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 CLL
Guardrail-Existing
Guardrail-Proposed
Guardrail-Cable, Other
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 W
Existing San. Sewer
Existing Force Main FM
Existing San. Sewer Manhole
Existing Gas Line G
Existing Telephone T
Pavement Sawcut

PORTLAND

CUMBERLAND COUNTY

FOREST AVENUE & I-295 RAMP IMPROVEMENTS

NH-295-1055(701)

PROJECT LENGTH: 0.29 MILES

INDEX OF SHEETS

Description	Sheet No.
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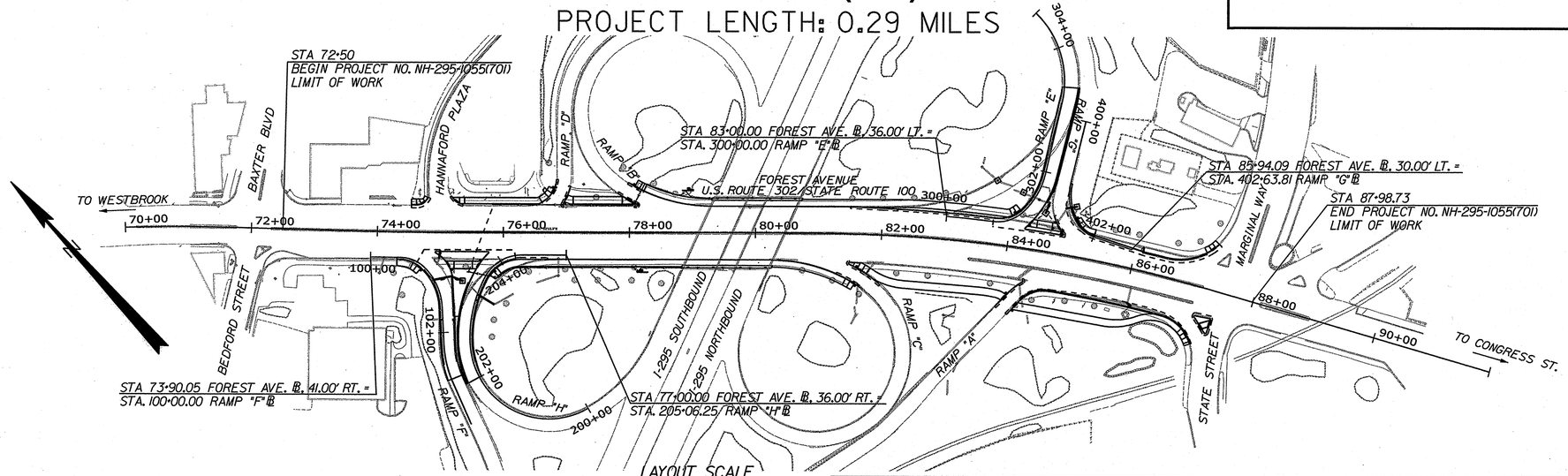
Lighting Plans	Appendix A



TRAFFIC DATA

	I-295 NB Off Ramp to Forest Ave (WB)	I-295 SB Off Ramp to Forest Ave (EB)
Functional Class	Interstate	Interstate
Current (2015) AADT	5,060	5,540
Future (2035) AADT	6,070	6,650
DHV - % of AADT	12%	13%
Design Hour Volume	728	865
% Heavy Trucks (AADT)	5%	2%
% Heavy Trucks (DHV)	4%	1%
Directional Distribution (DHV)	100%	100%
18 kip Equivalent P 2.0	238	79
18 kip Equivalent P 2.5	227	75
Design Speed (mph)	20	25

PROJECT LOCATION:	Forest Avenue (Route 100/302) at the I-295 Interchange
PROGRAM AREA:	Highway Program
OUTLINE OF WORK:	Highway Reconstruction and other incidental work

WIN 10557.01 NH-295-1055(701)

Gorrill-Palmer Consulting Engineers, Inc.
PO Box 1237
15 Shaker Road
Gray, ME 04039
Engineering Excellence Since 1998
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: DATE 1/20/15
CHIEF ENGINEER: DATE 1-16-15

STATE OF MAINE
DONALD G. ETTINGER JR.
No. 9244
LICENSED PROFESSIONAL ENGINEER

SIGNATURE 9244
P.E. NUMBER
1-15-15
DATE

PROJECT INFORMATION

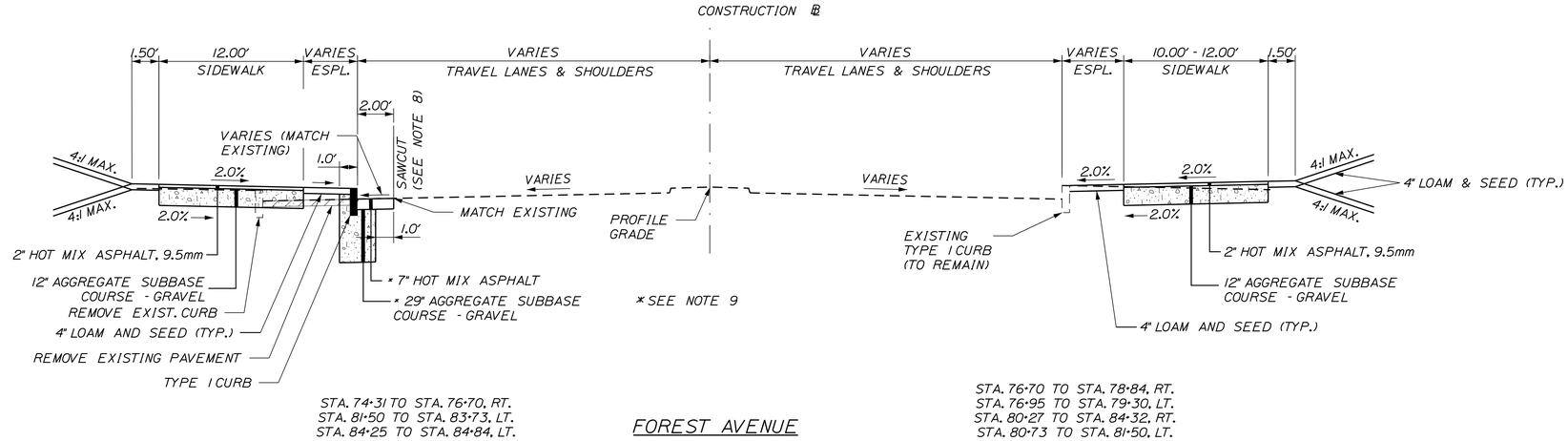
PROGRAM	HIGHWAY
PROJECT MANAGER	E. MARTIN
DESIGNER	D. ETTINGER
DESIGNER	GORRILL-PALMER
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

PORTLAND
FOREST AVE & I-295 RAMPS

TITLE SHEET

SHEET NUMBER
1
OF 38

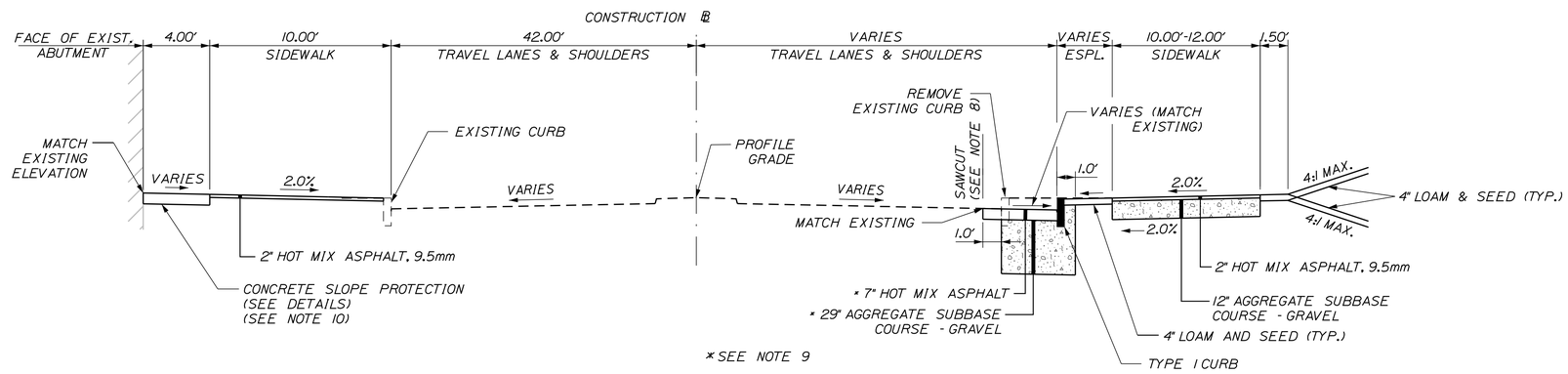
Filename: ...\00\Highway\001_Title.dgn Division: HIGHWAY Username: bhavu Date:1/15/2015



STA. 74+31 TO STA. 76+70, RT.
STA. 81+50 TO STA. 83+73, LT.
STA. 84+25 TO STA. 84+84, LT.

FOREST AVENUE

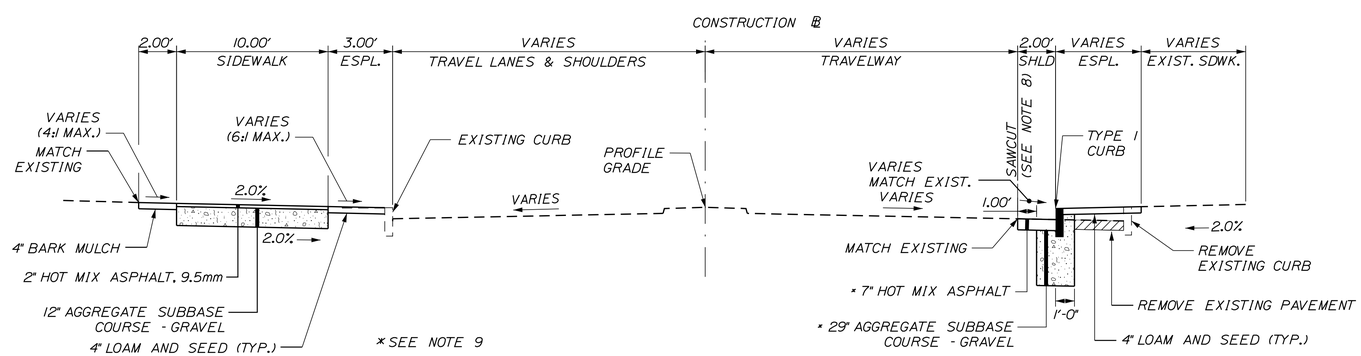
STA. 76+70 TO STA. 78+84, RT.
STA. 76+95 TO STA. 79+30, LT.
STA. 80+27 TO STA. 84+32, RT.
STA. 80+73 TO STA. 81+50, LT.



STA. 79+30 TO STA. 80+73, LT.
STA. 78+84 TO STA. 80+27, RT.

FOREST AVENUE

STA. 84+32 TO STA. 87+22, RT.



STA. 75+30 TO STA. 76+55, LT.

STA. 85+33 TO STA. 87+24, LT.

FOREST AVENUE

NOTES:

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 ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVEWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
5. THE STATIONING SHOWN UNDER EACH TYPICAL IS APPROXIMATE.
6. FOREST AVENUE SHALL BE STRIPED AS 11' WIDE TRAVEL LANE AND 5' WIDE SHOULDERS UNLESS OTHERWISE NOTED.
7. THE SHOULDER PAVEMENT THICKNESS SHALL BE THE SAME AS THE TRAVELWAY PAVEMENT THICKNESS FOR ALL ROADWAYS, UNLESS OTHERWISE NOTED.
8. SAWCUT LOCATIONS SHALL BE 1.0 FT FROM THE EDGE OF EXISTING CURB OR 2.0 FT FROM THE EDGE OF PROPOSED CURB, WHICHEVER IS CLOSER TO THE CONSTRUCTION BASELINE.
9. HMA AND GRAVEL DEPTHS SHALL BE AS FOLLOWS:

	DEPTHS	
	HMA	GRAVEL
FOREST AVENUE	7"	29"
RAMP "A"	7"	35"
RAMP "B"	7"	35"
RAMP "C"	6"	36"
RAMP "D"	6"	36"

10. THE REMOVAL OF THE EXISTING CONCRETE SLOPE PROTECTION SHALL BE PAID FOR AS ITEM 203.20 COMMON EXCAVATION. CONTRACTOR SHALL NOT DAMAGE THE BRIDGE ABUTMENTS. SEE GENERAL NOTES REGARDING THE NEED TO REPLACE THE EXISTING CONCRETE SLOPE PROTECTION.

NOT TO SCALE

Gorrill-Palmer Consulting Engineers, Inc.
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	$PROJMANAGER$	BY	DATE
DESIGN-DETAILED	L.MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

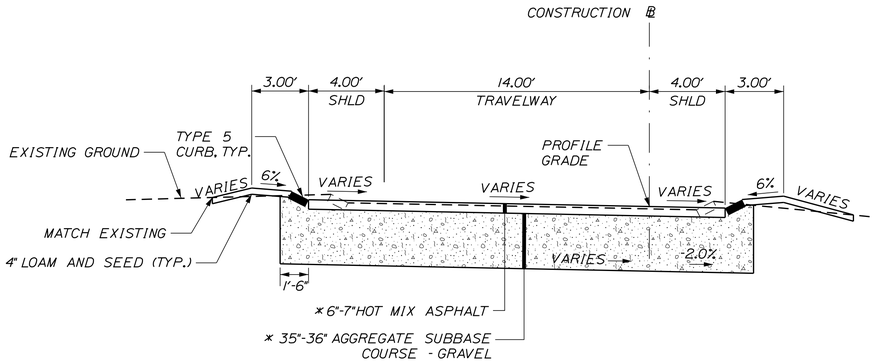
DATE

PORTLAND
FOREST AVE & I-295 RAMPS

TYPICAL SECTIONS

SHEET NUMBER
2
OF 38

Filename: ...\00\Highway\002_Typical.dgn Division: HIGHWAY Username: ochaplin Date:11/12/2014



* PAVEMENT AND GRAVEL DEPTHS FOR RAMP F WILL BE 7" ON 35".
PAVEMENT AND GRAVEL DEPTHS FOR RAMP H WILL BE 6" ON 36".

AGGREGATE SUBBASE COURSE GRAVEL - RAMP F		
4 FT. LEFT SHOULDER	14 FT. TRAVELWAY	4 FT. RIGHT SHOULDER
62.23 C.Y./100 L.F.	151.23 C.Y./100 L.F.	62.40 C.Y./100 L.F.
STATION TO STATION	STATION TO STATION	STATION TO STATION
100+87.30 TO 102+00 LT.	101+59.93 TO 102+00	100+87.39 TO 102+25 RT.

AGGREGATE SUBBASE COURSE GRAVEL - RAMP H		
4 FT. LEFT SHOULDER	14 FT. TRAVELWAY	4 FT. RIGHT SHOULDER
63.47 C.Y./100 L.F.	155.56 C.Y./100 L.F.	63.63 C.Y./100 L.F.
STATION TO STATION	STATION TO STATION	STATION TO STATION
202+25 TO 203+65.48 LT.	202+25 TO 203+91.69	202+25 TO 203+62.64 RT.

RAMP F

STA. 101+59.93 TO STA. 102+00

RAMP H

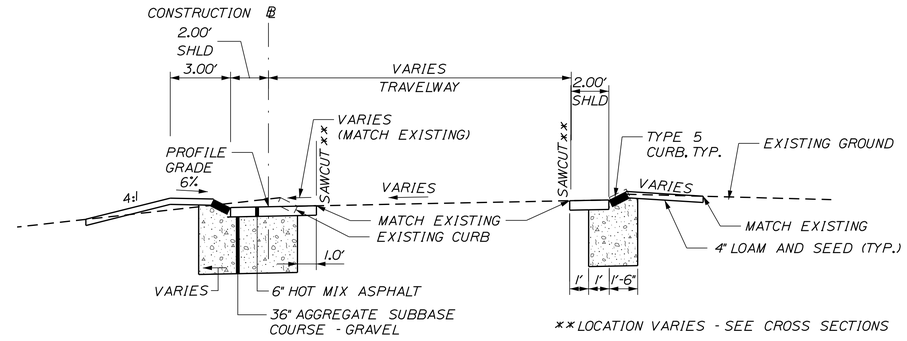
STA. 202+25 TO STA. 203+62.64

SUPERELEVATION TABLE
RAMP F

LEFT SHOULDER	TRAVELWAY	STATION	RIGHT SHOULDER
-	2.0	100+75	-2.0
0.0	3.0	101+00	-3.0
-1.0	2.0	101+25	-2.0
-2.0	1.0	101+50	-1.0
-3.0	0.0	101+75	0.0
-4.0	-1.0	102+00	1.0
-4.0	-1.0	102+25	1.0
-4.0	-1.0	102+50	1.0

SUPERELEVATION TABLE
RAMP H

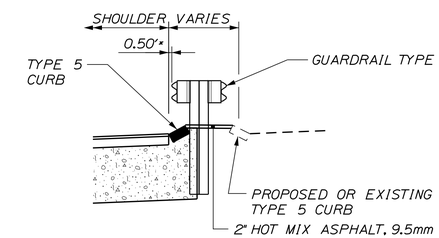
LEFT SHOULDER	TRAVELWAY	STATION	RIGHT SHOULDER
5.0	5.0	202+25	-5.0
4.5	4.5	202+50	-4.5
4.5	4.5	202+75	-4.5
4.5	4.5	203+00	-4.5
4.5	4.5	203+25	-4.5
4.5	4.5	203+50	-4.5
3.5	3.5	203+75	-3.5
-	2.5	204+00	-2.5
-	2.5	204+25	-2.5



** LOCATION VARIES - SEE CROSS SECTIONS

RAMP G

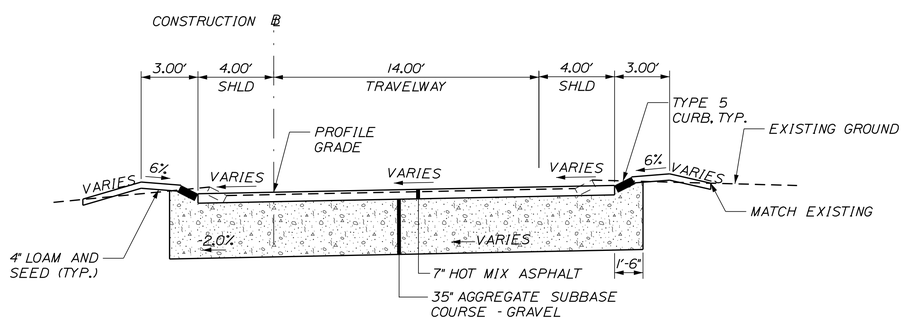
STA. 401+00 TO STA. 402+01



*MATCH EXISTING OFFSET

GUARDRAIL DETAIL

RAMP "F" STA. 101+75 TO STA. 101+92
RAMP "E" STA. 301+75 TO STA. 303+36



SUPERELEVATION TABLE
RAMP E

LEFT SHOULDER	STATION	TRAVELWAY	RIGHT SHOULDER
-2.0	300+75	2.0	-
-3.0	301+00	2.0	-
-4.0	301+25	2.0	2.0
-4.0	301+50	2.0	2.0
-4.0	301+75	2.0	2.0
-4.0	302+00	2.0	2.0
-4.0	302+25	2.0	2.0
-4.0	302+50	2.0	2.0
-4.0	302+75	3.0	3.0
-4.0	303+00	4.0	4.0

AGGREGATE SUBBASE COURSE GRAVEL - RAMP E		
4 FT. LEFT SHOULDER	14 FT. TRAVELWAY	4 FT. RIGHT SHOULDER
62.40 C.Y./100 L.F.	151.23 C.Y./100 L.F.	62.23 C.Y./100 L.F.
STATION TO STATION	STATION TO STATION	STATION TO STATION
301+33.96 TO 303+11.67 LT.	301+27.50 TO 301+94.83	301+70.96 TO 303+36.67 RT.

RAMP E

STA. 301+70.96 TO STA. 301+94.83

NOTES:

1. SEE PREVIOUS SHEET FOR TYPICAL SECTION NOTES.
2. 2" HOT MIX ASPHALT, 9.5mm SHALL BE INSTALLED UNDER MEDIAN GUARDRAIL BETWEEN RAMPS "F" AND "H" FROM STA. 101+75 TO 101+92 AND BETWEEN RAMPS "E" AND "G" FROM STA. 301+75 TO 303+36.

NOT TO SCALE

Gorrill-Palmer Consulting Engineers, Inc.
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Gray, ME 04039 E-Mail: mailbox@gorrillpalmer.com

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER $PROJMANAGER$		
DESIGN-DETAILED	L.MEEK	11-12-14
CHECKED-REVIEWED	L.NEWHOUSE	11-12-14
DESIGN2-DETAILED2	D.ETTINGER	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PORTLAND
FOREST AVE & I-295 RAMPS

TYPICAL SECTIONS

SHEET NUMBER
3
OF 38

Filename: ...\00\Highway\003_Typical.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014

	ESTIMATED QUANTITIES		
	ITEM NO.	DESCRIPTION	QUANTITY	UNIT
	201.23	REMOVING SINGLE TREE TOP ONLY	13	EA
	201.24	REMOVING STUMP	13	EA
	203.20	COMMON EXCAVATION	4150	CY
	203.25	GRANULAR BORROW	50	CY
*	206.061	STRUCTURAL EARTH EXCAVATION - DRANAGE MINOR STRUCTURES BELOW GRADE	50	CY
	304.10	AGGREGATE SUBBASE COURSE - GRAVEL	3300	CY
	403.207	HOT MIX ASPHALT 19.0 MM	420	T
	403.208	HOT MIX ASPHALT 12.5 MM	210	T
	403.209	HOT MIX ASPHALT 9.5 MM (INCID.)	340	T
	403.213	HOT MIX ASPHALT 12.5 MM (BASE COURSE)	300	T
	409.15	BITUMINOUS TACK COAT - APPLIED	185	G
	513.09	SLOPE PROTECTION - PORTLAND CEMENT CONCRETE	130	SY
	603.155	12" RCP CLASS III	36	LF
	603.165	15" RCP CLASS III	8	LF
	603.1653	15" RCP CLASS V	4	LF
	603.175	18" RCP CLASS III	44	LF
	603.195	24" RCP CLASS III	24	LF
	604.071	CATCH BASIN TYPE A1-P	5	EA
	604.072	CATCH BASIN TYPE A1-C	1	EA
	604.09	CATCH BASIN TYPE B1	7.5	EA
	604.093	60" CATCH BASIN TYPE B1	1	EA
	604.15	MANHOLE	2.5	EA
	604.16	ALTER CATCH BASIN TO MANHOLE	7	EA
	604.164	REBUILDING CATCH BASIN	2	EA
	604.18	ADJUST MANHOLE OR CATCH BASIN TO GRADE	5	EA
	604.244	CATCH BASIN TYPE F4	2	EA
	604.251	CATCH BASIN TYPE A5-P	2.125	EA
	605.09	6" UNDERDRAIN TYPE B	770	LF
	605.11	12" UNDERDRAIN TYPE C	340	LF
	606.2401	GUARDRAIL TYPE 3D - DOUBLE RAIL	350	LF
	606.275	TERMINAL END - DOUBLE RAIL - GALV. STEEL	2	EA
	606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	4	EA
	608.26	CURB RAMP DETECTABLE WARNING FIELD	370	SF
	609.11	VERTICAL CURB TYPE 1	240	LF
	609.12	VERTICAL CURB TYPE 1- CIRCULAR	290	LF
	609.234	TERMINAL CURB TYPE 1 - 4 FOOT	3	EA
	609.2341	TERMINAL CURB TYPE 1 - 4 FOOT - CIRCULAR	1	EA
	609.238	TERMINAL CURB TYPE 1 - 8 FOOT	25	EA
	609.2381	TERMINAL CURB TYPE 1 - 8 FOOT - CIRCULAR	12	EA
	609.26	CURB TRANSITION SECTION B TYPE 1	16	EA
	609.34	CURB TYPE 5	1170	LF
	609.35	CURB TYPE 5 - CIRCULAR	28	LF
*	609.38	RESET CURB TYPE 1	810	LF
*	609.40	RESET CURB TYPE 5	50	LF
	613.319	EROSION CONTROL BLANKET	65	SY
	615.07	LOAM	340	CY
	618.13	SEEDING METHOD NUMBER 1	28	UN
	619.1201	MULCH	28	UN
	619.1301	BARK MULCH	4	CY
*	621.279	DECIDUOUS TREES 2 1/2" - 3" CALIPER GROUP A B&B	4	EA
*	621.280	DECIDUOUS TREES 2 1/2" - 3" CALIPER GROUP B B&B	4	EA
*	621.281	DECIDUOUS TREES 2 1/2" - 3" CALIPER GROUP C B&B	6	EA
	626.21	METALLIC CONDUIT	395	LF
	626.22	NON-METALLIC CONDUIT	710	LF
	626.31	18 INCH DIAMETER FOUNDATION	16	EA
	626.32	24 INCH DIAMETER FOUNDATION	2	EA
	626.36	REMOVE OR MODIFY CONCRETE FOUNDATION	2	EA
	627.30	GROOVING FOR PAVEMENT MARKING	11500	SF
	627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	290	LF
	627.734	4" WHITE OR YELLOW POLYUREA PAVEMENT MARKING LINE (RECESSED)	8750	LF
	627.744	6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	3450	LF
	627.745	6" WHITE OR YELLOW POLYUREA PAVEMENT MARKING LINE (RECESSED)	4350	LF
	627.75	WHITE OR YELLOW PAVEMENT & CURB MARKINGS	81	SF
	627.751	WHITE OR YELLOW POLYUREA PAVEMENT MARKINGS (RECESSED)	2250	SF
	627.76	TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW	1	LS
	627.77	REMOVING EXISTING PAVEMENT MARKING	2700	SF
	627.943	COLORED GLASS PAVEMENT MARKING SYSTEM - BIKE LANE	5200	SF
*	629.05	HAND LABOR, STRAIGHT TIME	80	HR
*	631.12	ALL-PURPOSE EXCAVATOR (INC OPERATOR)	20	HR
*	631.13	BULLDOZER (INCLUDING OPERATOR)	20	HR
*	631.172	TRUCK-LARGE (INC OPERATOR)	40	HR
*	631.18	CHAIN SAW RENTAL(INC OPERATOR)	20	HR
*	631.20	STUMP CHIPPER RENTAL (INC OPERATOR)	20	HR
*	631.22	FRONT END LOADER (INC OPERATOR)	20	HR
*	631.32	CULVERT CLEANER (INC OPERATOR)	20	HR
	634.041	LUMINAIRES (WALL MOUNTED)	8	EA
	634.160	HIGHWAY LIGHTING	1	LS
	639.18	FIELD OFFICE, TYPE A	1	EA
	643.62	RECTANGULAR RAPID FLASHING BEACON	16	EA
	643.92	PEDESTAL POLE	16	EA
	645.103	DEMOUNT GUIDE SIGN	1	EA
	645.108	DEMOUNT POLE	2	EA
	645.113	REINSTALL GUIDE SIGN	1	EA
	645.118	REINSTALL POLE	2	EA
	645.271	REGULATORY, WARNING, CONFIRMATION, AND ROUTE ASSEMBLY SIGN, TYPE 1	135	SF
*	652.30	FLASHING ARROW	6	EA
*	652.312	TYPE III BARRICADE	10	EA
*	652.33	DRUM	210	EA
*	652.34	CONE	210	EA
*	652.35	CONSTRUCTION SIGNS	710	SF
*	652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	125	CD
*	652.38	FLAGGER	2600	HR
*	652.381	TRAFFIC OFFICER	80	HR

	ESTIMATED QUANTITIES		
	ITEM NO.	DESCRIPTION	QUANTITY	UNIT
*	652.41	PORTABLE - CHANGEABLE MESSAGE SIGN	6	EA
*	656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
	658.20	ACRYLIC LATEX COLOR FINISH	175	SY
	659.10	MOBILIZATION	1	LS
1	824.32	REMOVE AND RESET HYDRANT	1	EA
2	634.1611	LIGHTED BOLLARD SYSTEM	1	LS

* UNDETERMINED LOCATION
1 PORTLAND WATER DISTRICT QUANTITY TO BE BID UNDER SECTION 0002
2 CITY OF PORTLAND QUANTITY TO BE BID UNDER SECTION 0003

EARTHWORK SUMMARY

COMMON EXCAVATION FOR ESTIMATE			
COMMON EXCAVATION (FROM CROSS SECTIONS)	4,041		
PAVEMENT SALVAGE IN FILL	74		
GRUBBING IN FILL	0		
TOTAL COMMON EXCAVATION			4,115
FILL FOR BORROW CALCULATIONS			
COMMON FILL (FROM CROSS SECTIONS)	95		
GRUBBING IN FILL	0		
PAVEMENT SALVAGE IN FILL	74		
TOTAL FILL			169
AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS			
(1) TOTAL COMMON EXCAVATION			4,115
DEDUCTIONS:			
GRUBBING IN FILL	0		
GRUBBING IN CUT	349		
PAVEMENT SALVAGE (CUT & FILL)	172		
(2) TOTAL DEDUCTIONS			521
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)			3,594
TOTAL AVAILABLE STRUCTURAL EXCAVATION (UNDERDRAIN ONLY)			191
TOTAL AVAILABLE NON-ROCK EXCAVATION			3,785
COMPUTATION OF WASTE MATERIAL			
GRUBBING IN CUT	349		
GRUBBING IN FILL	0		
TOTAL WASTE MATERIAL			349
COMPUTATION OF COMMON BORROW FOR ESTIMATE			
(3) TOTAL FILL			169
TOTAL AVAILABLE NON-ROCK EXCAVATION	3,785 x 0.85	3,217	
TOTAL AVAILABLE ROCK EXCAVATION	0 x 1.33	0	
TOTAL AVAILABLE STRUCTURAL ROCK EXCAVATION	0 x 1.33	0	
(4) TOTAL AVAILABLE EXCAVATION			3,217
TOTAL SURPLUS MATERIAL = TOTAL AVAILABLE EXCAVATION MINUS TOTAL FILL PLUS TOTAL WASTE MATERIAL			3,397

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	L.MEEK	BY	L.NEWHOUSE	DATE	11-12-14
DESIGN-DETAILED					
CHECKED-REVIEWED	D.ETTINGER				11-12-14
DESIGN2-DETAILED2					
DESIGN3-DETAILED3					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

SIGNATURE

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PORTLAND
FOREST AVE & I-295 RAMPS
QUANTITIES &
EARTHWORK SUMMARY

SHEET NUMBER
4
OF 38

Filename: ...\00\Highway\004_Estimate.dgn Division: HIGHWAY Username: bhavu Date:1/15/2015

STATION	CULVERT PIPE											CATCH BASIN						PIPE ARCH				UNDERDRAIN						ELBOWS, TEES, WYES AND INLET GRATE UNITS	REMARKS
	RCP			CMP		OPTION I		OPTION III														TYPE B		TYPE C					
								SMOOTHLINED		CORRUGATED										GAGE OR WALL THICKNESS		TYPE B	OUTLET	SMOOTHLINED		CORRUGATED		DESCRIPTIONS	
	SIZE	LENGTH	CLASS	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	A1-C	A1-P	A5-P	B1	F4	MH	SPAN	RISE	LENGTH		LENGTH	LENGTH	SIZE	LENGTH	SIZE	LENGTH		
(CB#1) STA. 74+99.45, 29.17' RT.														1 1/8															
(CB#9) STA. 76+83.24, 71.25' LT.																													ADJUST TO GRADE
(CB#10) STA. 81+65.05, 80.85' RT.																													ADJUST TO GRADE
(CB#11) STA. 82+16.19, 43.14' LT.																													REBUILD CB TO CB TYPE B5 W/ NEENAH FRAME
(CB#23) STA. 84+33.87, 77.91' RT.																													ADJUST TO GRADE
(CB#17) STA. 84+81.76, 29.17' LT.													1																
(CB#21) STA. 86+12.96, 29.35' LT.													1																
(CB#24) STA. 86+13.00, 59.17' RT.														1															2' CONE
(CB#22) STA. 87+08.92, 52.36' LT.													1																
(CB#25) STA. 87+21.98, 89.10' RT.													1																
(CB#2) STA. 100+92.80, 3.17' RT.													1																
(CB#3) STA. 101+21.45, 26.54' LT.															1														
(CB#4) STA. 101+31.32, 40.52' LT.																													ADJUST TO GRADE
(CB#5) STA. 101+79.47, 2.88' RT.															1 1/8														
(CB#6) STA. 101+80.49, 16.88' LT.																													REBUILD CB TO CB TYPE B5
(CB#7) STA. 203+24.87, 2.87' RT.															1														
(CB#8) STA. 203+33.53, 2.87' RT.															1														5' DIAMETER
(CB#12) STA. 301+35.06, 64.15' LT.																													ADJUST TO GRADE
(CB#16) STA. 301+46.59, 27.69' RT.																1													
(CB#14) STA. 301+48.28, 3.17' LT.															1														
(CB#13) STA. 301+51.94, 19.91' LT.															1 1/4														
(CB#15) STA. 301+54.82, 3.17' LT.															1 1/8														
(CB#19) STA. 401+38.87, 1.17' LT.															1														
(CB#20) STA. 401+40.00, 10.00' LT.																1													
(CB#18) STA. 401+50.40, 1.17' LT.												1																	FLAT TOP
(MH#5) STA. 84+67.51, 39.25' LT.																													ALTER CB TO MH
(MH#7) STA. 84+82.69, 38.53' LT																	1 1/8												
(MH#8) STA. 86+06.55, 54.18' RT.																													ALTER CB TO MH
(MH#9) STA. 86+12.00, 36.75' LT.																													ALTER CB TO MH
(MH#1) STA. 100+94.17, 27.38' LT.																													ALTER CB TO MH
(MH#2) STA. 101+14.13, 1.00' RT.																													ALTER CB TO MH
(MH#3) STA. 301+56.41, 7.34' RT.																													ALTER CB TO MH
(MH#4) STA. 301+60.23, 23.82' RT.																	1 3/8												
(MH#6) STA. 401+38.32, 6.30' RT.																													ALTER CB TO MH
STA. 74+99.45, RT. TO STA. 74+98.14, RT.	12"	7.8'	III																										
STA. 84+82.69, LT. TO STA. 84+81.76, LT.	12"	5.4'	III																										
STA. 86+06.55, RT. TO STA. 86+13.00, RT.	12"	4.0'	III																										
STA. 86+12.00, LT. TO STA. 86+12.96, LT.	12"	3.5'	III																										
STA. 101+14.13, RT. TO STA. 101+21.45, RT.	18"	24.8'	III																										
STA. 101+21.45, LT. TO STA. 101+31.32, LT.	18"	15.3'	III																										
STA. 203+33.53, RT. TO STA. 203+27.24, RT.	24"	23.2'	III																										
STA. 301+46.59, RT. TO STA. 301+60.23, RT.	12"	13.0'	III																										
STA. 401+38.77, LT. TO STA. 401+38.32, RT.	15"	3.5'	V																										
STA. 401+40.00, LT. TO STA. 401+38.77, LT.	15"	4.9'	III																										
STA. 84+33.87, RT. TO STA. 86+10.00, RT.																						175.8'							
STA. 86+12.96, LT. TO STA. 87+08.92, LT.																								12"	99.3'				
STA. 86+13.00, RT. TO STA. 87+21.98, RT.																								12"	112.8'				
STA. 100+92.80, RT. TO STA. 101+14.13, RT.																								12"	16.9'				
STA. 101+14.13, RT. TO STA. 101+77.00, RT.																						59.7'							
STA. 101+21.45, LT. TO STA. 101+75.00, LT.																						61.1'							
STA. 101+79.47, RT. TO STA. 102+50.00, RT.																						69.8'							
STA. 101+80.49, LT. TO STA. 102+50.00, LT.																						64.3'							
STA. 202+25.00, RT. TO STA. 203+24.88, RT.																								12"	96.1'				
STA. 203+24.88, RT. TO STA. 203+33.53, RT.																								12"	4.5'				
STA. 203+33.53, RT. TO STA. 203+75.00, RT.																						85.6'							
STA. 301+00.00, LT. TO STA. 301+48.28, LT.																						44.3'							
STA. 301+48.28, LT. TO STA. 301+54.82, LT.																								12"	2.4'				
STA. 301+54.82, LT. TO STA. 303+11.27, LT.																						153.8'							
STA. 401+38.87, LT. TO STA. 401+50.40, LT.																								12"	7.4'				
STA. 401+50.40, LT. TO STA. 402+02.40, LT.																						49.5'							

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	$PROJMANAGER$		
DESIGN-DETAILED	L.MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PORTLAND
FOREST AVE & I-295 RAMPS

DRAINAGE SUMMARY

SHEET NUMBER

5

OF 38

Filename: ...\00\Highway\005_Drainage.dgn Division: HIGHWAY Username: ochaplin Date:11/12/2014

GENERAL NOTES:

1. THE UTILITIES INVOLVED IN THIS CONTRACT ARE NOTED IN THE SPECIAL PROVISIONS. SEE SPECIAL PROVISIONS 104, UTILITIES FOR ADDITIONAL INFORMATION.

2. ALL UTILITY FACILITIES SHALL BE ADJUSTED BY THE RESPECTIVE UTILITIES UNLESS OTHERWISE NOTED.

3. CLEARING LIMITS SHALL BE 5' BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE AUTHORIZED BY THE RESIDENT.

4. 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.

5. STUMPS HAVE BEEN ESTIMATED TO BE REMOVED UNDER ITEM 201.24 REMOVE STUMP. HOWEVER, WHERE DIRECTED BY THE RESIDENT, ITEM 631.20 STUMP CHIPPER RENTAL, MAY BE USED TO REMOVE STUMPS.

6. 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. ESTIMATED GRUBBING DEPTHS ARE 6 INCHES IN FIELD AREAS AND 12 INCHES IN WOODED AREAS.

7. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN WASTE AREAS APPROVED BY THE RESIDENT. GRADING, SEEDING, AND MULCHING OF WASTE AREAS SHALL BE CONSIDERED INCIDENTAL.

8. WHERE PAVEMENT UNDER THIS CONTRACT JOINS AN EXISTING PAVEMENT OR CONCRETE, THE EXISTING PAVEMENT OR CONCRETE SHALL BE SAW CUT ALONG A SMOOTH LINE TO A NEAT, EVEN, VERTICAL JOINT, AS DIRECTED BY THE RESIDENT. BROKEN OR RAVELED EDGES SHALL NOT BE PERMITTED. ALL WORK NECESSARY FOR THE PREPARATION OF THIS JOINT SHALL BE CONSIDERED INCIDENTAL TO THE RELATED CONTRACT ITEMS.

9. PAYMENT FOR PAVEMENT AND CONCRETE REMOVAL WHERE SHOWN ON PLANS SHALL BE PAID FOR UNDER ITEM 203.20, COMMON EXCAVATION.

10. THE LOCATION OF THE EXISTING UTILITIES AND DRAINAGE SHOWN ON THE PLANS AND CROSS SECTIONS WERE COMPILED FROM FIELD SURVEY AND VARIOUS OTHER SOURCES. LOCATIONS ARE APPROXIMATE AND NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN. NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED.

11. ANY NECESSARY FINE GRADING OR RECOMPACTION OF EXISTING GRAVEL SHALL NOT BE PAID FOR DIRECTLY AND SHALL BE CONSTRUCTION INCIDENTAL TO ITEM 304.10.

12. 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.

13. IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS, IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW - UNDERWATER BACKFILL AND WILL PAID FOR AS GRANULAR BORROW.

14. GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1' ABOVE WATER LEVEL OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW UNDERWATER BACKFILL.

15. PLACE 12 INCHES GRAVEL AND 2 INCHES HOT MIX ASPHALT AROUND CATCH BASINS IN GRASSED AREAS (3' OUTSIDE OF FRAME) AND PAINT WITH ACRYLIC LATEX COLOR FINISH - GREEN. PAYMENT SHALL BE UNDER THE APPLICABLE CONTRACT ITEMS.

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

17. THE FOLLOWING SHALL BE INCIDENTAL TO THE 603 ITEM(S):

    - ANY CUTTING OF EXISTING CULVERTS AND OR CONNECTORS NECESSARY TO INSTALL NEW CULVERT REPLACEMENTS OR EXTENSIONS
    - ALL PIPE EXCAVATION INCLUDING ANY CUTTING AND REMOVAL OF PAVEMENT
    - FURNISHING, PLACING, GRADING, AND COMPACTING OF ANY NEW GRAVEL AND/OR FILL MATERIAL INCLUDING GRANULAR BORROW USED UNDER PIPES AND FOR TEMPORARY DETOURS TO MAINTAIN TRAFFIC DURING PIPE INSTALLATION (EXCAVATION IS ALSO INCIDENTAL).
    - GRANULAR BORROW UNDER THE PIPE SHALL MEET THE REQUIREMENTS FOR UNDERWATER BACKFILL
    - ALL WORK NECESSARY TO CONNECT TO EXISTING PIPES AND DRAINAGE STRUCTURES
    - FLOW LINES MAY BE CHANGED BY 1.5 FT
    - AN 18" WIDE STRIP OF NON-WOVEN GEO-TEXTILE MEETING THE REQUIREMENTS OF 620.58 SHALL BE PLACED OVER ALL RCP JOINTS

18. EXISTING CULVERTS TO REMAIN SHALL BE CLEANED AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE MADE UNDER ITEM 631.32 CULVERT CLEANER (INCLUDING OPERATOR).

19. EXISTING CULVERTS AND CATCH BASINS WILL BE CLEANED AS DIRECTED BY THE RESIDENT UNDER THE APPROPRIATE PAY ITEMS.

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

21. REMOVAL OF EXISTING DRAINAGE PIPES, AS NOTED ON THE PLANS, SHALL BE CONSIDERED INCIDENTAL TO ITEM 203.20, COMMON EXCAVATION.

22. THE CULVERT SIZES SHOWN ON THE PLANS AND CROSS SECTIONS ARE FOR SMOOTH LINED PIPES. INFORMATION ON COMPARABLE CORRUGATED SIZES IS NOT PROVIDED. IF CORRUGATED PIPES ARE PROPOSED, CONTRACTOR IS REQUIRED TO DETERMINE COMPARABLE PIPE SIZES.

23. ANY NECESSARY CUTTING OF EXISTING PIPES TO FIT IN AREAS OF PROPOSED CATCH BASINS WILL NOT BE PAID FOR SEPARATELY AND WILL BE CONSIDERED INCIDENTAL TO ITEM 604.

24. ANY NECESSARY CUTTING OF EXISTING CATCH BASINS TO ALLOW FOR PROPOSED PIPE CONNECTIONS WILL NOT BE PAID FOR SEPARATELY AND WILL BE CONSIDERED INCIDENTAL TO ITEM 603 OR 605.

25. ALL UNDERDRAIN SHOWN ON THE CROSS SECTIONS WILL HAVE THE FLOW LINE SCALED FROM THE CROSS SECTIONS UNLESS NOTED. ALL FLOW LINE ELEVATIONS ARE SUBJECT TO APPROVAL BY THE RESIDENT.

26. ALL CONNECTIONS FOR UNDERDRAIN TO ROADWAY CULVERTS WILL BE INCIDENTAL TO UNDERDRAIN PIPE ITEMS.

27. AI-C AND BI-C CATCH BASINS SHALL BE SHAPE 1 WITH HAUNCHED CONE, AS PER STANDARD DETAIL 604(02), UNLESS OTHERWISE NOTED ON THE PLANS.

28. PLASTIC END CAPS SHALL BE USED ON ALL DEAD-END 6-INCH TYPE B UNDERDRAIN.

29. EXISTING ABANDONED WATER MAINS BROKEN BY THE CONTRACTOR DURING CONSTRUCTION SHALL HAVE THE ENDS PLUGGED WITH BRICK AND MORTAR. COST FOR ALL LABOR AND MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO DIRECT PAYMENT WILL BE MADE.

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

31. HOLES CREATED BY GUARDRAIL REMOVAL WILL BE FILLED AND COMPACTED WITH APPROVED MATERIALS AS DIRECTED BY THE RESIDENT. PAYMENT TO BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.

32. ALL EXISTING GUARDRAIL NOTED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVAL AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.

33. TWO REFLECTORIZED FLEXIBLE G.R. MARKERS (ITEM 606.353) WILL BE INSTALLED AT EACH GUARDRAIL END.

34. CONNECTIONS FOR PROPOSED GUARDRAIL TO EXISTING GUARDRAIL WILL BE CONSIDERED INCIDENTAL TO ITEM 606.

35. ALL CATCH BASINS TYPE A PLACED ON CIRCULAR CURB TYPE 1 SHALL HAVE THE CURB INLET CUT THE SAME RADIUS AS ADJACENT CIRCULAR CURB. PAYMENT SHALL BE INCIDENTAL TO ITEM 604

36. IN AREAS WHERE CURB TYPE 1 WILL BE RESET, THE EXISTING CURB SUITABLE FOR USE AS TERMINAL ENDS SHALL BE CUT IF NECESSARY AND UTILIZED AS SUCH AND PAID FOR UNDER ITEM 609.38 (RESET CURB TYPE 1).

37. LOAM HAS BEEN ESTIMATED FOR 100% OF THE DISTURBED SLOPE AREA. ACTUAL PLACEMENT OF THE LOAM USED SHALL BE AS DESIGNATED BY THE RESIDENT.

38. MULCH SHALL BE APPLIED IN AREAS SEEDED BY SEEDING METHOD NO. 1. SEEDING METHOD NO. 2 AND SEEDING METHOD NO. 3.

39. UNLESS OTHERWISE NOTED SEEDING METHOD NO. 1 SHALL BE UTILITZED ON ALL DISTURBED SLOPE AREAS.

40. LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 4 INCHES UNLESS DIRECTED OTHERWISE BY THE RESIDENT.

41. ALL DITCH ELEVATIONS SHOWN ON THE CROSS SECTIONS ARE FOR THE FINISH DITCH FLOW LINE.

42. ACRYLIC LATEX COLOR FINISH GREEN (ITEM 658.20) SHALL BE PLACED ON ALL PAVED ISLANDS.

43. CATCH BASIN AND RIM ELEVATIONS NOTED ON THE CROSS SECTIONS ARE THE TOP OF GRATE ELEVATIONS AT THE CENTER OF GRATE. CATCH BASIN OFFSET LOCATIONS ARE MEASURED TO THE CENTER OF THE GRATE.

44. 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.

45. AREAS REQUIRING FILL ON THE PROJECT WILL COME FROM SUITABLE EXCAVATION FROM EXCAVATION AREAS.

46. ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITY REQUIRED TO INSTALL DRAINAGE STRUCTURES. 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.

47. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.

48. "UNDETERMINED LOCATIONS" SHALL BE DETERMINED BY THE RESIDENT.

49. STATIONS REFERENCED ARE APPROXIMATE.

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

51. EARTHWORK SUMMARY CALCULATIONS ASSUME NO LOAM SALVAGE, HOWEVER, IN ACCORDANCE WITH THE GENERAL CONDITIONS, SECTION 104.3.13, THE DEPARTMENT WILL APPROVE THE CONTRACTOR TO PROCESS SUITABLE EXCAVATED MATERIAL AS SHOWN ON THE PLANS FOR REUSE AS LOAM ON THE PROJECT. PAYMENT SHALL BE MADE UNDER COMMON EXCAVATION AND LOAM. NO ADDITIONAL PAYMENT WILL BE MADE FOR PROCESSING OR HANDLING OF THE MATERIAL. AS THIS WOULD BE A REDUCTION IN THE WASTE. THE CONTRACTOR WILL NOT BE REQUIRED TO REPLACE THE EXCAVATED MATERIAL SALVAGED FOR LOAM. THE CONTRACTOR MAY ELECT TO SALVAGE LOAM IN FILL BEYOND THE GRUBBING LIMITS SHOWN ON THE PLANS. EXCAVATION FOR SUCH SALVAGING LOAM IN FILL SHALL NOT BE PAID FOR. THE CONTRACTOR SHALL REPLACE SUCH EXCAVATED MATERIAL WITH OTHER APPROVED MATERIAL AND PROPERLY COMPACT IT AT NO COST TO THE DEPARTMENT.

52. REMOVAL OF EXISTING CURBING SHALL BE CONSIDERED INCIDENTAL TO ITEM 203.20 - COMMON EXCAVATION.

53. DO NOT EXCAVATE FOR AGGREGATE SUBBASE COURSE GRAVEL WHERE EXISTING MATERIAL IS SUITABLE AS DETERMINED BY THE RESIDENT.

54. REMOVAL OF EXISTING ROADSIDE SIGNS AND RESETTING OF ROADSIDE SIGNS/POSTS AS NOTED ON THE SIGNING PLANS, SHALL BE CONSIDERED INCIDENTAL TO THE 645 PAY ITEMS. EXCEPTIONS SHALL BE THE GUIDE SIGN AT STA. 75+10, RT. AND THE WAY FINDING SIGN AT 86+00, RT. THE GUIDE SIGN SHALL BE PAID FOR BY THE APPROPRIATE PAY ITEMS WITH THE RESETTING OF THE BREAKAWAY DEVICES INCIDENTAL TO THE NEW FOUNDATIONS. REMOVING AND RESETTING THE WAYFINDING SIGN SHALL BE INCIDENTAL TO THE NEW FOUNDATIONS.

55. CONTRACTOR SHALL INSTALL ITEM 627.943 - COLORED GLASS PAVEMENT MARKING SYSTEM - BIKE LANES, IN AREAS WHERE NOTED ON THE PLANS.

56. GROOVING FOR PAVEMENT STRIPING SHALL OCCUR WHERE THE FOLLOWING PAVEMENT MARKING ITEMS ARE TO BE INSTALLED:

    - ITEM 627.734 4" WHITE OR YELLOW POLYUREA PAVEMENT MARKING LINE (RECESSED)
    - ITEM 627.745 6" WHITE OR YELLOW POLYUREA PAVEMENT MARKING LINE (RECESSED)
    - ITEM 627.751 WHITE OR YELLOW POLYUREA PAVEMENT MARKINGS (RECESSED)
    - ITEM 627.943 COLORED GLASS PAVEMENT MARKING SYSTEM - BIKE LANE

57. ITEM 627.734 FOUR INCH WHITE OR YELLOW POLYUREA PAVEMENT MARKING LINE (RECESSED), ITEM 627.745 SIX INCH WHITE OR YELLOW POLYUREA PAVEMENT MARKING LINE (RECESSED) AND ITEM 627.751 WHITE OR YELLOW POLYUREA PAVEMENT MARKINGS (RECESSED) SHALL BE USED ON FOREST AVENUE FOR ALL CROSS WALKS, STOP BARS, PAVEMENT MARKING SYMBOLS (VEHICULAR AND BIKE), CHANNELIZATION LINES AND LONGITUDINAL STRIPING EXTENDING TO THE RAMP CROSS WALKS. EXCEPTIONS WILL BE:

    - STRIPING OCCURRING IN THE COLORED BIKE LANE WHICH WILL BE PAID FOR UNDER ITEM 627.744 SIX INCH WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE AND ITEM 627.75 WHITE OR YELLOW PAVEMENT & CURB MARKINGS
    - STRIPING OCCURRING ON THE SIDEWALK ADJACENT TO THE CONCRETE SLOPE PROTECTION UNDER THE BRIDGE WHICH WILL BE PAID FOR UNDER ITEM 627.733 FOUR INCH WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE

58. THE PLANS CALL FOR THE REMOVAL AND REPLACEMENT OF THE CONCRETE SLOPE PROTECTION ALONG THE I-295 BRIDGE ABUTMENTS ADJACENT TO THE FOREST AVE SIDEWALKS UNDER THE BRIDGE. PRIOR TO REMOVING THE CONCRETE SLOPE PROTECTION, THE CONTRACTOR SHALL FIELD VERIFY THAT THE SIDEWALK RECONSTRUCTION, TO ACHIEVE A SIDEWALK CROSS SLOPE OF 0.5% TO 2.0% TOWARDS THE ROADWAY, WILL REQUIRE REMOVAL AND REPLACEMENT OF THE CONCRETE SLOPE PROTECTION. OPTIONS TO AVOID THE REPLACEMENT OF THE CONCRETE SLOPE PROTECTION MAY INCLUDE RESETTING OF THE FOREST AVE CURBING. COORDINATE WORK WITH RESIDENT. PAYMENT FOR FIELD VERIFICATION WILL BE CONSIDERED INCIDENTAL TO ITEM 403.209.

59. CONTRACTOR SHALL NOTE THAT SURVEY FOR THIS PROJECT CONSISTS OF BOTH AERIAL AND GROUND SURVEY. IN OVERLAPPING SURVEY AREAS, UNUSUAL GROUND CONDITIONS MAY APPEAR ON THE PLANS. CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ON ANY AREAS WHERE DISCREPANCIES BETWEEN THE SURVEY AND ACTUAL FIELD CONDITIONS ARE IDENTIFIED.

60. REMOVAL OF EXISTING BOLLARDS AND RAILING ALONG FOREST AVE. FROM STA. 73+20 TO STA. 74+26, RT. SHALL BE INCIDENTAL TO ITEM 203.20 COMMON EXCAVATION. THIS WORK SHALL INCLUDE BOLT REMOVAL AND PATCHING OF HOLES IN CONCRETE. THE PATCHING OF HOLES SHALL BE A PRODUCT ON THE DEPARTMENT'S QUALIFIED PRODUCTS LIST FOR CONCRETE PATCHING MATERIALS.

61. CURB RAMP DETECTABLE WARNING FIELDS SHALL BE FEDERAL YELLOW COLORED AND CONFORM TO THE CITY OF PORTLAND'S TECHNICAL MANUAL IN ADDITION TO MAINE DOT'S STANDARD SPECIFICATIONS.

62. CONTRACTOR SHALL NOTE LANDSCAPE PLANTINGS AS OUTLINED IN SPECIAL PROVISION, SECTION 621.

63. THE LOCATION OF PROPOSED PLANTINGS ARE NOT SHOWN ON THE PLANS. THE MAINE DOT ARCHITECT OR DESIGNEE WILL STAKE THE LOCATIONS OF THE PROPOSED PLANTINGS IN THE FIELD AT THE TIME OF THE PLANTING. CONTRACTOR SHALL COORDINATE WORK WITH THE RESIDENT AND KENT COOPER, MAINE DOT LANDSCAPE ARCHITECT.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	$PROJMANAGER$		
DESIGN-DETAILED	L.MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PORTLAND
FOREST AVE & I-295 RAMPS

GENERAL NOTES

SHEET NUMBER
6
OF 38

Filename: ...\Highway\006_GeneralNotes.dgn Division: HIGHWAY Username: lmeek Date:1/7/2015

SIDEWALK CURB RAMPS

STATION	SIDE
74+72	LT.
75+26	LT.
76+78	LT.
77+00	LT.
77+99	LT.
78+12	LT.
81+55	RT.
81+67	RT.
84+05	RT.
84+27	RT.
87+11	RT.
87+16	LT.
87+32	RT.
87+43	RT.
100+82	RT.
101+07	LT.
203+75	LT.
203+75	RT.
301+21	LT.
301+24	RT.
401+59	RT.
401+65	LT.

CLEARING

STATION TO STATION
76+52 TO 76+62, LT.
77+36 TO 77+50, RT.
78+38 TO 79+01, LT.
78+42 TO 78+65, RT.
80+90 TO 81+07, LT.
100+79 TO 101+23, RT.
401+50 TO 401+66, LT.

ITEM 201.23 - REMOVE SINGLE TREE TOP ONLY

STATION	DESCRIPTION
75+40.30, 55' RT.	15" LINDEN
77+47.06, 56' LT.	20" LINDEN
78+07.00, 54' RT.	18" LINDEN (APPROXIMATE LOCATION & SIZE)
78+39.00, 78' LT.	20" LINDEN (APPROXIMATE LOCATION & SIZE)
78+72.00, 61' LT.	15" LINDEN (APPROXIMATE LOCATION & SIZE)
80+74.13, 59' RT.	18" LINDEN
81+22.48, 75' RT.	16" LINDEN
81+52.39, 56' LT.	12" LINDEN
81+99.66, 58' LT.	18" LINDEN
82+47.95, 61' LT.	12" LINDEN
84+17.60, 53' LT.	20" LINDEN
401+45.26, 3' LT.	15" LINDEN
401+59.59, 20' LT.	15" WHITE PINE

ITEM 201.24 - REMOVE STUMP

STATION	DESCRIPTION
75+40.30, 55' RT.	15" LINDEN
77+47.06, 56' LT.	20" LINDEN
78+07.00, 54' RT.	18" LINDEN (APPROXIMATE LOCATION & SIZE)
78+39.00, 78' LT.	20" LINDEN (APPROXIMATE LOCATION & SIZE)
78+72.00, 61' LT.	15" LINDEN (APPROXIMATE LOCATION & SIZE)
80+74.13, 59' RT.	18" LINDEN
81+22.48, 75' RT.	16" LINDEN
81+52.39, 56' LT.	12" LINDEN
81+99.66, 58' LT.	18" LINDEN
82+47.95, 61' LT.	12" LINDEN
84+17.60, 53' LT.	20" LINDEN
401+45.26, 3' LT.	15" LINDEN
401+59.59, 20' LT.	15" WHITE PINE

ITEM 606.24 - GUARDRAIL TYPE 3D - DOUBLE RAIL

STATION	TO STATION	LENGTH
202+00.00, 21.08' LT.	203+45.40, 18.50' LT.	162.50 LF
301+59.15, 18.61' RT.	303+37.14, 22.06' RT	187.50 LF

ITEM 606.2651 - TERMINAL END - DOUBLE RAIL - GALVANIZED STEEL

STATION
203+45.40, 18.50' LT
301+59.15, 18.61' RT.

ITEM 606.353 - REFLECTORIZED FLEXIBLE GUARDRAIL MARKER

STATION
203+45.40, 18.50' LT
301+59.15, 18.61' RT.

ITEM 608.26 - CURB RAMP DETECTABLE WARNING FIELD

STATION	SF
74+72, LT.	16
75+26, LT.	16
76+78, LT.	16
77+00, LT.	16
77+99, LT.	24
78+12, LT.	16
81+55, RT.	16
81+67, RT.	16
84+05, RT.	16
84+27, RT.	16
87+11, RT.	16
87+16, LT.	16
87+32, RT.	16
87+43, RT.	18
100+82, RT.	16
101+07, LT.	16
203+75, LT.	16
203+75, RT.	16
301+21, LT.	16
301+24, RT.	16
401+59, RT.	16
401+65, LT.	16

ITEM 613.319 - EROSION CONTROL BLANKET

STATION	TO STATION	SY
82+60, RT.	83+55, RT.	63

ITEM 658.20 - ACRYLIC LATEX FINISH, GREEN

STATION	TO STATION	SY
101+31, LT.		7
101+75, LT.	102+92, LT.	80
301+35, LT.		7
301+47, RT.		7
301+52, LT.	303+37, RT.	64
301+75, RT.		7
401+40, LT.		7

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	L MEEK	BY	DATE
DESIGN-DETAILED	L MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PORTLAND
FOREST AVE & I-295 RAMPS

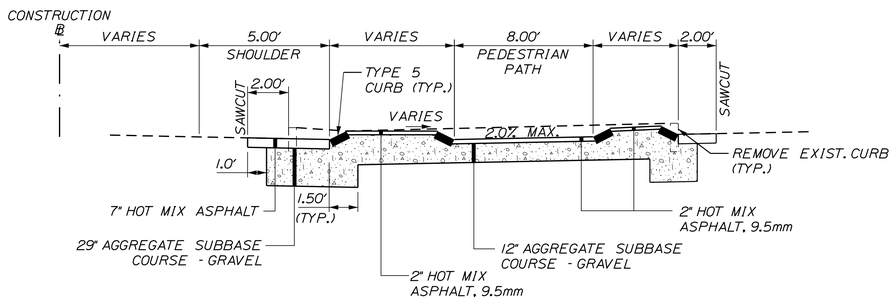
CONSTRUCTION NOTES

SHEET NUMBER

7

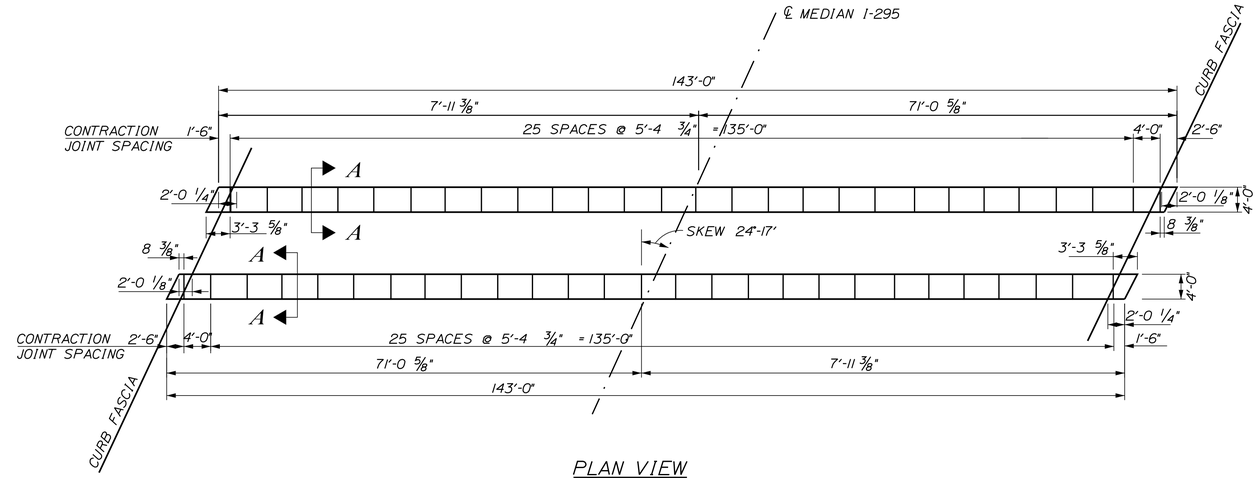
OF 38

Filename: ...\00\Highway\007_Notes.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014

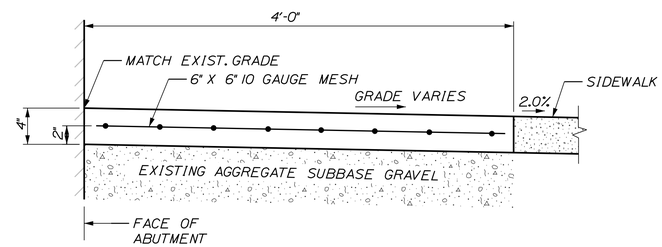


RAISED ISLAND DETAIL

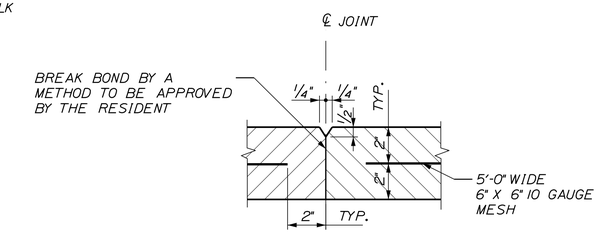
FOREST AVE. STA. 87+15 TO STA. 87+44, RT.
Not to Scale



PLAN VIEW



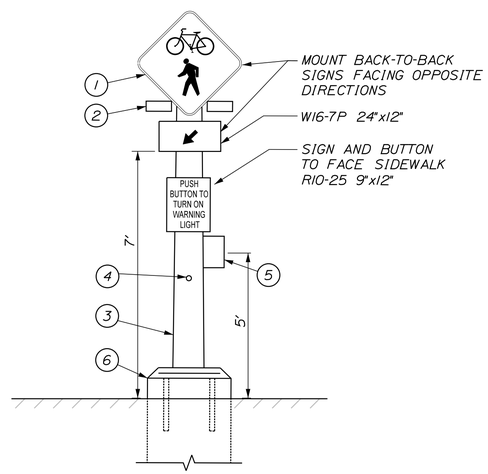
SECTION A-A



CONTRACTION JOINT

CONSTRUCTION NOTES:
1. 30"x30" SIGN W11-15
2. 12" YELLOW RECTANGULAR RAPID FLASHING BEACONS (BLACK HOUSING) SET TO HIGH VISIBILITY STROBE PATTERN - MOUNTED IN BOTH DIRECTIONS
3. MAINEDOT PEDESTAL POLE
4. PEDESTRIAN PUSH BUTTON (NON AUDIBLE)
5. POLE MOUNTED NETWORK CONTROLLER
6. 18" CONCRETE FOUNDATION PER MAINEDOT STANDARDS

GENERAL NOTES:
1. ALL LIGHTS AND PEDESTRIAN PUSH BUTTONS SHALL BE JSF TECHNOLOGIES OR EQUAL
2. POLE SHALL BE PAINTED MATTE BLACK
3. LIGHTS SHALL FLASH FOR 30 SECONDS (AS NOTED)
4. SIGNS W11-15 AND W16-7P SHALL BE FLUORESCENT YELLOW-GREEN BACKGROUND COLOR.
5. SEE SPECIAL PROVISION 643.



RECTANGULAR RAPID FLASHING BEACON ASSEMBLY DETAIL

(SOLAR POWERED, RADIO ACTIVATED)
Not to Scale

NOTES:

1. DETAILS PROVIDED FROM AS-BUILTS.
2. SLOPE PROTECTION CONCRETE SHALL BE CLASS "A".
3. SEE GENERAL NOTES REGARDING VERIFYING THE NEED TO REPLACE THE EXISTING CONCRETE SLOPE PROTECTION.
4. CONTRACTOR SHALL NOT DAMAGE BRIDGE ABUTMENT.

PORTLAND CEMENT CONCRETE SLOPE PROTECTION

Not to Scale

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	L.MEEK	11-12-14
CHECKED-REVIEWED	L.NEWHOUSE	11-12-14
DESIGN2-DETAILED2	D.ETTINGER	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

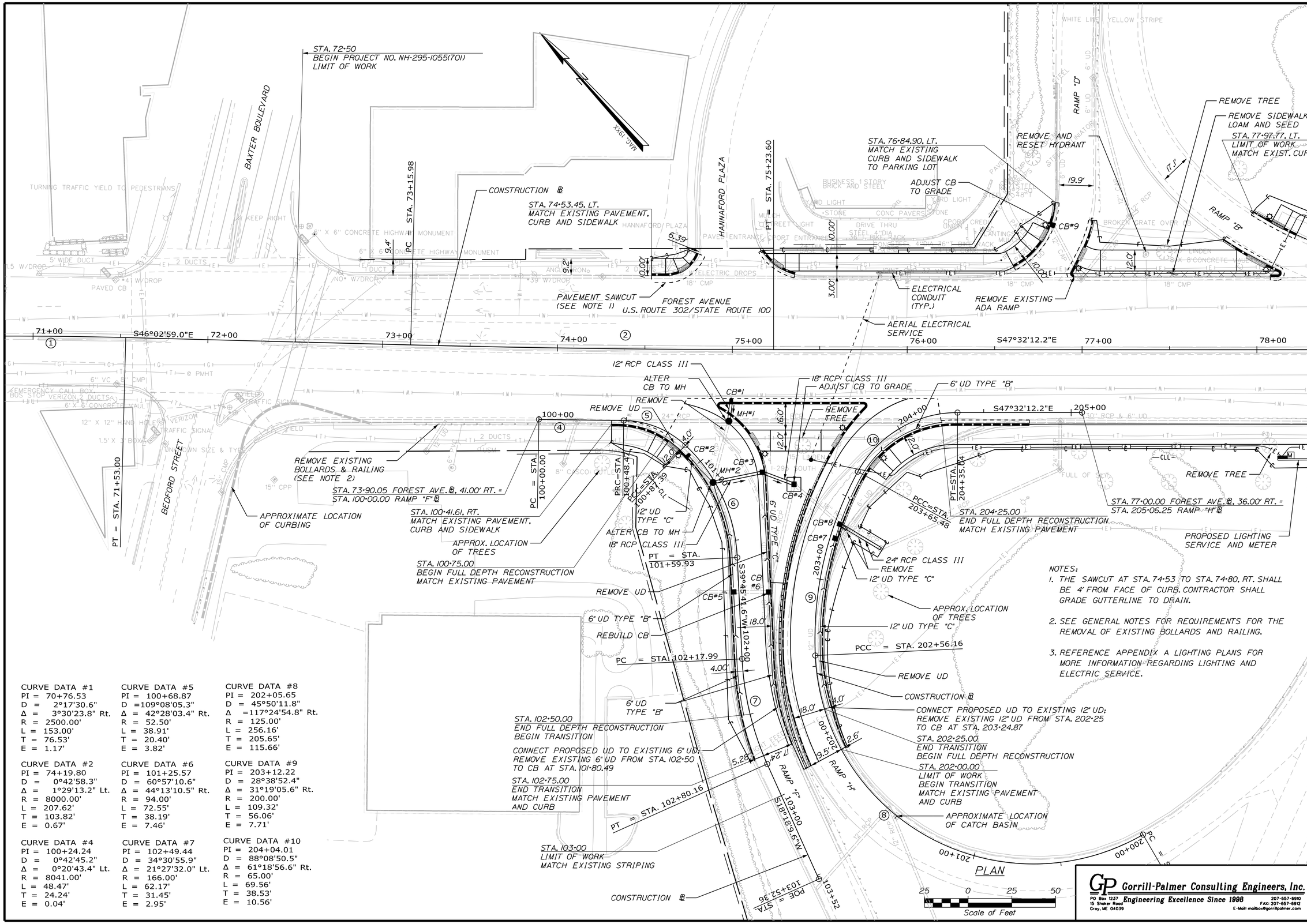
DATE

PORTLAND
FOREST AVE & I-295 RAMPS

DETAILS

SHEET NUMBER
8
OF 38

Filename: ...\00\Highway\008_Details_001.dgn Division: HIGHWAY Username: ochaplin Date:11/12/2014



NOTES:

1. THE SAWCUT AT STA. 74+53 TO STA. 74+80. RT. SHALL BE 4' FROM FACE OF CURB. CONTRACTOR SHALL GRADE GUTTERLINE TO DRAIN.
2. SEE GENERAL NOTES FOR REQUIREMENTS FOR THE REMOVAL OF EXISTING BOLLARDS AND RAILING.
3. REFERENCE APPENDIX A LIGHTING PLANS FOR MORE INFORMATION REGARDING LIGHTING AND ELECTRIC SERVICE.

CURVE DATA #1
PI = 70+76.53
D = 2°17'30.6"
Δ = 3°30'23.8" Rt.
R = 2500.00'
L = 153.00'
T = 76.53'
E = 1.17'

CURVE DATA #2
PI = 74+19.80
D = 0°42'58.3"
Δ = 1°29'13.2" Lt.
R = 8000.00'
L = 207.62'
T = 103.82'
E = 0.67'

CURVE DATA #4
PI = 100+24.24
D = 0°42'45.2"
Δ = 0°20'43.4" Lt.
R = 8041.00'
L = 48.47'
T = 24.24'
E = 0.04'

CURVE DATA #5
PI = 100+68.87
D = 109°08'05.3"
Δ = 42°28'03.4" Rt.
R = 52.50'
L = 38.91'
T = 20.40'
E = 3.82'

CURVE DATA #6
PI = 101+25.57
D = 60°57'10.6"
Δ = 44°13'10.5" Rt.
R = 94.00'
L = 72.55'
T = 38.19'
E = 7.46'

CURVE DATA #7
PI = 102+49.44
D = 34°30'55.9"
Δ = 21°27'32.0" Lt.
R = 166.00'
L = 62.17'
T = 31.45'
E = 2.95'

CURVE DATA #8
PI = 202+05.65
D = 45°50'11.8"
Δ = 117°24'54.8" Rt.
R = 125.00'
L = 256.16'
T = 205.65'
E = 115.66'

CURVE DATA #9
PI = 203+12.22
D = 28°38'52.4"
Δ = 31°19'05.6" Rt.
R = 200.00'
L = 109.32'
T = 56.06'
E = 7.71'

CURVE DATA #10
PI = 204+04.01
D = 88°08'50.5"
Δ = 61°18'56.6" Rt.
R = 65.00'
L = 69.56'
T = 38.53'
E = 10.56'

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	$PROJMANAGER$	BY	DATE
DESIGN-DETAILED	L.MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PORTLAND
FOREST AVE & I-295 RAMPS

PLAN 1

SHEET NUMBER

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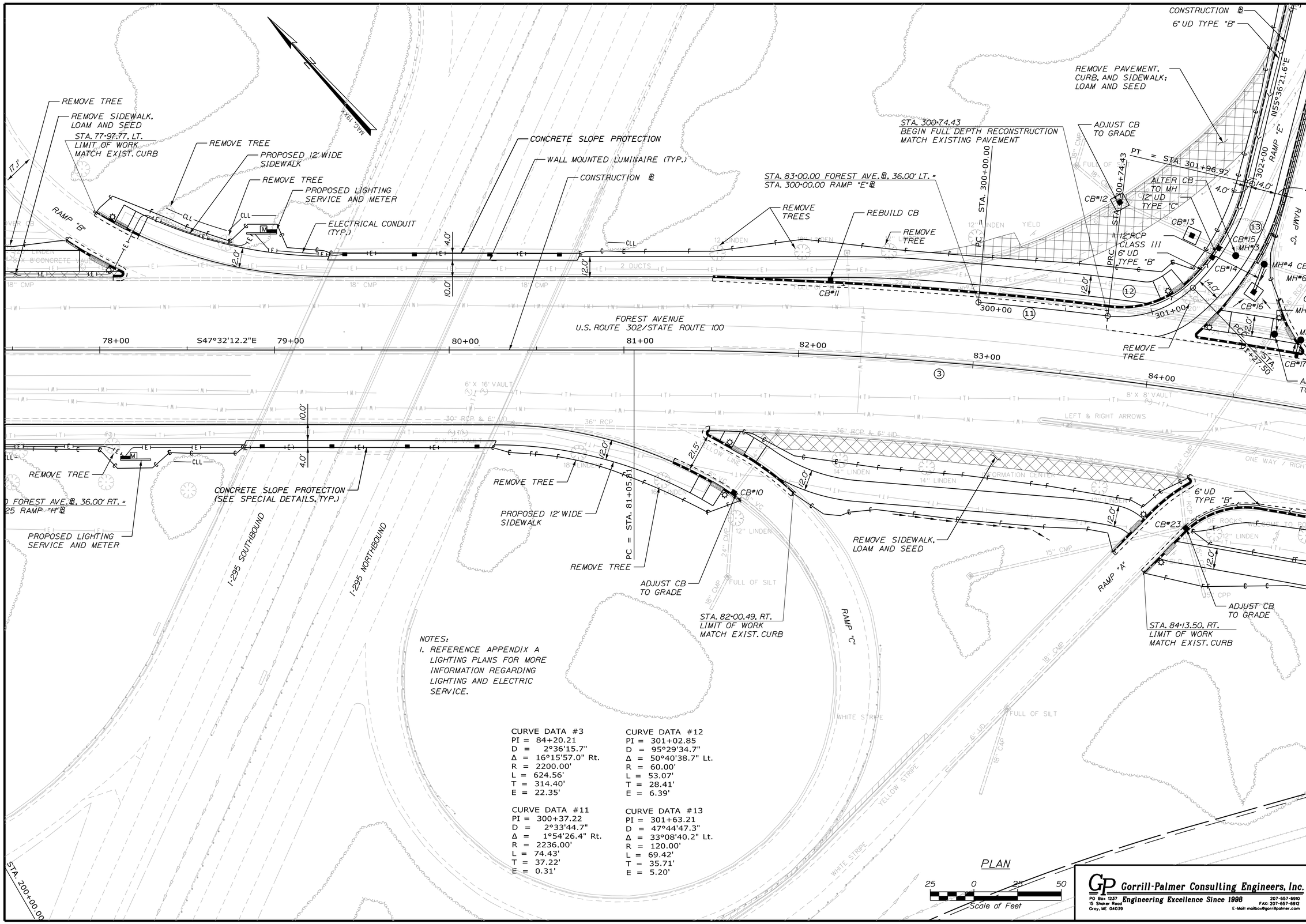
Filename: ...\00\Highway\009_Plan_001.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014



NOTES:
1. REFERENCE APPENDIX A LIGHTING PLANS FOR MORE INFORMATION REGARDING LIGHTING AND ELECTRIC SERVICE.

CURVE DATA #3
PI = 84+20.21
D = 2°36'15.7"
Δ = 16°15'57.0" Rt.
R = 2200.00'
L = 624.56'
T = 314.40'
E = 22.35'

CURVE DATA #11
PI = 300+37.22
D = 2°33'44.7"
Δ = 1°54'26.4" Rt.
R = 2236.00'
L = 74.43'
T = 37.22'
E = 0.31'

CURVE DATA #12
PI = 301+02.85
D = 95°29'34.7"
Δ = 50°40'38.7" Lt.
R = 60.00'
L = 53.07'
T = 28.41'
E = 6.39'

CURVE DATA #13
PI = 301+63.21
D = 47°44'47.3"
Δ = 33°08'40.2" Lt.
R = 120.00'
L = 69.42'
T = 35.71'
E = 5.20'

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER $PROJMANAGER$		
DESIGN-DETAILED	L.MEEK	11-12-14
CHECKED-REVIEWED	L.NEWHOUSE	11-12-14
DESIGN2-DETAILED2	D.ETTINGER	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PORTLAND FOREST AVE & I-295 RAMPS

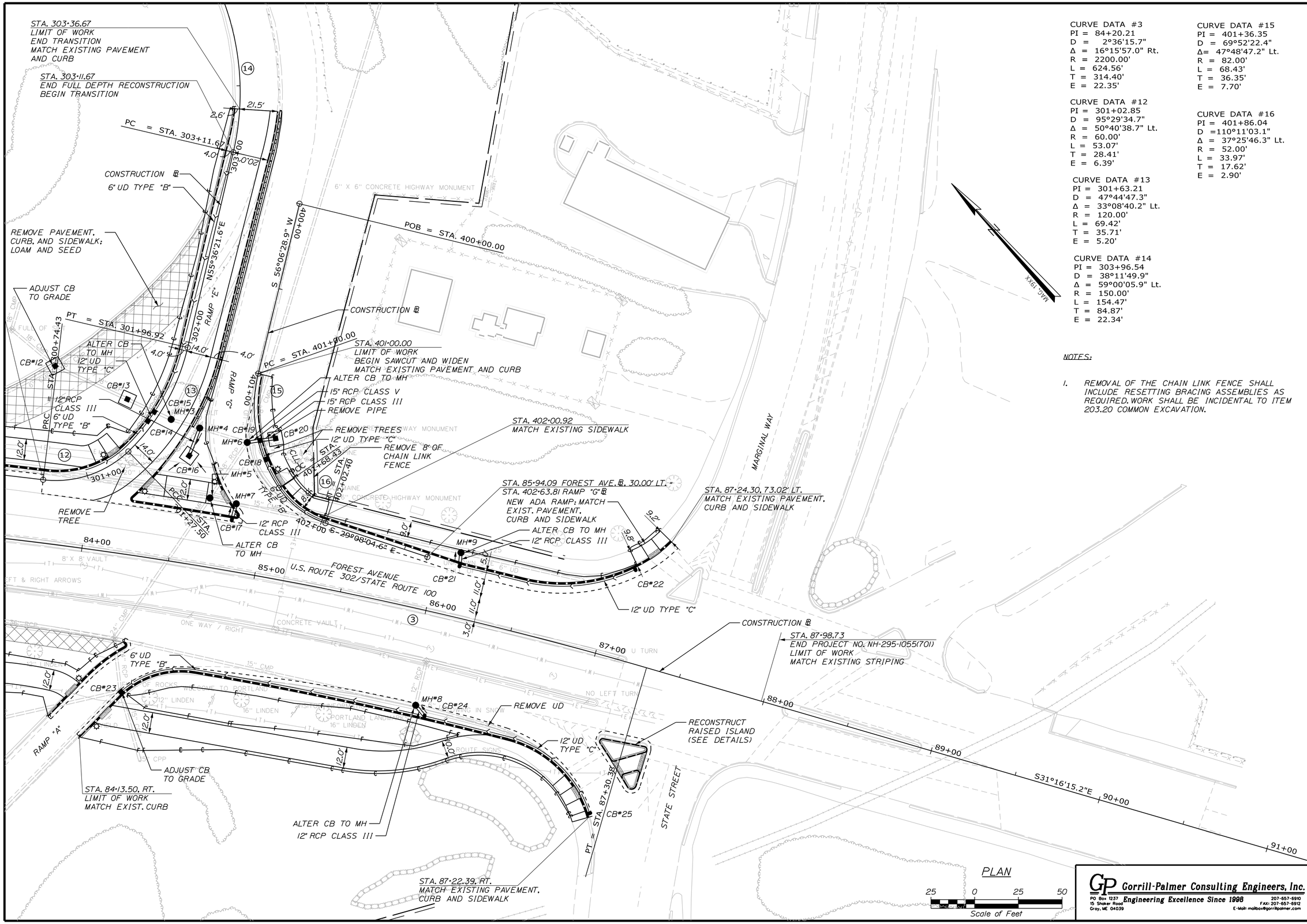
PLAN 2

SHEET NUMBER

10

OF 38

Filename: ...\00\Highway\010_Plan_002.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014



CURVE DATA #3
PI = 84+20.21
D = 2°36'15.7"
Δ = 16°15'57.0" Rt.
R = 2200.00'
L = 624.56'
T = 314.40'
E = 22.35'

CURVE DATA #12
PI = 301+02.85
D = 95°29'34.7"
Δ = 50°40'38.7" Lt.
R = 60.00'
L = 53.07'
T = 28.41'
E = 6.39'

CURVE DATA #13
PI = 301+63.21
D = 47°44'47.3"
Δ = 33°08'40.2" Lt.
R = 120.00'
L = 69.42'
T = 35.71'
E = 5.20'

CURVE DATA #14
PI = 303+96.54
D = 38°11'49.9"
Δ = 59°00'05.9" Lt.
R = 150.00'
L = 154.47'
T = 84.87'
E = 22.34'

CURVE DATA #15
PI = 401+36.35
D = 69°52'22.4"
Δ= 47°48'47.2" Lt.
R = 82.00'
L = 68.43'
T = 36.35'
E = 7.70'

CURVE DATA #16
PI = 401+86.04
D =110°11'03.1"
Δ = 37°25'46.3" Lt.
R = 52.00'
L = 33.97'
T = 17.62'
E = 2.90'

NOTES:

1. REMOVAL OF THE CHAIN LINK FENCE SHALL INCLUDE RESETTING BRACING ASSEMBLIES AS REQUIRED. WORK SHALL BE INCIDENTAL TO ITEM 203.20 COMMON EXCAVATION.

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	PROJ.MANAGER	BY	DATE
DESIGN-DETAILED	L.MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

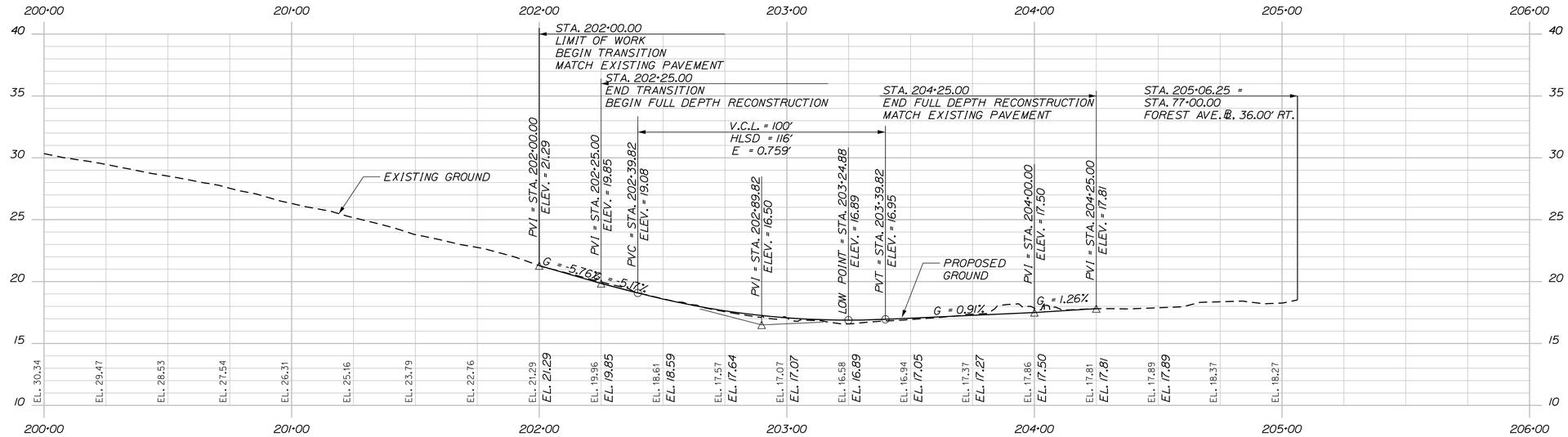
DATE

PORTLAND
FOREST AVE & I-295 RAMPS

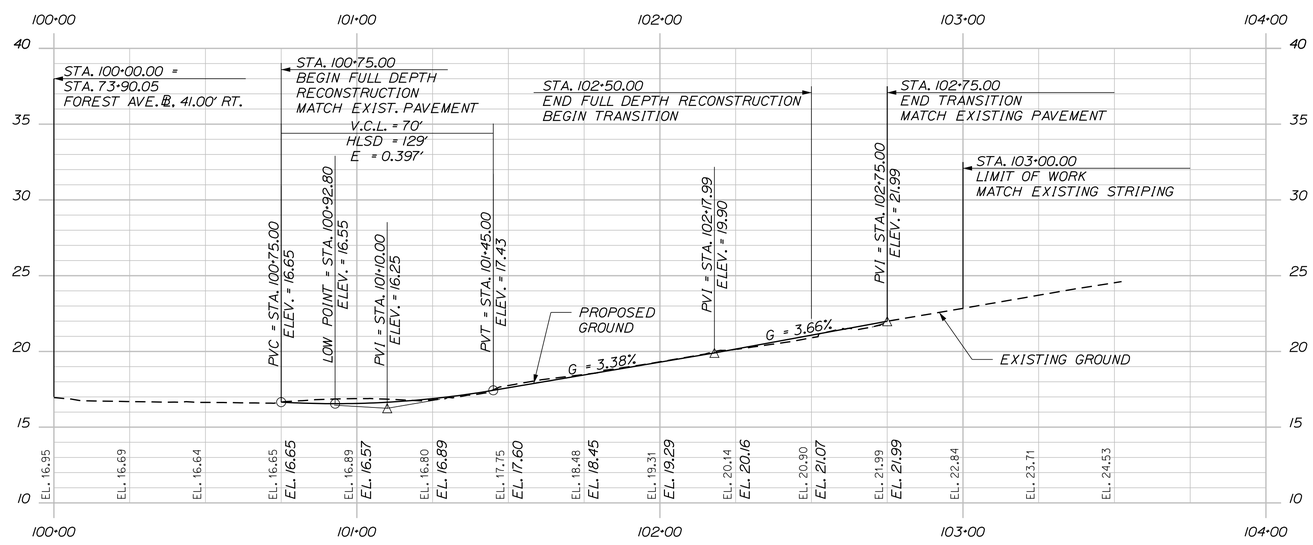
PLAN 3

SHEET NUMBER
11
OF 38

Filename: ...\00\Highway\011_Plan_003.dgn Division: HIGHWAY Username: ochaplin Date:11/12/2014



RAMP "H" PROFILE



RAMP "F" PROFILE

HORIZ 25 0 25 50
VERT 5 0 5 10

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	#PROJMANAGER#	BY	DATE
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PORTLAND
FOREST AVE & I-295 RAMPS

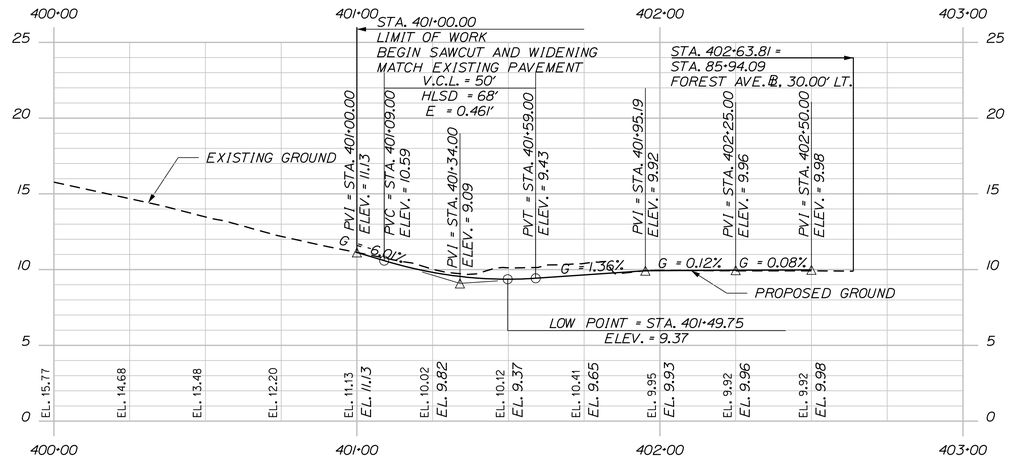
PROFILE

SHEET NUMBER

12

OF 38

Filename: ...\00\Highway\012_Profile_001.dgn Division: HIGHWAY Username: ochaplin Date:11/12/2014



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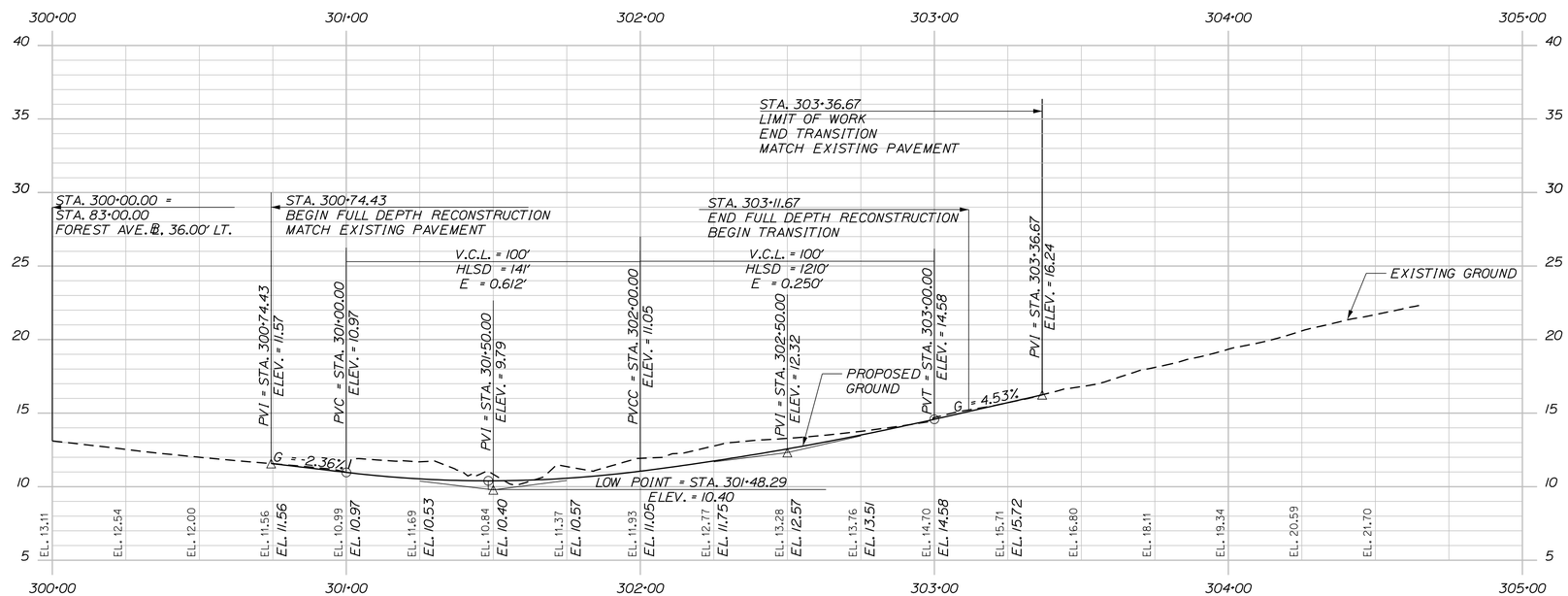

RAMP "E" PROFILE

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VERT 5 0 5 10

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	PROJ.MANAGER	BY	DATE
DESIGN-DETAILED	L.MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PORTLAND
FOREST AVE & I-295 RAMPS

PROFILE

SHEET NUMBER

13

OF 38

Filename: ...\00\Highway\013_Profile_002.dgn Division: HIGHWAY Username: ochaplin Date:11/12/2014

ITEM 609.11 CURB TYPE 1

POINT	LENGTH (FT)	RADIUS (FT)	COMMENT
100 to 101	4.06	-	
103 to 105	8.00	-	No Curb Reveal, Flush w/ Pavement
126 to 127	13.00	125.00	
128 to 129	8.00	125.00	No Curb Reveal, Flush w/ Pavement
207 to 208	8.00	-	No Curb Reveal, Flush w/ Pavement
211 to 212	4.30	-	
214 to 215	12.00	210.00	No Curb Reveal, Flush w/ Pavement
219 to 220	8.00	260.00	No Curb Reveal, Flush w/ Pavement

ITEM 609.12 CURB TYPE 1 - CIRCULAR

POINT	LENGTH (FT)	RADIUS (FT)	COMMENT
101 to 102	22.61	50.00	
118 to 119	8.00	50.00	No Curb Reveal, Flush w/ Pavement
120 to 121	14.91	50.00	
121 to 122	5.31	2.00	
125 to 126	4.70	2.00	
140 to 141	8.00	60.00	No Curb Reveal, Flush w/ Pavement
142 to 143	41.06	60.00	
193 to 194	8.00	20.00	No Curb Reveal, Flush w/ Pavement
197 to 198	8.00	32.00	No Curb Reveal, Flush w/ Pavement
200 to 201	13.81	45.00	
202 to 203	8.00	45.00	No Curb Reveal, Flush w/ Pavement
205 to 206	4.09	2.00	
212 to 213	5.43	2.00	

ITEM 609.234 TERMINAL CURB TYPE 1 - 4 FOOT

POINT	LENGTH (FT)	RADIUS (FT)
105 to 106	4.00	90.00
218A to 219	4.00	260.00

ITEM 609.238 TERMINAL CURB TYPE 1 - 8 FOOT

POINT	LENGTH (FT)	RADIUS (FT)
127 to 128	8.00	125.00
129 to 130	8.00	-
191 to 192	8.00	-
206 to 207	8.00	-
208 to 209	8.00	75.00
213 to 214	8.00	210.00
215 to 216	8.00	210.00
220 to 221	8.00	260.00

ITEM 609.2381 TERMINAL CURB TYPE 1 - 8 FOOT CIRCULAR

POINT	LENGTH (FT)	RADIUS (FT)
102 to 103	8.00	50.00
117 to 118	8.00	50.00
119 to 120	8.00	50.00
139 to 140	8.00	60.00
141 to 142	8.00	60.00
192 to 193	8.00	20.00
194 to 195	8.00	20.00
196 to 197	8.00	32.00
198 to 199	8.00	32.00
201 to 202	8.00	45.00
203 to 204	8.00	45.00

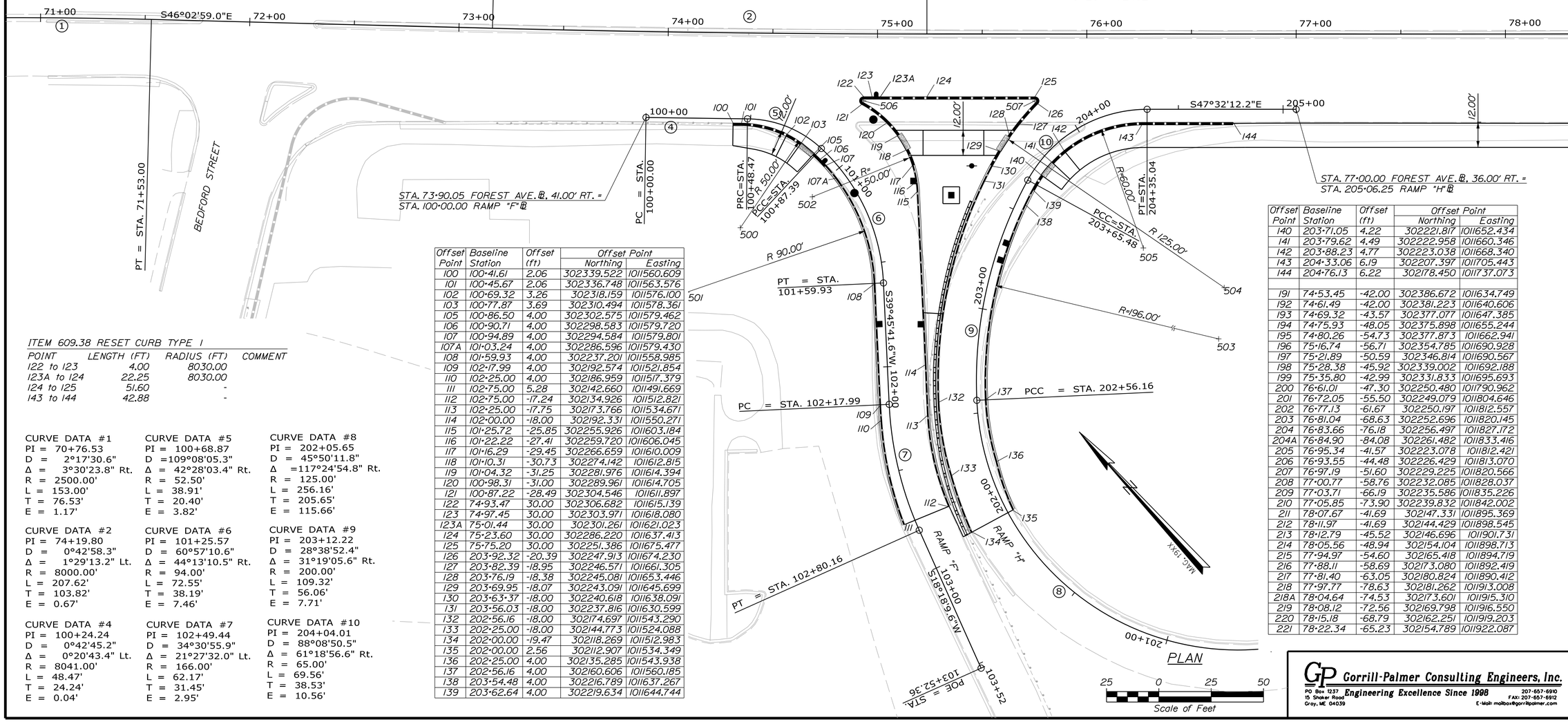
ITEM 609.26 CURB TRANSITION SECTION B, TYPE 1

POINT	LENGTH (FT)	RADIUS (FT)
107 to 107A	8.00	90.00
116 to 117	8.00	50.00
130 to 131	8.00	218.00
138 to 139	8.00	196.00
204 to 204A	8.00	45.00
209 to 210	8.00	75.00
216 to 217	8.00	210.00
218 to 218A	8.00	260.00

ITEM 609.34 CURB TYPE 5

POINT	LENGTH (FT)	RADIUS (FT)
107A to 108	54.28	90.00
108 to 109	58.05	-
109 to 110	7.18	170.00
110 to 111	51.41	170.66
112 to 113	44.79	129.84
113 to 114	24.25	-
114 to 115	82.73	-
115 to 116	4.75	50.00
131 to 132	108.86	218.00
132 to 133	35.65	143.00
133 to 134	28.76	215.15
135 to 136	24.39	115.97
136 to 137	30.16	121.00
137 to 138	96.35	196.00

Offset Point	Baseline Station	Offset (ft)	Offset Point Northing	Offset Point Easting
500	100+45.69	52.06	302300.227	1011529.426
501	100+20.74	83.16	302294.765	1011489.801
502	101+03.28	18.74	302287.906	1011564.747
503	202+56.16	200.00	302035.067	1011710.705
504	204+71.89	85.16	302123.078	1011680.653
505	203+62.64	64.00	302163.134	1011664.936
506	74+93.47	32.00	302305.211	1011613.783
507	75+75.20	32.00	302249.910	1011674.127
508	76+32.60	-90.01	302301.169	1011798.842
509	76+40.00	-87.09	302294.020	1011802.332
510	76+95.33	-43.57	302224.555	1011813.769
511	78+11.97	-43.69	302145.906	1011899.894
530	74+61.49	-62.00	302395.872	1011654.222
531	75+43.72	-74.00	302349.361	1011722.465



Offset Point	Baseline Station	Offset (ft)	Offset Point Northing	Offset Point Easting
100	100+41.61	2.06	302339.522	1011560.609
101	100+45.67	2.06	302336.748	1011563.576
102	100+69.32	3.26	302318.159	1011576.100
103	100+77.87	3.69	302310.494	1011578.361
105	100+86.50	4.00	302302.575	1011579.462
106	100+90.71	4.00	302298.583	1011579.720
107	100+94.89	4.00	302294.584	1011579.801
107A	101+03.24	4.00	302286.596	1011579.430
108	101+59.93	4.00	302237.201	1011558.985
109	102+17.99	4.00	302192.574	1011521.854
110	102+25.00	4.00	302186.959	1011517.379
111	102+75.00	5.28	302142.660	1011491.669
112	102+75.00	-17.24	302134.926	1011512.821
113	102+25.00	-17.75	302173.766	1011534.671
114	102+00.00	-18.00	302192.331	1011550.271
115	101+25.72	-25.85	302255.926	1011603.184
116	101+22.22	-27.41	302259.720	1011606.045
117	101+16.29	-29.45	302266.659	1011610.009
118	101+10.31	-30.73	302274.142	1011612.815
119	101+04.32	-31.25	302281.976	1011614.394
120	100+98.31	-31.00	302289.961	1011614.705
121	100+87.22	-28.49	302304.546	1011611.897
122	74+93.47	30.00	302306.682	1011615.139
123	74+97.45	30.00	302303.971	1011618.080
123A	75+01.44	30.00	302301.261	1011621.023
124	75+23.60	30.00	302286.220	1011637.413
125	75+75.20	30.00	302251.386	1011675.477
126	203+92.32	-20.39	302247.913	1011674.230
127	203+82.39	-18.95	302246.571	1011661.305
128	203+76.19	-18.38	302245.081	1011653.446
129	203+69.95	-18.07	302243.091	1011645.699
130	203+63.37	-18.00	302240.618	1011638.091
131	203+56.03	-18.00	302237.816	1011630.599
132	202+56.16	-18.00	302174.697	1011543.290
133	202+25.00	-18.00	302144.773	1011524.088
134	202+00.00	-19.47	302118.269	1011512.983
135	202+00.00	2.56	302112.907	1011534.349
136	202+25.00	4.00	302135.285	1011543.938
137	202+56.16	4.00	302160.606	1011560.185
138	203+54.48	4.00	302216.789	1011637.267
139	203+62.64	4.00	302219.634	1011644.744

Offset Point	Baseline Station	Offset (ft)	Offset Point Northing	Offset Point Easting
140	203+71.05	4.22	302221.817	1011652.434
141	203+79.62	4.49	302222.958	1011660.346
142	203+88.23	4.77	302223.038	1011668.340
143	204+33.06	6.19	302207.397	1011705.443
144	204+76.13	6.22	302178.450	1011737.073
191	74+53.45	-42.00	302386.672	1011634.749
192	74+61.49	-42.00	302381.223	1011640.606
193	74+69.32	-43.57	302377.077	1011647.385
194	74+75.93	-48.05	302375.898	1011655.244
195	74+80.26	-54.73	302377.873	1011662.941
196	75+16.74	-56.71	302354.785	1011690.928
197	75+21.89	-50.59	302346.814	1011690.567
198	75+28.38	-45.92	302339.002	1011692.188
199	75+35.80	-42.99	302331.833	1011695.693
200	76+61.01	-47.30	302250.480	1011790.962
201	76+72.05	-55.50	302249.079	1011804.646
202	76+77.13	-61.67	302250.197	1011812.557
203	76+81.04	-68.63	302252.696	1011820.145
204	76+83.66	-76.18	302256.497	1011827.172
204A	76+84.90	-84.08	302261.482	1011833.416
205	76+95.34	-41.57	302223.078	1011812.421
206	76+93.55	-44.48	302226.429	1011813.070
207	76+97.19	-51.60	302229.225	1011820.566
208	77+00.77	-58.76	302232.085	1011828.037
209	77+03.71	-66.19	302235.586	1011835.226
210	77+05.85	-73.90	302239.832	1011842.002
211	78+07.67	-41.69	302147.331	1011895.369
212	78+11.97	-41.69	302144.429	1011898.545
213	78+12.79	-45.52	302146.696	1011901.731
214	78+05.56	-48.94	302154.104	1011898.713
215	77+94.97	-54.60	302165.418	1011894.719
216	77+88.11	-58.69	302173.080	1011892.419
217	77+81.40	-63.05	302180.824	1011890.412
218	77+97.77	-78.63	302181.262	1011913.008
218A	78+04.64	-74.53	302173.601	1011915.310
219	78+08.12	-72.56	302169.798	1011916.550
220	78+15.18	-68.79	302162.251	1011919.203
221	78+22.34	-65.23	302154.789	1011922.087

ITEM 609.38 RESET CURB TYPE 1

POINT	LENGTH (FT)	RADIUS (FT)	COMMENT
122 to 123	4.00	8030.00	
123A to 124	22.25	8030.00	
124 to 125	51.60	-	
143 to 144	42.88	-	

CURVE DATA #1
PI = 70+76.53
D = 2°17'30.6"
Δ = 3°30'23.8" Rt.
R = 2500.00'
L = 153.00'
T = 76.53'
E = 1.17'

CURVE DATA #2
PI = 74+19.80
D = 0°42'58.3"
Δ = 1°29'13.2" Lt.
R = 8000.00'
L = 207.62'
T = 103.82'
E = 0.67'

CURVE DATA #4
PI = 100+24.24
D = 0°42'45.2"
Δ = 0°20'43.4" Lt.
R = 8041.00'
L = 48.47'
T = 24.24'
E = 0.04'

CURVE DATA #5
PI = 100+68.87
D =109°08'05.3"
Δ = 42°28'03.4" Rt.
R = 52.50'
L = 38.91'
T = 20.40'
E = 3.82'

CURVE DATA #6
PI = 101+25.57
D = 60°57'10.6"
Δ = 44°13'10.5" Rt.
R = 94.00'
L = 72.55'
T = 38.19'
E = 7.46'

CURVE DATA #7
PI = 102+49.44
D = 34°30'55.9"
Δ = 21°27'32.0" Lt.
R = 166.00'
L = 62.17'
T = 31.45'
E = 2.95'

CURVE DATA #8
PI = 202+05.65
D = 45°50'11.8"
Δ =117°24'54.8" Rt.
R = 125.00'
L = 256.16'
T = 205.65'
E = 115.66'

CURVE DATA #9
PI = 203+12.22
D = 28°38'52.4"
Δ = 31°19'05.6" Rt.
R = 200.00'
L = 109.32'
T = 56.06'
E = 7.71'

CURVE DATA #10
PI = 204+04.01
D = 88°08'50.5"
Δ = 61°18'56.6" Rt.
R = 65.00'
L = 69.56'
T = 38.53'
E = 10.56'

Gorrill-Palmer Consulting Engineers, Inc.
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Gray, ME 04039
Engineering Excellence Since 1998
207-657-6910
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	L.MEEK	11-12-14
CHECKED-REVIEWED	L.NEWHOUSE	11-12-14
DESIGN2-DETAILED2	D.ETTINGER	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PORTLAND FOREST AVE & I-295 RAMPS

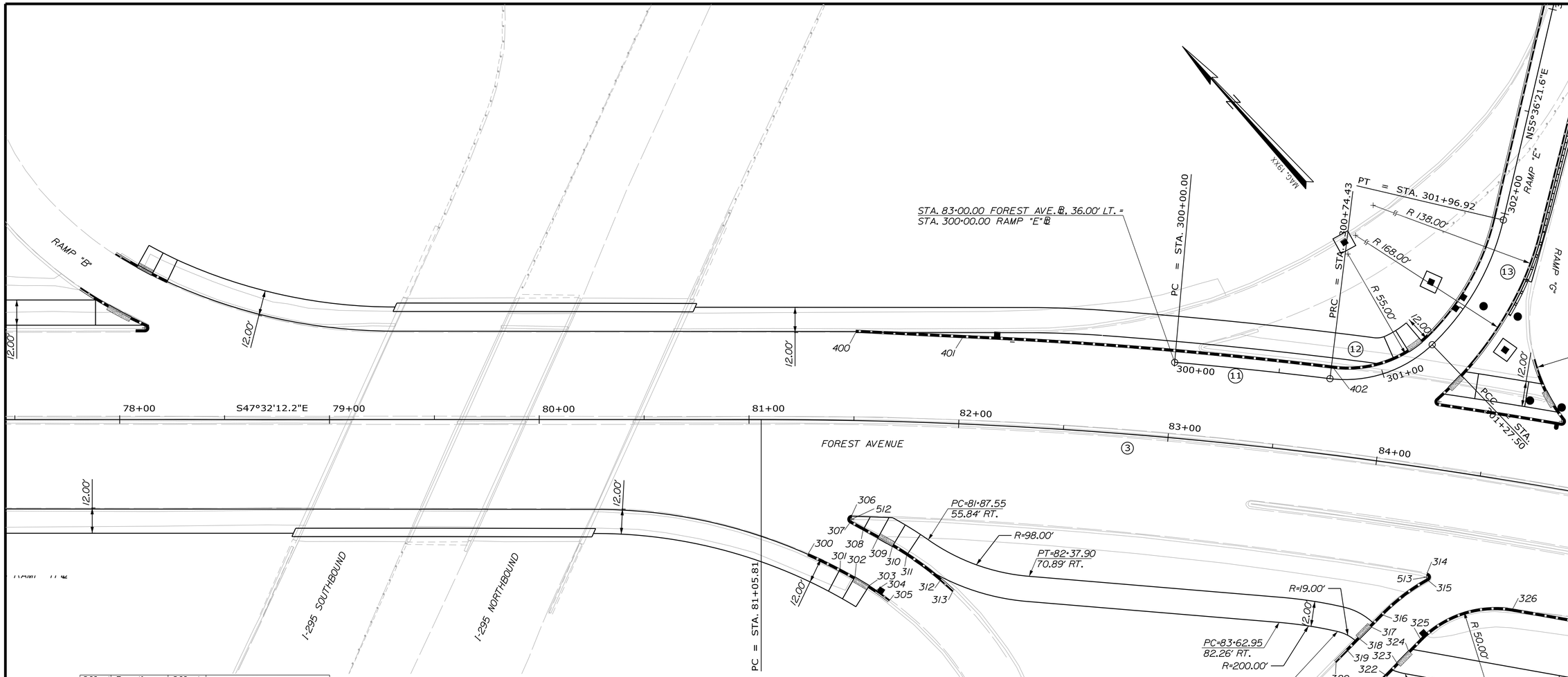
GEOMETRIC AND CURB LAYOUT PLAN

SHEET NUMBER

14

OF 38

Filename: ...\Highway\014_CurbPlan_001.dgn Division: HIGHWAY Username: ochaplin Date:11/12/2014



Offset Point	Baseline Station	Offset (ft)	Offset Point Northing	Offset Point Easting
300	81+28.98	63.69	301853.033	1012060.690
301	81+44.73	70.83	301837.369	1012066.910
302	81+52.06	74.54	301829.796	1012069.490
303	81+59.27	78.47	301822.136	1012071.795
304	81+62.80	80.59	301818.259	1012072.778
305	81+69.65	85.12	301810.420	1012074.369
306	81+49.93	45.10	301852.532	1012088.303
307	81+48.95	48.87	301850.457	1012085.009
308	81+55.53	52.20	301843.609	1012087.359
309	81+62.82	55.86	301836.043	1012089.956
310	81+70.09	59.60	301828.437	1012092.437
311	81+77.18	63.65	301820.723	1012094.555
312	81+94.10	75.11	301801.070	1012098.194
313	82+00.49	80.20	301793.109	1012098.979
314	84+31.79	49.55	301647.023	1012272.014
315	84+33.01	53.13	301643.846	1012269.976
316	84+13.46	72.45	301646.319	1012243.004
317	84+08.51	78.86	301645.918	1012235.014
318	84+03.52	85.26	301645.518	1012227.024
319	83+98.51	91.65	301645.117	1012219.034
320	83+93.47	98.03	301644.716	1012211.044
321	84+13.50	106.89	301624.373	1012216.465
322	84+18.48	100.44	301624.803	1012224.454
323	84+23.43	93.99	301625.234	1012232.442
324	84+28.35	87.53	301625.664	1012240.430
325	84+33.24	81.06	301626.095	1012248.419
326	84+75.86	60.00	301606.881	1012290.564
400	81+50.00	-41.92	301915.482	1012148.379
401	82+00.00	-41.00	301879.269	1012184.219
402	300+75.80	-4.99	301748.931	1012304.964
512	81+49.89	47.10	301851.106	1012086.901
513	84+31.76	51.55	301645.792	1012270.437
514	84+75.86	110.00	301576.167	1012251.110

ITEM 609.11 CURB TYPE 1

POINT	LENGTH (FT)	RADIUS (FT)	COMMENT
300 to 301	16.86	250.00	
302 to 303	8.00	-	No Curb Reveal, Flush w/ Pavement
307 to 308	7.24	-	
309 to 310	8.00	-	No Curb Reveal, Flush w/ Pavement
311 to 312	20.00	165.00	
315 to 316	27.18	96.00	No Curb Reveal, Flush w/ Pavement
317 to 318	8.00	-	No Curb Reveal, Flush w/ Pavement
323 to 324	8.00	-	

ITEM 609.12 CURB TYPE 1 - CIRCULAR

POINT	LENGTH (FT)	RADIUS (FT)	COMMENT
306 to 307	5.36	2.00	
314 to 315	4.93	2.00	
325 to 326	48.16	50.00	

ITEM 609.234 TERMINAL CURB TYPE 1 - 4 FOOT

POINT	LENGTH (FT)	RADIUS (FT)	COMMENT
303 to 304	4.00	125.00	

ITEM 609.238 TERMINAL CURB TYPE 1 - 8 FOOT

POINT	LENGTH (FT)	RADIUS (FT)
301 to 302	8.00	250.00
308 to 309	8.00	-
310 to 311	8.00	165.00
316 to 317	8.00	-
318 to 319	8.00	-
322 to 323	8.00	-
324 to 325	8.00	-

ITEM 609.26 CURB TRANSITION SECTION B, TYPE 1

POINT	LENGTH (FT)	RADIUS (FT)
304 TO 305	8.00	125.00
312 TO 313	8.00	165.00
319 to 320	8.00	-
321 to 322	8.00	-

ITEM 609.38 RESET CURB TYPE 1

POINT	LENGTH (FT)	RADIUS (FT)
400 to 401	50.95	-
401 to 402	177.72	2241.00

CURVE DATA #3
PI = 84+20.21
D = 2°36'15.7"
Δ = 16°15'57.0" Rt.
R = 2200.00'
L = 624.56'
T = 314.40'
E = 22.35'

CURVE DATA #11
PI = 300+37.22
D = 2°33'44.7"
Δ = 1°54'26.4" Rt.
R = 2236.00'
L = 74.43'
T = 37.22'
E = 0.31'

CURVE DATA #12
PI = 301+02.85
D = 95°29'34.7"
Δ = 50°40'38.7" Lt.
R = 60.00'
L = 53.07'
T = 28.41'
E = 6.39'

CURVE DATA #13
PI = 301+63.21
D = 47°44'47.3"
Δ = 33°08'40.2" Lt.
R = 120.00'
L = 69.42'
T = 35.71'
E = 5.20'

PLAN

25 0 25 50
Scale of Feet

Gorrill-Palmer Consulting Engineers, Inc.
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Gray, ME 04039
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207-657-6910
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	L.MEEK	L.NEWHOUSE	11-12-14
DESIGN-DETAILED			
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PORTLAND FOREST AVE & I-295 RAMPS

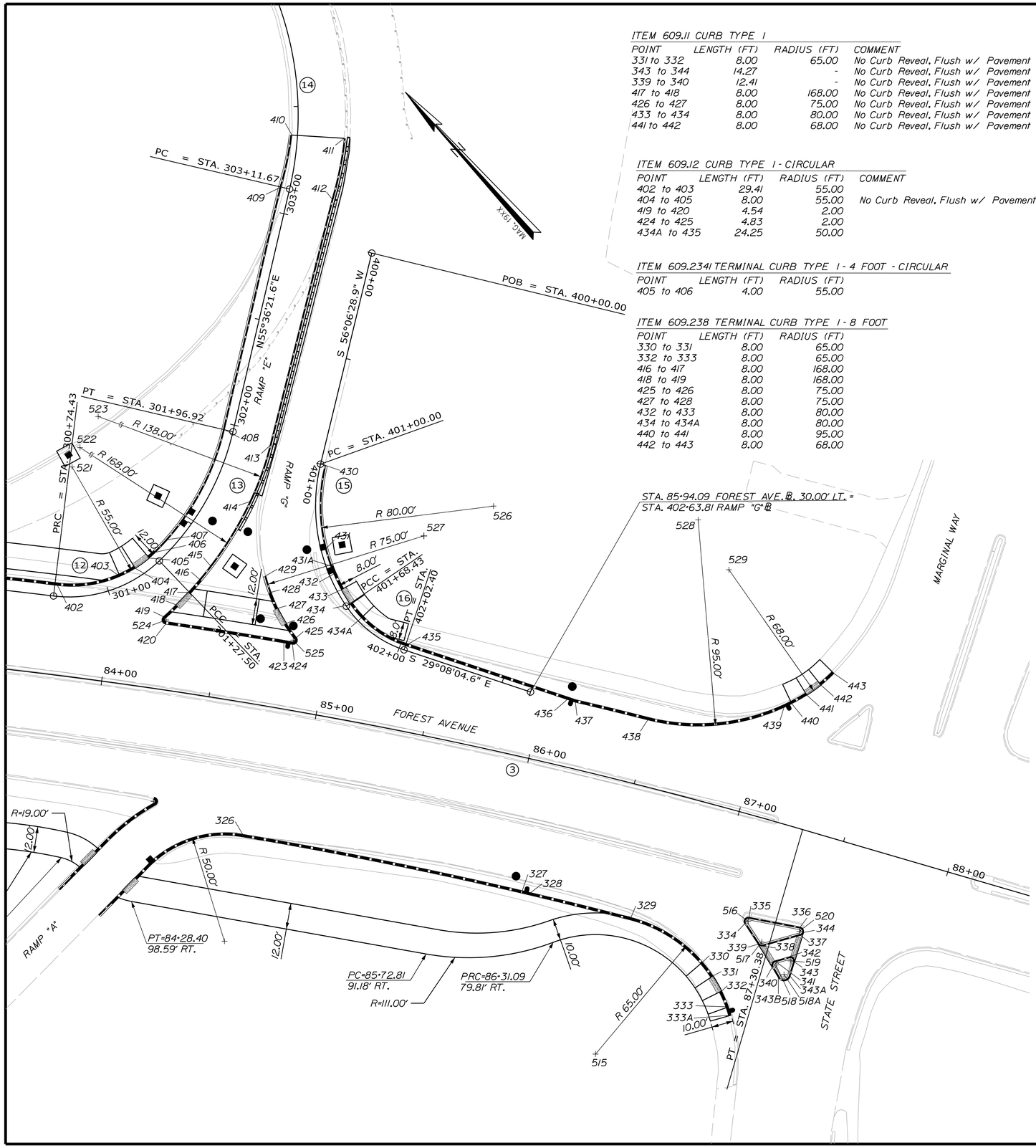
GEOMETRIC AND CURB LAYOUT PLAN

SHEET NUMBER

15

OF 38

Filename: ...\Highway\015_CurbPlan_002.dgn Division: HIGHWAY Username: ochaplin Date:11/12/2014



ITEM 609.11 CURB TYPE 1

POINT	LENGTH (FT)	RADIUS (FT)	COMMENT
331 to 332	8.00	65.00	No Curb Reveal, Flush w/ Pavement
343 to 344	14.27	-	No Curb Reveal, Flush w/ Pavement
339 to 340	12.41	-	No Curb Reveal, Flush w/ Pavement
417 to 418	8.00	168.00	No Curb Reveal, Flush w/ Pavement
426 to 427	8.00	75.00	No Curb Reveal, Flush w/ Pavement
433 to 434	8.00	80.00	No Curb Reveal, Flush w/ Pavement
441 to 442	8.00	68.00	No Curb Reveal, Flush w/ Pavement

ITEM 609.12 CURB TYPE 1 - CIRCULAR

POINT	LENGTH (FT)	RADIUS (FT)	COMMENT
402 to 403	29.41	55.00	
404 to 405	8.00	55.00	No Curb Reveal, Flush w/ Pavement
419 to 420	4.54	2.00	
424 to 425	4.83	2.00	
434A to 435	24.25	50.00	

ITEM 609.2341 TERMINAL CURB TYPE 1 - 4 FOOT - CIRCULAR

POINT	LENGTH (FT)	RADIUS (FT)
405 to 406	4.00	55.00

ITEM 609.238 TERMINAL CURB TYPE 1 - 8 FOOT

POINT	LENGTH (FT)	RADIUS (FT)
330 to 331	8.00	65.00
332 to 333	8.00	65.00
416 to 417	8.00	168.00
418 to 419	8.00	168.00
425 to 426	8.00	75.00
427 to 428	8.00	75.00
432 to 433	8.00	80.00
434 to 434A	8.00	80.00
440 to 441	8.00	95.00
442 to 443	8.00	68.00

Offset Point	Baseline Station	Offset (ft)	Offset Point Northing	Offset Point Easting
326	84+75.86	60.00	301606.881	1012290.564
327	86+10.94	60.00	301500.782	1012368.048
328	86+15.06	60.00	301497.479	1012370.303
329	86+63.97	60.00	301457.865	1012396.660
330	87+02.31	71.30	301420.428	1012407.115
331	87+08.89	76.14	301412.468	1012406.373
332	87+14.85	81.70	301404.658	1012404.660
333	87+20.08	87.92	301397.118	1012402.002
333A	87+22.39	91.24	301393.485	1012400.330
334	87+16.60	49.11	301420.315	1012433.297
335	87+17.73	45.58	301421.218	1012436.880
336	87+41.86	43.37	301401.984	1012451.197
337	87+43.12	47.05	301399.002	1012448.697
338	87+27.78	56.64	301407.075	1012432.578
339	87+25.34	56.44	301409.209	1012431.504
340	87+34.67	64.77	301397.027	1012429.165
341	87+34.97	61.62	301398.407	1012432.019
342	87+40.84	57.93	301395.303	1012438.217
343	87+43.90	59.65	301391.795	1012438.341
343A	87+43.83	66.51	301388.296	1012432.438
343B	87+38.75	68.64	301391.529	1012427.980
344	87+44.05	45.38	301399.069	1012450.613
402	300+75.80	-4.99	301748.931	1012304.964
403	301+07.68	-4.33	301732.620	1012329.018
404	301+16.29	-4.18	301730.598	1012336.751
405	301+24.88	-4.05	301729.718	1012344.696
406	301+29.11	-4.00	301729.713	1012348.695
407	301+37.38	-4.00	301730.270	1012356.674
408	301+96.92	-4.00	301749.922	1012410.143
409	303+11.67	-4.00	301814.743	1012504.834
410	303+36.67	-2.56	301829.060	1012524.674
411	303+36.67	21.53	301811.711	1012541.395
412	303+11.67	20.03	301794.917	1012518.405
413	301+94.83	18.00	301730.424	1012420.570
414	301+70.96	18.00	301717.690	1012396.312
415	301+40.90	18.77	301708.105	1012363.085
416	301+34.00	19.17	301706.878	1012355.181
417	301+27.18	19.64	301706.029	1012347.227
418	301+21.20	20.37	301705.560	1012339.241
419	301+15.33	21.52	301705.471	1012331.242
420	84+25.34	-30.00	301702.207	1012329.667
423	84+79.79	-30.00	301659.018	1012364.028
424	84+83.74	-30.00	301655.855	1012366.477
425	401+67.74	27.05	301656.943	1012370.055
426	401+61.75	27.60	301664.881	1012371.019
427	401+55.78	27.88	301672.671	1012372.824
428	401+49.81	27.89	301680.225	1012375.447
429	401+43.84	27.63	301687.456	1012378.859
430	401+00.00	-2.00	301706.710	1012433.218
431	401+40.15	-2.00	301677.927	1012407.228
431A	401+48.35	-2.00	301670.690	1012403.824
432	401+52.45	-2.00	301666.954	1012402.398
433	401+60.65	-2.00	301659.290	1012400.114
434	401+68.86	-2.00	301651.437	1012398.607
434A	401+77.18	-2.00	301643.458	1012398.156
435	402+02.40	-2.00	301620.287	1012404.468
436	86+11.07	-30.36	301551.703	1012442.696
437	86+15.00	-30.00	301548.210	1012444.643
438	86+48.83	-30.00	301519.729	1012463.735
439	87+06.91	-51.68	301481.601	1012513.897
440	87+09.84	-54.33	301480.454	1012517.729
441	87+15.33	-60.01	301478.648	1012525.520
442	87+20.20	-66.24	301477.644	1012533.452
443	87+24.30	-73.02	301477.577	1012541.447
515	86+63.97	125.00	301422.463	1012342.147
516	87+17.91	47.58	301420.024	1012435.276
517	87+26.69	54.94	301408.863	1012433.474
518	87+36.03	63.31	301396.619	1012431.123
518A	87+40.83	66.47	301390.876	1012430.909
519	87+41.90	59.62	301393.515	1012437.321
520	87+42.05	45.36	301400.790	1012449.593
521	301+29.11	-59.00	301784.679	1012346.761
522	300+03.04	-108.77	301873.457	1012333.379
523	300+29.97	-98.48	301845.642	1012344.617
524	84+25.34	-32.00	301703.471	1012331.217
525	84+83.74	-32.00	301657.078	1012368.060
526	402+20.63	-75.82	301640.302	1012477.828
527	401+52.59	-47.08	301651.879	1012444.884
528	86+48.83	-125.00	301572.017	1012543.050
529	86+67.31	-106.28	301545.491	1012538.014

CURVE DATA #3
PI = 84+20.21
D = 2°36'15.7"
Δ = 16°15'57.0" Rt.
R = 2200.00'
L = 624.56'
T = 314.40'
E = 22.35'

CURVE DATA #12
PI = 301+02.85
D = 95°29'34.7"
Δ = 50°40'38.7" Lt.
R = 60.00'
L = 53.07'
T = 28.41'
E = 6.39'

CURVE DATA #16
PI = 401+86.04
D =110°11'03.1"
Δ = 37°25'46.3" Lt.
R = 52.00'
L = 33.97'
T = 17.62'
E = 2.90'

CURVE DATA #14
PI = 303+96.54
D = 38°11'49.9"
Δ = 59°00'05.9" Lt.
R = 150.00'
L = 154.47'
T = 84.87'
E = 22.34'

CURVE DATA #15
PI = 401+36.35
D = 69°52'22.4"
Δ= 47°48'47.2" Lt.
R = 82.00'
L = 68.43'
T = 36.35'
E = 7.70'

CURVE DATA #13
PI = 301+63.21
D = 47°44'47.3"
Δ = 33°08'40.2" Lt.
R = 120.00'
L = 69.42'
T = 35.71'
E = 5.20'

ITEM 609.2381 TERMINAL CURB TYPE 1 - 8 FOOT CIRCULAR

POINT	LENGTH (FT)	RADIUS (FT)
403 to 404	8.00	55.00

ITEM 609.26 CURB TRANSITION SECTION B, TYPE 1

POINT	LENGTH (FT)	RADIUS (FT)
406 to 407	8.00	116.00
415 to 416	8.00	168.00
428 to 429	8.00	75.00
431 to 431A	8.00	80.00

ITEM 609.34 CURB TYPE 5

POINT	LENGTH (FT)	RADIUS (FT)
334 to 339	11.25	400.00
335 to 336	23.98	-
337 to 338	18.03	-
340 to 343B	5.62	400.00
341 to 342	6.93	-
343 to 343A	6.86	-
407 to 408	57.56	116.00
408 to 409	114.75	-
409 to 410	24.50	145.98
411 to 412	28.50	171.02
412 to 413	117.18	-
413 to 414	27.44	138.00
414 to 415	34.64	168.00
430 to 431	39.17	80.00

ITEM 609.35 CURB TYPE 5 - CIRCULAR

POINT	LENGTH (FT)	RADIUS (FT)
334 to 335	4.71	2.00
336 to 337	5.35	2.00
338 to 339	2.56	2.00
340 to 341	3.66	2.00
342 to 343	4.28	2.00
343A to 343B	6.98	3.00

ITEM 609.38 RESET CURB TYPE 1

POINT	LENGTH (FT)	RADIUS (FT)
326 to 327	131.40	2140.00
328 to 329	47.58	2140.00
329 to 330	39.47	65.00
420 to 423	55.19	2230.00
435 to 436	78.52	-
437 to 438	34.29	2230.00
438 to 439	64.22	95.00

PLAN

25 0 25 50
Scale of Feet

Gorrill-Palmer Consulting Engineers, Inc.
Engineering Excellence Since 1998
PO Box 1237
15 Shaker Road
Gray, ME 04039
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	L.MEEK	11-12-14
CHECKED-REVIEWED	L.NEWHOUSE	11-12-14
DESIGN2-DETAILED2	D.ETTINGER	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PORTLAND FOREST AVE & I-295 RAMPS

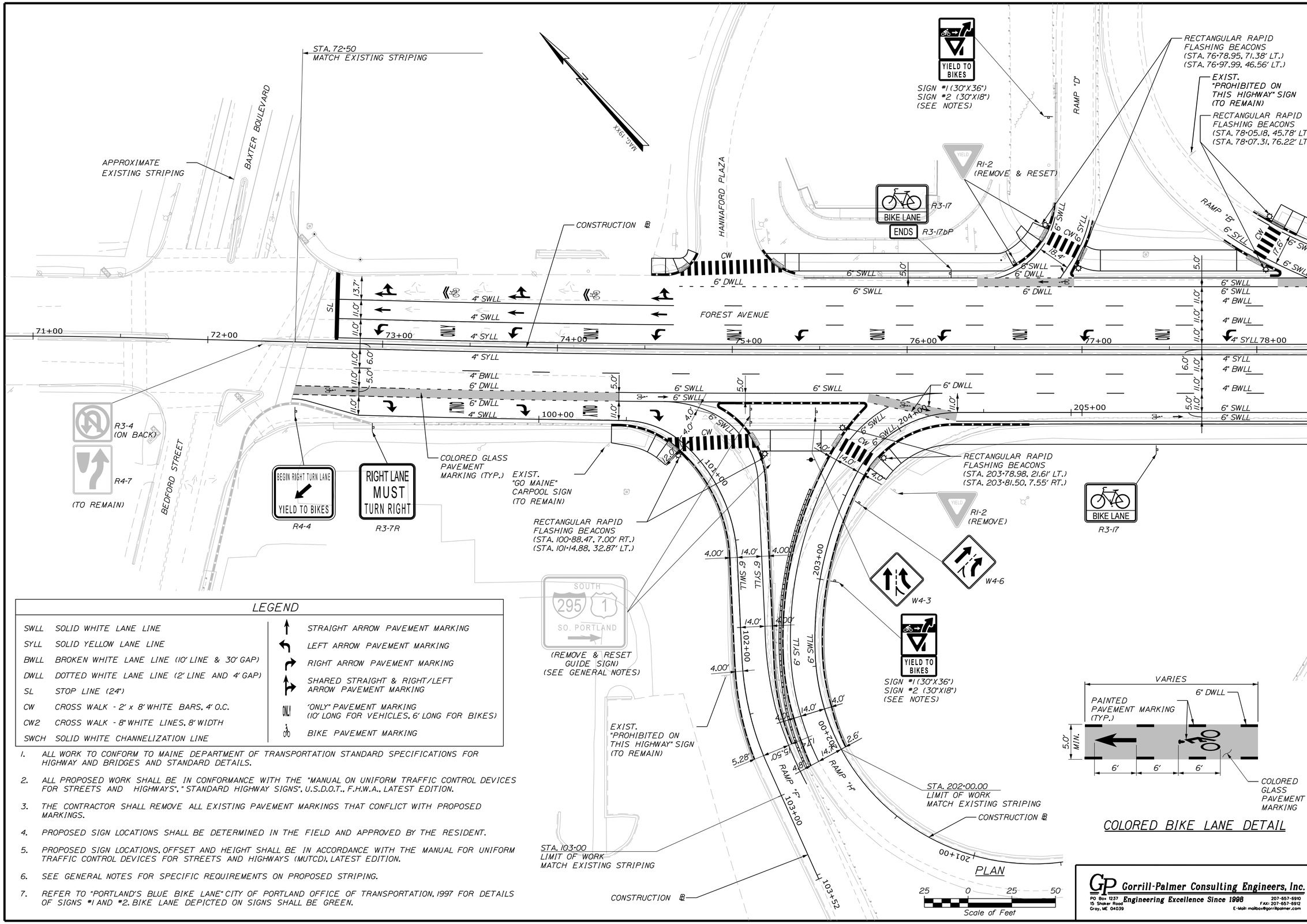
GEOMETRIC AND CURB LAYOUT PLAN

SHEET NUMBER

16

OF 38

Filename: ...\Highway\016_CurbPlan_003.dgn Division: HIGHWAY Username: ochaplin Date:11/12/2014



LEGEND

SWLL	SOLID WHITE LANE LINE		STRAIGHT ARROW PAVEMENT MARKING
SYLL	SOLID YELLOW LANE LINE		LEFT ARROW PAVEMENT MARKING
BWLL	BROKEN WHITE LANE LINE (10' LINE & 30' GAP)		RIGHT ARROW PAVEMENT MARKING
DWLL	DOTTED WHITE LANE LINE (2' LINE AND 4' GAP)		SHARED STRAIGHT & RIGHT/LEFT ARROW PAVEMENT MARKING
SL	STOP LINE (24")		"ONLY" PAVEMENT MARKING (10' LONG FOR VEHICLES, 6' LONG FOR BIKES)
CW	CROSS WALK - 2' x 8' WHITE BARS, 4' O.C.		BIKE PAVEMENT MARKING
CW2	CROSS WALK - 8" WHITE LINES, 8' WIDTH		
SWCH	SOLID WHITE CHANNELIZATION LINE		

1. ALL WORK TO CONFORM TO MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES AND STANDARD DETAILS.
2. ALL PROPOSED WORK SHALL BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", "STANDARD HIGHWAY SIGNS", U.S.D.O.T., F.H.W.A., LATEST EDITION.
3. THE CONTRACTOR SHALL REMOVE ALL EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED MARKINGS.
4. PROPOSED SIGN LOCATIONS SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE RESIDENT.
5. PROPOSED SIGN LOCATIONS, OFFSET AND HEIGHT SHALL BE IN ACCORDANCE WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD), LATEST EDITION.
6. SEE GENERAL NOTES FOR SPECIFIC REQUIREMENTS ON PROPOSED STRIPING.
7. REFER TO "PORTLAND'S BLUE BIKE LANE" CITY OF PORTLAND OFFICE OF TRANSPORTATION, 1997 FOR DETAILS OF SIGNS #1 AND #2. BIKE LANE DEPICTED ON SIGNS SHALL BE GREEN.

COLORED BIKE LANE DETAIL

Gorrill-Palmer Consulting Engineers, Inc.
PO Box 1237
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER $PROJMANAGER$	BY	DATE
DESIGN-DETAILED	L.MEEK	11-12-14
CHECKED-REVIEWED	L.NEWHOUSE	11-12-14
DESIGN2-DETAILED2	D.ETTINGER	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PORTLAND FOREST AVE & I-295 RAMPS

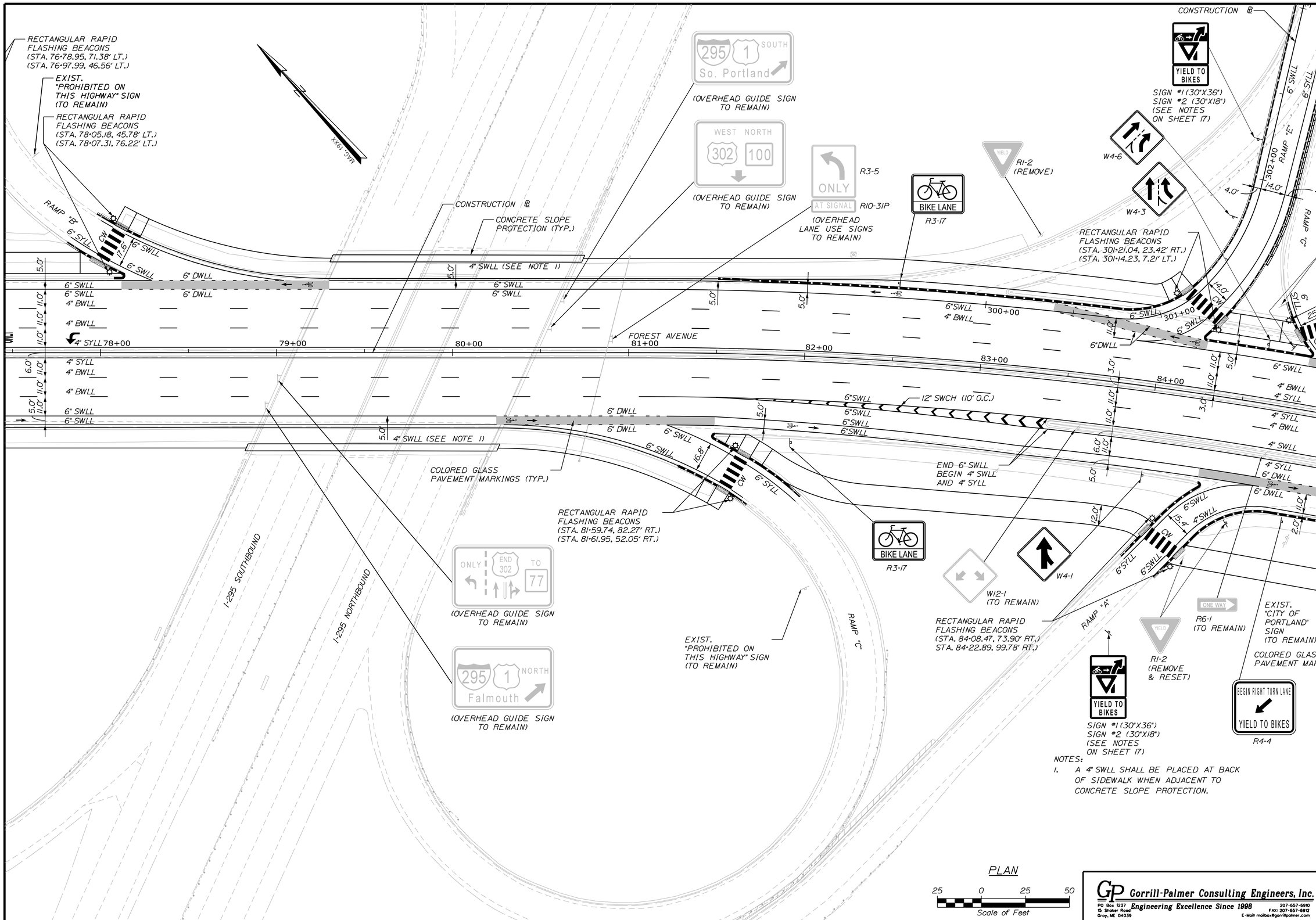
SIGNING & STRIPING PLAN

SHEET NUMBER

17

OF 38

Date:1/7/2015 Username: lmeek Division: HIGHWAY Filename: ...\00\Highway\017_SSPlan_001.dgn



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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

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REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

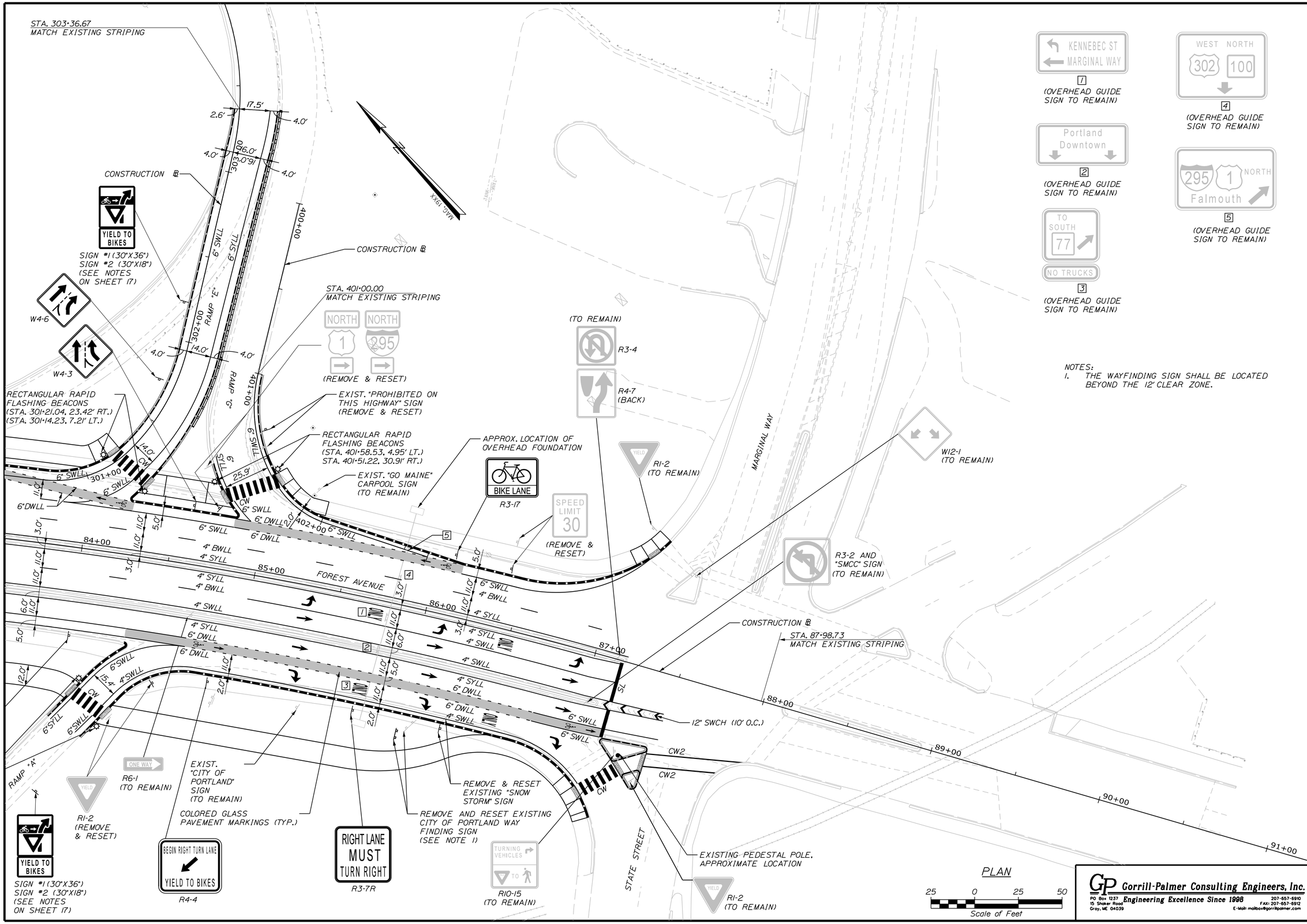
DATE

PORTLAND
FOREST AVE & I-295 RAMPS

SIGNING & STRIPING PLAN

SHEET NUMBER
18
OF 38

Filename: ...\00\Highway\018_SSPlan_002.dgn Division: HIGHWAY Username: lmeek Date:1/7/2015



NOTES:
1. THE WAYFINDING SIGN SHALL BE LOCATED BEYOND THE 12' CLEAR ZONE.

Filename: ...\00\Highway\019_SSPlan_003.dgn Division: HIGHWAY Username: lmeek Date:1/7/2015

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	L.MEEK	L.NEWHOUSE	11-12-14
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REVISIONS 4	
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DATE

PORTLAND FOREST AVE & I-295 RAMPS

SIGNING & STRIPING PLAN

SHEET NUMBER

19

OF 38

Gorrill-Palmer Consulting Engineers, Inc.
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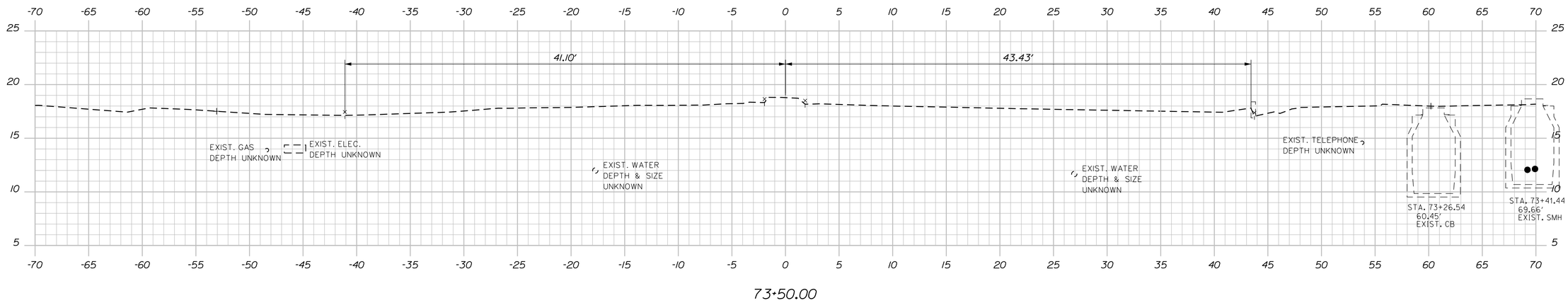
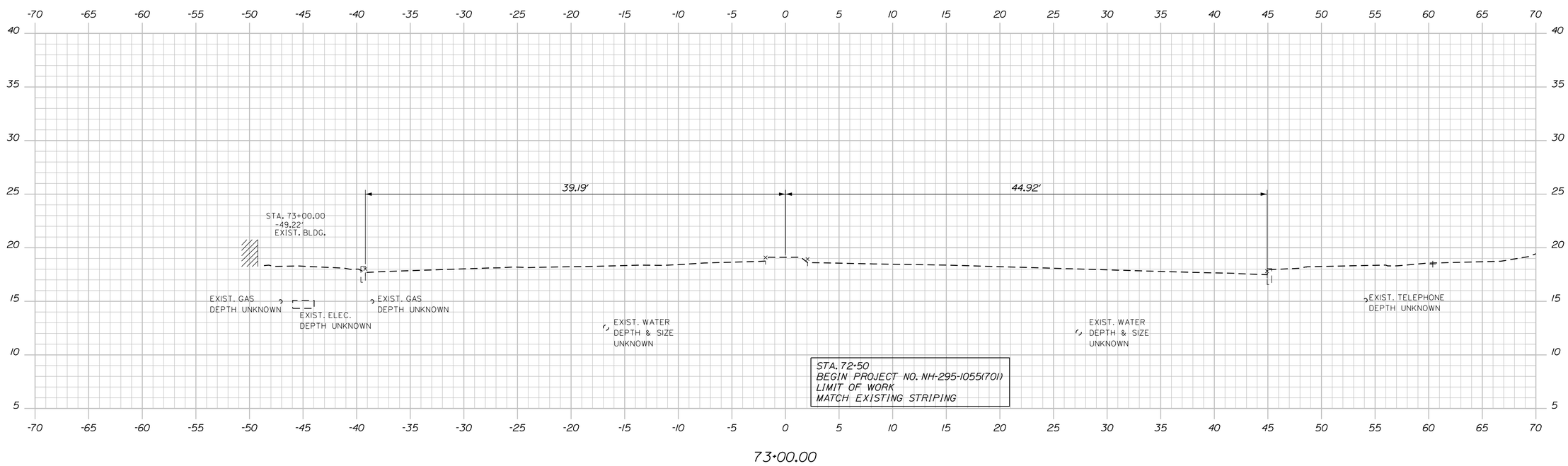




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

PROJ. MANAGER	E. MARTIN	BY	DATE
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

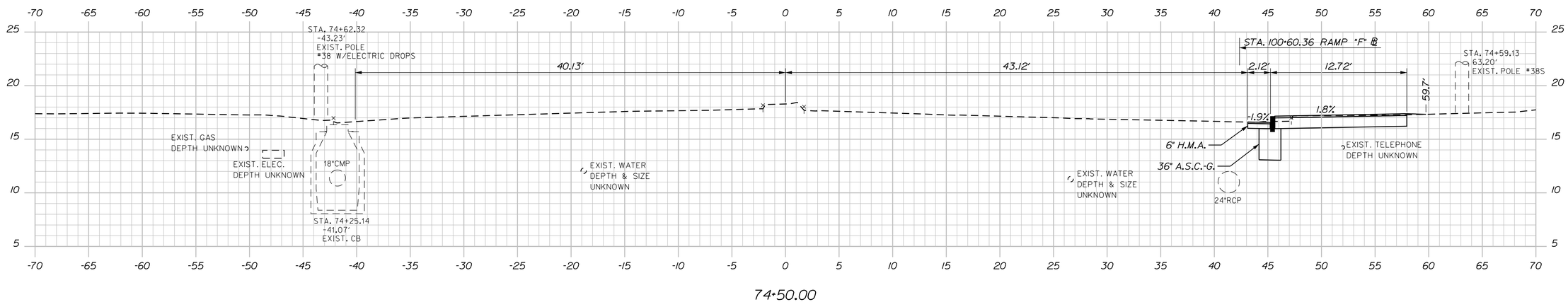
PORTLAND
FOREST AVE & I-295 RAMPS

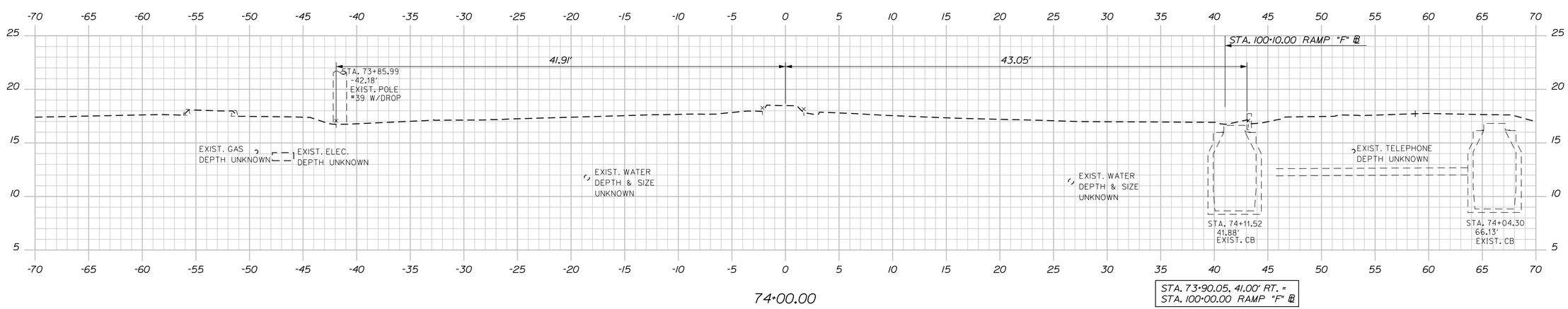
CROSS SECTIONS

SHEET NUMBER
20
OF 38

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014

Forest Avenue Sta. 73+00.00 to Sta. 73+50.00





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

	BY	DATE
PROJ. MANAGER	E. MARTIN	
DESIGN-DETAILED	E. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	L. DETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

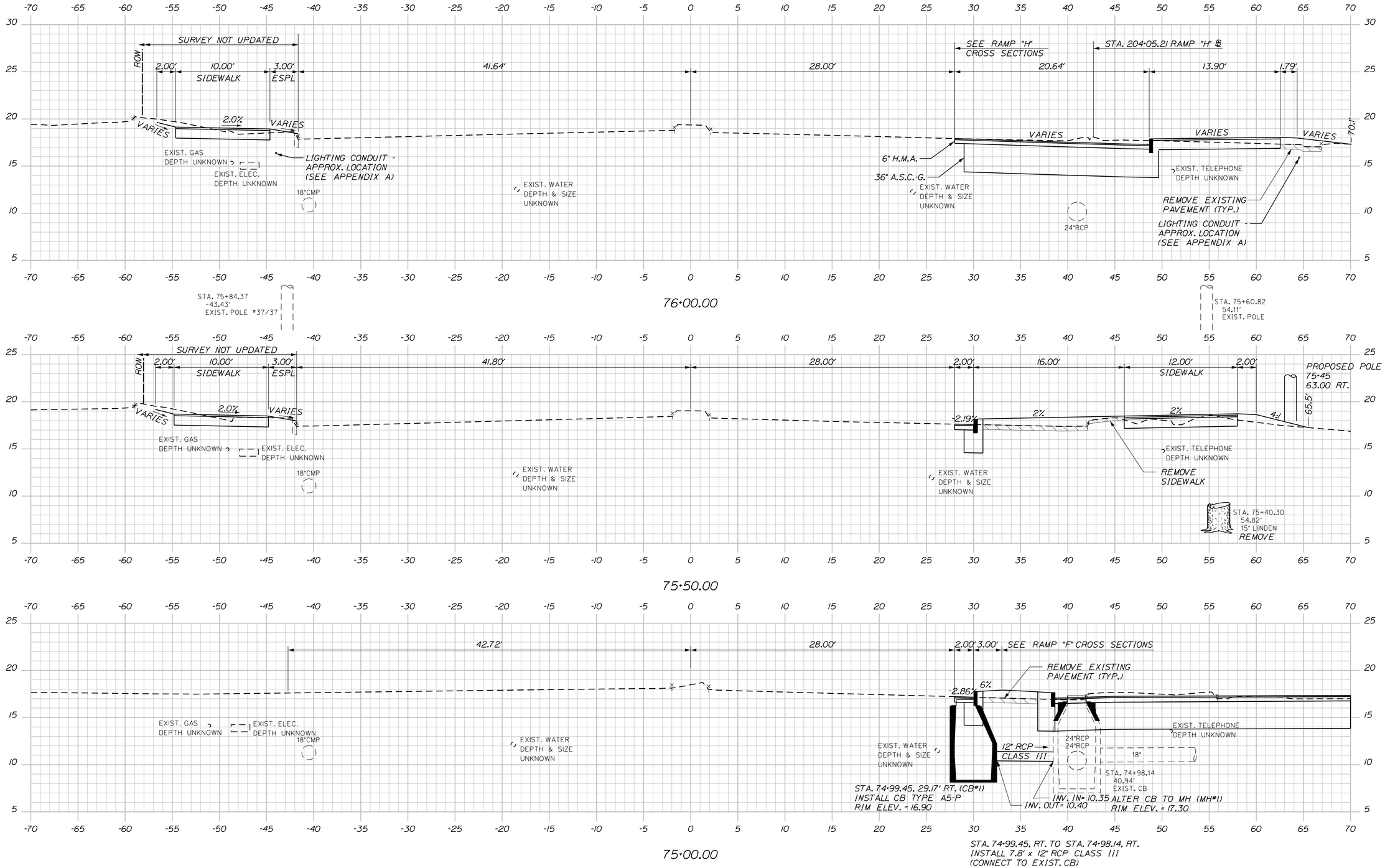
PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

SHEET NUMBER
21
OF 38

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014

Forest Avenue Sta. 74+00.00 to Sta. 74+50.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

	BY	DATE
PROJ. MANAGER	E. MARTIN	
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER	11-12-14
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

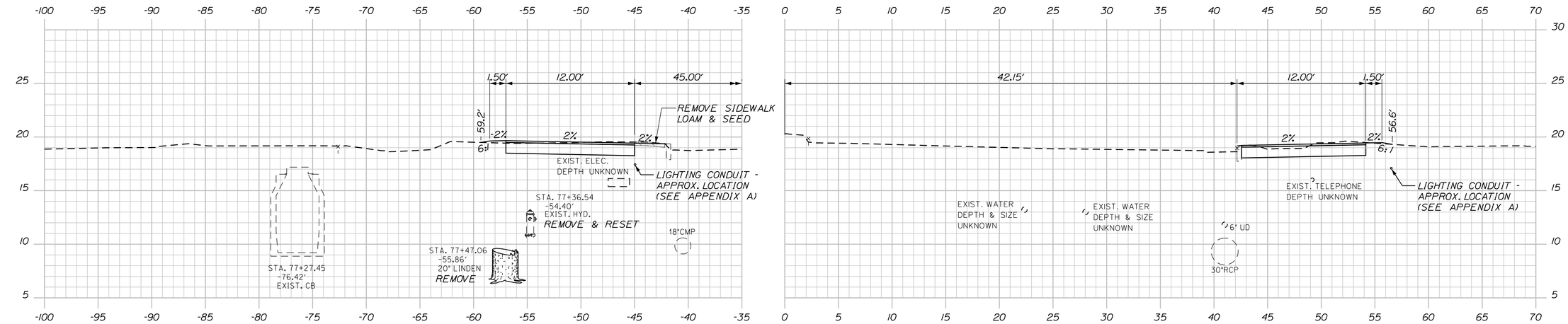
PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

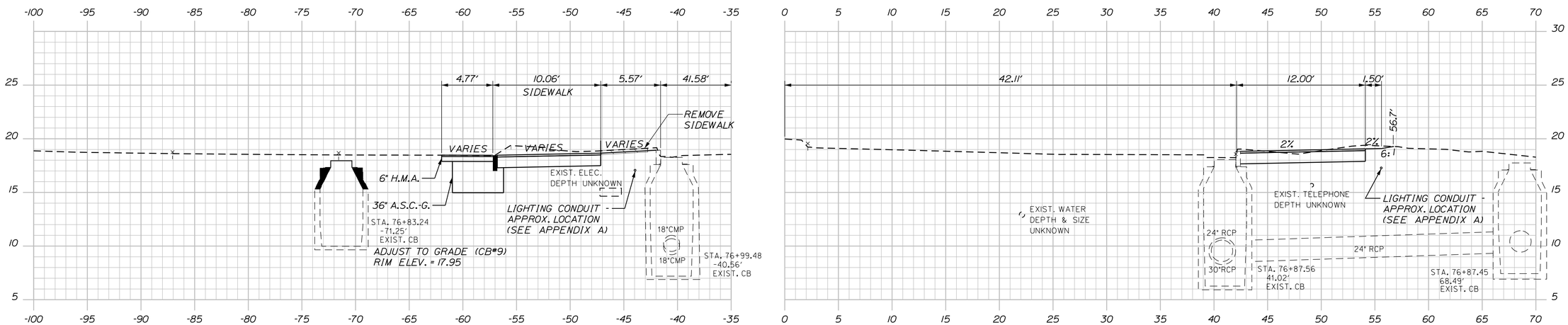
SHEET NUMBER
22
OF 38

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014

Forest Avenue Sta. 75+00.00 to Sta. 76+00.00

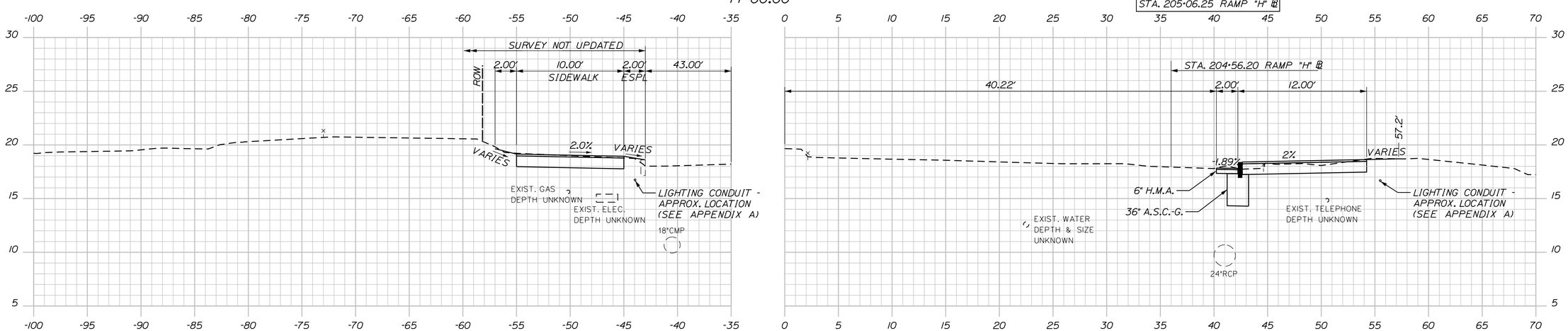


77+50.00



77+00.00

STA. 77+00.00, 36.00' RT. =
STA. 205+06.25 RAMP "H" ℄



76+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

	BY	DATE
PROJ. MANAGER	E. MARTIN	
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER	11-12-14
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

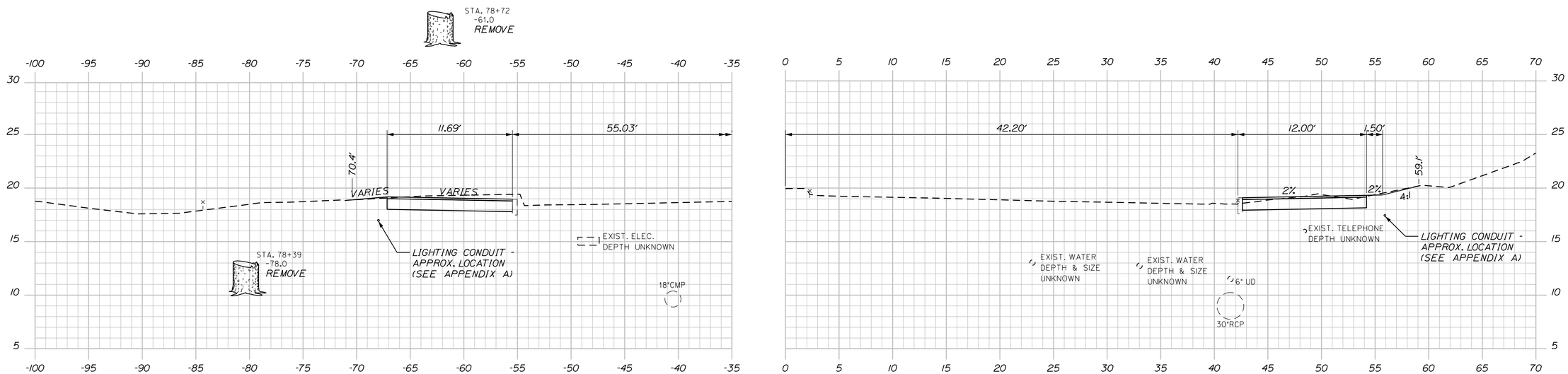
PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

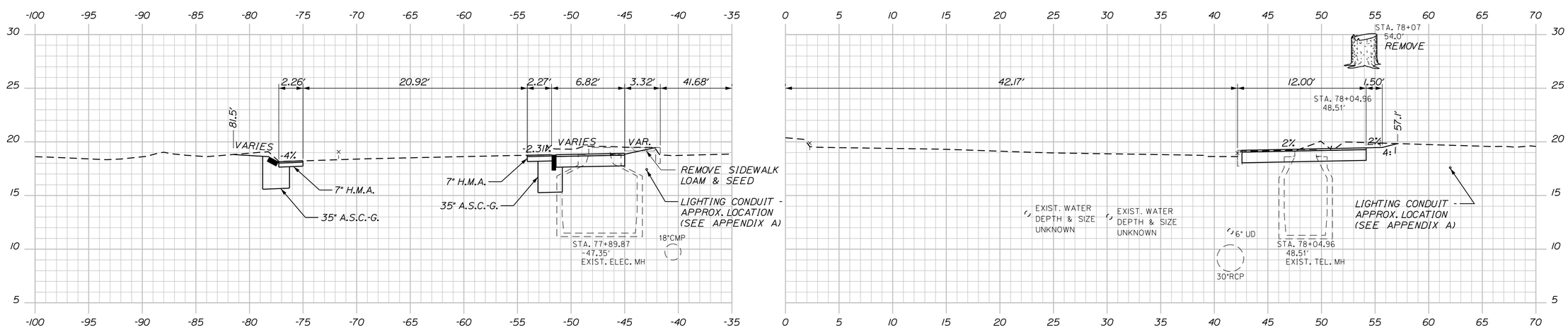
SHEET NUMBER
23
OF 38

Date:11/12/2014 Username: LMeek Division: HIGHWAY Filename: ...\00\Highway\Xsect_Forest.dgn

Forest Avenue Sta. 76+50.00 to Sta. 77+50.00



78+50.00



78+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

	BY	DATE
PROJ. MANAGER	E. MARTIN	
DESIGN-DETAILED	L. MEEK	11-12-14
CHECKED-REVIEWED	D.ETTINGER	11-12-14
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

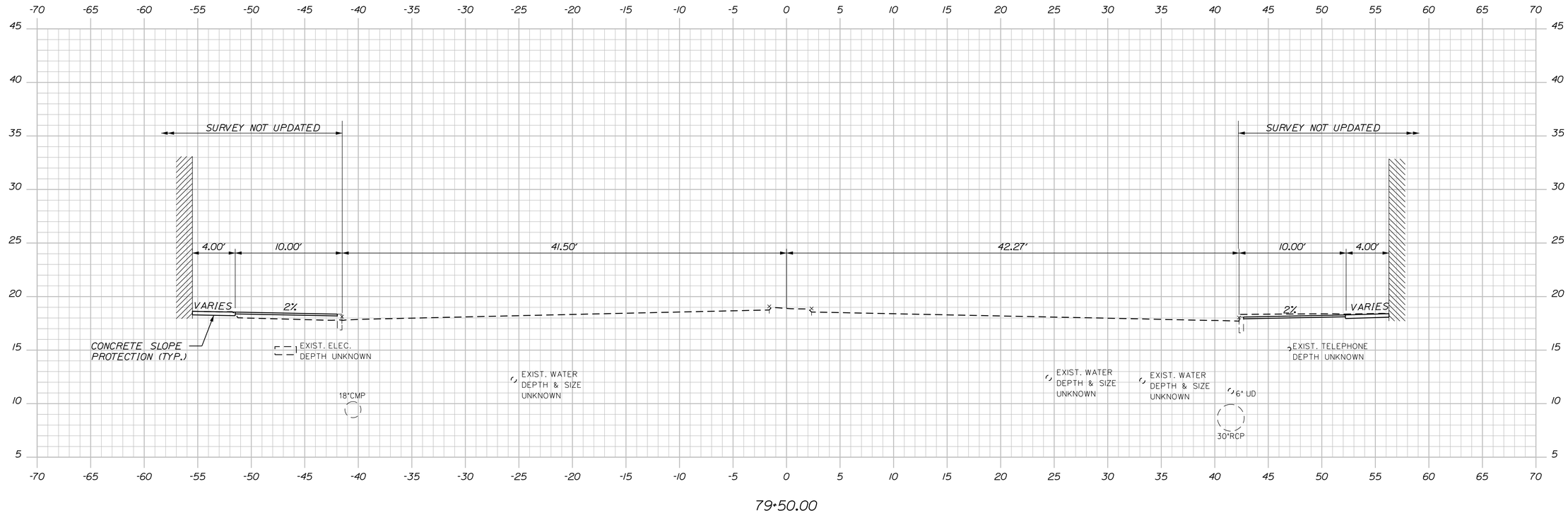
PORTLAND
FOREST AVE & I-295 RAMPS

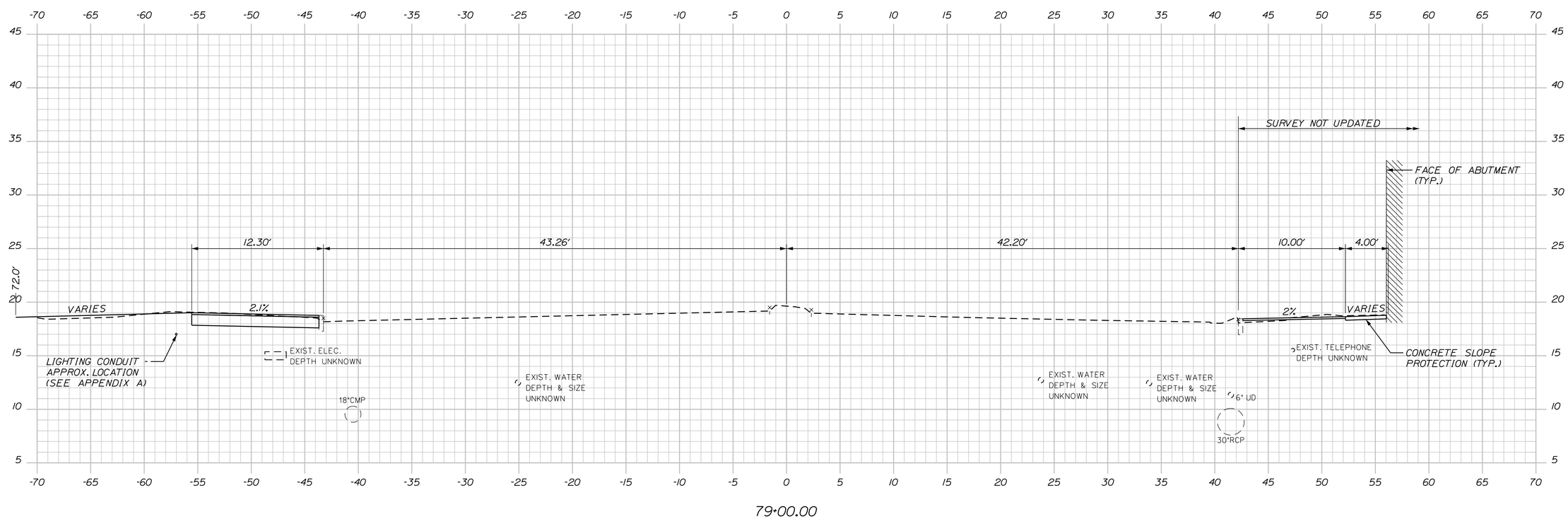
CROSS SECTIONS

SHEET NUMBER
24
OF 38

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014

Forest Avenue Sta. 78+00.00 to Sta. 78+50.00





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

SIGNATURE

P.E. NUMBER

DATE

		BY	DATE
PROJ. MANAGER	E. MARTIN		
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
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REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

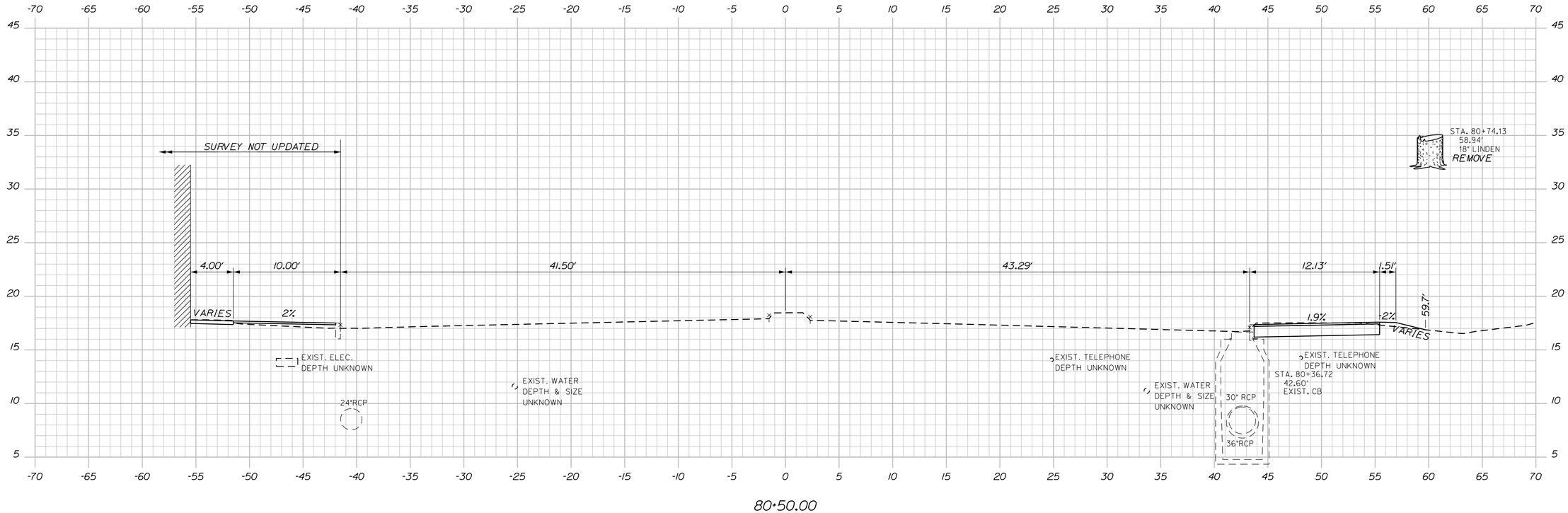
SHEET NUMBER

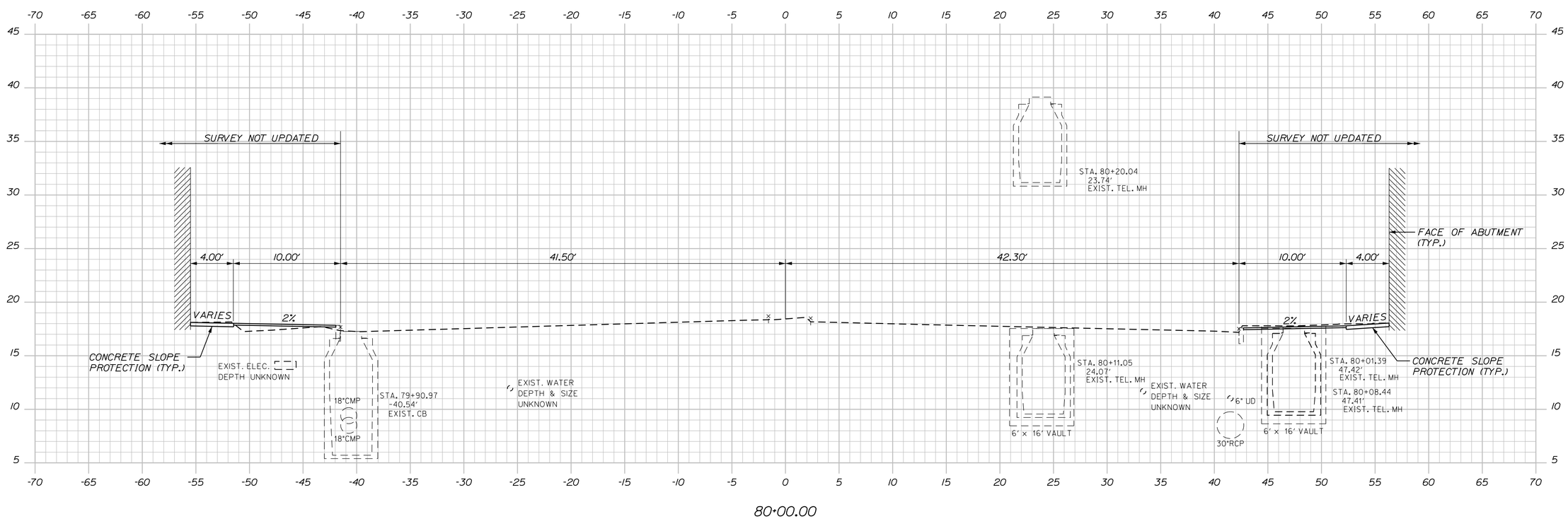
25

OF 38

Forest Avenue Sta. 79+00.00 to Sta. 79+50.00

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

		BY	DATE
PROJ. MANAGER	E. MARTIN		
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

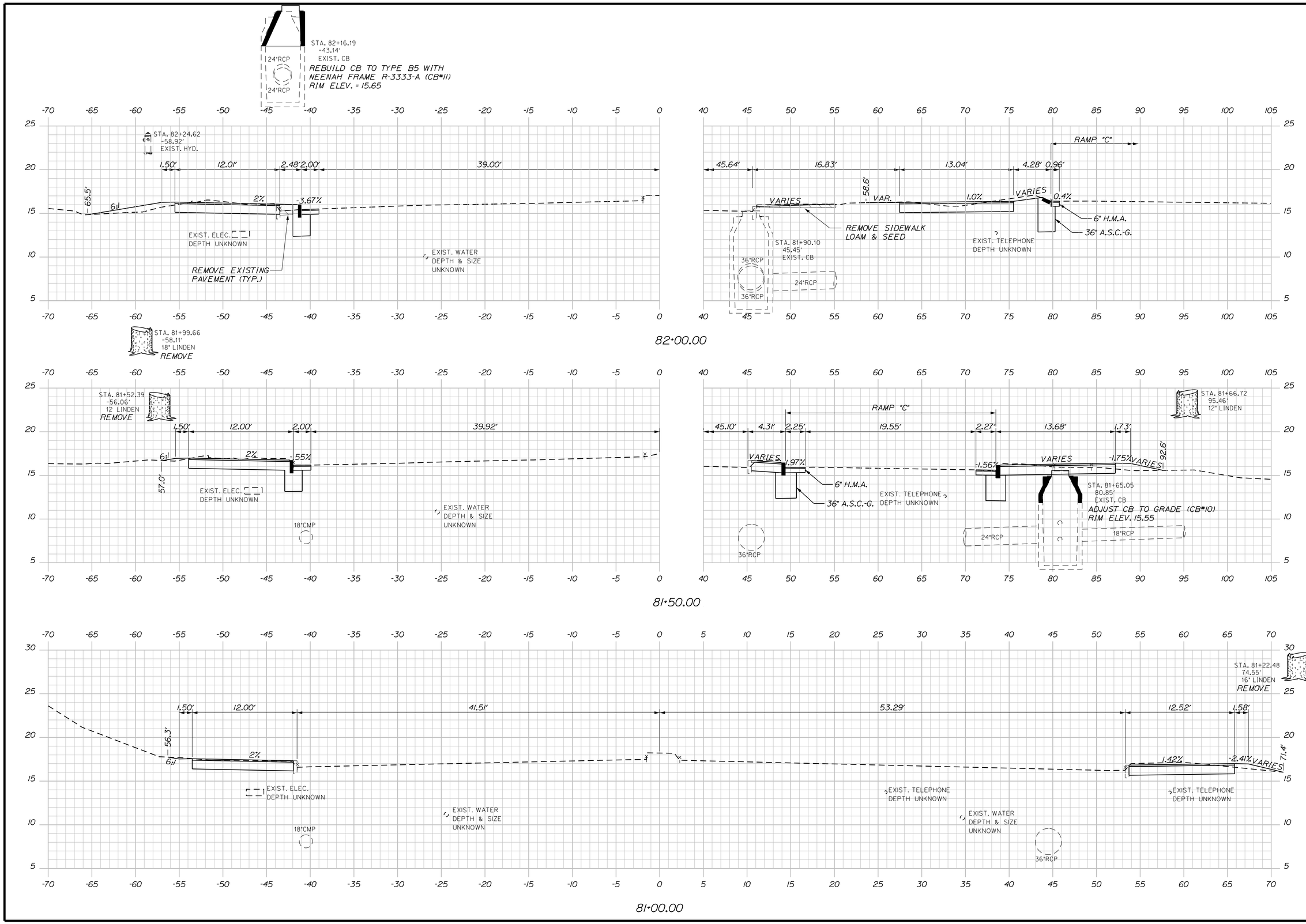
PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

SHEET NUMBER
26
OF 38

Forest Avenue Sta. 80+00.00 to Sta. 80+50.00

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

PROJ. MANAGER	E. MARTIN		
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

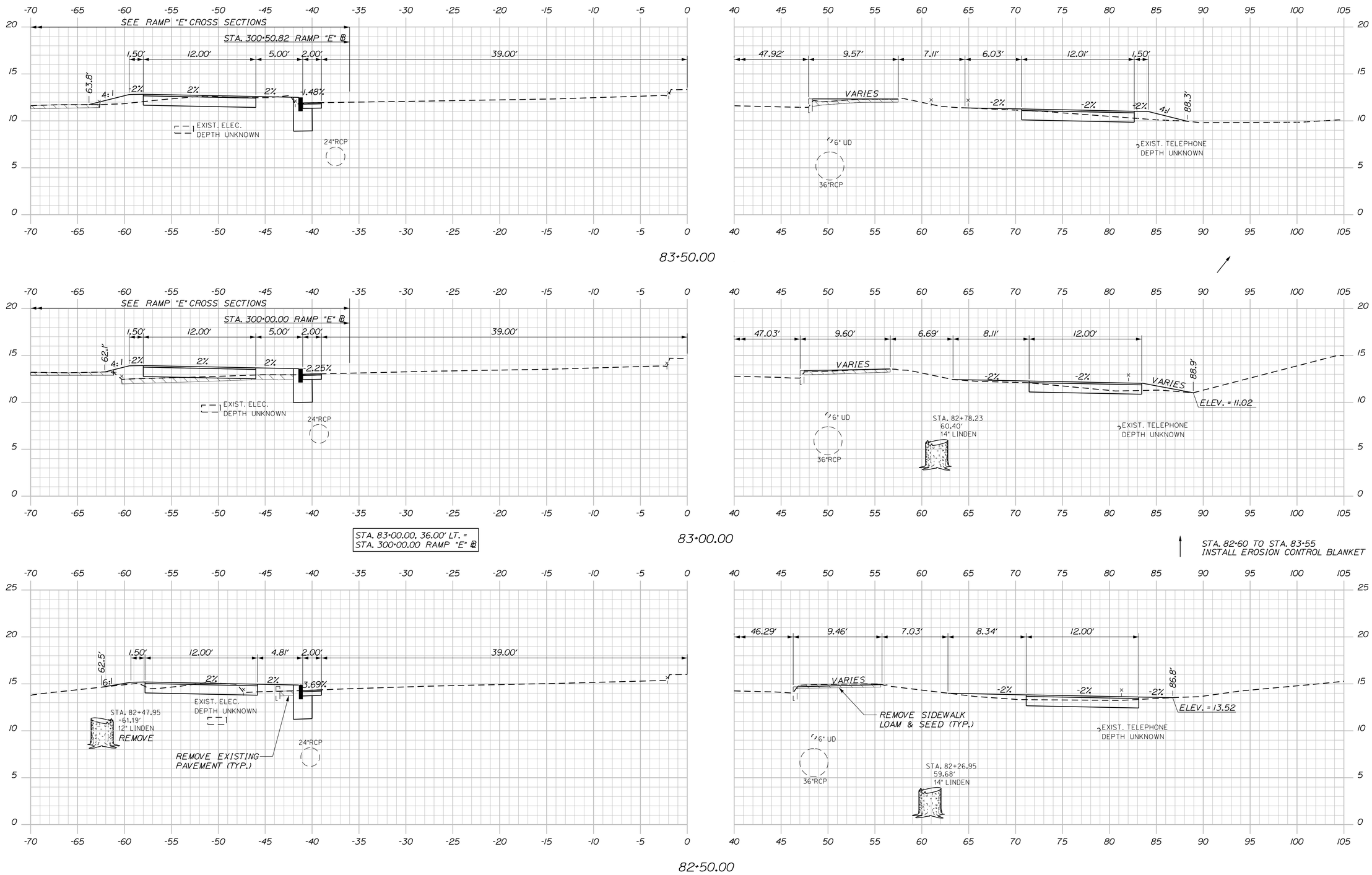
PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

SHEET NUMBER
27
OF 38

Forest Avenue Sta. 81+00.00 to Sta. 82+00.00

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

PROJ. MANAGER	E. MARTIN	BY	DATE
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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FIELD CHANGES			

SIGNATURE

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DATE

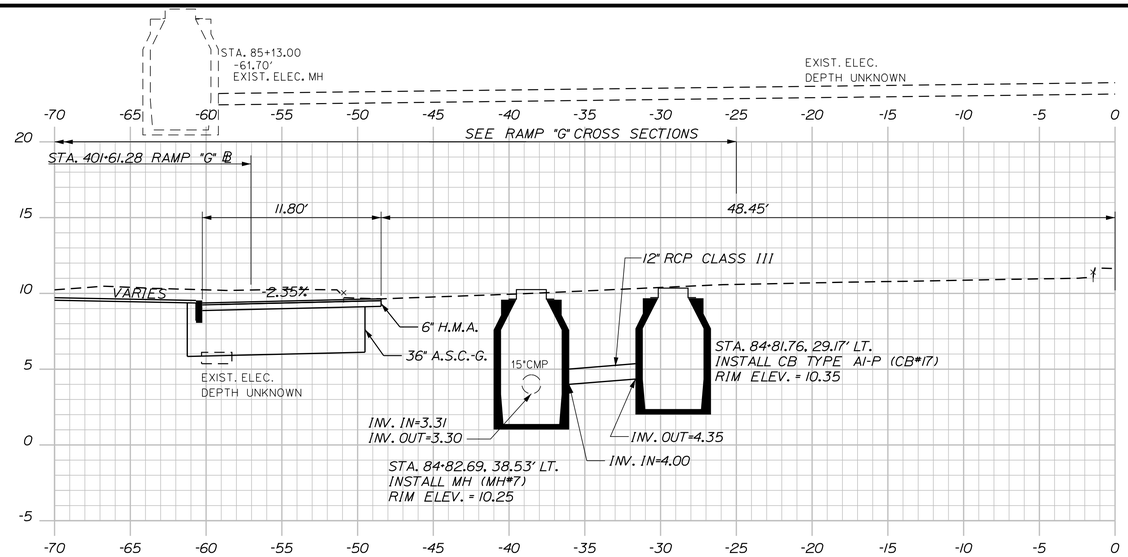
PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

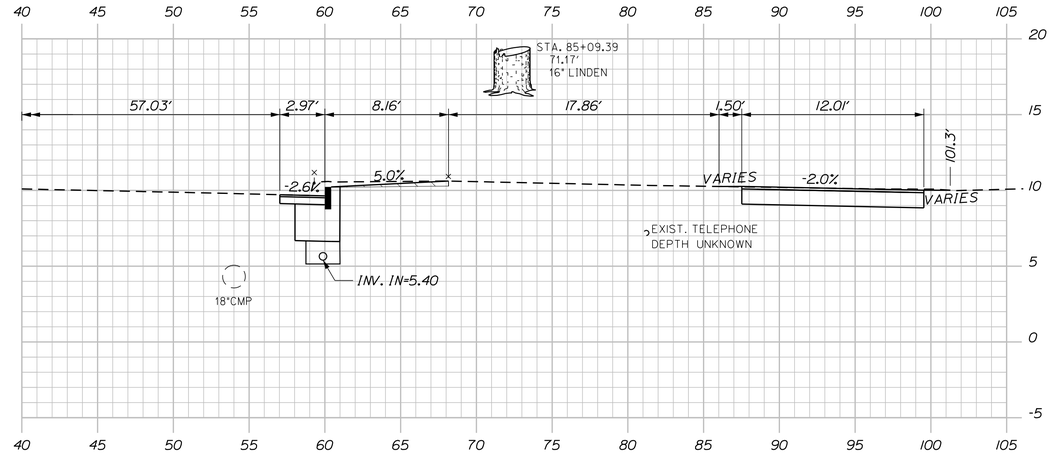
SHEET NUMBER
28
OF 38

Forest Avenue Sta. 82+50.00 to Sta. 83+50.00

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014

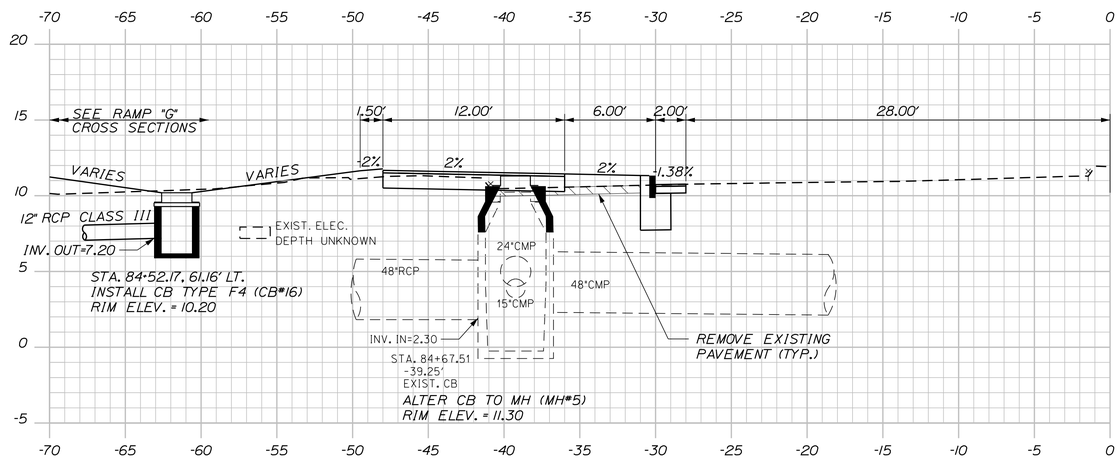


STA. 84+82.69, LT. TO STA. 84+81.76, LT.
INSTALL 5.4'x 12" RCP CLASS III

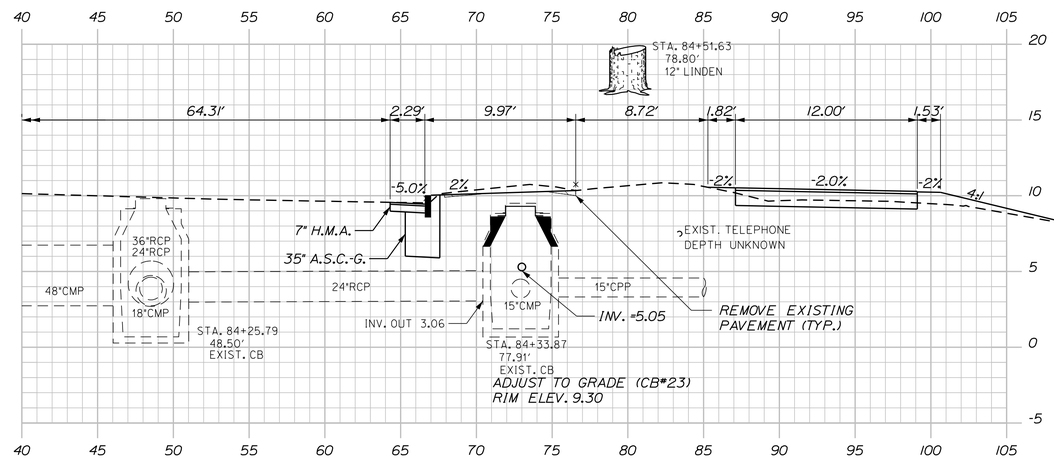


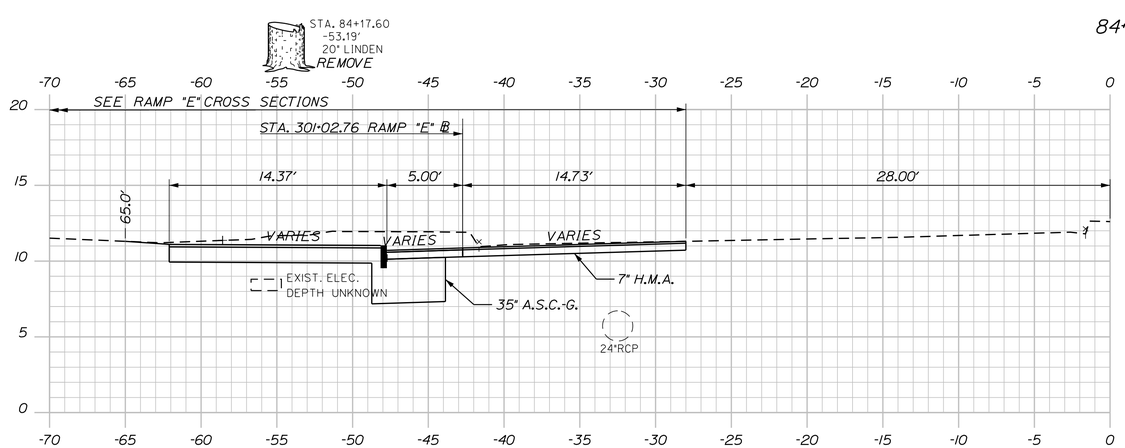
85+00.00

STA. 84+33.87, RT. TO STA. 86+10, RT.
INSTALL 175.8' x 6" UD TYPE "B"

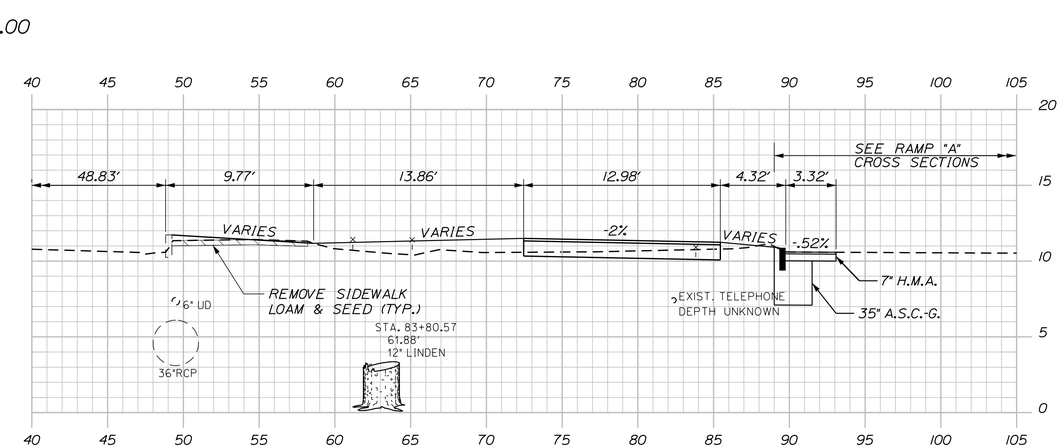


84+50.00





84+00.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

		BY	DATE
PROJ. MANAGER	E. MARTIN		
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

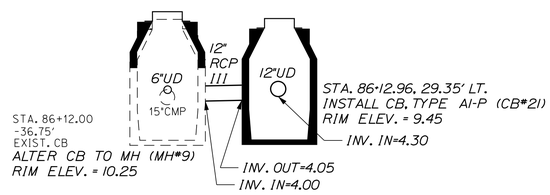
PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

SHEET NUMBER
29
OF 38

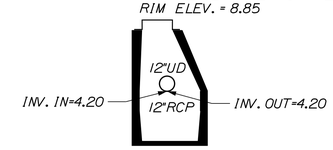
Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014

STA. 86+12.96, LT. TO STA. 87+08.92, LT.
INSTALL 99.3' x 12" UD TYPE "C"

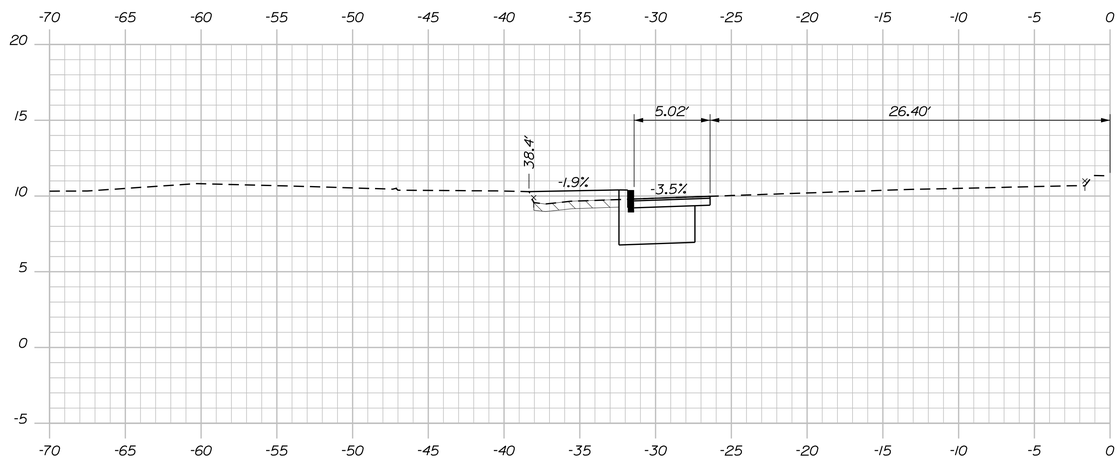


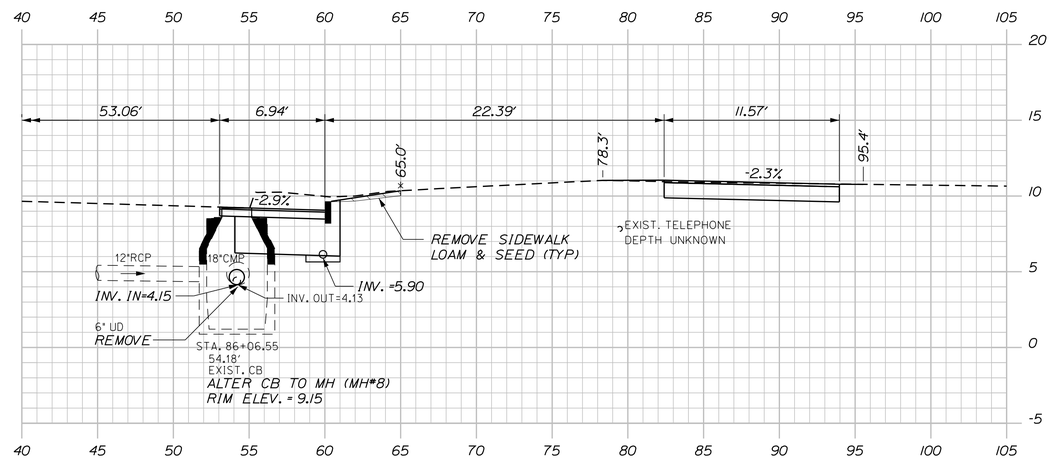
STA. 86+13.00, 59.17' RT.
INSTALL CB TYPE A5-P (2' CONE) (CB#24)
RIM ELEV. = 8.85

STA. 86+13.00, RT. TO STA. 87+21.98, RT.
INSTALL 112.8' x 12" UD TYPE "C"



STA. 86+06.55, RT. TO STA. 86+13.00, RT.
INSTALL 4.0' x 12" RCP CLASS III

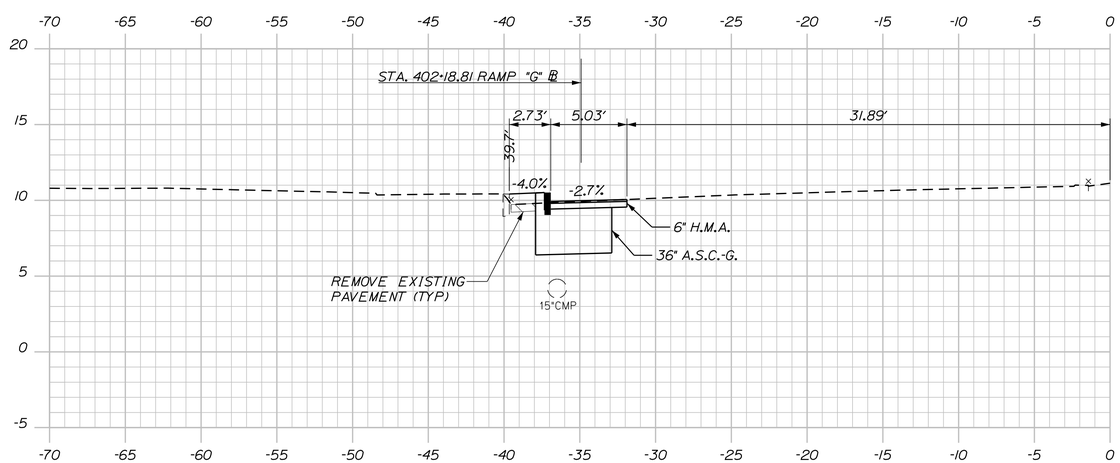


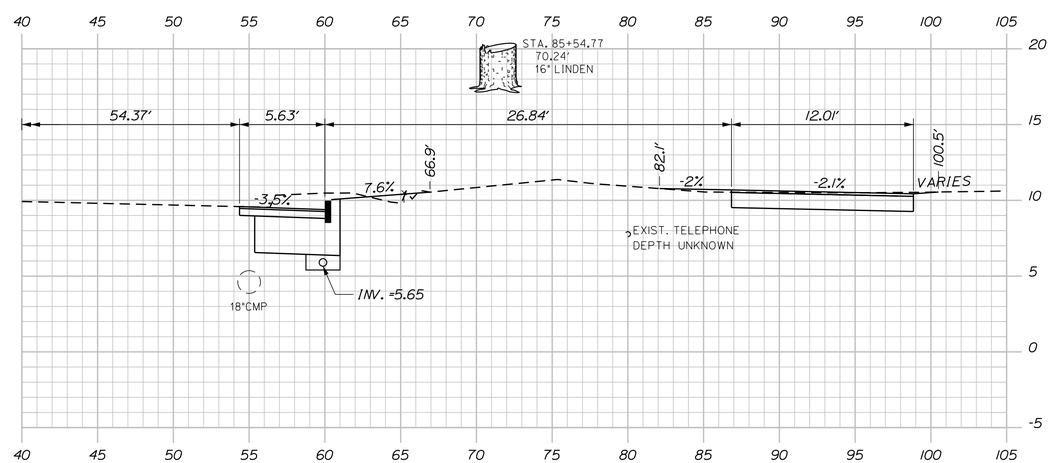


STA. 85+94.09, 30.00' LT. =
STA. 402+63.81 RAMP "G" ℄

STA. 86+12.00, LT. TO STA. 86+12.96, LT.
INSTALL 3.5' x 12" RCP CLASS III

86+00.00





85+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

		BY	DATE
PROJ. MANAGER	E. MARTIN		
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

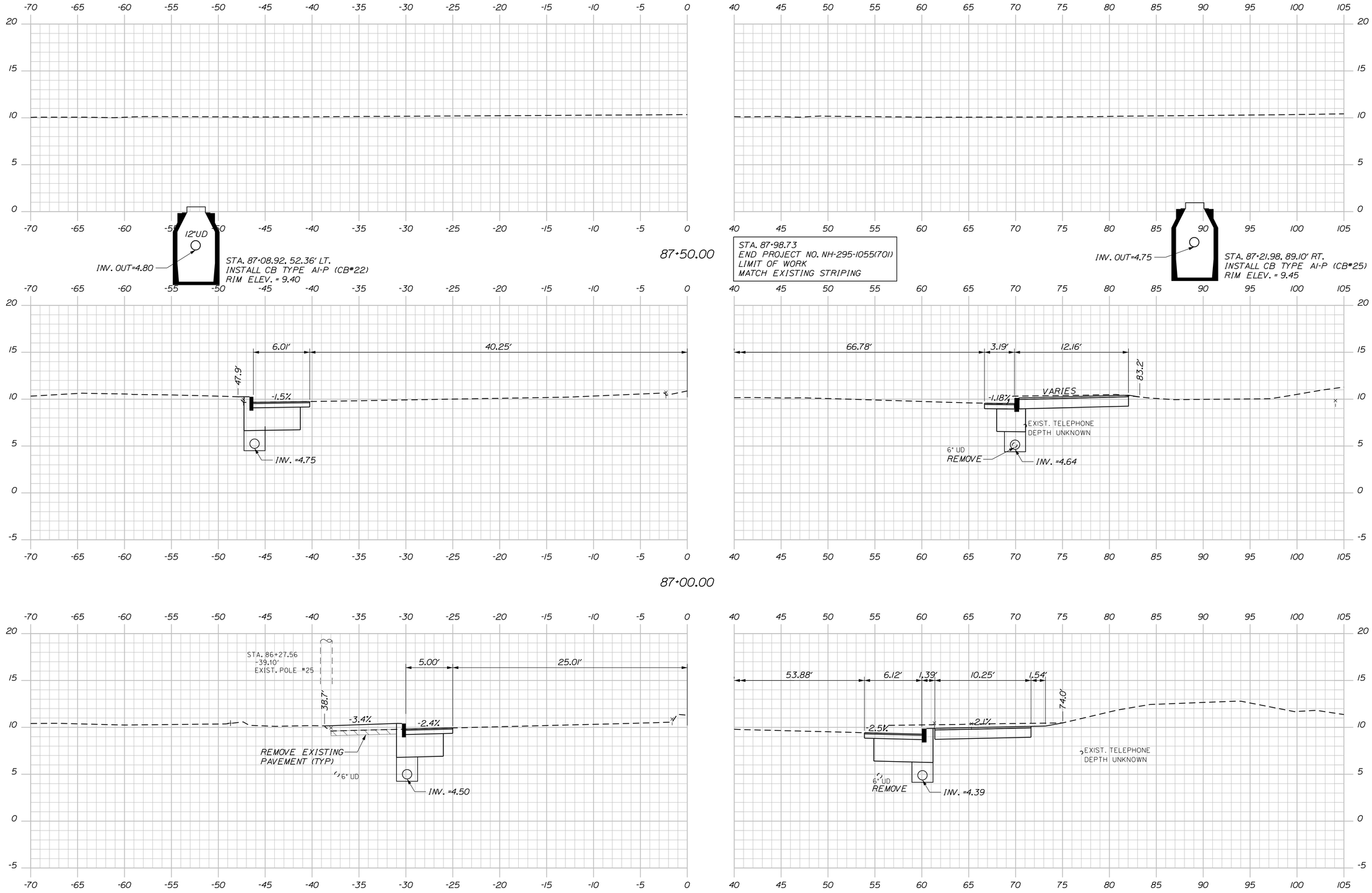
DATE

PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

SHEET NUMBER
30
OF 38

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN
10557.01

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	E. MARTIN	BY	DATE
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2	ED2		
DESIGN3-DETAILED3	ED3		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

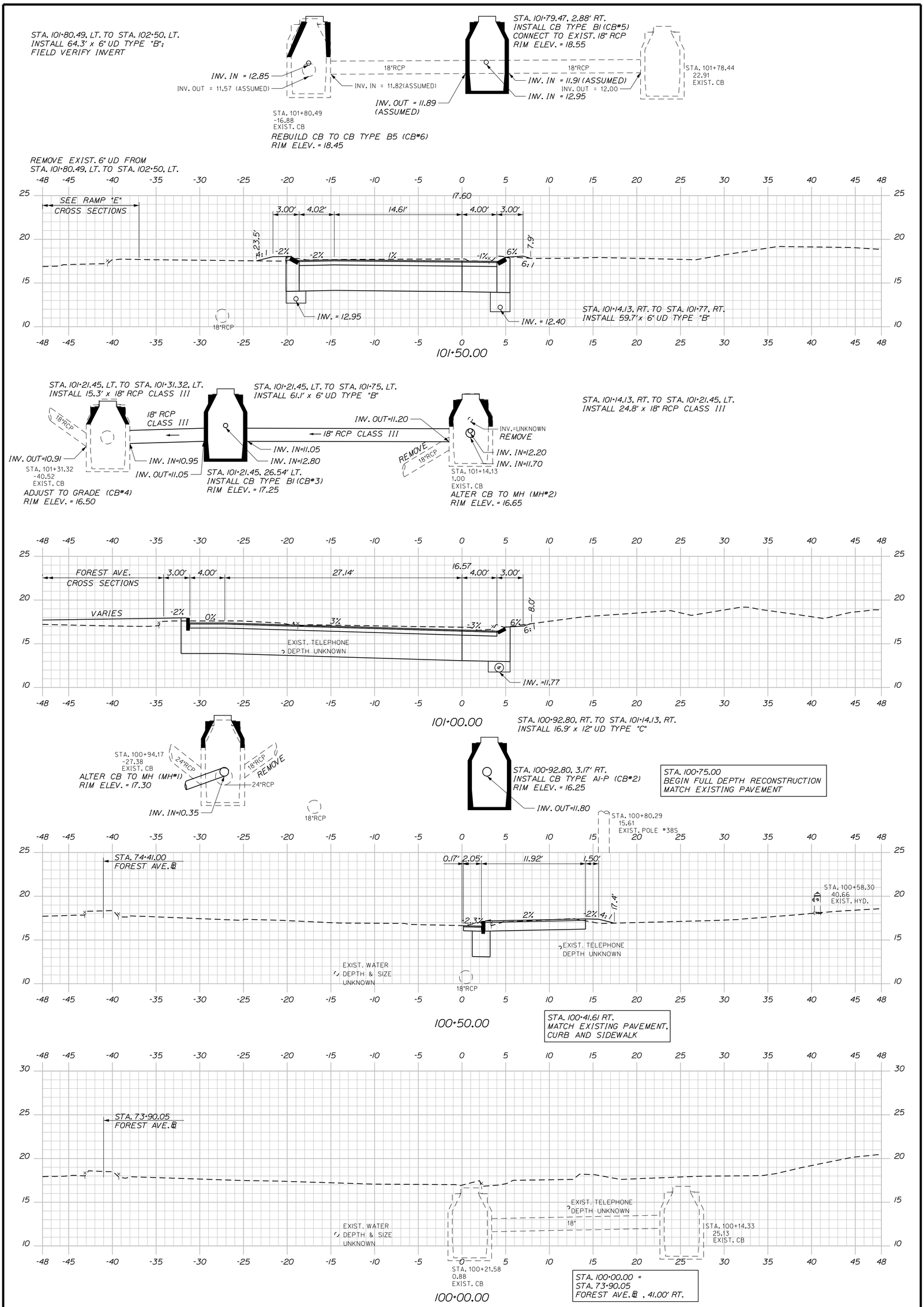
PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

SHEET NUMBER
31
OF 38

Forest Avenue Sta. 86+50.00 to Sta. 87+50.00

Filename: ...\00\Highway\Xsect_Forest.dgn Division: HIGHWAY Username: LMeek Date:11/12/2014



Ramp "F" Sta. 100+00.00 to Sta. 101+50.00

SHEET NUMBER 32 OF 38

PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

PROJ. MANAGER	E. MARTIN	BY	DATE
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

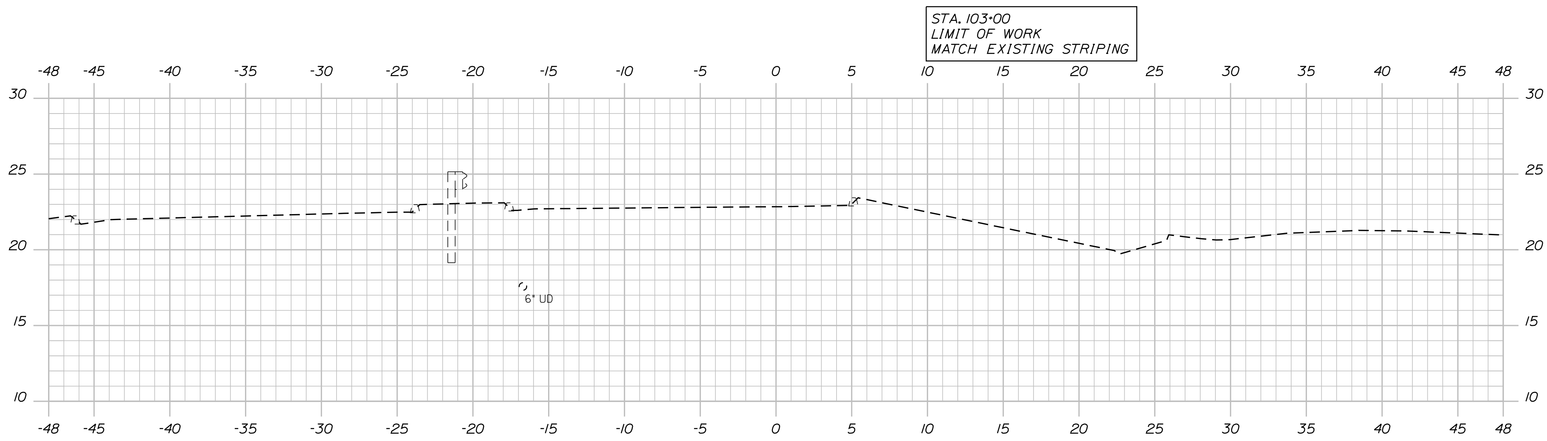
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

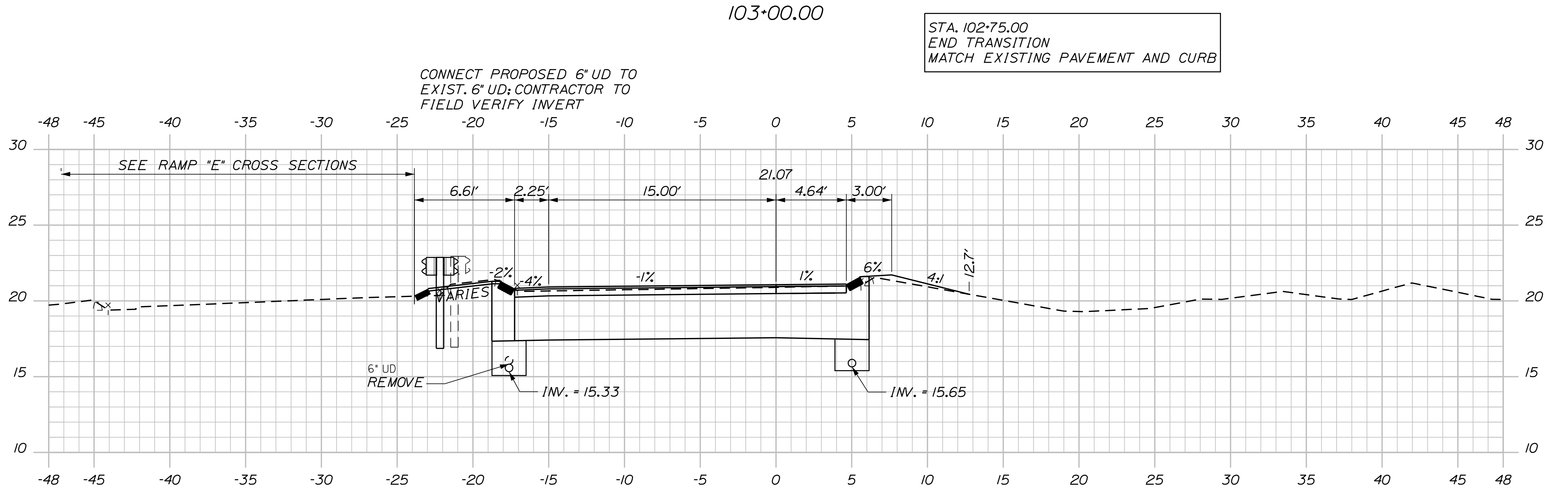
NH-295-1055(701)

WIN 10557.01

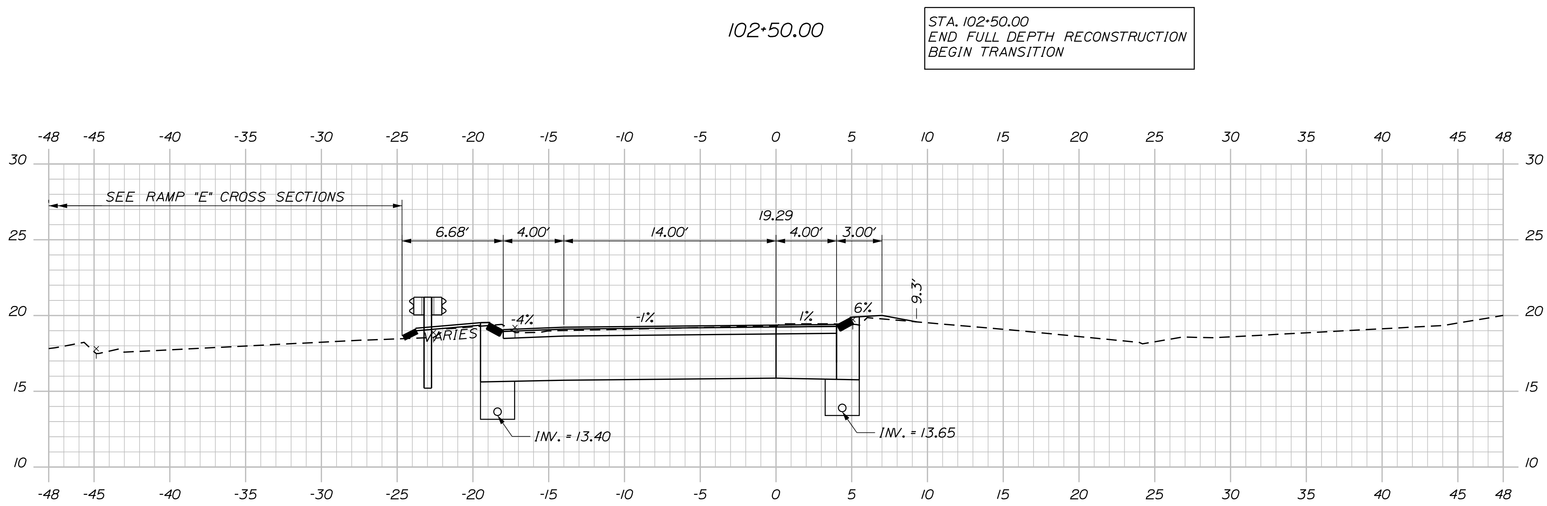
HIGHWAY PLANS



103+00.00



102+50.00



102+00.00

STA. 101+79.47, RT. TO STA. 102+50, RT.
INSTALL 69.8' x 6" UD TYPE "B"

Ramp "F" Sta. 102+00.00 to Sta. 103+00.00

SHEET NUMBER 33 OF 38

PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

PROJ. MANAGER	E. MARTIN	BY	DATE
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
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

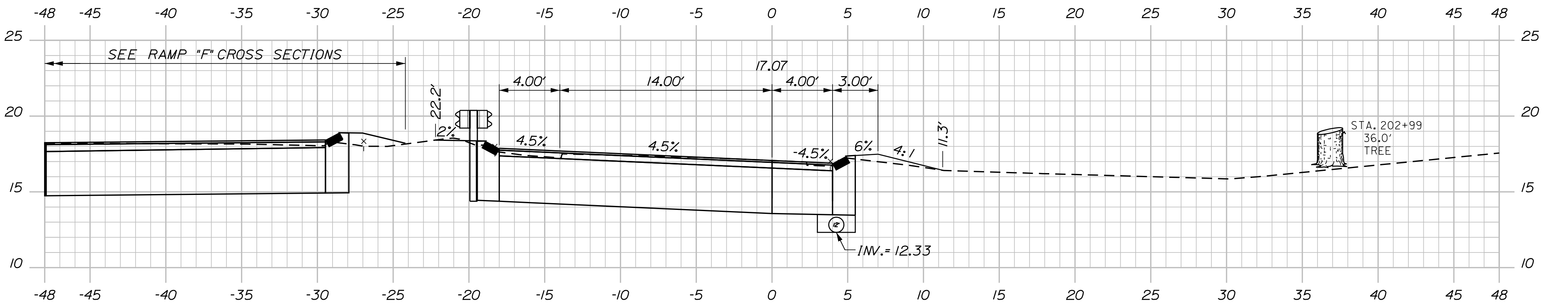
NH-295-1055(701)

WIN
10557.01

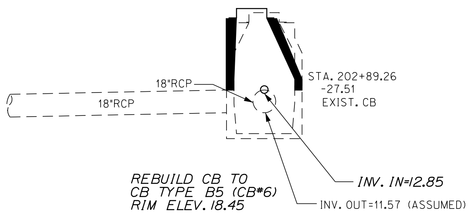
HIGHWAY PLANS

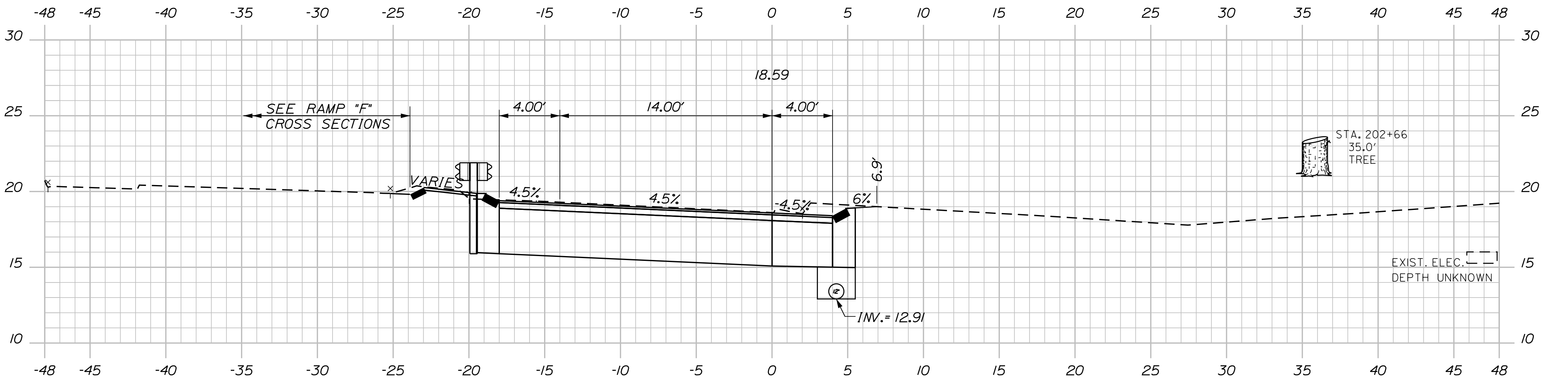
STA. 203+24.87, 2.87' RT.
INSTALL CB, TYPE BI (CB#7)
RIM ELEV. 16.80
INV. IN=11.80
INV. OUT=11.55

STA. 203+24.88, RT. TO STA. 203+33.53, RT.
INSTALL 4.5' x 12" UD TYPE "C"



203+00.00





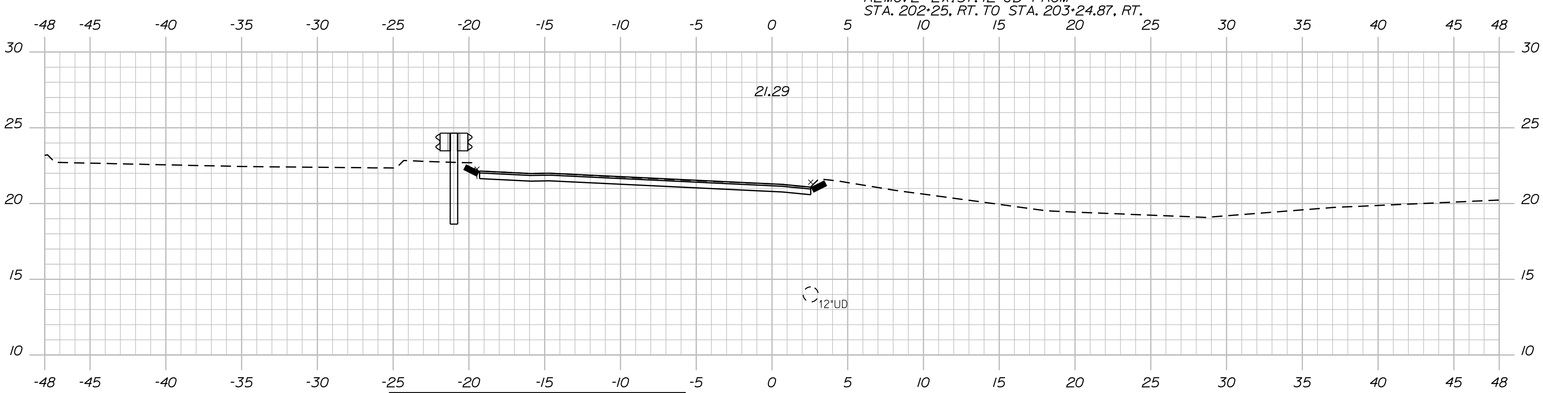
202+50.00

STA. 202+00.00, LT. TO STA. 203+45.40, LT.
INSTALL 162.50' x GUARDRAIL TYPE 3D -
DOUBLE RAIL
CONNECT TO EXISTING GUARDRAIL

STA. 202+25.00
END TRANSITION
BEGIN FULL DEPTH RECONSTRUCTION

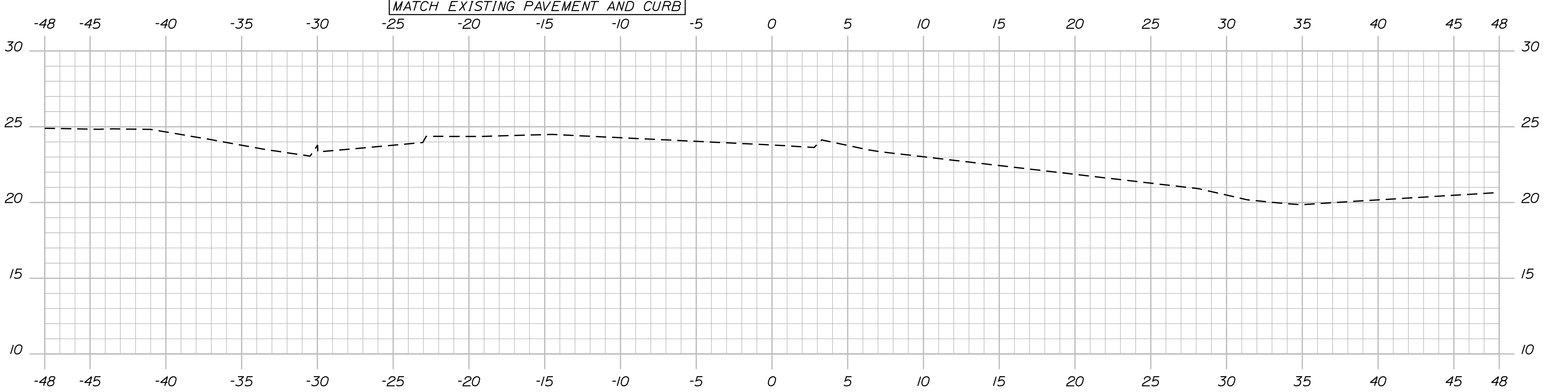
STA. 202+25, RT. TO STA. 203+24.88, RT.
INSTALL 96.1' x 12" UD TYPE "C":
FIELD VERIFY INVERT:
CONNECT TO EXISTING UD

REMOVE EXIST. 12" UD FROM
STA. 202+25, RT. TO STA. 203+24.87, RT.



STA. 202+00.00
LIMIT OF WORK
BEGIN TRANSITION
MATCH EXISTING PAVEMENT AND CURB

202+00.00



201+50.00

Ramp "H" Sta. 201+50.00 to Sta. 203+00.00

SHEET NUMBER 34 OF 38

PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

PROJ. MANAGER	E. MARTIN	BY	DATE
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
P.E. NUMBER
DATE

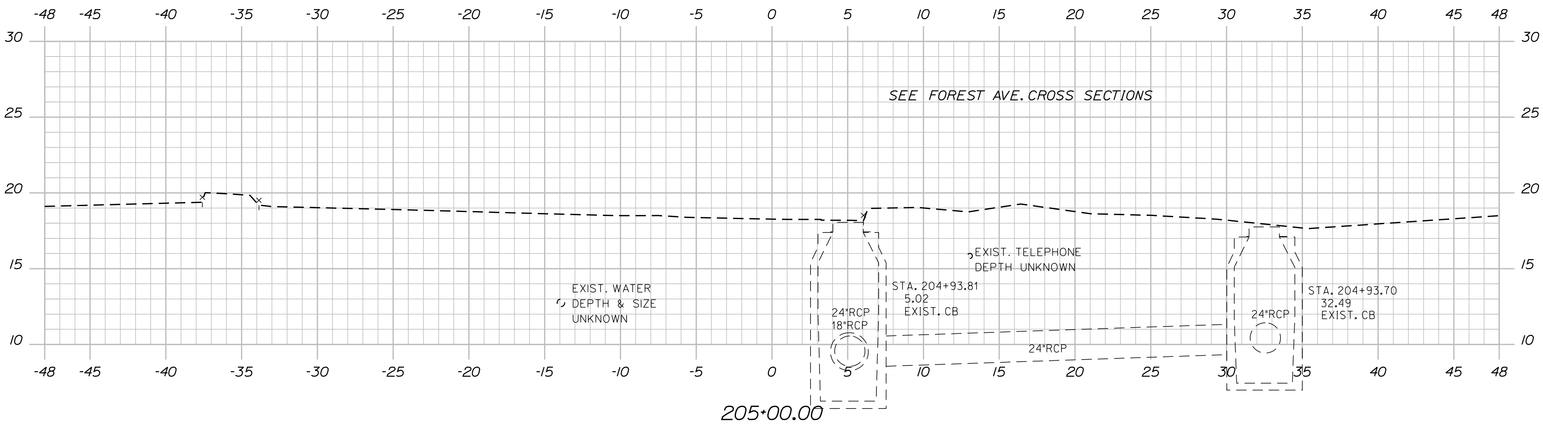
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

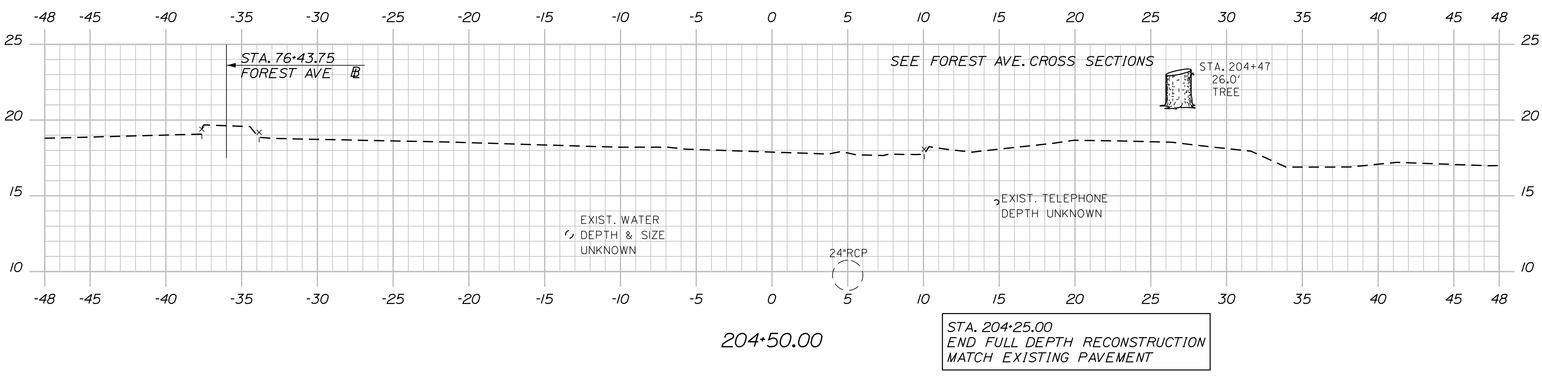
NH-295-1055(701)

WIN 10557.01

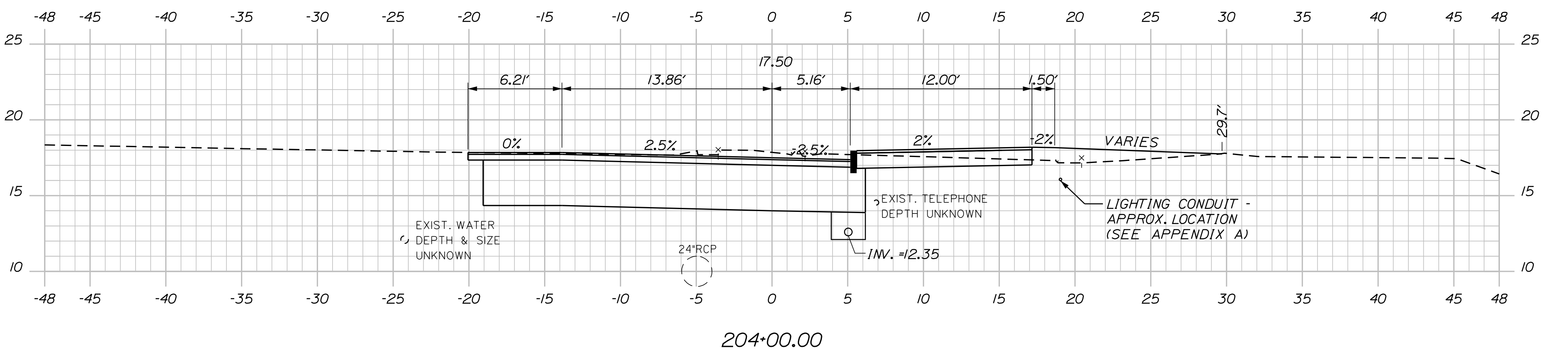
HIGHWAY PLANS

STA. 205+06.25 =
STA. 77+00.00
FOREST AVE. ℄ , 36.00' RT.

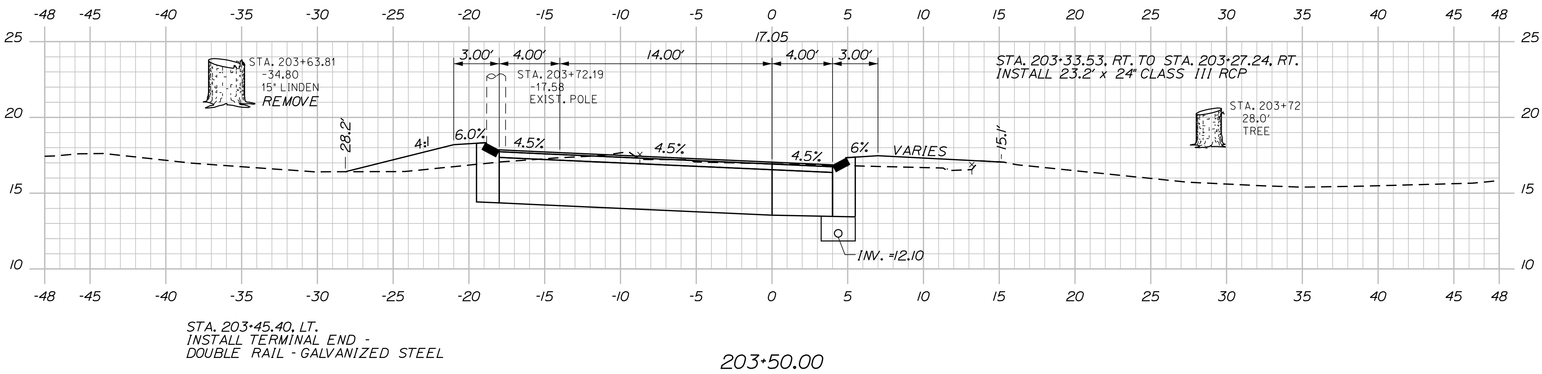




STA. 204+25.00
END FULL DEPTH RECONSTRUCTION
MATCH EXISTING PAVEMENT

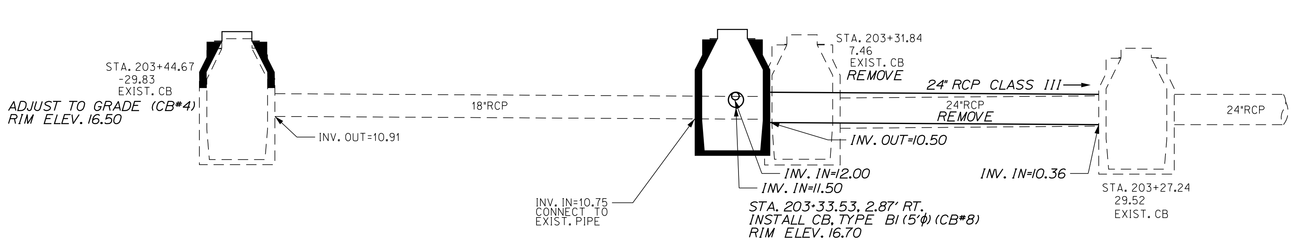


STA. 203+33.53, RT. TO STA. 203+75, RT.
INSTALL 85.6' x 6' UD TYPE "B"



STA. 203+33.53, RT. TO STA. 203+27.24, RT.
INSTALL 23.2' x 24" CLASS III RCP

STA. 203+45.40, LT.
INSTALL TERMINAL END -
DOUBLE RAIL - GALVANIZED STEEL



PROJ. MANAGER	E. MARTIN	BY	DATE	
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14	
CHECKED-REVIEWED	D.ETTINGER		11-12-14	SIGNATURE
DESIGN2-DETAILED2				
DESIGN3-DETAILED3				P.E. NUMBER
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				DATE
REVISIONS 4				
FIELD CHANGES				

SHEET NUMBER 35 OF 38

PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

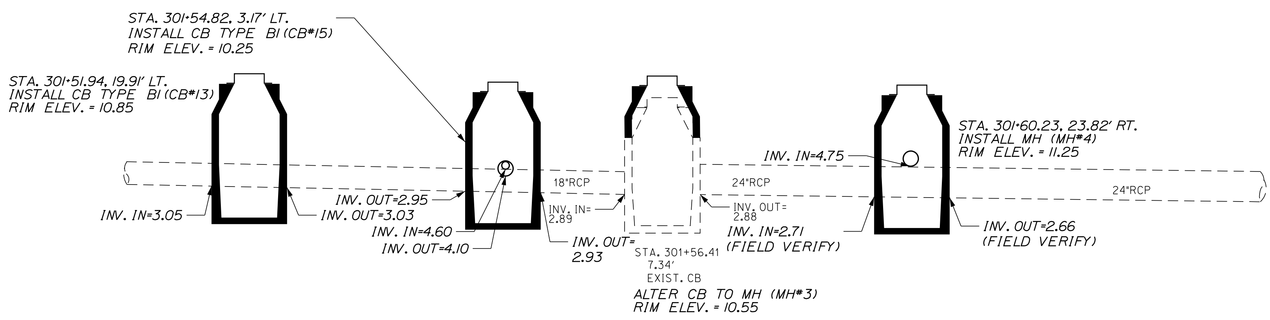
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

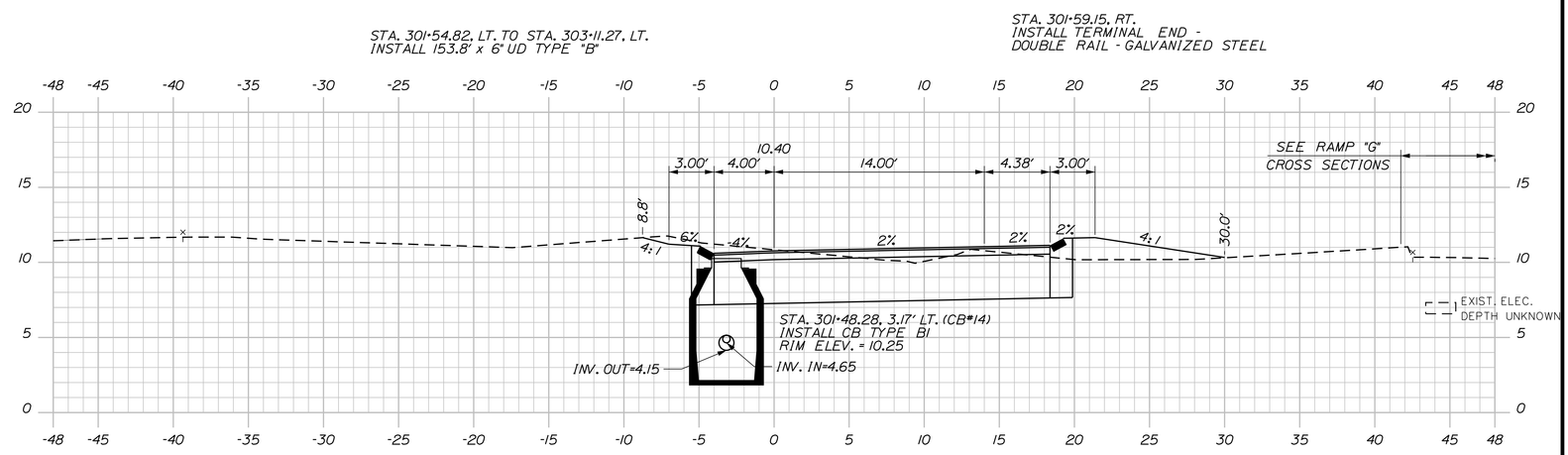
NH-295-1055(701)

WIN 10557.01

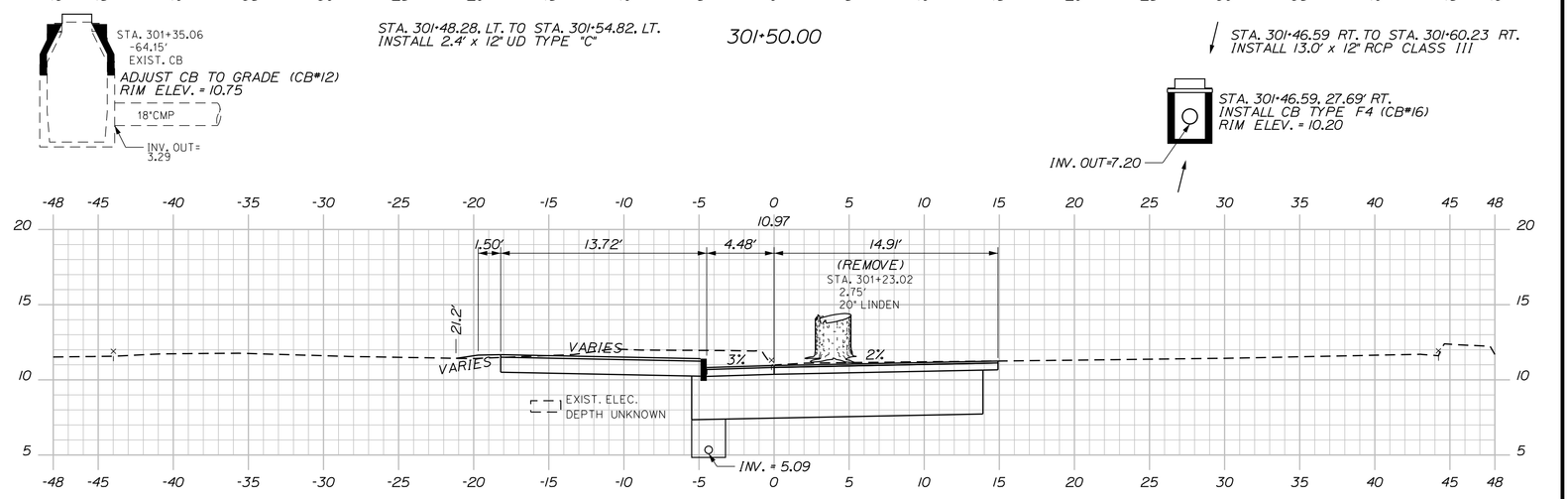
HIGHWAY PLANS

Ramp "H" Sta. 203+50.00 to Sta. 205+00.00





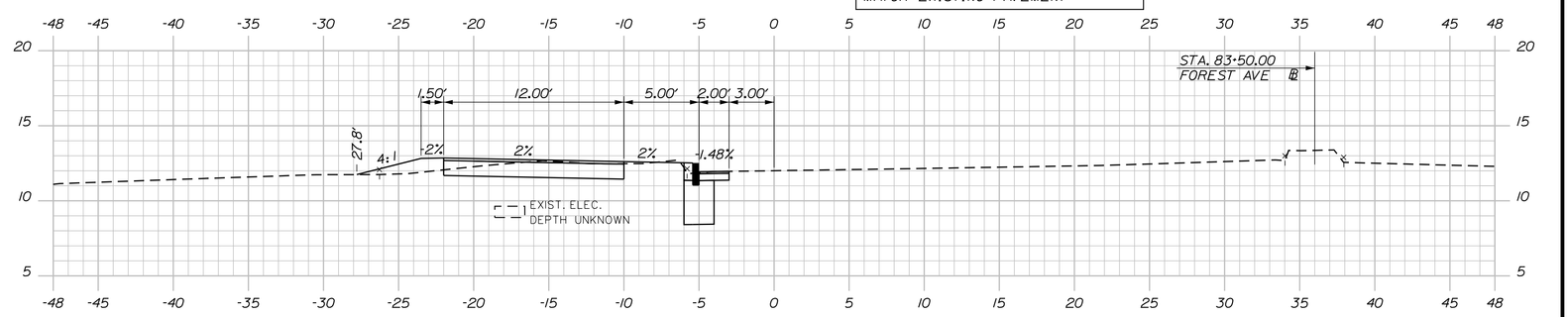
301+50.00



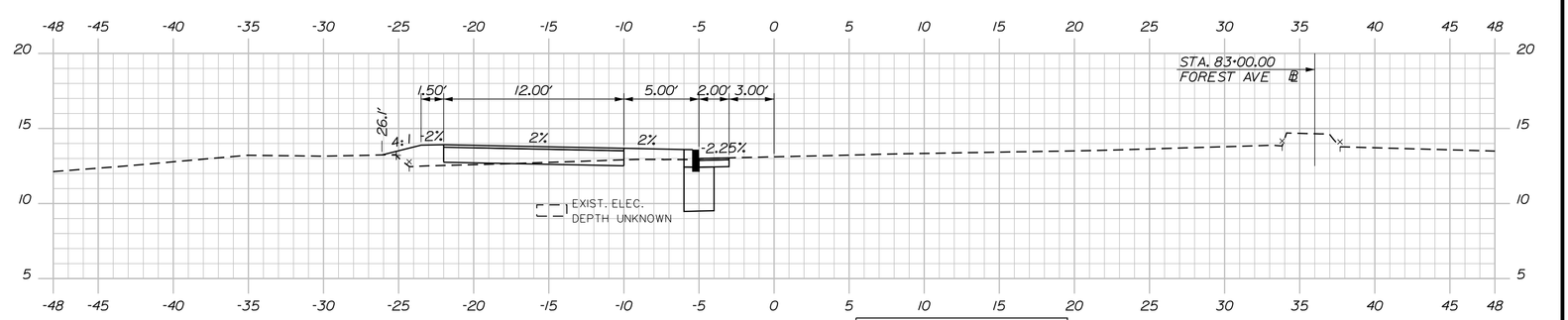
301+00.00

STA. 301+00, LT. TO STA. 301+48.28, LT.
INSTALL 44.3' x 6" UD TYPE "B"

STA. 300+74.43
BEGIN FULL DEPTH RECONSTRUCTION
MATCH EXISTING PAVEMENT



300+50.00



300+00.00

STA. 300+00.00 =
STA. 83+00.00
FOREST AVE. ℄ , 36.00' LT.

Ramp "E" Sta. 300+00.00 to Sta. 301+50.00

PROJ. MANAGER	E. MARTIN	BY	DATE
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
P.E. NUMBER
DATE

PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

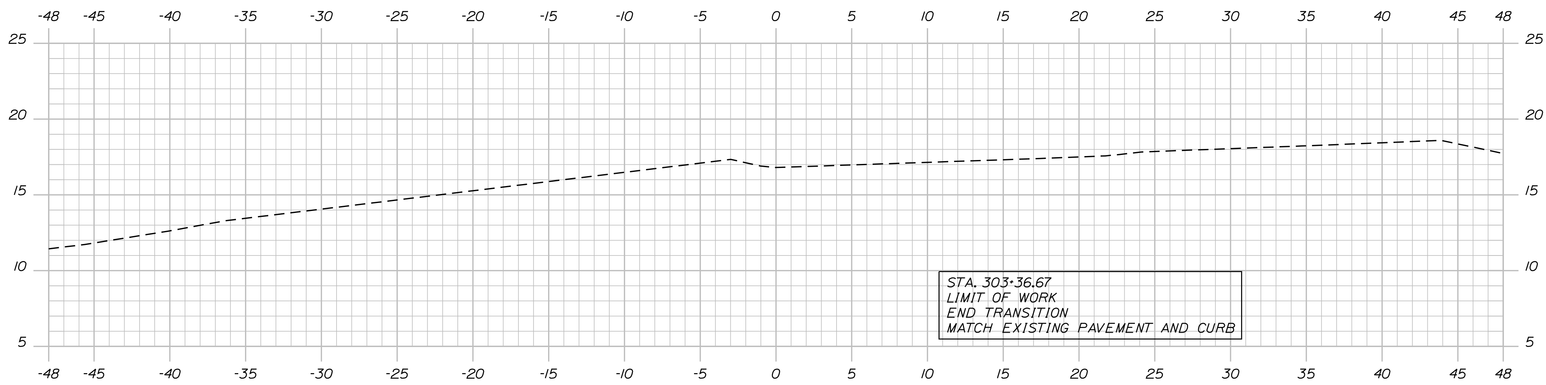
SHEET NUMBER 36 OF 38

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

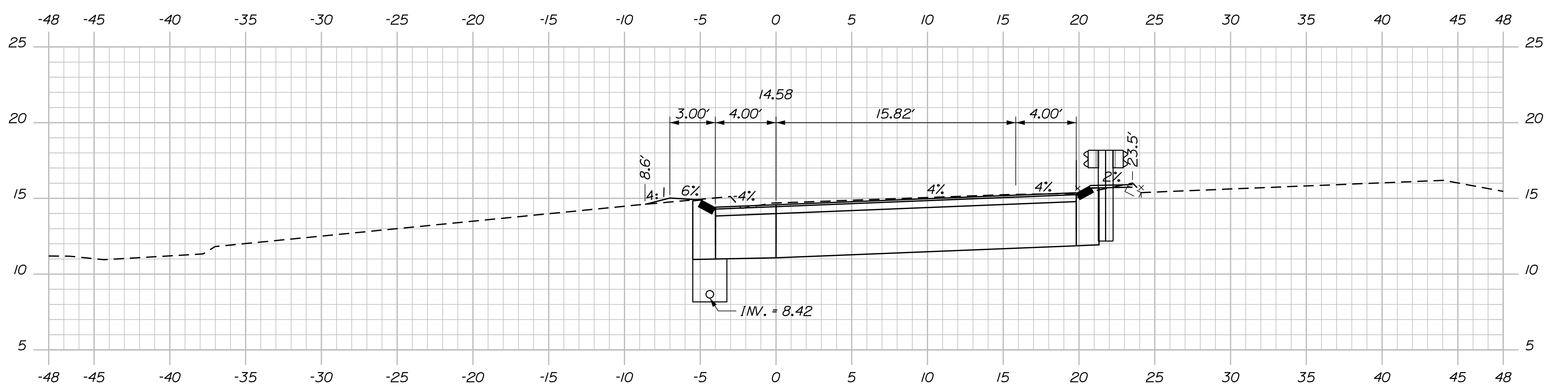
WIN 10557.01

HIGHWAY PLANS

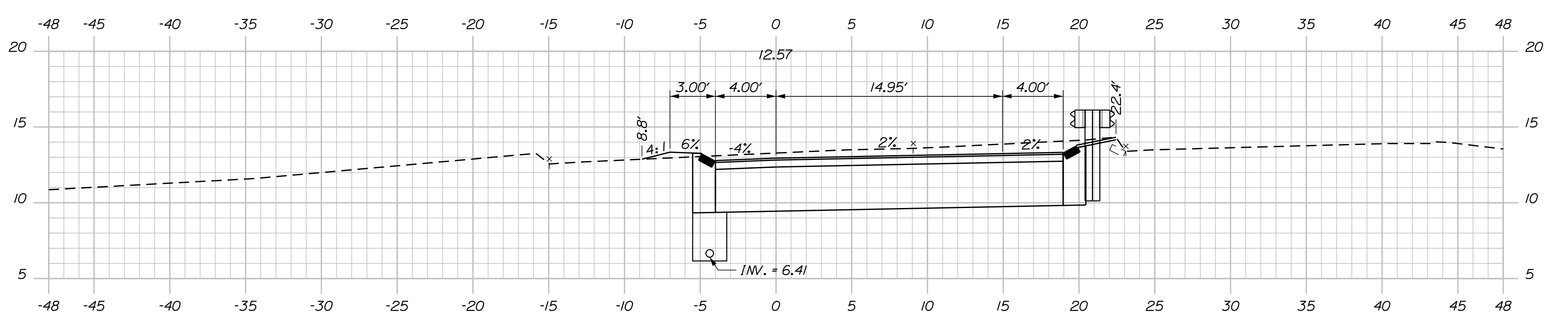


303+50.00

STA. 303+11.67
END FULL DEPTH RECONSTRUCTION
BEGIN TRANSITION

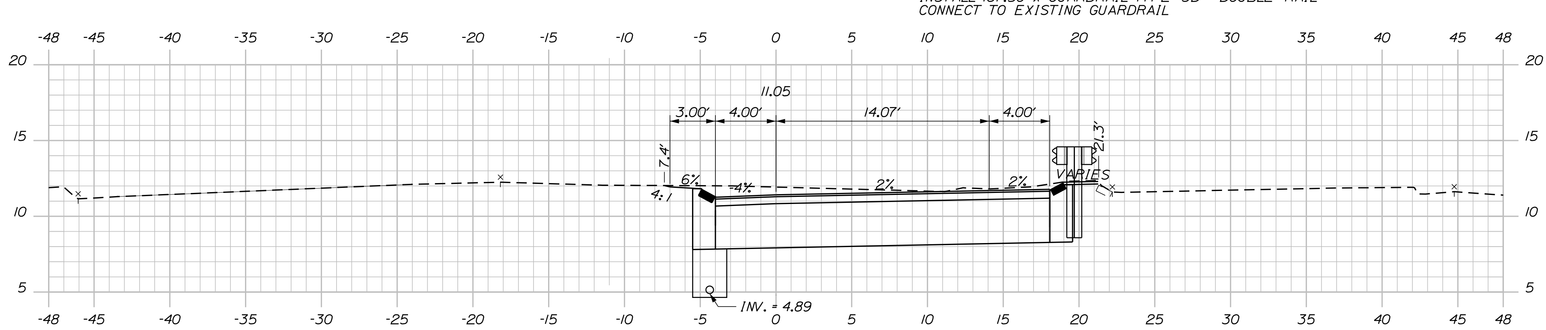


303+00.00



302+50.00

STA. 301+59.15, RT. TO STA. 303+37.14, RT.
INSTALL 187.50' x GUARDRAIL TYPE 3D - DOUBLE RAIL
CONNECT TO EXISTING GUARDRAIL



302+00.00

Ramp "E" Sta. 302+00.00 to Sta. 303+50

SHEET NUMBER 37 OF 38

PORTLAND
FOREST AVE & I-295 RAMPS

CROSS SECTIONS

PROJ. MANAGER	E. MARTIN	BY	DATE
DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
CHECKED-REVIEWED	D.ETTINGER		11-12-14
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

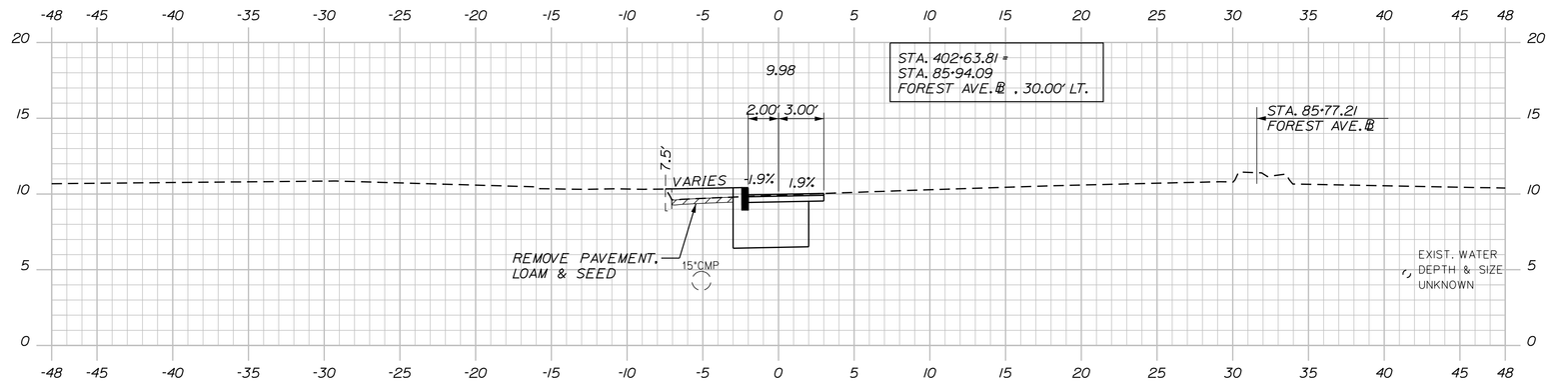
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

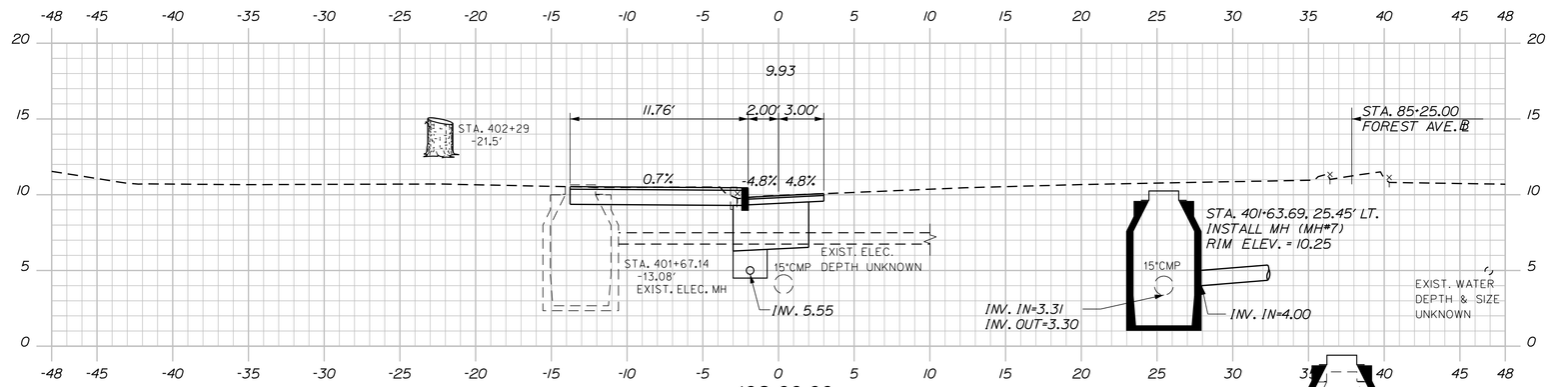
NH-295-1055(701)

WIN 10557.01

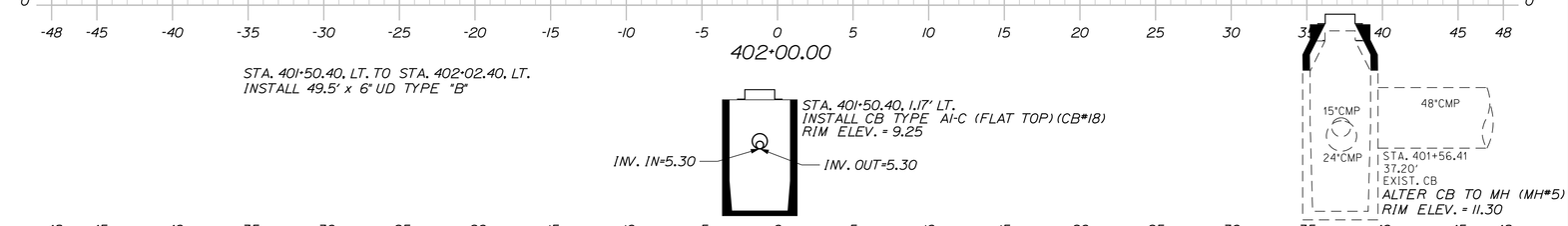
HIGHWAY PLANS

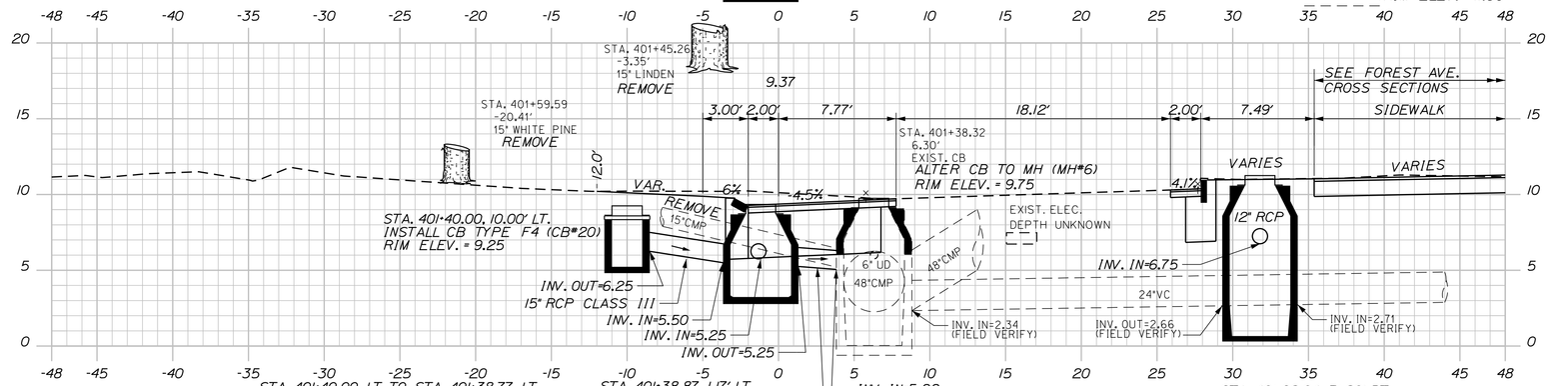


402+50.00

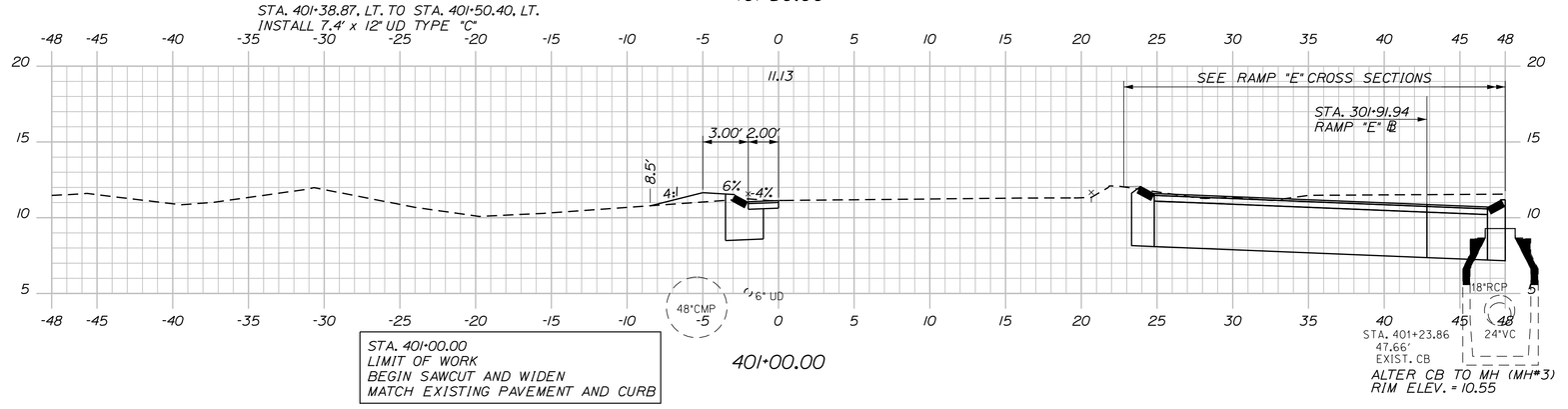


402+00.00

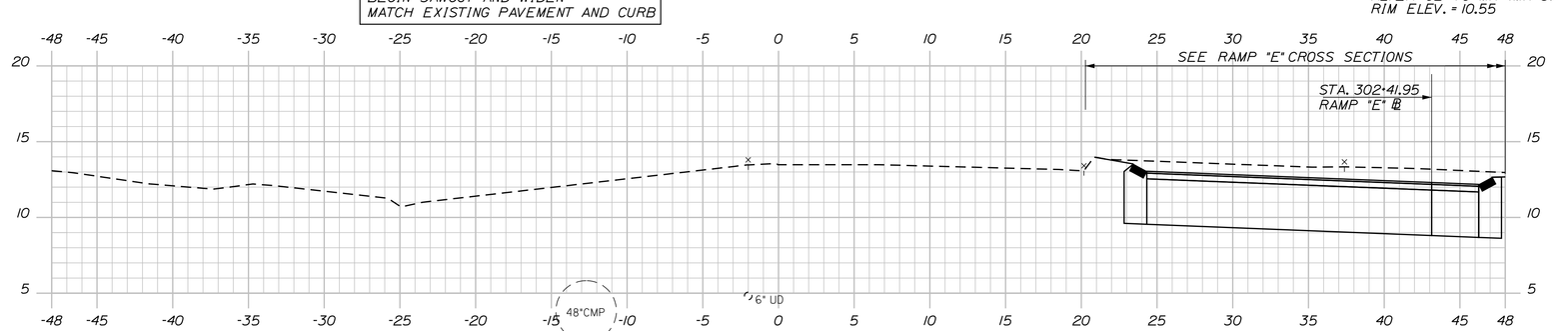




401+50.00



401+00.00



400+50.00

Ramp G Sta. 400+50.00 to Sta. 402+50.00

SHEET NUMBER 38 OF 38	PORTLAND FOREST AVE & I-295 RAMPS	PROJ. MANAGER	E. MARTIN	BY	DATE
		DESIGN-DETAILED	L. MEEK	L.NEWHOUSE	11-12-14
		CHECKED-REVIEWED	D.ETTINGER		11-12-14
		DESIGN2-DETAILED2			
		DESIGN3-DETAILED3			
		REVISIONS 1			
		REVISIONS 2			
		REVISIONS 3			
		REVISIONS 4			
		FIELD CHANGES			

SIGNATURE
P.E. NUMBER
DATE

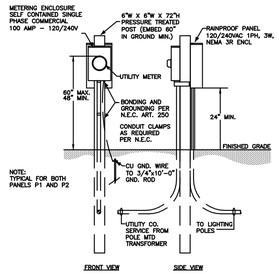
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

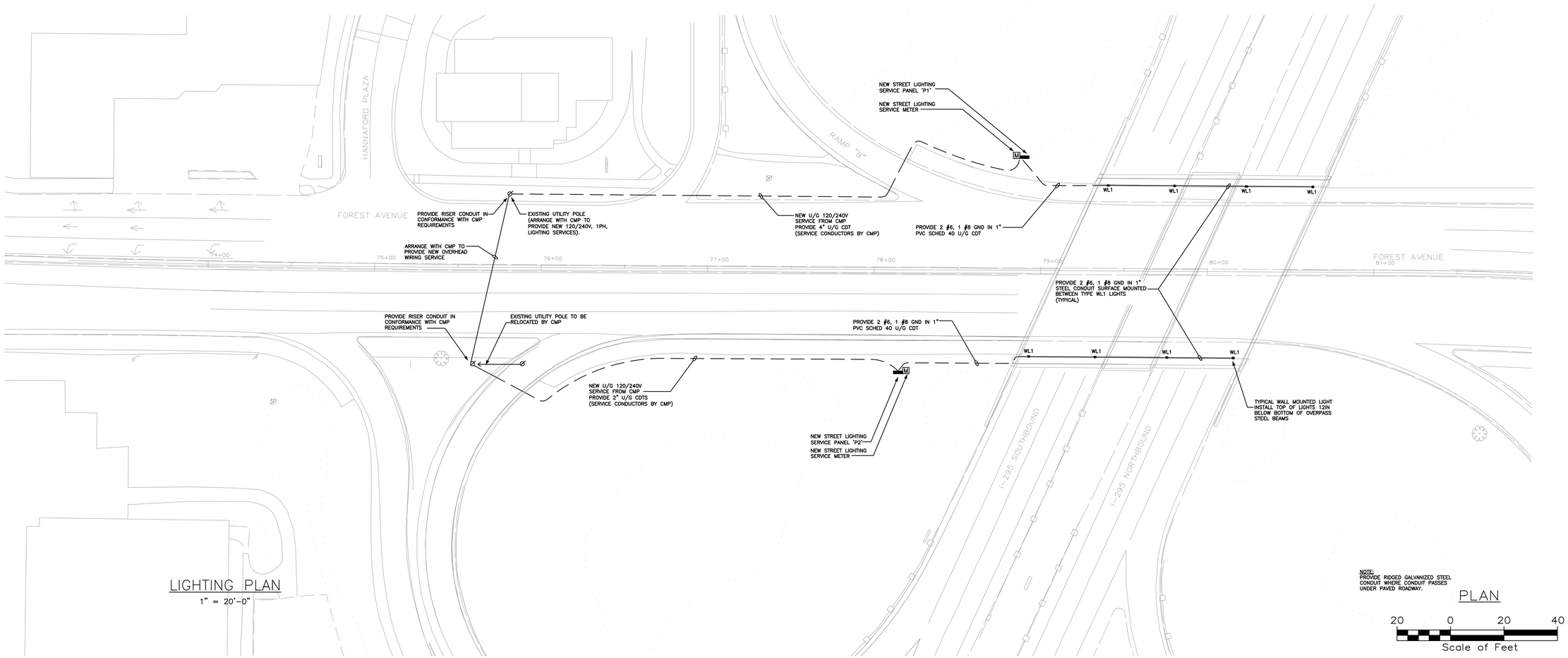
HIGHWAY PLANS

CROSS SECTIONS



SERVICE PANEL & METER DETAIL

1/2" = 1'-0"



LIGHTING PLAN

1" = 20'-0"

PLAN

MAG 19XX

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

NH-295-1055(701)

WIN 10557.01

HIGHWAY PLANS

STATE OF MAINE
LAWRENCE E. BARTLETT
No. 7928
LICENSED
PROFESSIONAL ENGINEER

Lawrence E. Bartlett
11/12/14

PROJ. MANAGER	BY	DATE
DESIGN-DETAILED	J. CONFER	10-16-14
CHECKED-REVIEWED	L. BARTLETT	10-17-14
DESIGN2-DETAILED2		
DESIGN3-DETAILED3	REVISED DISTRIBUTION	11-12-14
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

Lawrence E. Bartlett
SIGNATURE

7928
P.E. NUMBER

10/17/14
DATE

PORTLAND
FOREST AVE + I295 RAMPS

LIGHTING PLAN

SHEET NUMBER

A1

OF 1