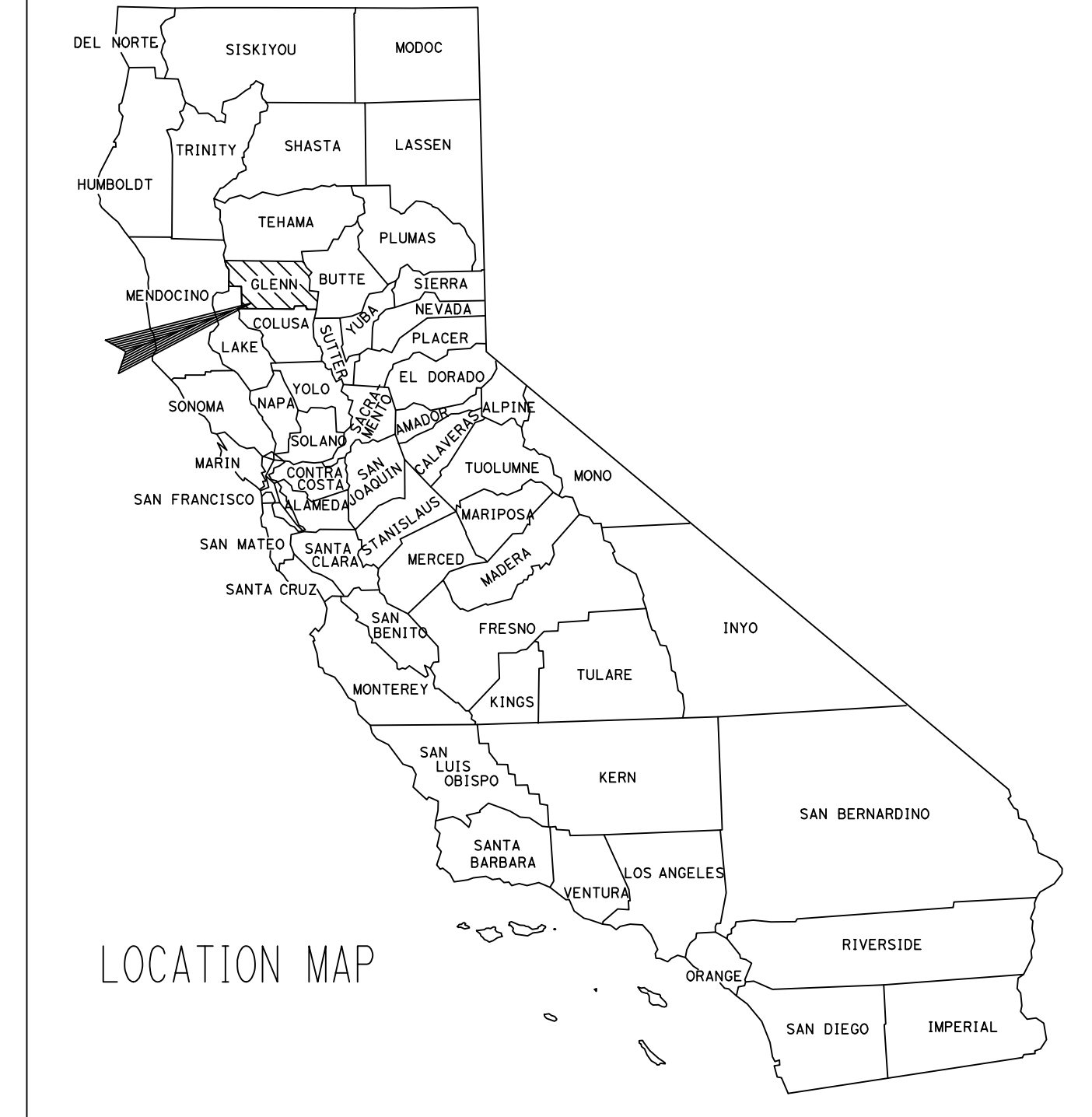


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	1	38



**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 (047)
STATE BRIDGE No.11C0016**

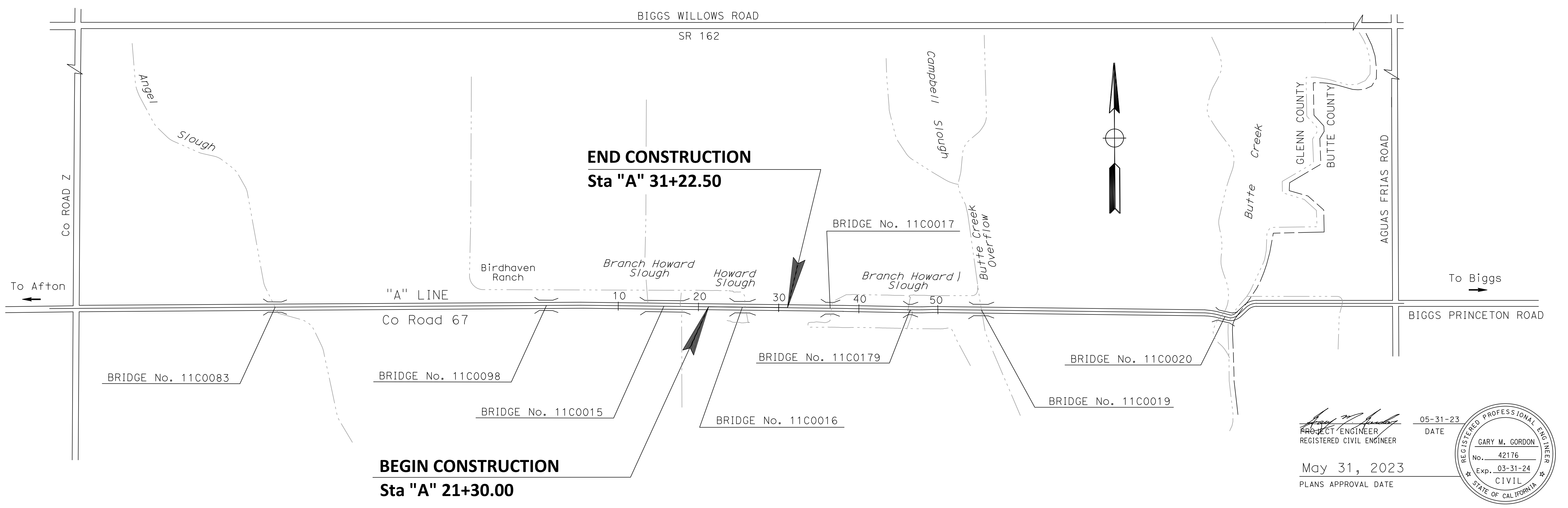
TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2022

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2-4	TYPICAL CROSS SECTIONS
5-6	LAYOUTS
7-10	CONSTRUCTION DETAILS
11-12	TEMPORARY WATER POLLUTION/EROSION CONTROL PLANS
13	CONSTRUCTION AREA SIGNS PLAN
14	DETOUR PLAN
15	PAVEMENT DELINEATION AND SIGN PLAN
16	SUMMARY OF QUANTITIES
17-21	REVISED STANDARD PLANS

STRUCTURES
22-38 STRUCTURE PLANS

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



Gary M. Gordon 05-31-23
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

May 31, 2023
PLANS APPROVAL DATE

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

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME = KEVIN
DGN FILE = 03-101783aa001

COUNTY OF GLENN:	WILLDAN ENGINEERING 2400 WASHINGTON AVENUE, SUITE 101 REDDING, CALIFORNIA 96001
<i>Gary M. Gordon</i> Gary M. Gordon, PE County Engineer	COUNTY OF GLENN PUBLIC WORKS AGENCY 777 N. COLUSA STREET WILLOWS, CALIFORNIA 95988

DATE PLOTTED = 5/31/2023
TIME PLOTTED = 9:54:14 AM
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	38

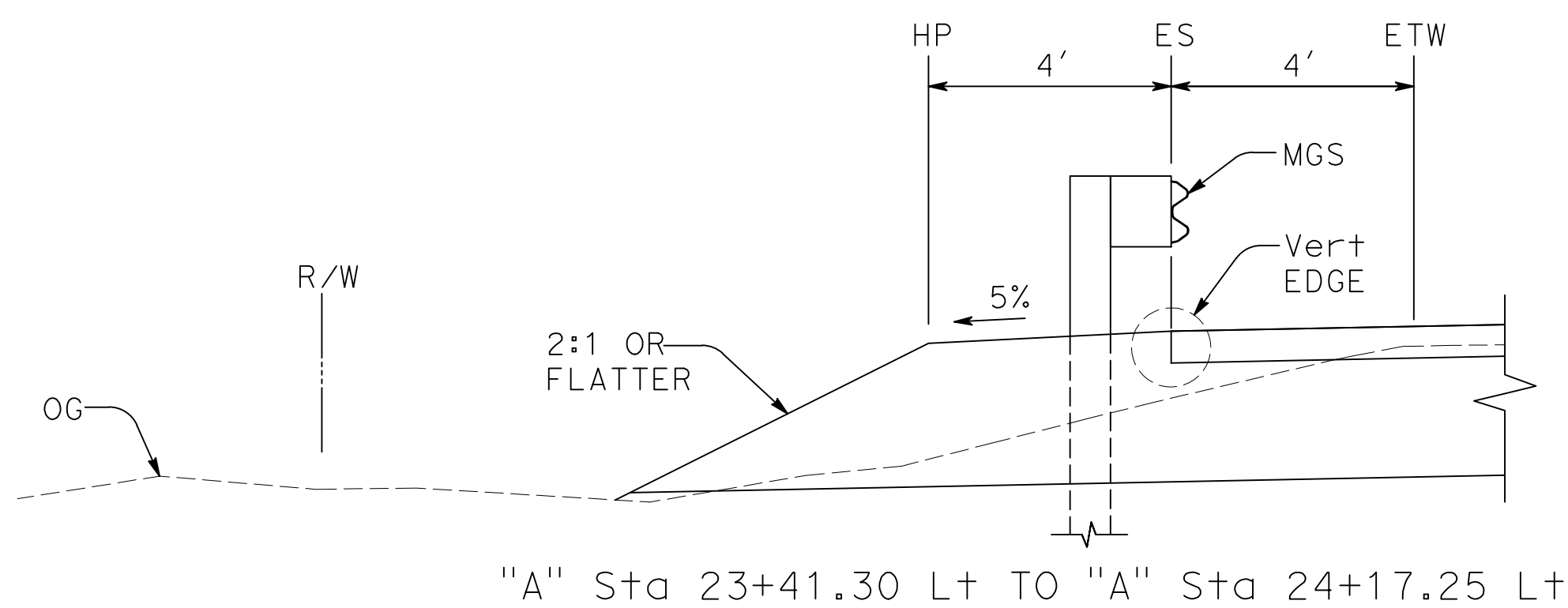
05-31-23
REGISTERED CIVIL ENGINEER DATE

May 31, 2023
PLANS APPROVAL DATE

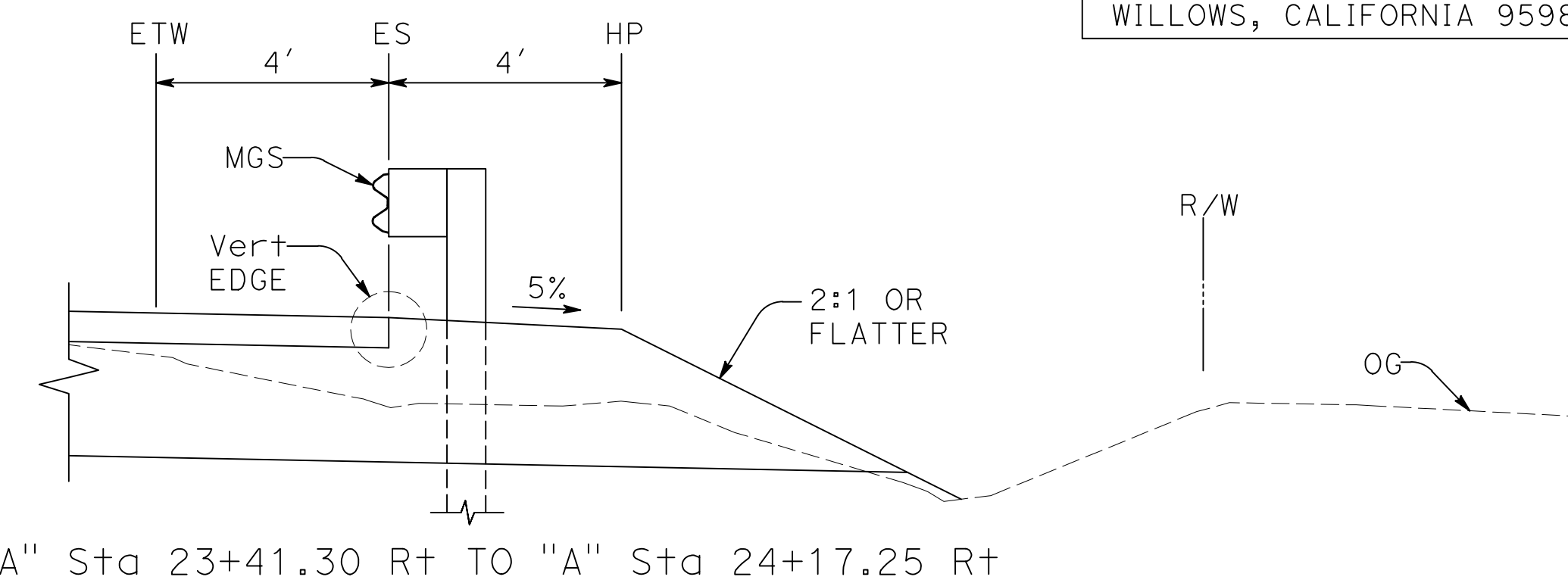
GARY M. GORDON
No. 42176
Exp. 03-31-24
CIVIL
STATE OF CALIFORNIA

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

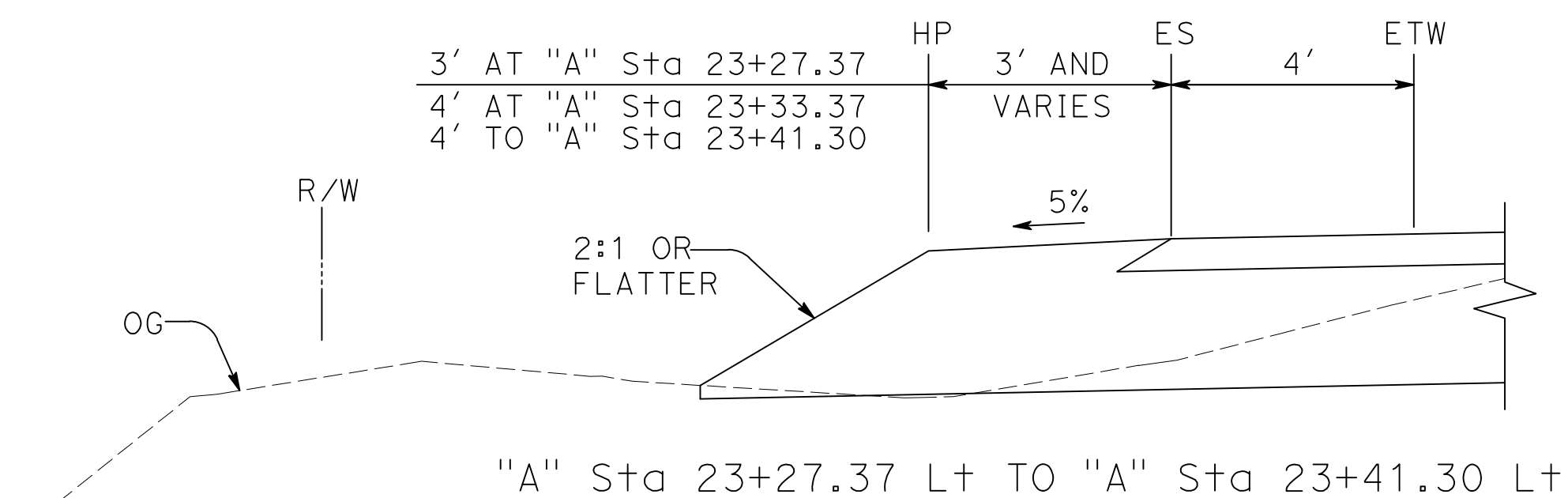
COUNTY OF GLENN
PUBLIC WORKS AGENCY
777 N. COLUSA STREET
WILLOWS, CALIFORNIA 95988



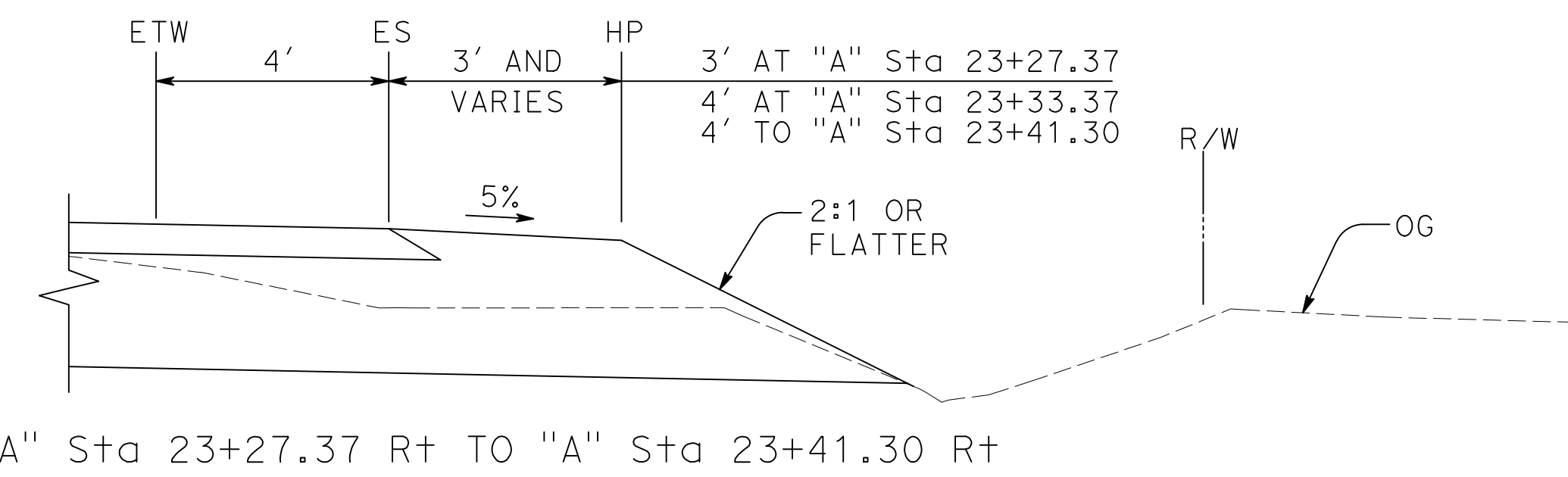
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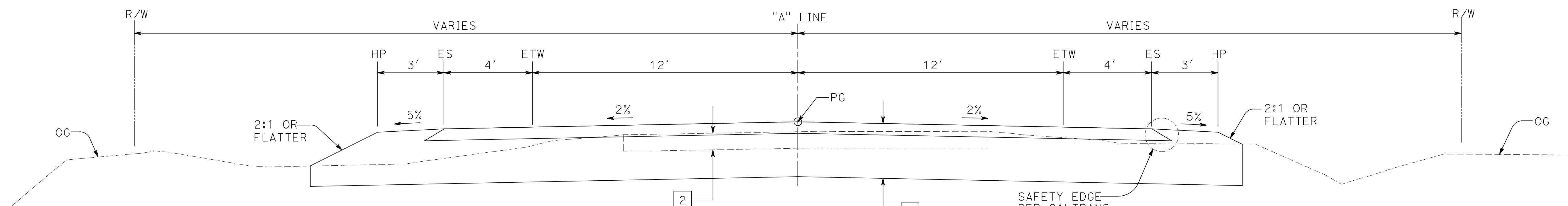
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"A" Sta 23+27.37 Lt TO "A" Sta 23+41.30 Lt



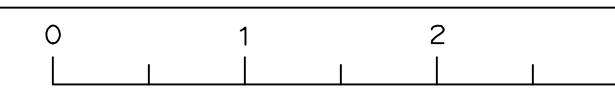
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"A" Sta 21+30.00 TO "A" Sta 24+17.25

Co ROAD 67

TYPICAL CROSS SECTION X-1
NO SCALE



NOTES:

- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTION) ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- PLACE GEOSYNTHETIC REINFORCED EMBANKMENT WHERE SLOPES ARE STEEPER THAN 2:1. PLACE IN TWO FOOT MAXIMUM LIFTS.

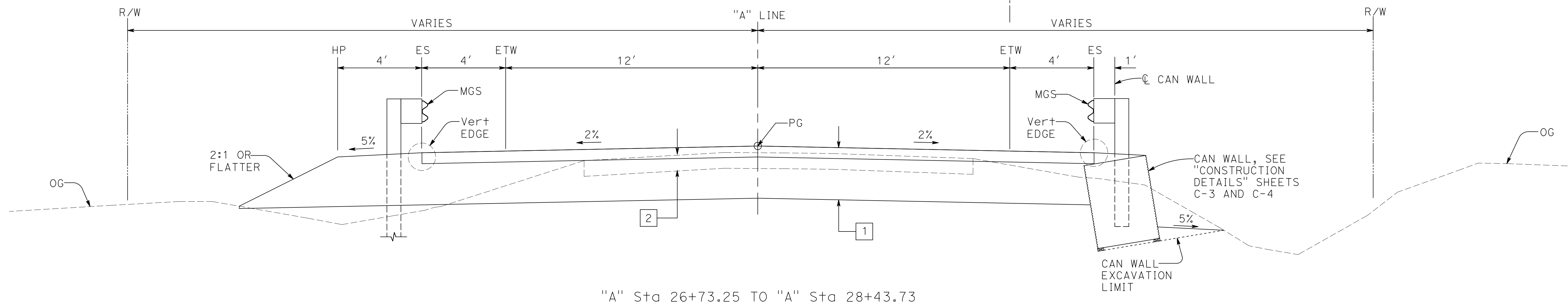
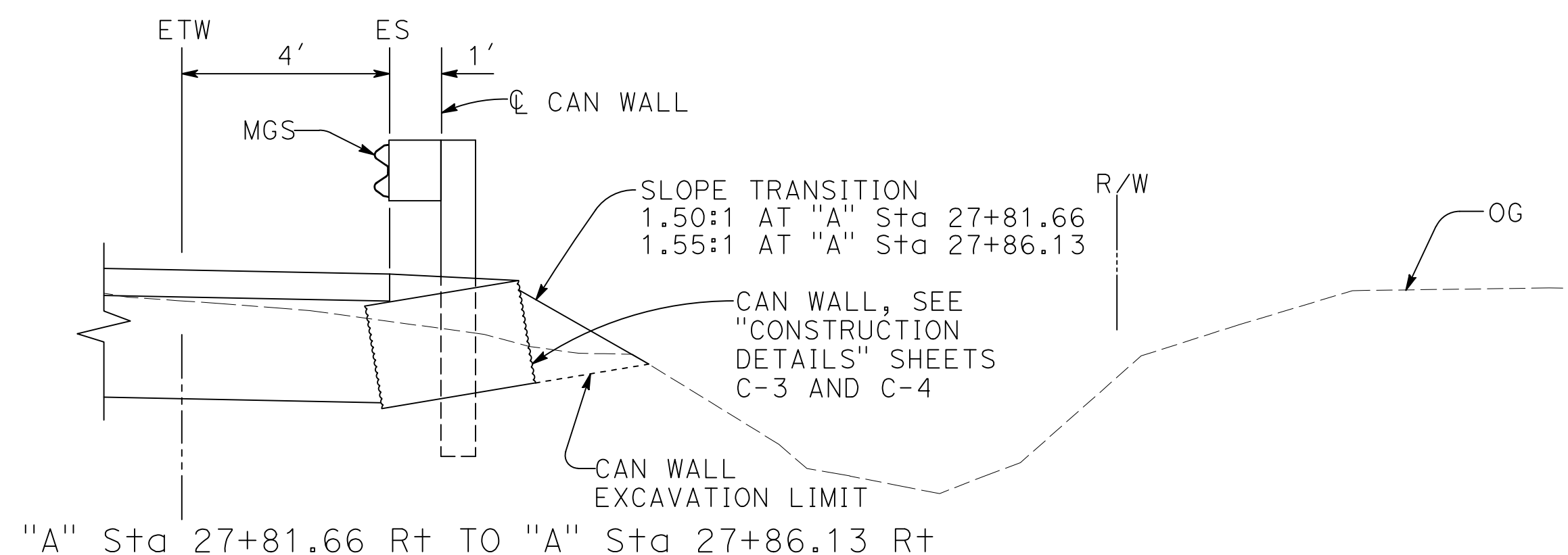
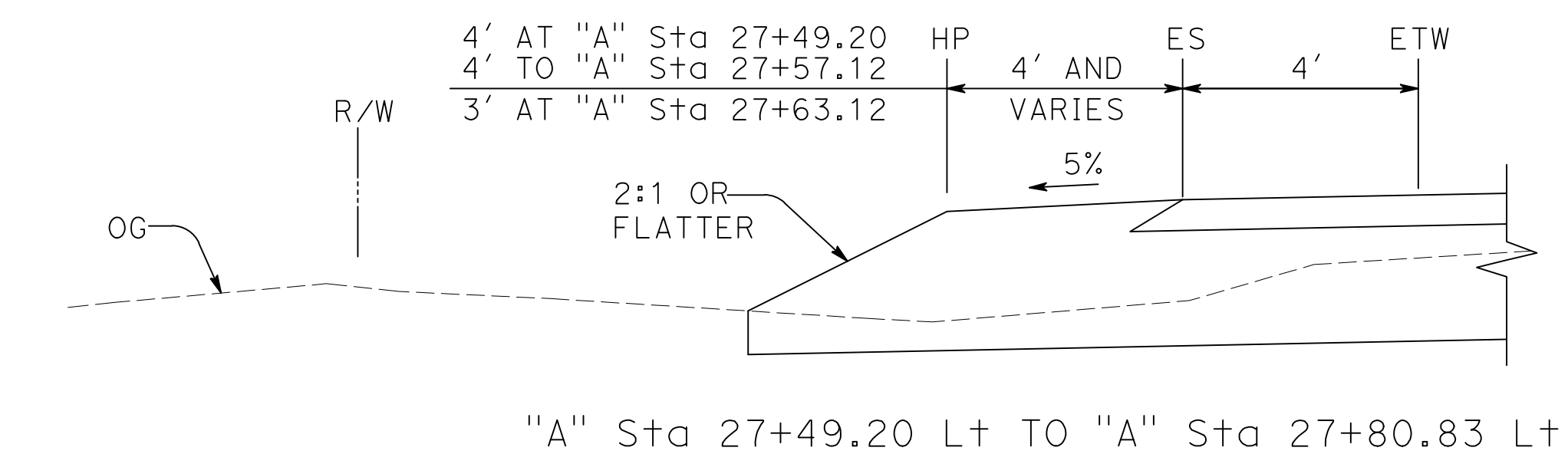
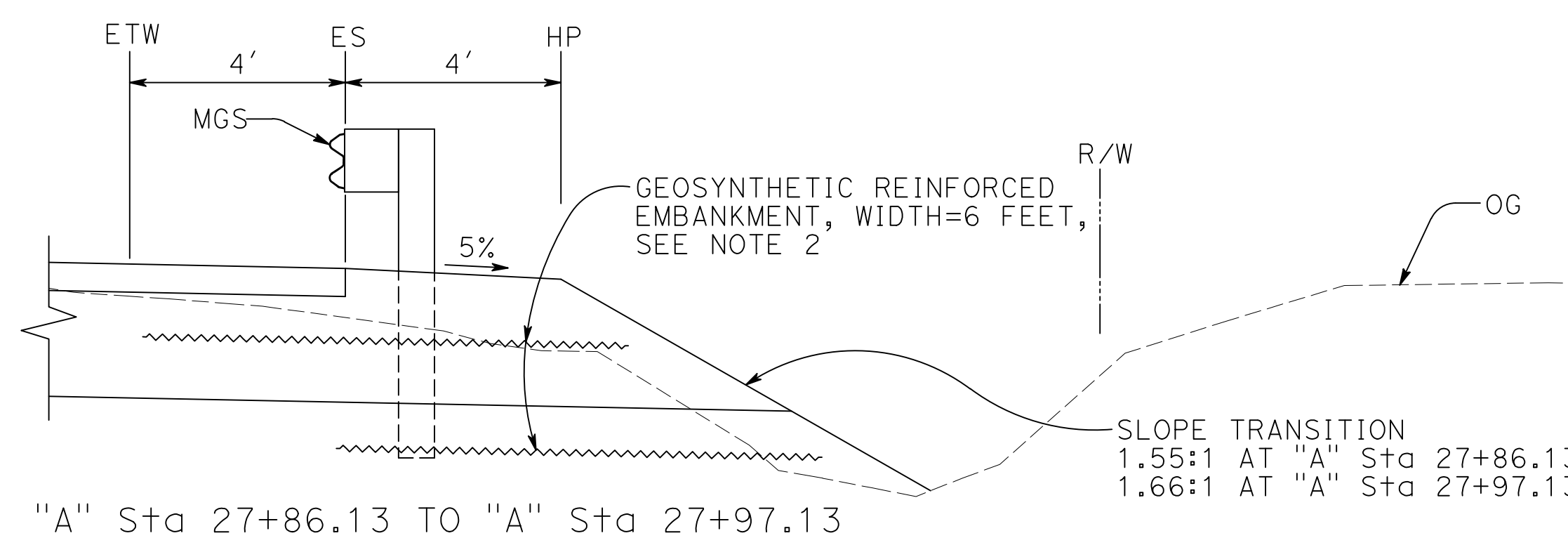
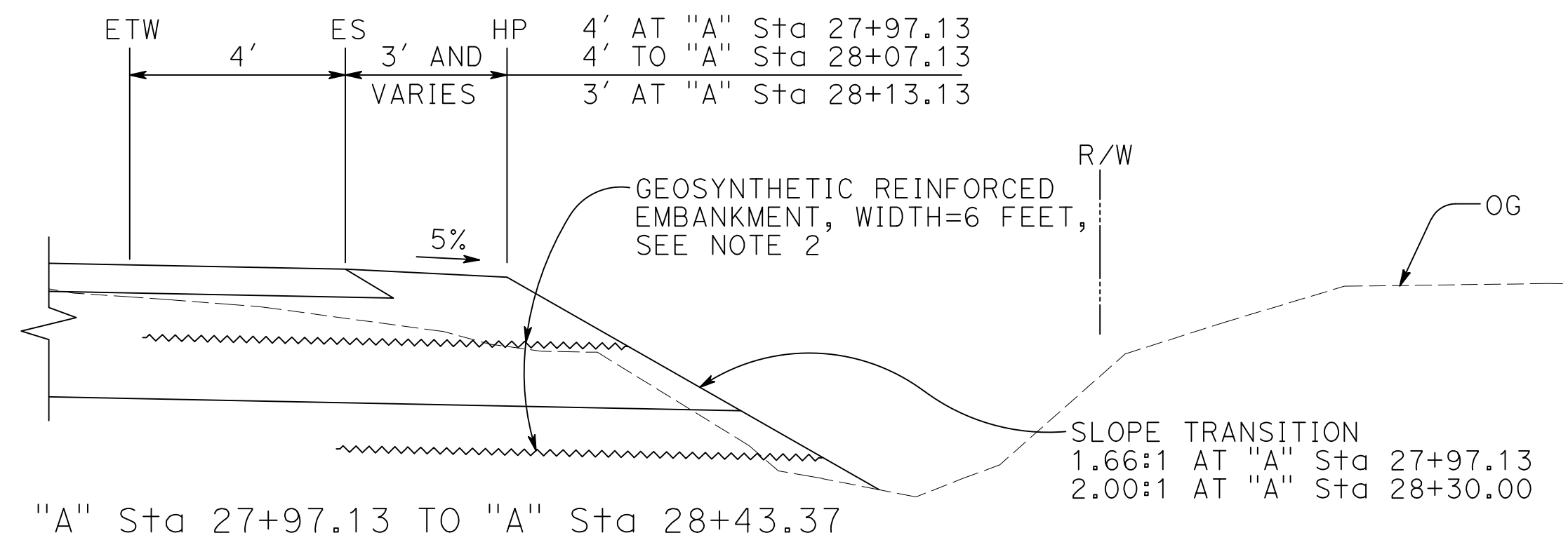
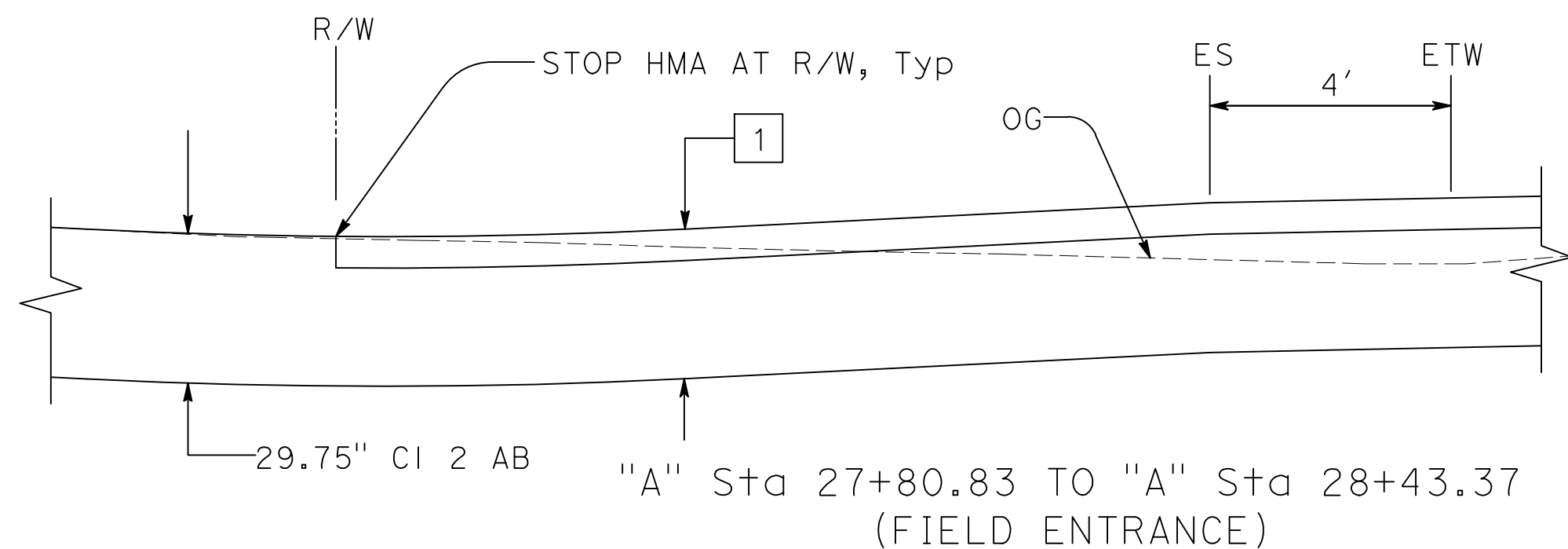
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	3	38

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



Co ROAD 67

TYPICAL CROSS SECTION
 NO SCALE
 X-2



NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTION) ARE SUBJECT TO THE TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. PLACE GEOSYNTHETIC REINFORCED EMBANKMENT WHERE SLOPES ARE STEEPER THAN 2:1. PLACE IN TWO FOOT MAXIMUM LIFTS.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	4	38

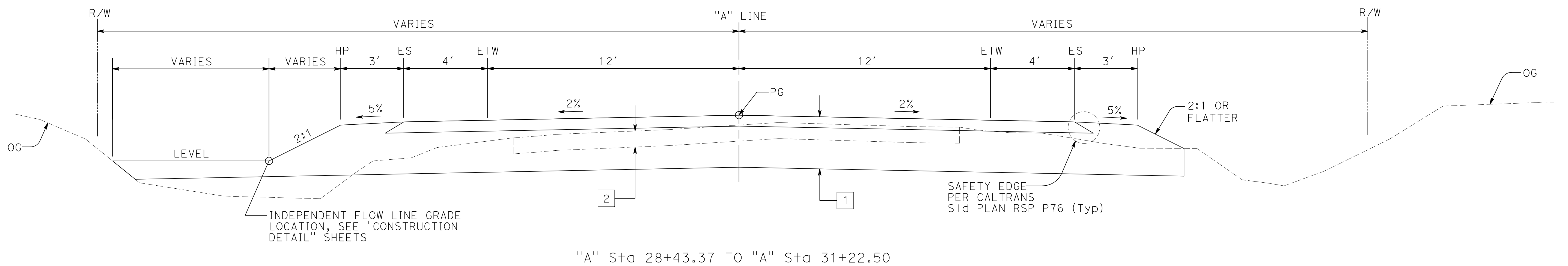
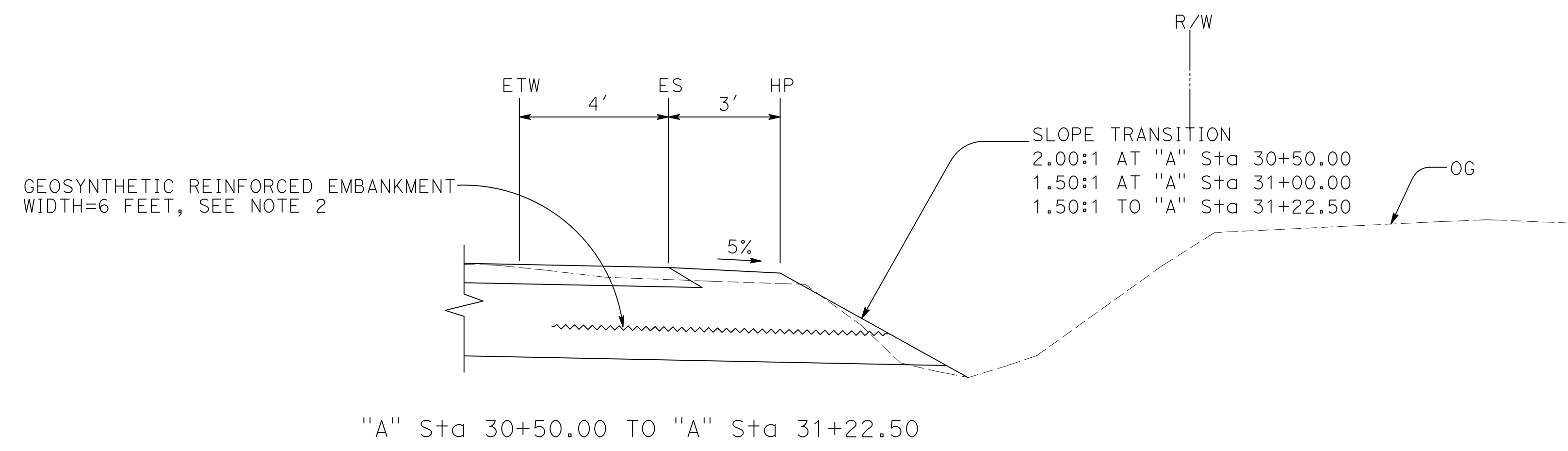
REGISTERED CIVIL ENGINEER DATE 05-31-23
 GARY M. GORDON
 No. 42176
 Exp. 03-31-24
 CIVIL
 STATE OF CALIFORNIA

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

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



Co ROAD 67

TYPICAL CROSS SECTION X-3
NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	5	38

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

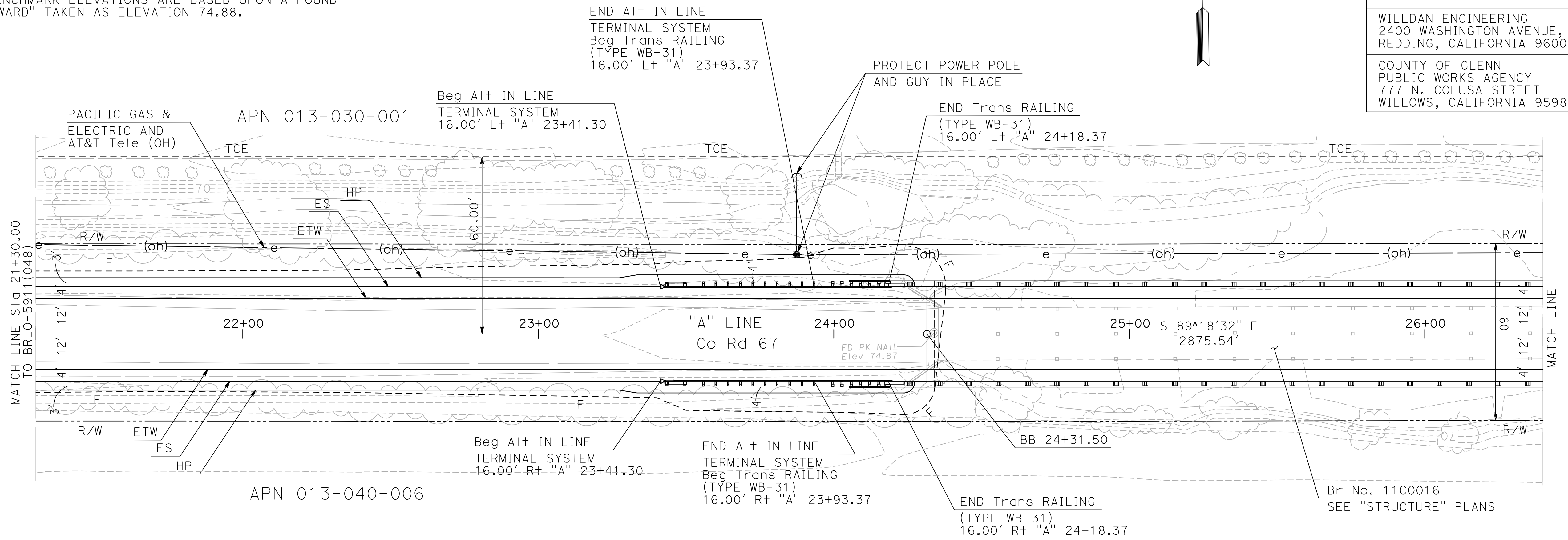
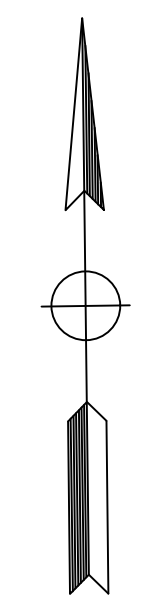
WILLDAN ENGINEERING
 2400 WASHINGTON AVENUE, SUITE 101
 REDDING, CALIFORNIA 96001

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

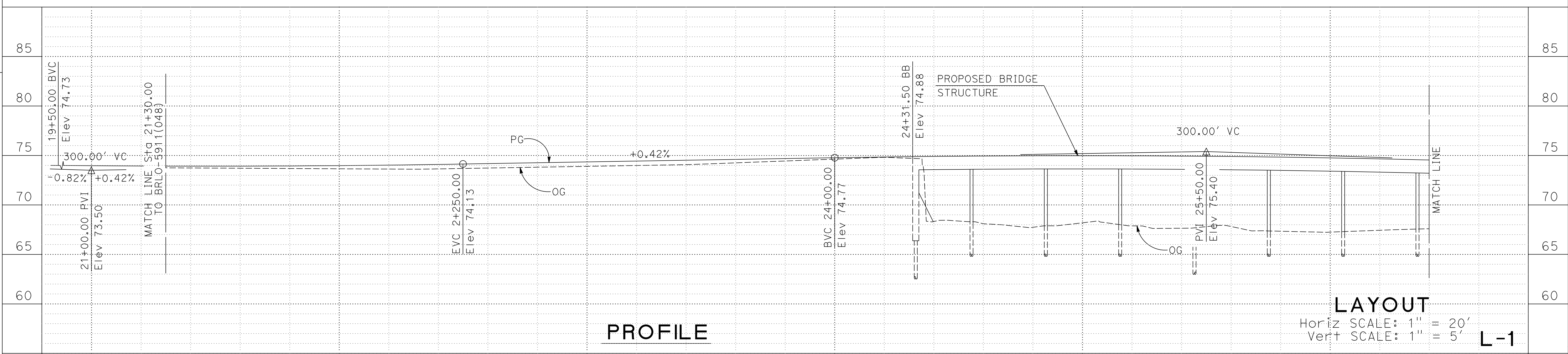
- NOTES:**
- FOR ACCURATE RIGHT OF WAY DATA, CONTACT GLENN COUNTY PUBLIC WORKS AGENCY.
 - BASIS OF BEARING: TAKEN AS N87°6'59.47"E BETWEEN POINTS 5860 AND 5001 AS SHOWN ON THIS SHEET.
 - COORDINATES, DISTANCES AND BEARINGS ARE BASED ON CCS 1983, ZONE 2, DERIVED FROM GPS OBSERVATIONS. MULTIPLY DISTANCES 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' R+ "A" 33+48.24)



PLAN



PROFILE

LAYOUT

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

L-1

STATION	Exc	Emb	TOTAL
21+00			
22+00			
23+00			
24+00			
25+00			
26+00			
TOTAL	811	30	811

USERNAME => KEVIN
 DGN FILE => 03-101783ed001



DATE PLOTTED => 5/31/2023
 TIME PLOTTED => 11:36:22 AM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	6	38

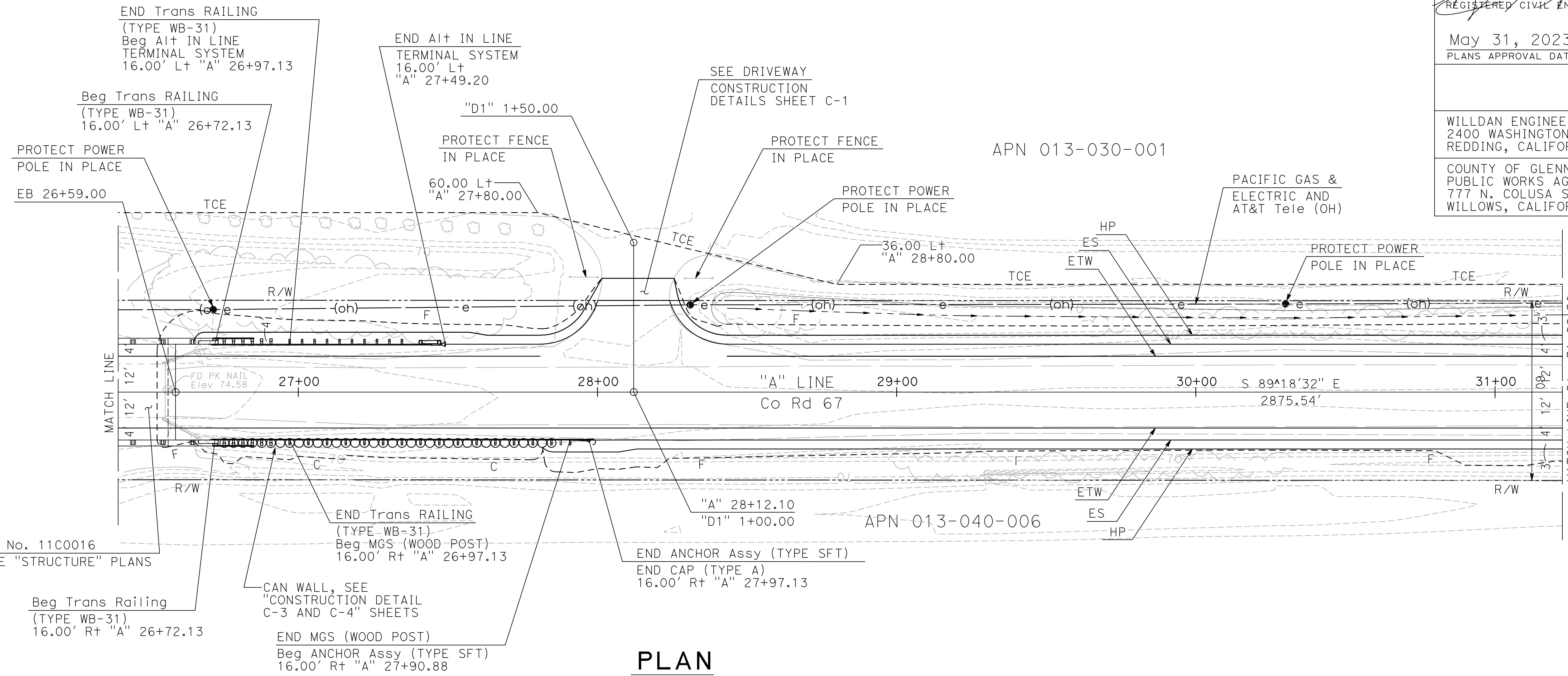
05-31-23
 REGISTERED CIVIL ENGINEER DATE
 GARY M. GORDON
 No. 42176
 Exp. 03-31-24
 CIVIL
 STATE OF CALIFORNIA

May 31, 2023
 PLANS APPROVAL DATE

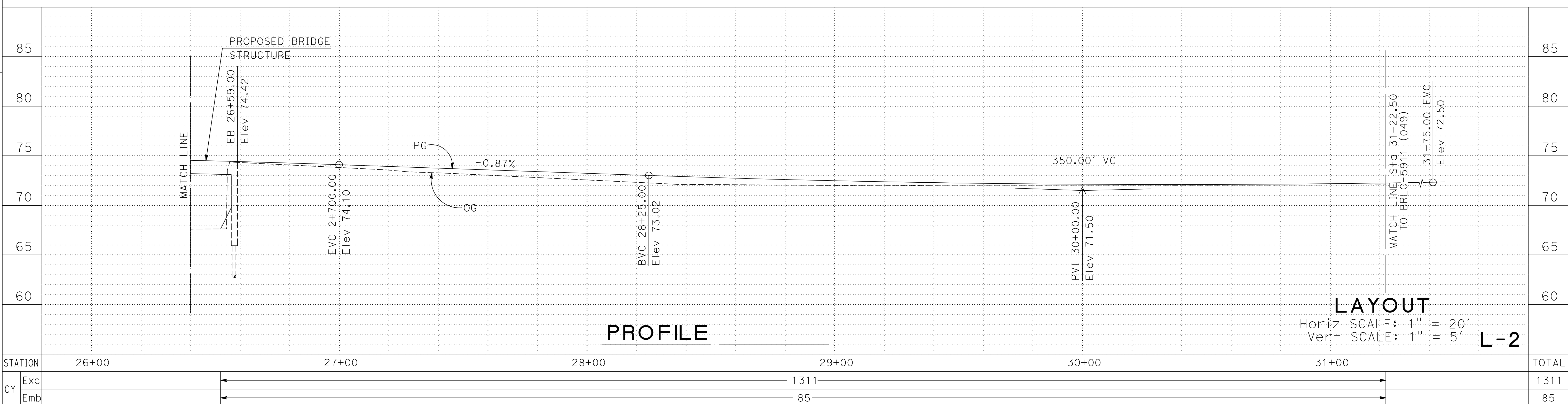
WILLDAN ENGINEERING
 2400 WASHINGTON AVENUE, SUITE 101
 REDDING, CALIFORNIA 96001

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

NOTES:
 1. FOR ACCURATE RIGHT OF WAY DATA,
 CONTACT COUNTY OF GLENN PUBLIC
 WORKS AGENCY.



PLAN



PROFILE

LAYOUT

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

L-2

STATION	26+00	27+00	28+00	29+00	30+00	31+00	TOTAL
CY Exc				1311			1311
CY Emb				85			85

USERNAME => KEVIN
 DGN FILE => 03-101783.dwg

RELATIVE BORDER SCALE
 IS IN INCHES



DATE PLOTTED => 5/31/2023
 TIME PLOTTED => 11:53:21 AM

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

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

CURVE DATA

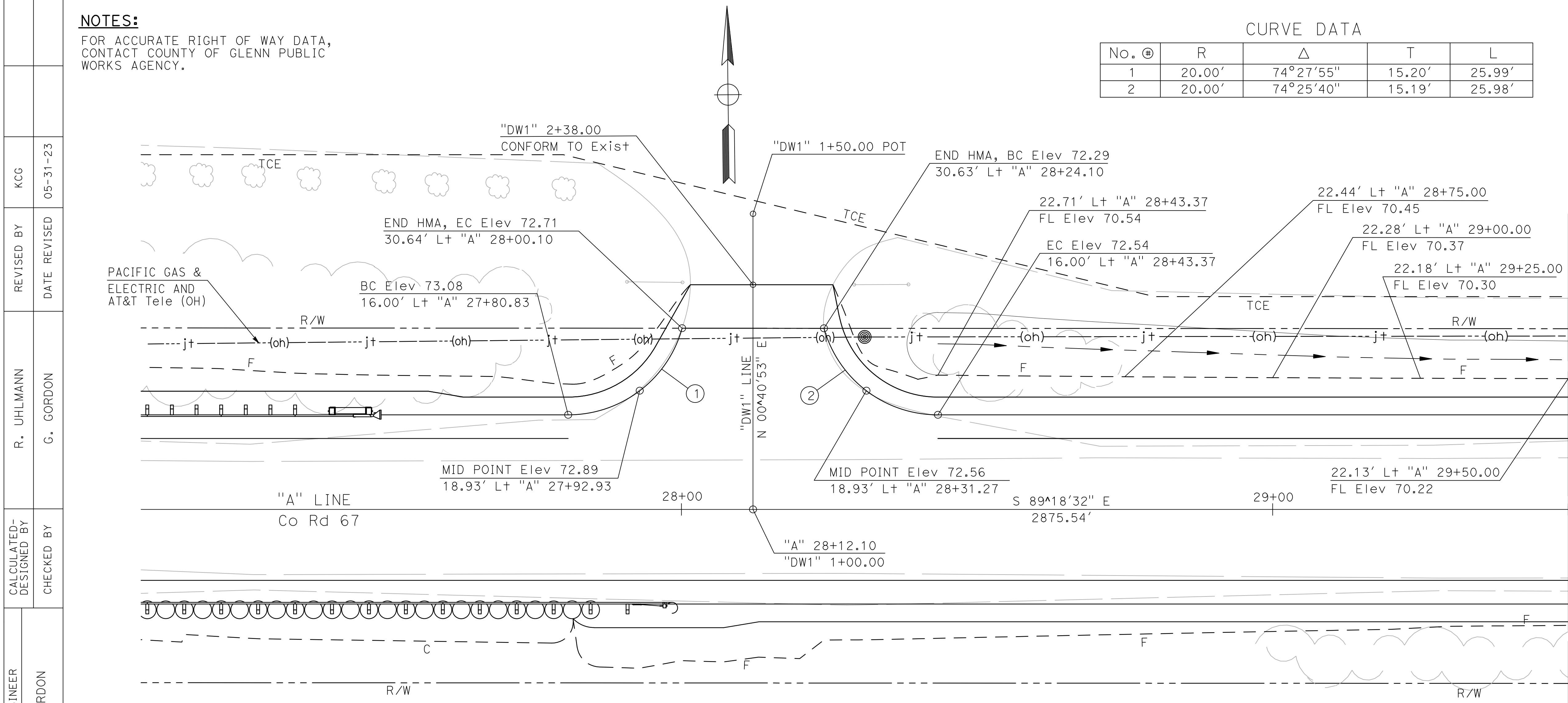
No. ①	R	Δ	T	L
1	20.00'	74°27'55"	15.20'	25.99'
2	20.00'	74°25'40"	15.19'	25.98'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	7	38

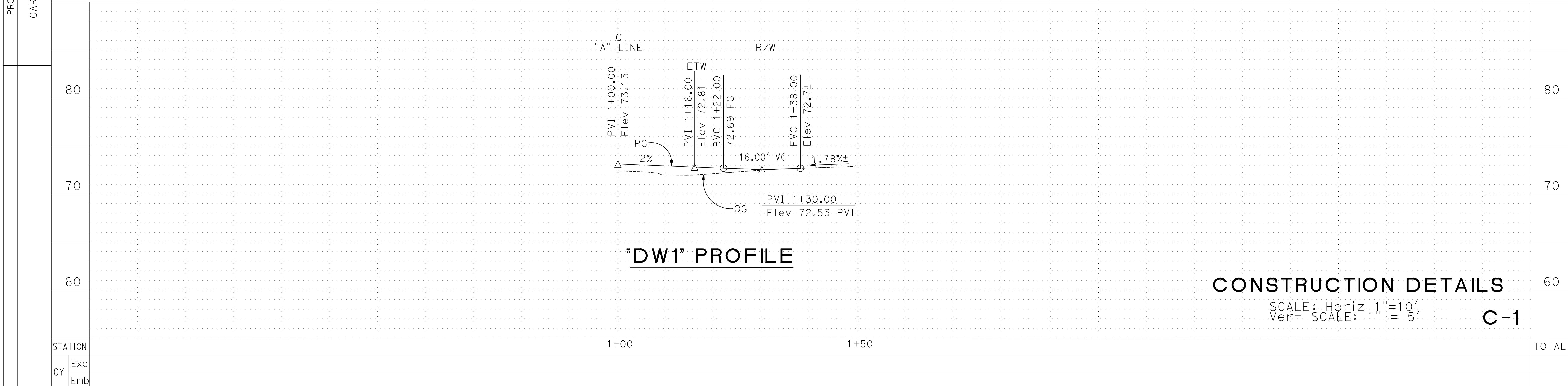
REGISTERED CIVIL ENGINEER
 DATE 05-31-23
 GARY M. GORDON
 No. 42176
 Exp. 03-31-24
 CIVIL
 STATE OF CALIFORNIA

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

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



PLAN



"DW1" PROFILE

CONSTRUCTION DETAILS

SCALE: Horiz 1" = 10'
 Vert SCALE: 1" = 5'

C-1

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

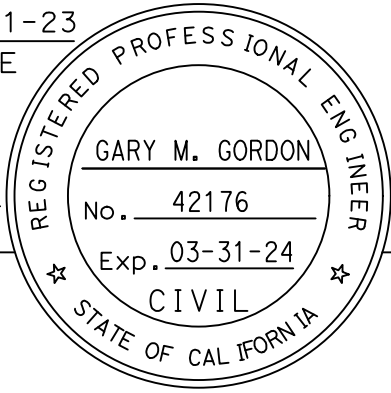
STATION	Exc	Emb	TOTAL
1+00			
1+50			

NOTES:
 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	38

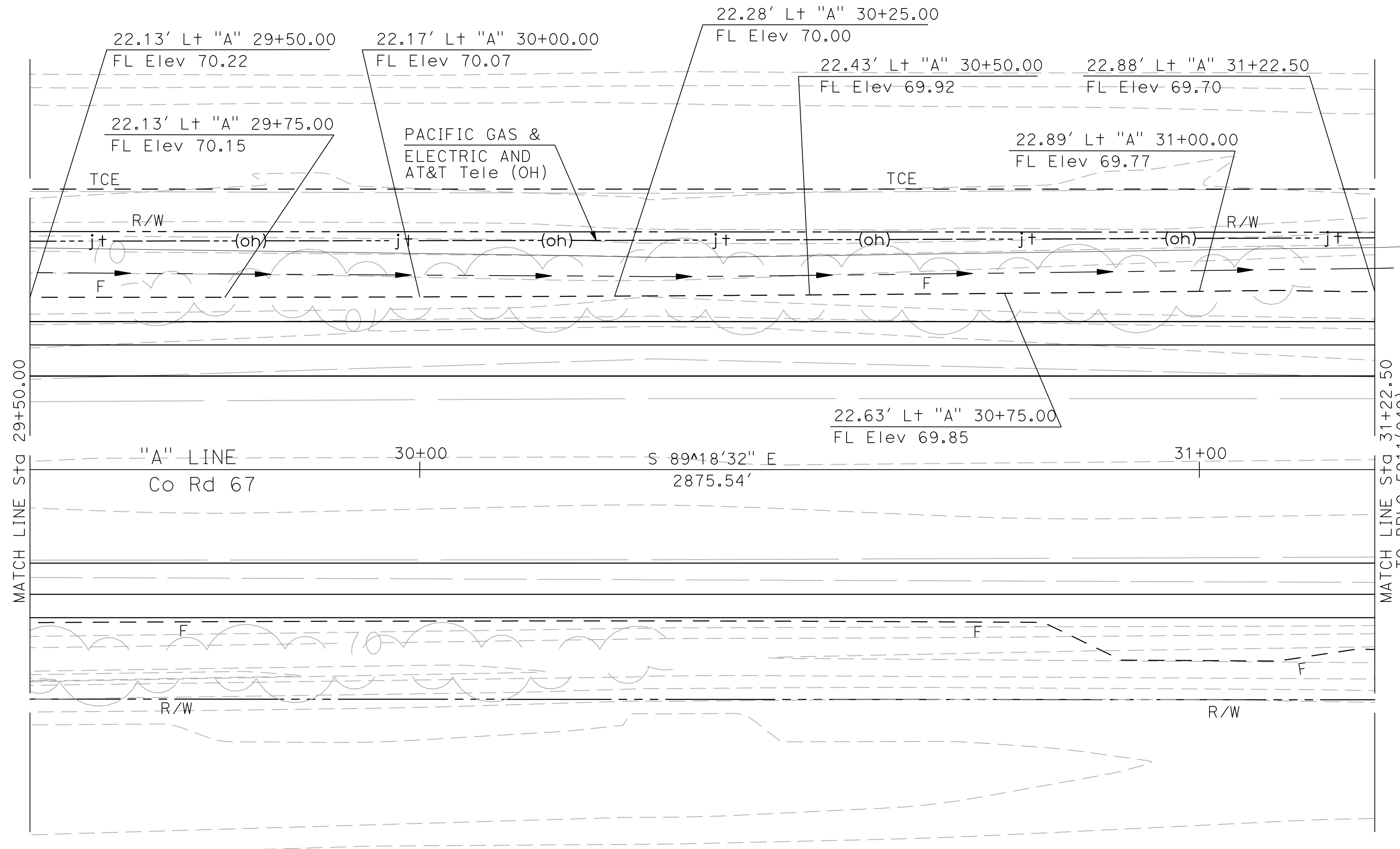
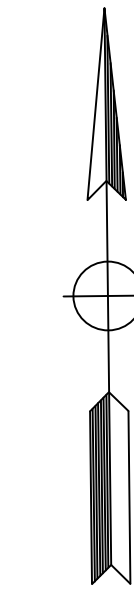
05-31-23
 REGISTERED CIVIL ENGINEER DATE

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



PLAN

CONSTRUCTION DETAILS

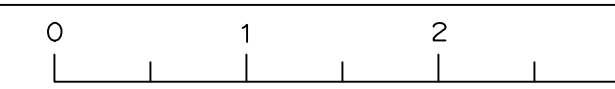
SCALE: 1"=10'

C-2

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

USERNAME => KEVIN
 DGN FILE => 03-101783gd002

RELATIVE BORDER SCALE
 IS IN INCHES



LAST REVISION DATE PLOTTED => 5/31/2023
 05-31-23 TIME PLOTTED => 12:21:18 PM

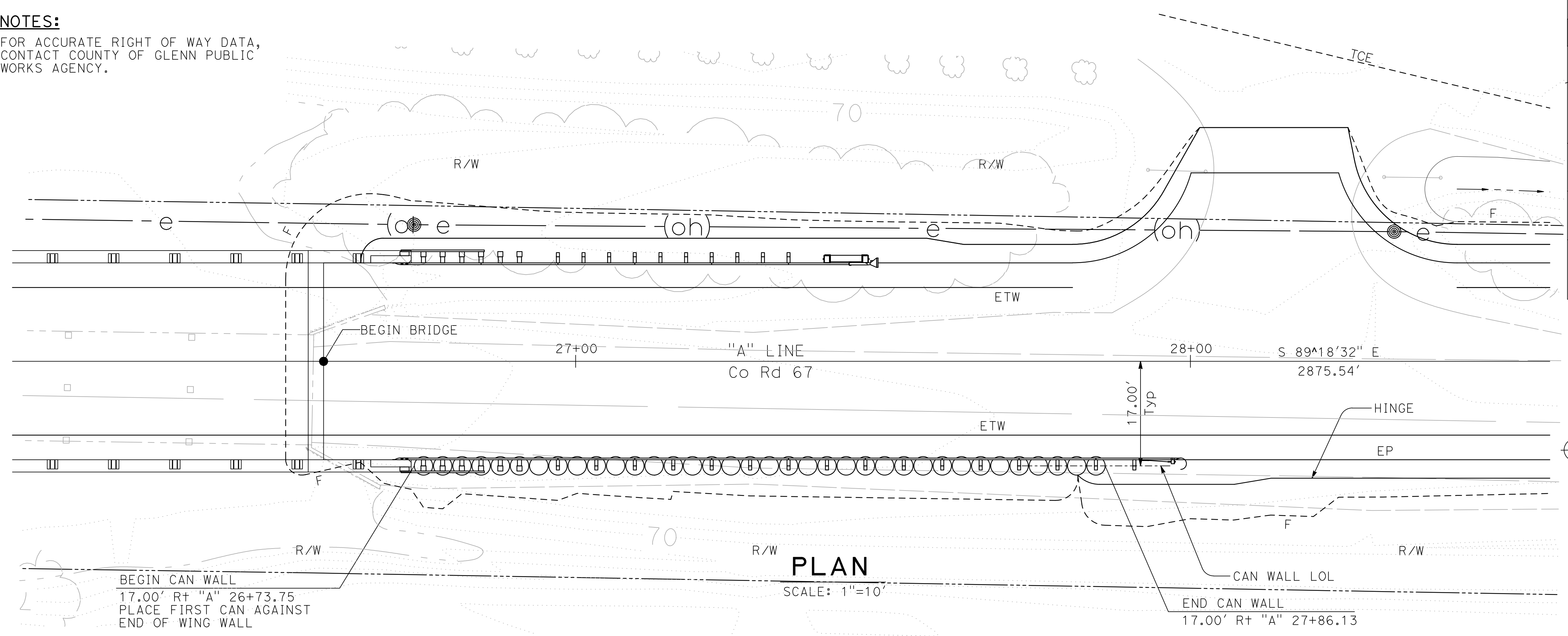
NOTES:
 FOR ACCURATE RIGHT OF WAY DATA,
 CONTACT COUNTY OF GLENN PUBLIC
 WORKS AGENCY.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	9	38

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

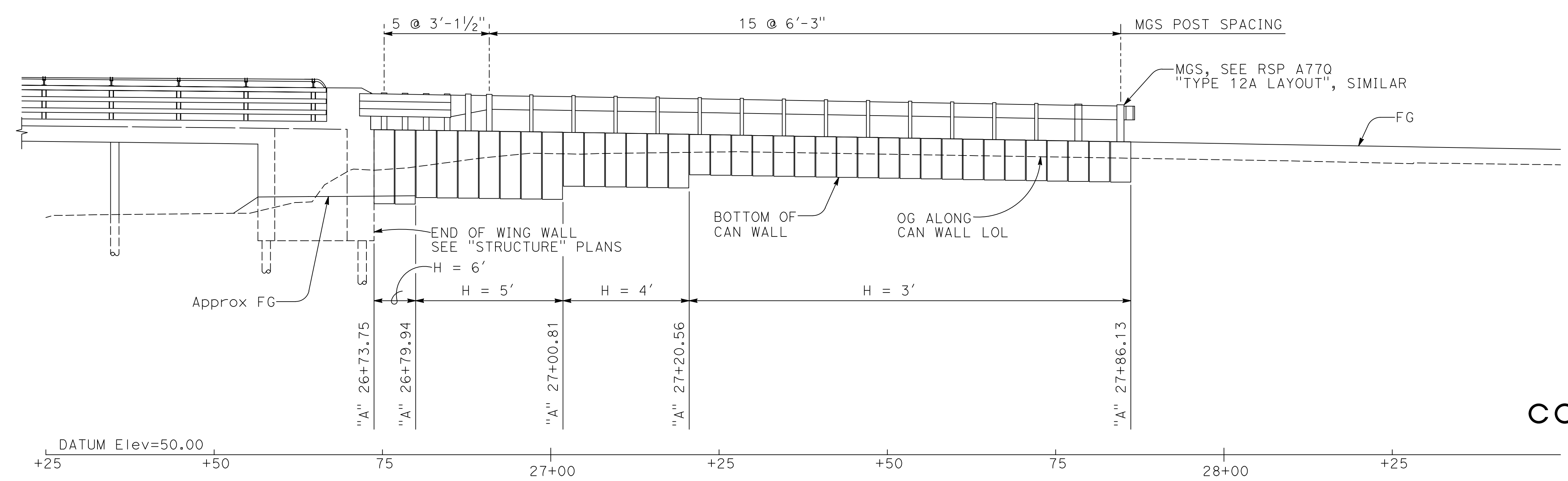
WILLDAN ENGINEERING
 2400 WASHINGTON AVENUE, SUITE 101
 REDDING, CALIFORNIA 96001

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



PLAN

SCALE: 1"=10'



ELEVATION

Horiz SCALE: 1"=10'
 Vert SCALE: 1"=5'

CONSTRUCTION DETAILS

SCALE AS SHOWN **C-3**

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

USERNAME => KEVIN
 DGN FILE => 03-101783gd003



LAST REVISION DATE PLOTTED => 5/31/2023
 05-31-23 TIME PLOTTED => 3:58:35 PM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	10	38

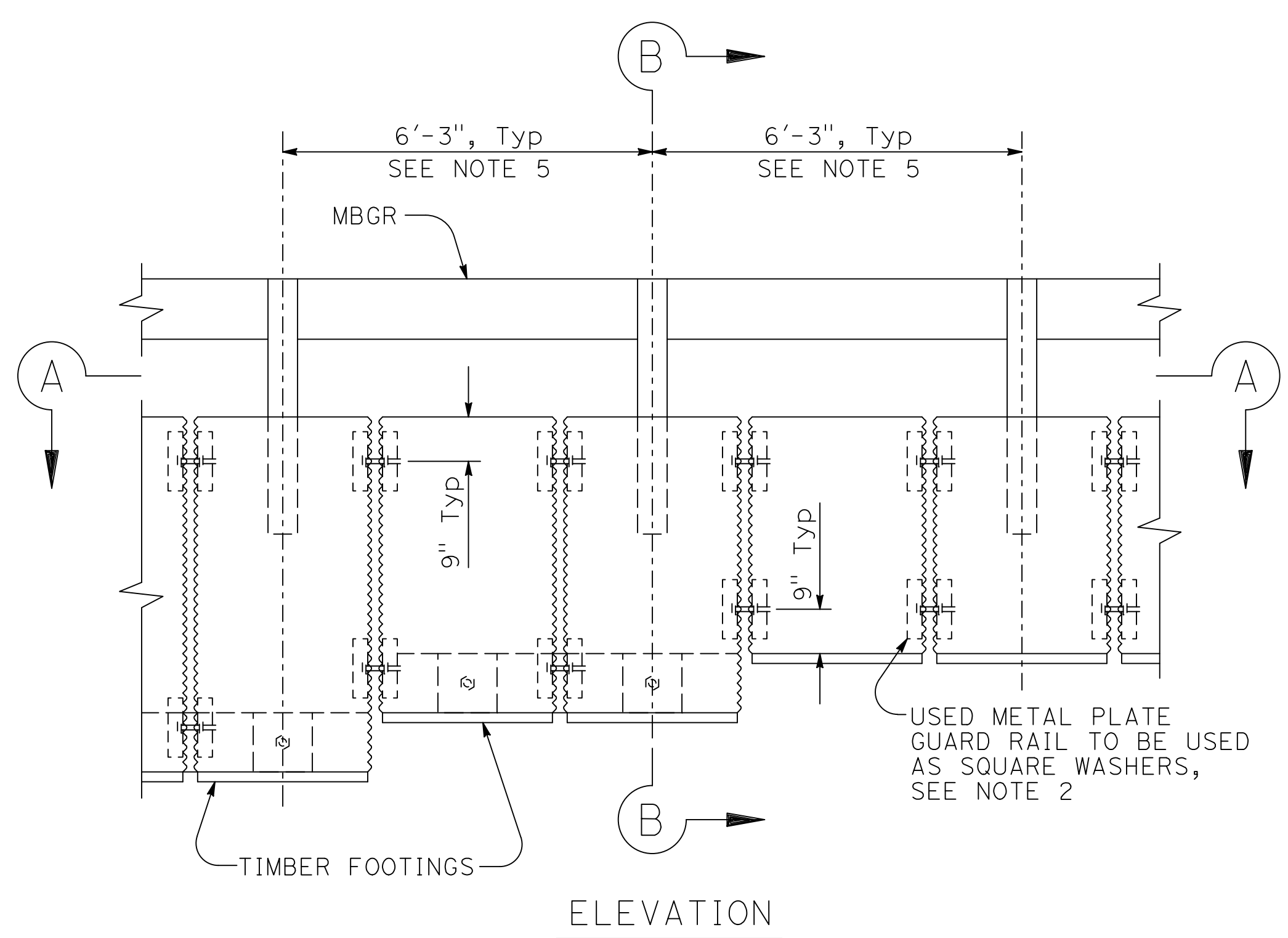
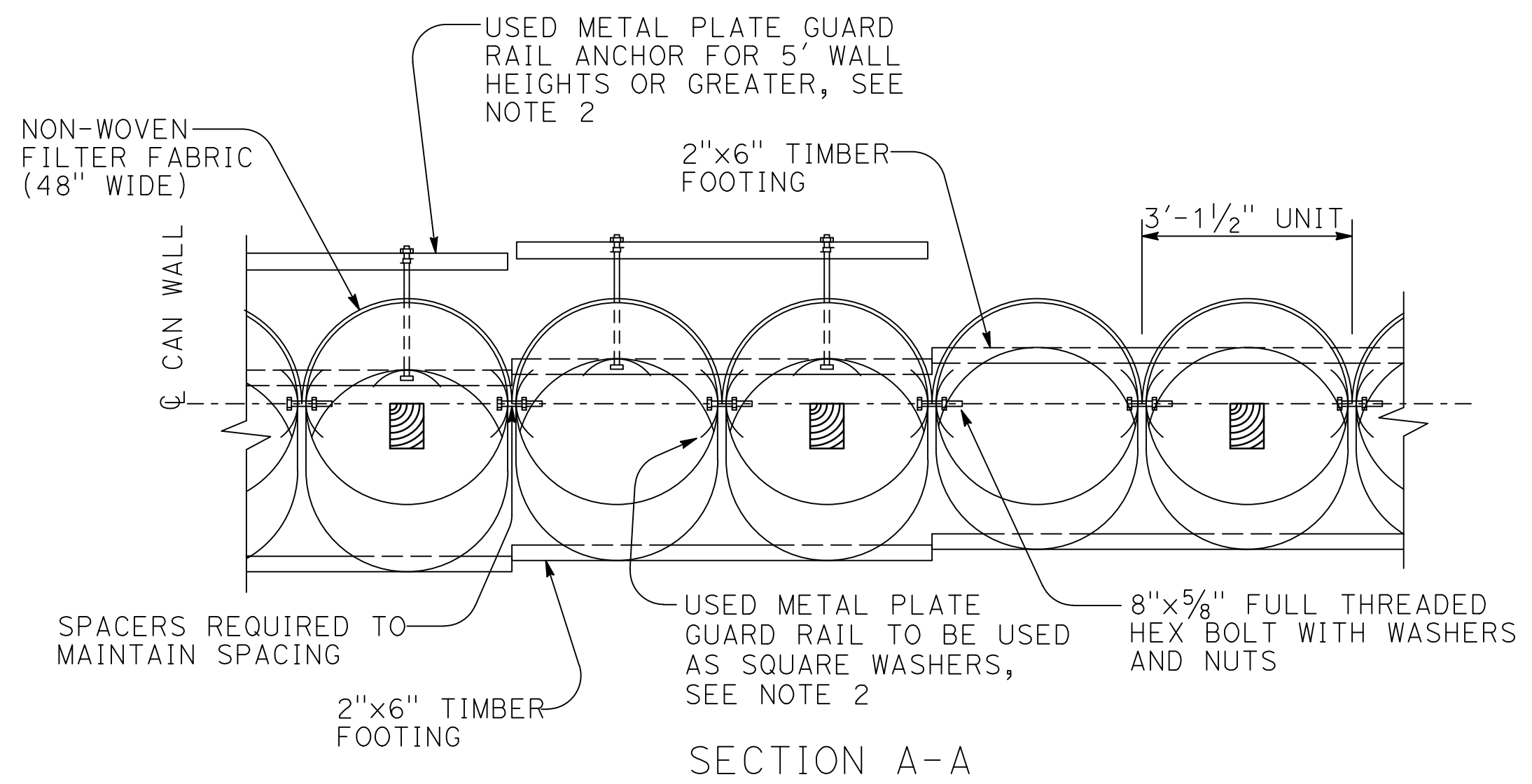
REGISTERED CIVIL ENGINEER DATE 05-31-23
 GARY M. GORDON
 No. 42176
 Exp. 03-31-24
 CIVIL
 STATE OF CALIFORNIA

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

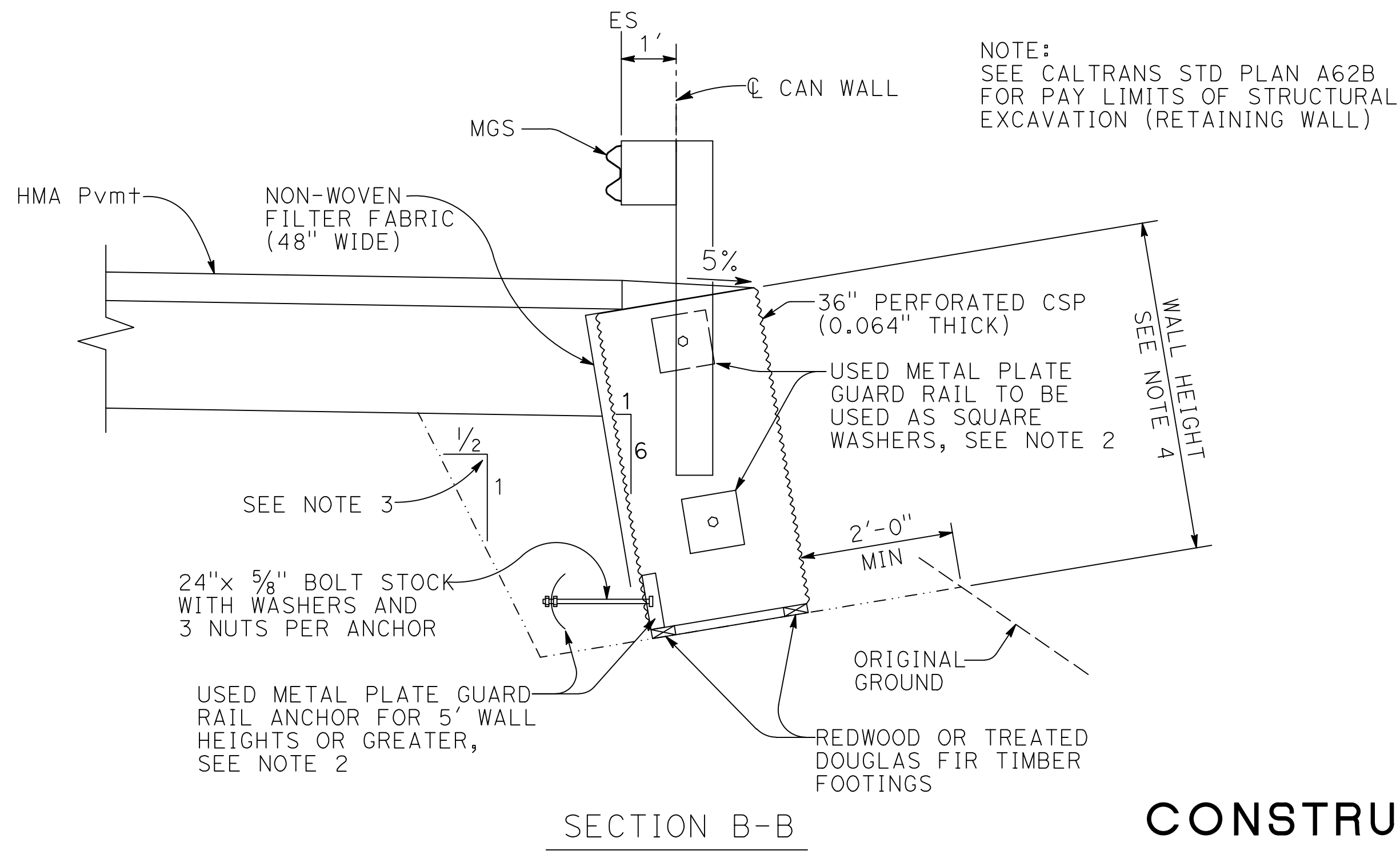
COUNTY OF GLENN
 PUBLIC WORKS AGENCY
 777 N. COLUSA STREET
 WILLOWS, CALIFORNIA 95988

- NOTES:**
- SLOPE SHOULDER AT 5% OR AS DIRECTED BY THE ENGINEER.
 - CONTRACTOR MAY SUBMIT ALTERNATIVE FOR ANCHOR PLATES AND OR WASHERS TO THE ENGINEER FOR APPROVAL.
 - BATTER SLOPE AS SHOWN WHEN EXCAVATION DEPTH EXCEEDS 5'-0" OR PROVIDE SHORING.
 - WALL HEIGHTS VARY IN 1 FOOT INCREMENTS. SEE PLANS FOR HEIGHTS AND LOCATIONS.
 - SPACING FOR MIDWEST GUARDRAIL SYSTEM WOOD POSTS SHALL BE 6'-3" EXCEPT FOR THE FIRST 6 WOOD POSTS BEGINNING AT THE BRIDGE RAIL CONNECTION WHICH SHALL BE SPACED AT 3'-1 1/2".

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



CAN WALL DETAILS
SCALE: 1/2"=1'-0"



CONSTRUCTION DETAILS
SCALE AS SHOWN **C-4**

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

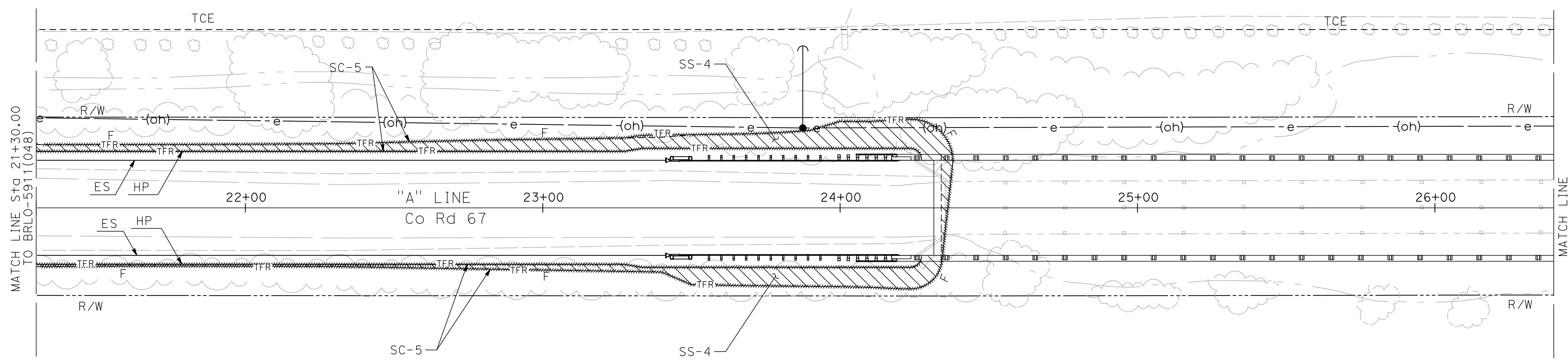
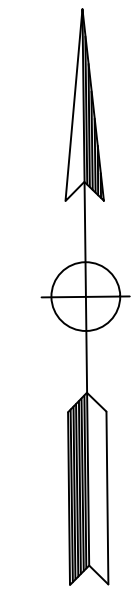
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	11	38

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

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

COUNTY OF GLENN
 PUBLIC WORKS AGENCY
 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.

TEMPORARY BMP NOTES:

1. 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.
2. BMPs WILL BE APPLIED TO AND MAINTAINED IN ACTIVE AND NON-ACTIVE DISTURBED SOIL AREAS (DSAs).
3. FIBER ROLLS SHALL BE PLACED ON DISTURBED SOIL AT THE COMPLETION OF GRADING.
4. CONTRACTOR TO ESTABLISH TEMPORARY CONSTRUCTION ENTRANCE PER CALTRANS STANDARD T58 AND TEMPORARY CONCRETE WASHOUT FACILITY PER CALTRANS STANDARD T59.
5. THE CHANNEL CAPACITY MUST BE MAINTAINED DURING THE RAINY SEASON OCTOBER 15 TO APRIL 15.
6. 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):

7. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE ENGINEER.
8. 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.
9. 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.
10. 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.
11. 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:

1. CONTRACTOR SHALL PROVIDE APPROPRIATE EROSION CONTROL BMPs AS INDICATED ON THE PLANS AND AS DIRECTED BY THE APPROVED PROJECT WPCP OR SWPPP.
2. SEED MIX FOR HYDROSEEDING SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
3. 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 => 03-101783gb001



LAST REVISION DATE PLOTTED => 5/31/2023
 05-31-23 TIME PLOTTED => 4:48:01 PM

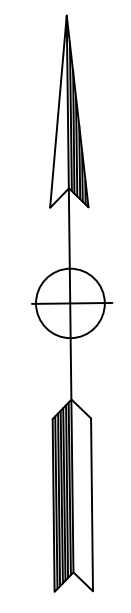
PROJECT ENGINEER	GARY M. GORDON
CALCULATED-DESIGNED BY	CHECKED BY
B. BURCH	R. UHLMANN
REVISED BY	DATE REVISED
KCG	05-31-23

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

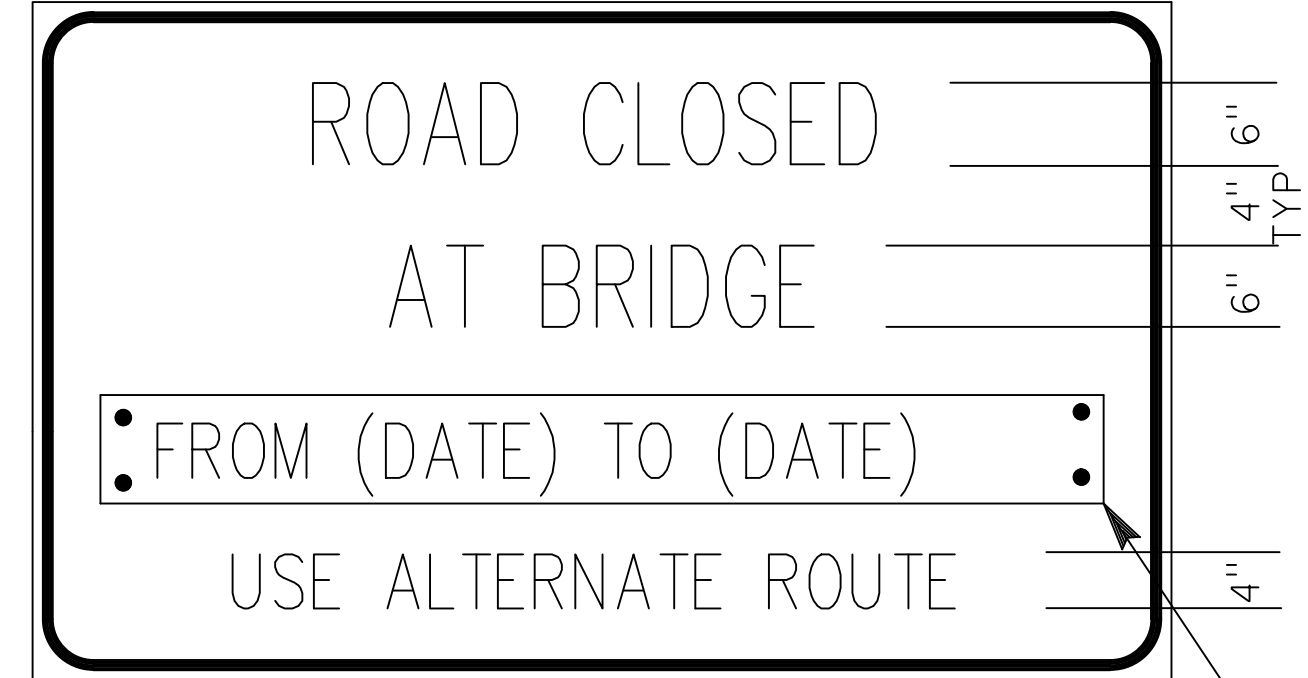
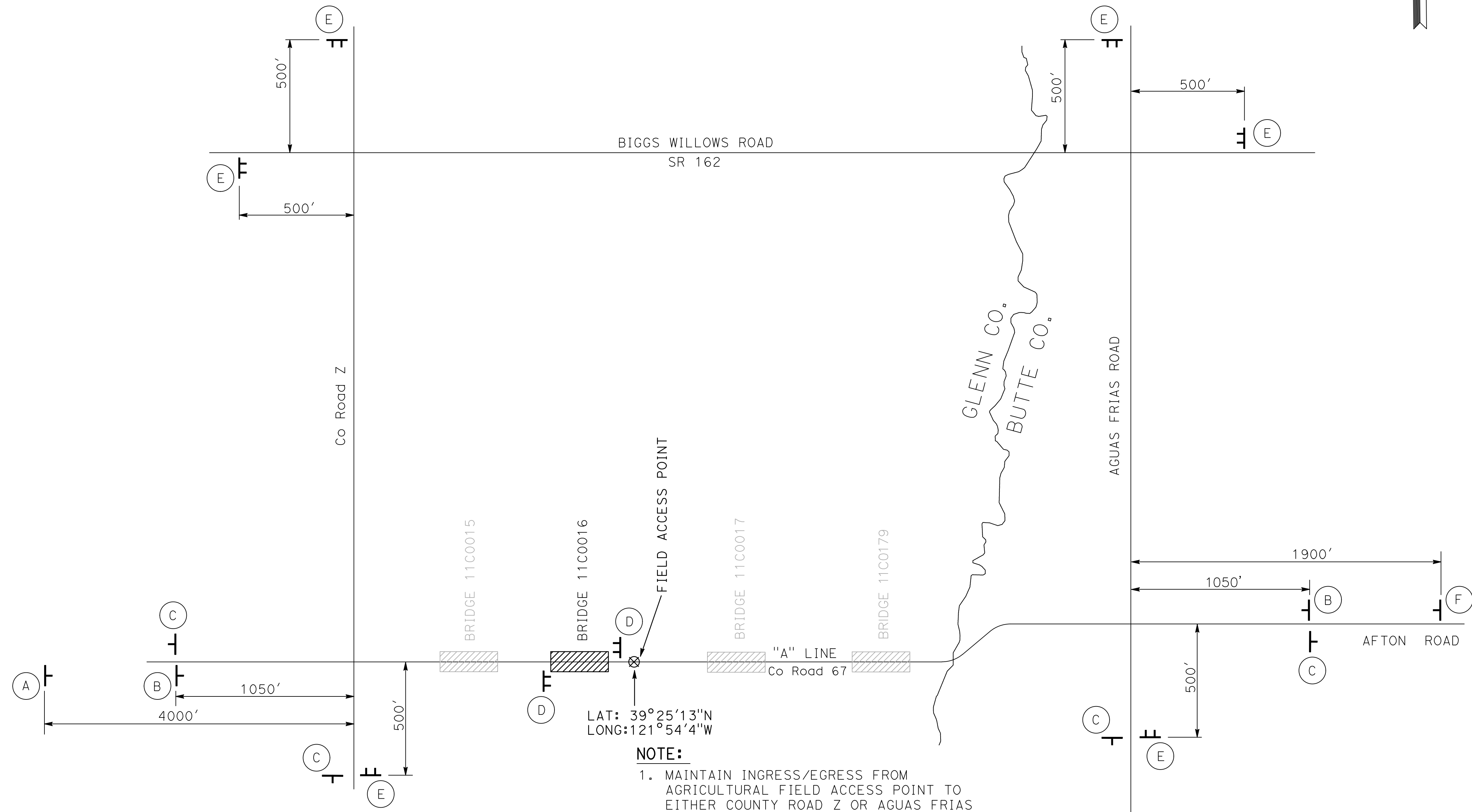


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	13	38

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

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

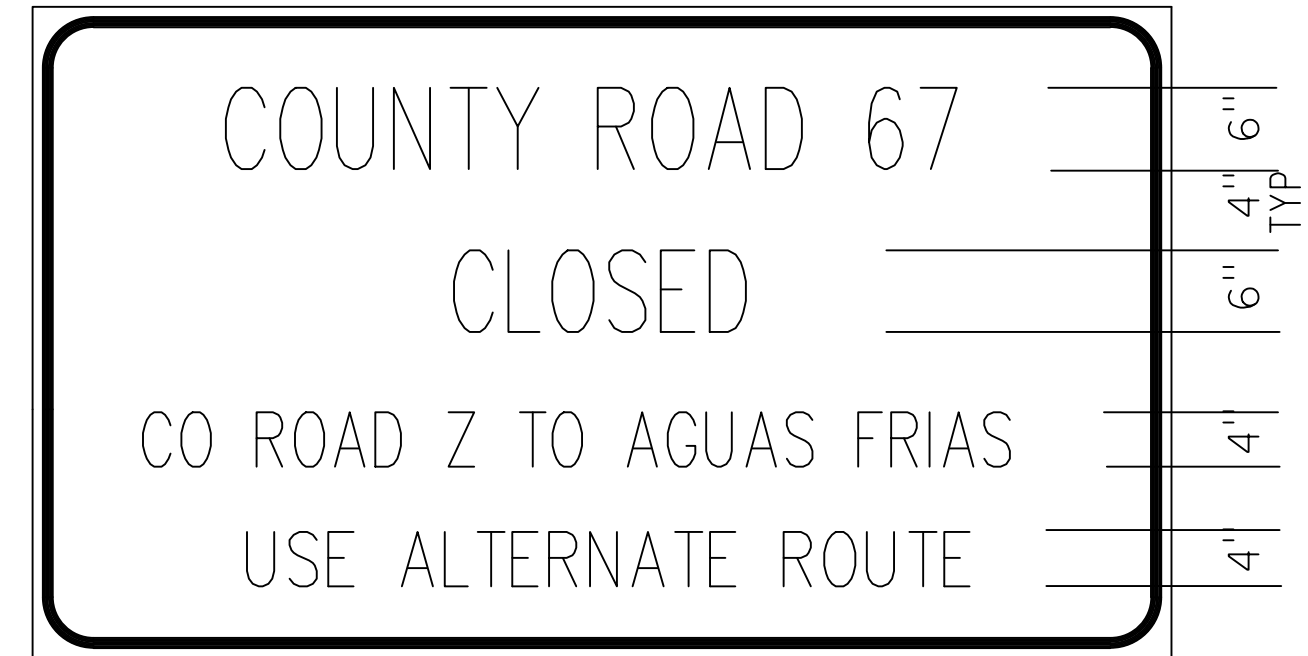
COUNTY OF GLENN
 PUBLIC WORKS AGENCY
 777 N. COLUSA STREET
 WILLOWS, CALIFORNIA 95988



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.

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

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.

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY



CONSTRUCTION AREA SIGNS
NO SCALE CS-1

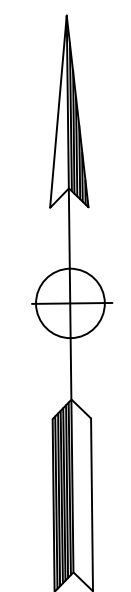
		KCG	05-31-23	
	B. BURCH	REVISOR	DATE	
	R. UHLMANN	CHECKED BY		
	GARY M. GORDON	PROJECT ENGINEER		

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.
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- 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

- TEMPORARY SIGN AND POST
- 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

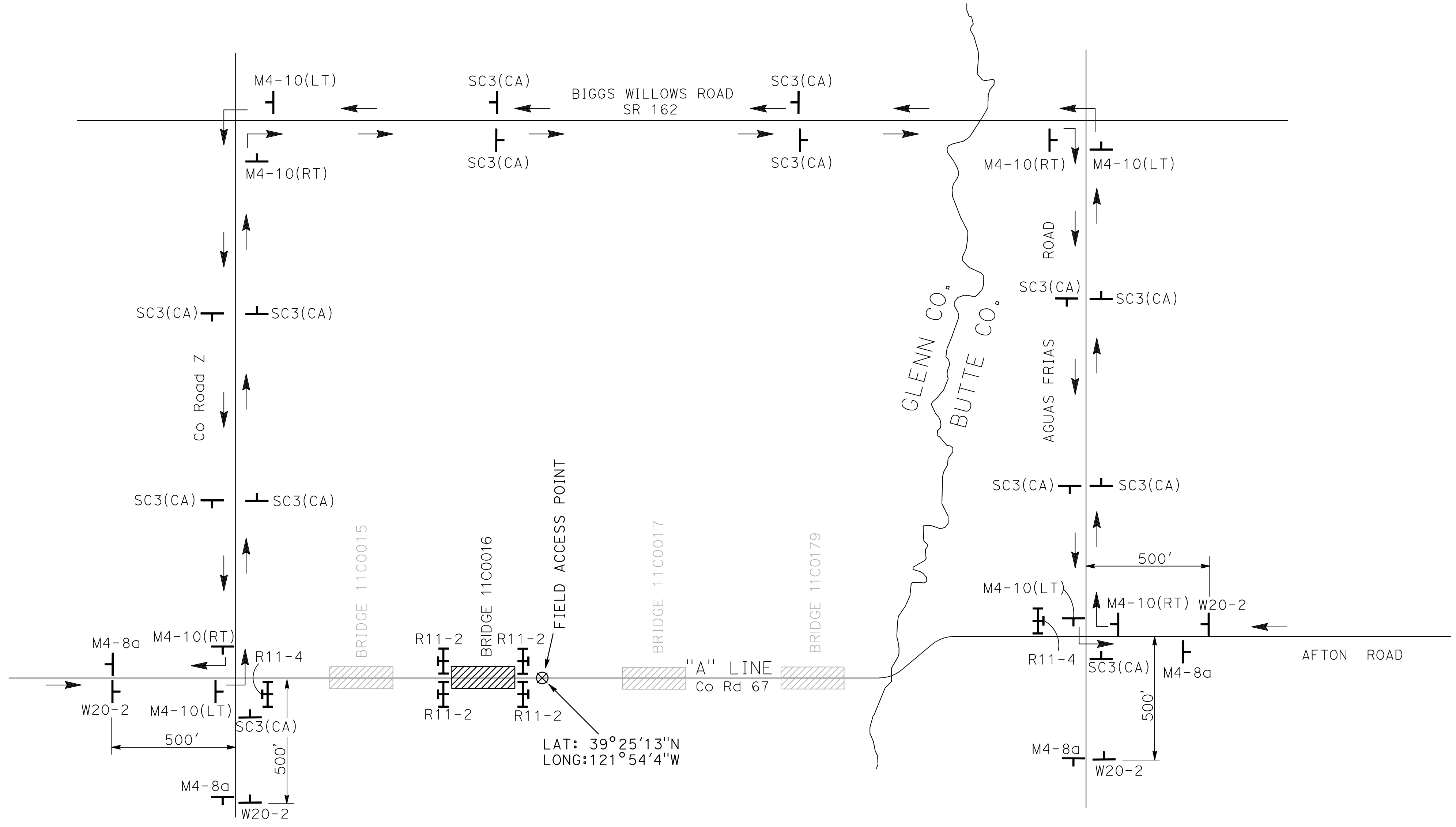


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	14	38

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

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

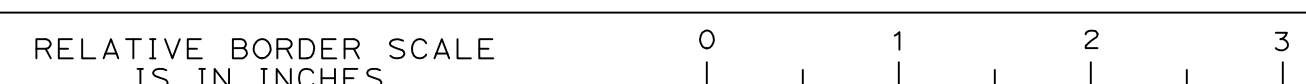
COUNTY OF GLENN
 PUBLIC WORKS AGENCY
 777 N. COLUSA STREET
 WILLOWS, CALIFORNIA 95988



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



DETOUR PLAN
NO SCALE
DE-1

USERNAME => KEVIN
DGN FILE => 03-101783md001

LAST REVISION DATE PLOTTED => 5/31/2023 05-31-23 TIME PLOTTED => 8:12:57 AM

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

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

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	15	38

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

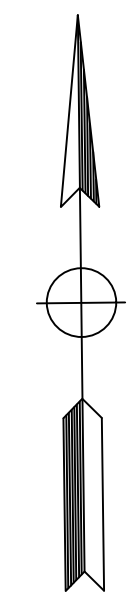
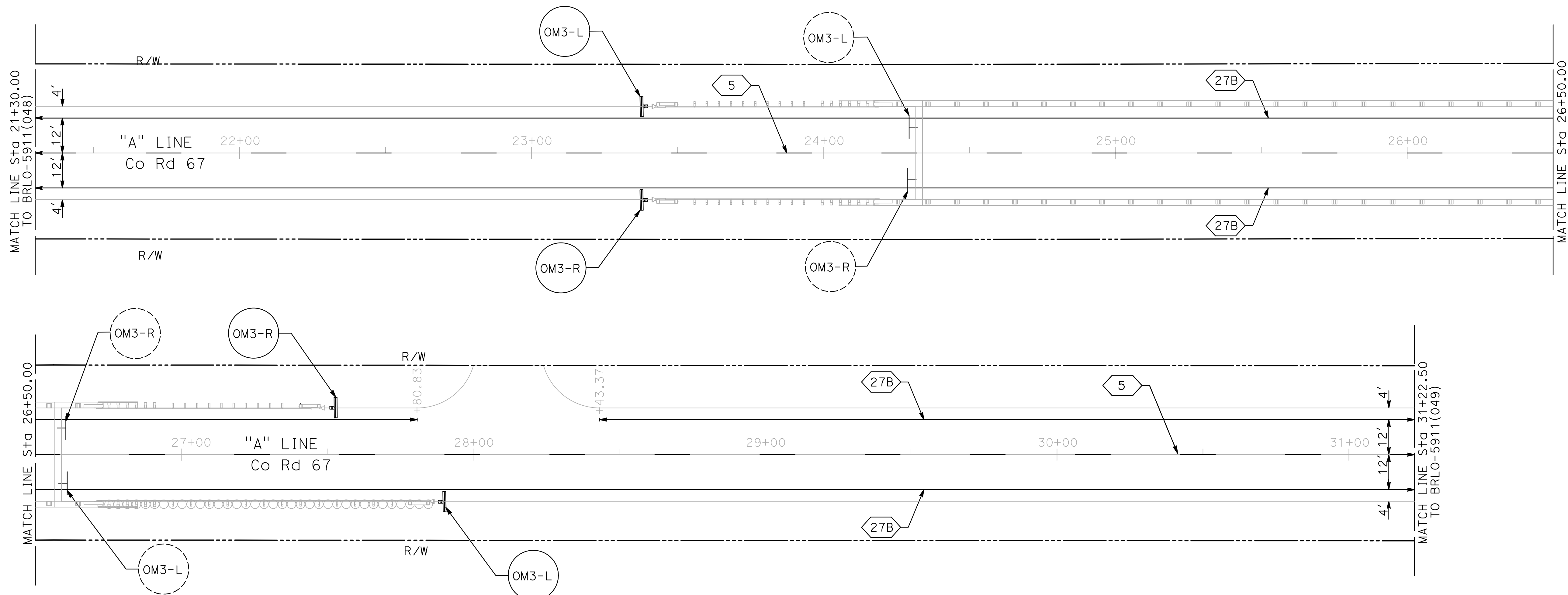
WILLDAN ENGINEERING
 2400 WASHINGTON AVENUE, SUITE 101
 REDDING, CALIFORNIA 96001
 COUNTY OF GLENN
 PUBLIC WORKS AGENCY
 777 N. COLUSA STREET
 WILLOWS, CALIFORNIA 95988

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	21+30.00 TO 31+22.50	EB	27B	992.5					
PD-1	21+30.00 TO 27+80.83	WB	27B	650.8					
PD-1	28+43.37 TO 31+22.50	WB	27B	279.1					
PD-1	21+30.00 TO 31+22.50	WB	5			992.5			
TOTAL				1922.4		992.5			

ROADSIDE SIGN QUANTITIES

SIGN CODE	PANEL SIZE	REMOVE ROADSIDE SIGN (EA)	ROADSIDE SIGN	REMARKS
			ONE POST EA	
OM3-L	12" x 36"	2	2	8'-0" LONG METAL POST PER S+d PLAN A73B
OM3-R	12" x 36"	2	2	8'-0" LONG METAL POST PER S+d PLAN A73B



PAVEMENT DELINEATION AND SIGN PLAN

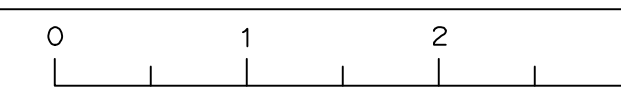
SCALE: 1" = 20'

PD-1

THIS PLAN IS ACCURATE FOR PAVEMENT DELINEATION AND SIGN WORK ONLY

USERNAME => KEVIN
DGN FILE => 03-101783nd001

RELATIVE BORDER SCALE IS IN INCHES



LAST REVISION: 05-31-23
 DATE PLOTTED => 5/31/2023
 TIME PLOTTED => 4:26:37 PM

EARTHWORK QUANTITIES

SHEET No.	STATION	ROADWAY EXCAVATION	EMBANKMENT (N)	IMPORTED BORROW	GEOSYNTHETIC REINFORCED EMBANKMENT
		CY	CY	CY	SQYD
L-1	"A" 21+30.00 TO "A" 24+36.22	811	30	30	
L-1	"A" 27+86.13 Rt TO "A" 28+43.37 Rt				76.3
L-1	"A" 30+50.00 Rt TO "A" 31+22.50 Rt				48.3
L-2	"A" 26+52.81 TO "A" 31+22.50	1,311	85	85	
TOTAL		2,122	115	115	124.6

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

SAFETY EDGE

SHEET No.	STATION	DIRECTION	TOTAL THICKNESS OF SAFETY EDGE (N)	(N)	(N)
			FT	LF	TON
L-1	"A" 21+30.00 Lt TO "A" 23+41.30 Lt	WB	0.52	211.30	3.6
L-1	"A" 21+30.00 Rt TO "A" 23+41.30 Rt	EB	0.52	211.30	3.6
L-2	"A" 27+49.20 Lt TO "A" 27+80.83 Lt	WB	0.52	31.63	0.5
L-2	"A" 27+97.13 Rt TO "A" 31+22.50 Rt	EB	0.52	325.37	5.5
L-2	"A" 28+43.37 Lt TO "A" 31+22.50 Lt	WB	0.52	279.13	4.7
SUBTOTAL					17.9

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

PAVEMENT STRUCTURE QUANTITIES

SHEET No.	STATION	REMOVE ASPHALT CONCRETE PAVEMENT	HOT MIX ASPHALT (TYPE A)	CLASS 2 AGGREGATE BASE	TACK COAT
		SQFT	TON	CY	TON
L-1	"A" 21+30.00 TO "A" 24+24.50	5,636	363.6	1,002	0.67
L-2	"A" 26+59.00 TO "A" 31+22.50	9,175	578.2	1,519	1.06
L-1 TO L-2 SAFETY EDGE			17.9		
TOTAL		14,811	959.70	2,521	1.73

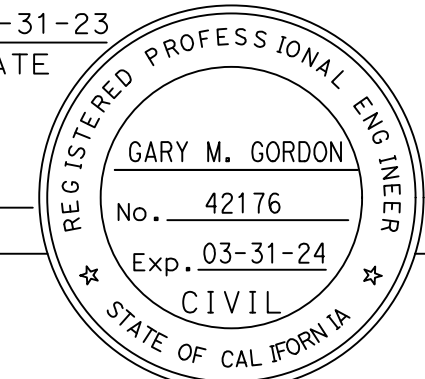
MIDWEST GUARDRAIL SYSTEM

SHEET No.	STATION	TRANSITION RAILING (TYPE WB-31)	END CAP (TYPE A)	ALTERNATIVE IN-LINE TERMINAL SYSTEM	MIDWEST GUARDRAIL SYSTEM (WOOD POST)	END ANCHOR ASSEMBLY (TYPE SFT)
		EA	EA	EA	LF	EA
L-1	"A" 23+41.30 Lt TO "A" 23+93.37 Lt			1		
L-1	"A" 23+41.30 Rt TO "A" 23+93.37 Rt			1		
L-1	"A" 23+93.87 Lt TO "A" 24+18.37 Lt	1				
L-1	"A" 23+93.87 Rt TO "A" 24+18.37 Rt	1				
L-2	"A" 26+72.13 Lt TO "A" 26+97.13 Lt	1				
L-2	"A" 26+72.13 Rt TO "A" 26+97.13 Rt	1				
L-2	"A" 26+97.13 Lt TO "A" 27+49.20 Lt			1		
L-2	"A" 26+97.13 Rt TO "A" 27+90.88 Rt				93.75	
L-2	"A" 27+90.88 Rt TO "A" 27+97.13 Rt					1
L-2	"A" 27+97.13 Rt		1			
TOTAL		4	1	3	93.75	1

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			1	
WPC-1	"A" 21+30.00 Lt TO "A" 24+36.22 Lt	632		1,553
WPC-1	"A" 21+30.00 Rt TO "A" 24+36.22 Rt	628		977
WPC-2	"A" 26+52.81 Lt TO "A" 28+01.51 Lt	326		827
WPC-2	"A" 28+25.63 Lt TO "A" 31+22.50 Lt	631		3,172
WPC-2	"A" 26+52.81 Rt TO "A" 31+22.50 Rt	843		1,440
TOTAL		3,060	1	7,969

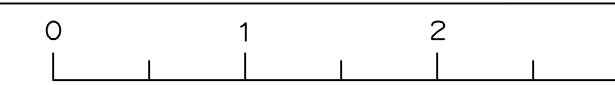
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Glenn	CR 67	N/A	16	38


 05-31-23
 REGISTERED CIVIL ENGINEER DATE
 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

SUMMARY OF QUANTITIES



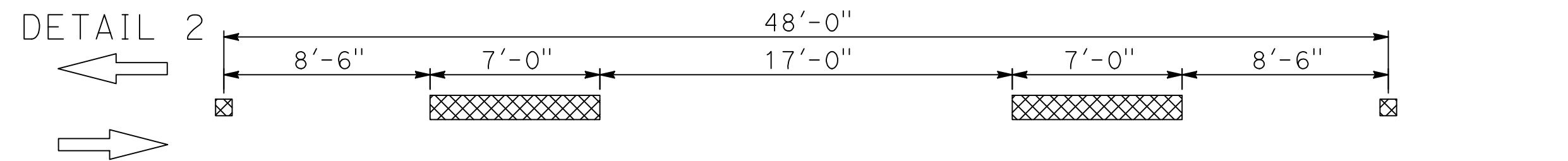
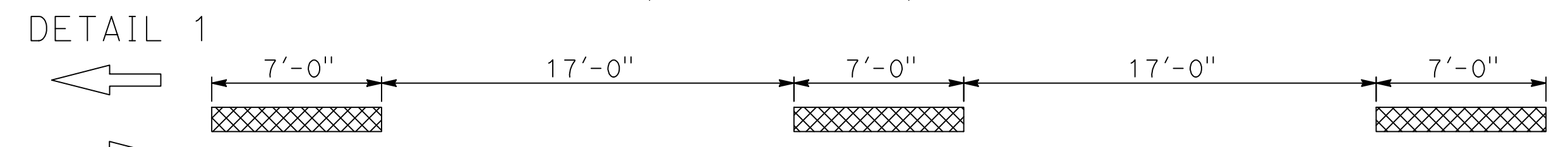
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	17	38

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

May 31, 2023
PLANS APPROVAL DATE

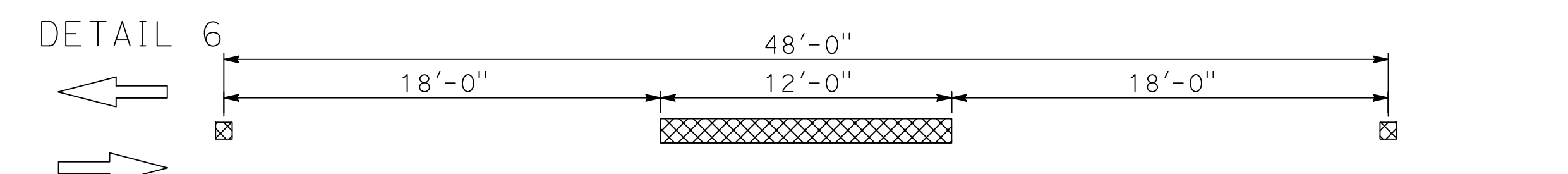
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CENTERLINES
(2 LANE HIGHWAYS)



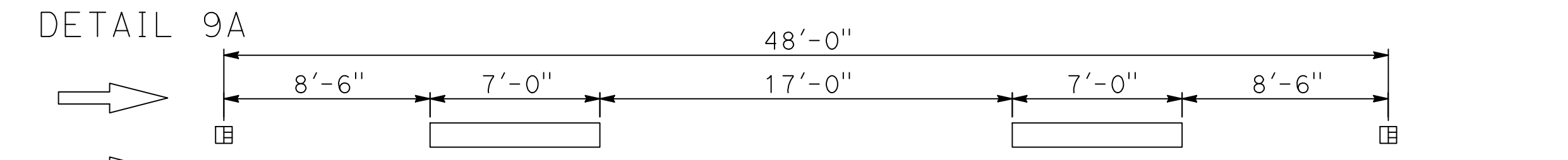
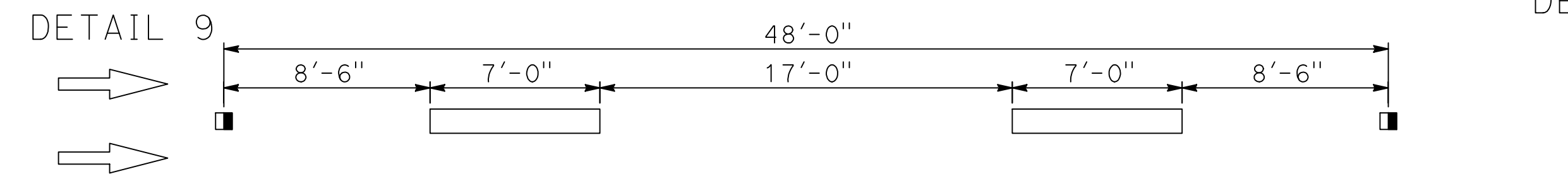
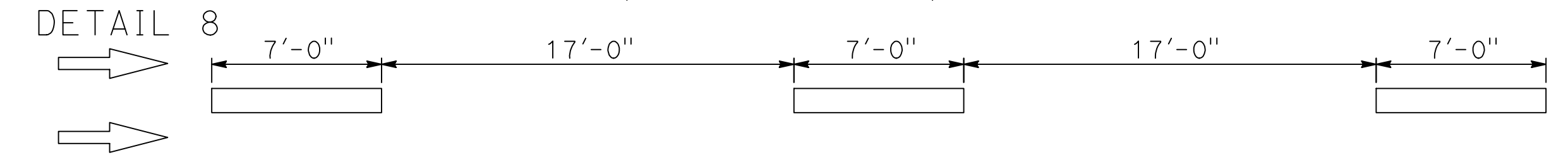
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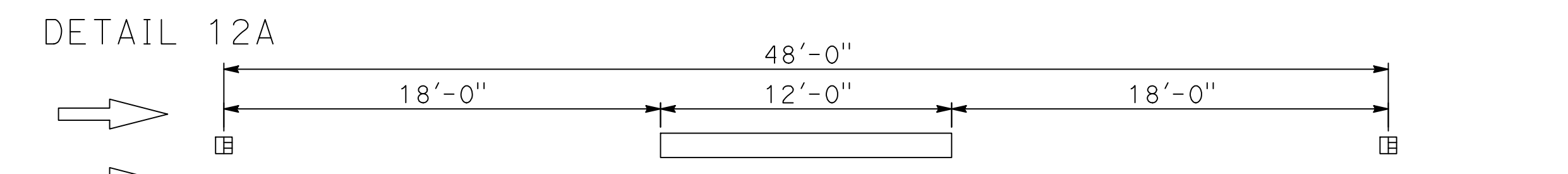
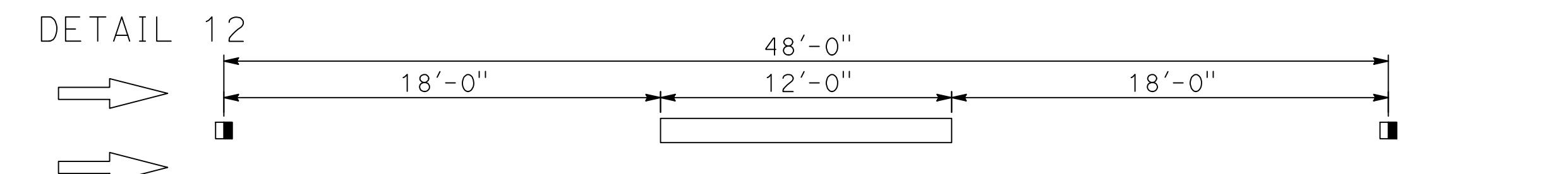


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LANE LINES
(MULTILANE HIGHWAYS)



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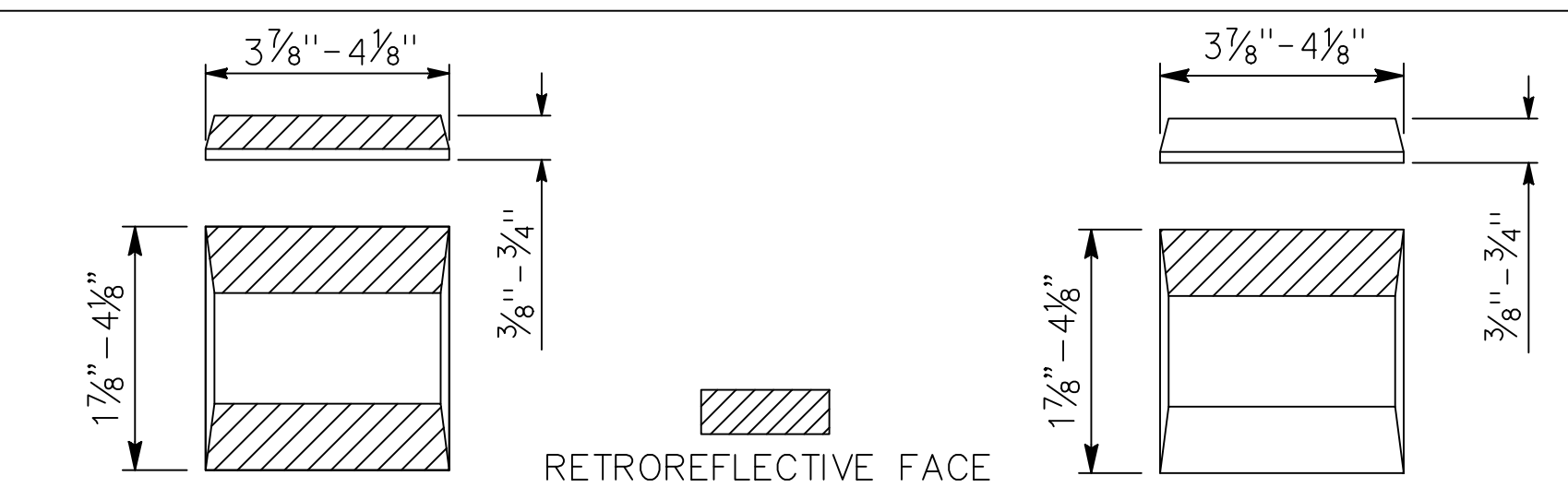
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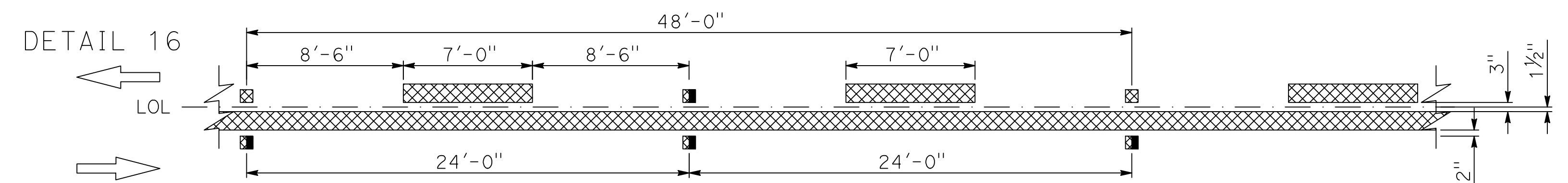
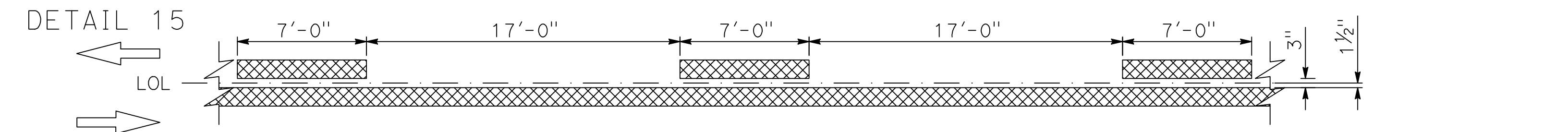
LINES

	4" WHITE
	4" YELLOW

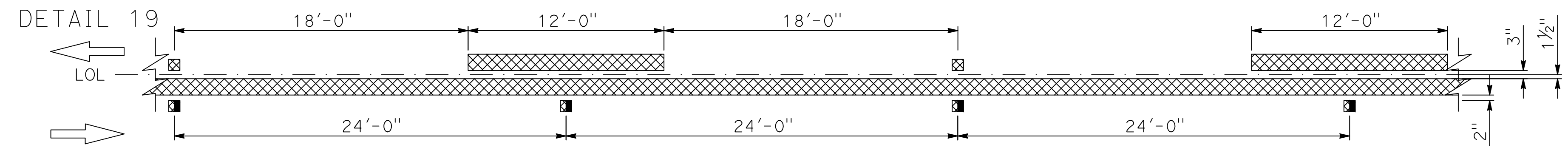
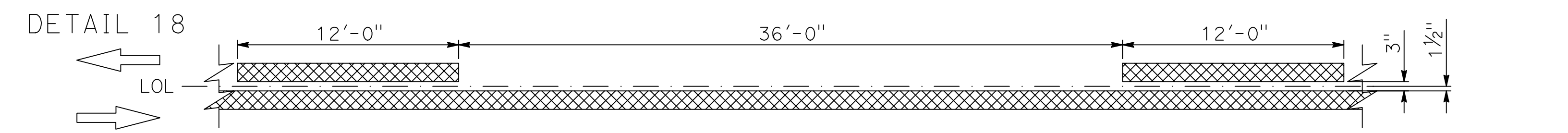


TYPE C AND TYPE D TYPE G AND TYPE H
MARKER DETAILS

NO PASSING ZONES-ONE DIRECTION

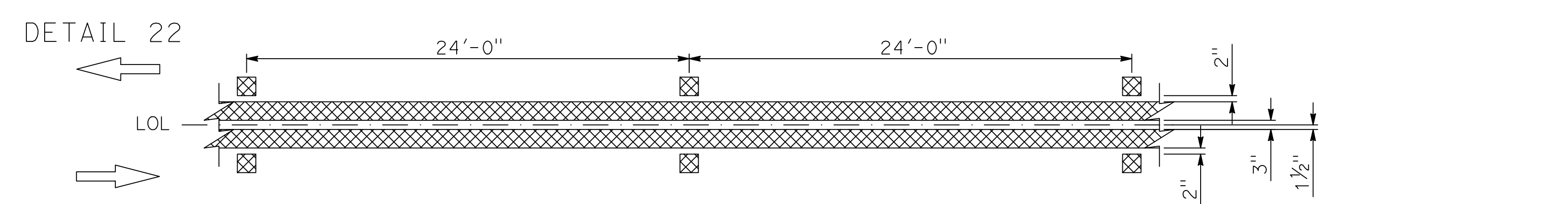
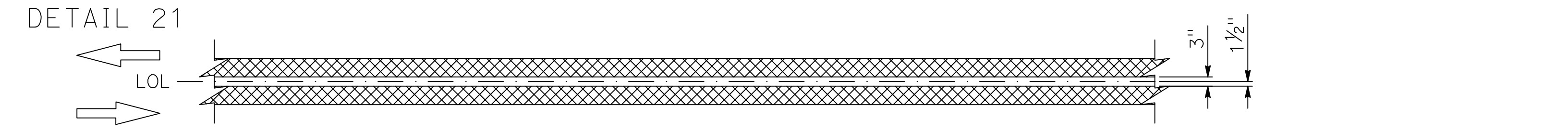


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NO PASSING ZONES-TWO DIRECTION



~~DETAIL 23~~ DETAIL 23 DELETED

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

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

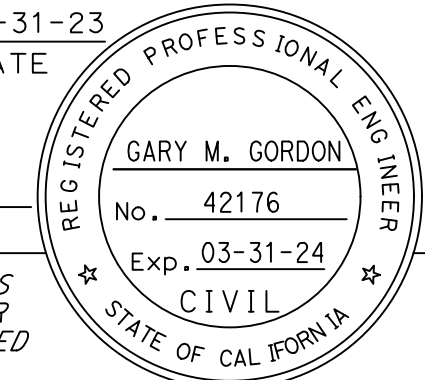
USERNAME = KEVIN
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2022 REVISED STANDARD PLAN RSP A20A

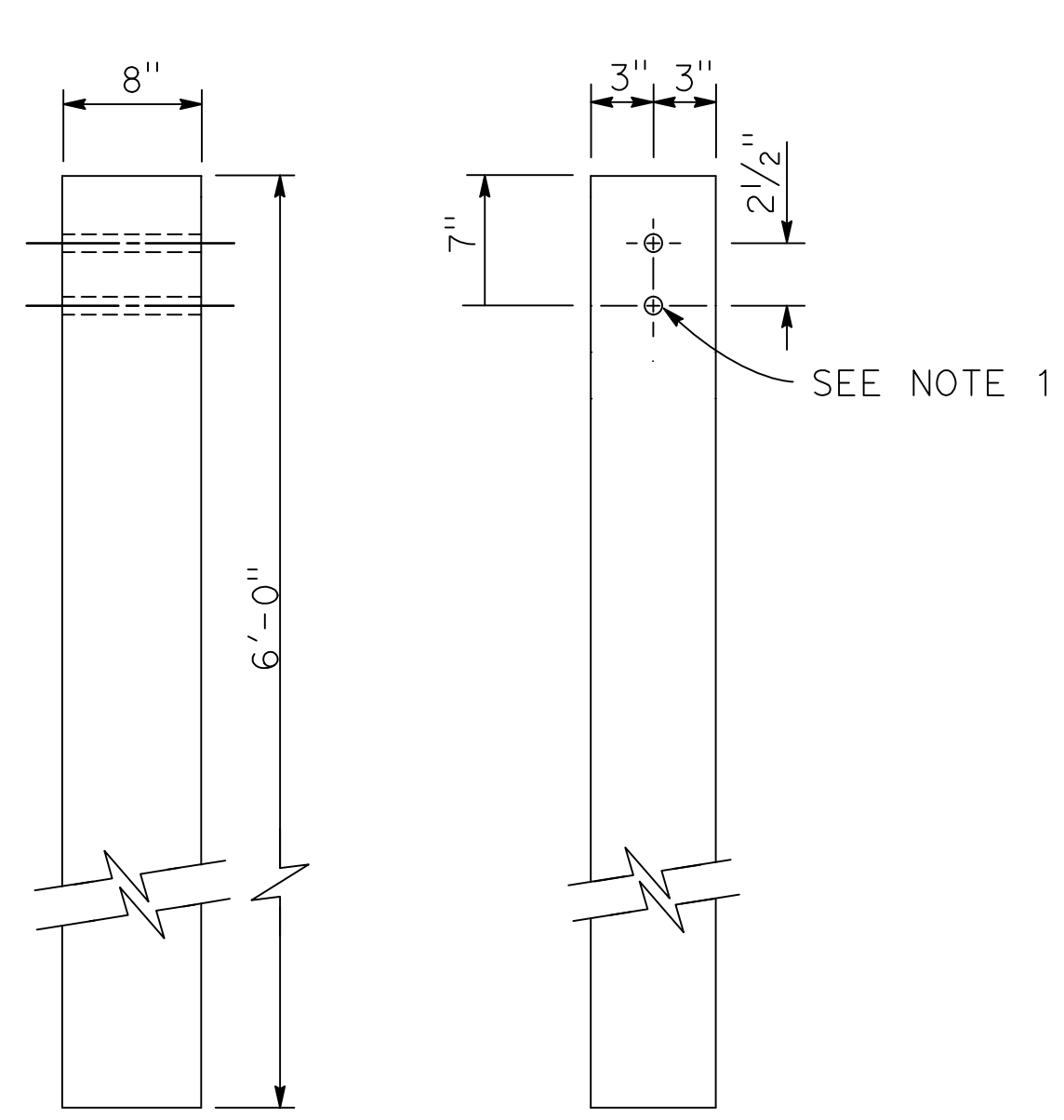
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TIME PLOTTED = 8:10:23 AM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	18	38

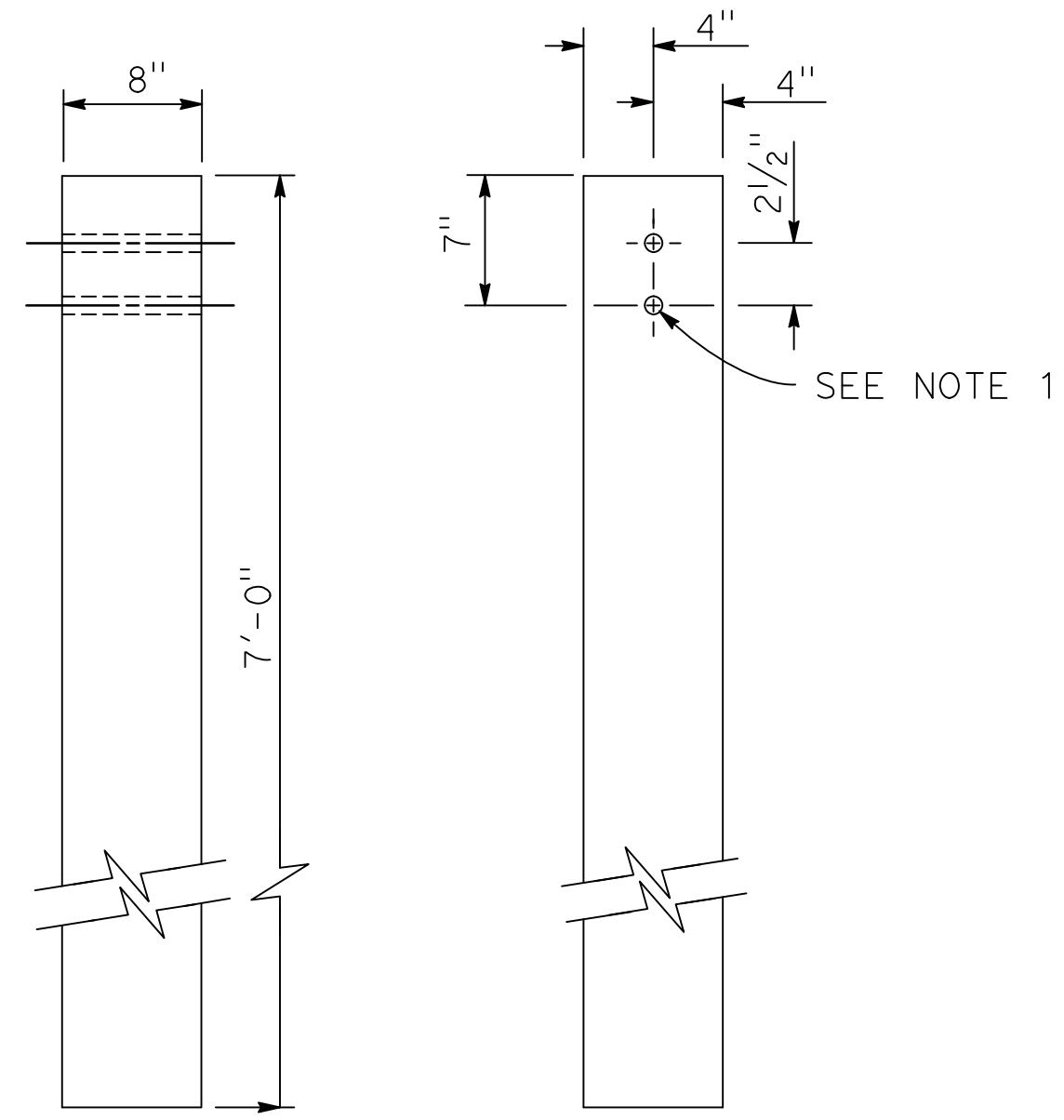
<i>Gary M. Gordon</i> REGISTERED CIVIL ENGINEER	05-31-23 DATE
May 31, 2023 PLANS APPROVAL DATE	
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.	



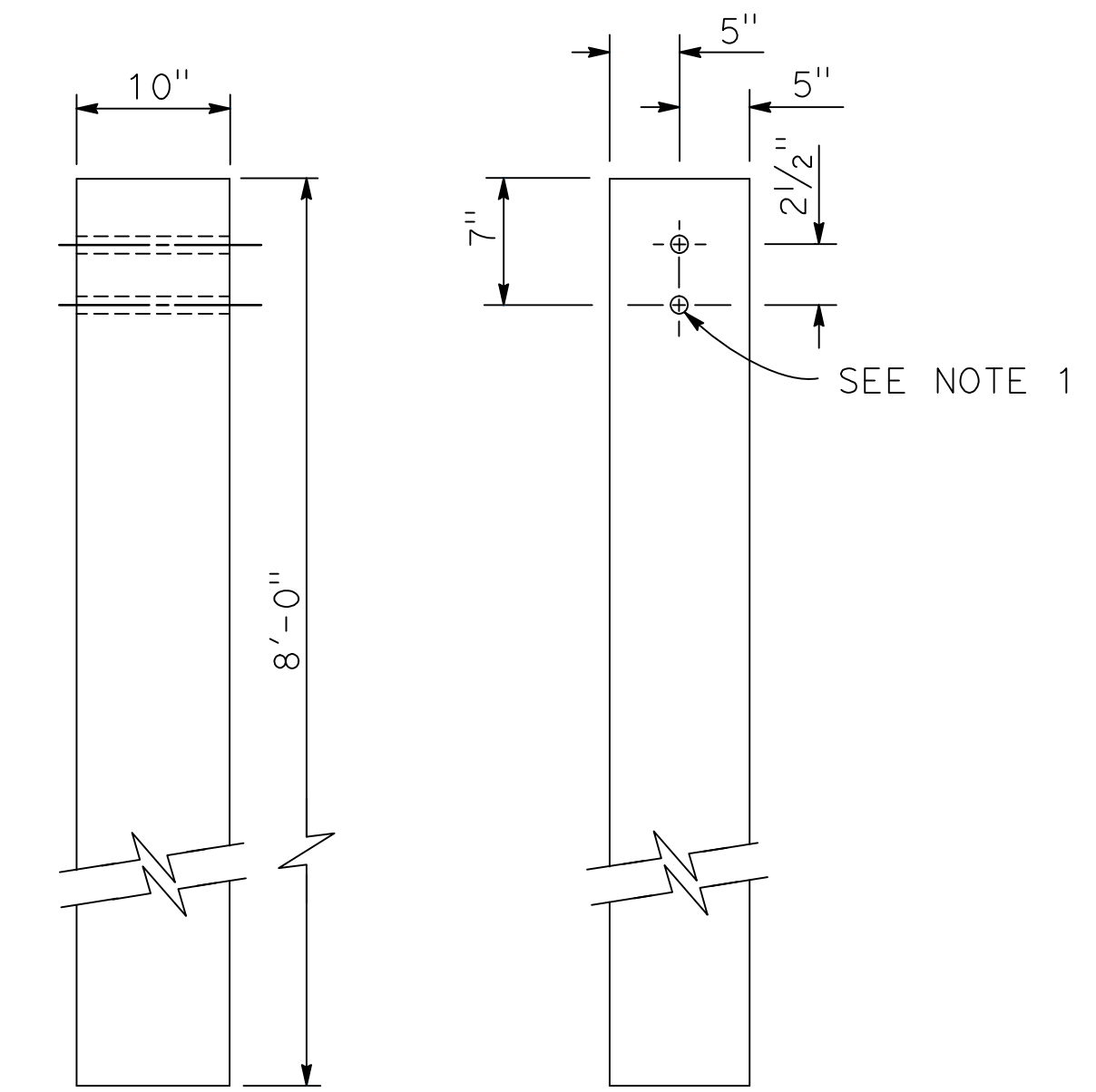
TO ACCOMPANY PLANS DATED 05-31-23



SIDE FRONT
6" x 8" WOOD POST
See Note 3



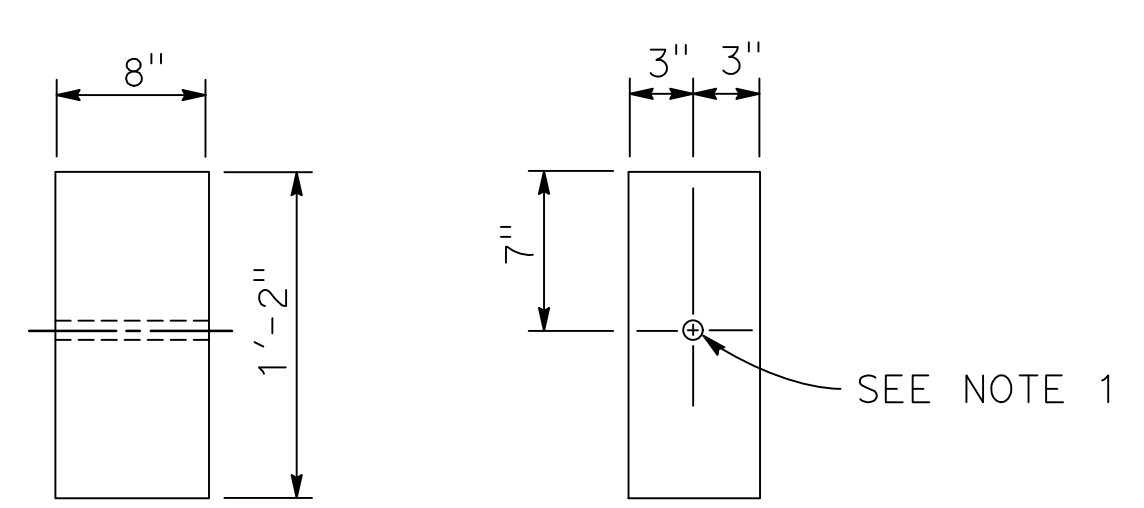
SIDE FRONT
8" x 8" WOOD POST
See Note 4



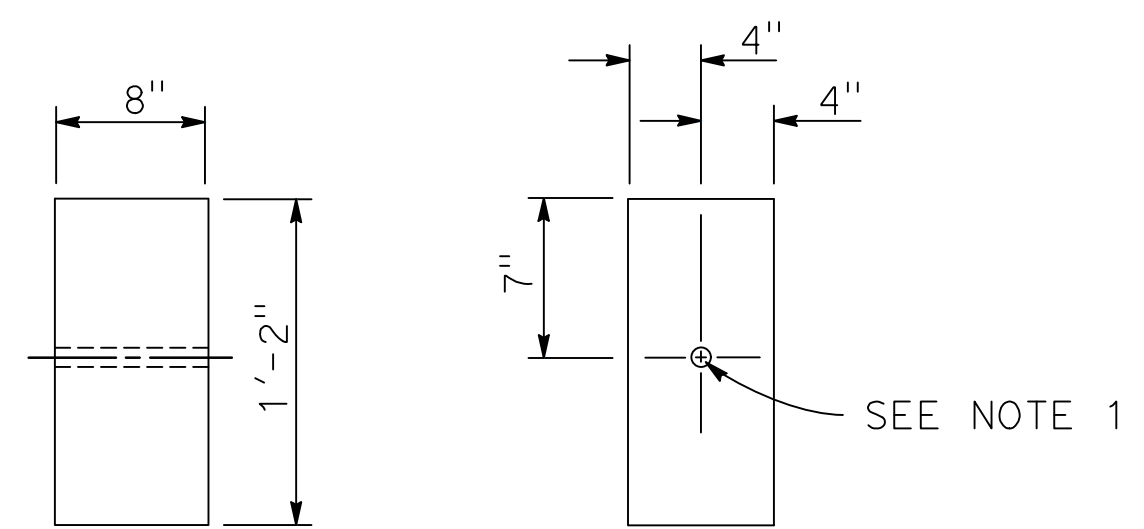
SIDE FRONT
10" x 10" WOOD POST
See Note 5

NOTES:

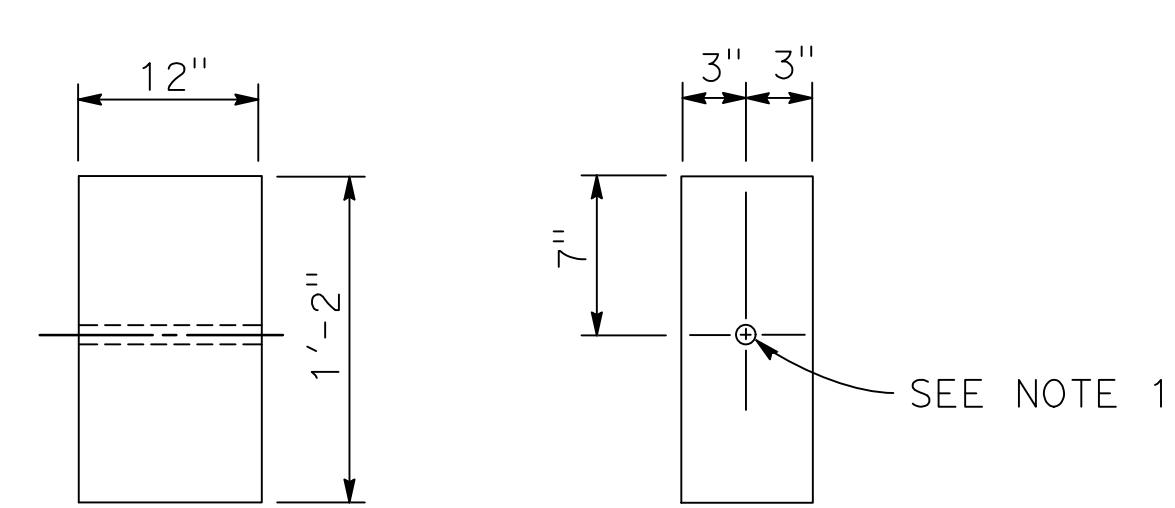
1. All holes in wood posts and blocks shall be 3/4" Dia ± 1/16".
2. Dimensions shown for wood post are nominal.
3. This post and block combination used for standard line post sections of MGS.
4. This post and 8" x 12" block combination used for line post sections of MGS on narrow roadways.
5. This post 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.



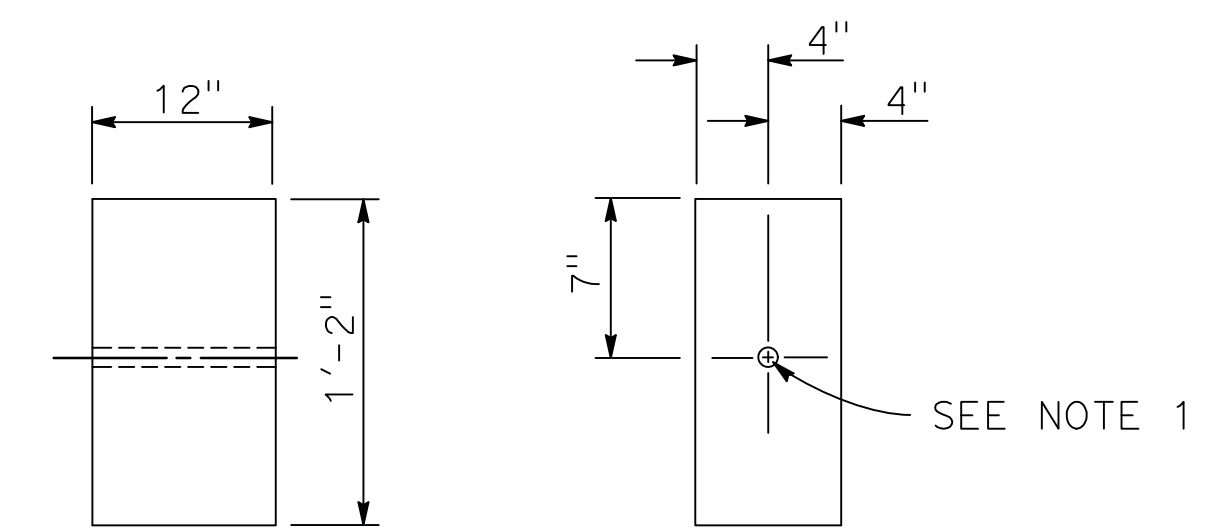
SIDE FRONT
6" x 8" WOOD BLOCK
See Note 6 and Note 3



SIDE FRONT
8" x 8" WOOD BLOCK
See Note 6 and Note 4



SIDE FRONT
6" x 12" WOOD BLOCK
See Note 8



SIDE FRONT
8" x 12" WOOD BLOCK
See Note 7

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

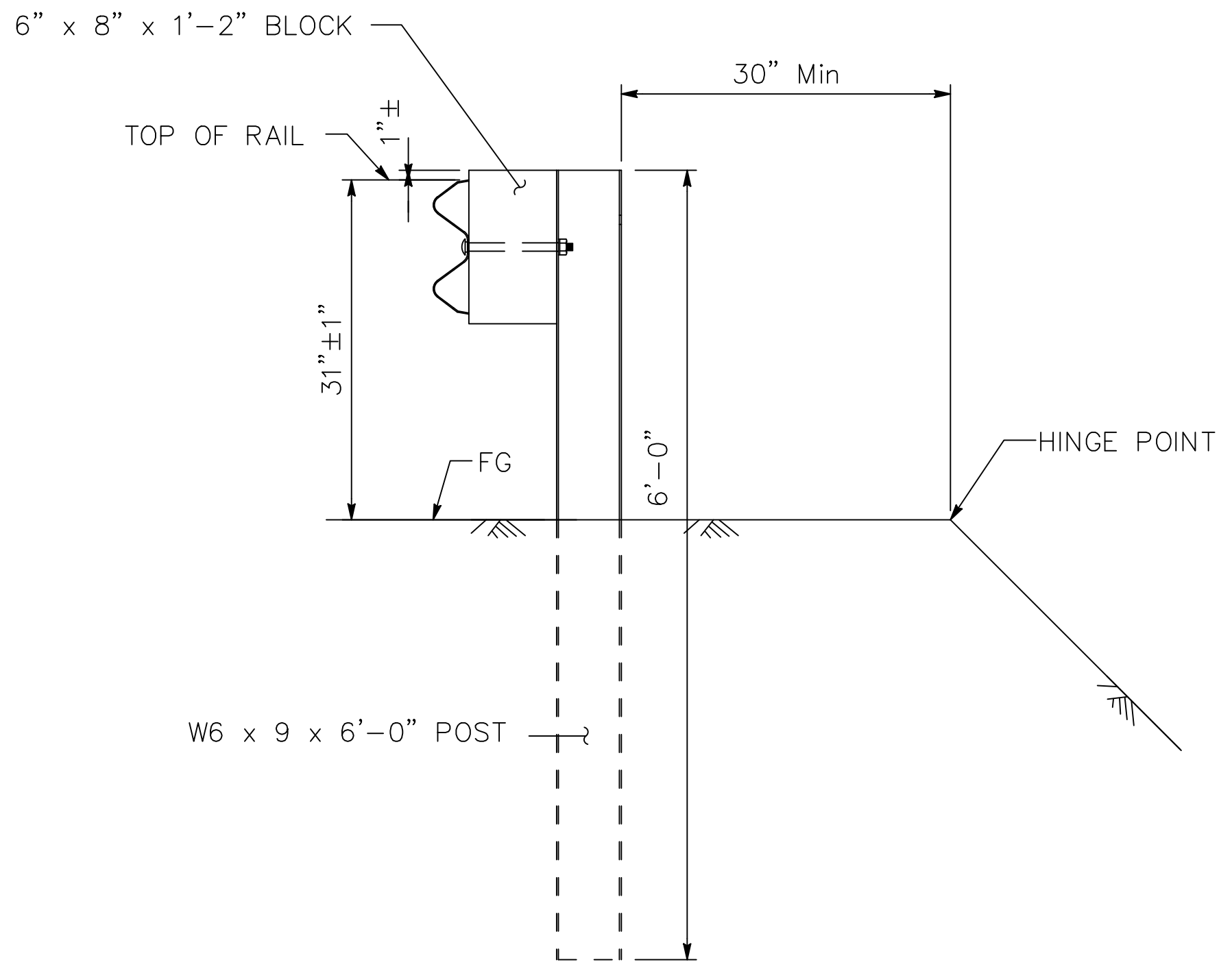
DATE PLOTTED = 5/31/23
TIME PLOTTED = 10:29:11 AM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	19	38

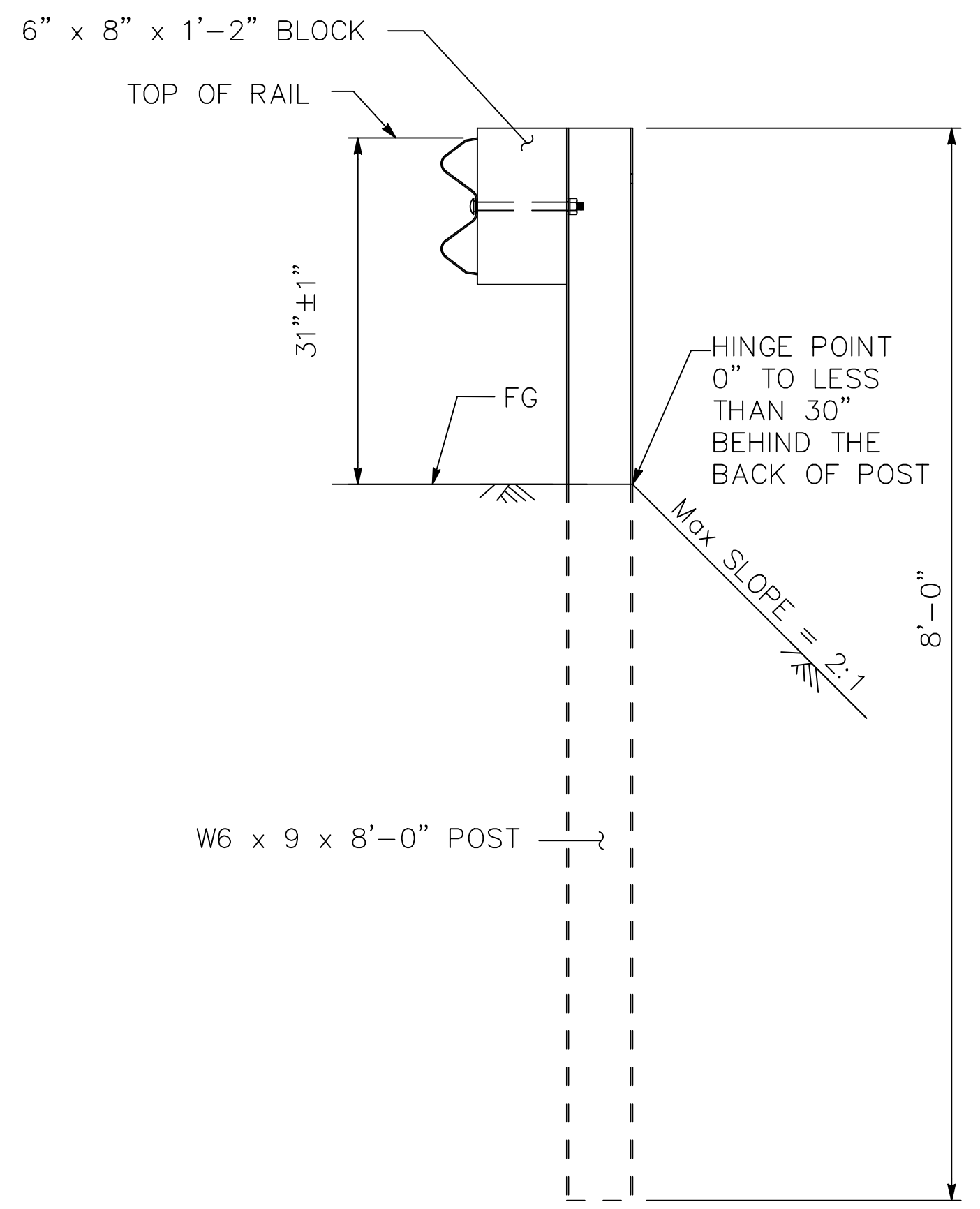
<i>Gary M. Gordon</i>	05-31-23
REGISTERED CIVIL ENGINEER	DATE
May 31, 2023	
PLANS APPROVAL DATE	

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

TO ACCOMPANY PLANS DATED 05-31-23

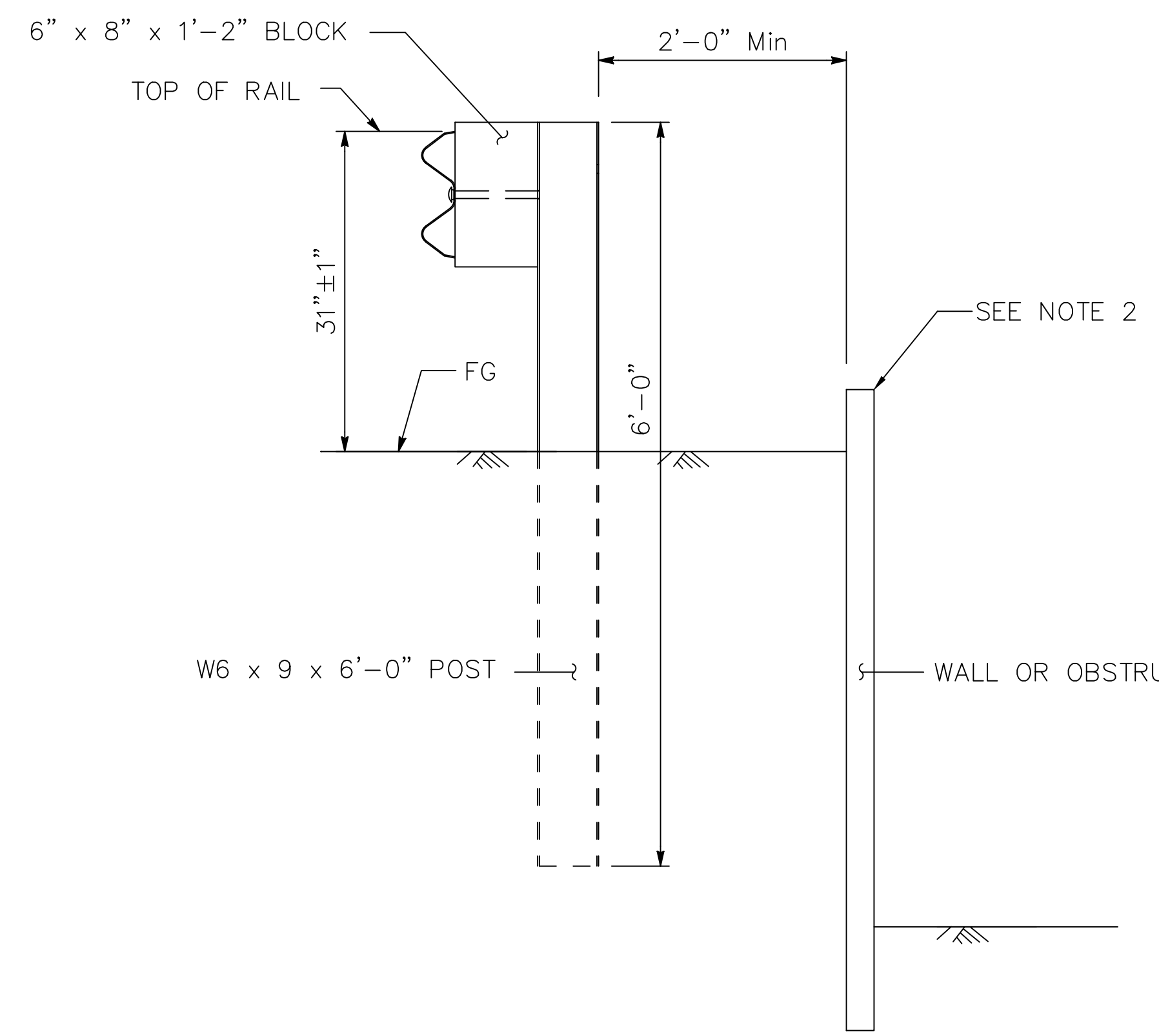


DETAIL A
TYPICAL ROADWAY INSTALLATION
See Note 1

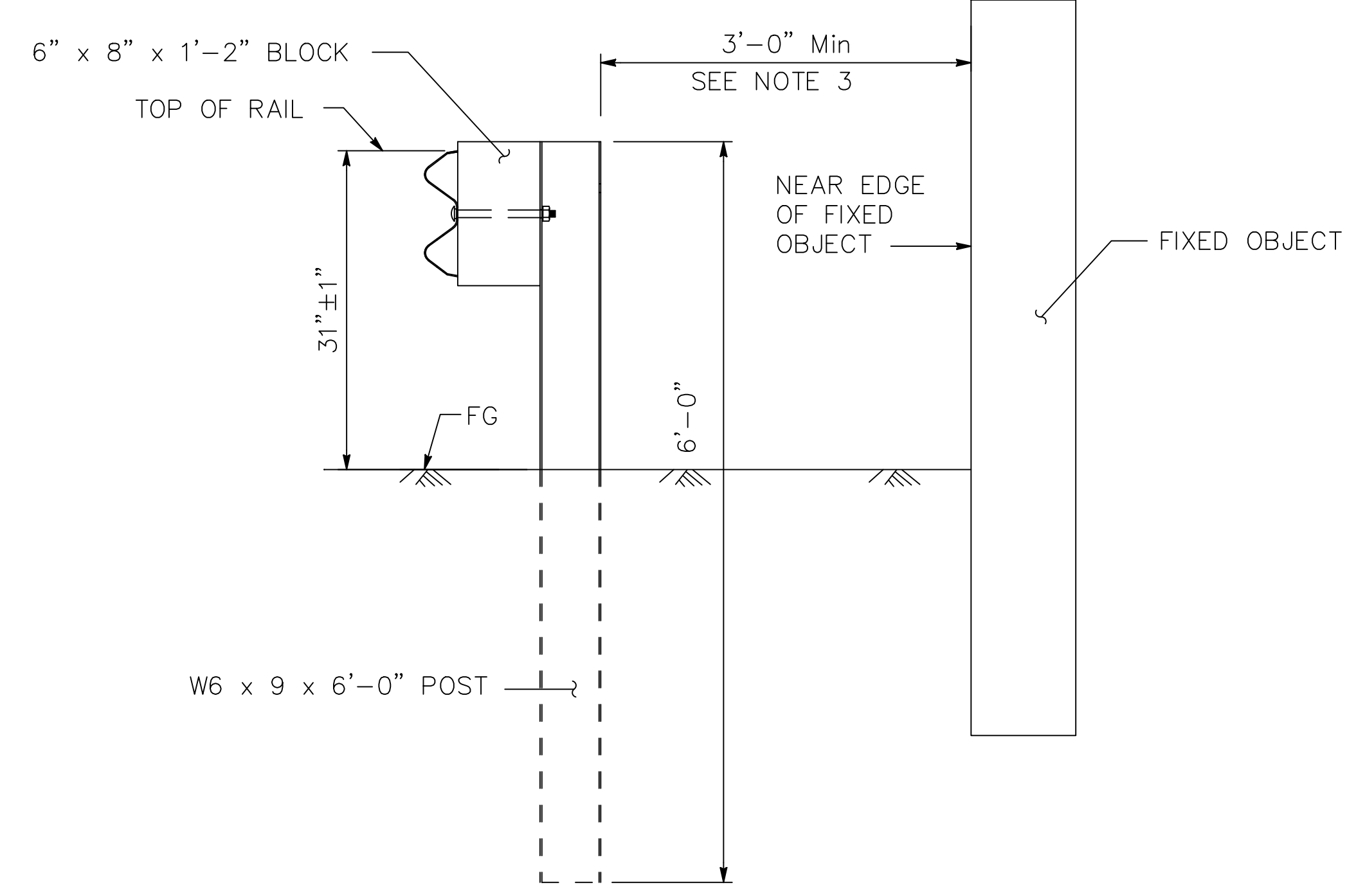


DETAIL B
NARROW ROADWAY INSTALLATION
See Note 1

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

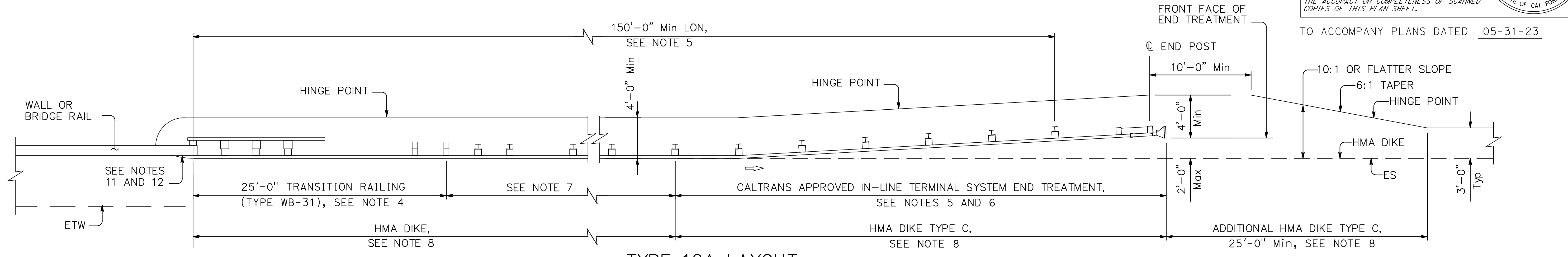
DATE PLOTTED = 5/31/23
TIME PLOTTED = 10:30:58 AM

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	20	38

<i>Gary M. Gordon</i> REGISTERED CIVIL ENGINEER	05-31-23 DATE
May 31, 2023 PLANS APPROVAL DATE	

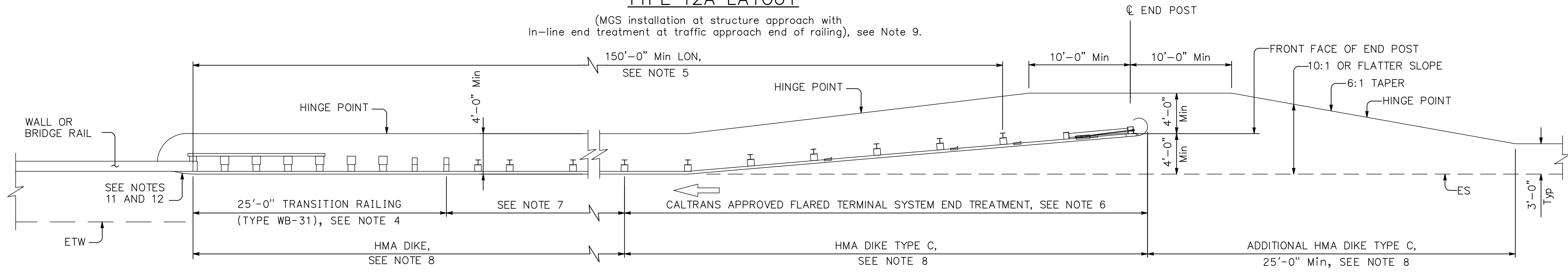
GARY M. GORDON No. 42176 Exp. 03-31-24 CIVIL

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.



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

DATE PLOTTED = 5/31/23
TIME PLOTTED = 10:34:24 AM

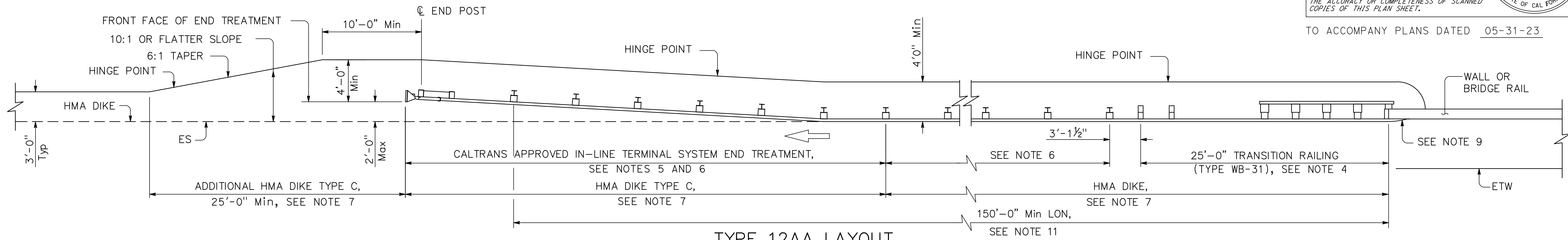
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	Gle	CR 67	N/A	21	38

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

May 31, 2023
 PLANS APPROVAL DATE

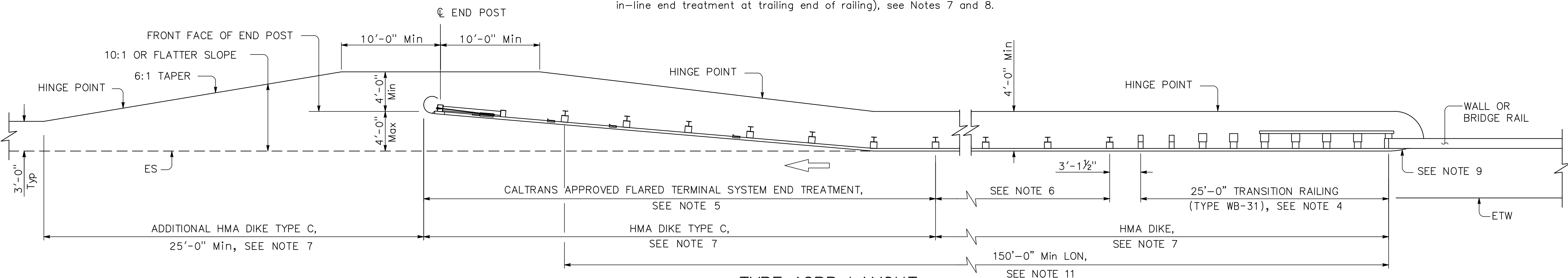
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TO ACCOMPANY PLANS DATED 05-31-23



TYPE 12AA LAYOUT

(MGS installation at structure departure with in-line end treatment at trailing end of railing), see Notes 7 and 8.



TYPE 12BB LAYOUT

(MGS installation at structure departure with Flared end treatment at trailing end of railing), see Notes 7 and 8.

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 = 10:36:09 AM

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

LEGEND

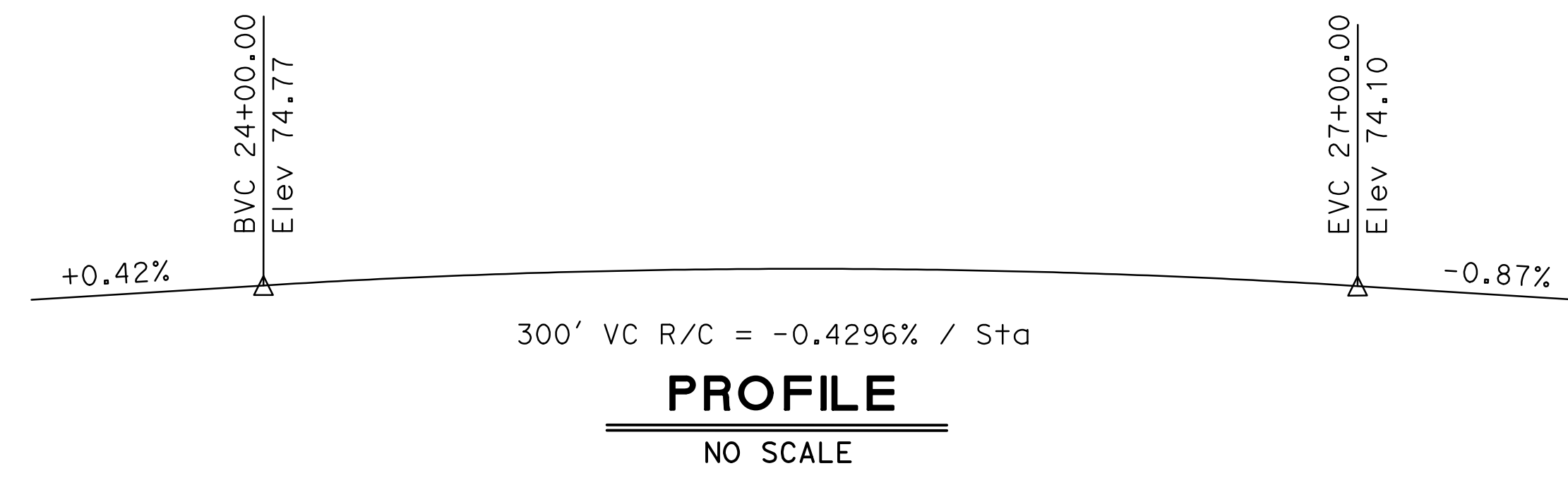
- Denotes Existing Structure
- Denotes Proposed Structure
- STANDARD PLAN SHEET No.
- DETAIL No.
- SECTION IDENTIFICATION

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	22	38

REGISTERED CIVIL ENGINEER DATE 05-31-23

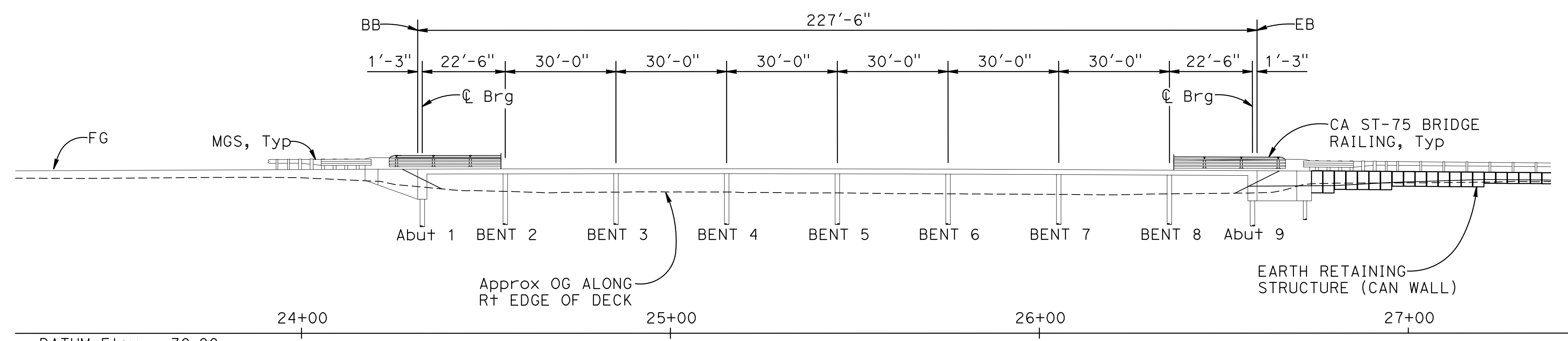
May 31, 2023
 PLANS APPROVAL DATE

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



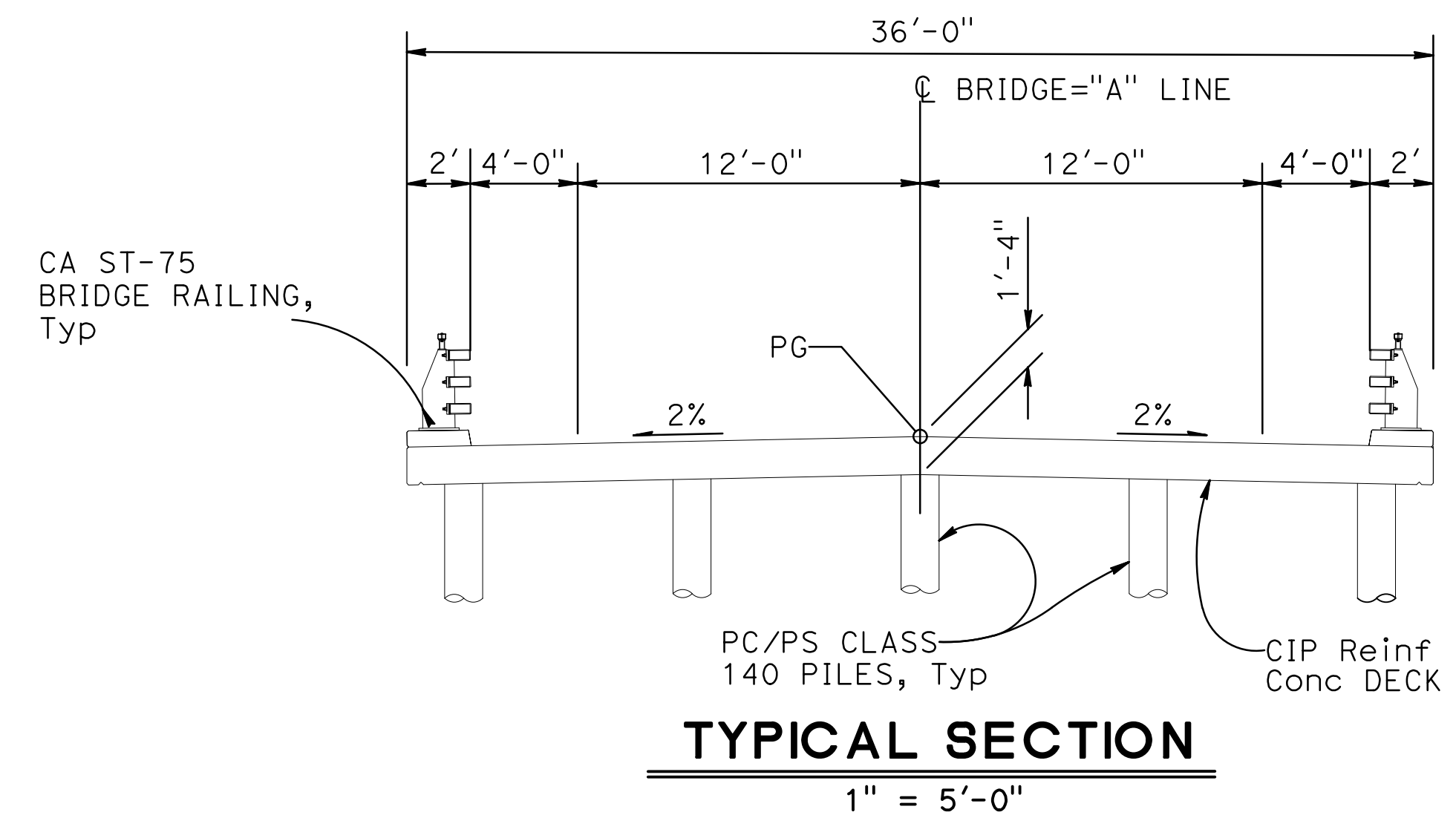
PROFILE

NO SCALE



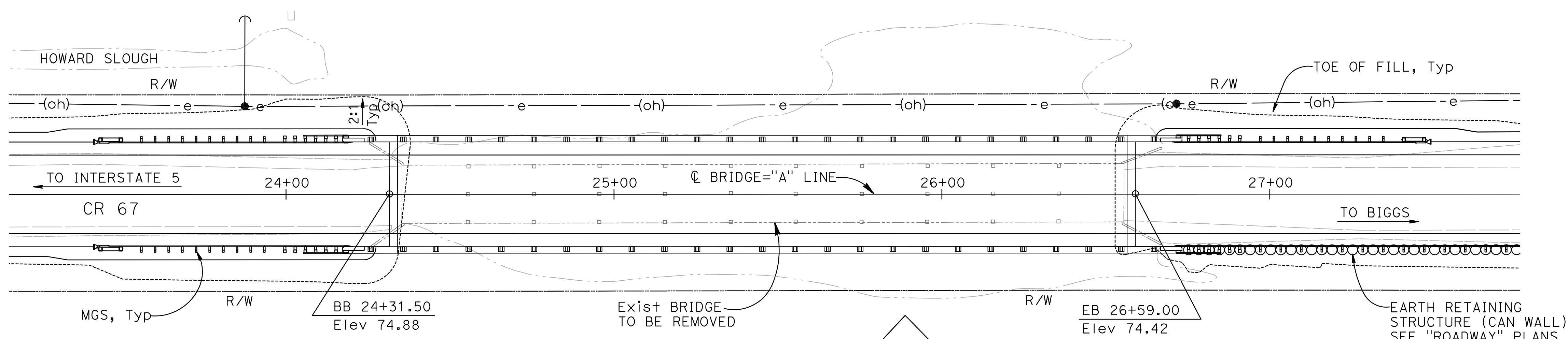
ELEVATION

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	ABUTMENT DETAILS NO. 1
6	BENT LAYOUT
7	SLAB REINFORCEMENT DETAILS No. 1
8	SLAB REINFORCEMENT DETAILS No. 2
9	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 1
10	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 2
11	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 3
12	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 4
13	CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 5
14	SOIL LEGEND 1 OF 2
15	SOIL LEGEND 2 OF 2
16	LOG OF TEST BORINGS 1 OF 2
17	LOG OF TEST BORINGS 2 OF 2

DESIGN	BY J. DeMARTINI	CHECKED M. ILEY	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	PREPARED FOR COUNTY OF GLENN PUBLIC WORKS AGENCY	BRIDGE NO.	11C0016	BRANCH HOWARD SLOUGH BRIDGE (REPLACE) GENERAL PLAN	
DETAILS	BY R. UHLMANN	CHECKED J. DeMARTINI	LAYOUT	BY R. UHLMANN		CHECKED G. GORDON	POST MILES		NA
QUANTITIES	BY J. DeMARTINI	CHECKED R. UHLMANN	SPECIFICATIONS	BY X		PLANS AND SPECS COMPARED X			

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



FILE => 11-0016-a-gp01

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES 11/10/14 07/28/17 05/31/23	SHEET	OF
		1	17

DATE PLOTTED => 5/31/2023 USERNAME => KEVIN TIME PLOTTED => 12:31:00 PM

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	23	38

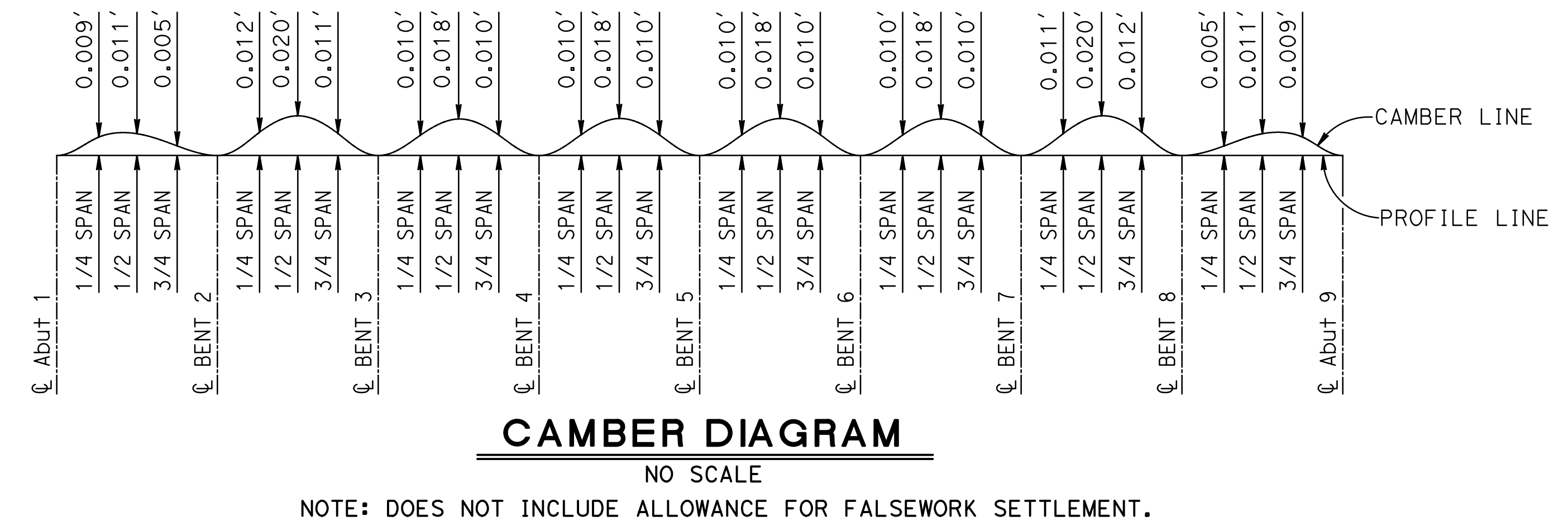
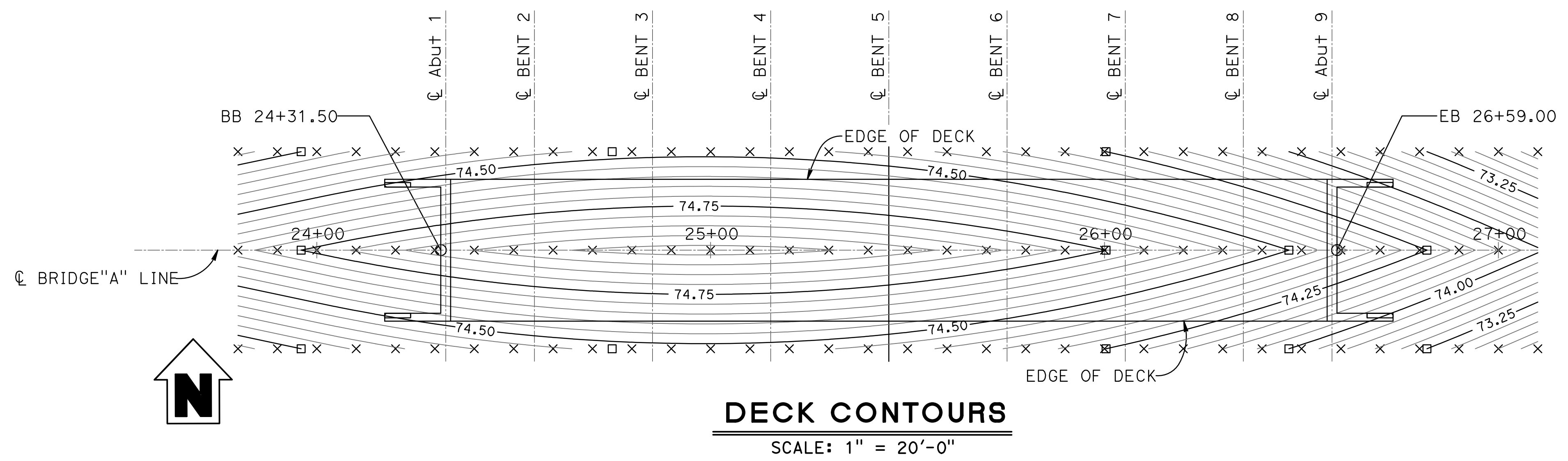
REGISTERED CIVIL ENGINEER
 GARY M. GORDON
 No. 42176
 Exp. 03-31-24
 CIVIL
 STATE OF CALIFORNIA

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.



**GENERAL NOTES
 LOAD AND RESISTANCE FACTOR DESIGN**

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

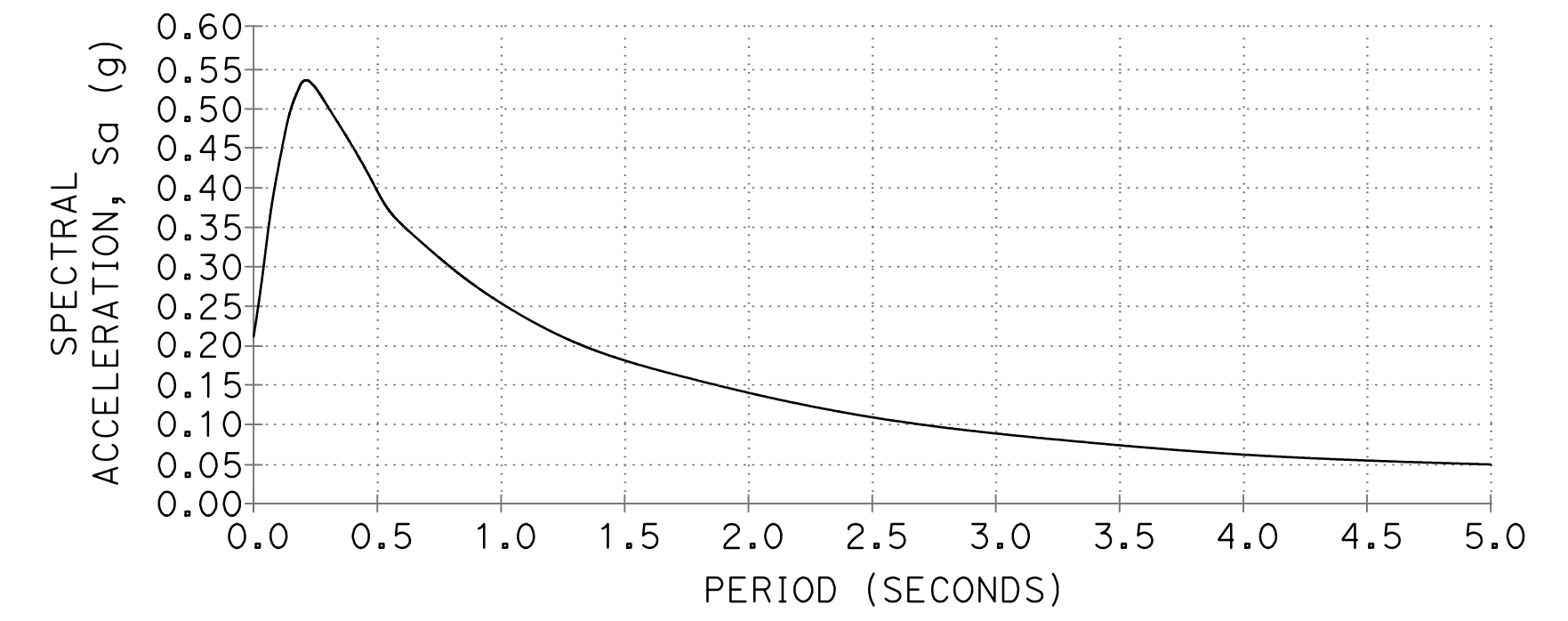
SEISMIC DESIGN: Caltrans Seismic Design Criteria (SDC), Version 1.7 dated April 2013.

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

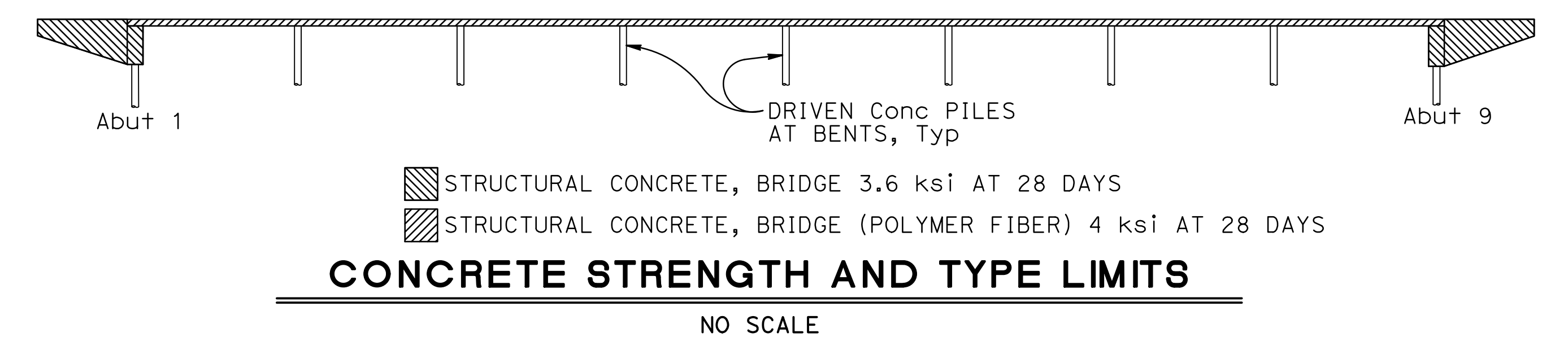
REINFORCED CONCRETE: $f_y = 60$ ksi
 $f'_c = 4.0$ ksi (Superstructure)
 $f'_c = 3.6$ ksi (Substructure)



ACCELERATION RESPONSE SPECTRUM CURVE

APPROXIMATE QUANTITIES

ITEM CODE	ITEM DESCRIPTION	QUANTITY	UNIT
157550	BRIDGE REMOVAL	1	LS
192020	STRUCTURE EXCAVATION (TYPE D)	59	CY
193003	STRUCTURE BACKFILL (BRIDGE)	56	CY
490736	FURNISH PILING (CLASS 90)	266	LF
490737	DRIVE PILE (CLASS 90)	10	EA
490746	FURNISH PILING (CLASS 140)	1,380	LF
490747	DRIVE PILE (CLASS 140)	35	EA
510053	STRUCTURAL CONCRETE, BRIDGE	67	CY
510054	STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	404	CY
520102	BAR REINFORCING STEEL (BRIDGE)	104,000	Lbs
048290	CALIFORNIA ST-75 BRIDGE RAILING	512.5	LF



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. 11C0016
 POST MILES NA
BRANCH HOWARD SLOUGH BRIDGE (REPLACE)
DECK CONTOURS

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



REVISION DATES	SHEET	OF
11/10/14 07/28/17 05/31/23	2	17

DATE PLOTTED => 5/31/2023 USERNAME => KEVIN TIME PLOTTED => 3:32:24 PM

HYDROLOGIC SUMMARY

DRAINAGE AREA 22.2 SQ MI

	DESIGN FLOOD	BASE FLOOD	OVERTOPPING FLOOD	RECORD FLOOD
FREQUENCY, YEARS	50	100	X	X
DISCHARGE CUBIC ft/sec.		1,594	X	X
WATER SURFACE ELEVATION AT BRIDGE		72.75	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
- DENOTES CLASS 140 PILES
- 66.36 DENOTES BOTTOM OF FOOTING ELEVATION

NOTES

- Utility relocation not shown. Utilities in conflict with piles will be relocated for bridge construction.
- For pile number locations, see "ABUTMENT LAYOUT" and "BENT LAYOUT" sheets.

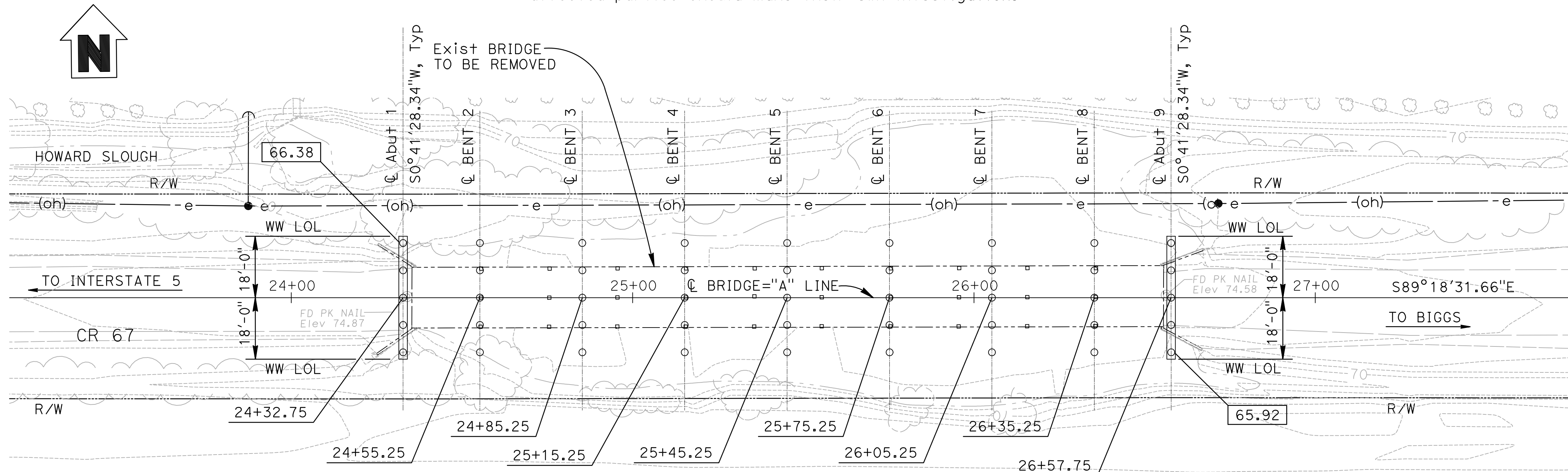
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	24	38

05-31-23
DATE

May 31, 2023
PLANS APPROVAL DATE



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



PLAN
1" = 20'-0"

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	40.00 (1)	40.00	66.63	66.63	66.63	66.63	66.63
BENT 2	CLASS 140	140 kips	280 kips	140	34.00 (1)	34.00	73.40	73.54	73.68	73.54	73.40
BENT 3	CLASS 140	140 kips	280 kips	140	34.00 (1)	34.00	73.44	73.58	73.72	73.58	73.44
BENT 4	CLASS 140	140 kips	280 kips	140	34.00 (1)	34.00	73.44	73.58	73.72	73.58	73.44
BENT 5	CLASS 140	140 kips	280 kips	140	34.00 (1)	34.00	73.40	73.54	73.68	73.54	73.40
BENT 6	CLASS 140	140 kips	280 kips	140	34.00 (1)	34.00	73.32	73.46	73.60	73.46	73.32
BENT 7	CLASS 140	140 kips	280 kips	140	34.00 (1)	34.00	73.20	73.34	73.48	73.34	73.20
BENT 8	CLASS 140	140 kips	280 kips	140	34.00 (1)	34.00	73.04	73.18	73.32	73.18	73.04
Abut 9	CLASS 90	90 kips	180 kips	90	40.00 (1)	40.00	66.17	66.17	66.17	66.17	66.17

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

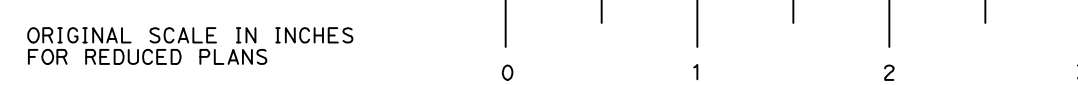
SCALE: 1"=30'	VERT. DATUM NAVD88	HORZ. DATUM NAD83
PHOTOGRAMMETRY AS OF: 06/12	ALIGNMENT TIES X	
SURVEYED BY S. ESPINOSA	DRAFTED BY J. JONES	
FIELD CHECKED BY B. STRATMAN	CHECKED BY P. ESPINOSA	

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	BRIDGE NO.
PROJECT ENGINEER	11C0016
	POST MILES
	NA

BRANCH HOWARD SLOUGH BRIDGE (REPLACE)
FOUNDATION PLAN



DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	11/10/14 07/28/17 05/31/23	3	17

FILE => 11-0016-e-fp101

DATE PLOTTED => 5/31/2023 3:56:08 PM USERNAME => KEVIN

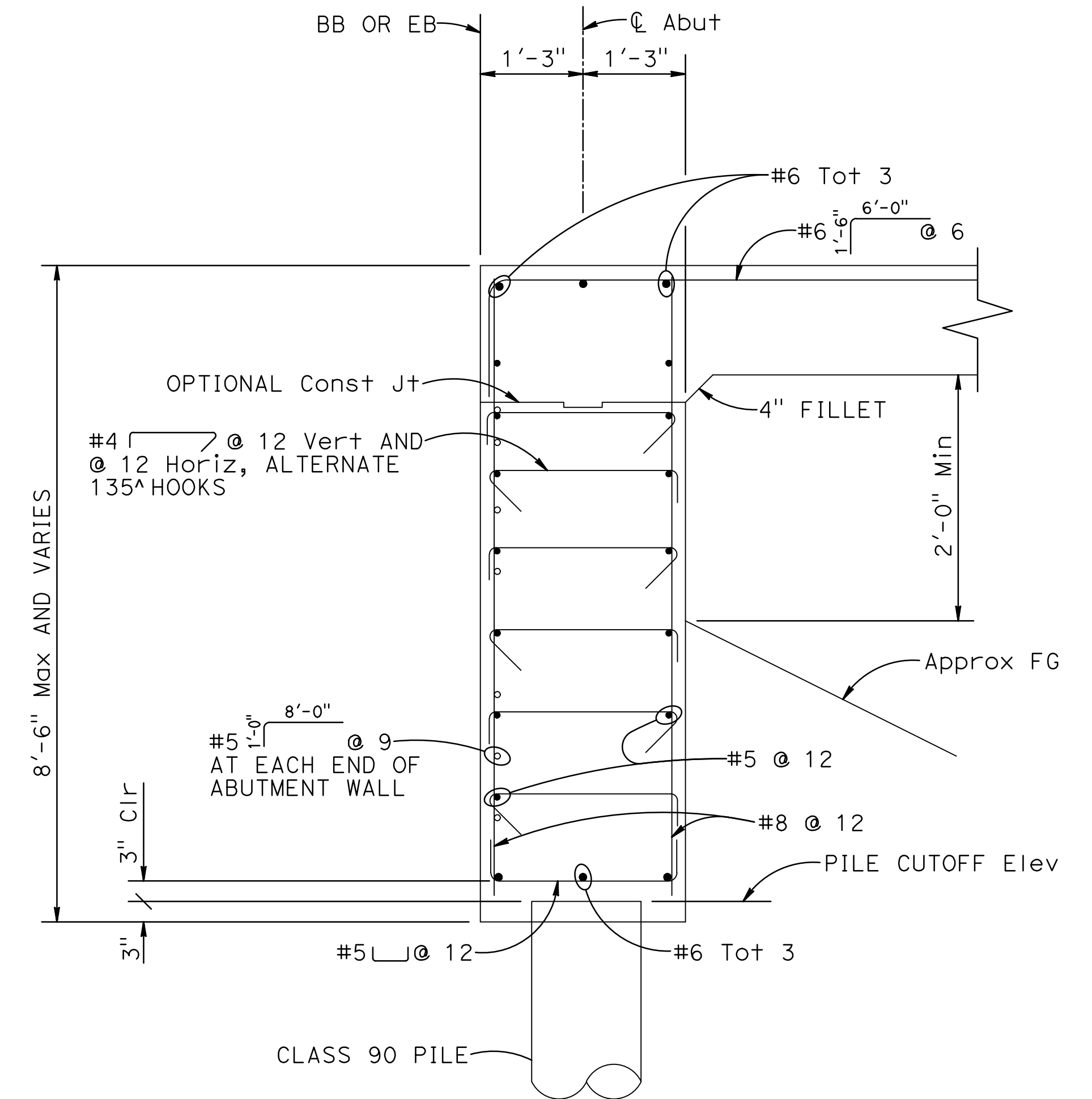
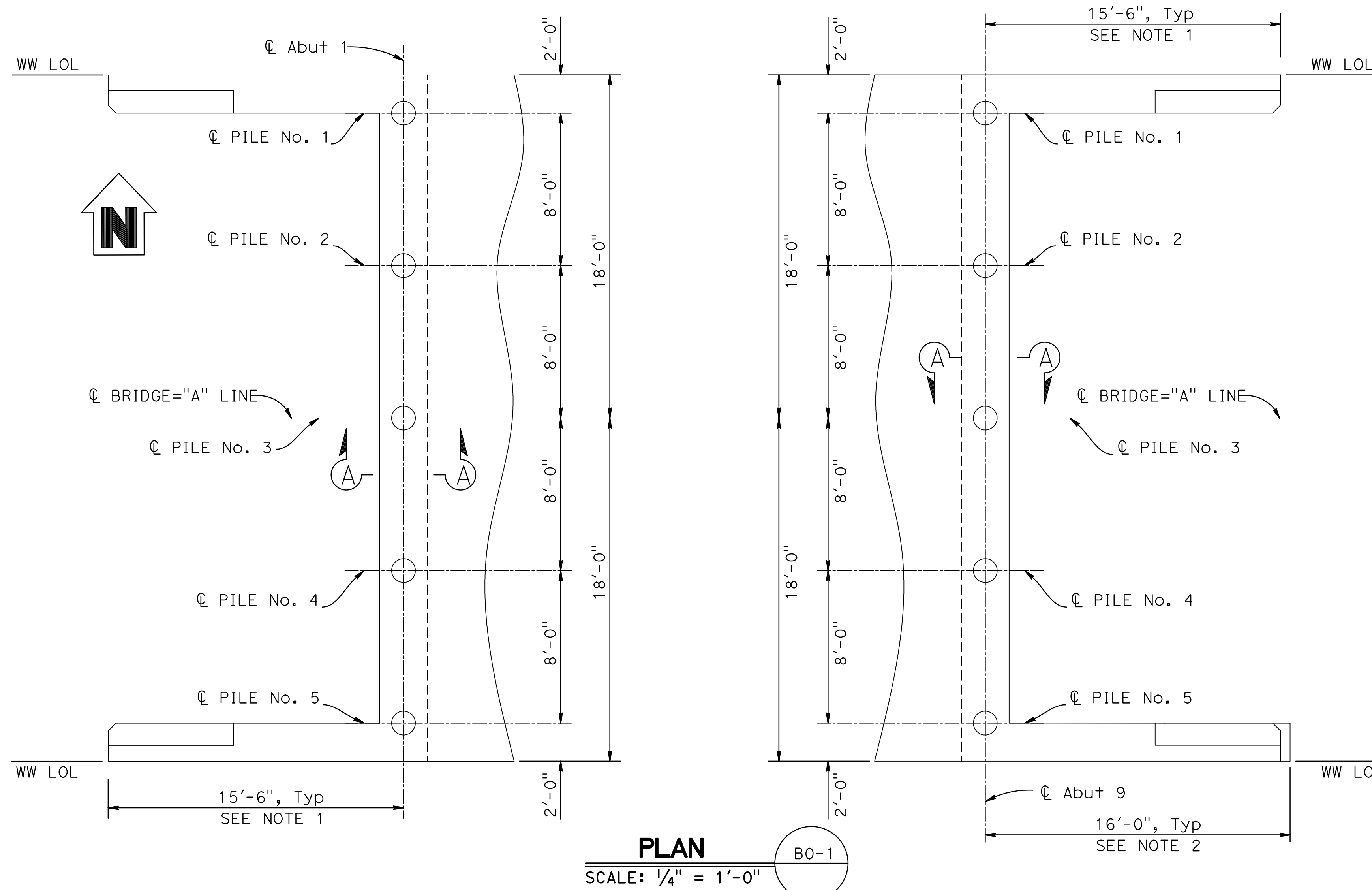
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	25	38

- NOTES:**
- For 'TYPICAL WINGWALL ELEVATION', see Caltrans Standard Plan B0-1.
 - For 'SOUTHEAST WINGWALL ELEVATION', see ABUTMENT DETAILS NO. 1 Sheet.

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



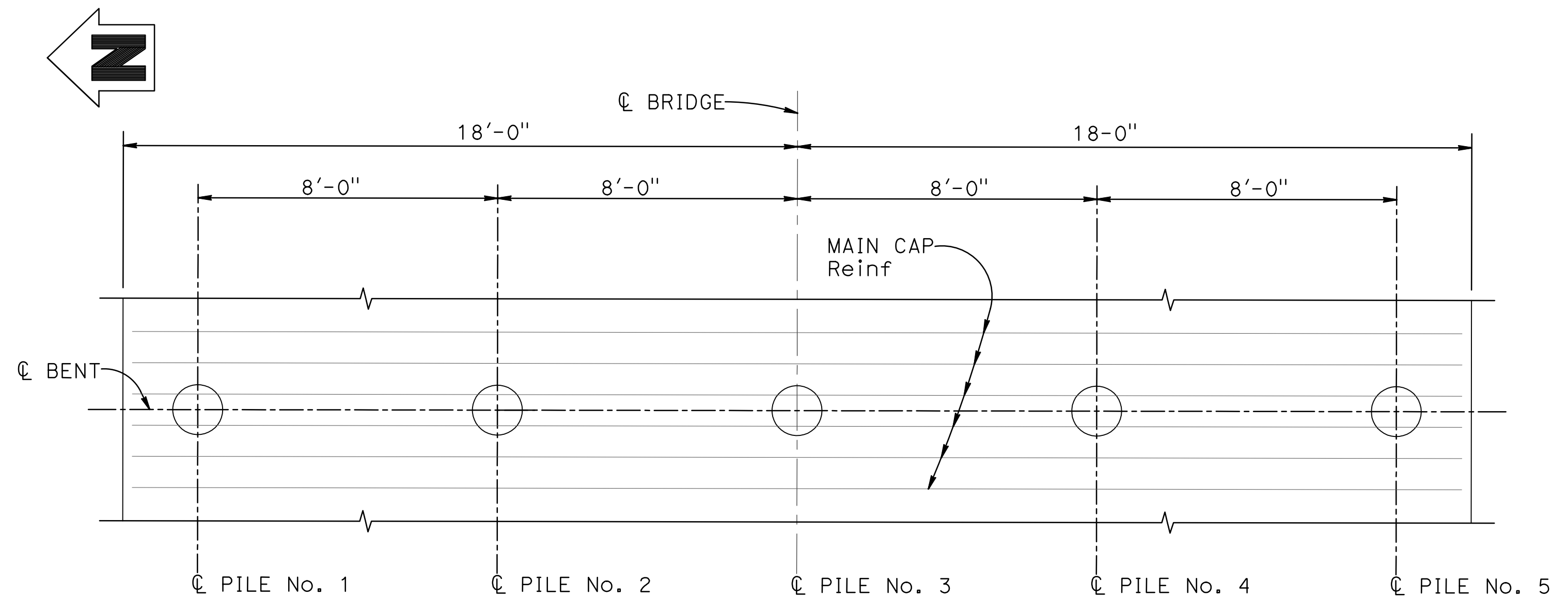
DESIGN	BY	J. DeMARTINI	CHECKED	M. ILEY	PREPARED FOR COUNTY OF GLENN PUBLIC WORKS AGENCY	BRIDGE NO. 11C0016	BRANCH HOWARD SLOUGH BRIDGE (REPLACE)											
	DETAILS	BY	R. UHLMANN	CHECKED				J. DeMARTINI	POST MILES NA	ABUTMENT LAYOUT								
	QUANTITIES	BY	J. DeMARTINI	CHECKED				R. UHLMANN										
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS						0	1	2	3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	11/18/14	01/28/17	05/31/23	SHEET	4	OF	17

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	27	38

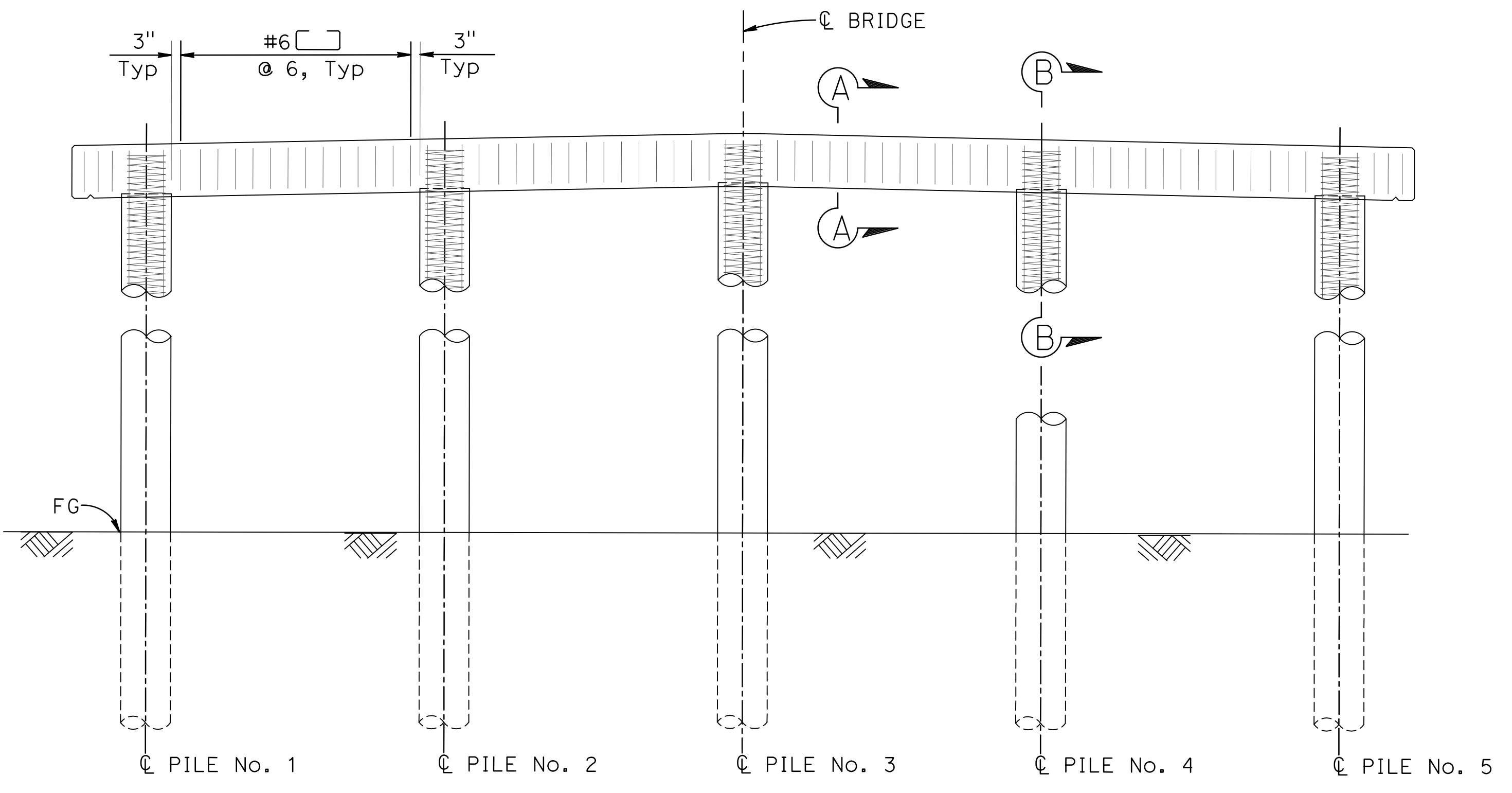
REGISTERED CIVIL ENGINEER
 GARY M. GORDON
 No. 42176
 Exp. 03-31-24
 CIVIL
 STATE OF CALIFORNIA

05-31-23 DATE
 May 31, 2023
 PLANS APPROVAL DATE

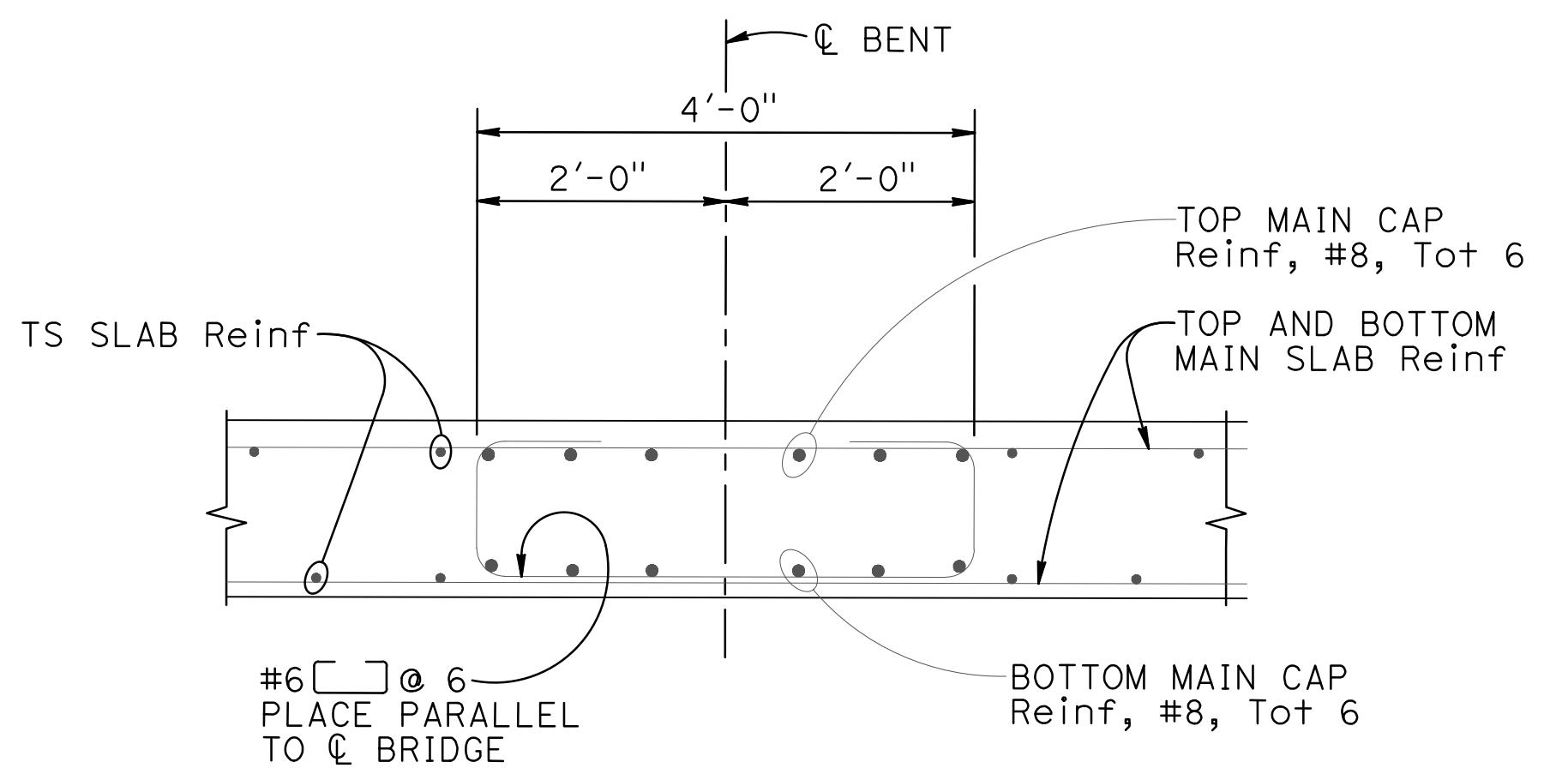
Prepared by:
 WILLDAN ENGINEERING
 2400 WASHINGTON AVENUE, SUITE 101
 REDDING, CALIFORNIA 96001



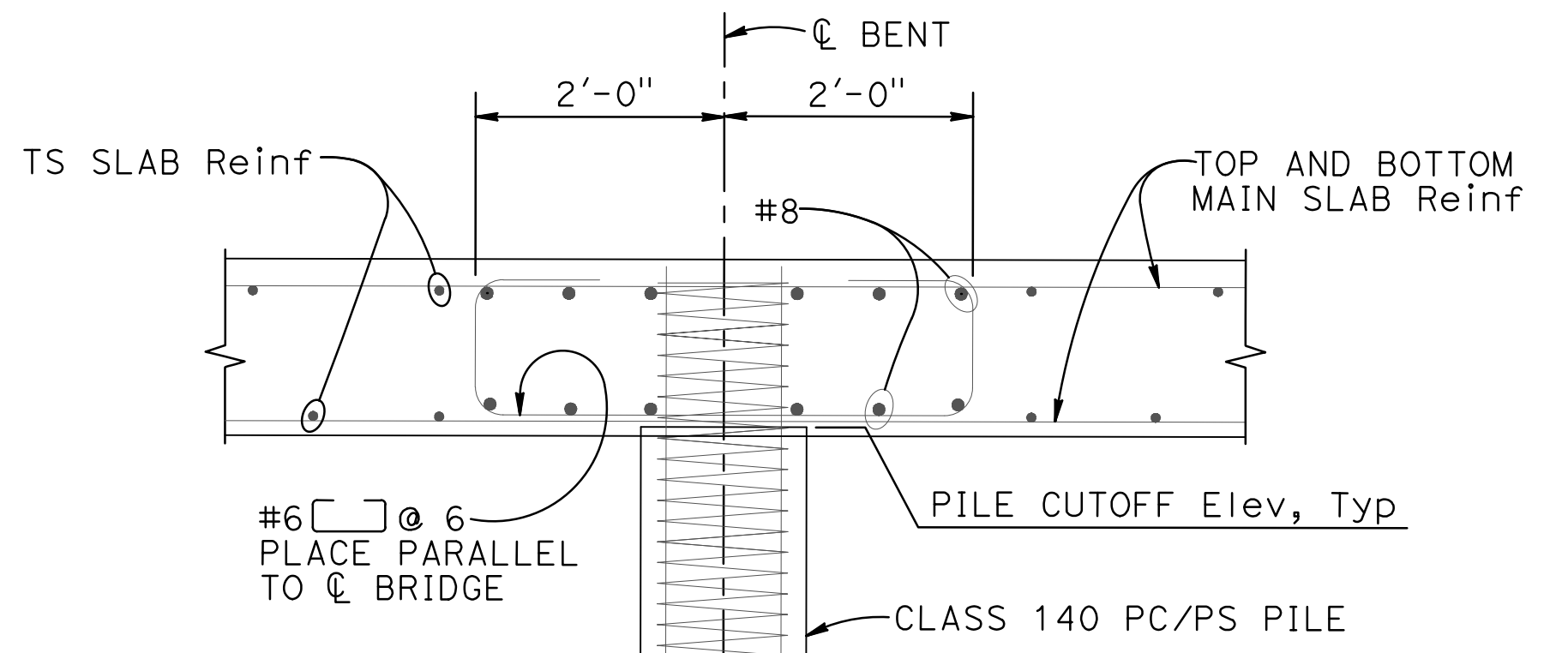
PLAN
 SCALE: 3/8" = 1'-0"



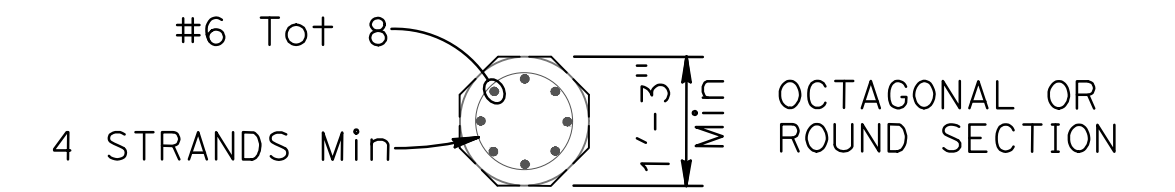
ELEVATION
 SCALE: 3/8" = 1'-0"



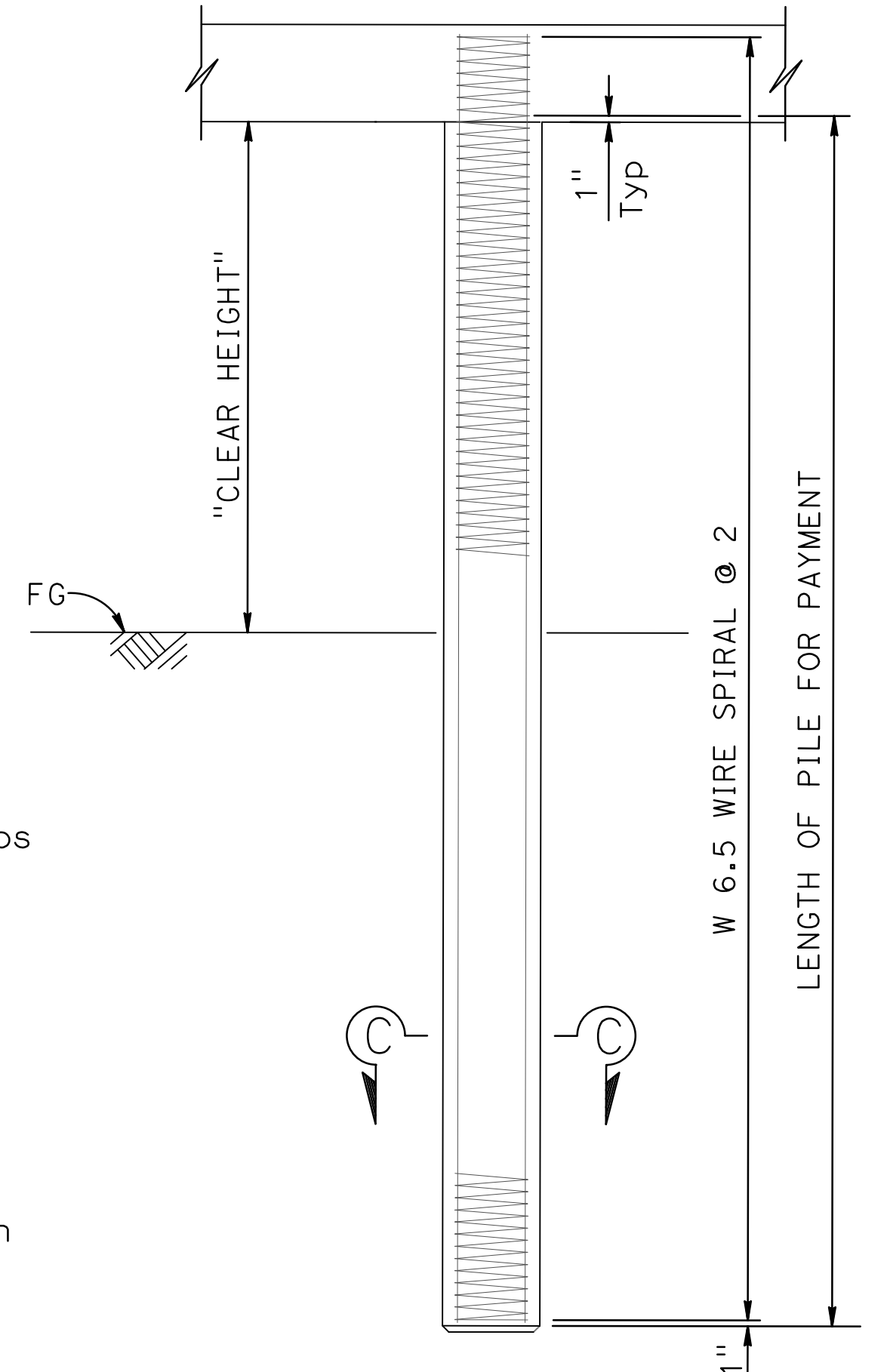
SECTION A-A
 SCALE: 3/4" = 1'-0"



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



SECTION C-C



PRECAST PRESTRESSED CONCRETE PILE

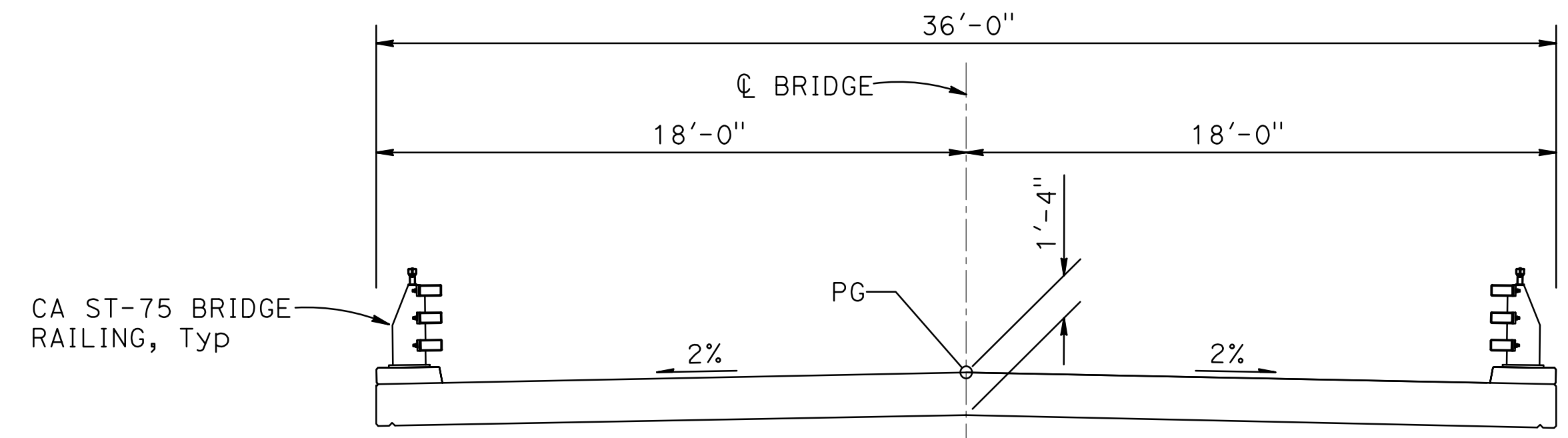
- NOTES:**
- Design service level loading is 140 kips service and 280 kips nominal axial structural resistance or less as noted.
 - Maximum size of aggregate is 1".
 - For the prestressed concrete pile:
 - The prestress force after all losses shall provide 700 psi minimum stress.
 - The concrete strength 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	BRIDGE NO.	11C0016	BRANCH HOWARD SLOUGH BRIDGE (REPLACE)
DETAILS	BY R. UHLMANN	CHECKED J. DeMARTINI	POST MILES	NA	
QUANTITIES	BY J. DeMARTINI	CHECKED R. UHLMANN			
PREPARED FOR COUNTY OF GLENN PUBLIC WORKS AGENCY			G. GORDON PROJECT ENGINEER		BENT LAYOUT
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			REVISION DATES 11/28/14 07/28/17 05/31/23		
				DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET 6 OF 17

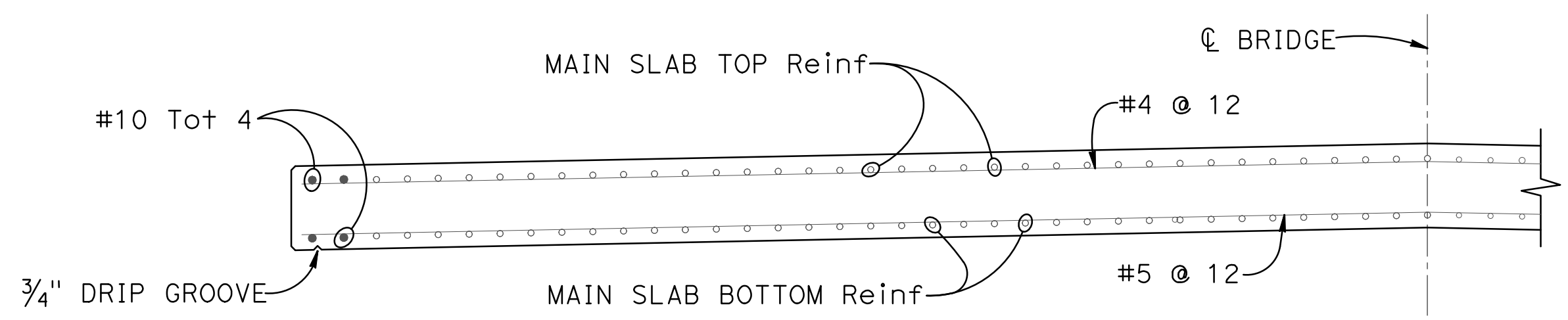
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Gle	CR 67	NA	28	38

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

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

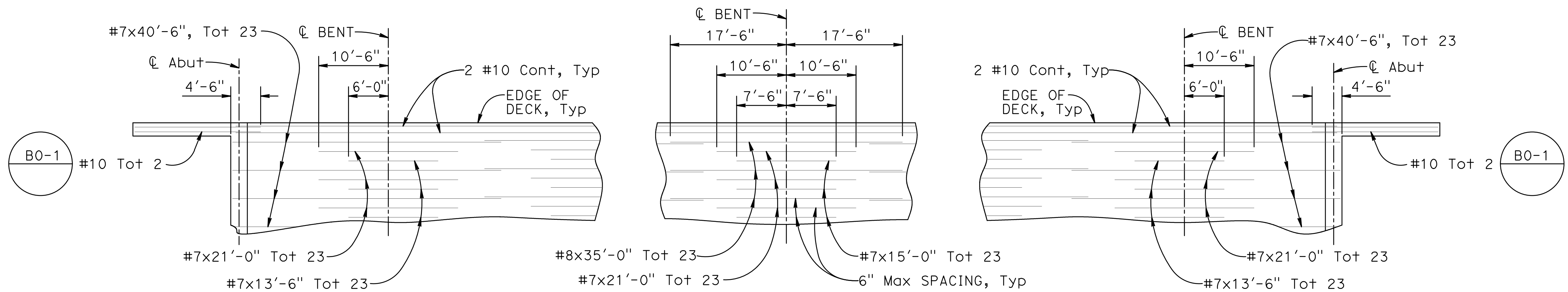


TYPICAL SECTION
SCALE: 1/4" = 1'-0"

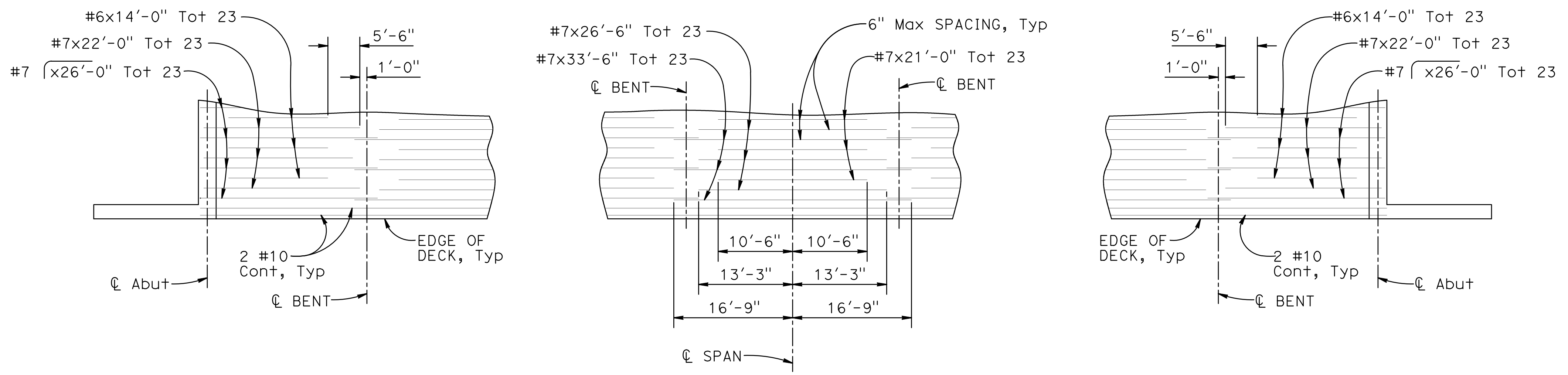


PART TYPICAL SECTION
SCALE: 1/2" = 1'-0"
NOTE: BAR CHAIRS NOT SHOWN.

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.	11C0016
POST MILES	NA

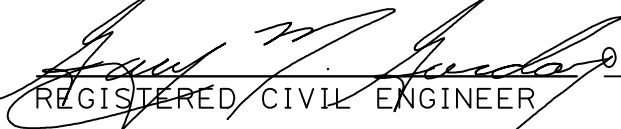
BRANCH HOWARD SLOUGH BRIDGE (REPLACE)
SLAB REINFORCEMENT DETAILS NO. 1


ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



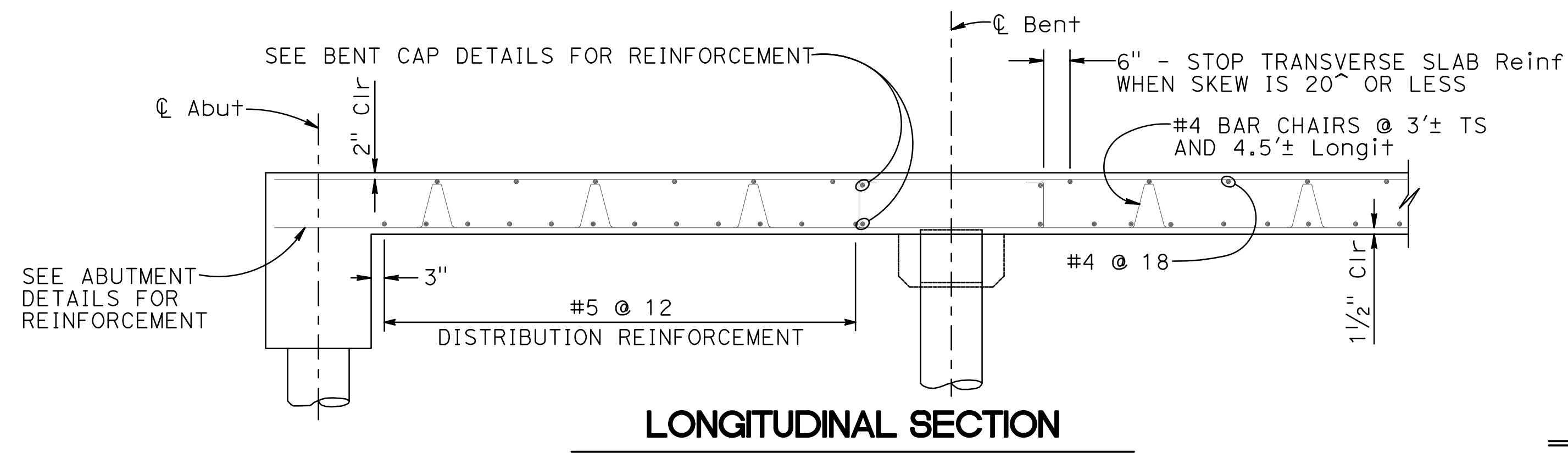
REVISION DATES	SHEET	OF
11/10/14 07/28/17 05/31/23	7	17

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	29	38

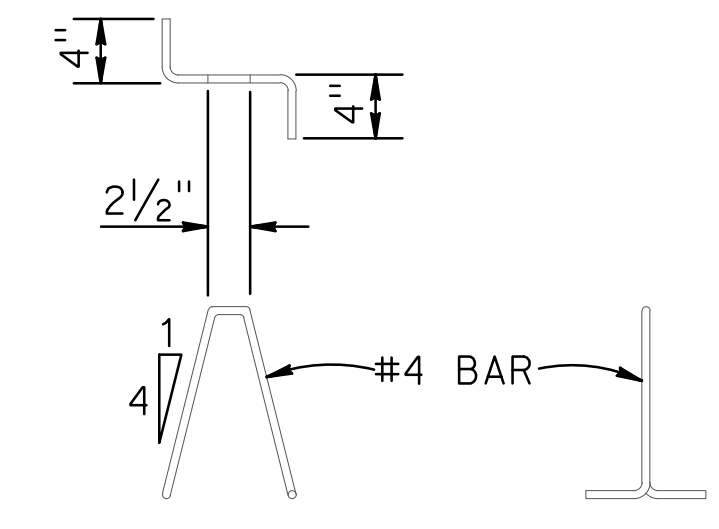

 REGISTERED CIVIL ENGINEER DATE 05-31-23
 May 31, 2023
 PLANS APPROVAL DATE



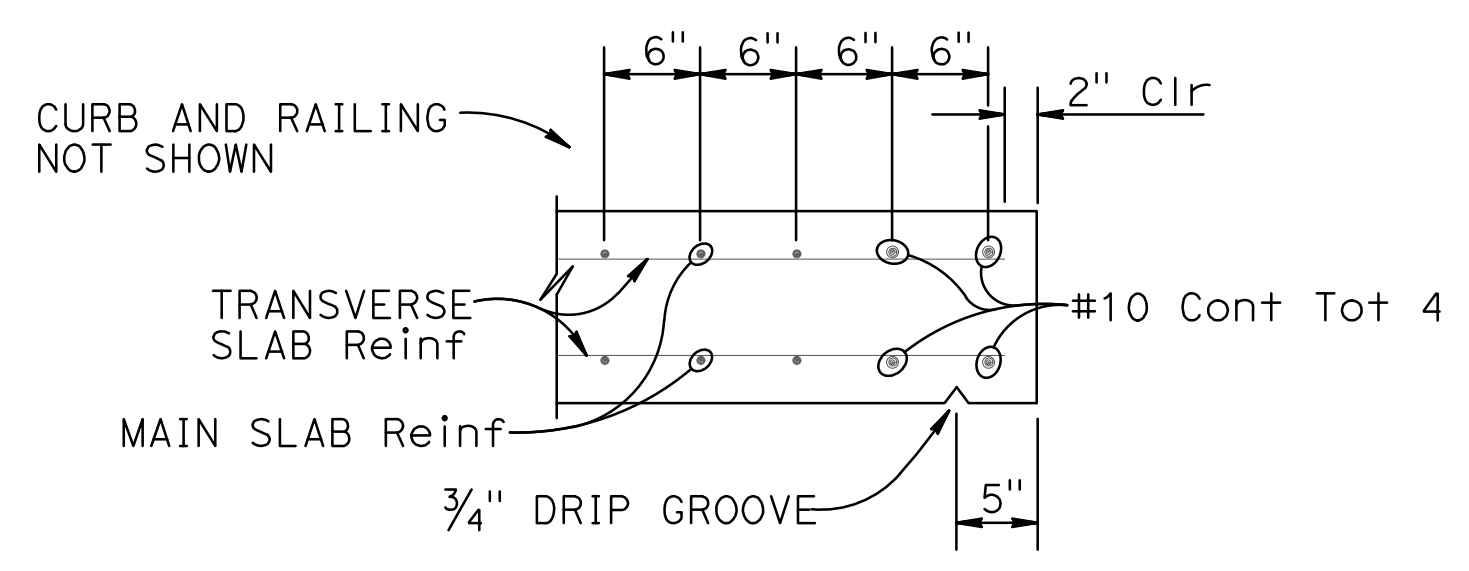
Prepared by:
 WILLDAN ENGINEERING
 2400 WASHINGTON AVENUE, SUITE 101
 REDDING, CALIFORNIA 96001



LONGITUDINAL SECTION



BAR CHAIR DETAIL



EDGE OF SLAB DETAILS

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 C 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.	11C0016	BRANCH HOWARD SLOUGH BRIDGE (REPLACE)
POST MILES	NA	
NA		

SLAB REINFORCEMENT DETAILS NO. 2

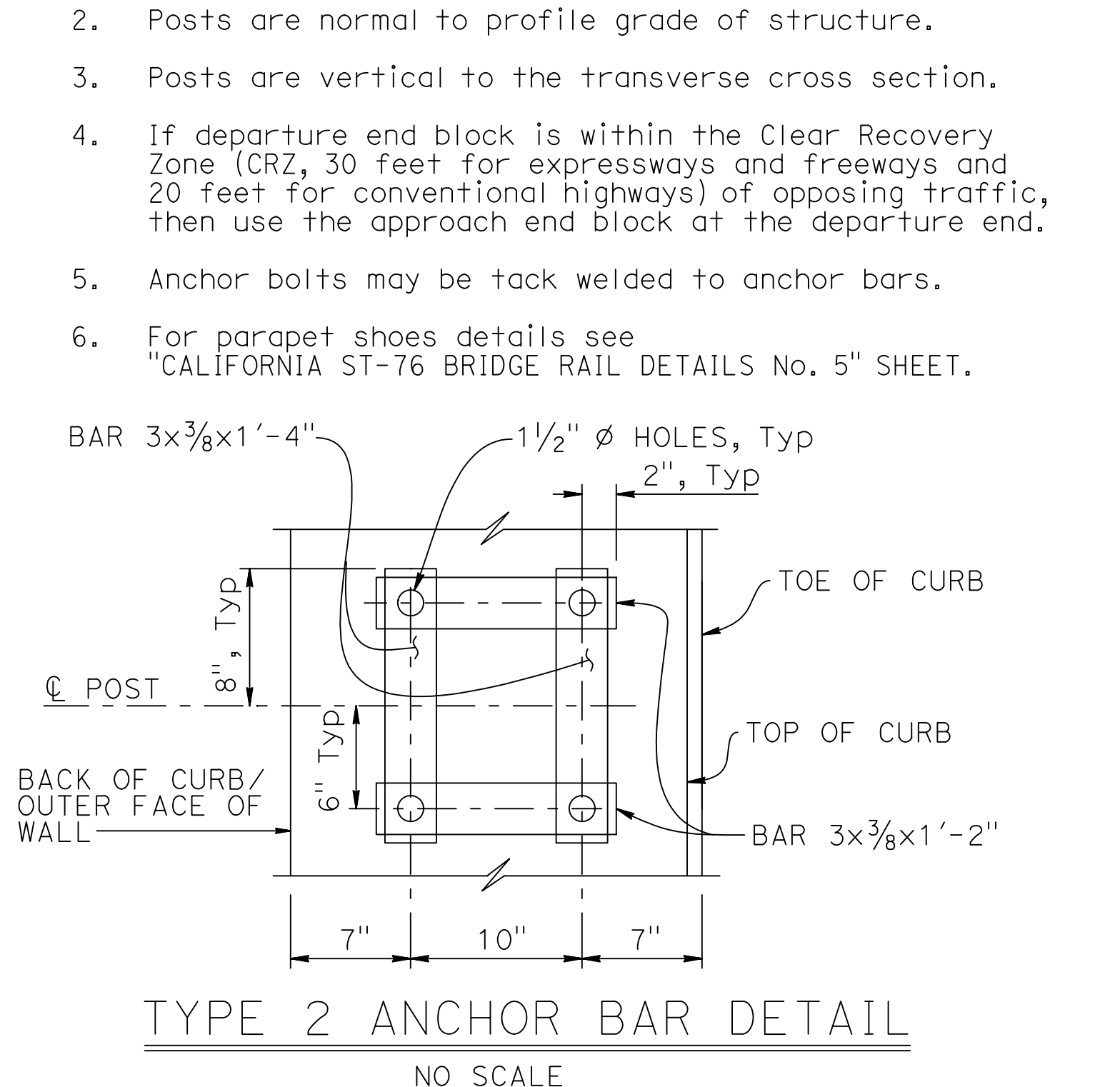
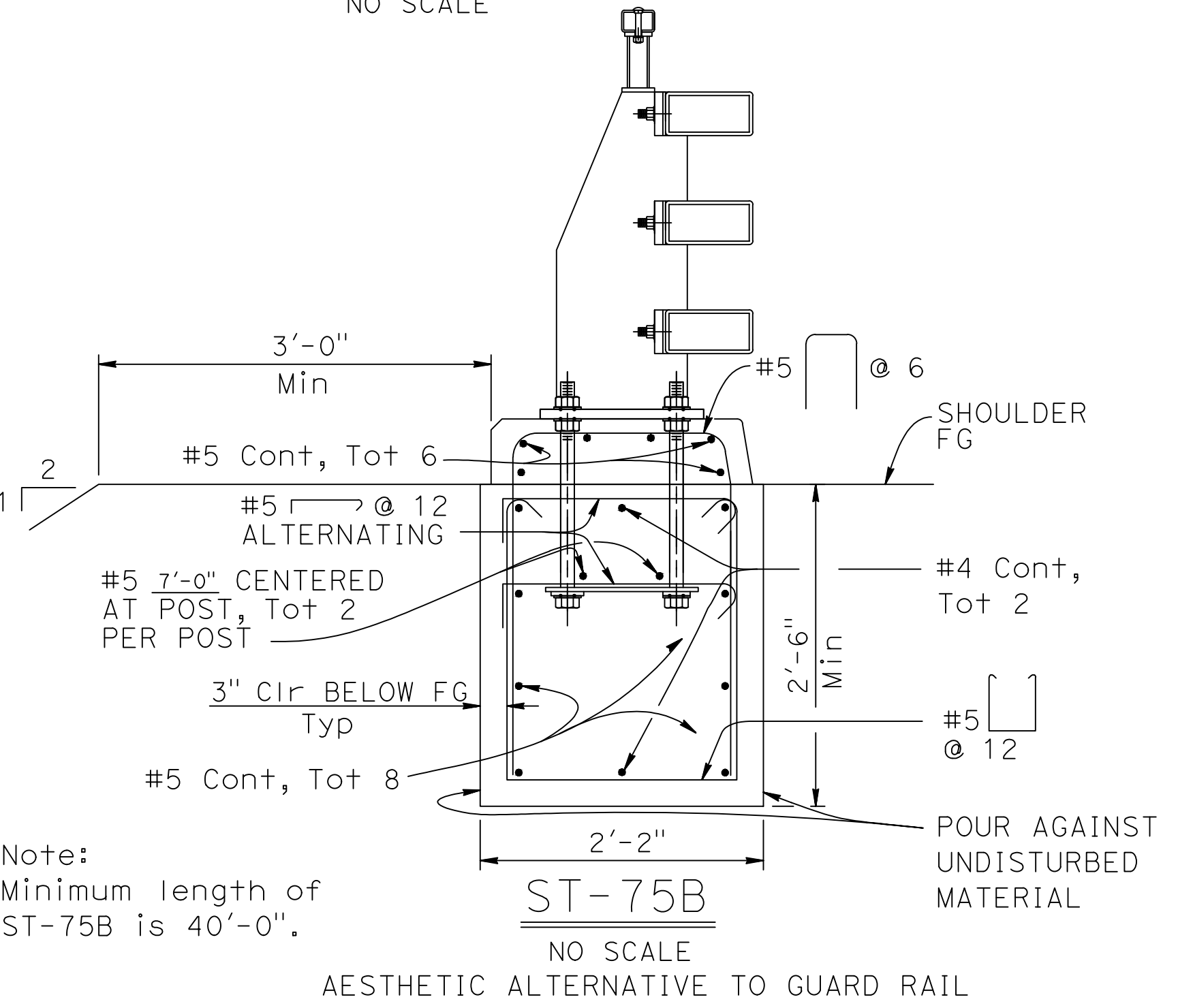
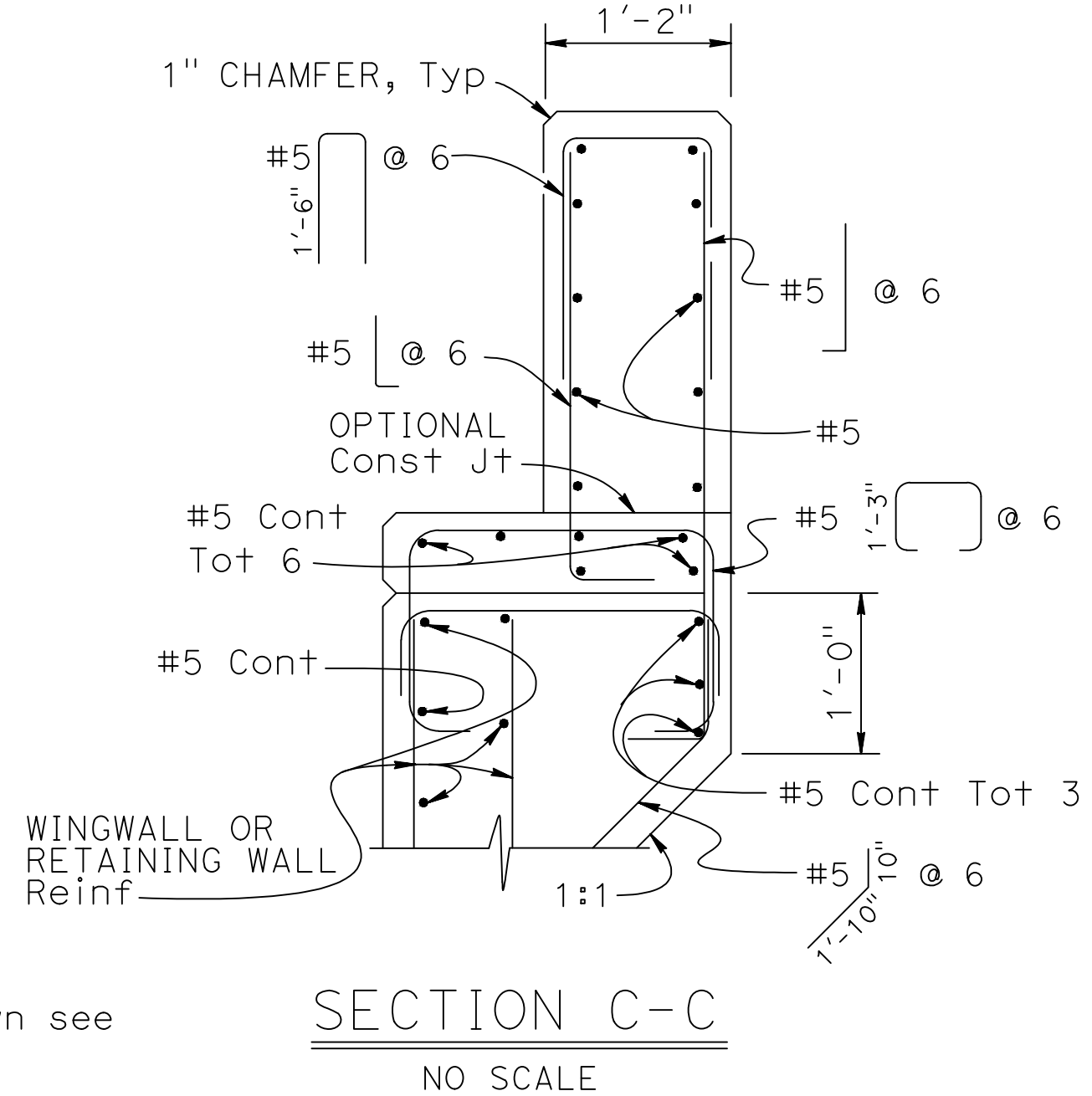
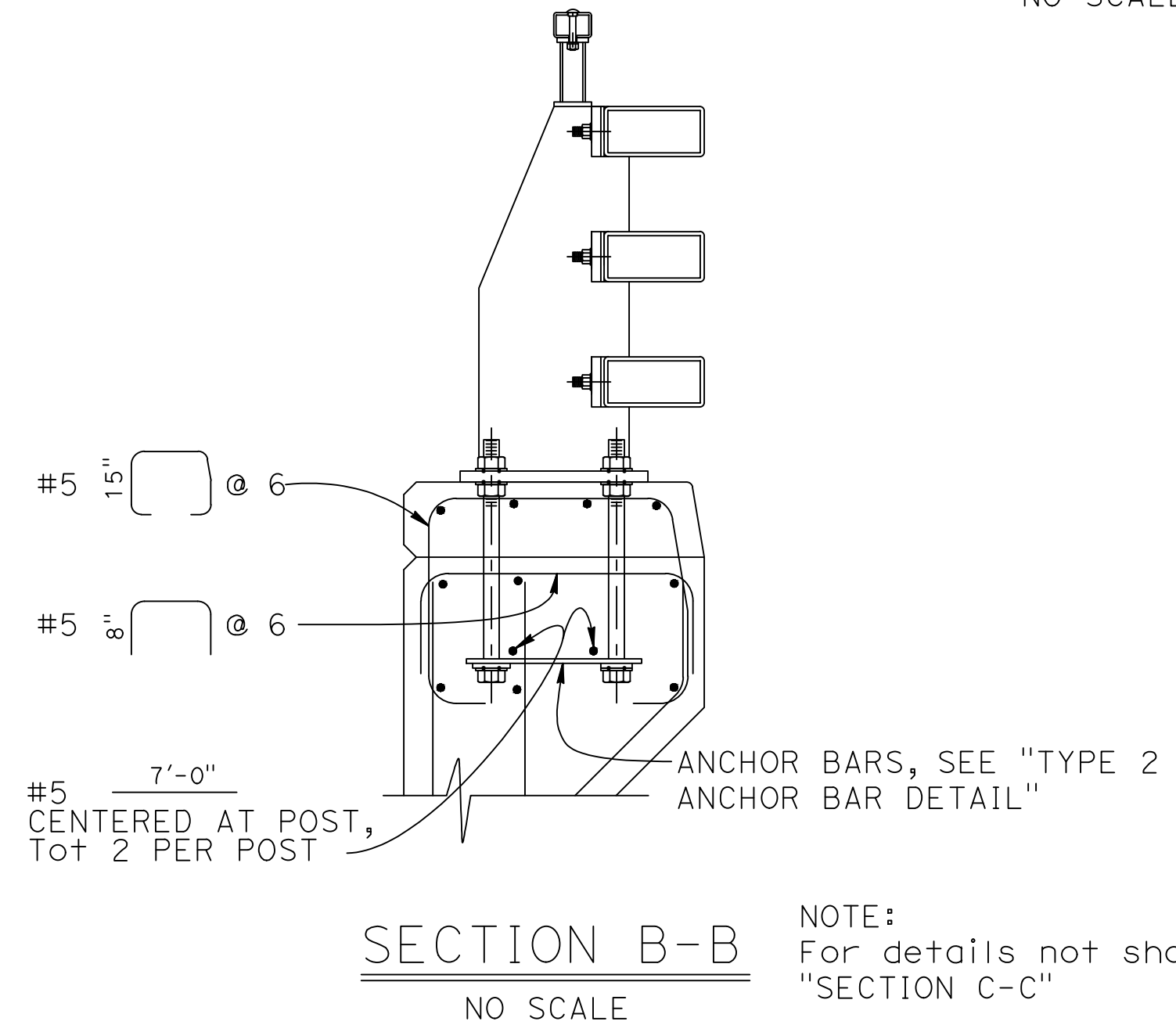
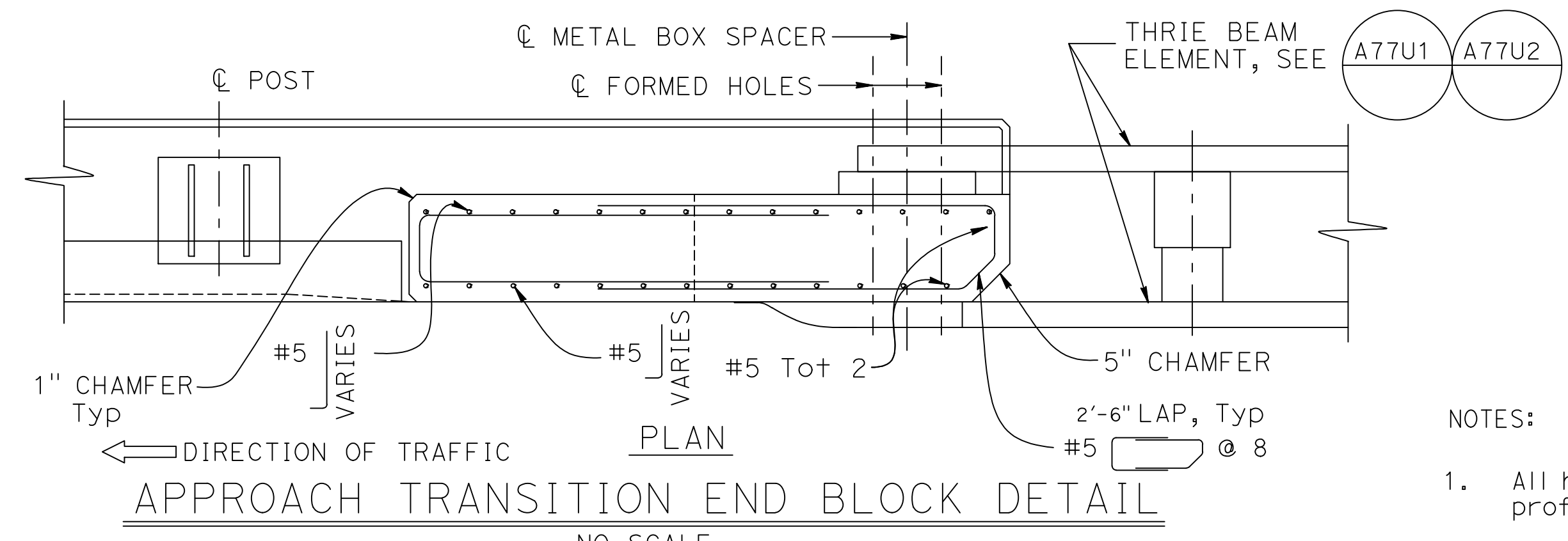
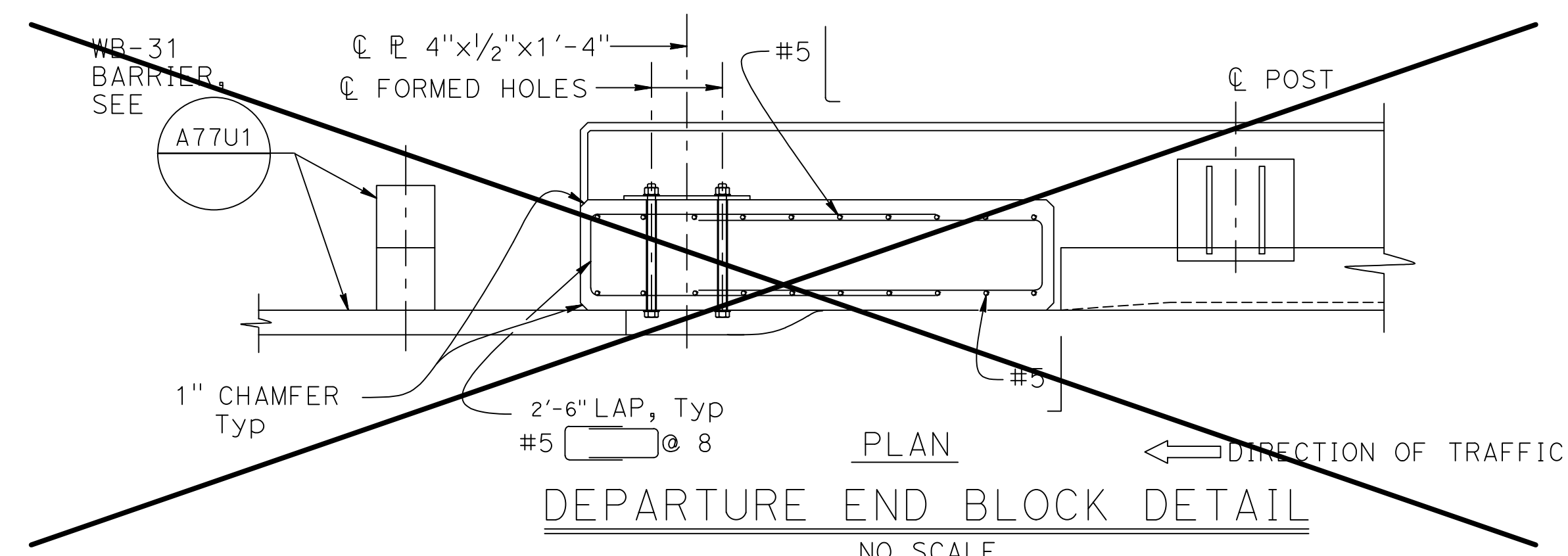
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



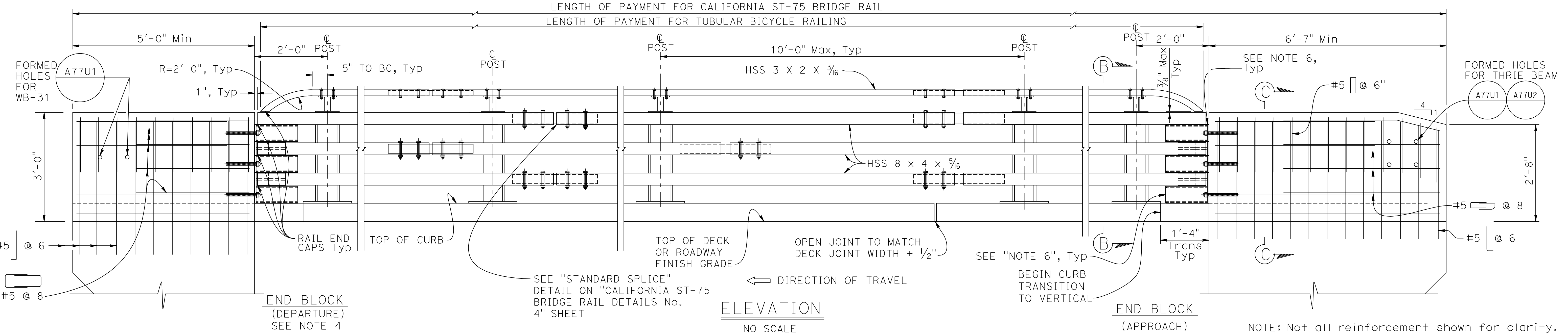
DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	11/10/14 07/28/17 05/31/23	8	17

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	31	38

REGISTERED CIVIL ENGINEER
 DATE 05-31-23
 GARY M. GORDON
 No. 42176
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 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.



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

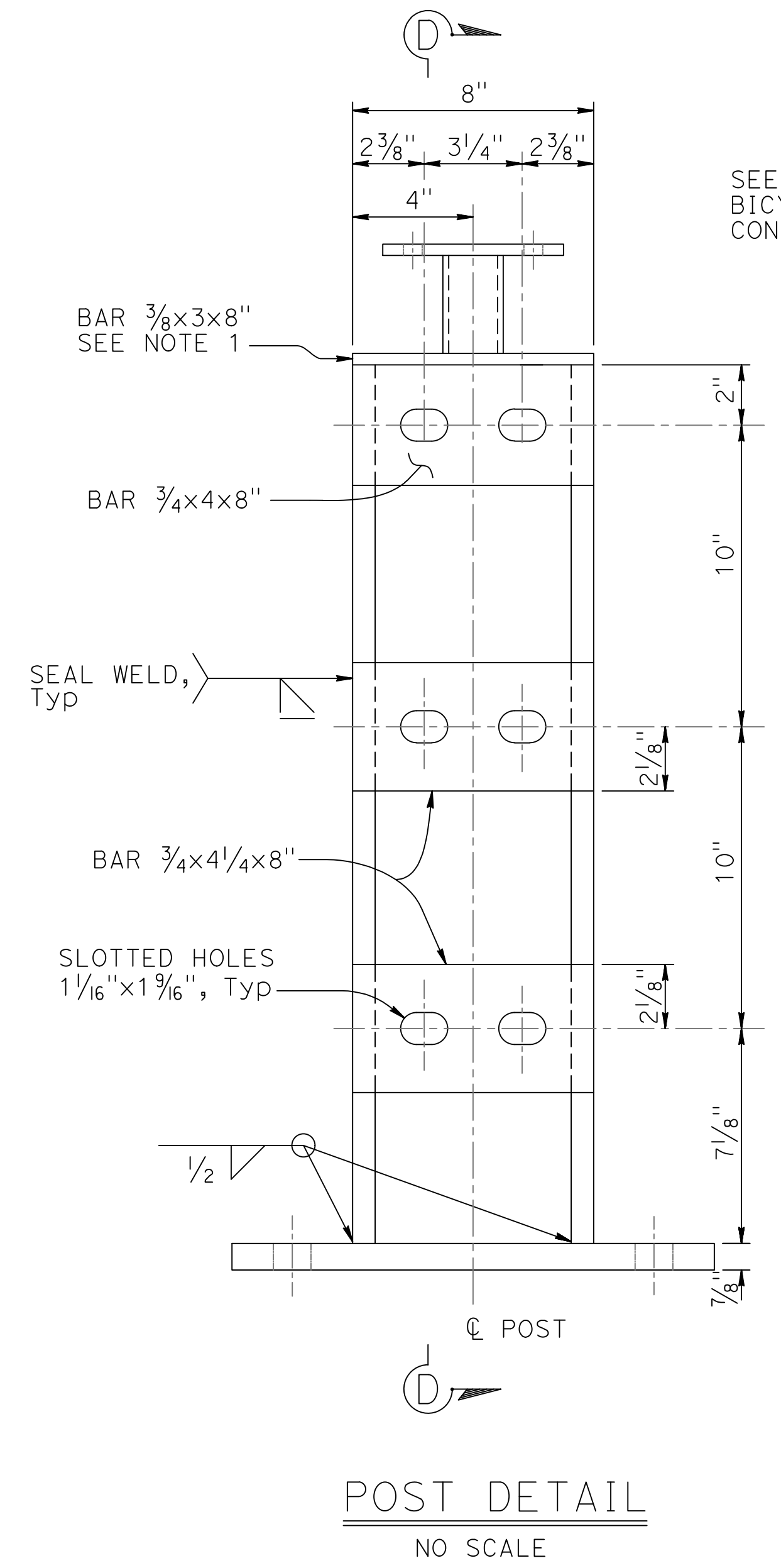
BRIDGE NO.	11C0016	BRANCH HOWARD SLOUGH BRIDGE (REPLACE) CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 2
POST MILES	NA	
REVISION DATES	12/21/19 06/28/22 01/05/22	

2022 STANDARD PLAN XS-16-116-2

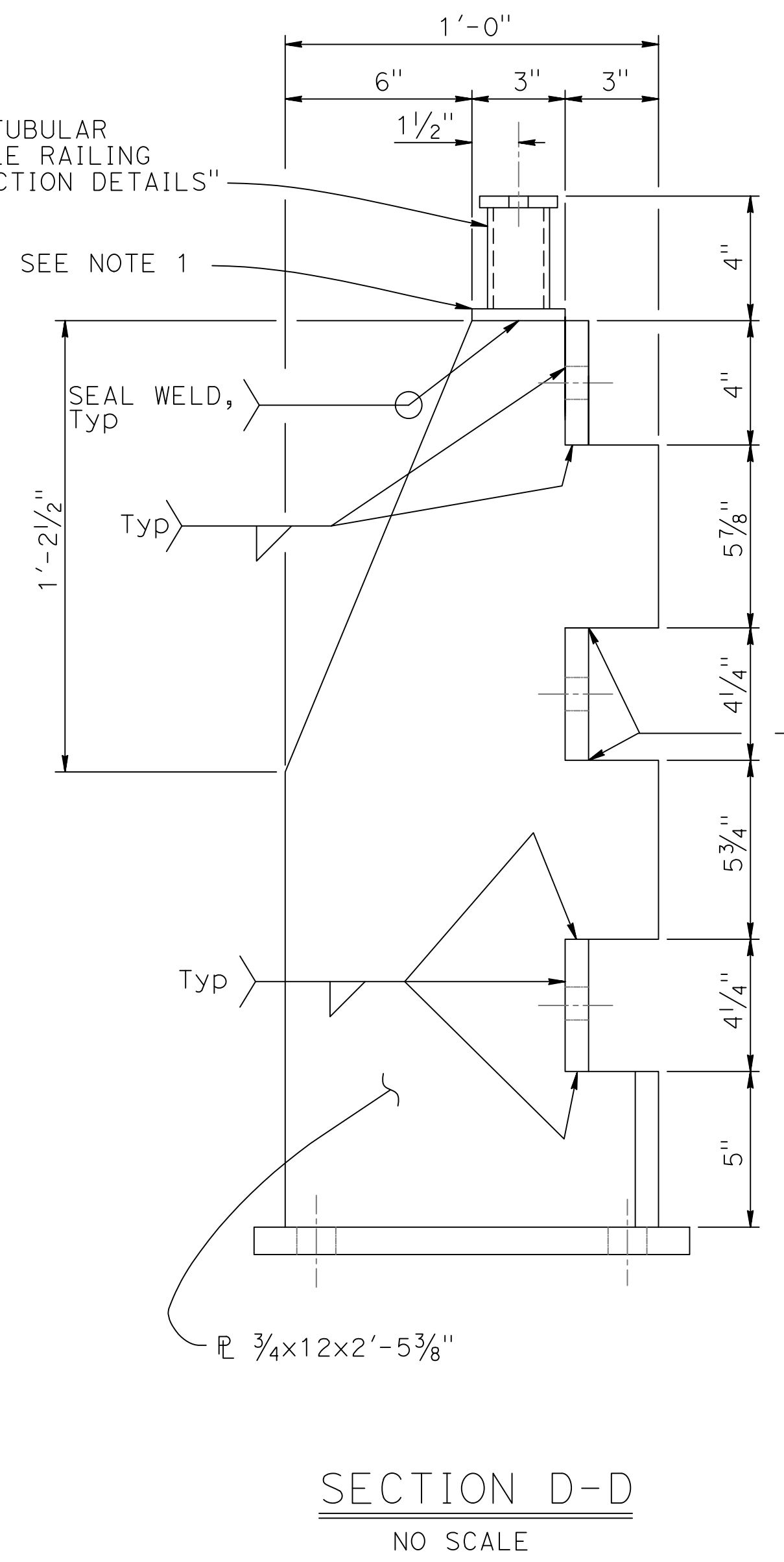
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	32	38

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

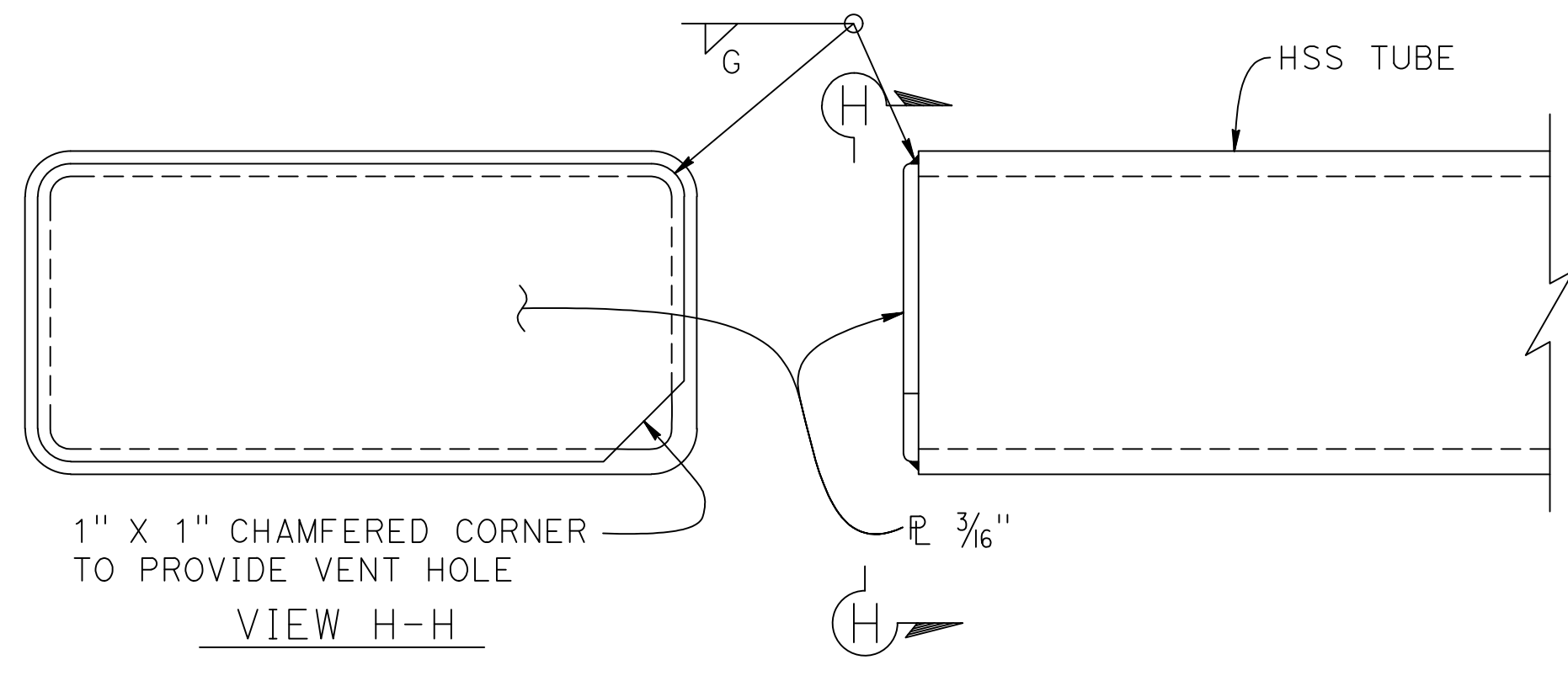
REGISTERED PROFESSIONAL ENGINEER
 GARY M. GORDON
 No. 42176
 Exp. 03-31-24
 CIVIL
 STATE OF CALIFORNIA



POST DETAIL
NO SCALE

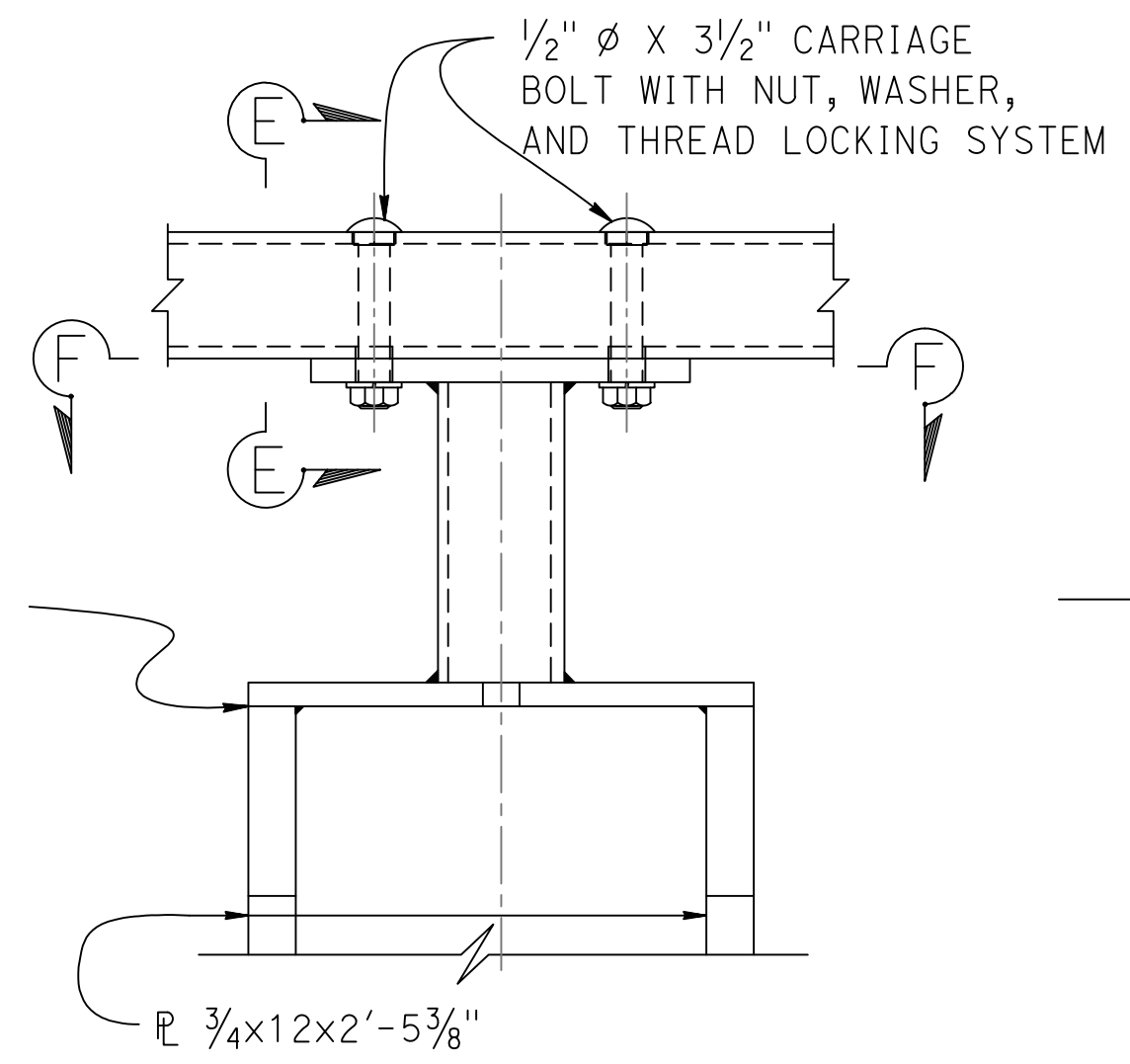


SECTION D-D
NO SCALE

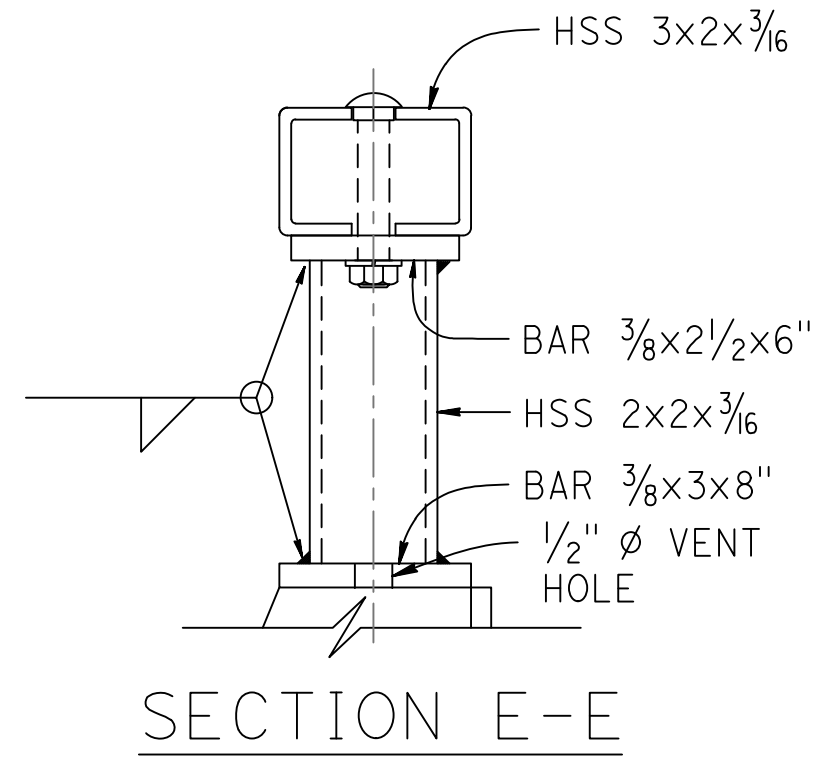


RAIL END CAP
NO SCALE

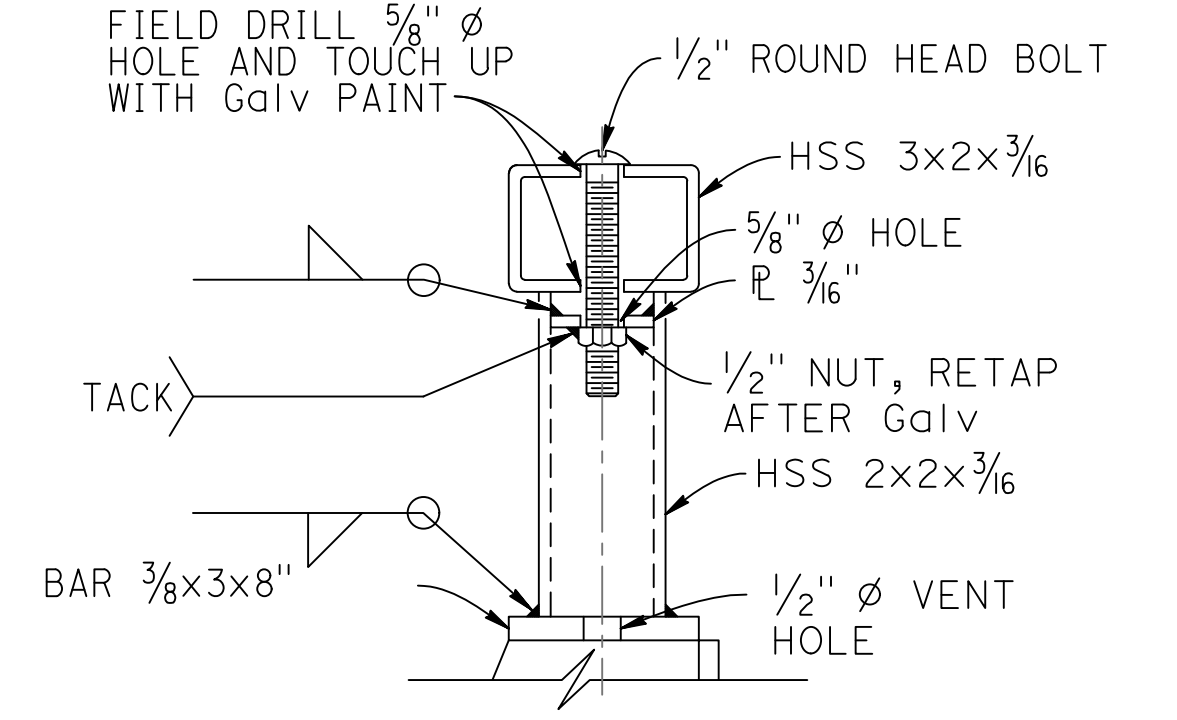
NOTE: For vehicular rail tube and bicycle railing tubes.



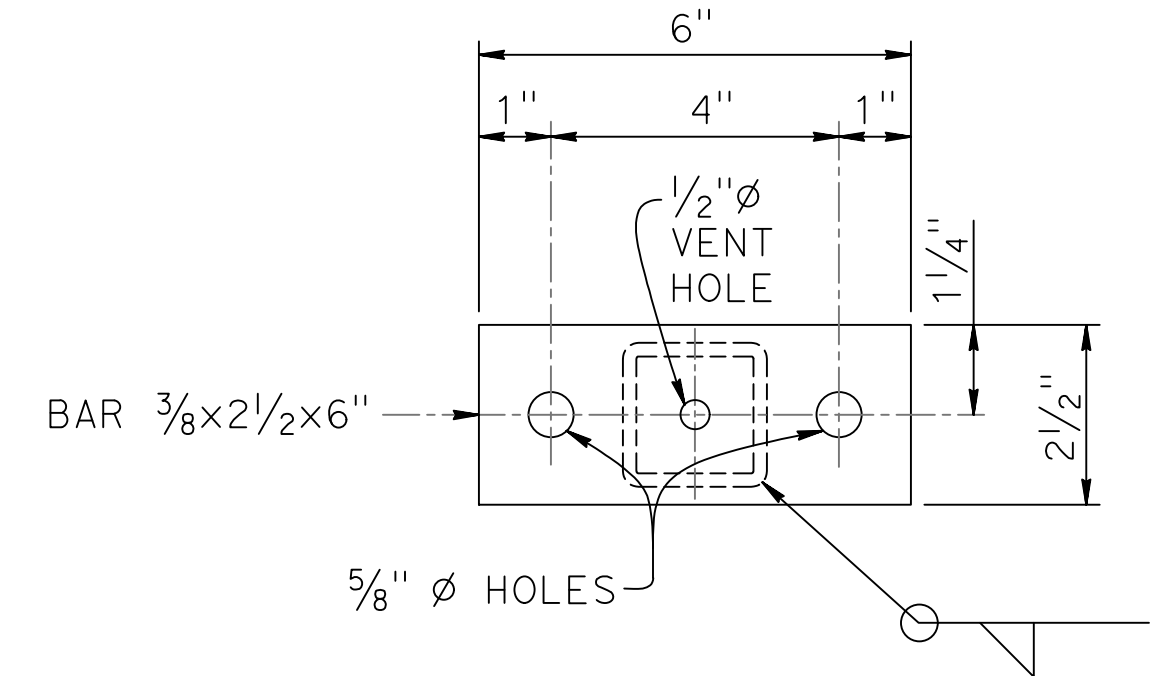
ELEVATION



SECTION E-E



SECTION E-E ALTERNATIVE



SECTION F-F
TUBULAR BICYCLE RAILING CONNECTION DETAILS

NO SCALE

NOTE:
 1. For access controlled freeways and expressways where bicycle traffic is prohibited by signage on the on-ramps, the bicycle railing (includes bar 3/8x3x8" and above) may be omitted.

BRIDGE STANDARD DETAILS		
xs16-116-3 FILE NO.	JULY 2022 APPROVAL DATE	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

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	BRIDGE NO. 11C0016	BRANCH HOWARD SLOUGH BRIDGE (REPLACE) CALIFORNIA ST-75 BRIDGE RAIL DETAILS No. 3
		POST MILES NA	

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



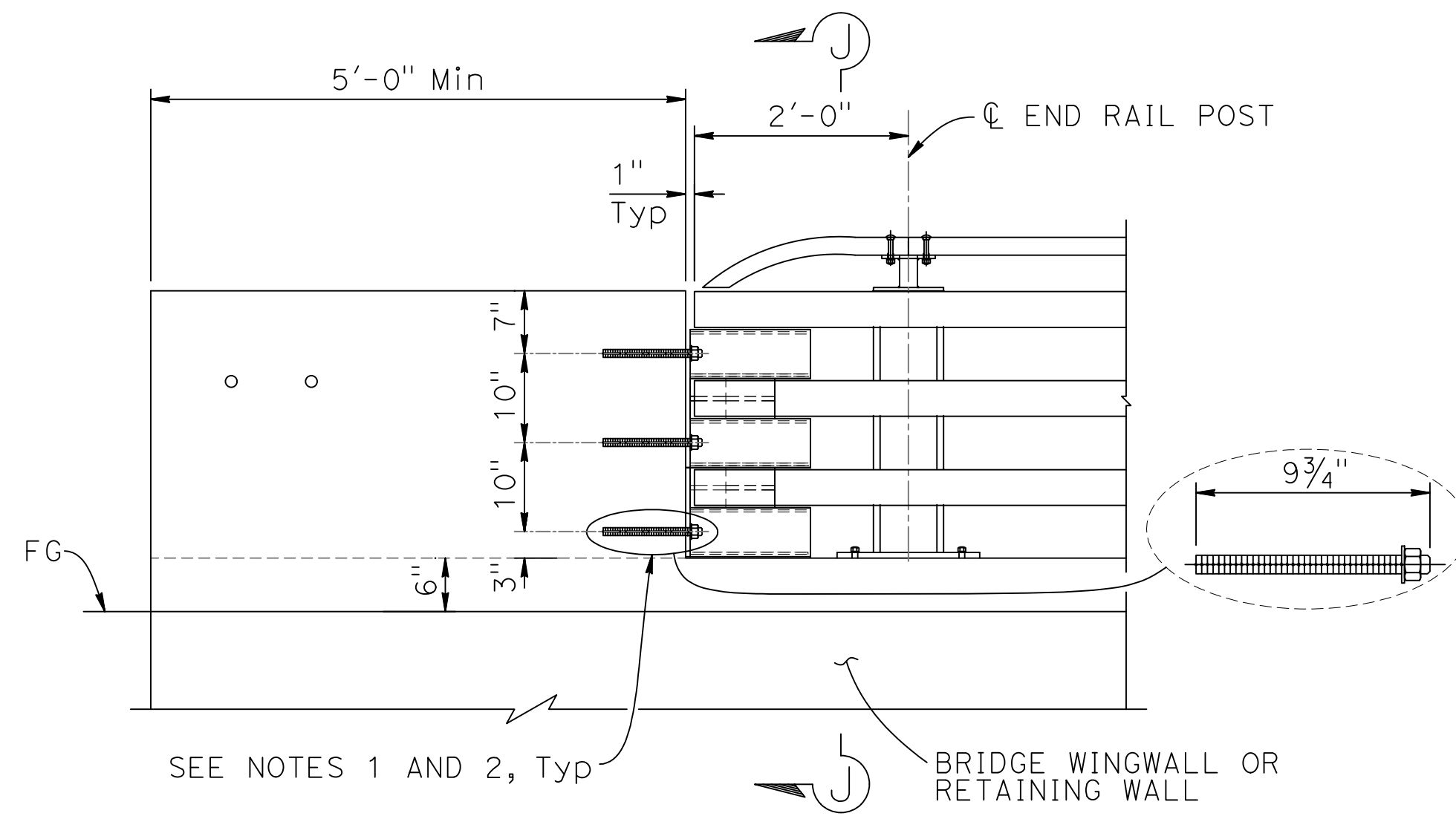
FILE => 11-0016-r-rspxs16-116-3

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	12/18/19 06/28/22 01/05/22	11	17

2022 STANDARD PLAN XS-16-116-3

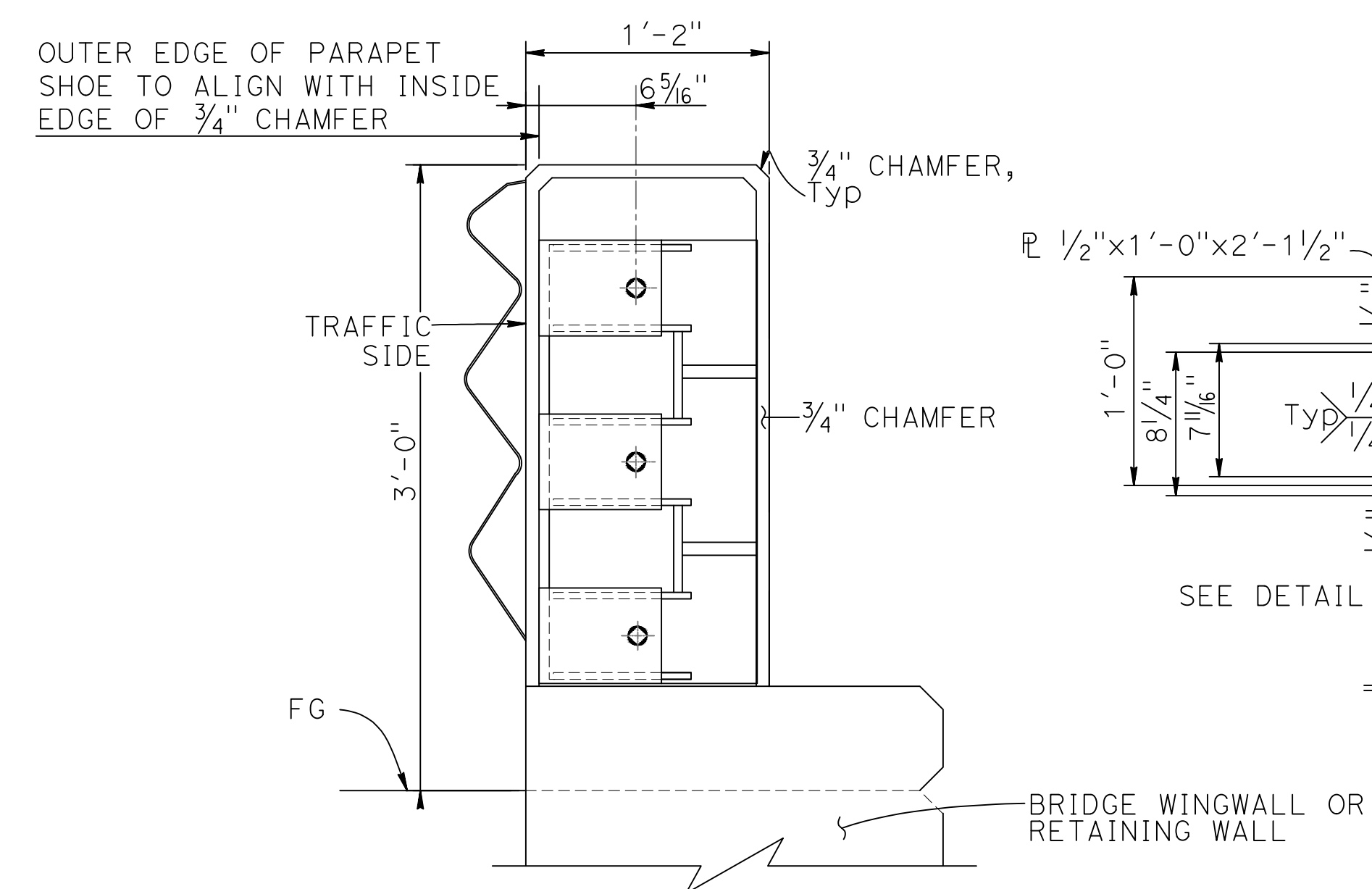
DATE PLOTTED => 05/31/2023 10:53:35 AM USERNAME => KEVIN

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	34	38
			DATE		
			05-31-23		
			REGISTERED CIVIL ENGINEER		
			PLANS APPROVAL DATE		
			May 31, 2023		
			REGISTERED PROFESSIONAL ENGINEER		
			GARY M. GORDON		
			No. 42176		
			Exp. 03-31-24		
			CIVIL		
			STATE OF CALIFORNIA		



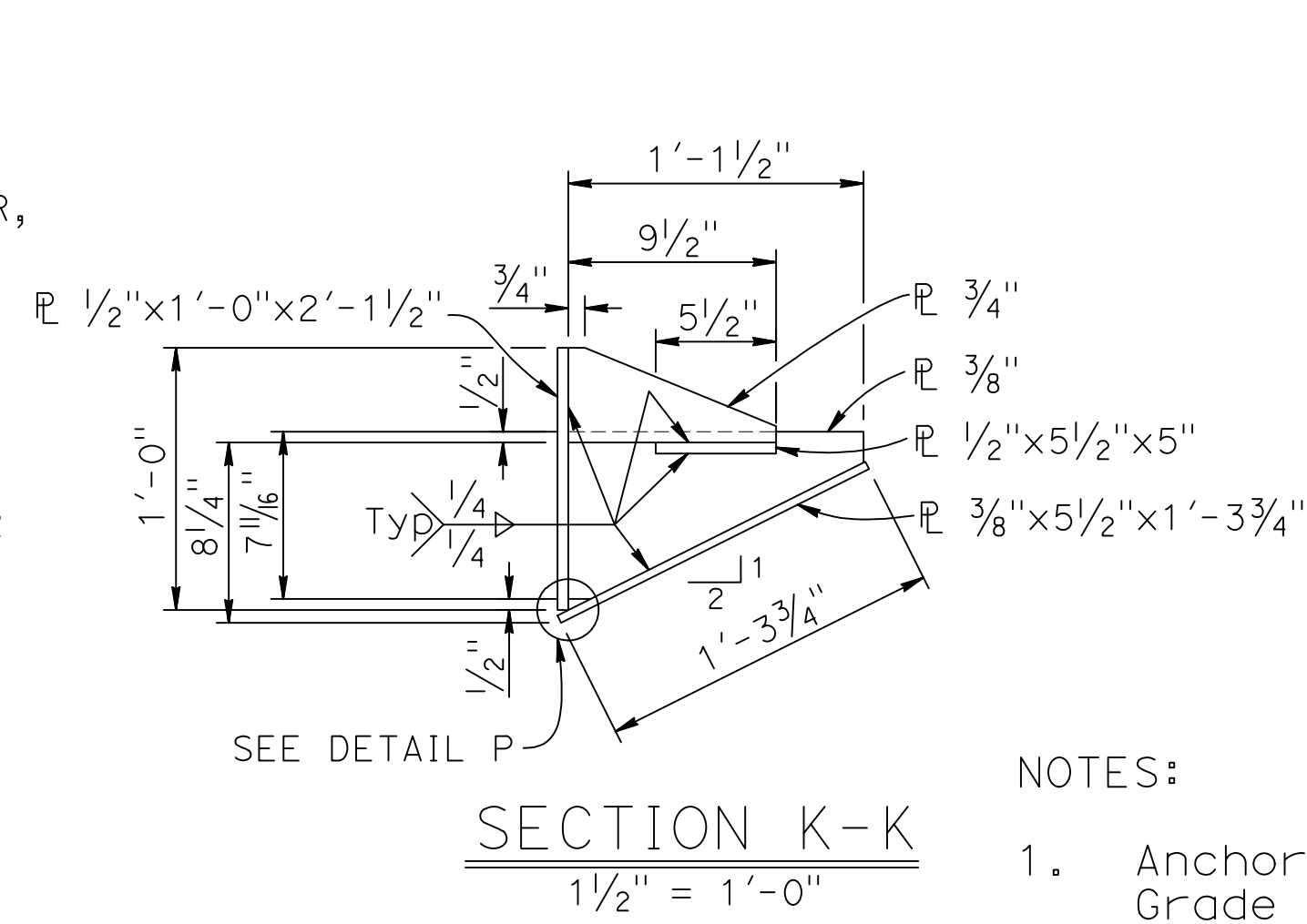
PARAPET SHOE AT DEPARTURE END BLOCK

3/4" = 1'-0"
NOTE: Parapet shoe connection to approach end block is similar.



SECTION J-J

3/4" = 1'-0"
NOTE: Bridge railing not shown clarity.

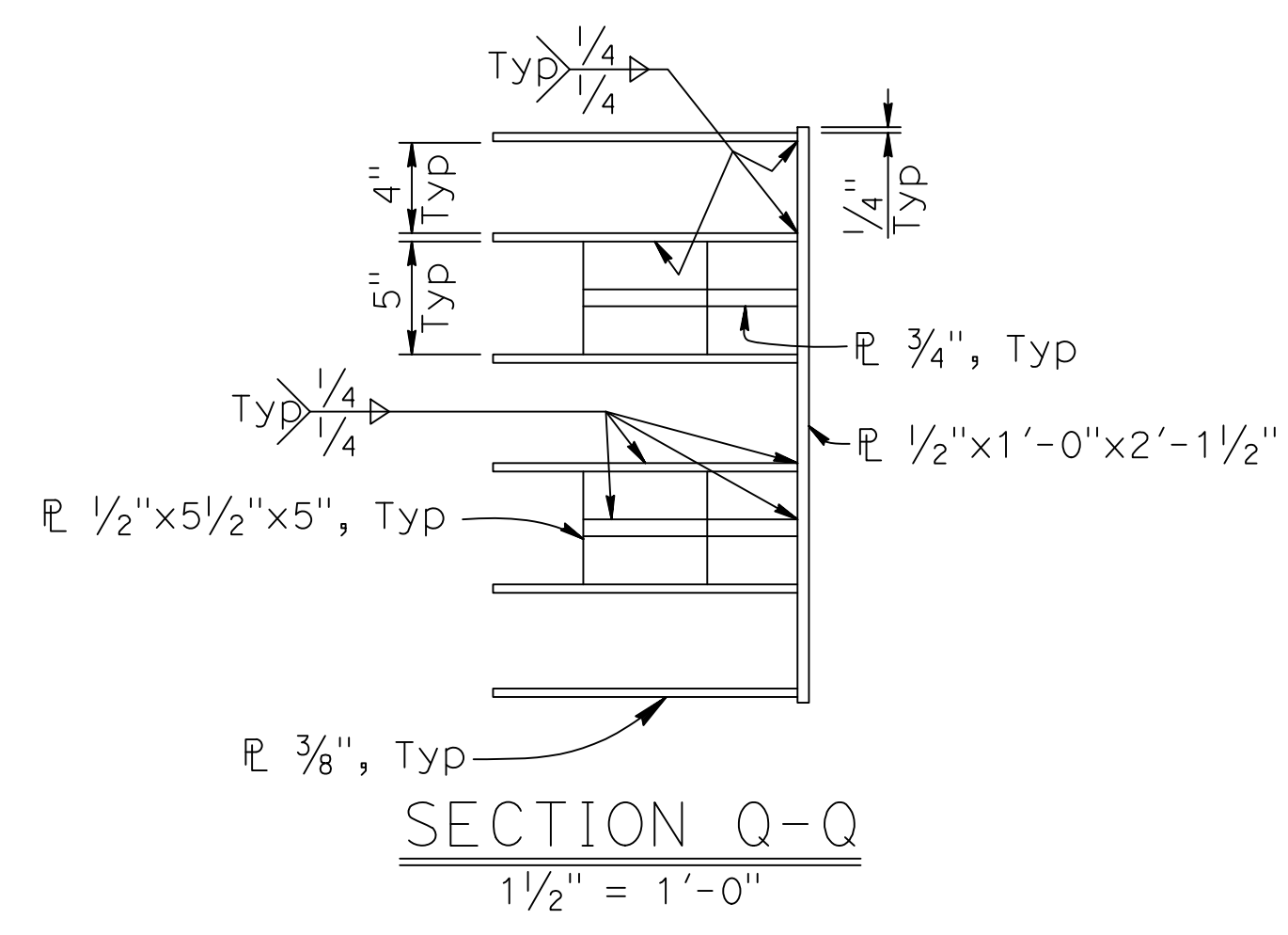


SECTION K-K

1/2" = 1'-0"

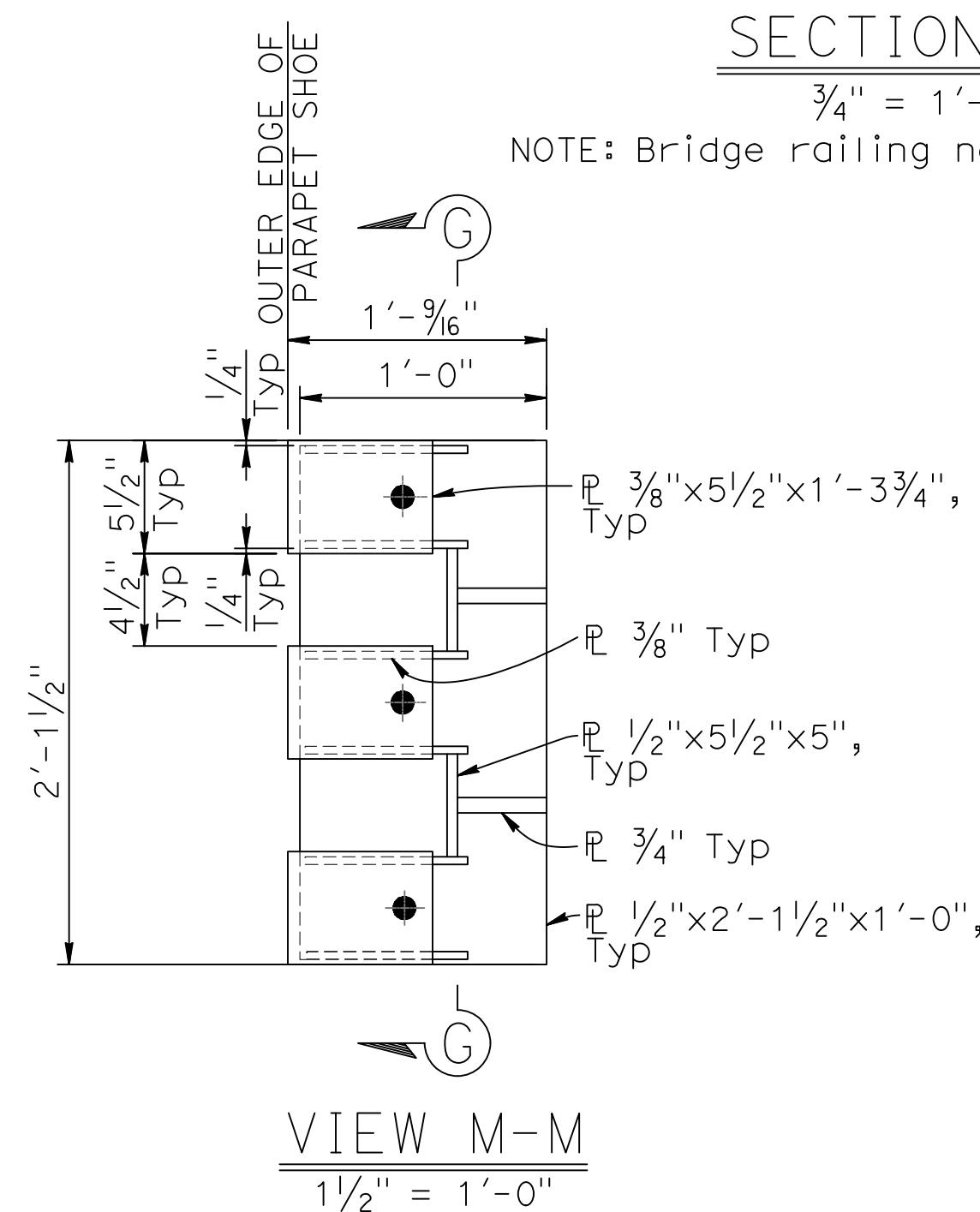
NOTES:

- 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.



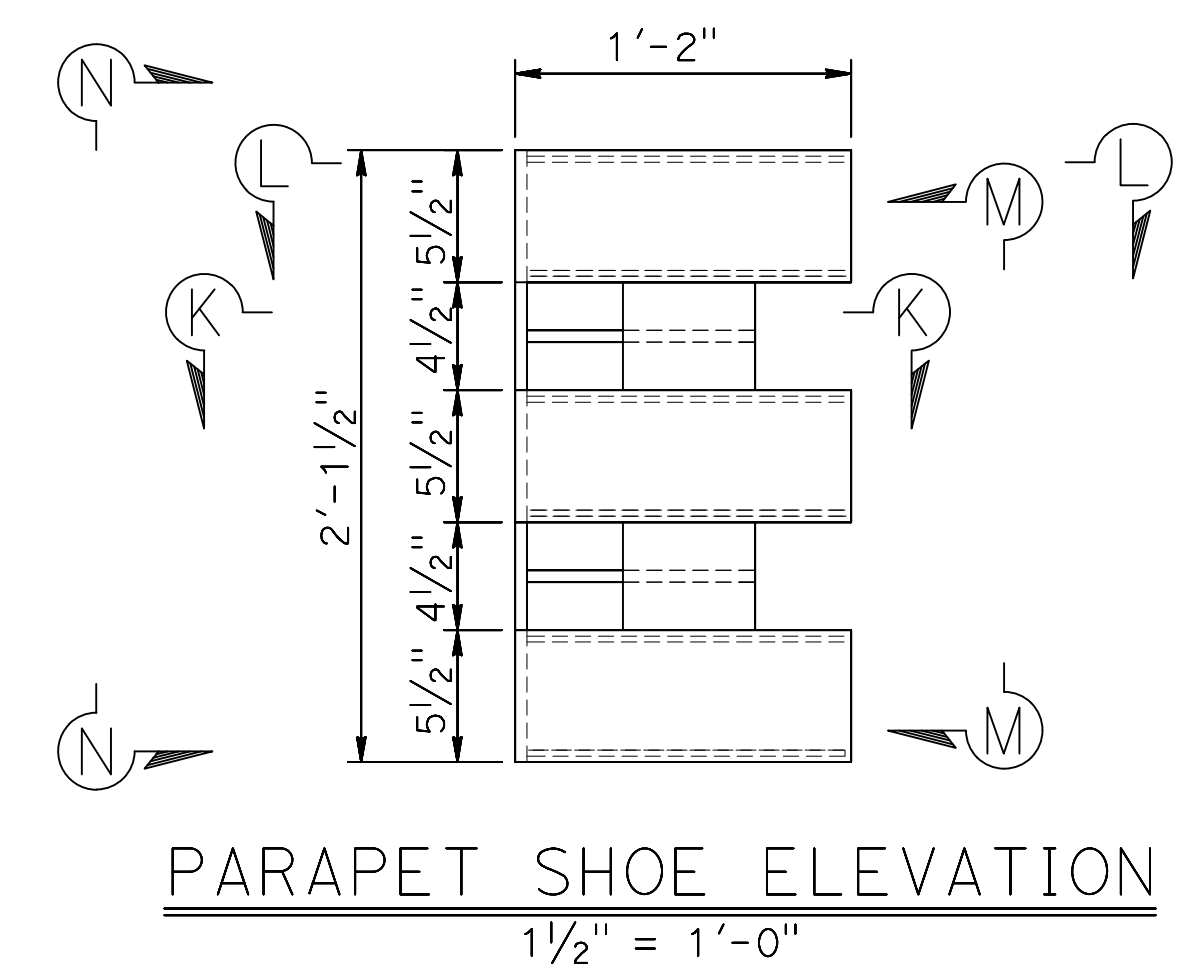
SECTION Q-Q

1/2" = 1'-0"



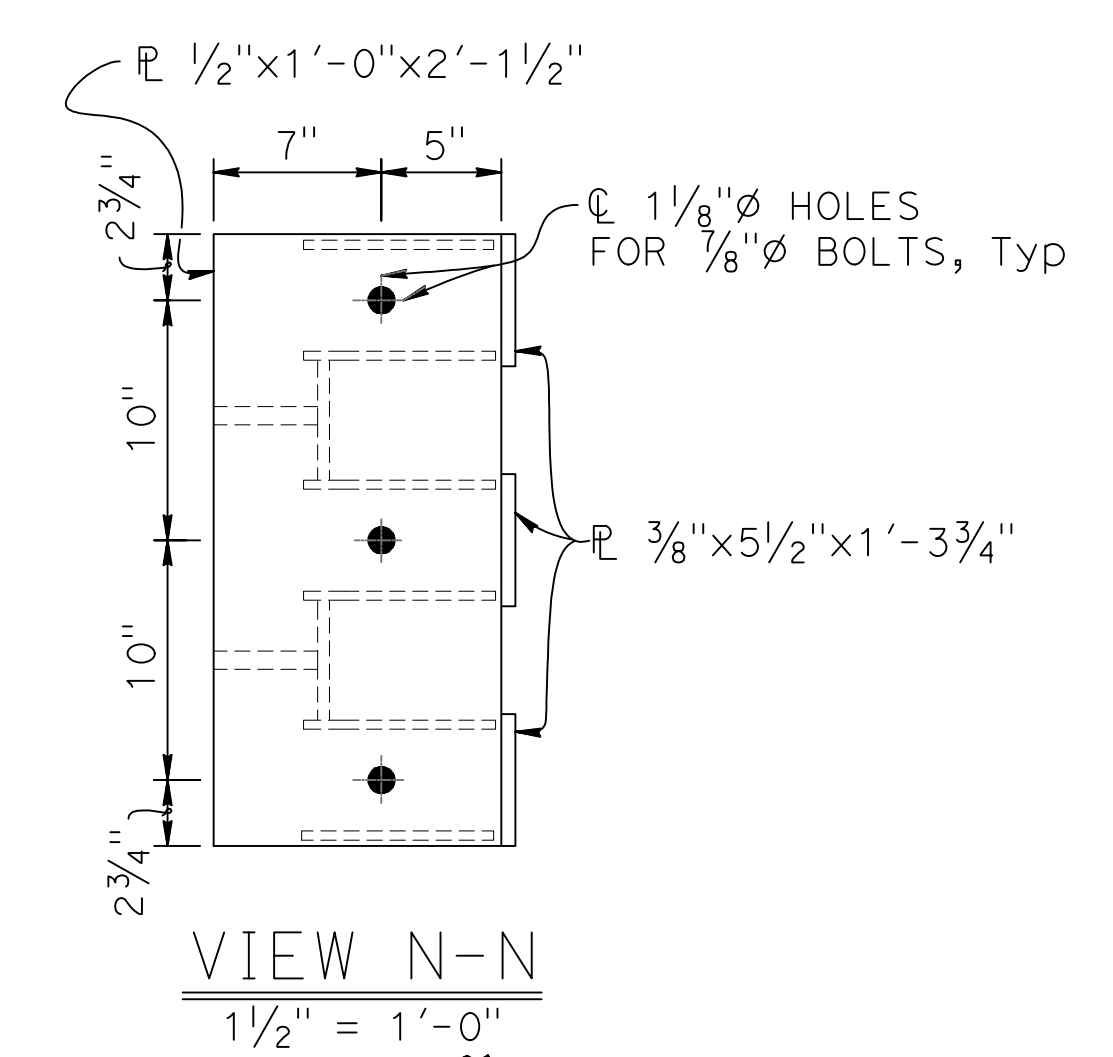
VIEW M-M

1/2" = 1'-0"



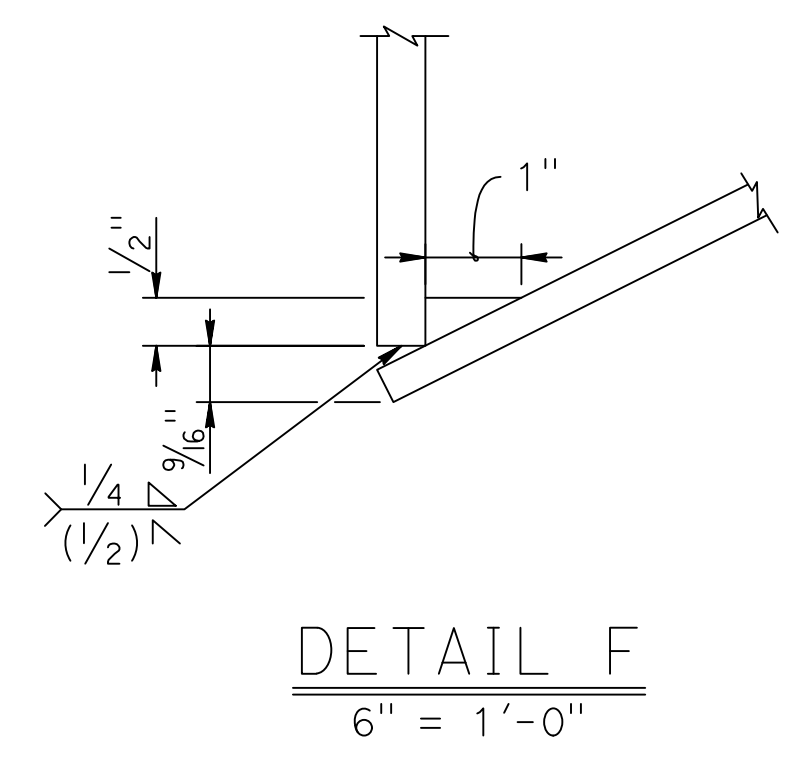
PARAPET SHOE ELEVATION

1/2" = 1'-0"



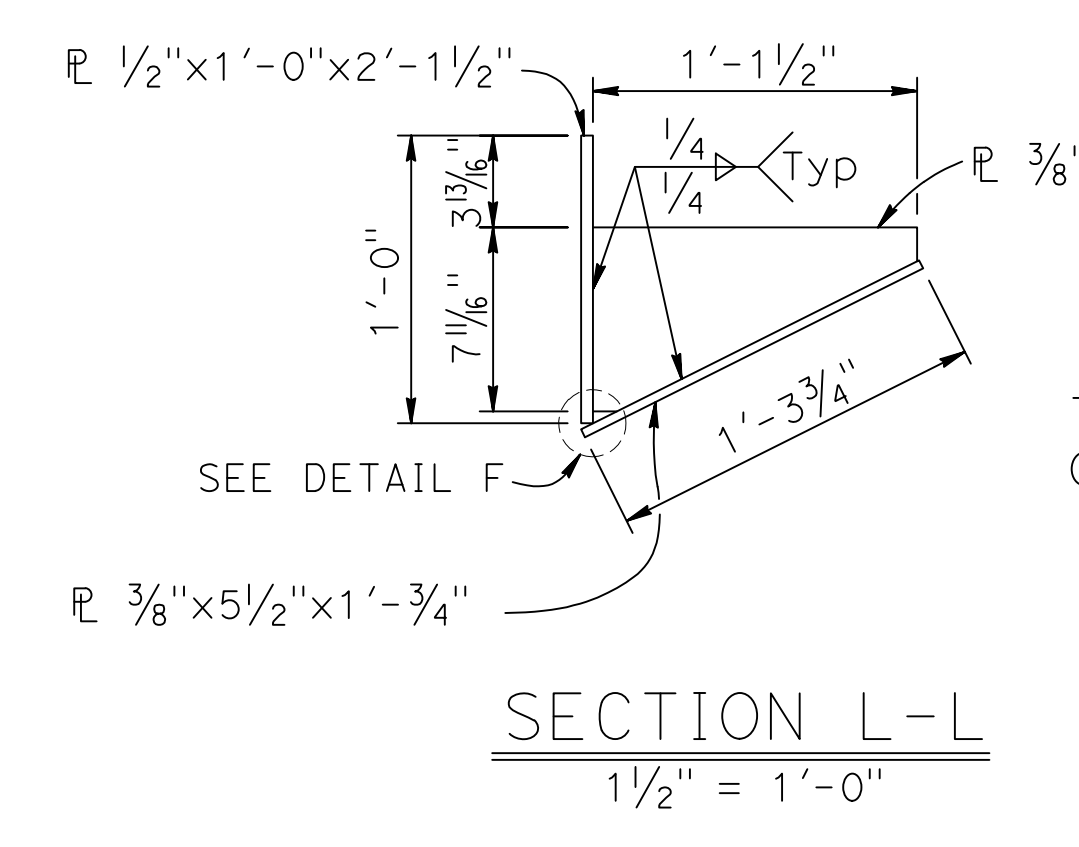
VIEW N-N

1/2" = 1'-0"



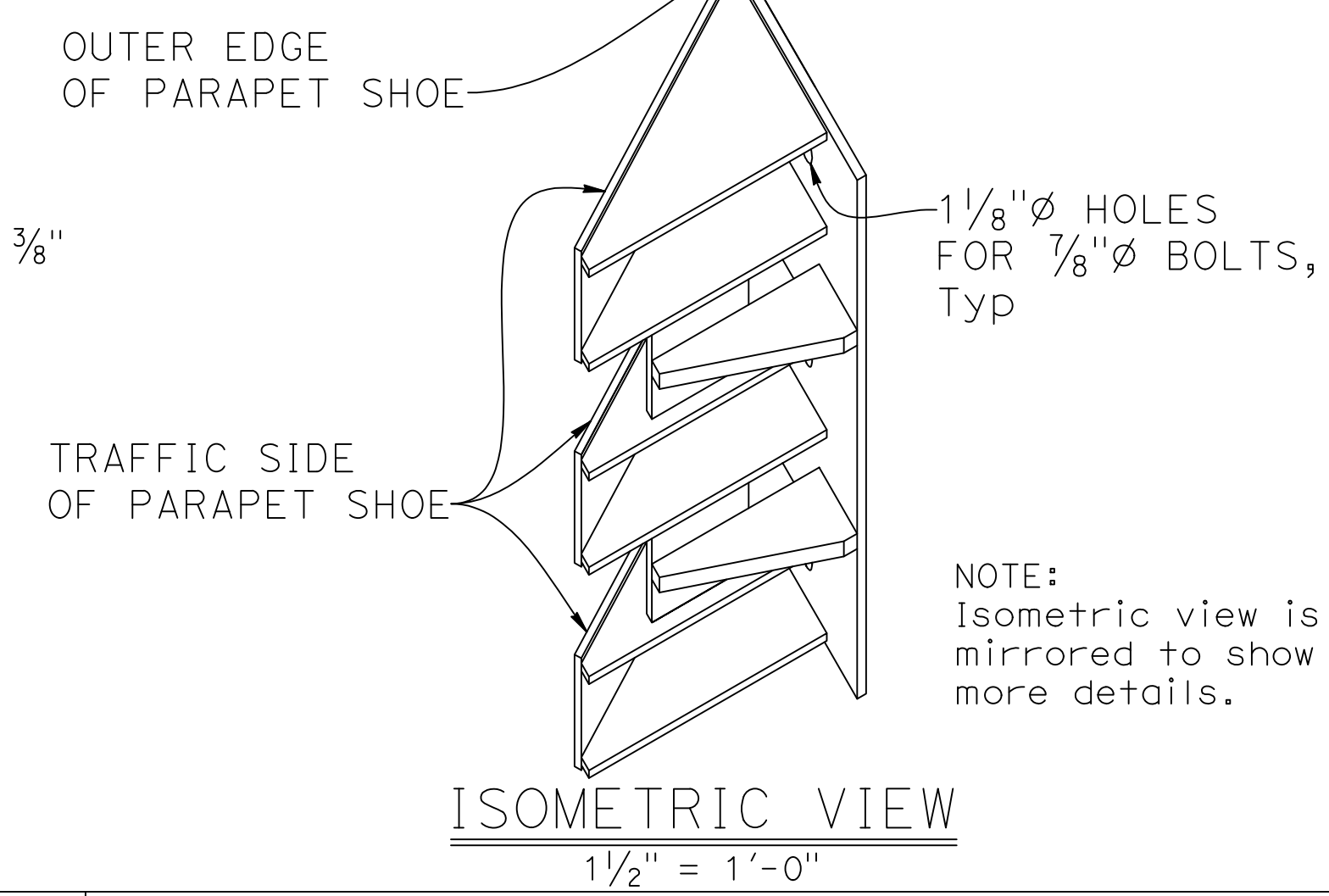
DETAIL F

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.	11C0016
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 => 11-0016-r-rspxs16-116-5

DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET	OF
	12/18/19 06/28/22 01/05/22	13	17

2022 STANDARD PLAN XS-16-116-5 MW 89:15:01 < 05/31/2023 DATE PLOTTED => 05/31/2023 USERNAME => KEVIN

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	34	37

7/19/13
 GEOTECHNICAL PROFESSIONAL DATE

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
 ROSS KHIABANI
 No. GE2202
 Exp. 6/30/20
 STATE OF CALIFORNIA

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

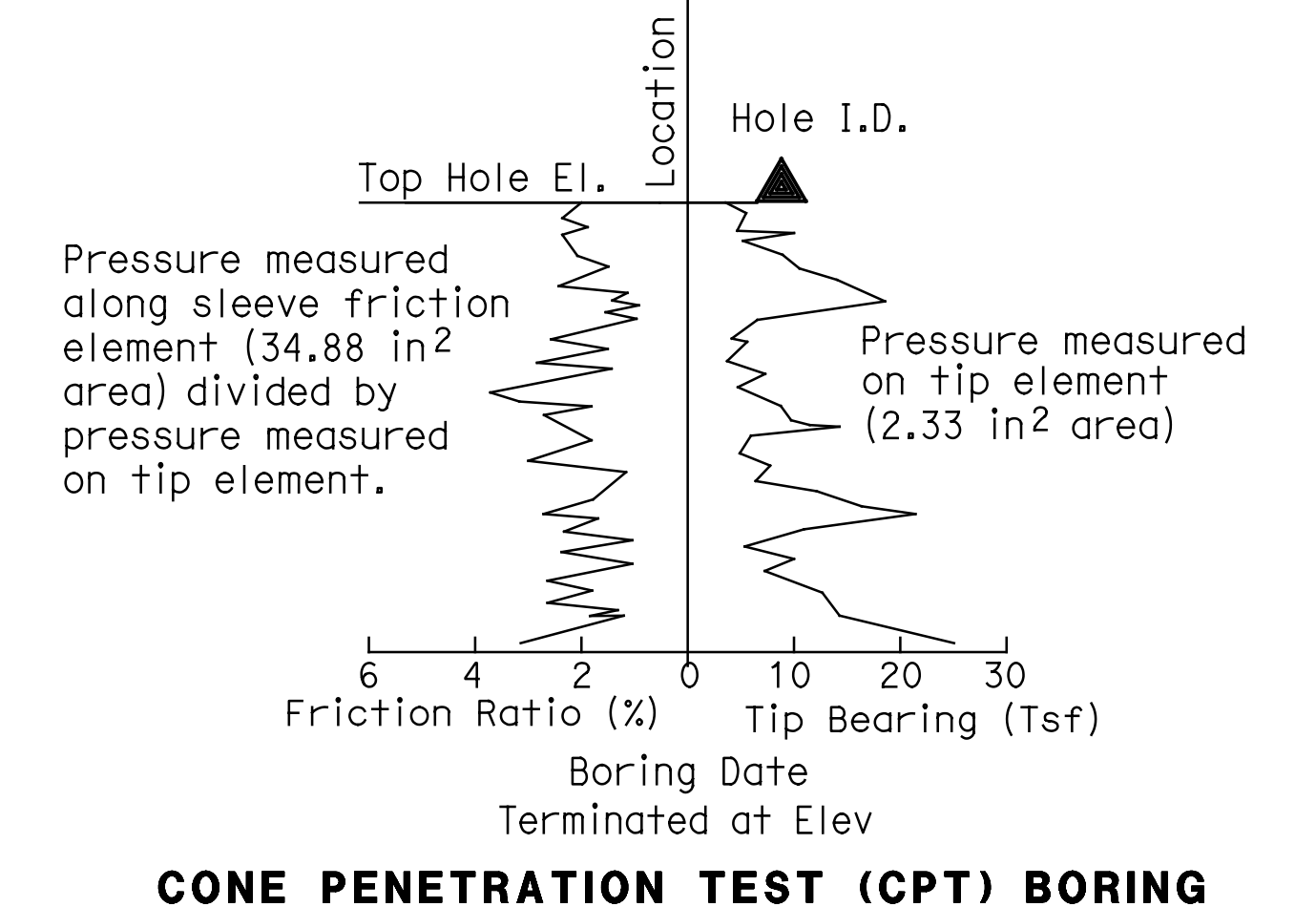
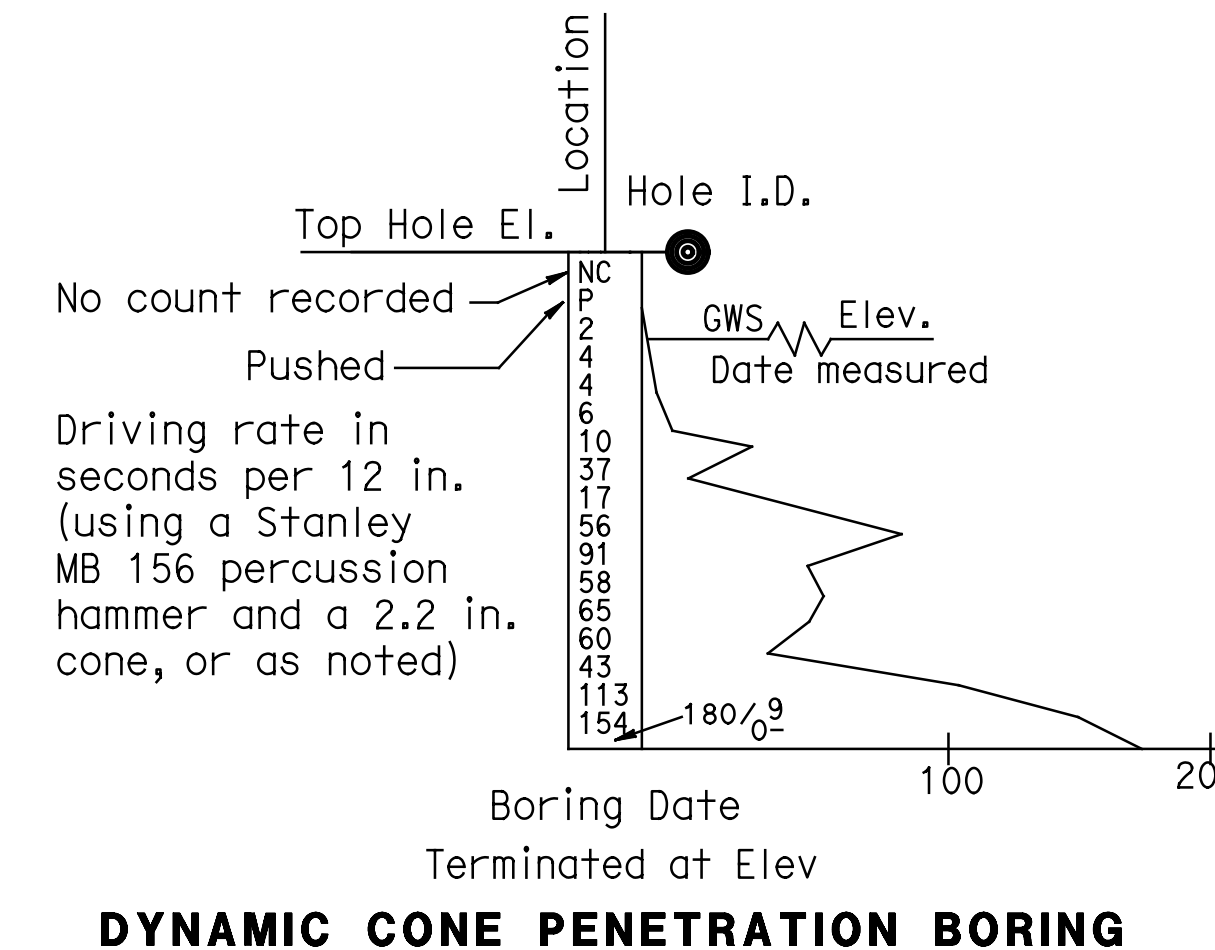
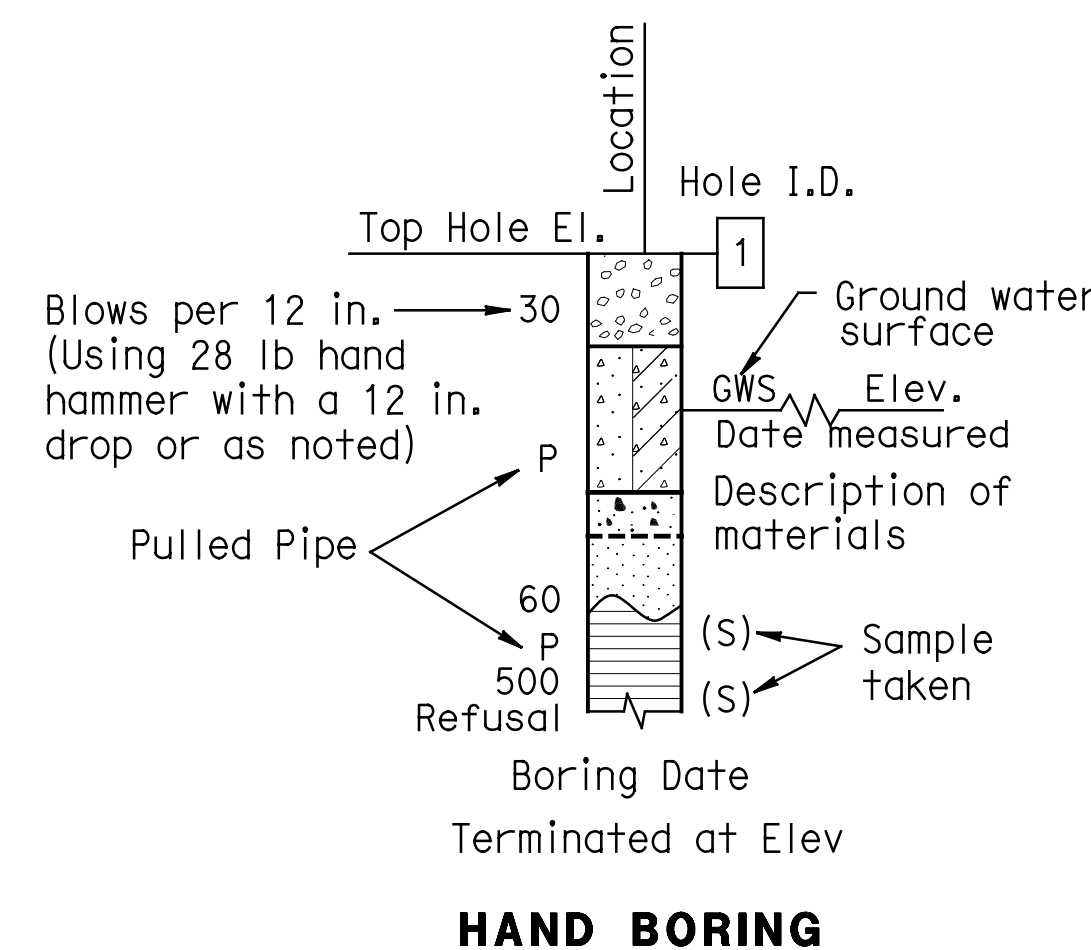
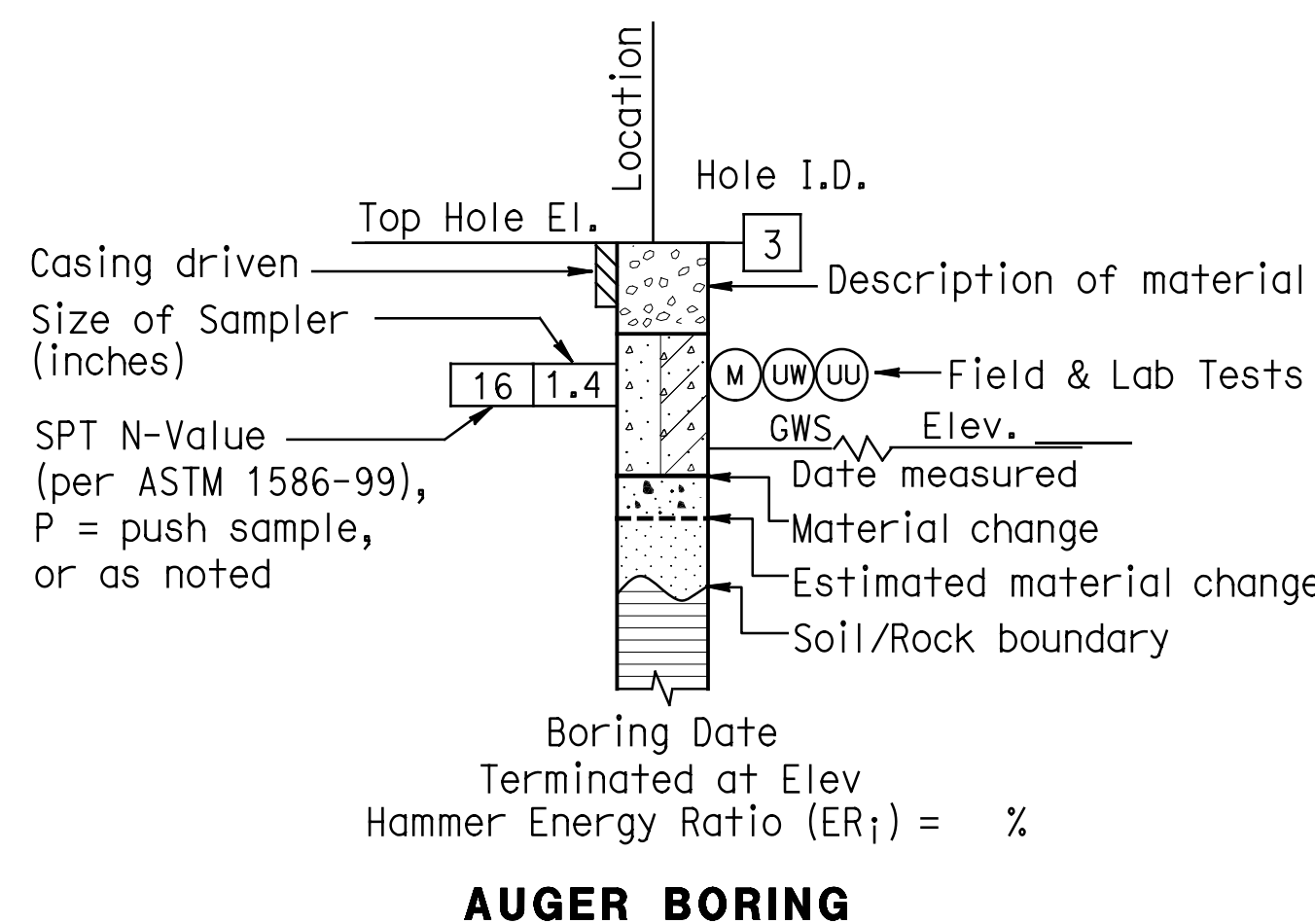
CEMENTATION	
Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

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

PREPARED FOR	G. GORDON	BRIDGE NO.	11C0016
COUNTY OF GLENN	PROJECT ENGINEER	POST MILES	NA
PUBLIC WORKS AGENCY			

HOWARD SLOUGH BRIDGE (REPLACE)
SOIL LEGEND 1 OF 2

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		CL-ML SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY 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		ML SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND		OL ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with 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		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		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
	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		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		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
	GC CLAYEY GRAVEL CLAYEY GRAVEL with SAND				
	GC-GM SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND		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		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
	SW Well-graded SAND Well-graded SAND with GRAVEL				
	SP Poorly-graded SAND Poorly-graded SAND with 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		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
	SW-SM Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL				
	SW-SC Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY 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		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				
	SP-SC Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY 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		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
	SM SILTY SAND SILTY SAND with GRAVEL				
	SC CLAYEY SAND CLAYEY SAND with 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		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
	SC-SM SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL				
	PT PEAT		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		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
	COBBLES COBBLES and BOULDERS BOULDERS				

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 ₆₀ (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

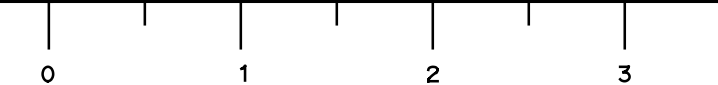
DRAWN BY: S. McCracken
 CHECKED BY: R. Khiabani
 B. KILLEEN
 FIELD INVESTIGATION BY:
 DATE: X

PREPARED FOR
COUNTY OF GLENN
 PUBLIC WORKS AGENCY

G. GORDON
 PROJECT ENGINEER
 BRIDGE NO. 11C0016
 POST MILES NA

HOWARD SLOUGH BRIDGE (REPLACE)
SOIL LEGEND 2 OF 2

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



USERNAME => Richard DATE PLOTTED => 6/21/2018 TIME PLOTTED => 3:48:08 PM

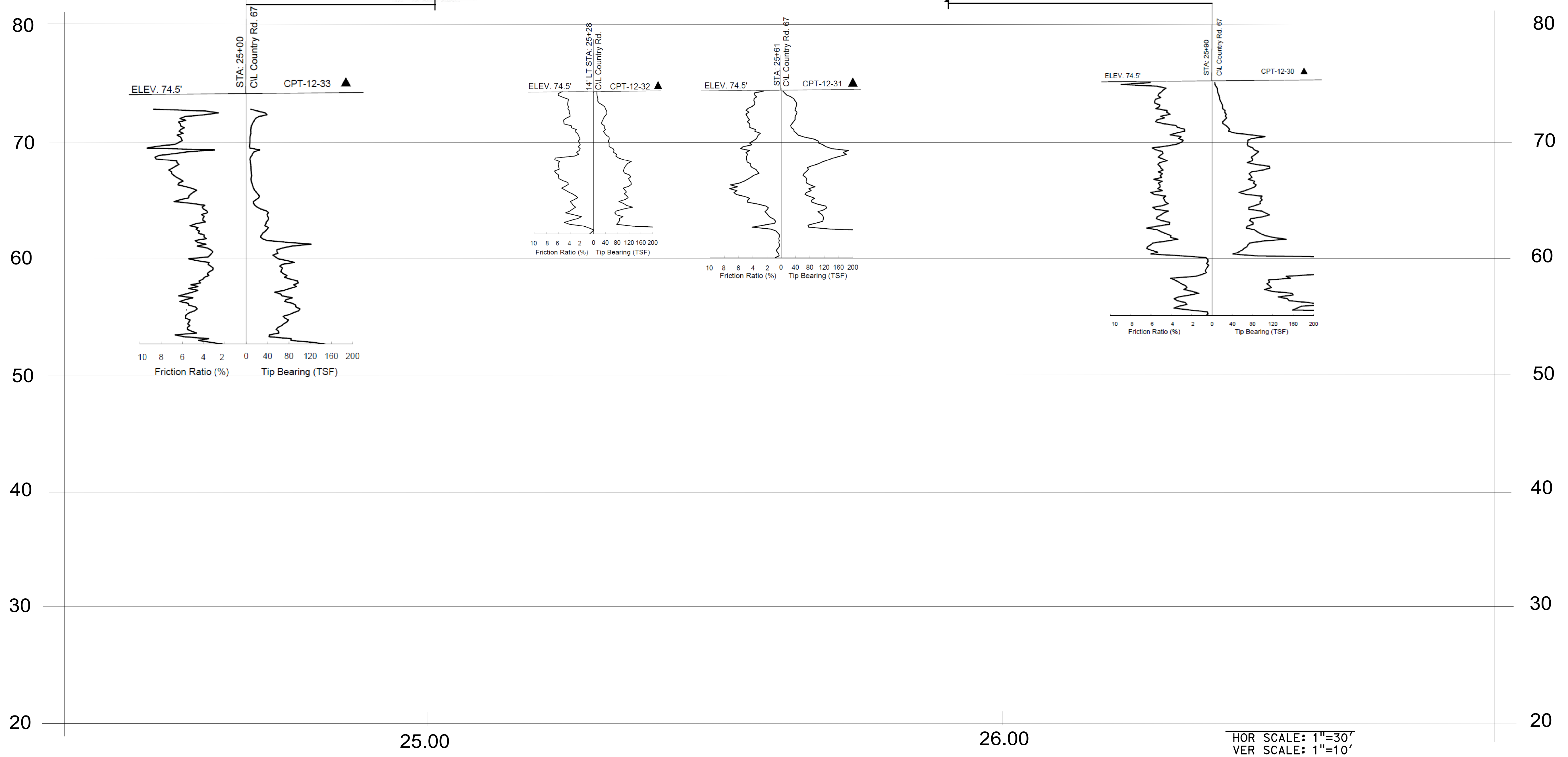
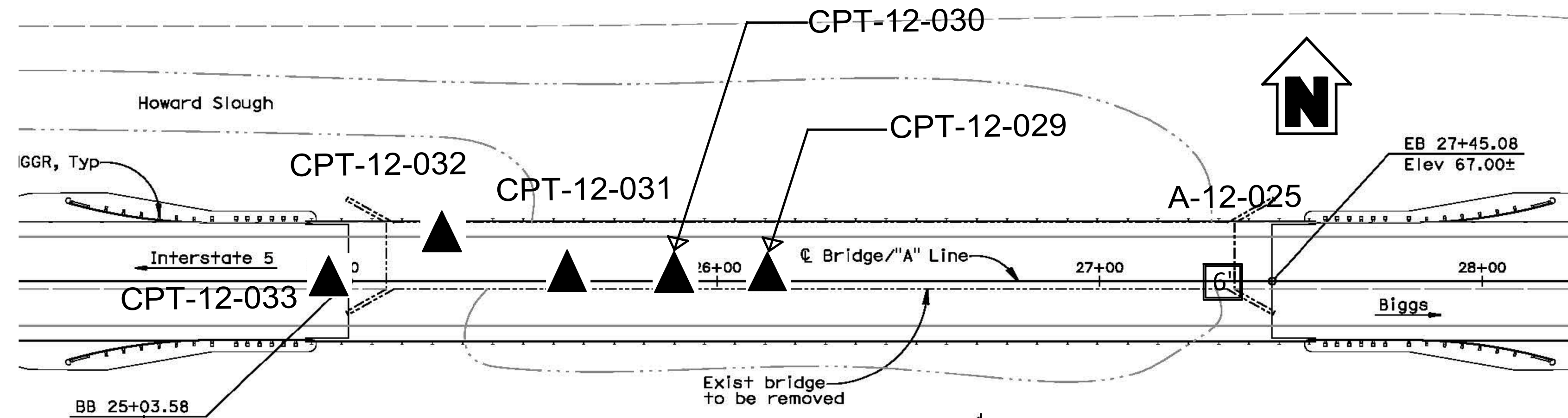
BENCH MARK

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	36	37

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

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



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

PREPARED FOR
COUNTY OF GLENN
 PUBLIC WORKS AGENCY

G. GORDON
 PROJECT ENGINEER

BRIDGE NO.	11C0016
POST MILES	NA

HOWARD SLOUGH BRIDGE (REPLACE)
LOG OF TEST BORINGS 1 OF 2



REVISION DATES	SHEET	OF
10/12/12	15	16

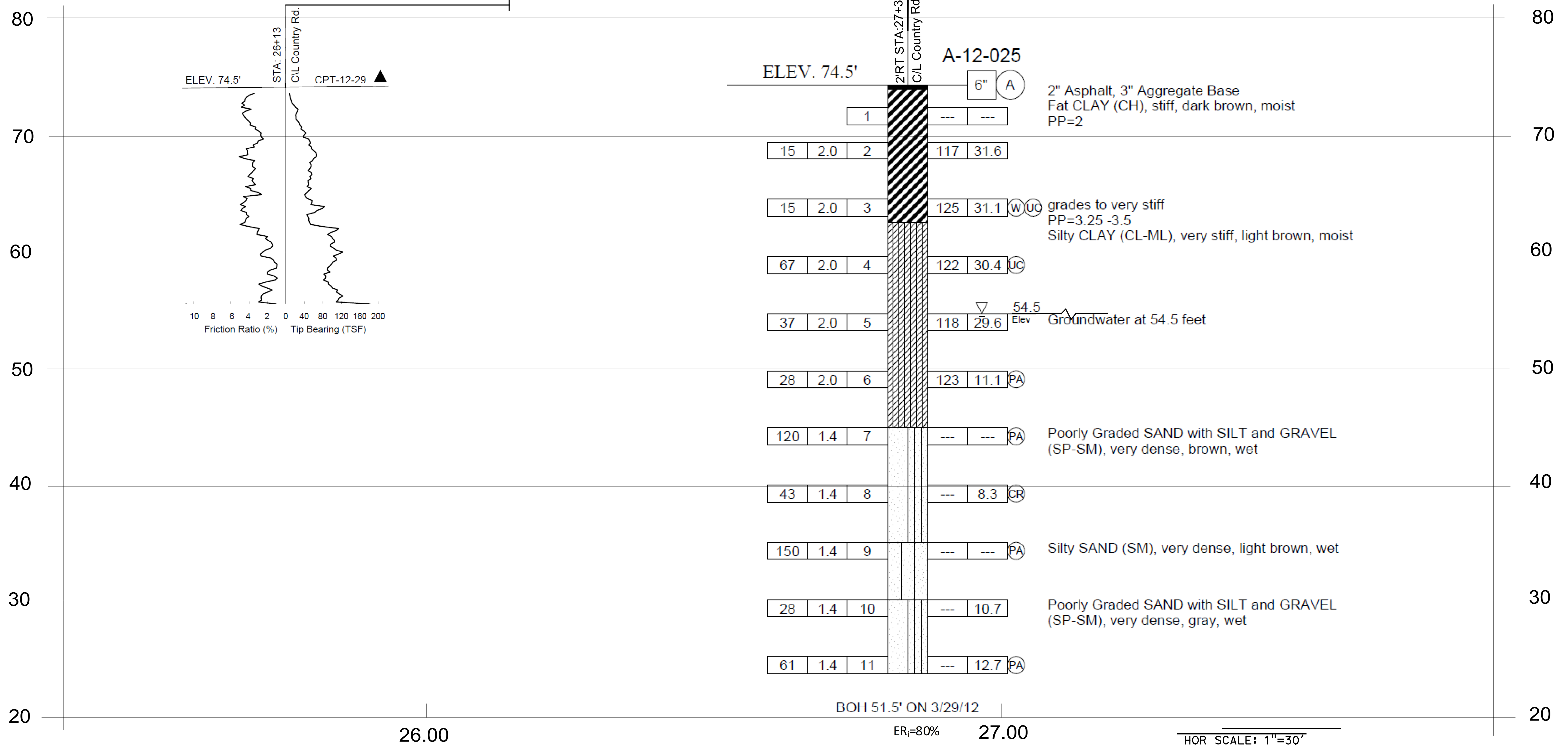
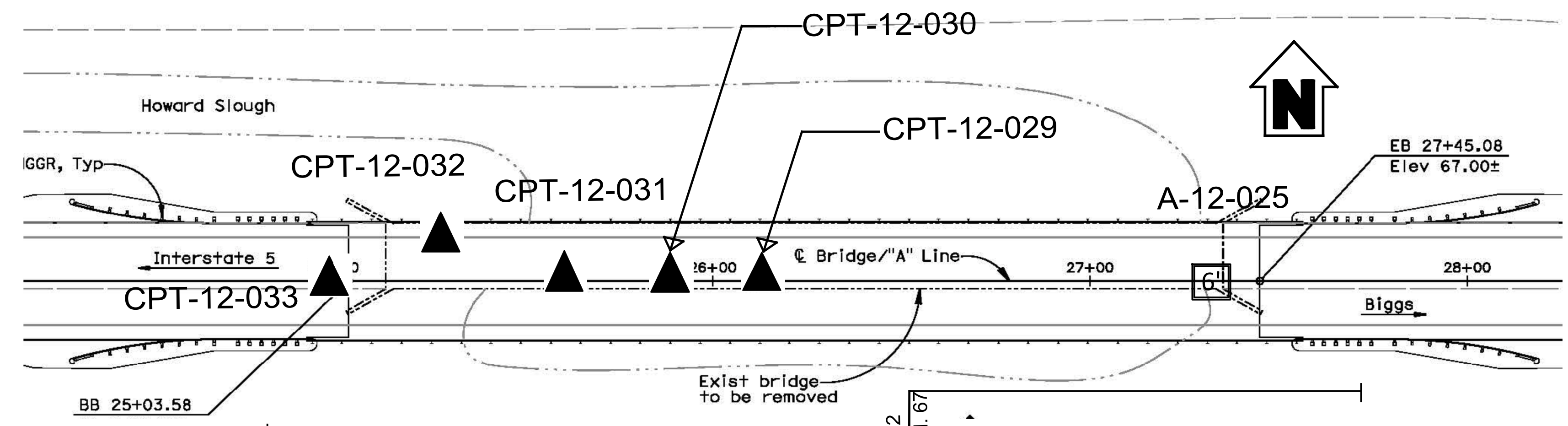
BENCH MARK

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
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
03	Glenn	CR 67	NA	37	37

ROSS KHIABANI 7/19/13
 GEOTECHNICAL PROFESSIONAL DATE
 PLANS APPROVAL 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



Friction Ratio (%) Tip Bearing (TSF)

DRAWN BY S. McCracken	B. KILLEEN FIELD INVESTIGATION BY: DATE: X	BRIDGE NO. 11C0016	HOWARD SLOUGH BRIDGE (REPLACE)
CHECKED BY R. KHIABANI		POST MILES NA	

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

DISREGARD PRINTS BEARING EARLIER REVISION DATES
 REVISION DATES
 SHEET 16 OF 16

USERNAME => richardc DATE PLOTTED => 6/21/2018 TIME PLOTTED => 3:49:25 PM