

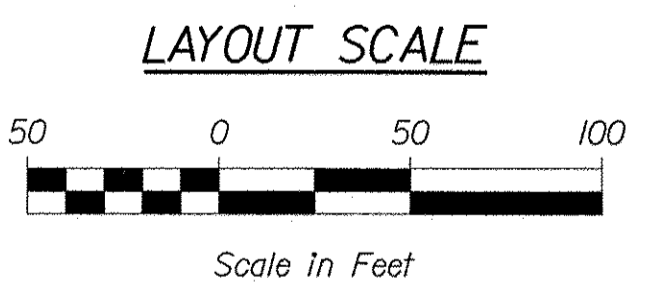
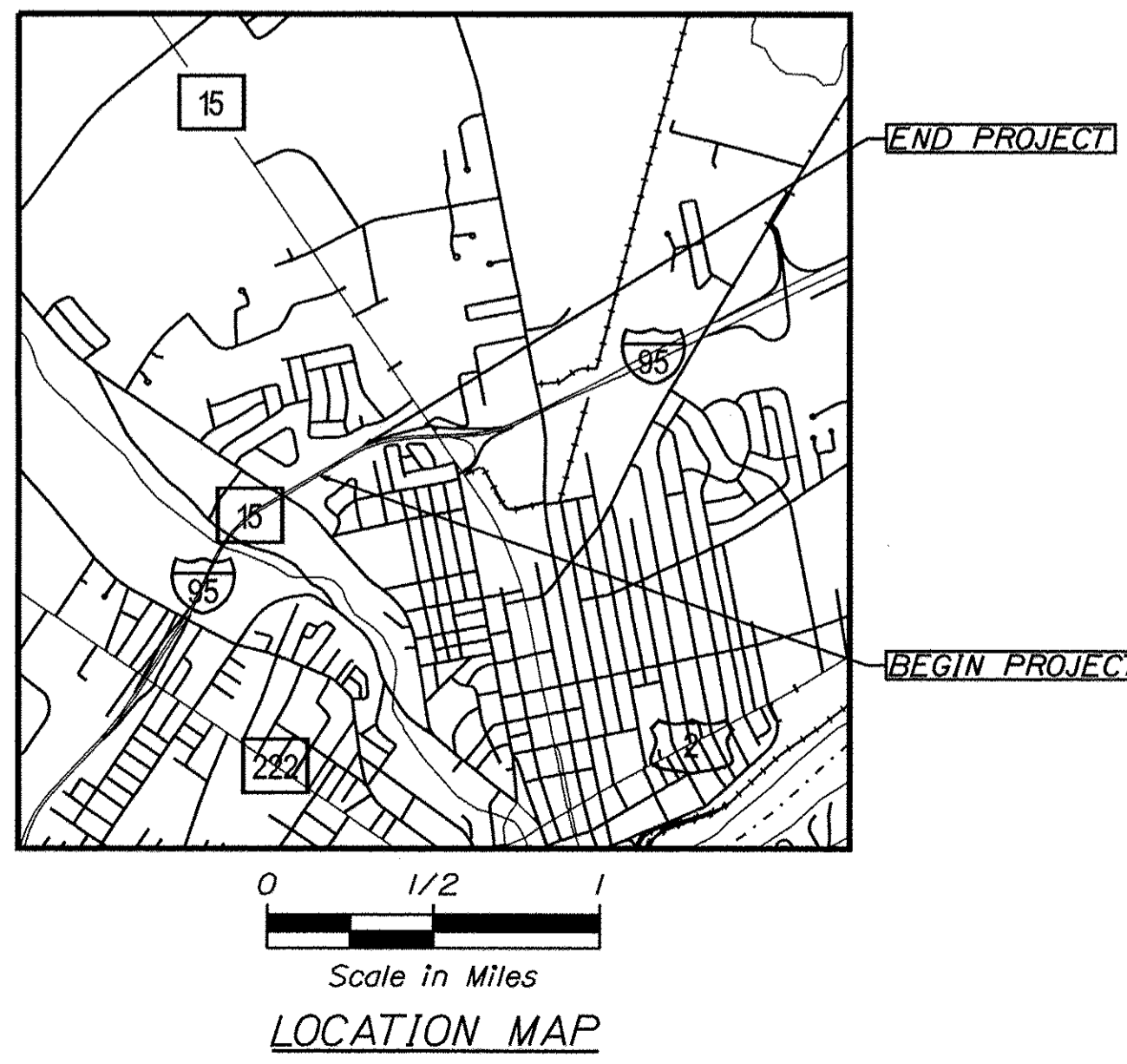
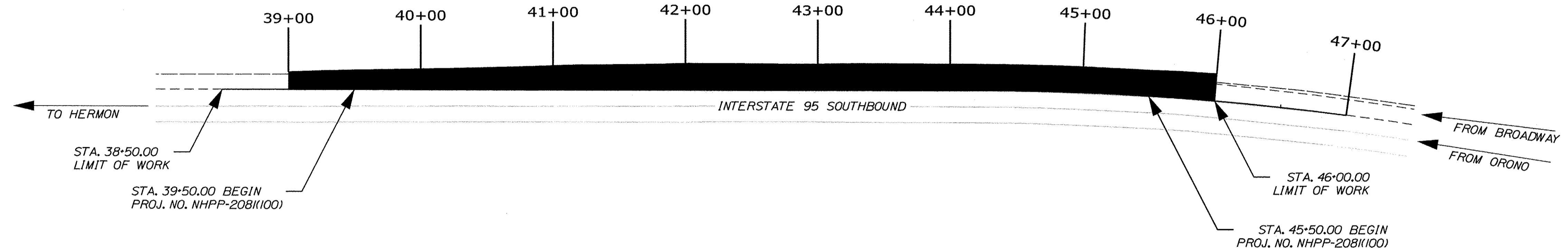
STATE OF MAINE DEPARTMENT OF TRANSPORTATION



BANGOR PENOBSCOT COUNTY I-95 SB EXIT 185 ON-RAMP FEDERAL AID PROJECT NO. NHPP-2081(100) PROJECT LENGTH : 0.12 MILES

PLAN LEGEND	
Town, County, State	Centerline-Existing
Property Lines	Centerline-Proposed
R/W Lines-Existing	Travelway-Existing
R/W Lines-Proposed	Travelway-Proposed
Culvert-Existing	Railroad
Culvert Proposed	Catch Basins
Curbing Existing	Manholes
Curbing Proposed	Proposed Underdrain
Type 1	Proposed Ditch
Type 3	Existing Ditch
Type 5	Utility Poles
Outline of Bodies of Water	Fire Hydrants
Boring	Existing Water Line
Pavement Core	Existing San. Sewer
Test Pit	Existing San. Sewer Manhole
Probe	Guardrail-Existing
	Guardrail-Proposed
	Guardrail-Cable, Other
	Exposed Bedrock
	Buildings
	Trees
	Tree Line
	Clearing Limit Line

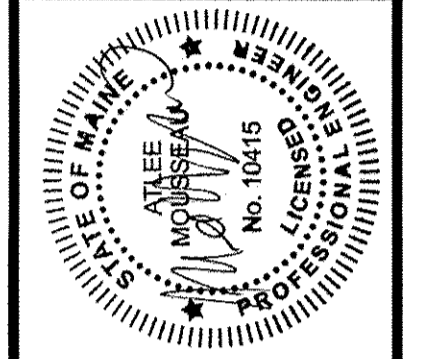
INDEX OF SHEETS	
Description	Sheet No.
Title Sheet	1
Typical Sections	2
Estimated Quantities	3
General Notes	4
Construction Notes	5
Foundation Sheet	6
Plan / Profile	7-8
Cross - Sections	9-16



TRAFFIC DATA	
Current (2018) AADT	6130
Future (2038) AADT	7360
DHV - % of AADT	11%
Design Hour Volume	810
% Heavy Trucks (AADT)	6%
Directional Distribution (DHV)	100
Design Speed (mph)	60
Functional Class	Principal Arterial Interstate
Corridor Priority	1

PROJECT LOCATION:	EXIT 185: BROADWAY/INTERSTATE 95 SOUTHBOUND ON RAMP
PROGRAM AREA:	HIGHWAY PROGRAM
SCOPE OF WORK:	RAMP IMPROVEMENTS

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
	COMMISSIONER: <i>[Signature]</i>	3/16/18
	CHIEF ENGINEER: <i>[Signature]</i>	3-6-18



<i>[Signature]</i>	SIGNATURE	10415	P.E. NUMBER	2-22-18	DATE
R. MOULTON	PROJECT MANAGER				
C. SULLOWAY	DESIGNER				
	CONSULTANT				
	PROJECT RESIDENT				
	CONTRACTOR				
	PROJECT COMPLETION DATE				

PROGRAM	HIGHWAY PROGRAM
PROJECT MANAGER	R. MOULTON
DESIGNER	C. SULLOWAY
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WIN 020811.00 NHPP-2081(100)
BANGOR
I-95 SB EXIT 185 ON-RAMP
TITLE SHEET

SHEET NUMBER
1
OF 16

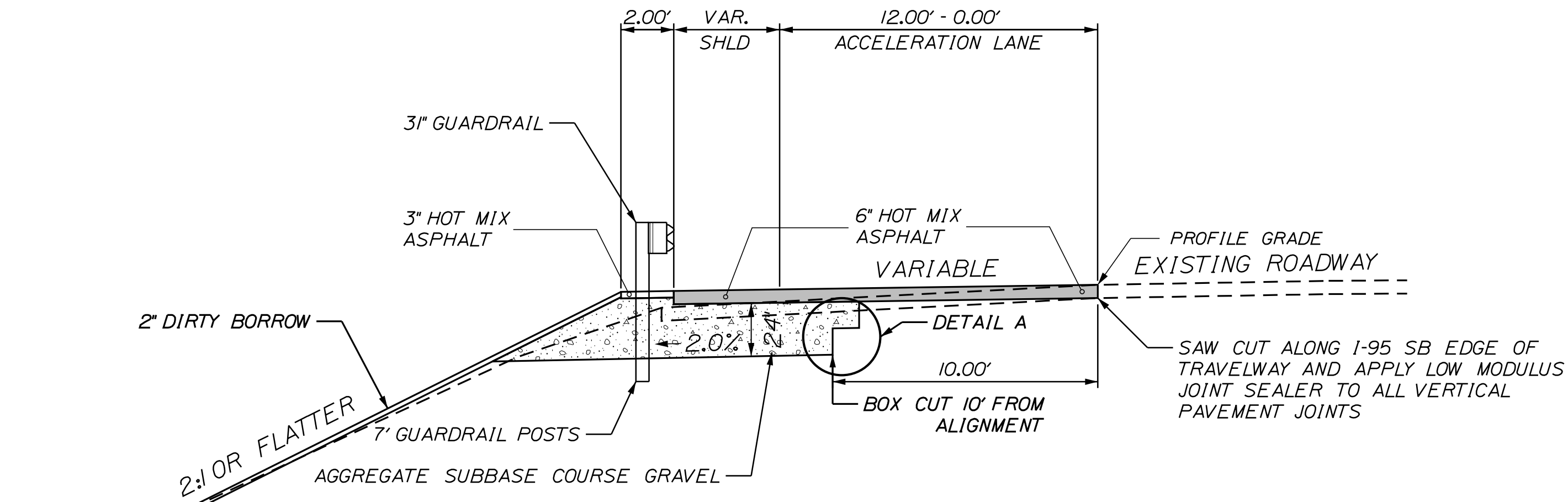
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 Division: HIGHWAY
 Username: Clark.E.Sulloway
 Date: 2/22/2018

Date: 3/5/2018

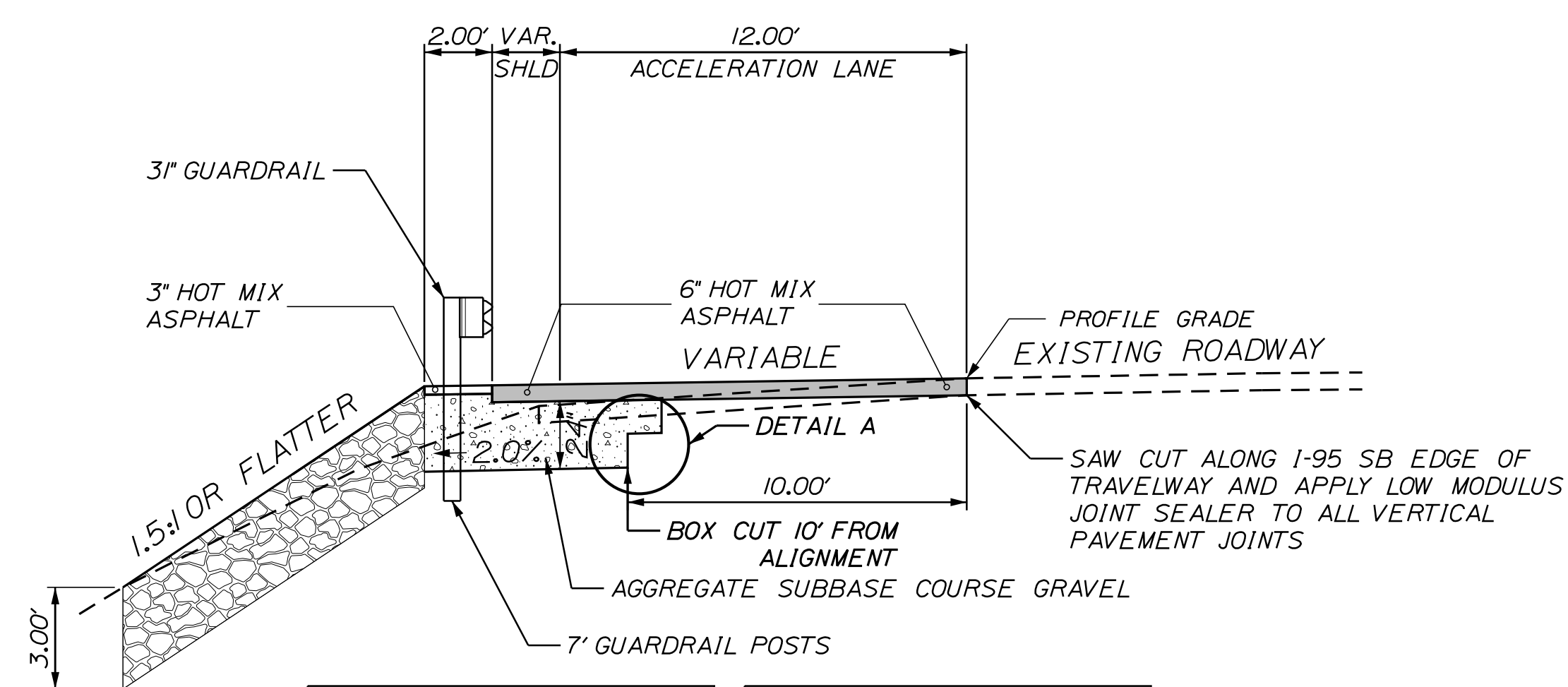
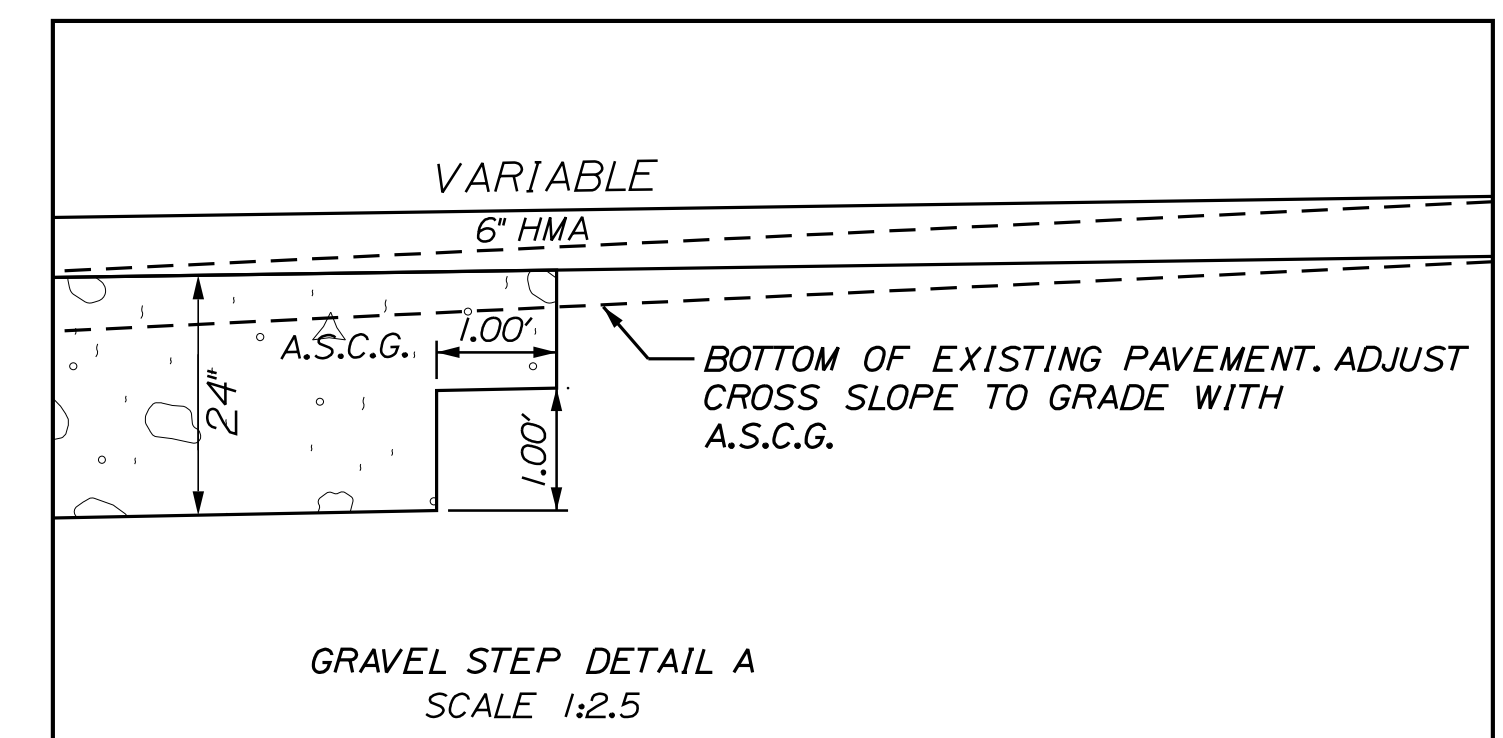
Username: Clark.E.Sullivan

Division: HIGHWAY

Filename: ... \HIGHWAY\MSTA\002_Typical.dgn



SHOULDER STATION TO STATION	TRAVELWAY STATION TO STATION
39+00.00 = 10.00'	39+00.00 = 0.00'
TRANS. 4+00.00 = 4.55'	TRANS. 4+00.00 = 8.00'
44+75.00 TO 46+00.00 = 2.00'	44+75.00 TO 46+00.00 = 12.00'



GUARDRAIL SHOULDER STATION TO STATION	TRAVELWAY STATION TO STATION
41+00.00 = 4.55'	41+00.00 = 8.00'
TRANS. 42+00.00 = 2.00'	TRANS. 42+00.00 = 12.00'
42+00.00 TO 44+75.00 = 2.00'	42+00.00 TO 44+75.00 = 12.00'

NOTE:

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE GRAVEL QUANTITY CALCULATION IS BASED ON A 2" LOAM OR DIRTY BORROW DEPTH. THE ACTUAL DEPTH MAY VARY. SEE THE GENERAL NOTES.
5. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
6. THE STATIONING SHOWN UNDER EACH TYPICAL IS APPROXIMATE.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NHP-2081(100)
WIN 020811.00
HIGHWAY PLANS

PROJ. MGR	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED	R. MULLON				
CHECKED-REVIEWED	C. SULLOWAY				
DESIGN-DETAILED		JUN 2017			
DESIGN-DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

BANGOR
I-95 SB EXIT 185 ON-RAMP
TYPICAL SECTIONS

SHEET NUMBER

2

OF 16

NOT TO SCALE

ESTIMATED QUANTITIES			
ITEM No.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	450	CY
304.10	AGGREGATE SUBBASE COURSE-GRAVEL	430	CY
403.207	HOT MIX ASPHALT 19.0 MM HMA	170	TON
403.2081	12.5 MM POLYMER MODIFIED HMA	100	TON
403.2131	12.5 MM POLYMER MODIFIED HMA BASE	100	TON
409.15	BITUMINOUS TACK COAT-APPLIED	84	GAL
424.3333	LOW MODULUS JOINT SEALER - APPLIED	700	LF
606.1301	31" W BEAM GUARDRAIL - MID WAY SPLICED	750	LF
610.08	PLAIN RIPRAP	205	CY
615.10	DIRTY BORROW	12	CY
618.14	SEEDING METHOD NUMBER 2	2	UN
619.12	MULCH	2	UN
620.58	EROSION CONTROL GEOTEXTILE	203	SY
626.332	30"DIA GREATER 8'L & 36"DIA, 42" DIA FDN	6	CY
627.744	6" WHITE OR YELLOW PAVEMENT MARKING LINE	1401	LF
627.781	TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	2802	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
634.16	HIGHWAY LIGHTING	1	LS
634.2042	LED LUMINAIRES	5	EA
639.19	FIELD OFFICE TYPE B	0.5	EA
645.103	DEMOUNT GUIDE SIGN	1	EA
645.113	REINSTALL GUIDE SIGN	1	EA
652.30	FLASHING ARROW BOARD	1	EA
652.33	DRUM	150	EA
652.34	CONE	150	EA
652.35	CONSTRUCTION SIGNS	230	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	45	CD
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	2	EA
656.75	TEMP SOIL EROSION & WATER POLLUTION CTRL	1	LS
659.10	MOBILIZATION	1	LS

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	450	
GRUBBING IN FILL	0	
TOTAL COMMON EXCAVATION (for estimate)		450

FILL FOR BORROW CALCULATIONS

COMMON FILL (FROM CROSS SECTIONS)	0	
GRUBBING IN FILL	0	
TOTAL FILL		0

ROCK EXCAVATION FOR ESTIMATE

ROCK EXCAVATION (FROM CROSS SECTIONS)	0	
ROCK EXCAVATION (BOULDERS)	0	
TOTAL ROCK EXCAVATION		0

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION		450
DEDUCTIONS:		
GRUBBING IN CUT	102	
GRUBBING IN FILL	0	
PAVEMENT SALVAGE (CUT & FILL)	166	
(2) TOTAL DEDUCTIONS		267
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)		183
TOTAL AVAILABLE STRUCT. EXCAVATIONS (USUALLY UNDERDRAIN ONLY)		0
RIPRAP EXCAVATION		190
TOTAL AVAILABLE NON-ROCK EXCAVATION		373

COMPUTATION FOR COMMON BORROW FOR ESTIMATE

(3)TOTAL FILL		0
TOTAL AVAIL. NON-ROCK EXCAV.	373 x 0.90 =	335
TOTAL AVAIL. ROCK EXCAV.	0 x 1.30 =	0
TOTAL AVAIL. STR. ROCK EXCAV.	0 x 1.30 =	0
TOTAL WASTE MATERIAL TO BE UTILIZED	0 x 0.90 =	0
(4)TOTAL AVAILABLE EXCAVATION		335
BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION		-335
Total Material to be Wasted:		335 CY

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	NHP-2081(100)	WIN 020811.00	HIGHWAY PLANS
PROJ. MANAGER	R. MOUTON	BY	DATE
CHECKED-REVIEWED	C. SULLOWAY		
DESIGN-DETAILED			JUN 2017
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
BANGOR I-95 SB EXIT 185 ON-RAMP		ESTIMATED QUANTITIES	
SHEET NUMBER			
3			
OF 16			

ITEM 606.1301 31" W BEAM GUARDRAIL - MID WAY SPLICED

LOCATION

STA. 69+00.00 TO 73+00.00 RT.
 CONNECT TO EXISTING TYPE C RAIL AT 39+00.00 AND 46+00.00 LT. with 9' 4.5" rail sections.

QUANTITY

700 LF

ITEM 610.08 PLAIN RIPRAP

STA. 41+00.00 TO 44+75.00 LT.

ITEM 626.332 30 INCH DIAMETER, GREATER THAN 8 FEET LONG, AND ALL 36 INCH AND 42 INCH DIAMETER FOUNDATIONS

STA. 38+50.00, 18.0' LT.
 STA. 38+50.00, 25.0' LT.
 STA. 40+20.00, 16.4' LT.
 STA. 41+60.00, 18.4' LT.
 STA. 43+00.00, 19.0' LT.
 STA. 44+40.00, 19.0' LT.
 STA. 45+79.38, 19.0' LT.

ITEM 627.744 6" WHITE OR YELLOW PAVEMENT MARKING LINE

SINGLE DOTTED WHITE LINE: STA. 43+00.00, 0.0' LT. TO 46+00.00, 0.0' LT.

 SINGLE SOLID WHITE LINE: STA. 39+00.00, 0.0' LT. TO 42+00.00, 12.0' LT.
 STA. 42+00.00, 12.0' LT TO 46+00.00, 12.0' LT.

ITEM 645.103 DEMOUNT GUIDE SIGN

SINGLE DOTTED WHITE LINE: STA. 43+00.00, 0.0' LT. TO 46+00.00, 0.0' RT.

SINGLE SOLID WHITE LINE: STA. 39+00.00, 0.0' LT. TO 42+00.00, 12.0' LT.
 STA. 43+00.00, 12.0' LT TO 46+00.00, 12.0' LT.

ITEM 627.781 TEMPORARY 6" PAVEMENT MARKING LINE WHITE OR YELLOW

ALL PAVEMENT MARKING LINES AND STRIPING ARE TO BE LAID OUT IN THE FIELD BY THE RESIDENT ENGINEER AND REGION TRAFFIC ENGINEER

ITEM 634.2042 LED LUMINAIRES

STA. 40+20.00, 16.4' LT.
 STA. 41+60.00, 18.4' LT.
 STA. 43+00.00, 19.0' LT.
 STA. 44+40.00, 19.0' LT.
 STA. 45+80.00, 19.0' LT.

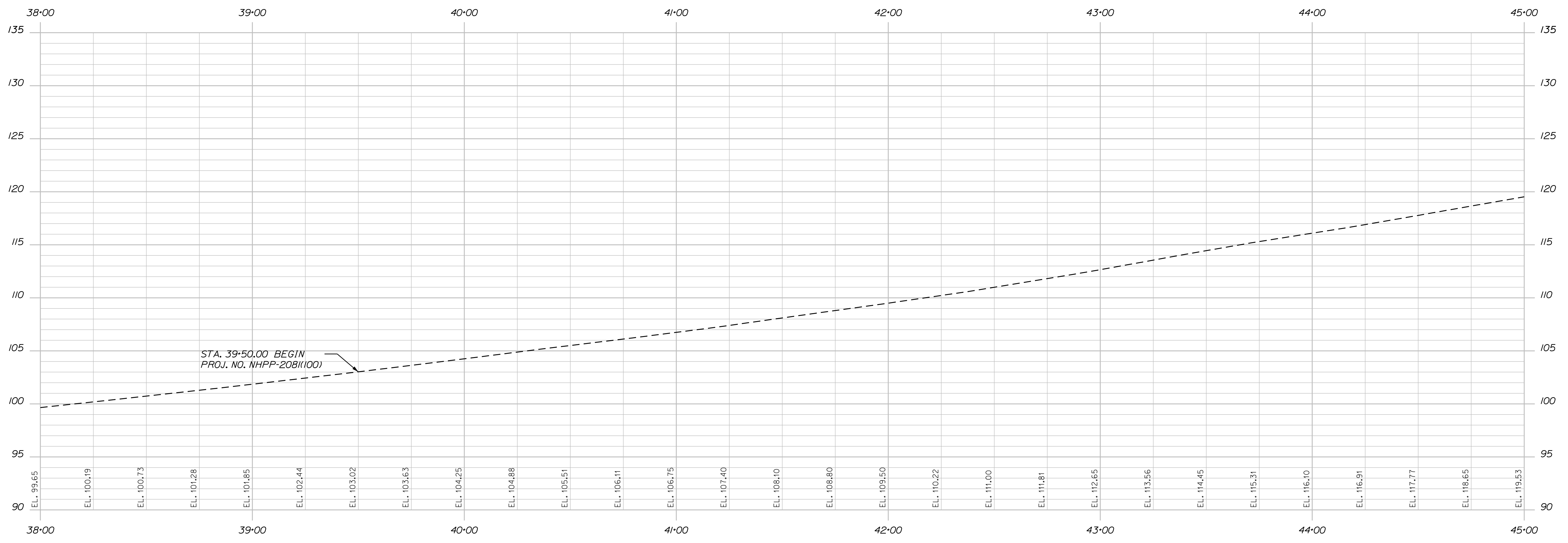
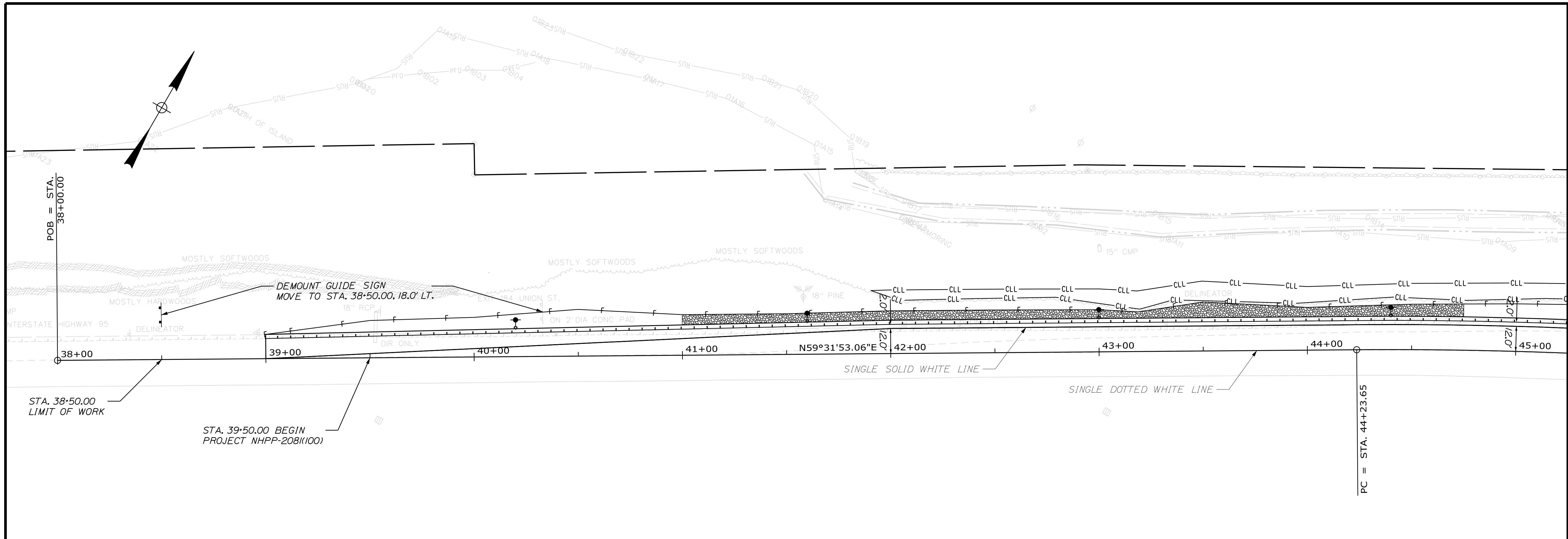
STATE OF MAINE DEPARTMENT OF TRANSPORTATION NHPP-2081(100) WIN 020811.00 HIGHWAY PLANS	SIGNATURE _____ P.E. NUMBER _____ DATE _____
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	R. MULLON C. SULLOWAY JUN 2017 _____ _____ _____ _____ _____ _____ _____ _____
BANGOR I-95 SB EXIT 185 ON-RAMP CONSTRUCTION NOTES	SHEET NUMBER 5 OF 16

Date: 3/5/2018

Username: Clark.E.Sullivan

Division: HIGHWAY

Filename: ... \HIGHWAY\MSTA007_HDPLAN1.DGN



PROFILE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NHPP-2081(100)
WIN 020811.00
HIGHWAY PLANS

DESIGN DETAILED	DATE
CHECKED/REVIEWED	
DESIGN DETAILED	JUN 2017
DESIGN DETAILED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

PROJ. MANAGER	BY	DATE
R. MOULTON	C. SULLOWAY	
SIGNATURE		
P.E. NUMBER		
DATE		

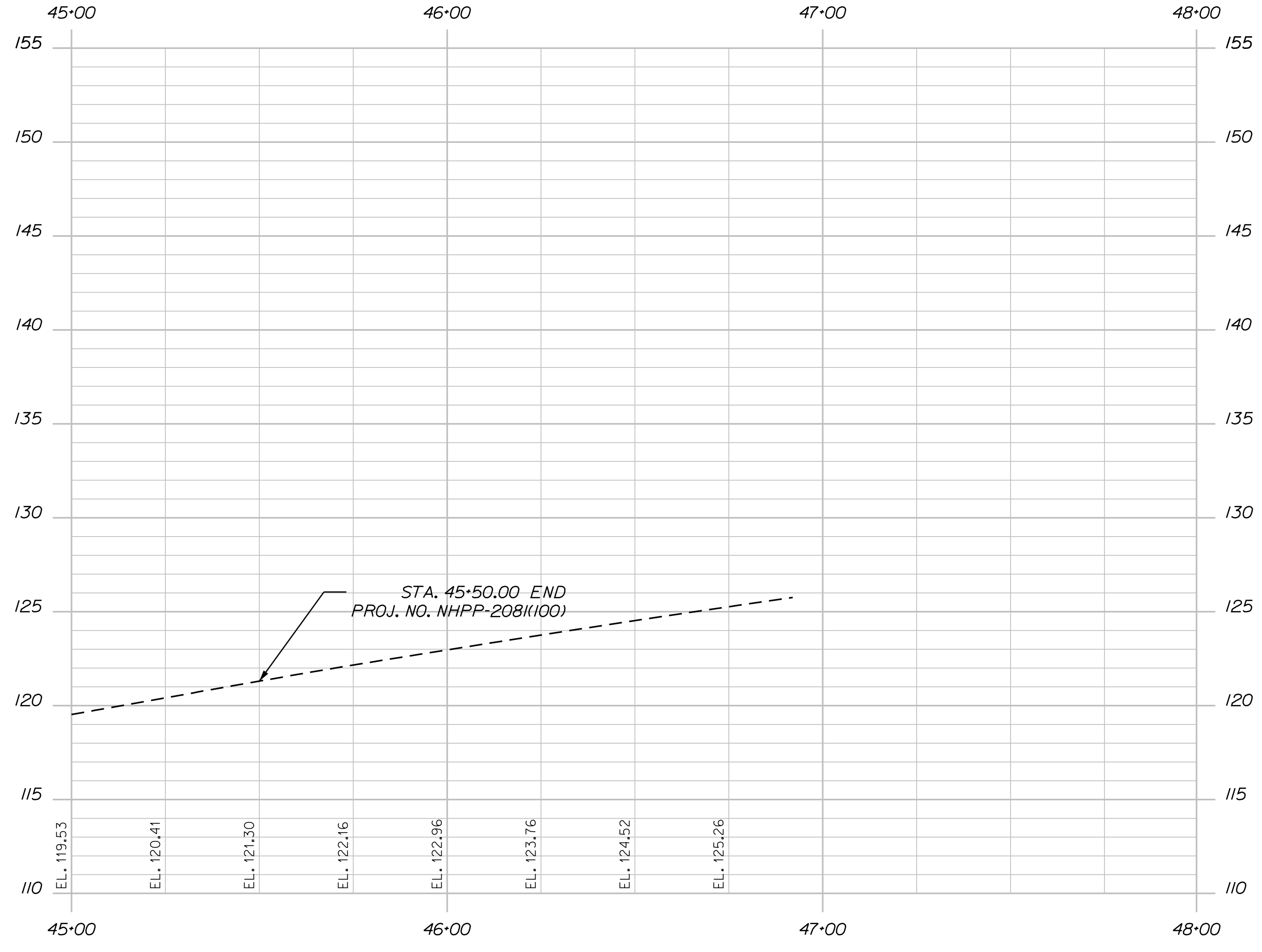
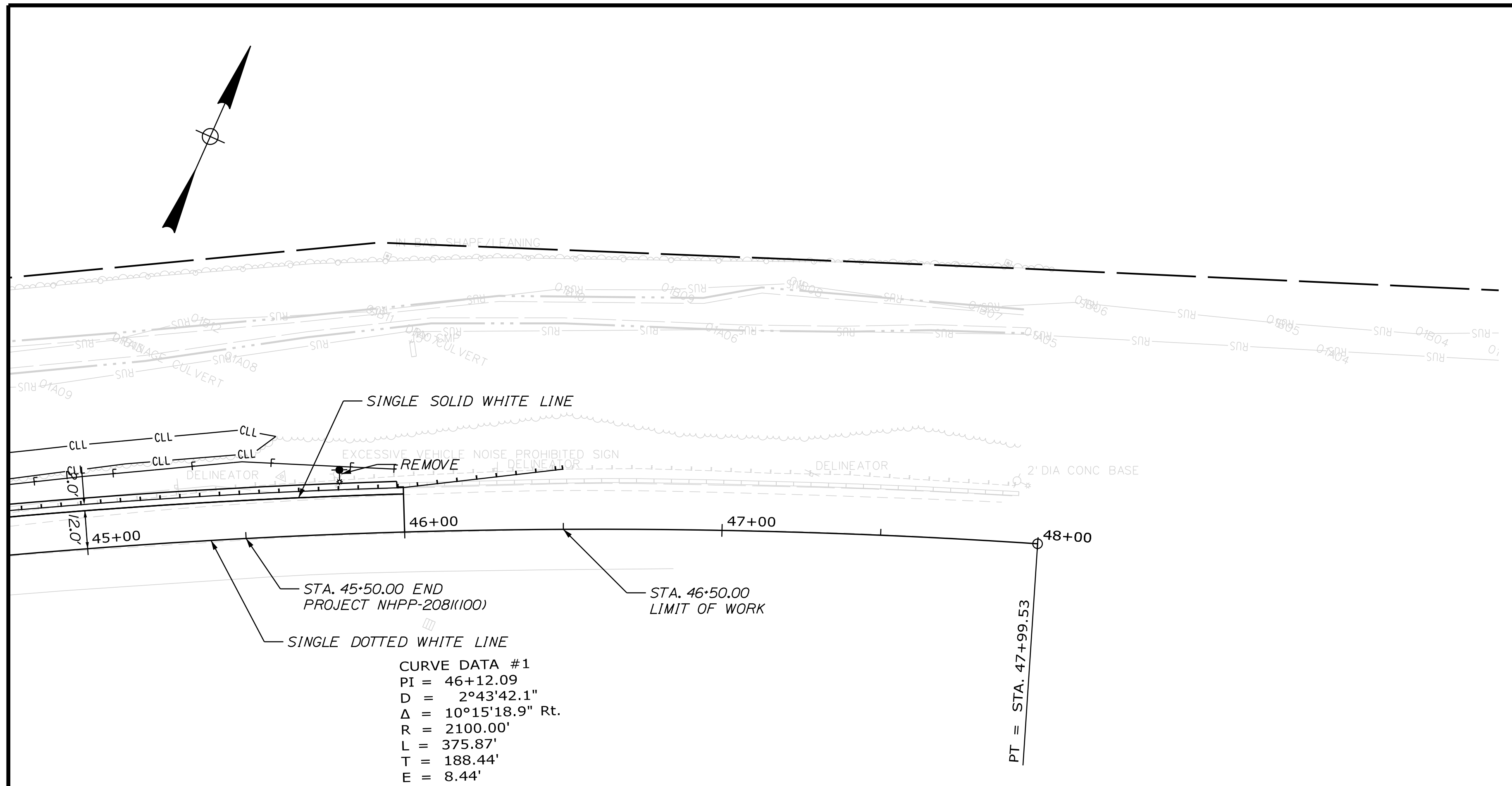
BANGOR
I-95 SB EXIT 185 ON-RAMP
PLANS

SHEET NUMBER
2
OF 16

Date: 3/5/2018

Username: Clark.E.Sullivan

Filename: ... \HIGHWAY\MSTA\008_HDPLAN2.DGN Division: HIGHWAY



PROFILE

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 NHPP-2081(100)
 WIN 020811.00
 HIGHWAY PLANS

DESIGN-REVIEWED	BY	DATE
C. SULLOWAY		

DESIGN-REVIEWED	BY	DATE
JUN 2017		

DESIGN-REVIEWED	BY	DATE
JUN 2017		

DESIGN-REVIEWED	BY	DATE
JUN 2017		

SHEET NUMBER
8
 OF 16

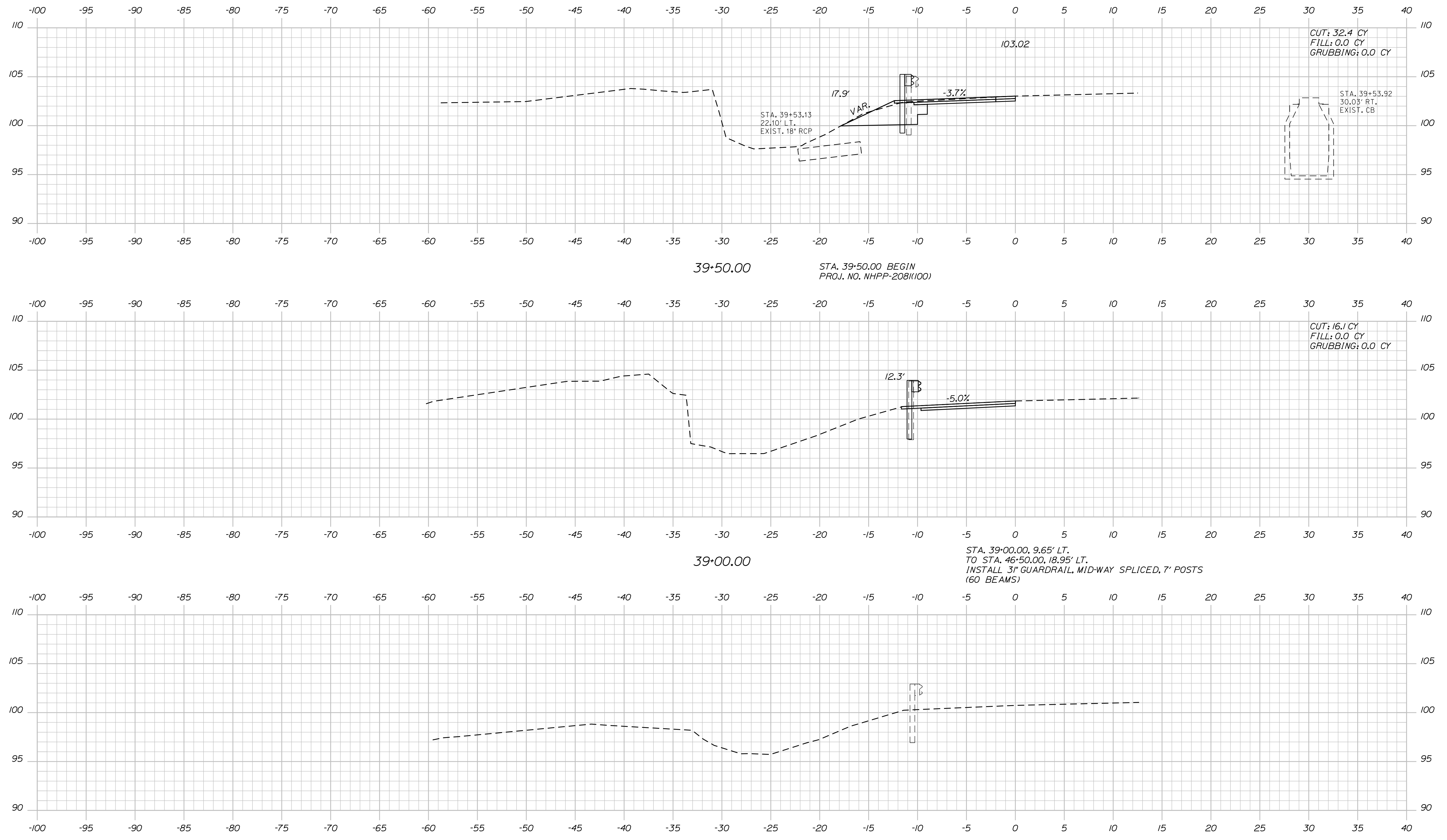
I-95 SB EXIT 185 ON-RAMP
 BANGOR
 PLANS

Date: 3/5/2018

Username: Clark.E.Sullivan

Division: HIGHWAY

Filename: ... \MSTAD09_XSECT_38+50_001.dgn



CUT: 32.4 CY
 FILL: 0.0 CY
 GRUBBING: 0.0 CY

STA. 39+53.92
 30.03' RT.
 EXIST. CB

CUT: 16.1 CY
 FILL: 0.0 CY
 GRUBBING: 0.0 CY

STA. 39+00.00, 9.65' LT.
 TO STA. 46+50.00, 18.95' LT.
 INSTALL 3" GUARDRAIL, MID-WAY SPLICED, 7' POSTS
 (60 BEAMS)

STA. 38+50.00
 LIMIT OF WORK
 DEMOUNT GUIDE SIGN STA. 40+33.00 LT.
 REINSTALL STA. 38+50.00 LT.

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 NHPP-2081(100)
 WIN 020811.00
 HIGHWAY PLANS

PROJ. MANAGER
 R. Moulton
 C. Sullivan
 CHECKED-REVIEWED
 DESIGNED-DETAILED
 DESIGNED-DETAILED
 REVISIONS 1
 REVISIONS 2
 REVISIONS 3
 REVISIONS 4
 FIELD CHANGES

DATE
 JUN 2017
 SIGNATURE
 P.E. NUMBER
 DATE

BANGOR
 I-95 SB EXIT 185 ON-RAMP
 CROSS SECTIONS

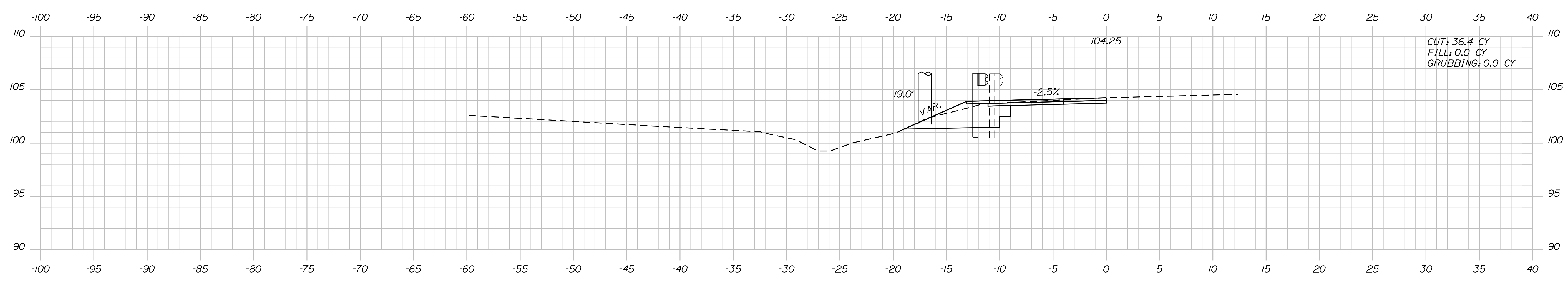
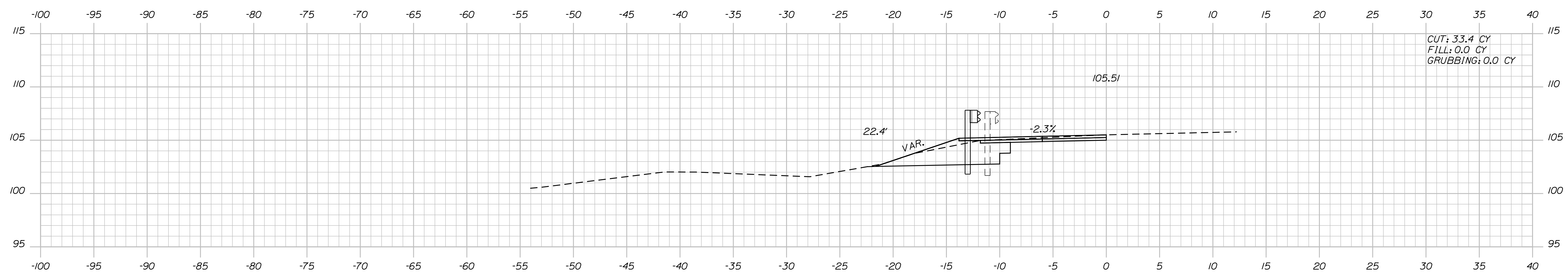
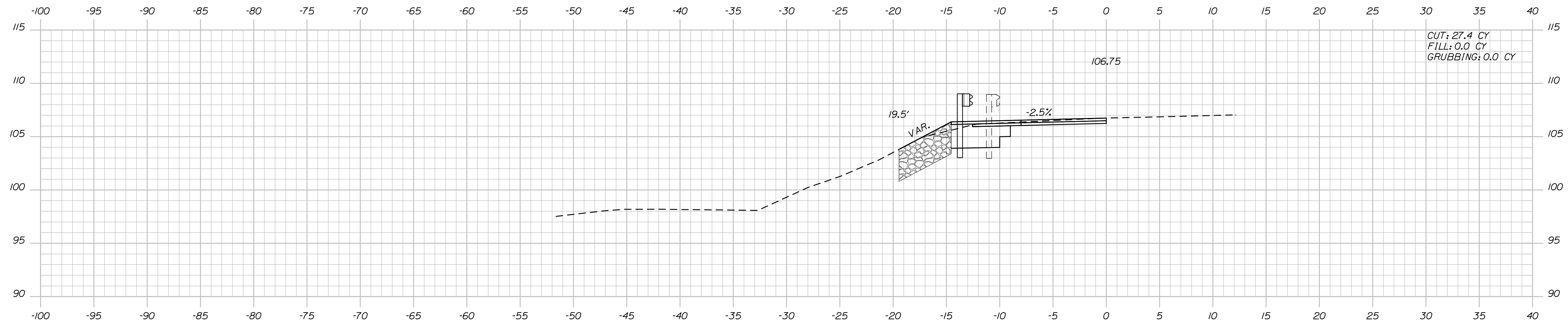
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 OF 16

Date: 3/5/2018

Username: Clark.E.Sullivan

Division: HIGHWAY

Filename: ... \MSTAD10_XSECT_40+00_002.dgn



STA. 40+20.00, 16.4' LT.
INSTALL LED LUMINAIRE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NHP-2081(100)
WIN 020811.00
HIGHWAY PLANS

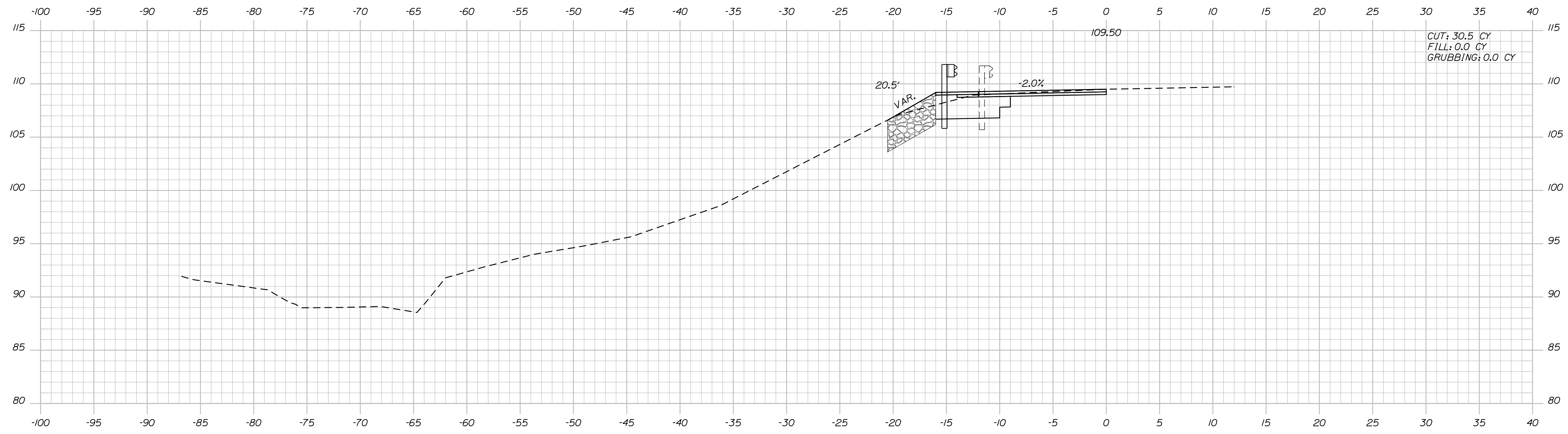
DESIGNED	DATE
CHECKED	BY
DESIGNED	R. MOUTON
DESIGNED	C. SULLOWAY
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

SIGNATURE	DATE
P.E. NUMBER	
	JUN 2017

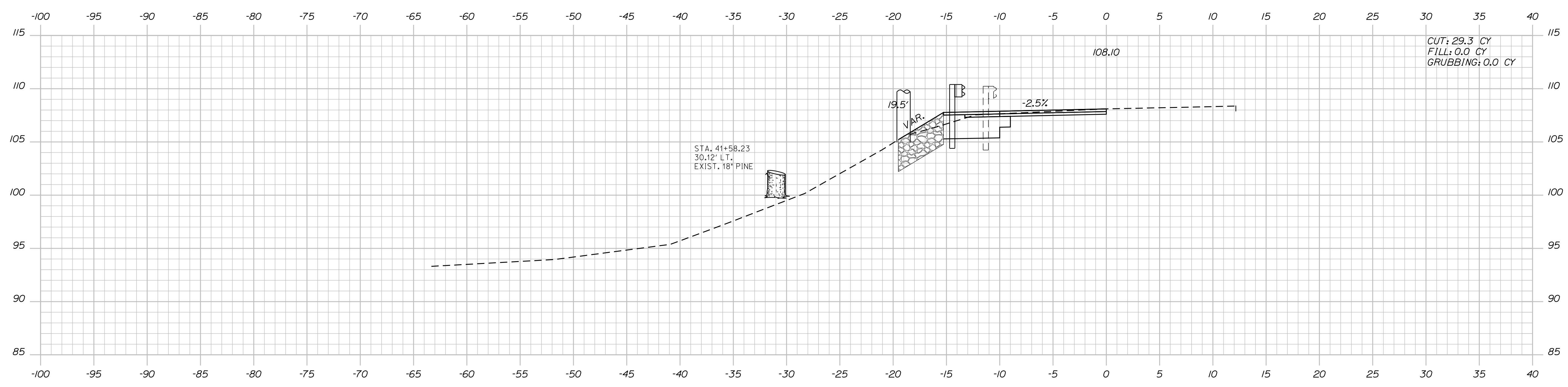
BANGOR
I-95 SB EXIT 185 ON-RAMP
CROSS SECTIONS

SHEET NUMBER
10
OF 16

Filename: ... \MSTAN011_XSECT_41+50_003.dgn
 Division: HIGHWAY
 Username: Clark.E.Sullivan
 Date: 3/5/2018



42+00.00



41+50.00

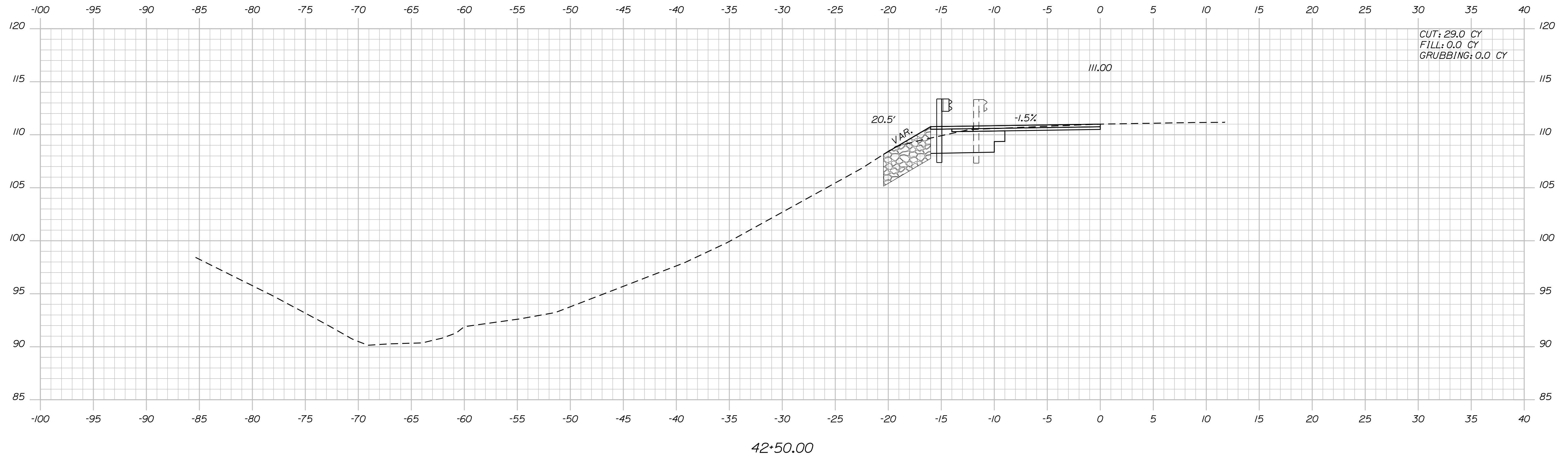
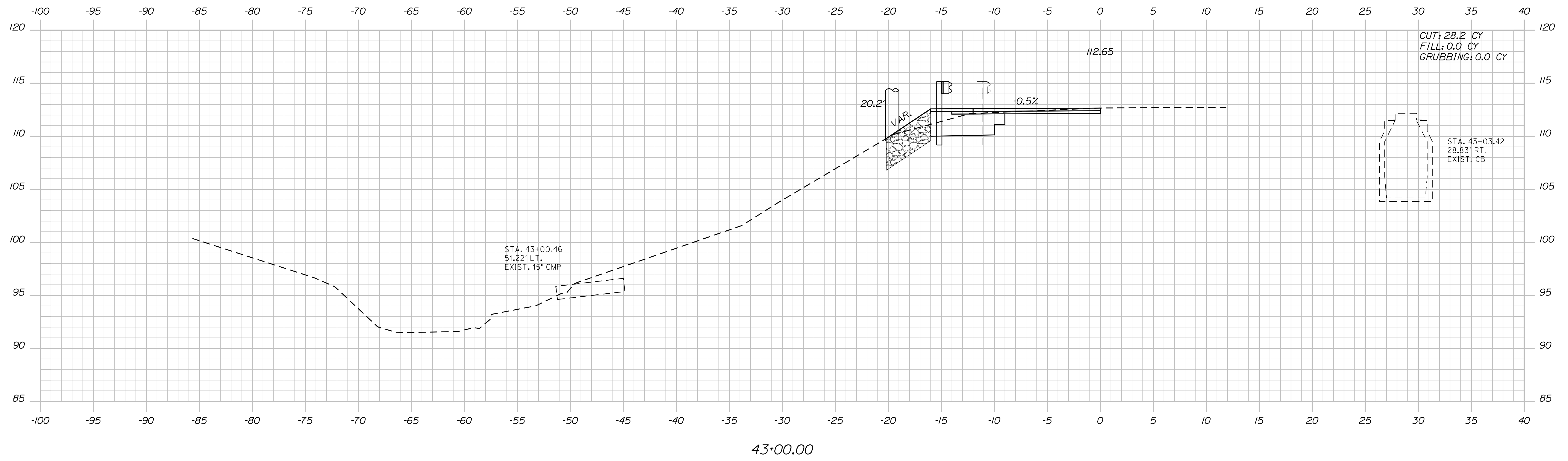
STA. 41+60.00, 18.4' LT.
 INSTALL LED LUMINAIRE

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 NHP-2081(100)
 WIN 020811.00
 HIGHWAY PLANS

PROJ. MANAGER	BY	DATE
R. MOULTON	C. SULLOWAY	
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN-DETAILED		JUN 2017
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BANGOR
 I-95 SB EXIT 185 ON-RAMP
 CROSS SECTIONS

SHEET NUMBER
11
 OF 16



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NHP-2081(100)
WIN 020811.00
HIGHWAY PLANS

PROJ. MANAGER: R. MOULTON
CHECKED/REVIEWED: C. SULLOWAY
DESIGNED/TAILED: JUN 2017
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

DATE: JUN 2017
SIGNATURE: _____
P.E. NUMBER: _____
DATE: _____

BANGOR
I-95 SB EXIT 185 ON-RAMP
CROSS SECTIONS

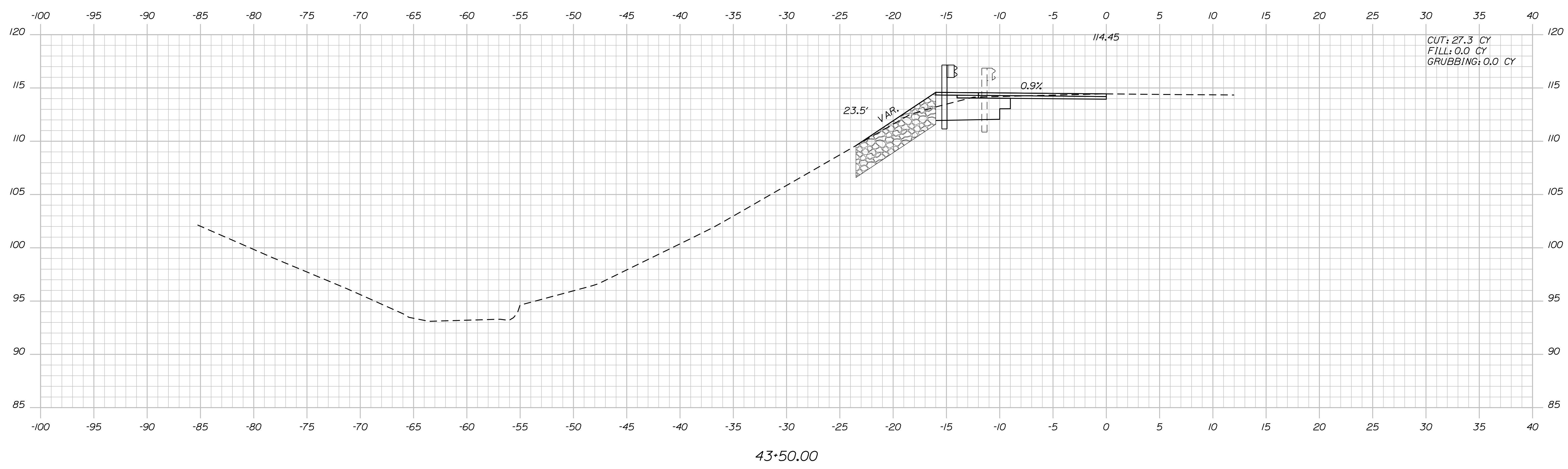
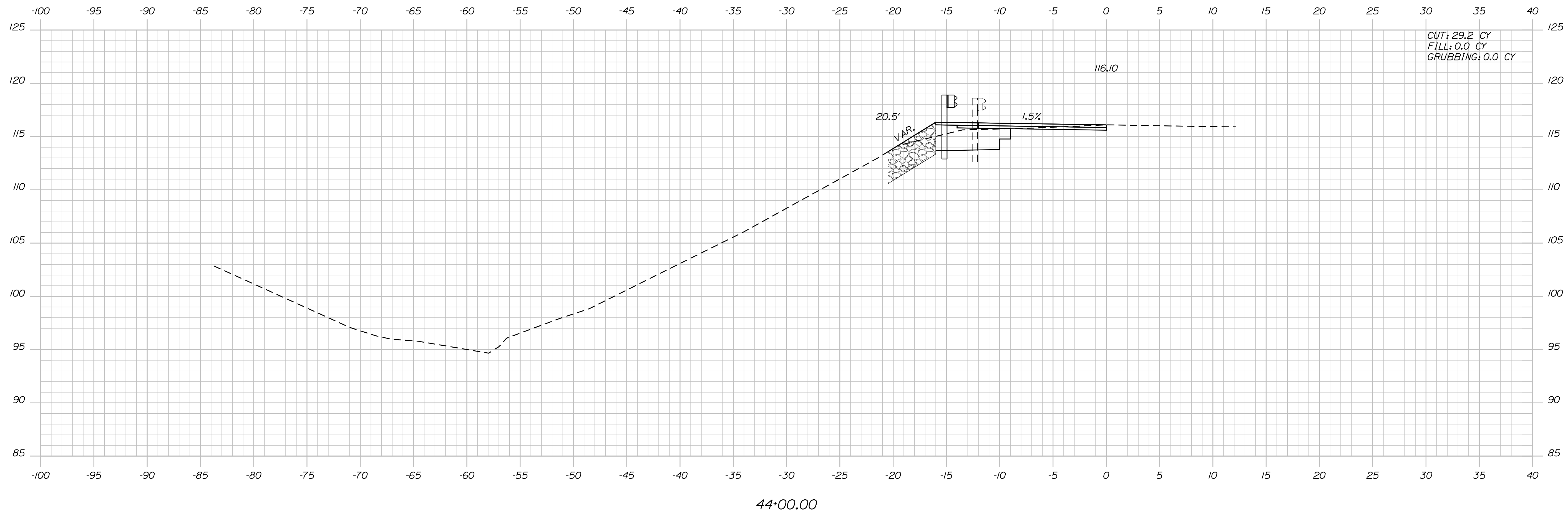
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OF 16

Date: 3/5/2018

Username: Clark.E.Sullivan

Division: HIGHWAY

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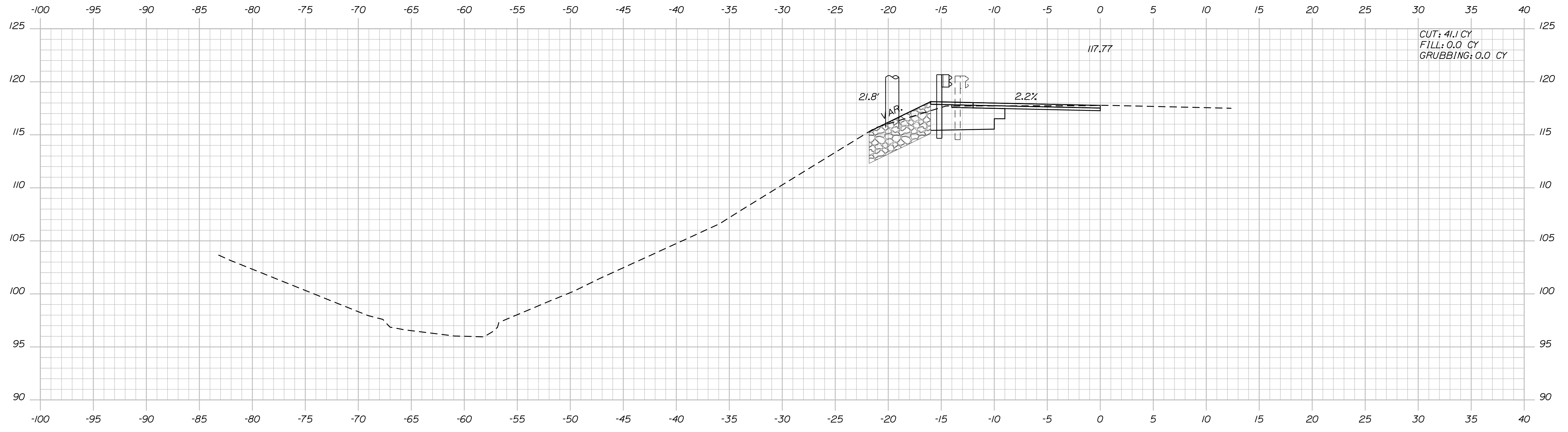
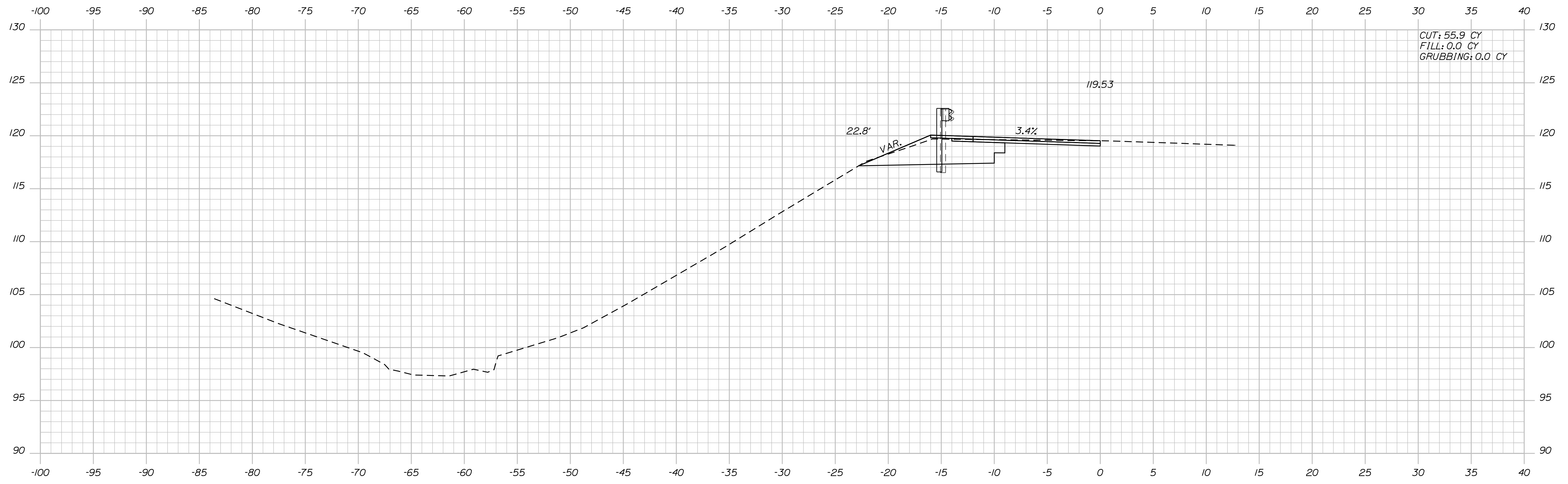
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NHP-2081(100)
WIN 020811.00
HIGHWAY PLANS

PROJ. MANAGER	BY	DATE
C. SULLOWAY		JUN 2017
CHECKED/REVIEWED		
DESIGNED/TAILED		
DESIGNS/TAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BANGOR
I-95 SB EXIT 185 ON-RAMP
CROSS SECTIONS

SHEET NUMBER
13
OF 16

Filename: ... \MSTAN014_XSECT_44+50_006.dgn Division: HIGHWAY Username: Clark.E.Sullivan Date: 3/5/2018



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NHP-2081(100)
WIN 020811.00
HIGHWAY PLANS

PROJ. MANAGER	R. MOULTON	BY	DATE
CHECKED-REVIEWED	C. SULLOWAY		
DESIGN DETAILED			JUN 2017
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
I-95 SB EXIT 185 ON-RAMP
CROSS SECTIONS

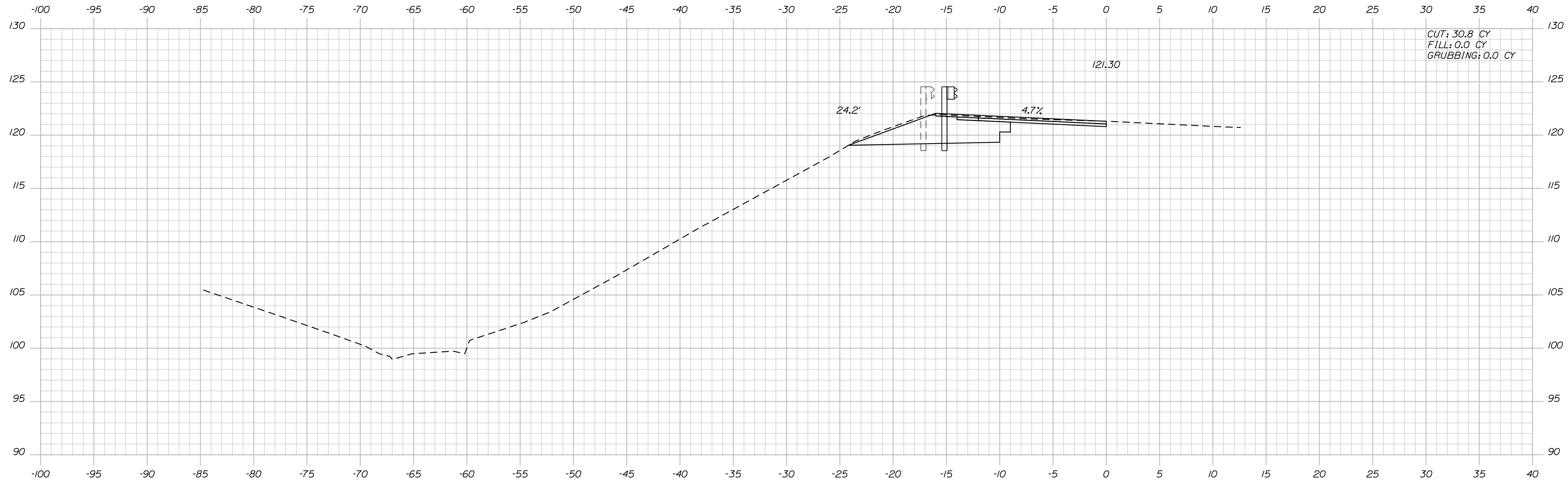
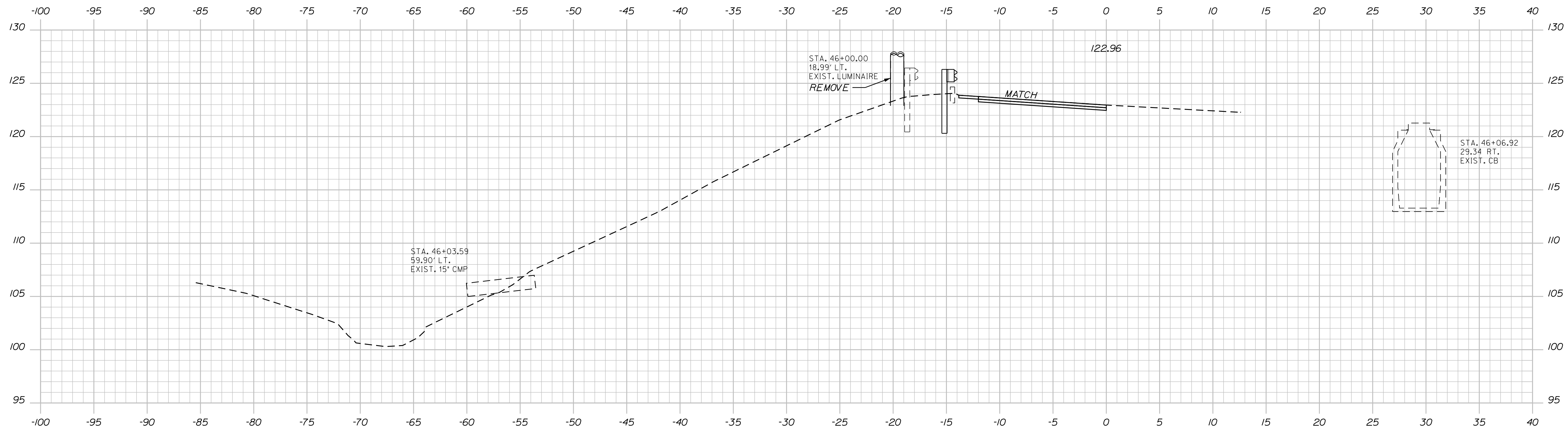
SHEET NUMBER
14
OF 16

Date: 3/5/2018

Username: Clark.E.Sullivan

Division: HIGHWAY

Filename: ... \MSTAD015_XSECT_45+50_007.dgn



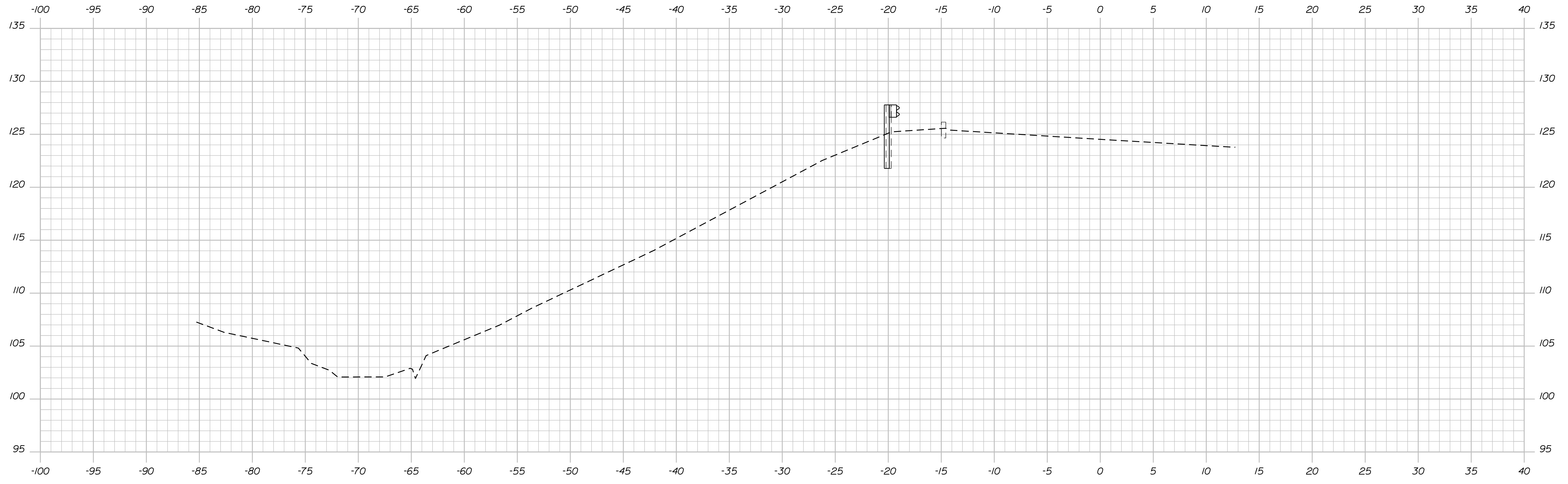
STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 NHPP-2081(100)
 WIN 020811.00
 HIGHWAY PLANS

PROJ. MANAGER: R. Moulton
 CHECKED/REVIEWED: C. Sullivan
 DESIGNED/DETAILED: [Blank]
 DESIGNED/DETAILED: [Blank]
 REVISIONS 1: [Blank]
 REVISIONS 2: [Blank]
 REVISIONS 3: [Blank]
 REVISIONS 4: [Blank]
 FIELD CHANGES: [Blank]

DATE: JUN 2017
 SIGNATURE: [Blank]
 P.E. NUMBER: [Blank]
 DATE: [Blank]

BANGOR
 I-95 SB EXIT 185 ON-RAMP
 CROSS SECTIONS

SHEET NUMBER
15
 OF 16



46+50.00 STA. 46+50.00 LIMIT OF WORK

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
NHP-2081(100)
WIN 020811.00 HIGHWAY PLANS

PROJ. MANAGER	R. MOULTON	BY	DATE
CHECKED-REVIEWED	C. SULLOWAY		
DESIGN-DETAILED		SIGNATURE	JUN 2017
DESIGNS-DETAILED		P.E. NUMBER	
REVISIONS 1		DATE	
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
I-95 SB EXIT 185 ON-RAMP
CROSS SECTIONS

SHEET NUMBER
16
OF 16

STATE OF MAINE DEPARTMENT OF TRANSPORTATION

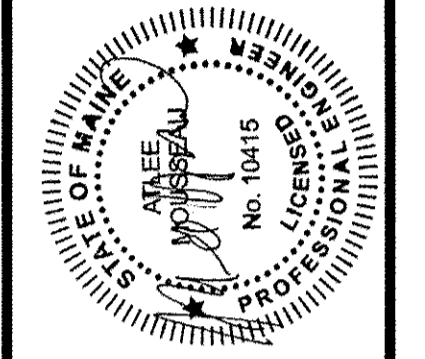


BANGOR PENOBSCOT COUNTY I-95 NB EXIT 185 ON-RAMP FEDERAL AID PROJECT NO. HSIP-2269(400) PROJECT LENGTH : 0.14 MILES

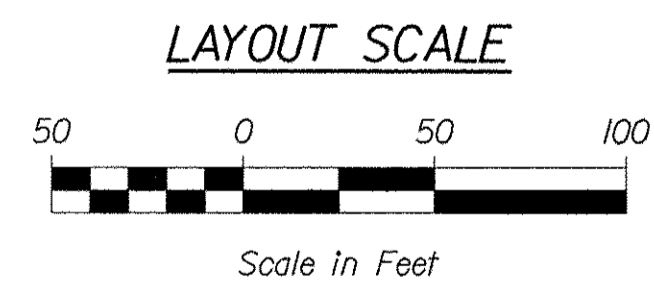
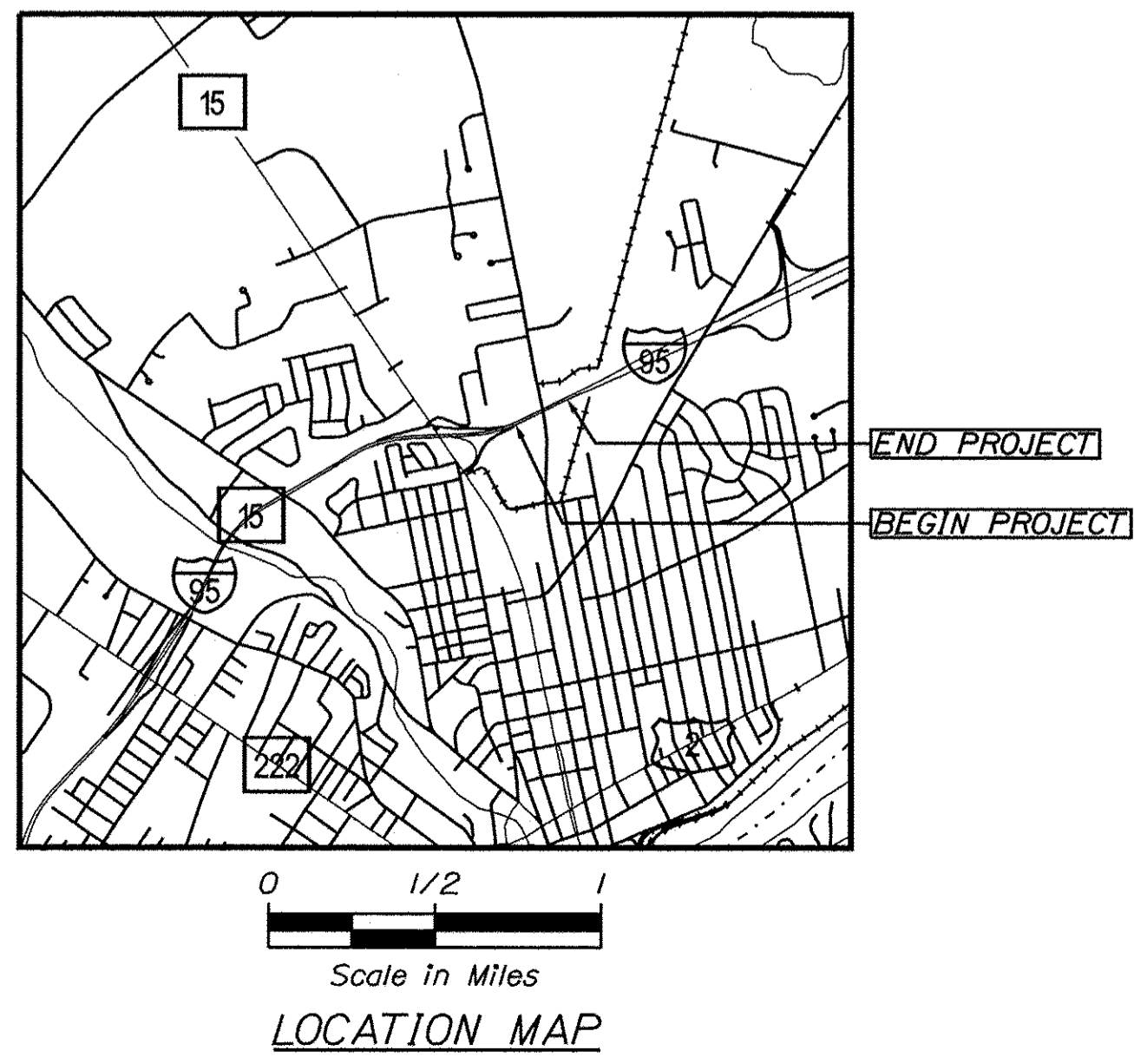
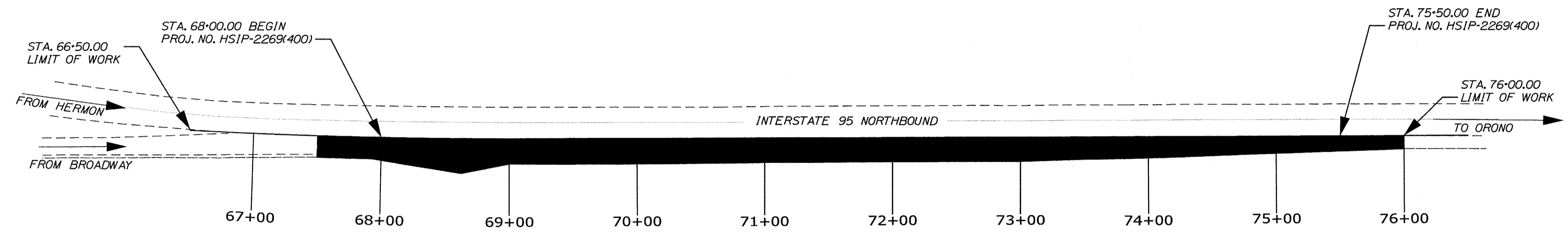
PLAN LEGEND	
Town, County, State _____	Centerline-Existing _____
Property Lines _____	Centerline-Proposed _____
R/W Lines-Existing _____	Travelway-Existing _____
R/W Lines-Proposed _____	Travelway-Proposed _____
Culvert-Existing _____	Railroad _____
Culvert Proposed _____	Catch Basins <input type="checkbox"/> Existing <input type="checkbox"/> Proposed
Curbing Existing Proposed	Manholes <input type="checkbox"/> Existing <input type="checkbox"/> Proposed
Type 1 _____	Proposed Underdrain _____
Type 3 _____	Proposed Ditch _____
Type 5 _____	Existing Ditch _____
Outline of Bodies of Water _____	Utility Poles <input type="checkbox"/> Existing <input type="checkbox"/> Proposed
Boring HB-XXX-###	Fire Hydrants <input type="checkbox"/> Existing <input type="checkbox"/> Proposed
Pavement Core PC-#	Existing Water Line _____
Test Pit TP-XXX-###	Existing San. Sewer _____
Probe P-#.X	Existing San. Sewer Manhole
### = Depth	Guardrail-Existing _____
X = W (Weathered Rock)	Guardrail-Proposed _____
R (Refusal)	Guardrail-Cable, Other _____
NR (No Refusal)	Exposed Bedrock _____
	Buildings _____
	Trees <input type="checkbox"/> Conifer <input type="checkbox"/> Deciduous
	Tree Line _____
	Clearing Limit Line _____

INDEX OF SHEETS	
Description	Sheet No.
Title Sheet	1
Typical Sections	2
Estimated Quantities	3
General Notes	4
Construction Notes	5
Foundation Sheet	6
Plan / Profile	7-8
Cross - Sections	9-18

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER:		3/6/18
CHIEF ENGINEER:		3-6-18



	SIGNATURE	10.4.15	P.E. NUMBER	2-22-18	DATE
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TRAFFIC DATA	
Current (2018) AADT	5290
Future (2038) AADT	6350
DHV - % of AADT	10%
Design Hour Volume	635
% Heavy Trucks (AADT)	5%
Directional Distribution (DHV)	100%
Design Speed (mph)	60
Functional Class. Principal Arterial Interstate	
Corridor Priority	1

PROJECT LOCATION:	EXIT 185: BROADWAY/INTERSTATE 95 NORTHBOUND ON RAMP
PROGRAM AREA:	HIGHWAY PROGRAM
SCOPE OF WORK:	RAMP IMPROVEMENTS

022694.00 HSIP-2269(400)

PROGRAM	HIGHWAY PROGRAM
PROJECT MANAGER	R. MOULTON
DESIGNER	C. SULLOWAY
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

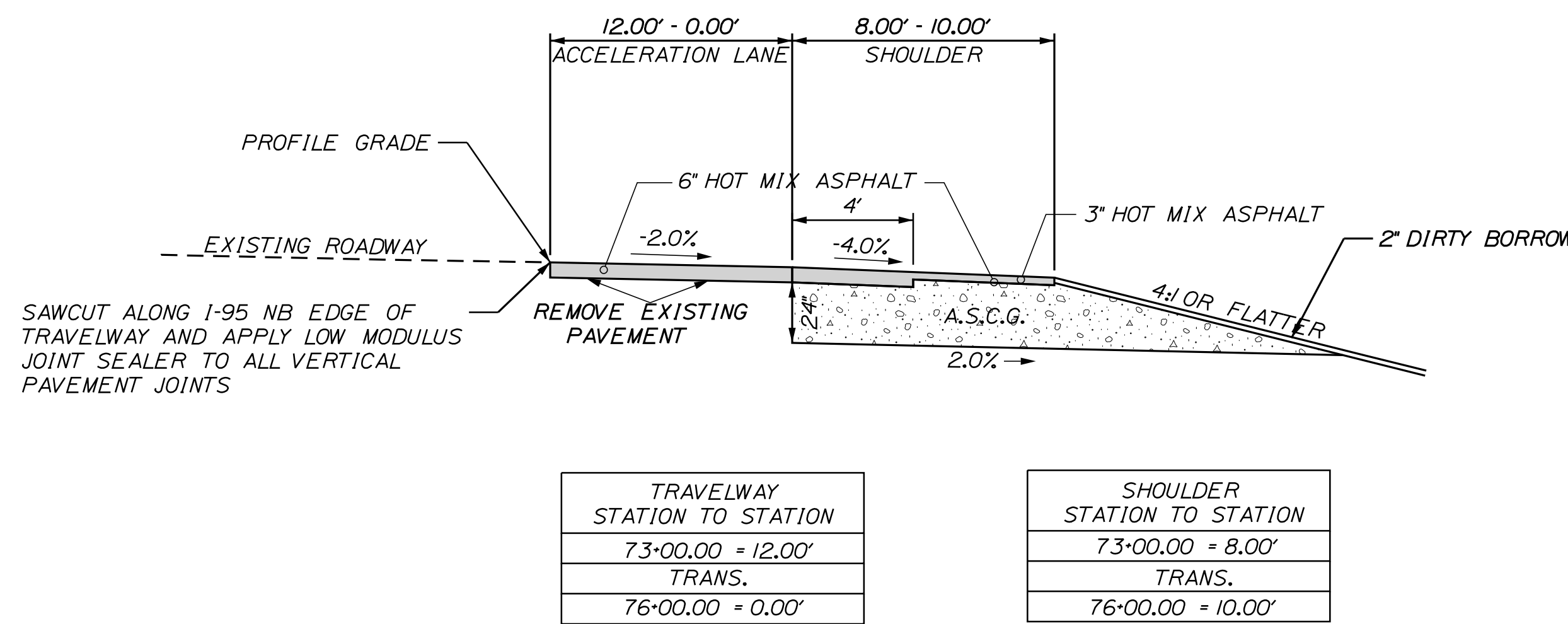
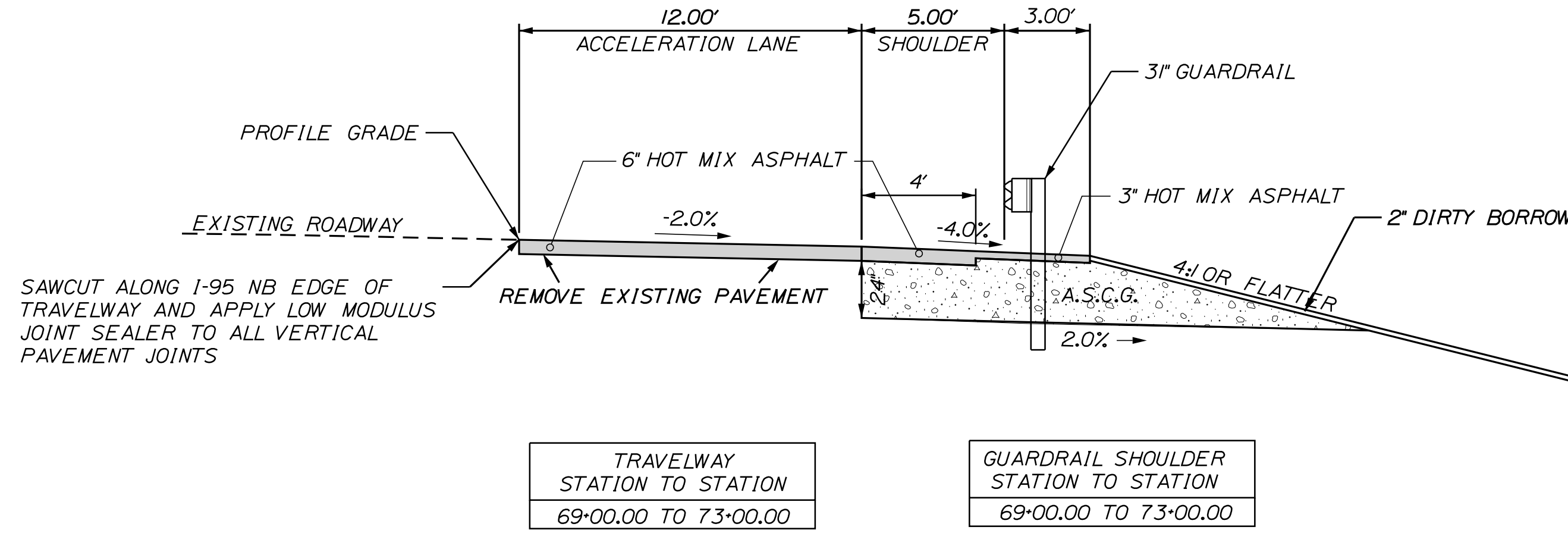
BANGOR
I-95 NB EXIT 185 ON-RAMP
TITLE SHEET

SHEET NUMBER
1
OF 18

Filename: ...00\HIGHWAY\MSTA\001_Title.dgn
Division: HIGHWAY
User: Clark.E.Sulloway
Date: 2/22/2018

NOTE:

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE GRAVEL QUANTITY CALCULATION IS BASED ON A 2" LOAM OR DIRTY BORROW DEPTH. THE ACTUAL DEPTH MAY VARY. SEE THE GENERAL NOTES.
5. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
6. THE STATIONING SHOWN UNDER EACH TYPICAL IS APPROXIMATE.



NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HSIP-2269(400)
WIN 022694.00
HIGHWAY PLANS

PROJ. MANAGER	R. MOULTON	BY	DATE
DESIGN-DETAILED	C. SULLOWAY		
CHECKED-REVIEWED		SIGNATURE	
DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		DATE	
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
I-95 NB EXIT 185 ON-RAMP
TYPICAL SECTIONS

SHEET NUMBER

2

OF 18

ESTIMATED QUANTITIES			
ITEM No.	DESCRIPTION	QUANTITY	UNIT
202.15	REMOVING MANHOLE OR CATCH BASIN	1	EA
203.20	COMMON EXCAVATION	890	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	850	CY
403.207	HOT MIX ASPHALT 19.0 MM HMA	225	T
403.2081	12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	145	T
403.2131	12.5 MM POLYMER MODIFIED HOT MIX ASPHALT BASE	145	T
409.15	BITUMINOUS TACK COAT - APPLIED	125	G
424.3333	LOW MODULUS JOINT SEALER - APPLIED	877	LF
526.301	TEMPORARY CONCRETE BARRIER TYPE 1	1	LS
527.34	WORK ZONE CRASH CUSHIONS	1	UN
605.09	6 INCH UNDERDRAIN TYPE B	250	LF
605.10	6 INCH UNDERDRAIN OUTLET	20	LF
606.1301	31" W-BEAM GUARDRAIL, MID-WAY SPLICE	400	LF
606.1305	31" W-BEAM GUARDRAIL, MID-WAY SPLICE, FLARED TERMINAL	1	EA
606.265	TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	1	EA
606.353	GUARDRAIL DELINEATOR POSTS	3	EA
606.356	UNDERDRAIN DELINEATOR POST	1	EA
610.08	PLAIN RIPRAP	1	CY
613.319	EROSION CONTROL BLANKET	70	SY
615.10	DIRTY BORROW	20	CY
618.14	SEEDING METHOD 2	11	UN
619.12	MULCH	11	UN
620.58	EROSION CONTROL GEOTEXTILE	1	SY
626.332	30"DIA GREATER 8'L & 36"DIA, 42" DIA FDN	9	CY
627.744	6" WHITE OR YELLOW PAVEMENT MARKING LINE	1700	LF
627.781	TEMPORARY 6" PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	3400	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.12	ALL PURPOSE EXCAVATOR	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
634.16	HIGHWAY LIGHTING	1	LS
634.2042	LED LUMINAIRES	4	EA
639.19	FIELD OFFICE TYPE B	0.5	EA
652.30	FLASHING ARROW BOARD	1	EA
652.33	DRUM	150	EA
652.34	CONE	150	EA
652.35	CONSTRUCTION SIGNS	200	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	45	CD
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	2	EA
656.75	TEMPORARY SOIL EROSION AND POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION (FROM CROSS SECTIONS)	815	
GRUBBING IN FILL	67	
TOTAL COMMON EXCAVATION (for estimate)		882

FILL FOR BORROW CALCULATIONS

COMMON FILL (FROM CROSS SECTIONS)	140	
GRUBBING IN FILL	67	
TOTAL FILL		207

ROCK EXCAVATION FOR ESTIMATE

ROCK EXCAVATION (FROM CROSS SECTIONS)	0	
ROCK EXCAVATION (BOULDERS)	0	
TOTAL ROCK EXCAVATION		0

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION		882
DEDUCTIONS:		
GRUBBING IN CUT	176	
GRUBBING IN FILL	67	
PAVEMENT SALVAGE (CUT & FILL)	211	
(2) TOTAL DEDUCTIONS		454
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)		428
TOTAL AVAILABLE STRUCT. EXCAVATIONS (USUALLY UNDERDRAIN ONLY)		40
RIPRAP EXCAVATION		0
TOTAL AVAILABLE NON-ROCK EXCAVATION		468

COMPUTATION FOR COMMON BORROW FOR ESTIMATE

(3) TOTAL FILL		207
TOTAL AVAIL. NON-ROCK EXCAV.	468 x 0.90 =	421
TOTAL AVAIL. ROCK EXCAV.	0 x 1.30 =	0
TOTAL AVAIL. STR. ROCK EXCAV.	0 x 1.30 =	0
TOTAL WASTE MATERIAL TO BE UTILIZED	0 x 0.90 =	0
(4) TOTAL AVAILABLE EXCAVATION		= 421
BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION		-214
Total Material to be Wasted:		214 CY

STATE OF MAINE DEPARTMENT OF TRANSPORTATION HSIP-2269(400)	SIGNATURE	P.E. NUMBER	DATE	PROJ. MANAGER	R. MOUTON	BY	DATE
				CHECKED-REVIEWED	C. SULLOWAY		
BANGOR I-95 NB EXIT 185 ON-RAMP	DESIGN-DETAILED	DESIGN-REVIEWED	DESIGN-DETAILED	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4
ESTIMATED QUANTITIES							
SHEET NUMBER							
3							
OF 18							
HIGHWAY PLANS WIN 022694.00							

GENERAL NOTES

1. A TEMPORARY RAMP SHALL BE CONSTRUCTED WITH HMA AT THE ENDS OF THE ROADWAY SECTION PAVED OR MILLED EACH DAY. THE USES OF MILLINGS OR RAP WILL NOT BE ALLOWED, BUT COLD PATCH MAY BE TEMPORARILY UTILIZED UNTIL HMA PLANTS ARE OPEN FOR THE SEASON. FOR INTERSTATE HIGHWAYS OR ROADWAYS WITH SPEED LIMITS EQUALING OR EXCEEDING 50 MPH, TEMPORARY RAMPS SHALL BE CONSTRUCTED AT A LENGTH OF EIGHT FEET PER INCH OF TRANSITION DEPTH. MATERIALS, PLACEMENT, MAINTENANCE, AND REMOVAL SHALL BE INCIDENTAL TO CONTRACT ITEMS.
2. ALL CLEARING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AS INDICATED ON THE PLANS AND APPROVED BY THE RESIDENT.
3. CLEARING LIMITS SHALL BE 15' BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINE IN NON-GUARDRAIL FILL AREAS AND 10' ELSEWHERE. SELECTIVE CLEARING AND THINNING LIMITS SHALL BE BETWEEN THE CLEARING LIMITS AND THE RIGHT OF WAY LINES, OR AS SHOWN ON THE PLANS.
4. THE CLEARING AND SELECTIVE CLEARING AND THINNING LINES SHOWN ON THE PLANS ARE FOR ESTIMATING PURPOSES ONLY. THE ACTUAL LINES FOR CLEARING AND THINNING SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE RESIDENT.
5. GRUBBING IN FILL AREAS HAS BEEN SHOWN ON THE CROSS SECTIONS AND THE QUANTITIES NOTED. THESE LIMITS ARE APPROXIMATE AND HAVE BEEN USED FOR ESTIMATING PURPOSES ONLY. ACTUAL GRUBBING LIMITS MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY THE RESIDENT.
6. PRIOR TO REMOVING ANY PAVEMENT OR PLACING ANY SHIM PAVEMENT, THE ROADWAY WILL BE INSPECTED FOR POSSIBLE SUBSURFACE BOULDERS, WHICH WILL BE REMOVED AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE MADE UNDER APPROPRIATE CONTRACT RENTAL ITEMS. BACKFILL WILL BE PLACED TO SUBGRADE WITH MATERIAL CONSISTENT WITH THE SURROUNDING MATERIAL. AGGREGATE SUBBASE COURSE GRAVEL WILL BE PLACED FROM SUBGRADE TO FINISH GRADE AND WILL BE PAID UNDER THE APPROPRIATE ITEM.
7. ALL INSLOPE AND DITCHES IN CUT AREAS SHALL BE GRADED AS SHOWN ON THE TYPICALS OR FLATTER, OR AS DIRECTED BY THE RESIDENT.
8. 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.
9. THE CONTRACTOR SHALL PLACE SUITABLE EXISTING OR OTHER MATERIAL ACCEPTABLE TO THE RESIDENT ON ALL PAVEMENT EDGES TO ALLOW A DROP OFF NO GREATER THAN THE SURFACE PAVEMENT THICKNESS. THE MATERIAL SHALL BE GRADED TO MATCH EXISTING IN-SLOPE OR AS DIRECTED BY THE RESIDENT BEFORE SURFACE IS PLACED. THE CONTRACTOR WILL BE PAID UNDER APPROPRIATE EQUIPMENT RENTAL ITEMS. BORROW IS NOT AUTHORIZED UNTIL ALL ACCEPTABLE WASTE MATERIAL HAS BEEN UTILIZED. SEED AND MULCH WILL BE PAID FOR AT THE CONTRACT UNIT PRICE.
10. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN ACCEPTABLE WASTE AREAS REVIEWED BY THE RESIDENT. GRADING, SEEDING AND MULCHING OF WASTE AREAS SHALL BE CONSIDERED INCIDENTAL.
11. REQUIRED DITCH PROTECTION SHOWN ON THE PLANS OR IN THE CONSTRUCTION NOTES IS FOR ESTIMATING PURPOSES ONLY. THE ACTUAL TYPE AND LOCATION OF DITCH PROTECTION MAY BE ALTERED BY THE RESIDENT.
12. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.
13. PLASTIC END CAPS SHALL BE USED ON ALL DEAD-END 6-INCH TYPE B UNDERDRAIN AND SHALL BE CONSIDERED INCIDENTAL.
14. A 3 FT. X 3 FT. SQUARE RIPRAP PAD SHALL BE CONSTRUCTED AT UNDERDRAIN OUTLETS.
15. GUARDRAIL END TREATMENTS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL.
16. ALL EXISTING GUARDRAIL SHALL BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR. REMOVAL AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.
17. TWO REFLECTORIZED FLEXIBLE GUARDRAIL MARKERS (ITEM 606.353) WILL BE INSTALLED AT EACH GUARDRAIL END.
18. A DELINEATOR POST (ITEM 606.356) WILL BE INSTALLED AT EACH UNDERDRAIN OUTLET.
19. CONNECTIONS FOR PROPOSED GUARDRAIL TO EXISTING GUARDRAIL WILL BE CONSIDERED INCIDENTAL TO ITEM 606.
20. DIRTY BORROW HAS BEEN ESTIMATED FOR ALL DISTURBED SLOPE AREAS OTHER THAN LAWN AREAS. ACTUAL PLACEMENT OF THE DIRTY BORROW SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
21. UNLESS OTHERWISE NOTED SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS; SEEDING METHOD NO. 2 SHALL BE UTILIZED ON ALL OTHER AREAS.
22. DIRTY BORROW SHALL BE PLACED TO A NOMINAL DEPTH OF 2 INCHES UNLESS OTHERWISE NOTED OR DIRECTED.
23. ANY BASE PAVEMENT NOT SURFACED BEFORE WINTER WILL REQUIRE TEMPORARY PAVEMENT MARKINGS OF PAINT, BOTH YELLOW CENTERLINE AND WHITE EDGE LINES AND WILL BE CONSIDERED PART OF ITEM 627.781.
24. 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 DETERMINE NEW CONSTRUCTION FINISH GRADES FROM DIFFERENTIAL ELEVATION SHEETS FURNISHED BY MAINE DOT. ALL LAYOUT, STAKES, AND GRADES WILL BE CHECKED AND MUST BE ACCEPTABLE TO THE RESIDENT. (REHABILITATION ONLY)
25. 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.
26. AREAS REQUIRING FILL ON THE PROJECT WILL COME FROM SUITABLE EXCAVATION FROM EXCAVATION, DITCH AND INSLOPE OR EQUIPMENT RENTAL AREAS.
27. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT AND LAYOUT OF WORK BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.
28. FINAL STRIPING FOR THE PROJECT SHALL BE DONE BY THE CONTRACTOR PER THE STRIPING LAYOUT IN THE CONTRACT DOCUMENTS OR AS PROVIDED BY THE DEPARTMENT. PAYMENT SHALL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.
29. THE CONTRACTOR WILL PLACE APPROPRIATELY MARKED STAKES AT THE FOLLOWING LOCATIONS ON THE PROJECT: STRIPING PATTERN CHANGES, CROSS-SLOPE CHANGES, AND EVERY 500' FOR STATIONING. THE CONTRACTOR WILL PAINT EVERY FULL STATION (100') ON THE EXISTING ROADWAY AND WILL TRANSFER THE PAINTED STATIONING THROUGH ALL INTERMEDIATE LIFTS (NOT SURFACE). APPROPRIATELY SIZED STRIPING PATTERN CHANGES WILL BE PAINTED ON SURFACE. STATIONING CONTROL MUST BE PLACED BEFORE WORK CAN COMMENCE. CROSS-SLOPE AND STRIPING CHANGE CONTROLS MUST BE PLACED BEFORE PAVING CAN COMMENCE.
30. SIGNS USED FOR DETOUR PLAN SHALL BE PAID FOR UNDER ITEM 652.35 CONSTRUCTION SIGNS AND PLACED ALONG DETOUR ROUTE AS DIRECTED BY THE RESIDENT.
31. THE CONTRACTOR WILL BE RESPONSIBLE FOR FINAL STRUCTURAL DESIGN OF THE PROPOSED LIGHT POLE FOUNDATIONS AND THE CONNECTION TO THE FOUNDATIONS. THE DESIGNS SHALL BE PREPARED AND STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE. DESIGN COMPUTATIONS INCLUDING DESIGN LOADS (BENDING MOMENT, SHEAR FORCE, TORSION AND AXIAL LOAD, AS APPLICABLE) AND SHOP DRAWINGS SHALL BE SUBMITTED TO MAINE DOT FOR ACCEPTANCE. NO MATERIALS SHALL BE ORDERED OR FABRICATED UNTIL THE DESIGN HAS BEEN ACCEPTED.
32. THE LIGHT POLE FOUNDATIONS SHALL CONSIST OF CAST-IN-PLACE, REINFORCED CONCRETE FOUNDATIONS AS SET FORTH IN SPECIAL PROVISION 634 (HIGHWAY LIGHTING) AND STANDARD SPECIFICATION SECTION 626.034 (CONCRETE FOUNDATIONS). FOUNDATION SIZES SHALL BE SELECTED BY THE CONTRACTOR BASED UPON ACTUAL COMPUTED BENDING MOMENTS AND TORSION IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 626.034 AND SPECIAL PROVISION 634. ACTUAL DESIGN LOADS AT THE TOP OF THE FOUNDATIONS SHALL BE PROVIDED BY THE CONTRACTOR AS PART OF THEIR STRUCTURAL SUBMITTAL AND WILL BE USED BY THE DEPARTMENT TO CHECK THE SPECIFIED SIZE OF THE FOUNDATIONS.
33. FOUNDATIONS SHALL NOT BE PERMANENTLY CASED EXCEPT FOR THE TOP 3 FEET. CONCRETE FOR FOUNDATIONS SHALL BE CAST DIRECTLY AGAINST THE SURROUNDING SOIL. PRECAST FOUNDATIONS WILL NOT BE ACCEPTED.
34. THE CONTRACTOR WILL BE REQUIRED TO OBTAIN TEST BORINGS AT PROPOSED LIGHT POLE LOCATIONS AS SPECIFIED ON SHEET 6 OF 18 OF THE CONTRACT DOCUMENTS. A COPY OF THE BORING LOGS SHALL BE INCLUDED WITH THE FOUNDATION DESIGN SUBMITTAL. THE FOUNDATION DESIGN SHALL BE IN ACCORDANCE WITH MAINE DOT STANDARD SPECIFICATION 626.034 AND STANDARD DETAILS 626(01) THROUGH 626(07). THE FOUNDATION DESIGN AND BORING LOGS SHALL BE SUBMITTED TO MAINE DOT FOR ACCEPTANCE IN ACCORDANCE WITH STANDARD SPECIFICATION 626.034.
35. ANY DAMAGE TO SLOPES OF PAVEMENT RESULTING FROM CONDUCTING BORINGS OR THE INSTALLATION OF THE LIGHT POLE FOUNDATIONS SHALL BE REPAIRED BY THE CONTRACTOR AS DIRECTED BY THE RESIDENT. COST OF REPAIRS SHALL BE INCIDENTAL TO RELATED CONTRACT ITEMS.
36. ALL FOUNDATIONS SHALL BE CONSTRUCTED PER MAINE DOT SPECIFICATIONS.

Date: 3/5/2018

Username: Clark, E. Sulloway

Division: HIGHWAY

Filename: ... \MSTAN004_GeneralNotes.dgn

STATE OF MAINE DEPARTMENT OF TRANSPORTATION HSIP-2269(400) WIN 022694.00 HIGHWAY PLANS	SIGNATURE P.E. NUMBER DATE
R. MOULTON C. SULLOWAY	BY DATE
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	DATE DATE DATE DATE DATE DATE DATE DATE
BANGOR I-95 NB EXIT 185 ON-RAMP GENERAL NOTES	
SHEET NUMBER 4 OF 18	

ITEM 202.15 REMOVING MANHOLE OR CATCH BASIN

STA. 69+81.28, 14.67' RT

605.09 6 INCH UNDERDRAIN TYPE B

71+50.00, 18.9' RT. TO 74+00.00, 18.9' RT.
INSTALL 6" X 250' UD

605.10 6 INCH UNDERDRAIN OUTLET

STA. 74+00.00, 19.0' RT. TO 74+17.89, 26.6' RT.
INSTALL 6" X 20' UD OUTLET, 22.5° ELBOW

ITEM 606.1301 31" W-BEAM GUARDRAIL, MID-WAY SPLICE

<u>LOCATION</u>	<u>QUANTITY</u>
STA. 69+00.00 TO 73+00.00 RT.	400 LF

ITEM 606.1305 31" W-BEAM GUARDRAIL, MID-WAY SPLICE FLARED TERMINAL

STA. 69+00.00 RT.

ITEM 606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL

STA. 73+00.00 RT.

ITEM 610.08 PLAIN RIPRAP

UNDERDRAIN OUTLET
STA. 74+19.0 - INSTALL 3X3 RIPRAP PAD

ITEM 613.319 EROSION CONTROL BLANKET

LOCATION
STA. 68+22.00 TO 68+83.58 RT.
STA. 70+17.85 TO 75+76.05 RT.

ITEM 626.332 30 INCH DIAMETER, GREATER THAN 8 FEET LONG, AND ALL 36 INCH AND 42 INCH DIAMETER FOUNDATIONS

STA. 69+50.00, 22.00' RT.
STA. 70+90.00, 22.00' RT.
STA. 72+60.00, 22.00' RT.
STA. 74+00.00, 22.00' RT.

ITEM 627.744 6" WHITE OR YELLOW PAVEMENT MARKING LINE

SINGLE DOTTED WHITE LINE: STA. 66+50.00, 0.0' RT. TO 72+00.00, 0.0' RT.

SINGLE SOLID WHITE LINE: STA. 66+50.00, 12.0' RT. TO 73+00.00, 12.0' RT.
STA. 73+00.00, 12.0' RT TO 76+00.00, 0.0' RT.

ITEM 627.781 TEMPORARY 6" PAVEMENT MARKING LINE WHITE OR YELLOW

ALL PAVEMENT MARKING LINES AND STRIPING ARE TO BE LAID OUT IN THE FIELD BY THE RESIDENT ENGINEER AND REGION TRAFFIC ENGINEER

ITEM 634.2042 LED LUMINAIRES

STA. 69+50.00, 22.00' RT.
STA. 70+90.00, 22.00' RT.
STA. 72+60.00, 22.00' RT.
STA. 74+00.00, 22.00' RT.

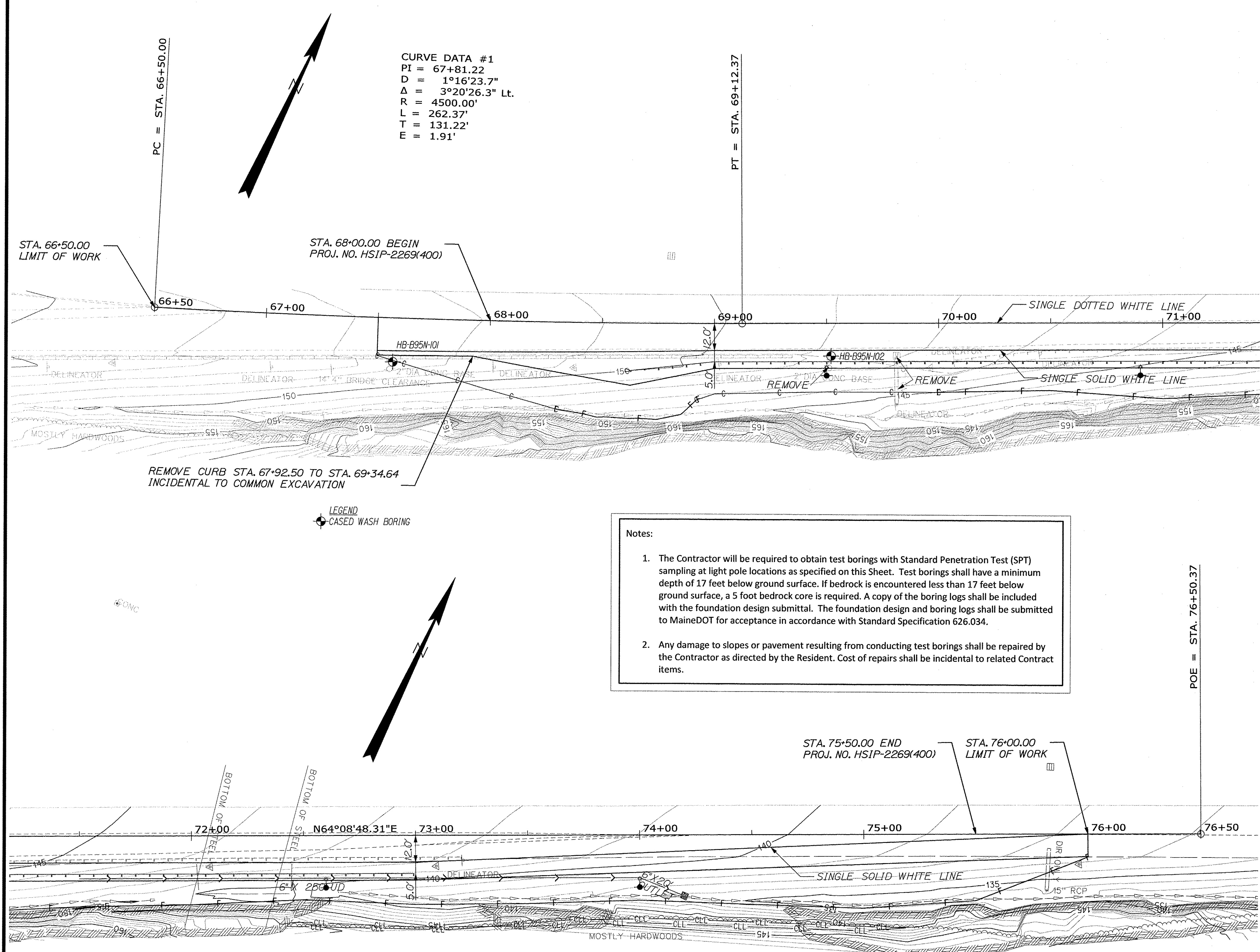
STATE OF MAINE DEPARTMENT OF TRANSPORTATION HSIP-2269(400)	WIN 022694.00 HIGHWAY PLANS
BANGOR I-95 NB EXIT 185 ON-RAMP CONSTRUCTION NOTES	SHEET NUMBER 5 OF 18

Date: 2/27/2018

Username: Kate.Maguire

Division: GEOTECH

Filename: ... \MSTA\006_BLP\ABLWDR1.dgn



CURVE DATA #1
 PI = 67+81.22
 D = 1°16'23.7"
 Δ = 3°20'26.3" Lt.
 R = 4500.00'
 L = 262.37'
 T = 131.22'
 E = 1.91'

Notes:

- The Contractor will be required to obtain test borings with Standard Penetration Test (SPT) sampling at light pole locations as specified on this Sheet. Test borings shall have a minimum depth of 17 feet below ground surface. If bedrock is encountered less than 17 feet below ground surface, a 5 foot bedrock core is required. A copy of the boring logs shall be included with the foundation design submittal. The foundation design and boring logs shall be submitted to MaineDOT for acceptance in accordance with Standard Specification 626.034.
- Any damage to slopes or pavement resulting from conducting test borings shall be repaired by the Contractor as directed by the Resident. Cost of repairs shall be incidental to related Contract items.

Station	Offset	Structure	Design Requirements
69+50	22.0 ft Rt	Light Pole	Foundation design for this light pole shall be based on Standard Details 626(03) and 626(04) with Charts P32-1, P32-2, and P32-3 (soils with $\Phi = 32$ degrees) with reference to Standard Specification Section 626.034 for shallow bedrock and Standard Detail 626(02) (Top) for foundations where solid rock is encountered at less than the required distance below ground level.
70+90	22.0 ft Rt	Light Pole	Boring Required
72+60	22.0 ft Rt	Light Pole	Boring Required
74+00	22.0 ft Rt	Light Pole	Boring Required

Maine Department of Transportation Soil/Rock Exploration Log		Project: I-95 NB, Broadway On Ramp		Boring No.: HB-195N-101			
US CUSTOMARY UNITS		Location: Bangor, Maine		WIN: 22694.00			
Driller: MainDOT	Elevation (ft.): 152.6	Auger ID/OD: 5" Solid Stem					
Operator: Trovis/James/Rick	Datum: NAVD88	Sampler: Standard Split Spoon					
Logged By: B. Miller	Rig Type: CME 40C	Blower Wt./Fall: 140#/30"					
Bore Start/Finish: 5/18/2011; 20:30-23:00	Drilling Method: Cased Wash Boring	Cora Barrel: 40-2"					
Boring Location: 67+51, 19.5 ft Rt.	Casing ID/OD: 1N-3"	Water Level: None Observed					
Blower Efficiency Factor: 0.854	Blower Type: Automatic 80	Hydraulic ID: None & Cased					
Sample Information							
Depth (ft.)	Sample No.	Pen./Ret. (ft.)	Sample Depth (ft.)	Blow Count (blows/ft.)	Blow Count (blows)	Visual Description and Remarks	Laboratory Testing Requested (ASTM and Unified Class)
10	24/10	0.50 - 2.50	3/7.5/7	12	17	SS4	
5	20	24/13	5.00 - 7.00	10/40/46/23	66	122	
R1	60/60	8.00 - 13.00	R00 = 60%			NO-2	
10						44.60	
15						39.60	
20							
25							
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.: HB-195N-101

Maine Department of Transportation Soil/Rock Exploration Log		Project: I-95 NB, Broadway On Ramp		Boring No.: HB-195N-102			
US CUSTOMARY UNITS		Location: Bangor, Maine		WIN: 22694.00			
Driller: MainDOT	Elevation (ft.): 148.6	Auger ID/OD: 5" Solid Stem					
Operator: Trovis/James/Rick	Datum: NAVD88	Sampler: Standard Split Spoon					
Logged By: B. Miller	Rig Type: CME 45C	Blower Wt./Fall: 140#/30"					
Bore Start/Finish: 5/18/2011; 22:00-01:00	Drilling Method: Cased Wash Boring	Cora Barrel: 40-2"					
Boring Location: 69+62, 14.5 ft Rt.	Casing ID/OD: 1N-3"	Water Level: None Observed					
Blower Efficiency Factor: 0.854	Blower Type: Automatic 80	Hydraulic ID: None & Cased					
Sample Information							
Depth (ft.)	Sample No.	Pen./Ret. (ft.)	Sample Depth (ft.)	Blow Count (blows/ft.)	Blow Count (blows)	Visual Description and Remarks	Laboratory Testing Requested (ASTM and Unified Class)
10	24/9	0.50 - 2.50	3/5.8/10	13	18	SS4	
5	R1	60/58	8.00 - 10.00	R00 = 25%		NO-2	
10						43.60	
15						38.60	
20							
25							
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.: HB-195N-102

**STATE OF MAINE
DEPARTMENT OF TRANSPORTATION**

HSIP-2269(400)

**BANGOR
I-95 NB, BROADWAY ON RAMP**

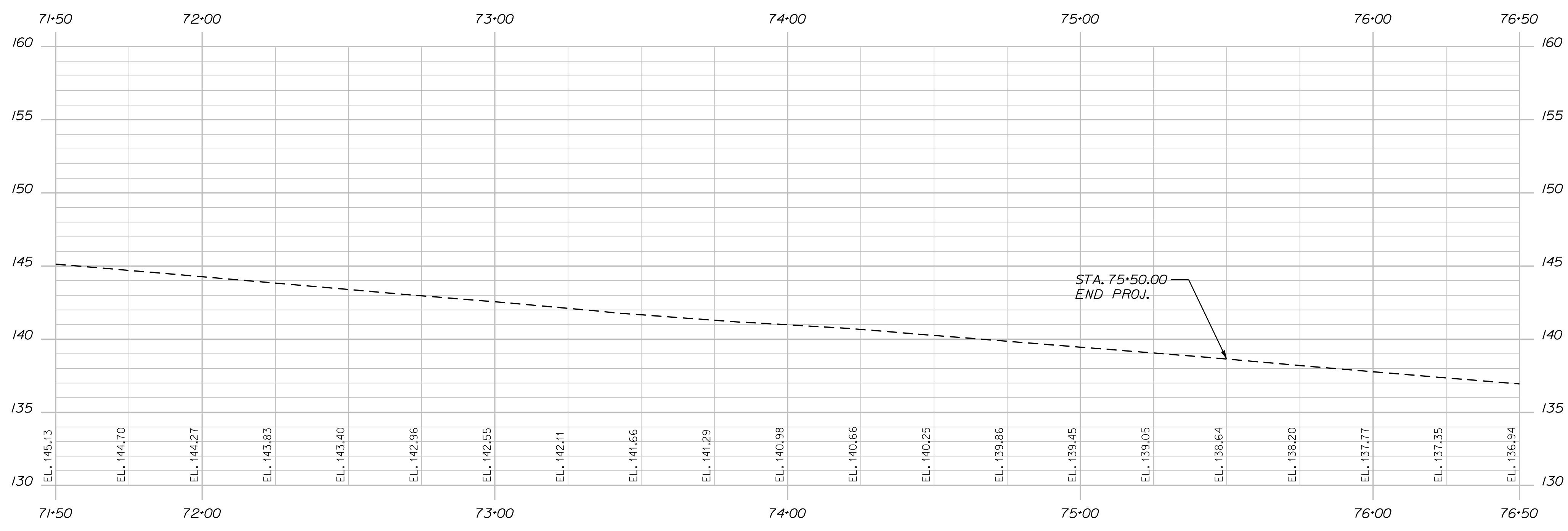
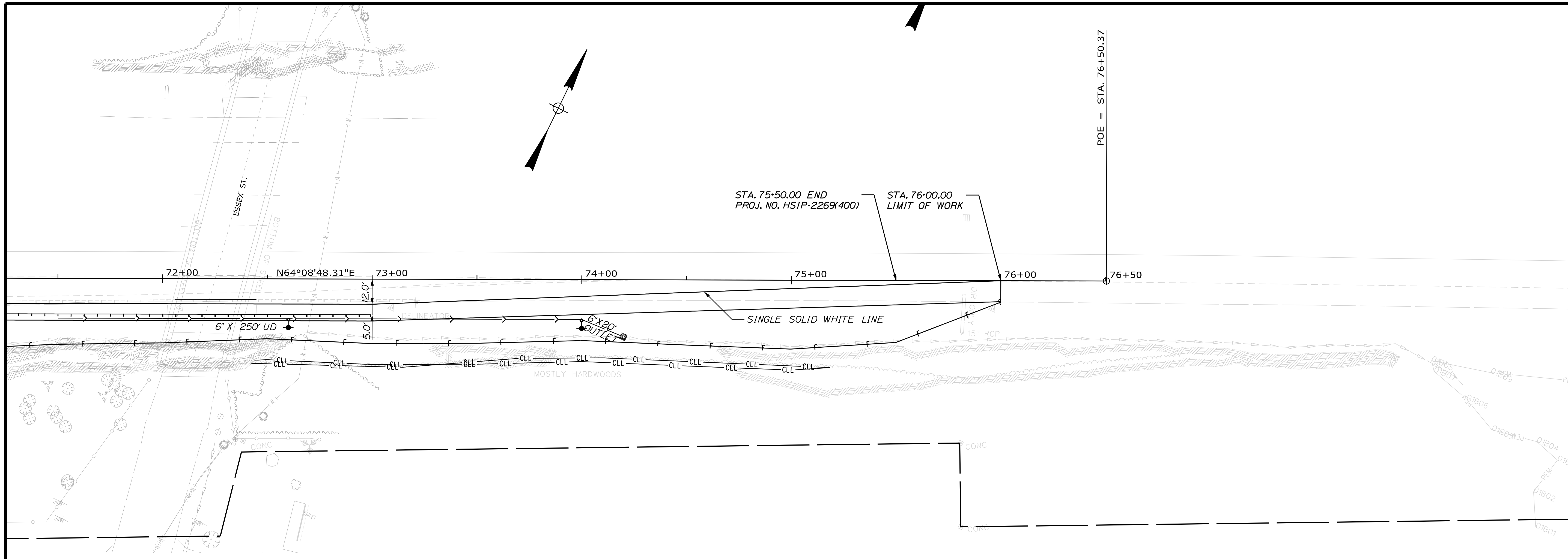
**BORING LOCATION PLAN AND
BORING LOGS WITH
FOUNDATION DESIGN REQUIREMENTS**

SHEET NUMBER

6

WIN 022694.00
HIGHWAY PLANS

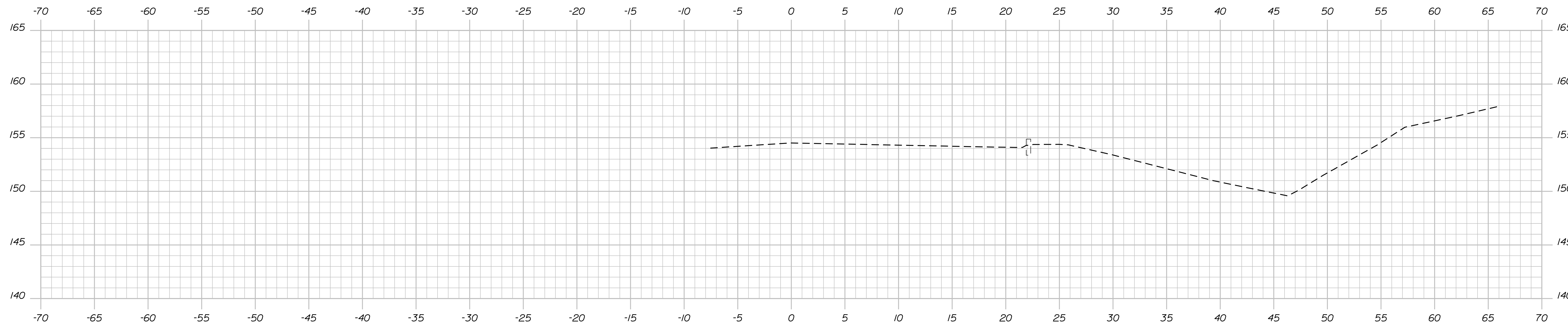
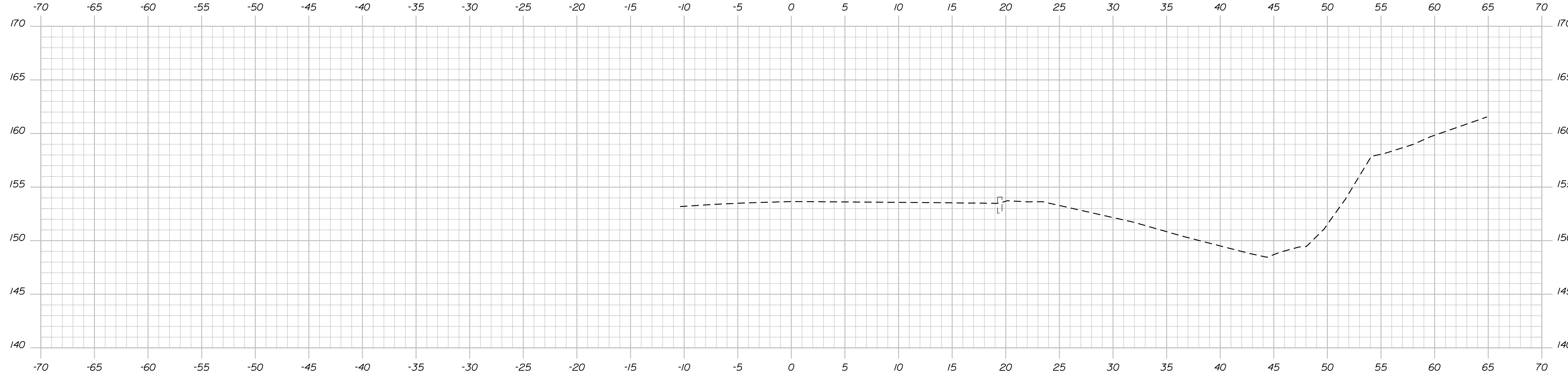
Professional Seal: **STATE OF MAINE ENGINEER**
 License No. 7120
 Signature: [Signature]
 Date: 2/27/2018



PROFILE

STATE OF MAINE DEPARTMENT OF TRANSPORTATION																																							
HSIP-2269(400)																																							
WIN 022694.00	HIGHWAY PLANS																																						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>PROJ. MANAGER</th> <th>R. Moulton</th> <th>BY</th> <th>DATE</th> </tr> <tr> <td>CHECKED-REVIEWED</td> <td>C. Sullivan</td> <td></td> <td></td> </tr> <tr> <td>DESIGNS DETAILED</td> <td></td> <td></td> <td></td> </tr> <tr> <td>REVISIONS 1</td> <td></td> <td></td> <td></td> </tr> <tr> <td>REVISIONS 2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>REVISIONS 3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>REVISIONS 4</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;">FIELD CHANGES</td> </tr> </table>	PROJ. MANAGER	R. Moulton	BY	DATE	CHECKED-REVIEWED	C. Sullivan			DESIGNS DETAILED				REVISIONS 1				REVISIONS 2				REVISIONS 3				REVISIONS 4				FIELD CHANGES				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>SIGNATURE</th> <th>P.E. NUMBER</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	SIGNATURE	P.E. NUMBER	DATE			
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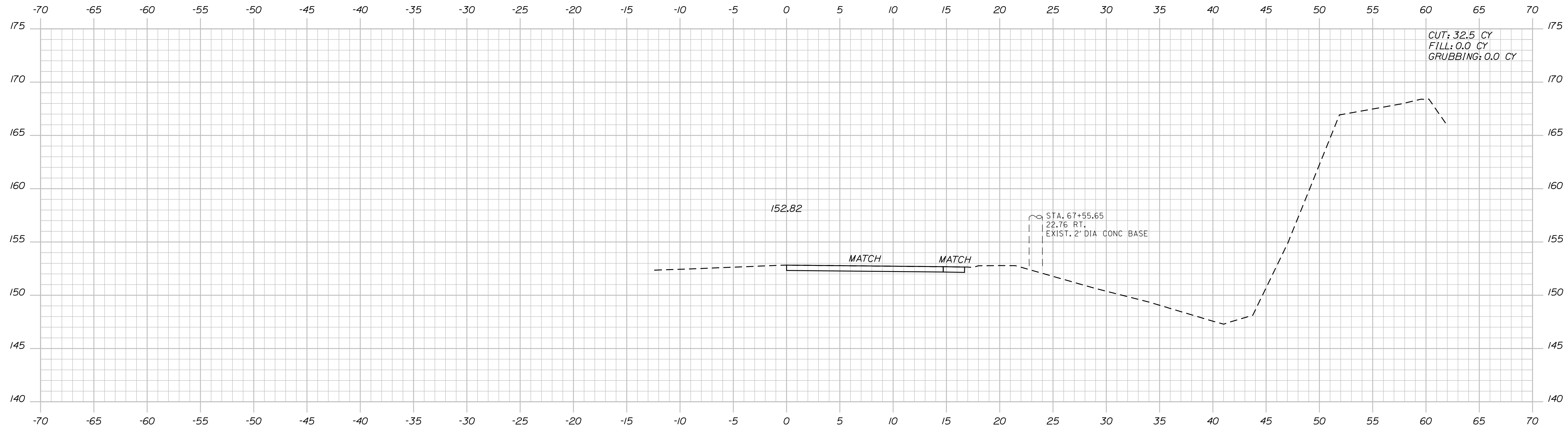
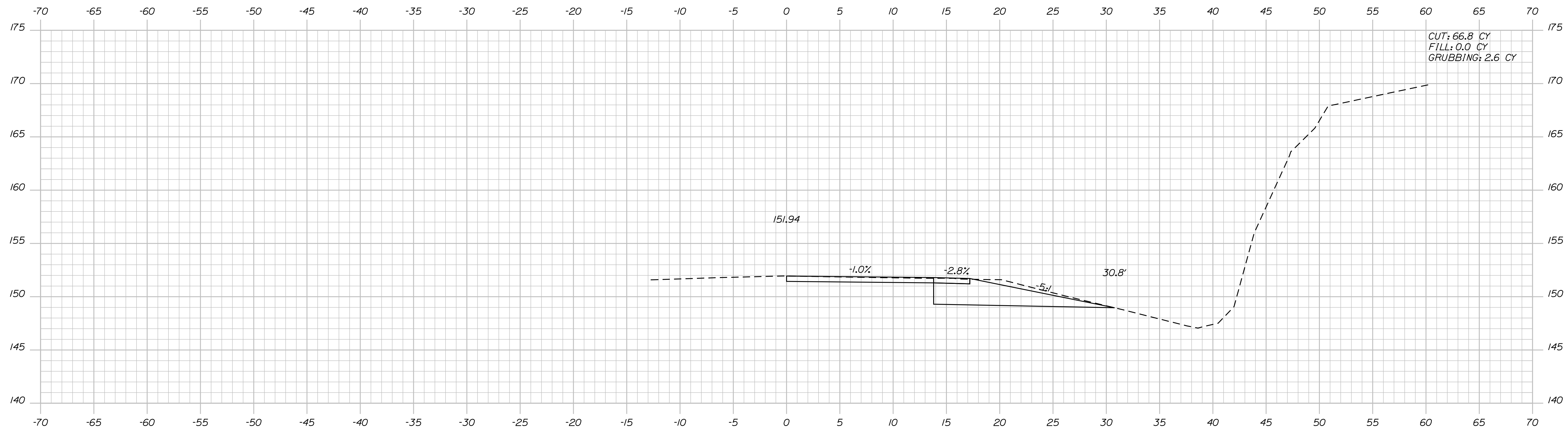
STA. 66+50.00
LIMIT OF WORK

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HSIP-2269(400)
WIN 022694.00
HIGHWAY PLANS

PROJ. MANAGER	R. MULLTON	BY	DATE
CHECKED-REVIEWED	C. SULLOWAY		
DESIGNS DETAILED		SIGNATURE	
REVISIONS 1		P.E. NUMBER	
REVISIONS 2		DATE	
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BANGOR
I-95 NB EXIT 185 ON-RAMP
CROSS SECTIONS

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HSIP-2269(400)
WIN
022694.00
HIGHWAY PLANS

PROJ. MANAGER	R. MOUTON	BY	DATE
CHECKED-REVIEWED	C. SULLOWAY		
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FIELD CHANGES			

BANGOR
I-95 NB EXIT 185 ON-RAMP
CROSS SECTIONS

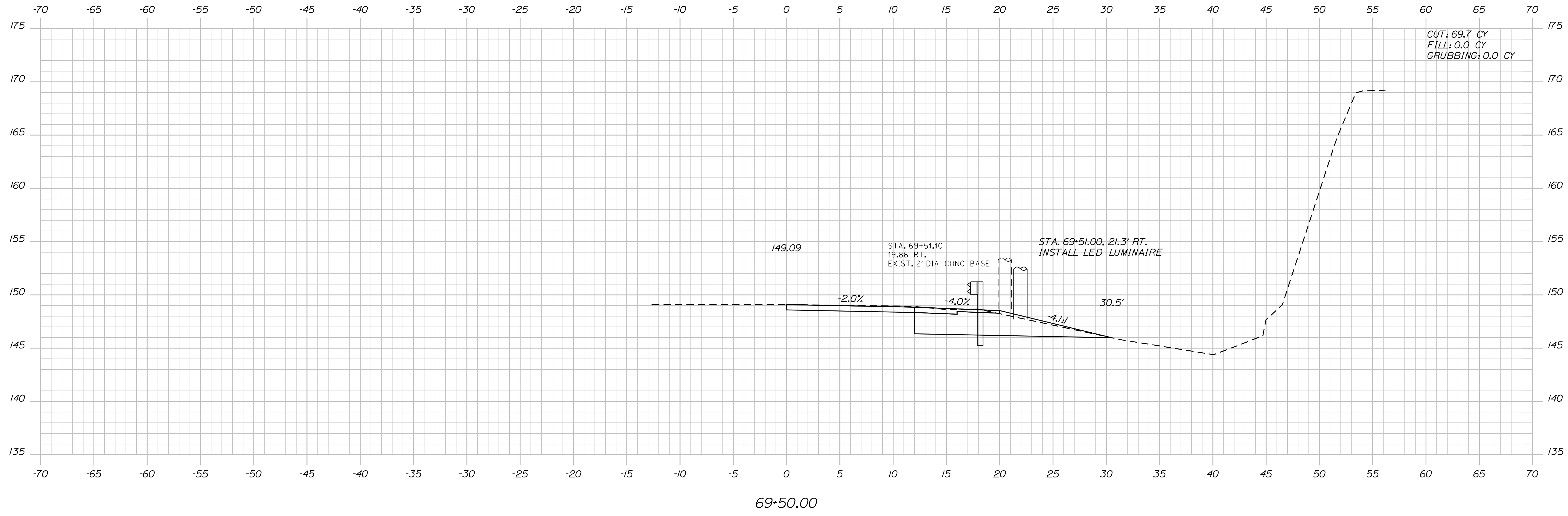
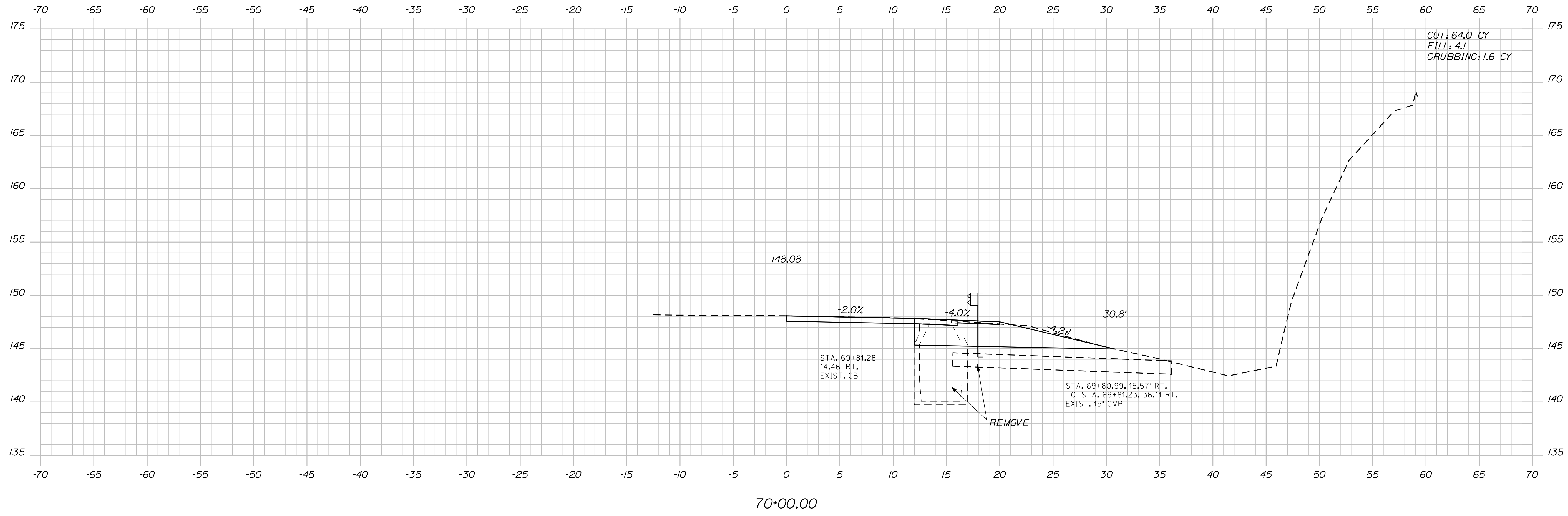
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OF 18

Date: 3/5/2018

Username: Clark.E.Sullivan

Division: HIGHWAY

Filename: ... \MSTAN012_XSECT_69-50_004.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HSIP-2269(400)
WIN 022694.00
HIGHWAY PLANS

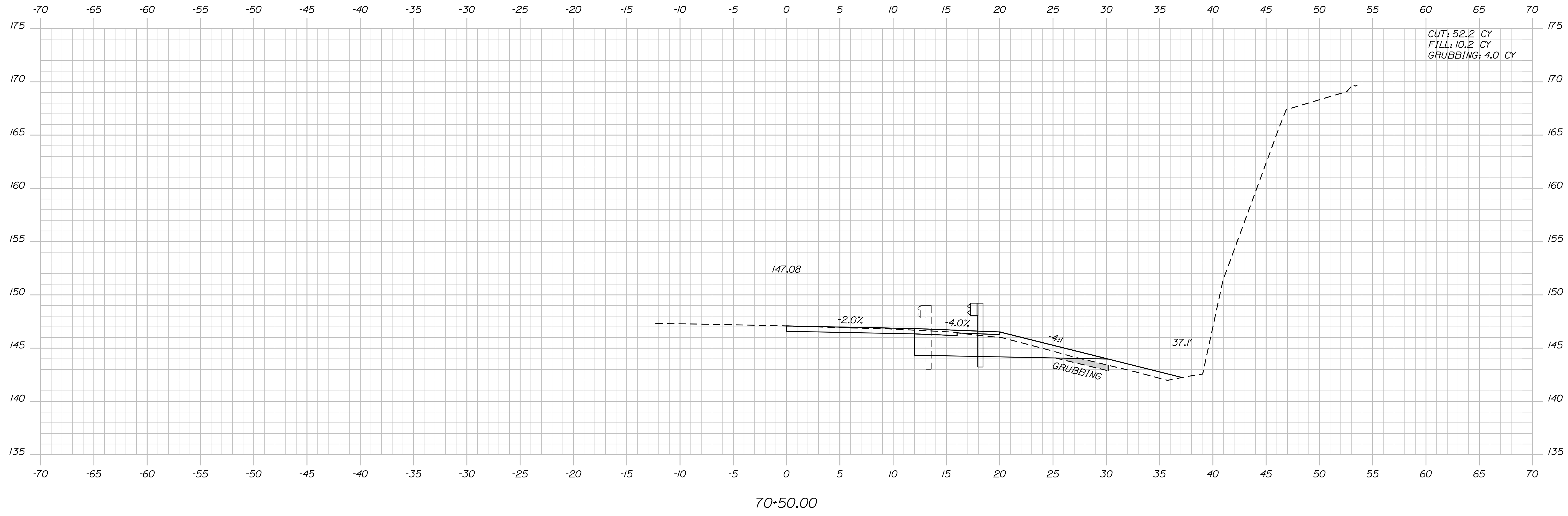
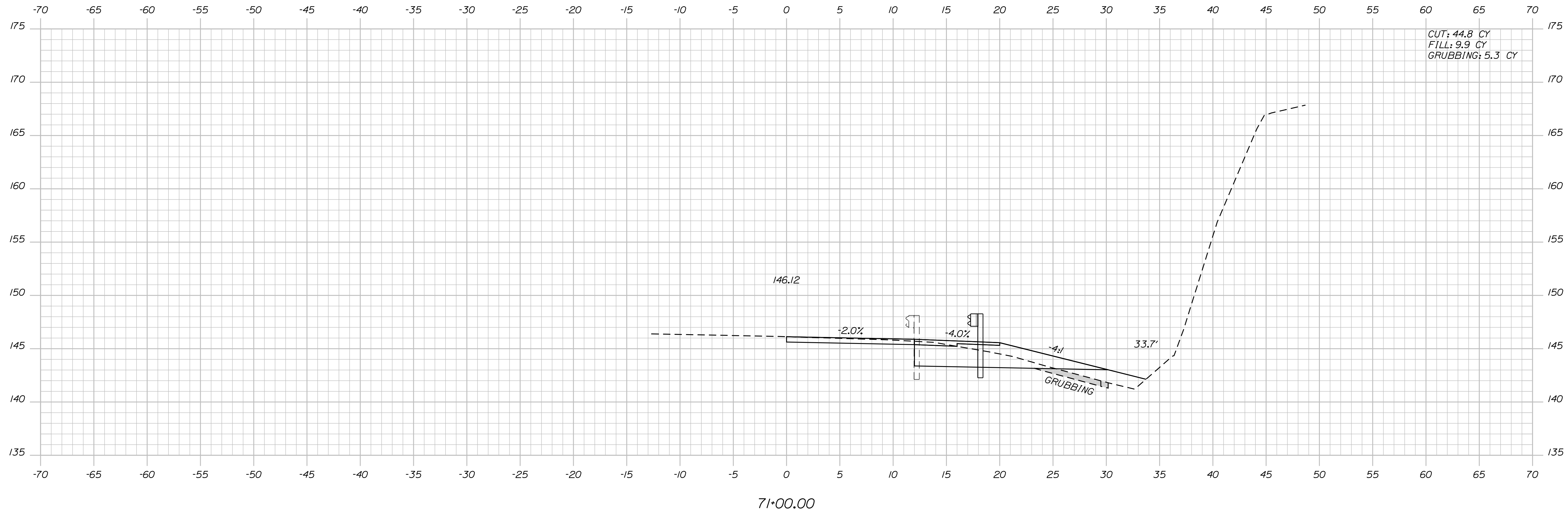
PROJ. MANAGER	BY	DATE
CHECKED-REVIEWED	R. MOUTON	
DESIGN-REVIEWED	C. SULLOWAY	
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REVISIONS 4		
FIELD CHANGES		

SIGNATURE	P.E. NUMBER	DATE

BANGOR
I-95 NB EXIT 185 ON-RAMP
CROSS SECTIONS

SHEET NUMBER
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OF 18

Sta. 69+50.00 to Sta. 70+00.00



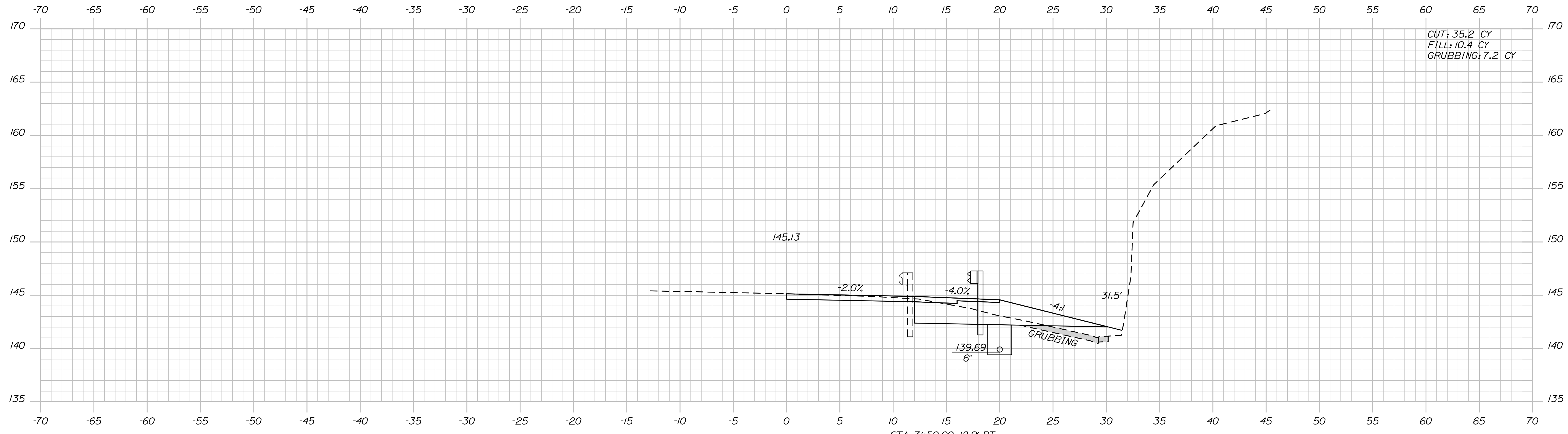
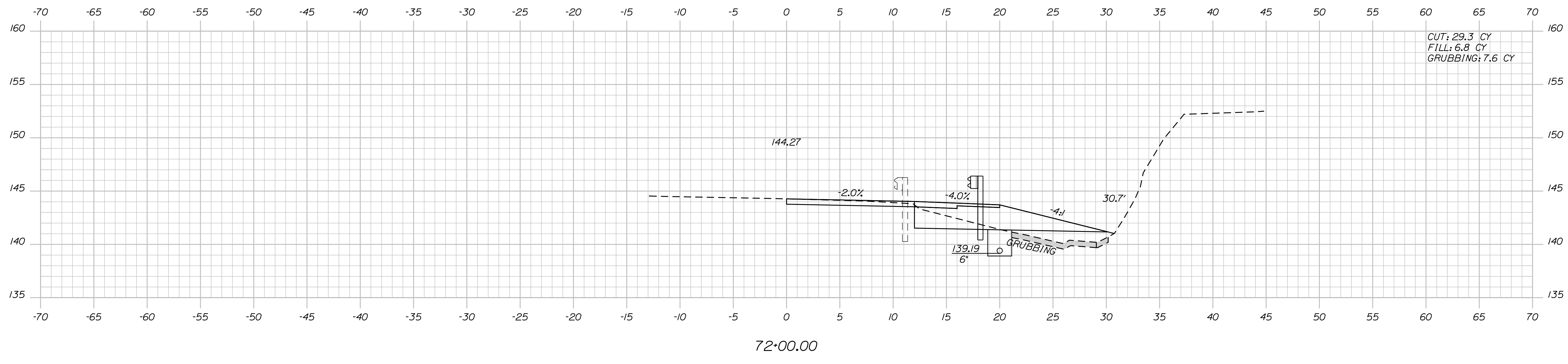
STATE OF MAINE
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HIGHWAY PLANS

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REVISIONS 4	
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PROJ. MANAGER	R. MOUTON	BY	DATE
CHECKED-REVIEWED	C. SULLOWAY		

BANGOR
I-95 NB EXIT 185 ON-RAMP
CROSS SECTIONS

SHEET NUMBER
13
OF 18



STA. 71+50.00, 18.9' RT.
TO STA. 74+00.00, 18.9' RT.
INSTALL 6' X 250' UD

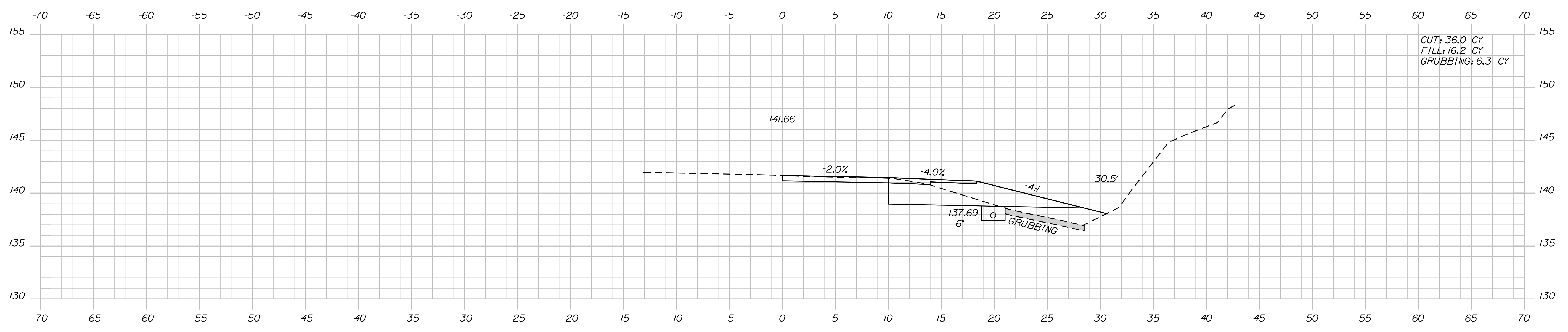
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HIGHWAY PLANS

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FIELD CHANGES			

BANGOR
I-95 NB EXIT 185 ON-RAMP
CROSS SECTIONS

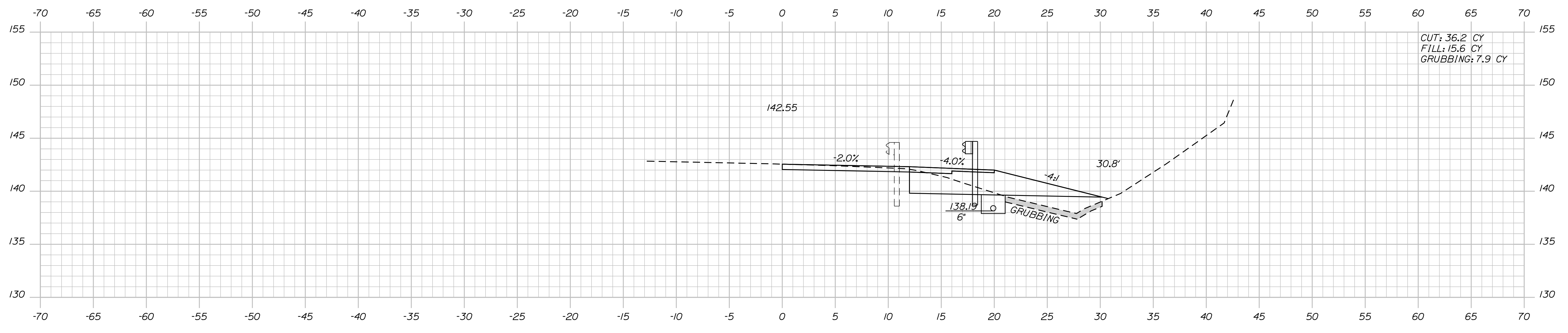
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14
OF 18

Filename: ... \MST\A015_XSECT_72+50_007.dgn Division: HIGHWAY Username: Clark.E.Sullivan Date: 3/5/2018



CUT: 36.0 CY
 FILL: 16.2 CY
 GRUBBING: 6.3 CY

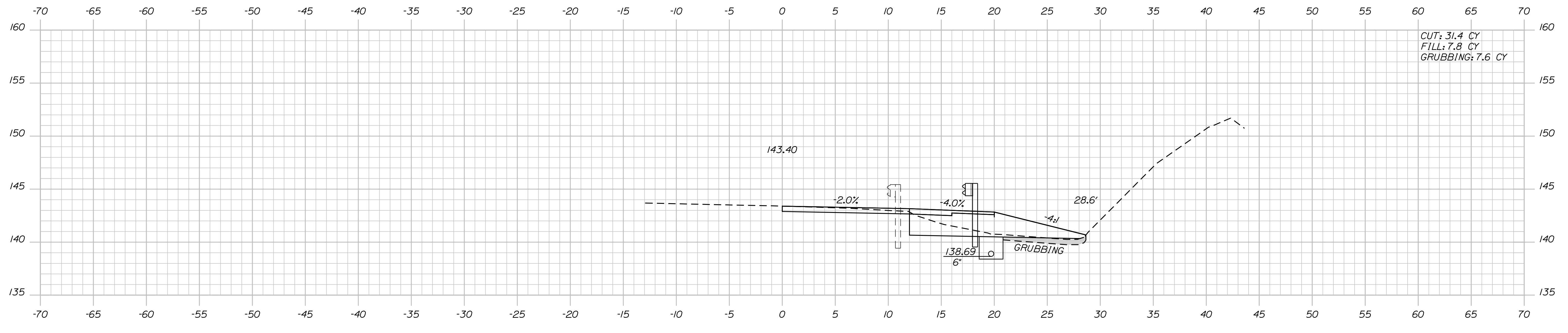
73+50.00



CUT: 36.2 CY
 FILL: 15.6 CY
 GRUBBING: 7.9 CY

73+00.00

STA. 73+00.00, 18.0' RT
 INSTALL GUARDRAIL TERMINAL END



CUT: 31.4 CY
 FILL: 7.8 CY
 GRUBBING: 7.6 CY

72+50.00

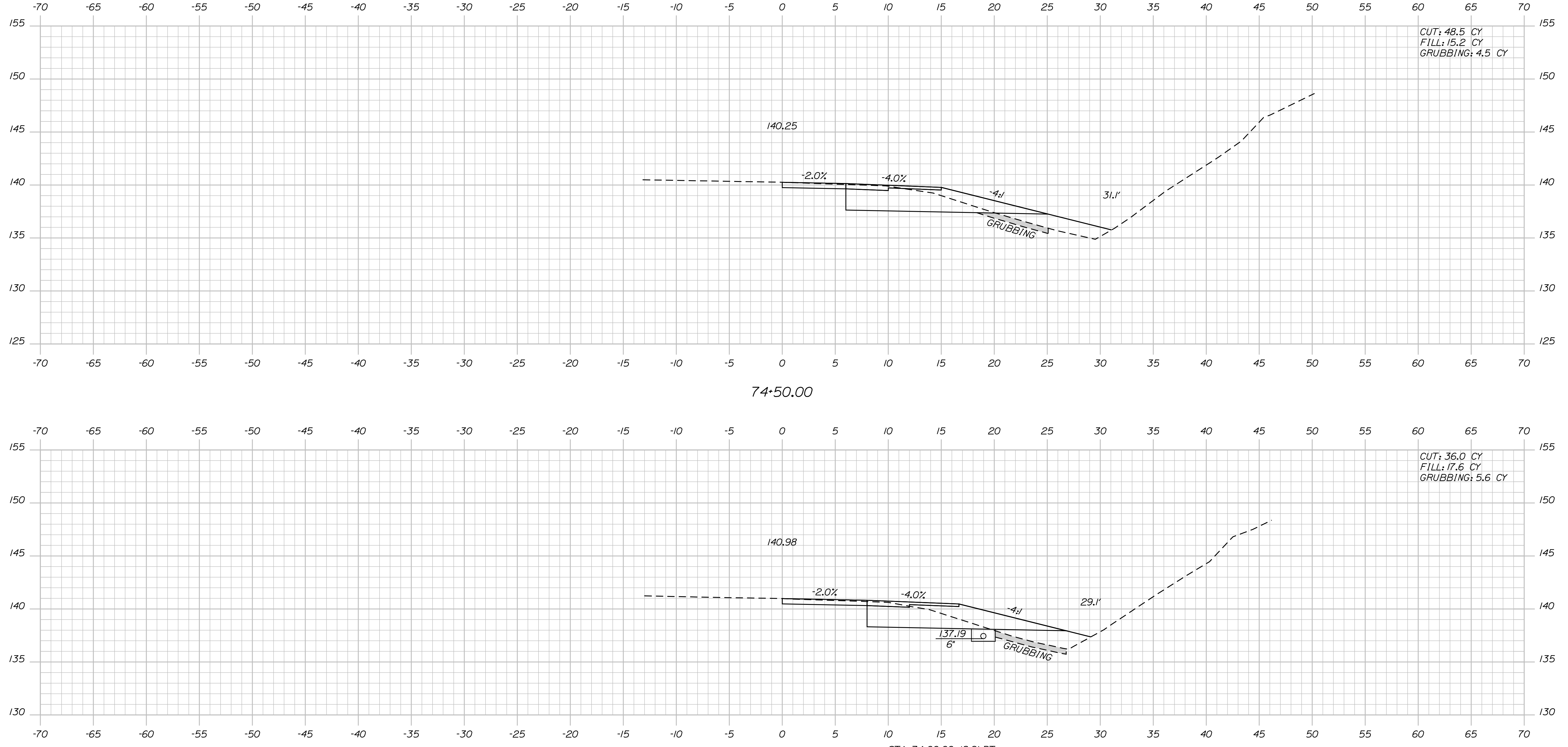
STATE OF MAINE
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 HIGHWAY PLANS

PROJ. MANAGER	R. Moulton	BY	DATE
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FIELD CHANGES			

BANGOR
 I-95 NB EXIT 185 ON-RAMP
 CROSS SECTIONS

SHEET NUMBER
 15
 OF 18

Filename: ... \MSTAN016_XSECT_74+00_008.dgn Division: HIGHWAY Username: Clark.E.Sullivan Date: 3/5/2018



STA. 74+00.00, 18.9' RT.
 TO STA. 74+17.89, 27.9' RT.
 INSTALL 6' X 20' OUTLET

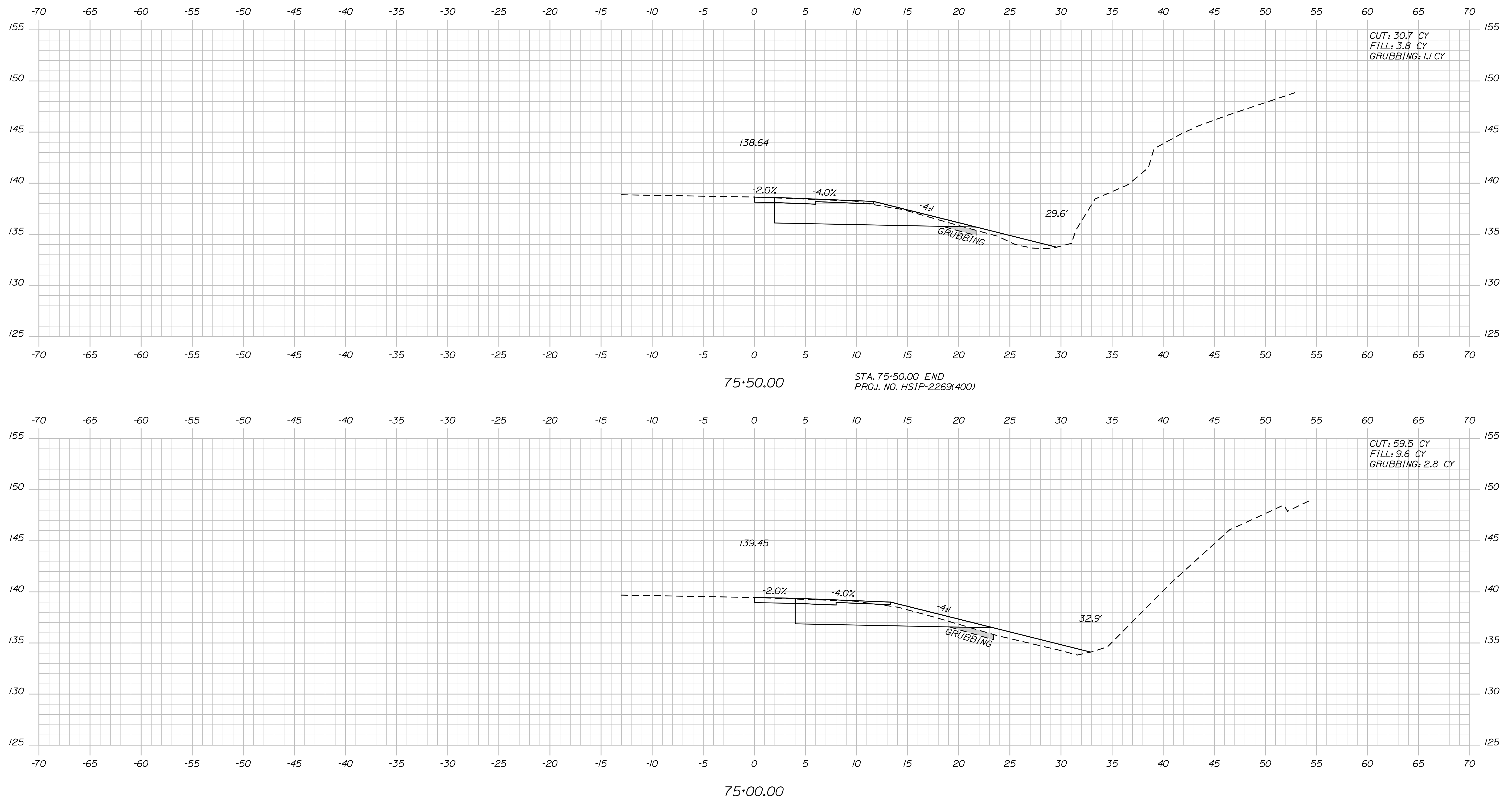
STATE OF MAINE
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 HSIP-2269(400)
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FIELD CHANGES			

BANGOR
 I-95 NB EXIT 185 ON-RAMP
 CROSS SECTIONS

SHEET NUMBER
16
 OF 18

Filename: ... \MSTAN017_XSECT_75+00_009.dgn Division: HIGHWAY Username: Clark.E.Sullivan Date: 3/5/2018



STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 HSIP-2269(400)
 WIN 022694.00
 HIGHWAY PLANS

PROJ. MANAGER	R. MOUTON	BY	DATE
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BANGOR
 I-95 NB EXIT 185 ON-RAMP
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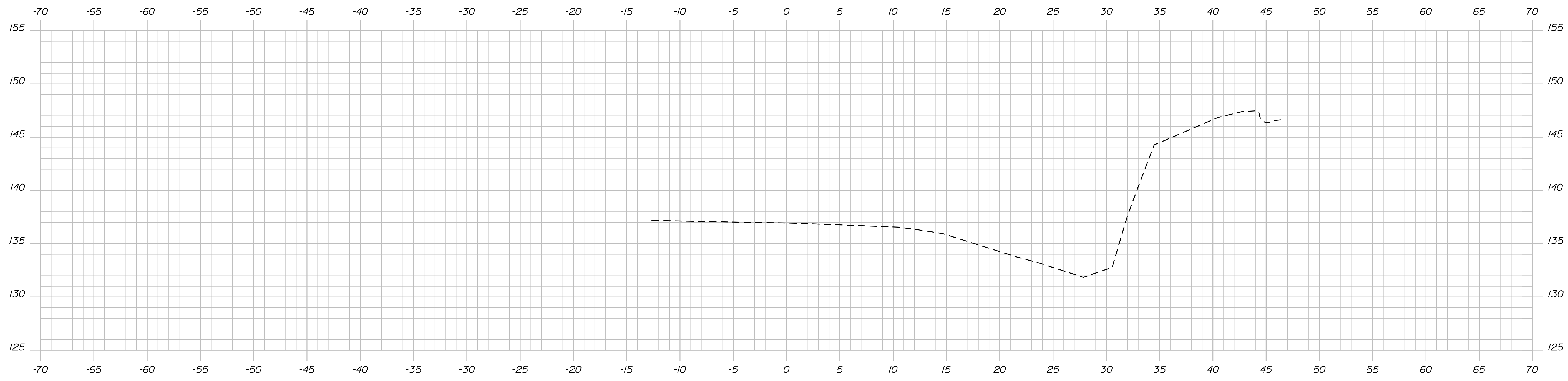
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Date: 3/5/2018

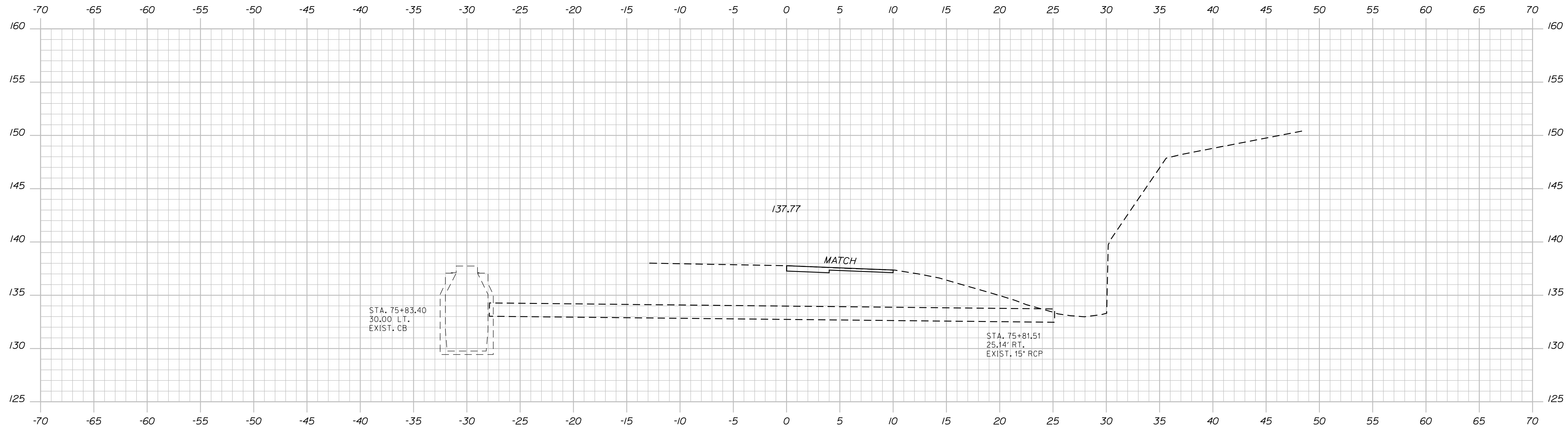
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Division: HIGHWAY

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76+50.00



76+00.00

STA. 76+00.00
LIMIT OF WORK

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HSIP-2269(400)

PROJ. MANAGER	BY	DATE
C. SULLOWAY		
DESIGN-DETAILED	CHECKED-REVIEWED	SIGNATURE
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REVISIONS 1	REVISIONS 2	P.E. NUMBER
REVISIONS 3	REVISIONS 4	DATE
FIELD CHANGES		

WIN
022694.00
HIGHWAY PLANS

BANGOR
I-95 NB EXIT 185 ON-RAMP
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OF 18