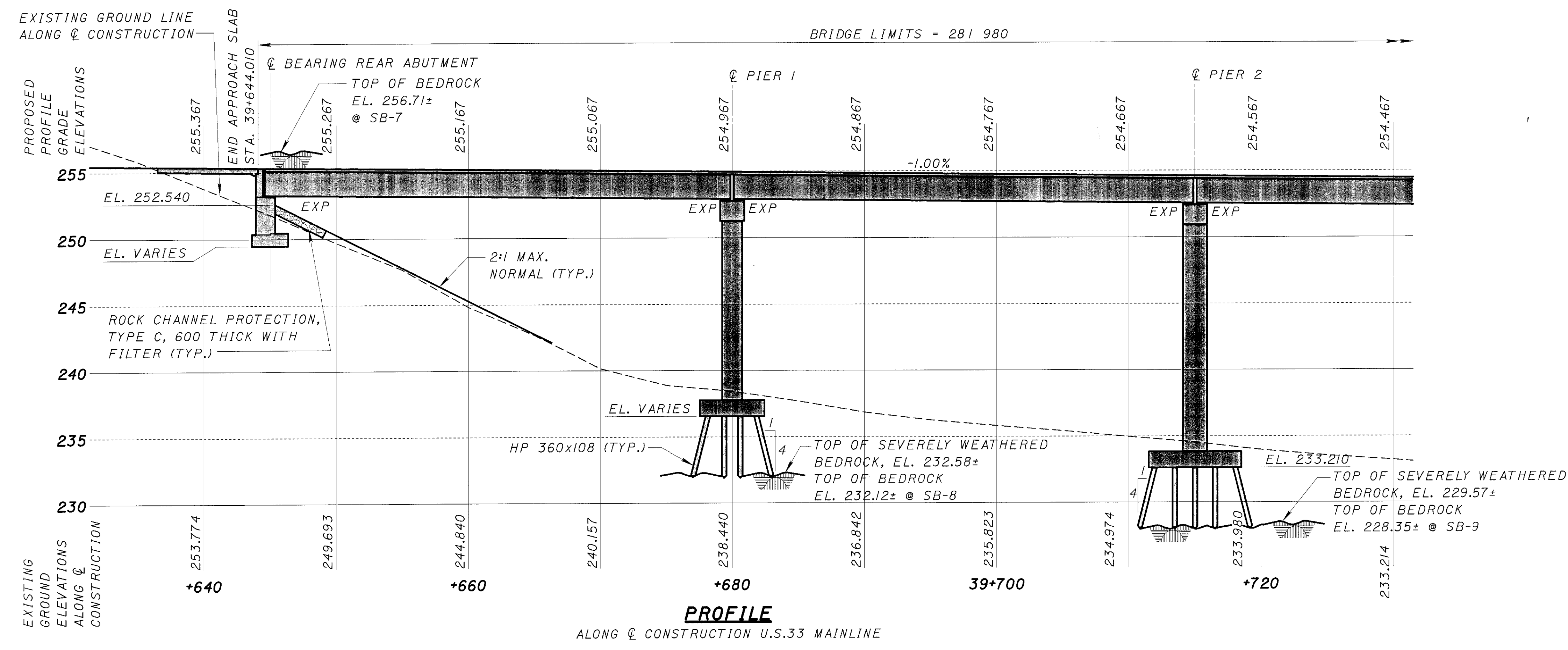


SEE SHEET 2/22

- NOTES:**
- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
 - ☉ = BORING LOCATIONS.
 - ▨ = 600 TYPE C ROCK CHANNEL PROTECTION WITH FILTER.
 - ALL UNITS ARE MILLIMETERS UNLESS NOTED OTHERWISE. STATIONS AND ELEVATIONS ARE GIVEN IN METERS.
 - FOR LEGEND SEE SHEET 2/22.
 - R/W IS BEYOND LIMITS OF THIS DRAWING. SEE R/W PLANS FOR DETAIL.
 - ESTIMATED AVERAGE PILE LENGTHS: (FOR HP360x180 STEEL PILES)
PIER 1: 9m
PIER 2: 7m
PIER 3: 5m

PLAN
FIRST POST OFF BRIDGE STA. 39+635.145 BOTH SIDES



PROFILE
ALONG Q CONSTRUCTION U.S.33 MAINLINE

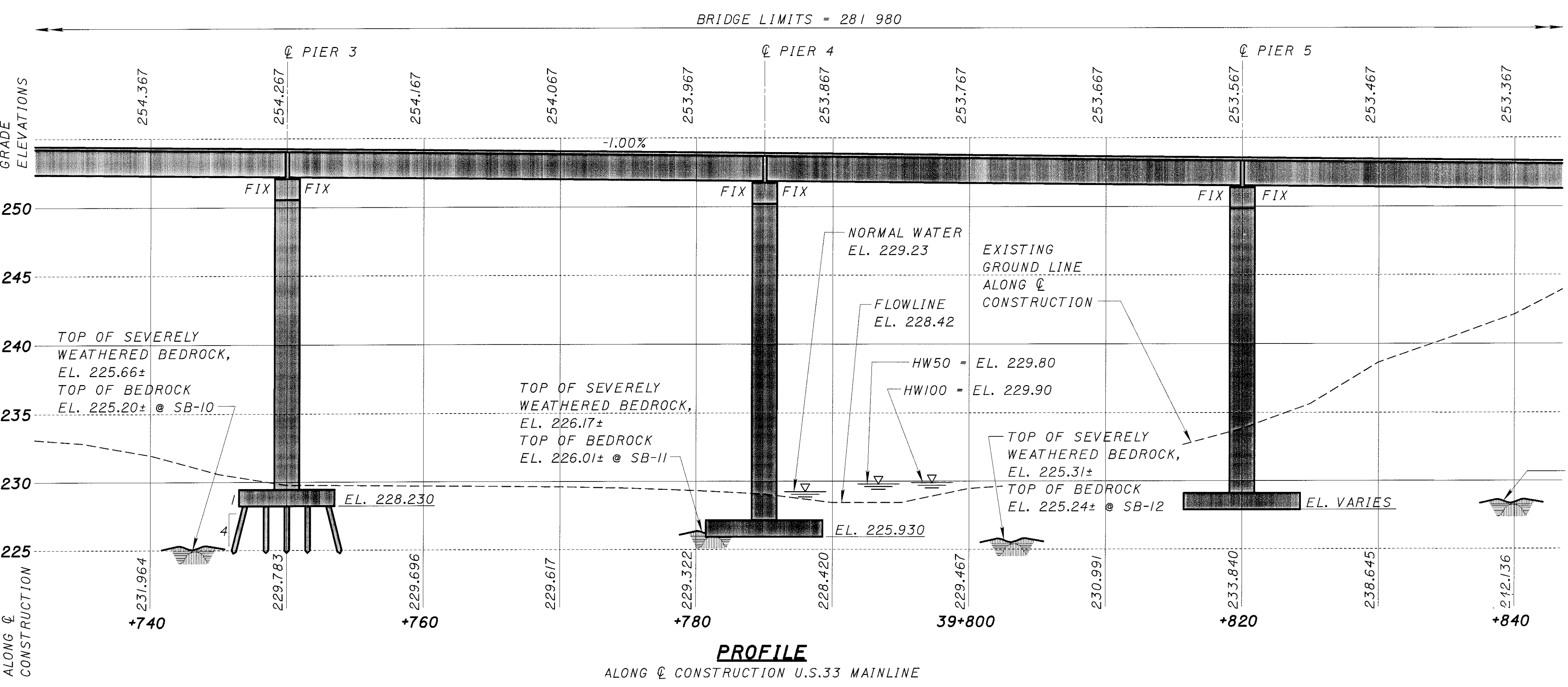
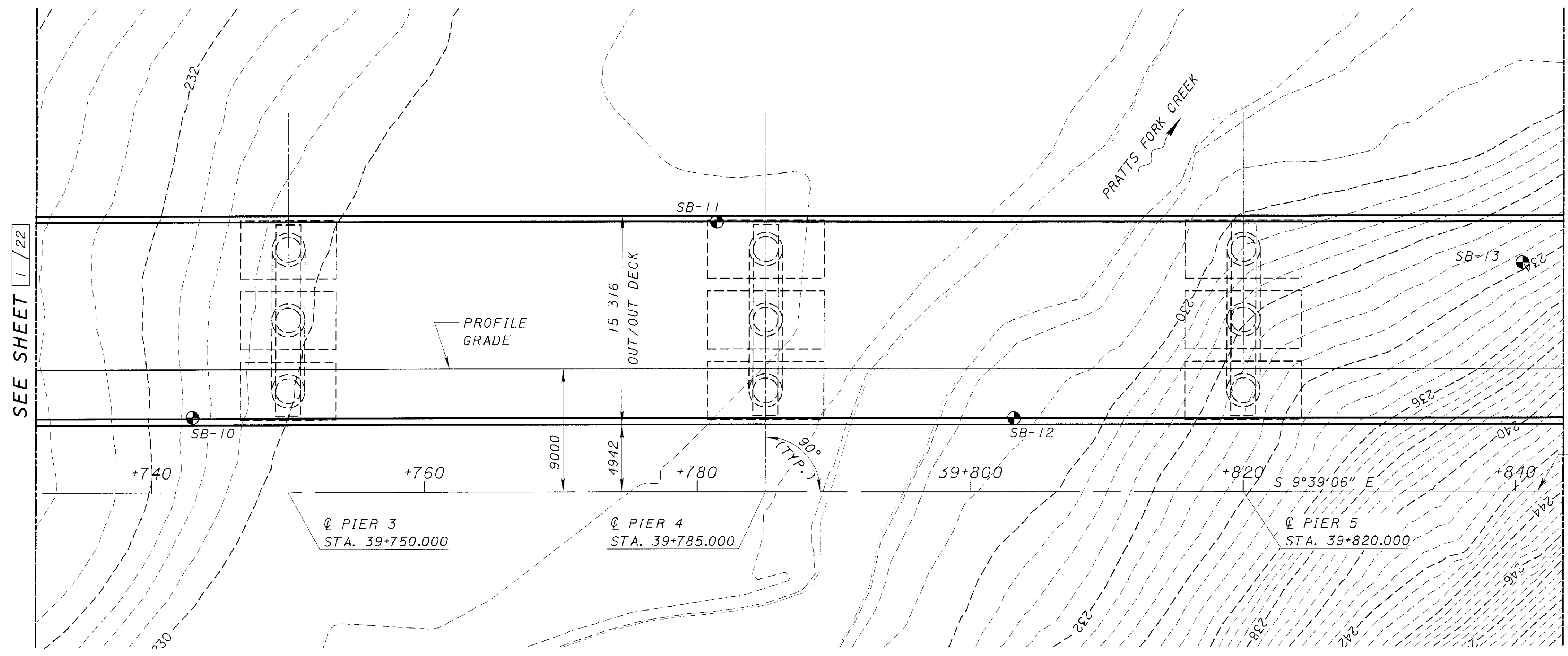
BENCHMARK	
BENCHMARK IRON PIN AND CAP STA. 39+600 ALONG Q U.S.33	EL. 266.09
BENCHMARK IRON PIN AND CAP STA. 39+720 ALONG Q U.S.33	EL. 234.16
BENCHMARK IRON PIN AND CAP STA. 39+840 ALONG Q U.S.33	EL. 242.54
BENCHMARK IRON PIN AND CAP STA. 39+960 ALONG Q U.S.33	EL. 265.01
LOCATION	
LATITUDE: N 39°13'15" LONGITUDE: W 82°03'57" USGS QUADRANGLE: SHADE	
TRAFFIC	
2001 ADT = 4170	ADTT = 375
2021 ADT = 5740	ADTT = 517
HYDRAULIC DATA	
DRAINAGE AREA = 4.89 km ² Q50 = 17.45 m ³ /S HW50 = 229.80 V50 = 1.6 m/S CLEARANCE ABOVE HW50 = 4.3m Q100 = 20.35 m ³ /S HW100 = 229.90 V100 = 1.7 m/S	
PROPOSED STRUCTURE DATA	
TYPE: EIGHT-SPAN PRESTRESSED CONCRETE I-BEAM WITH STUB ABUTMENTS AND CAP AND COLUMN TYPE PIERS SPANS: 8 X 35 000 C/C BEARING ALONG CENTERLINE U.S.33 MAINLINE ROADWAY: 14 400 T/T BARRIER SKEW: 0° DESIGN LOADING: MS-22.5 AND THE ALTERNATE MILITARY LOADING WEARING SURFACE: MONOLITHIC CONCRETE ALIGNMENT: TANGENT CROWN: 0.016 APPROACH SLABS: AS-I-81M (7600 LONG)	

ATHENS COUNTY STA. 39+644.010 STA. 39+925.990
SITE PLAN
BRIDGE NO. ATH-33-41030
OVER PRATTS FORK CREEK
1/22
863
949

02/06/01
11:45:56 AM
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NOTE:
1. FOR SITE PLAN NOTES AND PROJECT DATA, SEE SHEET 1/22.



SEE SHEET 3/22

SEE SHEET 1/22

Q CONSTRUCTION U.S.33 MAINLINE

- LEGEND**
- ADT = AVERAGE DAILY TRAFFIC
 - ADTT = AVERAGE DAILY TRUCK TRAFFIC
 - Q = CENTERLINE
 - C/C = CENTER TO CENTER
 - φ = DIAMETER
 - EL. = ELEVATION
 - EXP = EXPANSION
 - FIX = FIXED
 - MIN. = MINIMUM
 - R/W = RIGHT OF WAY
 - STA. = STATION
 - T/T = TOE TO TOE
 - TYP. = TYPICAL

DATE	10/24/00
REVIEWED	JN
DRAWN	RTP
CHECKED	TEU
STRUCTURE FILE NUMBER	0501190

DESIGNED	FAQ
CHECKED	TEU

ATHENS COUNTY
STA. 39+644.010
STA. 39+925.990

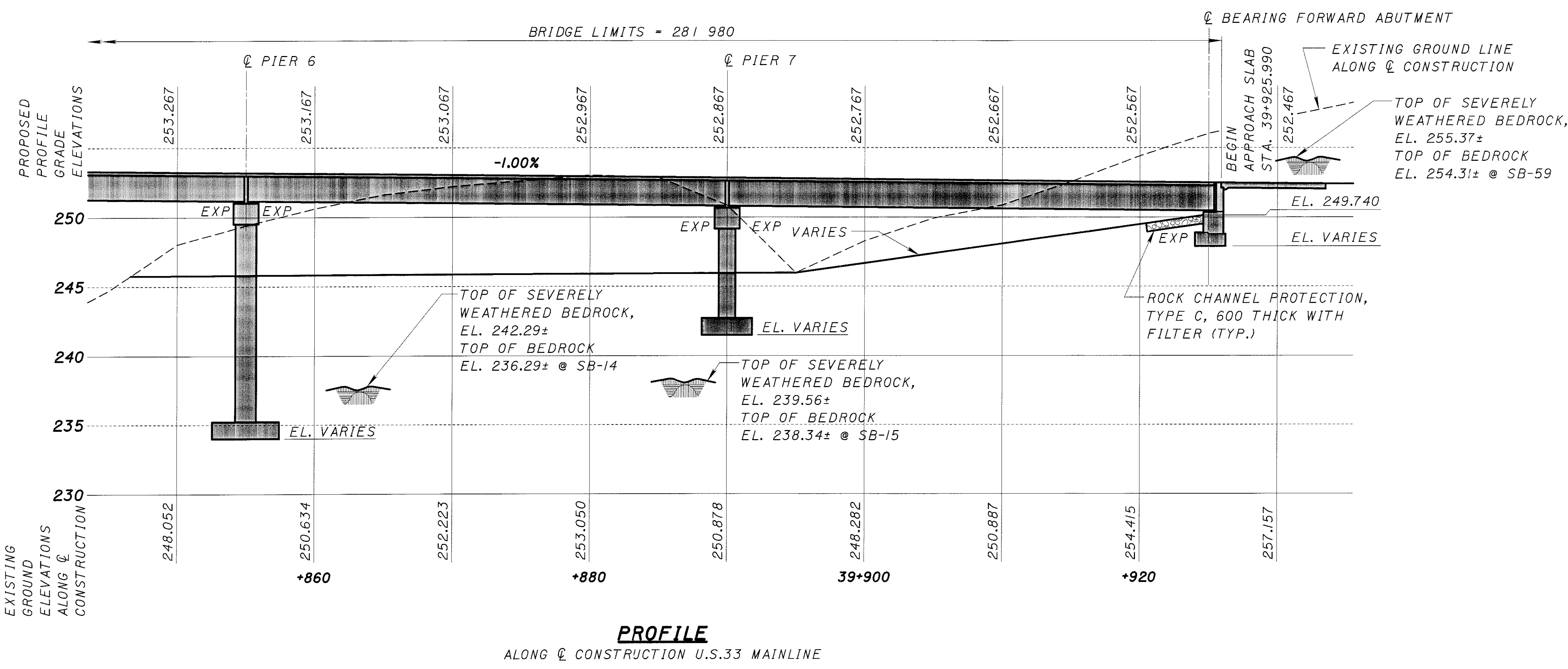
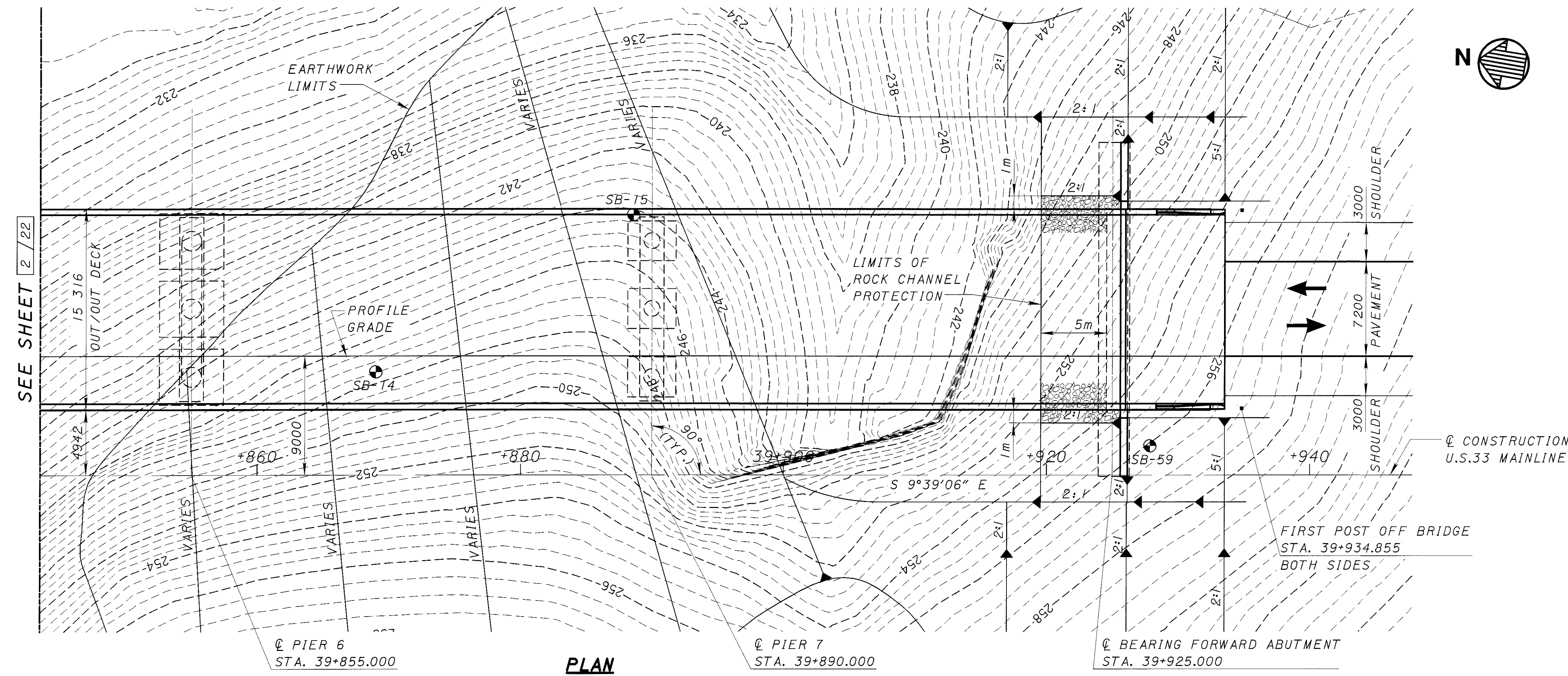
SITE PLAN
BRIDGE NO. ATH-33-41030
OVER PRATTS FORK CREEK

ATH-33-40.981

2/22

864
949

02/05/01
02:44:00 AM
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NOTES:

- FOR SITE PLAN NOTES AND PROJECT DATA, SEE SHEET 1 / 22.
- FOR LEGEND SEE SHEET 2 / 22.

02/05/01
12/15/04
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DESIGNED	FAO	CHECKED	TEU
DRAWN	RTP	REVISED	
REVIEWED	JN	DATE	10/24/00
STRUCTURE FILE NUMBER	0501190		

SITE PLAN
BRIDGE NO. ATH-33-41030
OVER PRATTS FORK CREEK

ATH-33-40.981



STANDARD DRAWINGS:

DESCRIPTION	DWG. NO.	SHEET	DATE
STRAIGHT WING ABUTMENTS FOR BRIDGE WITH DEEP BEAM GUARD RAIL	A-I-69M	1-5	03-20-95
REINFORCED CONCRETE APPROACH SLAB	AS-I-81M	1-3	10-25-94
BRIDGE RAILING DEFLECTOR PARAPET TYPE	BR-1M	2	01-06-99 (R)
STRIP SEAL EXPANSION JOINTS FOR PRESTRESSED CONCRETE I-BEAM STRUCTURES	EXJ-6-95M	1-5	03-18-97 (R)
PRESTRESSED CONCRETE I-BEAM DETAILS	PSID-I-99	1-8	10-20-00 (R)

SUPPLEMENTAL SPECIFICATIONS:

DESCRIPTION	NO.	DATE
TREATING OF CONCRETE SURFACES WITH SRS	841	10-12-99
CONCRETE FOR STRUCTURES	842	01-06-99
HIGH PERFORMANCE CONCRETE FOR STRUCTURES	844	01-06-99
TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN	846	9-9-97
PRESTRESSED CONCRETE BRIDGE MEMBERS	865	02-22-00
HIGH PERFORMANCE CONCRETE (H.P.C.) FOR BRIDGE DECK WITH WARRANTY	894	10-12-99
CONCRETE - GENERAL	899	10-21-98
HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) RESIN	954	9-9-97

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998, 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2000.

DESIGN LOADING:

MS-22.5 AND THE ALTERNATE MILITARY LOADING. FUTURE WEARING SURFACE (FWS) OF 2.87 KP_a.

DESIGN DATA:

- HIGH PERFORMANCE CONCRETE HPC SS 844 - COMPRESSIVE STRENGTH 31.0 MP_a (SUPERSTRUCTURE)
- CONCRETE CLASS C - COMPRESSIVE STRENGTH 28 MP_a (SUBSTRUCTURE)
- CONCRETE FOR PRESTRESSED I-BEAMS: COMPRESSIVE STRENGTH-48.3 MP_a (28 DAYS), COMPRESSIVE STRENGTH-34.5 MP_a (RELEASE) UNIT STRESS : 19.3 MP_a COMPRESSION 3.0 MP_a TENSION
- PRESTRESS STRAND - ASTM A416M 13 mm DIAMETER, SEVEN-WIRE, LOW RELAXATION STRANDS F_s = 1860 MP_a INITIAL STRESS = 0.75 f_s
- REINFORCING STEEL - ASTM A615M, A616M, OR A617M GRADE 420, MINIMUM YIELD STRENGTH 420 MP_a, EPOXY COATED.
- SPIRAL REINFORCMENT MAY BE PLAIN BARS, ASTM A82M, OR A615M.

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL
65 mm CONCRETE COVER
SEALING CONCRETE SURFACES
MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 25 mm THICK.

SPREAD FOOTINGS FOR REAR ABUTMENT, FORWARD ABUTMENT, PIER 4 AND PIER 6, SHALL EXTEND A MINIMUM 75 mm INTO BEDROCK OR TO THE ELEVATION SHOWN, WHICHEVER IS LOWER.

ITEM 503, UNCLASSIFIED EXCAVATION, AS PER PLAN:

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE 203 MATERIAL PLACED IN 150 mm LIFTS.

FOUNDATION BEARING PRESSURE:

ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE AS FOLLOWING:

REAR ABUTMENT	0.50 MP _a
FORWARD ABUTMENT	0.47 MP _a
PIER 4	0.38 MP _a
PIER 5	0.38 MP _a
PIER 6	0.46 MP _a
PIER 7	0.65 MP _a

ALLOWABLE BEARING PRESSURE IS 0.96 MP_a FOR REAR AND FORWARD ABUTMENTS, PIERS 4, 5, 6 AND 7.

PILES TO BEDROCK

PILES SHALL BE DRIVEN TO REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL CENTIMETER WITH A MINIMUM RESISTANCE OF 20 BLOWS PER 25 mm OR REFUSAL SHALL BE CONSIDERED AS OBTAINED AFTER THE PILE HAS CONTACTED HARD BEDROCK AND THE PILE HAS THEN RECEIVED AT LEAST 20 BLOWS. THE CONTRACTOR IS RESPONSIBLE FOR SELECTING THE HAMMER SIZE TO ACHIEVE THE REQUIRED DEPTH TO BEDROCK AND REFUSAL.

THE ULTIMATE BEARING VALUE IS 1522 KN PER PILE FOR THE HP360x108 PIER PILES.

PIER 1 PILES:

- 36 PILES 9 METERS LONG, ESTIMATED LENGTH
- 12 PILES OF ORDER LENGTH 7 METERS LONG
- 12 PILES OF ORDER LENGTH 9 METERS LONG
- 12 PILES OF ORDER LENGTH 11 METERS LONG
- 18 SPLICES

PIER 2 PILES:

- 45 PILES 7 METERS LONG, ESTIMATED LENGTH
- 45 PILES OF ORDER LENGTH 7 METERS LONG
- 23 SPLICES

PIER 3 PILES:

- 45 PILES 5 METERS LONG, ESTIMATED LENGTH
- 45 PILES OF ORDER LENGTH 5 METERS LONG
- 23 SPLICES

ITEM 507, STEEL POINTS, AS PER PLAN:

STEEL PILE POINTS SHALL BE USED TO PROTECT THE TIPS OF THE PROPOSED STEEL "H" PILING. THE STEEL POINTS SHALL BE FURNISHED BY ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BLVD., CLIFTON, NEW JERSEY 07014; INTERNATIONAL CONSTRUCTION EQUIPMENT, INC., 301 WAREHOUSE DRIVE, MATTHEWS, NORTH CAROLINA 28015; DOUGHERTY FOUNDATION PRODUCTS, INC., P.O. BOX 688, FRANKLIN LAKES, NEW JERSEY 07417; VERSA STEEL INC., 3601 NW YEON AVE., P.O. BOX 10559, PORTLAND, OREGON 97210; PILING ACCESSORIES, INC., 3467 GRIBBLE ROAD, MATHEWS, NORTH CAROLINA 28105; OR BY A MANUFACTURER THAT CAN FURNISH A STEEL POINT THAT IS ACCEPTABLE TO DIRECTOR. THE MATERIAL USED FOR THE MANUFACTURING OF PILE POINTS SHALL CONFORM TO ASTM A27/A27M 65/35 [450/240] - CLASS 2 - HEAT TREATED OR AASHTO M103/M103M 65/35 [450/240] - HEAT TREATED. WELDING OF THE PILE POINTS TO THE PILE SHALL BE IN ACCORDANCE WITH AWS D1.5 OR THE MANUFACTURER'S WRITTEN WELDING PROCEDURE SUPPLIED THE ENGINEER BEFORE THE WELDING IS PERFORMED. A NOTARIZED COPY OF THE MILL TEST REPORT SHALL BE SUBMITTED TO THE ENGINEER.

SEALING OF CONCRETE SURFACE (EPOXY - URETHANE):

EPOXY - URETHANE SHALL BE A LIGHT NEUTRAL COLOR MEETING FEDERAL COLOR STANDARD NO. 17778 AS PER THE DETAILS IN THE PLANS.

ITEM 865, PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS,

MISC.: CONCRETE INTERMEDIATE DIAPHRAGMS, AS PER PLAN:

STANDARD DRAWING PSID-I-99 SHOWS THAT STEEL OR CONCRETE MAY BE USED FOR THE INTERMEDIATE DIAPHRAGMS. DISTRICT 10 HAS CHANGED THIS REQUIRING THAT ONLY CONCRETE IS TO BE USED.

CONCRETE, AS PER PLAN

A REINFORCING STEEL LIST HAS NOT BEEN PROVIDED WITH THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING THE REINFORCING STEEL LIST AND ALL REINFORCING STEEL DETAILS, IN ACCORDANCE WITH SECTION 301.4 THROUGH 301.4.8 (INCLUSIVE) OF THE ODOT BRIDGE DESIGN MANUAL, APRIL 2000 EDITION. THE COMPLETED REINFORCING STEEL LIST SHALL BE SUBMITTED TO THE DIRECTOR FOR REVIEW AND ACCEPTANCE IN ACCORDANCE WITH CMS 509.05. FABRICATION OF THE REINFORCING STEEL SHALL NOT BEGIN UNTIL WRITTEN ACCEPTANCE OF THE SUBMITTED DRAWINGS HAS BEEN RECEIVED FROM THE DIRECTOR. ALL COSTS FOR PREPARING THE REINFORCING STEEL LIST SHALL BE INCLUDED FOR PAYMENT WITH THE APPROPRIATE 842/844 CONCRETE ITEMS.

WHEN THE SHAPE OF A BAR IS NOT APPARENT IN THE PLAN DETAILS, A BEND DIAGRAM HAS BEEN SHOWN WITH THE BAR SIZE.

CONVERSION OF STANDARD BRIDGE DRAWINGS:

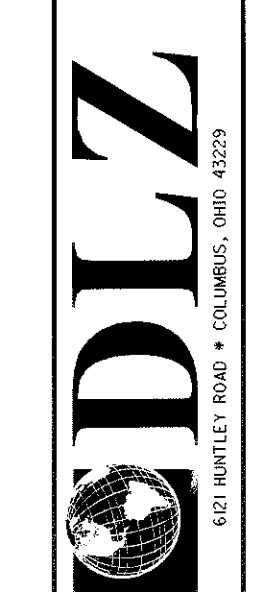
THE STANDARD BRIDGE DRAWINGS REFERENCED IN THIS PLAN ARE METRIC. ANY CONVERSION OF DIMENSIONS REQUIRED TO CONSTRUCT THE ITEMS SHOWN ON THE STANDARDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONVERSIONS SHALL BE MADE USING THE SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

ITEM 611, REINFORCED CONCRETE APPROACH SLAB, T=380 mm, AS PER PLAN:

CONCRETE FOR THIS ITEM SHALL BE SS 844, HIGH PERFORMANCE CONCRETE, MIX 3 OR 4. THE HIGH PERFORMANCE CONCRETE TRIAL MIX AND TESTING, AS DESCRIBED IN SS 844, SHALL BE WAIVED.

PIER TYPE:

HAMMER HEAD PIERS OF THE SAME SIZE AND SHAPE AS THE ONES SHOWN FOR BRIDGE NO. 42635 MAY BE USED FOR THIS STRUCTURE. IF THE CONTRACTOR CHOOSES TO DO SO, HE/SHE MUST SUBMIT REVISED PIER DETAILS FOR REVIEW AND APPROVAL. REVIEW TIME SHALL BE THREE WEEKS. "THE REVISED PIER DESIGN PACKAGE WOULD REQUIRE DESIGN CALCULATIONS AND REVISED DRAWINGS. AFTER APPROVAL THE CONTRACTOR WOULD BE REQUIRED TO REVISE THE PLANS AND PROVIDE "AS-BUILT DRAWINGS" TO REFLECT ALL THE CHANGES SUCH AS QUANTITIES, REINFORCING STEEL, PIER DETAILS, ETC. THIS CHANGE SHALL INCLUDE ALL SUCH WORK AND SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE STATE."



DESIGNED	DRAWN	REVIEWED	DATE
FAO	RTP	JN	10/24/00
CHECK'D	REVISED	STRUCTURE FILE NUMBER	0501190
REK	-		

GENERAL NOTES
BRIDGE NO. ATH-33-41030
OVER PRATTS FORK CREEK

ATH-33-40.981

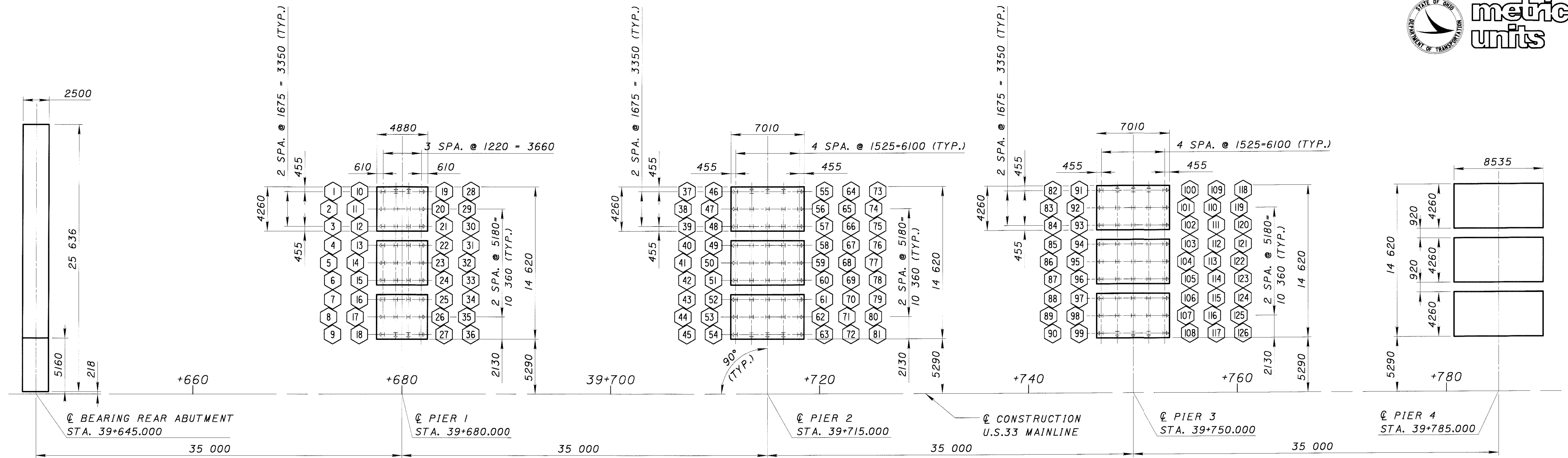
ESTIMATED QUANTITIES

 CALC. BY: FAQ DATE: 10-10-00
 CHKD. BY: REK DATE: 10-11-00

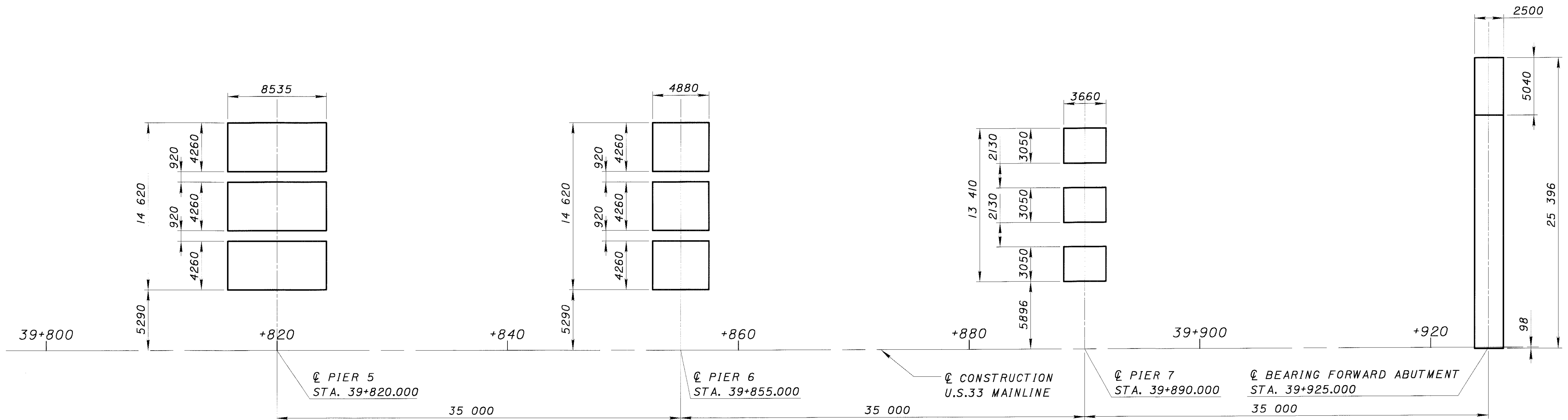
ITEM	ITEM EXTENSION	TOTAL	METRIC UNITS	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL
203	20000	800	CU. M	EMBANKMENT	800			
503	11100	LUMP	LUMP	COFFERDAMS, CRIBS AND SHEETING				LUMP
503	21101	2338	CU. M	UNCLASSIFIED EXCAVATION, AS PER PLAN	514	1824		
503	31100	1171	CU. M	ROCK EXCAVATION	757	95		
505	11100	LUMP	LUMP	PILE DRIVING EQUIPMENT MOBILIZATION				LUMP
507	00300	864	M	STEEL PILES HP360X108, FURNISHED		864		
507	00350	675	M	STEEL PILES HP360X108, DRIVEN		675		
507	50500	64	EACH	STEEL PILE SPLICES		64		
507	93301	126	EACH	STEEL POINT (OR SHOE), AS PER PLAN		126		
SPECIAL	51267510	3815	SQ. M	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	164		3651	
516	11210	31	M	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	31			
516	44201	60	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (380x380x87), AS PER PLAN		60		
516	44401	12	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (560x560x171), AS PER PLAN	12			
516	44401	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (450x450x135), AS PER PLAN		24		
518	21200	122	CU. M	POROUS BACKFILL WITH FILTER FABRIC	122			
518	40000	51	M	150 MM PERFORATED CORRUGATED PLASTIC PIPE	51			
518	40010	20	M	150 MM NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	20			
601	32200	116	CU. M	ROCK CHANNEL PROTECTION, TYPE C, WITH FILTER	116			
841	10000	4378	SQ. M	TREATING OF CONCRETE SURFACES, SRS			4378	
842	31509	173	CU. M	CLASS S CONCRETE, SUPERSTRUCTURE (PARAPETS), AS PER PLAN *			173	
842	41001	1153	CU. M	CLASS C CONCRETE, PIER ABOVE FOOTINGS (CAP AND COLUMN), AS PER PLAN		1153		
842	44101	104	CU. M	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	104			
842	46001	37	CU. M	CLASS C CONCRETE (WINGWALL ABOVE FOOTING), AS PER PLAN	37			
842	46501	790	CU. M	CLASS C CONCRETE, FOOTING, AS PER PLAN	122	668		
865	15050	48	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 MOD. (1830 MM)			48	
865	16000	120	EACH	PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, MISC.: CONCRETE INTERMEDIATE DIAPHRAGMS, AS PER PLAN			120	
894	10001	1236	CU. M	HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN **			1236	

* PARAPET ON APPROACH SLAB IS INCLUDED WITH THIS PAY ITEM

** INCLUDES CONCRETE FOR PIER AND ABUTMENT DIAPHRAGMS



PLAN N



PLAN N

LEGEND

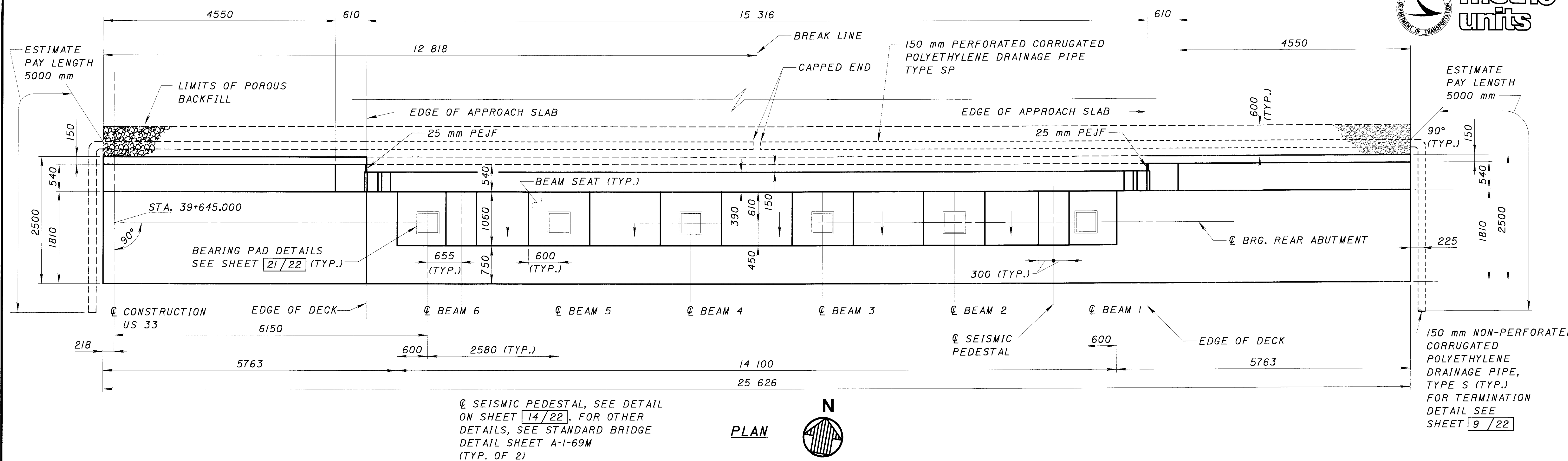
⊥ VERTICAL HP360x108 STEEL PILES.
⊥:4 BATTERED HP360x108 STEEL PILES.

DESIGNED	FAO	CHECKED	ZZZ
DRAWN	RTP	REVISED	RVS
REVIEWED	JN	DATE	10/24/00
STRUCTURE FILE NUMBER	050190		

FOUNDATION PLAN
BRIDGE NO. ATH-33-41030
OVER PRATTS FORK CREEK

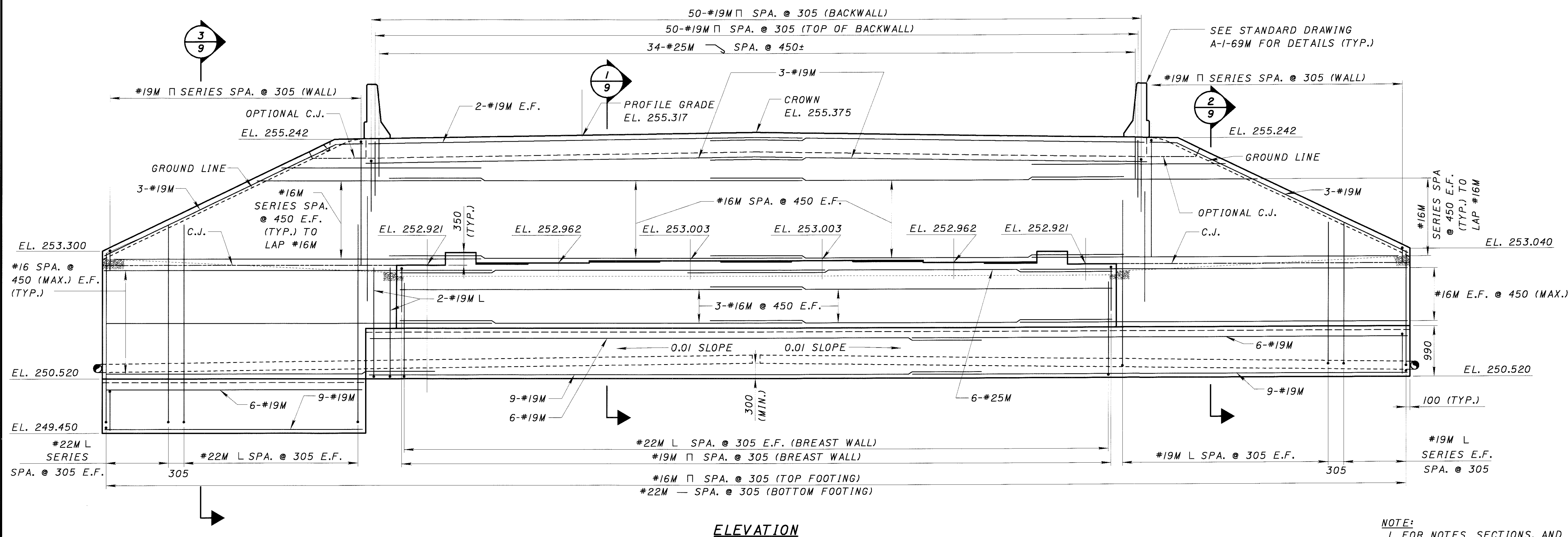
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Ø SEISMIC PEDESTAL, SEE DETAIL ON SHEET [14 / 22], FOR OTHER DETAILS, SEE STANDARD BRIDGE DETAIL SHEET A-1-69M (TYP. OF 2)

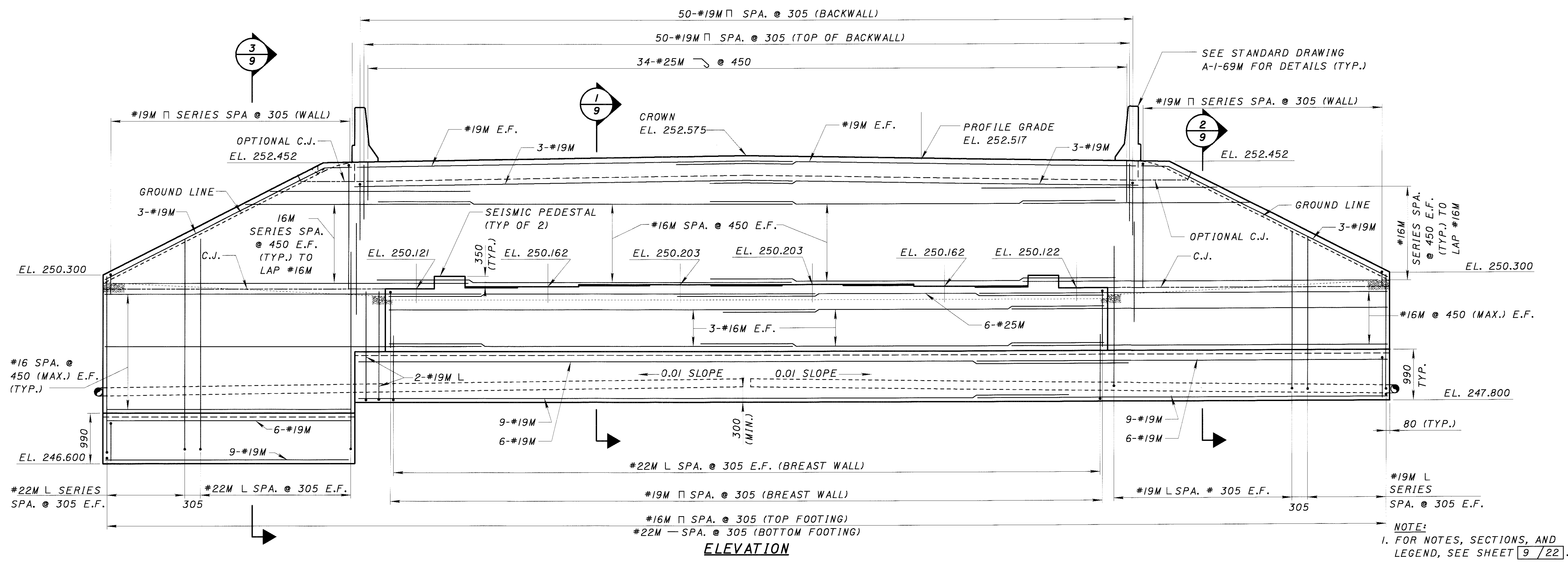
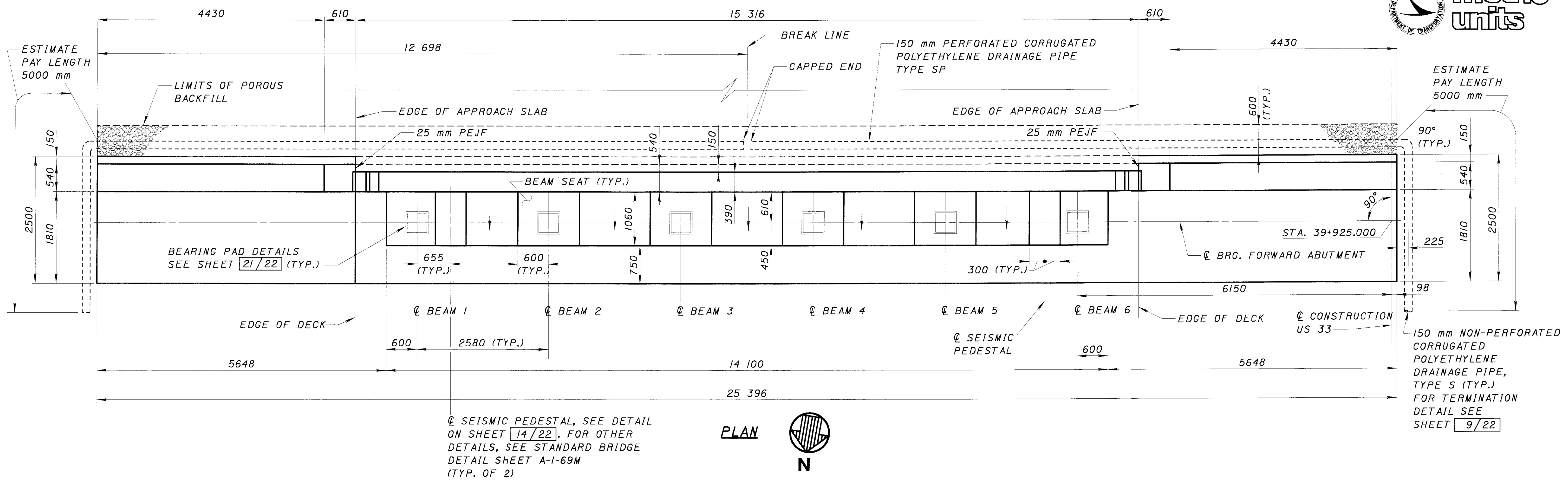
PLAN



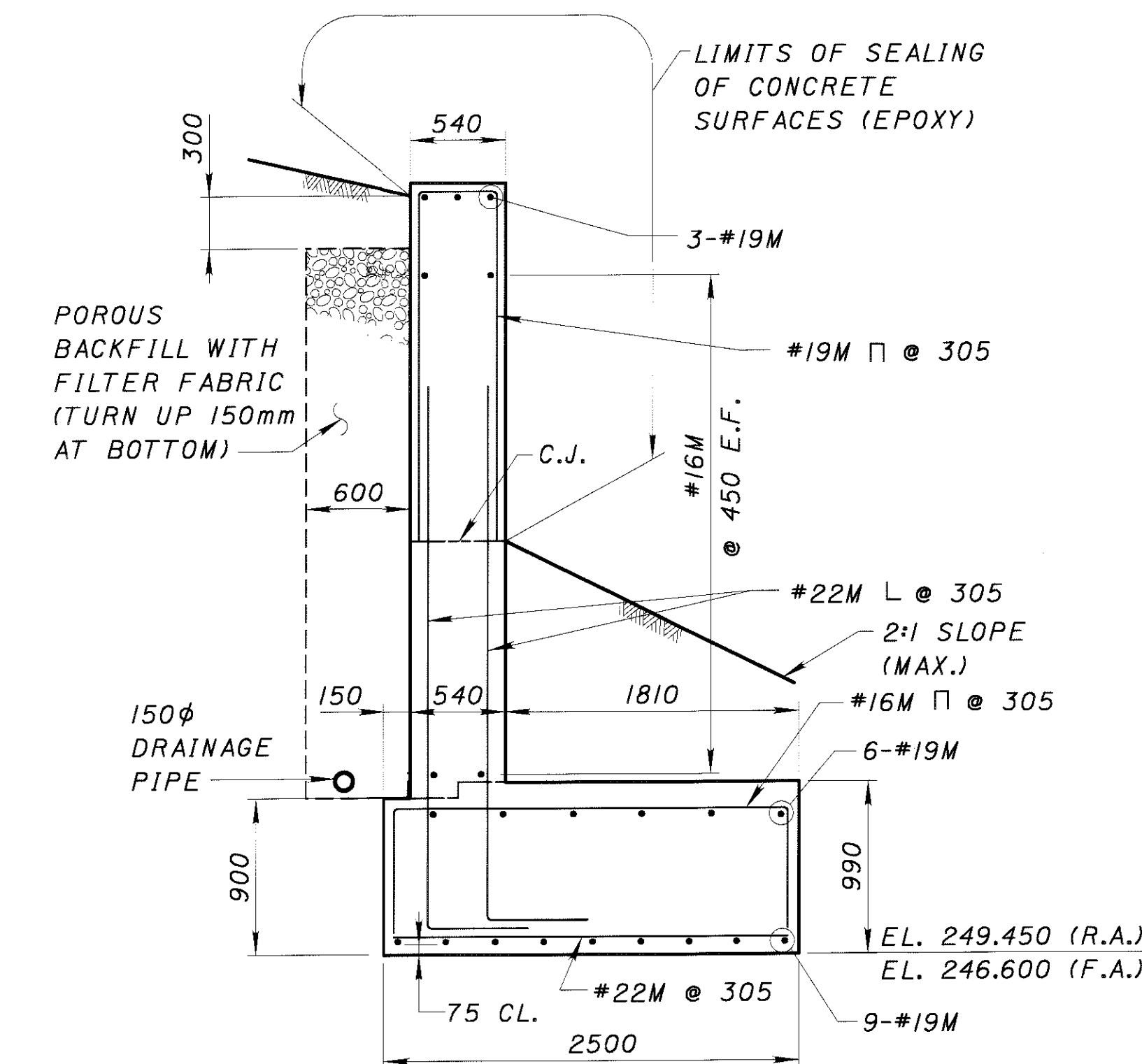
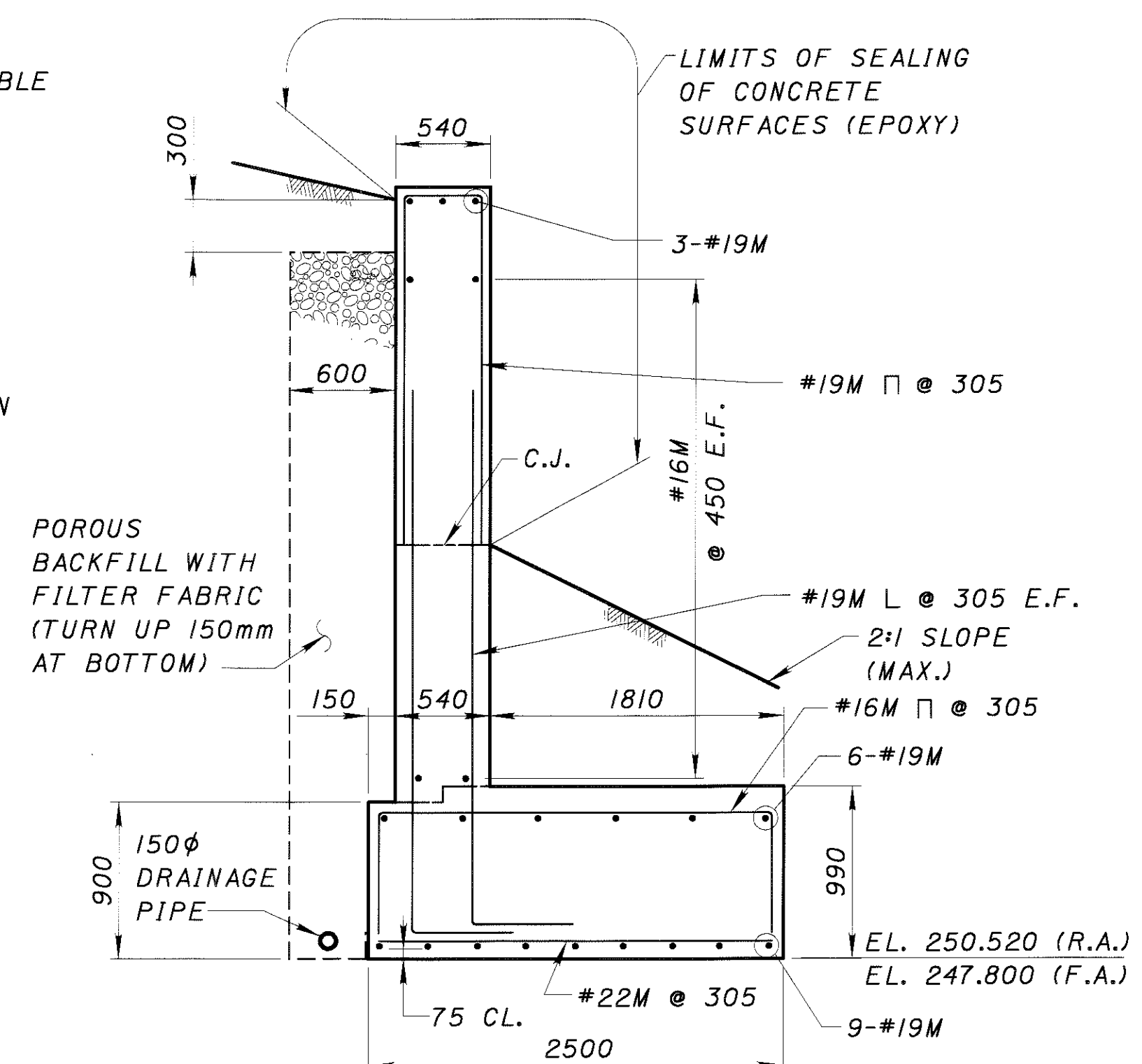
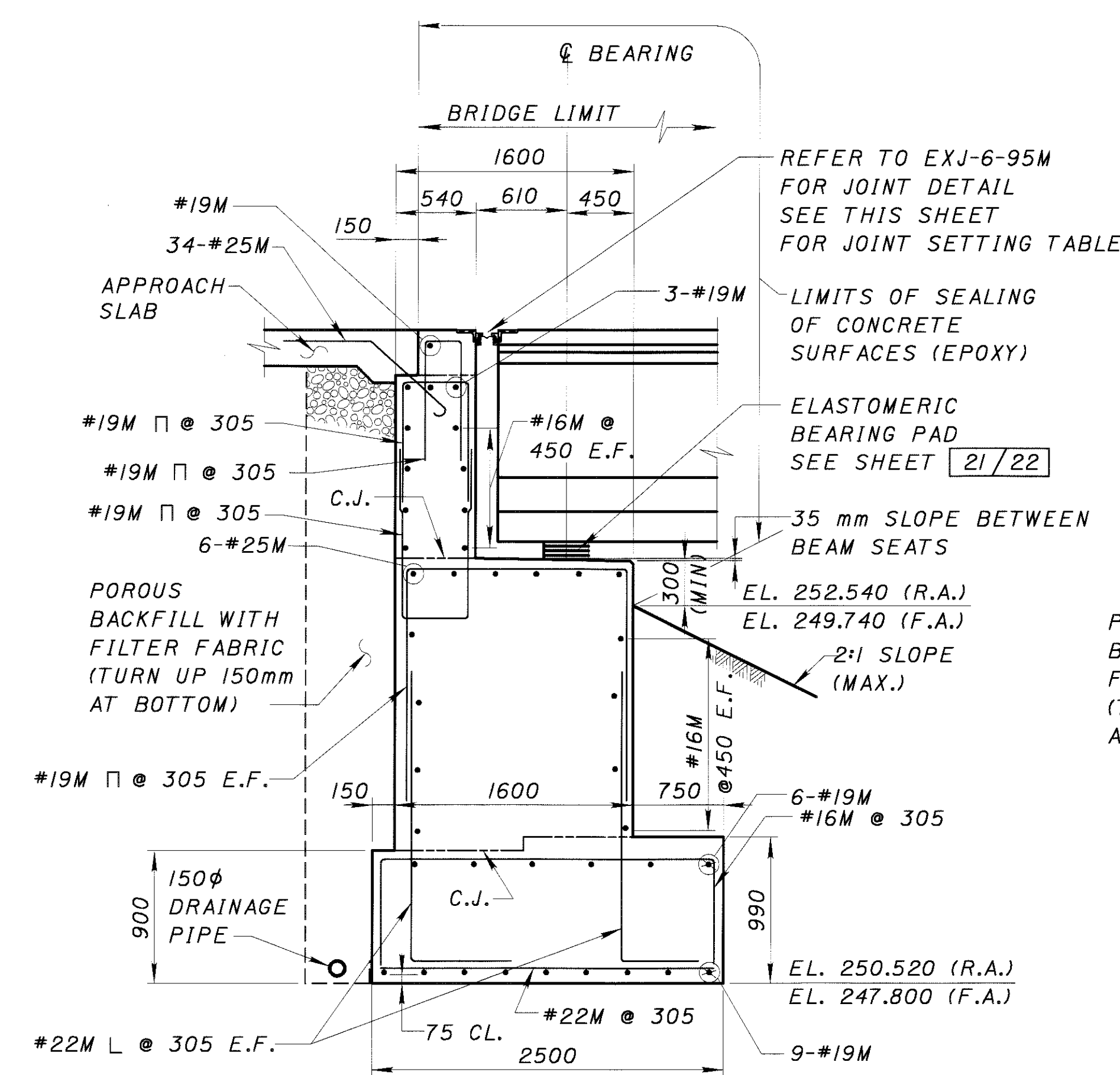
ELEVATION

NOTE:
1. FOR NOTES, SECTIONS, AND LEGEND, SEE SHEET [9 / 22].

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02/06/01
11:45:54 AM
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LEGEND
 C = CENTERLINE
 C/C = CENTER TO CENTER
 C.J. = CONSTRUCTION JOINT
 CL. = CLEAR
 φ = DIAMETER
 E.F. = EACH FACE
 EL. = ELEVATION
 MIN. = MINIMUM
 OPT. = OPTIONAL
 PEJF = PREFORMED EXPANSION JOINT FILLER
 STA = STATION
 SPA = SPACES
 TYP. = TYPICAL
 STD. = STANDARD
 DWG. = DRAWING

- NOTES:**
- FOR REAR ABUTMENT PLAN AND ELEVATION, SEE SHEET 7/22.
 - ALL REINFORCING STEEL SHALL BE PLACED TO PROVIDE A MINIMUM COVER OF 50 mm UNLESS OTHERWISE SHOWN.
 - POROUS BACKFILL WITH FILTER 600 mm THICK SHALL EXTEND UP TO THE PLANE OF THE OF THE SUBGRADE, 300 mm BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE END OF THE WINGWALLS.
 - THE SEALING OF CONCRETE SURFACE SHALL BE SEALED WITH EPOXY-URETHANE SEALER.
 - REINFORCING LAP LENGTH AND DEVELOPMENT LENGTH.

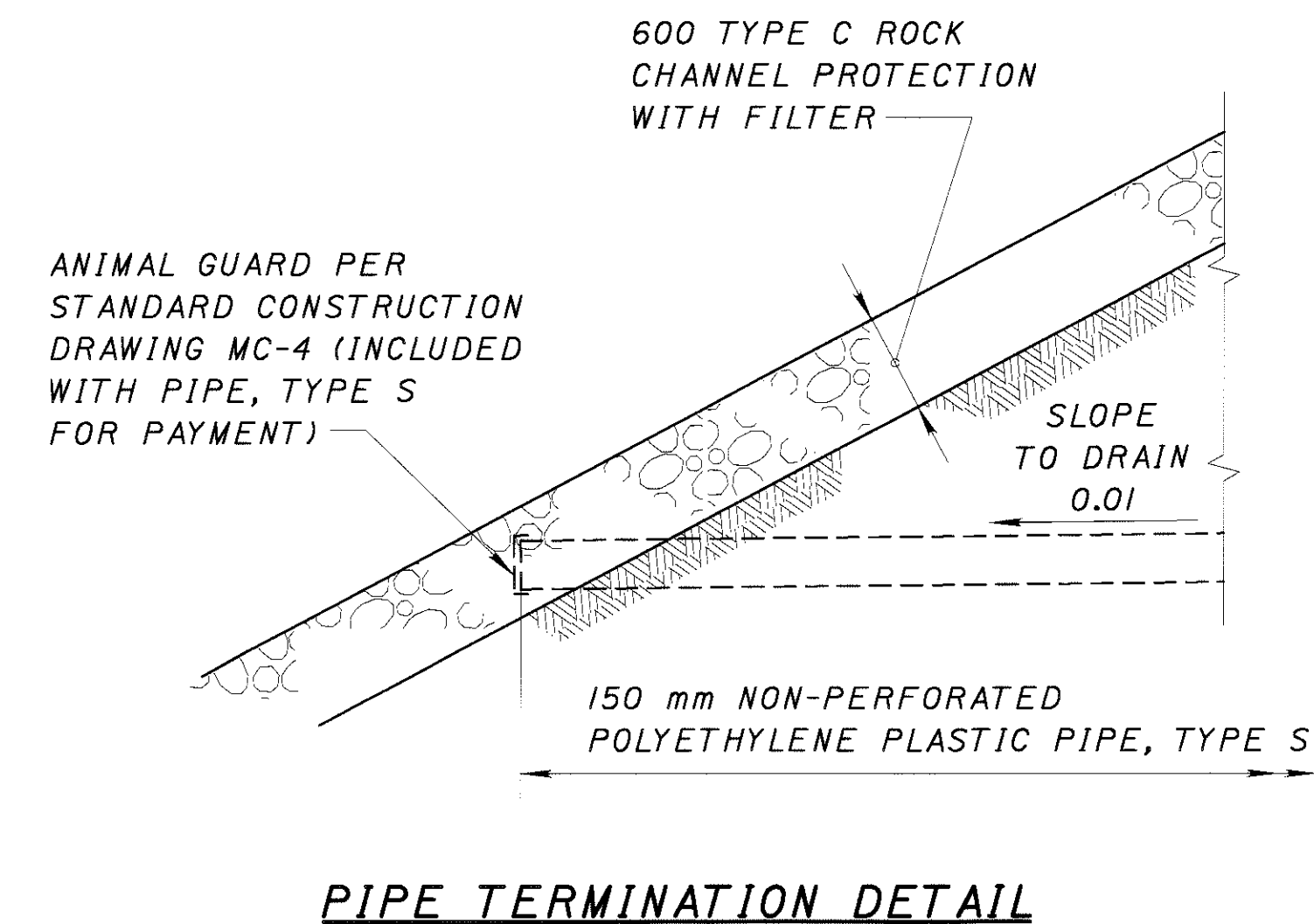
TYPE	LAP LENGTH		DEVELOPMENT LENGTH
	TOP	OTHER	
#16M	1040	740	445
#19M	1245	890	530
#22M	1575	1120	660
#25M	2085	1500	1110

- REFER TO AS-1-81M AND SHEET 22/22 FOR APPROACH SLAB DETAILS.
- REFER TO BR-1M FOR PARAPETS REINFORCEMENT.

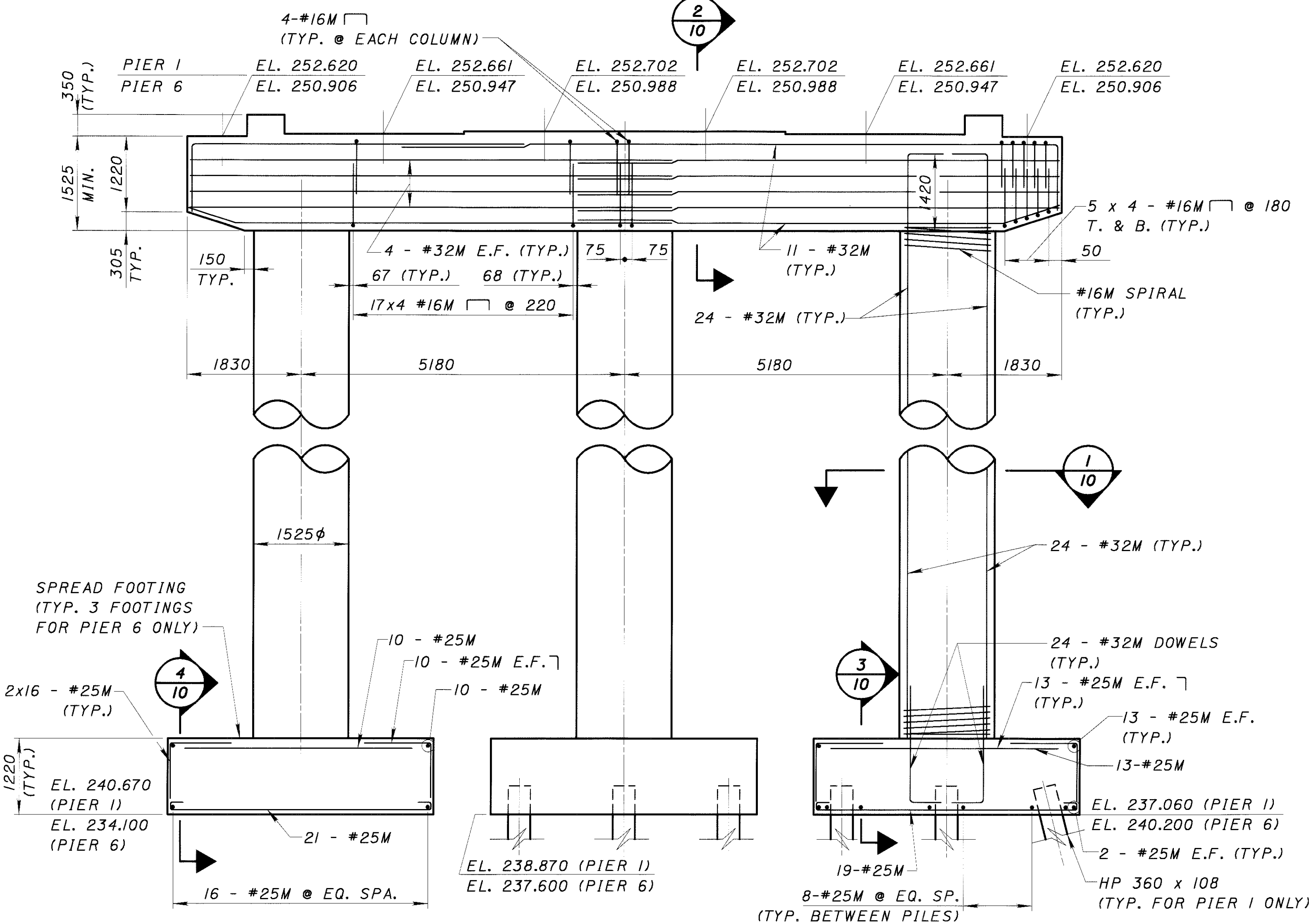
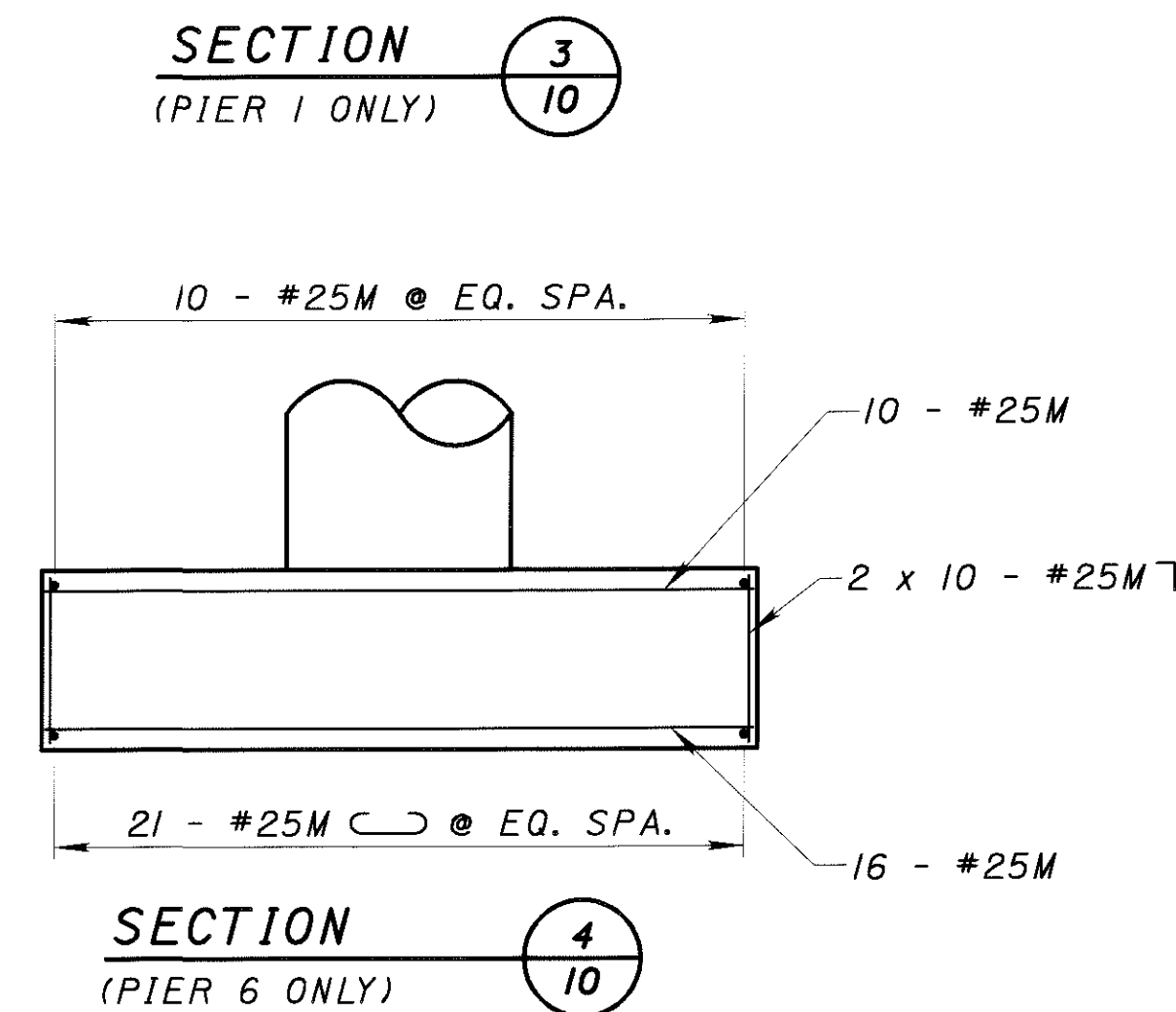
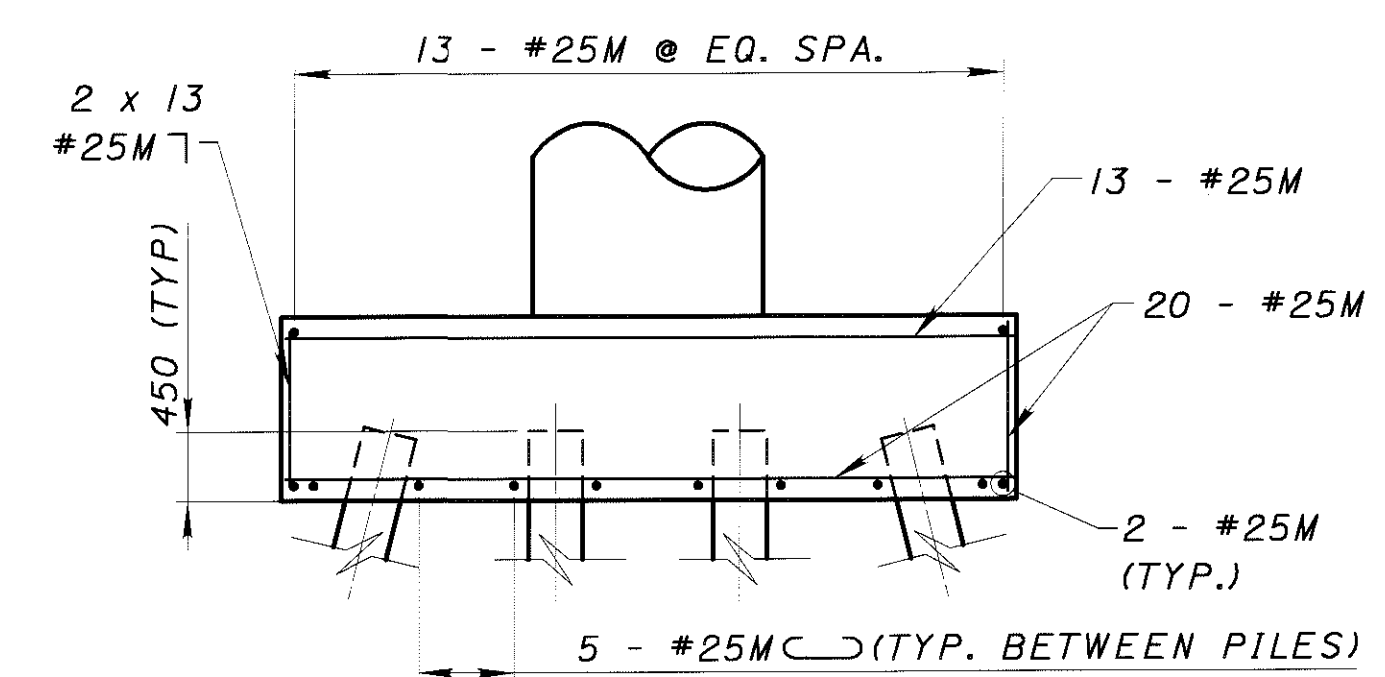
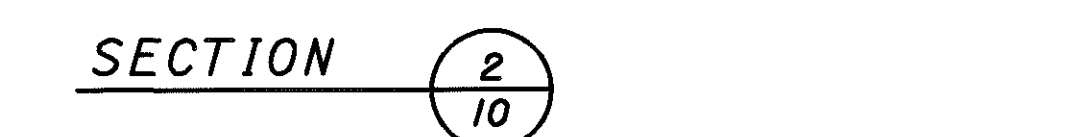
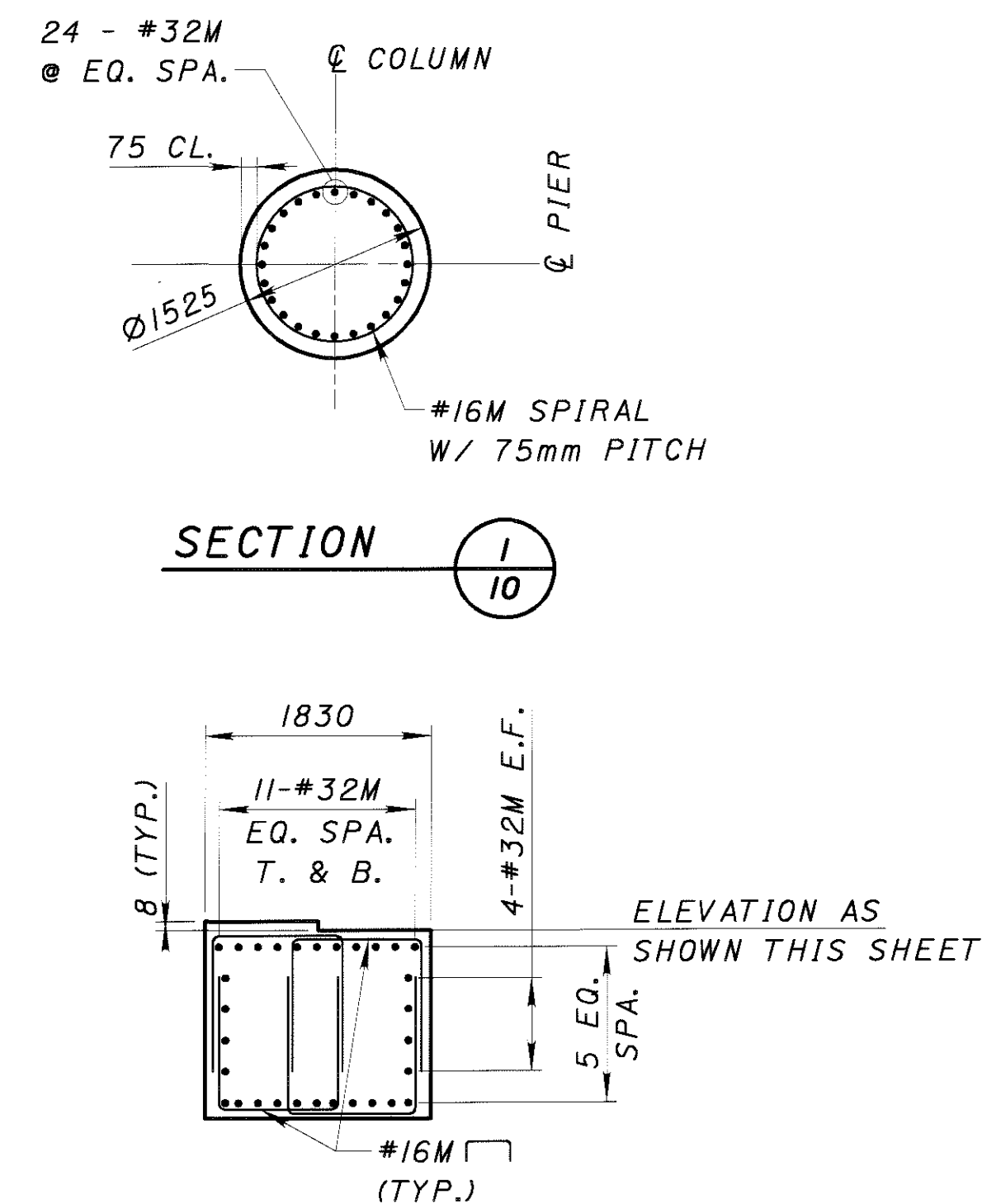
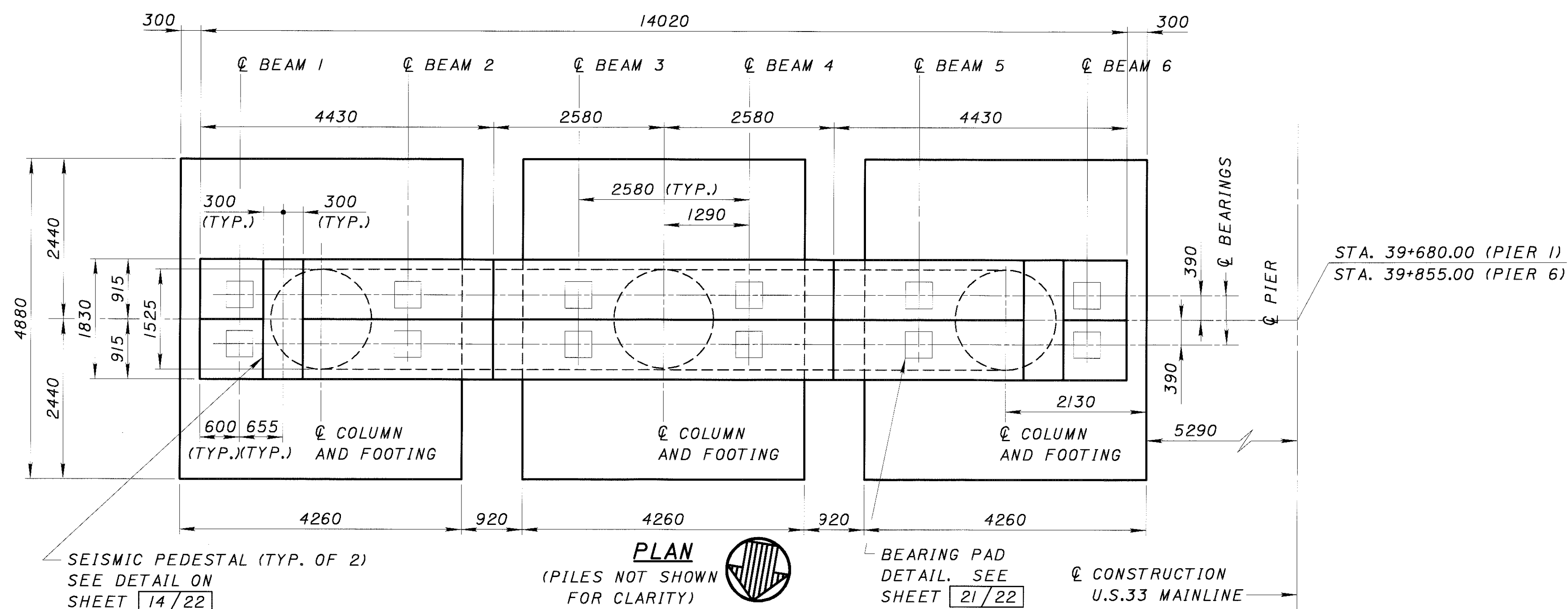
EXPANSION JOINT SETTING TABLE

ANTICIPATED AMBIENT TEMPERATURE AT TIME OF JOINT INSTALLATION DEGREE CELSIUS	REQUIRED JOINT OPENING - DIM "A"	
	REAR ABUTMENT	FORWARD ABUTMENT
0	79	79
5	72	72
10	66	66
15	59	59
20	52	52
25	45	45
30	38	38
35	31	31

SEE STD. DWG EXJ-6-95M FOR EXPANSION JOINT DETAILS
 USE 170mm FOR DIMENSION "D" IN STD. DWG. EXJ-6-95M, SHEET 4/5

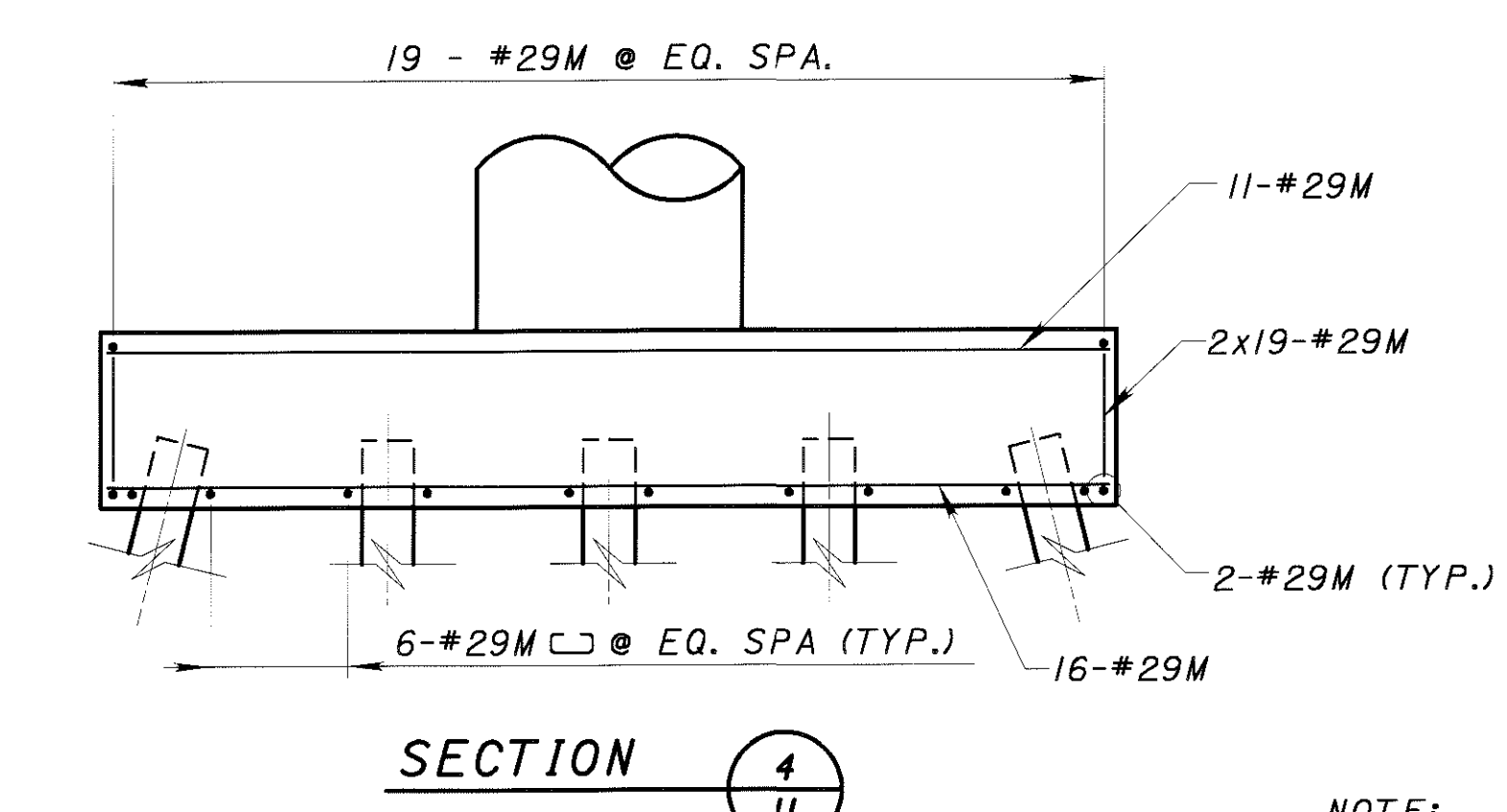
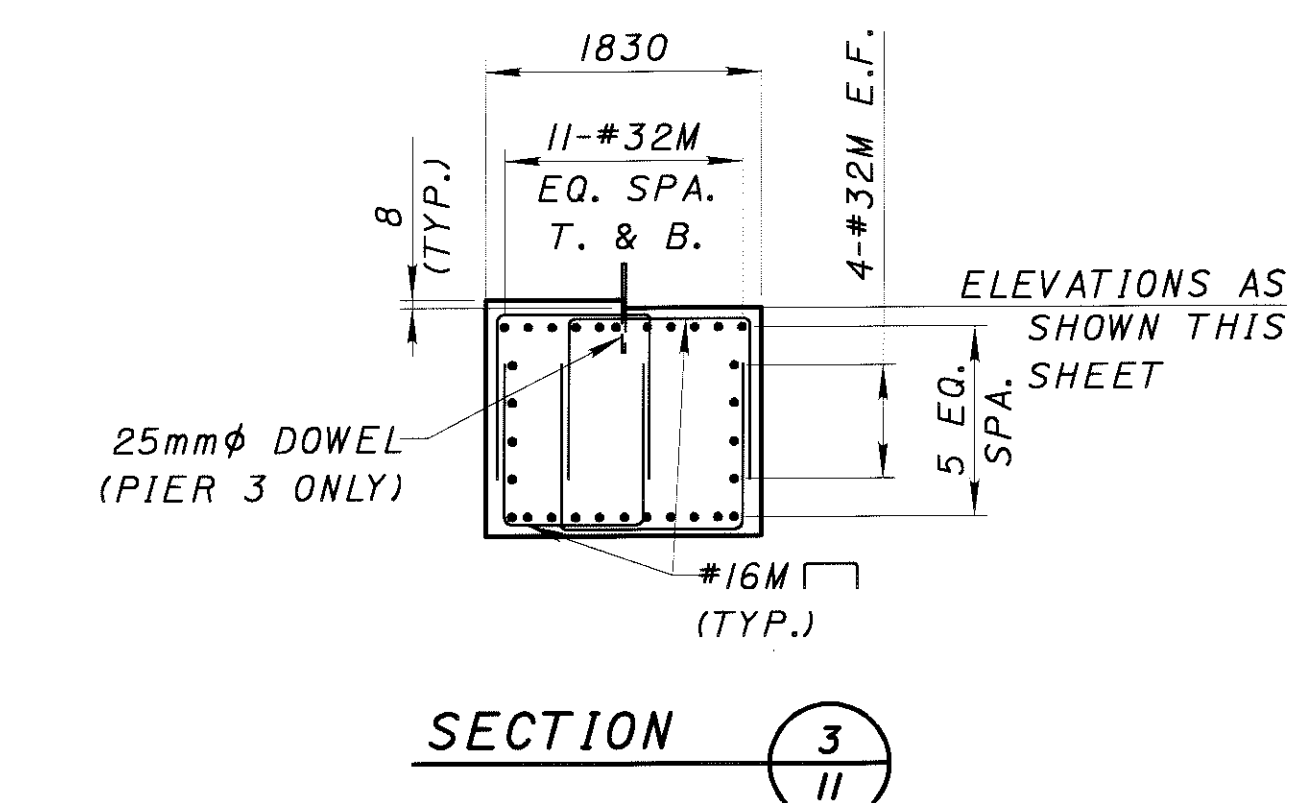
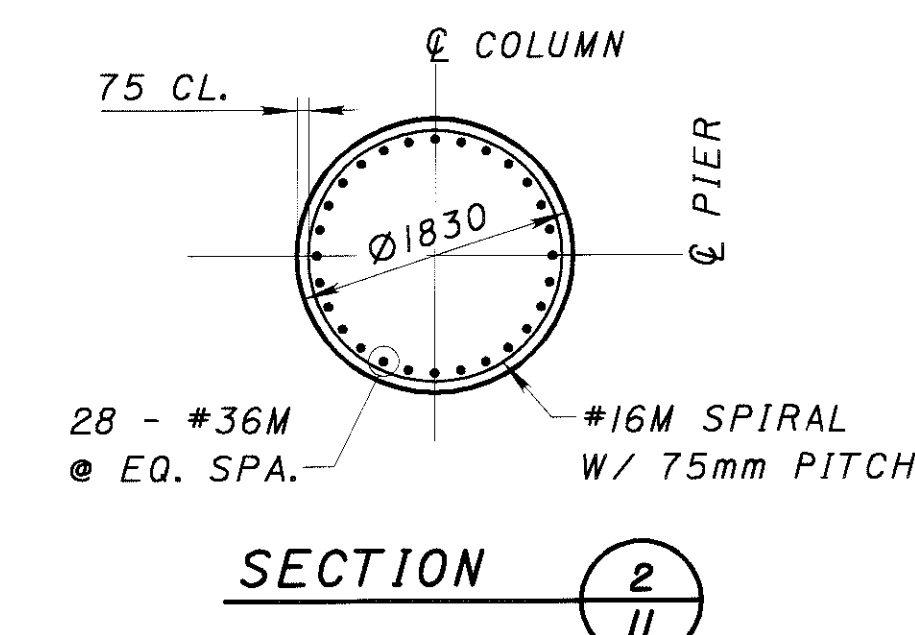
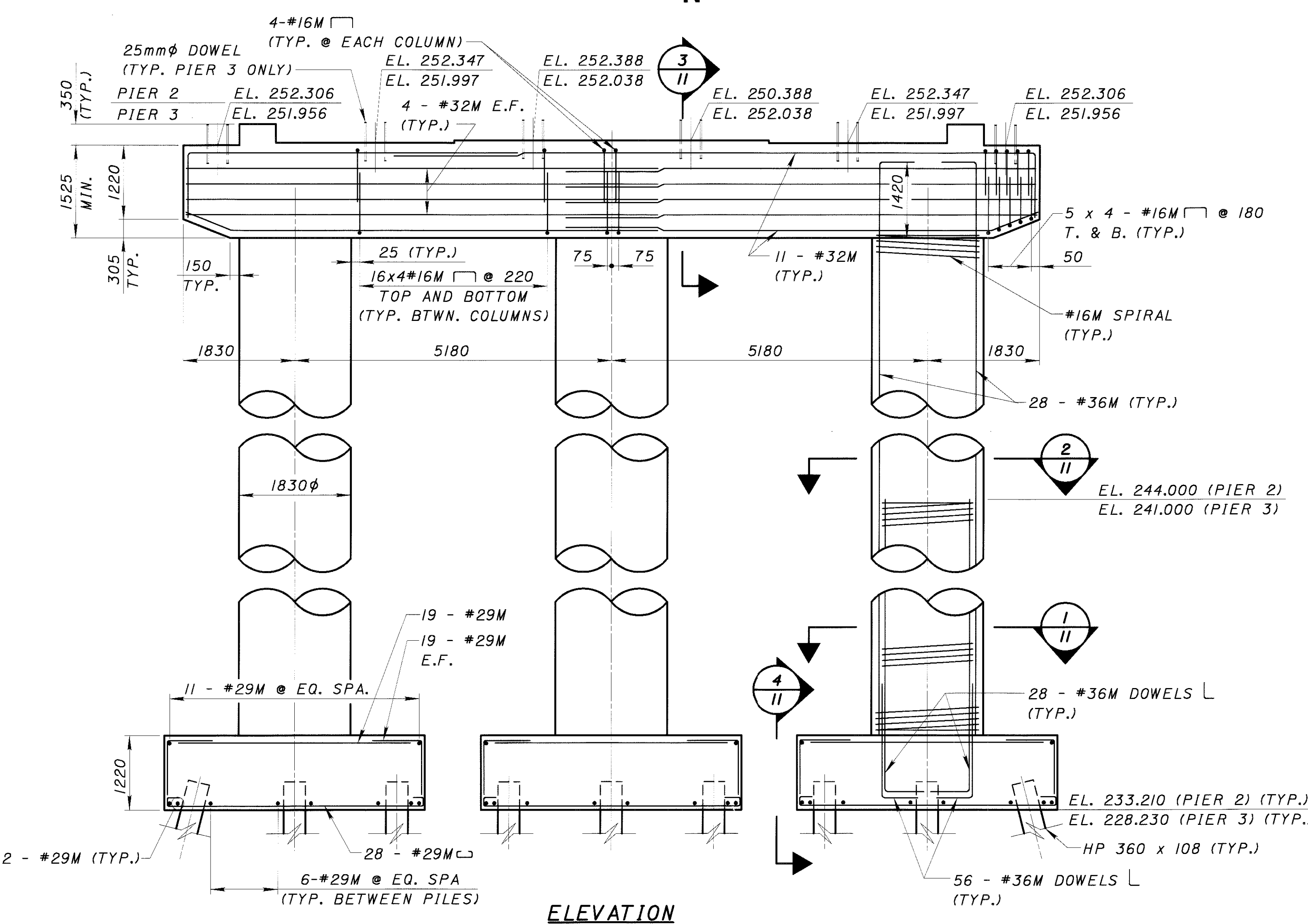
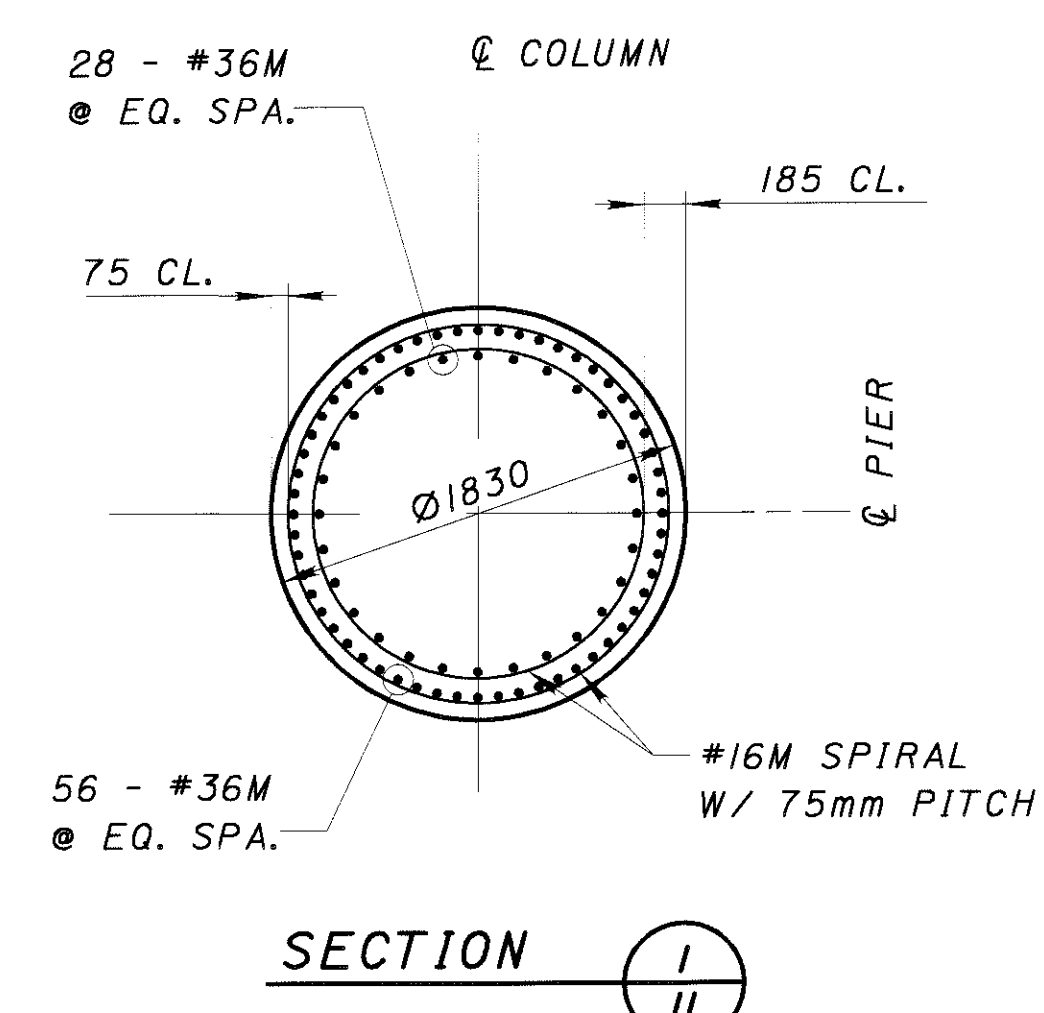
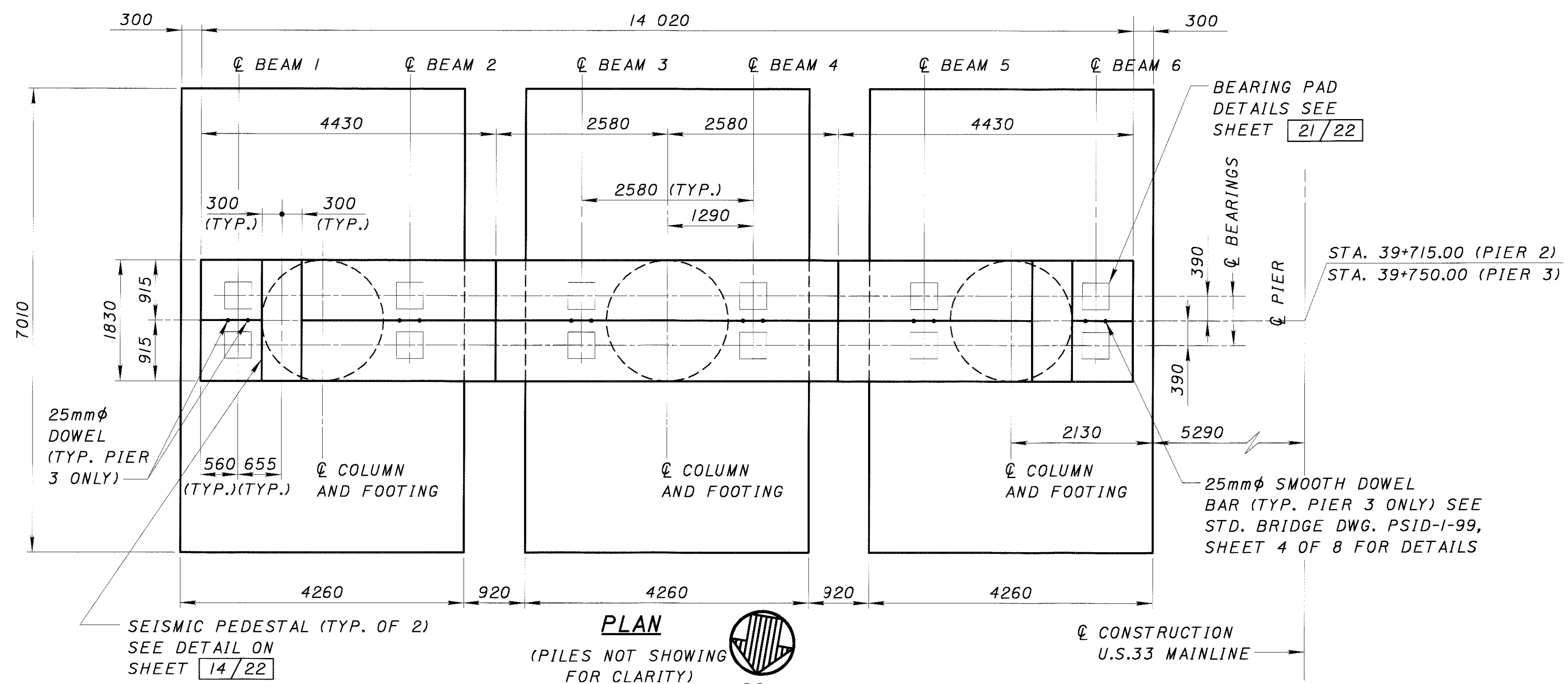


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NOTES:
 1. FOR PIER GENERAL NOTES AND LEGEND SEE SHEET 14/22.
 2. SEE SHEET 6/22 FOR PILE LAYOUT.

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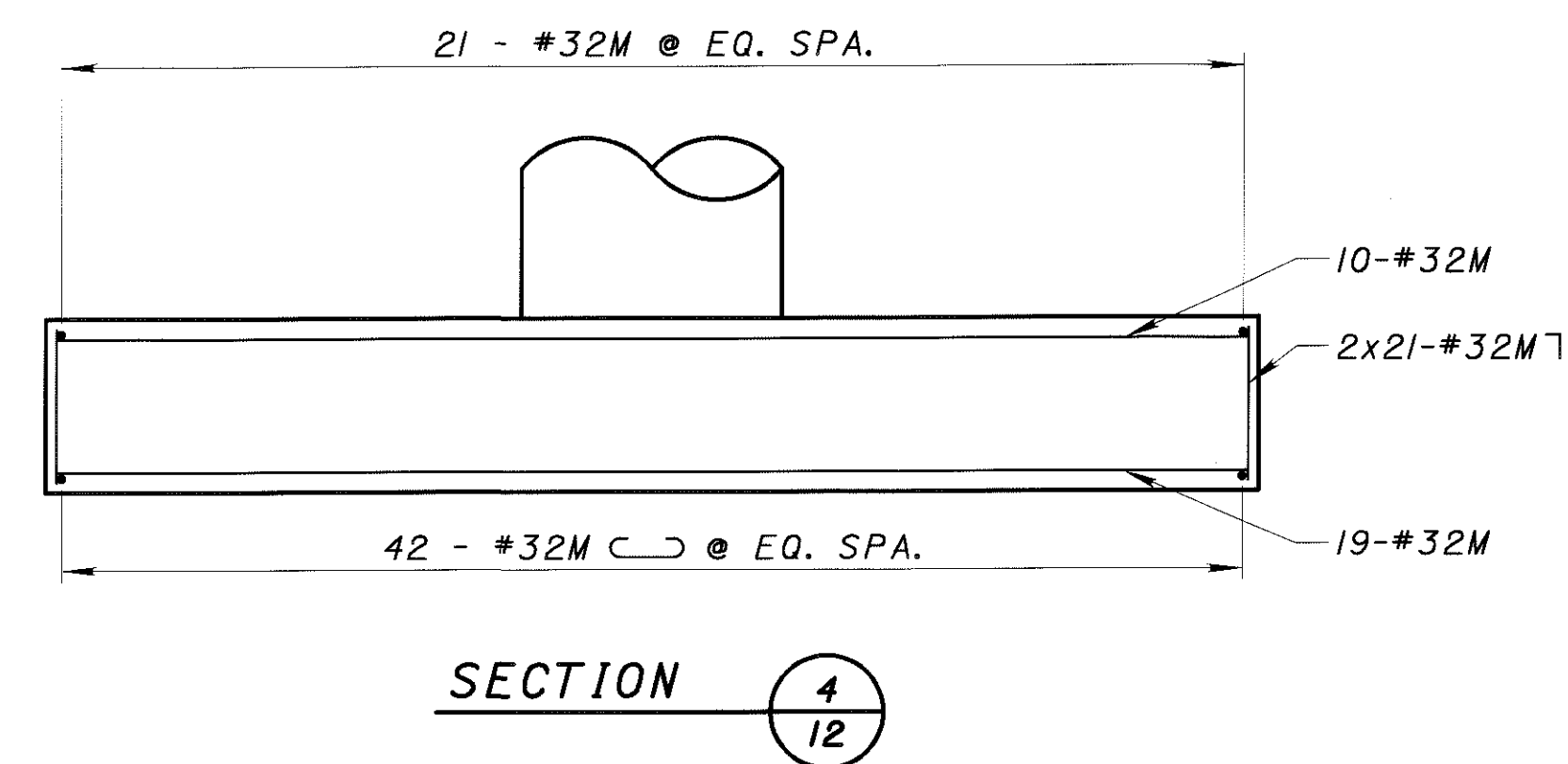
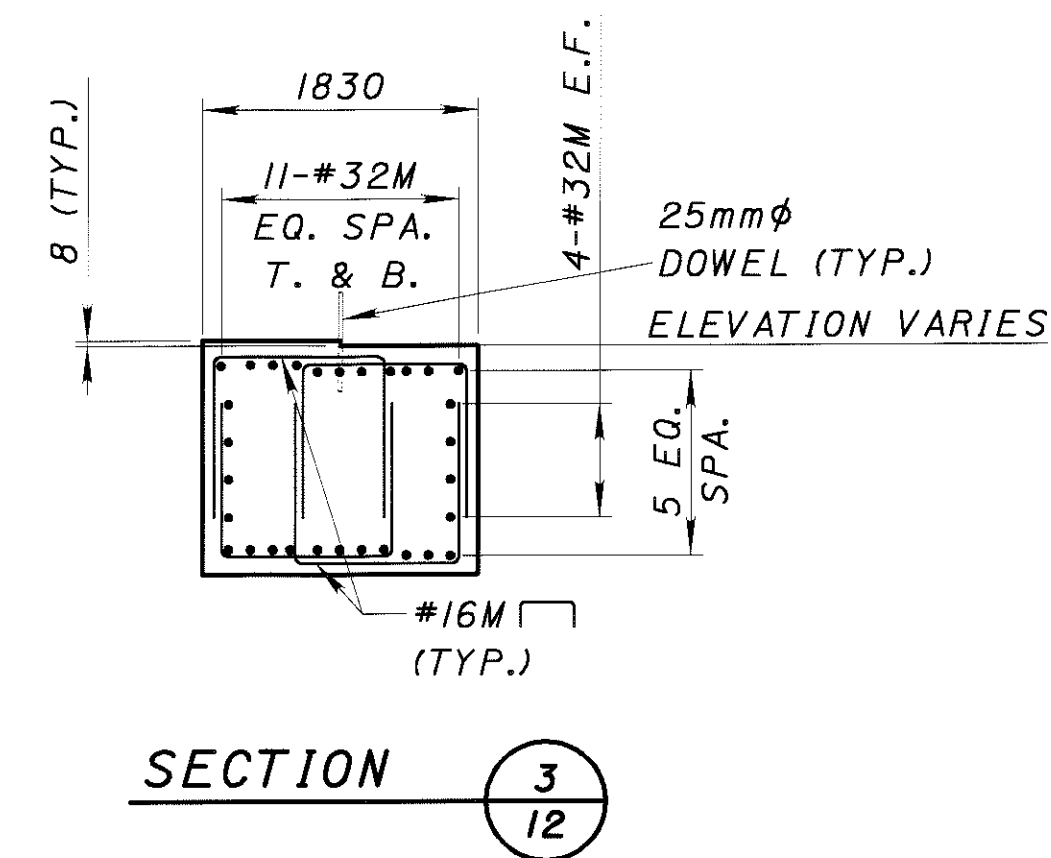
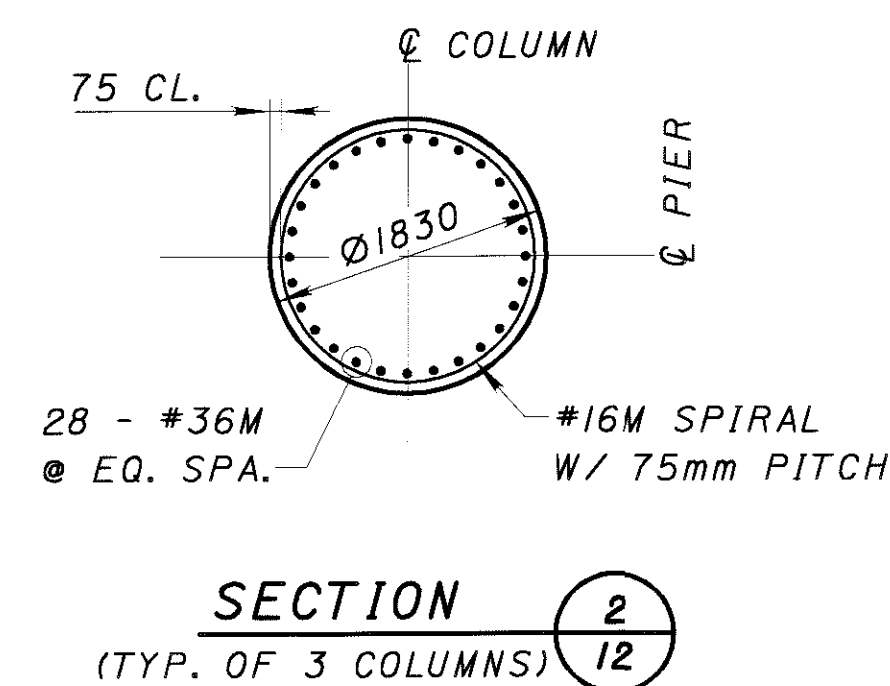
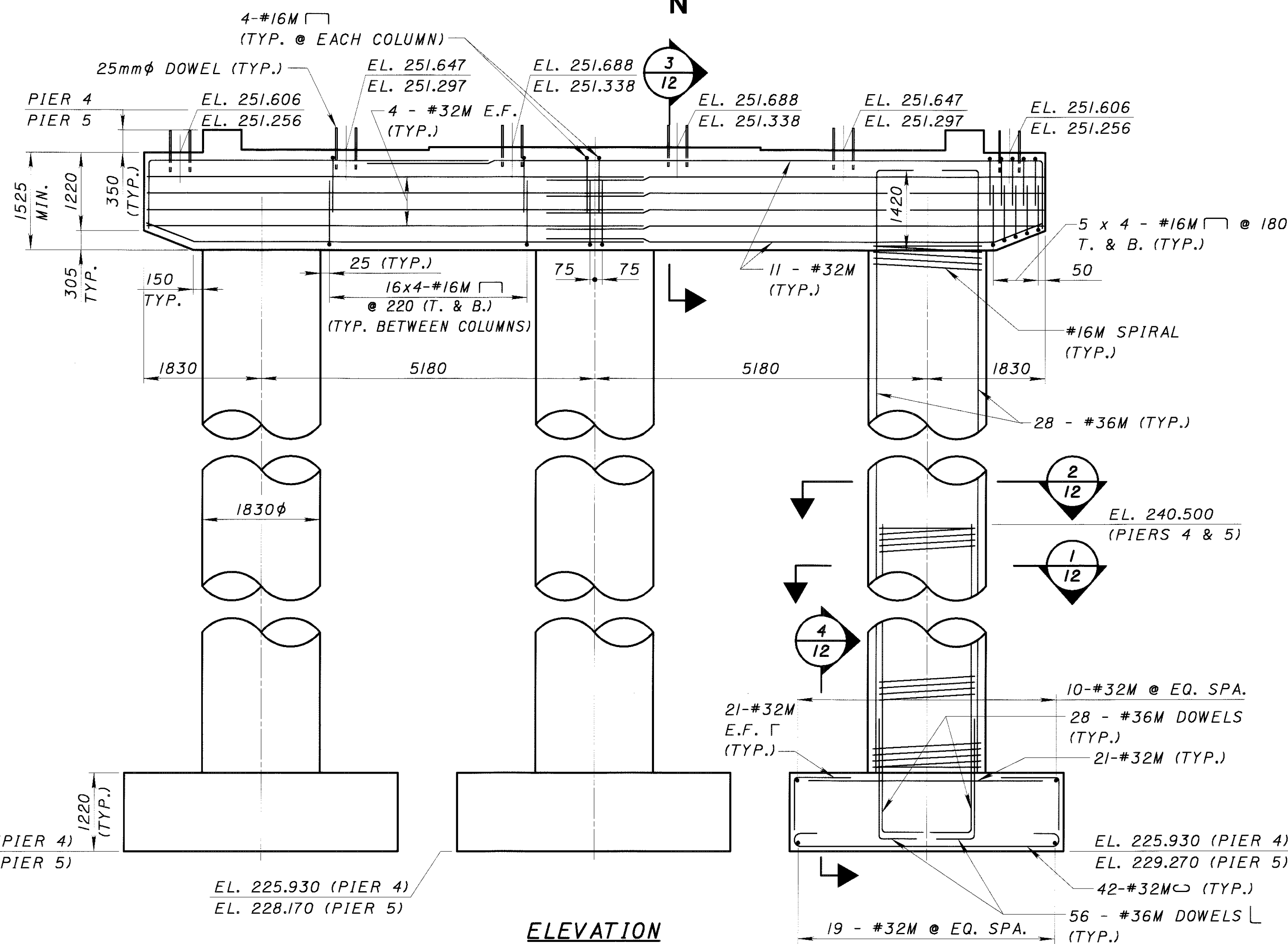
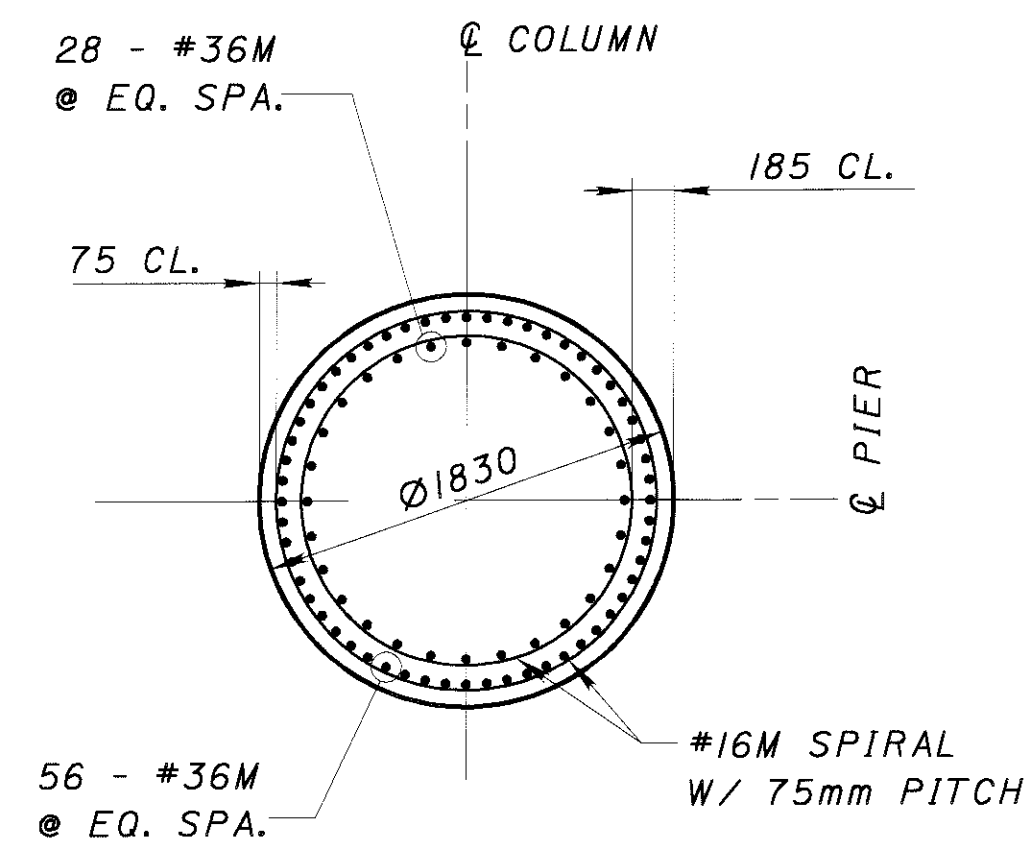
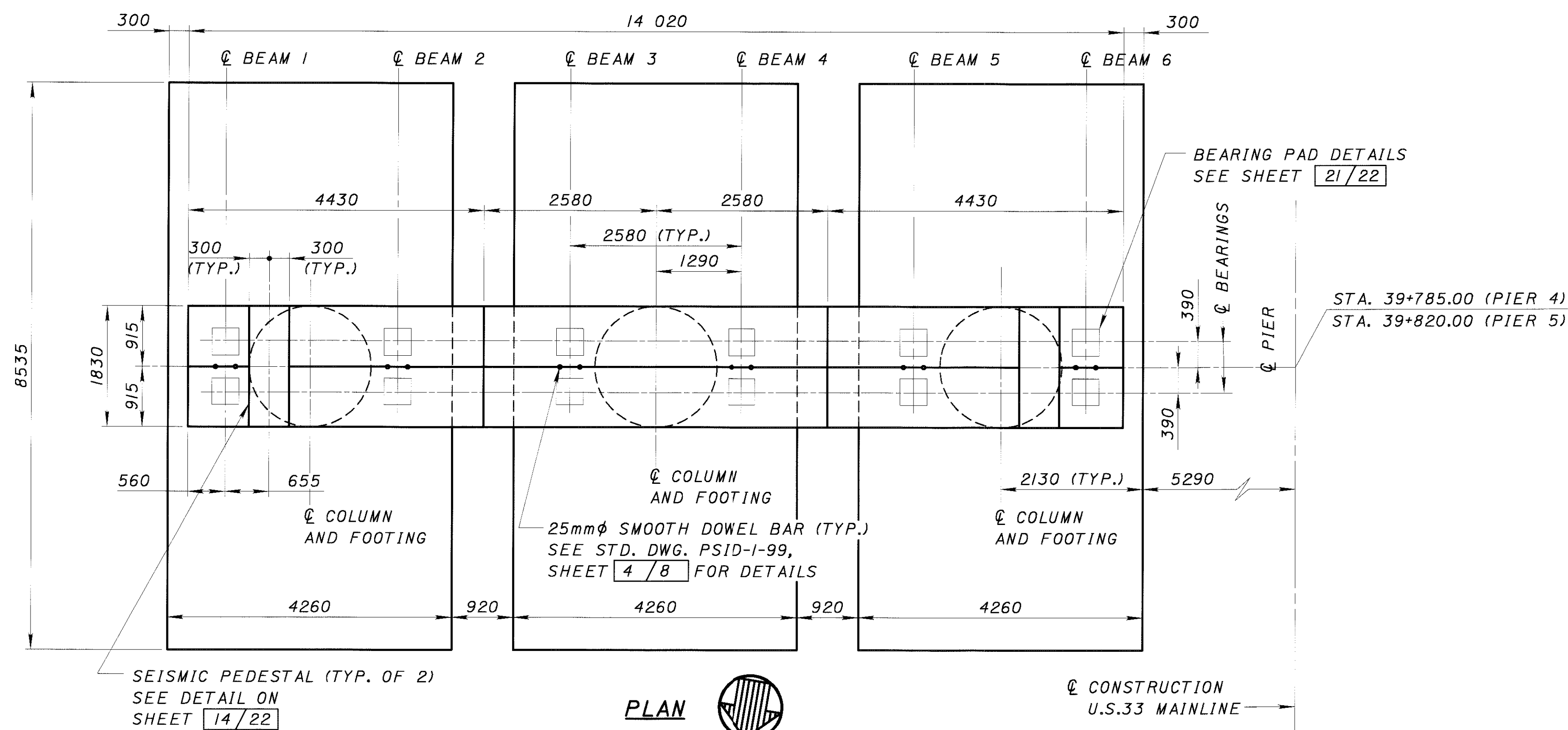


NOTE:

1. FOR PIER GENERAL NOTES AND LEGEND SEE SHEET 14/22.

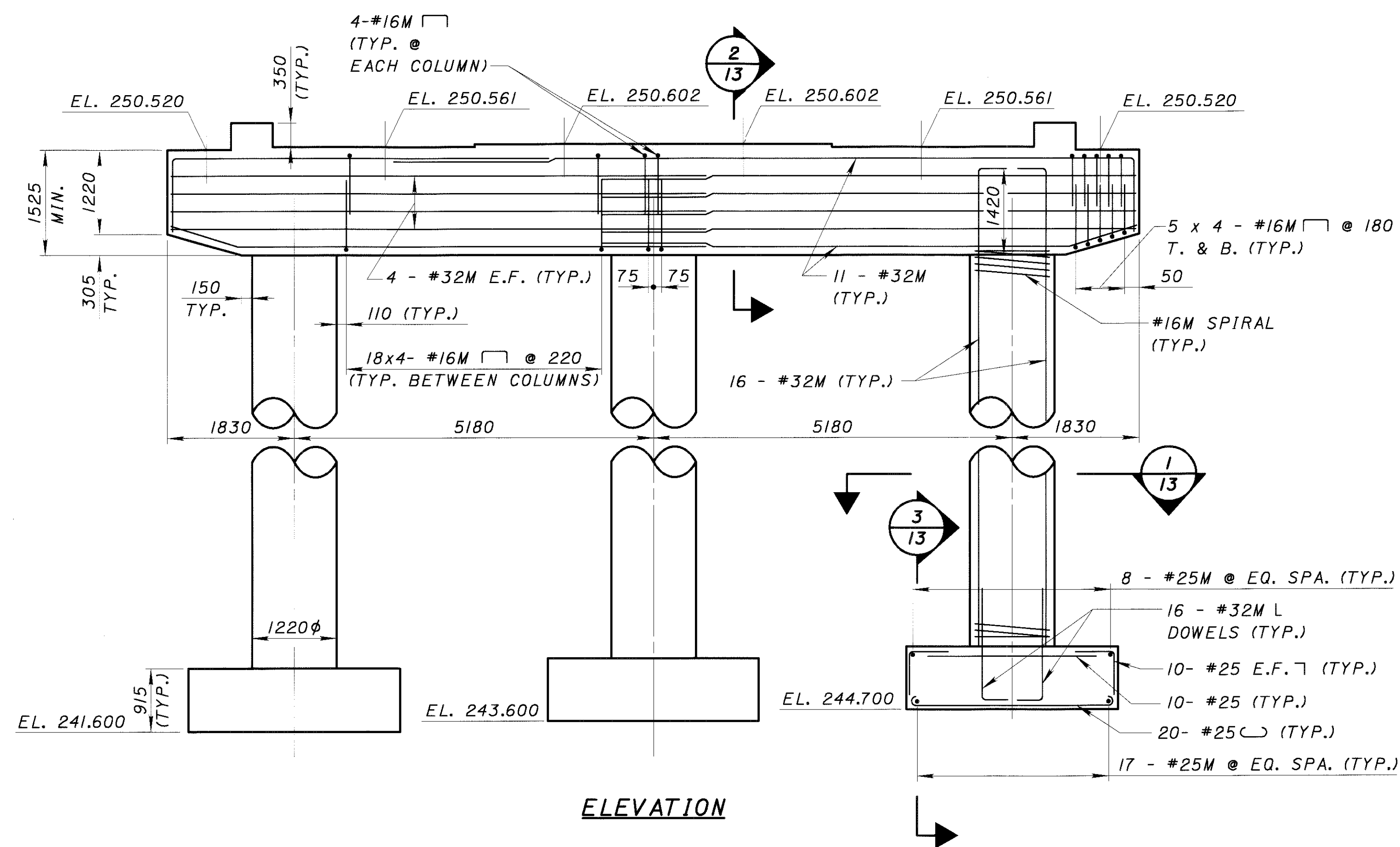
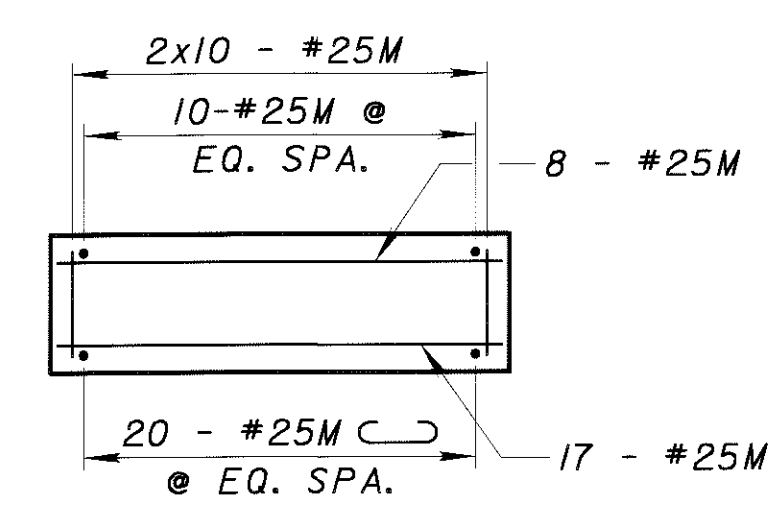
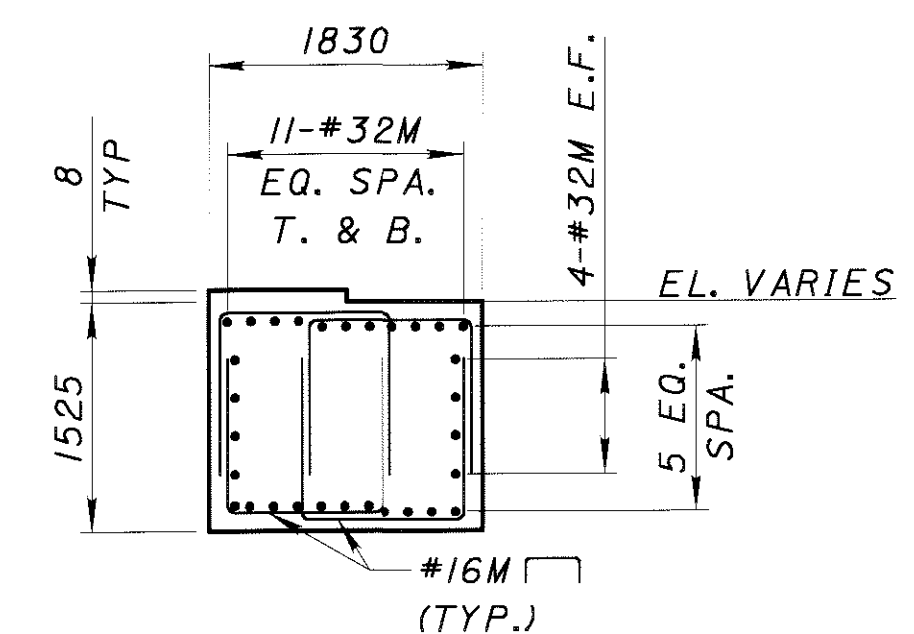
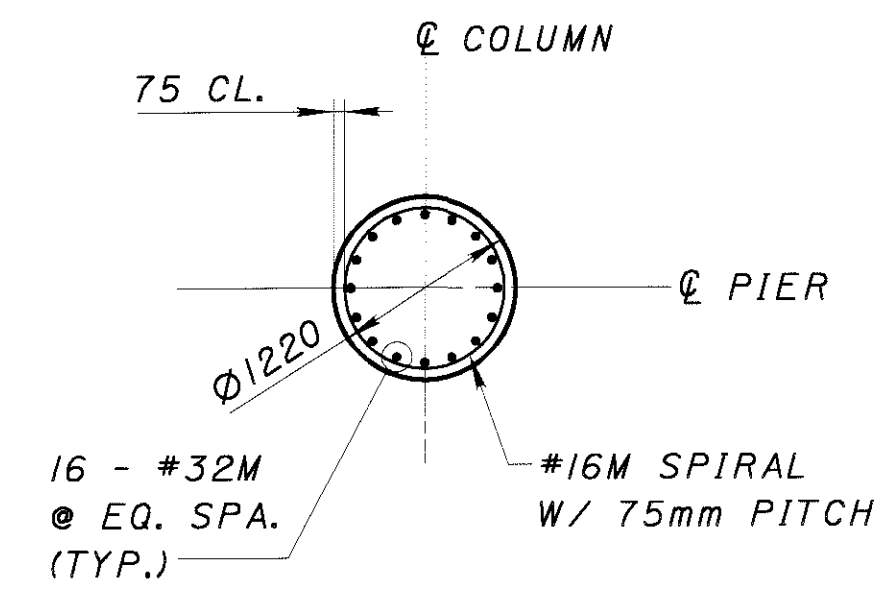
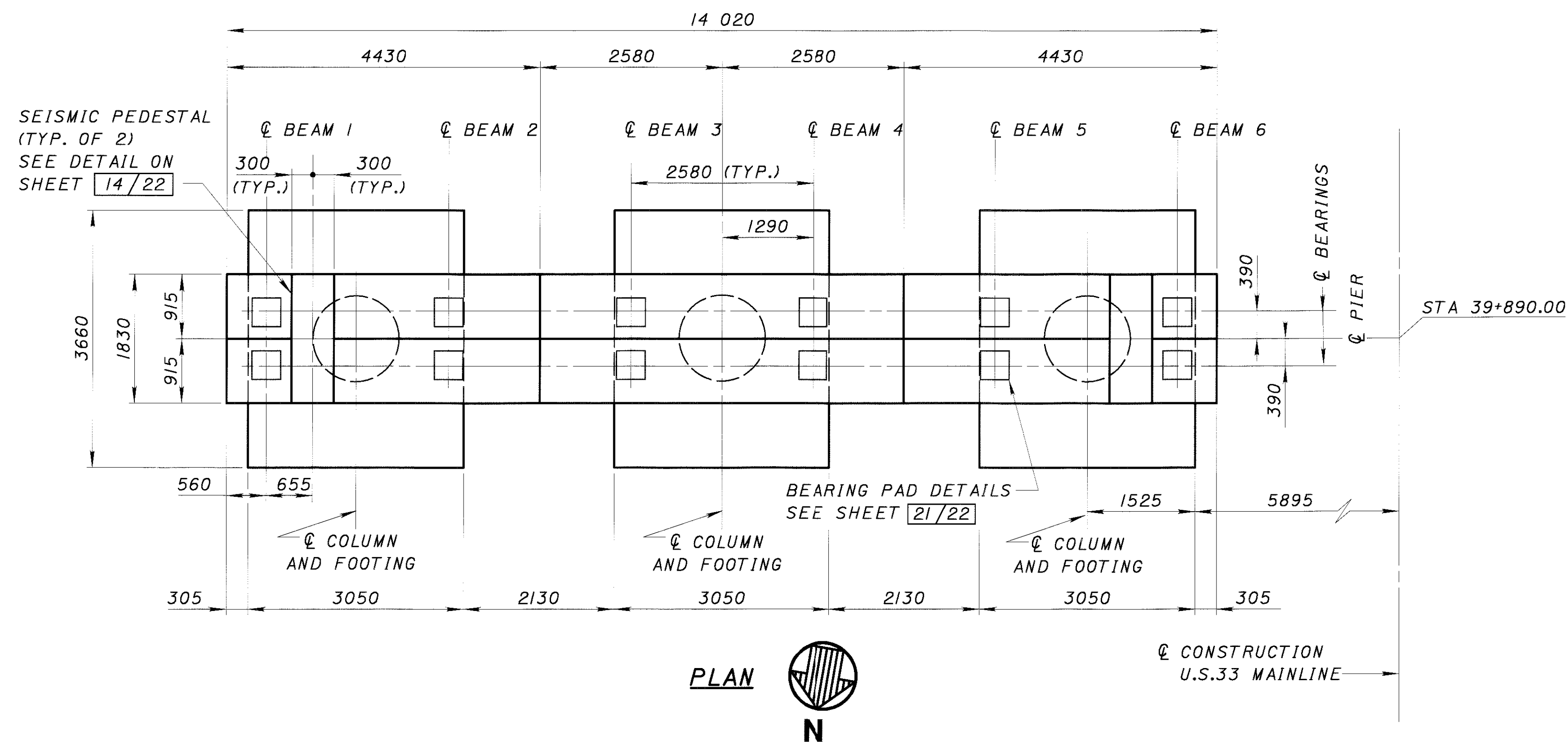
2. SEE SHEET 6/22 FOR PILE LAYOUT.

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NOTE:
 1. FOR PIER GENERAL NOTES AND LEGEND SEE SHEET 14/22.

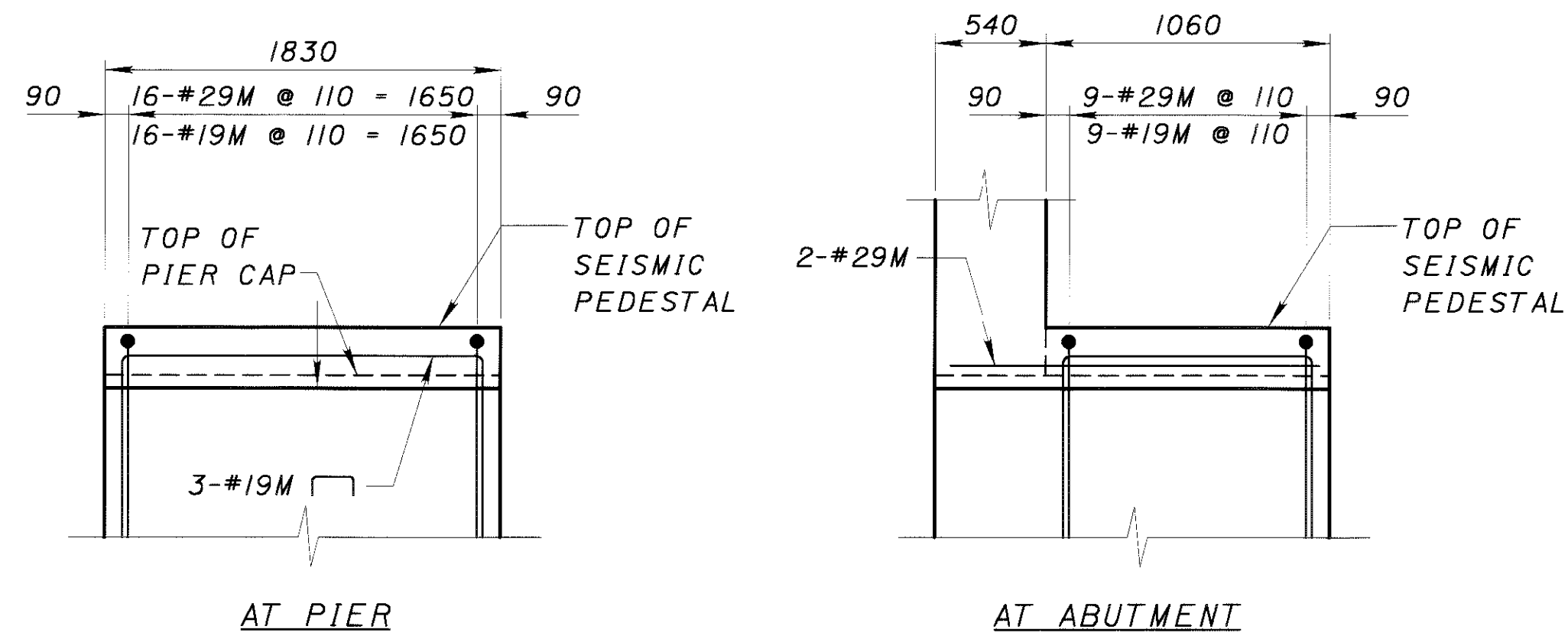
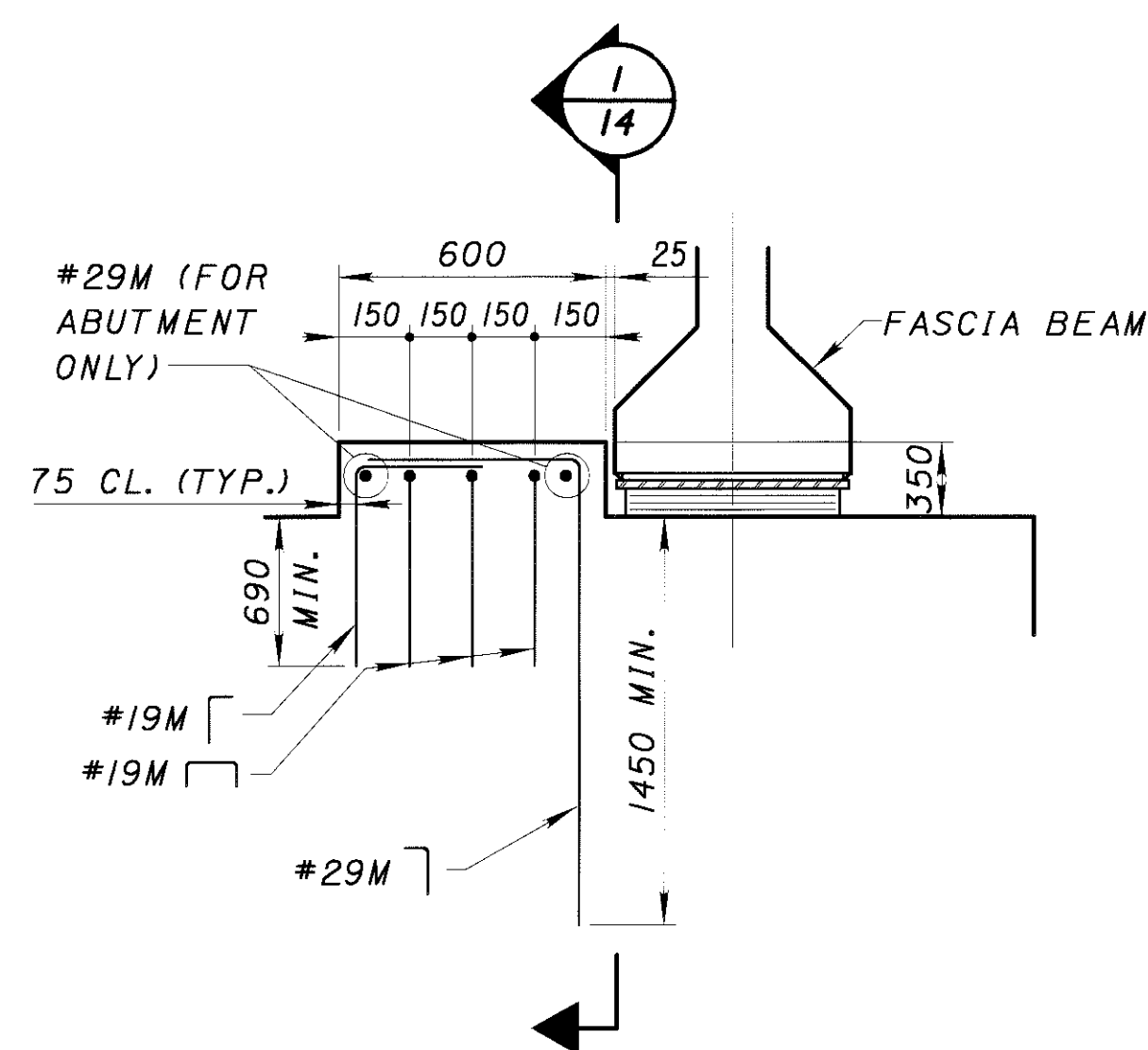
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NOTE:
1. FOR PIER GENERAL NOTES AND LEGEND SEE SHEET 14/22.

DESIGNED	FAQ	CHECKED	OAH
DRAWN	RTP	REVISED	
REVIEWED	JN	DATE	10/24/00
STRUCTURE FILE NUMBER			050190
PIER 7 DETAILS			
BRIDGE NO. ATH-33-4030			
OVER PRATTS FORK CREEK			
ATH-33-40.981			
13/22			
875			
949			

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SECTION 1/14

SEISMIC PEDESTAL DETAILS

(SHOWN FOR BEAM LINE 6, BEAM LINE 1 OPPOSITE HAND)

NOTES:

- FOR ADDITIONAL DETAILS, SEE BRIDGE STANDARD DRAWINGS PSID-I-99.
- ALL REINFORCING SHALL BE PLACED TO PROVIDE A MINIMUM COVER OF 50mm UNLESS OTHERWISE NOTED.
- REINFORCING IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
- TO AVOID CONFLICT WITH THE FOOTING AND CAP REINFORCEMENT, THE VERTICAL COLUMN BARS MAY NEED TO BE BENT OR ADJUSTED.
- SPIRAL REINFORCEMENT USED IN THE PIER COLUMNS SHALL BE #16M BAR AT A 115 mm PITCH WITH AN OUT TO OUT SPIRAL CAGE DIAMETER OF 150 mm LESS THAN THE COLUMN DIAMETER.

ANCHORAGE OF SPIRAL REINFORCEMENT SHALL BE PROVIDED BY 1-1/2 EXTRA TURNS OF BAR AT EACH END OF A SPIRAL UNIT.

SPIRALS SHALL EXTEND TO THE LEVEL OF THE LOWEST HORIZONTAL REINFORCEMENT IN THE FOOTING.

CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 3050 mm) TO INSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE SHAFT. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 75 mm CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMNS. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORTS) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.

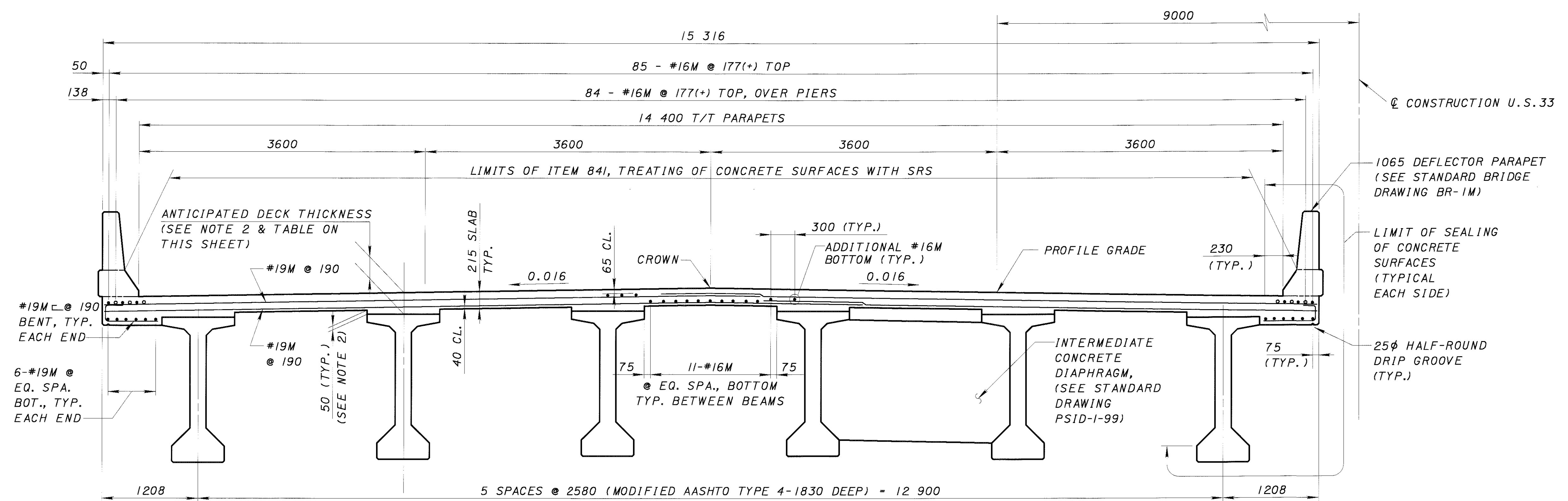
6. LAP LENGTHS:

#16M	1040 (TOP)	740 (OTHER)
#19M	1240	890
#22M	1570	1120
#25M	2080	1500
#29M	2640	1880
#32M	3350	3120
#36M	4110	2950

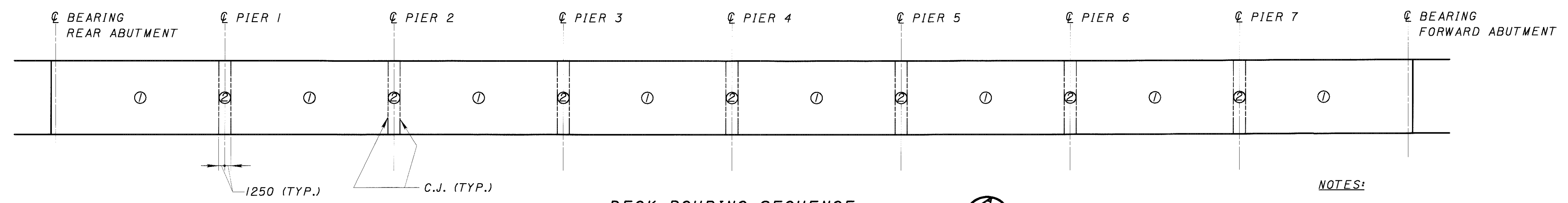
UNLESS OTHERWISE NOTED.

LEGEND

- B. = BOTTOM
- BTWN. = BETWEEN
- CL. = CENTERLINE
- C.J. = CONSTRUCTION JOINT
- CL. = CLEAR
- φ = DIAMETER
- E.F. = EACH FACE
- EL. = ELEVATION
- EQ. = EQUAL
- SPA. = SPACES
- TYP. = TYPICAL
- W/ = WITH
- & = AND
- T. = TOP
- MIN. = MINIMUM



TYPICAL TRANSVERSE SECTION



DECK POURING SEQUENCE
SEE PSID-I-99 FOR CONSTRUCTION REQUIREMENT



NOTES:

- FOR SEALING OF FASCIA BEAMS, SEE BRIDGE DRAWING PSID-I-99 SHEET 7 OF 8.
- THE TOPPING THICKNESS SHOWN ARE NOMINAL DIMENSIONS. THE PAY QUANTITY FOR DECK CONCRETE SHALL BE BASED ON THE DESIGN SLAB THICKNESS AND THE AVERAGE OF THE NOMINAL HAUNCH DEPTHS AT MID-SPAN AND AT THE BEAM BEARINGS. THE HAUNCH DEPTHS ARE THE TOPPING THICKNESS MINUS THE DESIGN SLAB THICKNESS. DEVIATION FROM THIS AVERAGE MAY OCCUR BECAUSE THE TOP OF THE BEAM MAY NOT HAVE THE CAMBER ANTICIPATED BY DESIGN DUE TO CONTRACTOR'S TIME OF ERECTION, MIX DESIGN AND OTHER FABRICATION FACTORS. ONCE ALL BEAMS ARE SET IN THEIR FINAL POSITION, THE CONTRACTOR SHALL RECORD THE TOP OF BEAM ELEVATIONS AT EACH BEARING AND AT MID-SPAN. THE ACTUAL CAMBER FOR EACH MEMBER SHALL BE THE MEASURED ELEVATION AT MID-SPAN MINUS THE AVERAGE ELEVATION AT EACH BEARING. THE ACTUAL HAUNCH DEPTH AT MID-SPAN SHALL BE THE NOMINAL DIMENSION PLUS OR MINUS THE DIFFERENCE BETWEEN THE ACTUAL AND ANTICIPATED CAMBER.
- THE SEALING OF CONCRETE SURFACE SHALL BE SEALED WITH EPOXY-URETHANE SEALER.
- FOR ADDITIONAL DIAPHRAGM DETAILS, SEE STANDARD DRAWING PSID-I-99.
- FOR ANTICIPATED DECK THICKNESS LOCATIONS, SEE SHEETS 17,18/22.

LEGEND

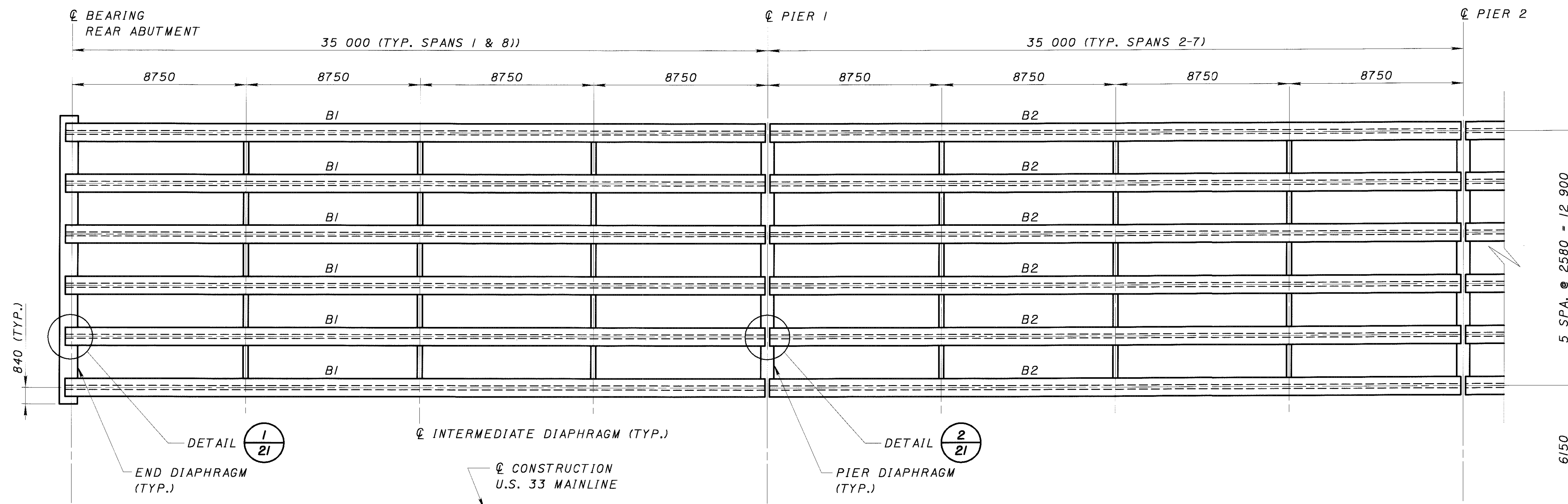
- BOT. - BOTTOM
- CL. - CENTERLINE
- C.J. - CONSTRUCTION JOINT
- CL. - CLEAR
- DIM. - DIMENSION
- EQ. - EQUAL
- MAX. - MAXIMUM
- MIN. - MINIMUM
- SPA. - SPACES
- TYP. - TYPICAL

ANTICIPATED DECK THICKNESS																	
LOCATION *	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33
LEFT EDGE OF DECK	391	375	391	367	391	380	391	378	391	378	391	380	391	367	391	375	391
LEFT TOE OF PARAPET	391	375	391	367	391	380	391	378	391	378	391	380	391	367	391	375	391
BEAM 1	289	274	289	266	289	278	289	276	289	276	289	278	289	266	289	274	289
BEAM 2	289	280	289	276	289	277	289	275	289	275	289	277	289	276	289	280	289
BEAM 3	289	280	289	276	289	277	289	275	289	275	289	277	289	276	289	280	289
BEAM 4	289	280	289	276	289	277	289	276	289	275	289	277	289	276	289	280	289
BEAM 5	289	280	289	276	289	277	289	276	289	275	289	277	289	276	289	280	289
BEAM 6	289	274	289	266	289	278	289	266	289	276	289	277	289	266	289	274	289
RIGHT TOE OF PARAPET	391	391	391	367	391	380	391	367	391	378	391	380	391	367	391	375	391
RIGHT EDGE OF DECK	391	391	391	367	391	380	391	367	391	378	391	380	391	367	391	375	391
PROFILE GRADE	289	280	289	276	289	277	289	276	289	275	289	277	289	276	289	280	289
CROWN	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289

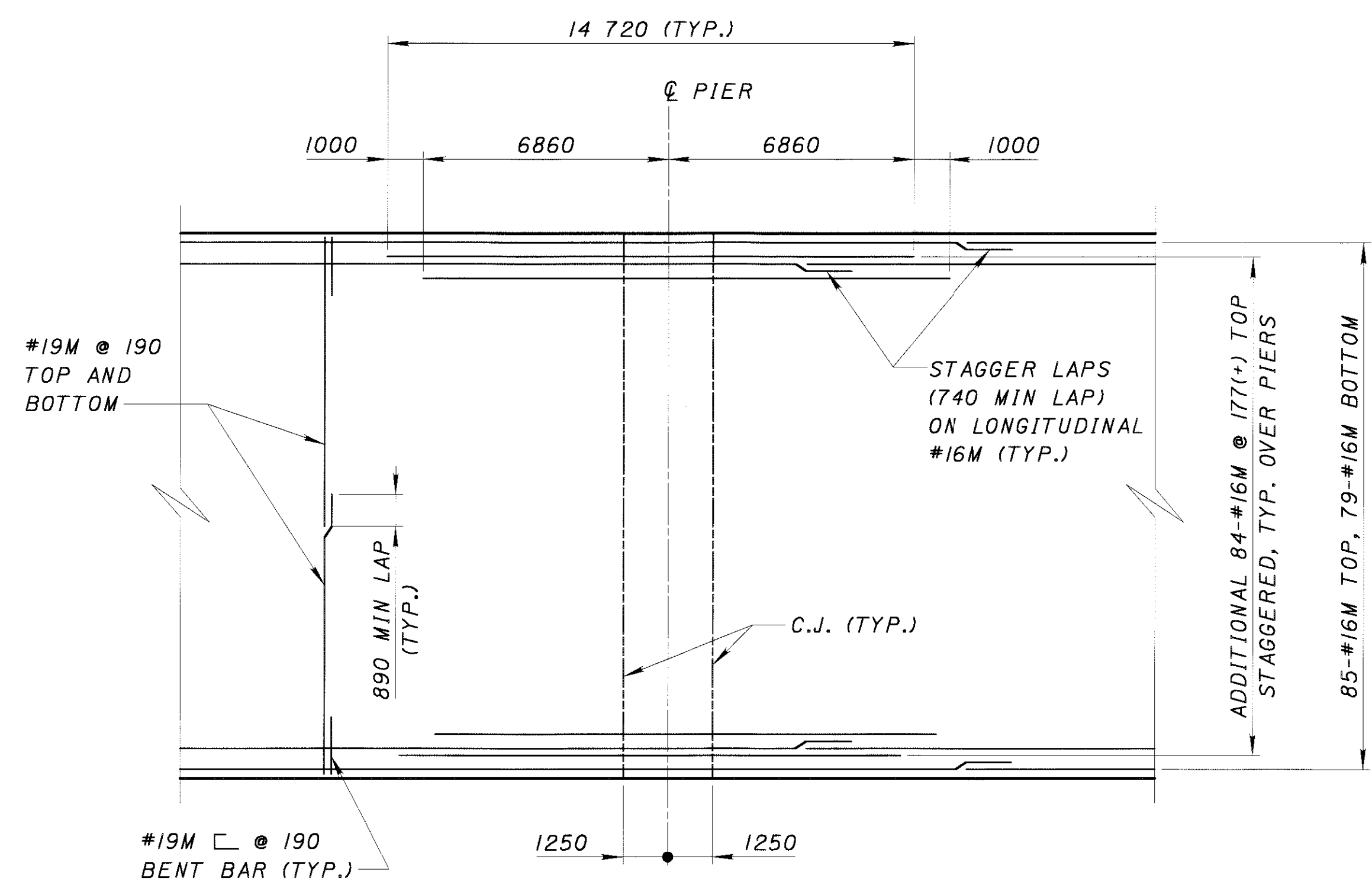
TRANSVERSE SECTION
BRIDGE NO. ATH-33-4030
OVER PRATTS FORK CREEK

ATH-33-40.981

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PARTIAL FRAMING PLAN N



PARTIAL DECK REINFORCING PLAN N

NOTES:

1. FOR DIAPHRAGM DETAILS, SEE BRIDGE STANDARD DRAWINGS PSID-1-99.
2. FOR BEAM DETAILS, SEE SHEET 19/22.

LEGEND

- ⊕ = CENTERLINE
- C.J. = CONSTRUCTION JOINT
- MIN. = MINIMUM
- SPA. = SPACES
- TYP. = TYPICAL

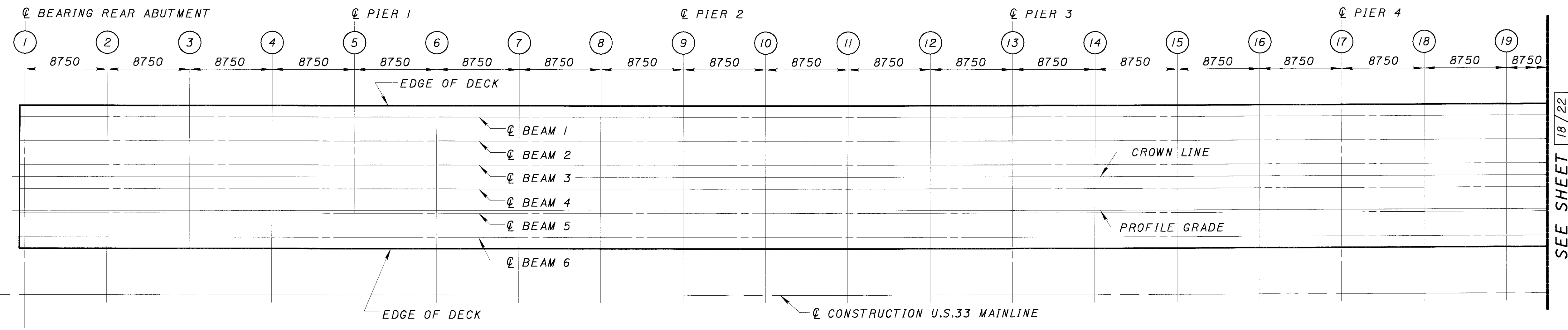
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REVIEWED	JN	DATE	10/24/00
STRUCTURE FILE NUMBER	050/190		

SUPERSTRUCTURE DETAILS
BRIDGE NO. ATH-33-41030
OVER PRATTS FORK CREEK

ATH-33-40.981

16/22

878
949



SCREED PLAN

- NOTES:**
1. FOR SCREED TRANSVERSE SECTION, SEE SHEET 18/22.
 2. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

SCREED ELEVATIONS

LOCATION		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
P.G.	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000
	ELEVATION	255.317	255.256	255.178	255.081	254.967	254.905	254.826	254.730	254.617	254.556	254.477	254.381	254.267	254.205	254.126	254.030	253.917	253.855	253.776
CROWN	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600
	ELEVATION	255.375	255.287	255.200	255.112	255.025	254.937	254.850	254.762	254.675	254.587	254.500	254.412	254.325	254.237	254.150	254.062	253.975	253.887	253.800
LEFT TOE OF PARAPET	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800
	ELEVATION	255.259	255.172	255.084	254.997	254.909	254.822	254.734	254.647	254.559	254.472	254.384	254.297	254.209	254.122	254.034	253.947	253.859	253.772	253.684
BEAM 1	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050
	ELEVATION	255.271	255.212	255.134	255.037	254.921	254.861	254.783	254.686	254.571	254.512	254.434	254.337	254.221	254.161	254.082	253.986	253.871	253.811	253.732
BEAM 2	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470
	ELEVATION	255.313	255.252	255.173	255.077	254.963	254.901	254.822	254.726	254.613	254.552	254.473	254.377	254.263	254.200	254.121	254.025	253.913	253.850	253.771
BEAM 3	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890
	ELEVATION	255.354	255.293	255.215	255.118	255.004	254.942	254.863	254.767	254.654	254.593	254.514	254.418	254.304	254.242	254.162	254.067	253.954	253.892	253.812
BEAM 4	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310
	ELEVATION	255.354	255.293	255.215	255.118	255.004	254.942	254.863	254.767	254.654	254.593	254.514	254.418	254.304	254.242	254.162	254.067	253.954	253.892	253.812
BEAM 5	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730
	ELEVATION	255.313	255.252	255.173	255.077	254.963	254.901	254.822	254.726	254.613	254.552	254.473	254.377	254.263	254.200	254.121	254.025	253.913	253.850	253.771
BEAM 6	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150
	ELEVATION	255.271	255.212	255.134	255.037	254.921	254.861	254.783	254.686	254.571	254.512	254.434	254.337	254.221	254.161	254.082	253.986	253.871	253.811	253.732
RIGHT TOE OF PARAPET	STATION	645.000	653.750	662.500	671.250	680.000	688.750	697.500	706.250	715.000	723.750	732.500	741.250	750.000	758.750	767.500	776.250	785.000	793.750	802.500
	OFFSET	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400
	ELEVATION	255.259	255.172	255.084	254.997	254.909	254.822	254.734	254.647	254.559	254.472	254.384	254.297	254.209	254.122	254.034	253.947	253.859	253.772	253.684

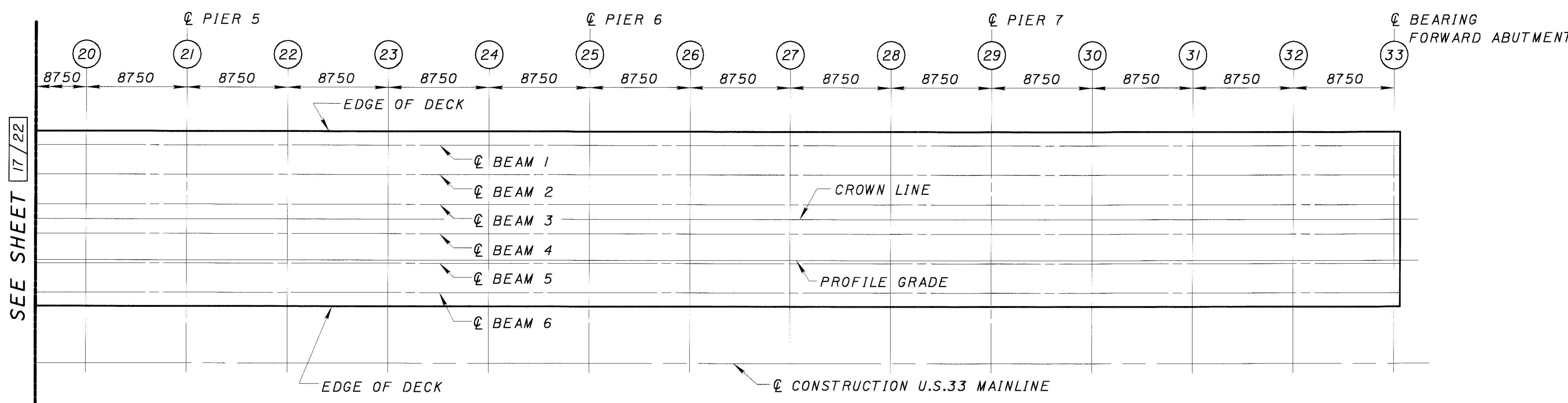
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SUPERSTRUCTURE DETAILS
BRIDGE NO. ATH-33-41030
OVER PRATTS FORK CREEK

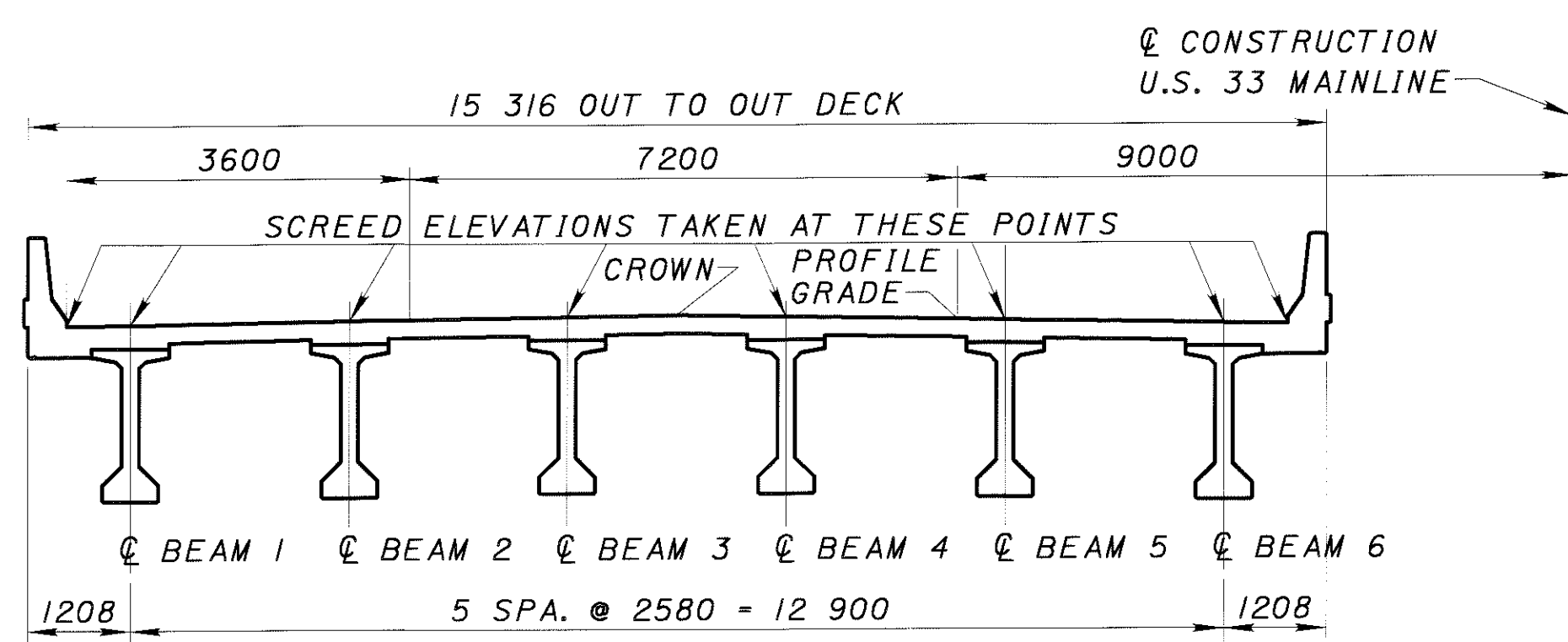
ATH-33-40.981

17 / 22

879
949



SCREED PLAN N



SCREED TRANSVERSE SECTION

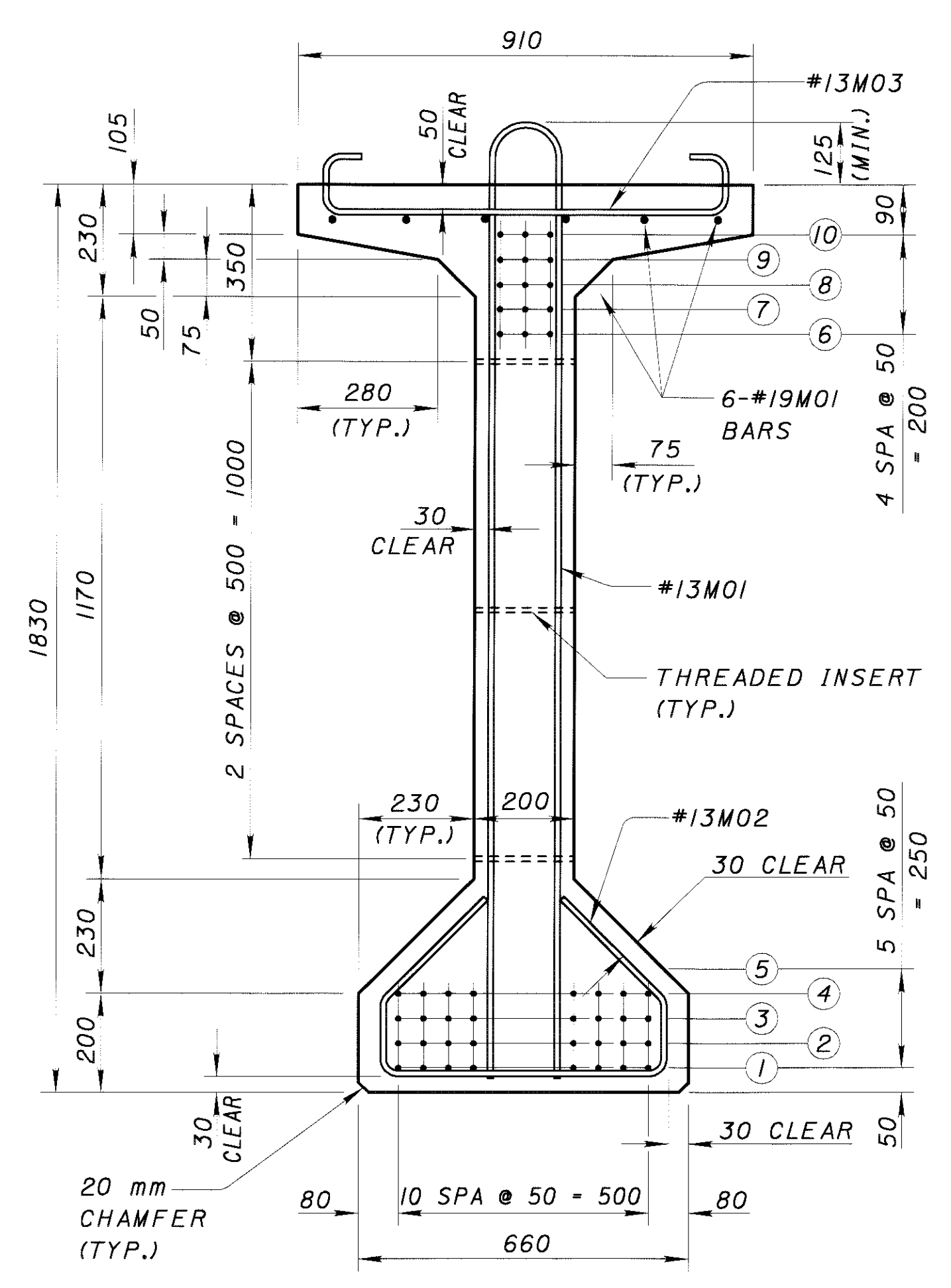
SCREED ELEVATIONS

LOCATION		20	21	22	23	24	25	26	27	28	29	30	31	32	33
P.G.	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000
	ELEVATION	253.680	253.567	253.506	253.427	253.331	253.217	253.155	253.076	252.980	252.867	252.806	252.728	252.631	252.517
CROWN	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600	12.600
	ELEVATION	253.712	253.625	253.537	253.450	253.362	253.275	253.187	253.100	253.012	252.925	252.837	252.750	252.662	252.575
LEFT TOE OF PARAPET	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800	19.800
	ELEVATION	253.597	253.509	253.422	253.334	253.247	253.159	253.072	252.984	252.897	252.809	252.722	252.634	252.547	252.459
BEAM 1	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050	19.050
	ELEVATION	253.636	253.521	253.462	253.384	253.287	253.171	253.111	253.033	252.936	252.821	252.762	252.684	252.587	252.471
BEAM 2	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470	16.470
	ELEVATION	253.675	253.563	253.502	253.423	253.327	253.213	253.151	253.072	252.976	252.863	252.802	252.723	252.627	252.513
BEAM 3	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890	13.890
	ELEVATION	253.717	253.604	253.543	253.464	253.368	253.254	253.192	253.113	253.017	252.904	252.843	252.765	252.668	252.554
BEAM 4	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310	11.310
	ELEVATION	253.717	253.604	253.543	253.464	253.368	253.254	253.192	253.113	253.017	252.904	252.843	252.765	252.668	252.554
BEAM 5	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730	8.730
	ELEVATION	253.675	253.563	253.502	253.423	253.327	253.213	253.151	253.072	252.976	252.863	252.802	252.723	252.627	252.513
BEAM 6	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150	6.150
	ELEVATION	253.636	253.521	253.462	253.384	253.287	253.171	253.111	253.033	252.936	252.821	252.762	252.684	252.587	252.471
RIGHT TOE OF PARAPET	STATION	811.250	820.000	828.750	837.500	846.250	855.000	863.750	872.500	881.250	890.000	898.750	907.500	916.250	925.000
	OFFSET	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400	5.400
	ELEVATION	253.597	253.509	253.422	253.334	253.247	253.159	253.072	252.984	252.897	252.809	252.722	252.634	252.547	252.459

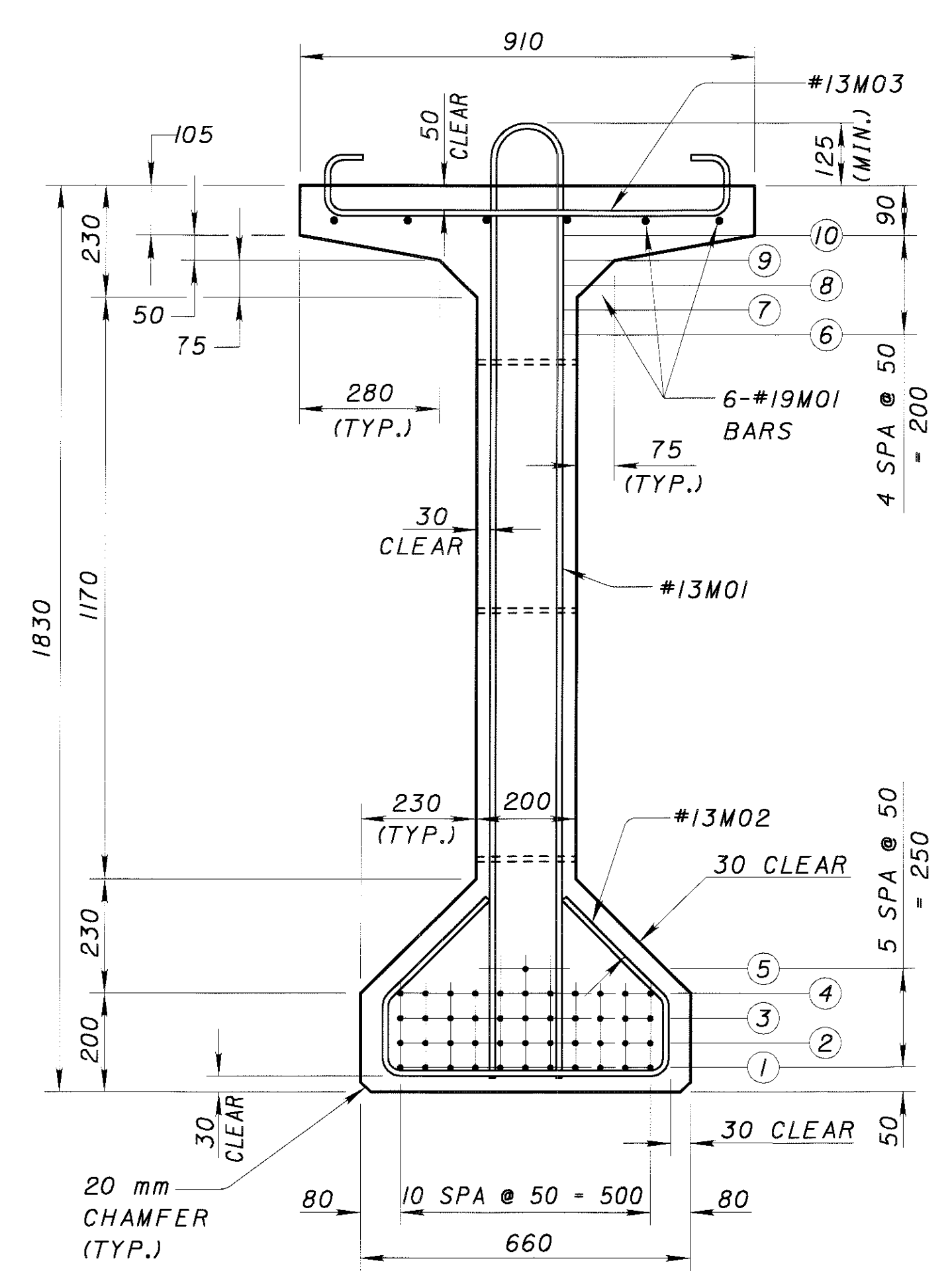
NOTE:
1. SCREED ELEVATIONS SHOWN ARE FOR THE DECK SLAB SURFACE PRIOR TO CONCRETE PLACEMENT. ALLOWANCE HAS BEEN MADE FOR ANTICIPATED CALCULATED DEAD LOAD DEFLECTIONS.

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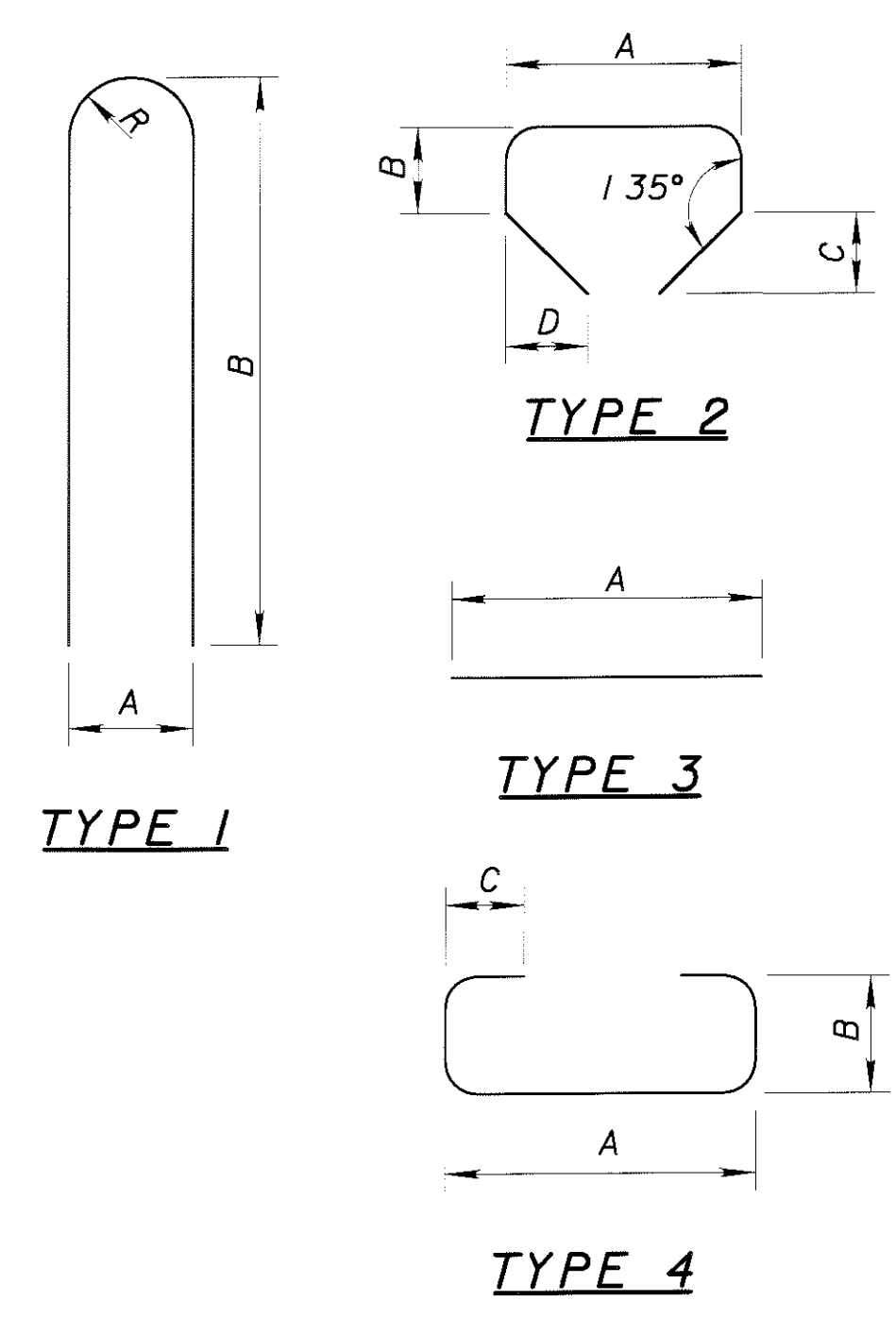
SEE SHEET 17/22



**MODIFIED AASHTO TYPE 4
END BEAM SECTION**

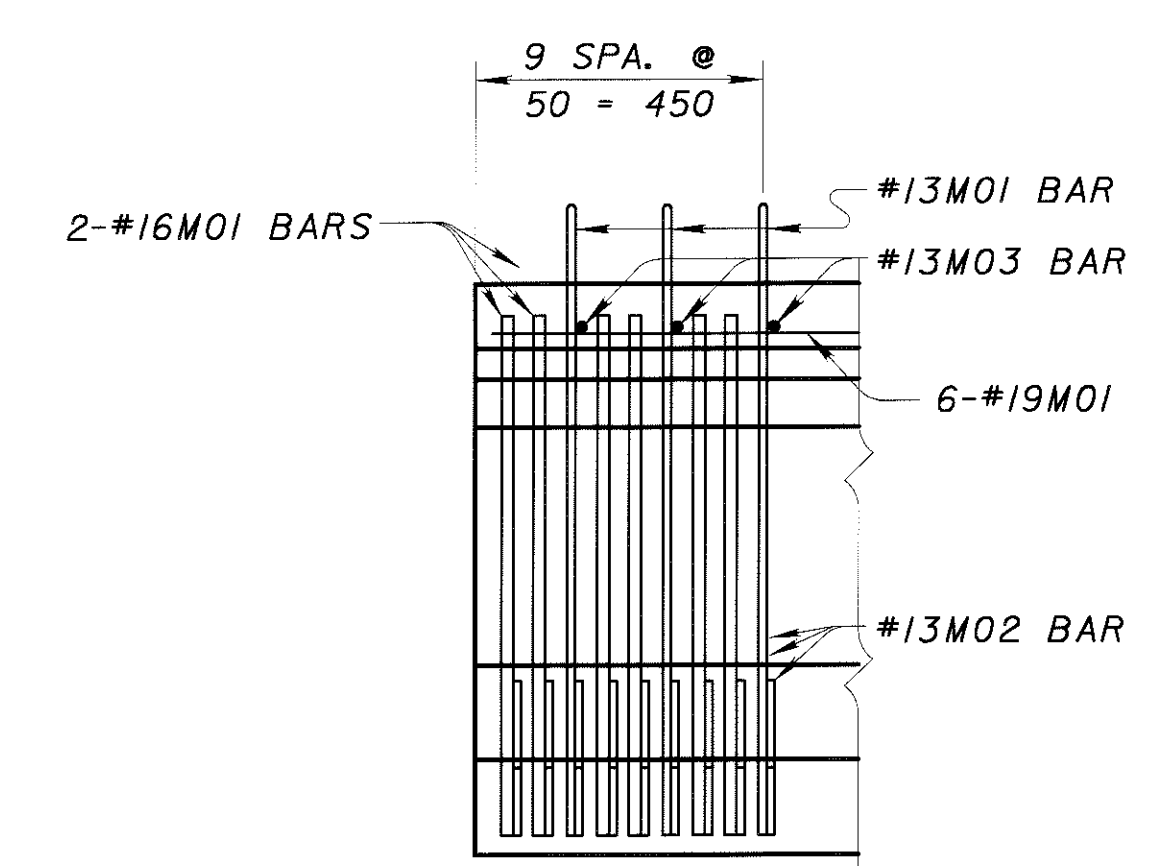


**MODIFIED AASHTO TYPE 4
MIDDLE BEAM SECTION**



BENDING DIAGRAMS
(ALL DIMENSIONS ARE OUT-TO-OUT)

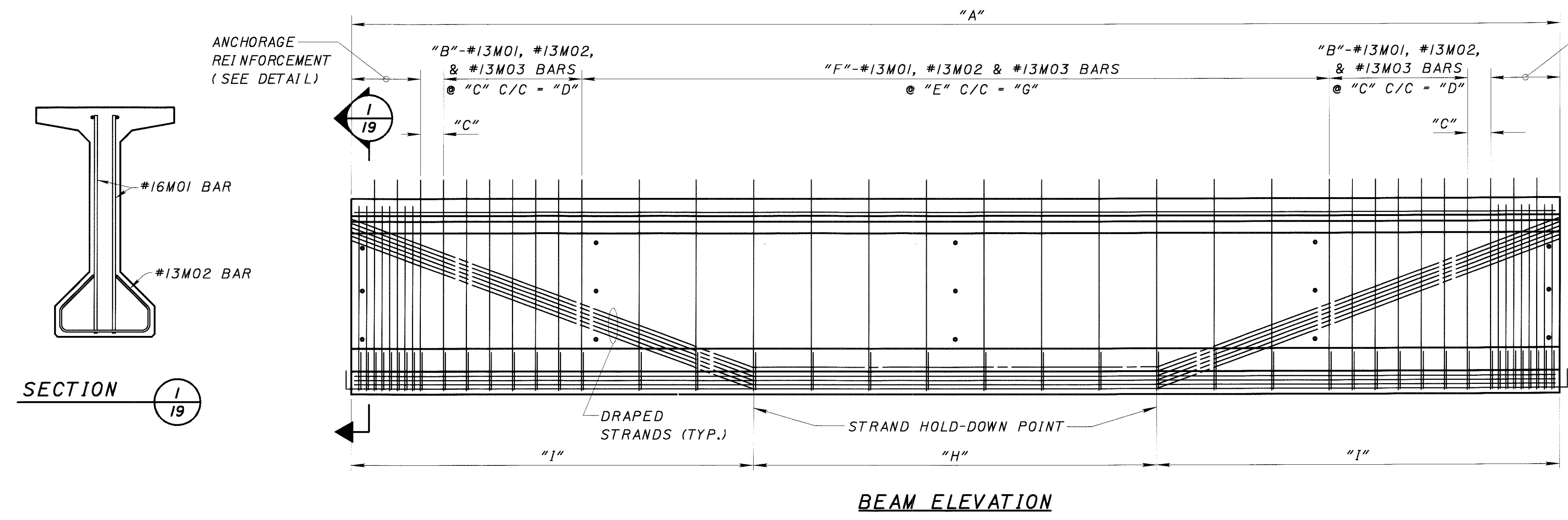
MARK	TYPE	DIMENSIONS				
		A	B	C	D	R
#13M01	1	140	1925			70
#13M02	2	600	155	220	220	
#13M03	4	810	165	100		
#16M01	3	1750				
#19M01	3					



ANCHORAGE REINFORCEMENT
(STRANDS NOT SHOWN FOR CLARITY)

BEAM MARK	NUMBER OF STRANDS PER ROW										TOTAL STRANDS	CONCRETE STRENGTHS		#13M01 BARS REQ'D	#13M02 BARS REQ'D	#13M03 BARS REQ'D					
	END SPAN					MID SPAN						f'ci	f'c								
B1	8	8	8	8	3	3	3	3	3	1	1	1	1	1	1	45	5000	7000	93	93	93
B2	8	8	8	6	0	3	3	3	3	1	1	1	1	9	0	42	5000	7000	92	92	92

BEAM MARK	NO.	BEAM DIMENSIONS									APPROXIMATE WEIGHT (kg)				
		DIMENSIONS (mm)													
B1	12	35	215	14	250	3250	605(-)	47	27	815	7043	14	086	52	187
B2	36	34	770	14	250	3250	608(+)	46	27	370	6954	13	908	51	528

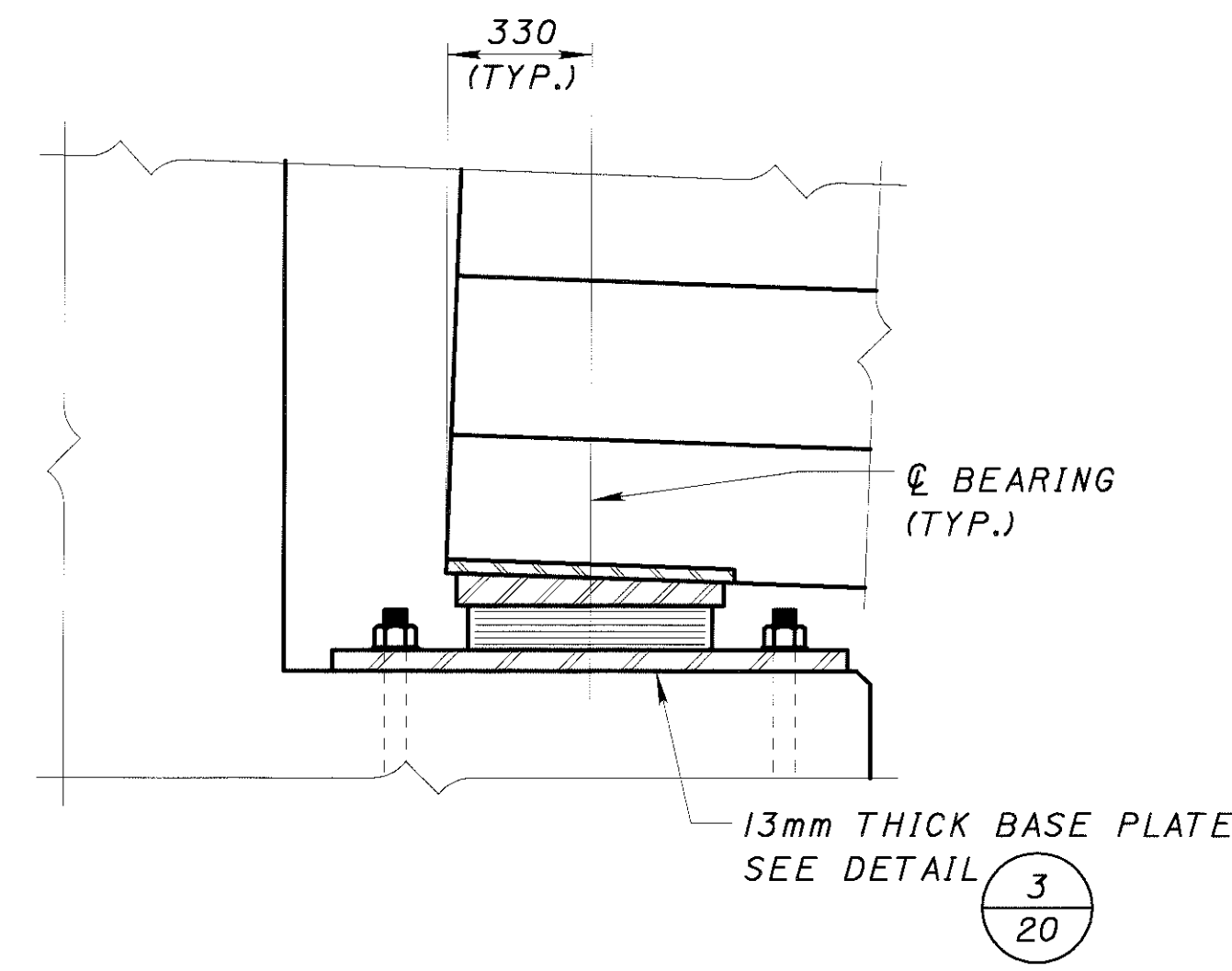


BEAM ELEVATION

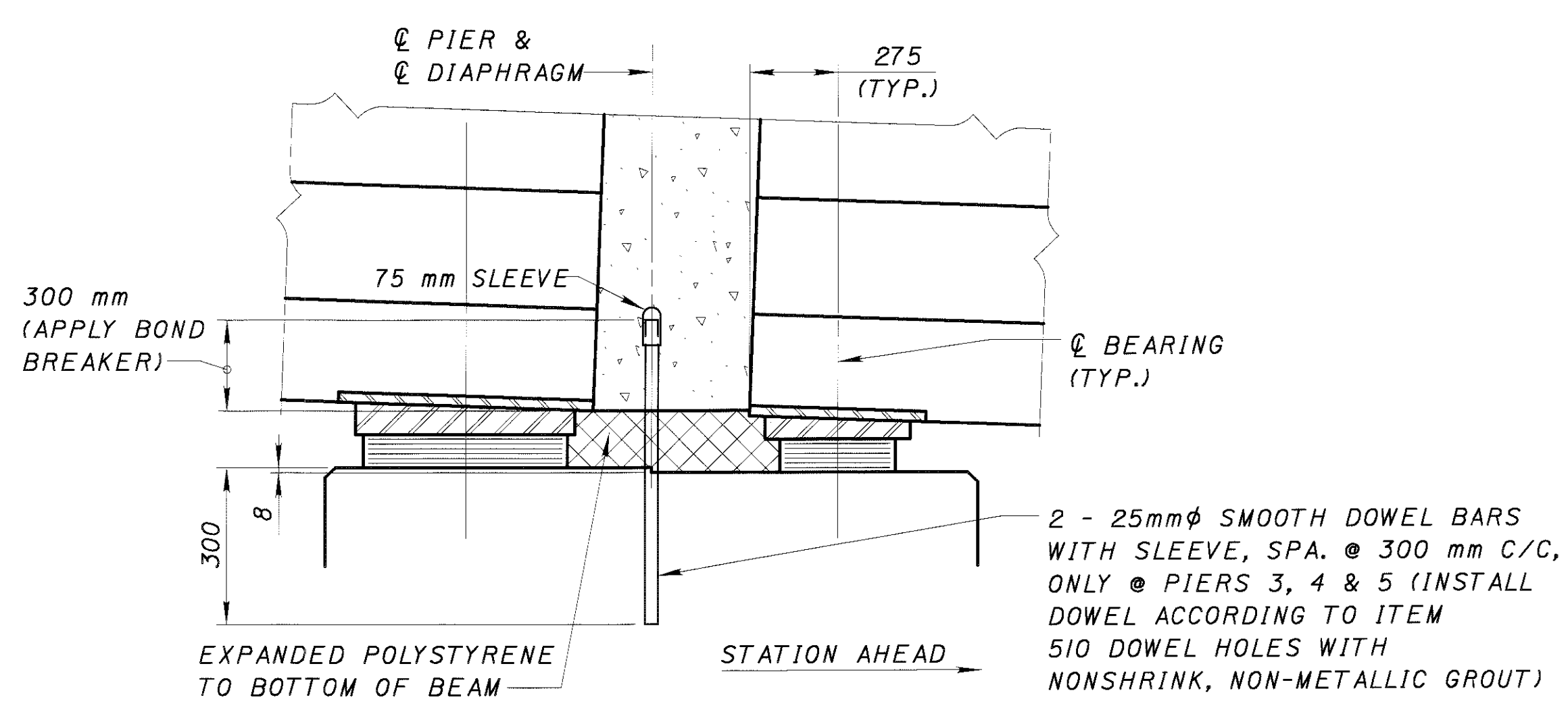
NOTE:
1. FOR ADDITIONAL DETAILS AND NOTES, SEE BRIDGE STANDARD DRAWINGS PSD-I-99.

LEGEND
MID = MIDDLE
SPA. = SPACES
TYP. = TYPICAL

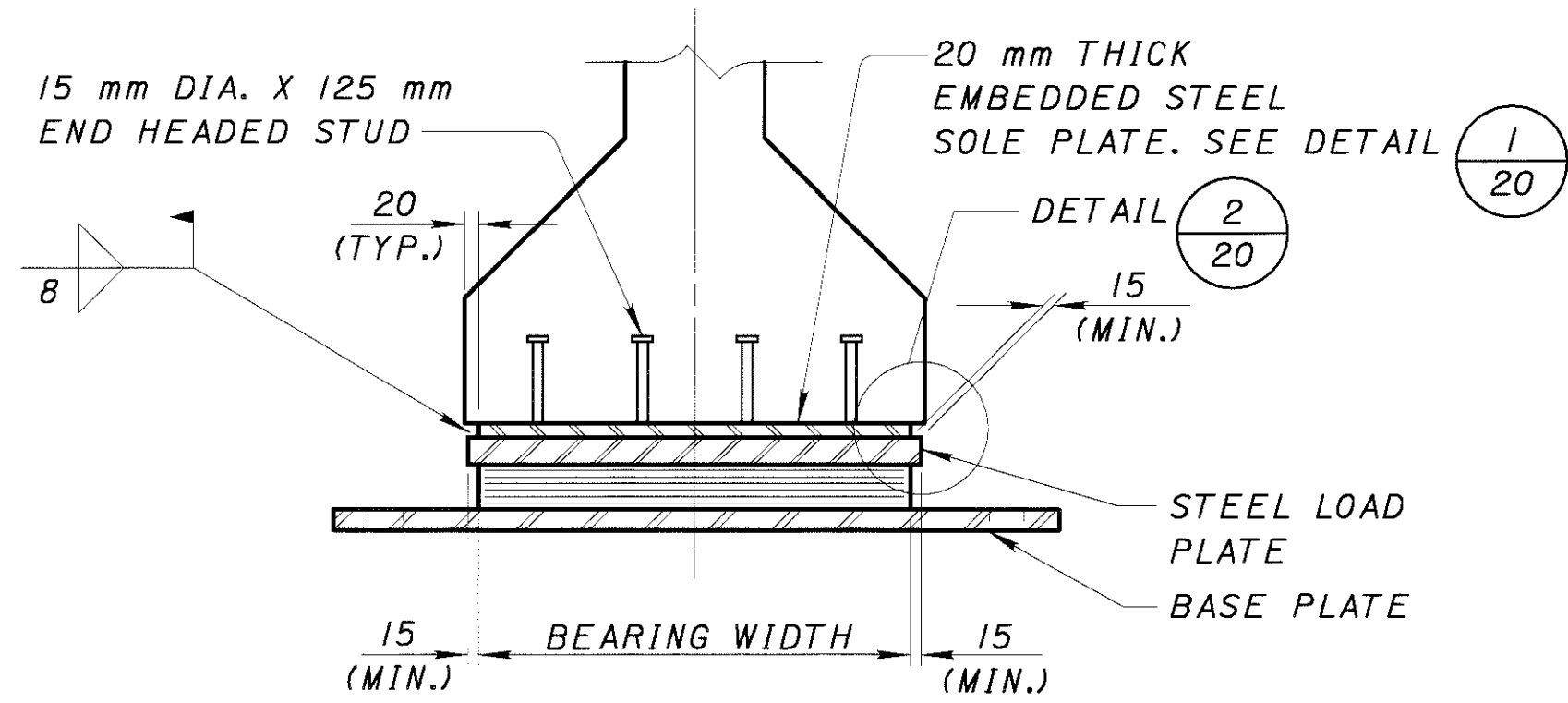
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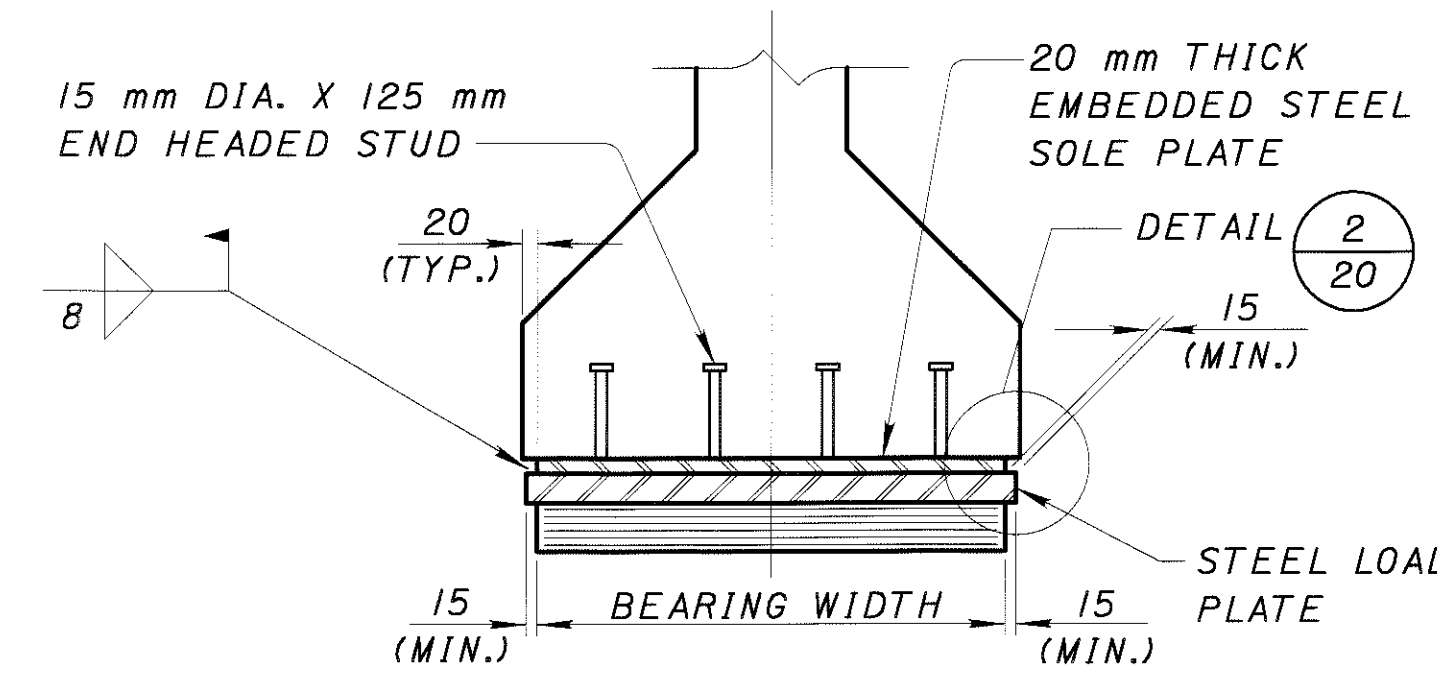
BEARING DETAIL @ ABUTMENTS



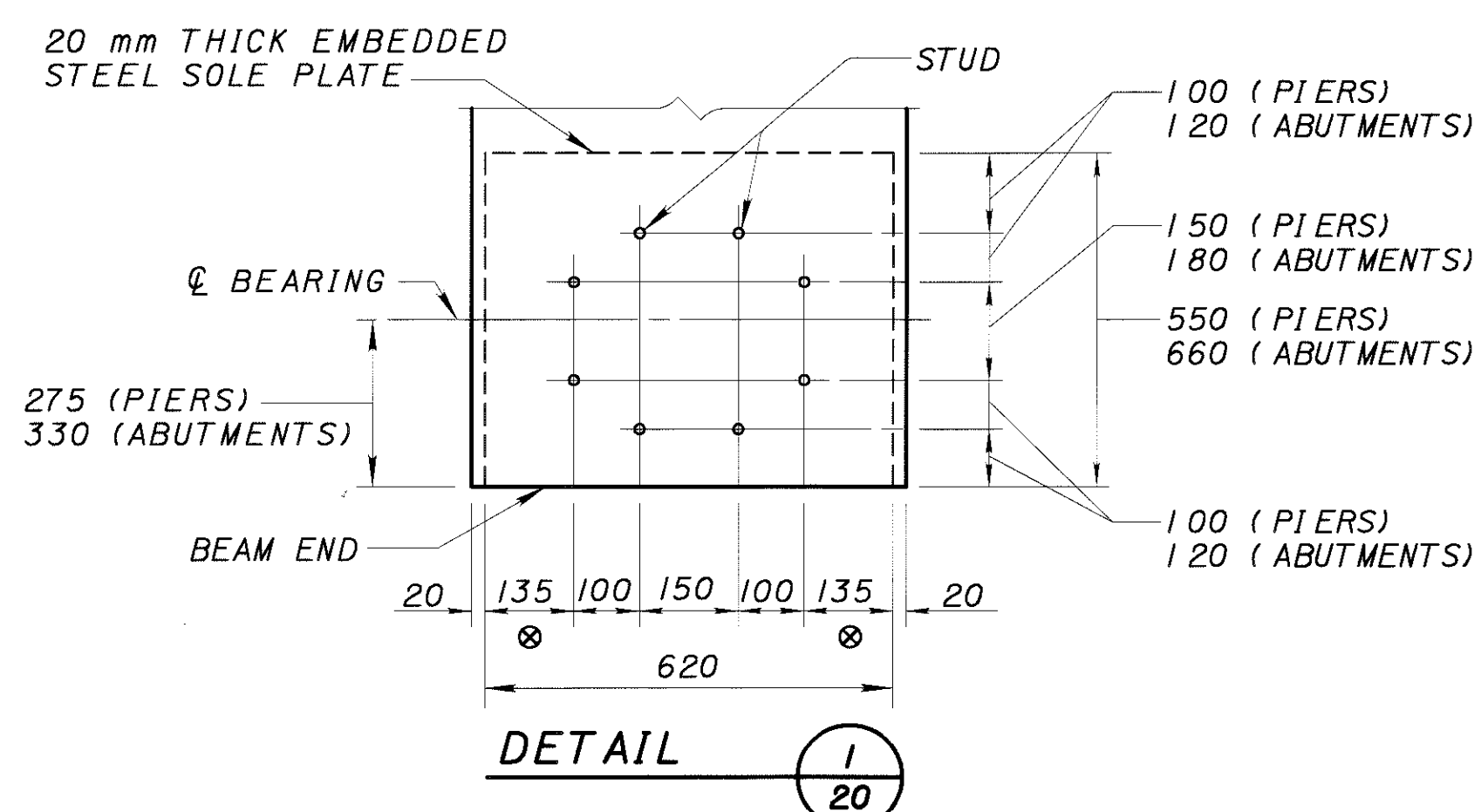
BEARING DETAIL @ PIERS



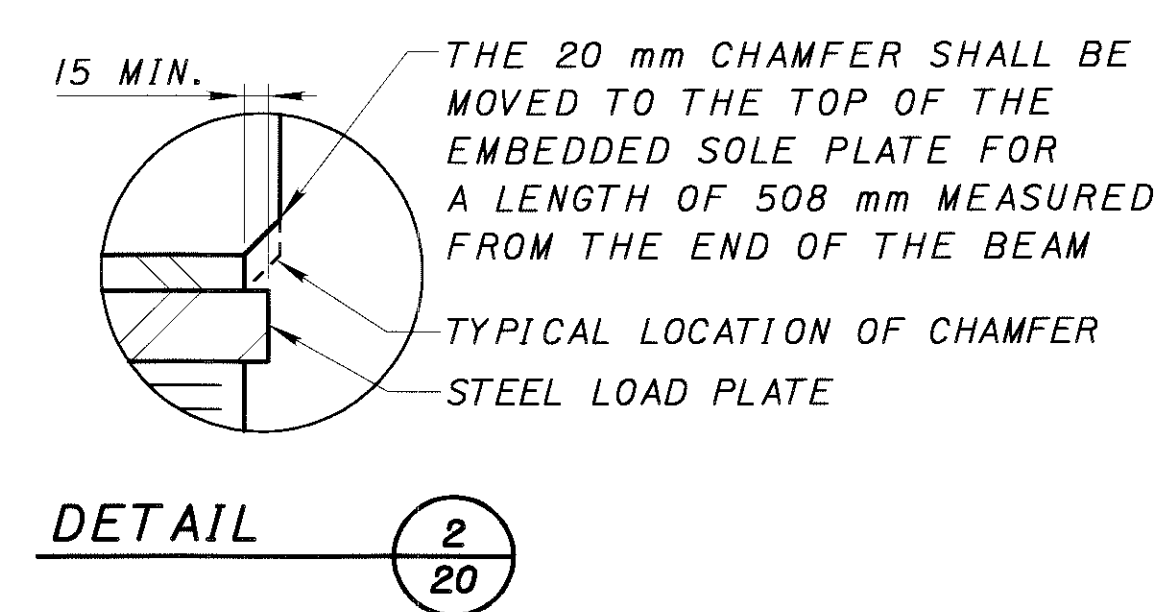
END VIEW @ ABUTMENTS



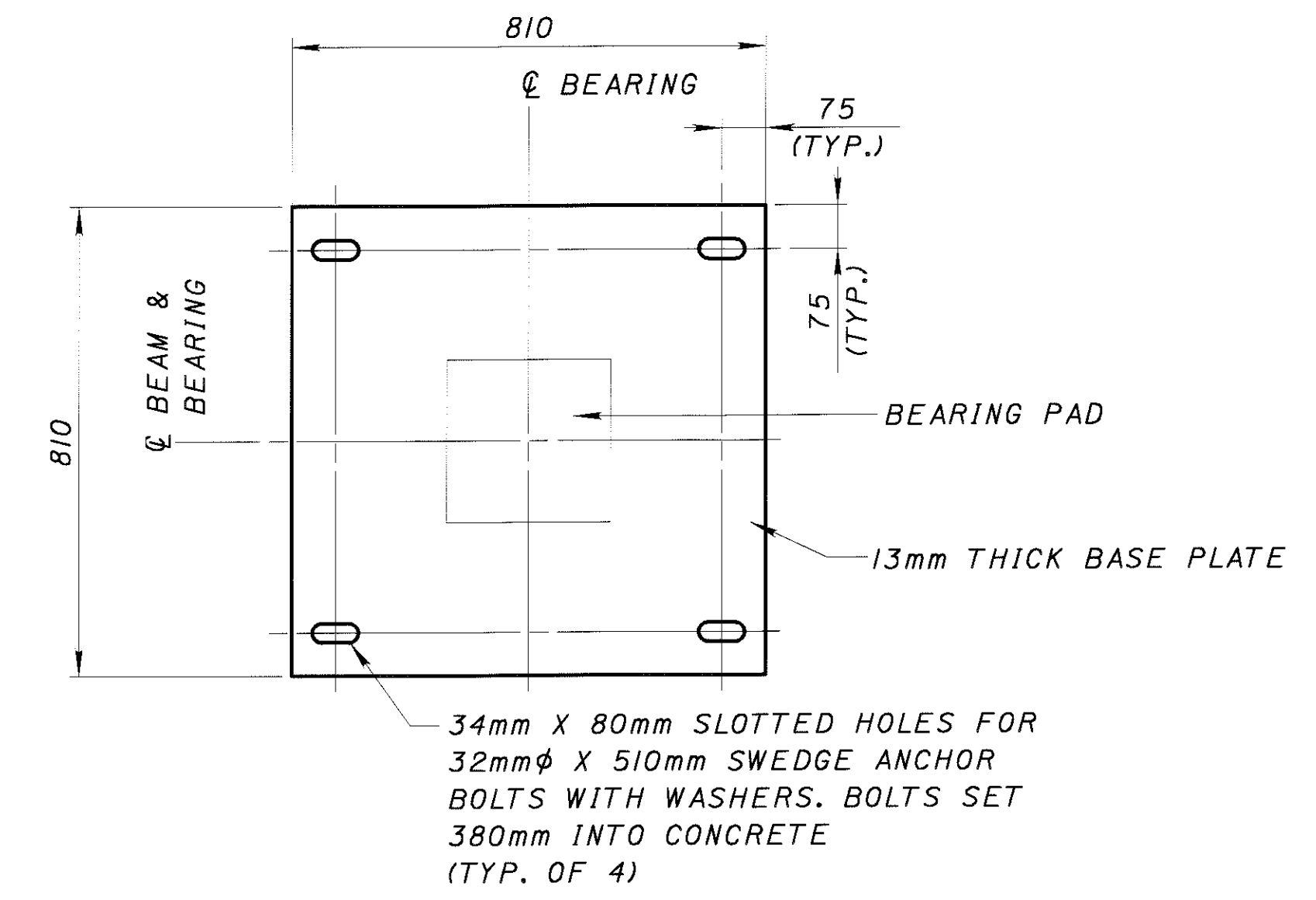
END VIEW @ PIERS



(BEARING, BASE PLATE AND LOAD PLATE NOT SHOWN)



DETAIL 2



DETAIL 3

STEEL LOAD PLATE AND BASE PLATE NOTES
END WELDED STUDS MAY BE MOVED SLIGHTLY IN ORDER TO AVOID REINFORCING STEEL AND PRESTRESSING STRANDS.

A BEVELED LOAD PLATE AND BASE PLATE ARE REQUIRED TO BE VULCANIZED TO THE TOP AND BOTTOM OF BEARING PAD. FIELD WELDING SHALL BE CONTROLLED SO THE TEMPERATURE AT THE ELASTOMER BONDED SURFACE SHALL NOT EXCEED 145°C AS DETERMINED BY THE USE OF PYROMETRIC STICKS OR OTHER TEMPERATURE MONITORING DEVICES.

⊗ - IN ORDER TO ALLOW FOR FIT-UP, THE PLATE WIDTH MAY BE DECREASED BY 10 mm. DIMENSION SHALL BE CORRECTED ACCORDINGLY.

NOTE
1. FOR BEARING PAD DETAILS, SEE SHEET 21/22.

LEGEND
BOT. = BOTTOM
\varnothing = CENTERLINE
MIN. = MINIMUM
TYP. = TYPICAL
DIA. = DIAMETER

REVIEWED	DATE
JN	10/24/00
STRUCTURE FILE NUMBER	050190
DRAWN	RTP
CHECKED	REK

SUPERSTRUCTURE DETAILS
BRIDGE NO. ATH-33-4030
OVER PRATTS FORK CREEK

ATH-33-40.981

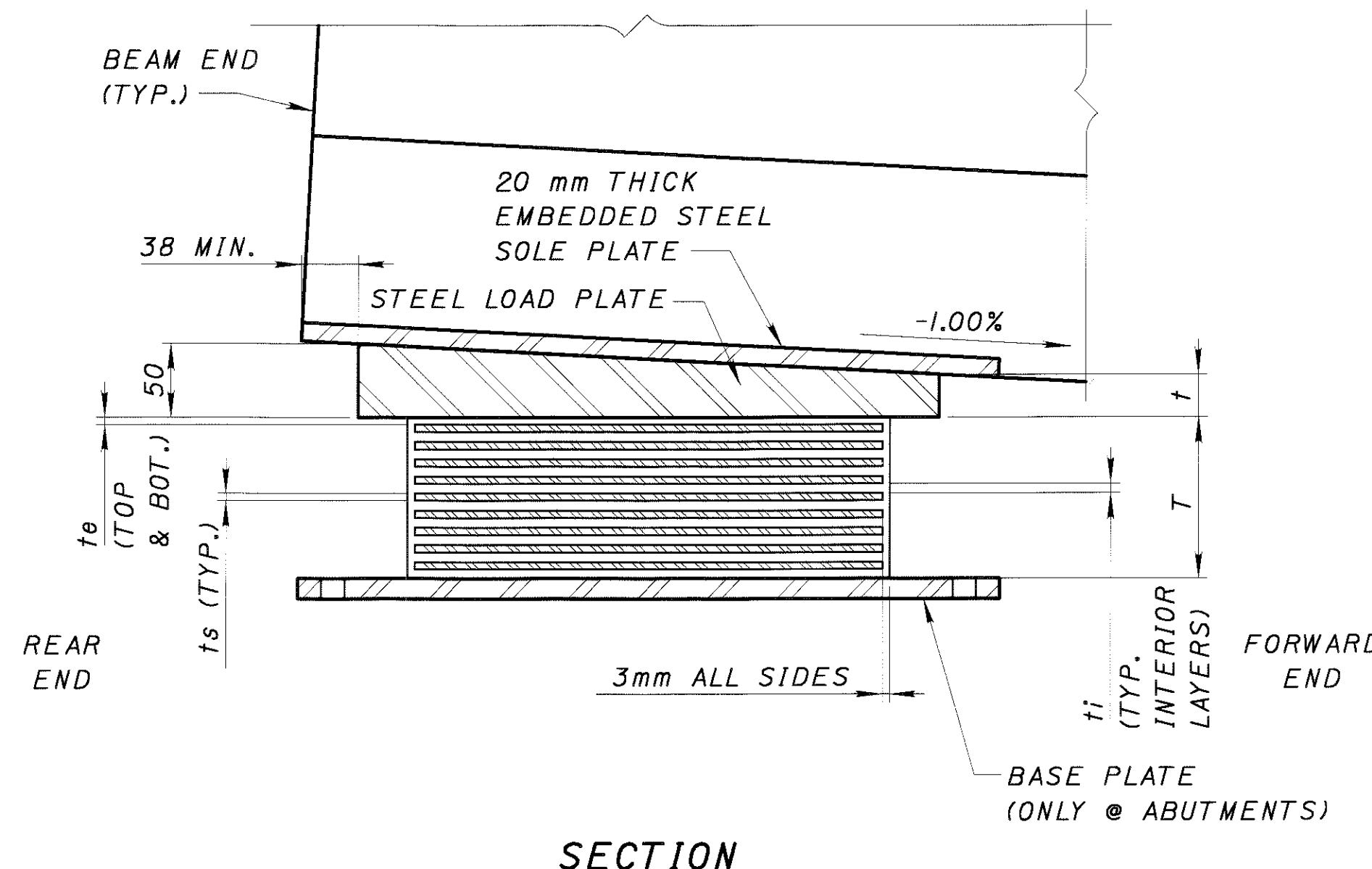
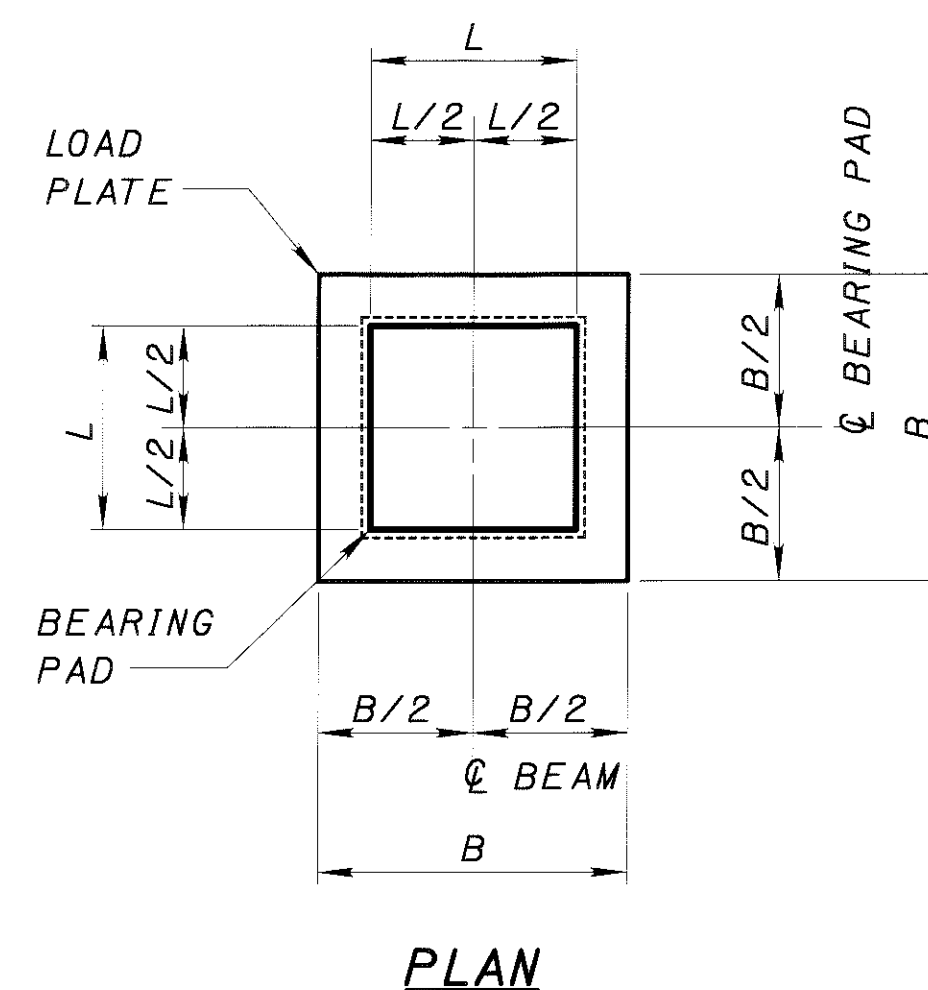
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BEARING DESIGN LOADS AND DIMENSIONS			
LOCATION	ABUTMENTS	PIERS 1 & 7	PIERS 2-6
DESIGN DEAD LOAD (kN)	699	699	737
DESIGN LIVE LOAD (kN)	272	272	296
DESIGN TOTAL LOAD (kN)	943	943	1006
NUMBER OF BEARINGS REQUIRED	12	24	60
LENGTH, L (mm)	560	450	380
THICKNESS, T (mm)	171	135	87
NUMBER OF EXTERNAL LAYERS, N_e	2	2	2
THICKNESS OF EXTERNAL LAYER, t_e (mm)	7	7	7
NUMBER OF INTERNAL LAYERS, N_i	13	10	6
THICKNESS OF INTERNAL LAYER, t_i (mm)	10	10	10
NUMBER OF STEEL LAYERS, N_s	14	11	7
THICKNESS OF STEEL LAYER, t_s (mm)	1.9	1.9	1.9
LOAD PLATE, B (mm)	610	500	430
LOAD PLATE, t (mm)	44	45	46

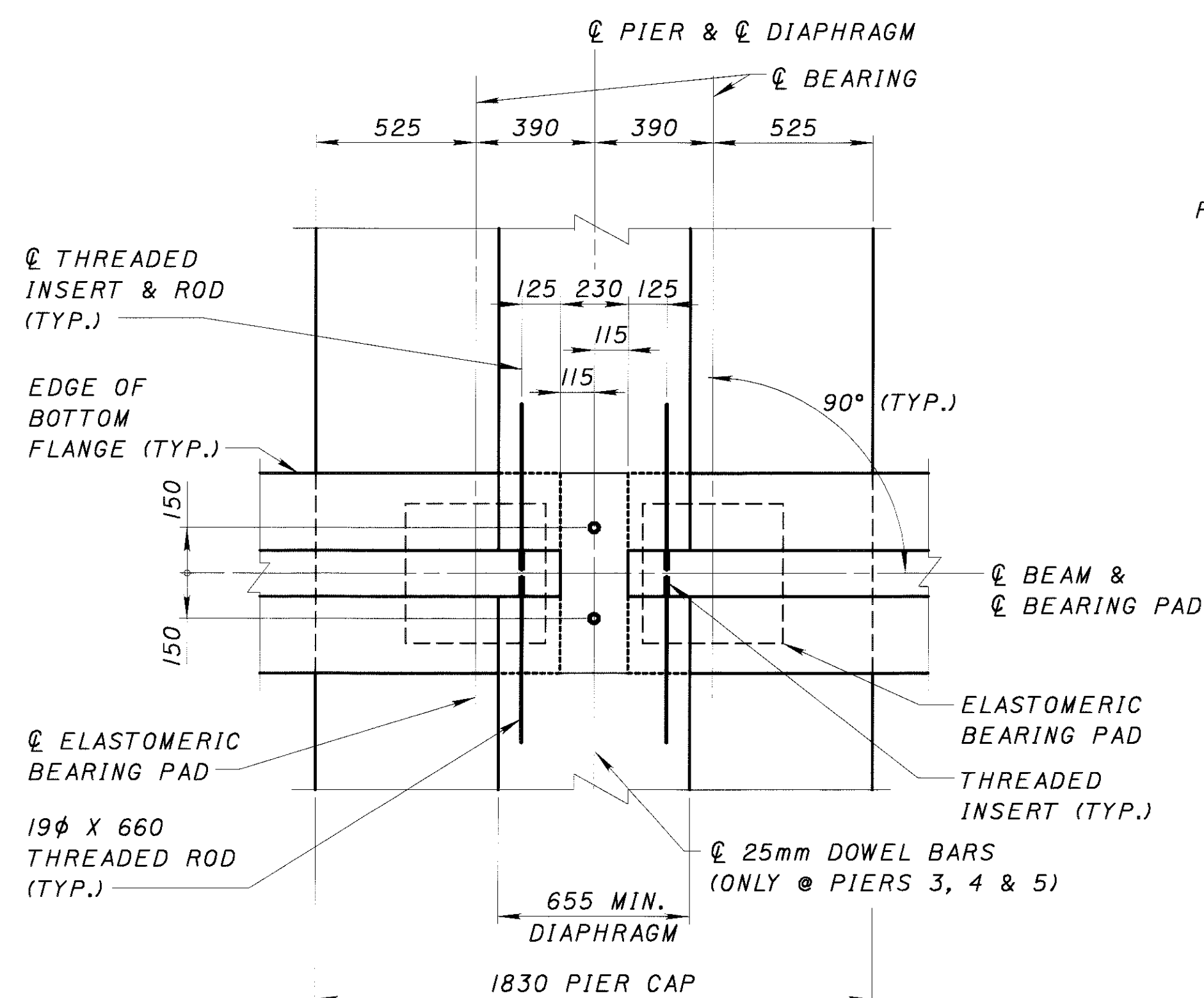
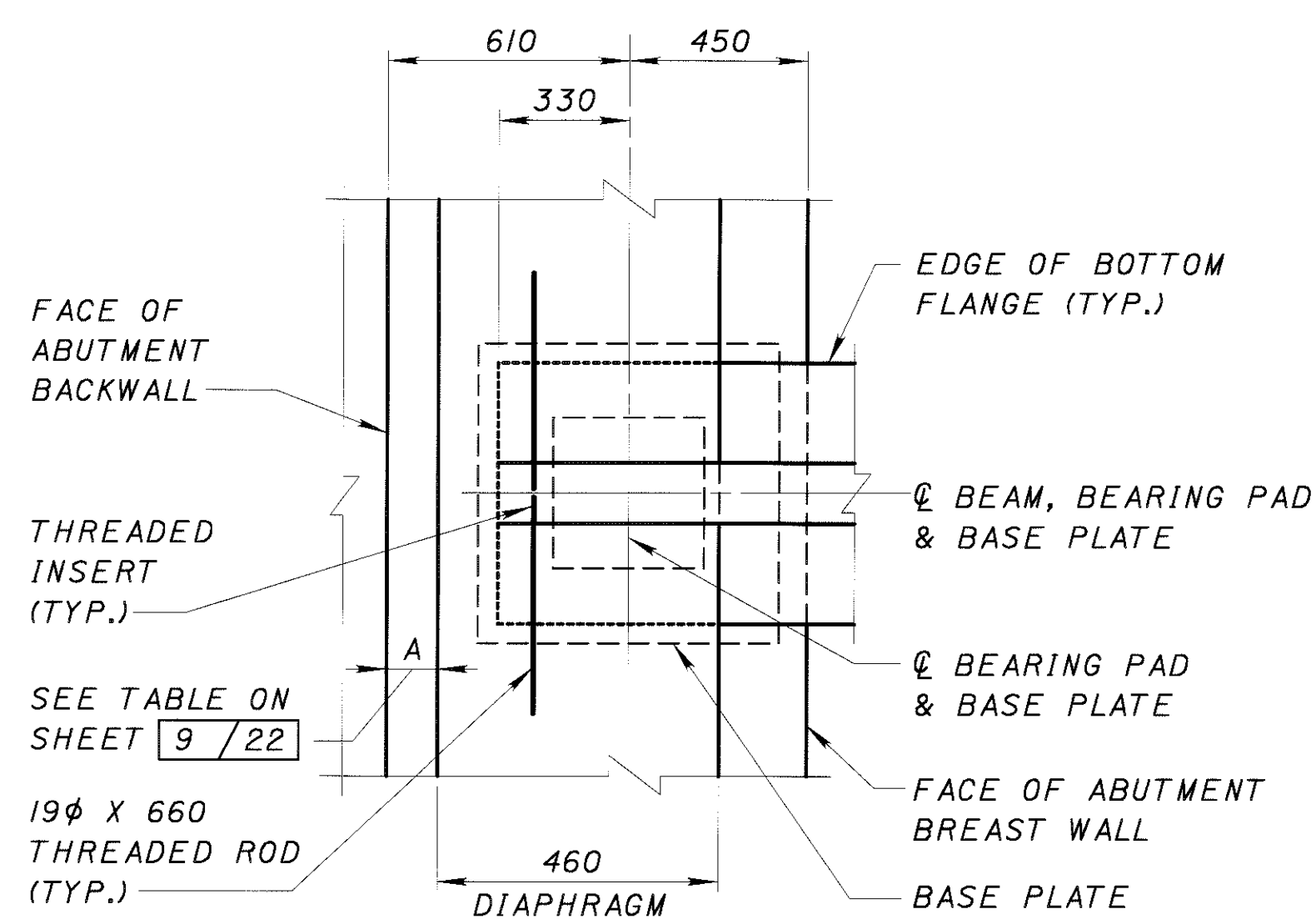
BEARING PAD NOTES

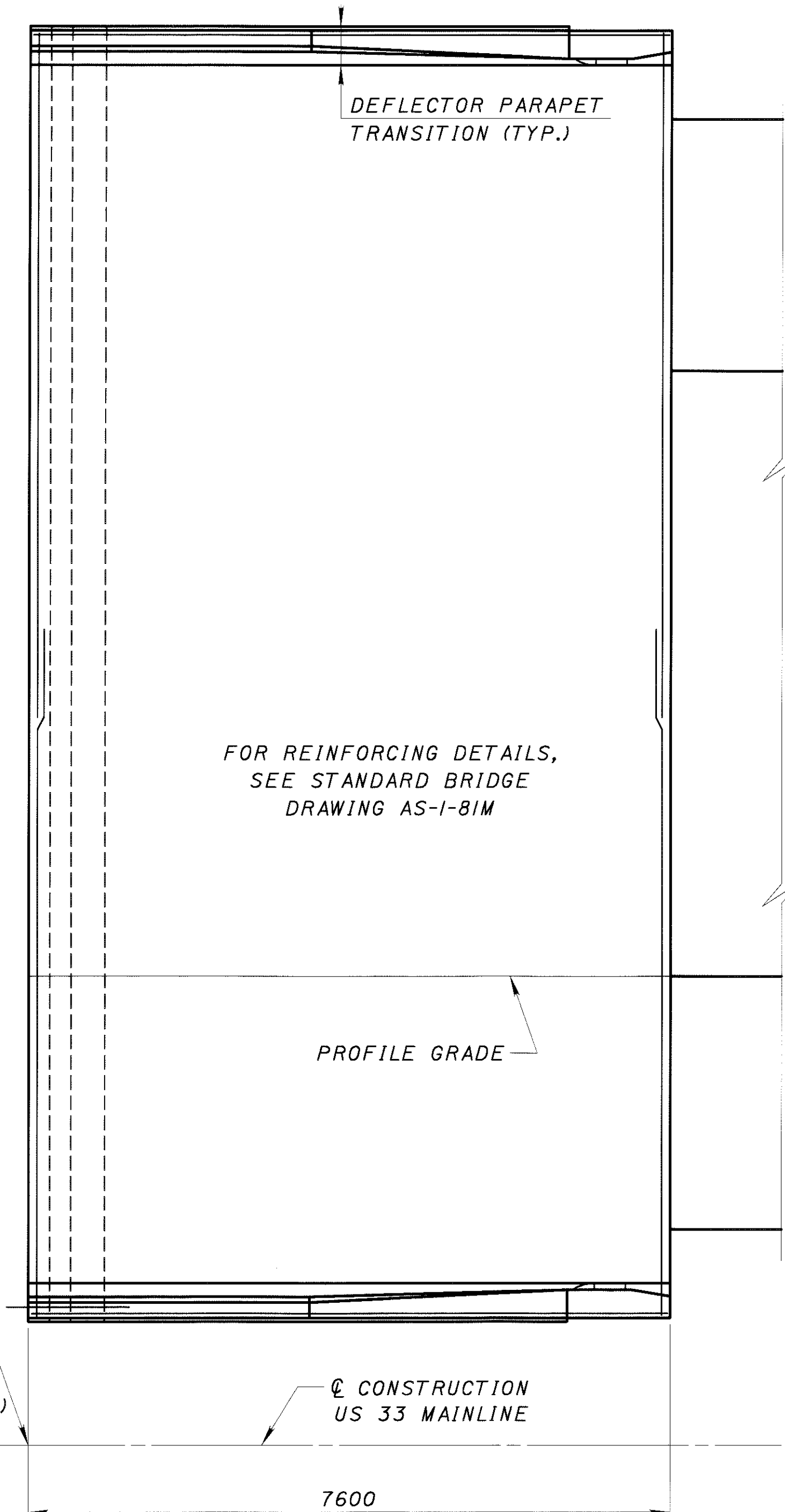
- ELASTOMERIC BEARINGS SHALL COMPLY WITH ITEM 516 AND AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGE, SECTION 18, BEARING DEVICES, DIVISION II, CONSTRUCTION, ARTICLES 18.4.5.1 AND 18.5.6.2. BEARINGS SHALL BE GRADE 3, 50 DUROMETER ELASTOMER, AND SHALL BE SUBJECTED TO THE LOAD TESTING REQUIREMENTS DEFINED IN ARTICLE 18.7.4.5 OF THE AASHTO DOCUMENT LISTED ABOVE. BEARINGS WERE DESIGNED UNDER SECTION 14.6.6 OF SECTION 14, BEARINGS, DIVISION I, DESIGN. TESTING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BEARINGS, EACH.
- BEARING REPOSITIONING: IF THE BEAM IS PLACED AT AN AMBIENT TEMPERATURE HIGHER THAN 26°C OR LOWER THAN 4°C, AND THE BEARING SHEAR DEFLECTION EXCEEDS ONE-SIXTH OF THE BEARING HEIGHT AT 15°C +/- 5°C; THE GIRDERS SHALL BE RAISED TO ALLOW THE BEARINGS TO RETURN TO THEIR UNDEFORMED SHAPE AT 15°C +/- 5°C.
- BASIS OF PAYMENT: THE UNIT BID PRICE SHALL INCLUDE ALL MATERIALS, AND INCIDENTALS NECESSARY TO FURNISH AND INSTALL LAMINATED ELASTOMERIC BEARINGS INCLUDING LOAD PLATE. PAYMENT WILL BE AT THE CONTRACT PRICE FOR ITEM 516, EACH, ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE AS LISTED UNDER THE ESTIMATED QUANTITIES.
- REFER TO STANDARD BRIDGE DRAWING PSID-I-99 FOR OTHER DETAILS.

LEGEND
 BOT. = BOTTOM
 C = CENTERLINE
 MIN. = MINIMUM
 TYP. = TYPICAL

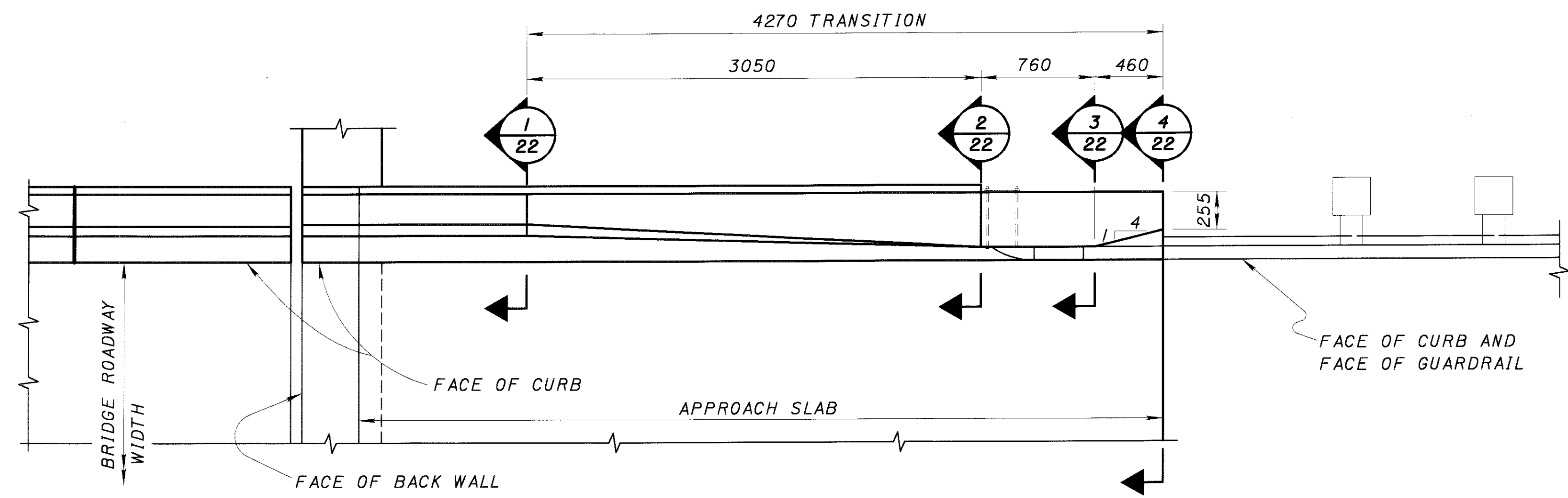


ELASTOMERIC BEARING PAD DETAILS

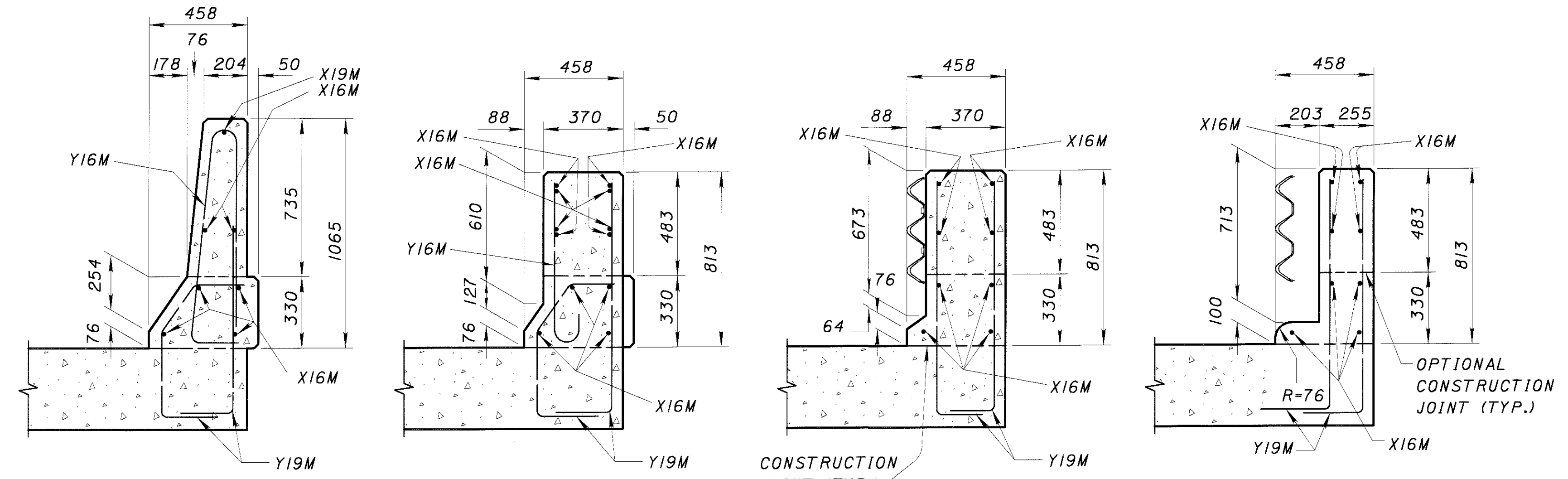




PLAN
FORWARD APPROACH SLAB SHOWN,
REAR APPROACH SLAB SYMMETRICAL



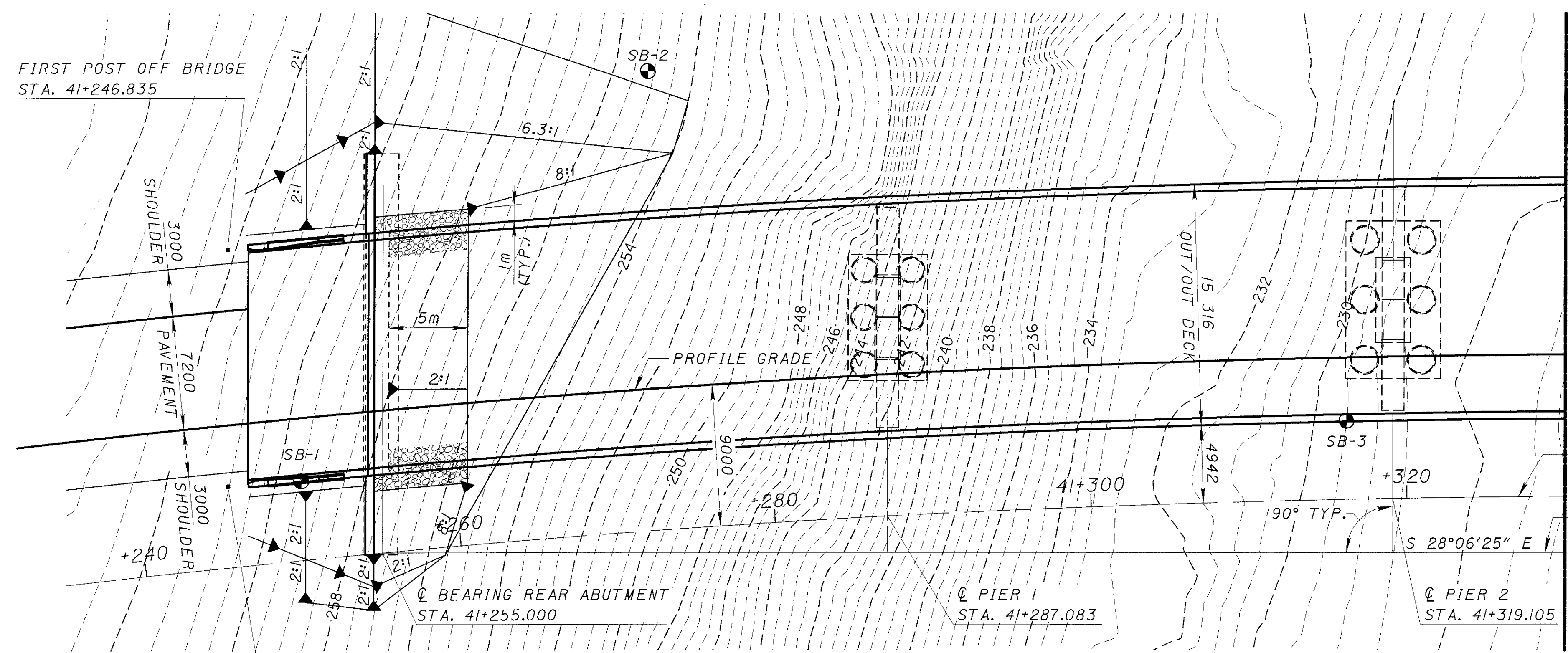
PART PLAN AT ABUTMENT



- NOTES:**
1. FOR ADDITIONAL APPROACH SLAB DETAILS, SEE BRIDGE STANDARD DRAWINGS AS-1-81M.
 2. FOR ADDITIONAL BRIDGE RAILING DEFLECTOR PARAPET DETAILS, SEE BRIDGE STANDARD DRAWING BR-1M, SHEET 2 OF 2.

- LEGEND**
- P.E.J.F. = PREFORMED EXPANSION JOINT FILLER
STA. = STATION
TYP. = TYPICAL

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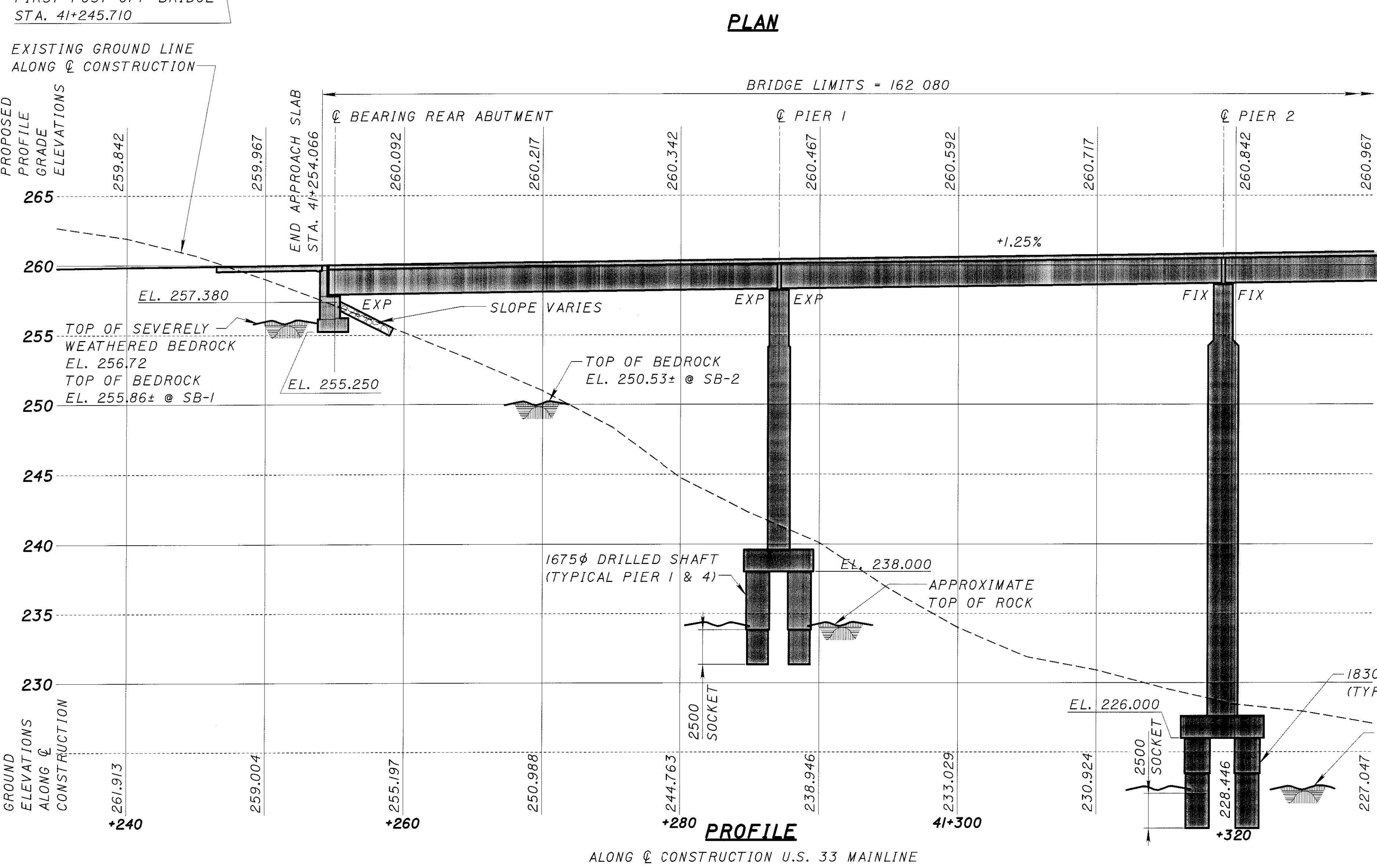


SEE SHEET 2 / 20

- NOTES:**
- EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.
 - ☉ = BORING LOCATIONS.
 - ▨ = 600 TYPE C ROCK CHANNEL PROTECTION WITH FILTER.
 - ALL UNITS ARE MILLIMETERS UNLESS NOTED OTHERWISE. STATIONS AND ELEVATIONS ARE GIVEN IN METERS.
 - REFERENCE CHORD IS DEFINED AS THE STRAIGHT LINE CHORD BETWEEN STA. 41+255.000 (Q BRG., REAR ABUTMENT) AND STA. 41+415.211 (Q BRG., FORWARD ABUTMENT).
 - FOR REFERENCE CHORD DIAGRAM AND LEGEND, SEE SHEET 2 / 20.
 - R/W IS BEYOND LIMITS OF THIS DRAWING SEE R/W PLANS FOR DETAILS.

CURVE DATA US 33 MAINLINE

P.I. Sta. = 41+434.287
 = 36° 16' 37" (RT)
 R = 900.000 m
 Ls = 80.000 m
 Theta = 2° 32' 47"
 LT = 53.339 m
 ST = 26.672 m
 x = 79.984 m
 y = 1.185 m
 k = 39.997 m
 p = 0.296 m
 c = 31° 11' 03" (RT)
 Lc = 489.838 m
 Ts = 334.929 m
 Es = 47.374 m
 emax = 0.061



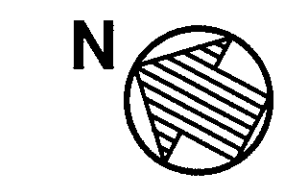
BENCHMARK	
BENCHMARK IRON PIN AND CAP STA. 41+280 ALONG Q	EL. 244.96
BENCHMARK IRON PIN AND CAP STA. 41+400 ALONG Q	EL. 253.91
LOCATION	
LATITUDE: N39°12'29"	
LONGITUDE: W 82°03'27"	
USGS QUADRANGLE: SHADE	
TRAFFIC	
2001 ADT = 4170	ADTT = 375
2021 ADT = 5740	ADTT = 517
HYDRAULIC DATA	
DRAINAGE AREA = 0.974 km ²	
Q50 = 8.25 m ³ /S	
HW50 = 226.9	
V50 = 1.9 m/S	
CLEARANCE ABOVE HW50 = 30.9m	
Q100 = 9.76 m ³ /S	
HW100 = 227.0	
V100 = 2.0 m/S	
PROPOSED STRUCTURE DATA	
TYPE: FIVE-SPAN PRESTRESSED CONCRETE I-BEAM WITH STUB TYPE ABUTMENTS AND WALL TYPE PIERS	
SPAN: 5 X 32 000 C/C BEARINGS ALONG REFERENCE CHORD	
ROADWAY: 14 400 T/T BARRIER	
SKEW: 0° TO REFERENCE CHORD	
DESIGN LOADING: MS 22.5 AND THE ALTERNATE MILITARY LOADING	
WEARING SURFACE: MONOLITHIC CONCRETE	
ALIGNMENT: 900m RADIUS CURVE RIGHT	
SUPERELEVATION: 0.016	
APPROACH SLABS: AS-1-81M (7600 LONG)	

DATE	01/19/00
REVIEWED	JM
DRAWN	RTP
DESIGNED	FAO
CHECKED	REK
STRUCTURE FILE NUMBER	0501204

ATHENS COUNTY
 STA. 41+254.066
 STA. 41+416.146

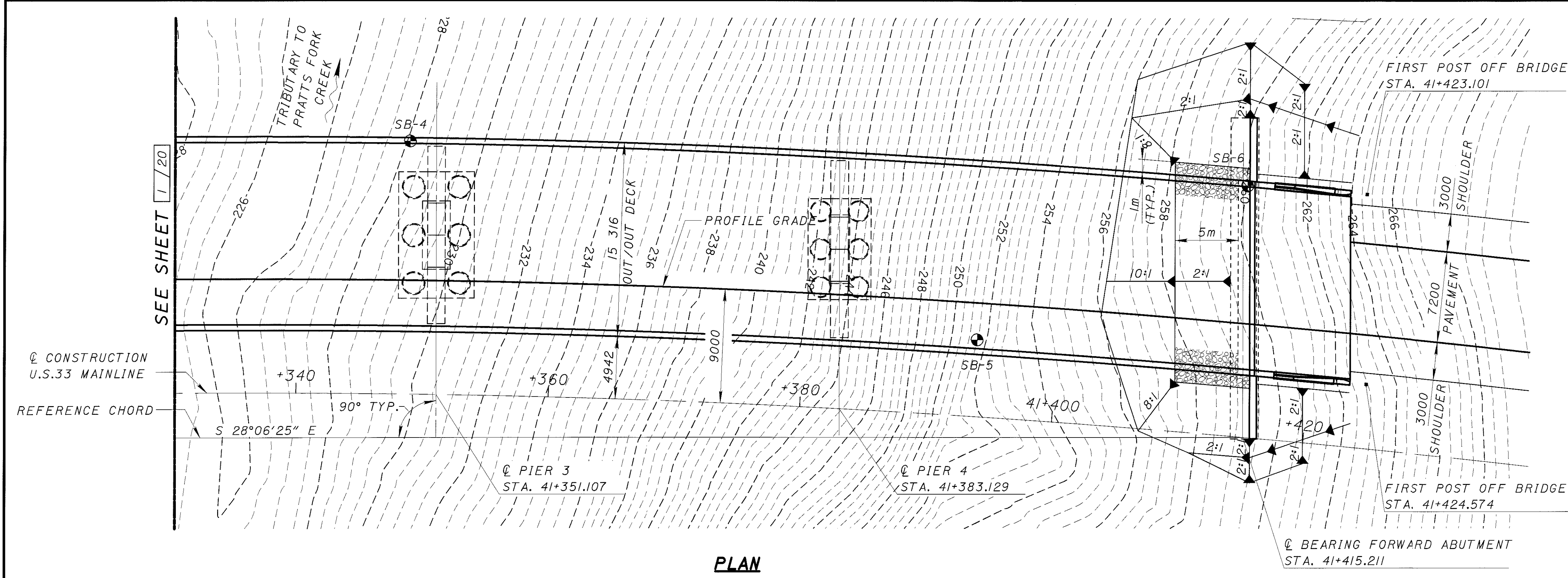
SITE PLAN
 BRIDGE NO. ATH-33-42635
 OVER TRIBUTARY TO PRATTS FORK CREEK

ATH-33-40.981

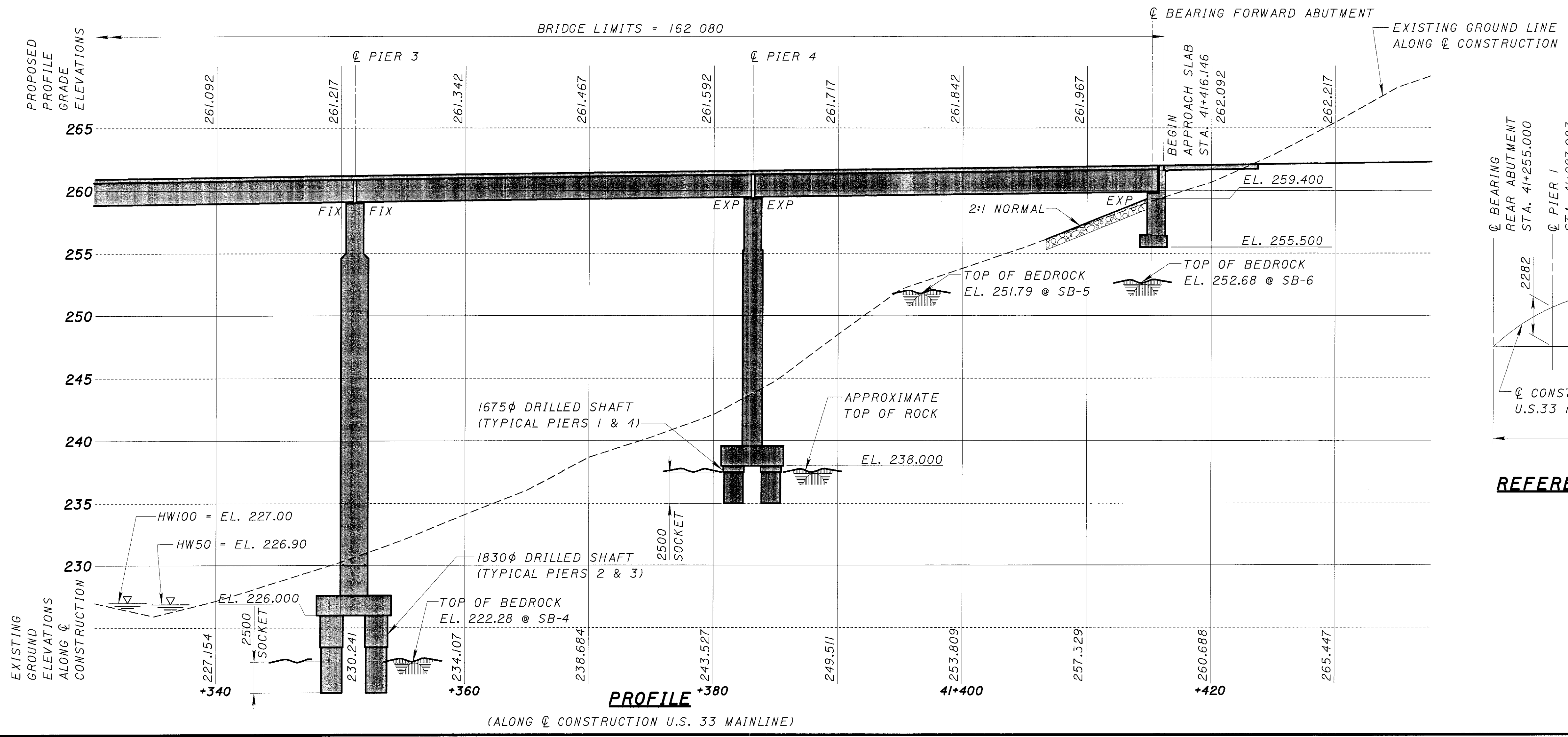


NOTE:
1. FOR SITE PLAN NOTES AND PROJECT DATA, SEE SHEET 1/20.

- LEGEND**
- ADT = AVERAGE DAILY TRAFFIC
 - ADTT = AVERAGE DAILY TRUCK TRAFFIC
 - CL = CENTERLINE
 - φ = DIAMETER
 - EL. = ELEVATION
 - EXP = EXPANSION
 - FIX = FIXED
 - R/W = RIGHT OF WAY
 - STA. = STATION
 - T.O.S. = TOP OF SLOPE
 - TYP. = TYPICAL

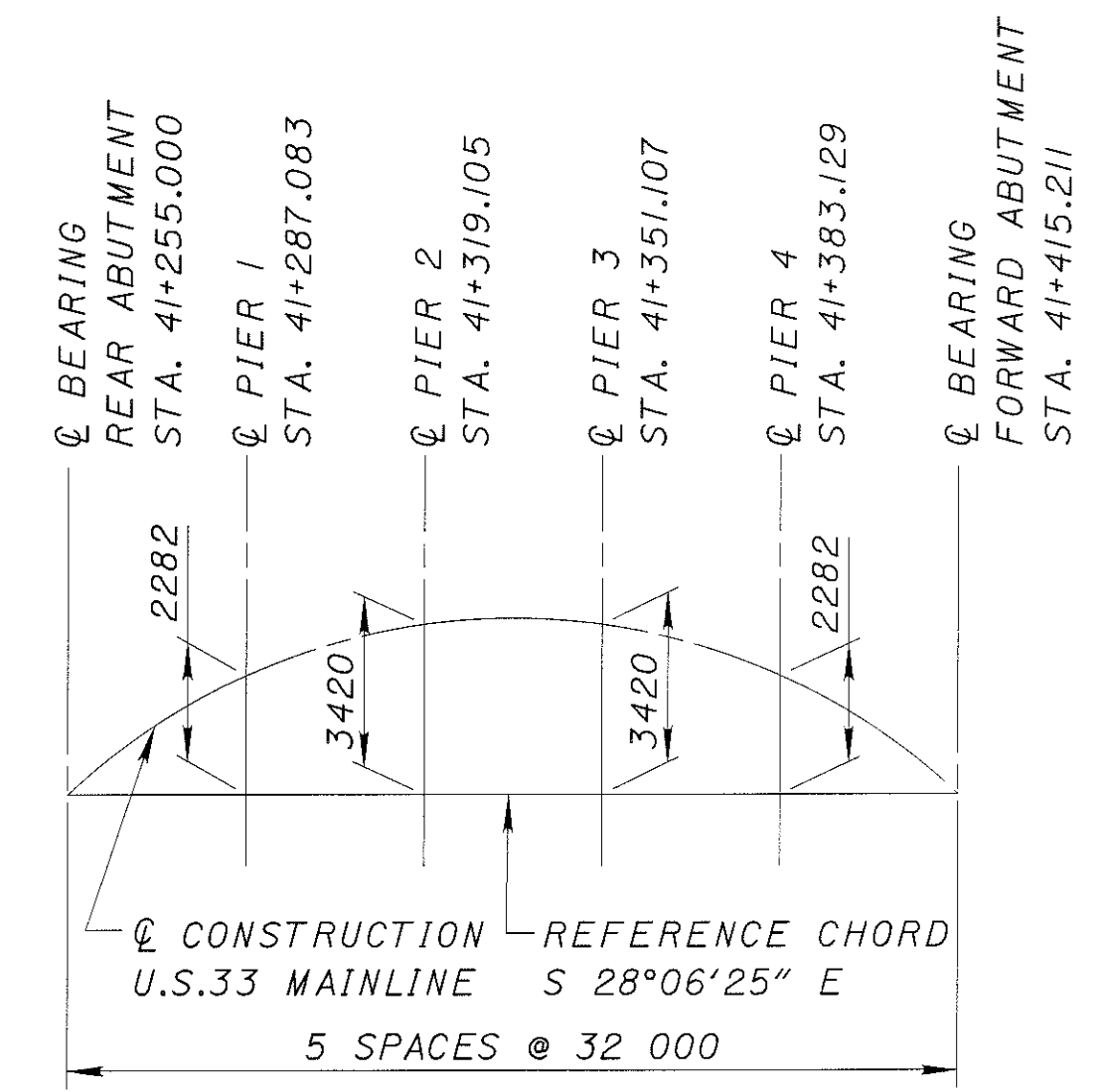


PLAN



PROFILE

(ALONG Q CONSTRUCTION U.S. 33 MAINLINE)



REFERENCE CHORD DIAGRAM

DESIGNED	FAO	CHECKED	REK
DRAWN	RTP	REVIEWED	
DATE	01/19/00	REVIEWED	JW
FILE NUMBER	0501204	STRUCTURE FILE NUMBER	
ATHENS COUNTY			
STA. 41+254.066			
STA. 41+416.146			

SITE PLAN
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

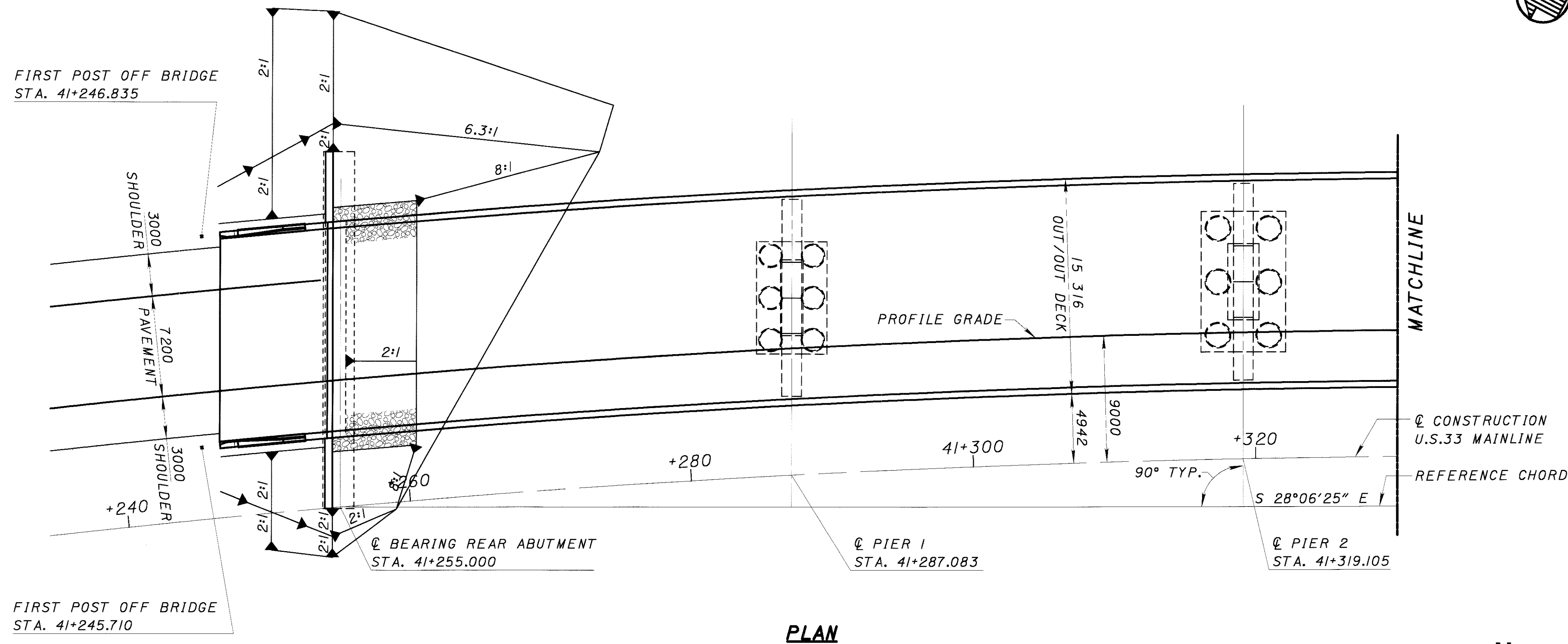
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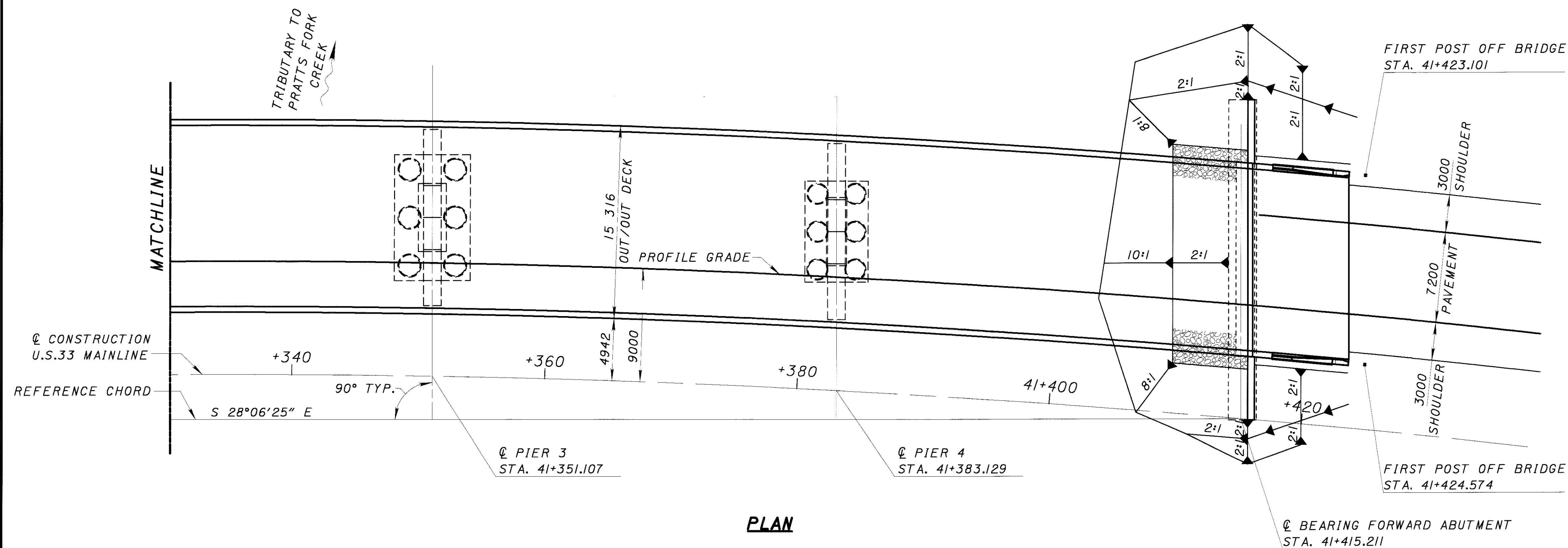


NOTES:

1. ALL UNITS ARE MILLIMETERS UNLESS NOTED OTHERWISE. STATIONS AND ELEVATIONS ARE GIVEN IN METERS.
2. REFERENCE CHORD IS DEFINED AS THE STRAIGHT LINE CHORD BETWEEN STA. 41+255.000 (C BRG., REAR ABUTMENT) AND STA. 41+415.211 (C BRG., FORWARD ABUTMENT).



PLAN



PLAN

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DESIGNED	DATE
FAQ	09/19/00
CHECKED	STRUCTURE FILE NUMBER
REK	0501204
DRAWN	REVIEWED
RTP	JN
REVISED	

GENERAL PLAN
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

ATH-33-40.981

3 / 20

887
949

STANDARD DRAWINGS:

DESCRIPTION	DWG. NO.	SHEET	DATE
STRAIGHT WING ABUTMENTS FOR BRIDGE WITH DEEP BEAM GUARD RAIL	A-I-69M	1-5	3-20-95
REINFORCED CONCRETE APPROACH SLAB	AS-I-81M	1-3	10-25-94
BRIDGE RAILING DEFLECTOR PARAPET TYPE	BR-1M	2	01-06-99 (R)
STRIP SEAL EXPANSION JOINTS FOR PRESTRESSED CONCRETE I-BEAM STRUCTURES	EXJ-6-95M	1-5	3-18-97 (R)
PRESTRESSED CONCRETE I-BEAM DETAILS	PSID-I-99	1-8	10-20-00 (R)

SUPPLEMENTAL SPECIFICATIONS:

DESCRIPTION	NO.	DATE
TREATING OF CONCRETE SURFACES WITH SRS	841	10-12-99
CONCRETE FOR STRUCTURES	842	1-6-99
HIGH PERFORMANCE CONCRETE FOR STRUCTURES	844	1-6-99
TREATING CONCRETE BRIDGE DECKS WITH HMWM RESIN	846	9-9-97
PRESTRESSED CONCRETE BRIDGE MEMBERS	865	2-22-00
HIGH PERFORMANCE CONCRETE (H.P.C.) FOR BRIDGE DECK WITH WARRANTY	894	10-12-99
CONCRETE - GENERAL	899	10-21-98
HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) RESIN	954	9-9-97

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1996, INCLUDING THE 1997, 1998 AND 1999 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2000.

DESIGN LOADING:

MS 22.5 AND THE ALTERNATE MILITARY LOADING. FUTURE WEARING SURFACE (FWS) OF 2.87 KPa.

DESIGN DATA:

- HIGH PERFORMANCE
CONCRETE HPC SS 844 - COMPRESSIVE STRENGTH 31.0 MPa (SUPERSTRUCTURE)
- CONCRETE CLASS C - COMPRESSIVE STRENGTH 28 MPa (SUBSTRUCTURE)
- CONCRETE CLASS S MODIFIED - COMPRESSIVE STRENGTH 28 MPa (DRILLED SHAFT)
- CONCRETE FOR PRESTRESSED I-BEAMS:
COMPRESSIVE STRENGTH-48.3 MPa (28 DAYS),
COMPRESSIVE STRENGTH-34.5 MPa (RELEASE)
UNIT STRESS : 19.3 MPa COMPRESSION
3.0 MPa TENSION
- PRESTRESS STRAND - ASTM A416M 13 mm
DIAMETER, SEVEN-WIRE, LOW RELAXATION STRANDS
Fs = 1860 MPa
INITIAL STRESS = 0.75 fs
- REINFORCING STEEL - ASTM A615M, A616M, OR
A617M GRADE 420, MINIMUM YIELD STRENGTH 420 MPA,
EPOXY COATED.
- SPIRAL REINFORCEMENT MAY BE PLAIN BARS, ASTM A82M, OR A615M.

DECK PROTECTION METHOD:

EPOXY COATED REINFORCING STEEL

65 mm CONCRETE COVER

SEALING CONCRETE SURFACES

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 25 mm THICK.

ITEM 511. REINFORCED CONCRETE APPROACH SLAB, T-380 mm, AS PER PLAN:

CONCRETE FOR THIS ITEM SHALL BE SS 844, HIGH PERFORMANCE CONCRETE, MIX 3 OR 4. THE HIGH PERFORMANCE CONCRETE TRIAL MIX AND TESTING, AS DESCRIBED IN SS 844, SHALL BE WAIVED.

ITEM 503. UNCLASSIFIED EXCAVATION, AS PER PLAN:

UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH 503 EXCEPT THAT THE BACKFILL MATERIAL BEHIND THE ABUTMENTS SHALL BE 203 MATERIAL PLACED IN 150 mm LIFTS.

FOUNDATION BEARING PRESSURE:

ABUTMENT FOOTINGS, AS DESIGNED, PRODUCE A MAXIMUM BEARING PRESSURE OF 0.35 MPa FOR REAR ABUTMENT, 0.38 MPa FOR FORWARD ABUTMENT. ALLOWABLE BEARING PRESSURE IS 0.96 MPa FOR REAR ABUTMENT, 0.48 MPa FOR FORWARD ABUTMENT.

ITEM 842. CLASS C CONCRETE, FOOTING AS PER PLAN:

IN ADDITION TO THE REQUIREMENTS OF ITEM 842, REFERENCE MONUMENTS SHALL BE INSTALLED IN ABUTMENT SPREAD FOOTING. EACH SPREAD FOOTING SHALL HAVE TWO REFERENCE MONUMENTS INSTALLED, ONE AT EACH END OF THE FOOTING. THE REFERENCE MONUMENT SHALL CONSIST OF A #25M, OR LARGER, EPOXY COATED REBAR. IT SHALL BE EMBEDDED INTO THE FOOTING AT LEAST 150 mm AND EXTEND VERTICALLY 100 TO 150 mm ABOVE THE TOP OF THE FOOTING. A 150 mm DIAMETER, SCHEDULE 40, PLASTIC PIPE SHALL BE INSTALLED AROUND THE REFERENCE MONUMENT; SHALL BE VERTICAL; AND THE TOP OF THE PIPE SHALL BE AT THE FINISHED GRADE. THE PIPE SHALL HAVE A REMOVABLE, SCHEDULE 40, PLASTIC CAP. THE PIPE SHALL BE CENTERED ON THE REFERENCE MONUMENT. THE BOTTOM OF THE PIPE SHALL BE PERMANENTLY ATTACHED TO THE TOP OF THE FOOTING. THE TABLE BELOW SHALL BE COMPLETED FOR EACH INSTALLED REFERENCE MONUMENT.

PROJECT NO.: ATH-33-40.981	MAX BEARING PRESSURE: 0.33 MPa	
BRIDGE NO.: ATH-33-42635	STRUCTURE FILE NO.: 0501204	
FORWARD ABUTMENT	LEFT MONUMENT	RIGHT MONUMENT
AFTER FOOTING CONCRETE IS PLACED		
BEFORE PLACEMENT OF SUPERSTRUCTURE MEMBERS		
BEFORE DECK PLACEMENT		
AFTER DECK PLACEMENT		
PROJECT COMPLETED		
BENCHMARK LOCATION		

THE CONTRACTOR SHALL ESTABLISH A BENCHMARK FOR DETERMINING ELEVATIONS FOR THE ABOVE TABLE. THE BENCHMARK SHALL BE THE SAME THROUGHOUT THE PROJECT AND SHALL BE INDEPENDENT OF ALL STRUCTURES. COMPLETED TABLES SHALL BECOME PART OF THE DISTRICT'S PROJECT PLAN RECORDS AND A COPY SHALL BE SENT TO THE OFFICE OF STRUCTURAL ENGINEERING.

DRILLED SHAFTS:

THE DESIGN LOAD TO BE SUPPORTED BY EACH DRILLED SHAFT IS 5000 KN AT THE PIERS 1 AND 4; 7000 KN AT PIERS 2 AND 3. THIS LOAD IS RESISTED BY SHAFT ADHESION WITHIN A PORTION OF THE BEDROCK SOCKET AND ALSO BY SHAFT END BEARING. THE ALLOWABLE BEDROCK SOCKET ADHESION IS 100 KPa, ASSUMED TO ACT ALONG THE BOTTOM 1.9 METERS OF THE BEDROCK SOCKET FOR THE PIERS. THE ALLOWABLE END BEARING PRESSURE IS 2.87 MPa.

CONVERSION OF STANDARD BRIDGE DRAWINGS:

THE STANDARD BRIDGE DRAWINGS REFERENCED IN THIS PLAN ARE ENGLISH. ANY CONVERSION OF DIMENSIONS REQUIRED TO CONSTRUCT THE ITEMS SHOWN ON THE STANDARDS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONVERSIONS SHALL BE MADE USING THE ENGLISH TO SI (METRIC) CONVERSION FACTORS PROVIDED IN SECTION 109.011 OF THE 1997 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE.

ITEM 865. PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, MISC.: CONCRETE INTERMEDIATE DIAPHRAGMS, AS PER PLAN:

STANDARD DRAWING PSID-I-99 SHOWS THAT STEEL OR CONCRETE MAY BE USED FOR THE INTERMEDIATE DIAPHRAGMS. DISTRICT 10 HAS CHANGED THIS REQUIRING THAT ONLY CONCRETE IS TO BE USED.

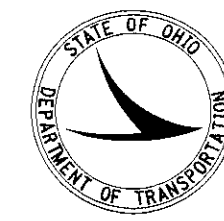
SEALING OF CONCRETE SURFACE (EPOXY - URETHANE):

EPOXY - URETHANE SHALL BE A LIGHT NEUTRAL COLOR MEETING FEDERAL COLOR STANDARD NO. 17778 AS PER THE DETAILS IN THE PLANS.

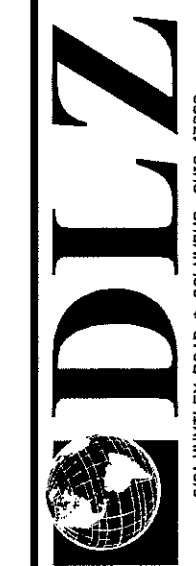
CONCRETE, AS PER PLAN

A REINFORCING STEEL LIST HAS NOT BEEN PROVIDED WITH THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING THE REINFORCING STEEL LIST AND ALL REINFORCING STEEL DETAILS, IN ACCORDANCE WITH SECTION 301.4 THROUGH 301.4.8 (INCLUSIVE) OF THE ODOT BRIDGE DESIGN MANUAL, APRIL 2000 EDITION. THE COMPLETED REINFORCING STEEL LIST SHALL BE SUBMITTED TO THE DIRECTOR FOR REVIEW AND ACCEPTANCE IN ACCORDANCE WITH CMS 509.05. FABRICATION OF THE REINFORCING STEEL SHALL NOT BEGIN UNTIL WRITTEN ACCEPTANCE OF THE SUBMITTED DRAWINGS HAS BEEN RECEIVED FROM THE DIRECTOR. ALL COSTS FOR PREPARING THE REINFORCING STEEL LIST SHALL BE INCLUDED FOR PAYMENT WITH THE APPROPRIATE 842/844 CONCRETE ITEMS

WHEN THE SHAPE OF A BAR IS NOT APPARENT IN THE PLAN DETAILS, A BEND DIAGRAM HAS BEEN SHOWN WITH THE BAR SIZE.



metric units



601 HANLEY ROAD • COLUMBUS, OHIO 43229

ESTIMATED QUANTITIES

CALC. BY: FAQ DATE: 8-22-00
CHKD. BY: TEU DATE: 8-22-00

ITEM	ITEM EXTENSION	TOTAL	METRIC UNITS	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL
503	11100	LUMP	LUMP	COFFERDAMS, CRIBS AND SHEETING				LUMP
503	21101	693	CU. M.	UNCLASSIFIED EXCAVATION, AS PER PLAN	693			
503	31100	47	CU. M.	ROCK EXCAVATION	47			
SPECIAL	51267510	1941	SQ. M.	SEALING OF CONCRETE SURFACES, (EPOXY-URETHANE)	151		1790	
516	11210	31	METER	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL	31			
516	44201	60	EACH	ELASTOMERIC BEARING W/ INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (380x380x111), AS PER PLAN	12	48		
518	21200	122	CU. M.	POROUS BACKFILL WITH FILTER FABRIC	122			
518	40000	50	METER	150 MM PERFORATED CORRUGATED PLASTIC PIPE	50			
518	40010	24	METER	150 MM NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	24			
524	94000	LUMP	LUMP	PROOF TESTING FOR DRILLED SHAFTS				LUMP
524	94918	30	METER	DRILLED SHAFTS, 1525 MM DIAMETER INTO BEDROCK		30		
524	94922	30	METER	DRILLED SHAFTS, 1675 MM DIAMETER ABOVE BEDROCK		30		
524	94934	30	METER	DRILLED SHAFTS, 1675 MM DIAMETER INTO BEDROCK		30		
524	94946	42	METER	DRILLED SHAFTS, 1830 MM DIAMETER ABOVE BEDROCK		42		
601	32200	116	CU. M.	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	116			
841	10000	2460	SQ. M	TREATING OF CONCRETE SURFACES, SRS			2460	
842	31509	105	CU. M.	CLASS S CONCRETE, SUPERSTRUCTURE (PARAPETS), AS PER PLAN *			105	
842	40501	1178	CU. M.	CLASS C CONCRETE, PIER ABOVE FOOTINGS (WALLS), AS PER PLAN		1178		
842	44101	146	CU. M.	CLASS C CONCRETE, ABUTMENT NOT INCLUDING FOOTING, AS PER PLAN	146			
842	46001	40	CU. M.	CLASS C CONCRETE (WINGWALL ABOVE FOOTING), AS PER PLAN	40			
842	46501	451	CU. M.	CLASS C CONCRETE, FOOTING, AS PER PLAN	131	320		
865	15050	30	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE 4 MOD. (1830 MM)			30	
865	16000	75	EACH	PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, MISC. : CONCRETE INTERMEDIATE DIAPHRAGMS, AS PER PLAN			75	
894	10001	636	CU. M.	HIGH PERFORMANCE CONCRETE FOR BRIDGE DECK WITH WARRANTY, AS PER PLAN **			636	

* PARAPET ON APPROACH SLAB IS INCLUDED WITH THIS PAY ITEM.
** INCLUDES CONCRETE FOR PIER AND ABUTMENT DIAPHRAGMS.

DATE	09/19/00
REVIEWED	JN
STRUCTURE FILE NUMBER	0501204
DRAWN	RTP
REVISION	-
DESIGNED	FAQ
CHECKED	REK

ESTIMATED QUANTITIES
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

ATH-33-40.981

5 / 20

889
949

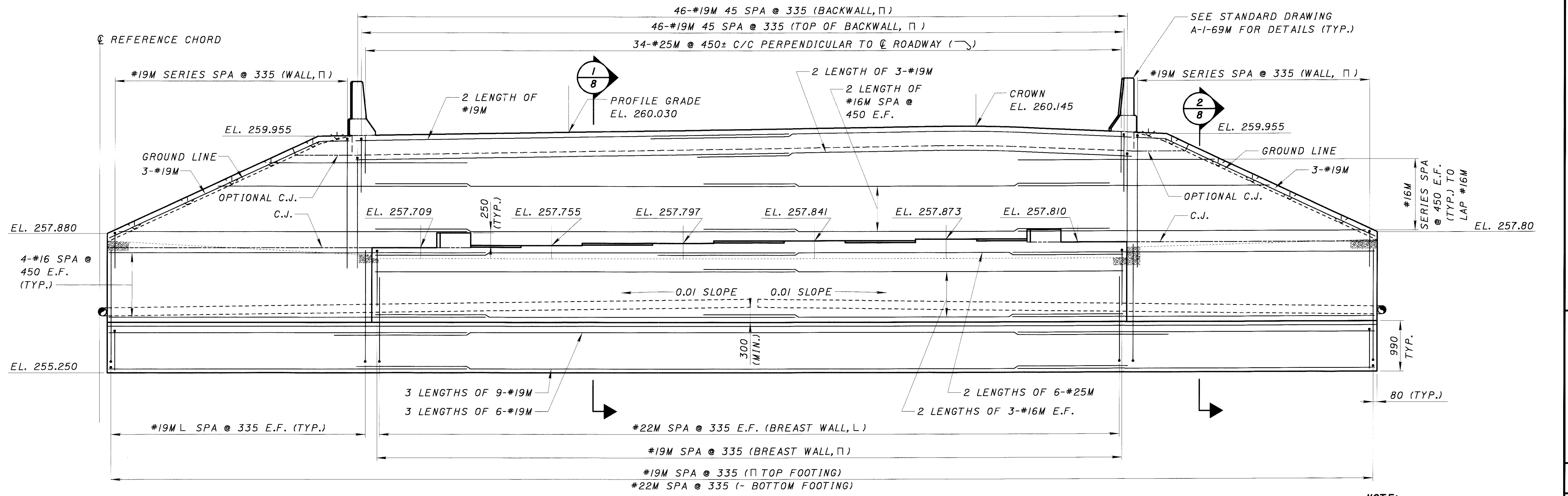
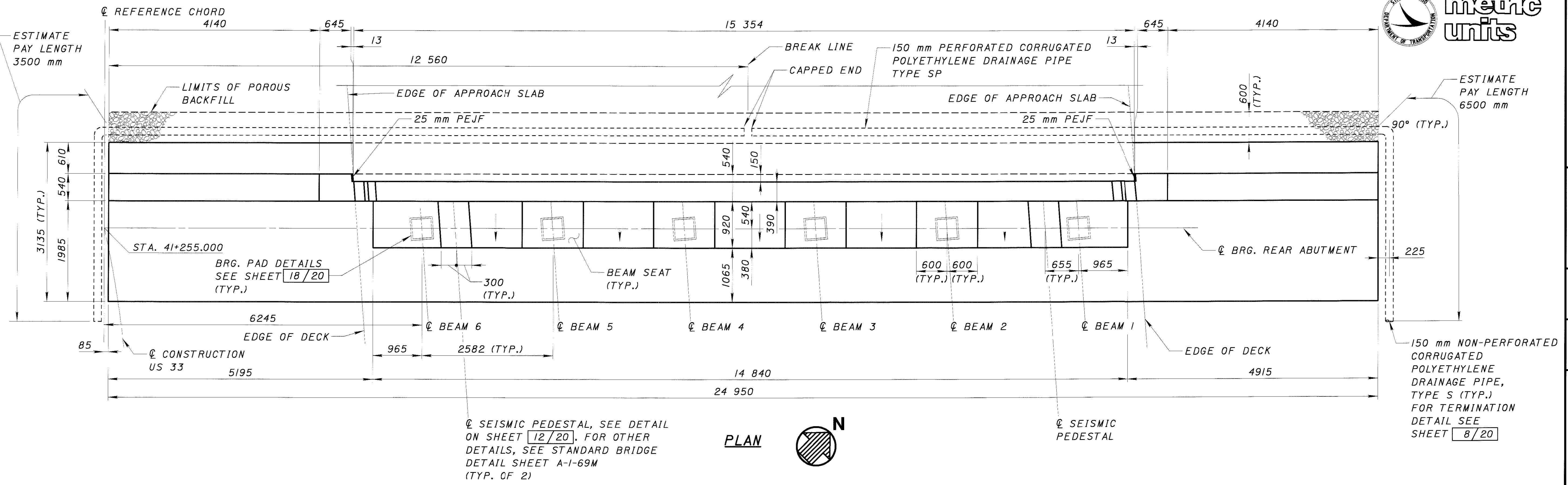
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DRAWN	RTP	REVISED	-
REVIEWED	JN	DATE	09/19/00
STRUCTURE FILE NUMBER	0501204		

REAR ABUTMENT
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

ATH-33-40.981

6 / 20

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NOTE:
1. FOR NOTES, SECTIONS, AND LEGEND, SEE SHEET 8/20.

ELEVATION

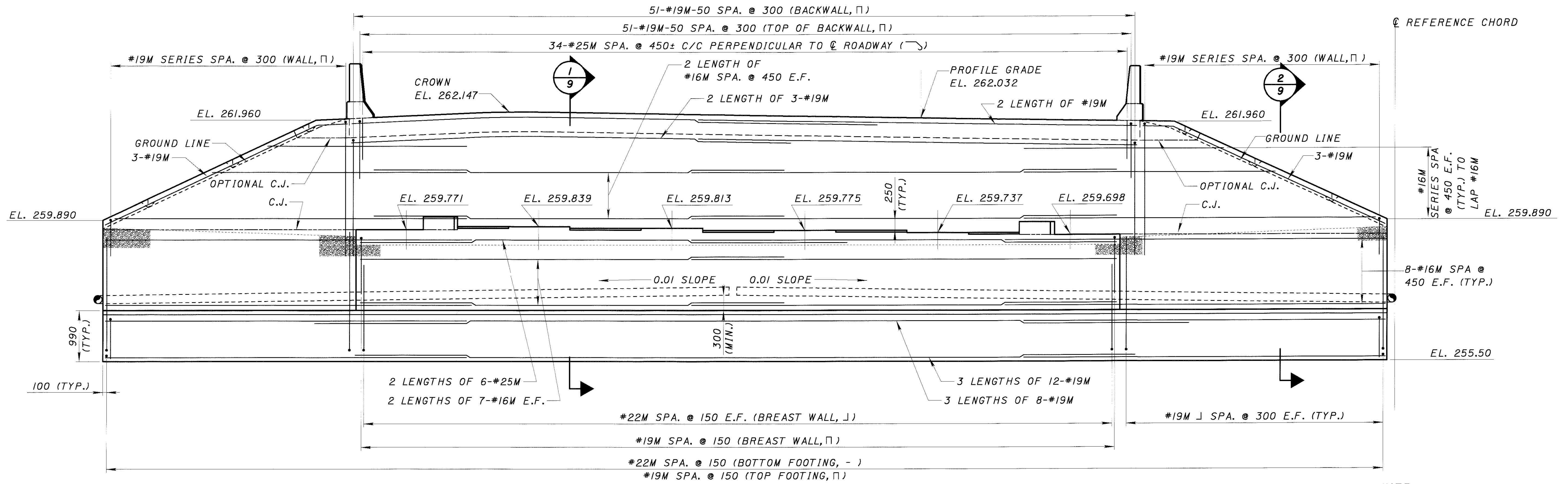
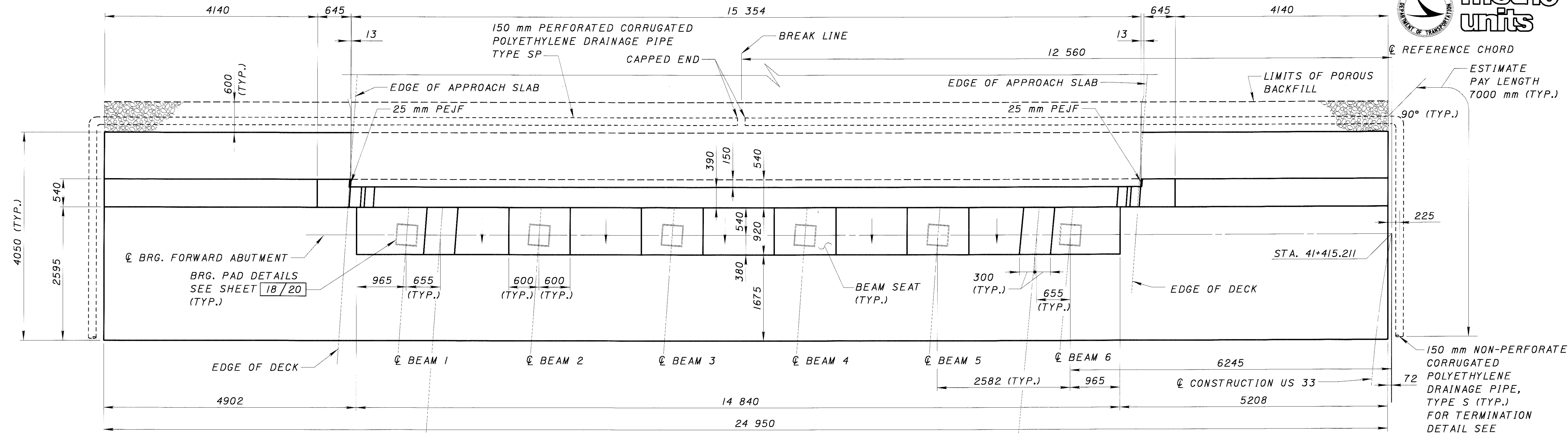
DESIGNED	DATE	REVIEWED	DATE
FAQ	09/19/00	JN	09/19/00
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OAH		REVISED	05/01/04

FORWARD ABUTMENT
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

ATH-33-40.981

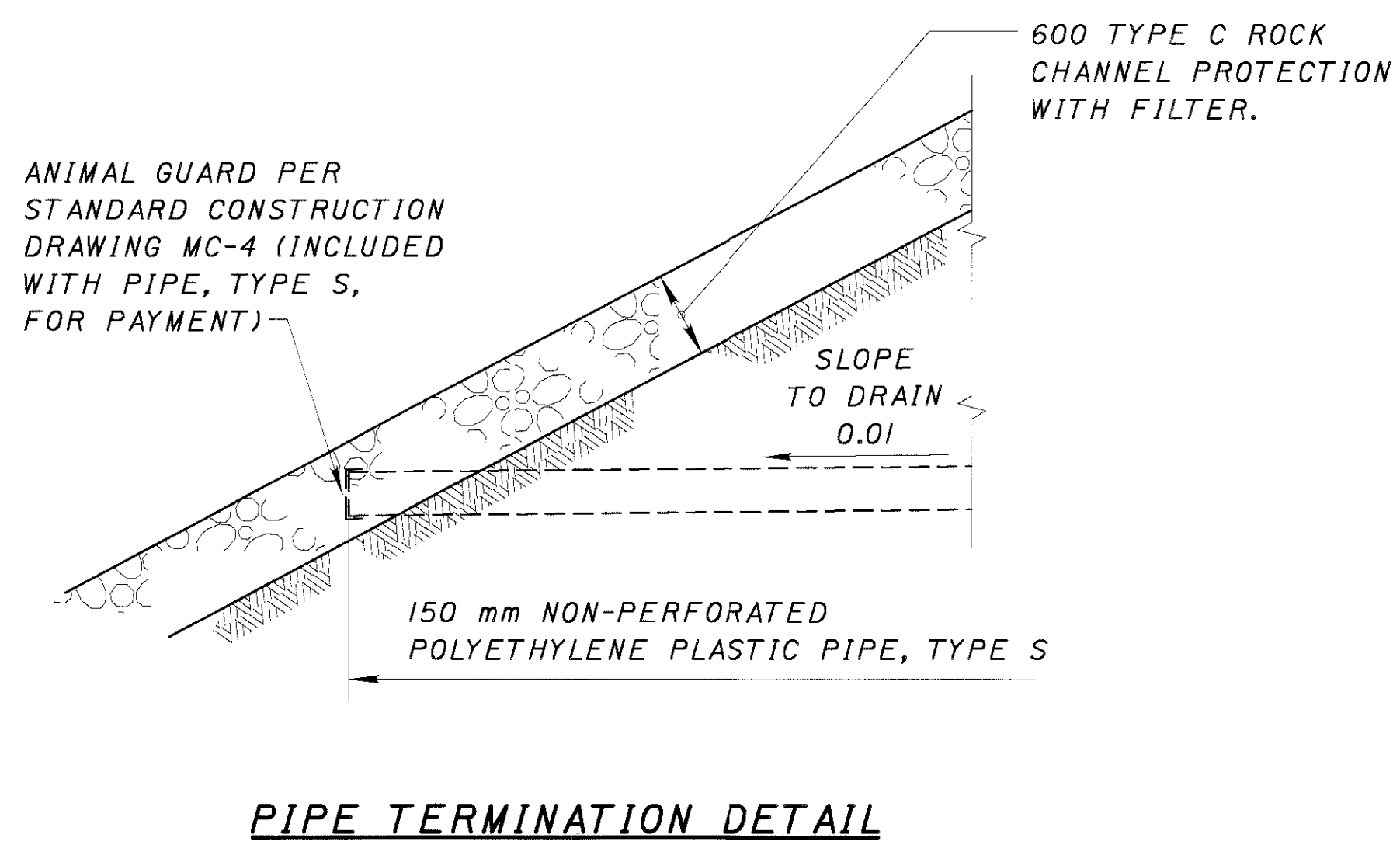
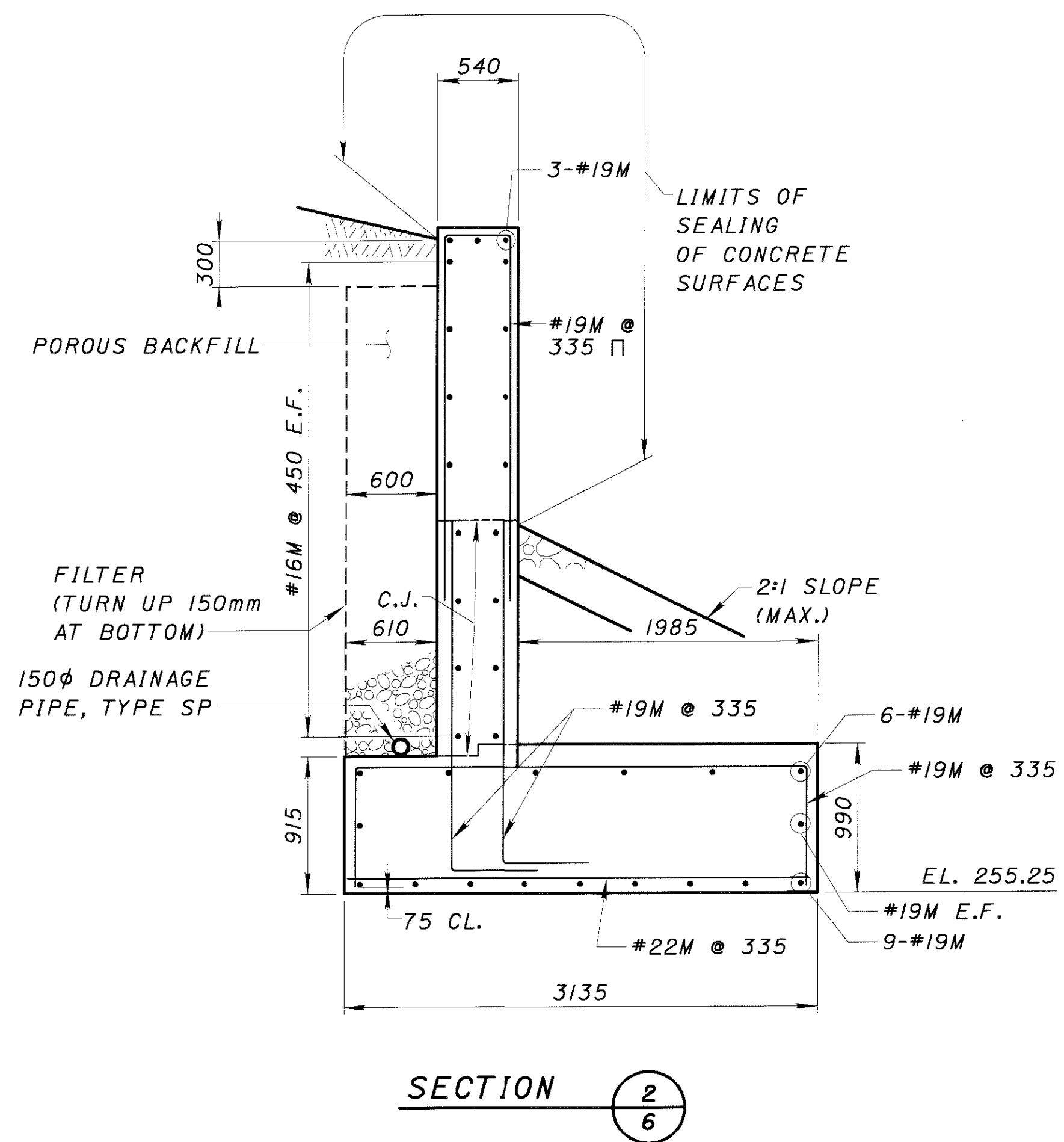
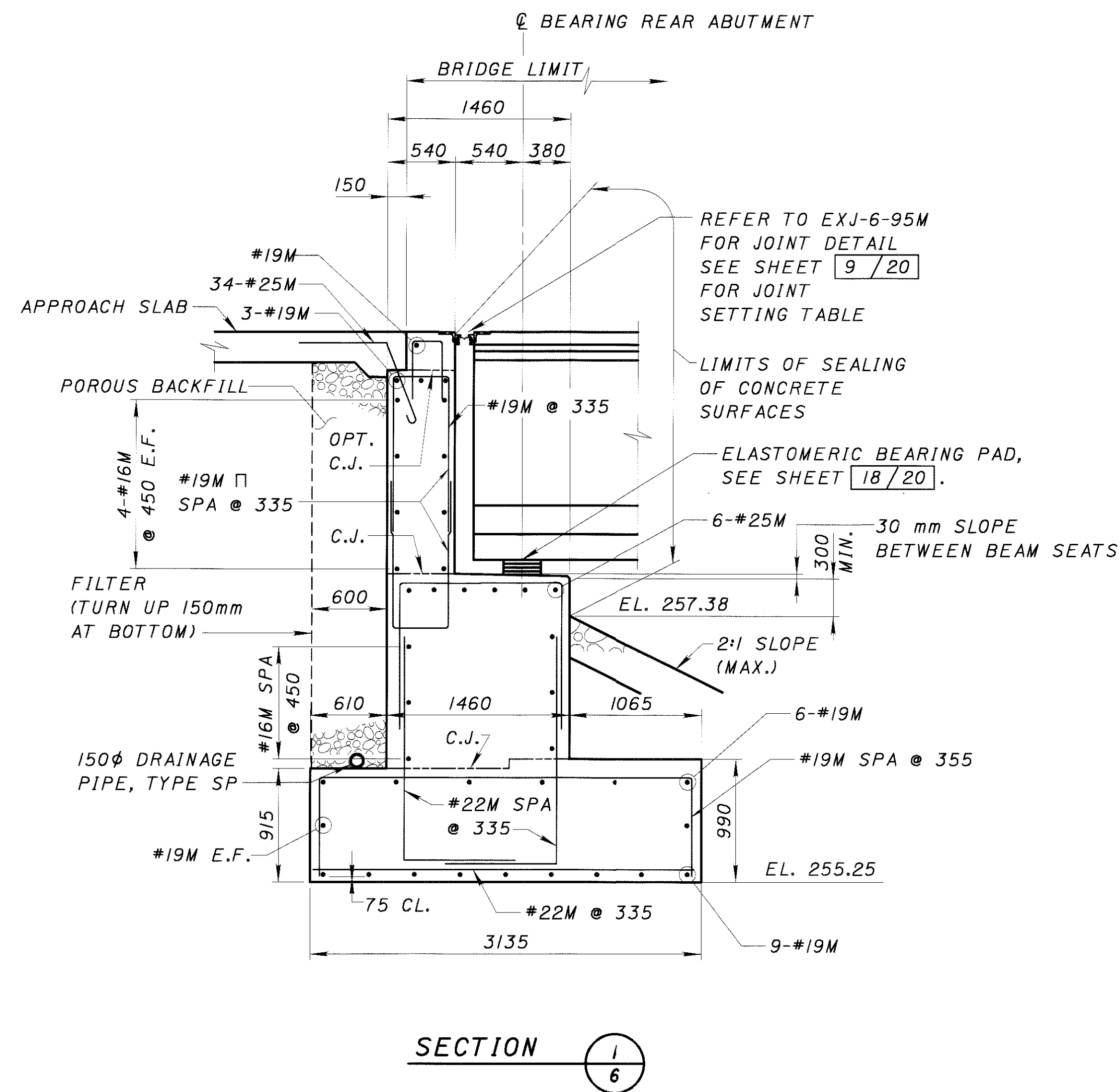
7 / 20

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NOTE:
1. FOR NOTES AND LEGEND, SEE SHEET 8/20.

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LEGEND

- CL = CENTERLINE
- C/C = CENTER TO CENTER
- C.J. = CONSTRUCTION JOINT
- CL. = CLEAR
- φ = DIAMETER
- E.F. = EACH FACE
- EL. = ELEVATION
- MIN. = MINIMUM
- OPT. = OPTIONAL
- PEJF = PREFORMED EXPANSION JOINT FILLER
- SPA. = SPACES
- TYP. = TYPICAL

NOTES:

1. FOR REAR ABUTMENT PLAN AND ELEVATION, SEE SHEET 6/20.
2. ALL REINFORCING STEEL SHALL BE PLACED TO PROVIDE A MINIMUM COVER OF 50 mm UNLESS OTHERWISE SHOWN.
3. POROUS BACKFILL WITH FILTER 600 mm THICK SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE, 300 mm BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE END OF THE WINGWALLS.
4. THE SEALING OF CONCRETE SURFACE SHALL BE SEALED WITH EPOXY-URETHANE SEALER.
5. REINFORCING LAP LENGTH AND DEVELOPMENT LENGTH.

TYPE	LAP (TOP)	OTHER	DEVELOPMENT LENGTH
#16M	1090	970	
#19M	1320	1170	690
#22M	1680	1470	860
#25M	2210	1930	

6. REFER TO AS-1-B1M AND SHEET 20/20 FOR APPROACH SLAB DETAILS.

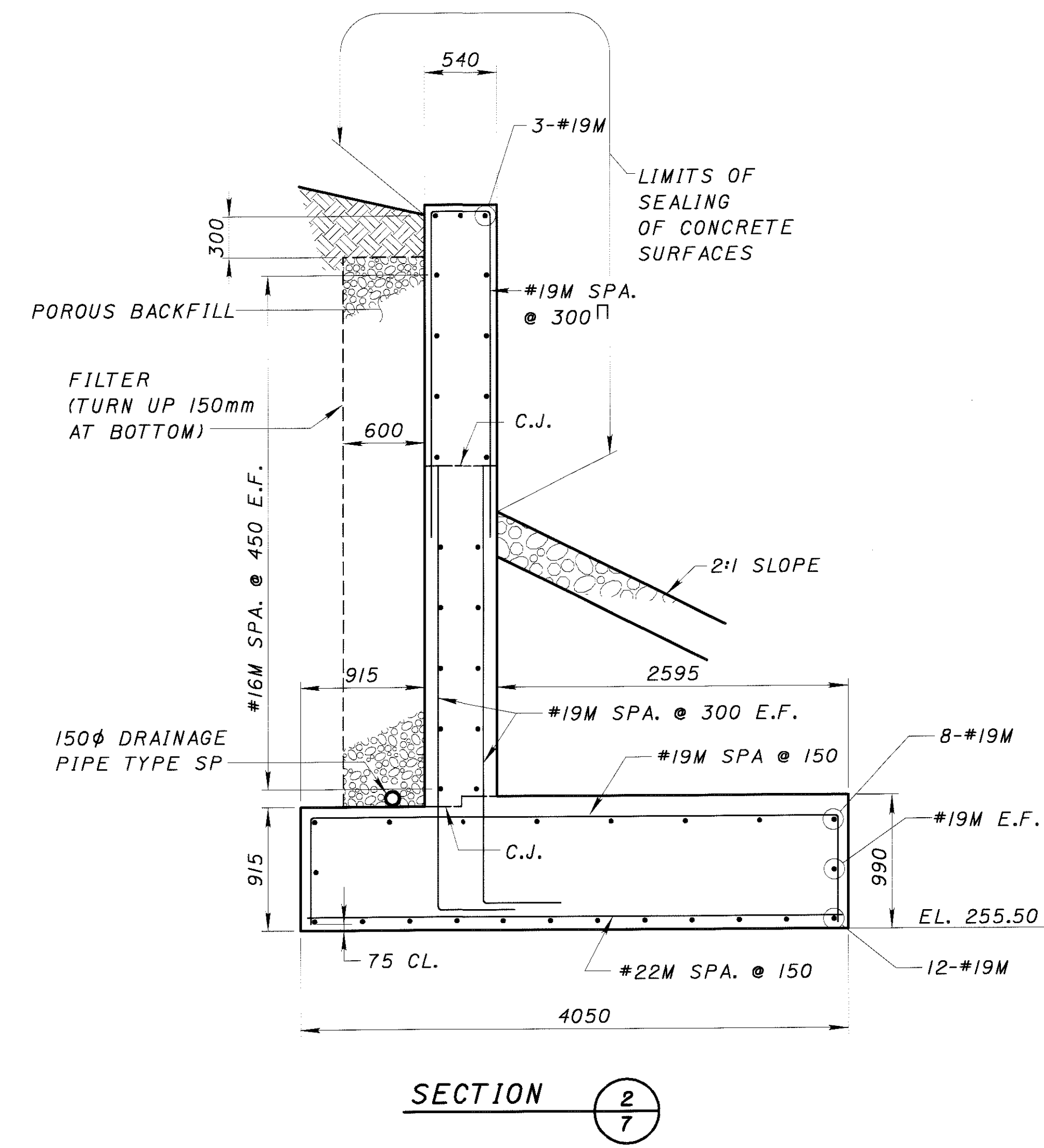
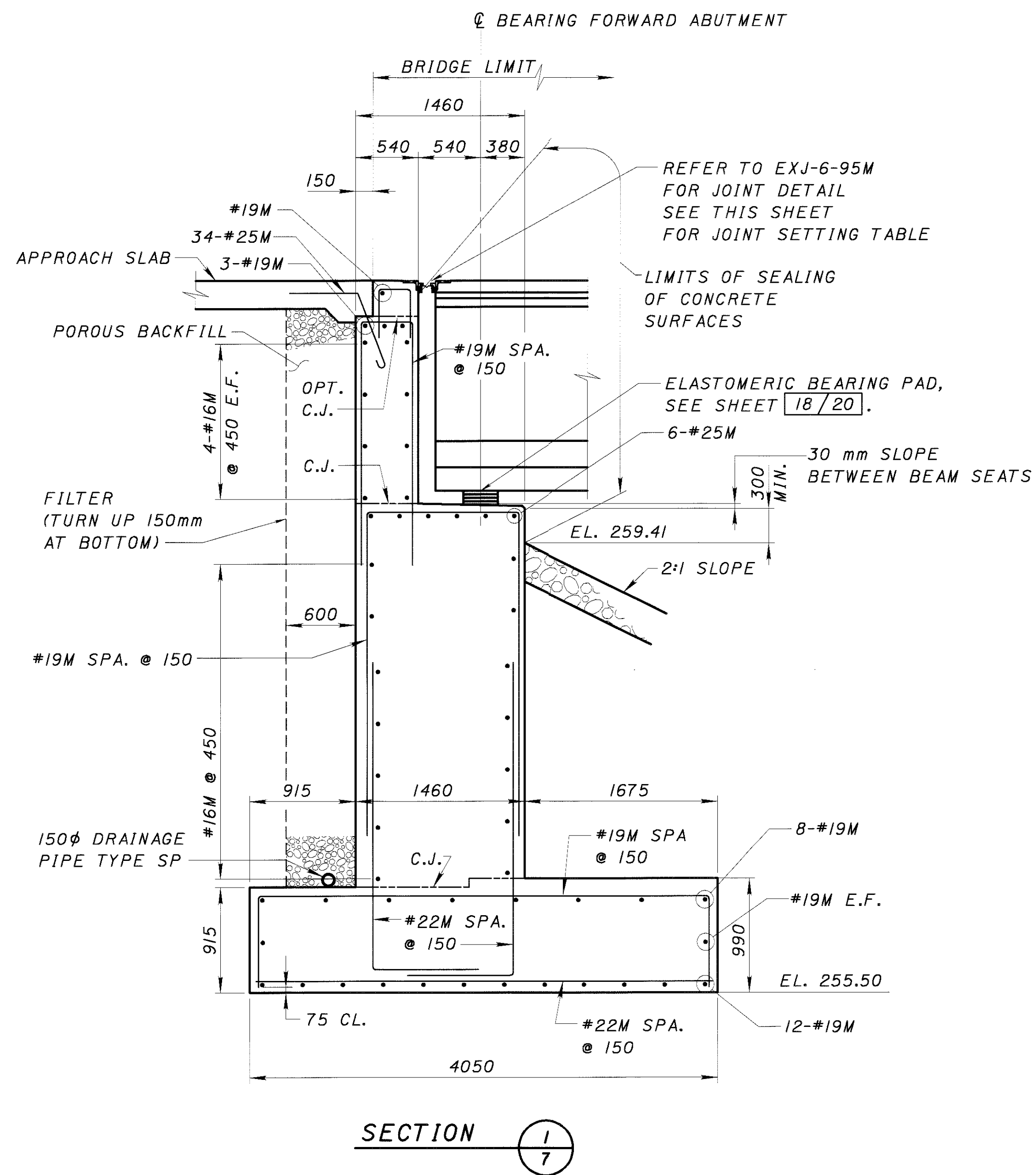
DESIGNED	FAO	CHECKED	OAH
DRAWN	RTP	REVISED	-
REVIEWED	JN	DATE	09/19/00
STRUCTURE FILE NUMBER			0501204

REAR ABUTMENT DETAILS
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

ATH-33-40.981

8/20

892
949

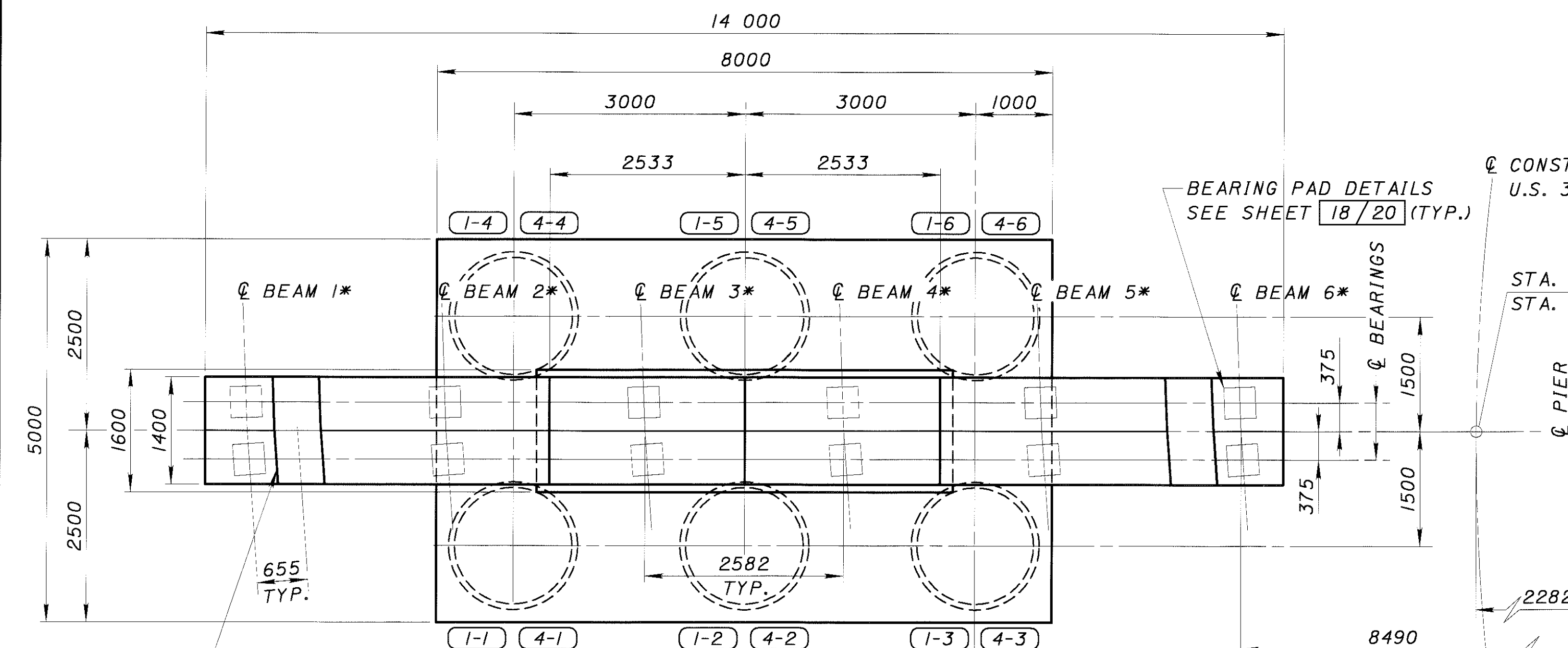


ANTICIPATED AMBIENT TEMPERATURE AT TIME OF JOINT INSTALLATION DEGREES CELSIUS	REQUIRED JOINT OPENING - DIM "A"	
	REAR ABUTMENT	FORWARD ABUTMENT
0	50	50
5	46	46
10	42	42
15	38	38
20	34	34
25	30	30
30	26	26
35	22	22

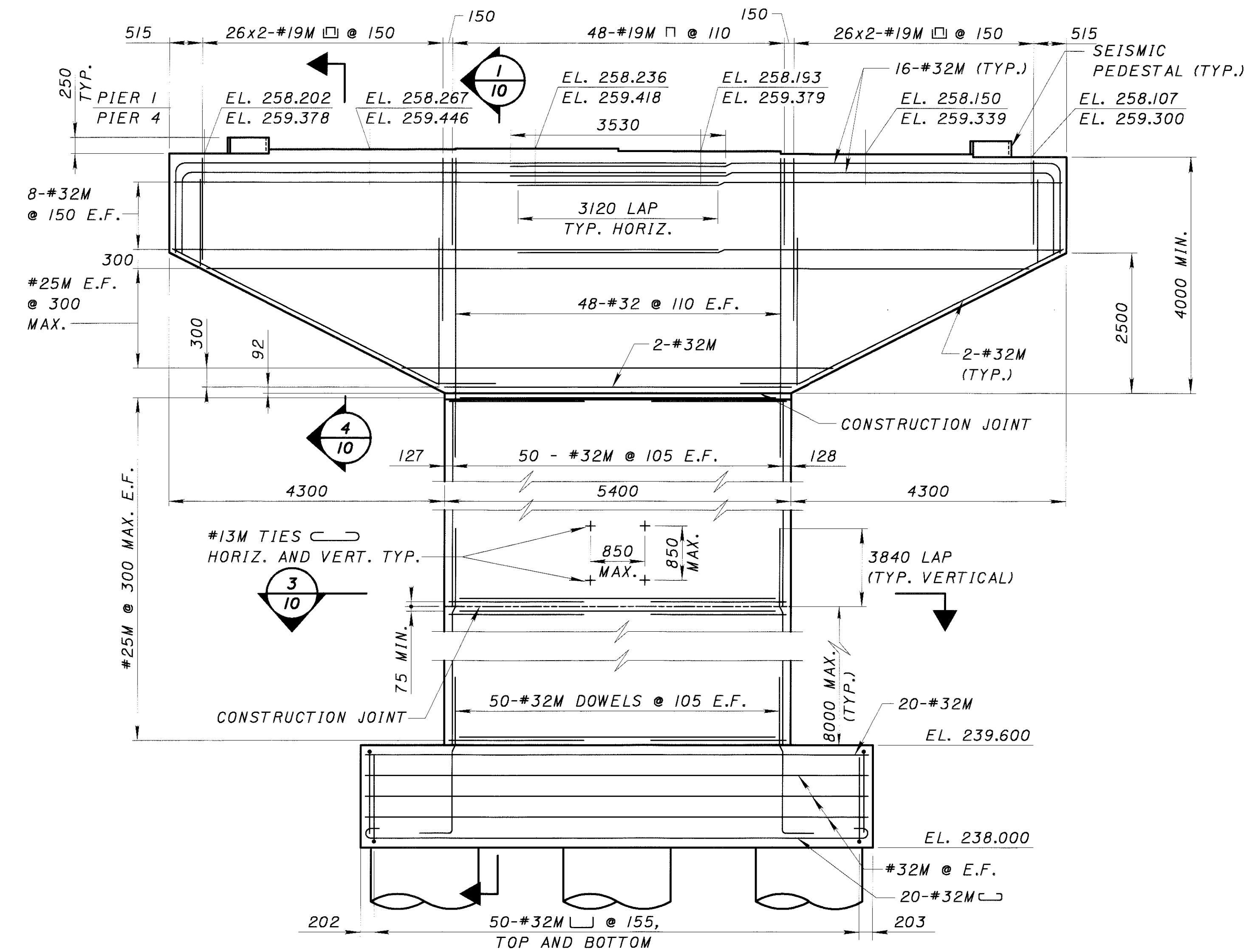
SEE STD. DWG. EXJ-6-95M FOR EXPANSION JOINT DETAILS.
 USE 170mm FOR DIMENSION D IN STD. DWG. EXJ-6-95M, SHEET 4 OF 5.

NOTES:

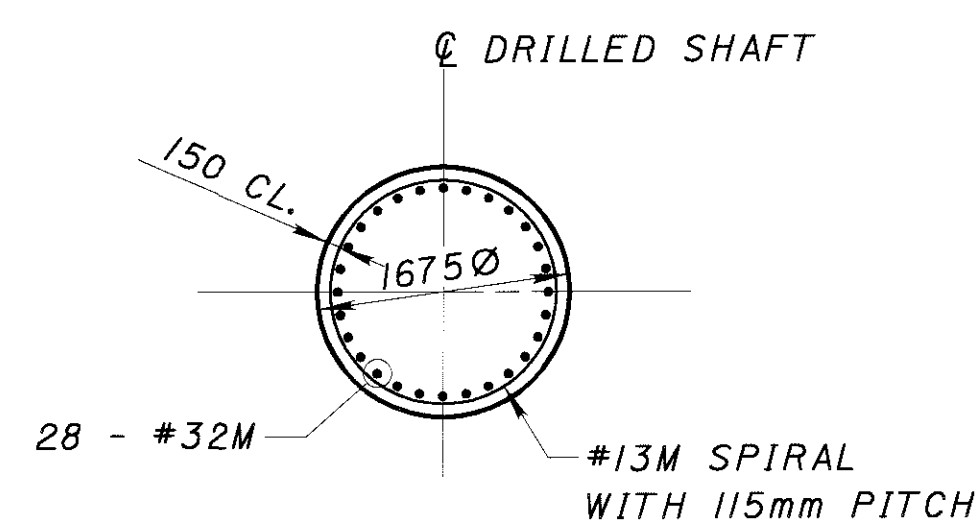
- FOR FORWARD ABUTMENT PLAN AND ELEVATION, SEE SHEET 7/20.
- FOR ADDITIONAL NOTES & LEGEND SEE SHEET 8/20.



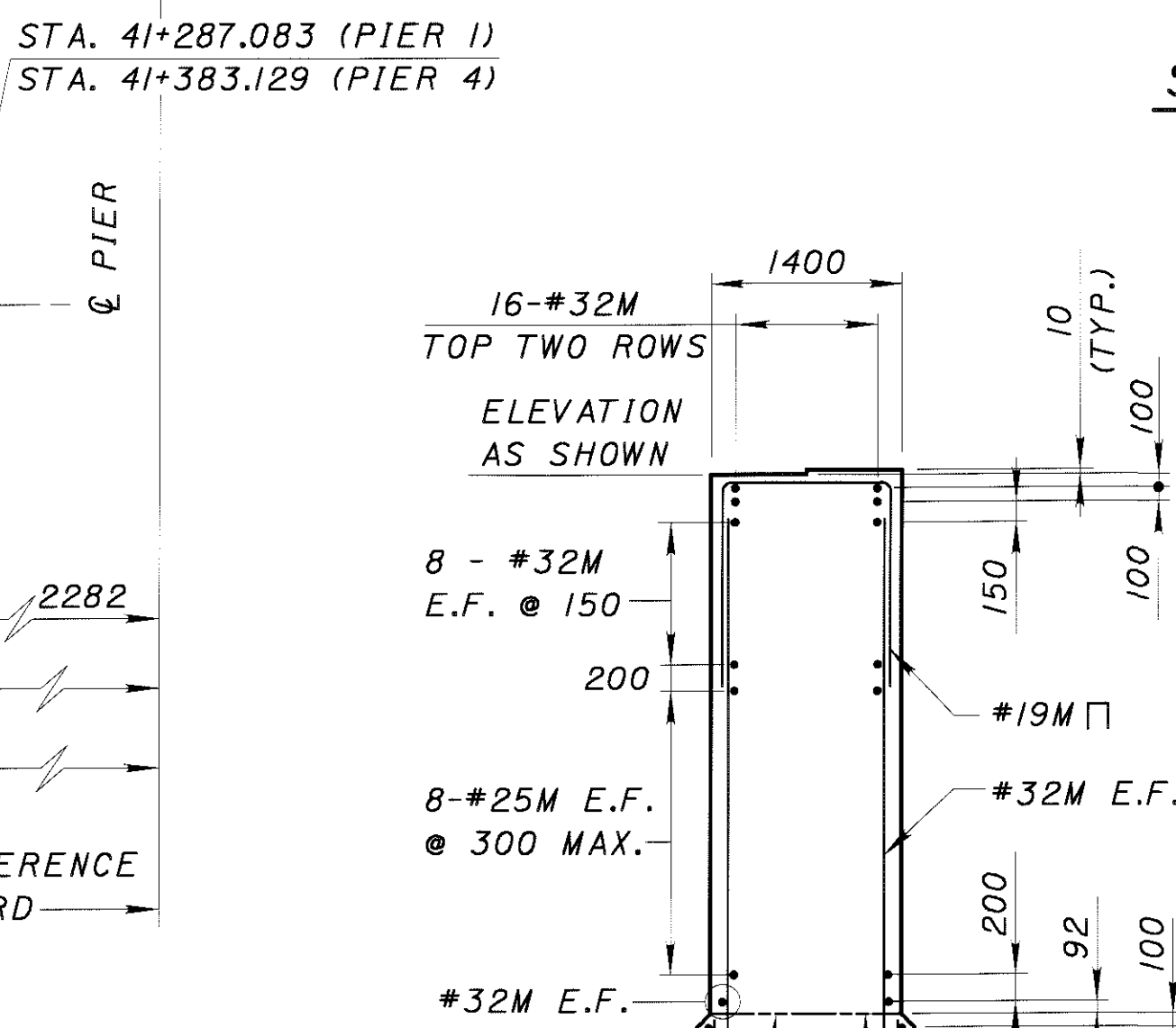
PLAN
N
* FOR BEAM LINES, PIER 1 SHOWN & PIER 4 SIMILAR. SEE SHEET 15/20, FRAMING PLAN FOR DETAILS.



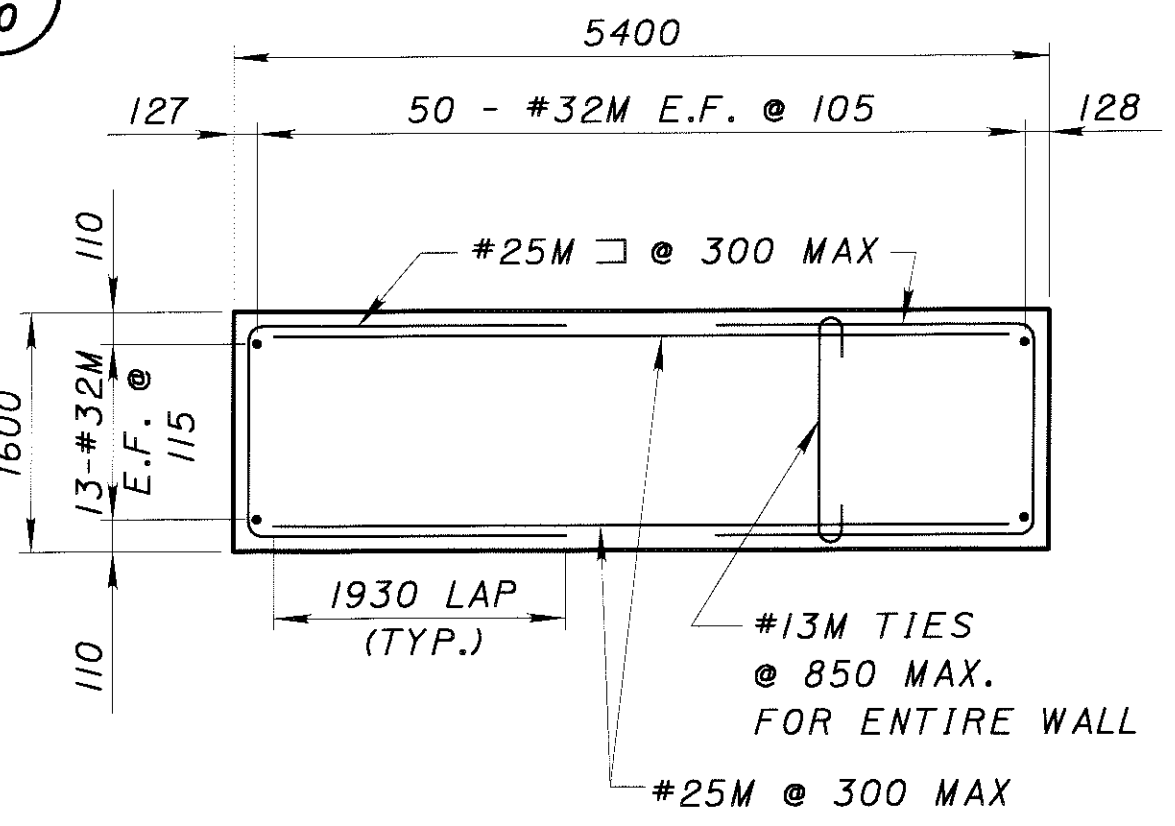
ELEVATION



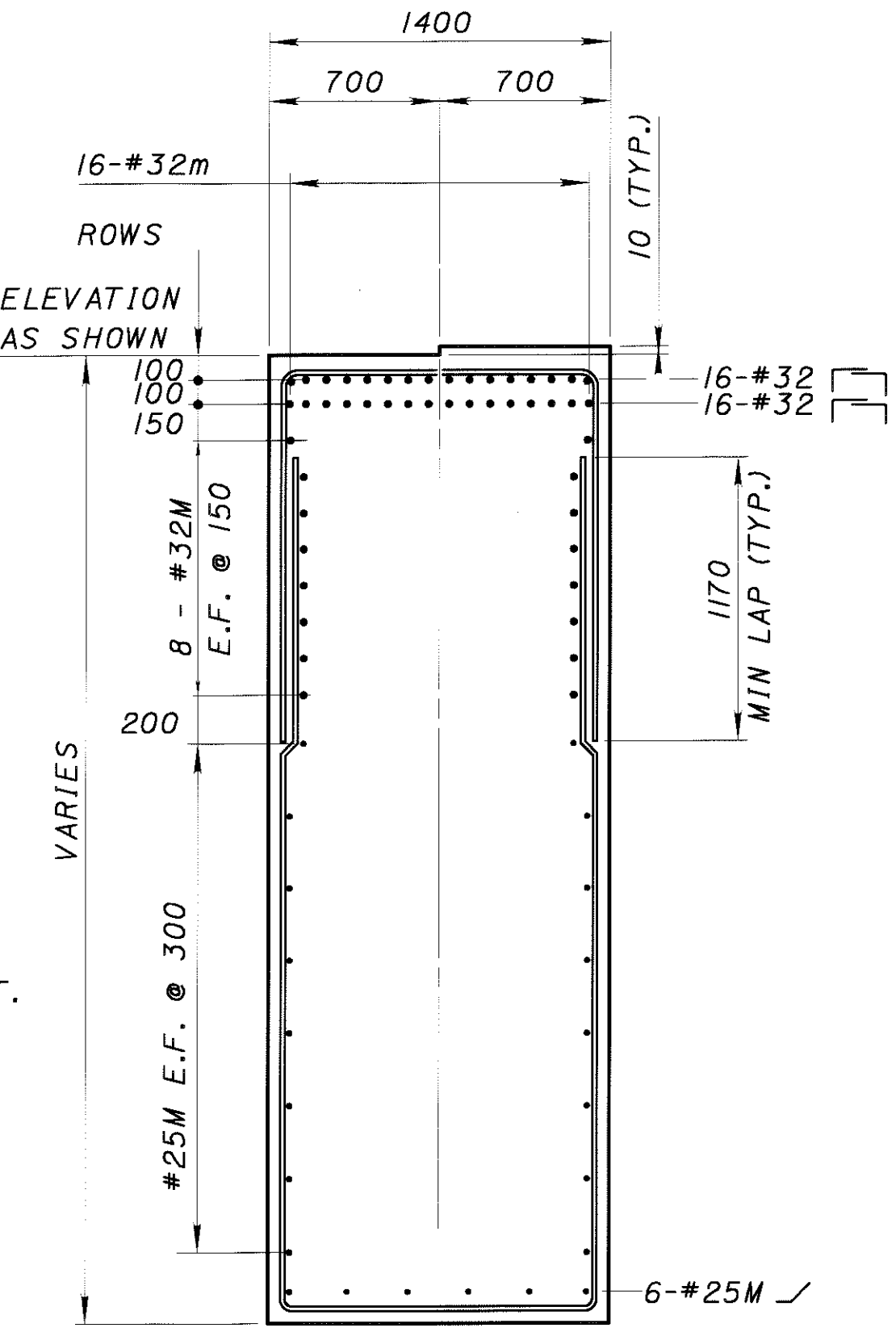
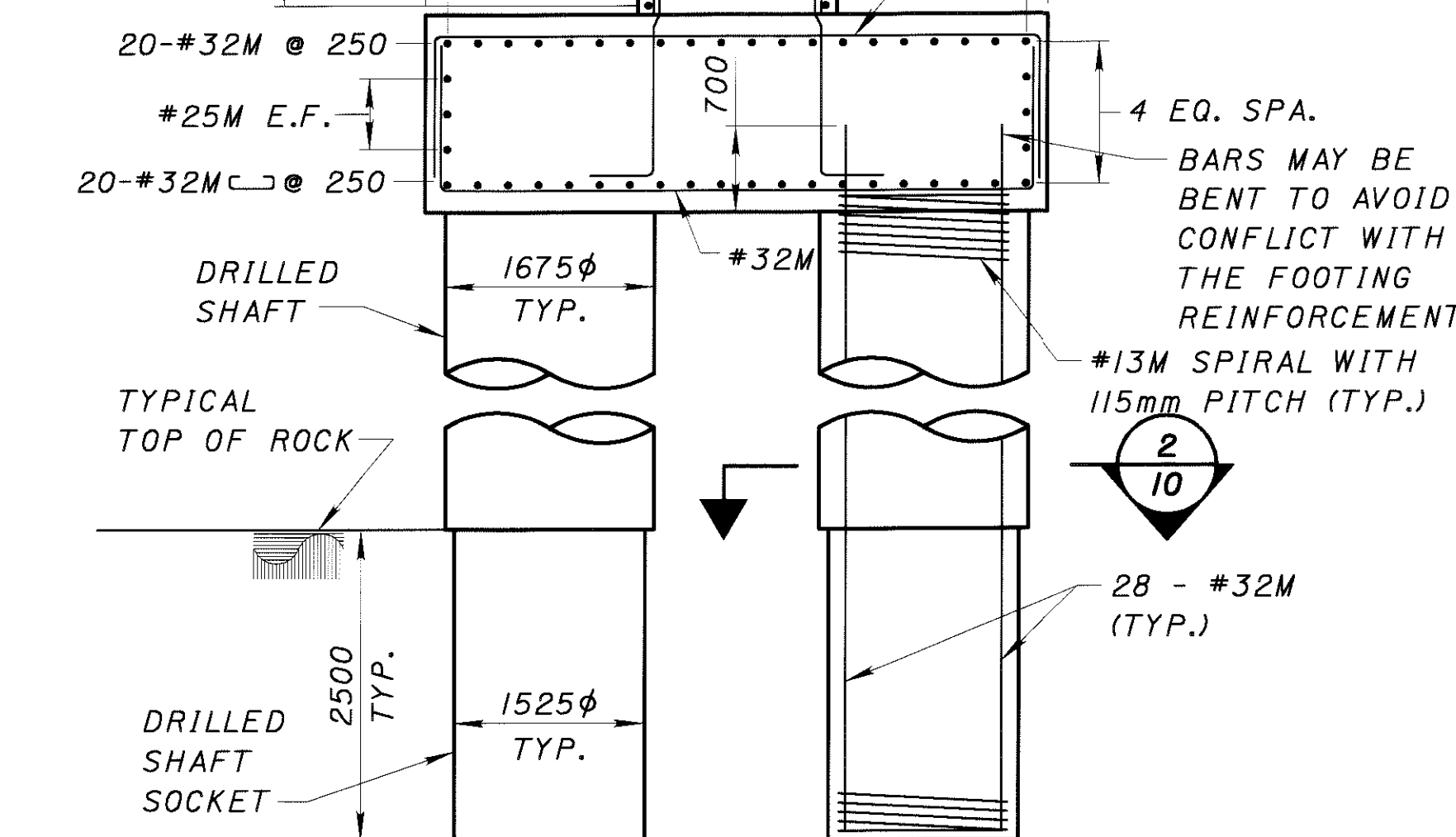
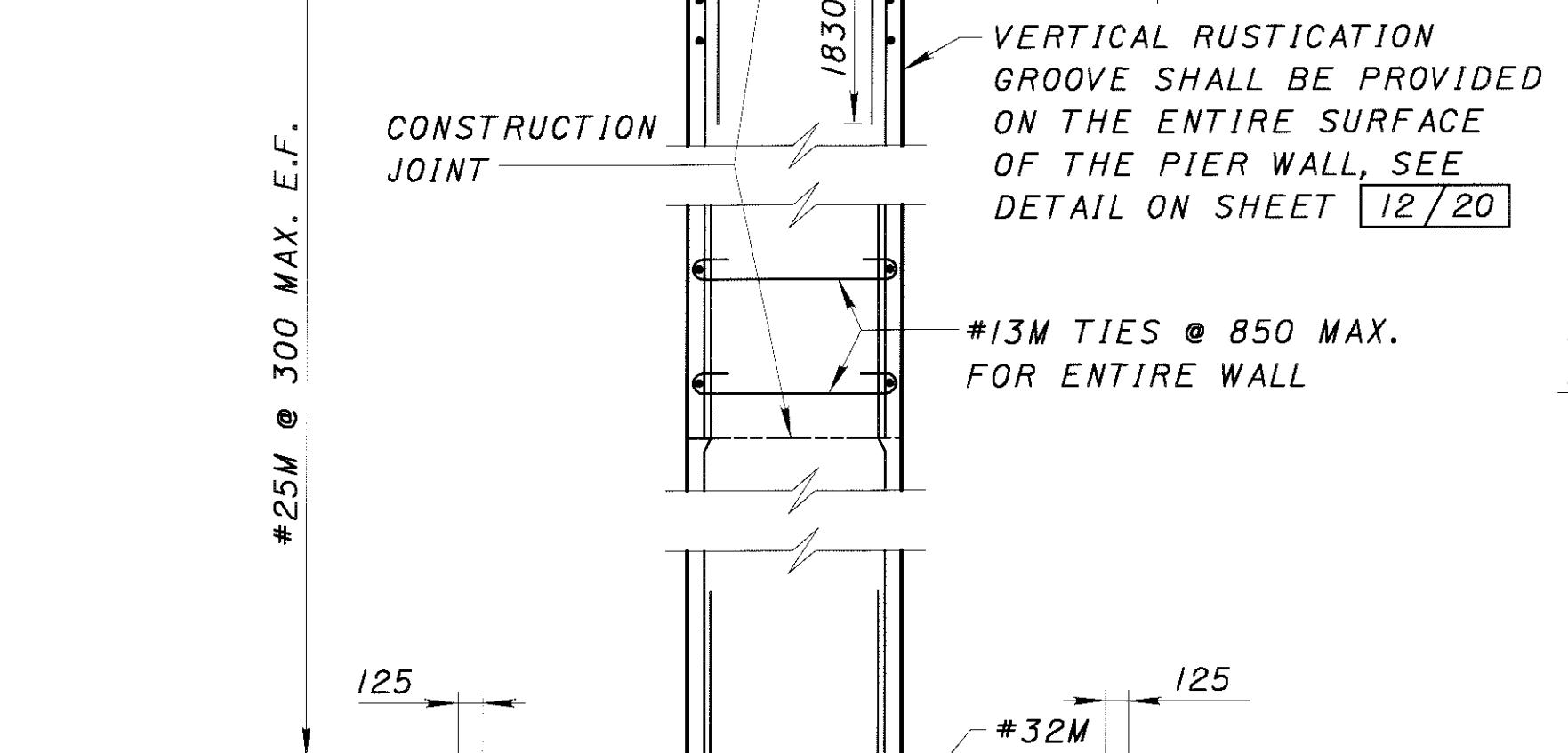
SECTION 2/10



SECTION 1/10



SECTION 3/10



SECTION 4/10

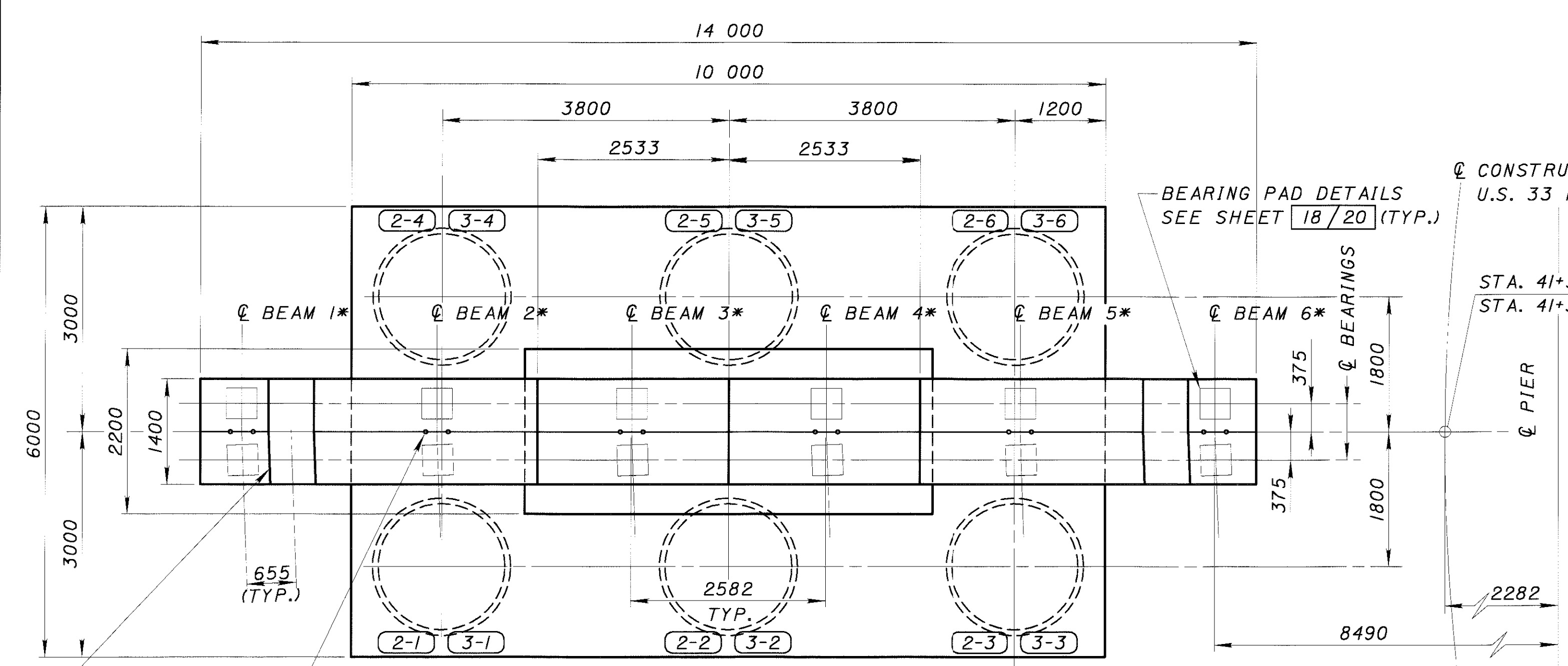
NOTE:
1. FOR PIER DETAILS, NOTES & LEGEND, SEE SHEET 12/20.

DESIGNED	JN	CHECKED	FAO
DRAWN	RTP	REVISION	
REVIEWED	JN	DATE	09/19/00
STRUCTURE FILE NUMBER	0501204		

PIER 1 AND 4 DETAILS
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

ATH-33-40.981

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PLAN

SEISMIC PEDESTAL (TYP. OF 2) SEE DETAIL ON SHEET 12/20

25 mm DIA. SMOOTH DOWEL BAR (TYP.) SEE STANDARD BRIDGE DRAWINGS PSID-1-99, SHEET 4 OF 8 FOR DETAILS.

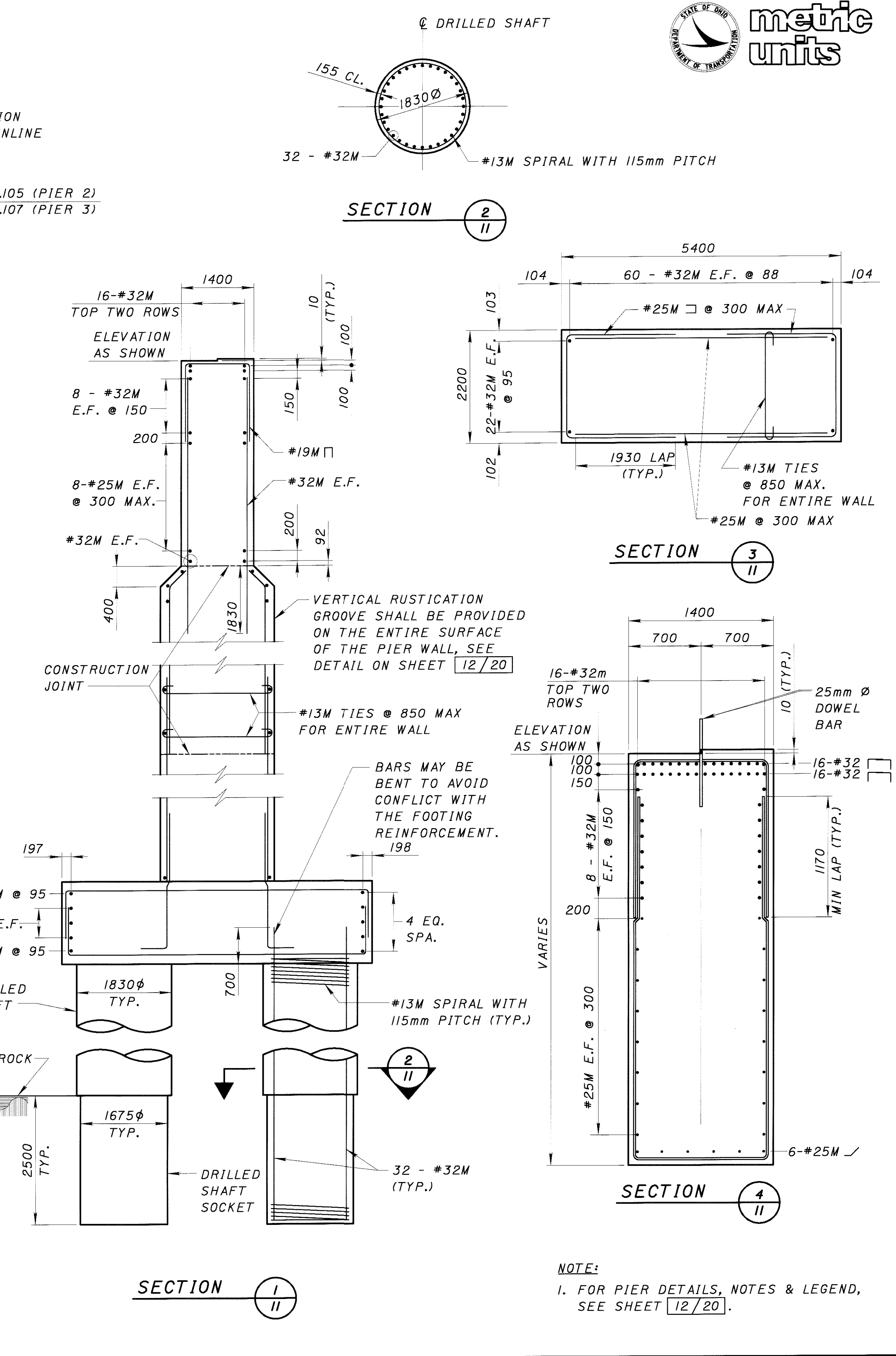
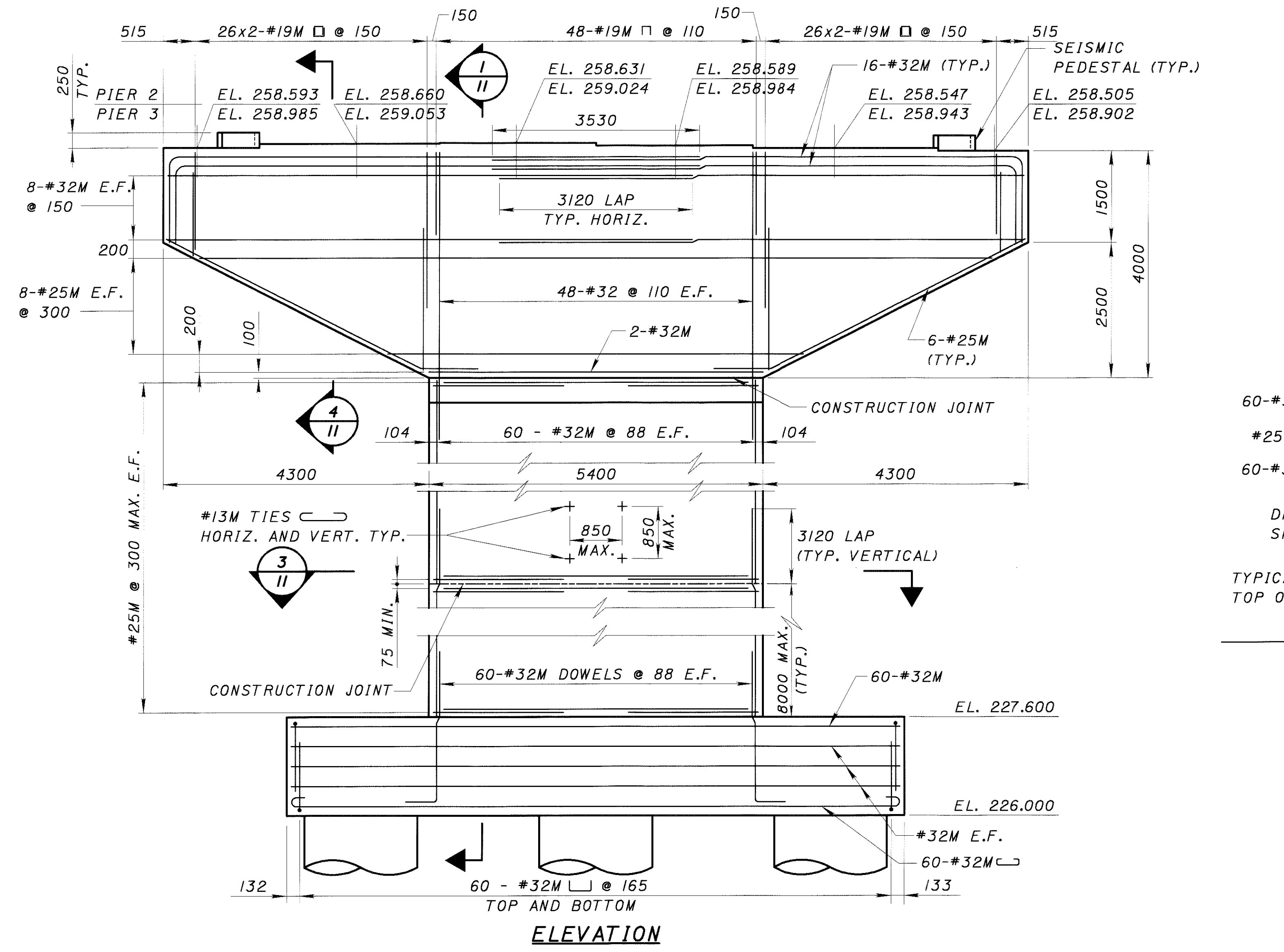
* FOR BEAM LINES, PIER 2 SHOWN & PIER 3 SIMILAR. SEE SHEET 15/20 FRAMING PLAN FOR DETAILS.

BEARING PAD DETAILS SEE SHEET 18/20 (TYP.)

CONSTRUCTION U.S. 33 MAINLINE

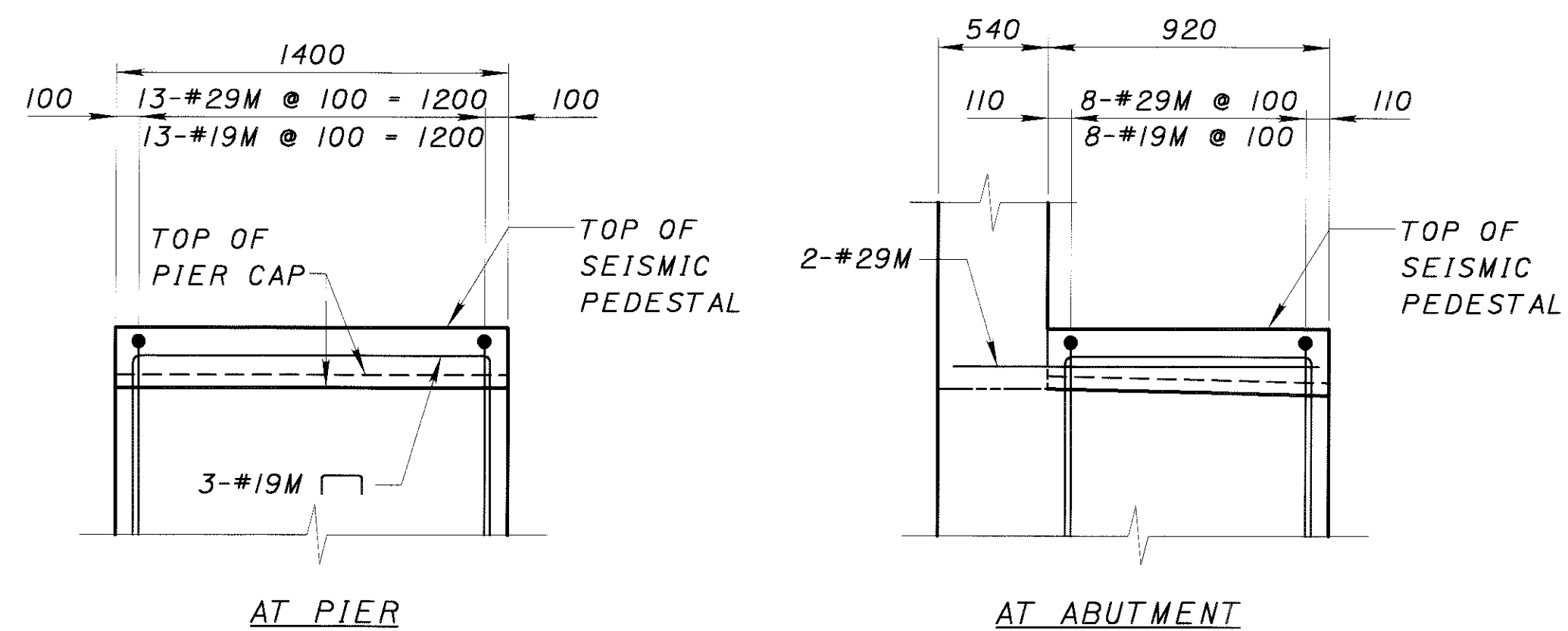
STA. 41+319.105 (PIER 2)
STA. 41+351.107 (PIER 3)

REFERENCE CHORD



NOTE:
1. FOR PIER DETAILS, NOTES & LEGEND, SEE SHEET 12/20.

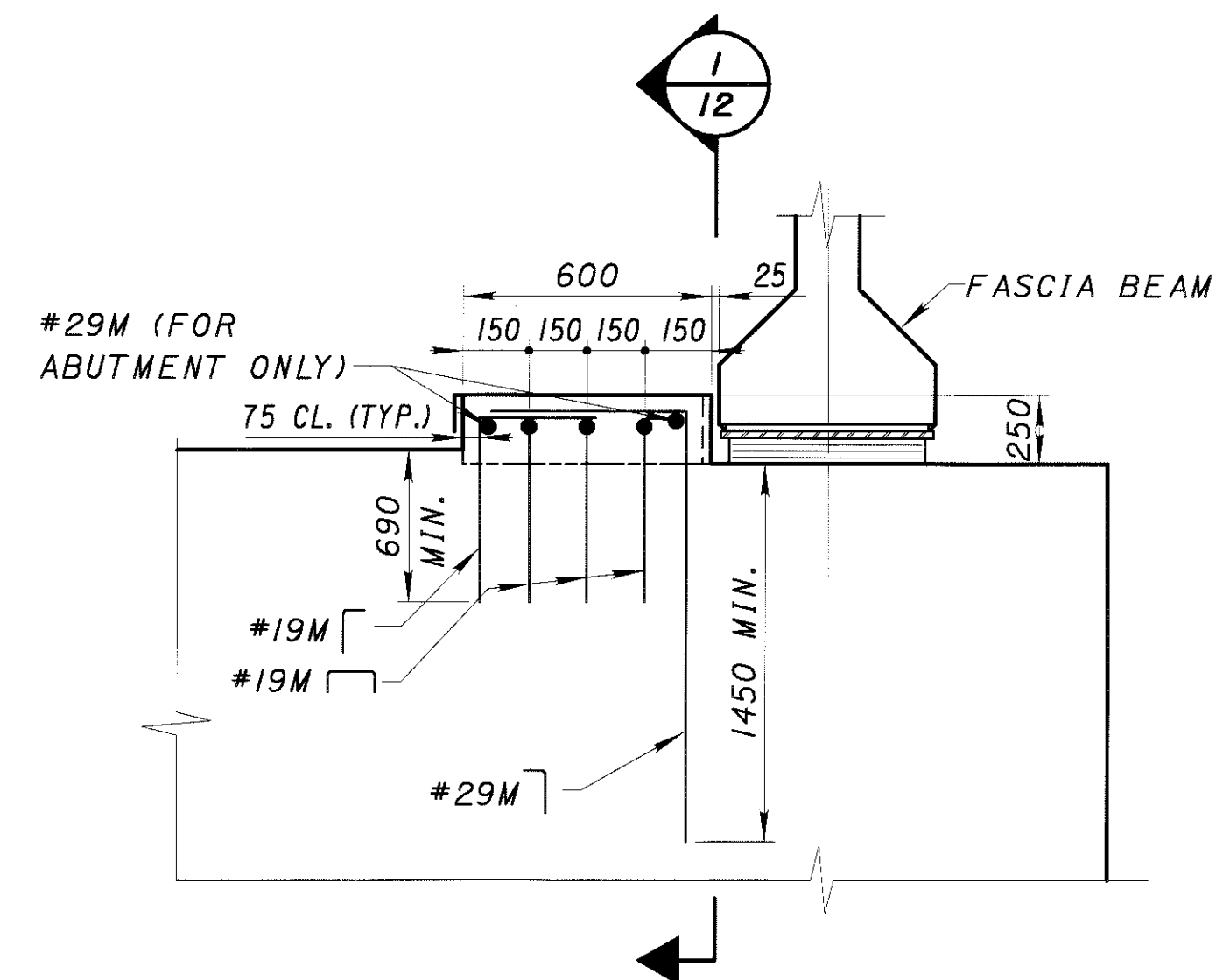
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AT PIER

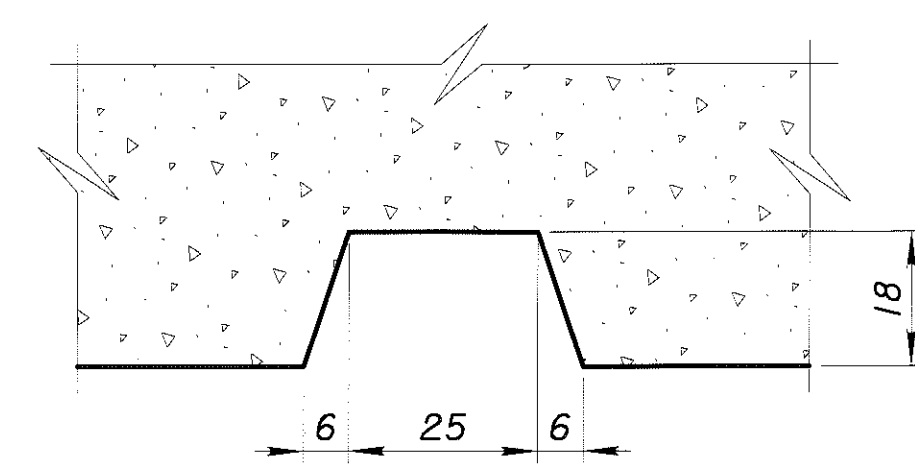
AT ABUTMENT

SECTION 1/12



SEISMIC PEDESTAL DETAILS

(SHOWN FOR BEAM LINE 6, BEAM LINE 1 OPPOSITE HAND)



VERTICAL RUSTICATION GROOVE

SPACED @ 1200mm C/C

NOTES:

- FOR ADDITIONAL DETAILS, SEE BRIDGE STANDARD DRAWINGS PSID-1-99.
- ALL REINFORCING SHALL BE PLACED TO PROVIDE A MINIMUM COVER OF 50mm UNLESS OTHERWISE NOTED.
- REINFORCING IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES OR THE PRE-SETTING OF BEARING ANCHORS.
- SPIRAL REINFORCEMENT USED IN THE DRILLED SHAFTS SHALL BE #13M BAR AT A 115 mm PITCH WITH AN OUT TO OUT SPIRAL CAGE DIAMETER OF 150 mm LESS THAN THE COLUMN DIAMETER.

ANCHORAGE OF SPIRAL REINFORCEMENT SHALL BE PROVIDED BY 1-1/2 EXTRA TURNS OF BAR AT EACH END OF A SPIRAL UNIT.

SPIRALS SHALL EXTEND TO THE LEVEL OF THE LOWEST HORIZONTAL REINFORCEMENT IN THE FOOTING.

CONCRETE SPACERS OR OTHER APPROVED NONCORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 3050 mm) TO INSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE SHAFT. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 75 mm CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE SHAFTS. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORTS) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.

LEGEND

- B. = BOTTOM
- BTWN. = BETWEEN
- CL. = CENTERLINE
- C.J. = CONSTRUCTION JOINT
- CL. = CLEAR
- φ = DIAMETER
- E.F. = EACH FACE
- EL. = ELEVATION
- EQ. = EQUAL
- MIN. = MAXIMUM
- MAX. = MINIMUM
- SPA. = SPACES
- T. = TOP
- TYP. = TYPICAL
- W/ = WITH
- & = AND

5. LAP LENGTHS:

#13M	890 (TOP)	790 (OTHER)
#19M	1320	1170
#25M	2210	1930
#32M	3530	3120

UNLESS OTHERWISE NOTED.

6. #-# INDICATES PIER NUMBER AND DRILLED SHAFT NUMBER, RESPECTIVELY.

REVIEWED DATE 09/19/00
JN
STRUCTURE FILE NUMBER 0501204

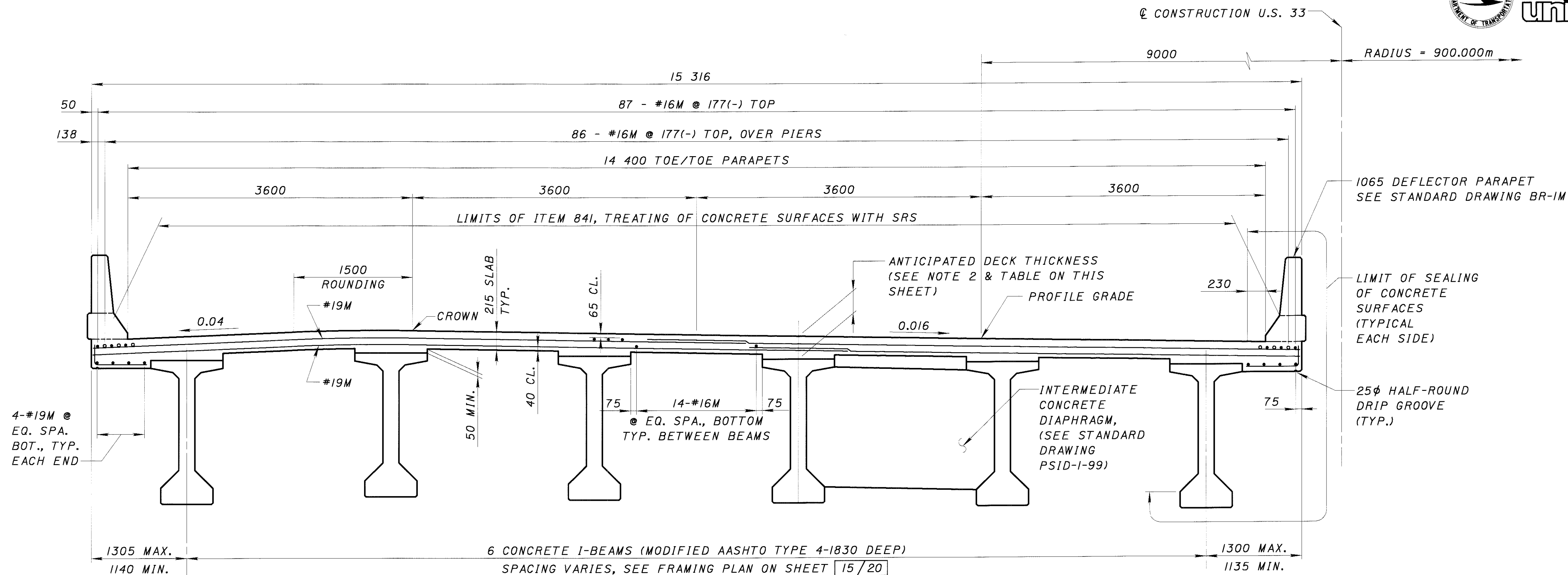
DRAWN RTP
CHECKED FAO

TYPICAL DETAILS
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

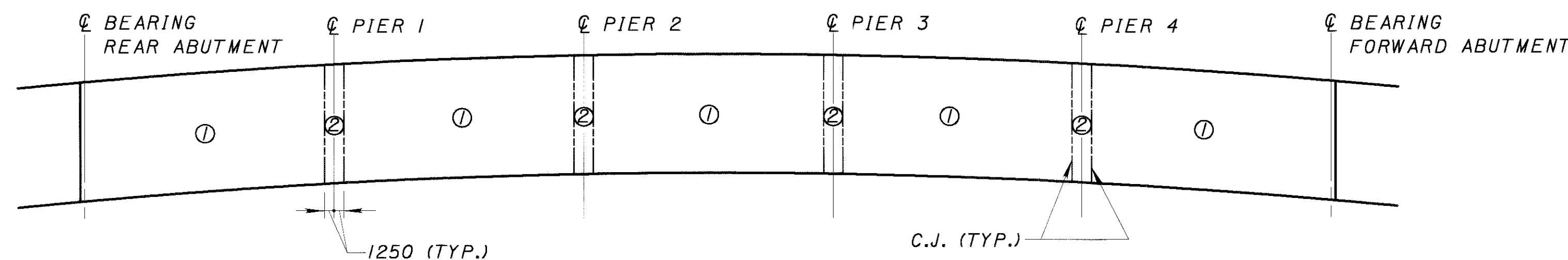
ATH-33-40.981

12/20

896
949



TRANSVERSE SECTION



DECK POURING SEQUENCE
SEE PSID-I-99 FOR CONSTRUCTION REQUIREMENT

ANTICIPATED DECK THICKNESS											
LOCATION	1	3	5	7	9	11	13	15	17	19	21
LEFT EDGE OF DECK	377	367	377	370	377	371	377	370	377	367	377
LEFT TOE OF PARAPET	377	367	377	370	377	371	377	370	377	367	377
BEAM 1	294	285	294	288	294	288	294	288	294	285	294
BEAM 2	294	266	294	274	294	275	294	274	294	266	294
BEAM 3	294	268	294	277	294	277	294	277	294	268	294
BEAM 4	294	268	294	277	294	277	294	276	294	268	294
BEAM 5	294	268	294	276	294	277	294	276	294	268	294
BEAM 6	294	277	294	280	294	280	294	280	294	277	294
RIGHT TOE OF PARAPET	385	385	385	370	385	371	385	370	385	367	385
RIGHT EDGE OF DECK	385	385	385	370	385	371	385	370	385	367	385
PROFILE GRADE	292	292	292	274	292	275	292	274	292	266	292
CROWN	294	294	294	277	294	277	294	277	294	266	294

LEGEND
 BOT. = BOTTOM
 C. = CENTERLINE
 C.J. = CENTER JOINT
 CL. = CLEAR
 DIM. = DIMENSION
 EQ. = EQUAL
 MAX. = MAXIMUM
 MIN. = MINIMUM
 SPA. = SPACES
 TYP. = TYPICAL

NOTE:

1. THE TOPPING THICKNESS SHOWN ARE NOMINAL DIMENSIONS. THE PAY QUANTITY FOR DECK CONCRETE SHALL BE BASED ON THE DESIGN SLAB THICKNESS AND THE AVERAGE OF THE NOMINAL HAUNCH DEPTHS AT MID-SPAN AND AT THE BEAM BEARINGS. THE HAUNCH DEPTH IS THE TOPPING THICKNESS MINUS THE DESIGN SLAB THICKNESS. DEVIATION FROM THIS AVERAGE MAY OCCUR BECAUSE THE TOP OF THE BEAM MAY NOT HAVE THE CAMBER ANTICIPATED BY DESIGN DUE TO CONTRACTOR'S TIME OF ERECTION, MIX DESIGN, AND OTHER FABRICATION FACTORS. ONCE ALL BEAMS ARE SET IN THEIR FINAL POSITION, THE CONTRACTOR SHALL RECORD THE TOP OF BEAM ELEVATIONS AT EACH BEARING AND AT MID-SPAN. THE ACTUAL CAMBER FOR EACH MEMBER SHALL BE MEASURED ELEVATION AT MID-SPAN MINUS THE AVERAGE ELEVATION AT EACH BEARING. THE ACTUAL HAUNCH DEPTH AT MID-SPAN SHALL BE THE NOMINAL DIMENSION PLUS OR MINUS THE DIFFERENCE BETWEEN THE ACTUAL AND ANTICIPATED CAMBER.
2. FOR ANTICIPATED DECK THICKNESS LOCATIONS, SEE SHEET 16/20.
3. THE SEALING OF CONCRETE SURFACE SHALL BE SEALED WITH EPOXY-URETHANE.

DESIGNED	FAO	CHECKED	REK
DRAWN	RTP	REVIEWED	-
REVIEWED	JN	DATE	09/19/00
STRUCTURE FILE NUMBER	0501204		

TRANSVERSE SECTION
 BRIDGE NO. ATH-33-42635
 OVER TRIBUTARY TO PRATTS FORK CREEK

ATH-33-40.981

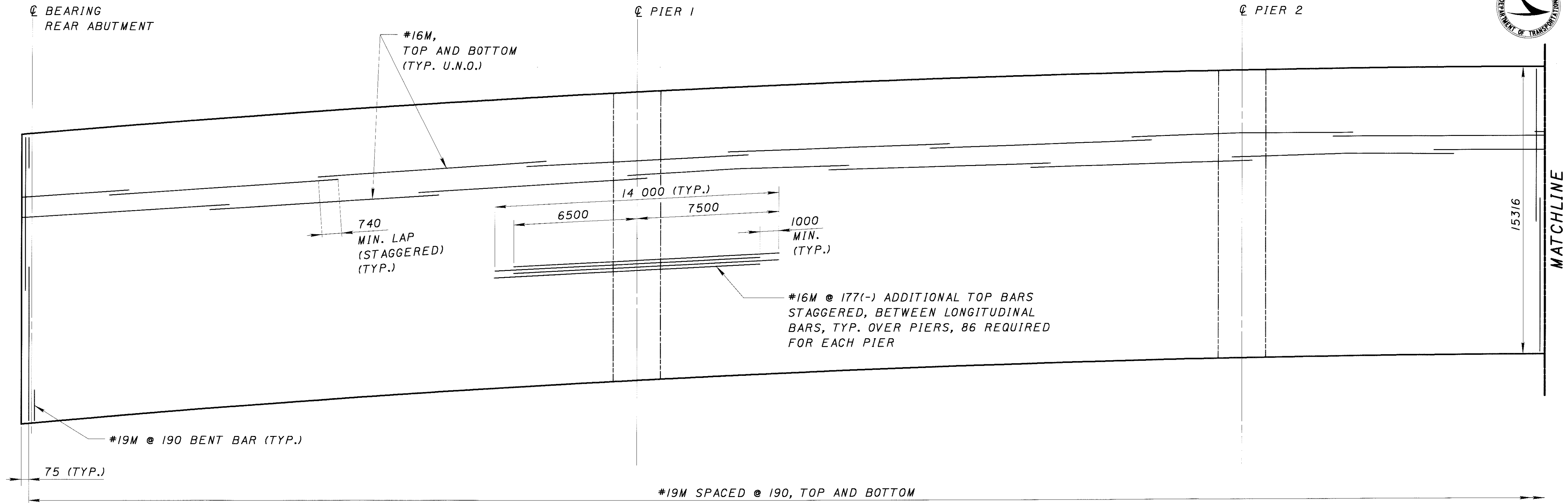
13/20

897
949

DESIGNED	FAO	CHECKED	REK
DRAWN	RTP	REVISED	-
REVIEWED	JN	DATE	09/19/00
STRUCTURE FILE NUMBER	0501204		

SUPERSTRUCTURE DETAILS
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

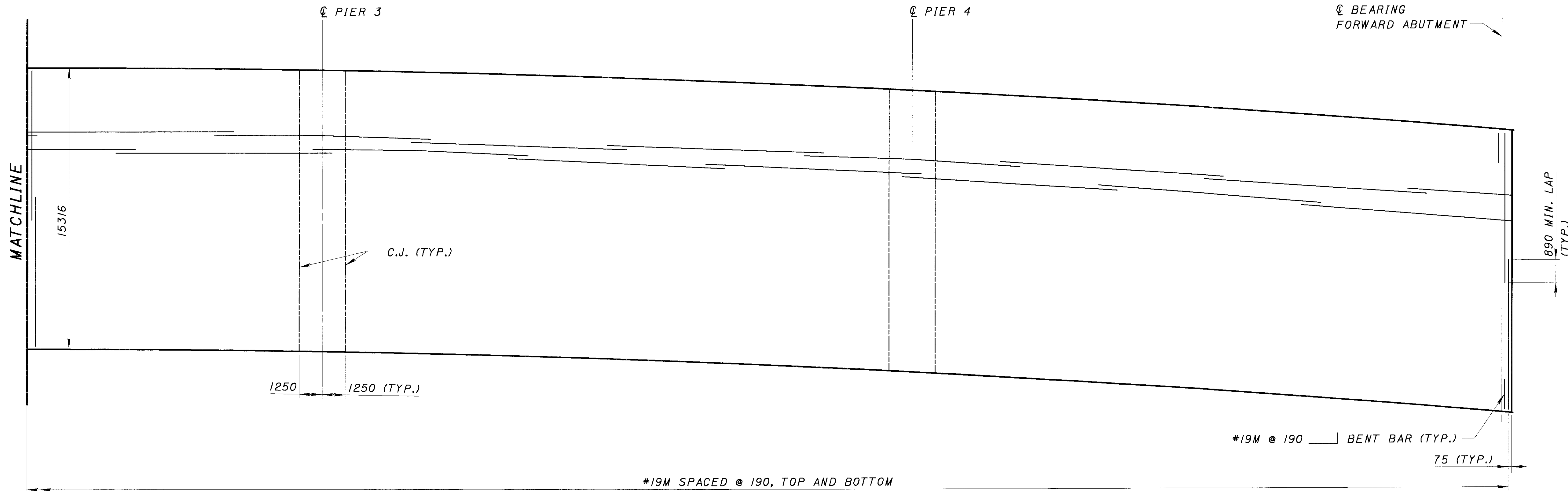
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DECK REINFORCING PLAN



- LEGEND**
- CL = CENTERLINE
 - C.J. = CONSTRUCTION JOINT
 - MIN. = MINIMUM
 - TYP. = TYPICAL
 - U.N.O. = UNLESS NOTED OTHERWISE



DECK REINFORCING PLAN

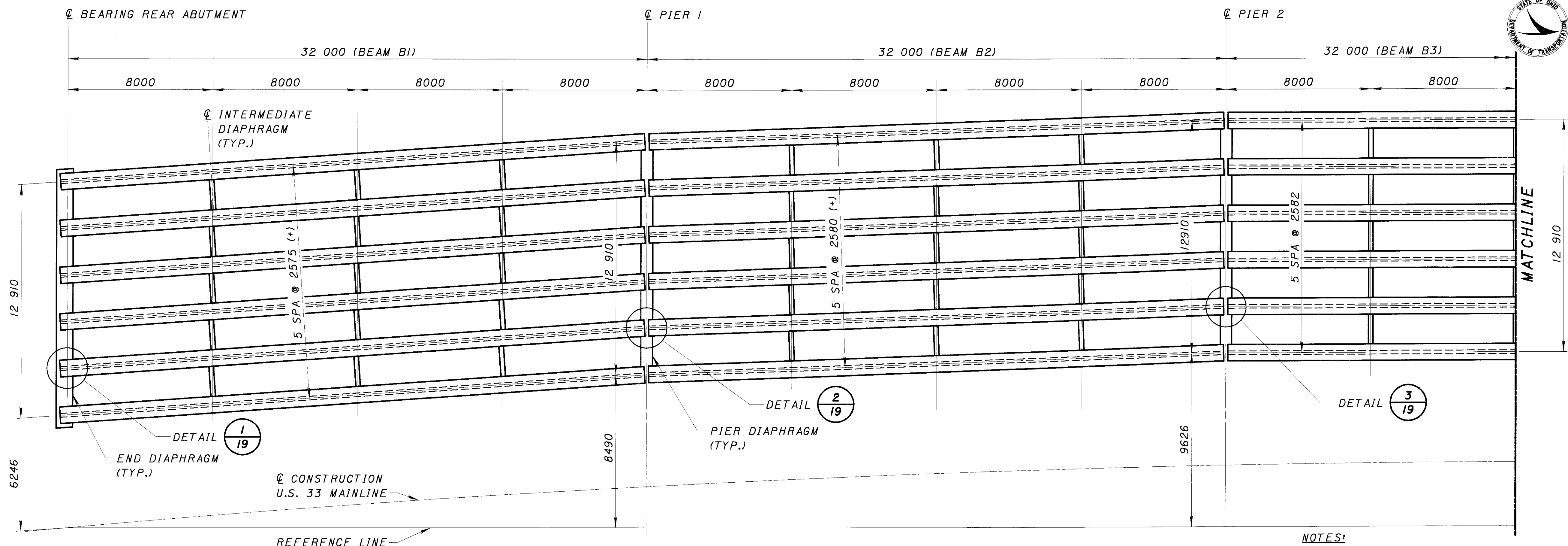
DESIGNED	FAO	CHECKED	TSD
DRAWN	RTP	REVISED	-
REVIEWED	JN	DATE	09/19/00
STRUCTURE FILE NUMBER	0501204		

SUPERSTRUCTURE DETAILS
BRIDGE NO. ATH-33-42635
OVER TRIBUTARY TO PRATTS FORK CREEK

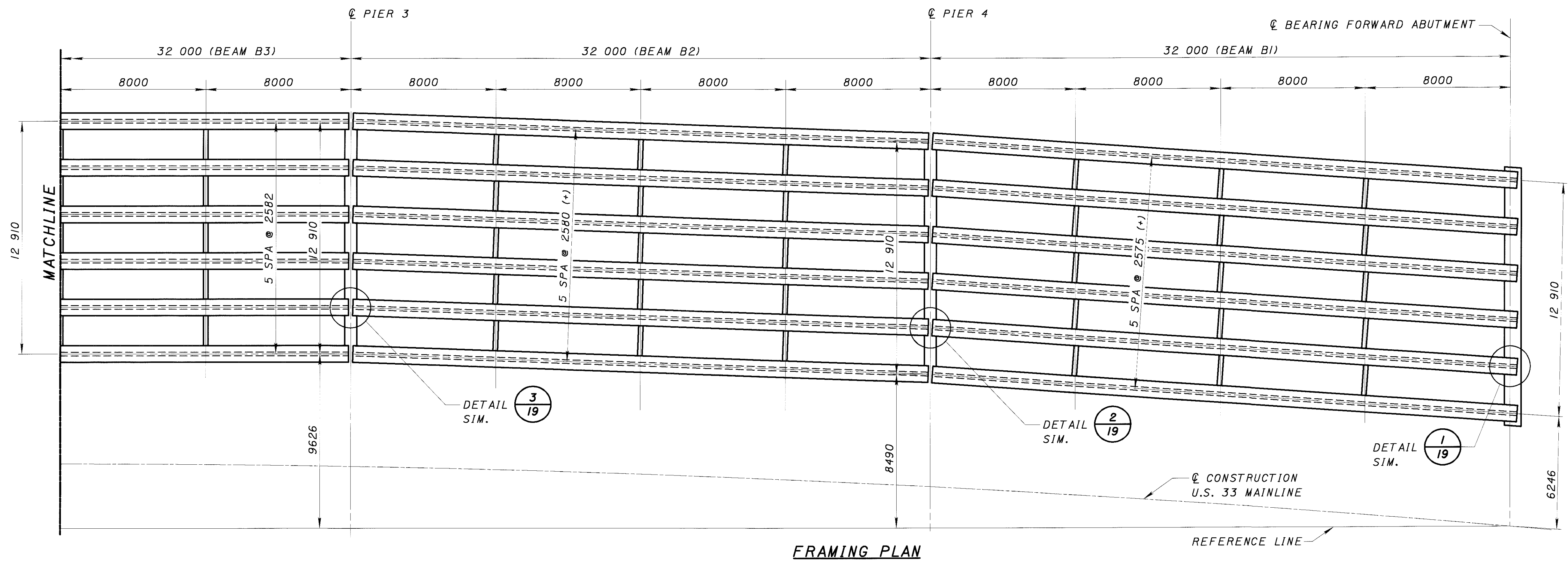
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15 / 20

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- NOTES:**
- FOR DIAPHRAGM DETAILS, SEE BRIDGE STANDARD DRAWINGS PSID-1-99.
 - FOR BEAM DETAILS, SEE SHEET 17/20.



LEGEND

⊕	= CENTERLINE
SIM.	= SIMILAR
SPA.	= SPACE
TYP.	= TYPICAL

02/06/01
10:08:26 AM
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