

INDEX OF PLANS

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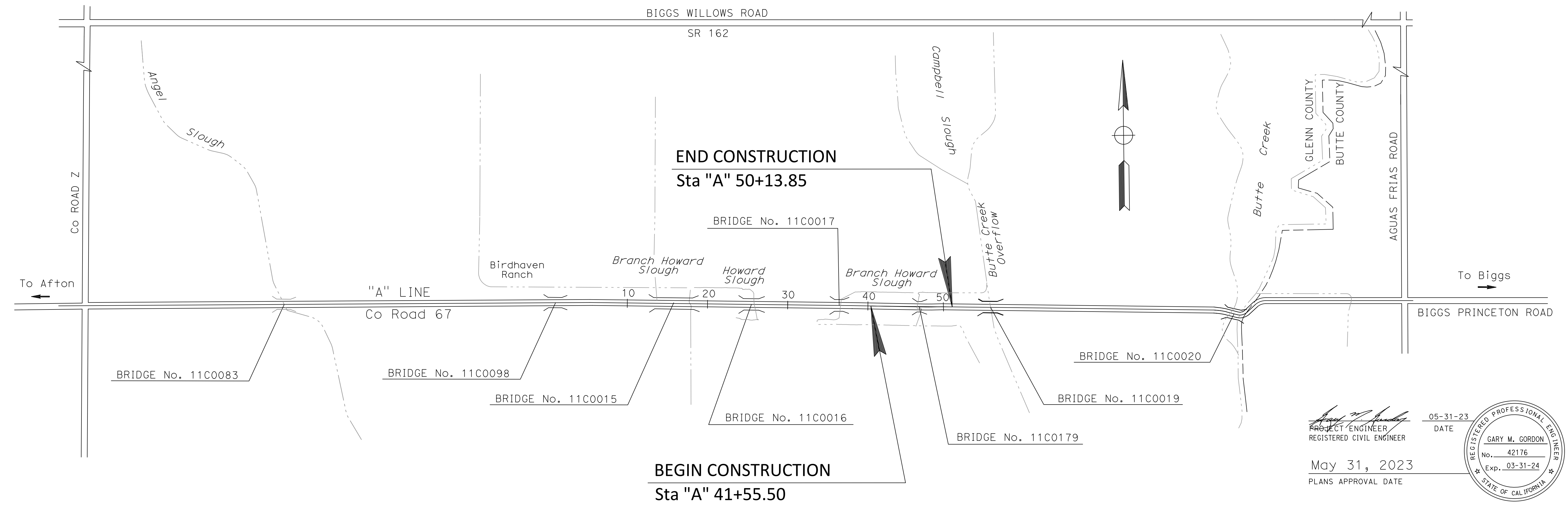
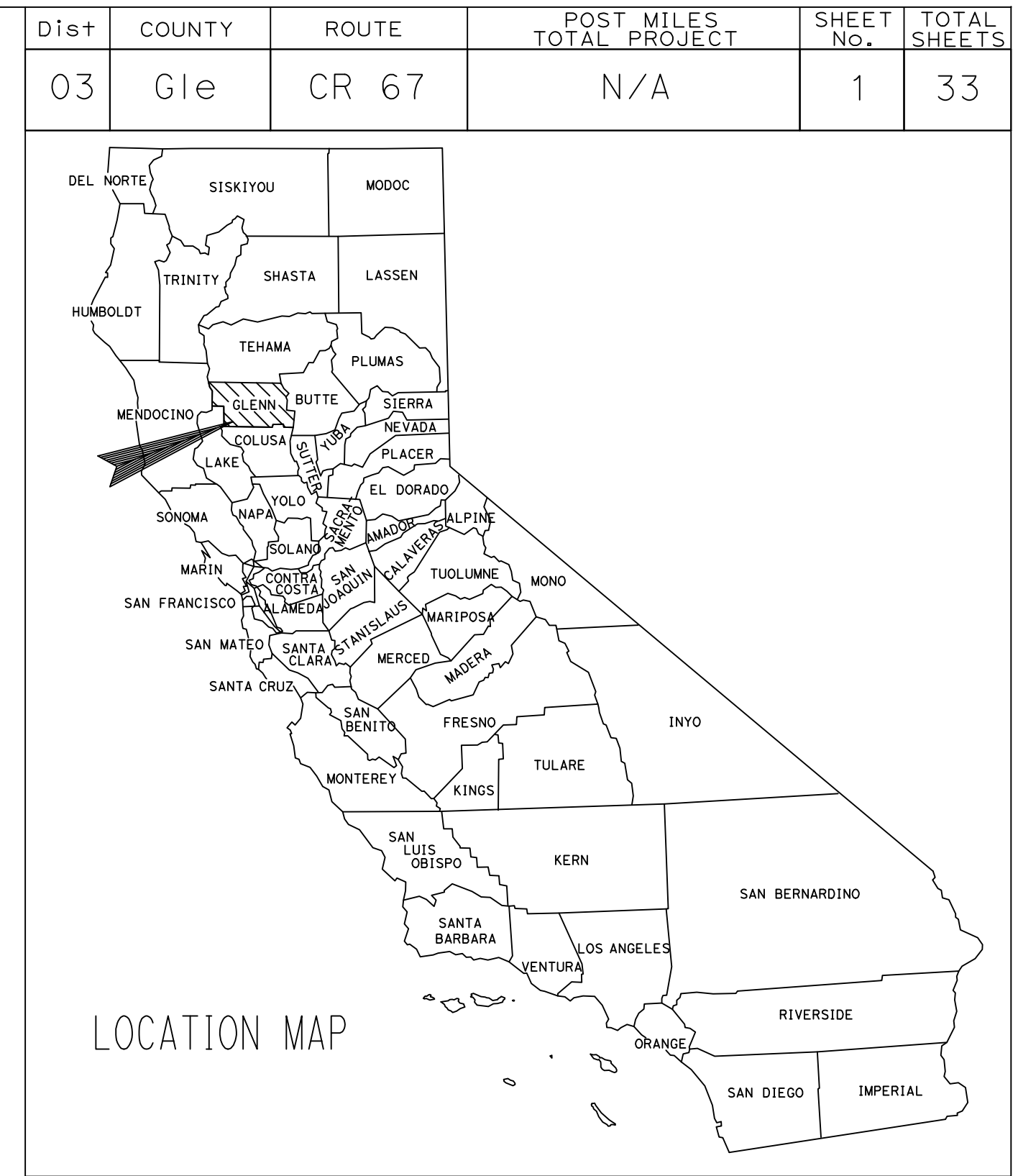
STRUCTURES  
19-33 STRUCTURE PLANS

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

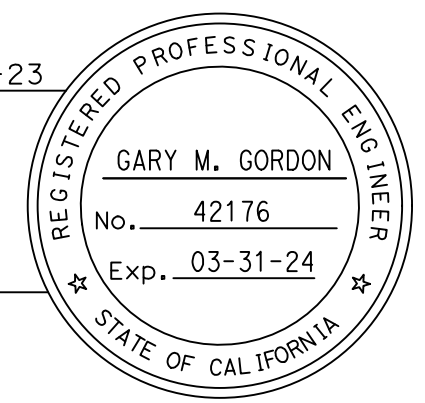
STATE OF CALIFORNIA  
COUNTY OF GLENN  
PUBLIC WORKS AGENCY

PROJECT PLANS FOR CONSTRUCTION ON  
COUNTY ROAD 67  
BRIDGE REPLACEMENT AT BRANCH HOWARD SLOUGH  
ON COUNTY ROAD 67  
FEDERAL AID PROJECT BRLO-5911 (050)  
STATE BRIDGE No. 11C0179

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2022

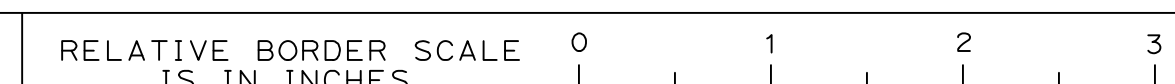


Project Engineer  
REGISTERED CIVIL ENGINEER  
GARY M. GORDON  
No. 42176  
Exp. 03-31-24  
DATE 05-31-23  
PLANS APPROVAL DATE



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

COUNTY OF GLENN:  
WILLDAN ENGINEERING  
2400 WASHINGTON AVENUE, SUITE 101  
REDDING, CALIFORNIA 96001  
COUNTY OF GLENN  
PUBLIC WORKS AGENCY  
777 N. COLUSA STREET  
WILLOWS, CALIFORNIA 95988



USERNAME = KEVIN  
DGN FILE = 03-101785aa001

DATE PLOTTED = 5/31/2023  
TIME PLOTTED = 12:26:21 PM  
LAST REVISION = 05-31-23

**NOTES:**

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTION) ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

**STRUCTURAL SECTION NOTES:**

1 Prop SECTION  
6.25" HMA TYPE A  
23.5" CI 2 AB

2 EXISTING SECTION VARIES

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	2	33

05-31-23  
REGISTERED CIVIL ENGINEER DATE

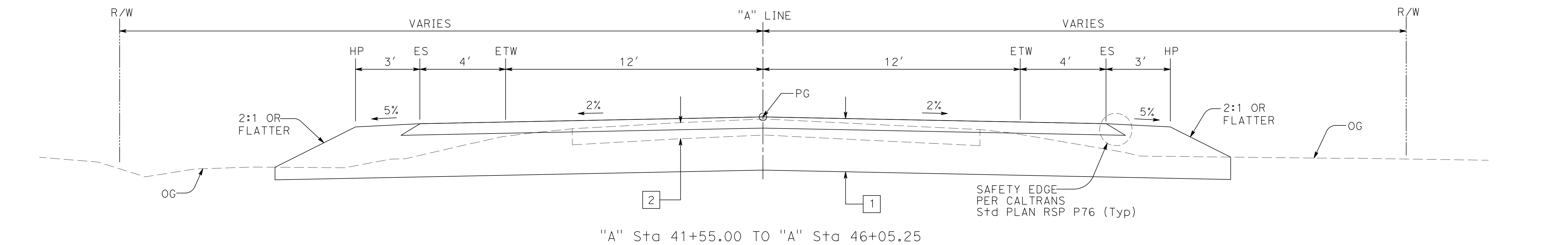
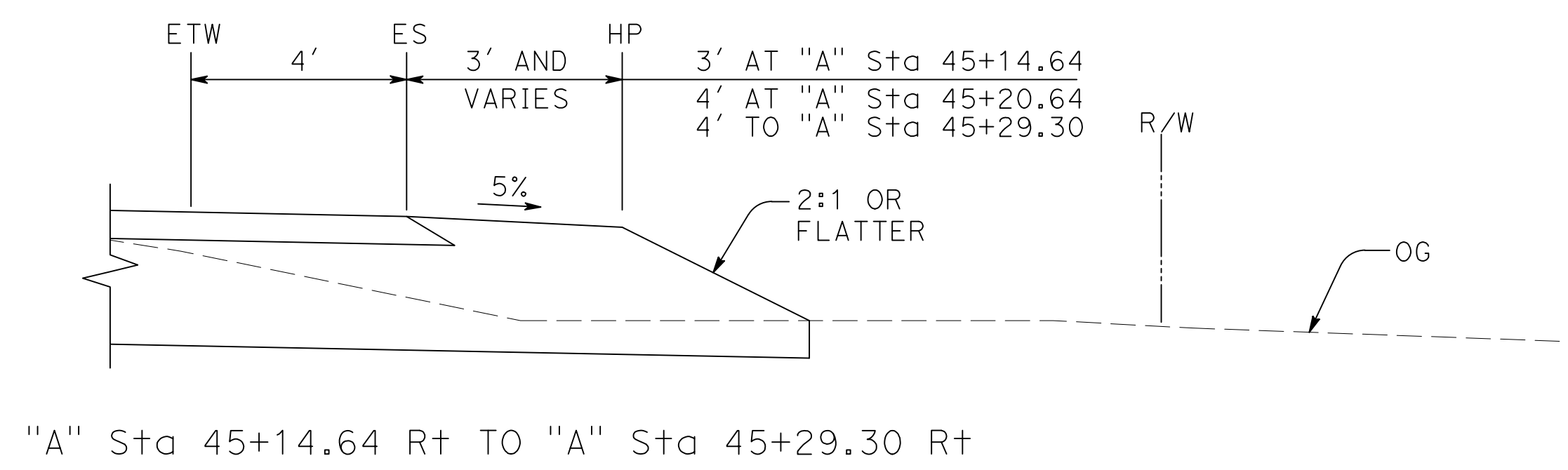
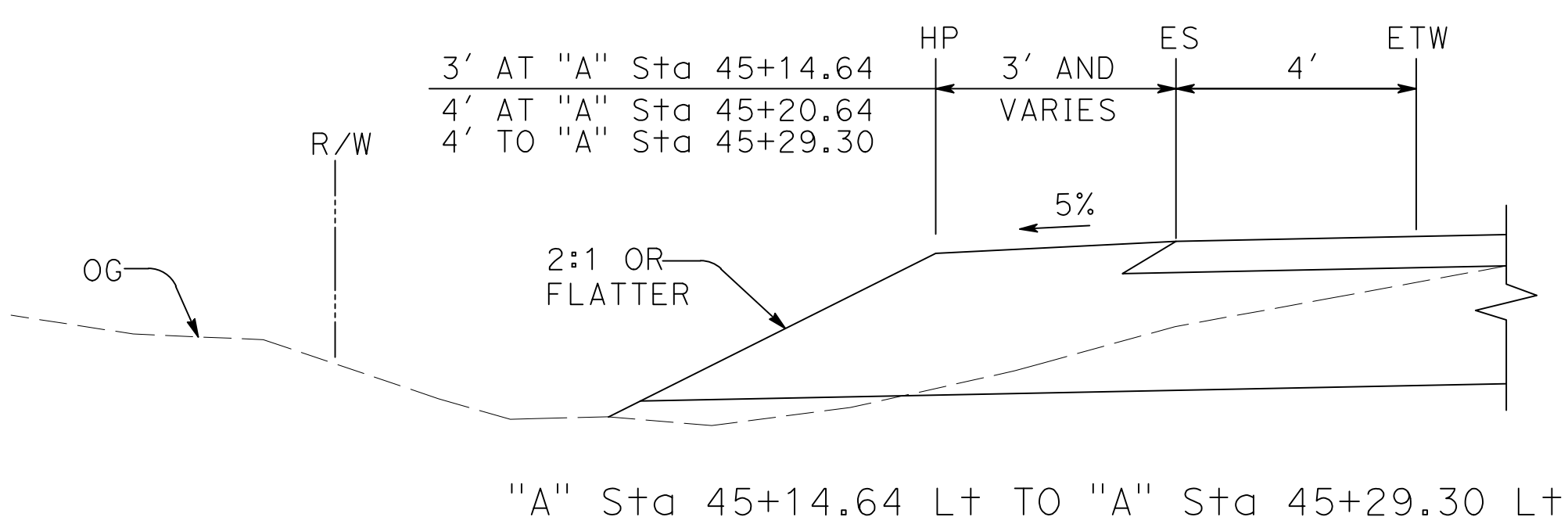
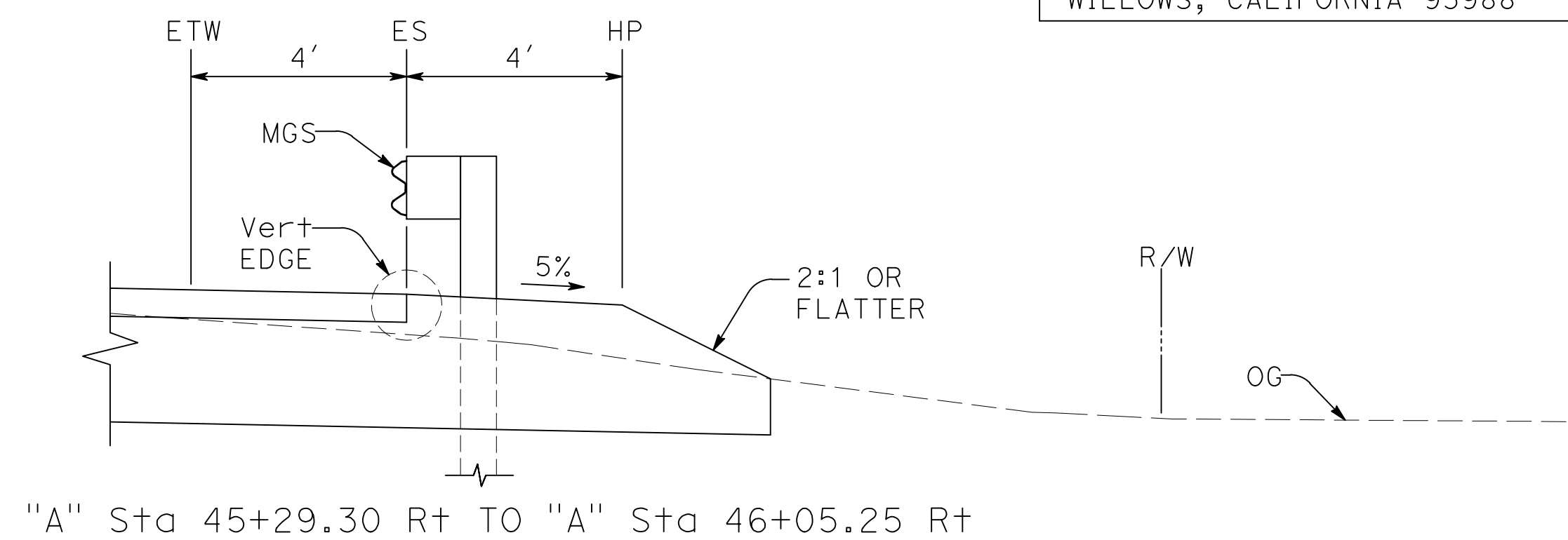
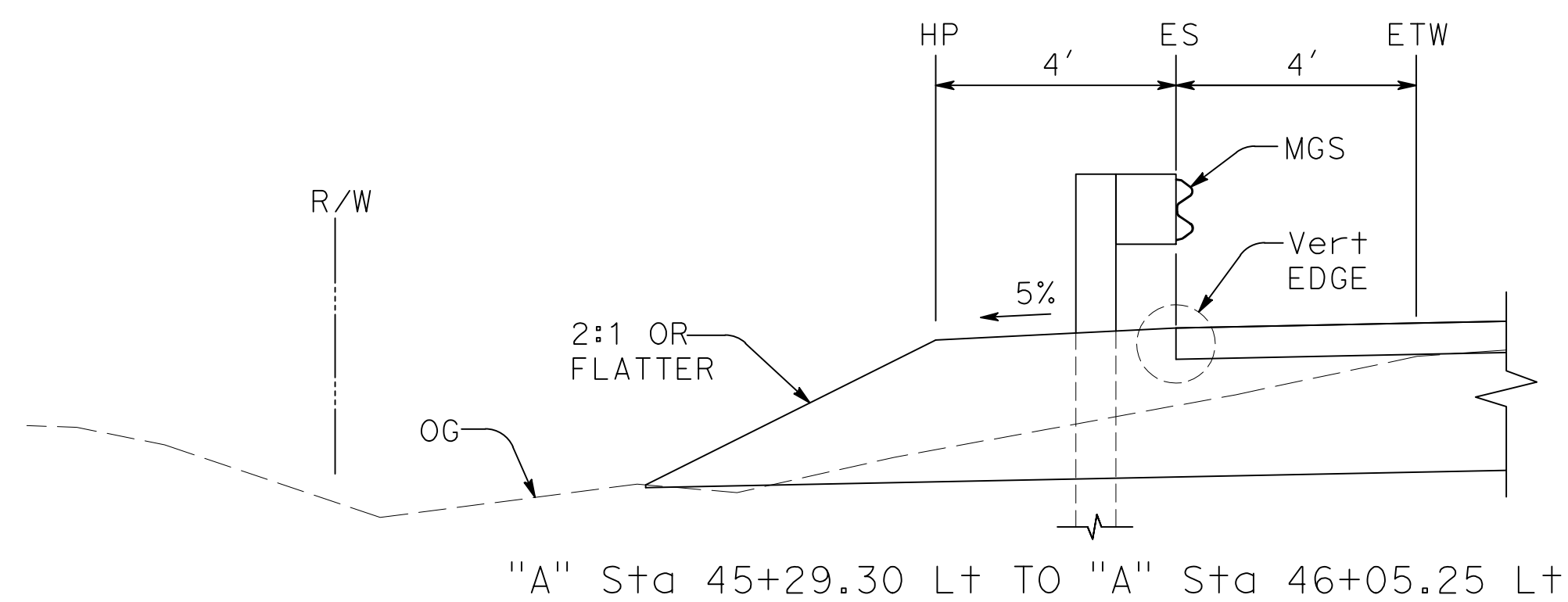
May 31, 2023  
PLANS APPROVAL DATE

GARY M. GORDON  
No. 42176  
Exp. 03-31-24  
CIVIL  
STATE OF CALIFORNIA

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2400 WASHINGTON AVENUE, SUITE 101  
REDDING, CALIFORNIA 96001

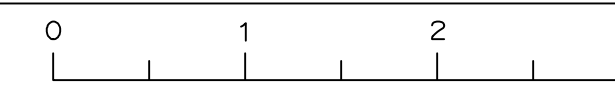
COUNTY OF GLENN  
PUBLIC WORKS AGENCY  
777 N. COLUSA STREET  
WILLOWS, CALIFORNIA 95988

KCG  
05-31-23  
REVISED BY  
DATE REVISED  
R. UHLMANN  
G. GORDON  
CALCULATED-DESIGNED BY  
CHECKED BY  
PROJECT ENGINEER  
GARY M. GORDON



**Co ROAD 67**

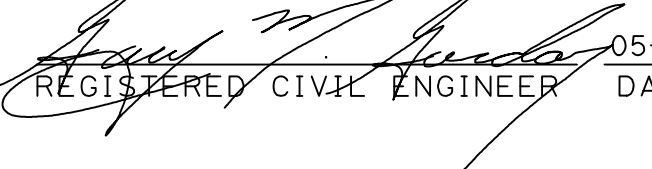
**TYPICAL CROSS SECTION X-1**  
NO SCALE

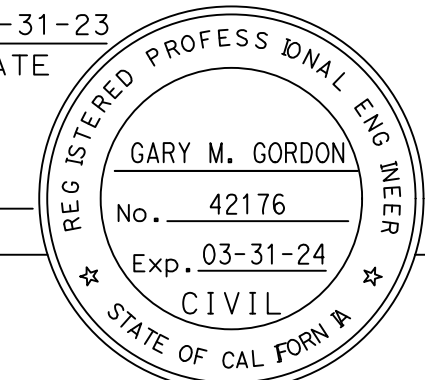


**NOTES:**

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTION) ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	3	33

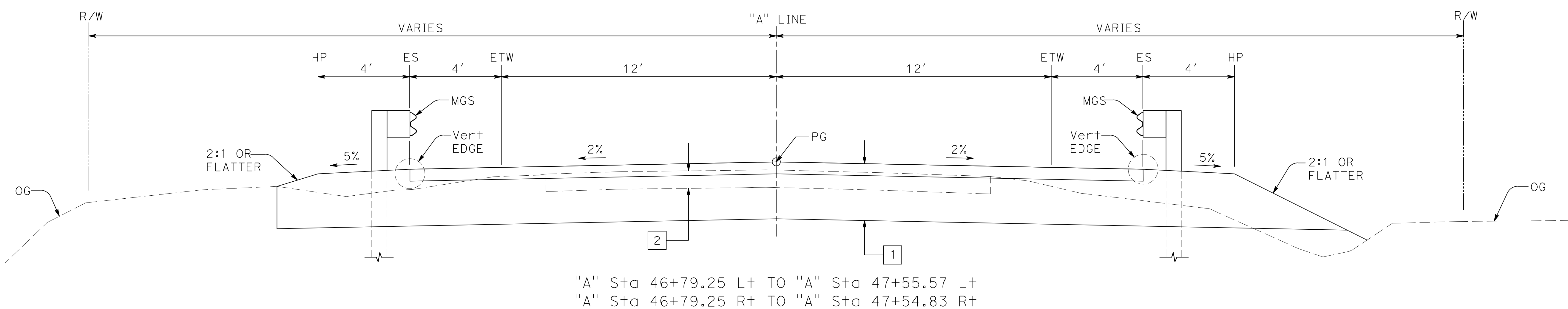
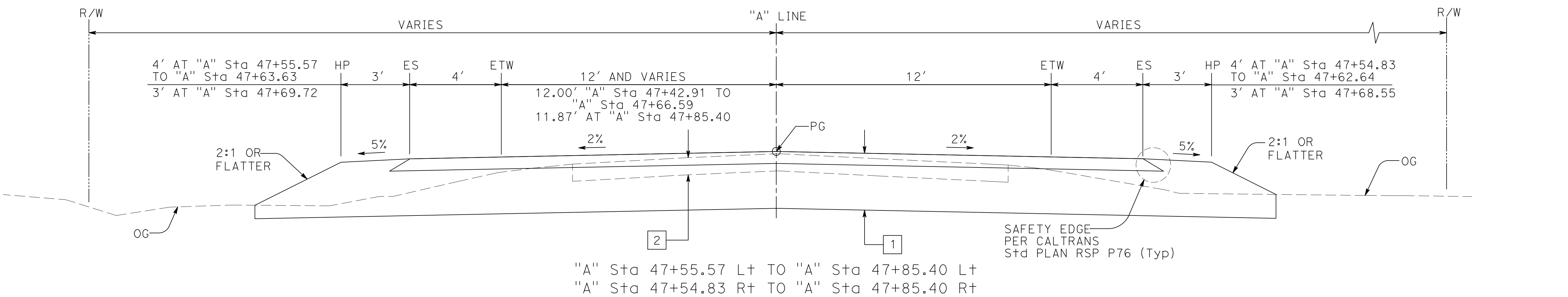
  
 REGISTERED CIVIL ENGINEER DATE 05-31-23  
 May 31, 2023  
 PLANS APPROVAL DATE



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 REDDING, CALIFORNIA 96001

COUNTY OF GLENN  
 PUBLIC WORKS AGENCY  
 777 N. COLUSA STREET  
 WILLOWS, CALIFORNIA 95988

PROJECT ENGINEER GARY M. GORDON  
 CALCULATED-DESIGNED BY GARY M. GORDON  
 CHECKED BY G. GORDON  
 REVISED BY R. UHLMANN  
 DATE REVISED 05-31-23  
 KCG



**Co ROAD 67**

**TYPICAL CROSS SECTION X-2**  
NO SCALE

**NOTES:**

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTION) ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	4	33

REGISTERED CIVIL ENGINEER DATE 05-31-23

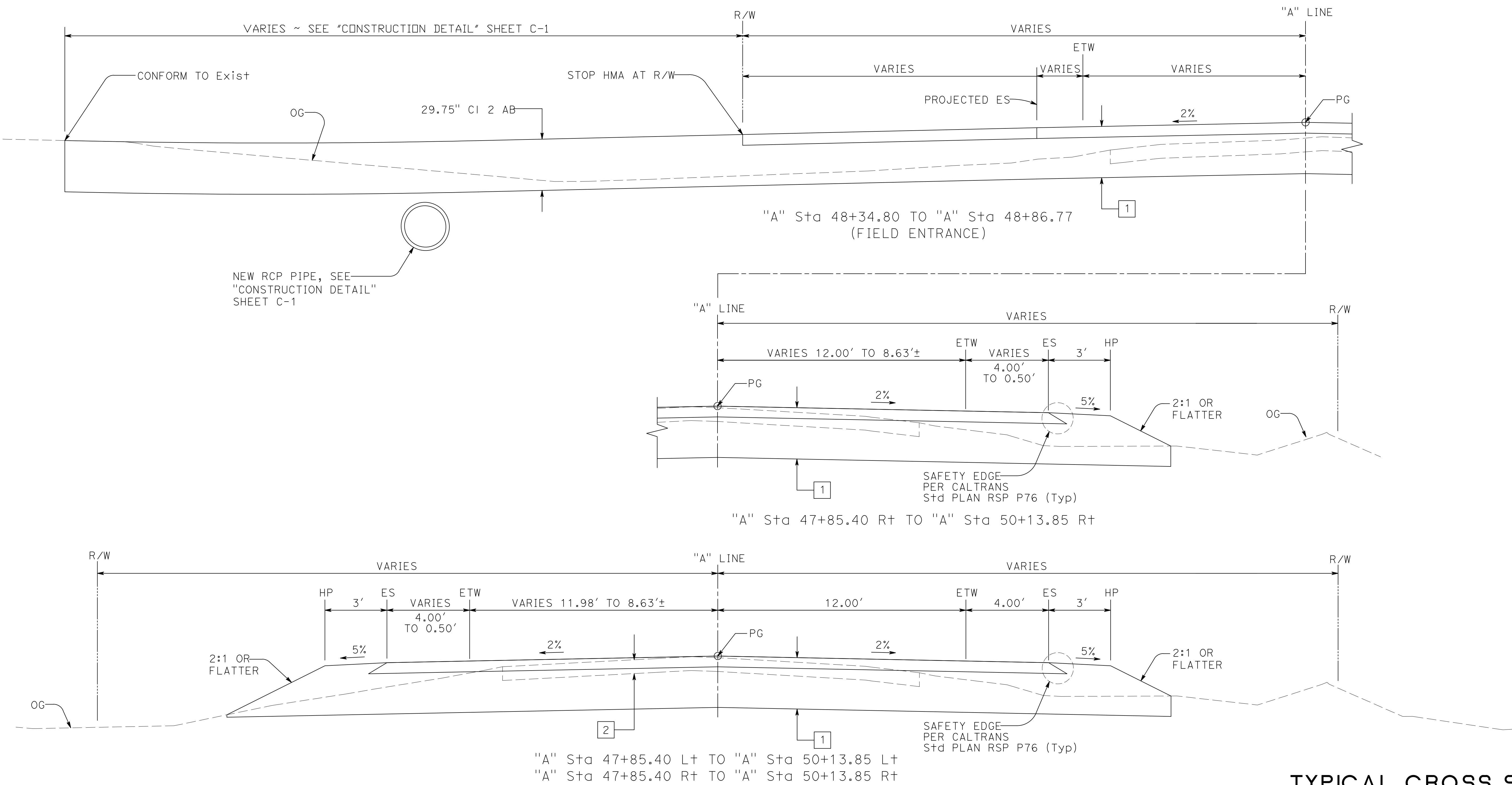
May 31, 2023  
PLANS APPROVAL DATE

GARY M. GORDON  
No. 42176  
Exp. 03-31-24  
CIVIL  
STATE OF CALIFORNIA

WILLDAN ENGINEERING  
2400 WASHINGTON AVENUE, SUITE 101  
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COUNTY OF GLENN  
PUBLIC WORKS AGENCY  
777 N. COLUSA STREET  
WILLOWS, CALIFORNIA 95988

KCG	05-31-23
REVISOR	DATE
R. UHLMANN	G. GORDON
CALCULATED-DRAWN	CHECKED BY
PROJECT ENGINEER	GARY M. GORDON



"A" Sta 47+85.40 Lt TO "A" Sta 50+13.85 Lt  
"A" Sta 47+85.40 Rt TO "A" Sta 50+13.85 Rt

**Co. ROAD 67**

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




**NOTES:**

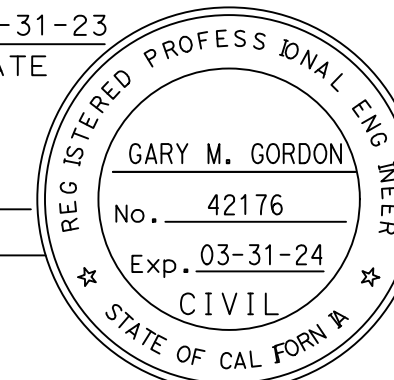
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT GLENN COUNTY PUBLIC WORKS AGENCY.
- BASIS OF BEARING: TAKEN AS N87°6'59.47"E BETWEEN POINTS 5860 AND 5001 AS SHOWN ON THIS SHEET.
- COORDINATES, DISTANCES AND BEARINGS ARE BASED ON CCS 1983, ZONE 2, DERIVED FROM GPS OBSERVATIONS. MULTIPLY DISTANCES SHOWN BY 1.000063654 TO OBTAIN GROUND LEVEL DISTANCES.
- ELEVATIONS ARE BASED ON 1988 NATIONAL GEODETIC VERTICAL DATUM (NGVD). BENCHMARK ELEVATIONS ARE BASED UPON A FOUND BRONZE DISK "HOWARD" TAKEN AS ELEVATION 74.88.

**CONTROL FOR DESIGN AND CONSTRUCTION**

POINT No.	NORTHING	EASTING	ELEVATION	DESCRIPTION
5001	2279027.67	6590514.16	74.88	FOUND BRONZE DISK "HOWARD" IN TOP OF SOUTHEAST WINGWALL OF Br. No. 11C0017
5860	2279009.86	6590160.48	70.84	FOUND ALUMINUM CAP "465", SOUTHWEST OF Br. No. 11C0017 (37.28' Rt "A" 33+48.24)

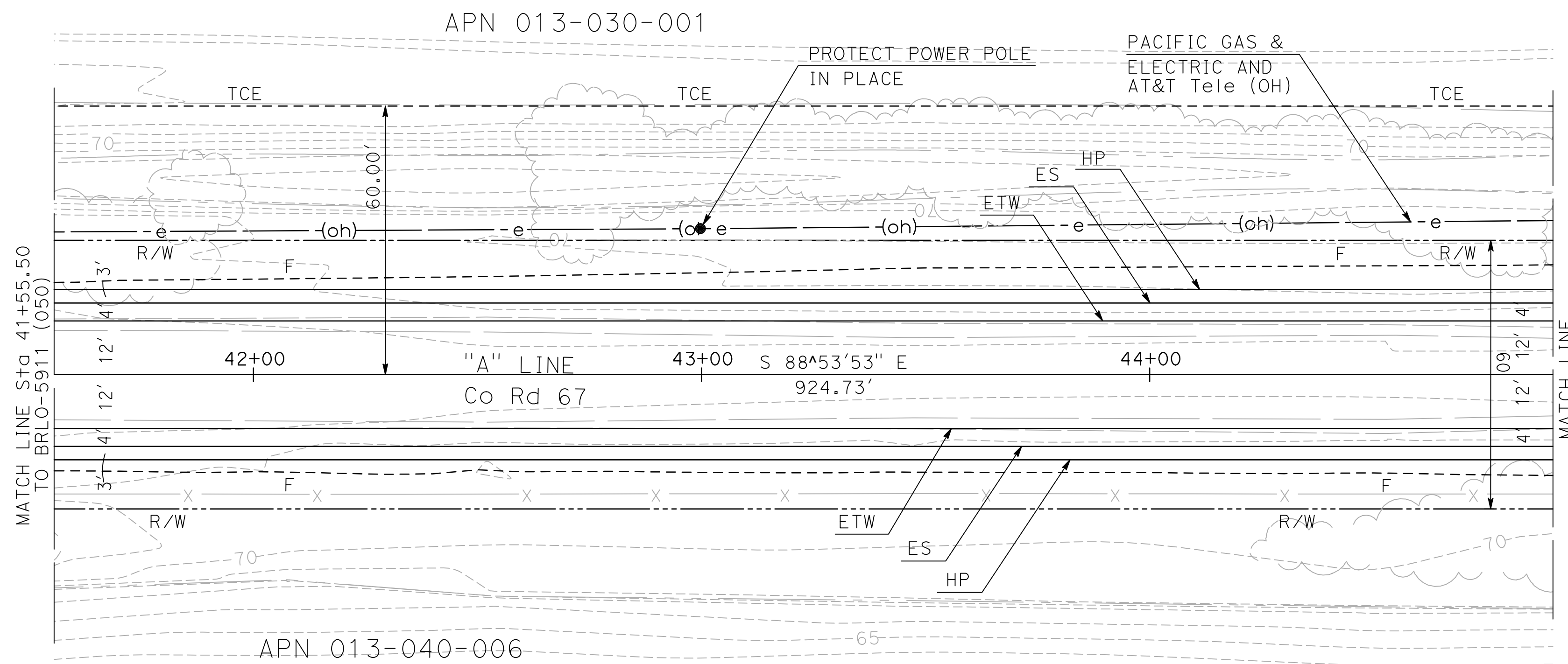
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	5	33

  
 REGISTERED CIVIL ENGINEER DATE 05-31-23  
 May 31, 2023  
 PLANS APPROVAL DATE

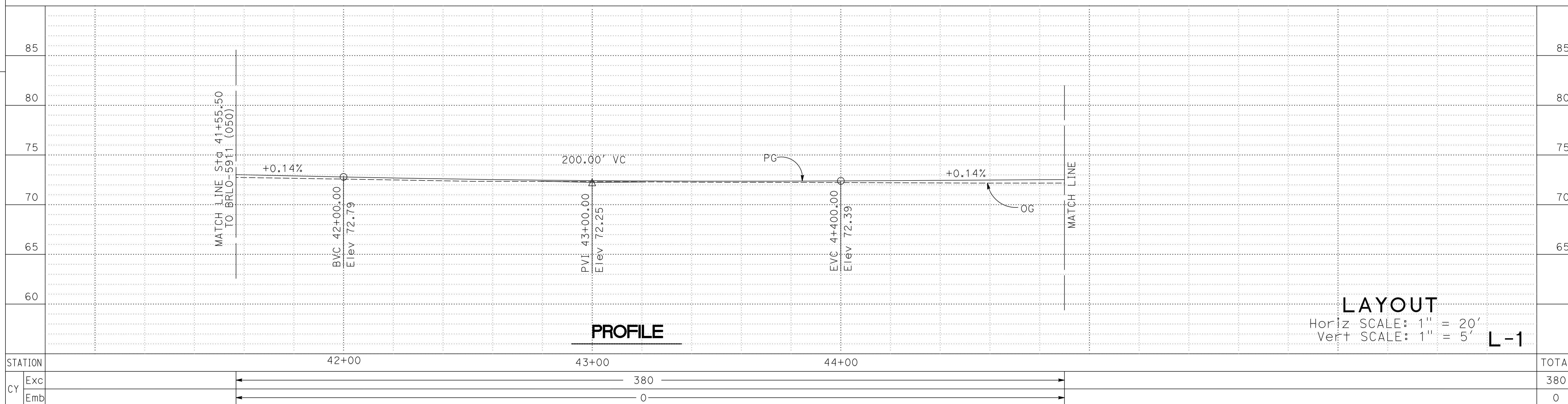


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COUNTY OF GLENN  
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 WILLOWS, CALIFORNIA 95988



**PLAN**



**PROFILE**

**LAYOUT**

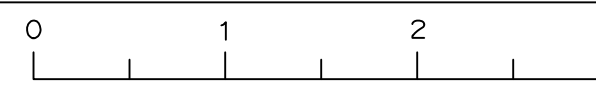
Horiz SCALE: 1" = 20'  
 Vert SCALE: 1" = 5'

**L-1**

STATION	Exc	Emb	TOTAL
42+00			
43+00			
44+00			
	380	0	380
			0

USERNAME => KEVIN  
 DGN FILE => 03-101785e001

RELATIVE BORDER SCALE  
 IS IN INCHES



LAST REVISION DATE PLOTTED => 5/31/2023  
 05-31-23 TIME PLOTTED => 1:52:45 PM

**NOTE:**  
FOR ACCURATE RIGHT OF WAY DATA,  
CONTACT COUNTY OF GLENN PUBLIC  
WORKS AGENCY.

**CURVE DATA**

No. @	R	Δ	T	L
1	1300.00'	2°39'01"	30.07'	60.13'
2	1300.00'	2°14'41"	25.47'	50.93'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	6	33

05-31-23  
REGISTERED CIVIL ENGINEER DATE  
GARY M. GORDON  
No. 42176  
Exp. 03-31-24  
CIVIL  
STATE OF CALIFORNIA

May 31, 2023  
PLANS APPROVAL DATE

WILLDAN ENGINEERING  
2400 WASHINGTON AVENUE, SUITE 101  
REDDING, CALIFORNIA 96001

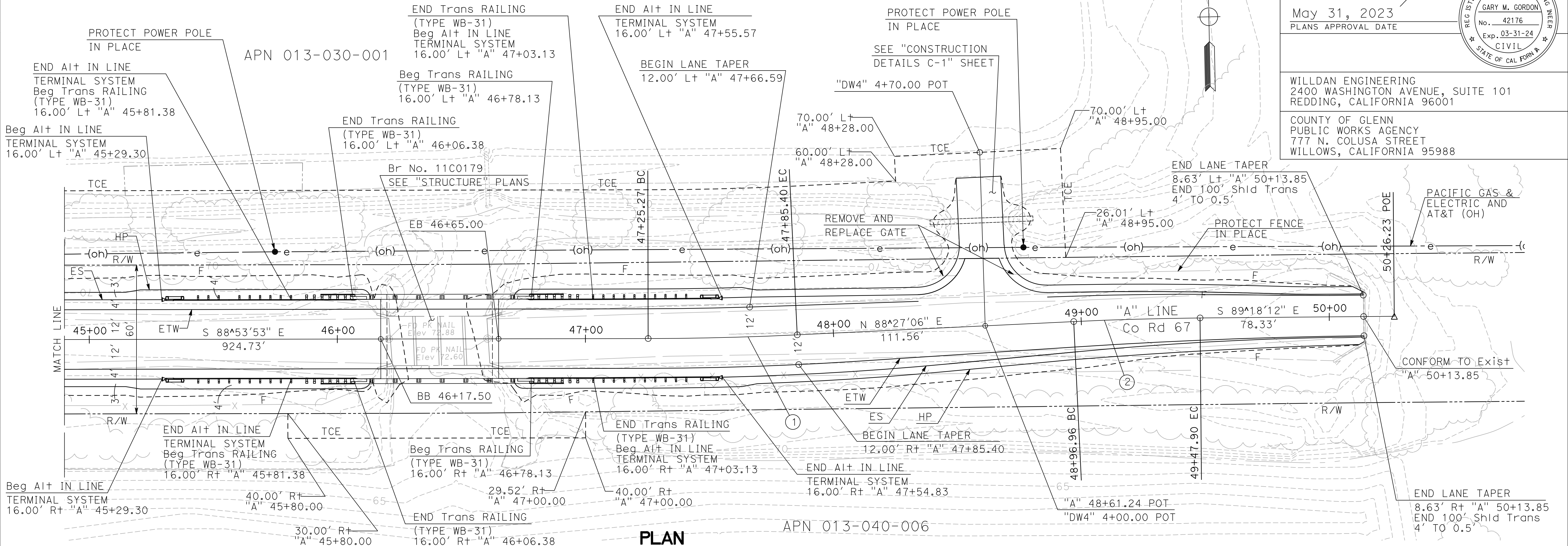
COUNTY OF GLENN  
PUBLIC WORKS AGENCY  
777 N. COLUSA STREET  
WILLOWS, CALIFORNIA 95988

PACIFIC GAS & ELECTRIC AND AT&T (OH)

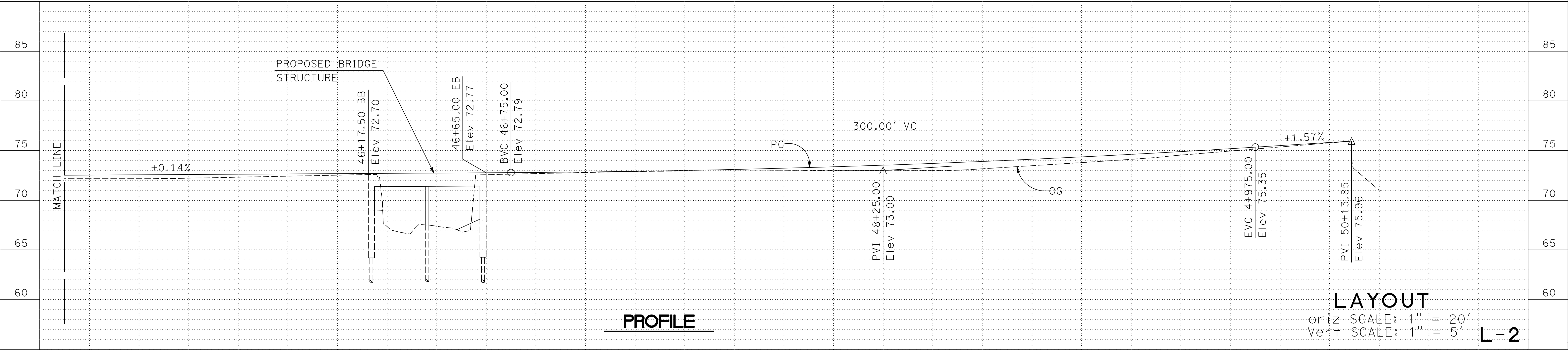
CONFORM TO Exist "A" 50+13.85

END LANE TAPER 8.63' L+ "A" 50+13.85  
END 100' Shld Trans 4' TO 0.5'

END LANE TAPER 8.63' R+ "A" 50+13.85  
END 100' Shld Trans 4' TO 0.5'



**PLAN**



**PROFILE**

**LAYOUT**  
Horiz SCALE: 1" = 20'  
Vert SCALE: 1" = 5'

**L-2**

STATION	45+00	46+00	47+00	48+00	49+00	50+00	TOTAL
Exc		291		756			1,047
Emb		24		63			87

USERNAME => KEVIN  
DGN FILE => 03-101785e002



DATE PLOTTED => 5/31/2023  
TIME PLOTTED => 2:19:17 PM

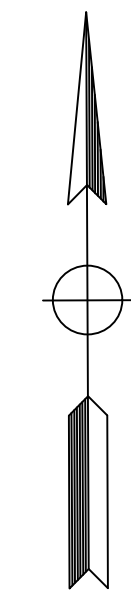
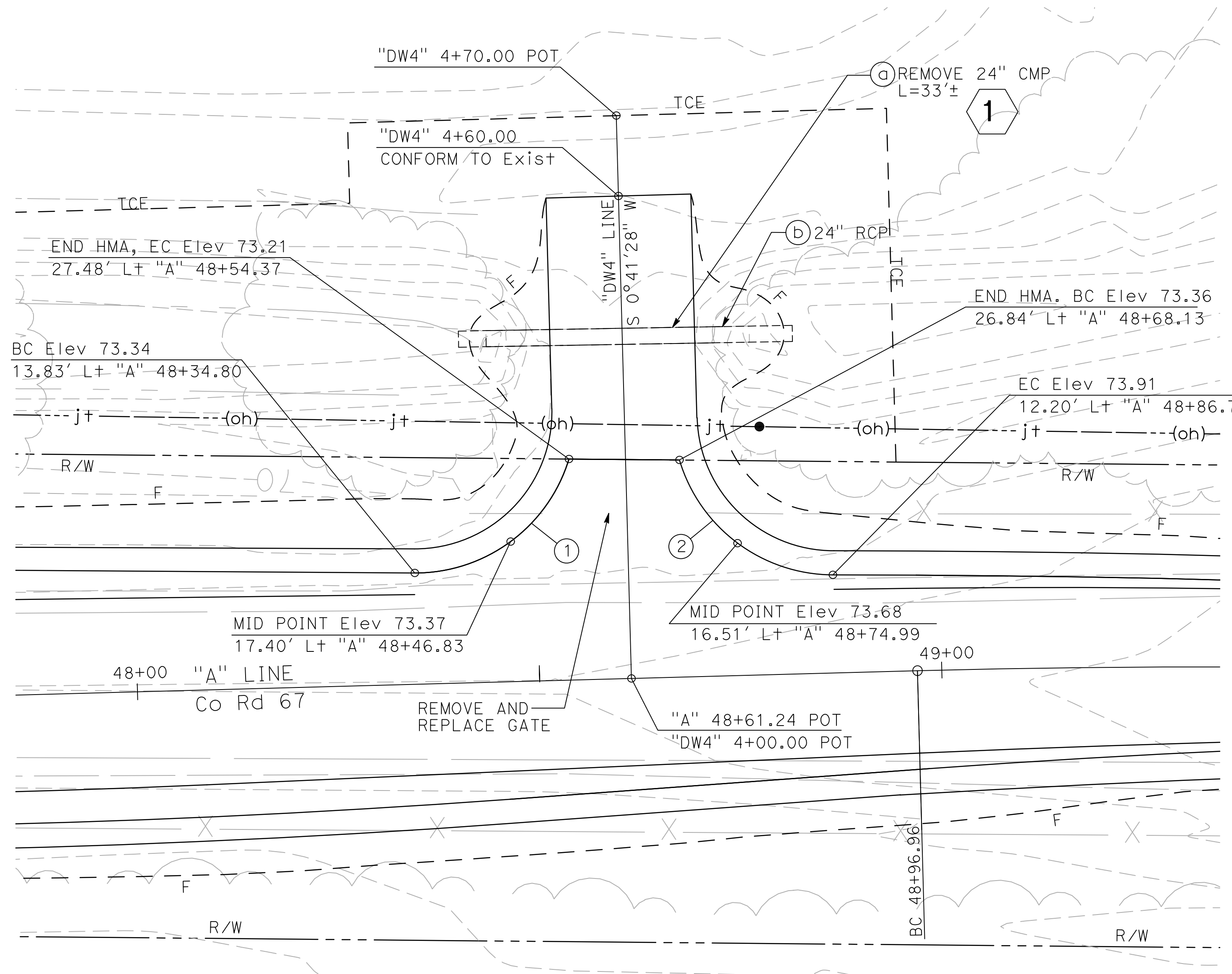
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	7	33

REGISTERED CIVIL ENGINEER  
 DATE 05-31-23  
 May 31, 2023  
 PLANS APPROVAL DATE

GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA

WILLDAN ENGINEERING  
 2400 WASHINGTON AVENUE, SUITE 101  
 REDDING, CALIFORNIA 96001

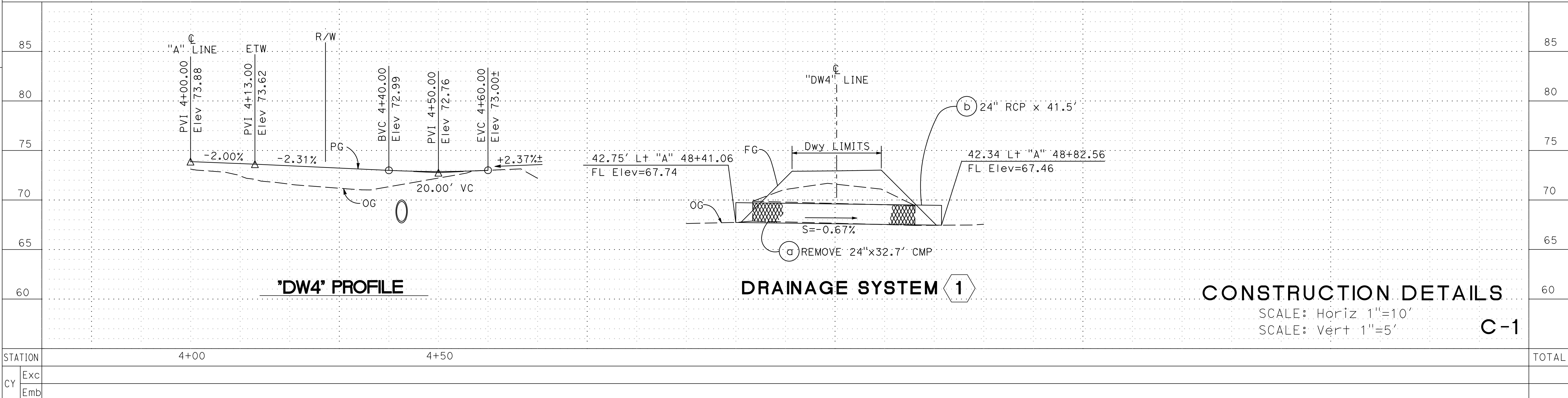
COUNTY OF GLENN  
 PUBLIC WORKS AGENCY  
 777 N. COLUSA STREET  
 WILLOWS, CALIFORNIA 95988



**CURVE DATA**

No. Ⓢ	R	Δ	T	L
1	20.00'	73°21'17"	14.90'	25.61'
2	20.00'	73°06'34"	14.83'	25.52'

PROJECT ENGINEER	GARY M. GORDON
CALCULATED-DESIGNED BY	CHECKED BY
R. UHLMANN	G. GORDON
REVISED BY	DATE REVISED
KCG	05-31-23



**CONSTRUCTION DETAILS**  
 SCALE: Horiz 1"=10'  
 SCALE: Vert 1"=5'  
**C-1**

LAST REVISION DATE PLOTTED => 5/31/2023  
 05-31-23 TIME PLOTTED => 2:58:04 PM

**NOTE:**  
FOR ACCURATE RIGHT OF WAY DATA,  
CONTACT COUNTY OF GLENN PUBLIC  
WORKS AGENCY.

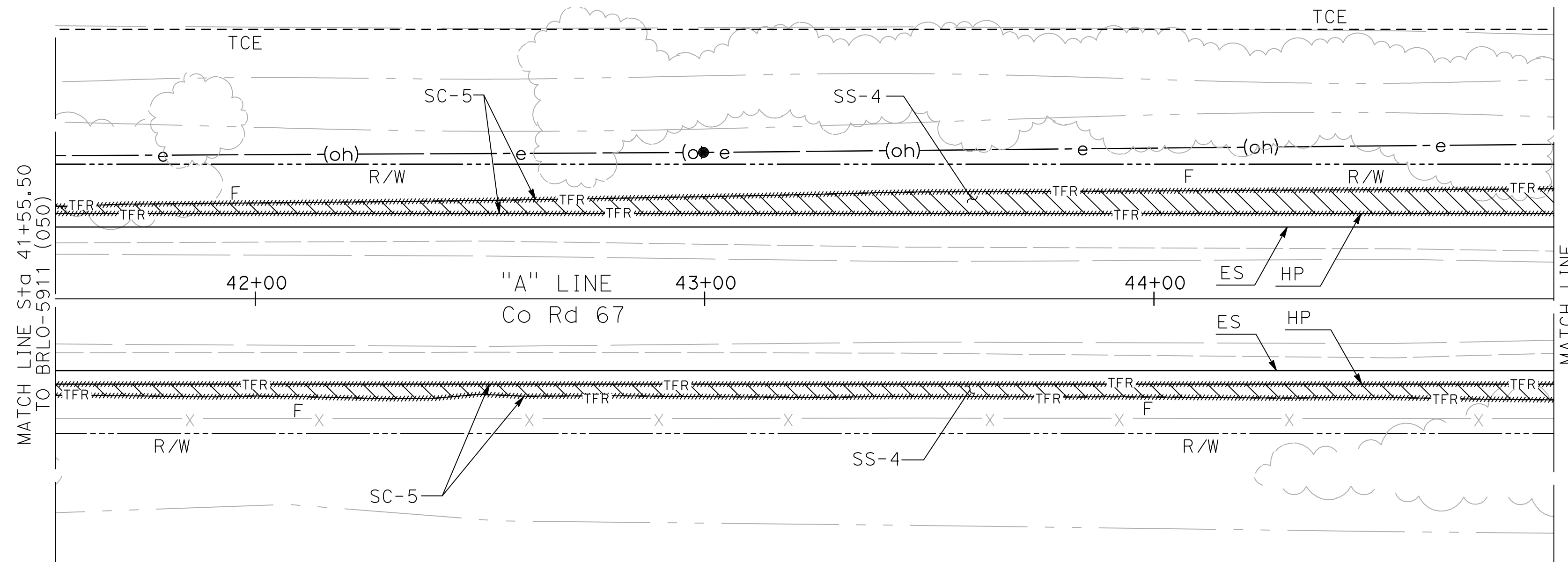
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	8	33

REGISTERED CIVIL ENGINEER DATE 05-31-23  
 May 31, 2023  
 PLANS APPROVAL DATE

REG. NO. 42176  
 Exp. 03-31-24  
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 STATE OF CALIFORNIA

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COUNTY OF GLENN  
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 777 N. COLUSA STREET  
 WILLOWS, CALIFORNIA 95988



- LEGEND:**
- ////// TFR //// SC-5: TEMPORARY FIBER ROLL CONTROL PER CALTRANS STANDARD T56
  - ▨ SS-4: HYDROSEEDING FOR ALL PROPOSED SLOPES. MIX TO BE DETERMINED.
  - ⌒ SC-4: CHECK DAMS PER CALTRANS STANDARD T57

**TEMPORARY BMP NOTES:**

- NOT ALL BEST MANAGEMENT PRACTICES (BMPs) SHOWN. CONTRACTOR SHALL USE ALL APPROPRIATE TEMPORARY WATER POLLUTION CONTROL BMPs AS INDICATED ON THE PLANS AND AS DIRECTED BY THE APPROVED PROJECT WPCP OR SWPPP.
- BMPs WILL BE APPLIED TO AND MAINTAINED IN ACTIVE AND NON-ACTIVE DISTURBED SOIL AREAS (DSAs).
- FIBER ROLLS SHALL BE PLACED ON DISTURBED SOIL AT THE COMPLETION OF GRADING.
- CONTRACTOR TO ESTABLISH TEMPORARY CONSTRUCTION ENTRANCE PER CALTRANS STANDARD T58 AND TEMPORARY CONCRETE WASHOUT FACILITY PER CALTRANS STANDARD T59.
- THE CHANNEL CAPACITY MUST BE MAINTAINED DURING THE RAINY SEASON OCTOBER 15 TO APRIL 15.
- A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR ANY DAMAGED EROSION CONTROL MEASURES WHEN RAIN IS IMMINENT.

**TEMPORARY BMP NOTES (CONTINUED):**

- DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE ENGINEER.
- ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE-DAY RAIN PROBABILITY FORECAST EXCEEDS 40 PERCENT.
- AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM STREETS, CHECK BERM'S, AND DESILTING BASINS AND THE BASINS PUMPED DRY. ANY GRADED SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING A RAINSTORM SHALL ALSO BE IMMEDIATELY REPAIRED.
- GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE TO BE DIRECTED TOWARD DESILTING FACILITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREA WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.

**PERMANENT BMP NOTES:**

- CONTRACTOR SHALL PROVIDE APPROPRIATE EROSION CONTROL BMPs AS INDICATED ON THE PLANS AND AS DIRECTED BY THE APPROVED PROJECT WPCP OR SWPPP.
- SEED MIX FOR HYDROSEEDING SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- PROPERLY MAINTAINED FIBER ROLLS FROM TEMPORARY WATER POLLUTION CONTROL WORK MAY BE USED FOR EROSION CONTROL. MISSING, DEGRADED OR OTHERWISE DAMAGED FIBER ROLLS WILL BE REPLACED AS DIRECTED BY THE ENGINEER.

**TEMPORARY WATER POLLUTION/  
 EROSION CONTROL PLAN**

SCALE: 1" = 20'

**WPC-1**

APPROVED FOR TEMPORARY WATER POLLUTION AND EROSION CONTROL WORK ONLY

USERNAME => KEVIN  
 DGN FILE => 03-101785gb001

RELATIVE BORDER SCALE  
 IS IN INCHES



LAST REVISION DATE PLOTTED => 5/31/2023  
 05-31-23 TIME PLOTTED => 3:15:32 PM



PROJECT ENGINEER	GARY M. GORDON
CALCULATED-DESIGNED BY	GARY M. GORDON
CHECKED BY	G. GORDON
REVISOR	R. UHLMANN
DATE	05-31-23
REVISED BY	KCG
DATE	05-31-23

**NOTE:**  
FOR ACCURATE RIGHT OF WAY DATA,  
CONTACT COUNTY OF GLENN PUBLIC  
WORKS AGENCY.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	9	33

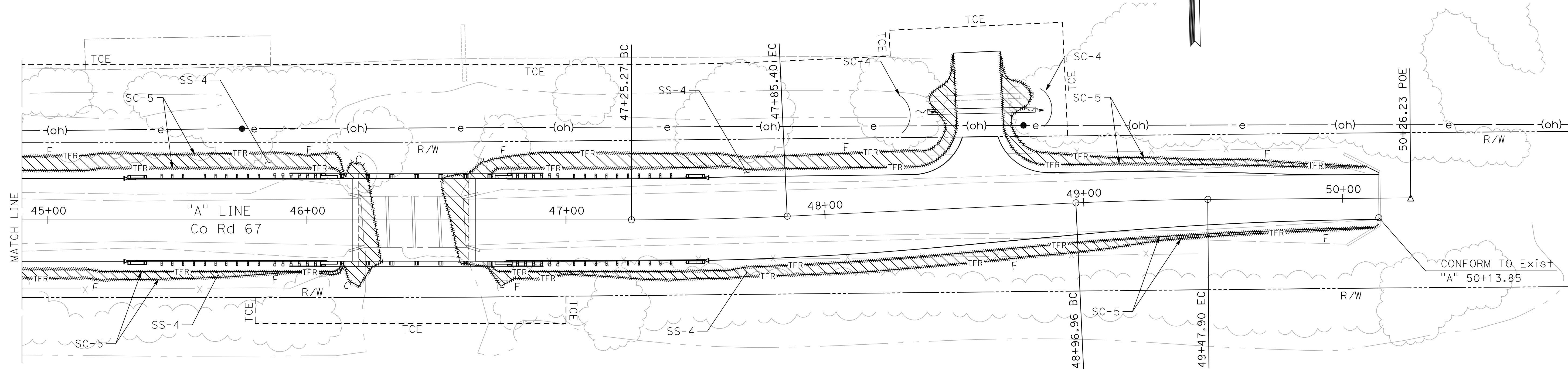
REGISTERED CIVIL ENGINEER DATE 05-31-23

May 31, 2023  
PLANS APPROVAL DATE

GARY M. GORDON  
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Exp. 03-31-24  
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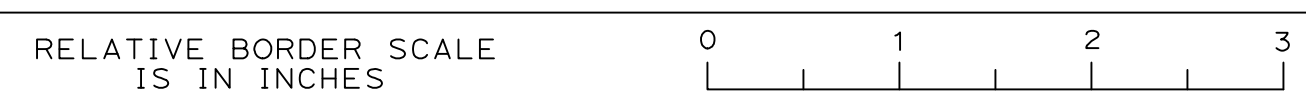
# TEMPORARY WATER POLLUTION/ EROSION CONTROL PLAN

SCALE: 1" = 20'

## WPC-2

APPROVED FOR TEMPORARY WATER POLLUTION AND EROSION CONTROL WORK ONLY

USERNAME => KEVIN  
DGN FILE => 03-101785gb002



LAST REVISION DATE PLOTTED => 5/31/2023  
05-31-23 TIME PLOTTED => 3:27:48 PM

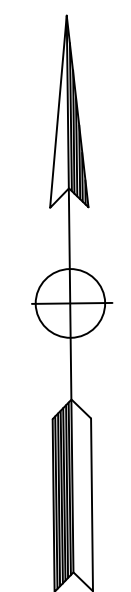
PROJECT ENGINEER	GARY M. GORDON
CALCULATED-DESIGNED BY	CHECKED BY
B. BURCH	R. UHLMANN
REVISED BY	DATE REVISED
KCG	05-31-23

**GENERAL NOTES:**

- SIGNS SHALL CONFORM TO THE 2014 CALIFORNIA MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD) AND THE 2022 CALTRANS STANDARD PLANS AND SPECIFICATIONS.
- SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
- SIGNS WILL REMAIN IN PLACE FOR DURATION OF PROJECT.
- FOR ADDITIONAL TRAFFIC CONTROL SIGNS, SEE DETOUR PLAN DE-1.
- CONTRACTOR SHALL OBTAIN CALTRANS ENCROACHMENT PERMIT FOR SIGNS ON SR 162.
- CONTRACTOR SHALL OBTAIN BUTTE COUNTY ENCROACHMENT PERMIT FOR SIGNS ON AGUAS FRIAS ROAD, AFTON ROAD, AND COUNTY ROAD 67 EAST OF THE GLENN/BUTTE COUNTY LINE.

**LEGEND**

- TEMPORARY SIGN AND POST (ONE POST)
- TEMPORARY SIGN AND POST (TWO POST)
- CONSTRUCTION AREA
- AGRICULTURAL FIELD ACCESS POINT  
LAT: 39°25'13"N, LONG: 121°54'4"W



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	10	33

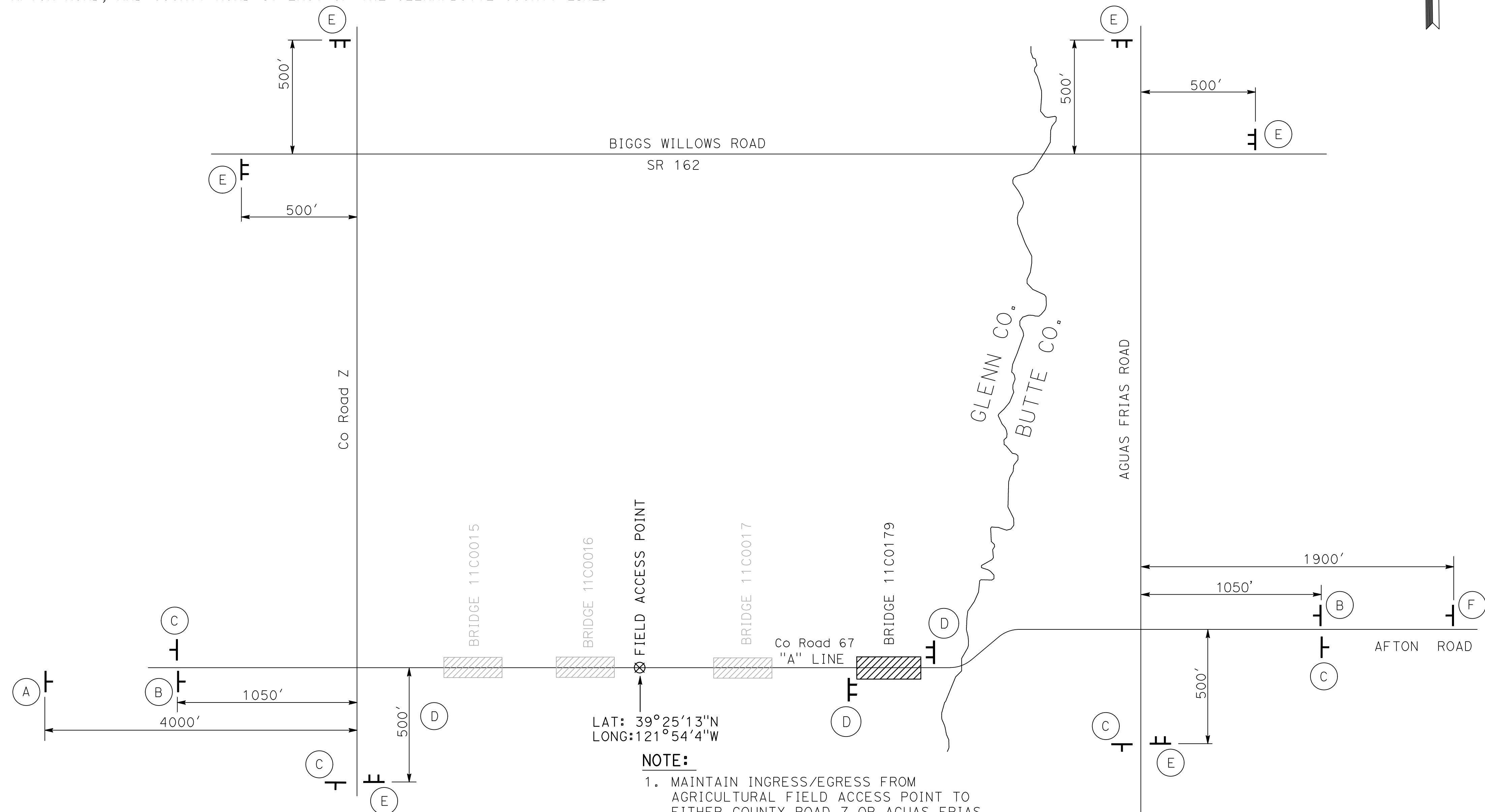
05-31-23  
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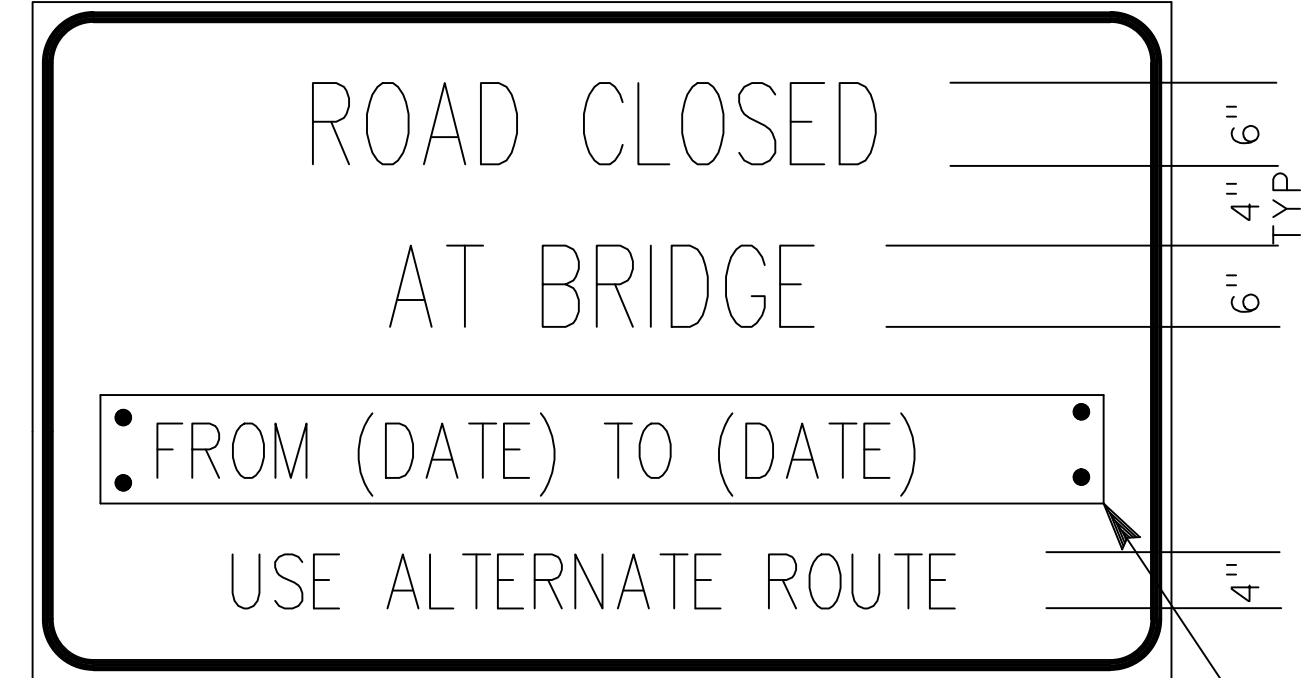
LAT: 39°25'13"N  
LONG: 121°54'4"W

**NOTE:**

- MAINTAIN INGRESS/EGRESS FROM AGRICULTURAL FIELD ACCESS POINT TO EITHER COUNTY ROAD Z OR AGUAS FRIAS ROAD AT ALL TIMES.
- COORDINATE CONSTRUCTION PHASING OF ALL PROJECTS TO MAINTAIN ACCESS OR PROVIDE ALTERNATIVE MEANS OF INGRESS/EGRESS.
- IF MULTIPLE BRIDGES ARE UNDER CONSTRUCTION SIMULTANEOUSLY, THE CONTRACTOR SHALL COORDINATE SIGN PLACEMENT WITH THE ENGINEER.

**STATIONARY MOUNTED CONSTRUCTION AREA SIGNS**

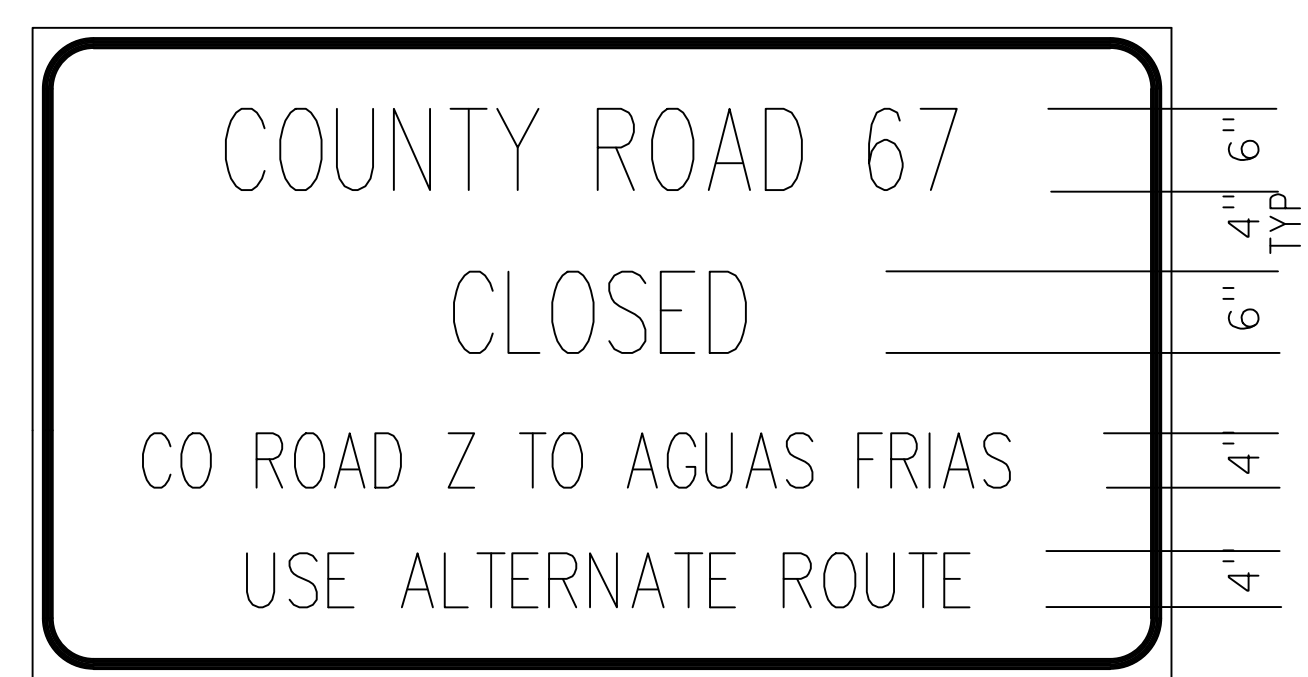
SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE	POST		No. of SIGNS
				NO.	SIZE	
A	R11-3b	30" X 60"	BRIDGE OUT 2 MILES LOCAL TRAFFIC ONLY	1	4" X 4"	1
B	C19(CA)	48" X 48"	ROAD CLOSED AHEAD	1	4" X 4"	2
C	G20-2	36" X 18"	END ROAD WORK	1	4" X 4"	4
D	SPECIAL	84" X 42"	ROAD CLOSED INFORMATION	2	6" X 6"	2
E	SPECIAL	84" X 40"	ROAD CLOSED INFORMATION	2	6" X 6"	5
F	R11-3b	30" X 60"	BRIDGE OUT 3 MILES LOCAL TRAFFIC ONLY	1	4" X 4"	1



SIGN D 6" OVERLAY PANEL WITH 4" LETTERING

**NOTES:**

- LETTERS - SERIES C.
- LETTERS AND BORDERS - BLACK ON ORANGE BACKGROUND.
- SIGN TO BE INSTALLED 2 WEEKS PRIOR TO CONSTRUCTION.



SIGN E

**NOTES:**

- LETTERS - SERIES C.
- LETTERS AND BORDERS - BLACK ON ORANGE BACKGROUND.

**CONSTRUCTION AREA SIGNS**  
NO SCALE CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

USERNAME => KEVIN  
DGN FILE => 03-1017851.d001



LAST REVISION DATE PLOTTED => 5/31/2023  
05-31-23 TIME PLOTTED => 3:59:13 PM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	11	33

05-31-23  
 REGISTERED CIVIL ENGINEER DATE

May 31, 2023  
 PLANS APPROVAL DATE

GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CAL FORM #

WILLDAN ENGINEERING  
 2400 WASHINGTON AVENUE, SUITE 101  
 REDDING, CALIFORNIA 96001

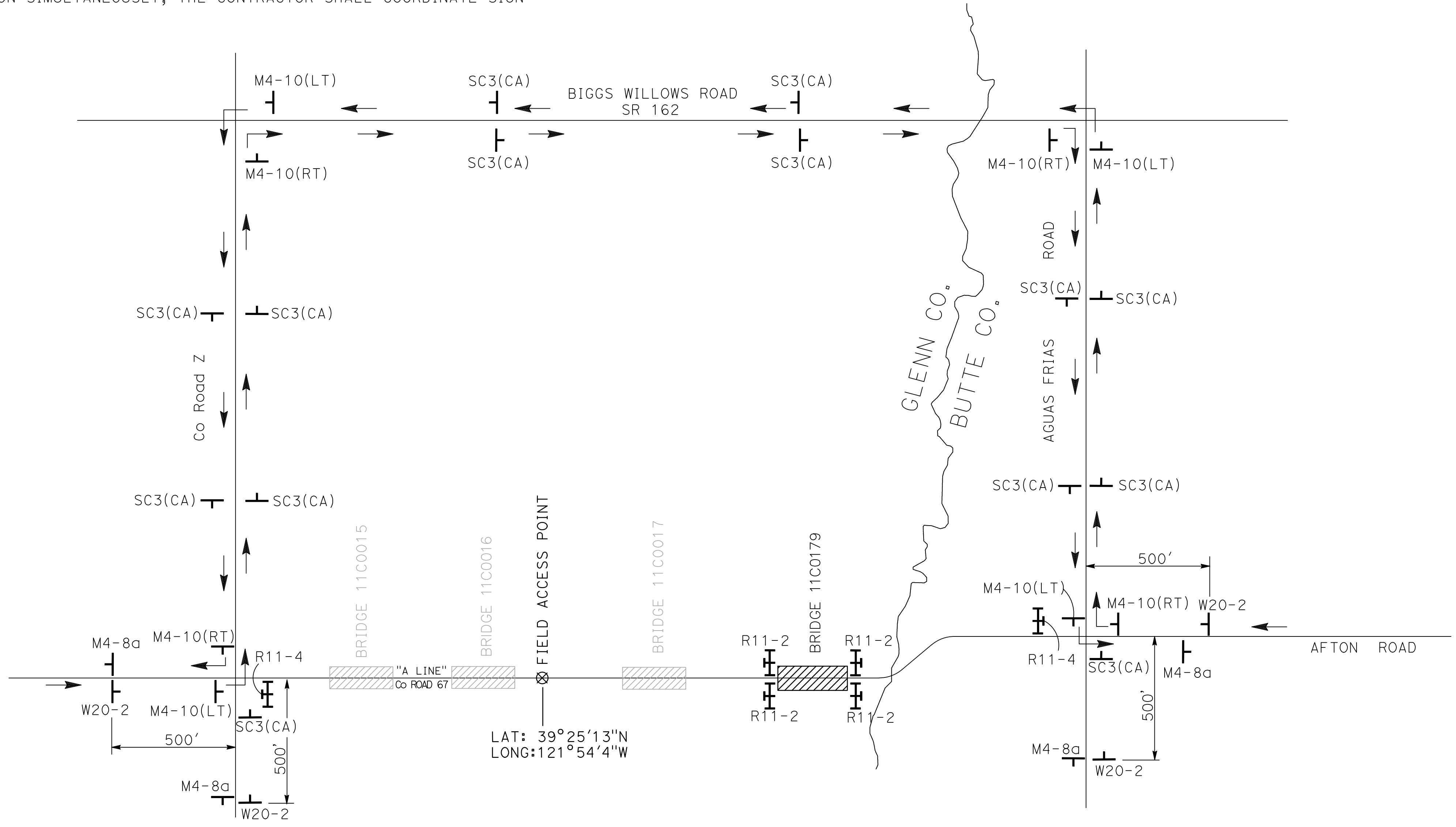
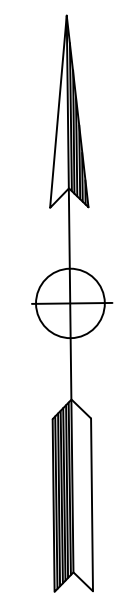
COUNTY OF GLENN  
 PUBLIC WORKS AGENCY  
 777 N. COLUSA STREET  
 WILLOWS, CALIFORNIA 95988

**GENERAL NOTES:**

- SIGNS SHALL CONFORM TO THE 2014 CALIFORNIA MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD) AND THE 2022 CALTRANS STANDARD PLANS AND SPECIFICATIONS.
- SIGN LOCATIONS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
- SIGNS WILL REMAIN IN PLACE FOR DURATION OF PROJECT.
- CONTRACTOR SHALL OBTAIN CALTRANS ENCROACHMENT PERMIT FOR SIGNS ON SR 162.
- CONTRACTOR SHALL OBTAIN BUTTE COUNTY ENCROACHMENT PERMIT FOR SIGNS ON AGUAS FRIAS ROAD, AFTON ROAD, AND COUNTY ROAD 67 EAST OF THE GLENN/BUTTE COUNTY LINE.
- MAINTAIN INGRESS/EGRESS FROM AGRICULTURAL FIELD ACCESS POINT TO EITHER COUNTY ROAD Z OR AGUAS FRIAS ROAD AT ALL TIMES. COORDINATE CONSTRUCTION PHASING OF ALL PROJECTS TO MAINTAIN ACCESS OR PROVIDE ALTERNATIVE MEANS OF INGRESS/EGRESS. IF MULTIPLE BRIDGES ARE UNDER CONSTRUCTION SIMULTANEOUSLY, THE CONTRACTOR SHALL COORDINATE SIGN PLACEMENT WITH THE ENGINEER.

**LEGEND**

- T TEMPORARY SIGN AND POST
- TH TYPE III BARRICADE WITH SIGN  
L=8.00', WITH THREE WARNING LIGHTS (TYPE B)
- CONSTRUCTION AREA
- DIRECTION OF TRAVEL
- AGRICULTURAL FIELD ACCESS POINT  
LAT: 39°25'13"N, LONG: 121°54'4"W



**DETOUR SIGNS**

SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. of SIGNS
M4-10(RT)	18" X 48"	DETOUR (RIGHT)	4
M4-10(LT)	18" X 48"	DETOUR (LEFT)	4
SC-3(CA)	18" X 48"	DETOUR (STRAIGHT)	14
R11-4	30" X 48"	ROAD CLOSED TO THROUGH TRAFFIC	2
R11-2	30" X 48"	ROAD CLOSED	4
M4-8a	18" X 24"	END DETOUR	4
W20-2	36" X 36"	DETOUR AHEAD	4

APPROVED FOR DETOUR SIGN WORK ONLY



USERNAME => KEVIN  
 DGN FILE => 03-101785md001

**DETOUR PLAN**  
 NO SCALE

DE-1

LAST REVISION DATE PLOTTED => 5/31/2023  
 05-31-23 TIME PLOTTED => 4:16:11 PM



PROJECT ENGINEER: GARY M. GORDON  
 CALCULATED/DESIGNED BY: GARY M. GORDON  
 CHECKED BY: R. UHLMANN  
 B. BURCH  
 REVISED BY: R. UHLMANN  
 DATE REVISED: 05-31-23  
 KCG  
 05-31-23

**GENERAL NOTES:**

- ALL TRAFFIC LINES SHALL CONFORM TO THE 2022 CALTRANS STANDARD PLANS AND SPECIFICATIONS.
- LANE WIDTH SHALL BE MEASURED BETWEEN THE CENTERLINES OF EACH SINGLE STRIPE.
- ALL SIGNING TO BE INSTALLED SHALL CONFORM TO THE 2014 CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).

**LEGEND**

- (X) Prop SIGN AND POST
- (X) Exist SIGN AND POST TO BE REMOVED
- (X) TRAFFIC STRIPE DETAIL

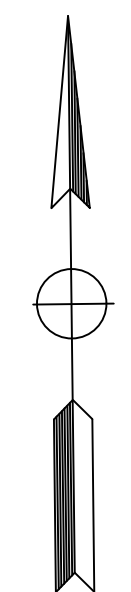
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	12	33

REGISTERED CIVIL ENGINEER DATE 05-31-23  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA

May 31, 2023  
 PLANS APPROVAL DATE

WILLDAN ENGINEERING  
 2400 WASHINGTON AVENUE, SUITE 101  
 REDDING, CALIFORNIA 96001

COUNTY OF GLENN  
 PUBLIC WORKS AGENCY  
 777 N. COLUSA STREET  
 WILLOWS, CALIFORNIA 95988

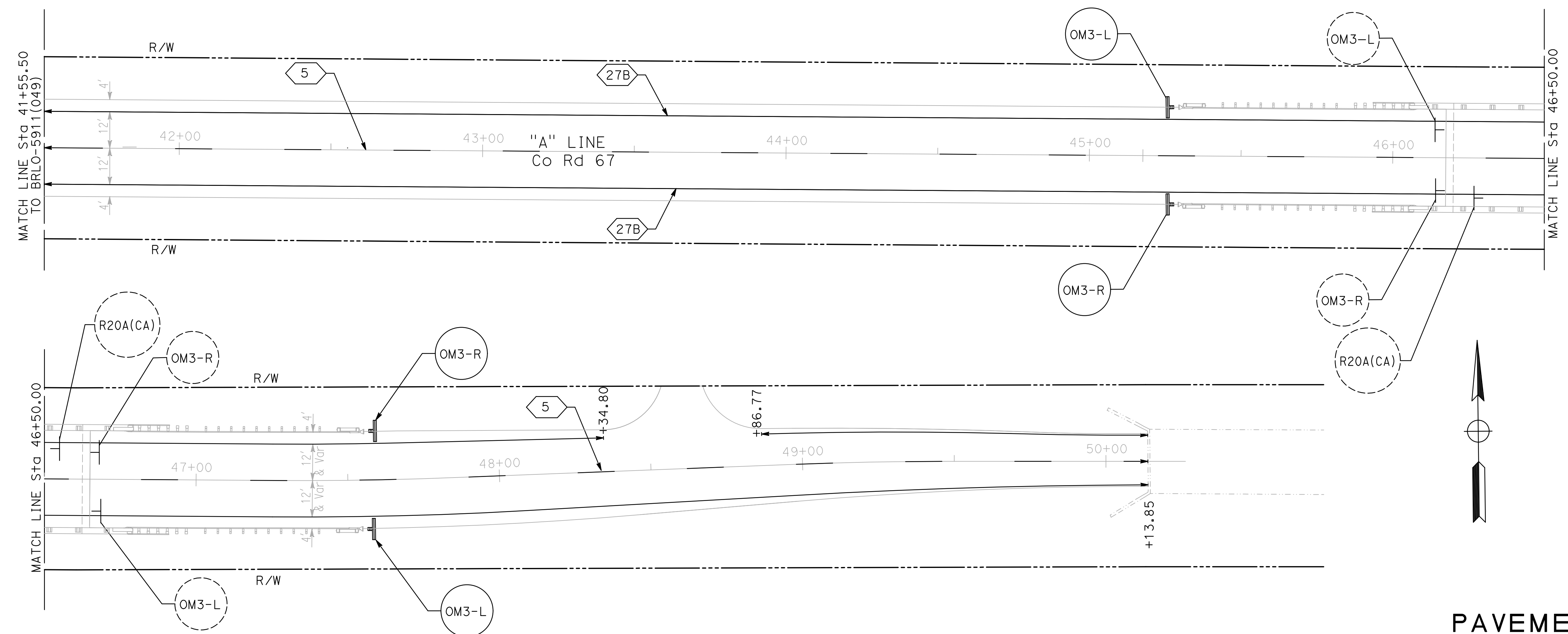


**PAVEMENT DELINEATION QUANTITIES**

SHEET No.	LOCATION/STATIONING	DIRECTION	DETAIL No.	THERMOPLASTIC TRAFFIC STRIPE					COMMENTS
				4" WHITE SOLID	4" WHITE BROKEN	4" YELLOW BROKEN	8" WHITE SOLID	8" WHITE BROKEN	
				LF	LF	LF	LF	LF	
PD-1	41+55.50 TO 50+13.85	EB	27B	858.4					
PD-1	41+55.50 TO 48+34.80	WB	27B	679.3					
PD-1	48+86.77 TO 50+13.85	WB	27B	127.1					
PD-1	41+55.50 TO 50+13.85	WB	5			857.5			
TOTAL				1664.8		857.5			

**ROADSIDE SIGN QUANTITIES**

SIGN CODE	PANEL SIZE	POST SIZE AND LENGTH		ROADSIDE SIGN		BRIDGE MOUNT (EA)	REMOVE ROADSIDE SIGN (EA)	REMARKS
		4' X 4'	4' X 6'	ONE POST	TWO POST			
		EA	EA	EA	EA			
OM3-L	12" x 36"					2	2	
OM3-R	12" x 36"					2	2	
RC20A(CA)	30" x 36"						2	



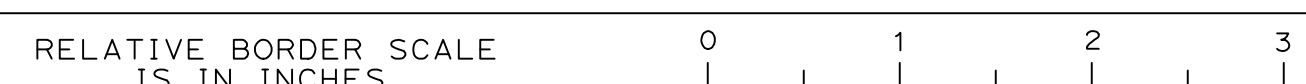
**PAVEMENT DELINEATION AND SIGN PLAN**

SCALE: 1" = 20'

PD-1

THIS PLAN IS ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

USERNAME => KEVIN  
DGN FILE => 03-101785nd001



LAST REVISION: 05-31-23  
 DATE PLOTTED => 5/31/2023  
 TIME PLOTTED => 4:30:38 PM

PROJECT ENGINEER: GARY M. GORDON  
 CALCULATED/DESIGNED BY: GARY M. GORDON  
 CHECKED BY: G. GORDON  
 R. UHLMANN  
 G. GORDON  
 REVISED BY: KCG  
 DATE REVISED: 05-31-23  
 KCG  
 05-31-23

### EARTHWORK QUANTITIES

SHEET No.	STATION	ROADWAY EXCAVATION	EMBANKMENT (N)	IMPORTED BORROW
		CY	CY	CY
L-1 TO L-2	"A" 41+55.50 TO "A" 46+28.66	1,208	25	25
L-2	"A" 46+53.19 TO "A" 50+13.85	756	73	73
TOTAL		1,964	98	98

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

### TEMPORARY WATER POLLUTION CONTROL AND EROSION CONTROL QUANTITIES

SHEET No.	STATION	TEMPORARY FIBER ROLLS	TEMPORARY CONCRETE WASHOUT FACILITY	EROSION CONTROL (HYDROSEED)
		LF	EA	SQFT
WPC-1 TO WPC-2		TO BE DETERMINED		
WPC-1	"A" 41+55.50 L+ TO "A" 46+28.66 L+	983		2,440
WPC-1	"A" 41+55.50 R+ TO "A" 46+28.66 R+	974		1,618
WPC-2	"A" 46+53.19 L+ TO "A" 48+52.41 L+	471		1,481
WPC-2	"A" 48+70.41 L+ TO "A" 50+13.85 L+	358		546
WPC-2	"A" 46+53.19 R+ TO "A" 50+13.85 R+	720		1,154
TOTAL		3,506	1	7,239

### SAFETY EDGE

SHEET No.	STATION	DIRECTION	TOTAL THICKNESS OF SAFETY EDGE	LENGTH SAFETY EDGE	HOT MIX ASPHALT (TYPE A)
			(N)	(N)	
L-1 TO L-2	"A" 41+55.50 L+ TO "A" 45+29.30 L+	WB	0.52	373.80	6.4
L-1 TO L-2	"A" 41+55.50 R+ TO "A" 45+29.30 R+	EB	0.52	373.80	6.4
L-2	"A" 47+55.57 L+ TO "A" 48+34.80 L+	WB	0.52	79.23	1.4
L-2	"A" 48+86.77 L+ TO "A" 50+13.85 L+	WB	0.52	127.08	2.2
L-2	"A" 47+54.83 R+ TO "A" 50+13.85 R+	EB	0.52	259.02	4.4
SUBTOTAL					20.8

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

### PAVEMENT STRUCTURE QUANTITIES

SHEET No.	STATION	REMOVE ASPHALT CONCRETE SURFACING	HOT MIX ASPHALT (TYPE A)	CLASS 2 AGGREGATE BASE	TACK COAT
		SQFT	TON	CY	TON
L-1 TO L-2	"A" 41+55.50 TO "A" 46+17.50	8,553	557.7	1,549	1.04
L-2	"A" 46+65.00 TO "A" 50+13.85	6,596	364.5	1,115	0.67
L-1 TO L-2	SAFETY EDGE		20.8		
TOTAL		15,149	943.00	2,664	1.53

### MIDWEST GUARDRAIL SYSTEM

SHEET No.	STATION	TRANSITION RAILING (TYPE WB-31)	ALTERNATIVE IN-LINE TERMINAL SYSTEM
		EA	EA
L-2	"A" 45+29.30 L+ TO "A" 45+81.38 L+		1
L-2	"A" 45+29.30 R+ TO "A" 45+81.38 R+		1
L-2	"A" 45+81.38 L+ TO "A" 46+06.38 L+	1	
L-2	"A" 45+81.38 R+ TO "A" 46+06.38 R+	1	
L-2	"A" 46+78.13 L+ TO "A" 47+03.13 L+	1	
L-2	"A" 46+78.13 R+ TO "A" 47+03.13 R+	1	
L-2	"A" 47+03.13 L+ TO "A" 47+55.87 L+		1
L-2	"A" 47+03.13 R+ TO "A" 47+54.83 R+		1
TOTAL		4	4

### DRAINAGE QUANTITIES

SHEET No.	DRAINAGE SYSTEM No.	DRAINAGE UNIT	REMOVE CULVERT	REINFORCED CONCRETE PIPE (CLASS 4)			MINOR CONCRETE (MINOR STRUCTURE)	DESCRIPTION
			LF	12"	18"	24"		
C-1	1	□	32.7			41.5		REMOVE 24" CULVERT 24" RCP
TOTAL			32.7			41.5		

## SUMMARY OF QUANTITIES

### Q-1

USERNAME => KEVIN  
DGN FILE => 03-101785pd001



LAST REVISION: DATE PLOTTED => 5/31/2023  
 05-31-23 TIME PLOTTED => 4:57:39 PM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	14	33

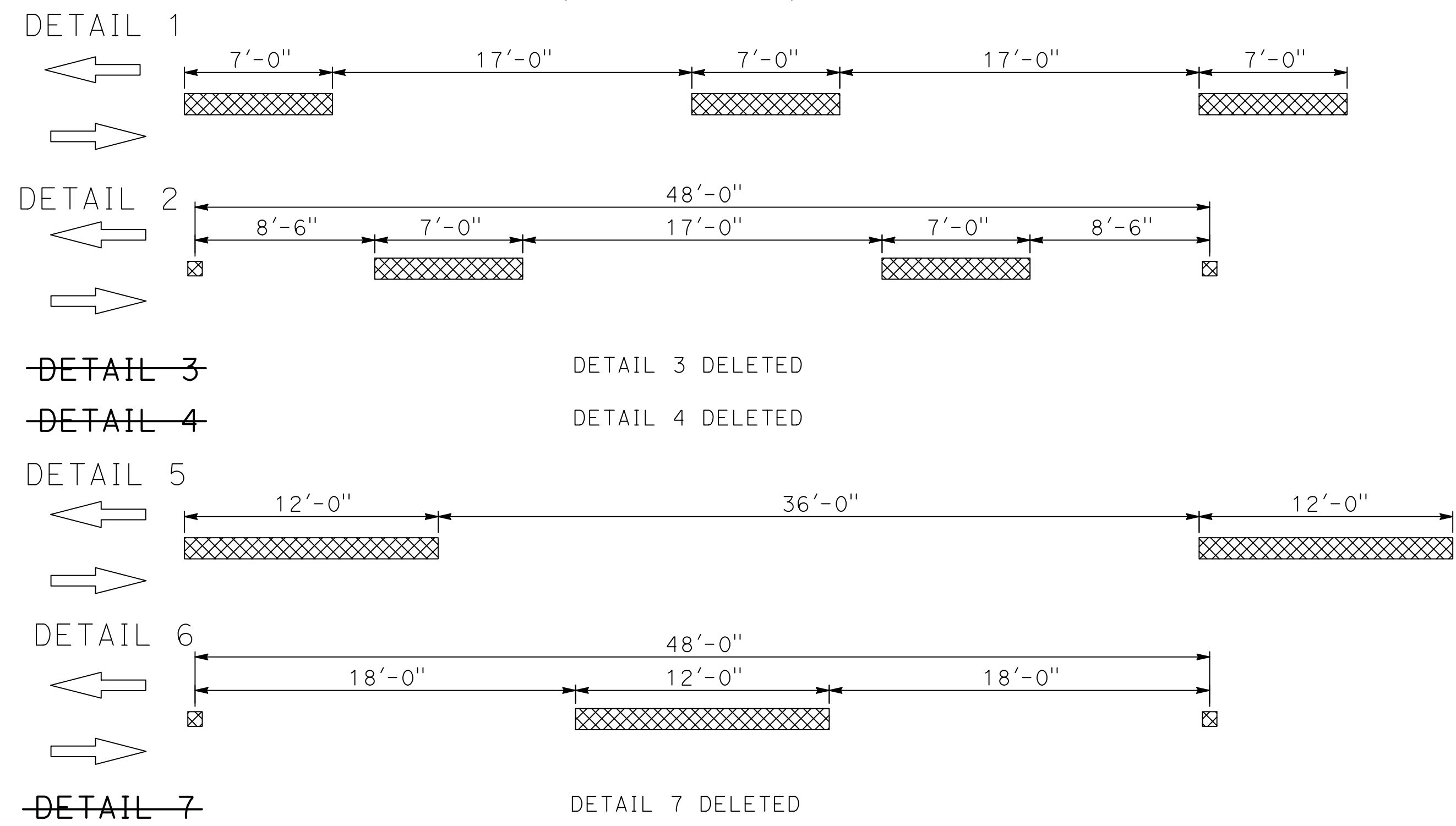
05-31-23  
DATE  
REGISTERED CIVIL ENGINEER  
GARY M. GORDON  
No. 42176  
Exp. 03-31-24  
CIVIL  
STATE OF CALIFORNIA

May 31, 2023  
PLANS APPROVAL DATE

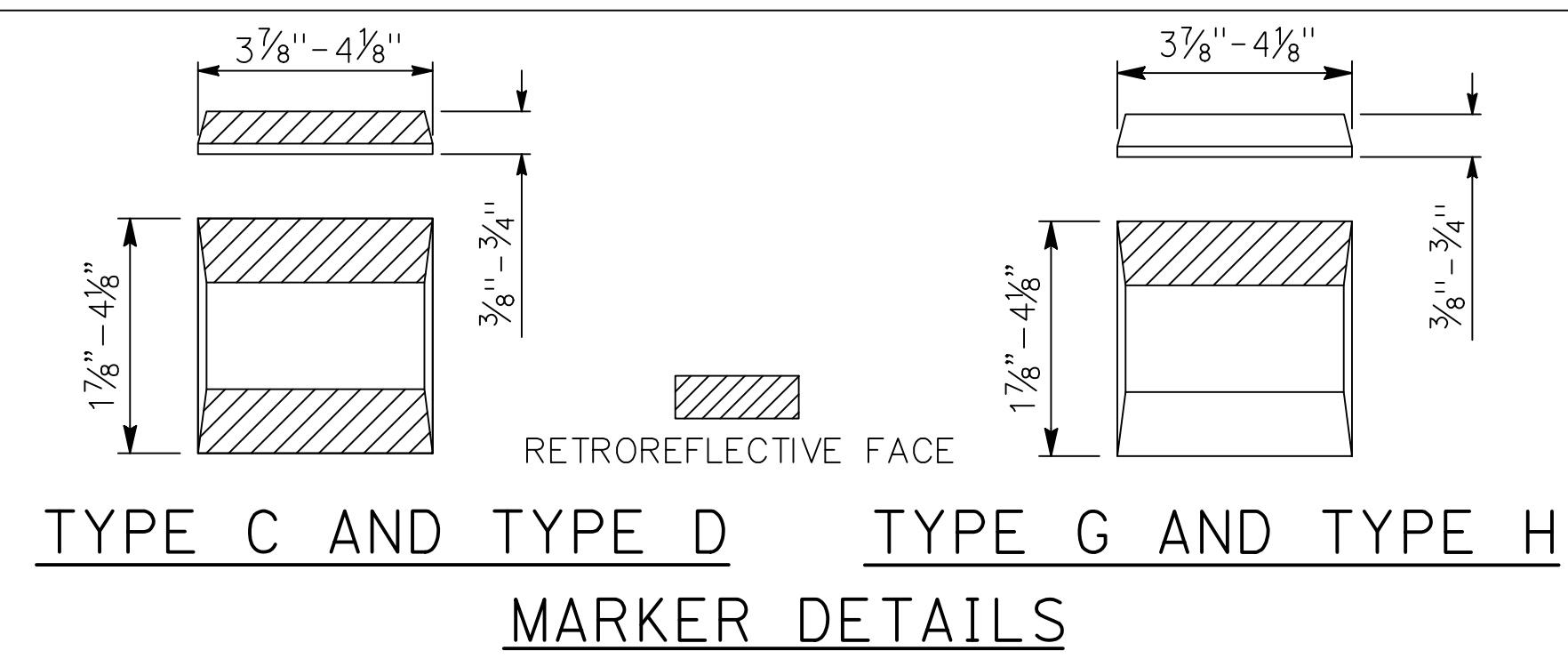
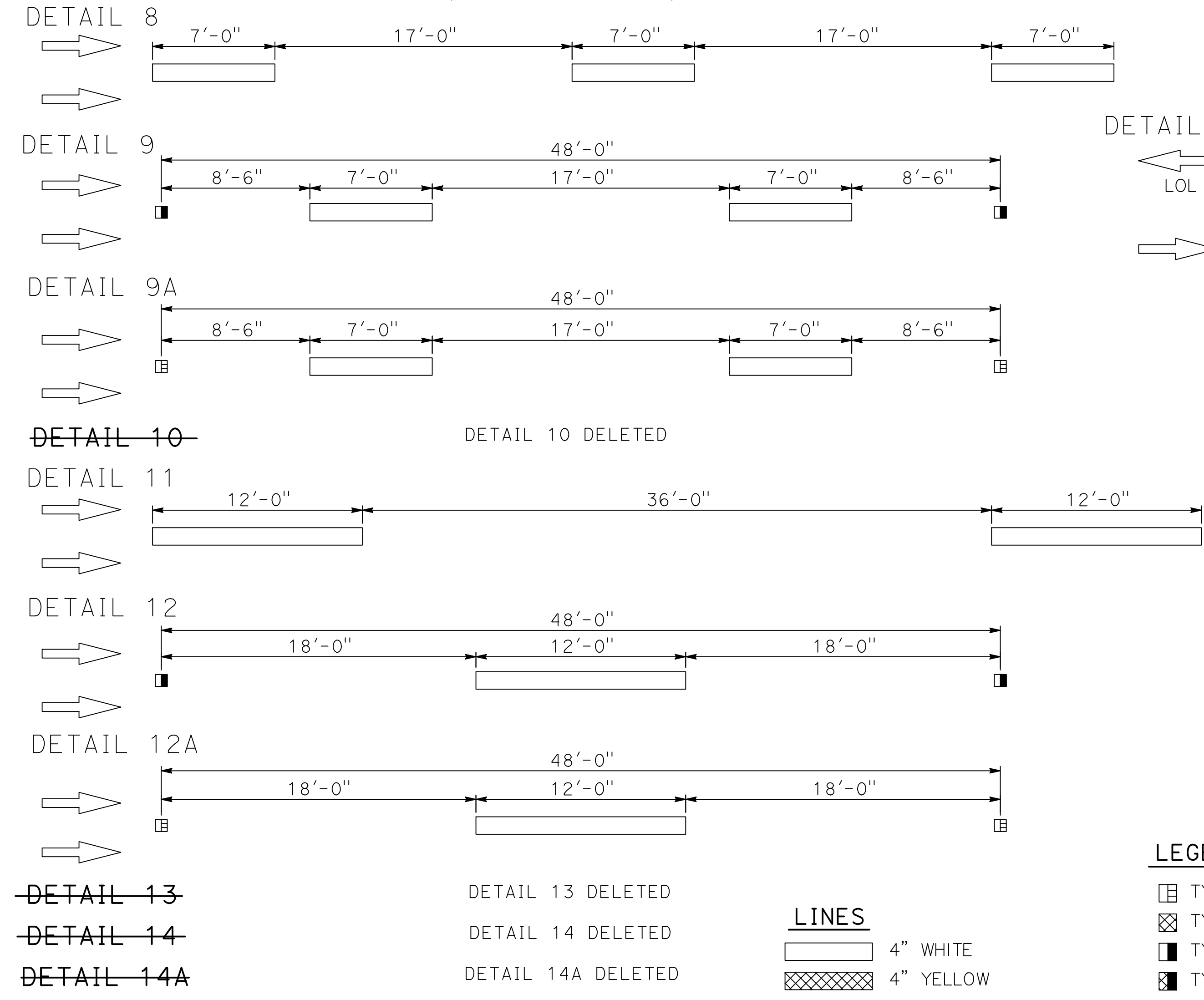
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED 05-31-23

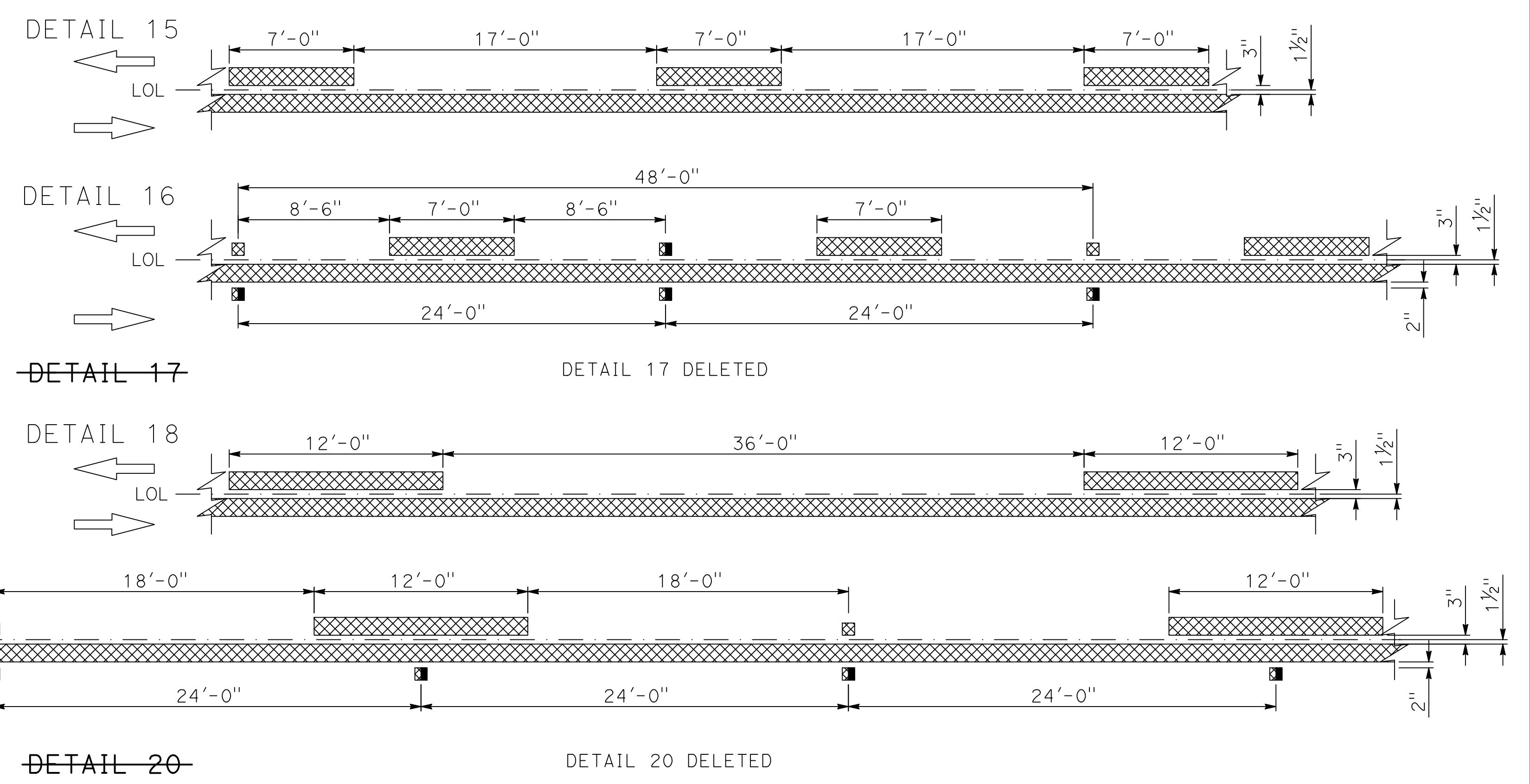
**CENTERLINES**  
(2 LANE HIGHWAYS)



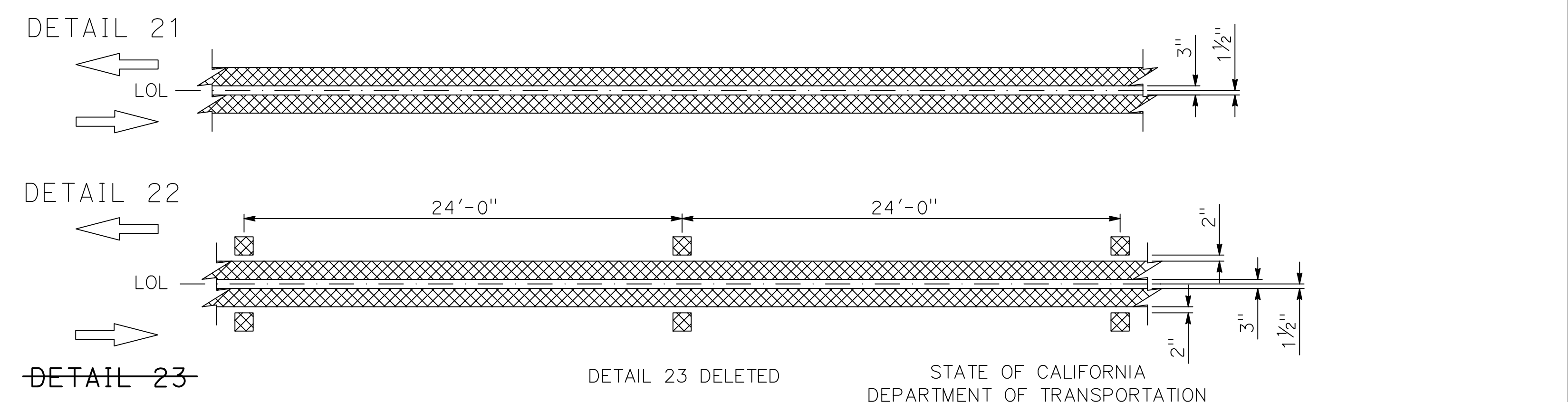
**LANE LINES**  
(MULTILANE HIGHWAYS)



**NO PASSING ZONES-ONE DIRECTION**



**NO PASSING ZONES-TWO DIRECTION**



**LEGEND**

- ☐ TYPE C RED-CLEAR RETROREFLECTIVE MARKER
- ▣ TYPE D TWO-WAY YELLOW RETROREFLECTIVE MARKER
- TYPE G ONE-WAY CLEAR RETROREFLECTIVE MARKER
- ▣ TYPE H ONE-WAY YELLOW RETROREFLECTIVE MARKER

**LINES**

- ▭ 4" WHITE
- ▣ 4" YELLOW

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKERS AND TRAFFIC LINES**  
**TYPICAL DETAILS**

NO SCALE

RSP A20A DATED OCTOBER 21, 2022 SUPERSEDES STANDARD PLAN A20A  
DATED AUGUST 1, 2022 - PAGE 12 OF THE STANDARD PLANS BOOK DATED 2022.

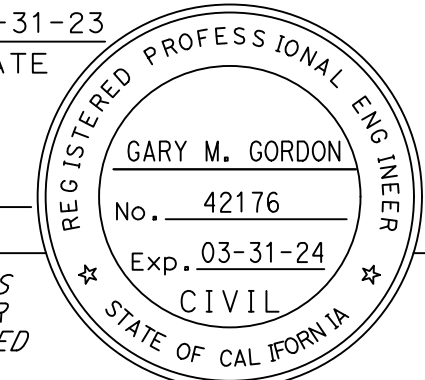
**REVISED STANDARD PLAN RSP A20A MOD**

2022 REVISED STANDARD PLAN RSP A20A

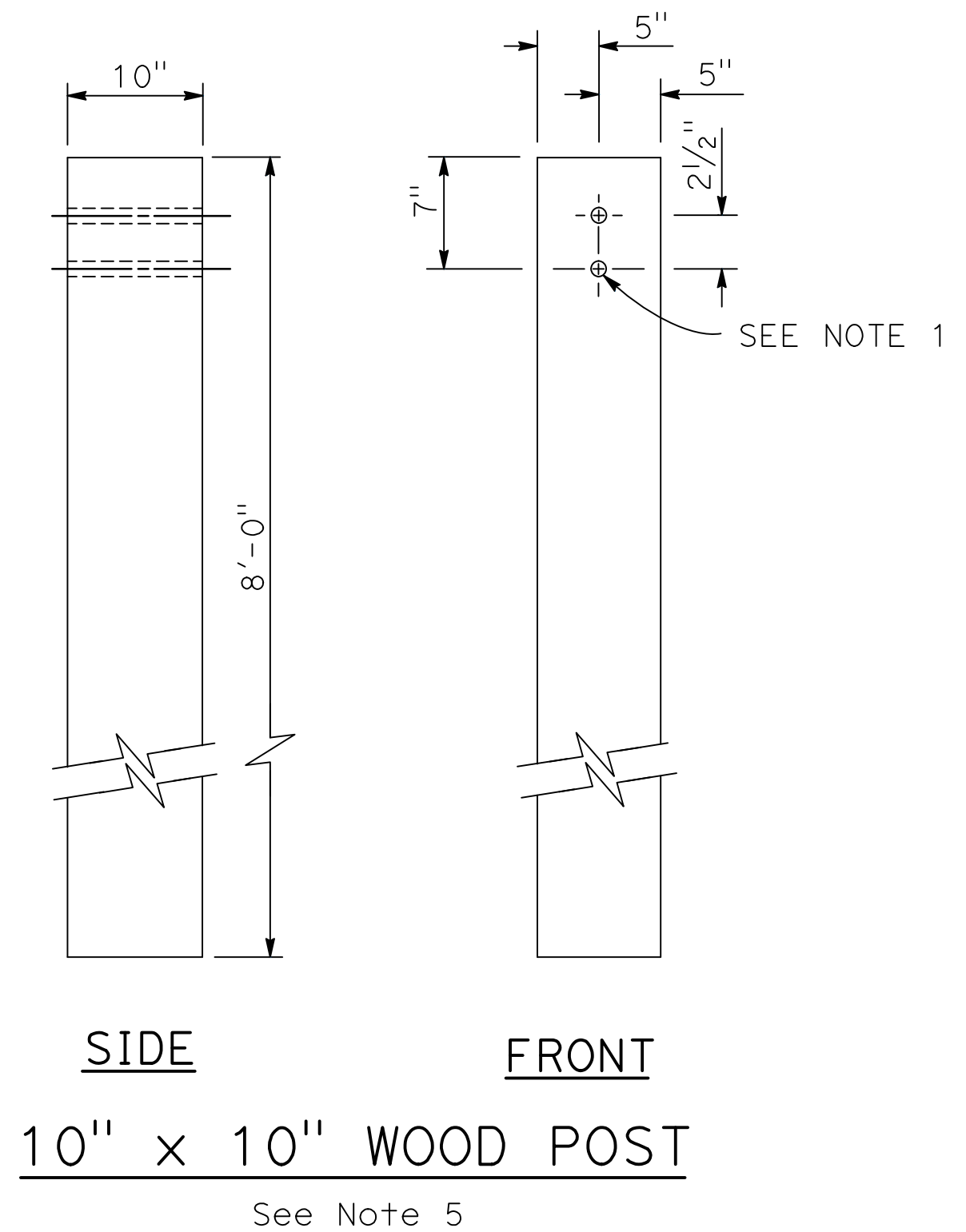
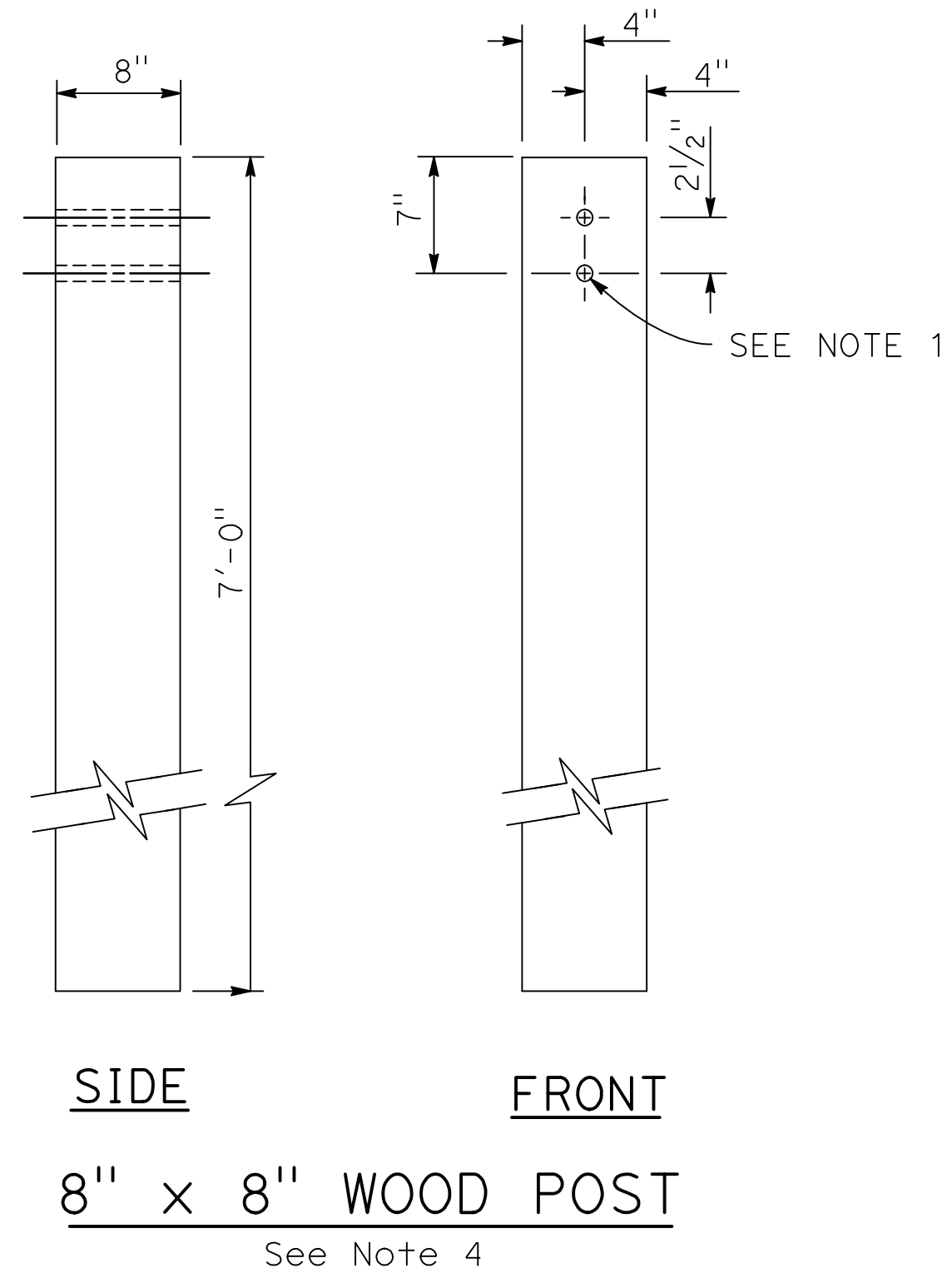
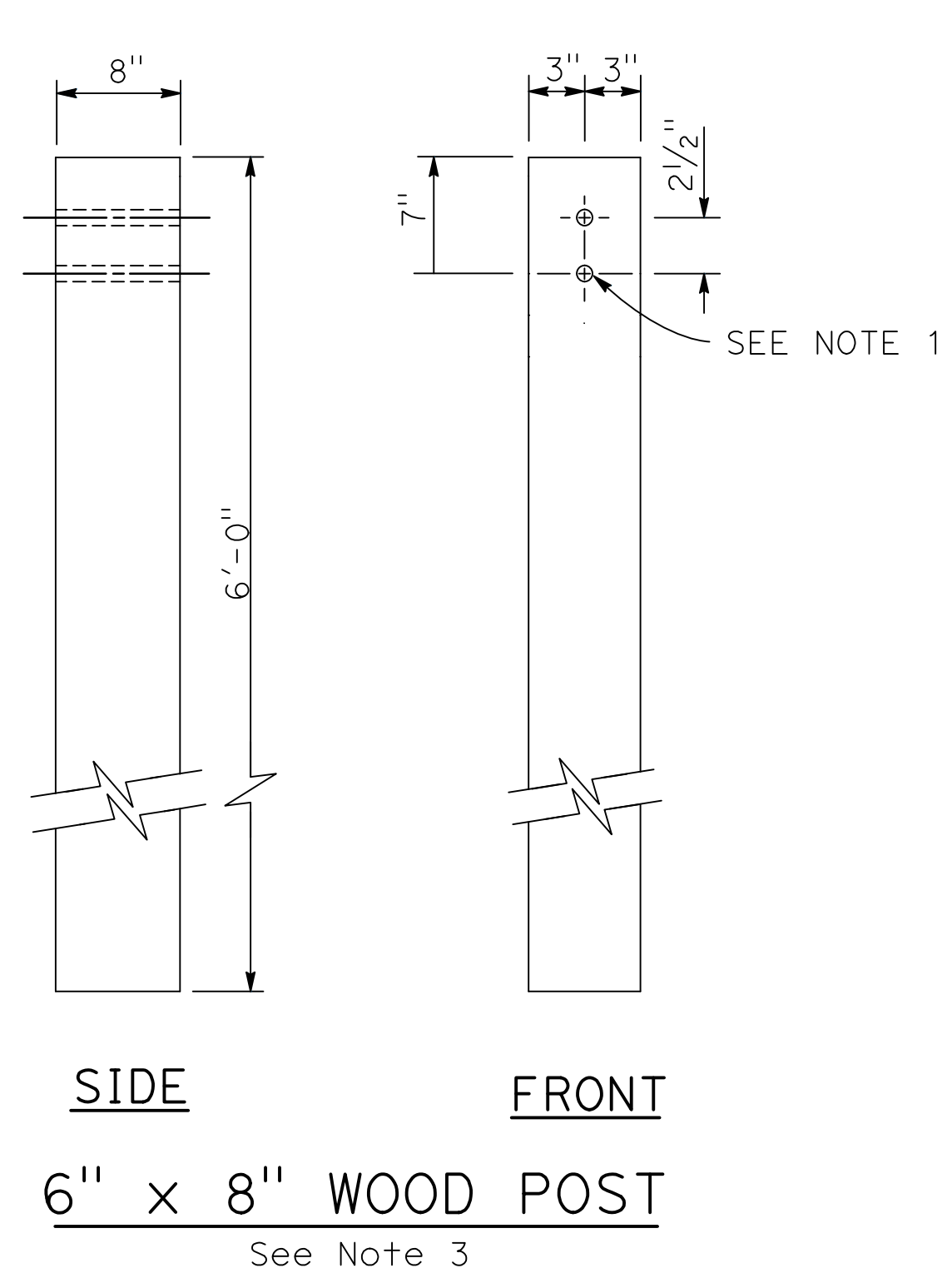
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	15	33

<i>Gary M. Gordon</i> REGISTERED CIVIL ENGINEER	05-31-23 DATE
May 31, 2023 PLANS APPROVAL DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.	

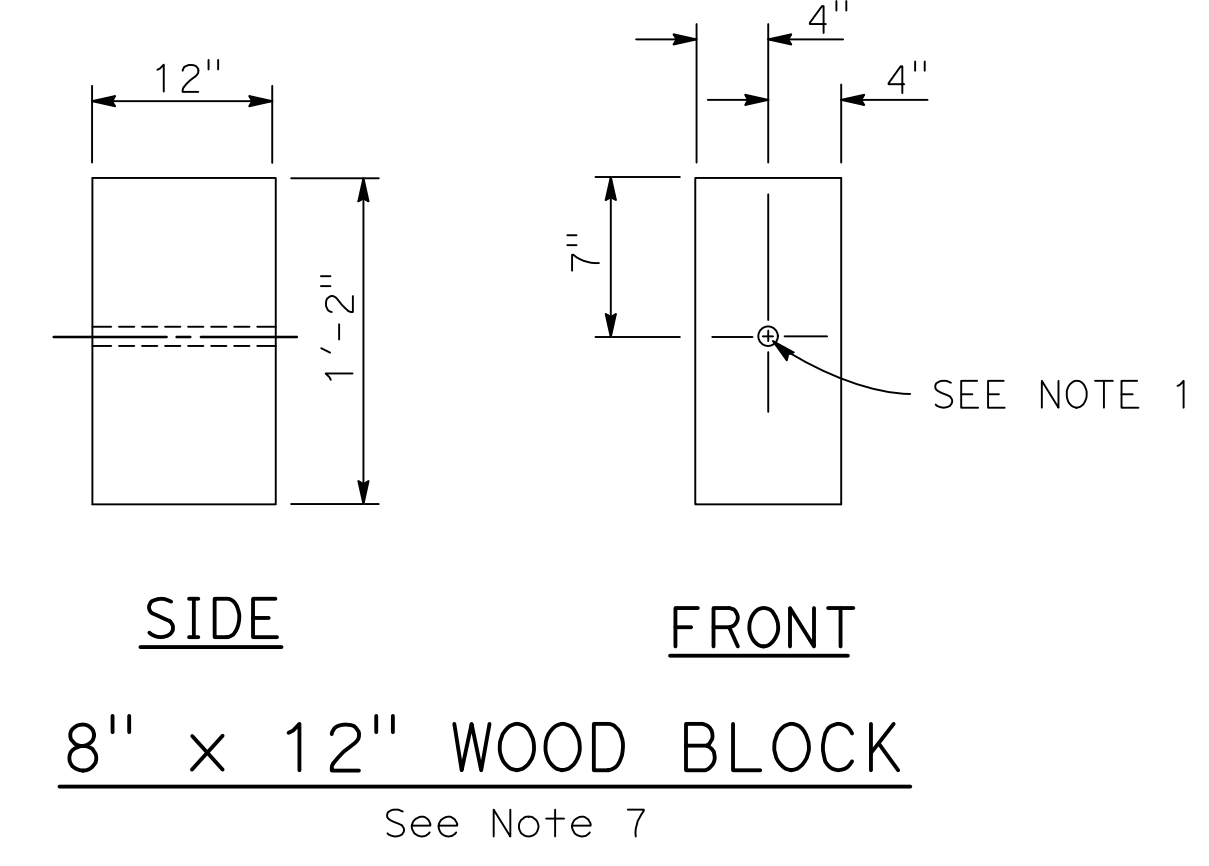
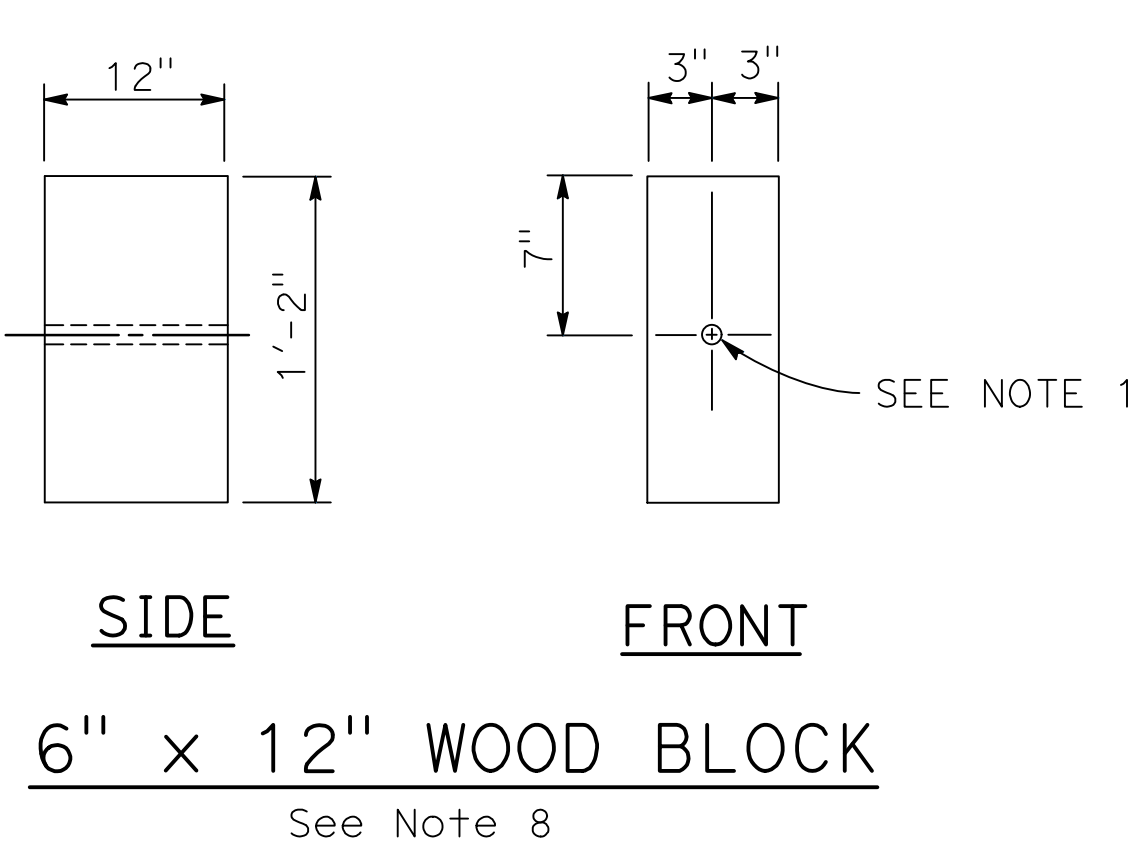
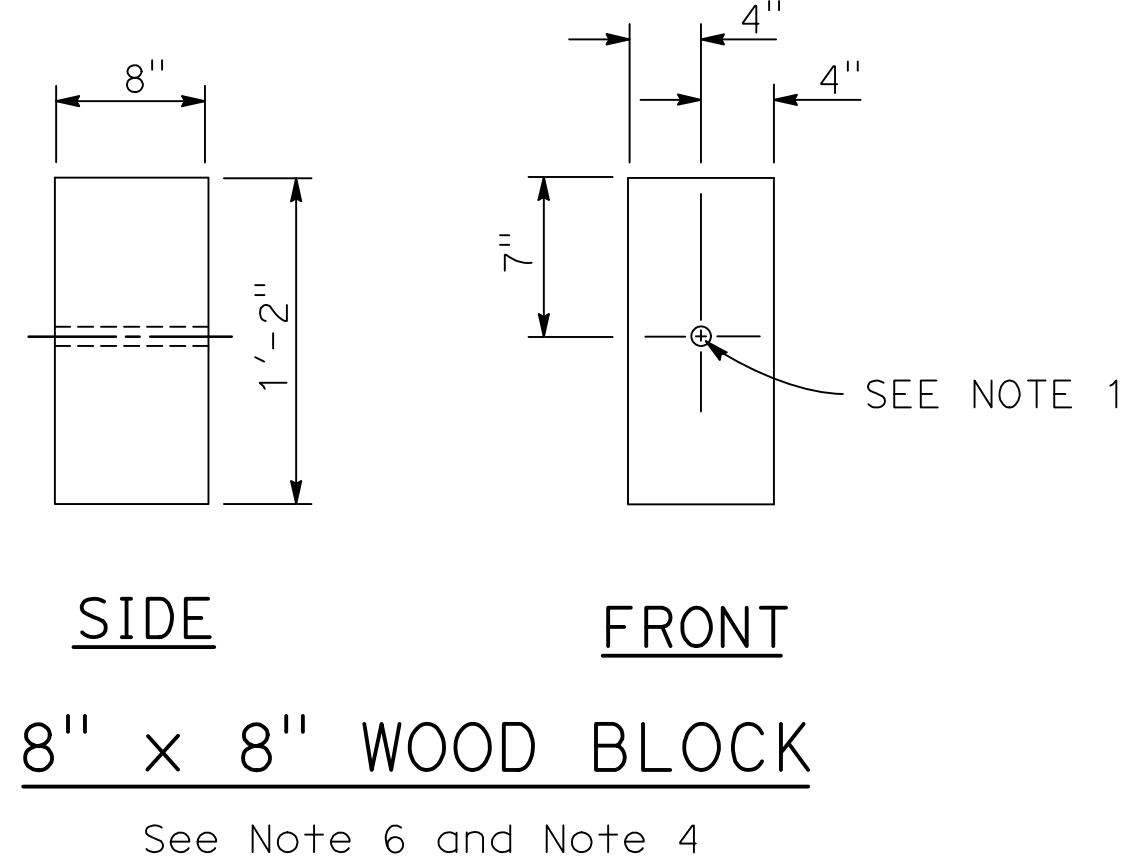
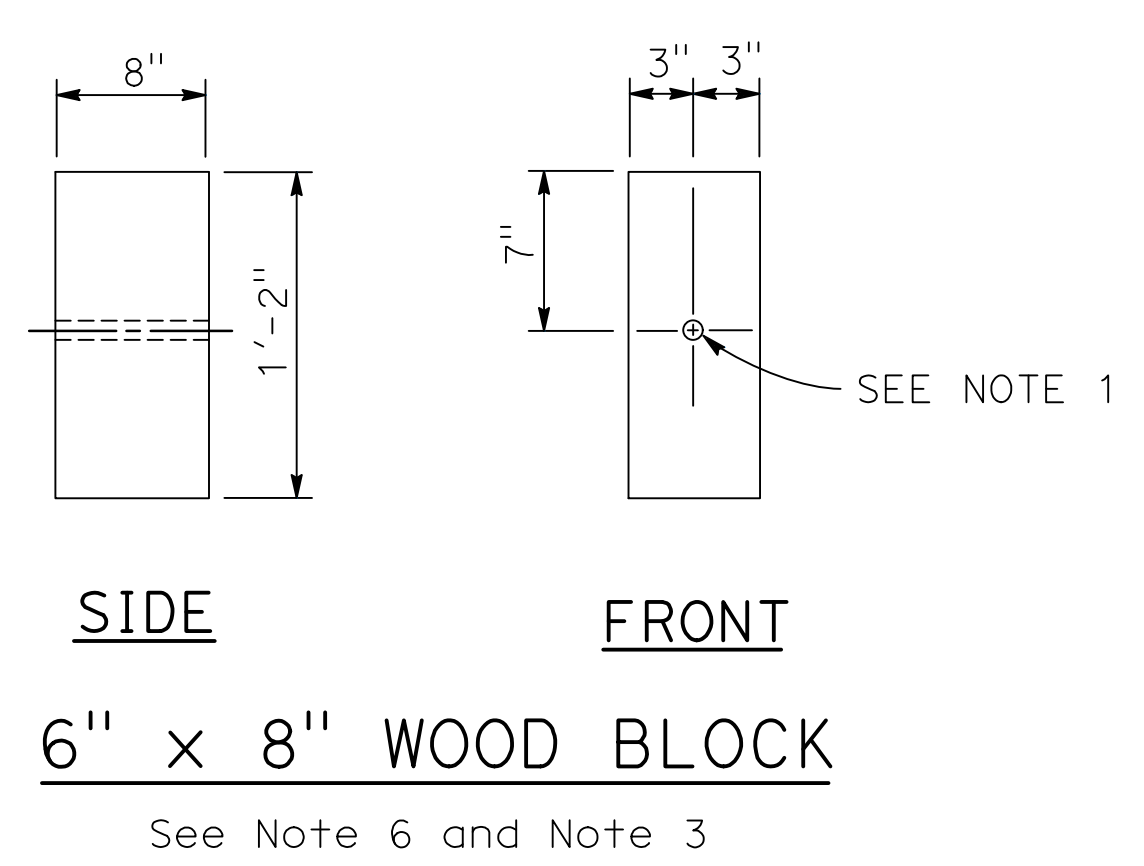


TO ACCOMPANY PLANS DATED 05-31-23



**NOTES:**

1. All holes in wood posts and blocks shall be 3/4" Dia ± 1/16".
2. Dimensions shown for wood post are nominal.
3. This post and block combination used for standard line post sections of MGS.
4. This post and 8" x 12" block combination used for line post sections of MGS on narrow roadways.
5. This post and 8" x 12" block combination is typically used where strengthened line post sections of MGS are warranted to shield fixed objects.
6. See Revised Standard Plan RSP A77L3 for use of 6" x 8" and 8" x 8" wood blocks.
7. To be used with 8" x 8" x 7'-0" wood post if installed with 6" height dike.
8. To be used with 6" x 8" x 6'-0" wood post if installed with 6" height dike.



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**MIDWEST GUARDRAIL SYSTEM  
WOOD POST AND  
WOOD BLOCK DETAILS**

NO SCALE

RSP A77N1 DATED OCTOBER 21, 2022 SUPERSEDES STANDARD PLAN A77N1  
DATED AUGUST 1, 2022 - PAGE 67 OF THE STANDARD PLANS BOOK DATED 2022.

**REVISED STANDARD PLAN RSP N771**

2022 REVISED STANDARD PLAN RSP A77N1

DATE PLOTTED = 5/31/23  
TIME PLOTTED = 8:16:13 AM

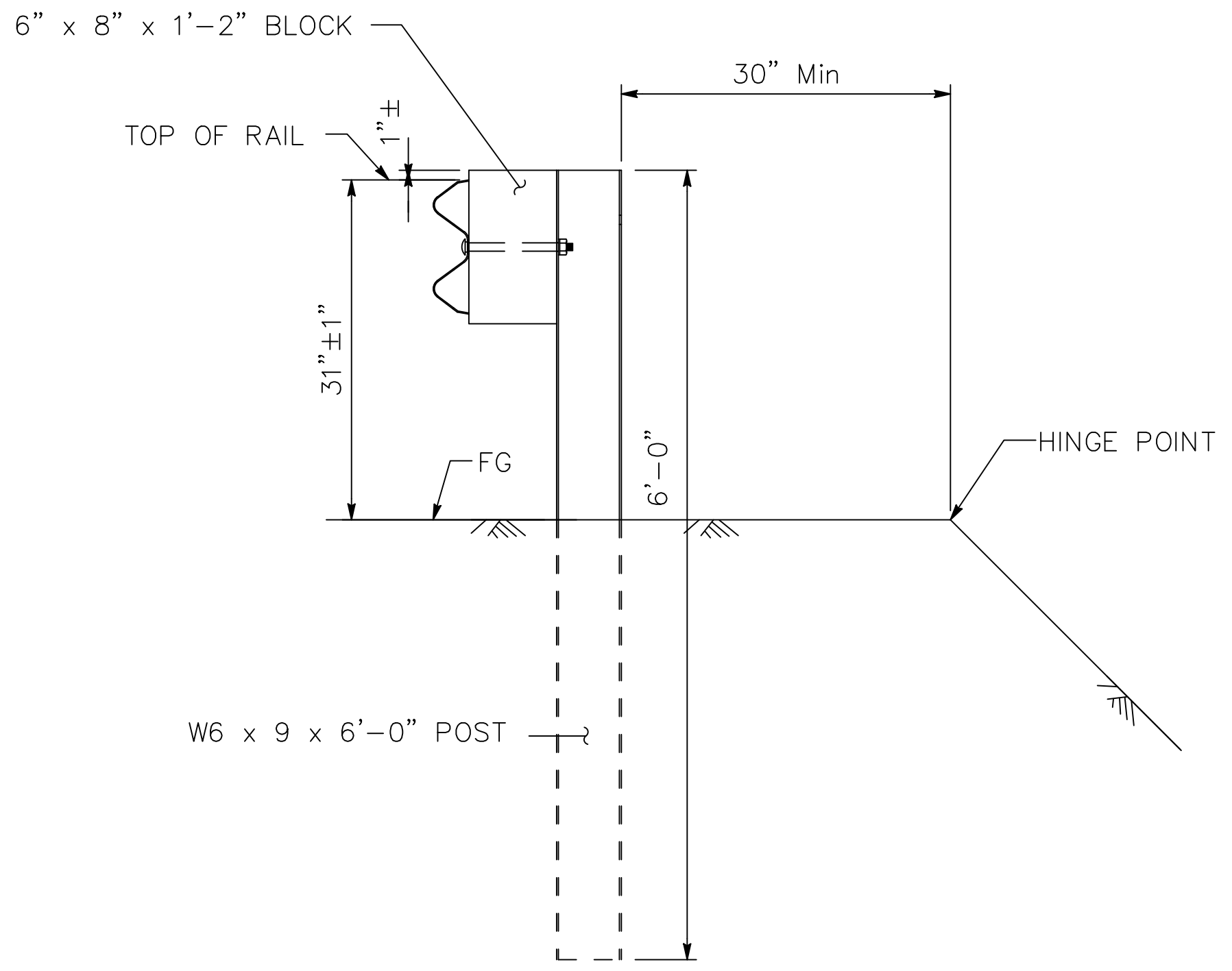


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	16	33

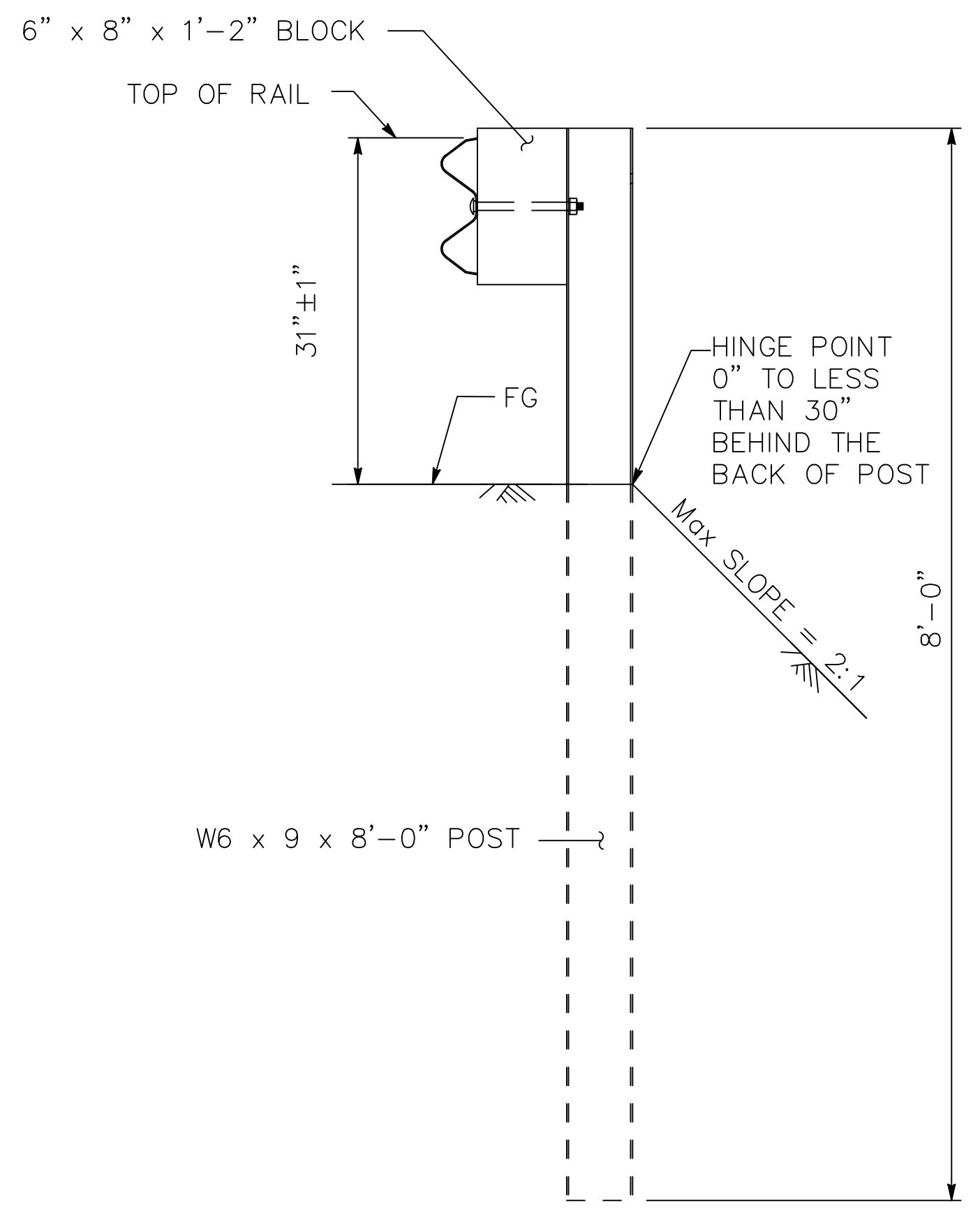
  

<i>Gary M. Gordon</i> REGISTERED CIVIL ENGINEER	05-31-23 DATE
May 31, 2023 PLANS APPROVAL DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.	

TO ACCOMPANY PLANS DATED 05-31-23

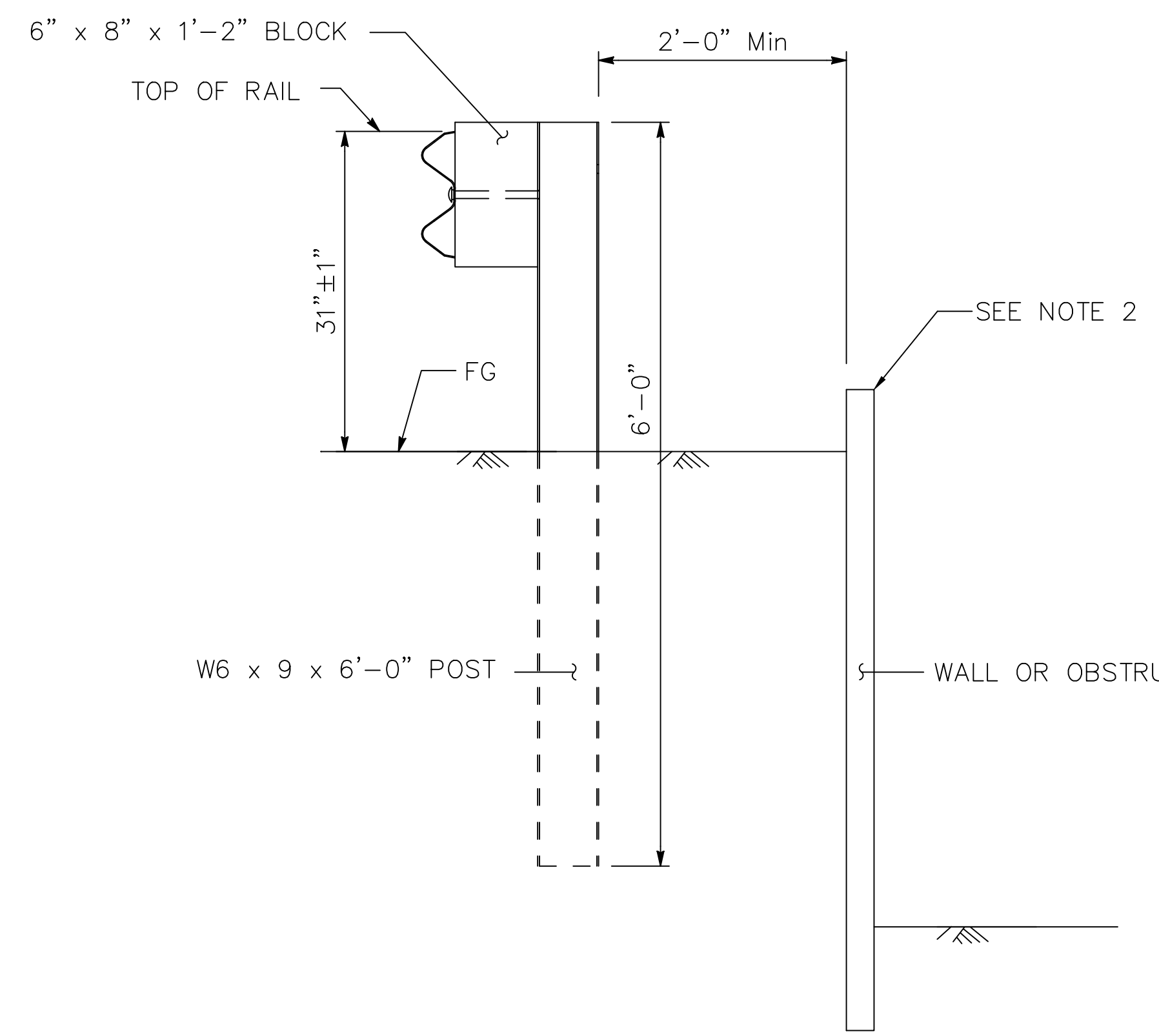


**DETAIL A**  
**TYPICAL ROADWAY INSTALLATION**  
See Note 1

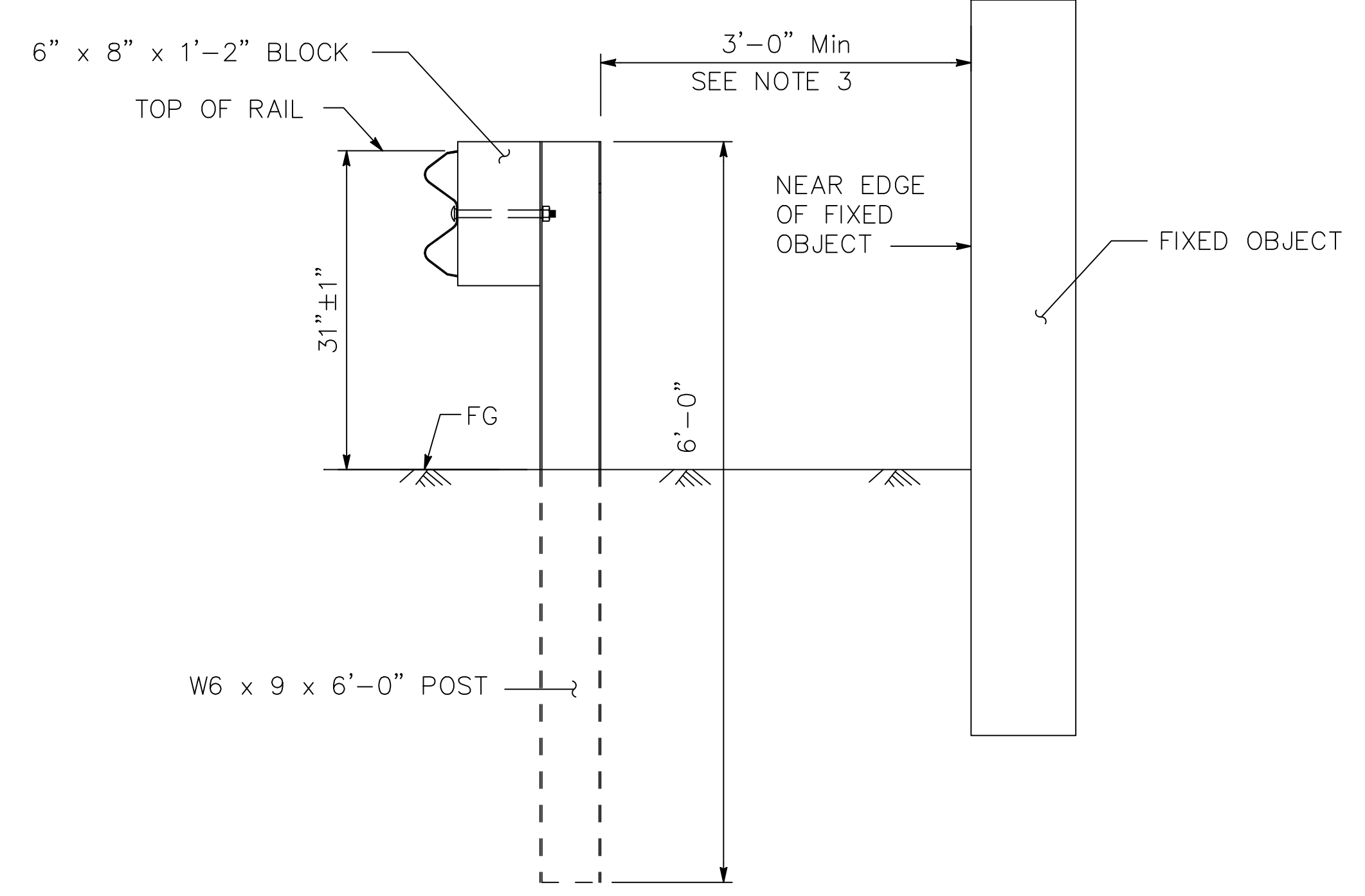


**DETAIL B**  
**NARROW ROADWAY INSTALLATION**  
See Note 1

**POST EMBEDMENT**



**DETAIL C**  
AT OR BELOW GRADE



**DETAIL D**  
ABOVE GRADE

**INSTALLATION AT WALLS OR OBSTRUCTIONS**

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**MIDWEST GUARDRAIL SYSTEM**  
**TYPICAL LINE POST EMBEDMENT**  
**AND HINGE POINT OFFSET DETAILS**

NO SCALE

RSP A77N3 DATED OCTOBER 21, 2022 SUPERSEDES STANDARD PLAN A77N3  
DATED AUGUST 1, 2022 - PAGE 69 OF THE STANDARD PLANS BOOK DATED 2022.

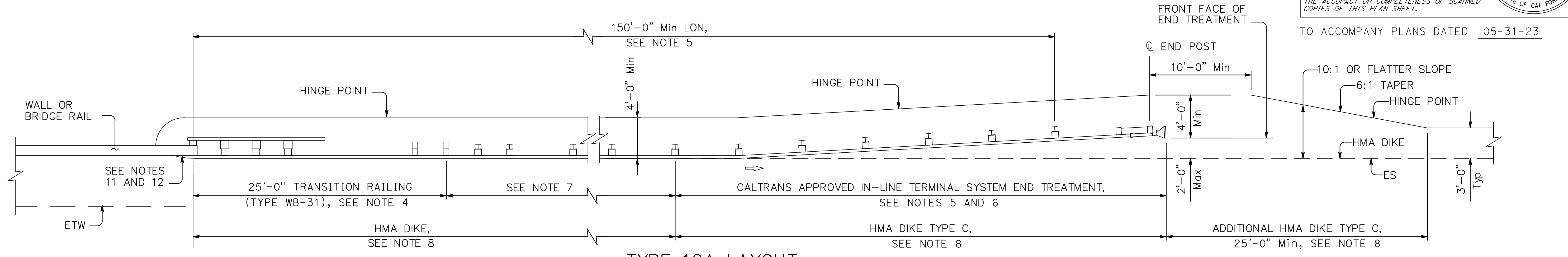
**REVISED STANDARD PLAN RSP A77N3**

2022 REVISED STANDARD PLAN RSP A77N3

DATE PLOTTED = 5/31/23  
TIME PLOTTED = 3:25:50 PM

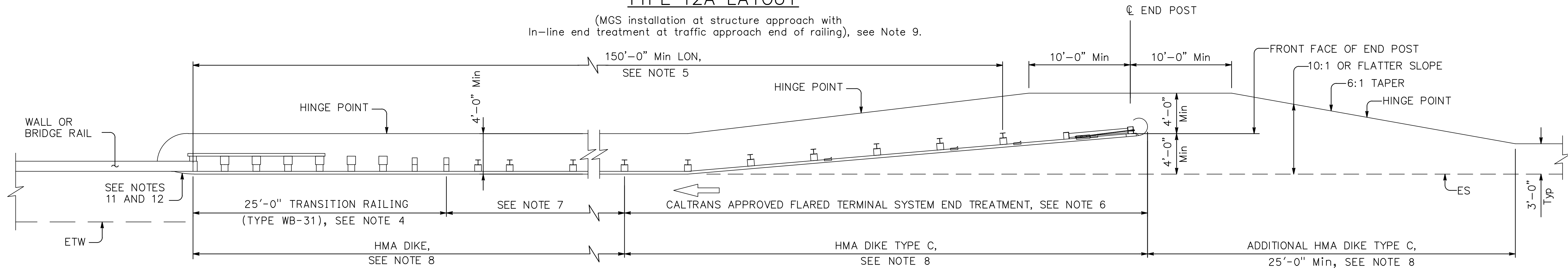
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	17	33

REGISTERED CIVIL ENGINEER DATE 05-31-23  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA



**TYPE 12A LAYOUT**

(MGS installation at structure approach with  
In-line end treatment at traffic approach end of railing), see Note 9.



**TYPE 12B LAYOUT**

(MGS installation at structure approach with  
Flared end treatment at traffic approach end of railing), see Note 9.

**NOTES:**

- Line post, blocks and hardware to be used are shown on Standard Plans A77L1, A77L2, A77M1, A77N2 and Revised Standard Plan RSP A77N1.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6'-0" long Steel W6 x 9 or W6 x 8.5 with blocks, or 6" x 8" x 6'-0" wood with blocks.
- For Transition Railing (Type WB-31) details for Types 12A and 12B Layouts, see Standard Plan A77U4.
- A minimum of 150'-0" of MGS is needed to develop Length of Need (LON).
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height, side slopes or other fixed objects), it may be advisable to construct additional guard railing (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatment.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77N4 for dike positioning details.
- Type 12A or Type 12B Layouts are typically used at the approach end of a structure, to the right or left on two-lane conventional highway where the roadbed width across the structure is 40 feet or less.
- See Revised Standard Plan RSP A77Q3 for typical layout used left of approaching traffic at the ends of each structure on multilane freeways or expressways with separate adjacent or parallel bridges.
- For additional details of typical connections to bridge rail, see Connection Detail AA on Standard Plans A77U1 and A77U2 and Connection Detail FF on Standard Plans A77V1 and A77V2.
- For additional details of a typical connection to walls or abutments, see Revised Standard Plans RSP A77U3A and RSP A77U3B.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**MIDWEST GUARDRAIL SYSTEM  
TYPICAL LAYOUTS FOR  
STRUCTURE APPROACH**

NO SCALE  
RSP A77Q1 DATED OCTOBER 21, 2022 SUPERSEDES STANDARD PLAN A77Q1  
DATED AUGUST 1, 2022 - PAGE 92 OF THE STANDARD PLANS BOOK DATED 2022.

**REVISED STANDARD PLAN RSP A77Q1**

2022 REVISED STANDARD PLAN RSP A77Q1

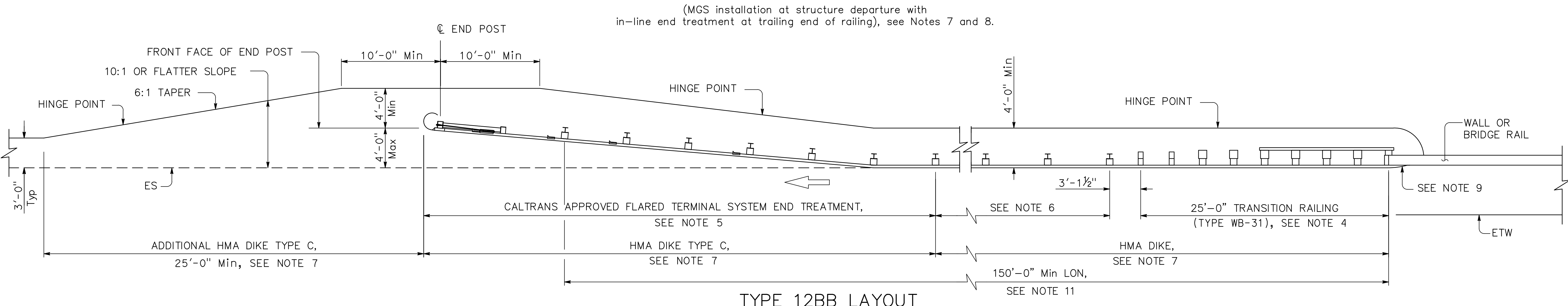
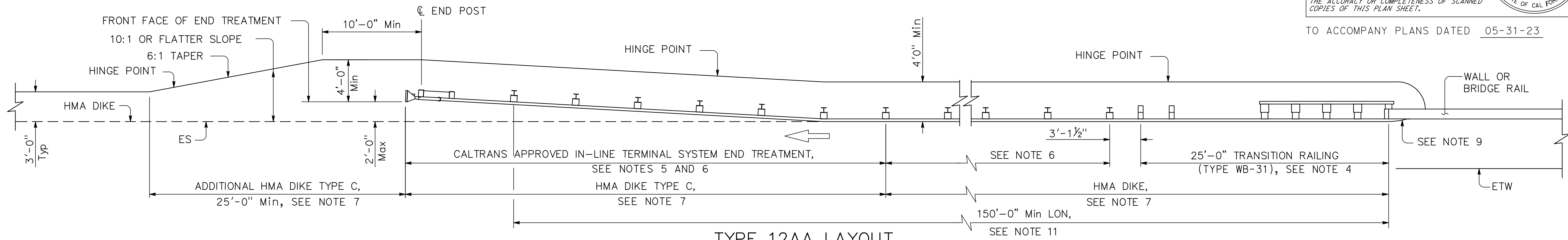
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TIME PLOTTED = 3:24:11 PM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	18	33

REGISTERED CIVIL ENGINEER DATE 05-31-23  
 May 31, 2023  
 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  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CAL FORM #

TO ACCOMPANY PLANS DATED 05-31-23



**NOTES:**

- Line post, blocks and hardware to be used are shown on Standard Plans A77L1, A77L2, A77M1, A77N2 and Revised Standard Plan RSP A77N1.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6'-0" long Steel W6 x 9 or W6 x 8.5 with blocks, or 6" x 8" x 6'-0" wood with blocks.
- For Transition Railing (Type WB-31) details for Types 12AA and 12BB Layouts, see Standard Plan A77U4.
- The type of terminal system to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height, side slopes, other fixed objects), it may be advisable to construct additional MGS (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and end treatments.
- Where placement of dike is required with MGS installations, see Revised Standard Plan RSP A77N4 for dike positioning details.
- Type 12AA or Type 12BB Layouts are typically used to the right or left of traffic departing a structure on two-way conventional highways where the roadbed width across the structure is less than 40 feet.
- For additional details of typical connections to bridge rail, see Connection Detail CC on Standard Plan A77U2 and Connection Detail HH on Standard Plan A77V2.
- For roadways with parallel structures and non traversable medians, the Type 12AA or Type 12BB layout may be used.
- A minimum of 150'-0" of MGS is needed to develop Length of Need (LON).

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**MIDWEST GUARDRAIL SYSTEM  
TYPICAL LAYOUTS FOR  
STRUCTURE APPROACH**

NO SCALE

RSP A77Q4 DATED OCTOBER 21, 2022 SUPERSEDES STANDARD PLAN A77Q4  
DATED AUGUST 1, 2022 - PAGE 95 OF THE STANDARD PLANS BOOK DATED 2022.

**REVISED STANDARD PLAN RSP A77Q4**

2022 REVISED STANDARD PLAN RSP A77Q4

DATE PLOTTED = 5/31/23  
TIME PLOTTED = 3:22:36 PM



**LEGEND**

- Denotes Existing Structure
- Denotes Proposed Structure
- STANDARD PLAN SHEET No.
- DETAIL No.
- Ⓐ SECTION IDENTIFICATION

**CALTRANS STANDARD PLANS, 2022 EDITION**

- A10A ABBREVIATIONS (SHEET 1 OF 2)
- A10B ABBREVIATIONS (SHEET 2 OF 2)
- A10C LINES AND SYMBOLS (SHEET 1 OF 3)
- A10D LINES AND SYMBOLS (SHEET 2 OF 3)
- A10E LINES AND SYMBOLS (SHEET 3 OF 3)
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
- B0-1 BRIDGE DETAILS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Gle	CR 67	NA	19	33

REGISTERED CIVIL ENGINEER  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA

05-31-23 DATE

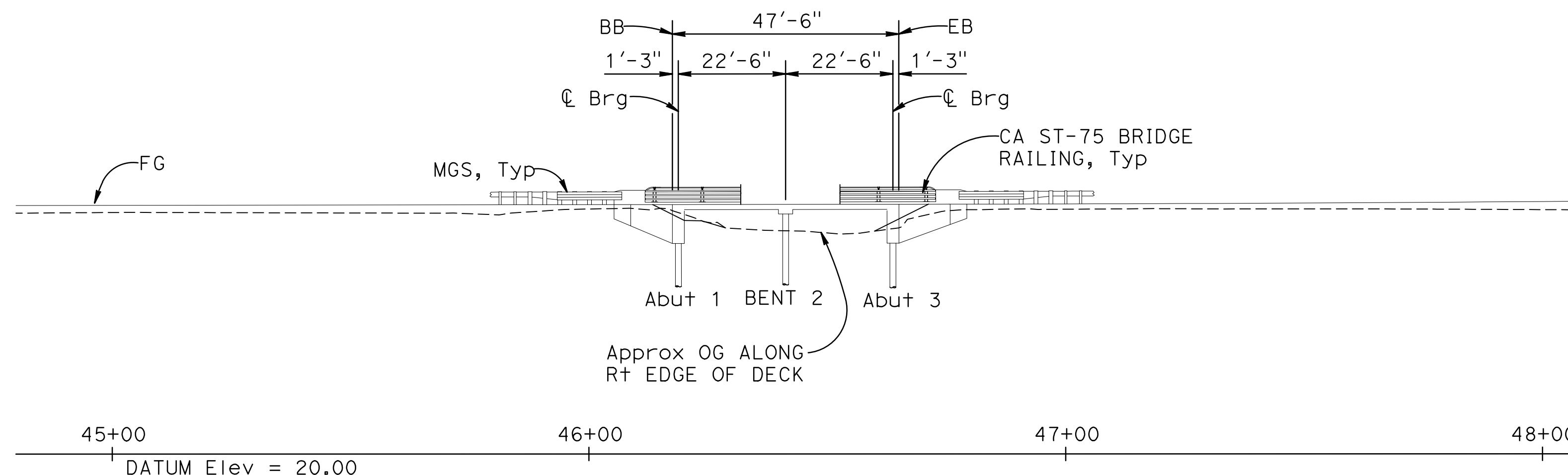
May 31, 2023  
 PLANS APPROVAL DATE

Prepared by:  
 WILLDAN ENGINEERING  
 2400 WASHINGTON AVENUE, SUITE 101  
 REDDING, CALIFORNIA 96001



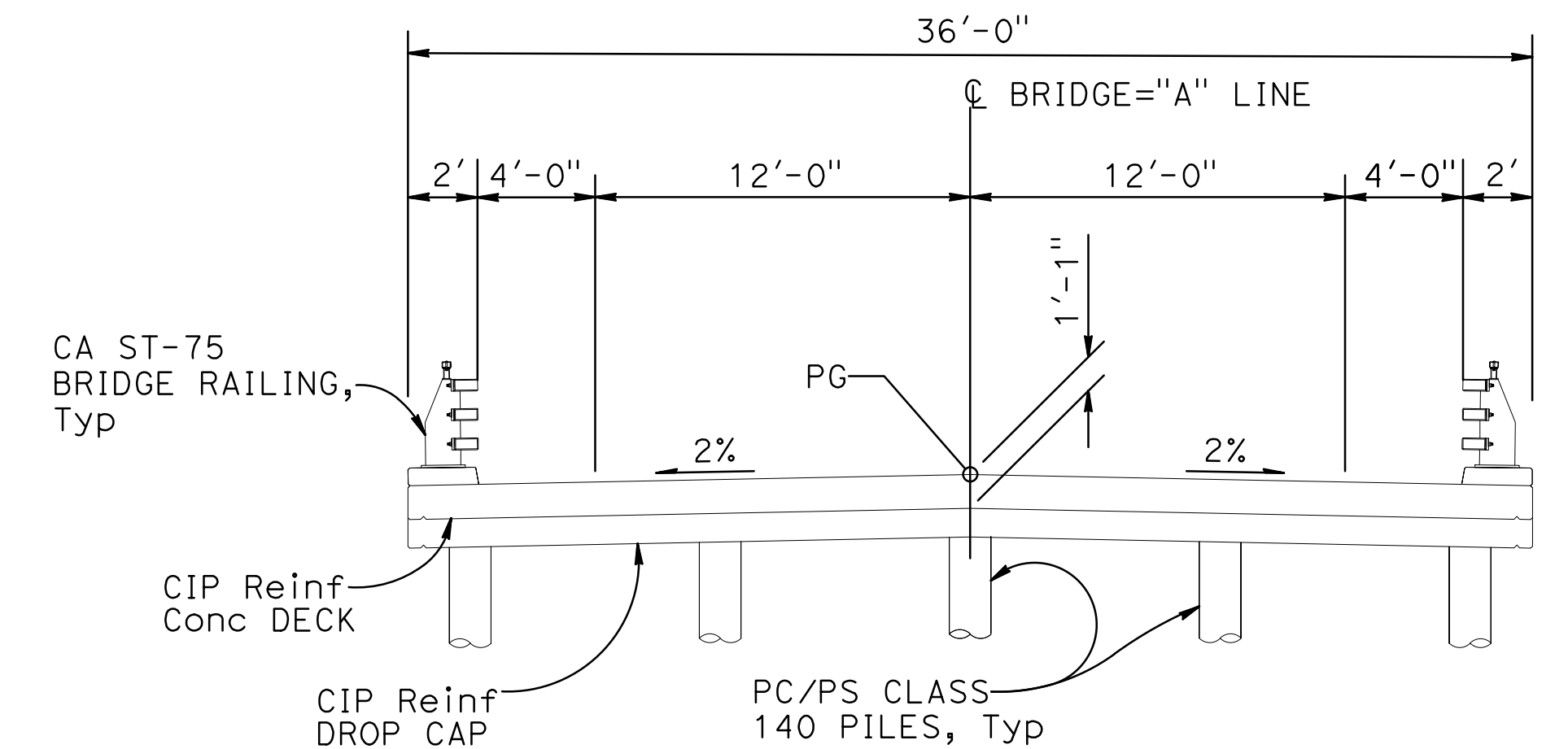
**PROFILE**

NO SCALE



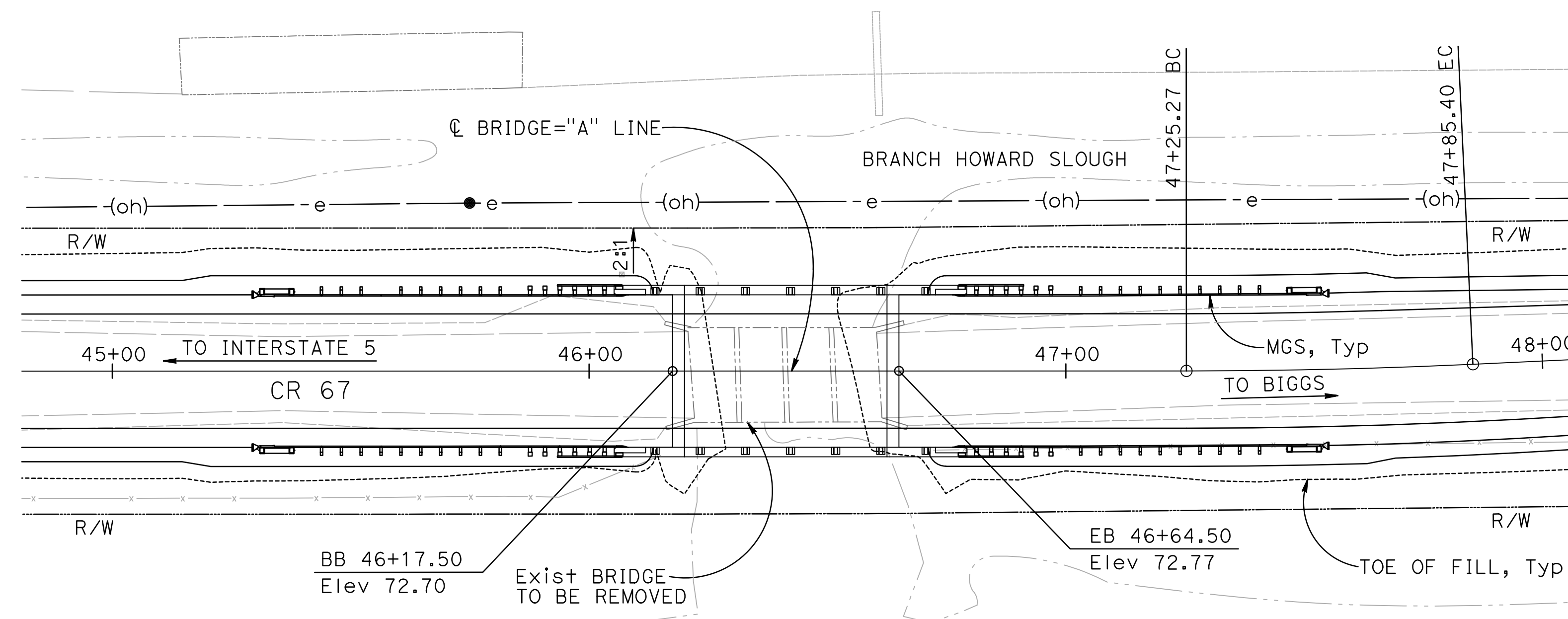
**ELEVATION**

1" = 20'-0"



**TYPICAL SECTION**

1" = 5'-0"



**PLAN**

1" = 20'-0"

**INDEX TO BRIDGE PLANS**

SHEET No.	TITLE
1	GENERAL PLAN
2	DECK CONTOURS
3	FOUNDATION PLAN
4	ABUTMENT LAYOUT
5	BENT LAYOUT
6	SLAB REINFORCEMENT DETAILS No. 1
7	SLAB REINFORCEMENT DETAILS No. 2
8	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 1
9	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 2
10	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 3
11	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 4
12	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 5
13	SOIL LEGEND 1 OF 2
14	SOIL LEGEND 2 OF 2
15	LOG OF TEST BORINGS

DESIGN	BY J. DeMARTINI	CHECKED M. ILEY	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BY"; PERMIT DESIGN VEHICLE
DETAILS	BY R. UHLMANN	CHECKED J. DeMARTINI	LAYOUT	BY R. UHLMANN
QUANTITIES	BY J. DeMARTINI	CHECKED R. UHLMANN	SPECIFICATIONS	BY X

PREPARED FOR  
**COUNTY OF GLENN**  
 PUBLIC WORKS AGENCY

G. GORDON  
 PROJECT ENGINEER

BRIDGE NO.	11C0179
POST MILES	NA

**BRANCH HOWARD SLOUGH BRIDGE (REPLACE)**

**GENERAL PLAN**

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
11/16/14 07/28/17 05/31/23	1	15

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	20	33

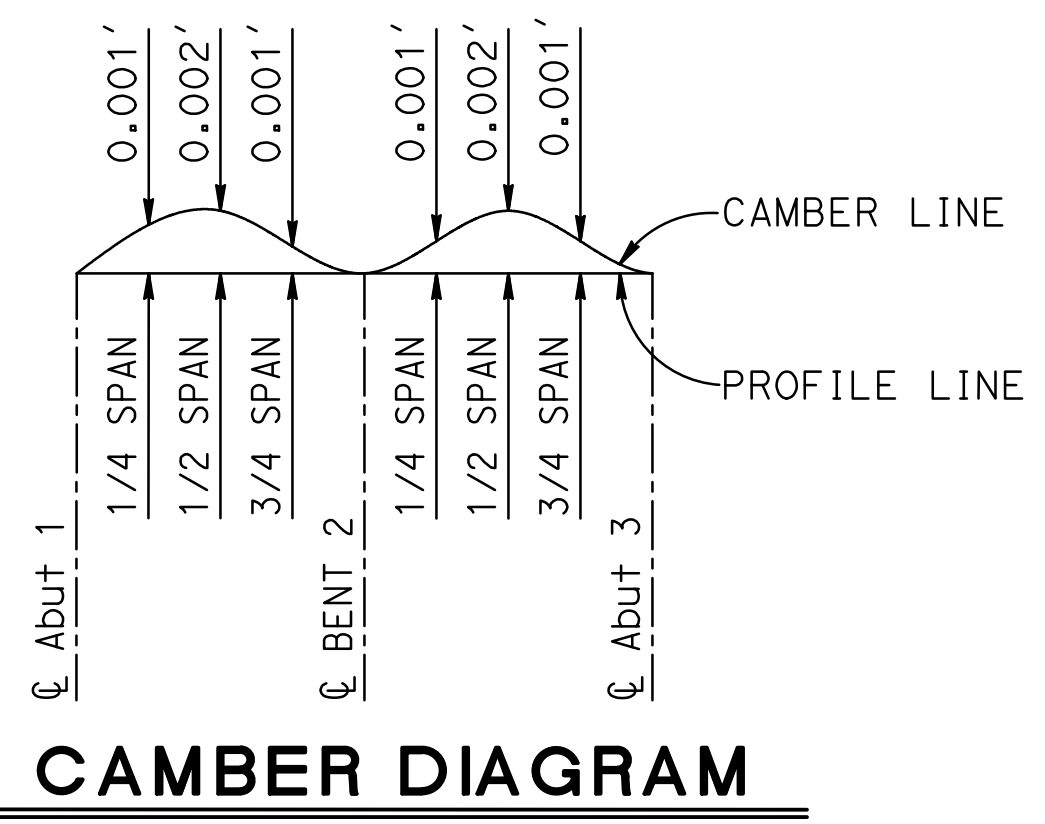
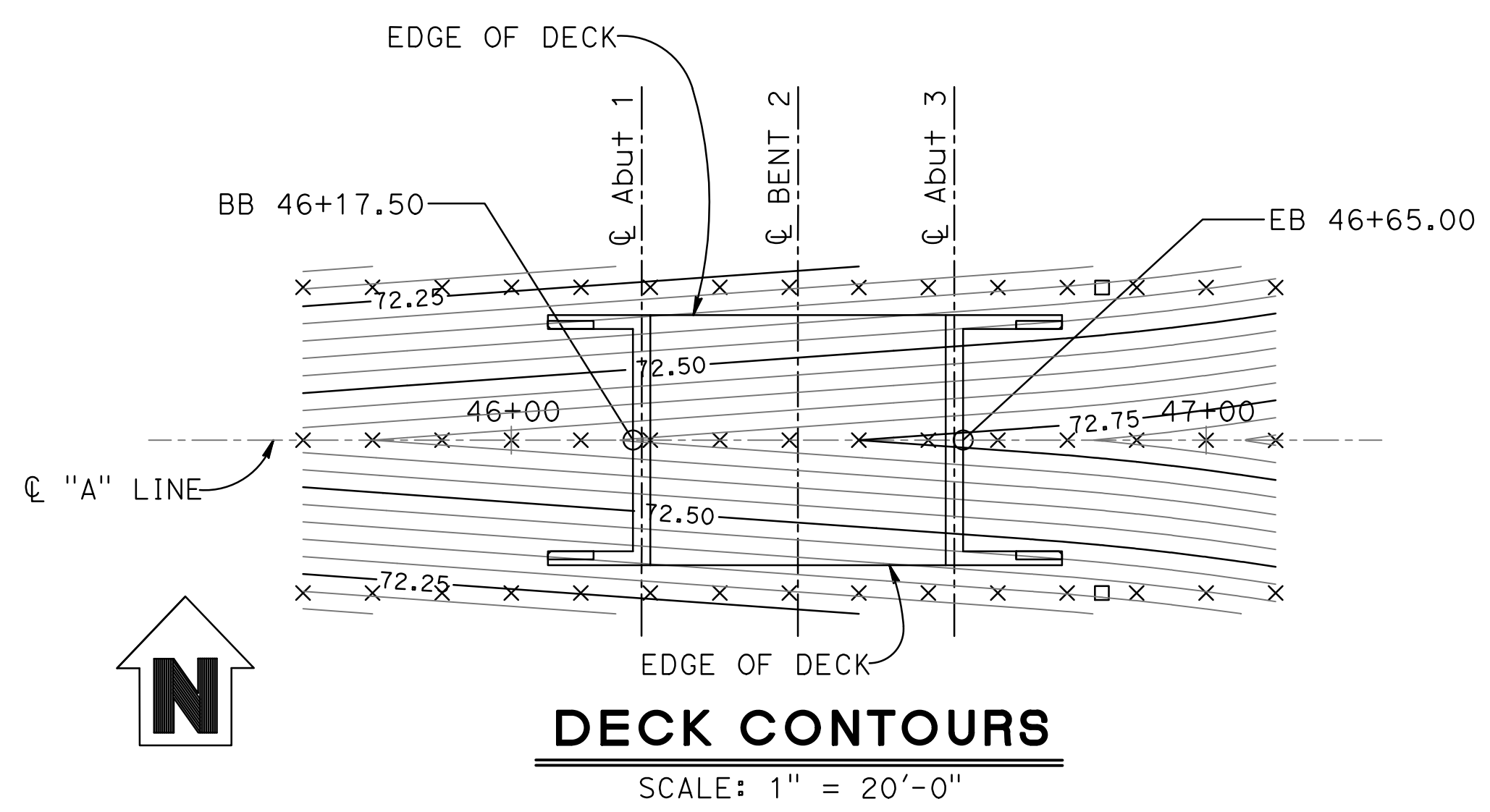
REGISTERED CIVIL ENGINEER  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA

05-31-23  
 DATE

May 31, 2023  
 PLANS APPROVAL DATE

Prepared by:  
 WILLDAN ENGINEERING  
 2400 WASHINGTON AVENUE, SUITE 101  
 REDDING, CALIFORNIA 96001

- NOTES:**
1. Contour indicate top of deck elevation.
  2. □ Indicates even 0.25 foot contours.
  3. × Indicates 10' intervals measured along "A" Line.
  4. Contour interval = 0.05'
  5. Contours do not include allowances for camber or falsework settlement.



NOTE: DOES NOT INCLUDE ALLOWANCE FOR FALSEWORK SETTLEMENT.

**GENERAL NOTES  
 LOAD AND RESISTANCE FACTOR DESIGN**

DESIGN : AASHTO LRFD Bridge Design Specifications, 6th Edition and with Caltrans Amendments, preface dated September 2010

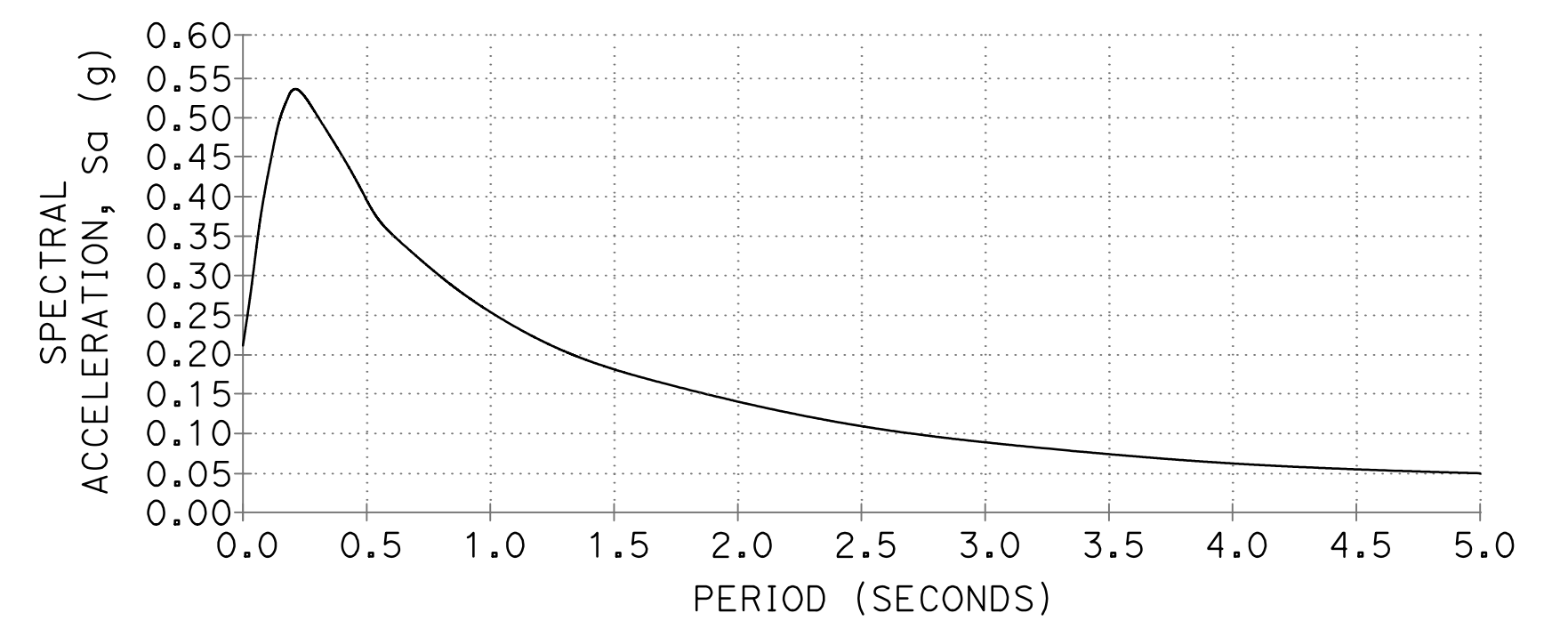
SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC), Version 1.7 dated April 2013.

DEAD LOAD: Includes 35 psf for future wearing surface.

LIVE LOADING: HL93 and permit design load.

SEISMIC LOADING: Soil Profile: C  
 Moment Magnitude: 6.7  
 Peak Ground Acceleration = 0.22 g

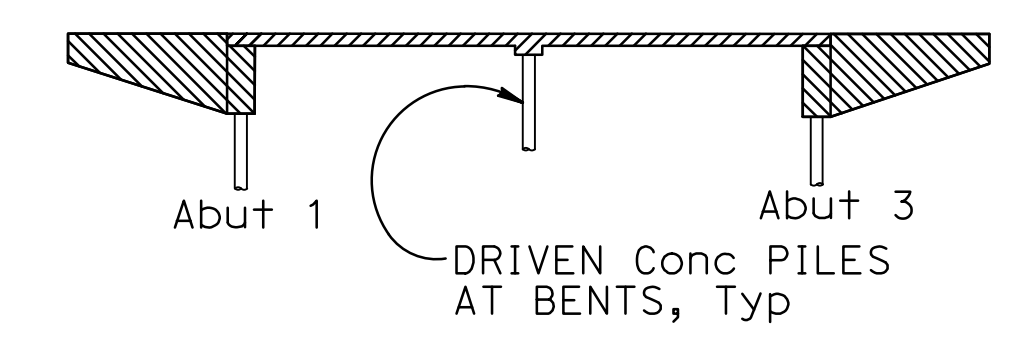
REINFORCED CONCRETE:  $f_y = 60$  ksi  
 $f'_c = 4.0$  ksi (Superstructure)  
 $f'_c = 3.6$  ksi (Substructure)



**ACCELERATION RESPONSE SPECTRUM CURVE**

**APPROXIMATE QUANTITIES**

ITEM CODE	ITEM DESCRIPTION	QUANTITY	UNIT
157550	BRIDGE REMOVAL	1	LS
192020	STRUCTURE EXCAVATION (TYPE D)	89	CY
193003	STRUCTURE BACKFILL (BRIDGE)	51	CY
490736	FURNISH PILING (CLASS 90)	143	LF
490737	DRIVE PILE (CLASS 90)	10	EA
490746	FURNISH PILING (CLASS 140)	369	LF
490747	DRIVE PILE (CLASS 140)	5	EA
510053	STRUCTURAL CONCRETE, BRIDGE	64	CY
510054	STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	73	CY
520102	BAR REINFORCING STEEL (BRIDGE)	27,200	Lbs
048290	CALIFORNIA ST-75 BRIDGE RAIL	147	LF



STRUCTURAL CONCRETE, BRIDGE 3.6 ksi AT 28 DAYS  
 STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER) 4 ksi AT 28 DAYS

**CONCRETE STRENGTH AND TYPE LIMITS**

NO SCALE

DESIGN BY J. DeMARTINI CHECKED M. ILEY	PREPARED FOR <b>COUNTY OF GLENN</b> PUBLIC WORKS AGENCY	BRIDGE NO. 11C0179	<b>BRANCH HOWARD SLOUGH BRIDGE (REPLACE)</b>	
DETAILS BY R. UHLMANN CHECKED J. DeMARTINI		POST MILES NA		
QUANTITIES BY J. DeMARTINI CHECKED R. UHLMANN		PROJECT ENGINEER G. GORDON		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	FILE => 11-0179-d-dc01	REVISION DATES 11/16/14 07/28/17 05/31/23	SHEET 2 OF 15

DATE PLOTTED => 5/31/2023 USERNAME => KEVIN TIME PLOTTED => 8:17:47 AM

**BENCH MARK**

Horizontal Datum NAD83

Vertical Datum NAVD88

**HYDROLOGIC SUMMARY**

DRAINAGE AREA 118 SQ ACRES

	DESIGN FLOOD	BASE FLOOD	OVERTOPPING FLOOD	RECORD FLOOD
FREQUENCY, YEARS	50	100	X	X
DISCHARGE CUBIC ft./sec.		14	X	X
WATER SURFACE ELEVATION AT BRIDGE		67.81	X	X

NOTE:  
Flood Plain Data is 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 Designer and interested or affected parties should make their own investigation.

**LEGEND**

- DENOTES EXISTING STRUCTURE
- DENOTES PROPOSED STRUCTURE
- o DENOTES CLASS 140 PILES
- 64.19 DENOTES BOTTOM OF FOOTING ELEVATION

**NOTES**

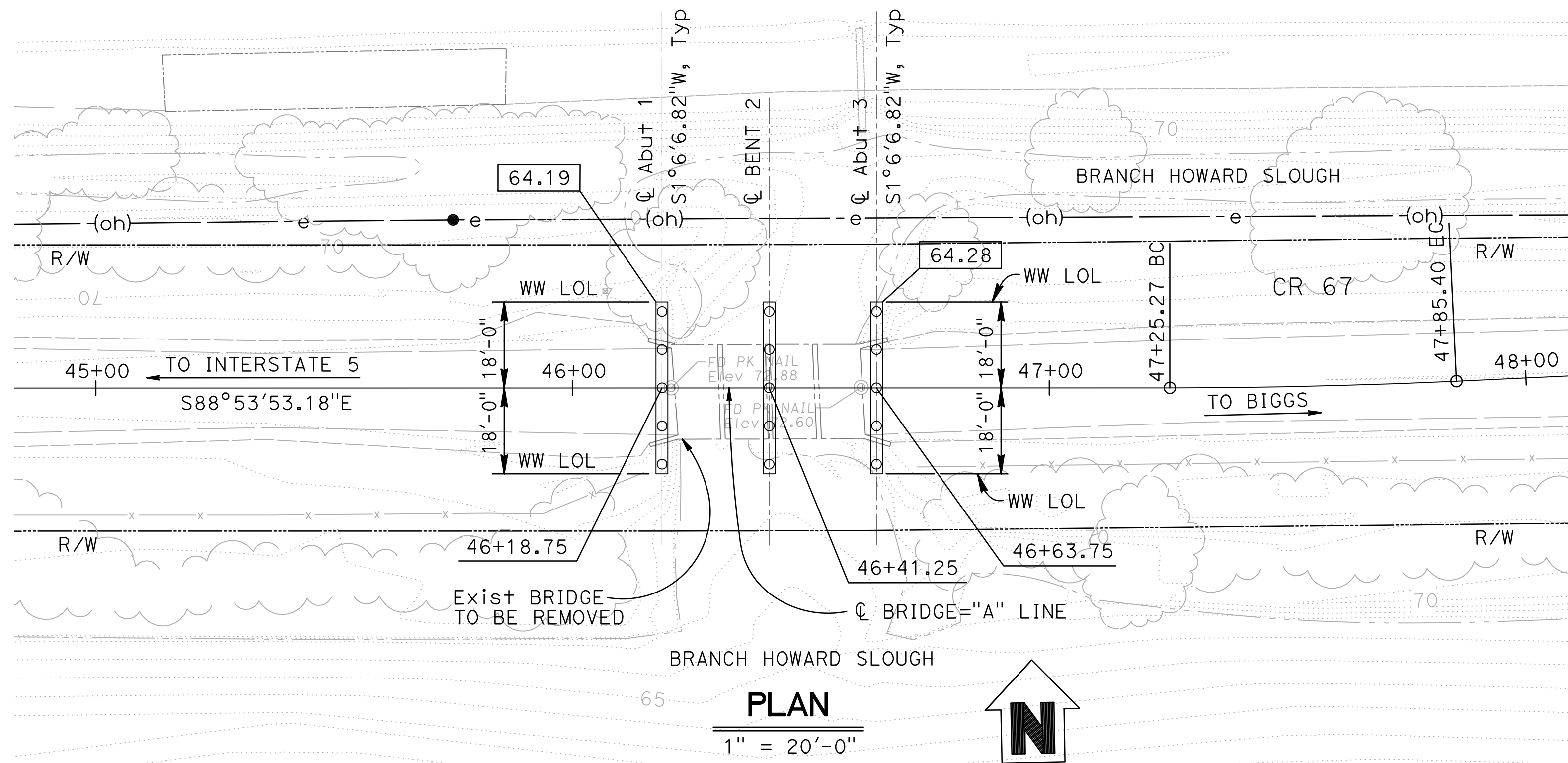
1. Utility relocation not shown. Utilities in conflict with piles will be relocated for bridge construction.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	21	33

REGISTERED CIVIL ENGINEER  
DATE 05-31-23  
GARY M. GORDON  
No. 42176  
Exp. 03-31-24  
CIVIL  
STATE OF CALIFORNIA

May 31, 2023  
PLANS APPROVAL DATE

Prepared by:  
WILLDAN ENGINEERING  
2400 WASHINGTON AVENUE, SUITE 101  
REDDING, CALIFORNIA 96001



**PILE DATA TABLE**

LOCATION	PILE TYPE	DESIGN LOADING (SERVICE)	NOMINAL RESISTANCE		DESIGN TIP ELEV* (FEET)	SPECIFIED TIP ELEV (FEET)	PC/PS CONCRETE PILE CUT OFF ELEVATION (FEET)				
			COMPRESSION	TENSION			PILE No. 1	PILE No. 2	PILE No. 3	PILE No. 4	PILE No. 5
Abut 1	CLASS 90	90 kips	180 kips	90	36.00 (1)	36.00	64.44	64.44	64.44	64.44	64.44
Bent 2	CLASS 140	140 kips	280 kips	140	26.00 (1)	26.00	73.44	73.58	73.72	73.58	73.44
Abut 3	CLASS 90	90 kips	180 kips	90	36.00 (1)	36.00	64.53	64.53	64.53	64.53	64.53

\* DESIGN TIP ELEVATION IS CONTROLLED BY THE FOLLOWING DEMANDS:  
(1) COMPRESSION, (2) TENSION, (3) LATERAL LOADS, (4) SETTLEMENT

SCALE: 1"=30'	VERT. DATUM NAVD88	HORZ. DATUM NAD83
PHOTOGRAMMETRY AS OF: 06/12	ALIGNMENT TIES X	
SURVEYED BY S. ESPINOSA	DRAFTED BY J. JONES	
FIELD CHECKED BY B. STRATMAN	CHECKED BY P. ESPINOSA	

DESIGN BY J. DeMARTINI	CHECKED M. ILEY
DETAILS BY R. UHLMANN	CHECKED J. DeMARTINI
QUANTITIES BY J. DeMARTINI	CHECKED R. UHLMANN

PREPARED FOR  
**COUNTY OF GLENN**  
PUBLIC WORKS AGENCY

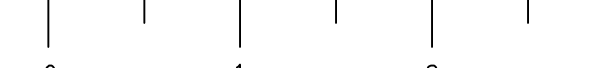
G. GORDON  
PROJECT ENGINEER

BRIDGE NO.	11C0179
POST MILES	NA

**BRANCH HOWARD SLOUGH BRIDGE (REPLACE)**

**FOUNDATION PLAN**

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
11/16/14 07/28/17 05/31/23	3	15

FILE => 11-0179-e-fp101

DATE PLOTTED => 5/31/2023 USERNAME => KEVIN TIME PLOTTED => 9:12:57 AM

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	22	33

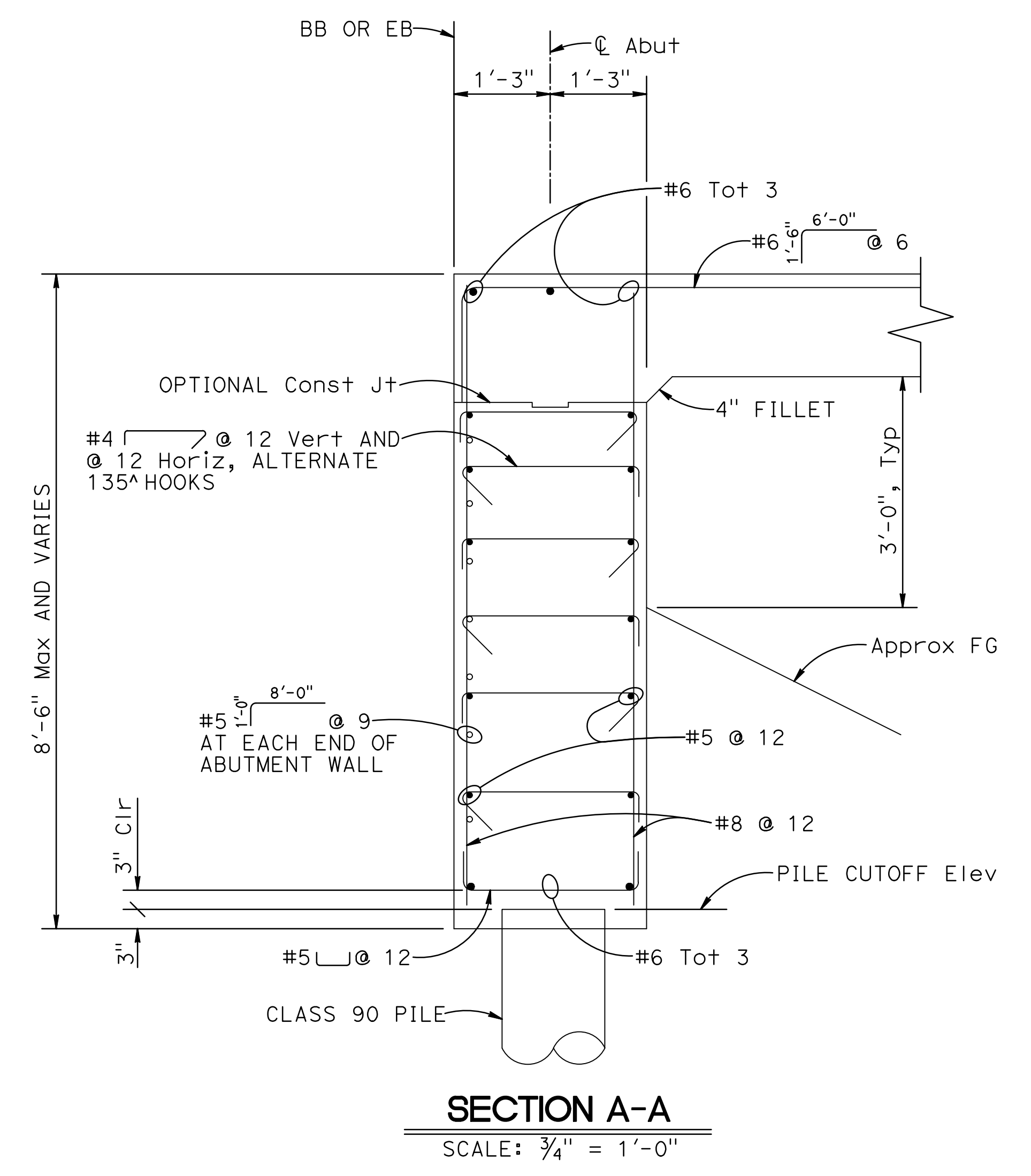
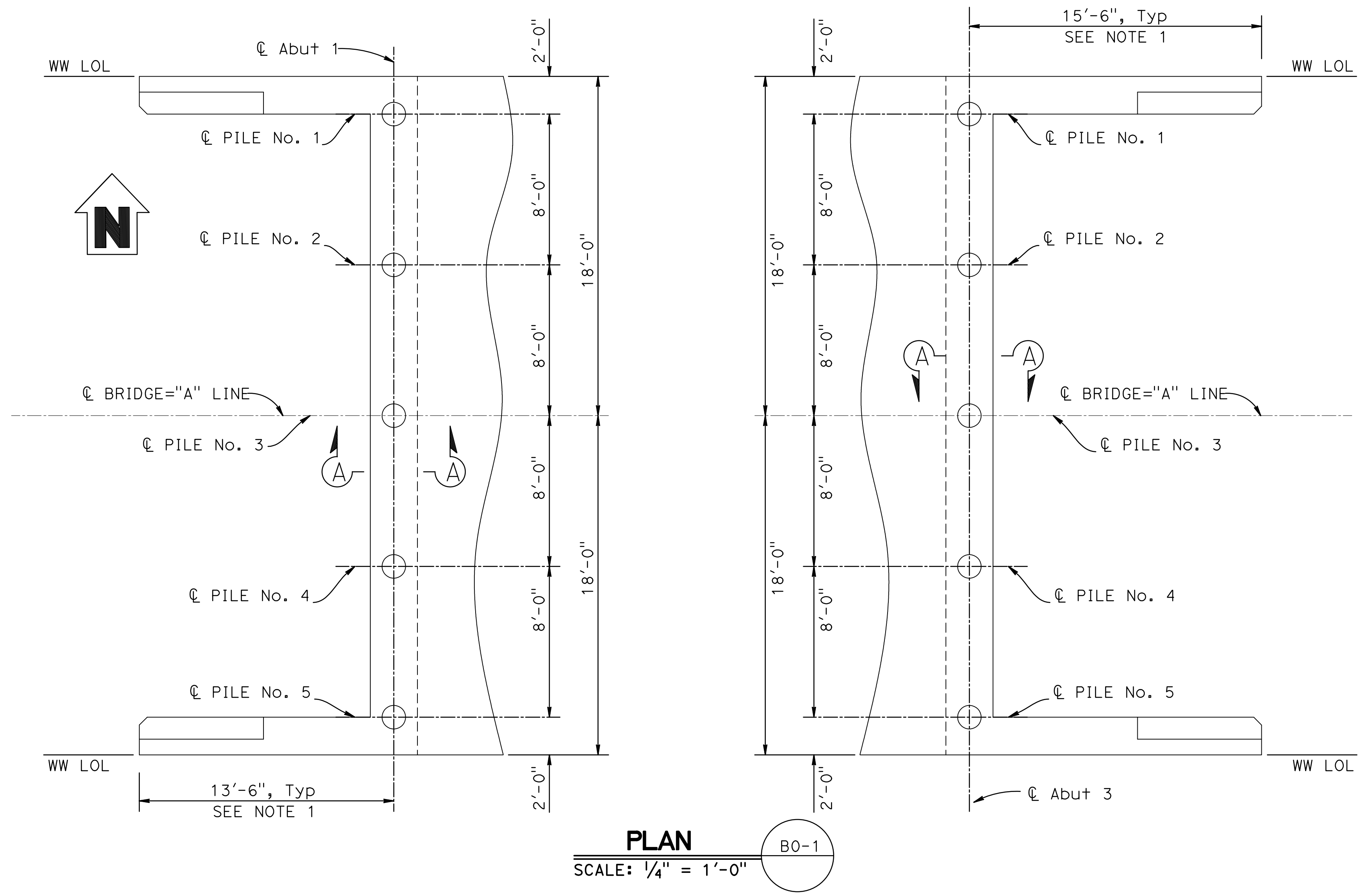
NOTES:  
 1. For 'TYPICAL WINGWALL ELEVATION', see Caltrans Standard Plan B0-1.

REGISTERED CIVIL ENGINEER  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA

05-31-23  
 DATE

May 31, 2023  
 PLANS APPROVAL DATE

Prepared by:  
 WILLDAN ENGINEERING  
 2400 WASHINGTON AVENUE, SUITE 101  
 REDDING, CALIFORNIA 96001



DESIGN	BY	J. DeMARTINI	CHECKED	M. ILEY	PREPARED FOR <b>COUNTY OF GLENN</b> PUBLIC WORKS AGENCY	BRIDGE NO.	11C0179	<b>BRANCH HOWARD SLOUGH BRIDGE (REPLACE)</b>	
	DETAILS	BY	R. UHLMANN	CHECKED		J. DeMARTINI	POST MILES		NA
	QUANTITIES	BY	J. DeMARTINI	CHECKED		R. UHLMANN	ABUTMENT LAYOUT		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0 1 2 3	G. GORDON PROJECT ENGINEER		REVISION DATES	
						FILE => 11-0179-f-a01_101		11/20/14 01/28/17 05/31/23	
								SHEET 4 OF 15	

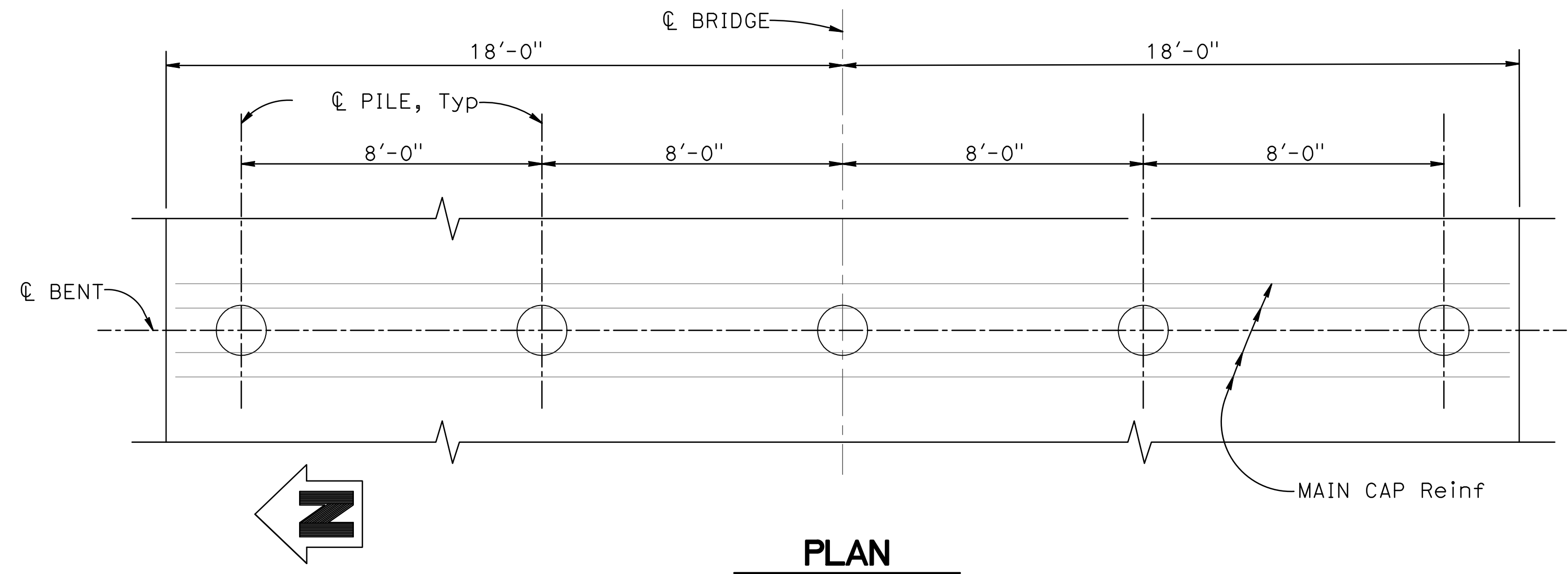
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	23	33

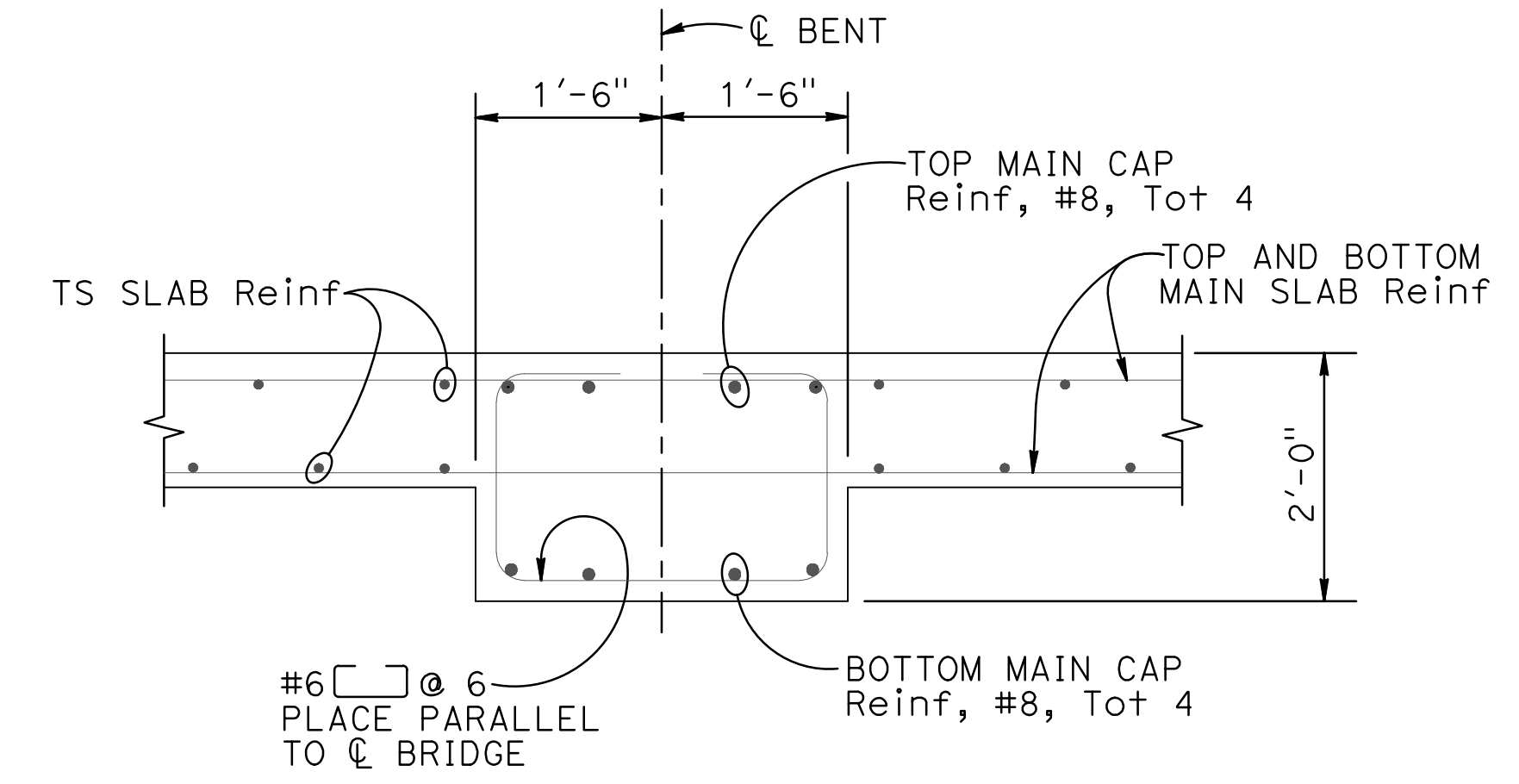
REGISTERED CIVIL ENGINEER  
 DATE 05-31-23  
 May 31, 2023  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA

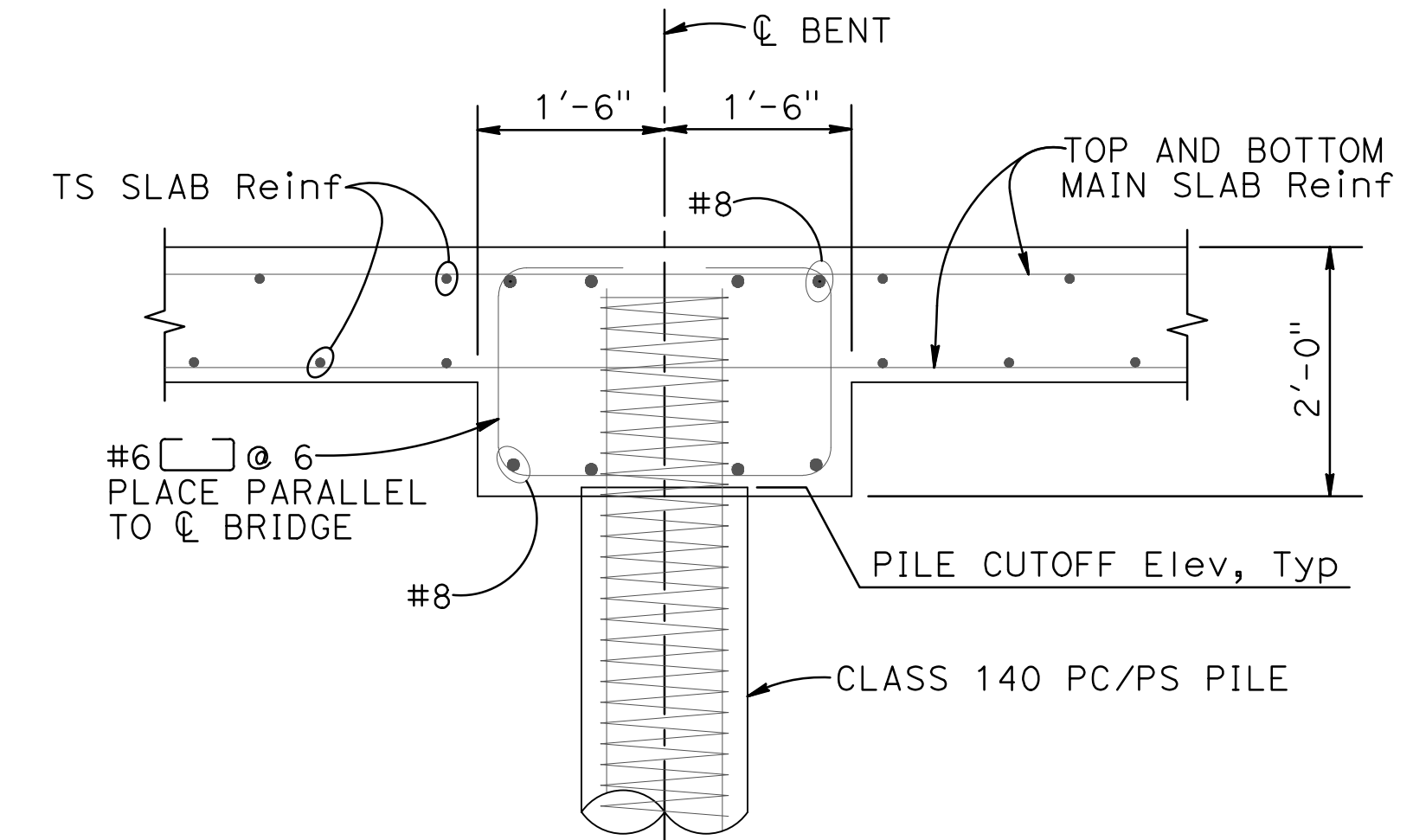
Prepared by:  
 WILLDAN ENGINEERING  
 2400 WASHINGTON AVENUE, SUITE 101  
 REDDING, CALIFORNIA 96001



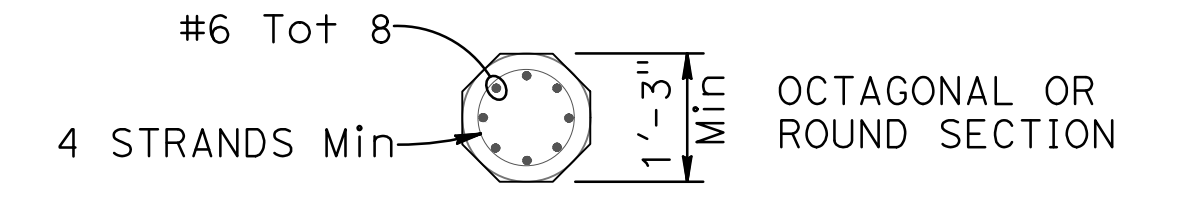
**PLAN**  
SCALE: 3/8" = 1'-0"



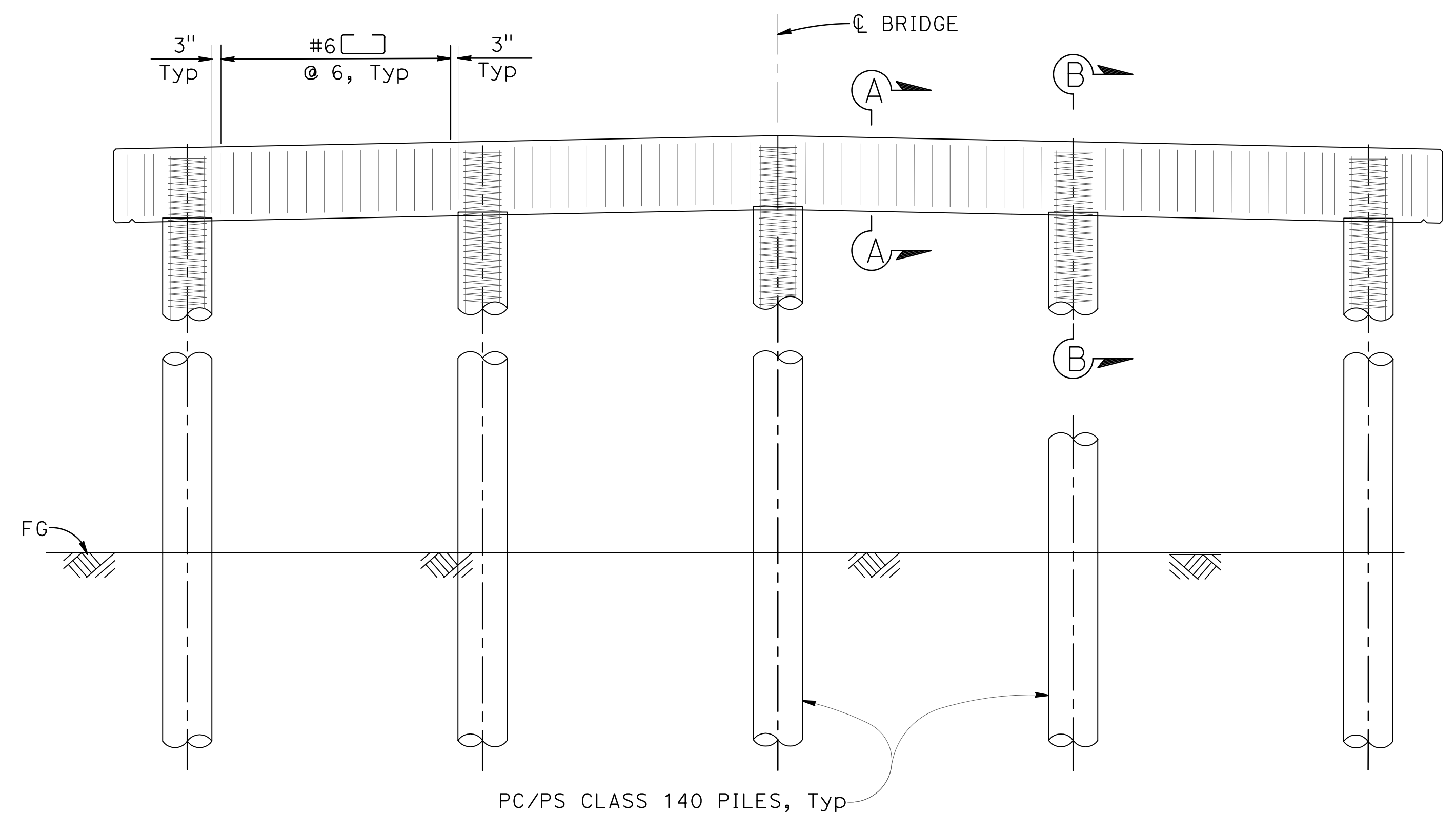
**SECTION A-A**  
SCALE: 3/4" = 1'-0"



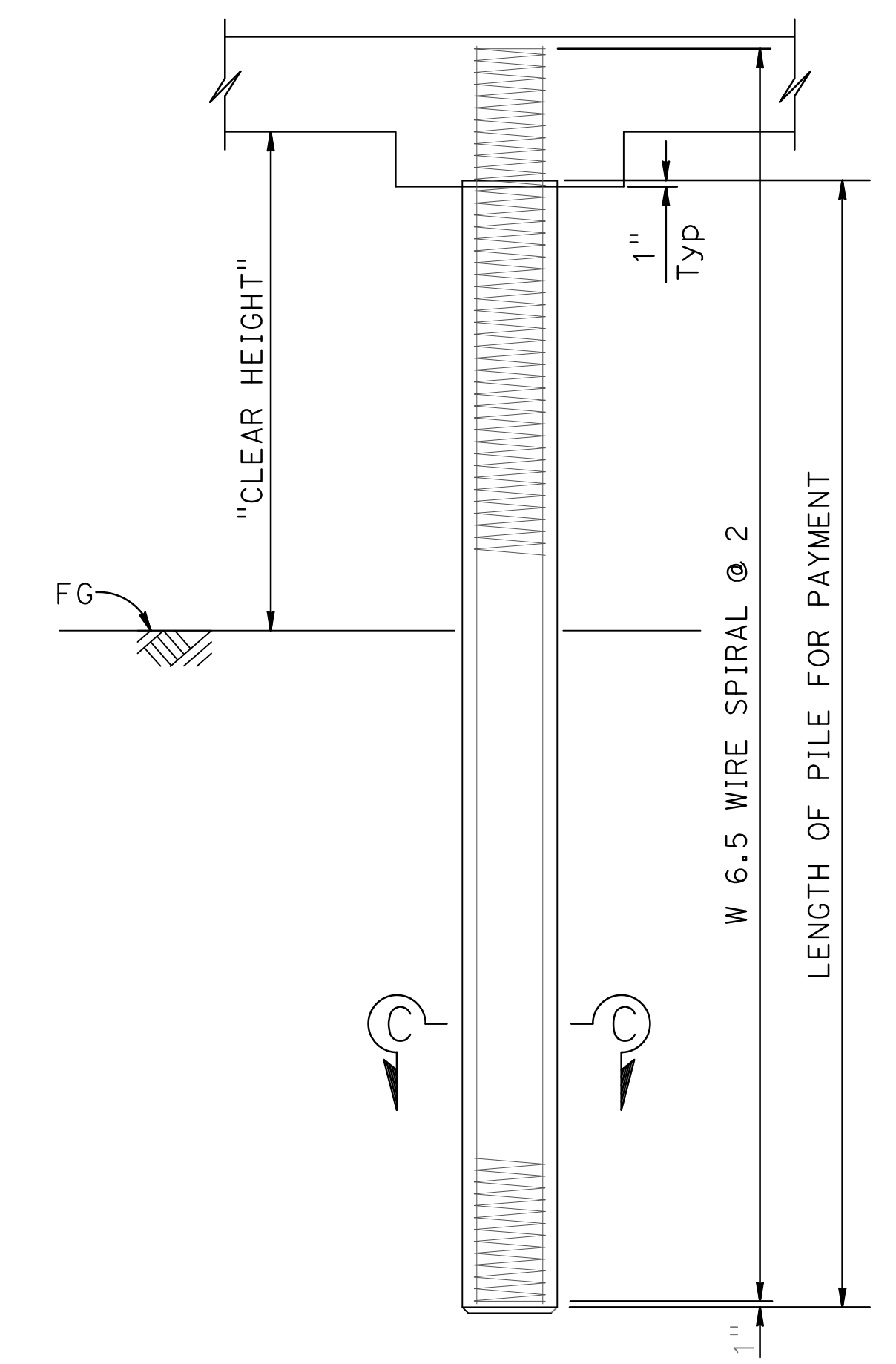
**SECTION B-B**  
SCALE: 3/4" = 1'-0"



**SECTION C-C**



**ELEVATION**  
SCALE: 3/8" = 1'-0"



**PRECAST PRESTRESSED CONCRETE PILE**

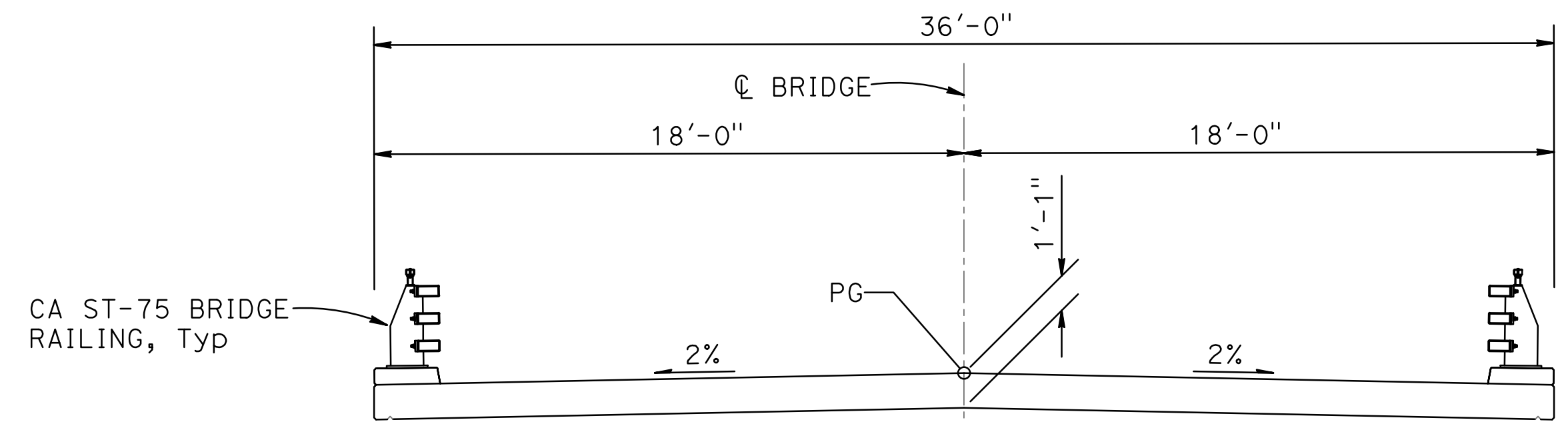
- NOTES:**
- Design service level loading is 140 kips service and 280 kips nominal axial structural resistance or less as noted.
  - Maximum size of aggregate is 1".
  - For the prestressed concrete pile:
    - The prestress force after all losses shall provide 700 psi minimum stress.
    - The concrete strength shall not be less than 6000 psi at 28 days.
  - No splices allowed in the longitudinal reinforcement within the "CLEAR HEIGHT" or within 10' below the ground line.

DESIGN	BY J. DeMARTINI	CHECKED M. ILEY	PREPARED FOR <b>COUNTY OF GLENN</b> PUBLIC WORKS AGENCY	BRIDGE NO.	11C0179	<b>BRANCH HOWARD SLOUGH BRIDGE (REPLACE)</b>  <b>BENT LAYOUT</b>
DETAILS	BY R. UHLMANN	CHECKED J. DeMARTINI		POST MILES	NA	
QUANTITIES	BY J. DeMARTINI	CHECKED R. UHLMANN				
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	REVISION DATES	11/01/14 01/28/17 05/31/23	SHEET 5 OF 15

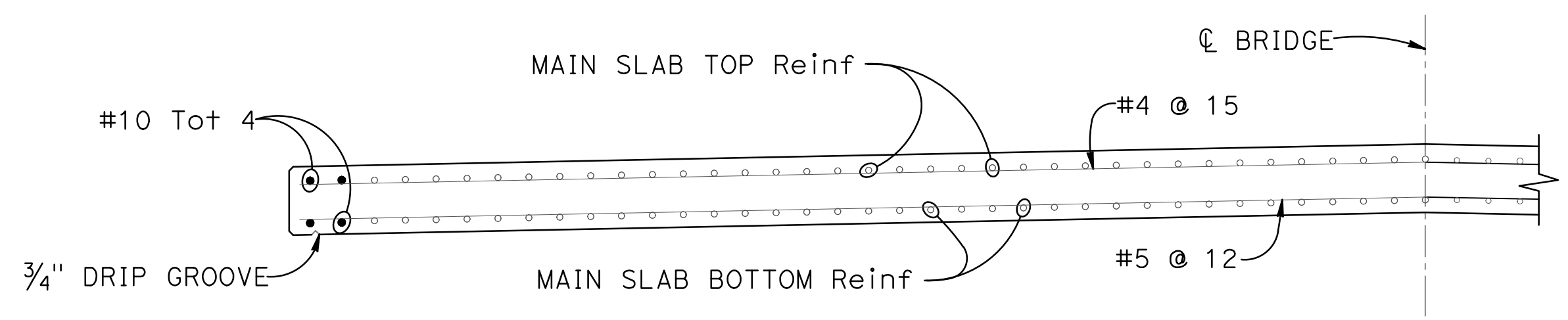
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	24	33

REGISTERED CIVIL ENGINEER  
 DATE 05-31-23  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA

Prepared by:  
 WILLDAN ENGINEERING  
 2400 WASHINGTON AVENUE, SUITE 101  
 REDDING, CALIFORNIA 96001

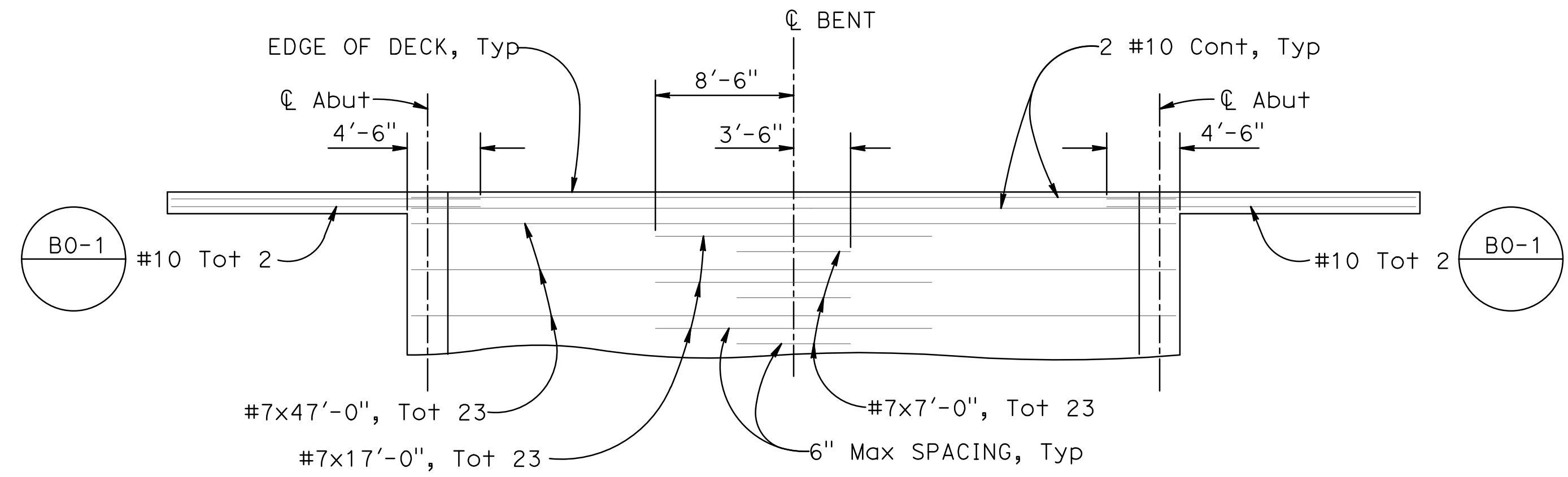


**TYPICAL SECTION**  
SCALE: 1/4" = 1'-0"

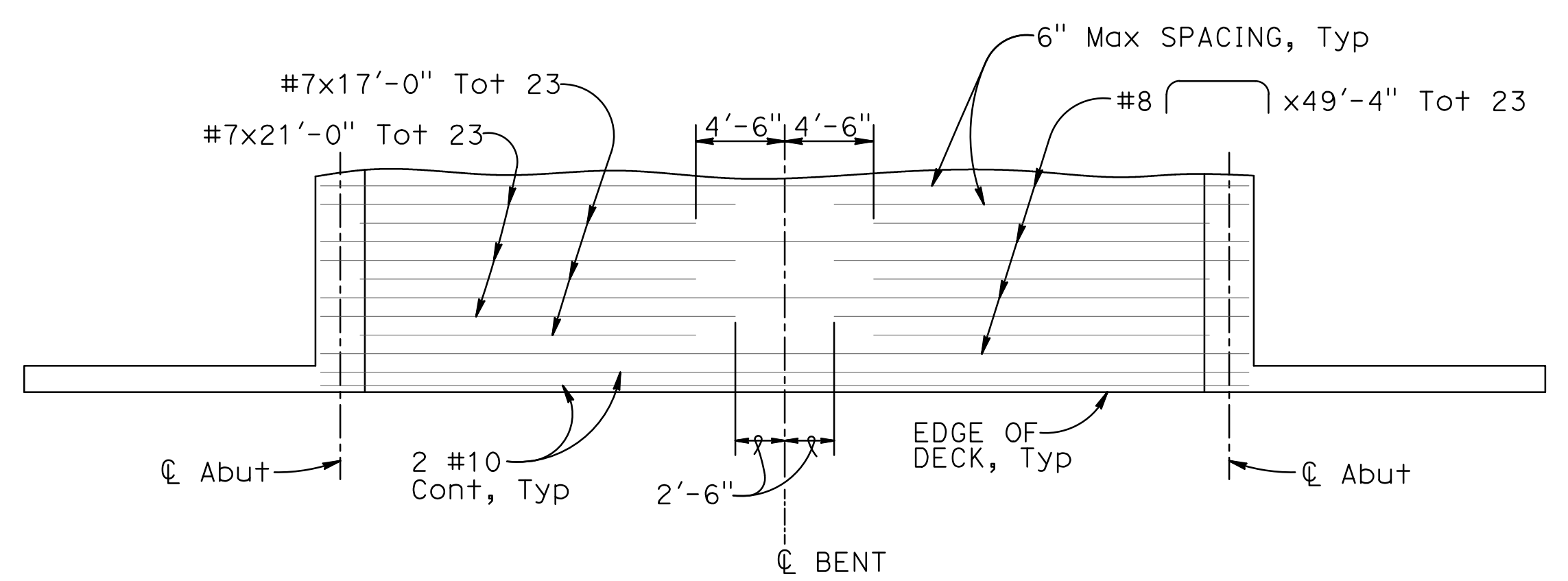


**PART TYPICAL SECTION**  
SCALE: 1/2" = 1'-0"  
NOTE: BAR CHAIRS NOT SHOWN.

**NOTES:**  
 1. FOR SLAB REINFORCING DETAILS NOT SHOWN SEE "SLAB REINFORCEMENT DETAILS NO. 2" SHEET.



**REINFORCEMENT - TOP OF SLAB**  
NOT TO SCALE



**REINFORCEMENT - BOTTOM OF SLAB**  
NOT TO SCALE

DESIGN	BY J. DeMARTINI	CHECKED M. ILEY
DETAILS	BY R. UHLMANN	CHECKED J. DeMARTINI
QUANTITIES	BY J. DeMARTINI	CHECKED R. UHLMANN

PREPARED FOR  
**COUNTY OF GLENN**  
 PUBLIC WORKS AGENCY

G. GORDON  
 PROJECT ENGINEER

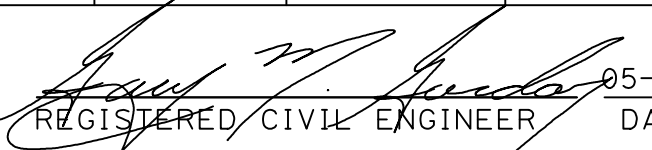
BRIDGE NO. 11C0179  
 POST MILES NA  
**BRANCH HOWARD SLOUGH BRIDGE (REPLACE)**  
**SLAB REINFORCEMENT DETAILS NO. 1**



REVISION DATES	SHEET	OF
11/07/14 01/28/17 05/31/23	6	15

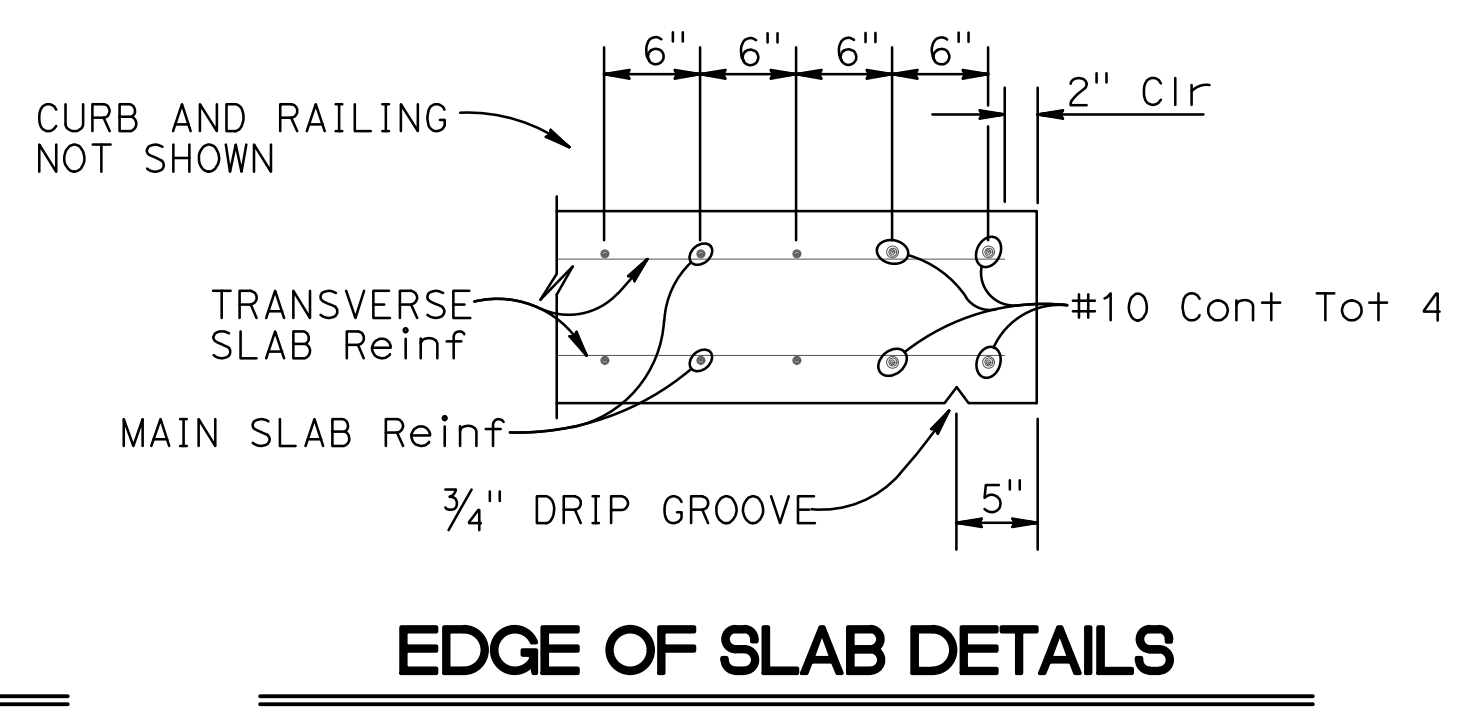
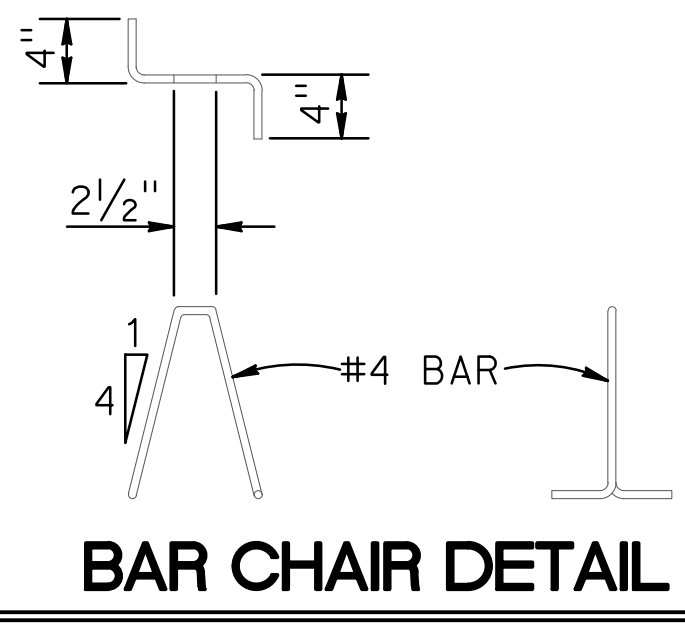
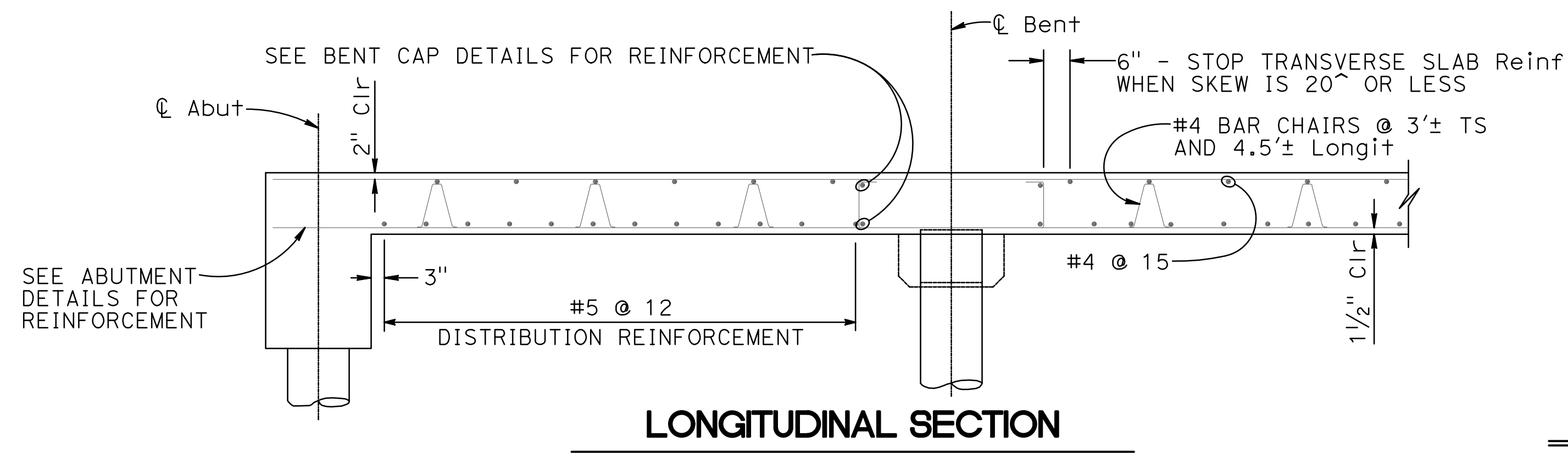


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Gle	CR 67	NA	25	33

  
 REGISTERED CIVIL ENGINEER DATE 05-31-23  
 May 31, 2023  
 PLANS APPROVAL DATE

GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA

Prepared by:  
 WILLDAN ENGINEERING  
 2400 WASHINGTON AVENUE, SUITE 101  
 REDDING, CALIFORNIA 96001



BAR SPLICE LENGTH								
BAR SIZE	#4	#5	#6	#7	#8	#9	#10	#11
ALL BARS, EXCEPT TOP BARS IN SPANS OVER 24'	23"	28"	34"	43"	56"	71"	90"	110"
TOP BARS IN SPANS OVER 24'	23"	28"	34"	58"	74"	80"	115"	155"

**REINFORCEMENT NOTES:**  
 Splices in top main bars to be located near center of span.  
 Splices in bottom main bars to be located near bent.  
 Spacing of all transverse bars is measured along  $\phi$  roadway.

DESIGN	BY J. DeMARTINI	CHECKED M. ILEY
DETAILS	BY R. UHLMANN	CHECKED J. DeMARTINI
QUANTITIES	BY J. DeMARTINI	CHECKED R. UHLMANN

PREPARED FOR  
**COUNTY OF GLENN**  
 PUBLIC WORKS AGENCY

G. GORDON  
 PROJECT ENGINEER

BRIDGE NO.	11C0179	<b>BRANCH HOWARD SLOUGH BRIDGE (REPLACE)</b> <b>SLAB REINFORCEMENT DETAILS NO. 2</b>
POST MILES	NA	
NA		

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

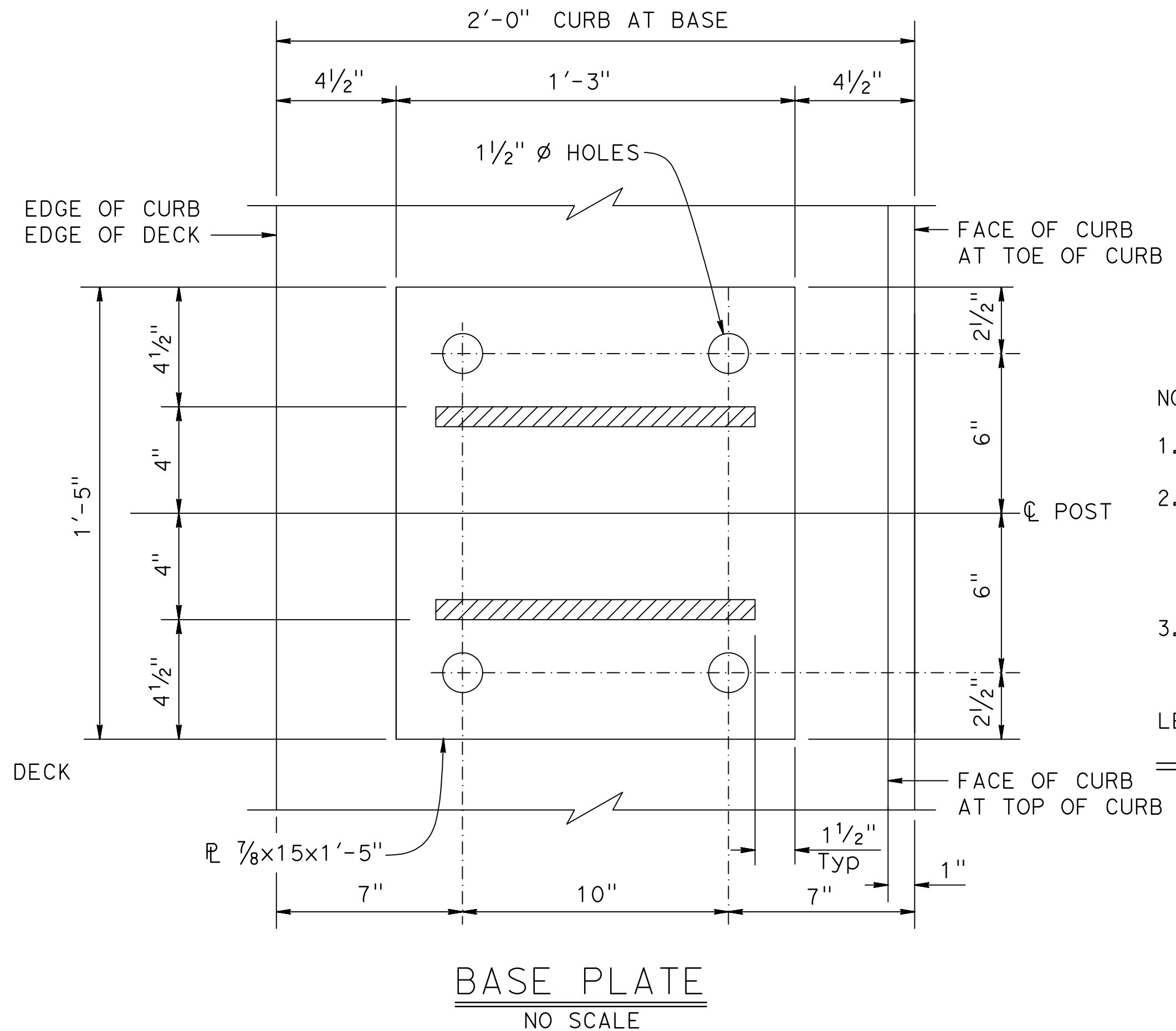
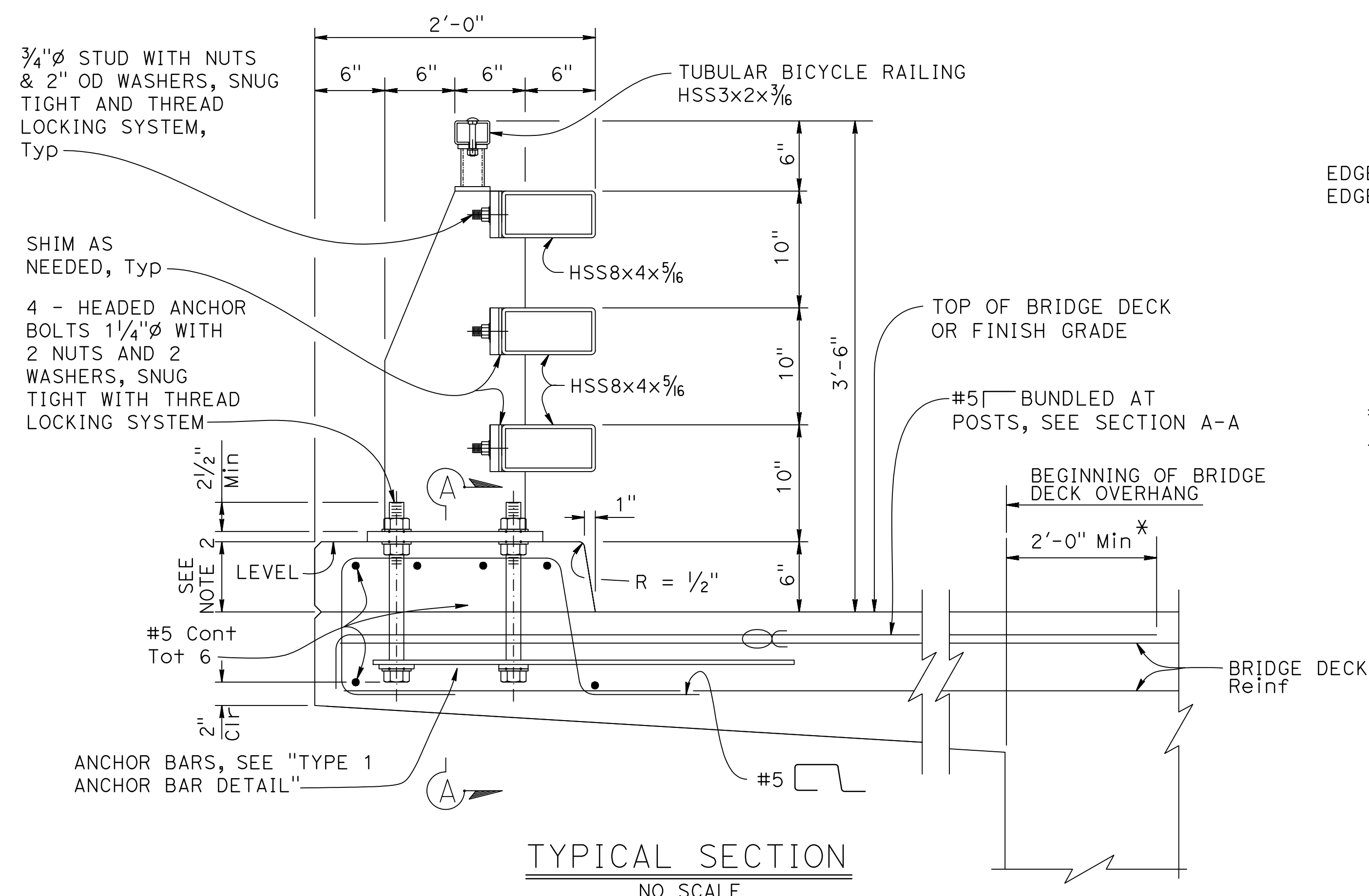


DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 11/28/14 01/28/17 05/31/23	SHEET 7	OF 15
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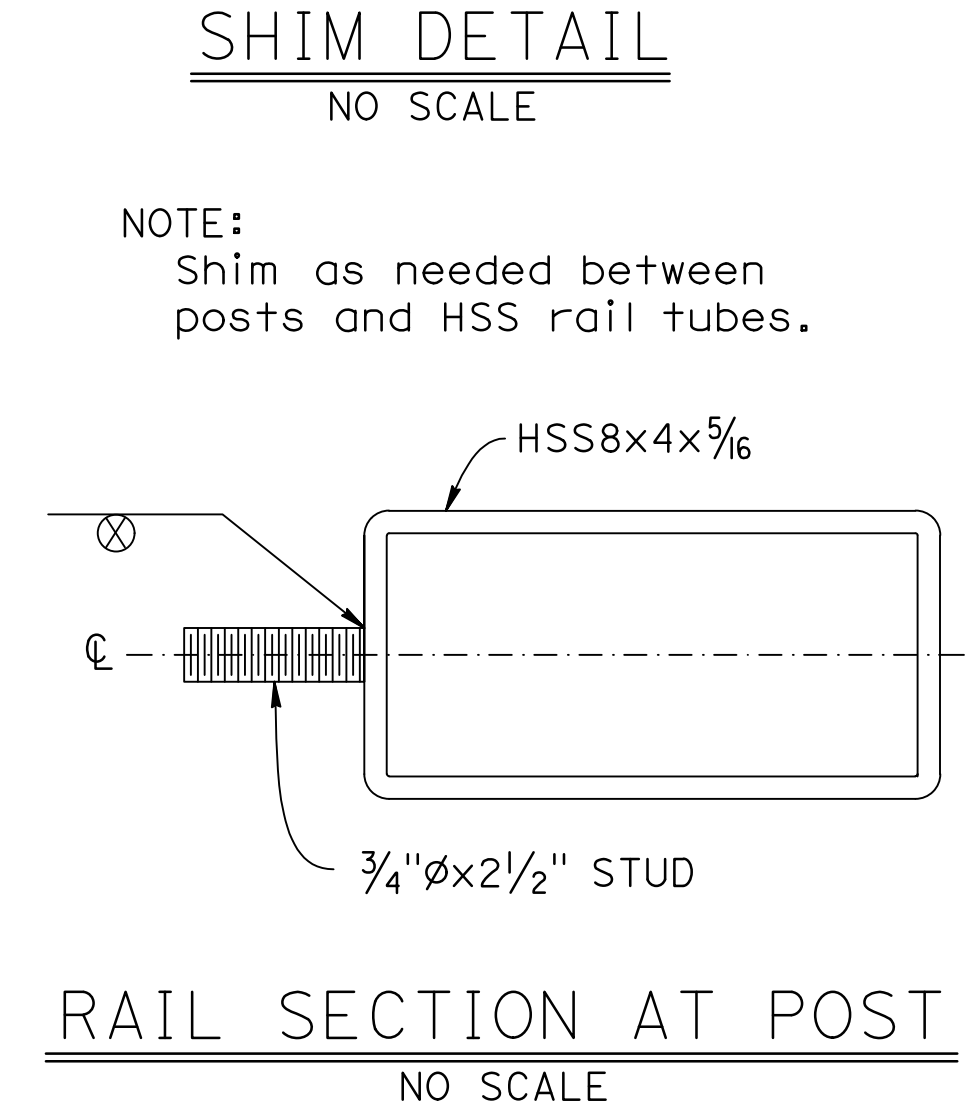
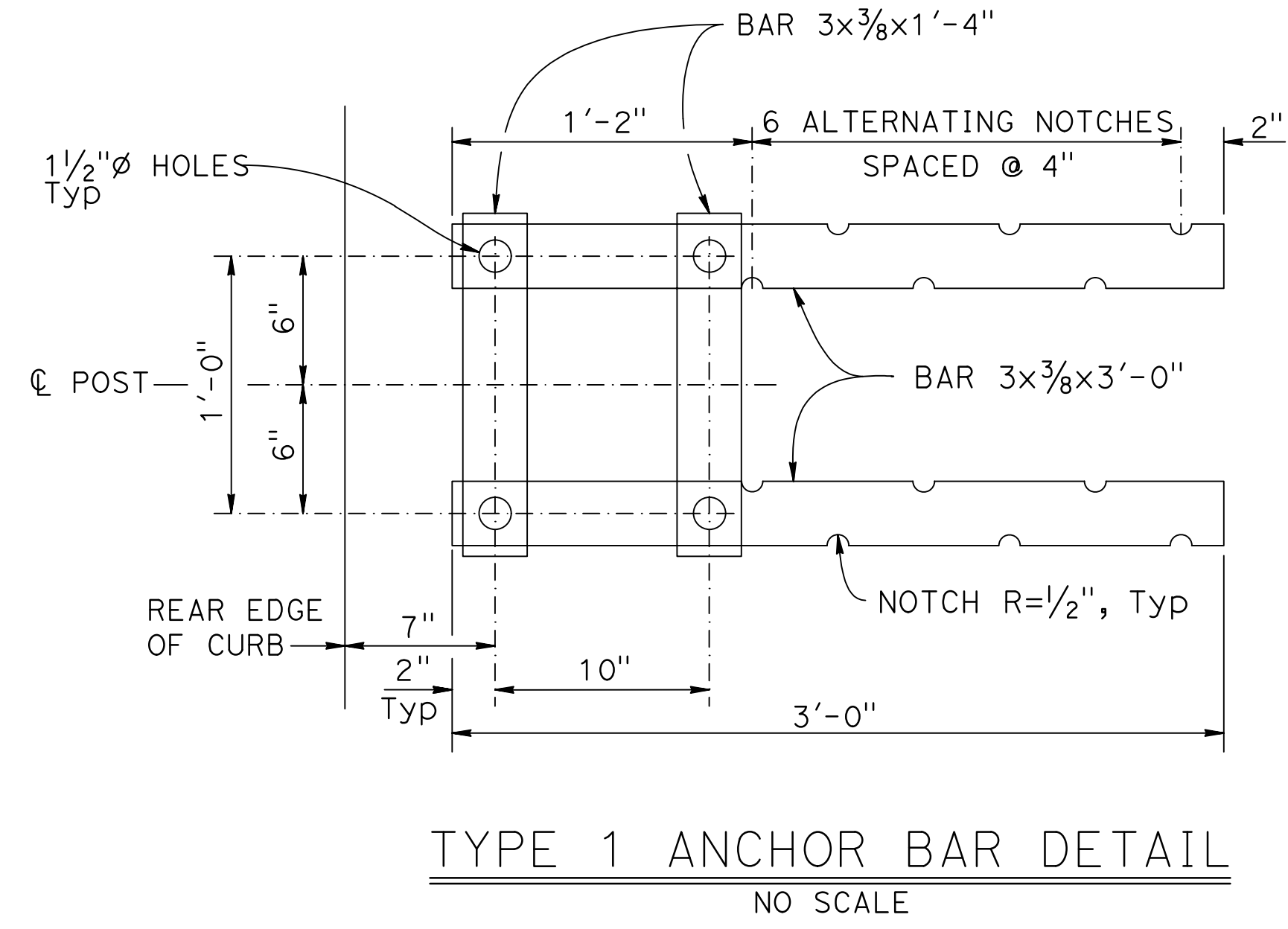
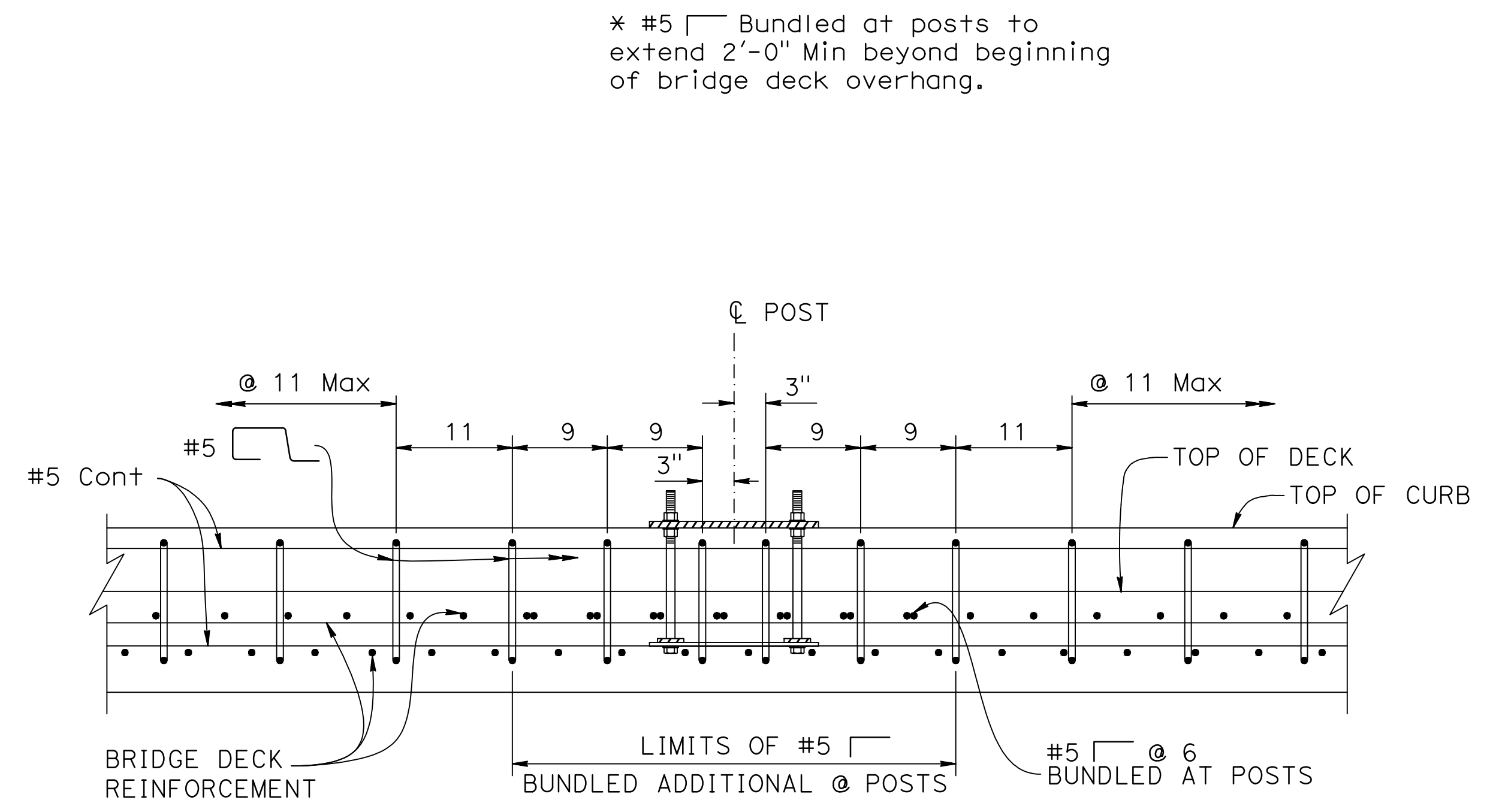
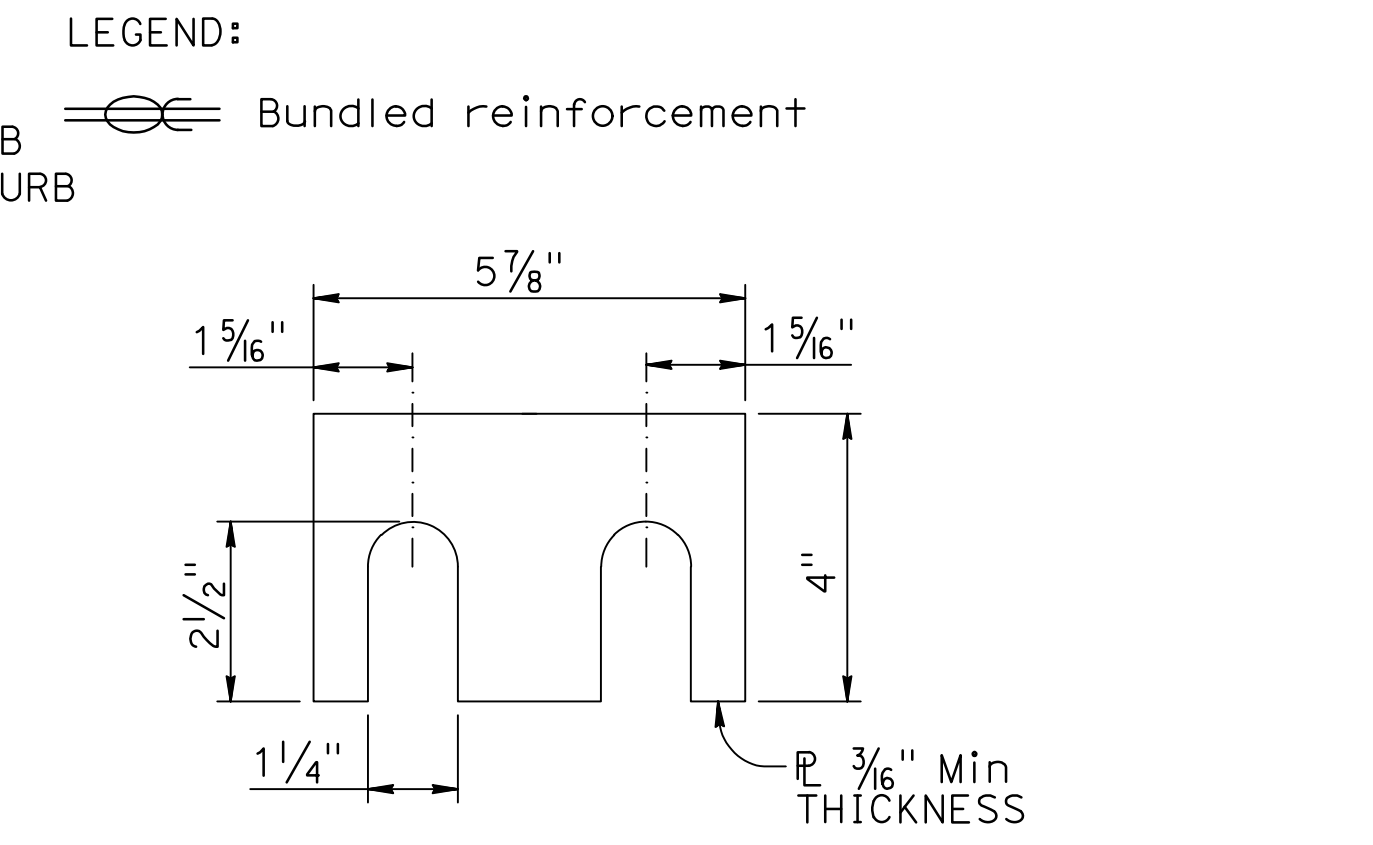


DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	26	33

REGISTERED CIVIL ENGINEER  
 DATE: 05-31-23  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA



- NOTES:
- Anchor bolts may be tack welded to anchor bars.
  - Curb dimension at back side of rail will vary with bridge deck cross slope, and if overlay is placed on the bridge deck. For the same reasons, the anchor bolt lengths will vary.
  - Use extra thick washers for anchor bolts, with a minimum thickness of 0.305" and a maximum thickness of 0.375".



SECTION A-A  
NO SCALE  
NOTE: Post not shown for clarity.

BRIDGE STANDARD DETAILS		DESIGN	BY	CHECKED	PREPARED FOR <b>COUNTY OF GLENN</b> PUBLIC WORKS AGENCY	BRIDGE NO.	<b>BRANCH HOWARD SLOUGH BRIDGE (REPLACE)</b> CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 1
xs16-116-1	JULY 2022	DETAILS	K. COOK-GUTERIEZ	G. GORDON		11C0179	
FILE NO.	APPROVAL DATE	QUANTITIES				NA	

The components of the Bridge Standard Details have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California.

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

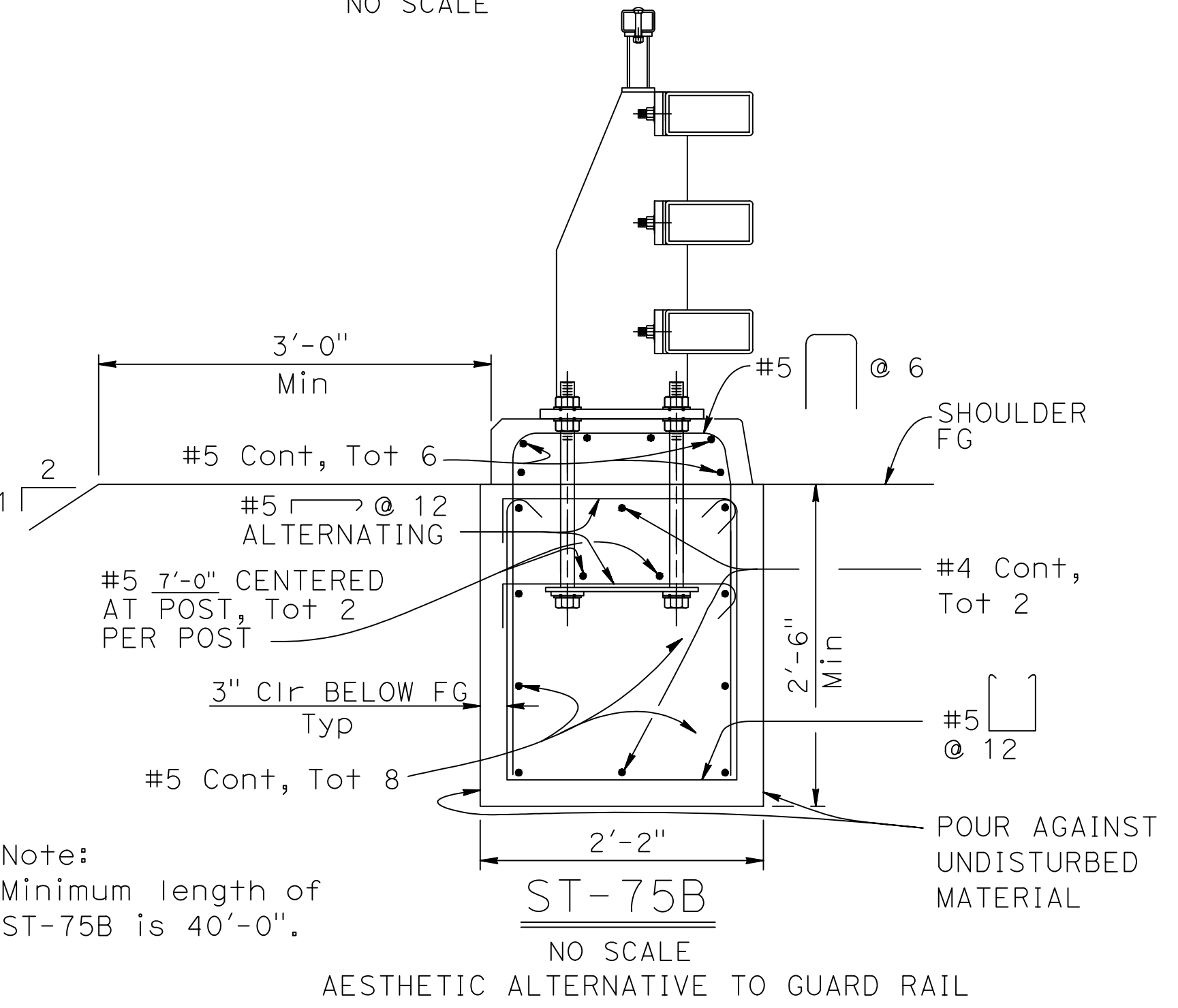
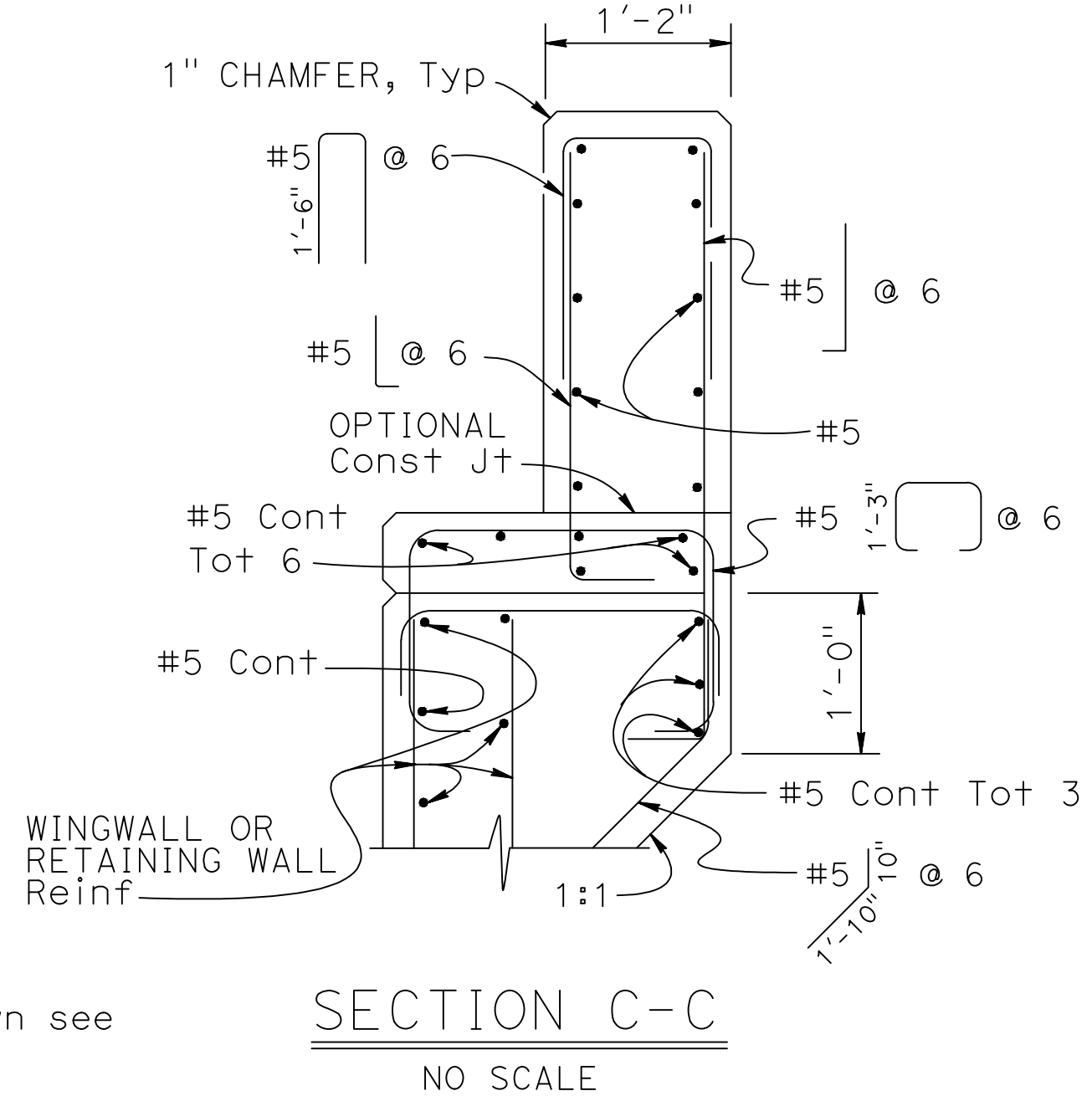
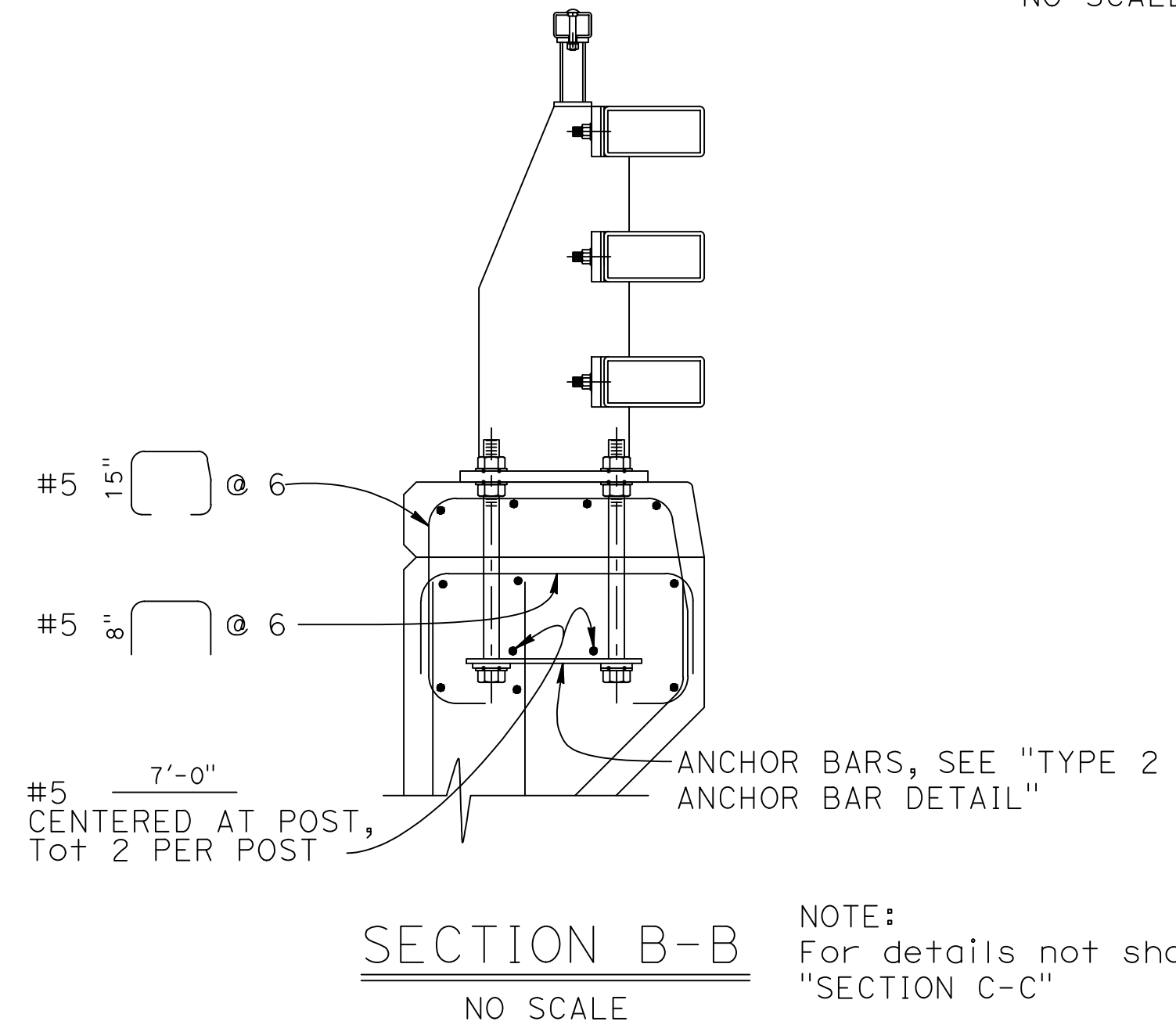
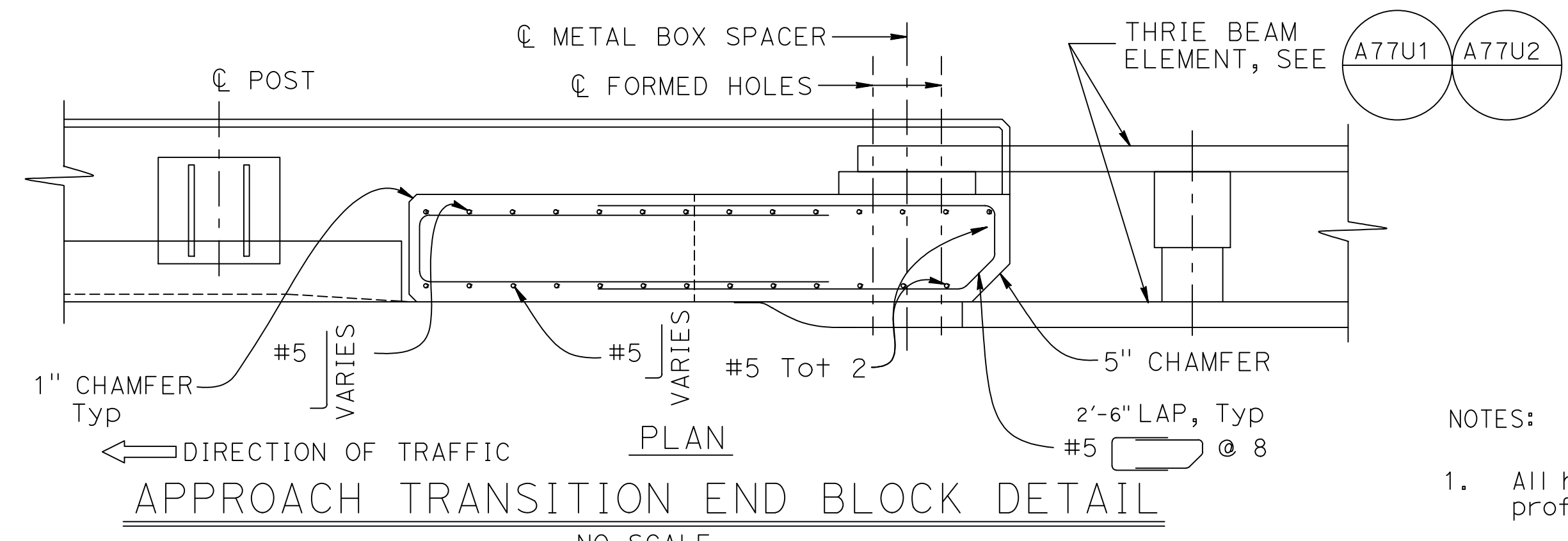
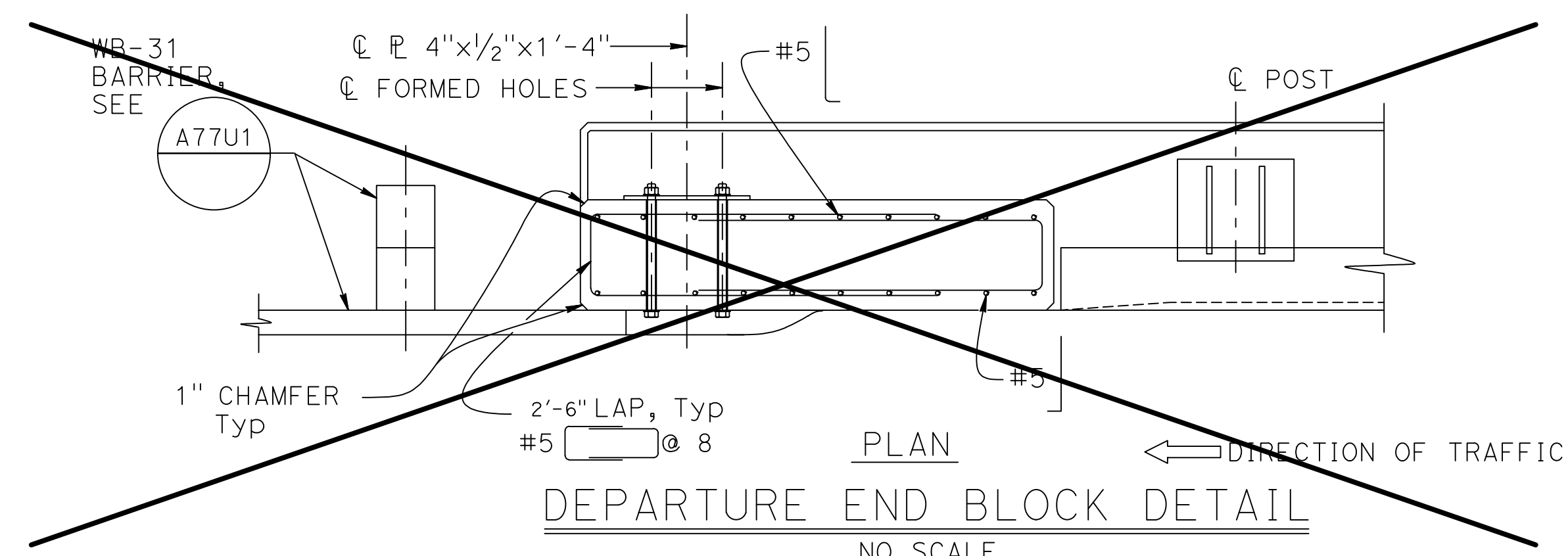
REVISION DATES	SHEET	OF
12/19/19 06/20/22 01/05/22	8	15

FILE => 11-0179-r-rspxs16-116-1

2022 STANDARD PLAN XS-16-116-1  
 DATE PLOTTED => 05/31/2023 PM 3:29:36  
 USERNAME => KEVIN

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	27	33

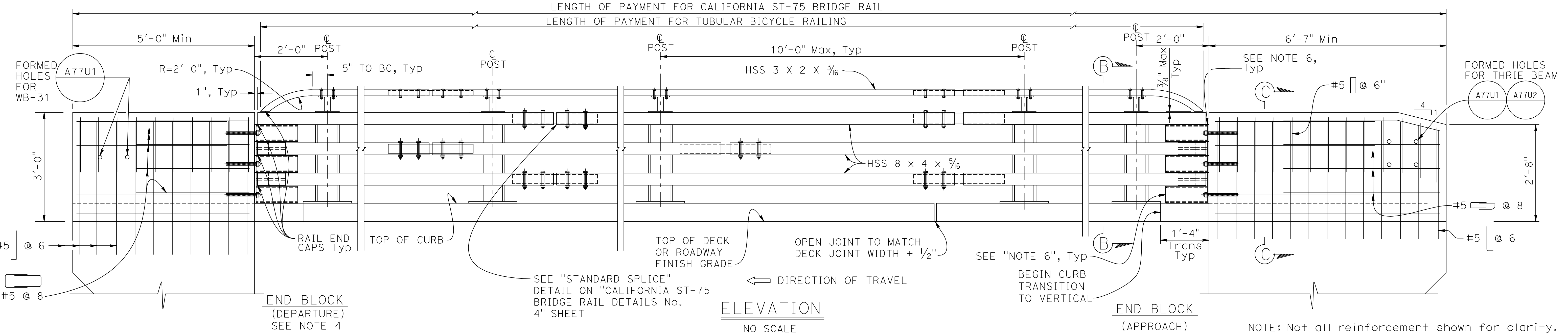
REGISTERED CIVIL ENGINEER  
 DATE: 05-31-23  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA



**NOTES:**

- All horizontal members are parallel to longitudinal profile grade.
- Posts are normal to profile grade of structure.
- Posts are vertical to the transverse cross section.
- If departure end block is within the Clear Recovery Zone (CRZ, 30 feet for expressways and freeways and 20 feet for conventional highways) of opposing traffic, then use the approach end block at the departure end.
- Anchor bolts may be tack welded to anchor bars.
- For parapet shoes details see "CALIFORNIA ST-76 BRIDGE RAIL DETAILS No. 5" SHEET.

**TYPE 2 ANCHOR BAR DETAIL**  
NO SCALE



**BRIDGE STANDARD DETAILS**

xs16-116-2	JULY 2022	The components of the Bridge Standard Details have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California.
FILE NO.	APPROVAL DATE	

DESIGN	BY	CHECKED
DETAILS	BY K. COOK-GUTERIEZ	CHECKED G. GORDON
QUANTITIES	BY	CHECKED

**PREPARED FOR**  
COUNTY OF GLENN  
PUBLIC WORKS AGENCY

G. GORDON  
PROJECT ENGINEER

**BRANCH HOWARD SLOUGH BRIDGE (REPLACE)**  
CALIFORNIA ST-75 BRIDGE RAIL  
DETAILS No. 2

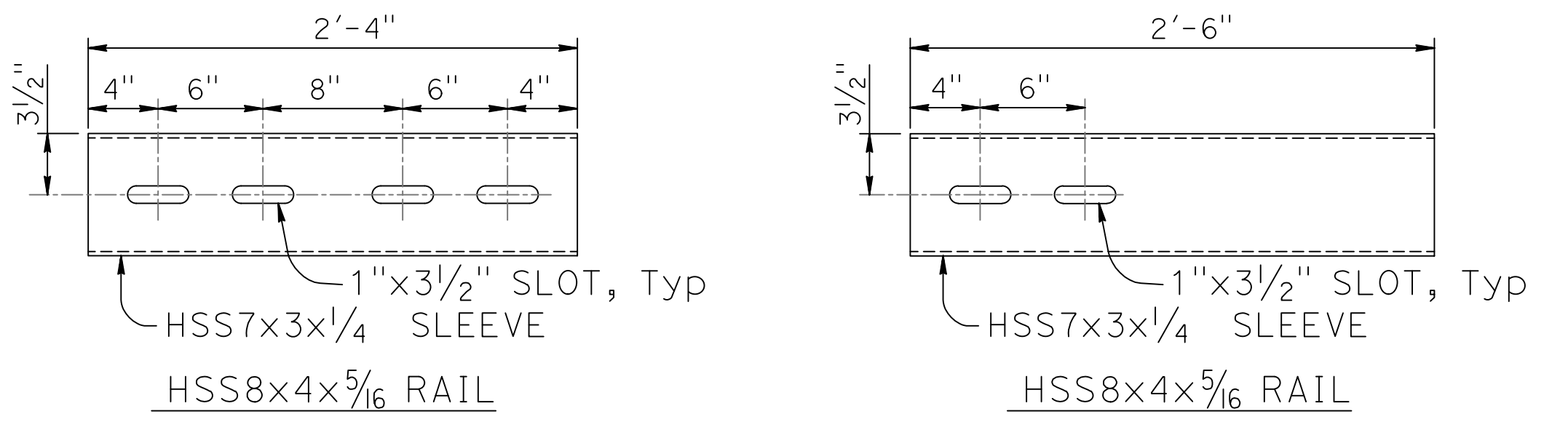
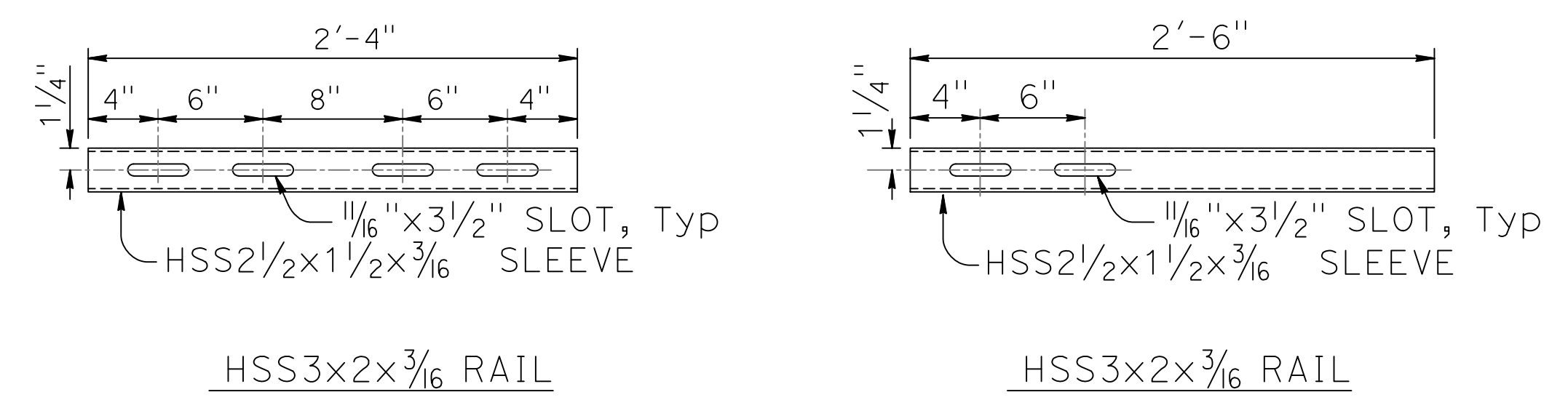
BRIDGE NO.	11C0179
POST MILES	NA



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	29	33

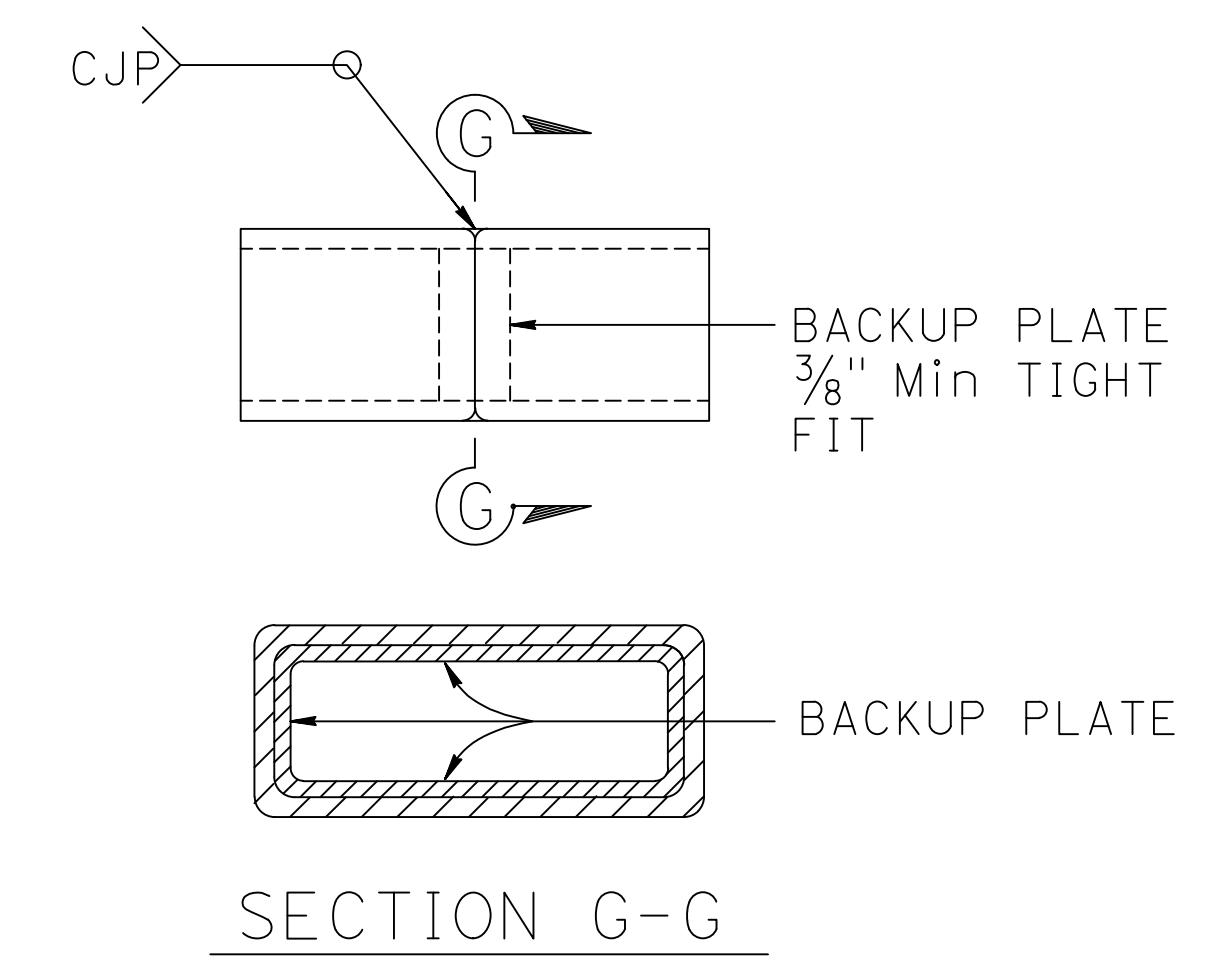
REGISTERED CIVIL ENGINEER  
 DATE 05-31-23  
 May 31, 2023  
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
 GARY M. GORDON  
 No. 42176  
 Exp. 03-31-24  
 CIVIL  
 STATE OF CALIFORNIA

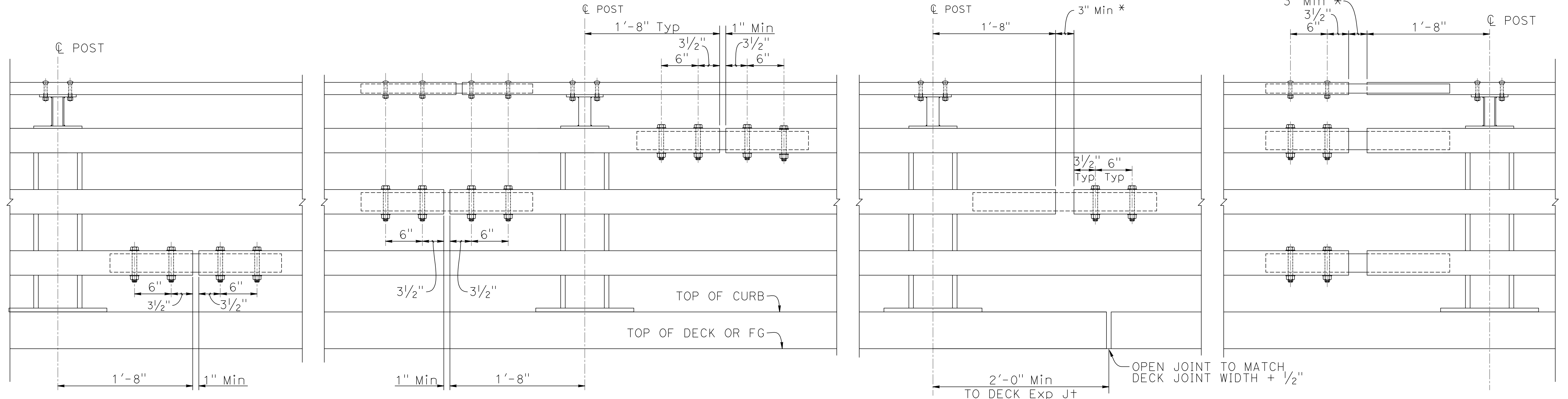


STANDARD SLEEVES  
DETAILS  
NO SCALE

EXPANSION SLEEVES  
DETAILS  
NO SCALE



- NOTES:
- HS bolts with nut and washers, snug tightened, and thread locking system.
  - Use 1/2" x 3/16 BOLTS (HSS3x2x3/16)  
Use 3/4" x 5/16 BOLTS (HSS8x4x5/16)
  - Each rail length must be continuous over a minimum of two posts.
  - The fabricator must check that the tubular sleeve splices conform to the dimensions indicated to assure proper clearance.
  - Except for expansion splices, not more than one splice permitted per same side of post.



STANDARD SPLICE  
NO SCALE

EXPANSION SPLICE  
NO SCALE  
\* Match deck or wall joint

BRIDGE STANDARD DETAILS		DESIGN	BY	CHECKED	PREPARED FOR <b>COUNTY OF GLENN</b> PUBLIC WORKS AGENCY	BRIDGE NO.	<b>BRANCH HOWARD SLOUGH BRIDGE (REPLACE)</b> CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 4
xs16-116-4	JULY 2022	DETAILS	K. COOK-GUTERIEZ	G. GORDON		11C0179	
FILE NO.	APPROVAL DATE	QUANTITIES				POST MILES	
Refer to: <a href="http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html">http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html</a>		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS			0 1 2 3	NA	REVISION DATES
							12/19/19 06/20/22 07/05/22
							SHEET 11 OF 15
							DISREGARD PRINTS BEARING EARLIER REVISION DATES
							DATE PLOTTED => 05/31/2023 3:36:42 PM USERNAME => KEVIN

2022 STANDARD PLAN XS-16-116-4

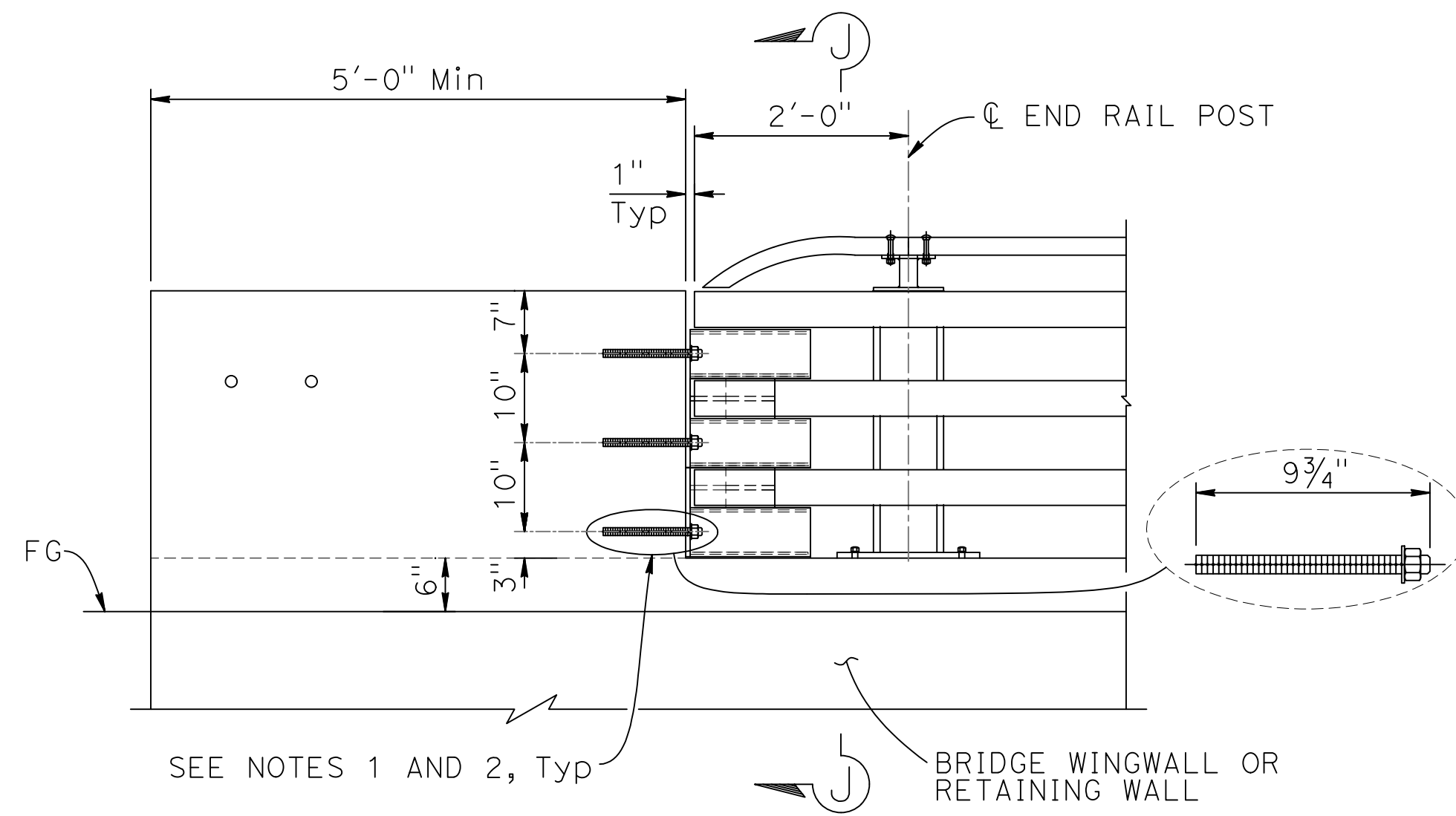
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	30	33

REGISTERED CIVIL ENGINEER	DATE	05-31-23
May 31, 2023		
PLANS APPROVAL DATE		

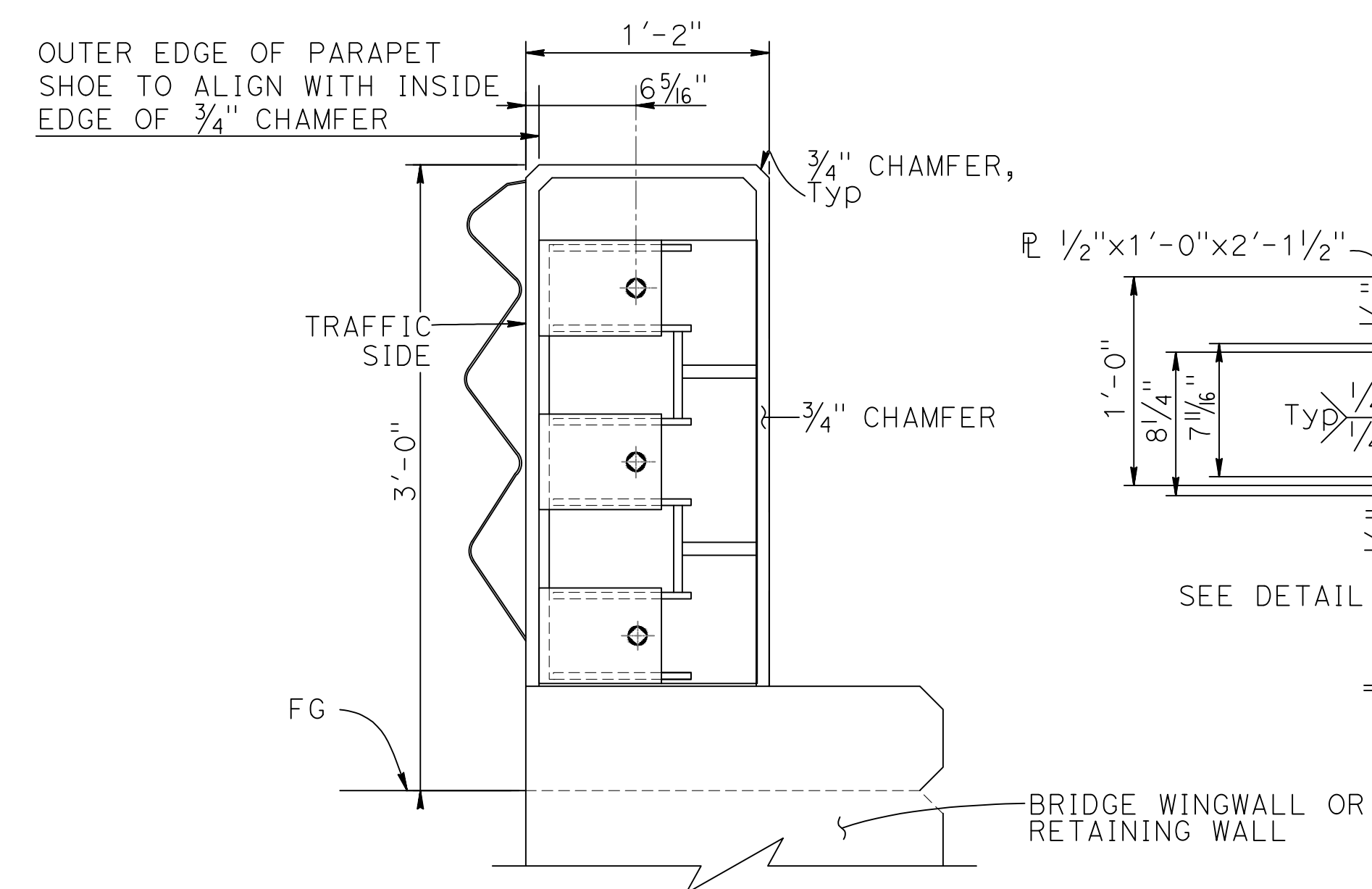
  

REGISTERED PROFESSIONAL ENGINEER
GARY M. GORDON
No. 42176
Exp. 03-31-24
CIVIL
STATE OF CALIFORNIA



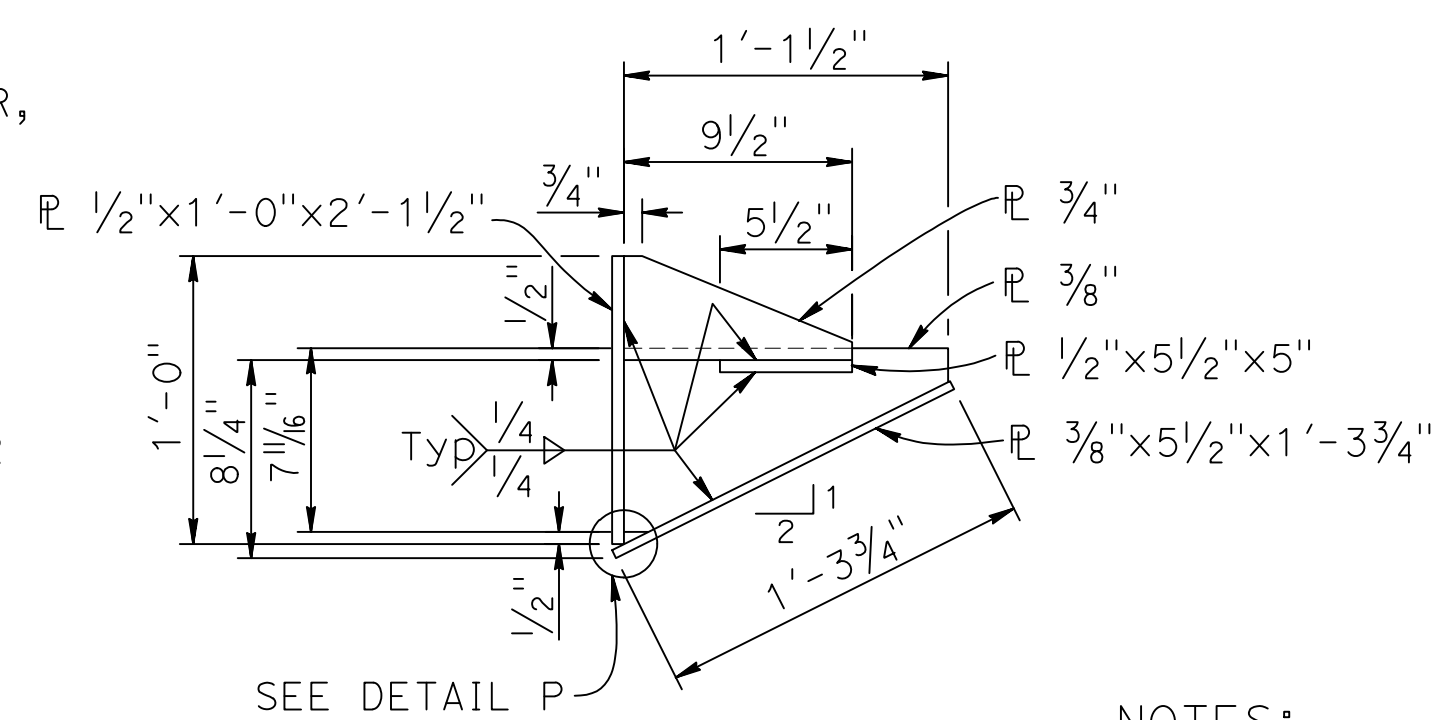
**PARAPET SHOE AT DEPARTURE END BLOCK**

NOTE: Parapet shoe connection to approach end block is similar.



**SECTION J-J**

NOTE: Bridge railing not shown clarity.

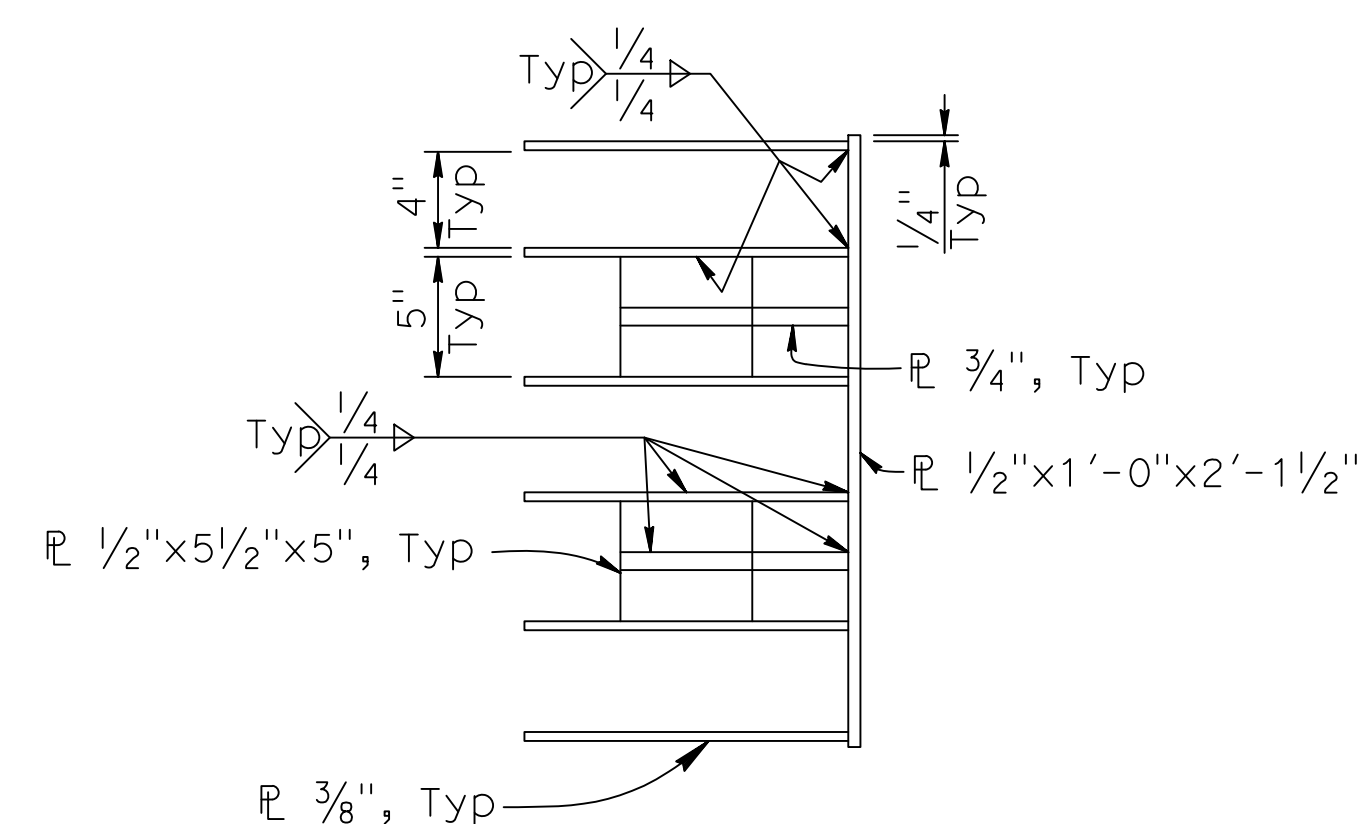


**SECTION K-K**

1/2" = 1'-0"

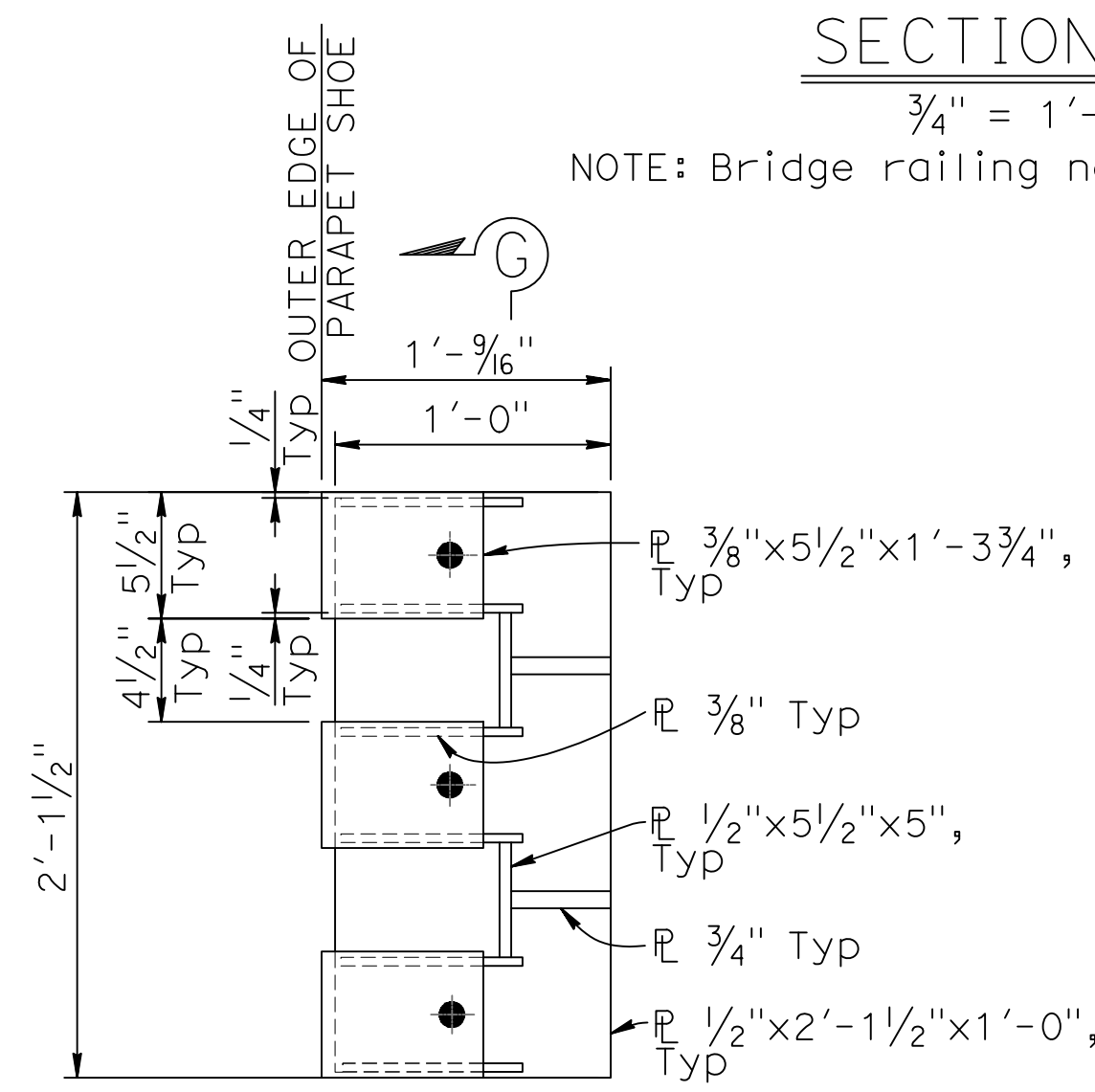
NOTES:

- Anchor bolts must be 7/8" Dia and ASTM F1554 Grade 105 fully threaded rods with heavy hex nut and one hardened washer (1 3/4" OD) each. Embed threaded rods 8" into concrete anchor block with DRILL AND BOND (CHEMICAL ADHESIVE) anchorage system.
- DRILL AND BOND (CHEMICAL ADHESIVE) anchorages is subjected to approval of Engineer. Installation procedure must comply with manufacture's instructions.



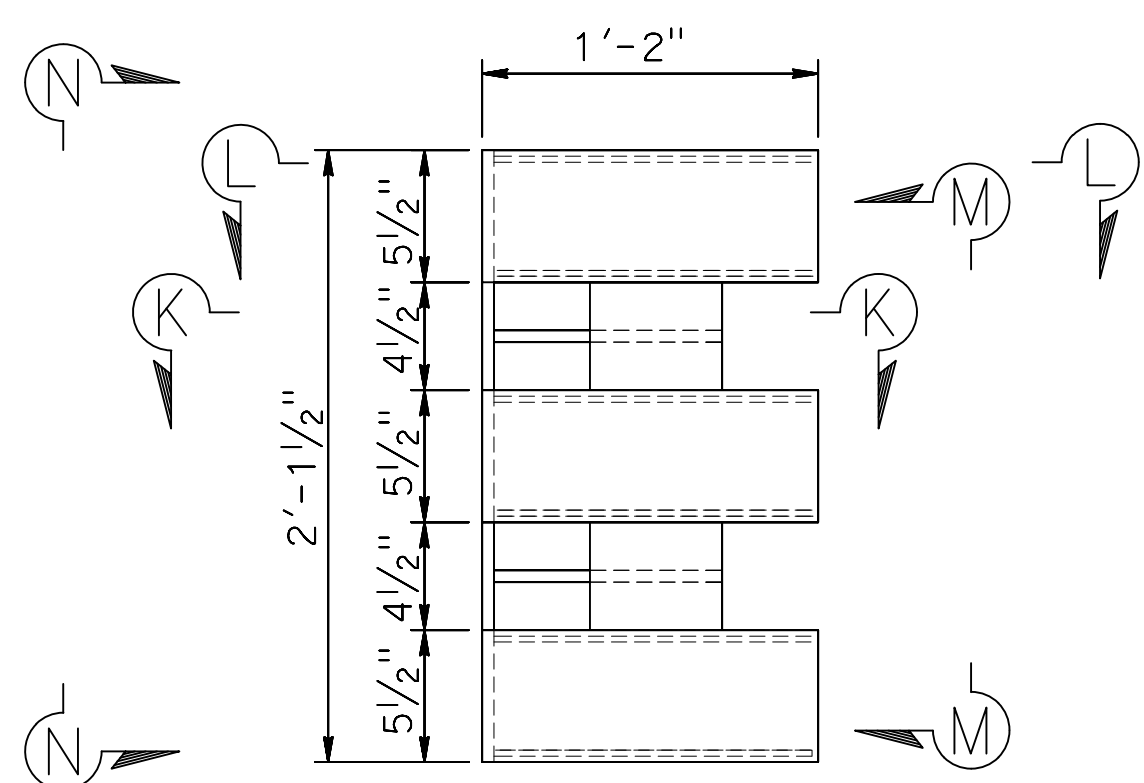
**SECTION Q-Q**

1/2" = 1'-0"



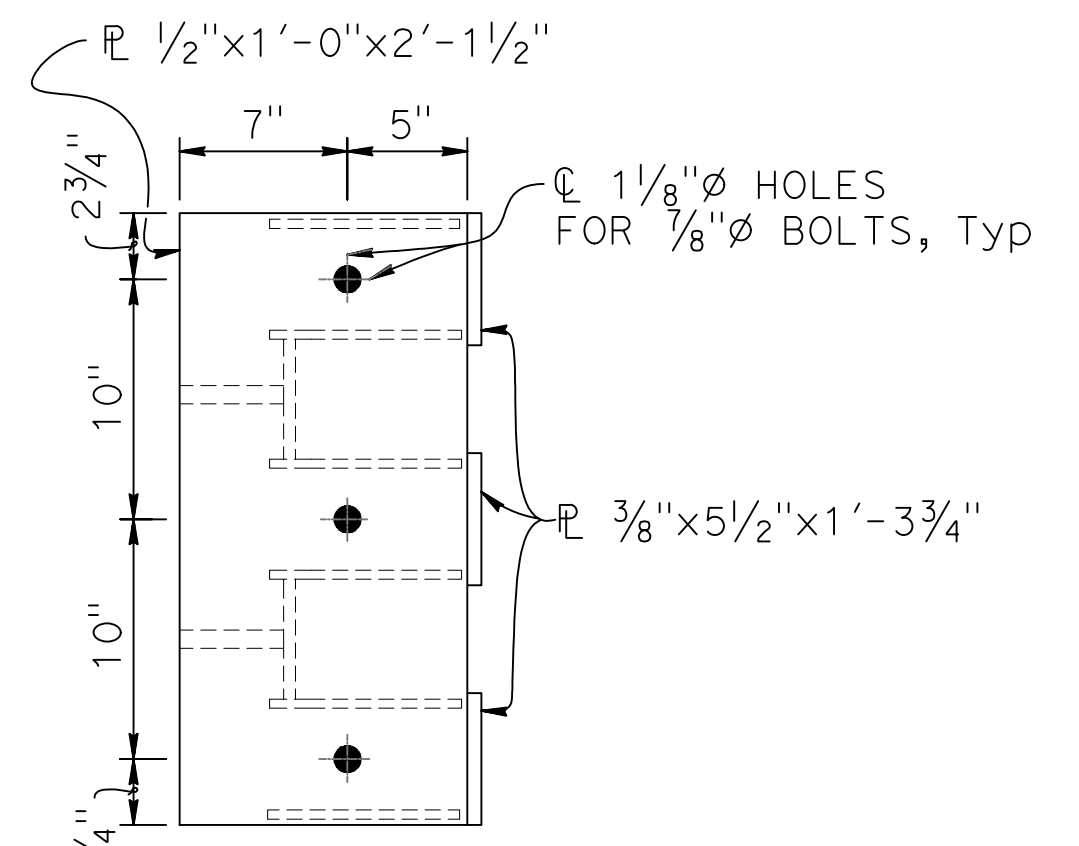
**VIEW M-M**

1/2" = 1'-0"



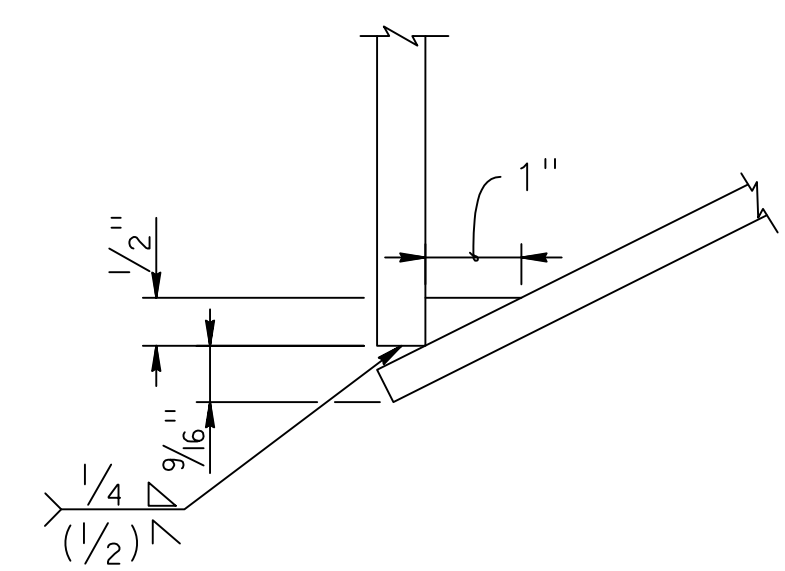
**PARAPET SHOE ELEVATION**

1/2" = 1'-0"



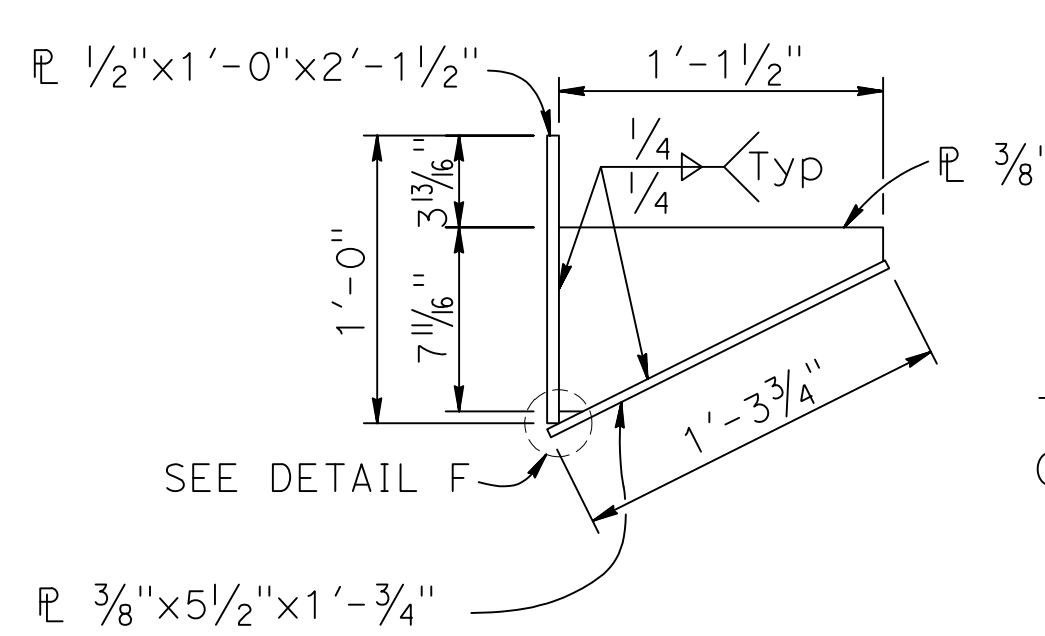
**VIEW N-N**

1/2" = 1'-0"



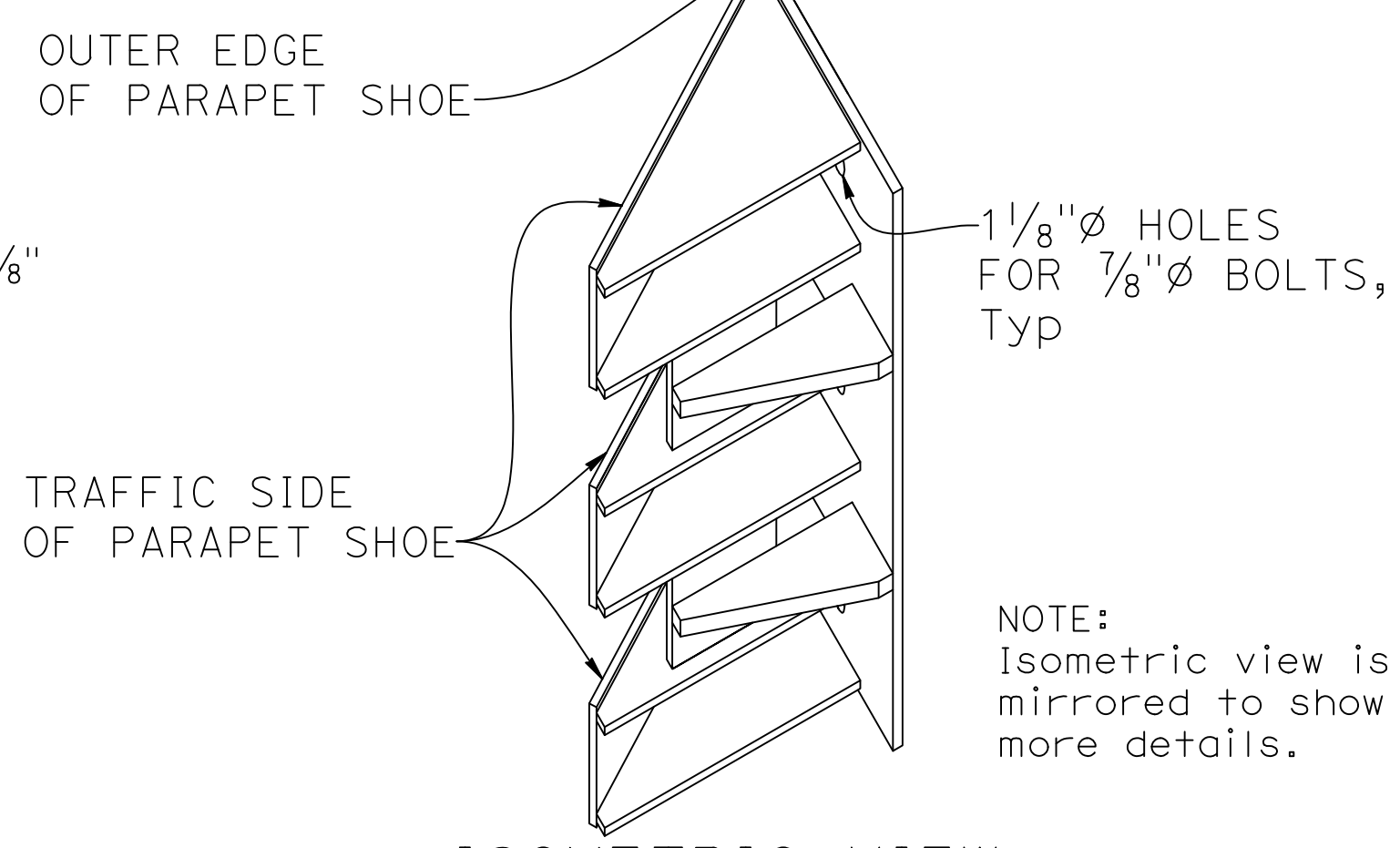
**DETAIL F**

6" = 1'-0"



**SECTION L-L**

1/2" = 1'-0"



**ISOMETRIC VIEW**

1/2" = 1'-0"

BRIDGE STANDARD DETAILS		
xs16-116-5	JULY 2022	The components of the Bridge Standard Details have been prepared under the responsible charge of the Technical Owner, a registered civil engineer in the State of California
FILE NO.	APPROVAL DATE	

DESIGN	BY	CHECKED
DETAILS	BY K. COOK-GUTERIEZ	CHECKED G. GORDON
QUANTITIES	BY	CHECKED

PREPARED FOR	G. GORDON	BRIDGE NO.	11C0179
COUNTY OF GLENN	PROJECT ENGINEER	POST MILES	NA
PUBLIC WORKS AGENCY			

BRANCH HOWARD SLOUGH BRIDGE (REPLACE)			
CALIFORNIA ST-75 BRIDGE RAIL			
DETAILS No. 5			

Refer to: <http://www.dot.ca.gov/hq/esc/techpubs/manual/bridgemanuals/bridge-standard-detail-sheets/index.html>

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

FILE => 11-0179-r-rspxs16-116-5

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	12/19/19 06/30/22 01/05/23	12	15

2022 STANDARD PLAN XS-16-116-5 DATE PLOTTED => 05/31/2023 3:37:46 PM USERNAME => KEVIN



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	31	33

7/19/13  
 GEOTECHNICAL PROFESSIONAL DATE  
 PLANS APPROVAL DATE  
 REGISTERED PROFESSIONAL ENGINEER  
 ROSS KHIABANI  
 No. GE2202  
 Exp. 6/30/20  
 GEOTECHNICAL  
 STATE OF CALIFORNIA

Prepared by:  
 WILLDAN ENGINEERING  
 1515 SOUTH SUNKIST STREET, SUITE E  
 ANAHEIM, CALIFORNIA 92806

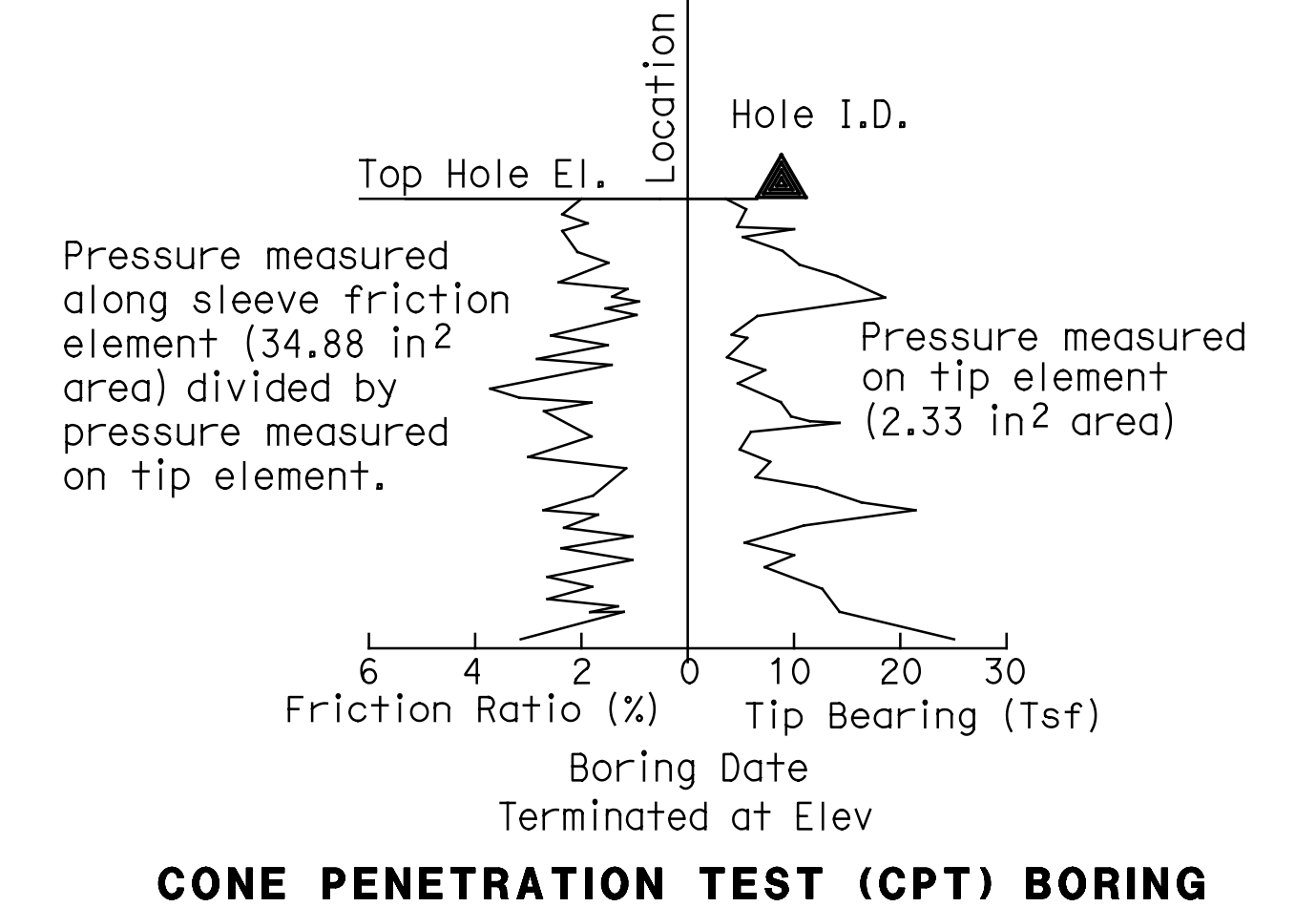
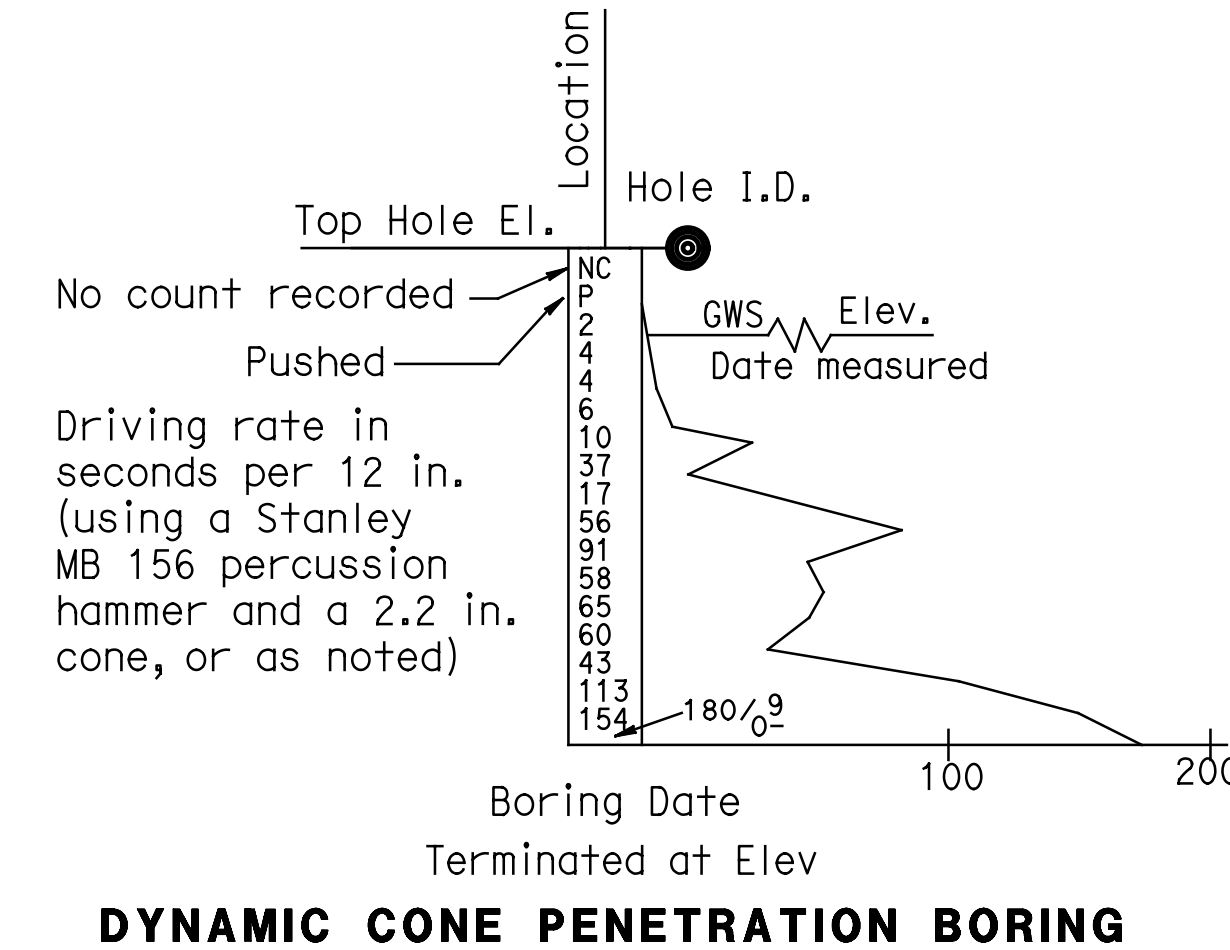
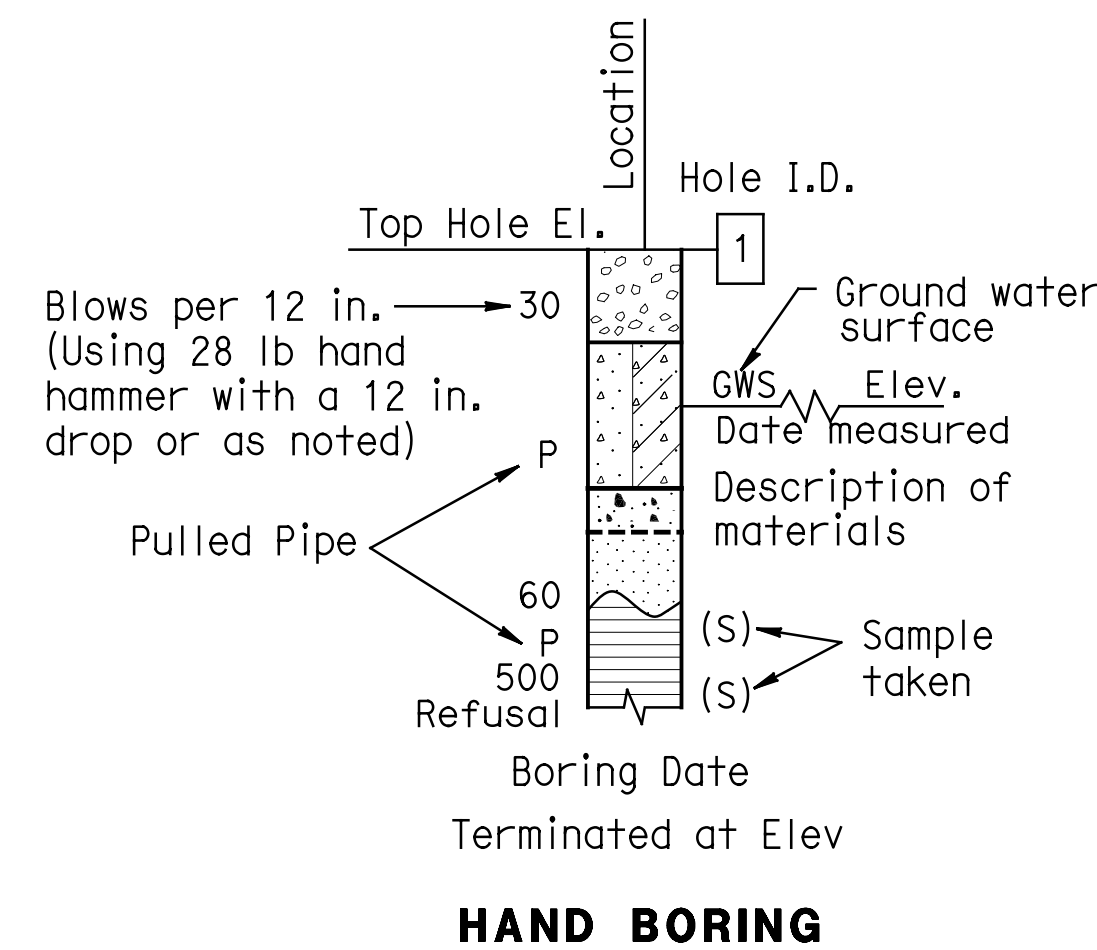
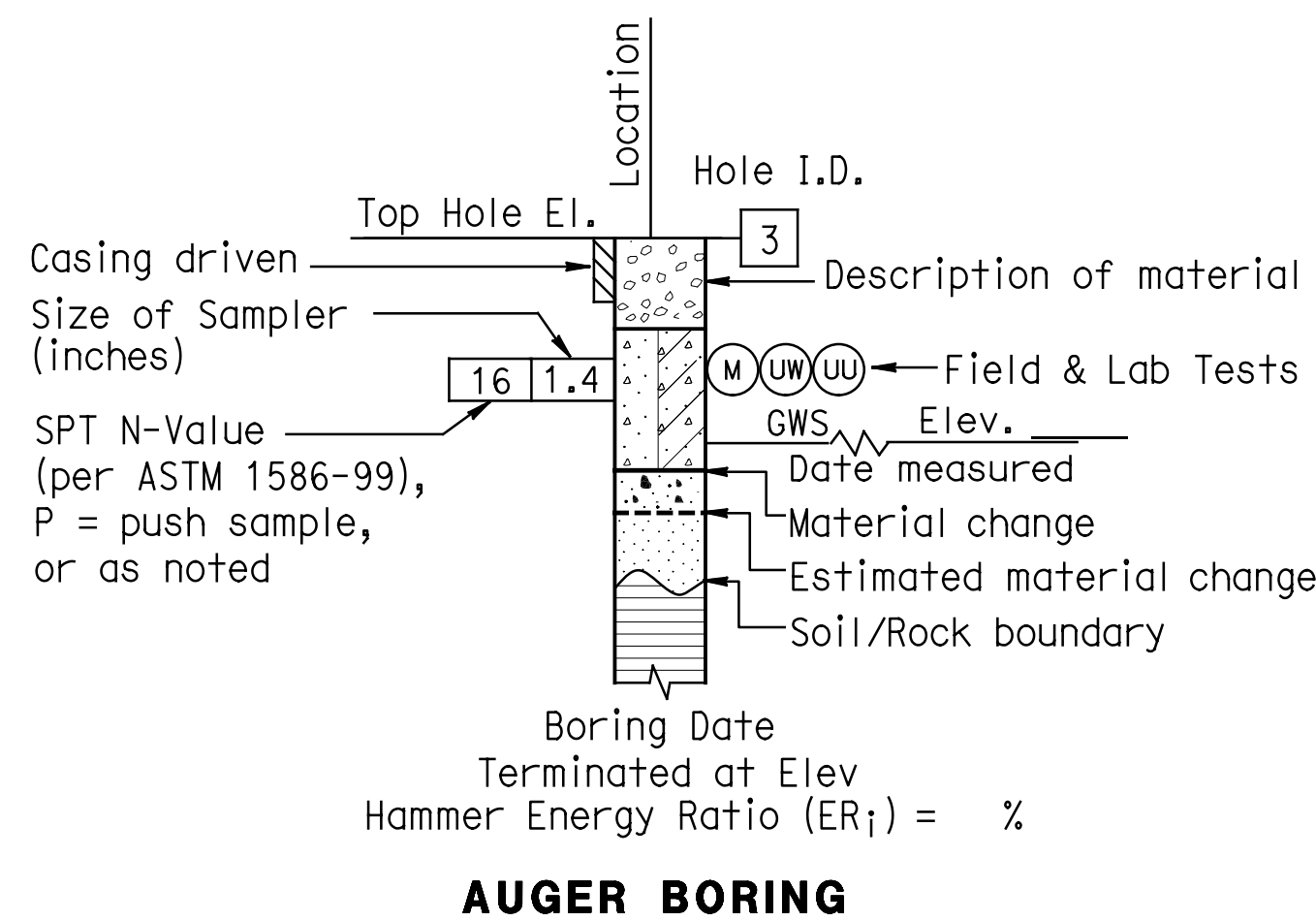
CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

CONSISTENCY OF COHESIVE SOILS				
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

BOREHOLE IDENTIFICATION		
Symbol	Hole Type	Description
	A	Auger Boring
	R	Rotary drilled boring
	P	Rotary percussion boring (air)
	R	Rotary drilled diamond core
	HD	Hand driven (1-inch soil tube)
	HA	Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778-95)
	O	Other

Note: Size in inches.

PLASTICITY OF FINE-GRAINED SOILS	
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



DRAWN BY	S. McCracken	B. KILLEEN
CHECKED BY	R. KHIABANI	FIELD INVESTIGATION BY:
		DATE: X

BRIDGE NO.	11C0179
POST MILES	NA
PREPARED FOR <b>COUNTY OF GLENN</b> PUBLIC WORKS AGENCY	
G. GORDON PROJECT ENGINEER	

<b>HOWARD SLOUGH BRIDGE (REPLACE)</b>	
<b>SOIL LEGEND 1 OF 2</b>	

GROUP SYMBOLS AND NAMES					
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	GW Well-graded GRAVEL		CL Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND		GP Poorly-graded GRAVEL Poorly-graded GRAVEL with SAND
	GW-GM Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND				
	GW-GC Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)			GP-GM Poorly-graded GRAVEL with SILT Poorly-graded GRAVEL with SILT and SAND	
	GP-GC Poorly-graded GRAVEL with CLAY (or SILTY CLAY) Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)				
	GM SILTY GRAVEL SILTY GRAVEL with SAND		GC CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
	SW Well-graded SAND Well-graded SAND with GRAVEL				
	SP Poorly-graded SAND Poorly-graded SAND with GRAVEL		MH Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND		
	SW-SM Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL				OH ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
	SW-SC Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		OH ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND		
	SP-SM Poorly-graded SAND with SILT Poorly-graded SAND with SILT and GRAVEL				OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	SP-SC Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		OH/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND		
	SM SILTY SAND SILTY SAND with GRAVEL				OH/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	SC CLAYEY SAND CLAYEY SAND with GRAVEL		OH/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND		
	SC-SM SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL				OH/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	PT PEAT		OH/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND		
	COBBLES COBBLES and BOULDERS BOULDERS				OH/OH ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND

### FIELD AND LABORATORY TESTING

- (C) Collapse Potential (ASTM D 5333)
- (CL) Compaction Curve (CTM 216)
- (CP) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CR) Consolidated Undrained Triaxial (ASTM D 4767)
- (CU) Direct Shear (ASTM D 3080)
- (DS) Expansion Index (ASTM D 4829)
- (EI) Moisture Content (ASTM D 2216)
- (M) Organic Content-% (ASTM D 2974)
- (OC) Permeability (CTM 220)
- (P) Particle Size Analysis (ASTM D 422)
- (PA) Plasticity Index (AASHTO T 90)  
Liquid Limit (AASHTO T 89)
- (PI) Point Load Index (ASTM D 5731)
- (PL) Pressure Meter
- (PM) Passing # 200 (ASTM D 1140-00)
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (TV) Pocket Torvane
- (UC) Unconfined Compression-Soil (ASTM D 2166)  
Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)
- (VS) Vane Shear (AASHTO T 223)

7/19/13  
 GEOTECHNICAL PROFESSIONAL DATE  
 ROSS KHIABANI  
 No. GE2202  
 Exp. 6/30/20  
 STATE OF CALIFORNIA  
 PLANS APPROVAL DATE

Prepared by:  
 WILLDAN ENGINEERING  
 1515 SOUTH SUNKIST STREET, SUITE E  
 ANAHEIM, CALIFORNIA 92806

#### APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N <sub>60</sub> (Blows / 12 in.)
Very Loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 31
Dense	30 - 50
Very Dense	> 50

#### MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

#### PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5% - 10%
Little	15% - 25%
Some	30% - 45%
Mostly	50% - 100%

#### PARTICLE SIZE

Description	Size
Boulder	> 12"
Cobble	3" to 12"
Gravel	Coarse 3/4" to 3"
	Fine No. 4 to 3/4"
Sand	Coarse No. 10 to No. 4
	Medium No. 40 to No. 10
	Fine No. 200 to No. 40
Silt and Clay	Less than 1/300

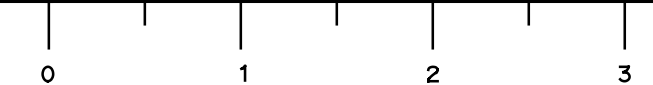
DRAWN BY: S. McCracken  
 CHECKED BY: R. Khiabani  
 B. KILLEEN  
 FIELD INVESTIGATION BY:  
 DATE: X

PREPARED FOR  
**COUNTY OF GLENN**  
 PUBLIC WORKS AGENCY

G. GORDON  
 PROJECT ENGINEER  
 BRIDGE NO. 11C0179  
 POST MILES NA

**HOWARD SLOUGH BRIDGE (REPLACE)**  
**SOIL LEGEND 2 OF 2**

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



DISREGARD PRINTS BEARING EARLIER REVISION DATES  
 REVISION DATES: 10/12/12  
 SHEET 14 OF 15

USERNAME => Richard DATE PLOTTED => 6/21/2018 TIME PLOTTED => 3:55:51 PM



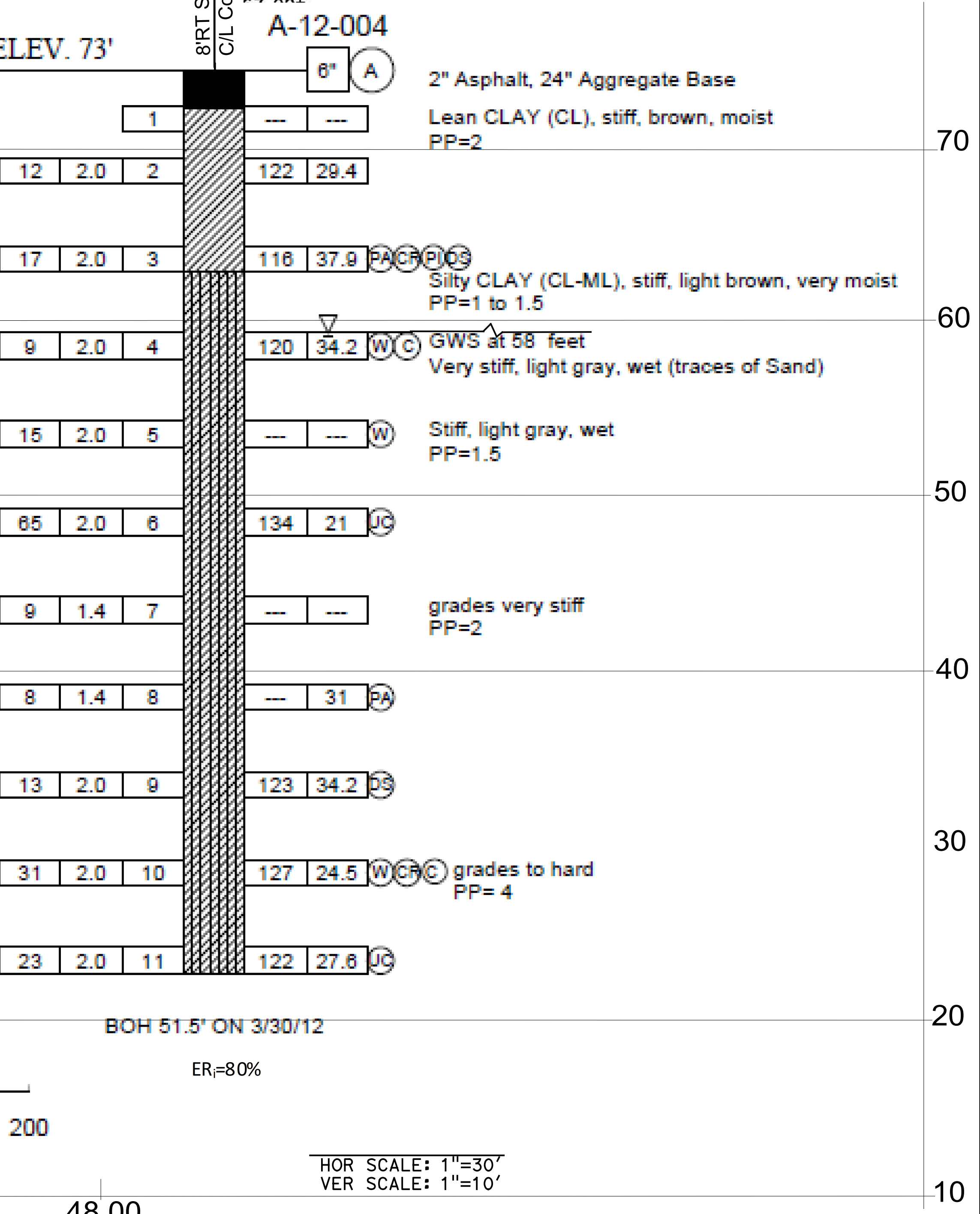
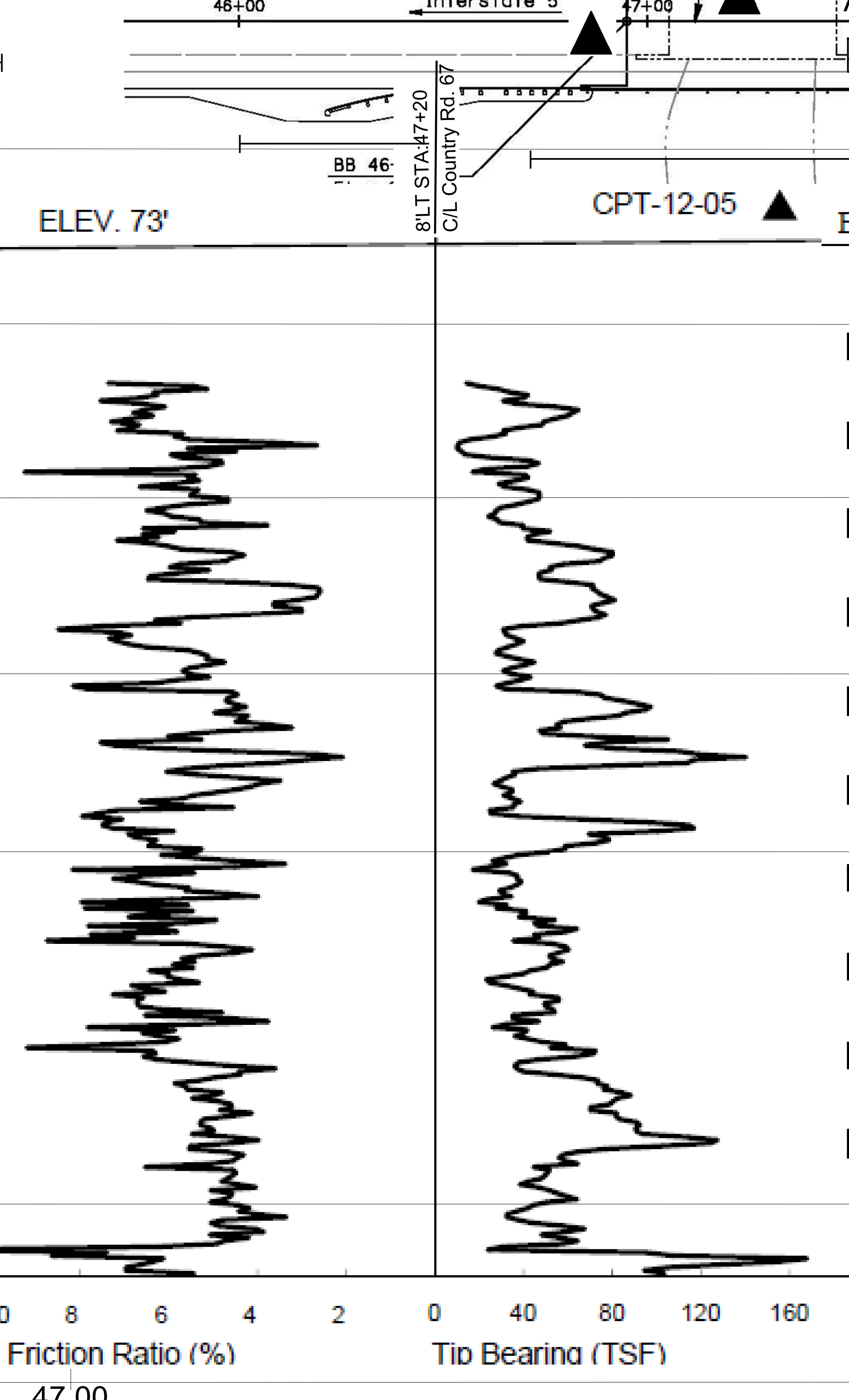
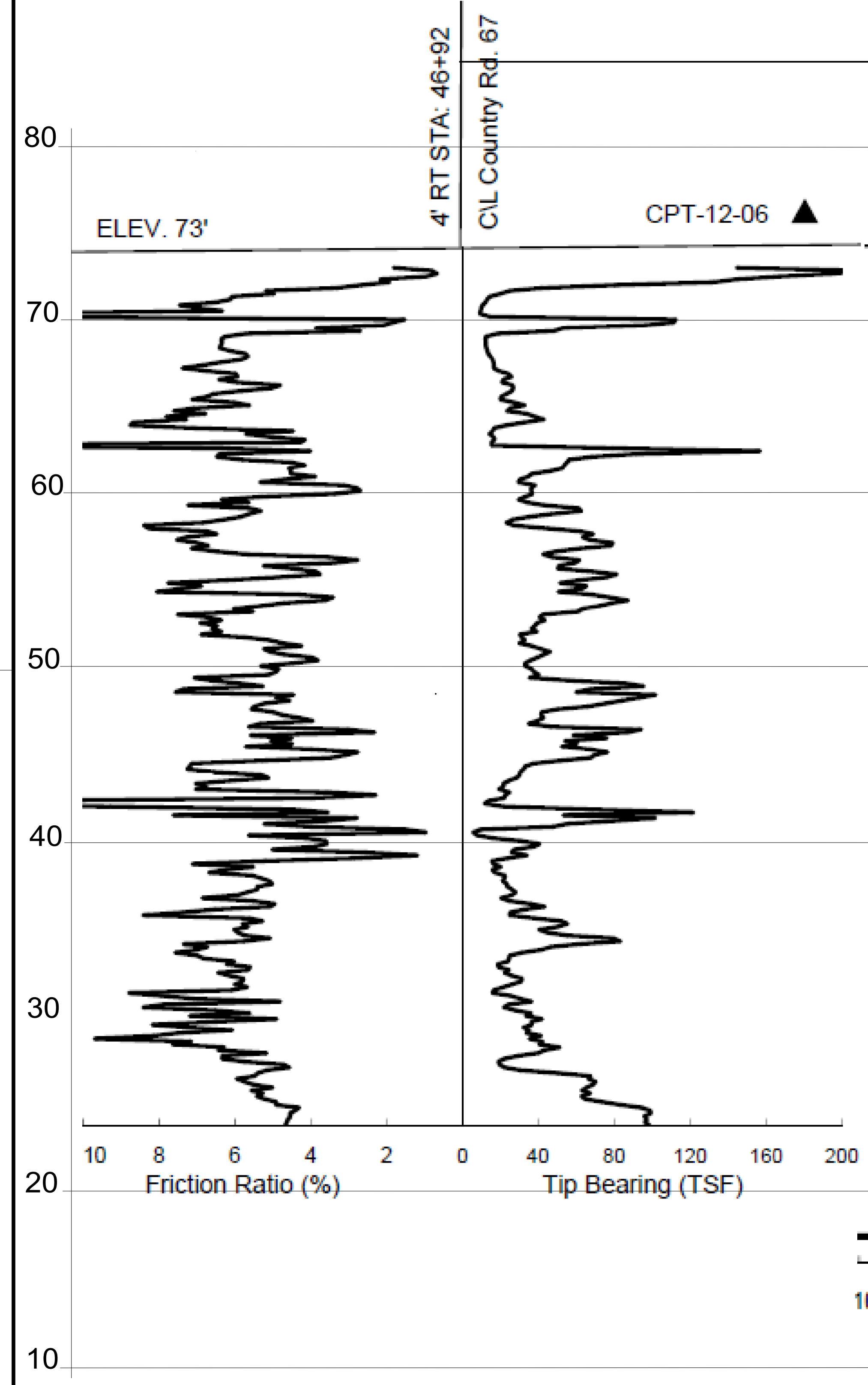
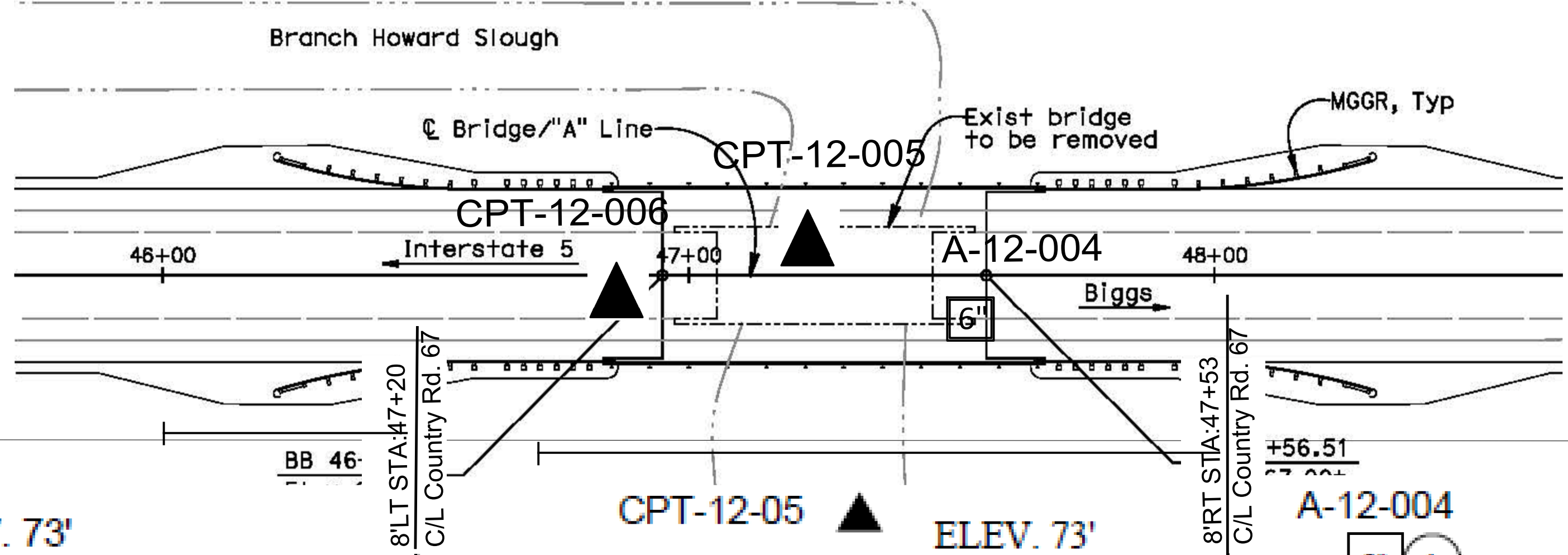
**BENCH MARK**

DH3659 Survey Disk in Concrete Wing Wall at the South East Corner of Bridge 11C-0017 along Rd H, ELEV. 74.90  
Horizontal Datum is NAD83  
Vertical Datum is NAVD88

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	33	33

ROSS KHIABANI 7/19/13  
 GEOTECHNICAL PROFESSIONAL DATE  
 REGISTERED PROFESSIONAL ENGINEER  
 No. GE2202  
 Exp. 6/30/20  
 GEOTECHNICAL  
 STATE OF CALIFORNIA

Prepared by:  
 WILLDAN ENGINEERING  
 1515 SOUTH SUNKIST STREET, SUITE E  
 ANAHEIM, CALIFORNIA 92806



DRAWN BY S. McCracken	CHECKED BY R. Khiabani	B. KILLEEN	PREPARED FOR COUNTY OF GLENN PUBLIC WORKS AGENCY	G. GORDON PROJECT ENGINEER	BRIDGE NO. 11C0179	<b>HOWARD SLOUGH BRIDGE (REPLACE)</b>
		FIELD INVESTIGATION BY: DATE: X			POST MILES NA	