

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



WOOLWICH
SAGADAHOC COUNTY
REED STREET BRIDGE
OVER
MAINE EASTERN RAILWAY

PROJECT NO. BR-1676(500)X
PROJECT LENGTH 0.07 mi.
BRIDGE REPLACEMENT
BRIDGE NO. 1013

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Fifth Edition 2010.

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

TRAFFIC DATA

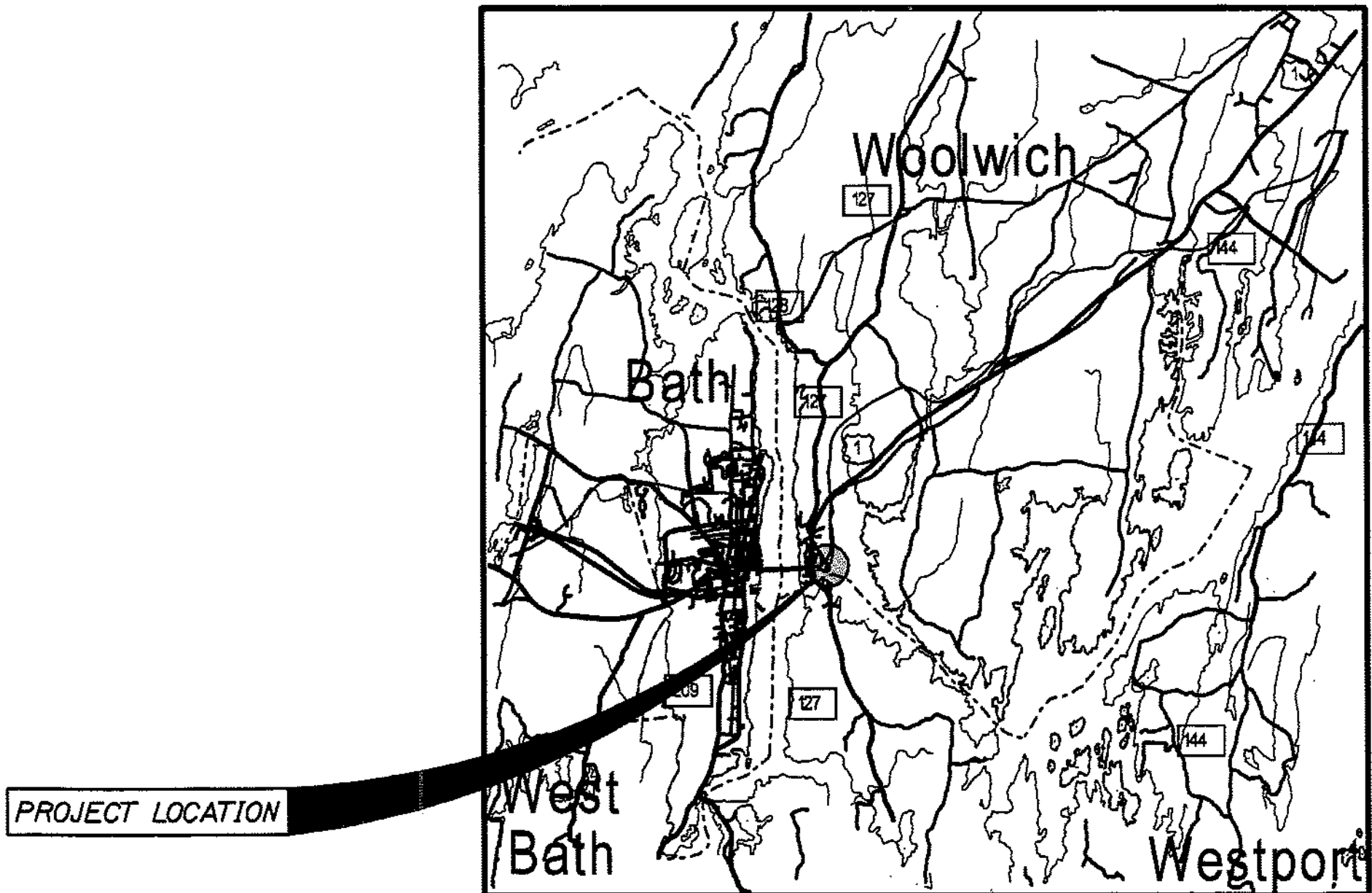
Current (2007) AADT 39
Future (2027) AADT 59
Heavy Trucks (% of AADT) 5
Design Speed (mph) 25

MATERIALS

Concrete:
Barriers, Curbs, Sidewalks & Transition Barriers Class "LP"
Precast Class "P"
All Other Class "A"
Reinforcing Steel ASTM A 615/A 615M, Grade 60
Prestressing Strands AASHTO 203 (ASTM A 416),
Grade 270, Low Relaxation
High Strength Bolts ASTM A325, Type I, Galv.
Structural Steel (All except channel) ASTM A709, Grade 50
Structural Steel (Channel Shapes) ASTM A709, Grade 36
Anchor Rods ASTM F1554, Grade 36

BASIC DESIGN STRESSES

Concrete
Class "A" $f'c = 4,350$ psi
Class "LP" $f'c = 5,075$ psi
Precast Concrete $f'c = 6,500$ psi
Reinforcing Steel $f'ci = 4,000$ psi
Prestressing Strand $f_y = 60,000$ psi
Structural Steel $F_u = 270,000$ psi
ASTM A709, Grade 50 $F_y = 50$ ksi
ASTM A709, Grade 36 $F_y = 36$ ksi
ASTM A325 $F_u = 120$ ksi
ASTM F1554, Grade 36 $F_y = 36$ ksi



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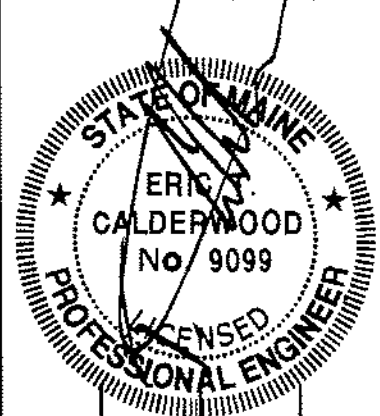
UTILITIES

Central Maine Power Company
Fairpoint Communications
Comcast Cable
Maine Eastern Railways

MAINTENANCE OF TRAFFIC

Maintain traffic on a single lane temporary bridge.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: [Signature]
CHIEF ENGINEER: [Signature]



SIGNATURE: [Signature]
P.E. NUMBER: 9099
DATE: 11/21/11

PROJECT INFORMATION	PROGRAM	BRIDGE PROGRAM	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
		Bridge Program	B. Condon	OKK	Calderwood Engineering		

WOOLWICH
REED STREET BRIDGE
TITLE SHEET

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.23	REMOVING SINGLE TREE TOP ONLY	3	EA
201.24	REMOVING STUMP	3	EA
202.19	REMOVE EXISTING BRIDGE (40,000 LBS)	1	LS
203.20	COMMON EXCAVATION	880	CY
203.24	COMMON BORROW	150	CY
203.25	GRANULAR BORROW	15	CY
206.082	STRUCTURAL EARTH EXC. - MAJOR STRUCTURES	60	CY
206.092	STRUCTURAL ROCK EXC. - MAJOR STRUCTURES	10	CY
304.10	AGGR SUBB COURSE - GRAVEL	590	CY
403.208	HOT MIX ASPHALT 12.5MM HMA SURFACE	55	T
403.213	HOT MIX ASPHALT 12.5MM HMA BASE	55	T
409.15	BITUMINOUS TACK COAT - APPLIED	70	G
502.219	STRUCTURAL CONCRETE ABUT & RET WALL (25 CY)	1	LS
502.26	STRUCTURAL CONCRETE RDWAY SLAB ON STEEL BRIDGES (40 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS & SW (10 CY)	1	LS
503.12	REINFORCING STEEL,FAB & DEL	5,000	LB
503.13	REINFORCING STEEL, PLACING	5,000	LB
504.70	STRUCTURAL STEEL FABRICATED & DELIVERED (52,000 LBS)	1	LS
504.71	STRUCTURAL STEEL ERECTION (52,000 LBS)	1	LS
505.08	SHEAR CONNECTORS (248)	1	LS
510.10	SPEC. DETOUR _ 12' ROADWAY WIDTH	1	LS
514.06	CURING BOX FOR CONC CYL	1	EA
515.20	PROT COAT FOR CONC SURFACES	180	SY
523.52	BEARING INSTALLATION	4	EA
523.5401	LAMINATED ELASTOMERIC BEARINGS, FIXED	2	EA
523.5402	LAMINATED ELASTOMERIC BEARINGS, EXPANSION	2	EA
603.169	15" CULVERT PIPE OPTION III	50	LF
603.17	18" CULVERT PIPE OPTION I	50	LF
604.13	24" CATCH BASIN TYPE 'E'	1	EA
606.231	GUARDRAIL TYPE 3C - 15' RADIUS AND LESS	62.5	LF
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	6	EA
606.74	GUARDRAIL TYPE 3 - SINGLE RAIL BRIDGE MOUNTED	200	LF
606.78	LOW VOLUME GUARDRAIL END - TYPE 3	2	EA
610.18	STONE DITCH PROTECTION	20	CY
615.0701	LOAM- PLAN QUANTITY	30	CY
618.1401	SEEDING METHOD *2 - PLAN QUANTITY	5	UN
629.05	HAND LABOR, STRAIGHT TIME	40	HR
631.12	ALL PURPOSE EXCAVATOR (INC OPERATOR)	15	HR
631.15	ROLLER EARTH BASE CRS.(INC OPERATOR)	15	HR
631.171	TRUCK-SMALL (INC OPERATOR)	15	HR
639.19	FIELD OFFICE TYPE B	1	EA

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
652.31	TYPE I BARRICADE	2	EA
652.33	DRUM	5	EA
652.34	CONE	5	EA
652.35	CONSTRUCTION SIGNS	88	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (90 CD)	1	LS
656.75	TEMP. SOIL EROSION AND WATER POLL CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. All Utility Facilities shall be adjusted by the respective Utilities unless otherwise noted.
2. For Easements, Construction Limits, and Right-Of-Way lines, refer to Right of Way Map.
3. The Clearing Limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to related Contract items.
4. Place Loam 2" deep on all side slopes.
5. Do not excavate for Aggregate Subbase Course where Existing Material is suitable as determined by the Resident.
6. In areas where the Resident directs the Contractor not to excavate to the Subgrade Line shown on the plans, payment for removing Existing Pavement, Grubbing, shaping, ditching, and compacting the Existing Subbase and layers of new Subbase 6" or less thick will be made under appropriate Equipment rental items.
7. Stones which cannot be rolled or compacted into the surface of the Shoulder shall be removed by Hand Raking. Payment for Hand Raking will be considered incidental to Item 304.10, Aggregate Subbase Course - Gravel.
8. Two Flexible Reflectorized Guardrail Markers shall be installed at each leading Guardrail End and one at each trailing Guardrail End.
9. Extended-use Erosion Control Blanket, Seeded Gutters, Riprap Downspouts, and other Gutters lined with Stone Ditch protection shall be constructed after Paving and Shoulder work is completed, where it is apparent that Runoff will cause continual Erosion. Payment will be made under appropriate Contract items.
10. Guardrail Post length and embedment as shown in the Standard Details shall be modified from the indicated 6' length to 7' with a 4'-6" embedment.
11. Protective Coating for Concrete Surfaces shall be applied to the following areas:

All exposed Surfaces of Concrete Curbs and Sidewalks,
Fascia down to Drip Notch,
Concrete Wearing Surfaces,
Top of Abutment Backwalls and to 1' below the top of Backwalls on the back side.
12. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final quantities are different from the MaineDOT provided estimated quantities, except as follows:

a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items, will take precedence.

b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.

c. If a design change results in changes to estimated quantities for Lump Sum pay items, price adjustments will be made in accordance with Standard specifications Section 109.7, Equitable Adjustments to Compensation.

GENERAL CONSTRUCTION NOTES (cont.)

13. The Contractor shall submit a Bridge Demolition Plan to the Resident at least 10 business days prior to the start of the demolition work. The plan shall outline the methods and equipment to be used to remove and dispose of all materials included in the existing bridge. No work related to removal of the bridge shall be undertaken by the Contractor until MaineDOT has reviewed the Bridge Demolition Plan for appropriateness and completeness. Payment for all work necessary for developing, submitting, and finalizing, the Demolition Plan will be considered incidental to the bridge removal pay item.
14. The existing bridge shall be removed by and become the property of the Contractor. Once the existing bridge is removed, the Contractor is solely responsible for the care, custody, and control of the components of the existing bridge and any hazardous waste generated as a result of the storage, recycling, or disposal of the bridge components, including lead coated steel. The Contractor shall recycle or reuse the steel in accordance with the Maine Department of Environmental Protection's "Maine Hazardous Waste Management Regulations," Chapter 850. A copy of this regulation is available at MaineDOT's offices on Child Street in Augusta. Payment for all labor, materials, equipment and other costs required to remove and dispose of the existing bridge will be considered incidental to the bridge removal pay item.
15. Contractor has the option to use either type 3 guardrail or type I temporary concrete barrier for the special detour. Payment for either option shall be considered incidental to Item *510.10 Special Detour.
16. The contractor has the option to use SIP precast, prestressed panels with a Cast-In-Place over pour for the deck.
17. Payment for tree wells will be considered incidental to related slope work. No additional payment will be made.
18. Access to the temporary detour from the south side of the bridge is to be blocked off with large boulders after the removal of the detour. Contractor should anticipate using a minimum of four boulders 2'x2'x3' approximate size. Exact placement to be determined in the field by the Resident. Payment for this item shall be considered incidental to Item *510.10 Special Detour.
19. If bedrock is encountered during excavation for the catch basin type 'E' at an elevation before that required to achieve the 2' sump shown on the standard detail the contractor may reduce the depth of the sump to a minimum of 6" at the discretion of the Resident. If rock excavation is required for the installation of the catch basin payment shall be made in accordance with 206.05 of the Standard Specifications at 16 times the contract unit price per cubic yard for Common Excavation.
20. Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php>.

The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.



STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

BR-1676(500)X

PIN 16765.00

BRIDGE NO. 1013

BRIDGE PLANS

REED STREET BRIDGE

OVER MAINE EASTERN RAILWAY

WOOLWICH

SAGadahoc COUNTY

ESTIMATED QUANTITIES

DATE

NOV 2010

DEC 2010

BY

OKK

ETC

DESIGN-DETAILED

CHECKED-REVIEWED

DESIGNED-DETAILED

DESIGNED-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

SIGNATURE

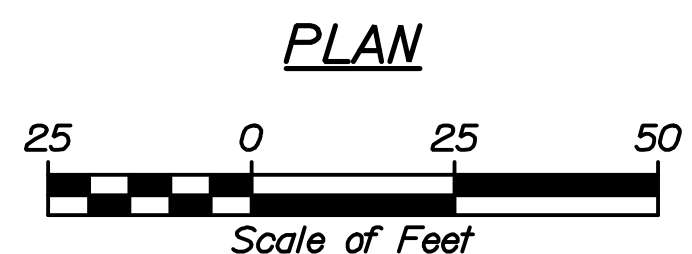
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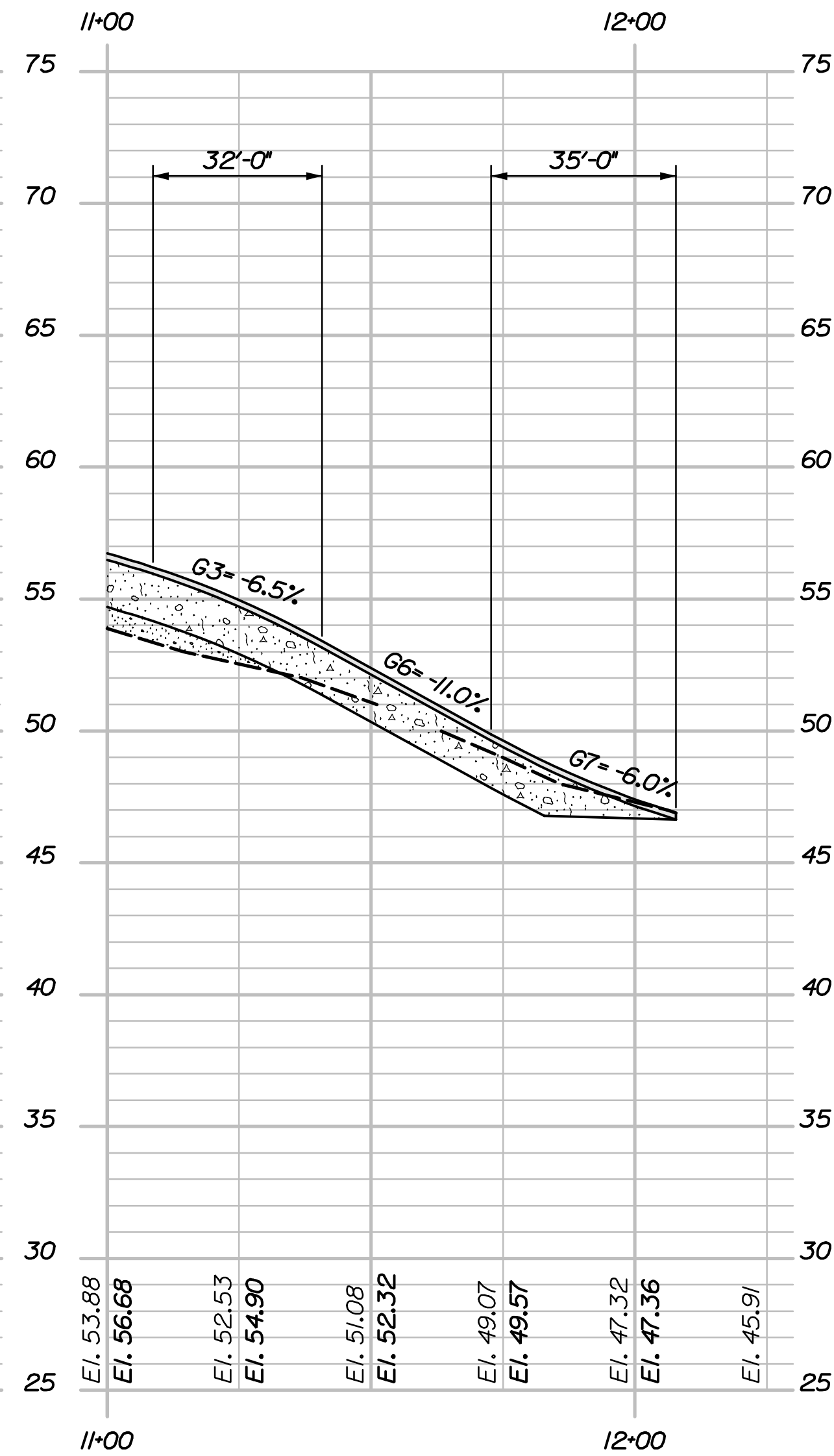
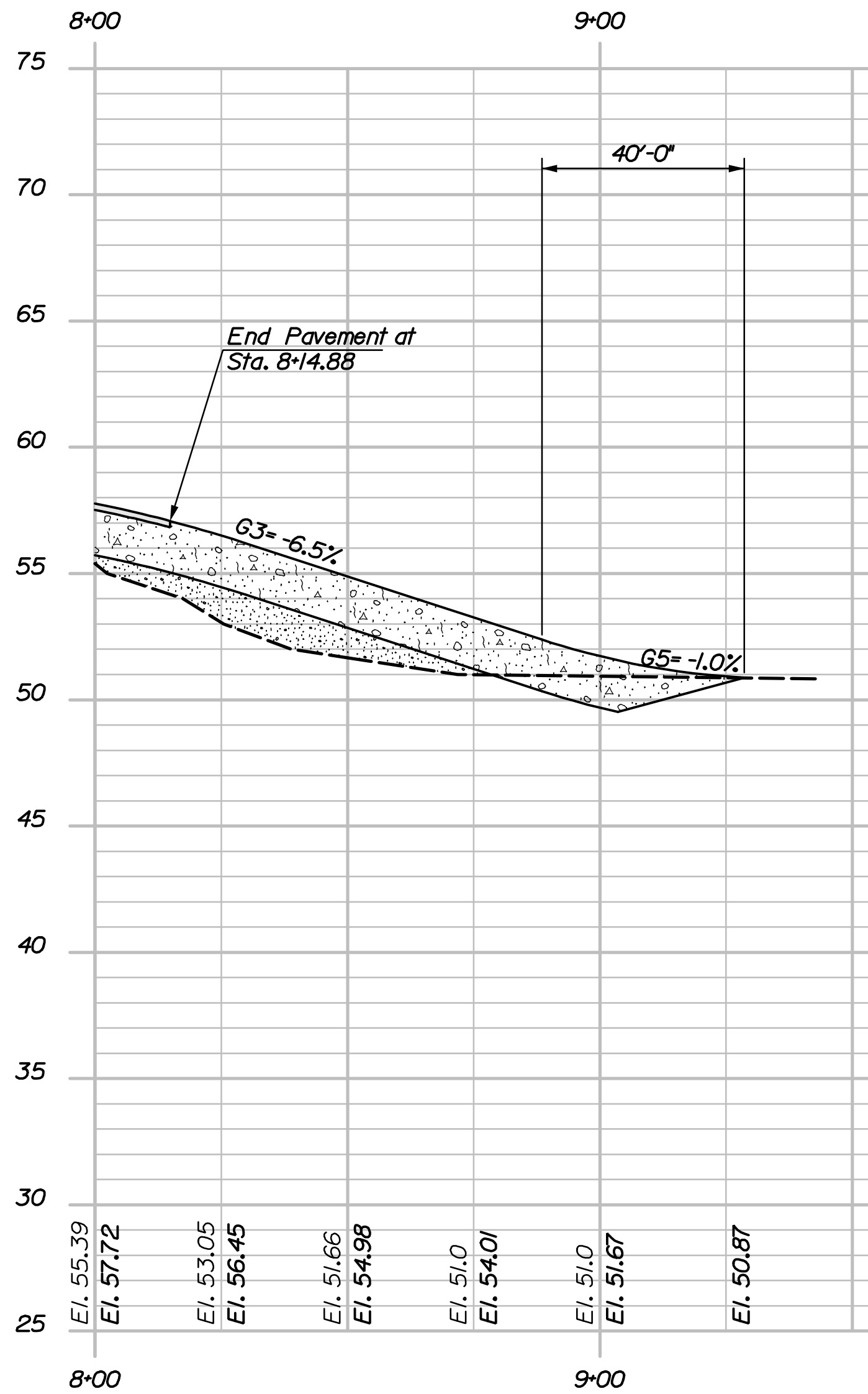
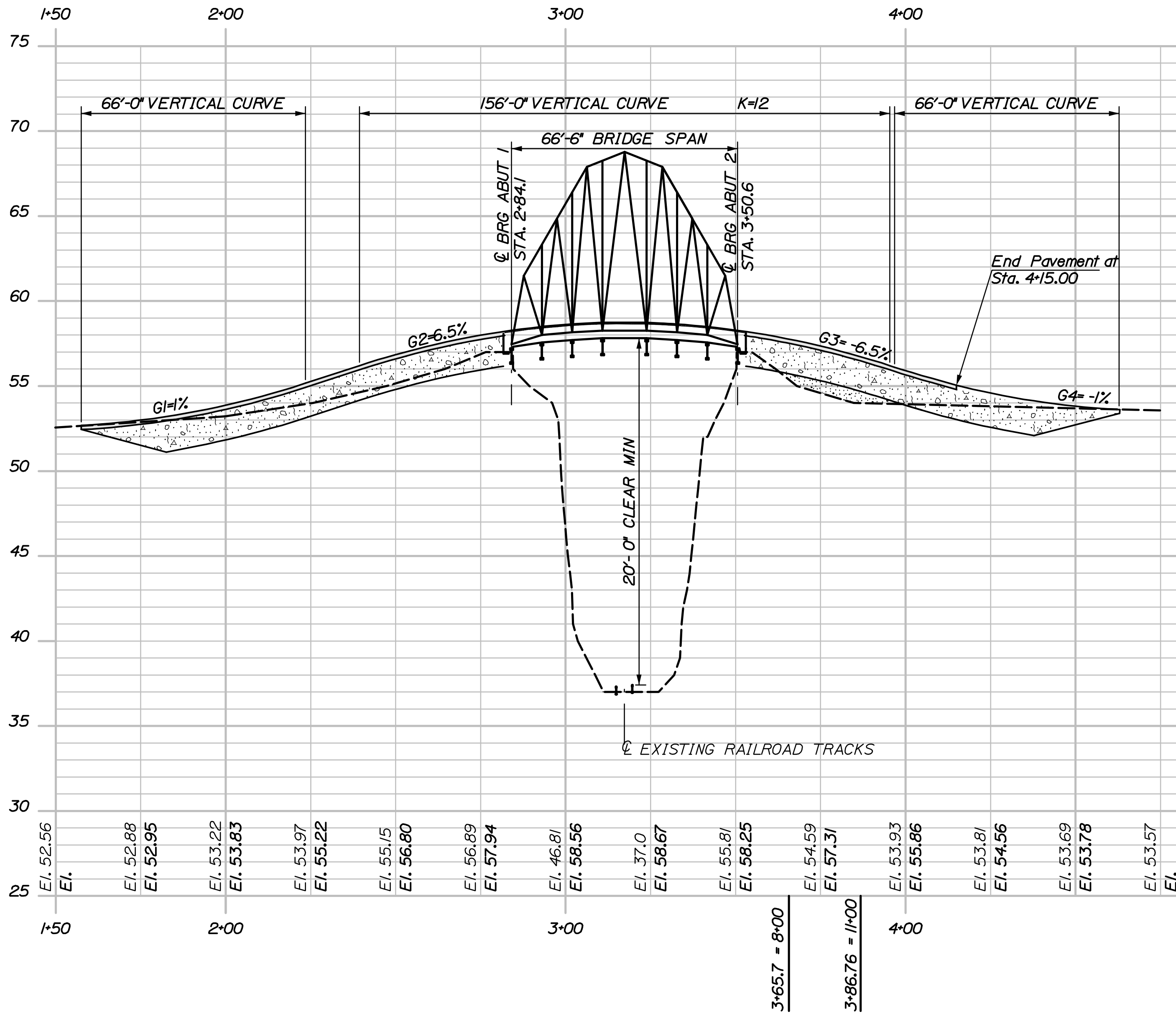
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SHEET NUMBER

2

OF 28

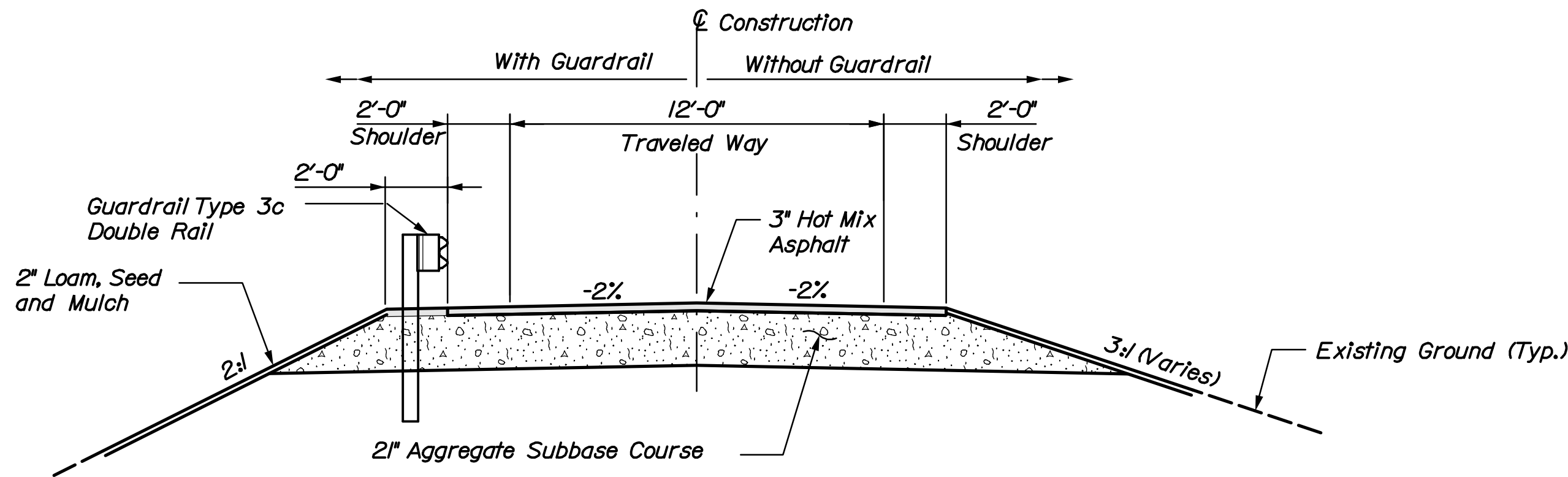




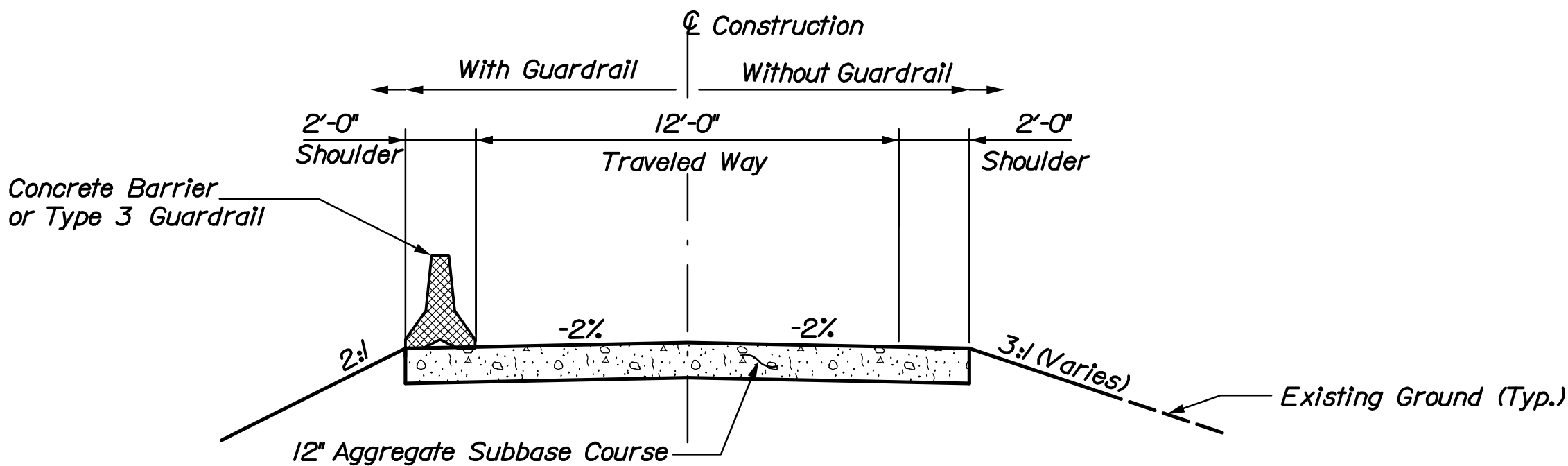
PROFILE - REED STREET OVER EAST COAST RAILWAY - WOOLWICH
20'-0" RAILROAD CLEARANCE



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
BR-1676(500)X		PIN 16765.00	
BRIDGE NO. 1013		BRIDGE PLANS	
REED STREET BRIDGE OVER MAINE EASTERN RAILWAY WOOLWICH SAGadahoc COUNTY		SHEET NUMBER 4 OF 28	
PROFILE - REED STREET 20'-0" CLEARANCE		SIGNATURE P.E. NUMBER DATE	
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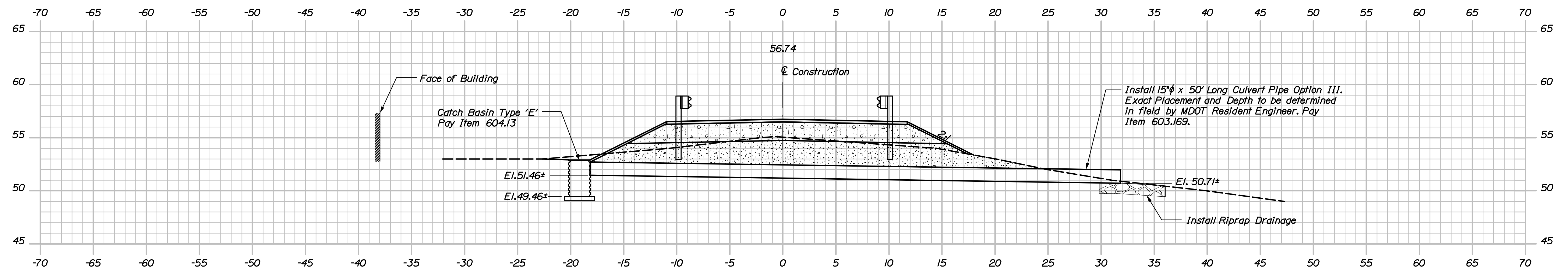
TYPICAL APPROACH SECTION



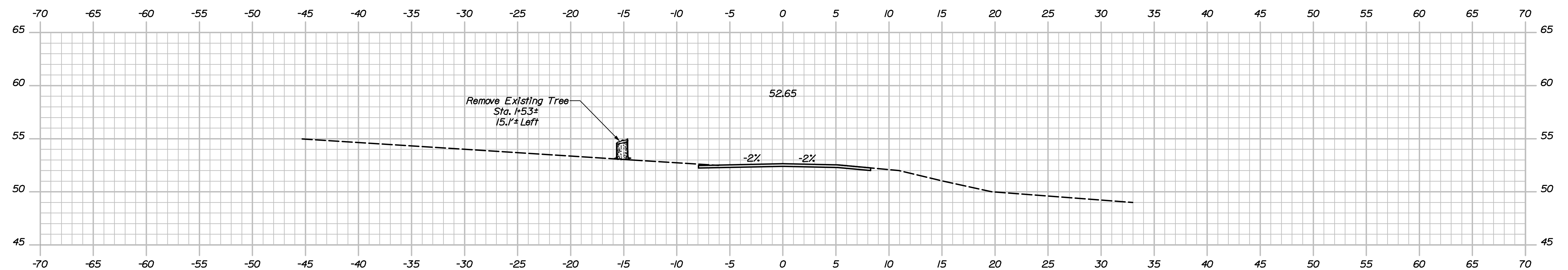
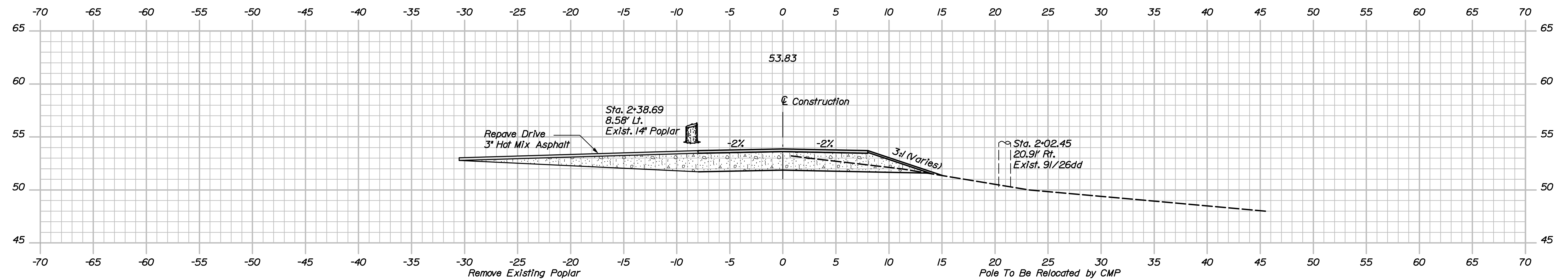
TYPICAL DETOUR SECTION



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		BR-1676(500)X		PIN 16765.00		BRIDGE NO. 1013		BRIDGE PLANS	
REED STREET BRIDGE		OVER MAINE EASTERN RAILWAY		SAGADAHOC COUNTY		WOOLWICH		TYPICAL SECTIONS		SHEET NUMBER	
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BY		DATE		BY		DATE		BY		DATE	
OK		OK		OK		OK		OK		OK	
Etc		Etc		Etc		Etc		Etc		Etc	
SIGNATURE		SIGNATURE		SIGNATURE		SIGNATURE		SIGNATURE		SIGNATURE	
P.E. NUMBER		P.E. NUMBER		P.E. NUMBER		P.E. NUMBER		P.E. NUMBER		P.E. NUMBER	
DATE		DATE		DATE		DATE		DATE		DATE	
REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4		REVISIONS 5		REVISIONS 6	
FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES	



CULVERT OPTION III
2+48.95
CUT ALONG SKEW OF PIPE



1+57.09
MATCH EXISTING ROADWAY - BEGIN 25' TRANSITION

STATE OF MARYLAND	
DEPARTMENT OF TRANSPORTATION	
BR-1676(500)X	
BRIDGE NO. 1013	PIN
	16765.00
	BRIDGE PLANS

DESIGN-DETAILED	QCK	QCK	NOV 2010
CHECKED-REVIEWED	ETC	ETC	DEC 2010
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DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
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		DATE	

WOOLWICH
OVER MAINE EASTERN RAILWAY
SAGADAHOC COUNTY

MAINLINE CROSS SECTIONS

SHEET NUMBER

3

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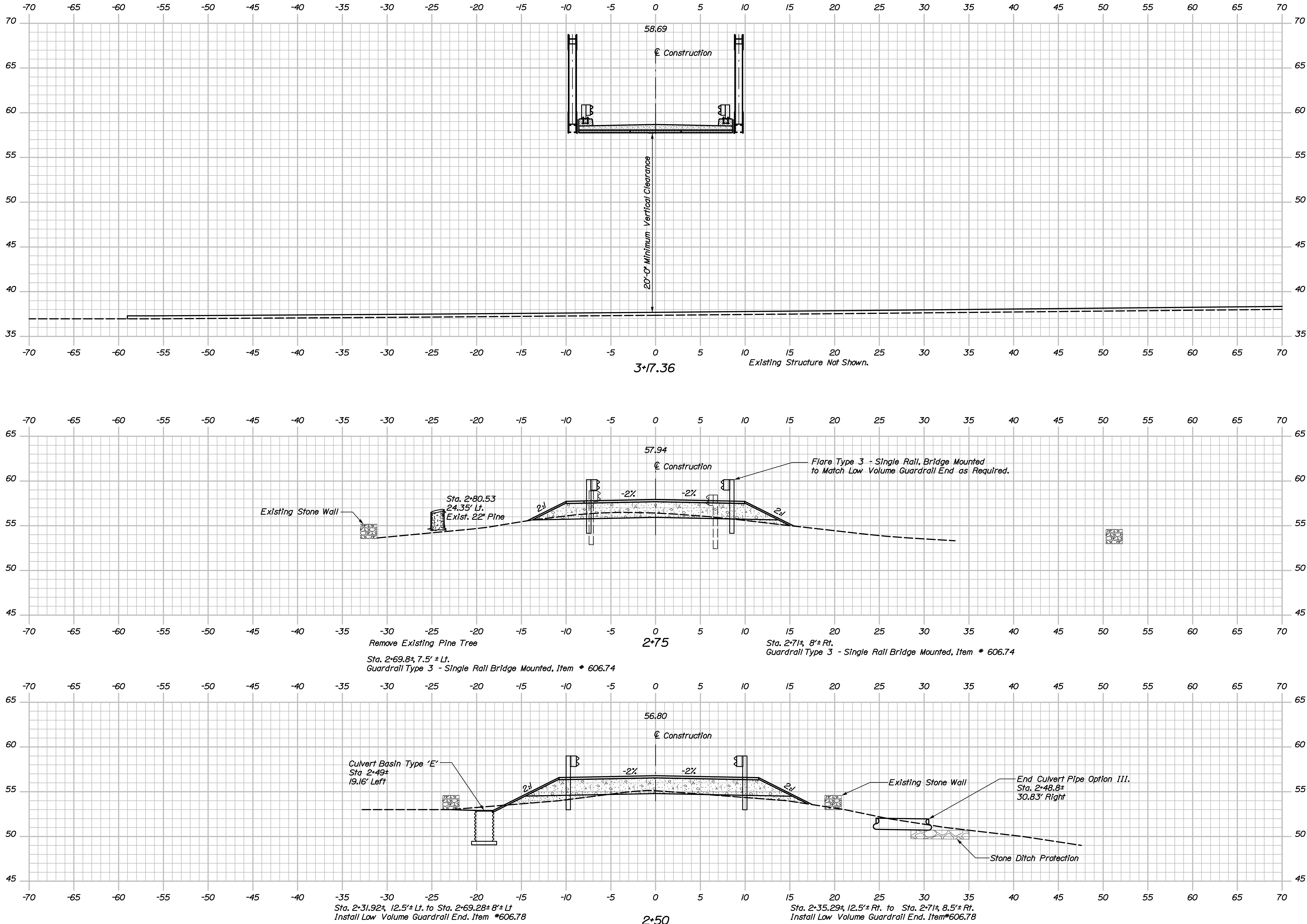
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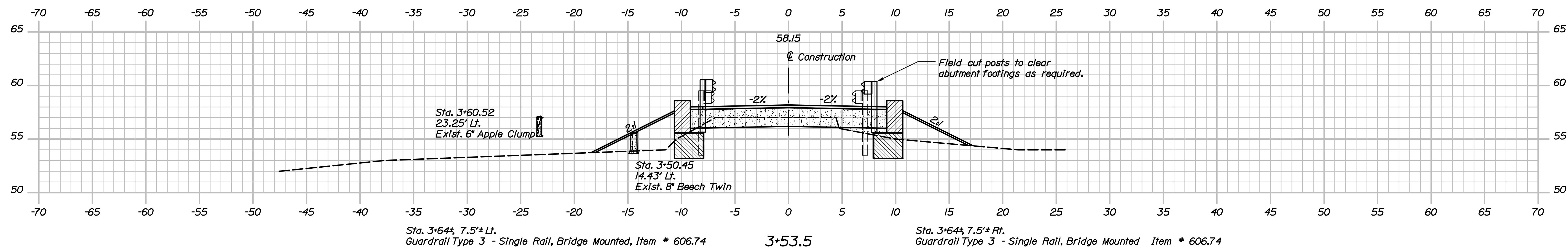
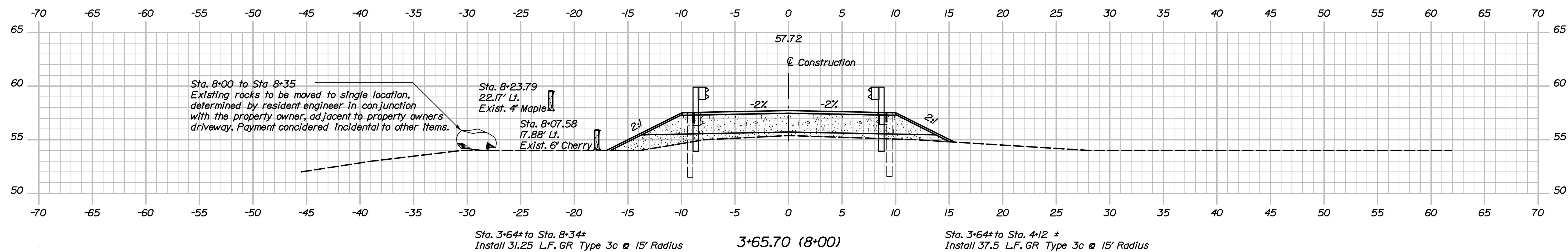
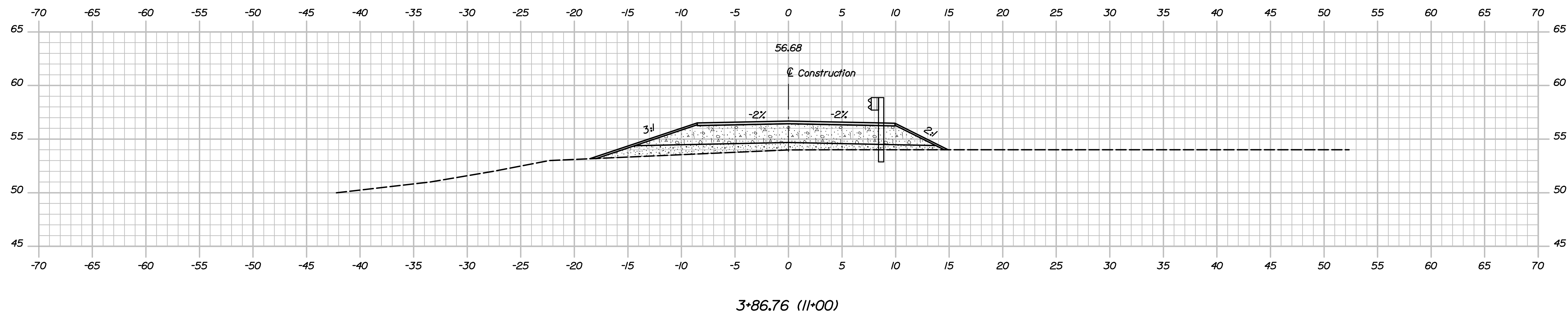


STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1676(500)X
BRIDGE NO. 1013
PIN 16765.00
BRIDGE PLANS

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DEC 2010	ETC	DEC 2010	ETC	DEC 2010	ETC
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REED STREET BRIDGE	WOOLWICH
OVER MAINE EASTERN RAILWAY	SAGadahoc COUNTY
MAINLINE CROSS SECTIONS	

SHEET NUMBER
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OF 28

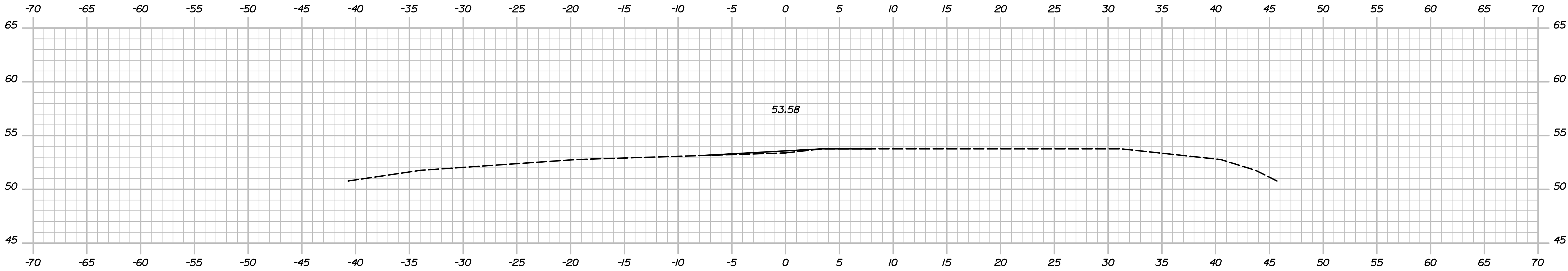


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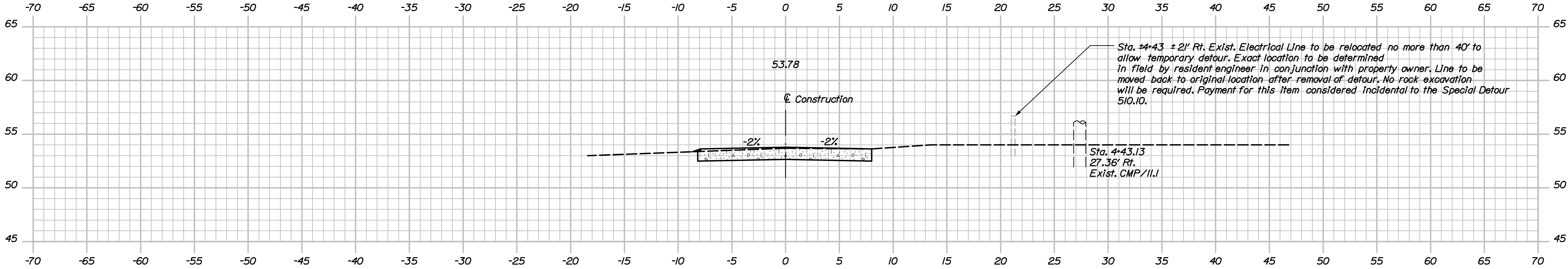
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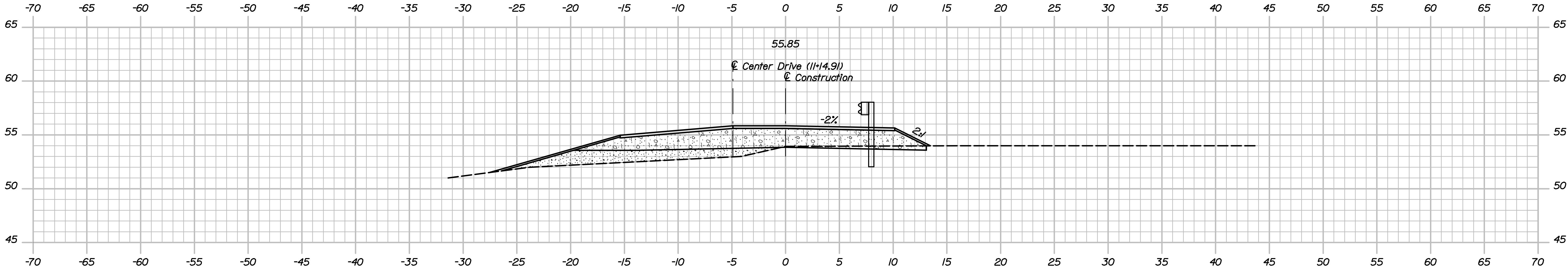
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4+63.16
MATCH EXISTING - END 25' TRANSITION



4+50



4+00

End Pavement at Sta. 4+15.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1676(500)X
BRIDGE NO. 1013
PIN 16765.00
BRIDGE PLANS

PROJ. MANAGER	L. TIMBERLAKE	BY	DATE
DESIGN-DETAILED	OK	OK	NOV 2010
CHECKED-REVIEWED	ETC	ETC	DEC 2010
DESIGN-DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

REED STREET BRIDGE
OVER MAINE EASTERN RAILWAY
WOOLWICH
SAGadahoc COUNTY
MAINLINE CROSS SECTIONS

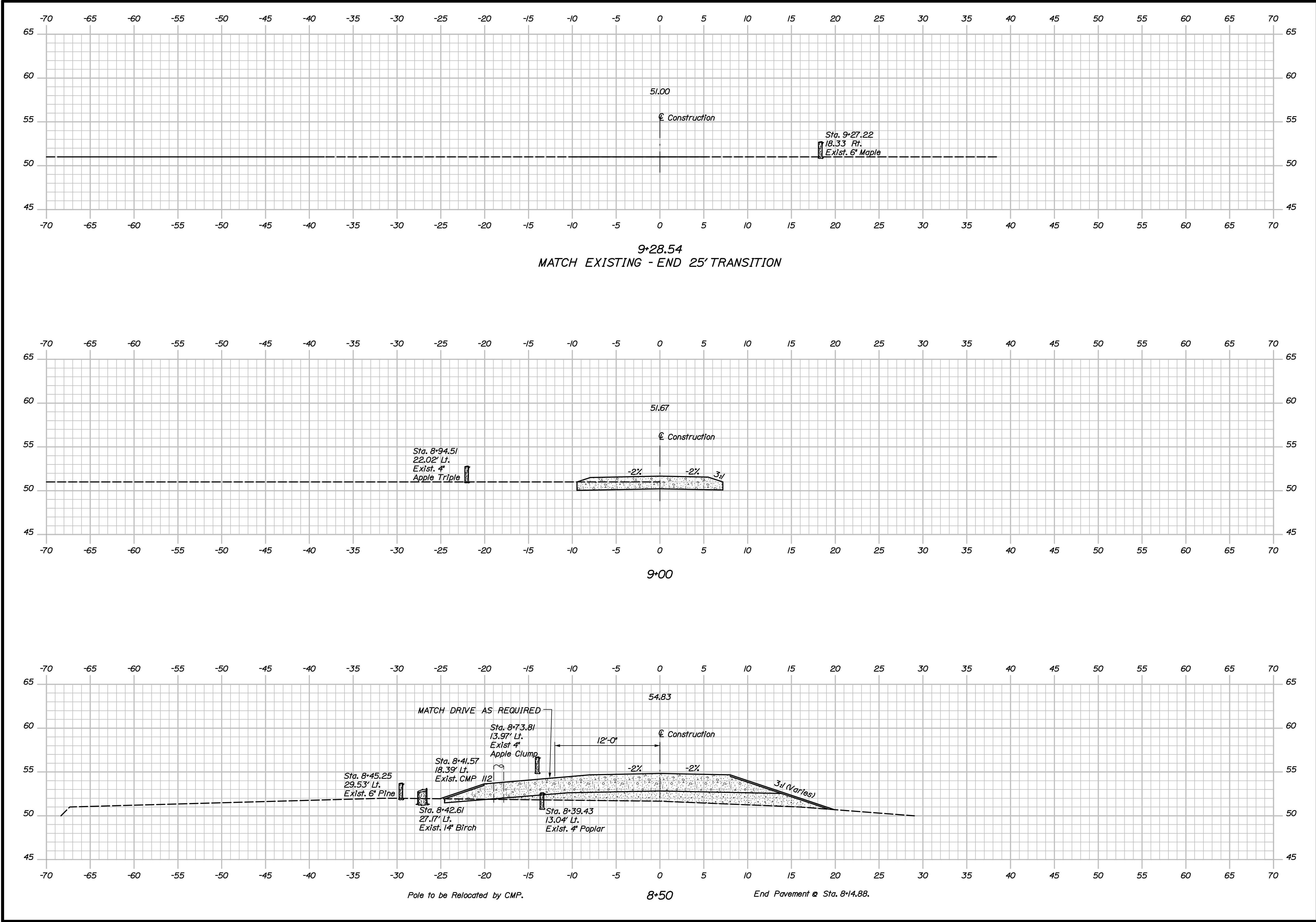
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OF 28

Date: 1/10/2011

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Division: BRIDGE

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STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

BR-1676(500)X

BRIDGE NO. 1013

PIN 16765.00

BRIDGE PLANS

REED STREET BRIDGE

OVER MAINE EASTERN RAILWAY

WOOLWICH

SAGADAHOC COUNTY

MAINLINE CROSS SECTIONS

SHEET NUMBER

10

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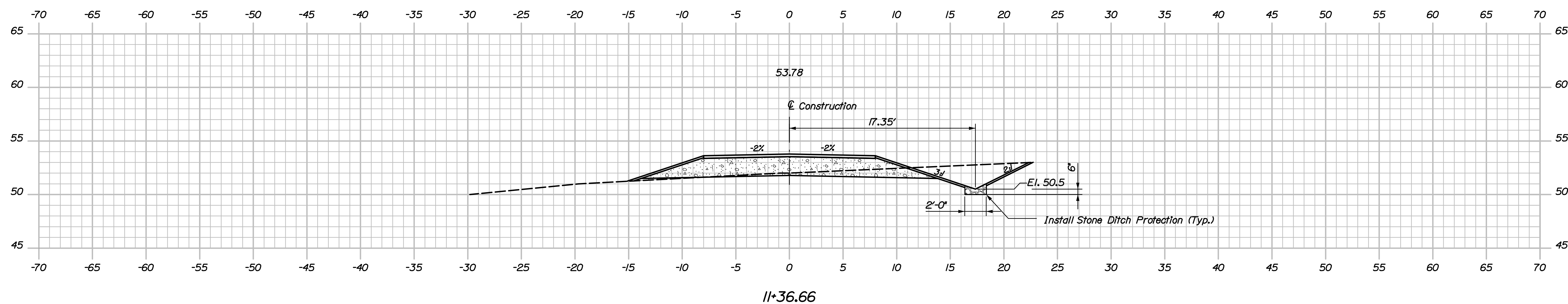
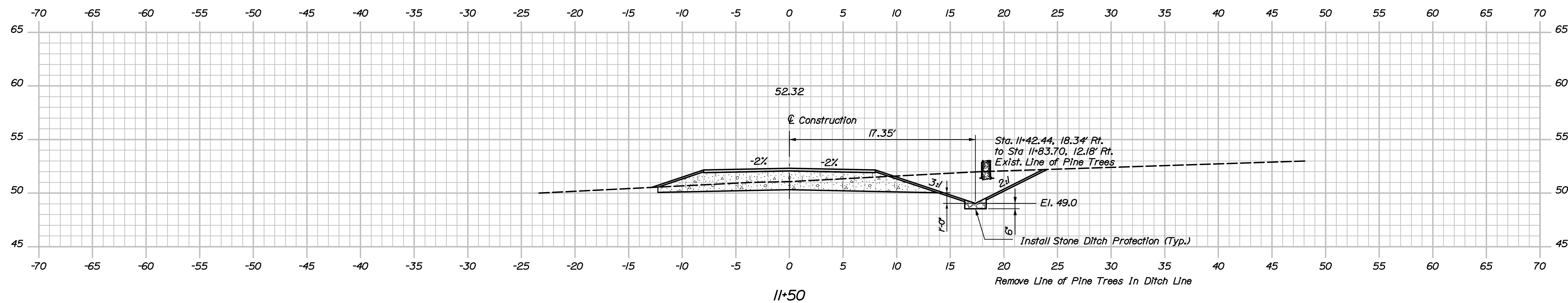
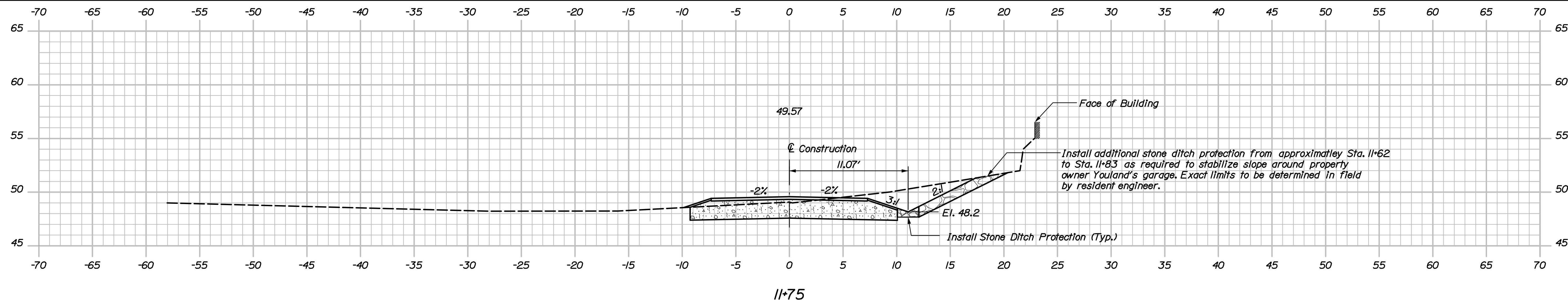
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CHECKED-REVIEWED	OK	ETC	DEC 2010
DESIGN-DETAILED	OK		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

Sta. 8+50 to Sta. 9+28.54



STATE OF MAINE	
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BR-1676(500)X	
BRIDGE NO. 1013	PIN 16765.00
BRIDGE PLANS	

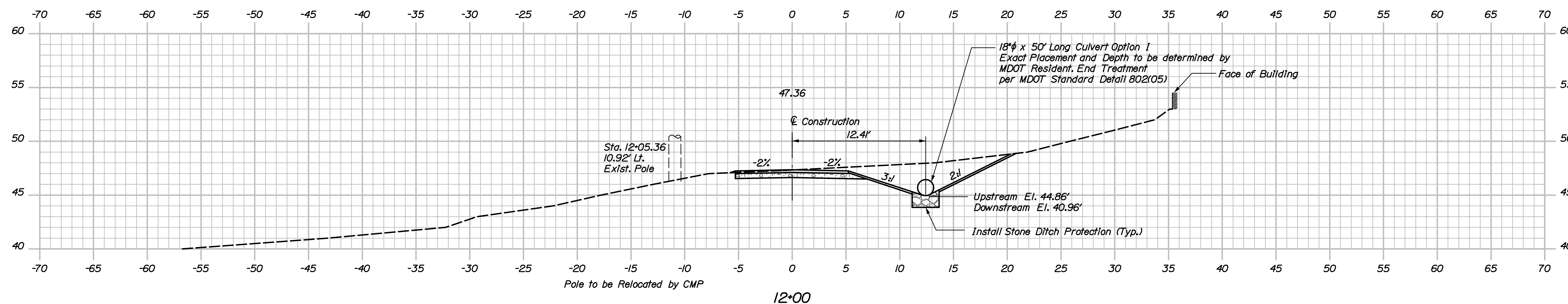
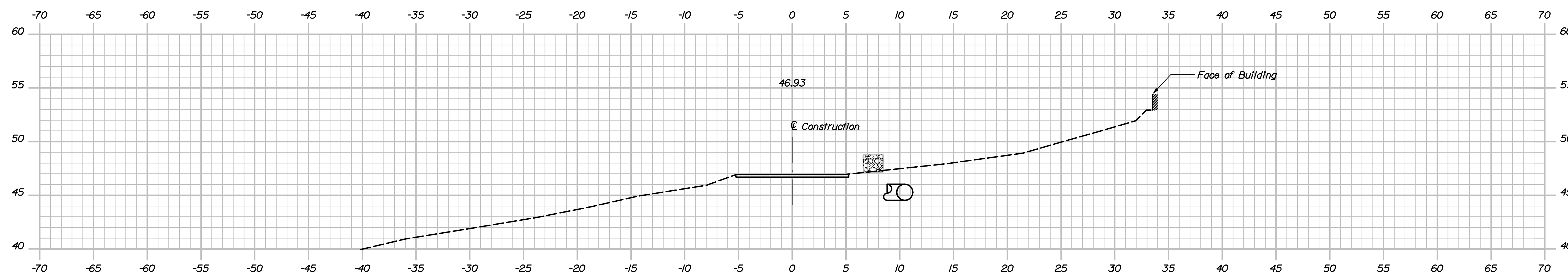
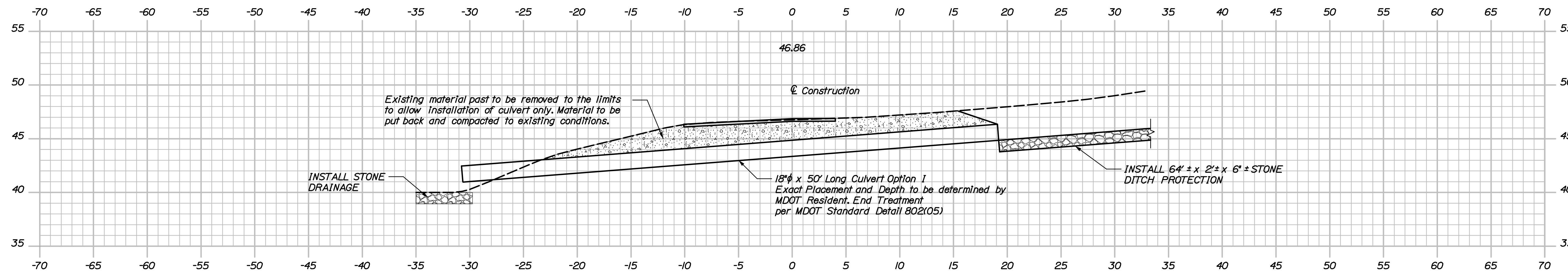
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REVISIONS 3			
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FIELD CHANGES			
			SIGNATURE
			P.E. NUMBER
			DATE

REED STREET BRIDGE
OVER MAINE EASTERN RAILWAY
WOOLWICH SAGadahoc COUNTY
MAINLINE CROSS SECTIONS

SHEET NUMBER

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STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
BR-1676(500)X	
BRIDGE NO. 1013	PIN 16765.00
BRIDGE PLANS	

PROJ. MANAGER	L. TIMBERLAKE	BY	DATE
DESIGN-DETAILED	OKK	OKK	NOV 2010
CHECKED-REVIEWED	ETC	ETC	DEC 2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SIGNATURE			P.E. NUMBER
DATE			

REED STREET BRIDGE
OVER MAINE EASTERN RAILWAY
WOOLWICH SAGADAHOC COUNTY
MAINLINE CROSS SECTIONS

SHEET NUMBER

12

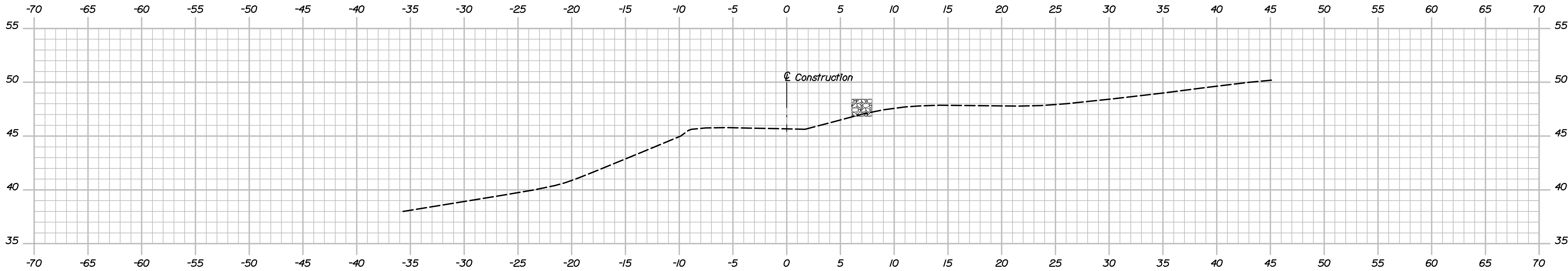
OF 28

Date:1/10/2011

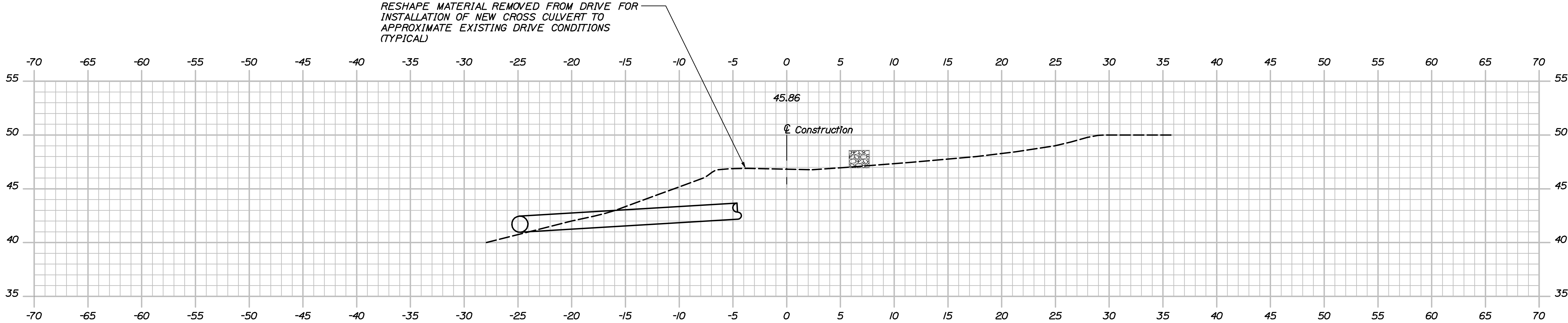
Username: common

Division: BRIDGE

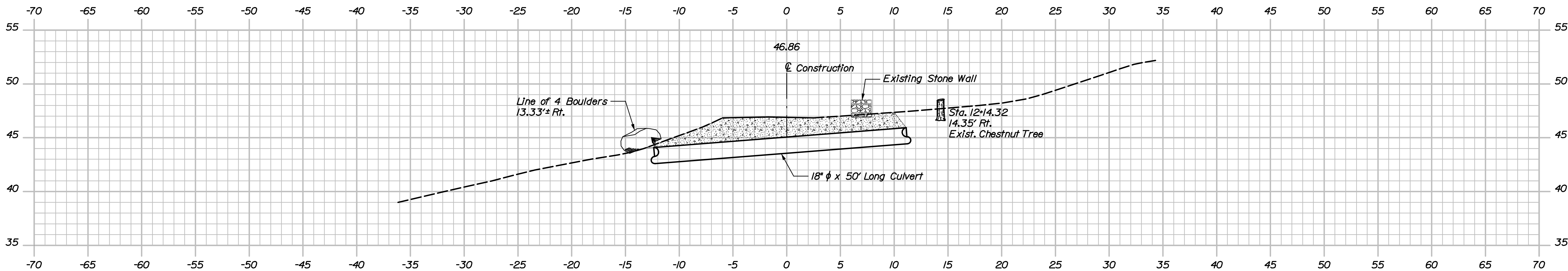
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12+50



12+25



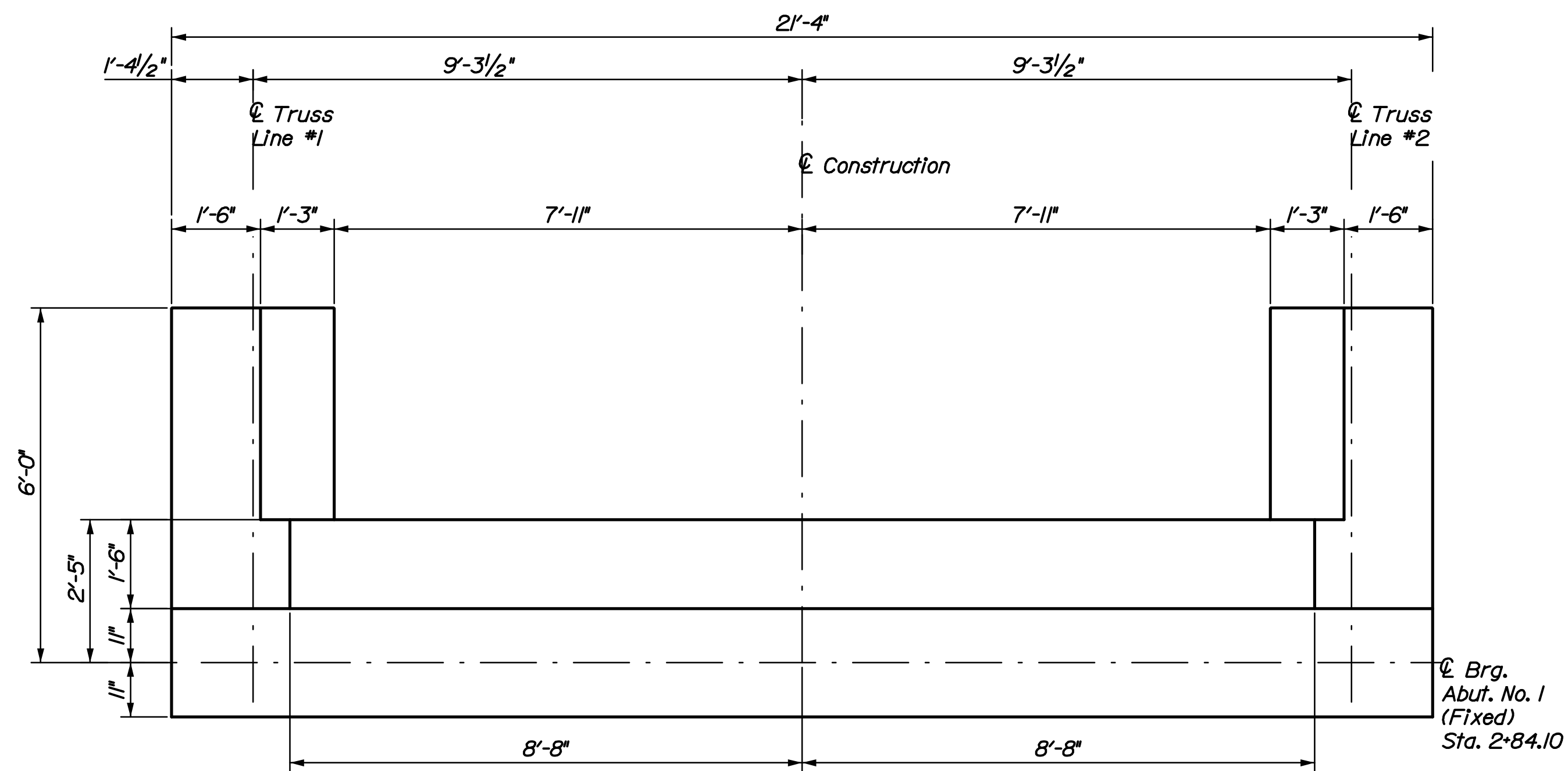
CULVERT
12+19.62

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1676(500)X
BRIDGE NO. 1013
PIN 16765.00
BRIDGE PLANS

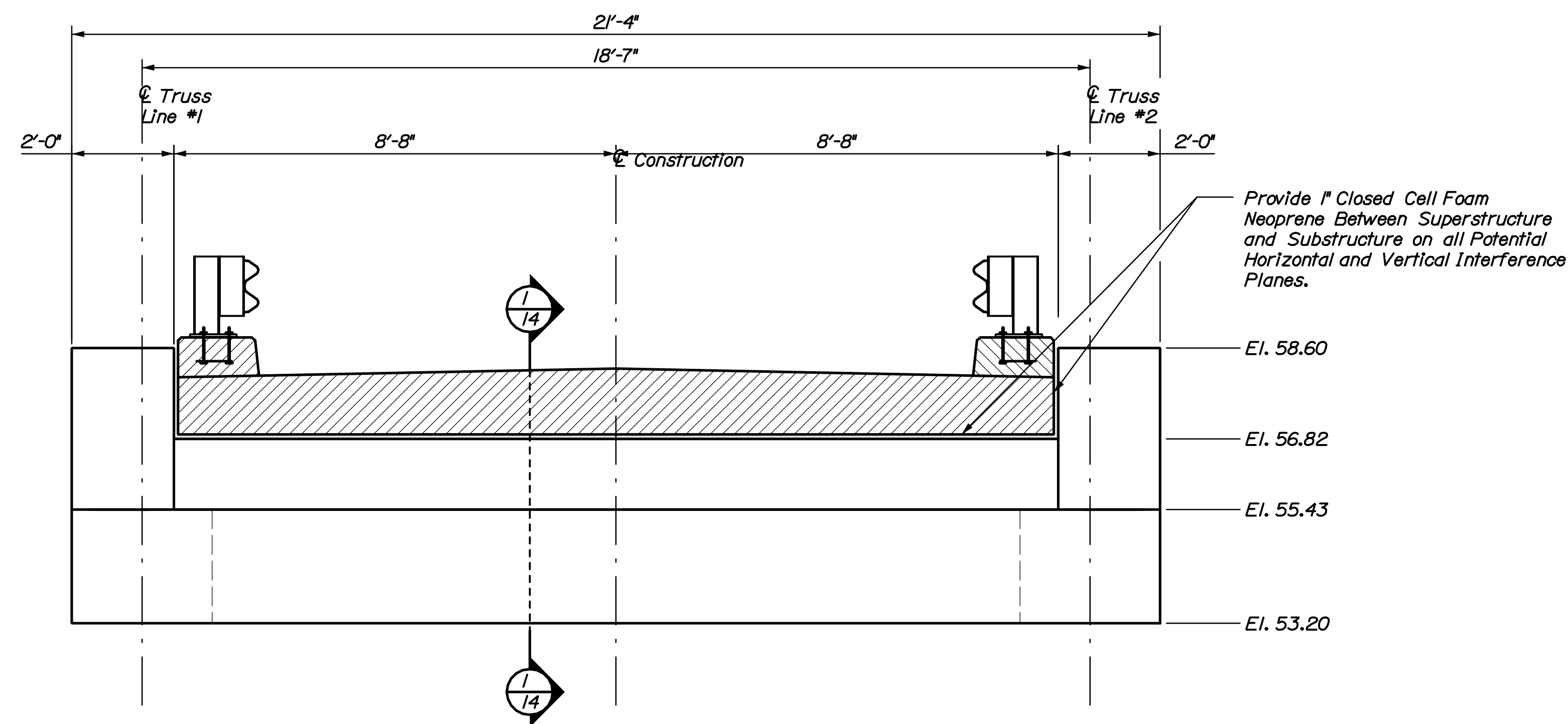
PROJ. MANAGER	L. TIMBERLAKE	BY	DATE
DESIGN-DETAILED	OK	OK	NOV 2010
CHECKED-REVIEWED	ETC	ETC	DEC 2010
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SIGNATURE			
P.E. NUMBER			
DATE			

REED STREET BRIDGE
OVER MAINE EASTERN RAILWAY
WOOLWICH
SAGadahoc COUNTY
MAINLINE CROSS SECTIONS

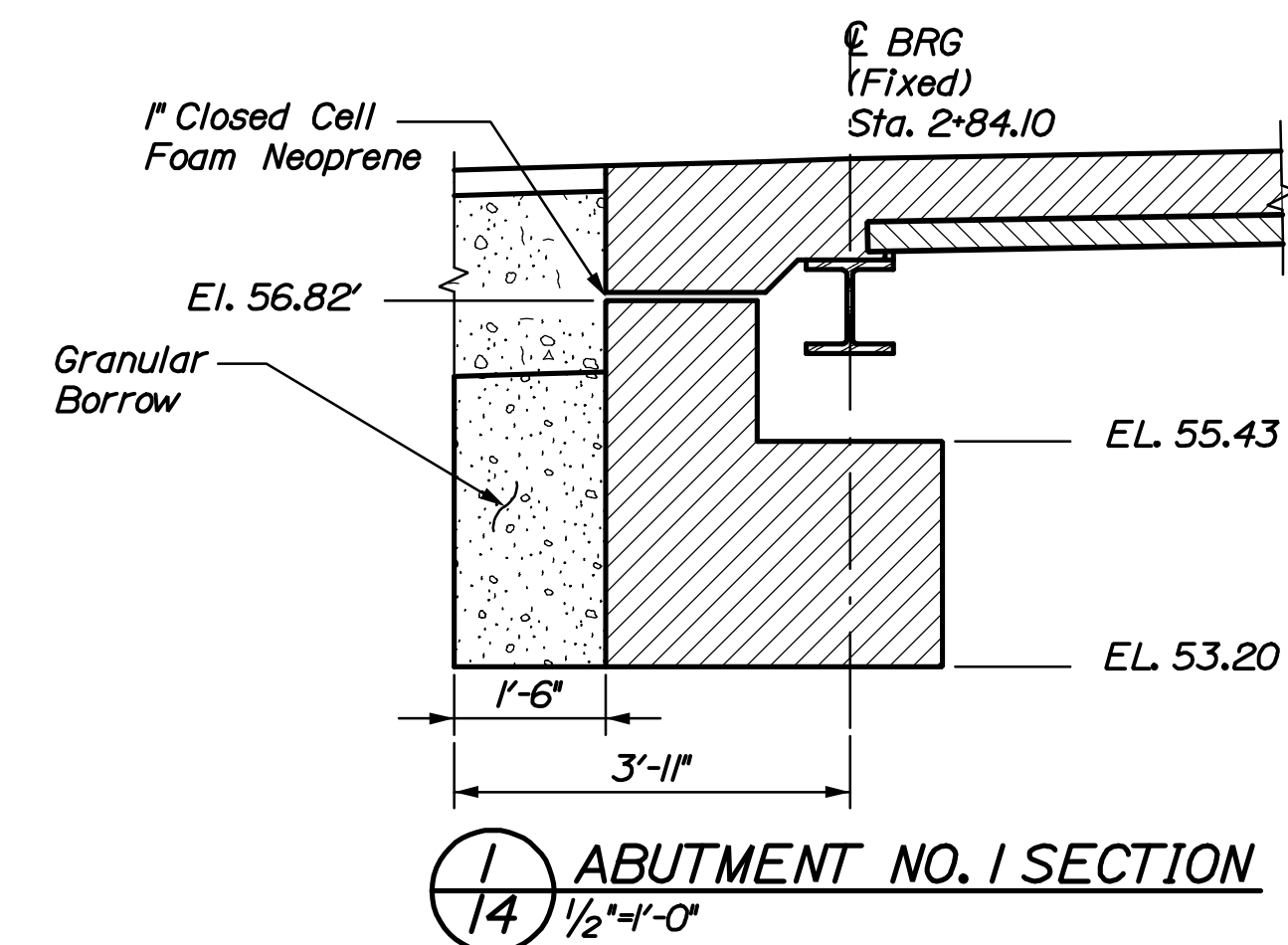
SHEET NUMBER
13
OF 28



ABUTMENT NO. 1 PLAN
1/2" = 1'-0"



ABUTMENT NO. 1 ELEVATION
1/2" = 1'-0"



ABUTMENT NO. 1 SECTION
1/2" = 1'-0"

ABUTMENT NOTES

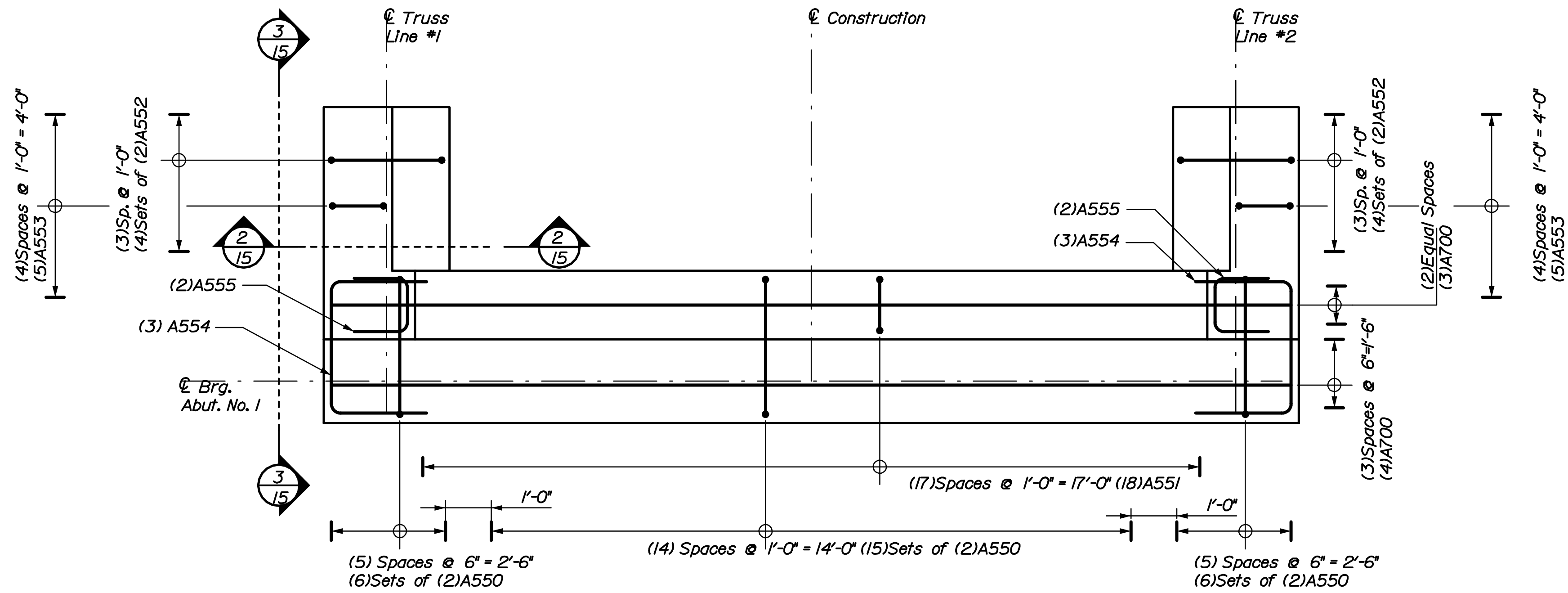
- Reinforcing Steel shall have 2" cover in the Abutments unless otherwise noted.
- Abutments, Wings, and their Footings shall be back filled with soil meeting the requirements of Standard Specification 703.19 Granular Borrow, material for underwater backfill.
- Protective Coating for Concrete surfaces shall be applied to the top of Abutment wings, top of curb, wearing surface and to 1' below the top of the deck on the back of the abutment.
- Cover joints in accordance with Standard Detail 502(01) where waterstops are not required.
- Bedrock elevations are expected to vary. Stirrups may be adjusted to accommodate a lower elevation of bedrock. Modification of reinforcing steel is expected to be required to accommodate ledge elevations and payment for such modifications shall be considered incidental to related contract items, no separate payment shall be made.
- Abutment concrete shall be placed on bedrock cleaned of all loose material and soil. Where bedrock slope exceeds 6H:1V the bedrock surface shall be benched to create level steps or be made completely level, as directed in the field by the Engineer.
- Maximum Calculated Footing Pressure is 0.75 Tons/SF
- Contractor Shall Space Stirrups to Avoid Interference with Anchor Rods for Bearings

STATE OF MAINE	BRIDGE NO. 1013	PIN 16765.00	BRIDGE PLANS
DEPARTMENT OF TRANSPORTATION	BR-1676(500)X		

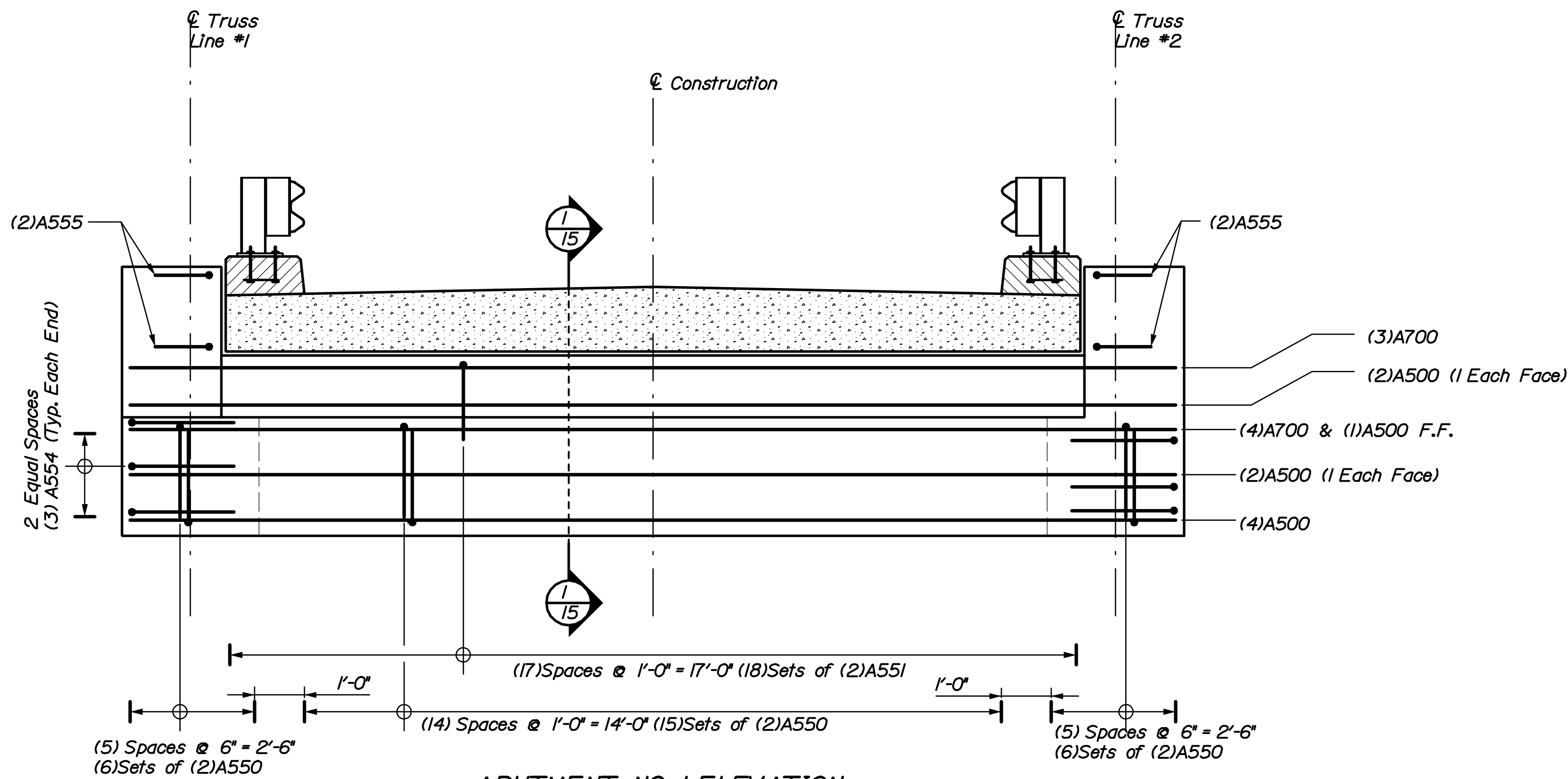
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CHECKED-REVIEWED	OK	OK	DEC 2000
DESIGN-DETAILED	OK	OK	DEC 2000
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

REED STREET BRIDGE OVER MAINE EASTERN RAILWAY WOOLWICH SAGADAHOC COUNTY	ABUTMENT NO. 1
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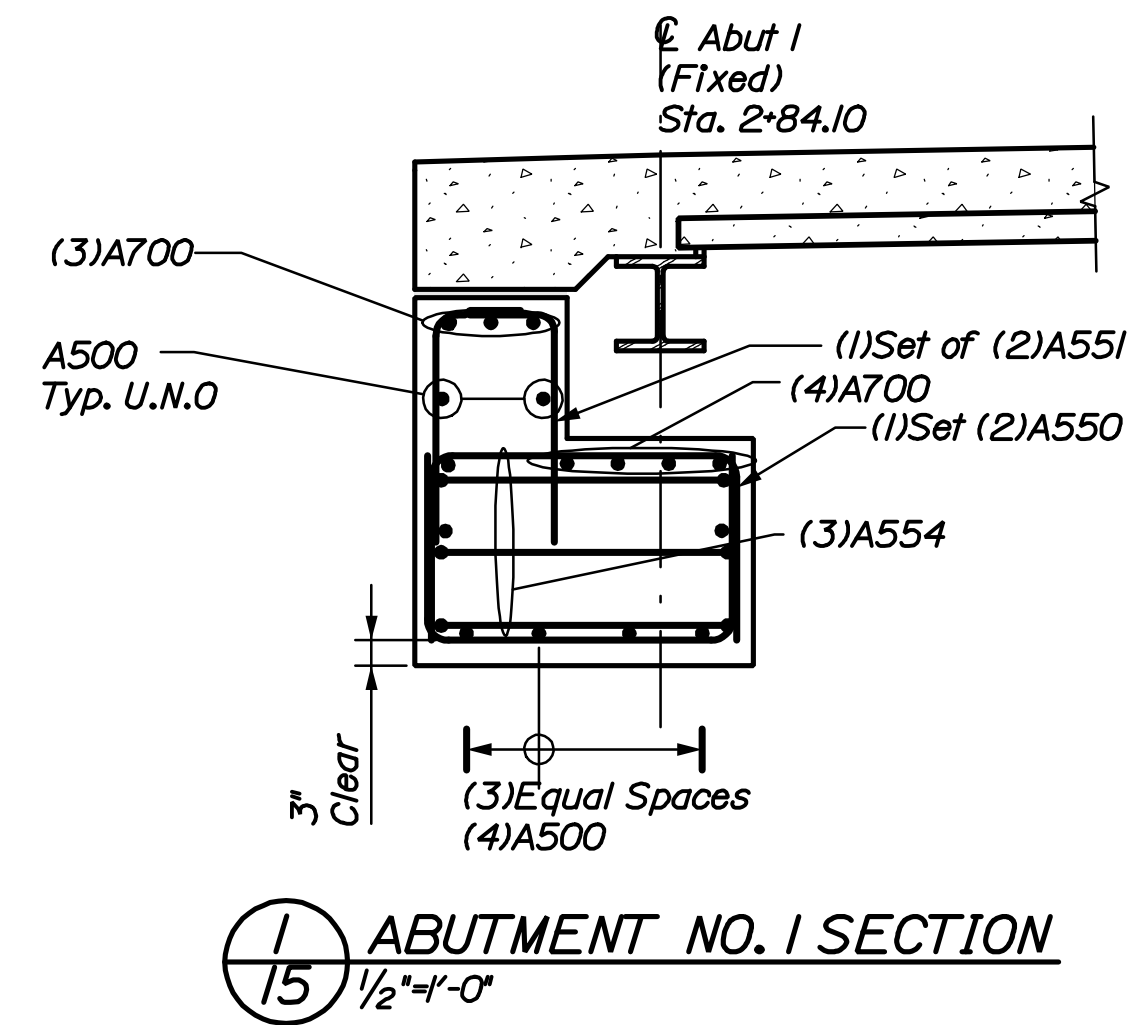
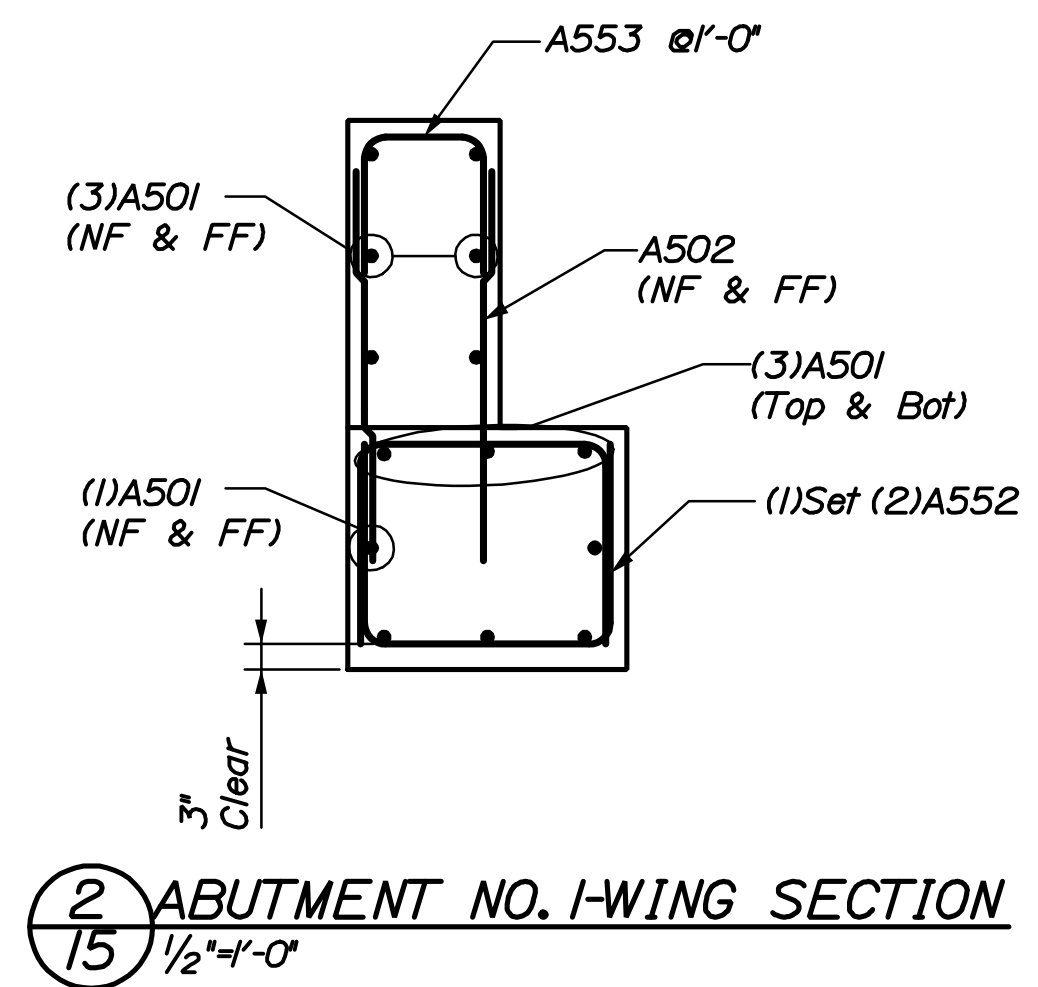
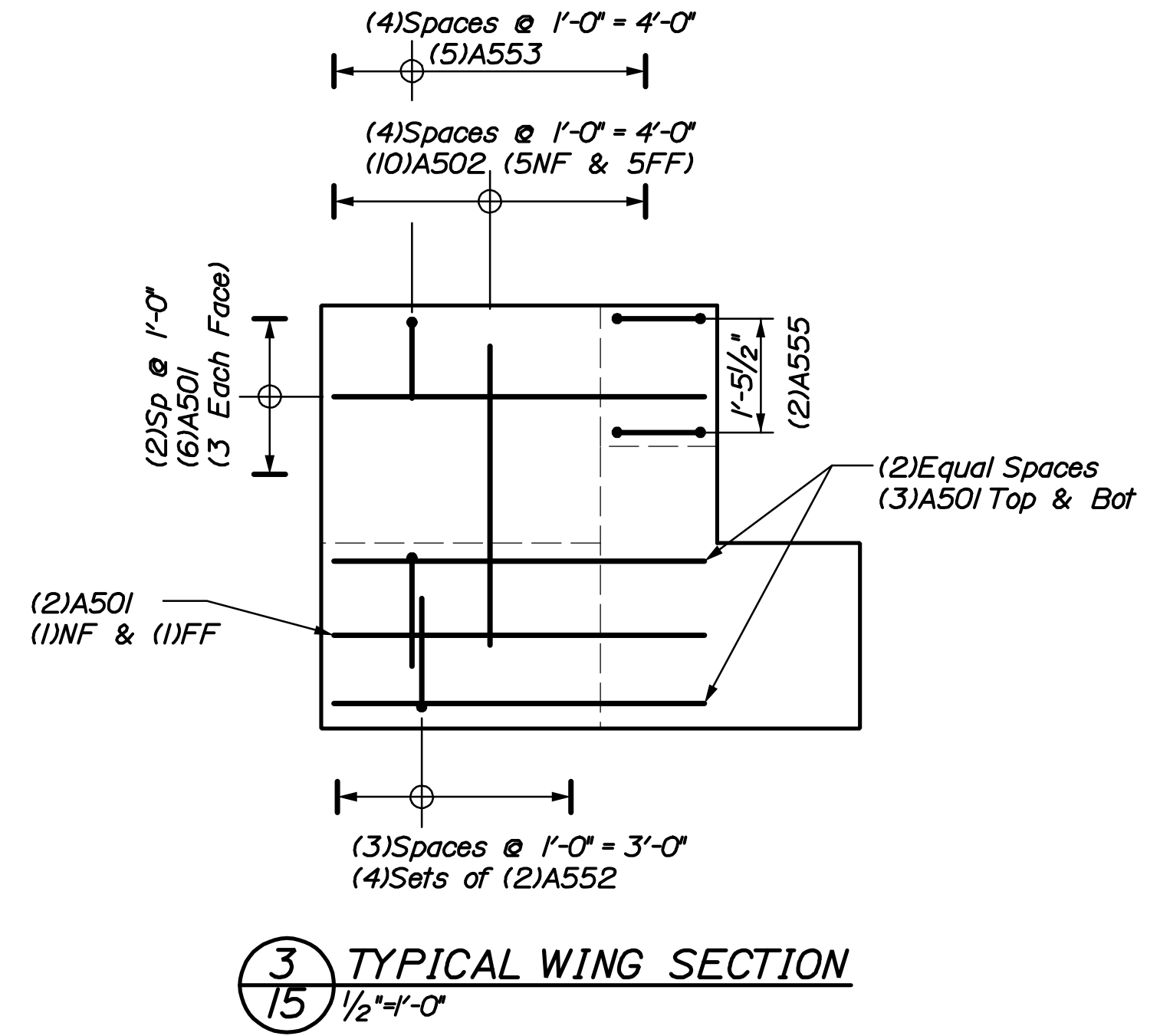
SHEET NUMBER	14
OF 28	

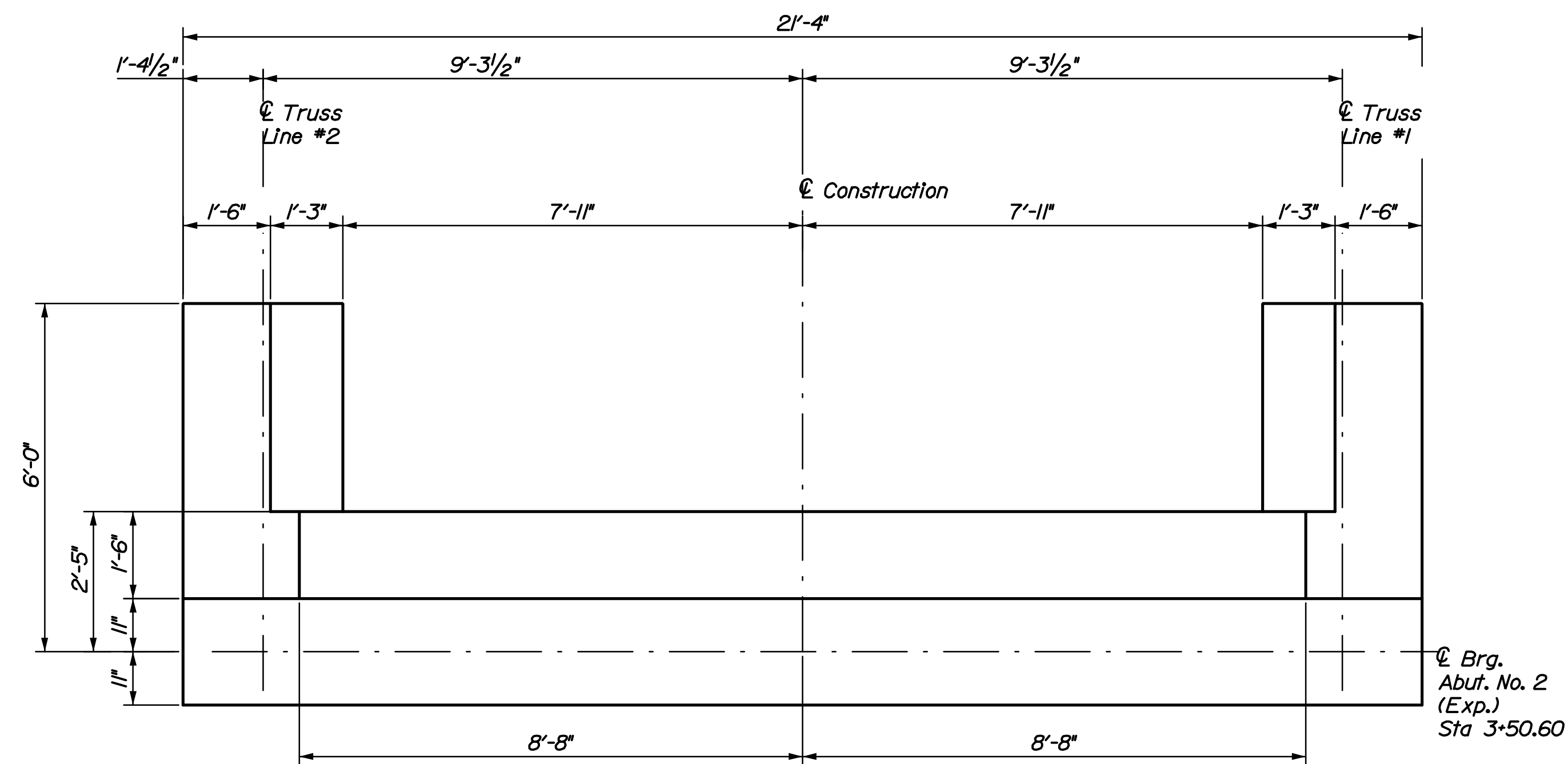


ABUTMENT NO. 1 PLAN
1/2" = 1'-0"

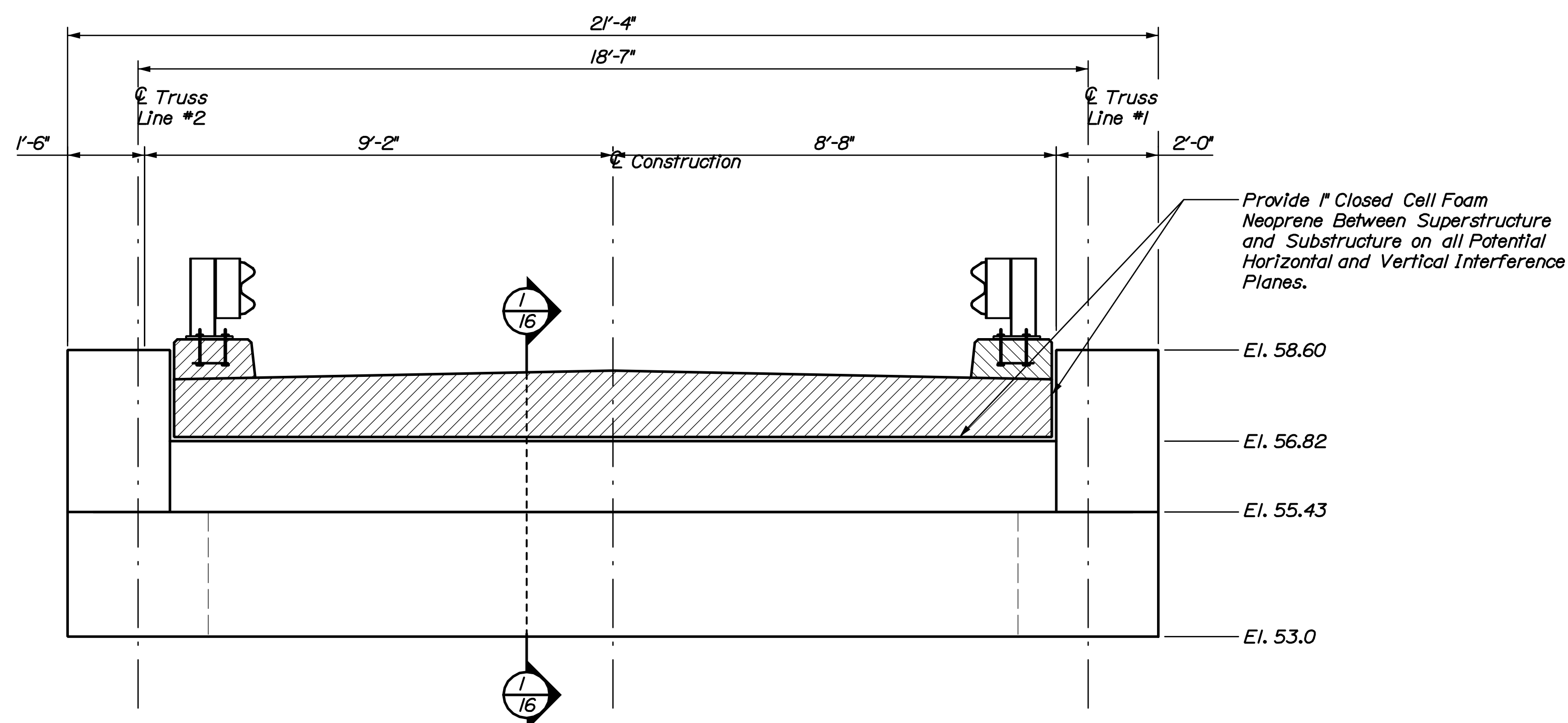


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1/2" = 1'-0"

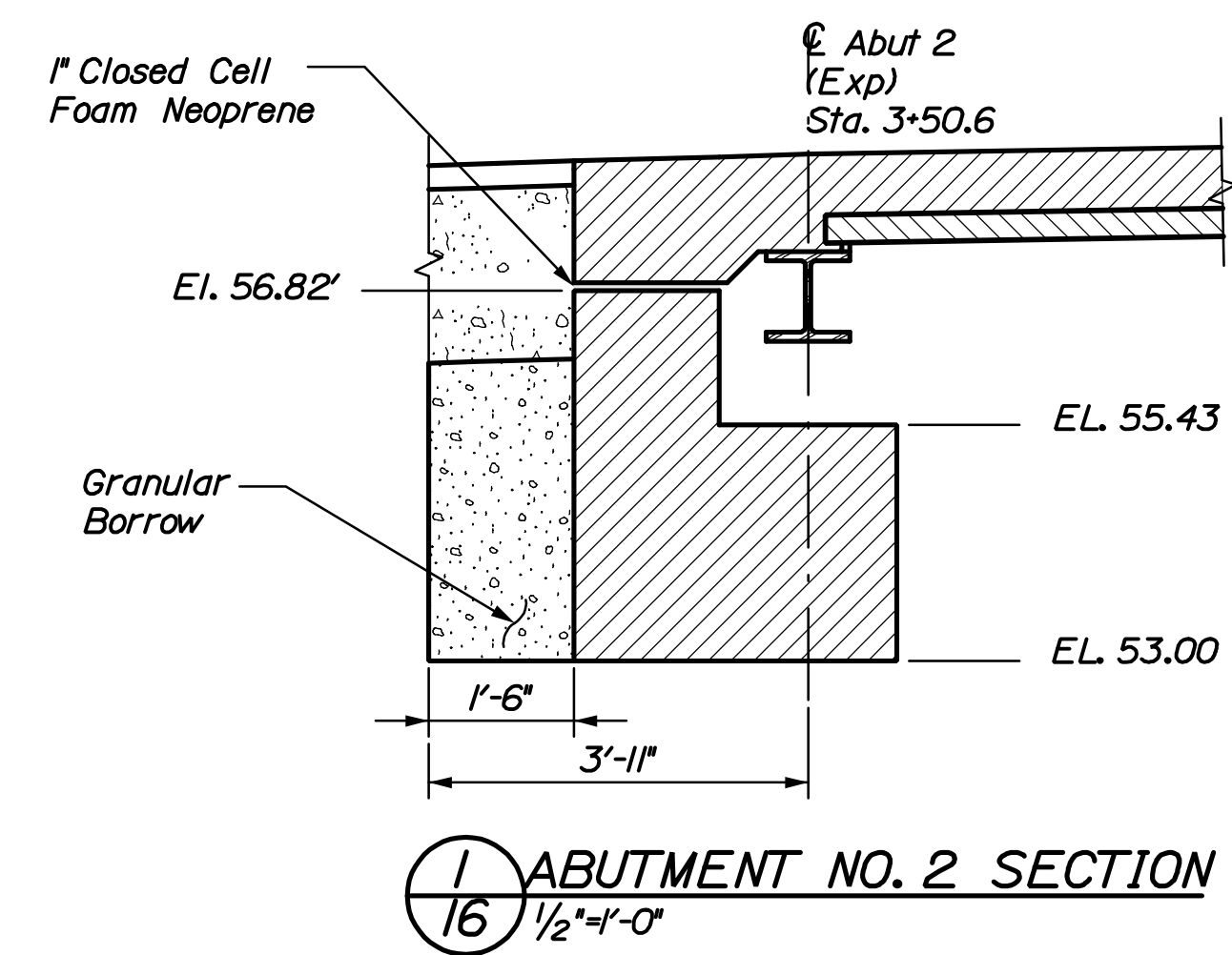




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1/2" = 1'-0"

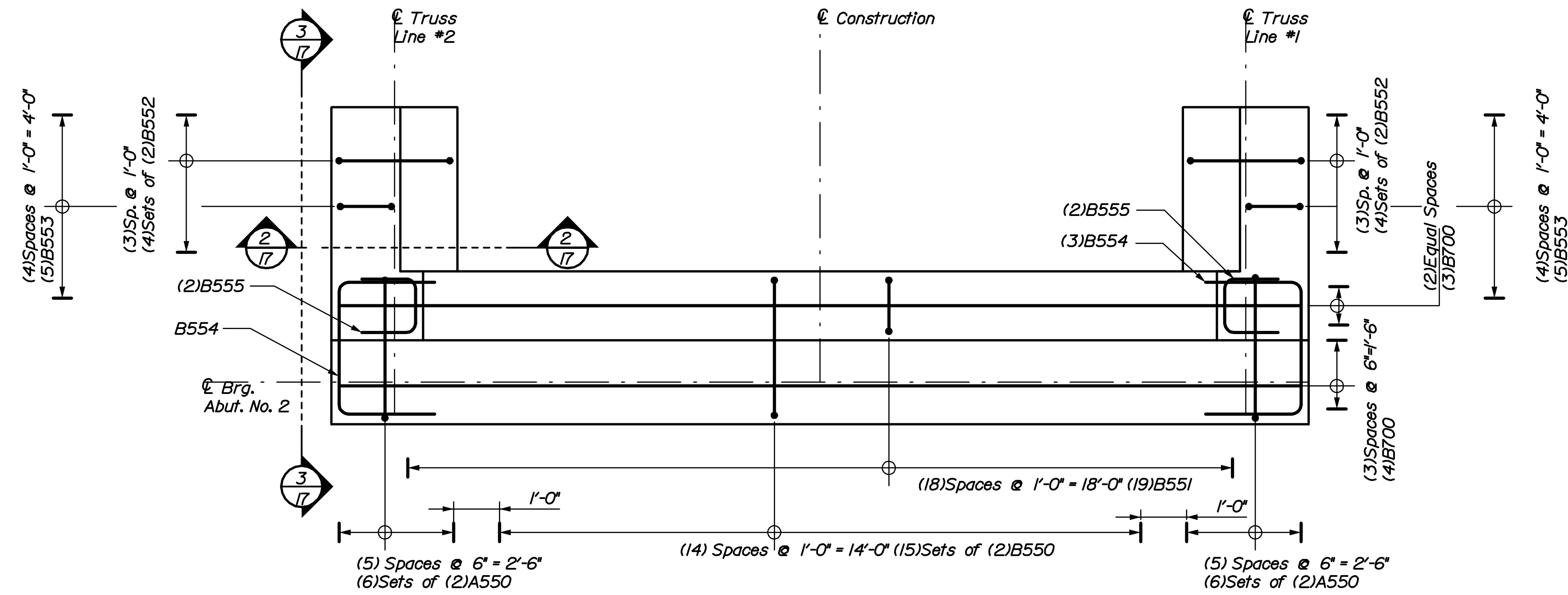


ABUTMENT NO. 2 ELEVATION
1/2" = 1'-0"

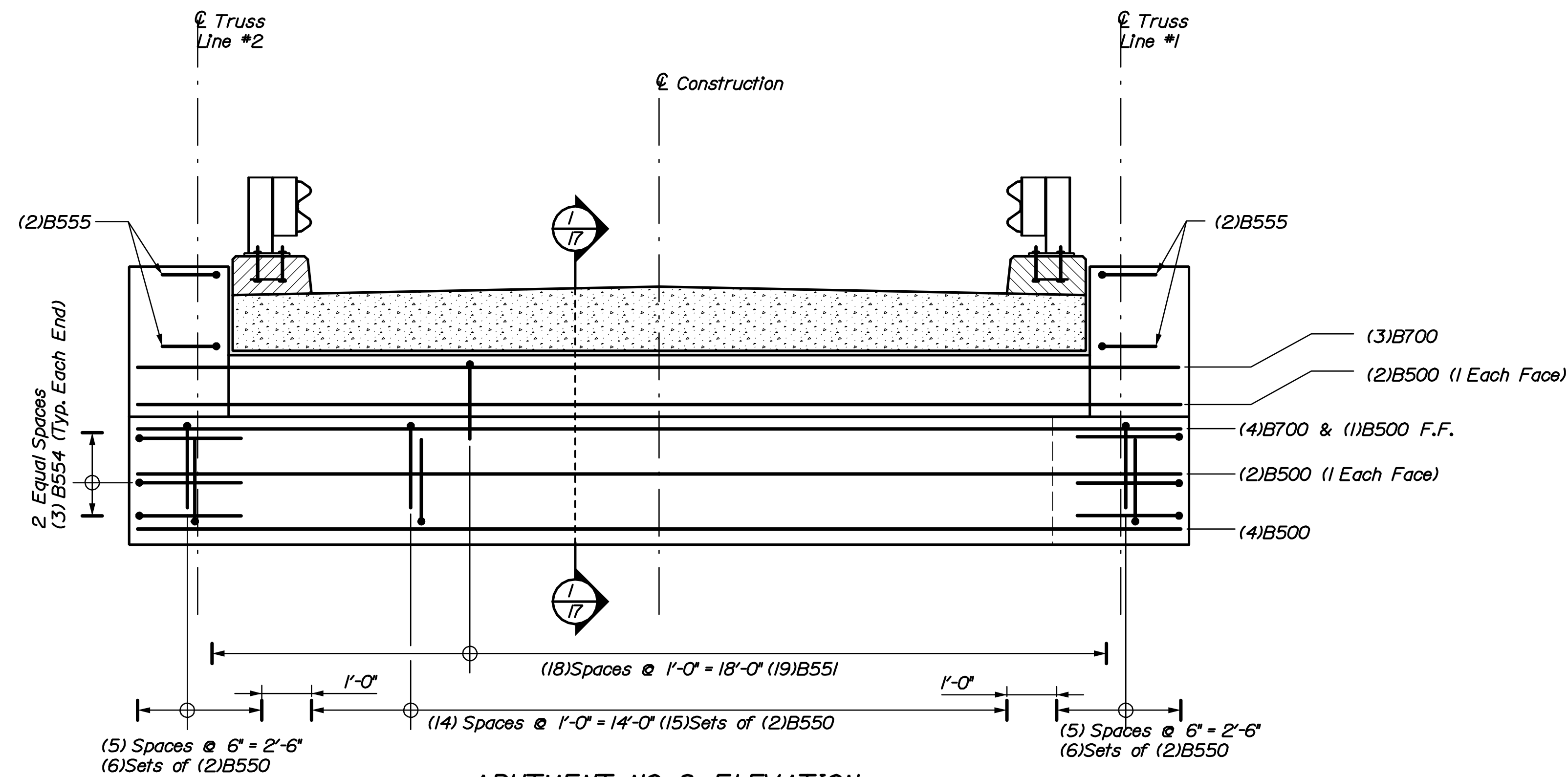


ABUTMENT NOTES

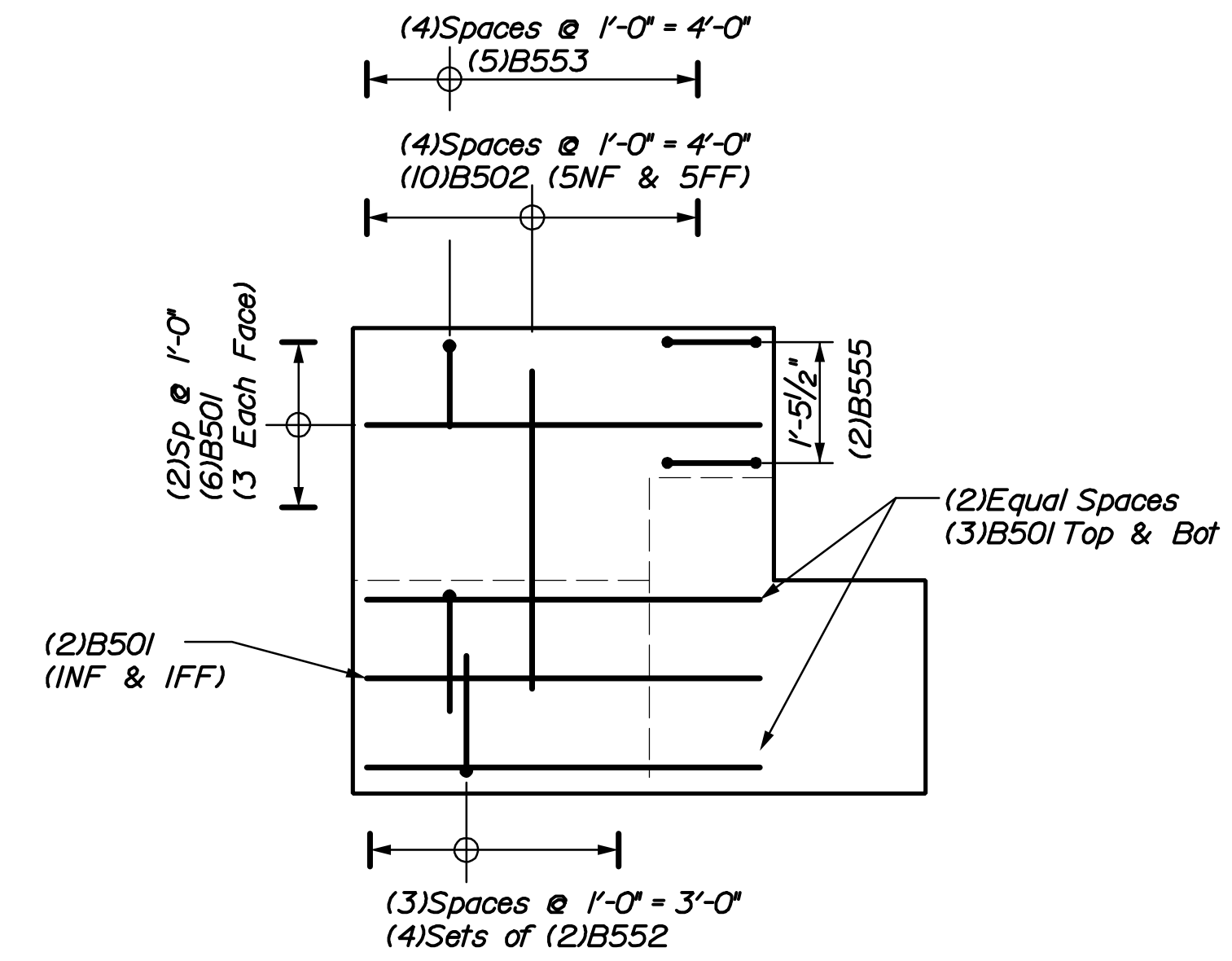
SHEET NUMBER										REED STREET BRIDGE				STATE OF MAINE																					
16										OVER MAINE EASTERN RAILWAY										DEPARTMENT OF TRANSPORTATION															
										WOOLWICH SAGADAHOC COUNTY										PROJ. MANAGER				L. TIMBERLAKE				BY				DATE			
																				DESIGN-DETAILED				OGK				OGK				NOV. 2000			
																				CHECKED-REVISED				ETC				ETC				DEC 2000			
																				ABUTMENT NO. 2										DESIGN2-DETAILED2					
DESIGN3-DETAILED3																																			
REVISIONS 1																P.E. NUMBER																			
REVISIONS 2																																			
REVISIONS 3																																			
										REVISIONS 4																DATE									
										FIELD CHANGES																									
OF 28																				BRIDGE NO. 1013				PIN				BRIDGE PLANS							
																														16765.00					



ABUTMENT NO. 2 PLAN
1/2" = 1'-0"



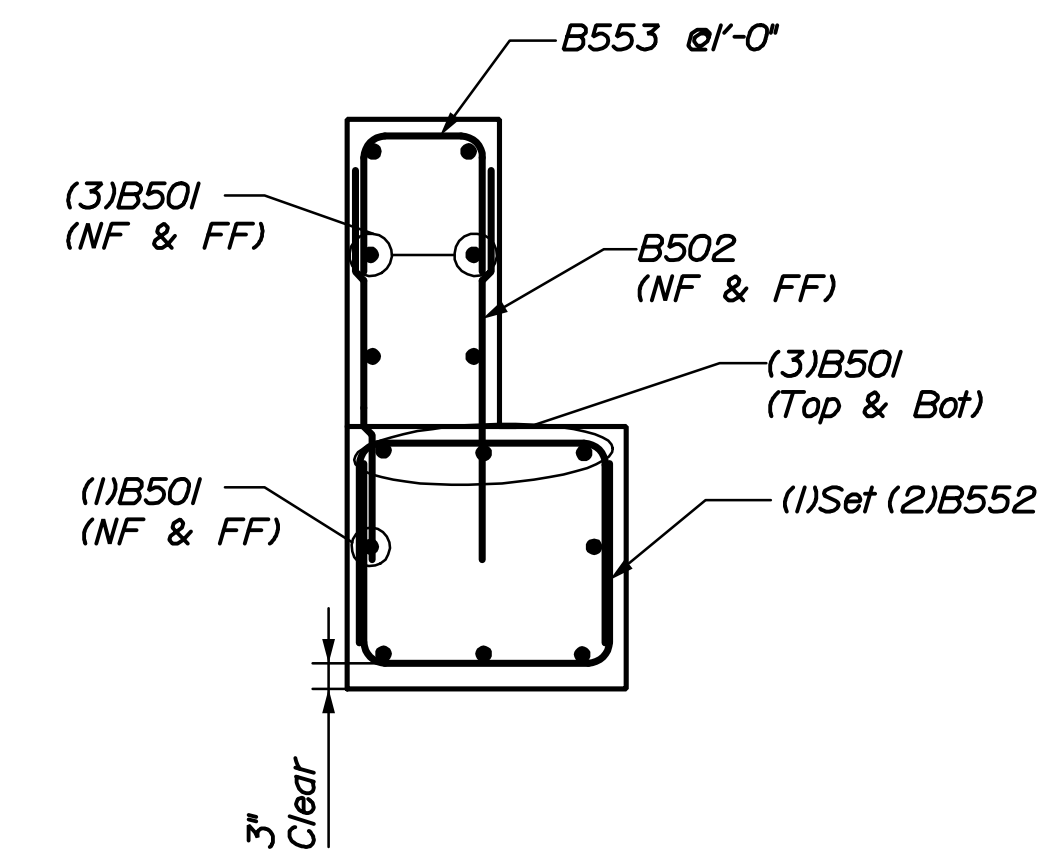
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1/2" = 1'-0"



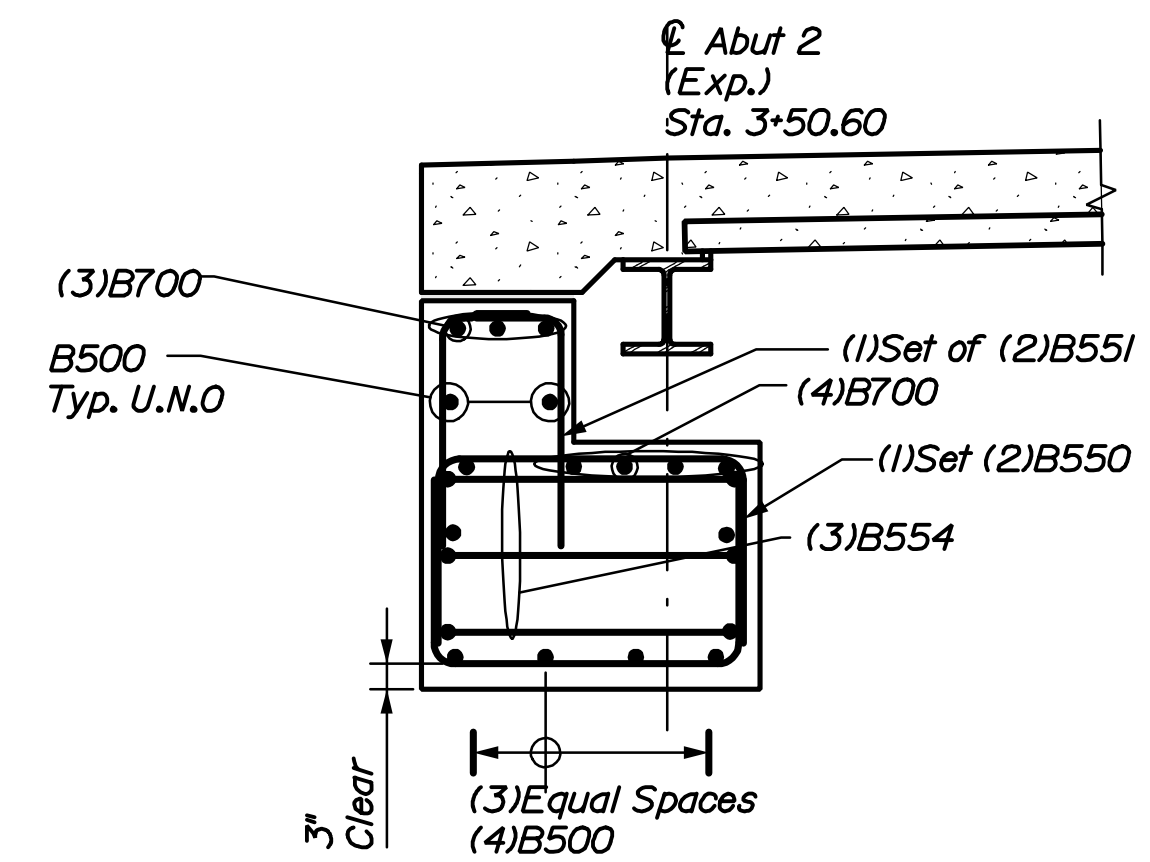
3
17

TYPICAL WING ELEVATION

1/2"=1'-0"

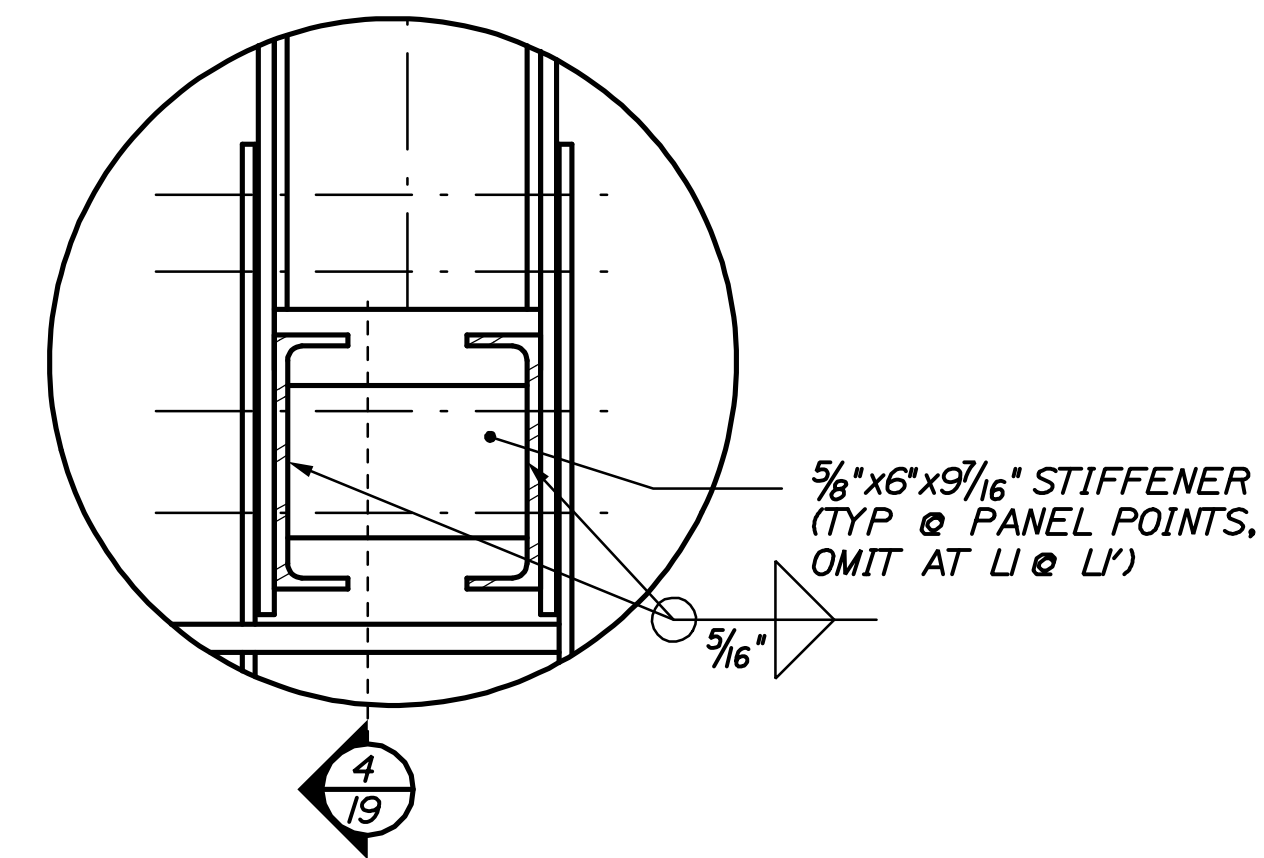


2 ABUTMENT NO. 2-WING SECTION
17 1/2"=1'-0"



1 ABUTMENT NO. 2 SECTION
17 1/2"=1'-0"

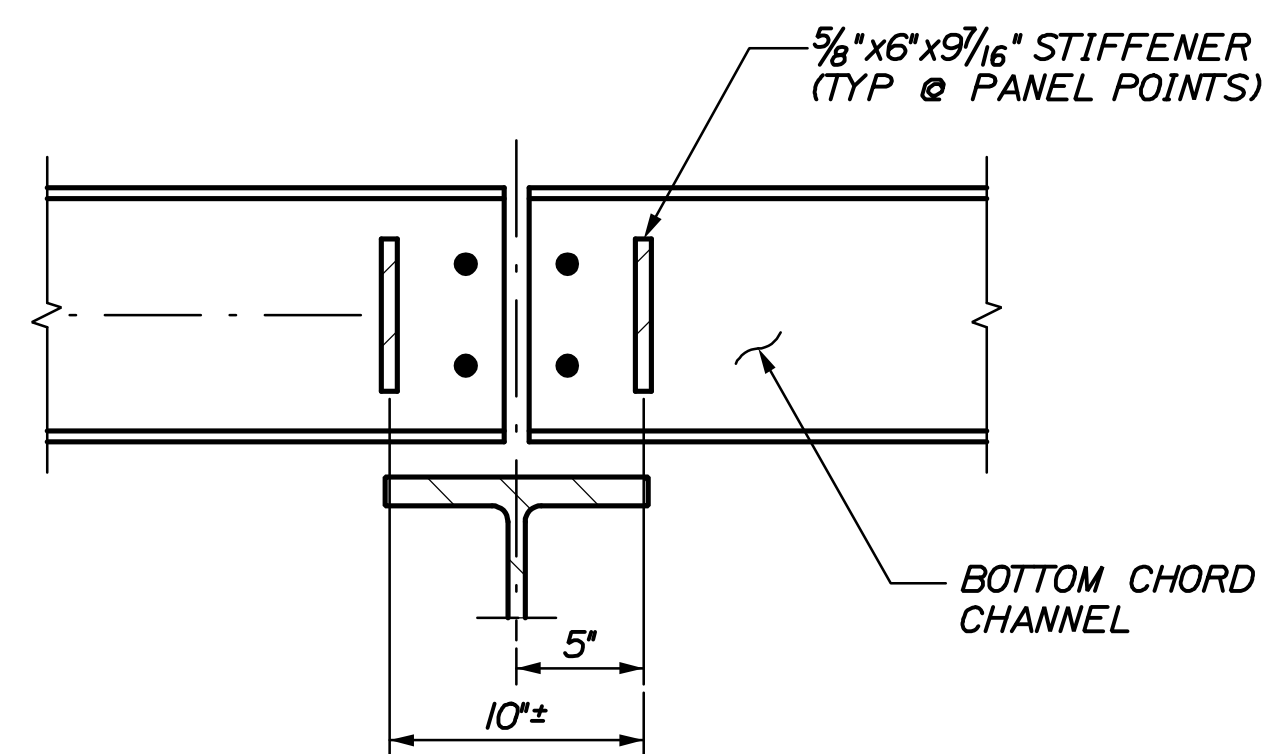




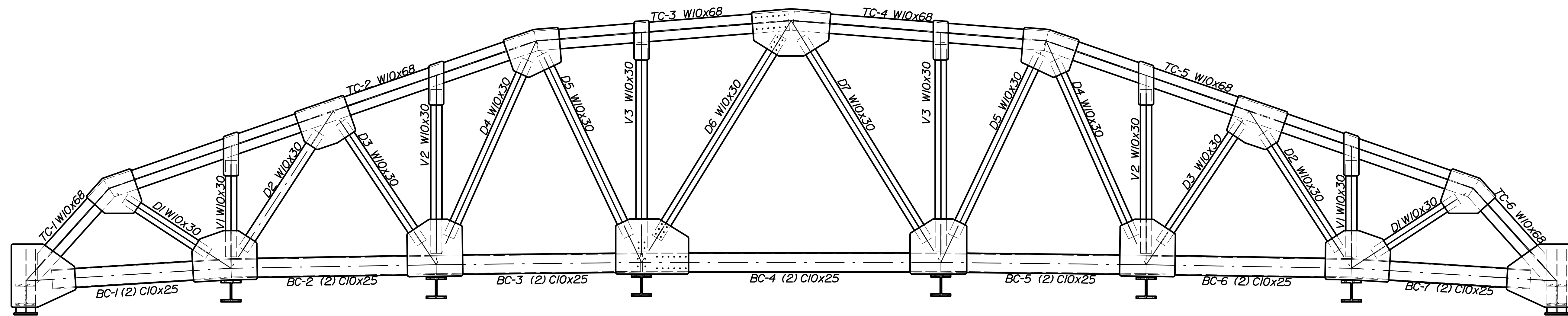
3
19

TYP BOTTOM CHORD SECTION

1 1/2"=1'-0"

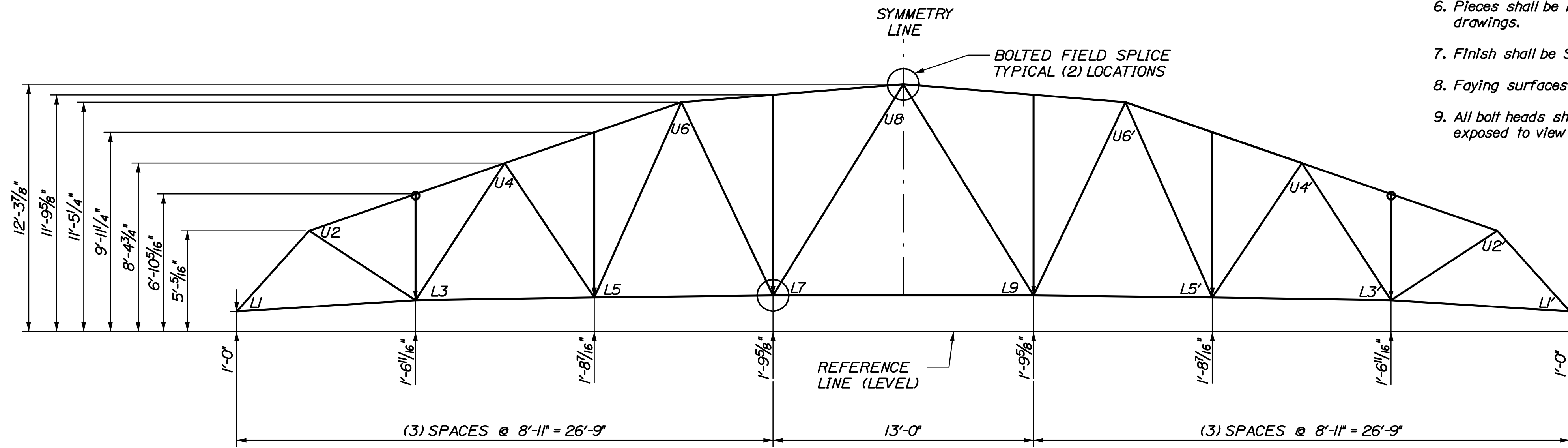


④ STIFFENER SPACING
19 1 1/2" = 1'-0"



MEMBER TC-2 IS CONTINUOUS THROUGH JOINT U4
MEMBER TC-5 IS CONTINUOUS THROUGH JOINT U4'

2 TRUSS #1 ELEVATION (TRUSS #2 OPPOSITE HAND)
20 SCALE: $\frac{3}{8}" = 1'-0"$



1 ELEVATION & CAMBER DIAGRAM
20 SCALE: $\frac{1}{4}" = 1'-0"$

STRUCTURAL STEEL NOTES

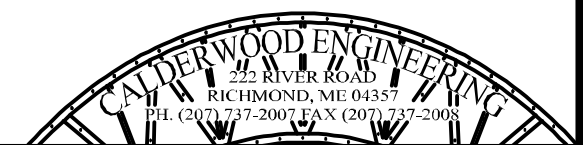
1. Filler plates and channels may be steel conforming to the requirements of A709/A709M, Grade 36. All other steel to be ASTM A709, Grade 50.
2. All field connections shall be made with Type I - galv. $\frac{7}{8}" \phi$ A325 High strength bolts installed in accordance with section 504 of the standard specifications.
3. All bolts shall have a heavy hex nut, hex head, and one flat washer each (washer to be installed at the end that is turned during tightening).
4. Configuration of weld joints & welding procedures shall be in accordance with the current provisions of AWS D1.5
5. Non-destructive testing shall be performed in accordance with the referenced specifications.
6. Pieces shall be match marked for erection per the fabricator's erection drawings.
7. Finish shall be SSPC SP-8, galvanized in accordance with ASTM A123
8. Faying surfaces of bolted connections to be wire brushed after galv.
9. All bolt heads shall be positioned on the side of the connection exposed to view in the finished work.

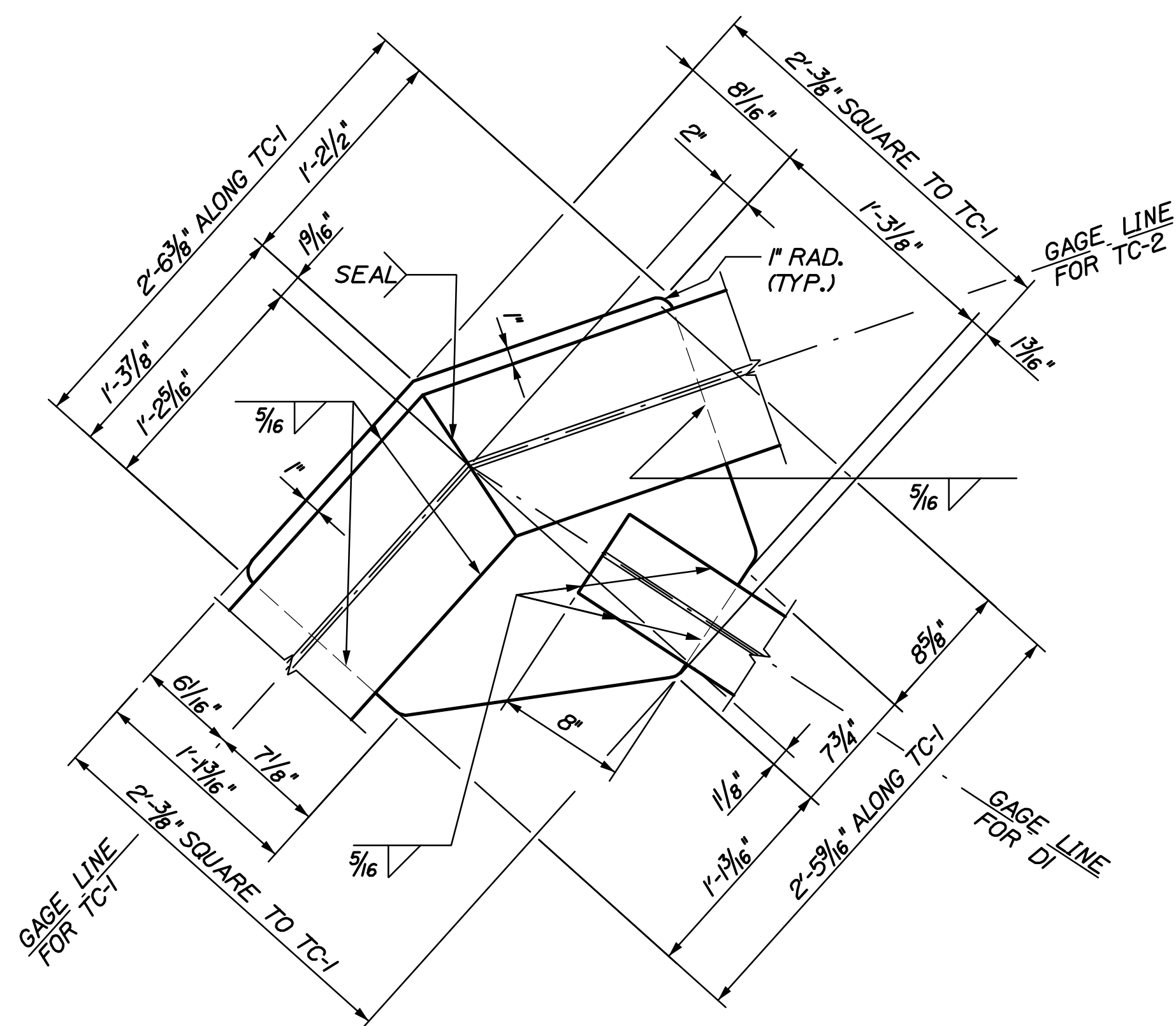
STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
BR-1676(500)X	
PIN 16765.00	
BRIDGE NO. 1013	
BRIDGE PLANS	

DATE	BY	DATE	BY
NOV 2010	JH	NOV 2010	JH
DEC 2010	ETC	DEC 2010	ETC
SIGNATURE		SIGNATURE	
P.E. NUMBER		P.E. NUMBER	
DATE		DATE	

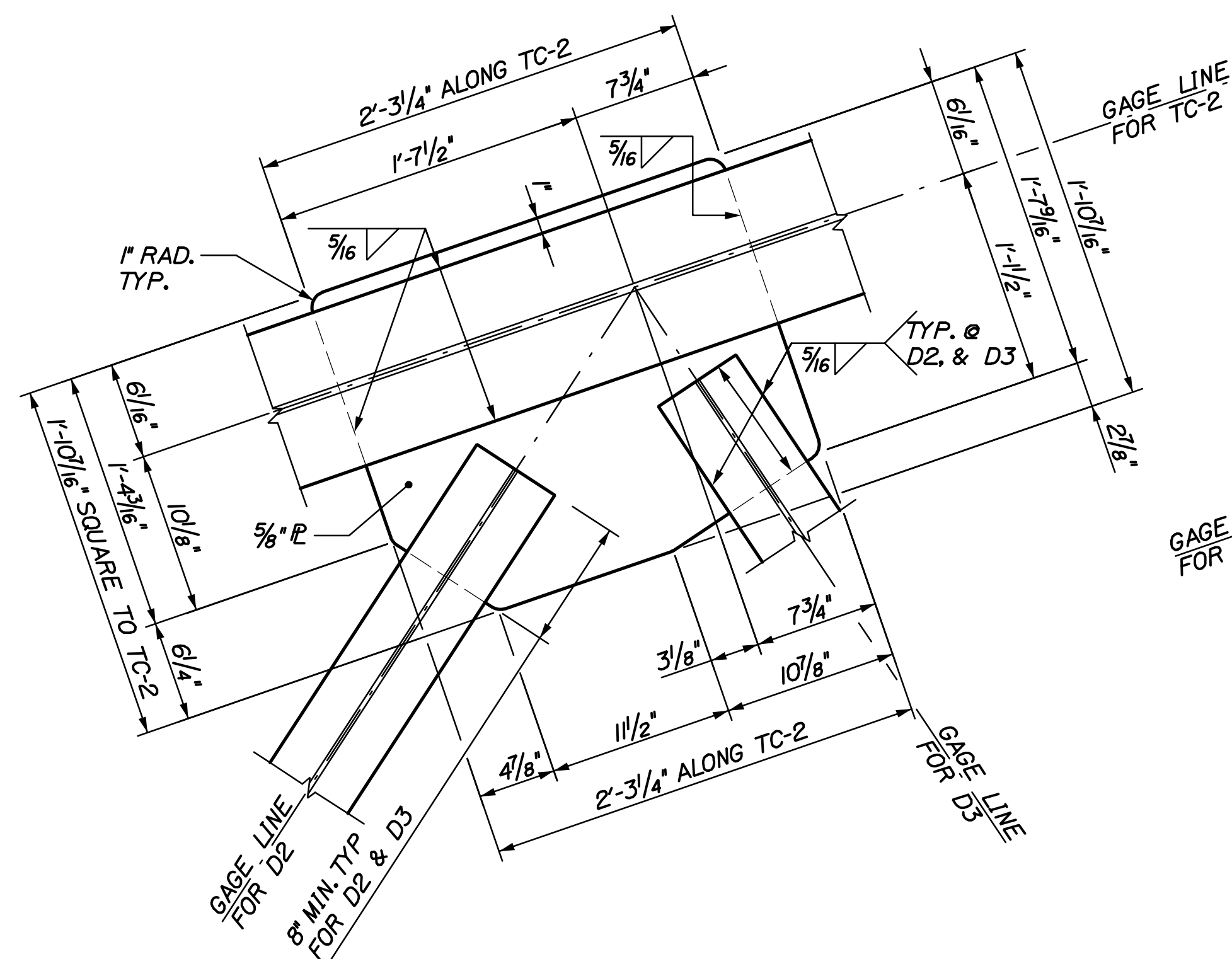
REED STREET BRIDGE	
OVER MAINE EASTERN RAILWAY	
WOOLWICH	
SAGadahoc COUNTY	
TRUSS CAMBER & ELEVATION	

SHEET NUMBER	
20	
OF 28	

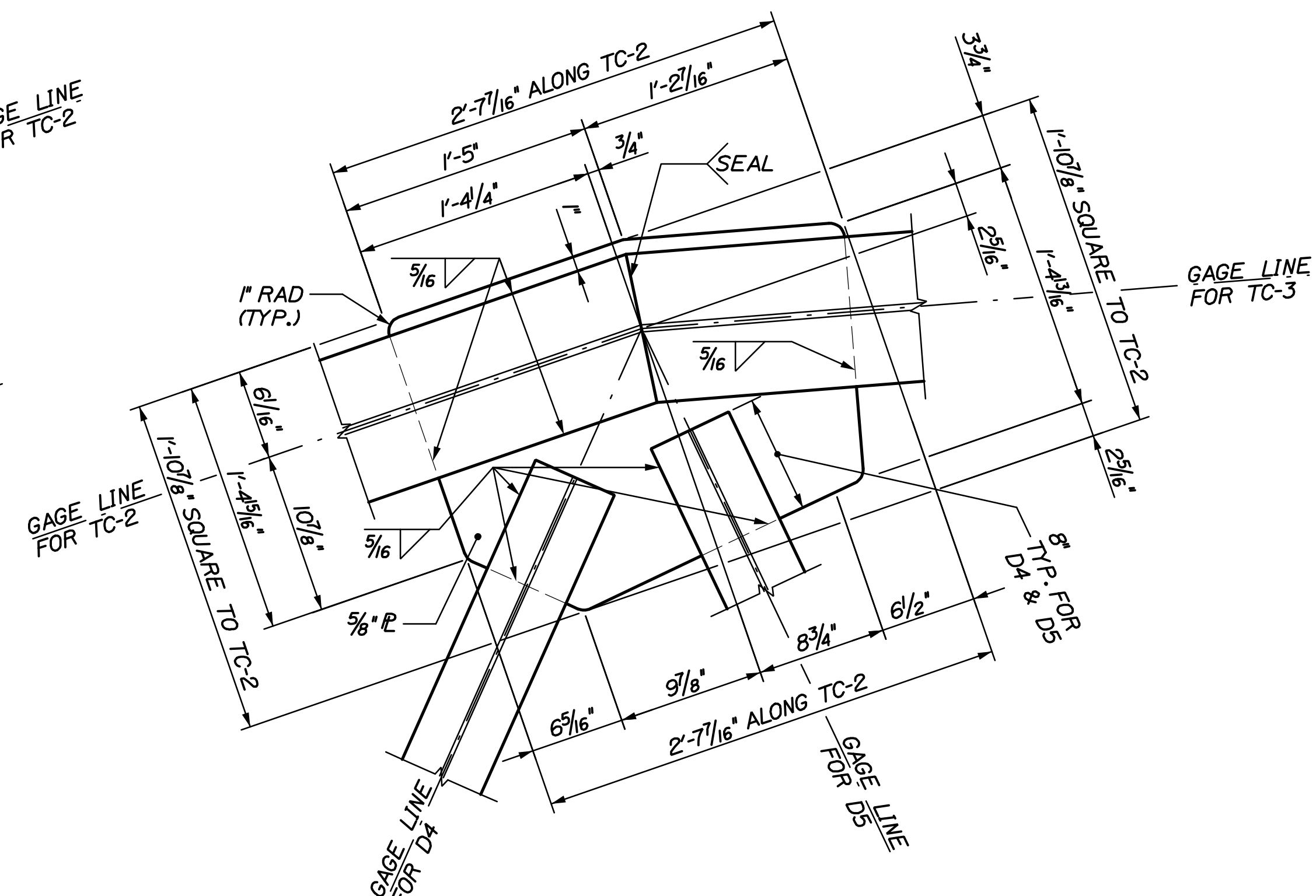




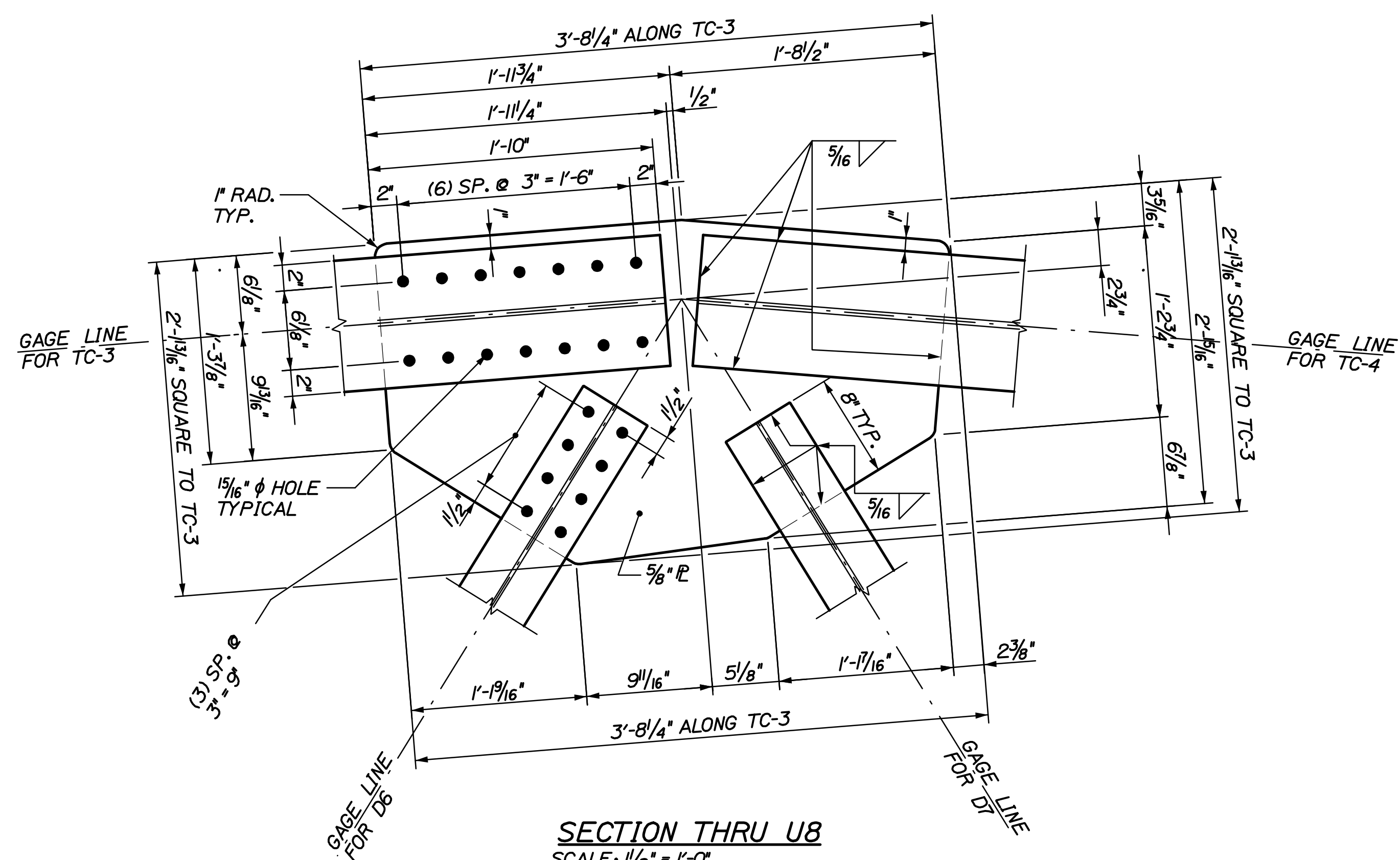
SECTION THRU U2 (U2' OPPOSITE HAND)
SCALE: $1\frac{1}{2}" = 1'-0"$



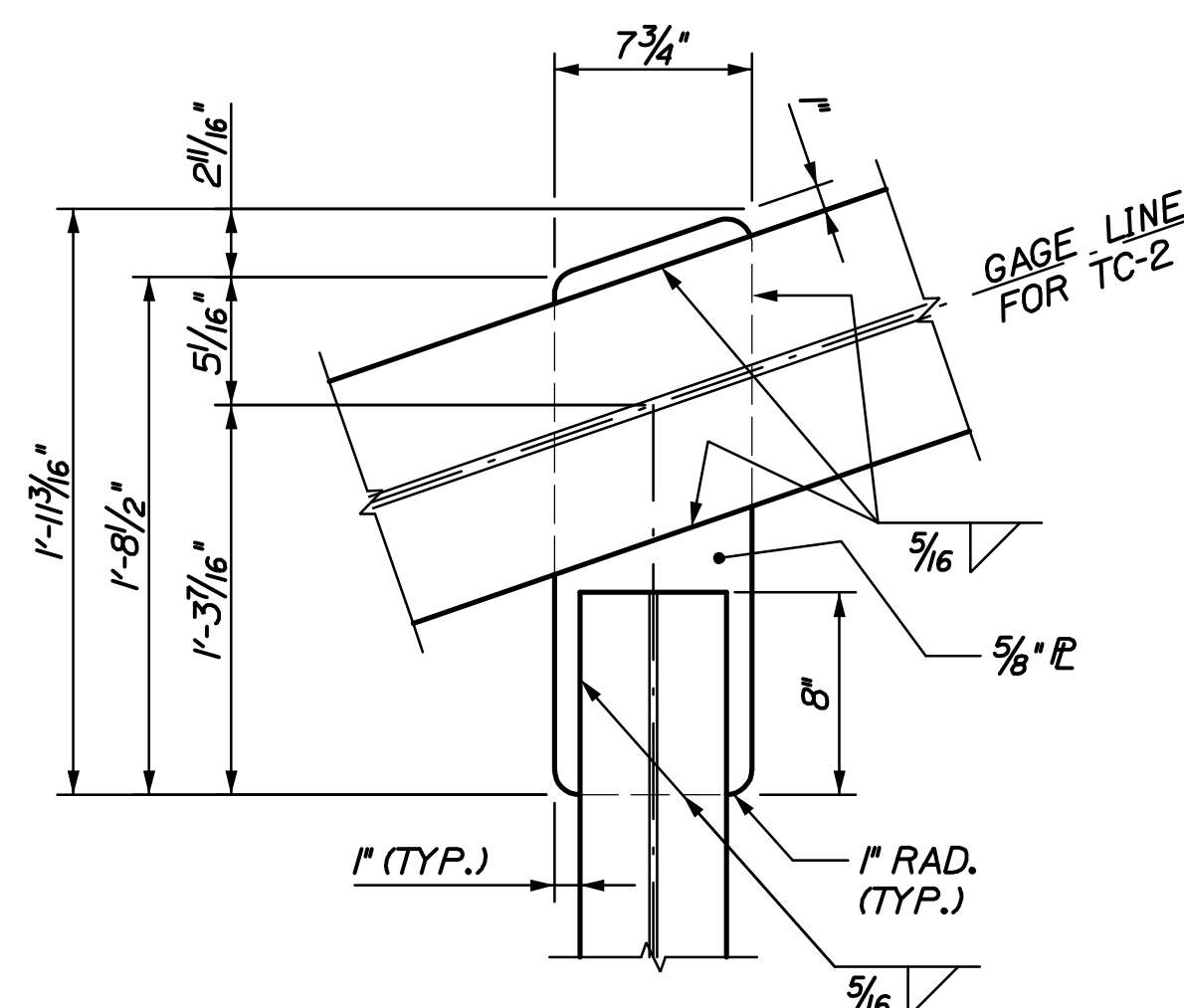
SECTION THRU U4 (U4' OPPOSITE HAND)
SCALE: 1/2" = 1'-0"



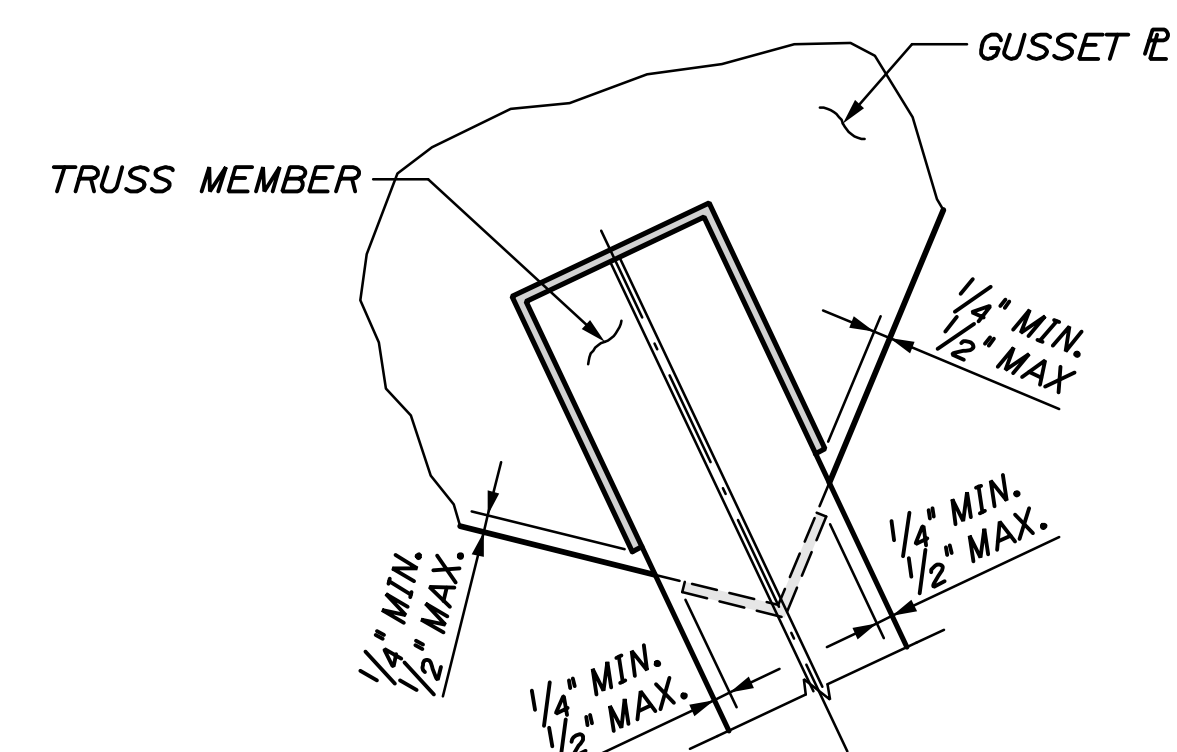
SECTION THRU U6 (U6' OPPOSITE HAND)
SCALE: 1/2" = 1'-0"



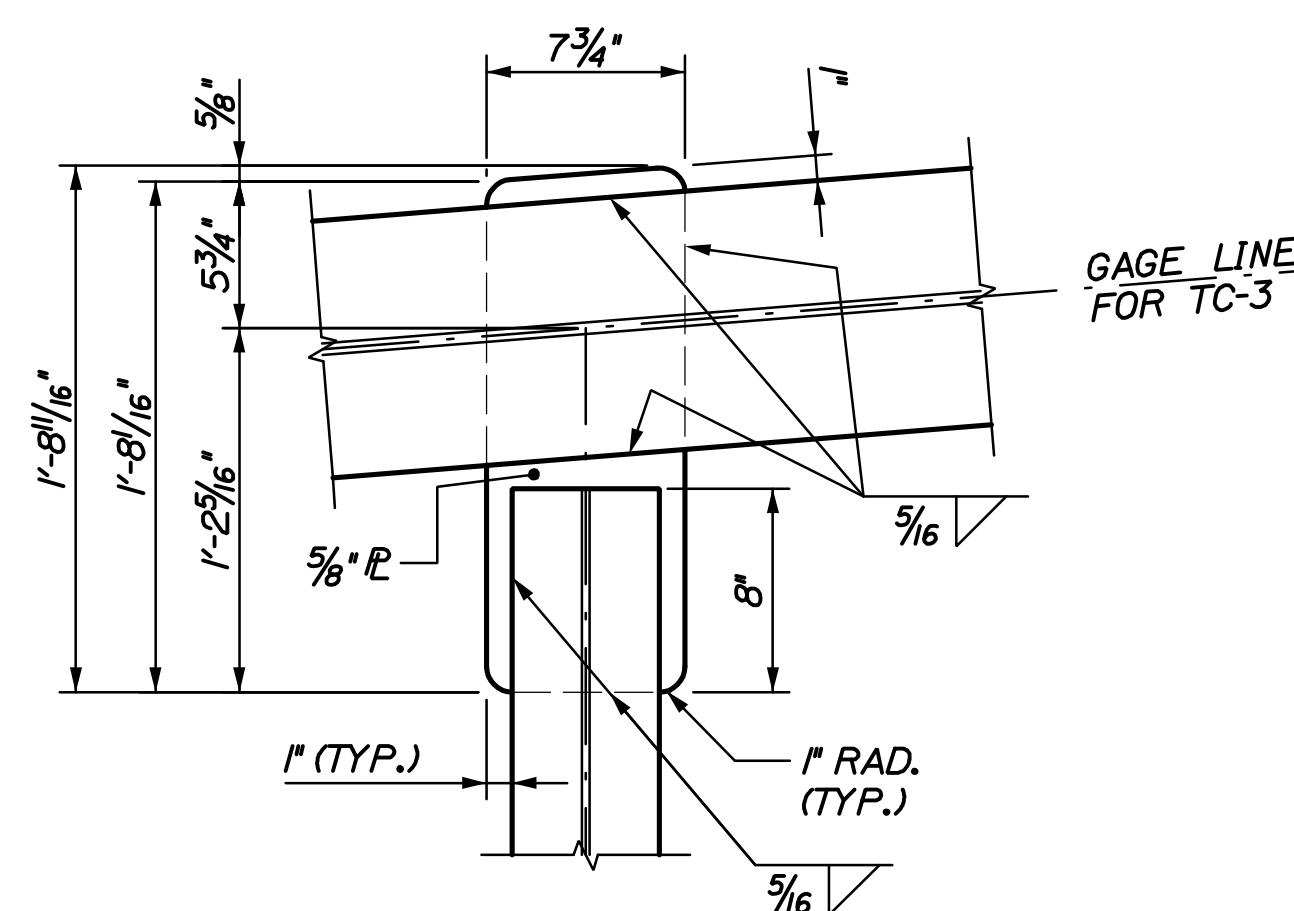
SECTION THRU U8
SCALE: $1\frac{1}{2}" = 1'-0"$



TOP GUSSET @ V1 & V2
SCALE: 1 1/2" = 1'-0"
GUSSETS @ TC-2 SHOWN
GUSSETS @ TC-5 OPPOSITE HAND



TYP. WELD TERMINATION DET. @ GUSSETS
2"=1'-0"



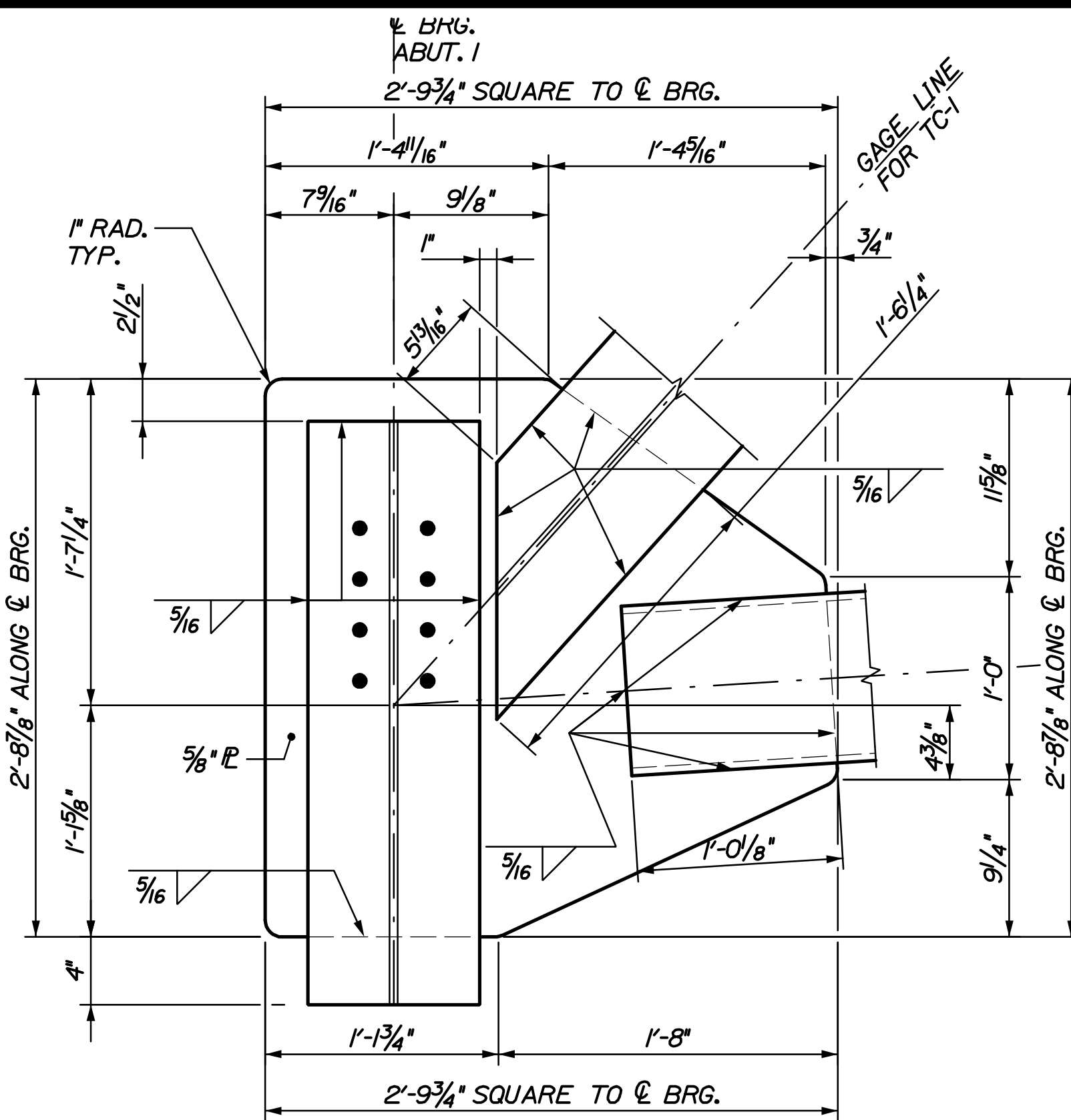
TOP GUSSET @ V3
SCALE: 1 1/2" = 1'-0"
GUSSET @ TC-3 SHOWN
GUSSET @ TC-4 OPPOSITE HAND

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
BR-1676(500)X	
BRIDGE NO. 1013	PIN 16765.00
BRIDGE PLANS	

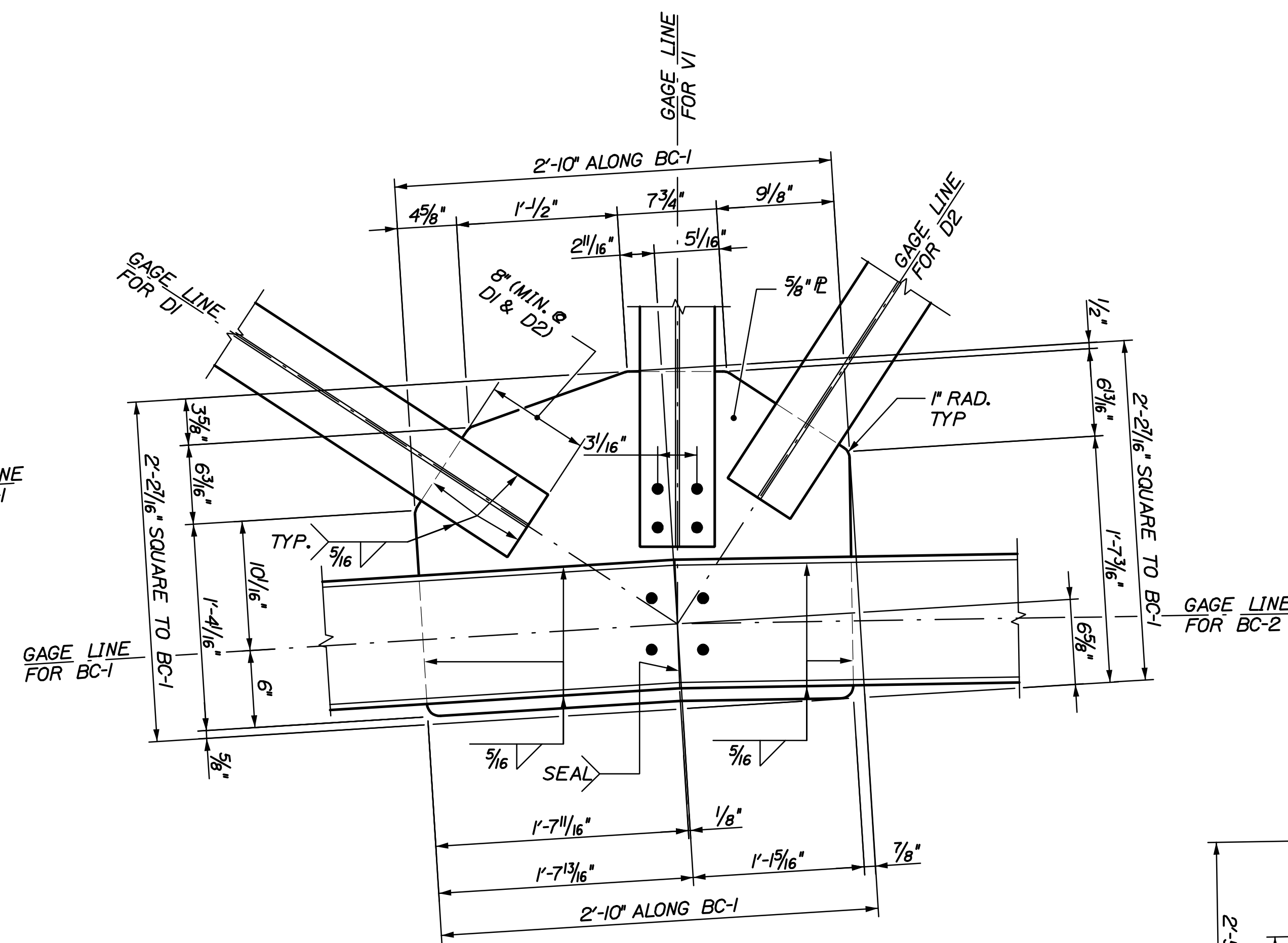
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CHECKED-REVIEWED	ETC	ETC	DEC 2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SIGNATURE			
P.E. NUMBER			
DATE			

REED STREET BRIDGE
 OVER MAINE EASTERN RAILWAY
 WOOLWICH SAGADAHOC COUNTY
 UPPER GUSSET DETAILS 1

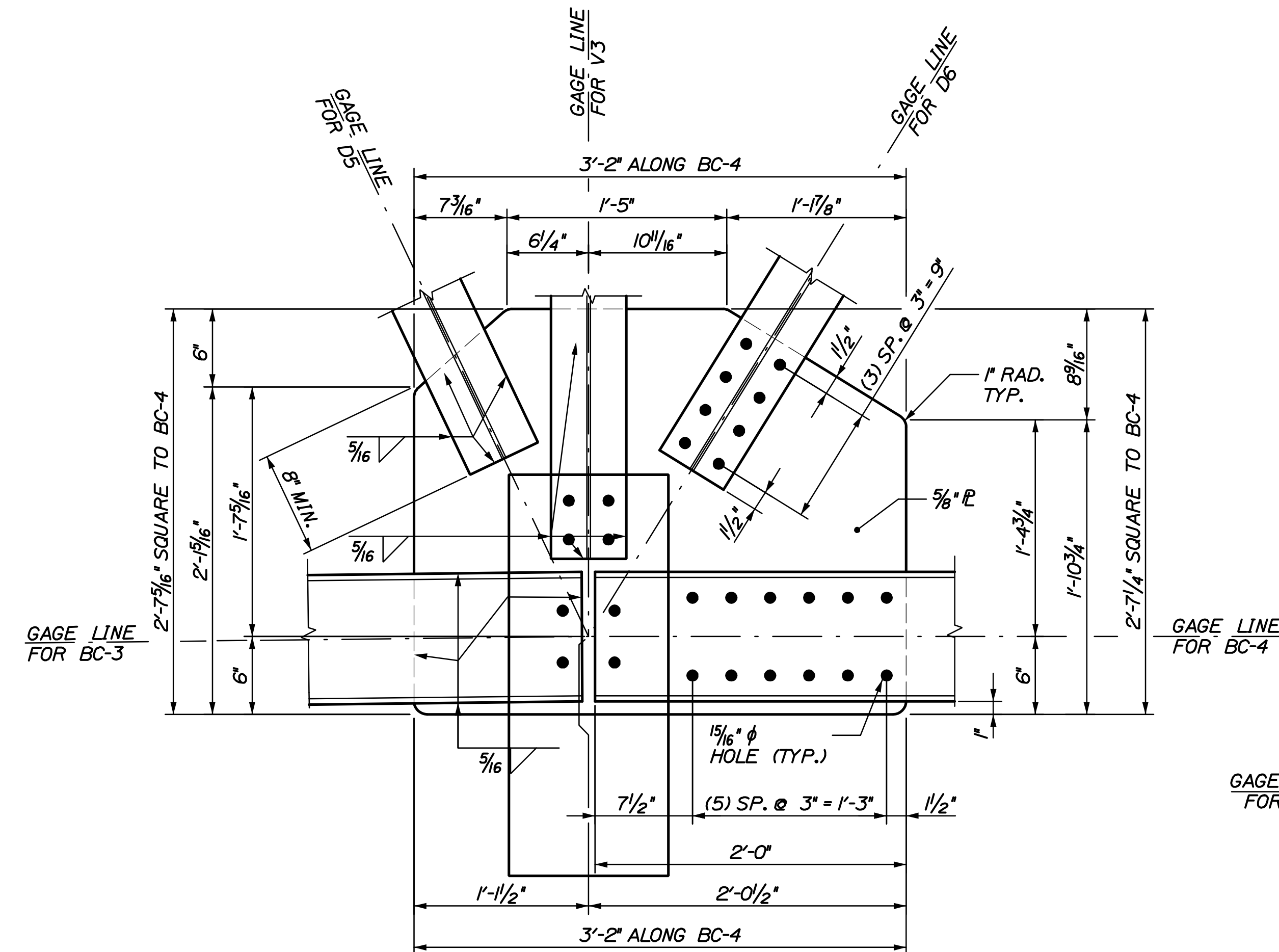




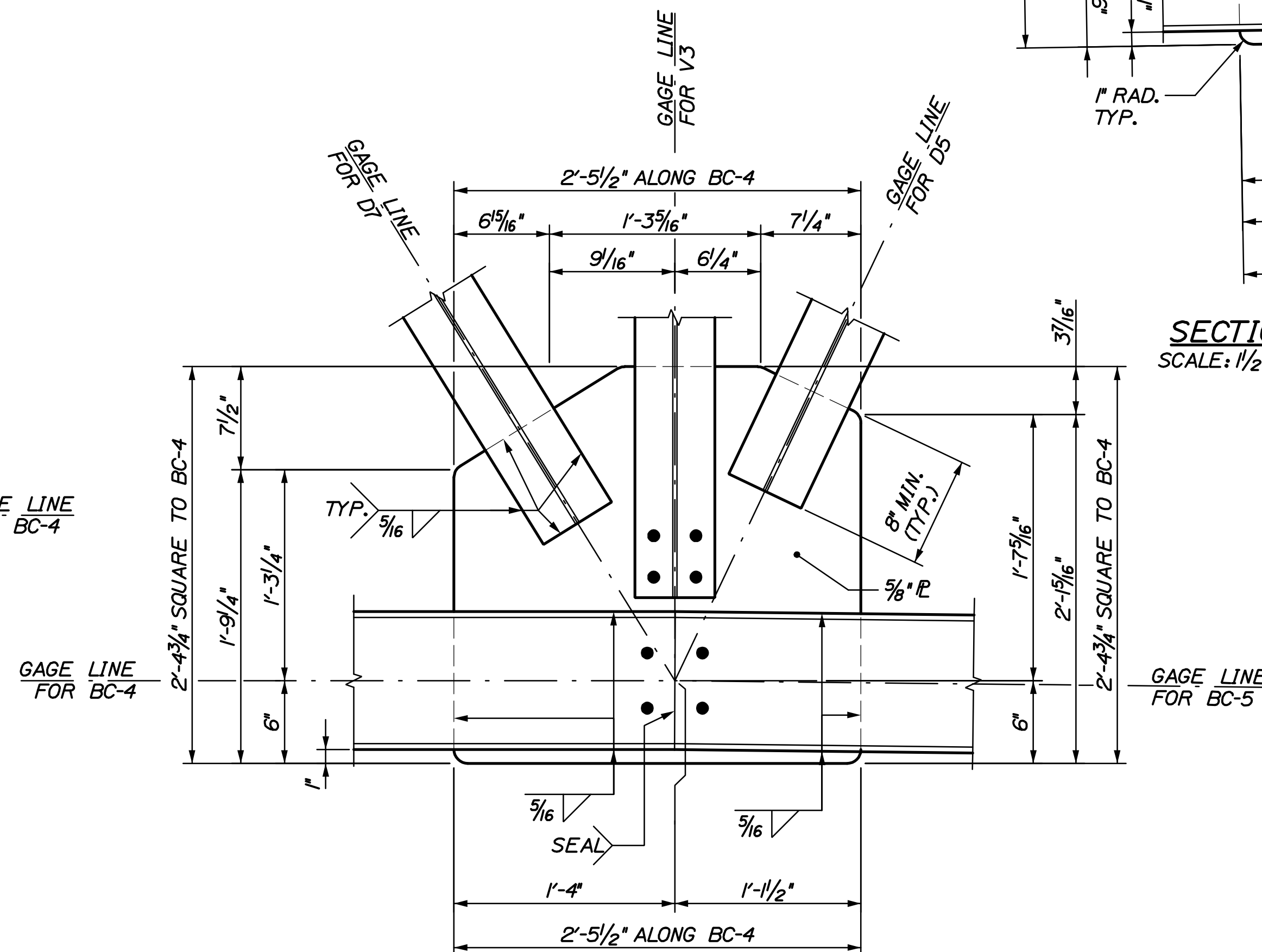
SECTION THRU LI (LI' OPPOSITE HAND)
SCALE: 1 1/2" = 1'-0"



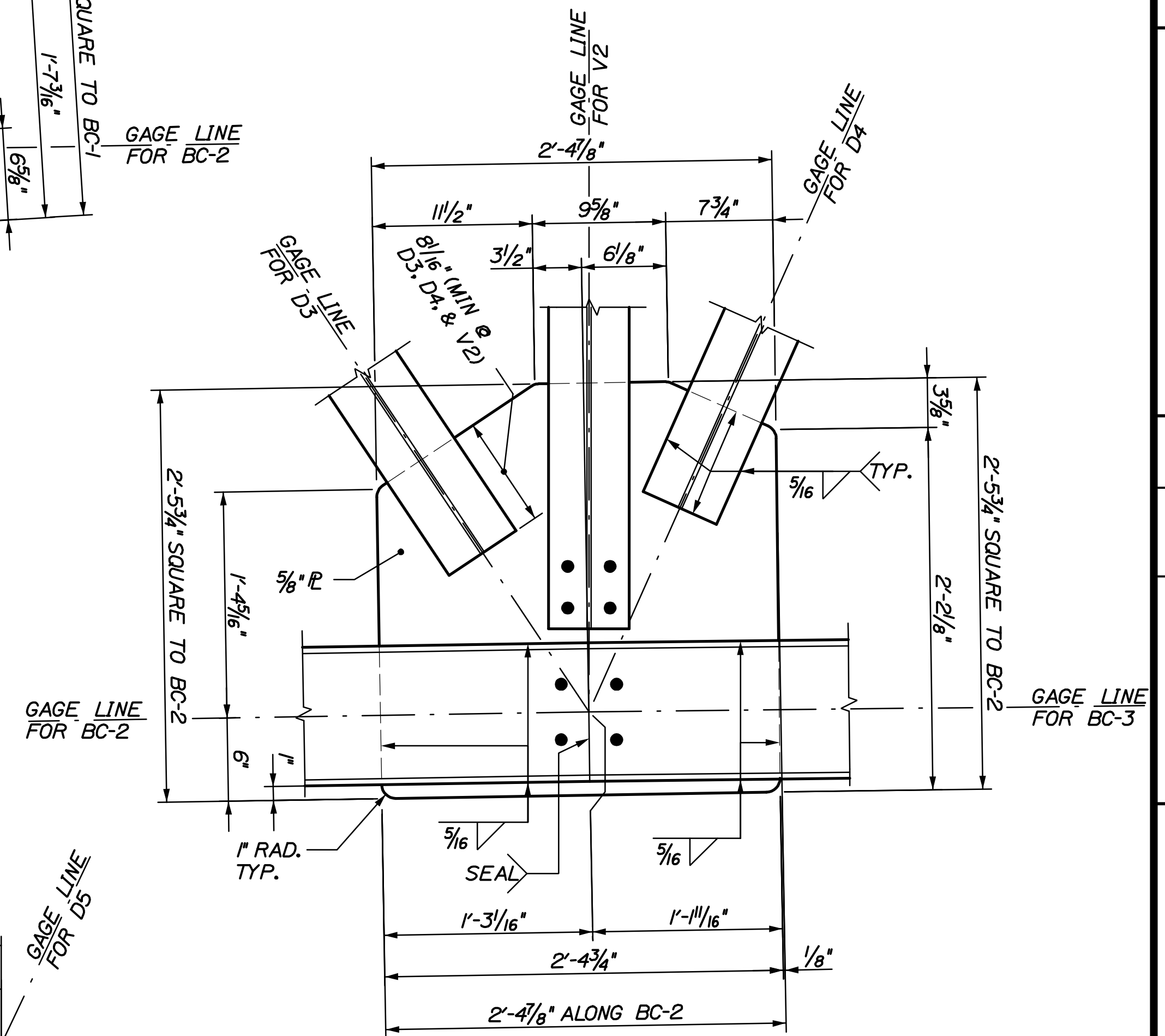
SECTION THRU L3 (L3' OPPOSITE HAND)
SCALE: 1/2" = 1'-0"



SECTION THRU L7
SCALE: 1 1/2" = 1'-0"



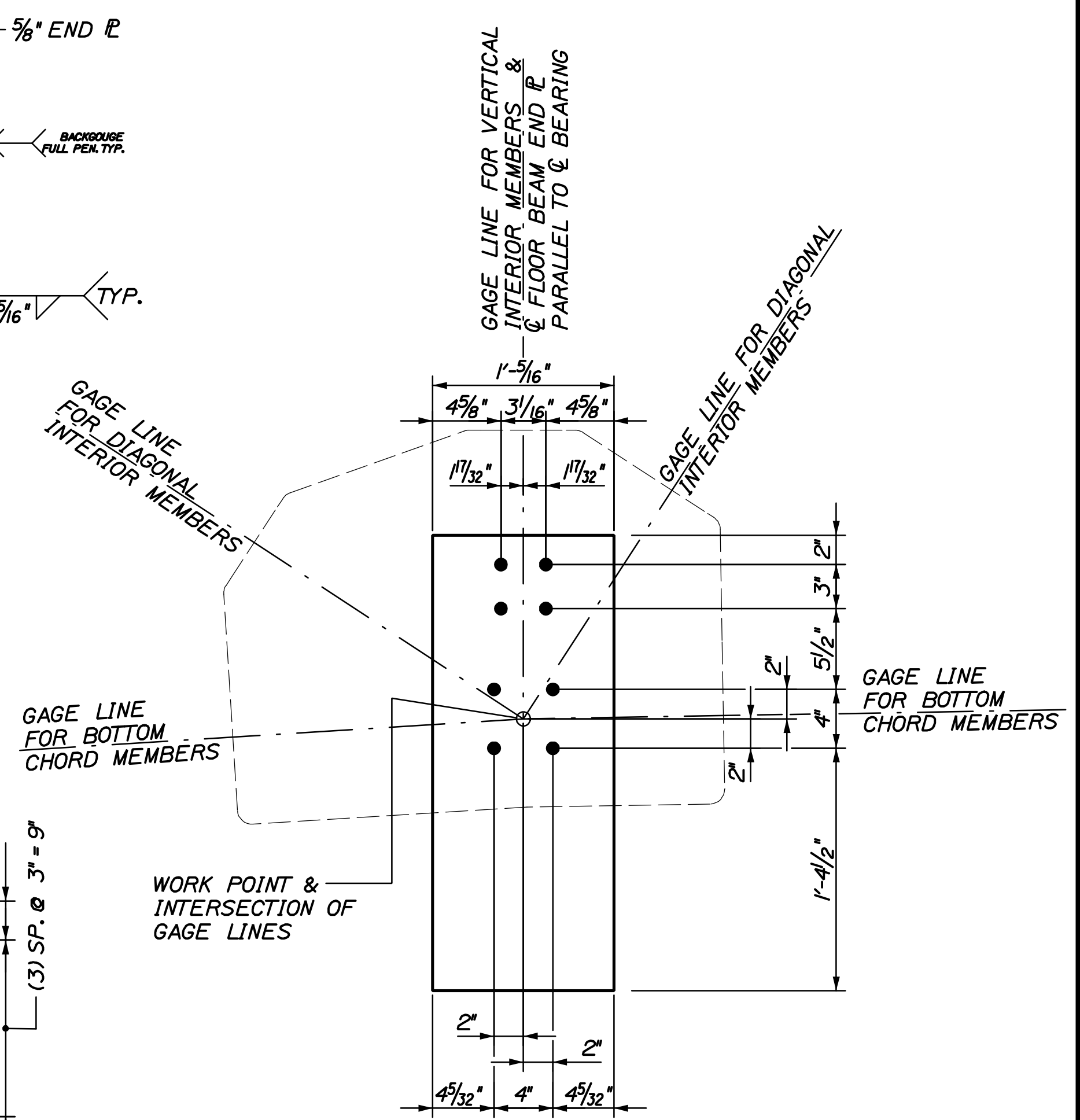
SECTION THRU L9
SCALE: 1 1/2" = 1'-0"



SECTION THRU L5 (L5' OPPOSITE HAND)
SCALE: 1/2" = 1'-0"

NOTES:

1. Reference sheet 23 for Bolt Hole Layout Pattern. Working Point is intersection of Gage Lines



$\varnothing$ BRG
 ABUT. I

12"

2"

GAGE LINE
 FOR TC-1

WORK POINT &
 INTERSECTION OF
 GAGE LINES @
 OF BEARING

GAGE LINE
 FOR BC-1

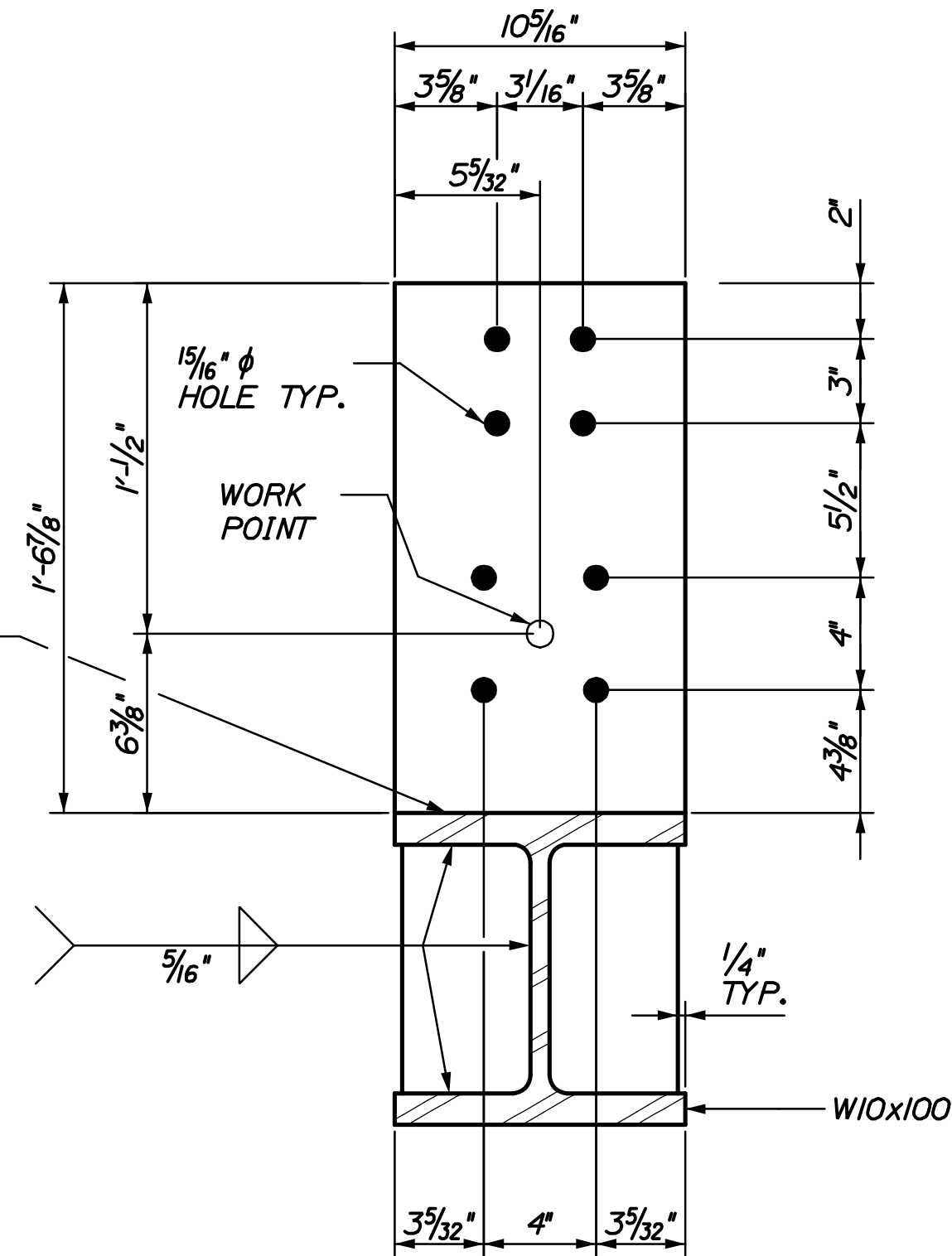
$17/16$ "

$3/32$ "

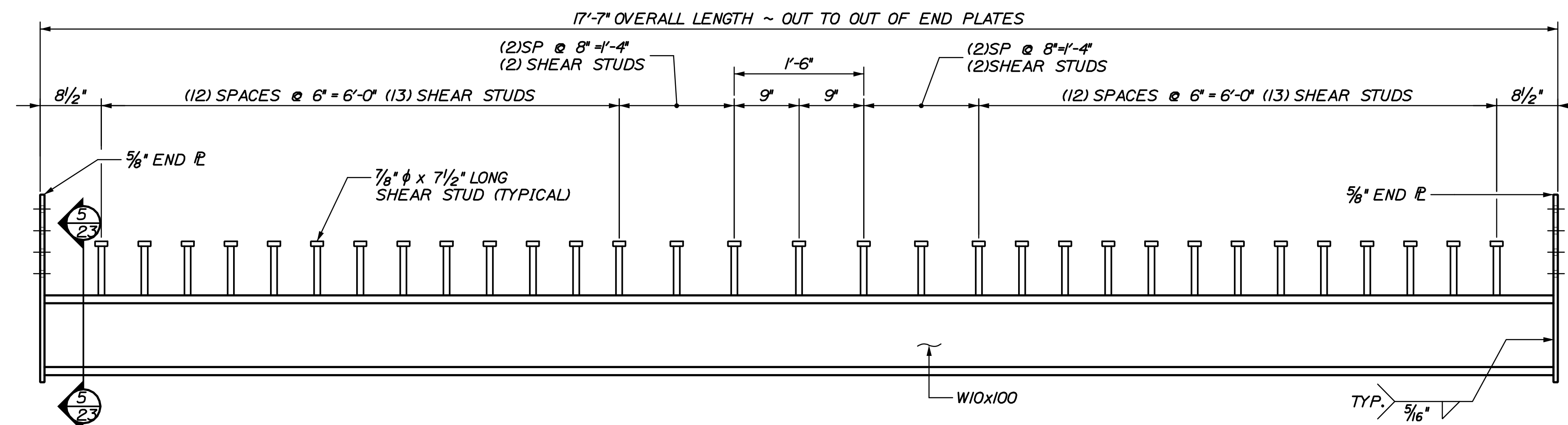
4"

$45/32$ "

$1'-5/16$ "



5 FLOOR BEAM 1 ~ END R
23 SCALE: 2" = 1'-0"



4 FLOOR BEAM 1 (FB-1)
23 SCALE: 1" = 1'-0"

1. Form a 1" V-groove on the Fascias at the Horizontal Joint between the Curb and Slab.
2. Reinforcing Steel shall have a minimum cover of 2" unless otherwise noted.
3. The Superstructure Slab Concrete shall be placed in one continuous operation and the Concrete shall be kept plastic one complete Span behind the Span being placed.
4. The Formwork and its Supports, over the full width of the Structural Slab, shall remain in place until a minimum of 48 hours has elapsed after placement of the final section of the Slab, after which, removal of Formwork for sections meeting the requirements for form removal of Section 502, Structural Concrete, of the Standard Specifications, may proceed.
5. At the Contractor's option, Precast Deck Panels may be used in place of the full depth Cast-In-Place Deck Slab in accordance with Special Provision 502, Structural Concrete - Precast Deck Panels, and in accordance with the Precast Panel Details in this plan set and the Standard Details.
6. The theoretical Blocking used for design of the Structure is 1" at the Centerline of Bearings at the Abutments and Piers. See Standard Detail 502(02) for Blocking details.
7. Payment for the Reinforcing Steel fabricated, delivered, and placed in the Cast-In-Place portion of the Structural Concrete Slab will be considered incidental to the appropriate 502 Item, excluding curb stirrups and curb reinforcement.

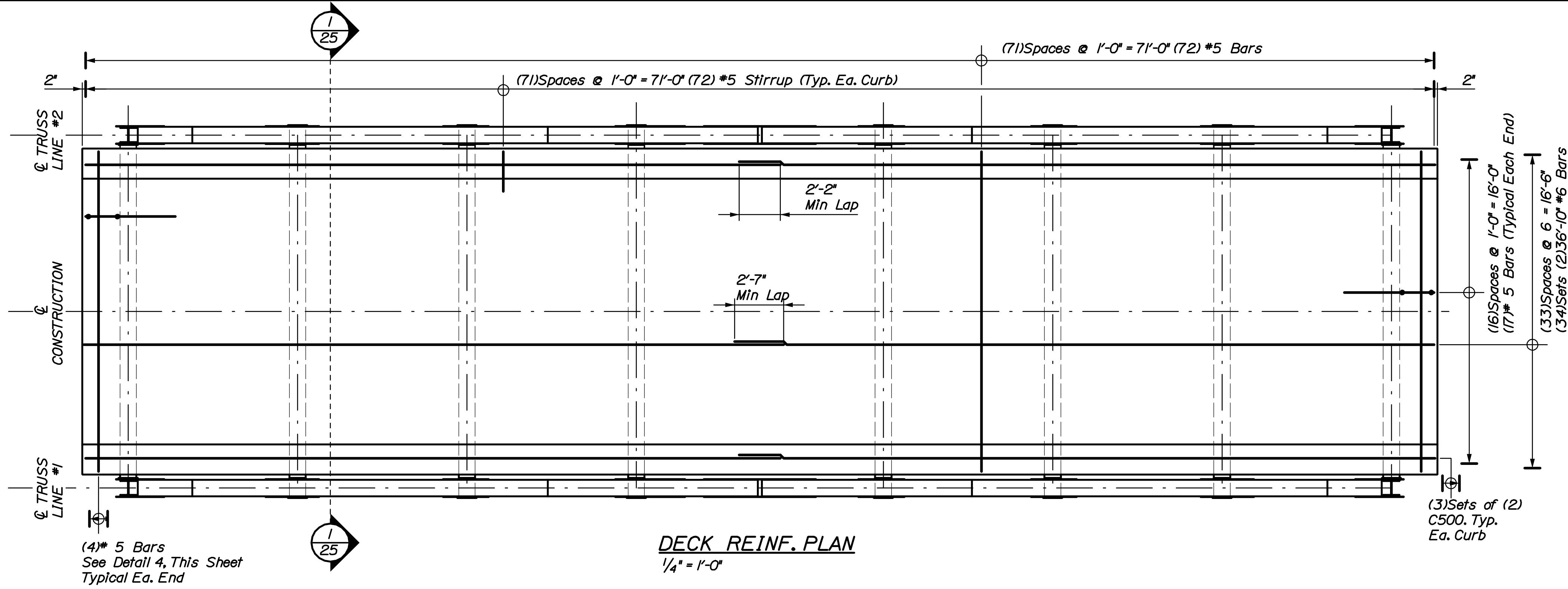
VEED STREET BRIDGE OVER MAINE EASTERN RAILWAY SAGADAHOE COUNTY WOOLWICH	DECK REINF. PLAN & SECT.
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Date: 1/10/2011

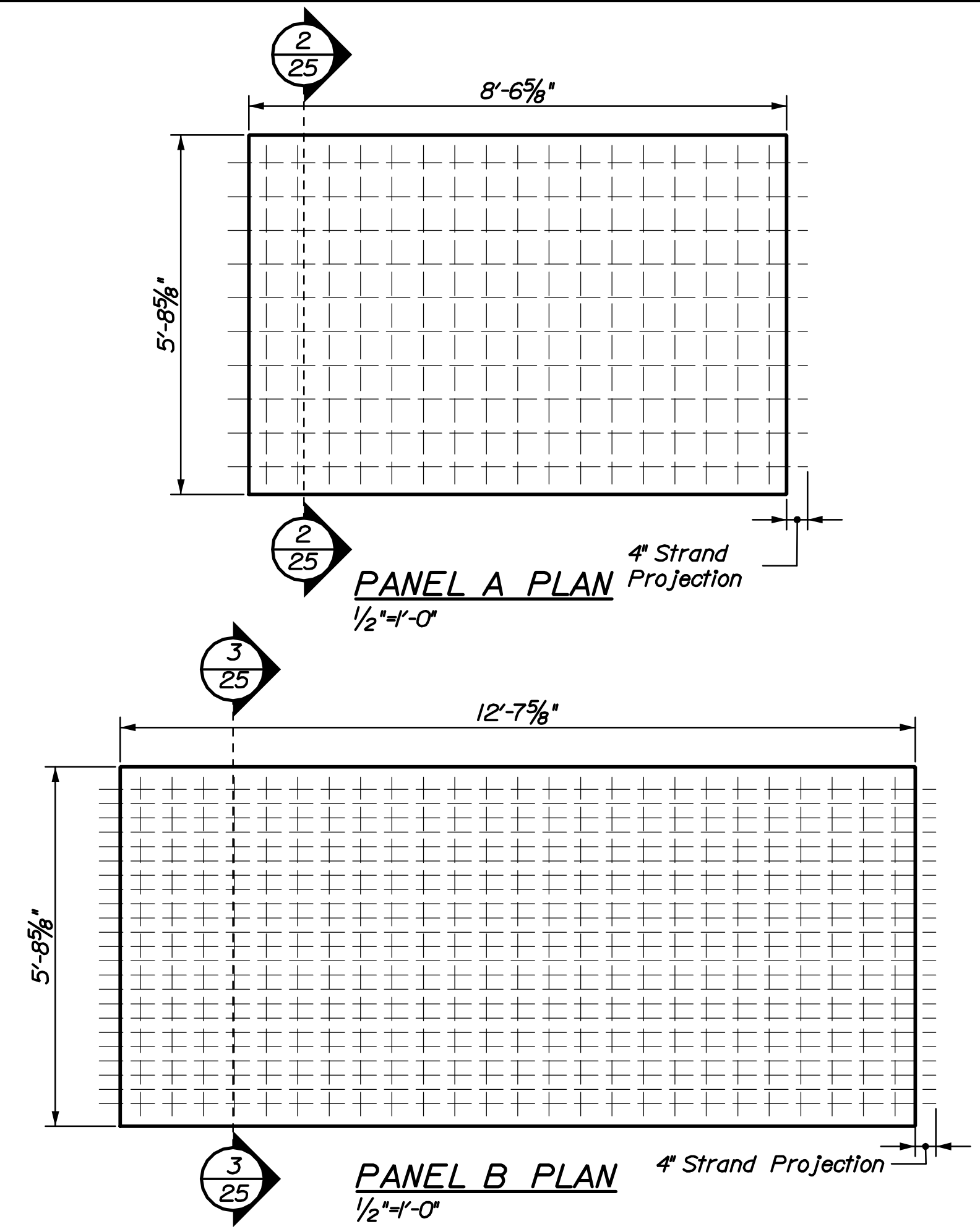
Username: common

Division: BRIDGE

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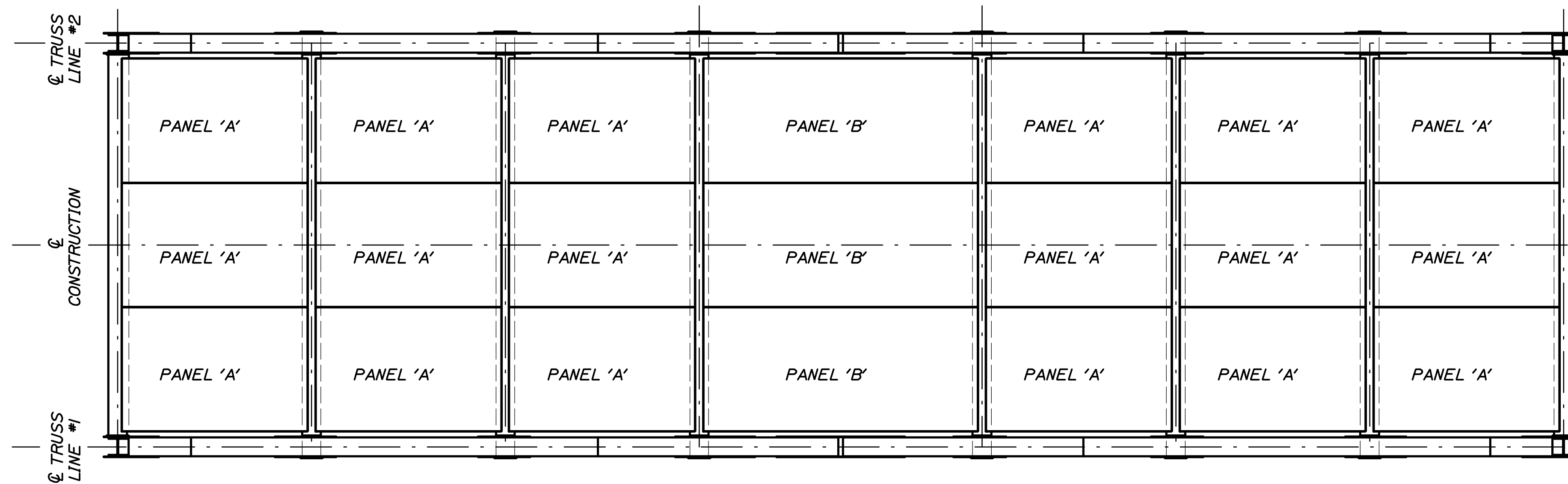


DECK REINF. PLAN
1/4" = 1'-0"

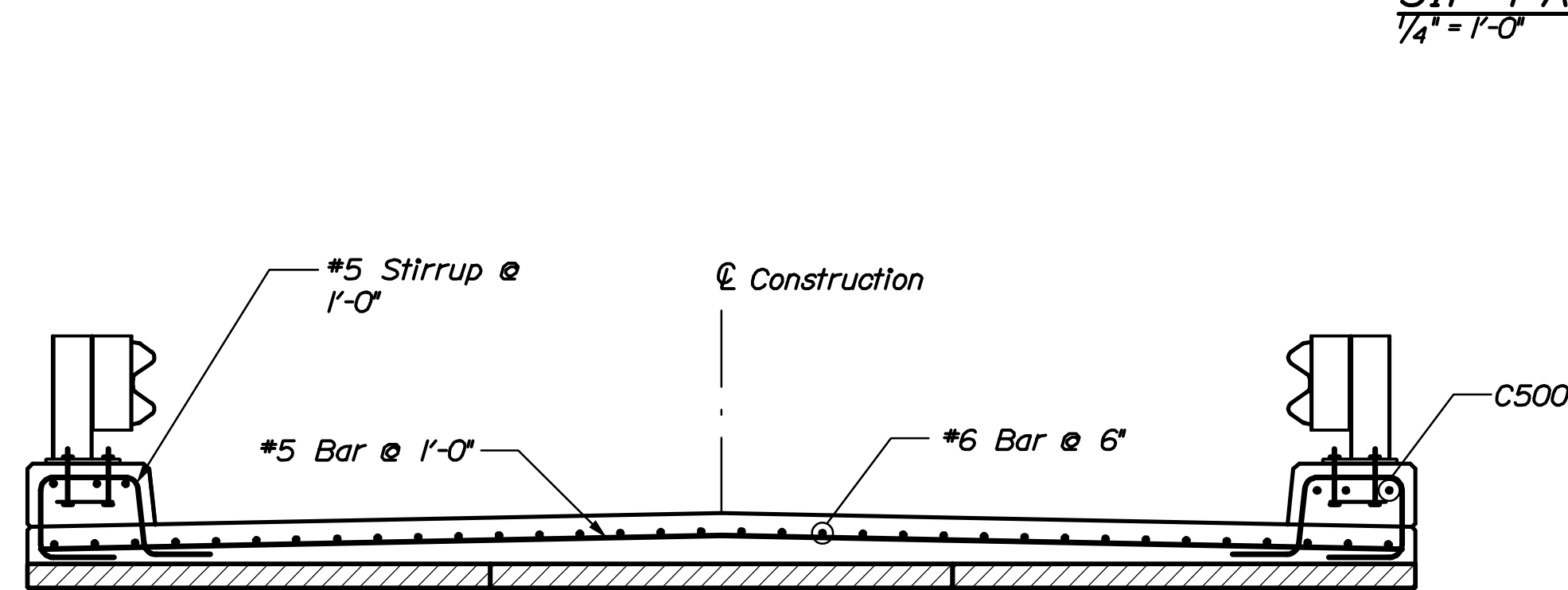


PANEL A PLAN
1/2" = 1'-0"

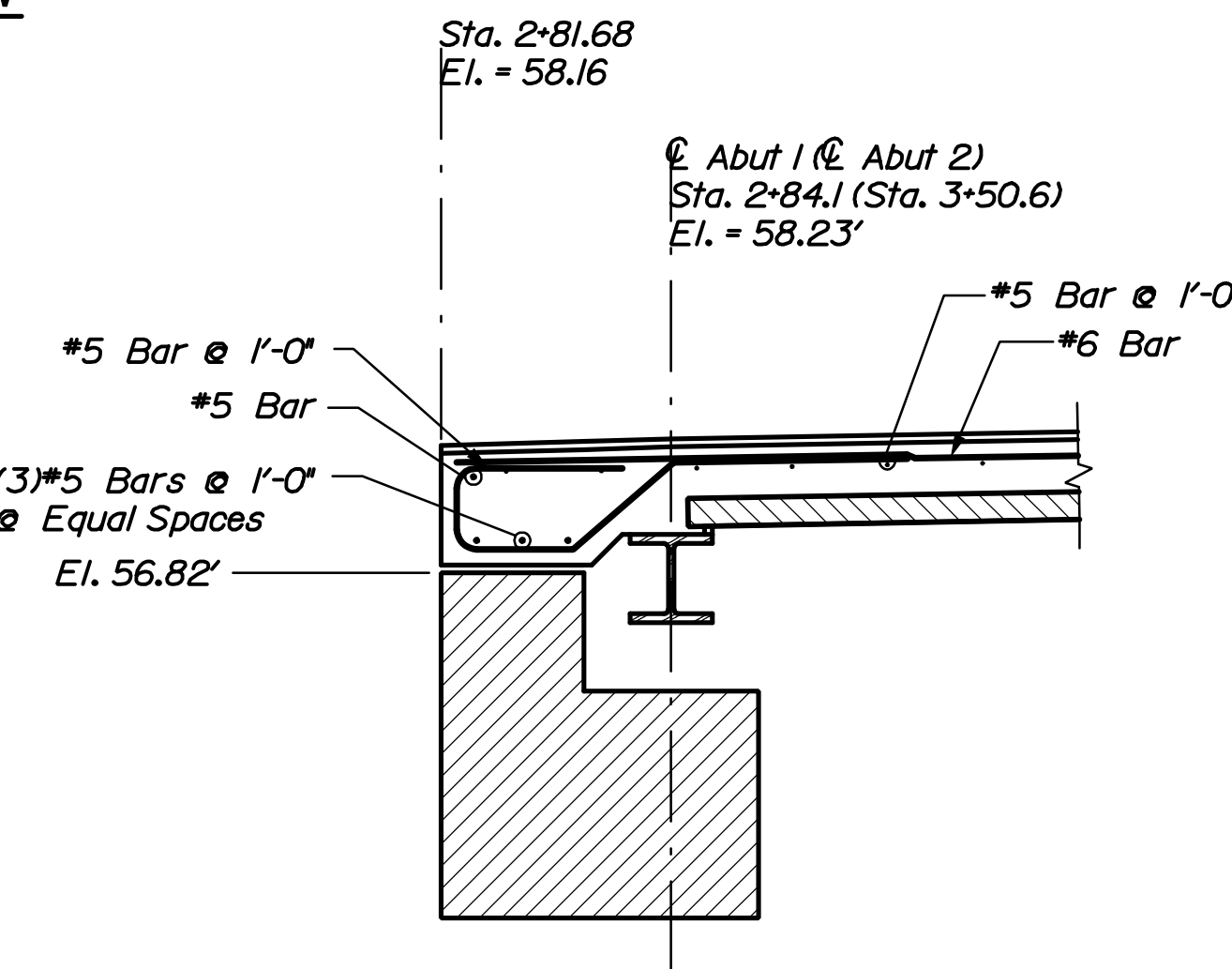
PANEL B PLAN
1/2" = 1'-0"



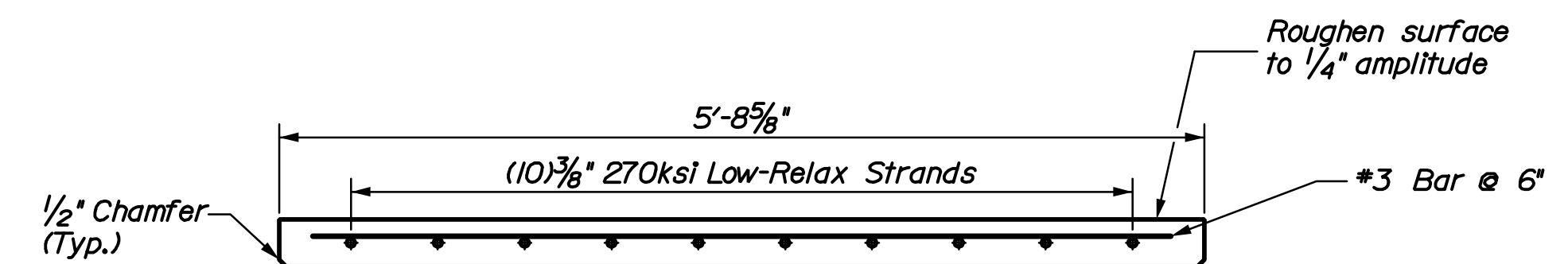
SIP PANEL LAYOUT PLAN
1/4" = 1'-0"



1
25
1/2" = 1'-0"



4
25
1/2" = 1'-0"



2
25
1" = 1'-0"

Note: Contractor shall stagger spacing of strands to avoid contact with strands from panels on adjacent span. Chamfer may vary depending on manufacturer.



3
25
1" = 1'-0"

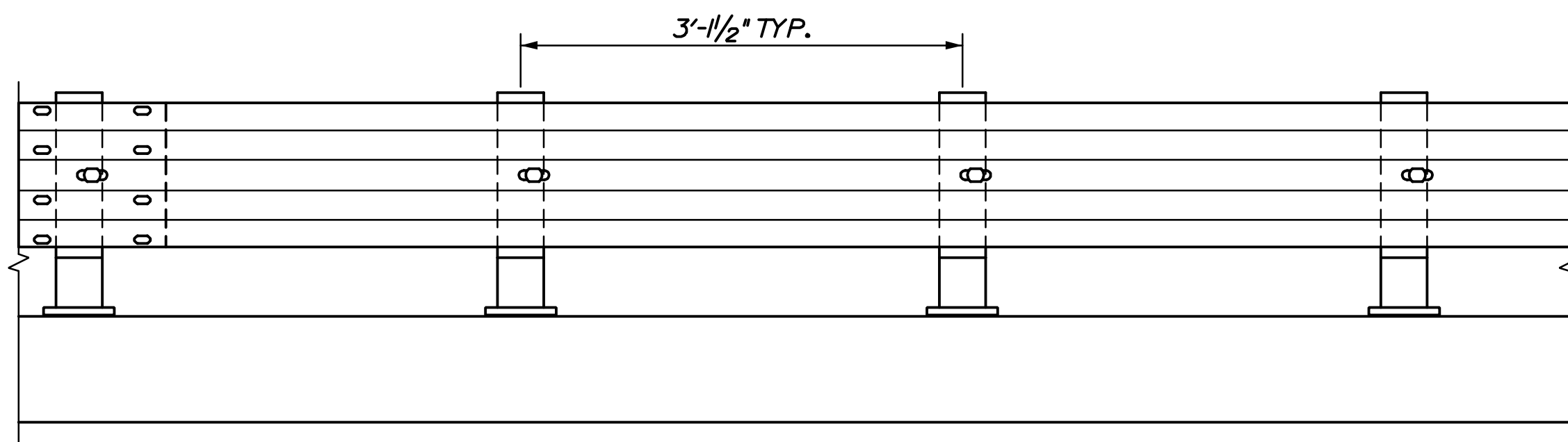
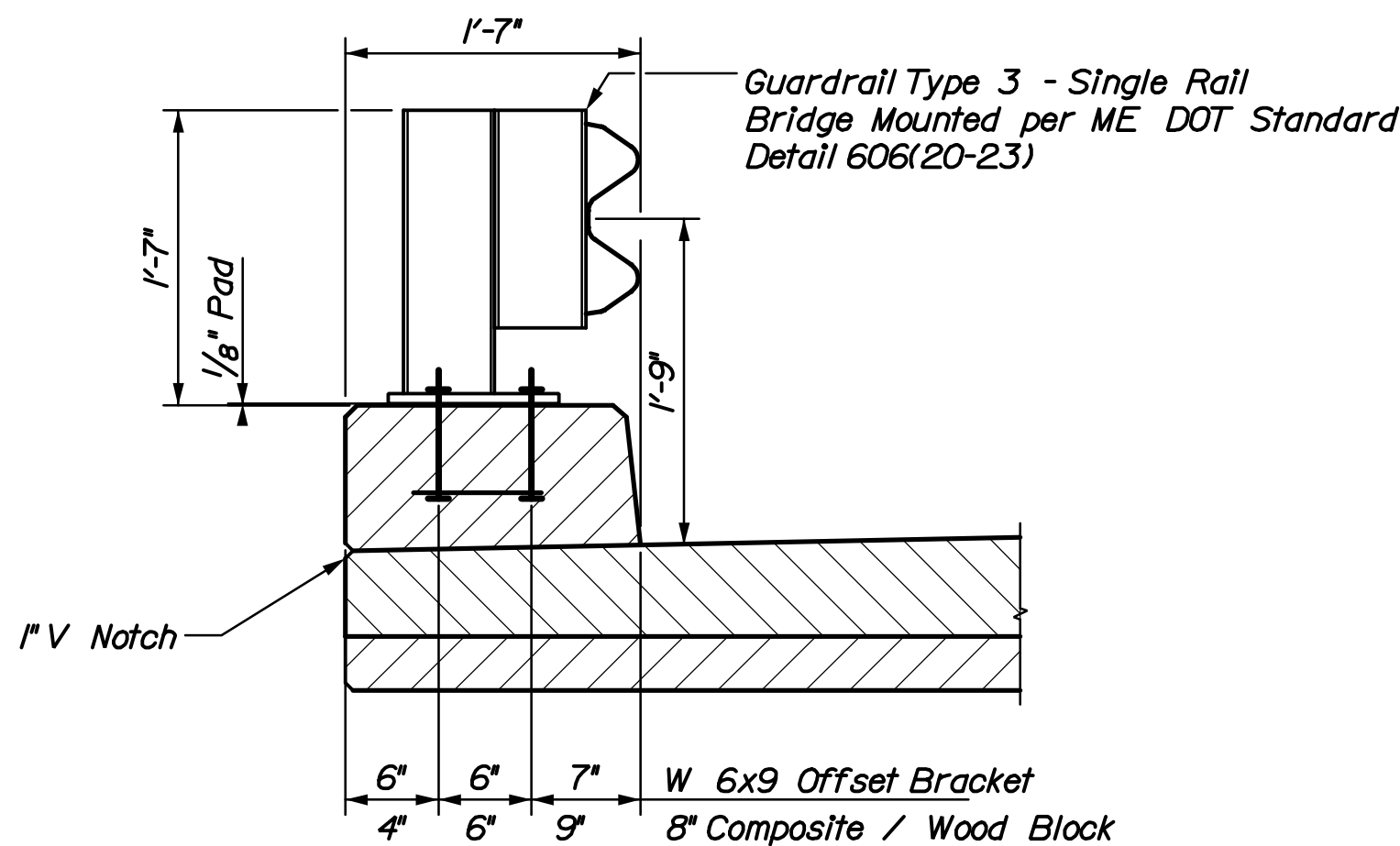
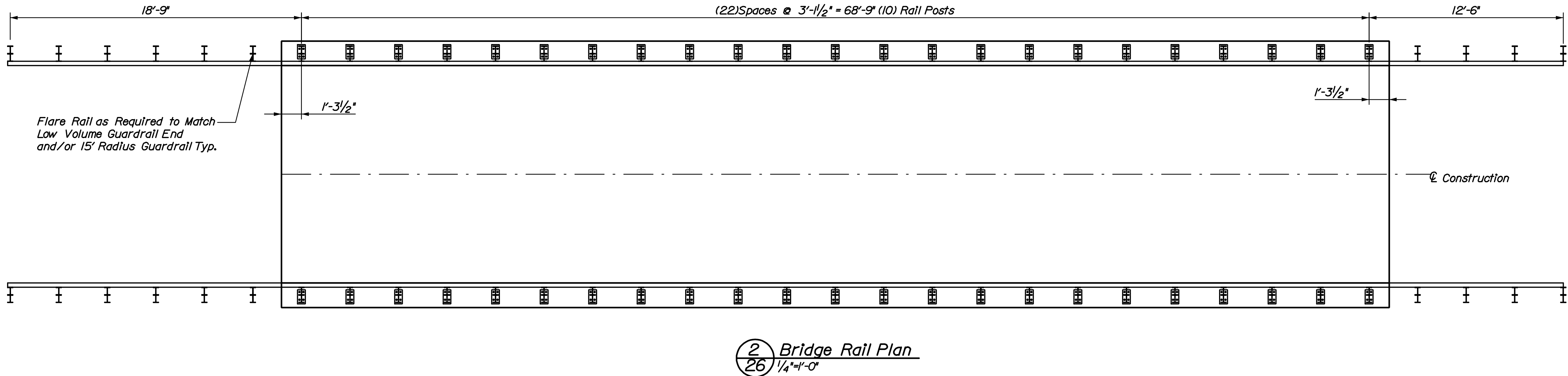
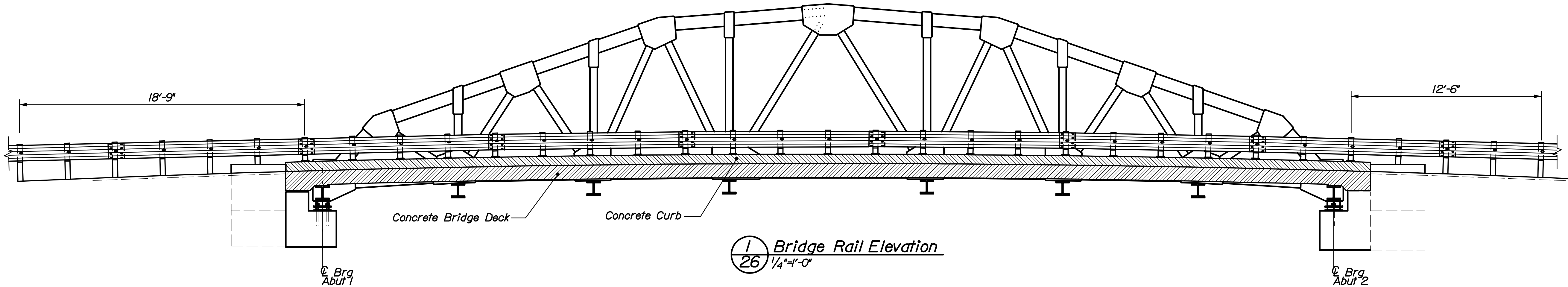
Note: Contractor shall stagger spacing of strands to avoid contact with strands from panels on adjacent span. Chamfer may vary depending on manufacturer.

Date:1/10/2011

Username: common

Division: BRIDGE

Filename: ...\\bridge\\msta\\026_Railing.dgn



Railing Note:
1. Contractor note that the low volume guardrail end limits overlap the bridge mounted guardrail pay limits. Double nest as required.

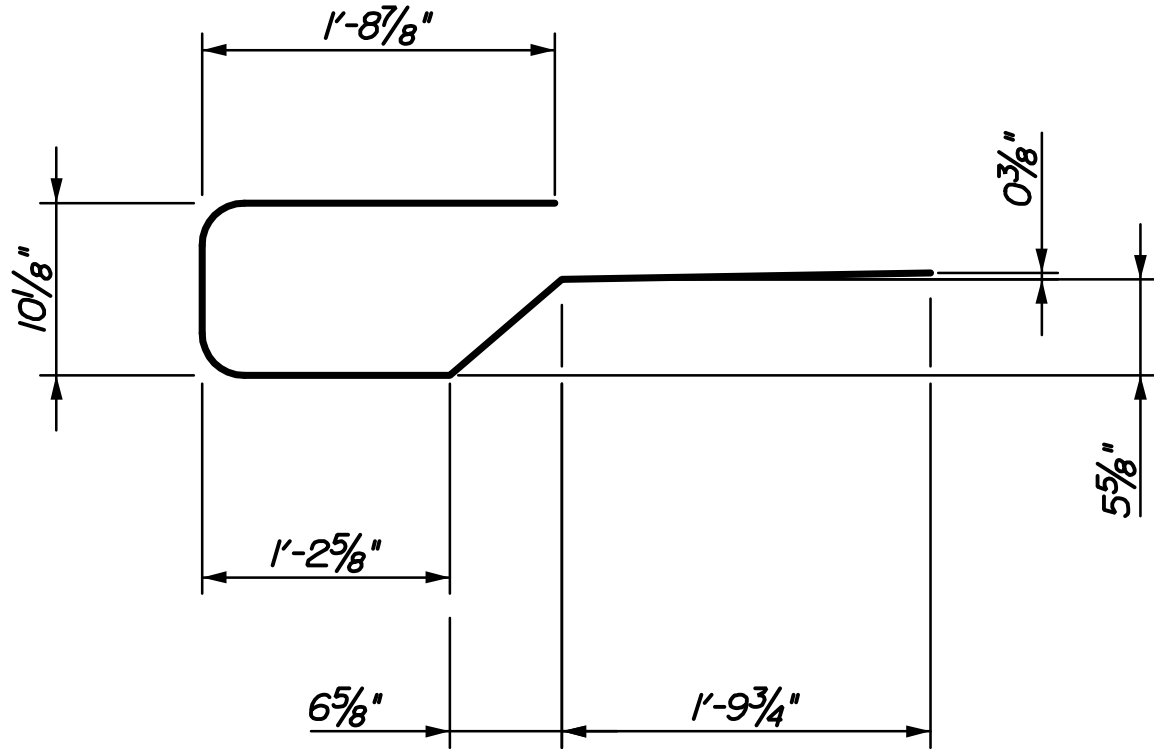
STATE OF MAINE	BRIDGE NO. 1013	PIN	BRIDGE PLANS
DEPARTMENT OF TRANSPORTATION	BR-1676(500)X	16765.00	

PROJ. MANAGER	L. TIMBERLAKE	BY	DATE
DESIGN-DETAILED	OK	OK	NOV 2010
CHECKED-REVIEWED	ETC	ETC	DEC 2010
DESIGN-DETAILED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

REED STREET BRIDGE	OVER MAINE EASTERN RAILWAY	SAGADAHOC COUNTY
WOOLWICH		
BRIDGE RAIL		

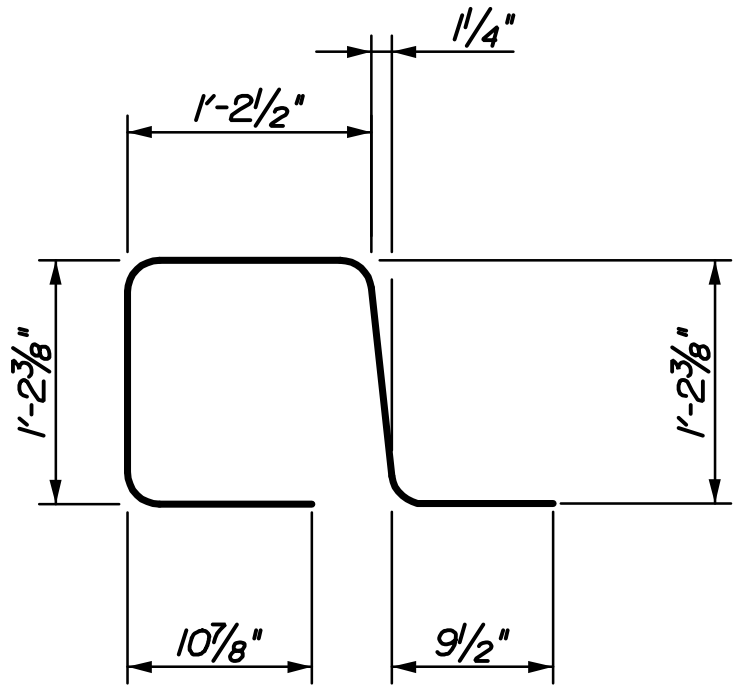
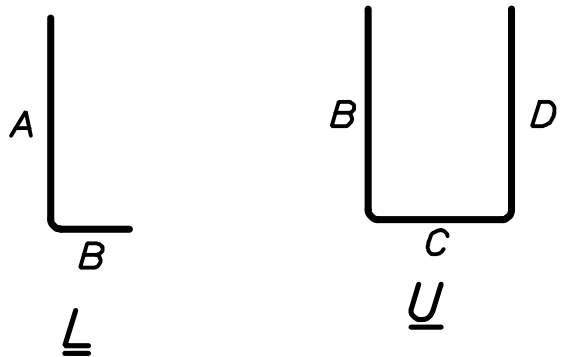
SHEET NUMBER	26
OF 28	

STRAIGHT BARS			
MARK	QTY.	LENGTH	LOCATION
A500	9	21'-0"	LONGITUDINAL STEEL IN ABUT. NO. 1
A501	28	4'-9"	LONGITUDINAL STEEL IN ABUT. NO. 1 WINGWALL
A502	20	3'-10"	VERTICAL STEEL IN ABUT. NO. 1 WINGWALL (EACH FACE)
A700	7	21'-0"	LONGITUDINAL STEEL IN ABUT. NO. 1
B500	9	21'-0"	LONGITUDINAL STEEL IN ABUT. NO. 2
B501	28	4'-9"	LONGITUDINAL STEEL IN ABUT. NO. 2 WINGWALL
B502	20	3'-10"	VERTICAL STEEL IN ABUT. NO. 2 WINGWALL (EACH FACE)
B700	7	21'-0"	LONGITUDINAL STEEL IN ABUT. NO. 2
D500	152	16'-10"	TRANSVERSE STEEL IN DECK
D600	34	22'-4"	TOP LONGITUDINAL STEEL IN DECK
D601	102	37'-0"	LONGITUDINAL STEEL IN DECK (TOP & BOTTOM)
D800	34	30'-0"	TOP LONGITUDINAL STEEL IN DECK
C500	12	36'-7"	LONGITUDINAL STEEL IN CURB



D550

BENT BARS														
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	I	LOCATION	
A550	54	6'-4 ⁷ / ₈ "	U		1'-9 ¹ / ₂ "	3'-0"	1'-9 ¹ / ₂ "						STIRRUP @ ABUT. NO. 1	
A551	36	3'-0"	L	10"	2'-2 ⁷ / ₈ "								STIRRUP @ ABUT. No. 1 BACKWALL	
A552	16	6'-2"	U		1'-11 ¹ / ₂ "	2'-5"	1'-11 ¹ / ₂ "						STIRRUP @ ABUT. NO. 1 WING (BOTTOM)	
A553	10	3'-7 ⁷ / ₈ "	U		1'-4"	1'-2"	1'-4"						STIRRUP @ ABUT. No. 1 WING (TOP)	
A554	6	6'-10 ³ / ₈ "	U		2'-1"	2'-10 ¹ / ₂ "	2'-1"						HORIZONTAL STIRRUP @ ABUT. No. 1	
A555	4	3'-3 ⁷ / ₈ "	U		1'-2"	1'-2"	1'-2"						HORIZONTAL STIRRUP IN WING	
B550	54	6'-4 ⁷ / ₈ "	U		1'-9 ¹ / ₂ "	3'-0"	1'-9 ¹ / ₂ "						STIRRUP @ ABUT. NO. 1	
B551	36	3'-0"	L	10"	2'-2 ⁷ / ₈ "								STIRRUP @ ABUT. No. 1 BACKWALL	
B552	16	6'-2"	U		1'-11 ¹ / ₂ "	2'-5"	1'-11 ¹ / ₂ "						STIRRUP @ ABUT. NO. 1 WING (BOTTOM)	
B553	10	3'-7 ⁷ / ₈ "	U		1'-4"	1'-2"	1'-4"						STIRRUP @ ABUT. No. 1 WING (TOP)	
B554	6	6'-10 ³ / ₈ "	U		2'-1"	2'-10 ¹ / ₂ "	2'-1"						HORIZONTAL STIRRUP @ ABUT. No. 2	
B555	4	3'-3 ⁷ / ₈ "	U		1'-2"	1'-2"	1'-2"						HORIZONTAL STIRRUP IN WING	
D550	34	6'-2"		SEE SKETCH THIS SHEET								END HOOK IN DECK (SLAB OVER BACKWALL)		
D551	144	5'-1/2"		SEE SKETCH THIS SHEET								CURB STIRRUP		
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	I	LOCATION	



D551

All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318.

Reinforcing Bar: ASTM A615, Grade 60

GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

Mark 'A502' = bar size #5
Mark 'P801' = bar size #8
Mark 'S650' = bar size #6



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BR-1676(500)X
BRIDGE NO. 1013
PIN 16765.00
BRIDGE PLANS

REED STREET BRIDGE
OVER MAINE EASTERN RAILWAY
WOOLWICH
SAGadahoc COUNTY
REBAR SCHEDULE

SHEET NUMBER
27
OF 28

DATE: NOV 2010
BY: OCK
DESIGN-DETAILED: OCK
CHECKED-REVIEWED: ETC
DESIGN-DETAILED: ETC
REVISIONS: 1
REVISIONS: 2
REVISIONS: 3
REVISIONS: 4
FIELD CHANGES
SIGNATURE
P.E. NUMBER
DATE

Date:1/10/2011

Username: common

Division: BRIDGE

Filename: ...\\bridge\\msta\\028_RWPLAN1.dgn

SEE STANDARD BOUNDARY SURVEY
BAY FIELD SUBDIVISION
BY BILLS AND FERGUSON
1988
RECORDED SAGadahoc COUNTY R.O.D.
VOL. 25 PAGE 51

SEE SURVEY OF THE DOUGLAS E.
& MARGARET F. SHAW PROPERTY
BY L. F. ROUILLARD
1972
RECORDED SAGadahoc COUNTY R.O.D.
VOL. 9 PAGE 26A

R/W REFERENCE
REED ROAD AND OLD ARROWSIC ROAD
SEE SAGadahoc COUNTY R.O.D.
VOL. 164 PAGE 68 -1926
EDWARD L. REED
CLARA E. HEAD
TO
STATE OF MAINE
AND
DECLARATION OF TAKING
DATED 9-10-1926
SAGadahoc COUNTY R.O.D. BK. 162 PAGE 422

ALSO SEE SAGadahoc COUNTY R.O.D.
VOL. 204 PAGE 492
VOL. 209 PAGE 400
VOL. 219 PAGE 288
VOL. 282 PAGE 456

12' WIDE

NOTE: PRESCRIPTIVE EASEMENT FOR
HIGHWAY PURPOSES WITHIN LIMITS OF
WROUGHT PORTION (L.O.W.P.)

JAMES F. TANTER
CLAUDETTE D. TANTER
PARCEL NO. (2)
LAND TAKEN = 515± S.F. (PRESC. EASE.)
LAND TAKEN = 1305± S.F. (OTHER)
TOTAL LAND TAKEN = 1820± S.F. (EASE. FOR HIGHWAY PURPOSES)
DRAINAGE EASE. = (1)
TEMP. CONST. RIGHTS = 605± S.F. (1) 1045± S.F.
TOTAL AREA = 0.90± AC. (CALC.)
REM. AREA = 0.86± AC.

CURVE DATA #2

PI = 2+66.15
D = 36° - 53' - 37.0"
Δ = 12° - 38' - 49.8" Lt.
R = 155.30'
L = 34.28'
T = 17.21'
E = 0.95'

CURVE DATA #1

PI = 1+74.6
D = 28° - 38' - 52.4"
Δ = 10° - 1' - 47.0" Rt.
R = 200.0'
L = 35.01'
T = 17.55'
E = 0.72'

CURVE DATA #3

PI = 3+81.73
D = 274° - 47' - 59.7"
Δ = 88° - 2' - 37.5" Rt.
R = 20.85'
L = 32.04'
T = 20.15'
E = 8.35'

CURVE DATA #8

PI = 4+56.59
D = 234° - 14' - 33.9"
Δ = 30° - 48' - 40.7" Lt.
R = 24.46'
L = 13.15'
T = 6.74'
E = 0.91'

DENNIS A. YOULAND
PARCEL NO. (1)
LAND TAKEN = 595± S.F. (PRESC. EASE.)
LAND TAKEN = 1215± S.F. (OTHER)
TOTAL LAND TAKEN = 1810± S.F. (EASE. FOR HIGHWAY PURPOSES)
SLOPE EASEMENT = 1135± S.F. (1)
DRAINAGE EASE. = (1)
TEMP. ROAD EASE. = 0.08± AC. (1)
TOTAL AREA = 0.40± AC. (CALC.)
REM. AREA = 0.36 ± AC.

TILSON GROUP LIMITED PARTNERSHIP n/k/a GRAYWOODS, LLC
ITEM NO. (4)
CONST. & MAINT. EASE. = 0.06± AC. (1)
TEMP. ROAD EASE. = 405± S.F. (1)
TEMP. CONSTRUCTION RIGHTS = 0.20± AC. (1)
TOTAL AREA = 2.0± AC. (CALC.)

SYMBOLS	
• IP or PIPE (IRON PIPE or PIN FOUND)	○ WELL
□ S.T. (SEPTIC TANK)	— GRADING LIMIT LINE
△ (ROW MONUMENT)	— CONSTRUCTION LIMIT LINE
△ (TRAVEL POINT)	— PROPERTY LINE
— WATER LINE	— PL
— GAS LINE	— LIMITS OF WROUGHT PORTION (L.O.W.P.)
— ELECTRIC LINE	— EXISTING RIGHT OF WAY
— TELEPHONE LINE	— NEW RIGHT OF WAY
— SEWER LINE	— NEW ROW WITHIN EXIST. ROW
	— CONTROL OF ACCESS

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.W.B.	
PROP. LINES	D.W.B.	
AREAS	D.W.B.	P.N.S.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04833-0016
WOOLWICH
RIGHT OF WAY MAP

REVISIONS			PLAN FILED IN PLAN BOOK			PAGE			COUNTY RECORD		
NO.	DATE	DESCRIPTION	BY	NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE		
1	12-3-10	REVISED NAME ON ITEM NO. (4)	D.W.B.								
2	12-16-10	REVISED TEMP. CONST. RIGHTS AREA ON PARCEL NO. (2)	D.W.B.								

DAVID A. COLE
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

REED ROAD		
WOOLWICH SAGadahoc COUNTY FEDERAL AID PROJECT NO. BR-1676(500)X		
OCTOBER 2010 SCALE 1" = 25'	RIGHT-OF-WAY MAP SHEET 1 OF 1	D.O.T. FILE NO. 12-126

SHEET NUMBER
28
OF 28