

[illegible]

I:\projects\HAM\20082\roadway\sheets\20082\GG001.dgn 11-MAY-2011 2:42PM hassain

SHEET NUMBER														ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED AWS	CHECKED MAH
21	22	23	87	88	89	90	91	92	93	94	191	192	194								
								LUMP						201	11000	LUMP		ROADWAY			
			15256		6476		6685		10617					202	23000	39034	SQ YD	CLEARING AND GRUBBING			
			23003		8385		11023		12747					202	30000	55158	SQ FT	PAVEMENT REMOVED			
			22				47							202	30200	69	FT	WALK REMOVED			
									LUMP					202	30204	LUMP		STEPS REMOVED			
																		STEPS REMOVED			
			6986		2791		3046		2443					202	32000	15266	FT	CURB REMOVED			
													3470	202	35100	3470	FT	PIPE REMOVED, 24" AND UNDER			
													373	202	35201	373	FT	PIPE REMOVED, OVER 24", AS PER PLAN	195		
													28	202	58000	28	EACH	MANHOLE REMOVED			
													70	202	58100	70	EACH	CATCH BASIN REMOVED			
													23	202	58700	23	EACH	MANHOLE ABANDONED			
		5												202	66500	5	EACH	UNDERGROUND STORAGE TANK REMOVED			
			443		132				143					202	75000	718	FT	FENCE REMOVED			
									210					202	98000	LUMP		REMOVAL MISC.: STORMWATER DIVERSION CHAMBER	195		
														202	98200	210	FT	REMOVAL MISC.: WALL REMOVED			
									10972					203	10000	10972	CU YD	EXCAVATION			
									65442					203	20000	65442	CU YD	EMBANKMENT			
			25371		5025		8989		4170					204	10000	43555	SQ YD	SUBGRADE COMPACTION			
								4246		1108				204	13000	5354	CU YD	EXCAVATION OF SUBGRADE			
								4246		1108				204	30020	5354	CU YD	GRANULAR MATERIAL, TYPE C			
40														204	45000	40	HOUR	PROOF ROLLING			
										3325				204	50000	3325	SQ YD	GEOTEXTILE FABRIC			
			146					229						606	13000	375	FT	GUARDRAIL, TYPE 5			
			2											606	22000	2	EACH	ANCHOR ASSEMBLY, TYPE B-98			
								1						606	22010	1	EACH	ANCHOR ASSEMBLY, TYPE E-98			
				4		4								606	26500	8	EACH	ANCHOR ASSEMBLY, TYPE T			
								1						606	35100	1	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 2			
			2					2						606	35140	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE 4			
				20540		7156		9680	9545					608	12000	46921	SQ FT	5" CONCRETE WALK			
					45				40					608	40000	85	FT	CONCRETE STEPS, TYPE A			
				804		300		215	687					608	52000	2006	SF	CURB RAMP			
														622	10060	25	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B			
				34				29						622	10140	63	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE C1			
				149		1110								622	10160	1259	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D			
					2			1						622	25000	3	EACH	CONCRETE BARRIER, END SECTION, TYPE D			
					2			1						622	25052	3	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D			
														653	10000	315	CU YD	TOPSOIL FURNISHED AND PLACED			
		315												690	98400	LUMP		SPECIAL - MISC.: CONSULTANT FOR CONCRETE QUALITY CONTROL INCLUDING TESTING AND INSPECTION	21		
LUMP														690	98400	LUMP		SPECIAL - MISC.: CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST (CAHES) INSPECTION SERVICES	22		
	LUMP													878	25000	LUMP		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	1		
																		EROSION CONTROL			
											93			601	32204	93	CU YD	ROCK CHANNEL PROTECTION, TYPE C WITH FABRIC FILTER			
														659	00100	2	EACH	SOIL ANALYSIS TEST			
									26396					659	10000	26396	SQ YD	SEEDING AND MULCHING			
														659	14000	1400	SQ YD	REPAIR SEEDING AND MULCHING			
														659	15000	1000	SQ YD	INTER-SEEDING			
														659	20000	4	TON	COMMERCIAL FERTILIZER			
														659	31000	6	ACRE	LIME			
														659	35000	0.2	M GAL	WATER			
														659	40000	0.3	M SQ FT	MOWING			
										453				670	00700	453	SQ YD	DITCH EROSION PROTECTION			
											0.21			602	20000	0.21	CU YD	CONCRETE MASONRY			
												62		603	00900	62	FT	6" CONDUIT, TYPE B			
										300				603	00901	300	FT	6" CONDUIT, TYPE B, AS PER PLAN	21		
										33				603	01801	33	FT	8" CONDUIT, TYPE B, AS PER PLAN	195		
										2656				603	04400	2656	FT	12" CONDUIT, TYPE B			
										786				603	04401	786	FT	12" CONDUIT, TYPE B, 706.02, AS PER PLAN	195		
										20				603	04401	20	FT	12" CONDUIT, TYPE B, 707.01, AS PER PLAN	195		
										392				603	04408	392	FT	12" CONDUIT, TYPE B, 748.01, AS PER PLAN	195		

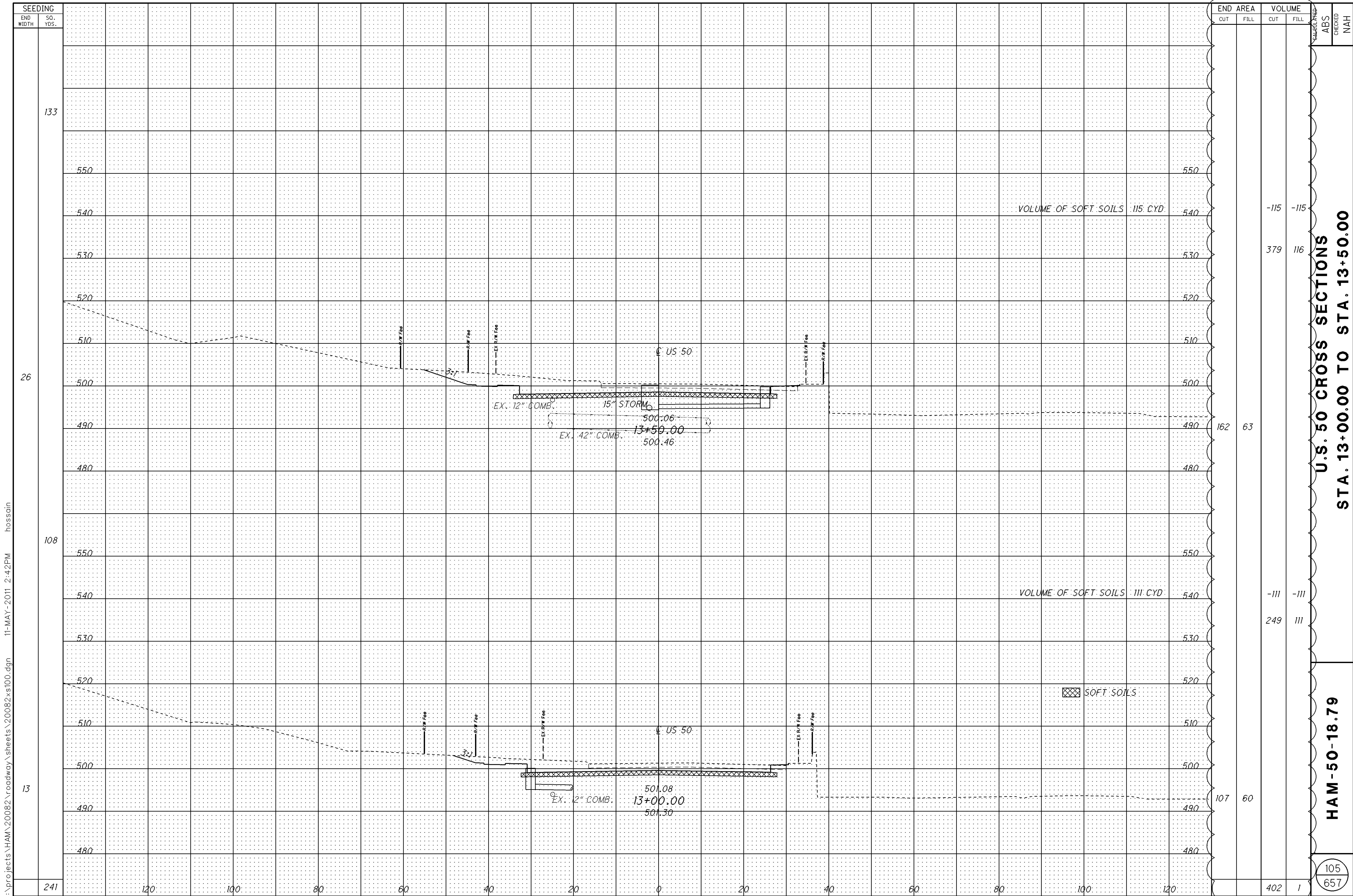
GENERAL SUMMARY

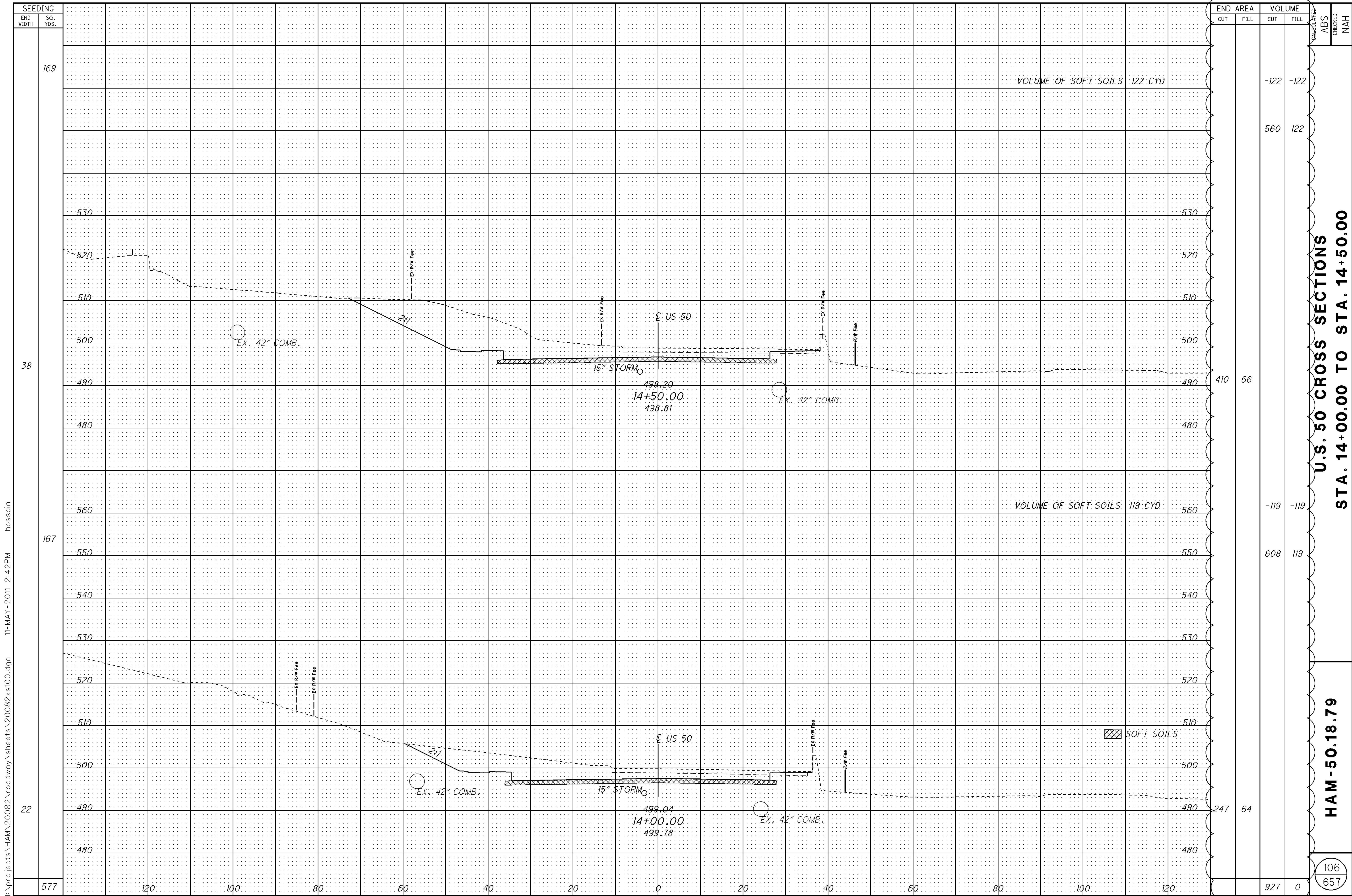
HAM -50-18.79

82
657

ROADWAY SUB-SUMMARY

104
657



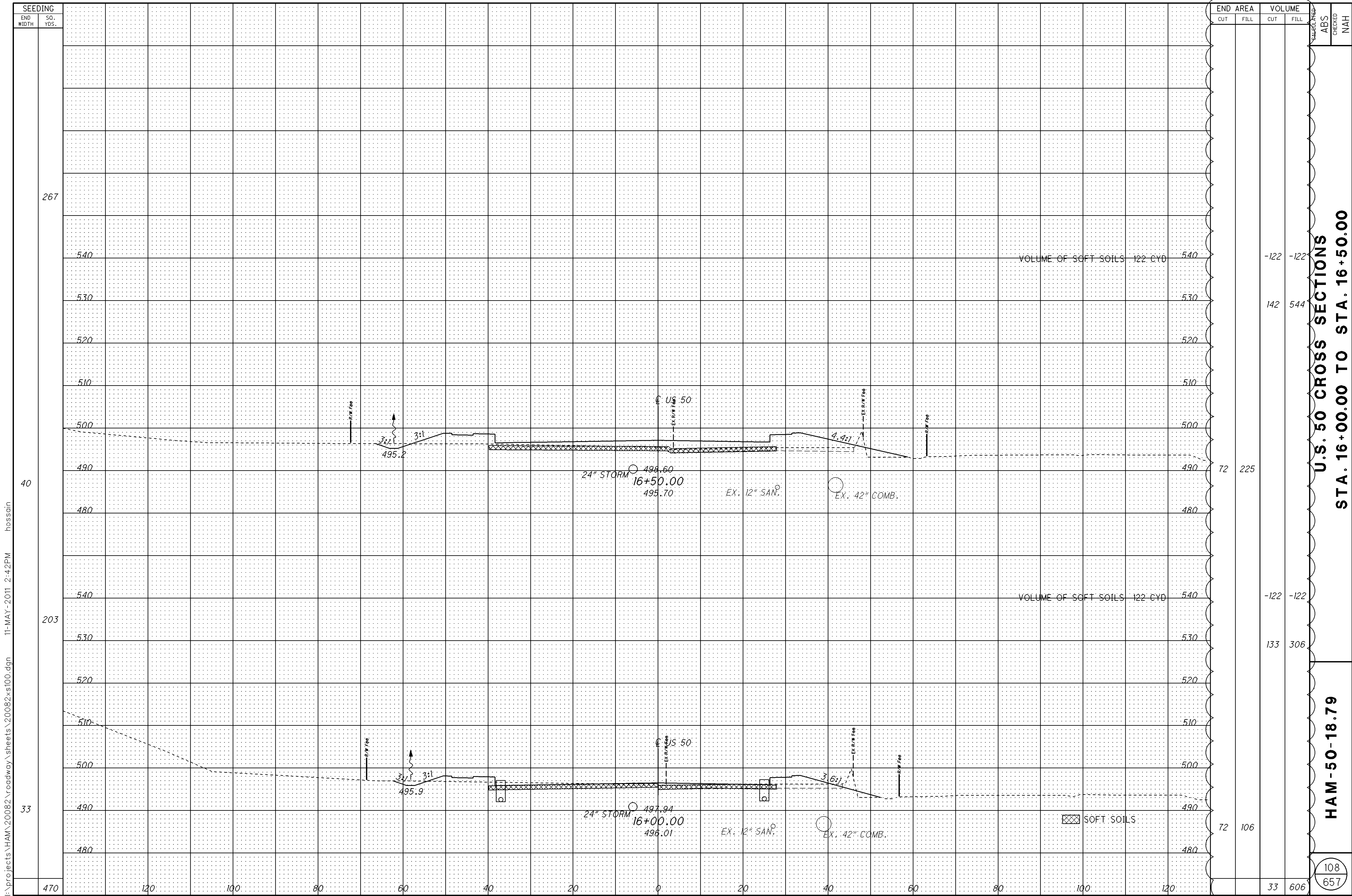


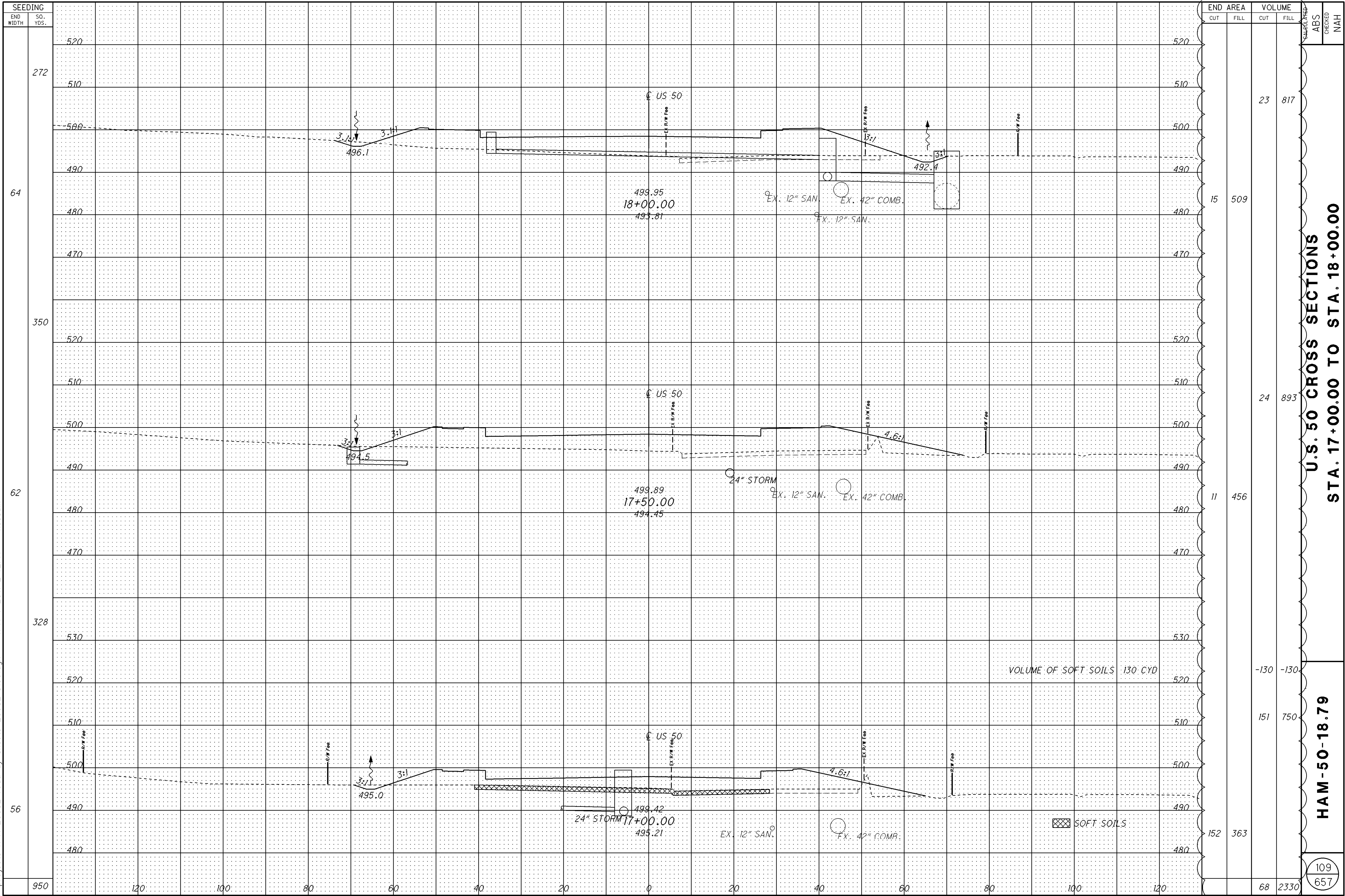
U.S. 50 CROSS SECTIONS
STA. 14+00.00 TO STA. 14+50.00

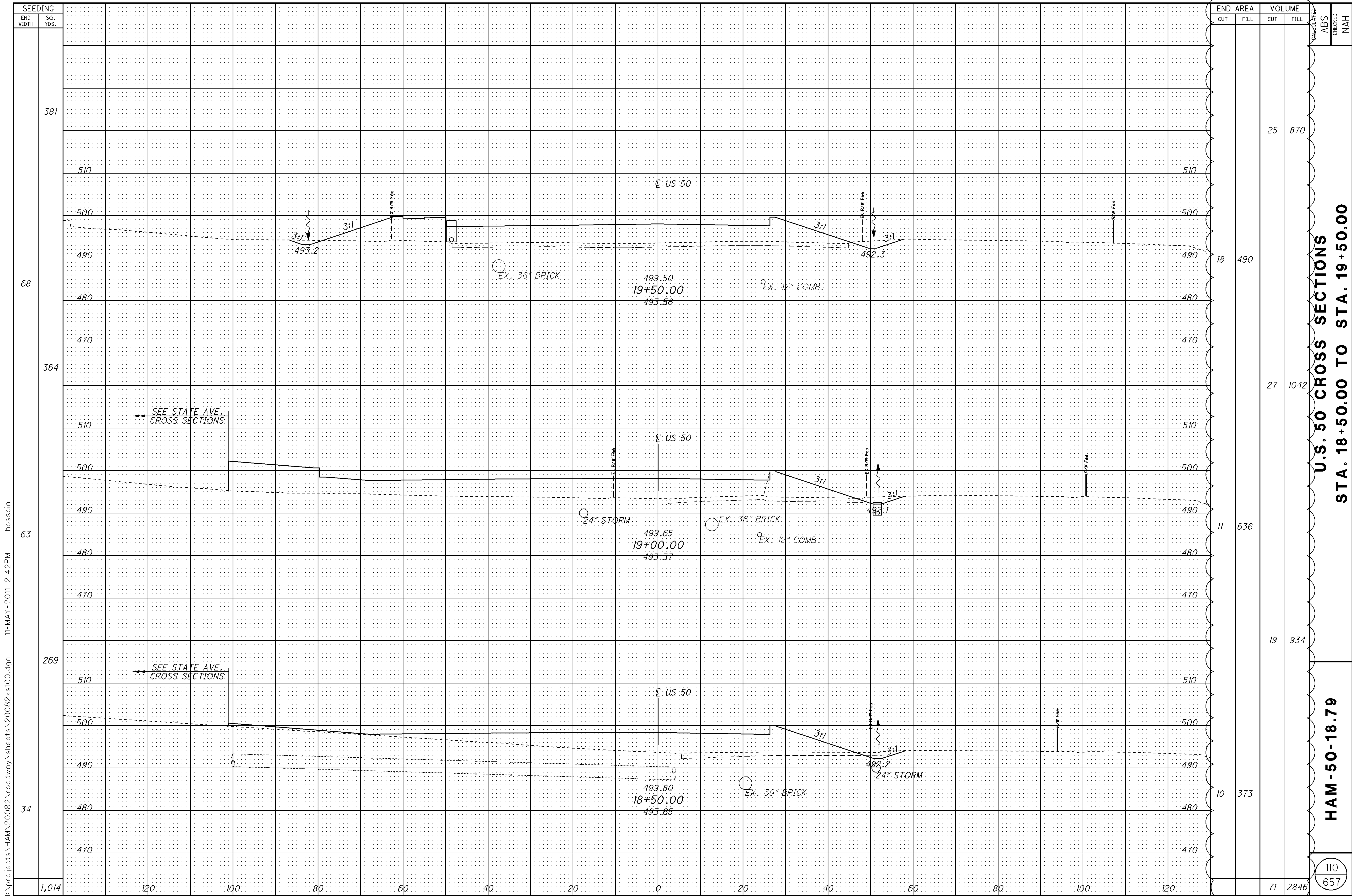
HAM-50.18.79

106
657

$$\frac{107}{657}$$



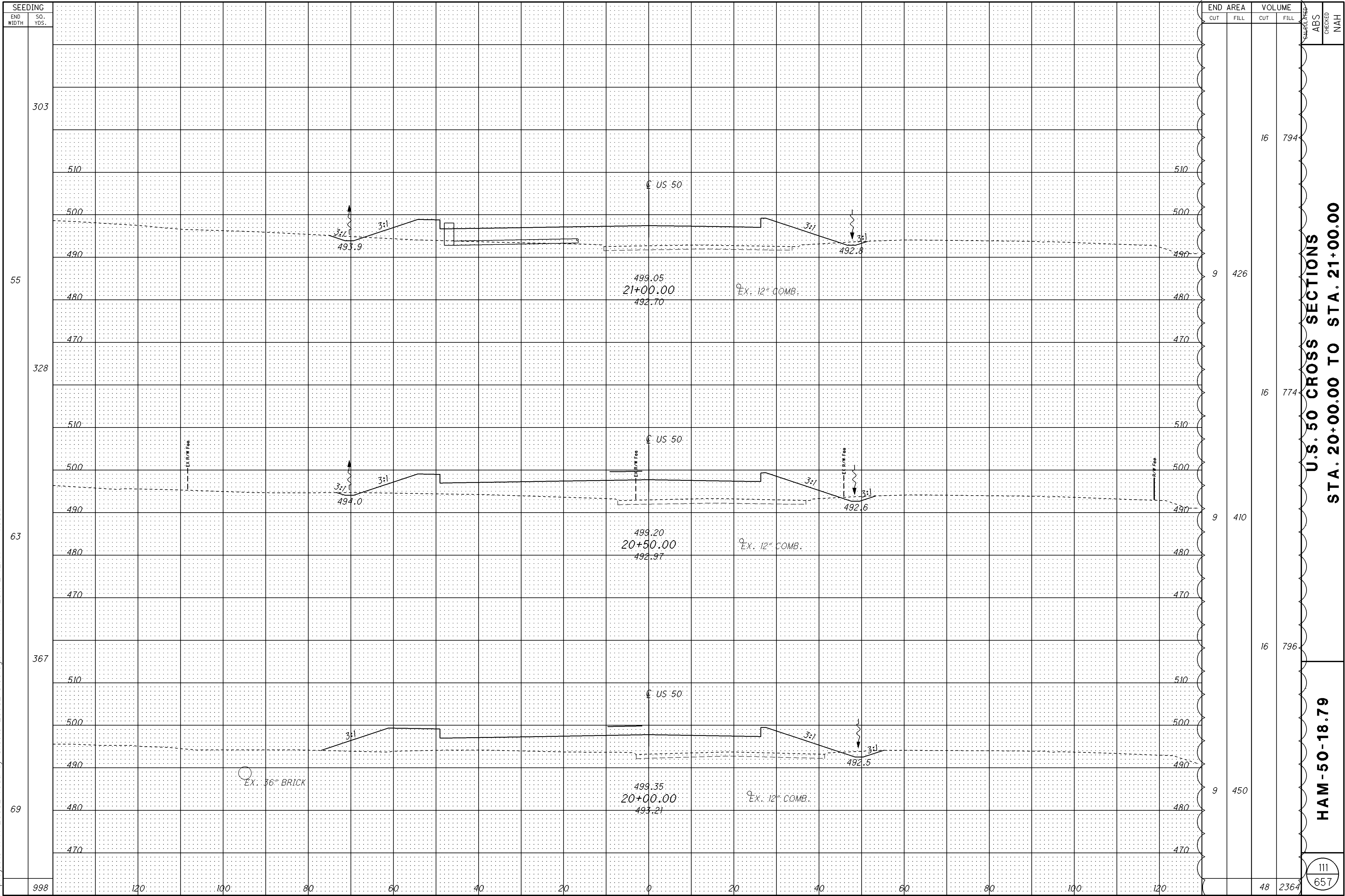


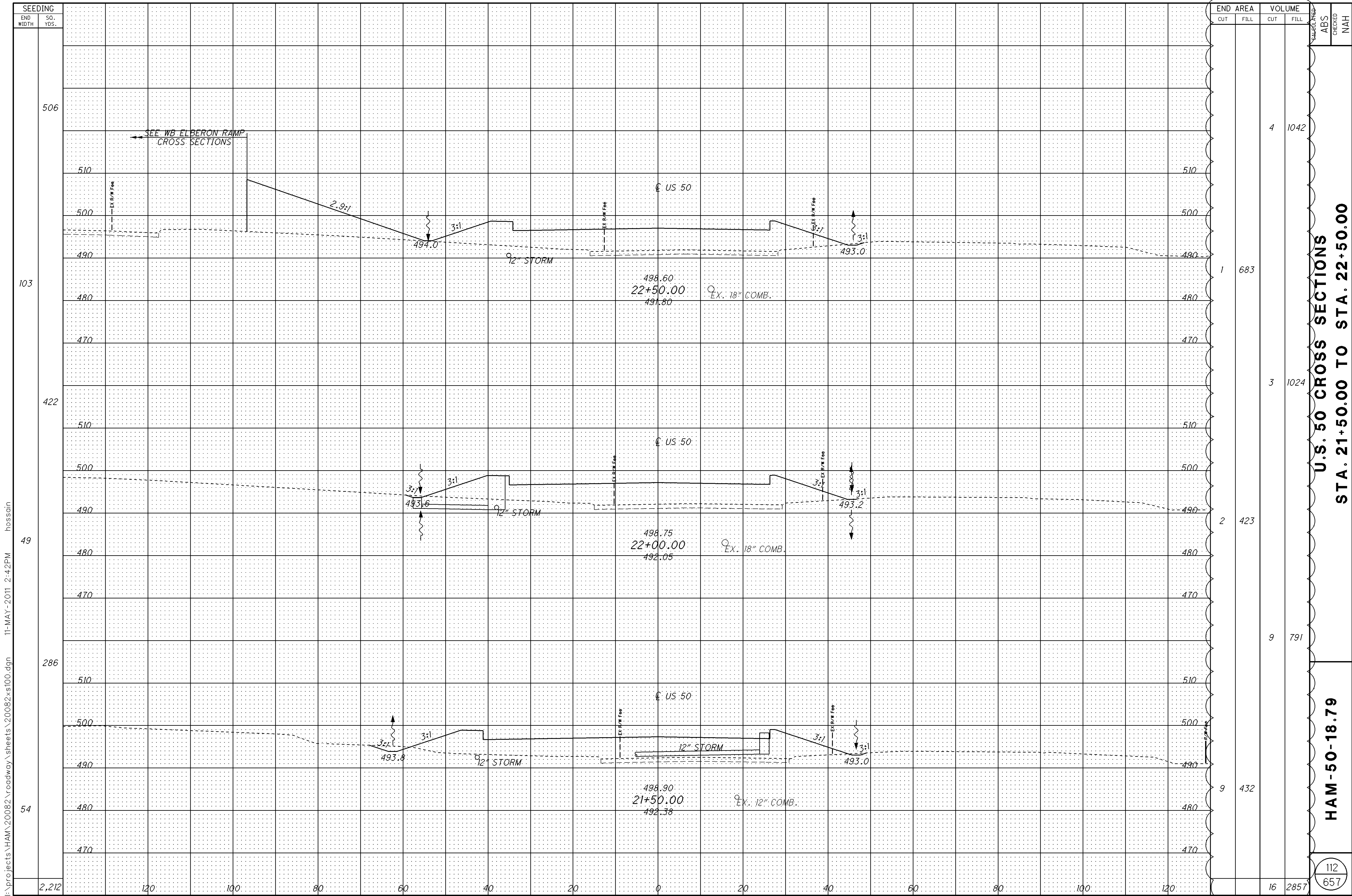


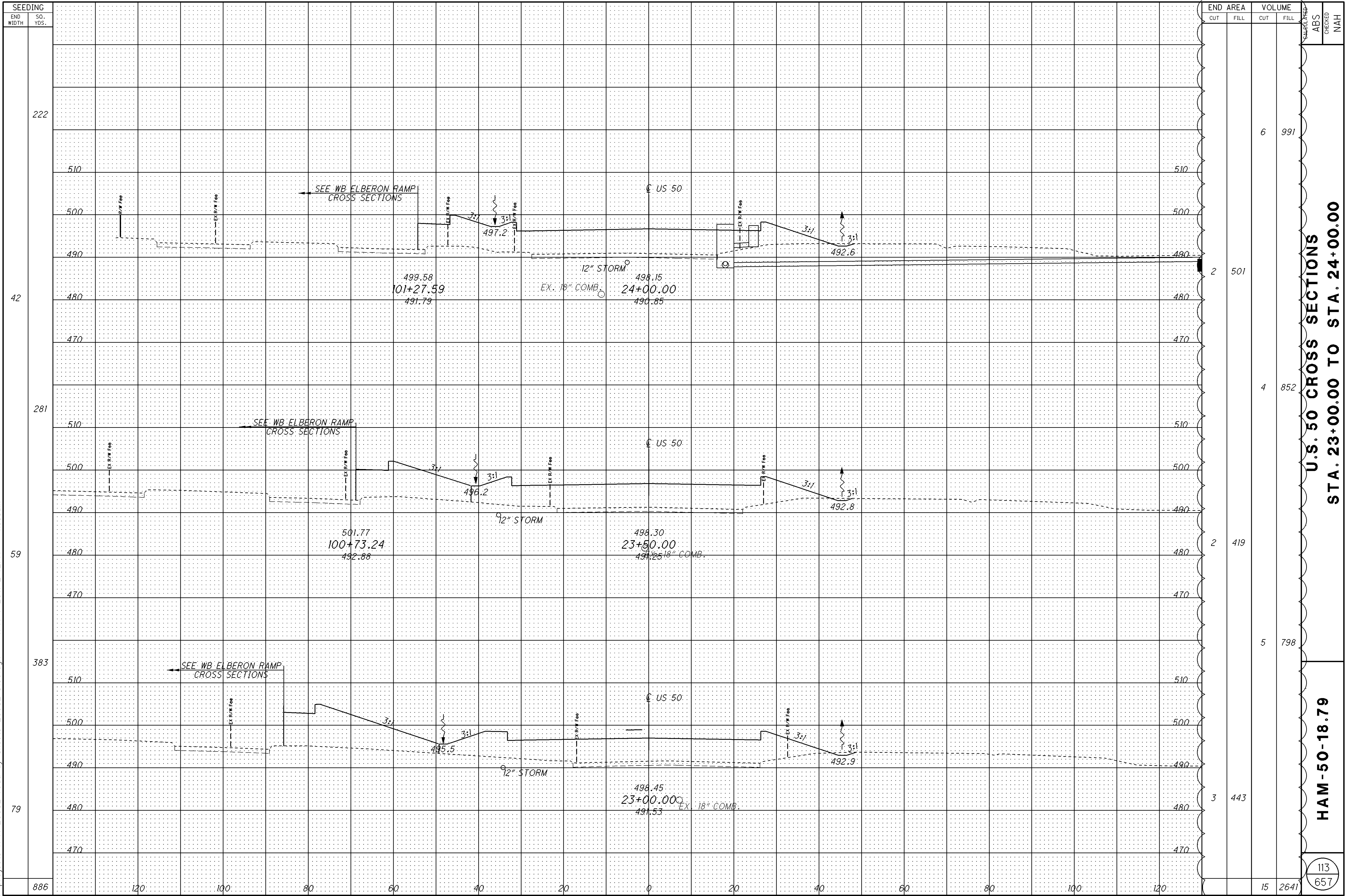
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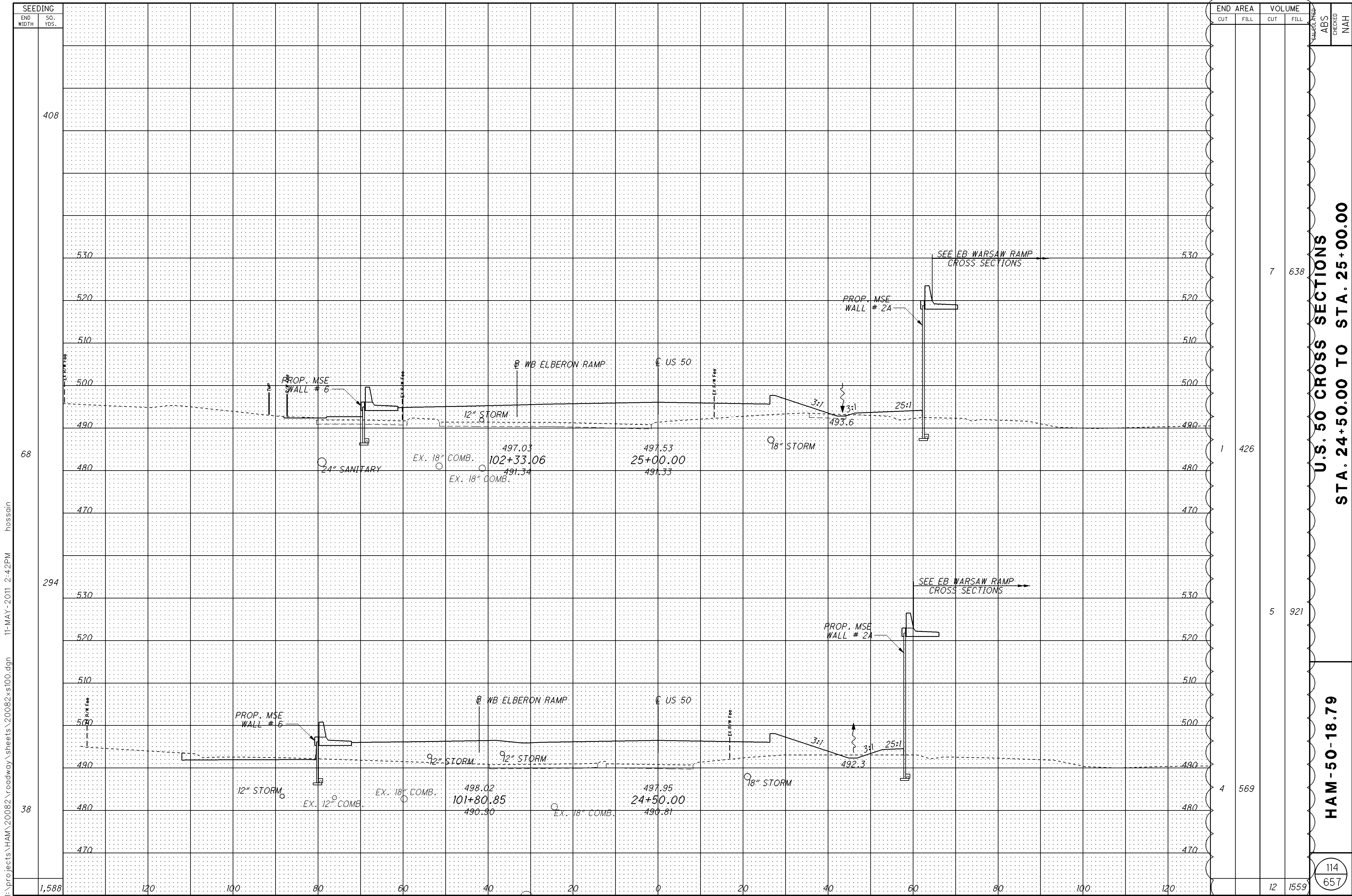
HAM-50-18.79

110
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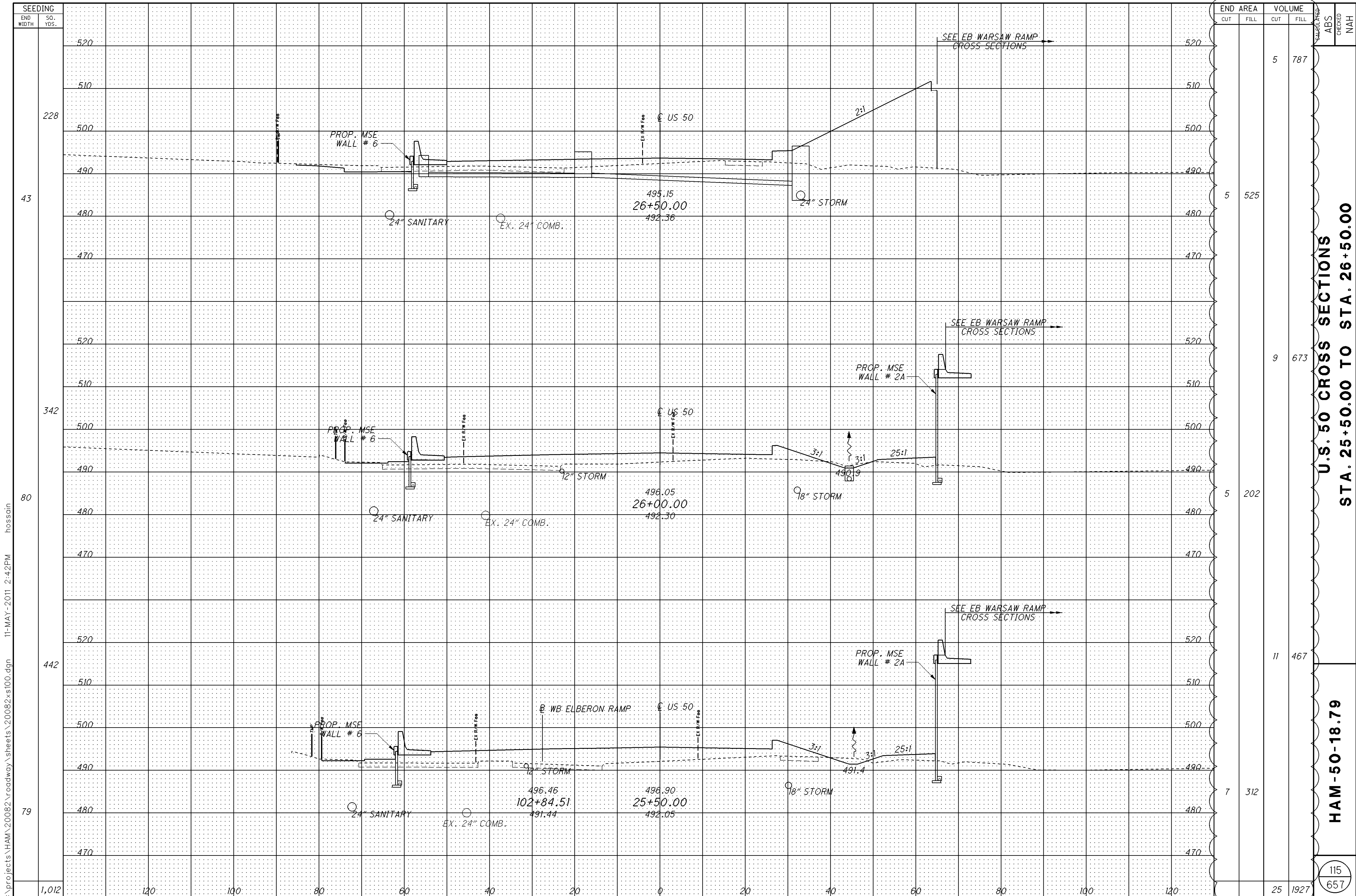


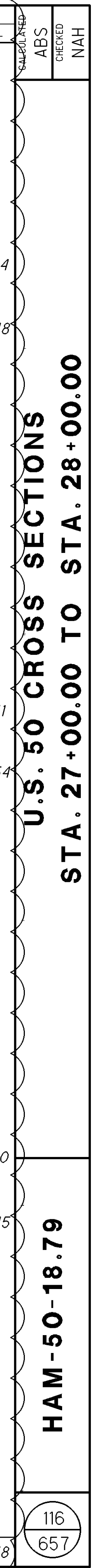
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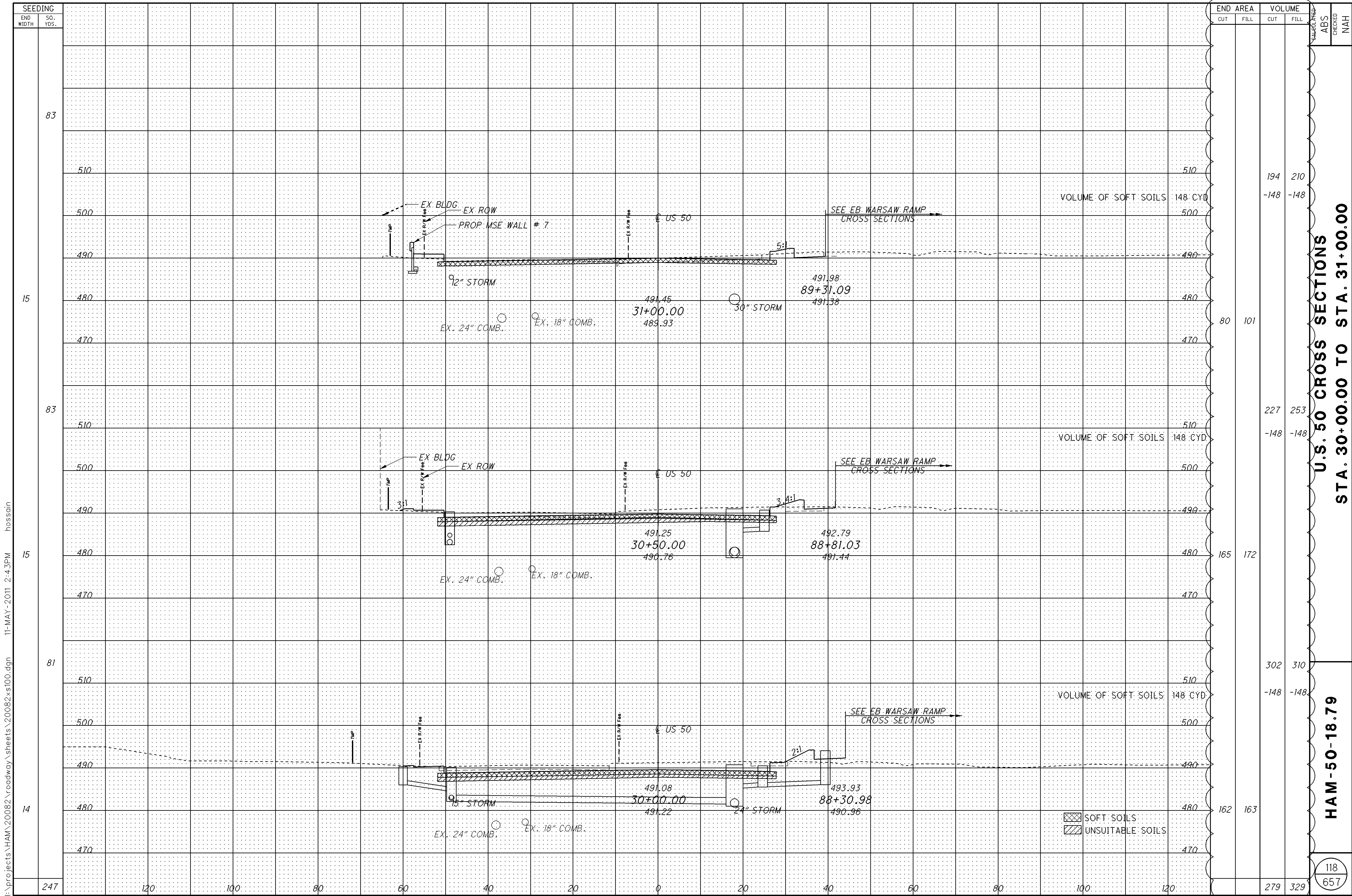
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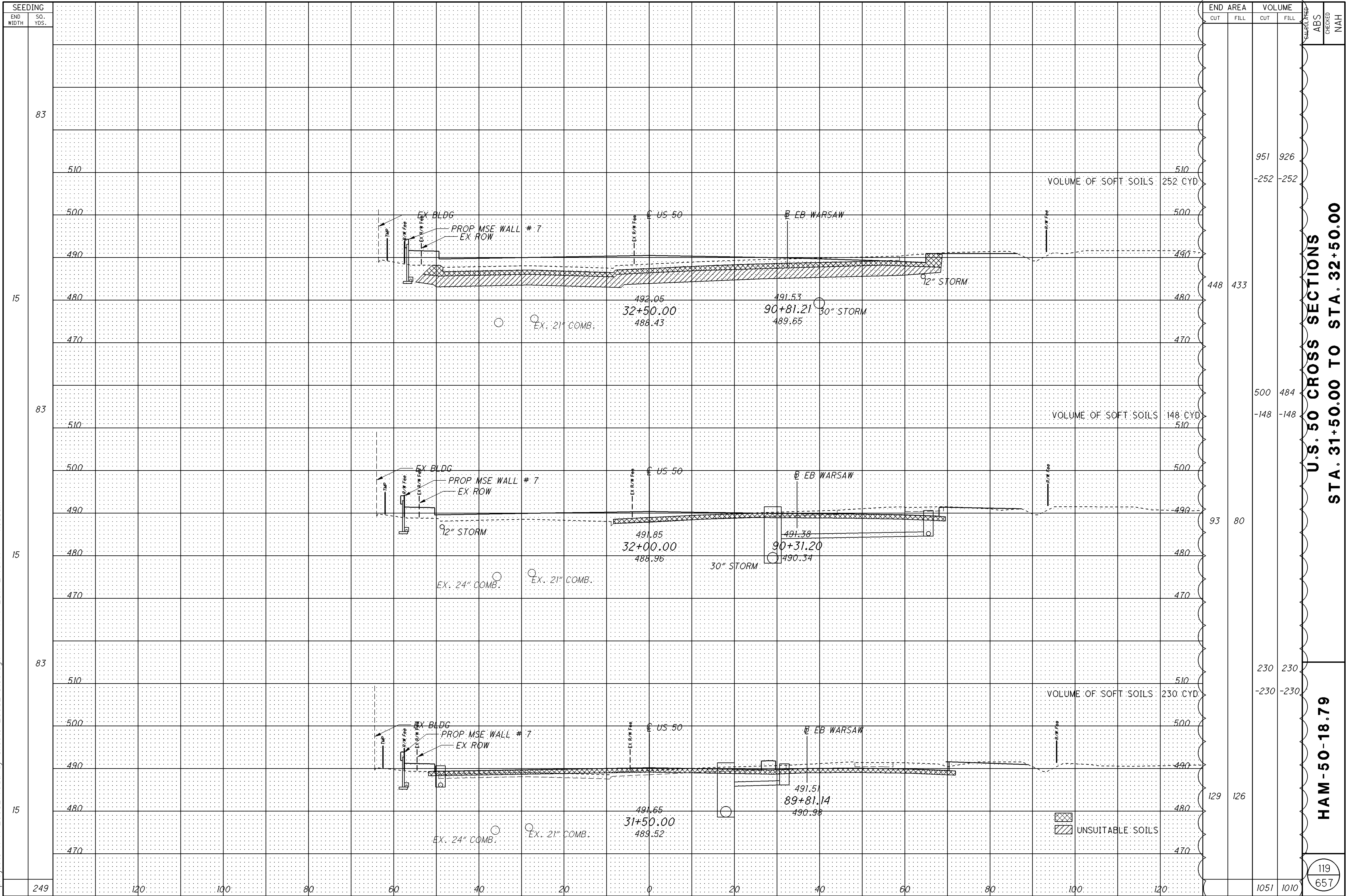
114
657

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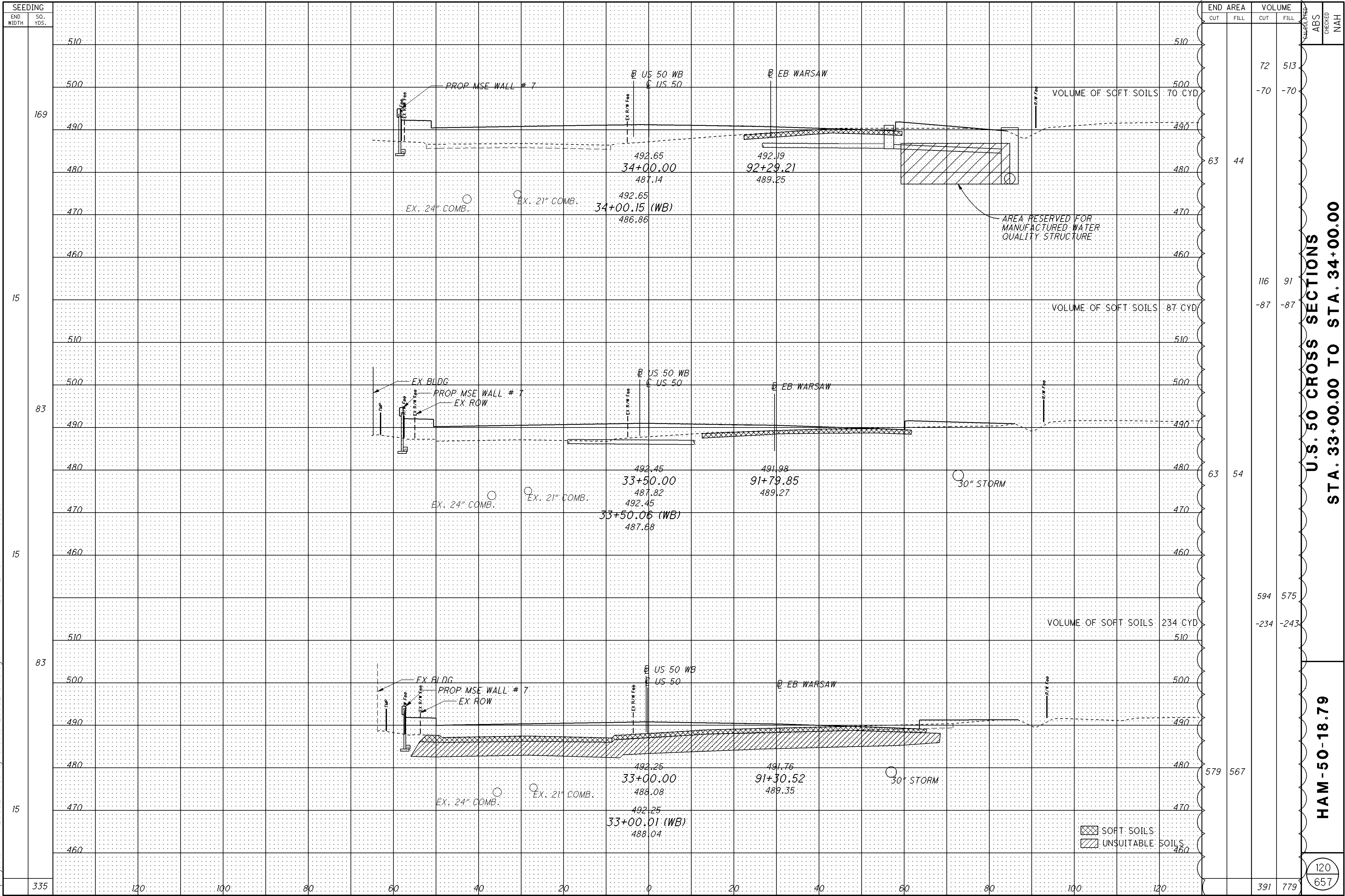


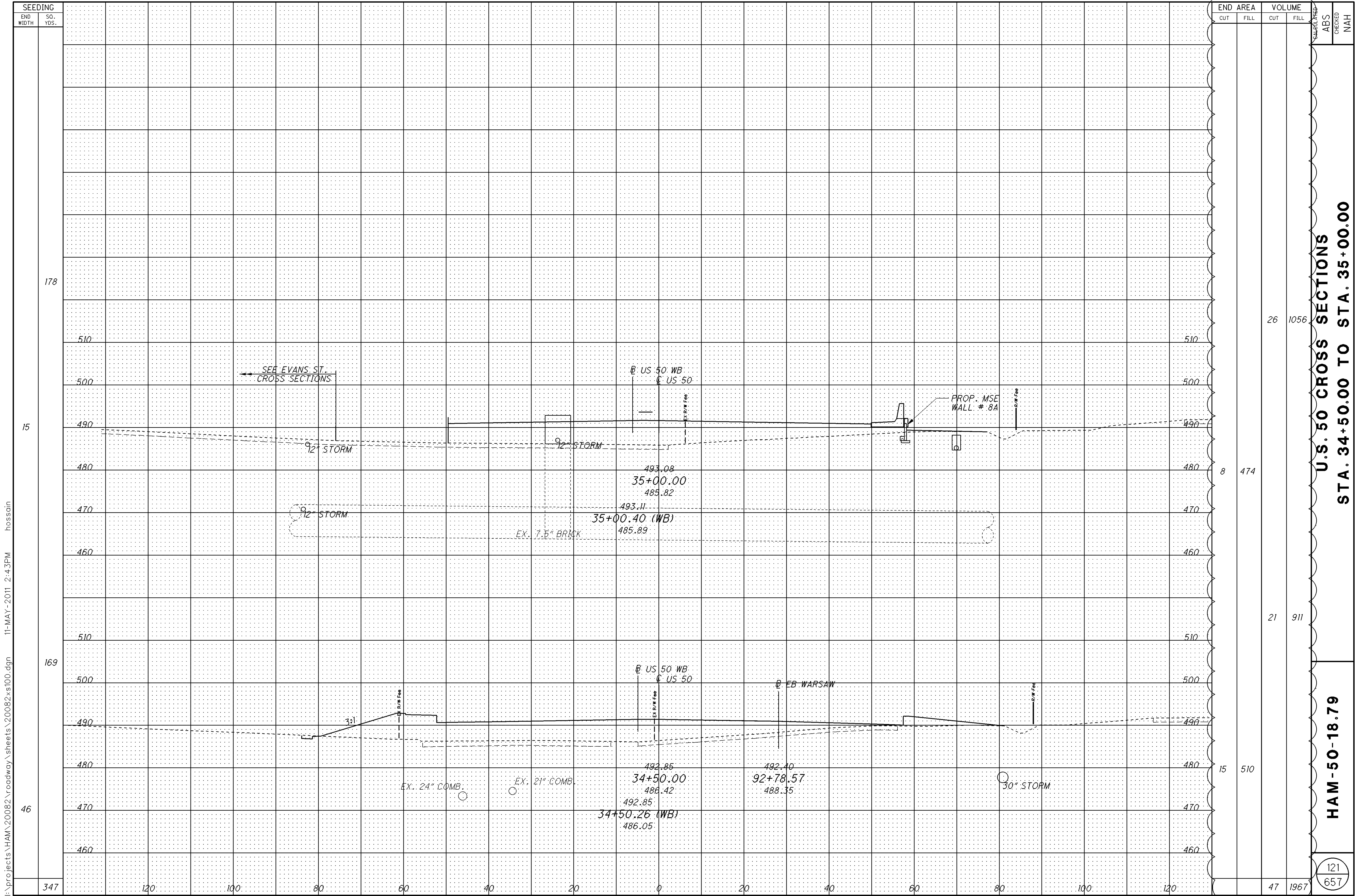


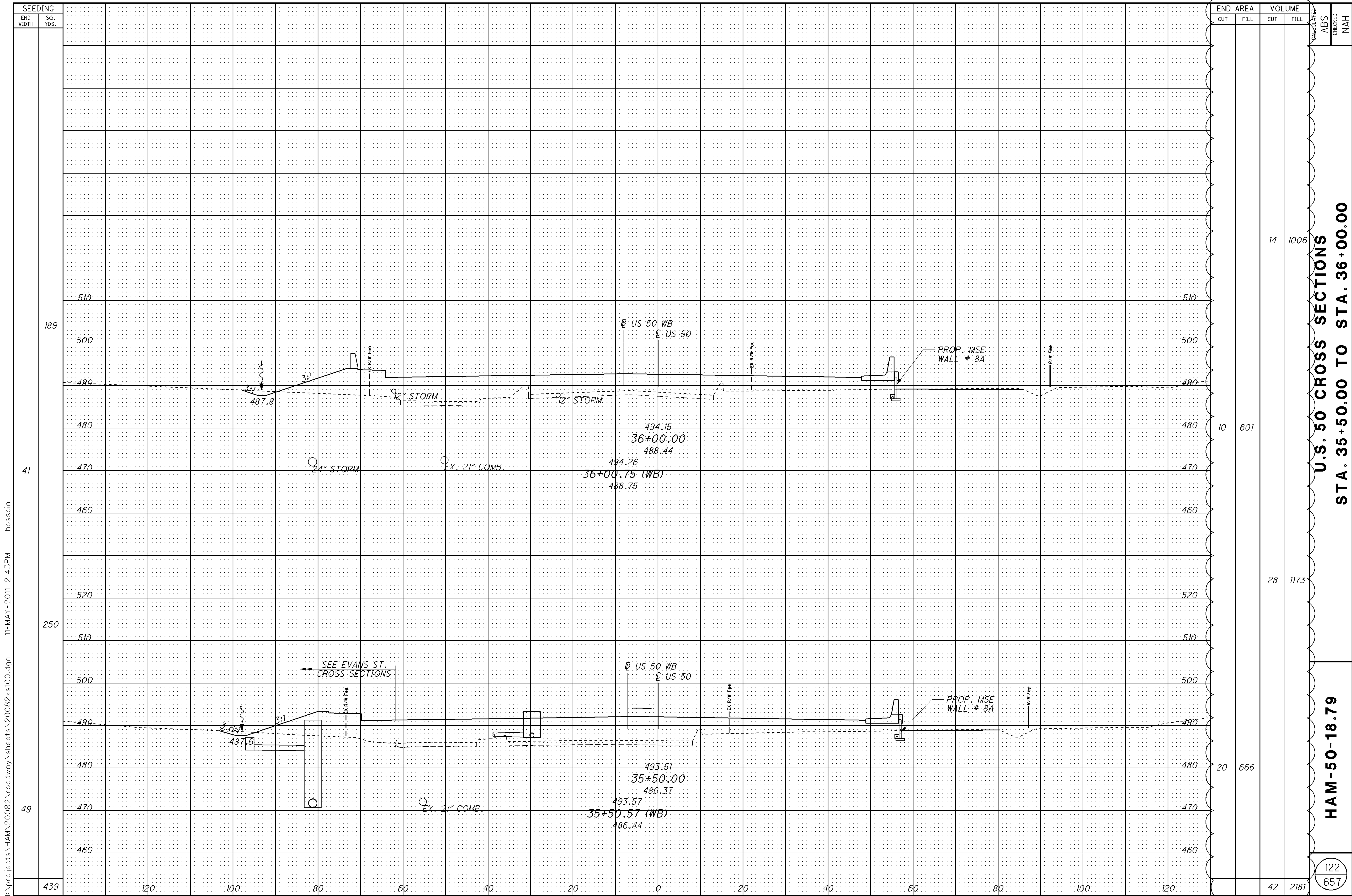
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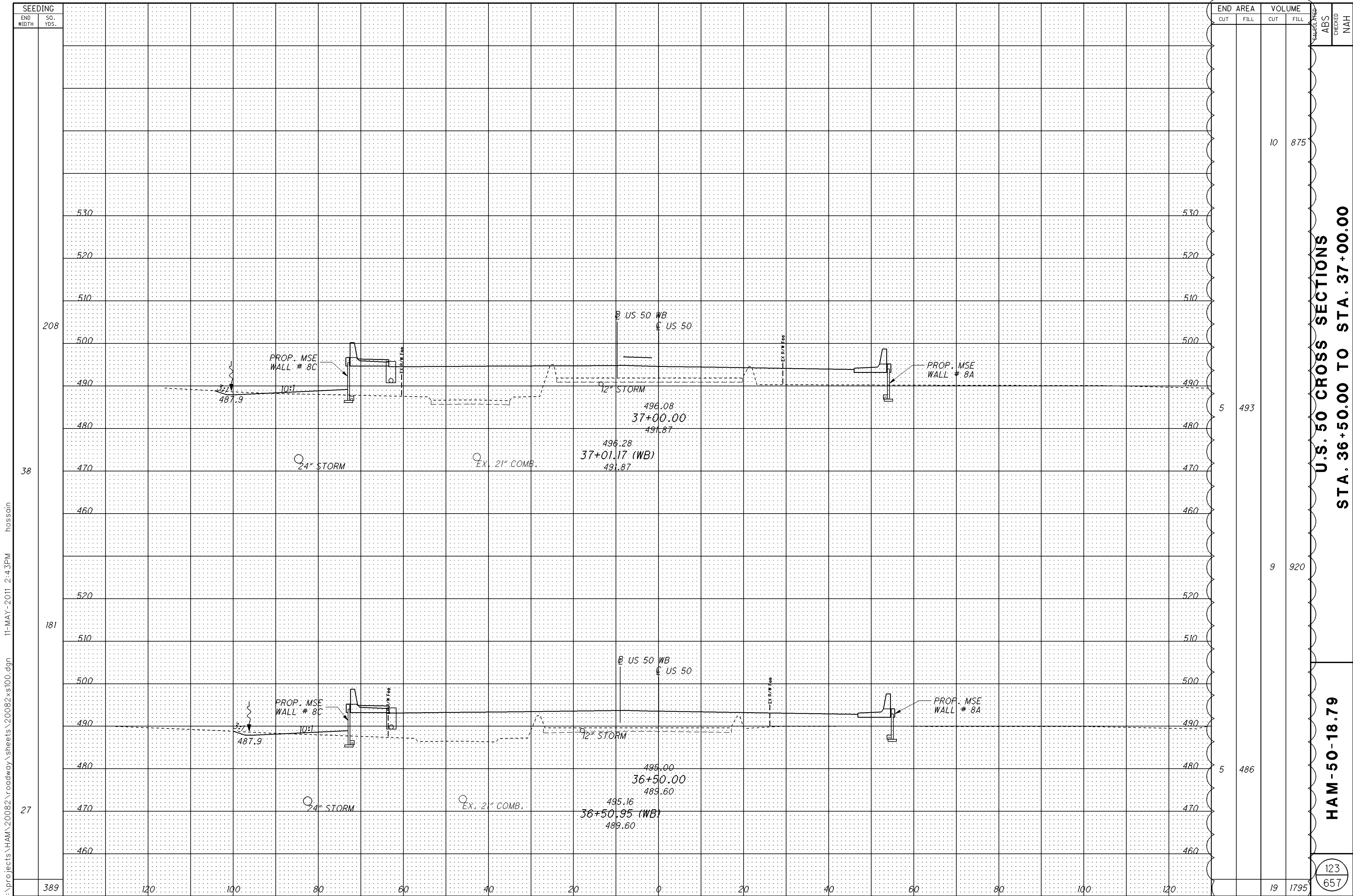
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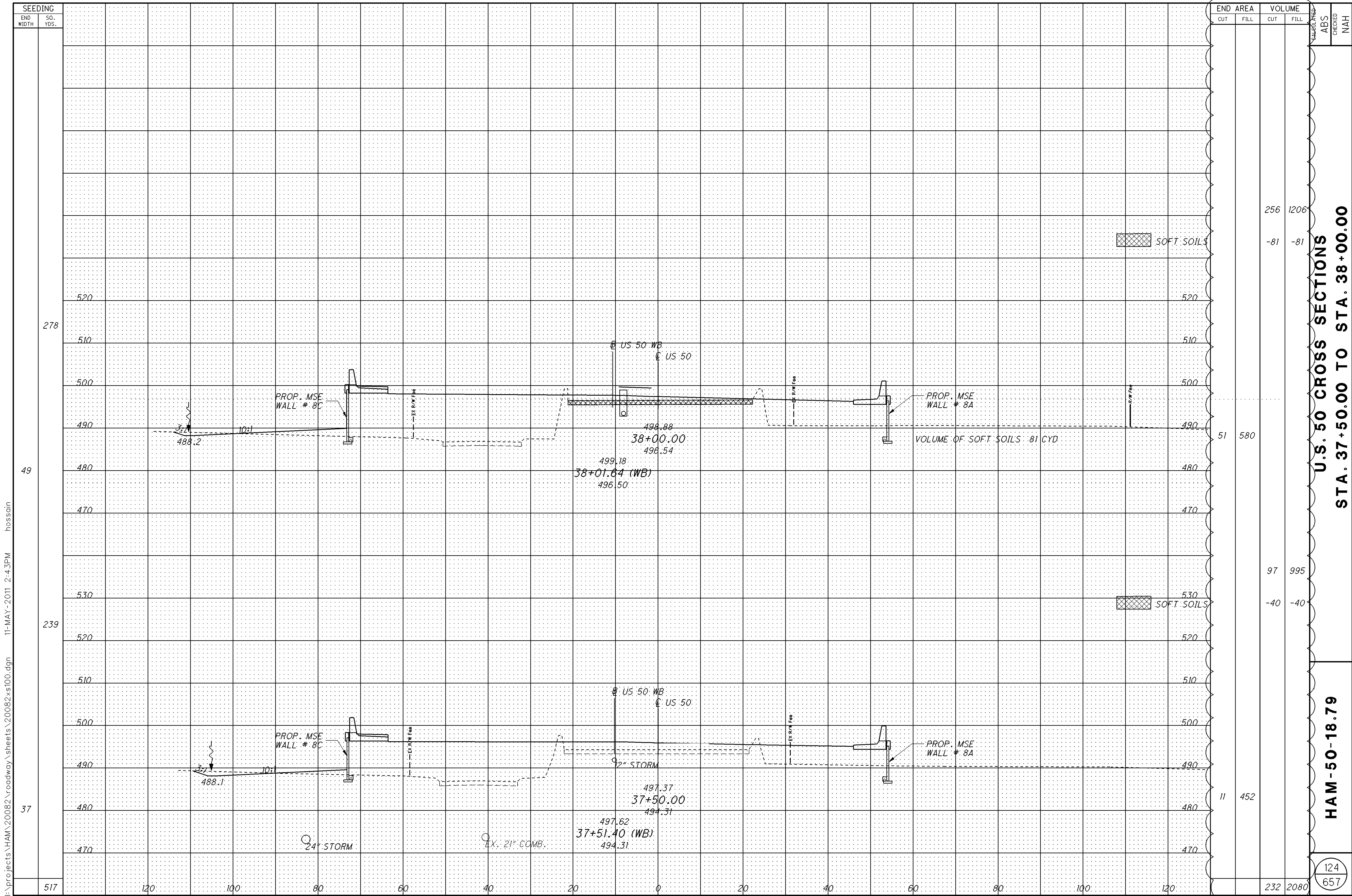
119
657

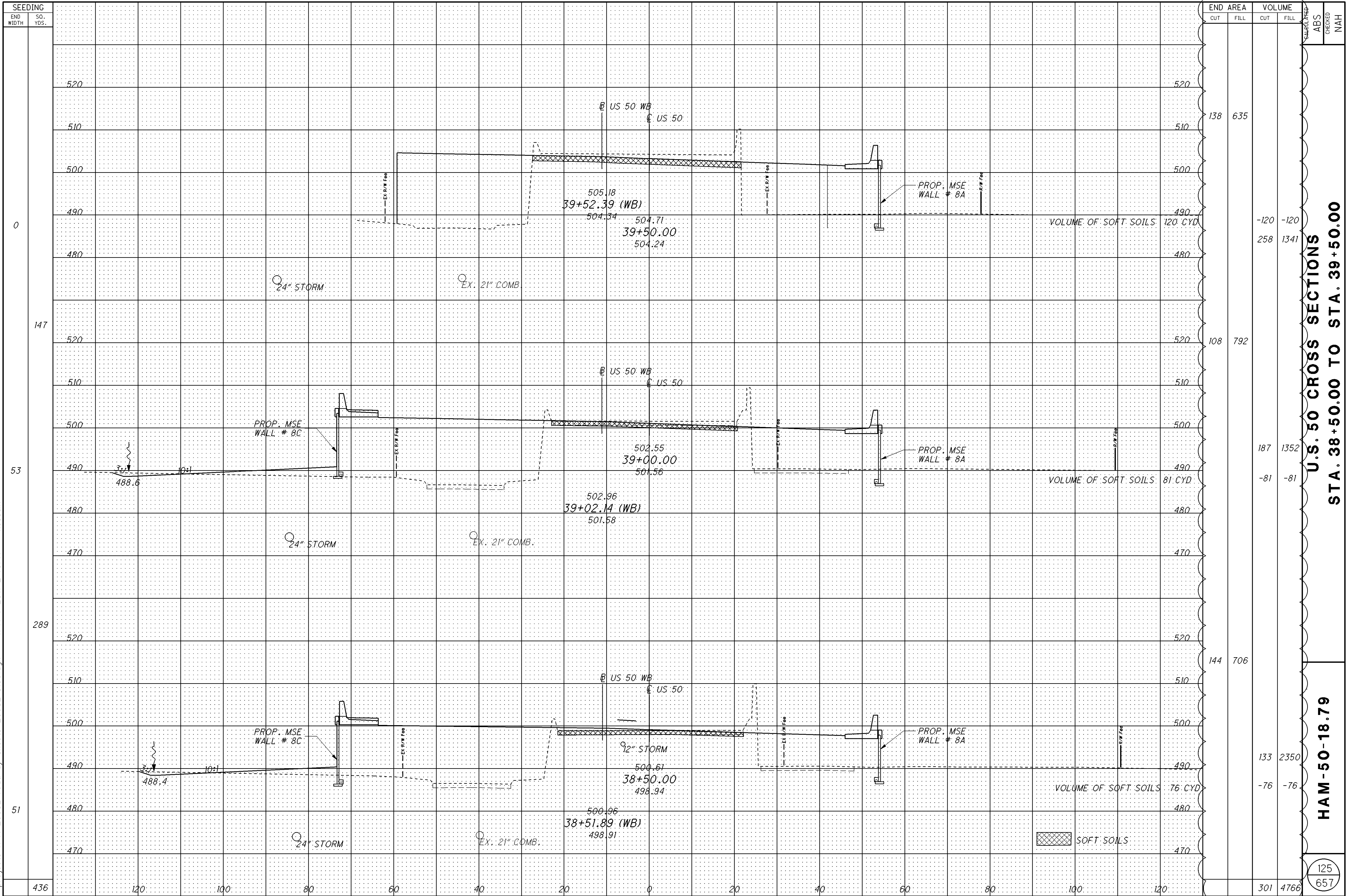




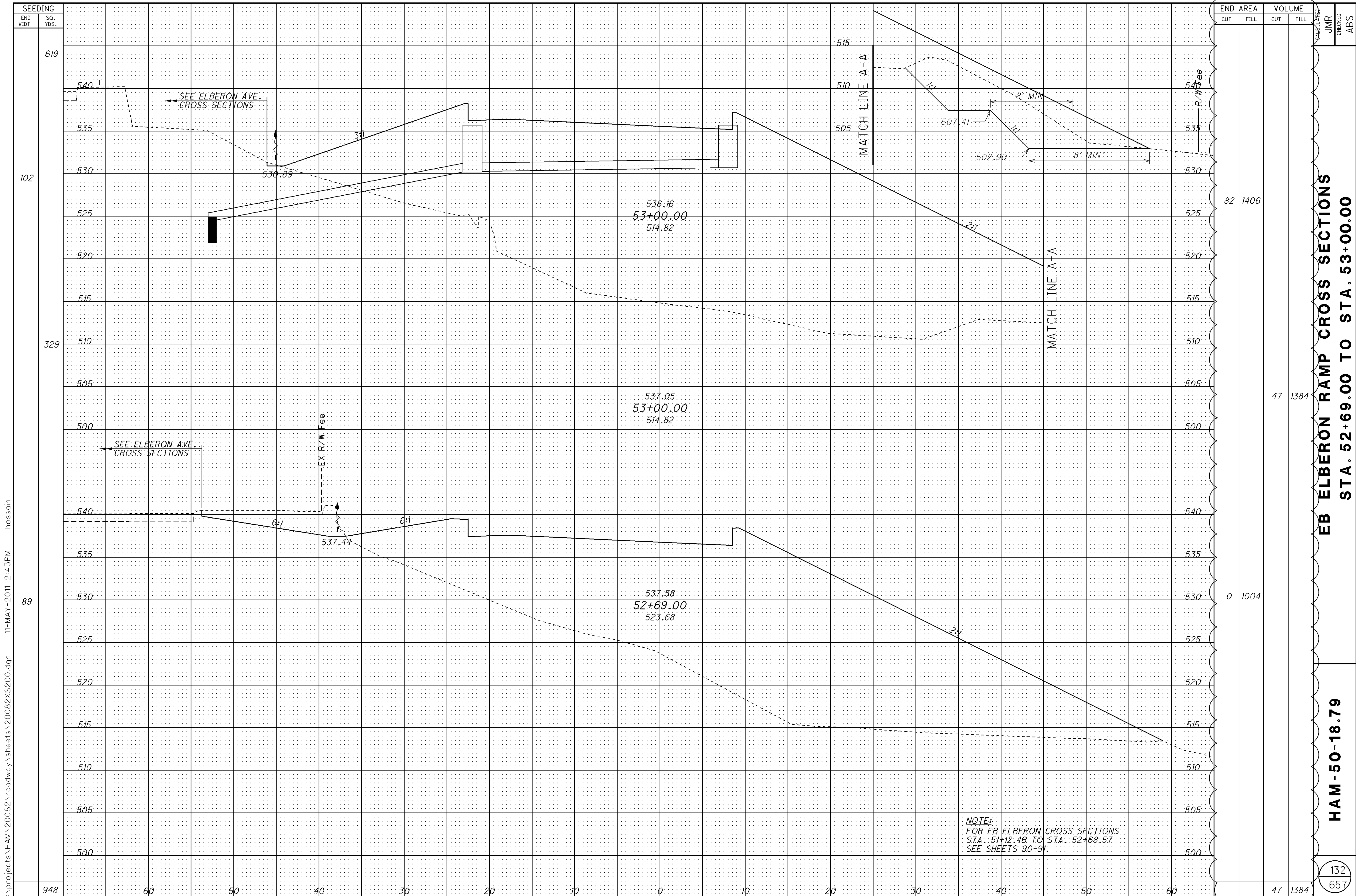




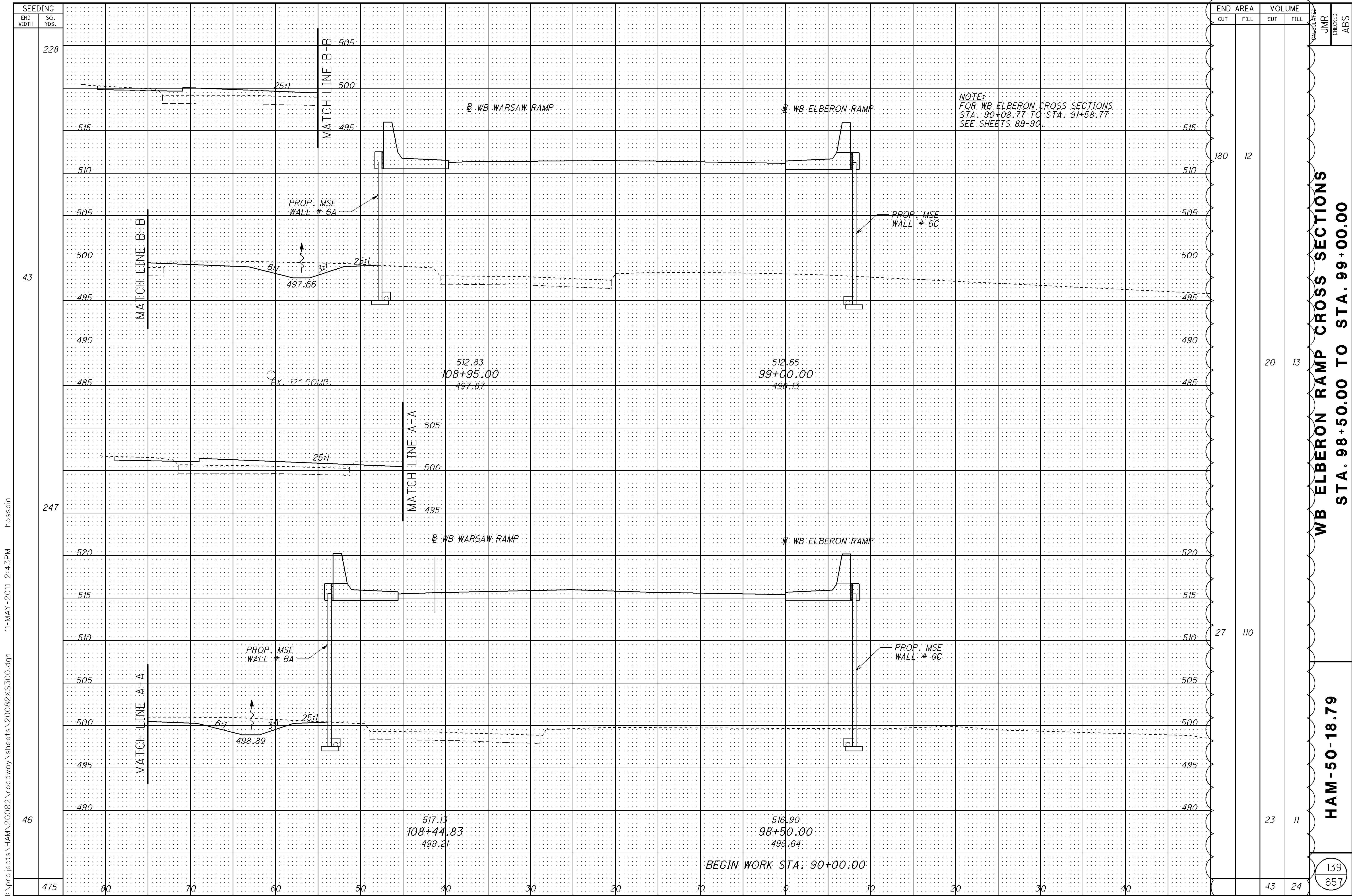




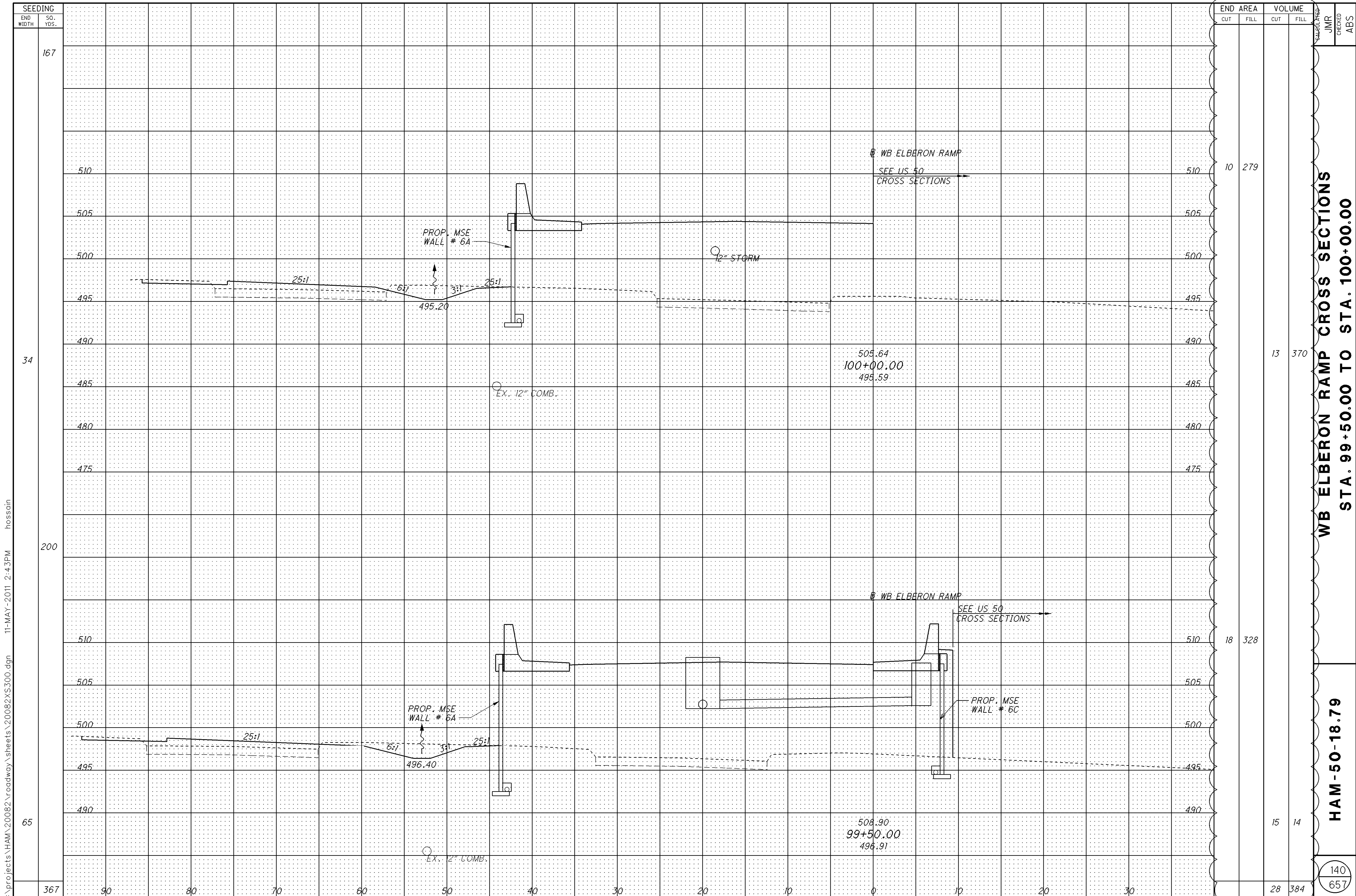
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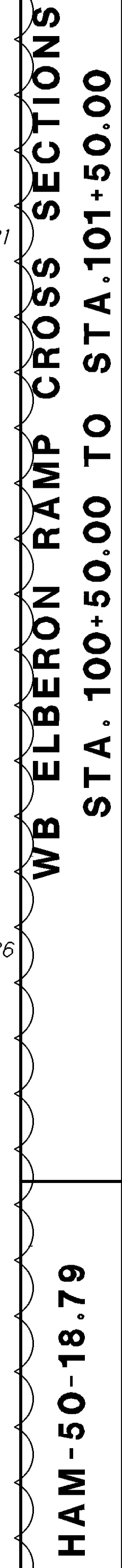


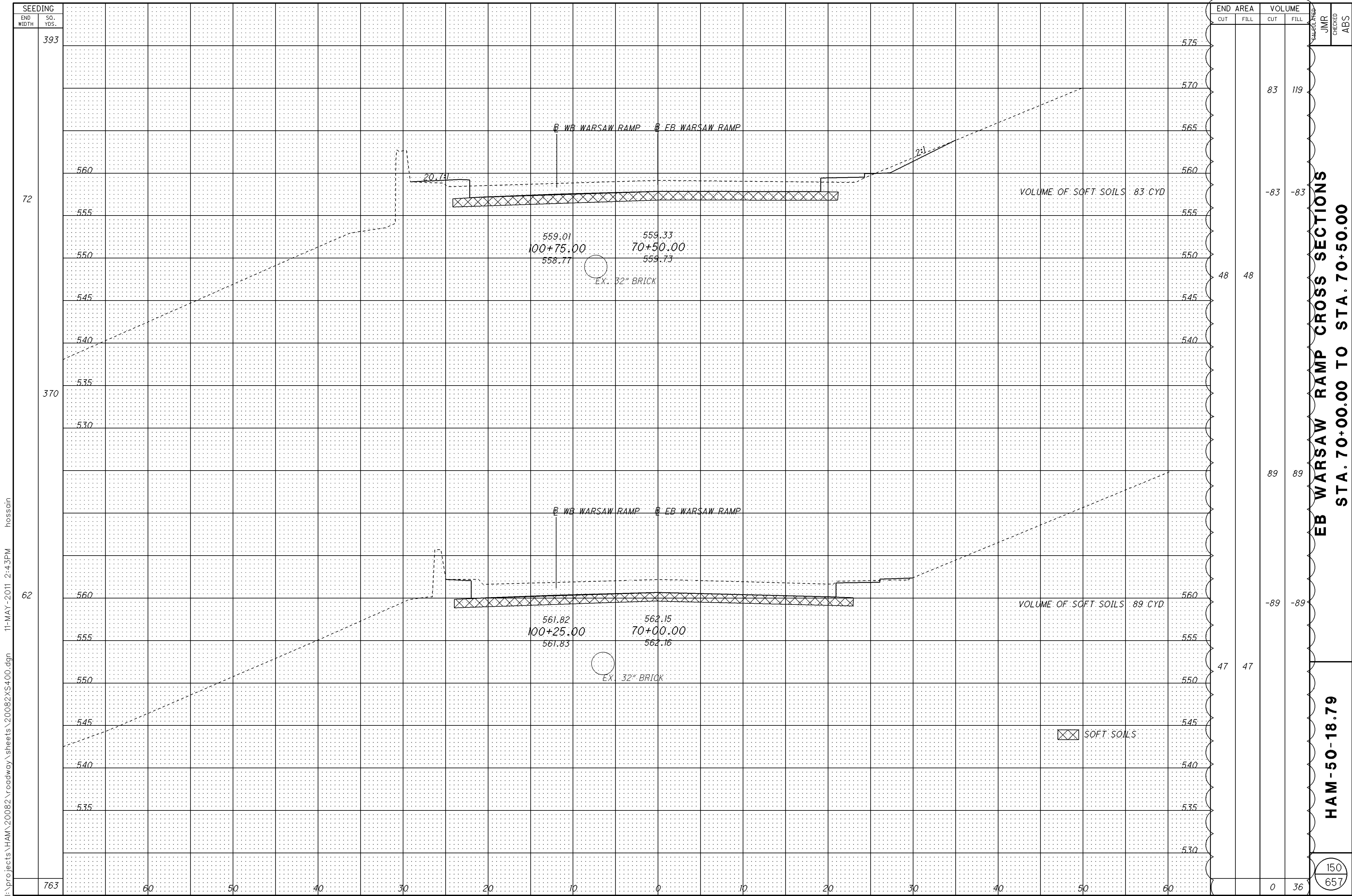
SEEDING		END AREA		VOLUME		JMR		CHECKED		ABS	
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL						
82		0	1390	0	3117						
508		0	2350	76	3478						
121											
508		1	6595	133	657						

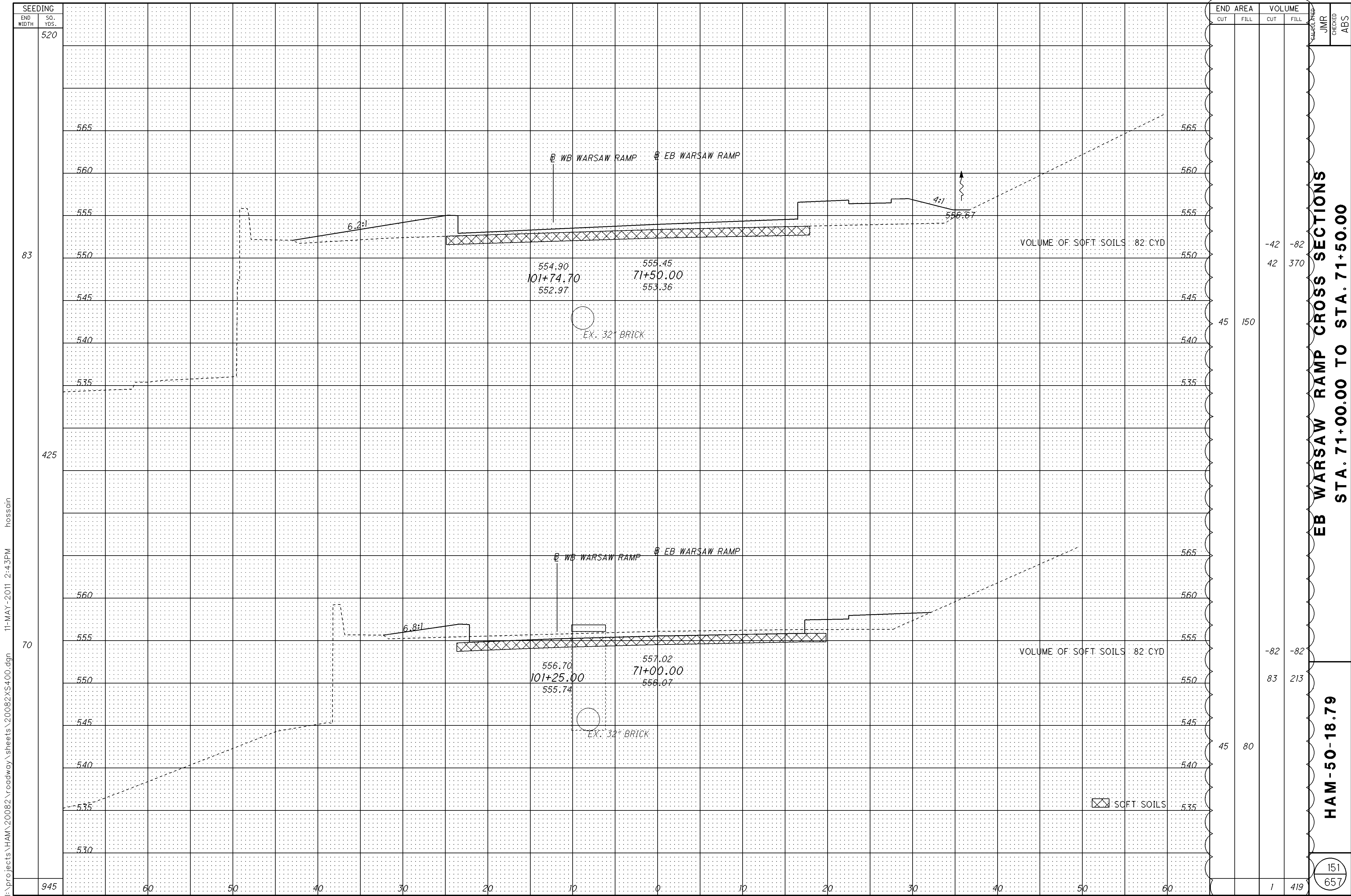


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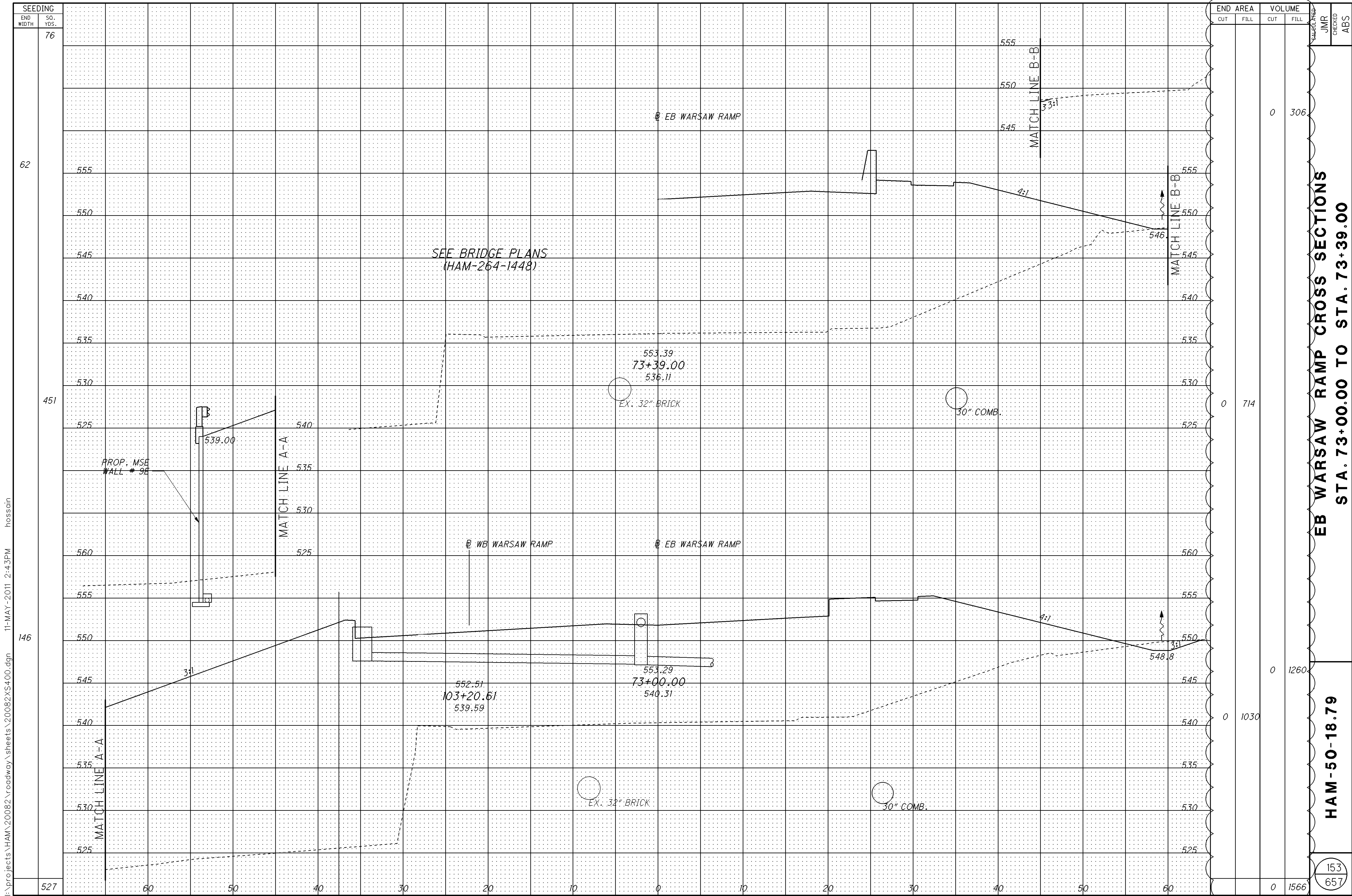




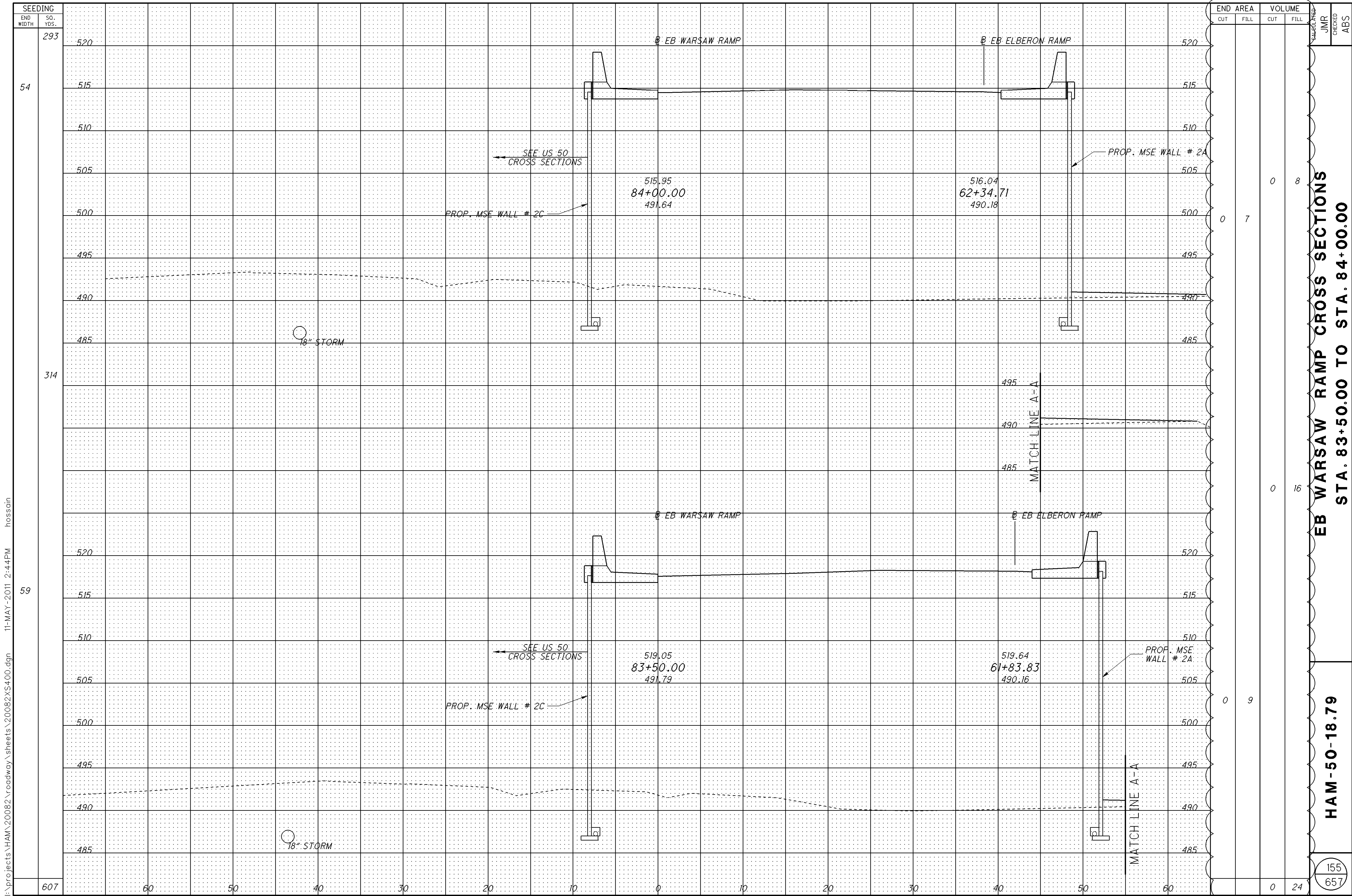


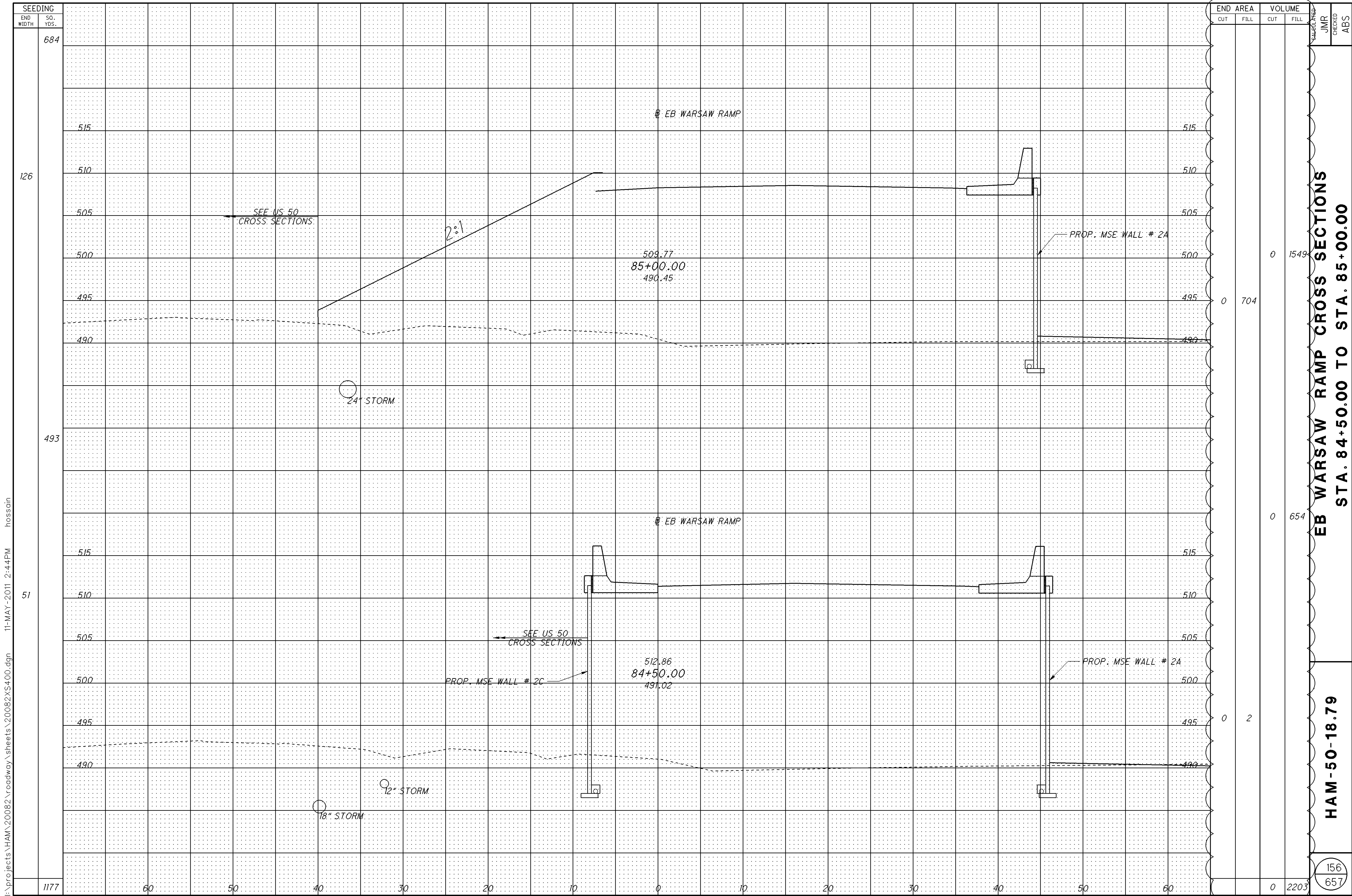


$$\frac{152}{657}$$

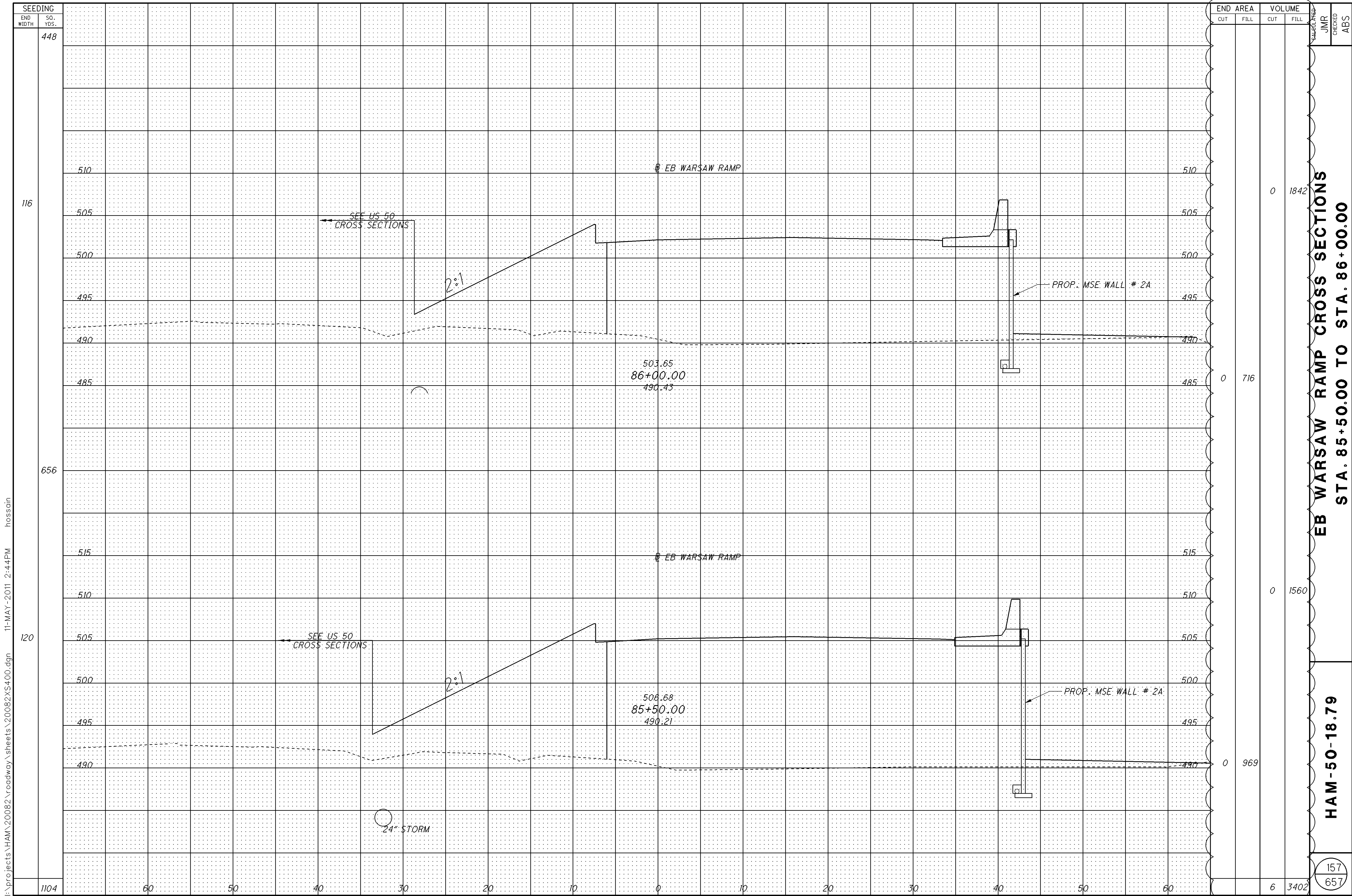


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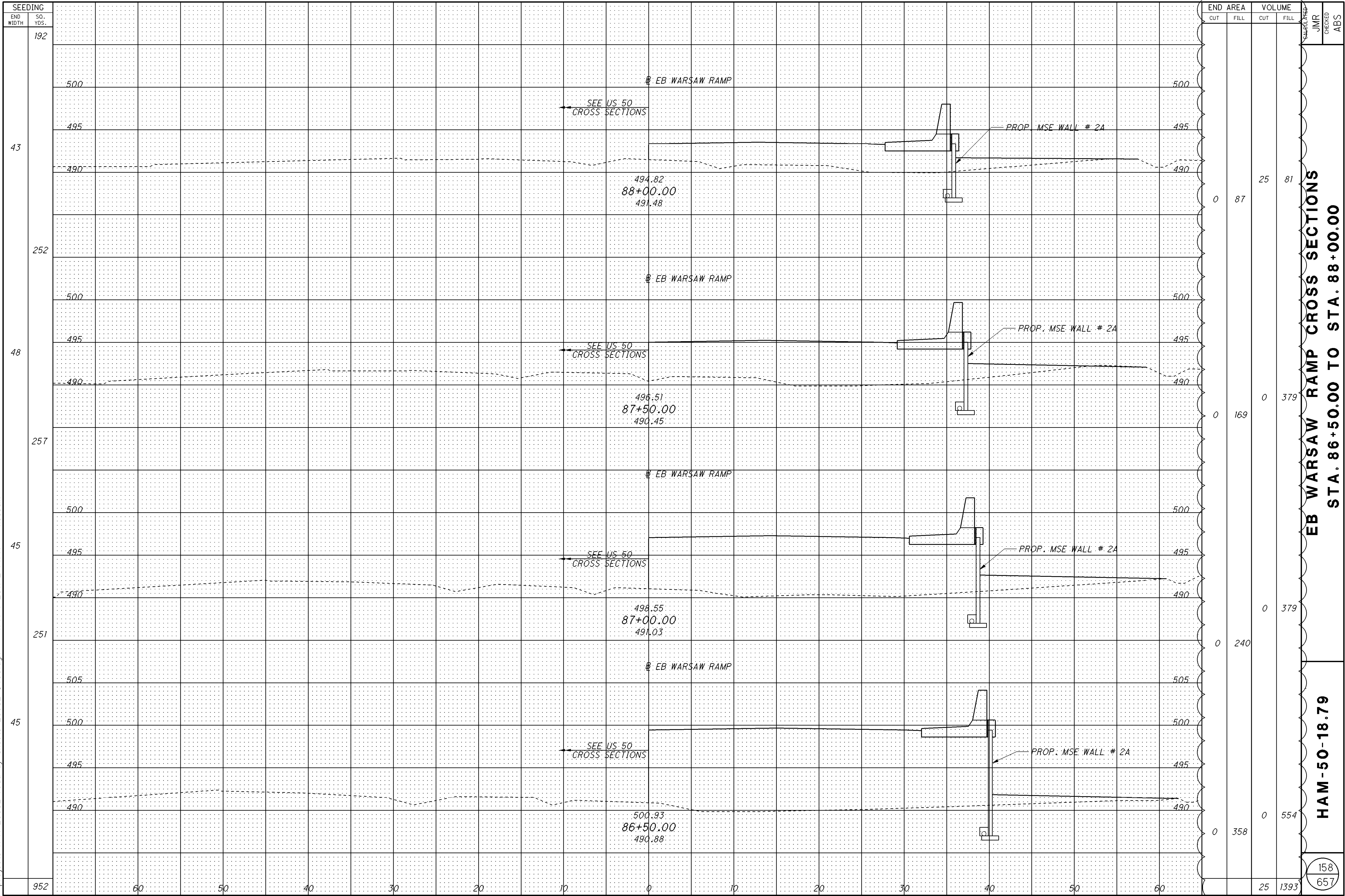




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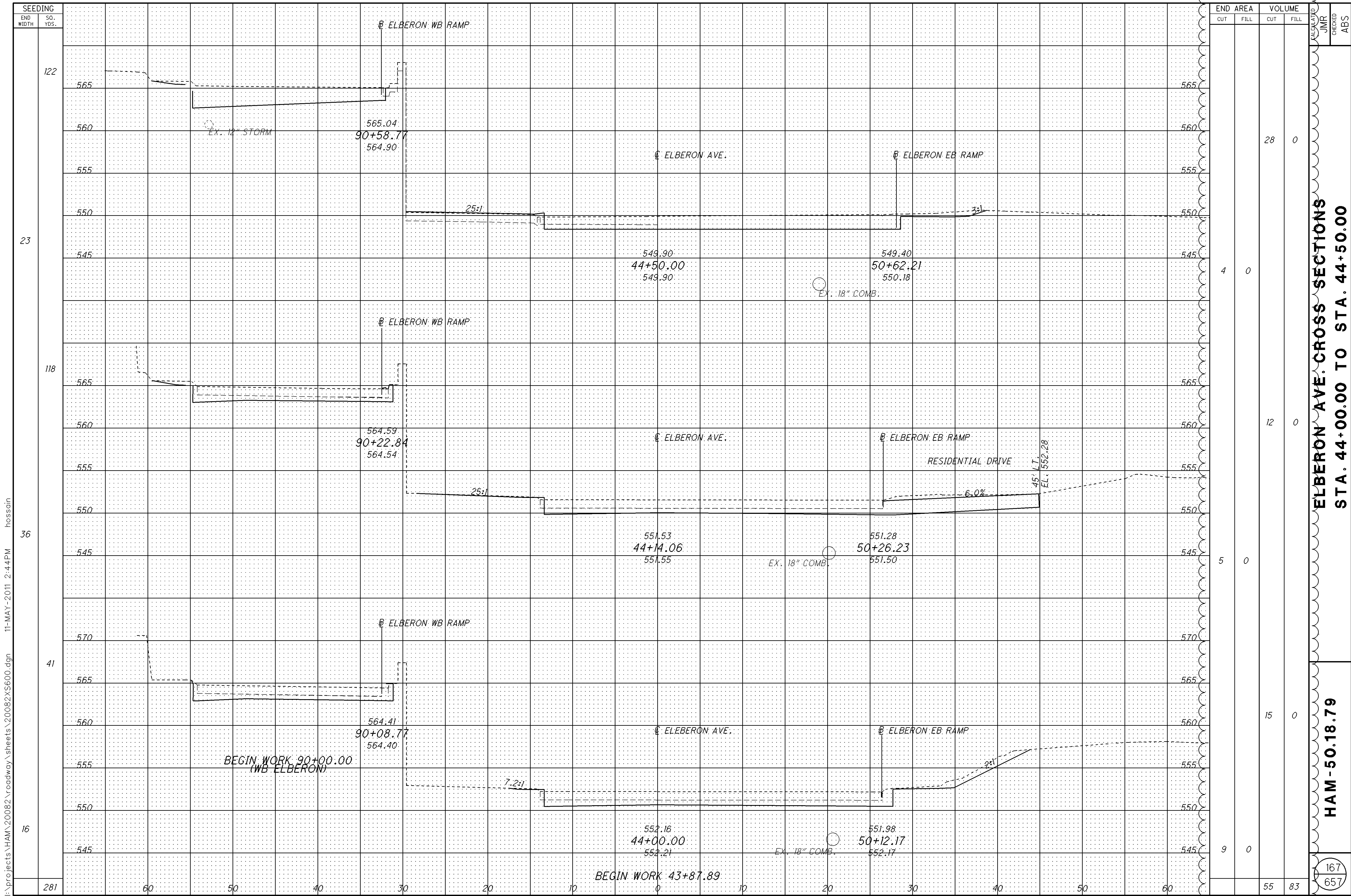


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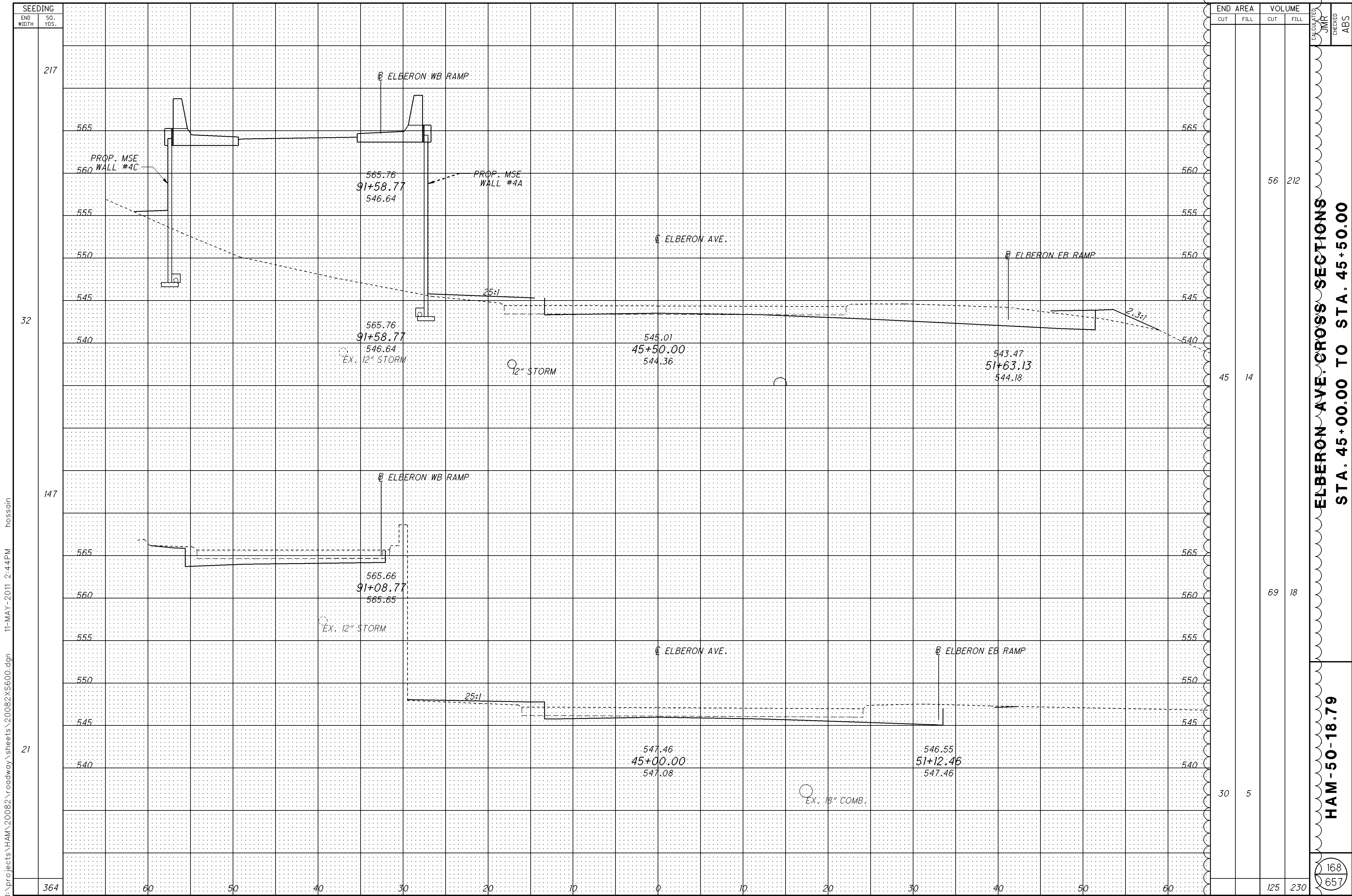
$$\frac{159}{657}$$

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END AREA		VOLUME		CALCULATED JMR	CHECKED ABS
CUT	FILL	CUT	FILL		
4	0	28	0	ELBERON AVE. CROSS SECTIONS STA. 44+00.00 TO STA. 44+50.00	
5	0	12	0		
9	0	15	0		
		55	83		
				HAM-50.18.79	
				167 657	

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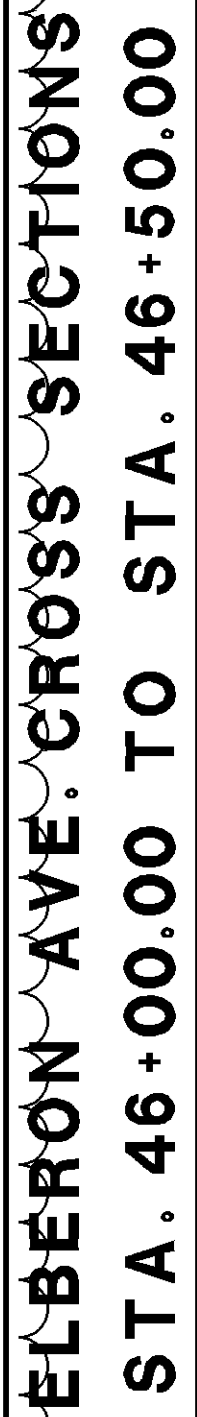
END AREA		VOLUME	
CUT	FILL	CUT	FILL
45	14	56	212
30	5	69	18
125	230		

ELBERON AVE. CROSS SECTIONS

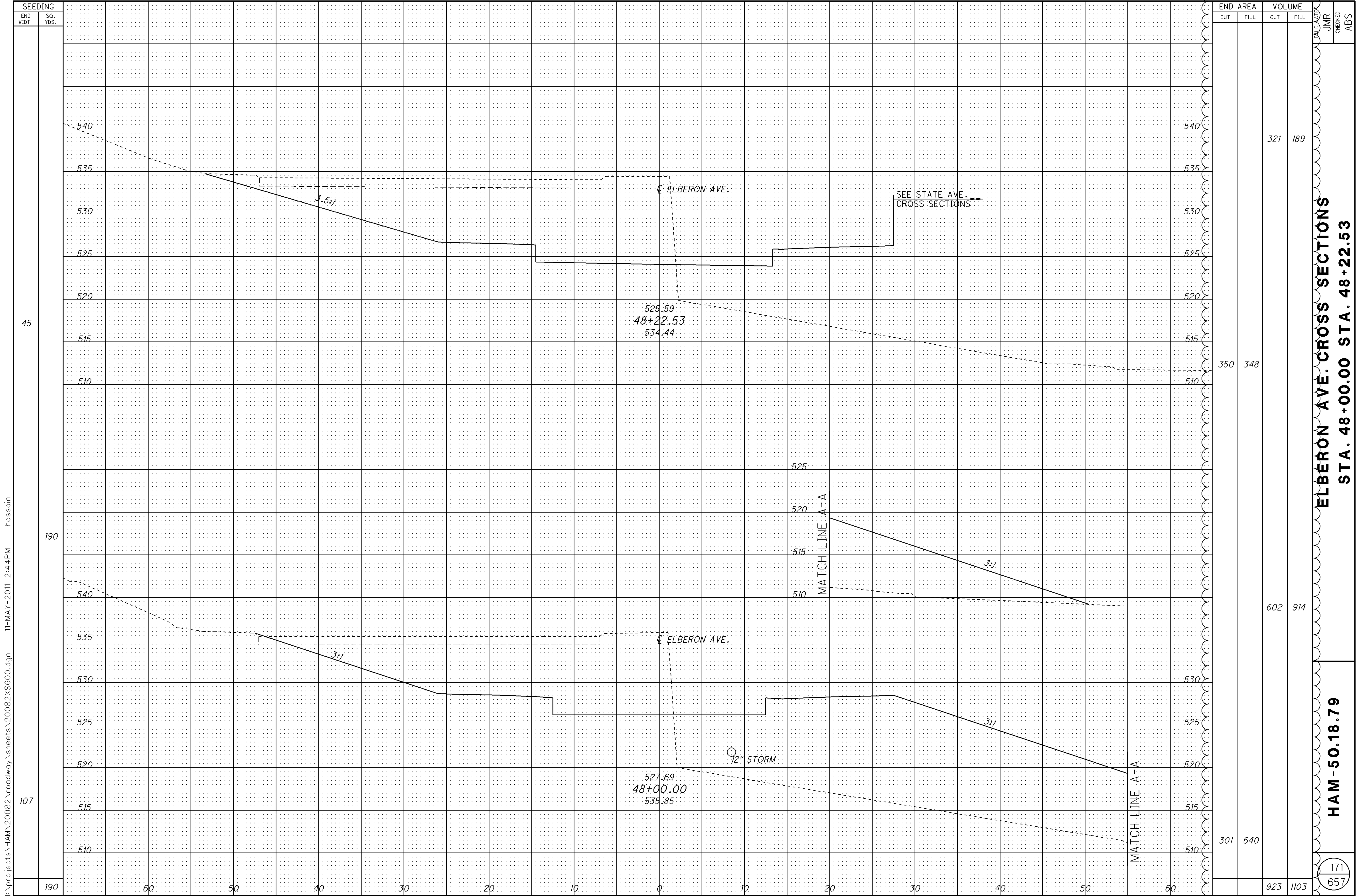
STA. 45+00.00 TO STA. 45+50.00

168

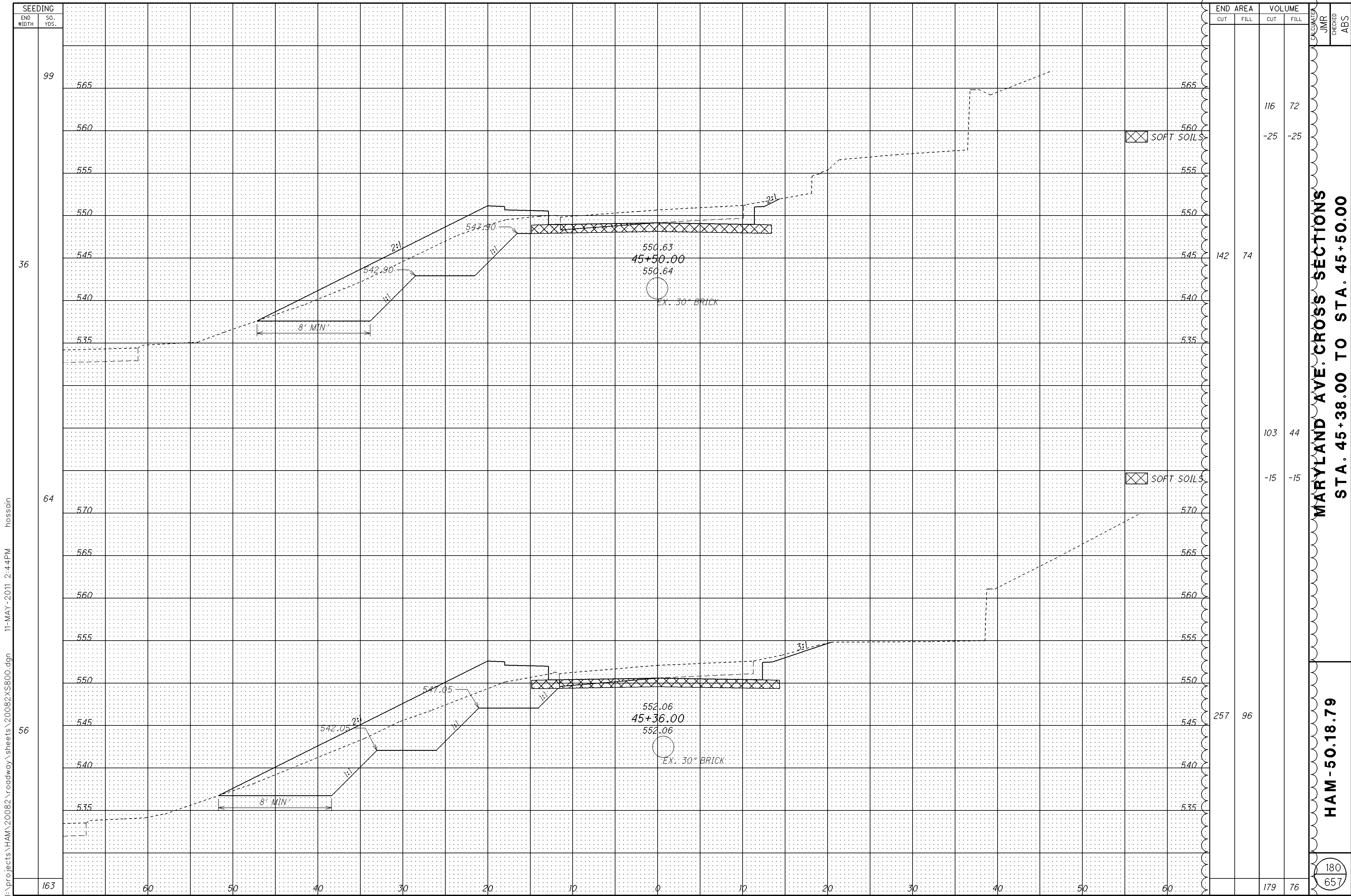
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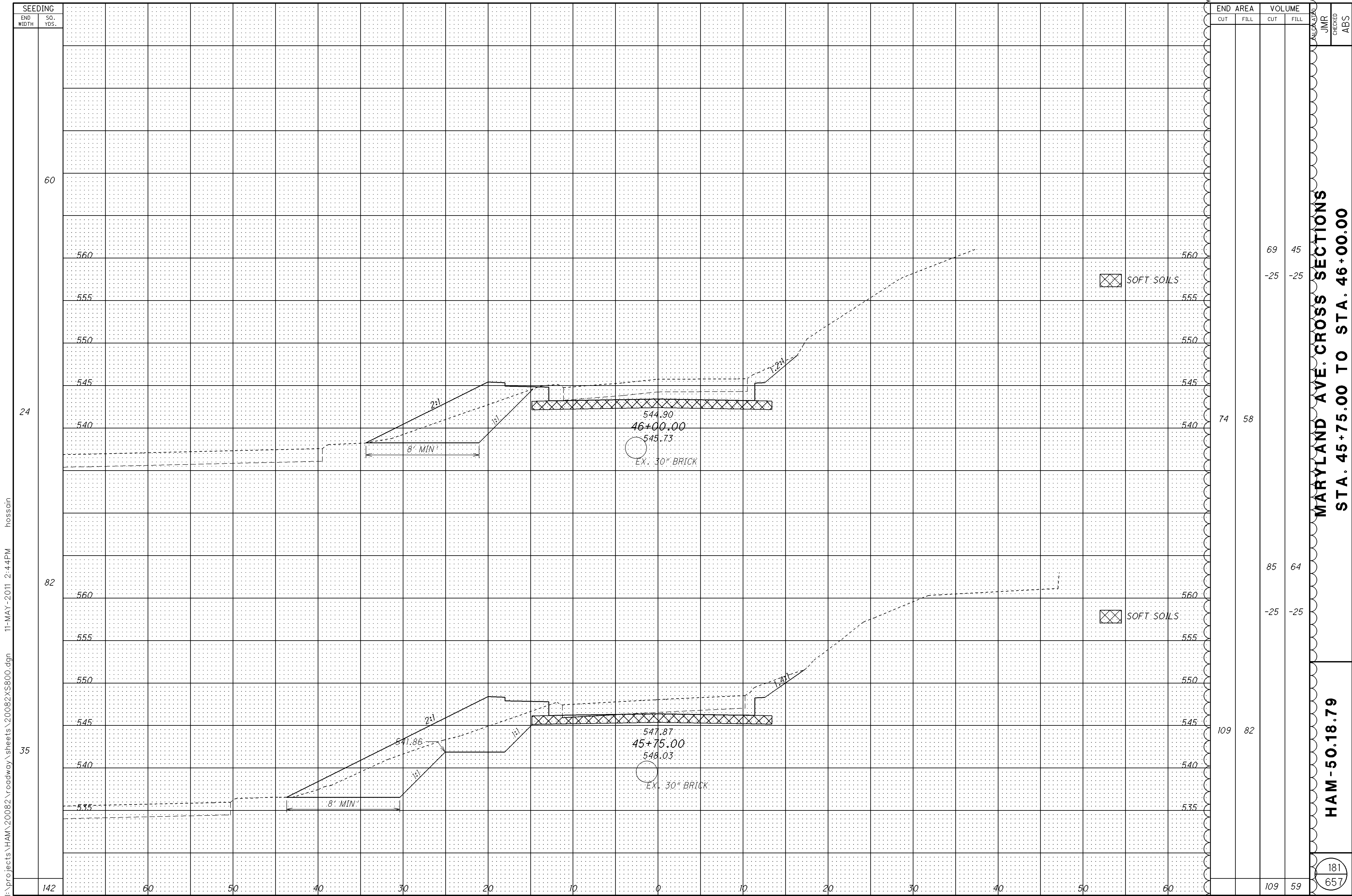
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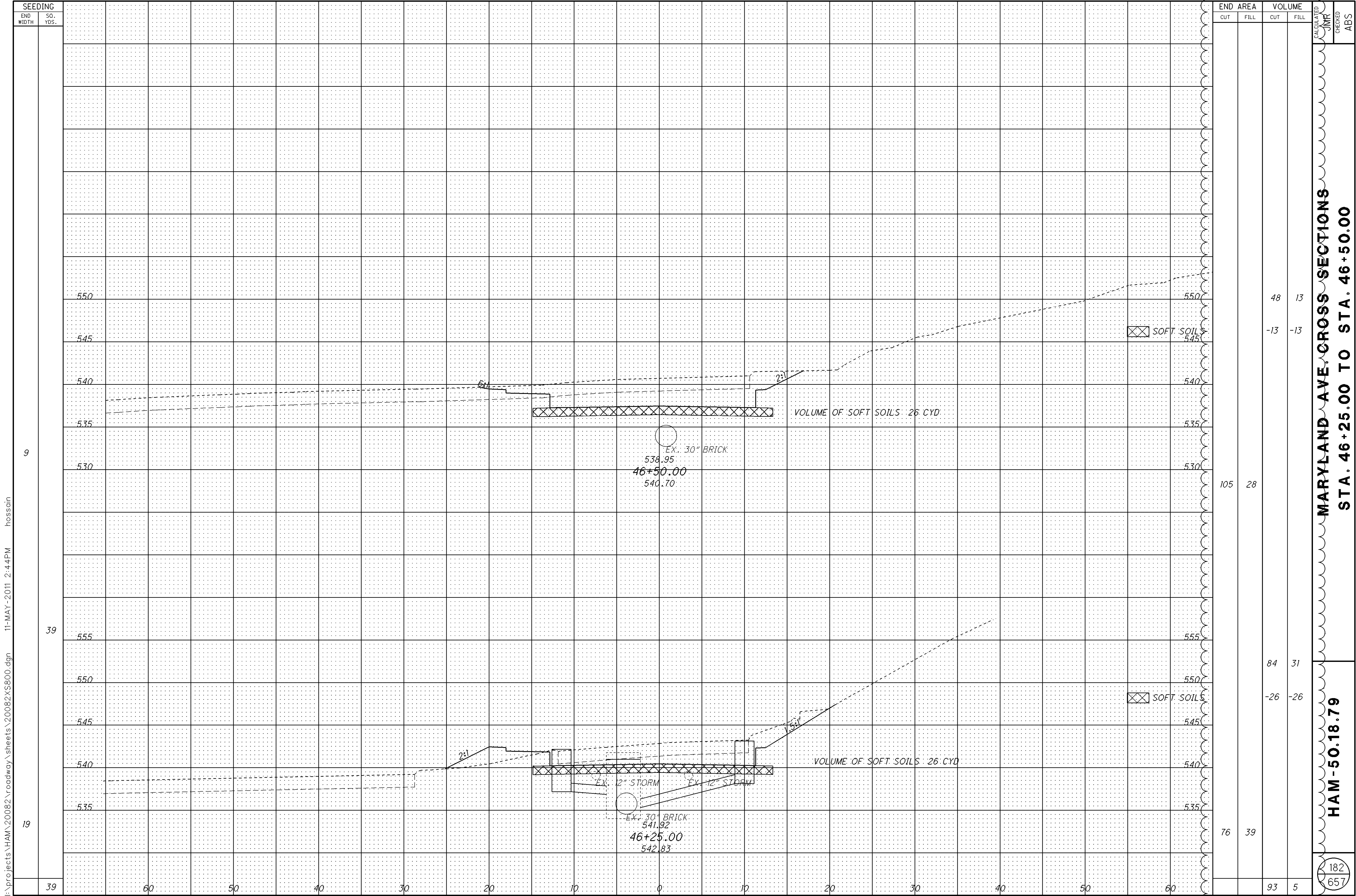


MARYLAND AVE. CROSS SECTIONS
STA. 45+38.00 TO STA. 45+50.00

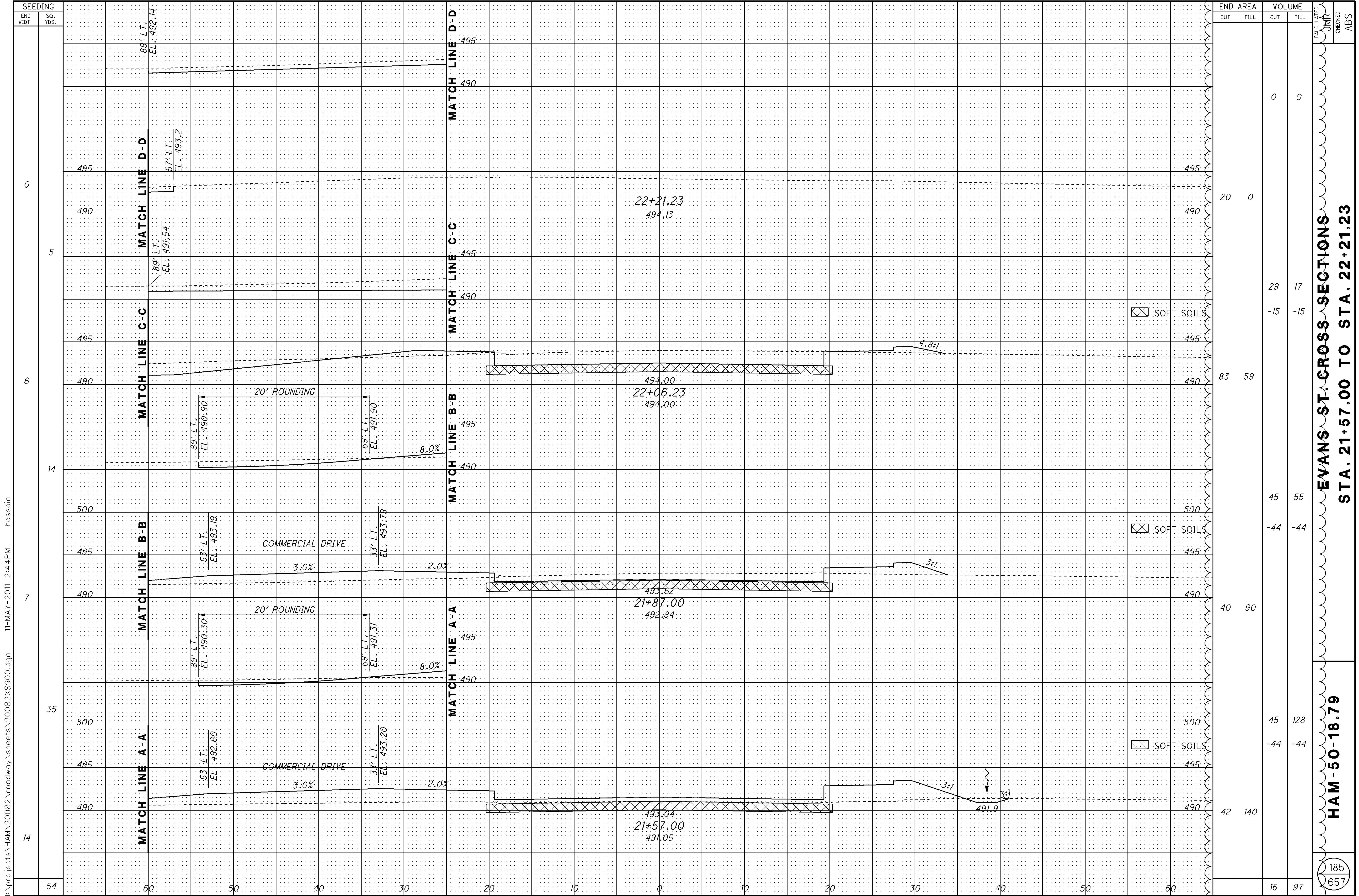
HAM-50.18.79

END AREA		VOLUME		CALCULATOR	JMR	CHECKED	ABS
CUT	FILL	CUT	FILL				
142	74	116	72				
		-25	-25				
		103	44				
		-15	-15				
257	96						
		179	76				





$$\frac{184}{657}$$



EVANS ST. CROSS SECTIONS
STA. 21+57.00 TO STA. 22+21.23

HAM-50-18.79

185
657

[illegible]

REF NO.	SHEET NO.	STATION TO STATION		601		602		603																	604															670	CALCULATED BMB CHECKED BAA	DRAINAGE SUBSUMMARY	HAM -50-18.79	191 657																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				ROCK CHANNEL PROTECTION TYPE C WITH FABRIC FILTER	CONCRETE MASONRY	8" CONDUIT, TYPE B, 748.01, AS PER PLAN	12" CONDUIT, TYPE B	12" CONDUIT, TYPE B, 706.02, AS PER PLAN	12" CONDUIT, TYPE B, 707.01, AS PER PLAN	12" CONDUIT, TYPE B, 748.01, AS PER PLAN	12" CONDUIT, TYPE C	15" CONDUIT, TYPE B	15" CONDUIT, TYPE B, AS PER PLAN	15" CONDUIT, TYPE C	18" CONDUIT, TYPE B	18" CONDUIT, TYPE B, 706.02, AS PER PLAN	18" CONDUIT, TYPE C	24" CONDUIT, TYPE B	21" CONDUIT, TYPE B	24" CONDUIT, TYPE C	30" CONDUIT, TYPE B	30" CONDUIT, TYPE B, 706.02, AS PER PLAN	6" CONDUIT, TYPE B, AS PER PLAN	12" SLOTTED DRAIN, TYPE 2	CATCH BASIN NO. 2-2A	CATCH BASIN NO. 2-2B	CATCH BASIN NO. 2-3	CATCH BASIN NO. 3	CATCH BASIN NO. 3A	CATCH BASIN NO. 6	INLET NO. 3, AS PER PLAN	INLET NO. 2-10	MANHOLE NO. 3	MANHOLE MISC: RECONSTRUCT REGULATION CHAMBER TO GRADE	MANHOLE NO. 5	MANHOLE ADJUSTED TO GRADE	MANHOLE RECONSTRUCTED TO GRADE	CATCH BASIN RECONSTRUCTED TO GRADE	MANHOLE MISC: EXTEND SLUICE GATE CONTROL STEM	DITCH EROSION PROTECTION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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ESTIMATED QUANTITIES								CALC.	DATE	CHK'D	DATE
								JHL	1/8/2009	ADZ	1/21/2009
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	ABUTS.	PIERS	SUPER.	APPROACH	SLAB	GENERAL	SHT. REF.
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN							4 / 34
202	22900	172	SY	APPROACH SLAB REMOVED				172			
SPECIAL	20307502	1	EACH	INCLINOMETER	1						5 / 34
SPECIAL	20365000	6	EACH	SETTLEMENT PLATFORM	6						5 / 34
503	21300	LUMP		UNCLASSIFIED EXCAVATION							
505	11100	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION							
507	00501	1560	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN, AS PER PLAN	1560						5 / 34
507	00550	1690	FT	12" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	1690						
507	00700	2000	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN		2000					
507	00750	2160	FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED		2160					
509	10000	217865	LB	EPOXY COATED REINFORCING STEEL	26978	35581	155306				
512	10001	84	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN, (PERMANENT GRAFFITI PROTECTION)		84					4 / 34
512	10050	1208	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	319		889				
512	10100	192	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		192					
513	10300	634780	LB	STRUCTURAL STEEL MEMBERS, LEVEL 5			634780				
513	20000	4107	EACH	WELDED STUD SHEAR CONNECTORS			4107				
513	95030	2	EACH	STRUCTURAL STEEL MISC. : SURVEY PRISM MOUNT	2						5 / 34
514	00060	30640	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			30640				
514	00066	30640	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			30640				
514	10000	23	EACH	FINAL INSPECTION REPAIR			23				
516	11211	37	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN (5")			37				9 / 34
516	11211	71	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN (4")			71				9 / 34
516	13600	11	SF	1" PREFORMED EXPANSION JOINT FILLER	11						
516	13900	18	SF	2" PREFORMED EXPANSION JOINT FILLER	18						
516	44400	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-8" DIA. x 5 ³ / ₁₆ ") (SPECIAL)	4						
516	44400	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2'-1 ¹ / ₄ " DIA. x 5 ¹ / ₂ ") (FIXED)		4					
516	44400	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (2'-2 ¹ / ₂ " DIA. x 6 ³ / ₁₆ ") (EXPANSION)		4					
516	44400	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (1'-8" DIA. x 5 ³ / ₁₆ ") (EXPANSION)	4						
517	76300	802	FT	RAILING, MISC: RAILING ALTERNATE, MINNESOTA RAILING *			802				6 & 25 / 34
518	12300	3	EACH	SCUPPERS, INCLUDING SUPPORTS			3				
518	51100	35	FT	8" PIPE DOWNSPOUT, INCLUDING SPECIALS					35		
518	60030	24	FT	PIPE HORIZONTAL CONDUCTOR					24		
523	20000	3	EACH	DYNAMIC LOAD TESTING	1	2					
524	94903	230	FT	DRILLED SHAFTS, 48" DIAMETER, ABOVE BEDROCK, AS PER PLAN	230						4 / 34
898	10201	444	CY	QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (DECK), AS PER PLAN			444				4 / 34
898	10709	352	SY	QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=17"), AS PER PLAN				352			4 / 34
898	11000	92	CY	QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (PARAPET)			92				
898	20100	125	CY	QC/QA CONCRETE, CLASS OSC1, SUBSTRUCTURE (PIER ABOVE FOOTING)		125					
898	20160	213	CY	QC/QA CONCRETE, CLASS OSC1, SUBSTRUCTURE (ABUTMENT INCLUDING FOOTING) **	213						
898	20300	93	CY	QC/QA CONCRETE, CLASS OSC1, SUBSTRUCTURE (FOOTING)		93					

* RAILING, MISC: RAILING ALTERNATE, MINNESOTA RAILING IS A REQUIRED BID ITEM. IF SELECTED BY THE OWNER IT WILL REPLACE BID ITEM 898: QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (PARAPET). CONCRETE IN ALTERNATE RAILING SHALL BE QC/QA CONCRETE, CLASS OSC2. ALTERNATE RAILING SHALL BE DETAILED PER MINNESOTA STANDARD DRAWING FIGURE 5-387.157 AND SUBMITTED FOR SHOP DRAWING REVIEW PRIOR TO FABRICATION. REINFORCING WILL BE PAID UNDER ITEM 509, EPOXY COATED REINFORCING STEEL. THE ALTERNATE RAILING OPTION WILL REPLACE 20,479 POUNDS OF REINFORCEMENT AND 695 SQ. YD. OF SEALING.

DESIGN DETAILS ARE INCLUDED FOR BARRIER TRANSITIONS FOR STANDARD ODOT RAILING. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR TRANSITIONS OF THE ALTERNATE BID ITEM RAILING SELECTED. DESIGN DETAILS OF SIMILAR AESTHETIC RAILING TRANSITIONS ARE ON FILE WITH THE CITY FROM PREVIOUS PROJECTS SUCH AS THE FORMER COLUMBIA PARKWAY PROJECT. THE CONTRACTOR SHOULD CONTACT RICHARD SZEKERESH, P.E., PRINCIPAL STRUCTURAL ENGINEER FOR THE CITY OF CINCINNATI AT (513) 352-3419 OR richard.szekeresh@cincinnati-oh.gov FOR THESE DRAWINGS PRIOR TO DEVELOPING OR SUBMITTING SHOP DRAWINGS.

** CONCRETE FOR REAR ABUTMENT COLUMNS IS INCLUDED WITH THIS ITEM FOR PAYMENT.

DESIGN AGENCY

BURGESS & NIPLE

DATE

02-20-08

REVIEWED

RMK

STRUCTURE FILE NUMBER

311636

DRAWN

SJA

CHECKED

SJA

ESTIMATED QUANTITIES

BRIDGE NO. HAM-264-1448

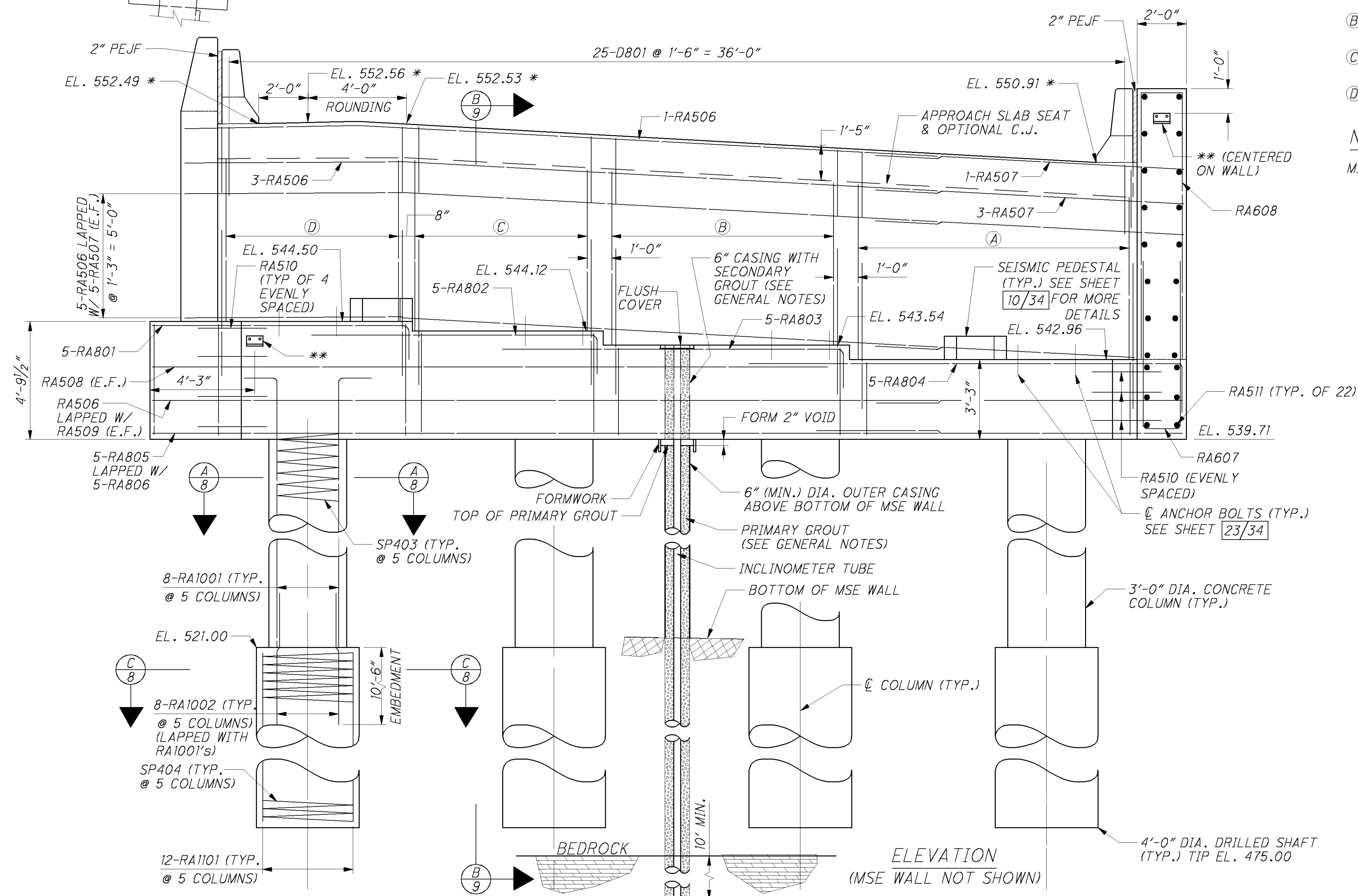
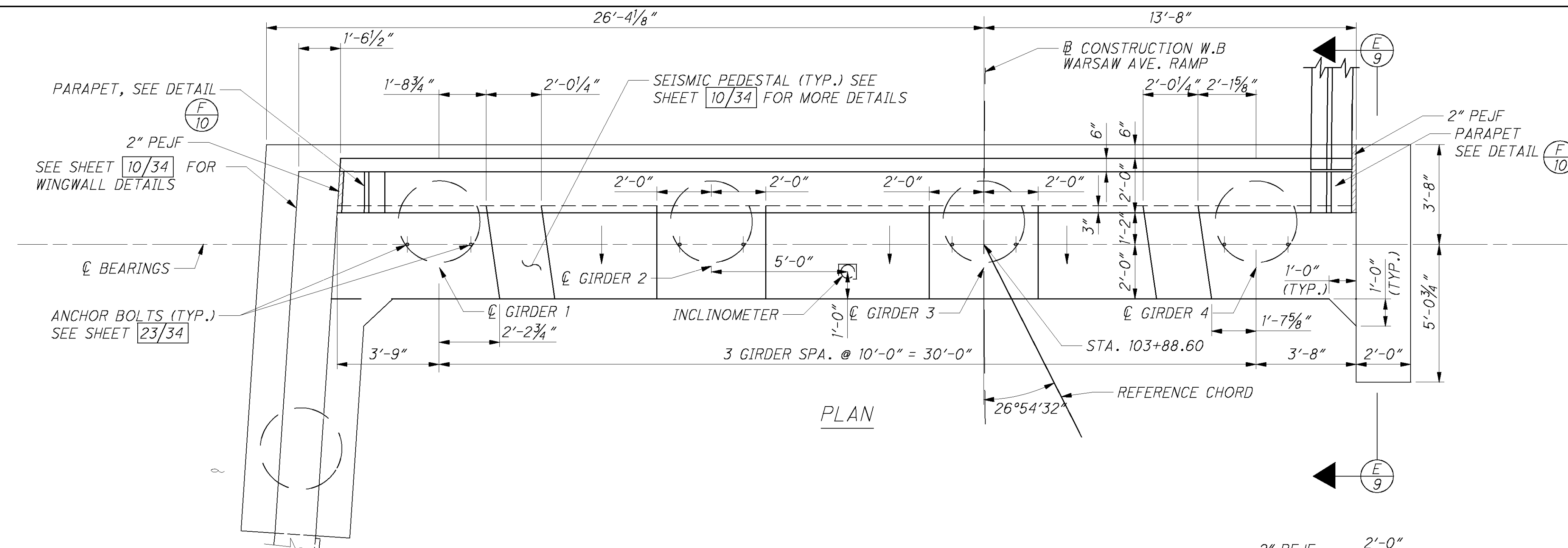
W.B. WARSAW AVE. RAMP OVER S.R. 264

HAM-50-18.79

PID No. 20082

6 / 34

375
657



LEGEND:

= SLOPE 1/2" BETWEEN BEARING SEATS (TYP.)

* = ELEVATION GIVEN AT FACE OF JOINT ARMOR

** = SURVEY PRISM MOUNT (SEE GENERAL NOTES)

BOT. = BOTTOM

$E.F. = \text{EACH FACE}$

P.E.J.F. = PREFORMED EXPANSION JOINT FILLER

U.N.O. = UNLESS NOTED OTHERWISE

S.O. = SERIES OF

④ = 1 S.O. 12 RA603 (E.F.) LAPPED W/ 12-RA601,
12-RA602, 12-RA501 & 12-RA502 @ 1'-0" = 11'-0"

③ = 1 S.O. 10 RA604 (E.F.) LAPPED W/ 10-RA601,
10-RA602, 10-RA501, & 10-RA503 @ 1'-0" = 9'-0"

① = 1 S.O. 8 RA605 (E.F.) LAPPED W/ 8-RA601,
8-RA602, 8-RA501, & 8-RA504 @ 1'-0" = 7'-0"

① = 8-RA606 (E.F.) LAPPED W/ 8-RA601, 8-RA602,
8-RA501, & 8-RA505 @ 1'-0" = 7'-0"

NOTES:

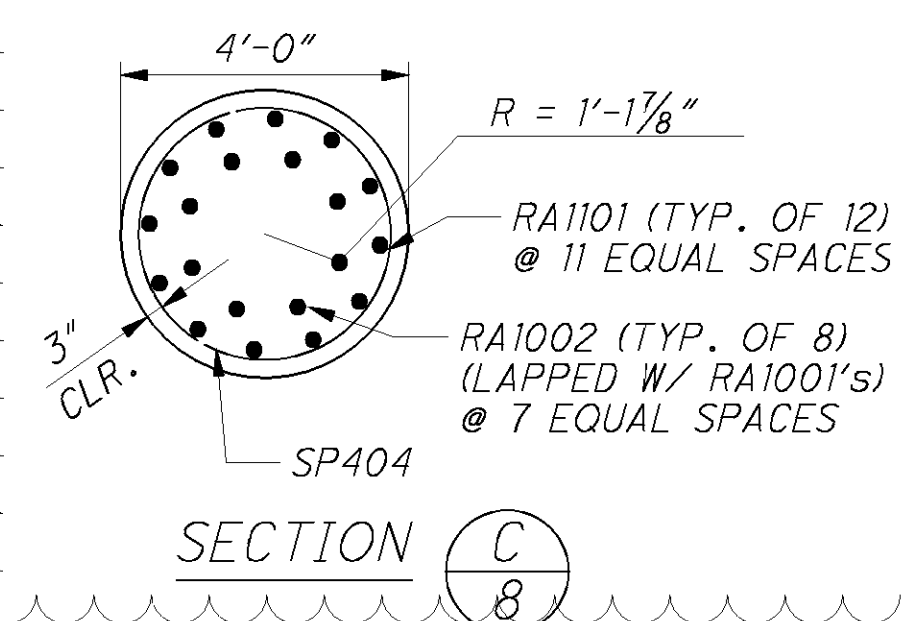
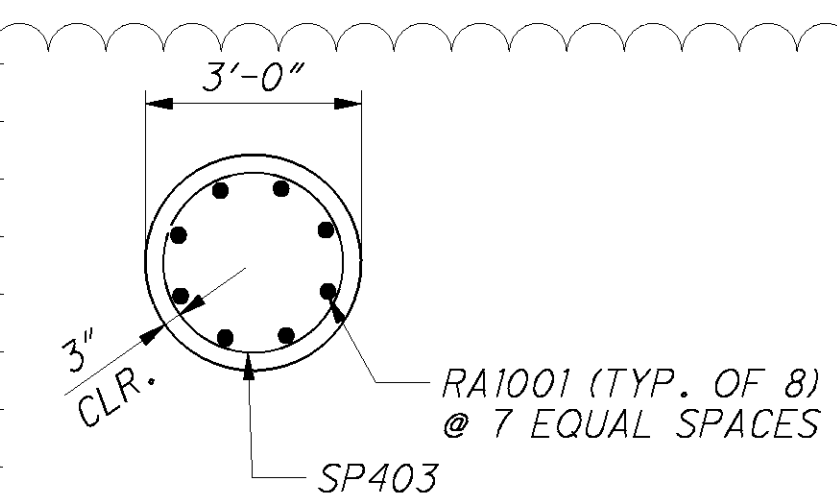
MIN. LAP LENGTHS

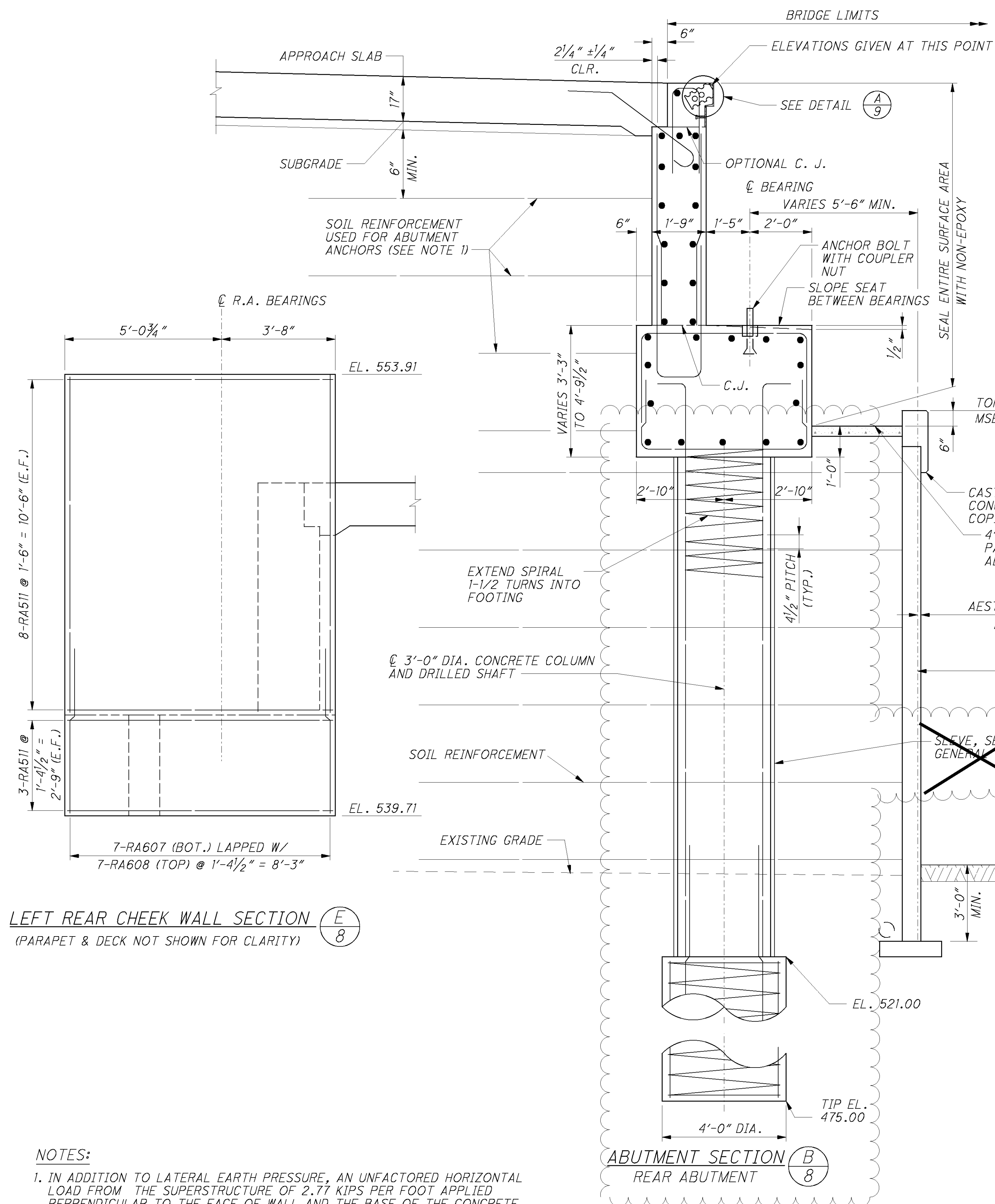
#5'S = 2'-6"

#6'S = 3'-10"

#8'S = 4'-11"

#10'S = 8'-2"



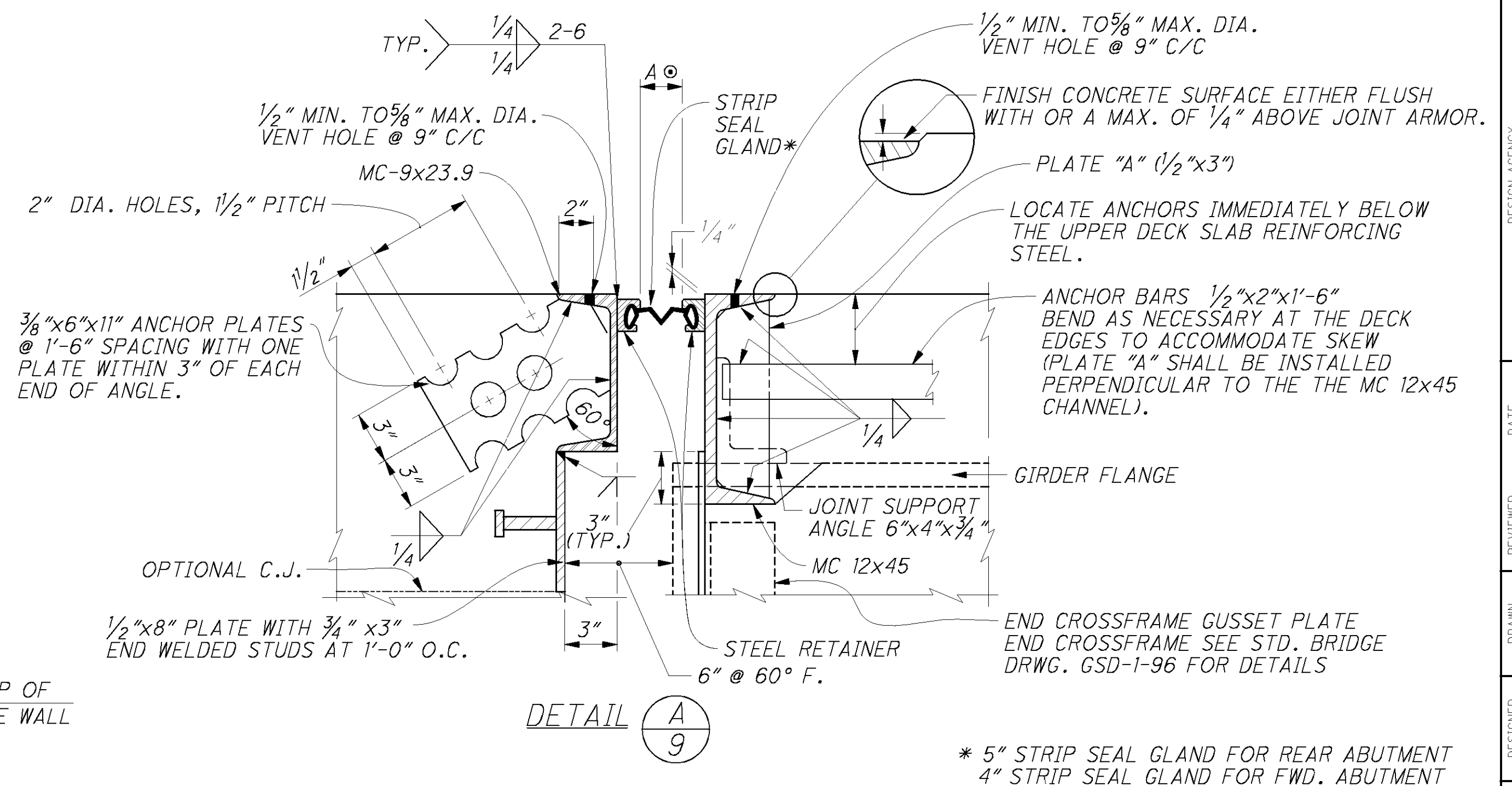


LEFT REAR CHEEK WALL SECTION (E)
(PARAPET & DECK NOT SHOWN FOR CLARITY) 8

NOTES:

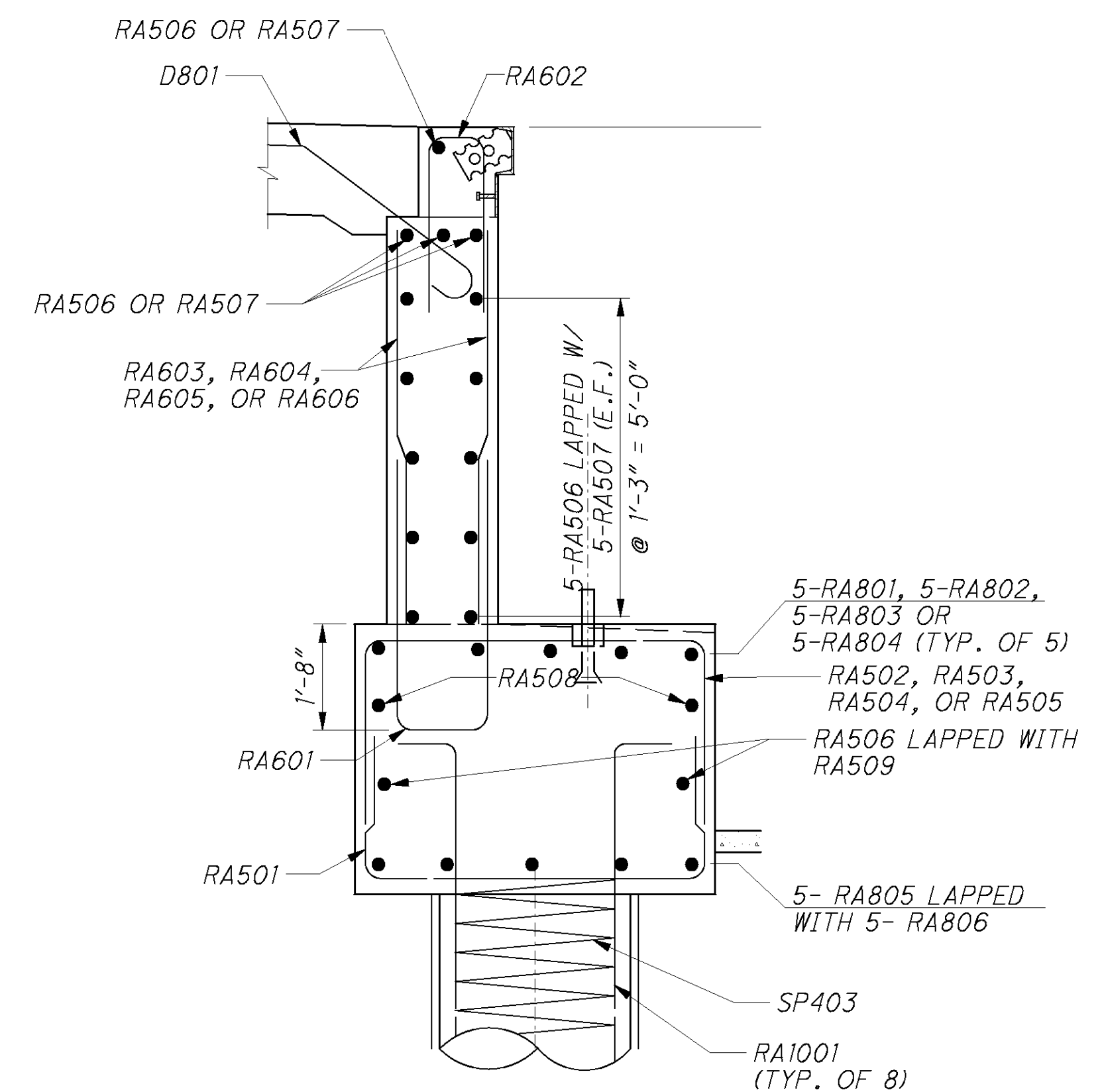
1. IN ADDITION TO LATERAL EARTH PRESSURE, AN UNFACTORED HORIZONTAL LOAD FROM THE SUPERSTRUCTURE OF 2.77 KIPS PER FOOT APPLIED PERPENDICULAR TO THE FACE OF WALL AND THE BASE OF THE CONCRETE FOOTING SHALL BE RESISTED BY SOIL REINFORCEMENT ANCHORS.

2. SEE SHEET 8/34 FOR LEGEND AND ADDITIONAL NOTES.



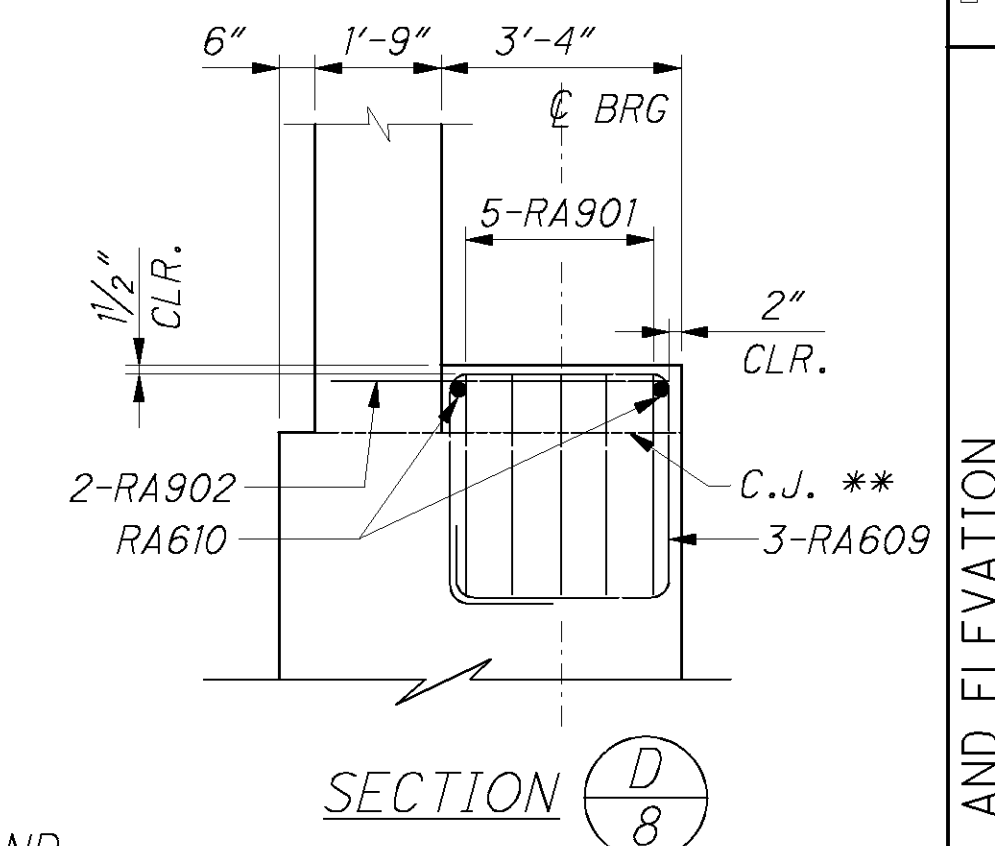
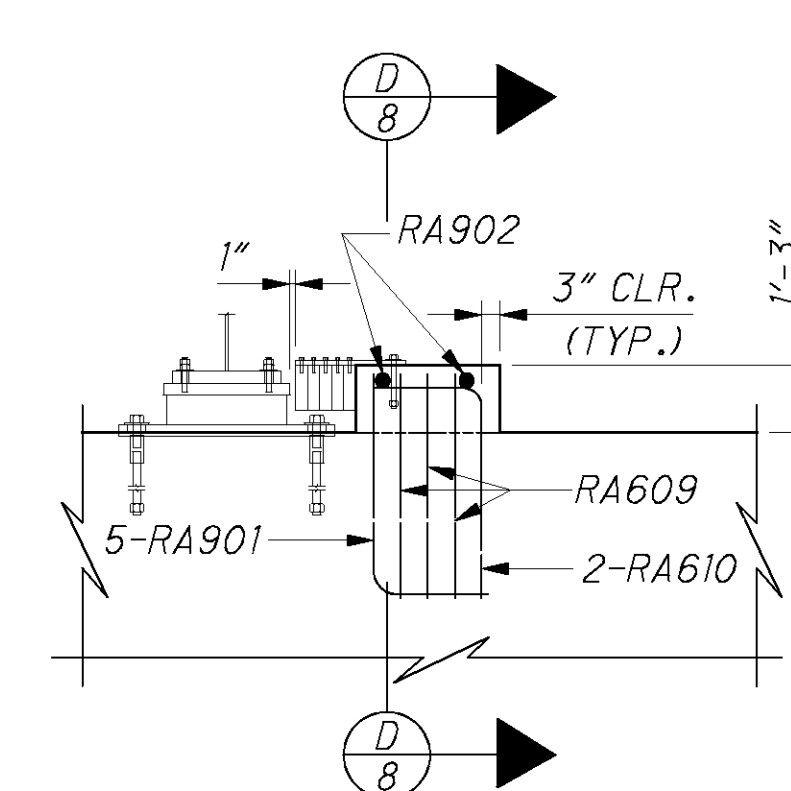
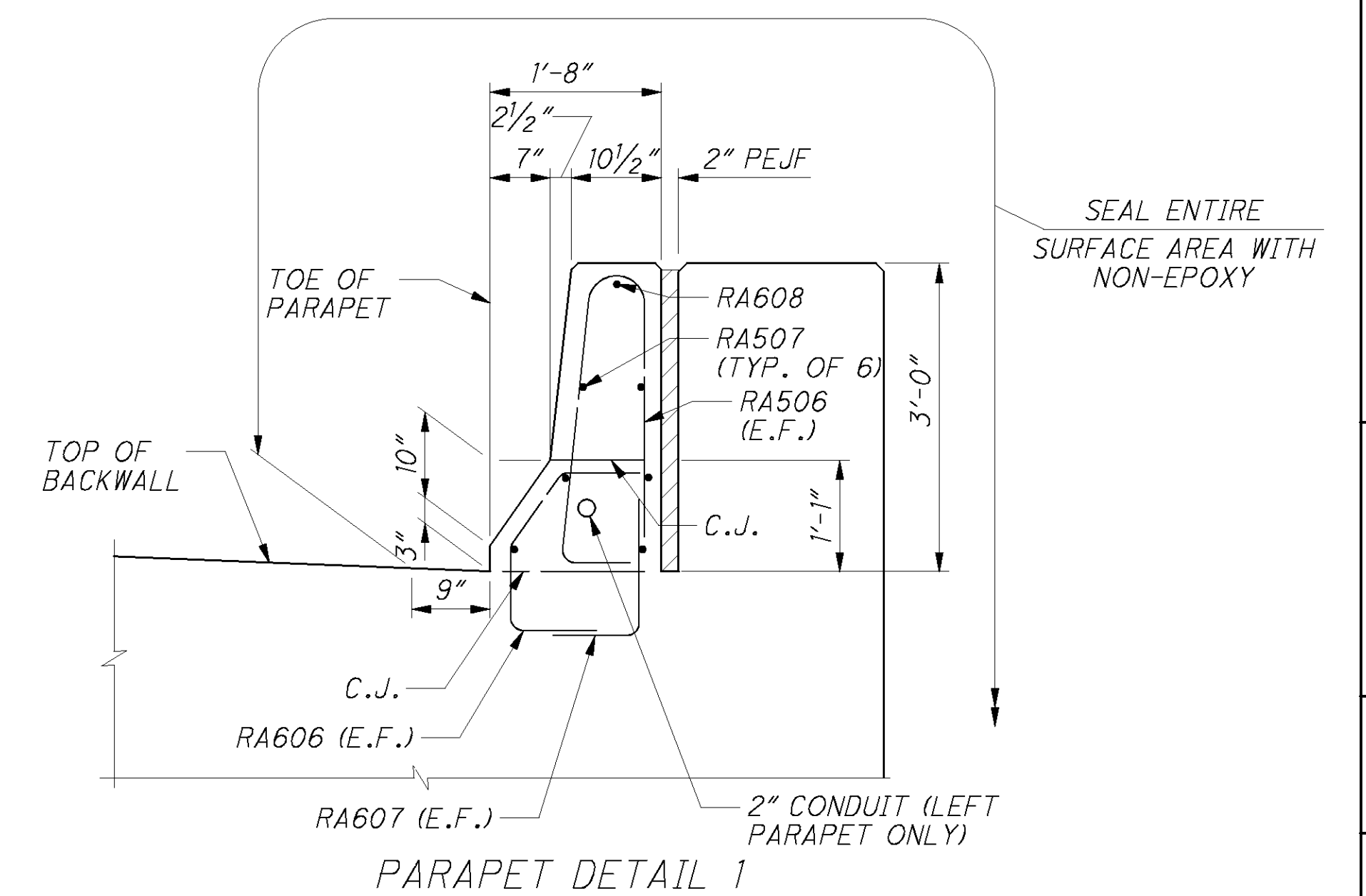
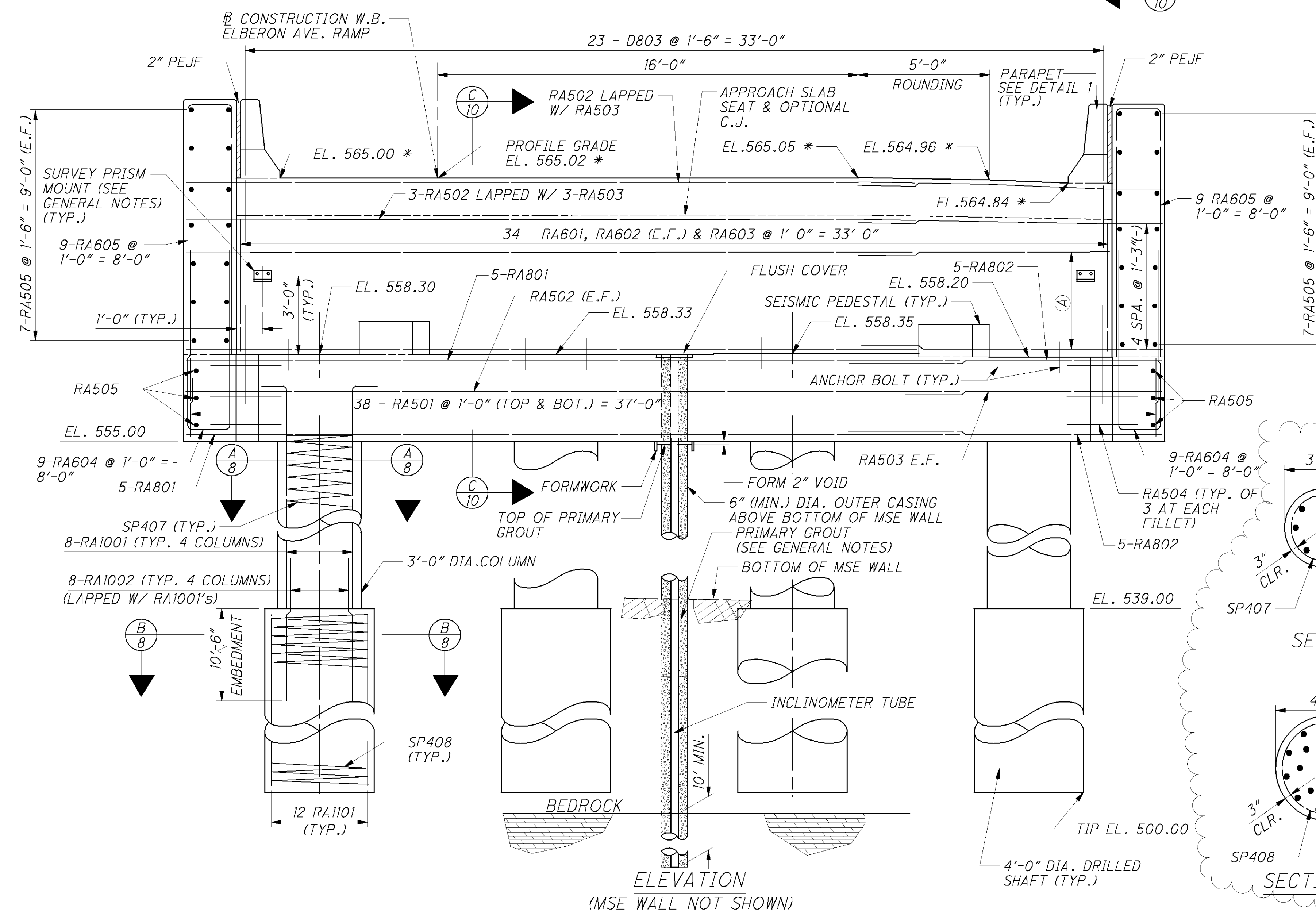
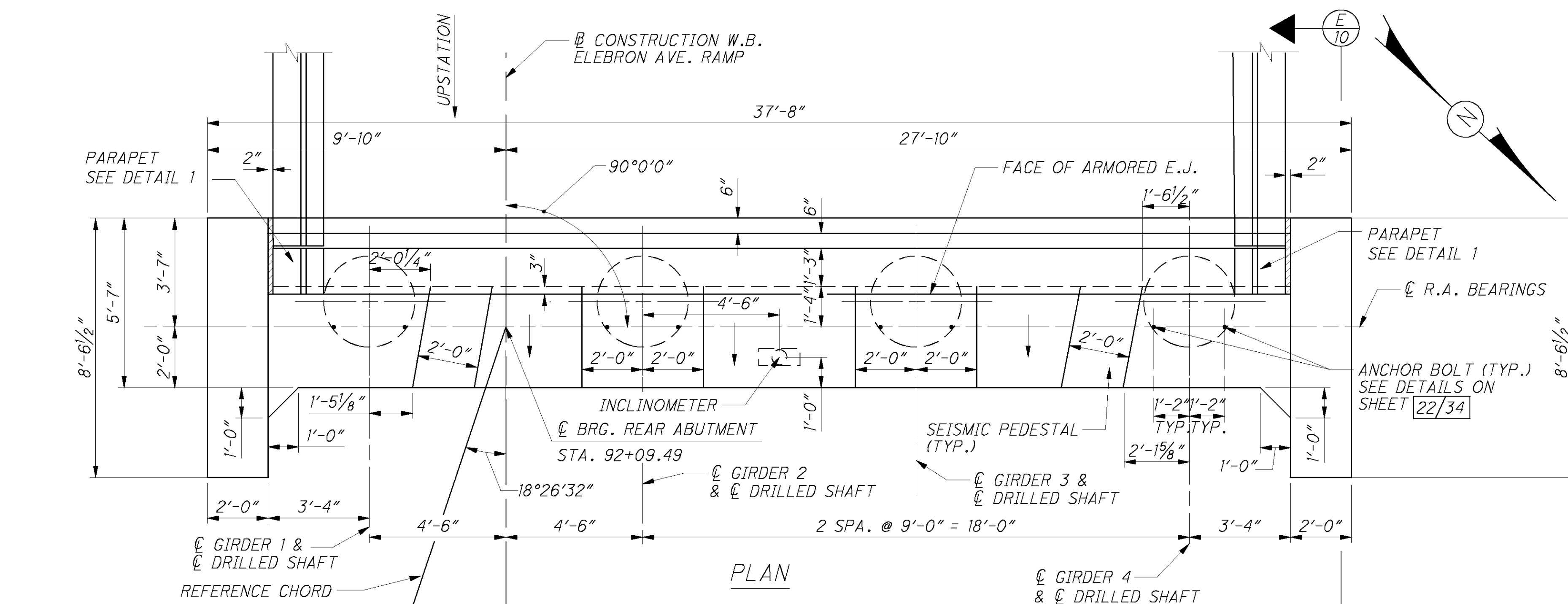
	JOINT OPENING DIMENSIONS						
TEMP (°F)	30	40	50	60	70	80	90
"A" - REAR	3 $\frac{3}{4}$ "	3 $\frac{11}{16}$ "	3 $\frac{9}{16}$ "	3 $\frac{1}{2}$ "	3 $\frac{3}{8}$ "	3 $\frac{5}{16}$ "	3 $\frac{1}{4}$ "
"A" - FORWARD	2 $\frac{1}{2}$ "	2 $\frac{1}{4}$ "	2 $\frac{1}{16}$ "	1 $\frac{7}{8}$ "	1 $\frac{1}{16}$ "	1 $\frac{1}{2}$ "	1 $\frac{1}{4}$ "

MINIMUM JOINT OPENING (DIMENSION "A") AT TIME THE SEAL GLAND RETAINERS ARE INSTALLED SHALL NOT BE LESS THAN $\frac{1}{2}$ ". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE $\frac{1}{2}$ " OPENING.



REAR ABUTMENT REINFORCING

DESIGN DETAILS ARE INCLUDED FOR BARRIER TRANSITIONS FOR STANDARD ODOT RAILING. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR TRANSITIONS OF THE ALTERNATE BID ITEM RAILING SELECTED. DESIGN DETAILS OF SIMILAR AESTHETIC RAILING TRANSITIONS ARE ON FILE WITH THE CITY FROM PREVIOUS PROJECTS SUCH AS THE FORMER COLUMBIA PARKWAY PROJECT. THE CONTRACTOR SHOULD CONTACT RICHARD SZEKERESH, P.E., PRINCIPAL STRUCTURAL ENGINEER FOR THE CITY OF CINCINNATI AT (513) 352-3419 OR richard.szekeresh@cincinnati-oh.gov FOR THESE DRAWINGS PRIOR TO DEVELOPING OR SUBMITTING SHOP DRAWINGS.



**** FINISH THE SURFACE OF THE BEAM SEAT IN THIS AREA WITH A SERRATED TROWEL.
THE SERRATIONS SHALL BE 1/4" DEEP MINIMUM.**

REAR ABUTMENT SEISMIC PEDESTAL DETAILS

LEGEND:

SLOPE 1/2" BETWEEN
BEARING SEATS (TYP.)

* ELEVATION GIVEN AT
FACE OF JOINT ARMOR

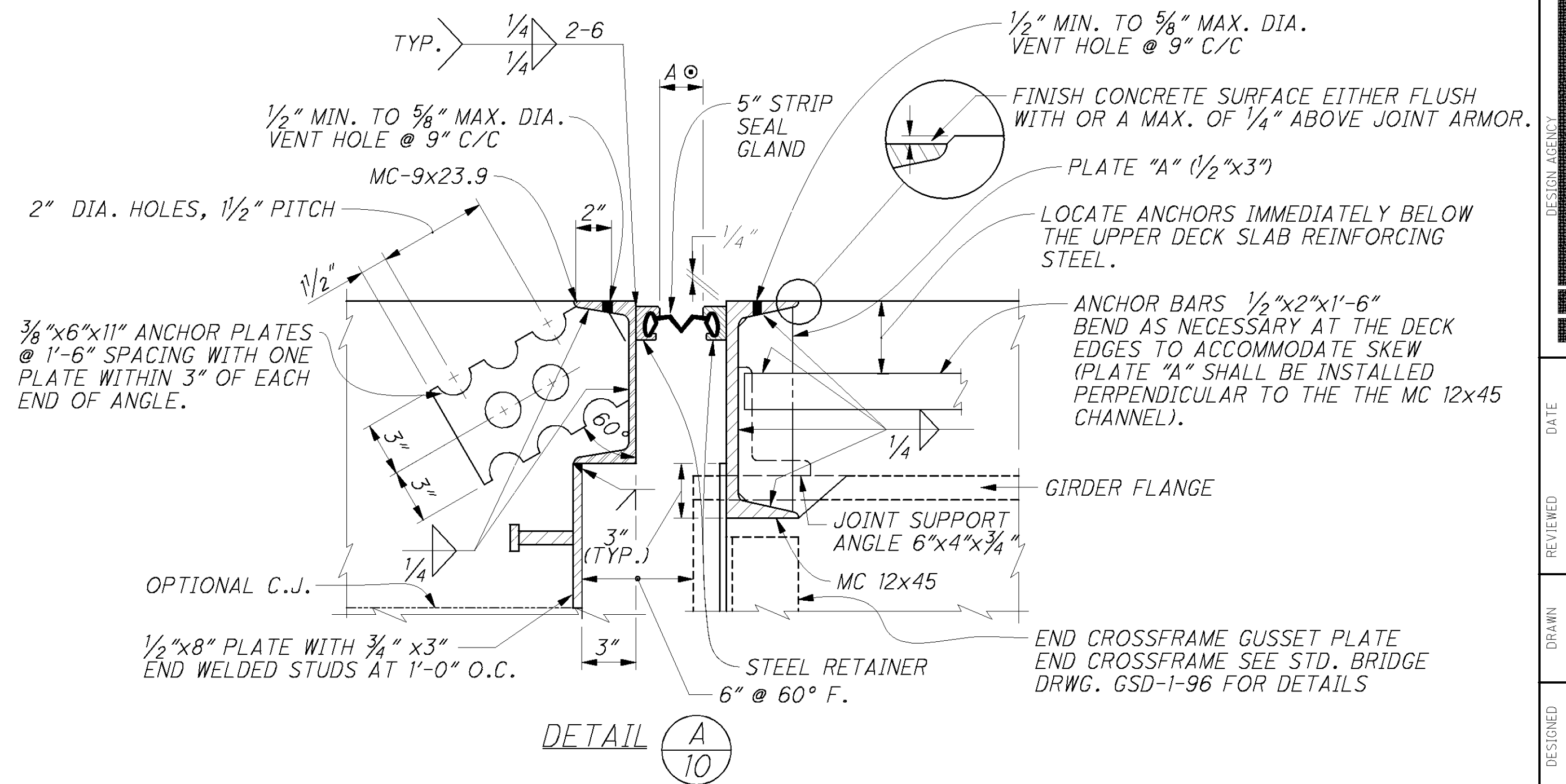
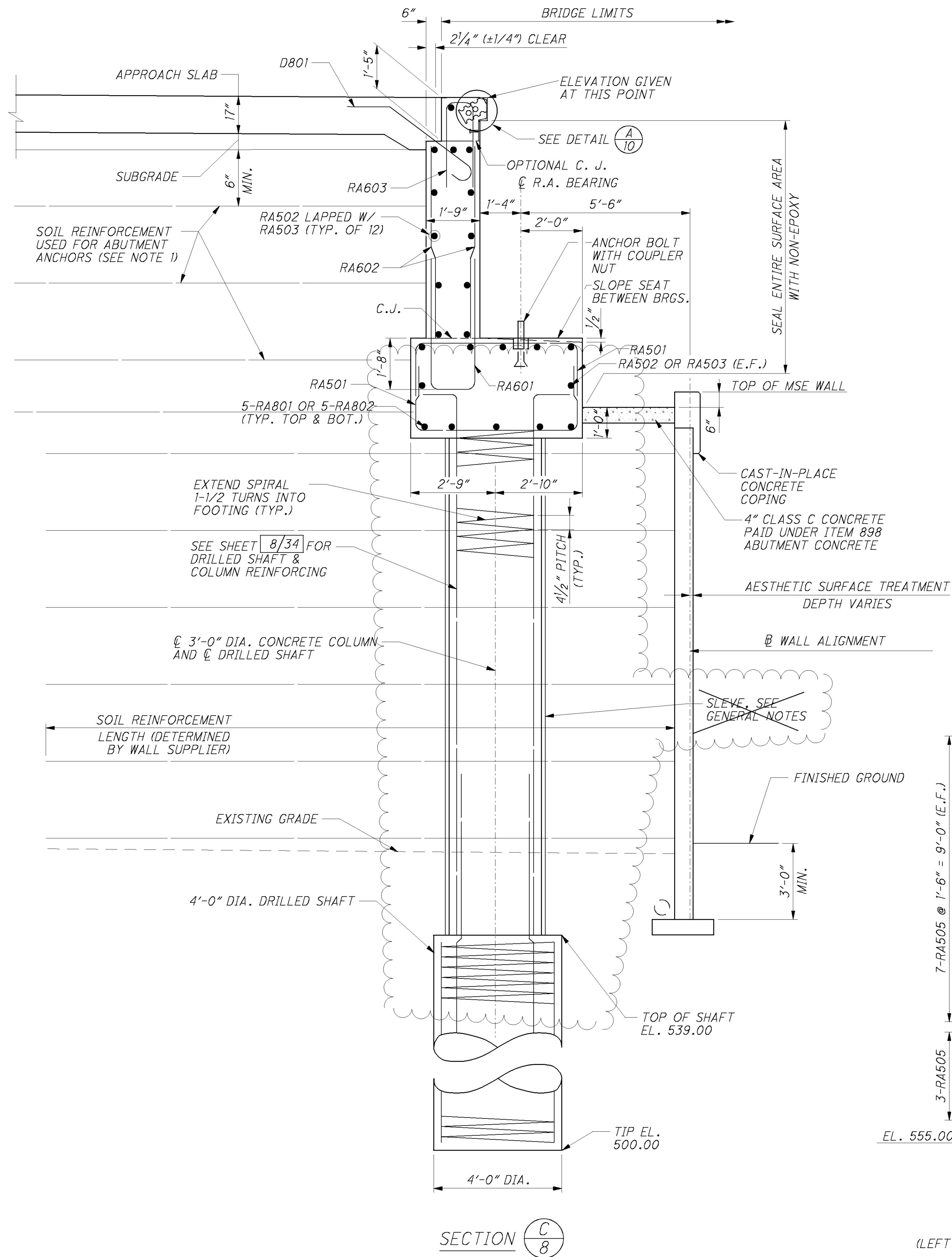
BOT. = BOTTOM
E.F. = EACH FACE
N.F. = NEAR FACE

(A) = 4-RA502 LAPPED W/ 4-RA503 (TYP. E.F.)

NOTES:

1. FORWARD ABUTMENT IS DETAILED AND
BID WITH BRIDGE HAM-264-1448.
2. MIN. LAP LENGTHS:
 - #5's = 2'-6"
 - #6's = 3'-10"
 - #8's = 4'-11"
 - #10's = 8'-2"

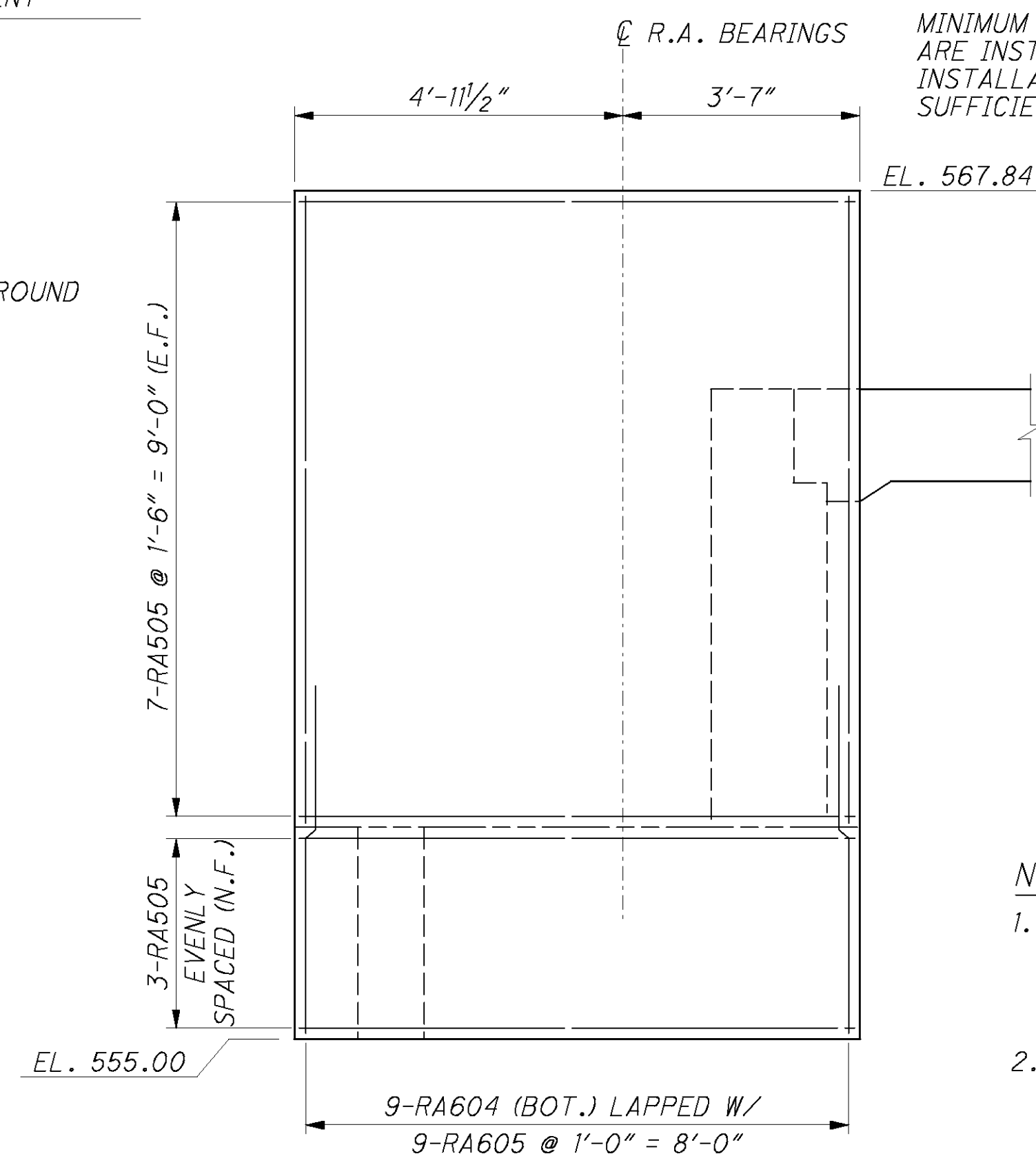
P:\PR42702\ham\20082\bridge\HAM264_1457C\sheets\264_1457CAR001.dgn



TEMP (°F)	JOINT OPENING DIMENSIONS						
	30	40	50	60	70	80	90
"A" - REAR ABUT.	3 3/16"	2 15/16"	2 5/8"	2 3/8"	2 1/16"	1 13/16"	1 9/16"

"A" - FORWARD ABUTMENT SEE BRIDGE HAM-264-1448

MINIMUM JOINT OPENING (DIMENSION "A") AT TIME THE SEAL GLAND RETAINERS ARE INSTALLED SHALL NOT BE LESS THAN 1 1/2". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE 1 1/2" OPENING.



NOTES:

- IN ADDITION TO LATERAL EARTH PRESSURE, AN UNFACTORED HORIZONTAL LOAD FROM THE SUPERSTRUCTURE OF 1.85 KIPS PER FOOT APPLIED PERPENDICULAR TO THE FACE OF WALL AND THE BASE OF THE CONCRETE FOOTING SHALL BE RESISTED BY SOIL REINFORCEMENT ANCHORS.
- SEE SHEET 8/34 FOR ADDITIONAL NOTES & LEGEND.

(LEFT REAR CHEEK WALL SHOWN, RIGHT REAR CHEEK WALL SIMILAR)
(PARAPET & DECK NOT SHOWN FOR CLARITY)

ITEM	EXTENSION	STRUCTURE TOTAL		UNIT	ESTIMATED QUANTITIES DESCRIPTION	HAM-050-1875				SEE SHEET NO.
		ODOT	CITY			ABUT.	PIER	SUPER.	GEN.	
202	11203	1		LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					4/39
202	22901	366		SO YD	APPROACH SLAB REMOVED, AS PER PLAN				366	4/39
SPECIAL	203E65000	7		EACH	SETTLEMENT PLATFORM	7				
503	11100	1		LUMP	COFFERDAMS AND EXCAVATION BRACING					4/39
503	21300	1		LUMP	UNCLASSIFIED EXCAVATION					
505	11100	1		LUMP	PILE DRIVING EQUIPMENT MOBILIZATION					
507	00700	4,645		FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	1,165	3,480			
507	00750	5,100		FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	1,260	3,840			
509	10000	356,968		LB	EPOXY COATED REINFORCING STEEL	15,101	106,280	235,587		
512	10001	84		SO YD	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)		84			4/39
512	10050	1,763		SO YD	SEALING OF CONCRETE SURFACES (NON-EPOXY)	141		1,622		
512	10100	404		SO YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		404			
513	10300	1,484,020		LB	STRUCTURAL STEEL MEMBERS, LEVEL 5			1,484,020		
513	20000	5,432		EACH	WELDED STUD SHEAR CONNECTORS			5,432		
514	00060	62,649		SO FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			62,649		
514	00066	62,649		SO FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			62,649		
514	10000	26		EACH	FINAL INSPECTION REPAIR			26		
516	11211	33		FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN (5" SEAL)			33		10/39
516	11211	33		FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN (4" SEAL)			33		12/39
516	13600	37		SO FT	1" PREFORMED EXPANSION JOINT FILLER			37		
516	13900	75		SO FT	2" PREFORMED EXPANSION JOINT FILLER			75		
516	44301	4		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (20" x 26" x 45/16" BEARING WITH 21" x 39" LOAD PLATE		4			23/39
516	44301	4		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (16" x 24" x 45/8" BEARING WITH 17" x 25" LOAD PLATE		4			23/39
516	44401	4		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (10" x 15" x 51/16" BEARING WITH 11" x 20" LOAD PLATE	4				23/39
516	44401	4		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (22" x 28" x 67/16" BEARING WITH 23" x 29" LOAD PLATE		4			23/39
516	44401	4		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (12" x 20" x 63/4" BEARING WITH 13" x 26" LOAD PLATE	4				23/39
517	76300		1,467	FT	RAILING, MISC.: RAILING ALTERNATE, MINNESOTA RAILING (SEE NOTE 2)			1,467		
518	12300	9		EACH	SCUPPERS, INCLUDING SUPPORTS			9		
518	51100	430		FT	8" PIPE DOWNSPOUT, INCLUDING SPECIALS			430		
523	20000	5		EACH	DYNAMIC LOAD TESTING	2	3			
SPECIAL	690E98400	1		LUMP	SPECIAL-MISC.: TEMPORARY SURCHARGE					
898	10201	707		CU YD	QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (DECK), AS PER PLAN			707		4/39
898	10709	111		SO YD	QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (APPROACH SLAB), (T=17"), AS PER PLAN			111		4/39
898	11000	180		CU YD	QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (PARAPET)			180		
898	20100	268		CU YD	QC/QA CONCRETE, CLASS OSC1, SUBSTRUCTURE (PIER ABOVE FOOTING)		268			
898	20160	135		CU YD	QC/QA CONCRETE, CLASS OSC1, SUBSTRUCTURE (ABUTMENT INCLUDING FOOTING)	135				
898	20300	245		CU YD	QC/QA CONCRETE, CLASS OSC1, SUBSTRUCTURE (FOOTING)		245			

NOTES:

1. FOR LIST OF ABBREVIATIONS SEE SHEET 5/39.

2. RAILING, MISC: RAILING ALTERNATIVE, MINNESOTA RAILING IS A REQUIRED BID ITEM. IF SELECTED BY THE OWNER IT WILL REPLACE BID ITEM 898: QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (PARAPET). CONCRETE IN ALTERNATE RAILING SHALL BE QC/QA CONCRETE, CLASS OSC2. IF SELECTED BY THE OWNER ALTERNATE RAILING AND ALL NECESSARY TRANSITIONS SHALL BE DETAILED PER MINNESOTA STANDARD DRAWING FIGURE 5-397.157 AND SUBMITTED FOR SHOP DRAWING REVIEW PRIOR TO FABRICATION. THE COST OF ALL LABOR MATERIALS, AND EQUIPMENT NECESSARY FOR PAINTING, REINFORCEMENT, SEALING, RAILINGS, AND SHOP DRAWING PREPARATION SHALL BE INCLUDED WITH THIS ITEM FOR PAYMENT. SEE SHEET 4/39 FOR COLOR REQUIREMENTS. ALL REINFORCEMENT SHALL BE EPOXY COATED. THE ALTERNATE RAILING OPTION WILL REPLACE 37,888 POUNDS OF REINFORCEMENT AND 1,182 SQ.YD. OF SEALING.

CALC. BY: BKJ DATE: 8-07
CHK'D BY: PJL DATE: 9-07

DESIGN AGENCY
PB AMERICAS, INC.
312 ELM STREET
SUITE 2500
CINCINNATI, OHIO 45202

DATE
11/16/10

REVIEWED
EBS

STRUCTURE FILE NUMBER
3102793

DRAWN
LEL

DESIGNED
PJL

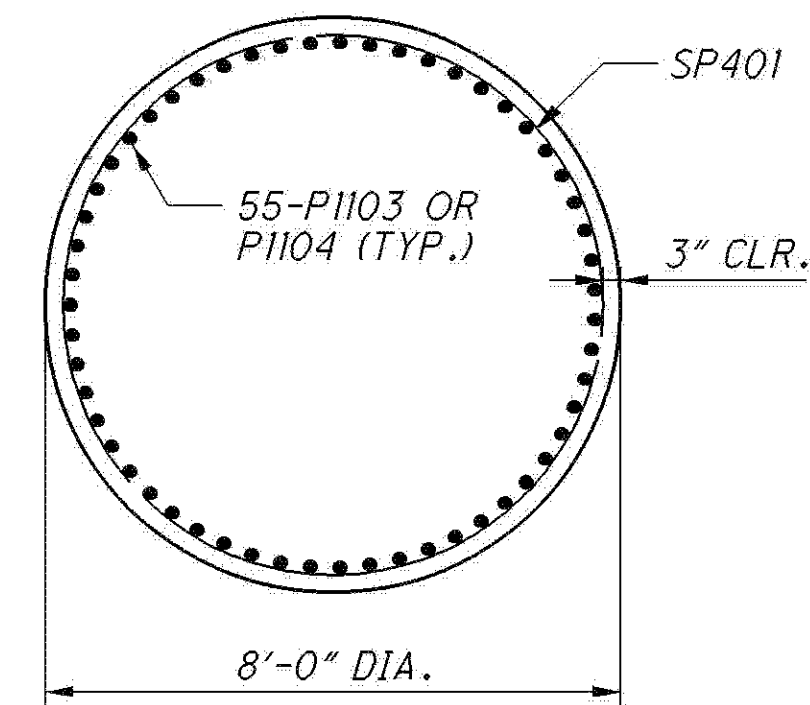
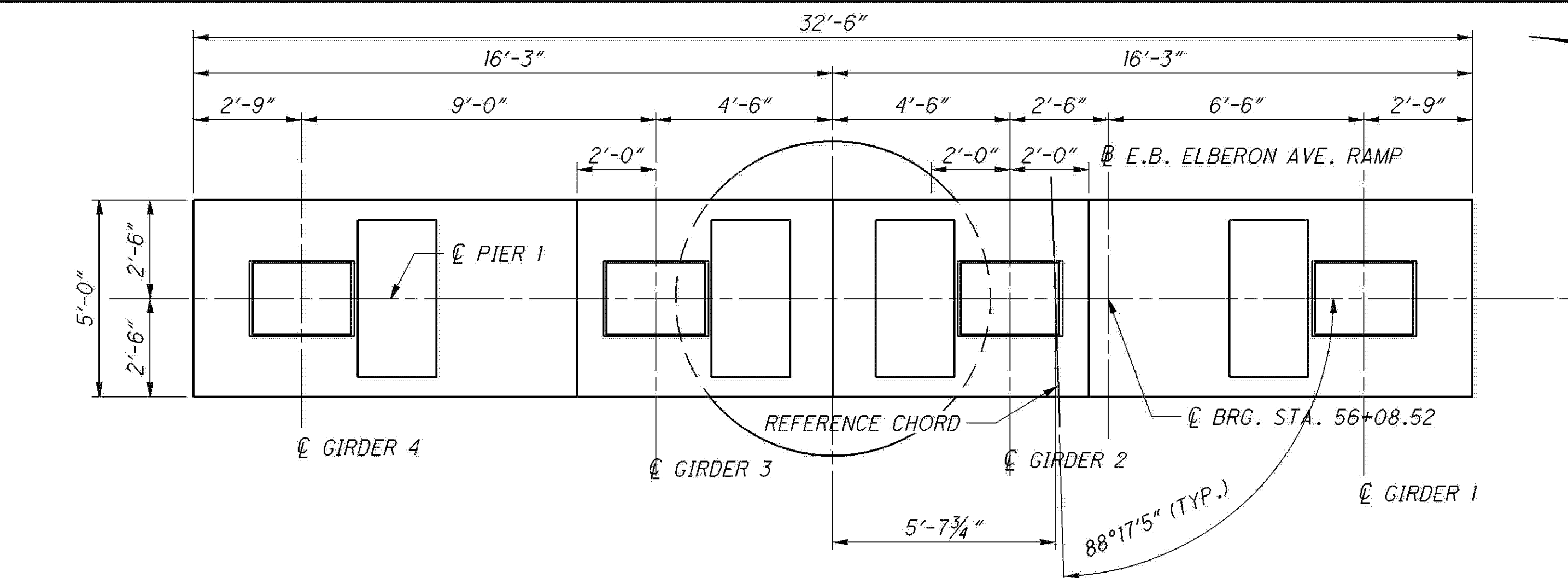
CHECKED
SAP

ESTIMATED QUANTITIES
BRIDGE NO. HAM-050-1875
EB ELBERON AVE. RAMP OVER S.R. 264 AND U.S.R. 50

HAM-50-18.79
PID No. 20082

6/39

443
657



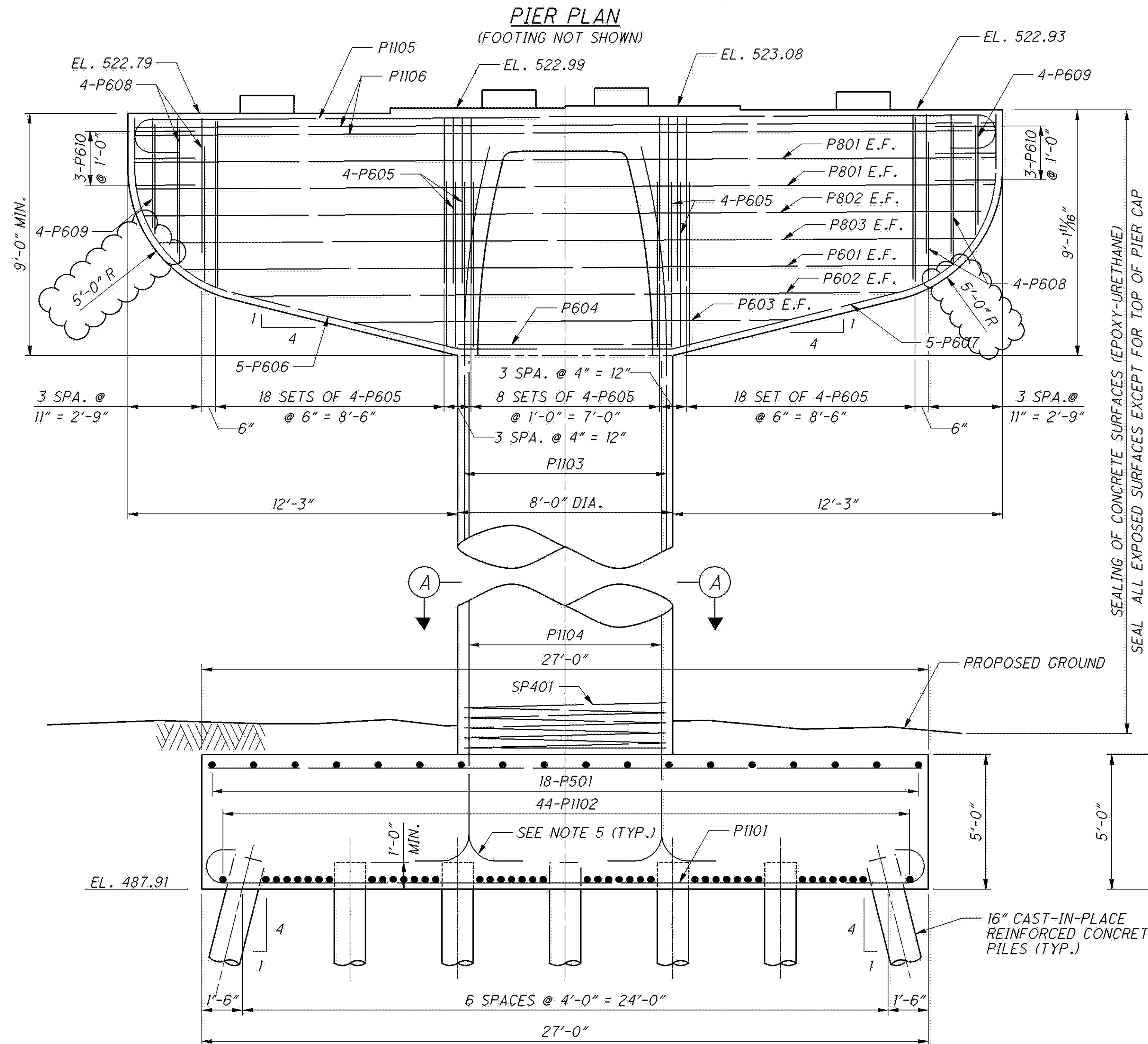
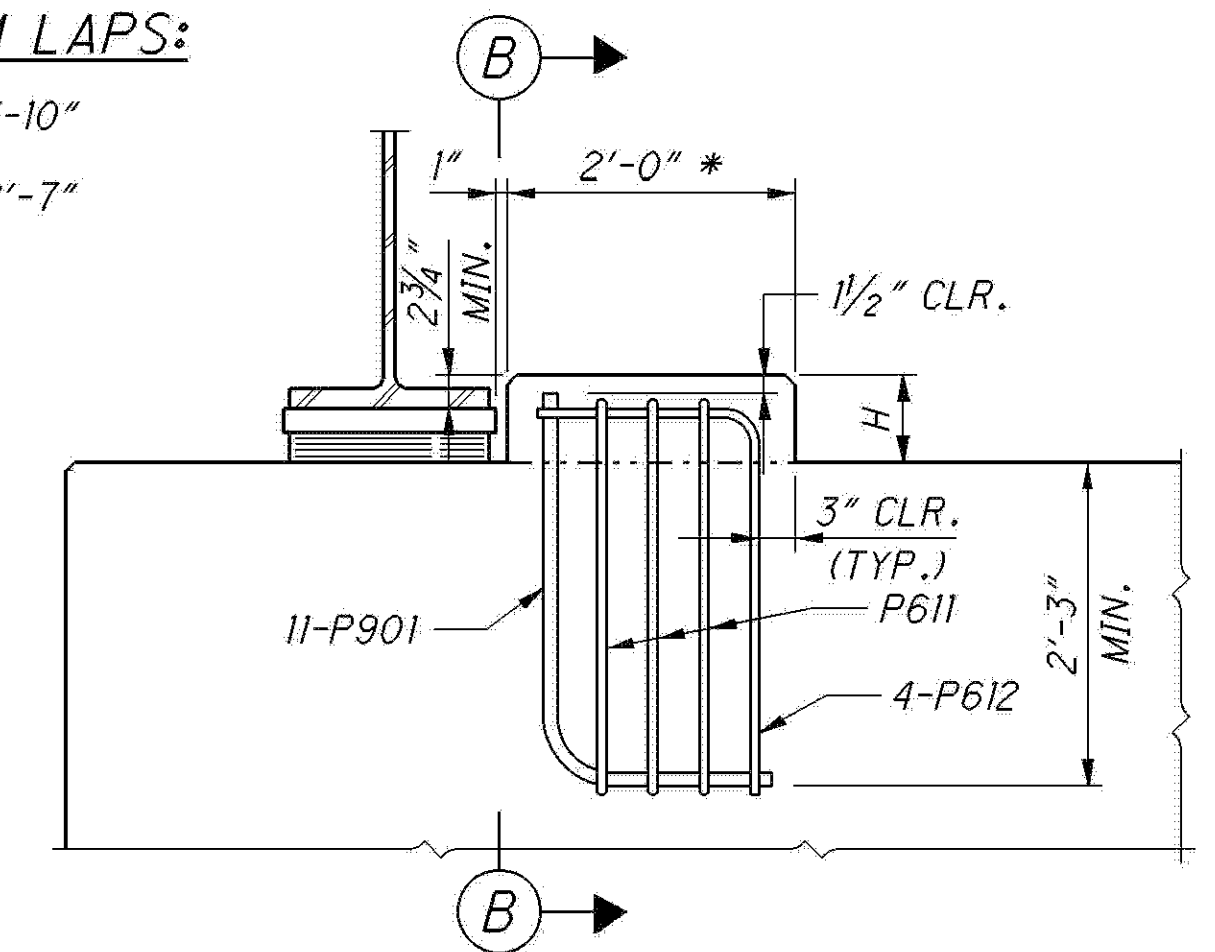
NOTES:

1. SEE SHEET [23/39] FOR SEISMIC PEDESTAL DIMENSION H.
2. SEE SHEET [16/39] FOR AESTHETIC DETAILS.
3. ANCHORAGE OF SPIRAL REINFORCEMENT SHALL BE PROVIDED BY 1½ EXTRA TURNS OF SPIRAL BAR AT EACH END OF A SPIRAL UNIT. SPIRAL REINFORCEMENT SHALL EXTEND FROM THE TOP OF THE FOOTING TO THE BOTTOM ROW OF HORIZONTAL CAP REINFORCEMENT.
4. BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.310 INCHES AT PIER 1 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
5. ALTERNATE DIRECTION OF THE BOTTOM LEG OF FOOTING/ COLUMN DOWEL BARS.

MINIMUM LAPS:

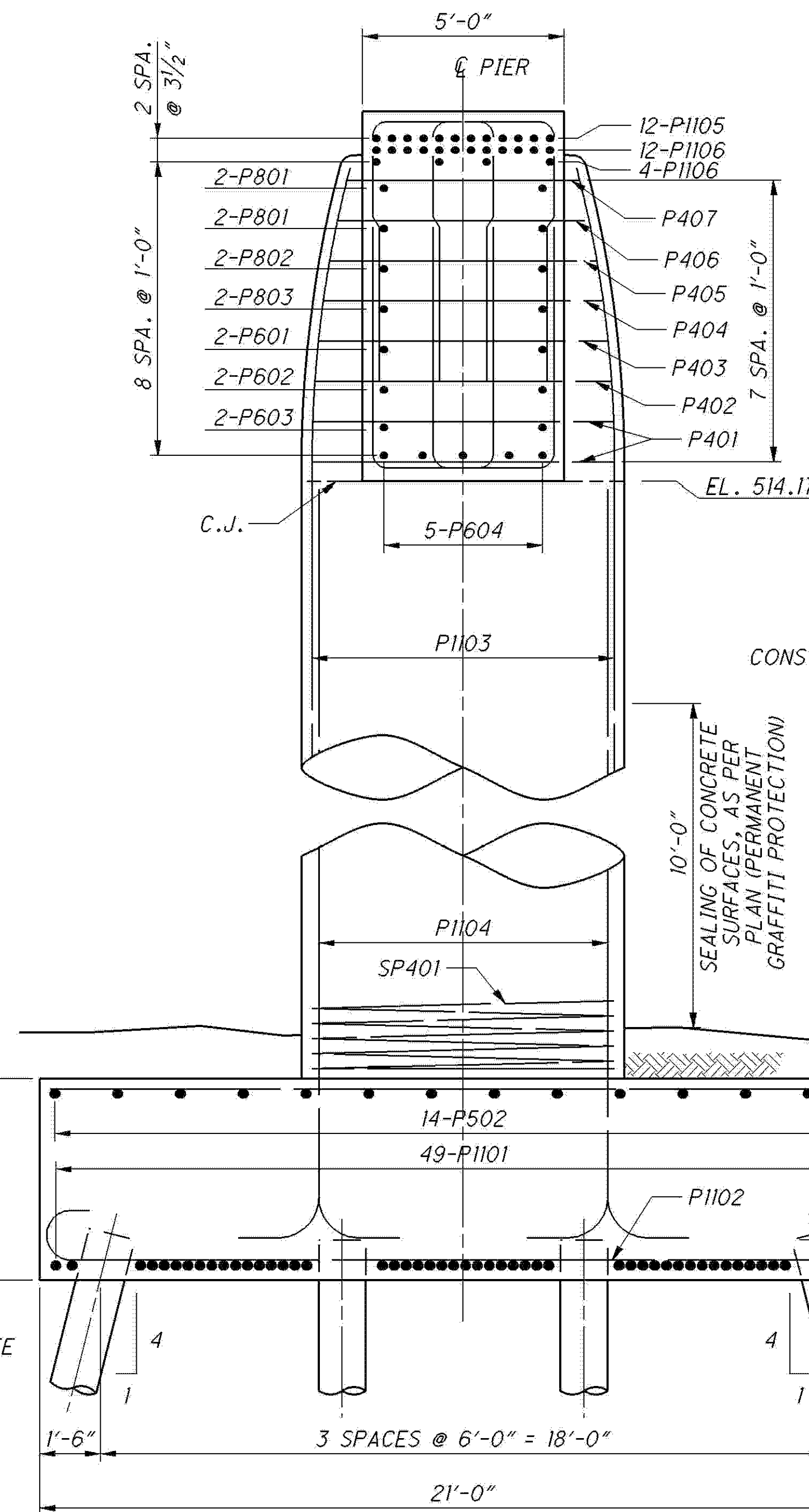
#6 BARS 3'-10"

#11 BARS 12'-7"

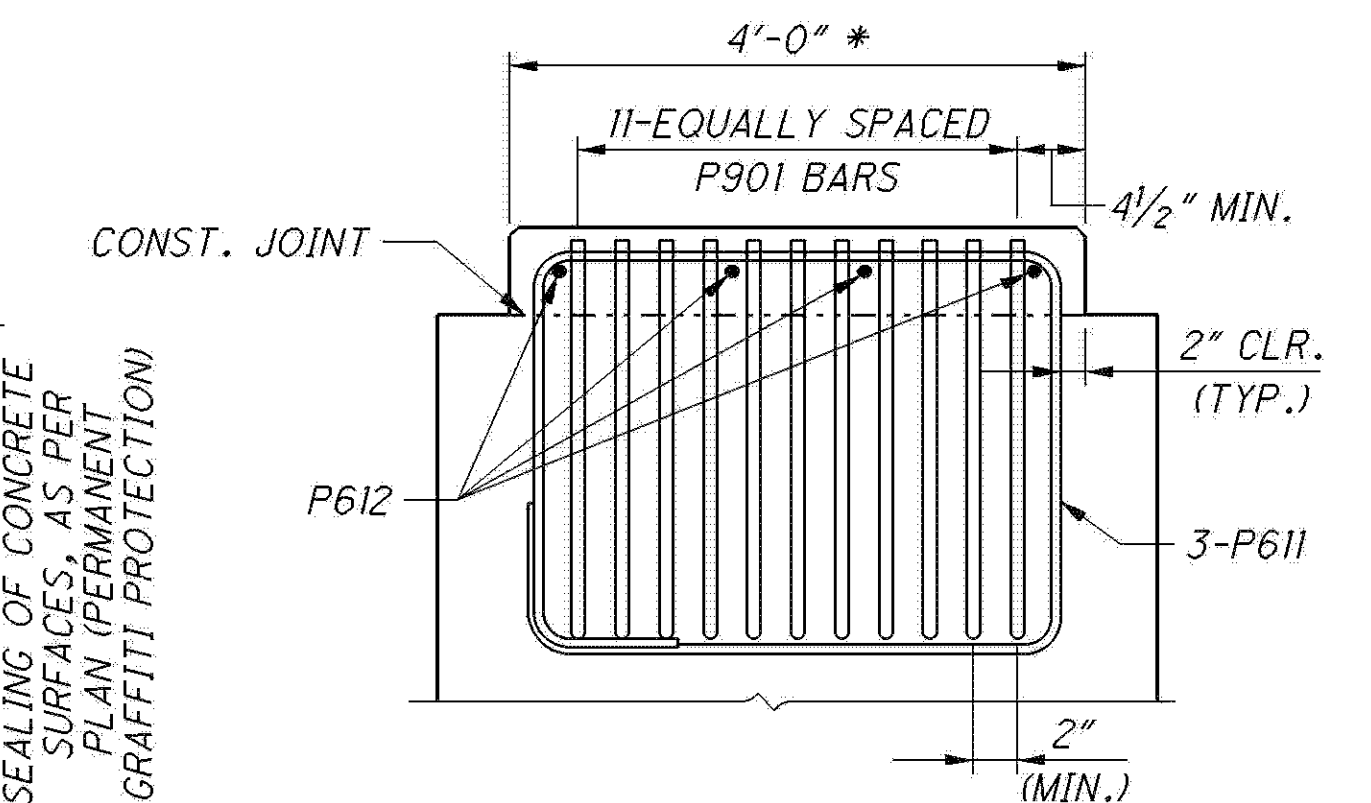


ELEVATION SECTION

ELBERON RAMP EASTBOUND (LOOKING UPSTATION AT PIER 1)

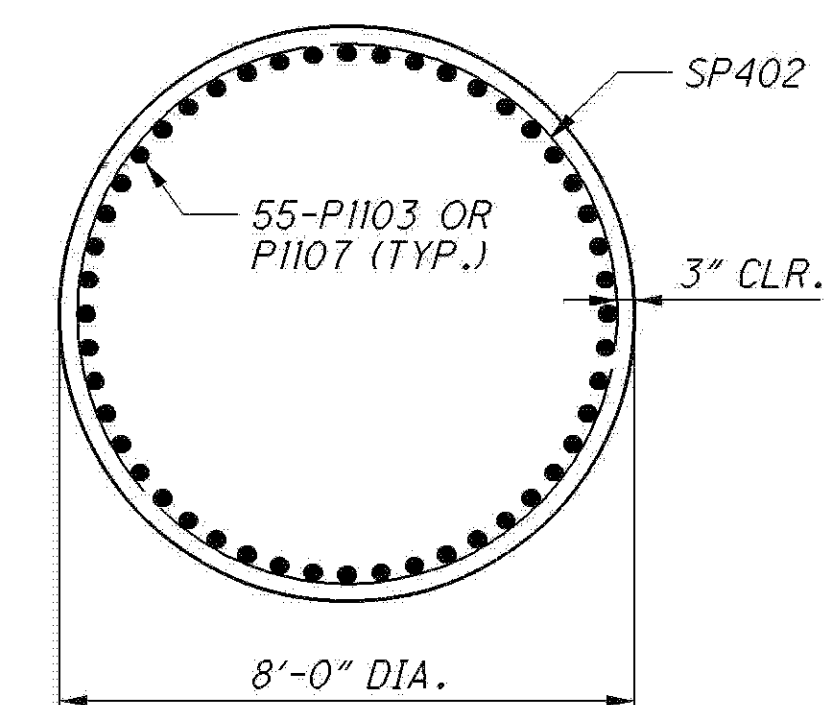
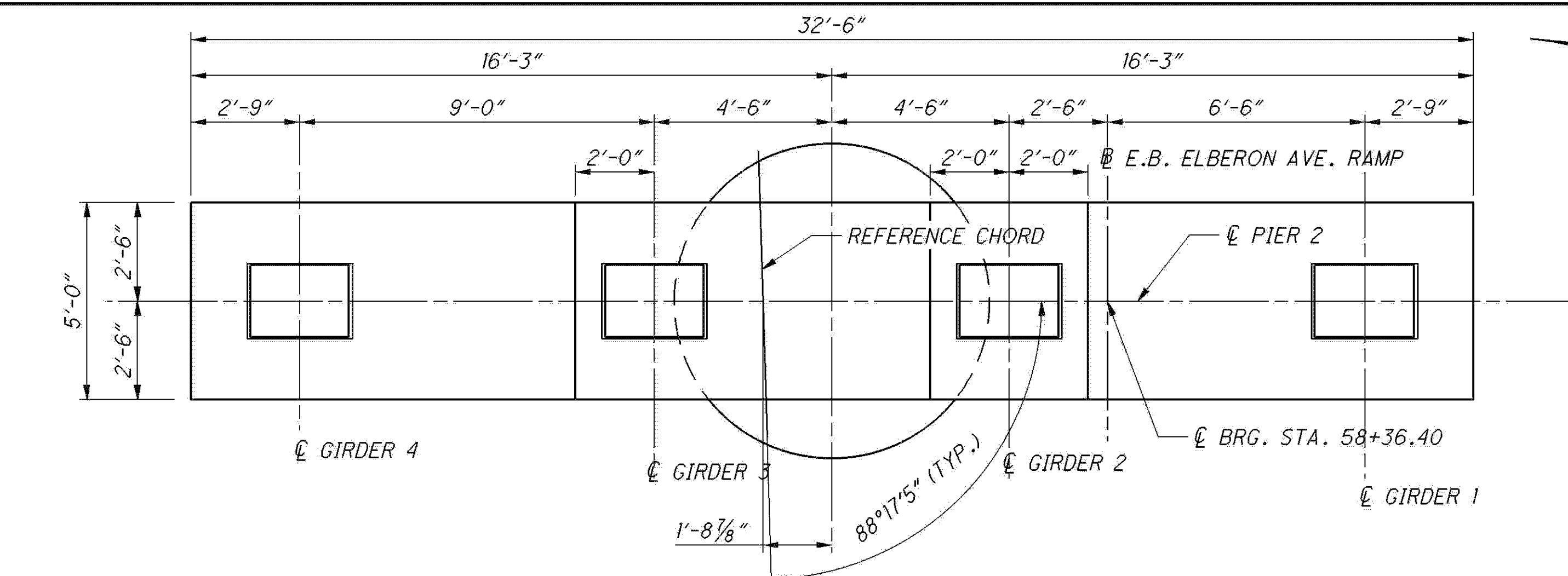


PIER SIDE VIEW



SECTION B-B

* THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE 1/4" DEEP MINIMUM.



NOTES:

1. BRIDGE SEAT REINFORCING, SETTING ANCHORS:
ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY
OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE
PRE-SETTING OF BEARING ANCHORS.
2. SEE SHEET 1639 FOR AESTHETIC DETAILS.

3. ANCHORAGE OF SPIRAL REINFORCEMENT SHALL BE PROVIDED BY 1½ EXTRA TURNS OF SPIRAL BAR AT EACH END OF A SPIRAL UNIT. SPIRAL REINFORCEMENT SHALL EXTEND FROM THE TOP OF THE FOOTING TO THE BOTTOM ROW OF HORIZONTAL CAP REINFORCEMENT.

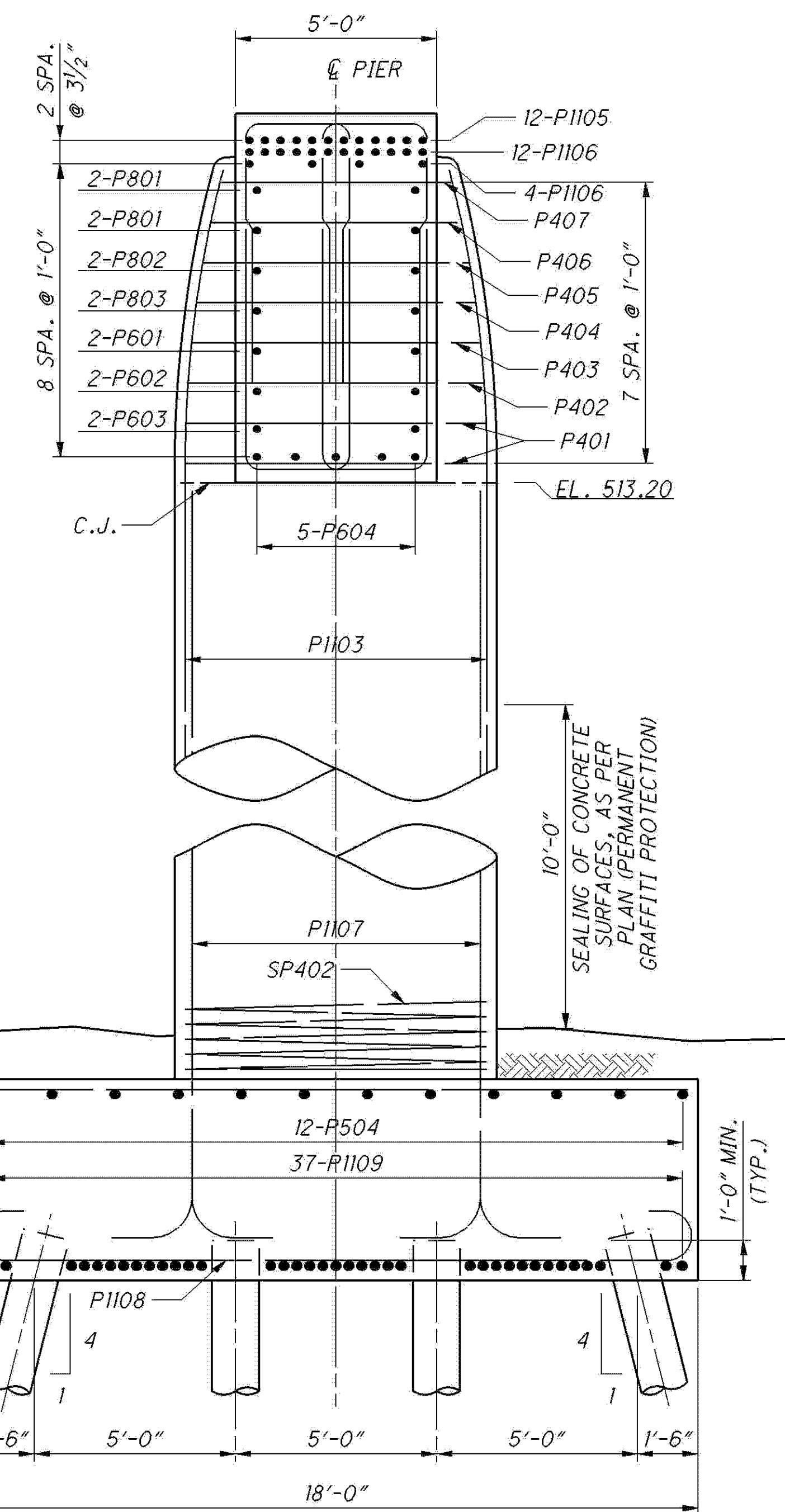
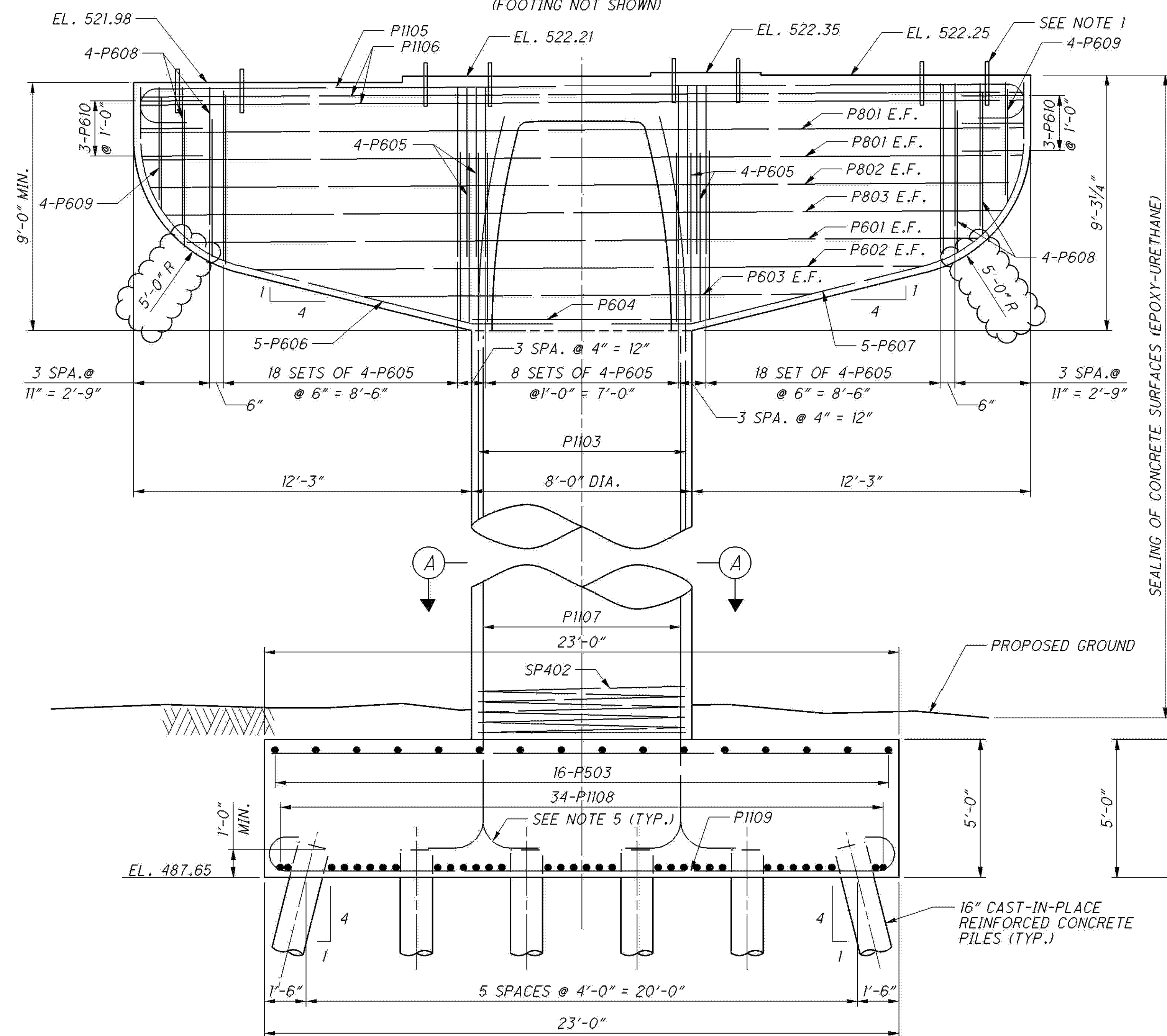
4. BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.206 INCHES AT PIER 2 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.

5. ALTERNATE DIRECTION OF THE BOTTOM LEG OF FOOTING/
COLUMN DOWEL BARS.

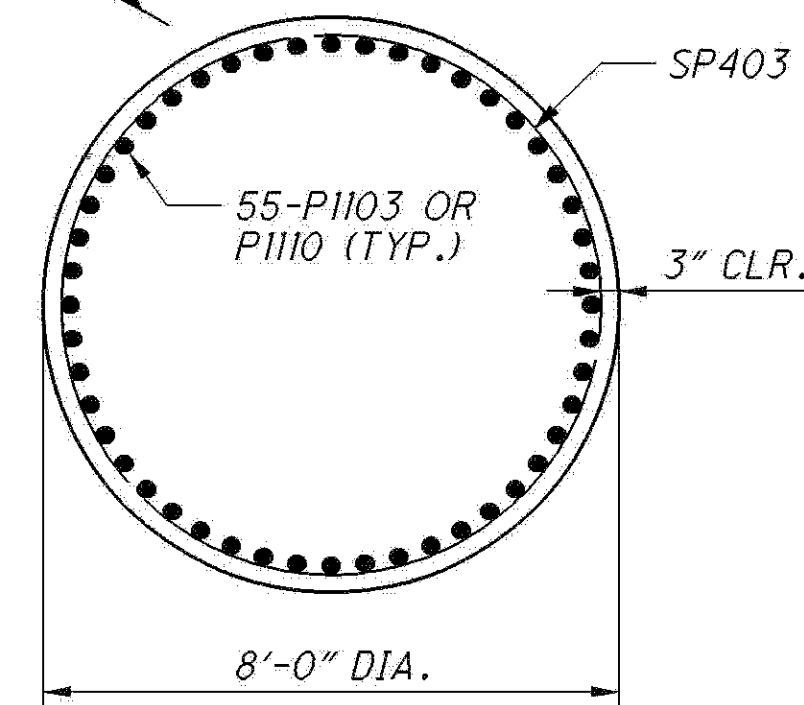
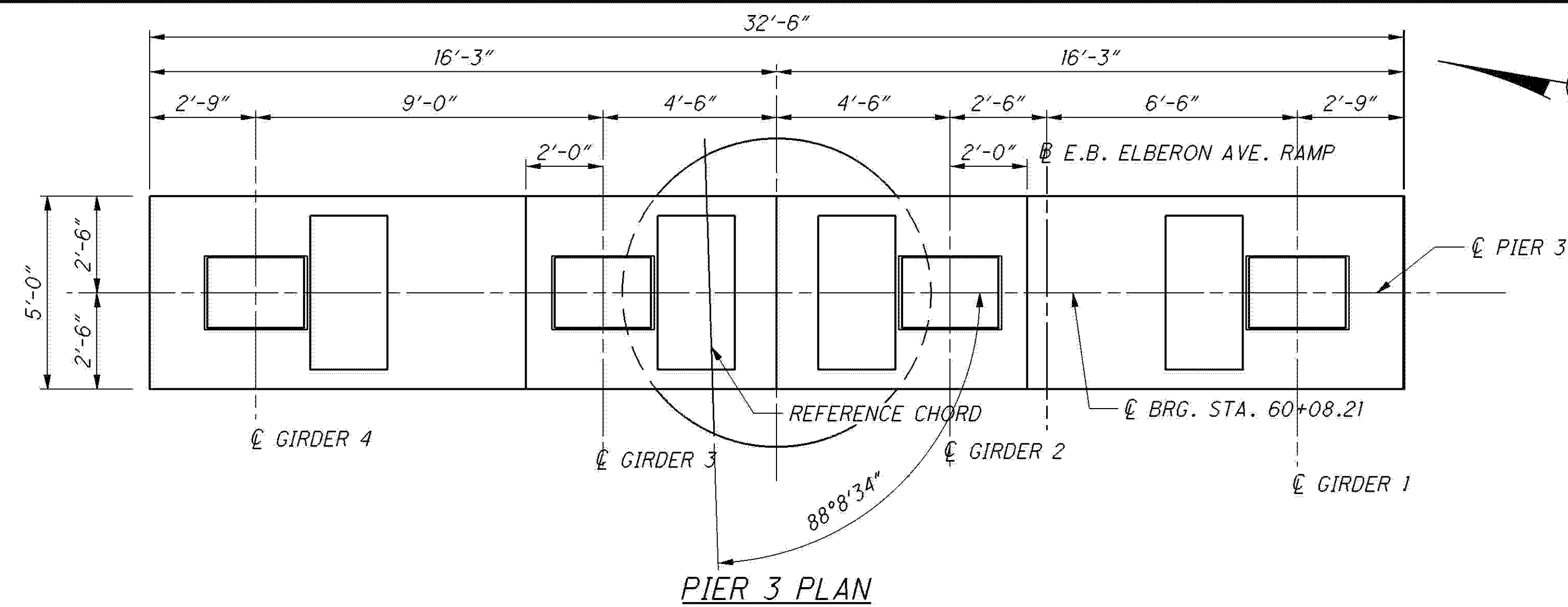
MINIMUM LAPS:

#6 BARS 3'-10"

#11 BARS 12'-7"



ELEVATION SECTION
ELBERON RAMP EASTBOUND (LOOKING UPSTATION AT PIER 2)



SECTION A-A

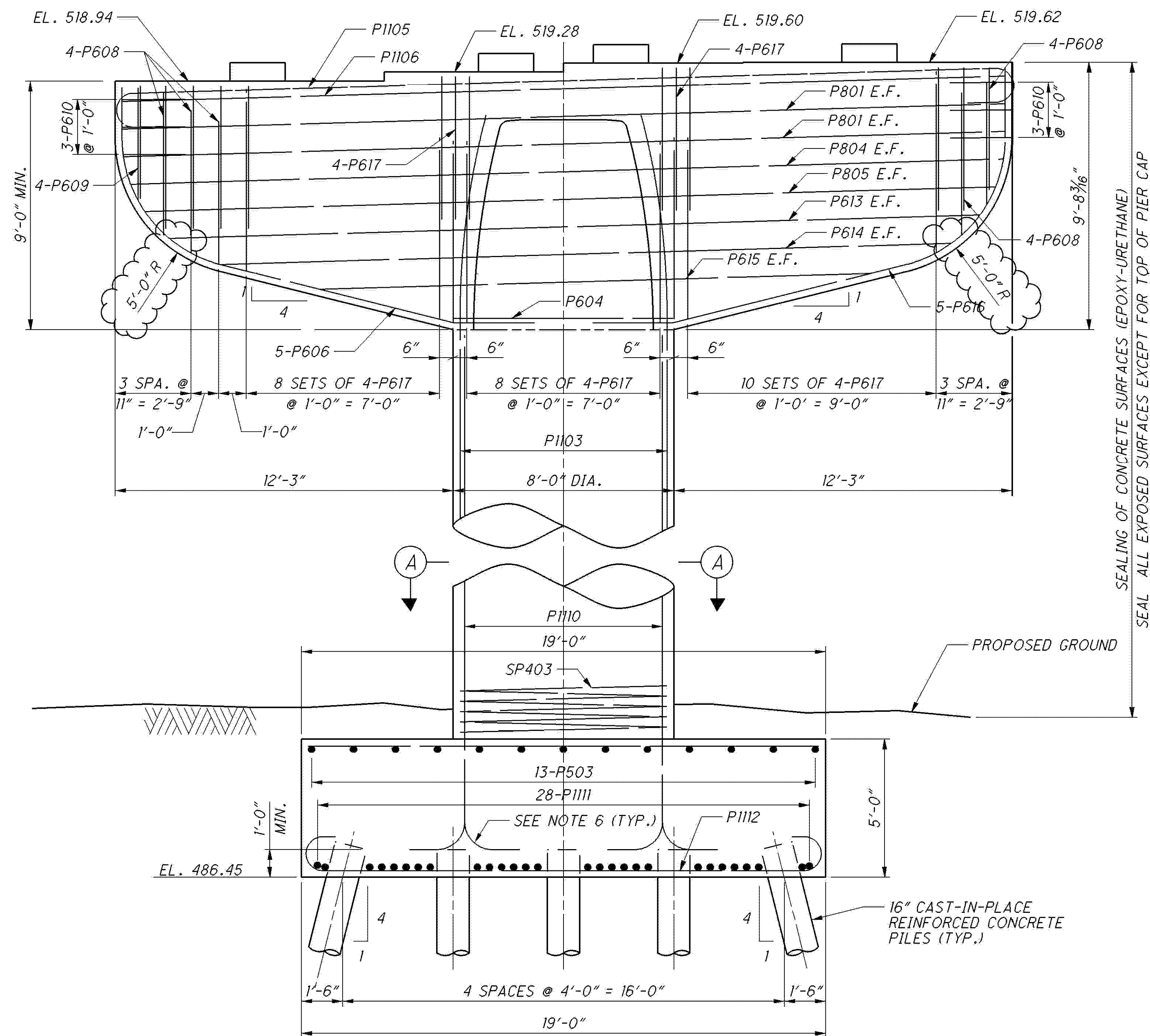
NOTES:

1. SEE SHEET [23/39] FOR SEISMIC PEDESTAL DIMENSION H.
2. SEE SHEET [16/39] FOR AESTHETIC DETAILS.
3. SEE SHEET [13/39] FOR SEISMIC PEDESTAL DETAILS.
4. ANCHORAGE OF SPIRAL REINFORCEMENT SHALL BE PROVIDED BY 1½ EXTRA TURNS OF SPIRAL BAR AT EACH END OF A SPIRAL UNIT. SPIRAL REINFORCEMENT SHALL EXTEND FROM THE TOP OF THE FOOTING TO THE BOTTOM ROW OF HORIZONTAL CAP REINFORCEMENT.
5. BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.216 INCHES AT PIER 3 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
6. ALTERNATE DIRECTION OF THE BOTTOM LEG OF FOOTING/ COLUMN DOWEL BARS.

MINIMUM LAPS:

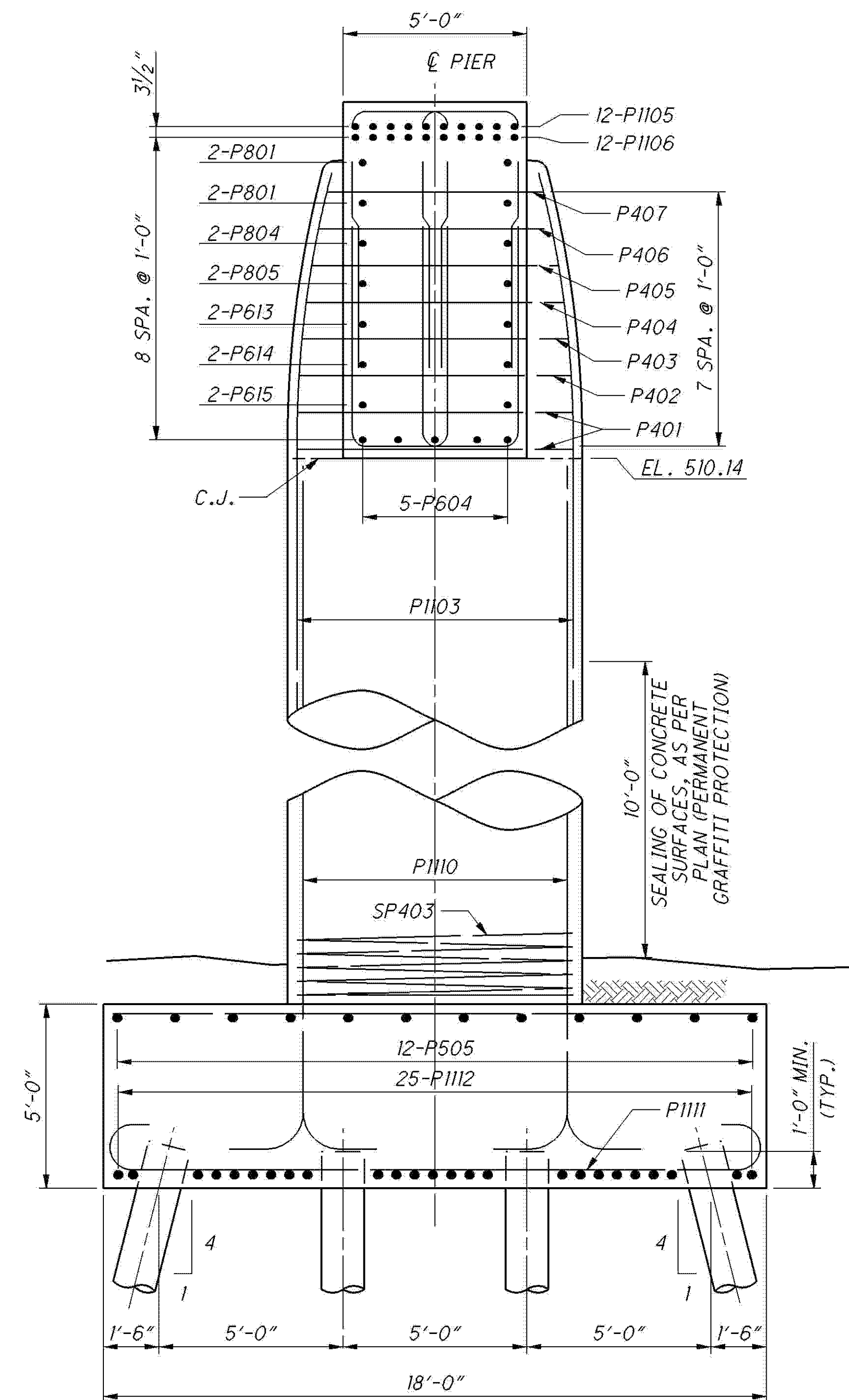
#6 BARS 3'-10"

#11 BARS 12'-7"



ELEVATION SECTION

ELBERON RAMP EASTBOUND (LOOKING UPSTATION AT PIER 3)



PIER SIDE VIEW

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
PIER 1											
SP401	1	21'-1"	925	27	4½"	7'-6"	21'-1"				
P401	2	25'-2"	34	29	1'-7"					3'-9"	
P402	1	24'-8"	16	29	1'-7"					3'-8"	
P403	1	24'-1"	16	29	1'-7"					3'-7"	
P404	1	23'-7"	16	29	1'-7"					3'-6"	
P405	1	22'-7"	15	29	1'-7"					3'-4"	
P406	1	21'-6"	14	29	1'-7"					3'-2"	
P407	1	19'-11"	13	29	1'-7"					2'-11"	
P501	18	20'-8"	388	STR.							
P502	14	26'-8"	390	STR.							
P601	2	28'-6"	86	STR.							
P602	2	24'-3"	73	STR.							
P603	2	16'-3"	49	STR.							
P604	5	8'-0"	60	STR.							
P605	192	15'-4"	4,422	2	6'-4"	3'-0"	6'-4"				
P606	5	19'-8"	148	31	2'-11"	6'-8¼"	2'-2"	1'-9"		4'-9"	
P607	5	19'-11"	150	31	2'-11"	6'-8¼"	2'-2"	2'-0"		4'-9"	
P608	16	13'-0'	312	2	5'-2"	3'-0"	5'-2"				
P609	8	10'-10"	130	2	4'-1"	3'-0"	4'-1"				
P610	6	8'-10"	80	2	2'-3"	4'-8"	2'-3"				
P611	12	15'-0"	270	28	3'-8"	3'-1"					
P612	16	4'-6"	108	1	1'-6"	3'-1"					
P801	4	32'-0"	342	STR.							
P802	2	31'-4"	167	STR.							
P803	2	30'-4"	162	STR.							
P901	44	4'-4"	648	1	1'-6"	3'-1"					
P1101	49	29'-10"	7,767	17	26'-8"						
P1102	44	23'-10"	5,572	17	20'-8"						
P1103	55	20'-7"	6,015	32	13'-3"	7'-4"				29'-4"	
P1104	55	26'-4"	7,695	1	2'-0"	24'-8"					
P1105	12	35'-2"	2,242	17	32'-0"						
P1106	16	32'-0"	2,720	STR.							
PIER 1 SUB-TOTAL			41,045								
PIER 2											
SP402	1	20'-6"	901	27	4½"	7'-6"	20'-6"				
P401	2	25'-2"	34	29	1'-7"					3'-9"	
P402	1	24'-8"	16	29	1'-7"					3'-8"	
P403	1	24'-1"	16	29	1'-7"					3'-7"	
P404	1	23'-7"	16	29	1'-7"					3'-6"	
P405	1	22'-7"	15	29	1'-7"					3'-4"	
P406	1	21'-6"	14	29	1'-7"					3'-2"	
P407	1	19'-11"	13	29	1'-7"					2'-11"	
P503	16	17'-8"	295	STR.							
P504	12	22'-8"	284	STR.							
P601	2	28'-6"	86	STR.							
P602	2	24'-3"	73	STR.							
P603	2	16'-3"	49	STR.							
P604	5	8'-0"	60	STR.							
P605	192	15'-4"	4,422	2	6'-4"	3'-0"	6'-4"				
P606	5	19'-8'	148	31	2'-11'	6'-8¼"	2'-2"	1'-9"		4'-9"	
P607	5	19'-11"	150	31	2'-11"	6'-8¼"	2'-2"	2'-0"		4'-9"	
P608	16	13'-0"	312	2	5'-2"	3'-0"	5'-2"				
P609	8	10'-10'	130	2	4'-1"	3'-0"	4'-1"				
P610	6	8'-10'	80	2	2'-3"	4'-8"	2'-3"				

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
PIER 2 (CONT.)											
P801	4	32'-0"	342	STR.							
P802	2	31'-4"	167	STR.							
P803	2	30'-4"	162	STR.							
P1103	55	20'-7"	6,015	32	13'-3"	7'-4"				29'-4"	
P1105	12	35'-2"	2,242	17	32'-0'						
P1106	16	32'-0'	2,720	STR.							
P1107	55	25'-10"	7,549	1	2'-0"	24'-2"					
P1108	34	20'-10"	3,763	17	17'-8"						
P1109	37	25'-10"	5,078	17	22'-8"						
PIER 2 SUB-TOTAL			35,152								
PIER 3											
SP403	1	18'-8"	824	27	4½"	7'-6"	18'-8"				
P401	2	25'-2"	34	29	1'-7"					3'-9"	
P402	1	24'-8"	16	29	1'-7"					3'-8"	
P403	1	24'-1"	16	29	1'-7"					3'-7"	
P404	1	23'-7"	16	29	1'-7"					3'-6"	
P405	1	22'-7"	15	29	1'-7"					3'-4"	
P406	1	21'-6"	14	29	1'-7"					3'-2"	
P407	1	19'-11"	13	29	1'-7"					2'-11"	
P503	13	17'-8"	240	STR.							
P505	12	18'-8"	234	STR.							
P604	5	8'-0"	60	STR.							
P606	5	19'-8"	148	31	2'-11"	6'-8¼"	2'-2"	1'-9"		4'-9"	
P608	20	13'-0"	391	2	5'-2"	3'-0"	5'-2"				
P609	4	10'-10"	65	2	4'-1"	3'-0"	4'-1"				
P610	6	8'-10"	80	2	2'-3"	4'-8"	2'-3"				
P611	12	15'-0"	270	28	3'-8"	3'-1"					
P612	16	4'-6"	108	1	1'-6"	3'-1"					
P613	2	29'-5"	88	STR.							
P614	2	26'-6"	79	STR.							
P615	2	20'-0"	60	STR.							
P616	5	20'-8"	155	31	2'-11"	6'-8¼"	2'-2"	2'-6"		4'-9"	
P617	112	15'-10"	2,664	2	6'-7"	3'-0"	6'-7"				
P801	4	32'-0"	342	STR.							
P804	2	31'-8"	169	STR.							
P805	2	30'-9"	164	STR.							
P901	44	4'-4"	509	1	1'-6"	3'-1"					
P1103	55	20'-7"	6,015	32	13'-3"	7'-4"				29'-4"	
P1105	12	35'-2"	2,242	17	32'-0"						
P1106	12	32'-0"	2,040	STR.							
P1110	55	24'-2"	7,013	1	2'-0"	22'-4"					
P1111	28	20'-10"	3,099	17	17'-8"						
P1112	25	21'-10'	2,800	17	18'-8"						
PIER 3 SUB-TOTAL			30,083								
PIER TOTAL			106,280								

ITEM	EXTENSION	STRUCTURE TOTAL		UNIT	ESTIMATED QUANTITIES DESCRIPTION	HAM-050-1881				SEE SHEET NO.
		ODOT	CITY			ABUT.	PIER	SUPER.	GEN.	
202	11203	1		LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER					5/47
202	22901	320		SQ YD	APPROACH SLAB REMOVED, AS PER PLAN				320	5/47
SPECIAL	203E65000	4		EACH	SETTLEMENT PLATFORM	4				
SPECIAL	203E07502	1		EACH	INCLINOMETER	1				
503	11100	1		LUMP	COFFERDAMS AND EXCAVATION BRACING					
503	21300	1		LUMP	UNCLASSIFIED EXCAVATION					
505	11100	1		LUMP	PILE DRIVING EQUIPMENT MOBILIZATION					
507	00700	6,190		FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	630	5,560			
507	00750	6,755		FT	16" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	675	6,080			
509	10000	499,718		POUND	EPOXY COATED REINFORCING STEEL	14,995	157,261	327,462		
512	10001	112		SQ YD	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)		112			5/47
512	10050	2,108		SQ YD	SEALING OF CONCRETE SURFACES (NON-EPOXY)	133		1,975		
512	10100	1,302		SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)		1,302			
513	10300	1,827,097		POUND	STRUCTURAL STEEL MEMBERS, LEVEL 5			1,827,097		
513	20000	5,910		EACH	WELDED STUD SHEAR CONNECTORS			5,910		
513	95030	2		EACH	STRUCTURAL STEEL, MISC.: SURVEY PRISM MOUNTS			2		
514	00060	77,023		SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			77,023		
514	00066	77,023		SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			77,023		
514	10000	31		EACH	FINAL INSPECTION REPAIR			31		
516	11211	65		FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN			65		11&13/47
516	13600	25		SQ FT	1" PREFORMED EXPANSION JOINT FILLER			25		
516	13900	79		SQ FT	2" PREFORMED EXPANSION JOINT FILLER			79		
516	44401	4		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (20" x 20" x 14 1/4" BEARING WITH 21" x 21" x 2" LOAD PLATE)	4				30/47
516	44401	16		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (22" x 24" x 8 5/8" BEARING WITH 23" x 25" x 2" LOAD PLATE)		16			30/47
516	44401	4		EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (16" x 20" x 11 5/8" BEARING WITH 17" x 21" x 2" LOAD PLATE)	4				30/47
517	76300	1,840		FT	RAILING, MISC.: RAILING ALTERNATE, MINNESOTA RAILING (SEE NOTE 2)			1,840		
518	12300	5		EACH	SCUPPERS, INCLUDING SUPPORTS			5		
518	51100	235		FT	8" PIPE DOWNSPOUT, INCLUDING SPECIALS			235		
523	20000	4		EACH	DYNAMIC LOAD TESTING	1	3			
524	94702	86		FT	DRILLED SHAFTS, 36" DIAMETER, ABOVE BEDROCK	86				
524	94930	170		FT	DRILLED SHAFTS, 66" DIAMETER, ABOVE BEDROCK	170				
SPECIAL	690E98400	1		LUMP	SPECIAL-MISC.: TEMPORARY SURCHARGE					
898	10201	1,063		CU YD	QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (DECK), AS PER PLAN			1,063		5/47
898	10709	323		SQ YD	QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (APPROACH SLAB), (T-17"), AS PER PLAN			323		5/47
898	11000	236		CU YD	QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (PARAPET)			236		
898	20100	447		CU YD	QC/QA CONCRETE, CLASS OSC1, SUBSTRUCTURE (PIER ABOVE FOOTING)		447			
898	20160	135		CU YD	QC/QA CONCRETE, CLASS OSC1, SUBSTRUCTURE (ABUTMENT INCLUDING FOOTING)	135				
898	20300	351		CU YD	QC/QA CONCRETE, CLASS OSC1, SUBSTRUCTURE (FOOTING)		351			

NOTES:

1. FOR LIST OF ABBREVIATIONS SEE SHEET 6/47.

2. RAILING, MISC: RAILING ALTERNATE, MINNESOTA RAILING IS A REQUIRED BID ITEM. IF SELECTED BY THE OWNER IT WILL REPLACE BID ITEM 898: QC/QA CONCRETE, CLASS OSC2, SUPERSTRUCTURE (PARAPET). CONCRETE IN ALTERNATE RAILING SHALL BE QC/QA CONCRETE, CLASS OSC2. IF SELECTED BY THE OWNER ALTERNATE RAILING AND ALL NECESSARY TRANSITIONS SHALL BE DETAILED PER MINNESOTA STANDARD DRAWING FIGURE 5-397.157 AND SUBMITTED FOR SHOP DRAWING REVIEW PRIOR TO FABRICATION. THE COST OF ALL LABOR MATERIALS, AND EQUIPMENT NECESSARY FOR PAINTING, REINFORCEMENT, SEALING, RAILINGS, AND SHOP DRAWING PREPARATION SHALL BE INCLUDED WITH THIS ITEM FOR PAYMENT. SEE SHEET 5/47 FOR COLOR REQUIREMENTS. ALL REINFORCEMENT SHALL BE EPOXY COATED. THE ALTERNATE RAILING OPTION WILL REPLACE 47,363 POUNDS OF REINFORCEMENT AND 1,471 SQ.YD. OF SEALING.

CALC. BY: BKJ DATE: 3/2008
CHK'D BY: P.JL DATE: 3/2008

ESTIMATED QUANTITIES
BRIDGE NO. HAM-050-1881
EB WARSAW AVE. RAMP OVER S.R. 264 AND U.S.R. 50

HAM-50-18.79
PID No. 20082

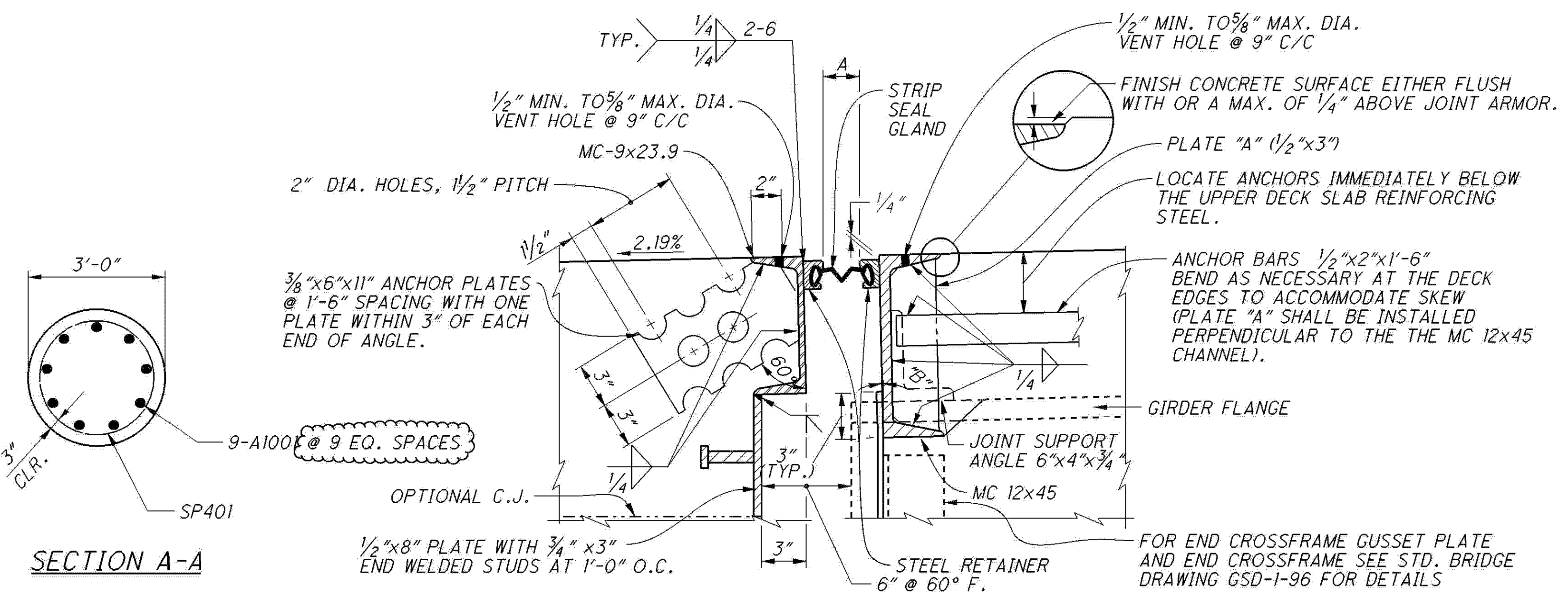
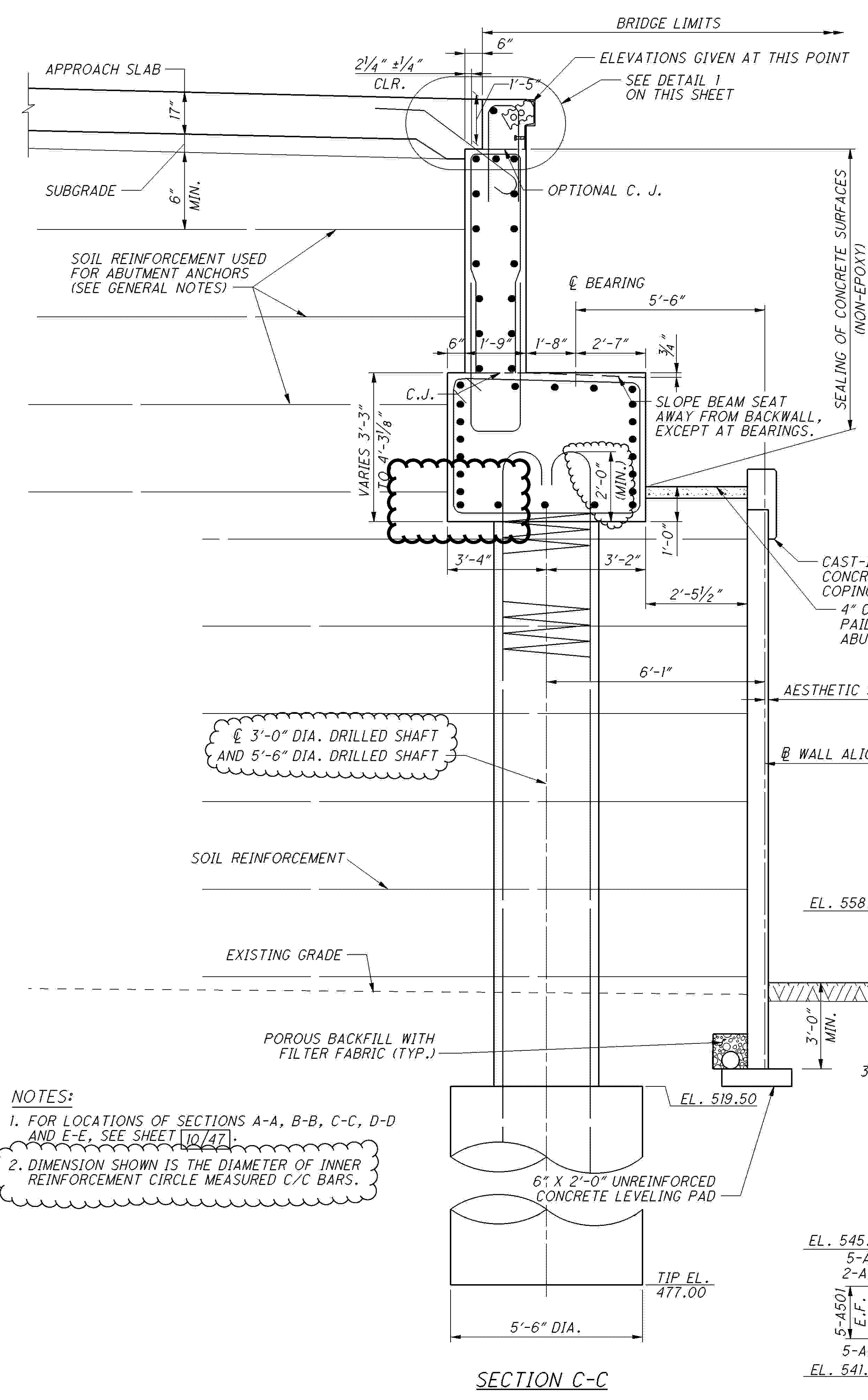
7/47

483
657

DESIGN AGENCY: PD
PB AMERICAS, INC.
312 ELM STREET
SUITE 2500
CINCINNATI, OHIO 45202

DATE
11/16/10
REVIEWED
EBS
STRUCTURE FILE NUMBER
3102793
DRAWN
LEL
REVIEWED
DESIGNED
P.JL
CHECKED
SAP

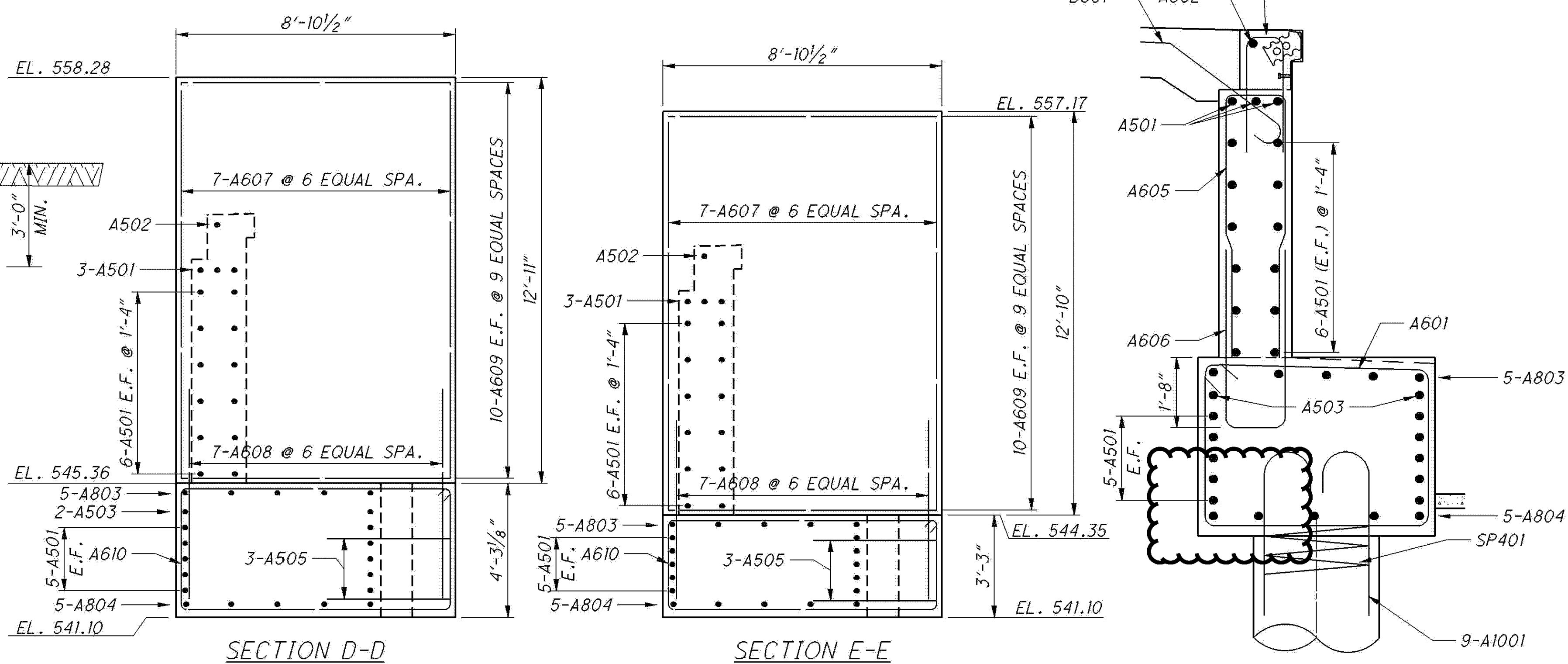
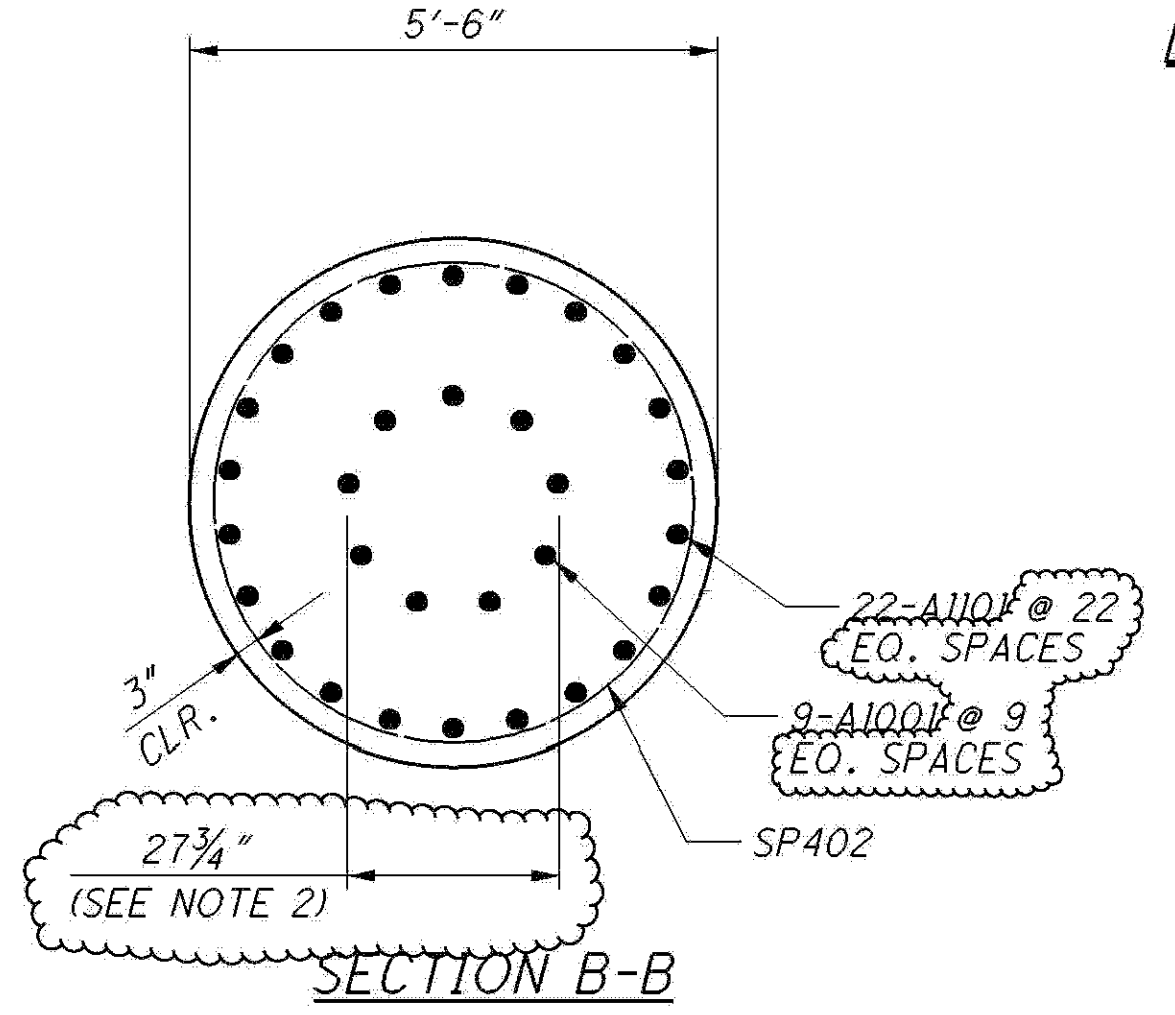
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JOINT OPENING DIMENSIONS (5" STRIP SEAL GLAND)							
TEMP (°F)	30	40	50	60	70	80	90
"A"	3 1/4"	2 5/8"	2 9/16"	2 1/4"	1 5/8"	1 5/8"	1 1/4"

"B" = 1'5 1/16"

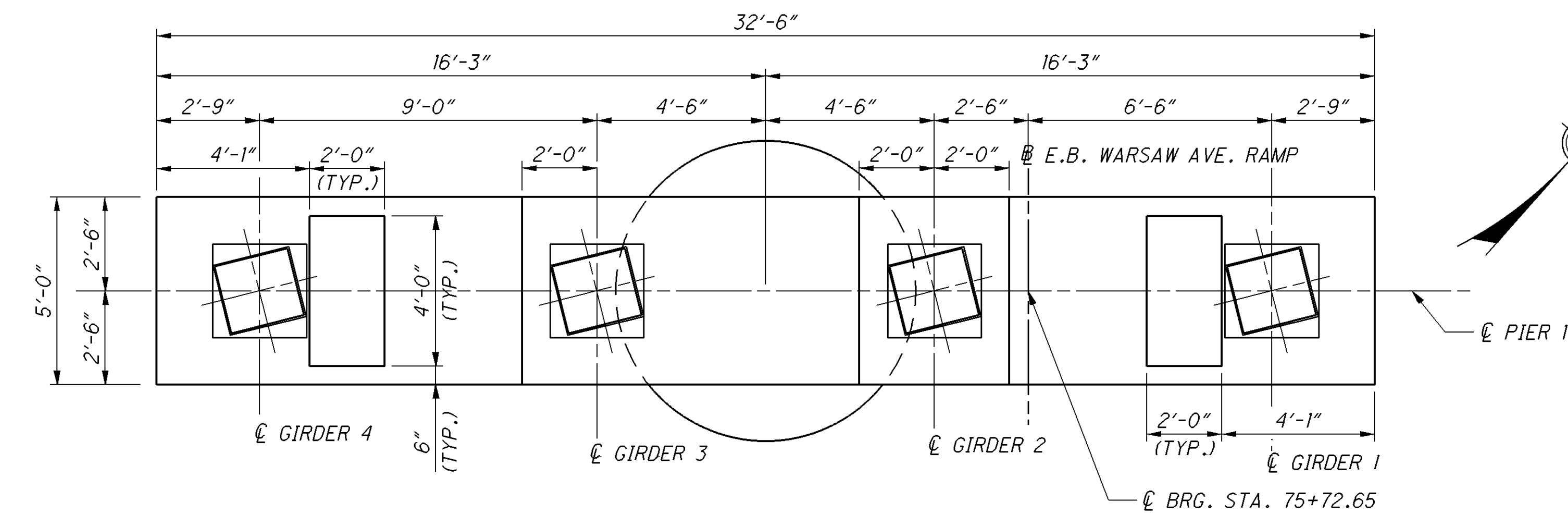
MINIMUM JOINT OPENING (DIMENSION "A") AT TIME THE SEAL GLAND RETAINERS ARE INSTALLED SHALL NOT BE LESS THAN 1 1/2". IF THE JOINT OPENING IS LESS, INSTALLATION SHALL BE POSTPONED UNTIL THE TEMPERATURE DROPS A SUFFICIENT AMOUNT TO ALLOW THE 1 1/2" OPENING.



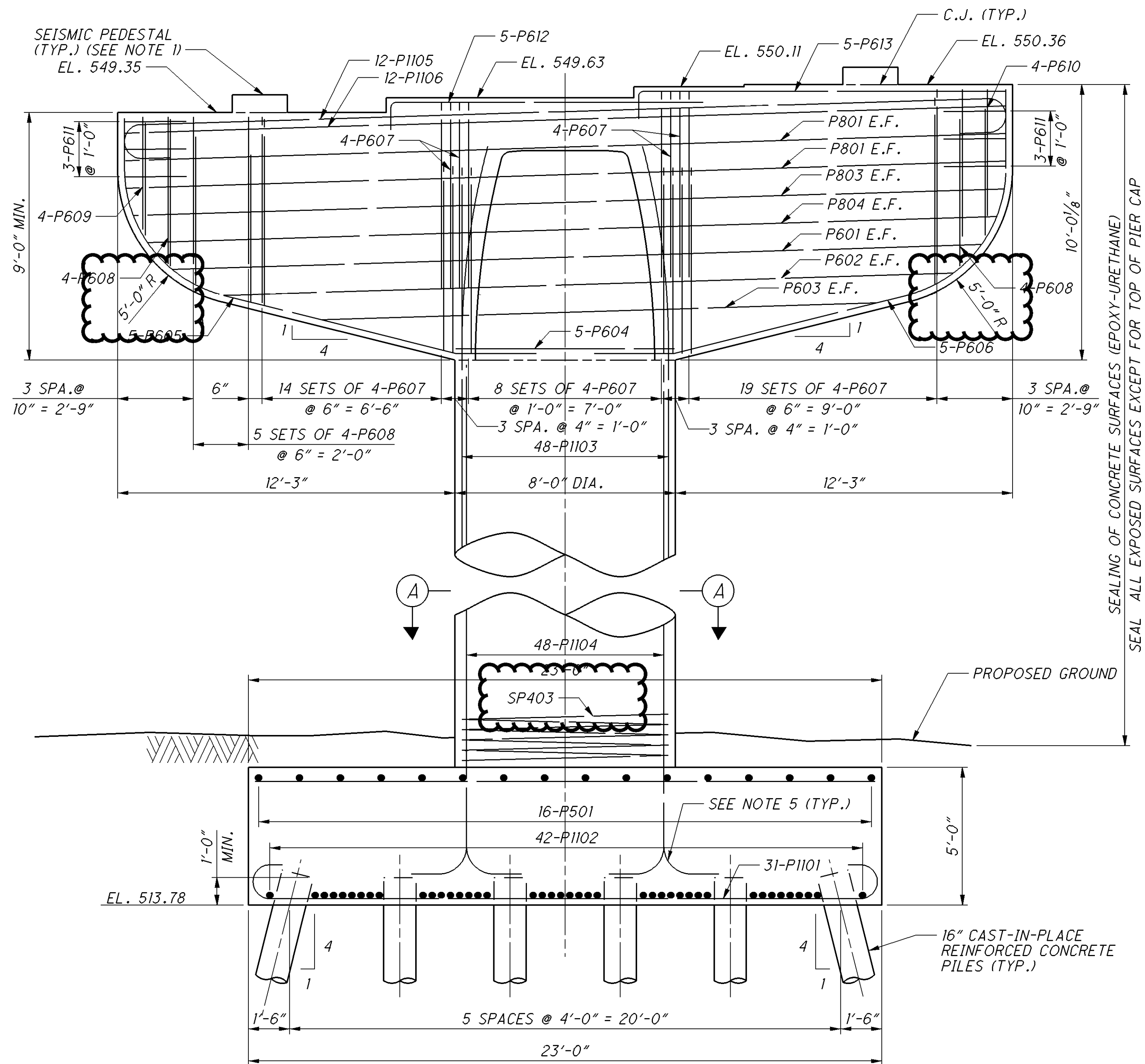
NOTES:

1. FOR LOCATIONS OF SECTIONS A-A, B-B, C-C, D-D AND E-E, SEE SHEET 10/47.

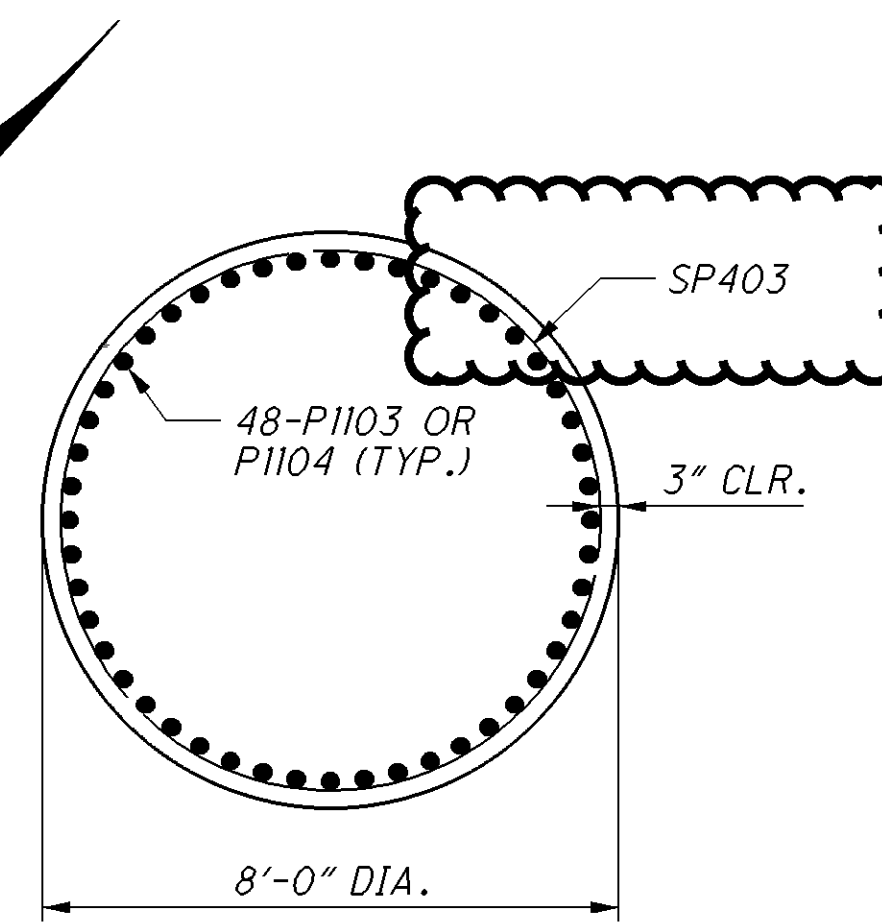
2. DIMENSION SHOWN IS THE DIAMETER OF INNER REINFORCEMENT CIRCLE MEASURED C/C BARS.



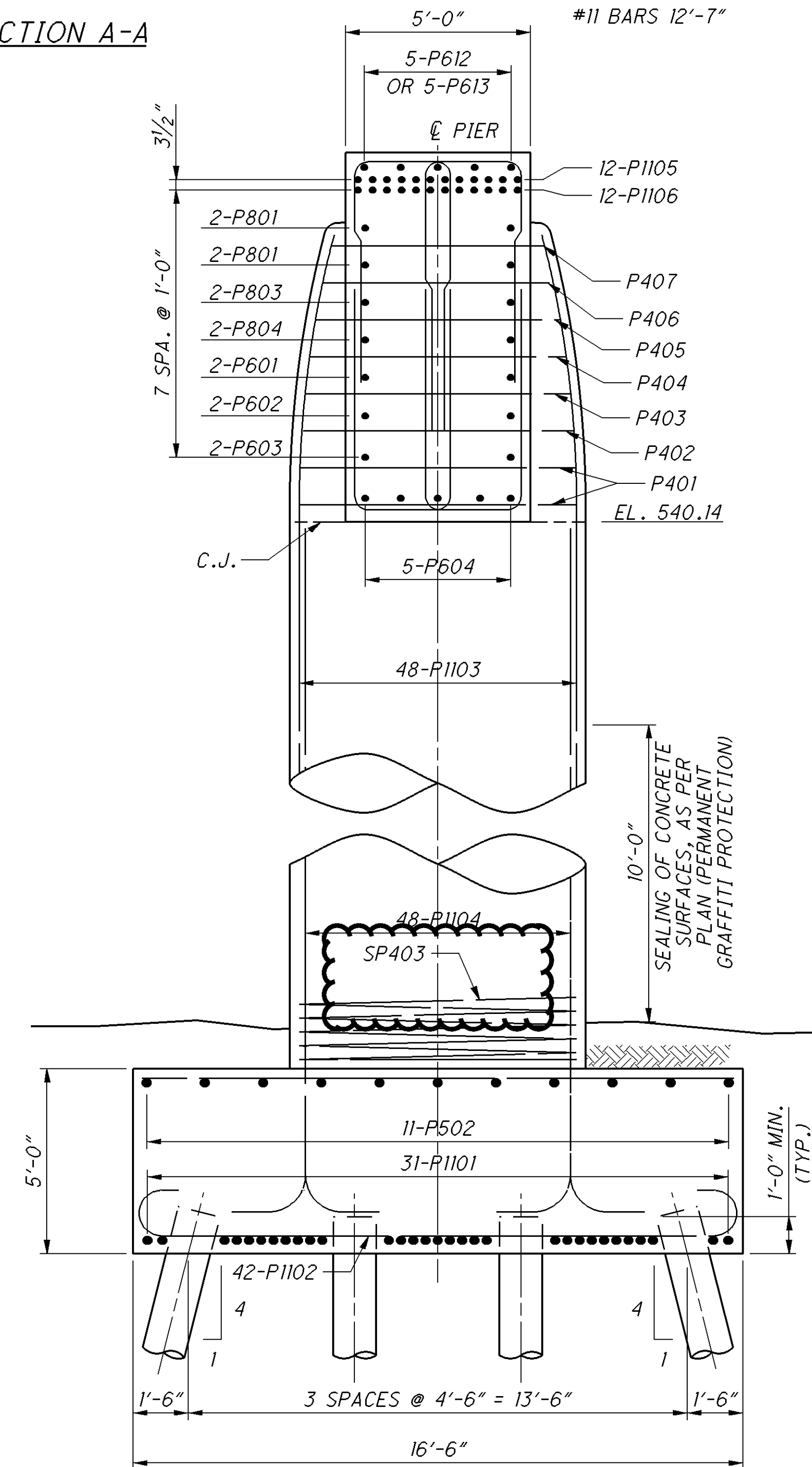
PIER PLAN



ELEVATION SECTION



SECTION A-A



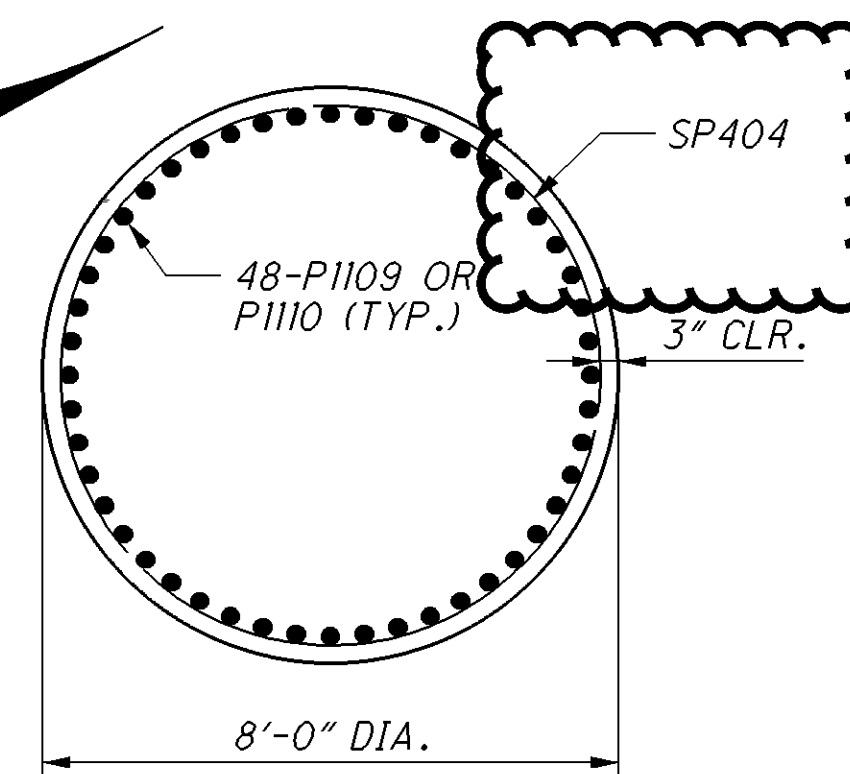
PIER SIDE VIEW

NOTES:

1. SEE SHEET 17/47 FOR SEISMIC PEDESTAL DETAILS.
2. SEE SHEET 18/47 FOR AESTHETIC DETAILS.
3. ANCHORAGE OF SPIRAL REINFORCEMENT SHALL BE PROVIDED BY 1 1/2 EXTRA TURNS OF SPIRAL BAR AT EACH END OF A SPIRAL UNIT. SPIRAL REINFORCEMENT SHALL EXTEND FROM THE TOP OF THE FOOTING TO THE BOTTOM ROW OF HORIZONTAL CAP REINFORCEMENT.
4. BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.545 INCHES AT PIER 1 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
5. ALTERNATE DIRECTION OF THE BOTTOM LEG OF FOOTING/ COLUMN DOWEL BARS.

MINIMUM LAPS:

- #6 BARS 3'-10"
 #11 BARS 12'-7"



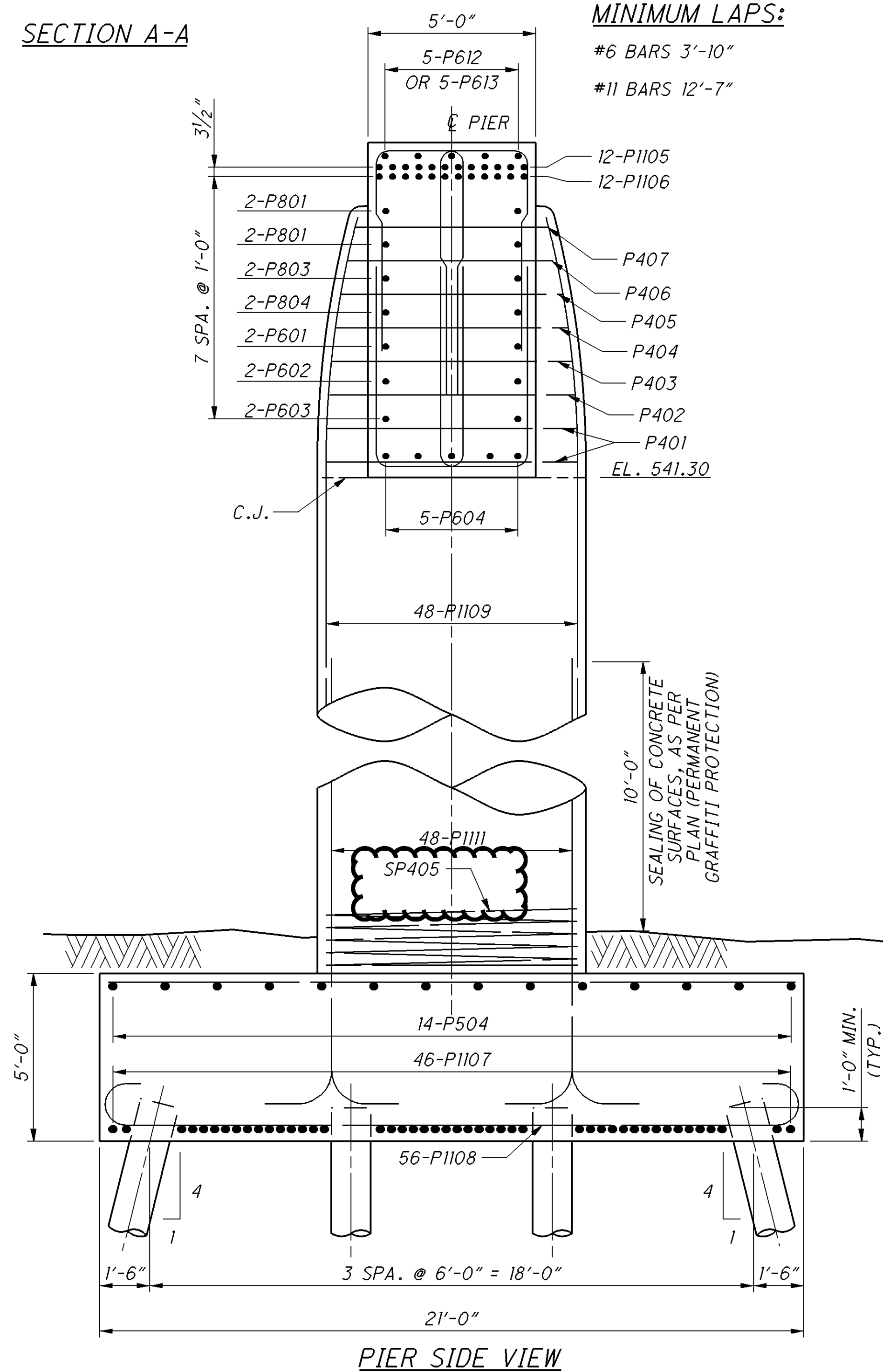
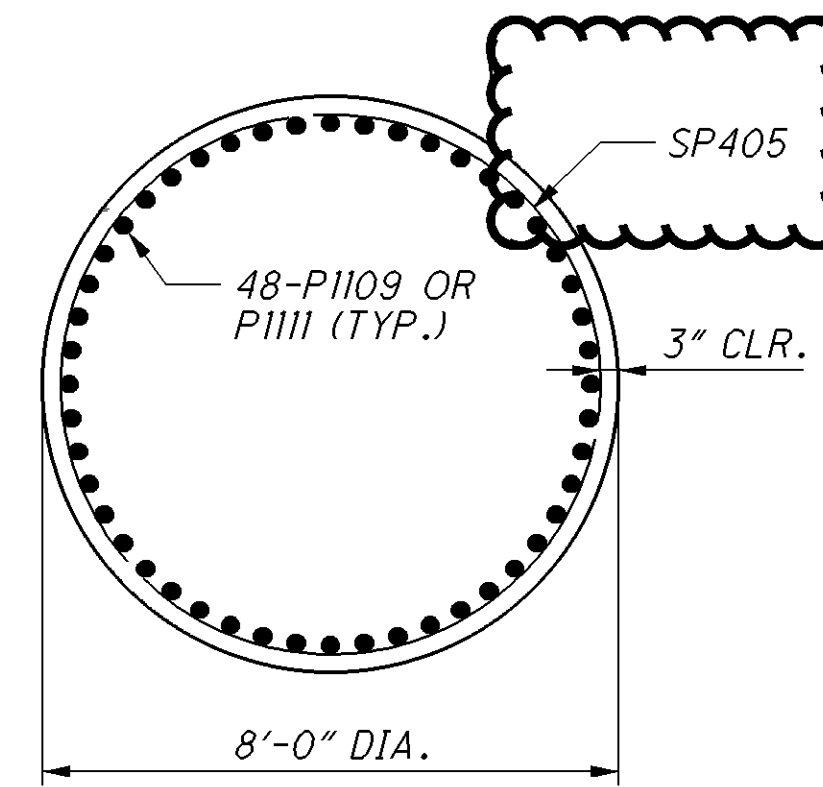
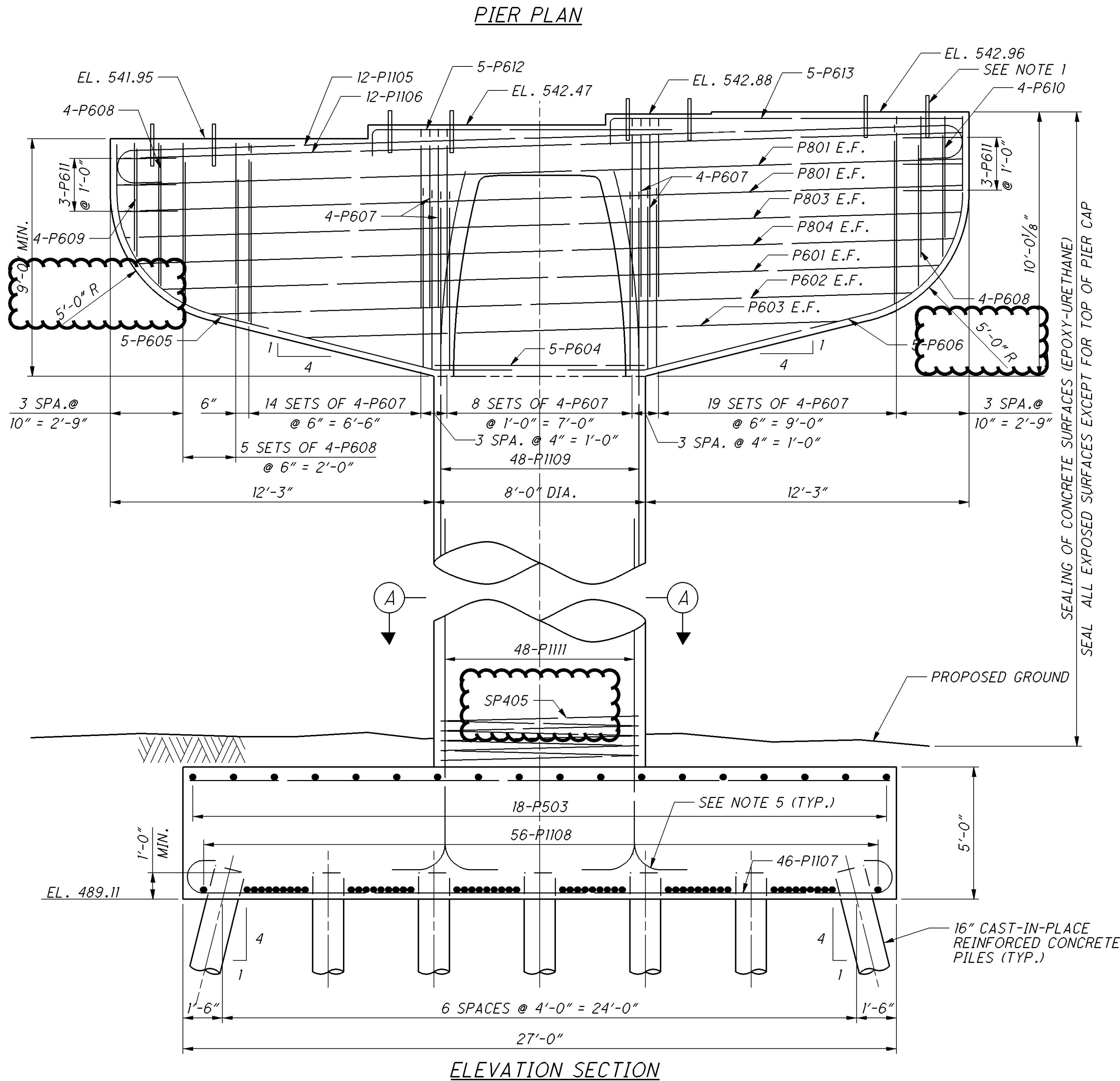
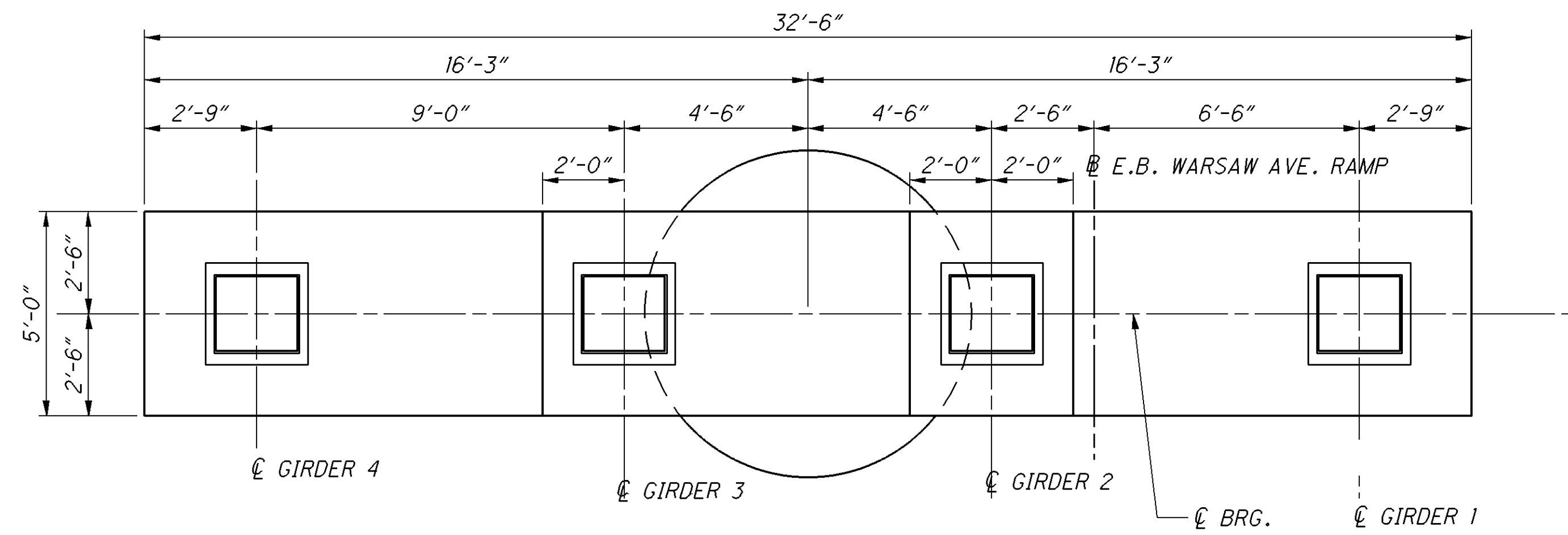
5. ALTERNATE DIRECTION OF THE BOTTOM LEG OF FOOTING/
COLUMN DOWEL BARS.

SECTION A-A



MINIMUM LAPS:

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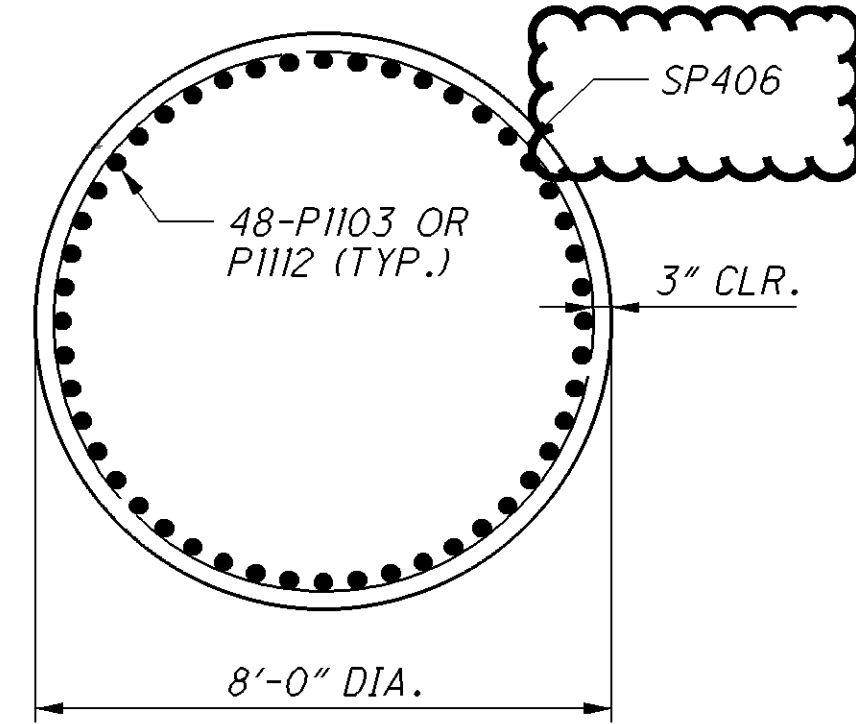
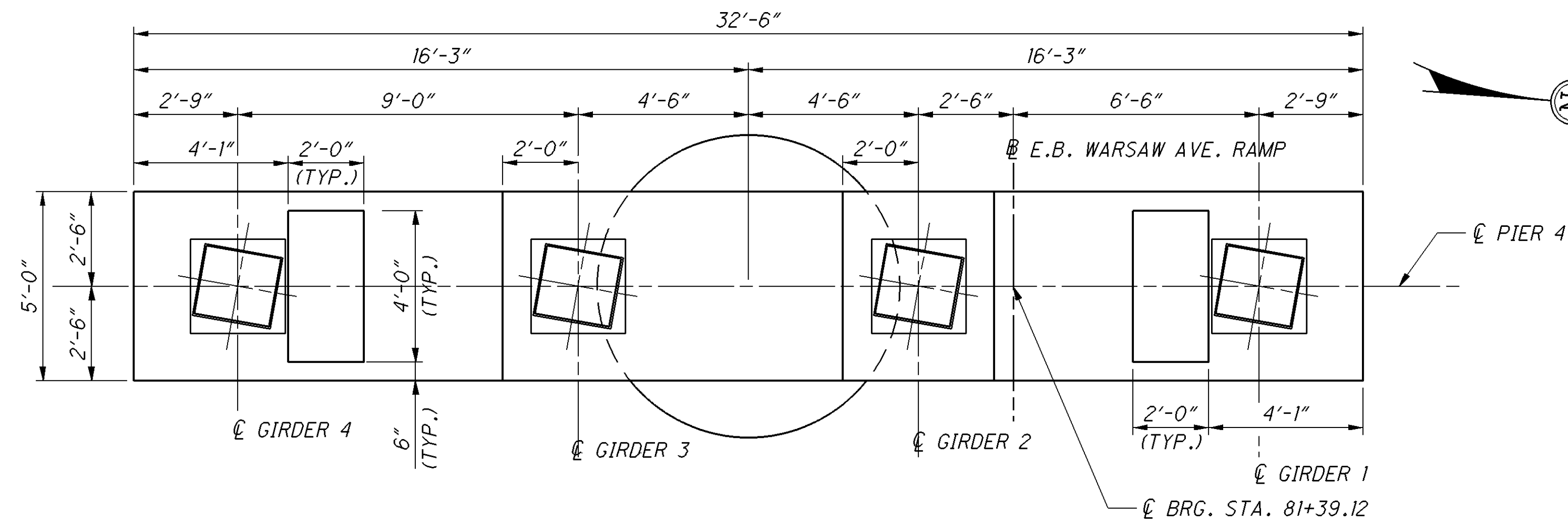


NOTES:

1. BRIDGE SEAT REINFORCING, SETTING ANCHORS: ACCURATELY PLACE REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT TO AVOID INTERFERENCE WITH THE PRE-SETTING OF BEARING ANCHORS. SEE SHEET 18/47 FOR MORE DETAILS.
2. SEE SHEET 18/47 FOR AESTHETIC DETAILS.
3. ANCHORAGE OF SPIRAL REINFORCEMENT SHALL BE PROVIDED BY 1/2 EXTRA TURNS OF SPIRAL BAR AT EACH END OF A SPIRAL UNIT. SPIRAL REINFORCEMENT SHALL EXTEND FROM THE TOP OF THE FOOTING TO THE BOTTOM ROW OF HORIZONTAL CAP REINFORCEMENT.
4. BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.545 INCHES AT PIER 3 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
5. ALTERNATE DIRECTION OF THE BOTTOM LEG OF FOOTING/ COLUMN DOWEL BARS.

MINIMUM LAPS:

- #6 BARS 3'-10"
- #11 BARS 12'-7"

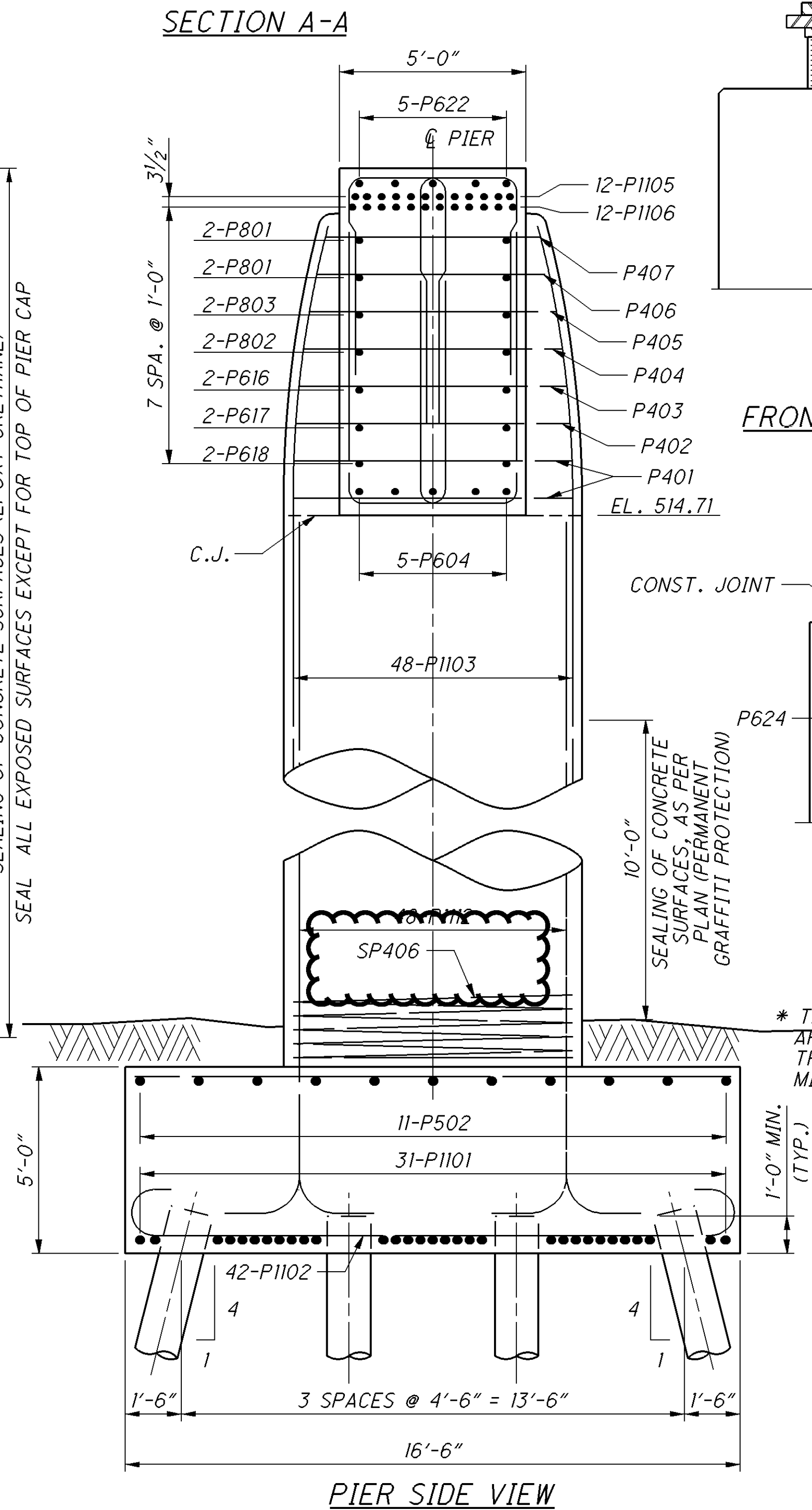
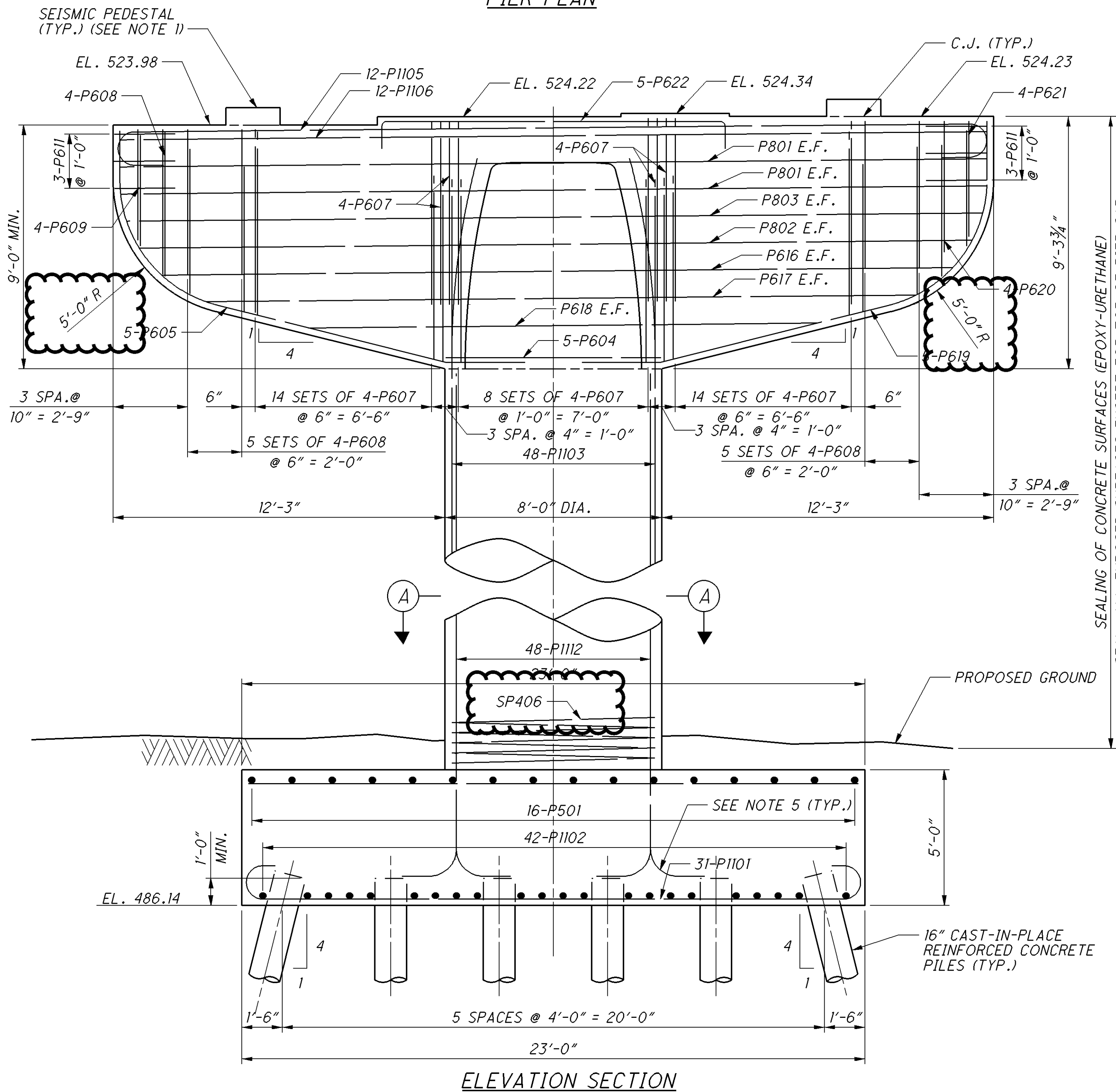
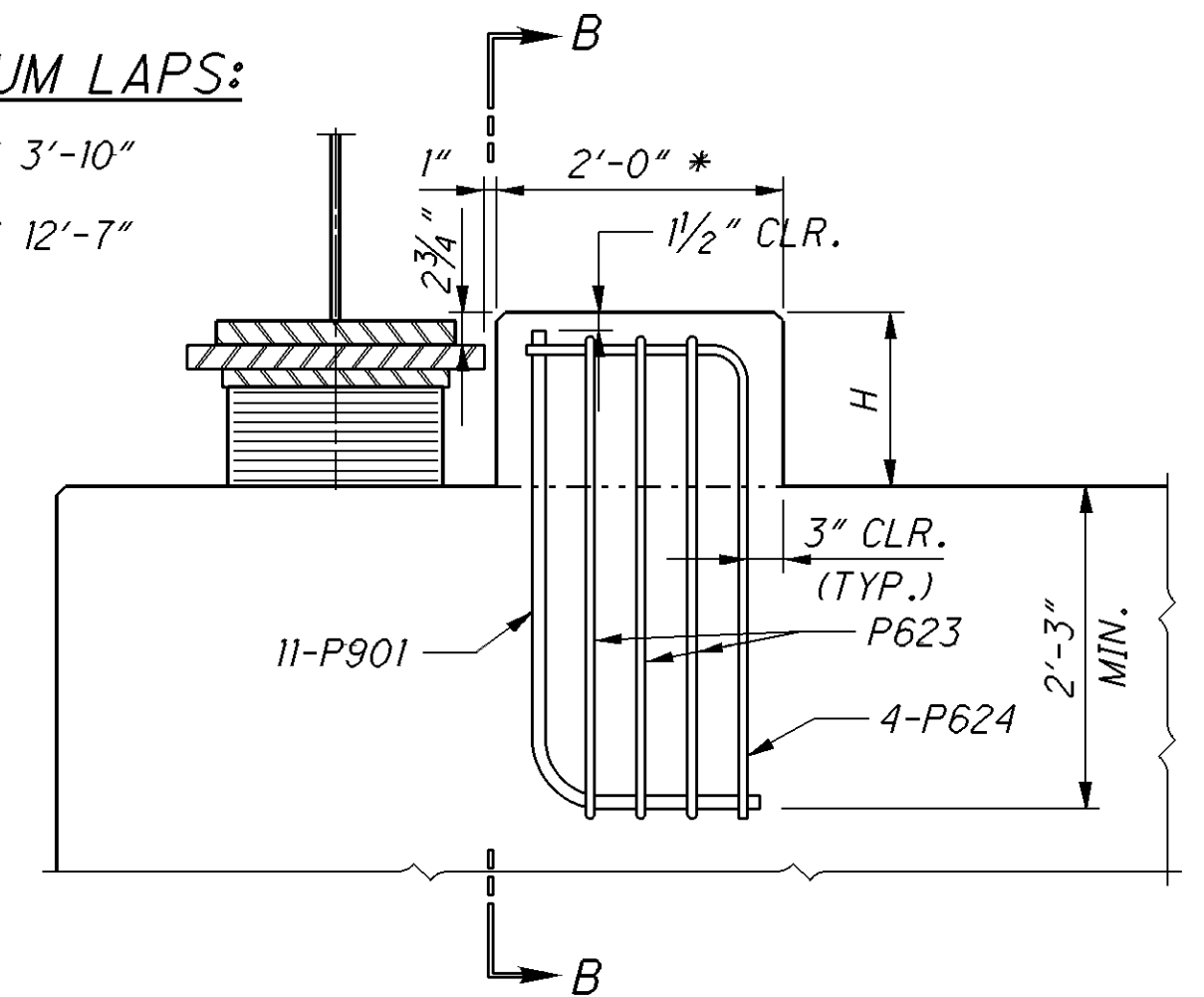


NOTES:

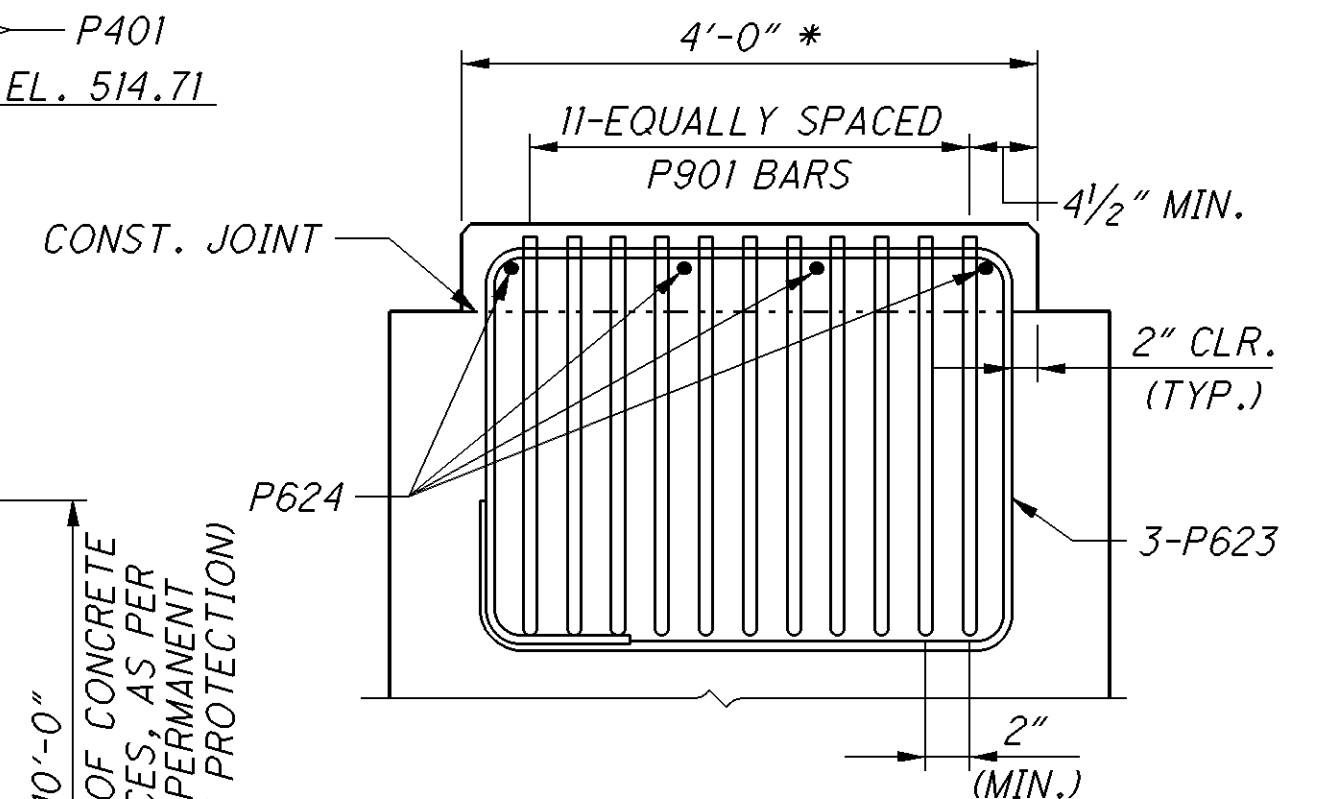
1. SEE SHEET **31/47** FOR SEISMIC PEDESTAL DIMENSION H.
2. SEE SHEET **18/47** FOR AESTHETIC DETAILS.
3. ANCHORAGE OF SPIRAL REINFORCEMENT SHALL BE PROVIDED BY 1/2 EXTRA TURNS OF SPIRAL BAR AT EACH END OF A SPIRAL UNIT.
4. BRIDGE SEAT ELEVATIONS HAVE BEEN ADJUSTED UPWARD 0.526 INCHES AT PIER 4 TO COMPENSATE FOR THE VERTICAL DEFORMATION OF THE BEARINGS.
5. ALTERNATE DIRECTION OF THE BOTTOM LEG OF FOOTING/ COLUMN DOWEL BARS.

MINIMUM LAPS:

- #6 BARS 3'-10"
- #11 BARS 12'-7"



SECTION B-B

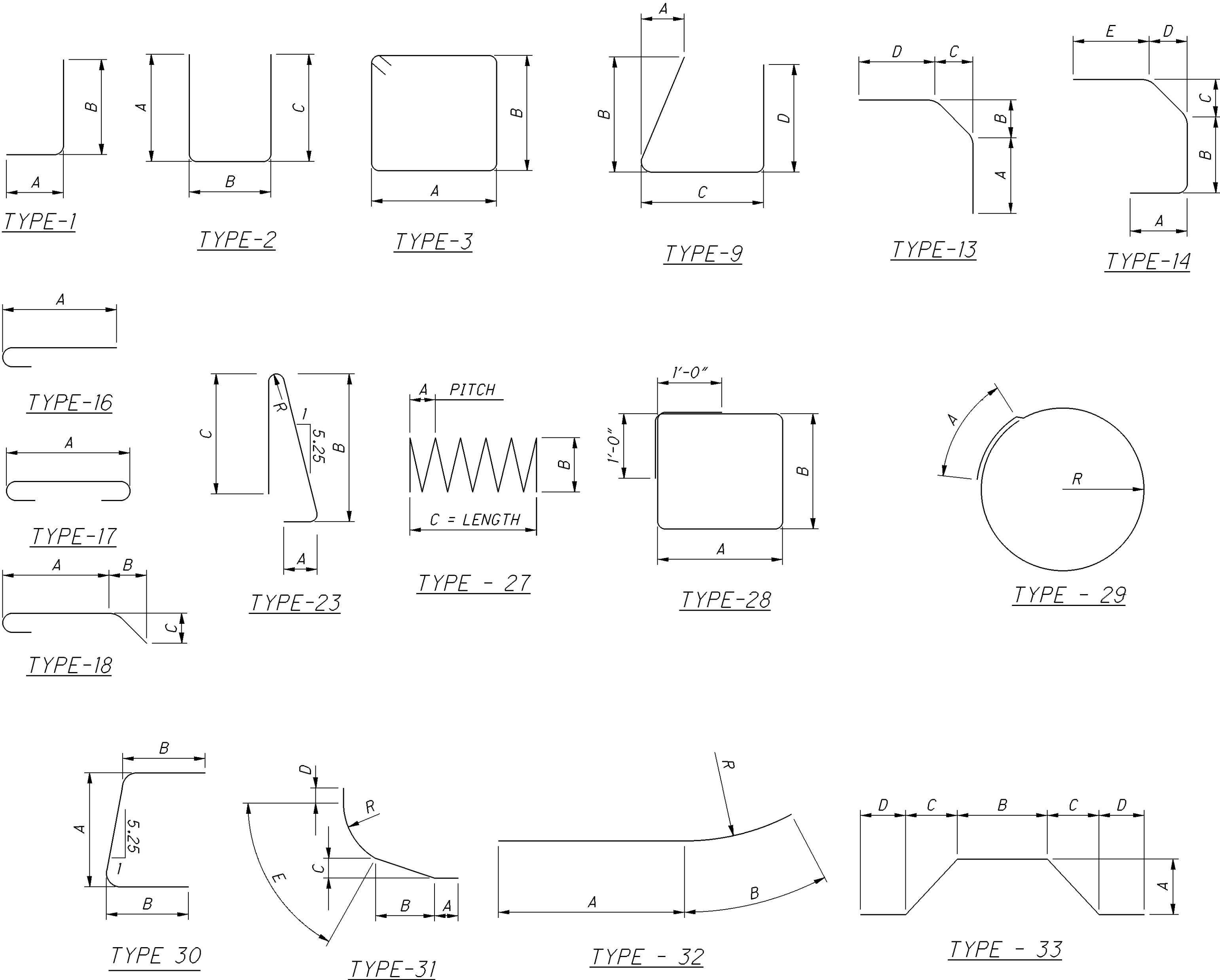


* THE SURFACE OF THE BEAM SEAT IN THIS AREA SHALL BE FINISHED WITH A SERRATED TROWEL. THE SERRATIONS SHALL BE 1/4" DEEP MINIMUM.

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MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
SUPERSTRUCTURE											
S401	2,554	30'-0"	51,182	STR							
S402	21	15'-10"	222	STR							
S403	22	39'-9"	584	STR							
S404	50	23'-0"	768	STR							
S405	50	29'-6"	985	STR							
S406	50	15'-3"	509	STR							
S501	1,883	30'-0"	58,919	STR							
S502	4	13'-0"	54	STR							
S503	13	27'-6"	373	STR							
S504	13	11'-3"	153	STR							
S505	13	22'-8"	307	STR							
S506	4	27'-1"	113	STR							
S507	6	17'-5"	109	STR							
S508	6	5'-11"	37	STR							
	6	4'-7"			4'-0"						
S509	SER OF	TO	611	16	TO						
	20	5'-2"			4'-7"						
S510	6	29'-2"	183	STR							
S511	6	29'-6"	185	STR							
S512	1,800	6'-0"	11,264	23	8"	2'-9"	2'-6"			1½"	
S513	15	7'-5"	116	23	1'-1"	3'-2"	3'-0"			2⅞"	
S514	6	31'-0"	194	STR							
S601	3,640	32'-8"	178,598	STR							
S602	67	30'-0"	3,019	STR							
S603	1	12'-10"	19	STR							
S604	1	28'-7"	43	STR							
S605	1	29'-2"	44	STR							
S606	1	29'-6"	44	STR							
S607	1	31'-0"	47	STR							
S608	1,800	3'-10"	10,364	14	10½"	1'-8"	8½"	6"	9"		
S609	1,800	2'-5"	6,534	1	11"	1'-8"					
SUPERSTRUCTURE TOTAL			325,580								
LIGHT PILASTER											
L501	68	2'-10"	201	2	7"	1'-10'	7"				
L502	68	9'-3"	656	9	6"	3'-7"	2'-4"	3'-7"			
L503	102	7'-3"	771	33	1'-10"	1'-4"	1'-0"	6"			
L504	68	3'-7"	254	STR							
LIGHT PILASTER TOTAL			1,882								
GRAND TOTAL			327,462								

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS					
	REAR	FWD.	TOTAL				A	B	C	D	E	R
APPROACH SLABS												
AS501	68		68	32'-10"	2,329	STR.						
AS502	46		46	17'-2"	824	STR.						
AS503		86	86	33'-1"	2,968	STR.						
AS504		42	42	33'-7"	1,471	STR.						
AS505		88	88	16'-10"	1,545	STR.						
AS1001	62		62	20'-7"	5,491	STR.						
AS1002	62		62	20'-7"	5,491	16	20'-7"					
AS1003		119	119	20'-3"	10,369	STR.						
AS1004		119	119	21'-8"	11,095	16	20'-3"					
APPROACH SLAB TOTAL					41,583							
FOR INFORMATION ONLY NOT INCLUDED WITH ITEM 509.												



MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
PIER 1											
SP403	1	21'-9"	953	27	4 1/2"	7'-6"	21'-9"				
P401	2	25'-2"	34	29	1'-7"					3'-9"	
P402	1	24'-8"	16	29	1'-7"					3'-8"	
P403	1	24'-1"	16	29	1'-7"					3'-7"	
P404	1	23'-7"	16	29	1'-7"					3'-6"	
P405	1	22'-7"	15	29	1'-7"					3'-4"	
P406	1	21'-6"	14	29	1'-7"					3'-2"	
P407	1	19'-11"	13	29	1'-7"					2'-11"	
P501	16	16'-2"	270	STR.							
P502	11	22'-8"	260	STR.							
P601	2	29'-5"	88	STR.							
P602	2	26'-7"	80	STR.							
P603	2	20'-2"	61	STR.							
P604	5	8'-0"	60	STR.							
P605	5	19'-8"	148	31	2'-11"	6'-8 1/4"	2'-2"	1'-9"		4'-9"	
P606	5	20'-9"	156	31	2'-11"	6'-8 1/4"	2'-2"	2'-10"		4'-9"	
P607	180	16'-2"	4,371	2	6'-9"	3'-0"	6'-9"				
P608	28	13'-6"	568	2	5'-5"	3'-0"	5'-5"				
P609	4	10'-10"	65	2	4'-1"	3'-0"	4'-1"				
P610	4	11'-10"	71	2	4'-7"	3'-0"	4'-7"				
P611	6	8'-10"	80	2	2'-3"	4'-8"	2'-3"				
P612	5	12'-2"	91	1	1'-0"	11'-4"					
P613	5	14'-2"	106	1	1'-0"	13'-4"					
P623	6	16'-4"	147	28	3'-8"	3'-8"					
P624	8	5'-1"	60	1	1'-6"	3'-8"					
P801	4	32'-0"	342	STR.							
P802	2	31'-8"	169	STR.							
P803	2	30'-11"	165	STR.							
P901	22	4'-11"	368	1	1'-6"	3'-8"					
P1101	31	25'-10"	4,255	17	22'-8"						
P1102	42	19'-4'	4,314	17	16'-2"						
P1103	48	20'-7"	5,249	32	13'-3"	7'-4"				29'-4"	
P1104	48	27'-3"	6,949	1	2'-0"	25'-7"					
P1105	12	35'-2"	2,242	17	32'-0"						
P1106	12	32'-0"	2,040	STR.							
PIER 1 TOTAL			33,852								
PIER 2											
SP404	1	43'-6"	1,858	27	4 1/2"	7'-6"	43'-6"				
P401	2	25'-2"	34	29	1'-7"					3'-9"	
P402	1	24'-8"	16	29	1'-7"					3'-8"	
P403	1	24'-1"	16	29	1'-7"					3'-7"	
P404	1	23'-7"	16	29	1'-7"					3'-6"	
P405	1	22'-7"	15	29	1'-7"					3'-4"	
P406	1	21'-6"	14	29	1'-7"					3'-2"	
P407	1	19'-11'	13	29	1'-7"					2'-11"	
P503	18	20'-8"	388	STR.							
P504	14	26'-8"	389	STR.							
P601	2	29'-5"	88	STR.							
P602	2	26'-7"	80	STR.							
P603	2	20'-2"	61	STR.							

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
PIER 2											
P604	5	8'-0"	60	STR.							
P605	5	19'-8"	148	31	2'-11"	6'-8¼"	2'-2"	1'-9"			
P606	5	20'-9"	156	31	2'-11"	6'-8¼"	2'-2"	2'-10"			
P607	180	16'-2"	4,371	2	6'-9"	3'-0"	6'-9"			4'-9"	
P608	28	13'-6"	568	2	5'-5"	3'-0"	5'-5"			4'-9"	
P609	4	10'-10'	65	2	4'-1"	3'-0"	4'-1"				
P610	4	11'-10"	71	2	4'-7"	3'-0"	4'-7"				
P611	6	8'-10"	80	2	2'-3"	4'-8"	2'-3"				
P612	5	12'-2"	91	1	1'-0"	11'-4"					
P613	5	14'-2"	106	1	1'-0"	13'-4"					
P801	4	32'-0"	342	STR.							
P803	2	31'-8"	169	STR.							
P804	2	30'-11'	165	STR.							
P1105	12	35'-2"	2,242	17	32'-0"						
P1106	12	32'-0"	2,040	STR.							
P1107	46	30'-0"	7,332	17	26'-10"						
P1108	56	23'-10"	7,091	17	20'-8"						
P1109	48	29'-7"	7,544	32	22'-3"	7'-4"				29'-4"	
P1110	48	39'-8"	10,116	1	2'-0"	38'-0"					
PIER 2 TOTAL			45,745								
PIER 3											
SP405	1	39'-1"	1,674	27	4½"	7'-6"	39'-1"				
P401	2	25'-2"	34	29	1'-7"					3'-9"	
P402	1	24'-8"	16	29	1'-7"					3'-8"	
P403	1	24'-1"	16	29	1'-7"					3'-7"	
P404	1	23'-7"	16	29	1'-7"					3'-6"	
P405	1	22'-7"	15	29	1'-7"					3'-4"	
P406	1	21'-6"	14	29	1'-7"					3'-2"	
P407	1	19'-11"	13	29	1'-7"					2'-11"	
P503	18	20'-8"	388	STR.							
P504	14	26'-8"	389	STR.							
P601	2	29'-5"	88	STR.							
P602	2	26'-7"	80	STR.							
P603	2	20'-2"	61	STR.							
P604	5	8'-0"	60	STR.							
P605	5	19'-8"	148	31	2'-11"	6'-8¼"	2'-2"	1'-9"		4'-9"	
P606	5	20'-9"	156	31	2'-11"	6'-8¼"	2'-2"	2'-10"		4'-9"	
P607	180	16'-2"	4,371	2	6'-9"	3'-0"	6'-9"				
P608	28	13'-6"	568	2	5'-5"	3'-0"	5'-5"				
P609	4	10'-10"	65	2	4'-1"	3'-0"	4'-1"				
P610	4	11'-10"	71	2	4'-7"	3'-0"	4'-7"				
P611	6	8'-10"	80	2	2'-3"	4'-8"	2'-3"				
P612	5	12'-2"	91	1	1'-0"	11'-4"					
P613	5	14'-2"	106	1	1'-0"	13'-4"					
P801	4	32'-0'	342	STR.							
P803	2	31'-8"	169	STR.							
P804	2	30'-11"	165	STR.							
P1105	12	35'-2"	2,242	17	32'-0"						
P1106	12	32'-0"	2,040	STR.							
P1107	46	30'-0"	7,332	17	26'-10"						
P1108	56	23'-10"	7,091	17	20'-10'						

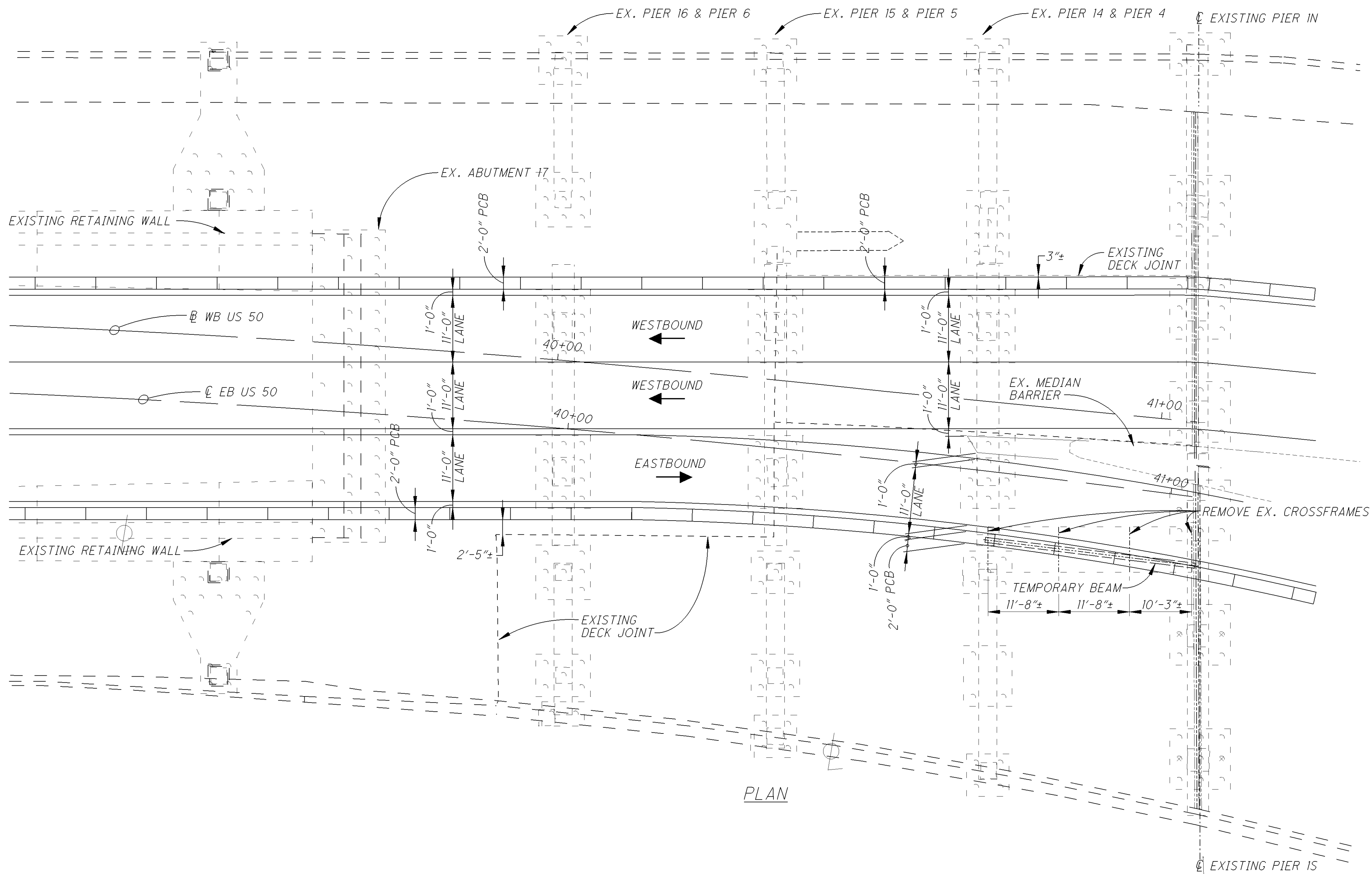
NOTE:
1. PIER REINFORCEMENT CONTINUED
ON SHEET 44/47 .

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS						
	TOTAL				A	B	C	D	E	R	INC
PIER 3											
P1109	48	29'-7"	7,544	32	22'-3"	7'-4"				29'-4"	
P1111	48	35'-2"	8,968	1	2'-0"	33'-6"					
PIER 3 TOTAL			44,413								
PIER 4											
SP406	1	24'-1"	1,050	27	4½"	7'-6"	24'-1"				
P401	2	25'-2"	34	29	1'-7"					3'-9"	
P402	1	24'-8"	16	29	1'-7"					3'-8"	
P403	1	24'-1"	16	29	1'-7"					3'-7"	
P404	1	23'-7"	16	29	1'-7"					3'-6"	
P405	1	22'-7"	15	29	1'-7"					3'-4"	
P406	1	21'-6"	14	29	1'-7"					3'-2"	
P407	1	19'-11"	13	29	1'-7"					2'-11"	
P501	16	16'-2"	270	STR.							
P502	11	22'-8"	260	STR.							
P604	5	8'-0"	60	STR.							
P605	5	19'-8"	148	31	2'-11"	6'-8¼"	2'-2"	1'-9"		4'-9"	
P607	160	16'-2"	3,885	2	6'-9"	3'-0"	6'-9"				
P608	44	13'-6"	892	2	5'-5"	3'-0"	5'-5"				
P609	4	10'-10"	65	2	4'-1"	3'-0"	4'-1"				
P611	6	8'-10"	80	2	2'-3"	4'-8"	2'-3"				
P616	2	29'-3"	88	STR.							
P617	2	26'-3"	79	STR.							
P618	2	18'-10"	57	STR.							
P619	5	20'-9"	156	31	2'-11"	6'-8¼"	2'-2"	2'-10"		4'-9"	
P620	4	12'-4"	74	2	4'-10"	3'-0"	4'-10"				
P621	4	11'-2"	67	2	4'-3"	3'-0"	4'-3"				
P622	5	14'-4"	108	2	1'-0"	12'-8"	1'-0"				
P623	6	16'-2"	146	28	3'-8"	3'-8"					
P624	8	5'-0"	60	1	1'-6"	3'-8"					
P801	4	32'-0"	342	STR.							
P802	2	30'-9"	164	STR.							
P803	2	31'-8"	169	STR.							
P901	22	4'-11"	368	1	1'-6"	3'-8"					
P1101	31	25'-10"	4,255	17	22'-8"						
P1102	42	19'-4"	4,314	17	12'-2"						
P1103	48	20'-7"	5,249	32	13'-3"	7'-4"				29'-4"	
P1105	12	35'-2"	2,242	17	32'-0"						
P1106	12	32'-0"	2,040	STR.							
P1112	48	25'-3"	6,439	1	2'-0"	23'-7"					
PIER 4 TOTAL			33,251								
PIER TOTAL			157,261								

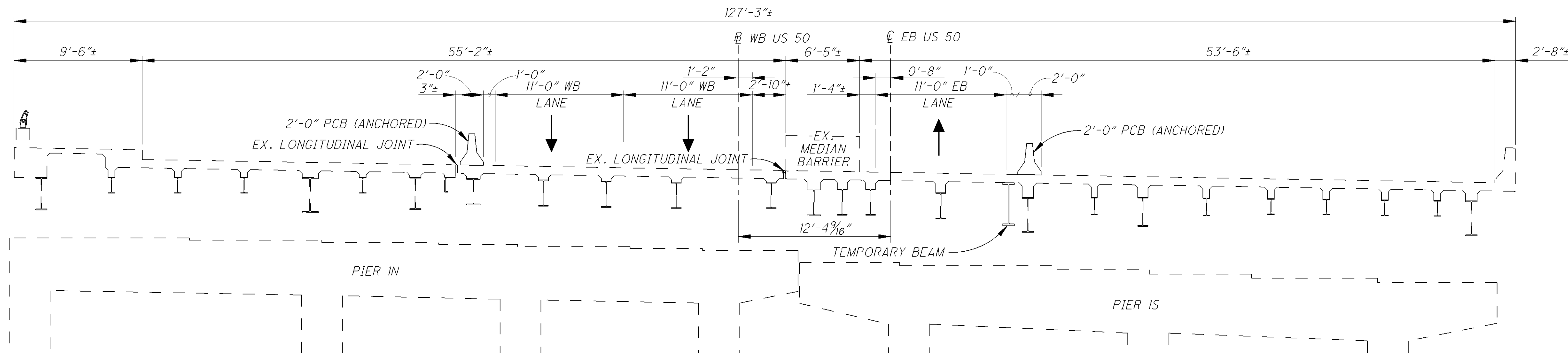
* REINFORCING STEEL INCLUDED WITH ITEM 524-DRILLED SHAFT, 36" DIAMETER, ABOVE BEDROCK, FOR PAYMENT

** REINFORCING STEEL INCLUDED WITH ITEM 524-DRILLED SHAFT, 66" DIAMETER, ABOVE BEDROCK, FOR PAYMENT

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS						
	REAR ABUT.	FWD. ABUT.	TOTAL				A	B	C	D	E	R	INC
ABUTMENTS													
D801	23	22	45	5'-2"	621	18	2'-10"	11"	1'-0"				
A501	50		50	21'-1"	1,099	1	10"	20'-4"					
A502	2		2	21'-3"	44	1	10"	20'-6"					
A503	2		2	12'-7"	26	1	10"	11'-10"					
A504	6	3	9	4'-5"	41	13	1'-6"	1'-0"	1'-0"	1'-6"			
A505	6	3	9	4'-5"	41	2	1'-6"	1'-8"	1'-6"				
A506		19	19	30'-9"	609	1	10"	30'-0"					
A507		16	16	15'-0"	250	STR							
A508		5	5	9'-9"	51	1	10"	9'-0"					
A511	6	12	18	11"	17	STR							
A512	2	4	6	6'-0"	38	23	8"	2'-9"	2'-6"			2"	
A601	14		14	19'-2"	403	3	6'-2"	3'-9"					
A602	9		9	18'-4"	248	3	6'-2"	3'-4"					
A603	11		11	17'-4"	286	3	6'-2"	2'-10"					
A604	34	32	66	6'-0"	595	2	2'-9"	10"	2'-9"				
A605	34	32	66	19'-1"	1,892	2	9'-0"	1'-5"	9'-0"				
A606	34		34	11'-11"	609	2	5'-5"	1'-5"	5'-5"				
A607	7		7	26'-10"	282	2	12'-9"	1'-8"	12'-9"				
A608	14	7	21	15'-4"	484	2	7'-0"	1'-8"	7'-0"				
A609	40	20	60	8'-6"	766	STR							
A610	3		3	24'-0"	108	3	8'-6"	3'-10'					
A611	7		7	24'-6"	258	2	11'-7"	1'-8"	11'-7"				
A612	3	3	6	22'-0"	198	3	8'-6'	2'-10'					
A613	6		6	14'-6"	131	28	3'-11"	2'-9"	1'-0"				
A614	4	3	7	4'-2"	44	1	1'-7"	2'-9"					
A615		7	7	26'-0"	273	2	12'-4'	1'-8"	12'-4"				
A616		32	32	14'-9"	709	2	6'-10'	1'-5"	6'-10"				
A617		32	32	16'-4"	785	3	5'-11"	2'-7"					
A618		32	32	15'-6"	745	3	4'-3"	3'-10"					
A619		3	3	11'-8"	53	28	2'-6"	2'-9"	1'-0"				
A626	1	2	3	11"	4	STR							
A627	2	4	6	3'-10"	35	14	10½"	1'-8"	8½"	6"	9"		
A628	2	4	6	2'-5"	22	1	11"	1'-8"					
A801	5		5	18'-7"	248	1	1'-4"	17'-6"					
A802	5		5	16'-4"	218	1	1'-4"	15'-2"					
A803	5		5	17'-10"	238	2	1'-4"	15'-6"	1'-4"				
A804	10		10	23'-0"	614	1	1'-4"	21'-10"					
A805		12	12	31'-2"	999	1	1'-4"	30'-0'					
A806		6	6	18'-2"	291	1	1'-4"	17'-0"					
A807		6	6	19'-1"	306	19	12'-6"	6'-0"	3'-4"				
A901	10	5	15	4'-1"	208	1	1'-7"	2'-9"					
A902	4		4	5'-8"	77	STR							
A903		2	2	4'-3"	29	STR							
REAR ABUTMENT TOTAL					7,675								
FORWARD ABUTMENT TOTAL					7,320								
ABUTMENT TOTAL					14,995								
DRILLED SHAFTS													
*A1001	36		36	29'-7"	4,583	16	28'-2"						
**A1101	88		88	42'-3"	19,754	STR							
*SP401	4		4	21'-10"	1,265	27	4½"	2'-6"	21'-10"				
**SP402	4		4	42'-3"	4,804	27	4½"	5'-0"	42'-3"				
DRILLED SHAFT TOTAL					30,406								



PLAN



SECTION AT EXISTING PIER IN AND IS



PHASE 1

PHASE 1 OCCURS DURING MOT PHASE 4A.

MAINTAIN (2) 11'-0" LANES WESTBOUND AND (1) 11'-0" LANE EASTBOUND. INSTALL TEMPORARY BEAM AND PCB. PCB MUST BE ANCHORED TO THE BRIDGE DECK USING 1"φ HIGH STRENGTH THROUGH BOLTS OR APPROVED RESIN ANCHORS. WHEN RESIN ANCHORS ARE USED THEY MUST BE EMBEDDED A MINIMUM OF 6 1/2" INTO FIRM CONCRETE. GENERALLY, ALL ANCHORS SHALL BE PLACED ON THE TRAFFIC SIDE OF THE BARRIER WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. 4 ANCHOR BOLTS ARE REQUIRED PER BARRIER.

REMOVE FOUR EXISTING 21WF62 BRACES BETWEEN EXISTING PIER 14 AND EXISTING PIER 15. REMOVE END CROSSFRAME AT EXISTING PIER 15 AS NEEDED FOR INSTALLING TEMPORARY BEAM.

TEMPORARY BEAM SHALL BE IN PLACE PRIOR TO PHASE 1 AND LEFT IN PLACE UNTIL PHASE 4.

PHASE 1 CONSTRUCTION DETAILS

BRIDGE HAM-50-1903 L/R

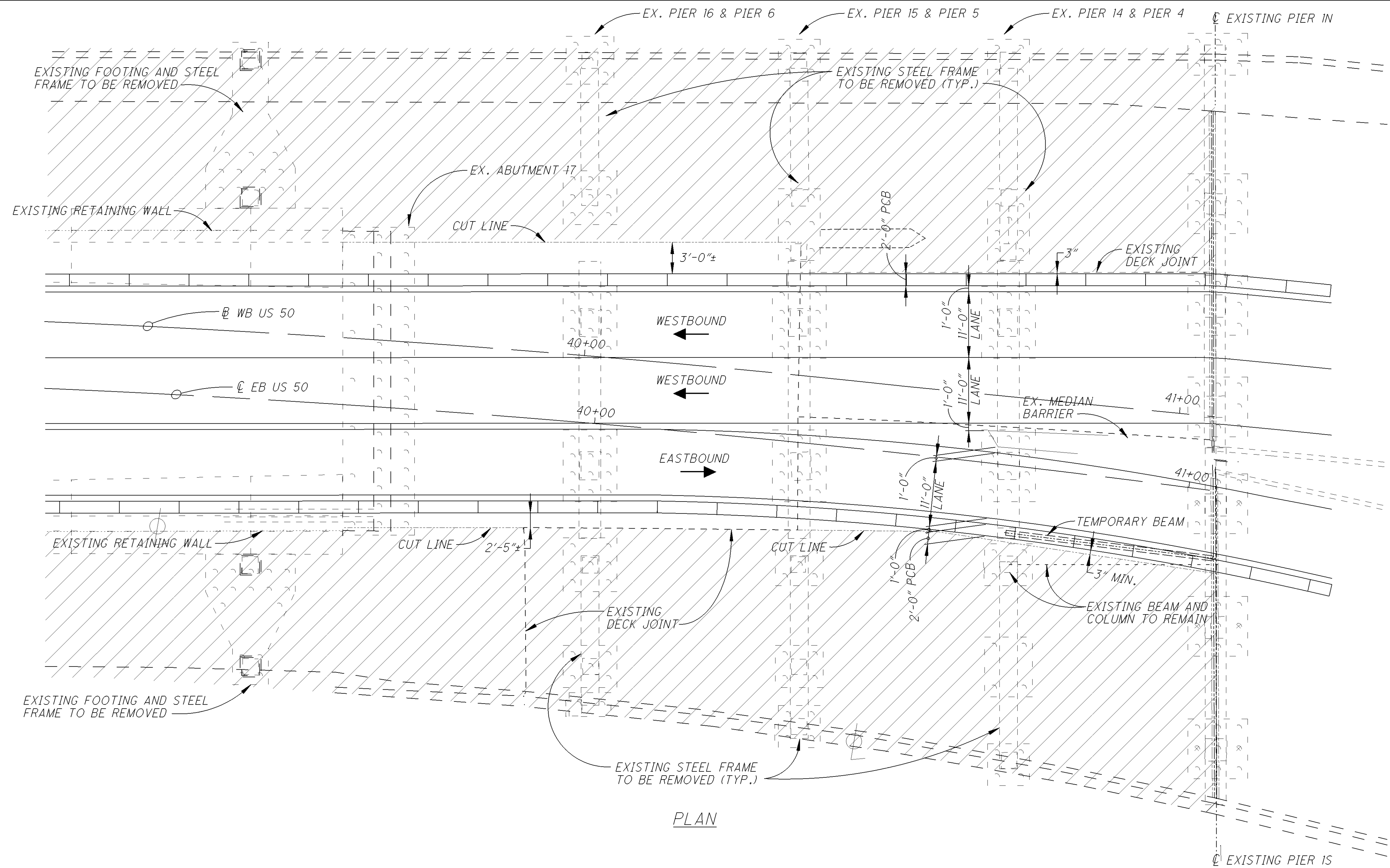
OVER VACANT LAND

HAM-50-18.79

PID No. 20082

9 / 65

533
657



DENOTES PORTION OF STRUCTURE TO BE REMOVED.

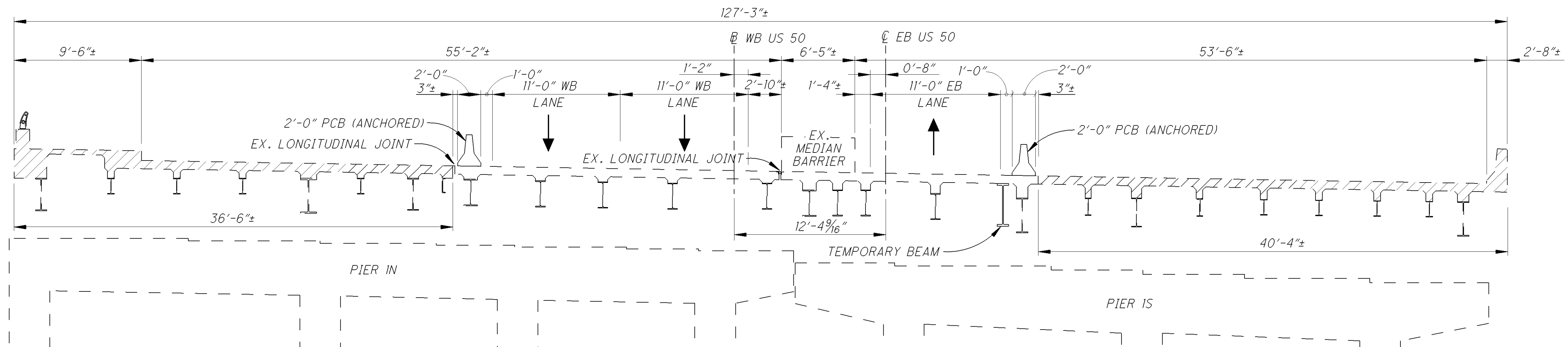
PHASE 2

PHASE 2 OCCURS DURING MOT PHASE 4A.

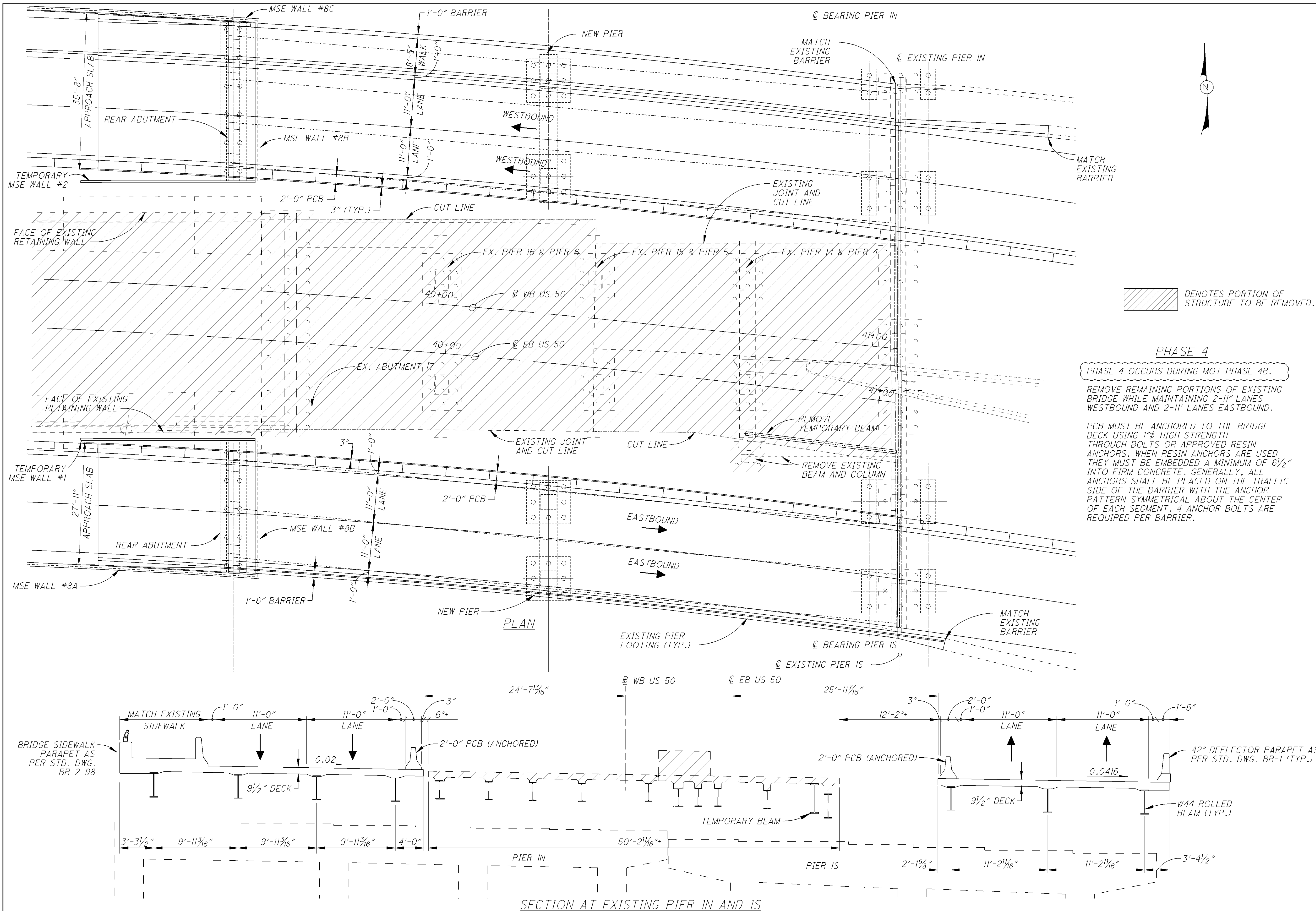
REMOVE PORTIONS OF EXISTING BRIDGE WHILE MAINTAINING (2) 11'-0" LANES WESTBOUND AND (1) 11'-0" LANES EASTBOUND.

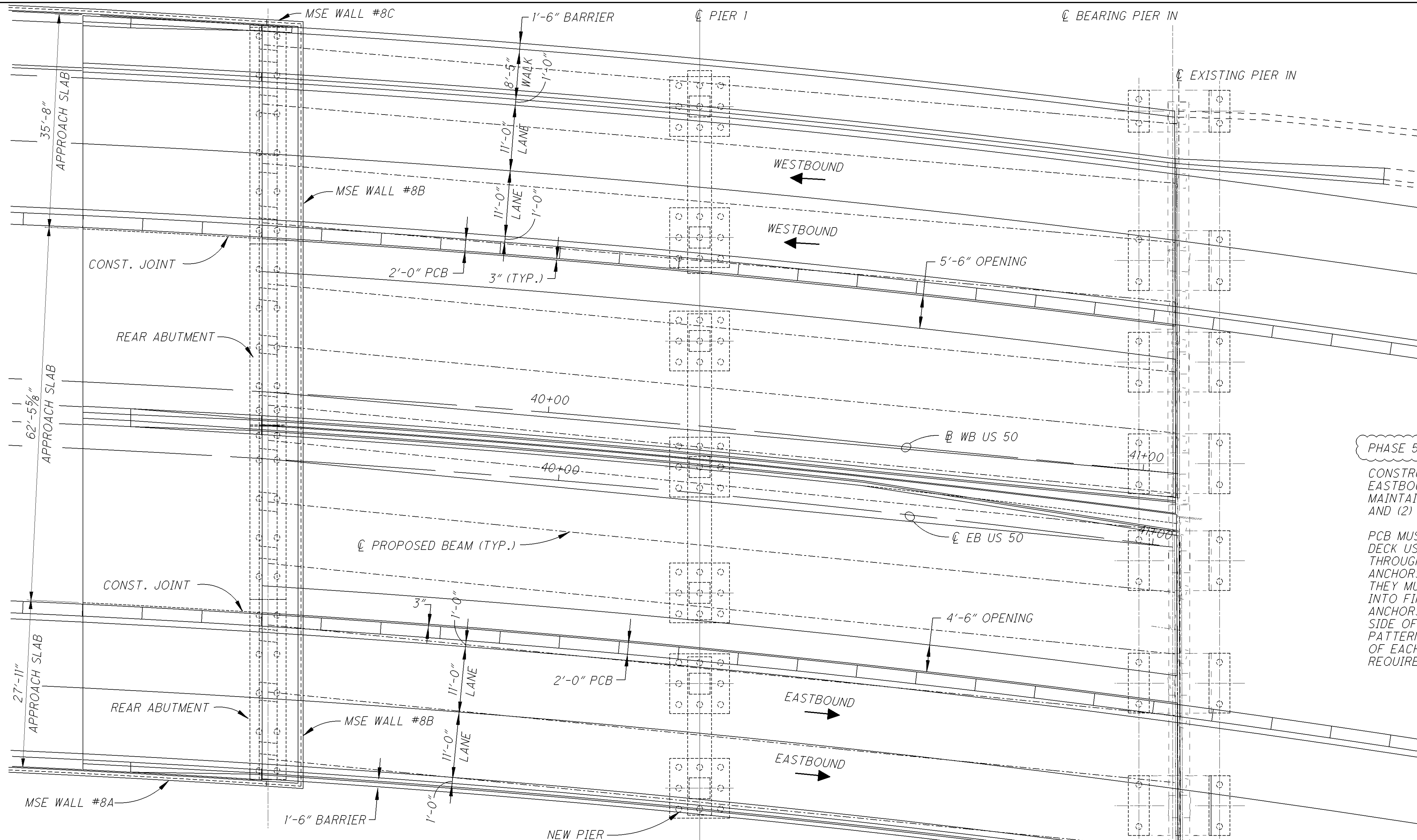
PCB MUST BE ANCHORED TO THE BRIDGE DECK USING 1"Ø HIGH STRENGTH THROUGH BOLTS OR APPROVED RESIN ANCHORS. WHEN RESIN ANCHORS ARE USED THEY MUST BE EMBEDDED A MINIMUM OF 6 1/2" INTO FIRM CONCRETE. GENERALLY, ALL ANCHORS SHALL BE PLACED ON THE TRAFFIC SIDE OF THE BARRIER WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. 4 ANCHOR BOLTS ARE REQUIRED PER BARRIER.

PLAN



SECTION AT EXISTING PIER IN AND IS





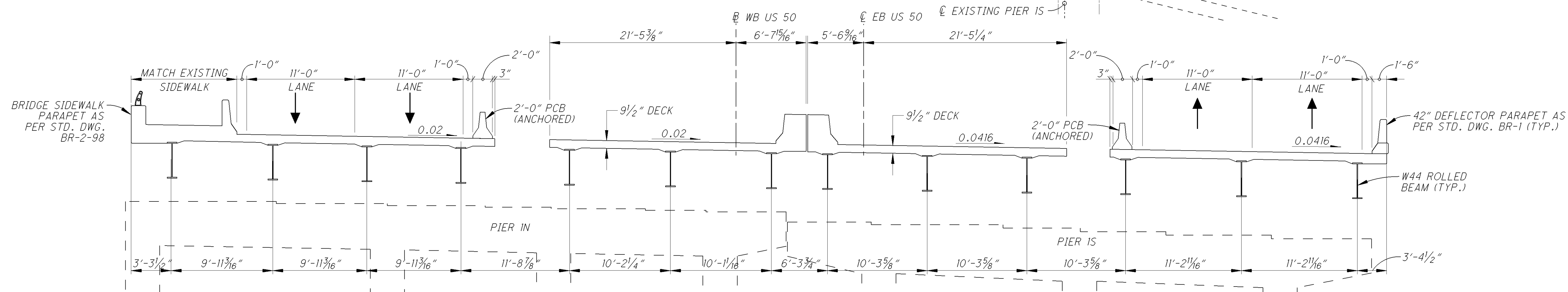
PHASE 5

PHASE 5 OCCURS DURING MOT PHASE 4B

CONSTRUCT CENTER PORTION OF NEW EASTBOUND AND WESTBOUND BRIDGES. MAINTAIN (2) 11'-0" WESTBOUND LANES AND (2) 11'-0" EASTBOUND LANES.

PCB MUST BE ANCHORED TO THE BRIDGE DECK USING 1" HIGH STRENGTH THROUGH BOLTS OR APPROVED RESIN ANCHORS. WHEN RESIN ANCHORS ARE USED THEY MUST BE EMBEDDED A MINIMUM OF 6 1/2" INTO FIRM CONCRETE. GENERALLY, ALL ANCHORS SHALL BE PLACED ON THE TRAFFIC SIDE OF THE BARRIER WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. 4 ANCHOR BOLTS ARE REQUIRED PER BARRIER.

PLAN



SECTION AT EXISTING PIER IN AND IS



PHASE 5 CONSTRUCTION DETAILS

BRIDGE HAM-50-1903 L/R

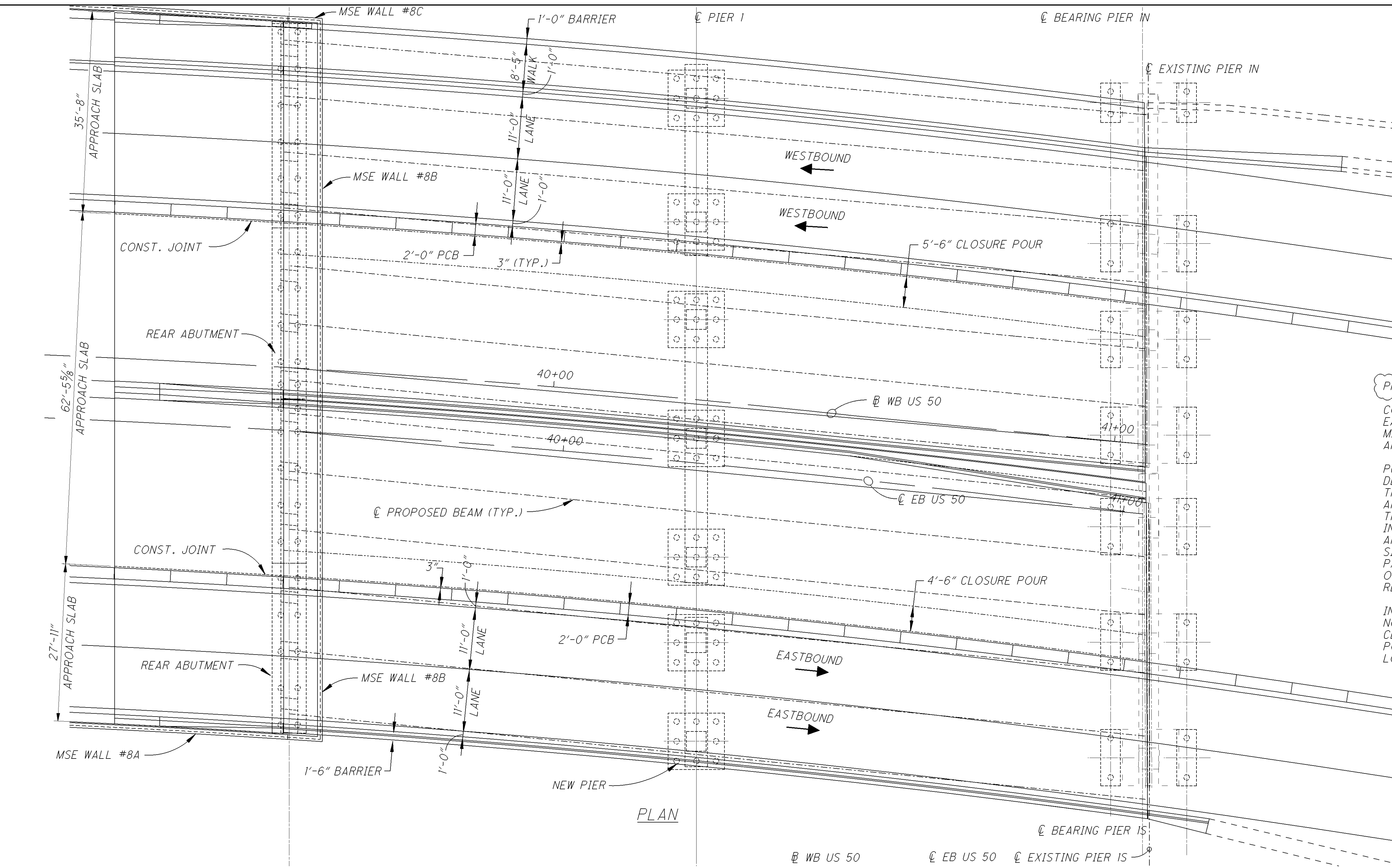
OVER VACANT LAND

HAM-50-18.79

PID No. 20082

13 / 65

537
657

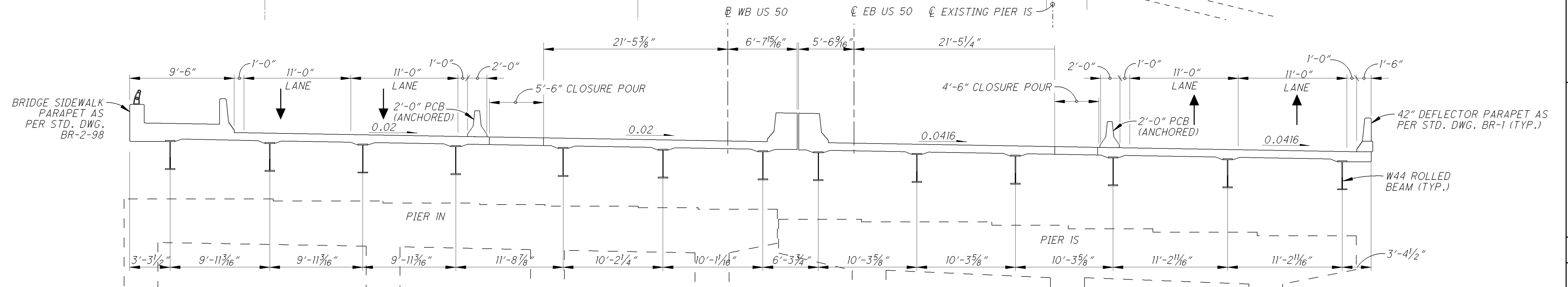


PHASE 6
 PHASE 6 OCCURS DURING MOT PHASE 4B.

CONSTRUCT CLOSURE POUR OF NEW EASTBOUND AND WESTBOUND BRIDGES. MAINTAIN (2) 11'-0" WESTBOUND LANES AND (2) 11'-0" EASTBOUND LANES.

PCB MUST BE ANCHORED TO THE BRIDGE DECK USING 1"Ø HIGH STRENGTH THROUGH BOLTS OR APPROVED RESIN ANCHORS. WHEN RESIN ANCHORS ARE USED THEY MUST BE EMBEDDED A MINIMUM OF 6 1/2" INTO FIRM CONCRETE. GENERALLY, ALL ANCHORS SHALL BE PLACED ON THE TRAFFIC SIDE OF THE BARRIER WITH THE ANCHOR PATTERN SYMMETRICAL ABOUT THE CENTER OF EACH SEGMENT. 4 ANCHOR BOLTS ARE REQUIRED PER BARRIER.

INTERMEDIATE AND END CROSSFRAMES SHALL NOT BE PERMANENTLY ATTACHED IN THE CLOSURE POUR LOCATION UNTIL THE CONCRETE POURS ON BOTH SIDES OF THE CLOSURE POUR LOCATION HAVE BEEN COMPLETED.



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