STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ROQUE BLUFFS
WASHINGTON COUNTY
ENGLISHMAN RIVER BRIDGE
OVER
ENGLISHMAN RIVER
JOHNSON COVE ROAD
FEDERAL AID PROJECT NO. BR-1788(100)X
PROJECT LENGTH 0.128 mi.
BRIDGE NO. 3964

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Fourth Edition 2007 and Interim Specifications through 2012.

DESIGN LOADING

Live Load ..... HL - 93 Modified

TRAFFIC DATA

Current (2011) AADT	210
Future (2031) AADT	250
DHV - % of AADT	11
Design Hour Volume	28
Heavy Trucks (% of AADT)	5
Heavy Trucks (% of DHV)	4
Directional Distribution (% of DHV)	55
18 kip Equivalent P 2.0	5
18 kip Equivalent P 2.5	5
Design Speed (mph)	30

HYDROLOGIC DATA

Drainage Area	8.53 sq mi
Design Discharge (Q50)	725 cfs
Check Discharge (Q100)	840 cfs
Headwater Elevation (Q50)	6.85 ft
Headwater Elevation (Q100)	6.87 ft
Discharge Velocity (Q50)	7.52 fps
Discharge Velocity (Q100)	7.79 fps
Headwater Elevation (Q1.1)	6.81 ft
Discharge Velocity (Q1.1)	6.45 fps
Headwater Elevation (Q25)	6.84 ft
Mean Lower Low Water (MLLW)	-7.91 ft
Mean Low Water (MLW)	-7.49 ft
Mean Tide Level (MTL)	-0.58 ft
Mean High Water (MHW)	6.34 ft
Mean Higher High Water (MHHW)	6.80 ft
2014 Predicted High Tide	7.04 ft

MATERIALS

Concrete:	
Curbs and 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

BASIC DESIGN STRESSES

Concrete	f 'c = 4,350 psi
Precast Concrete	f 'c = 8,000 psi
	f 'ci = 6,000 psi
Reinforcing Steel	f y = 60,000 psi
Prestressing Strand	F μ = 270,000 psi

LIST OF DRAWINGS

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UTILITIES

Emera Maine
Fairpoint Communications

MAINTENANCE OF TRAFFIC

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

PROJECT LOCATION:	0.3 miles South of the intersection of Roque Bluffs Road and Johnson Cove Road. Latitude 44°36'36.13, Longitude 67°28'36.53
PROGRAM AREA:	Bridge
OUTLINE OF WORK:	Bridge replacement

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED — DATE
COMMISSIONER: 11/18/15
CHIEF ENGINEER: 11-17-15

STATE OF MAINE Robert L. Bulger 4410 LICENSED PROFESSIONAL ENGINEER
SIGNATURE: Robert L. Bulger
P.E. NUMBER: 4410
DATE: October 23, 2015

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	M. WIGHT
DESIGNER	R. BULGER
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 17881.00

BR-1788(100)X

ROQUE BLUFFS
ENGLISHMAN RIVER BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 20

Filename: \00\BRIDGE\MSTA\001_Title.dgn Division: BRIDGE Username: david.shaw Date:10/22/2015

Filename: ...\002_General_Construction_Notes_&_Estimated_Quantities.dgn Username: david.shaw Date:11/17/2015

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	765	CY
203.35	CRUSHED STONE FILL	17	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	1630	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	201	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	322	T
409.15	BITUMINOUS TACK COAT - APPLIED	61	G
501.235	ACOUSTIC MONITOR	5	CD
510.10	SPECIAL DETOUR 12 FT. ROADWAY VEH. & PED. TRAFFIC NOT SEP.	1	LS
526.301	TEMPORARY CONCRETE BARRIER TYPE I (480 LF)	1	LS
527.34	WORK ZONE CRASH CUSHIONS	5	UN
531.51	BRIDGE STRUCTURE - DETAIL BUILD	1	LS
606.1721	BRIDGE TRANSITION - TYPE I	4	EA
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	625	LF
606.232	GUARDRAIL TYPE 3C - OVER 15 FOOT RADIUS	25	LF
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
606.78	LOW VOLUME GUARDRAIL END - TYPE 3	4	EA
609.31	CURB TYPE 3	42	LF
610.16	HEAVY RIPRAP	1670	CY
610.18	STONE DITCH PROTECTION	16	CY
613.319	EROSION CONTROL BLANKET	70	SY
615.07	LOAM	90	CY
618.14	SEEDING METHOD NUMBER 2	15	UN
619.1201	MULCH - PLAN QUANTITY	15	UN
619.1401	EROSION CONTROL MIX	180	CY
620.58	EROSION CONTROL GEOTEXTILE	1950	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	2325	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	HR
631.15	ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	10	HR
631.16	ROLLER, PAVEMENT (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	20	HR
639.18	FIELD OFFICE TYPE A	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.312	TYPE III BARRICADE	6	EA
652.33	DRUM	12	EA
652.34	CONE	12	EA
652.35	CONSTRUCTION SIGNS	400	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (120 CD)	1	LS
652.38	FLAGGER	200	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. 13.0 shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.

7. Place riprap on sideslopes as shown on the cross sections.

8. Construct the riprap shelf at each abutment no higher than EL. 10.8.

9. 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 No. 304.10, Aggregate Subbase Course - Gravel.

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

11. 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.

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

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. A Low Volume Guardrail End shall be installed concurrently with the placement of each section of beam guardrail.

GENERAL CONSTRUCTION NOTES - Continued

15. 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.

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

All exposed surfaces of concrete curbs and sidewalks,
Fascias down to the drip notch,
All exposed surfaces of Concrete Transition Barriers,
Top of abutment backwalls and to one foot below the top of backwalls on the back side.

17. Repositioning the existing boulders around Stations 16+60 to 17+75 Rt. will be considered incidental to related Contract Items.

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

19. 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. All of the existing steel piles for both piers on the existing bridge have been encased in concrete. The concrete encasement is not show on the original bridge plans.

20. 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.

21. The project geotechnical report titled: Geotechnical Design Report for the Replacement of Englishman River Bridge, Johnson Cove Road over Englishman River, Roque Bluffs, Maine, Soils Report No. 2015-11 dated May 22, 2015, may be accessed at the MaineDOT web address.

22. 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.

23. 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.

24. The Contractor shall submit a Bridge Demolition Plan to the Resident at least 10 business days prior to the start of 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 the 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.

25. The existing bridge shall be removed by and become the property of the Contractor. The steel portions of the existing bridge are coated with a lead-based paint system. The Contractor is responsible for the containment, proper management and disposal of all lead-contaminated hazardous waste generated by the process of demolishing the bridge. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. 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 Pay Item No. 531.51, Bridge Structure - Detail Build pay item.

26. The remains of some timber cribbing is visible at low tide in the area located immediately upstream of the existing bridge where the temporary detour will be located. The limits of this timber cribbing are not known

ABUTMENT NOTES

1. Substructure elements shown on these plans are for illustration purposes only. The final design and exact location is the responsibility of the Engineer of Record.

2. Reinforcing steel shall have a minimum concrete cover of 2 inches in the walls and 3 inches in any footings.

3. For conventional abutments, place 4-in. diameter drains in the breastwall and wingwalls at 10-ft maximum spacing. The exact location will be determined by the Resident.

4. When butted precast box beam or slab type superstructures are used, the parapet portions of the wingwalls shall be placed after erection of the precast units to ensure an accurate match with the superstructure.

5. When Transition Barriers are constructed on return wingwalls, the Contractor shall install Transition Barrier vertical closed stirrups, as shown in Standard Details Section 526, prior to the placement of the curb concrete and shall provide 3 additional stirrups in the curbs at each Transition Barrier location.

6. Cover joints where waterstops are not required in accordance with Standard Details Section 502.

7. Construct French Drains behind the abutments and wingwalls in accordance with Standard Specifications Section 512, French Drains.

8. Abutments, wingwalls and their footings shall be backfilled with Granular Borrow, Underwater Backfill. Limits will be the structural excavation limits in cut areas and a vertical plane located 10 feet behind the walls in fill areas.

PILE NOTES

1. The maximum factored pile load shall be determined by the Engineer of Record and shall be determined based on pile type and conditions.

2. H-pile material shall be ASTM A 572, Grade 50.

3. All piles shall be equipped with a pile tip in accordance with Standard Specifications Section 711.10, H-Beam Piles, Splices, and Tips.

4. Integral abutment piles shall not be out of position by more than 2 inches in any direction (6 inches for conventional abutments). Exact pile locations to be determined by the project detail build engineer.

5. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 45 KSI (0.90 times Fy). The submittal analyses shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system. The stopping criteria shall include the blows per inch and the number of 1-in. intervals at which pile installation may be terminated. The cost of performing the wave equation analysis will be considered incidental to Item No. 531.51, Bridge Structure, Detail Build.

6. The Contractor shall perform 2 dynamic load test(s) to confirm the ultimate capacity of the piles. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. The dynamic test shall be performed on the first production pile driven at each abutment.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964 BRIDGE PLANS

SIGNATURE

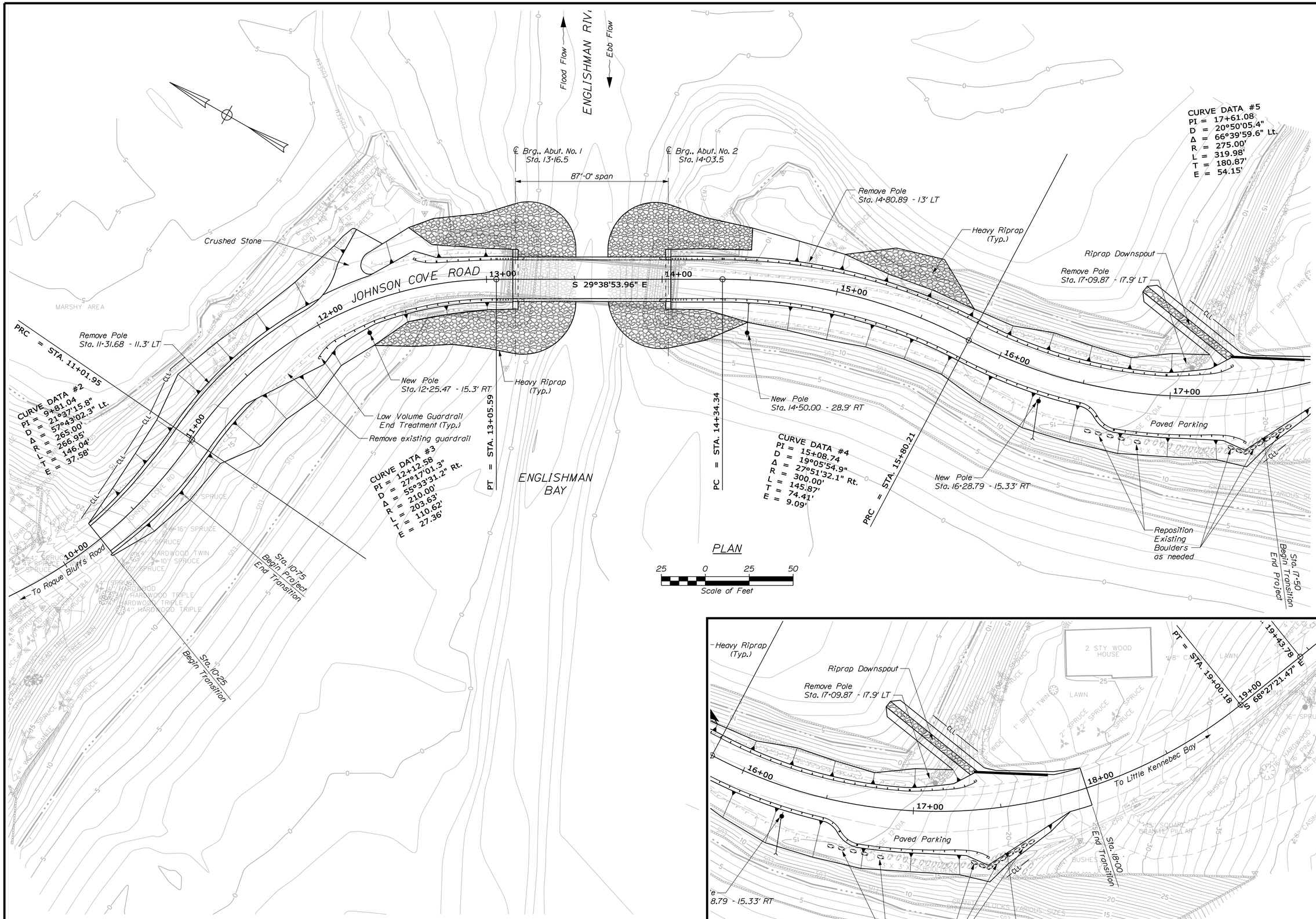
P.E. NUMBER

DATE

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED	M. POULIN		
DESIGN2-DETAILED2	B.SLAVEN	T.WHITE	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

GENERAL CONSTRUCTION NOTES AND ESTIMATED QUANTITIES



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

PIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

PROJ. MANAGER	S. BODGE	BY	DATE
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED			
DESIGN2-DETAILED2	B.SLAVEN	T. WHITE	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

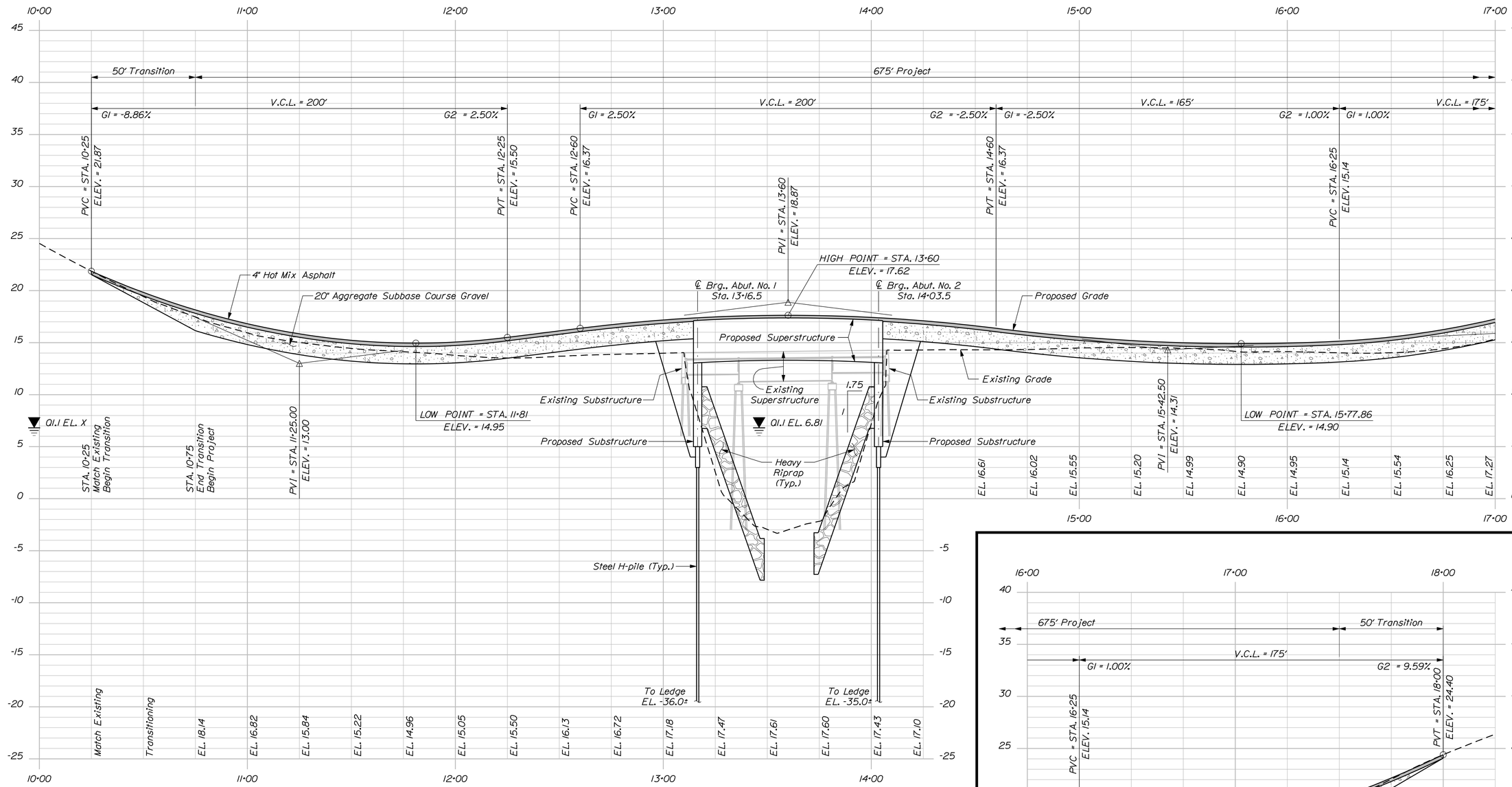
GENERAL PLAN

SHEET NUMBER

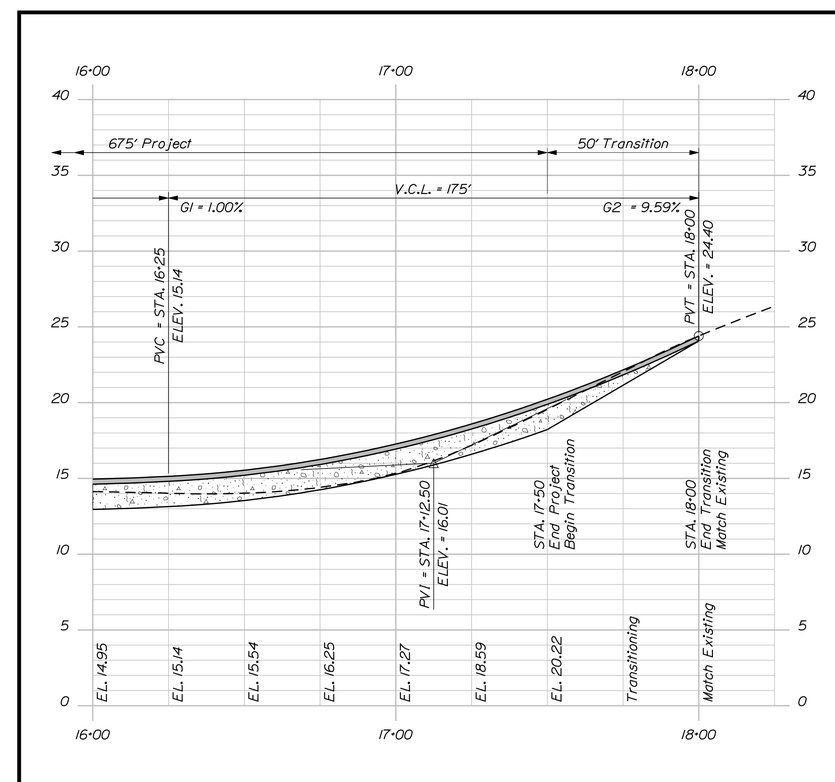
3

OF 20

Filename: ...\msta\003_General_Plan.dgn Division: BRIDGE Username: david.shaw Date:11/2/2015



PROFILE



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

PROJ. MANAGER	S. BOOGE	BY	DATE
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED		T. WHITE	
DESIGN2-DETAILED2	B.SLAVEN		
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

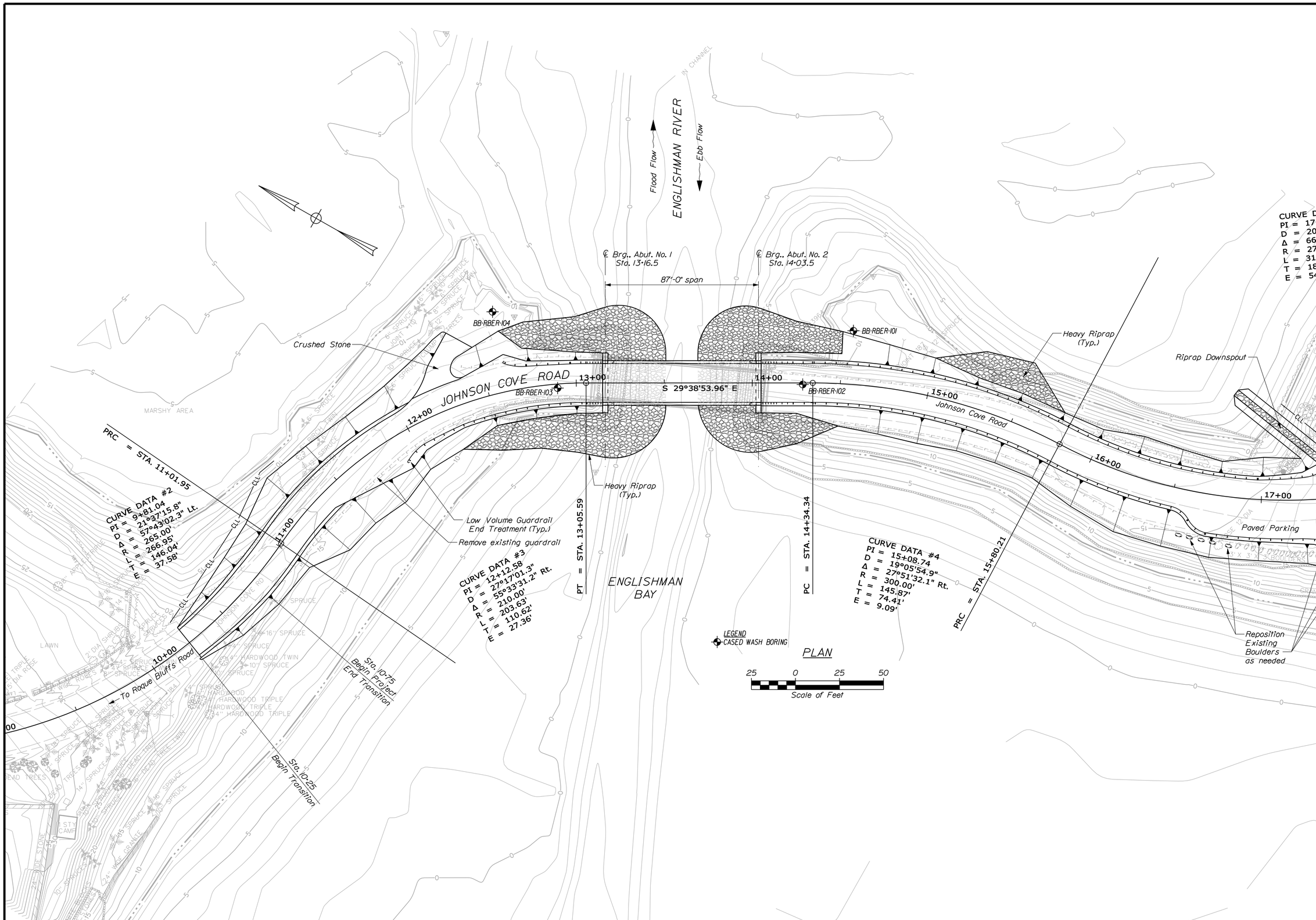
PROFILE

SHEET NUMBER

4

OF 20

Filename: ...\00\bridge\msto\004_Profile.dgn Division: BRIDGE Username: david.shaw Date:11/2/2015



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

PIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	M.WIGHT	
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2	B.SLAVEN	
DESIGN3-DETAILED3	T.WHITE	MAY 2015
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

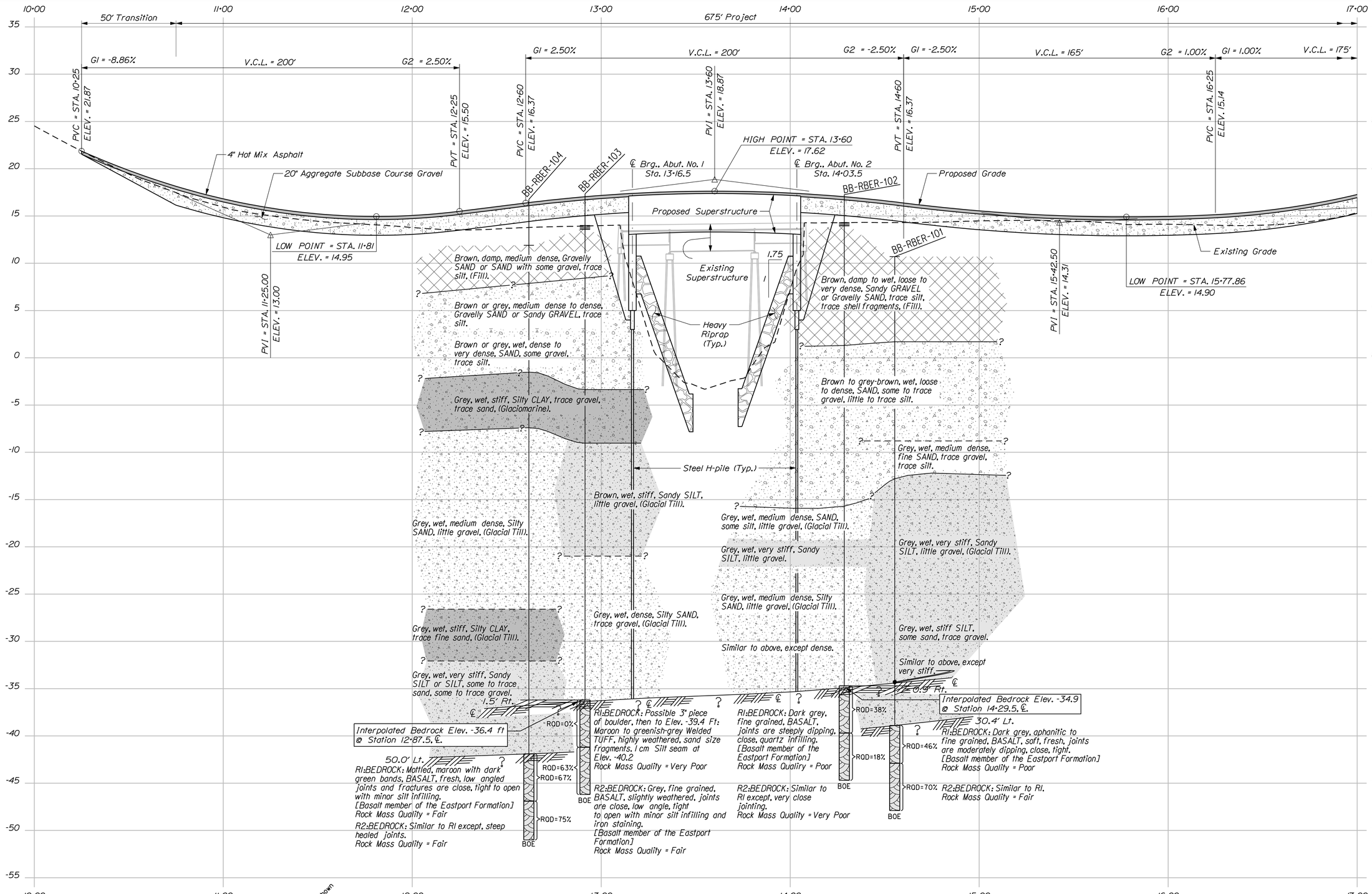
BORING LOCATION PLAN

SHEET NUMBER

5

OF 20

Filename: ...\00\GEOTECH\MSTA\005_BLP1.dgn Division: BRIDGE Username: david.show Date:11/2/2015



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

BR-1788(100)X

PIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	M.WIGHT		
DESIGN-DETAILED			
CHECKED-REVIEWED			
DESIGN2-DETAILED2	B.SLAVEN	T.WHITE	MAY 2015
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

6

OF 20

Filename: ...\00\GEOTECH\MSTA\006_ISP1.dgn Division: BRIDGE Username: david.show Date:11/2/2015

Filename: ...\MSTA\007_BORING LOGS1.dgn   Division: BRIDGE   Username: david.shaw   Date:11/2/2015

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

Project: Englishman River Bridge #3964 carries Johnson Cove Road over
Location: Roque Bluffs, Maine

Boring No.: BB-RBER-104
WIN: 17881.00

Driller:	Northern Test Boring	Elevation (ft.)	11.9	Auger ID/OD:	Hollow Stem 2 57/64 57/64
Operator:	Mike/Derreck	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	Diedrich D50 Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	9/13/11-9/14/11	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	12+61.7, 50.0 ft Lt.	Casing ID/OD:	HW	Water Level*:	8.5 ft bgs.
Hammer Efficiency Factor: 0.783		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	S1		0.00 - 4.00				HSA	11.50		Cobbles from 0.0-0.4 ft bgs. Sample S1 from auger flights.	
										0.40 Brown, damp, fine to coarse SAND, some gravel, trace silt, (Fill).	
								7.90		4.00	
5	1D	24/10	5.00 - 7.00	14/7/6/5	13	17				Brown, moist, medium dense, Gravelly SAND, trace silt.	G#261833 A-1-a, SP WC=2.1%
10	2D	24/16	10.00 - 12.00	14/11/16/18	27	35				Brown, moist, dense, Sandy GRAVEL, trace silt.	G#261834 A-1-a, GW-GM WC=9.7%
								-1.60		13.50	
15	3D	24/18	15.00 - 17.00	3/4/4/6	8	10	16			Grey, wet, stiff, Silty CLAY, trace fine sand, (Glaciomarine). Dropped in HW Casing at 15.0 ft bgs.	G#261835 A-6, CL WC=22.9% LL=31 PL=14 PI=17
							30				
							43				
							91	-6.60		18.50	
							123				
20	4D	24/14	20.00 - 22.00	7/5/11/10	16	21	OPEN HOLE			Grey, wet, medium dense, Silty fine to coarse SAND, little gravel, (Glacial Till). Roller Coned ahead to 25.0 ft bgs.	
25	5D	24/19	25.00 - 27.00	6/7/15/11	22	29				Similar to above. Roller Coned ahead to 30.0 ft bgs.	G#261836 A-4, SM WC=8.8%
30	6D	24/20	30.00 - 32.00	8/6/8/6	14	18				Similar to above. Roller Coned ahead to 35.0 ft bgs.	
35	MD	24/0	35.00 - 37.00	6/7/8/11	15	20				Failed sample attempt, similar to above in wash water. Roller Coned ahead to 40.0 ft bgs.	
								-26.10		38.00	
40	7D	24/24	40.00 - 42.00	4/4/4/7	8	10				Grey, wet, stiff, Silty CLAY, trace fine sand, (Glacial Till).	G#261837 A-6, CL WC=27.2% LL=35 PL=18 PI=17
								-32.10		44.00	
45	8D	24/24	45.00 - 47.00	6/6/6/8	12	16				Grey, wet, very stiff, Sandy SILT, trace gravel, (Glacial Till).	
50	9D	24/13	50.00 - 52.00	8/10/12/20	22	29				Grey, wet, very stiff, SILT, some sand, some gravel.	G#261838 A-4, SM WC=15.2%
	R1	60/60	53.80 - 58.80	RQD = 67%			NQ-2	-41.90		53.80 Top of Bedrock at Elev. -41.9 ft. R1:Bedrock: Mottled maroon with dark green bands, BASALT, fresh, low angle joints and fractures are close, tight to open with minor silt infilling. Basalt member of the Eastport Formation. Rock Mass Quality = Fair R1:Core Times (min:sec) 53.8-54.8 ft (4:00) 54.8-55.8 ft (3:00) 55.8-56.8 ft (2:45) 2" soft layer of rock 56.8-57.8 ft (3:30) 57.8-58.8 ft (4:30) 100% Recovery	
55											
	R2	49.2/47	58.80 - 62.90	RQD = 75%						R2:Bedrock: Similar to above except steep healed joints. Rock Mass Quality = Fair R2:Core Times (min:sec) 58.8-59.8 ft (4:30) 59.8-60.8 ft (4:00) 60.8-61.8 ft (4:15) 61.8-62.8 ft (4:30) 62.8-62.9 ft (2:00) 96% Recovery Core Blocked	
60								-51.00		62.90 Bottom of Exploration at 62.90 feet below ground surface.	
65											
70											
75											

Remarks:
Auto Hammer #185

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-RBER-104

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

Project: Englishman River Bridge #3964 carries Johnson Cove Road over
Location: Roque Bluffs, Maine

Boring No.: BB-RBER-103
WIN: 17881.00

Driller:	MaineDOT	Elevation (ft.)	14.0	Auger ID/OD:	5" Solid Stem
Operator:	Giguere/Giles/Daggett	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	7/26/11; 07:30-16:00	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	12+91.4, 1.5 ft Rt.	Casing ID/OD:	HW & NW	Water Level*:	None Observed
Hammer Efficiency Factor: 0.84		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	13.58		5" PAVEMENT.	
										0.42 Brown, damp, medium dense, Gravelly SAND, (Fill).	
	1D	20.4/13	1.00 - 2.70	5/7/4/40(2.4")	11	15					
5	2D	24/16	4.50 - 6.50	18/23/36/18	59	83	SPUN			Spun Casing ahead to 50.2 ft bgs. Grey-brown, wet, very dense, Gravelly SAND, trace silt.	
								5.50		8.50 Grey, wet, dense, Gravelly SAND, trace silt.	
10	3D	21.6/9	9.00 - 10.80	6/11/11/50(3.6")	22	31					
15	4D	24/16	14.50 - 16.50	6/16/23/45	39	55				Grey, wet, very dense, SAND, some gravel, trace silt. Changed to NW Casing at 15.0 ft bgs.	G#261828 A-1-a, SP WC=12.7%
								-3.00		17.00	
20	5D	24/14	19.00 - 21.00	2/4/4/16	8	11				Grey, wet, stiff, Silty CLAY, trace gravel, trace sand, (Glaciomarine).	G#261829 A-6, CL WC=21.6% LL=33 PL=19 PI=14
								-8.50		22.50	
25	6D	24/20	24.00 - 26.00	4/5/5/7	10	14				Brown, wet, stiff, Sandy SILT, little gravel, (Glacial Till).	G#261830 A-4, SM WC=13.3%
30	7D	24/20	29.00 - 31.00	3/4/6/7	10	14				Grey, wet, stiff, Sandy SILT, little gravel.	G#261831 A-4, SM WC=10.5%
35	8D	24/2	34.00 - 36.00	5/5/5/6	10	14				Similar to above.	
40	9D	24/18	39.00 - 41.00	9/12/12/15	24	34				Grey, wet, dense, Silty SAND, trace gravel, (Glacial Till).	G#261832 A-4, SM WC=11.5%
45	10D	24/14	44.00 - 46.00	10/15/8/13	23	32				Similar to above.	
50	11D	14.4/12	49.00 - 50.20	9/16/50(2.4")	---					Similar to above.	
	R1	60/55	50.20 - 55.20	RQD = 0%			NQ-2	-36.20		50.20 Top of Bedrock at Elev. -36.2 ft. R1:Bedrock: Possible 3" boulder fragment at top, then to Elev -39.4 ft.: Maroon to greenish-grey, Welded TUFF, highly weathered, with one zone of sand-sized fragments. Lower 22" is greenish gray and mottled. 1 cm silt seam at Elev. -40.2 ft. Rock Mass Quality = Very Poor R1:Core Times (min:sec) 50.2-51.2 ft (3:00) 51.2-52.2 ft (3:00) 52.2-53.2 ft (3:30) 53.2-54.2 ft (4:10) 54.2-55.2 ft (5:05) 92% Recovery	
55	R2	60/60	55.20 - 60.20	RQD = 63%						R2:Bedrock: Grey, fine grained, BASALT, slight weathering, joints are low angled, close, tight to open with minor silt infilling and iron staining. Basalt member of the Eastport Formation. Rock Mass Quality = Fair R2:Core Times (min:sec) 55.2-56.2 ft (3:40) 56.2-57.2 ft (4:00) 57.2-58.2 ft (3:50) 58.2-59.2 ft (5:35) 59.2-60.2 ft (4:20) 100% Recovery	
60								-46.20		60.20 Bottom of Exploration at 60.20 feet below ground surface.	
65											
70											
75											

Remarks:

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-RBER-103

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

Project: Englishman River Bridge #3964 carries Johnson Cove Road over
Location: Roque Bluffs, Maine

Boring No.: BB-RBER-102
WIN: 17881.00

Driller:	MaineDOT	Elevation (ft.)	14.3	Auger ID/OD:	5" Solid Stem
Operator:	Giguere/Giles/Daggett	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	9/12/11-9/13/11	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	14+28.6, 0.9 ft Rt.	Casing ID/OD:	HW & NW	Water Level*:	None Observed
Hammer Efficiency Factor: 0.84		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	13.97		4" PAVEMENT.	
										0.33 Brown, damp, medium dense, Gravelly SAND, trace silt, (Fill).	G#261773 A-1-a, SW WC=1.7%
	1D	24/12	1.00 - 3.00	5/7/5/7	12	17					
5	2D	24/14	5.00 - 7.00	13/15/19/20	34	48	55			Brown, wet, dense, Gravelly SAND, trace silt. Start of HW Casing at 5.0 ft bgs.	G#261774 A-1-a, SW-SM WC=7.9%
							95				
							78				
							59				
							50				
10	3D	24/7	10.00 - 12.00	7/7/9/13	16	22	55			Similar to above, except medium dense, shell fragments (Reworked Native Soils, Fill).	
							75				
							89				
							139	1.30		13.00	
							125				
15	4D	24/12	15.00 - 17.00	11/15/11/11	26	36	145			Grey-brown, wet, dense, SAND, some fine gravel, trace silt.	
							127				
							71				
							61				
							49				
20	5D	24/9	20.00 - 22.00	3/1/3/6	4	6	31			Grey-brown, wet, loose, SAND, some fine gravel, little silt, shells.	G#261775 A-1-b, SW-SM WC=18.0%
							37				
							50				
							63				
							41				
25	6D	24/5	25.00 - 27.00	3/4/6/5	10	14	47			Brown, wet, medium dense, fine to coarse SAND, some gravel, trace silt. Changed to NW Casing at 25.0 ft bgs.	
							32				
							26				
							37				
							22				
30	7D	24/9	30.00 - 32.00	11/5/9/2	14	20	67	-16.20		30.50 Grey, wet, medium dense, SAND, some silt, little gravel, (Glacial Till).	G#261826 A-2-4, SM WC=19.5%
							55				
							61				
							79				
							85				
35	8D	24/17	35.00 - 37.00	16/7/6/6	13	18	48			Grey, wet, very stiff, Sandy SILT, little gravel.	G#261827 A-4, SM WC=11.2%
							53				
							37				
							268				
							61				
40	9D	24/5	40.00 - 42.00	5/9/8/7	17	24	73			Grey, wet, medium dense, Silty SAND, little gravel.	
							68				
							67				
							55				
							61				
45	10D	24/12	45.00 - 47.00	9/13/9/10	22	31	57			Similar to above. Except dense.	
							61				
							62				
							89				
	R1	60/60	49.00 - 54.00	RQD = 38%			NQ-2	-34.70		49.00 Top of Bedrock at Elev. -34.7 ft. R1:Bedrock: Dark grey, fine grained, BASALT, joints are steeply dipping, close, with Quartz infilling. Basalt member of the Eastport Formation. Rock Mass Quality = Poor R1:Core Times (min:sec) 49.0-50.0 ft (3:30) 50.0-51.0 ft (3:35) 51.0-52.0 ft (3:00) 52.0-53.0 ft (3:50) 53.0-54.0 ft (3:50) 100% Recovery	
50											
	R2	60/60	54.00 - 59.00	RQD = 18%						R2:Bedrock: Similar to above except very close jointing. Rock Mass Quality = Very Poor R2:Core Times (min:sec) 54.0-55.0 ft (3:00) 55.0-56.0 ft (3:45) 56.0-57.0 ft (3:40) 57.0-58.0 ft (5:10) 58.0-59.0 ft (5:30) 100% Recovery	
55											
								-44.70		59.00 Bottom of Exploration at 59.00 feet below ground surface.	
60											
65											
70											
75											

Remarks:

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-RBER-102

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

Project: Englishman River Bridge #3964 carries Johnson Cove Road over
Location: Roque Bluffs, Maine

Boring No.: BB-RBER-101
WIN: 17881.00

Driller:	Northern Test Boring	Elevation (ft.)	10.7	Auger ID/OD:	Hollow Stem 2 57/64 57/64
Operator:	Mike/Derreck	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	Diedrich D50 Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	9/12/11-9/13/11	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	14+55.3, 30.4 ft Lt.	Casing ID/OD:	HW	Water Level*:	8.0 ft bgs.
Hammer Efficiency Factor: 0.783		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	1D	24/5	0.00 - 2.00	1/2/2/2	4	5	HSA	10.50		Topsoil, (Sod).	
										0.20 Brown, damp, loose, fine to coarse SAND, trace silt, trace gravel.	
								8.70		2.00	
5	2D	24/16	5.00 - 7.00	15/18/24/23	42	55				Brown, damp, very dense, Sandy GRAVEL, trace silt, (Fill).	G#261768 A-1-a, GW WC=3.5%
								1.70		9.00	
10	3D	24/13	10.00 - 12.00	8/11/12/17	23	30				Brown, wet, medium dense, Gravelly SAND, trace silt.	G#261772 A-1-a, SW WC=12.65%
15	4D	24/15	15.00 - 17.00	5/7/8/13	15	20				Similar to above.	
								-8.80		19.50	
20	5D	24/17	20.00 - 22.00	5/7/7/6	14	18				Grey, wet, medium dense, fine SAND, trace gravel, trace silt. Dropped in HW Casing at 21.0 ft bgs.	G#261769 A-3, SP-SM WC=24.8%
							62				
							70				
							72	-12.80		23.50	
							80				
25	6D	24/18	25.00 - 27.00	7/7/8/8	15	20	OPEN HOLE			Grey, wet, very stiff, Sandy SILT, little gravel, (Glacial Till). Roller Coned ahead to 30.0 ft bgs.	G#261770 A-4, SC-SM WC=10.4%
30	7D	24/20	30.00 - 32.00	8/10/11/13	21	27				Similar to above. Roller Coned ahead to 35.0 ft bgs.	
35	8D	24/14	35.00 - 37.00	7/8/8/9	16	21				Similar to above. Roller Coned ahead to 40.0 ft bgs.	
40	9D	24/24	40.00 - 42.00	4/4/5/5	9	12				Grey, wet, stiff, SILT, some sand, trace gravel. Roller Coned ahead to 45.0 ft bgs.	G#261771 A-4, CL-ML WC=17.5%
45	10D	24/15	45.00 - 47.00	5/6/10/17	16	21				Similar to above, except very stiff. Roller Coned ahead to 49.6 ft bgs.	
	R1	48/48	49.60 - 53.60	RQD = 46%			NQ-2	-38.90		49.60 Top of Bedrock at Elev. -38.9 ft. R1:Bedrock: Dark grey, aphanitic to fine grained, BASALT, soft, fresh, joints are moderately dipping, close, tight. Basalt member of the Eastport Formation. Rock Mass Quality = Poor R1:Core Times (min:sec) 49.6-50.6 ft (6:00) 50.6-51.6 ft (8:00) 51.6-52.6 ft (6:00) 52.6-53.6 ft (4:00) 100% Recovery	
50											
	R2	60/60	53.60 - 58.60	RQD = 70%						R2:Bedrock: Similar to above. Rock Mass Quality = Fair R2:Core Times (min:sec) 53.6-54.6 ft (6:30) 54.6-55.6 ft (5:00) 55.6-56.6 ft (5:30) 56.6-57.6 ft (5:00) 57.6-58.6 ft (5:30) 100% Recovery	
55											
								-47.90		58.60 Bottom of Exploration at 58.60 feet below ground surface.	
60											
65											
70											
75											

Remarks:
Auto Hammer #185

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.
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Page 1 of 1
Boring No.: BB-RBER-101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

BRIDGE PLANS

PIN 17881.00

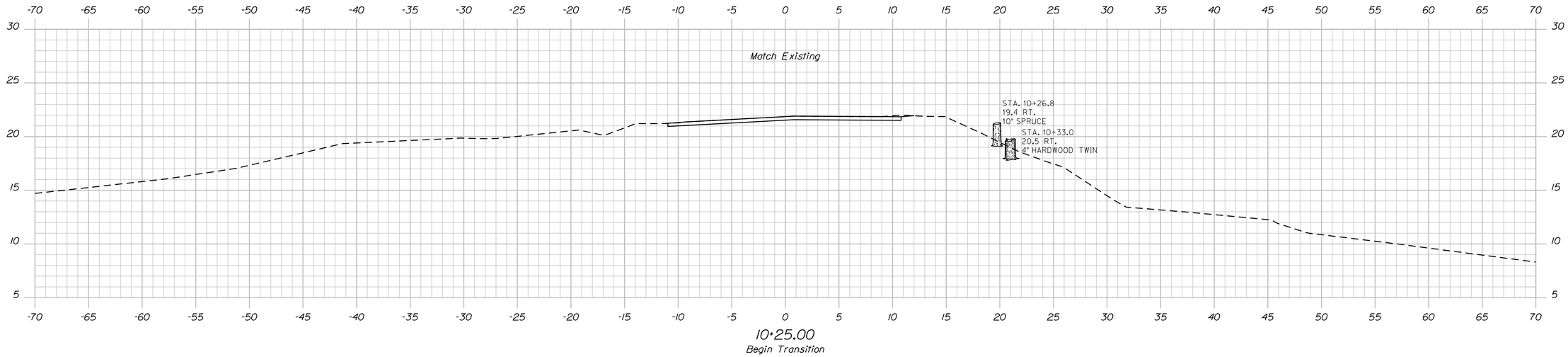
BRIDGE NO. 3964

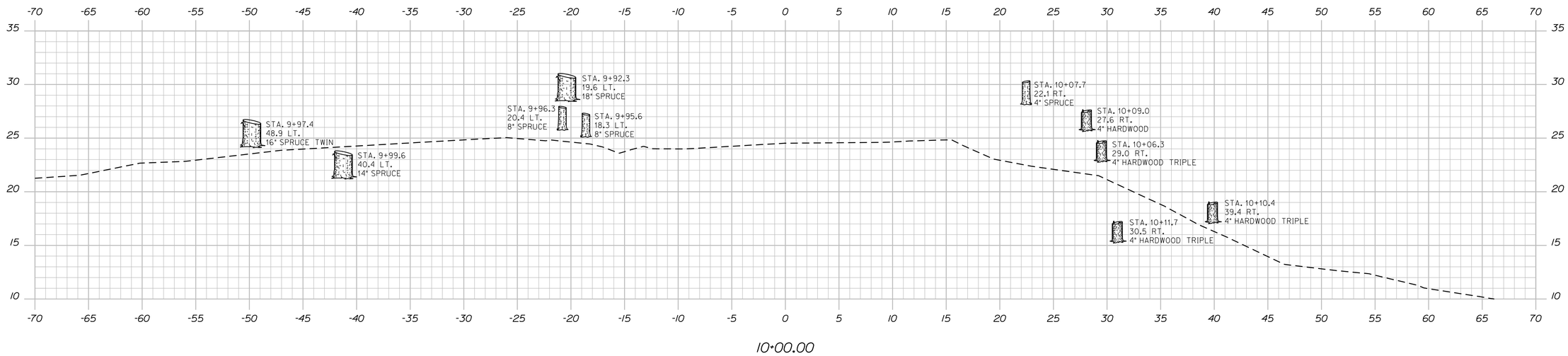
	BY	DATE
PROJ. MANAGER	M.WIGHT	
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2	B.SLAVEN / T.WHITE	MAY 2015
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

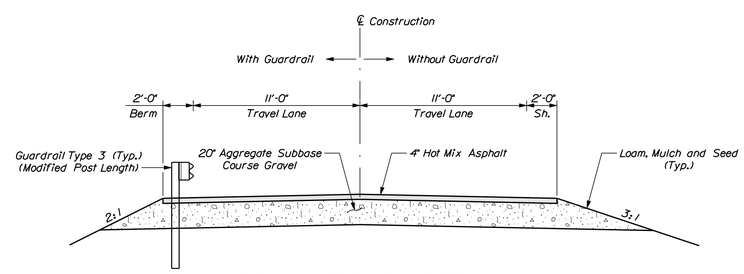
SIGNATURE
P.E. NUMBER
DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

BORING LOGS







TYPICAL APPROACH SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

PROJ. MANAGER	S. BOOGE	BY	DATE
DESIGN-DETAILED	R. BULGER	D. SHAW	
CHECKED-REVIEWED			
DESIGN2-DETAILED2	B. SLAVEN	T. WHITE	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

CROSS SECTIONS

SHEET NUMBER

8

OF 20

Sta. 10+00 to Sta. 10+25

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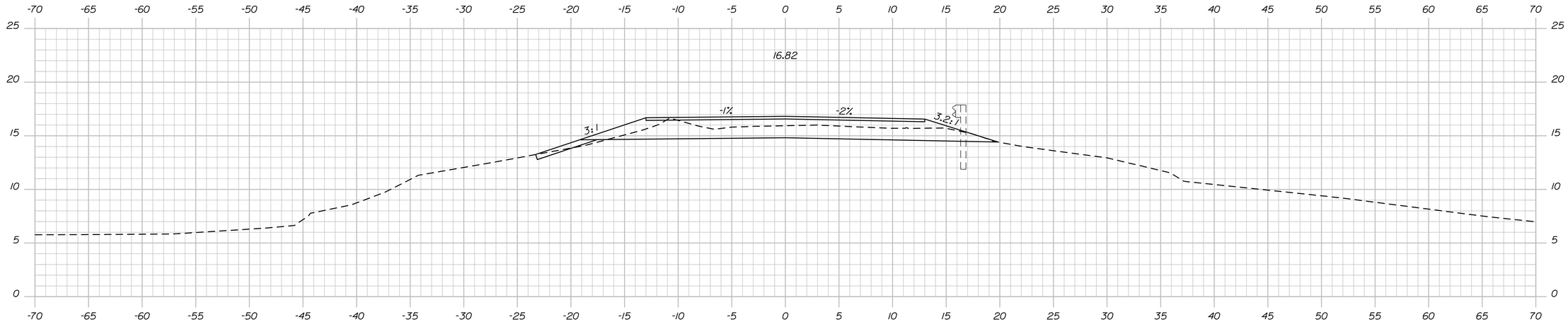

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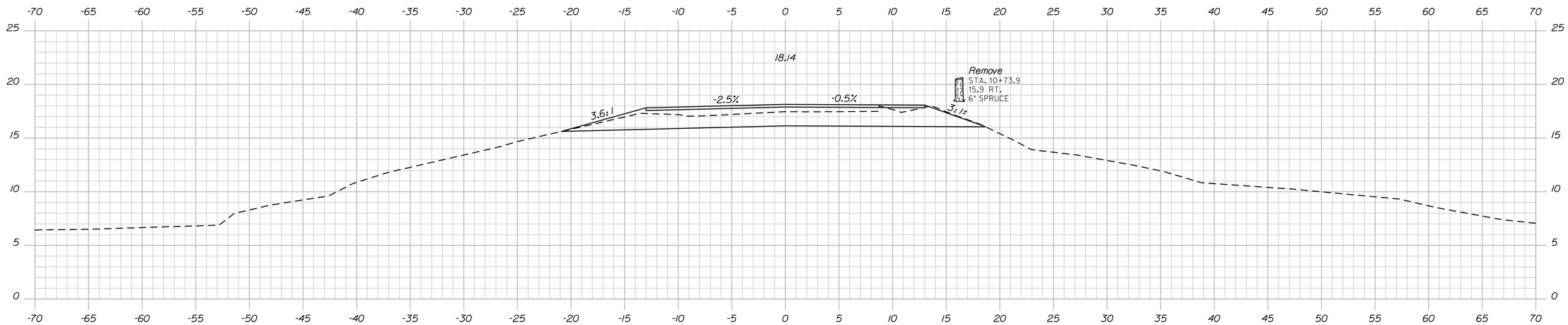

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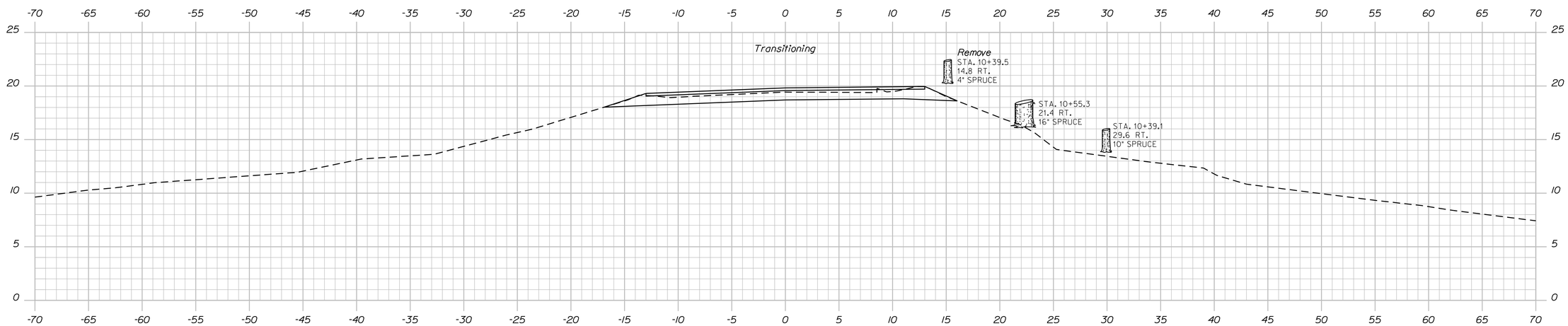
End Transition / Begin Project



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Sta. 10+50 to Sta. 11+00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

PROJ. MANAGER	S. BOOGE	BY	DATE
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED			
DESIGN2-DETAILED2	B. SLAVEN	T. WHITE	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

CROSS SECTIONS

SHEET NUMBER

9

OF 20

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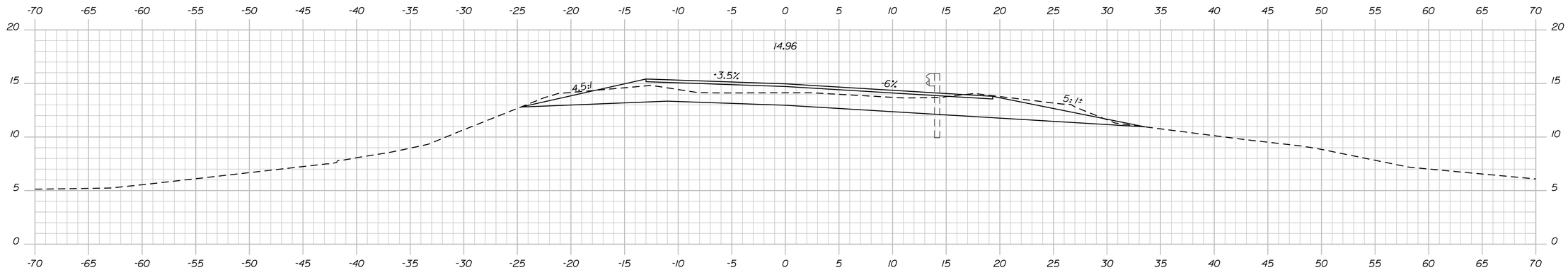
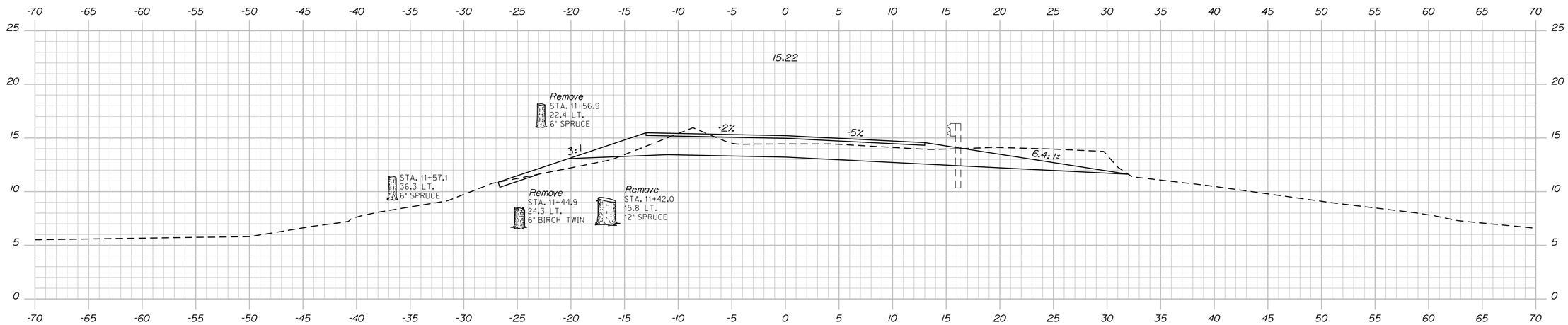
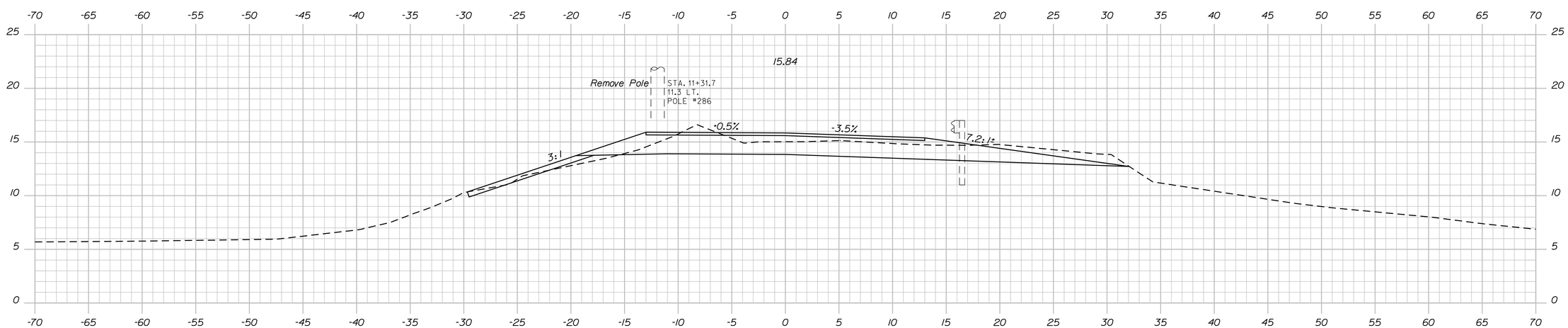


11+75.00



11+50.00



11+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN
17881.00

BRIDGE NO. 3964

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED			
DESIGN2-DETAILED2	B. SLAVEN	T. WHITE	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

CROSS SECTIONS

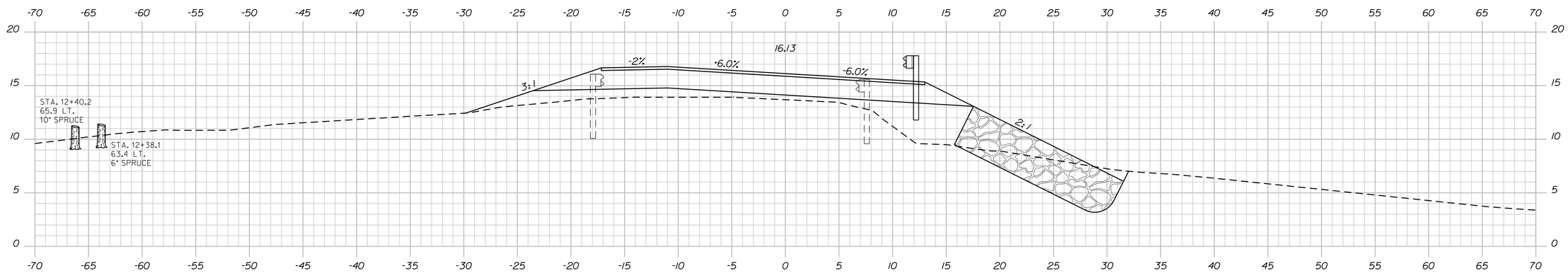
SHEET NUMBER

10

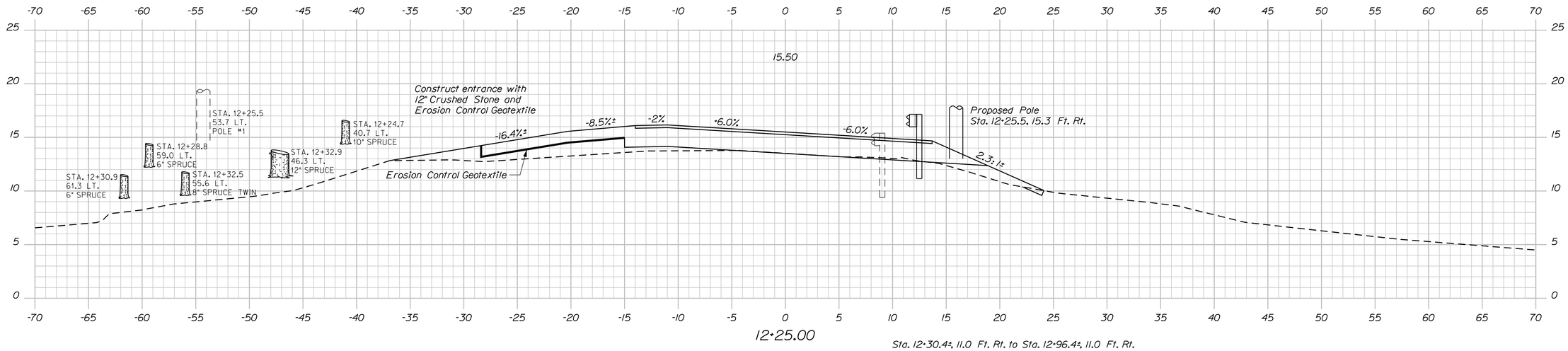
OF 20

Sta. 11+25 to Sta. 11+75

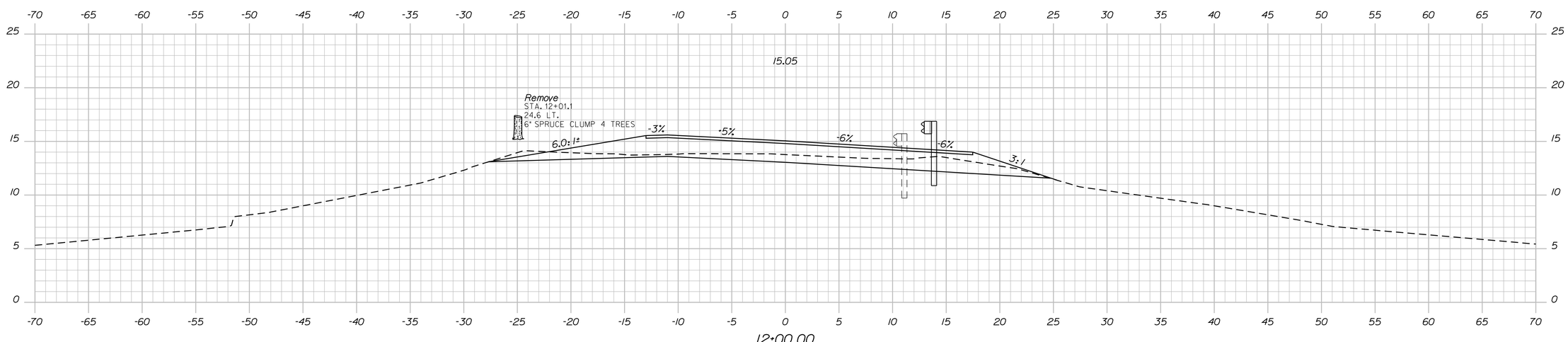
Filename: ...\010_z_Xsect_11+25-11+75.dgn Division: BRIDGE Username: dovid.show Date:11/2/2015



Sta. 12+62.3±, 15.6± Ft. Lt. to Sta. 12+97.3±, 11.0 Ft. Lt.
Install Low Volume Guardrail End



Sta. 12+30.4±, 11.0 Ft. Rt. to Sta. 12+96.4±, 11.0 Ft. Rt.
Install 62.5 L.F. of Type 3C Guardrail



Sta. 11+91.4±, 15.6± Ft. Rt. to Sta. 12+30.4±, 11.0 Ft. Rt.
Install Low Volume Guardrail End

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BOOGE		
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED			
DESIGN2-DETAILED2	B. SLAVEN	T. WHITE	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

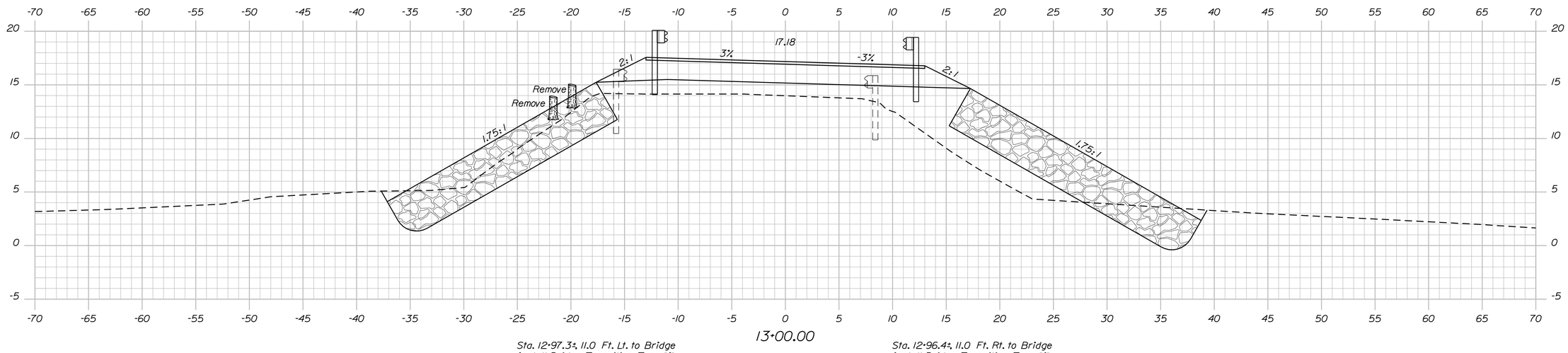
CROSS SECTIONS

SHEET NUMBER
11
OF 20

Sta. 12+00 to Sta. 12+50

Filename: ...\011_z_Xsect_12+00-12+50.dgn Division: BRIDGE Username: dovid.show Date:11/2/2015

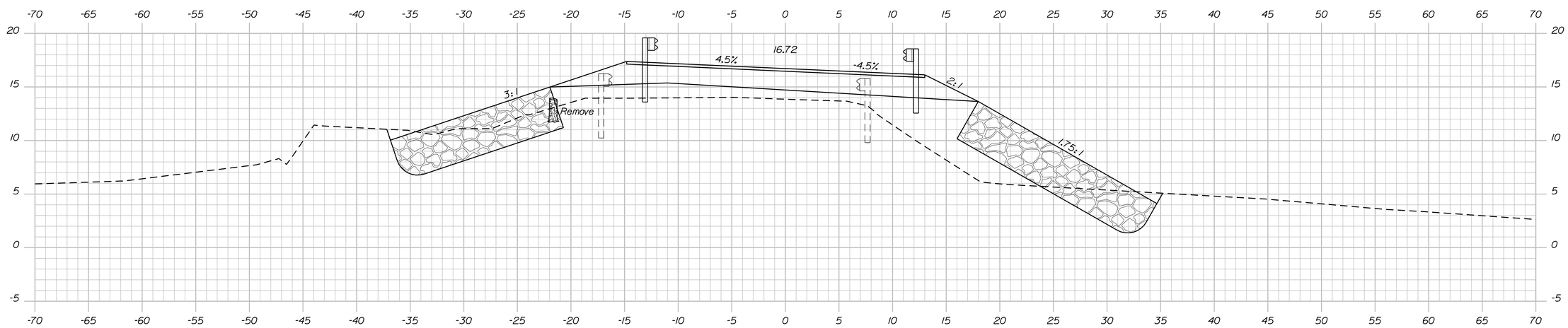
BRIDGE



13+00.00

Sta. 12+97.3±, 11.0 Ft. Lt. to Bridge
Install Bridge Transition Type "I"

Sta. 12+96.4±, 11.0 Ft. Rt. to Bridge
Install Bridge Transition Type "I"



12+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	S. BOOGE	
DESIGN-DETAILED	R. BULGER	JUN 2015
CHECKED-REVIEWED		
DESIGN2-DETAILED2	B. SLAVEN	T. WHITE
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

CROSS SECTIONS

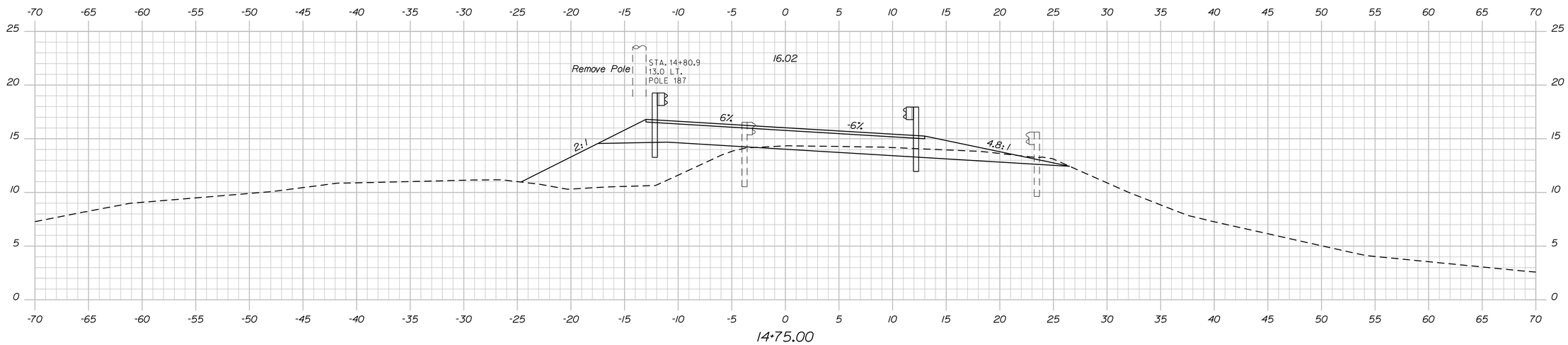
SHEET NUMBER

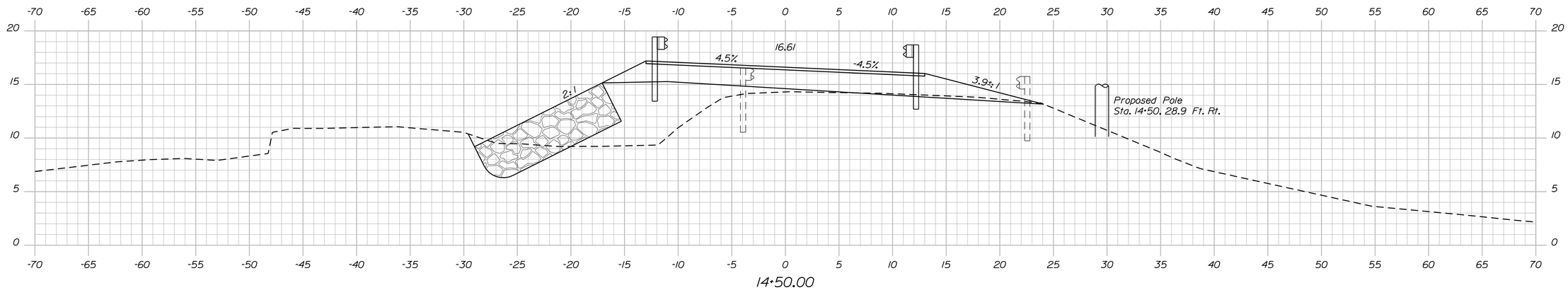
12

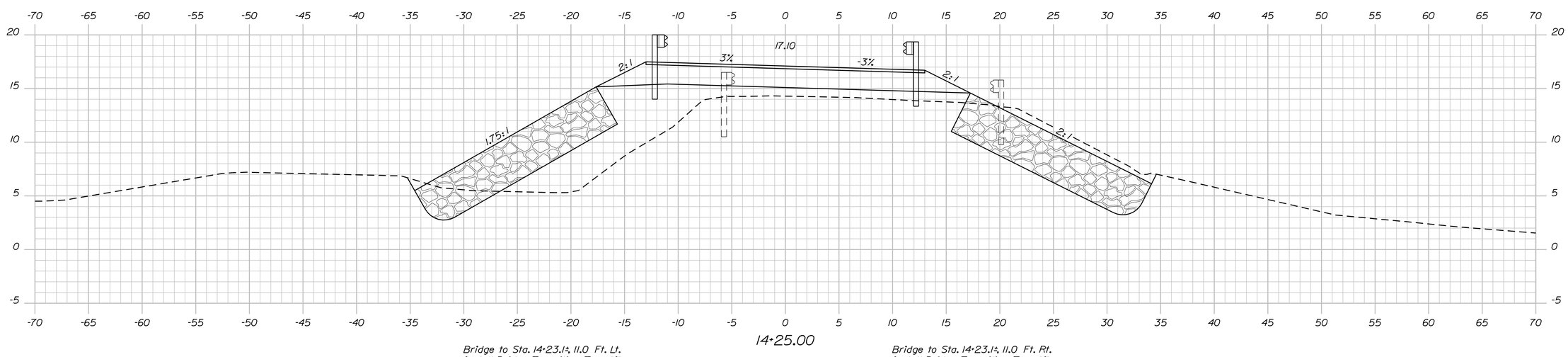
OF 20

Sta. 12+75 to Sta. 13+00

Filename: ...\012_z_Xsect_12+75-13+00.dgn Division: BRIDGE Username: dovid.show Date:11/2/2015







Bridge to Sta. 14+23.1±, 11.0 Ft. Lt.
Install Bridge Transition Type "1"
Sta. 14+23.1±, 11.0 Ft. Lt. to Sta. 16+97.5±, 11.0 Ft. Lt.
Install 275 L.F. of Type 3C Guardrail

Bridge to Sta. 14+23.1±, 11.0 Ft. Rt.
Install Bridge Transition Type "1"
Sta. 14+23.1±, 11.0 Ft. Rt. to Sta. 16+50.7±, 11.0 Ft. Rt.
Install 225 L.F. of Type 3C Guardrail

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

PROJ. MANAGER	S. BOOGE	BY	DATE
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED			
DESIGN2-DETAILED2	B. SLAVEN	T. WHITE	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

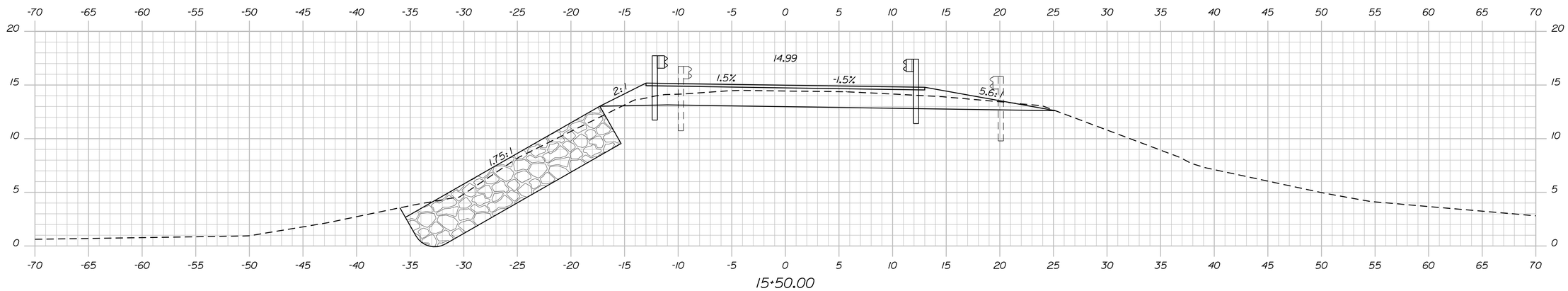
ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

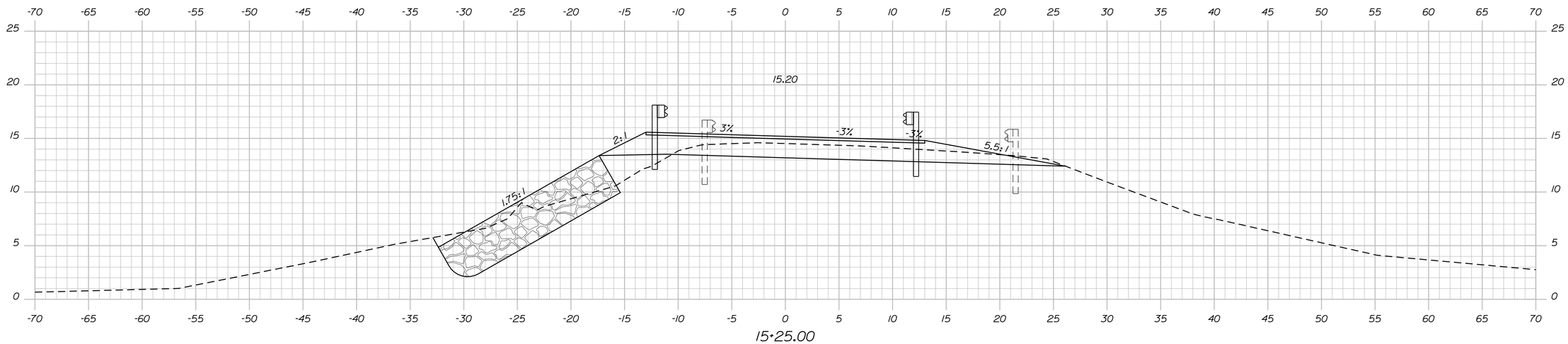
CROSS SECTIONS

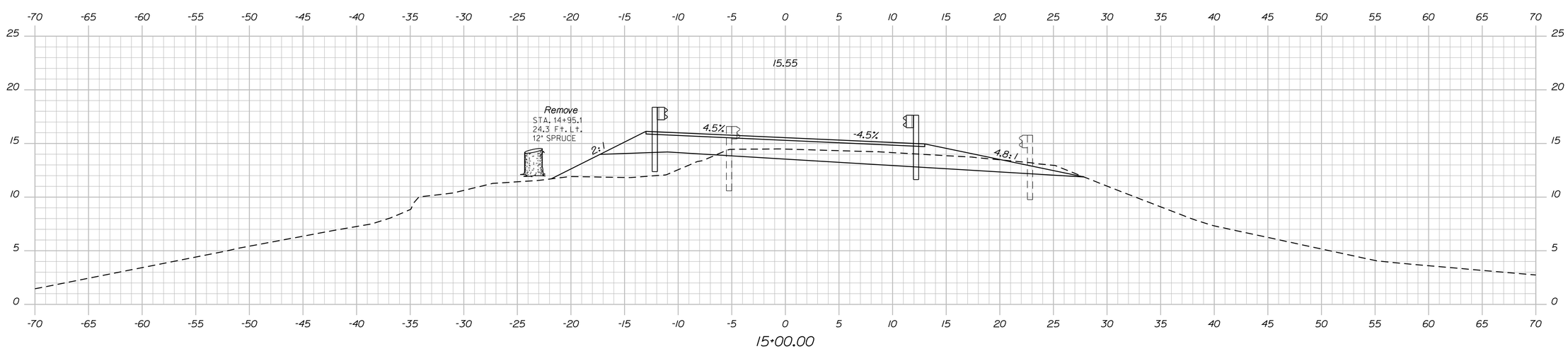
SHEET NUMBER
13
OF 20

Sta. 14+25 to Sta. 14+75

Filename: ...\013_z_Xsect_14+25-14+75.dgn Division: BRIDGE Username: david.shaw Date:11/2/2015







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED			
DESIGN2-DETAILED2	B. SLAVEN	T. WHITE	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

CROSS SECTIONS

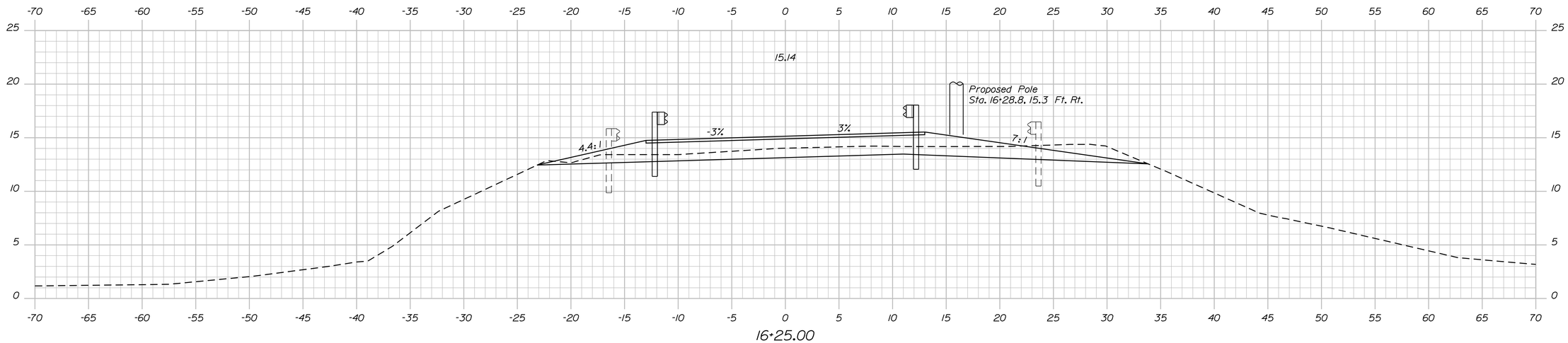
SHEET NUMBER

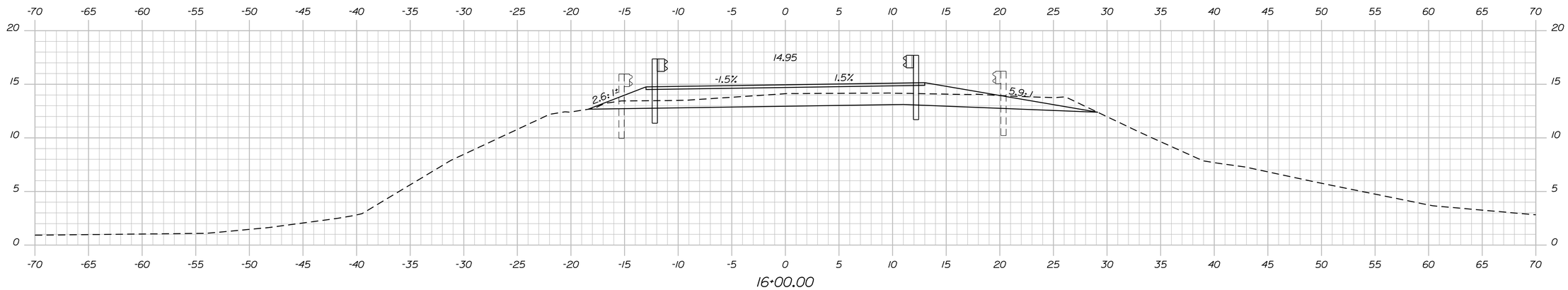
14

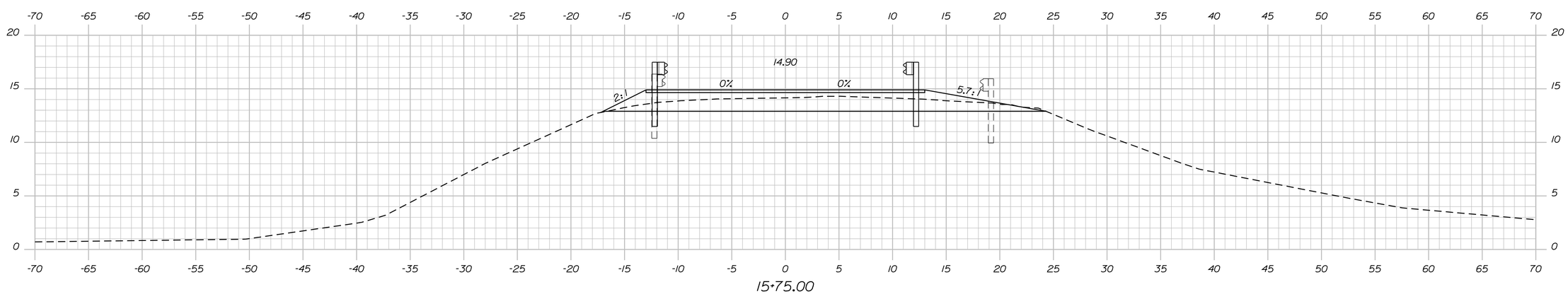
OF 20

Sta. 15+00 to Sta. 15+50

Filename: ...\014_z_Xsect_15+00-15+50.dgn Division: BRIDGE Username: dovid.shaw Date:11/2/2015







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED	B. SLAVEN	T. WHITE	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

CROSS SECTIONS

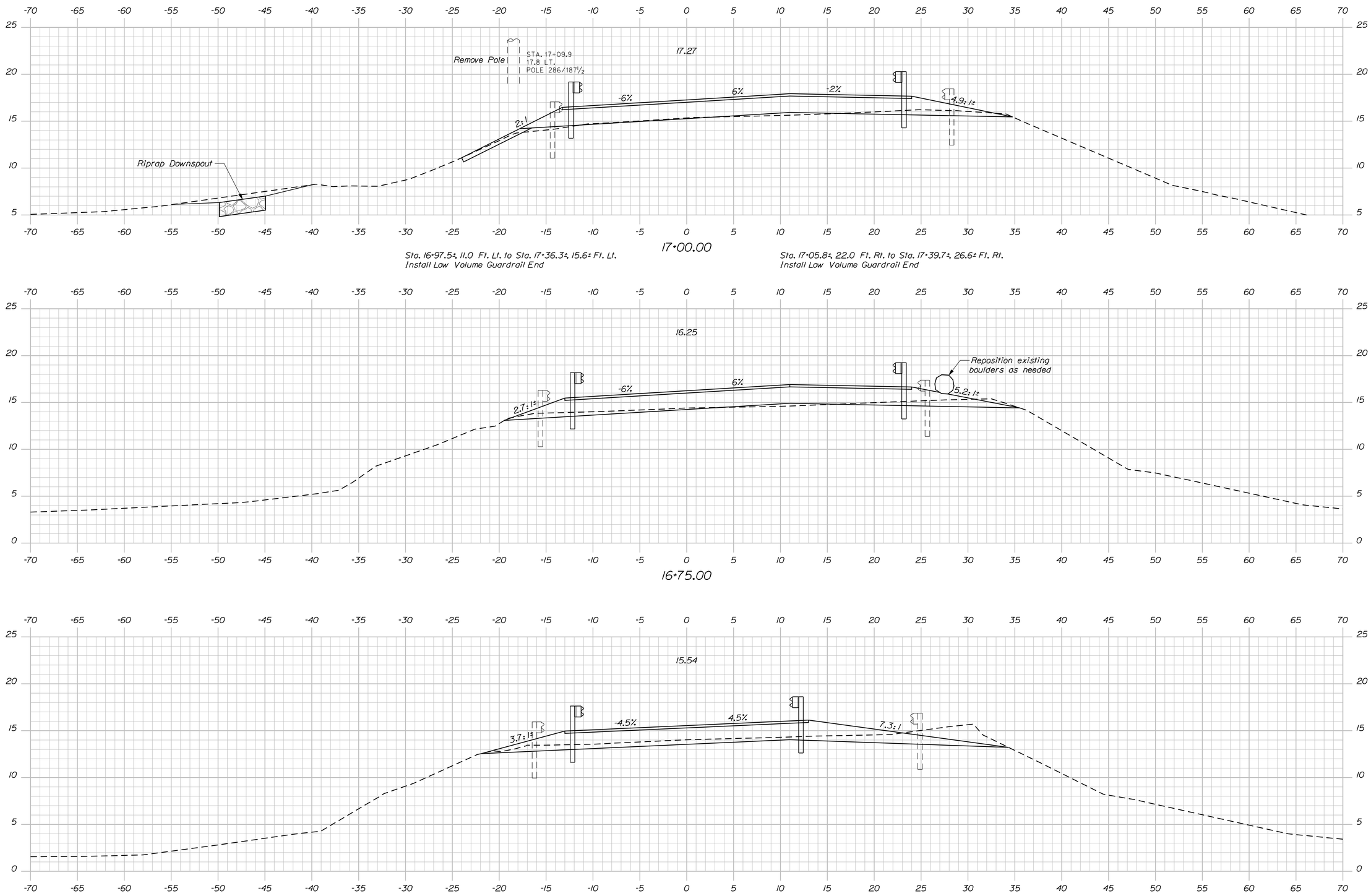
SHEET NUMBER

15

OF 20

Sta. 15+75 to Sta. 16+25

Filename: ...\015_z_Xsect_15+75-16+25.dgn Division: BRIDGE Username: dovid.show Date:11/2/2015



Filename: ...\016_z_Xsect_16+50-17+00.dgn Division: BRIDGE Username: david.shaw Date:11/2/2015

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED	B. SLAVEN	T. WHITE	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

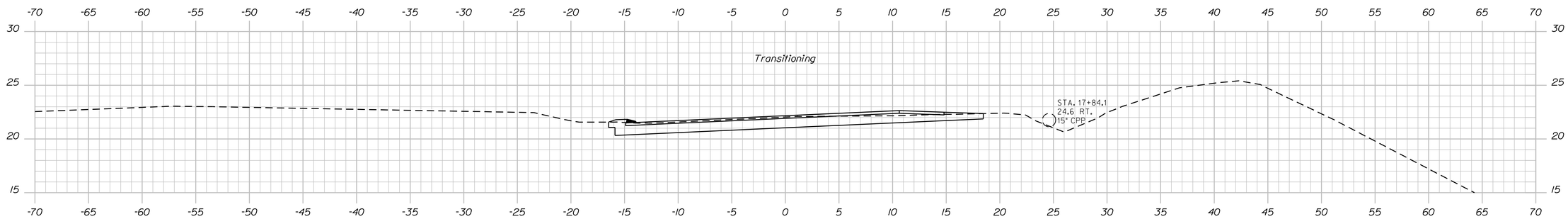
CROSS SECTIONS

SHEET NUMBER

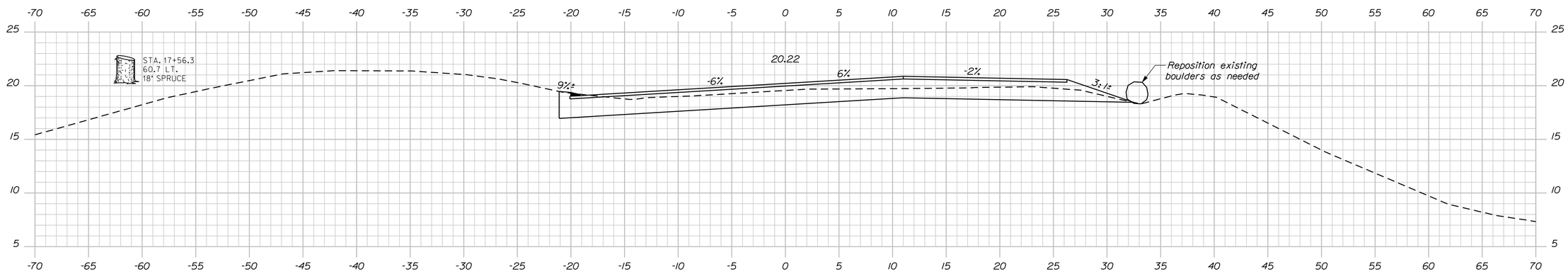
16

OF 20

Sta. 16+50 to Sta. 17+00

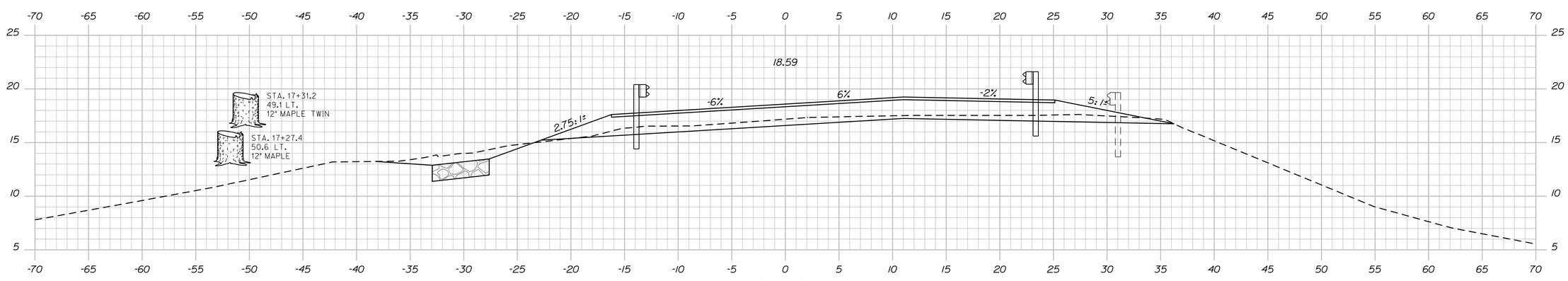


17+75.00



17+50.00

End Project / Begin Transition



17+25.00

Sta. 17+36.3±, 21.0 Ft. Lt. to Sta. 17+79.6±, 12.7 Ft. Lt
Install 42.0 L.F. of Type 3, mold 3 Bituminous Curb

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED	B. SLAVEN	T. WHITE	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

CROSS SECTIONS

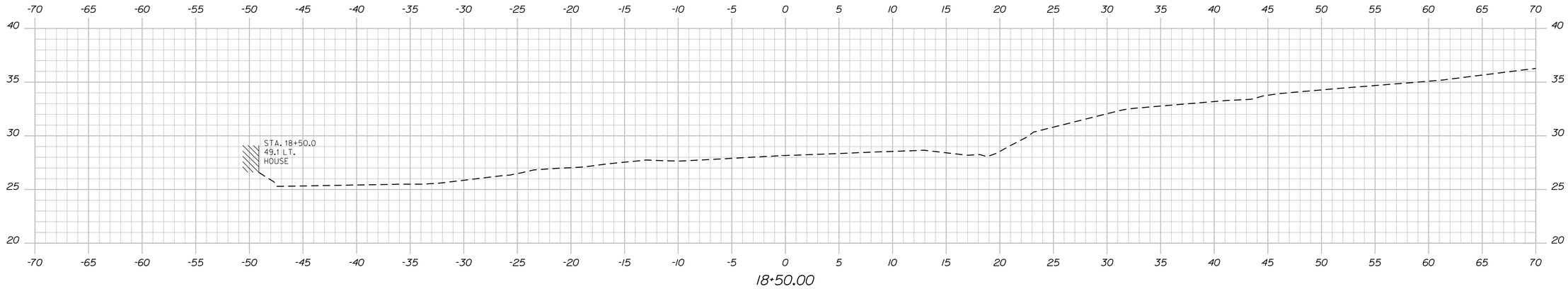
SHEET NUMBER

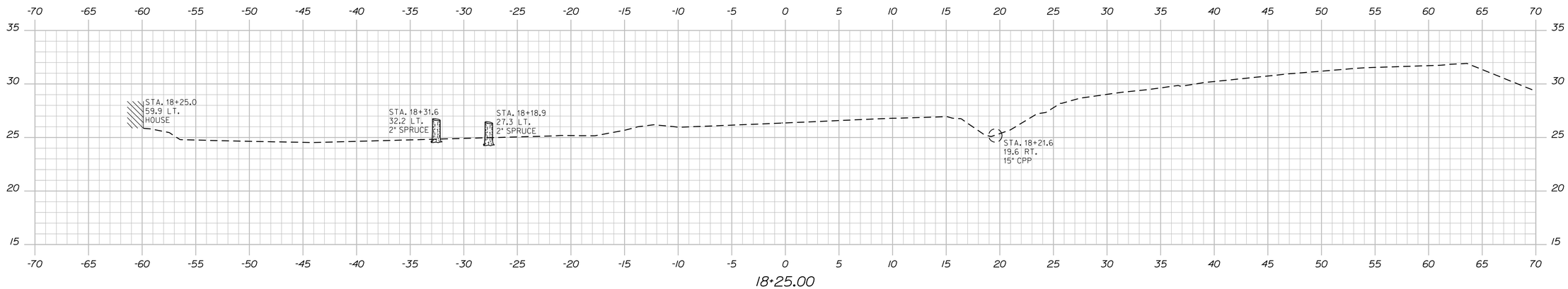
17

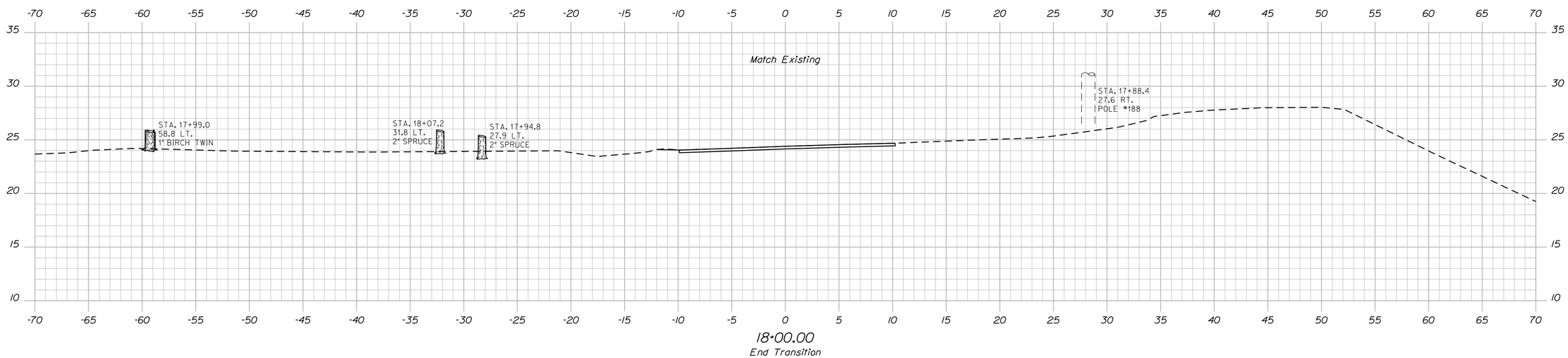
OF 20

Filename: ...\017_z_Xsect_17+25-17+75.dgn Division: BRIDGE Username: dovid.show Date:11/2/2015

Sta. 17+25 to Sta. 17+75







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BR-1788(100)X

WIN 17881.00

BRIDGE NO. 3964

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	S. BOOGE		
DESIGN-DETAILED	R. BULGER	D. SHAW	JUN 2015
CHECKED-REVIEWED	B.SLAVEN	T. WHITE	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ENGLISHMAN RIVER BRIDGE
ENGLISHMAN RIVER
ROQUE BLUFFS WASHINGTON COUNTY

CROSS SECTIONS

SHEET NUMBER

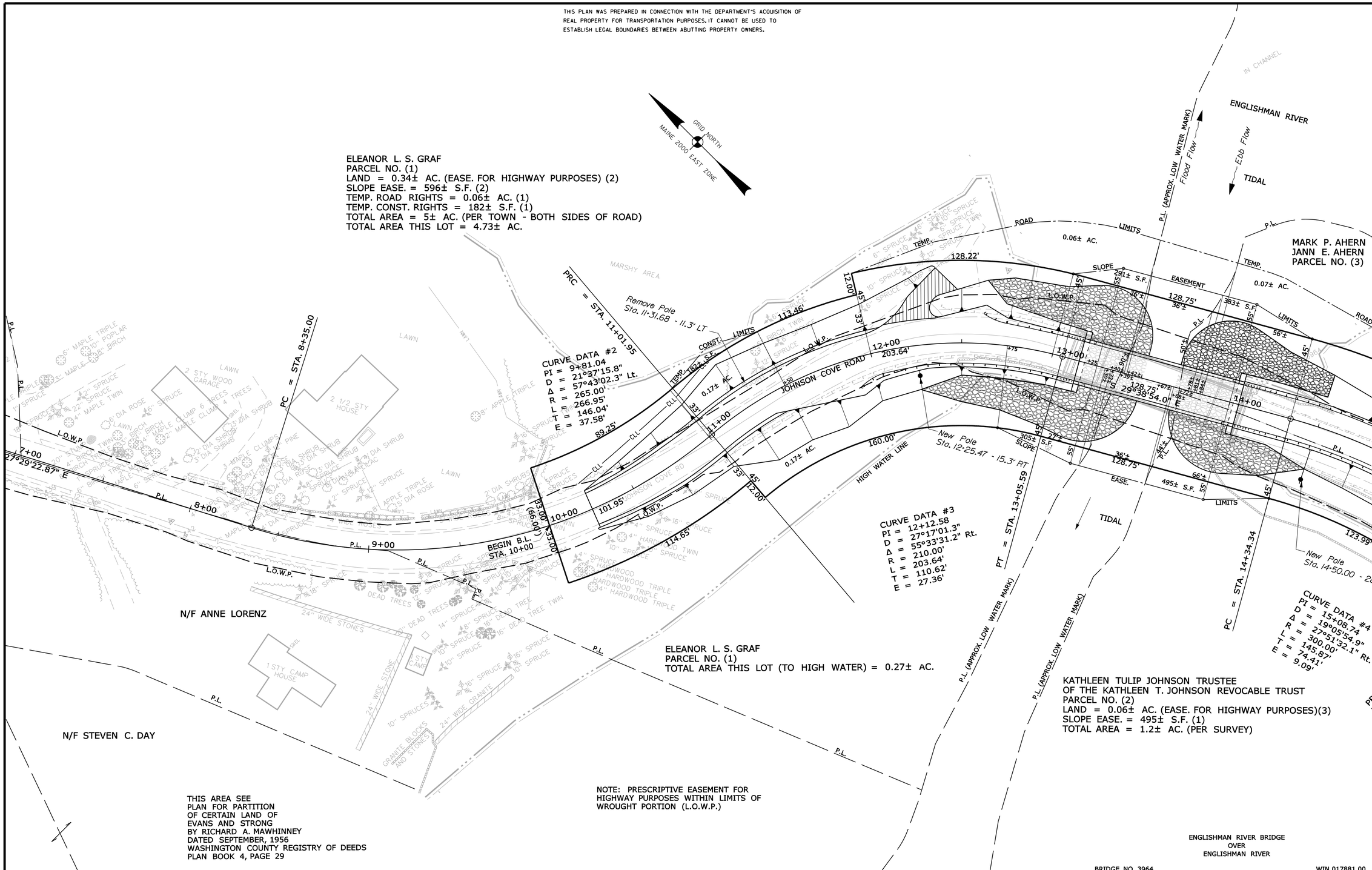
18

OF 20

Sta. 18+00 to Sta. 18+50

Filename: ...\018_z_Xsect_18+00-18+50.dgn Division: BRIDGE Username: david.shaw Date:11/2/2015

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.



ELEANOR L. S. GRAF
PARCEL NO. (1)
LAND = 0.34± AC. (EASE. FOR HIGHWAY PURPOSES) (2)
SLOPE EASE. = 596± S.F. (2)
TEMP. ROAD RIGHTS = 0.06± AC. (1)
TEMP. CONST. RIGHTS = 182± S.F. (1)
TOTAL AREA = 5± AC. (PER TOWN - BOTH SIDES OF ROAD)
TOTAL AREA THIS LOT = 4.73± AC.

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

THIS AREA SEE PLAN FOR PARTITION OF CERTAIN LAND OF EVANS AND STRONG BY RICHARD A. MAWHINNEY DATED SEPTEMBER, 1956 WASHINGTON COUNTY REGISTRY OF DEEDS PLAN BOOK 4, PAGE 29

ENGLISHMAN RIVER BRIDGE OVER ENGLISHMAN RIVER

BRIDGE NO. 3964 WIN 017881.00

SYMBOLS

- IP or IPF (IRON PIPE or PIN FOUND)
- S.T. (SEPTIC TANK)
- (ROW MONUMENT)
- BM (TRAVERSE POINT)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE
- WELL (WELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE
- 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	VDP	
PROP. LINES	BDM	
AREAS	BDM	

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

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

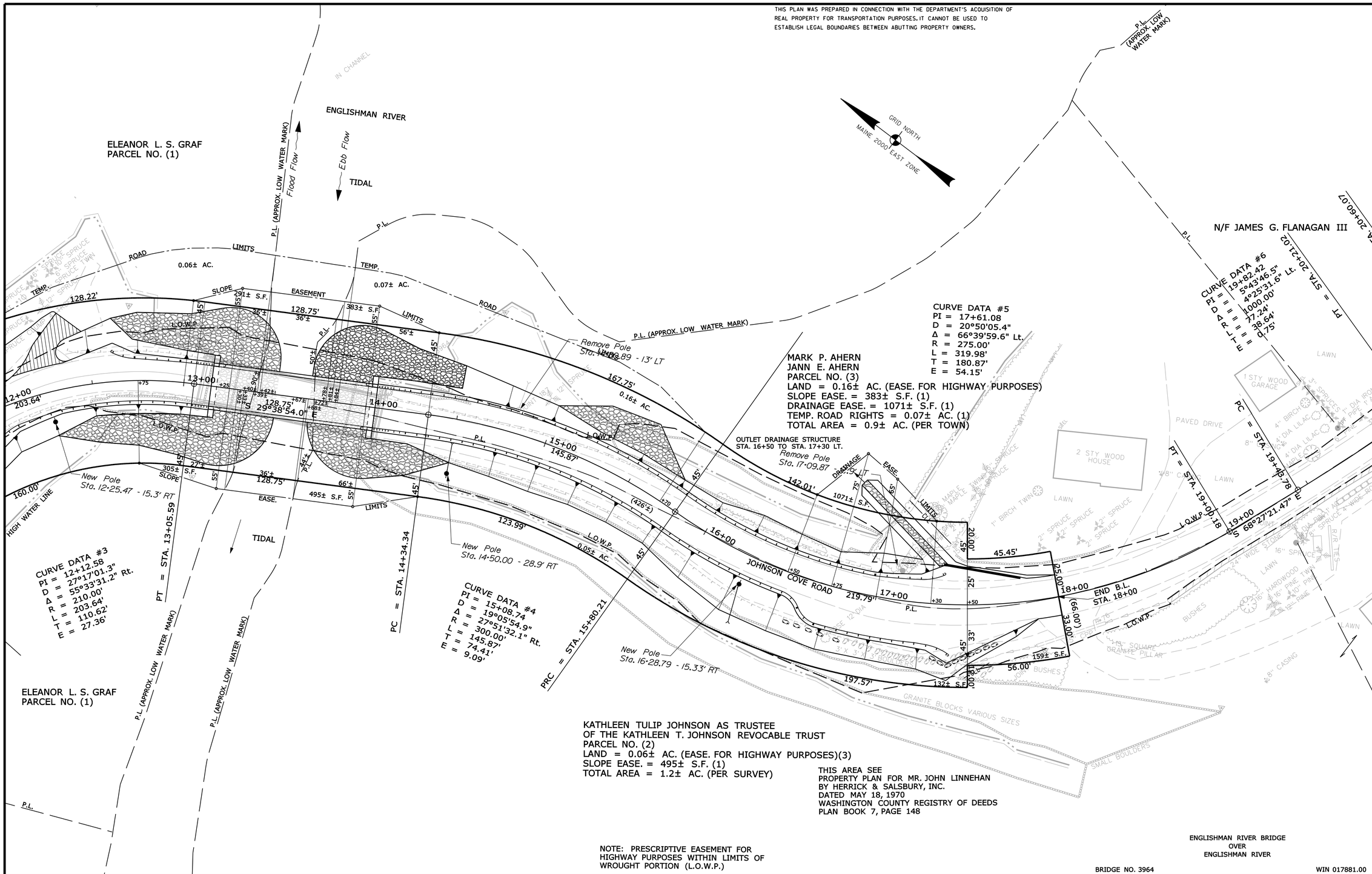
TOWN WAY
JOHNSON COVE ROAD
ROQUE BLUFFS WASHINGTON COUNTY
FEDERAL AID PROJECT NO. BR-1788(100)X

JUNE 2015 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 15-322
SCALE 1" = 25' | SHEET 1 OF 2

SHEET NUMBER
19
OF 20

Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn Division: BRIDGE Username: david.shaw Date:11/2/2015

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.



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

ENGLISHMAN RIVER BRIDGE
OVER
ENGLISHMAN RIVER

BRIDGE NO. 3964 WIN 017881.00

SYMBOLS

- IP or ⊕ IP/P (IRON PIPE or PIN FOUND)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- ⊕BM (TRAVERSE POINT)
- WELL (WELL)
- GROUNDING UNIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE
- 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	VDP	
PROP. LINES	BDM	
AREAS	BDM	

- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

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

ROQUE BLUFFS
RIGHT OF WAY MAP

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK		PAGE	COUNTY RECORD			
NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE	

DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

TOWN WAY
JOHNSON COVE ROAD
ROQUE BLUFFS WASHINGTON COUNTY
FEDERAL AID PROJECT NO. BR-1788(100)X

JUNE 2015 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 15-322
SCALE 1" = 25' | SHEET 2 OF 2

SHEET NUMBER
20
OF 20

Filename: ...\00\ROW\MSTA\002_RWPLAN2.dgn Division: BRIDGE Username: david.show Date:11/2/2015