STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Fourth Edition 2007 and Interim Specifications through 2009.

DESIGN LOADING

Live Load ..... HL - 93 Modified for STR I
(Truck only increased 25%)

MATERIALS

Concrete:
Precast ..... Class "P"
Reinforcing Steel ..... ASTM A 615/A 615M, Grade 60
Welded Wire Fabric ..... ASTM A 185 (WWF), Grade 60

BASIC DESIGN STRESSES

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

TRAFFIC DATA

Current (2010) AADT 1220
Future (2030) AADT 1460
DHV - % of AADT 11%
Design Hour Volume 161
Heavy Trucks (% of AADT) 25%
Heavy Trucks (% of DHV) 20%
Directional Distribution (% of DHV) 55%
18 kip Equivalent P 2.0 263
18 kip Equivalent P 2.5 251
Design Speed (mph) 60

HYDROLOGIC DATA

Drainage Area ..... 4.875 sq mi
Design Discharge (Q50) ..... 229.4 cfs
Check Discharge (Q100) ..... 264 cfs
Headwater Elevation (Q50) ..... 490.63 ft
Headwater Elevation (Q100) ..... 490.81 ft
Discharge Velocity (Q50) ..... 4.31 fps
Discharge Velocity (Q100) ..... 4.97 fps
Headwater Elevation (Q1.1) ..... 490.10 ft
Discharge Velocity (Q1.1) ..... 0.81 fps

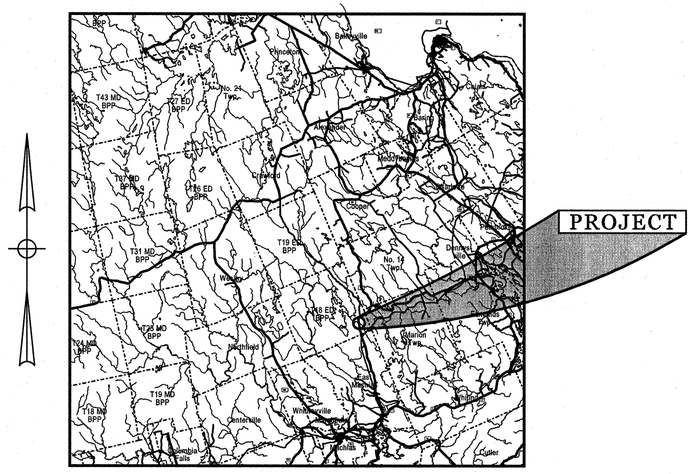
UTILITIES

Bangor Hydro Power Company
Northern New England Telephone Operations, LLC

MAINTENANCE OF TRAFFIC

Close bridge to traffic for maximum of 5 ½ days and detour traffic on to state routes.

TWP18 ED BPP
WASHINGTON COUNTY
SOUTHERN INLET BRIDGE
OVER
SOUTHERN INLET
ROUTE 191
PROJECT NO. 16758.00
PROJECT LENGTH 0.095 mi.
BRIDGE CULVERT REPLACEMENT
BRIDGE NO. 5375



LOCATION MAP

2 0 2 4
Scale of Miles

LIST OF DRAWINGS

Title Sheet 1
Estimated Quantities & General Construction Notes 2
General Plan & Profile 3
Boring Location Plan & Interpretive Subsurface Profile 4
Boring Logs 5
Highway Approach Cross - Sections 6-11
Precast Concrete Box Details 12
Traffic Control Plan 13
Right of Way Map 14

SCOPE OF WORK

Install State Supplied Concrete Box Culvert and construct 300 feet of approach work.

PIN 16758.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: DATE 5/17/10
CHIEF ENGINEER: DATE 5/17/10

STATE OF MAINE Michael Henry Wight 8089 LICENSED PROFESSIONAL ENGINEER
SIGNATURE 8089
P.E. NUMBER
DATE 5/17/2010

PROJECT INFORMATION	
PROGRAM	BRIDGE
PROJECT MANAGER	S. BOUGE
DESIGNER	M. WIGHT
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

TWP18 ED BPP
SOUTHERN INLET BRIDGE
TITLE SHEET

SHEET NUMBER
1
OF 14

Filename: \00\BRIDGE\MSTA\001_Title.dgn Division: BRIDGE Username: richard.nimon Date:5/17/2010

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.19	REMOVING EXISTING BRIDGE	1	LS
203.20	COMMON EXCAVATION	675	CY
203.24	COMMON BORROW	60	CY
203.25	GRANULAR BORROW	210	CY
203.35	CRUSHED STONE FILL	130	CY
204.41	REHABILITATION OF EXISTING SHOULDERS, PLAN QUANTITY	110	SY
206.061	STRUCTURAL EARTH EXCAVATION - DRAINAGE AND MINOR STRUCTURES, BELOW GRADE	66	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	210	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	840	CY
403.207	HOT MIX ASPHALT 19.0 MM HMA	120	T
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	148	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	148	T
409.15	BITUMINOUS TACK COAT - APPLIED	52	G
508.13	MEMBRANE WATERPROOFING	88	SY
511.07	COFFERDAM	1	LS
526.30	TEMPORARY CONCRETE BARRIER - TYPE I	80	LF
527.303	ENERGY ABSORBING SYSTEM (ET-PLUS)	2	EA
534.7101	PRECAST CONCRETE BOX CULVERT - STATE SUPPLIED (98 C.Y.)	1	LS
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	388	LF
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	6	EA
606.79	GUARDRAIL 350 FLARED TERMINAL	2	EA
610.08	PLAIN RIPRAP	172	CY
610.18	STONE DITCH PROTECTION	25	CY
615.07	LOAM	30	CY
618.1411	SEEDING METHOD NUMBER 3 - PLAN QUANTITY	4	UN
619.1201	MULCH - PLAN QUANTITY	4	UN
619.1401	EROSION CONTROL MIX	10	CY
620.54	STABILIZATION GEOTEXTILE	435	SY
620.58	EROSION CONTROL GEOTEXTILE	310	SY
620.65	REINFORCEMENT GEOGRID	192	SY
627.733	4 INCH WHITE OR YELLOW PAINTED PAVE MRK LINE	1050	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.15	ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	20	HR
639.19	FIELD OFFICE TYPE B	1	EA
652.312	TYPE III BARRICADE	6	EA
652.33	DRUM	10	EA
652.34	CONE	20	EA
652.35	CONSTRUCTION SIGNS	470	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (45 C.D.)	1	LS
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. During construction, the road will be closed to traffic for a time period specified in the Special Provisions.

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

3. The clearing limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to Contract items.

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

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

6. In areas where the Resident directs the Contractor not to excavate to the subgrade line shown on the plans, payment for removing existing pavement, grubbing, shaping, ditching, and compacting the existing subbase and layers of new subbase 6 inches or less thick will be made under appropriate equipment rental items.

7. All embankment material, except as otherwise shown, placed below EL. 491.00 shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill.

8. Place riprap on sideslopes up to EL. 493.00.

9. Riprap adjacent to the box culvert shall be placed so as not to damage the culvert. Any damage to the box culvert during construction shall be repaired or replaced as determined by the Resident at the Contractor's expense.

10. The Contractor shall construct the concrete box culvert in the dry.

11. The riprap slope protection shall be constructed as shown on MaineDOT standard detail 610(02). The protective aggregate cushion layer shall be 12 inches thick. A Class I non woven erosion control geotextile shall be used under the protective aggregate cushion layer.

12. Bench existing fill slope soils in accordance with MaineDOT Standard Specification 203.09, Preparation of Embankment Area, where new fill slope extensions are constructed over existing slopes with grades greater than 2:1 (H:V).

13. Crushed stone placed under the concrete box culvert shall be placed in lifts between 8 inches and 12 inches thick loose measure and compacted with a minimum of 4 passes using a vibratory plate compactor.

14. Stones which cannot be rolled or compacted into the surface of the sulder shall be removed by hand raking. Payment for hand raking will be considered incidental to Item No. 304.10, Aggregate Subbase Course - Gravel.

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

16. 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.

17. 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.

18. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php.

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.

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 SOUTHERN INLET BRIDGE, ROUTE 191 OVER SOUTHERN INLET, BERRY TWP, MAINE, (FORMERLY KNOWN AS TWP 18 ED, MAINE), Soils Report No. 2010-14, May 10, 2010, 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.

GENERAL CONSTRUCTION NOTES CONTINUED...

24. 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.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN 16758.00

BRIDGE NO. 5375

BRIDGE PLANS

PROJ. MANAGER	S. BOOGE	BY	DATE
DESIGN-DETAILED	M. WIGHT	R.NIMON	05\2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

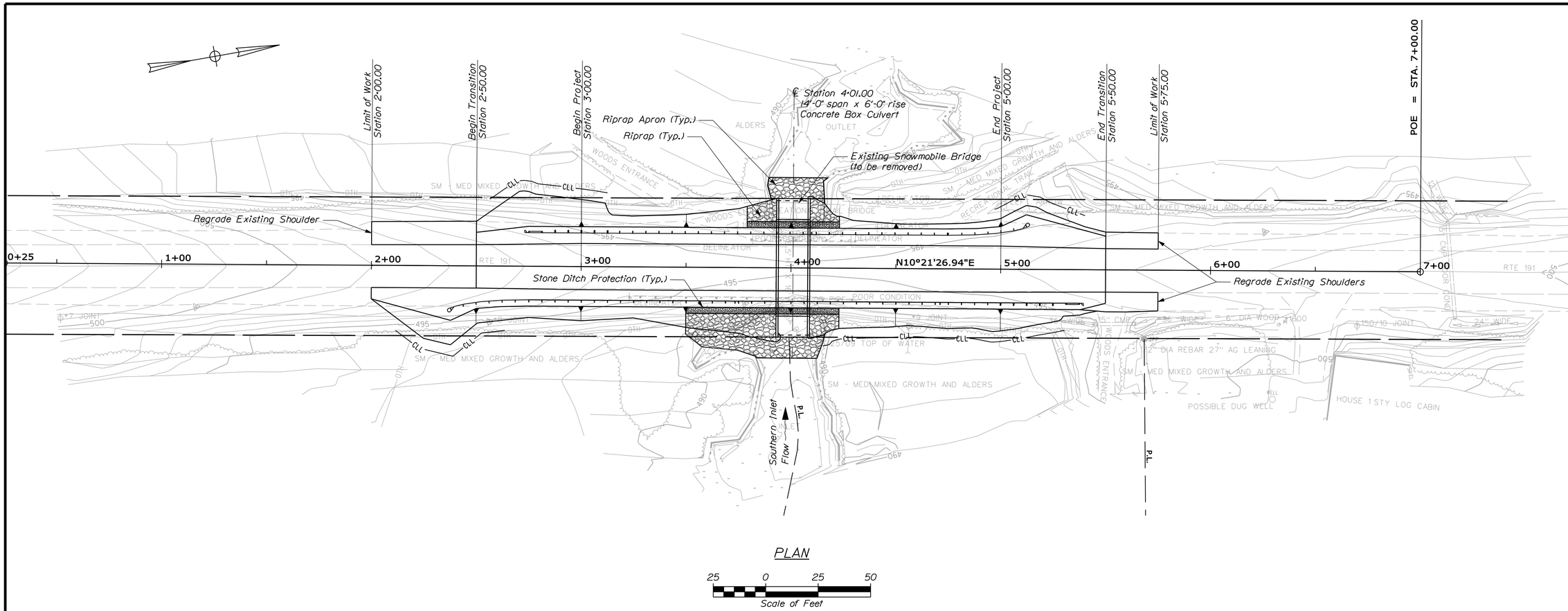
DATE

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER
2
OF 14

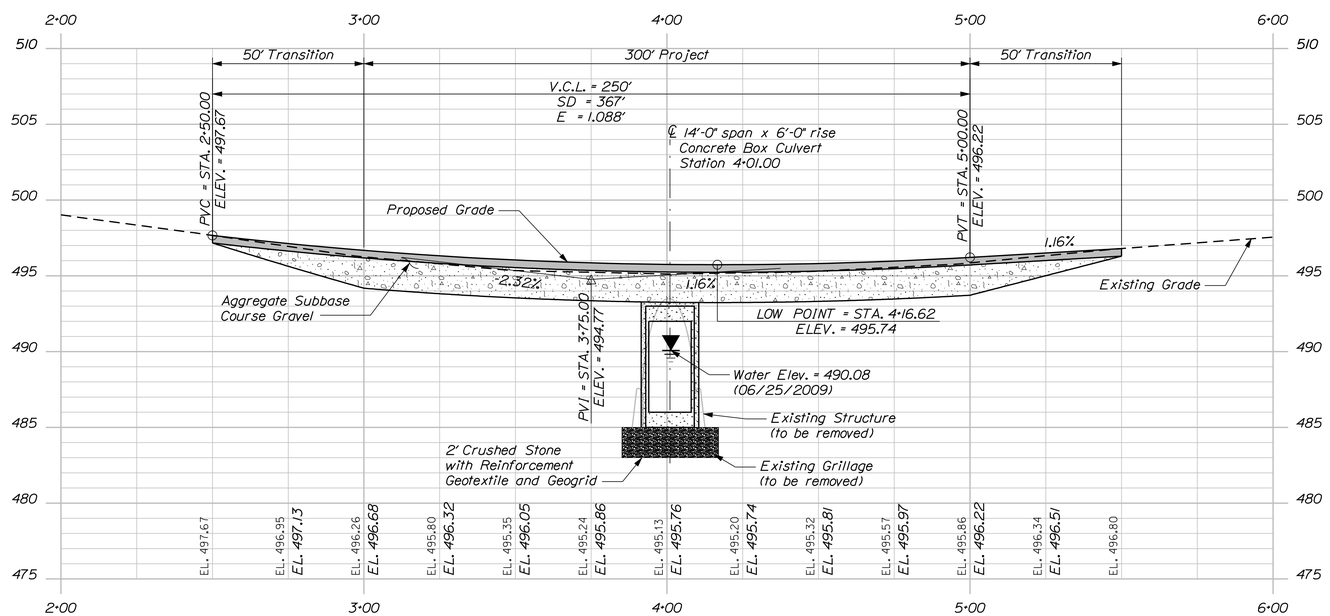
Filename: ...\bridge\rnsta\002_Estimate.dgn Division: BRIDGE Username: richard.nimon Date:5/13/2010



PLAN

25 0 25 50

Scale of Feet



PROFILE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN 16758.00

BRIDGE NO. 5375

BRIDGE PLANS

PROJ. MANAGER	S. BOOGE	BY	DATE
DESIGN-DETAILED	M. WIGHT	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

GENERAL PLAN & PROFILE

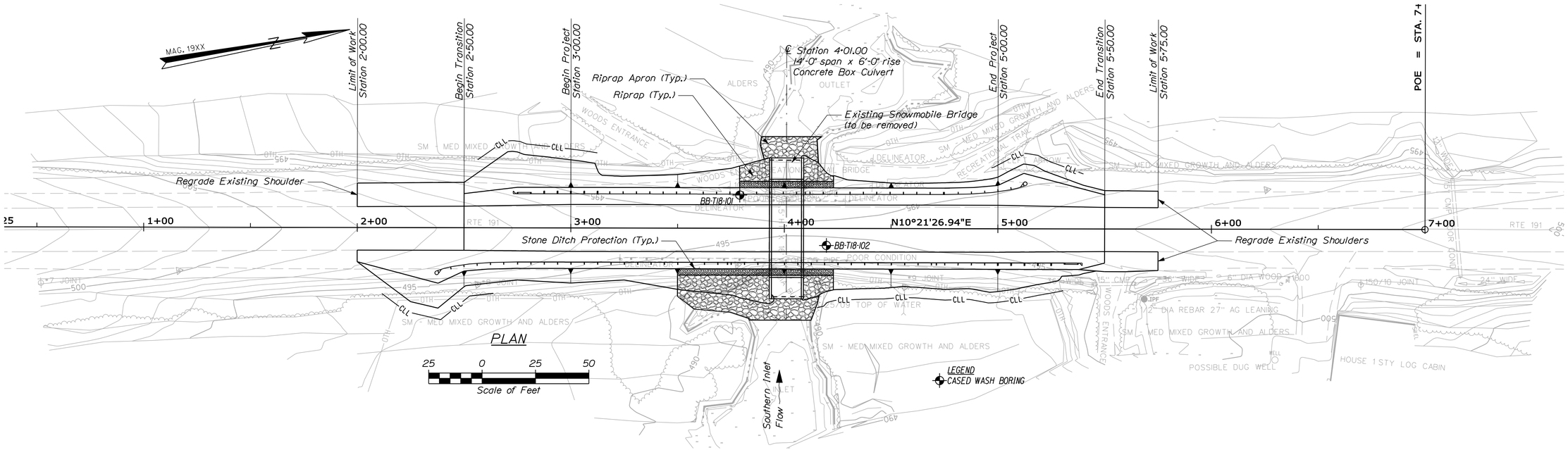
SHEET NUMBER

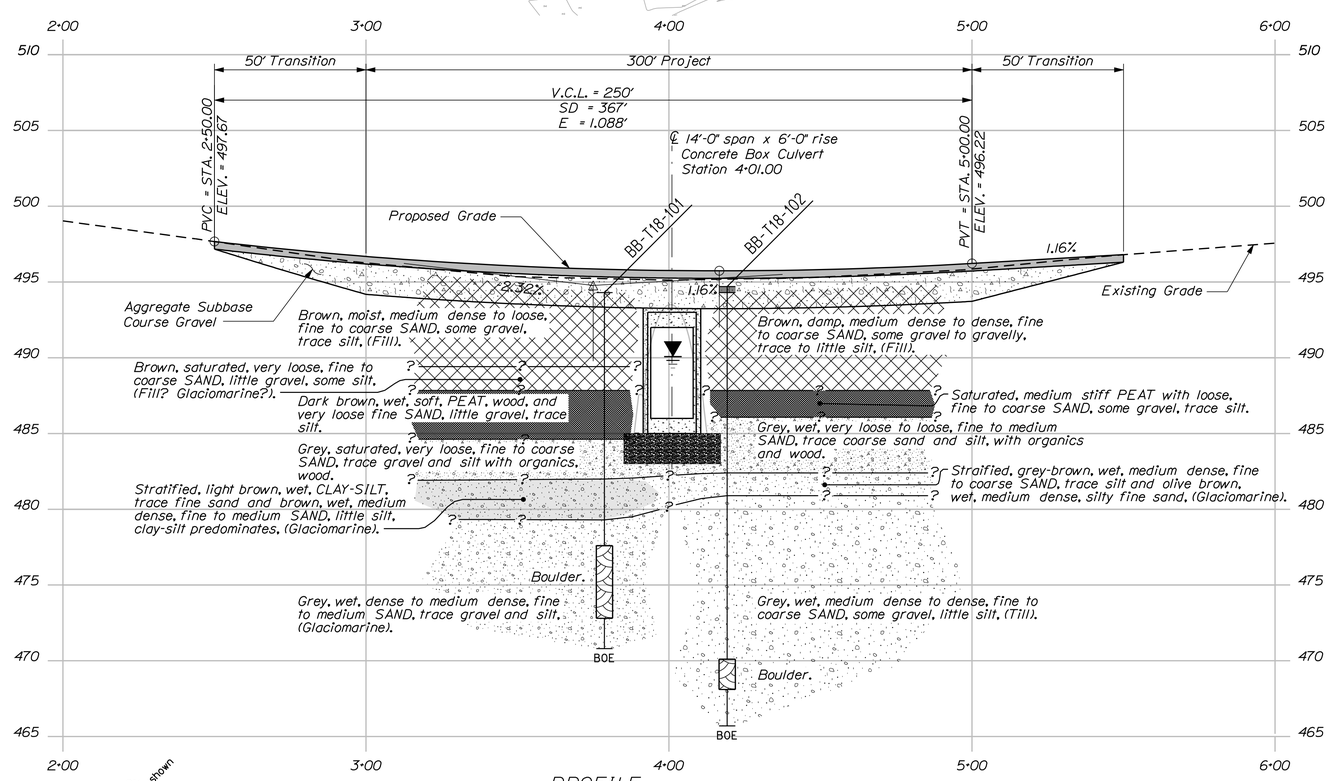
3

OF 14

Filename: ...\00\bridge\msta\003_BDPLAN1.DGN Division: BRIDGE Username: richard.nimon Date:5/13/2010

STA. 2+00.00 TO STA. 5+75.00





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

16758.00

PIN 16758.00

BRIDGE NO. 5375

BRIDGE PLANS

PROJ. MANAGER	S. BODGE	BY	DATE
DESIGN-DETAILED	M.MOREAU	T.WHITE	11\2009
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

4

OF 14

Filename: ...\GEOTECH\MSTA\004_BLP&ISP1.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010

Filename: ...\MSTA\005_BORING LOGS1.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010

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

Project: South Inlet Bridge #5375 carrying Route 191 over Southern Inlet
Location: Berry TWP., Maine

Boring No.: BB-T18-101
PIN: 16758.00

Driller:	MaineDOT	Elevation (ft.)	494.3	Auger ID/OD:	5" Solid Stem
Operator:	Giguere/Giles/Wright	Datum:	Assumed	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	11/18/09; 10:00-14:30	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	3+79.1, 15.6 Lt.	Casing ID/OD:	NW	Water Level*:	5.0' bgs.
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 PenetrometerWOR/C = weight of rods or casing
MV = Unsuccessful Insitu Vane Shear Test attempt WOH = Weight of one person
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = weight of 140lb. hammer
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

Sample Information

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.)	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/10	0.00 - 2.00	6/6/5/5	11	15	SSA		Brown, moist, medium dense to loose, fine to coarse SAND, some gravel, trace silt. (Fill).	
	20	24/15	2.50 - 4.50	4/4/3/2	7	10			Similar to above, except loose.	G#236862 A-1-a, SW-SM WC=4.9%
5	30	24/3	5.00 - 7.00	WOH/WOH/WOH/WOH	---			489.60 / 4.70	Brown, saturated, very loose, fine to coarse SAND, little gravel, some silt. (Fill? Glaciomarine?).	G#236863 A-2-4, SM WC=24.1%
	MV 40	24/8	7.00 - 7.10 7.50 - 9.50	Could not Push 1/2/1/3	3	4	95	487.80 / 6.50	Failed 55x110 mm vane attempt. 93 blows from 7.5-8.0' bgs. Dark brown, wet, soft, PEAT, wood, and very loose fine SAND, little gravel, trace silt.	G#236864 A-1-b, SM WC=56.8% Loss=16.8% H2O=57.1%
10	50 MV	24/10	10.00 - 12.00 10.20	2/1/2/2 Could not Push	3	4	5 / 9 / 6	484.80 / 9.50	Grey, saturated, very loose, fine to coarse SAND, trace gravel and silt with organics, wood. Failed 55x110 mm vane attempt.	G#236865 A-3, SP WC=69.6% Loss=11.5% H2O=66.0%
	60	24/18	12.00 - 14.00	2/18/3/8	21	29	10 / 15 / 29	482.30 / 12.00	Stratified, light brown, wet, CLAY-SILT, trace fine sand and brown, wet, medium dense, fine to medium SAND, little silt, clay-silt predominates. (Glaciomarine) Failed 55x110 mm vane attempt at 15'.	
15	MV 70	20.4/17	15.00 - 15.10 15.00	Could not Push 4/4/6/25	10	14	10	479.30 / 15.00	Grey, wet, medium dense, fine to medium SAND, trace gravel and silt. (Glaciomarine). P40 blows for 0.1'.	G#236866 A-3, SP WC=21.0%
	R1	57.6/55	16.70 16.70 - 21.50				P40 NQ-2	477.60 / 16.70	R1: Large Diorite BOULDER. R1:Core Times (min:sec) 16.7-17.7' (2:38) 17.7-18.7' (2:13) 18.7-19.7' (2:43) 19.7-20.7' (2:41) 20.7-21.5' (1:15)	
20	80	24/24	21.50 - 23.50	17/17/18/24	35	49		472.80 / 21.50	Grey, wet, dense, fine to medium SAND, trace silt. (Glaciomarine).	
25								470.80 / 23.50	Bottom of Exploration at 23.50 feet below ground surface. Boring terminated per Geotechnical Engineer.	

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-T18-101

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

Project: South Inlet Bridge #5375 carrying Route 191 over Southern Inlet
Location: Berry TWP., Maine

Boring No.: BB-T18-102
PIN: 16758.00

Driller:	MaineDOT	Elevation (ft.)	494.7	Auger ID/OD:	5" Solid Stem
Operator:	Giguere/Giles/Wright	Datum:	Assumed	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	11/19/09; 08:00-?	Drilling Method:	Cased Wash Boring	Core Barrel:	NQ-2"
Boring Location:	4+19.7, 8.0 Rt.	Casing ID/OD:	NW	Water Level*:	4.8' bgs.
Hammer Efficiency Factor: 0.84		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample attempt
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SSA = Solid Stem Auger
HSA = Hollow Stem Auger
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T_v = Pocket Torvane Shear Strength (psf)
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WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Sample Information

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.)	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA	494.30	PAVEMENT. 0.40	
	10	24/18	1.00 - 3.00	9/12/8/8	20	28			Brown, damp, medium dense to dense, fine to coarse SAND, some gravel, trace silt. (Fill).	G#236867 A-1-b, SW-SM WC=4.8%
	20	24/9	3.00 - 5.00	7/7/7/6	14	20		491.70 / 3.00	Similar to above but little silt.	G#236868 A-1-b, SM WC=7.2%
5	30	24/10	5.00 - 7.00	9/10/14/8	24	34		489.70 / 5.00	Similar to above, except wet and gravelly.	
	40/A	24/18	7.50 - 9.50	WOR/WOH/4/3	4	6		487.70 / 7.00	(40/A) 7.5-8.5' bgs. Saturated, medium stiff PEAT with loose, fine to coarse SAND, some gravel, trace silt.	G#236869 A-1-b, SM WC=238.9% Loss=41.5% H2O=243.7%
10	50	24/19	10.00 - 12.00	1/2/1/2	3	4		486.20 / 8.50	(40) 8.5-9.5' bgs. Grey, wet, loose, fine to medium SAND, trace coarse sand, trace silt. (Glaciomarine)	G#236870 A-3, SP-SM WC=25.0%
	60	24/14	12.00 - 14.00	3/4/17/15	21	29		484.70 / 10.00	Same but with layer of organics and wood and very loose.	
15	70	24/16	15.00 - 17.00	29/11/13/14	24	34		482.70 / 12.00	Stratified, grey-brown, wet, medium dense, fine to coarse SAND, trace silt and olive brown, wet, medium dense, silty fine sand. (Glaciomarine). 480.70 / 14.00	G#236871 A-1-b, SM WC=6.5%
20	80	24/4	20.00 - 22.00	5/7/7/8	14	20			Similar to above.	
25	R1	24/22	24.60 - 26.60				NQ-2	470.10 / 24.60	R1: Diorite BOULDER. R1:Core Times (min:sec) 24.6-25.6' (3:48) 25.6-26.6' (2:10) 468.10 / 26.60	
	90	24/4	27.00 - 29.00	4/6/7/9	13	18			Gravel wash in Spoon.	
30								465.70 / 29.00	Bottom of Exploration at 29.00 feet below ground surface.	

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-T18-102

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN 16758.00

BRIDGE PLANS

BRIDGE NO. 5375

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	M.MOREAU	T.WHITE	11\2009
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

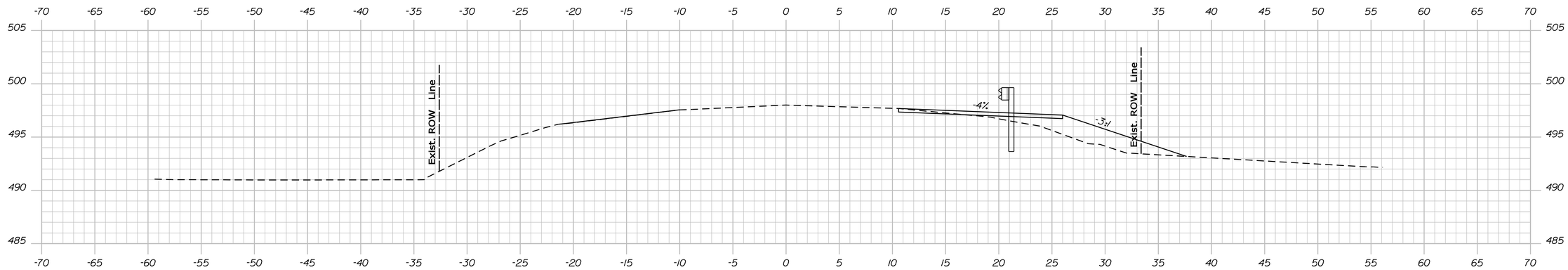
P.E. NUMBER

DATE

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

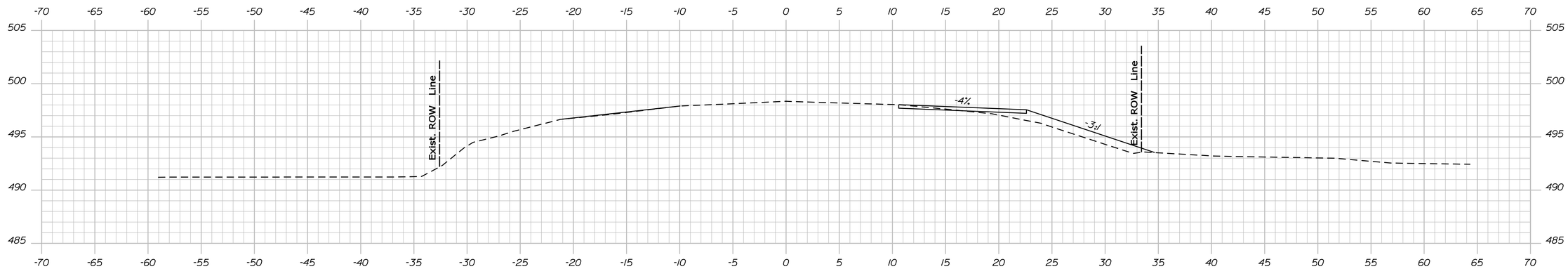
BORING LOGS

SHEET NUMBER
5
OF 14

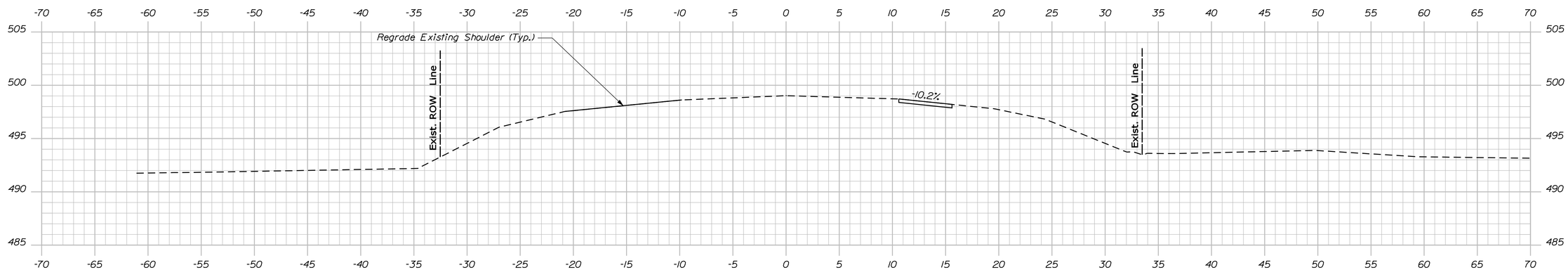


2+37.88

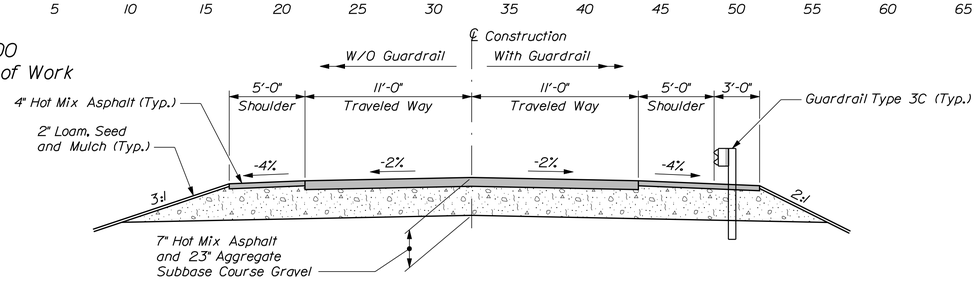
Sta. 2+37.9± to Sta. 2+75.0±
Install GR 350 Flared Terminal



2+25.00



2+00.00
Begin Limit of Work



TYPICAL APPROACH SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN 16758.00

BRIDGE PLANS

BRIDGE NO. 5375

PROJ. MANAGER	S. BODGE	BY	DATE
DESIGN-DETAILED	M. WIGHT	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

CROSS SECTIONS

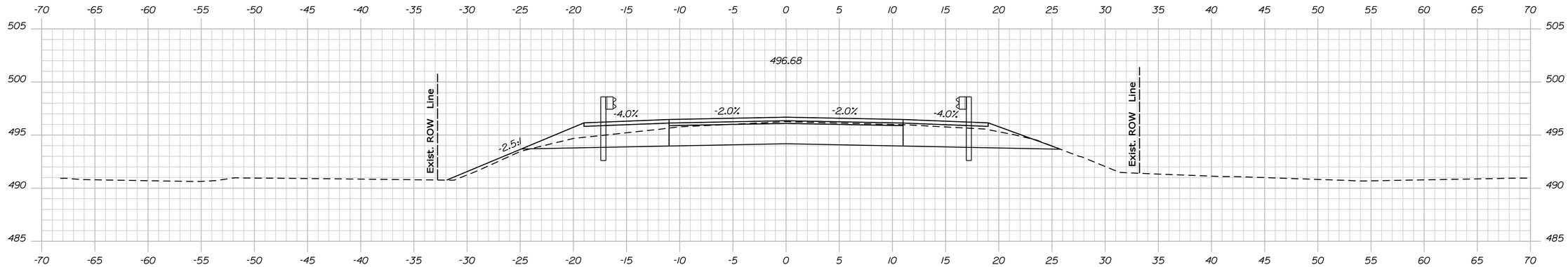
SHEET NUMBER

6

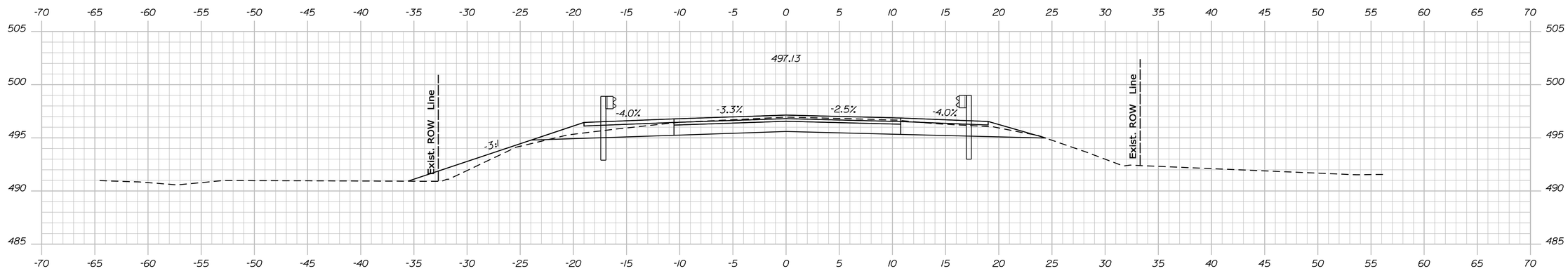
OF 14

Filename: ...\006_Xsect_mainline_2+00_001.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010

Sta. 2+00.00 to Sta. 2+37.88



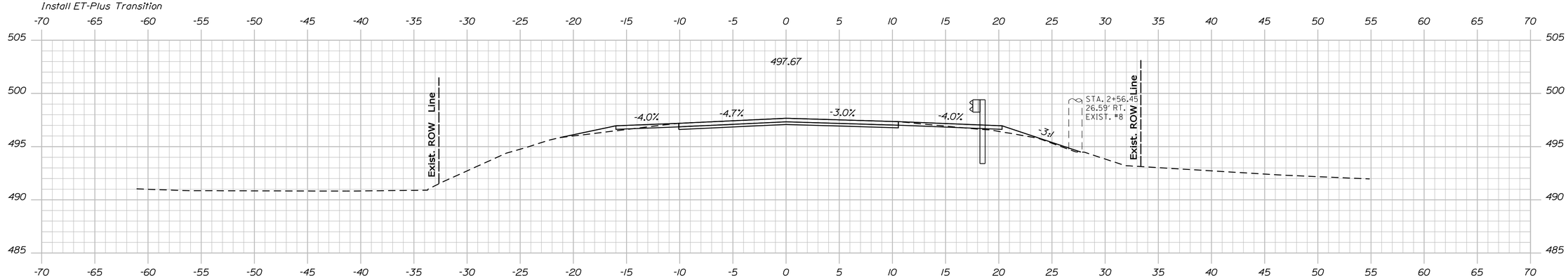
3+00.00
End Transition - Begin Project



Sta. 3+12.5± to Sta. 4+75.0±
Install 162.5 L.F. GR Type 3c
Sta. 2+75.0± to Sta. 3+12.5±
Install ET-Plus Transition

2+75.00

Sta. 2+75.0± to Sta. 5+00.0±
Install 225 L.F. GR Type 3c



2+50.00
Match Existing Roadway - Begin Transition
End Limit of Work

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN 16758.00

BRIDGE NO. 5375

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	M. WIGHT	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
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FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

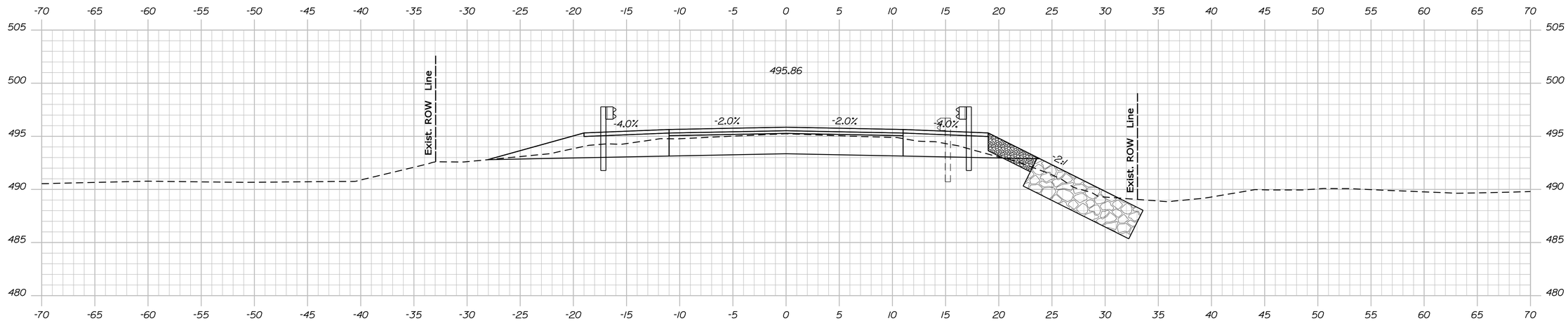
SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

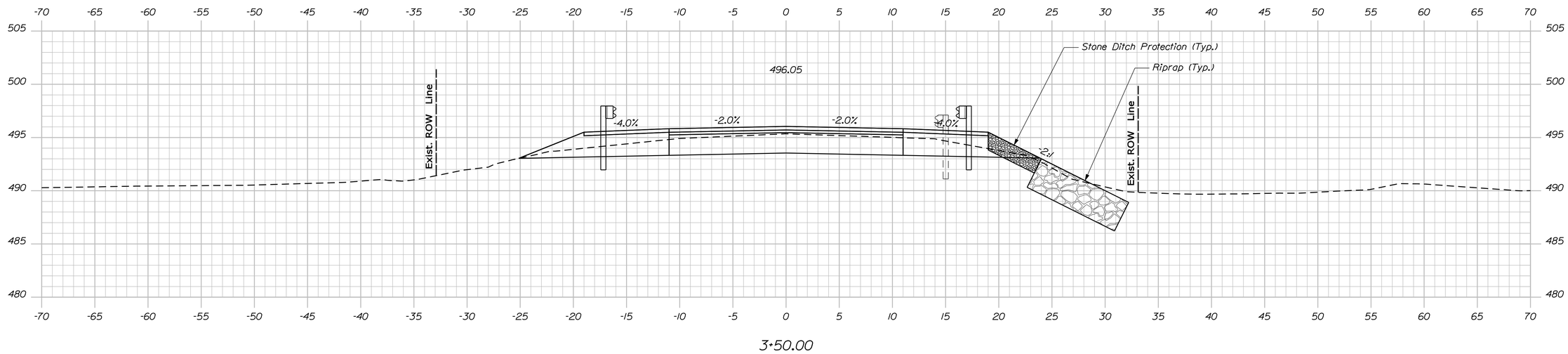
CROSS SECTIONS

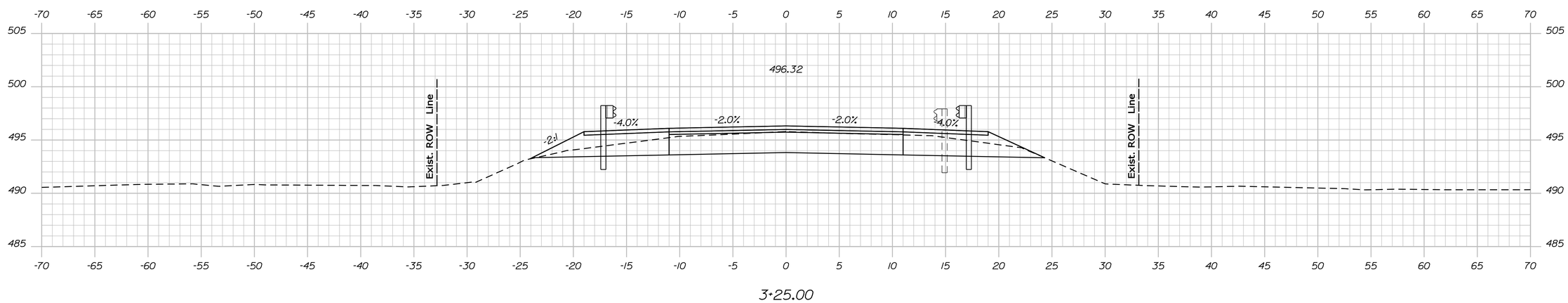
SHEET NUMBER
7
OF 14

Filename: ...\007_Xsect_mainline_2+50_002.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010

Sta. 2+50.00 to Sta. 3+00.00







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN 16758.00

BRIDGE NO. 5375

BRIDGE PLANS

PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	M. WIGHT	BY	DATE
CHECKED-REVIEWED		R.NIMON	05\2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

CROSS SECTIONS

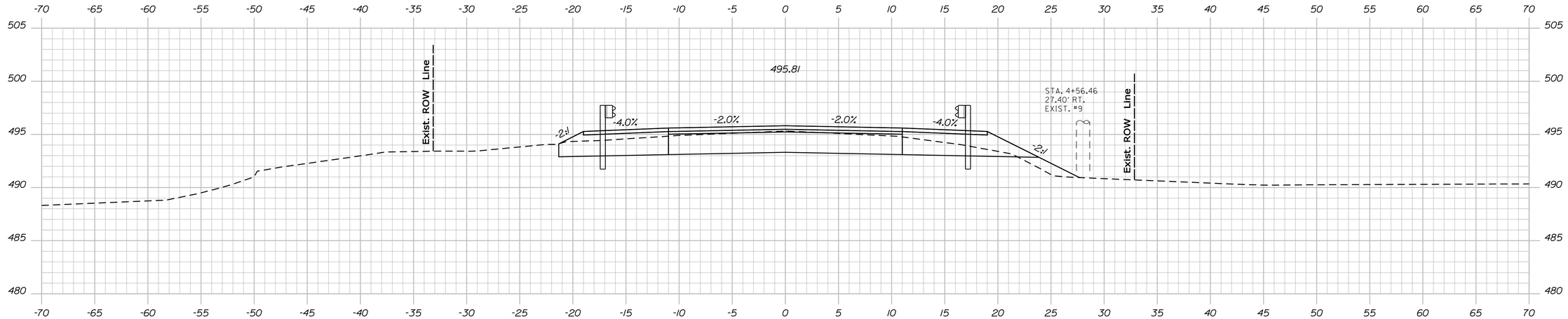
SHEET NUMBER

8

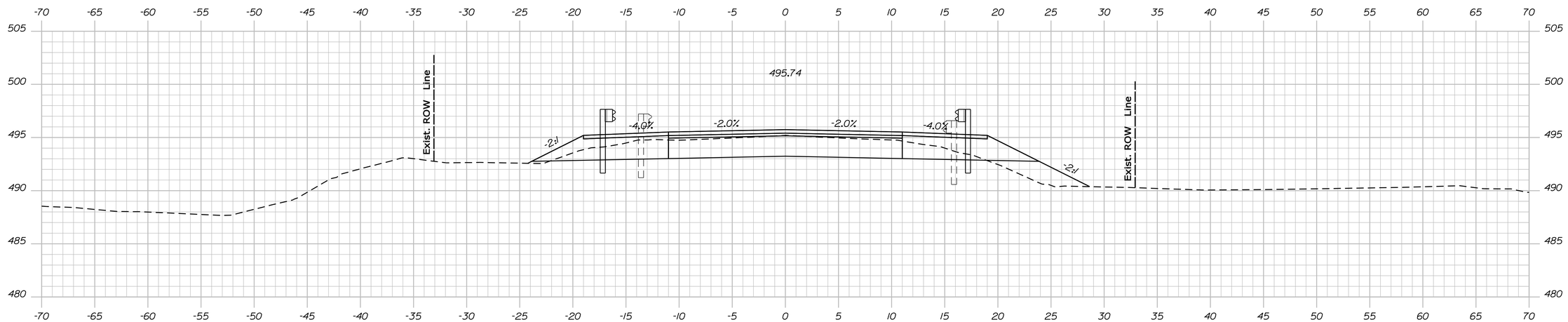
OF 14

Sta. 3+25.00 to Sta. 3+75.00

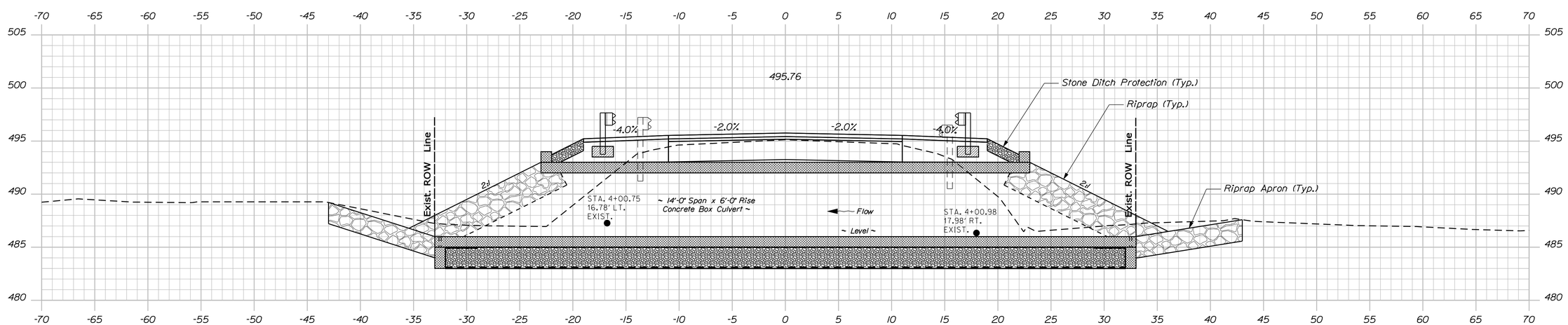
Filename: ...\008_Xsect_mainline_3+25_003.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010



4+50.00



4+25.00



4+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN
16758.00

BRIDGE NO. 5375

BRIDGE PLANS

PROJ. MANAGER	S. BODGE	BY	DATE
DESIGN-DETAILED	M. WIGHT	R.NIMON	05\2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

CROSS SECTIONS

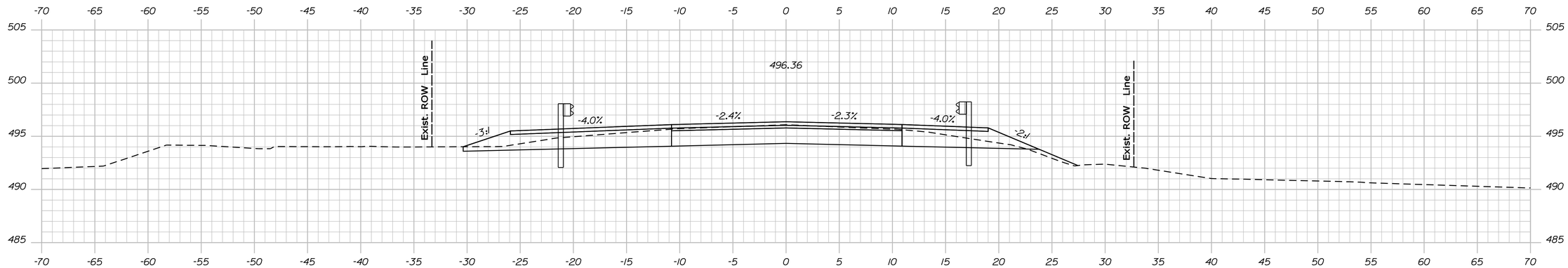
SHEET NUMBER

9

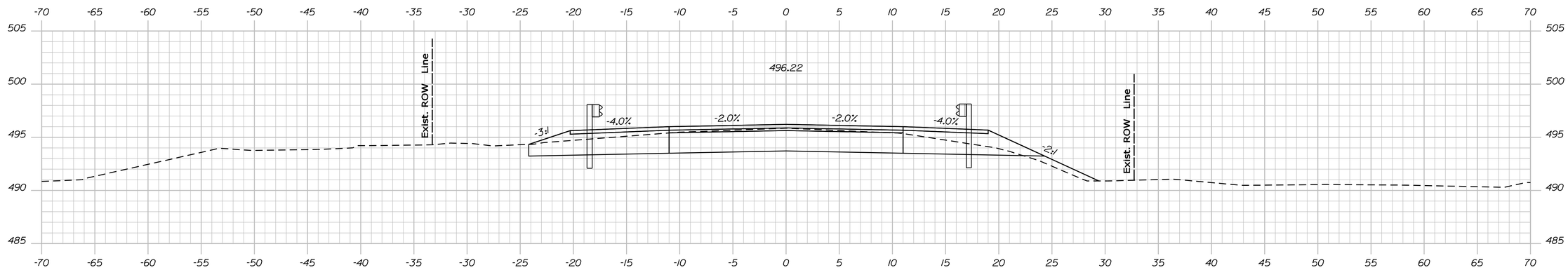
OF 14

Sta. 4+00.00 to Sta. 4+50.00

Filename: ...\009_Xsect_mainline_4+00_004.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010

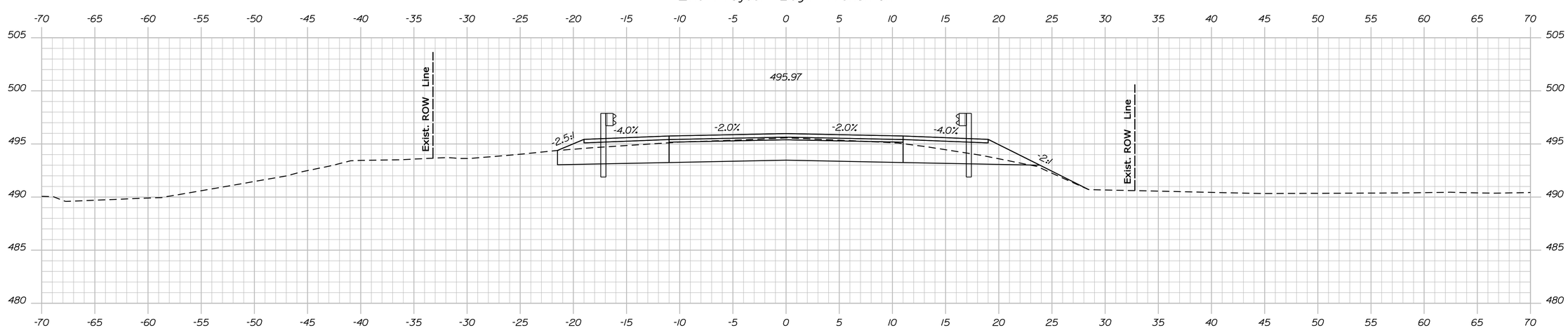


5+12.12



5+00.00
End Project - Begin Transition

Sta. 5+00.0± to Sta. 5+37.5±
Install ET-Plus Transition



Sta. 4+75.0± to Sta. 5+12.1±
Install GR 350 Flared Terminal

4+75.00

Filename: ...\010_Xsect_mainline_4+75_005.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN 16758.00

BRIDGE NO. 5375

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	M. WIGHT	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

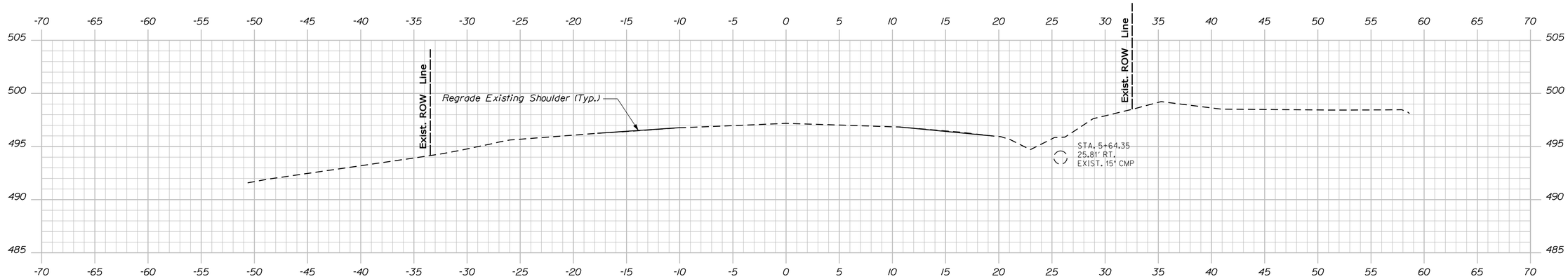
CROSS SECTIONS

SHEET NUMBER

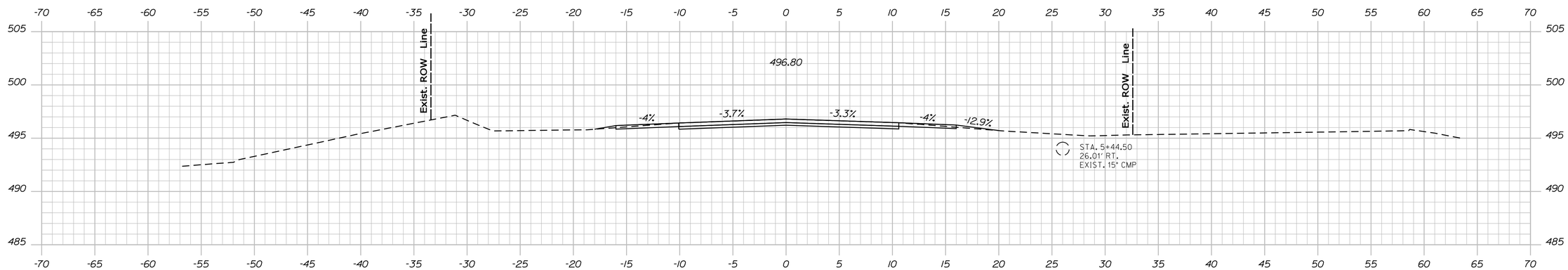
10

OF 14

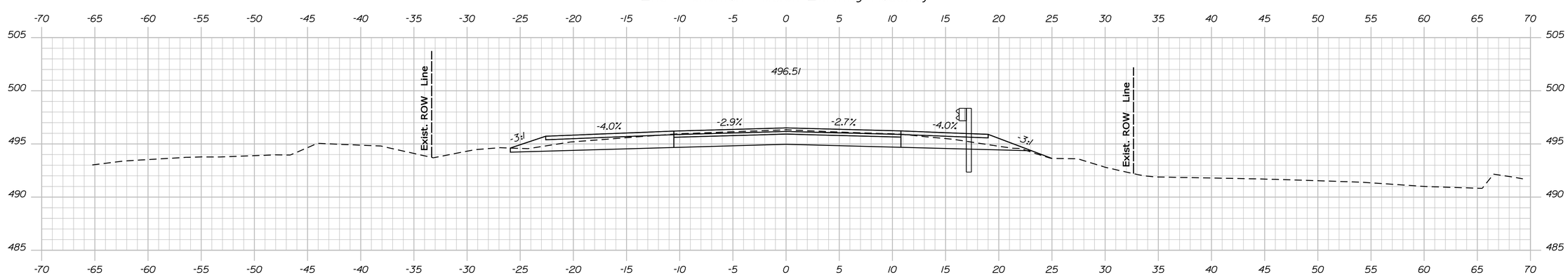
Sta. 4+75.00 to Sta. 5+12.12



5+75.00
Limit of Work



5+50.00
End Transition - Match Existing Roadway



5+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN
16758.00

BRIDGE NO. 5375

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

		BY	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	M. WIGHT	R.NIMON	05\2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

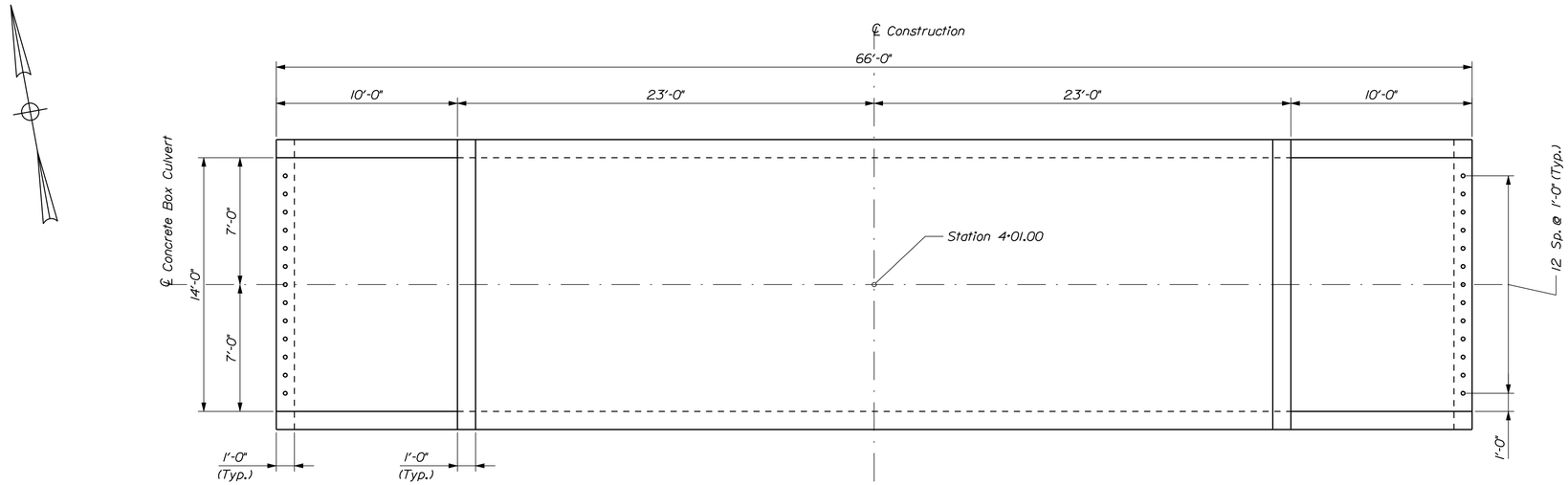
SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

CROSS SECTIONS

SHEET NUMBER
11
OF 14

Filename: ...\011_Xsect_mainline_5+25_006.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010

Sta. 5+25.00 to Sta. 5+75.00



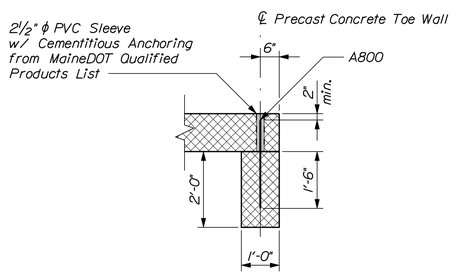
CONCRETE BOX PLAN

PRECAST CONCRETE ARCHES OR BOXES NOTES

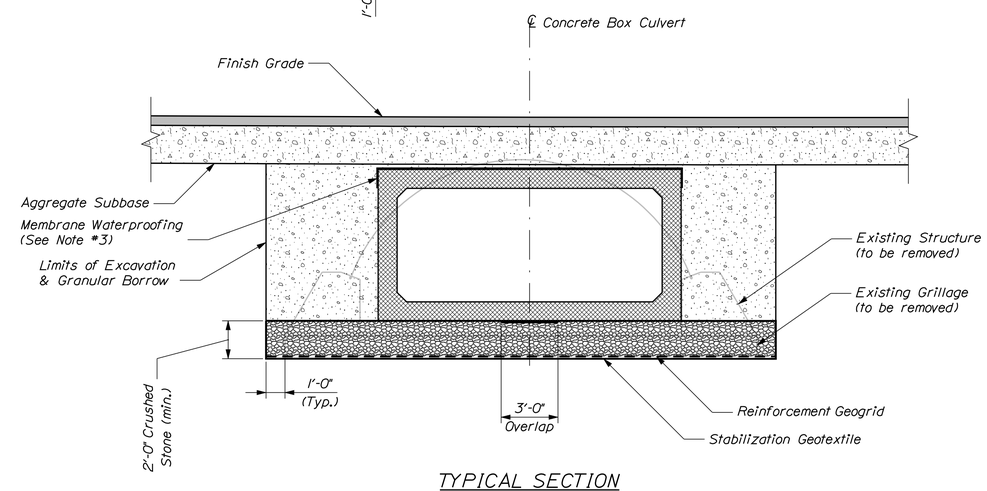
1. The precast units shall be designed to carry construction loadings with a minimum fill cover of 18 inches over the top of the units.

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.

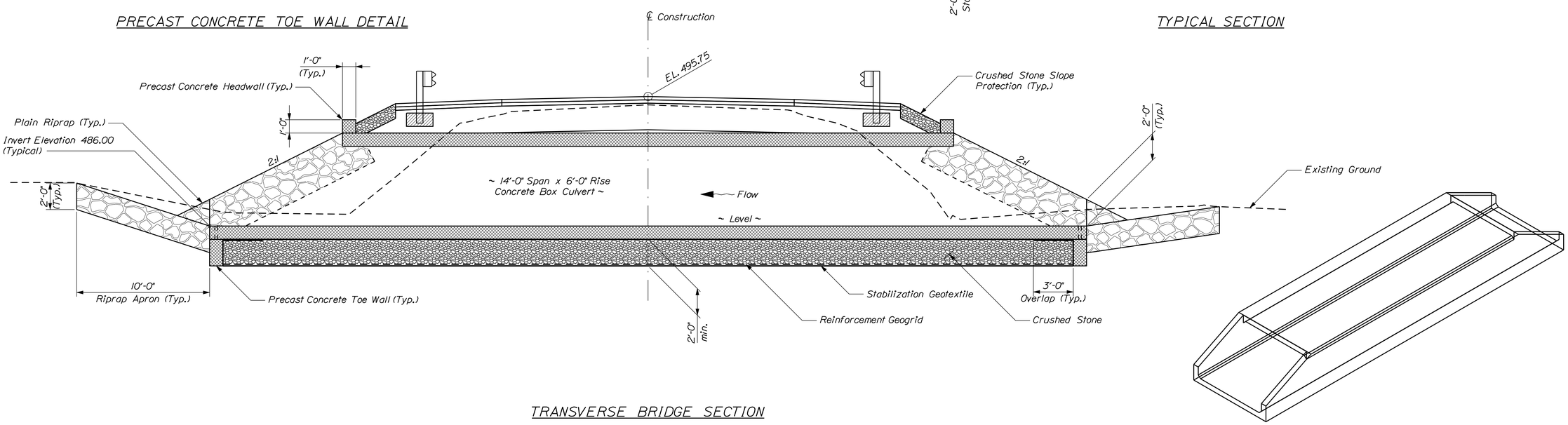
3. Install standard membrane waterproofing over the top and to 12 inches down the exterior sides of the precast units.



PRECAST CONCRETE TOE WALL DETAIL



TYPICAL SECTION



TRANSVERSE BRIDGE SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

PIN 16758.00

BRIDGE NO. 5375

BRIDGE PLANS

PROJ. MANAGER	S. BODGE	BY	DATE
DESIGN-DETAILED	M. WIGHT	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

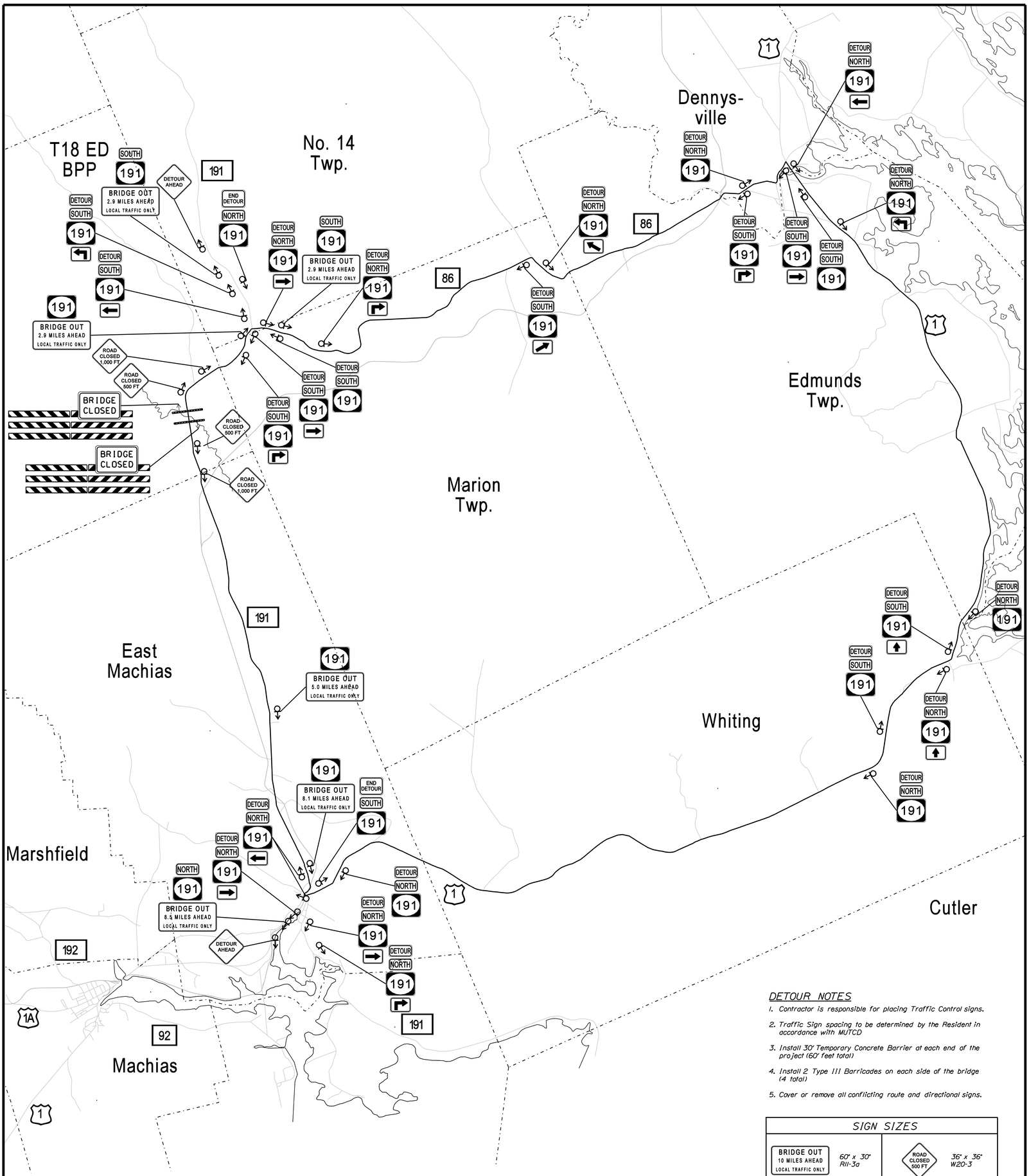
PRECAST CONCRETE BOX DETAILS

SHEET NUMBER

12

OF 14

Filename: ...\msla\012_Precast_Box.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010



DETOUR NOTES

1. Contractor is responsible for placing Traffic Control signs.
2. Traffic Sign spacing to be determined by the Resident in accordance with MUTCD
3. Install 30' Temporary Concrete Barrier at each end of the project (60' feet total)
4. Install 2 Type III Barricades on each side of the bridge (4 total)
5. Cover or remove all conflicting route and directional signs.

SIGN SIZES

BRIDGE OUT 10 MILES AHEAD LOCAL TRAFFIC ONLY	60" x 30" R11-3a	ROAD CLOSED 500 FT	36" x 36" W20-3
DETOUR	24" x 12" M4-8	ROAD CLOSED 1,000 FT	36" x 36" W20-3
↑	21" x 15" M6-3	END DETOUR	24" X 18" M4-8a
←	21" x 15" M6-1L	NORTH	24" x 12" M3-1
→	21" x 15" M6-1R	SOUTH	24" x 12" M3-3
↰	21" x 15" M5-1L	DETOUR AHEAD	36" x 36" W20-2
↱	21" x 15" M5-1R	191	30" x 24" M1-5
↖	21" x 15" M6-2R		
↗	21" x 15" M5-1R		

SHEET NUMBER 13 OF 14

SOUTHERN INLET BRIDGE
SOUTHERN INLET
TWP18 ED BPP WASHINGTON COUNTY

TRAFFIC CONTROL PLAN

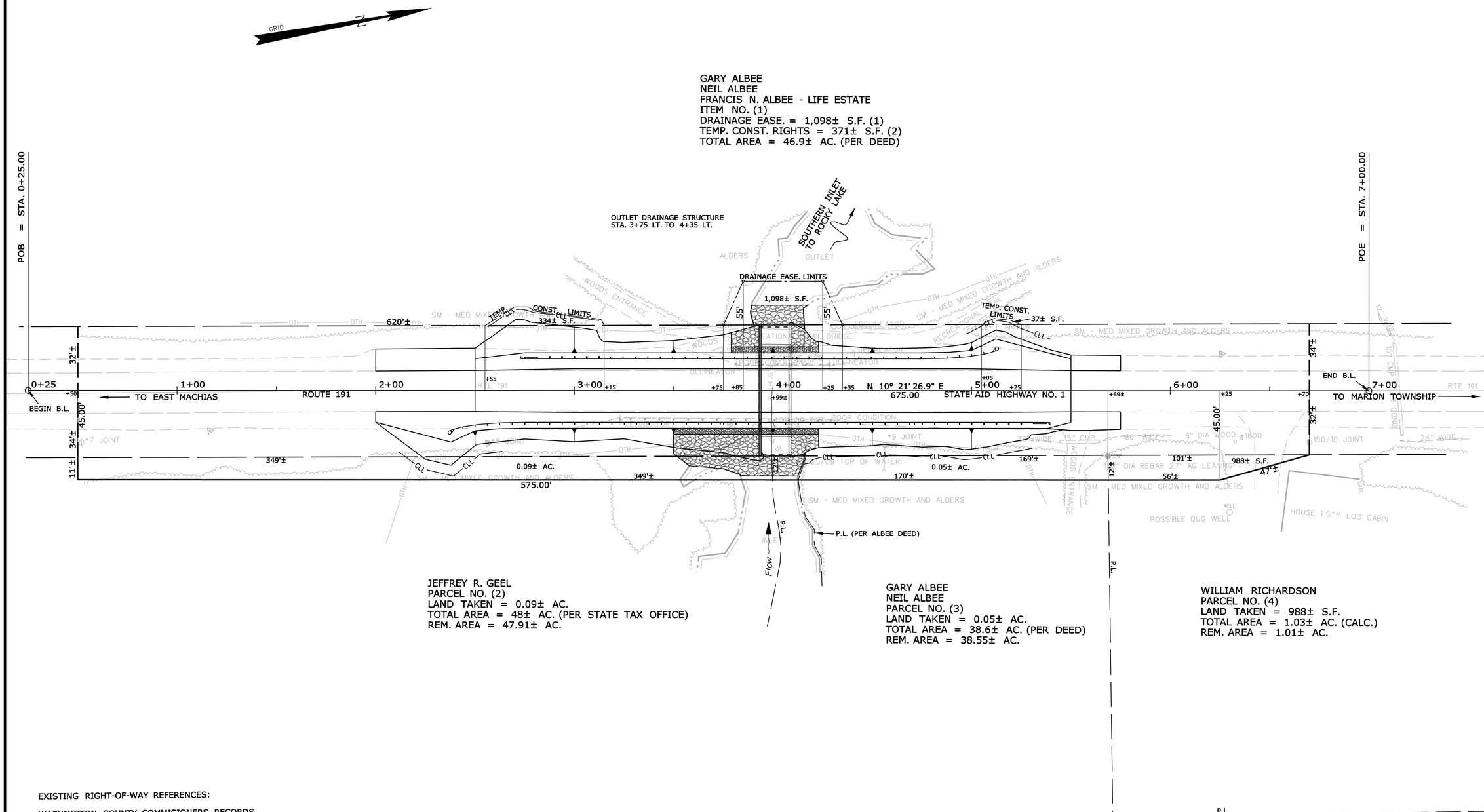
PROJ. MANAGER	S. BODGE	BY	DATE
DESIGN-DETAILED	M. WIGHT	R.NIMON	05\2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
P.E. NUMBER
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

16758.00

BRIDGE NO. 5375 PIN 16758.00 BRIDGE PLANS



EXISTING RIGHT-OF-WAY REFERENCES:

WASHINGTON COUNTY COMMISIONERS RECORDS
VOL. 2, PAGE 17
1827, 4 RODS WIDE

SEE ALSO:
S.H.C. FILE NO. S-15-118

BRIDGE NO. 5375 | SOUTHERN INLET BRIDGE OVER SOUTHERN INLET | PIN 016758.00

SYMBOLS

- IPF (IRON PIPE or PIN)
- 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
- 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	PNS	
PROP. LINES		
AREAS		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
TWP 18 ED
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
		COND.	5/10/10	3632	298

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

STATE OF MAINE
PETER A. BELANGER
1341
PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 1
ROUTE 191
TWP 18 E.D. B.P.P. WASHINGTON COUNTY
STATE PROJECT NO. 16758.00

MARCH 2010 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 15-308
SCALE 1" = 25' | SHEET 1 OF 1

SHEET NUMBER
14
OF 14

Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn Division: BRIDGE Username: richard.nimon Date:5/12/2010