STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Sixth Edition 2012, with Interims through 2013.

DESIGN LOADING

Live Load ..... HL - 93 Modified

TRAFFIC DATA

Current (2013) AADT	960
Future (2033) AADT	1150
DHV - % of AADT	11
Design Hour Volume	127
Heavy Trucks (% of AADT)	28
Heavy Trucks (% of DHV)	28
Directional Distribution (% of DHV)	60
18 kip Equivalent P 2.0	354
18 kip Equivalent P 2.5	337
Design Speed (mph)	50

HYDROLOGIC DATA

Drainage Area	0.82 sq mi
Design Discharge (Q50)	149.7 cfs
Check Discharge (Q100)	178.2 cfs
Headwater Elevation (Q50)	873.23 ft
Headwater Elevation (Q100)	873.56 ft
Discharge Velocity (Q50)	8.24 fps
Discharge Velocity (Q100)	8.83 fps
Headwater Elevation (Q1.1)	871.59 ft
Discharge Velocity (Q1.1)	1.76 fps
Headwater Elevation (Q25)	872.92 ft

MATERIALS

Concrete:	
Precast	Class "P"
All Other	Class "A"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Welded Wire Reinforcment	ASTM A185/A185M or ASTM A497/A497M

BASIC DESIGN STRESSES

Precast Concrete	f 'c = 5,000 psi min.
Reinforcing Steel	f y = 60,000 psi
Welded Wire Reinforcment	f y = 65,000 psi min.

MORO PLANTATION
AROOSTOOK COUNTY
BRADFORD BROOK BRIDGE
OVER
BRADFORD BROOK
ROUTE 11
STATE PROJECT No. 20451.00
PROJECT LENGTH 0.038 mi.
BRIDGE NO. 6482

LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities & Notes	2
General Plan	3
Profile	4
Boring Location	5
Boring Logs	6
Approach Cross Sections	7-12
Box Details	13
Rebuilt Streambed Details	14
Stage Construction	15
Right of Way Map	16

UTILITIES

Eastern Maine Electric Cooperative
Northern New England Telephone
Northland Telephone
Maine Fiber Company

MAINTENANCE OF TRAFFIC

Maintain one 11'-0" wide lane of alternating two - way traffic using stage construction and traffic signals.

PROJECT LOCATION:	On Rt. 11, 0.97 miles North of Town Line Rd. and the Hersey/Moro Plt. townline Latitude: 46° 08' 15.62" N Longitude: 68° 22' 29.98" W
PROGRAM AREA:	Bridge Program
OUTLINE OF WORK:	Replace and upsize existing drainage pipes at Bradford Brook

WIN 20451.00

20451.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

		DATE
APPROVED		
COMMISSIONER:		9/9/14
CHIEF ENGINEER:		9-2-14

STATE OF MAINE
Michael Henry Wight
8089
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE	Michael Wright
P.E. NUMBER	8089
DATE	8/27/2014

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	STEVE BODGE
DESIGNER	JOSHUA HASBROUCK
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

MORO PLANTATION
BRADFORD BROOK BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 16

Filename: \00\BRIDGE\MSTA\001_Title.dgn Division: BRIDGE Username: David.Sullivan Date:8/26/2014

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	720	CY
203.24	COMMON BORROW	10	CY
203.25	GRANULAR BORROW	110	CY
203.33	SPECIAL FILL	80	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	450	CY
403.207	HOT MIX ASPHALT 19.0 MM HMA	120	T
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	70	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	120	T
409.15	BITUMINOUS TACK COAT - APPLIED	43	G
508.13	MEMBRANE WATERPROOFING (90 SY)	1	LS
511.07	COFFERDAM: UPSTREAM	1	LS
511.07	COFFERDAM: DOWNSTREAM	1	LS
513.22	CRUSHED STONE SLOPE PROTECTION	30	SY
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (30 SY)	1	LS
524.301	TEMPORARY STRUCTURAL SUPPORT	1	LS
526.301	TEMPORARY CONCRETE BARRIER TYPE 1 (400 LF)	1	LS
527.303	ENERGY ABSORBING SYSTEM (ET-PLUS)	1	EA
527.34	WORK ZONE CRASH CUSHIONS	4	UN
534.71	PRECAST CONCRETE BOX CULVERT (95 CY)	1	LS
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	200	LF
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
606.79	GUARDRAIL 350 FLARED TERMINAL	3	EA
610.08	PLAIN RIPRAP	200	CY
610.18	STONE DITCH PROTECTION	30	CY
615.07	LOAM	40	CY
618.1411	SEEDING METHOD NUMBER 3 - PLAN QUANTITY	7	UN
619.1201	MULCH - PLAN QUANTITY	7	UN
619.1401	EROSION CONTROL MIX	80	CY
620.58	EROSION CONTROL GEOTEXTILE	290	SY
627.733	4 INCH WHITE OR YELLOW PAINTED PAVE MRK LINE	800	LF
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	HR
631.171	TRUCK - SMALL (INCLUDING OPERATOR)	20	HR
639.19	FIELD OFFICE TYPE B	.5	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.312	TYPE III BARRICADE	4	EA
652.33	DRUM	20	EA
652.34	CONE	40	EA
652.35	CONSTRUCTION SIGNS	170	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	60	CD
652.38	FLAGGER	100	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. For easements, construction limits and right of way lines, refer to Right of Way Map.

2. 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 Contract items.

3. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

4. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.

5. 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 inches or less thick will be made under appropriate equipment rental items.

6. All embankment material, except as otherwise shown, placed below EL. 873.23 shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.

7. Place riprap on sideslopes up to EL. 873.23.

8. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.

9. Erosion Control Mix may be substituted in those areas normally receiving loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specifications Section 619, Mulch. Payment will be made under Item No. 619.1401, Erosion Control Mix.

10. An NCHRP350 compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.

11. 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 the appropriate Contract items.

12. Protective Coating for Concrete Surfaces shall be applied to the following areas:

On all concrete headwalls and box surfaces that are exposed and to limit lines, one foot beyond intersections of surfaces with ground.

13. Guardrail posts as shown in the Standard Details shall be modified from the indicated length of 6 feet to a length of 7 feet with an embedment of 4.5 feet. Payment will be considered incidental to the guardrail pay items.

14. The Contractor shall construct and install the culvert in the dry.

15. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/contractors/.

16. There are no existing bridge plans for this project. MaineDOT does not have plans for drainage pipes, small culverts, or struts.

17. The hydrologic report of the bridge site may be accessed at the MaineDOT web address. The hydrologic report is based on MaineDOT's interpretation of the information obtained for the subject site. No assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

18. The project geotechnical report titled: 20451 Moro PLT Bradford Brook Bridge Geotechnical Design Report, Soils Report No. 2014-12, Date: May 9, 2014 may be accessed at the MaineDOT web address.

19. Geotechnical information furnished or referred to in this plan set is for the use of the Bidders and the Contractor. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the construction site. MaineDOT will not be responsible for the Bidders' or Contractor's interpretations of, or conclusions drawn from, the geotechnical information. The boring logs contained in the plan set present factual and interpretive subsurface information collected at discrete locations. Data provided may not be representative of the subsurface conditions between the boring locations.

20. 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.

21. The areas of riprap below the stream bank line shall be 2 feet thick with 1 foot of Special Fill material on top, and the Contractor shall minimize, to the maximum extent possible, the void spaces in the riprap by spreading Granular Borrow for underwater backfill or Special Fill material between the layers of individual stones. Granular Borrow or Special Fill used to fill the void spaces shall not be paid for directly but shall be considered incidental to Item No. 610.08, Plain Riprap. All other riprap shall be as defined in the plans and standard details.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	-----
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L.Krusinski	T.White	NOV 2013
DESIGN3-DETAILED3	-------	-------	-------
REVISIONS 1		------	------
REVISIONS 2		------	------
REVISIONS 3		------	------
REVISIONS 4		------	------
FIELD CHANGES		------	------

SIGNATURE

P.E. NUMBER

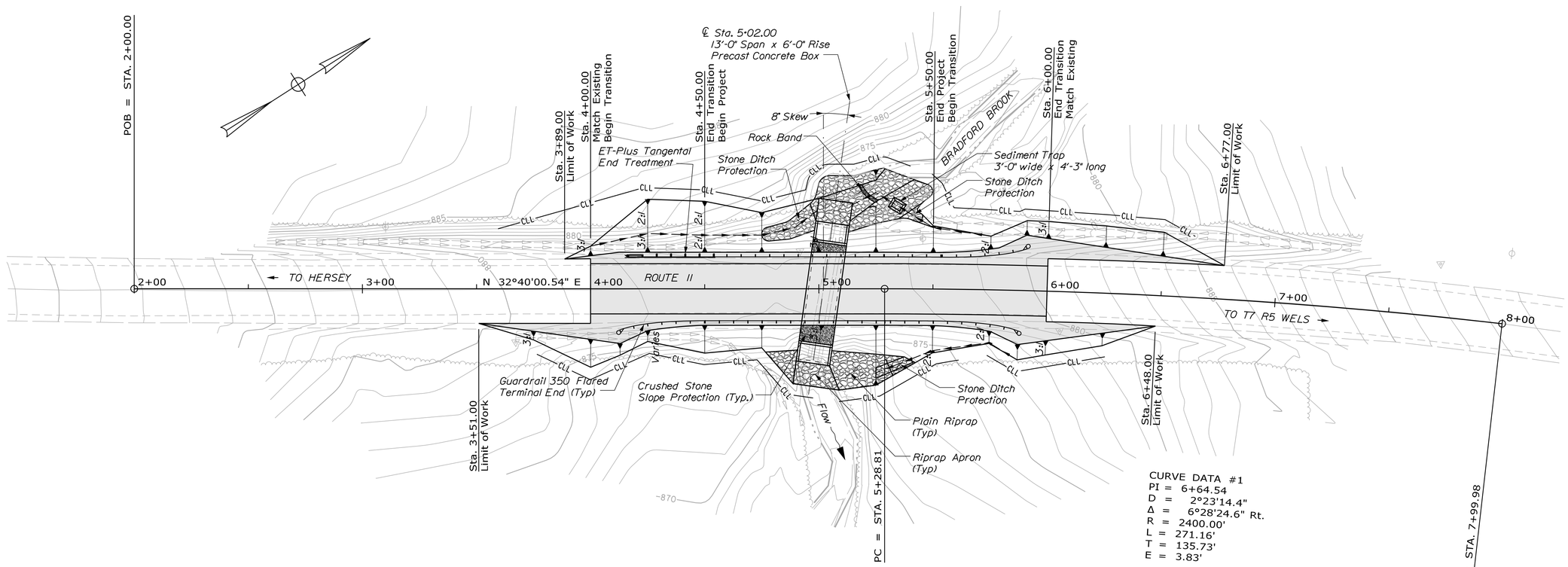
DATE

BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER
2
OF 16

Filename: ...\BRIDGE\MSTA\002_Estimate.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	
CHECKED-REVIEWED	----	----	
DESIGN2-DETAILED2	L.Krusinski	T.White	NOV 2013
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

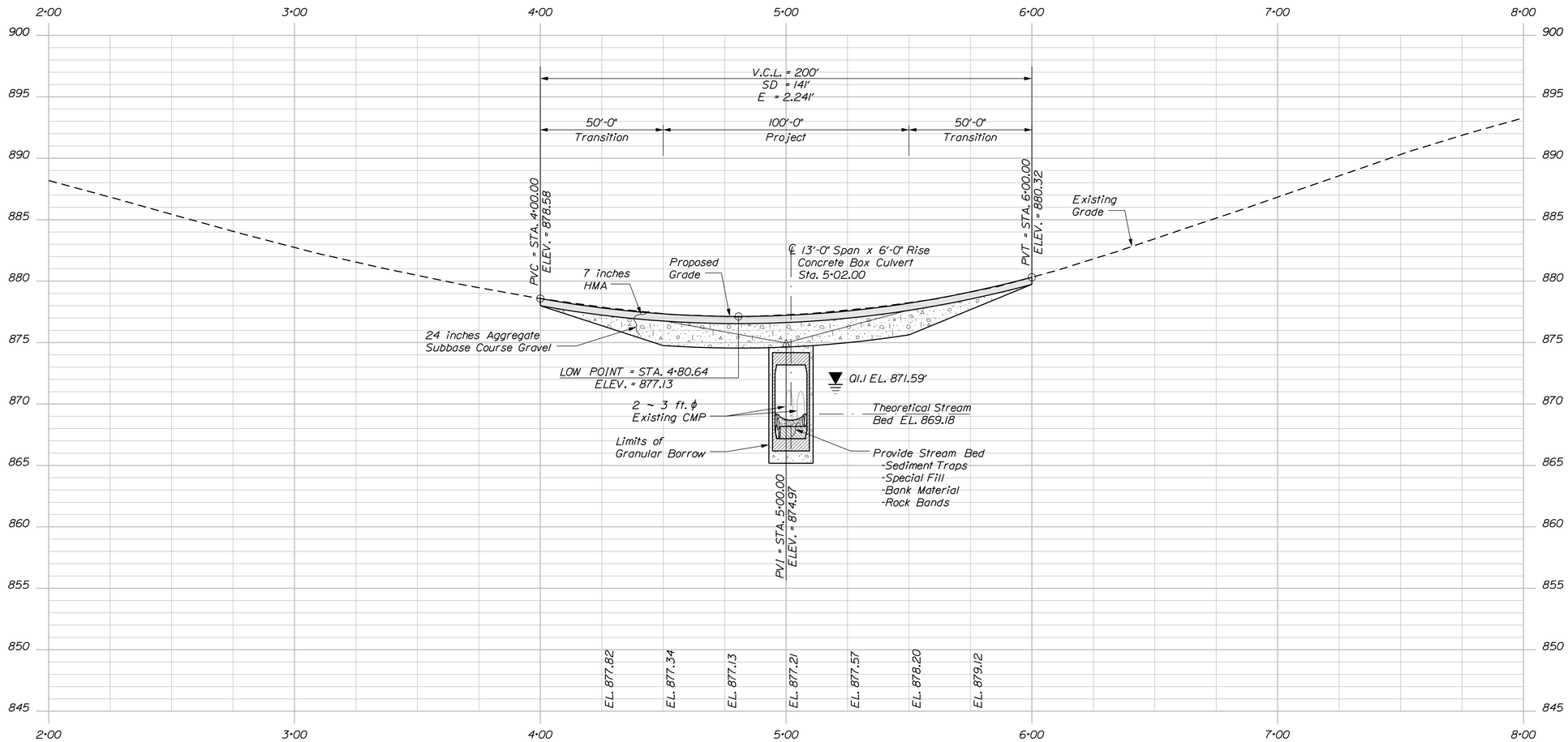
BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

PLANS

SHEET NUMBER

3

OF 16



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

Filename: ...\00\BRIDGE\MSTA\004_Profile.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	
CHECKED-REVIEWED	-----	-----	
DESIGN2-DETAILED2	L.Krusinski	T.White	NOV 2013
DESIGN3-DETAILED3	-------	-------	-------
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

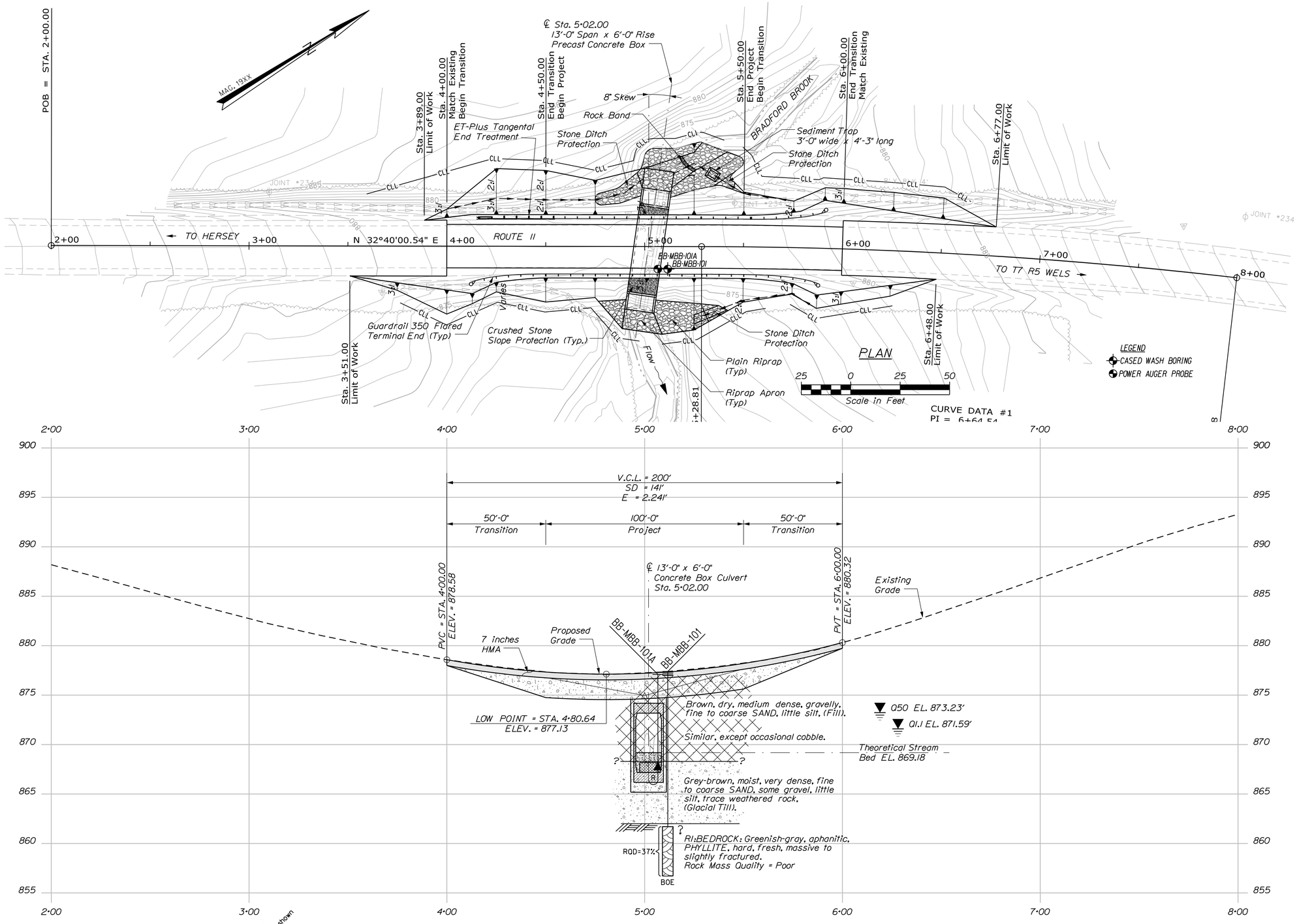
BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

PROFILE

SHEET NUMBER

4

OF 16



Note: This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 20451.00

BRIDGE NO. _____

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2	L.KRUSINSKI	NOV 2013
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

5

OF 16

Filename: ...\GEOTECH\MSTA\005_BLP&ISP1.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

Filename: ...\MSTA\006_BORING LOG1.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

Maine Department of Transportation
Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Bradford Brook Bridge carries Route 11 over Bradford Brook
Location: Moro Plantation, Maine

Boring No.: BB-MBB-101A
WIN: 20451.00

Driller:	MaineDOT	Elevation (ft.)	877.1	Auger ID/OD:	5" Dia.
Operator:	Giles/Daggett	Datum:	NAVD88	Sampler:	N/A
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	N/A
Date Start/Finish:	10/30/13-10/30/13	Drilling Method:	Solid Stem Auger	Core Barrel:	N/A
Boring Location:	5+06.7, 11.4 ft Rt.	Casing ID/OD:	N/A	Water Level*:	None Observed
Hammer Efficiency Factor:		Hammer Type:	Automatic ☐ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test, PP = Pocket Penetrometer
MV = Unsuccessful Insitu Vane Shear Test attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = weight of 140lb. hammer
WOR/C = weight of rods or casing
WO1P = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in. Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA			No description given, moved to BB-MBB-101.	
5											
								868.30		Bottom of Exploration at 8.80 feet below ground surface. (8.80) BOULDER REFUSAL	
10											
15											
20											
25											

Remarks:

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: BB-MBB-101A

Maine Department of Transportation
Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Bradford Brook Bridge carries Route 11 over Bradford Brook
Location: Moro Plantation, Maine

Boring No.: BB-MBB-101
WIN: 20451.00

Driller:	MaineDOT	Elevation (ft.)	877.4	Auger ID/OD:	5" Solid Stem
Operator:	Giles/Daggett	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	10/30/13: 08:30-15:00	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	5+11.7, 11.4 ft Rt.	Casing ID/OD:	NW	Water Level*:	None Observed
Hammer Efficiency Factor: 0.867		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test, PP = Pocket Penetrometer
MV = Unsuccessful Insitu Vane Shear Test attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = weight of 140lb. hammer
WOR/C = weight of rods or casing
WO1P = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in. Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA	876.98		5" PAVEMENT. (0.42)	
	1D	24/15	2.00 - 4.00	7/8/11/11	19	27				Brown, dry, medium dense, gravelly, fine to coarse SAND, little silt. (Fill) .	
5	2D	24/13	5.00 - 7.00	7/8/11/41	19	27		872.40		Similar to above, except occasional cobble. (Fill). (5.00)	
								868.90		(8.50)	
10	3D	24/20	10.00 - 12.00	22/30/36/30	66	95	62			Grey-brown, moist, very dense, fine to coarse SAND, some gravel, little silt, trace weathered rock. (Glacial Till). G#243310 A-1-b, SM WC=8.3%	
							110				
							103				
							82				
							218				
15	4D R1	4.8/4.8 60/60	15.00 - 15.40 / 15.70 - 20.70	50(4.8") RQD = 37%	---		NQ-2	862.00		Similar to above. (15.40) Top of Bedrock at Elev. 862.0 ft. Roller Coned ahead to 15.7 ft bgs. R1: Bedrock: Greenish-grey, aphanitic, PHYLLITE, hard, fresh, massive to slightly fractured, vertical joint set along foliation. Rock Mass Quality = Poor. R1:Core Times (min:sec) 15.7-16.7 ft (8:30) 16.7-17.7 ft (7:45) 17.7-18.7 ft (8:15) 18.7-19.7 ft (8:00) 19.7-20.7 ft (8:42) 100% Recovery	
20								856.70		Bottom of Exploration at 20.70 feet below ground surface. (20.70)	
25											

Remarks:
300-400 lbs pressure on Core Barrel.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: BB-MBB-101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS
WIN 20451.00
BRIDGE NO. ____

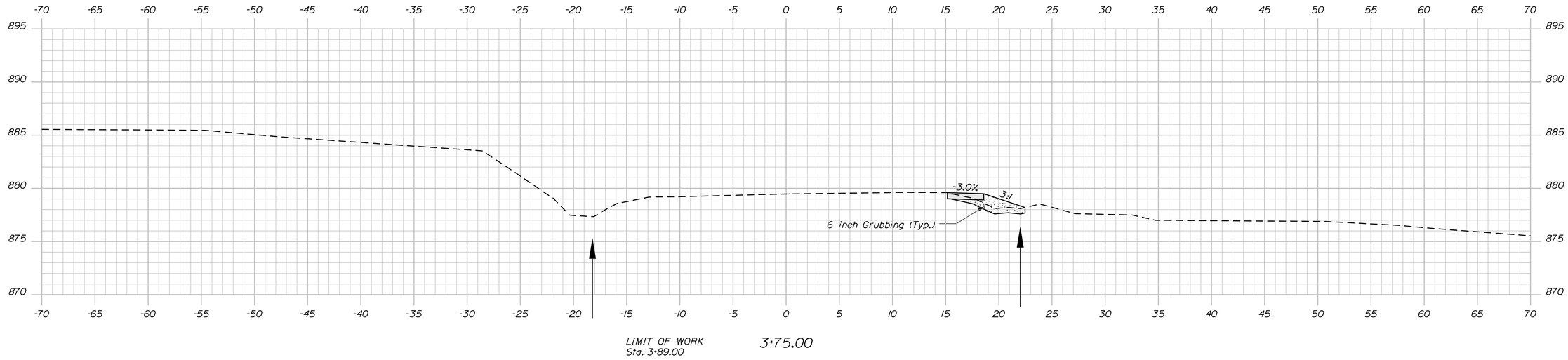
	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2	L.KRUSINSKI	
DESIGN3-DETAILED3	T.WHITE	MAY 2014
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

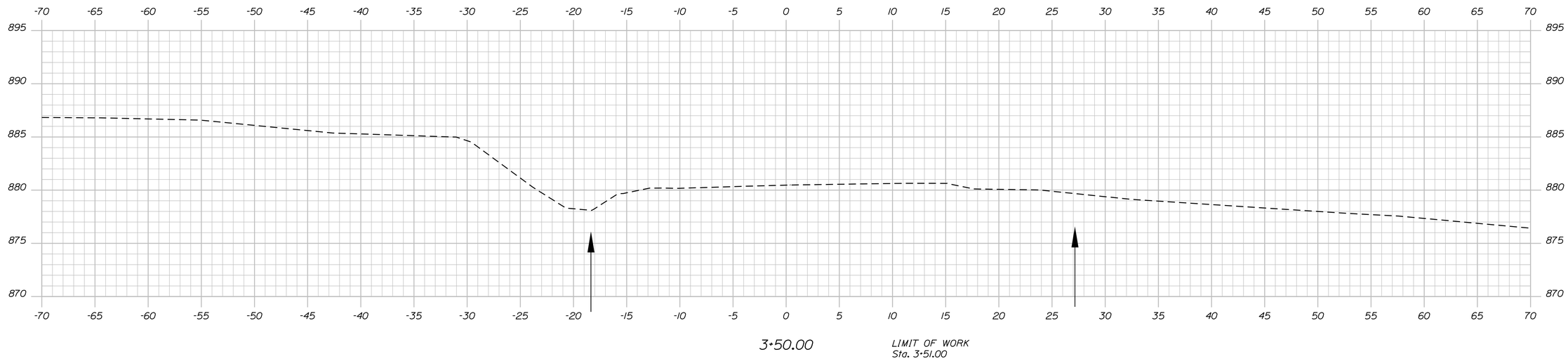
SIGNATURE
P.E. NUMBER
DATE

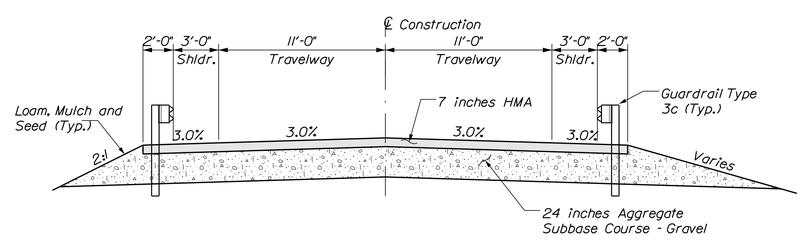
BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

BORING LOGS

SHEET NUMBER
6
OF 16







TYPICAL APPROACH SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN
20451.00

BRIDGE NO. 6482

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	-----
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L. Krusinski	T. White	NOV 2013
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

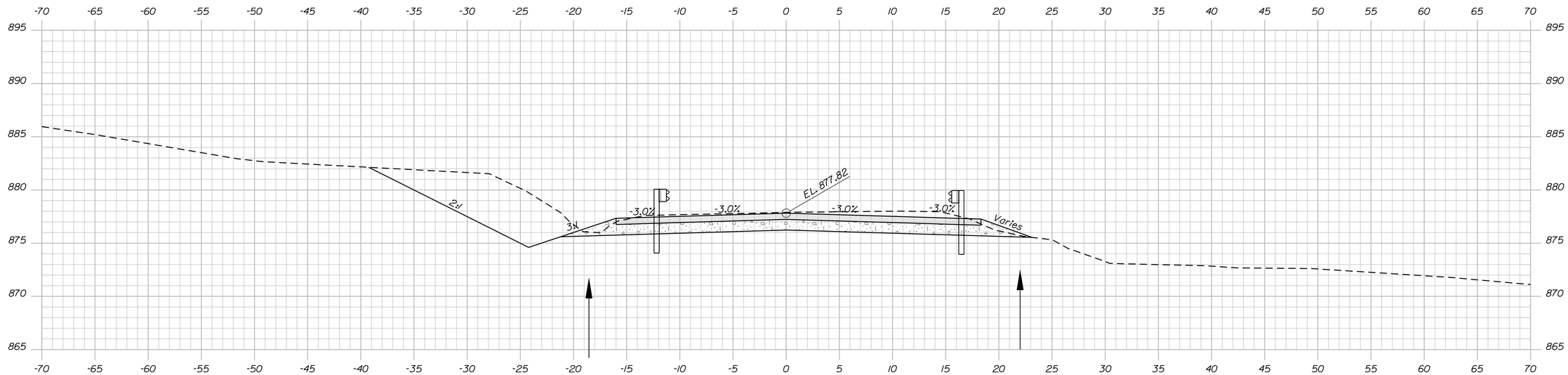
BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

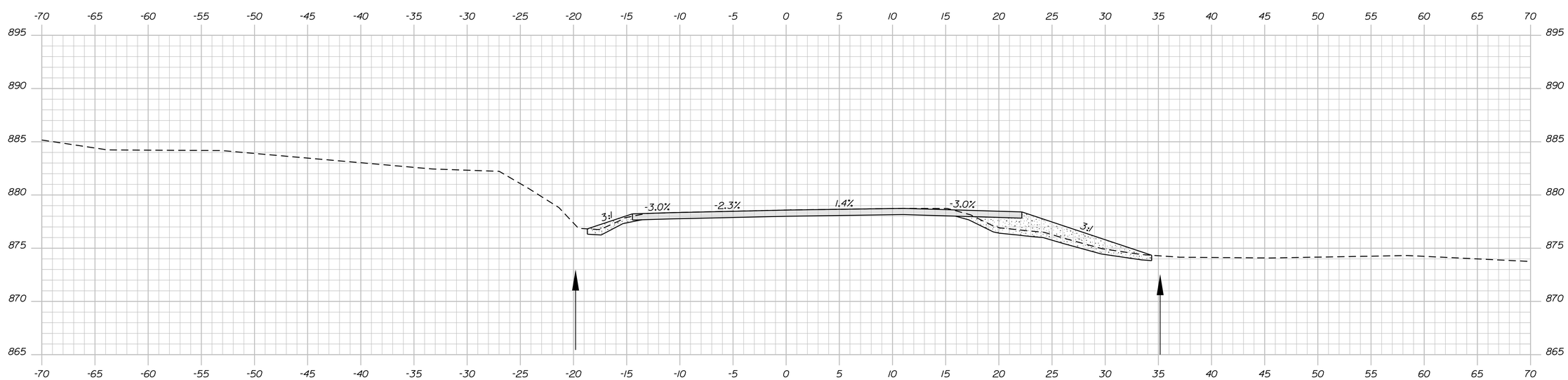
CROSS SECTIONS

SHEET NUMBER
7
OF 16

Sta. 3+50.00 to Sta. 3+75.00

Filename: ...\MSTA\007_XSECT_3+25_001.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014





Sta. 4+16.47, 14.0 ft. Lt. to Sta. 4+53.97, 14.0 ft. Lt.
Install ET-Plus TL-3 Tangental End Treatment.
Install Reflectorized Flexible Guardrail Markers (2)

4+00.00 BEGIN TRANSITION
MATCH EXISTING

Sta. 4+12.88, 18.42 ft. Rt. to Sta. 4+50.03, 14.0 ft. Rt.
Install 350 Flared Terminal End Rt.
Install Reflectorized Flexible Guardrail Markers (2)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BOOGE		
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	-----
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L. Krusinski	T. White	NOV 2013
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

CROSS SECTIONS

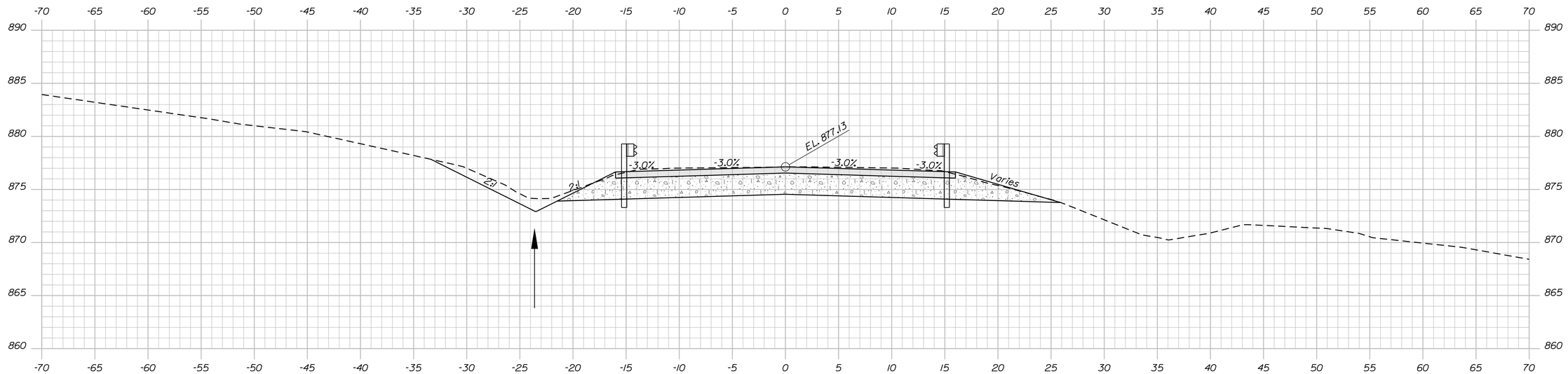
SHEET NUMBER

8

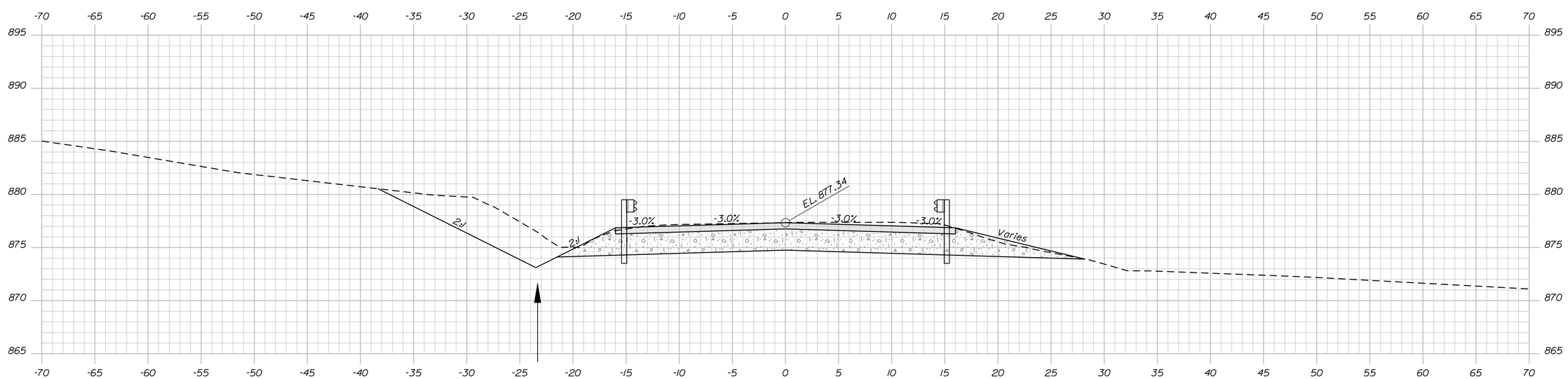
OF 16

Filename: ...\MSTA\008_XSECT_4+00_002.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

Sta. 4+00.00 to Sta. 4+25.00



4+75.00



Sta. 4+53.97 to Sta. 5+53.82, 14 ft. Lt.
Install 100 ft. Guardrail Type 3c.

4+50.00 BEGIN PROJECT END TRANSITION

Sta. 4+50.03 to Sta. 5+50.11, 14 ft. Rt.
Install 100 ft. Guardrail Type 3c.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

PROJ. MANAGER	S. BODGE	BY	DATE
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	-----
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L. Krusinski	T. White	NOV 2013
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

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DATE

BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

CROSS SECTIONS

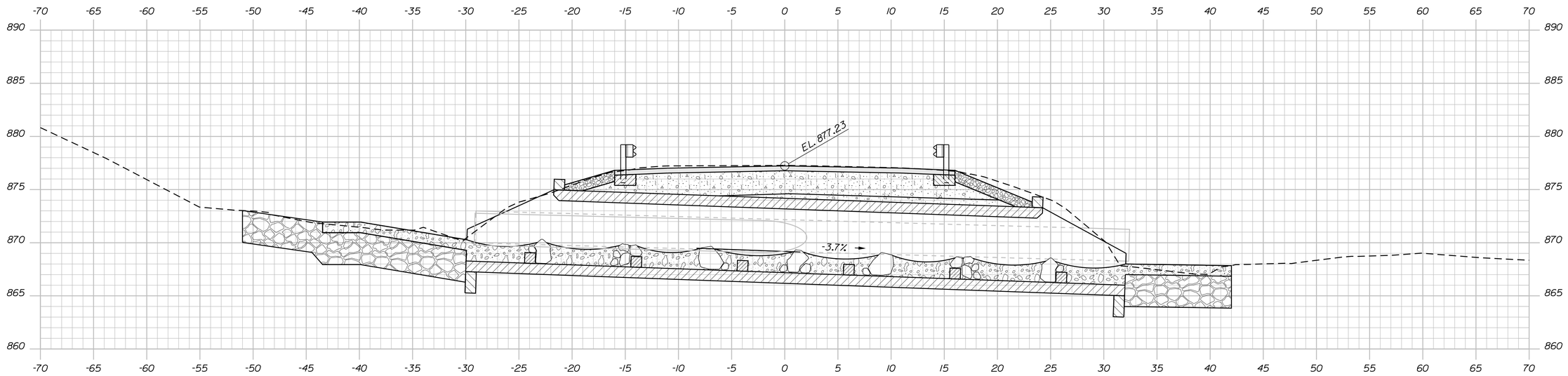
SHEET NUMBER

9

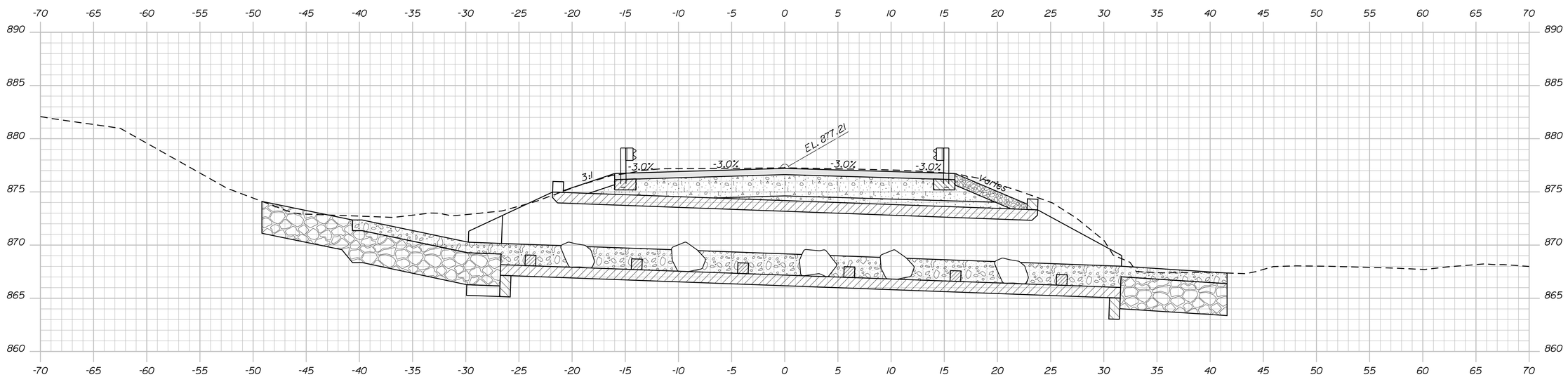
OF 16

Sta. 4+50.00 to Sta. 4+75.00

Filename: ...\MSTA\009_XSECT_4+50_003.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014



5+02.00 ℄ CONCRETE BOX CULVERT ~ SKEW 8°



5+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

PROJ. MANAGER	S. BIDGE	BY	DATE
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	-----
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L. Krupinski	T. White	NOV 2013
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

CROSS SECTIONS

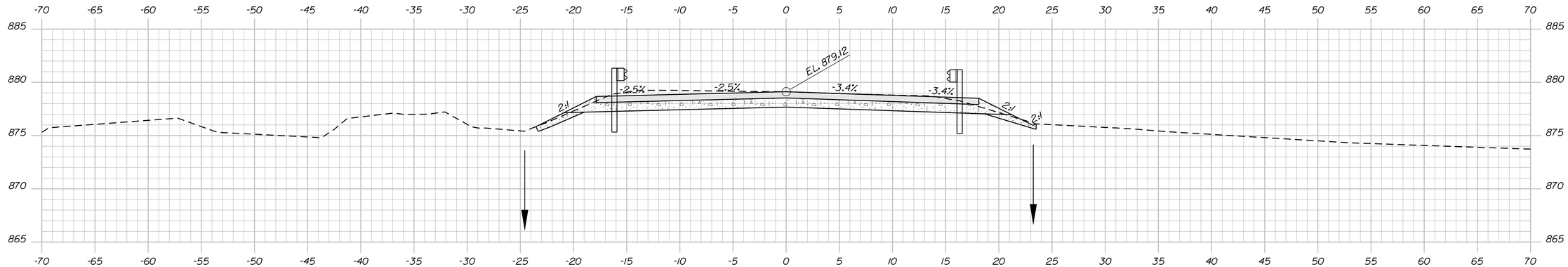
SHEET NUMBER

10

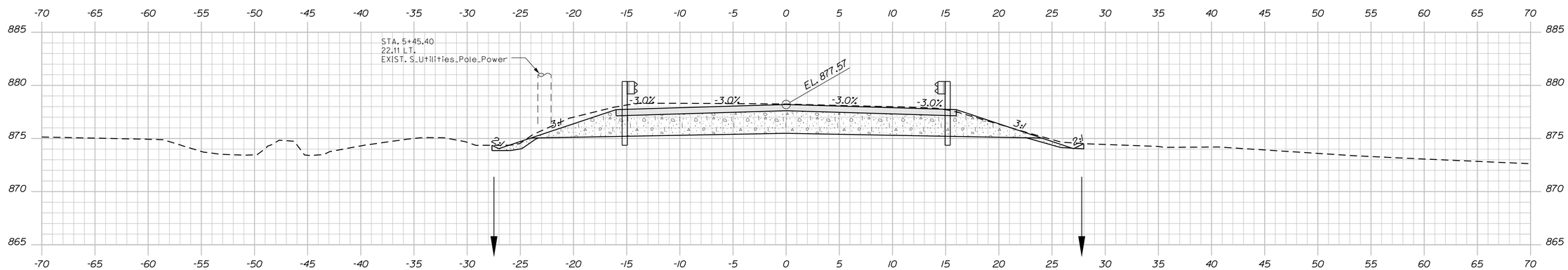
OF 16

Filename: ...\MSTA\010_XSECT_5+00_004.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

Sta. 5+00.00 to Sta. 5+02.00



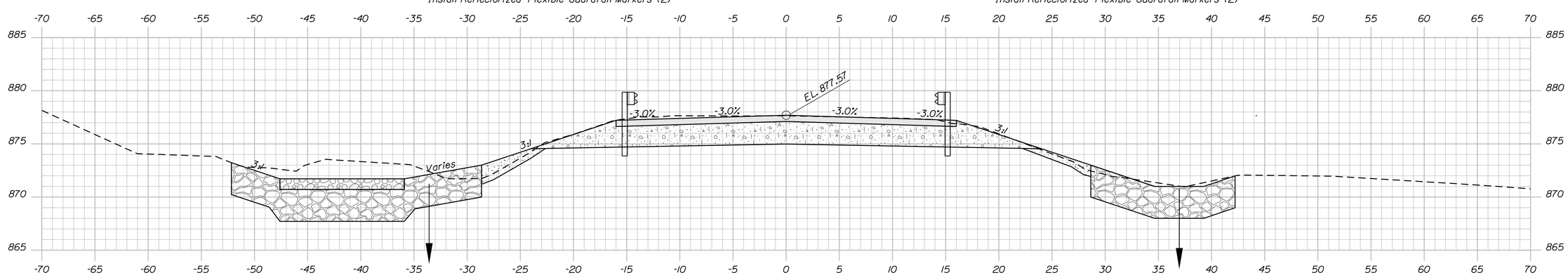
5+75.00



Sta. 5+53.82, 14.00 ft. Lt. to Sta. 5+91.31, 18.33 ft. Lt.
Install 350 Flared Terminal End Rt.
Install Reflectorized Flexible Guardrail Markers (2)

5+50.00 BEGIN TRANSITION
END PROJECT

Sta. 5+50.11, 14.00 ft. Rt. to Sta. 5+87.44, 17.76 ft. Rt.
Install 350 Flared Terminal End Rt.
Install Reflectorized Flexible Guardrail Markers (2)



5+25.00

Sta. 5+25.00 to Sta. 5+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN
20451.00

BRIDGE NO. 6482

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	
CHECKED-REVIEWED	-----	-----	
DESIGN2-DETAILED2	L. Krusinski	T. White	NOV 2013
DESIGN3-DETAILED3	-----	-----	-----
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REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

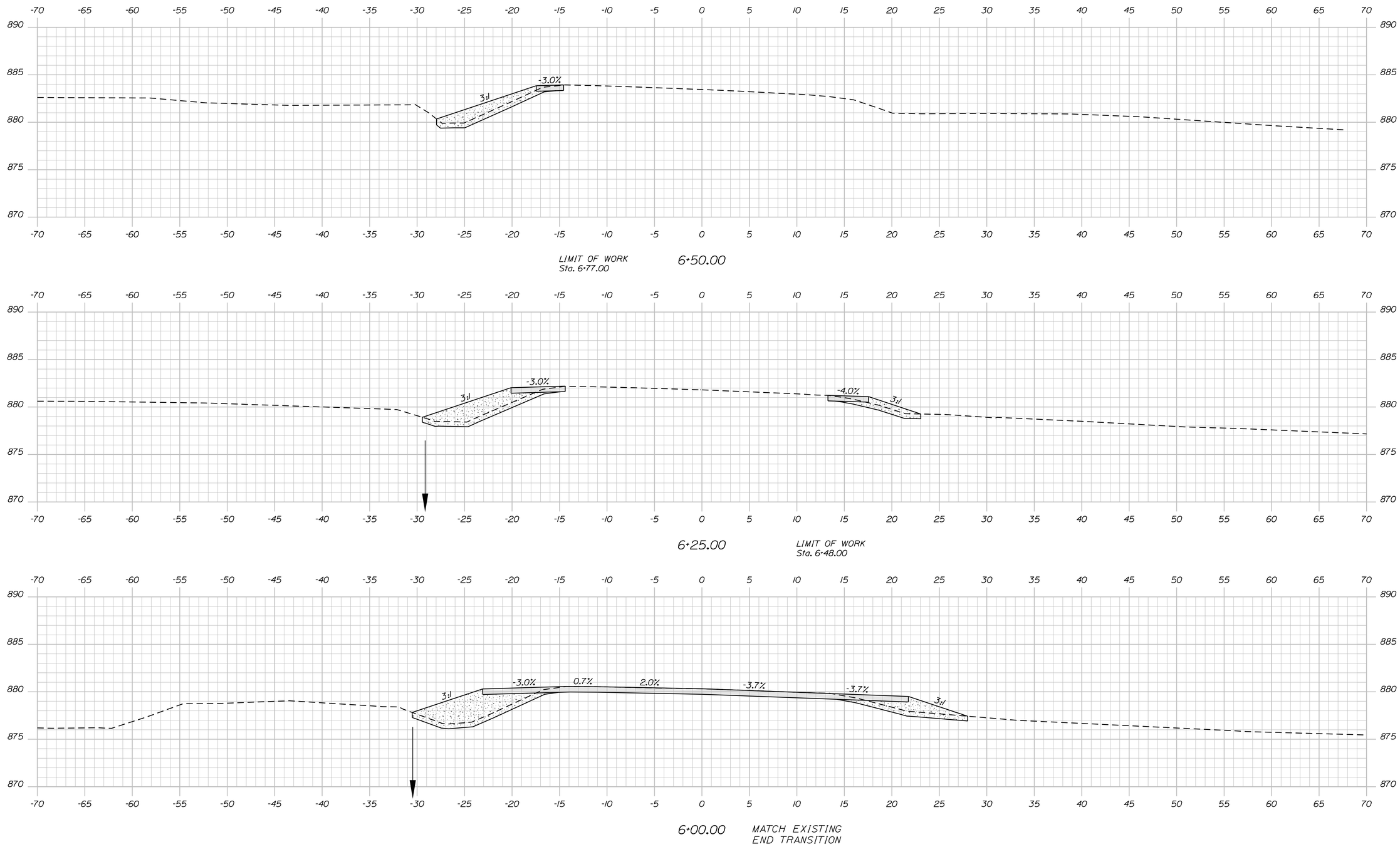
CROSS SECTIONS

SHEET NUMBER

11

OF 16

Filename: ...\MSTA\011_XSECT_5+25_005.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

PROJ. MANAGER	S. BODGE	BY	DATE
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	-----
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L.Krusinski	T.White	NOV 2013
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

CROSS SECTIONS

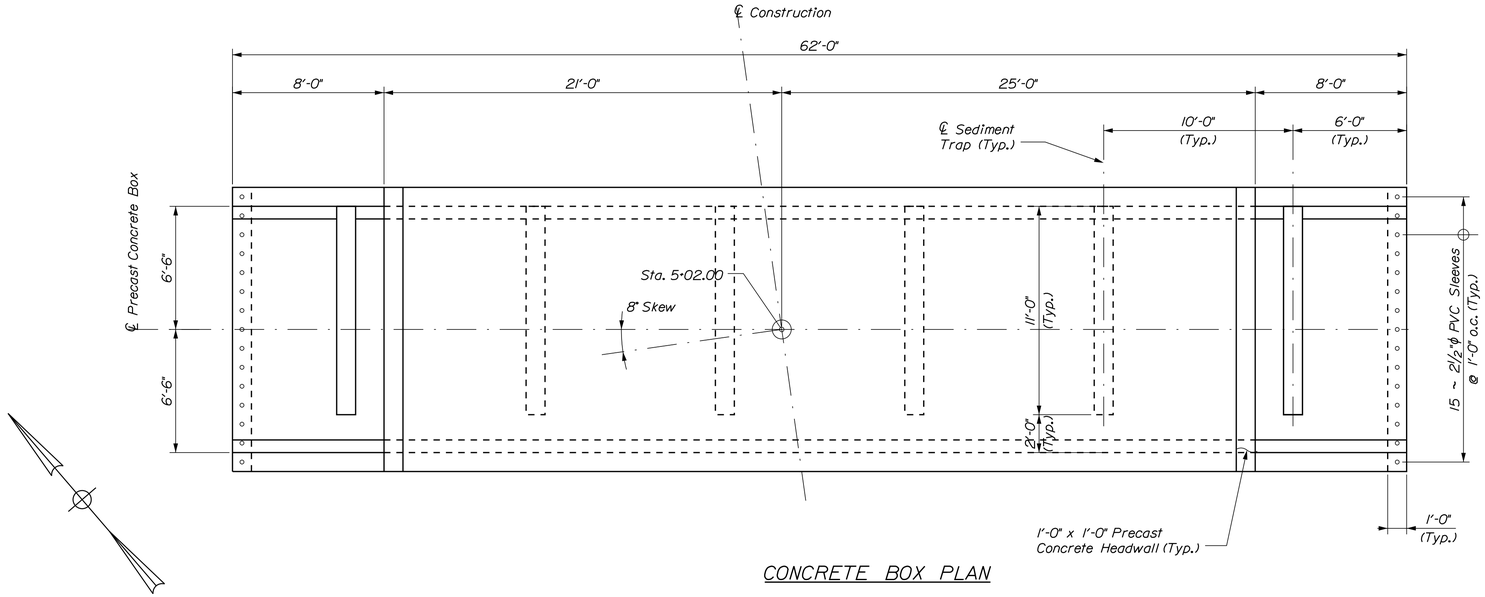
SHEET NUMBER

12

OF 16

Sta. 6+00.00 to Sta. 6+50.00

Filename: ...\MSTA\012_XSECT_6+00_006.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014



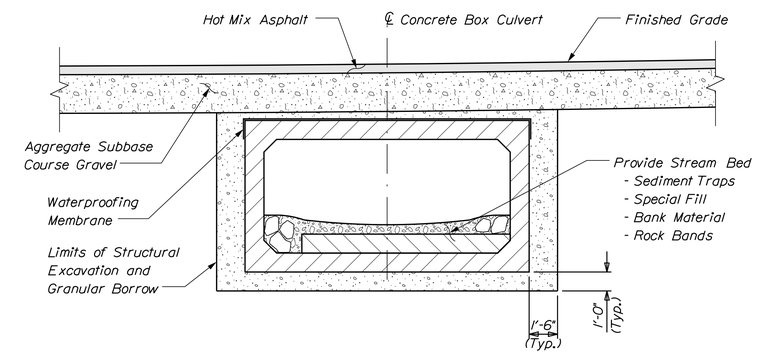
CONCRETE BOX PLAN

PRECAST CONCRETE BOX NOTES:

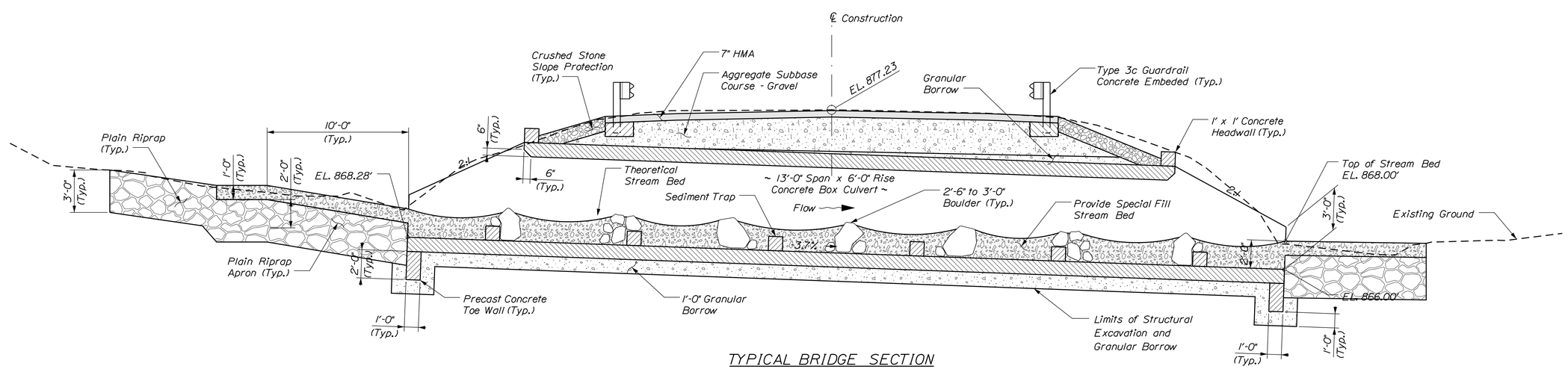
1. The precast units shall be designed to carry construction loadings with a minimum fill cover of 18 inches over the top of the units.

2. The construction, handling, and assembly of the precast units shall be in accordance with Special Provisions Section 534, Precast Structural Concrete, and with the manufacturer's specifications as applicable.

3. Install standard membrane waterproofing over the top and to 12 inches down the exterior sides of the precast units.



TYPICAL CONCRETE BOX SECTION



TYPICAL BRIDGE SECTION

Skewed 8° Ahead on the Left

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

PROJ. MANAGER	S. BOOGE	BY	DATE	
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	-----	
CHECKED-REVIEWED	-----	-----	-----	
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REVISIONS 2	-----	-----	-----	
REVISIONS 3	-----	-----	-----	
REVISIONS 4	-----	-----	-----	
FIELD CHANGES	-----	-----	-----	

SIGNATURE

P.E. NUMBER

DATE

BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

PRECAST BOX DETAILS

SHEET NUMBER

13

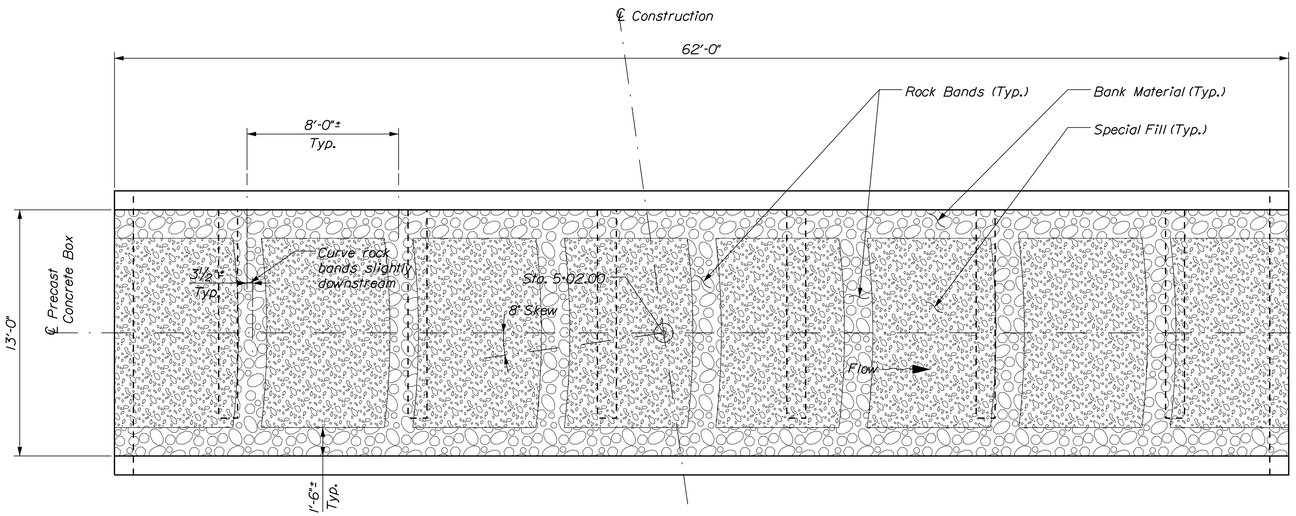
OF 16

Filename: ...\00\BRIDGE\MSTA\013_Box.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

NOTES:

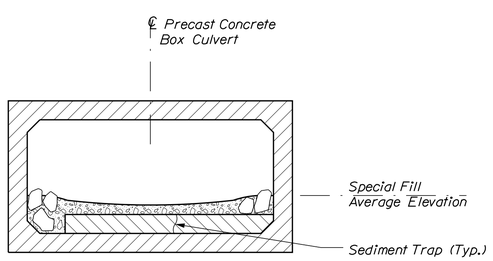
1. Rocks in bank material and rock bands shall be a minimum of 18 inches in the least dimension. Each rock band shall contain at least three (3) rocks of a minimum of 24 inches in the least dimension. Rocks shall not be more than 3 feet in the greatest dimension.

2 For 50-70% of the box width, the rock band shall extend 6 inches above the minimum height of 2 feet.

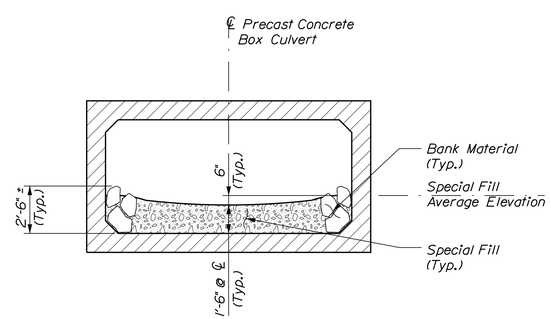


CONCRETE BOX PLAN

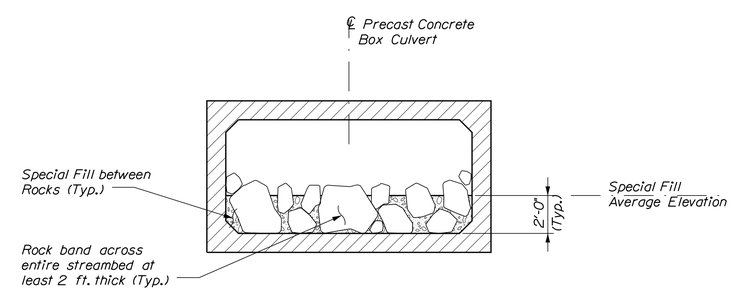
NOTE: For clarity only floor of box is shown



SEDIMENT TRAP SECTION



POOL SECTION



ROCK BAND SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

PROJ. MANAGER	S. BOOGE	BY	DATE
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	-----
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L. Krusinski	T. White	NOV 2013
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SIGNATURE

P.E. NUMBER

DATE

BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

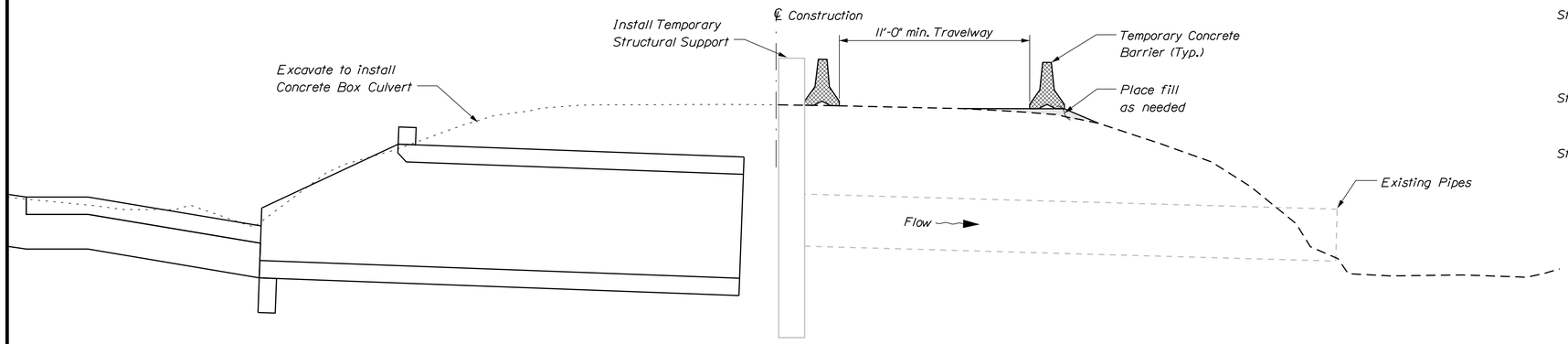
REBUILT STREAMBED DETAILS

SHEET NUMBER

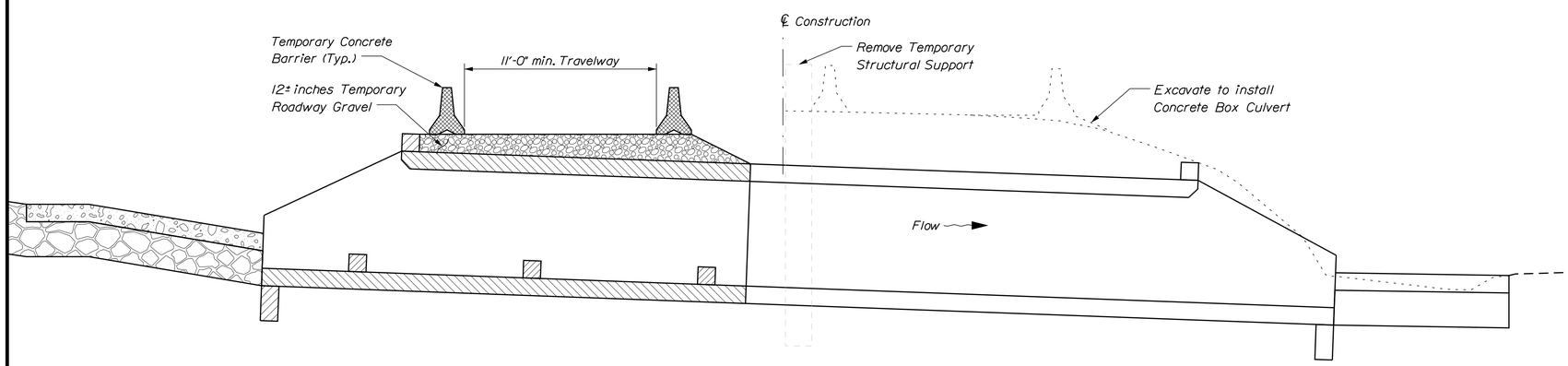
14

OF 16

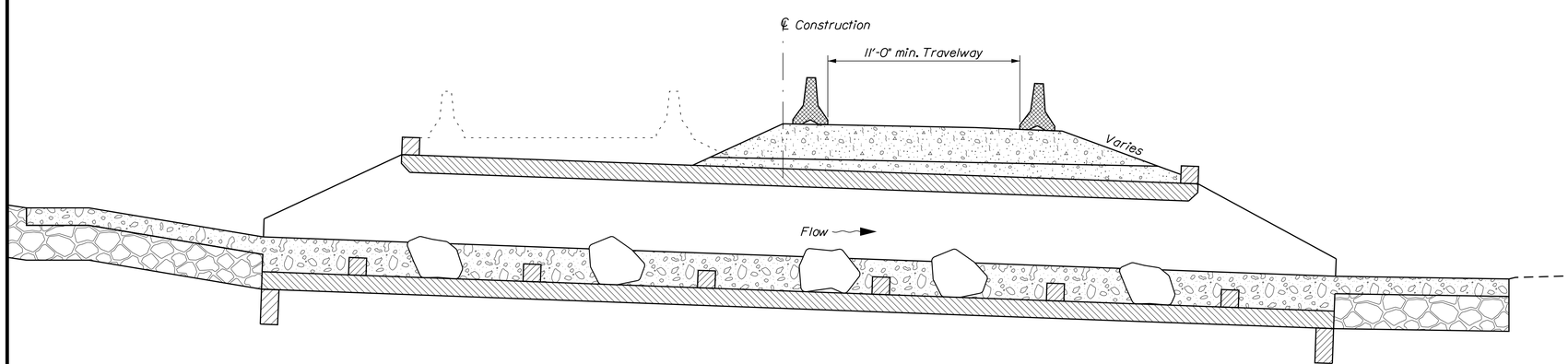
Filename: ...\MSTA\014_Rebuilt_Streambed.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014



STAGE No. 1



STAGE No. 2



STAGE No. 3

STAGE CONSTRUCTION NOTES:

Stage 1 -
Maintain one 11'-0" min. wide lane of alternating traffic using temporary traffic signals on downstream side. Remove the upstream sections of the existing pipes and ground. Construct upstream portion of concrete box culvert.

Stage 2 -
Place 12± inches of temporary roadway gravel with two temporary concrete barriers. Provide one 11'-0" wide lane of alternating traffic using traffic signals over the newly installed concrete box culvert on upstream end. Remove remaining existing pipes and ground. Then construct downstream portion of concrete box culvert.

Stage 3 -
On downstream side provide aggregate subbase. Set up one lane of alternating traffic on the downstream side. Maintain one 11'-0" wide lane of traffic at all times with temporary traffic signals.

Stage 4 -
Remove temporary concrete barriers and temporary roadway gravel. Place aggregate subbase, concrete embedded guardrail type 3c, base pavement and surface pavement. Upon completion of surface pavement open to traffic.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20451.00

WIN 20451.00

BRIDGE NO. 6482

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BOOGE		
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	
CHECKED-REVIEWED	-----	-----	-----
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FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

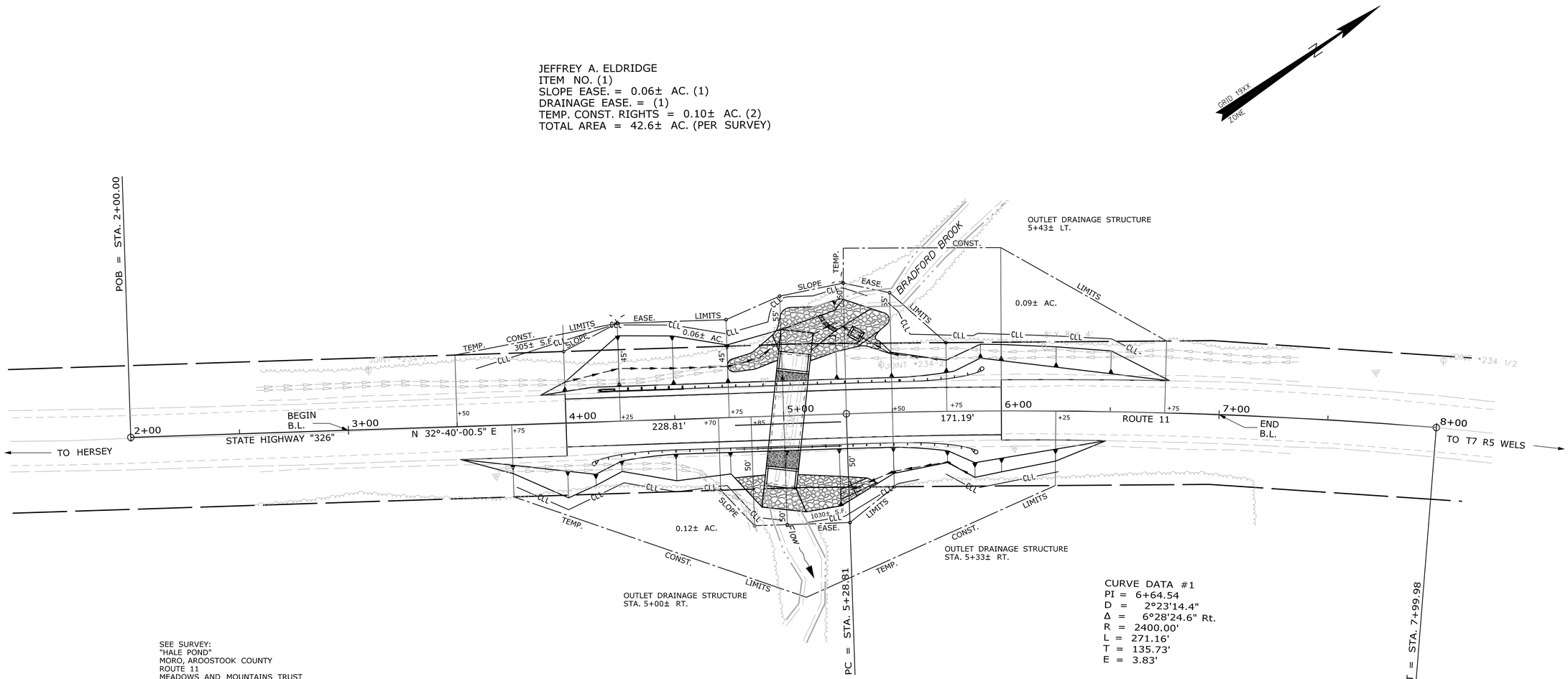
BRADFORD BROOK BRIDGE
BRADFORD BROOK
MORO PLANTATION AROOSTOOK COUNTY

STAGE CONSTRUCTION

SHEET NUMBER
15
OF 16

Filename: ...\MSTA\015_StageConstr.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

JEFFREY A. ELDRIDGE
ITEM NO. (1)
SLOPE EASE. = 0.06± AC. (1)
DRAINAGE EASE. = (1)
TEMP. CONST. RIGHTS = 0.10± AC. (2)
TOTAL AREA = 42.6± AC. (PER SURVEY)



CURVE DATA #1
PI = 6+64.54
D = 2°23'14.4"
Δ = 6°28'24.6" Rt.
R = 2400.00'
L = 271.16'
T = 135.73'
E = 3.83'

SEE SURVEY:
"HALE POND"
MORO, AROOSTOOK COUNTY
ROUTE 11
MEADOWS AND MOUNTAINS TRUST
MARY B. GREGOR, TRUSTEE
BY JOHN B. CAHOON
MAY 10, 2001
REC. S.A.C.R.D. PLAN BOOK 40 PAGE 2A

CHRISTOPHER PIAZZA
ITEM NO. (2)
SLOPE EASE. = 1030± S.F. (1)
DRAINAGE EASE. = (2)
TEMP. CONST. RIGHTS = 0.12± AC. (1)
TOTAL AREA = 55.9± AC. (PER SURVEY)

R/W REFERENCES

PENOBSCOT COUNTY
VOL. 2 PG. 178
1837 (4 RODS)

WIN 020451.00

SYMBOLS

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

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W		
PROP. LINES		
AREAS	D.S.G.	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
MORO PLANTATION
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
		COND.	8/25/14	5339	344

DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1341
PROFESSIONAL LAND SURVEYOR

STATE HIGHWAY "326"
ROUTE 11
MORO PLANTATION AROOSTOOK COUNTY
STATE PROJECT N0. 20451.00

JUNE 2014 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 2-570
SCALE 1" = 25' | SHEET 1 OF 1

SHEET NUMBER
16
OF 16

Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Sixth Edition 2012 with 2013 interims.

DESIGN LOADING

Live Load ..... HL - 93 Modified

TRAFFIC DATA

Current (2013) AADT	1040
Future (2033) AADT	1250
DHV - % of AADT	12
Design Hour Volume	150
Heavy Trucks (% of AADT)	15
Heavy Trucks (% of DHV)	12
Directional Distribution (% of DHV)	59
18 kip Equivalent P 2.0	182
18 kip Equivalent P 2.5	174
Design Speed (mph)	50

HYDROLOGIC DATA

Drainage Area	1.77 sq mi
Design Discharge (Q50)	416.4 cfs
Check Discharge (Q100)	496.2 cfs
Headwater Elevation (Q50)	773.00 ft
Headwater Elevation (Q100)	773.67 ft
Discharge Velocity (Q50)	8.28 fps
Discharge Velocity (Q100)	8.74 fps
Headwater Elevation (Q1.1)	769.16 ft
Discharge Velocity (Q1.1)	4.35 fps
Headwater Elevation (Q25)	772.38 ft

MATERIALS

Concrete:	
Precast	Class "P"
All Other	Class "A"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Welded Wire Reinforcment	ASTM A185/A185M or ASTM A497/A497M

BASIC DESIGN STRESSES

Concrete	f 'c = 4,350 psi
Precast Concrete	f 'c = 5,000 psi
Reinforcing Steel	f y = 60,000 psi
Welded Wire Reinforcment	f y = 65,000 psi min.

HERSEY
AROOSTOOK COUNTY
SEAMS BROOK BRIDGE
OVER
SEAMS BROOK
STATE ROUTE 11
FEDERAL AID PROJECT NO. STP-2050(800)
PROJECT LENGTH 0.019 mi.
BRIDGE NO. 3409

LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities & Notes	2
Plan & Profile	3
Boring Locations	4
Boring Logs	5
Approach Cross Sections	6-10
Precast Box Details	11
Rebuit Streambed Details	12
Stage Construction	13
Right of Way Map	14

UTILITIES

Eastern Maine Electric Cooperative
Northern New England Telephone
Northland Telephone
Maine Fiber Company

MAINTENANCE OF TRAFFIC

Maintain one 11'-0" wide lane of traffic using staged construction and temporary traffic signals.

PROJECT LOCATION:	5 miles East of Mayfield/Kingsbury townline Lat. = 46° 06' 06.18" N Long. = 68° 25' 10.98" W
PROGRAM AREA:	Bridge Program
OUTLINE OF WORK:	Replace existing 12'-4" span x 7'-9" rise x 56'-4" long Steel Pipe Arch with a Concrete Box Culvert

WIN 20508.00

STP-2050(800)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
DATE
COMMISSIONER: 9/12/14
CHIEF ENGINEER: 9-2-14

STATE OF MAINE Michael Harry Wight 8089 LICENSED PROFESSIONAL ENGINEER

PROJECT INFORMATION			
PROGRAM	BRIDGE		
PROJECT MANAGER	STEVE BODGE	SIGNATURE	Michael Wight
DESIGNER	JOSHUA HASBROUCK	P.E. NUMBER	8089
CONSULTANT		DATE	8/27/2014
PROJECT RESIDENT			
CONTRACTOR			
PROJECT COMPLETION DATE			

HERSEY
SEAMS BROOK BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 14

Filename: \00\BRIDGE\MSTA\001_Title.dgn Division: BRIDGE Username: David.Sullivan Date:8/26/2014

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	390	CY
203.21	ROCK EXCAVATION	5	CY
203.24	COMMON BORROW	50	CY
203.25	GRANULAR BORROW	200	CY
203.33	SPECIAL FILL	90	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	220	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	50	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	130	T
409.15	BITUMINOUS TACK COAT - APPLIED	30	G
508.13	MEMBRANE WATERPROOFING (110 SY)	1	LS
511.07	COFFERDAM: UPSTREAM	1	LS
511.07	COFFERDAM: DOWNSTREAM	1	LS
513.22	CRUSHED STONE SLOPE PROTECTION	130	SY
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (40 SY)	1	LS
524.301	TEMPORARY STRUCTURAL SUPPORT	1	LS
526.301	TEMPORARY CONCRETE BARRIER TYPE 1 (400 LF)	1	LS
527.34	WORK ZONE CRASH CUSHIONS	4	UN
534.71	PRECAST CONCRETE BOX CULVERT (185 CY)	1	LS
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	200	LF
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
606.79	GUARDRAIL 350 FLARED TERMINAL	4	EA
610.08	PLAIN RIPRAP	160	CY
615.07	LOAM	25	CY
618.1411	SEEDING METHOD NUMBER 3 - PLAN QUANTITY	4	UN
619.1201	MULCH - PLAN QUANTITY	4	UN
619.1401	EROSION CONTROL MIX	50	CY
620.58	EROSION CONTROL GEOTEXTILE	200	SY
627.733	4 INCH WHITE OR YELLOW PAINTED PAVE MRK LINE	400	LF
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	HR
631.171	TRUCK - SMALL (INCLUDING OPERATOR)	20	HR
639.19	FIELD OFFICE TYPE B	.5	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
645.110	REMOVE AND DISPOSE HIGHWAY SIGN	2	EA
652.312	TYPE III BARRICADE	4	EA
652.33	DRUM	20	EA
652.34	CONE	40	EA
652.35	CONSTRUCTION SIGNS	170	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	60	CD
652.38	FLAGGER	100	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL CONSTRUCTION NOTES

1. For easements, construction limits and right of way lines, refer to Right of Way Map.

2. 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 Contract items.

3. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

4. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.

5. 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 inches or less thick will be made under appropriate equipment rental items.

6. Place riprap on sideslopes up to EL. 774.00.

7. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.

8. Erosion Control Mix may be substituted in those areas normally receiving loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specifications Section 619, Mulch. Payment will be made under Item No. 619.1401, Erosion Control Mix.

9. Place a 24-in. wide strip of Temporary Erosion Control Blanket on the sideslopes along the top of the riprap and behind the wingwalls.

10. Guardrail posts as shown in the Standard Details shall be modified from the indicated length of 6 feet to a length of 7 feet with an embedment of 4.5 feet, except over the box culvert. Guardrail posts over the box culvert shall be in accordance with the Standard Detail and the rail shall be doubled over the box and for at least one space beyond the standard height posts. Payment will be considered incidental to the guardrail pay items.

11. An NCHRP350 compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.

12. 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 the appropriate Contract items.

13. Protective Coating for Concrete Surfaces shall be applied to the following areas:

On all concrete headwalls and box wall surfaces that are exposed and to limit lines, one foot beyond intersections of concrete surfaces with the ground.

14. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/contractors/ (Select Project).

15. 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.

16. The hydrologic report of the bridge site may be accessed at the MaineDOT web address. The hydrologic report is based on MaineDOT's interpretation of the information obtained for the subject site. No assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.

17. The project geotechnical report titled: 20508 Hersey Geotechnical Design Report, Soils Report No. 2014-09, Dated: April 18, 2014 may be accessed at the MaineDOT web address.

18. Geotechnical information furnished or referred to in this plan set is for the use of the Bidders and the Contractor. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the construction site. MaineDOT will not be responsible for the Bidders' or Contractor's interpretations of, or conclusions drawn from, the geotechnical information. The boring logs contained in the plan set present factual and interpretive subsurface information collected at discrete locations. Data provided may not be representative of the subsurface conditions between the boring locations.

19. 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.

20. The Contractor shall construct the box culvert in the dry. Cofferdams may be required to divert flow away from the culvert location during construction.

21. The areas of riprap below the stream bank line shall be 2 feet thick with 1 foot of Special Fill material on top, and the Contractor shall minimize, to the maximum extent possible, the void spaces in the riprap by spreading Granular Borrow for underwater backfill or Special Fill material between the layers of individual stones. Granular Borrow or Special Fill used to fill the void spaces shall not be paid for directly but shall be considered incidental to Item No. 610.08, Plain Riprap. All other riprap shall be as defined in the plans and standard details.

22. At least 1 foot of Granular Borrow shall be installed under the entire box, including toewalls.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

BRIDGE PLANS

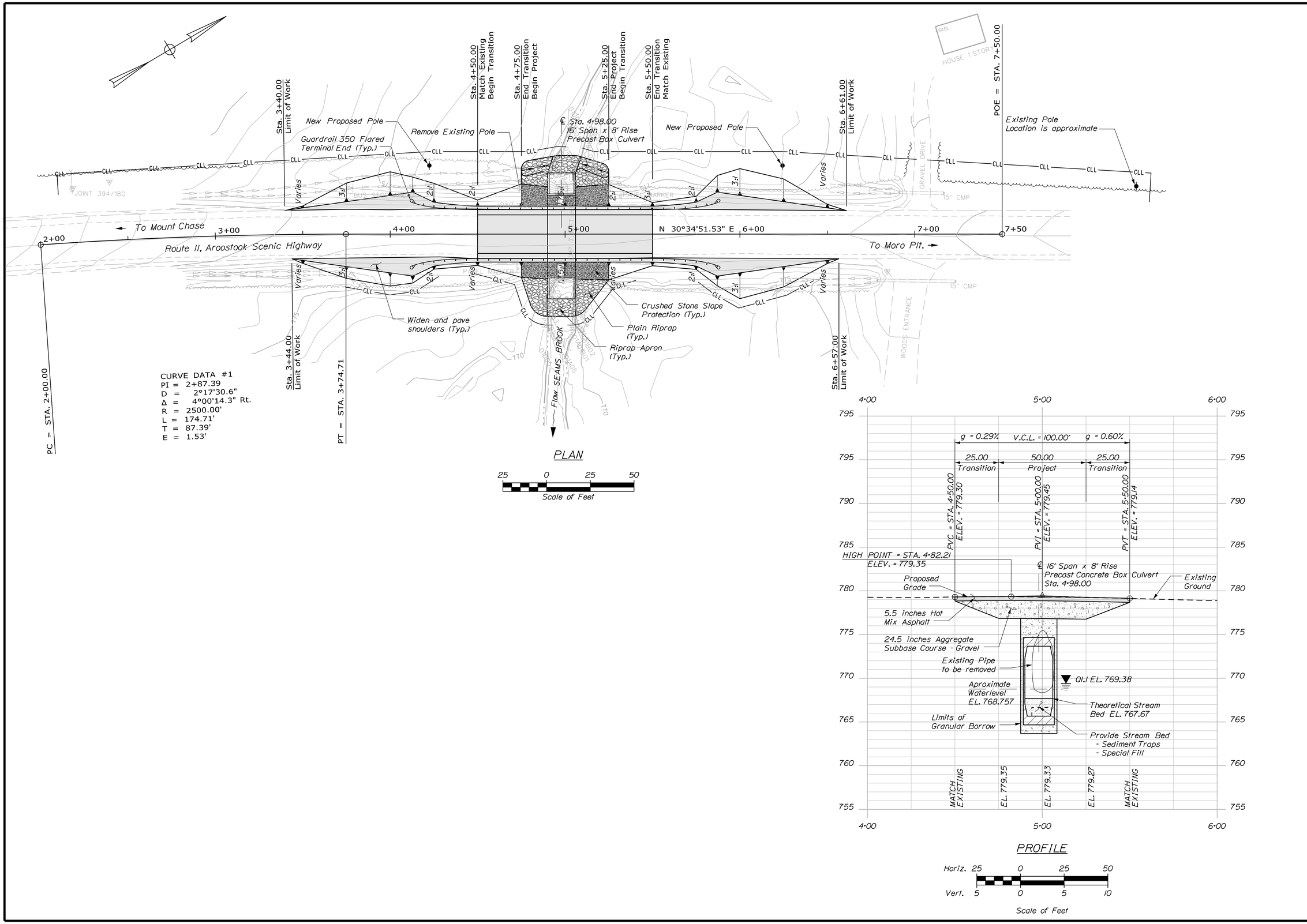
PROJ. MANAGER	Steve Bodge	BY	DATE	
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	OCT. 2013	SIGNATURE
CHECKED-REVIEWED	----	----	----	
DESIGN2-DETAILED2	L.KRUSINSKI	T.WHITE	NOV. 2013	P.E. NUMBER
DESIGN3-DETAILED3	----	----	----	
REVISIONS 1	----	----	----	
REVISIONS 2	----	----	----	
REVISIONS 3	----	----	----	DATE
REVISIONS 4	----	----	----	
FIELD CHANGES	----	----	----	

SEAMS BROOK BRIDGE
SEAMS BROOK
HERSEY AROOSTOOK COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER
2
OF 14

Filename: ...\BRIDGE\MSTA\002_Estimate.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

BRIDGE PLANS

PROJ. MANAGER	Steve Bodge	BY	DATE
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REVISIONS 2	----	----	----
REVISIONS 3	----	----	----
REVISIONS 4	----	----	----
FIELD CHANGES	----	----	----

SIGNATURE

P.E. NUMBER

DATE

SEAMS BROOK BRIDGE
SEAMS BROOK
AROOSTOOK COUNTY
HERSEY

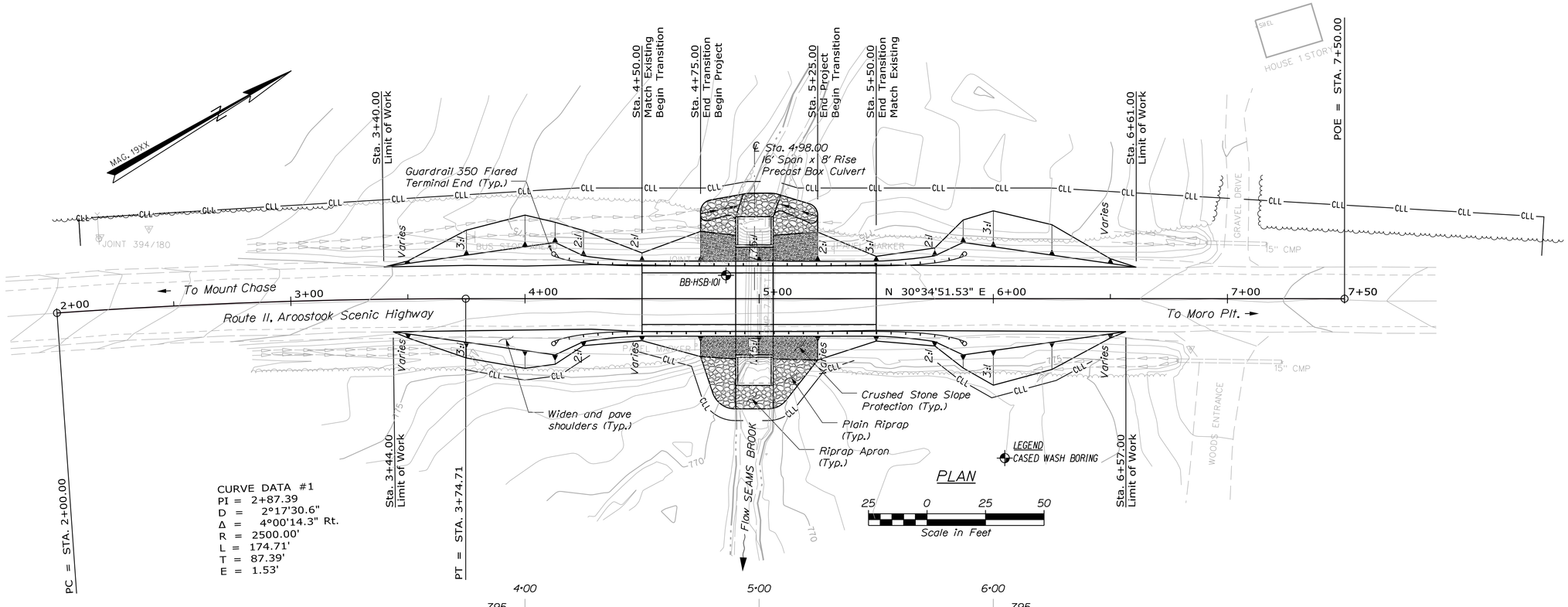
GENERAL PLAN & PROFILE

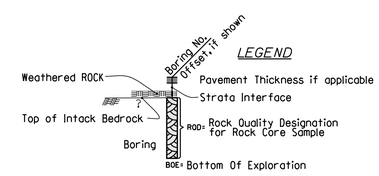
SHEET NUMBER

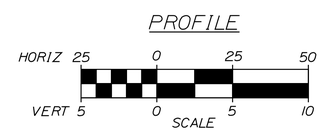
3

OF 14

Filename: ...\00\BRIDGE\MSTA\003_BDPlan1.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014







Note: This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

BRIDGE PLANS

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REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

SEAMS BROOK BRIDGE
SEAMS BROOK
AROOSTOOK COUNTY
HERSEY

BORING LOCATION PLAN &
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER
4
OF 14

Filename: ...\GEOTECH\MSTA\004_BLP&SP1.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Seams Brook Bridge #3409 carries Route 11 over Seams Brook
Location: Hersey, Maine

Boring No.: BB-HSB-101
WIN: 20508.00

Driller:	MaineDOT	Elevation (ft.)	779.4	Auger ID/OD:	5" Solid Stem
Operator:	Giles/Daggett	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	10/31/13; 08:00-13:00	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	4+85.9, 10.0 ft Lt.	Casing ID/OD:	NW	Water Level*:	None Observed
Hammer Efficiency Factor: 0.867		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
MU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test, PP = Pocket Penetrometer
MV = Unsuccessful Insitu Vane Shear Test attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = weight of 140lb. hammer
WOR/C = weight of rods or casing
WO1P = Weight of one person
S_u = Insitu Field Vane Shear Strength (psf)
T_v = Pocket Torvane Shear Strength (psf)
q_p = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = (Hammer Efficiency Factor/60%)*N-uncorrected
$S_{u(lab)}$ = Lab Vane Shear Strength (psf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Sample Information: Blows (/6 in. Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	778.73	8" PAVEMENT. 0.67	
	1D	24/17	1.00 - 3.00	44/37/24/30	61	88			Brown, dry, very dense, gravelly, fine to coarse SAND, some silt, occasional cobble. (Fill).	
5	2D	24/7	5.00 - 7.00	5/6/6/6	12	17			Similar to above, except medium dense. (Fill).	
10	3D/A	24/19	10.00 - 12.00	4/6/6/6	12	17	9		3D (10.0-11.5 ft) Brown, wet, medium dense, silty sand, some gravel, trace wood fragments. (Fill).	
							19	767.90	11.50 3D/A (11.5-12.0 ft) Grey, wet, medium dense, fine to coarse SAND, some silt, trace clay, trace gravel. (Glacial Till).	
							27			
							38			
							53			
15	4D	24/16	15.00 - 17.00	12/10/16/32	26	38	OPEN HOLE		Brown-grey, wet, dense, gravelly, fine to coarse SAND, some silt, changing to grey, weathered bedrock in tip of spoon. (Glacial Till).	
								762.40	17.00 Weathered ROCK.	
	R1	60/60	17.70 - 22.70	RQD = 8%			NQ-2	761.70	Roller Coned ahead to 17.7 ft bgs. 17.70 Top of Intack Bedrock at Elev. 761.7 ft. R1: Bedrock: Grey, aphanitic to fine-grained SLATE, hard, fresh to very slightly weathered, steep to verical joints along foliation, with slickensides, gouge along some foliations (indication of nearby fault), moderately fractured. Rock Mass Quality = Very Poor. R1: Core times (min:sec) 17.7-18.7 ft (7:14) 18.7-19.7 ft (4:55) 19.7-20.7 ft (4:19) 20.7-21.7 ft (4:14) 21.7-22.7 ft (5:00) 100% Recovery 22.70	
20	R2	48/48	22.70 - 26.70	RQD = 0%				756.70	R2: Bedrock: Similar to R1 except more fractured. Rock Mass Quality = Very Poor. R2:Core Times (min:sec) 22.7-23.7 ft (3:57) 23.7-24.7 ft (4:11) 24.7-25.7 ft (3:29) 25.7-26.7 ft (5:00) 100% Recovery Core Blocked 26.70	
25								752.70	Bottom of Exploration at 26.70 feet below ground surface.	
30										
35										
40										
45										
50										

Remarks:

300-400 lbs down pressure on Core Barrel.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: BB-HSB-101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	Steve Bodge		
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	OCT. 2013
CHECKED-REVIEWED	------	------	------
DESIGN2-DETAILED2	L. KRUSINSKI	T. WHITE	APR. 2014
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

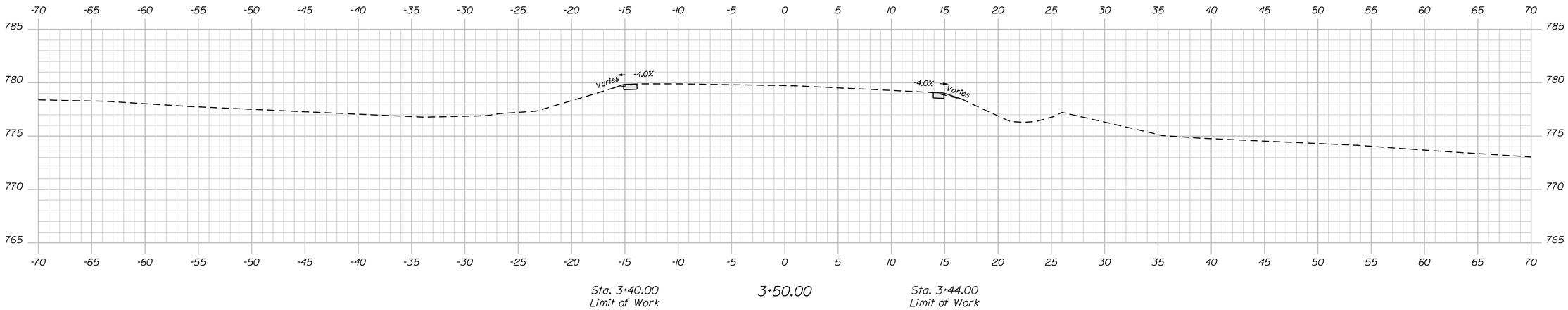
DATE

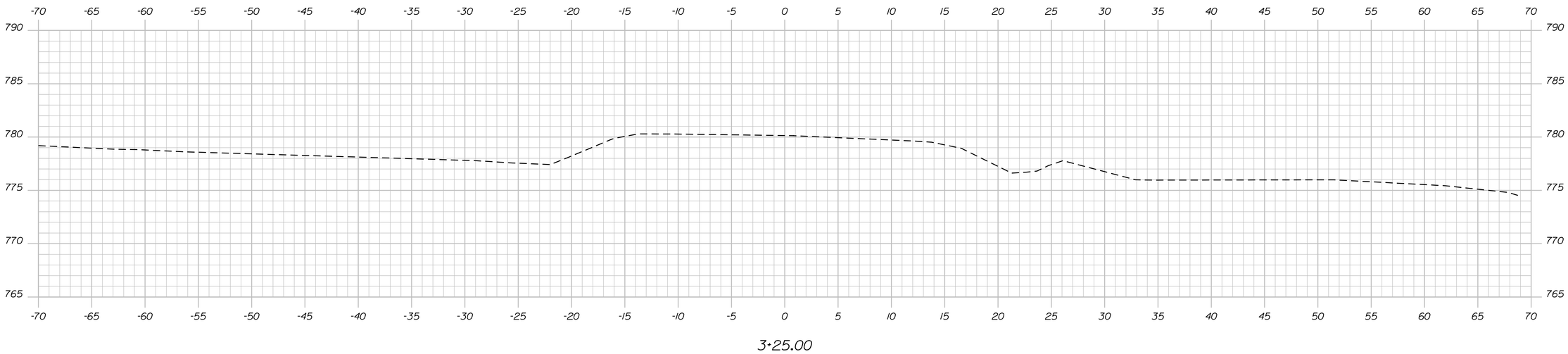
SEAMS BROOK BRIDGE
SEAMS BROOK
HERSEY AROOSTOOK COUNTY

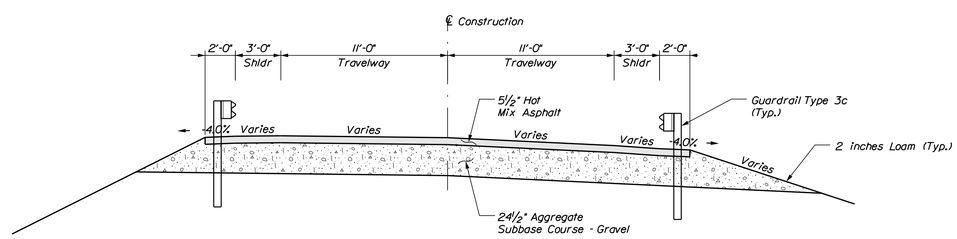
BORING LOGS

SHEET NUMBER
5
OF 14

Filename: ...\MSTA\005_BORING LOGS1.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014







TYPICAL APPROACH SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

BRIDGE PLANS

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DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

SEAMS BROOK BRIDGE
SEAMS BROOK
HERSEY AROOSTOOK COUNTY

CROSS SECTIONS

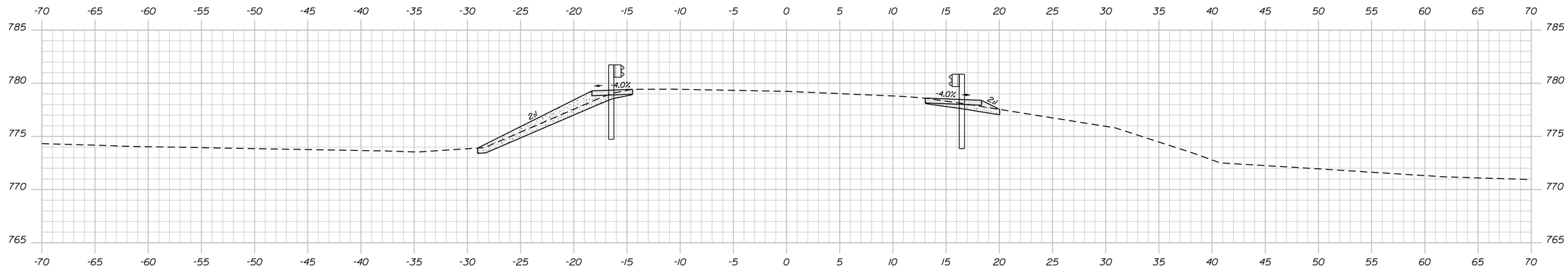
SHEET NUMBER

6

OF 14

Filename: ...\MSTA\006_XSECT_3+00_001.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

Sta. 3+00.00 to Sta. 3+50.00



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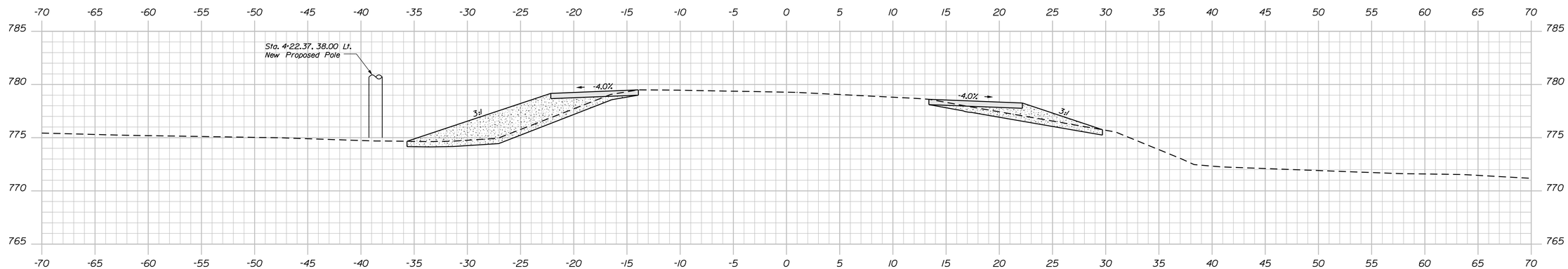

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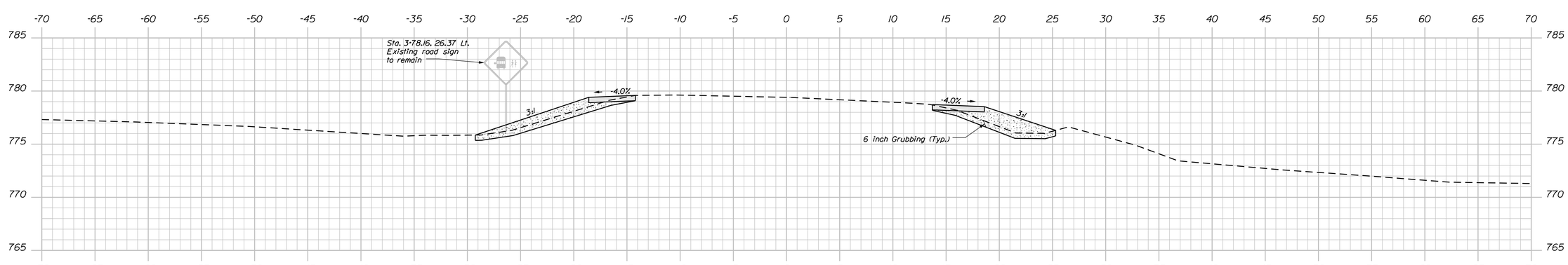

Sta. 4+12.88, 18.00 ft. Lt. to Sta. 4+50.00, 14.0 ft. Lt.
Install 350 Flared Terminal End Lt.
Install Reflectorized Flexible Guardrail Markers (2)

3+75.00

Sta. 4+12.88, 18.00 ft. Rt. to Sta. 4+50.00, 14.0 ft. Rt.
Install 350 Flared Terminal End Rt.
Install Reflectorized Flexible Guardrail Markers (2)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

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DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
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REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

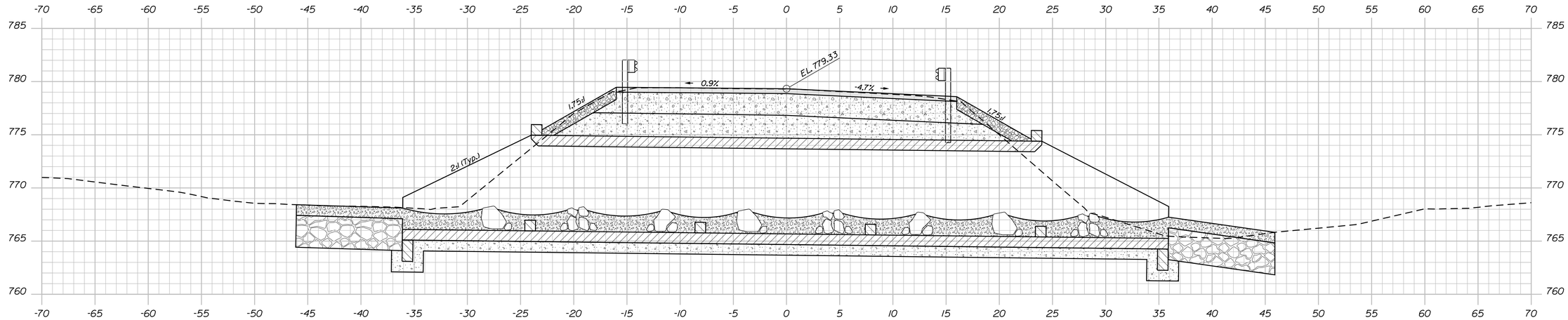
SEAMS BROOK BRIDGE
SEAMS BROOK
AROOSTOOK COUNTY
HERSEY

CROSS SECTIONS

SHEET NUMBER
7
OF 14

Filename: ...\MSTA\007_XSECT_3+75_002.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

Sta. 3+75.00 to Sta. 4+25.00



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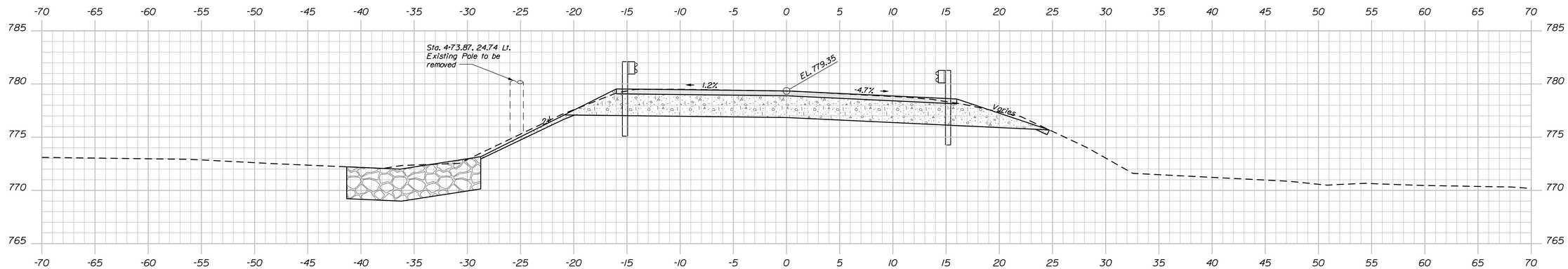

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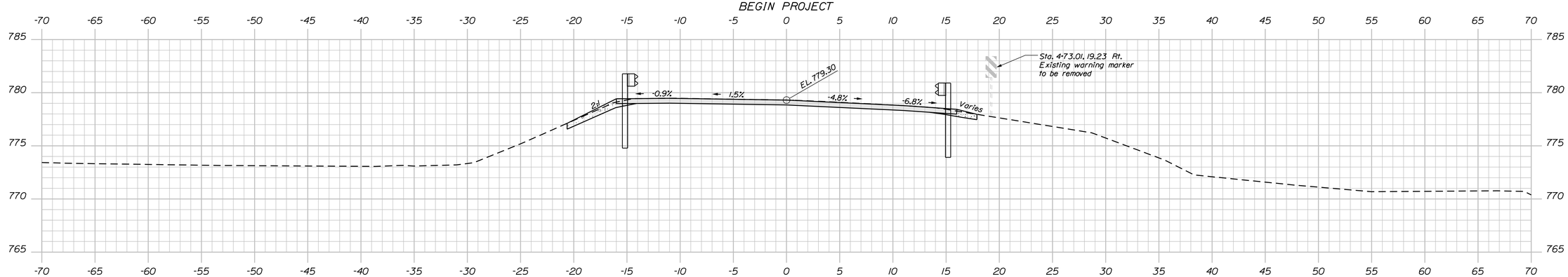
END TRANSITION
BEGIN PROJECT



4+50.00 MATCH EXISTING
BEGIN TRANSITION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN
20508.00

BRIDGE NO. 3409

BRIDGE PLANS

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REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

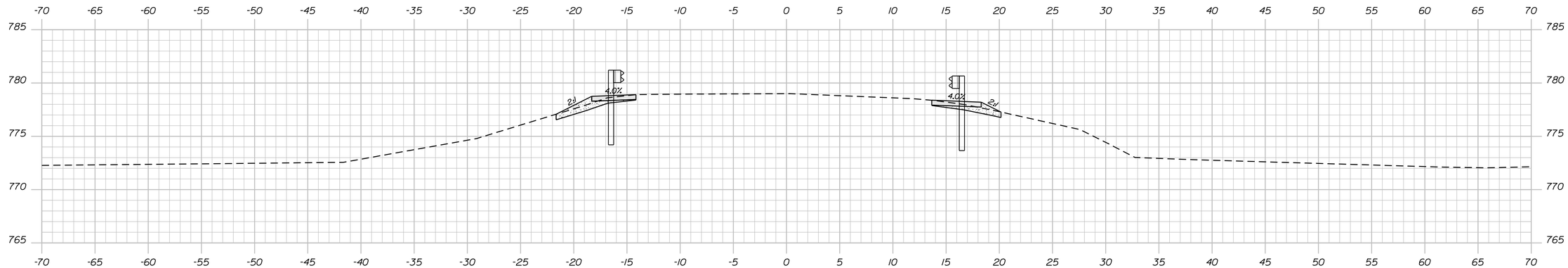
SEAMS BROOK BRIDGE
SEAMS BROOK
AROOSTOOK COUNTY
HERSEY

CROSS SECTIONS

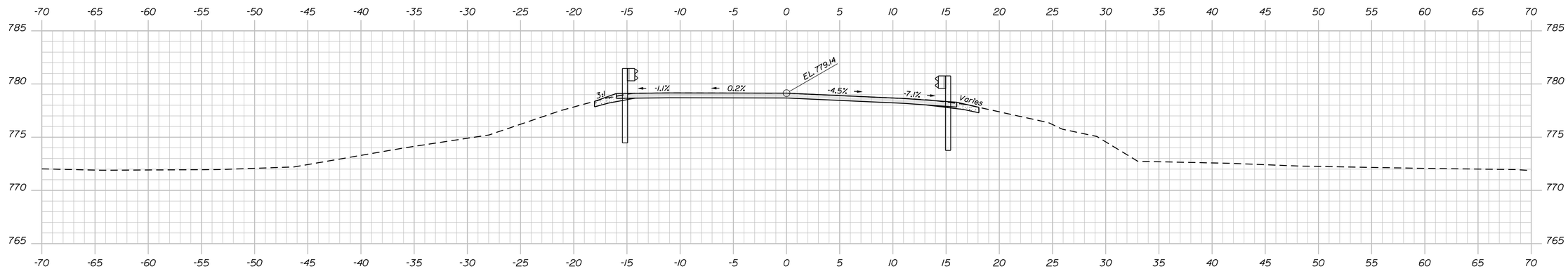
SHEET NUMBER
8
OF 1

Filename: ...\MSTA\008_XSECT_4+50_003.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

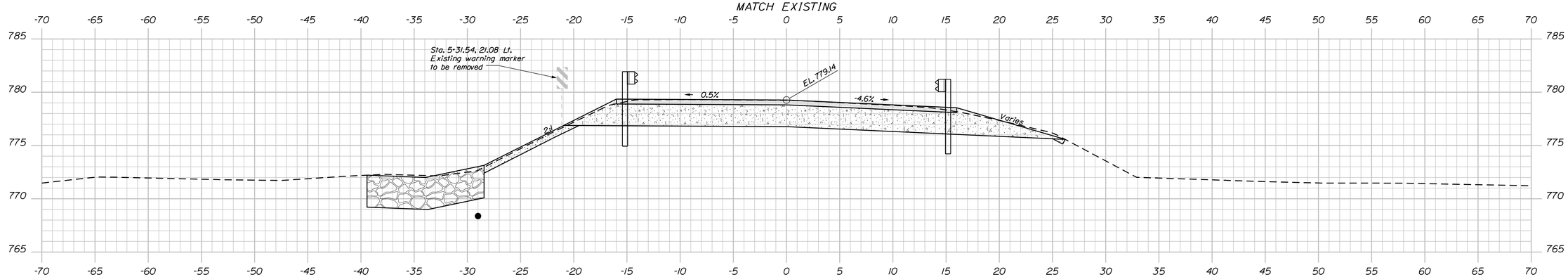
Sta. 4+50.00 to Sta. 5+00.00



5+75.00



5+50.00
END TRANSITION
MATCH EXISTING



5+25.00 END PROJECT
BEGIN TRANSITION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN
20508.00

BRIDGE NO. 3409

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	Steve Bodge		
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	OCT. 2013
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L.KRUSINSKI	T.WHITE	NOV. 2013
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

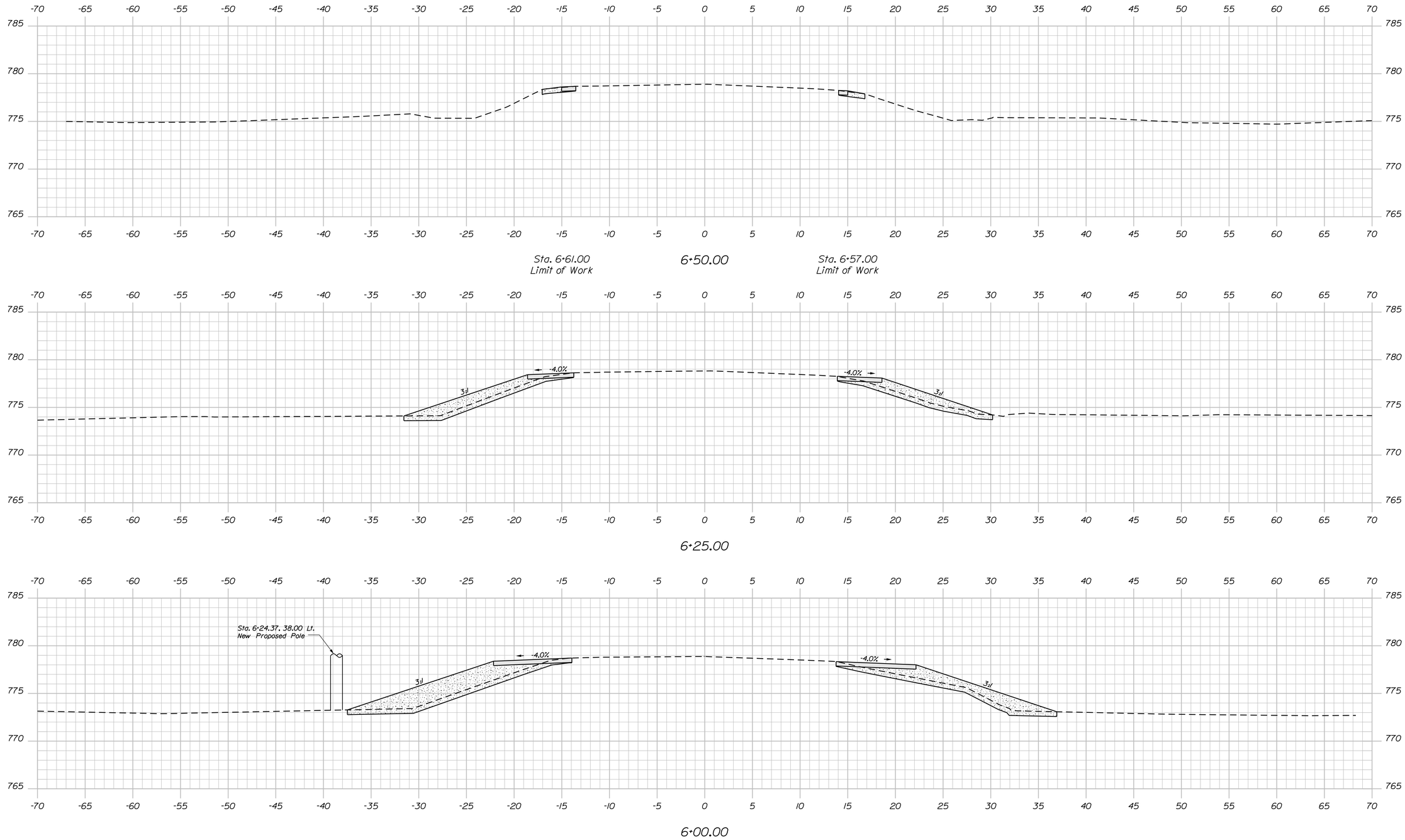
SEAMS BROOK BRIDGE
SEAMS BROOK
HERSEY AROOSTOOK COUNTY

CROSS SECTIONS

SHEET NUMBER
9
OF 14

Filename: ...\MSTA\009_XSECT_5+25_004.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

Sta. 5+25.00 to Sta. 5+75.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

BRIDGE PLANS

PROJ. MANAGER	Steve Bodge	BY	DATE
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	OCT. 2013
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L. KRUSINSKI	T. WHITE	NOV. 2013
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

SEAMS BROOK BRIDGE
SEAMS BROOK
AROOSTOOK COUNTY
HERSEY

CROSS SECTIONS

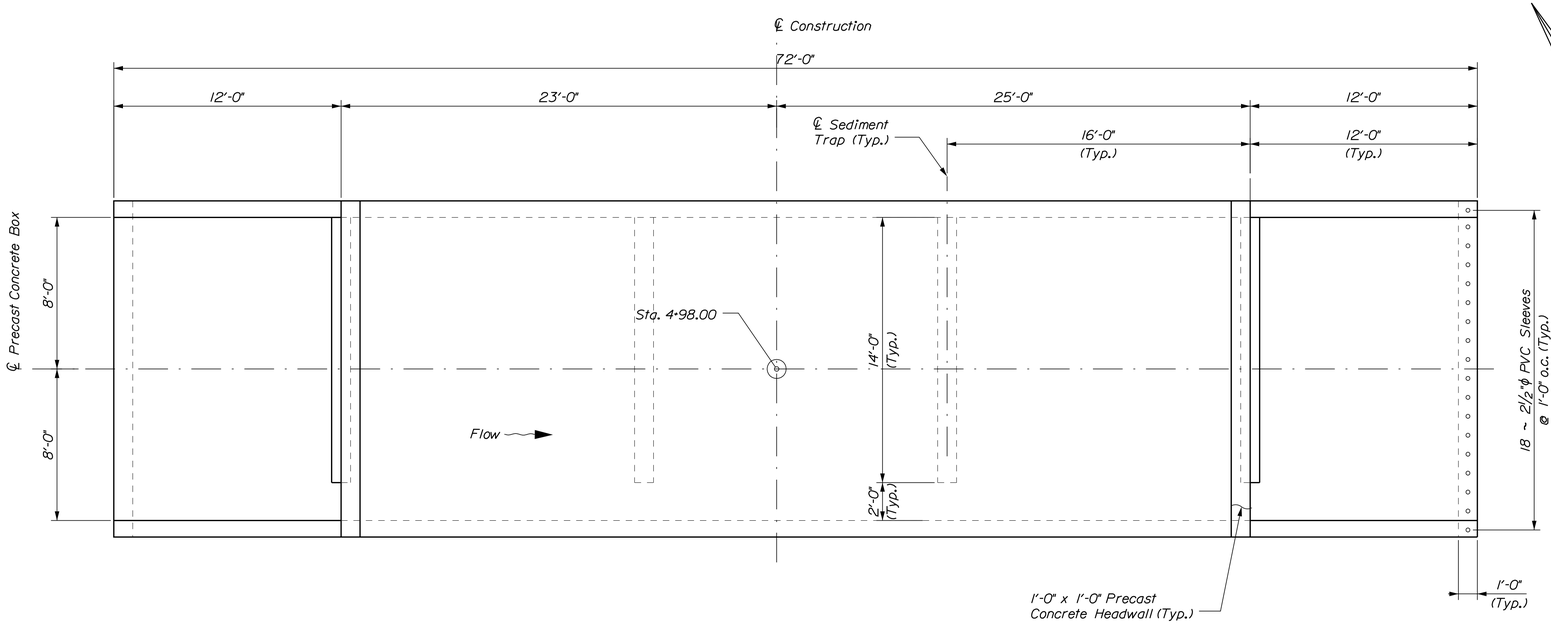
SHEET NUMBER

10

OF 14

Sta. 6+00.00 to Sta. 6+50.00

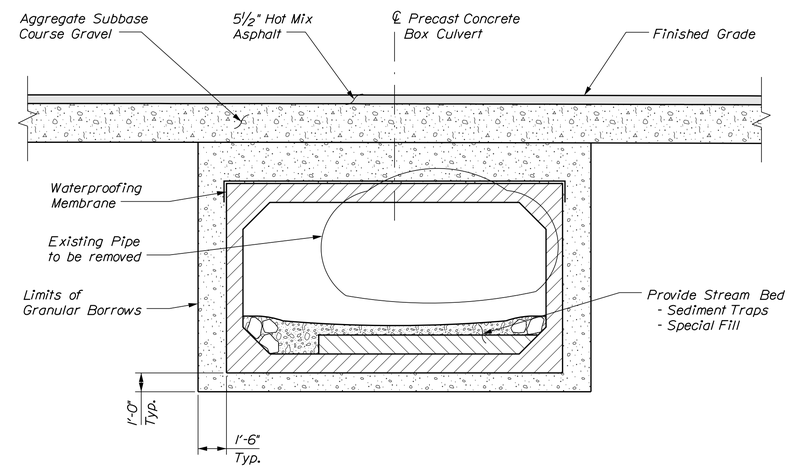
Filename: ...\MSTA\010_XSECT_6+00_005.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014



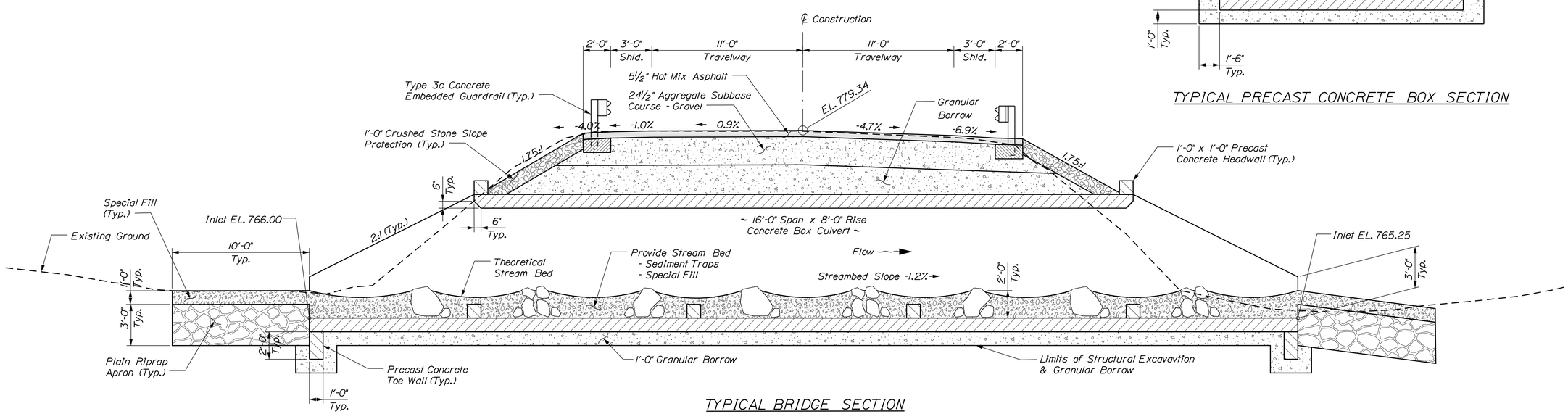
PRECAST CONCRETE BOX PLAN

PRECAST CONCRETE BOX NOTES:

1. The precast units shall be designed to carry construction loadings with a minimum fill cover of 18 inches over the top of the units.
2. The construction, handling, and assembly of the precast units shall be in accordance with Special Provisions Section 534, Precast Structural Concrete, and with the manufacturer's specifications as applicable.
3. Install standard membrane waterproofing over the top and to 12 inches down the exterior sides of the precast units.



TYPICAL PRECAST CONCRETE BOX SECTION



TYPICAL BRIDGE SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

BRIDGE PLANS

			DATE
PROJ. MANAGER	Steve Bodge	BY	
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	OCT. 2013
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L. KRUSINSKI	T. WHITE	NOV. 2013
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

SEAMS BROOK BRIDGE
SEAMS BROOK
AROOSTOOK COUNTY
HERSEY

PRECAST BOX PLANS

SHEET NUMBER

11

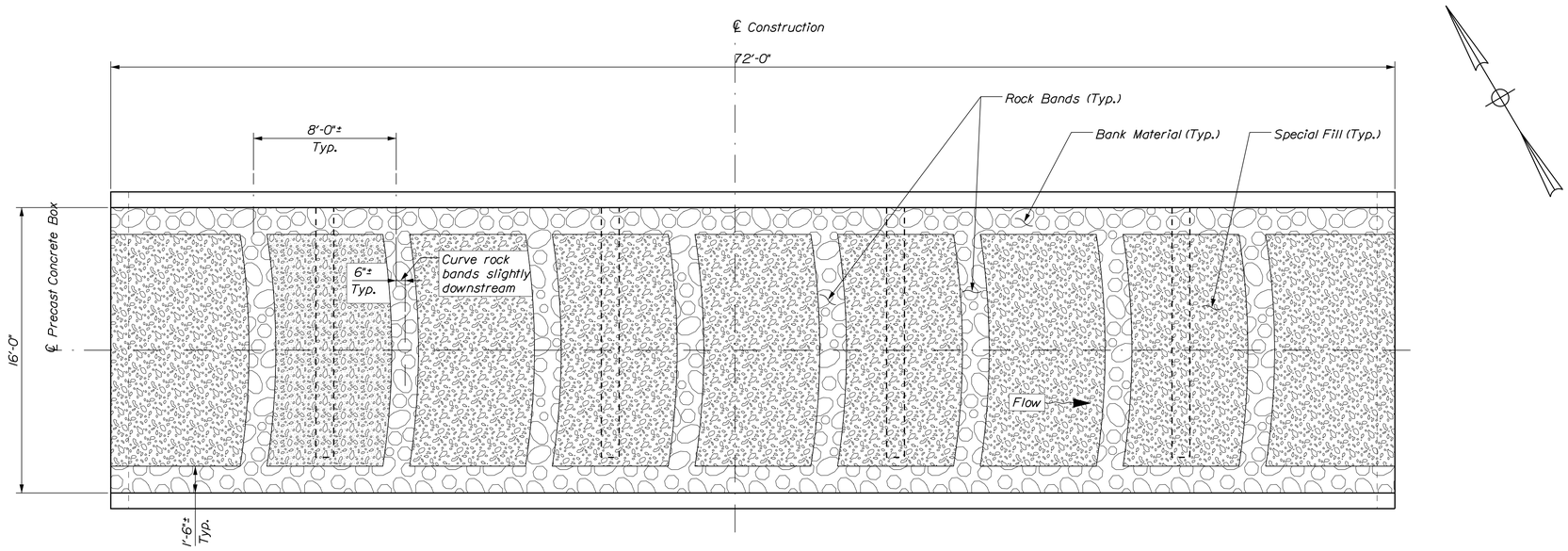
OF 14

Filename: ...\00\BRIDGE\MSTA\011_Box.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

NOTES:

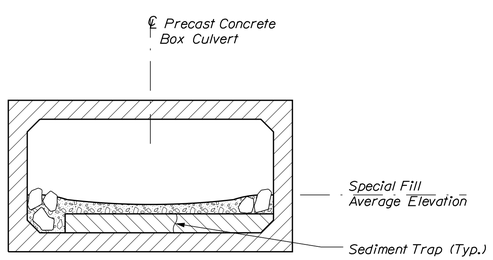
1. Rocks in bank material and rock bands shall be a minimum of 18 inches in the least dimension. Each rock band shall contain at least three (3) rocks of a minimum of 24 inches in the least dimension. Rocks shall not be more than 3 feet in the greatest dimension.

2 For 50-70% of the box width, the rock band shall extend 6 inches above the minimum height of 2 feet.

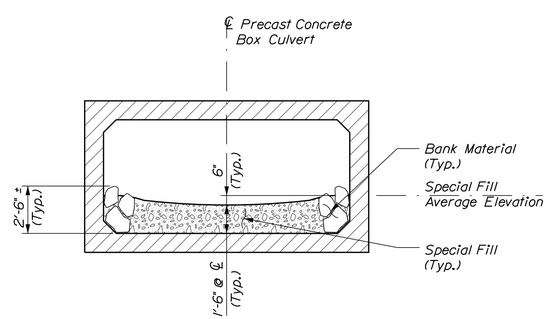


STREAMBED PLAN

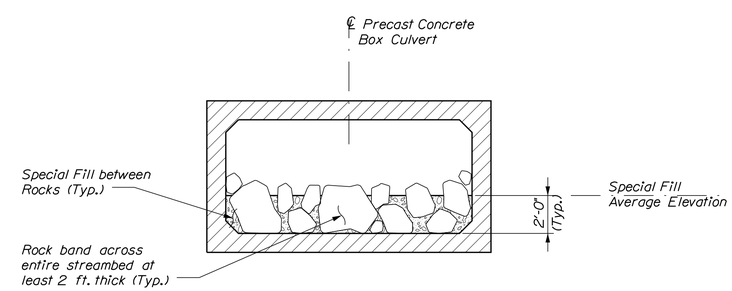
NOTE: For clarity only floor of box is shown



SEDIMENT TRAP SECTION



POOL SECTION



ROCK BAND SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	Steve Bodge		
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	OCT. 2013
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	L.KRUSINSKI	T.WHITE	NOV. 2013
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

SEAMS BROOK BRIDGE
SEAMS BROOK
AROOSTOOK COUNTY
HERSEY

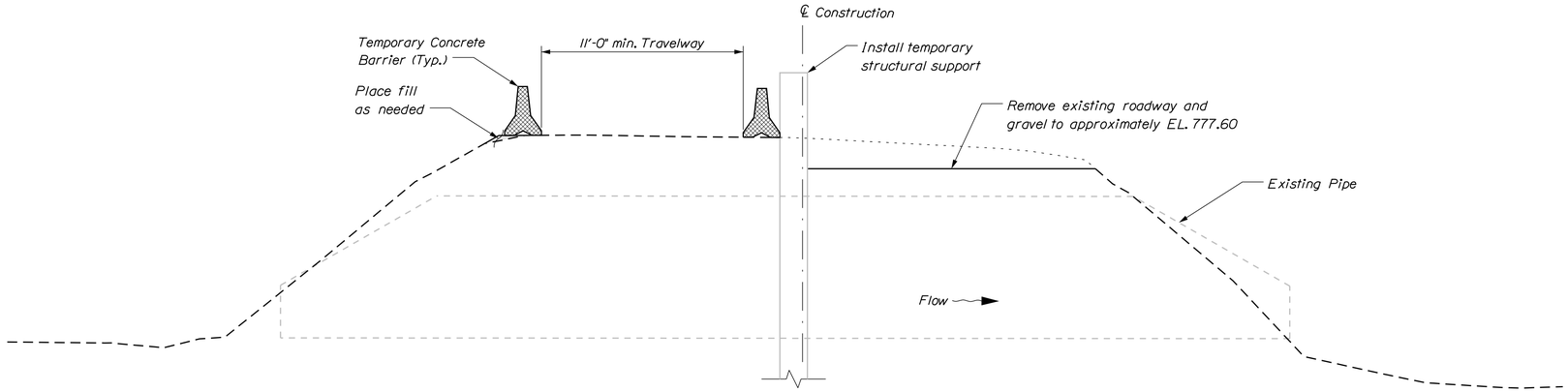
REBUILT STREAMBED DETAILS

SHEET NUMBER

12

OF 14

Filename: ...\MSTA\012_Rebuilt_Streambed.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014



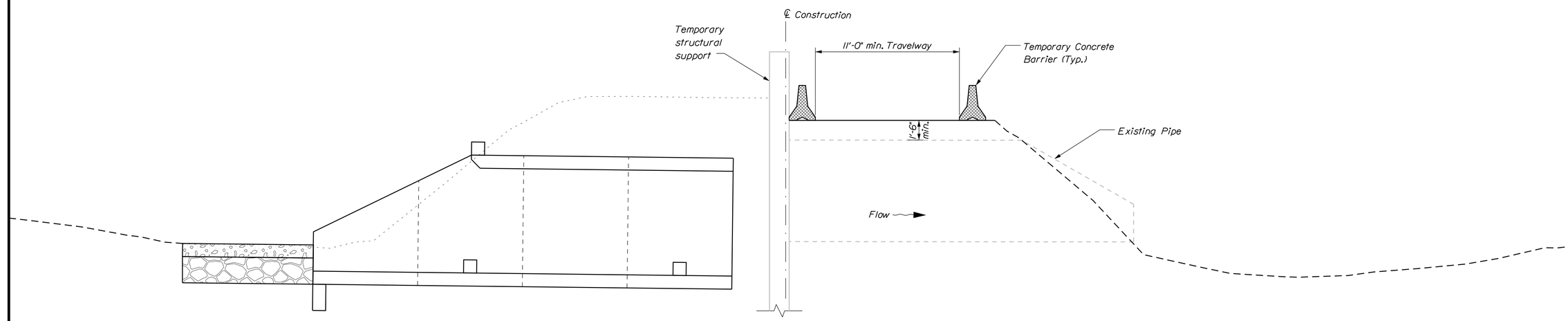
STAGE NO. 1

STAGE CONSTRUCTION NOTES:

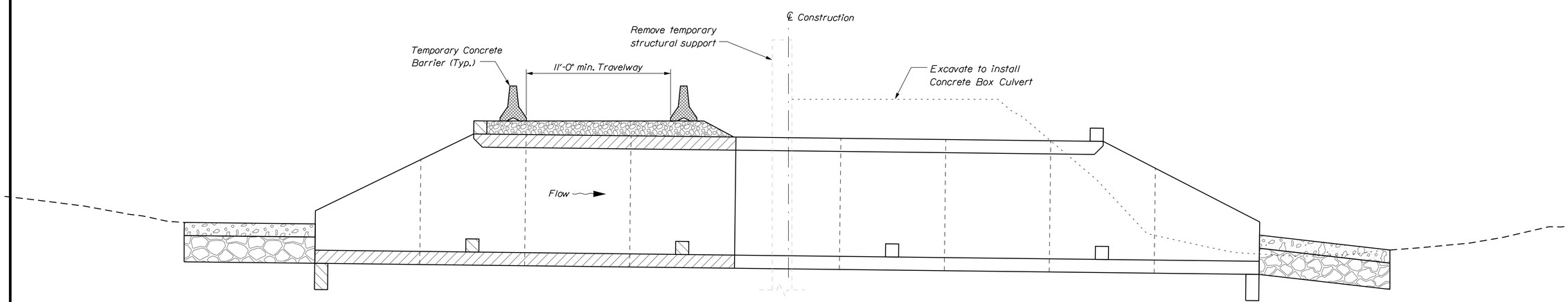
Stage 1 -
Maintain one 11'-0" min. wide lane of alternating traffic on upstream side using temporary concrete barriers and traffic signals. Install temporary structural support. Remove the downstream existing roadway to elevation 777.60.

Stage 2 -
Maintain one 11'-0" min. wide lane of alternating traffic on downstream side using temporary concrete barriers and traffic signals. Remove the upstream section of the existing pipe arch. Construct upstream portion of concrete box culvert.

Stage 3 -
Place 12± inches of temporary roadway gravel, provide one 11'-0" min. wide lane of alternating traffic using temporary concrete barriers and traffic signals over the newly installed concrete box culvert on upstream end. Remove remaining existing pipe arch. Construct downstream portion of concrete box culvert.



STAGE NO. 2



STAGE NO. 3

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-2050(800)

WIN 20508.00

BRIDGE NO. 3409

BRIDGE PLANS

PROJ. MANAGER	Steve Bodge	BY	DATE	
DESIGN-DETAILED	J. Hasbrouck	D. Sullivan	OCT. 2013	SIGNATURE
CHECKED-REVIEWED	-----	-----	-----	
DESIGN2-DETAILED2	L. KRUSINSKI	T. WHITE	NOV. 2013	P.E. NUMBER
DESIGN3-DETAILED3	-----	-----	-----	
REVISIONS 1	-----	-----	-----	DATE
REVISIONS 2	-----	-----	-----	
REVISIONS 3	-----	-----	-----	
REVISIONS 4	-----	-----	-----	
FIELD CHANGES	-----	-----	-----	

SEAMS BROOK BRIDGE
SEAMS BROOK
HERSEY AROOSTOOK COUNTY

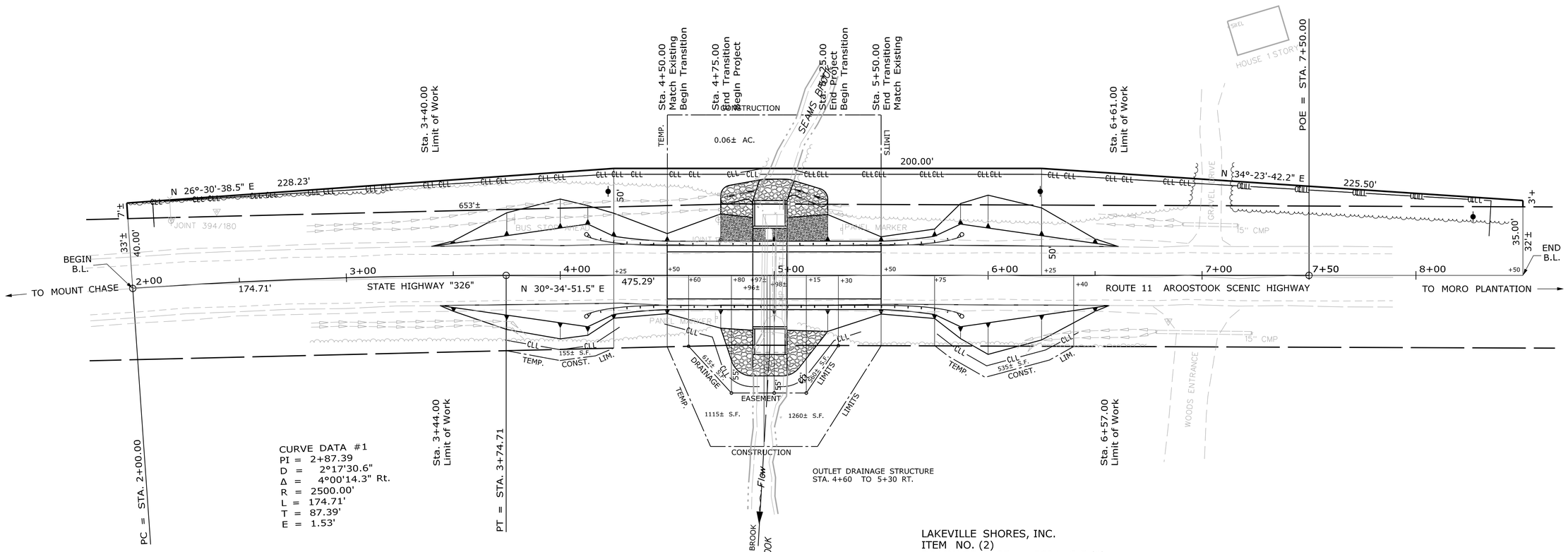
STAGE CONSTRUCTION PLANS

SHEET NUMBER
13
OF 14

Filename: ...\MSTA\013_StageConstr_1.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014

NOTE:
SUBJECT TO TERMS, CONDITIONS,RESTRICTIONS, AND EASEMENTS CONTAINED IN MEMORANDUM OF LEASE BETWEEN HERBERT C. HAYNES, INC. A/K/A H.C. HAYNES, INC. AND KING PINE WIND, LLC, DATED JULY 13, 2011 AND RECORDED IN BOOK 4981 PAGE 32 S.A.C.R.D.

HERBERT C. HAYNES, INC.
A/K/A H.C. HAYNES, INC.
PARCEL NO. (1)
LAND = 0.20± AC. (EASE. FOR HIGHWAY PURPOSES)
TEMP. CONST. RIGHTS = 0.06± AC. (1)
TOTAL AREA = 1459± AC. (PER OWNER)



JESSICA L. FEUTI
ITEM NO. (3)
DRAINAGE EASE. = 615± S.F. (1)
TEMP. CONST. RIGHTS = 1270± S.F. (2)
TOTAL AREA = 52.6± AC. (DEED)

LAKEVILLE SHORES, INC.
ITEM NO. (2)
DRAINAGE EASE. = 560± S.F.(1)
TEMP. CONST. RIGHTS = 1795± S.F. (2)
TOTAL AREA = 16, 866± AC. (DEED)

NOTE:
SUBJECT TO TERMS, CONDITIONS,RESTRICTIONS, AND EASEMENTS CONTAINED IN MEMORANDUM OF LEASE BETWEEN LAKEVILLE SHORES, INC. AND KING PINE WIND, LLC, DATED JULY 13, 2011 AND RECORDED IN BOOK 4981 PAGE 37 S.A.C.R.D.

NOTE:
SUBJECT TO TERMS, CONDITIONS,RESTRICTIONS, AND EASEMENTS CONTAINED IN MEMORANDUM OF LEASE BETWEEN LAKEVILLE SHORES, INC. AND KING PINE WIND, LLC, DATED JULY 13, 2011 AND RECORDED IN BOOK 4981 PAGE 37 S.A.C.R.D.

R/W REFERENCES
PENOBSCOT COUNTY
VOL. 2 PG 177
1837 (4 RODS)

SYMBOLS
- IP or ● IPF (IRON PIPE or PIN FOUND)
- S.T. (SEPTIC TANK)
- (ROW MONUMENT)
- BM (TRAVERSE POINT)
- WELL (WELL)
- GROUNDING UNIT LINE
- CONSERVATION LIMIT LINE
- PROPERTY LINE
- LIMITS OF VARIOUS RIGHT PORTION (L.O.V.R.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W		
PROP. LINES		
AREAS		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016

HERSEY
RIGHT OF WAY MAP

BRIDGE NO. 3409 — SEAMS BROOK BRIDGE OVER SEAMS BROOK — WIN 020508.00

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK		PAGE	COUNTY RECORD			
NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
		COND.	8/25/14	5340	1

DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE OF MAINE — PETER A. BELANGER 1341 — PROFESSIONAL LAND SURVEYOR

STATE HIGHWAY "326"
ROUTE 11/AROOSTOOK SCENIC HIGHWAY
HERSEY — AROOSTOOK COUNTY
FEDERAL AID PROJECT NO. STP-2050(800)

JUNE 2014 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 2-566
SCALE 1" = 25' | SHEET 1 OF 1

SHEET NUMBER
14
OF 14

Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn Division: BRIDGE Username: David.Sullivan Date:9/2/2014