STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PLAN LEGEND

Town, County, State
Property Lines
R/W Lines-Existing
R/W Lines-Proposed
Culvert-Existing
Culvert Proposed
Curbing — Existing — Proposed
Type 1
Type 3
Type 5
Outline of Bodies of Water
Ledge
Buildings
Trees — Conifer — Deciduous
Tree Line
Clearing Limit Line — CLL
Centerline-Existing
Centerline-Proposed — 10+00
Travelway-Existing
Travelway-Proposed
Railroad
Catch Basins — Existing — Proposed
Manholes — Existing — Proposed
Proposed Underdrain
Proposed Ditch
Existing Ditch
Utility Poles — Existing — Proposed
Fire Hydrants — Existing — Proposed
Existing Water Line
Existing San. Sewer
Existing San. Sewer Manhole
Guardrail-Existing
Guardrail-Proposed
Guardrail-Cable, Other

CLINTON
KENNEBEC COUNTY
RIVER ROAD
STATE PROJECT NO. 20337.00
PROJECT LENGTH : 0.07 MILES

INDEX OF SHEETS

Description	Sheet No.
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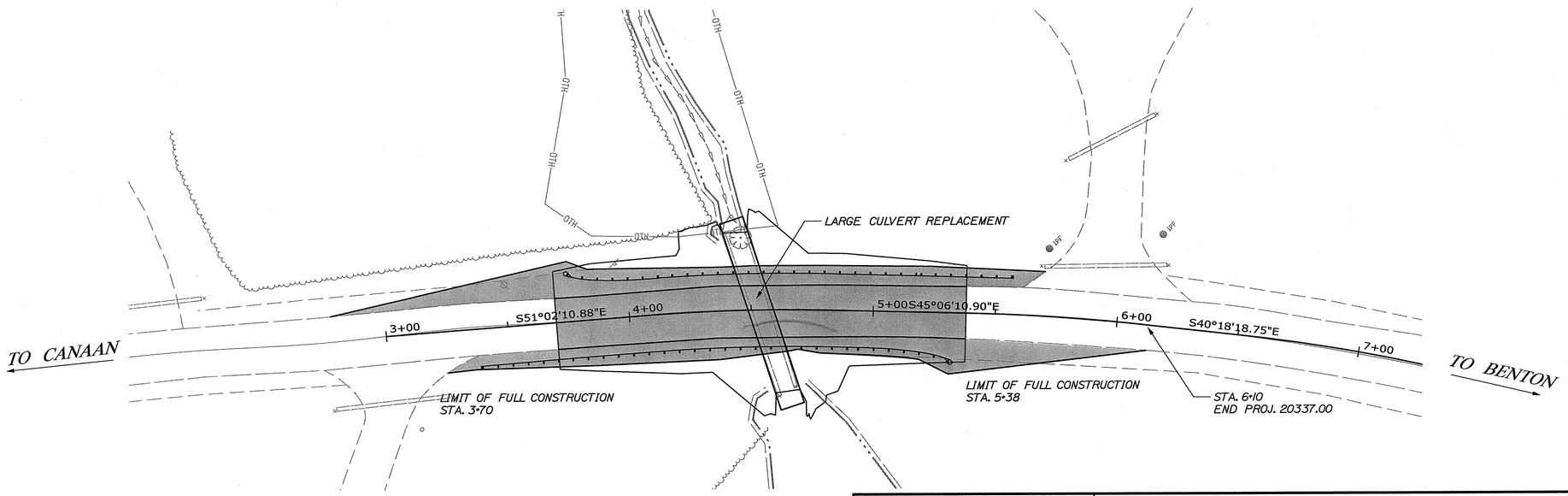
General Notes	2
Plan	3
Typical Sections	4
Profile	5
Box Culvert Details	6
Cross Sections	7-11
Geotechnical Investigation	12-13
Right of Way Map	14
Approved Detour	15



TRAFFIC DATA

Current (2014) AADT	1406
Design Speed (mph)	45
Functional Class	Minor Collector
Corridor Priority	4

LAYOUT SCALE

25 0 25 50

Scale in Feet

PROJECT LOCATION:	LOCATED APPROXIMATELY 1.00 MILES NORTHERLY OF CLINTON/BENTON TL.
PROGRAM AREA:	HIGHWAY PROGRAM
SCOPE OF WORK:	LARGE CULVERT REPLACEMENT

WIN 20337.00 020337.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED	DATE
DEPUTY COMMISSIONER:	5/14/15
DEPUTY CHIEF ENGINEER:	5/13/15

STATE OF MAINE JAMES C. ANDREWS 8580 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 8580
P.E. NUMBER
April 30, 2015
DATE

PROJECT INFORMATION
PROGRAM
PROJECT MANAGER
DESIGNER
CONSULTANT
PROJECT RESIDENT
CONTRACTOR
PROJECT COMPLETION DATE

CLINTON
RIVER ROAD
TITLE SHEET

SHEET NUMBER
1
OF 15

Filename: ...\00\HIGHWAY\MSTA\001_Title.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/29/2015

GENERAL NOTES

1. INVOLVED UTILITIES SHALL BE ADJUSTED AS NECESSARY BY THEIR RESPECTIVE OWNERS UNLESS OTHERWISE NOTED.

2. DURING CONSTRUCTION, THE ROAD WILL BE CLOSED TO TRAFFIC FOR A TIME PERIOD SPECIFIED IN THE SPECIAL PROVISIONS.

3. FOR EASEMENTS, CONSTRUCTION LIMITS AND RIGHT OF WAY LINES, REFER TO THE RIGHT OF WAY MAP.

4. CLEARING LIMIT LINES SHOWN ON THE PLANS ARE FOR ESTIMATING PURPOSES ONLY. ACTUAL LIMITS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE RESIDENT.

5. ALL JOINTS BETWEEN EXISTING AND PROPOSED HOT BITUMINOUS PAVEMENT SHALL BE SAW CUT. PAYMENT SHALL BE INCIDENTAL TO THE 403 ITEMS.

6. ALL INSLOPE AND DITCHES IN CUT AREAS SHALL BE GRADED AS SHOWN ON THE TYPICALS OR FLATTER, OR AS DIRECTED BY THE RESIDENT.

7. LOAM, SEED, AND MULCH ARE TO BE PLACED ON DISTURBED LAWN AREAS. LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 2 INCHES.

8. UNLESS OTHERWISE NOTED, SEEDING METHOD NO.1 SHALL BE USED.

9. NEWLY CONSTRUCTED SIDESLOPES NOT RECEIVING RIPRAP SHALL HAVE LOAM PLACED TO A DEPTH OF 2 INCHES. EROSION CONTROL MIX MAY BE USED IN THESE AREAS AS DETERMINED BY THE RESIDENT.

10. THE CONTRACTOR SHALL PLAN AND CONDUCT THEIR WORK ACCORDINGLY SO THAT UPON FINAL COMPLETION OF THE PROJECT THERE IS NO DROP-OFF FROM THE EDGE OF SHOULDER PAVEMENT.

11. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF IN ACCEPTABLE WASTE AREAS. GRADING, SEEDING, AND MULCHING OF WASTE AREAS TO BE CONSIDERED INCIDENTAL TO 656 ITEMS.

12. ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING SHALL BE INCIDENTAL TO THE RELATED PAVING ITEMS.

13. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.

14. GUARDRAIL END TREATMENTS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL.

15. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING MAILBOXES TO ENSURE THAT THE MAIL WILL BE DELIVERABLE. PAYMENT WILL BE INCIDENTAL TO THE CONTRACT.

16. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.

17. AREAS REQUIRING FILL ON THE PROJECT WILL COME FROM SUITABLE EXCAVATION FROM EXCAVATION, DITCH & INSLOPE, OR EQUIPMENT RENTAL AREAS.

18. ADDITIONAL EXCAVATION FOR THE CONTRACTOR'S CONVENIENCE OR TO COMPLY WITH BACKSLOPING REQUIREMENTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELATED DRAINAGE ITEMS.

19. RIPRAP ADJACENT TO THE BOX CULVERT SHALL BE PLACED SO AS TO NOT 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.

20. REMOVAL OF EXISTING DRAINAGE SHALL BE CONSIDERED INCIDENTAL TO ITEM 203.20 COMMON EXCAVATION.

21. STATIONS REFERENCED ARE APPROXIMATE.

22. EROSION CONTROL GEOTEXTILE SHALL BE PLACED AT ALL RIPRAP LOCATIONS. PAYMENT WILL BE MADE UNDER ITEM 620.58 EROSION CONTROL GEOTEXTILE.

23. THE CONTRACTOR IS RESPONSIBLE FOR THE CAREFUL SIDE STAKING OF EXISTING CENTERLINE AS PER STANDARD SPECIFICATION 105.6.2. SIDE STAKES SHALL BE PLACED SAFELY OUTSIDE OF THE CONSTRUCTION LIMITS AND THE EXISTING CENTERLINE GRADES SHALL BE TRANSFERRED TO THESE STAKES. THESE STAKES AND GRADES WILL BE USED TO LAYOUT CENTERLINE AND TO DETERMINE NEW CONSTRUCTION FINISH GRADES FROM DIFFERENTIAL ELEVATION SHEETS FURNISHED BY MAINEDOT. ALL LAYOUT, STAKES, AND GRADES WILL BE CHECKED AND MUST BE ACCEPTABLE TO THE RESIDENT.

24. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION'S BEST MANAGEMENT PRACTICES FOR EROSION & SEDIMENTATION CONTROL, FEBRUARY, 2008.

CONSTRUCTION NOTES

511.07 COFFERDAM
UPSTREAM: 1 LS
DOWNSTREAM: 1 LS

527.303 ENERGY ABSORBING SYSTEM (ET-PLUS)
STA. 3+38 15' RT TO STA. 3+75.5 15' RT
STA. 5+19.5 15' LT TO STA. 5+57 15' LT

531.71 PRECAST CONCRETE BOX CULVERT
AREAS AND STATIONS AS SHOWN ON PLANS.
ANY NECESSARY CLEARING SHALL BE INCIDENTAL TO THIS ITEM.
PVC SLEEVES AND CEMENTIOUS MATERIAL INCIDENTAL TO THIS ITEM.
EXCAVATION BELOW SUBGRADE INCIDENTAL TO THIS ITEM

606.23 GUARDRAIL TYPE 3C-SINGLE RAIL
STA 3+75.5 15' RT TO STA. 5+00.5 15' RT (10 PANELS)
STA. 4+07 15' LT TO STA. 5+19.5 15' RT (9 PANELS)

606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER
STA. 3+38 RT
STA. 5+57 LT
STA. 3+69.5 LT
STA. 4+07 LT
STA. 5+00.5 RT
STA. 5+38 RT

TOTAL: 6 EA

606.79 GUARDRAIL 350 FLARED TERMINAL
STA. 3+69.5 LT TO STA. 4+07 LT
STA. 5+00.5 RT TO STA. 5+38 RT

610.08 PLAIN RIPRAP
RIPRAP IN APRONS SHALL BE MIXED WITH EXCAVATED DREDGE MATERIAL AND/OR GRANULAR BORROW TO REMOVE VOIDS IN THE APRON. SEE SPECIAL PROVISION 203.33. THIS WORK SHALL BE INCIDENTAL TO ITEM 203.33 SPECIAL FILL.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	490	CY
203.25	GRANULAR BORROW	360	CY
203.33	SPECIAL FILL	30	CY
203.35	CRUSHED STONE FILL	50	CY
206.07	STR ROCK EXC - DR AND MINOR STR	20	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	530	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	100	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	190	T
409.15	BITUMINOUS TACK COAT - APPLIED	50	G
508.13	MEMBRANE WATERPROOFING	130	SY
511.07	COFFERDAM: UPSTREAM	1	LS
511.07	COFFERDAM: DOWNSTREAM	1	LS
527.303	ENERGY ABSORBING SYSTEM (ET-PLUS)	2	EA
534.71	PRECAST CONCRETE BOX CULVERT	1	LS
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	237.5	LF
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	6	EA
606.79	GUARDRAIL 350 FLARED TERMINAL	2	EA
610.08	PLAIN RIPRAP	120	CY
615.07	LOAM	10	CY
618.14	SEEDING METHOD 2	1	UN
619.12	MULCH	1	UN
619.1401	EROSION CONTROL MIX	10	CY
620.54	STABILIZATION GEOTEXTILE	210	SY
620.58	EROSION CONTROL GEOTEXTILE	180	SY
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
639.19	FIELD OFFICE TYPE B	1	EA
652.312	BARRICADE TYPE III	6	EA
652.33	DRUM	20	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGN	500	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	60	LS
652.38	FLAGGER	240	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN 20337.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	SHAWN SMITH		
DESIGN-DETAILED	N. HARTLEY		
CHECKED-REVIEWED			
DESIGN2-DETAILED2	M.KIRKMANN	T.WHITE	APR 2014
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

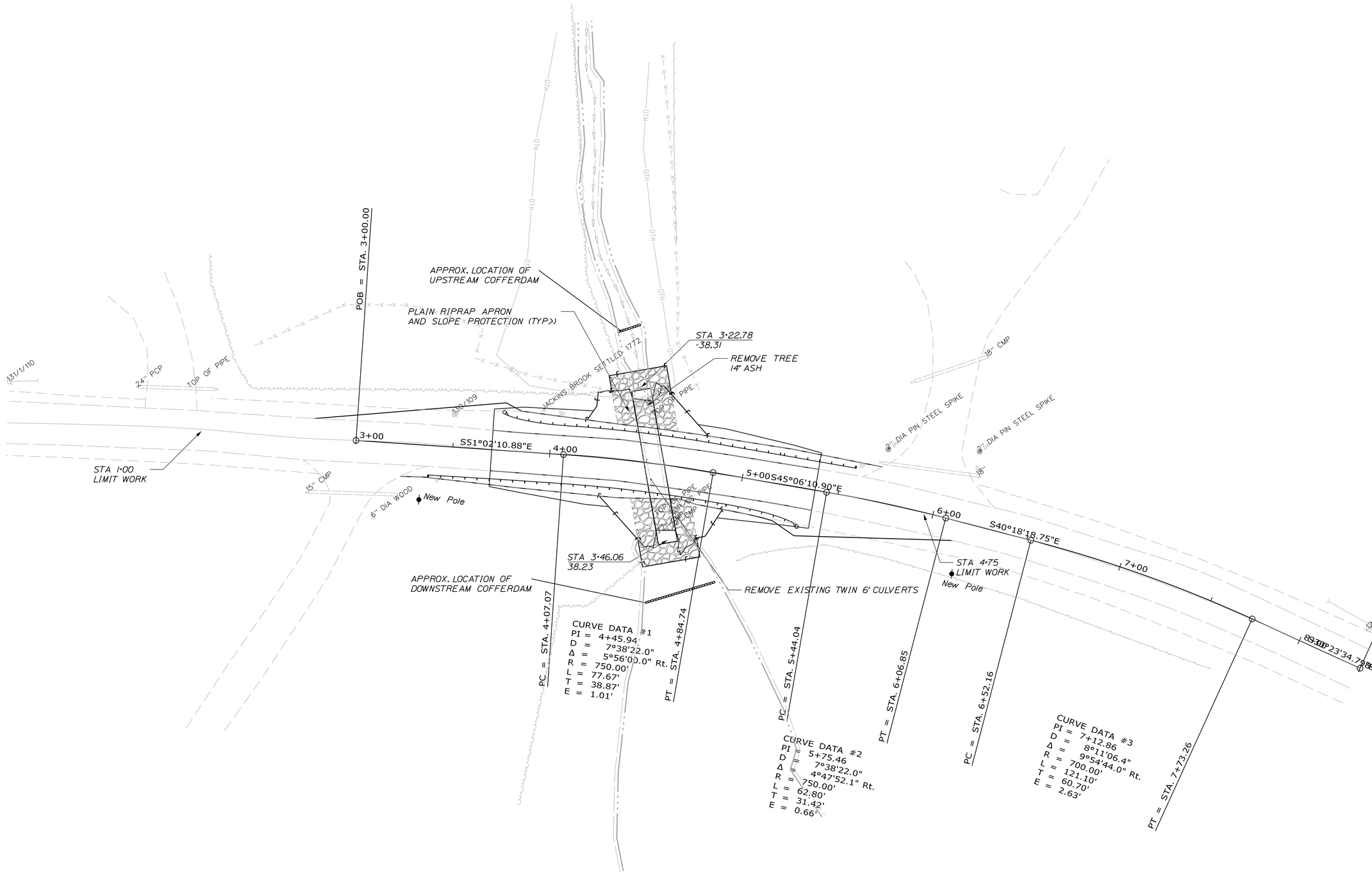
DATE

CLINTON
RIVER ROAD

GENERAL NOTES/ESTIMATE

SHEET NUMBER
2
OF 15

Filename: ...\MSTA\002_GeneralNotes.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN
20337.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	SHAWN SMITH		
DESIGN-DETAILED	N. HARTLEY		
CHECKED-REVIEWED			
DESIGN2-DETAILED2	M.KIRKMANN	T.WHITE	APR 2014
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CLINTON
RIVER ROAD

PLANS

SHEET NUMBER

3

OF 15

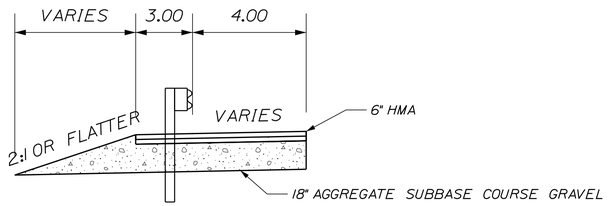
Filename: ...\HIGHWAY\MSTA\003_HDPlan1.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015

NOTE:

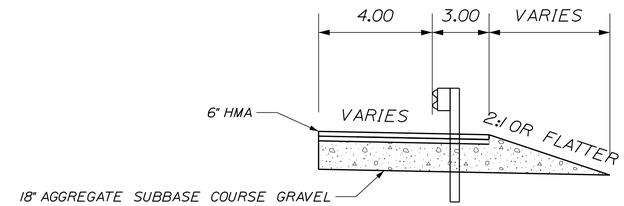
1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.

2. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.

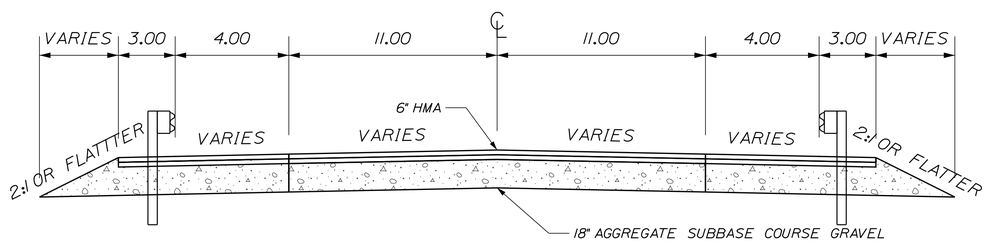
3. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVEWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.



TYPICAL LEFT GUARDRAIL APPROACH



TYPICAL RIGHT GUARDRAIL APPROACH



TYPICAL APPROACH SECTION

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN 20337.00

HIGHWAY PLANS

PROJ. MANAGER	SHAWN SMITH	BY	DATE
DESIGN-DETAILED	N. HARTLEY	------	------
CHECKED-REVIEWED	------	------	------
DESIGN2-DETAILED2	M.KIRKMANN	T.WHITE	APR 2014
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

SIGNATURE

P.E. NUMBER

DATE

CLINTON
RIVER ROAD

TYPICAL SECTIONS

SHEET NUMBER

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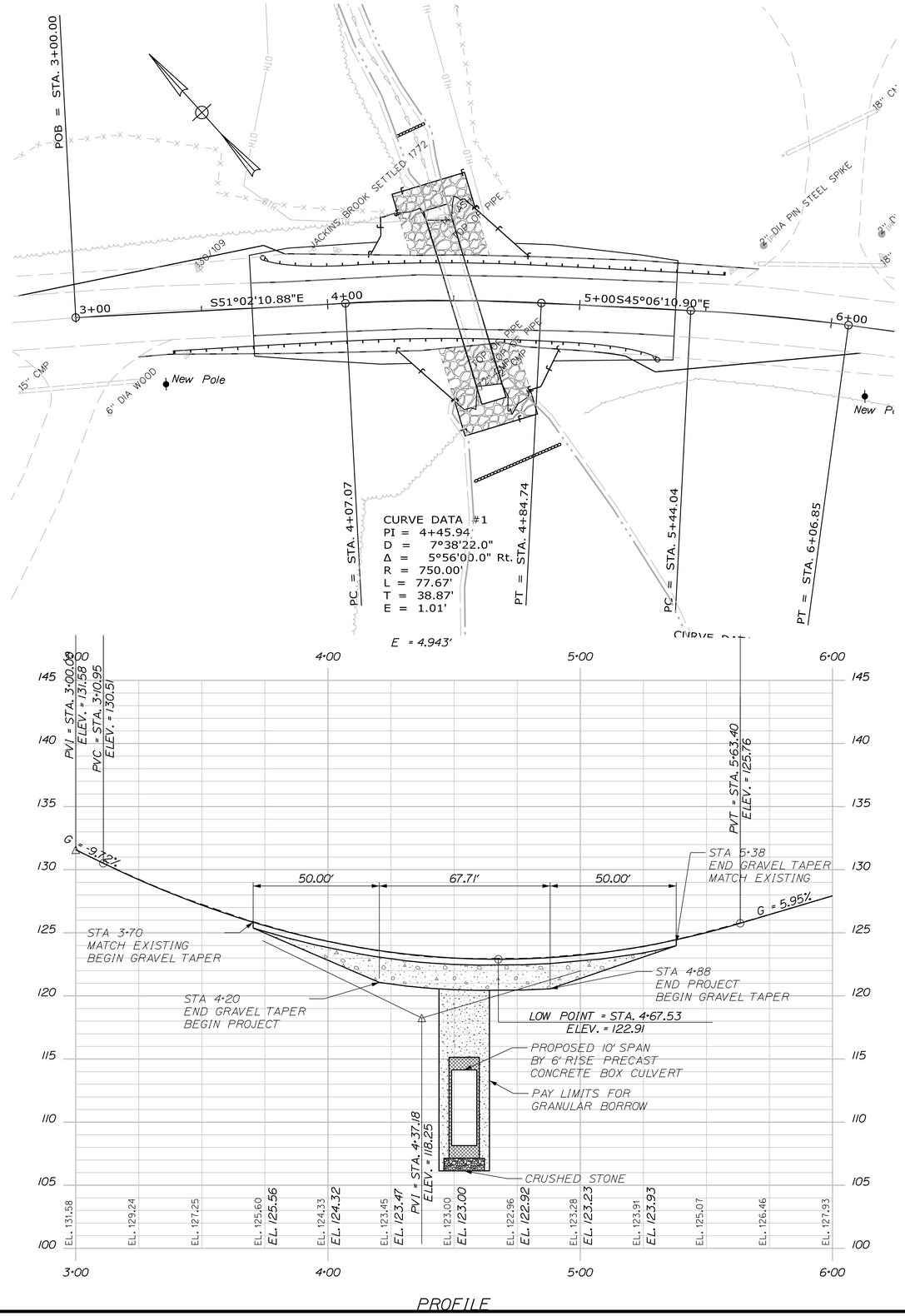
OF 15

Filename: ...\HIGHWAY\MSTA\004_Typical.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015



PROFILE

Filename: ...\MSTA\005_PLANPROFILE.DGN Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN 20337.00

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	SHAWN SMITH		
DESIGN-DETAILED	N HARTLEY		
CHECKED-REVIEWED			
DESIGN2-DETAILED2	M.KIRKMANN	T.WHITE	APR 2014
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

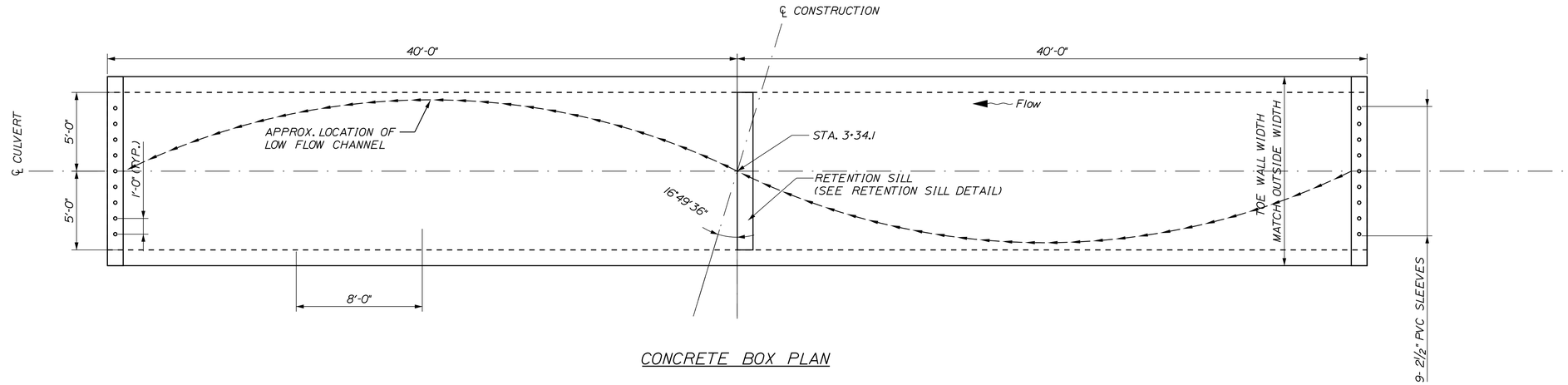
CLINTON
RIVER ROAD

PLANS

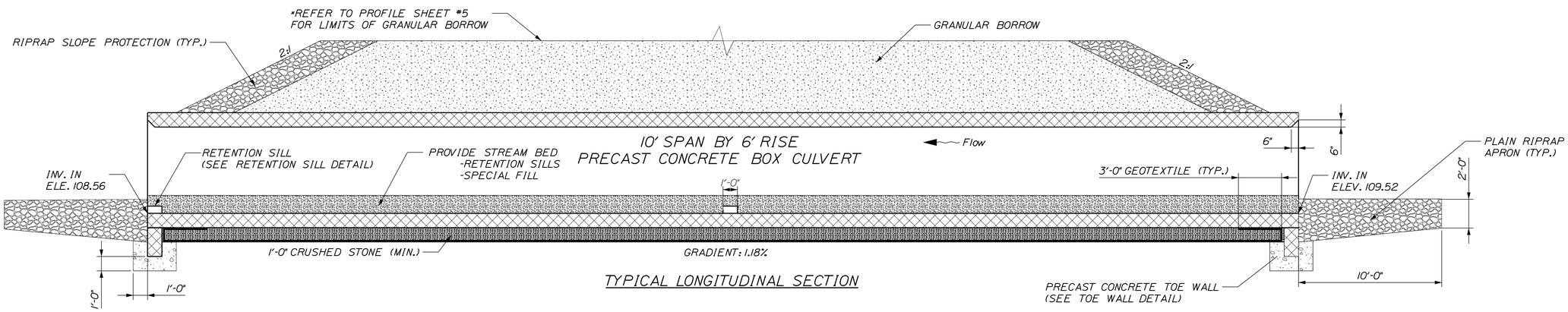
SHEET NUMBER

5

OF 15



CONCRETE BOX PLAN



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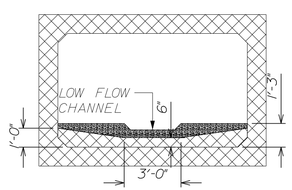
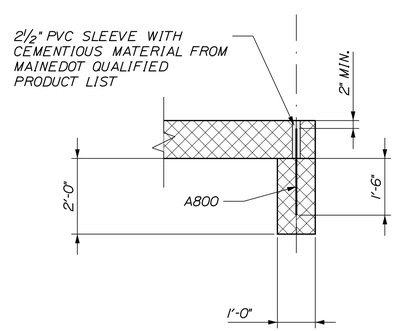
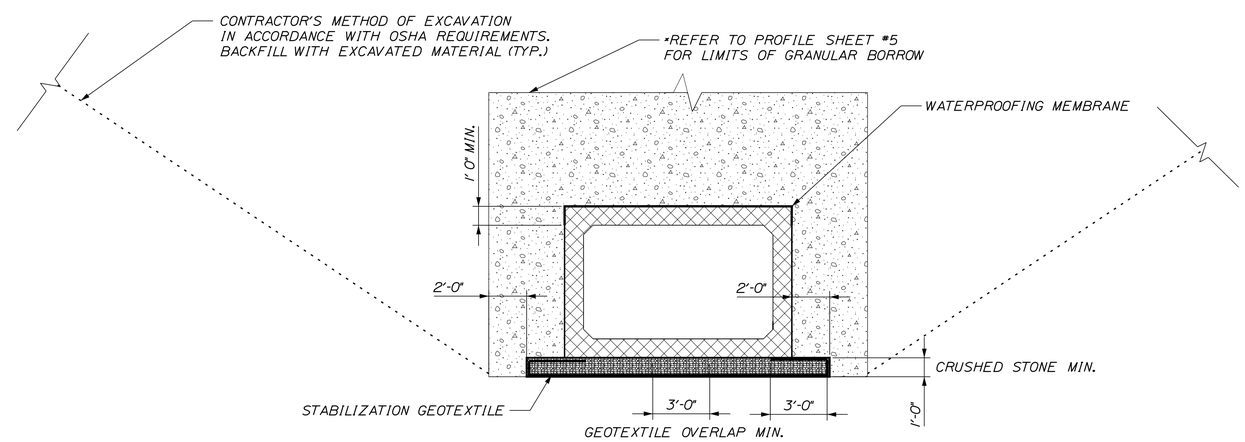


RETENTION SILL DETAIL



PRECAST CONCRETE TOE WALL DETAIL



TYPICAL BOX SECTION

CULVERT NOTES

1. INSTALL STANDARD MEMBRANE WATERPROOFING OVER THE TOP AND TO AT LEAST 12 INCHES DOWN THE EXTERIOR SIDES OF PRECAST UNITS.

2. CONSTRUCTION, HANDLING, AND ASSEMBLY OF THE PRECAST UNITS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS APPLICABLE.

3. THE CONTRACTOR SHALL CONSTRUCT A MEANDERING CHANNEL IN THE CONSTRUCTED SUBSTRATE APPROXIMATELY 3 FEET WIDE TO AN APPROXIMATE DEPTH OF 4 INCHES. THIS PATH SHALL ALTERNATE FROM SIDE TO SIDE, FORMING ONE COMPLETE S-CURVE, AND COINCIDE WITH THE LOW POINTS OF THE RETENTION SILLS AS DIRECTED BY THE RESIDENT. THIS WORK SHALL BE INCIDENTAL TO ITEM 203.33 SPECIAL FILL.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN
20337.00

HIGHWAY PLANS

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PROJ. MANAGER		
DESIGN-DETAILED	SHAWN SMITH	
CHECKED-REVIEWED	N. HARTLEY	
DESIGN2-DETAILED2	M. KIRKMANN	APR 2014
DESIGN3-DETAILED3	T. WHITE	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

CLINTON
RIVER ROAD

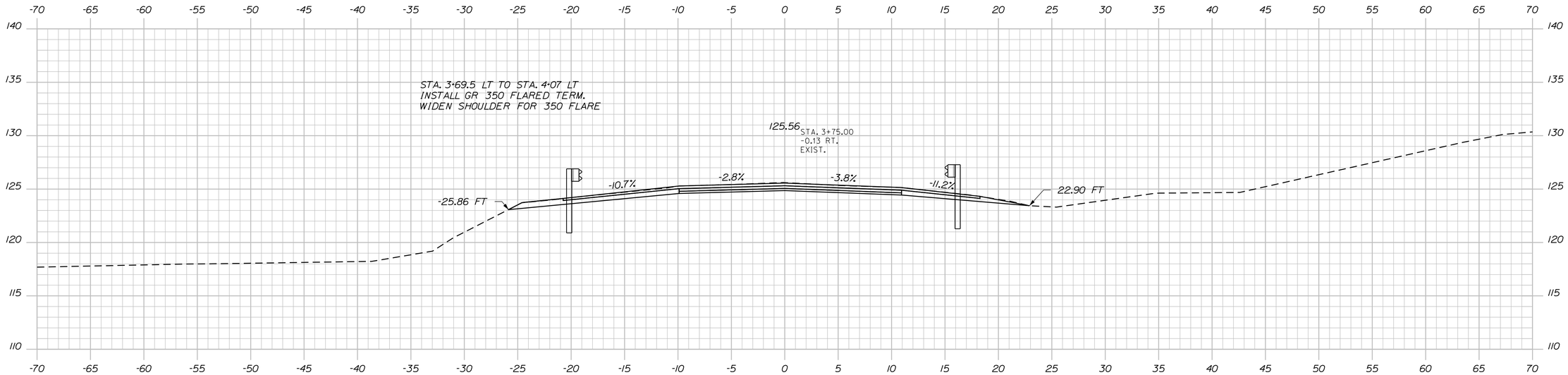
BOX CULVERT DETAILS

SHEET NUMBER

6

OF 15

Filename: ...\MSTA\006_CulvertDetail.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015



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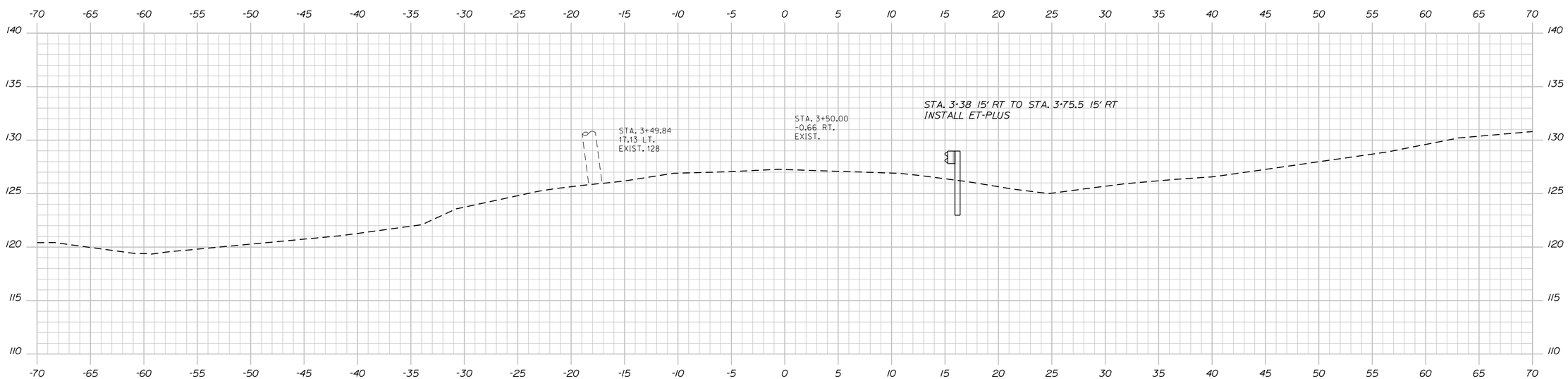

3+50.00

Sta. 3+50.00 to Sta. 3+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN
20337.00

PROJ. MANAGER	SHAWN SMITH	BY	DATE
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

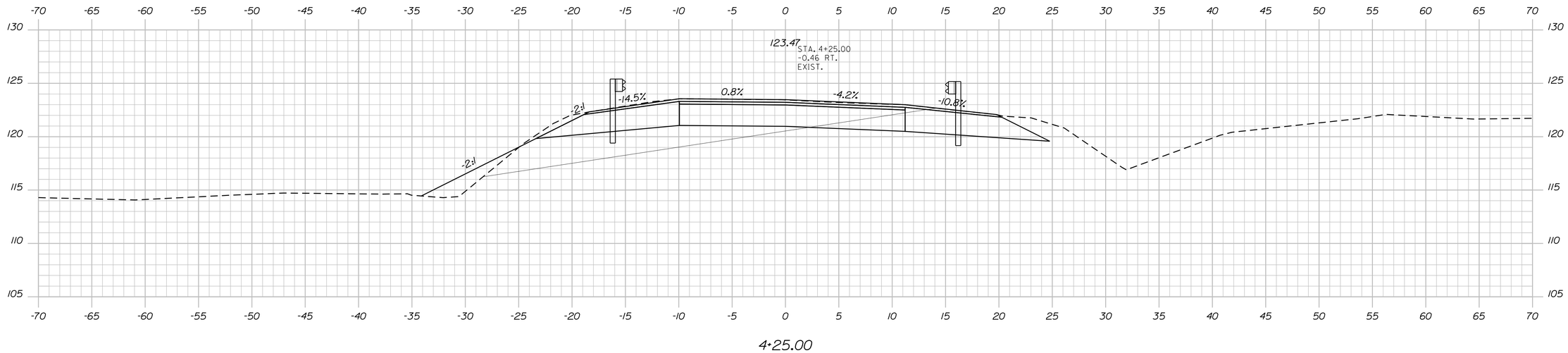
CROSS SECTIONS

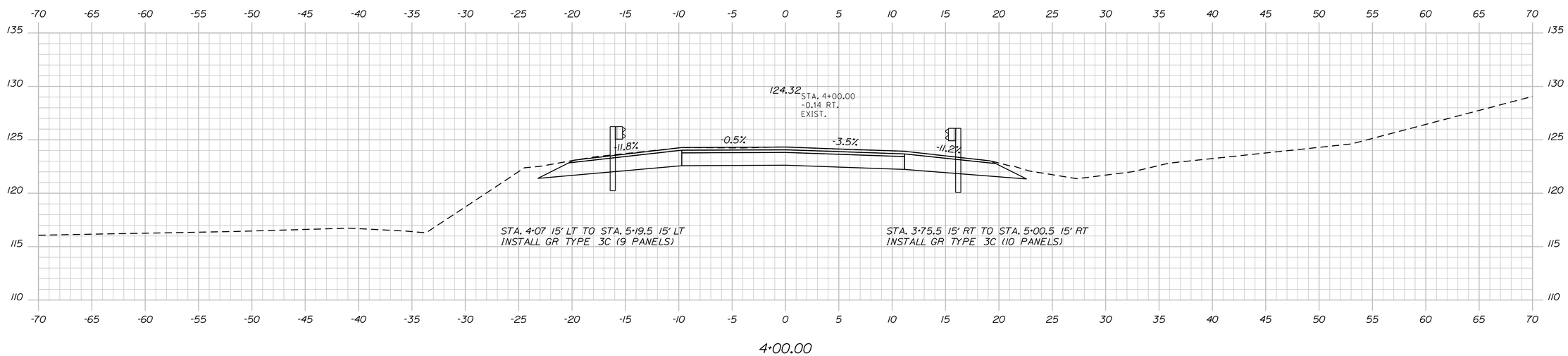
SHEET NUMBER

7

OF 15

Filename: ...\MSTA\007_XSECT_3+50_002.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015





STATE OF MAINE
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FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CROSS SECTIONS

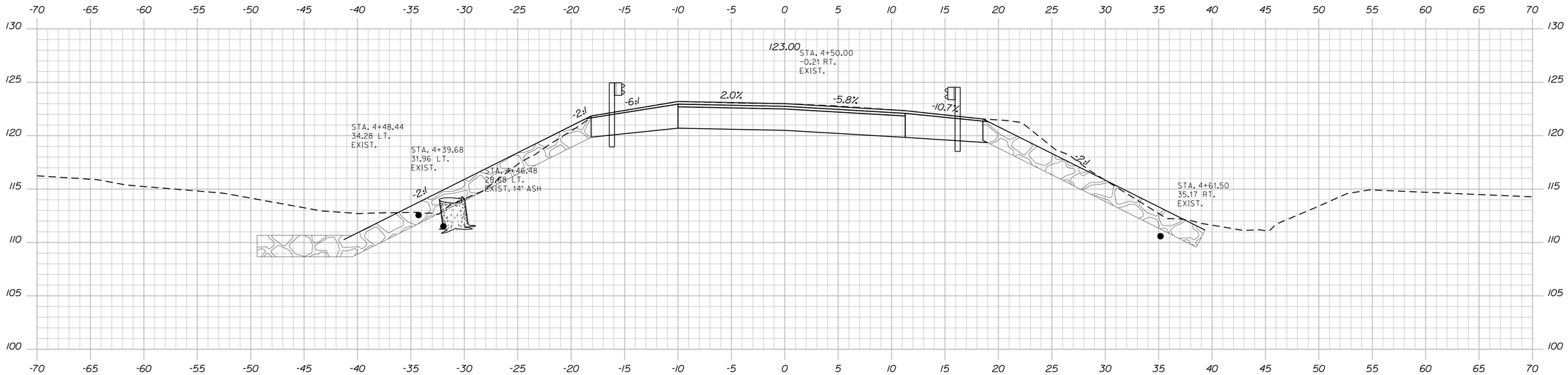
SHEET NUMBER

8

OF 15

Filename: ...\MSTA\008_XSECT_4+00_003.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015

Sta. 4+00.00 to Sta. 4+25.00



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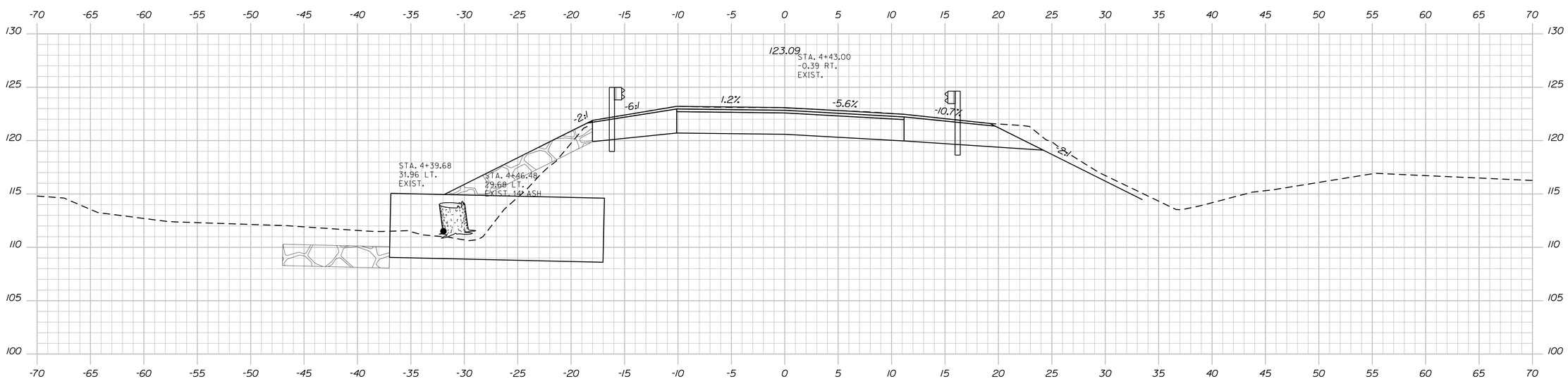

4+43.00

Sta. 4+43.00 to Sta. 4+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN
20337.00

		BY	DATE
PROJ. MANAGER	SHAWN SMITH		
DESIGN-DETAILED	N HARTLEY		
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

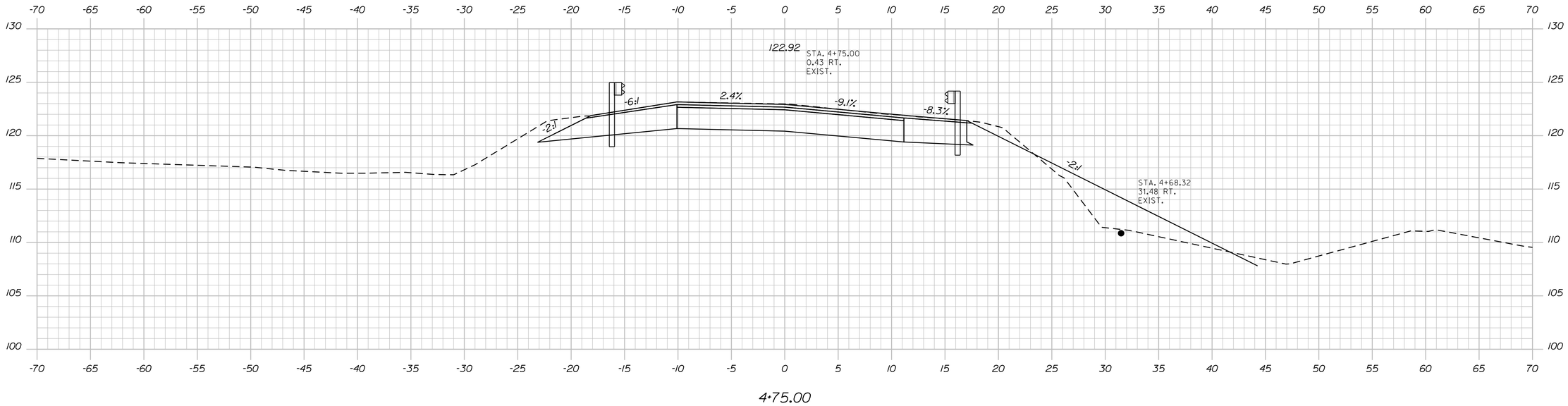
CROSS SECTIONS

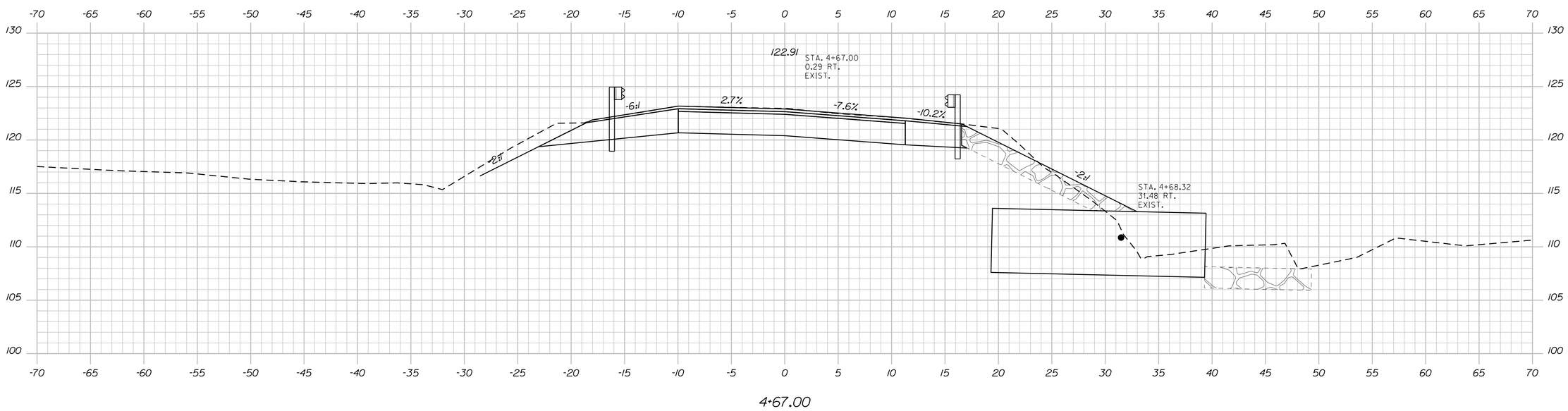
SHEET NUMBER

9

OF 15

Filename: ...\MSTA\009_XSECT_4+43_004.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN
20337.00

PROJ. MANAGER	SHAWN SMITH	BY	DATE
DESIGN-DETAILED	N HARTLEY	----	----
CHECKED-REVIEWED	----	----	----
DESIGN2-DETAILED2	M.KIRKMANN	T.WHITE	APR 2014
DESIGN3-DETAILED3	----	----	----
REVISIONS 1	----	----	----
REVISIONS 2	----	----	----
REVISIONS 3	----	----	----
REVISIONS 4	----	----	----
FIELD CHANGES	----	----	----

SIGNATURE

P.E. NUMBER

DATE

CROSS SECTIONS

SHEET NUMBER

10

OF 15

Sta. 4+67.00 to Sta. 4+75.00

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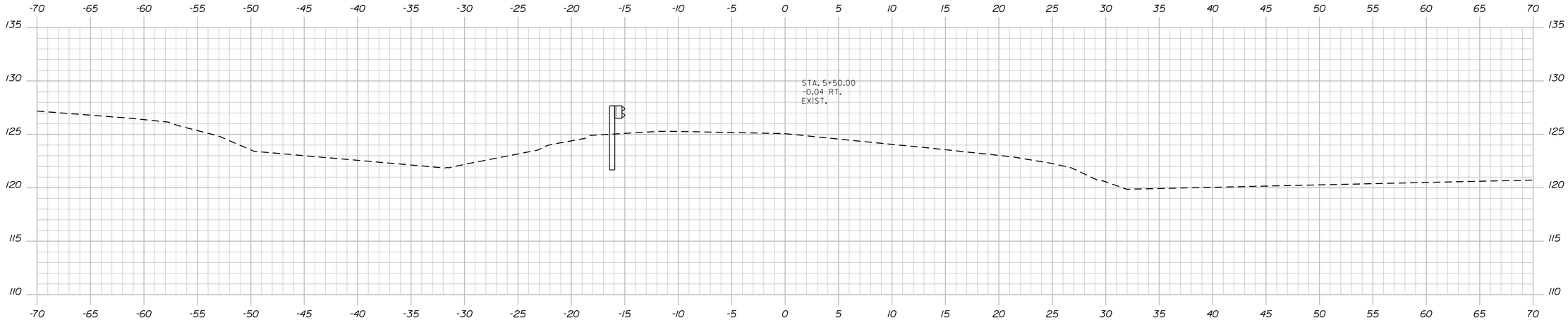

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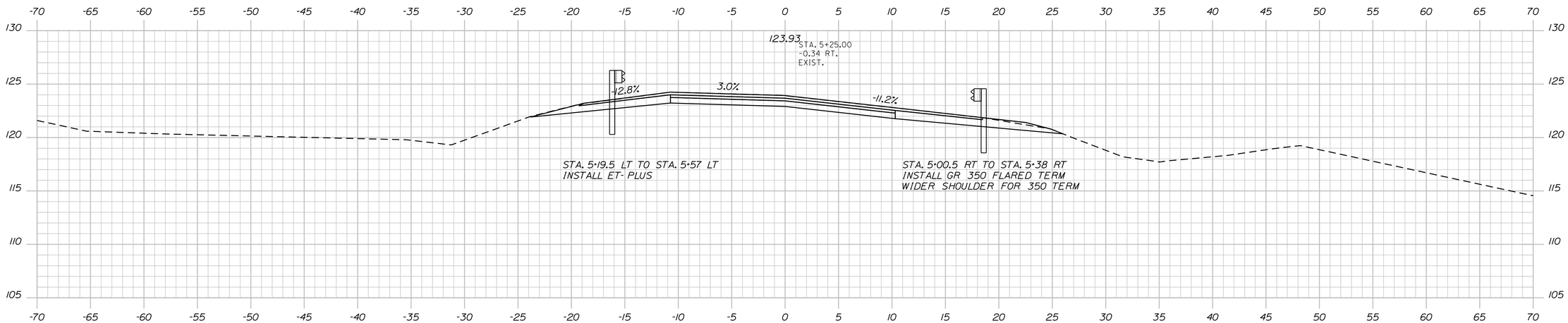

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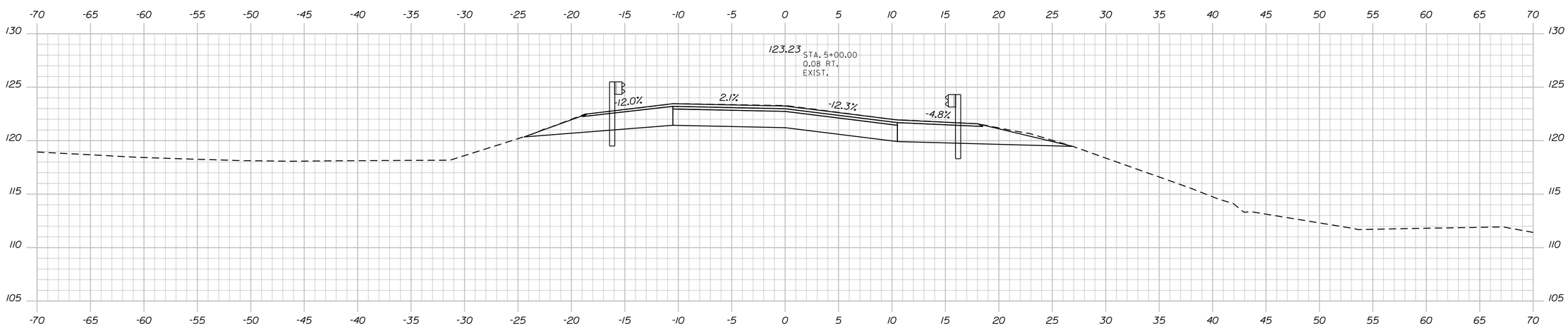


5+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN
20337.00

		BY	DATE
PROJ. MANAGER	SHAWN SMITH		
DESIGN-DETAILED	N. HARTLEY		
CHECKED-REVIEWED			
DESIGN2-DETAILED2	M. KIRKMANN	T. WHITE	APR 2014
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CROSS SECTIONS

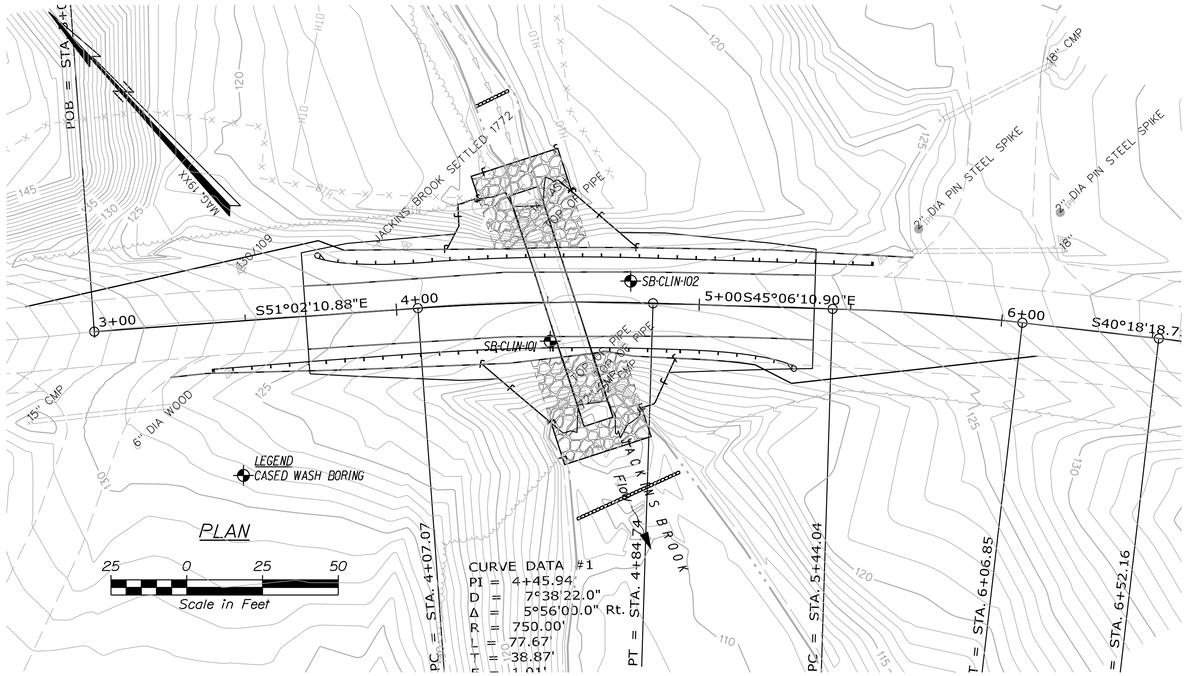
SHEET NUMBER

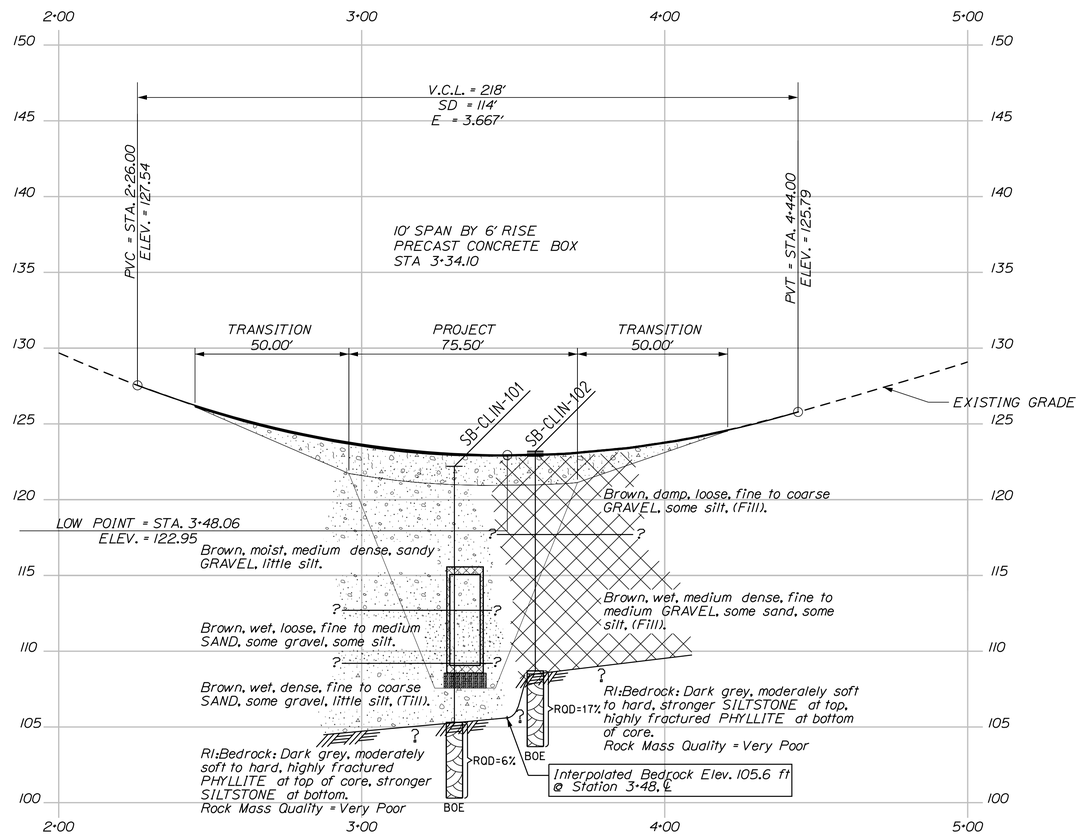
11

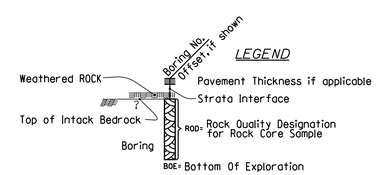
OF 15

Filename: ...\MSTA\011_XSECT_5+00_006.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015

Sta. 5+00.00 to Sta. 5+50.00







PROFILE

HORIZ 25 0 25 50

VERT 5 0 5 10

SCALE

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

020337.00

WIN 20337.00

BRIDGE NO. 6485

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	SHAWN SMITH		
DESIGN-DETAILED	N. HARTLEY		
CHECKED-REVIEWED			
DESIGN2-DETAILED2	M.KIRKMANN	T.WHITE	APR 2014
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

CLINTON RIVER ROAD

GEOPLAN & INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

12

OF 15

Filename: ...\HIGHWAY\MSTA\012_GPI&SP1.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015

Filename: ...\MSTA\013_BORING LOGS1.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: River Road Strut Replacement
Location: Clinton, Maine

Boring No.: SB-CLIN-101
WIN: 20337.00

Driller:	MaineDOT	Elevation (ft.)	122.2	Auger ID/OD:	5" Solid Stem
Operator:	Giles/Daggett	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	4/17/2014; 08:00-11:30	Drilling Method:	Cased wash Boring	Core Barrel:	NQ-2"
Boring Location:	3+30.6, 12.7 ft Rt.	Casing ID/OD:	NW	Water Level*:	9.0 ft bgs.
Hammer Efficiency Factor: 0.867		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows /6 in. Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA			
5	1D	24/15	5.00 - 7.00	28/11/12/11	23	33	48		Brown, moist, medium dense, sandy GRAVEL, little silt.	G#243126 A-1-a, GM WC=4.5%
							34			
							22			
							20			
							12	112.70	9.50	
10	2D	24/19	10.00 - 12.00	2/3/2/2	5	7	11		Grey, wet, loose, fine to medium SAND, some gravel, some silt, trace clay, trace organics with wood.	G#243127 A-2-4, SC-SM WC=29.8%
							13			
							52			
							265	109.20	13.00	
							90			
15	3D	21.6/18	15.00 - 16.80	14/12/28/50(3.6)	40	58	20		Brown, wet, dense, fine to coarse SAND, some gravel, little silt (Till). Weathered Rock in spoon tip.	G#243128 A-1-b, SM WC=11.0%
	R1	60/60	16.90 - 21.90	RQD = 6%			@50 NQ-2	105.30	@50 blows for 0.8 ft. Roller Coned ahead to 16.9 ft bgs. 16.90	
									Top of Bedrock at Elev. 105.3 ft. R1:Bedrock: Dark gray, white quartz veins. Moderately soft to hard, minor rusty staining at top of core. Highly fractured phyllite at top of core, stronger siltstone at bottom of core. RQD 6% R1:Core Times (min:sec) 16.9-17.9 ft (2:55) 17.9-18.9 ft (7:00) 18.9-19.9 ft (9:20) 19.9-20.9 ft (7:50) 20.9-21.9 ft (8:30) 100% Recovery		
20								100.30	21.90 Bottom of Exploration at 21.90 feet below ground surface.	
25										

Remarks:

400# down pressure on Core Barrel.

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

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

Page 1 of 1

Boring No.: SB-CLIN-101

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: River Road Strut Replacement
Location: Clinton, Maine

Boring No.: SB-CLIN-102
WIN: 20337.00

Driller:	MaineDOT	Elevation (ft.)	123.2	Auger ID/OD:	5" Solid Stem
Operator:	Giles/Daggett	Datum:	NAVD88	Sampler:	Standard Split Spoon
Logged By:	B. Wilder	Rig Type:	CME 45C	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	4/17/2014; 11:30-14:00	Drilling Method:	Cased wash Boring	Core Barrel:	NQ-2"
Boring Location:	3+57.3, 7.0 ft Lt.	Casing ID/OD:	NW	Water Level*:	9.0 ft bgs.
Hammer Efficiency Factor: 0.867		Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows /6 in. Shear Strength (psf) or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA	122.87	4" PAVEMENT. 0.33	
5	1D 1D/A	24/13	5.00 - 7.00	6/5/5/5	10	14		117.70	1D (5.0-5.5 ft) Brown, damp, loose, fine to coarse GRAVEL, some sand, some silt, trace clay, occasional cobbles. (Fill). 5.50 1D/A (5.5-7.0 ft) Brown, wet, loose, SILT, some clay, some sand, trace gravel (Fill).	G#243129 A-1-b, GC-GM WC=6.4% G#243130 A-4, CL-ML WC=22.9%
10	2D	24/16	10.00 - 12.00	3/12/13/32	25	36	22		Brown, wet, medium dense, fine to medium GRAVEL, some sand, some silt, trace clay, with brick pieces (Fill).	G#243131 A-4, GC-GM WC=15.9%
							67			
							89			
							132			
15	R1	60/48	14.50 - 19.50	RQD = 17%			@175 NQ-2	108.50	@175 blows for 0.5 ft. Cobble from 14.5-14.7 ft bgs. R1:Core Times (min:sec) 14.5-15.5 ft (4:09) 14.70	
									Top of Bedrock at Elev. 108.5 ft. R1:Bedrock:Dark gray, white quartz veins. Moderately soft to hard. No significant staining. Stronger siltstone at top of core, highly fractured phyllite at bottom of core. RQD 17%. R1:Core Times cont. (min:sec) 15.5-16.5 ft (4:30) 16.5-17.5 ft (3:45) 17.5-18.5 ft (5:00) 18.5-19.5 ft (5:05) 80% Recovery No Water Return. Left 0.4 ft of core in hole.		
20								103.70	19.50 Bottom of Exploration at 19.50 feet below ground surface.	
25										

Remarks:

400# down pressure on Core Barrel.

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

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

Page 1 of 1

Boring No.: SB-CLIN-102

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

020337.00

WIN 20337.00

BRIDGE NO. 6485

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	SHAWN SMITH		
DESIGN-DETAILED	N HARTLEY		
CHECKED-REVIEWED			
DESIGN2-DETAILED2	M.KIRKMANN	T.WHITE	APR 2014
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

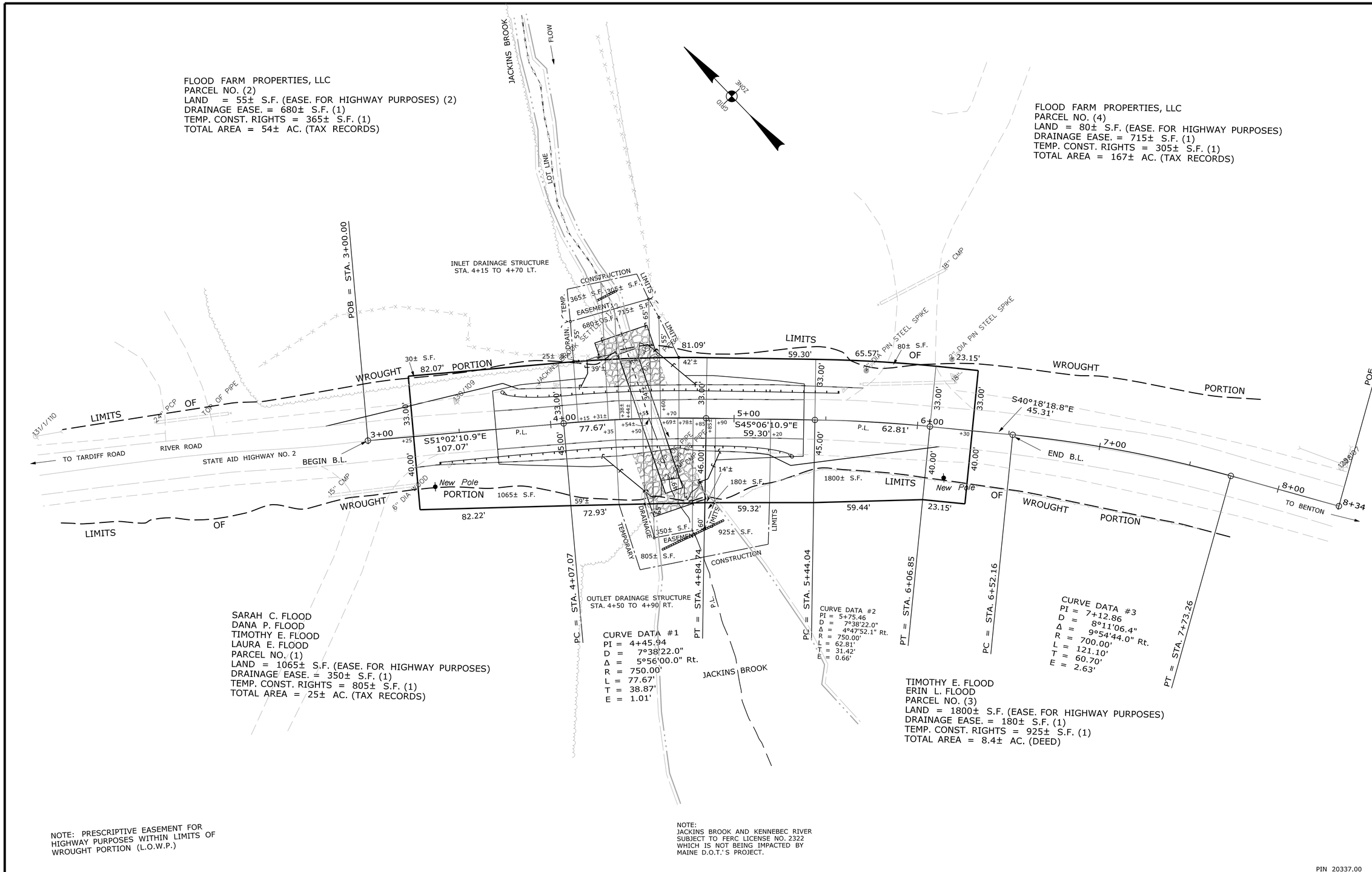
P.E. NUMBER

DATE

CLINTON
RIVER ROAD

BORING LOGS

SHEET NUMBER
13
OF 15



SYMBOLS

- IP or IPF (IRON PIPE or PIN FOUND)
- S.T. (SEPTIC TANK)
- (ROW MONUMENT)
- (TRAVERSE POINT)
- WELL
- BREAKING 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
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

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

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

CLINTON
RIGHT OF WAY MAP

REVISIONS

NO.	DATE	DESCRIPTION	BY

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

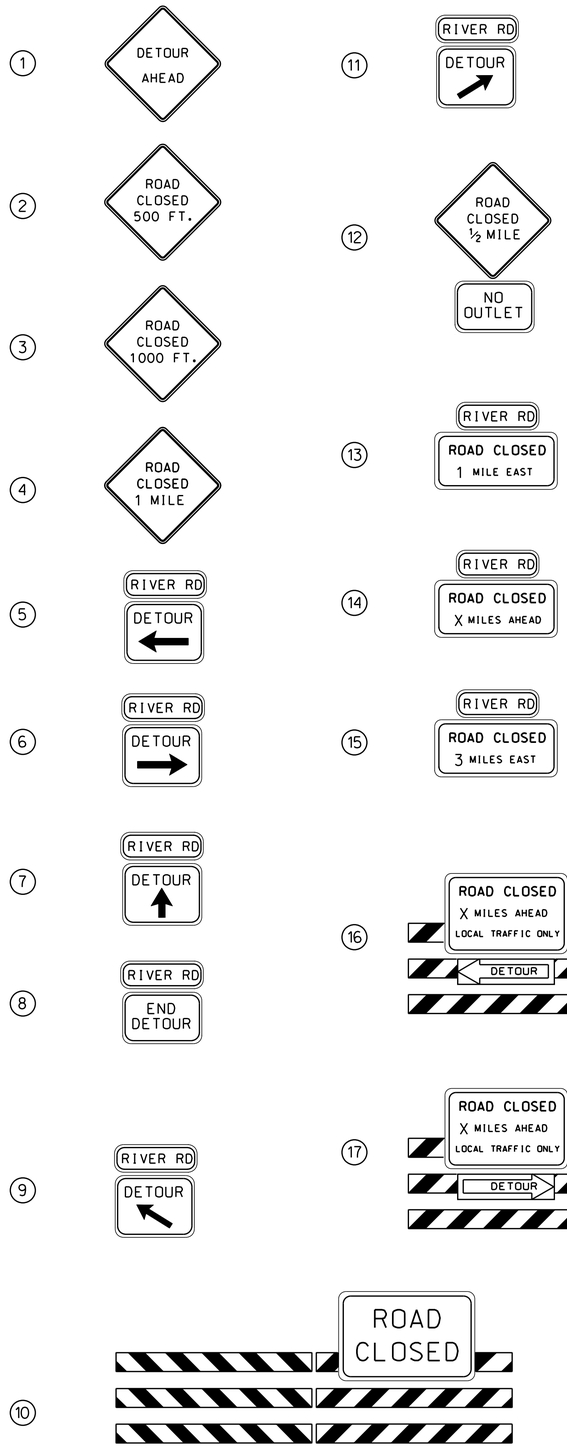
DAVID BERNHARDT
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

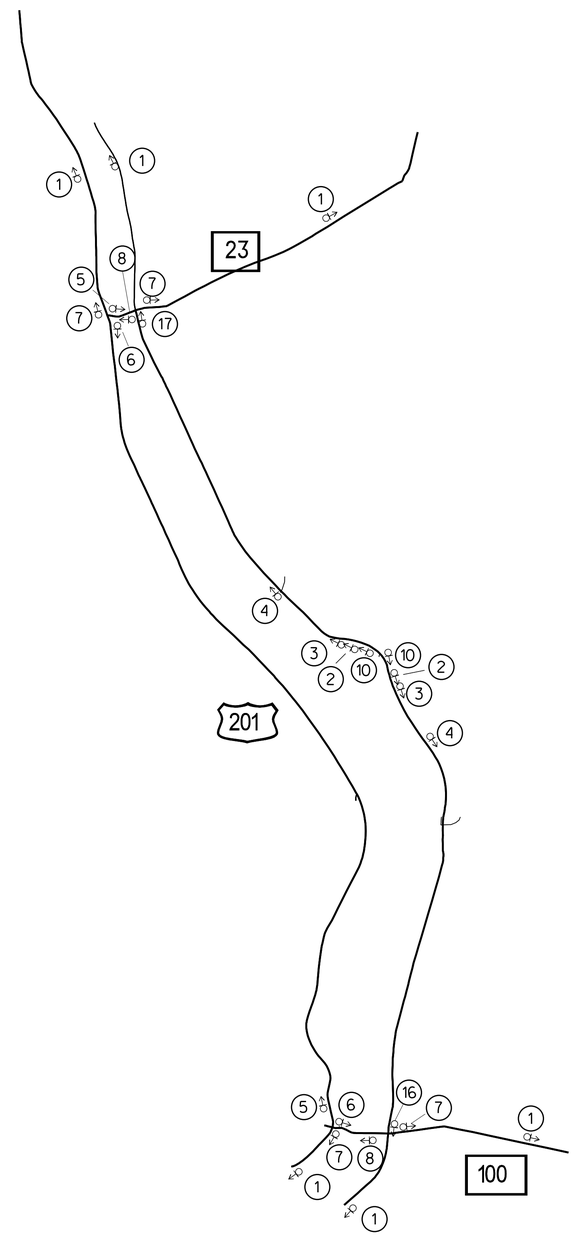
STATE AID HIGHWAY NO. 2
RIVER ROAD
CLINTON KENNEBEC COUNTY
STATE PROJECT NO. 20337.00

FEBRUARY 2015	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 6-X
SCALE 1" = 25'	SHEET XX OF XX	

SHEET NUMBER
14
OF 15

Filename: ...\HIGHWAY\MSTA\014_RWPLAN1.dgn Division: HIGHWAY Username: nicholas.w.hartley Date:4/27/2015





NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

20337.00

PROJ. MANAGER SHAWN SMITH
DESIGN-DETAILED N HARTLEY
DESIGN2-DETAILED2

CLINTON
RIVER ROAD DETOUR

20337.00

SHEET NUMBER
15
OF 15

Filename: REGION 2 Username: D.M.Hanks Date: July 2014