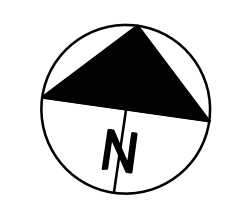
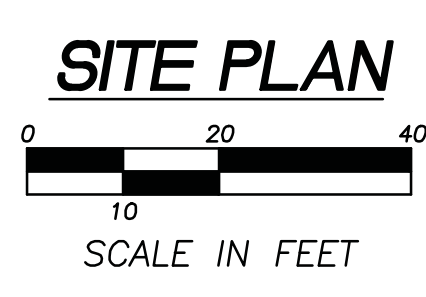
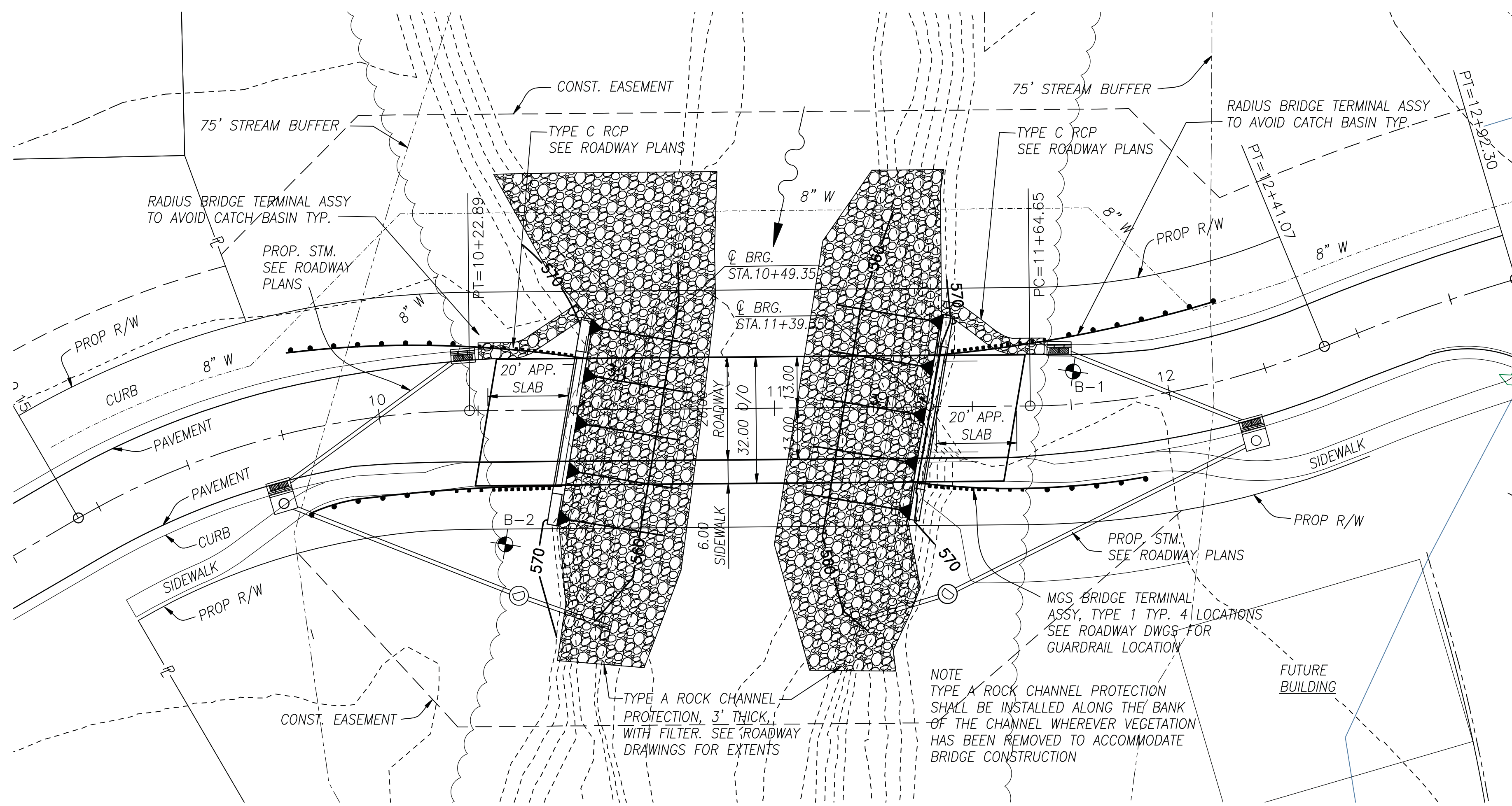


4/27/20

Truman P. Young & Associates
 CIVIL & MECHANICAL ENGINEERS
 CINCINNATI, OHIO

FLUSH MOUNTED POST DATA		
RIGHT POST, REAR ABUTMENT	10+45.12	19.58' RT.
LEFT POST, REAR ABUTMENT	10+50.77	13.58' LT.
RIGHT POST, FWD. ABUTMENT	11+36.87	19.58' RT.
LEFT POST, FWD. ABUTMENT	11+42.52	13.58' LT.

APPROVED
NICK OKULEY
5-8-2020



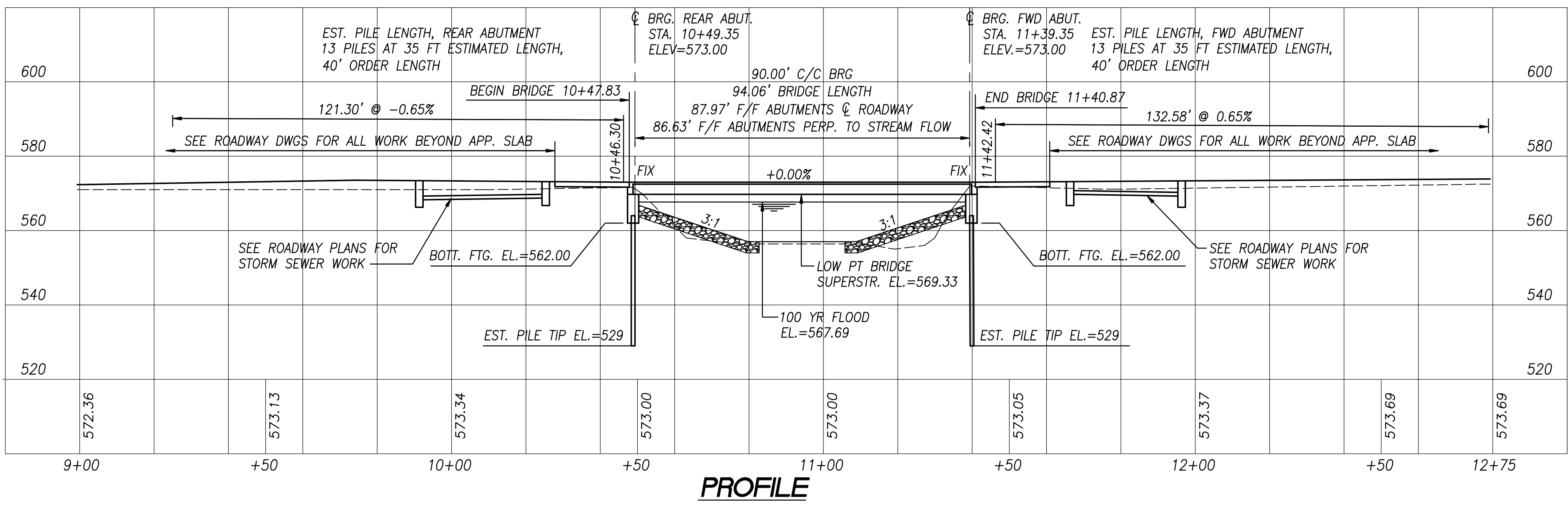
NOTE
 SEE ROADWAY PLANS FOR ALL DRAINAGE,
 EASEMENT, AND R.O.W. INFORMATION

BENCHMARK DATA	
O.D.O.T. VRS NETWORK	
NAVD88 - SANITARY MANHOLE 17.0' NORTH OF THE NORTHERN TERMINUS OF MIKEHILL DRIVE	
ELEVATION = 571.04	
SEE ROADWAY PLANS	

HYDRAULIC DATA	
DRAINAGE AREA = 5.68 SQ. MILES	
Q (25) = 3531 CFS	V(25) = 8.38 FT/S
25 YEAR FLOOD ELEV. = 565.84	
Q (100) = 5475 CFS	V(100) = 10.51 FT/S
100 YEAR FLOOD ELEV. = 567.69	
STRUCTURE BOTTOM CHORD ELEVATION = 569.33	
STRUCTURE CLEARS THE 100 YR DESIGN HW BY 1.64 FEET	

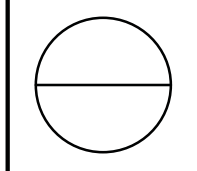
EXISTING STRUCTURE	
NONE	

PROPOSED STRUCTURE	
TYPE: SINGLE SPAN PRECAST, PRESTRESSED, COMPOSITE MULTI BEAM, BOX BEAMS ON REINFORCED CONCRETE SUBSTRUCTURE.	
SPAN: 90'-0" C/C BEARING	
DESIGN LOADING: HL93 (2 LANES)	
FWS 0.060 KIPS/FT ²	
SIDEWALK: 0.075 KIPS/FT ²	
SKEW: 10'-0"-0" LEFT FORWARD	
ROADWAY: 24'-0" GUARDRAIL TO FACE OF CURB	
WEARING SURFACE: 1" MONOLITHIC WEARING SURFACE	
APPROACH SLABS: 20'-0" (AS-1-15)	
ALIGNMENT: TANGENT	
CROSS SLOPE: 1/4" PER FOOT	
DECK PROTECTION METHOD:	
EPOXY COATED REINFORCING STEEL - CMS 709.00	
STEEL DRIP STRIP	
2 1/2" CONCRETE COVER	
TREATING OF CONCRETE BRIDGE DECK WITH SRS	



SITE PLAN
 STREAM CROSSING OVER DRY FORK CREEK

VENICE CROSSING
STREAM CROSSING
ROSS TWP., BUTLER CO. OH.



ITEM 511 – CLASS QC3 CONCRETE, SUPERSTRUCTURE, AS PER PLAN:

THIS ITEM SHALL CONFORM TO CMS 511 AS WELL AS THE CONCRETE MIX DESIGN REQUIREMENTS LISTED IN CMS 499 FOR CLASS QC2 CONCRETE WITH THE FOLLOWING CONDITIONS AND REVISIONS:

THE CLASS QC3 CONCRETE FOR THE SUPERSTRUCTURE SHALL MEET THE FOLLOWING CRITERIA:

- WATER/CEMENT RATIO = 0.40 MAXIMUM
- IN ADDITION TO THE REQUIREMENTS OF CMS 499, 511, AND/OR 526, THE CONCRETE MIX SHALL CONTAIN 100% VIRGIN POLYPROPYLENE MACROFIBERS IN FIBRILLATED NETWORK FORM (1.25" LENGTH), MEETING ASTM C1116 TYPE III. THE APPLICATION RATE SHALL BE 4 POUNDS PER CUBIC YARD OF THE CONCRETE.
- IN ADDITION TO THE REQUIREMENTS OF CMS 499, 511, AND/OR 526, THE CONCRETE MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR ADMIXTURE AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15.
- THE BATCH WEIGHTS SHALL BE CORRECTED TO COMPENSATE FOR THE MOISTURE CONTAINED IN THE AGGREGATE AT THE TIME OF USE. A CHEMICAL ADMIXTURE (705.12, TYPE A OR D) SHALL BE USED.
- THE TRANSIT MIXER CHARGE SHALL BE LIMITED TO 3/4 OF ITS RATED CAPACITY OR 6 CUBIC YARDS, WHICHEVER IS SMALLER, UNLESS A LARGER SIZE IS APPROVED BY THE ENGINEER.

THE CORROSION INHIBITOR DOSAGE RATE SHALL CONFORM TO THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST. THE ADDITION OF THE ADMIXTURE SHALL NOT DEGRADE THE CONCRETE STRENGTH OR ANY OTHER MATERIAL PROPERTIES OF THE CONCRETE. PAYMENT FOR MATERIAL, LABOR, EQUIPMENT, AND ANY MISCELLANEOUS APPURTENANCES REQUIRED FOR THIS ADMIXTURE SHALL BE INCLUDED IN THE RESPECTIVE CONCRETE ITEMS FOR PAYMENT.

THE MACRO-SYNTHETIC FIBERS SHALL BE INCORPORATED INTO THE MIX IN SUCH A WAY THAT NO 'BALLING' OCCURS. UPON INSPECTION OF THE MIX AT THE TIME OF PLACEMENT, IF ANY 'BALLING' OCCURS, THE ENGINEER SHALL REJECT THE REMAINDER OF THE LOAD AT ANY TIME DURING THE POUR. FIBERS SHALL BE ADDED AT THE BATCH PLANT PRIOR TO THE ADDITION OF ADMIXTURES IN ORDER TO MAXIMIZE THE CONCRETE MIXING TIME. INDUSTRY STANDARDS AND ASTM SPECIFICATIONS ON THE PREMIXING OF THE CEMENT, AGGREGATE, AND FIBERS PRIOR TO THE ADDITION OF WATER AND ADMIXTURES SHALL BE FOLLOWED. PROVIDE MACRO-SYNTHETIC FIBERS THAT ARE MONOFILAMENT FIBERS MADE FROM VIRGIN POLYPROPYLENE, POLYETHYLENE, OR CO-POLYMERS THAT ARE INERT TO ALKALI ATTACK. ENSURE THE MACRO-SYNTHETIC FIBERS HAVE A MINIMUM TENSILE STRENGTH OF 70 KSI, A MINIMUM MODULUS OF ELASTICITY OF 800 KSI, A MINIMUM FILAMENT DIAMETER OF 0.012 INCHES, AN ASPECT RATIO BETWEEN 60 AND 100, AND ARE 1.25 INCHES IN LENGTH. STORE THE MACRO-SYNTHETIC FIBERS ACCORDING TO THE MANUFACTURER'S RECOMMENDATION AND KEEP THE MATERIAL FREE FROM DUST, DIRT, AND MOISTURE. PLACING THE BAG THAT THE FIBERS COME IN INTO THE CONCRETE MIX IS NOT PERMITTED.

CONCRETE SUPPLIERS SHOULD RECOGNIZE THAT THE ADDITION OF CORROSION INHIBITOR, FIBERS, AND ADMIXTURES TO THE CONCRETE MAY HAVE AN EFFECT ON STRENGTH, ENTRAINED AIR CONTENT, WORKABILITY, SLUMP, ETC. OF THEIR CONCRETE MIXES. THE CONCRETE SUPPLIER'S CHOICE OF EACH CONCRETE MIX SUPPLEMENT DOES NOT ALLEVIATE MEETING DESIGN REQUIREMENTS. THE CONTRACTOR SHOULD BE ADVISED THAT SOME PRODUCTS AFFECT THE DELIVERED MIX PROPERTIES GREATLY WHILE OTHER PRODUCTS DO NOT. CONCRETE RETARDING AGENTS MAY NEED TO BE ADDED TO OFFSET THE EFFECTS OF THE MIGRATING CORROSION INHIBITOR SELECTED.

THE CONTRACTOR SHALL PROVIDE TRADITIONAL BRIDGE DECK FORMS CONFORMING TO CMS 508. PERMANENT STAY-IN-PLACE (SIP) FORMS ARE NOT ALLOWED. THE BRIDGE DECK SHALL BE SHALL BE SCREEDED WITH THE PAN DRAG ON THE BIDWELL MACHINE. DO NOT BURLAP DRAG OR BROOM FINISH, DUE TO THE NATURE OF THE MACROFIBERS. THE DECK SURFACE SHALL BE FINISHED ACCORDING TO CMS 511.17 AND ODOT PROPOSAL NOTE 555. APPROACH SLABS, DIAPHRAGMS, AND BRIDGE RAILING CONCRETE (WHEN APPLICABLE) ARE TO USE THE SAME MIX DESIGN AS THE BRIDGE DECK.

FOR BRIDGE DECKS THAT INCORPORATE A CONCRETE BARRIER RAIL AND/OR RAISED SIDEWALK:

USE SELF-COMPACTING CONCRETE ON DECORATIVE RAILING SIMILAR TO TEXAS RAILING AND MACRO-SYNTHETIC CONCRETE PER THIS SPECIFICATION ON TRADITIONAL CONCRETE RAILING WHEN APPLICABLE.

THE BRIDGE DECK CONSTRUCTION JOINTS SHALL BE CONSTRUCTED WITH A WATERSTOP AS DESIGNATED IN THE PLANS. THE WATERSTOP SHALL BE A STRIP TYPE WATERSTOP EMBEDDED CONTINUOUSLY ALONG THE CONCRETE CONSTRUCTION JOINT CREATING A CONTINUOUS BARRIER TO WATER MIGRATION. PRIOR TO ORDERING THE WATER- STOP, THE PROPOSED PRODUCT SHALL BE SUBMITTED TO THE COUNTY AND THE ENGINEER FOR APPROVAL. THE COST OF THE WATERSTOP SHALL BE INCLUDED IN THE BID PRICE FOR CLASS QC3 CONCRETE, MISC.: SUPERSTRUCTURE, AS PER PLAN AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.

SPECIAL – CONCRETE DECK TEST SLAB:

AT LEAST THREE DAYS BEFORE PLACING THE PROPOSED CONCRETE DECK, INCLUDING THE TEST SLAB, THE CONTRACTOR SHALL SUBMIT THE MIX DESIGN AND BATCHING SEQUENCE TO THE ENGINEER. THE ENGINEER WILL REVIEW THE MIX DESIGN FOR CONFORMANCE TO THE PROPORTION REQUIREMENTS.

THE CONTRACTOR SHALL PRODUCE A TRIAL BATCH OF CONCRETE EQUAL IN SIZE TO THE BATCH REQUIRED FOR THE CONCRETE SUPERSTRUCTURE AND CONFORMING TO THE MIX DESIGN. ENSURE THAT THE TRIAL BATCH IS WORKABLE AND ABLE TO BE FINISHED.

PLAN AN 8 FT X 4 FT X 1 FT TEST SLAB WHEN THE ATMOSPHERIC CONDITIONS APPROXIMATE THE CONDITIONS ANTICIPATED FOR PLACING THE SUPERSTRUCTURE CONCRETE. FINISH AND TEXTURE THE TEST SLAB AS PER THE CMS EXCLUDING SAWING THE GROOVES.

IF THE ENGINEER DETERMINES THAT THE TRIAL BATCH IS NOT WORKABLE OR NOT ABLE TO BE PROPERLY FINISHED, MODIFY THE MIX DESIGN OR THE BATCHING SEQUENCE. SUBMIT THE REVISED MIX DESIGN AND BATCHING SEQUENCE TO THE ENGINEER AND PERFORM ANOTHER TEST SLAB. REPEAT THE SUBMITTAL AND TEST PROCESS UNTIL PRODUCING A TRIAL BATCH THAT IS BOTH WORKABLE AND ABLE TO BE FINISHED. DO NOT PLACE ANY SUPERSTRUCTURE CONCRETE UNTIL THE ENGINEER ACCEPTS THE TEST SLAB.

IN ADDITION TO THE ABOVE REQUIREMENTS, THE CONTRACTOR SHALL HAVE A TESTING CONSULTANT (ON ODOT'S APPROVED LIST) PRESENT AT THE TIME OF THE TEST SLAB. THE CONSULTANT SHALL TAKE AIR, SLUMP, TEMPERATURE, YIELD TEST, TAKE SAMPLES, AND PREPARE FOUR (4) TEST CYLINDERS AND TWO (2) BEAMS. RESULTS OF THE CYLINDER AND BEAM BREAKS SHALL BE SENT TO THE ENGINEER.

ALL COSTS FOR LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS ARE INCLUDED IN THE LUMP SUM PRICE.

GENERAL BRIDGE CONCRETE REQUIREMENT:

IN ADDITION TO THE REQUIREMENTS OF CMS 499, 511, AND/OR 526, THE CONCRETE MIX SHALL INCLUDE A MIGRATING CORROSION INHIBITOR ADMIXTURE AS MANUFACTURED BY AN APPROVED SUPPLIER LISTED ON ODOT'S QUALIFIED APPROVED SUPPLIERS, ITEM 515.15.

CONCRETE CONTAINING AN APPROVED CORROSION INHIBITOR FROM THE QUALIFIED PRODUCT LIST SHALL BE USED FOR ALL LOCATIONS SUBJECT TO SALT/DE-ICING SPRAY (I.E. BRIDGE DECKS, BEAMS, SLABS, APPROACH SLABS, PIERS, ABUTMENTS, WALLS, BARRIER WALLS, ETC.). FOOTINGS ARE EXCUSED FROM MEETING THIS ADMIXTURE REQUIREMENT.

THE CORROSION INHIBITOR DOSAGE RATE SHALL CONFORM TO THE DOSAGE RATE LISTED ON THE ODOT QUALIFIED APPROVED SUPPLIERS LIST. THE ADDITION OF THE ADMIXTURE SHALL NOT DEGRADE THE CONCRETE STRENGTH OR ANY OTHER MATERIAL PROPERTIES OF THE CONCRETE. PAYMENT FOR MATERIAL, LABOR, EQUIPMENT, AND ANY MISCELLANEOUS APPURTENANCES REQUIRED FOR THIS ADMIXTURE SHALL BE INCLUDED IN THE RESPECTIVE CONCRETE ITEMS FOR PAYMENT.

ITEM 507 – BEARING PILES

ALL PILES SHALL BE ASTM A572 GRADE 50 OR ASTM A992.

ALL ABUTMENT PILES ARE FRICTION TYPE PILES WITH A DESIGN ULTIMATE BEARING VALUE OF 200 KIPS PER PILE ($\phi_{dyn} = 0.65$).

PILE TIP ELEVATION TO BE NO HIGHER THAN EL 529 TO ACCOUNT FOR SCOUR UNLESS APPROVED BY THE BUTLER COUNTY ENGINEER'S OFFICE.

REAR ABUTMENT: 13 HP12x53 PILES 40 FEET LONG, ORDER LENGTH 1 DYNAMIC LOAD TESTING ITEM

FORWARD ABUTMENT: 13 HP12x53 PILES 40 FEET LONG, ORDER LENGTH 1 DYNAMIC LOAD TESTING ITEM

A DRIVABILITY ANALYSES MUST BE PERFORMED PRIOR TO CONSTRUCTION USING THE PLANNED DRIVING EQUIPMENT. PERFORMANCE OF THIS REQUIREMENT SHALL BE CONSIDERED INCIDENTAL TO THE STEEL PILE BID ITEMS.

ESTIMATED QUANTITIES			
ITEM	QTY.	UNIT	DESCRIPTION
407	13	GAL	TACK COAT
448	9	C.Y.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2
507	1040	L.F.	STEEL PILES HP12X53, FURNISHED
507	910	L.F.	STEEL PILES HP12X53, DRIVEN
507	26	EA	PILE SHOES
523	2	EA	DYNAMIC LOAD TEST
509	21,187	LB	EPOXY COATED REINFORCING STEEL
511	110	C.Y.	CLASS QC1 CONCRETE, ABUTMENTS AND WINGWALLS
511	61	C.Y.	CLASS QC3 CONCRETE, SUPERSTRUCTURE, AS PER PLAN: (COMPOSITE BRIDGE DECK)
511	20	C.Y.	CLASS QC3 CONCRETE, SUPERSTRUCTURE, AS PER PLAN: (SIDEWALK)
512	199	S.Y.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE) COLOR FED #36492 GRAY
512	105	S.Y.	SEALING OF CONCRETE SURFACES (NON-EPOXY)
512	270	S.Y.	TREATING OF CONCRETE BRIDGE DECKS WITH SRS
515	8	EA	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB33-48
516	32	EA	LAMINATED ELASTOMERIC BEARING PADS WITH INTERNAL LAMINATES ONLY 1.29"x7"x11"
516	32	EA	1/8" PREFORMED BEARING PADS
517	193.33	L.F.	BRIDGE RAILING, AS PER PLAN
518	70	C.Y.	POROUS BACKFILL WITH FILTER FABRIC INCLUDING DRAINAGE PIPE
526	142	S.Y.	REINFORCED CONCRETE APPROACH SLAB, AS PER PLAN
601	950	C.Y.	ROCK CHANNEL PROTECTION, TYPE A, 3' THICK, WITH FILTER
606	4	EA	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
SPECIAL	182	L.F.	STEEL DRIP STRIP (DS-1-92)
SPECIAL	1	EA	CONCRETE TEST SLAB, AS PER PLAN

ALL ESTIMATED QUANTITIES ARE APPROXIMATE FOR REFERENCE ONLY NOT TO BE USED FOR PAYMENT OR BIDDING

BRIDGE SUPERSTRUCTURE DESIGN NOTES

1. DESIGN SPECIFICATIONS: "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS" 7TH EDITION WITH THE 2015 AND 2016 INTERIM PROVISIONS, ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, THE ODOT BRIDGE DESIGN MANUAL 2007 (EFFECTIVE 07-20-18), CONSTRUCTION SPECIFICATIONS TO GOVERN: ODOT 2016 CONSTRUCTION AND MATERIAL SPECIFICATIONS.

2. DESIGN DATA:

LIVE LOADING – HL-93
SUPERIMPOSED
DEAD LOADS

- FUT. WEARING SURFACE – 60 PSF
- RAILING WEIGHT – 130 PLF

BEAM CONCRETE

- MIN. COMPRESSIVE STRENGTH @ 28 DAYS
 $f'_c = 7,000$ P.S.I.
- MIN. COMPRESSIVE STRENGTH @ INITIAL PRESTRESS
 $f'_{ci} = 5,000$ P.S.I.

REINFORCING STEEL – ASTM A615, GRADE 60

PRESTRESSING STEEL – ASTM A416, GRADE 270, UNCOATED, SEVEN WIRE, LOW RELAXATION STRAND
1/2" DIAMETER
 $A_{ps} = 0.167$ SQ. INCH
 $f_s = 270$ KSI
 $E_p = 28,500$ KSI
 $RH = 70\%$
INITIAL STRESS $0.75 f'_s = 202.500$ KSI
INITIAL TENSION LOAD = 33.82 KIPS/STRAND

3. COMPOSITE DECK SLAB AND SIDEWALK

CONCRETE – ODOT CLASS QC2 $f'_c = 4,500$ PSI MIN. @ 28 DAYS PER GENERAL NOTES
MINIMUM THICKNESS – 6".
MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1" THICK.

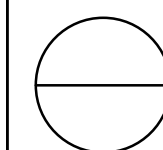
4. SUBSTRUCTURE

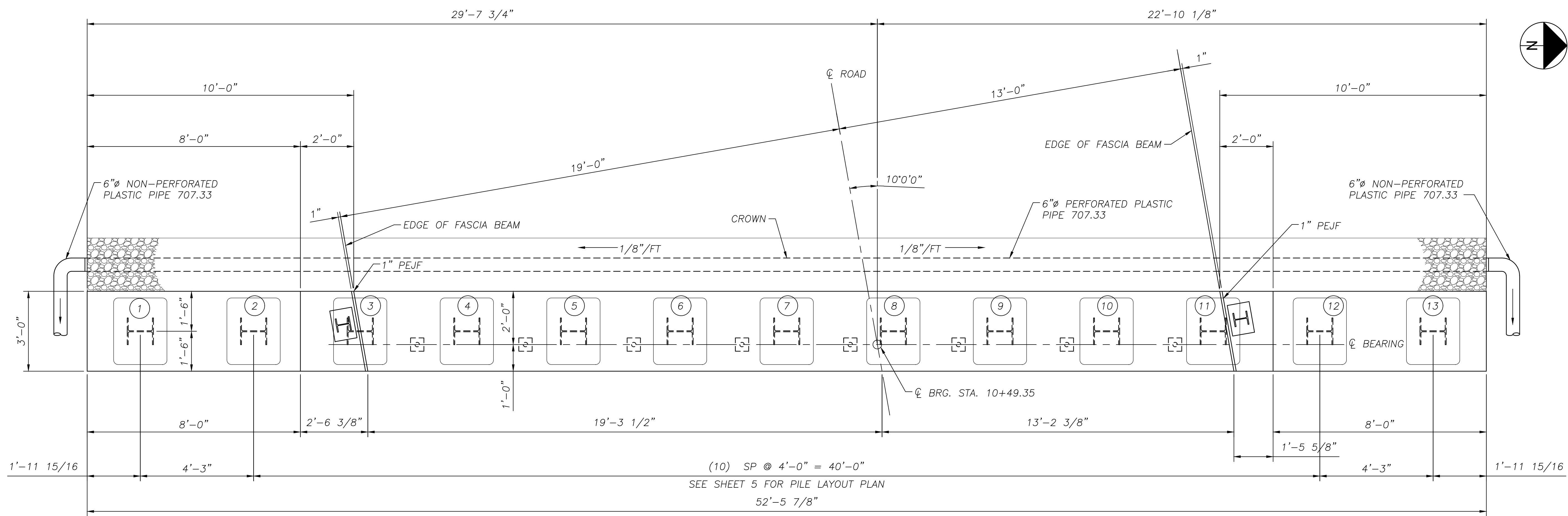
CONCRETE – ODOT CLASS QC1 $f'_c = 4,000$ PSI MIN. @ 28 DAYS

ODOT STD. DRAWINGS	
DRAWING NO.	REVISION DATE
DS-1-92	07-18-03
PSBD-2-07	07-20-18
TST-1-99	07-20-18
AS-1-15	07-17-15
AS-2-15	01-19-18
SICD-1-96	07-18-14
MGS-3.1	01-19-18

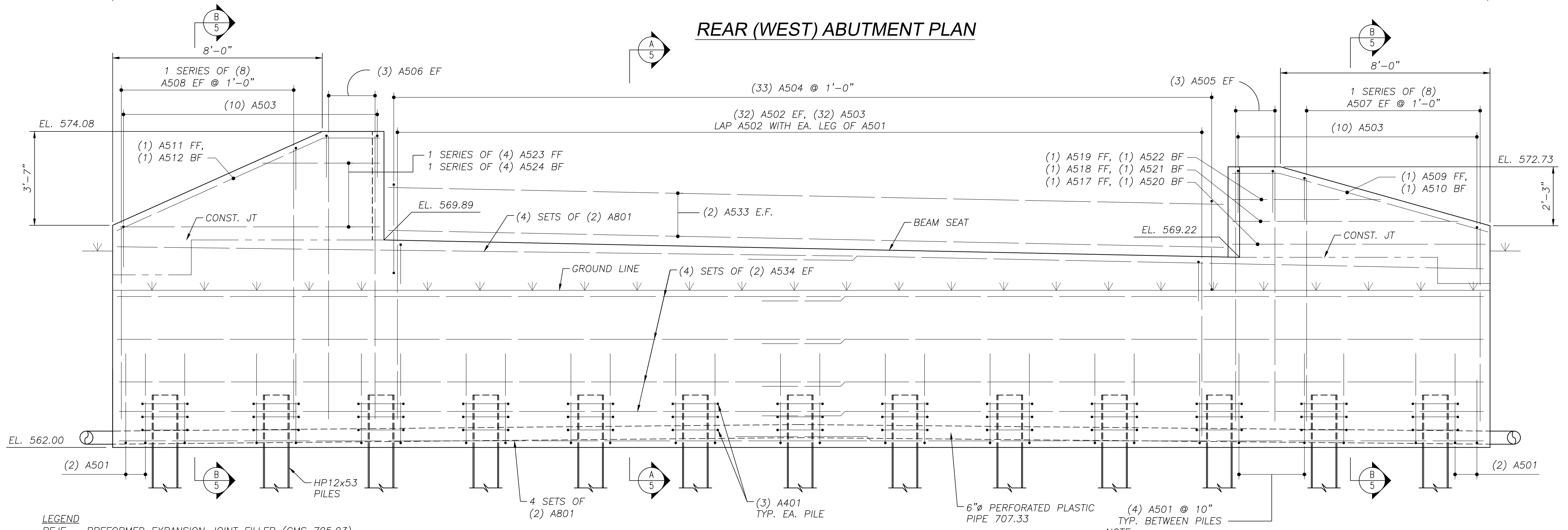
GENERAL NOTES AND ESTIMATED SUMMARY

VENICE CROSSING





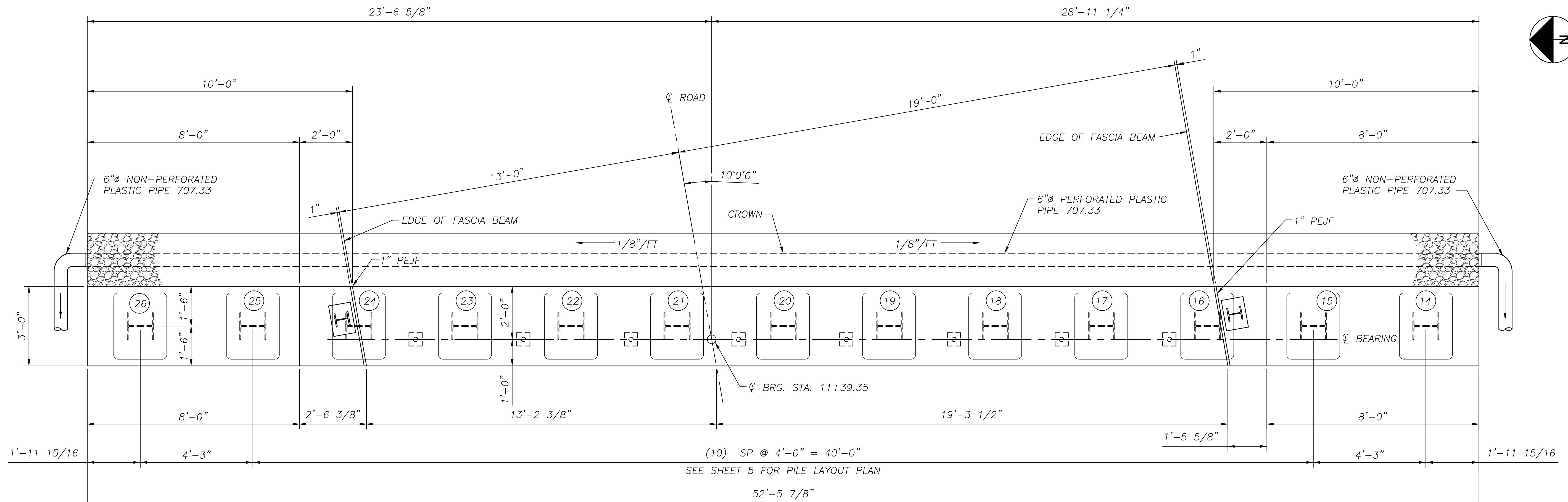
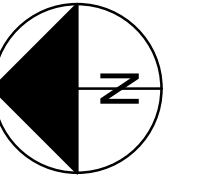
REAR (WEST) ABUTMENT PLAN



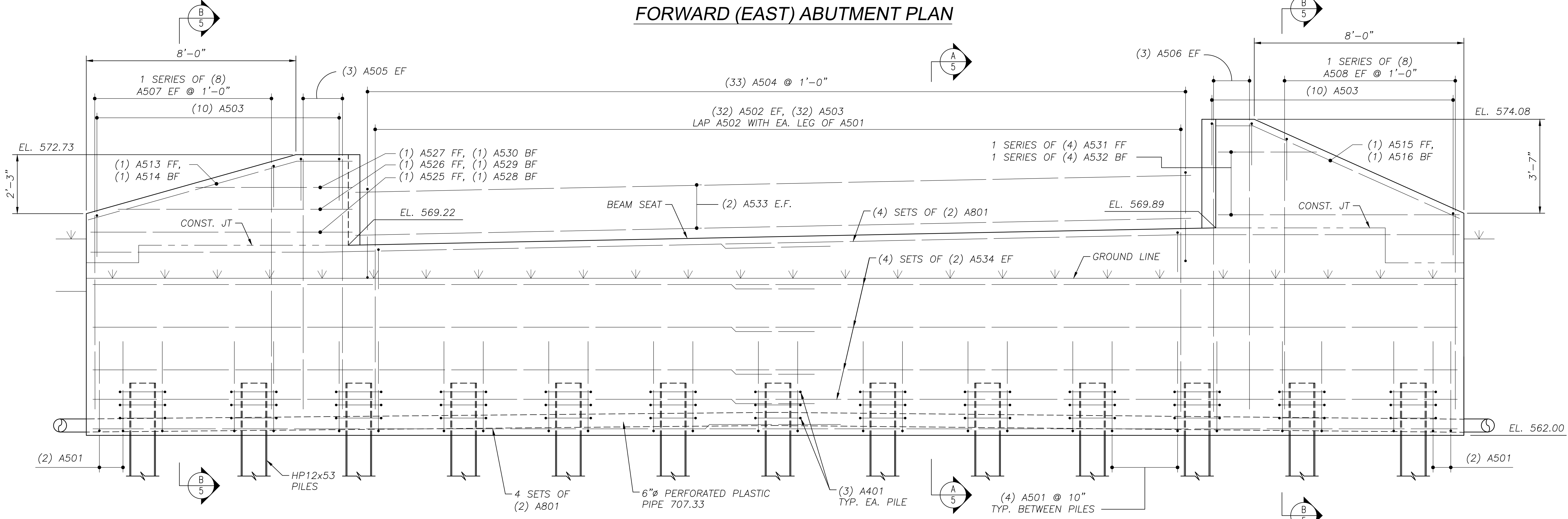
REAR (WEST) ABUTMENT ELEVATION

LEGEND
 PEJF - PREFORMED EXPANSION JOINT FILLER (CMS 705.03)
 FF - FRONT FACE
 BF - BACK FACE
 EF - EACH FACE

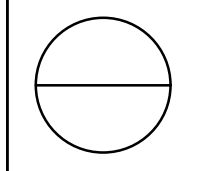
NOTE
 DO NOT PLACE THE ABUTMENT CONCRETE ABOVE THE BRIDGE SEAT CONSTRUCTION JOINT UNTIL THE PRESTRESSED CONCRETE BOX BEAMS HAVE BEEN ERECTED.

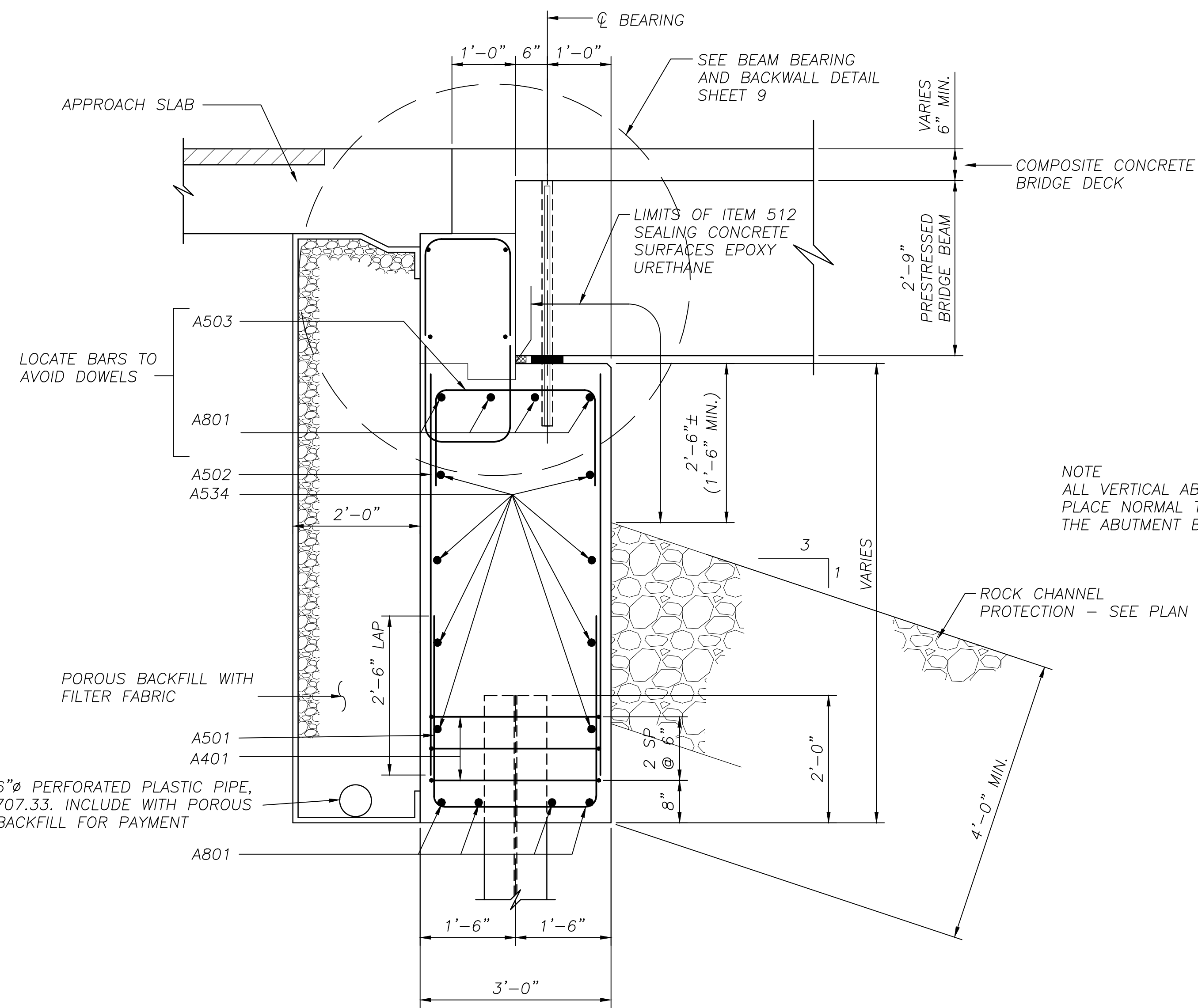


FORWARD (EAST) ABUTMENT PLAN

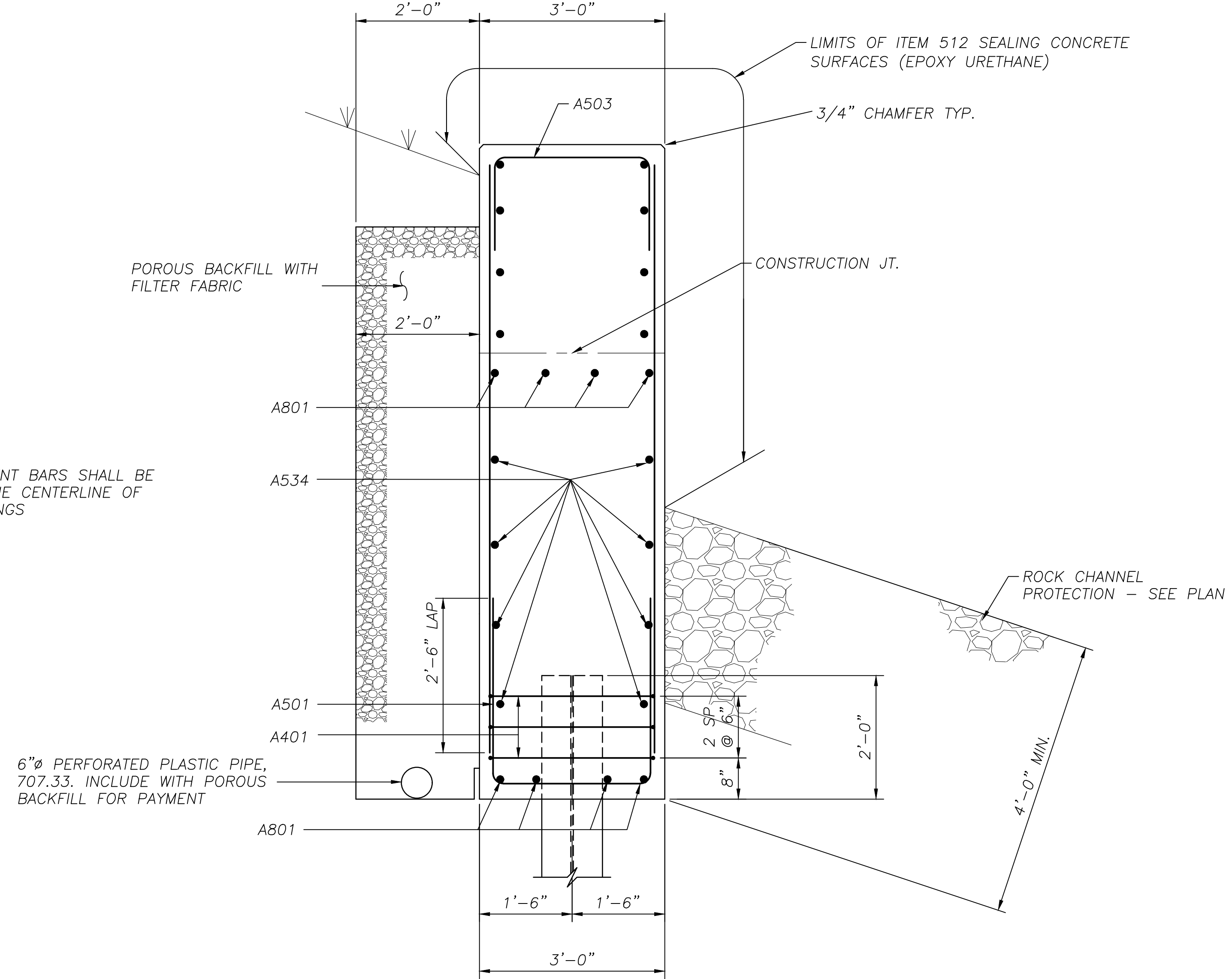


FORWARD (EAST) ABUTMENT ELEVATION



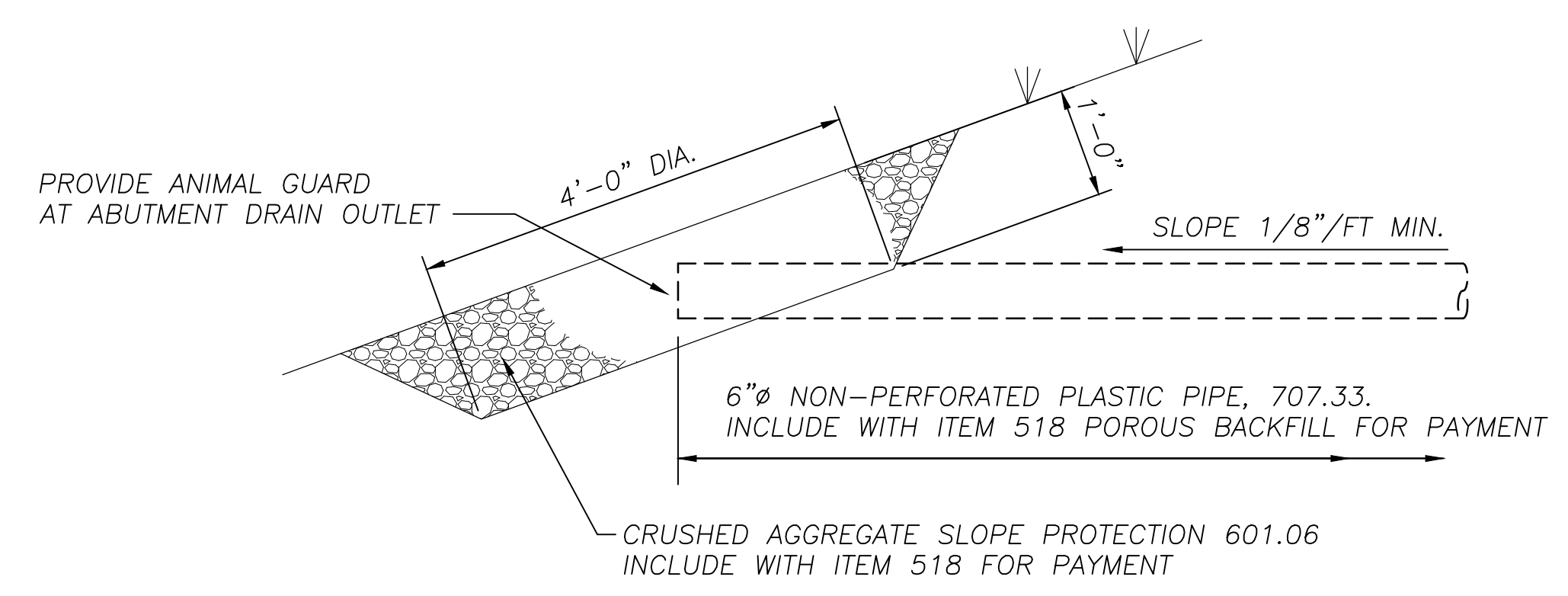


A-A INTEGRAL ABUTMENT SECTION
5

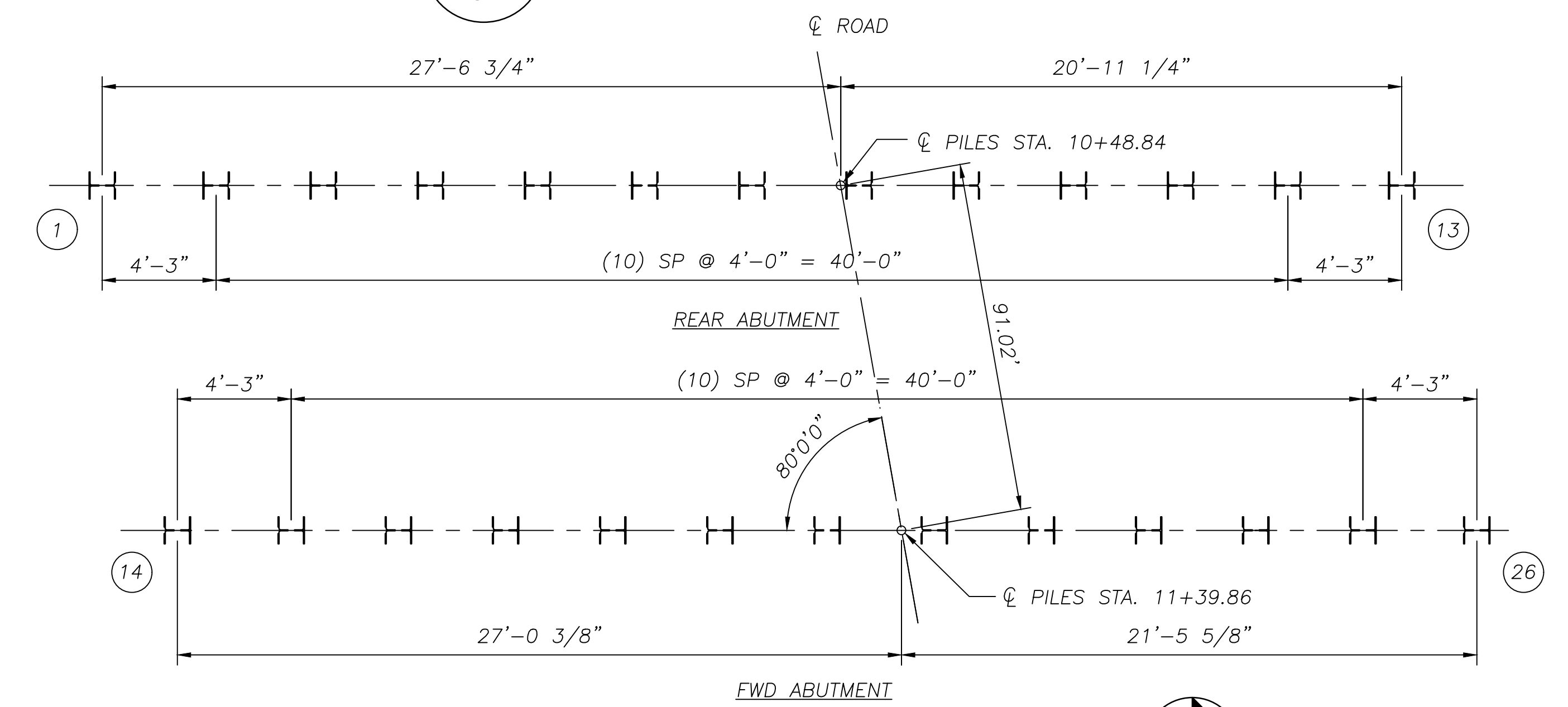


B-B WINGWALL SECTION
5

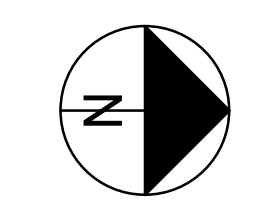
NOTE
ALL VERTICAL ABUTMENT BARS SHALL BE
PLACE NORMAL TO THE CENTERLINE OF
THE ABUTMENT BEARINGS



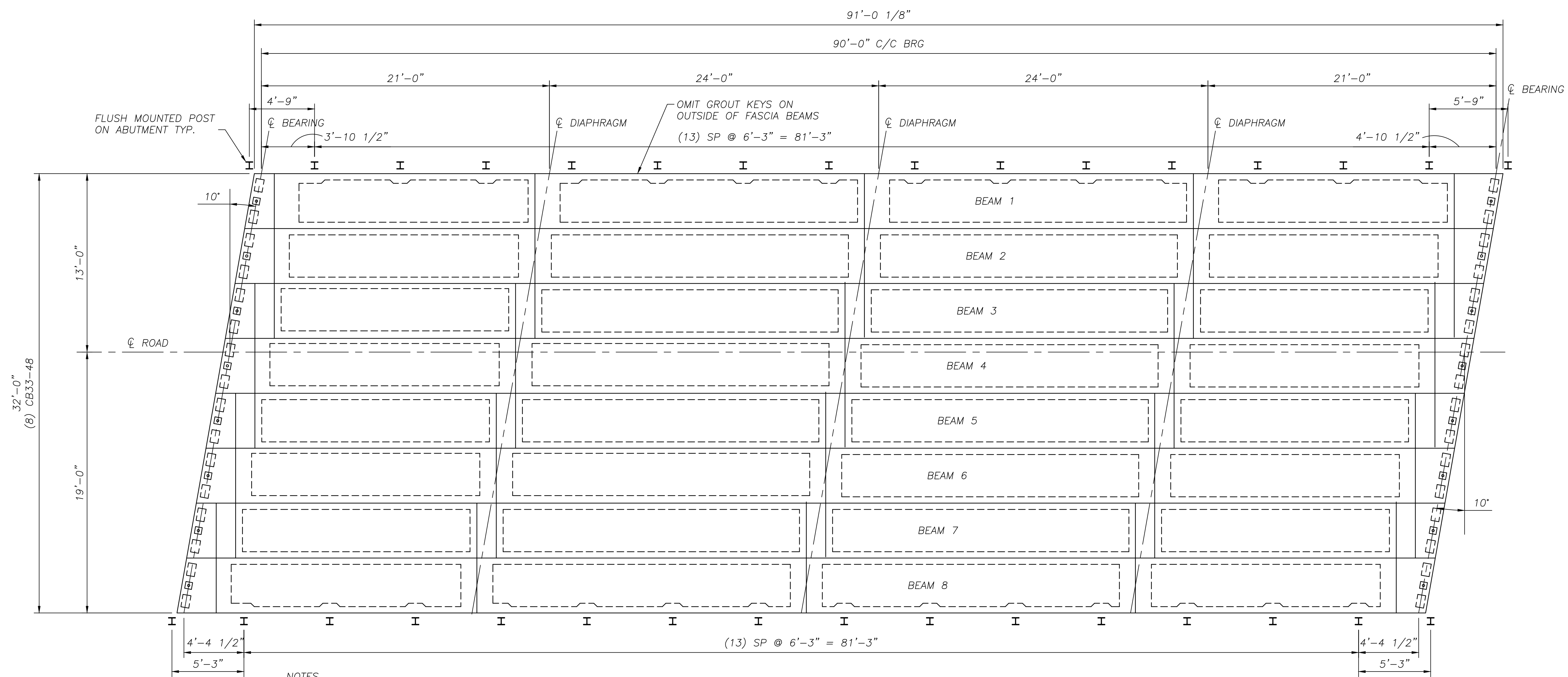
TERMINATION OF ABUTMENT DRAINAGE PIPE
(4) LOCATIONS



PILE LAYOUT PLAN

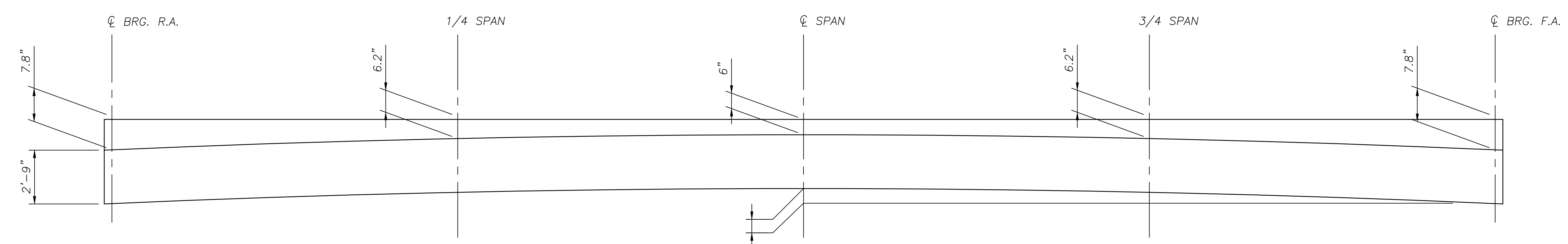


Truman P. Young & Associates CIVIL & STRUCTURAL ENGINEERS CINCINNATI, OHIO
DATE: 4/27/20 REVIEWED: DWS DRAWN: DWS DESIGNED: DWS
STRUCTURE FILE NUMBER: CHECKED:
ABUTMENT DETAILS
VENICE CROSSING
5 / 11



FRAMING PLAN

- NOTES
- 1) SEE STD. DRAWING PSBD-2-07 FOR NOTES AND DETAILS NOT SHOWN



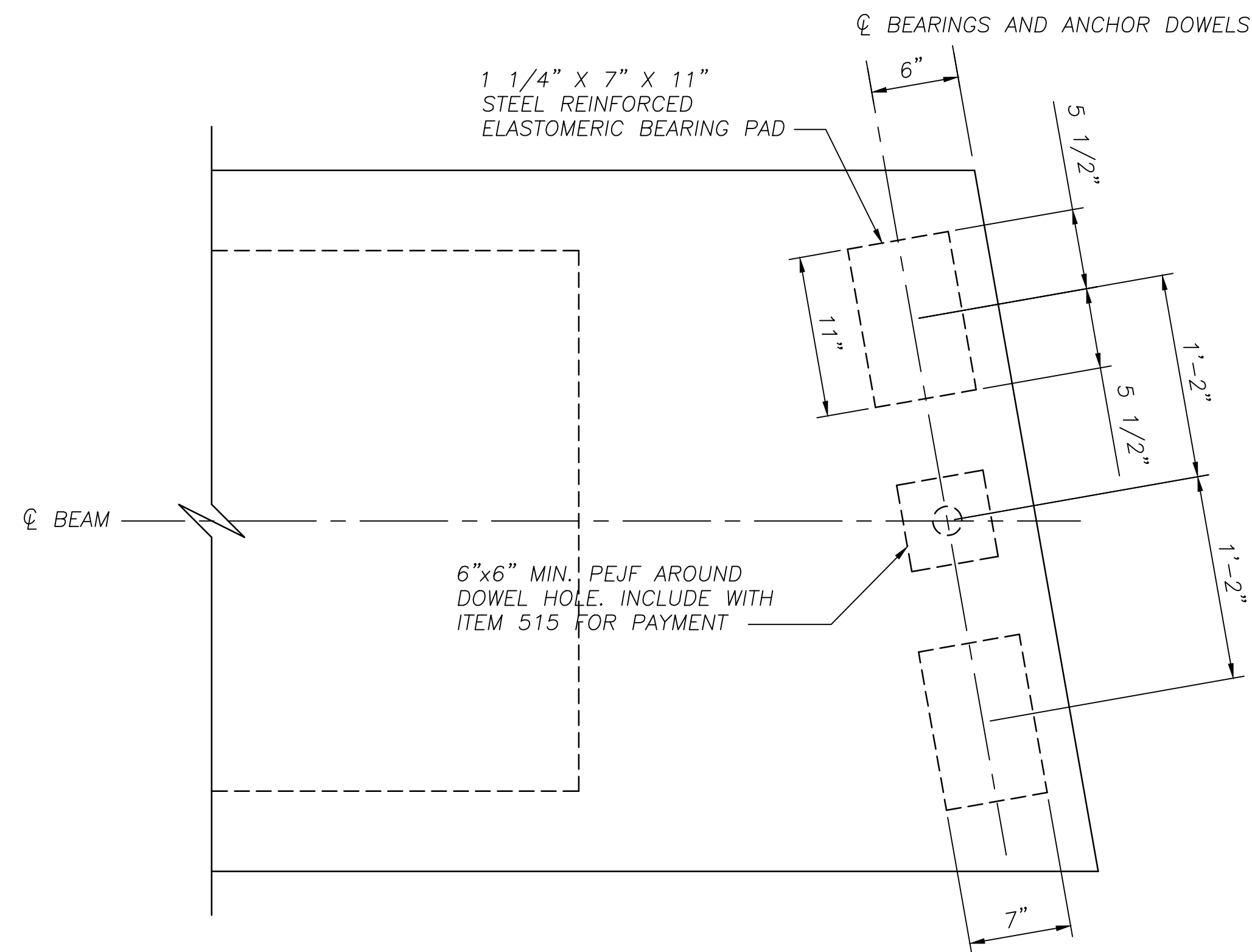
CAMBER DIAGRAM

- NOTES
- 1) ESTIMATED MIDSPAN CAMBER AT DAY 0 (D0) IS 1.9"
 - 2) ESTIMATED MIDSPAN CAMBER AT DAY 30 (D30) IS 3.1"
 - 3) DEFLECTION DUE TO REMAINING DEAD LOAD (CONCRETE DECK, SIDEWALK, AND RAILING) IS 1.3"
 - 4) ESTIMATED FINAL MIDSPAN CAMBER AFTER ALL DEAD LOAD IS APPLIED IS 1.8"
 - 5) THE BEAM SEAT ELEVATIONS ASSUME ESTIMATED CAMBER AT DAY 30

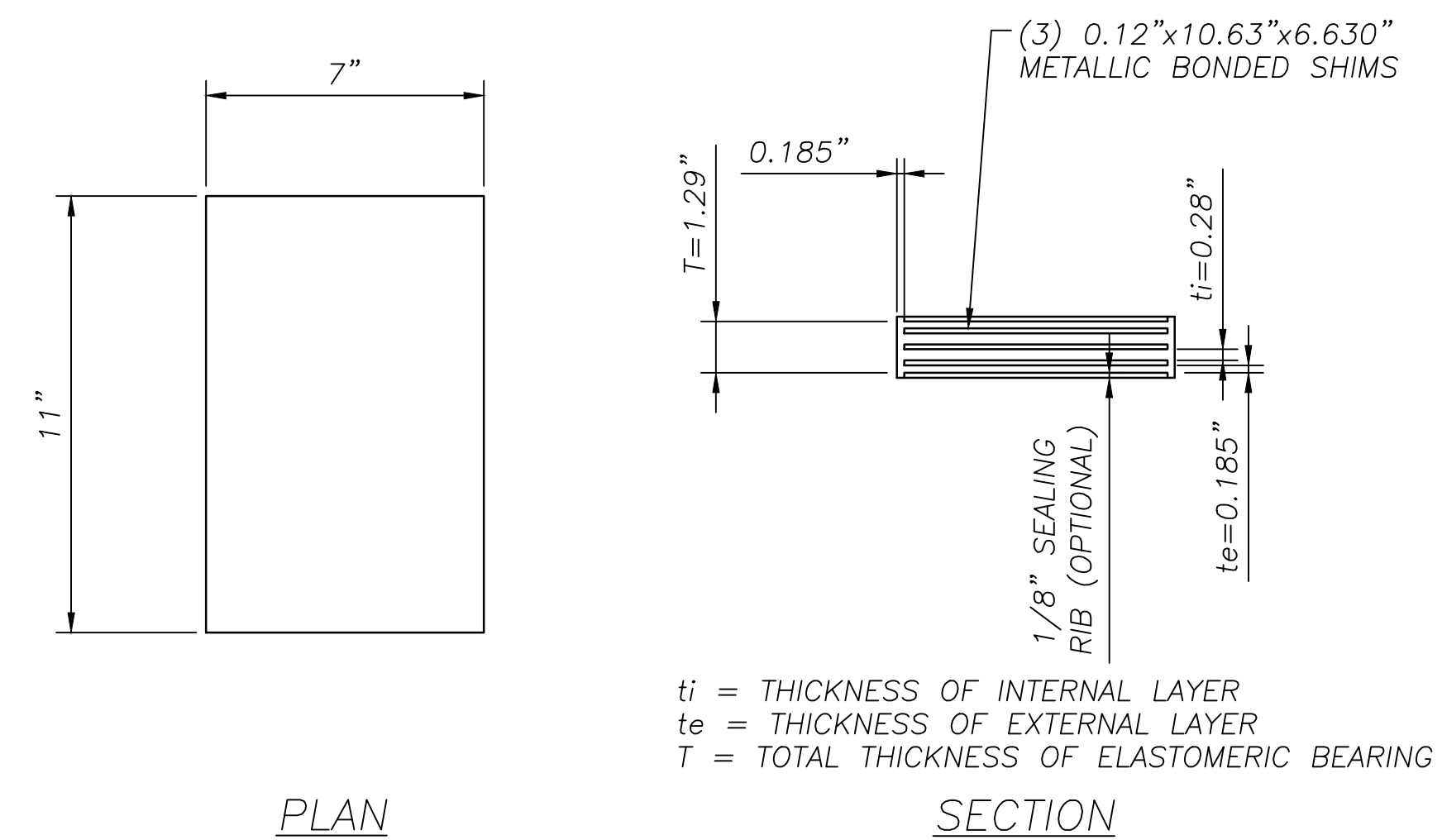
SCREED ELEVATION TABLE			
LOCATION	LT. EDGE BRIDGE	Q ROAD PGL	RT. EDGE BRIDGE
Q BRG R.A.	572.73	573.00	573.40
1/4 PT.	572.81	573.08	573.48
MIDSPAN	572.84	573.11	573.51
3/4 PT.	572.81	573.08	573.48
Q BRG F.A.	572.73	573.00	573.40

FINAL DECK SURFACE ELEVATION TABLE (DOES NOT INCLUDE SIDEWALK)						
LOCATION	13' LT. EDGE BRIDGE		Q ROADWAY (PGL)		19' RT. EDGE BRIDGE	
	STA.	EL.	STA.	EL.	STA.	EL.
Q BRG R.A.	10+51.64	572.73	10+49.35	573.00	10+46.00	573.40
1/4 PT.	10+74.14	572.73	10+71.85	573.00	10+68.50	573.40
MIDSPAN	10+96.64	572.73	10+94.35	573.00	10+91.00	573.40
3/4 PT.	11+19.14	572.73	11+16.85	573.00	11+13.50	573.40
Q BRG F.A.	11+41.64	572.73	11+39.35	573.00	11+36.00	573.40

FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.



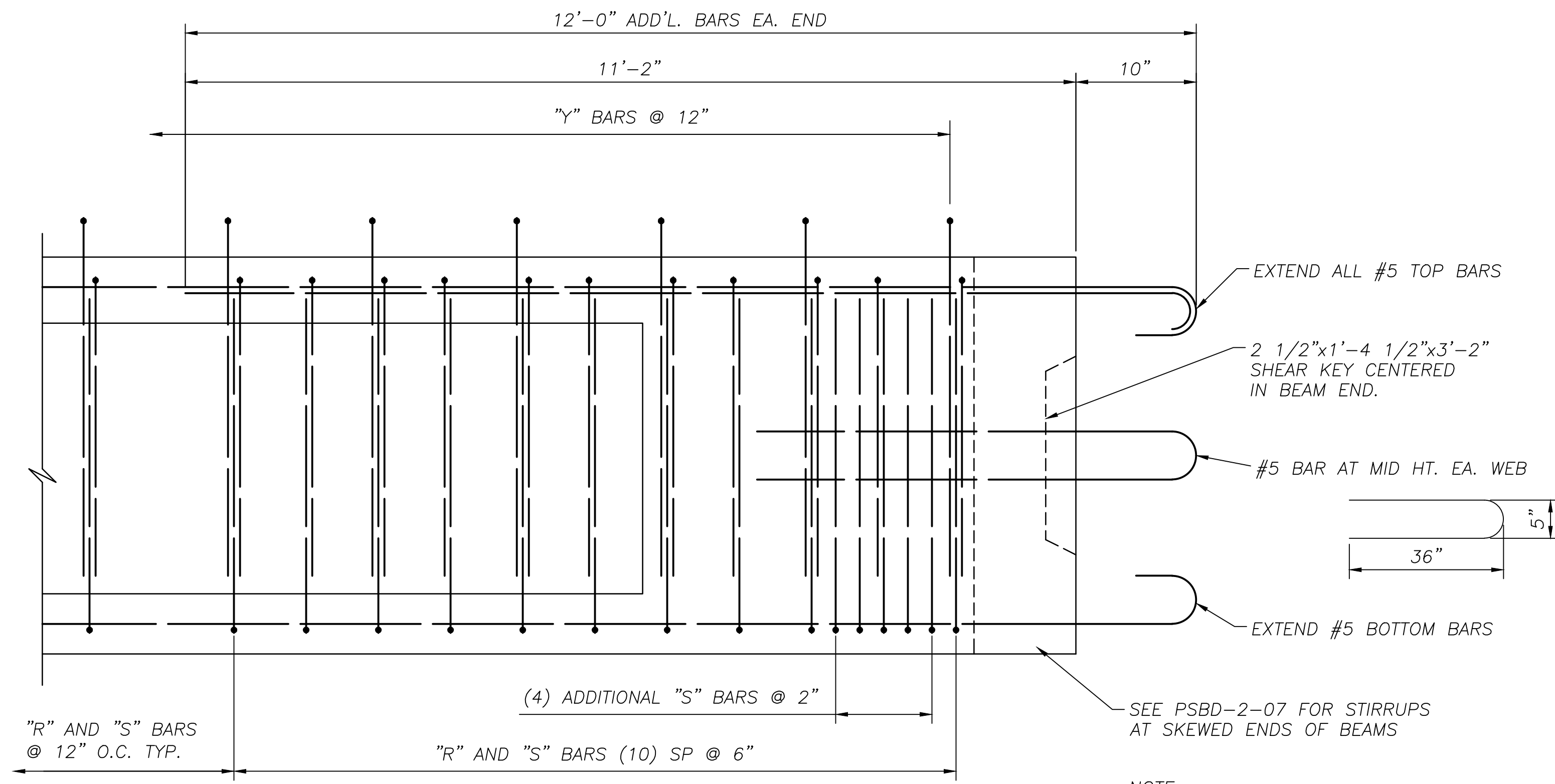
BEARING PAD LAYOUT



BEARING PAD NOTES

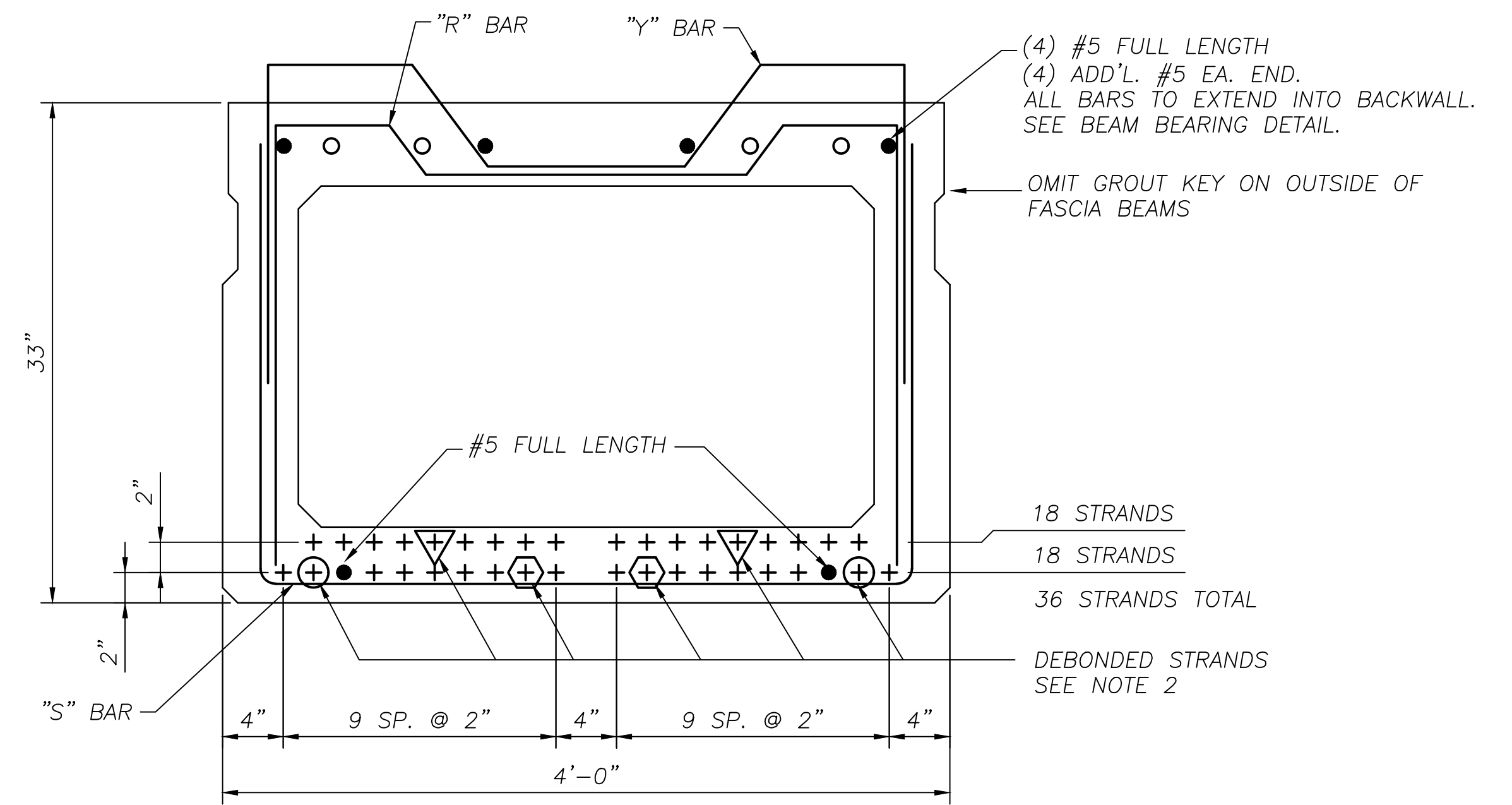
- 1) PADS SHALL BE 50 DUROMETER HARDNESS.
- 2) BEARINGS DESIGNED IN ACCORDANCE WITH 14.7.6 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (METHOD A)
- 3) PROVIDE 1/8" THICK PREFORMED BEARING PAD SHIMS, PLAN AREA TO MATCH ELASTOMERIC BEARINGS, UNDER THE ELASTOMERIC BEARING PADS WHERE REQUIRED FOR PROPER BEARING.

LAMINATED ELASTOMERIC BEARING



BEAM END DETAIL

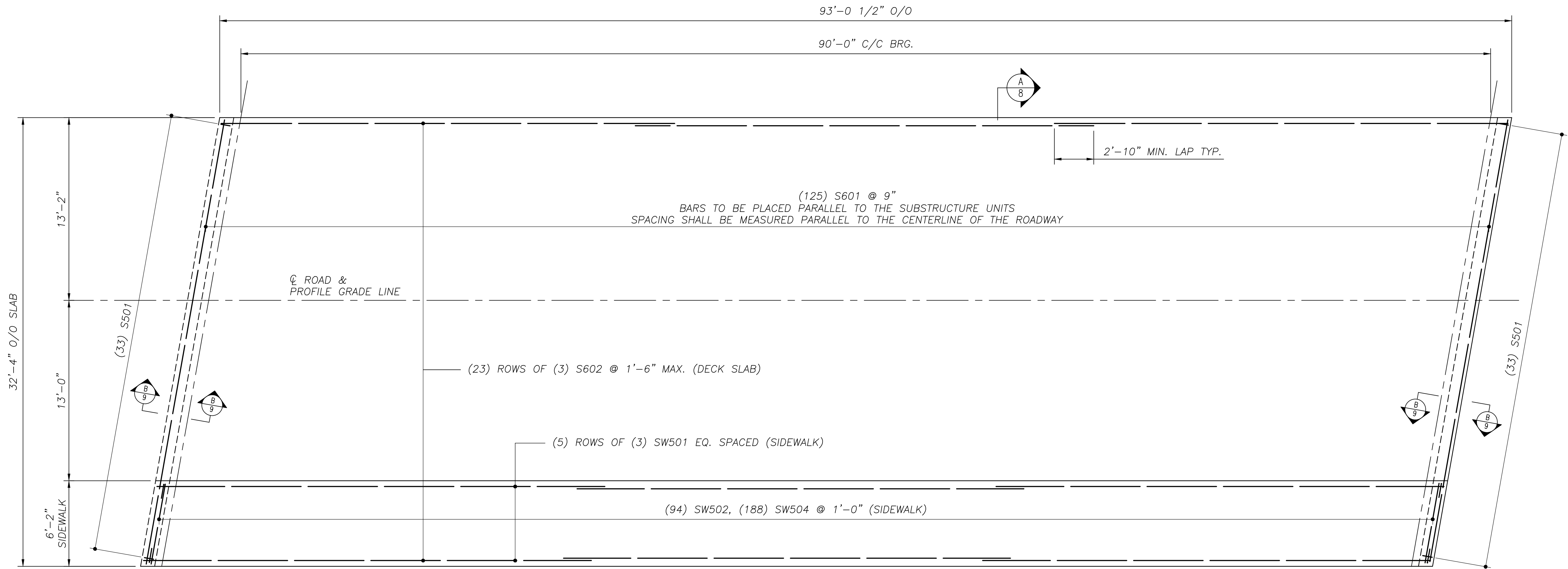
NOTE
ALL BARS EXTENDED FROM BEAM ENDS SHALL HAVE STANDARD 180° BENDS PER ODOT CMS ITEM 509 TABLE 509.05-1



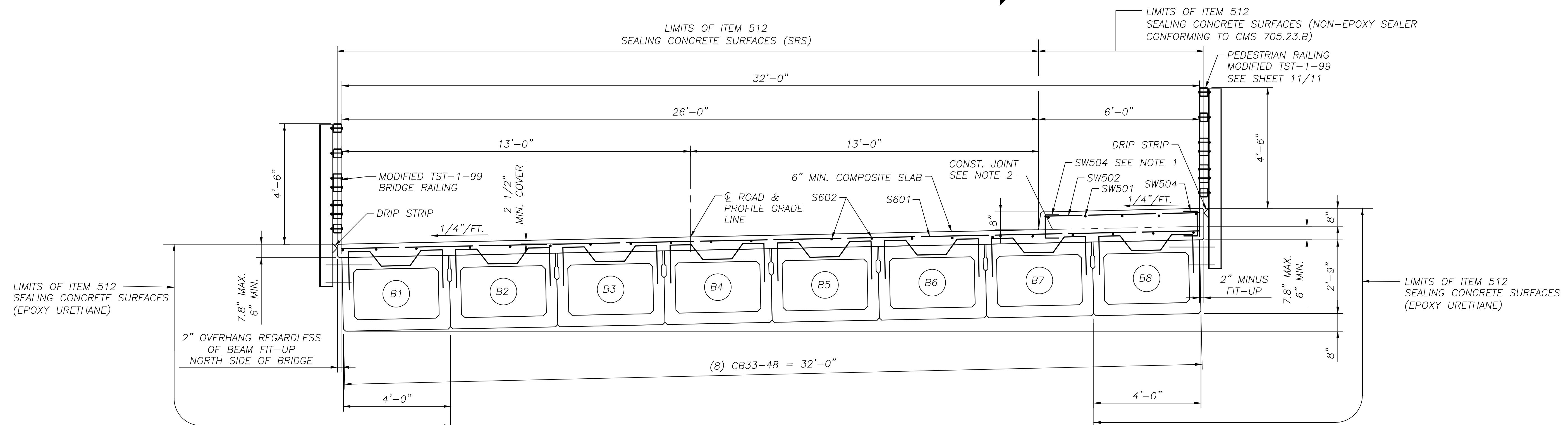
BEAM NOTES

- 1) BEAMS TO BE FABRICATED PER PSBD-2-07
- 2) DEBONDED STRANDS SHALL BE IN BOTTOM LAYER POSITIONED SYMMETRICALLY ABOUT ϕ BEAM. DEBOND STRANDS EA. END OF BEAM
 2 STRANDS: 3'-0" \oplus
 2 STRANDS: 6'-0" ∇
 2 STRANDS: 9'-0" \oplus
- 3) SEE PSBD-2-07 FOR "R", "S", AND "Y" BAR SIZE AND DIMENSIONS.

CB33-48 BOX BEAM



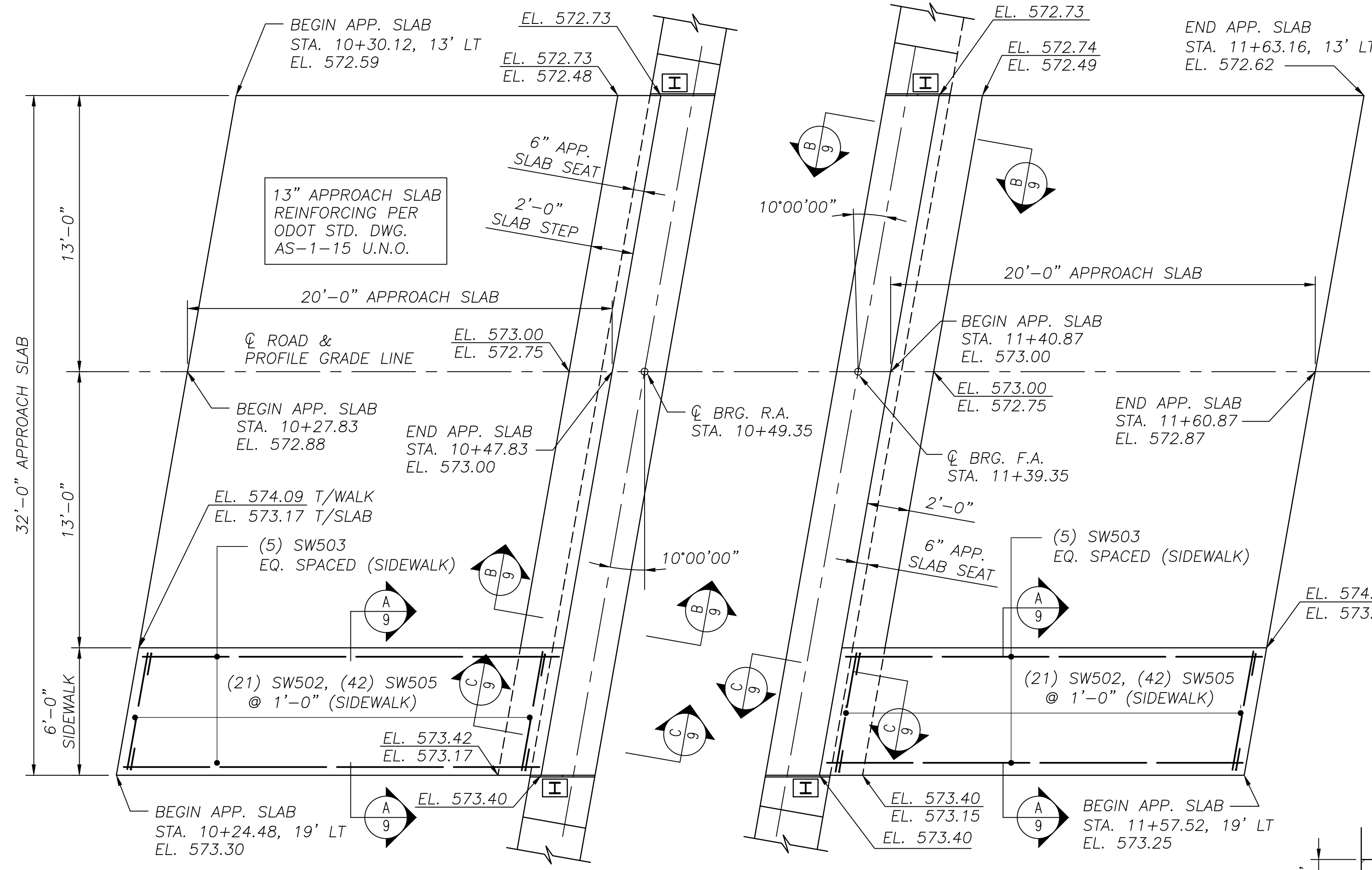
DECK REINFORCING PLAN



BRIDGE DECK SECTION

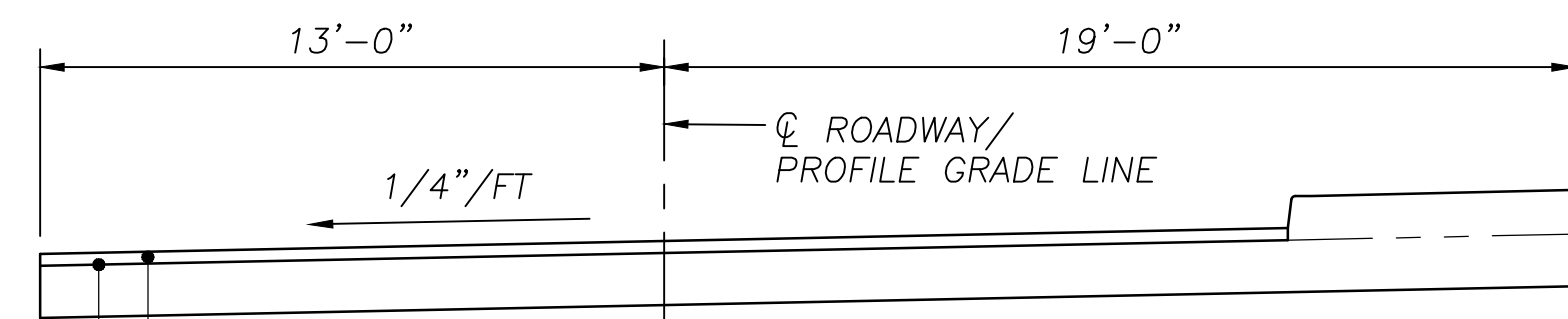
- NOTES;
 1) MAINTAIN 3" CLEAR DISTANCE FROM SIDEWALK RADIUS TO REINFORCING STEEL.
 2) CONSTRUCTION JOINT BETWEEN THE BRIDGE DECK AND SIDEWALK SHALL BE INTENTIONALLY ROUGHENED.

Truman P. Young & Associates IPM CIVIL & STRUCTURAL ENGINEERS CINCINNATI, OHIO	
DATE 4/27/20	STRUCTURE FILE NUMBER
REVIEWED DWS	REVISED
DRAWN DWS	CHECKED
DECK PLAN	
VENICE CROSSING	
8 / 11	

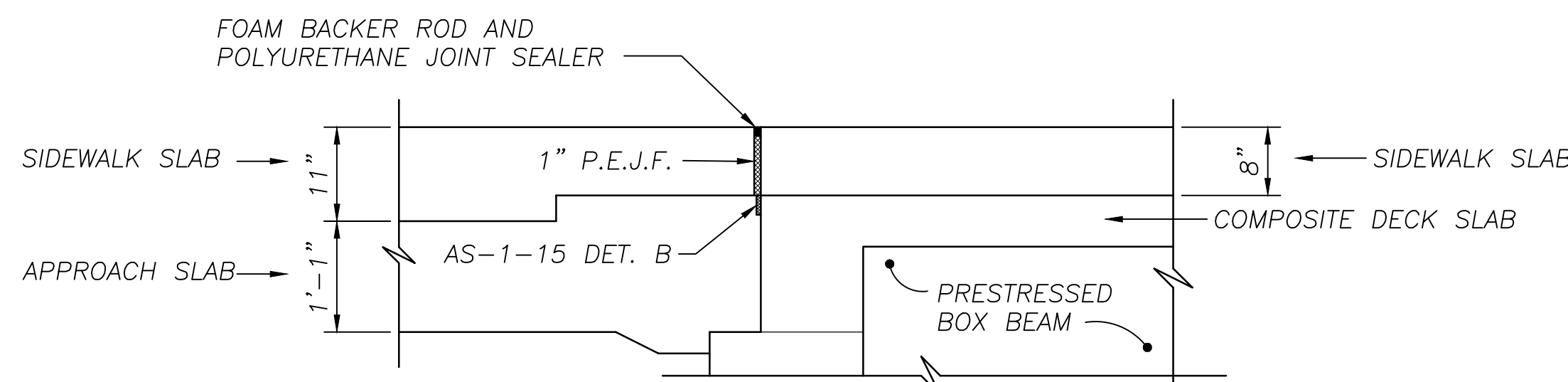


APPROACH SLAB PLAN

NOTE:
ALL ELEVATIONS ARE TOP OF
APPROACH SLAB CONCRETE ELEVATIONS
UNLESS NOTED OTHERWISE

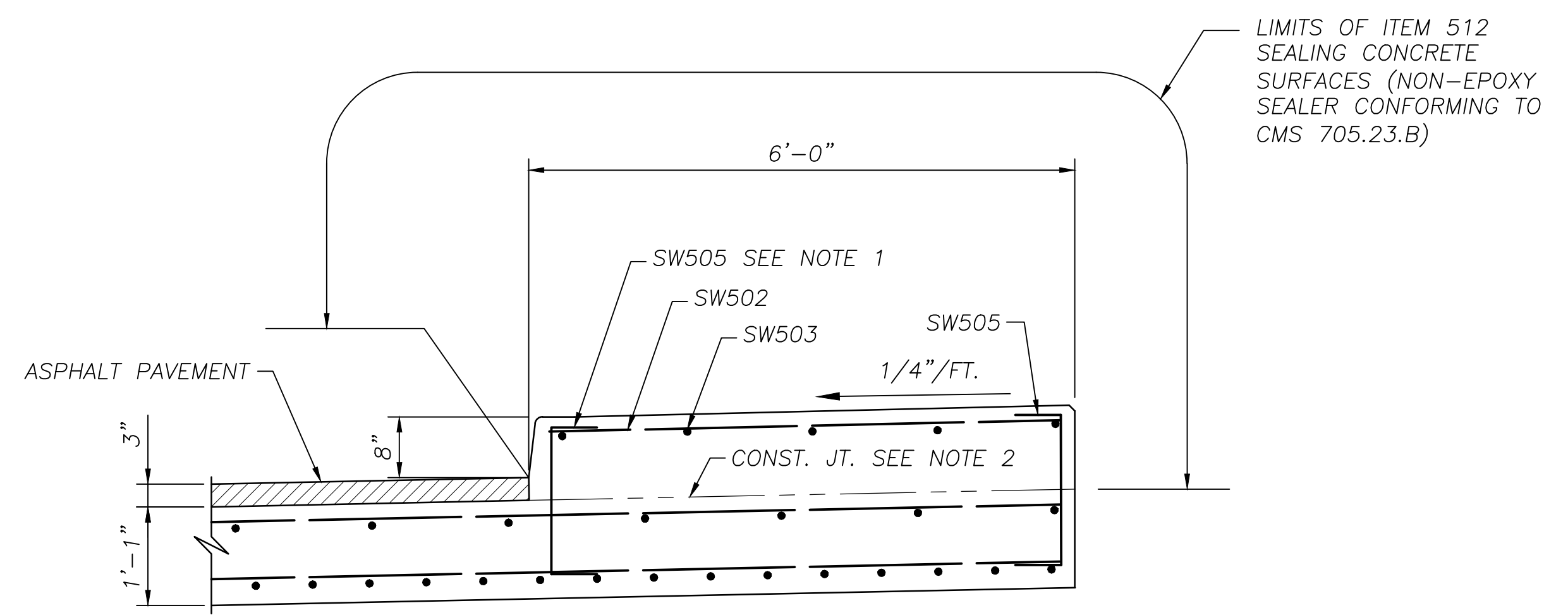


APPROACH SLAB SECTION



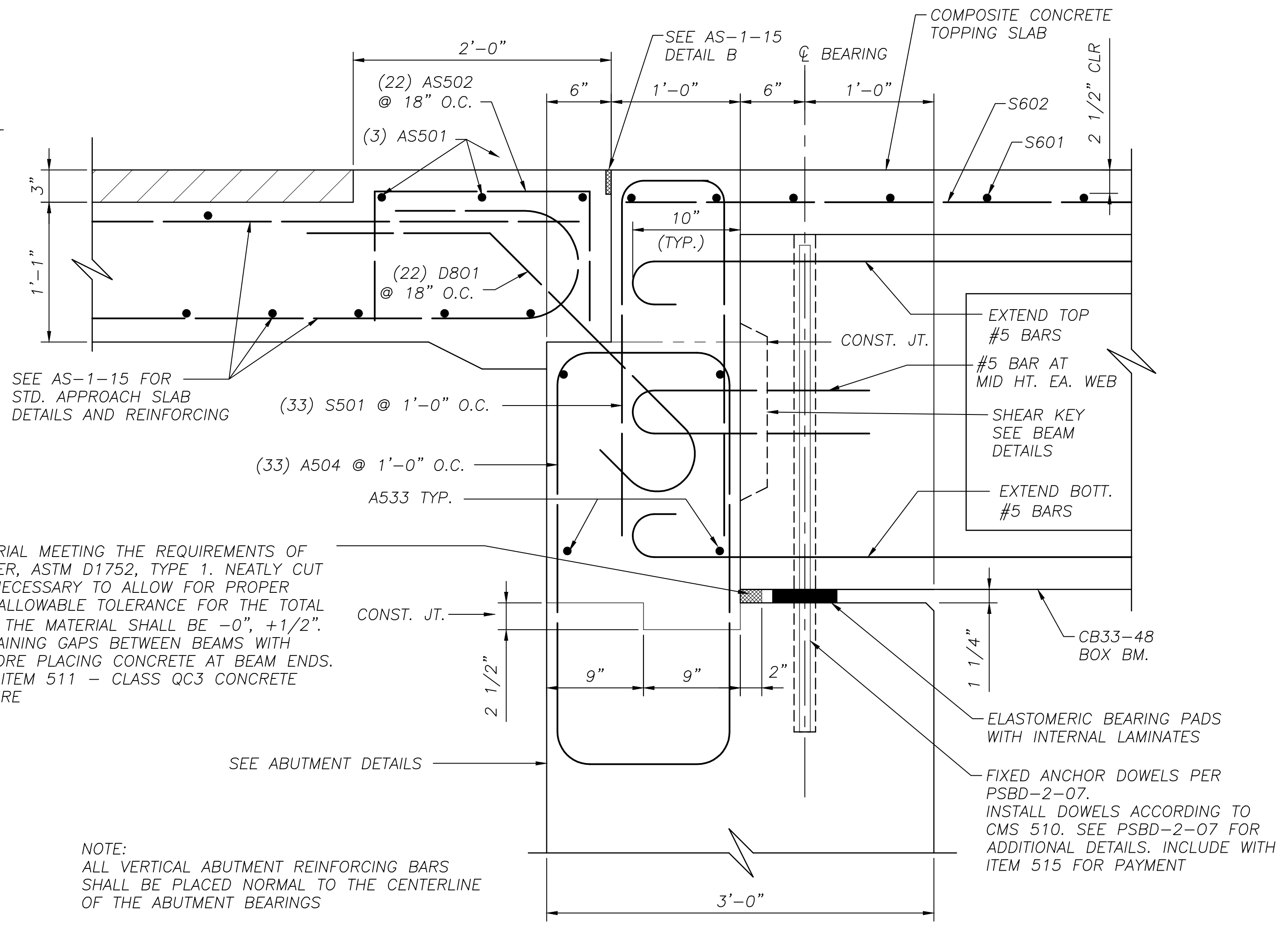
COST OF SIDEWALK EXPANSION JOINT
TO BE INCLUDED IN ITEM 512 FOR PAYMENT

C-C SIDEWALK EXP. JT. AT APPROACH SLAB
9



A-A SIDEWALK ON APPROACH SLAB
9

NOTES:
1) MAINTAIN 3" CLEAR DISTANCE FROM SIDEWALK RADIUS TO REINFORCING STEEL.
2) CONSTRUCTION JOINT BETWEEN THE BRIDGE DECK AND SIDEWALK SHALL BE INTENTIONALLY ROUGHENED.



B-B BEAM BEARING AND BACKWALL DETAIL
9

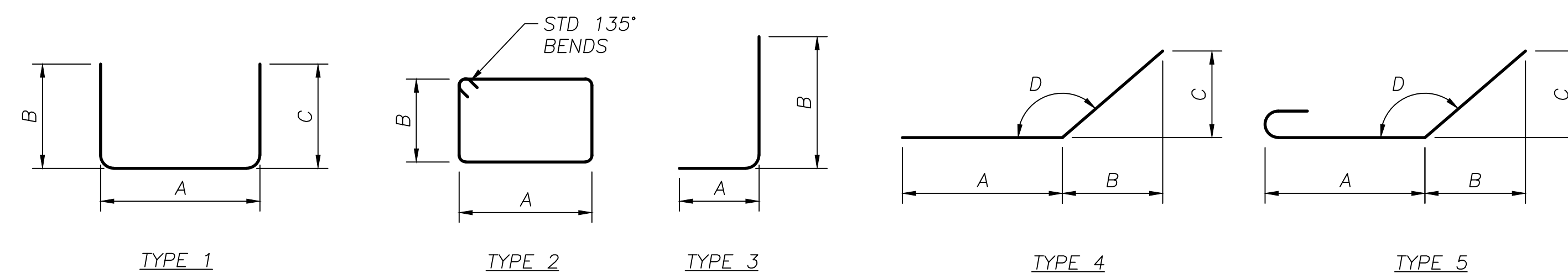
FURNISH MATERIAL MEETING THE REQUIREMENTS OF SPONGE RUBBER, ASTM D1752, TYPE 1. NEATLY CUT MATERIAL AS NECESSARY TO ALLOW FOR PROPER INSTALLATION. ALLOWABLE TOLERANCE FOR THE TOTAL THICKNESS OF THE MATERIAL SHALL BE -0", +1/2". SEAL ALL REMAINING GAPS BETWEEN BEAMS WITH CAULKING BEFORE PLACING CONCRETE AT BEAM ENDS. INCLUDE WITH ITEM 511 - CLASS QC3 CONCRETE SUPERSTRUCTURE

NOTE:
ALL VERTICAL ABUTMENT REINFORCING BARS SHALL BE PLACED NORMAL TO THE CENTERLINE OF THE ABUTMENT BEARINGS

REINFORCING STEEL LIST

MARK	LOCATION						TOTAL NUMBER	APPROX. LENGTH	APPROX. WEIGHT	TYPE	DIMENSIONS			
	R.A.	F.A.	DECK SLAB	REAR APP. SLAB	FWD. APP. SLAB	SIDEWALK ON BRIDGE					A	B	C	D
A401	39	39					78	9'-10"	512	2	2'-8 1/2"	1'-9"		
A501	52	52					104	9'-0"	976	1	2'-7"	3'-4"	3'-4"	
A502	64	64					128	6'-10"	912	STR				
A503	52	52					104	5'-5"	588	1	2'-8"	1'-6"	1'-6"	
A504	33	33					66	9'-4"	643	2	1'-2"	3'-0"		
A505	6	6					12	9'-6"	119	STR				
A506	6	6					12	10'-10"	136	STR				
A507	2 SERIES OF 8	2 SERIES OF 8					4 SERIES OF 8	7'-4" TO 9'-4"	278	STR				
A508	2 SERIES OF 8	2 SERIES OF 8					4 SERIES OF 8	7'-6" TO 10'-8"	306	STR				
A509	1						1	9'-5"	10	4	1'-3"	7'-10"	2'-3"	164'
A510	1						1	9'-10"	10	4	1'-8"	7'-10"	2'-3"	164'
A511	1						1	10'-5"	11	4	1'-9"	7'-10"	3'-7"	156'
A512	1						1	10'-10"	12	4	2'-2"	7'-10"	3'-7"	156'
A513		1					1	10'-4"	11	4	2'-2"	7'-10"	2'-3"	164'
A514		1					1	9'-11"	10	4	1'-9"	7'-10"	2'-3"	164'
A515		1					1	9'-11"	10	4	1'-3"	7'-10"	3'-7"	156'
A516		1					1	10'-4"	11	4	1'-8"	7'-10"	3'-7"	156'
A517	1						1	9'-1"	10	STR				
A518	1						1	8'-6"	9	STR				
A519	1						1	5'-3"	6	STR				
A520	1						1	9'-6"	10	STR				
A521	1						1	8'-11"	10	STR				
A522	1						1	5'-8"	6	STR				
A523	1 SERIES OF 4						1 SERIES OF 4	4'-6" TO 10'-1"	30	STR				
A524	1 SERIES OF 4						1 SERIES OF 4	4'-0" TO 9'-7"	29	STR				
A525		1					1	10'-0"	10	STR				
A526		1					1	9'-1"	10	STR				
A527		1					1	5'-10"	6	STR				
A528		1					1	9'-7"	10	STR				
A529		1					1	8'-8"	9	STR				
A530		1					1	5'-5"	6	STR				
A531		1 SERIES OF 4					1 SERIES OF 4	3'-5" TO 9'-0"	26	STR				
A532		1 SERIES OF 4					1 SERIES OF 4	3'-11" TO 9'-6"	28	STR				
A533	4	4					8	32'-2"	268	STR				
A534	16	16					32	27'-8"	929	STR				
A801	16	16					32	28'-8"	2,450	STR				
S501			66				66	5'-5"	373	1	0'-8"	2'-6"	2'-6"	
S601			125				125	32'-6"	6,101	STR				
S602			69				69	33'-0"	3,420	STR				
SW501						15	15	32'-5"	507	STR				
SW502				21	21	94	136	5'-7"	792	STR				
SW503				5	5		10	19'-8"	205	STR				
SW504						188	188	2'-2"	426	1	0'-10"	0'-10"	0'-10"	
SW505				42	42		84	3'-0"	256	1	1'-7"	0'-10"	0'-10"	
AS501				3	3		6	32'-1"	200	STR				
AS502				22	22		44	3'-0"	138	1	1'-8"	0'-11"	0'-11"	
D801	22	22					44	5'-0"	352	5	2'-5"	1'-0"	1'-0"	45'

21,187 Lb - APPROXIMATE TOTAL WEIGHT REINFORCING STEEL

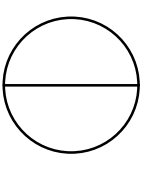


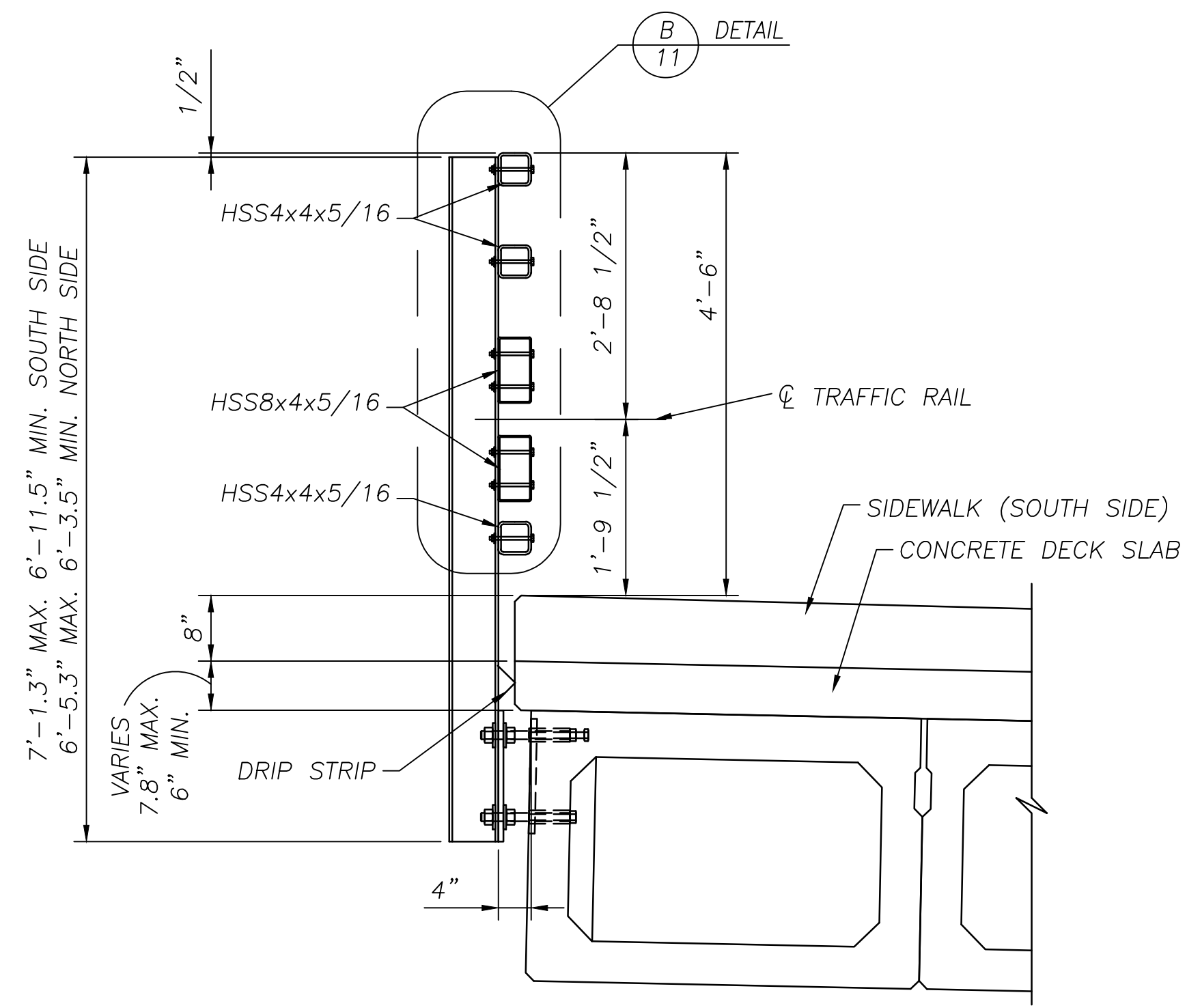
REINFORCING STEEL NOTES

- 1) REINFORCING STEEL TO BE ASTM A615, GRADE 60 FABRICATED AND PLACED PER ODOT ITEM 509.
- 2) ALL REINFORCING STEEL TO BE EPOXY COATED.
- 3) ALL DIMENSIONS ARE OUT TO OUT UNLESS OTHERWISE NOTED.
- 4) ALL BENDS NOT DIMENSIONED ARE STANDARD BENDS PER ODOT CMS ITEM 509 TABLE 509.05-1
- 5) APPROACH SLAB REINFORCING IS NOT INCLUDED SEE AS-1-15 FOR APPROACH SLAB REINFORCING

REINFORCING STEEL LIST

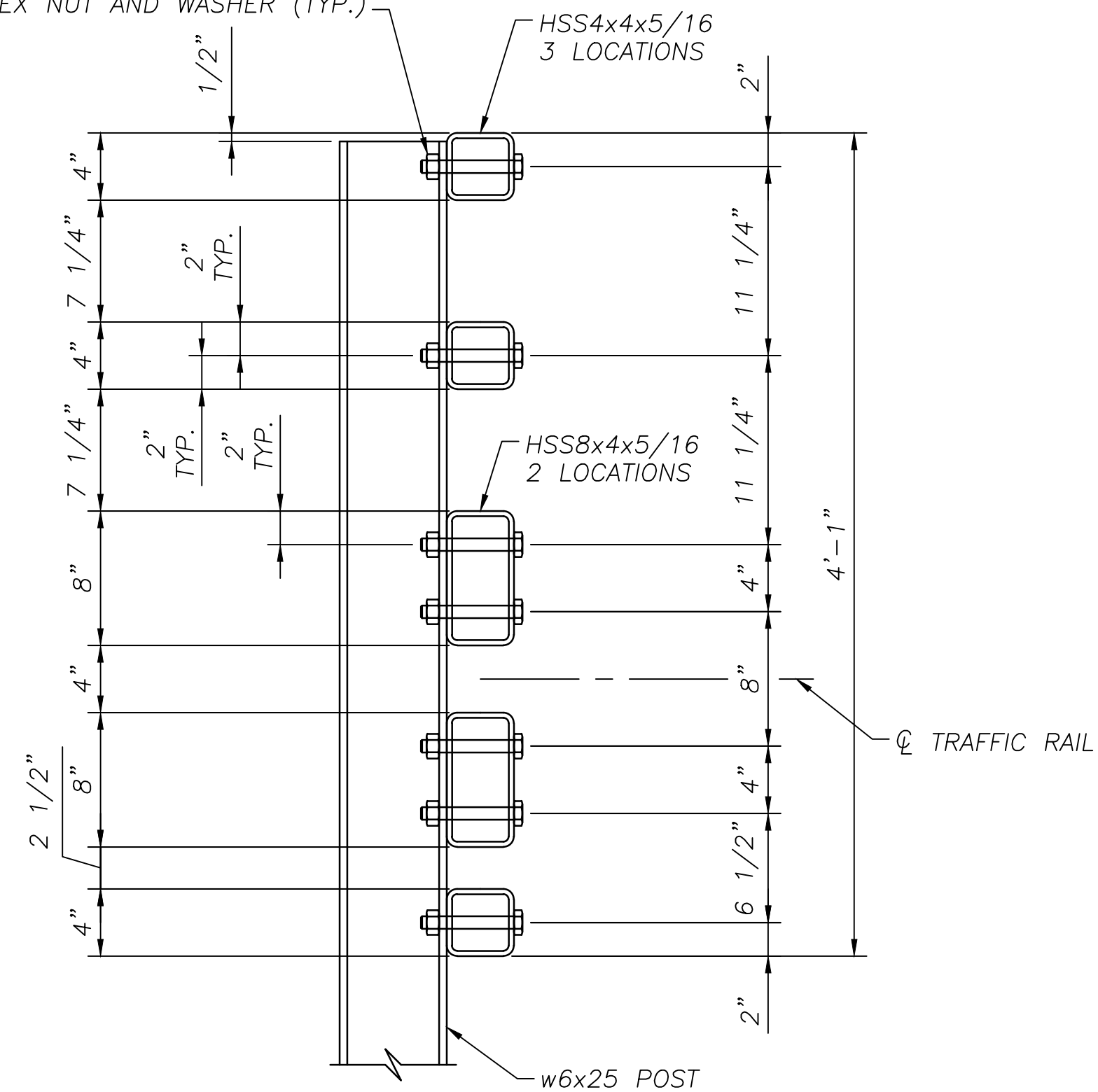
VENICE CROSSING
NEW BRIDGE





A
11
SECTION

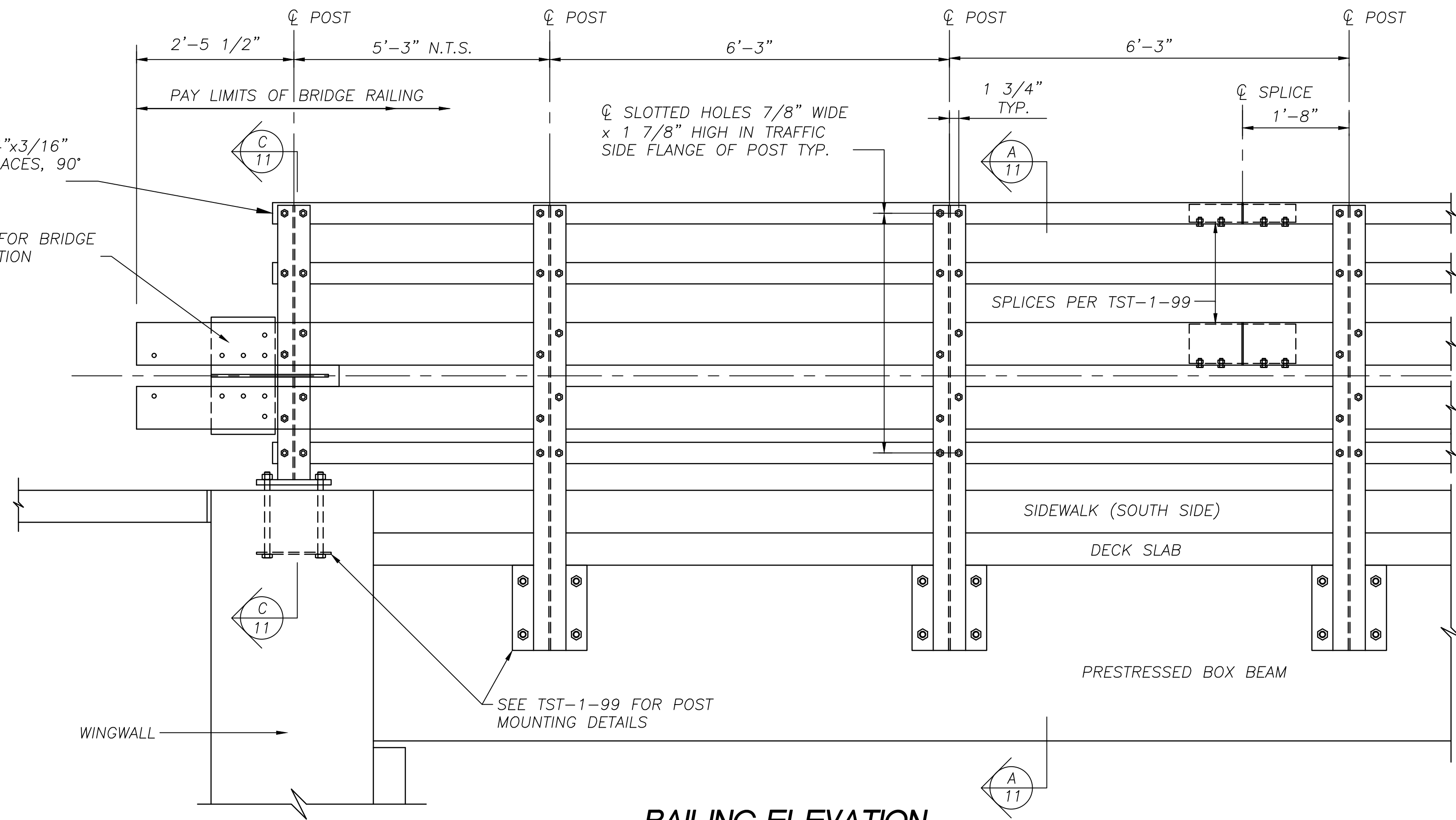
3/4"Ø x 5 1/2" LONG A307
BUTTON HEAD BOLTS WITH
HEX NUT AND WASHER (TYP.)



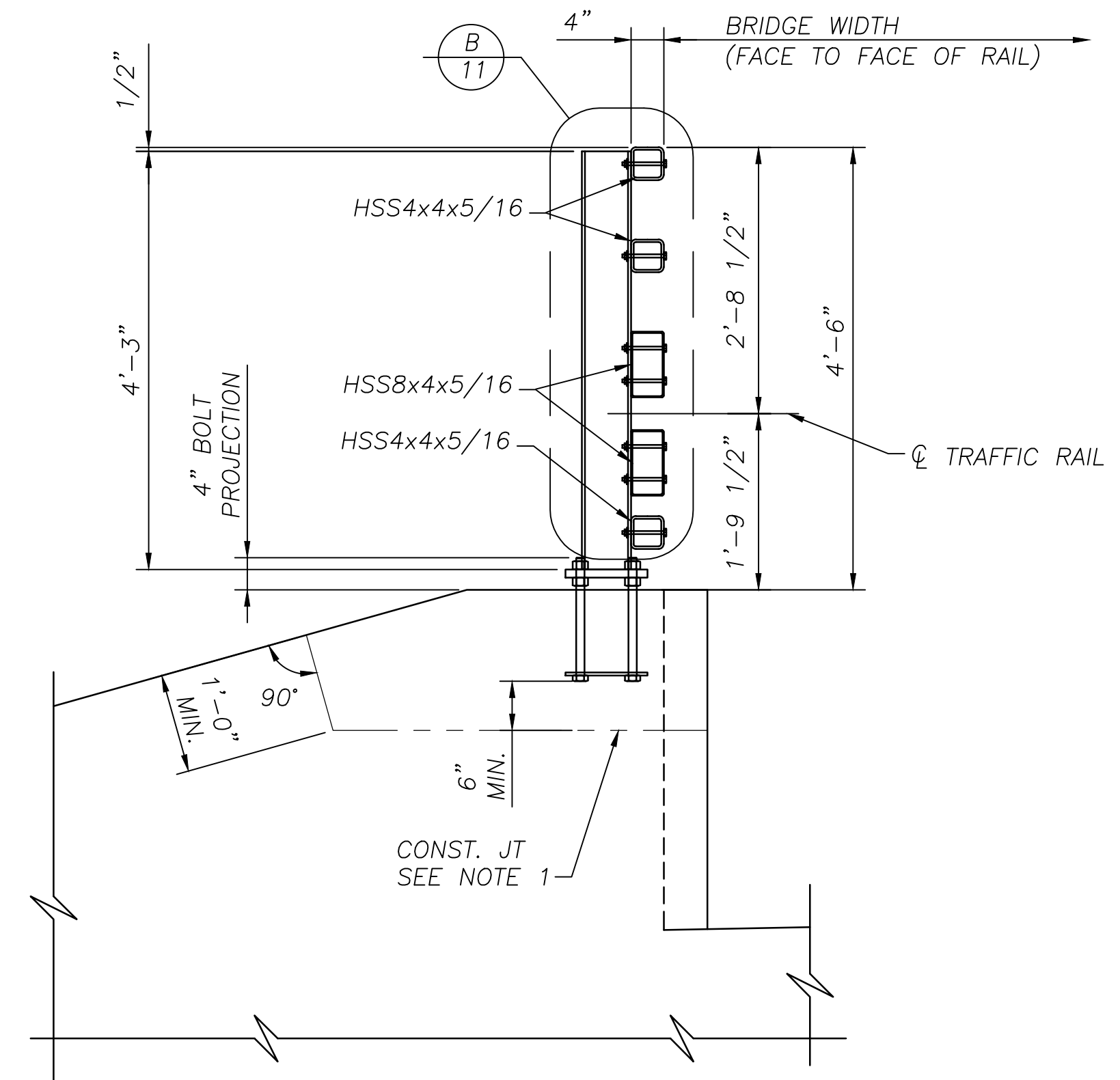
B
11
RAILING ATTACHMENT DETAIL

END CAP PL 4"x4"x3/16"
TACK WELD 4 PLACES, 90°
APART TYP.

SEE TST-1-99 FOR BRIDGE
RAILING TERMINATION



RAILING ELEVATION



C
11
SECTION

NOTE

- 1) SEE TST-1-99 SHEET 1/4 FOR RAILING DETAILS NOT SHOWN OR NOTED
- 2) SEE TST-1-99 SHEET 4/4 FOR RAILING GENERAL NOTES