

GENERAL NOTES

BENCH MARK: C.P.S. in Power Pole 48' Lt. of Centerline Survey
Sta. 38+43, Elevation 533.900

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation
Department Standard Specifications for Highway Construction (1996 edition),
with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges
(1996 edition), with current Interim specifications.

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor

SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:

Class I (SAC) Concrete (superstructure)	f'c = 4,000 psi
Class 5 Concrete (substructure)	f'c = 3,500 psi
Reinforcing Steel (AASHTO M 31 or M 53, Gr. 60)	f'y = 60,000 psi
Structural Steel (AASHTO M 270, Gr. 50W)	f'y = 50,000 psi
Structural Steel (AASHTO M 270, Gr. 36)	f'y = 36,000 psi

BORING LOGS: Boring logs may be obtained from the Programs and Contracts
Division.

STEEL PILING: Piling in End Bents 1 and 4 shall be HP 10x42 and shall be
driven with an approved air, steam, or diesel hammer to a minimum safe bearing
capacity of 55 tons per pile and into the material designated as hard shale
on the boring legend. Lengths of piling shown are for estimating quantities
and for use in determining payment for cut-off and build-up in accordance
with the standard specifications. Piles in End Bents 1 and 4 shall be driven after
embankment to bottom of cap is in place. On all piles the contractor
shall use approved steel H-Pile driving points.

FOOTINGS: Footings shall be set a minimum of 2'-0" into material designated
as hard, gray shale on the boring legend and shall have a minimum cover above
top of footings of 2'-0". Foundations for footings shall be prepared in
accordance with section 801.04 of the Standard Specifications. Rock
excavations shall be made to neat lines of the concrete footings. Care shall
be exercised to avoid shattering of rock faces by excessive blasting. Concrete
in footings shall be poured directly against excavated surfaces of rock.

BRIDGE DECKS: The concrete bridge deck shall be given a fine finish as
specified for final finishing in subsection 802.9J for Class 5 Tined Bridge
Roadway Surface Finish.

DETAIL DRAWINGS:

End Bents	DRAWING NO.
Intermediate Bents	37285
K95 - Continuous Concrete, W-Beam Unit	37286
	37287, 37288, & 37276

EXISTING BRIDGES: The existing bridge No. 00436 (log mile 7.32) is 23' wide
and 75' long and consists of a concrete superstructure supported by a
concrete substructure.

REMOVAL AND SALVAGE: The existing bridge shall be removed in accordance
with Section 205 of the Standard Specifications. All material from the
existing bridge shall become the property of the contractor.

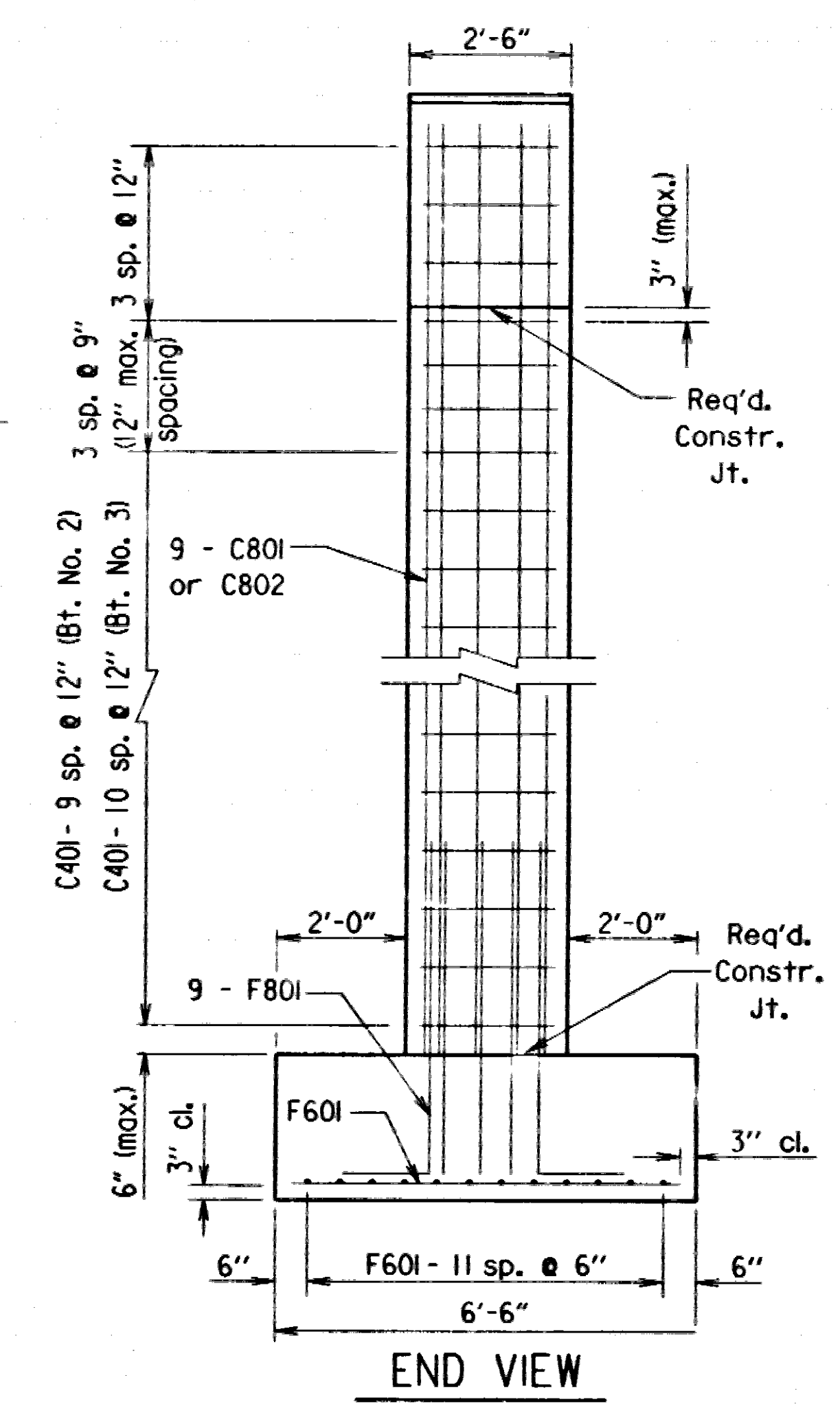
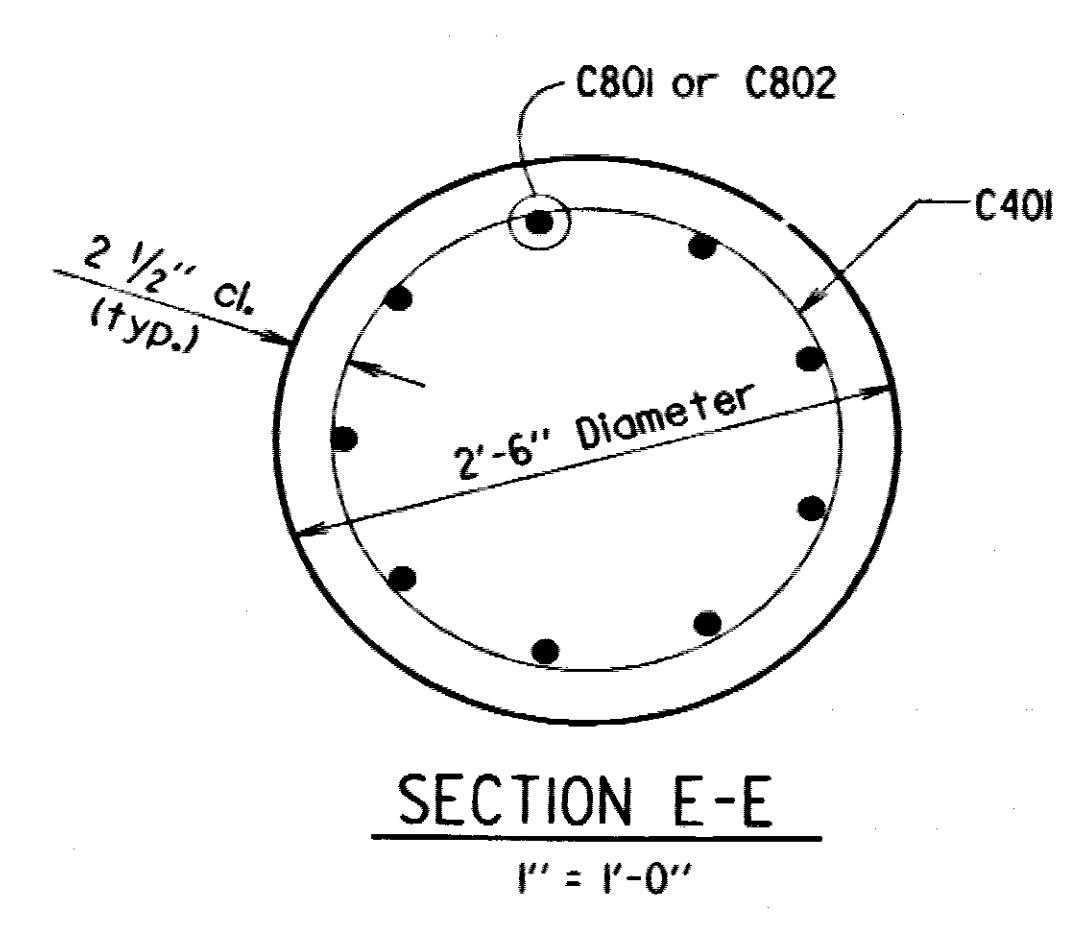
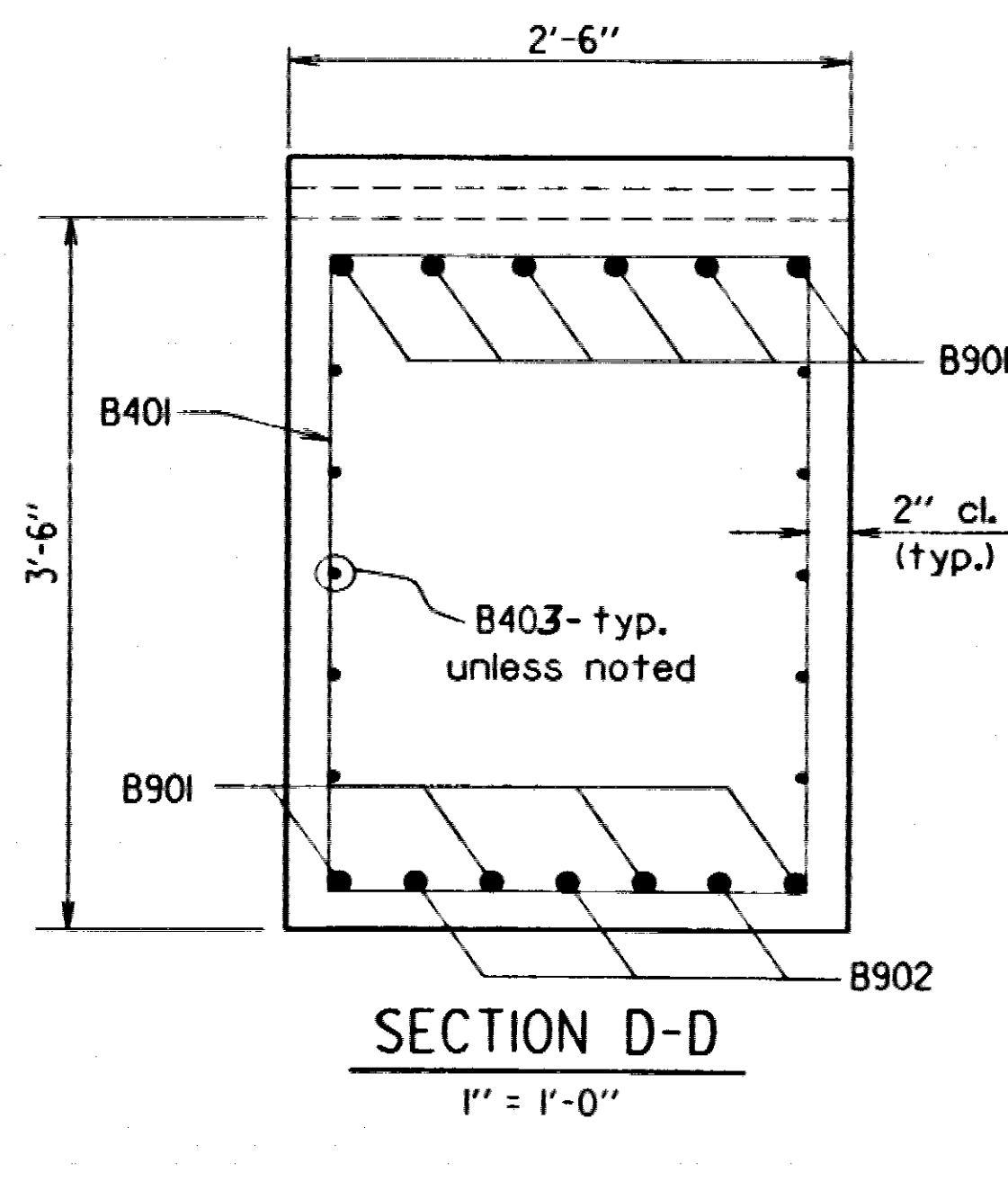
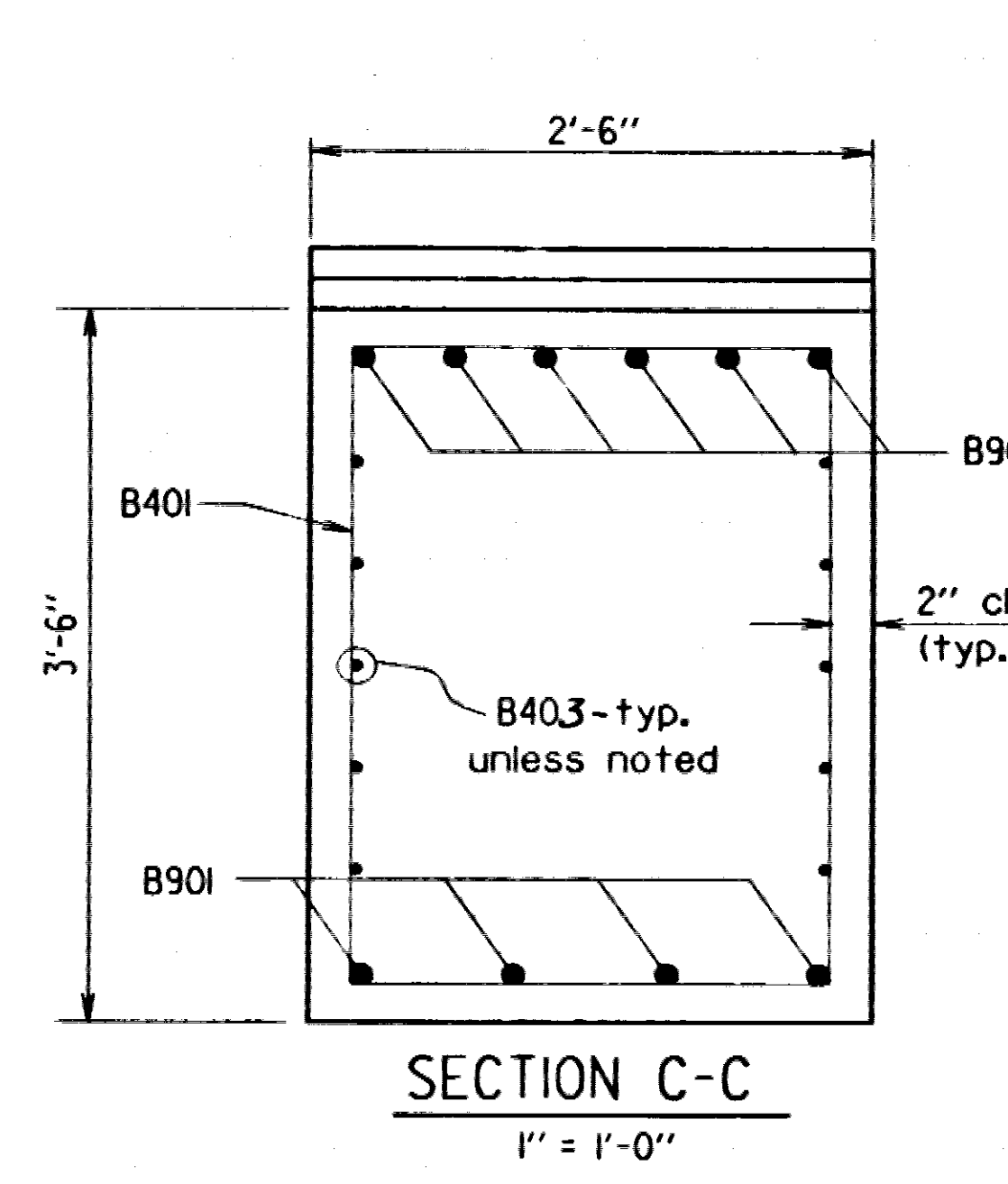
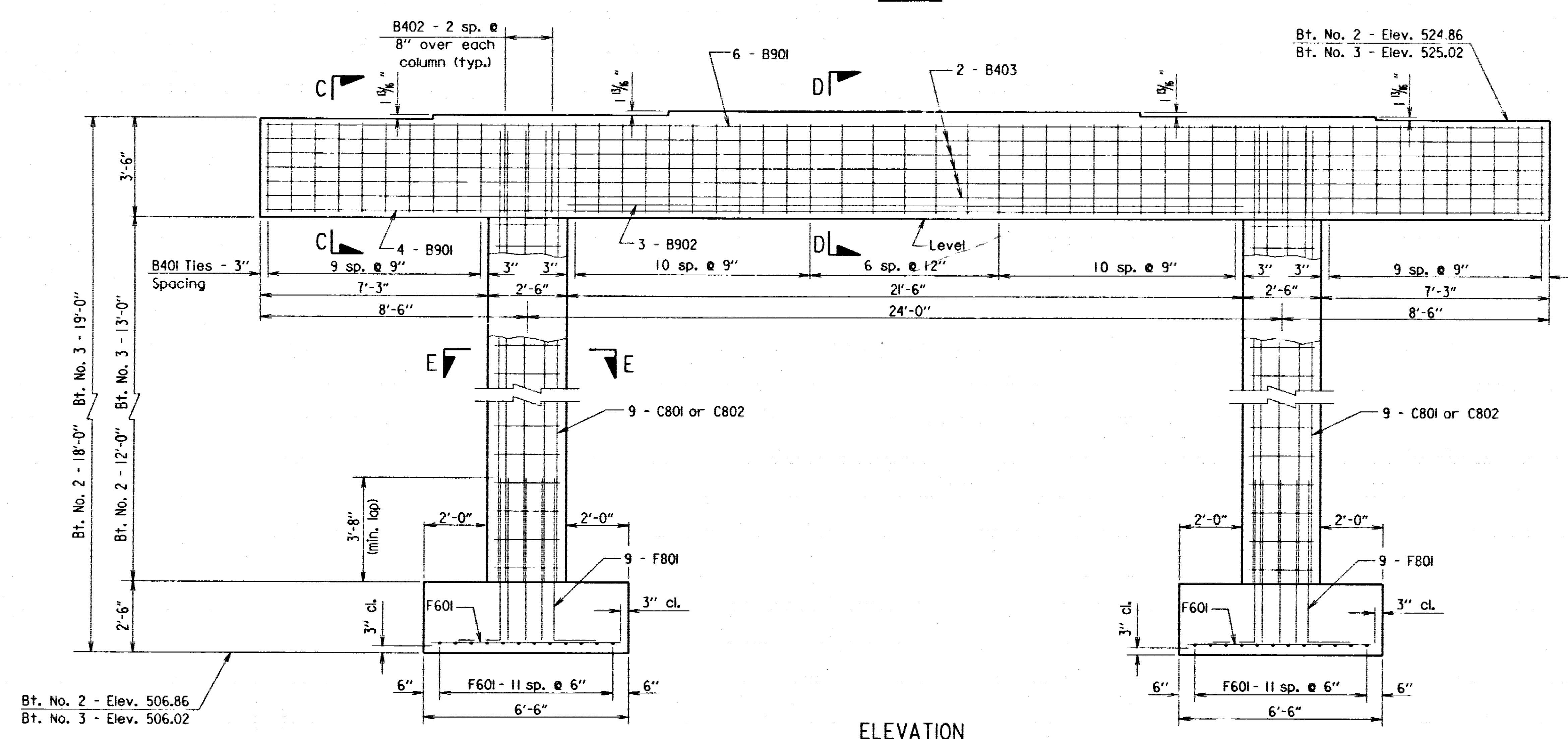
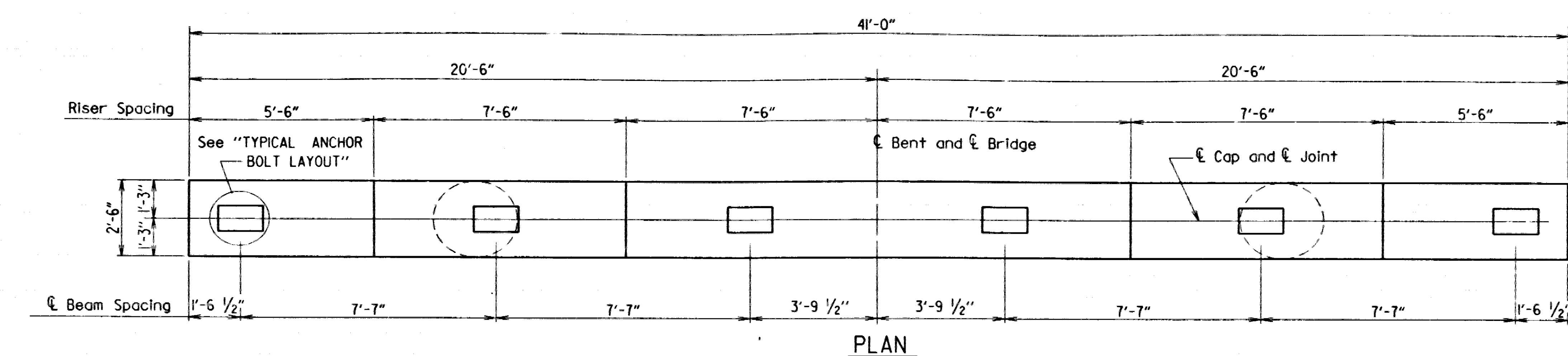
TEMPORARY BRIDGES: Construct a 90' long temporary bridge approximately
45' upstream of centerline construction. The temporary bridge shall have a
minimum roadway width of 24', a minimum live load capacity of HS and a
minimum deck elevation of 524.0. See roadway plans for actual detour
grade and alignment. See drawing numbers 37283-3729 for standard temporary
bridge details. A timber deck will not be allowed. If timber piling and pine timber
are used on this temporary bridge structure, the materials shall be treated with
a preservative according to the Standard Specifications. Note: The temporary
bridge shall not be constructed until the upstream channel has been excavated,
the new channel bank has been constructed, and riprap has been placed on the
new bank.

LAYOUT OF BRIDGE OVER
PRAIRIE CREEK (STA. 387)
MURFREESBORO-NORTH & EAST STRS. & APPRS. (S)
PIKE COUNTY
ROUTE 27 SEC. 5
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MJT DATES: Q1-31-95
CHECKED BY: CHE DATES: 1-3-96 SCALE: 1" = 20'-0"
DESIGNED BY: CES DATES: 1-95

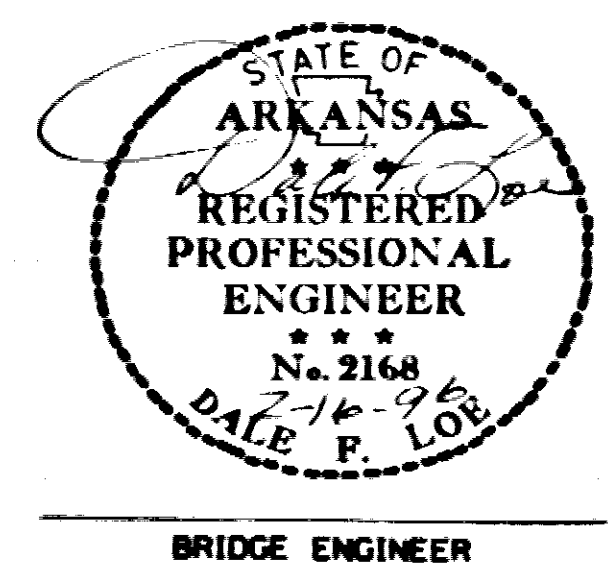
BRIDGE NO. 06653 DRAWING NO. 37284

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		003982	62	137
						06653 BENT DETAILS	37286	



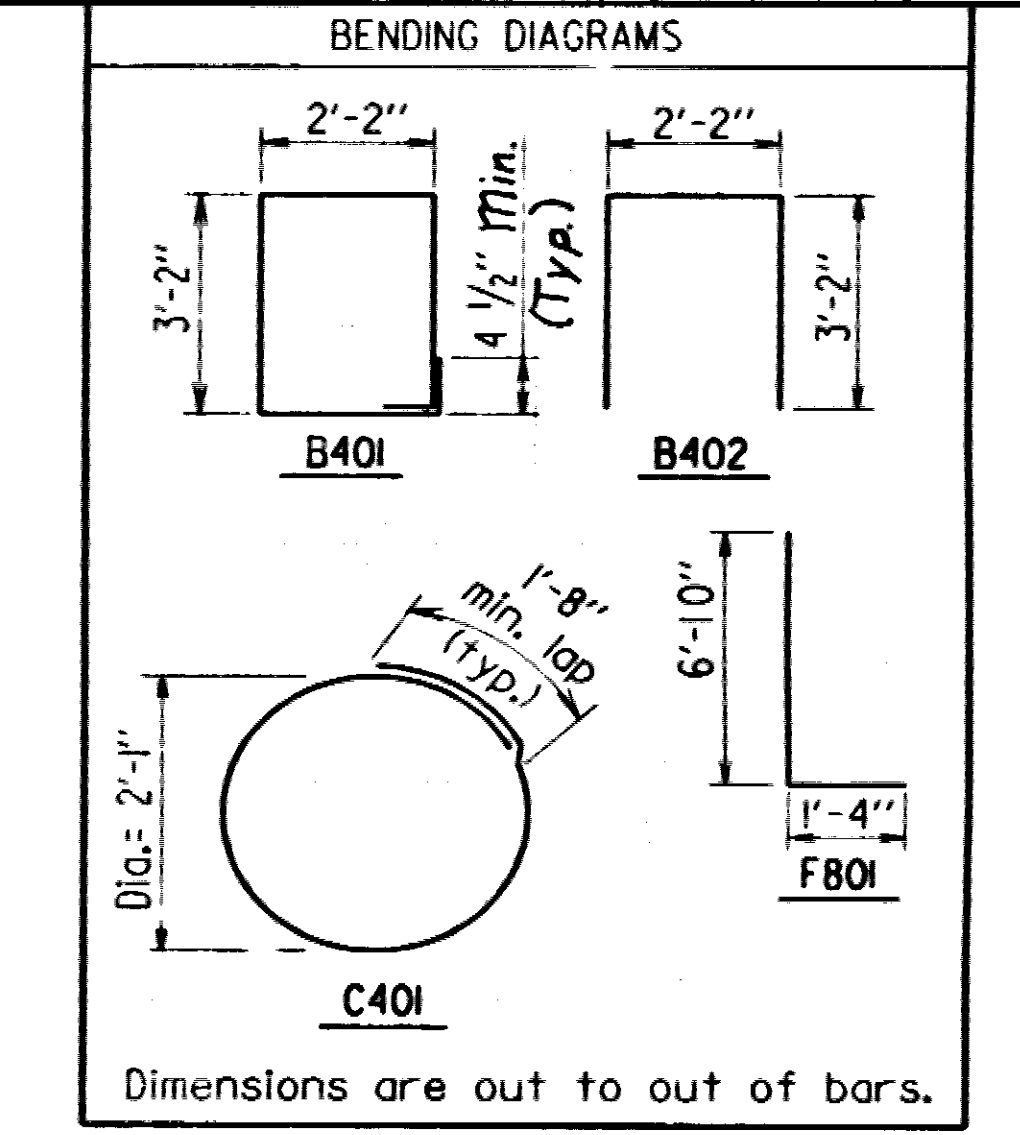
Note:
Use Type B4 Fixed Shoes. For details of Shoes, See drwg. no. 37287.

TYPICAL ANCHOR BOLT LAYOUT
1" = 1'-0"



BAR LIST - PER BENT

MARK	NUMBER REQUIRED		LENGTH	PIN DIA.
	BT. NO. 2	BT. NO. 3		
B401	47	47	11'-0"	2"
B402	6	6	8'-4"	2"
B403	20	20	2'-2"	Str.
B901	10	10	40'-8"	Str.
B902	3	3	2'-6"	Str.
C401	32	34	8'-3"	CIRCLE
C801	18		15'-0"	Str.
C802		18	16'-0"	Str.
F601	48	48	6'-0"	Str.
F801	18	18	8'-0"	6"



GENERAL NOTES

All concrete shall be Class "S" and be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 60.

If anchor bolts are drilled into cap, top reinforcing bars shall be properly placed to avoid damage.

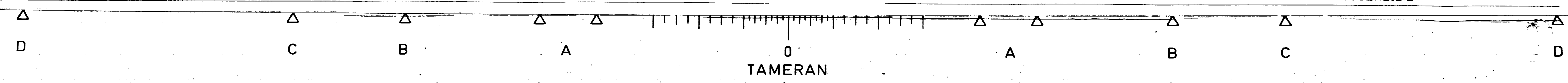
For additional information, see Layout.

DETAILS OF
INTERMEDIATE BENTS
PRAIRIE CREEK (STA. 387)
PIKE COUNTY
ROUTE 27 SEC. 5
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: TEB DATE: 1/12/96
CHECKED BY: CES DATE: 1-19-96
DESIGNED BY: GEC DATE: 1-9-96
BRIDGE NO. 06653 DRAWING NO. 37286

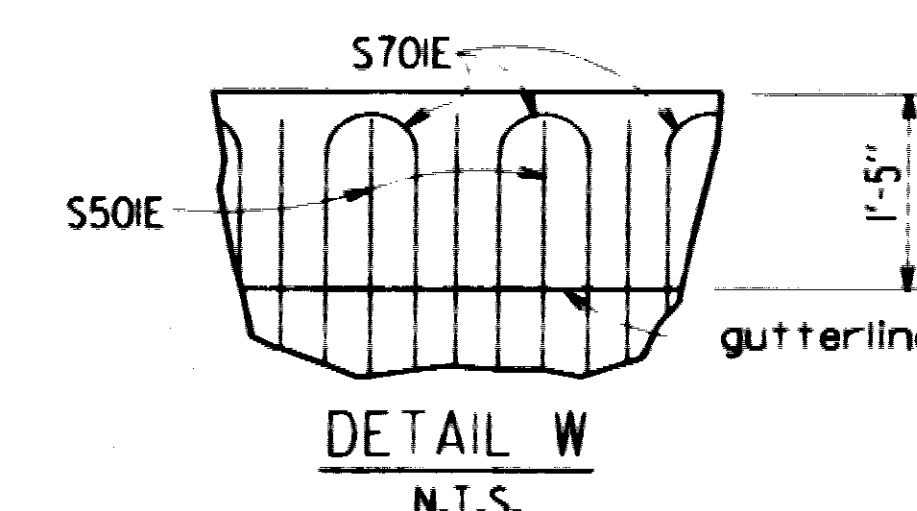
SCALE: 3/8" = 1'-0" or as noted

BR003982X2.B12



06653	105' CONT. UNIT	3728
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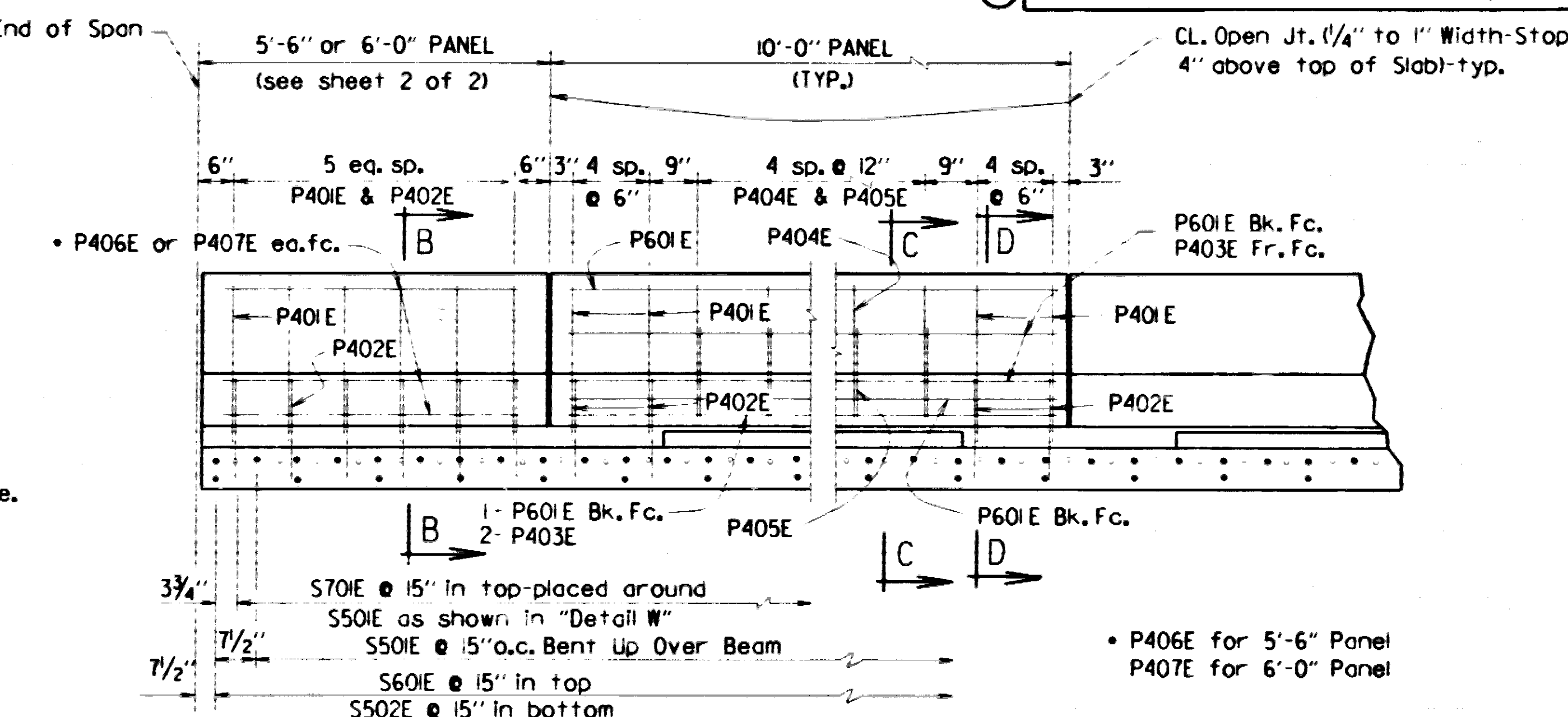
Note: One epoxy coated #5 bar in the top and in the bottom may be substituted for each bar \$50/E.
Payment will be based on the weight of bar \$50/E.



NOTE: Working Point matches Theoretical Roadway Grade

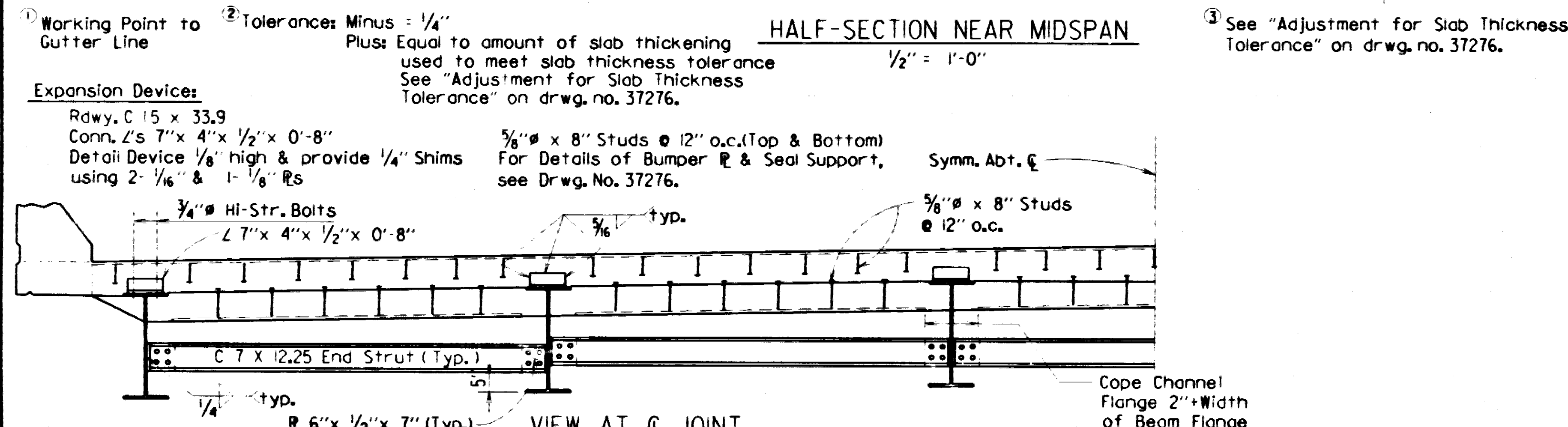
ROUNDING DETAIL

N.T.S.

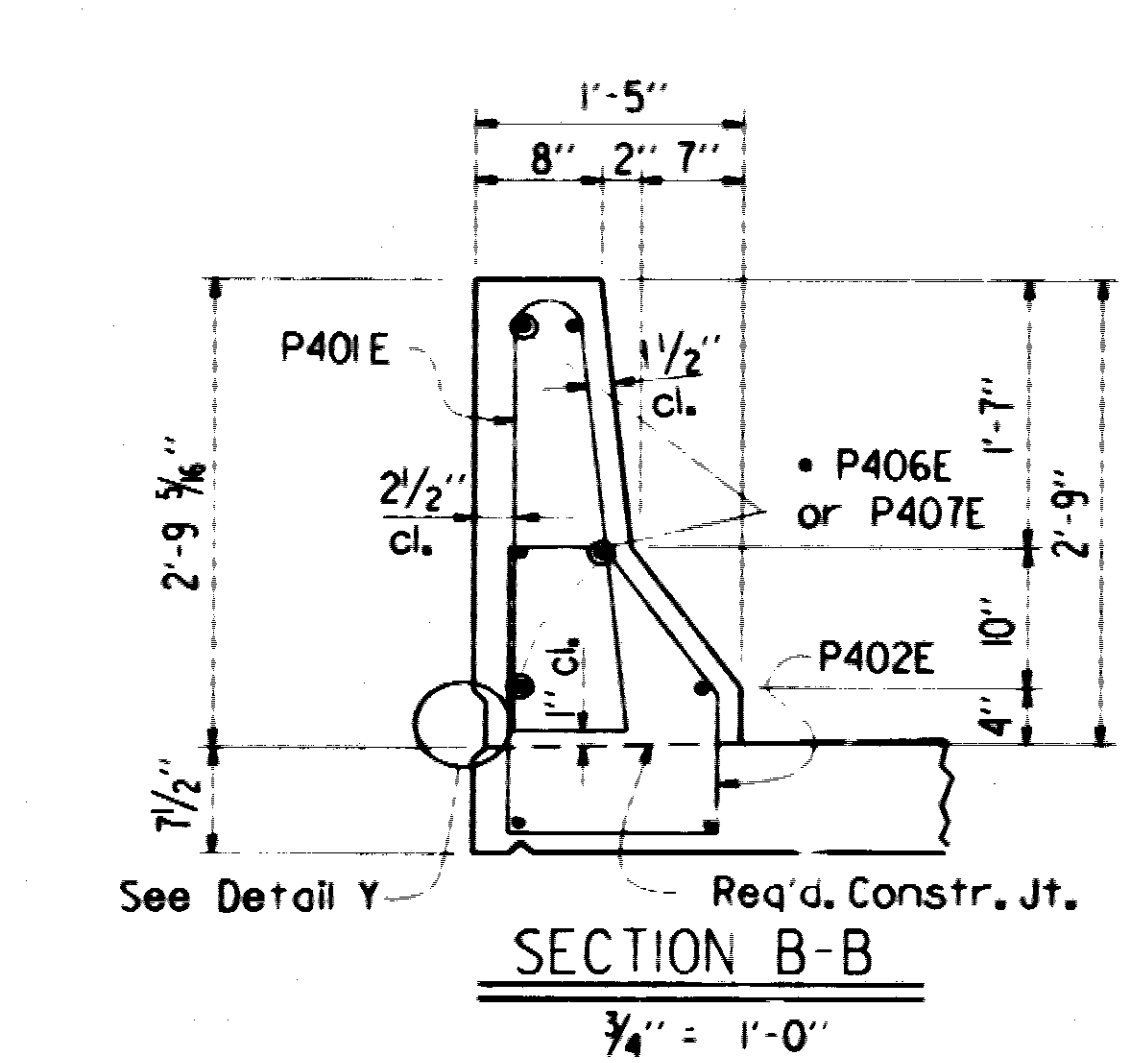


SECTION A-A

N.T.S.

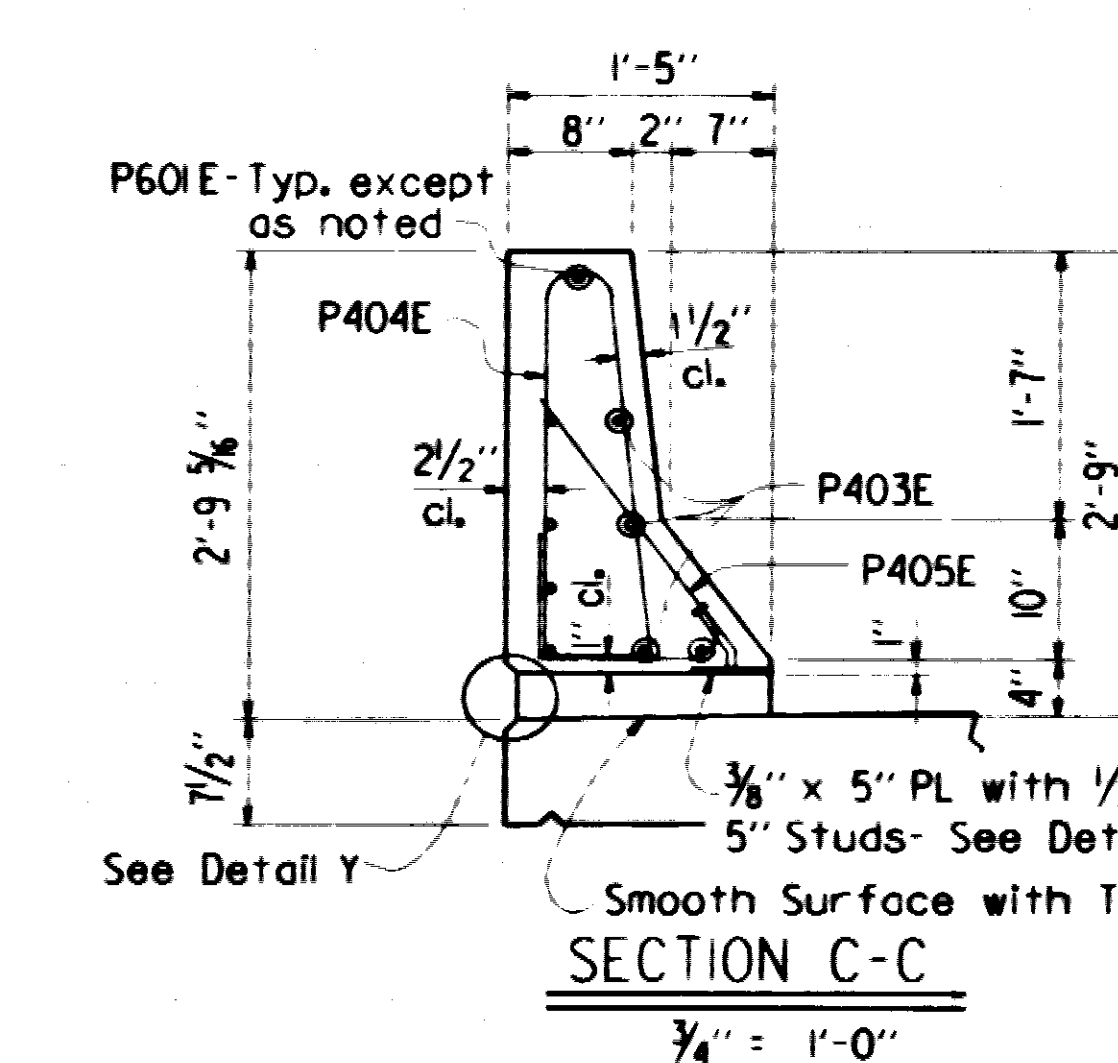


Note :
Holes for $\frac{3}{4}$ " ϕ Hi-Str. Bolts for Expansion
Device, Diaphragms & End Struts may be
 $\frac{3}{8}$ " ϕ holes if a washer is supplied for use
under both the nut & the head of the bolt

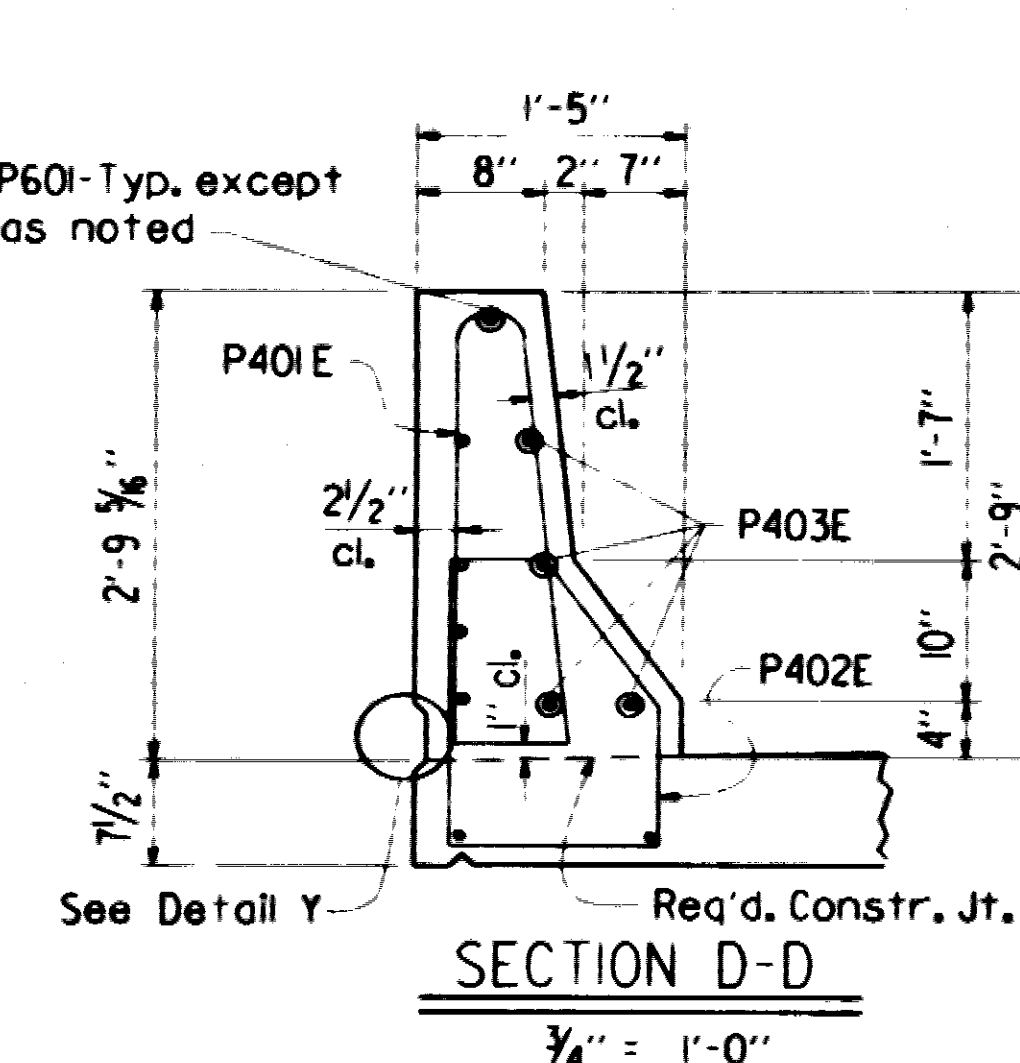


SECTION B-B

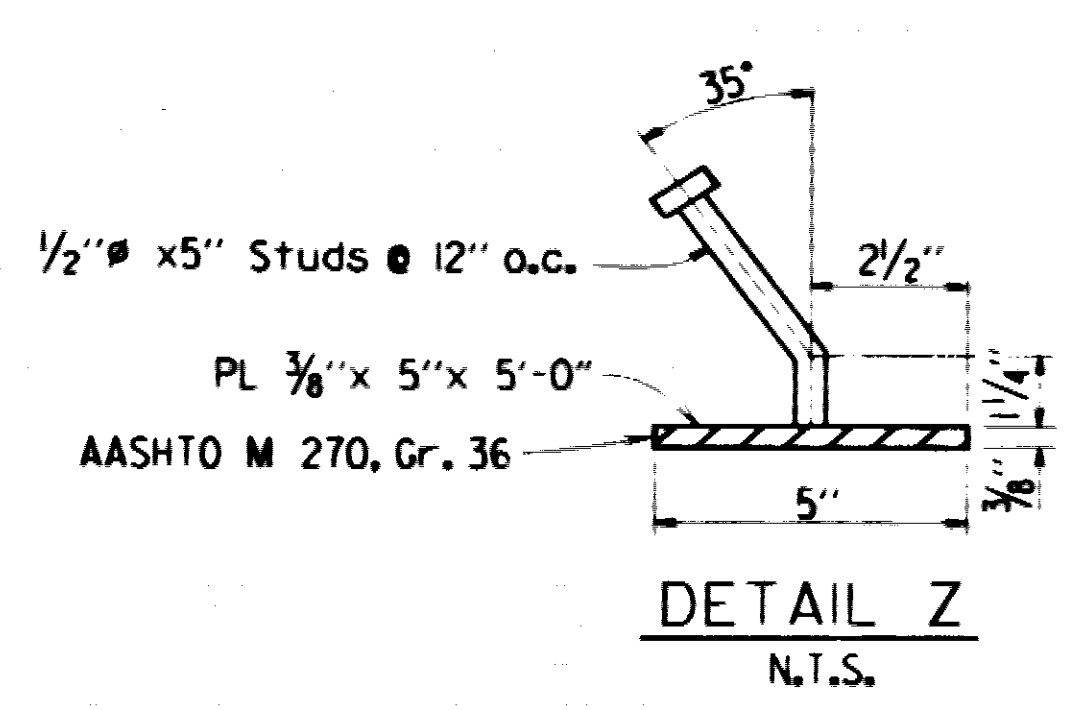
Note: The surfaces of the $\frac{3}{8}$ " Plates which will not be in contact with concrete shall be painted in accordance with Section 538 or as approved by the engineer. Only one prime coat is required where multiple coats are specified. All coats shall be applied in the fabricator's shop. Painting will not be paid for directly, but will be considered subsidiary to Structural Steel or Class (A) Concrete - Bridge.



SECTION C-C

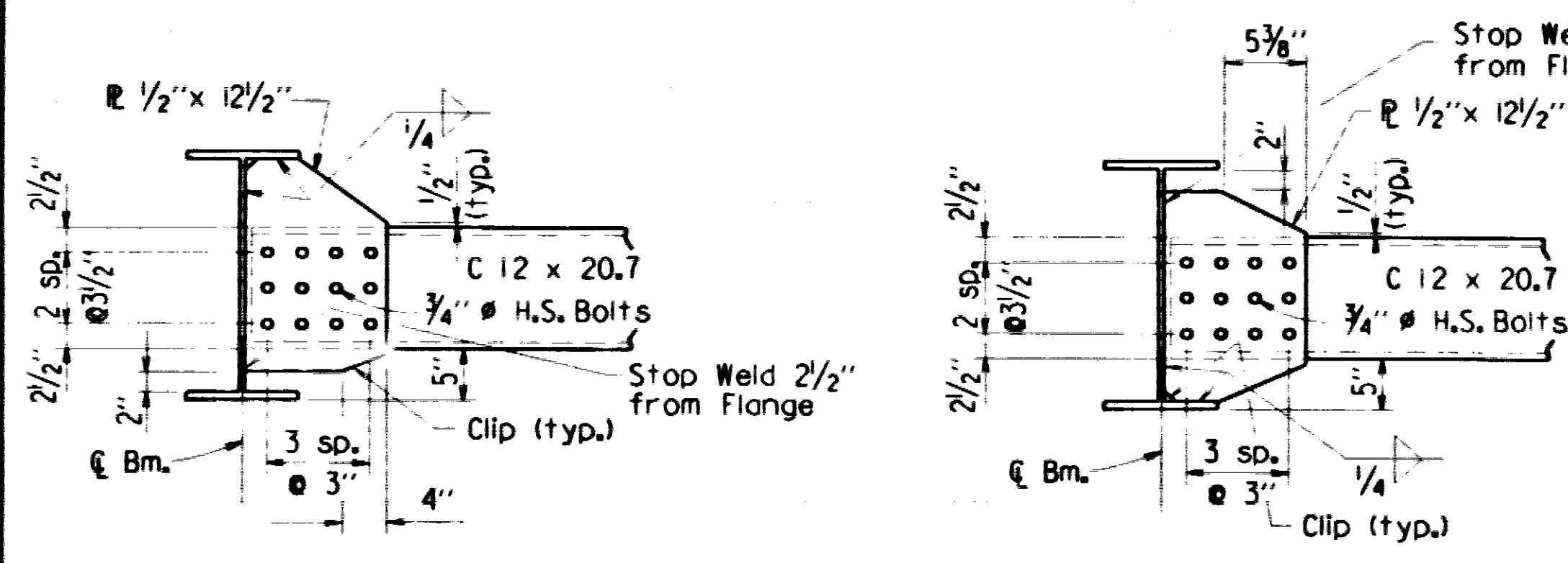


SECTION D-D

$$\frac{3}{4}'' = 1'-0''$$


DETAIL Z

N.T.S



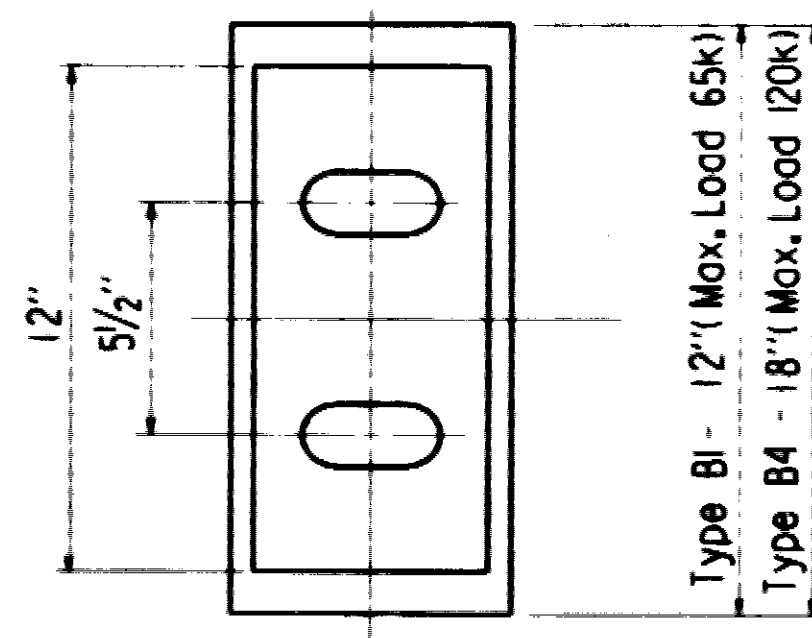
Note: Bolts in Diaphragm Connections shall be properly installed and tightened in accordance with Subsection 807.71 of the Standard Specifications.

(TENSION FLG. ON BOT.)

(TENSION FLG. ON TOP)

DIAPHRAGM CONNECTIONS AT EXTERIOR BEAMS

N.T.S.

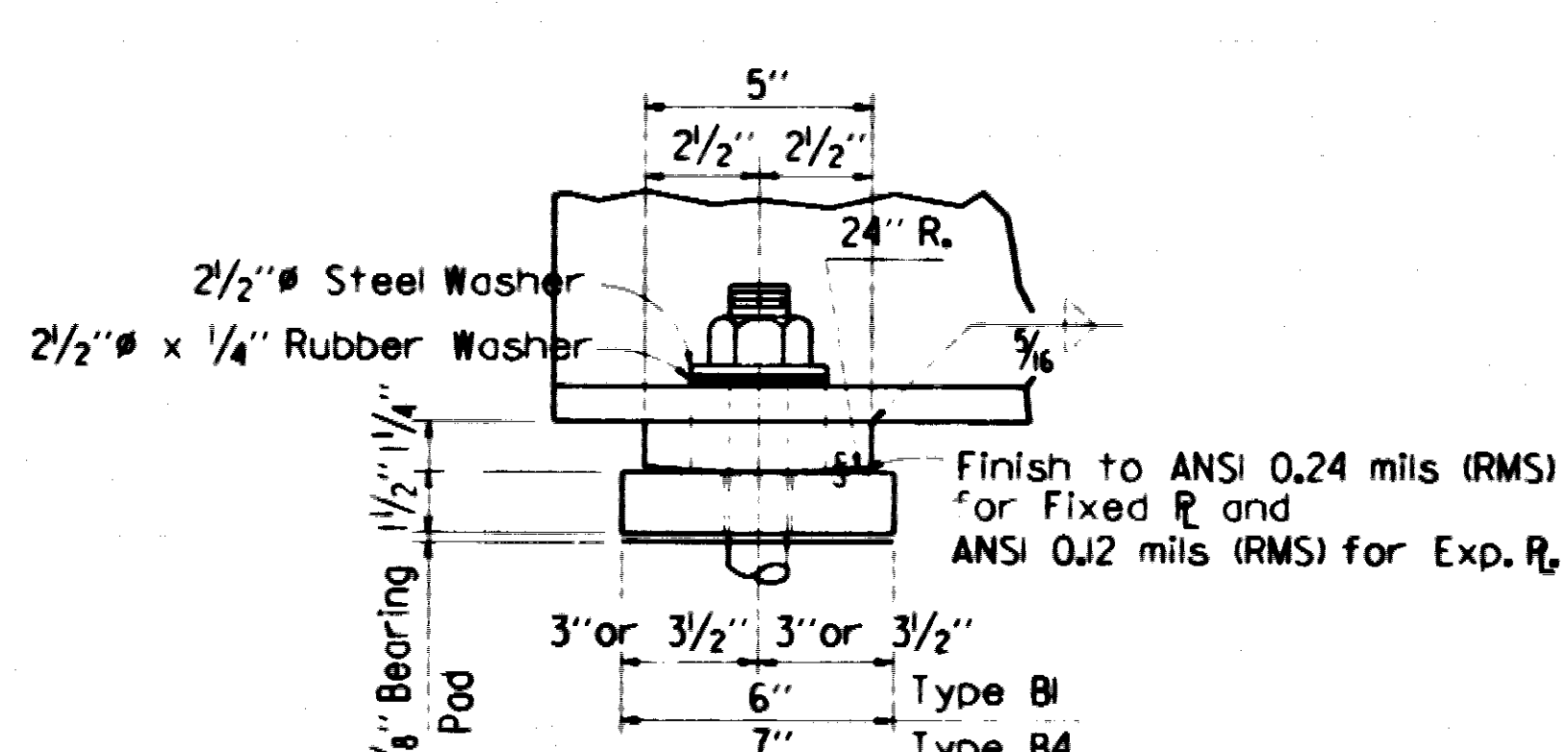


Note: Shoe plates shall be AASHTO M 270, Gr. 50W.

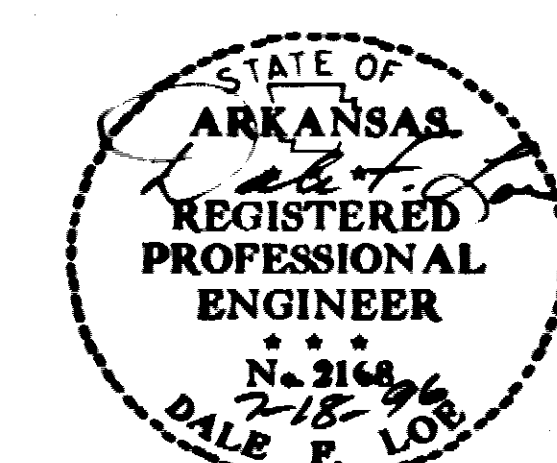
EXPANSION SHOE: 3"x 1 1/2" Slot in Sole Plate & Beam Flange;
1 1/2" Holes in Masonry Plate.

TYPE "B" FIXED OR EXP. SHOE

N.T.S.



Finish to ANSI 0.24 mils (RMS)
for Fixed R_L and
ANSI 0.12 mils (RMS) for Exp. R_L



BRIDGE ENGINEER

SHEET 1 OF 2
DETAILS OF
105' CONT. COMP. W-BEAM UNIT
PRAIRIE CREEK (STA. 387)
PIKE COUNTY
ROUTE 27 SEC. 5
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

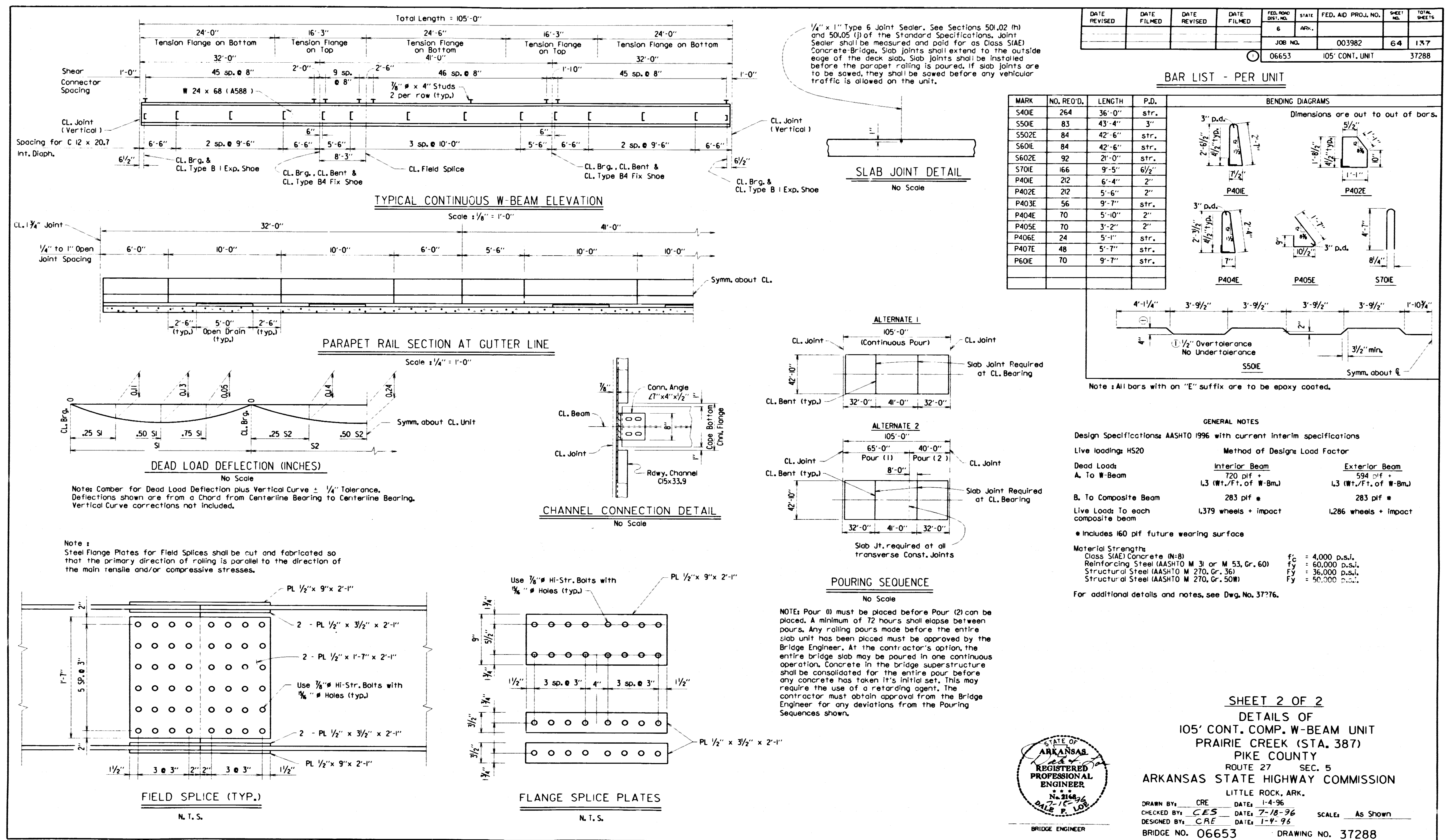
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CHECKED BY: CES	DATE: 7-18-96	SCALE: As Shown
DESIGNED BY: CRE	DATE: 1-4-96	
BRIDGE NO. 06653	DRAWING NO. 37287	

DRAWN BY: CRE DATE: 1-4-96
CHECKED BY: CES DATE: 7-18-96

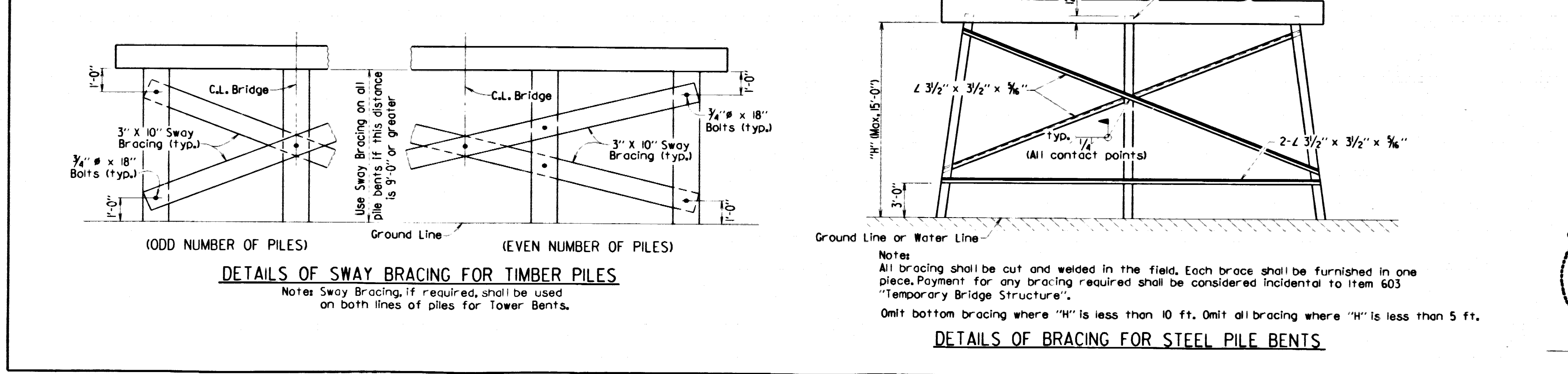
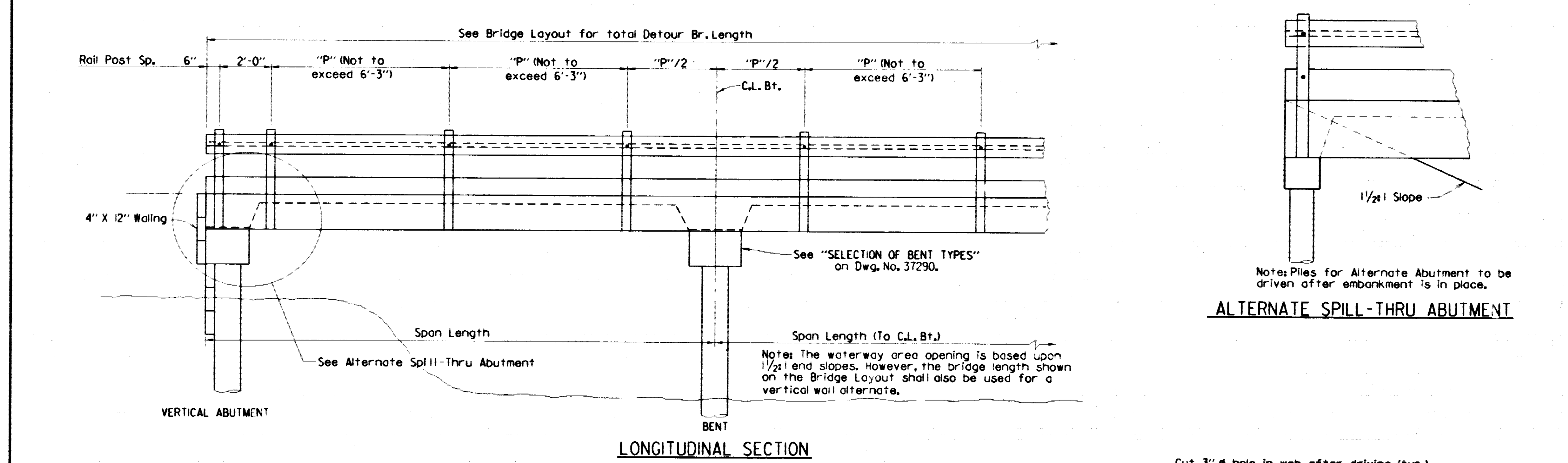
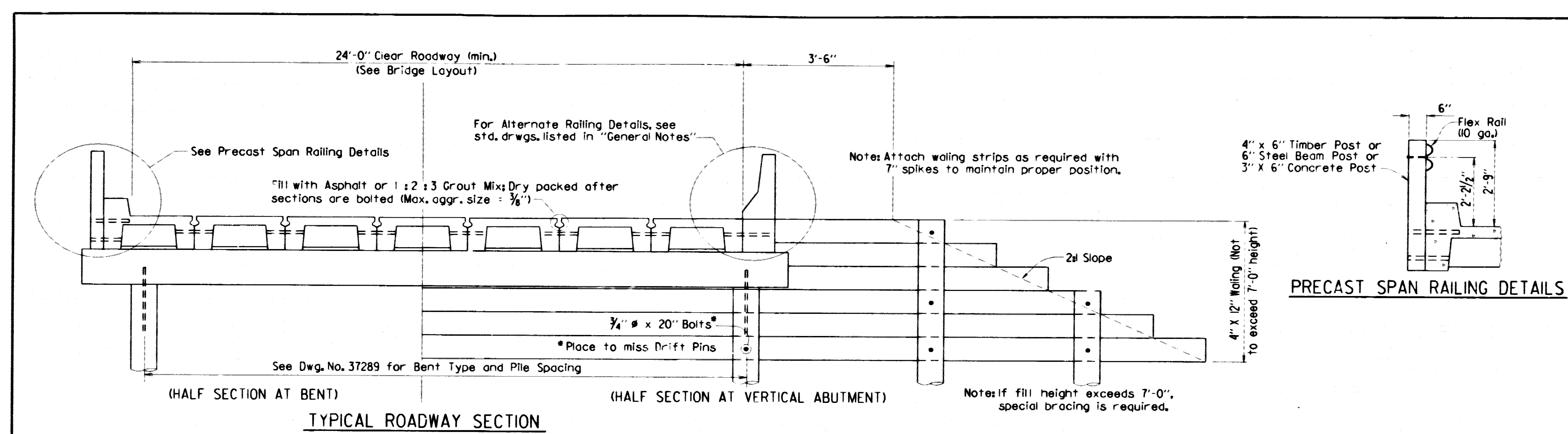
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DESIGNED BY: CRE DATE: 1-4-96

BRIDGE NO. 06653

DRAWING NO. 37287



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.		65	137
				JOB NO.	003982			
				06651, 06652, 06653	TEMP. BRIDGE		37289	



GENERAL NOTES

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 1996 Edition with current interim specifications.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1996 edition, with applicable special provisions and supplemental specifications.

SEISMIC PERFORMANCE CATEGORY: A

DESIGN LIVE LOADS: HS-44 (No Overload).

DESIGN DEAD LOADS: 50 lbs. per cu. ft. for lumber
150 lbs. per cu. ft. for concrete

Precast Concrete Units shall comply with the requirements of AHTD standard drawings and special provisions. Drawings for old style units are within the drawing series 529 thru 5307 and 14800 thru 14899. New style units (Current Design) are within the drawing series 15190 thru 15400.

Load Factor Design is used for the new style precast concrete units. Allowable Stress Design is used for the old style precast concrete units and timber components. The allowable unit stresses used assume normal duration of loading for stress grades of sawn lumber and are as follows:
fb=1200 psi
fv=85 psi

Concrete shall be Class S with a minimum 28 day compressive strength $f'_c = 3500$ psi unless otherwise noted.

Reinforcing Steel shall conform to AASHTO M 31 or M 53, Grade 60 unless otherwise noted.

Structural Steel shall be AASHTO M 270, Gr. 36 unless otherwise noted.

Timber piling shall comply with Section 818 of the Standard Specifications and shall be driven to a minimum bearing capacity of 20 tons per pile. Steel piling shall be HP12X53 and shall be driven to a minimum bearing capacity of 44 tons per pile.

Malleable or cast iron washers shall be used under all bolt heads and nuts bearing on timber. Standard washers shall be provided under all bolt heads and nuts in connection with concrete.

Bolts shall conform to the requirements of ASTM A 307. Minimum dimensions are shown for bolts, dowels, and drift pins.

Grout placed around Drift Pins in piles shall be allowed to cure for 72 hours before caps are used to support the superstructure. Grout to consist of one part portland cement to two parts sand.

Melted sulfur may be used in lieu of grout placed around drift pins. The superstructure may be placed as soon as the sulfur has hardened.

Bent caps to be handled from points approximately 5 feet from the ends.

Timber material, regardless of species, must be of equal or better strength than no. 2 southern pine or douglas fir, graded by the standard grading rules.

For additional notes concerning "Bridge End Protection System", see Dwg. No. 37291.

Unless otherwise noted, the Temporary Bridge Structure shall comply with and be paid for in accordance with Section 603.

SHEET 1 OF 2

DETAILS OF TEMPORARY BRIDGE STRUCTURE

PRECAST CONCRETE SPANS

24'-0" ROADWAY WIDTH

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

BRIDGE ENGINEER

REGISTERED PROFESSIONAL ENGINEER

DATE: 1-11-96

CHECKED BY: GEC DATE: 1-12-96

DESIGNED BY: Std. DATE:

BRIDGE NO. 06651, 06652, 06653

DRAWING NO. 37289

SCALE: NOT TO SCALE

1,550,300 CREES41 B003982X1, TM

