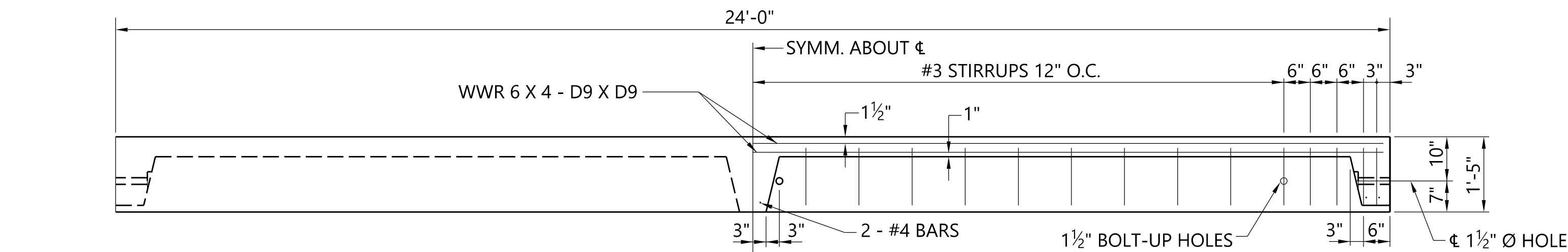


HALF PLAN
SHOWING MESH REINFORCEMENT

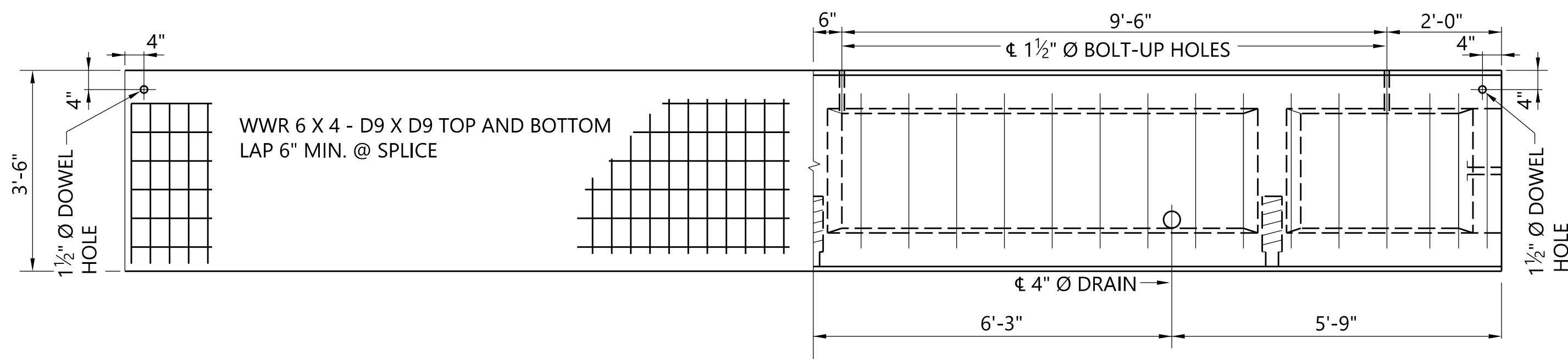
HALF PLAN



LONGITUDINAL SECTION (INTERIOR UNIT)

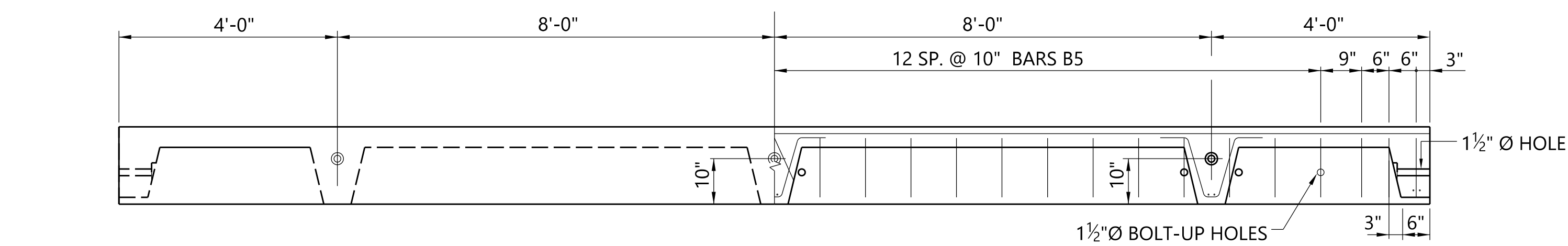
TYPE 1

NOTE: ADJACENT PRECAST UNITS SHALL BE LONGITUDINALLY CONNECTED WITH 1" DIA. X 1'-9" A-307 BOLTS AND STANDARD NUTS AND WASHERS.



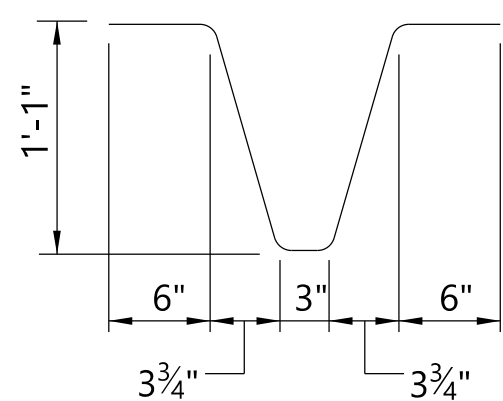
HALF PLAN
SHOWING MESH REINFORCEMENT

HALF PLAN

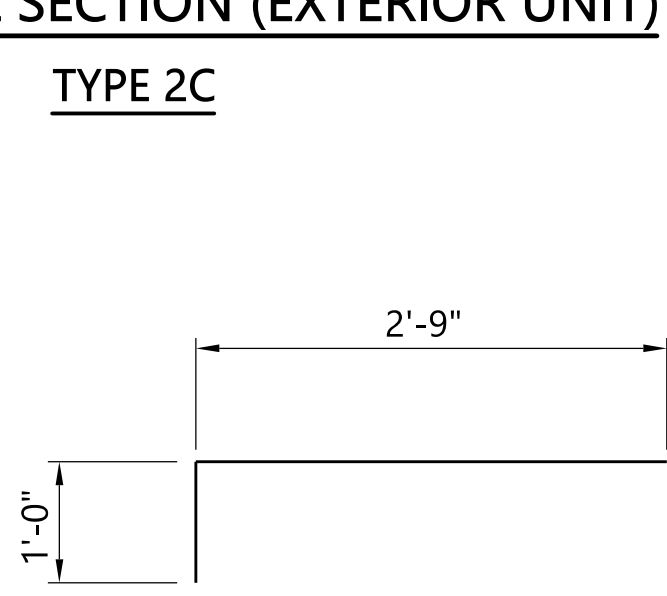


LONGITUDINAL SECTION (EXTERIOR UNIT)

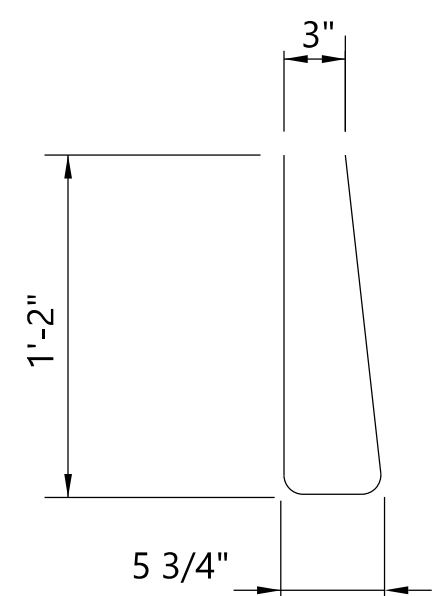
TYPE 2C



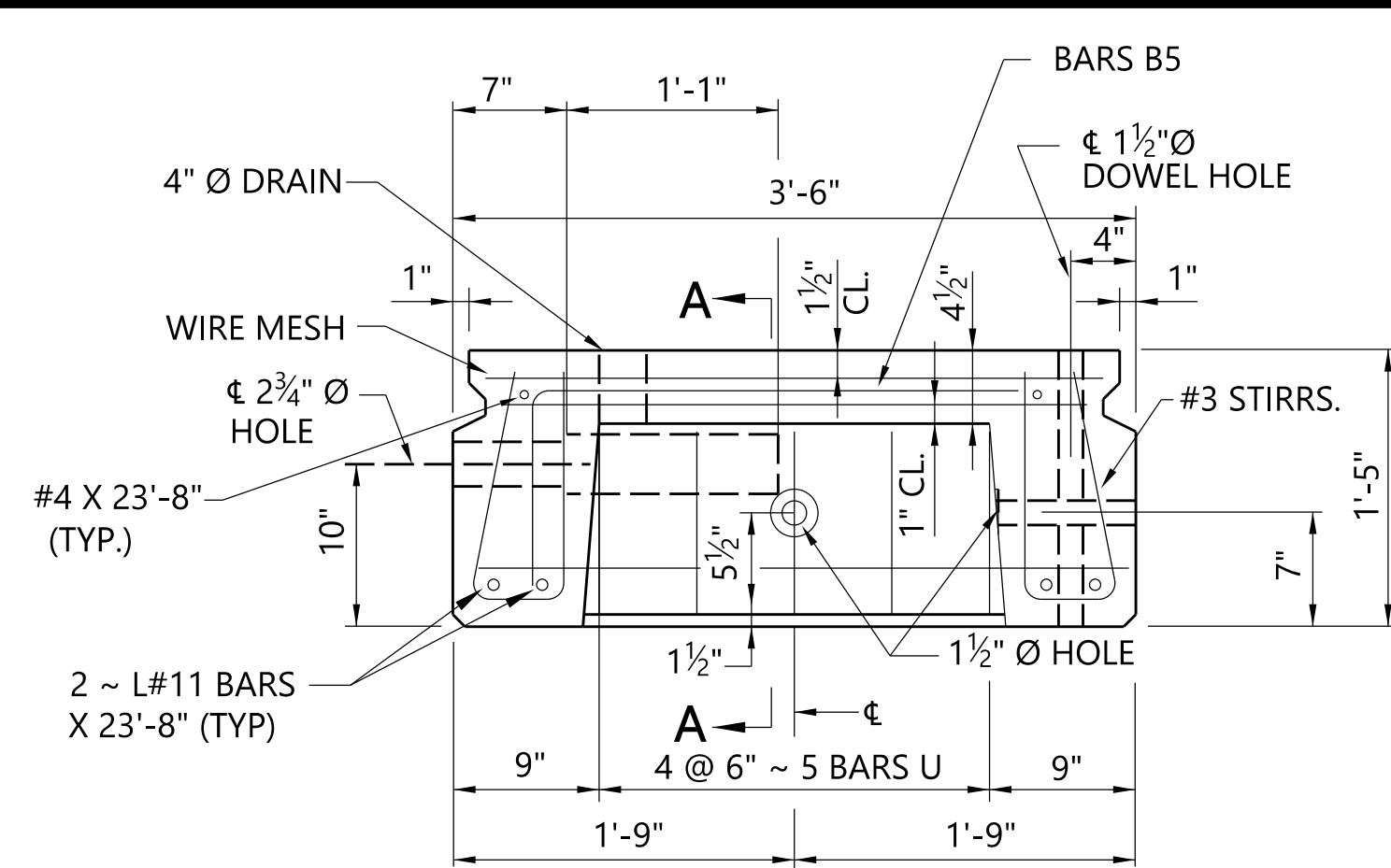
BARS U #3



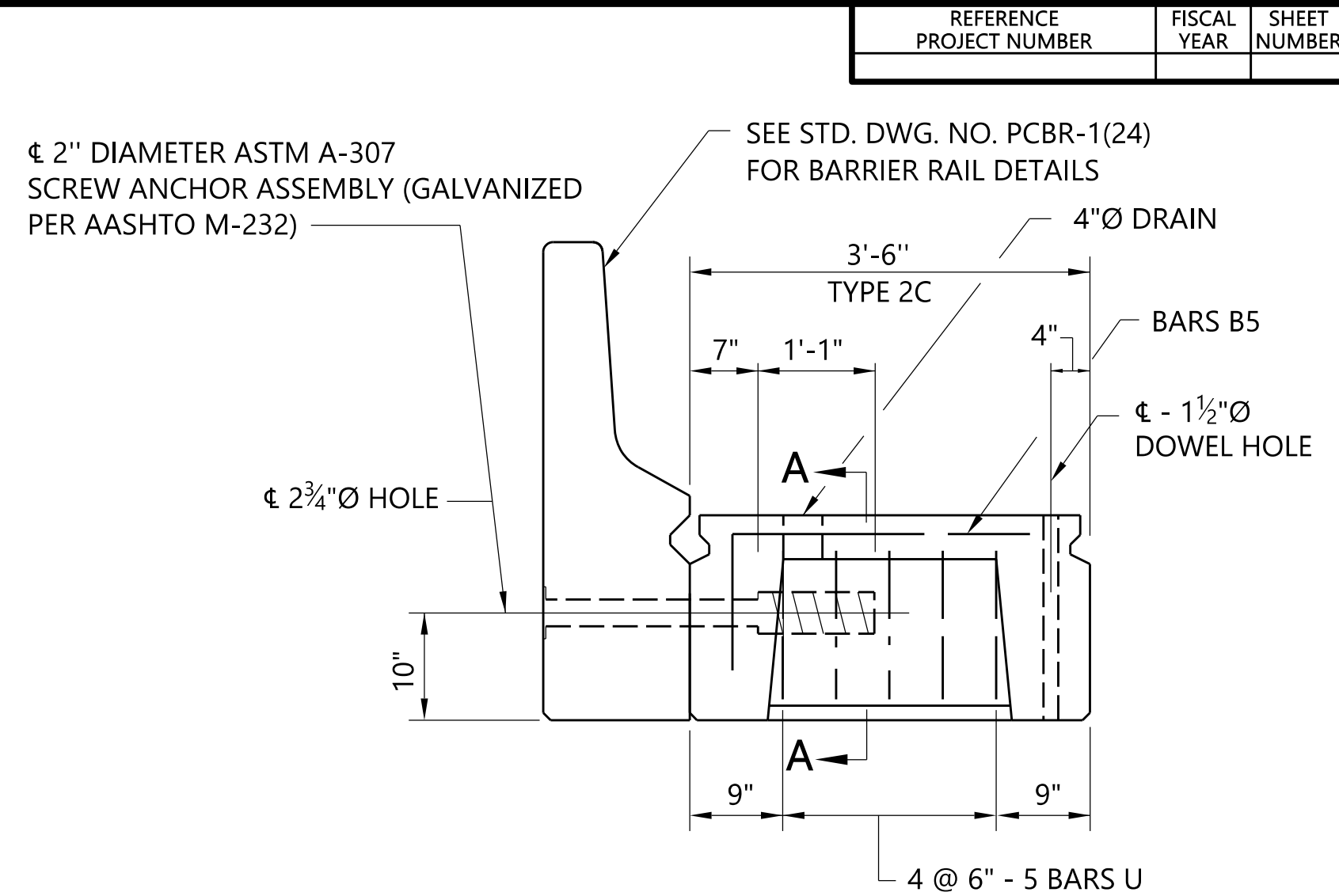
BARS B5 #3



BEAM STIRRUPS BARS #3

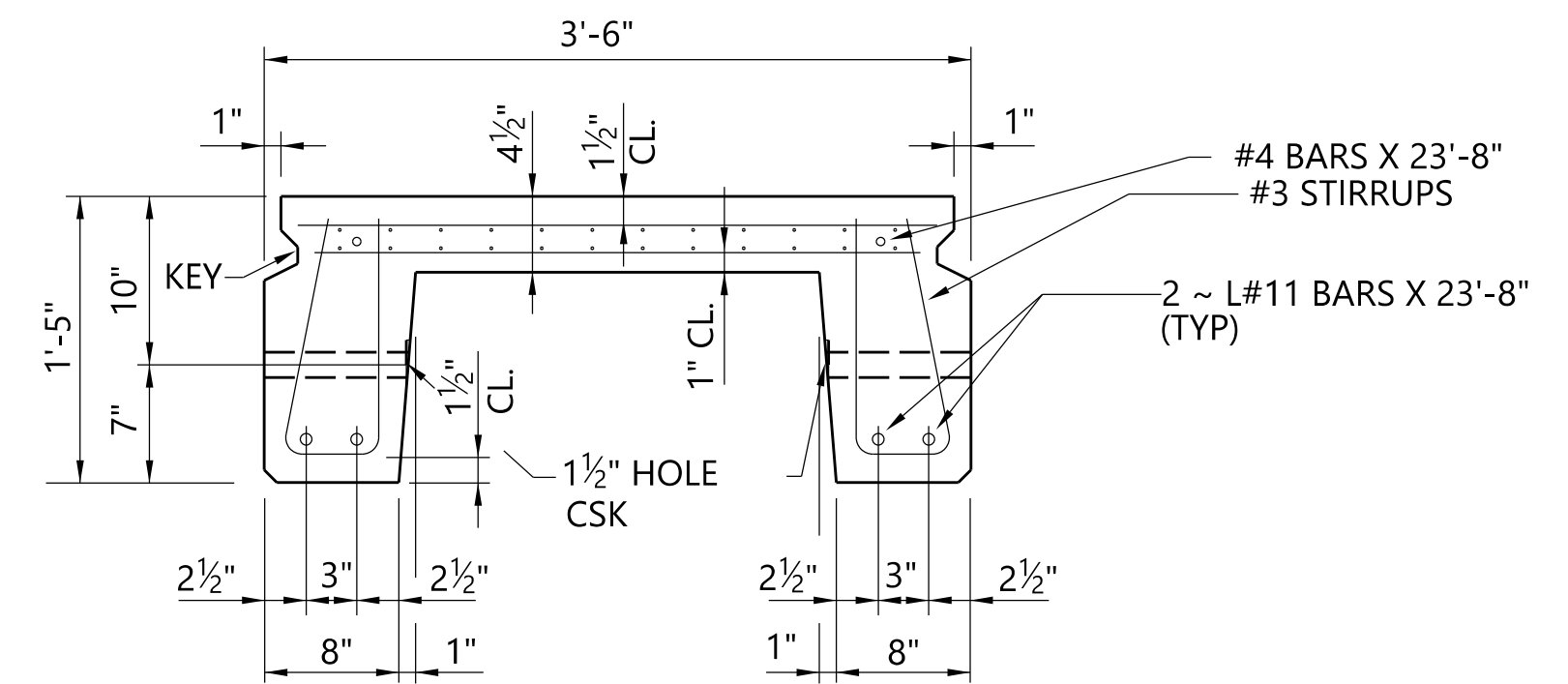


END ELEVATION ~ EXTERIOR SECTION
FOR BARRIER RAIL
TYPE 2C



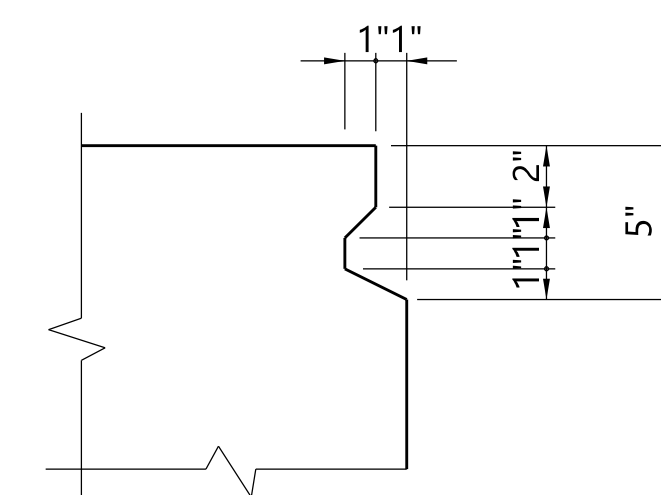
BARRIER RAIL CONNECTION DETAIL

NOTE: SCREW ANCHOR ASSEMBLY DESIGN LOAD = 50 KIPS TENSION. PRECAST MANUFACTURER CERTIFICATIONS VALIDATING THAT FURNISHED/PROPERLY INSTALLED SCREW ANCHOR ASSEMBLY IS CAPABLE OF DEVELOPING TWICE THE SPECIFIED DESIGN LOAD (100 KIPS) SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO BARRIER RAIL INSTALLATION.

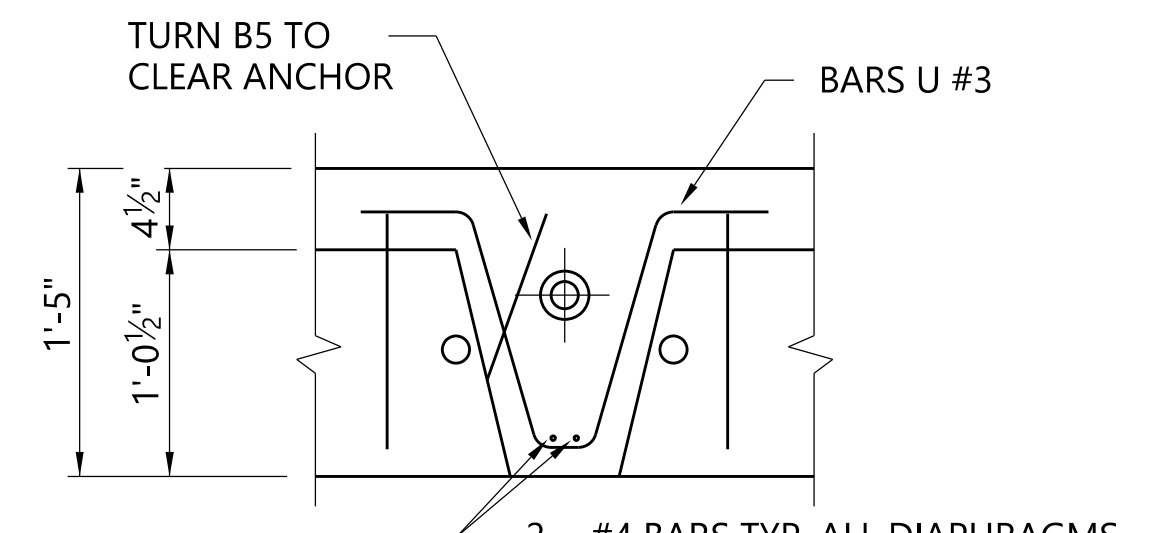


INTERIOR SECTION

TYPE 1



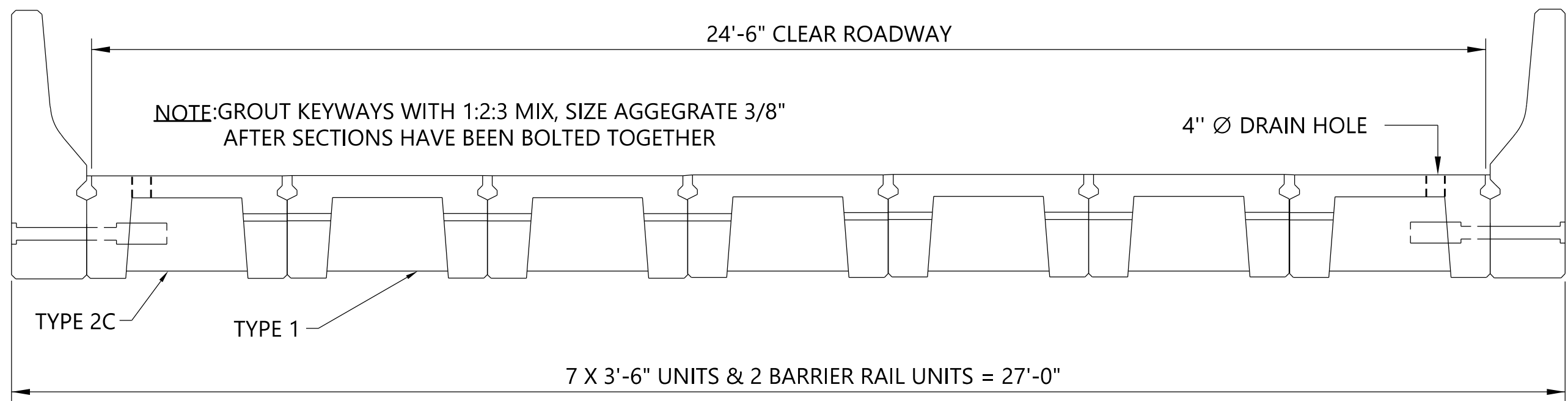
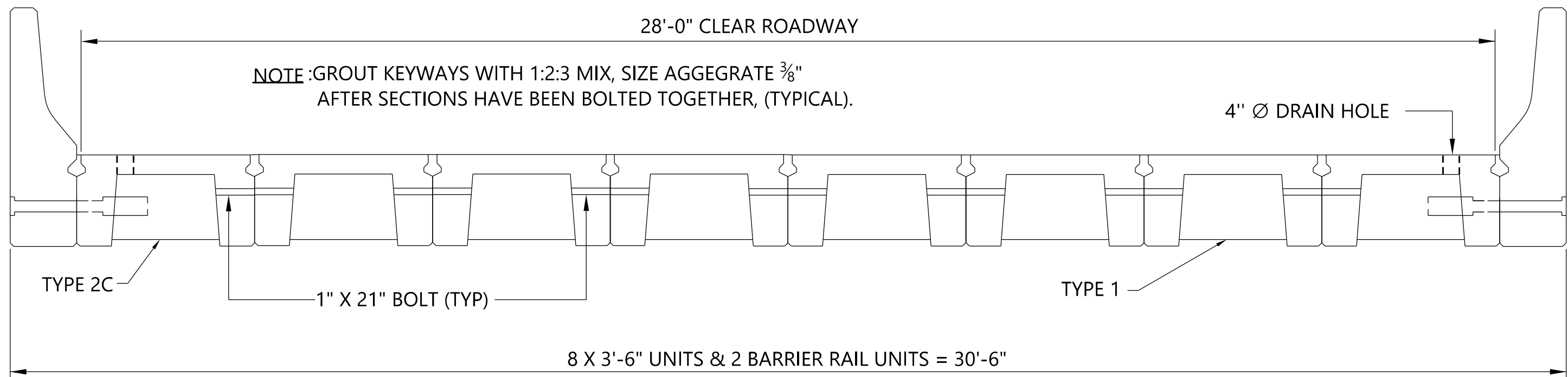
KEY DETAIL



SECTION A-A

NOTE: #4 REBARS MAY BE USED IN LIEU OF #3 REBARS.

REFERENCE PROJECT NUMBER	FISCAL YEAR	SHEET NUMBER

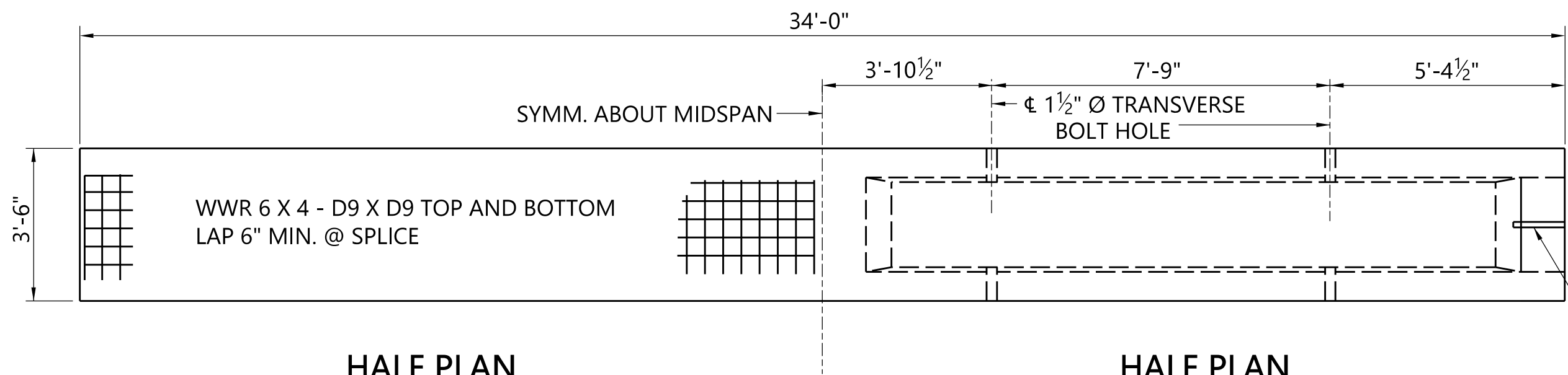


TYPICAL SECTIONS

GENERAL NOTES

1. ROADWAY: VARIABLE WIDTH ROADWAYS AS SHOWN.
2. SPECIFICATIONS: ALABAMA DEPARTMENT OF TRANSPORTATION, CURRENT EDITION.
3. DESIGN LOADING: A.A.S.H.T.O. HS20-44
4. STEEL REINFORCEMENT: REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 835 OF THE STANDARD SPECIFICATIONS.
5. WELDED FABRIC: Shall Conform To The Requirements For Welded Steel Wire Reinforcement, Section 835 Of The Standard Specifications. Also Shall Conform To The Requirements Of AASHTO M221 And M225.
6. EXPANSION JOINTS: JOINT FILLER TO BE A.A.S.H.T.O. M-213 MODIFIED. SEALED IN ACCORDANCE WITH SUBARTICLE 832.02(c).
7. CONCRETE: CONCRETE SHALL CONFORM TO SECTION 512 OF THE STANDARD SPECIFICATIONS AND HAVE A COMPRESSIVE STRENGTH OF 5,000 PSI.
8. HARDWARE: ALL BOLTS SHALL CONFORM TO ASTM A-307 AND BE GALVANIZED IN ACCORDANCE WITH AASHTO M-232.

REFERENCE PROJECT NUMBER	FISCAL YEAR	SHEET NUMBER
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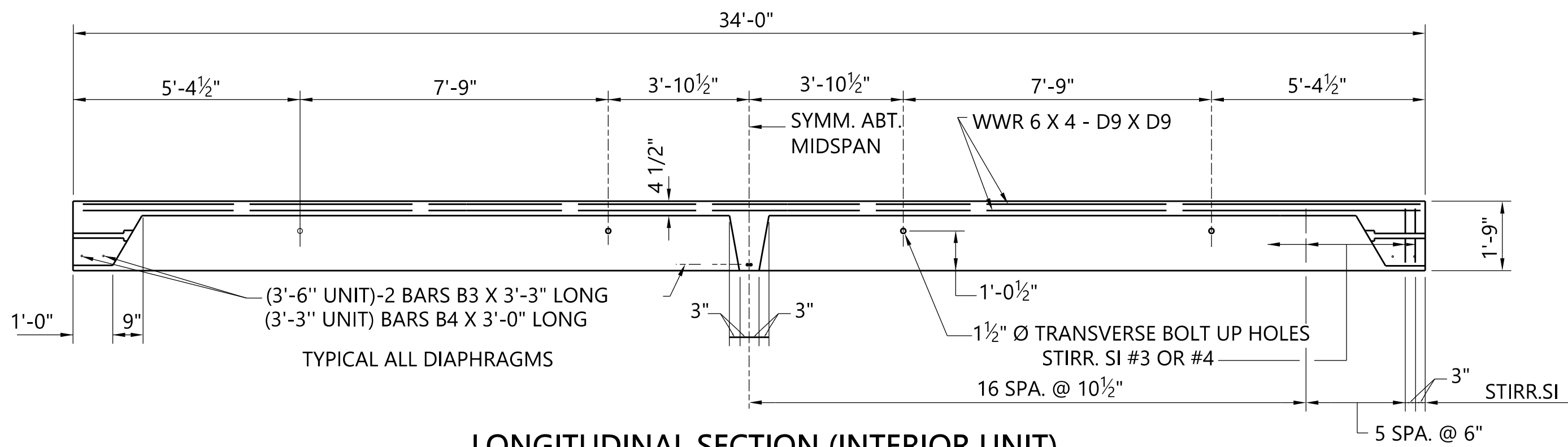


HALF PLAN
(SHOWING MESH REINFORCEMENT)

HALF PLAN

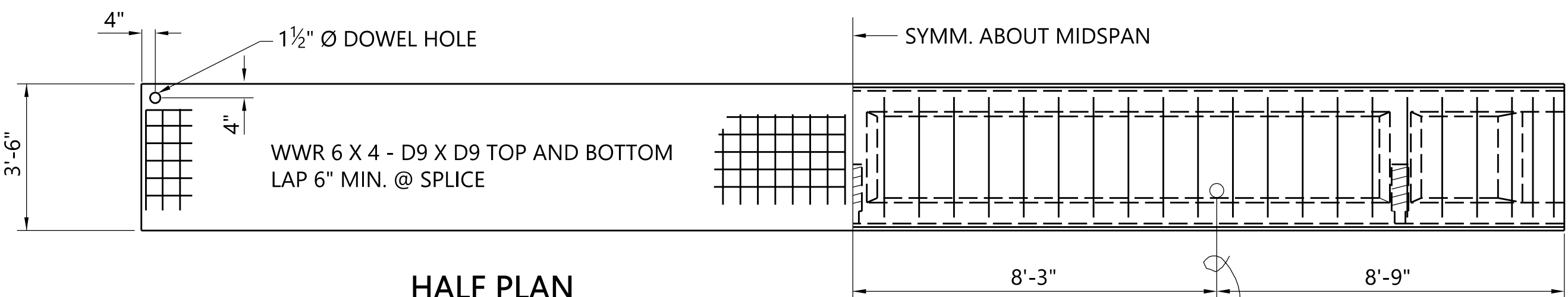
1 1/2" LONGITUDINAL BOLT UP HOLE
(FOR LOCATION SEE CROSS SECTIONS)

NOTE: CAST UNITS WITH 1/2" CAMBER AT MIDSPAN.



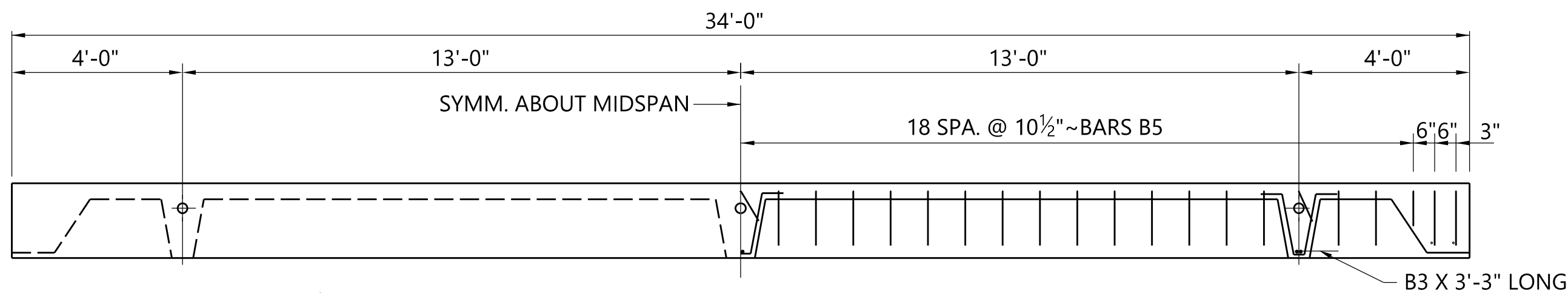
LONGITUDINAL SECTION (INTERIOR UNIT)
TYPE 1

NOTE: ADJACENT PRECAST UNITS SHALL BE LONGITUDINALLY CONNECTED WITH
1" Ø X 3'-0" A-307 BOLTS AND STANDARD NUTS AND WASHERS.



HALF PLAN
(SHOWING MESH REINFORCEMENT)

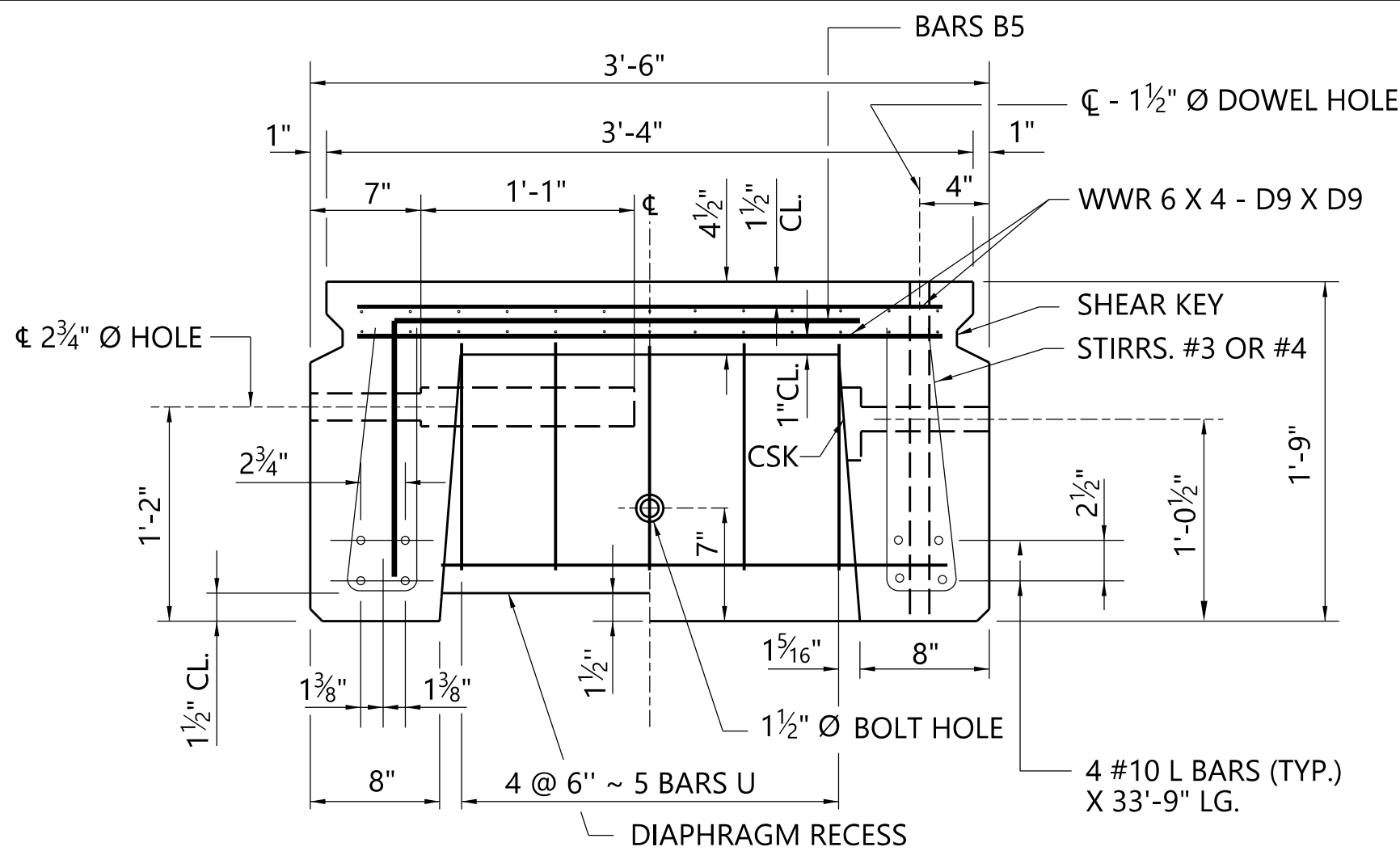
HALF PLAN



NOTE: CAST UNITS WITH 1/2" CAMBER AT MIDSPAN.

NOTE:
USE THESE DETAILS ONLY FOR EXT. UNITS WHEN PRECAST
BARRIER RAIL IS REQUIRED

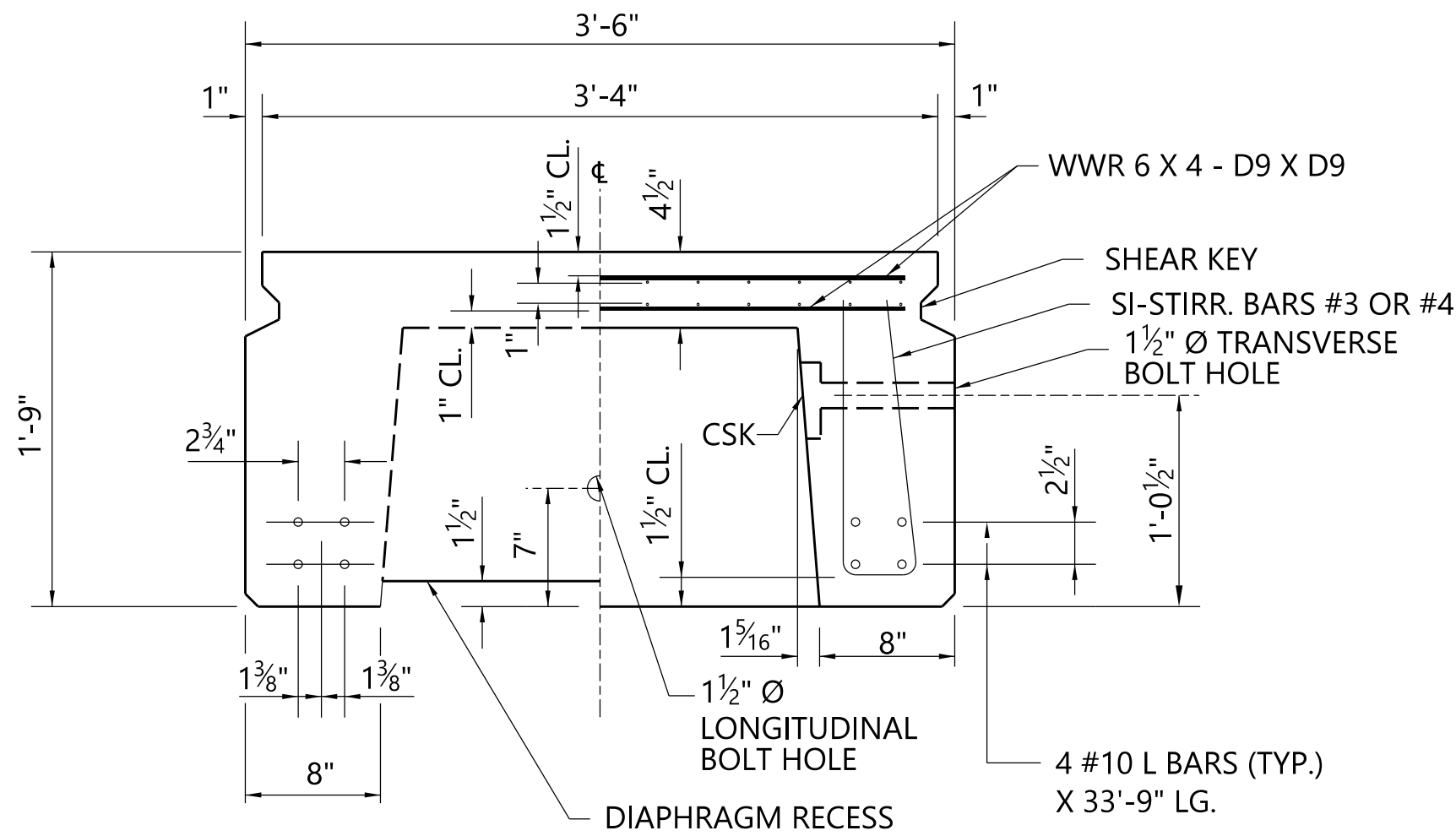
LONGITUDINAL SECTION (EXTERIOR UNIT)
TYPE 2C



HALF END VIEW

HALF CROSS SECTION
NEAR MID SPAN

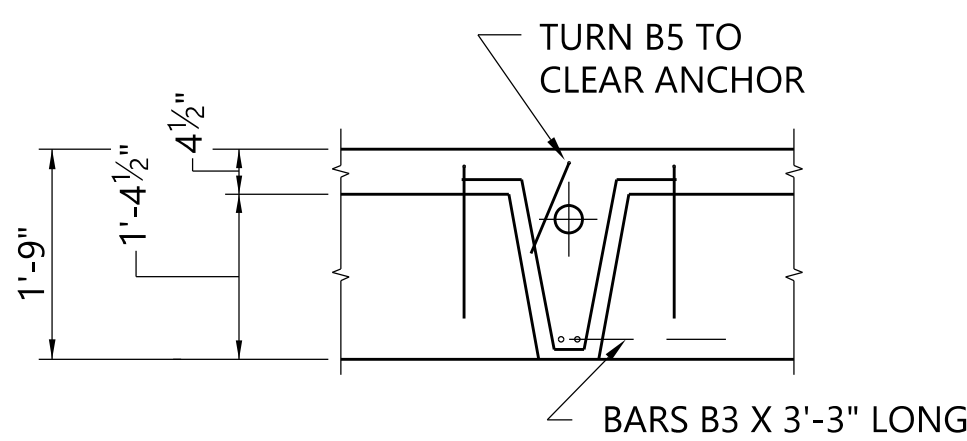
EXTERIOR SECTION TYPE 2C



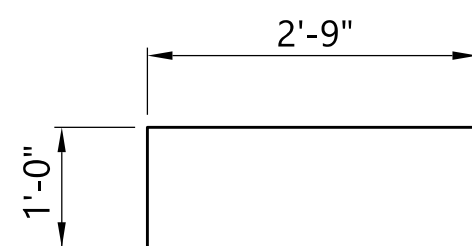
HALF END VIEW

HALF CROSS SECTION
NEAR MID SPAN

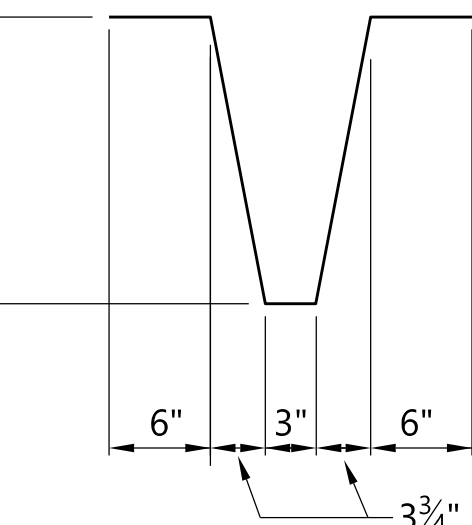
INTERIOR SECTION TYPE 1



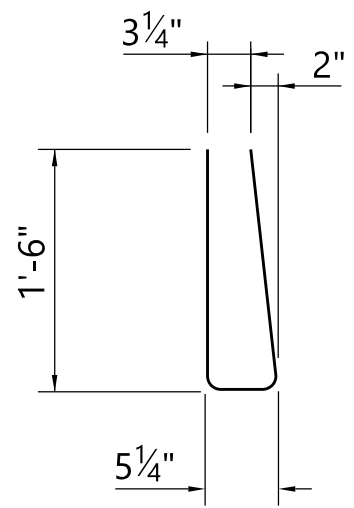
SECTION "A-A"



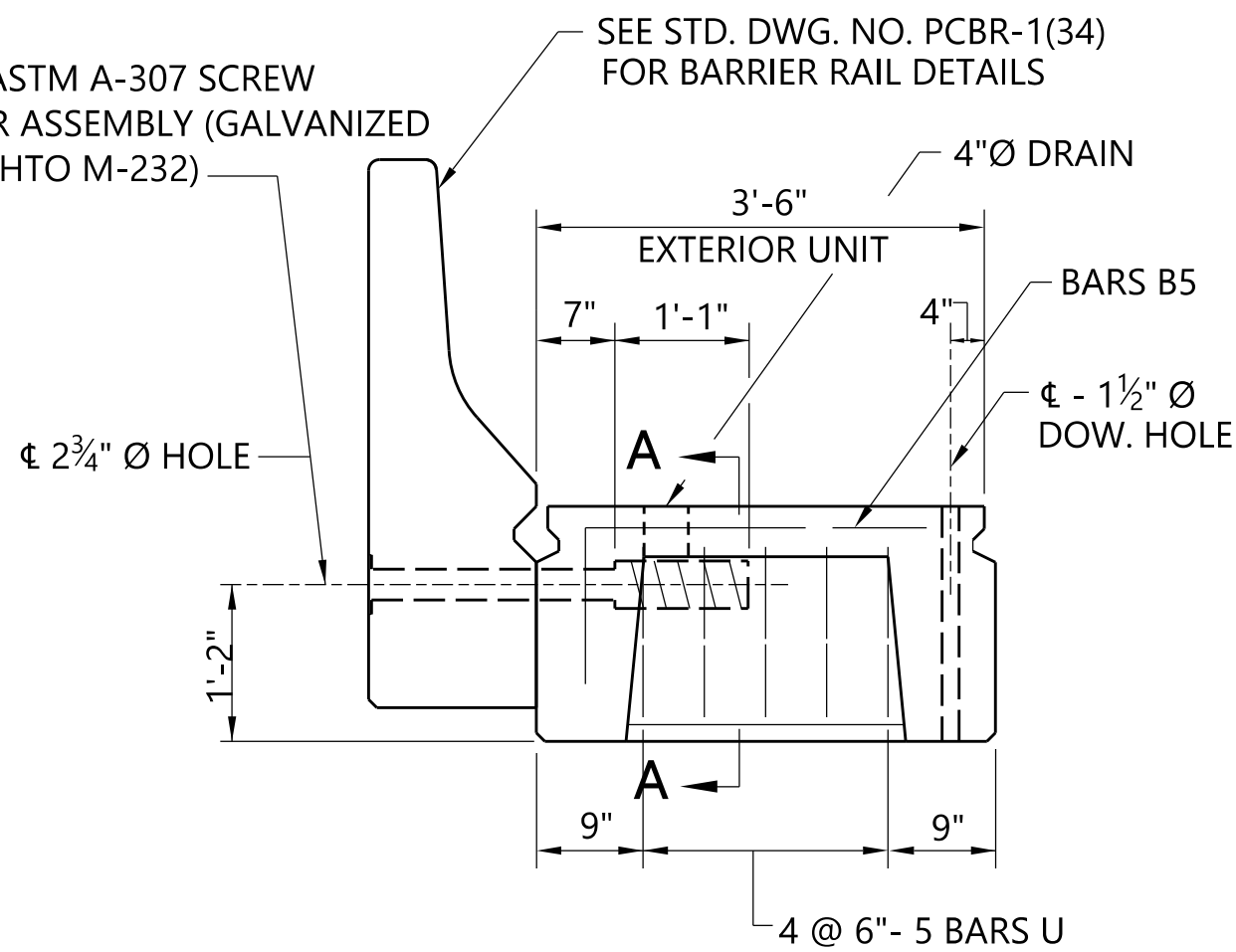
BARS B5 #3



BARS U #3

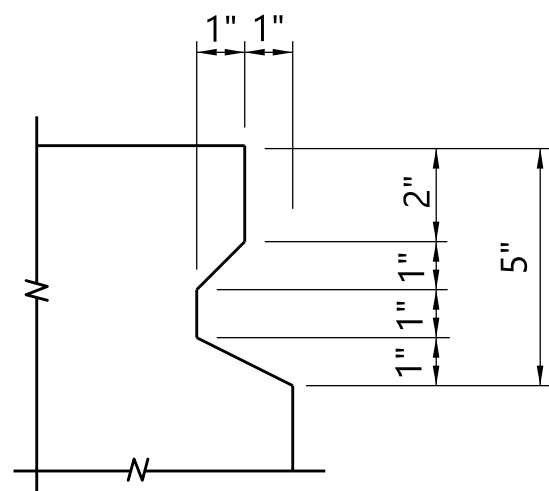


BEAM STIRRUPS BARS #3 OR #4-SI



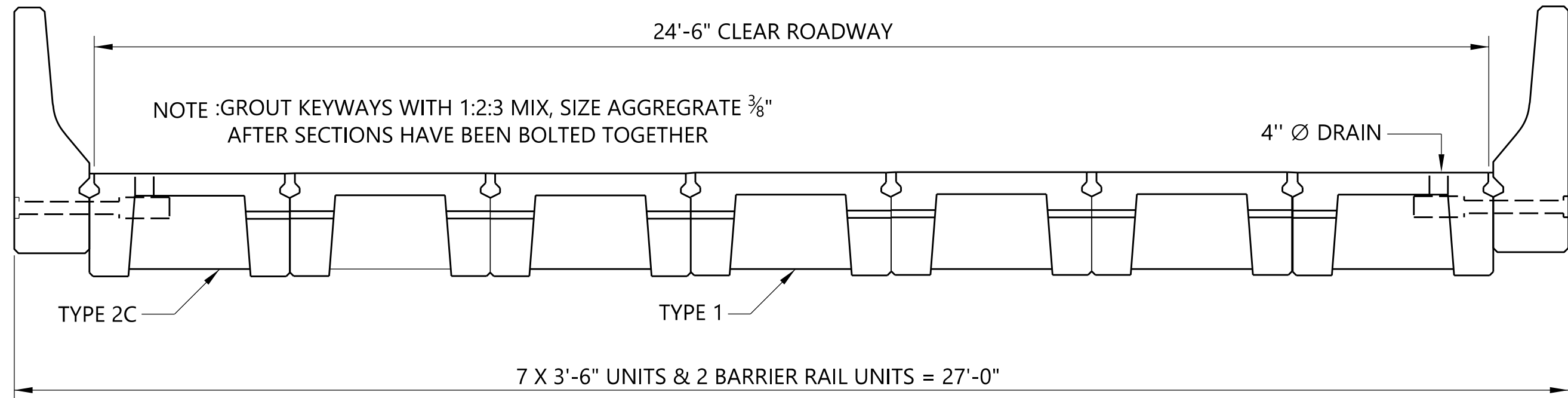
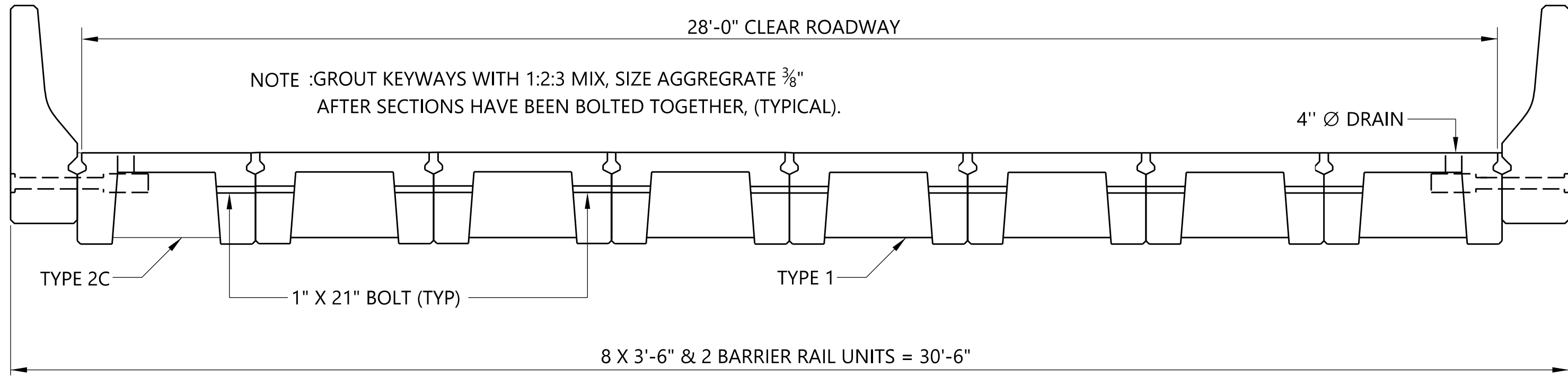
BARRIER RAIL CONNECTION DETAIL

NOTE: SCREW ANCHOR ASSEMBLY DESIGN LOAD = 50 KIPS TENSION. PRECAST
MANUFACTURER CERTIFICATIONS VALIDATING THAT FURNISHED/PROPERLY
INSTALLED SCREW ANCHOR ASSEMBLY IS CAPABLE OF DEVELOPING TWICE
THE SPECIFIED DESIGN LOAD (100 KIPS) SHALL BE SUBMITTED TO THE
PROJECT ENGINEER PRIOR TO BARRIER RAIL INSTALLATION.



SHEAR KEY DETAIL

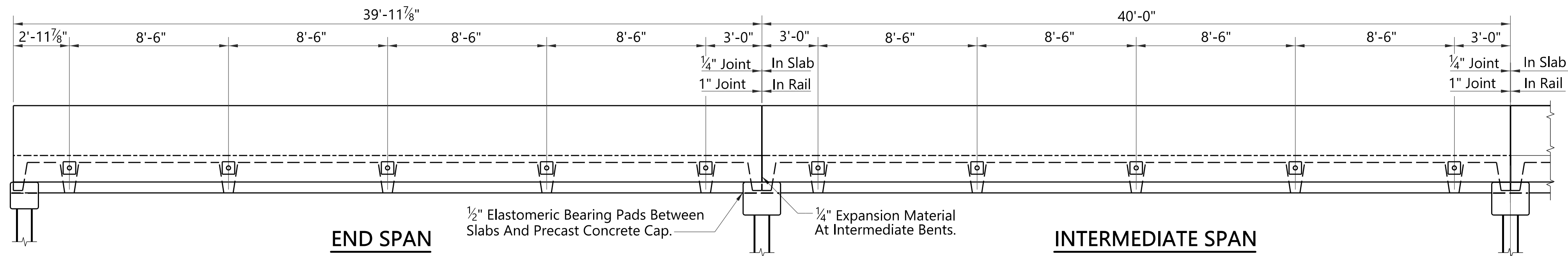
REFERENCE PROJECT NUMBER	FISCAL YEAR	SHEET NUMBER



TYPICAL SECTIONS

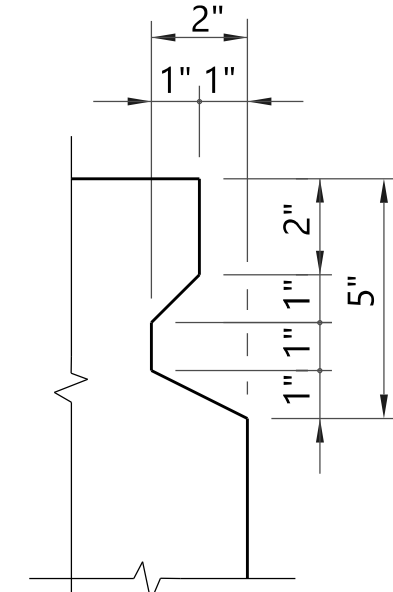
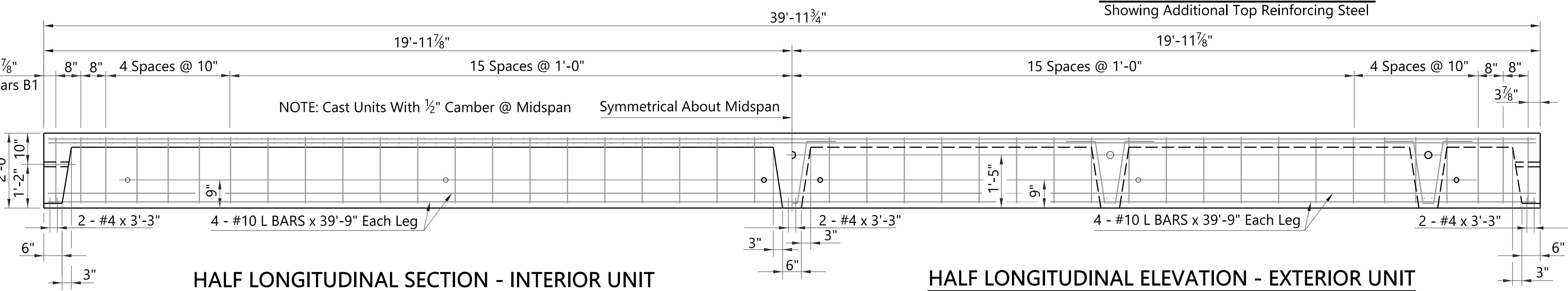
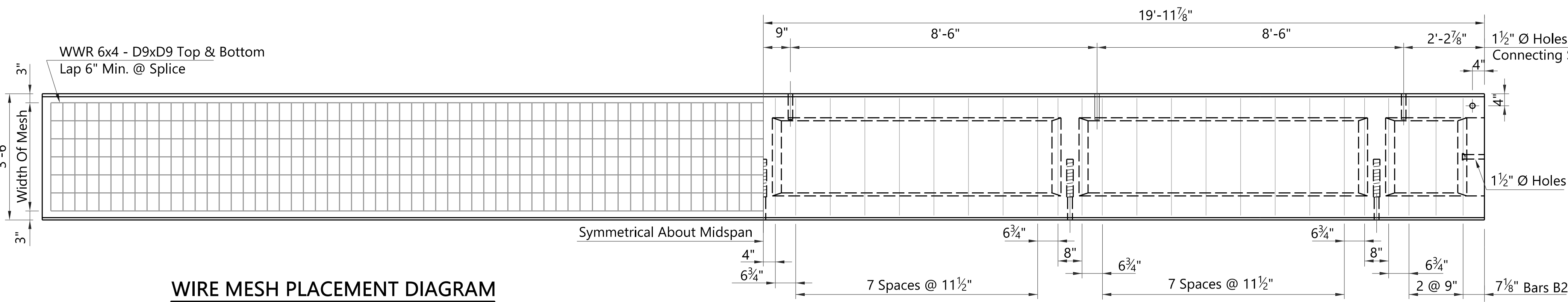
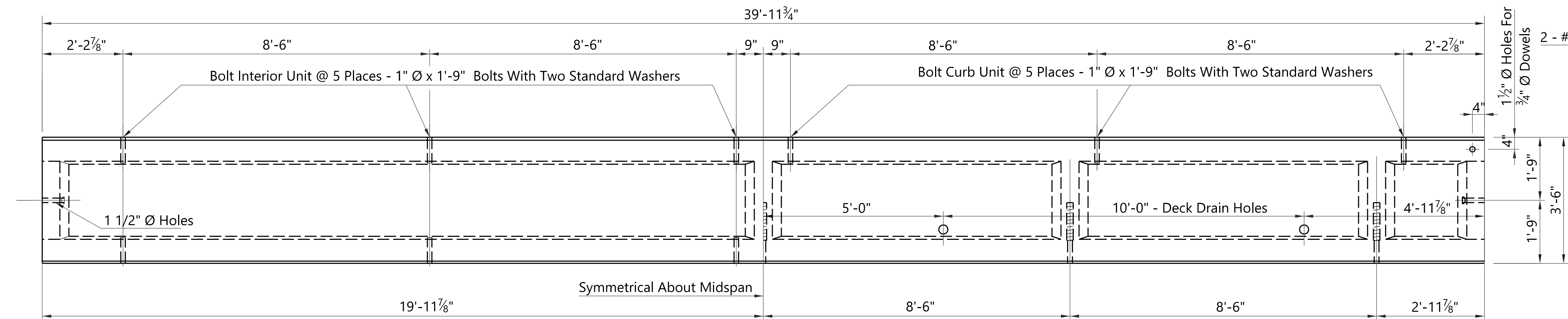
GENERAL NOTES

- 1. ROADWAY:** VARIABLE WIDTH ROADWAYS AS SHOWN.
- 2. SPECIFICATIONS:** ALABAMA DEPARTMENT OF TRANSPORTATION, CURRENT EDITION.
- 3. DESIGN LOADING:** A.A.S.H.T.O. HS20-44
- 4. STEEL REINFORCEMENT:** REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 835 OF THE STANDARD SPECIFICATIONS.
- 5. WELDED FABRIC:** Shall Conform To The Requirements For Welded Steel Wire Reinforcement, Section 835 Of The Standard Specifications. Also Shall Conform To The Requirements Of AASHTO M221 And M225.
- 6. EXPANSION JOINTS:** JOINT FILLER TO BE A.A.S.H.T.O. M-213 MODIFIED. SEALED IN ACCORDANCE WITH SUBARTICLE 832.02(c).
- 7. CONCRETE:** CONCRETE SHALL CONFORM TO SECTION 512 OF THE STANDARD SPECIFICATIONS. COMPRESSIVE STRENGTH SHALL BE 5,000 P.S.I.
- 8. HARDWARE:** ALL BOLTS SHALL CONFORM TO ASTM A-307 AND BE GALVANIZED IN ACCORDANCE WITH AASHTO M-232.

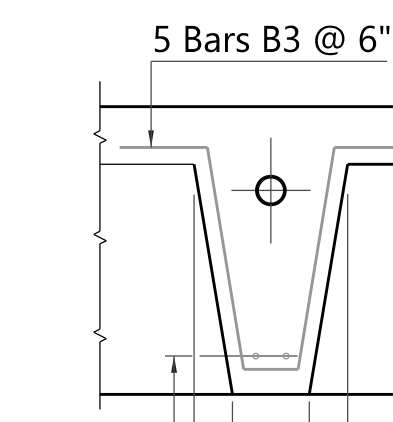


Note: Adjacent Precast Units Shall Be Longitudinally Connected With 1" Dia. 1'-9" A-307 Bolts And Standard Nuts And Washers.

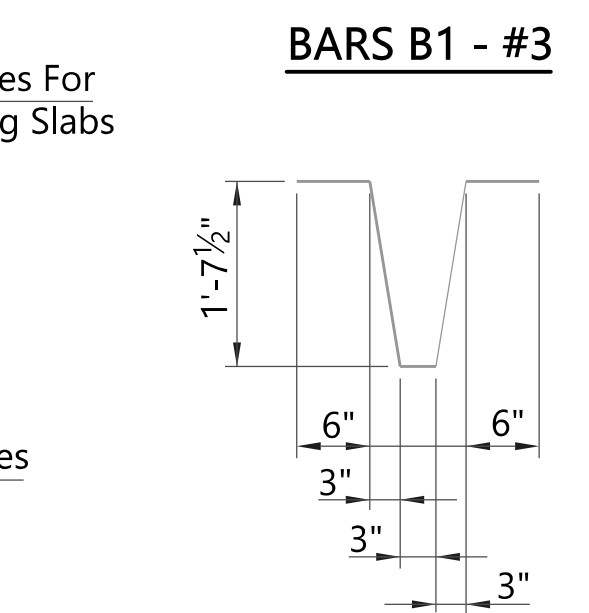
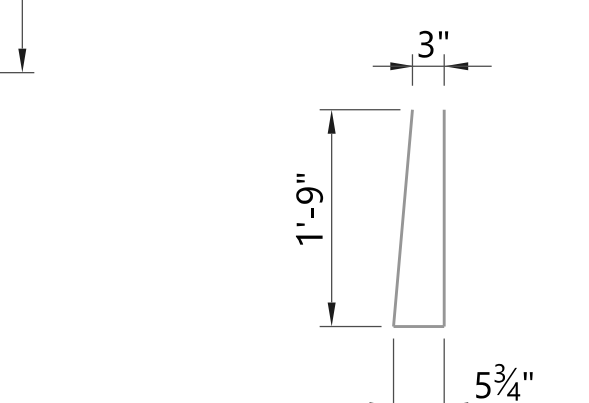
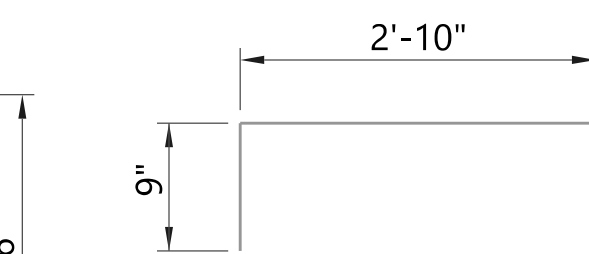
Note: Screw Anchor Assembly Design Load = 50 Kips Tension. Precast Manufacturer Certifications Validating That Furnished/Properly Installed Screw Anchor Assembly Is Capable Of Developing Twice The Specified Design Load (100 Kips) Shall Be Submitted To The Project Engineer Prior To Barrier Rail Installation.



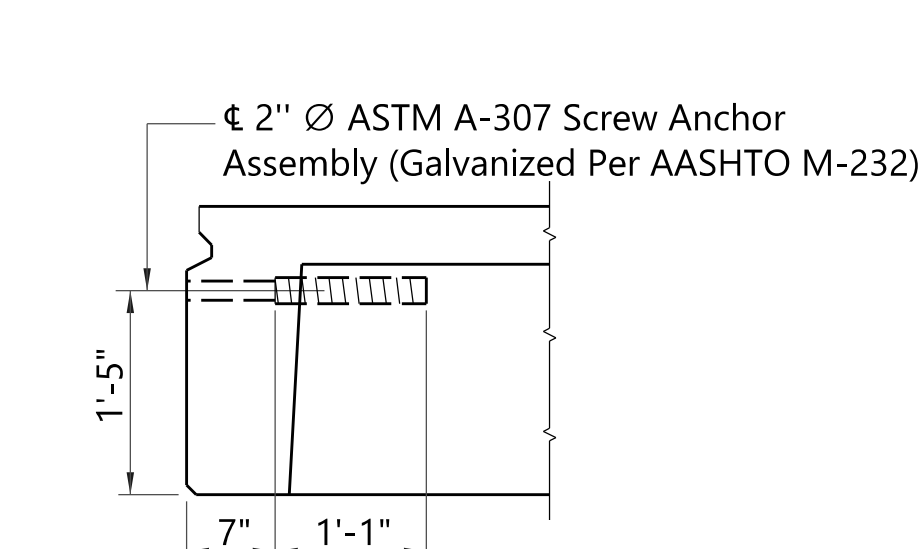
KEY DETAIL



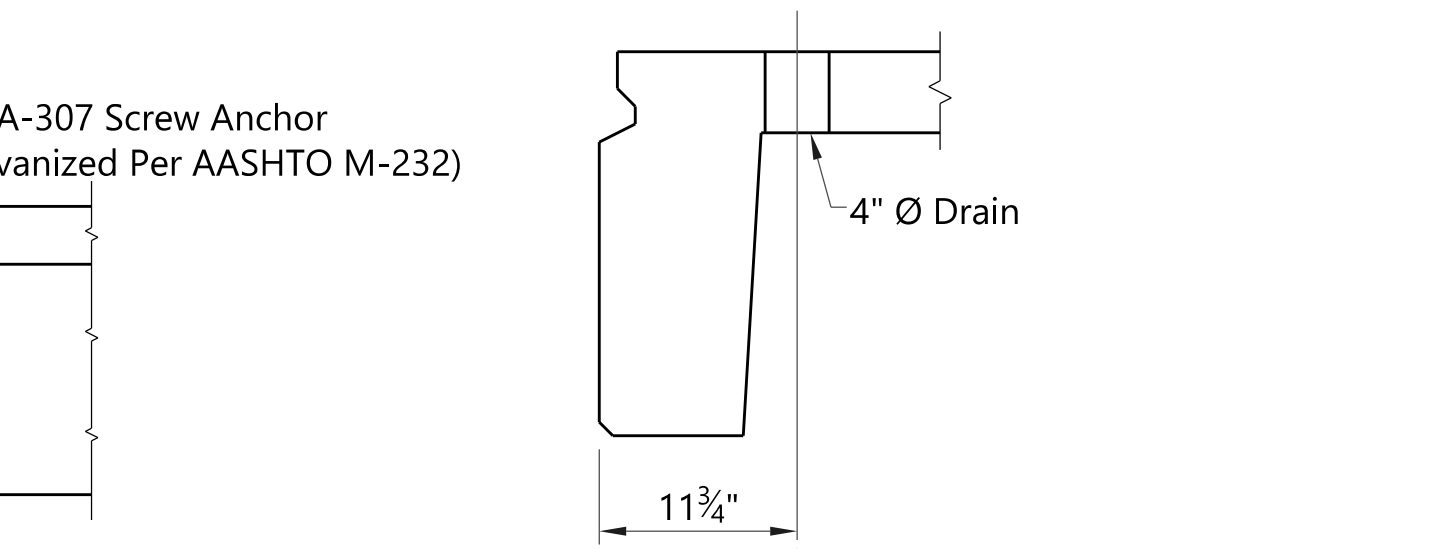
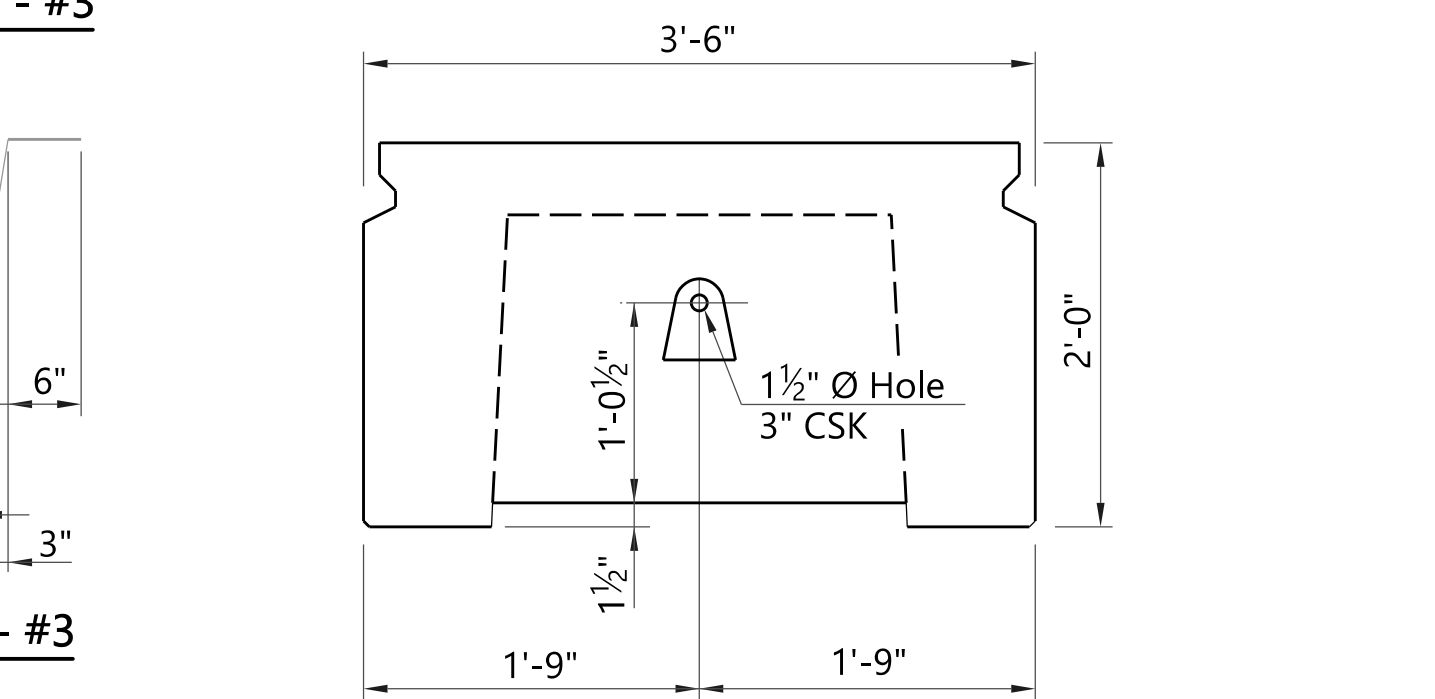
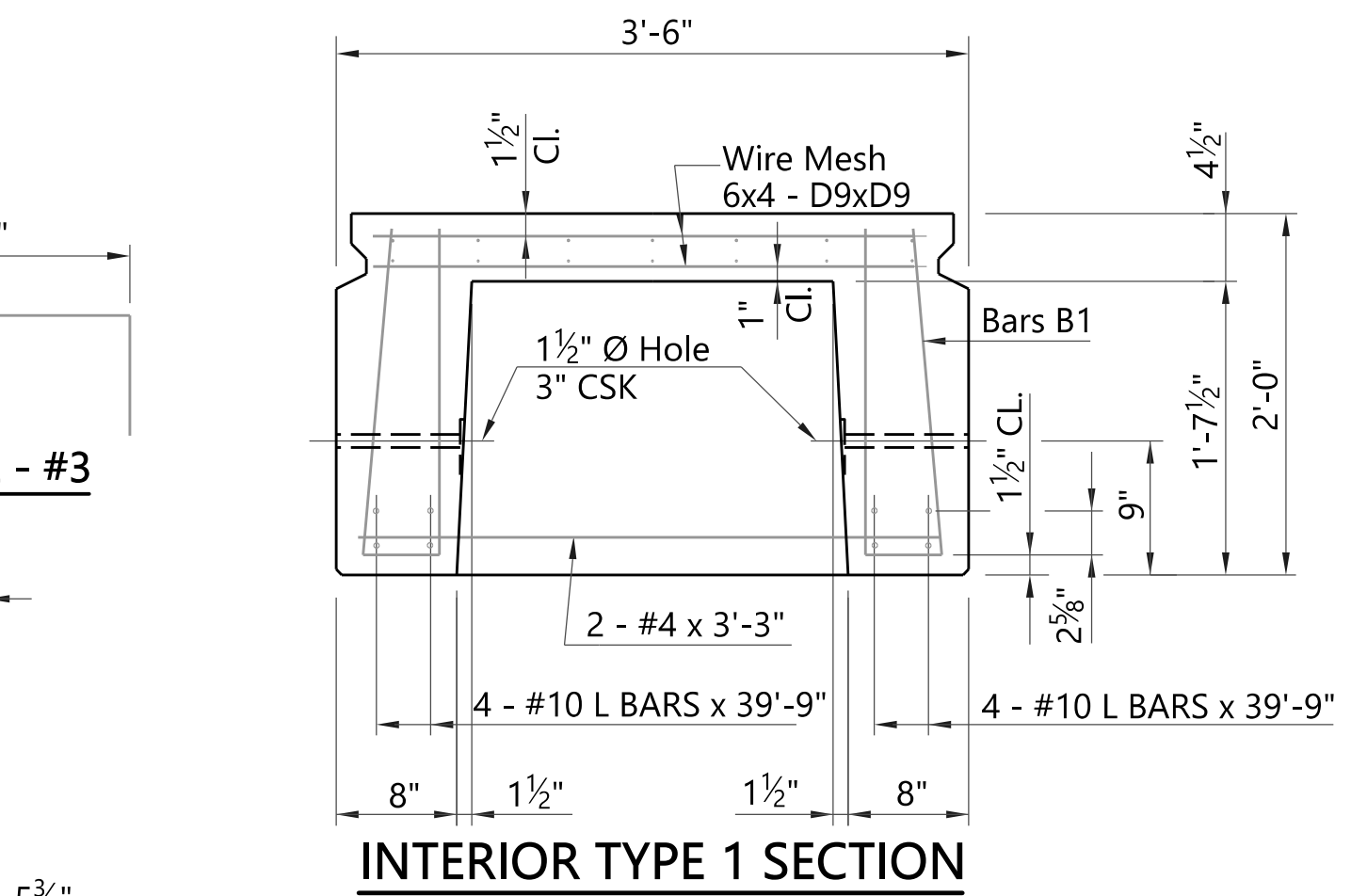
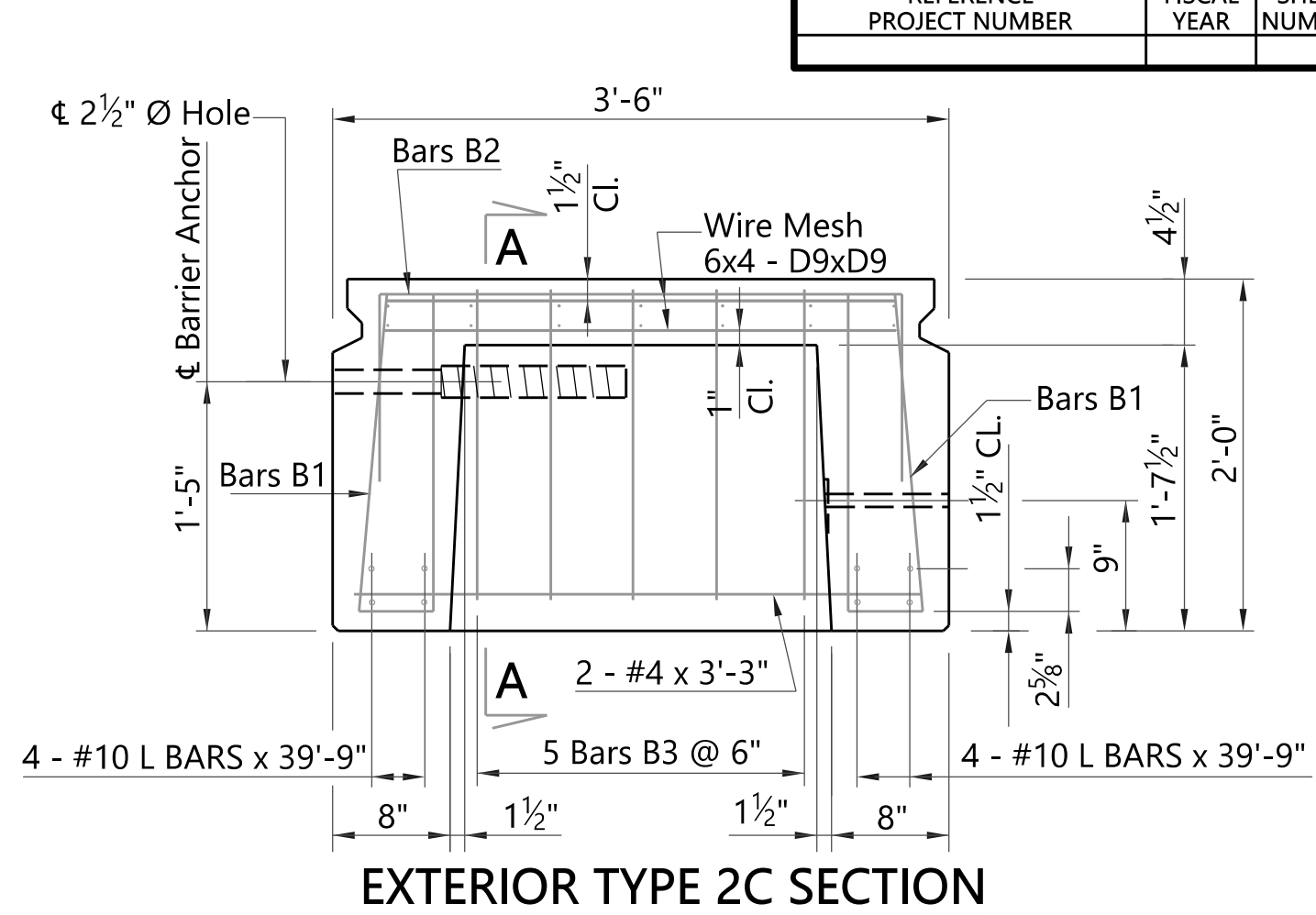
SECTION A-A



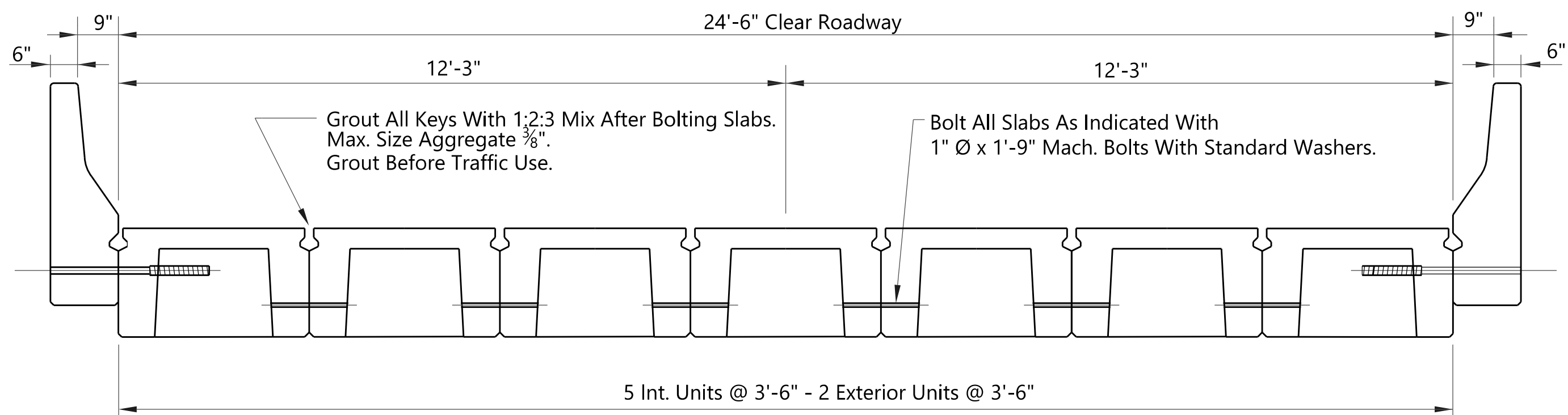
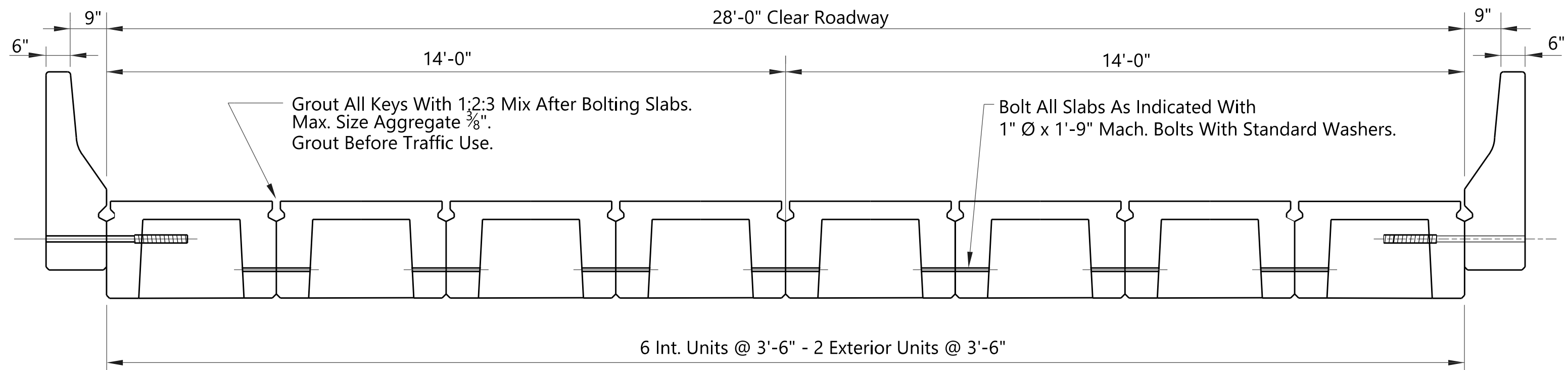
BAR BENDING DETAILS
Dimensions Are Out To Out



BARRIER ANCHOR DETAIL



REFERENCE PROJECT NUMBER	FISCAL YEAR	SHEET NUMBER



TYPICAL SECTIONS

GENERAL NOTES:

- ROADWAY:** Variable Width Roadways As Shown.
- DESIGN LOADING:** A.A.S.H.T.O. HS20-44
- SPECIFICATIONS:** Alabama Department Of Transportation, Current Edition.
- STEEL REINFORCEMENT:** Reinforcing Steel Shall Meet The Requirements Of Section 835 Of The Standard Specifications.
- WELDED FABRIC:** Shall Conform To The Requirements For Welded Steel Wire Reinforcement, Section 835 Of The Standard Specifications. Also Shall Conform To The Requirements Of AASHTO M221 And M225.
- EXPANSION JOINTS:** Seal In Accordance With Subarticle 832.02(c)
- CONCRETE:** Concrete Shall Conform To Section 512 Of The Standard Specifications. Compressive Stregth Shall Be 5,000 p.s.i. Min.
- HARDWARE:** All Bolts Shall Conform To ASTM A-307 And Be Galvanized In Accordance With AASHTO M-232.

ALABAMA DEPARTMENT
OF TRANSPORTATION

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REVISIONS

PRECAST CONCRETE BRIDGE
SLABS - 40' SPANS
24'-6" & 28'-0" ROADWAYS
HS20-44 LOADING

BRIDGE STANDARD DRAWING

FHWA APPROVED
9-18-19

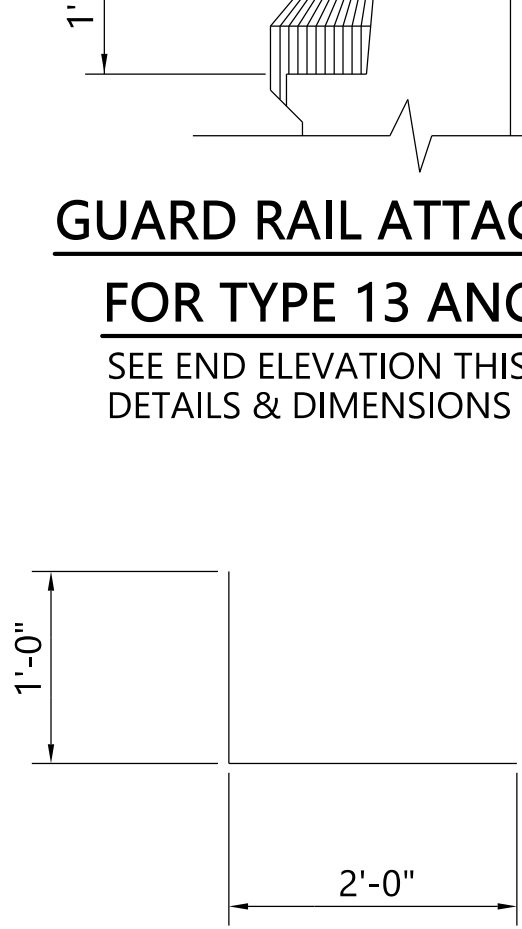
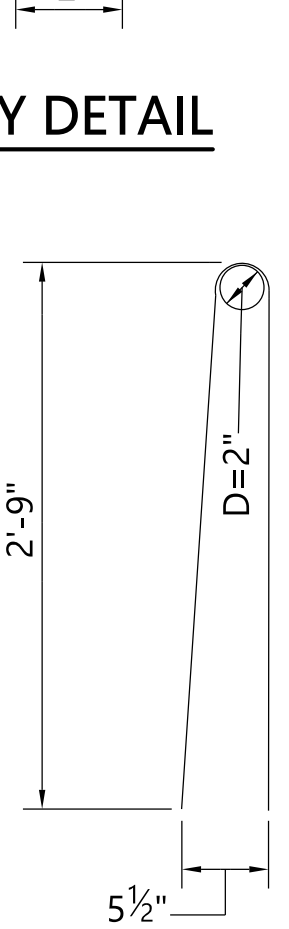
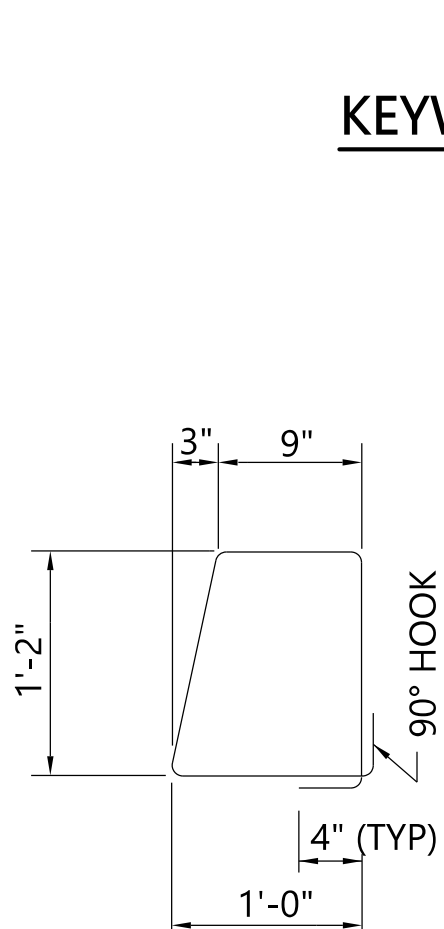
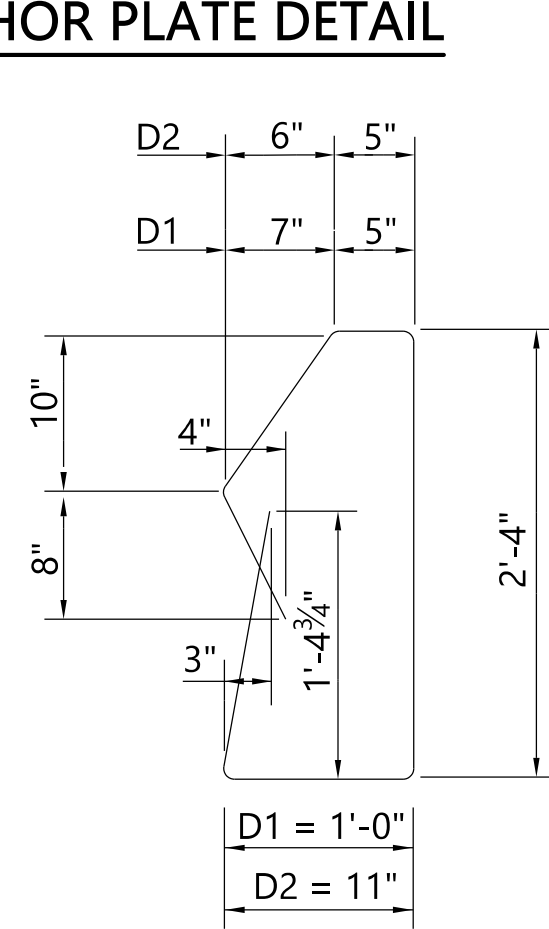
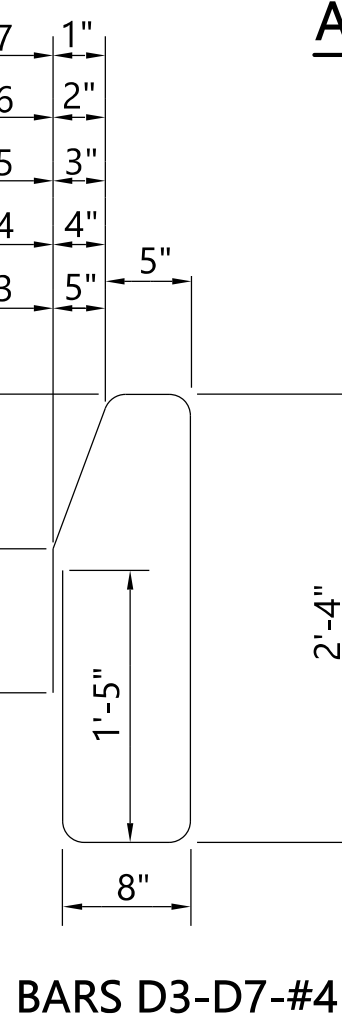
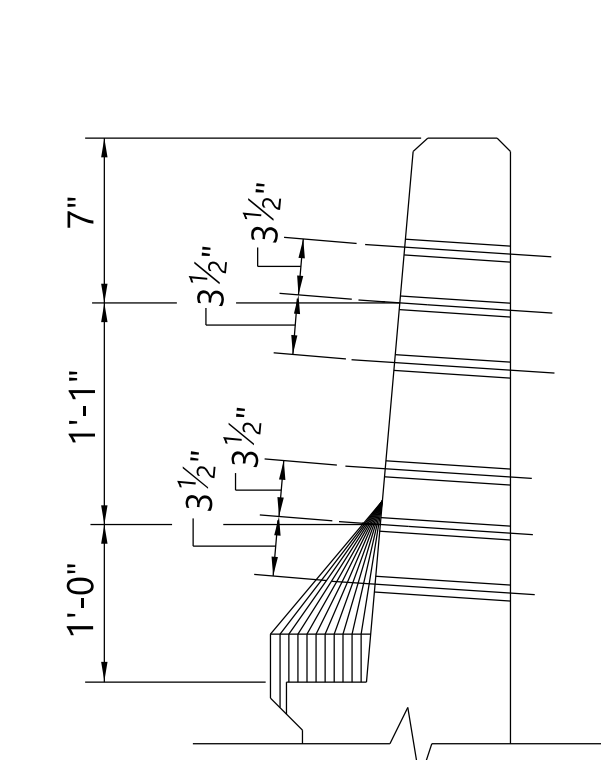
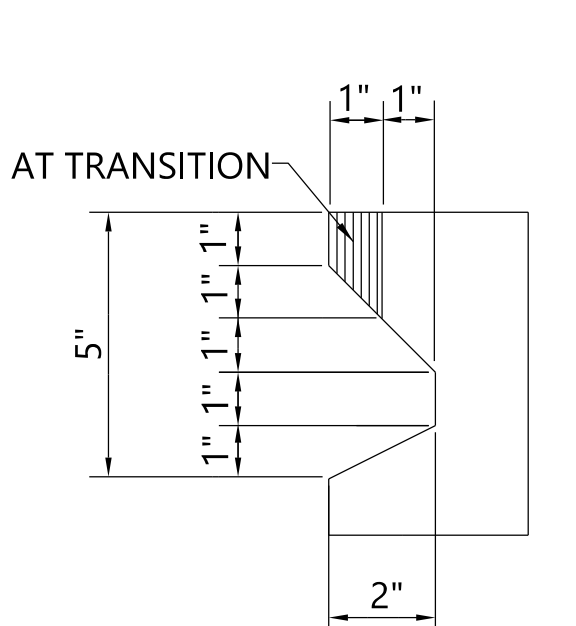
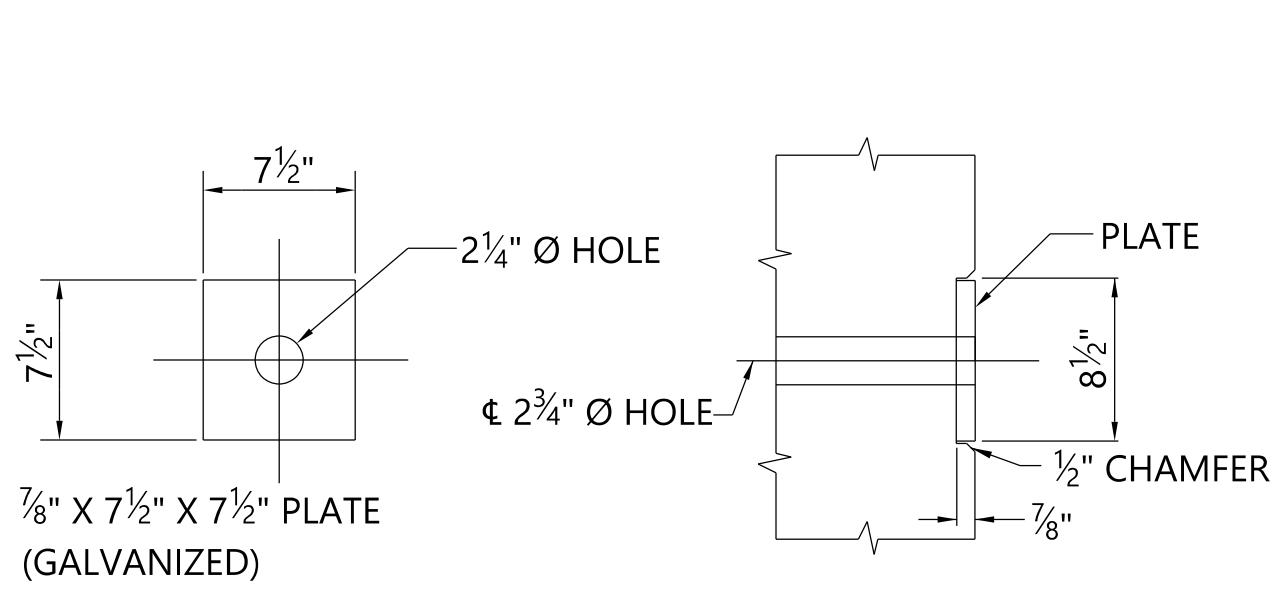
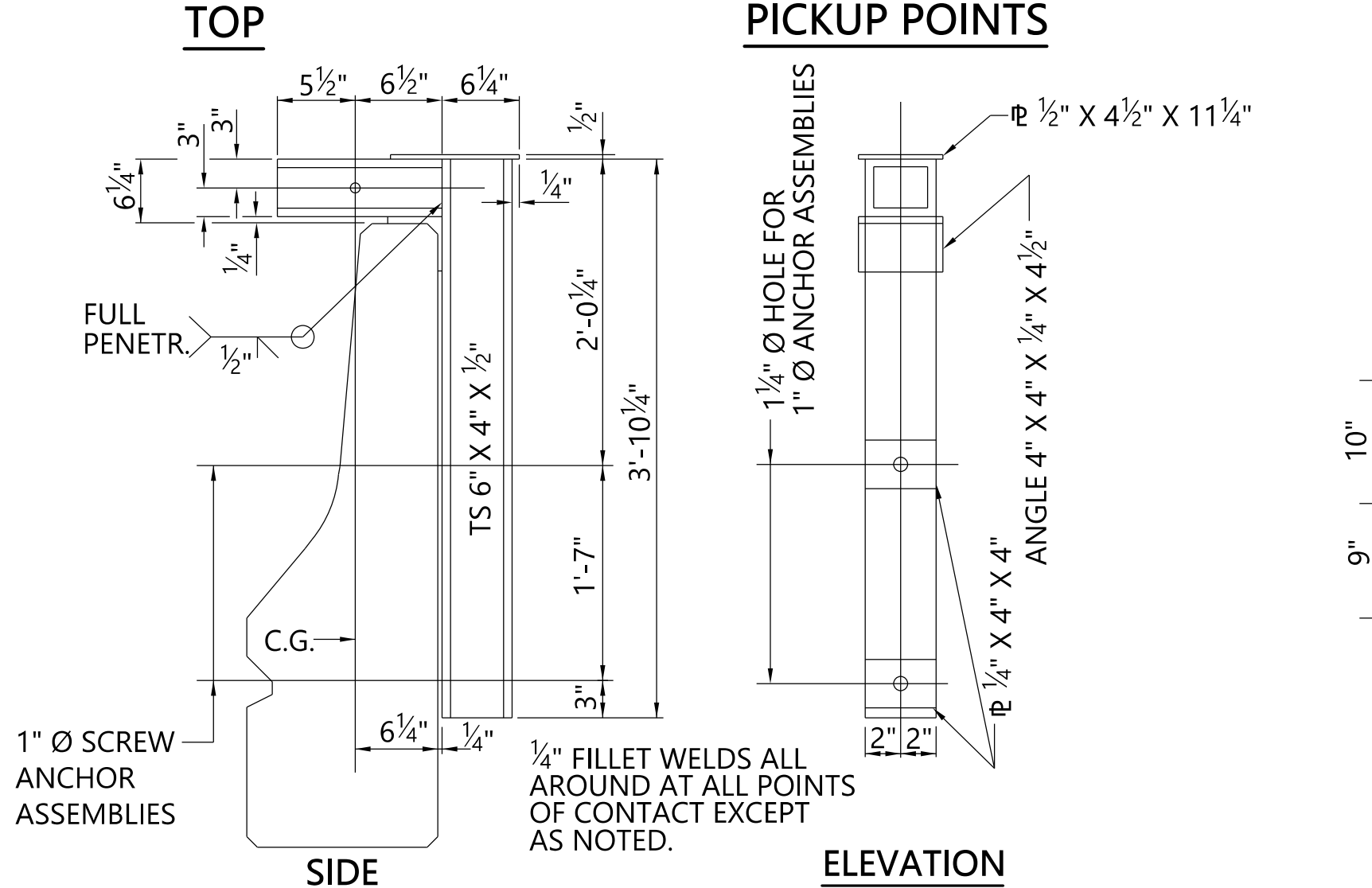
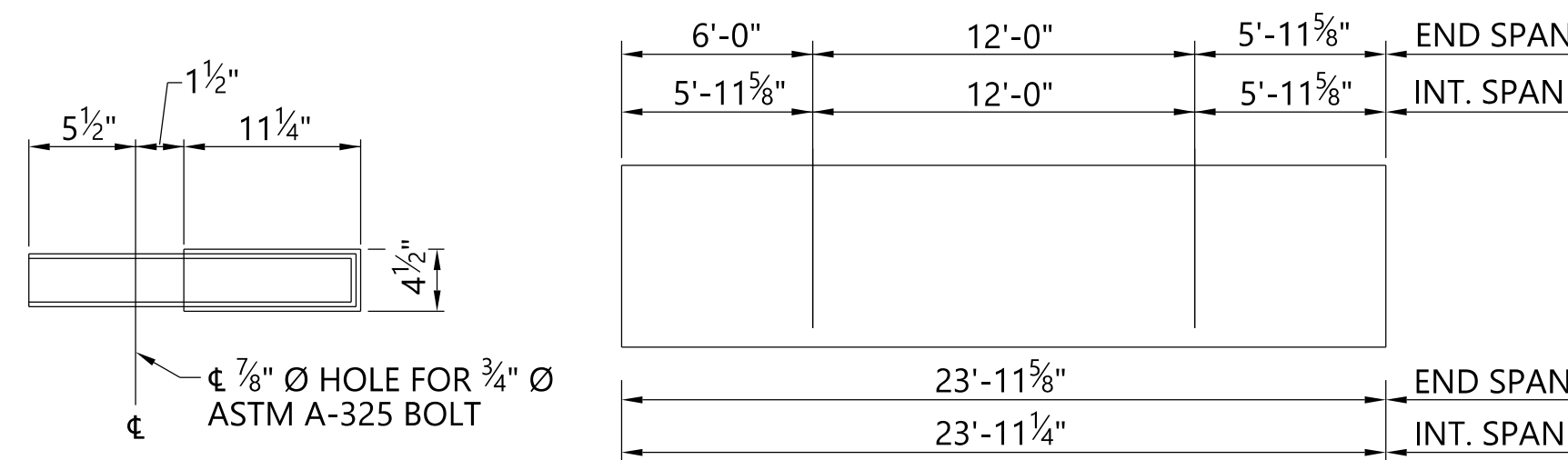
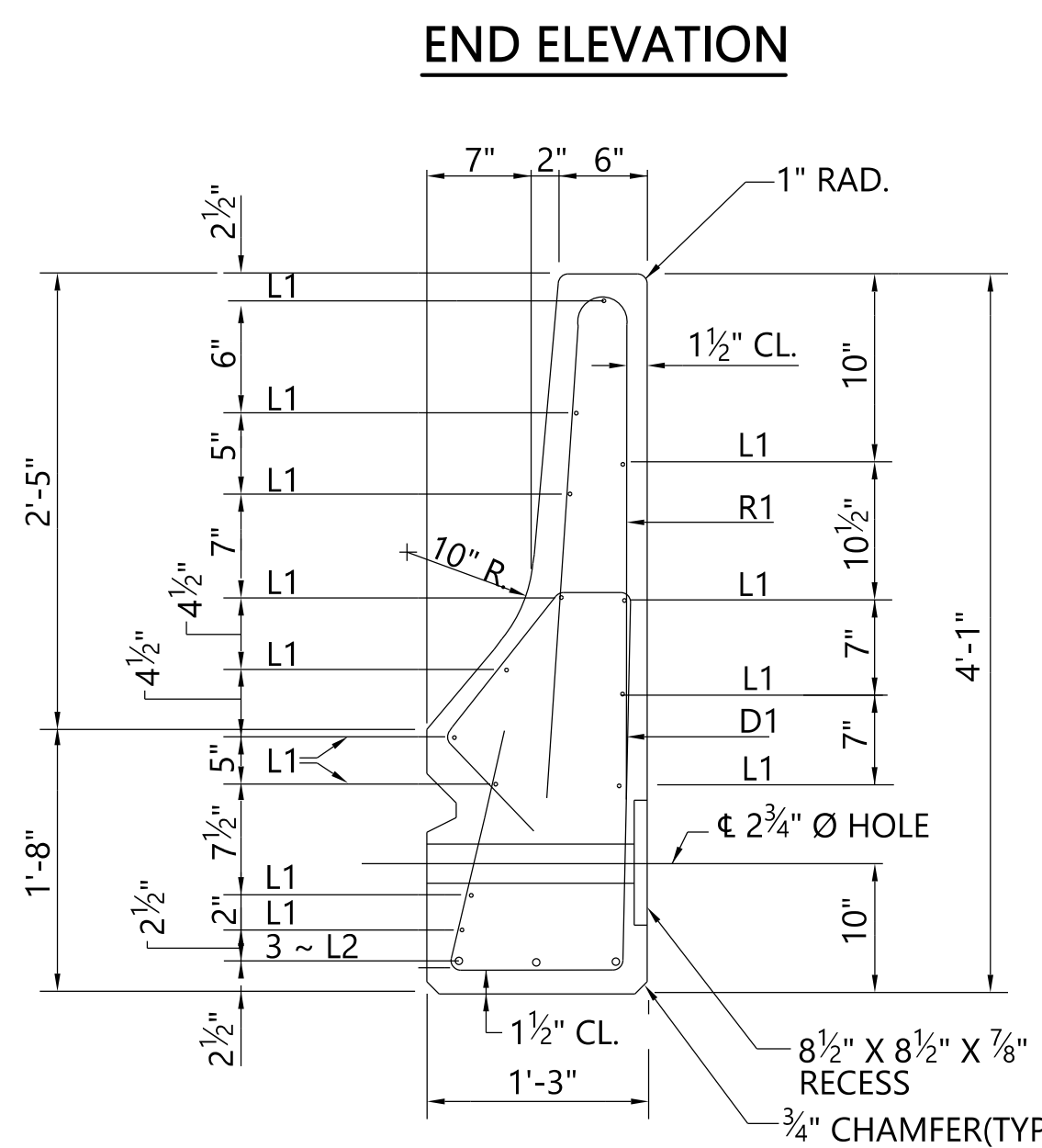
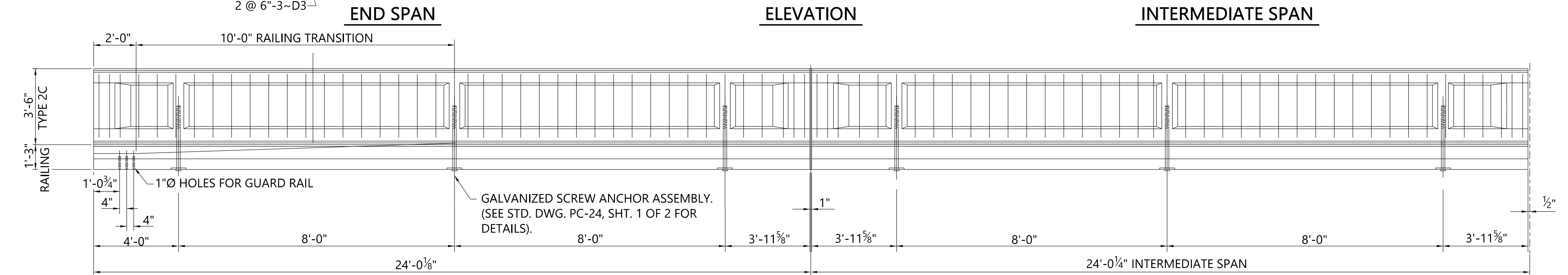
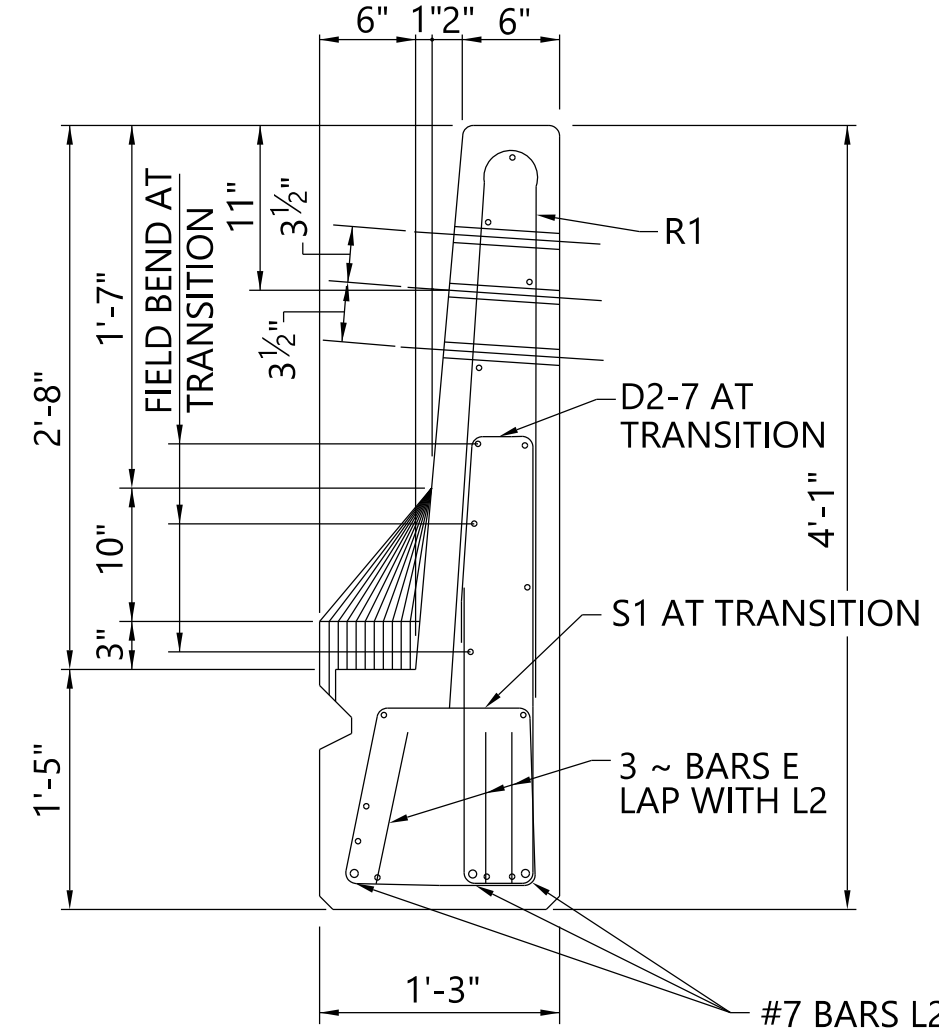
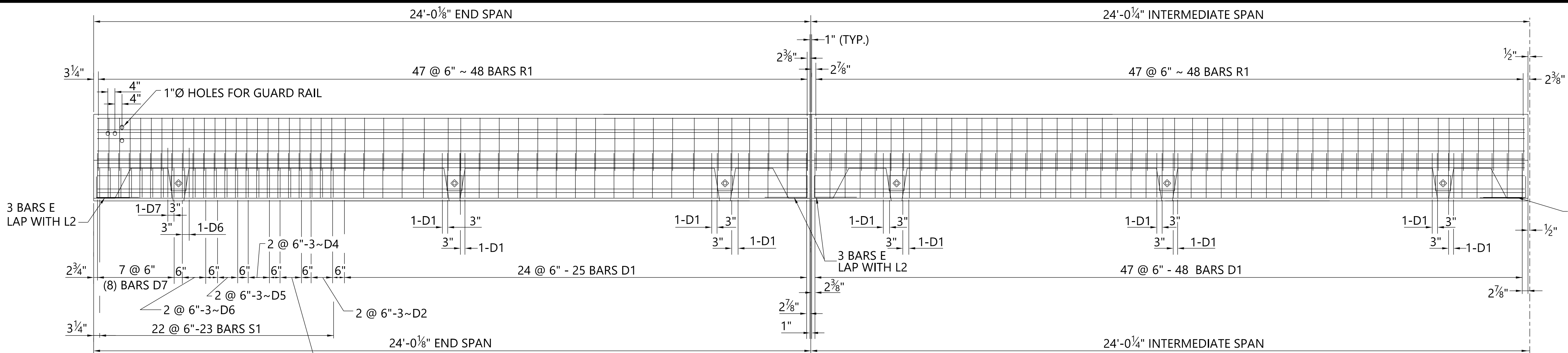
PC-40

SHEET
2 OF 2

INDEX NO.

51210

REFERENCE PROJECT NUMBER	FISCAL YEAR	SHEET NUMBER
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L1 BARS-#4
L2 BARS - #7

HANDLING DEVICE

ALABAMA DEPARTMENT
OF TRANSPORTATION

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BAR BENDING DETAILS

DIMENSIONS ARE OUT TO OUT

REVISIONS

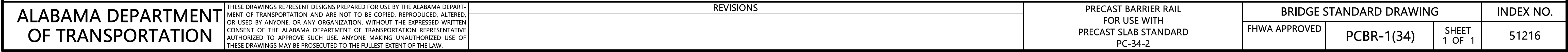
PRECAST BARRIER RAIL
FOR USE WITH
PRECAST SLAB STANDARD
PC-24

BRIDGE STANDARD DRAWING

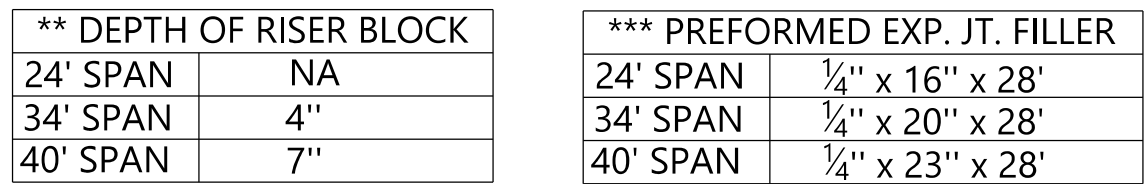
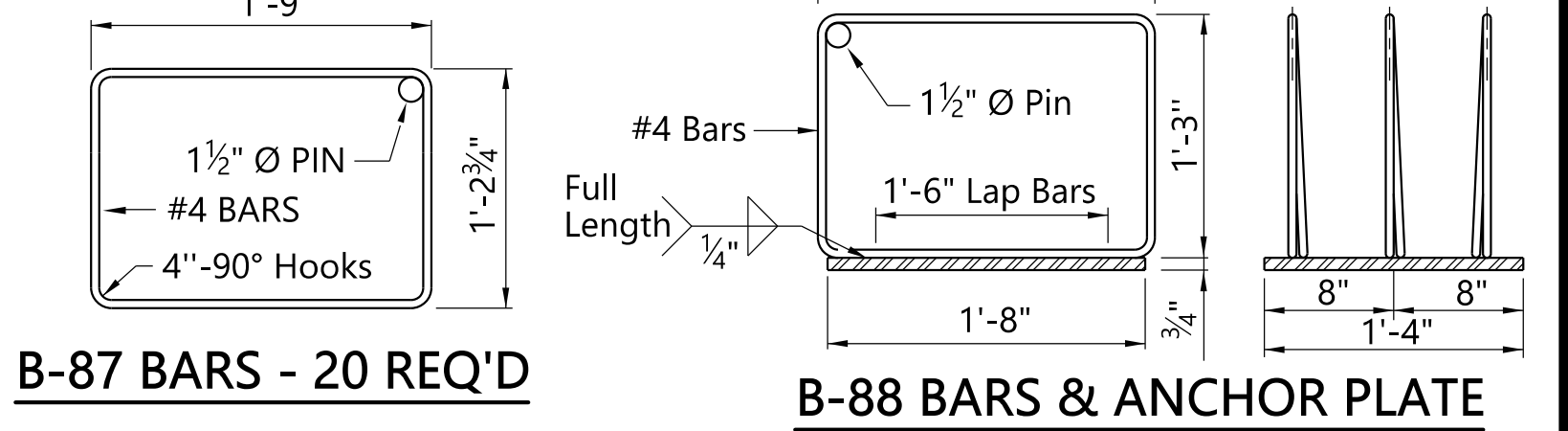
FHWA APPROVED
PCBR-1(24)
SHEET
1 OF 1

INDEX NO.

51213



[illegible]



SPECIFICATIONS: ALABAMA DEPARTMENT OF TRANSPORTATION, CURRENT
DESIGN LOADING: A.A.S.H.T.O. HS20-44
CONCRETE: CONCRETE FOR CASTED BENT CAP SHALL BE IN ACCORDANCE
WITH SECTION 512 OF THE STANDARD SPECIFICATIONS. ALL EXPOSED CORNERS TO BE
CHAMFERED $\frac{3}{4}$ " BY 45° UNLESS OTHERWISE NOTED. ALL OTHER CORNERS ARE TO BE
ROUNDED TO $\frac{1}{4}$ " RADIUS. CONCRETE WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE
CONSIDERED AS SUBSIDIARY TO THE ITEM PRECAST CONCRETE CAP UNIT.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE AS REQUIRED BY ITEM 502.03(c)4 OF THE STANDARD SPECIFICATIONS. REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 833 OF THE STD. SPEC. REINFORCING DIMENSIONS ARE TO THE CENTER LINE OF THE BARS UNLESS OTHERWISE NOTED. THE ABOVE STEEL WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF PRECAST CONCRETE CAP UNIT.

STRUCTURAL STEEL AND PILING: ALL STRUCTURAL STEEL SHALL CONFORM TO SECTION 836 OF THE STANDARD SPECIFICATIONS. ALL PILING SHALL BE 12" STEEL "H" PILING, 53 LBS. PER FOOT. FOR PILE SPLICE DETAILS SEE STD. DWG. NO. I-131.

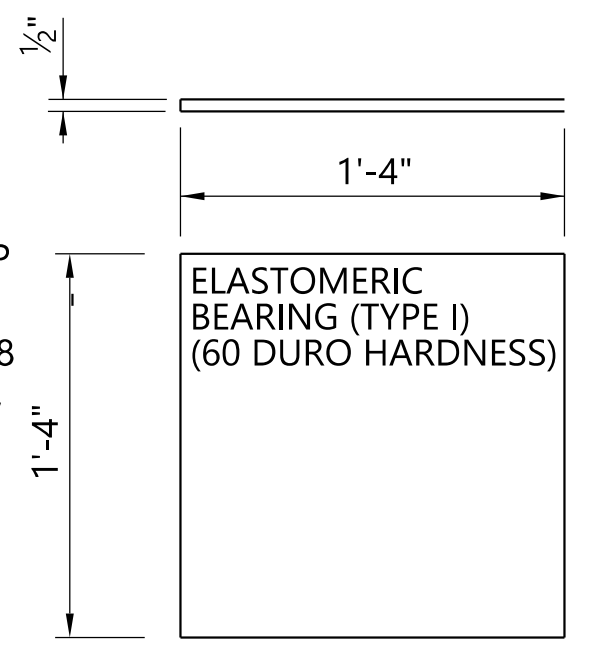
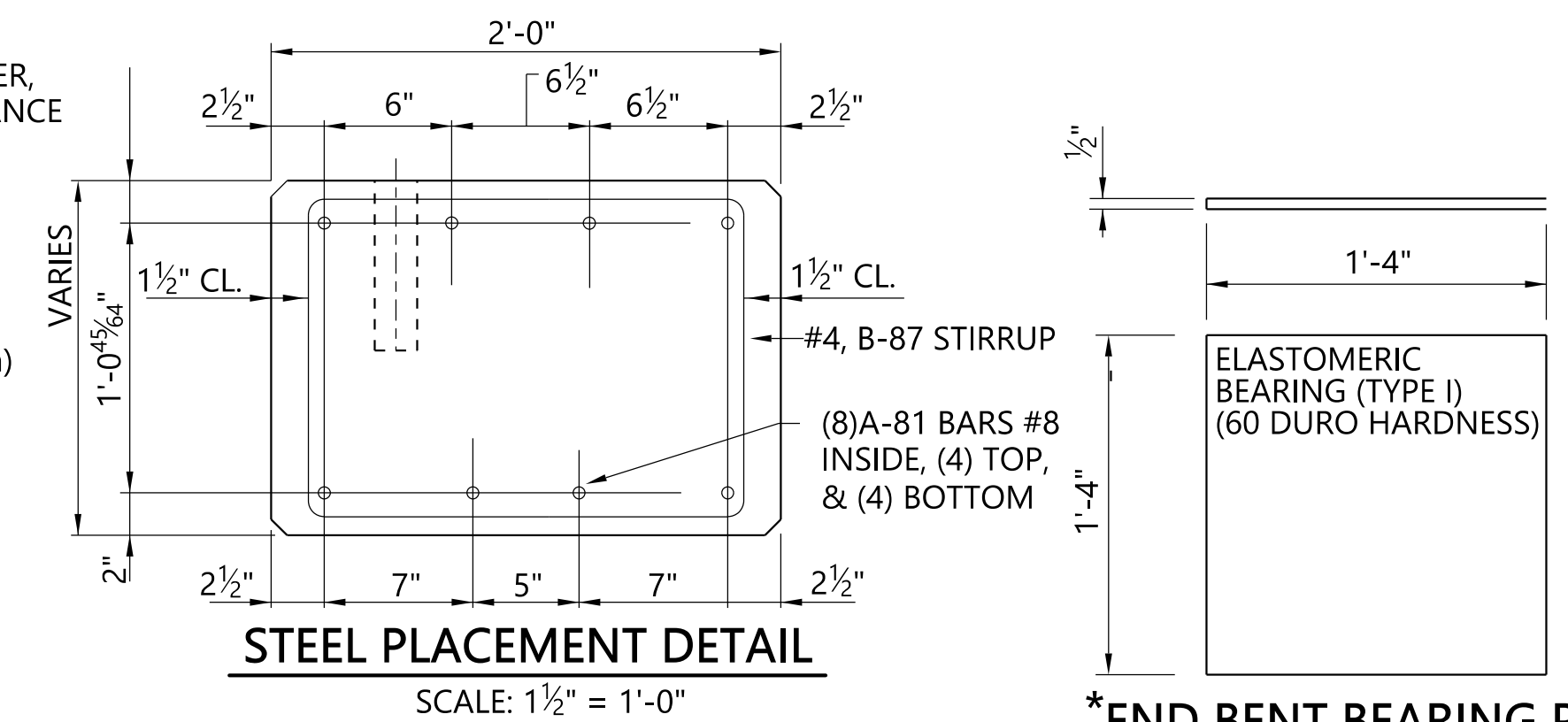
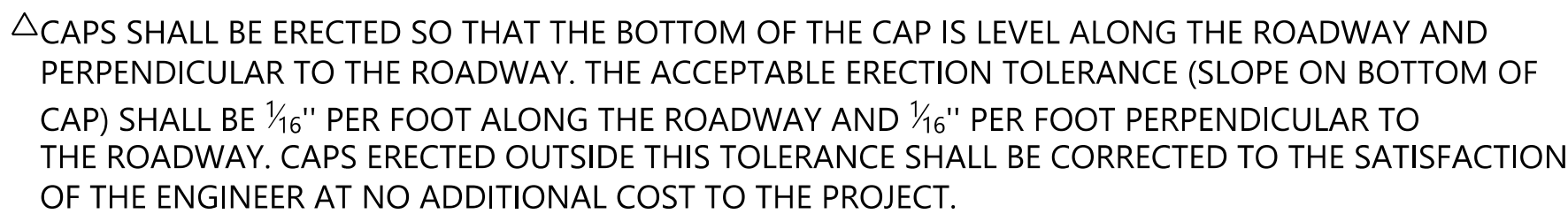
WELDING: ALL WELDING SHALL CONFORM TO ARTICLE 836.46 OF THE STANDARD SPECIFICATIONS.

TOLERANCES: A DEVIATION OF MORE THAN $\frac{1}{8}$ " MAY BE CAUSE FOR THE REJECTION OF THE UNIT.

DESIGN DATA: A.A.S.H.T.O. 2002 STANDARD SPECIFICATION FOR HIGHWAY BRIDGES & INTERIMS SERVICE LOAD DESIGN

BID ITEMS:
511-A ELASTOMERIC BEARINGS, TYPE 1 - PER EACH.

512-A PRECAST CONCRETE ABUTMENT CAPS, 2'-0" WIDE BY 1'-7" DEEP
BY 28'-0" LONG - PER EACH.



SCALE: 1½" = 1'-0"

* A ½" X 8" X 1'-4" ELASTOMERIC BEARING,
TYPE 1 SHALL BE USED UNDER THE OUTSIDE LEGS
OF THE EXTERIOR CHANNELS.

*** WHEN MEASUREMENT (GAP) BETWEEN ANCHOR PLATE AND TOP OF PILE EXCEEDS $\frac{3}{16}$ " THE FOLLOWING SHALL APPLY: THE CONTRACTOR SHALL SUBMIT A CORRECTIVE PROCEDURE TO THE BRIDGE ENGINEER FOR REVIEW AND APPROVAL. THE PROCEDURE SHALL BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED WITH THE STATE OF ALABAMA AND THE PROCEDURE SHALL BE ACCOMPANIED WITH DESIGN CALCULATIONS CONFIRMING THAT THE PROPOSED CORRECTION WILL PROVIDE A CONNECTION EQUIVALENT TO THE ORIGINAL DESIGN.

PILE AXIAL COMPRESSION LOADS - MIN.	
24'-O" SPAN	28 TONS PER PILE
34'-O" SPAN	36 TONS PER PILE
40'-O" SPAN	42 TONS PER PILE

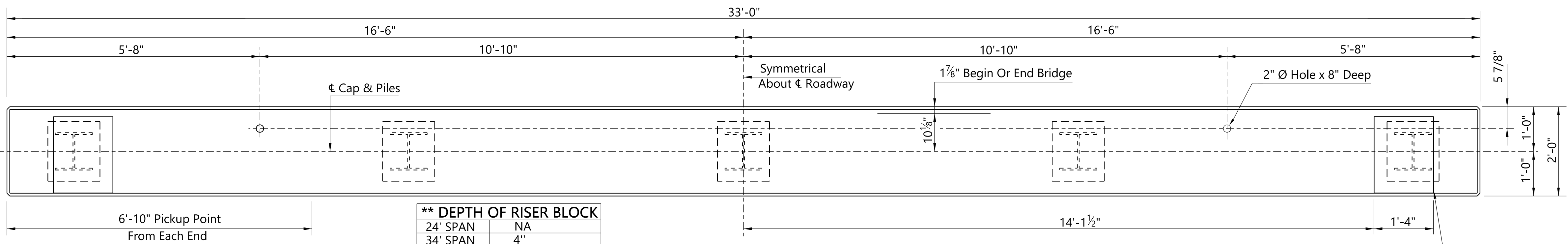
NOTE: LOADS ARE FOR 0% GRADE BRIDGES.

ALABAMA DEPARTMENT OF TRANSPORTATION	THESE DRAWINGS REPRESENT DESIGNS PREPARED FOR USE BY THE ALABAMA DEPARTMENT OF TRANSPORTATION AND ARE NOT TO BE COPIED, REPRODUCED, ALTERED, OR USED BY ANYONE, OR ANY ORGANIZATION, WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE ALABAMA DEPARTMENT OF TRANSPORTATION REPRESENTATIVE AUTHORIZED TO APPROVE SUCH USE. ANYONE MAKING UNAUTHORIZED USE OF THESE DRAWINGS MAY BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.	REVISIONS	PRECAST CONCRETE END BENT CAP FOR USE WITH STEEL PILING AND PRECAST CONCRETE BRIDGE SLABS 24'-0", 34'-0" OR 40'-0" SPANS 24'-6" CLEAR ROADWAY	BRIDGE STANDARD DRAWING			INDEX NO.
		I. REVISED CONCRETE AND DESIGN DATA NOTES 10-16-17 KCF		FHWA APPROVED 10-16-17	PCA-2440	SHEET 1 OF 1	51230

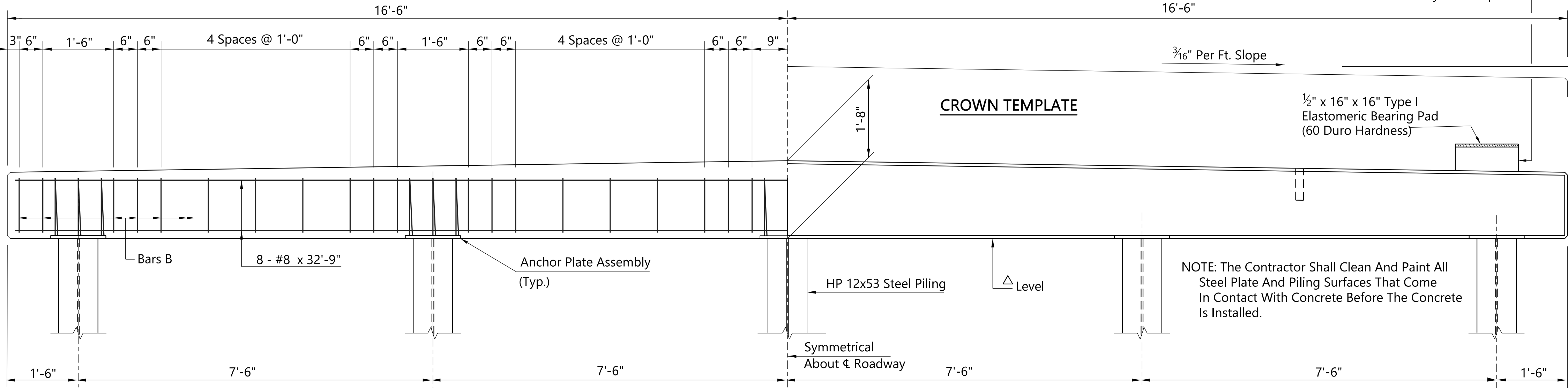
\\bnvms002\Bridges\Standards\Special\Bridg Standard DGN Files\StandardsBooks\Precast\2020 Book\PCA-2840.dgn

PLOTTED: 11-SEP-2019

2"
1"
0
SHEET REFERENCE

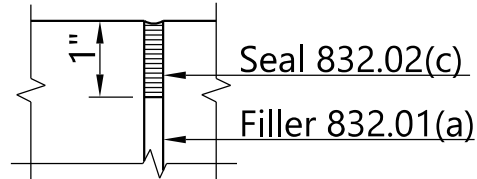


PLAN - END BENT



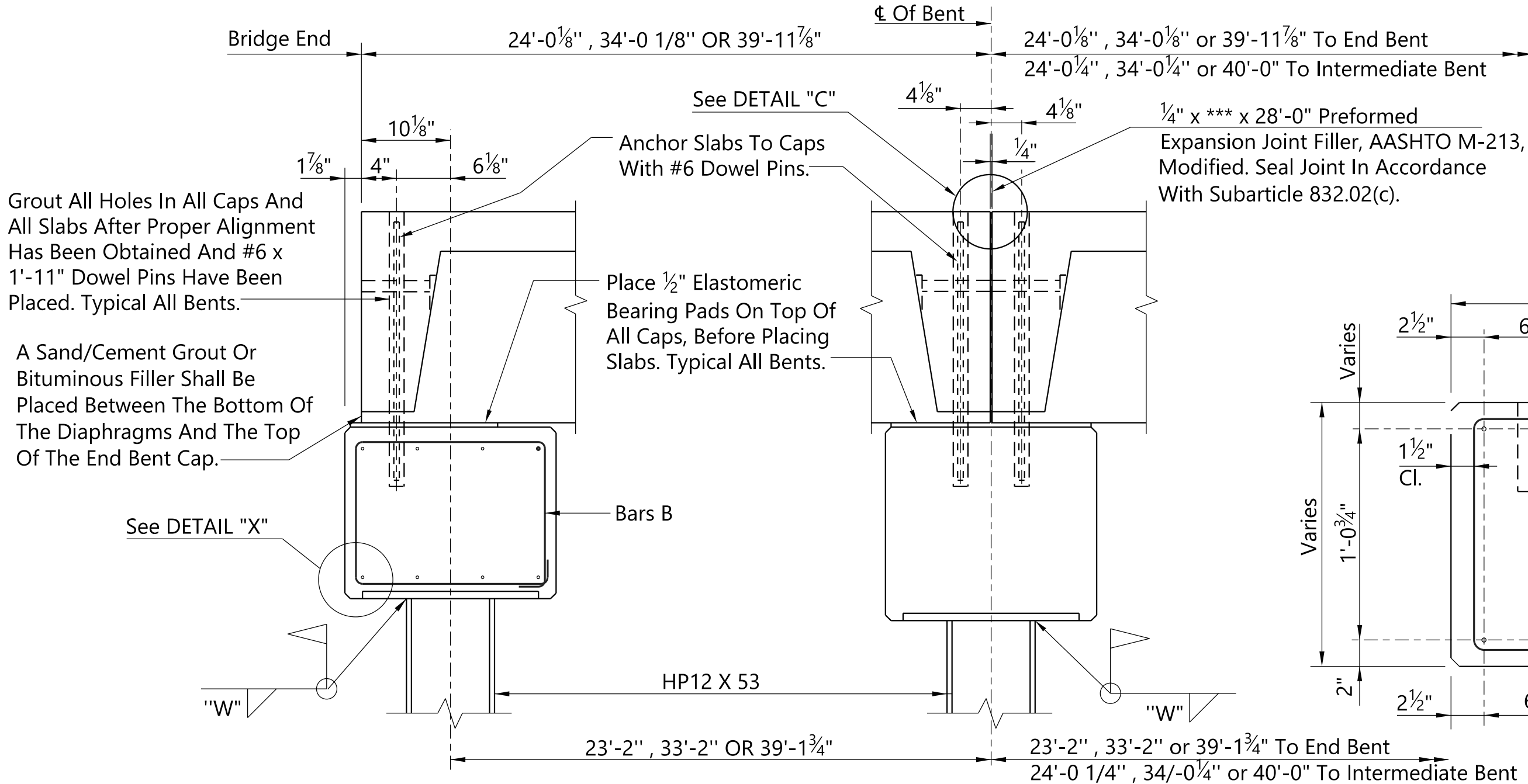
ELEVATION - END BENT

△ Caps Shall Be Erected So That The Bottom Of The Cap Is Level Along The Roadway And Perpendicular To The Roadway. The Acceptable Erection Tolerance (Slope On Bottom Of Cap) Shall Be $\frac{1}{16}$ " Per Foot Along The Roadway And $\frac{1}{16}$ " Per Foot Perpendicular To The Roadway. Caps Erected Outside This Tolerance Shall Be Corrected To The Satisfaction Of The Engineer At No Additional Cost To The Project.



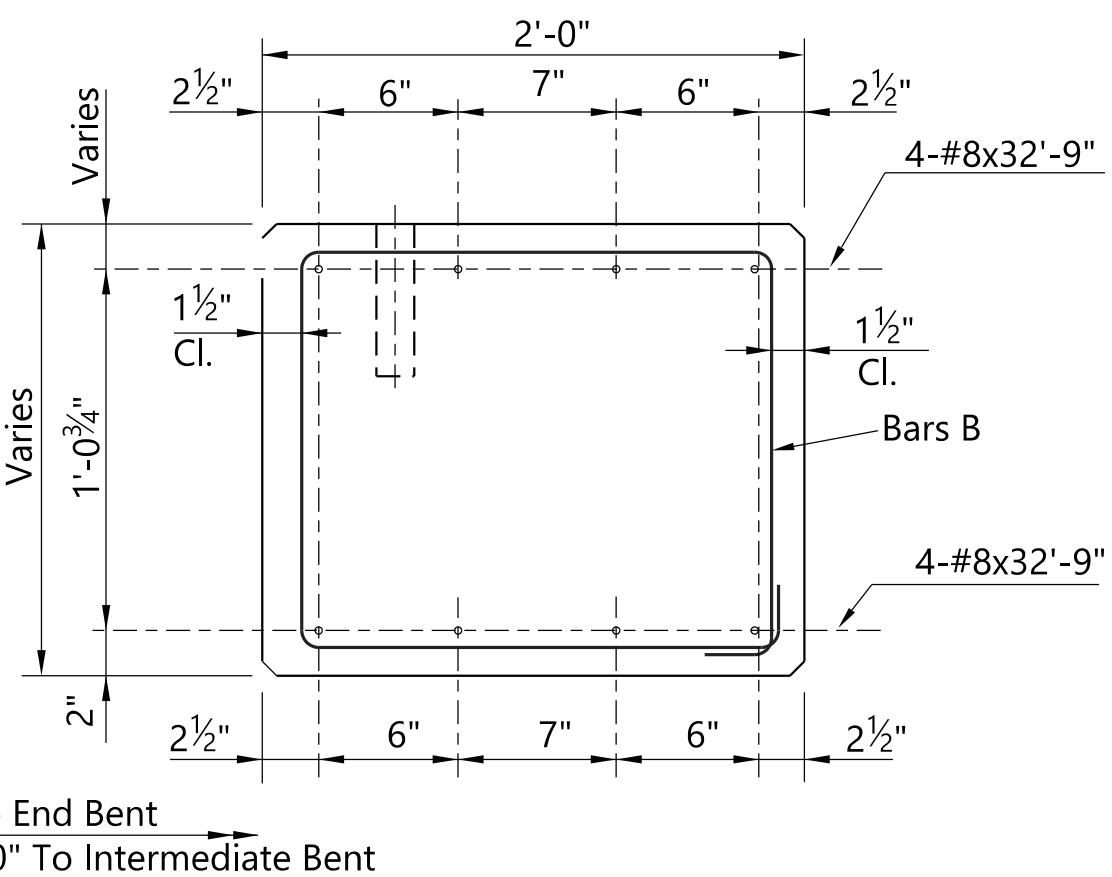
DETAIL "C"

*** PREFORMED EXP. JT. FILLER	
24' SPAN	$\frac{1}{4}$ " x 16" x 28'
34' SPAN	$\frac{1}{4}$ " x 20" x 28'
40' SPAN	$\frac{1}{4}$ " x 23" x 28'



TYPICAL END SECTION

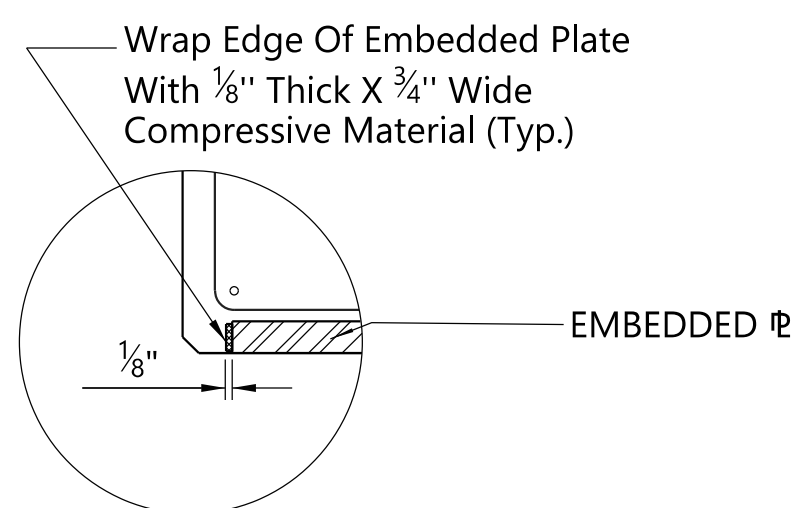
TYPICAL INTERMEDIATE SECTION



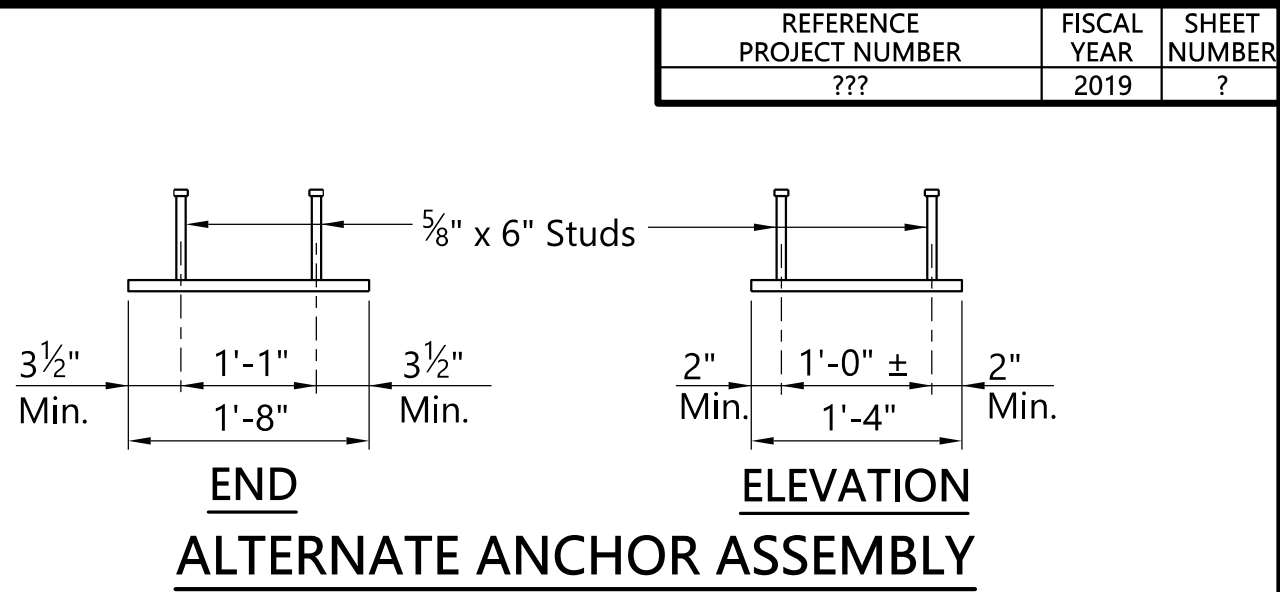
STEEL PLACEMENT DETAIL

MINIMUM WELD REQUIREMENTS "W"	
CONTACT CONDITION	MINIMUM WELD SIZE REQUIRED
FULL CONTACT (NO GAP)	$\frac{1}{4}$ "
GAP MEASUREMENT < $\frac{1}{16}$ "	$\frac{1}{4}$ "
GAP MEASUREMENT < $\frac{1}{8}$ "	$\frac{5}{16}$ "
GAP MEASUREMENT < $\frac{3}{16}$ "	$\frac{3}{8}$ "
GAP MEASUREMENT > $\frac{3}{16}$ "	**

**When Measurement (Gap) Between Anchor Plate And Top Of Pile Exceeds $\frac{3}{16}$ " The Following Shall Apply: The Contractor Shall Submit A Corrective Procedure To The Bridge Engineer For Review And Approval. The Procedure Shall Be Stamped By A Professional Engineer Registered With The State Of Alabama And The Procedure Shall Be Accompanied With Design Calculations Confirming That The Proposed Correction Will Provide A Connection Equivalent To The Original Design.

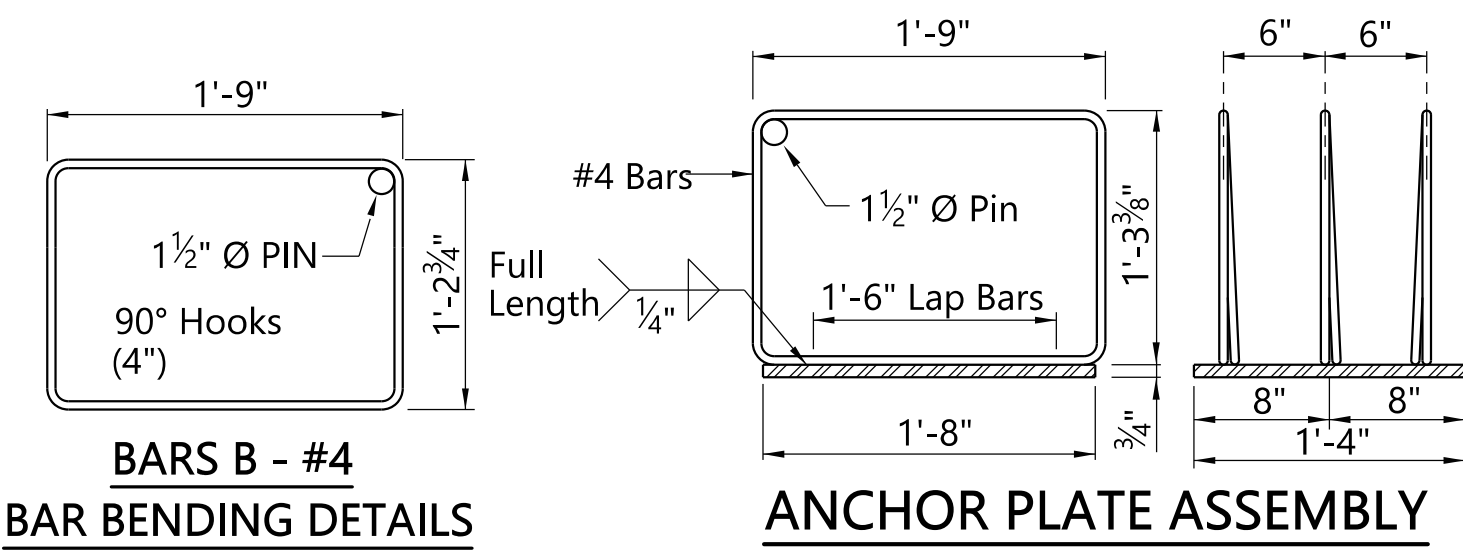


DETAIL "X"



ALTERNATE ANCHOR ASSEMBLY

NOTE: Where Alternate Anchor Plate Assembly Is Used, 3 Bars B Spaced $4\frac{1}{2}$ " Required At Each Pile.



BARS B - #4
BAR BENDING DETAILS
Dimensions Are Out To Out

ANCHOR PLATE ASSEMBLY

GENERAL NOTES:

SPECIFICATIONS: Alabama Department Of Transportation, Current

DESIGN LOADING: A.A.S.H.T.O. HS 20-44

CONCRETE: Concrete For Precast Bent Cap Shall Be In Accordance With Section 512 Of The Standard Specifications. All Exposed Corners To Be Chamfered $\frac{3}{4}$ " By 45° Unless Otherwise Noted. All Other Corners To Be Rounded To $\frac{1}{4}$ " Radius. Concrete Will Not Be Paid For Directly, But Will Be Considered As Subsidiary To The Item Precast Concrete Cap Unit.

REINFORCING STEEL: All Reinforcing Steel Shall Be Accurately Located In The Forms And Firmly Held In Place As Required By Item 502.03(c)4 Of The Standard Specifications. Reinforcing Steel Shall Meet The Requirements Of Section 835 Of The Standard Specifications. All Reinforcing Steel Shall Be Grade 60. Reinforcing Dimensions Are To The Center Line Of The Bars Unless Otherwise Noted. The Above Steel Will Not Be Paid For Directly, But Will Be Considered As Subsidiary To The Item Of Precast Concrete Cap Unit.

STRUCTURAL STEEL AND PILING: All Structural Steel Shall Conform To Section 836 Of The Standard Specifications. All Piling Shall Be 12" Steel "H" Piling, 53 Lbs. Per Foot. For Details Of Pile Splice See Std. Dwg. I-131.

WELDING: All Welding Shall Conform To Article 836.46 Of The Standard Specifications.

TOLERANCES: A Deviation Of More Than** May Be Cause For Rejection Of The Unit.

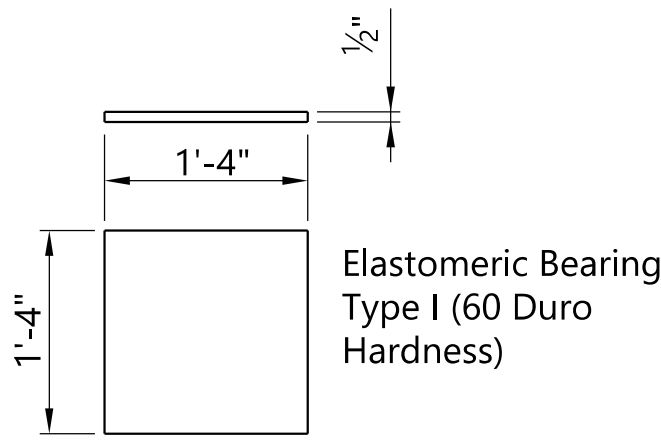
DESIGN DATA: A.A.S.H.T.O. 2002 Standard Specifications For Highway Bridges & Interims Service Design

BID ITEM:
511-A Elastomeric Bearings Type I - Per Each

512-A Precast Concrete Abutment Caps, 2'-0" Wide By 1'-8" Deep By 33'-0" Long - Per Each.

PILE AXIAL COMPRESSION LOADS - MIN.	
24'-0" SPAN	28 TONS PER PILE
34'-0" SPAN	36 TONS PER PILE
40'-0" SPAN	42 TONS PER PILE

NOTE: LOADS ARE FOR 0% GRADE BRIDGES.



* END BENT
BEARING PADS

* A $\frac{1}{2}$ " X 8" X 1'-4" Elastomeric Bearing, Type 1 Shall Be Used Under The Outside Leg Of The Exterior Channels.

ALABAMA DEPARTMENT
OF TRANSPORTATION

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REVISIONS

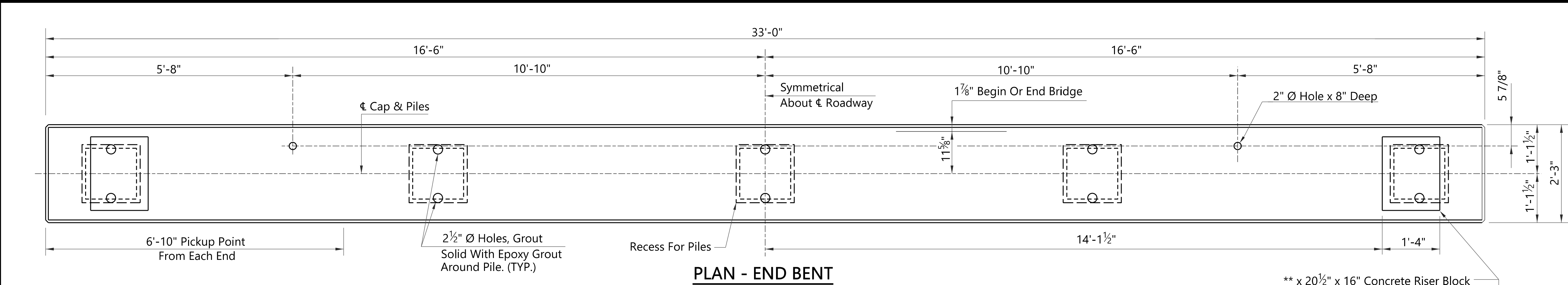
PRECAST CONCRETE END BENT CAP FOR USE
WITH STEEL PILING AND PRECAST CONCRETE
BRIDGE SLABS 24'-0", 34'-0" OR 40'-0" SPANS
28'-0" CLEAR ROADWAY

BRIDGE STANDARD DRAWING		INDEX NO.	
FHWA APPROVED 10-16-17	PCA-2840	SHEET 1 OF 1	51233

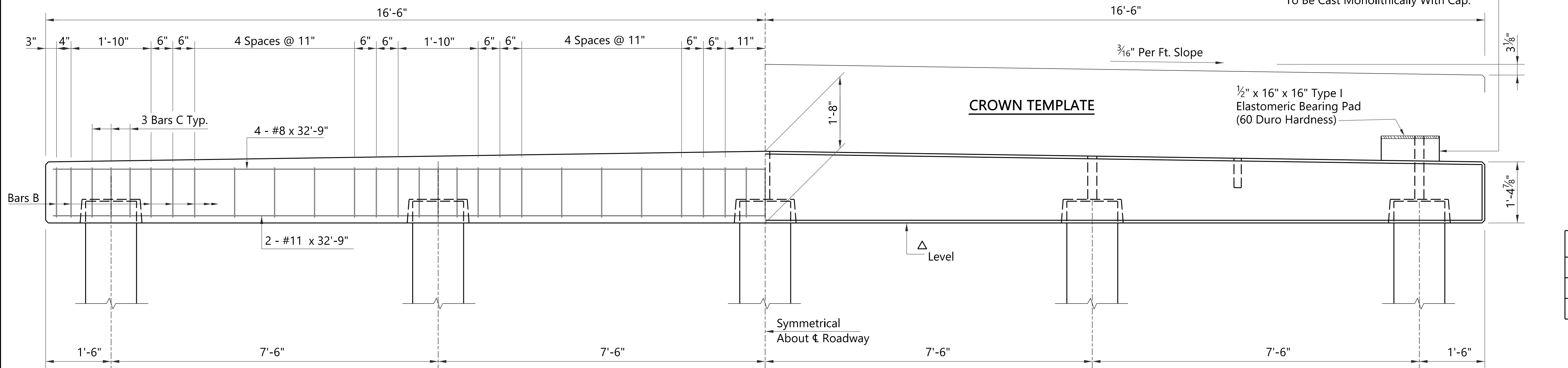
\\brvms002\Bridges\StandardSpecial\Bridge Standard DGN Files\StandardsBooks\Precast\2021 Book\PCA2840CP.dgn

PLOTTED: 18-Sep-20 at 14:21

0 1" 2" SHEET REFERENCE

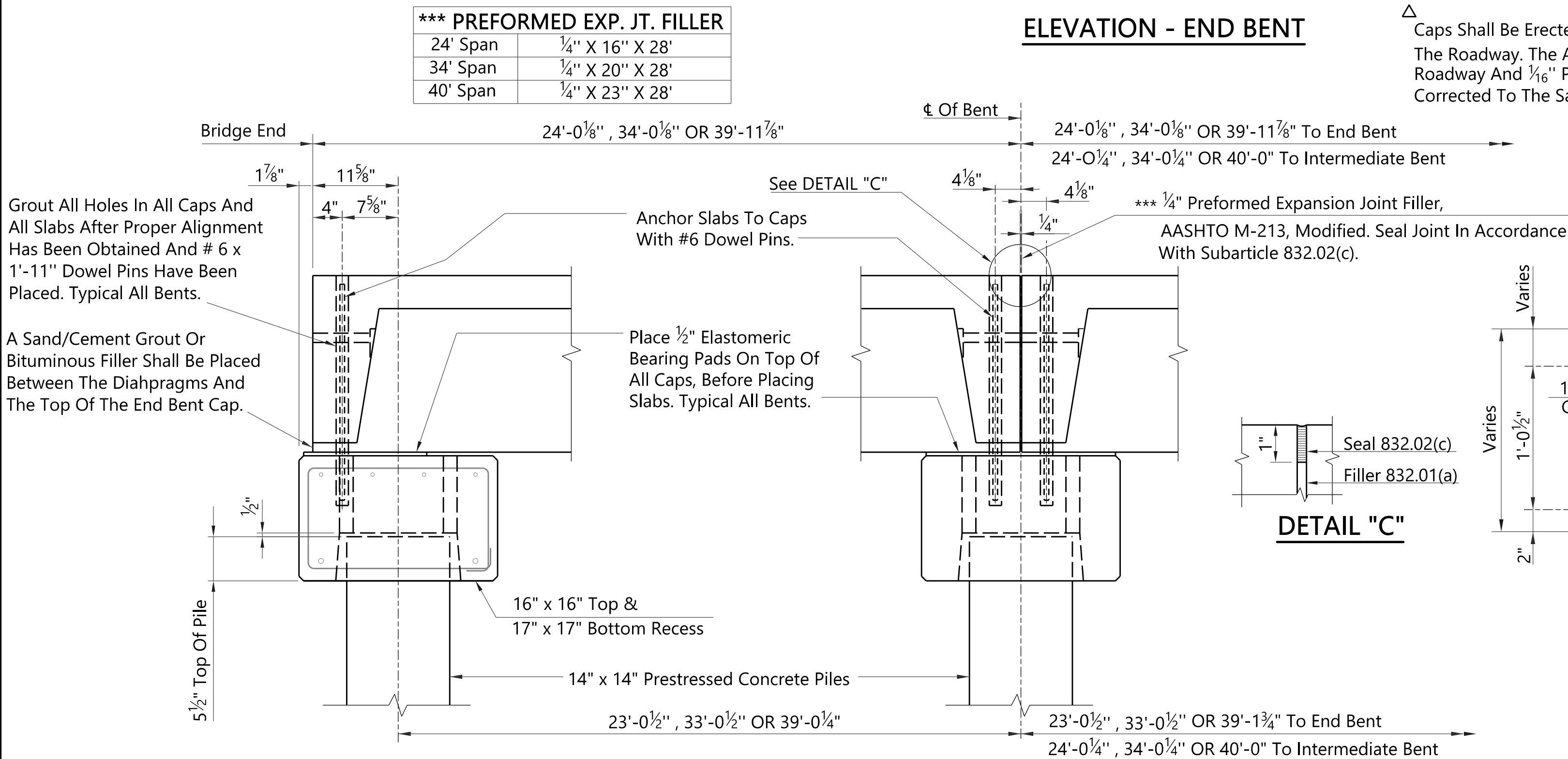


PLAN - END BENT



ELEVATION - END BENT

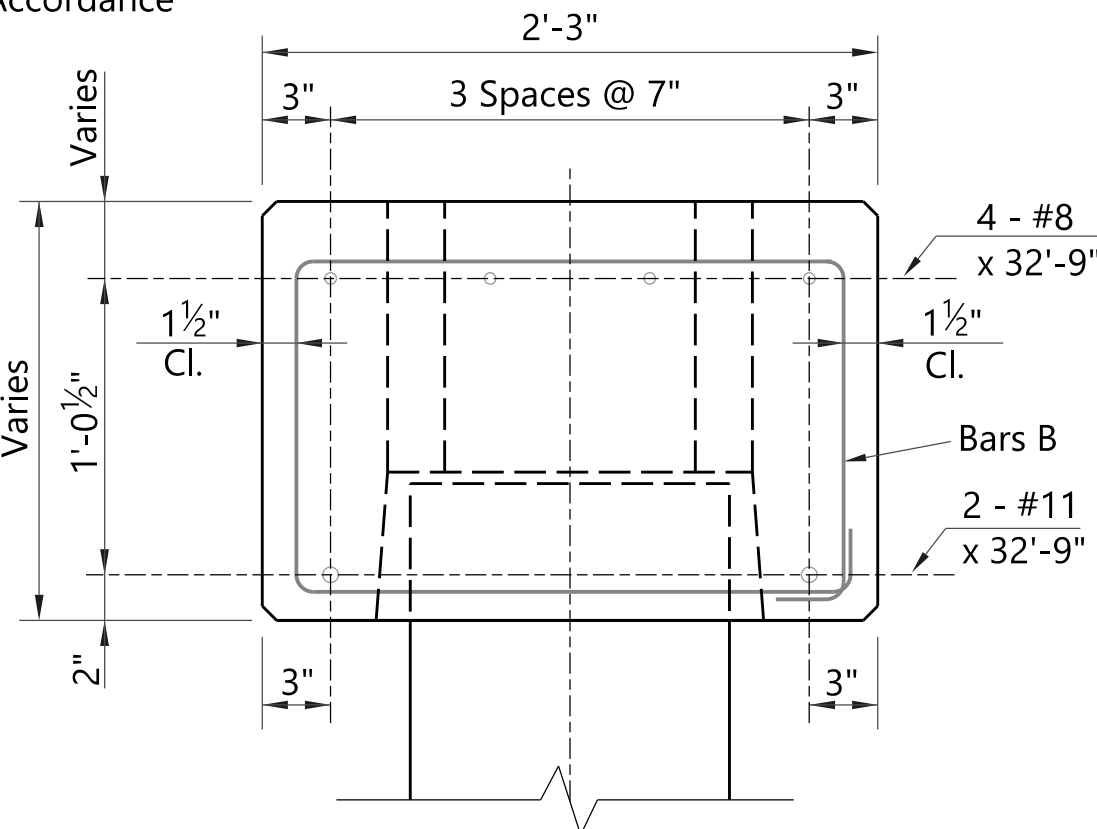
Δ Caps Shall Be Erected So That The Bottom Of The Cap Is Level Along The Roadway And Perpendicular To The Roadway. The Acceptable Tolerance (Slope On Bottom Of Cap) Shall Be $\frac{1}{16}$ " Per Foot Along The Roadway And $\frac{1}{16}$ " Per Foot Perpendicular To The Roadway. Caps Erected Outside This Tolerance Shall Be Corrected To The Satisfaction Of The Engineer At No Additional Cost To The Project.



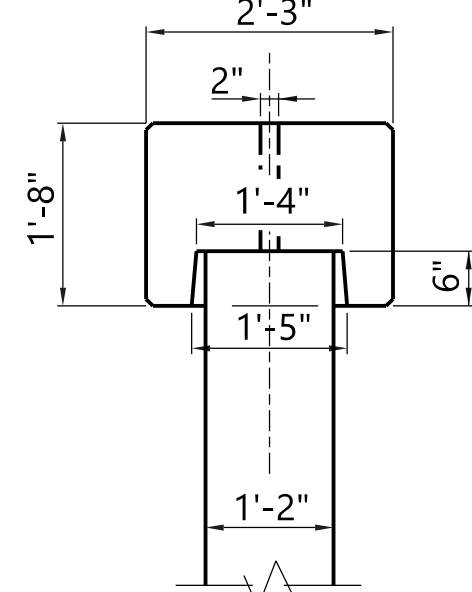
TYPICAL END SECTION

TYPICAL INTERMEDIATE SECTION

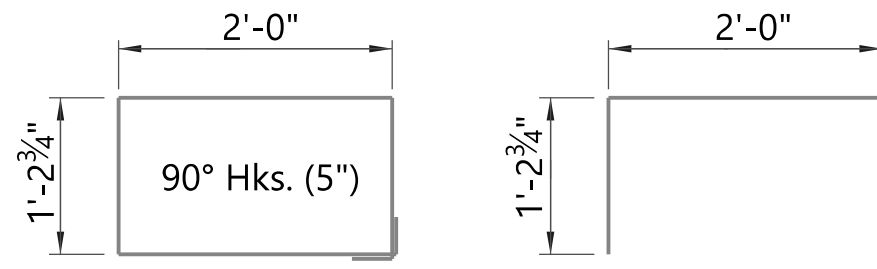
DETAIL "C"



STEEL PLACEMENT DETAIL



SOCKET DETAIL



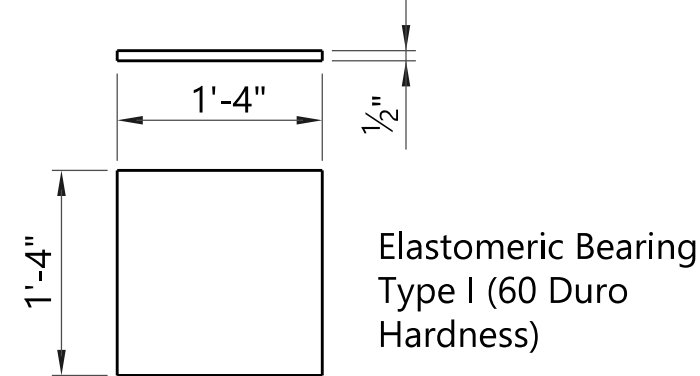
BARS B - #4

BARS C - #4

BAR BENDING DETAILS

Dimensions Are Out To Out

** DEPTH OF RISER BLOCK	
24' Span	NA
34' Span	4"
40' Span	7"



* BEARING PADS

* A $\frac{1}{2}$ " X 8" X 1'-4" Elastomeric Bearing, Type 1 Shall Be Used Under The Outside Legs Of The Exterior Channels.

PILE AXIAL COMPRESSION LOADS - MIN.

24'-0" SPAN	28 TONS PER PILE
34'-0" SPAN	36 TONS PER PILE
40'-0" SPAN	42 TONS PER PILE

NOTE: LOADS ARE FOR 0% GRADE BRIDGES.

GENERAL NOTES:

SPECIFICATIONS: Alabama Department Of Transportation, Current

DESIGN LOADING: A.A.S.H.T.O. HS 20-44

CONCRETE: Concrete For Precast Bent Cap Shall Be In Accordance With Section 512 Of The Standard Specifications. All Exposed Corners To Be Chamfered $\frac{3}{4}$ " By 45° Unless Otherwise Noted. All Other Corners To Be Rounded To $\frac{1}{4}$ " Radius. Concrete Will Not Be Paid For Directly, But Will Be Considered As Subsidiary To The Item Precast Concrete Cap Unit.

REINFORCING STEEL: All Reinforcing Steel Shall Be Accurately Located In The Forms And Firmly Held In Place As Required By Item 502.03(c)4 Of The Standard Specifications. Reinforcing Steel Shall Meet The Requirements Of Section 835 Of The Standard Specifications. All Reinforcing Steel Shall Be Grade 60. Reinforcing Dimensions Are To The Center Line Of The Bars Unless Otherwise Noted. The Above Steel Will Not Be Paid For Directly, But Will Be Considered As Subsidiary To The Item Of Precast Concrete Cap Unit.

PILING: ALL PILING Shall Be 14" x 14" Prestressed Concrete Per Standard DRAWING PSCP-1 And Conform To Section 505 Of The Standard Specifications.

EPOXY GROUT: Epoxy Grout For Caps To Piling Connection Shall Be Composed Of One (1) Part Epoxy (Binder) And Three (3) Parts Dry Silica Sand, (Bagged 1 Cu. Ft. Per Bag) Measured By Volume.

EPOXY GROUT: Epoxy Grout Shall Develop A Minimum Compressive Strength Of 5,000 p.s.i. In Twelve (12) Hours. Contractor Shall Submit Method Of Sampling And Testing To Verify Strength Requirement To The Bridge Engineer For Approval Prior To Grouting Caps.

TOLERANCES: A Deviation Of More Than $\frac{1}{8}$ " May Be Cause For Rejection Of The Unit.

DESIGN DATA: A.A.S.H.T.O. 2002 Standard Specifications For Highway Bridges & Interims Service Load Design

BID ITEM:

511-A Elastomeric Bearings Type I - Per Each

512-A Precast Concrete Abutment Caps, 2'-3" Wide By 1'-8" Deep By 33'-0" Long - Per Each.

ALABAMA DEPARTMENT
OF TRANSPORTATION

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REVISIONS

PRECAST CONCRETE END BENT CAP FOR USE WITH
14"x14" CONCRETE PILING AND PRECAST
CONCRETE BRIDGE SLABS 24'-0", 34'-0" OR
40'-0" SPANS 28'-0" CLEAR ROADWAY

BRIDGE STANDARD DRAWING

FHWA APPROVED
9-18-19

PCA-2840-CP

SHEET
1 OF 1

INDEX NO.

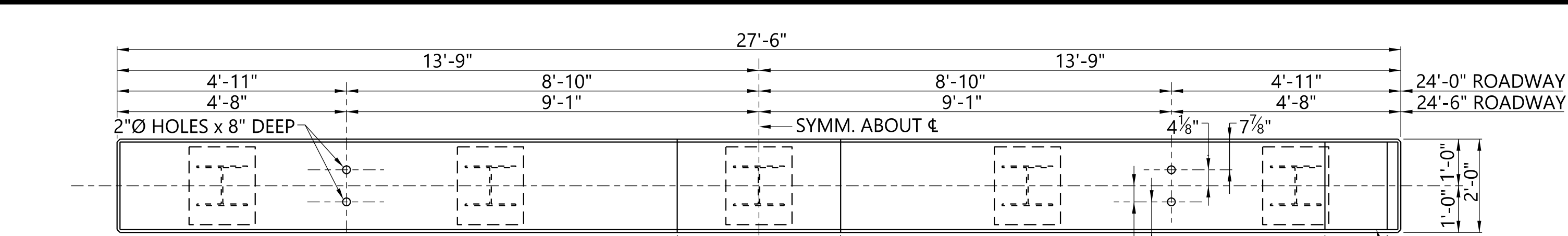
51236

△ CAPS SHALL BE ERECTED SO THAT THE BOTTOM OF THE CAP IS LEVEL ALONG THE ROADWAY AND PERPENDICULAR TO THE ROADWAY. THE ACCEPTABLE ERECTION TOLERANCE (SLOPE ON BOTTOM OF CAP) SHALL BE $\frac{1}{16}$ " PER FOOT ALONG THE ROADWAY AND $\frac{1}{16}$ " PER FOOT PERPENDICULAR TO THE ROADWAY. CAPS ERECTED OUTSIDE THIS TOLERANCE SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.

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PLOTTED: 20-SEP-2019

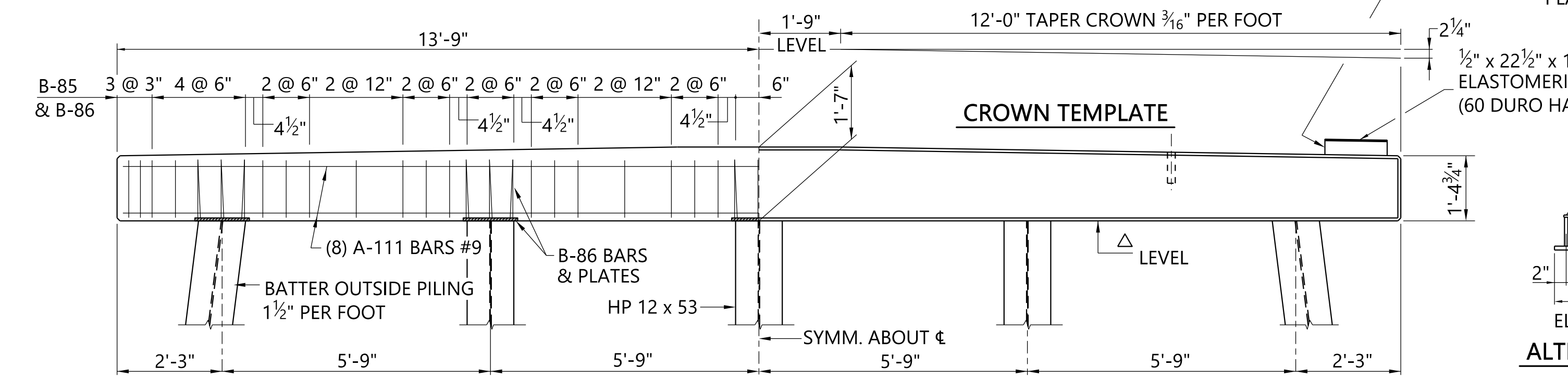
2"
1"
0"
SHEET REFERENCE



NOTE: ANY GRINDING OR LEVELING ON THE TOP SURFACE OF THE RISER THAT MAY BE REQUIRED TO INSURE PROPER SEATING OF THE BARRIER RAIL AND PRECAST CHANNEL SHALL BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

PLAN - INTERMEDIATE BENT

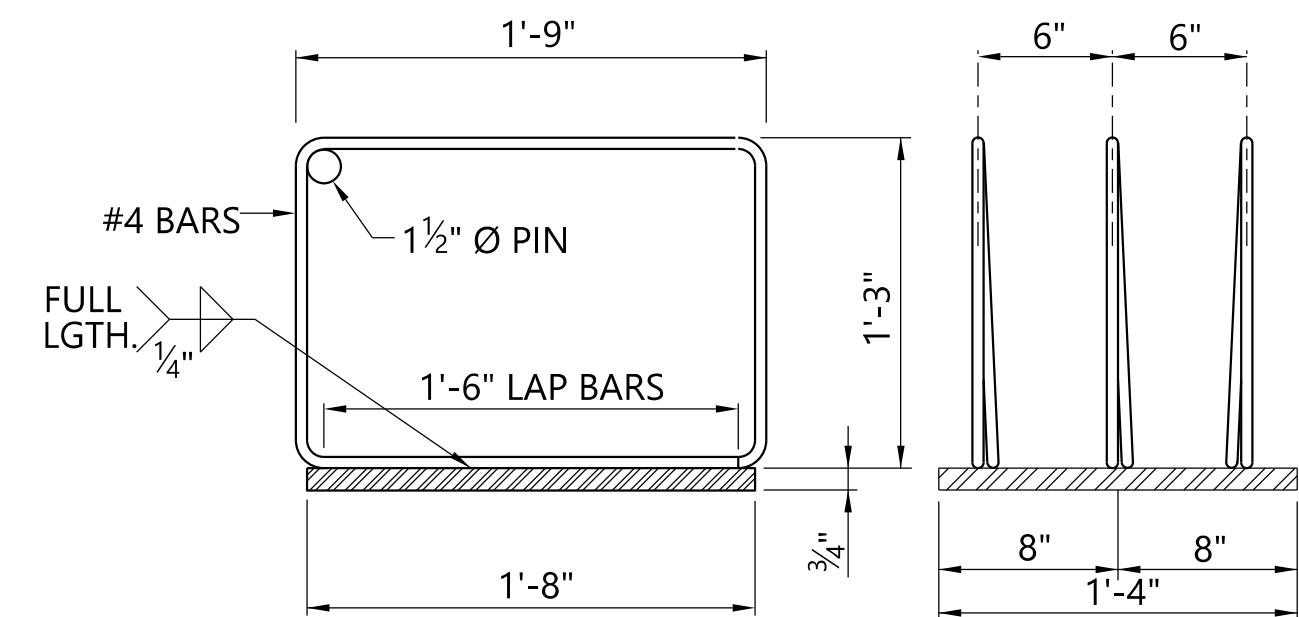
SCALE: 1/2" = 1'-0"



ELEVATION - INTERMEDIATE BENT

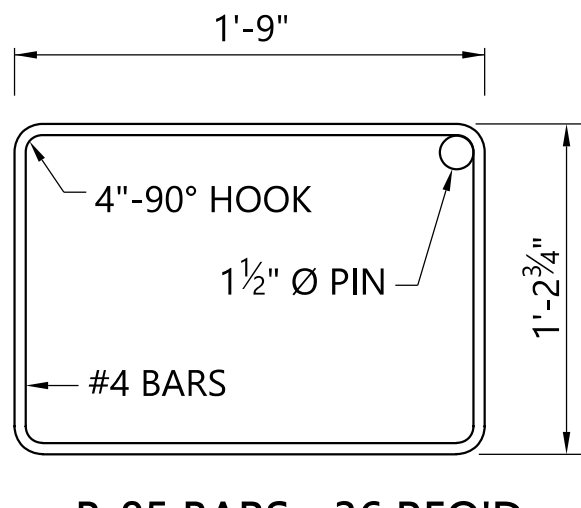
SCALE: 1/2" = 1'-0"

△ CAPS SHALL BE ERECTED SO THAT THE BOTTOM OF THE CAP IS LEVEL ALONG THE ROADWAY AND PERPENDICULAR TO THE ROADWAY. THE ACCEPTABLE ERECTION TOLERANCE (SLOPE ON BOTTOM OF CAP) SHALL BE 1/16" PER FOOT ALONG THE ROADWAY AND 1/16" PER FOOT PERPENDICULAR TO THE ROADWAY. CAPS ERECTED OUTSIDE THIS TOLERANCE SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.



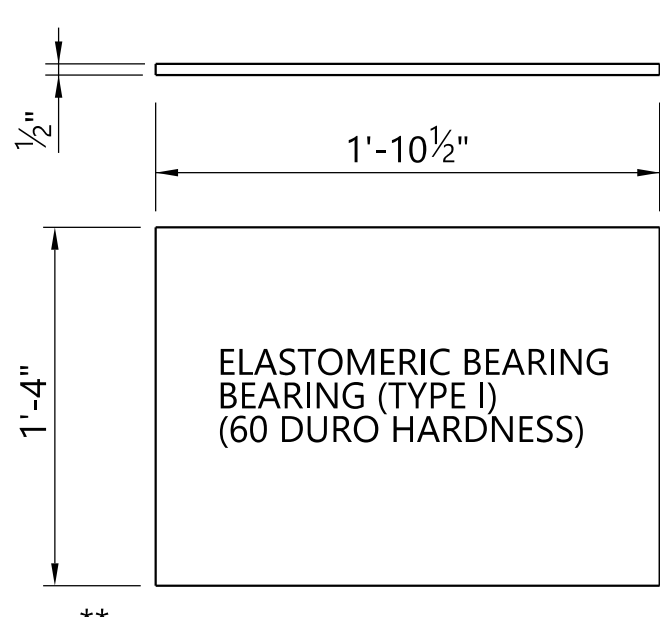
B-86 BARS & ANCHOR PLATES

SCALE: 1 1/2" = 1'-0"



B-85 BARS - 36 REQ'D

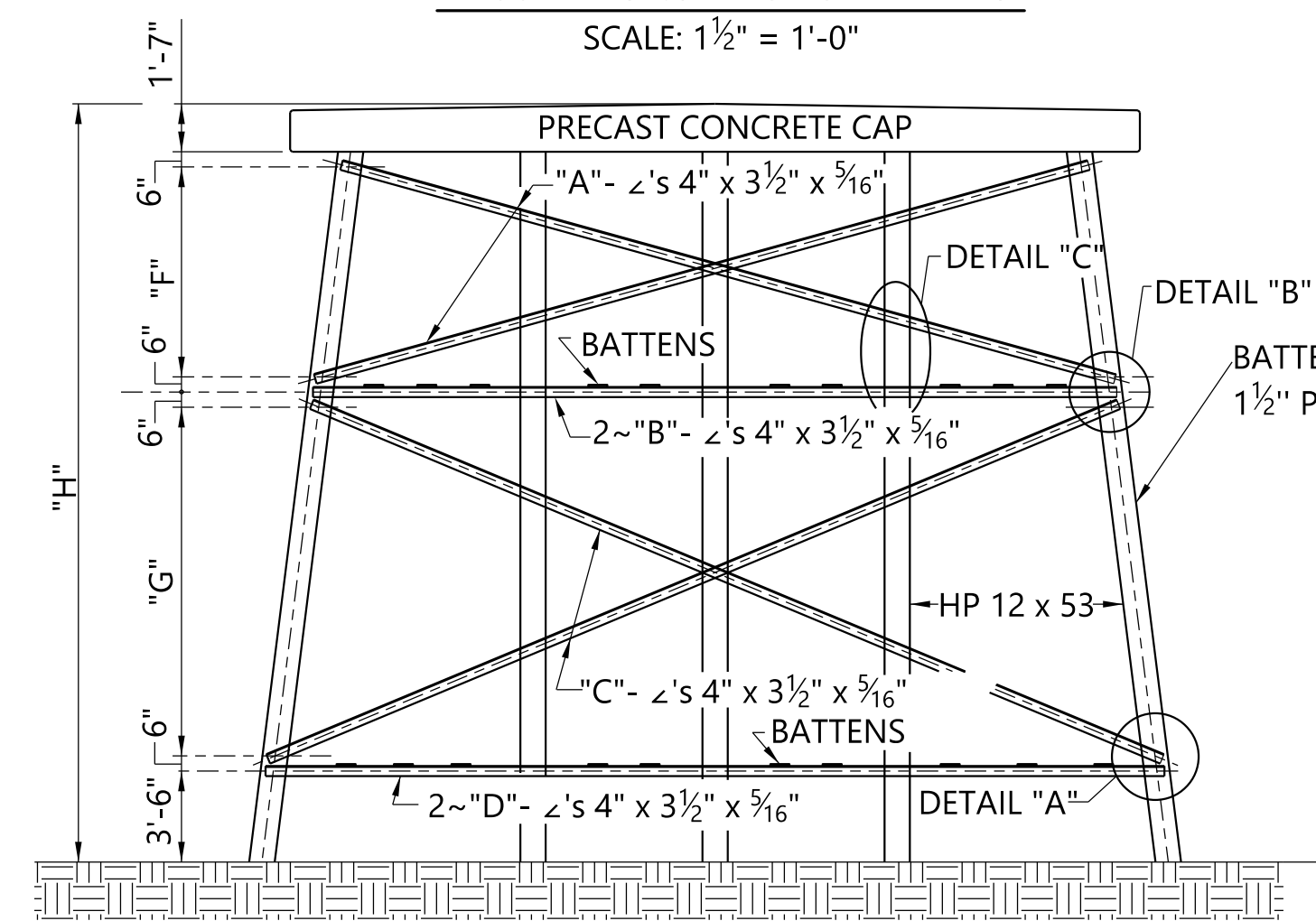
SCALE: 1 1/2" = 1'-0"



BENT BEARING PADS

SCALE: 1 1/2" = 1'-0"

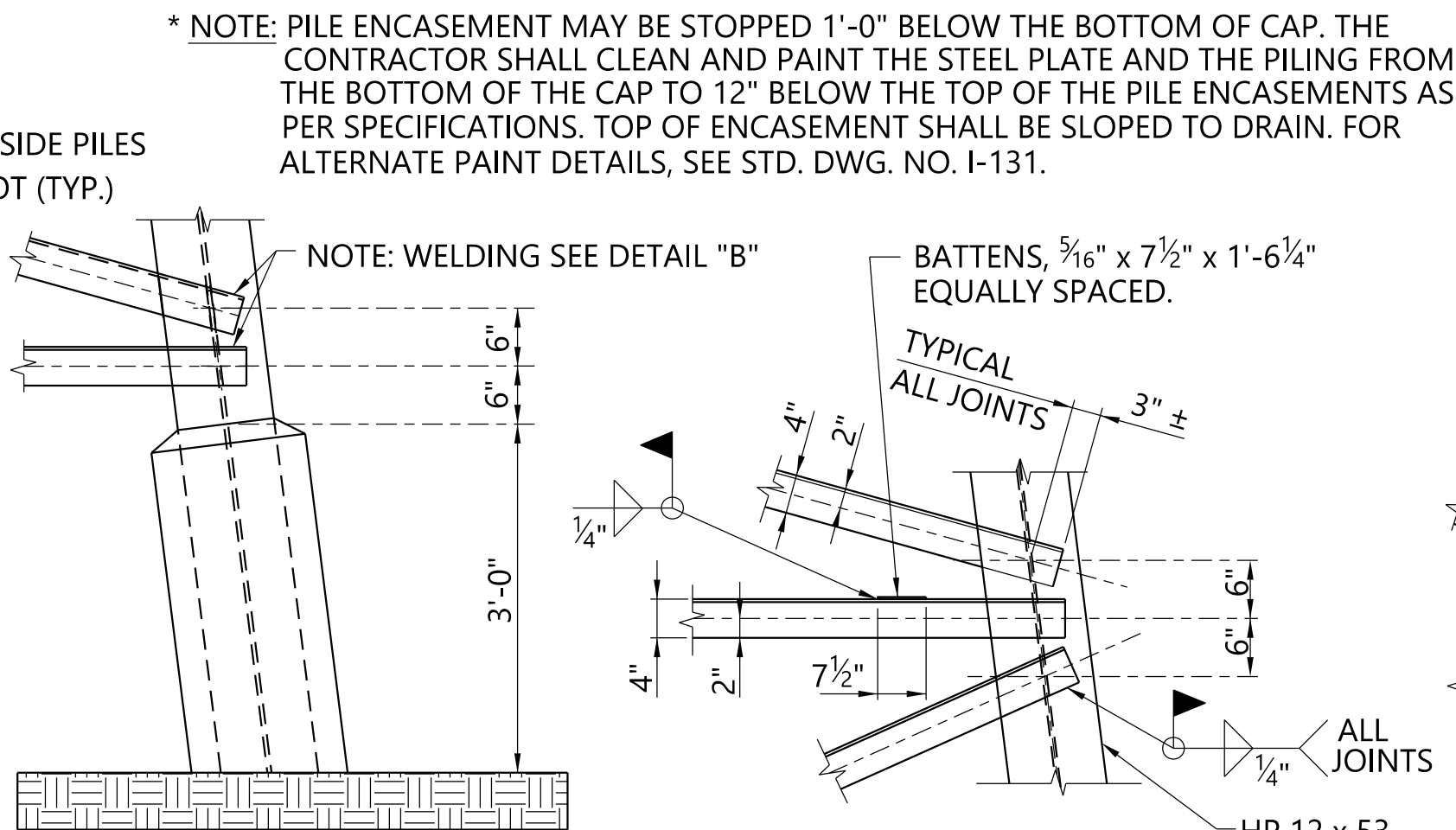
** A 1/2" X 8" X 1'-10 1/2" ELASTOMERIC BEARING, TYPE 1 SHALL BE USED UNDER THE OUTSIDE LEGS OF THE EXTERIOR CHANNELS.



SWAYBRACING DETAILS

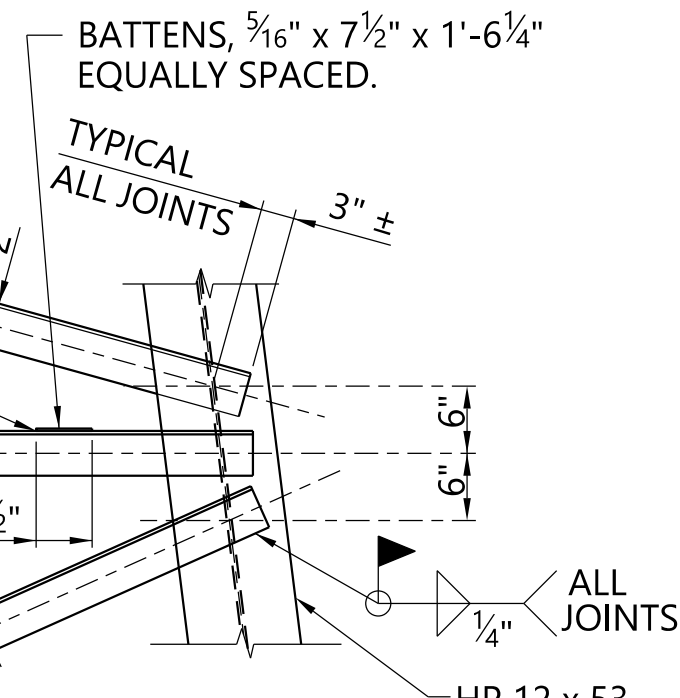
N.T.S.

TWO STORY BENT SHOWN, SINGLE STORY BENTS SIMILAR. SWAYBRACING FOR SINGLE STORY BENTS SHALL BE 4" X 3 1/2" X 5/16" ANGLES & DESIGNATED BY THE LETTER "A" AND "B". ALL PILING AT GROUND AND OR WATER LINE SHALL BE ENCASED IN CONCRETE. NOTE ENCASEMENT DETAILS.



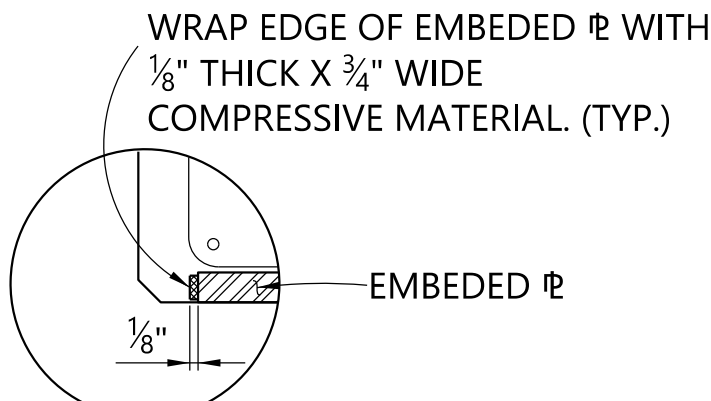
DETAIL "A"

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

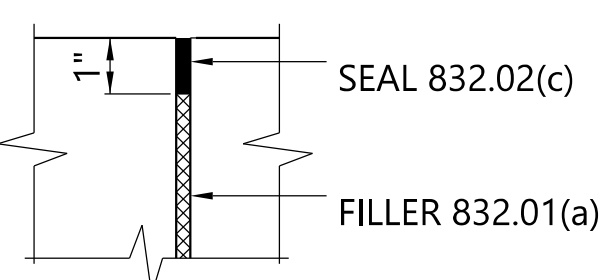


DETAIL "B"

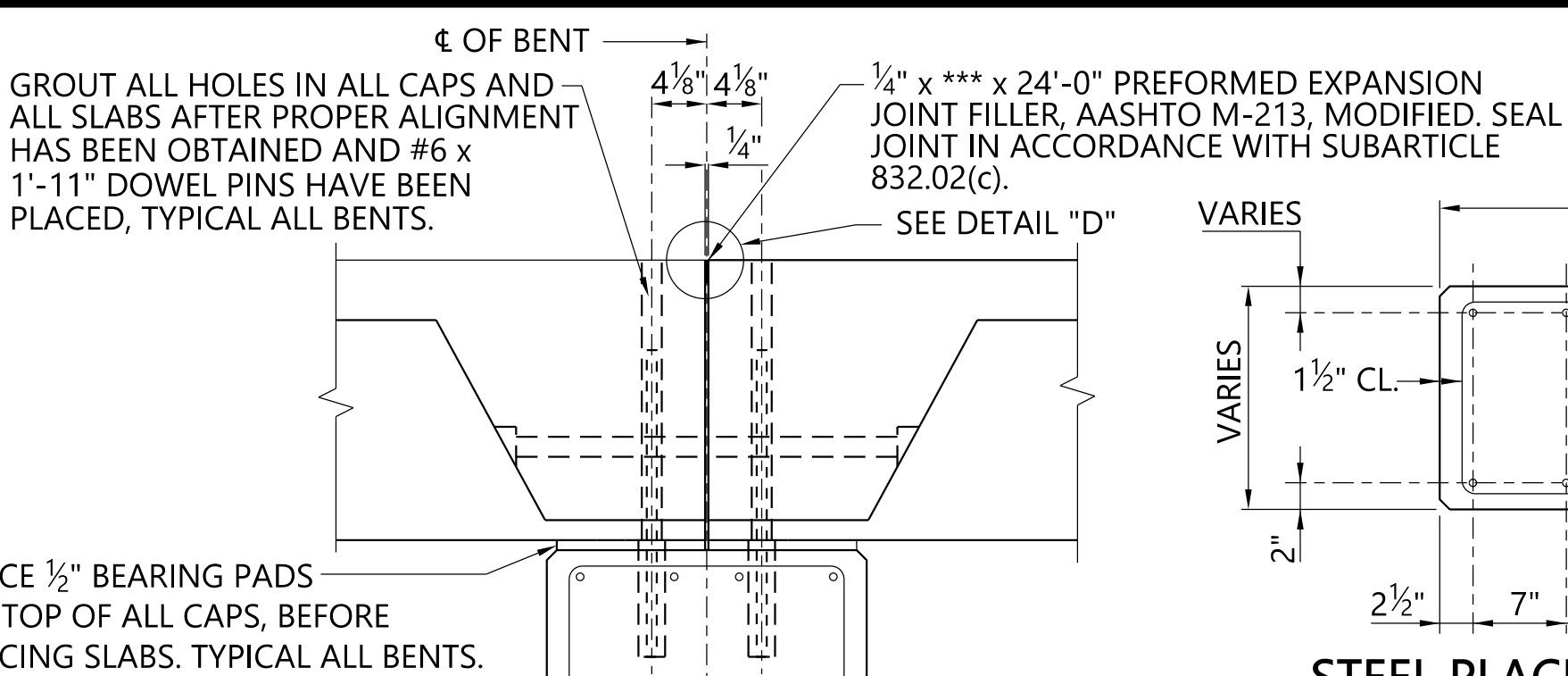
SCALE: 3/4" = 1'-0"



DETAIL "X"

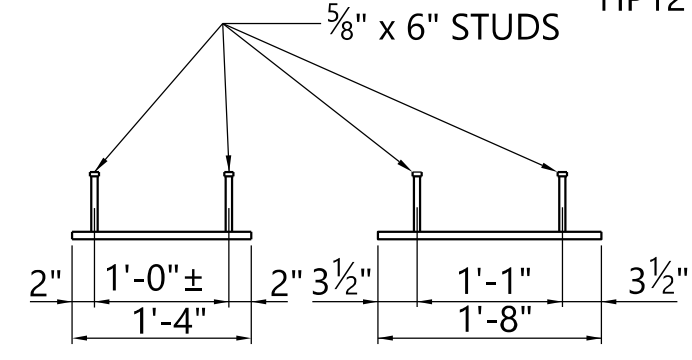


DETAIL "D"



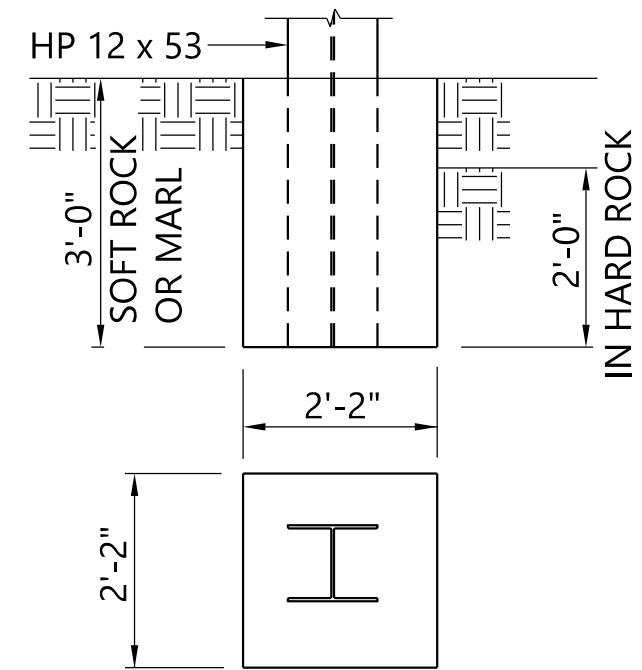
CAP SECTION

SCALE: 1" = 1'-0"



ALTERNATE ANCHOR SYSTEM

SCALE: 1" = 1'-0"

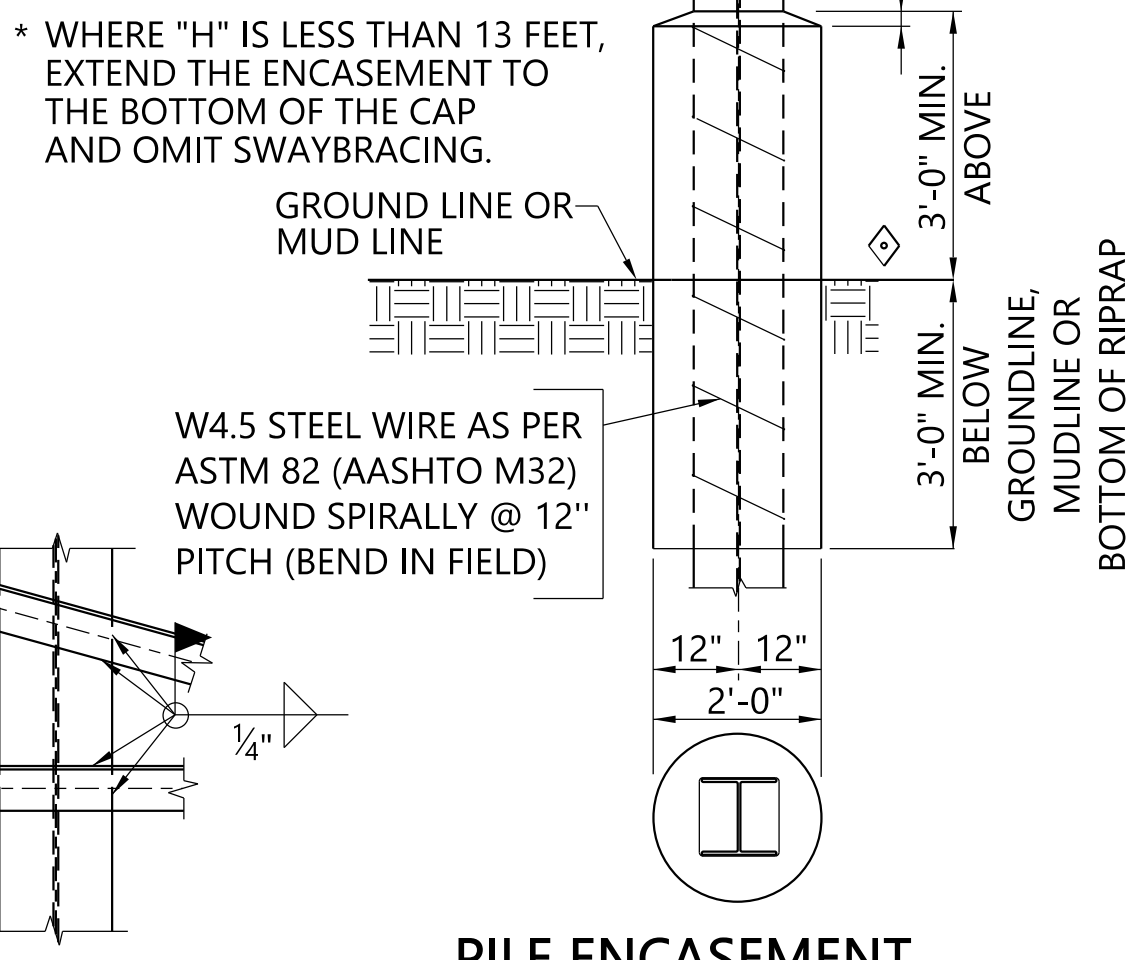


DETAILS FOR PILING ON CONCRETE PEDESTAL FOUNDATION

SCALE: 1/2" = 1'-0"

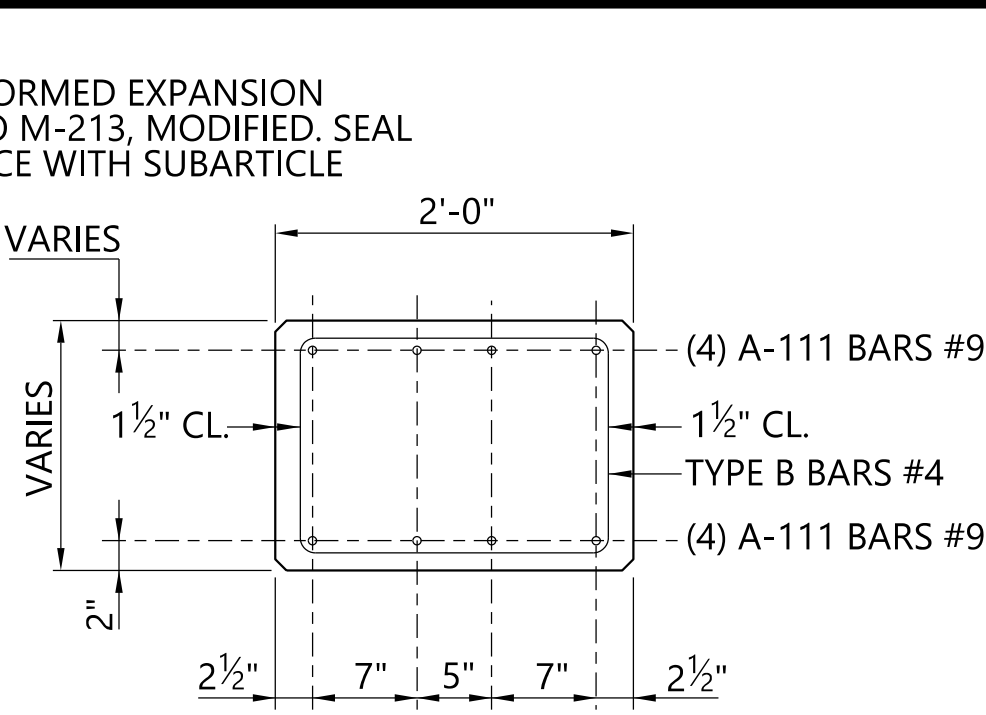
NOTE: WHERE SUFFICIENT PILE PENETRATION CANNOT BE OBTAINED, PILES SHALL BE ENCASED WITH CONCRETE PEDESTALS AS SHOWN. COST OF THE CONCRETE PEDESTALS TO BE PAID FOR IN ACCORDANCE WITH SUBARTICLE 505.05(f) OF THE STANDARD SPECIFICATIONS. APPROVAL FOR USE MUST BE OBTAINED FROM THE BUREAU OF CONSTRUCTION.

◇ WHERE PILE BENT IS LOCATED IN WATER, ENCASEMENT SHALL EXTEND 3'-0" MIN. ABOVE NORMAL WATER LINE AS DETERMINED BY ENGINEER.



PILE ENCASEMENT

SCALE: 1/2" = 1'-0"



STEEL PLACEMENT DETAIL

SCALE: 1" = 1'-0"

DESIGN PARAMETERS

THE FOLLOWING DESIGN PARAMETERS WERE USED TO DEVELOP THIS STANDARD DRAWING:

DESIGN AXIAL LOAD = 37 TONS / PILE FOR 24'-0" SPAN
DESIGN AXIAL LOAD = 44 TONS / PILE FOR 34'-0" SPAN
DESIGN AXIAL LOAD = 54 TONS / PILE FOR 40'-0" SPAN
"K" FOR COMPUTING UNBRACED PILE LENGTH = 2.0
SCOUR DEPTH = 0 FEET
DISTANCE FROM GROUNDLINE TO PILE FULLY FIXED = 15 FEET
FACTOR OF SAFETY FOR UNSCURED PILE LENGTH = 2.0

THE DESIGNER OF RECORD IS RESPONSIBLE FOR DETERMINING ACTUAL PILE SIZE AND BRACING REQUIREMENTS FOR CONDITIONS NOT SATISFIED BY THE ABOVE NOTED DESIGN PARAMETERS.

SWAYBRACING TABLE

	"H"	"F"	"G"	"A"	"B"	"C"	"D"	WT. LBS
SINGLE STORY SWAYBRACING	13'-0"	6'-11"	---	25'-6"	25'-6"	---	---	906
	14'-0"	7'-11"	---	25'-11"	25'-9"	---	---	916
	15'-0"	8'-11"	---	26'-4"	26'-0"	---	---	927
	16'-0"	9'-11"	---	26'-10"	26'-3"	---	---	938
	17'-0"	10'-11"	---	27'-4"	26'-6"	---	---	949
	18'-0"	11'-11"	---	27'-10"	26'-9"	---	---	961
DOUBLE STORY SWAYBRACING	19'-0"	12'-11"	---	28'-5"	27'-0"	---	---	974
	20'-0"	6'-11"	6'-0"	25'-6"	25'-6"	27'-0"	27'-3"	1862
	21'-0"	6'-11"	7'-0"	25'-6"	25'-6"	27'-5"	27'-6"	1872
	22'-0"	6'-11"	8'-0"	25'-6"	25'-6"	27'-10"	27'-9"	1882
	23'-0"	6'-11"	9'-0"	25'-6"	25'-6"	28'-3"	28'-0"	1892
	24'-0"	6'-11"	10'-0"	25'-6"	25'-6"	28'-9"	28'-3"	1903
	25'-0"	6'-11"	11'-0"	25'-6"	25'-6"	29'-2"	28'-6"	1914

NOTE: WEIGHT GIVEN IS TOTAL FOR TWO PIECES OF EACH LENGTH OF SWAYBRACING SHOWN IN TABLE. BATTEN WEIGHT INCLUDED IN ABOVE TABLE.

GENERAL NOTES

SPECIFICATIONS: ALABAMA DEPARTMENT OF TRANSPORTATION, CURRENT DESIGN LOADING: A.A.S.H.T.O. HS20-44

CONCRETE: CONCRETE FOR PRECAST BENT CAP SHALL BE IN ACCORDANCE WITH SECTION 512 OF THE STANDARD SPECIFICATIONS. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" BY 45° UNLESS OTHERWISE NOTED. ALL OTHER CORNERS ARE TO BE ROUNDED TO 1/4" RADIUS. CONCRETE WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM PRECAST CONCRETE CAP UNIT. CONCRETE FOR PILE ENCASEMENTS SHALL BE BRIDGE SUBSTRUCTURE CONCRETE IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE AS REQUIRED BY ITEM 502.03(c)4 OF THE STANDARD SPECIFICATIONS. REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 835 OF THE STD. SPEC. REINFORCING DIMENSIONS ARE TO THE CENTER LINE OF THE BARS UNLESS OTHERWISE NOTED. THE ABOVE STEEL WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF PRECAST CONCRETE CAP UNIT.

STRUCTURAL STEEL AND PILING: ALL STRUCTURAL STEEL SHALL CONFORM TO SECTION 836 OF THE STANDARD SPECIFICATIONS. ALL PILING SHALL BE 12" STEEL "H" PILING, 53 LBS. FOR PILE SPLICE DETAILS SEE STD. DWG. NO. I-131.

WELDING: ALL WELDING SHALL CONFORM TO ARTICLE 836.46 OF THE STANDARD SPECIFICATIONS.

TOLERANCES: A DEVIATION OF MORE THAN 1/8" MAY BE CAUSE FOR THE REJECTION OF THE UNIT.

DESIGN DATA: A.A.S.H.T.O. 2002 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES & INTERIMS SERVICE LOAD DESIGN

BID ITEMS:
511-A ELASTOMERIC BEARINGS, TYPE 1 - PER EACH.

512-B PRECAST CONCRETE INTERMEDIATE BENT CAPS, 2'-0" WIDE BY 1'-7" DEEP BY 27'-6" LONG - PER EACH.

ALABAMA DEPARTMENT OF TRANSPORTATION

THESE DRAWINGS REPRESENT DESIGNS PREPARED FOR USE BY THE ALABAMA DEPARTMENT OF TRANSPORTATION AND ARE NOT TO BE COPIED, REPRODUCED, ALTERED, OR USED BY ANYONE, OR ANY ORGANIZATION, WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE ALABAMA DEPARTMENT OF TRANSPORTATION. ANYONE MAKING UNAUTHORIZED USE OF THESE DRAWINGS MAY BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.

REVISIONS

PRECAST CONCRETE BENT CAP FOR USE WITH STEEL PILING AND PRECAST CONCRETE BRIDGE SLABS 24'-0", 34'-0" OR 40'-0" SPANS 24'-6" CLEAR ROADWAY

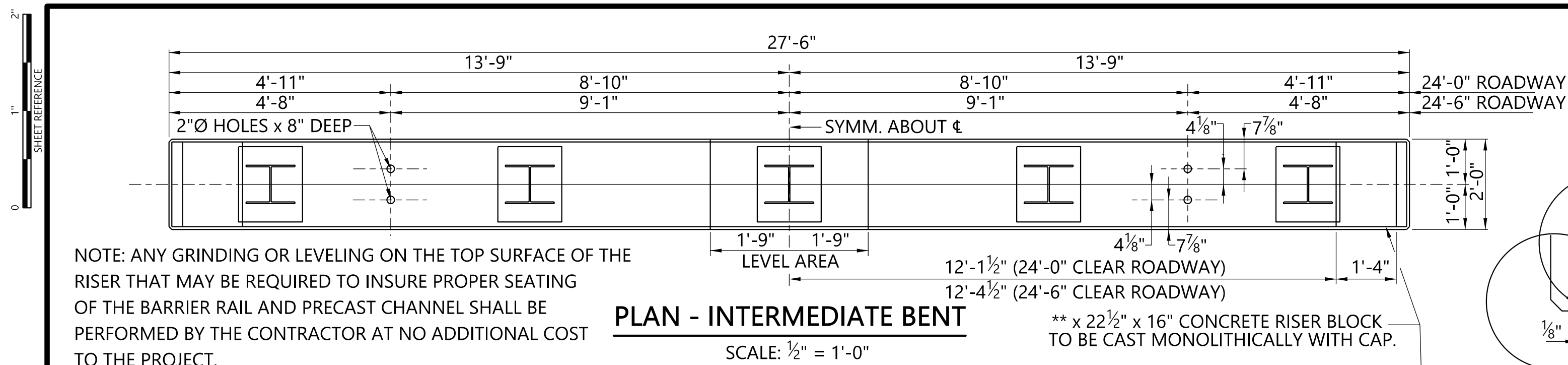
BRIDGE STANDARD DRAWING

FHWA APPROVED
10-17-17

PCB-2440

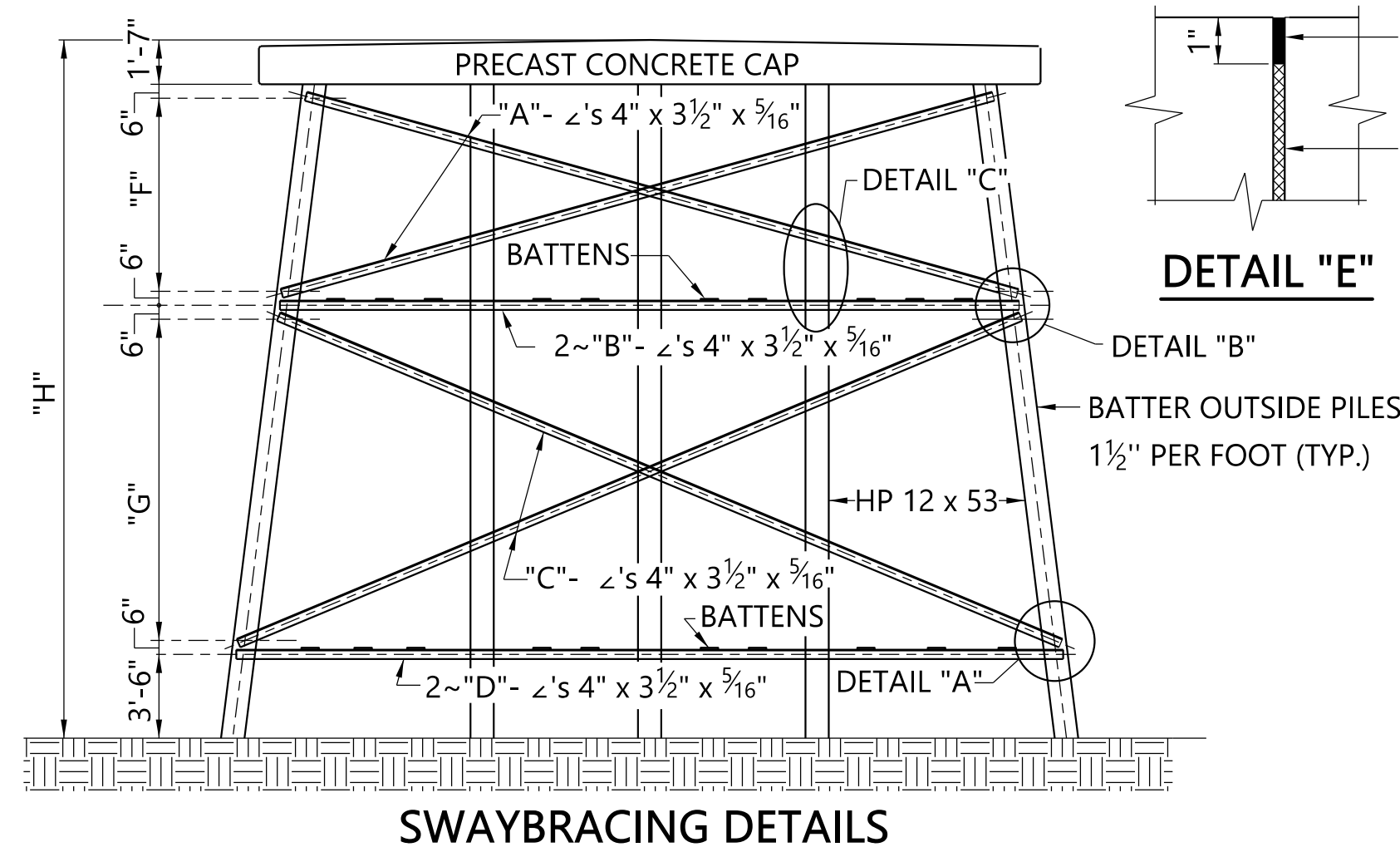
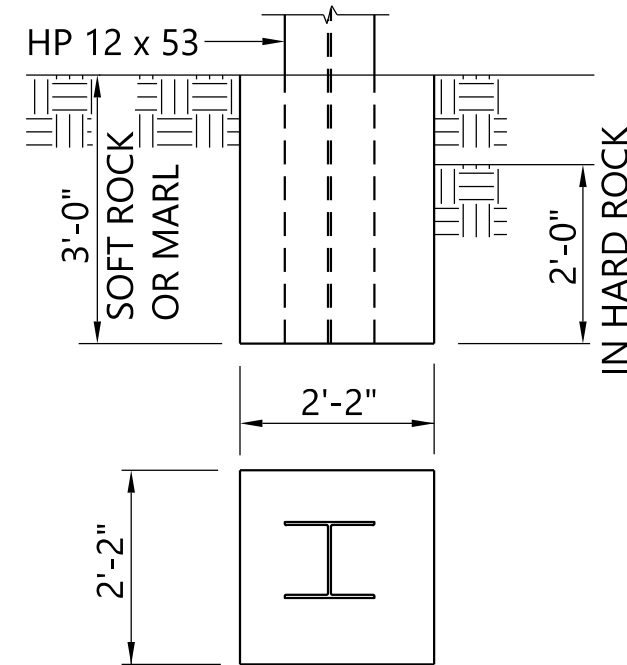
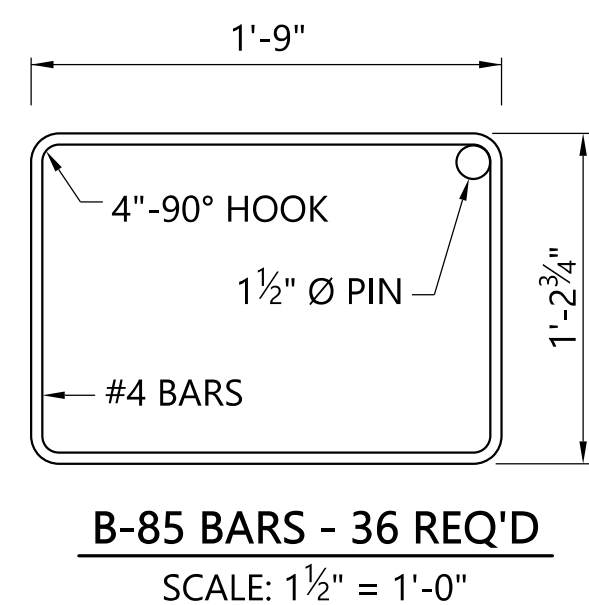
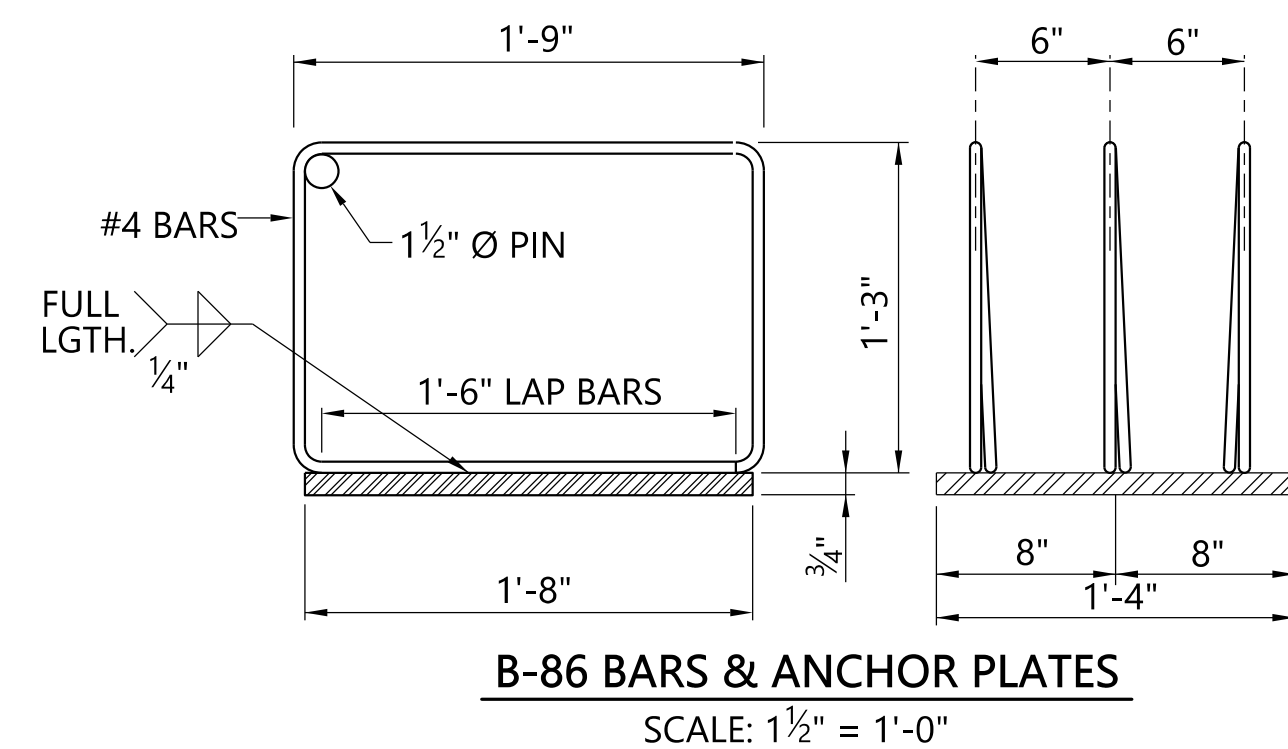
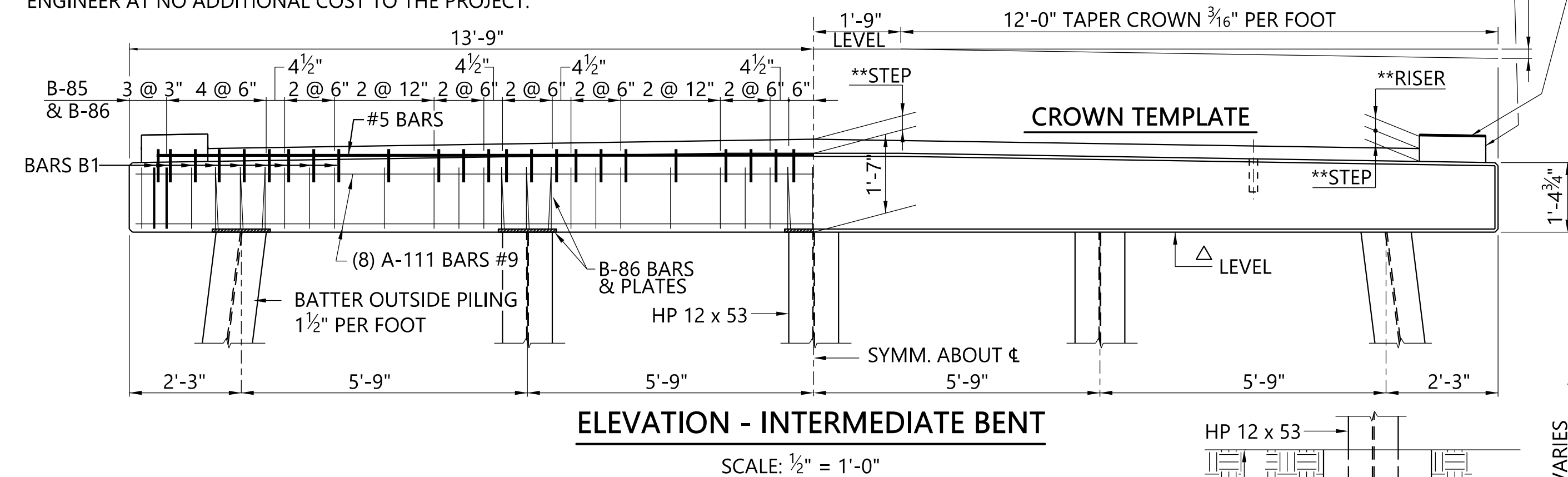
SHEET
1 OF 1

INDEX NO.
51242

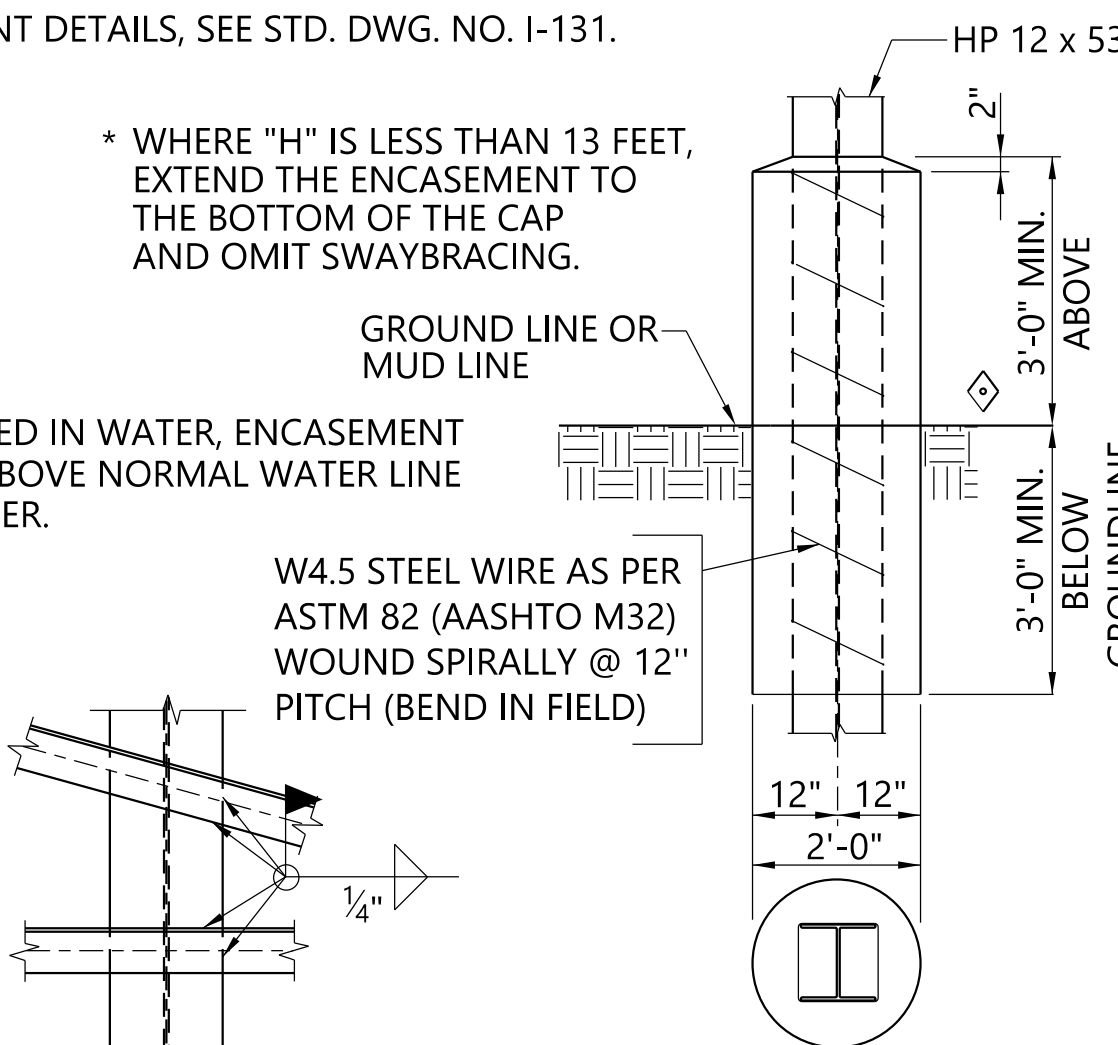
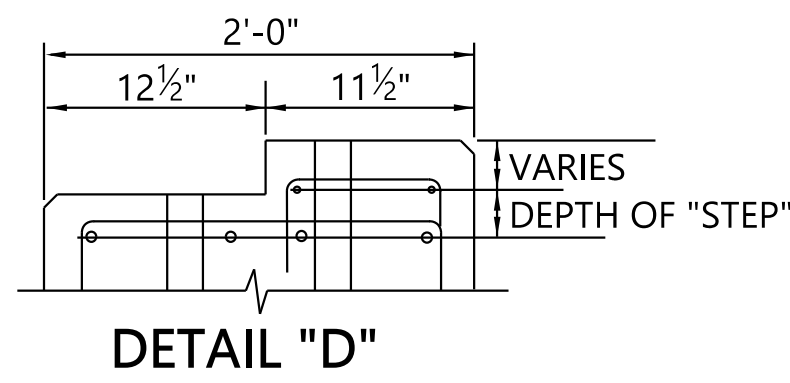
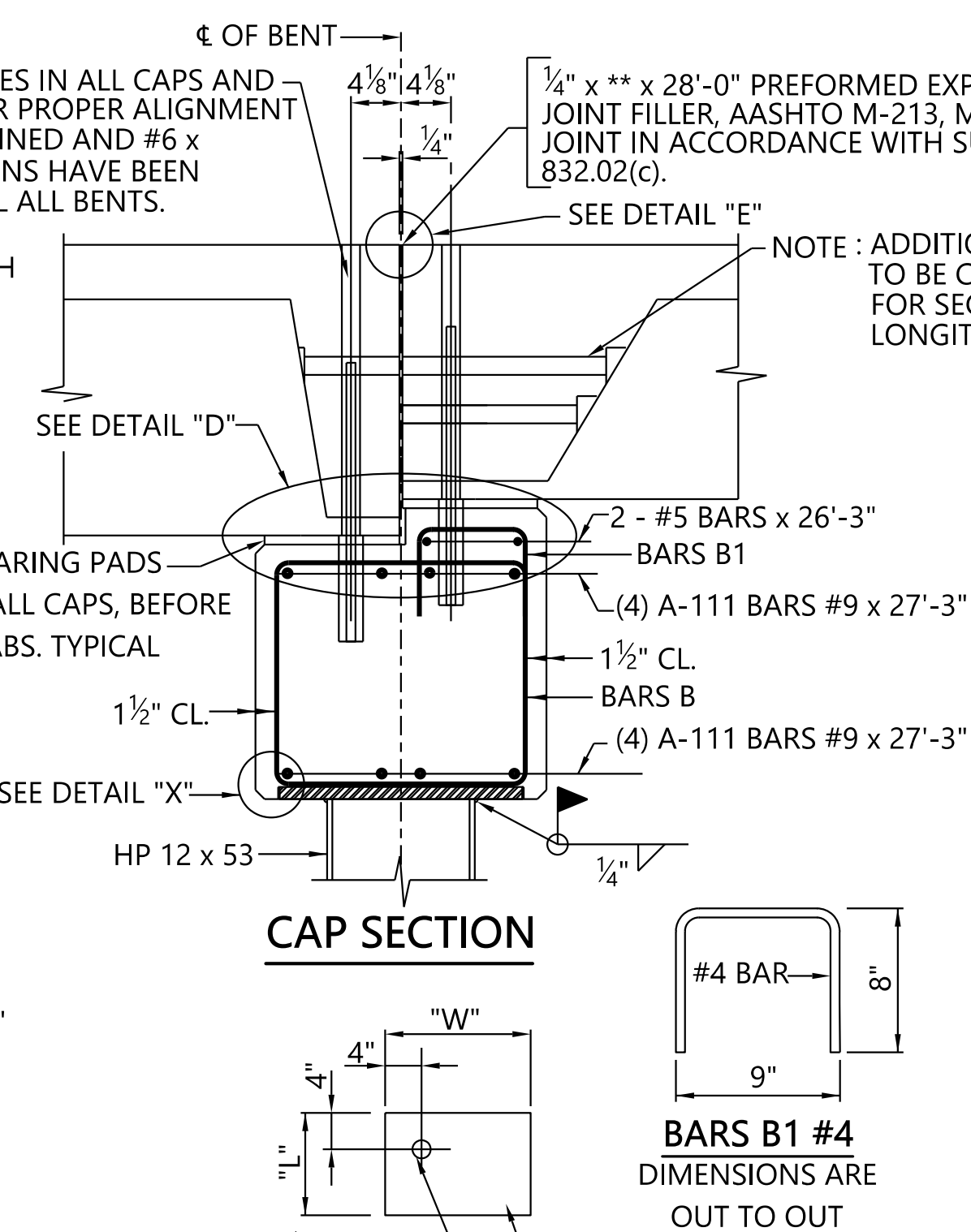
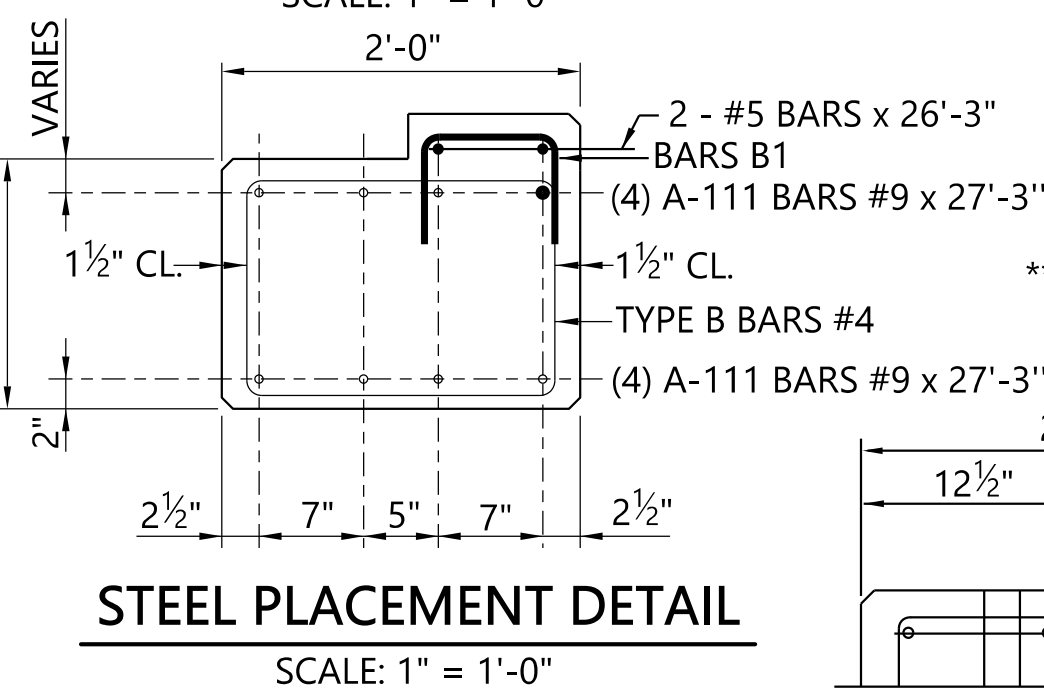
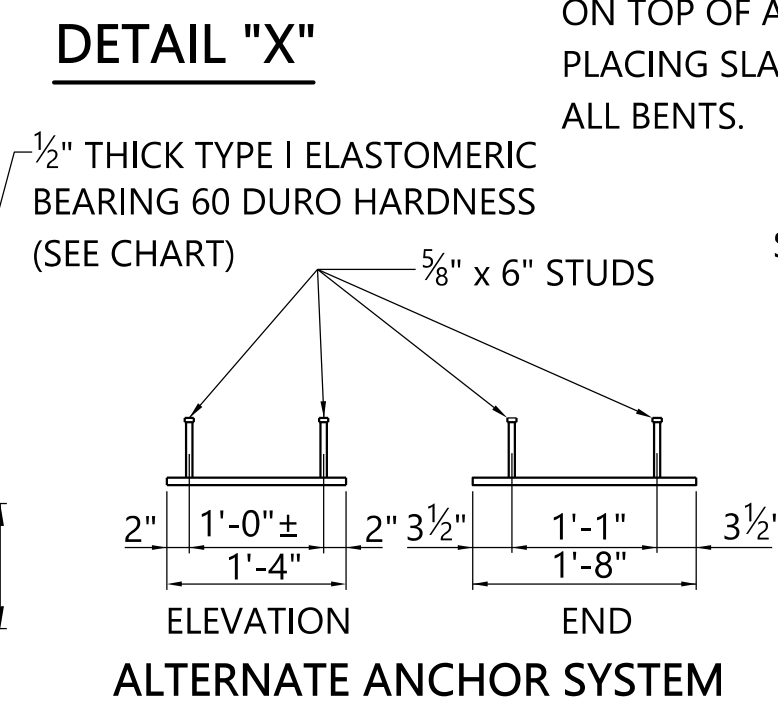
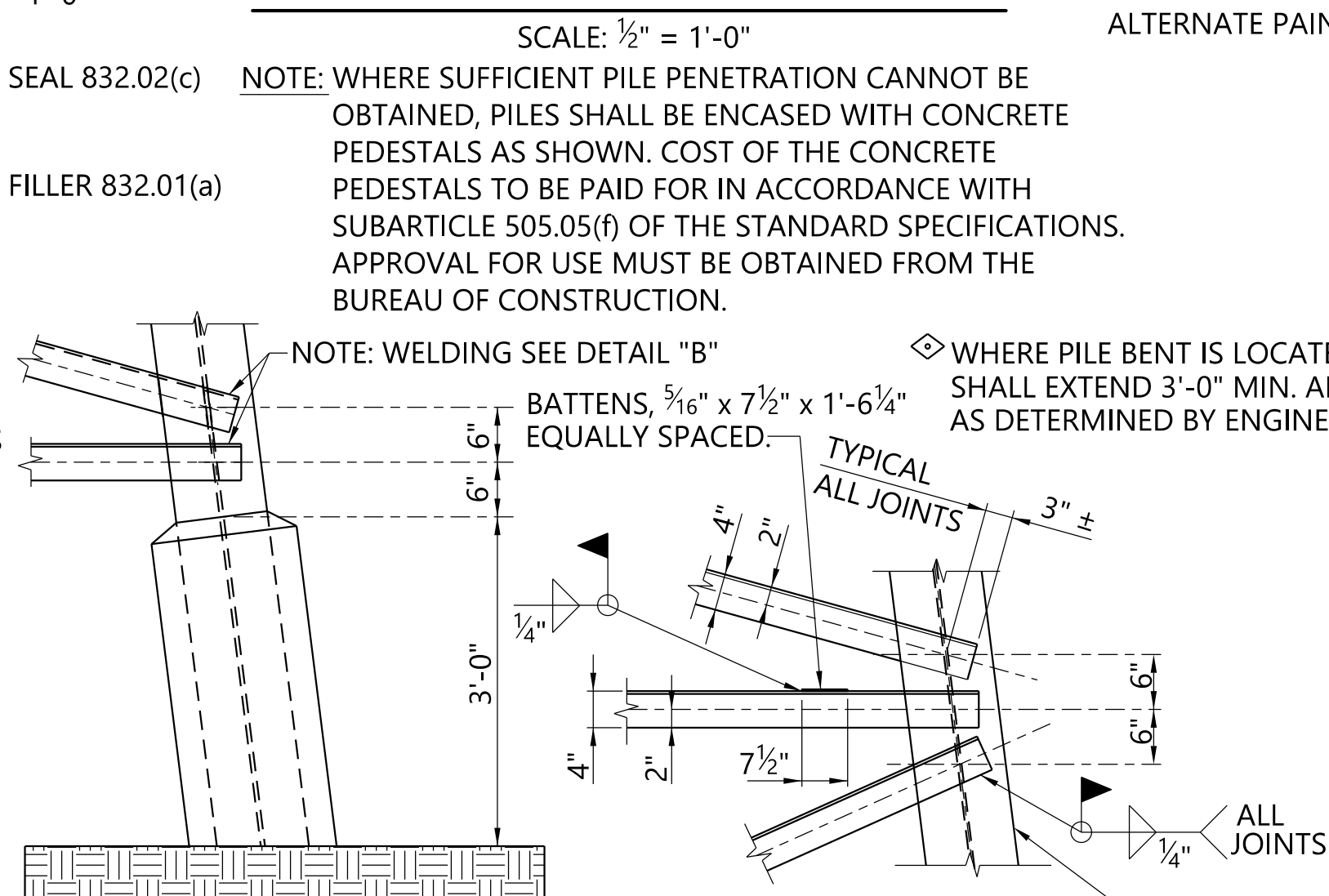


NOTE: ANY GRINDING OR LEVELING ON THE TOP SURFACE OF THE RISER THAT MAY BE REQUIRED TO INSURE PROPER SEATING OF THE BARRIER RAIL AND PRECAST CHANNEL SHALL BE PERFORMED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE PROJECT.

ALL CAPS SHALL BE ERECTED SO THAT THE BOTTOM OF THE CAP IS LEVEL ALONG THE ROADWAY AND PERPENDICULAR TO THE ROADWAY. THE ACCEPTABLE ERECTION TOLERANCE (SLOPE ON BOTTOM OF CAP) SHALL BE $\frac{1}{16}$ " PER FOOT ALONG THE ROADWAY AND $\frac{1}{16}$ " PER FOOT PERPENDICULAR TO THE ROADWAY. CAPS ERECTED OUTSIDE THIS TOLERANCE SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.



TWO STORY BENT SHOWN, SINGLE STORY BENTS SIMILAR. SWAYBRACING FOR SINGLE STORY BENTS SHALL BE 4" x 3½" x 5/16" ANGLES & DESIGNATED BY THE LETTER "A" AND "B". ALL PILING AT GROUND AND OR WATER LINE SHALL BE ENCASED IN CONCRETE. NOTE ENCASEMENT DETAILS.



** DEPTH OF STEP, RISER BLOCK & JOINT FILLER			
	STEP	RISER	JT. FILLER
24' SPAN TO 34' SPAN	4"	NA	20"
24' SPAN TO 40' SPAN	7"	NA	23"
34' SPAN TO 40' SPAN	3"	4"	23"

TYPE I ELASTOMERIC BEARING PAD DIMENSIONS		
LOCATION	"L"	"W"
BARRIER RAIL	1'-10 $\frac{1}{2}$ "	1'-4"
*** INTERIOR SIDE OF EXTERIOR SLAB	11 $\frac{1}{4}$ "	1'-4"
INTERIOR SLABS	11 $\frac{1}{4}$ "	1'-4"
EXTERIOR SIDE OF EXTERIOR SLAB	11 $\frac{1}{4}$ "	8"

		SWAYBRACING TABLE							
		"H"	"F"	"G"	"A"	"B"	"C"	"D"	WT. LBS
SINGLE STORY	SWAYBRACING	13'-0"	6'-11"	---	25'-6"	25'-6"	---	---	906
		14'-0"	7'-11"	---	25'-11"	25'-9"	---	---	916
		15'-0"	8'-11"	---	26'-4"	26'-0"	---	---	927
		16'-0"	9'-11"	---	26'-10"	26'-3"	---	---	938
		17'-0"	10'-11"	---	27'-4"	26'-6"	---	---	949
		18'-0"	11'-11"	---	27'-10"	26'-9"	---	---	961
		19'-0"	12'-11"	---	28'-5"	27'-0"	---	---	974
DOUBLE STORY	SWAYBRACING	20'-0"	6'-11"	6'-0"	25'-6"	25'-6"	27'-0"	27'-3"	1862
		21'-0"	6'-11"	7'-0"	25'-6"	25'-6"	27'-5"	27'-6"	1872
		22'-0"	6'-11"	8'-0"	25'-6"	25'-6"	27'-10"	27'-9"	1882
		23'-0"	6'-11"	9'-0"	25'-6"	25'-6"	28'-3"	28'-0"	1892
		24'-0"	6'-11"	10'-0"	25'-6"	25'-6"	28'-9"	28'-3"	1903
		25'-0"	6'-11"	11'-0"	25'-6"	25'-6"	29'-2"	28'-6"	1914

NOTE: WEIGHT GIVEN IS TOTAL FOR TWO PIECES OF EACH LENGTH OF SWAYBRACING SHOWN IN TABLE. BATTEN WEIGHT INCLUDED IN ABOVE TABLE.

DESIGN PARAMETERS

THE FOLLOWING DESIGN PARAMETERS WERE USED TO DEVELOP THIS STANDARD DRAWING:

DESIGN AXIAL LOAD = 37 TONS / PILE FOR 24'-0" SPAN
DESIGN AXIAL LOAD = 44 TONS / PILE FOR 34'-0" SPAN
DESIGN AXIAL LOAD = 54 TONS / PILE FOR 40'-0" SPAN
"K" FOR COMPUTING UNBRACED PILE LENGTH = 2.0
SCOUR DEPTH = 0 FEET
DISTANCE FROM GROUNDLINE TO PILE FULLY FIXED = 15 FEET
FACTOR OF SAFETY FOR UNSCOURED CONDITION = 2.0

THE DESIGNER OF RECORD IS RESPONSIBLE FOR DETERMINING ACTUAL PILE SIZE AND BRACING REQUIREMENTS FOR CONDITIONS NOT SATISFIED BY THE ABOVE NOTED DESIGN PARAMETERS.

GENERAL NOTES

SPECIFICATIONS: ALABAMA DEPARTMENT OF TRANSPORTATION, CURRENT

DESIGN LOADING: A.A.S.H.T.O. HS20-44

CONCRETE: CONCRETE FOR PRECAST BENT CAP SHALL BE IN ACCORDANCE WITH SECTION 512 OF THE STANDARD SPECIFICATIONS. ALL EXPOSED CORNERS TO BE CHAMFERED $\frac{3}{4}$ " BY 45° UNLESS OTHERWISE NOTED. ALL OTHER CORNERS ARE TO BE ROUNDED TO $\frac{1}{4}$ " RADIUS. CONCRETE WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM PRECAST CONCRETE CAP UNIT.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE AS REQUIRED BY ITEM 502.03(c)4 OF THE STANDARD SPECIFICATIONS. REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 835 OF THE STD. SPEC. REINFORCING DIMENSIONS ARE TO THE CENTER LINE OF THE BARS UNLESS OTHERWISE NOTED. THE ABOVE STEEL WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF PRECAST CONCRETE CAP UNIT.

STRUCTURAL STEEL AND PILING: ALL STRUCTURAL STEEL SHALL CONFORM TO SECTION 836 OF THE STANDARD SPECIFICATIONS. ALL PILING SHALL BE 12" STEEL "H" PILING, 53 LBS. FOR PILE SPLICE DETAILS SEE STD. DWG. NO. I-131.

WELDING: ALL WELDING SHALL CONFORM TO ARTICLE 836.46 OF THE STANDARD SPECIFICATIONS.

TOLERANCES: A DEVIATION OF MORE THAN 1/8" MAY BE CAUSE FOR THE REJECTION OF THE UNIT.

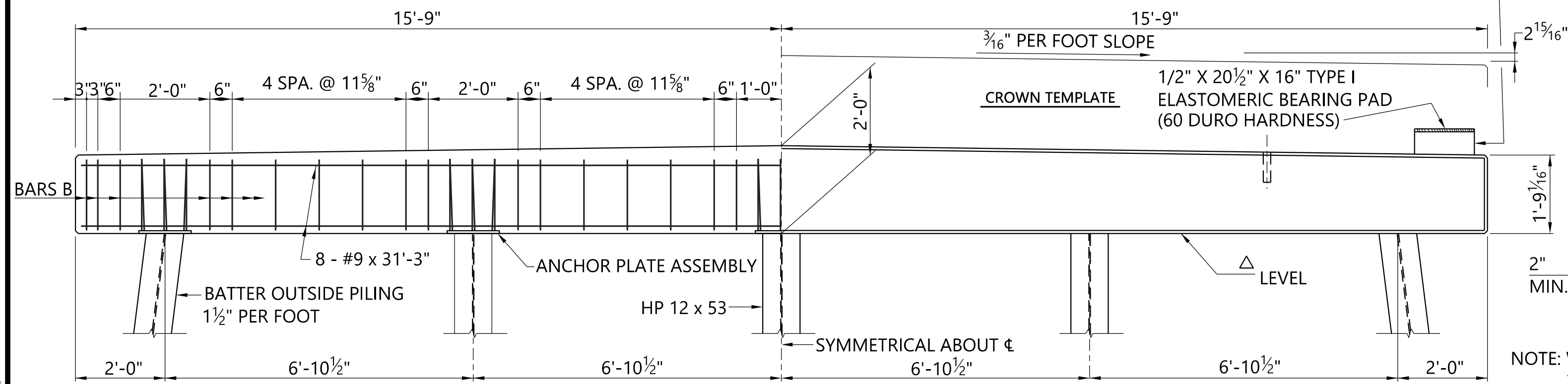
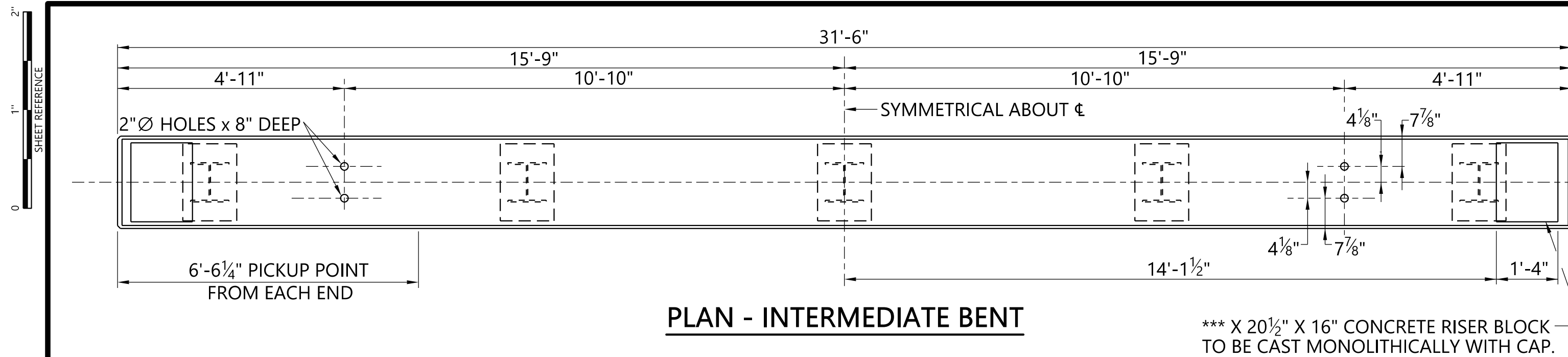
DESIGN DATA: A.A.S.H.T.O. 2002 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES
& INTERIMS SERVICE LOAD DESIGN

BID ITEMS:

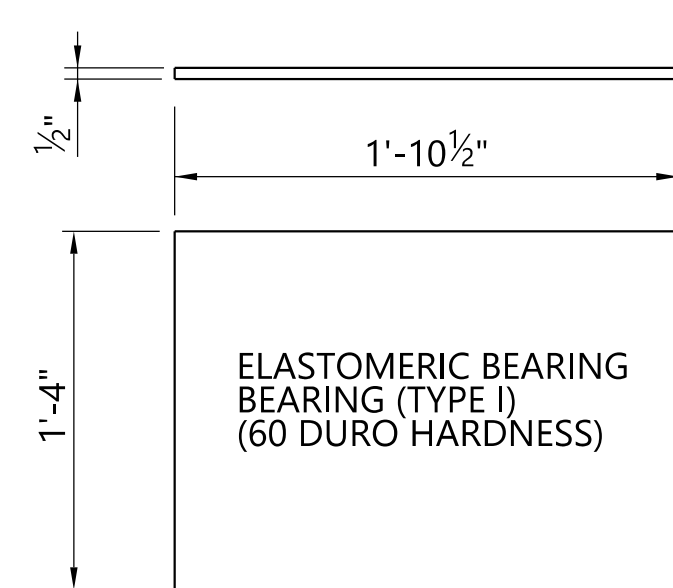
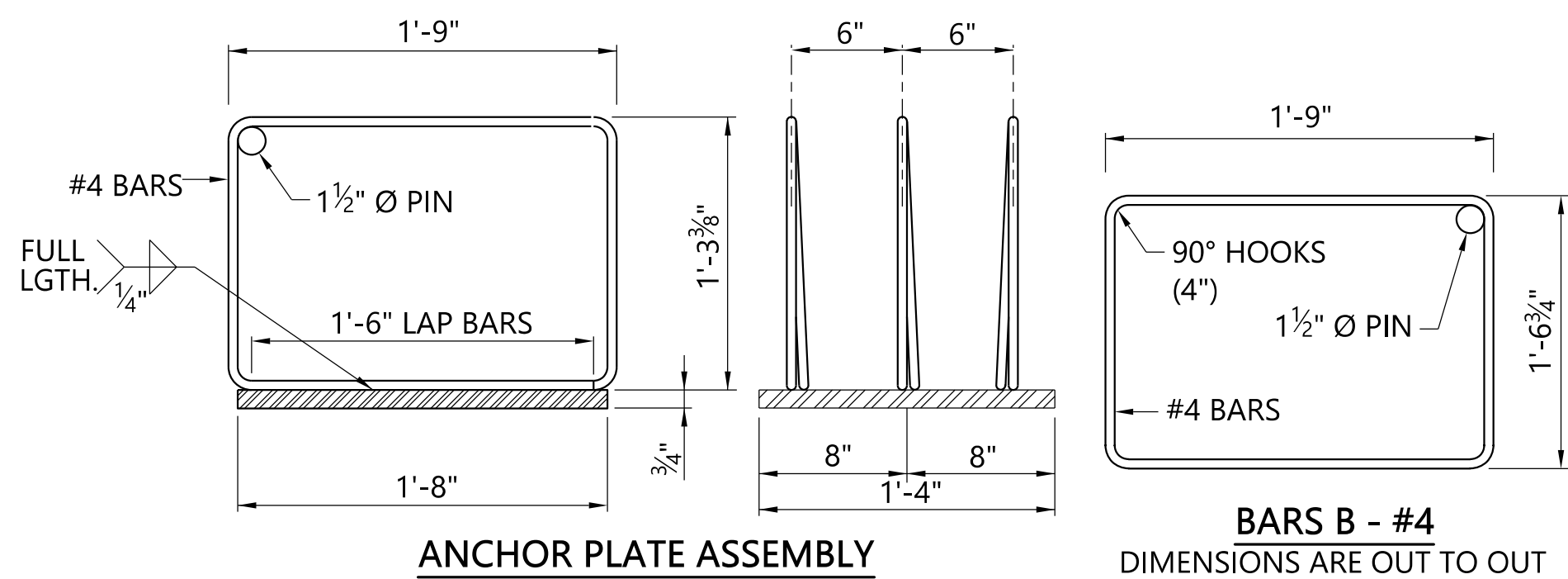
511-A ELASTOMERIC BEARINGS, TYPE 1 - PER EACH.

512-B PRECAST CONCRETE INTERMEDIATE BENT CAPS, 2'-0" WIDE BY 1'-7" DEEP (PLUS STEP) BY 27'-6" LONG - PER EACH.

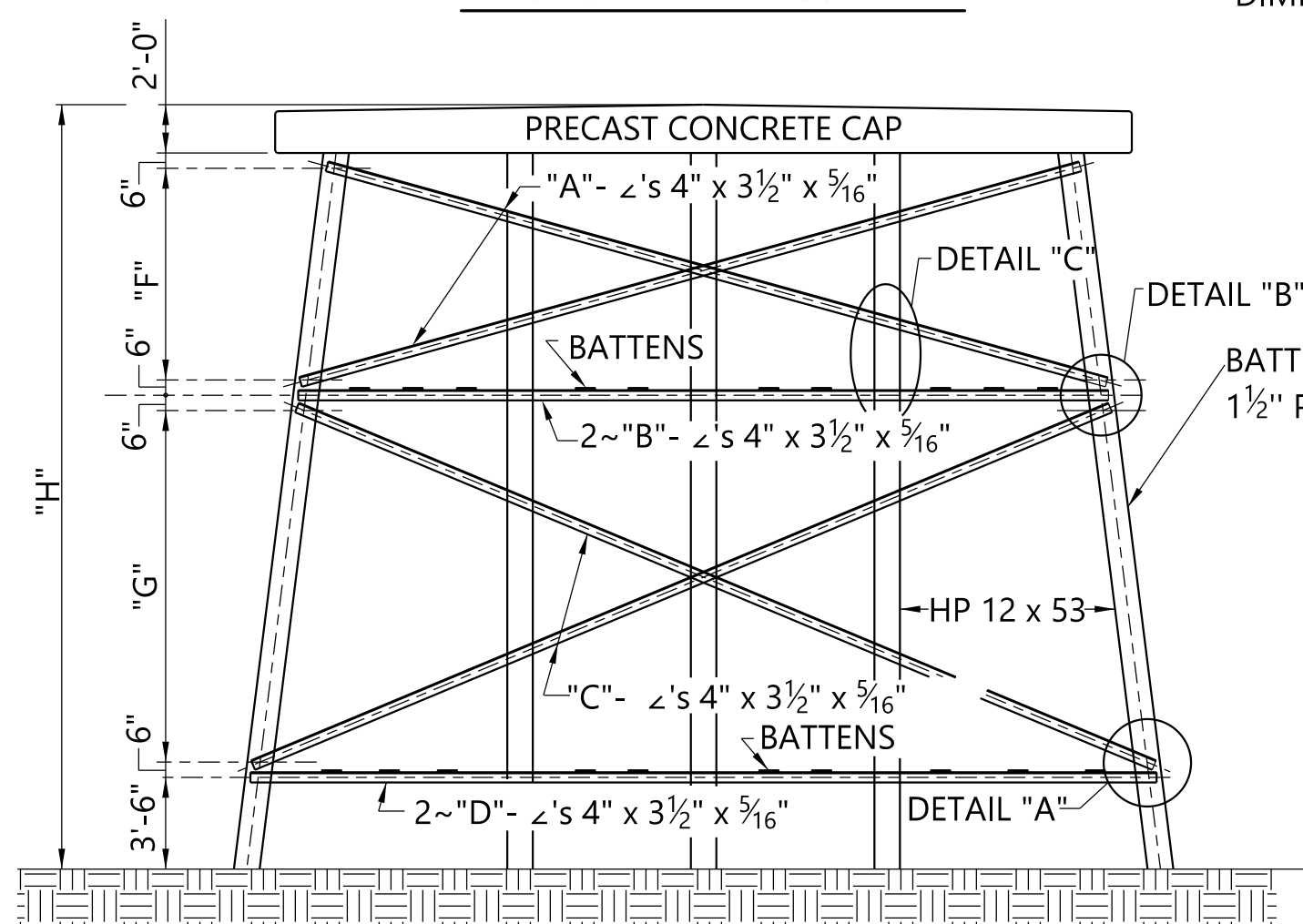
ALABAMA DEPARTMENT OF TRANSPORTATION	THESE DRAWINGS REPRESENT DESIGNS PREPARED FOR USE BY THE ALABAMA DEPARTMENT OF TRANSPORTATION AND ARE NOT TO BE COPIED, REPRODUCED, ALTERED, OR USED BY ANYONE, OR ANY ORGANIZATION, WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE ALABAMA DEPARTMENT OF TRANSPORTATION REPRESENTATIVE AUTHORIZED TO APPROVE SUCH USE. ANYONE MAKING UNAUTHORIZED USE OF THESE DRAWINGS MAY BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.	REVISIONS	PRECAST CONCRETE BENT CAP FOR USE WITH STEEL PILING AND PRECAST CONCRETE BRIDGE SLABS CONNECTING 24'-0", 34'-0" OR 40'-0" SPANS 24'-6" CLEAR ROADWAY	BRIDGE STANDARD DRAWING			INDEX NO. 51243
				FHWA APPROVED 9-18-19	PCB-2440-1	SHEET 1 OF 1	



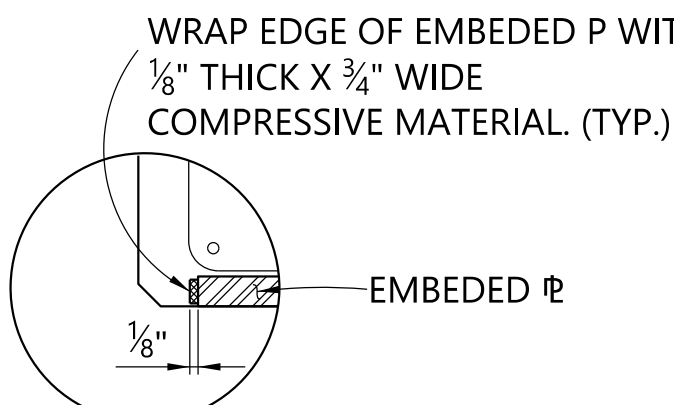
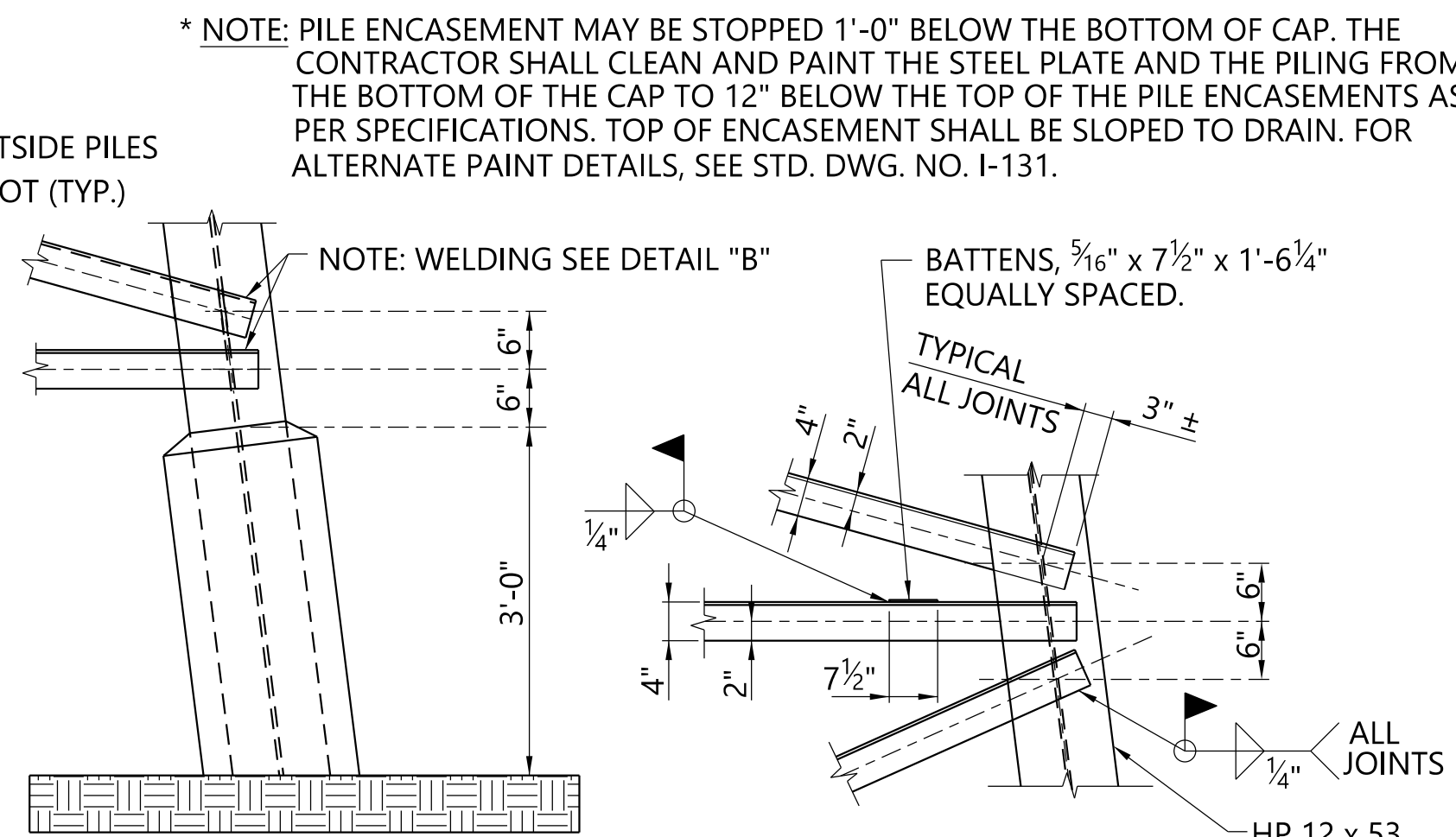
△ CAPS SHALL BE ERECTED SO THAT THE BOTTOM OF THE CAP IS LEVEL ALONG THE ROADWAY AND PERPENDICULAR TO THE ROADWAY. THE ACCEPTABLE ERECTION TOLERANCE (SLOPE ON BOTTOM OF CAP) SHALL BE $\frac{1}{16}$ " PER FOOT ALONG THE ROADWAY AND $\frac{1}{16}$ " PER FOOT PERPENDICULAR TO THE ROADWAY. CAPS ERECTED OUTSIDE THIS TOLERANCE SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE PROJECT.



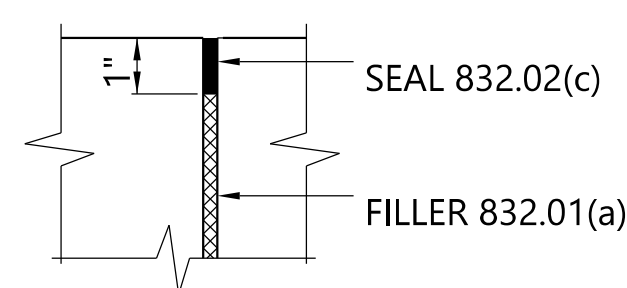
** A 1/2" X 8" X 1'-10 1/2" ELASTOMERIC BEARING, TYPE 1 SHALL BE USED UNDER THE OUTSIDE LEGS OF THE EXTERIOR CHANNELS.



TWO STORY BENT SHOWN, SINGLE STORY BENTS SIMILAR. SWAYBRACING FOR SINGLE STORY BENTS SHALL BE 4" x 3½" x ¾" ANGLES & DESIGNATED BY THE LETTER "A" AND "B". ALL PILING AT GROUND AND OR WATER LINE SHALL BE ENCASED IN CONCRETE. NOTE ENCASEMENT DETAILS.



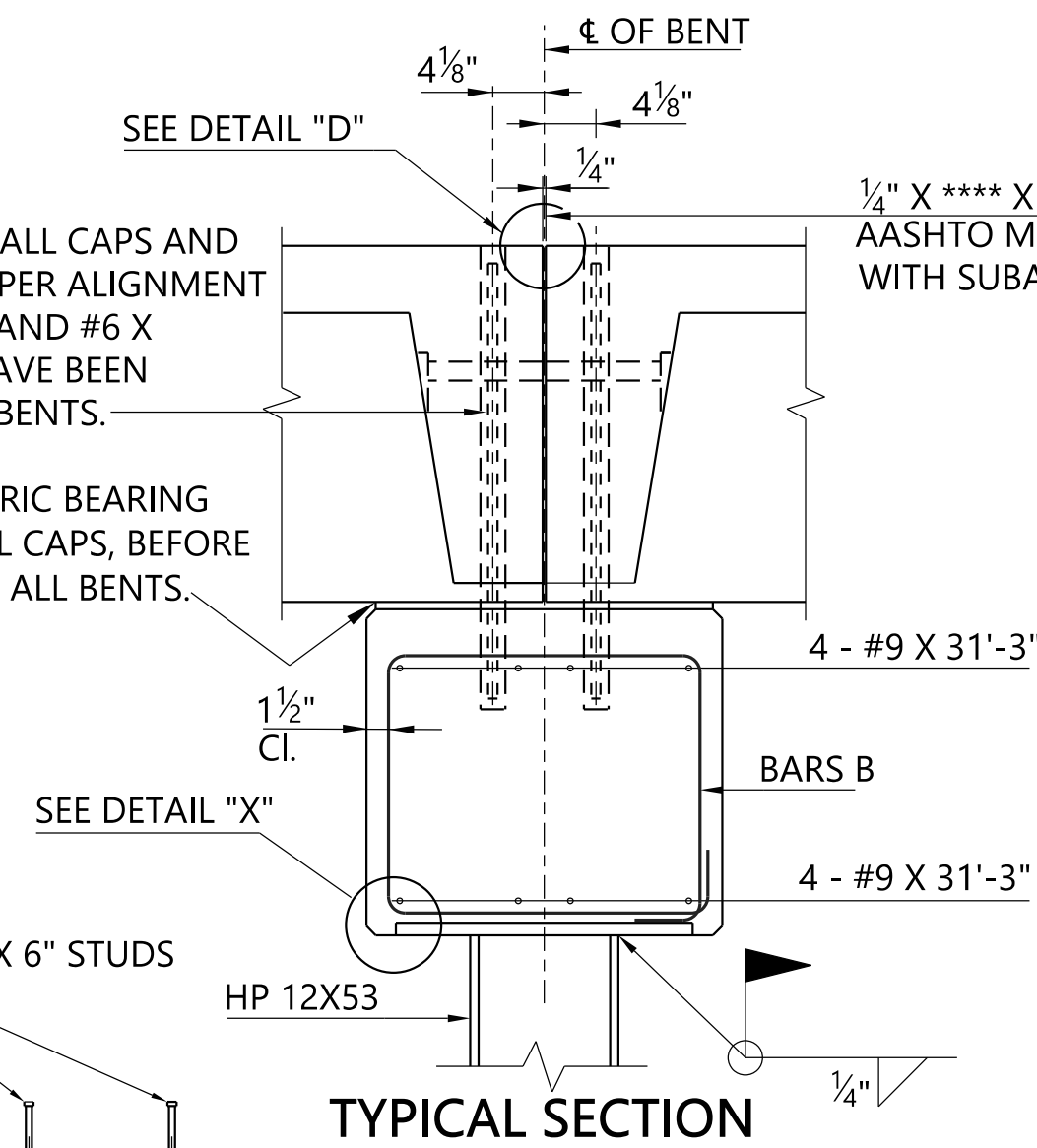
DETAIL "X"



DETAIL "D"

GROUT ALL HOLES IN ALL CAPS AND
 ALL SLABS AFTER PROPER ALIGNMENT
 HAS BEEN OBTAINED AND #6 X
 1'-11" DOWEL PINS HAVE BEEN
 PLACED. TYPICAL ALL BENTS. _____

PLACE 1/2" ELASTOMERIC BEARING
PADS ON TOP OF ALL CAPS, BEFORE
PLACING SLABS. TYP. ALL BENTS.



2" MIN. 1'-0" ± 2" MIN. 3 1/2" MIN. 1'-1" ± 3 1/2" MIN. 1'-4" 1'-8"

ELEVATION END

ALTERNATE ANCHOR SYSTEM

NOTE: WHERE ALTERNATE ANCHOR ASSEMBLY IS USED,
3 BARS B SPACED 6" REQUIRED AT EACH PILE.

WRAP EDGE OF EMBEDDED P WITH
1/8" THICK X 3/4" WIDE
COMPRESSIVE MATERIAL. (TYP.)

NOTE: WHERE SUFFICIENT PILE PENETRATION CANNOT BE OBTAINED, PILES SHALL BE ENCASED WITH CONCRETE PEDESTALS AS SHOWN. COST OF THE CONCRETE PEDESTALS TO BE PAID FOR IN ACCORDANCE WITH SUBARTICLE 505.05(f) OF THE STANDARD SPECIFICATIONS. APPROVAL FOR USE MUST BE OBTAINED FROM THE BUREAU OF CONSTRUCTION.

◊ WHERE PILE BENT IS LOCATED IN WATER, ENCASEMENT SHALL EXTEND 3'-0" MIN. ABOVE NORMAL WATER LINE AS DETERMINED BY ENGINEER.

* WHERE "H" IS LESS THAN 13 FEET,
EXTEND THE ENCASEMENT TO
THE BOTTOM OF THE CAP
AND OMIT SWAYBRACING.

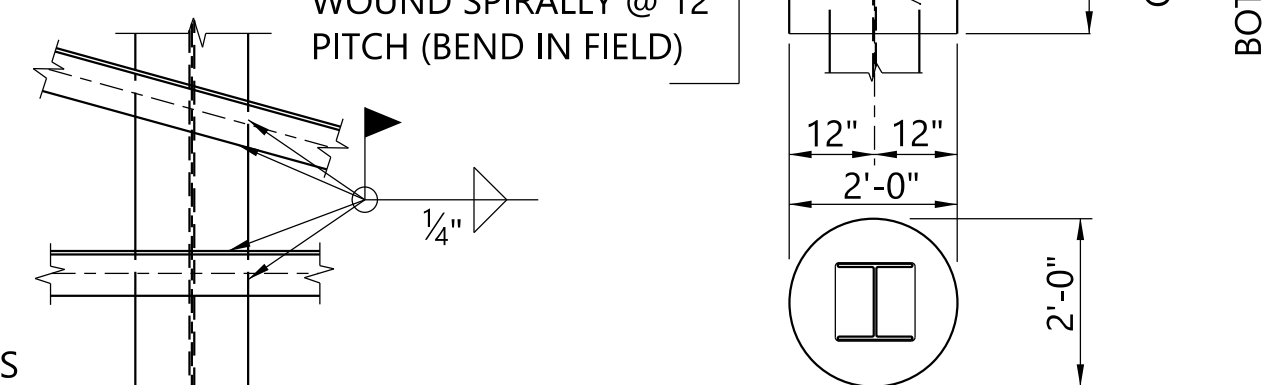
GROUND LINE OR MUD LINE

W4.5 STEEL WIRE AS PER ASTM 82 (AASHTO M32) WOUND SPIRALLY @ 12" PITCH (BEND IN FIELD)

3'-0" MIN.

3'-0" MIN.

BELOW GROUNDLINE, MUDLINE OR BOTTOM OF RIPRAP



PILE ENCASEMENT DETAILS

REFERENCE PROJECT NUMBER	FISCAL YEAR	SHEET NUMBER

** DEPTH OF RISER BLOCK	
24' SPAN	NA
34' SPAN	4"
40' SPAN	7"

*** PREFORMED EXP. JT. FILLER	
24' SPAN	1/4" x 16" x 28'
34' SPAN	1/4" x 20" x 28'
40' SPAN	1/4" x 23" x 28'

DESIGN PARAMETERS

THE FOLLOWING DESIGN PARAMETERS WERE USED TO DEVELOP THIS STANDARD DRAWING:

DESIGN AXIAL LOAD = 40 TONS / PILE FOR 24'-0" SPAN
DESIGN AXIAL LOAD = 49 TONS / PILE FOR 34'-0" SPAN
DESIGN AXIAL LOAD = 59 TONS / PILE FOR 40'-0" SPAN
"K" FOR COMPUTING UNBRACED PILE LENGTH = 2.0
SCOUR DEPTH = 0 FEET
DISTANCE FROM GROUNDLINE TO PILE FULLY FIXED = 15 FEET
FACTOR OF SAFETY FOR UNSCURED CONDITION = 2.0

THE DESIGNER OF RECORD IS RESPONSIBLE FOR DETERMINING ACTUAL
PILE SIZE AND BRACING REQUIREMENTS FOR CONDITIONS NOT SATISFIED
BY THE ABOVE NOTED DESIGN PARAMETERS.

		SWAYBRACING TABLE							
		"H"	"F"	"G"	"A"	"B"	"C"	"D"	WT. LBS.
SINGLE STORY SWAYBRACING		13'-0"	6'-6"	---	29'-8"	29'-11"	---	---	1038
		14'-0"	7'-6"	---	30'-0"	30'-2"	---	---	1047
		15'-0"	8'-6"	---	30'-5"	30'-5"	---	---	1057
		16'-0"	9'-6"	---	30'-11"	30'-8"	---	---	1068
		17'-0"	10'-6"	---	31'-3"	30'-11"	---	---	1078
		18'-0"	11'-6"	---	31'-9"	31'-2"	---	---	1089
		19'-0"	12'-6"	---	32'-3"	31'-5"	---	---	1101
DOUBLE STORY SWAYBRACING		20'-0"	6'-11"	5'-7"	29'-10"	30'-0"	31'-4"	31'-8"	2132
		21'-0"	6'-11"	6'-7"	29'-10"	30'-0"	31'-8"	31'-11"	2141
		22'-0"	6'-11"	7'-7"	29'-10"	30'-0"	32'-0"	32'-2"	2150
		23'-0"	6'-11"	8'-7"	29'-10"	30'-0"	32'-4"	32'-5"	2160
		24'-0"	6'-11"	9'-7"	29'-10"	30'-0"	32'-9"	32'-8"	2170
		25'-0"	6'-11"	10'-7"	29'-10"	30'-0"	33'-2"	32'-11"	2180

NOTE: WEIGHT GIVEN IS TOTAL FOR TWO PIECES OF EACH LENGTH OF SWAYBRACING SHOWN IN TABLE. BATTEN WEIGHT INCLUDED IN ABOVE TABLE.

GENERAL NOTES

SPECIFICATIONS: ALABAMA DEPARTMENT OF TRANSPORTATION, CURRENT
DESIGN LOADING: A.A.S.H.T.O. HS20-44

CONCRETE: CONCRETE FOR PRECAST BENT CAP SHALL BE IN ACCORDANCE WITH SECTION 512 OF THE STANDARD SPECIFICATIONS. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" BY 45° UNLESS OTHERWISE NOTED. ALL OTHER CORNERS ARE TO BE ROUNDED TO 1/4" RADIUS. CONCRETE WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM PRECAST CONCRETE CAP UNIT. CONCRETE FOR PILE ENCASEMENTS SHALL BE BRIDGE SUBSTRUCTURE CONCRETE IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS.

REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE AS REQUIRED BY ITEM 502.03(c)4 OF THE STANDARD SPECIFICATIONS. REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 835 OF THE STD. SPEC. REINFORCING DIMENSIONS ARE TO THE CENTER LINE OF THE BARS UNLESS OTHERWISE NOTED. THE ABOVE STEEL WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF PRECAST CONCRETE CAP UNIT.

STRUCTURAL STEEL AND PILING: ALL STRUCTURAL STEEL SHALL CONFORM TO SECTION 836 OF THE STANDARD SPECIFICATIONS. ALL PILING SHALL BE 12" STEEL "H" PILING, 53 LBS. FOR PILE SPLICE DETAILS SEE STD. DWG. NO. I-131.

WELDING: ALL WELDING SHALL CONFORM TO ARTICLE 836.46 OF THE STANDARD SPECIFICATIONS.

TOLERANCES: A DEVIATION OF MORE THAN 1/8" MAY BE CAUSE FOR THE REJECTION OF THE UNIT.

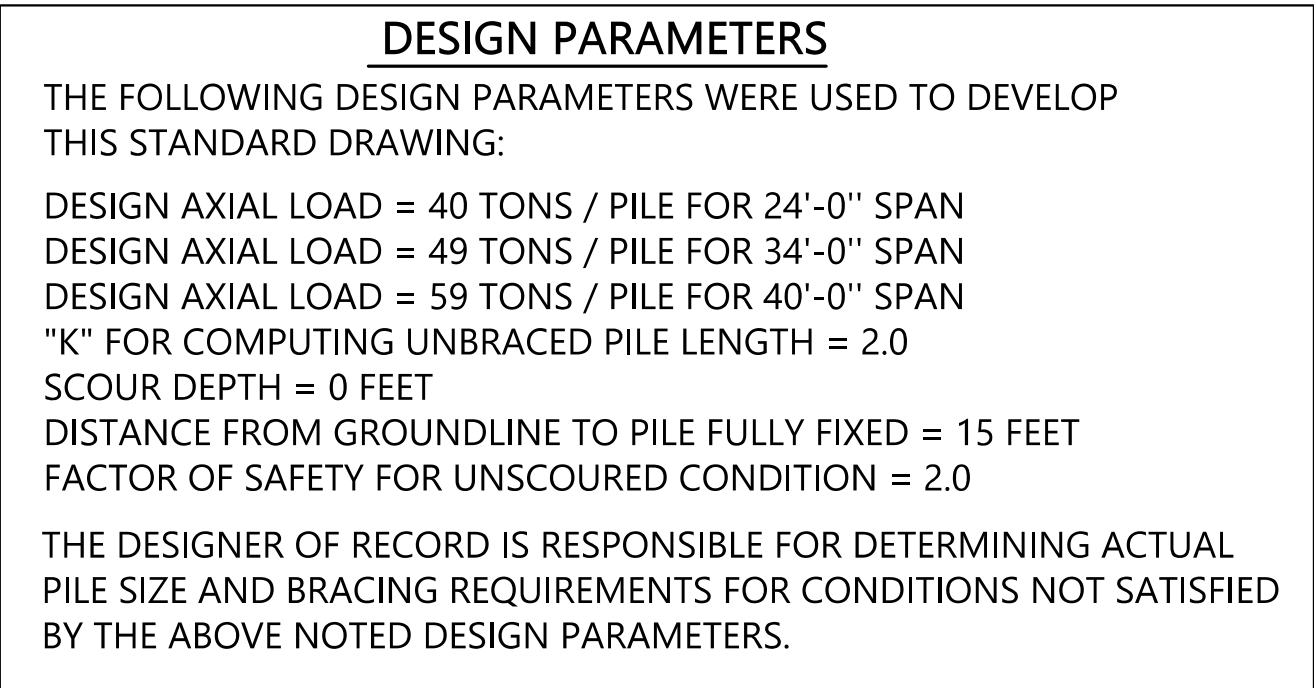
DESIGN DATA: A.A.S.H.T.O. 2002 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES & INTERIMS SERVICE LOAD DESIGN

BID ITEMS:
511-A ELASTOMERIC BEARINGS, TYPE 1 - PER EACH.

512-B PRECAST CONCRETE INTERMEDIATE BENT CAPS, 2'-0" WIDE BY 2'-0" DEEP
BY 31'-6" LONG - PER EACH.

REVISIONS

PRECAST CONCRETE BENT CAP FOR USE WITH STEEL PILING AND PRECAST CONCRETE BRIDGE SLABS 24'-0", 34'-0" OR 40'-0" SPANS 28'-0" CLEAR ROADWAY	BRIDGE STANDARD DRAWING			INDEX NO.
	FHWA APPROVED 10-17-17	PCB-2840	SHEET 1 OF 1	51245



		SWAYBRACING TABLES							
		"H"	"F"	"G"	"A"	"B"	"C"	"D"	WT. LBS.
SINGLE STORY SWAYBRACING	13'-0"	6'-6"	---	29'-8"	29'-11"	---	---	---	1038
	14'-0"	7'-6"	---	30'-0"	30'-2"	---	---	---	1047
	15'-0"	8'-6"	---	30'-5"	30'-5"	---	---	---	1057
	16'-0"	9'-6"	---	30'-11"	30'-8"	---	---	---	1068
	17'-0"	10'-6"	---	31'-3"	30'-11"	---	---	---	1078
	18'-0"	11'-6"	---	31'-9"	31'-2"	---	---	---	1089
	19'-0"	12'-6"	---	32'-3"	31'-5"	---	---	---	1101
DOUBLE STORY SWAYBRACING	20'-0"	6'-11"	5'-7"	29'-10"	30'-0"	31'-4"	31'-8"	---	2132
	21'-0"	6'-11"	6'-7"	29'-10"	30'-0"	31'-8"	31'-11"	---	2141
	22'-0"	6'-11"	7'-7"	29'-10"	30'-0"	32'-0"	32'-2"	---	2150
	23'-0"	6'-11"	8'-7"	29'-10"	30'-0"	32'-4"	32'-5"	---	2160
	24'-0"	6'-11"	9'-7"	29'-10"	30'-0"	32'-9"	32'-8"	---	2170
	25'-0"	6'-11"	10'-7"	29'-10"	30'-0"	33'-2"	32'-11"	---	2180

BATTEN WEIGHT INCLUDED IN ABOVE TABLE.

GENERAL NOTES

SPECIFICATIONS: ALABAMA DEPARTMENT OF TRANSPORTATION, CURRENT
DESIGN LOADING: A.A.S.H.T.O. HS20-44
CONCRETE: CONCRETE FOR PRECAST BENT CAP SHALL BE IN ACCORDANCE WITH SECTION 512 OF THE STANDARD SPECIFICATIONS. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" BY 45° UNLESS OTHERWISE NOTED. ALL OTHER CORNERS ARE TO BE ROUNDED TO 1/4" RADIUS. CONCRETE WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM PRECAST CONCRETE CAP UNIT. CONCRETE FOR PILE ENCASUREMENTS SHALL BE BRIDGE SUBSTRUCTURE CONCRETE IN ACCORDANCE WITH SECTION 501 OF THE STANDARD SPECIFICATIONS.
REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE AS REQUIRED BY ITEM 502.03(c)4 OF THE STANDARD SPECIFICATIONS. REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 835 OF THE STD. SPEC. REINFORCING DIMENSIONS ARE TO THE CENTER LINE OF THE BARS UNLESS OTHERWISE NOTED. THE ABOVE STEEL WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF PRECAST CONCRETE CAP UNIT.
STRUCTURAL STEEL AND PILING: ALL STRUCTURAL STEEL SHALL CONFORM TO SECTION 836 OF THE STANDARD SPECIFICATIONS. ALL PILING SHALL BE 12" STEEL "H" PILING, 53 LBS. FOR PILE SPLICE DETAILS SEE STD. DWG. NO. I-131.
WELDING: ALL WELDING SHALL CONFORM TO ARTICLE 836.46 OF THE STANDARD SPECIFICATIONS.
TOLERANCES: A DEVIATION OF MORE THAN 1/8" MAY BE CAUSE FOR THE REJECTION OF THE UNIT.
DESIGN DATA: A.A.S.H.T.O. 2002 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES & INTERIMS SERVICE LOAD DESIGN
BID ITEMS:
511-A ELASTOMERIC BEARINGS, TYPE 1 - PER EACH.
512-B PRECAST CONCRETE INTERMEDIATE BENT CAPS, 2'-0" WIDE BY 2'-0" DEEP BY 31'-6" LONG - PER EACH.

THESE DRAWINGS REPRESENT DESIGNS PREPARED FOR USE BY THE ALABAMA DEPARTMENT OF TRANSPORTATION AND ARE NOT TO BE COPIED, REPRODUCED, ALTERED, OR USED BY ANYONE, OR ANY ORGANIZATION, WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE ALABAMA DEPARTMENT OF TRANSPORTATION REPRESENTATIVE AUTHORIZED TO APPROVE SUCH USE. ANYONE MAKING UNAUTHORIZED USE OF THESE DRAWINGS MAY BE PROSECUTED TO THE FULLEST EXTENT OF THE LAW.

REVISIONS

PRECAST CONCRETE BENT CAP FOR USE WITH
STEEL PILING AND PRECAST CONCRETE BRIDGE
SLABS CONNECTING 40'-0", 34'-0" & 24'-0" SPANS
28'-0" CLEAR ROADWAY

BRIDGE STANDARD DRAWING

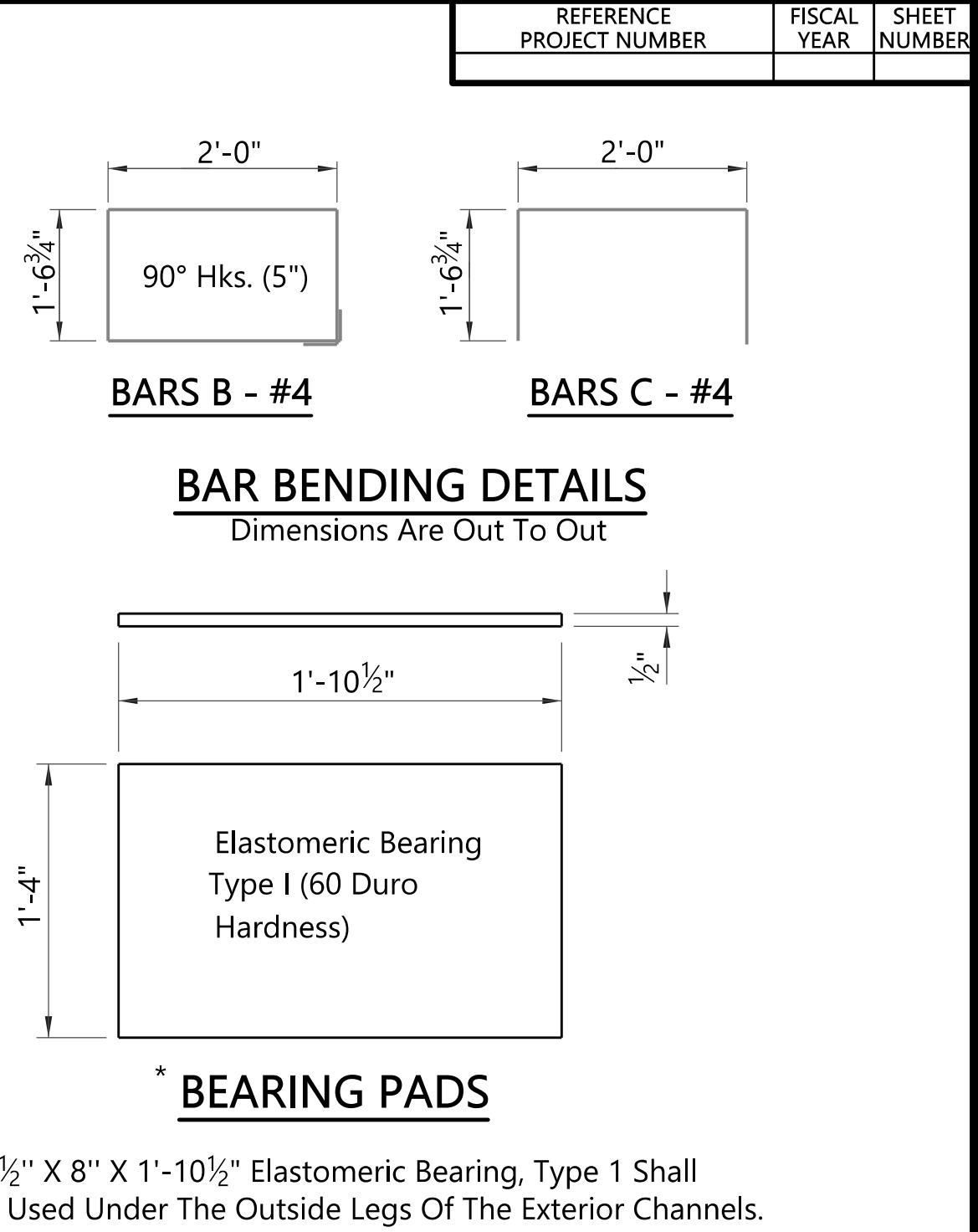
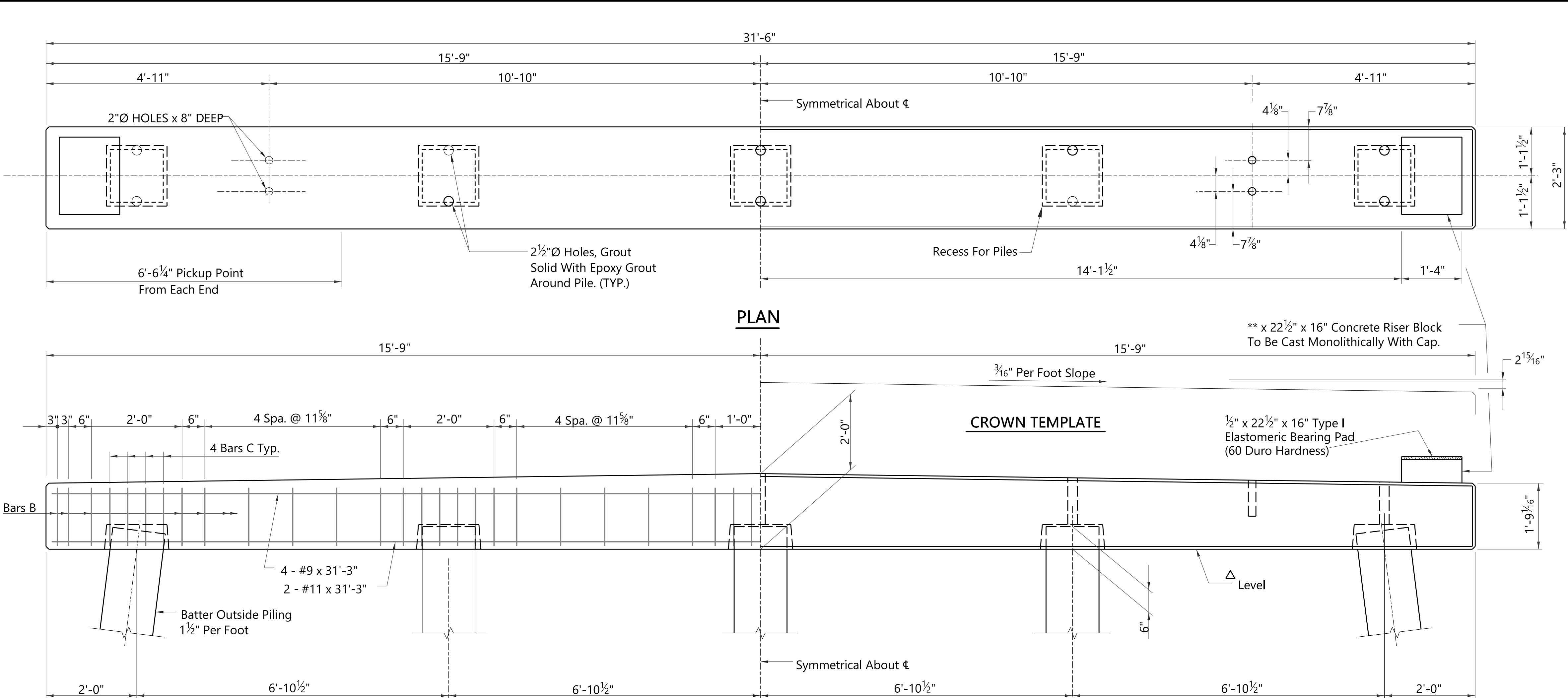
FHWA APPROVED
10-17-17

PCB-2840-1

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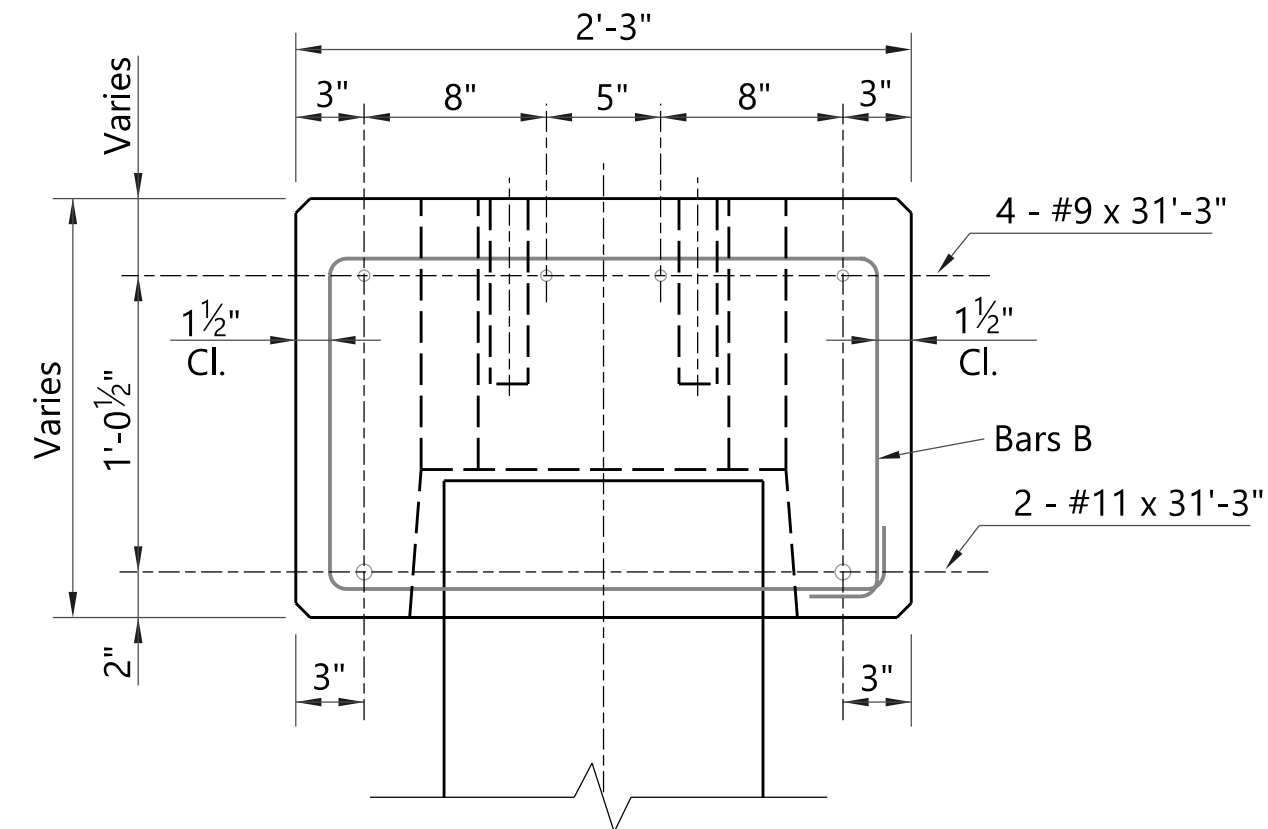
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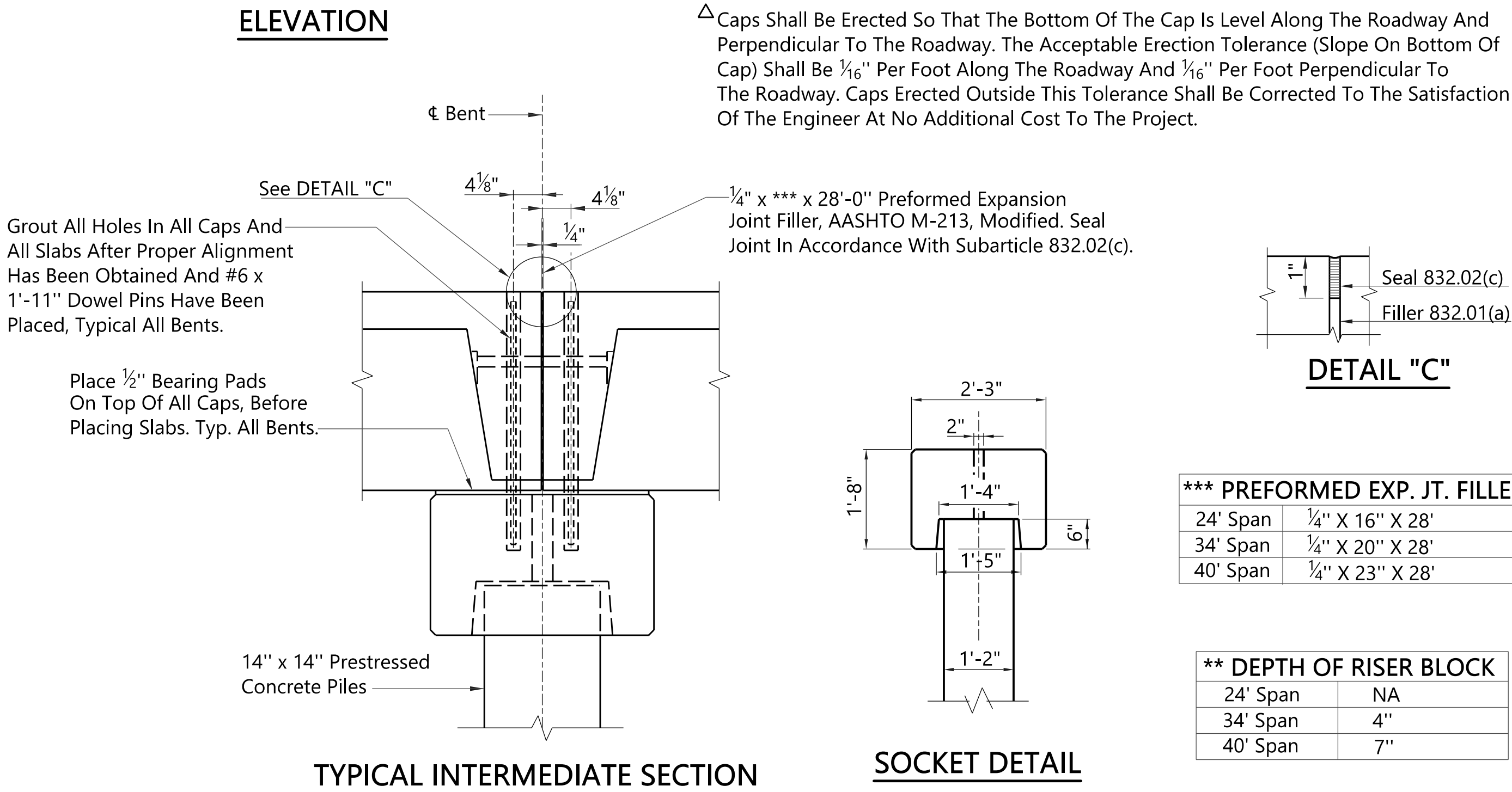


DESIGN PARAMETERS

The Following Design Assumptions Were Used To Develop This Standard Drawing:
Design Axial Load = 40 tons / pile for 24'-0" span
Design Axial Load = 49 tons / pile for 34'-0" span
Design Axial Load = 59 tons / pile for 40'-0" span
"k" for computing unbraced pile length = 2.0
scour depth = 0 feet
distance from groundline to pile fully fixed = 15 feet
factor of safety for unscoured condition = 2.0
free standing length = 30 feet *
The Designer Of Record Is Responsible For Determining Actual Pile Size And Bracing Requirements For Conditions Not Satisfied By The Above Noted Design Assumptions.
* Length From Point Of Fixity To Underside Of Cap.

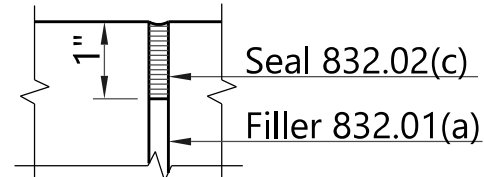


STEEL PLACEMENT DETAIL



TYPICAL INTERMEDIATE SECTION

SOCKET DETAIL



DETAIL "C"

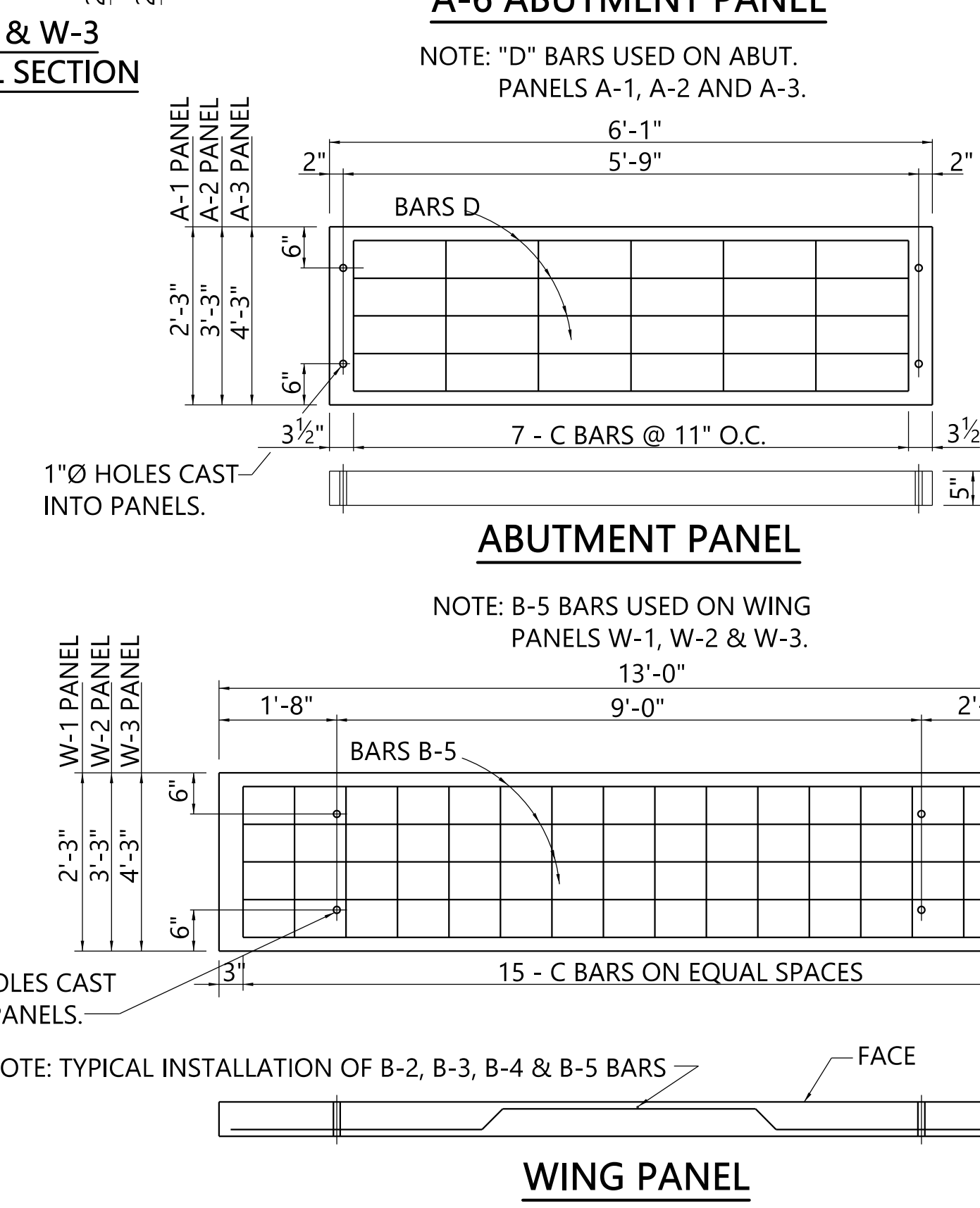
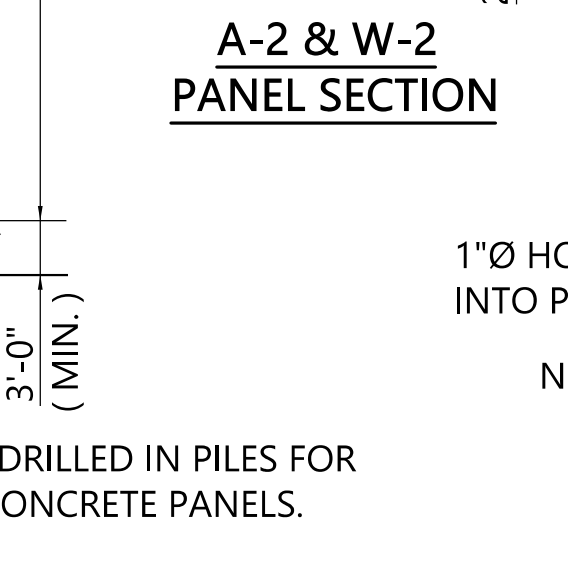
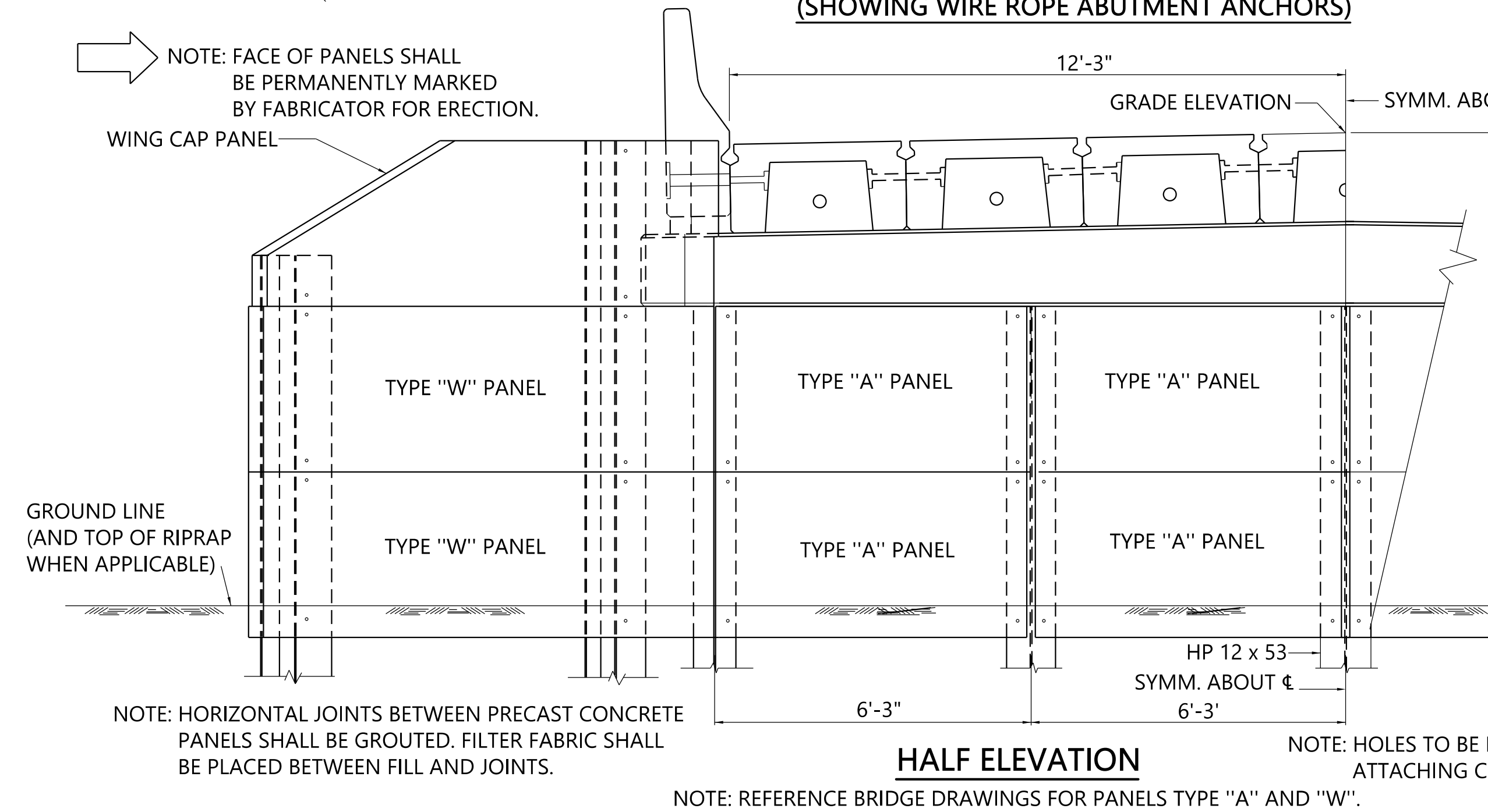
*** PREFORMED EXP. JT. FILLER	
24' Span	1/4" X 16" X 28'
34' Span	1/4" X 20" X 28'
40' Span	1/4" X 23" X 28'

** DEPTH OF RISER BLOCK	
24' Span	NA
34' Span	4"
40' Span	7"

GENERAL NOTES:

SPECIFICATIONS: Alabama Department Of Transportation, Current
DESIGN LOADING: A.A.S.H.T.O. HS 20-44
CONCRETE: Concrete For Precast Bent Cap Shall Be In Accordance With Section 512 Of The Standard Specifications. All Exposed Corners To Be Chamfered 3/4" By 45° Unless Otherwise Noted. All Other Corners To Be Rounded To 1/4" Radius. Concrete Will Not Be Paid For Directly, But Will Be Considered As Subsidiary To The Item Precast Concrete Cap Unit.
REINFORCING STEEL: All Reinforcing Steel Shall Be Accurately Located In The Forms And Firmly Held In Place As Required By Item 502.03(c)4 Of The Standard Specifications. Reinforcing Steel Shall Meet The Requirements Of Section 835 Of The Standard Specifications. All Reinforcing Steel Shall Be Grade 60. Reinforcing Dimensions Are To The Center Line Of The Bars Unless Otherwise Noted. The Above Steel Will Not Be Paid For Directly, But Will Be Considered As Subsidiary To The Item Of Precast Concrete Cap Unit.
ALL PILING Shall Be 14" x 14" Prestressed Concrete Per Standard Drawing PSCP-1 And Conform To Section 505 Of The Standard Specifications.
EPOXY GROUT For Caps To Piling Connection Shall Be Composed Of One (1) Part Epoxy (Binder) And Three (3) Parts Dry Silica Sand, (Bagged 1 Cu. Ft. Per Bag) Measured By Volume.
EPOXY GROUT Shall Develop A Minimum Compressive Strength Of 5,000 p.s.i. In Twelve (12) Hours. Contractor Shall Submit Method Of Sampling And Testing To Verify Strength Requirement To The Bridge Engineer For Approval Prior To Grouting Caps.

TOLERANCES: A Deviation Of More Than 1/8" May Be Cause For Rejection Of The Unit.
DESIGN DATA: A.A.S.H.T.O. 2002 Standard Specifications For Highway Design & Interims Service Load Design
BID ITEM:
511-A Elastomeric Bearings Type I - Per Each
512-B Precast Concrete Intermediate Bent Caps, 2'-3" Wide By 2'-0" Deep By 31'-6" Long - Per Each.



Bar	Length	Spacing
#1	5'-10"	12"
#2	5'-10"	12"
#3	5'-10"	12"
#4	5'-10"	12"
#5	5'-10"	12"

Structural drawings of reinforcement bars for a concrete slab. The drawings show the layout of bars #1 through #5, including their lengths, spacing, and development lengths. Bar #1 is a top bar with a length of 5'-10". Bar #2 is a bottom bar with a length of 5'-10". Bar #3 is a bottom bar with a length of 5'-10". Bar #4 is a bottom bar with a length of 5'-10". Bar #5 is a bottom bar with a length of 5'-10". The drawings also show the spacing of the bars, with a center-to-center spacing of 12 inches. The drawings are labeled with dimensions in feet and inches, and the bar numbers are in bold.

REFERENCE PROJECT NUMBER	FISCAL YEAR	SHEET NUMBER

GENERAL NOTES

SPECIFICATIONS: ALABAMA DEPARTMENT OF TRANSPORTATION, CURRENT.

CONCRETE:
CONCRETE FOR PRECAST PANELS SHALL BE IN ACCORDANCE WITH SECTION 512 OF THE STANDARD SPECIFICATIONS. ALL EXPOSED CORNERS SHALL BE ROUNDED TO A 1/4" RADIUS UNLESS OTHERWISE NOTED.

REINFORCING:
ALL REINFORCING STEEL SHOULD BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE AS REQ'D. BY ITEM 502.03 (C) 4 OF THE STANDARD SPECIFICATIONS. REINFORCING STEEL SHALL MEET THE REQUIREMENT OF SECTION 835 OF THE STANDARD SPECIFICATIONS. REINFORCING DIMENSIONS ARE TO THE C/S OF BARS UNLESS OTHERWISE NOTED. THE ABOVE STEEL WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF PRECAST CONCRETE ABUTMENT PANELS.

HARDWARE:
ALL MACHINE BOLTS CONNECTING CONCRETE ABUTMENT PANELS TO PILING SHALL BE CONSIDERED INCIDENTAL TO THE WORK. ALL MACHINE BOLTS CONNECTING CONCRETE ABUTMENT PANELS TO PILING SHALL BE CONSIDERED INCIDENTAL TO THE WORK. ALL BOLTS SHALL CONFORM TO ASTM A-307 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153.

BID ITEMS:
512-E PRECAST CONCRETE ABUTMENT PANELS, TYPE _____ EACH.
512-F PRECAST CONCRETE WING PANELS, TYPE _____ EACH.
512-G PRECAST CONCRETE ABUTMENT WING CAP PANELS _____ EACH.
507-A WIRE ROPE ABUTMENT ANCHOR ASSEMBLY - PER EACH.

DESIGN DATA:
A.A.S.H.T.O. 2002 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AND INTERIMS SERVICE LOAD DESIGN

NOTE!! IN CASTING PANELS (ABUTMENT, WING, WING CAP) , WELDED WIRE FABRIC CONFORMING TO THE REQUIREMENTS OF ARTICLE 835.03 FOR WELDED STEEL WIRE FABRIC STYLE 2 X 3 - W5X W5 IN EACH SIDE OF PANEL WITH 1" CLEAR, MAY BE USED IN LIEU OF REINFORCEMENT SHOWN.
THE FOLLOWING WELDED WIRE REINFORCEMENT SHEETS MAY BE USED AS A SUBSTITUTE FOR THE 2 X 3 W5 X W5 WELDED WIRE FABRIC:

2'-3" PANELS AND 4'-3" PANELS
LINE WIRES: 14--W10.0 OR D10.0 WIRES X 12'-8" LONG SPACED AS FOLLOWS:
2", 11 @ 4", 2"
CROSS WIRES: 26--W10.0 OR D10.0 WIRES X 4'-0" LONG @ 6" O.C.

3'-3" PANELS
LINE WIRES: 11--W10.0 OR D10.0 WIRES X 12'-8" LONG SPACED AS FOLLOWS:
2", 8 @ 4", 2"
CROSS WIRES: 26-- W10.0 OR D10.0 WIRES X 3'-0" LONG @ 6" O.C.

CUT THESE SHEETS AS REQUIRED TO USE ON ABUTMENT PANELS. THE ABOVE REINFORCEMENT TO CONFORM TO THE REQUIREMENTS OF AASHTO M221 AND M225.

5'-1" 6'-10"

2'-2"

9"

#4 B-1 BAR

7'-2" 5'-6" 3" 3'-0" 3'-0"

#4 B-3 BARS
#4 B-2 BARS

3'-4" 3" 5'-6" 3" 3'-4"

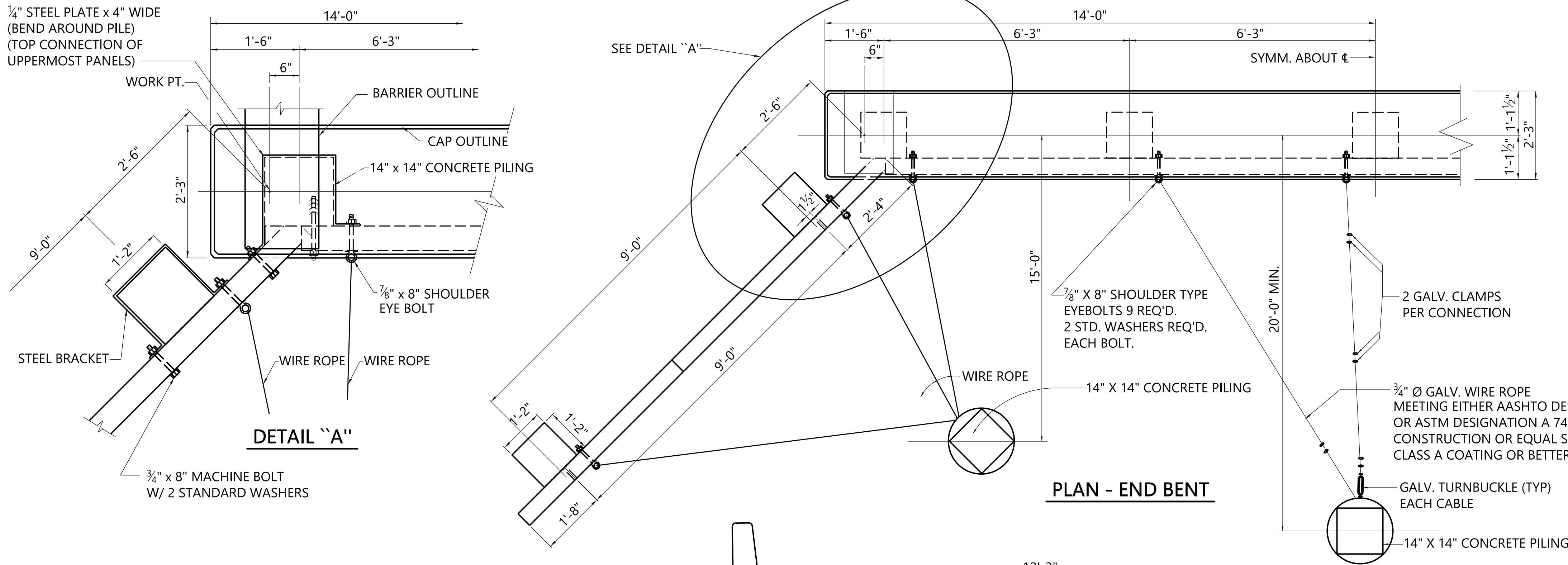
#4 B-5 BARS

3'-0" 3" 5'-7" 3" 3'-0"

#4 B-4 BARS

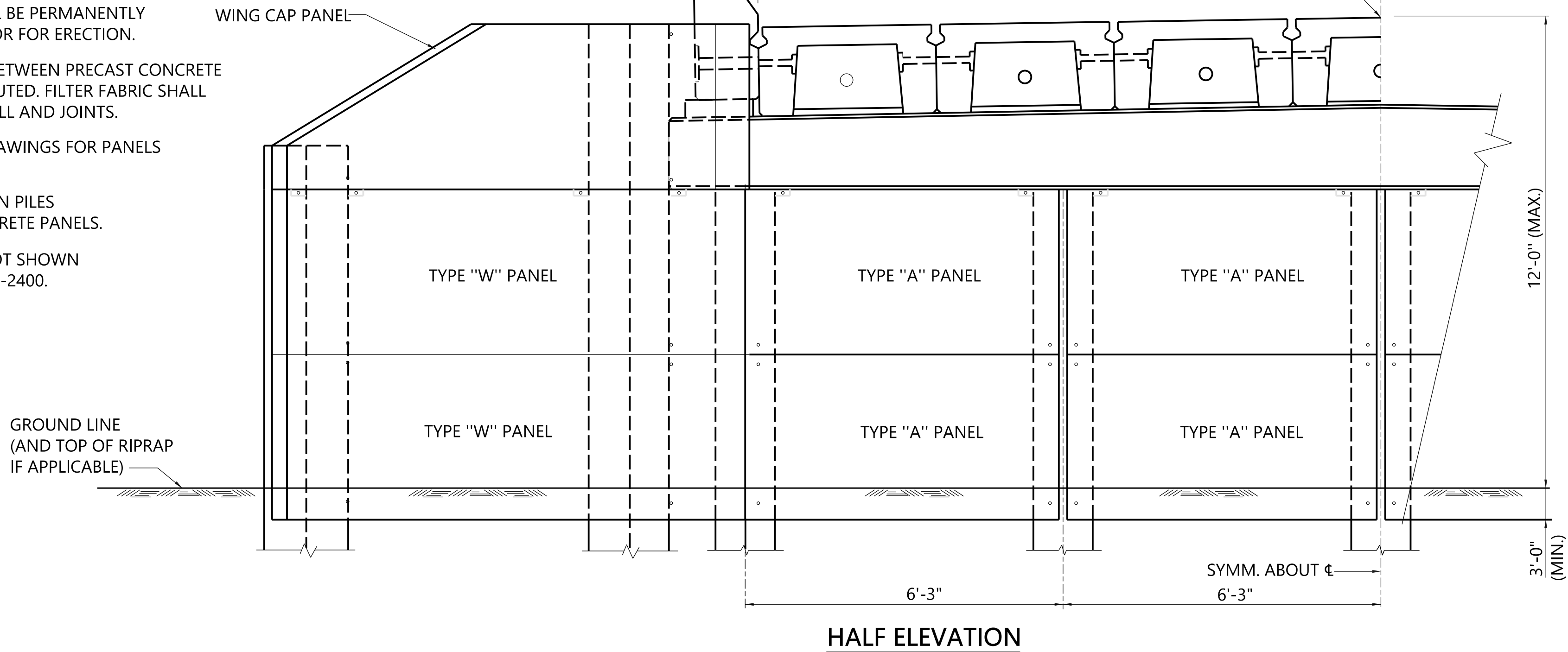
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				FHWA APPROVED 10-17-17	PCP-2400	SHEET 1 OF 1	51254

REFERENCE PROJECT NUMBER	FISCAL YEAR	SHEET NUMBER



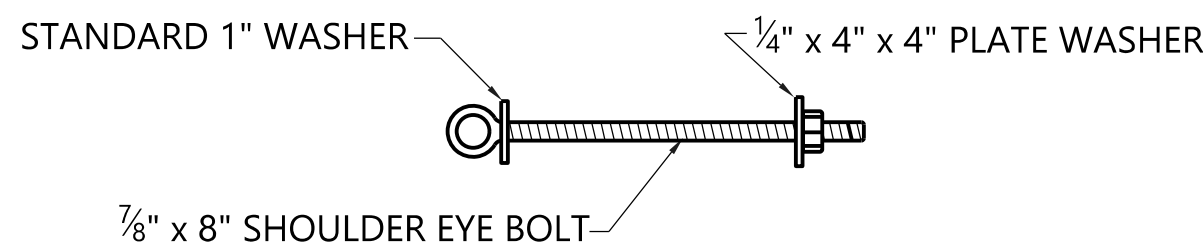
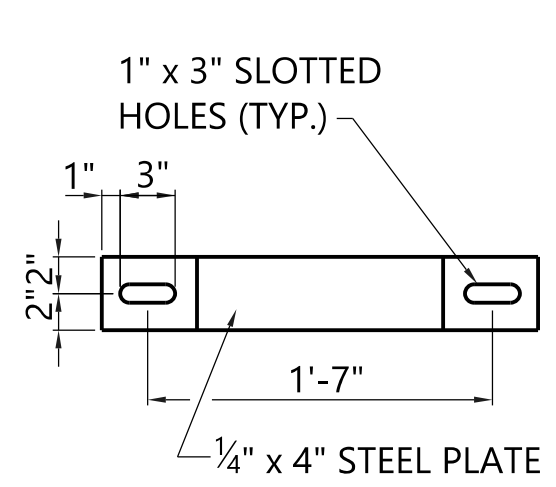
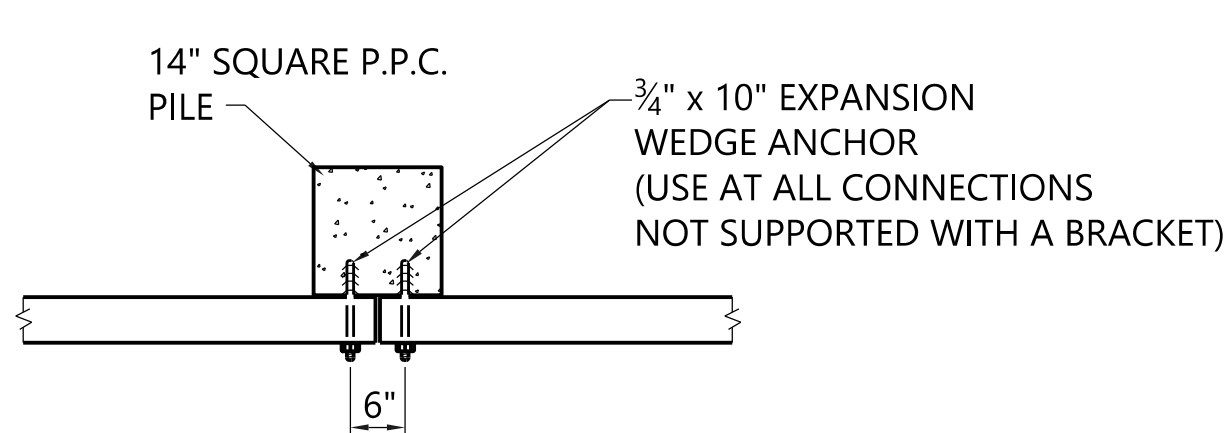
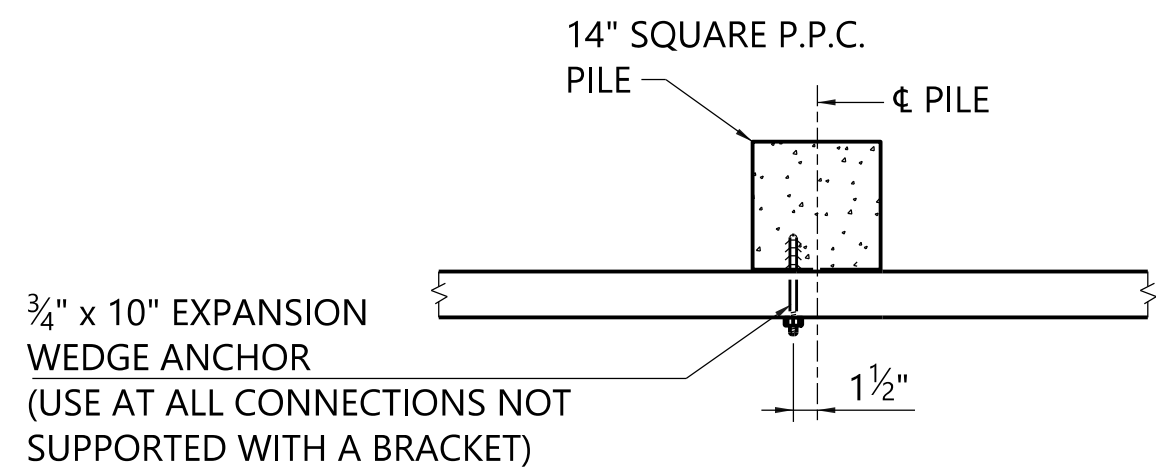
TIE BACK SYSTEM

- NOTE:** FACE OF PANELS SHALL BE PERMANENTLY MARKED BY FABRICATOR FOR ERECTION.
- NOTE:** HORIZONTAL JOINTS BETWEEN PRECAST CONCRETE PANELS SHALL BE GROUTED. FILTER FABRIC SHALL BE PLACED BETWEEN FILL AND JOINTS.
- NOTE:** REFERENCE BRIDGE DRAWINGS FOR PANELS TYPE "A" AND "W".
- NOTE:** HOLES TO BE DRILLED IN PILES FOR ATTACHING CONCRETE PANELS.
- NOTE:** FOR PANEL DETAILS NOT SHOWN SEE STD. DWG. NO. PCP-2400.



GENERAL NOTES

- SPECIFICATIONS:** ALABAMA DEPARTMENT OF TRANSPORTATION, CURRENT CONCRETE: CONCRETE FOR PRECAST PANELS SHALL BE IN ACCORDANCE WITH SECTION 512 OF THE STANDARD SPECIFICATIONS. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" BY 45° UNLESS OTHERWISE NOTED. ALL OTHER CORNERS ARE TO BE ROUNDED TO 1/4" RADIUS. CONCRETE WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM PRECAST CONCRETE CAP UNIT.
- REINFORCING STEEL:** ALL REINFORCING STEEL SHALL BE ACCURATLY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE AS REQUIRED BY ITEM 502.03(c)4 OF THE STANDARD SPECIFICATIONS. REINFORCING STEEL SHALL MEET THE REQUIREMENTS OF SECTION 835 OF THE STD. SPEC. REINFORCING DIMENSIONS ARE TO THE CENTER LINE OF THE BARS UNLESS OTHERWISE NOTED. THE ABOVE STEEL WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED AS SUBSIDIARY TO THE ITEM OF PRECAST CONCRETE CAP UNIT.
- HARDWARE:** ALL MACHINE BOLTS CONNECTING CONCRETE ABUTMENT PANELS TO PILING SHALL BE CONSIDERED INCIDENTAL TO THE WORK. ALL BOLTS SHALL CONFORM TO ASTM A-307 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153.
- PILING:** ALL PILING SHALL BE 14" SQUARE, PRESTRESSED CONCRETE, SEE PROJECT PLANS OF DESIGN LOADING.
- WELDING:** ALL WELDING SHALL CONFORM TO ARTICLE 836.46 OF THE STANDARD SPECIFICATIONS.
- TOLERANCES:** A DEVIATION OF MORE THAN 1/8" MAY BE CAUSE FOR THE REJECTION OF THE UNIT.
- DESIGN DATA:** A.A.S.H.T.O. 2002 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AND INTERIMS SERVICE LOAD DESIGN
- BID ITEM:**
- 512-E PRECAST CONCRETE ABUTMENT PANELS, TYPE _____ EACH.
- 512-F PRECAST CONCRETE WING PANELS TYPE _____ EACH.
- 512-G PRECAST CONCRETE ABUTMENT WING CAP PANELS _____ EACH.
- 507-A WIRE ROPE ABUTMENT ANCHOR ASSEMBLY - PER EACH.



ALABAMA DEPARTMENT
OF TRANSPORTATION

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REVISIONS

PRECAST CONCRETE ABUTMENT PANELS FOR USE WITH 24', 34' OR 40' PRECAST CONCRETE BRIDGE SLABS 24'-6" CLEAR ROADWAY WITH 14" x 14" CONCRETE PILING

BRIDGE STANDARD DRAWING

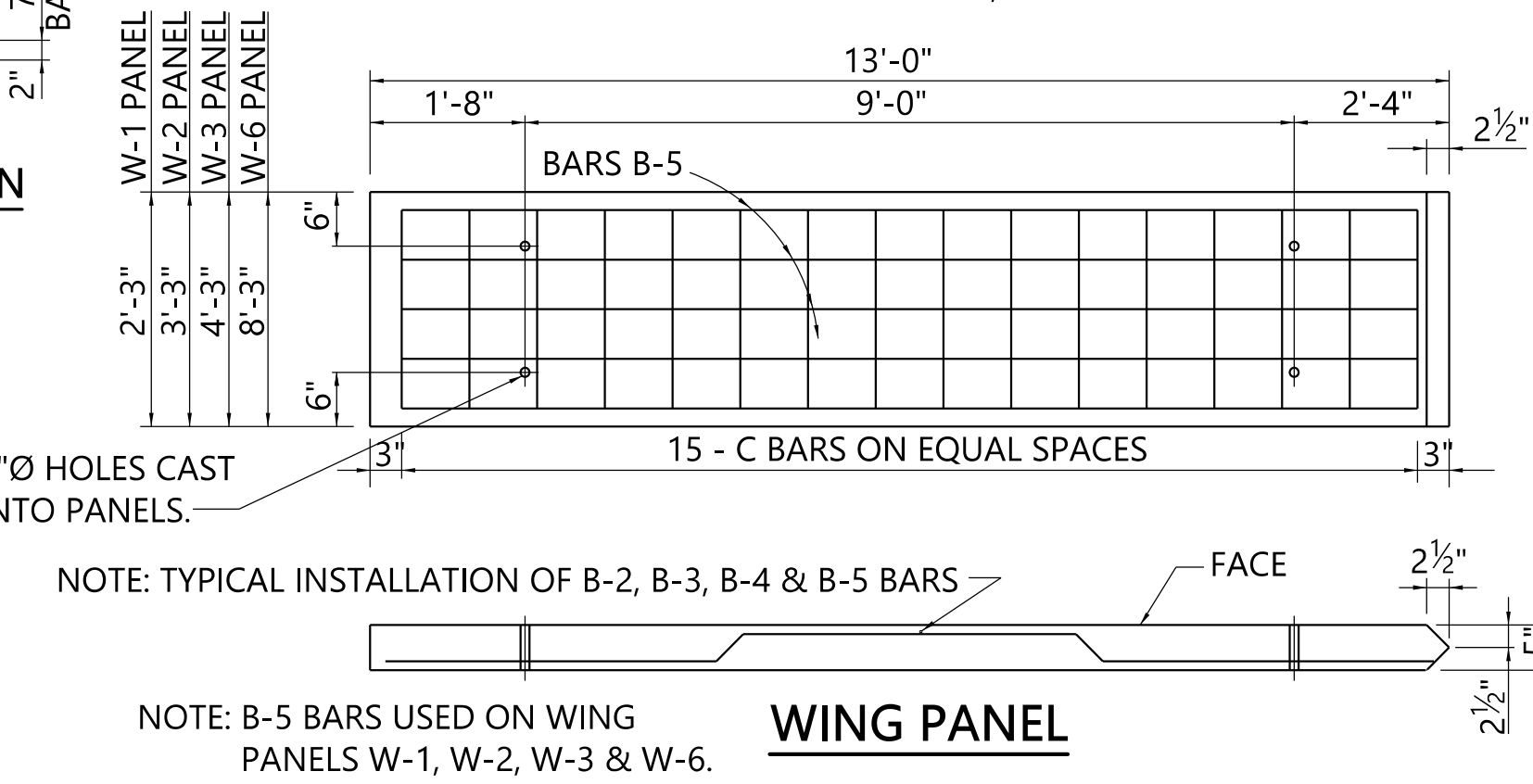
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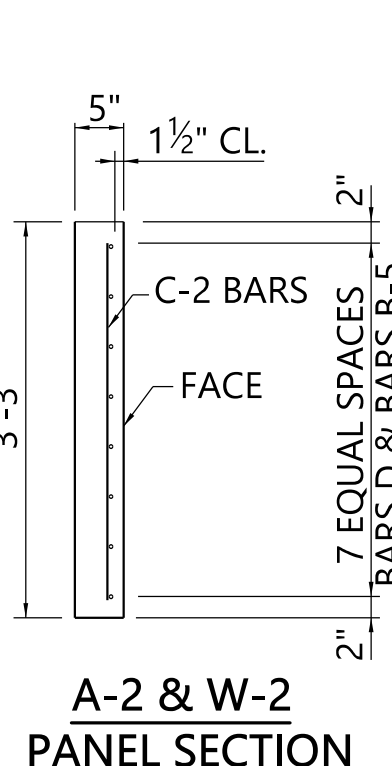
SHEET
1 OF 1

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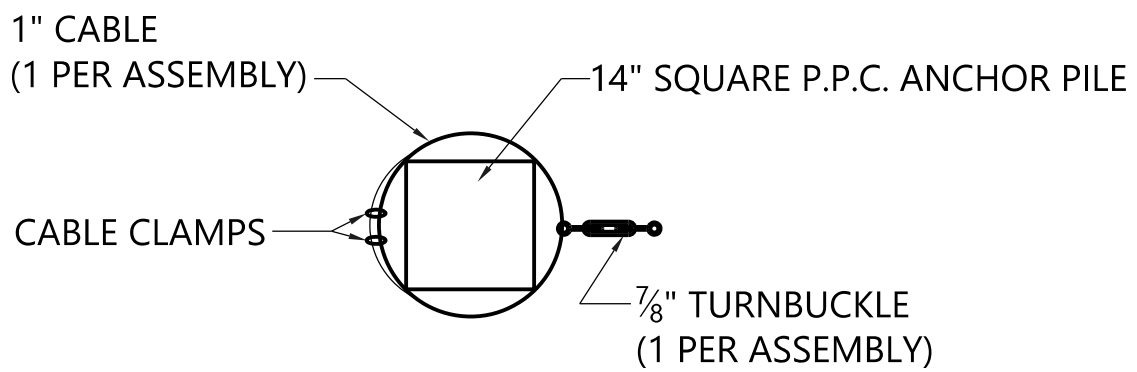
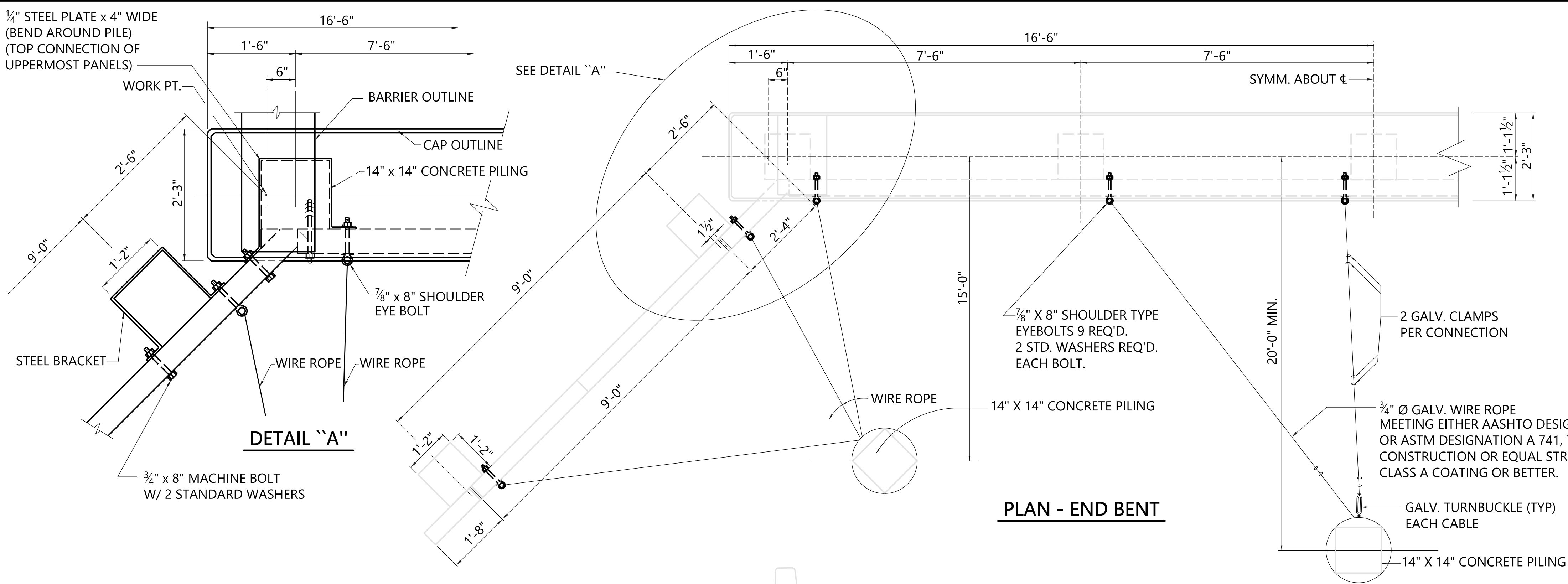


Reinforcement details for a 12' x 12' column. The top diagram shows a cross-section with 6 #4 bars (3 top, 3 bottom) and a #4 B-1 bar. The bottom diagram shows a longitudinal section with #4 B-2 and #4 B-3 bars. Dimensions include 5'-1", 6'-10", 2'-2", 9", 7'-2", 5'-6", 3", 3'-0", 3'-4", 5'-6", 3", 3'-4", 3'-0", 5'-7", and 3'-0".



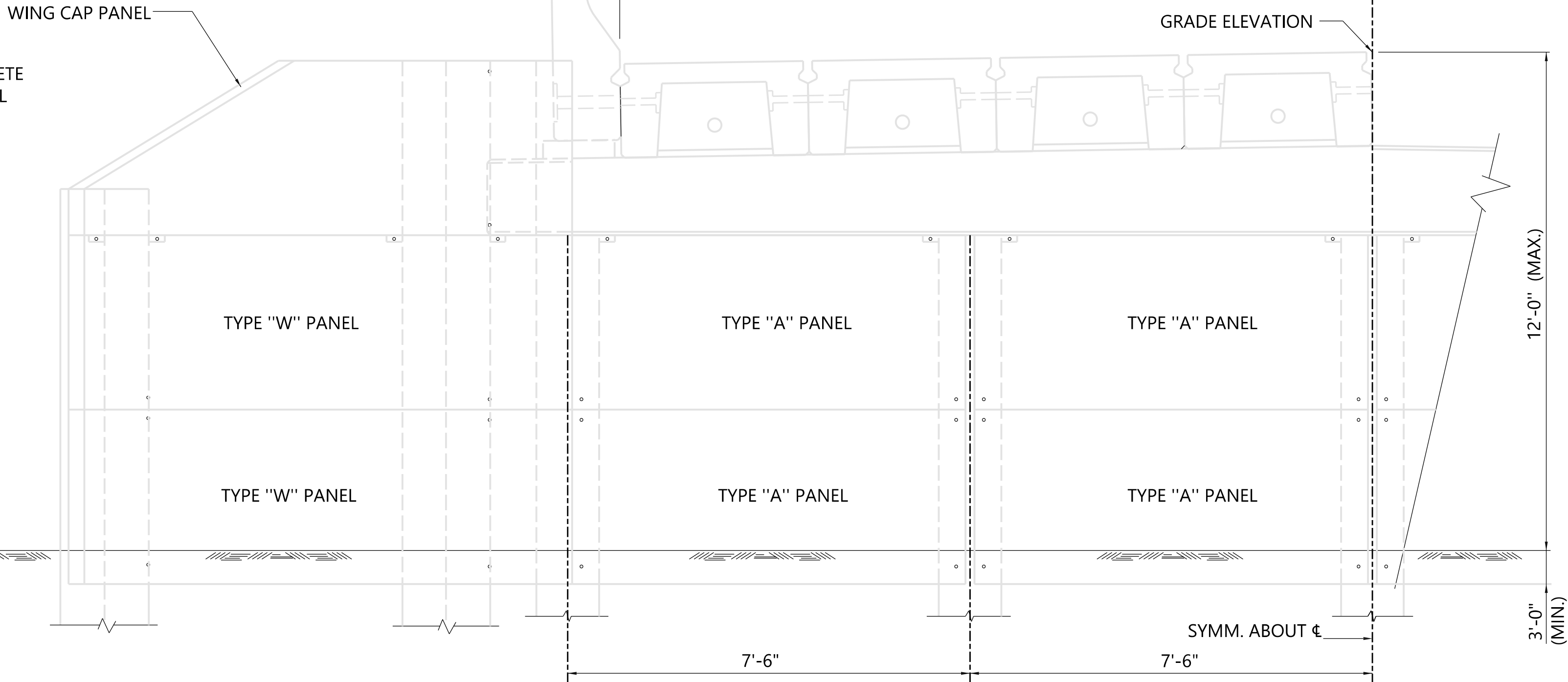
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					FHWA APPROVED 10-17-17	PCP-2800	SHEET 1 OF 1	51260

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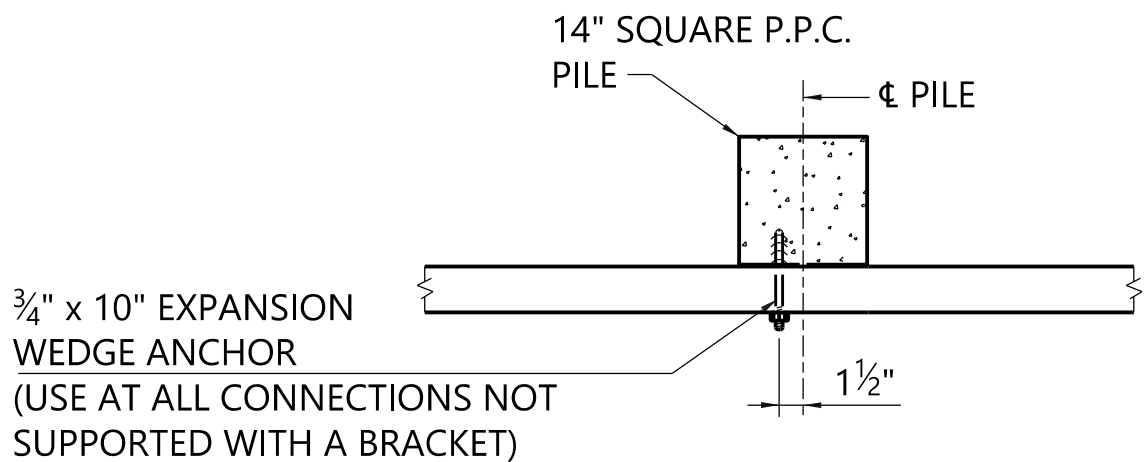
TIE BACK SYSTEM

- NOTE:** FACE OF PANELS SHALL BE PERMANENTLY MARKED BY FABRICATOR FOR ERECTION.
- NOTE:** HORIZONTAL JOINTS BETWEEN PRECAST CONCRETE PANELS SHALL BE GROUTED. FILTER FABRIC SHALL BE PLACED BETWEEN FILL AND JOINTS.
- NOTE:** REFERENCE BRIDGE DRAWINGS FOR PANELS TYPE "A" AND "W".
- NOTE:** HOLES TO BE DRILLED IN PILES FOR ATTACHING CONCRETE PANELS.
- NOTE:** FOR PANEL DETAILS NOT SHOWN SEE STD. DWG. NO. PCP-2400.

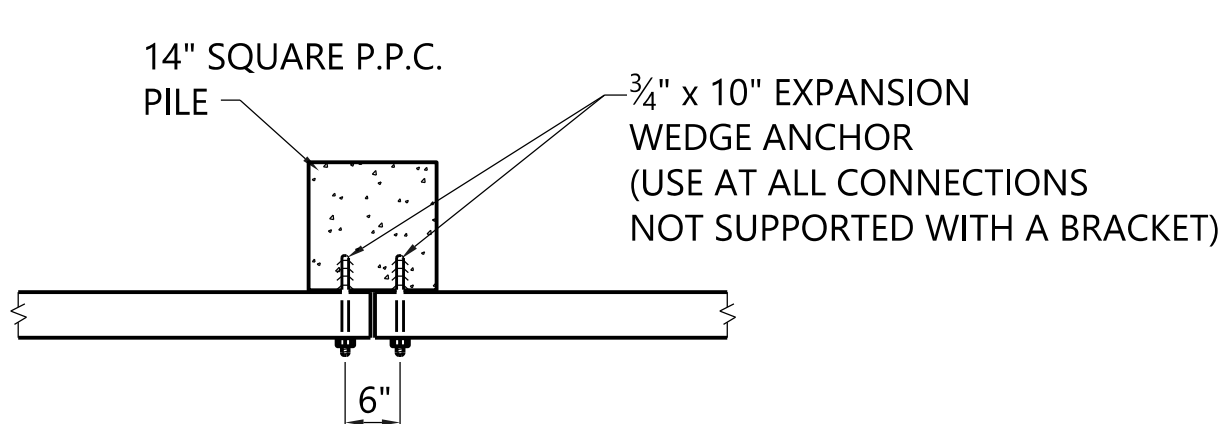


GENERAL NOTES

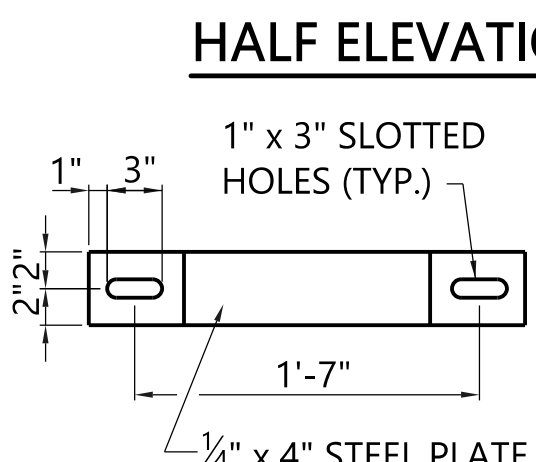
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- HARDWARE:** ALL MACHINE BOLTS CONNECTING CONCRETE ABUTMENT PANELS TO PILING SHALL BE CONSIDERED INCIDENTAL TO THE WORK. ALL BOLTS SHALL CONFORM TO ASTM A-307 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153.
- WELDING:** ALL WELDING SHALL CONFORM TO ARTICLE 836.46 OF THE STANDARD SPECIFICATIONS.
- TOLERANCES:** A DEVIATION OF MORE THAN 1/8" MAY BE CAUSE FOR THE REJECTION OF THE UNIT.
- DESIGN DATA:** A.A.S.H.T.O. 2002 STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AND INTERIMS SERVICE LOAD DESIGN
- BID ITEM:**
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512-F PRECAST CONCRETE WING PANELS TYPE _____ EACH.
512-G PRECAST CONCRETE ABUTMENT WING CAP PANELS _____ EACH.
507-A WIRE ROPE ABUTMENT ANCHOR ASSEMBLY - PER EACH.



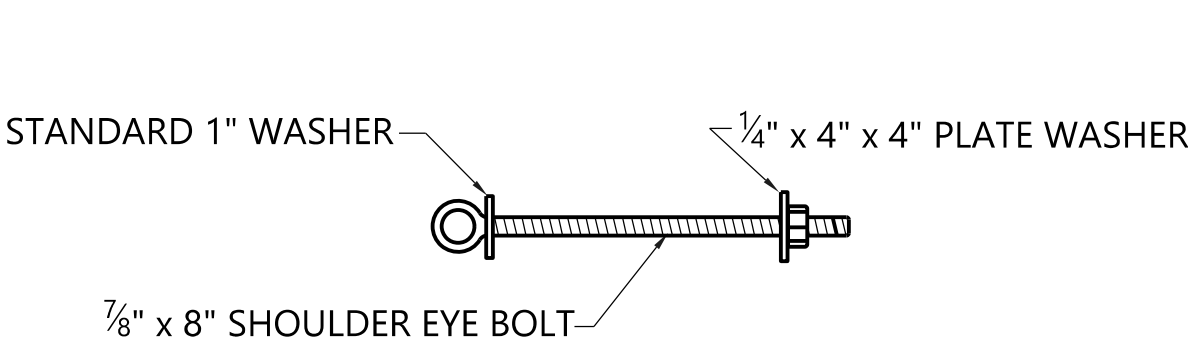
WING PANEL ASSEMBLY



ABUTMENT PANEL ASSEMBLY



STEEL BRACKET DETAIL



EYE BOLT DETAIL

ALABAMA DEPARTMENT
OF TRANSPORTATION

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REVISIONS

PRECAST CONCRETE ABUTMENT PANELS FOR USE WITH 24', 34' OR 40' PRECAST CONCRETE BRIDGE SLABS 28'-0" CLEAR ROADWAY WITH 14" x 14" CONCRETE PILING

BRIDGE STANDARD DRAWING		INDEX NO.	
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