

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



MILFORD
PENOBSCOT COUNTY
SECOND OTTER BRIDGE
OVER
OTTER STREAM
COUNTY ROAD
23466.00
PROJECT LENGTH 0.10 mi.
BRIDGE NO. 2754

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017.

DESIGN LOADING

Live Load HL - 93 Modified

TRAFFIC DATA

Current (2010) AADT	1540
Future (2030) AADT	1850
DHV - % of AADT	12%
Design Hour Volume	222
Heavy Trucks (% of AADT)	12%
Heavy Trucks (% of DHV)	10%
Directional Distribution (% of DHV)	65%
18 kip Equivalent P 2.0	171
18 kip Equivalent P 2.5	163
Design Speed (mph)	35

MATERIALS

Concrete: Class "A"
Reinforcing Steel ASTM A 615/A 615M, Grade 60

BASIC DESIGN STRESSES

Concrete $f'c = 4,000$ psi
Reinforcing Steel $f_y = 60,000$ psi

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UTILITIES

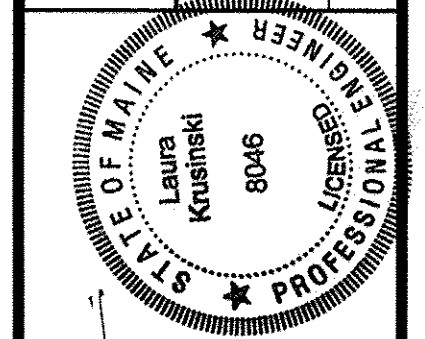
Bangor Hydro-Electric Company
Fairpoint Communications
Time Warner Cable (Bangor Central Office)

MAINTENANCE OF TRAFFIC

Maintain one lane of two-way alternating traffic using single lane temporary bridge.

PROJECT LOCATION:	On County Road 0.59 miles Northerly of Richards Lane. Lat./Long. 44°56'44.58" N 68°36'41.12"W
PROGRAM AREA:	Highway Bridges - Traditional
OUTLINE OF WORK:	Bridge Rehabilitation - Replace fill behind Abutment No. 2 with Expanded Shale Lightweight Aggregate.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED: [Signature]
COMMISSIONER: [Signature]
DATE: 4-18-18
CHIEF ENGINEER: [Signature]



SIGNATURE: [Signature]
P.E. NUMBER: 8046
DATE: 4-9-2018

PROGRAM	BRIDGE
PROJECT MANAGER	MICHAEL NIGHT
DESIGNER	LAURA KRUSINSKI
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

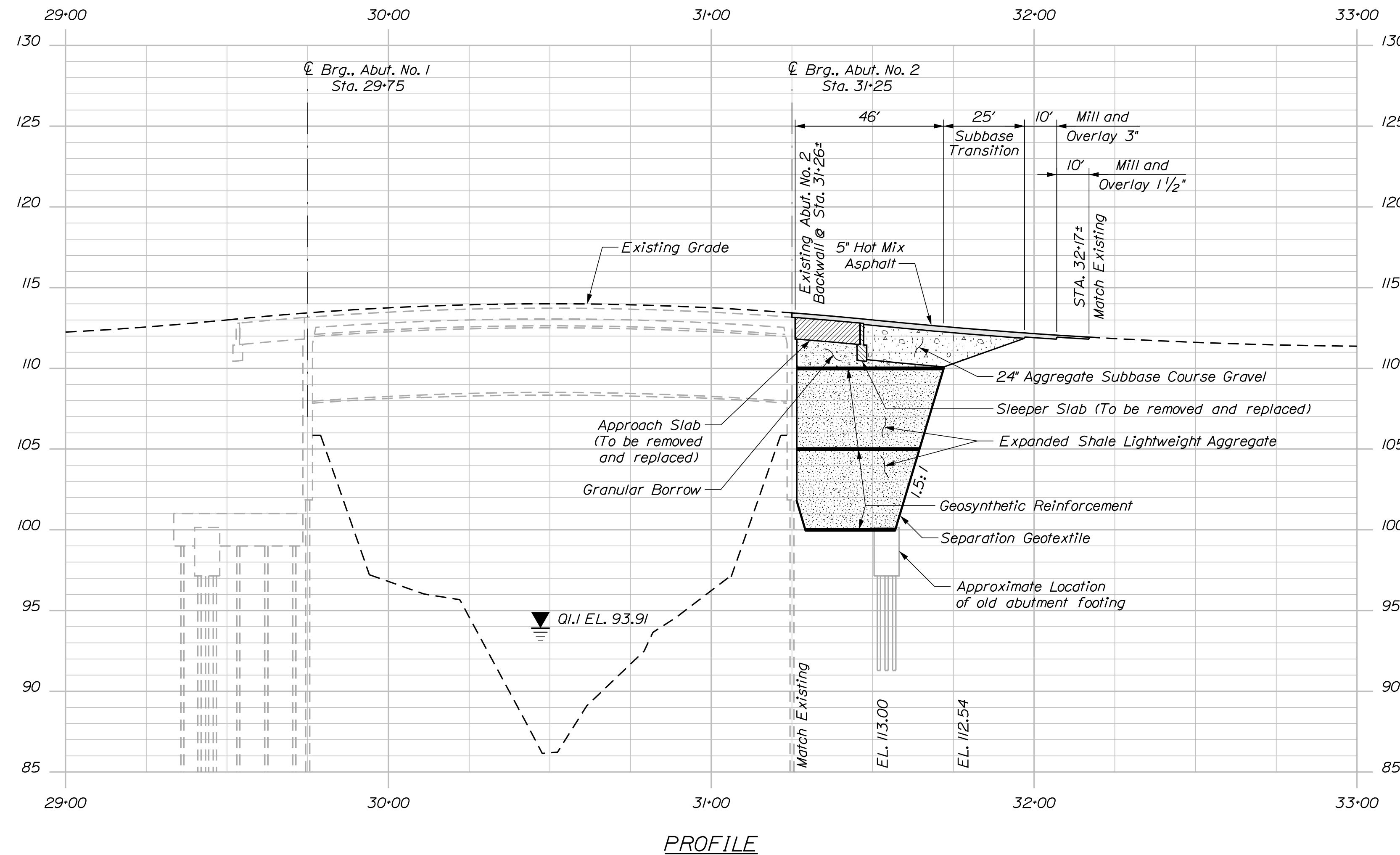
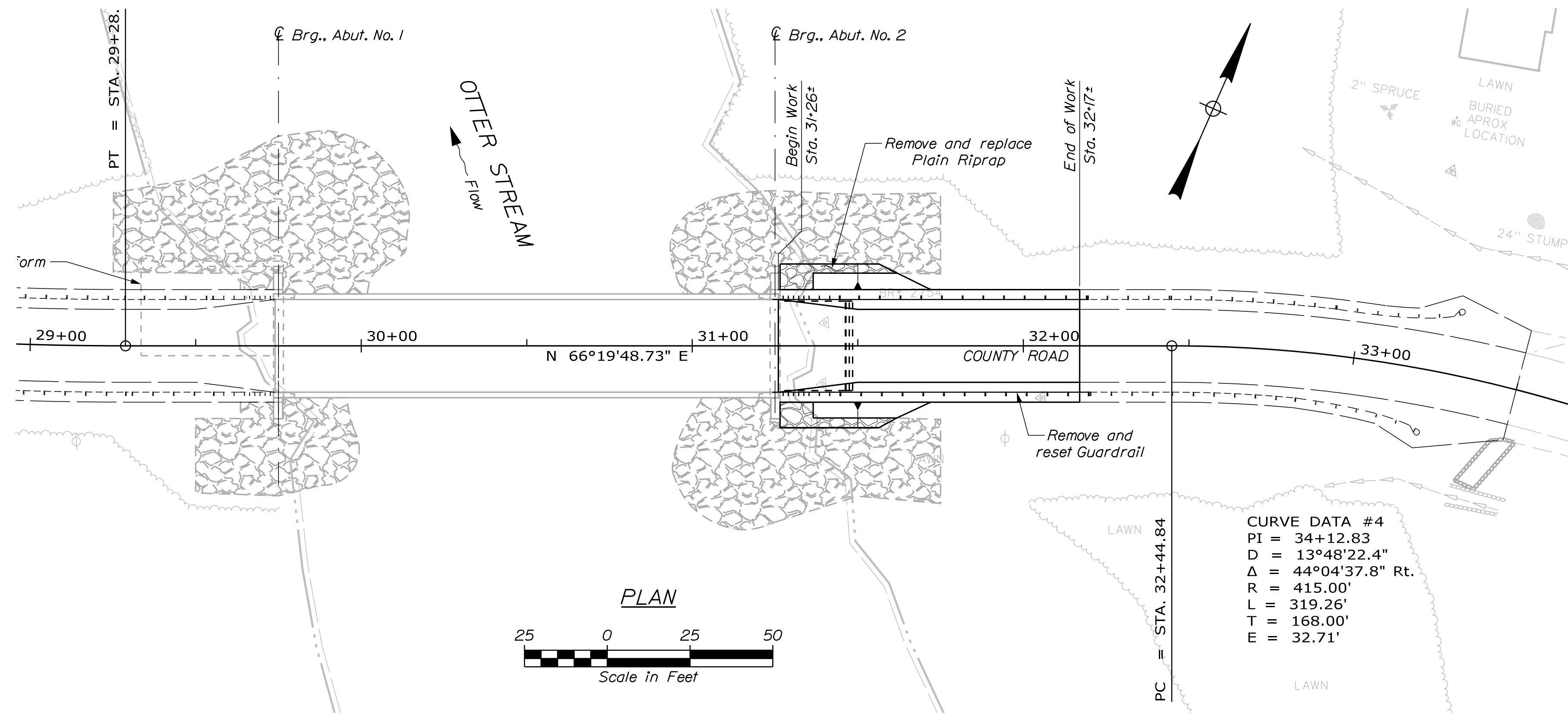
WIN 23466.00

23466.00

MILFORD
SECOND OTTER BRIDGE
TITLE SHEET

SHEET NUMBER
1
OF 10

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Division: BRIDGE
Username: Joshua.P.Hasbrouck Date: 4/6/2018



NOTES

- See Existing Bridge Plans for vertical curve information.
- The top of the old abutment footing may be above EL. 100.0. If so, the Separation Geotextile and Geosynthetic Reinforcement shall be draped over the existing concrete. No demolition of the old abutment footing will be required.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

23466.00

WIN

BRIDGE NO. 2754

BRIDGE PLANS

SIGNATURE

DATE

PROJ. MANAGER	M. WIGHT	BY	DATE
DESIGN DETAILED	L. KRUSINSKI	D. SHAW	APR 2018
CHECKED/REVIEWED	S. W. COLE	J. HASBROUCK	

DESIGN DETAILED	REVISIONS
DESIGN DETAILED	1
	2
	3
	4

SECOND OTTER BRIDGE
OTTER STREAM
PENOBSCOT COUNTY

SHEET NUMBER

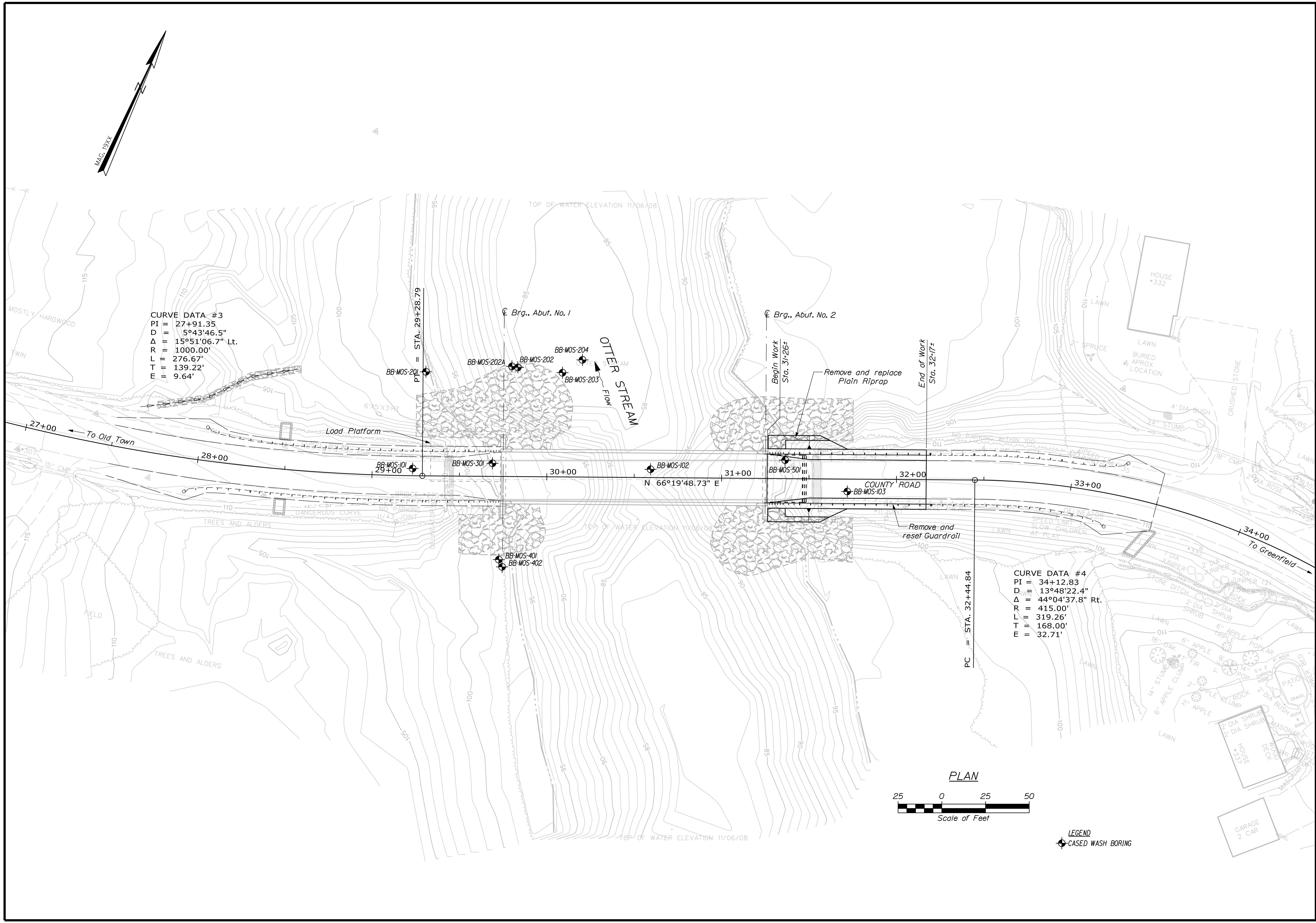
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OF 10

Date: 4/11/2018

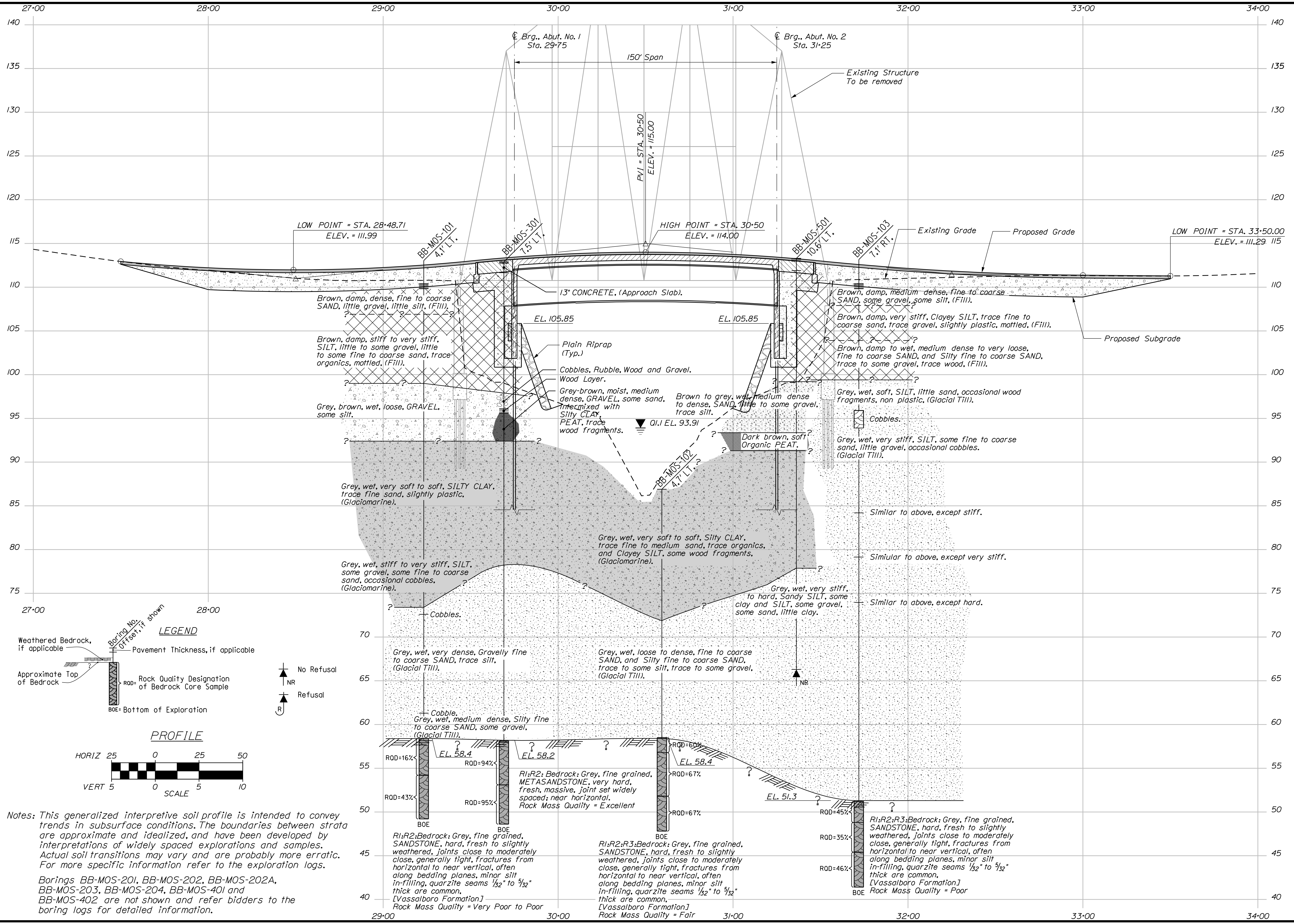
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STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2346600	
MILFORD PENOBSCOT COUNTY		BRIDGE NO. 2754	
SECOND OTTER BRIDGE OTTER STREAM		WIN 023466.00	
BORING LOCATION PLAN		BRIDGE PLANS	
PROJ. MANAGER L. KRUSINSKI	DATE JAN 2018	SIGNATURE	P.E. NUMBER
CHECKED-REVIEWED	DESIGN-REVIEWED	DESIGN-REVIEWED	DESIGN-REVIEWED
DESIGN-REVIEWED	DESIGN-REVIEWED	DESIGN-REVIEWED	DESIGN-REVIEWED
REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4
REVISIONS 2	REVISIONS 3	REVISIONS 4	FIELD CHANGES
SHEET NUMBER		DATE	
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OF 10			

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 Division: BRIDGE
 Username: David.Shaw
 Date: 4/11/2018



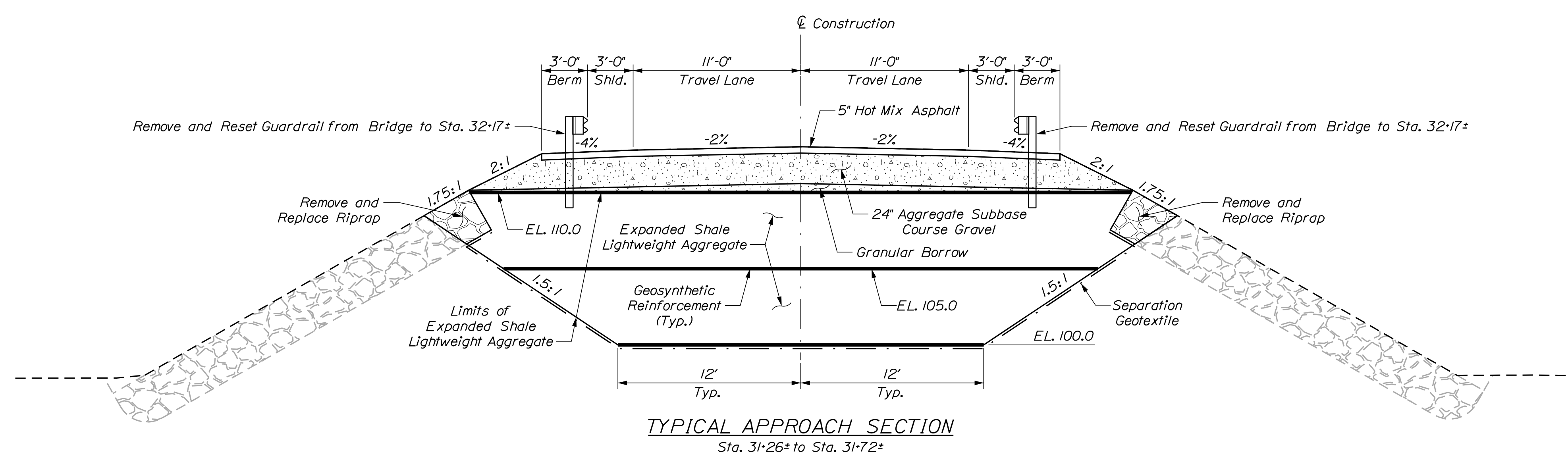
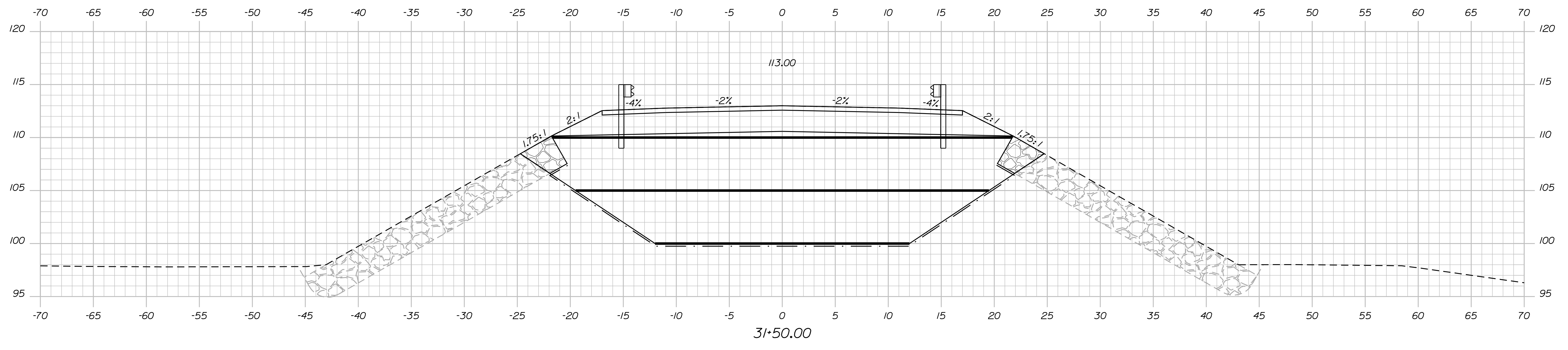
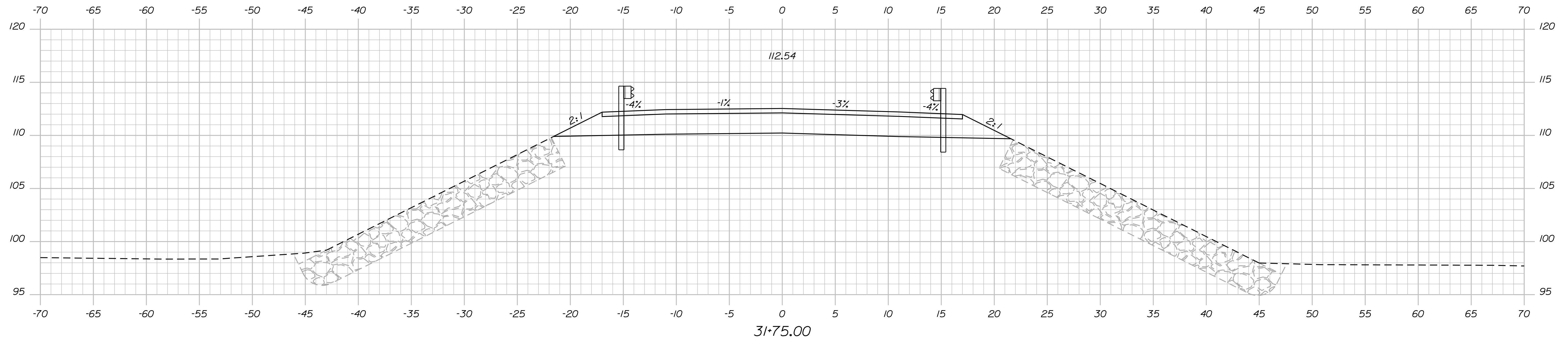
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2346600		WIN		023466.00		BRIDGE NO. 2754		BRIDGE PLANS	
SECOND OTTER BRIDGE		OTTER STREAM		PENOBSCOT COUNTY		MILFORD		INTERPRETIVE SUBSURFACE PROFILE		SHEET NUMBER		5	
PROJ. MANAGER	M. WIGHT	BY	L. KRUSINSKI	DATE	JAN 2018	CHECKED/REVIEWED	T. WHITE	SIGNATURE	P.E. NUMBER	DATE	FIELD CHANGES		REVISIONS 1
DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED	REVISIONS 2
DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED	REVISIONS 3
DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED	REVISIONS 4
DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED		DESIGN/DETAILED	FIELD CHANGES

Date: 4/11/2018

Username: David Shaw

Division: BRIDGE

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STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
		23466.00	
		WIN 23466.00	
		BRIDGE NO. 2754	
		HIERARCHY PLANS	
SECOND OTTER BRIDGE		PENOBSCOT COUNTY	
OTTER STREAM		MILFORD	
CROSS SECTIONS		SHEET NUMBER	
		9	
		OF 10	

PROJ. MANAGER	M. WIGHT	BY	DATE
J. HASBROUCK	J. HASBROUCK	D. SHAW	APR. 2018
CHECKED-REVIEWED			
DESIGNS-DETAILED			
DESIGNS-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

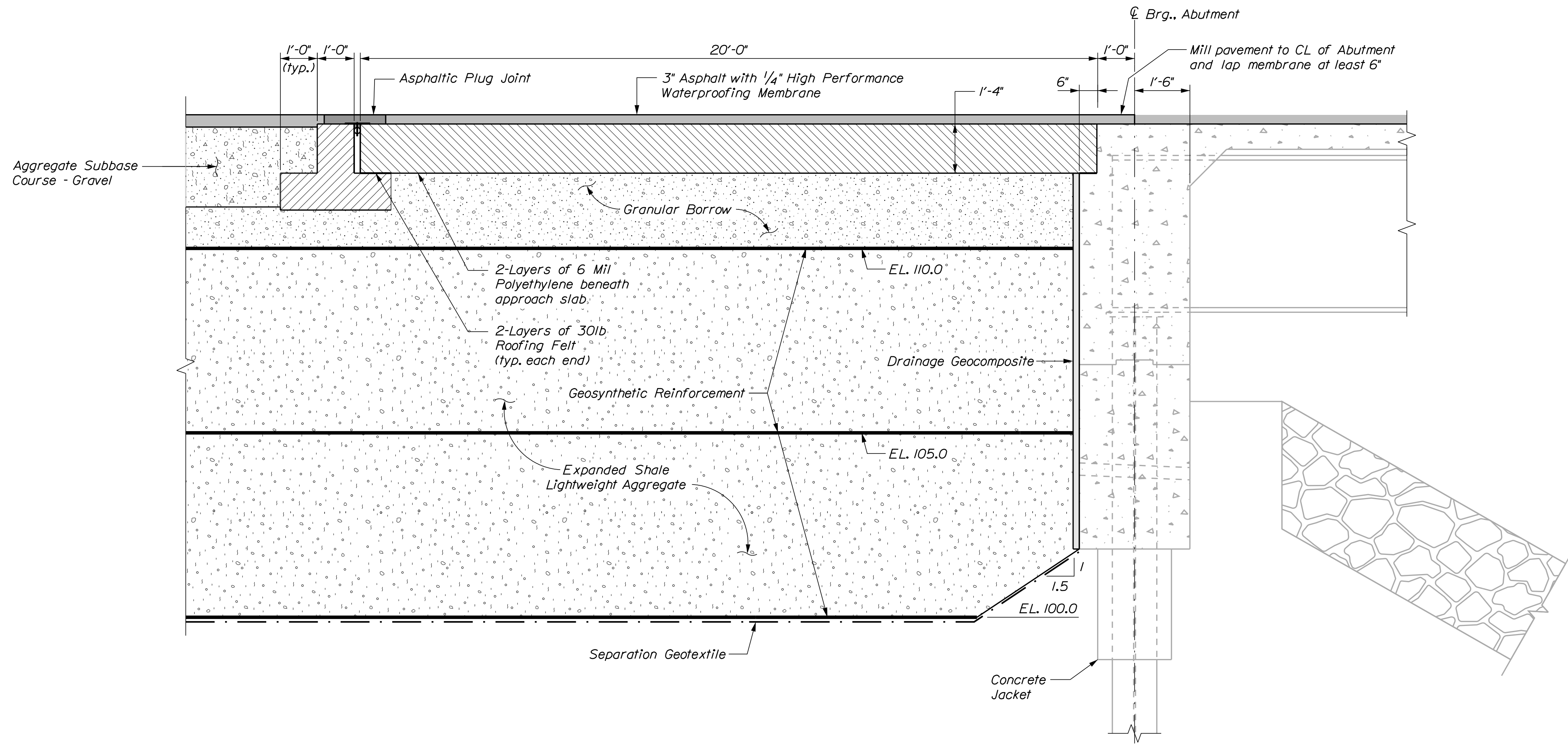
SIGNATURE	P.E. NUMBER	DATE

Date: 4/11/2018

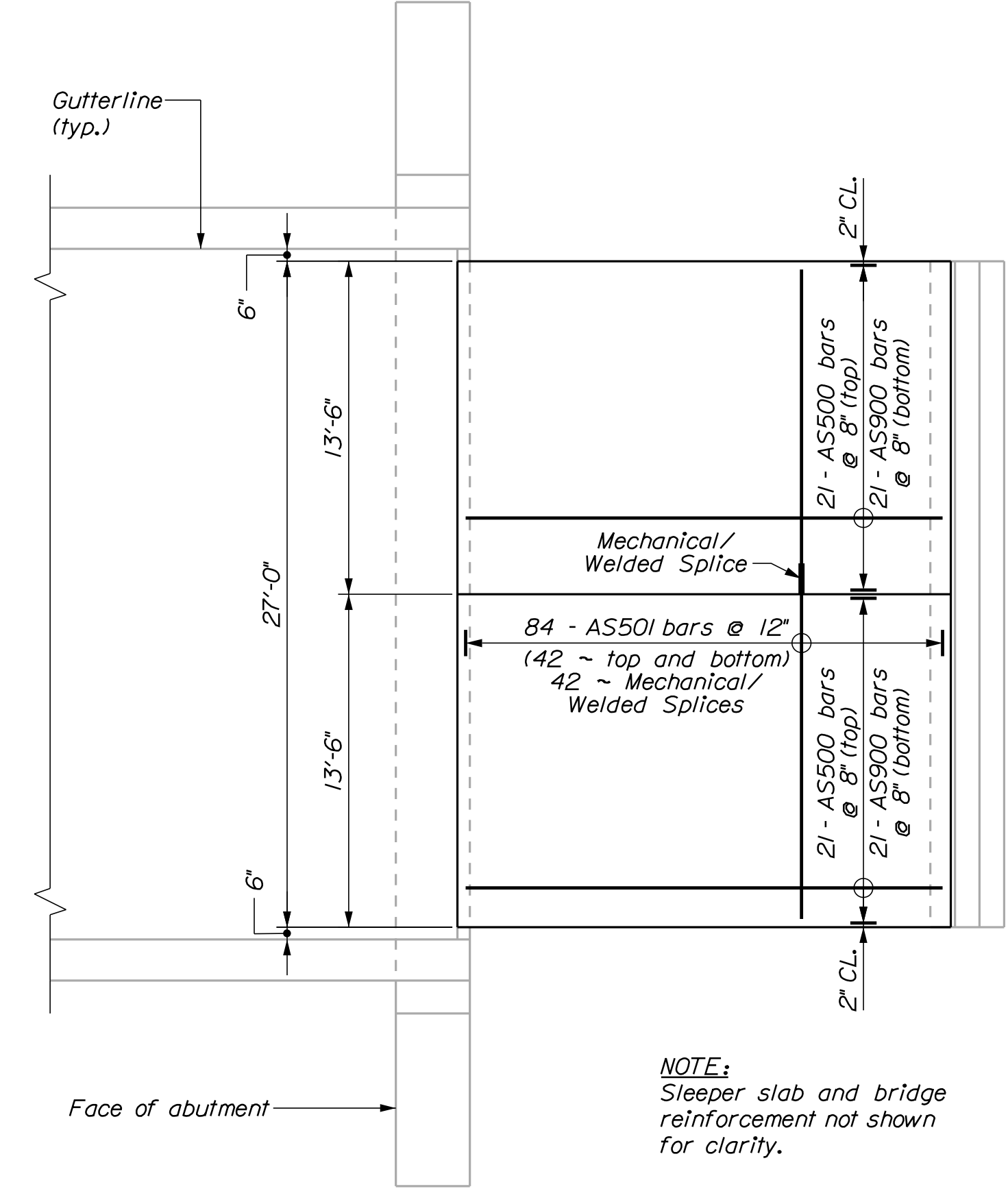
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Division: BRIDGE

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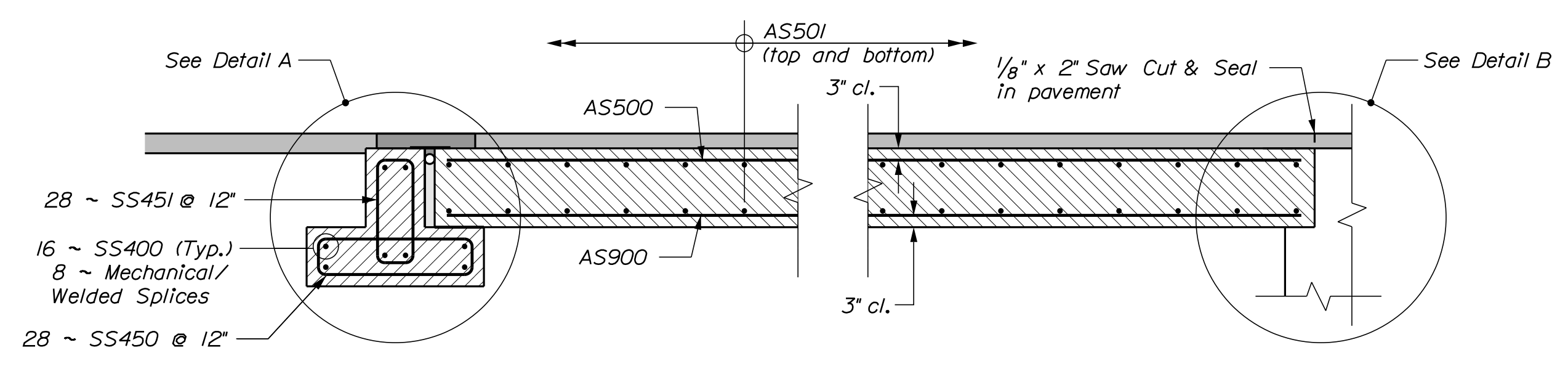
- NOTES:**
1. The location of the longitudinal joint in the approach slab and sleeper slab, and the resulting rebar lengths, may be modified with the permission of the Department to meet the Contractor's staging plan.
 2. Asphaltic plug joints shall be installed after the surface pavement is installed.
 3. The heat resistant backer rod shall be placed in the movement gap allowing for 1/2" of binder above the rod.
 4. 16D galvanized centering nails shall be spaced at 12" o.c. maximum and placed 2" from joints in the bearing plate.
 5. Saw cut in pavement shall be sealed with emulsified asphalt sealing compound conforming to Standard Specifications 702.12. Payment will be incidental to the contract.
 6. Payment for concrete used in constructing the sleeper slabs shall be paid under Pay Item 502.31, Structural Concrete Approach Slab.
 7. The closed cell foam, roofing felt, and polyethylene sheeting will not be paid for separately, but will be considered incidental to Pay Item 502.31, Structural Concrete Approach Slab.
 8. If the existing bars connecting the abutment to the approach slab are damaged during the approach slab removal, replacement bars shall be drilled and grouted into the abutment with payment incidental to Pay Item 502.31.



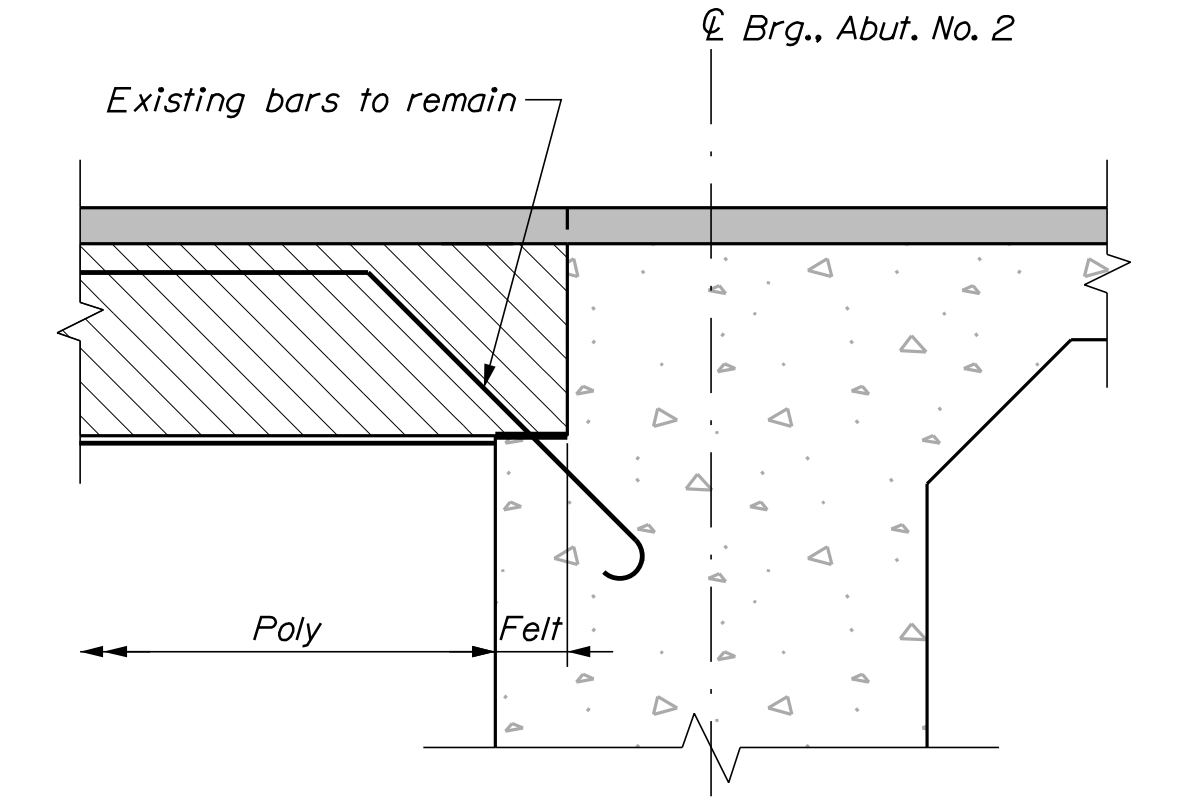
NOTE:
Sleeper slab and bridge reinforcement not shown for clarity.

APPROACH SLAB PLAN

ABUTMENT BACKFILL DETAIL



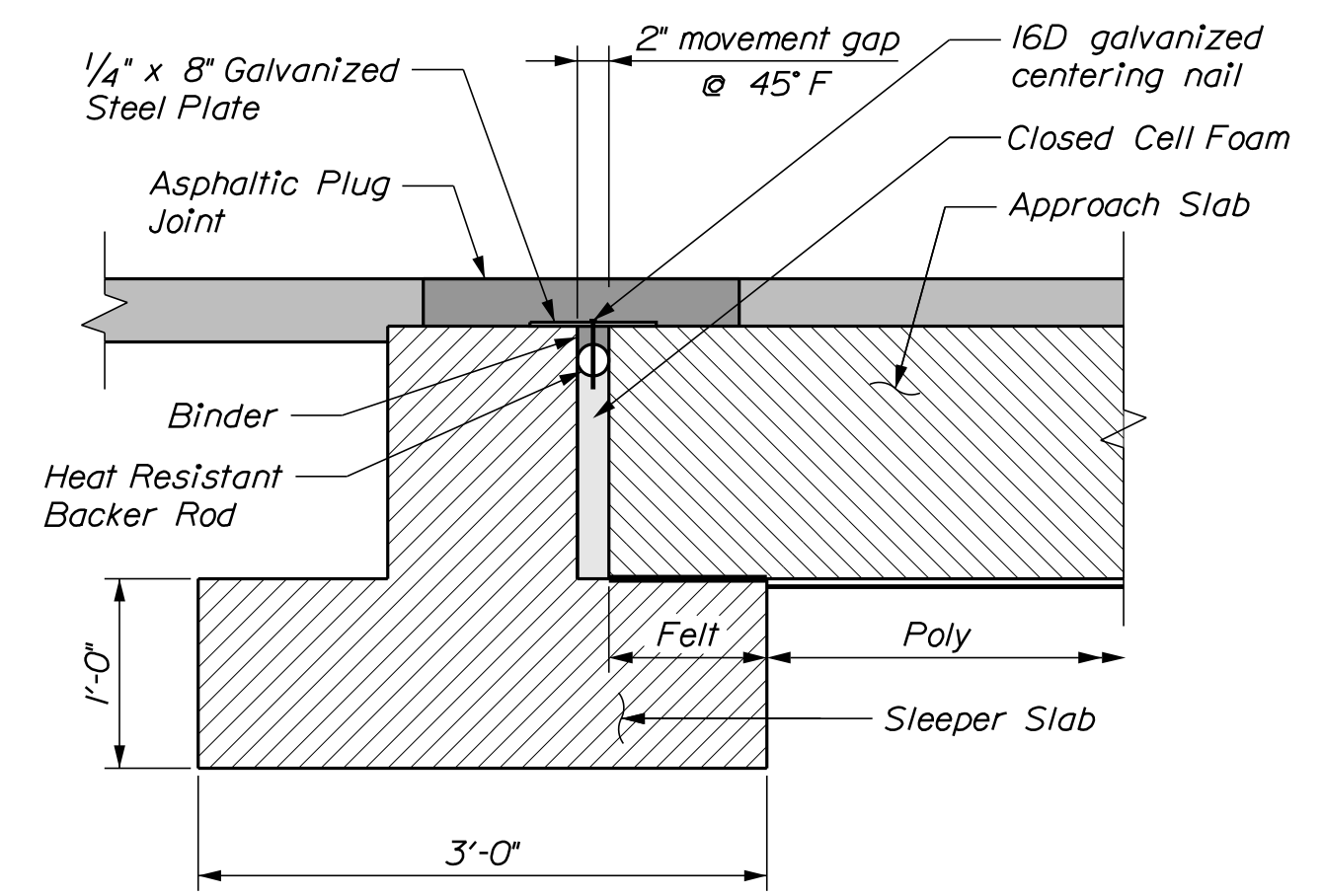
APPROACH SLAB SECTION



DETAIL B

STRAIGHT BARS			
MARK	QTY.	LENGTH	LOCATION
APPROACH & SLEEPER SLABS			
AS500	42	19'-8"	Top Longitudinal
AS501	84	13'-4"	Top & Bottom, Transverse
AS900	42	19'-8"	Bottom Longitudinal
SS400	16	13'-4"	Longitudinal

BENT BARS														
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
APPROACH & SLEEPER SLAB														
SS450	28	7'-5"	H	4 1/2"	8"	2'-8"	8"	2'-8"	-	4 1/2"	X	-	-	Bottom Stirrup
SS451	28	6'-1"	H	4 1/2"	8"	2'-0"	8"	2'-0"	-	4 1/2"	X	-	-	Top Stirrup



DETAIL A

STATE OF MAINE DEPARTMENT OF TRANSPORTATION 23466.00 WIN 23466.00 BRIDGE NO. 2754 BRIDGE PLANS
SECOND OTTER BRIDGE OTTER STREAM PENOBSCOT COUNTY MILFORD ABUTMENT DETAILS AND APPROACH SLAB DETAILS
SHEET NUMBER 10 OF 10