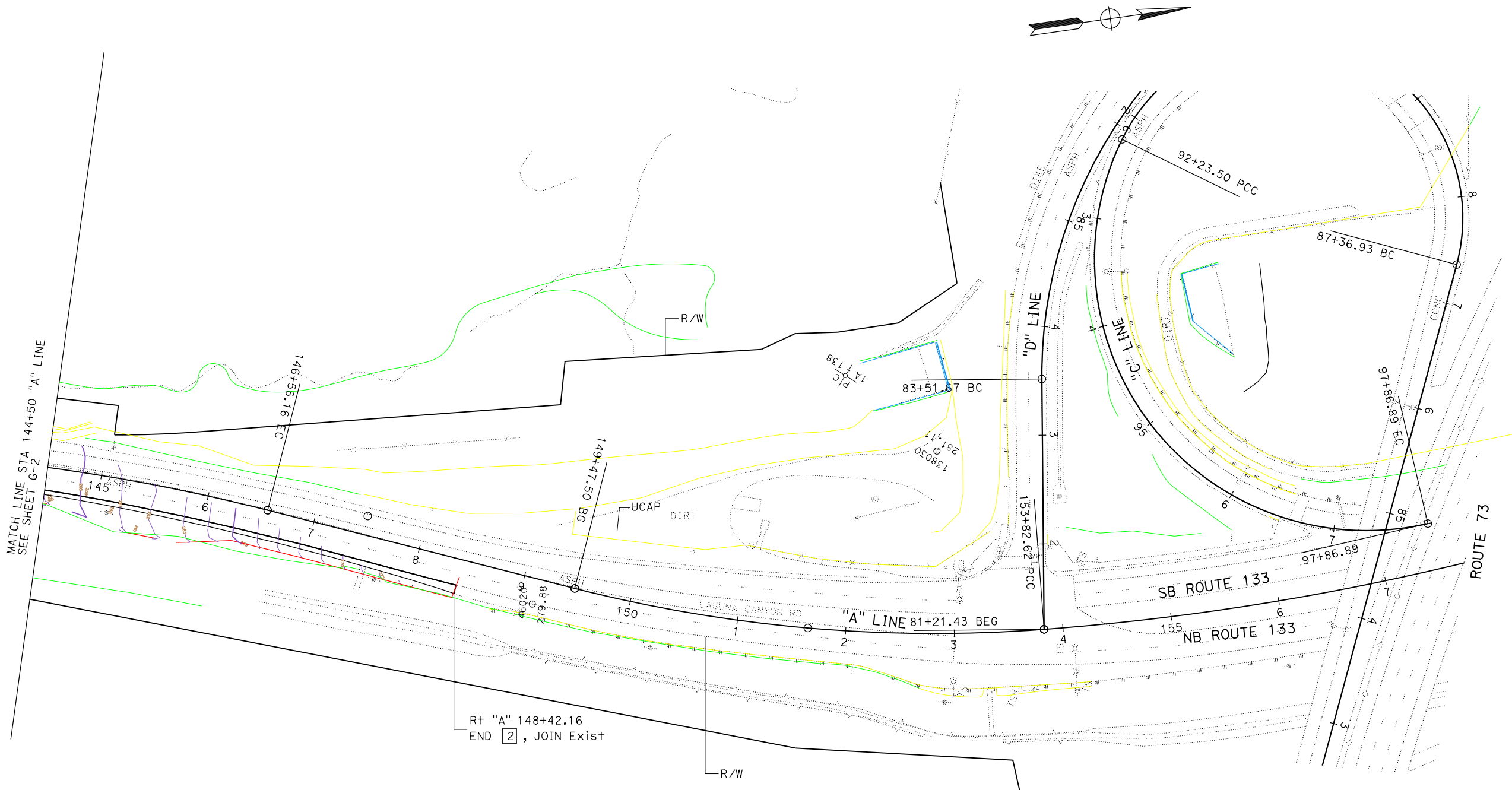
STEVEN LE

No. C75534

Exp. 06-30-20

CIVIL

STATE OF CALIFORNIA



CONTOUR GRADING

SCALE : 1"=50'

G-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans HYDRAULICS
 FUNCTIONAL SUPERVISOR: PHI DINH
 CALCULATED-DESIGNED BY: TAN NGUYEN
 CHECKED BY: MY-LINH DUVAN
 REVISED BY: TAN NGUYEN
 DATE REVISED: MY-LINH DUVAN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

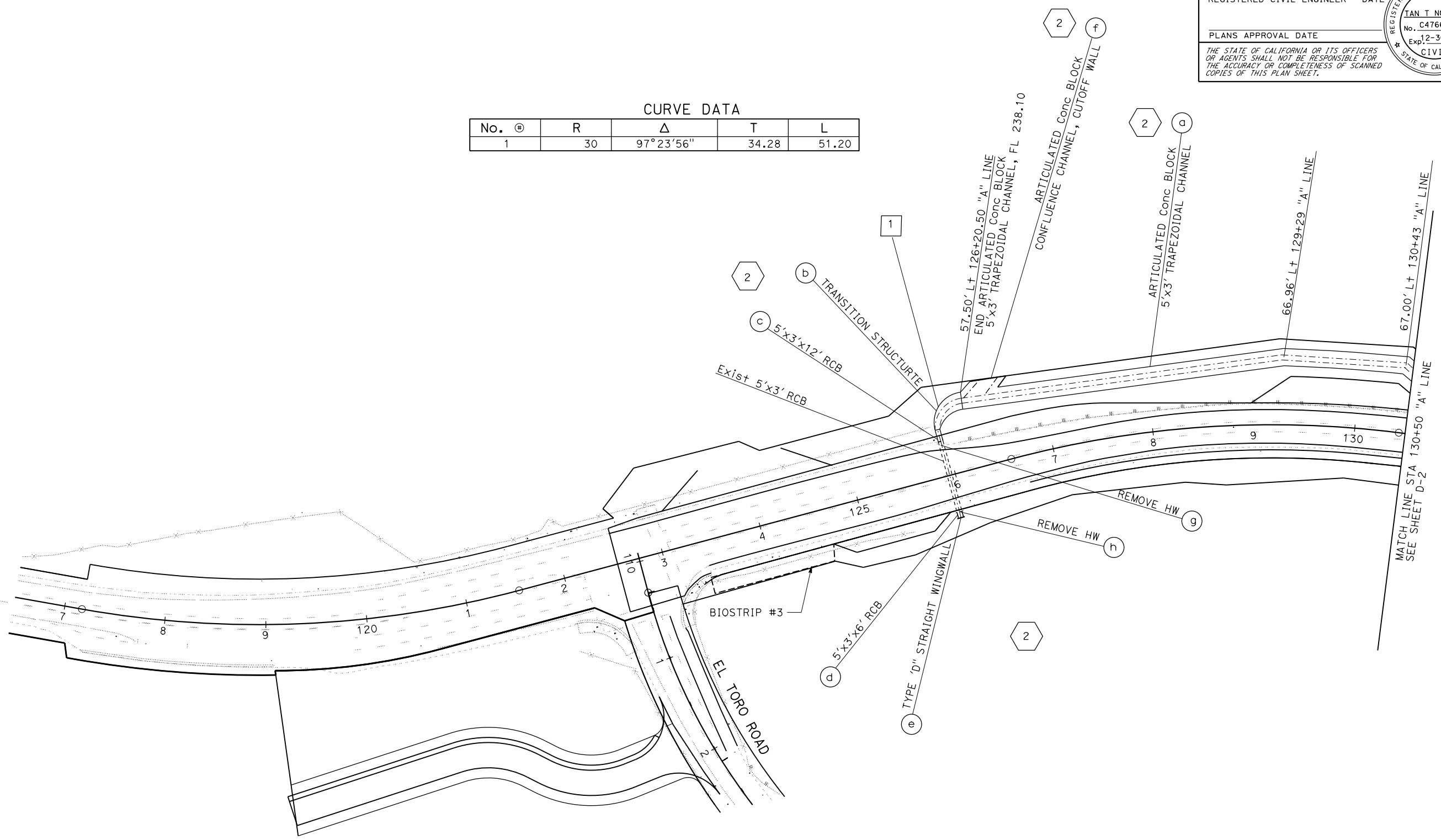
REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER
 TAN T NGUYEN
 No. C47660
 Exp. 12-30-19
 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.

CURVE DATA

No.	⊕	R	Δ	T	L
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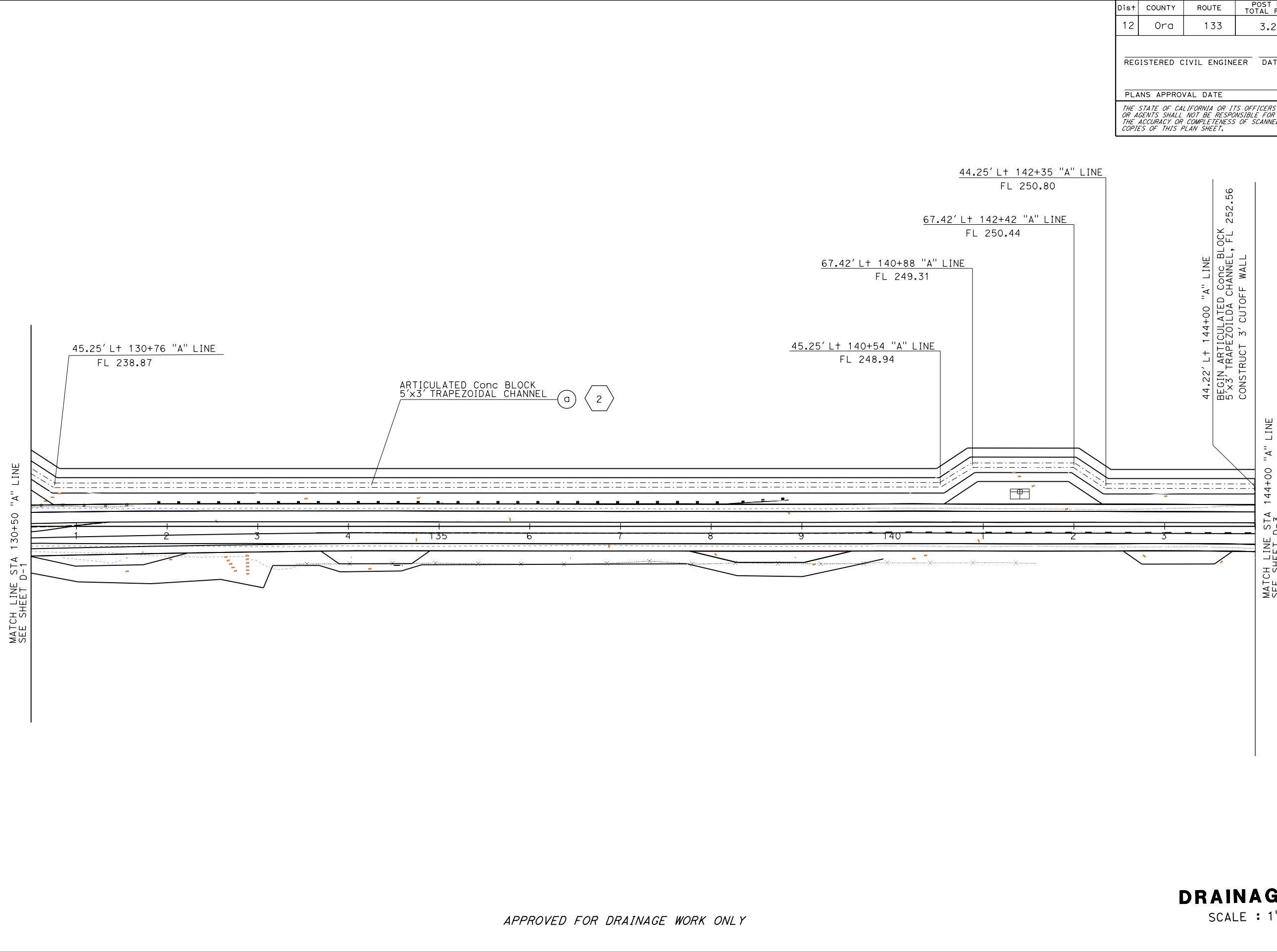


DRAINAGE PLAN
 SCALE : 1"=50'
D-1

LAST REVISION: 06-20-17 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 09:33

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans HYDRAULICS

FUNCTIONAL SUPERVISOR: PHI DINH
 CALCULATED-DESIGNED BY: TAN NGUYEN
 CHECKED BY: MY-LINH DUVAN
 REVISED BY: []
 DATE REVISED: []



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____

TAN T NGUYEN
 No. C47660
 Exp. 12-30-19
 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.

APPROVED FOR DRAINAGE WORK ONLY

DRAINAGE PLAN

SCALE : 1"=50'

D-2

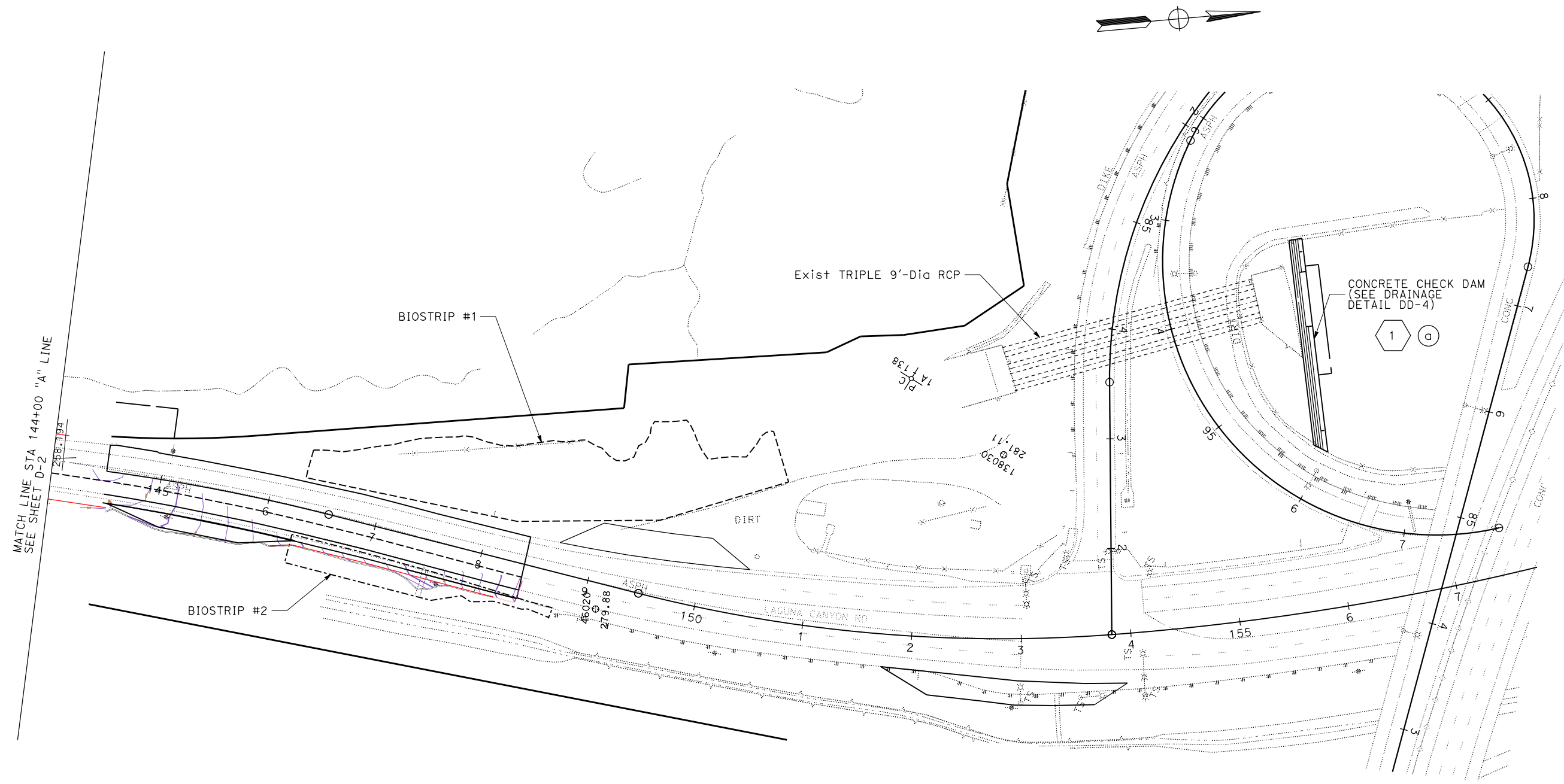
LAST REVISION: 00-00-00 DATE PLOTTED => 15-OCT-2019 TIME PLOTTED => 15:44

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
TAN T NGUYEN	
No. C47660	
Exp. 12-30-19	
CIVIL	

PLANS APPROVAL DATE _____

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans HYDRAULICS

FUNCTIONAL SUPERVISOR	PHI DINH
CALCULATED-DESIGNED BY	TAN NGUYEN
CHECKED BY	MY-LINH DUVAN
REVISOR	
REVISION	

APPROVED FOR DRAINAGE WORK ONLY

DRAINAGE PLAN

SCALE : 1"=50'

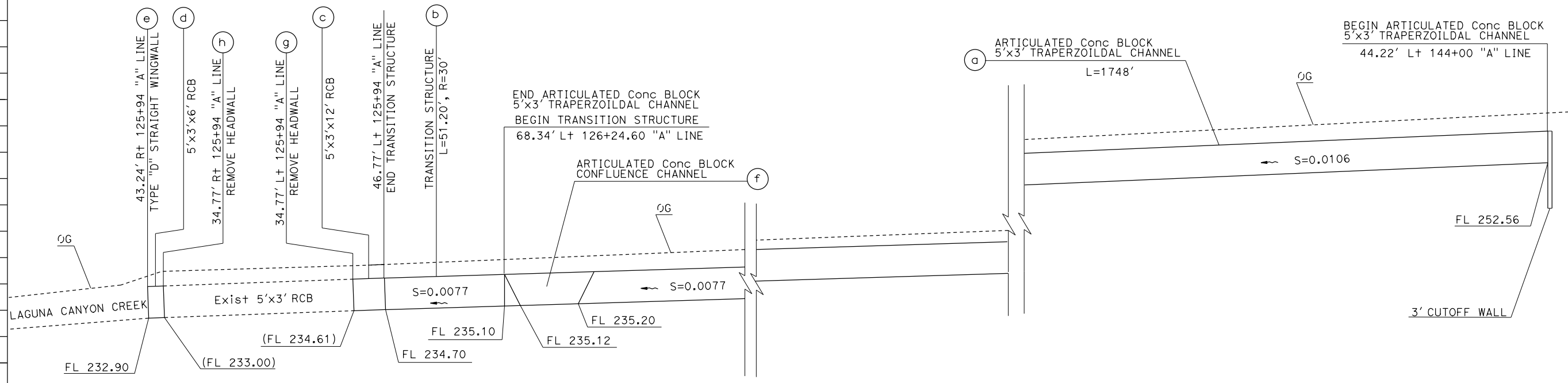
D-3

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
TAN T NGUYEN	
No. C47660	
Exp. 12/31/20	
CIVIL	

PLANS APPROVAL DATE

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DRAINAGE SYSTEM No. 2

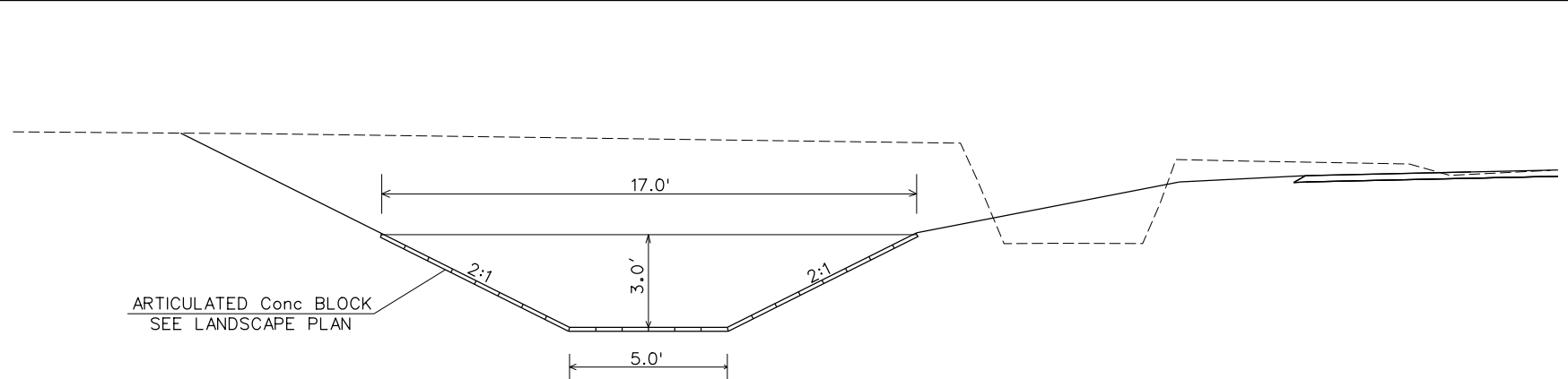
DRAINAGE PROFILES
 SCALE: HORIZ 1" = 20'
 VERT 1" = 5'
DP-1

STATION	Exc	Emb	TOTAL
255			
250			
245			
240			
235			
230			

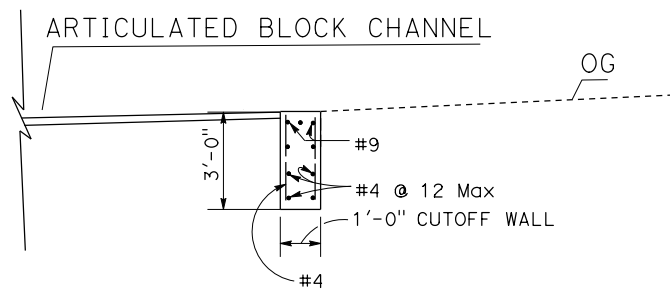
LAST REVISION: DATE PLOTTED => 15-OCT-2019
 00-00-00 TIME PLOTTED => 17:32

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans HYDRAULICS

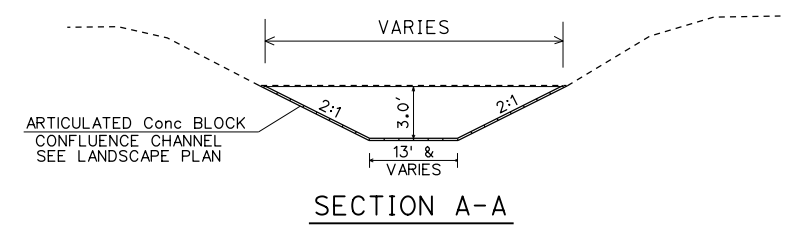
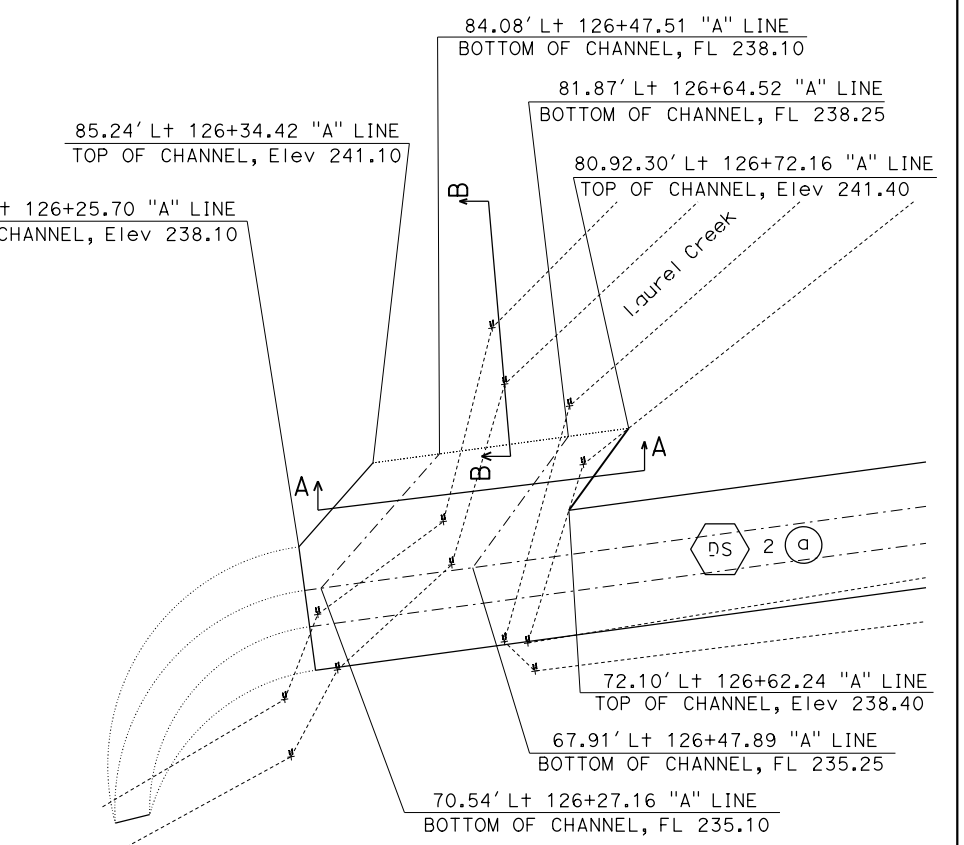
FUNCTIONAL SUPERVISOR	PHI DINH
CALCULATED-DESIGNED BY	CHECKED BY
TAN T NGUYEN	MY-LINH DUVAN
REVISED BY	DATE REVISED



ARTICULATED Conc BLOCK TRAPERZOIDAL CHANNEL
 DRAINAGE SYSTEM ② ⓐ



SECTION B-B
 CUTOFF WALL
 DRAINAGE SYSTEM No. 2 ⓕ, ⓐ



SECTION A-A
 DRAINAGE SYSTEM No. 2 ⓕ

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____
 T. T. NGUYEN
 No. C47660
 Exp. 12/31/20
 CIVIL
 STATE OF CALIFORNIA

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.

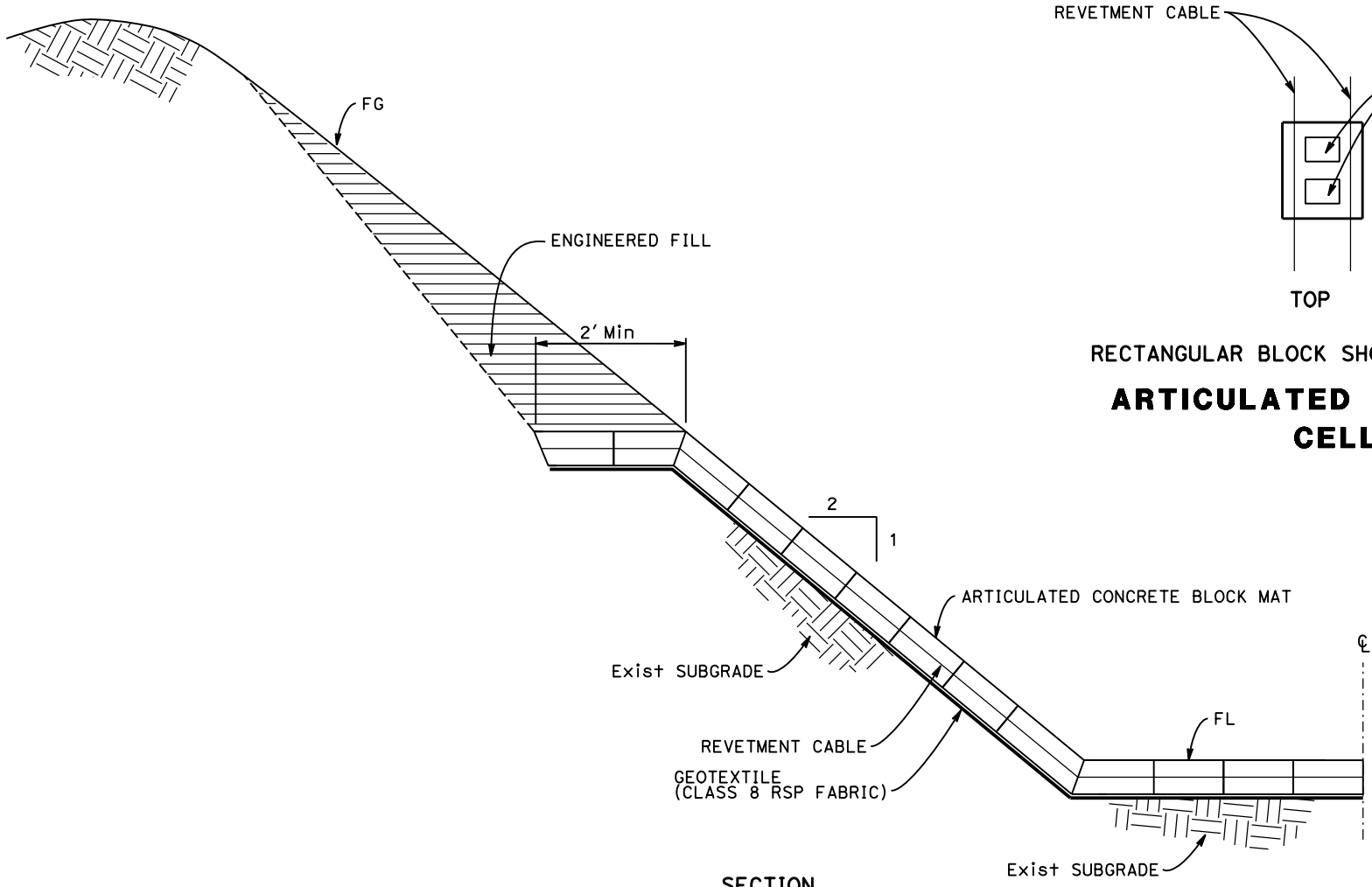
DRAINAGE DETAILS
 NO SCALE
DD-1

LAST REVISION: 00-00-00 DATE PLOTTED => 15-OCT-2019 TIME PLOTTED => 15:57

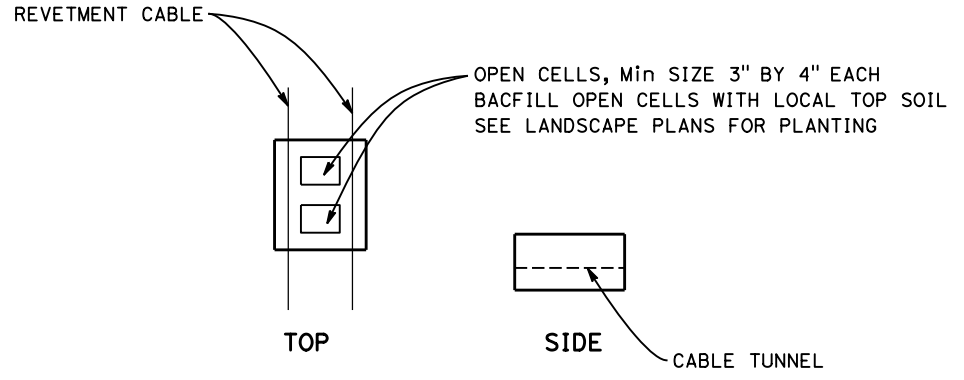
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
TAN T NGUYEN	
No. C47660	
Exp. 12/31/20	
CIVIL	
STATE OF CALIFORNIA	

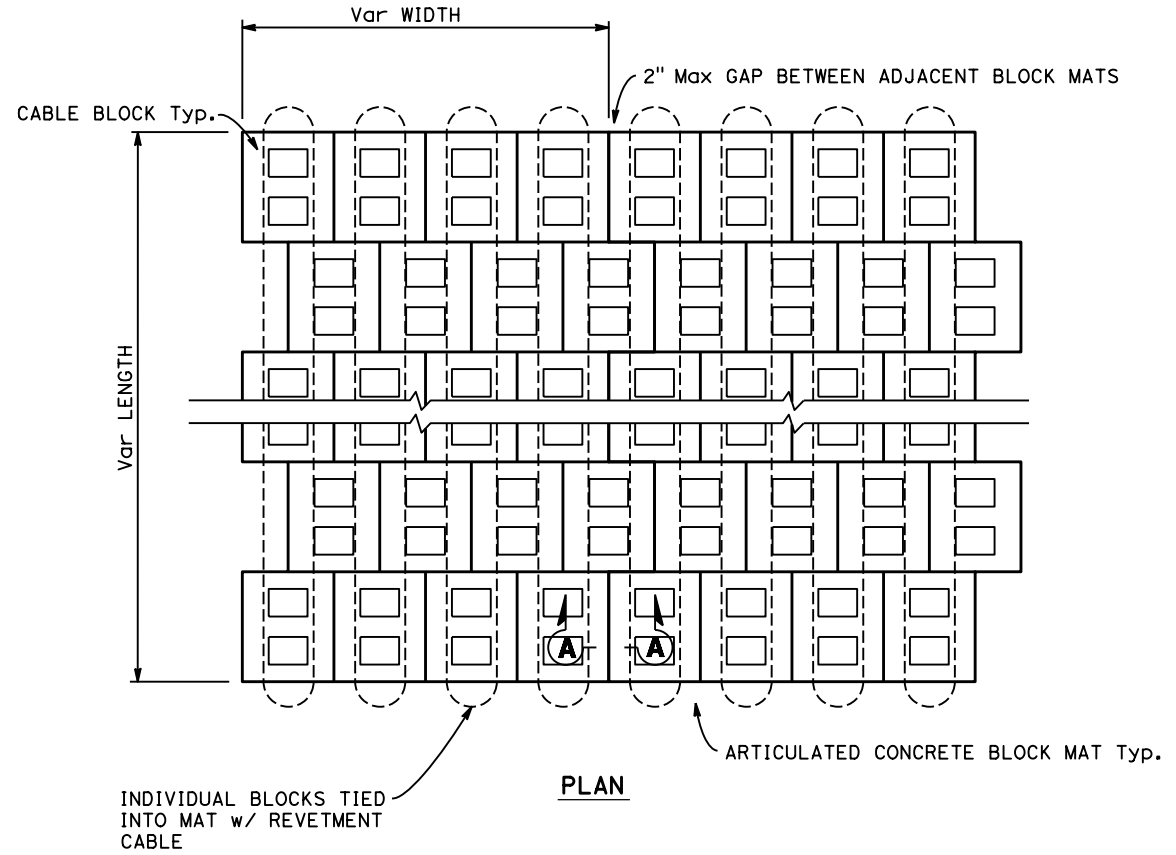
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



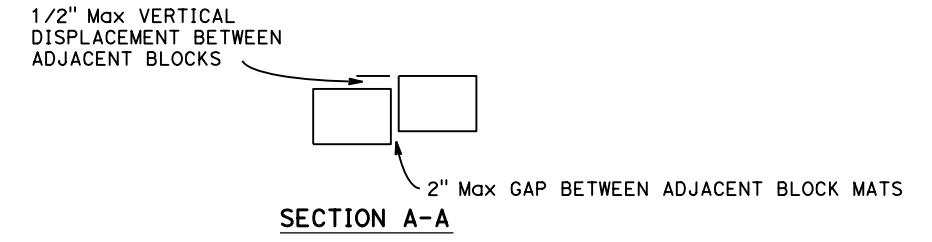
SECTION
ARTICULATED CONCRETE BLOCK REVETMENT
 DRAINAGE SYSTEM ② ① & ①



ARTICULATED CONCRETE BLOCK
CELL BLOCK



PLAN



SECTION A-A

DRAINAGE DETAILS
 NO SCALE
DD-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 HYDRAULICS
 FUNCTIONAL SUPERVISOR: PHI DINH
 CALCULATED/DESIGNED BY: TAN T NGUYEN
 CHECKED BY: MY-LINH DUVAN
 REVISED BY: [blank]
 DATE REVISED: [blank]

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans **HYDRAULICS**
 FUNCTIONAL SUPERVISOR: PHI DINH
 REVISIONS: x x x x x

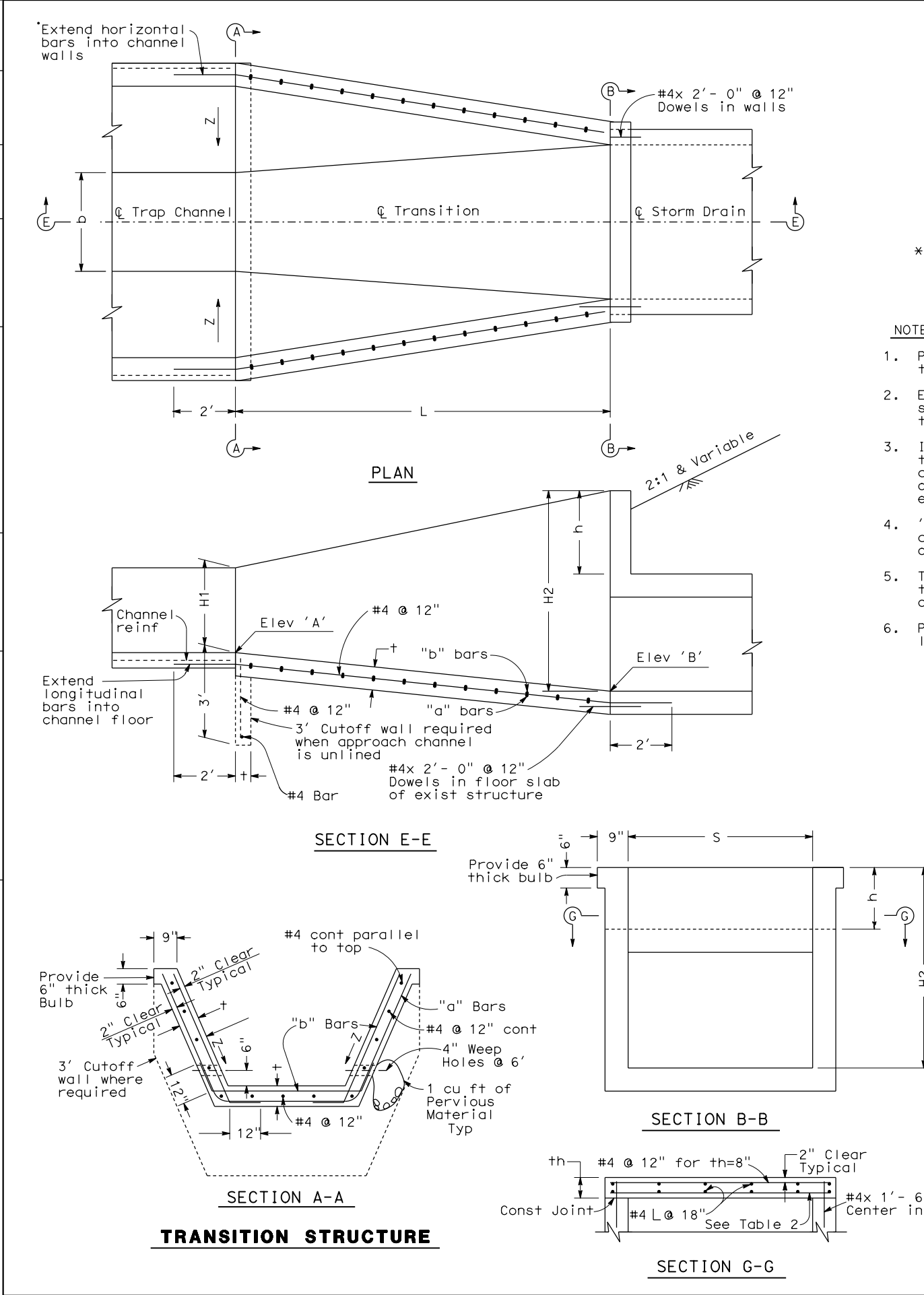


TABLE 1

* DESIGN "H"	t	REINFORCEMENT
0' - 4'	6"	#4 @ 12" both ways centered in slab
4' - 6'	6"	"a" bars #5 @ 24" "b" bars #5 @ 24"
6' - 8'	6"	"a" bars #5 @ 12" "b" bars #5 @ 12"
Greater than 8'	10"	"a" bars #6 @ 6" "b" bars #5 @ 12"

* Design "H" varies throughout length of transition. Use larger "H" on short transitions (L=15' or less). For longer transitions, vary reinforcement as indicated above.

NOTES

1. Provide a construction joint between the transition and the storm drain.
2. Extend the longitudinal reinforcing steel of the transition 2' into the trapezoidal channel.
3. In lieu of placing the dowels between the transition and the rectangular storm drain, the longitudinal reinforcing steel of the transition structure may be extended 2' into the storm drain.
4. 'H', 'H2', 'h', 'L', 'b', Elev 'A' and Elev 'B', and 'Z' shall be shown on the plans.
5. This structural detail may be applied to transitions with curved bottoms and curved side walls.
6. Pipe embedment shall be 5" for 96" or less and 8" for over 96".

TABLE 2

S or D	th	REINFORCEMENT	
		h=6" to 4'	h=5' to 8'
1'-6" to 5'-6"	6"	#4 @ 12"	#4 @ 12"
6' to 10'	6"	#4 @ 8"	#6 @ 9"
12'	8"	#5 @ 9"	#6 @ 6"

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

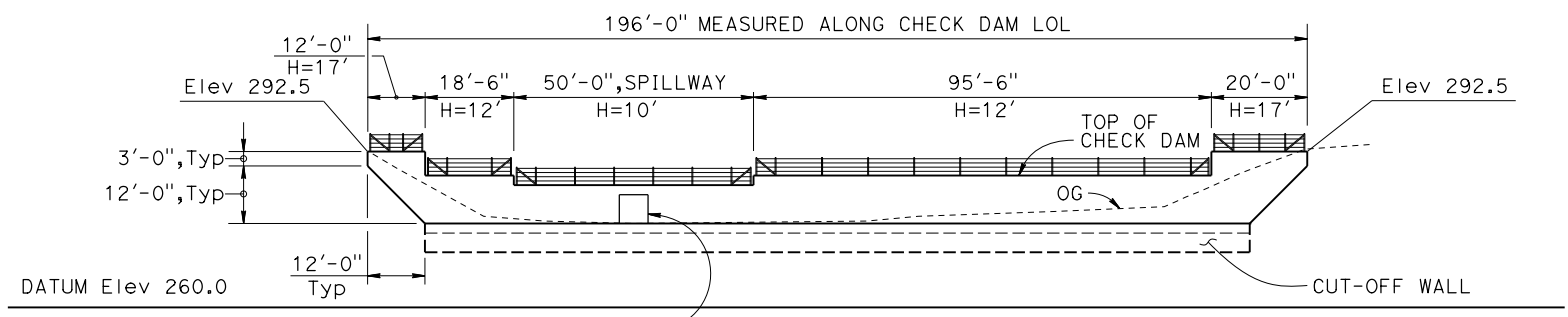
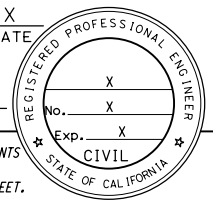
REGISTERED CIVIL ENGINEER DATE _____
 T. T. NGUYEN
 No. C47660
 Exp. 12/31/20
 CIVIL
 STATE OF CALIFORNIA

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.

DRAINAGE DETAILS
 NO SCALE
DD-3

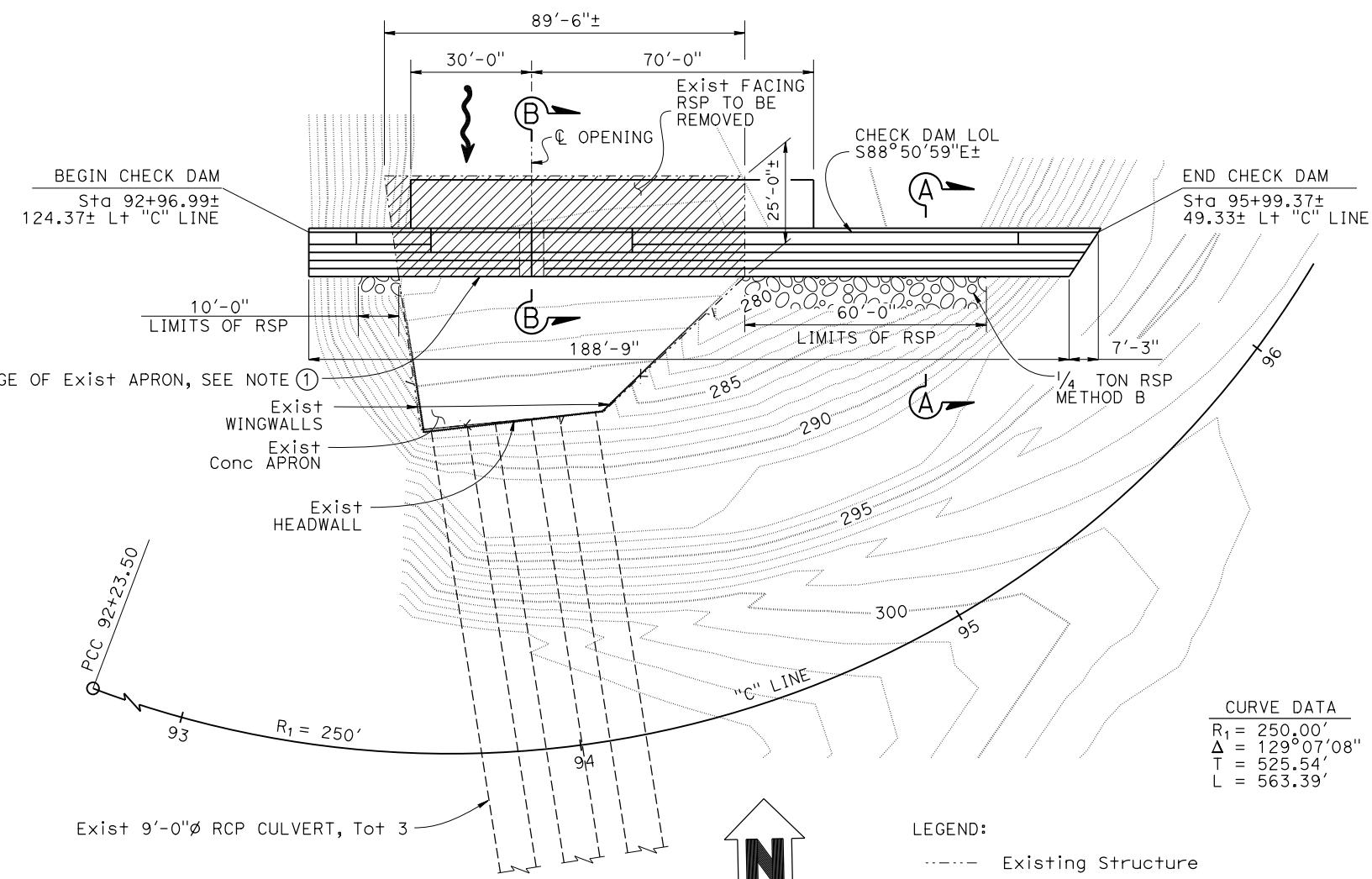
DATE PLOTTED => 15-OCT-2019
 TIME PLOTTED => 16:12

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
DDDD	CCCC	RRRR	PPPP	????	####
				X	
REGISTERED CIVIL ENGINEER				DATE	
				MM/DD/YYYY	
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.					



MIRRORED ELEVATION
1" = 20'

- NOTES:
- Check dam alignment to be adjusted to match with edge of existing Apron.
 - Over excavation to be replaced by Structure Backfill see "INDEX TO PLANS" sheet for plan view limits.



CURVE DATA

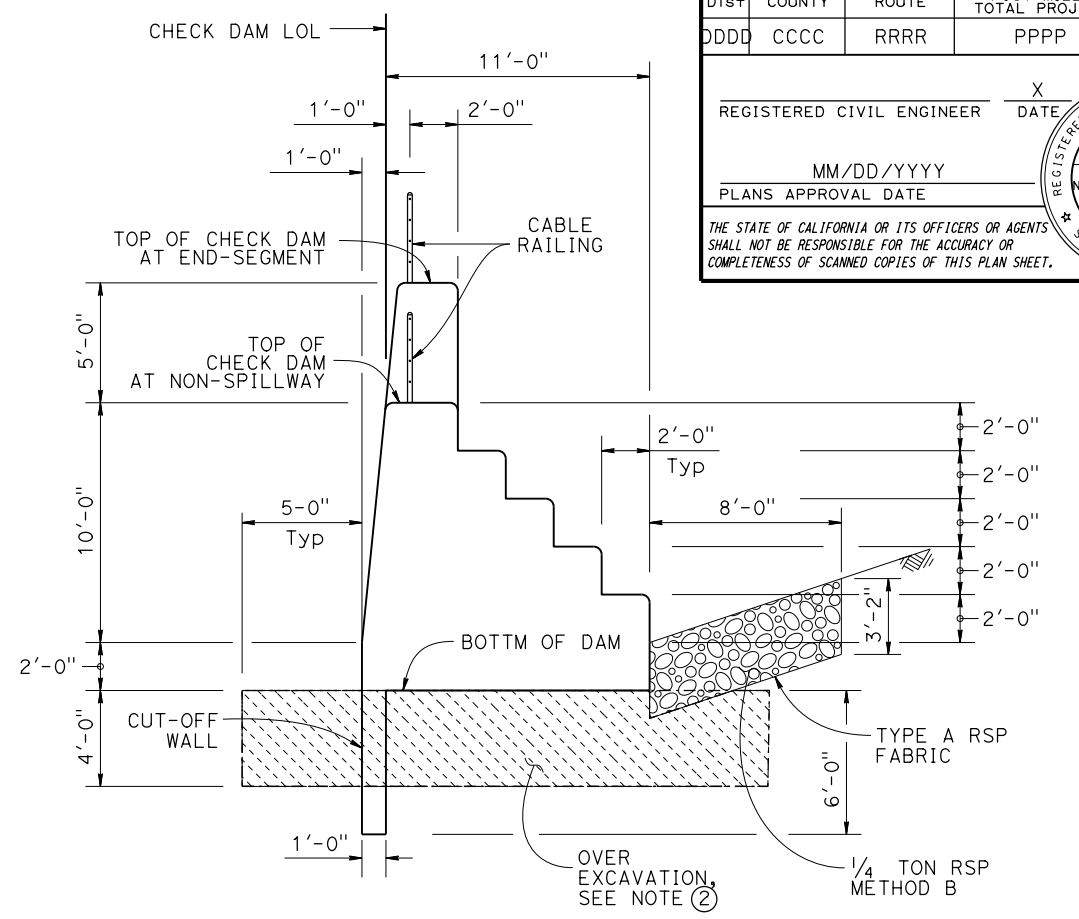
R ₁	= 250.00'
Δ	= 129°07'08"
T	= 525.54'
L	= 563.39'



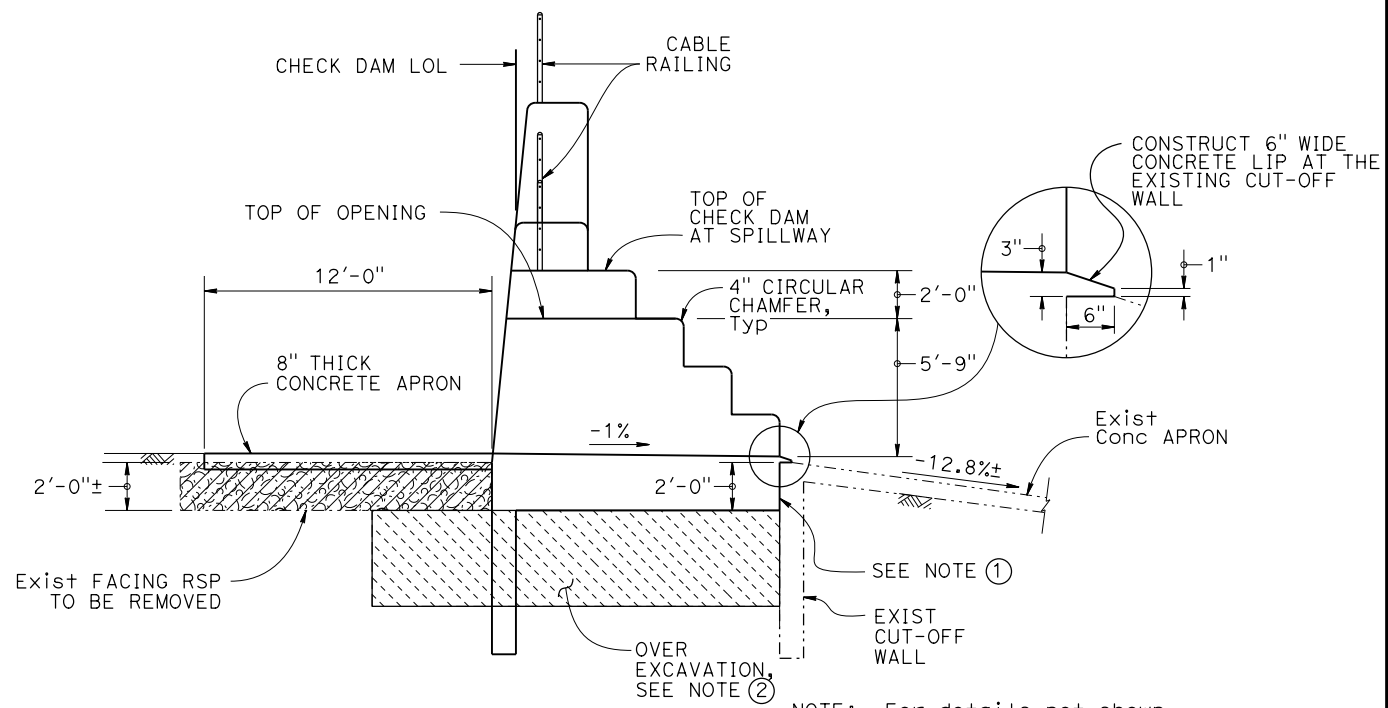
PLAN
1" = 20'

- LEGEND:
- Existing Structure
 - Rock Slope Protection Removal
 - Rock Slope Protection
 - Limit Of Over Excavation

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



SECTION A-A
1/4" = 1'-0"



SECTION B-B
1/4" = 1'-0"

NOTE: For details not shown, see "SECTION A-A".

DRAINAGE DETAILS DD-4

X BRANCH CHIEF	DESIGN	BY B. Patel	CHECKED V. Bolvardi / K. Kim	LOAD & RESISTANCE FACTOR DESIGN	BY X	CHECKED X	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 21	DRAINAGE SYSTEM No. 1 POST MILE 4.04	LAGUNA CANYON CHECK DAM GENERAL PLAN
	DETAILS	BY P. Perez / P. Nafezi	CHECKED K. Kim	LAYOUT	BY X	CHECKED X				
	QUANTITIES	BY B. Patel	CHECKED K. Kim	SPECIFICATIONS	BY X	PLANS AND SPECS COMPARED X				

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
DDDD	CCCC	RRRR	PPPP	????	####

REGISTERED CIVIL ENGINEER	X	DATE
PLANS APPROVAL DATE	MM/DD/YYYY	

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.

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
AASHTO LRFD Bridge Design Specifications, 6th edition with California Amendments, preface dated January 2014.

SEISMIC PARAMETERS:
Shear Wave Velocity Vs30 = 1280 ft/sec
Moment Magnitude Mmax = 7
Peak Ground Acceleration (PGA) = 0.75g
Horizontal acceleration coefficient Kh = 0.25

REINFORCED CONCRETE:
fy = 60 ksi
f'c = 3600 psi @ 28 days
n = 8

INDEX TO PLANS

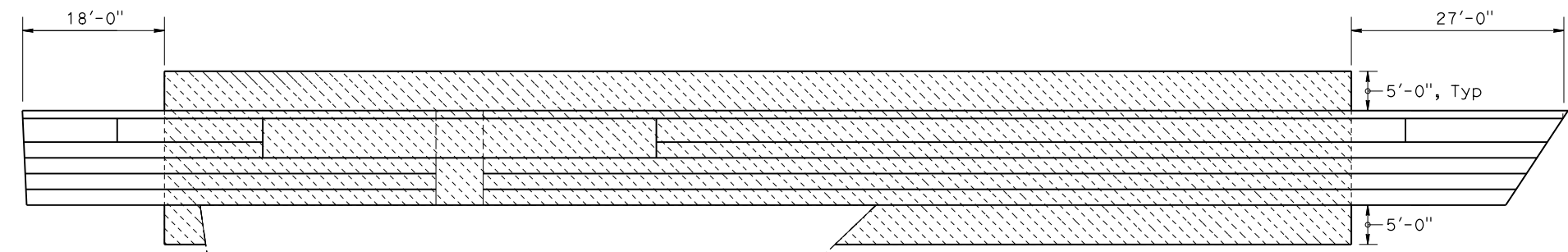
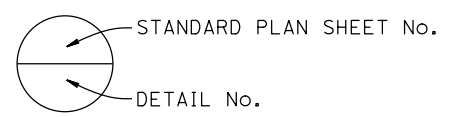
SHEET No.	TITLE
1	GENERAL PLAN
2	INDEX TO PLANS
3	CHECK DAM DETAILS
4	LOG OF TEST BORINGS 1 OF 3
5	LOG OF TEST BORINGS 2 OF 3
6	LOG OF TEST BORINGS 3 OF 3

SPREAD FOOTING DATA TABLE

Dam Segment Location	Dam Height (ft)	Bottom of DAM Elevation (ft)	Service Limit State Permissible Net Contact Stress (ksf)	Strength Gross Nominal Bearing Resistance for Controlling Load Case, $\phi_b=0.5$ (ksf)	Extreme Event Factored Gross Nominal Bearing Resistance Load case, $\phi_b=1.0$ (ksf)
Spillway	10	275.5	1.4	4.0	8.0
Non-Spillway	12	275.5	1.2	4.0	8.0
End segments	17	275.5	1.2	4.0	8.0

STANDARD PLANS DATED 2015

- A10A LEGEND - LINES AND SYMBOLS (SHEET 1 OF 5)
- A10B LEGEND - LINES AND SYMBOLS (SHEET 2 OF 5)
- A10C LEGEND - LINES AND SYMBOLS (SHEET 3 OF 5)
- A10D LEGEND - LINES AND SYMBOLS (SHEET 4 OF 5)
- A10E LEGEND - LINES AND SYMBOLS (SHEET 5 OF 5)
- A10F LEGEND - SOIL (SHEET 1 OF 2)
- A10G LEGEND - SOIL (SHEET 2 OF 2)
- A10H LEGEND - ROCK
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL - BRIDGE
- RSP BO-1 BRIDGE DETAILS
- B11-47 CABLE RAILING



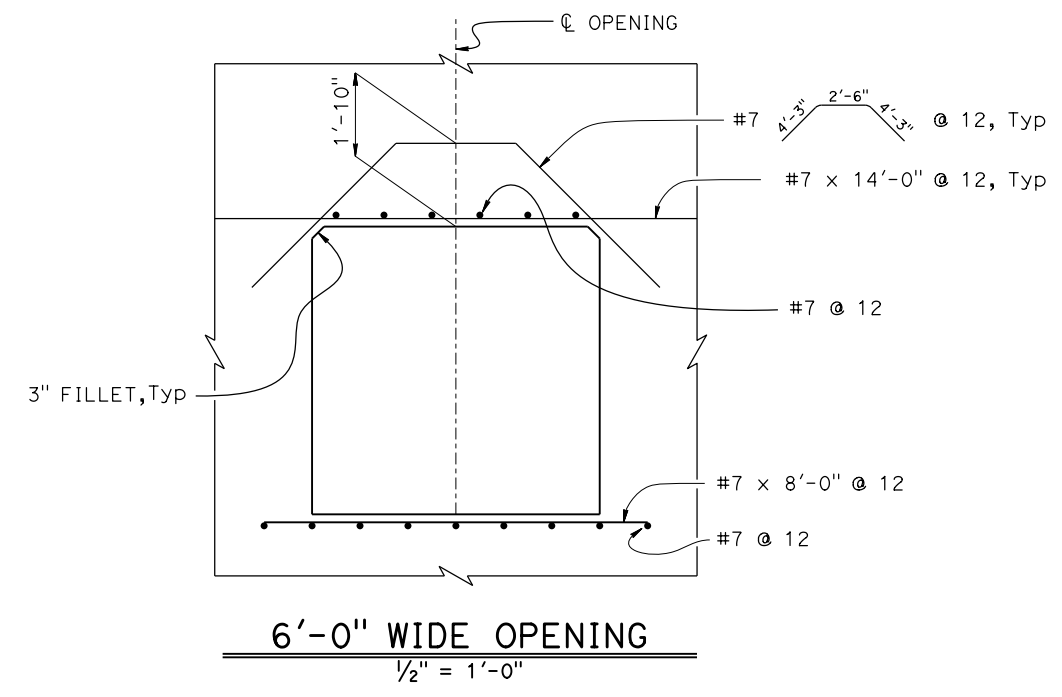
LIMITS OF OVER EXCAVATION - PLAN VIEW
1" = 10'

HYDROLOGIC SUMMARY		
Drainage Area: 2.55 mi ²		
	Design Flood	Base Flood
Frequency	5-yr	100-yr
Discharge	357.4 cfs	1787.0 cfs
Water Surface Elevation at Bridge	285.1 ft	288.6 ft

Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the State and interested or affected parties should make their own investigation.

DRAINAGE DETAILS DD-5

<table border="1"> <tr> <td>DESIGN</td> <td>BY B. Patel</td> <td>CHECKED K. Kim</td> </tr> <tr> <td>DETAILS</td> <td>BY P. Nafezi</td> <td>CHECKED K. Kim</td> </tr> <tr> <td>QUANTITIES</td> <td>BY B. Patel</td> <td>CHECKED K. Kim</td> </tr> </table>	DESIGN	BY B. Patel	CHECKED K. Kim	DETAILS	BY P. Nafezi	CHECKED K. Kim	QUANTITIES	BY B. Patel	CHECKED K. Kim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 21	DRAINAGE SYSTEM No. 1 POST MILE 4.04	LAGUNA CANYON CHECK DAM INDEX TO PLANS
DESIGN	BY B. Patel	CHECKED K. Kim											
DETAILS	BY P. Nafezi	CHECKED K. Kim											
QUANTITIES	BY B. Patel	CHECKED K. Kim											
STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REVISION 1/11/2019)		DATE PLOTTED => 18-NOV-2019 TIME PLOTTED => 15:23 FILE => INDEX TO PLANS.dgn USERNAME => s149816		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3									
UNIT: 3623 PROJECT NUMBER & PHASE: 1216000133-1 CONTRACT No.: 12-003604			DISREGARD PRINTS BEARING EARLIER REVISION DATES										
			REVISION DATES SHEET OF 07/25/19 09/02/19 09/23/19 10/19/19 2 3										

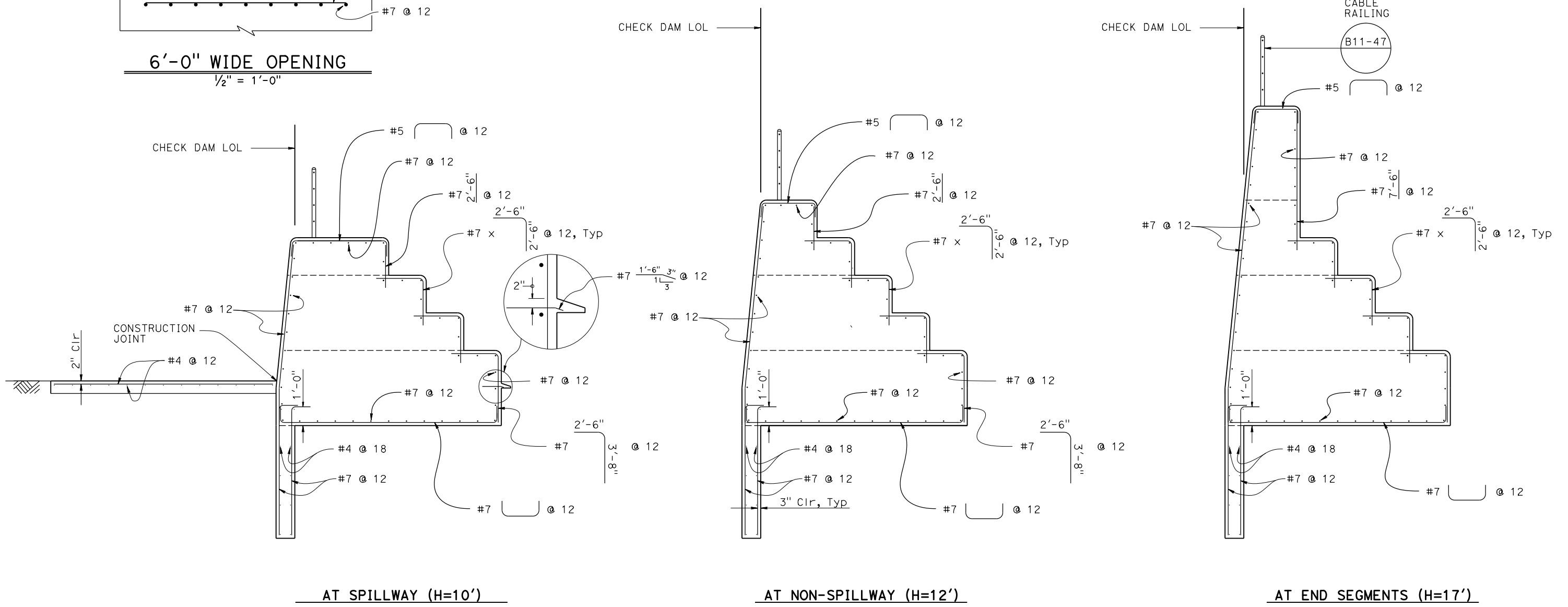


LEGEND:

---- Construction joint

NOTES:

- ① Adjust lengths of vertical legs of rebar due to inclined face of dam near the ends.



TYPICAL SECTIONS
 $\frac{3}{8}" = 1'-0"$

DRAINAGE DETAILS DD-6

DESIGN	BY B. Patel	CHECKED K. Kim	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 21	DRAINAGE SYSTEM No. 1 POST MILE 4.04	LAGUNA CANYON CHECK DAM CHECK DAM DETAILS
DETAILS	BY P. Nafezi	CHECKED K. Kim				
QUANTITIES	BY B. Patel	CHECKED K. Kim				

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 HYDRAULICS
 FUNCTIONAL SUPERVISOR
 PHI DINH
 CALCULATED-DESIGNED BY
 CHECKED BY
 TAN T NGUYEN
 MY-LINH DUVAN
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____
 T. T. NGUYEN
 No. C47660
 Exp 12-30-19
 CIVIL
 STATE OF CALIFORNIA

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.

DRAINAGE QUANTITIES

DRAINAGE SYSTEM NUMBER	DRAINAGE UNIT														DESCRIPTION	STATION	DRAINAGE PLAN SHEET NUMBER	DRAINAGE SYSTEM NUMBER	DRAINAGE UNIT					
		ARTICULATED CONCRETE BLOCK REVTMENT	STRUCTURAL CONCRETE, BOX CULVERT	STRUCTURAL CONCRETE, HEADWALL	MINOR CONCRETE (MINOR STRUCTURE)	REMOVE HEADWALL	DITCH EXCAVATION	RSP (1/4 TON, METHOD B)	RSP FABRIC (CLASS 8)	STRUCTURAL CONCRETE	STRUCTURE EXCAVATION	STRUCTURE BACKFILL	BAR REINFORCING STEEL	REMOVE RSP						CABLE RAILING	"H" OR "V"	MAXIMUM COVER		
SOYD	CY	CY	CY	EA	CY	CY	SOYD	CY	CY	CY	LB	CY	LF	LF										
1	a						59	88	786	1303	742	41576	161	196						CONCRETE CHECK DAM	SB SR-133 ON-RAMP TO SB SR-73	D-3	1	a
2	a	3680			2	2200		3680												ARTICULATED Conc BLOCK TRAPEZOILDAL CHANNEL, CUTOFF WALL	44.22' Lt 144+00 "A" LINE	D-1, D-2	2	a
	b				11.5															TRANSITION STRUCTURE	57.55' Lt 126+20.50 "A" LINE	D-1		b
	c		5.0									330								5'X3'X12' RCB	39.77' Lt 125+94 "A" LINE			c
	d		2.5									330								5'X3'X6' RCB	39.77' Rt 125+94 "A" LINE			d
	e			0.5																TYPE "D" STRAIGHT WINGWALL	42.24' Rt 125+94 "A" LINE			e
	f	60			4	40		60												ARTICULATED Conc BLOCK CONFLUENCE CHANNEL, CUTOFF WALL	70.30' Rt 126+61 "A" LINE			f
	g					1														REMOVE HEADWALL	39.77' Lt 125+94 "A" LINE			g
	h					1														REMOVE HEADWALL	39.77' Rt 125+94 "A" LINE			h
SHEET TOTAL		3740	7.5	0.5	17.5	2	2240	59	3740	786	1303	742	42236	161	196									

DRAINAGE QUANTITY DQ-1

LAST REVISION: DATE PLOTTED => 04-DEC-2019 TIME PLOTTED => 13:22

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
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.

NOTE:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- LOCATIONS OF UTILITY FACILITIES SHOWN ON THIS PLAN ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
- UTILITY OWNERSHIP:
 ELECTRIC - SOUTHERN CALIFORNIA EDISON (SCE)
 NATURAL GAS - SOUTHERN CALIFORNIA GAS (SCG)
 WATER - LAGUNA BEACH COUNTY WATER DISTRICT (LBCWD)
 SEWER - CITY OF LAGUNA BEACH (CLB)
 COMMUNICATIONS - COX COMMUNICATIONS (COX)
 FRONTIER (FRT)
 TELECOMMUNICATIONS - EXTENET SYSTEMS

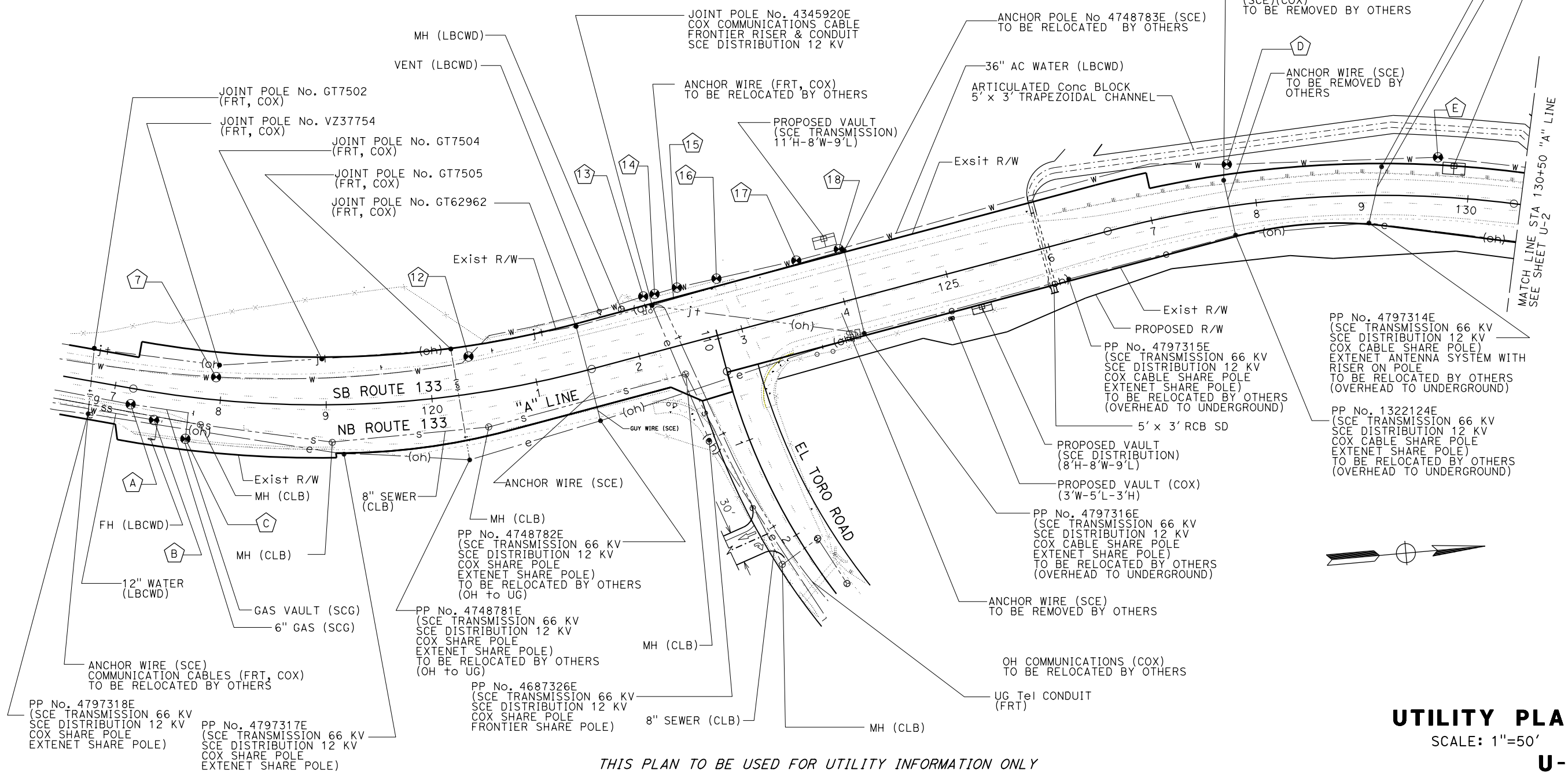
LEGEND:

- ⊙ POSITIVE IDENTIFY LOCATION
- ⊙ X POSITIVE IDENTIFY LOCATON NUMBER

POSITIVE LOCATION INFORMATION

No.	UTILITY	LOCATION	NORTHING	EASTING	TOP OF PIPE ELEVATION	DEPTH	METHOD
7	36" WATER	21.5' Lt "A" 117+94.0	2158561.1	6101336.2	215.8	5.4'	TEST HOLE
12	36" WATER	35.1' Lt "A" 122+40.0	2158799.6	6101350.4	221.2	6.0'	TEST HOLE
13	36" WATER	53.6' Lt "A" 122+18.1	2158970.8	6101317.5	224.4	7.5' **	TEST HOLE
14	36" WATER	53.0' Lt "A" 122+29.0	2158981.7	6101316.7	226.1	6.2'	TEST HOLE
15	36" WATER	53.5' Lt "A" 122+50.9	2159003.4	6101313.7	227.1	5.5'	TEST HOLE
16	36" WATER	52.0' Lt "A" 122+89.1	2159041.5	6101310.5	227.8	5.5'	TEST HOLE
17	36" WATER	48.9' Lt "A" 123+66.2	2159118.4	6101304.3	229.4	5.5'	TEST HOLE
18	36" WATER	48.9' Lt "A" 124+07.8	2159159.7	6101299.3	230.0	5.5'	TEST HOLE
A	6" GAS	14.9' Rt "A" 117+17.2	2158477.7	6101350.2	220.0	4.0'	TEST HOLE
B	12" WATER	26.1' Rt "A" 117+40.9	2158497.4	6101368.0	219.7	4.5'	TEST HOLE
C	1" GAS	39.6' Rt "A" 117+71.6	2158524.2	6101389.7	220.2	3.6'	TEST HOLE
D	36" WATER	39.4' Lt "A" 127+77.6	2159533.3	6101271.4	232.9	3.8'	TEST HOLE
E	36" WATER	37.2' Lt "A" 129+69.8	2159731.4	6101292.8	236.3	4.5'	TEST HOLE

NOTE: ** = TOP OF CONCRETE ENCASEMENT



UTILITY PLAN
 SCALE: 1"=50'
U-1

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - UTILITY ENGINEERING

REVISOR: MINH PHAM, KEVIN PHAM, CHRISTOPHER LE
 DATE: [REDACTED]
 CHECKED BY: [REDACTED]

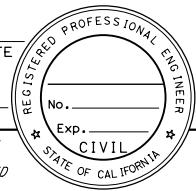
NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____

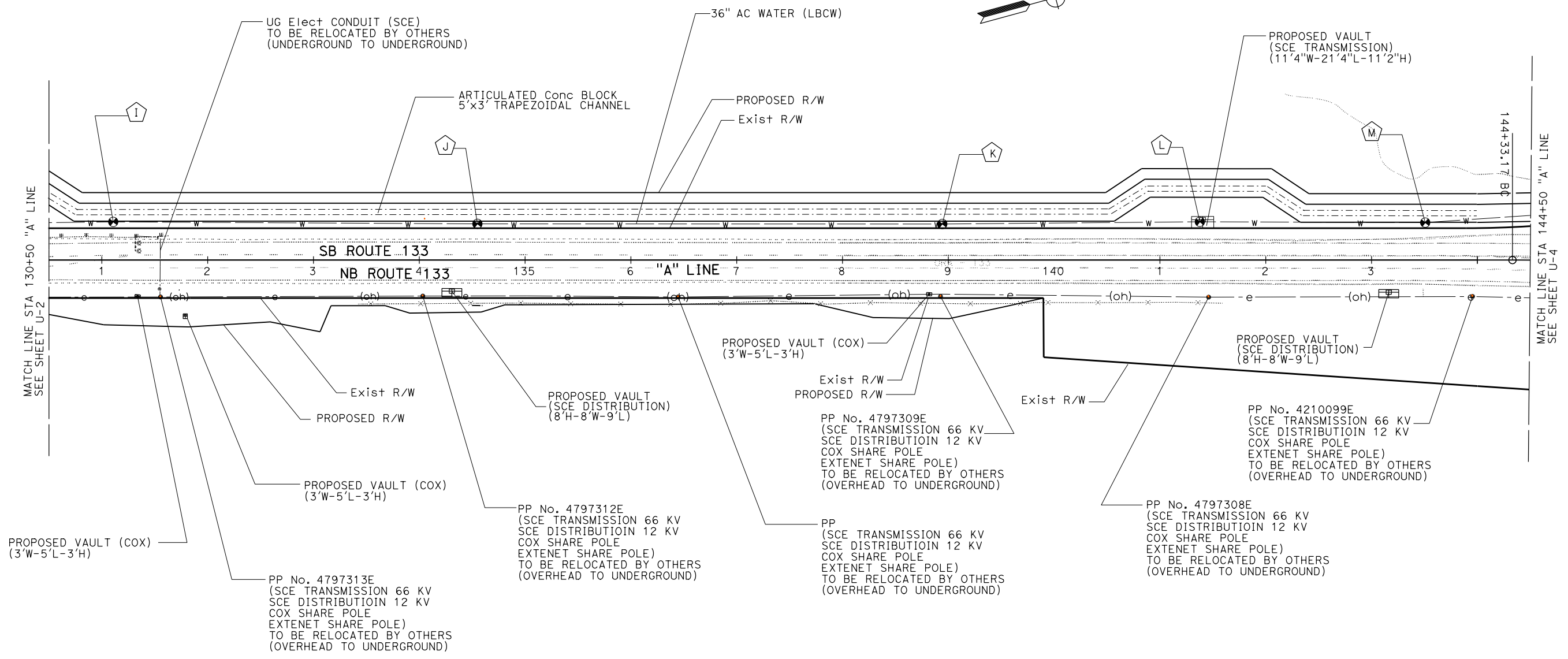
PLANS APPROVAL DATE _____

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.



POSITIVE LOCATION INFORMATION

No.	UTILITY	LOCATION	NORTHING	EASTING	TOP OF PIPE ELEVATION	DEPTH	METHOD
I	36" WATER	36.0' Lt "A" 131+10.7	2159870.4	6101329.8	237.1	5.8'	TEST HOLE
J	36" WATER	34.2' Lt "A" 134+54.9	2160201.9	6101421.4	240.5	4.9'	TEST HOLE
K	36" WATER	34.0' Lt "A" 138+94.3	2160625.7	6101537.3	244.1	3.8'	TEST HOLE
L	36" WATER	36.1' Lt "A" 141+37.7	2160861.1	6101599.4	246.2	4.8'	TEST HOLE
M	36" WATER	35.4' Lt "A" 143+50.7	2161066.4	6101656.2	248.3	3.5'	TEST HOLE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - UTILITY ENGINEERING

FUNCTIONAL SUPERVISOR: CHRISTOPHER LE

DESIGNED BY: MINH PHAM

CHECKED BY: KEVIN PHAM

REVISIONS:

NO.	DATE	REVISION
1		DESIGNED
2		CHECKED

UTILITY PLAN
SCALE: 1"=50'
U-2

THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

DATE PLOTTED => 09-DEC-2019 TIME PLOTTED => 09:15

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

POSITIVE LOCATION INFORMATION

No.	UTILITY	LOCATION	NORTHING	EASTING	ELEVATION	DEPTH	METHOD
20	36" WATER	93.2' L+ "A" 149+89.5	2161681.5	6101825.3	273.5	6.1' **	TEST HOLE
21	36" WATER	82.7' L+ "A" 150+30.3	2161716.4	6101852.0	275.3	6.1' **	TEST HOLE
22	36" WATER	100.7' L+ "A" 155+57.1	2162218.1	6101906.3	290.8	7.0' **	TEST HOLE
N	36" WATER	44.7' L+ "A" 144+88.0	2161201.3	6101683.3	248.2	4.6'	TEST HOLE


NOTE: ** = TOP OF CONCRETE ENCASEMENT

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____

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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
UTILITY ENGINEERING

FUNCTIONAL SUPERVISOR: CHRISTOPHER LE

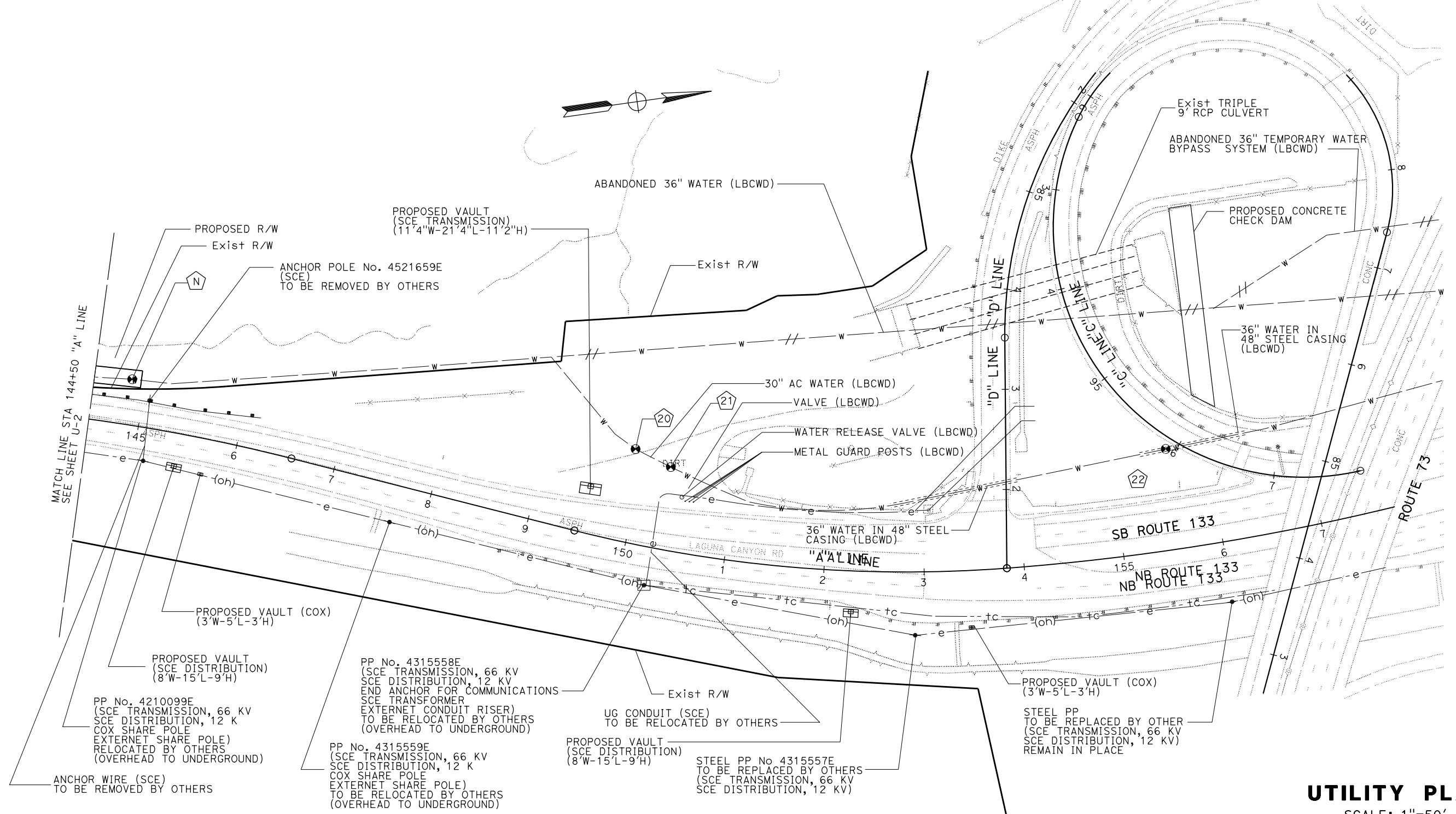
REVISOR: MINH PHAM, KEVIN PHAM

CHECKED BY: _____

DESIGNED BY: _____

DATE REVISOR: _____

DATE REVISION: _____



THIS PLAN TO BE USED FOR UTILITY INFORMATION ONLY

UTILITY PLAN
SCALE: 1"=50'
U-3

DATE PLOTTED => 09-DEC-2019
TIME PLOTTED => 09:19
LAST REVISION: 12-09-19

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
STEVEN LE	
No. C75534	
Exp. 06-30-20	
CIVIL	










PLANS APPROVAL DATE

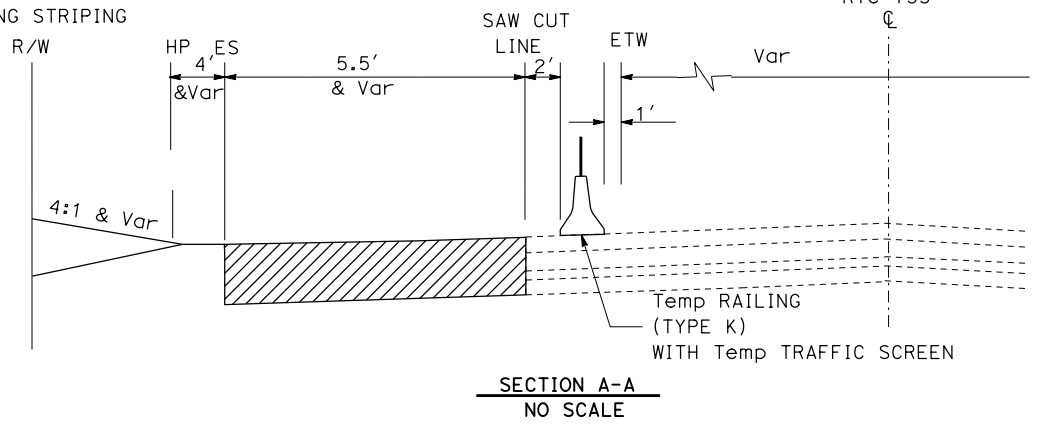
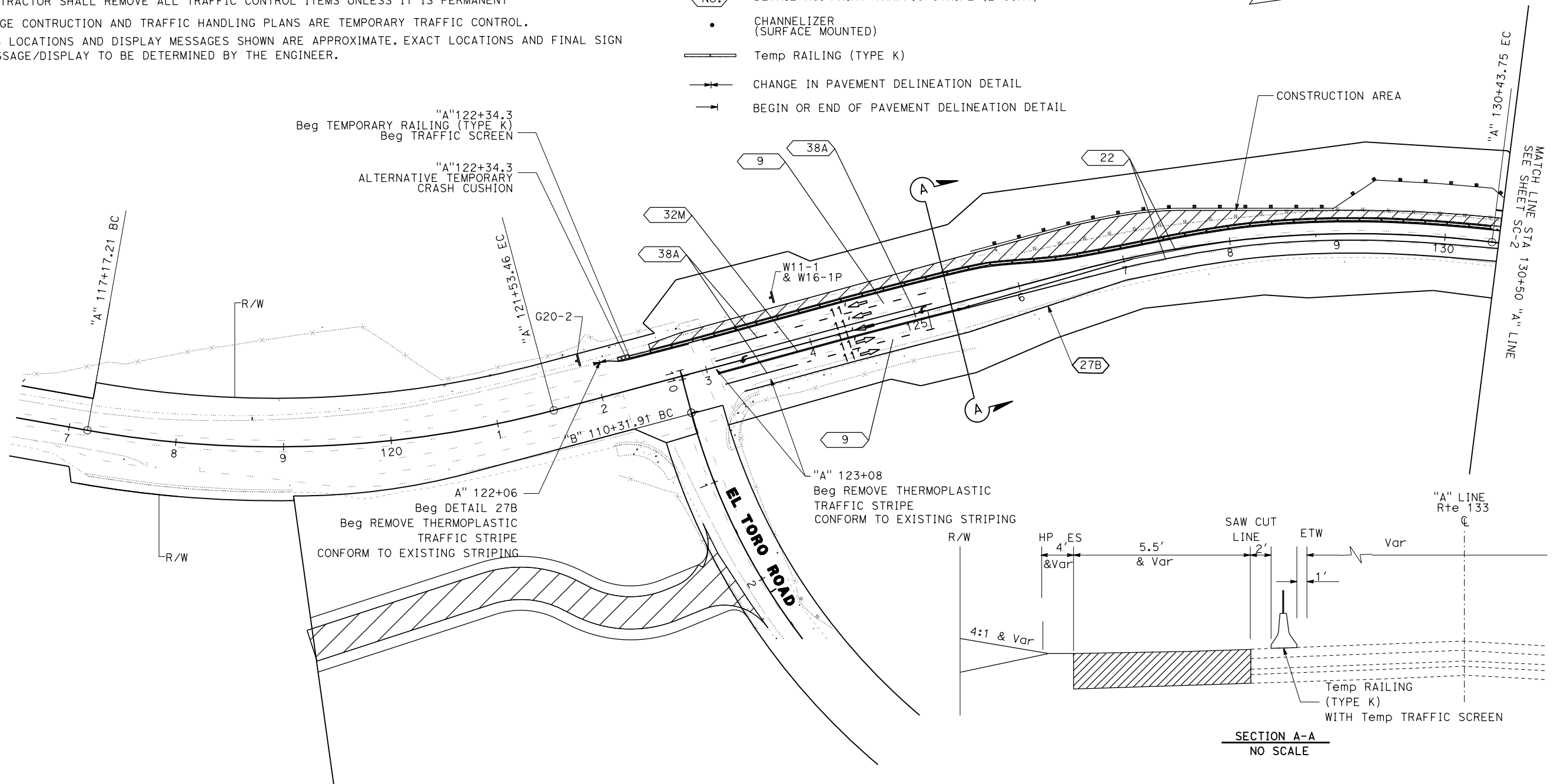
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- ALL CONFLICTING TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE REMOVED.
- ALL TEMPORARY TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE PAINT UNLESS OTHERWISE NOTED.
- LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ARE APPROXIMATE. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
- INSTALL OBJECT MARKER (TYPE P) AT EACH END OF TEMPORARY RAILING (TYPE K)
- ALL PAVEMENT DELINEATIONS SHOWN ON STAGE CONSTRUCTION AND TRAFFIC HANDLING PLANS ARE TEMPORARY.
- CONTRACTOR SHALL REMOVE ALL TRAFFIC CONTROL ITEMS UNLESS IT IS PERMANENT
- STAGE CONSTRUCTION AND TRAFFIC HANDLING PLANS ARE TEMPORARY TRAFFIC CONTROL.
- PMCS LOCATIONS AND DISPLAY MESSAGES SHOWN ARE APPROXIMATE. EXACT LOCATIONS AND FINAL SIGN MESSAGE/DISPLAY TO BE DETERMINED BY THE ENGINEER.

LEGEND:

-  CONSTRUCTION THIS STAGE
-  Temp CRASH CUSHION MODULES
-  TEMPORARY RAILING (TYPE K) WITH TEMPORARY TRAFFIC SCREEN
-  DIRECTION OF TRAFFIC
-  DETAIL No. PAINT TRAFFIC STRIPE (2-COAT)
-  CHANNELIZER (SURFACE MOUNTED)
-  Temp RAILING (TYPE K)
-  CHANGE IN PAVEMENT DELINEATION DETAIL
-  BEGIN OR END OF PAVEMENT DELINEATION DETAIL



STAGE 1
STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

SC-1

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SCALE : 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED-DESIGNED BY: DAVID LAM
 CHECKED BY: DAVID LAM
 REVISIONS: STEVEN LE, DAVID LAM

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

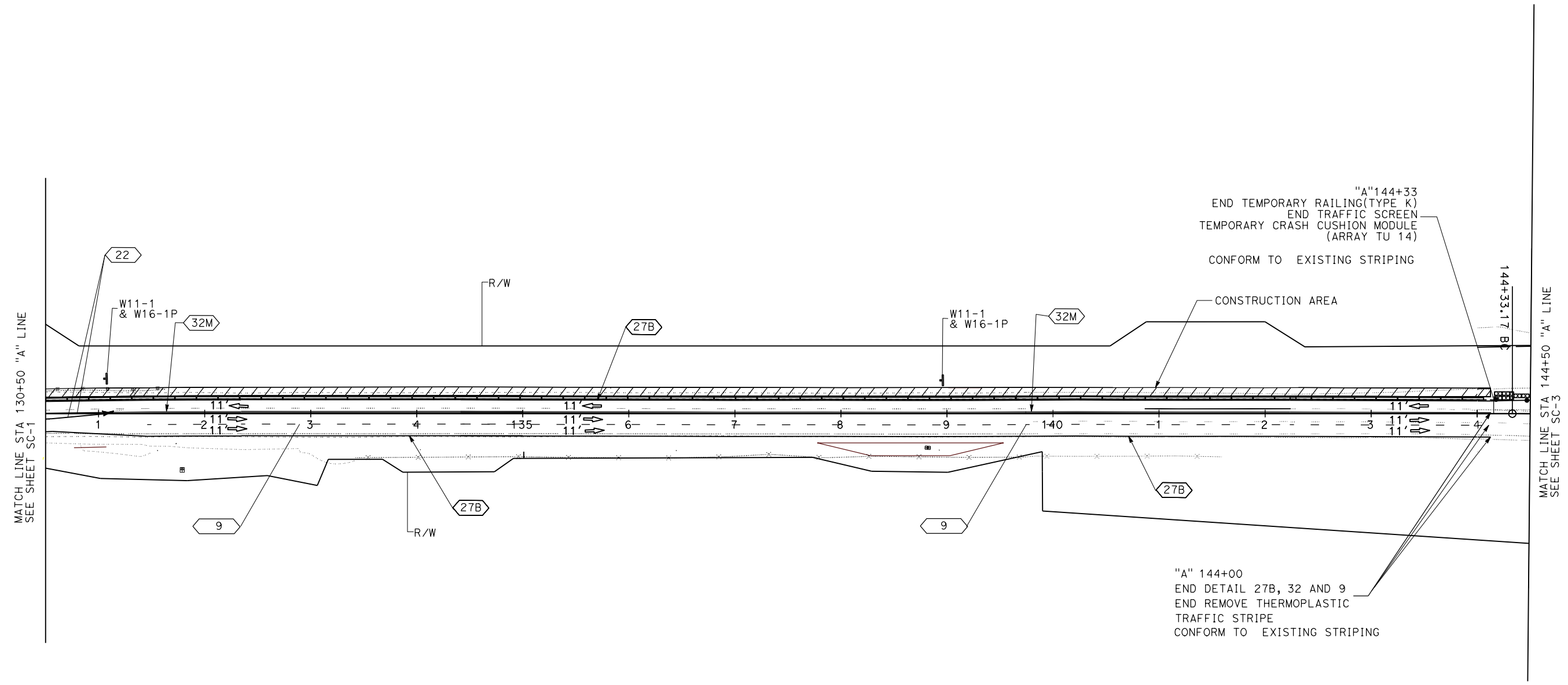
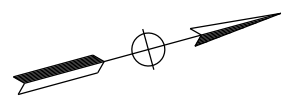
FUNCTIONAL SUPERVISOR: DAVID LAM
 CHECKED BY: DAVID LAM
 CALCULATED-DESIGNED BY: STEVEN LE
 CHECKED BY: DAVID LAM
 REVISED BY: []
 DATE REVISED: []

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Orca	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE: _____
 PLANS APPROVAL DATE: _____

REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp. 06-30-20
 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.



**STAGE 1
 STAGE CONSTRUCTION AND
 TRAFFIC HANDLING PLAN**

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

SCALE : 1"=50'

SC-2

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

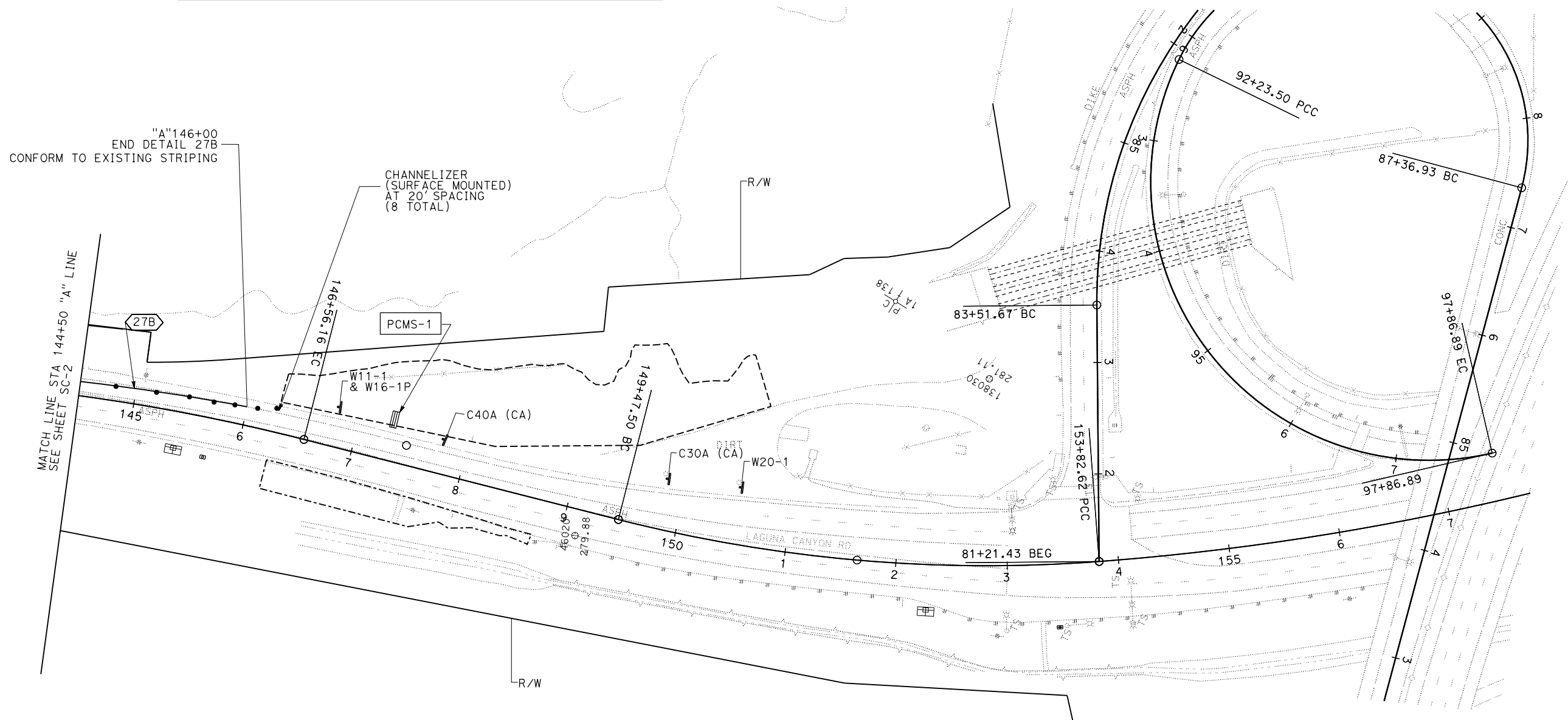
REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp. 06-30-20
 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.

PORTABLE CHANGEABLE MESSAGE SIGN

PCMS No.	MESSAGE
PCMS-1	SHOULDER CLOSED. ROAD WORK AHEAD



**STAGE 1
STAGE CONSTRUCTION AND
TRAFFIC HANDLING PLAN**

SCALE : 1"=50'

SC-3

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

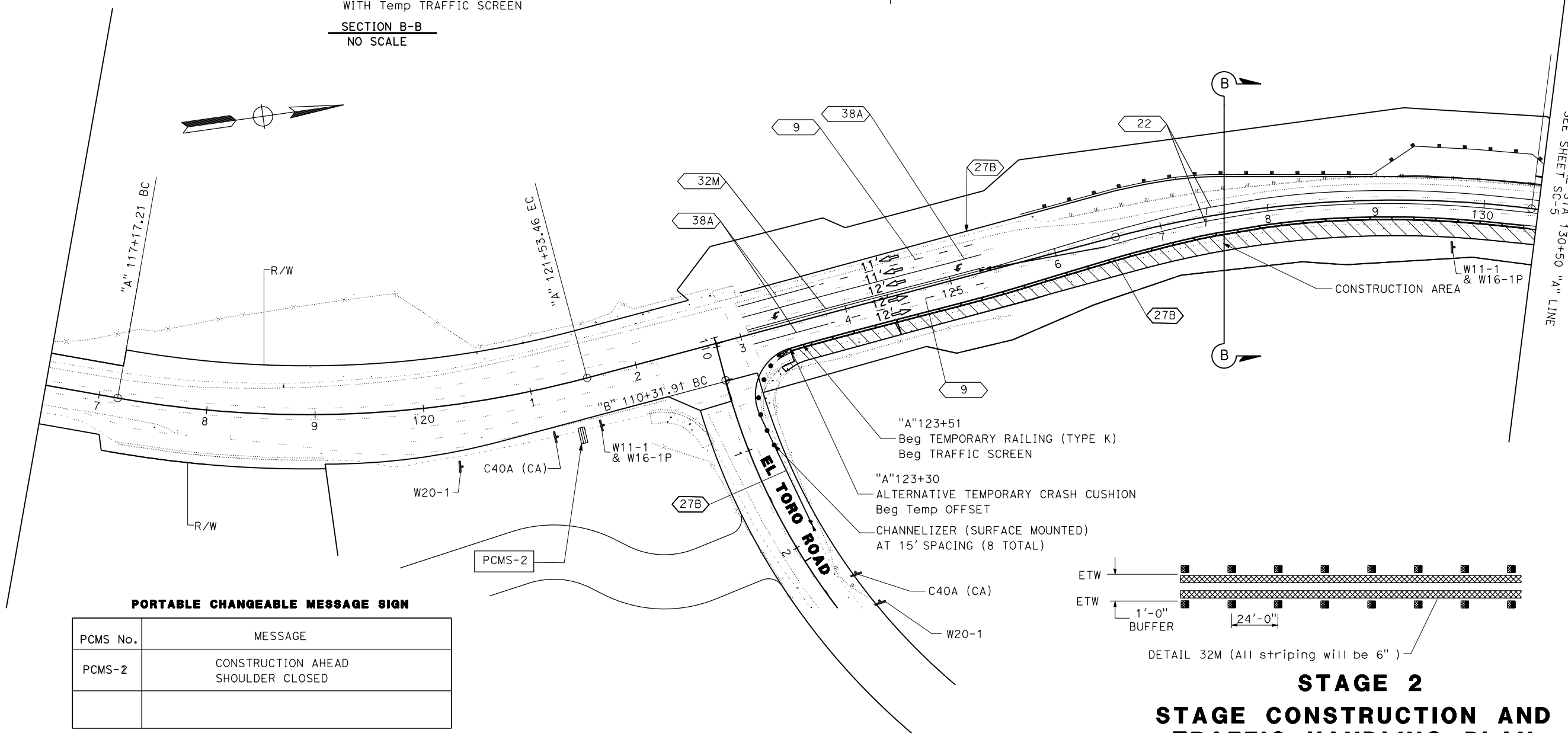
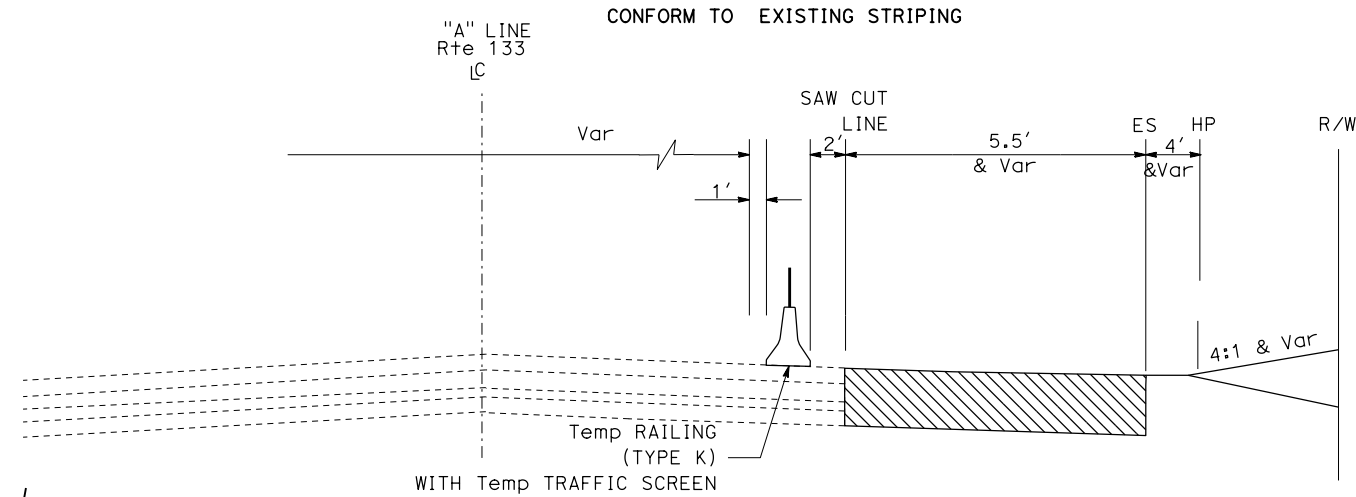
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
 FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED-DESIGNED BY: DAVID LAM
 CHECKED BY: DAVID LAM
 REVISIONS:
 x
 x
 x
 x
 x

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
STEVEN LE	
No. C75534	
Exp. 06-30-20	
CIVIL	

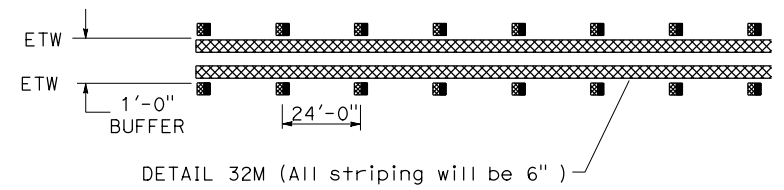
PLANS APPROVAL DATE

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.



PORTABLE CHANGEABLE MESSAGE SIGN

PCMS No.	MESSAGE
PCMS-2	CONSTRUCTION AHEAD SHOULDER CLOSED



**STAGE 2
STAGE CONSTRUCTION AND
TRAFFIC HANDLING PLAN**

SCALE : 1"=50'

SC-4

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DESIGN

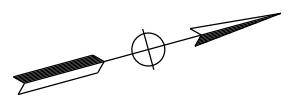
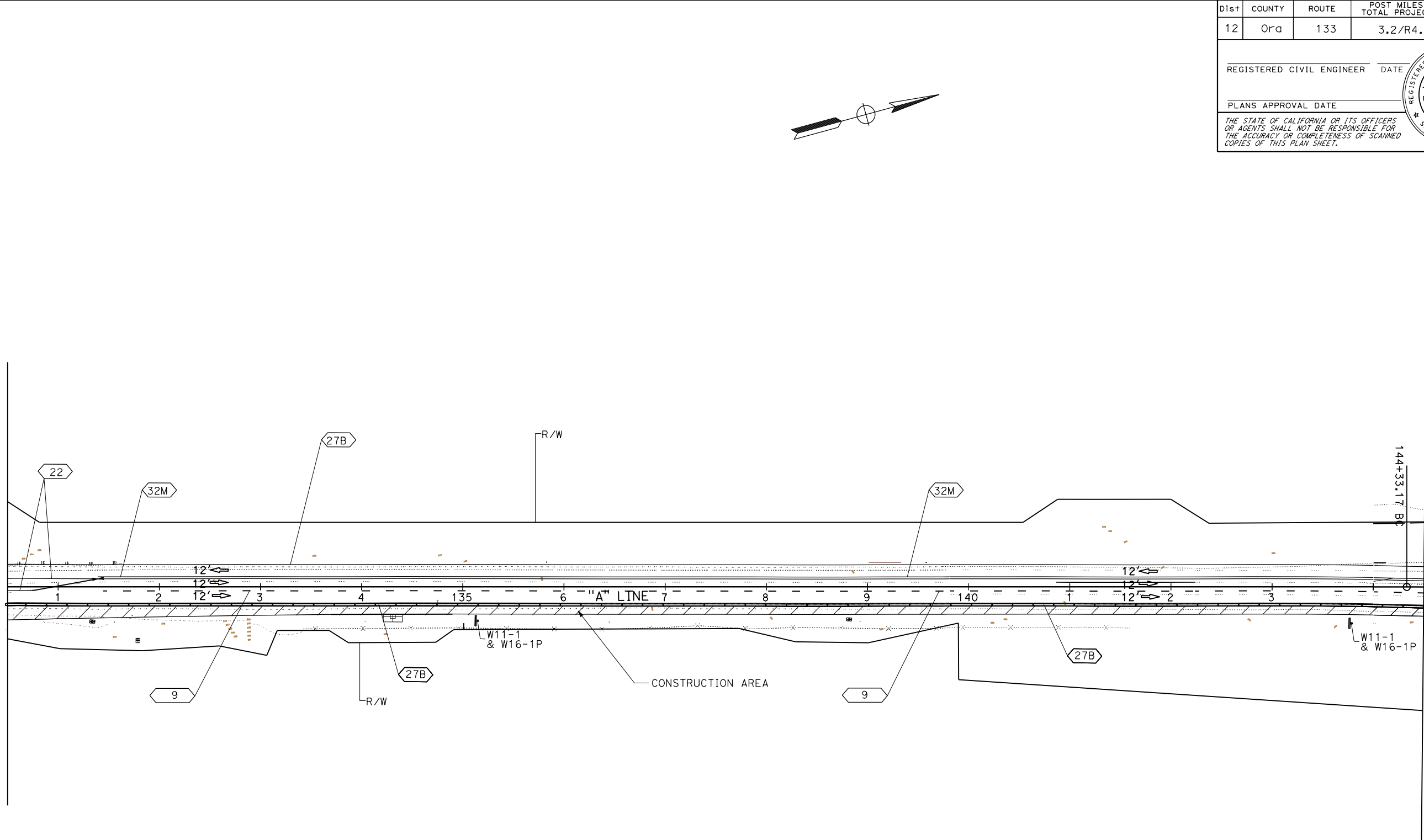
REVISIONS:

1	DESIGNED BY	STEVEN LE
2	CHECKED BY	DAVID LAM
3	FUNCTIONAL SUPERVISOR	DAVID LAM
4	REVISOR	DAVID LAM
5	DATE	
6	REVISION	

LAST REVISION: DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 09:21

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CHECKED BY: DAVID LAM
 CALCULATED-DESIGNED BY: STEVEN LE
 REVISIONS: REVISION NO., DATE, REVISION BY, DATE REVISIONED



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Orca	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp. 06-30-20
 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.

**STAGE 2
 STAGE CONSTRUCTION AND
 TRAFFIC HANDLING PLAN**
 SCALE : 1"=50'
SC-5

APPROVED FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

LAST REVISION: DATE PLOTTED => 05-DEC-2019
 11-15-19 TIME PLOTTED => 14:19

NOTE:

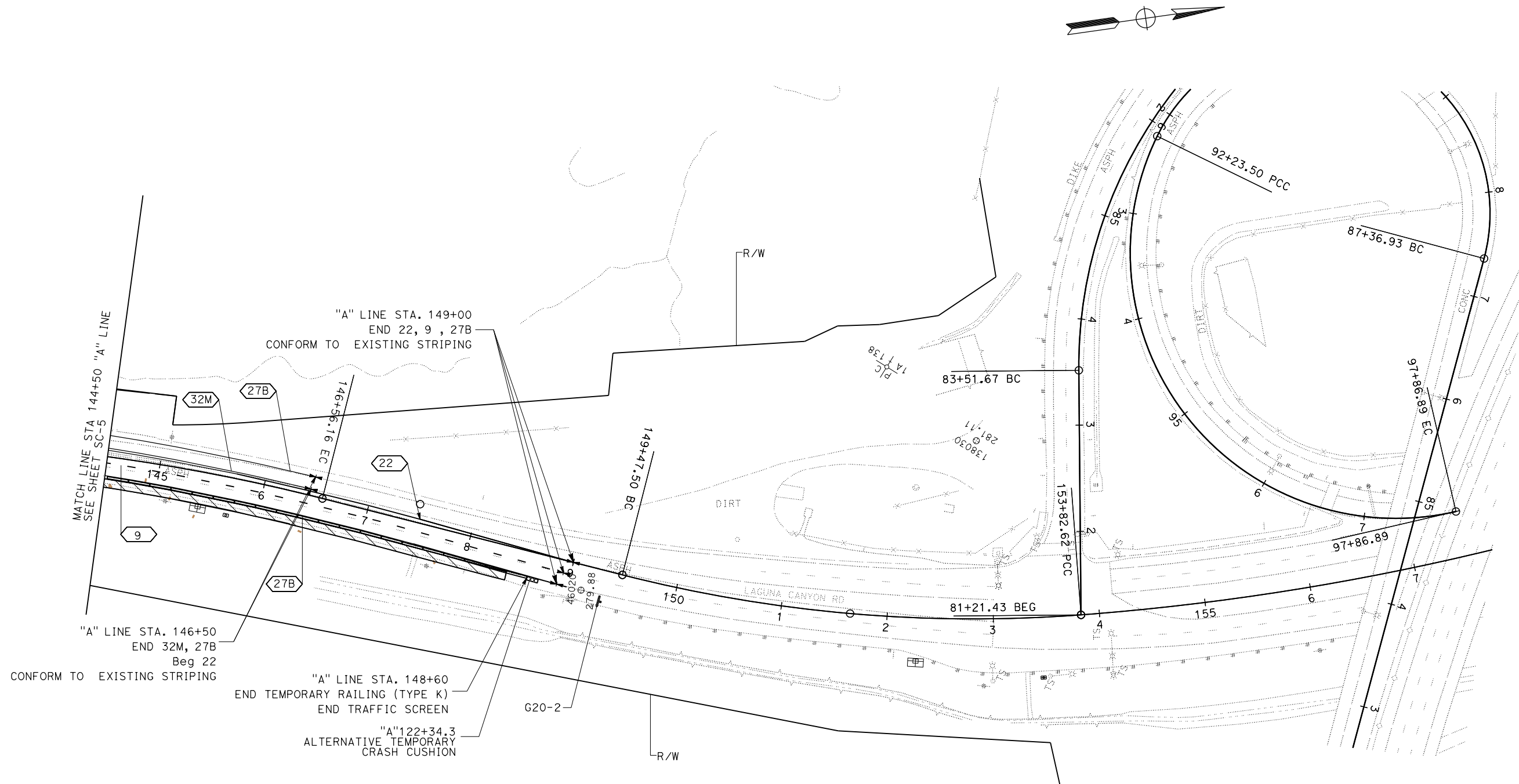
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
STEVEN LE	
No. C75534	
Exp. 06-30-20	
CIVIL	

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.



**STAGE 2
STAGE CONSTRUCTION AND
TRAFFIC HANDLING PLAN**
SCALE : 1"=50'

APPROVED FOR STAGE CONSTRUCTION WORK ONLY

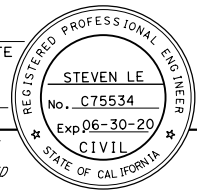
SC-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN
 FUNCTIONAL SUPERVISOR DAVID LAM
 CALCULATED-DESIGNED BY CHECKED BY
 STEVEN LE DAVID LAM
 REVISER BY DATE REVISOR
 DAVID LAM
 DATE REVISOR

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
DESIGN
 FUNCTIONAL SUPERVISOR
 DAVID LAM
 CALCULATED-DESIGNED BY
 CHECKED BY
 DANNY PHI
 STEVEN LE
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____
 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.




STAGE CONSTRUCTION QUANTITIES

SHEET	LOCATION	PAINT TRAFFIC STRIPE (2-COAT)						PAINT PAVEMENT MARKING (2-COAT)			PAVEMENT MARKER				REMOVALS													
		DETAILS 9 6" BROKEN WHITE (7-17)	DETAIL 22 6" SOLID YELLOW	DETAIL 27B 6" WHITE	DETAIL 32 6" SOLID YELLOW	DETAIL 32 6" BROKEN YELLOW (12-36)	DETAIL 32M 6" SOLID YELLOW	DETAIL 38A 8" WHITE	CHEVRON	ARROWS	DETAIL M (WORDS/ SYMBOLS)	NON-REFLECTIVE		RETRO-REFLECTIVE		TEMPORARY RAILING (TYPE K)	TEMPORARY TRAFFIC SCREEN	OBJECT MARKER (TYPE P)	TYPE III BARRICADE	CHANNELIZER (SURFACE MOUNTED)	TEMPORARY CRASH CUSHION MODULE	ALTERNATIVE TEMPORARY CRASH CUSHION	REMOVE PAINTED TRAFFIC STRIPE	REMOVE YELLOW PAINTED TRAFFIC STRIPE (HAZARDOUS WASTE)	REMOVE PAVEMENT MARKER	REMOVE PAINTED PAVEMENT MARKING		
												TYPE A	TYPE D	TYPE G	TYPE H												EA	EA
LF	LF	LF	LF	LF	LF	LF	SQFT	SQFT	SQFT	EA	EA	EA	EA	LF	LF	EA	EA	EA	EA	EA	EA	LF	LF	EA	SQFT			
SC-1	"A" 122+06 TO 130+50	291	2016	1552		468	333		30			86		22	820	820	1				1	2176	2484	108	30			
SC-2	"A" 130+50 TO 144+50	1269	240	2767								12	28	112	1370	1370	1			14		4036	2852	152				
SC-3	"A" 144+50 TO 146+28			152														8				152						
SC-4	"A" 123+30 TO 130+50	302	2042	1458		452	374		30			92	10	22	700	700	1			1	2134	2494	124	30				
	"B" 110+18 TO 111+89			190														8				190						
SC-5	"A" 130+50 TO 144+50	1303	362	2804		2624						20	29	112	1400	1400						4107	2986	161				
SC-6	"A" 144+50 TO 149+00	450	514	635		390						24	11	20	420	420	1			1	1085	904	55					
SUB-TOTAL		3615	5174	9558		6546	707		60			234	78	288	4710	4710	4		16	14	3	13880	11720	600	60			
TOTAL		25600							60				600				4710	4710	4		16	14	3	25600		600	60	
TOTAL FROM PDQ-1													674														674	
GRAND TOTAL		25600							60				1274				4710	4710	4		16	14	3	25600		1274	60	

STAGE CONSTRUCTION AND TRAFFIC HANDLING QUANTITIES

SCQ-1

LAST REVISION: 11-21-19 DATE PLOTTED => 05-DEC-2019 TIME PLOTTED => 14:55

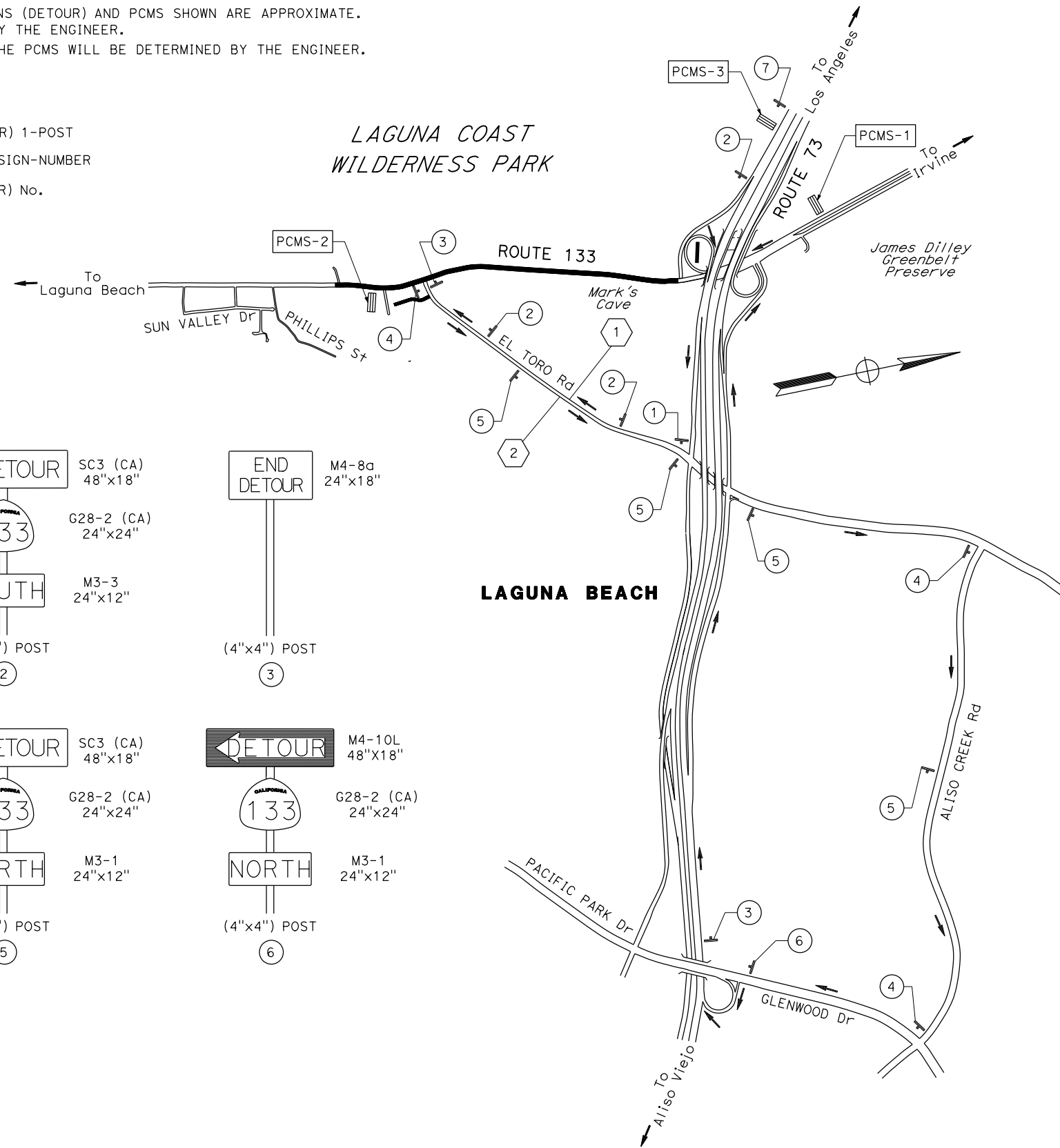
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		
REGISTERED CIVIL ENGINEER		DATE			
PLANS APPROVAL DATE					
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS (DETOUR) AND PCMS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. EXACT MESSAGE TO BE DISPLAYED ON THE PCMS WILL BE DETERMINED BY THE ENGINEER.

LEGEND:

- DIRECTION OF TRAFFIC
- ↑ CONSTRUCTION AREA SIGN (DETOUR) 1-POST
- PCMS-X PORTABLE CHANGEABLE MESSAGE SIGN-NUMBER
- (X) CONSTRUCTION AREA SIGN (DETOUR) No.
- ⬡ DETOUR No.



DETOUR 1

(SB 133 CLOSED FROM 73 / 133 SEPARATION TO EL TORO Rd)

- * USE SB 73 ON-RAMP
- * EXIT EL TORO Rd
- * RIGHT TURN ON EL TORO Rd

DETOUR 2

(NB 133 CLOSED FROM EL TORO Rd TO 73 / 133 SEPARATION)

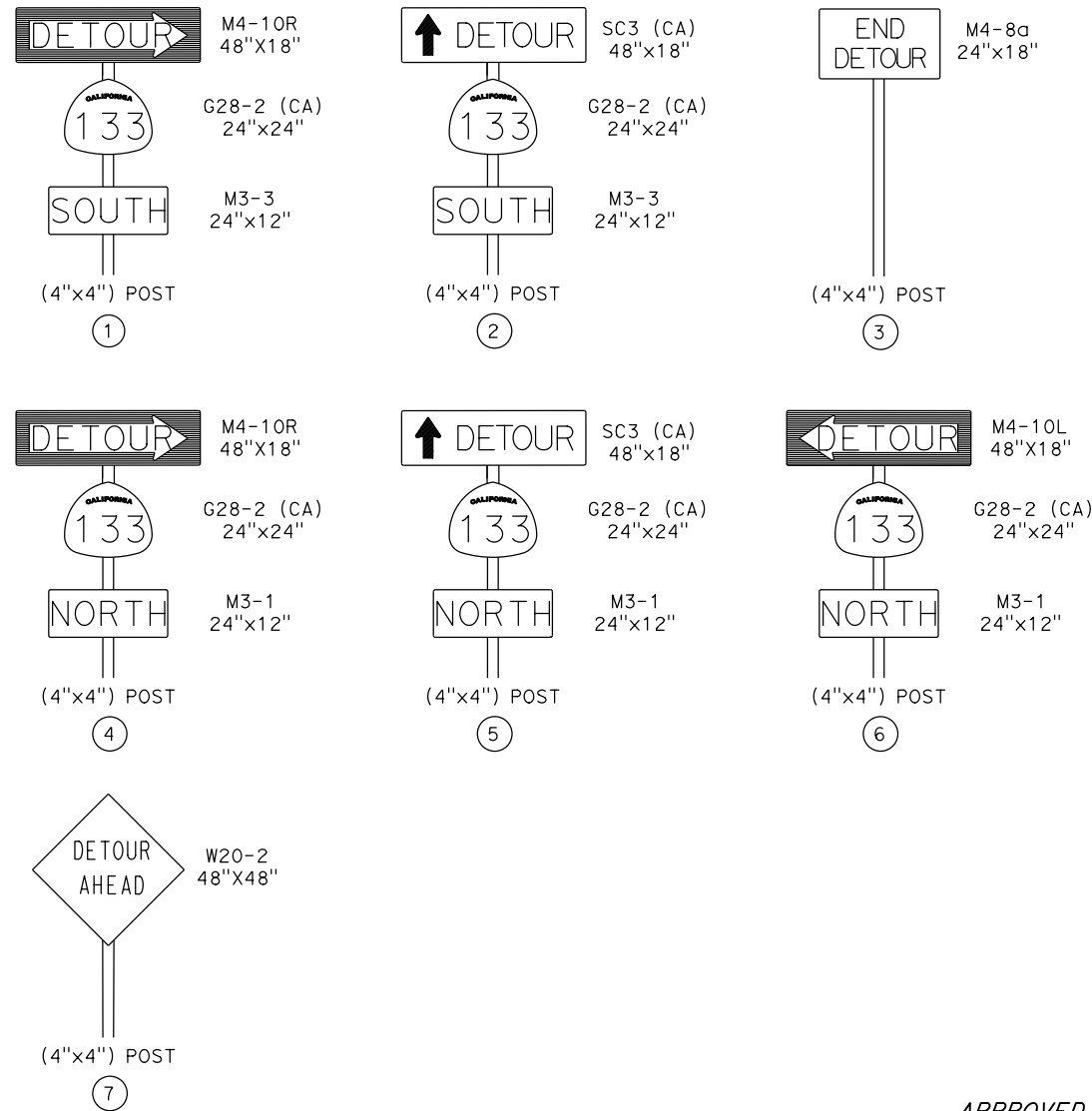
- * RIGHT TURN ON EL TORO Rd
- * RIGHT TURN ON ALISO CREEK Rd
- * RIGHT TURN ON GLENWOOD Dr
- * LEFT TURN ON NB 73 ON-RAMP

PORTABLE CHANGEABLE MESSAGE SIGN

PCMS No.	MESSAGE
PCMS-1	DETOUR USE SB 73 ON-RAMP EXIT EL TORO Rd
PCMS-2	DETOUR USE EL TORO Rd
PCMS-3	SB 133 USE EL TORO Rd

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS (DETOUR)

SIGN No.	SIGN CODE	PANEL SIGN	NUMBER OF POSTS AND SIZE	No. OF SIGN
①	M4-10R G28-2 (CA) M3-3	48"x18" 24"x24" 24"x12"	1-4"x4"	1
②	SC3 (CA) G28-2 (CA) M3-3	48"x18" 24"x24" 24"x12"	1-4"x4"	3
③	M4-8a	24"x18"	1-4"x4"	2
④	M4-10R G28-2 (CA) M3-1	48"x18" 24"x24" 24"x12"	1-4"x4"	3
⑤	SC3 (CA) G28-2 (CA) M3-1	48"x18" 24"x24" 24"x12"	1-4"x4"	4
⑥	M4-10L G28-2 (CA) M3-1	48"x18" 24"x24" 24"x12"	1-4"x4"	1
⑦	W20-2	48"x48"	1-4"x4"	1



TRAFFIC HANDLING PLAN (DETOUR PLAN)
NO SCALE
TH-1

APPROVED FOR TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 DESIGN
 FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED/DESIGNED BY: DANNY PHI
 CHECKED BY: STEVEN LE
 REVISED BY: [blank]
 DATE REVISED: [blank]

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Orca	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER
STEVEN LE
No. C75534
Exp 06-30-20
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.

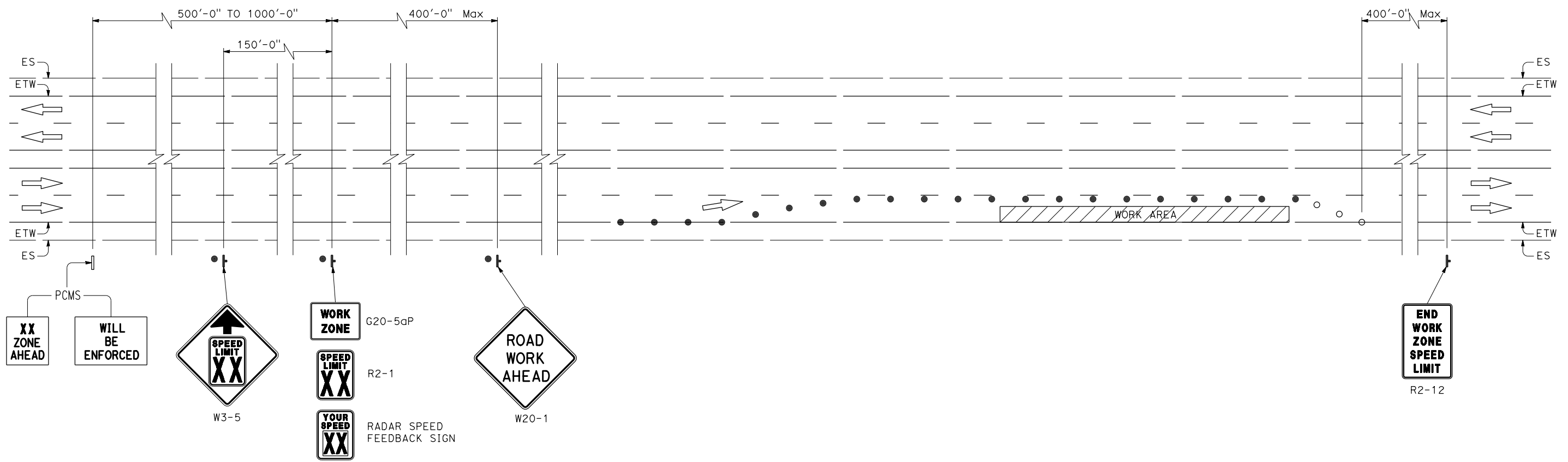
- NOTES:**
- W20-1 SIGN FROM T SERIES OF STANDARD PLANS IS SHOWN AS REFERENCE. FOR ALL OTHER SIGNS, SEE APPROPRIATE T-SHEETS.
 - DUPLICATE SIGN INSTALLATIONS ARE NOT REQUIRED ON DIVIDED ROADWAY WITH 3 OR MORE LANES IN ONE DIRECTION:
 - ON OPPOSITE SHOULDER IF AT LEAST ONE-HALF OF THE AVAILABLE LANES REMAIN OPEN TO TRAFFIC.
 - IN THE MEDIAN IF THE WIDTH OF THE MEDIAN SHOULDER IS LESS THAN 8' AND THE OUTSIDE LANES ARE TO BE CLOSED.
 - COVER EXISTING R2-1 SIGNS WITHIN THE PROJECT LIMITS WHEN THE SPEED REDUCTION SIGNS ARE IN PLACE. UNCOVER EXISTING R2-1 SIGNS AFTER CONSTRUCTION IS COMPLETED.

LEGEND:

XX SPEED LIMIT TO BE REDUCED BY 10 MPH IN WORK ZONES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED-DESIGNED BY: DAVID LAM
 CHECKED BY: LARRY NGO
 REVISED BY: DAVID LAM
 DATE REVISED:



**(TYPICAL TRAFFIC CONTROL SYSTEM FOR
LANE AND/OR SHOULDER CLOSURES
WORK ZONE SPEED REDUCTION)**

TRAFFIC HANDLING PLAN
NO SCALE
TH-2

APPROVED FOR TRAFFIC HANDLING WORK ONLY

LAST REVISION: DATE PLOTTED => 12-DEC-2019
 12-12-19 TIME PLOTTED => 13:49

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____

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.

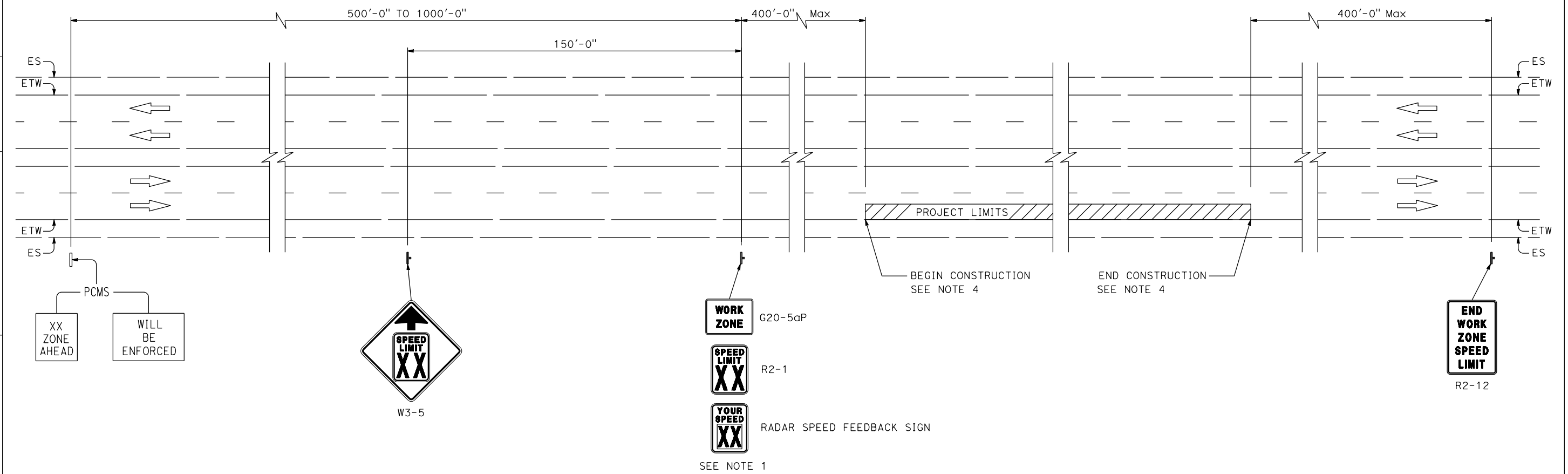
NOTES:

- ADDITIONAL SIGN INSTALLATIONS ARE REQUIRED WITHIN THE PROJECT LIMITS AT:
 - EVERY 1 MILE IF THE LENGTH OF THE PROJECT IS LESS THAN 2 MILES
 - EVERY 2 MILES IF THE LENGTH OF THE PROJECT IS FROM 2 TO 10 MILES
 - EVERY 5 MILES IF THE PROJECT IS OVER 10 MILES LONG
- DUPLICATE SIGN INSTALLATIONS ON OPPOSITE SHOULDER ARE REQUIRED ON A DIVIDED ROADWAY WITH 3 OR MORE LANES IN ONE DIRECTION AND WITH THE MEDIAN WIDTH OF MORE THAN 8 FEET.
- COVER EXISTING R2-1 SIGNS WITHIN THE PROJECT LIMITS WHEN THE SPEED REDUCTION SIGNS ARE IN PLACE. UNCOVER EXISTING R2-1 SIGNS AFTER CONSTRUCTION IS COMPLETED.
- SEE TITLE PLAN SHEET FOR PROJECT LIMITS.

LEGEND:

XX SPEED LIMIT TO BE REDUCED BY 10 MPH IN WORK ZONES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN



**(TYPICAL TRAFFIC CONTROL SYSTEM FOR
 TWENTY-FOUR SEVEN (24/7)
 WORK ZONE SPEED LIMIT REDUCTION)**

TRAFFIC HANDLING PLAN

APPROVED FOR TRAFFIC HANDLING WORK ONLY

NO SCALE

TH-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: DAVID LAM
 CALCULATED-DESIGNED BY: CHECKED BY:
 DANNY PHI STEVEN LE
 REVISED BY: DATE REVISED:

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____

REGISTERED PROFESSIONAL ENGINEER
 STEVEN LE
 No. C75534
 Exp. 06-30-20
 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 CODE	PANEL SIZE (in)	No. OF SIGNS	No. OF POST AND SIZE (in)	SIGN MESSAGE
W20-1	48 x 48	3	1 - 6 x 6	ROAD WORK AHEAD
G20-2	48 x 24	2	1 - 6 x 6	END ROADWORK
C30A (CA)	48 x 48	1	1 - 6 x 6	SHOULDER CLOSED
C40A (CA)	48 x 48	3	1 - 6 x 6	TRAFFIC FINES DOUBLED IN WORK ZONES
W11-1 W16-1P	24 x 24 24 x 30	8	1 - 6 x 6	SHARE THE ROAD

** FOR ADDITIONAL CONSTRUCTION AREA SIGNS SEE SHEETS TH-1

TRAFFIC HANDLING QUANTITIES

NO SCALE

THQ-1

LAST REVISION: DATE PLOTTED => 05-DEC-2019
 11-18-19 TIME PLOTTED => 14:54

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DESIGN

FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CHECKED BY: KAMRAN MAZHAR
 CALCULATED/DESIGNED BY: RICHARD DANG
 REVISIONS: RICHARD DANG, KAMRAN MAZHAR

REVISOR: REVISED BY: DATE REVISIONS

DATE: 11-02-19

TIME PLOTTED: 13:09

DATE PLOTTED: 12-DEC-2019

LAST REVISION: 11-02-19

PROJECT NUMBER & PHASE: 12170000761

UNIT: 3004

RELATIVE BORDER SCALE: 1"=50'

USERNAME => s150288

DGN FILE => 1217000076na001.dgn

BORDER LAST REVISED: 7/2/2010

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- ALL CONFLICTING TRAFFIC STRIPES, PAVEMENT MARKINGS AND PAVEMENT MARKERS SHALL BE REMOVED.
- TRAFFIC STRIPE AND PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (ENHANCED WET NIGHT VISIBILITY), UNLESS OTHERWISE NOTED.
- EXACT LOCATIONS FOR PAVEMENT MARKINGS TO BE DETERMINED BY THE ENGINEER.

LEGEND:

- X PAVEMENT DELINEATION DETAIL NUMBER
- +— CHANGE IN PAVEMENT DELINEATION DETAIL
- + END OF PAVEMENT DELINEATION DETAIL
- ⇨ DIRECTION OF TRAFFIC
- 🚲 (BIKE LANE CLASS II)
- CHANNILIZER (SURFACE MOUNTED)

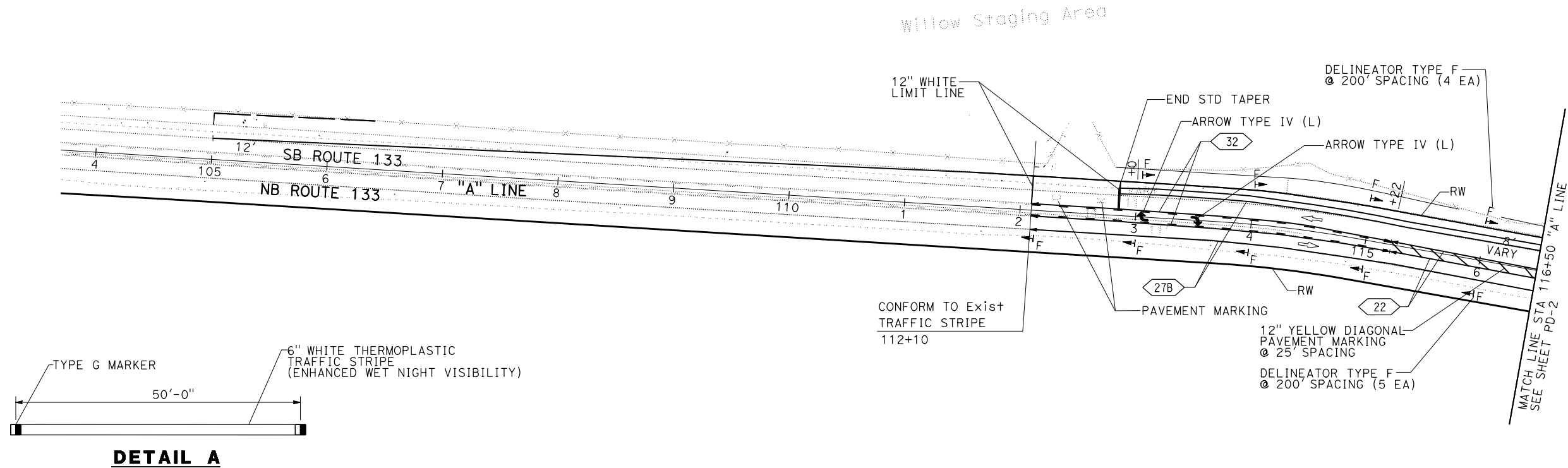
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

K. Mazhar
 REGISTERED CIVIL ENGINEER DATE _____

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.

REGISTERED PROFESSIONAL ENGINEER
 KAMRAN MAZHAR
 No. C48436
 Exp. 06-31-20
 CIVIL
 STATE OF CALIFORNIA



PAVEMENT DELINEATION PLAN
 SCALE : 1"=50'

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PD-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - DESIGN

FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR

CHECKED BY: KAMRAN MAZHAR

DESIGNED BY: RICHARD DANG

REVISIONS:

NO.	DATE	BY	REASON
1		KAMRAN MAZHAR	DESIGN

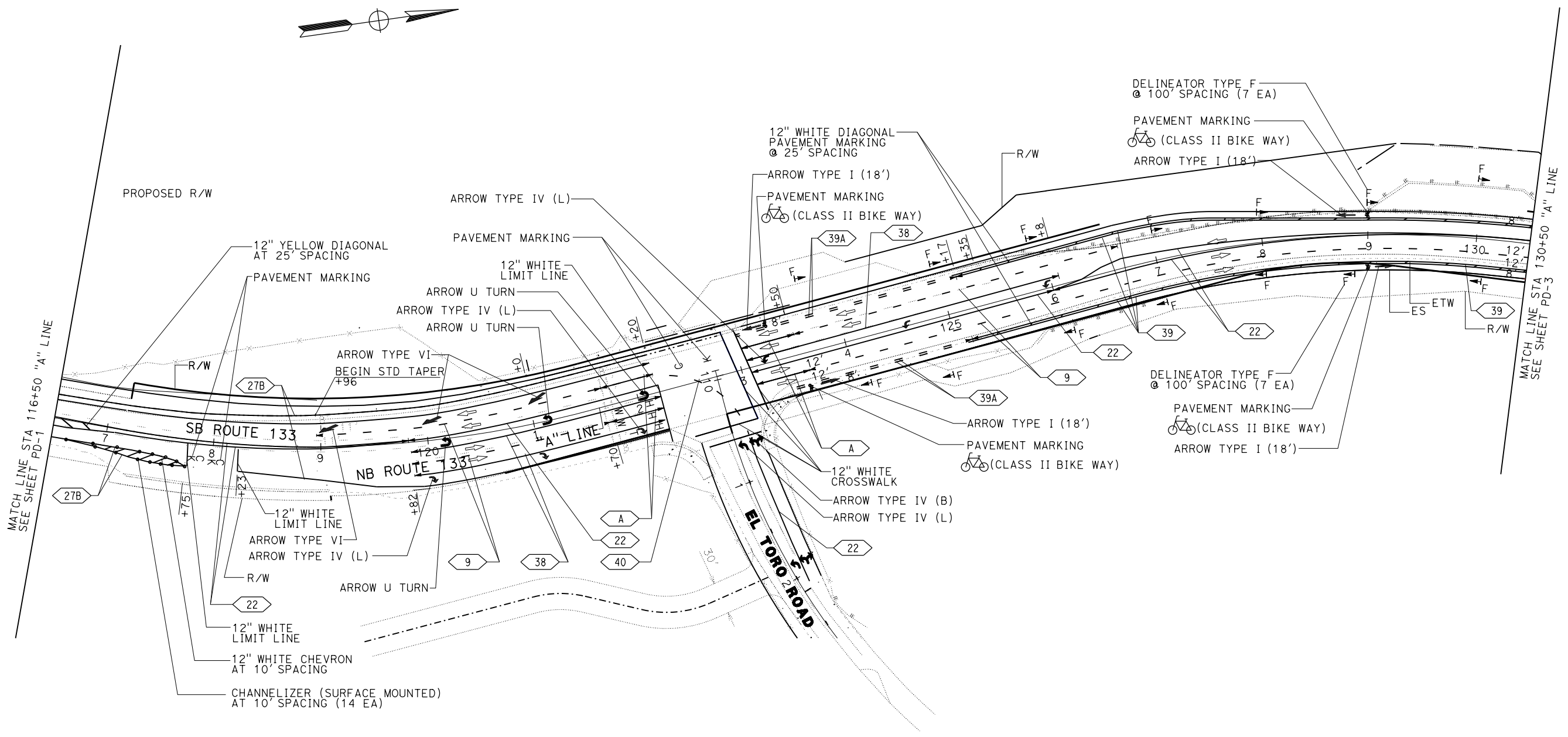
NOTE:
 1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER: *K. Mazhar*
 No. C48436
 Exp. 06-31-20

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.



PAVEMENT DELINEATION PLAN
 SCALE : 1"=50'

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PD-2

DATE PLOTTED => 12-DEC-2019
 TIME PLOTTED => 13:11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CALCULATED/DESIGNED BY: KAMRAN MAZHAR
 CHECKED BY: KAMRAN MAZHAR
 REVISIONS:
 REVISED BY: RICHARD DANG
 DATE REVISION: KAMRAN MAZHAR

NOTE:

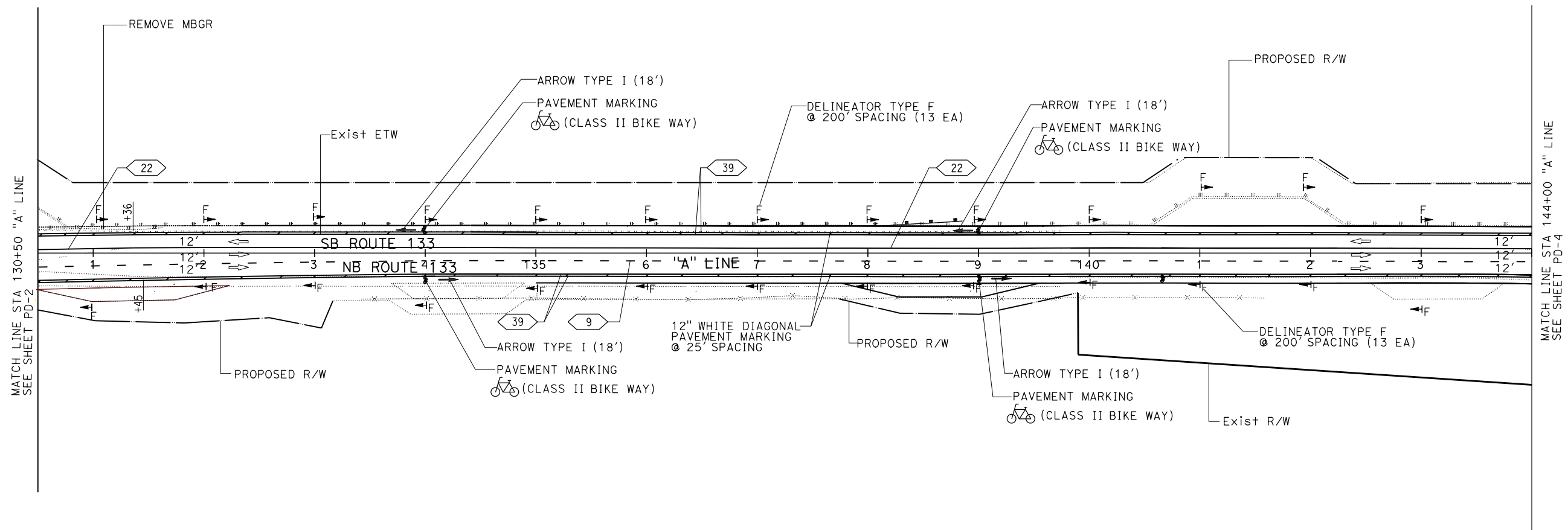
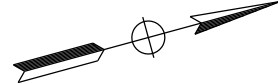
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

K. Mazhar
 REGISTERED CIVIL ENGINEER DATE _____

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.



PAVEMENT DELINEATION PLAN
 SCALE : 1"=50'

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PD-3

LAST REVISION: 11-02-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:12

NOTE:

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

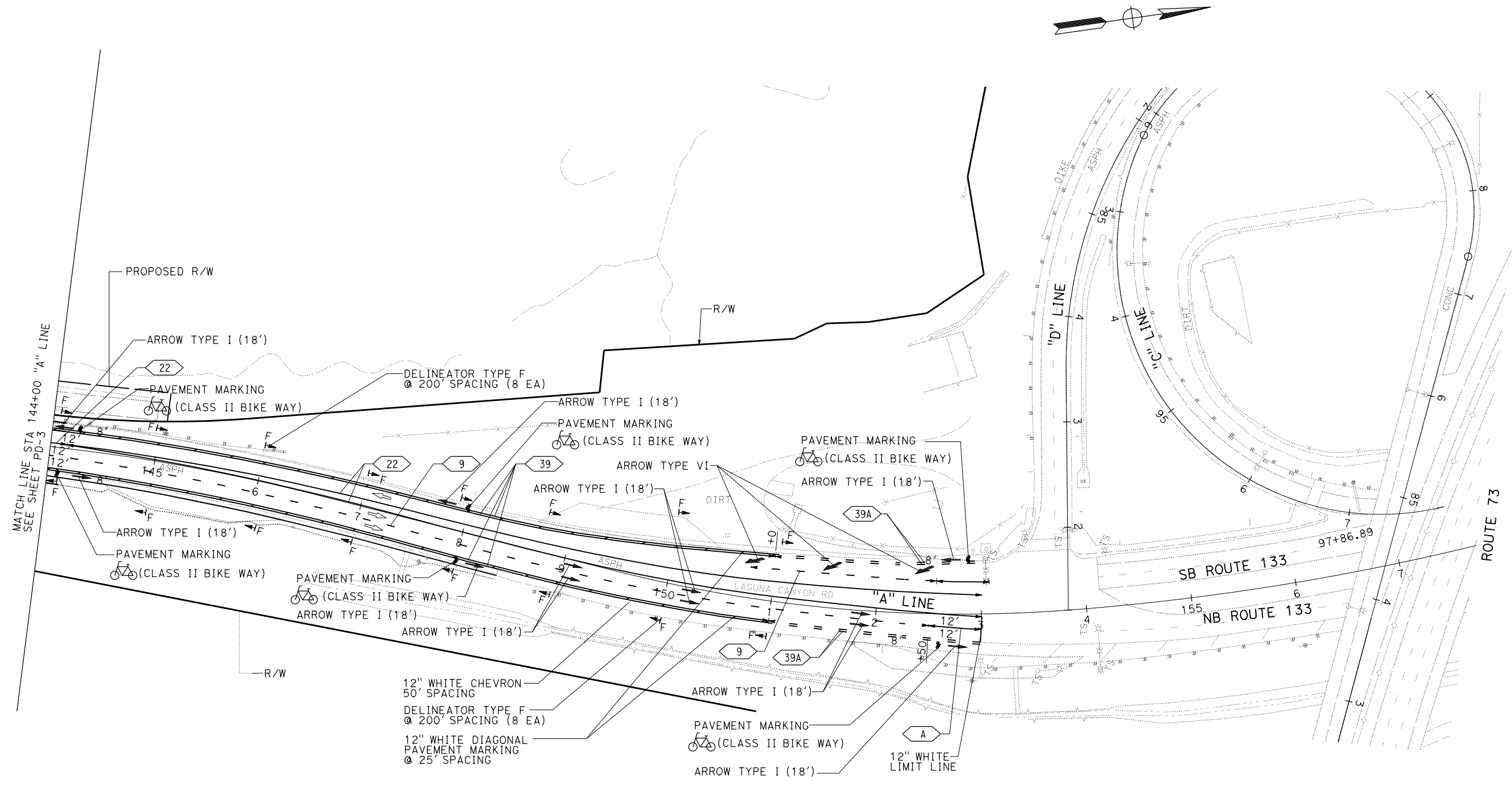
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

K Mazhar
 REGISTERED CIVIL ENGINEER DATE _____

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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN
 FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 REVISIONS: RICHARD DANG, KAMRAN MAZHAR
 REVISIONS: REVISIONS: REVISIONS:



PAVEMENT DELINEATION PLAN
 SCALE : 1"=50'

APPROVED FOR PAVEMENT DELINEATION WORK ONLY

PD-4

LAST REVISION: 11-02-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CALCULATED-DESIGNED BY: RICHARD DANG
 CHECKED BY: KAMRAN MAZHAR
 REVISIONS: REVISION BY: DATE REVISION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.1/R4.1		

REGISTERED CIVIL ENGINEER DATE _____
 KAMRAN MAZHAR
 No. C48436
 Exp. 06-31-20
 CIVIL
 STATE OF CALIFORNIA

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.

PAVEMENT DELINEATION QUANTITIES

SHEET No.	LOCATION	THERMOPLASTIC TRAFFIC STRIPE (ENHANCED WET NIGHT VISIBILITY)										THERMOPLASTIC CROSSWALK AND PAVEMENT MARKING (ENHANCED WET NIGHT VISIBILITY)					PAVEMENT MARKER		REMOVE						
		6"															RETRO-REFLECTIVE		DELINEATOR (CLASS I)	CHANNELIZER (SURFACE MOUNTED)					
		DETAIL 40 BROKEN WHITE (6-1)	DETAIL 9 BROKEN WHITE (17-7)	DETAIL 32 BROKEN YELLOW (36-12)	DETAIL 39A BROKEN YELLOW (8-4)	DETAIL 39 SOLID WHITE	DETAIL 32 SOLID YELLOW	DETAIL A SOLID WHITE	DETAIL 22 SOLID YELLOW	DETAIL 27B SOLID WHITE	DETAIL 38 SOLID WHITE	WORD	SYMBOL	CROSS WALK & LIMIT LINE	ARROW	CHEVRON/DIAGONAL	TYPE D	TYPE G	TYPE F		THERMOPLASTIC TRAFFIC STRIPE	THERMOPLASTIC PAVEMENT MARKING	PAVEMENT MARKER	CHANNELIZER (SURFACE MOUNTED)	DELINEATOR (CLASS I)
LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	SQFT	SQFT	SQFT	SQFT	SQFT	EA	EA	EA	EA	LF	SQFT	EA	EA	EA		
PD-1	ROUTE 133 STA. 112+10 TO 116+50			624			624		512	880				30	105	96		9		2640	186	96		9	
PD-2	ROUTE 133 STA. 116+50 TO 130+50		1500		440	650		200	1854	1300				350	496	120	146	100	14	14	8800	966	246	14	14
	EL TORO Rd	100							400					80	180		18				500	260	18		
PD-3	ROUTE 133 STA. 130+50 TO 144+00		1350			2600			2700							108	30	26			6650		138		26
PD-4	ROUTE 133 STA. 144+00 TO 153+00		1028		400	1400		100	3600			60	30	300		150	26	16			6528	390	176		16
SUB-TOTAL		100	3878	624	840	4650	624	300	9066	2180	676	51	60	460	1006	225	518	156	65	14	25118	1802	674	14	65
TOTAL		100	3878	624	840	16820					676	1802					674		65	14	25118	1802	674	14	65

PAVEMENT DELINEATION QUANTITIES

NO SCALE

PDQ-1

LAST REVISION: 11-02-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CHECKED BY: KAMRAN MAZHAR
 CALCULATED-DESIGNED BY: RICHARD DANG
 REVISIONS: RICHARD DANG, KAMRAN MAZHAR

NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- FEDERAL SIGN CODES ARE SHOWN UNLESS DESIGNATED BY (CA) WHICH INDICATES A CALIFORNIA CODE.

LEGENDS:

XX ROADSIDE SIGN NUMBER

ABBREVIATIONS:

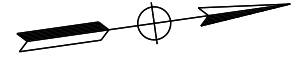
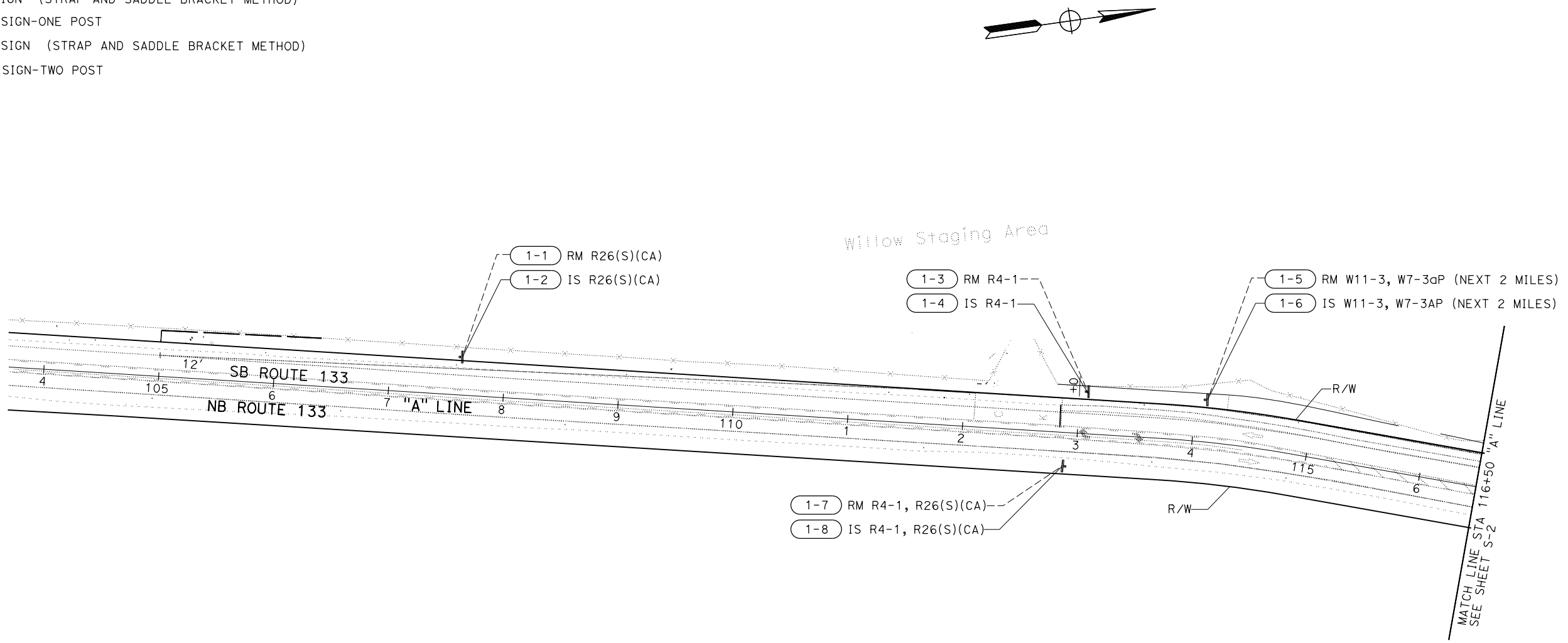
- IS INSTALL ROADSIDE SIGN - ONE POST OR TWO POSTS
- RM REMOVE ROADSIDE SIGN
- RMS REMOVE ROADSIDE SIGN (STRAP AND SADDLE BRACKET METHOD)
- ISS INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)
- ⊥ ROADSIDE SIGN-ONE POST
- | ROADSIDE SIGN (STRAP AND SADDLE BRACKET METHOD)
- ⊥ ROADSIDE SIGN-TWO POST

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

K. Mazhar
 REGISTERED CIVIL ENGINEER DATE _____

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.



SIGN PLAN
 SCALE : 1"=50'

APPROVED FOR SIGN WORK ONLY

S-1

LAST REVISION: 10-02-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

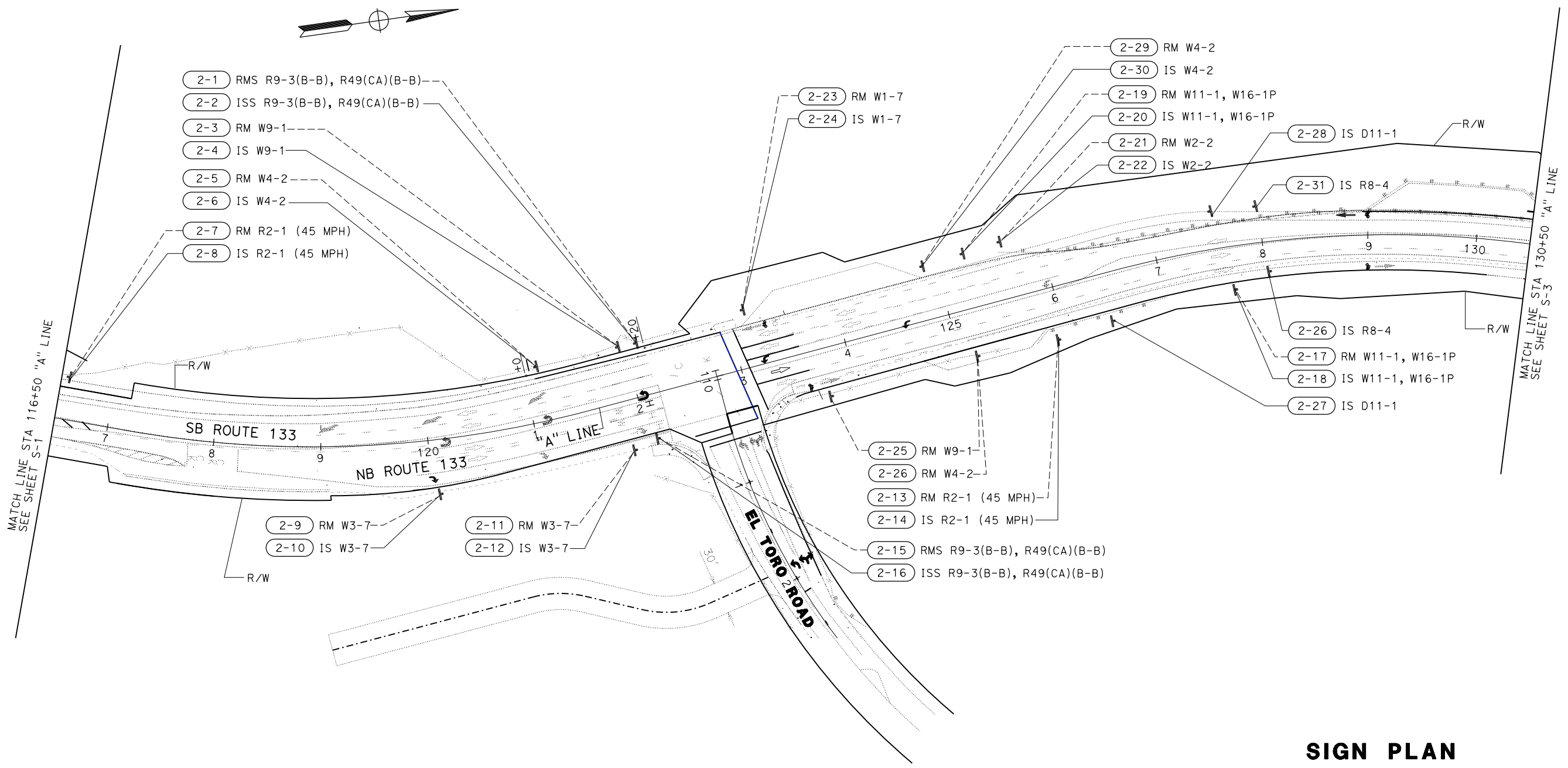
FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CHECKED BY: KAMRAN MAZHAR
 CALCULATED-DESIGNED BY: KAMRAN MAZHAR
 RICHARD DANG
 REVISOR: KAMRAN MAZHAR
 REVISIONS: REVISOR, DATE, REVISIONS

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

K. Mazhar
 REGISTERED CIVIL ENGINEER DATE _____
 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.



SIGN PLAN
 SCALE : 1"=50'

APPROVED FOR SIGN WORK ONLY

S-2

LAST REVISION: 11-02-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CHECKED BY: KAMRAN MAZHAR
 CALCULATED-DESIGNED BY: RICHARD DANG
 REVISOR: KAMRAN MAZHAR
 REVISED BY: RICHARD DANG
 DATE REVISION: DATE REVISION

NOTE:

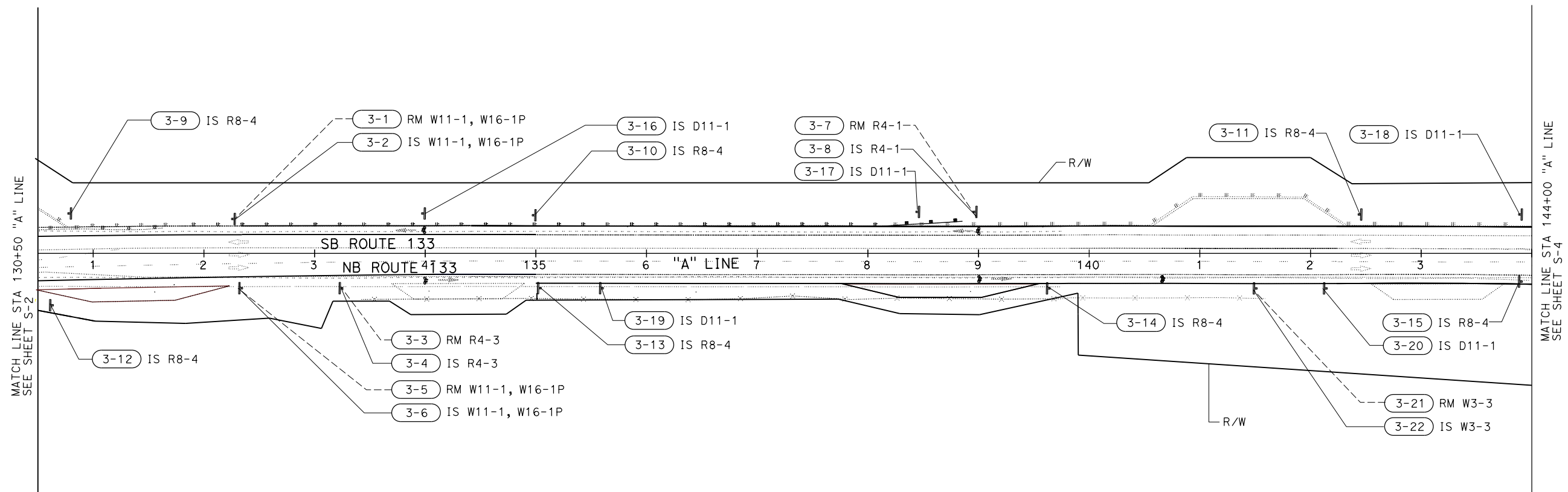
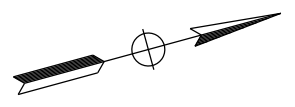
1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

K. Mazhar
 REGISTERED CIVIL ENGINEER DATE _____
 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.

KAMRAN MAZHAR
 No. C48436
 Exp 06-31-20
 CIVIL
 STATE OF CALIFORNIA



SIGM PLAN
 SCALE : 1"=50'

APPROVED FOR SIGN WORK ONLY

S-3

LAST REVISION: 11-07-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

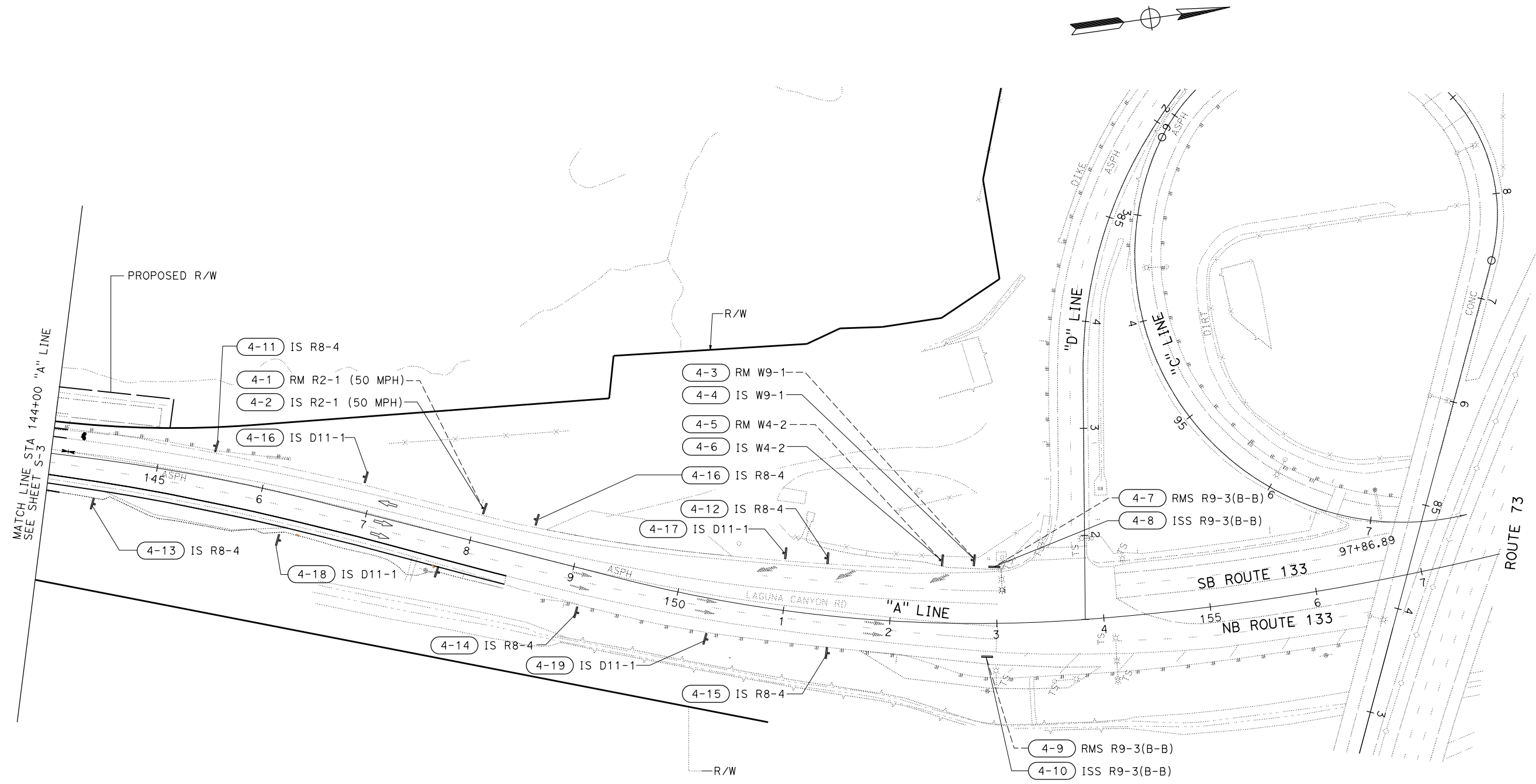
FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CALCULATED-DESIGNED BY: KAMRAN MAZHAR
 CHECKED BY: KAMRAN MAZHAR
 REVISIONS: RICHARD DANG, KAMRAN MAZHAR
 REVISIONS: DATE, DATE

NOTE:

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

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.1/R4.1		

K. Mazhar
 REGISTERED CIVIL ENGINEER DATE _____
 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.



SIGN PLAN
 SCALE : 1"=50'

APPROVED FOR SIGN WORK ONLY

S-4

REVISOR: RICHARD DANG
 CHECKED BY: KAMRAN MAZHAR
 SUPERVISOR: KAMRAN MAZHAR

ROADSIDE SIGNS QUANTITIES (CONTINUED)

SHEET NO.	SIGN NO.	SIGN CODE	PANEL SIZE (L x H)	POST SIZE & LENGTH (N)		REMOVE ROADSIDE SIGN	REMOVE ROADSIDE SIGN (STRAP AND SADDLE BRACKET METHOD)	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	ROADSIDE SIGN - ONE POST	ROADSIDE SIGN - TWO POST	TREATED WOOD WASTE	REMARK	
				4" x 4"	4" x 6"								
				EA	EA								
S-1	1-1	R26(S)(CA)	EXISTING			1					125		
	1-2	R26(S)(CA)	12 x 18	12					1				
	1-3	R4-1	EXISTING			1					125		
	1-4	R4-1	24 x 30	13					1				
	1-5	W11-3	EXISTING				1					125	
		W7-3aP	EXISTING										
	1-6	W11-3	36 x 36	14					1				
		W7-3aP	24 x 18										NEXT 2 MILES
	1-7	R4-1	EXISTING				1					125	
		R26(S)(CA)	EXISTING										
1-8	R4-1	24 x 30	13					1					
	R26(S)(CA)	12 x 18											
2-1	R9-3	EXISTING					1						
	R9-3	EXISTING					1						
	R49(CA)	EXISTING					1						
	R49(CA)	EXISTING					1						
2-2	R9-3	30 x 30						1					
	R9-3	30 x 30						1					
	R49(CA)	48 x 18						1					
	R49(CA)	48 x 18						1					
2-3	W9-1	EXISTING			1					125			
2-4	W9-1	48 x 48	15					1					
2-5	W4-2	EXISTING			1					125			
2-6	W4-2	48 x 48	15					1					
2-7	R2-1	EXISTING			1					125	45 MPH		
2-8	R2-1	24 x 30	14					1				45 MPH	
2-9	R3-7	EXISTING			1					125			
2-10	R3-7	30 x 30	14					1					
2-11	R3-7	EXISTING			1					125			
2-12	R3-7	30 x 30	14					1					
2-13	R2-1	EXISTING			1					125	45 MPH		
2-14	R2-1	24 x 30	14					1				45 MPH	
2-15	R9-3	EXISTING					1						
	R9-3	EXISTING					1						
	R49(CA)	EXISTING					1						
	R49(CA)	EXISTING					1						
2-16	R9-3	30 x 30						1					
	R9-3	30 x 30						1					
	R49(CA)	48 x 18						1					
	R49(CA)	48 x 18						1					
2-17	W11-1	EXISTING				1					125		
	W16-1P	EXISTING				1					125		
2-18	W11-1	36 x 36	14							1			
	W16-1P	24 x 30											
SUBTOTAL 1						12	8	8	11		1500		

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.1/R4.1		

K. Mazhar
 REGISTERED CIVIL ENGINEER DATE _____

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.

REGISTERED PROFESSIONAL ENGINEER
 KAMRAN MAZHAR
 No. C48436
 Exp. 06-31-20
 CIVIL
 STATE OF CALIFORNIA

ROADSIDE SIGNS QUANTITIES (CONTINUED)

SHEET NO.	SIGN NO.	SIGN CODE	PANEL SIZE (L x H)	POST SIZE & LENGTH (N)		REMOVE ROADSIDE SIGN	REMOVE ROADSIDE SIGN (STRAP AND SADDLE BRACKET METHOD)	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	ROADSIDE SIGN - ONE POST	ROADSIDE SIGN - TWO POST	TREATED WOOD WASTE	REMARK	
				4" x 4"	4" x 6"								
				EA	EA								
S-2	2-19	W11-1	EXISTING			1					125		
		W16-1P	EXISTING										
	2-20	W11-1	36 x 36	14					1				
		W16-1P	24 x 30										
	2-21	W2-2	EXISTING			1					125		
	2-22	W2-2	48 x 48	14					1				
	2-23	W1-7	EXISTING			1					125		
	2-24	W1-7	36 x 18	14					1				
	2-25	W9-1	EXISTING			1					125		
	2-26	W4-2	EXISTING			1				1		125	
2-27	D11-2	30 x 24							1				
2-28	D11-2	30 x 24											
2-29	W4-2	EXISTING			1					125			
2-30	W4-2	48 x 48							1				
2-31	R8-4	30 x 24							1				
S-3	3-1	W11-1	EXISTING			1					125		
		W16-1P	EXISTING										
	3-2	W11-1	36 x 36	14						1			
		W16-1P	24 x 30										
	3-3	R4-3	EXISTING			1					125		
3-4	R4-3	24 x 30							1				
3-5	W11-1	EXISTING				1					125		
	W16-1P	EXISTING											
S-3	3-6	W11-1	36 x 36	14						1			
		W16-1P	24 x 30										
	3-7	R4-1	EXISTING			1					125		
	3-8	R4-1	24 x 30	13									
	3-9	R8-4	30 x 24										
	3-10	R8-4	30 x 24										
	3-11	R8-4	30 x 24										
	3-12	R8-4	30 x 24										
	3-13	R8-4	30 x 24										
	3-14	R8-4	30 x 24										
3-15	R8-4	30 x 24											
SUBTOTAL 2									10		11	1250	
SUBTOTAL 1									12	8	8	11	1500
TOTAL SQ-1									22	8	8	22	2750

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

SIGN QUANTITIES

SQ-1

DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:18

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR
 KAMRAN MAZHAR

CALCULATED-DESIGNED BY
 CHECKED BY

RICHARD DANG
 KAMRAN MAZHAR

REVISED BY
 DATE REVISED

ROADSIDE SIGNS QUANTITIES (CONTINUED)

SHEET NO.	SIGN NO.	SIGN CODE	PANEL SIZE (L x H)	POST SIZE & LENGTH (N)		REMOVE ROADSIDE SIGN	REMOVE ROADSIDE SIGN (STRAP AND SADDLE BRACKET METHOD)	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	ROADSIDE SIGN - ONE POST	ROADSIDE SIGN - TWO POST	TREATED WOOD WASTE	REMARK	
				4" x 4"	4" x 6"								
				INCHES	Ft								Ft
S-3	3-16	D11-2	30 x 24						1				
	3-17	D11-2	30 x 24						1				
	3-18	D11-2	30 x 24						1				
	3-19	D11-2	30 x 24						1				
	3-20	D11-2	30 x 24						1				
	3-21	W3-3	EXISTING			1					125		
	3-22	W3-3	48 x 48					1					
S-4	4-1	R2-1	EXISTING			1					125	50 MPH	
	4-2	R2-1	24 x 30	13				1				50 MPH	
	4-3	W9-1	EXISTING			1					125		
	4-4	W9-1	48 x 48	14				1					
	4-5	W4-2	EXISTING			1					125		
	4-6	W4-2	48 x 48	14				1					
	4-7	R9-3	EXISTING				1					125	
		R9-3	EXISTING				1					125	
	4-8	R9-3	30 x 30					1					
		R9-3	30 x 30					1					
	4-9	R9-3	EXISTING				1					125	
		R9-3	EXISTING				1					125	
	4-10	R9-3	30 x 30					1					
		R9-3	30 x 30					1					
	4-11	R8-4	30 x 24						1				
	4-12	R8-4	30 x 24						1				
	4-13	R8-4	30 x 24						1				
	4-14	R8-4	30 x 24						1				
	4-15	R8-4	30 x 24						1				
4-16	D11-2	30 x 24						1					
4-17	D11-2	30 x 24						1					
4-18	D11-2	30 x 24						1					
4-19	D11-2	30 x 24						1					
TOTAL SQ-2								4	4	4	18	1000	
TOTAL SQ-1								22	8	8	22	2750	
GRAND TOTAL								26	12	12	40	3750	

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.1/R4.1		

K Mazhar
 REGISTERED CIVIL ENGINEER DATE _____

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.

REGISTERED PROFESSIONAL ENGINEER
 KAMRAN MAZHAR
 No. C48436
 Exp. 06-31-20
 CIVIL
 STATE OF CALIFORNIA

LAST REVISION: 12-02-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CHECKED BY: KAMRAN MAZHAR
 CALCULATED-DESIGNED BY: RICHARD DANG
 DESIGNED BY: KAMRAN MAZHAR
 REVISIONS: REVISOR: DATE: REVISIONS: REVISOR: DATE: REVISIONS: REVISOR: DATE:

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SHEET No.	SIGN No.	SIGN CODE	SIGN PANEL DIMENSION (L x H)	SINGLE FACED	SIGN FACING MATERIAL						ROADSIDE			RETROREFLECTIVE SHEETING (TYPE XI)	
					BACKGROUND		LEGEND		PROTECTIVE FILM		FURNISH SINGLE SHEET ALUMINUM SIGN		FURNISH SINGLE SHEET ALUMINUM SIGN FOR RETROREFLECTIVE SHEETING (TYPE XI)		
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	STANDARD	PREMIUM	0.063"		0.063"		0.08"
											UNFRAMED	SOFT	UNFRAMED		UNFRAMED
S-1	1-2	R26(S)(CA)	12 x 18	x	W	VIII	R	VIII	x		1.5				
	1-4	R4-1	24 x 30	x	W	VIII	B	VIII	x		5.0				
	1-6	W11-3	36 x 36	x	Y	XI	B	XI	x				9.0	9.0	
		W7-3aP	24 x 18	x	Y	XI	B	XI	x			3.0		3.0	
	1-8	R4-1	24 x 30	x	W	VIII	B	VIII	x		5.0				
S-2	2-2	R26(S)(CA)	12 x 18	x	W	VIII	R	VIII	x		1.5				
		R9-3	30 x 30	x	W	VIII	B	VIII	x		6.25				
		R9-3	30 x 30	x	W	VIII	B	VIII	x		6.25				
		R49(CA)	48 x 18	x	W	VIII	B	VIII	x		6.0				
	2-4	R49(CA)	48 x 18	x	W	VIII	B	VIII	x		6.0				
	2-4	W9-1	48 x 48	x	Y	XI	B	XI	x				16.0	16.0	
	2-6	W4-2	48 x 48	x	Y	XI	B	XI	x				16.0	16.0	
	2-8	R2-1	24 x 30	x	W	VIII	B	VIII	x		5.0				
	2-10	R3-7	30 x 30	x	W	VIII	B	VIII	x		6.25				
	2-12	R3-7	30 x 30	x	W	VIII	B	VIII	x		6.25				
	2-14	R2-1	24 x 30	x	W	VIII	B	VIII	x		5.0				
	2-16	R9-3	30 x 30	x	W	VIII	B	VIII	x		6.25				
		R9-3	30 x 30	x	W	VIII	B	VIII	x		6.25				
		R49(CA)	48 x 18	x	W	VIII	B	VIII	x		6.0				
		R49(CA)	48 x 18	x	W	VIII	B	VIII	x		6.0				
	2-18	W11-1	36 x 36	x	Y	XI	B	XI	x			6.25		6.25	
		W16-1P	24 x 30	x	Y	XI	B	XI	x			5.0		5.0	
	2-20	W11-1	36 x 36	x	Y	XI	B	XI	x			6.25		6.25	
		W16-1P	24 x 30	x	Y	XI	B	XI	x			5.0		5.0	
	2-22	W2-2	48 x 48	x	Y	XI	B	XI	x				16.0	16.0	
2-24	W1-7	36 x 18	x	Y	XI	B	XI	x			4.5		4.5		
2-27	D11-2	30 x 24	x	G	XI	W	XI	x			5.0		5.0		
2-28	D11-2	30 x 24	x	G	XI	W	XI	x			5.0		5.0		
2-30	W4-2	48 x 48	x	Y	XI	B	XI	x				16.0	16.0		
2-31	R8-4	30 x 24	x	W	VIII	B	VIII	x		5.0					
S-3	3-2	W11-1	36 x 36	x	Y	XI	B	XI	x			6.25		6.25	
		W16-1P	24 x 30	x	Y	XI	B	XI	x			5.0		5.0	
	3-4	R4-3	24 x 30	x	W	VIII	B	VIII	x		5.0				
	3-6	W11-1	36 x 36	x	Y	XI	B	XI	x			6.25		6.25	
		W16-1P	24 x 30	x	Y	XI	B	XI	x			5.0		5.0	
	3-8	R4-1	24 x 30	x	W	VIII	B	VIII	x		5.0				
	3-9	R8-4	30 x 24	x	W	VIII	B	VIII	x		5.0				
	3-10	R8-4	30 x 24	x	W	VIII	B	VIII	x		5.0				
	3-11	R8-4	30 x 24	x	W	VIII	B	VIII	x		5.0				
	3-12	R8-4	30 x 24	x	W	VIII	B	VIII	x		5.0				
3-13	R8-4	30 x 24	x	W	VIII	B	VIII	x		5.0					
3-14	R8-4	30 x 24	x	W	VIII	B	VIII	x		5.0					
3-15	R8-4	30 x 24	x	W	VIII	B	VIII	x		5.0					
TOTAL SQ-3											134.50	62.50	73.00	135.50	

B = BLACK
 R = RED
 W = WHITE
 G = GREEN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.1/R4.1		

K. Mazhar
 REGISTERED CIVIL ENGINEER DATE _____
 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.

SIGN QUANTITIES

SQ-3

LAST REVISION: 12-02-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans DESIGN

FUNCTIONAL SUPERVISOR: KAMRAN MAZHAR
 CHECKED BY: KAMRAN MAZHAR
 CALCULATED-DESIGNED BY: RICHARD DANG
 REVISIONS: REVISIONED BY: RICHARD DANG, DATE REVISED: KAMRAN MAZHAR

MATERIAL SUMMARY (CONTRACTOR FURNISHED SIGNS)

SHEET No.	SIGN No.	SIGN CODE	SIGN PANEL DIMENSION (L x H) inch x inch	SINGLE FACED	SIGN FACING MATERIAL						ROADSIDE				
					BACKGROUND		LEGEND		PROTECTIVE FILM		FURNISH SINGLE SHEET ALUMINUM SIGN		FURNISH SINGLE SHEET ALUMINUM SIGN FOR RETROREFLECTIVE SHEETING (TYPE XI)		RETROREFLECTIVE SHEETING (TYPE XI)
					SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	SHEETING COLOR	RETROREFLECTIVE ASTM TYPE	STANDARD	PREMIUM	0.063"	0.063"	0.08"		
														UNFRAMED	
SQFT		SQFT		SQFT		SQFT									
S-3	3-16	D11-2	30 x 24	X	W	VIII	B	VIII	X		5.0	5.0		5.0	
	3-17	D11-2	30 x 24	X	G	XI	W	XI	X			5.0		5.0	
	3-18	D11-2	30 x 24	X	G	XI	W	XI	X			5.0		5.0	
	3-19	D11-2	30 x 24	X	G	XI	W	XI	X			5.0		5.0	
	3-20	D11-2	30 x 24	X	G	XI	W	XI	X			5.0		5.0	
	3-22	W3-3	48 x 48	X	Y	XI	B	XI	X				16.0	16.0	
S-4	4-2	R2-1	24 x 30	X	W	VIII	B	VIII	X		5.0				
	4-4	W9-1	48 x 48	X	Y	XI	B	XI	X				16.0	16.0	
	4-6	W4-2	48 x 48	X	Y	XI	B	XI	X				16.0	16.0	
	4-8	R9-3	30 x 30	X	W	VIII	B	VIII	X		6.25				
		R9-3	30 x 30	X	W	VIII	B	VIII	X		6.25				
		R9-3	30 x 30	X	W	VIII	B	VIII	X		6.25				
	4-10	R9-3	30 x 30	X	W	VIII	B	VIII	X		6.25				
	4-11	R8-4	30 x 24	X	W	VIII	B	VIII	X		5.0				
	4-12	R8-4	30 x 24	X	W	VIII	B	VIII	X		5.0				
	4-13	R8-4	30 x 24	X	W	VIII	B	VIII	X		5.0				
	4-14	R8-4	30 x 24	X	W	VIII	B	VIII	X		5.0				
	4-15	R8-4	30 x 24	X	W	VIII	B	VIII	X		5.0				
	4-16	D11-2	30 x 24	X	G	XI	W	XI	X				5.0	5.0	
	4-17	D11-2	30 x 24	X	G	XI	W	XI	X				5.0	5.0	
4-18	D11-2	30 x 24	X	G	XI	W	XI	X				5.0	5.0		
4-19	D11-2	30 x 24	X	G	XI	W	XI	X				5.0	5.0		
TOTAL SQ-4											55.00	25.00	68.00	93.00	
TOTAL SQ-3											134.50	62.50	73.00	135.50	
GRAND TOTAL											189.50	87.50	141.00	228.50	

B = BLACK
 R = RED
 W = WHITE
 G = GREEN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.1/R4.1		

K. Mazhar
 REGISTERED CIVIL ENGINEER DATE _____
 No. C48436
 Exp. 06-31-20
 CIVIL
 STATE OF CALIFORNIA

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.

SIGN QUANTITIES

SQ-4

LAST REVISION: 12-02-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:20

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 DAVID LAM
 CALCULATED-DESIGNED BY
 CHECKED BY
 DANNY PHI
 STEVEN LE
 REVISED BY
 DATE REVISED

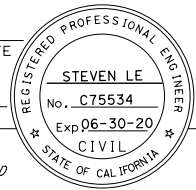
ROADWAY QUANTITIES

SHEET No.	ALIGNMENT STATION LIMITS	AB CLASS 2	HMA TYPE A	RHMA-G	AS CLASS 2	OGFC	TACK COAT	COLD PLANE ASPHALT CONCRETE PAVEMENT	MINOR CONCRETE (CURB RAMP)	ARTICULATED CONCRETE BLOCK	ROCK SLOPE PROTECTION FABRIC (CLASS 8)	RELOCATE CHAIN LINK FENCE	REMOVE CHAIN LINK FENCE
		CY	TON	TON	CY	TON	TON	SQYD	CY	SQYD	SQYD	LF	LF
L-1	"A" 122+54.3 TO 130+50 (L)	579	2018	172		402	1.8	4050	3	809	809	305	
	"A" 123+30 TO 130+50 (R)	251		166									
	"B" 111+85.6 TO 112+45.5 (R)											92	
	"D" 10+00 TO 14+11.12	727	460		970								
L-2	"A" 130+50 TO 144+12.6 (L)	393	2503	202		532	2.4	5589		405	405		
	"A" 130+50 TO 144+50 (R)	543		224									
L-3	"A" 144+50 TO 150+44 (L)	202	445			166	0.8	2192		382	382		
	"A" 144+50 TO 153+93 (R)	386		58									
TOTAL		3081	5426	822	970	1100	5	11831	3	3043	3043	537	92
TOTAL FROM DQ-1										3740	3740		
GRAND TOTAL		3081	5426	822	970	1100	5	11831	3	6783	6783	537	92

EARTHWORK QUANTITIES

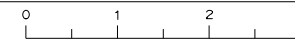
SHEET No.	ALIGNMENT STATION LIMITS	ROADWAY EXCAVATION	ROADWAY EMBANKMENT (N)
		CY	CY
L-1	"A" 122+54.3 TO 130+50	2500	300
	"D" 10+00 TO 14+11.12	1900	100
L-2	"A" 130+50 TO 144+50	4808	670
L-3	"A" 144+50 TO 148+42.2	357	40
TOTAL		9565	1110

(N) = NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		
REGISTERED CIVIL ENGINEER		DATE			
					
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.					

SUMMARY OF QUANTITIES

Q-1




STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR
 DAVID LAM
 CALCULATED-DESIGNED BY
 CHECKED BY
 DANNY PHI
 STEVEN LE
 REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED CIVIL ENGINEER DATE _____

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.



MIDWEST GUARDRAIL

SHEET No.	ALIGNMENT STATION LIMITS	ALTERNATIVE IN-LINE TERMINAL SYSTEM	END ANCHOR ASSEMBLY (TYPE SFT)	MIDWEST GUARDRAIL SYSTEM (WOOD POST)	GUARD RAILING DELINEATOR	REMOVE GUARDRAIL	TREATED WOOD WASTE
		EA	EA	LF	EA	LF	LB
L-1	"A" 125+60 TO 130+50 (L)		1	512	42		
	"A" 126+11 TO 130+50 (L)					448	2555
	"A" 125+50 TO 126+63 (R)	1	1	120	11		
L-2	"A" 130+50 TO 144+50 (L)			1493	121		
	"A" 130+50 TO 131+61 (L)					114	665
L-3	"A" 144+50 TO 145+62 (L)	1		114	11		
TOTAL		2	2	2239	185	562	3220
TOTAL FROM SQ-1							3750
GRAND TOTAL		2	2	2239	185	562	6970

REMOVAL QUANTITIES

SHEET No.	ALIGNMENT STATION LIMITS	REMOVE ASPHALT CONCRETE PAVEMENT (N)	REMOVE CURB RAMP
		CY	CY
C-1	"A" 122+54.3 TO 130+50 (L)	418	3
	"A" 123+30 TO 130+50 (R)	225	
C-2	"A" 130+50 TO 144+12.6 (L)	343	
	"A" 130+50 TO 144+50 (R)	342	
C-3	"A" 144+50 TO 148+42.2 (R)	150	
TOTAL		1478	3

(N) = NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

SUMMARY OF QUANTITIES

Q-2

LAST REVISION: DATE PLOTTED => 05-DEC-2019
 10-16-19 TIME PLOTTED => 14:53

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT ERIC DICKSON
 CHECKED BY VATHANA CHY
 CALCULATED-DESIGNED BY KEN CHAN
 REVISIONS: 08/20/19, 08/21/19
 x x x x x

ABBREVIATIONS

AMEND — amendment	Max — maximum
B & B — balled and burlapped	Min — minimum
Dia — diameter	NCN — no common name
EA — each	No. — number
LB — pound	Pkt — packet
Oz — ounce	PLT ESTB — plant establishment
Ft — foot/feet	Pvmt — pavement
SQFT — square feet	R/W — right of way
SQYD — square yard	SF — state furnished
CF — cubic feet	TRVD — traveled

APPLICABLE WHEN CIRCLED:

① - Quantities shown are "per plant" unless shown as SQFT or SQYD application rates.
 ② - Sufficient to receive root ball.
 ③ - Does not apply to mulch areas.
 ④ - As shown on plans.
 ⑤ - For slope location Sta. 113+00 to 121+00, see prepare hole and detail
 ⑥ - See detail.
 ⑦ - Foliage protector required only at Sta. 113+00 to 121+00

⑧ - Roadside Clearing Required
 ⑨ - Prepackaged with fibre by the manufacturer
 ⑩ - Not a separate item, include with bonded fiber matrix

NOTE:
 Underlined portions of botanical name indicate abbreviations used on Planting Plans.
 X - Denotes Requirement

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

LICENSED LANDSCAPE ARCHITECT

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.

PLANT GROUP	PLANT No.	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	⑤ HOLE SIZE (INCH)		BASIN TYPE	SOIL AMENDMENT		BASIN MULCH	⑦ FOLIAGE PROTECTOR	STAKING	PLANTING LIMITS						REMARKS			
							Dia	DEPTH		ENDOMYCORRHIZAL INOCULUM (OZ)					TRVD WAY	PVMT	FENCE	WALL	MINIMUM DISTANCE (Ft) FROM			ON CENTER (Ft)		
										PLANTING	PLT ESTB								PAVED DITCH	EARTH DITCH				
A	1		MELICA IMPERFECTA	SMALL FLOWER MELIC	1 GAL	412	12	12	II	1	—	0.50 CF	X	—	—	4	4	—	3	3	2	COASTAL SAGE SCRUB PLANT COMMUNITY		
	2		CORETHROGYNE FILAGINIFOLIA	CALIFORNIA ASTER	1 GAL	649	12	12	II	1	—	0.50 CF	X	—	—	8	8	—	7	5	3			
	3		MIMULUS AURANTIACUS	STICKY MONKEY FLOWER	1 GAL	689	12	12	II	1	—	0.50 CF	X	—	—	8	8	—	7	5	3			
	4		RIBES SPECIOSUM	FUCHSIAFLOWER GOOSEBERRY	1 GAL	25	12	12	II	1	—	0.50 CF	X	—	—	4	4	—	4	3	3			
	5		SISYRINCHIUM BELLUM	BLUE-EYED GRASS	1 GAL	522	12	12	II	1	—	0.50 CF	X	—	—	4	4	—	4	3	2			
	6		SOLANUM XANTI	PURPLE NIGHTSHADE	1 GAL	412	12	12	II	1	—	0.50 CF	X	—	—	7	7	—	7	5	2			
	7		SYMPHORICARPOS MOLLIS	CREEPING SNOWBERRY	1 GAL	278	12	12	II	1	—	0.50 CF	X	—	—	4	4	—	4	4	3			
	8		CAREX SPISSA	SAN DIEGO SEDGE	1 GAL	1330	12	12	II	1	—	0.50 CF	X	—	—	2	2	—	—	—	2			
	9		JUNCUS PATENS	COMMON RUSH	1 GAL	590	12	12	II	1	—	0.50 CF	X	—	—	2	2	—	—	—	3			
	10		MIMULUS QUITATUS	SEEP MONKEY FLOWER	1 GAL	247	12	12	II	1	—	0.50 CF	X	—	—	4	4	—	4	2	5			
	11		BACCHARIS SALICIFOLIA	MULEFAT	1 GAL	113	12	12	II	1	—	0.50 CF	X	—	—	7	7	—	7	5	8			
B	12		QUERCUS AGRIFOIA	COAST LIVE OAK	15 GAL	11	24	18	II	4	—	2.0 CF	—	X	—	—	—	—	—	—	④	TREE		
	13		SAMBUCUS NIGRA SSP. CERULEA	BLUE ELDERBERRY	15 GAL	7	24	18	II	4	—	2.0 CF	—	X	—	—	—	—	—	—	—	④	TREE	
	14		SALIX GOODINGII	BLACK WILLOW	15 GAL	98	24	18	II	4	—	2.0 CF	—	X	—	—	—	—	—	—	—	④	TREE	
P	15		STIPA PULCHRA	PURPLE NEEDLEGRASS	PLUG	36,630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	⑥	NATIVE GRASSES IN ARTICULATED BLOCK OPEN CELLS	
	16		HORDEUM INTERCEDENS	LITTLE BARLEY	PLUG	36,630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		⑥
	17		HORDEUM BRACHYANTHERUM	MEADOW BARLEY	PLUG	36,630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		⑥
	18		MUHLENBERGIA RIGENS	CALIFORNIA DEERGRASS	PLUG	36,630	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		⑥

EROSION CONTROL TYPE 1

SEQUENCE	ITEM	MATERIAL ⑩		APPLICATION RATE
		DESCRIPTION	TYPE	
STEP 1	BONDED FIBER MATRIX	MYCORRHIZAL INOCULUM	---	60 LBS/ACRE
		ORGANIC FERTILIZER	7-2-1	800 LBS/ACRE
		SOIL AMENDMENT	---	500 LBS/ACRE
		SEED	MIX 1	12.85 LBS/ACRE
		FIBER	WOOD	3500 LBS/ACRE
		TACKIFIER ⑨	---	

SEED MIX 1 TABLE

SEED	BOTANICAL NAME	PERCENT GERMINATION (MINIMUM)	POUNDS PURE LIVE SEED PER ACRE (SLOPE MEASUREMENT)
MIX 1	ACMISPON AMERICANUS	25%	0.5
	ACMISPON GLABER	30%	2.0
	ACMISPON STRIGOSUS	35%	0.25
	ARTEMISIA CALIFORNICA	20%	0.5
	COLLINSIA HETEROPHYLLA	15%	0.5
	DEINANDRA FASCICULATA	40%	0.05
	ERIOGONUM FASCICULATUM	40%	1.0
	ESCHSOLZIA CALIFORNICA	40%	0.5
	EUCRYPTA CHRYSANTHEMIFOLIA	32%	0.25
	LUPINUS SUCCULENTUS	45%	1.0
	LUPINUS TRUNCATUS	44%	1.0
	MALACOTHAMNUS FASCICULATUM	15%	0.25
	PHACELIA CICUTARIA	30%	0.15
	PHACELIA PARRYI	30%	0.2
	PHACELIA RAMOSISSIMA	30%	0.2
	PLANTAGO ERECTA	40%	1.0
	STIPA PULCHRA	50%	4.0
	TOTAL		12.85

LEGEND:

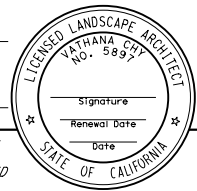
- EROSION CONTROL TYPE 1 ⑧
- WOOD MULCH (3" DEPTH)
- ROCK STAIN
- DECOMPOSED GRANITE

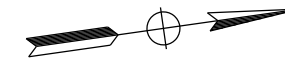
PLANT LEGEND PL-1

NOTE:

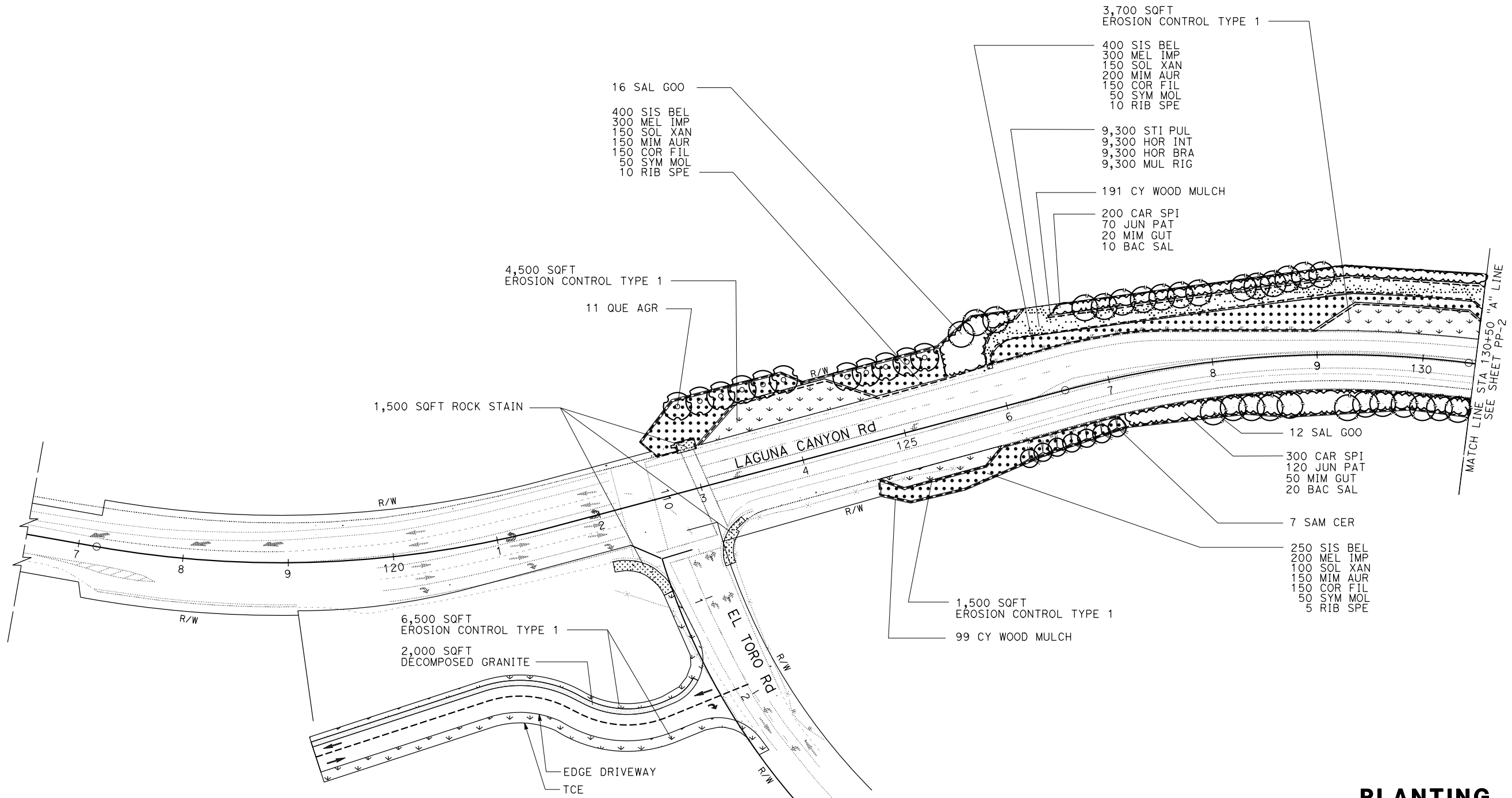
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

00/00/00	
00/00/00	
PLANS APPROVAL DATE	
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT ERIC DICKSON
 CALCULATED-DESIGNED BY CHECKED BY
 LANDON MARES VATHANA CHY
 REVISED BY DATE REVISED
 08/20/19 08/21/19



APPROVED FOR PLANTING WORK ONLY

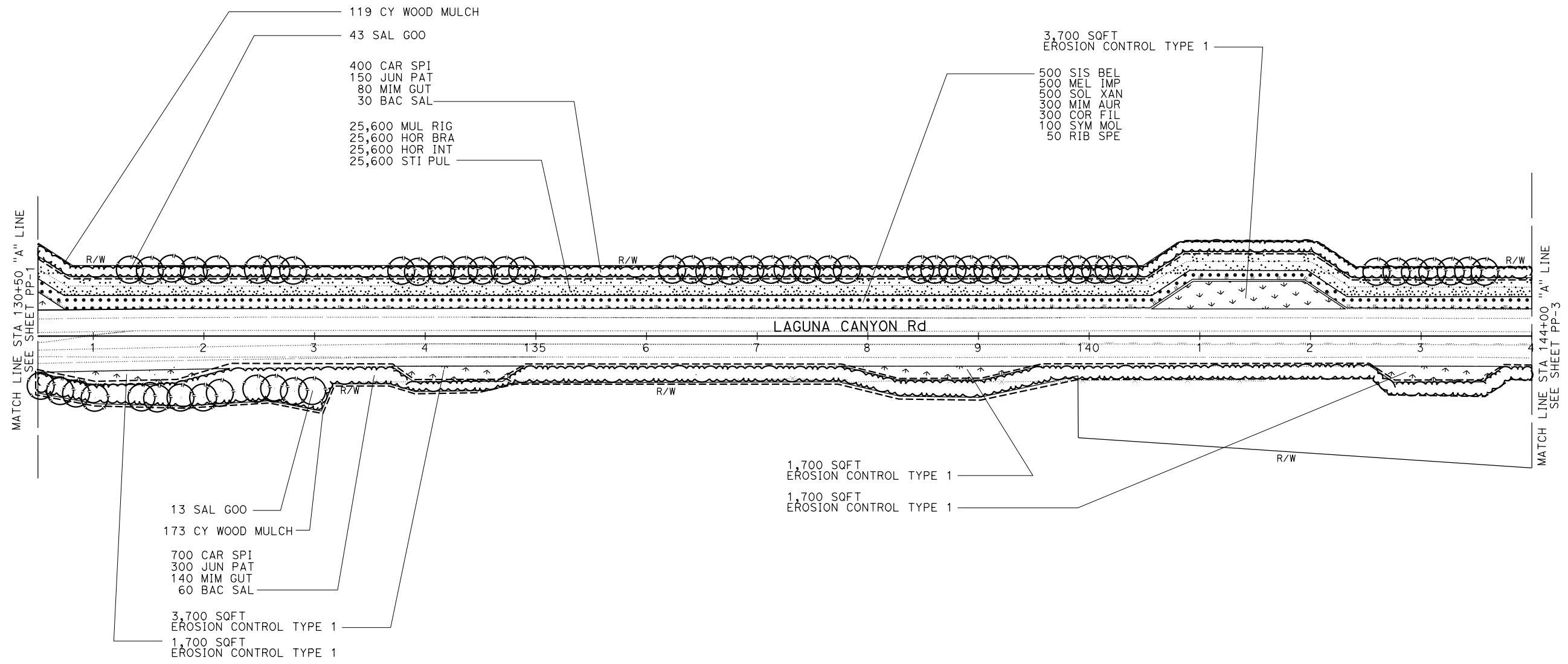
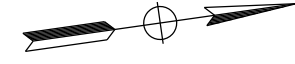
**PLANTING PLAN
PP-1**
SCALE : 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT: ERIC DICKSON
 CALCULATED-DESIGNED BY: ERIC DICKSON
 CHECKED BY: VATHANA CHY
 REVISIONS:
 08/20/19 REVISION BY: KEN CHAN
 08/21/19 REVISION BY: VATHANA CHY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

LICENSED LANDSCAPE ARCHITECT
 VATHANA CHY No. 5897
 Signature: _____
 Renewal Date: _____
 Date: _____
 PLANS APPROVAL DATE: _____
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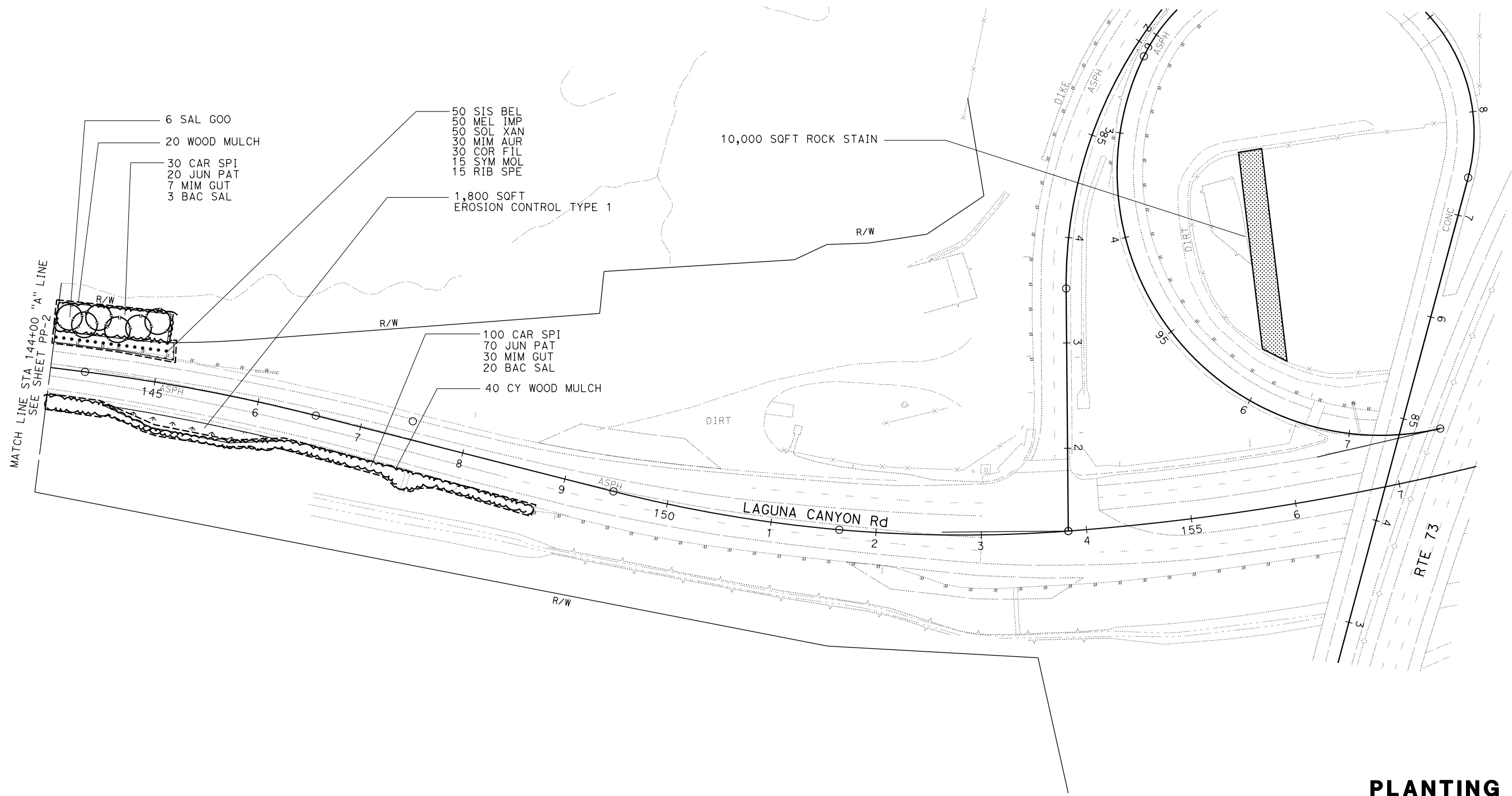
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**PLANTING PLAN
 PP-2**

LAST REVISION: 08-21-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:37

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT: ERIC DICKSON
 CALCULATED-DESIGNED BY: ERIC DICKSON
 CHECKED BY: VATHANA CHY
 REVISIONS:
 08/20/19 REVISION BY: KEN CHAN
 08/21/19 DATE REVISED: VATHANA CHY



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

LICENSED LANDSCAPE ARCHITECT
 VATHANA CHY
 No. 5897
 Signature: _____
 Renewal Date: _____
 Date: _____
 PLANS APPROVAL DATE: _____
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APPROVED FOR PLANTING WORK ONLY

**PLANTING PLAN
 PP-3**

LAST REVISION: 08-21-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:37

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Eric Dickson LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 ERIC DICKSON
 CALCULATED-DESIGNED BY
 CHECKED BY
 KEN CHAN
 VATHANA CHY
 REVISIONS BY
 DATE REVISIONS
 08/20/19
 08/21/19

ABBREVIATIONS

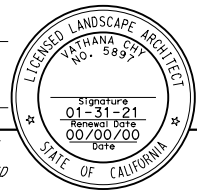
- | | |
|---------------------------|-------------------------------|
| F — full circle | Ft — feet/foot |
| P — part circle | GPM — gallons per minute |
| F/P — full/part circle | GPH — gallons per hour |
| Q — quarter circle | Adj — adjustable |
| T — third circle | PL — plastic |
| H — half circle | B/B — brass/bronze |
| TT — two third circle | B/PL — brass/plastic |
| TQ — three quarter circle | B/B/PL — brass/bronze/plastic |
| CST — center strip | NPT — national pipe thread |
| SST — side strip | IPS — iron pipe size |
| EST — end strip | PSI — pounds per square inch |

APPLICABLE WHEN CIRCLED BELOW:

- 1 - See Special Provisions.
- ② - If a pressure compensating device is specified, the discharge and radii shown reflect its use.
- 3 - Arc Stop shall be fitted with a nut and bolt.
- 4 - Vinyl-coated cast iron housing.
- ⑤ - Swing Joints required adjacent to shoulders, curbs, sidewalks, and dikes.
- 6 - Unless otherwise shown on plans.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

LICENSED LANDSCAPE ARCHITECT



Signature: 01-31-21
 Renewal Date: 00/00/00
 Date

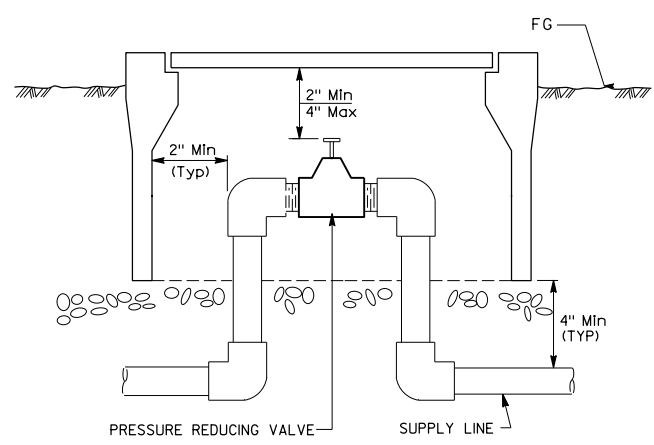
PLANS APPROVAL DATE

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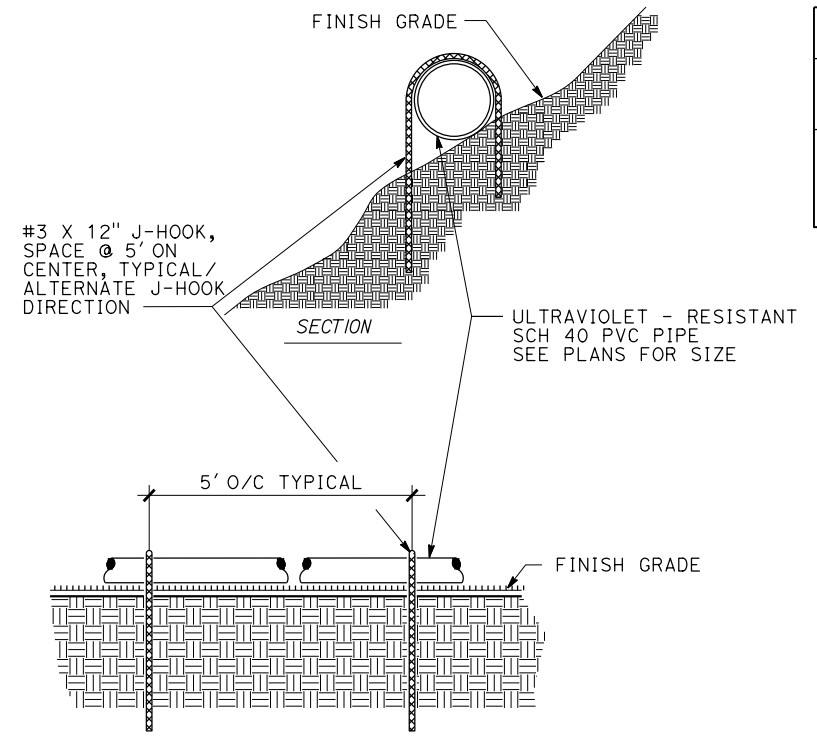
IRRIGATION SPRINKLER SCHEDULE

SYMBOL	ITEM DESCRIPTION	SPRAY PATTERN		LENGTH X WIDTH ft	OPERATING PRESSURE psi	DISCHARGE RATE (+/- 5%)		PRECIPITATION RATE (+/- 5%) INCH/hr	INLET CONNECTION DIAMETER INCH	SWING JOINT TYPE	RISER SPRINKLER ASSEMBLY			POP-UP SPRINKLER ASSEMBLY		TREE WELL DRAINPIPE LENGTH INCH	REMARKS
		ft	RADIUS			GPM	GPH				TYPE	HEIGHT INCH	MATERIAL	HEIGHT INCH	SPRINKLER PROTECTOR TYPE		
●	RISER SPRINKLER ASSEMBLY	--	--	--	30	0.17	10	--	1/2	--	V	--	PL	--	--	--	TWO PER TREE, SEE DETAIL
⑤	RISER SPRINKLER ASSEMBLY (GEAR DRIVEN)	P	25	--	25	0.76	--	--	3/4	I	IV	12	PL	--	--	--	
⑦	RISER SPRINKLER ASSEMBLY (GEAR DRIVEN)	P	43	--	30	4.2	--	--	3/4	I	IV	12	PL	--	--	--	

NOTES: APPLICABLE WHERE CIRCLED



ELEVATION
PRESSURE REDUCING VALVE



ELEVATION
ON GRADE PIPE

		1"	1 1/4"	1 1/2"	2"	2 1/2"
		0-12 GPM	12-22 GPM	22-30 GPM	30-50 GPM	50-75 GPM
⑤	A-5	1-15	16-28	29-39	40-65	66-98
⑦	A-7	1-2	3-5	6-7	8-9	10-17

PIPE SIZING CHART

IRRIGATION SPRINKLER SCHEDULE AND DETAILS

ISS-1

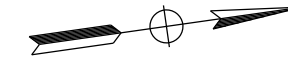
NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
EXISTING UTILITY FACILITIES ARE NOT SHOWN ON THESE PLANS.

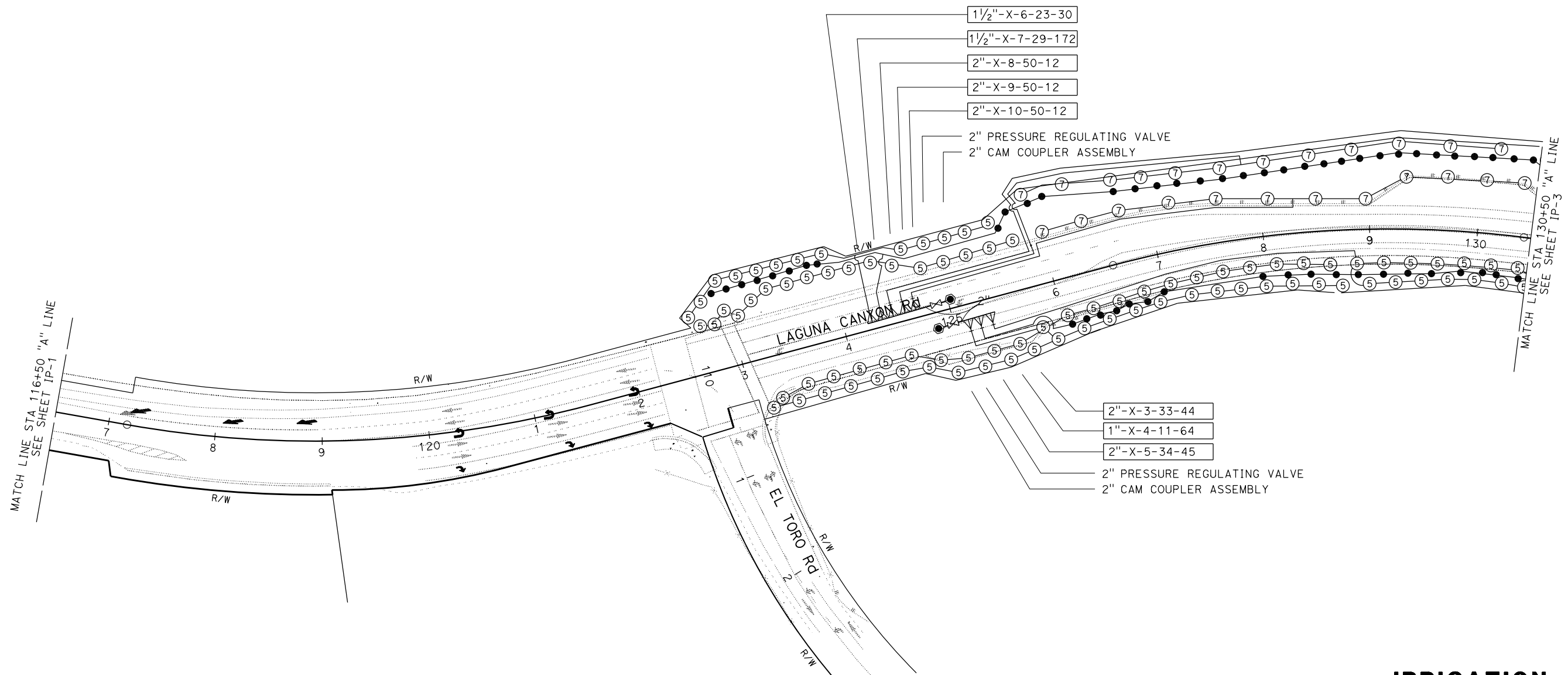
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Orca	133	13.2/R4.1		

LICENSED LANDSCAPE ARCHITECT	
Signature	_____ Date
PLANS APPROVAL DATE	

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 ERIC DICKSON
 CALCULATED-DESIGNED BY
 CHECKED BY
 VATHANA CHY
 KEN CHAN
 REVISOR BY
 DATE REVISOR
 08/20/19
 08/21/19



APPROVED FOR IRRIGATION WORK ONLY

**IRRIGATION PLAN
IP-1**

SCALE : 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT
 ERIC DICKSON

CALCULATED-DESIGNED BY
 KEN CHAN

CHECKED BY
 VATHANA CHY

REVISOR
 08/20/19

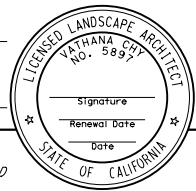
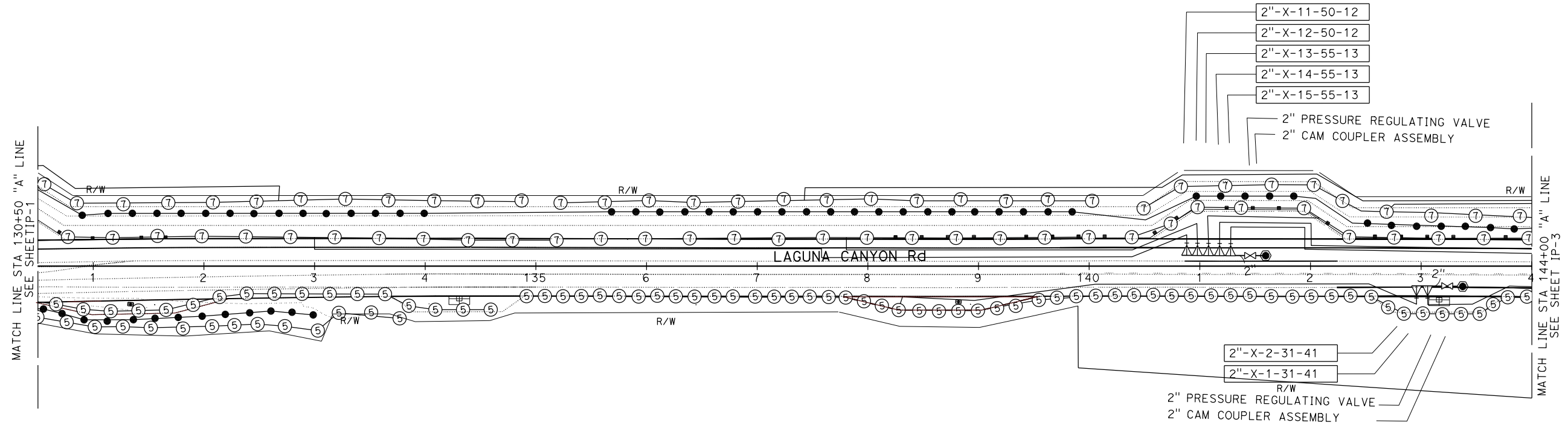
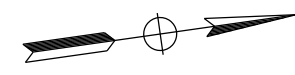
DATE REVISOR
 08/21/19

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

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APPROVED FOR IRRIGATION WORK ONLY

**IRRIGATION PLAN
 IP-2**

BORDER LAST REVISED 7/2/2010

USERNAME => s119443
 DGN FILE => 1217000076sp002.dgn

RELATIVE BORDER SCALE IS IN INCHES



UNIT 3014

PROJECT NUMBER & PHASE

12170000761

LAST REVISION: 08-21-19
 DATE PLOTTED => 12-DEC-2019
 TIME PLOTTED => 13:37

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT
 ERIC DICKSON

CALCULATED-DESIGNED BY
 KEN CHAN

REVISOR BY
 VATHANA CHY

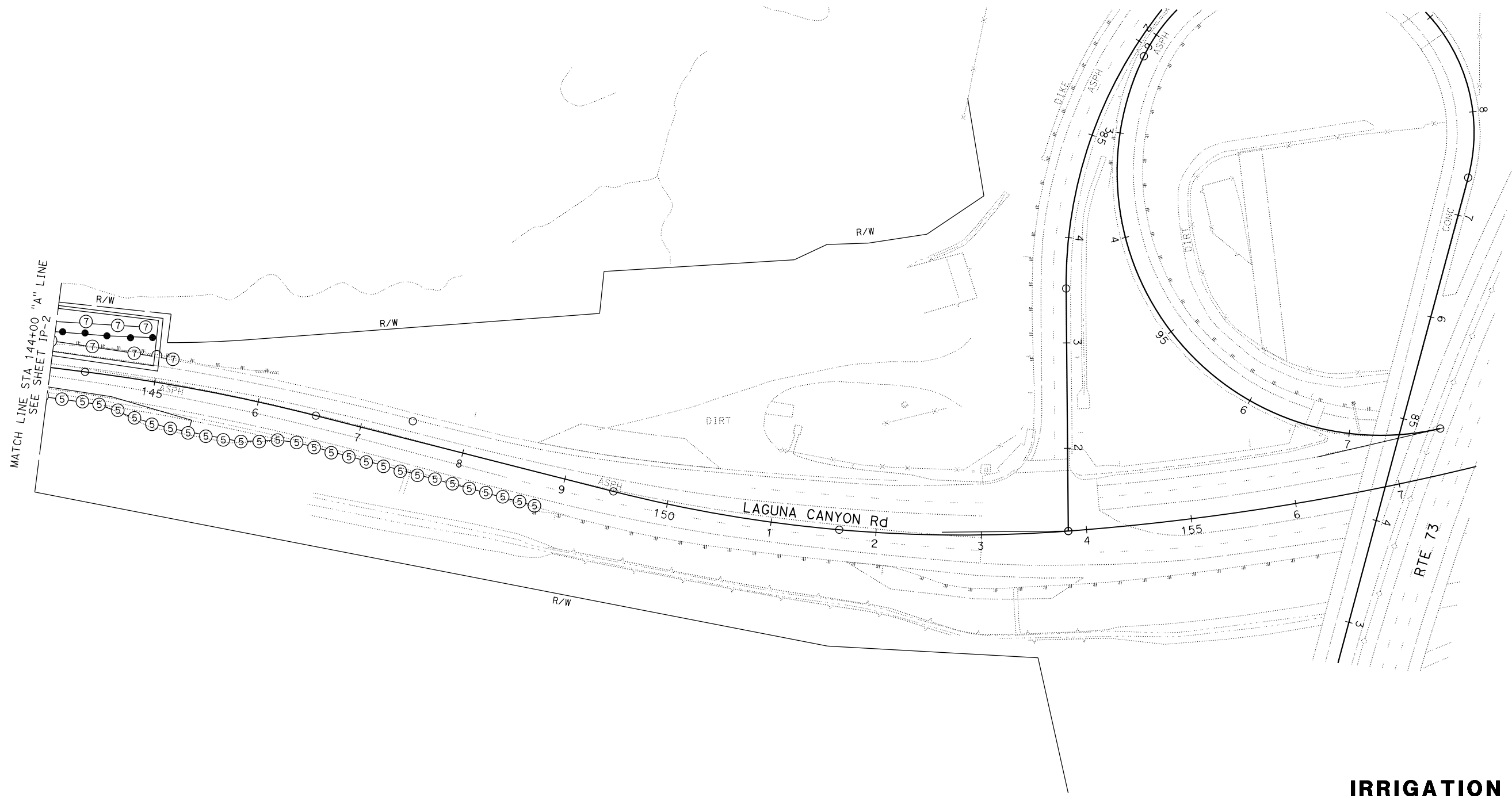
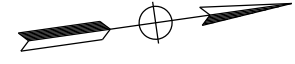
08/20/19
 08/21/19

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

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APPROVED FOR IRRIGATION WORK ONLY

**IRRIGATION PLAN
 IP-3**

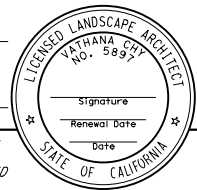
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT ERIC DICKSON
 CALCULATED-DESIGNED BY CHECKED BY
 KEN CHAN VATHANA CHY
 REVISED BY 08/20/19 DATE REVISED 08/21/19

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

LICENSED LANDSCAPE ARCHITECT

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.



IRRIGATION QUANTITY (LATERAL SUPPL SIDE OF CONTROL VALVE)

CONTROLLER LETTER	VALVE NUMBER	PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)				SPRINKLER ASSEMBLY	
		1"	1 1/4"	1 1/2"	2"	RISER EA	RISER (GEAR DRIVEN) EA
		LF	LF	LF	LF		
X	1	600	200	-	280		41
	2	600	200	-	550		41
	3	830	360	-	410		44
	4	1,730	-	-	-	64	-
	5	1,190	20	-	100		45
	6	700	-	60	-		30
	7	2,490	-	60	-	172	-
	8	170	310	50	1,070		12
	9	170	310	50	480		12
	10	170	310	50	440		12
	11	170	310	50	900		12
	12	170	310	50	390		12
	13	160	260	90	180		13
	14	160	260	90	760		13
	15	160	260	90	1,360		13
TOTAL		9,470	3,110	640	6,920	236	300

IRRIGATION QUANTITY (MAIN SUPPLY SIDE OF CONTROL VALVE)

SHEET NUMBER	VALVE			(SUPPLY LINE)
	PRESURE REGULATING	BALL	CAM COUPLER ASSEMBLY	PLASTIC PIPE (SCHEDULE 40) (SUPPLY LINE)
	2"	2"	2"	2"
	EA	EA	EA	LF
IP-1	2	8	2	130
IP-2	1	7	1	130
TOTAL	3	15	3	260

IRRIGATION QUANTITIES IQ-1

LAST REVISION: 08-21-19 DATE PLOTTED => 12-DEC-2019 TIME PLOTTED => 13:38

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 ERIC DICKSON
 CALCULATED-DESIGNED BY
 CHECKED BY
 KEN CHAN
 VATHANA CHY
 REVISIONS:
 08/20/19
 08/21/19
 REVISED BY
 DATE REVISED

EROSION CONTROL QUANTITIES

EROSION CONTROL TYPE	UNIT	SHT NO.			TOTAL	(N)	(N)	(N)	(N)	(N)	(N)	BONDED FIBER MATRIX
		EC-1	EC-2	EC-3		MYCORR-HIZAL INOCULUM	ORGANIC FERTILIZER	SOIL AMENDMENT	SEED MIX 1	FIBER	TACKIFIER	
	SOFT	14,700	12,500	1,800	29,000	(LB)	(LB)	(LB)	(LB)	(LB)	(LB)	(SQFT)
1	SOFT	14,700	12,500	1,800	29,000	40	540	338	9	2,363		29,000
TOTAL QUANTITY						40	540	338	9	2,363		29,000

NOTE:

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

PLANT QUANTITIES

ITEM	UNIT	QUANTITY
PLANT GROUP (A)	EA	8,626
PLANT GROUP (B)	EA	112
PLANT GROUP (P)	EA	146,520

WOOD MULCH


TYPE	(N)	LOCATION		QUANTITY (CY)
		BASIN	SPREAD	
SHREDDED BARK	(N)	109	642	751
TOTAL				751

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

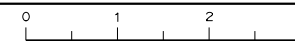
DECOMPOSED GRANITE

TYPE	UNIT	QUANTITY
TAN COLOR (N)	SOFT	2,000

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		
00/00/00					
LICENSED LANDSCAPE ARCHITECT					
00/00/00					
PLANS APPROVAL DATE					
					
<small>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.</small>					

**PLANT QUANTITIES
PQ-1**



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans LANDSCAPE ARCHITECTURE
 SENIOR LANDSCAPE ARCHITECT
 ERIC DICKSON

DESIGNED BY
 CHECKED BY
 REVISIONS
 12/11/19
 12/11/19

DESIGNED BY
 CHECKED BY
 REVISIONS
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 VATHANA CHY

REVISIONS
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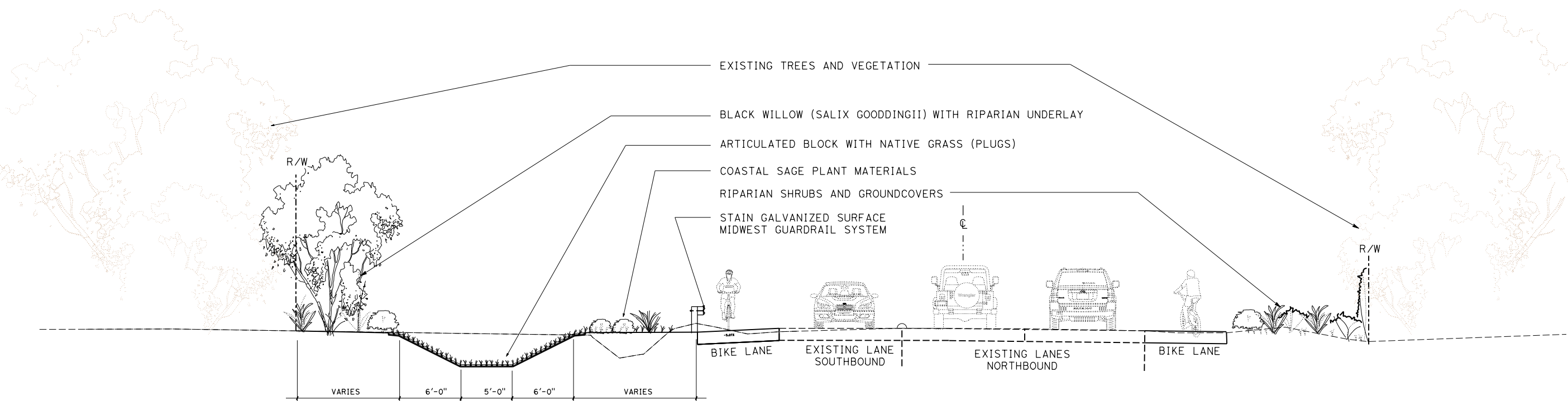
REVISIONS
 REVISIONS
 REVISIONS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Orca	133	3.1/R4.1		

LICENSED LANDSCAPE ARCHITECT

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.



SECTION - STA 135+00
 ARTICULATED BLOCK AND PLANTING

PLANTING DETAILS
 NO SCALE
PD-1

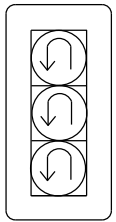
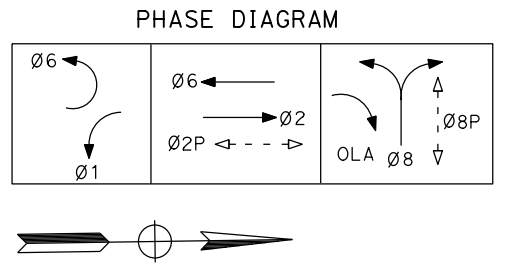
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR: VANESSA TRUONG
 CALCULATED/DESIGNED BY: VANESSA TRUONG
 CHECKED BY: VANESSA TRUONG
 REVISIONS: BS 12/19
 REVISOR: BARJESH SHARMA
 DATE: 12/19
 REVISOR: VANESSA TRUONG
 DATE: 12/19

- NOTES:**
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
 - FOR CONDUCTOR AND CABLE IDENTIFICATION SEE SHEET ED-2.

POLE AND EQUIPMENT SCHEDULE

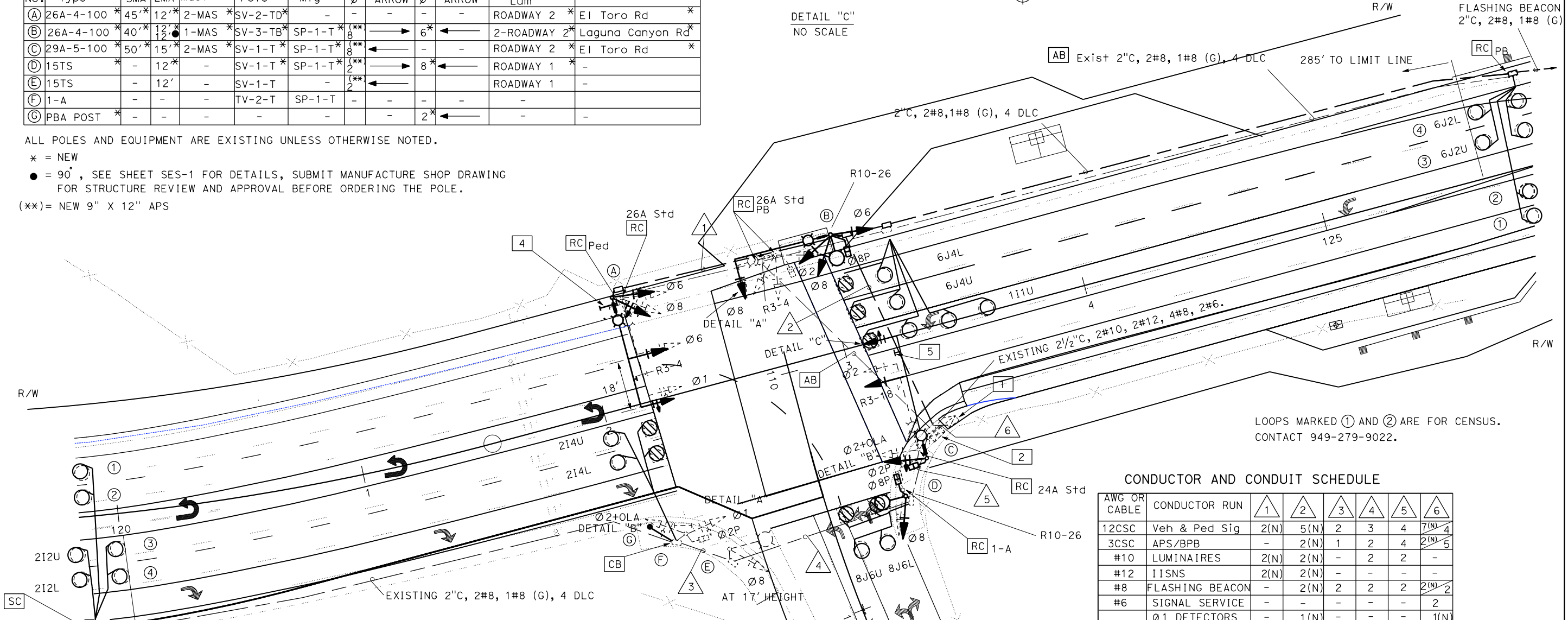
No.	Type	STANDARD		Veh Sig Mtg		Ped Sig	APS		BPB		LED Lum	IISNS
		SMA	LMA	Mast Arm	Pole	Mtg	Ø	ARROW	Ø	ARROW		
(A)	26A-4-100	45*	12*	2-MAS	SV-2-TD*	-	-	-	-	-	ROADWAY 2	EI Toro Rd *
(B)	26A-4-100	40*	12*	1-MAS	SV-3-TB*	SP-1-T*	8	→	6*	←	2-ROADWAY 2	Laguna Canyon Rd *
(C)	29A-5-100	50*	15*	2-MAS	SV-1-T*	SP-1-T*	8	←	-	-	ROADWAY 2	EI Toro Rd *
(D)	15TS	-	12*	-	SV-1-T*	SP-1-T*	2	→	8*	←	ROADWAY 1	-
(E)	15TS	-	12'	-	SV-1-T	SP-1-T	2	←	-	-	ROADWAY 1	-
(F)	1-A	-	-	-	TV-2-T	SP-1-T	-	-	-	-	-	-
(G)	PBA POST	-	-	-	-	-	-	-	2*	←	-	-

ALL POLES AND EQUIPMENT ARE EXISTING UNLESS OTHERWISE NOTED.
 * = NEW
 ● = 90°, SEE SHEET SES-1 FOR DETAILS, SUBMIT MANUFACTURE SHOP DRAWING FOR STRUCTURE REVIEW AND APPROVAL BEFORE ORDERING THE POLE.
 (**)= NEW 9" X 12" APS



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED ELECTRICAL ENGINEER DATE: _____
 B.K. SHARMA No. E 19299
 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.



LOOPS MARKED ① AND ② ARE FOR CENSUS. CONTACT 949-279-9022.

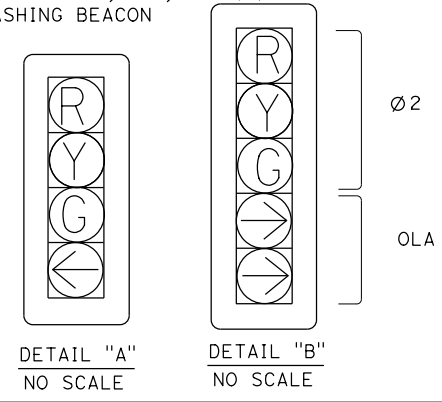
CONDUCTOR AND CONDUIT SCHEDULE

AWG OR CABLE	CONDUCTOR RUN	1	2	3	4	5	6
12CSC	Veh & Ped Sig	2(N)	5(N)	2	3	4	7(N) 4
3CSC	APS/BPB	-	2(N)	1	2	4	2(N) 5
#10	LUMINAIRES	2(N)	2(N)	-	2	2	-
#12	IISNS	2(N)	2(N)	-	-	-	-
#8	FLASHING BEACON	-	2(N)	2	2	2	2(N) 2
#6	SIGNAL SERVICE	-	-	-	-	-	2
DLC	Ø1 DETECTORS	-	1(N)	-	-	-	1(N)
	Ø2 DETECTORS	-	-	4	4	4	4
	Ø6 DETECTORS	-	4(N)	-	-	-	4(N)
	Ø8 DETECTORS	-	-	-	-	2	2
	COUNT LOOPS	-	2(N)	2	2	2	2(N) 2
4#18	APS CABLE	-	-	-	-	2	-
#8	GROUND WIRE	1(N)	1(N)	1	1	1	1(N)
	CONDUIT % FILL	17	28	35	19	34	51
	CONDUIT SIZE	3" (N)	4" (N)	2 1/2"	4"	3 1/2"	2-3"

ALL CABLES AND CONDUCTORS ARE EXISTING UNLESS OTHERWISE NOTED.
 (N)=NEW

ANNOTATION: (THIS SHEET ONLY)

- EXISTING 120/240 V METERD SERVICE IN TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH TYPE V PEC. ID No. 12-55-133-0-003.369-M
 100 A, 240 V, 2P, CB MAIN
 50 A, 120 V, 1P, CB SIGNAL
 30 A, 120 V, 1P, CB LIGHTING
 20 A, 120 V, 1P, CB IISNS
 15 A, 120 V, 1P, CB FLASHING BEACON
 15 A, 120 V, 1P, CB CONTROL
- EXISTING MODEL 2070 CONTROLLER IN MODEL 332 CABINET.
- REUSE EXISTING EVUD, EVUC ON NEW POLE.
- INSTALL TYPE I PEDESTRIAN BARRICADE WITH SIGN 2-R9-3 AND 2-R49 BACK TO BACK.
- INSTALL " U-TURN ONLY " SIGN ON THE MAST ARM.



MODIFYING SIGNAL AND LIGHTING SYSTEMS
 SCALE: 1" = 20'
E-1

DATE PLOTTED => 10-DEC-2019
 TIME PLOTTED => 08:07
 12-06-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN

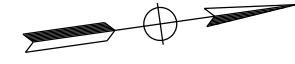
FUNCTIONAL SUPERVISOR: VANESSA TRUONG
 CHECKED BY: VANESSA TRUONG
 CALCULATED/DESIGNED BY: VANESSA TRUONG
 REVISOR: BARJESH SHARMA
 DATE REVISED: 10/2019
 BS

NOTE:

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

ANNOTATION (THIS SHEET ONLY):

- 1 INSTALL 2"C, 2#8, 1#8(G).
- 2 EXISTING 2"C, 2#8, 1#8(G), 6 DLC,
- 3 INSTALL FLASHING BEACON WITH TYPE 9 SIGN.
- 4 EXISTING 120/240 V METERD SERVICE IN TYPE III-BF SERVICE EQUIPMENT ENCLOSURE WITH TYPE V PEC.
 ID No. 12-55-133-0-003.369-M
 100 A, 240 V, 2P, CB MAIN
 50 A, 120 V, 1P, CB SIGNAL
 30 A, 120 V, 1P, CB LIGHTING
 20 A, 120 V, 1P, CB IISNS
 15 A, 120 V, 1P, CB FLASHING BEACON
 15 A, 120 V, 1P, CB CONTROL
- 5 EXISTING MODEL 2070 CONTROLLER IN MODEL 332 CABINET.

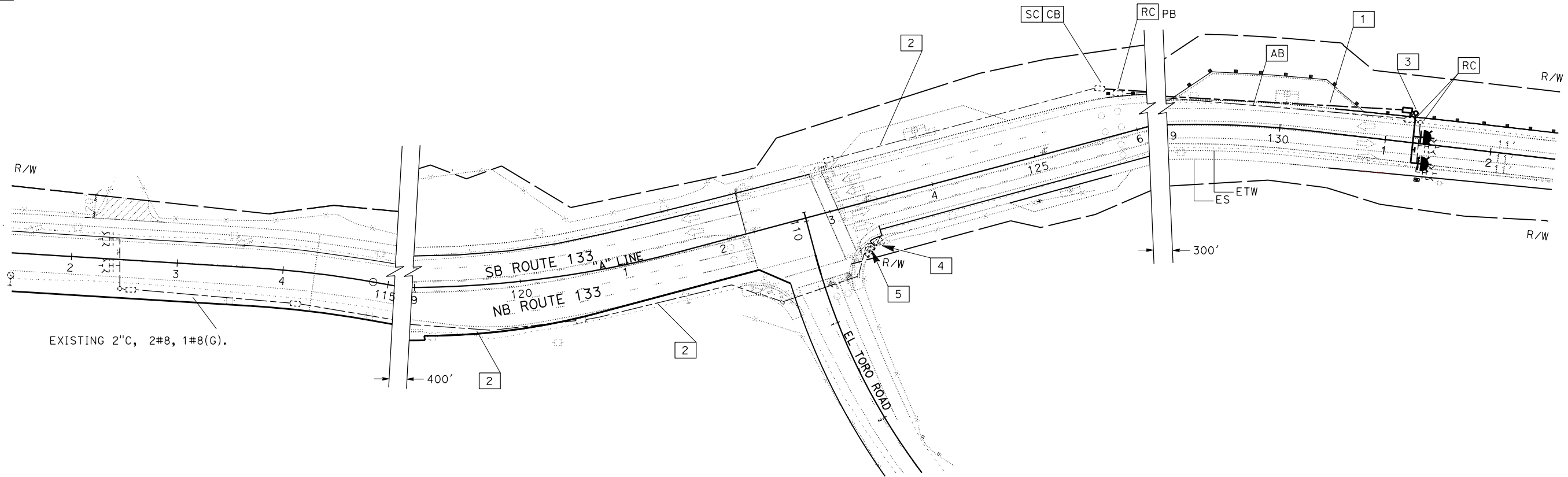


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED ELECTRICAL ENGINEER	DATE
B.K. SHARMA	
No. E 19299	
Exp 12/31/20	
ELECTRICAL	

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.



MODIFYING FLASHING BEACON SYSTEMS
E-2

APPROVED FOR ELECTRICAL WORK ONLY

SCALE: 1" = 50'

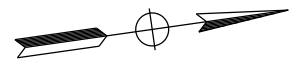
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR VANESSA TRUONG
 CHECKED BY VANESSA TRUONG
 CALCULATED-DESIGNED BY VANESSA TRUONG
 REVISIONS: 10/2019 (BS)
 REVISIONS: 10/2019 (BS)
 REVISIONS: 10/2019 (BS)

NOTE:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. FOR CONDUCTOR AND CABLE IDENTIFICATION SEE SHEET ED-2.

ANNOTATION (THIS SHEET ONLY):

- 1 INSTALL 120/240 V METERED SERVICE IN TYPE III-CF SERVICE.
 METER No.1 ID No.12-55-073-0-016.943
 100 A, 240 V, 2P, CB MAIN
 50 A, 120 V, 1P, CB SIGNAL
 40 A, 120 V, 1P, CB LIGHTING
 15 A, 120 V, 1P, CB CONTROL
 15 A, 120 V, 1P, CB SPARE
 METER No.2 ID No.12-55-073-0-016.944
 100 A, 240 V, 2P, CB MAIN
 30 A, 120 V, 1P, CB TMS
- 2 INSTALL DEPARTMENT-FURNISHED MODEL 2070 CONTROLLER IN MODEL 334L CABINET FOR TRAFFIC MONITORING STATION.
- 3 INSTALL 2"C, 2#8, 1#8(G).
- 4 INSTALL 2"C, 8 DLC.
- 5 INSTALL 3"C, 2#8, 1#8(G), 8 DLC.
- 6 INSTALL 2-3"C, 2#8, 1#8(G), 16 DLC.
- 7 REMOVE EXISTING 120/240 V METERED SERVICE IN TYPE III-BF SERVICE WITH 100 A MAIN BREAKER, 50 A SIGNAL, 40 A LIGHTING, 15 A CONTROL AND 15 A SPARE. REMOVE EXISTING FOUNDATION AND INSTALL PULL BOX FOR EDISON HANDHOLE.
- 8 EXISTING MODEL 2070 CONTROLLER IN MODEL 332 CABINET FOR TRAFFIC SIGNAL.



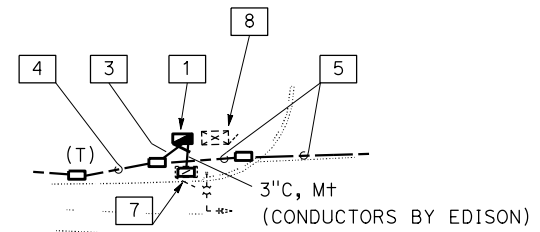
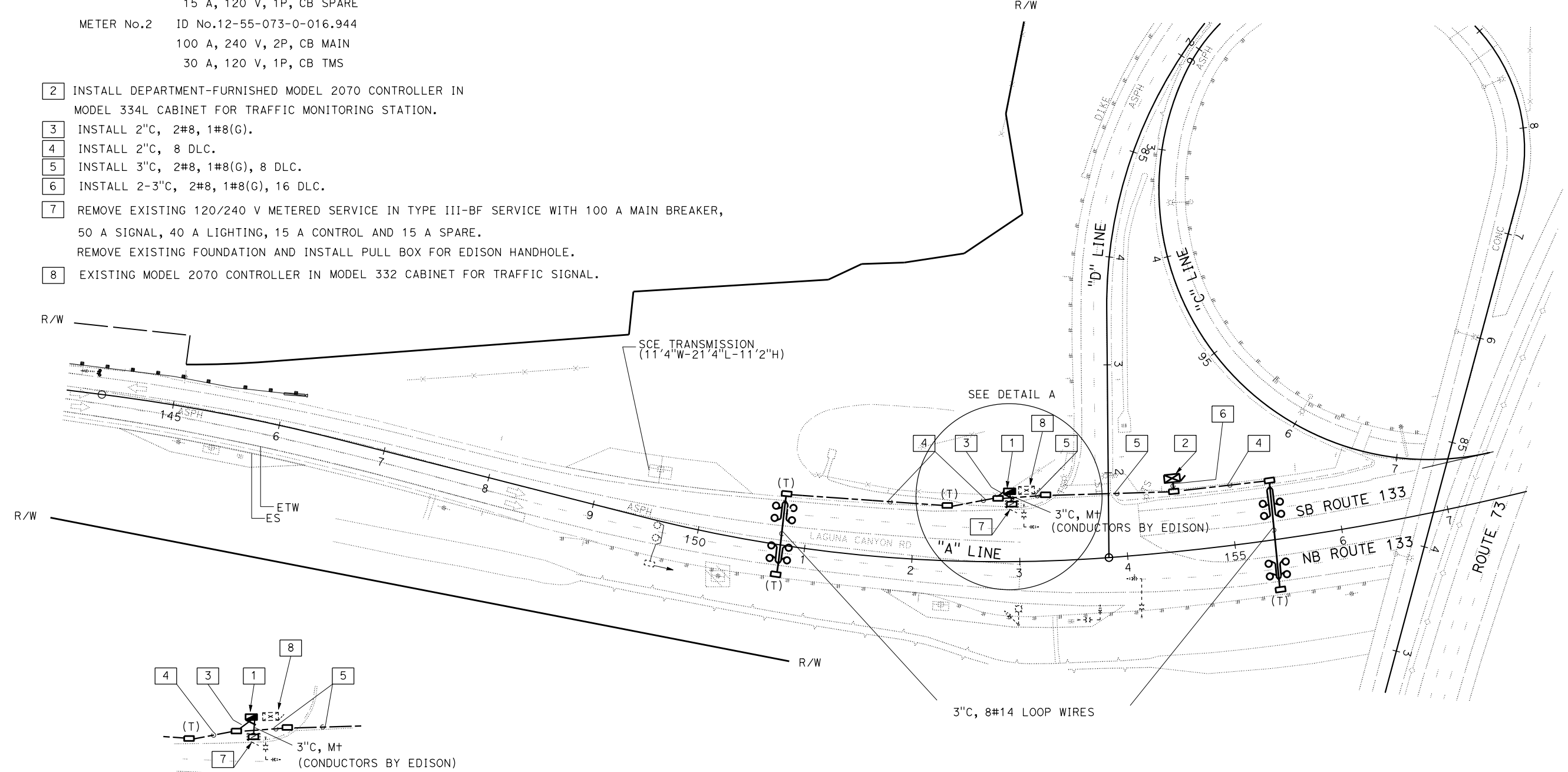
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED ELECTRICAL ENGINEER	DATE
B.K. SHARMA	
No. E 19299	
Exp. 12/31/20	
ELECTRICAL	
STATE OF CALIFORNIA	

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.

SB ROUTE 73 TO SB ROUTE 133 CONNECTOR



DETAIL A
NO SCALE

TRAFFIC MONITORING STATION SYSTEM
E-3
 SCALE: 1" = 50'

APPROVED FOR ELECTRICAL WORK ONLY

LAST REVISION: 10-14-19
 DATE PLOTTED => 10-DEC-2019
 TIME PLOTTED => 14:29

NOTES: (THIS SHEET ONLY)

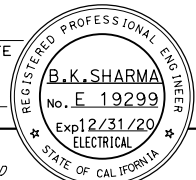
1. IDENTIFY CONDUCTORS AND CABLES BY PERMANENTLY ATTACHING LEGIBLE, MECHANICALLY-PRINTED ALPHA-NUMERIC LABEL TO EACH CONDUCTOR OR CABLE IN EACH PULL BOX, VAULT, AND CABINET AS PER TABLE BELOW.
2. LABELS MUST BE PLACED ALONG EACH CABLE AND SECURED WITH PERMANENT TIE-WRAPPS. LABELS MUST NOT BE WRAPPED AROUND THE CABLE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Oran	133	3.2/R4.1		

REGISTERED ELECTRICAL ENGINEER DATE _____

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.



Element	Cable/Conductor Function	Required Label
Lighting	Power	LTG CIR (Circuit #)
	High-mast power (Lowering Device)	HM PWR
Signal	Power	SIG PWR
	PBA (3CSC)	POLE (Pole #) 3CSC
	Signal (12CSC)	POLE (Pole #) 12CSC
	Intersection Lighting	LTG
	Street Name Sign	IISNS
	Accessible Ped Signal	APS
	Signal Interconnect	SIC
	Loop	(Loop assignment #)
	CCTV Detection	CCTV-D (Pole #)
	CCTV Surveillance	CCTV-S (Pole #)
	EVD	EVD (Pole #)
	Traff Sig Flashing Beacon	TSFB
	Fiber Optic Comm	FO-D SIG (Signal #)
	Ramp Metering	Power
Meter-On Flashing Beacon		MOFB
Loop		DLC (Loop Assignment #)
Camera		CCTV (CCTV #)
TMS	Lighting	LTG
	Fiber Optic Comm	FO-D RMS (RMS #)
	Power	TMS PWR (Controller #)
Census	Loop	DLC (Loop Assignment #)
	Communications	CEN COMM
	Power	CEN PWR (Controller #)
CCTV	Loop	DLC (Loop Assignment #)
	Power, video, control (Cat5E)	CCTV (CCTV #)
	Cabinet Power	CCTV PWR
	High Mast Power (Lowering Device)	HM PWR
CMS	Fiber Optic Comm	FO-D CCTV (CCTV #)
	Controller Power, video, control (Cat5E)	CMS (CMS #)
	PMM Power (Lamp/LED)	CMS LED
	Cabinet Power	CMS PWR
FO Cable Type A	Fiber Optic Comm	FO-D CMS (CMS #)
	Communications	FO-A
	Communications	FO-B
	Communications	FO-C
Weigh In Motion	Communications	FO-D (see above)
	Power	WIM PWR
	Telephone Communications	WIM TEL
	Screened Transmission Cable	WIM STC
	Scale Lead In Cable	WIM SLC
In-Roadway Warning Lights	Loop	WIM LOOP (Loop #)
	Controller Power	IRWL PWR
	In-Roadway Lights	IRWL
	Push Button	IRWL PBA
	Flashing Beacon	IRWL FB
Irrigation	Lighting	IRWL LTG
	Controller Power	IRR PWR
HAR	Power	HAR PWR
	Communications	HAR COMM
Flashing Beacon	Power	FB PWR
EMS	Power	EMS PWR
	Communications	EMS COMM



ELECTRICAL SYSTEMS DETAILS
NO SCALE

ED-2

LABELING CONDUCTOR AND CABLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans® ELECTRICAL DESIGN
 FUNCTIONAL SUPERVISOR
 VANESSA TRUONG
 CALCULATED-DESIGNED BY
 CHECKED BY
 BARJESH SHARMA
 VANESSA TRUONG
 REVISED BY
 DATE REVISED
 BS
 10/2019

NOTE:
 ELECTRICAL SYSTEMS QUANTITY TABLES SUMMARIZE SIGNIFICANT COMPONENTS.
 SEE ELECTRICAL SYSTEMS PLANS AND SPECIFICATIONS TO DETERMINE ALL
 MATERIALS NEEDED FOR EACH SYSTEM.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
12	Ora	133	3.2/R4.1		

REGISTERED ELECTRICAL ENGINEER DATE _____

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.

**MODIFYING EXISTING ELECTRICAL SYSTEM
 MODIFYING SIGNAL AND LIGHTING SYSTEM**

SHEET No.	STANDARD WITH FOUNDATION				PBA POST	LED Lum		PULL BOX No.5	PULL BOX No.6	APS	BPB	DETECTOR LOOP		CONDUIT					SIGNAL FACE		SIGNAL MOUNTING				CABLE		CONDUCTOR				DLC	IISNS	Ped Sig	Ped BARRICADE
	15TS	26A-4-100	29A-5-100	Type 9		Roadway1	Roadway2					F	E	2"	2 1/2"	3"	3 1/2"	4"	3-SEC	4-SEC	SV-1-T	SV-2-T	SV-3-T	SP-1-T	3CSC	12CSC	4#18	#8	#10	#12				
E-1	1	2	1	-	1	1	4	4	-	4	3	7	21	300	-	120	100	-	8	1	2	1	1	3	200	700	30	1200	400	400	2000	3	3	1
E-2	-	-	-	1	-	-	1	1	-	-	-	-	-	550	-	-	-	-	-	-	-	-	-	-	-	-	-	1800	-	-	-	-	-	-

**MODIFYING EXISTING ELECTRICAL SYSTEM
 MODIFYING TRAFFIC MONITORING SYSTEM**

SHEET No.	DETECTOR LOOP	PULL BOX		CONDUIT		DLC	SERVICE CABINET	CIRCUIT BREAKER		CONDUCTOR	334L FOUNDATION
		No.5	No.6	2"	3"			100 A	30 A		
E-3	E	EA	EA	LF	LF	LF	EA	EA	EA	LF	EA
	EA	EA	EA	LF	LF	LF	EA	EA	EA	LF	EA
E-3	16	4(T) 4	1	400	130	4000	1	1	1	1100	1

**FOR INFORMATION ONLY
 DO NOT USE FOR BIDDING OR CONSTRUCTION REFERENCE**

**ELECTRICAL SYSTEMS QUANTITIES
 EQ-1**

LAST REVISION: DATE PLOTTED => 10-DEC-2019
 10-14-19 TIME PLOTTED => 14:30