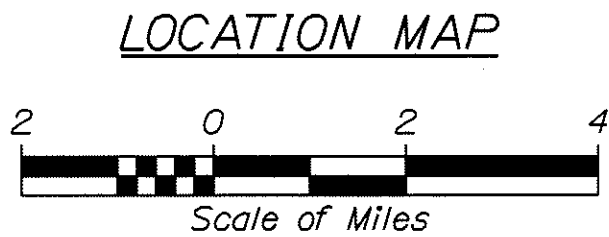
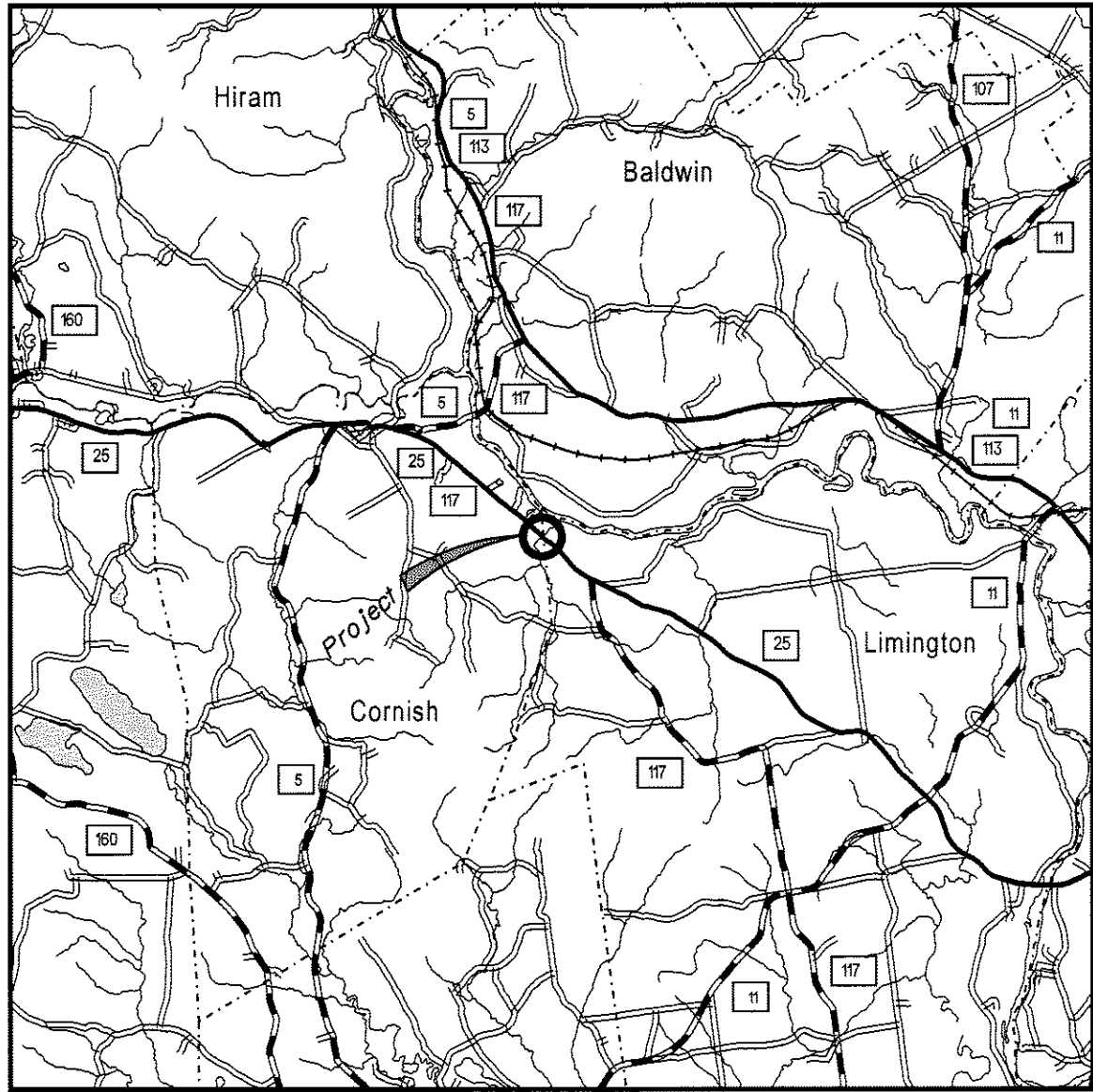


STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



CORNISH / LIMINGTON
YORK COUNTY
TANNERY BRIDGE
OVER
DOUGLAS BROOK
STATE ROUTES 25/117
STATE PROJECT NO. 017875.00
BRIDGE CULVERT REHABILITATION
BRIDGE NO. 3024



TRAFFIC DATA

Current (2010) AADT	4700
Future (2020) AADT	5170
DHV - % of AADT	10
Design Hour Volume	564
Heavy Trucks (% of AADT)	10
Heavy Trucks (% of DHV)	8
Directional Distribution (% of DHV)	60
18 kip Equivalent P 2.0	471
18 kip Equivalent P 2.5	449
Design Speed (mph)	55

HYDROLOGIC DATA

Drainage Area	12.0 sq mi
Design Discharge (Q50)	837.5 cfs
Check Discharge (Q100)	988.5 cfs
Headwater Elevation (Q50)	327.6 ft
Headwater Elevation (Q100)	328.8 ft
Discharge Velocity (Q50)	12.1 fps
Discharge Velocity (Q100)	12.2 fps
Headwater Elevation (Q1.1)	321.4 ft
Discharge Velocity (Q1.1)	7.8 fps

MATERIALS

Invert Lining	Shotcrete, Class "A" CIP concrete or composite
Fish Weirs:	
Internal	Shotcrete, Class "A" CIP concrete or composite
External	Class "A" CIP concrete or composite
Reinforcing Steel	ASTM A 615/A 615M, Grade 60

BASIC DESIGN STRESSES

Concrete:	
Class "A"	f'c = 4350 psi
Shotcrete	f'c = 5000 psi
Reinforcing Steel	f y = 60,000 psi

UTILITIES

Central Maine Power Company
Northern New England Telephone Operations LLC
Time Warner Cable

MAINTENANCE OF TRAFFIC

Maintain two 11'-0" wide lanes of two - way traffic with occasional alternating two - way traffic using flaggers when a lane closure is necessary.

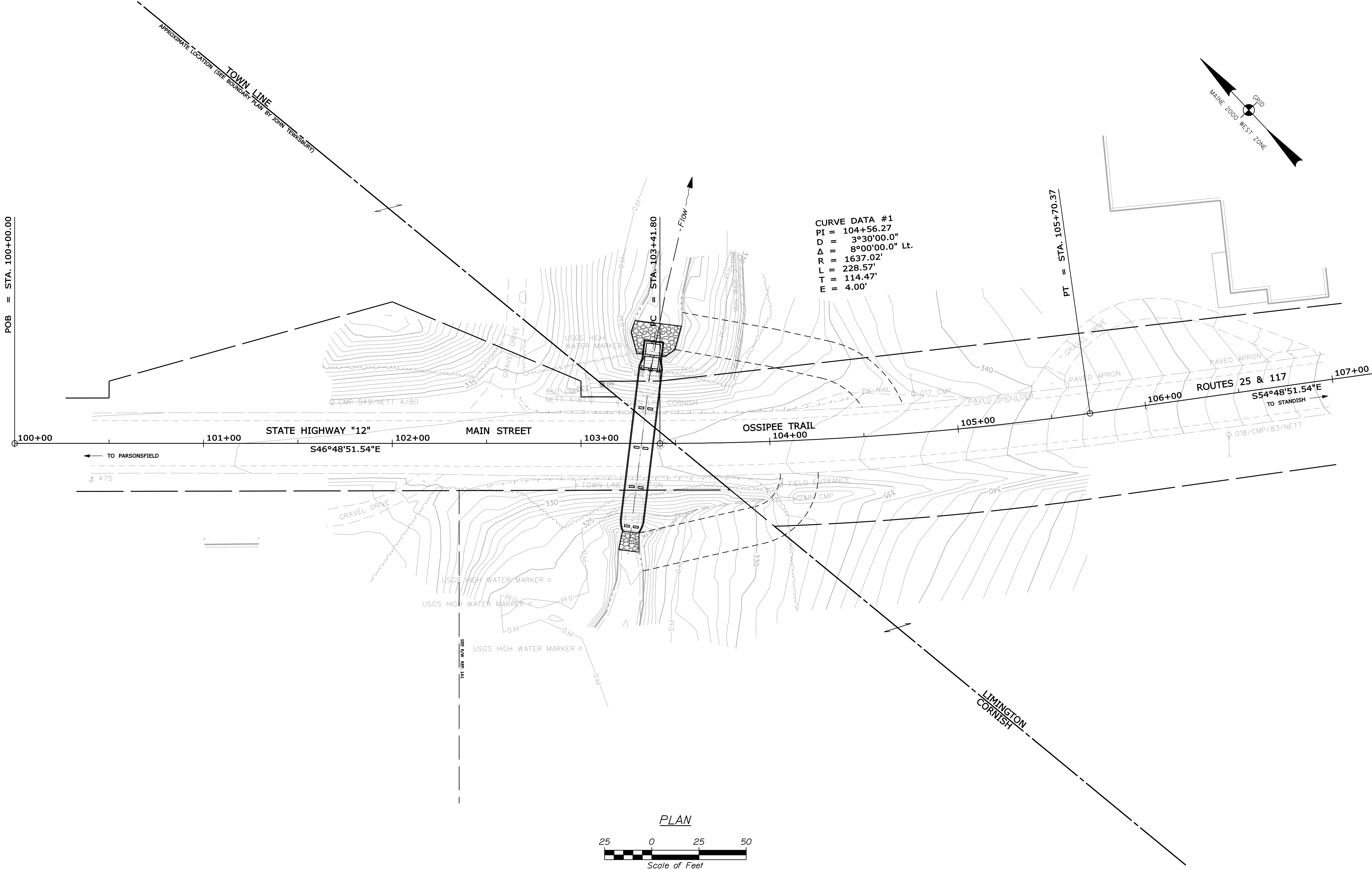
LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities & Notes	2
General Plan	3
Pipe Plan & Elevation	4
Pipe Details	5
Internal Weirs	6
External Weirs	7 - 8
Reinforcing Steel Schedule	9
Right of Way Map	10

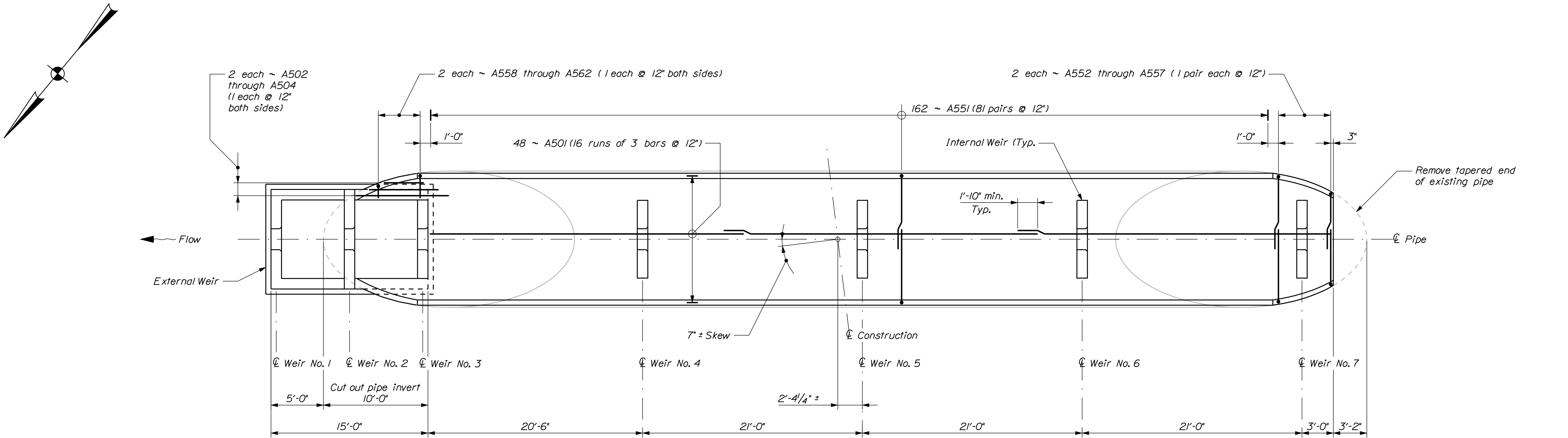
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SIGNATURE <i>[Signature]</i> P.E. NUMBER 10651		DATE 5-16-11		
PROJECT INFORMATION		PROJECT INFORMATION		
PROGRAM BRIDGE PROGRAM	PROJECT MANAGER MARK PARLIN	DESIGNER JOEL VELLEUX	CONSULTANT N/A	PROJECT RESIDENT CRAG HURD
CONTRACTOR PROJECT COMPLETION DATE		PROJECT COMPLETION DATE		
CORNISH / LIMINGTON TANNERY BRIDGE		TITLE SHEET		
SHEET NUMBER 1		OF 10		

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Division: BRIDGE
Username: Joel R. Velleux
Date: 5/16/2011

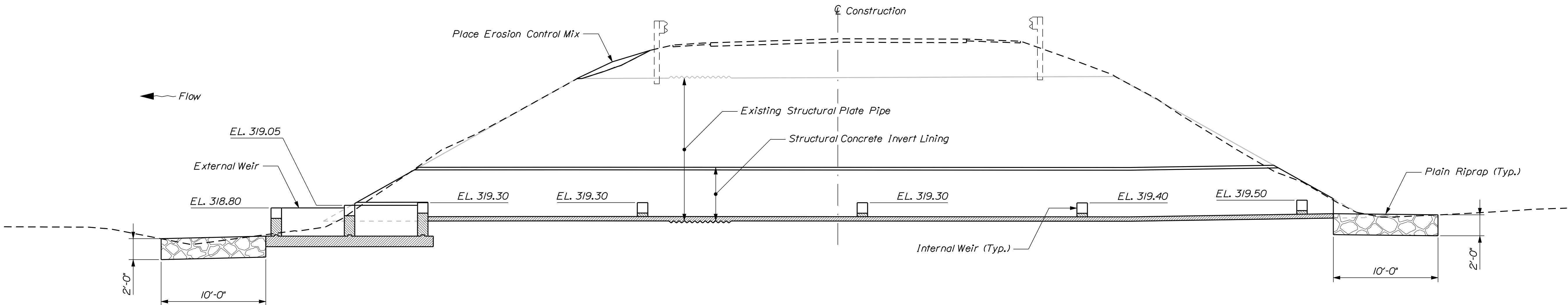
PIN 17875.00



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		STATE PROJECT No. 017875.00		PIN 17875.00		BRIDGE NO. 3024		BRIDGE PLANS	
		SHEET NUMBER		3		OF 10			
		TANNERY BRIDGE DOUGLAS BROOK CORNISH \ LIMINGTON YORK COUNTY		GENERAL PLAN					
PROJ. MANAGER		M. Porlin	BY	D. Dornen	DATE	5/2011	SIGNATURE		
DESIGN-DETAILED		J. Veilieux	MAP		3/2011		P.E. NUMBER		
CHECKED-REVIEWED							DATE		
DESIGN-DETAILED									
REVISIONS 1									
REVISIONS 2									
REVISIONS 3									
REVISIONS 4									
FIELD CHANGES									

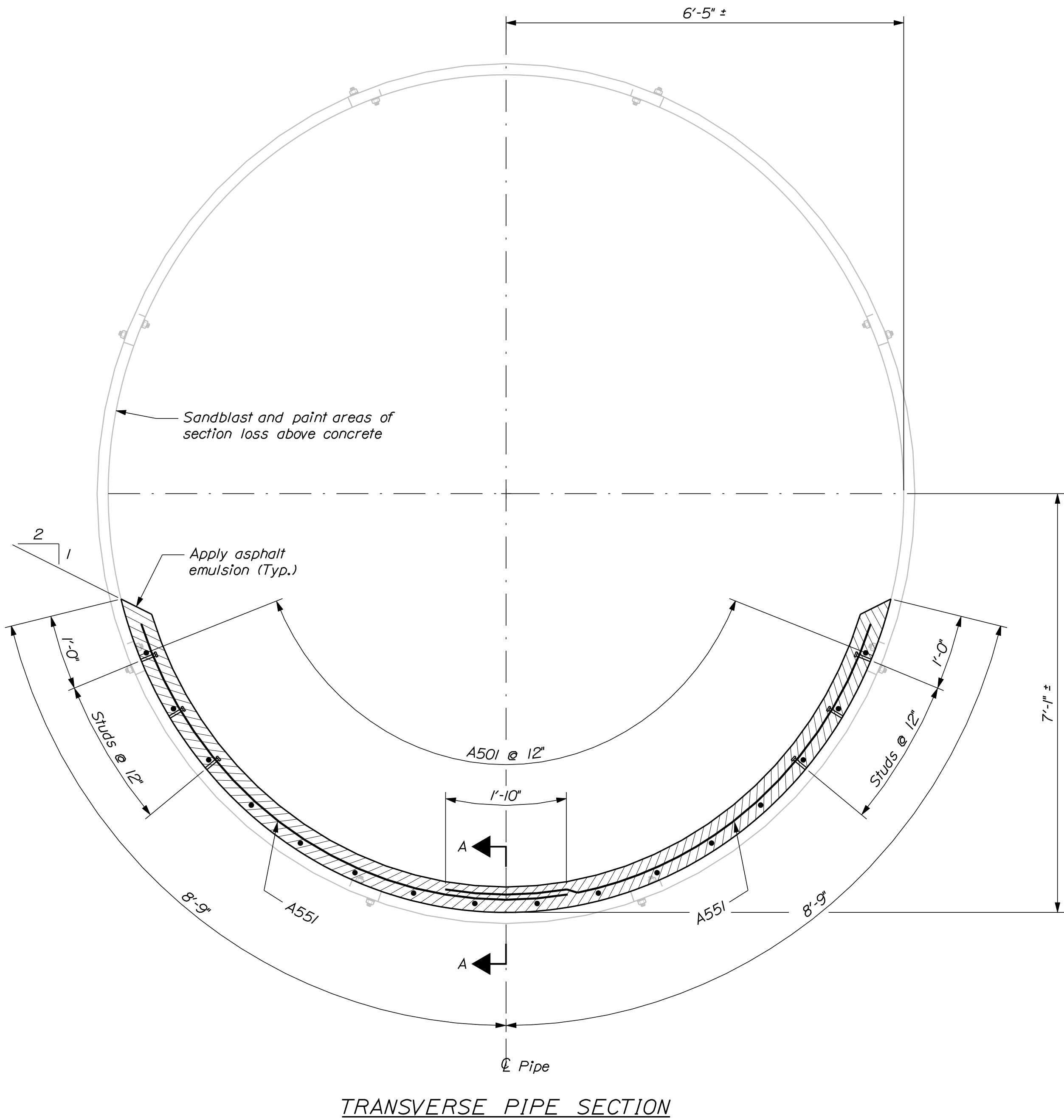


PIPE PLAN

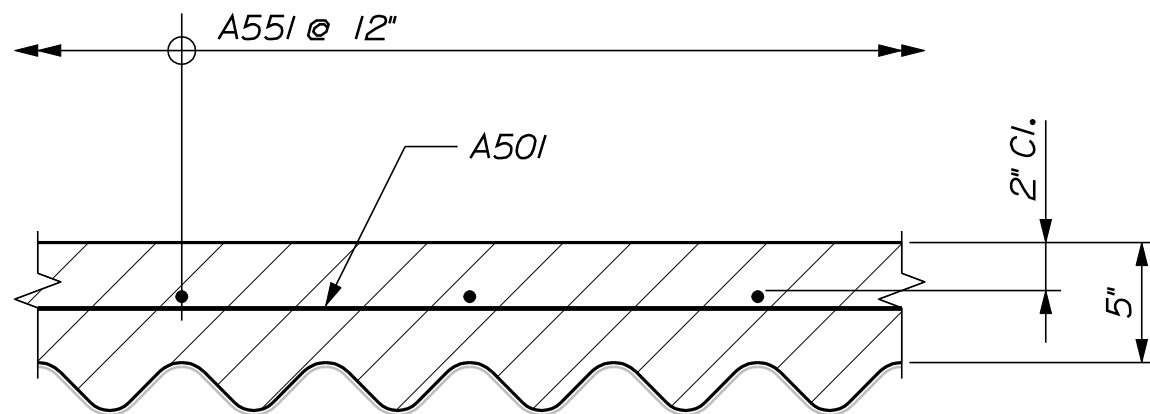


LONGITUDINAL PIPE SECTION

4		SHEET NUMBER		TANNERY BRIDGE DOUGLAS BROOK CORNISH \ LIMINGTON YORK COUNTY		PROJ. MANAGER		M. Parlin	BY D. Dornen	DATE 5/2011	STATE OF MAINE	
						DESIGN-DETAILED J. Veilleux MAP					DEPARTMENT OF TRANSPORTATION	
OF 10						DESIGN2-DETAILED2					SIGNATURE	
						DESIGN3-DETAILED3					P.E. NUMBER	
						REVISIONS 1					BRIDGE NO. 3024	
						REVISIONS 2						
						REVISIONS 3						
						REVISIONS 4						
						FIELD CHANGES					PIN 17875.00	
						BRIDGE PLANS						



TRANSVERSE PIPE SECTION

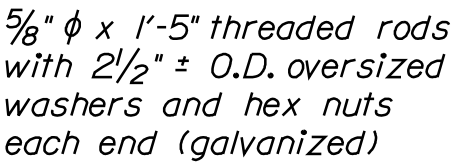
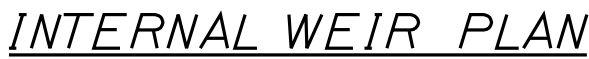


SECTION A - A

INVERT LINING NOTES

1. All debris in the existing pipe shall be removed and disposed of properly. Surfaces of the pipe against which concrete is to be placed shall be thoroughly cleaned so as to remove all loose corrosion. In areas where the metal is nonexistent, a preliminary concrete placement shall be made, using forms where required, to fill voids and to establish the original lines of the pipe. Payment for this work will be considered incidental to Item No. 502.325, Structural Concrete Invert Lining. The final concrete placement shall then be made as shown.
2. Three rows of shear connectors shall be staggered longitudinally at 12-in. spacing along each side of the pipe barrel. Shear connectors shall be 1/2-in. x 3-in. studs or machine bolts welded to the crests of the pipe corrugations. Approximately 530 shear connectors are required.
3. The existing pipe may have a slight deformation requiring field bending and/or cutting of the reinforcing steel. Payment for any necessary adjustments will be considered incidental to related Contract items.
4. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
5. Payment for removing the ends of the pipe will be considered incidental to Contract items.
6. Payment for the asphalt emulsion will be considered incidental to related Contract items.
7. Stream water shall not be allowed contact with fresh concrete until the PH factor is 8.5 or less and within the PH unit of the background PH level in the stream.

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
STATE PROJECT No. 017875.00		BRIDGE NO. 3024	
PIN		17875.00	
BRIDGE PLANS			
TANNERY BRIDGE		YORK COUNTY	
DOUGLAS BROOK		PIPE DETAILS	
CORNISH \ LIMINGTON		SHEET NUMBER	
		5	
		OF 10	
PROJ. MANAGER		BY	
DESIGN-DETAILED		DATE	
CHECKED-REVIEWED		SIGNATURE	
DESIGN-DETAILED		P.E. NUMBER	
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



SECTION C - C

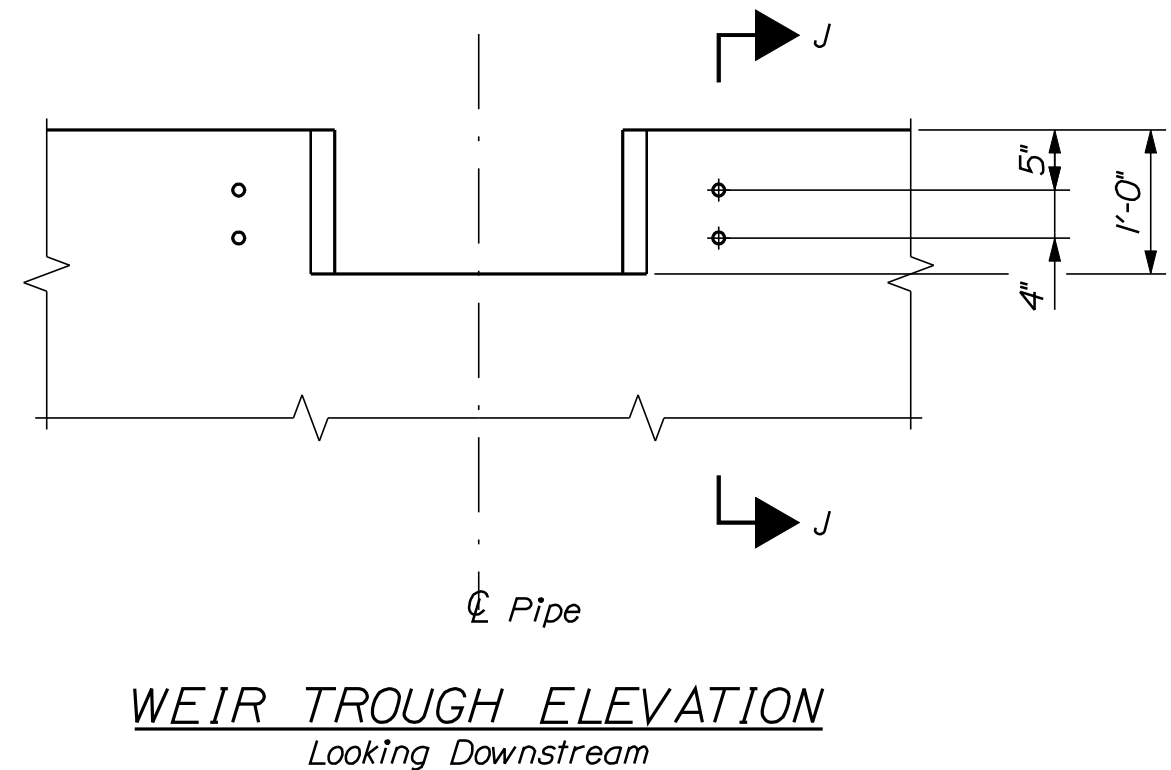
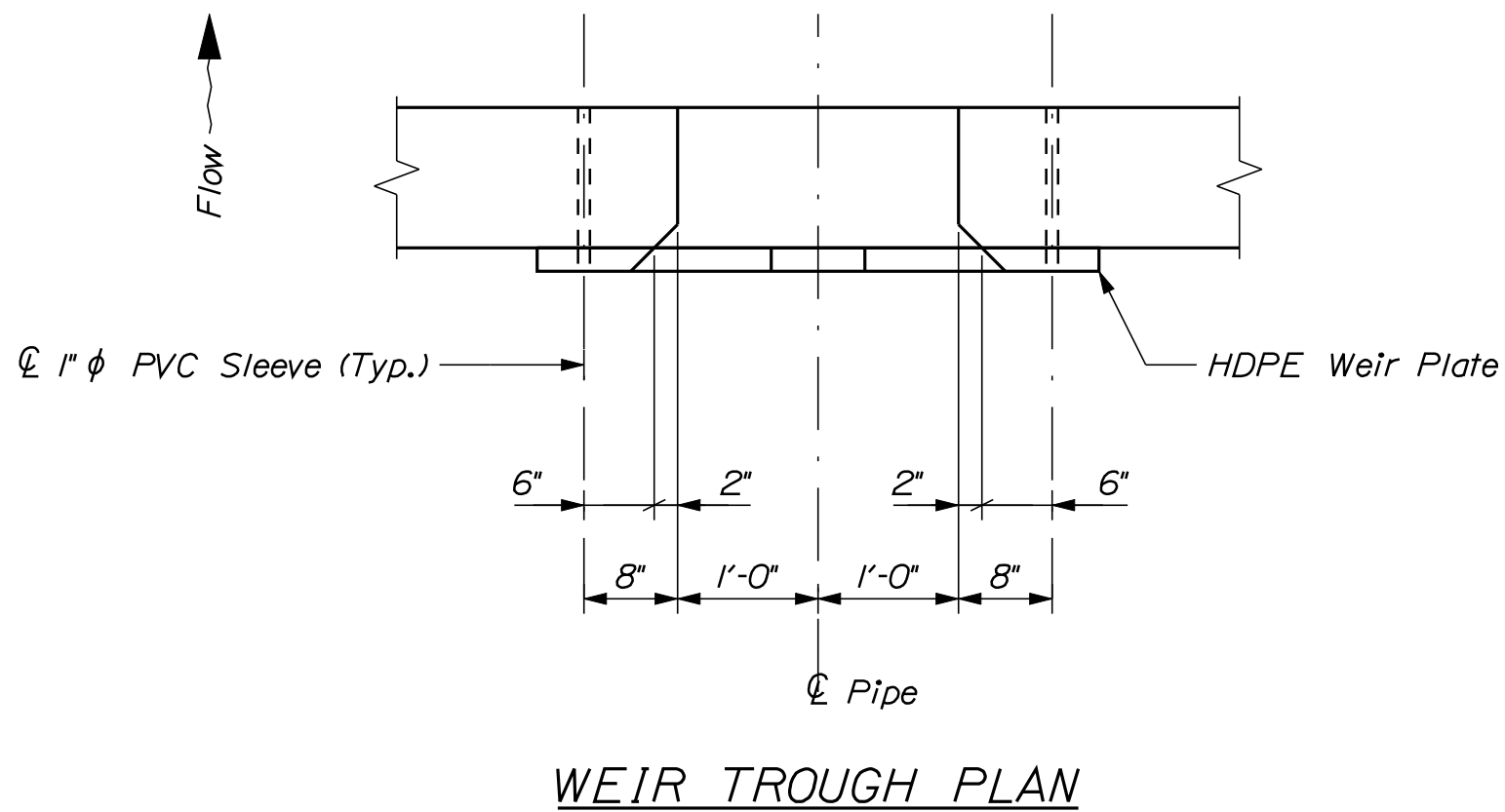
HDPE WEIR PLATE NOTES

1. HDPE Weir Plates shall be any commercially available black, high density polyethylene (HDPE) stock meeting the size requirements shown.
2. Plates for the internal weirs shall be cut, by the contractor, to fit the circular shape of the concrete invert lining. The exact notch opening being cut out of the weir plates will be determined and performed by a representative of the MaineDOT, Environmental Office. Each plate shall have 4 ~ 1-in. diameter holes to match the PVC sleeve locations in the concrete weirs.
3. Each weir plate shall be clearly marked to indicate its location and orientation using the number of the weir and the word "flow" with an arrow to indicate the direction of the stream flow.
4. Arrangements shall be made to deliver the weir plates and connectors to the MaineDOT Environmental Office upon completion of the project by contacting Charlie Hebson or John Perry at 207-624-3100.
5. Payment for all work and materials associated with the HDPE Weir Plates, including connectors, will be considered incidental to Item No. 502.326, Structural Concrete Fish Weirs.

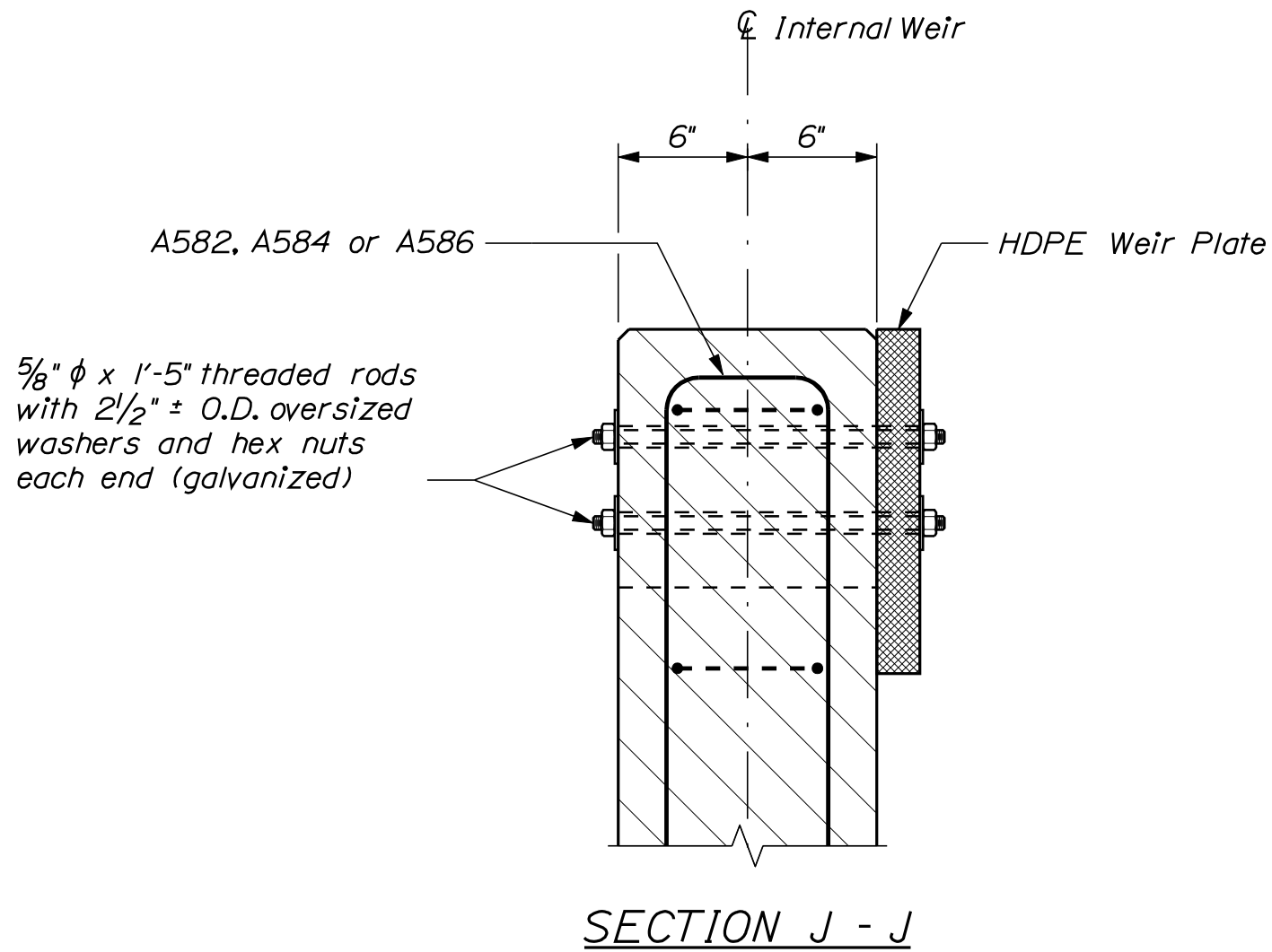
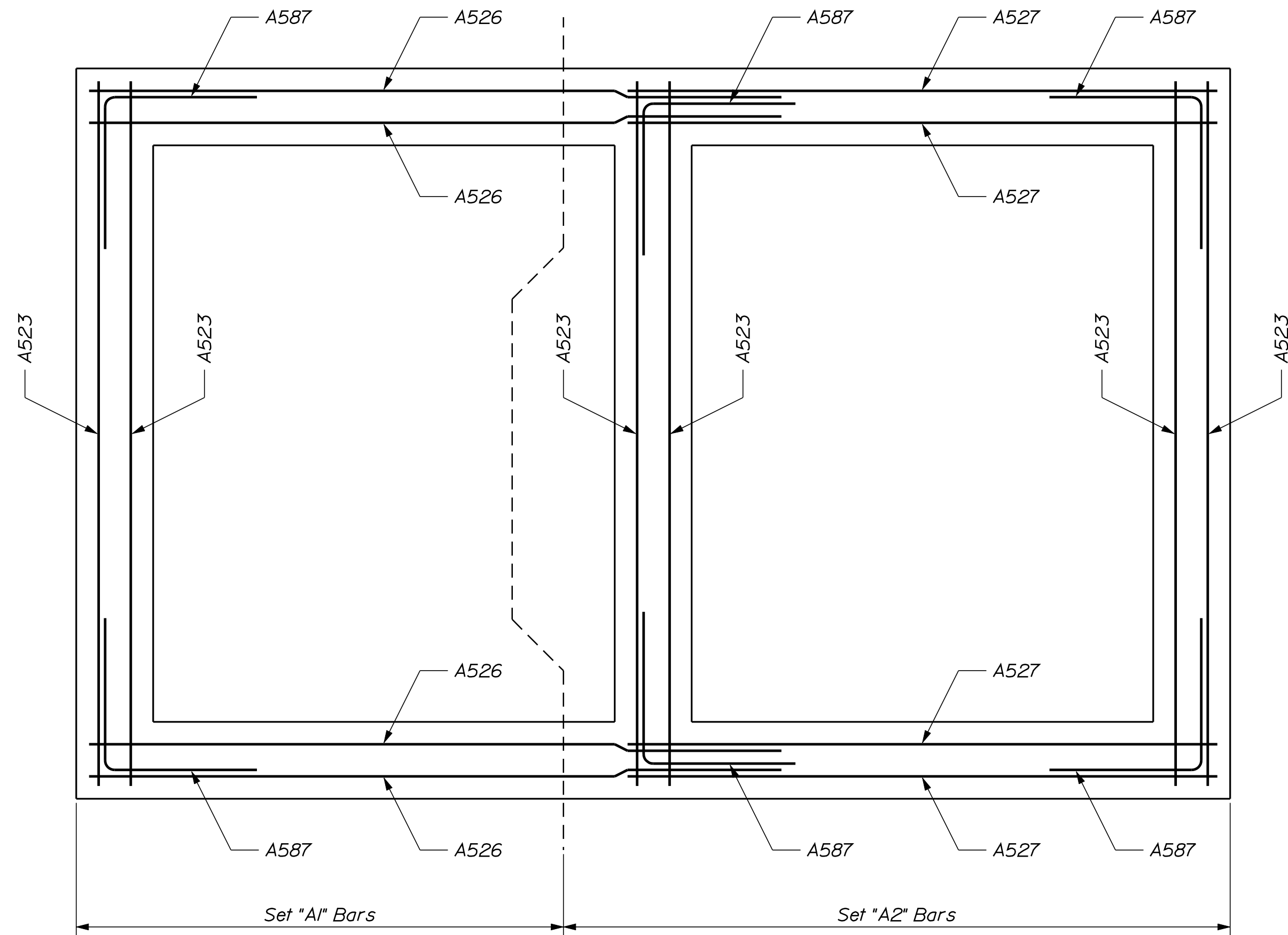
INTERNAL WEIR NOTES

1. For construction of the concrete weirs, the Contractor may use stay - in - place FRP forms (designed by others) in place of traditional formwork.

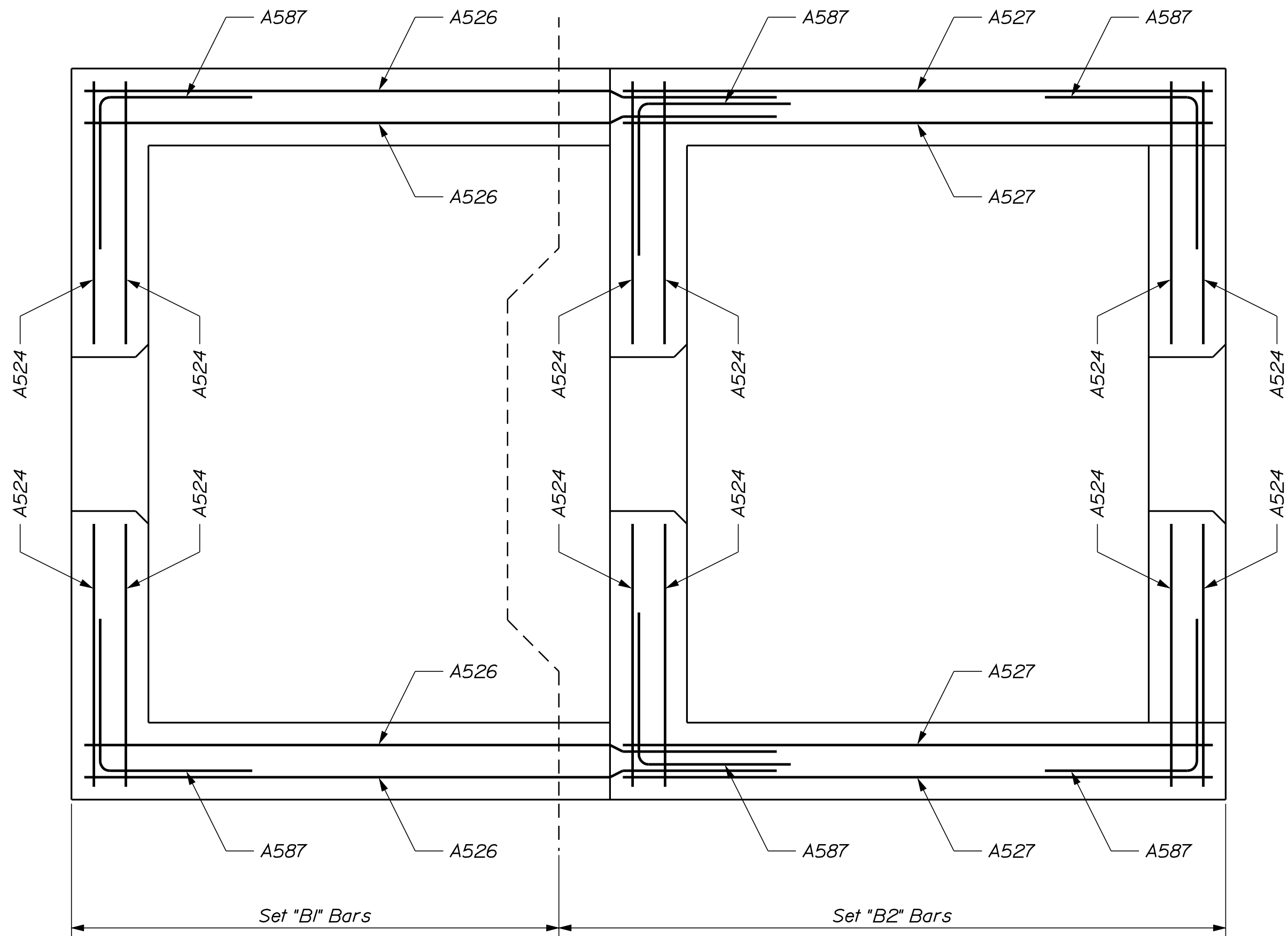
6 OF 10	SHEET NUMBER	TANNERY BRIDGE DOUGLAS BROOK CORNISH / LIMINGTON YORK COUNTY	PROJ. MANAGER		M. Perrin	BY	DATE
			DESIGN-DETAILED		J. Yelleux	D. Dornen	5/2011
			CHECKED-REVIEWED		MAP		3/2011
	INTERNAL WEIRS	DESIGN2-DETAILED2					SIGNATURE
		DESIGN3-DETAILED3					
		REVISIONS 1					P.E. NUMBER
		REVISIONS 2					
		REVISIONS 3					
		REVISIONS 4					
		FIELD CHANGES					
					DATE		



REINFORCING SET "A"



REINFORCING SET "B"



TANNERY BRIDGE
DOUGLAS BROOK
CORNISH \ LIMINGTON YORK COUNTY
EXTERNAL WEIRS

SHEET NUMBER
8
OF 10

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	STATE PROJECT No. 017875.00		BRIDGE NO. 3024		PIN 17875.00		BRIDGE PLANS	
	SIGNATURE		P.E. NUMBER		DATE			
	5/2011		3/2011					
	D. Dornen							

Date:5/16/2011

Username: Joel R. Veilleux

Division: BRIDGE

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