Username: Natasha.M.Collins Date:5/15/2012
Division: HIGHWAY
Filename: ...\10\HIGHWAY\MSTA\001_Title.dgn

PLAN LEGEND

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

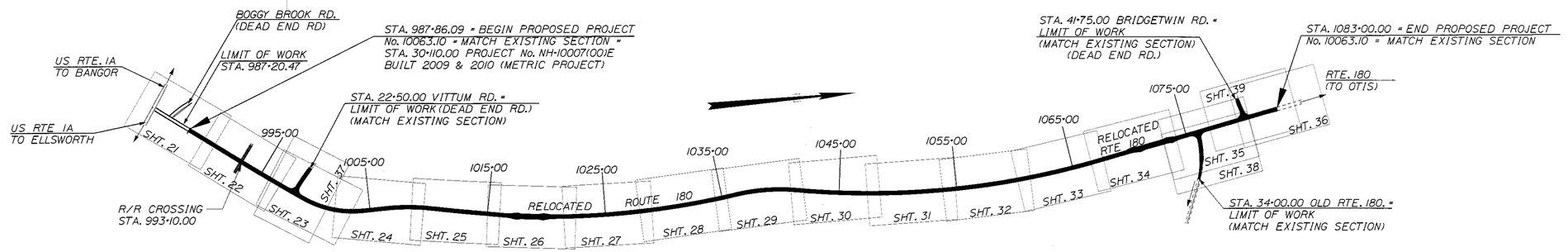
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

ELLSWORTH

HANCOCK COUNTY
RTE. 180
PROJECT NO. 10063.10
PROJECT LENGTH: 1.802 MILES
RTE. 180 RELOCATION

INDEX OF SHEETS

Description	Sheet No.
Title Sheet	1
Typical Sections	2-4
Estimated Quantities & Earthwork Summary	5
Drainage Sheet & Geotech Notes	6
General Notes	7
Superelevation Chart & Construction Notes	8-9
Box Culvert Detail	10
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Boring Logs	12-20
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Cross Sections- Mainline	40-111
Cross Sections- Sideroads	112-135
Right of Way Maps	136-151
Bridge Plans	B1-B29



LAYOUT SCALE

500 0 500 1000

SCALE IN FEET

TRAFFIC DATA

Current (2012) AADT	3160
Future (2032) AADT	4740
DHV - % of AADT	10%
Design Hour Volume	493
% Heavy Trucks (AADT)	8%
% Heavy Trucks (DHV)	6%
Directional Distribution (DHV)	70%
18 kip Equivalent P 2.0	128
18 kip Equivalent P 2.5	122
Design Speed (mph)	45
Functional Class	MAJOR COLLECTOR

PROJECT LOCATION: RELOCATION OF ROUTE 180 ALONG THE WEST SIDE OF THE UNION RIVER BEGINNING AT ROUTE 180 AND EXTENDING TO ROUTE IA.

PROGRAM AREA: HIGHWAY PROGRAM

SCOPE OF WORK: GRADING, DRAINAGE, BASE & PAVEMENT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED

COMMISSIONER — DATE 5/23/12

CHIEF ENGINEER — DATE 5/23/12

STATE OF MAINE — HOWARD C. COLLINS — 9701 — REGISTERED PROFESSIONAL ENGINEER

SIGNATURE — P.E. NUMBER 9701 — DATE 5/16/12

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

PIN 10063.10

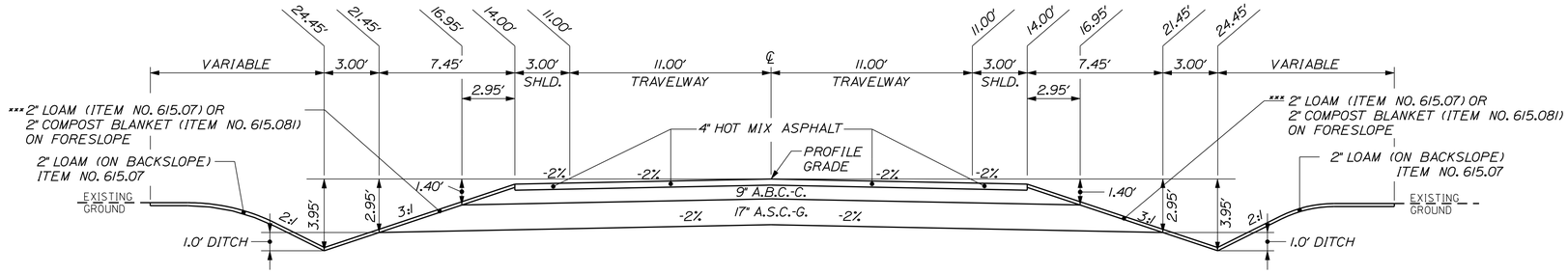
PROJ. NO. 10063.10

ELLSWORTH
ROUTE 180

TITLE SHEET

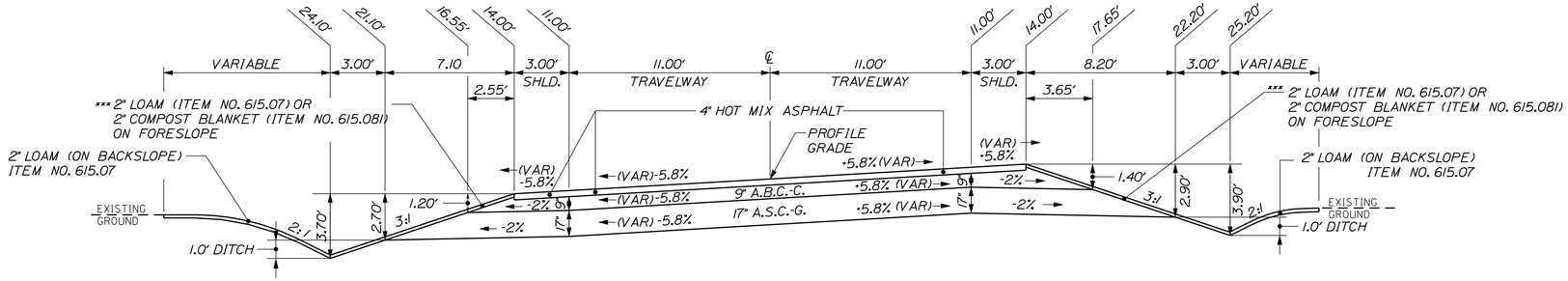
SHEET NUMBER 1 OF 151

4" HOT MIX ASPHALT *



NORMAL

9" AGGREGATE BASE COURSE GRAVEL - CRUSHED		
17" AGGREGATE SUBBASE COURSE GRAVEL		
3 FT. SHLD. LT. WITH 3:1 SLOPE A.B.C.G.-C = 13.34 CY/100 LF A.S.C.-G. = 43.02 CY/100 LF	2 - 11 FT. TRAVEL LANES A.B.C.-C = 61.10 CY/100 LF A.S.C.-G. = 115.43 CY/100 LF	3 FT. SHLD. RT. WITH 3:1 SLOPE A.B.C.G.-C = 13.34 CY/100 LF A.S.C.-G. = 43.02 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
989+66.93 TO 989+67.80, LT.	989+00.00 TO 997+50.00	989+62.50 TO 993+00.00, RT.
990+35.00 TO 993+00.00, LT.	1011+50.00 TO 1014+50.00	993+18.00 TO 993+50.00, RT.
993+18.00 TO 997+50.00, LT.	1020+50.00 TO 1034+50.00	1011+50.00 TO 1014+50.00, RT.
1011+50.00 TO 1014+50.00, LT.	1043+00.00 TO 1082+00.00	1020+86.20 TO 1034+50.00, RT.
1020+90.01 TO 1034+50.00, LT.		1044+37.70 TO 1066+40.08, RT.
1045+52.03TO 1067+77.60, LT.		1076+58.60 TO 1082+00.00, RT.
1078+90.40 TO 1082+00.00, LT.		



SUPERELEVATED **

9" AGGREGATE BASE COURSE GRAVEL - CRUSHED		
17" AGGREGATE SUBBASE COURSE GRAVEL		
LOW SIDE** 3 FT. SHLD. WITH 3:1 SLOPE A.B.C.G.-C = 11.49 CY/100 LF A.S.C.-G. = 41.06 CY/100 LF	2 - 11 FT. TRAVEL LANES A.B.C.-C = 61.10 CY/100 LF A.S.C.-G. = 115.43 CY/100 LF	HIGH SIDE** 3 FT. SHLD. WITH 3:1 SLOPE A.B.C.G.-C = 17.49 CY/100 LF A.S.C.-G. = 46.83 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
999+50.00 TO 1004+00.00, LT.	999+50.00 TO 1004+00.00	999+50.00 TO 1004+00.00, RT.
1007+00.00 TO 1009+50.00, LT.	1007+00.00 TO 1009+50.00	1007+00.00 TO 1009+50.00, RT.
1036+50.00 TO 1039+88.97, LT.	1016+50.00 TO 1018+50.00	1036+50.00 TO 1039+81.40, RT.
	1036+50.00 TO 1041+00.00	

* 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 BASE, 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, AND DO NOT INCLUDE TRANSITION AREAS.
6. A.B.C.-C = AGGREGATE BASE COURSE- CRUSHED, ITEM #304.09
   A.S.C.-G. = AGGREGATE SUBBASE COURSE - GRAVEL, ITEM #304.10

** 7. THE A.B.S.G.-C & THE A.S.C.-G. QUANTITIES FOR BOTH THE HIGH SIDE & THE LOW SIDE SHOULDER FOR THIS TYPICAL USING A 3.0' SHOULDER WIDTH IS BASED ON -5.8% AND -5.8% SUPERELEVATION. PROPOSED DITCH OFFSETS ARE BASED ON THESE NUMBERS. DITCH OFFSETS FOR THE OTHER SUPERELEVATIONED AREAS WILL BE THE SAME UNLESS OTHERWISE DIRECTED BY THE RESIDENT.

*** 8. THE PROPOSED COMPOST BLANKET (ITEM NO. 615.081) INSLOPE AREA STATION TO STATION VALUES ARE LISTED IN THE CONSTRUCTION NOTE SHEETS. ALL OTHER AREAS NOT LISTED WILL BE DESIGNATED AS LOAM (ITEM NO. 615.07) THE COMPOST BLANKET SHALL EXTEND TO THE BOTTOM OF THE INSLOPE, UNLESS OTHERWISE DIRECTED BY THE RESIDENT.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Monzer	X
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	NMC \ JH	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

TYPICAL SECTIONS

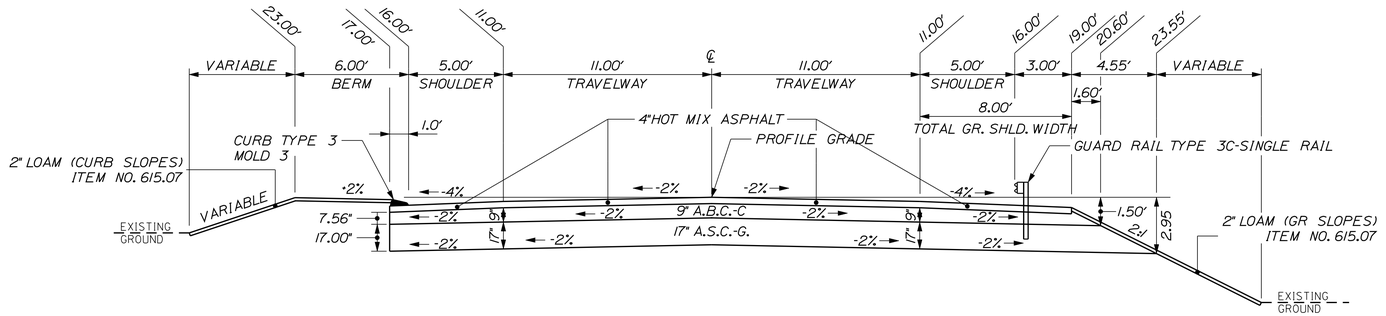
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2

OF 151

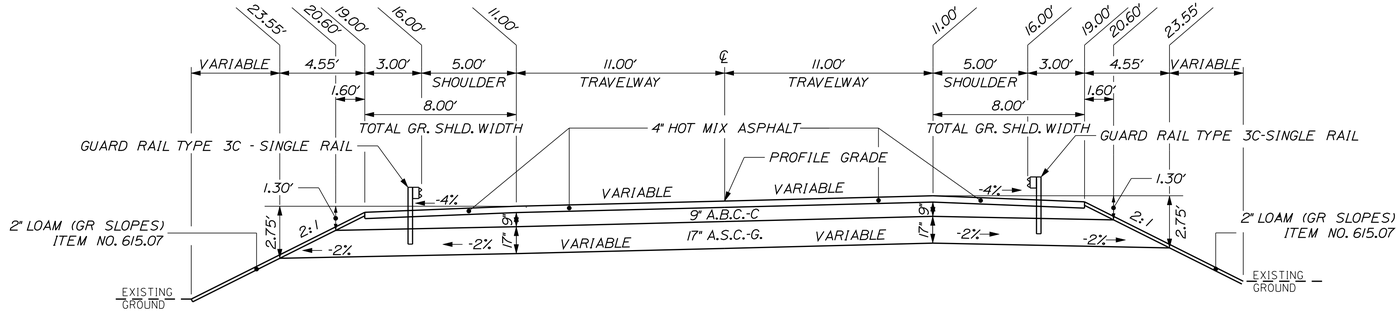
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4" HOT MIX ASPHALT *



NORMAL

9" AGGREGATE BASE COURSE GRAVEL - CRUSHED 17" AGGREGATE SUBBASE COURSE - GRAVEL		
5 FT. CURB SHOULDER A.B.C.G.-C = 15.33 CY/100 LF A.S.C.-G. = 31.48 CY/100 LF	2 - 11 FT. TRAVEL LANES A.B.C.-C = 61.10 CY/100 LF A.S.C.-G. = 115.43 CY/100 LF	8 FT. GUARDRAIL SHOULDER A.B.C.G.-C = 22.09 CY/100 LF A.S.C.-G. = 58.11 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
989+00.00 TO 989+50.00, LT.	989+00.00 TO 997+50.00	1020+50.00 TO 1020+66.15, LT.
989+00.00 TO 989+50.00, RT.	1011+50.00 TO 1014+50.00	1043+00.00 TO 1044+45.63, LT.
993+52.32 TO 997+50.00, RT.	1020+50.00 TO 1034+50.00	1068+84.00 TO 1077+84.00, LT.
	1043+00.00 TO 1082+00.00	1043+00.00 TO 1044+51.58, RT.
		1067+46.48 TO 1075+33.98, RT.



SUPERELEVATED

9" AGGREGATE BASE COURSE GRAVEL - CRUSHED 17" AGGREGATE SUBBASE COURSE - GRAVEL		
8 FT. GUARDRAIL SHOULDER A.B.C.G.-C = 22.09 CY/100 LF A.S.C.-G. = 58.11 CY/100 LF	2 - 11 FT. TRAVEL LANES A.B.C.-C = 61.10 CY/100 LF A.S.C.-G. = 115.43 CY/100 LF	8 FT. GUARDRAIL SHOULDER A.B.C.G.-C = 22.09 CY/100 LF A.S.C.-G. = 58.11 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
1016+89.90 TO 1018+50.00, LT.	999+50.00 TO 1004+00.00	1016+50.00 TO 1018+50.00, RT.
1040+95.37 TO 1041+00.00, LT.	1007+00.00 TO 1009+50.00	1040+87.80 TO 1041+00.00, RT.
	1016+50.00 TO 1018+50.00	
	1036+50.00 TO 1041+00.00	

*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 BASE, 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, AND DO NOT INCLUDE TRANSITION AREAS.
6. A.B.C.-C = AGGREGATE BASE COURSE GRAVEL - CRUSHED - ITEM #304.09
   A.S.C.-G. = AGGREGATE SUBBASE COURSE - GRAVEL - ITEM #304.10

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

TYPICAL SECTIONS

SHEET NUMBER

3

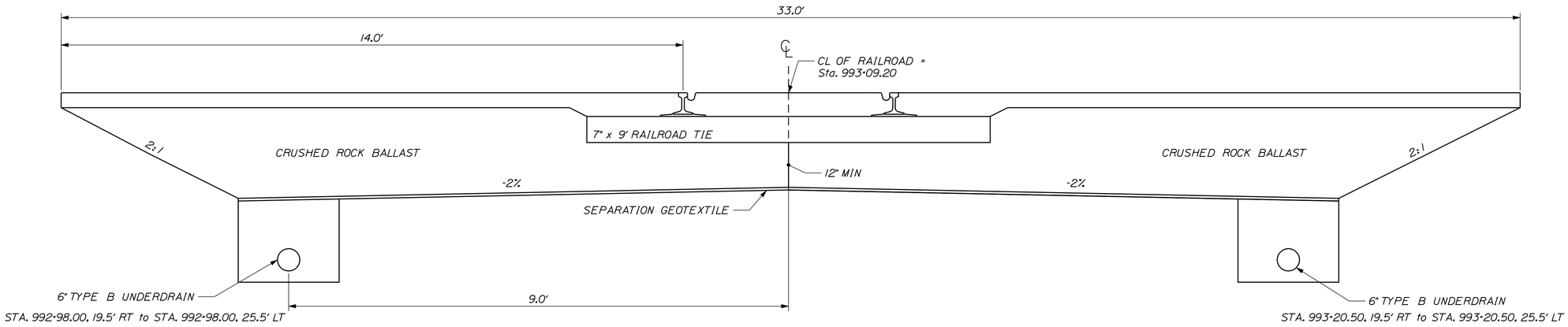
OF 151

Username: Natasha.M.Collins Date:4/13/2012

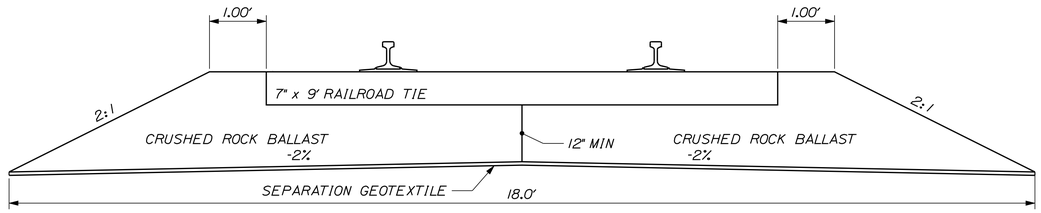
Division: HIGHWAY

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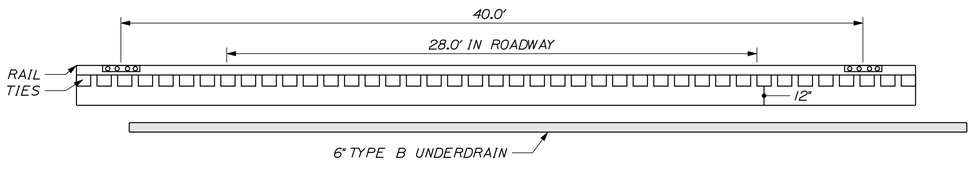
RAILROAD TYPICALS



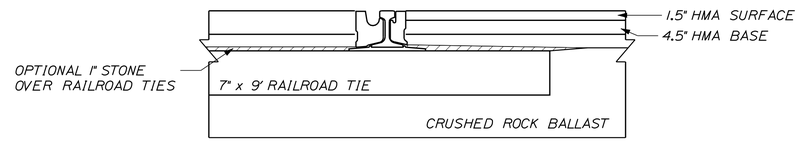
RAILROAD SECTION- IN ROADWAY



RAILROAD SECTION- OUTSIDE ROADWAY



HIGHWAY SECTION



HOT MIX ASPHAULT PAVING DETAIL

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

RAILROAD TYPICALS

SHEET NUMBER

4

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Division: HIGHWAY

Filename: ...\004_Typical_railroad 2.dgn

Filename: ...\MSTA\005_Estimate & EWS.dgn Username: Natasha.M.Collins Division: HIGHWAY Date:5/16/2012

ESTIMATED QUANTITIES

	Item No.	Description	Unit	Bridge Alternative #1 Highway Quantity	Bridge Alter. #1	Combined Total- Alt #1	Bridge Alternitive #2 Highway Quantity	Bridge Alter. #2	Combined Total- Alt #2
	201.110	CLEARING	AC	12.00		12.00	12.00		12.00
	201.230	REMOVING SINGLE TREE TOP ONLY	EA	2.00		2.00	2.00		2.00
	201.240	REMOVING STUMP	EA	2.00		2.00	2.00		2.00
	202.150	REM MANHOLE OR CATCH BASIN	EA	1.00		1.00	1.00		1.00
	202.203	PAVEMENT BUTT JOINTS	SY	100.00		100.00	100.00		100.00
	203.200	COMMON EXCAVATION	CY	53,112.00		53,112.00	53,112.00		53,112.00
	203.210	ROCK EXCAVATION	CY	13,760.00		13,760.00	13,760.00		13,760.00
	203.240	COMMON BORROW	CY	10,743.00		10,743.00	10,743.00		10,743.00
	203.250	GRANULAR BORROW	CY	2,500.00	816.00	3,316.00	2,500.00	1,415.00	3,915.00
	203.330	SPECIAL FILL	CY	150.00		150.00	150.00		150.00
	203.350	CRUSHED STONE (3/4" crushed stone)	CY	270.00	75.00	345.00	270.00	75.00	345.00
	203.380	FILTER SAND	CY	4.00		4.00	4.00		4.00
*	206.061	STRUCTURAL EARTH EXCAVATION DRAINAGE- BELOW GRAD	CY	100.00		100.00	100.00		100.00
	206.070	STRUCTURAL ROCK EXCAVATION	CY	100.00		100.00	100.00		100.00
	206.082	STRUCTURAL EXCAVATION- MAJOR STRUCTURES	CY		635.00	635.00		1,545.00	1,545.00
	304.090	AGGREGATE BASE COURSE - CRUSHED	CY	8,850.00		8,850.00	8,850.00		8,850.00
	304.100	AGGREGATE SUBBASE COURSE - GRAVEL	CY	22,230.00		22,230.00	22,230.00		22,230.00
	403.208	HOT MIX ASPHALT, 12.5 mm NOMINAL MAXIMUM, SURFACE	T	2,830.00		2,830.00	2,830.00		2,830.00
	403.209	HOT MIX ASPHALT, 9.5 mm NOMINAL MAXIMUM (incidentals)	T	70.00		70.00	70.00		70.00
	403.213	HOT MIX ASPHALT 19.0mm NOMINAL MAXIMUM, BASE	T	4,555.00		4,555.00	4,555.00		4,555.00
	409.150	BITUMINOUS TACK COAT, APPLIED	GA	875.00		875.00	875.00		875.00
	501.231	DYNAMIC LOADING TEST	EA		2.00	2.00			0.00
	501.460	STEEL H-BEAM PILES (73 LB/FT), DELIVERED	LF		416.00	416.00			0.00
	501.461	STEEL H-BEAM PILES (73 LB/FT), IN PLACE	LF		400.00	400.00			0.00
	501.900	PILE TIPS	EA		28.00	28.00			0.00
	501.920	PILE DRIVING EQUIPMENT MOBILIZATION	LS		1.00	1.00			0.00
	502.210	STRUCTURAL CONCRETE, ABUTMENTS & RETAINING WALLS	CY		264.00	264.00		575.00	575.00
	502.410	STRUCTURAL CONCRETE, SUPERSTRUCTURE SLAB	CY		55.00	55.00		55.00	55.00
	502.560	CONCRETE FILL	CY			0.00		20.00	20.00
	503.120	REINFORCED STEEL, FABRICATED & DELIVERED	LB		24,590.00	24,590.00		47,970.00	47,970.00
	503.130	REINFORCING STEEL, PLACING	LB		24,590.00	24,590.00		47,970.00	47,970.00
	509.740	COMPOSITE ARCH SUPERSTRUCTURE, FURNISH & ERECT	LS		1.00	1.00		1.00	1.00
	511.070	COFFERDAM	LS		2.00	2.00		2.00	2.00
	512.081	FRENCH DRAINS (200 LF)	LS	0.50	0.50	1.00	0.50	0.50	1.00
	513.220	CRUSHED STONE SLOPE PROTECTION	CY	45.00		45.00	45.00		45.00
	514.060	CURING BOX FOR CONCRETE CYLINDERS	EA		1.00	1.00		1.00	1.00
	515.210	PROTECTIVE COATING FOR CONCRETE SURFACES	LS		1.00	1.00		1.00	1.00
	534.710	PRECAST CONCRETE BOX CULVERT	CY	92.00		92.00	92.00		92.00
	603.160	15" CULV PIPE OPTION I	LF	720.00		720.00	720.00		720.00
	603.175	18" RCP CLASS III	LF	456.00		456.00	456.00		456.00
	603.179	18" CULV PIPE OPTION III	LF	142.00		142.00	142.00		142.00
	603.195	24" RCP CLASS III	LF	96.00		96.00	96.00		96.00
	603.470	60" RCP CLASS IV	LF	84.00		84.00	84.00		84.00
	604.182	CLEAN EXISTING CATCHBASIN OR MANHOLE	EA	5.00		5.00	5.00		5.00
	605.090	6" UNDERDRAIN TYPE B	LF	930.00		930.00	930.00		930.00
	605.100	6" UNDERDRAIN OUTLET	LF	23.00		23.00	23.00		23.00
	606.230	GR TY 3C - SINGLE RAIL	LF	3,200.00		3,200.00	3,200.00		3,200.00
	606.232	GR TY 3C - OVER 15' RADIUS	LF	125.00		125.00	125.00		125.00
	606.265	TERM END- SGL RAIL- GALV STEEL	EA	2.00		2.00	2.00		2.00
	606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	EA	24.00		24.00	24.00		24.00
	606.356	UNDERDRAIN DELINEATOR POSTS	EA	1.00		1.00	1.00		1.00
*	606.470	SINGLE WOOD POST	EA	5.00		5.00	5.00		5.00
	606.790	GUARDRAIL 350 FLARED TERMINAL	EA	10.00		10.00	10.00		10.00
	609.310	CURB TYPE 3	LF	900.00		900.00	900.00		900.00
	610.080	PLAIN RIPRAP	CY	485.00	515.00	1,000.00	485.00	515.00	1,000.00
	610.180	STONE DITCH PROTECTION	CY	135.00		135.00	135.00		135.00
	613.319	EROSION CONTROL BLANKET	SY	11,915.00	60.00	11,975.00	11,915.00	60.00	11,975.00
	615.070	LOAM	CY	1,700.00	25.00	1,725.00	1,700.00	25.00	1,725.00
	615.081	COMPOST BLANKET	CY	785.00		785.00	785.00		785.00
	618.130	SEEDING METHOD NUMBER 1	UN	10.00		10.00	10.00		10.00
	618.1401	SEEDING METHOD NUMBER 2 - PLAN QUANTITY	UN	90.00		90.00	90.00		90.00
	618.1411	SEEDING METHOD NUMBER 3 - PLAN QUANTITY	UN	80.00	4.00	84.00	80.00	4.00	84.00
	618.143	SPECIAL SEEDING METHOD- COMPOST BLANKET	UN	220.00		220.00	220.00		220.00
	619.120	MULCH	UN	400.00		400.00	400.00		400.00
	620.540	STABILIZATION GEOTEXTILE	SY	1,800.00		1,800.00	1,800.00		1,800.00
	620.560	DRAINAGE GEOTEXTILE	SY	83.00		83.00	83.00		83.00
	620.580	EROSION CONTROL GEOTEXTILE	SY	600.00	515.00	1,115.00	600.00	515.00	1,115.00
	620.600	SEPARATION GEOTEXTILE	SY	105.00		105.00	105.00		105.00
	620.650	REINFORCEMENT GEOGRID	SY	120.00		120.00	120.00		120.00
	621.037	EVERGREEN TREES 6' - 8' Group A, B&B	EA	5.00		5.00	5.00		5.00
	621.043	EVERGREEN TREES 5' - 6' Group A, B&B	EA	7.00		7.00	7.00		7.00
	627.733	4 INCH WHITE OR YELLOW PAINTED PAVEMENT MARKING LI	LF	41,500.00		41,500.00	41,500.00		41,500.00
	627.750	WHITE OR YELLOW PAVEMENT AND CURB MARKING	SF	110.00		110.00	110.00		110.00
	627.760	TEMPORARY PAVEMENT MARKING LINE, WHITE OR YELLOW	LS	1.00		1.00	1.00		1.00
*	629.050	HAND LABOR, STRAIGHT TIME	HR	10.00	40.00	50.00	10.00	40.00	50.00
*	631.120	ALL PURPOSE EXCAVATOR (INCLUDES OPERATOR)	HR	10.00	20.00	30.00	10.00	20.00	30.00
*	631.172	TRUCK - LARGE (INCLUDES OPERATOR)	HR	10.00	20.00	30.00	10.00	20.00	30.00
*	631.180	CHAIN SAW RENTAL (INCLUDES OPERATOR)	HR	10.00		10.00	10.00		10.00
*	631.200	STUMP CHIPPER RENTAL (INCLUDES OPERATOR)	HR	10.00		10.00	10.00		10.00
*	631.220	FRONT END LOADER (INCLUDES OPERATOR)	HR	10.00		10.00	10.00		10.00
*	631.320	CULVERT CLEANER (INCLUDES OPERATOR)	HR	5.00		5.00	5.00		5.00
	636.400	MECHANICALLY STABILIZED EARTH RETAINING WALL	SF		4,400.00	4,400.00		4,400.00	4,400.00
	639.180	FIELD OFFICE, TYPE A	EA	1.00		1.00	1.00		1.00
	643.720	TEMPORARY TRAFFIC SIGNAL	LS	1.00		1.00			

* UNDETERMINED LOCATION ITEM

ESTIMATED QUANTITIES (cont.)

Item No.	Description	Unit	Bridge Alternative #1 Highway Quantity	Bridge Alter. #1	Combined Total- Alt #1	Bridge Alternitive #2 Highway Quantity	Bridge Alter. #2	Combined Total- Alt #2
648.312	BALLAST	TON	760.00		760.00	730.00		730.00
652.310	TYPE I BARRICADE	EA	25.00		25.00	25.00		25.00
652.311	TYPE II BARRICADE	EA	25.00		25.00	25.00		25.00
652.330	DRUMS	EA	75.00		75.00	75.00		75.00
652.340	CONES	EA	100.00		100.00	100.00		100.00
652.350	CONSTRUCTION SIGNS	SF	100.00		100.00	100.00		100.00
652.361	MAINT OF TRAFF CONTROL DEV	LS	1.00		1.00	1.00		1.00
652.380	FLAGGERS	HR	1,000.00		1,000.00	1,000.00		1,000.00
656.750	TEMPORARY SOIL EROSION & WATER POLLUTION CONTROL	LS	1.00		1.00	1.00		1.00
658.200	ACRYLIC LATEX COLOR FINISH - GREEN	SY	52.00		52.00	52.00		52.00
659.100	MOBILIZATION	LS	1.00		1.00	1.00		1.00
660.210	ON THE JOB TRAINING	HR	1,000.00		1,000.00	1,000.00		1,000.00

EARTHWORK SUMMARY

COMMON EXCAVATION FOR ESTIMATE				
	COMMON EXCAVATION (FROM CROSS SECTIONS)	46,140		
	EARTH FROM DRIVES, OLD ROAD, ETC.	1,073		
	GRUBBING IN FILL	4,399		
	UNDERCUT	0		
	MUCK EXCAVATION	0		
	PAVEMENT SALVAGE IN FILL	0		
**	REMOVAL OF TEMPORARY DETOUR (GRANULAR BORROW)	1,500		
	TOTAL COMMON EXCAVATION			53,112
FILL FOR BORROW CALCULATIONS				
	COMMON FILL (FROM CROSS SECTIONS)	52,553		
	FILL FOR DRIVES	10		
	GRUBBING IN FILL	4,399		
	UNDERCUT	0		
	MUCK EXCAVATION	0		
	PAVEMENT SALVAGE IN FILL	0		
	TOTAL FILL			56,962
ROCK EXCAVATION FOR ESTIMATE				
	ROCK EXCAVATION (FROM CROSS SECTIONS)	13,760		
	TOTAL ROCK EXCAVATION			13,760
AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS				
	(1) TOTAL COMMON EXCAVATION			53,112
	DEDUCTIONS:			
	GRUBBING IN CUT	12,229		
	GRUBBING IN FILL	4,399		
	UNDERCUT	0		
	MUCK EXCAVATION	0		
	PAVEMENT SALVAGE (CUT & FILL)	671		
**	REMOVAL OF TEMPORARY DETOUR (GRANULAR BORROW)	1,500		
	(2) TOTAL DEDUCTIONS			18,799
	TOTAL AVAILABLE COMMON EXCAVATION			34,312
	TOTAL AVAILABLE STRUCT. EXCAVATIONS (UNDERDRAIN ONLY)			181
	TOTAL AVAILABLE NON-ROCK EXCAVATION			34,493
COMPUTATION OF WASTE MATERIAL				
	GRUBBING IN CUT	12,229		
	GRUBBING IN FILL	4,399		
	TOTAL WASTE MATERIAL TO BE WASTED			16,628
	(TO BE DISPOSED OF OFF PROJECT)			
COMPUTATION FOR GRANULAR BORROW FOR ESTIMATE				
	GRANULAR BORROW- MISC USE	870 x 1.15	1,000	
	GRANULAR BORROW FOR TEMPORARY DETOUR	1,304 x 1.15	1,500	
	TOTAL GRANULAR BORROW			2,500
COMPUTATION FOR COMMON BORROW FOR ESTIMATE				
	(3)TOTAL FILL			56,962
	TOTAL AVAIL. NON-ROCK EXCAV.	34,493 x 0.85 =	29,319	
	TOTAL AVAIL. ROCK EXCAV.	13,760 x 1.33 =	18,301	
	TOTAL AVAIL. STR. ROCK EXCAV.	x 1.33 =	0	
	TOTAL WASTE MATERIAL TO BE UTILIZED	0 x 1 =	0	
	(4)TOTAL AVAILABLE EXCAVATION		=	47,620
	BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION			9,342
	COMMON BORROW =	**9,342 x 1.15 =**		**10,743**

** SEE SHEET 11 OF 166 FOR MORE INFORMATION ON TEMPORARY DETOUR FOR RAILRAOAD CROSSING REPLACEMENT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

ESTIMATED QUANTITIES & EARTHWORK SUMMARY

SHEET NUMBER

5

OF 151

STATION	CULVERT PIPE											CATCH BASIN					BOX CULVERT			MH	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	B1-C		E	F	WIDTH	HEIGHT	LENGTH		LENGTH	LENGTH	SIZE	LENGTH	SIZE	LENGTH		
Underdrain & Underdrain Outlets																													
Sta. 987+20.47 to Sta. 989+50.00, Rt.																					229.6							
Sta. 987+53.28 to Sta. 989+50.00, Lt.																					194.8							
Sta. 992+98.00, 19.5' Rt to Sta. 992+98.00, 25.5' Lt																					44.0							FOR RAILROAD CROSSING
Sta. 993+20.50, 19.5' Rt to Sta. 993+20.50, 25.5' Lt																					44.0							FOR RAILROAD CROSSING
Sta. 993+50.00 to Sta. 997+64.10, Rt.																					414.3						ELBOW	
Sta. 993+35.05, 30.0' Rt. to Sta. 993+50.00, 13.0' Rt.																						22.7						
Driveway Culverts																												
Sta. 20+76.00 to Sta. 21+24.00, Rt.						15	48.0'																					
Sta. 32+25.00 to Sta. 32+75.00, Lt.						15	50.0'																					
Sta. 32+31.00 to Sta. 32+69.00, Rt.						15	38.0'																					
Sta. 33+69.00 to Sta. 33+97.00, Lt.						15	28.0'																					
Sta. 990+02.42 to Sta. 990+48.42, Rt.						15	46.0'																					
Sta. 990+58.58 to Sta. 990+88.58, Rt.						15	30.0'																					
Sta. 993+00.00, 25.00' to Sta. 993+00.00, 55.00' Rt.								18	30.0'	18	30.0'																	
Sta. 997+68.95, 24.45' Lt. to Sta. 998+81.00, 24.22' Lt.								18	112.0'	18	112.0'																	Riprap Inlet & Outlet
Sta. 1002+34.78 to Sta. 1003+75.11, Rt.						15	144.0'																					
Sta. 1020+49.61 to Sta. 1020+95.46, Rt.						15	46.0'																					
Sta. 1020+50.00 to Sta. 1021+31.62, Lt.						15	82.0'																					
Sta. 1079+00.00, 24.45' Rt. to Sta. 1079+00.00, 48.45' Rt.						15	24.0'																					
Sta. 1079+09.57 to Sta. 1079+55.62, Rt.						15	46.0'																					
Sta. 1080+71.29 to Sta. 1081+19.29, Rt.						15	48.0'																					
Sta. 1081+75.77 to Sta. 1082+19.77, Rt.						15	44.0'																					
Sta. 1081+82.57 to Sta. 1082+28.57, Lt.						15	46.0'																					
Cross Culverts																												
Sta. 989+66.93, 23.50' Lt. to Sta. 989+67.80, 28.0' Rt.	18	52.0'	III																									Riprap Inlet & Outlet
Sta. 990+01.04, 22.0' Rt. to Sta. 990+35.00, 21.0' Lt.	18	56.0'	III																									Riprap Inlet & Outlet
Sta. 993+33.98, 22.5' Lt. to Sta. 993+35.05, 25.5' Rt.	24	48.0'	III																									Riprap Inlet & Outlet
Sta. 1001+00.00, 23.0' Lt.to Sta. 1001+00.00, 29.0' Rt.	18	52.0'	III																									Riprap Inlet & Outlet
Sta. 1014+00.00, 28.0' Lt. to Sta. 1014+00.00, 32.0' Rt.	18	60.0'	III																									Riprap Inlet & Outlet
Sta. 1018+98.00, 41.0' Lt. to Sta. 1018+91.00, 43.0' Rt.	60	84.0'	IV																									Riprap Inlet & Outlet
Sta. 1027+27.04, 23.0' Lt. to Sta. 1027+27.04, 25.0' Rt.	24	48.0'	III																									Riprap Inlet & Outlet
Sta. 1031+86.77, 23.0' Lt. to Sta. 1031+87.69, 25.0' Rt.	18	48.0'	III																									Riprap Inlet & Outlet
Sta. 1042+75.00, 34.0' Lt. to Sta. 1042+75.00, 34.0' Rt.																	10.0'	6.0'	68.0'									Riprap Inlet & Outlet
Sta. 1049+50.00, 23.5' Lt. to Sta. 1049+50.00, 24.5' Rt.	18	48.0'	III																									Riprap Inlet & Outlet
Sta. 1077+00.00, 34.5', Lt. to Sta. 1077+00.00, 25.5' Rt.	18	60.0'	III																									Riprap Inlet & Outlet
Sta. 41+04.62, 20.0' Lt. to Sta. 41+07.01, 20.0' Rt.	18	40.0'	III																									Riprap Inlet & Outlet (Twin Culverts)
Sta. 41+04.62, 20.0' Lt. to Sta. 41+07.01, 20.0' Rt.	18	40.0'	III																									Riprap Inlet & Outlet (Twin Culverts)

GEOTECHNICAL NOTES

GENERAL

1. THE PROJECT GEOTECHNICAL REPORT, SUBSURFACE INVESTIGATION FOR CONSTRUCTION OF ROUTE 180, ELLSWORTH, MAINE. MAINEDOT SOILS REPORT NUMBER 2012-06, FEBRUARY 29, 2012, MAY BE ACCESSED AT THE FOLLOWING WEB ADDRESS: http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php

2. GEOTECHNICAL INFORMATION FURNISHED OR REFERENCED IN THIS PLAN SET IS FOR THE BIDDERS' AND CONTRACTOR'S USE. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR INTERPRETATIONS WILL BE REPRESENTATIVE OF ACTUAL SUBSURFACE CONDITIONS AT THE TIME OF CONSTRUCTION. THE DEPARTMENT SHALL NOT BE RESPONSIBLE FOR THE BIDDERS' AND CONTRACTOR'S INTERPRETATIONS OF, OR CONCLUSIONS DRAWN FROM, THE GEOTECHNICAL INFORMATION. THE BORING LOGS CONTAINED IN THE PLAN SET PRESENT INTERPRETIVE SUBSURFACE INFORMATION COLLECTED AT DISCRETE LOCATIONS. DATA PROVIDED MAY NOT BE REPRESENTATIVE OF THE SUBSURFACE CONDITIONS BETWEEN BORING LOCATIONS.

SLOPES

3. WHERE NEW EMBANKMENT FILLS ARE PLACED ON EXISTING SLOPES STEEPER THAN 2H:1V AND AS SHOWN ON THE PLANS, THE EXISTING SLOPES SHALL BE CONTINUOUSLY BENCHED AS PER STANDARD SPECIFICATION 203.09 AND OSHA REQUIREMENTS FOR EXCAVATIONS. BENCHING SHOWN ON THE CROSS SECTIONS IS FOR ESTIMATING PURPOSES ONLY.

SUBGRADE

4. COBBLES AND BOULDERS LARGER THAN 6 INCHES ENCOUNTERED AT SUBGRADE SHALL BE REMOVED. HOLES BELOW SUBGRADE THAT RESULT FROM THEIR REMOVAL SHALL BE BACKFILLED WITH NATIVE SOIL AND COMPACTED. PAYMENT WILL BE INCIDENTAL TO ITEM 203.20.

5. COBBLES AND BOULDERS IN SIDESLOPES SHALL NOT PROJECT MORE THAN 6 INCHES BEYOND THE FINISHED SLOPE LINE. HOLES IN THE SIDESLOPES THAT RESULT FROM THEIR REMOVAL SHALL BE BACKFILLED WITH NATIVE SOIL AND COMPACTED. PAYMENT WILL BE INCIDENTAL TO ITEM 203.20.

6. SOME SURFICIAL SOILS WILL BE SUBJECT TO RUTTING AND MAY BECOME DISTURBED DURING CONSTRUCTION. CARE SHOULD BE TAKEN TO AVOID DISTURBANCE OF SUBGRADE SOILS.

BEDROCK

7. A 20:1 LONGITUDINAL TRANSISTION SHALL BE CONSTRUCTED IN AREAS WHERE THE SUBGRADE CONSISTS OF ROCK AND CLASS IV FROST SUSCEPTIBLE SOILS. EXCAVATION OF THE TRANSITION ZONE SHALL BE PAID FOR AS PAY ITEM 203.20 COMMON EXCAVATION. THE CONTRACTOR SHALL REPLACE THE FROST SUSCEPTIBLE SOILS WITH MATERIAL MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 703.06 AGGREGATE FOR BASE AND SUBBASE -TYPE D, AND SHALL BE PAID FOR AS PAY ITEM 304.10 AGGREGATE SUBBASE COURSE-GRAVEL.

8. A 20:1 LONGITUDINAL TRANSITION SHALL BE CONSTRUCTED AT THE LOCATIONS NOTED ON THE PLANS OR AS DIRECTED BY THE RESIDENT TO REMOVE FROST SUSCEPTIBLE SOILS OVER BEDROCK AT SUBGRADE LEVEL.

9. BEDROCK PROFILES AS SHOWN ON THE CROSS SECTIONS ARE FOR ESTIMATING PURPOSES ONLY AND WERE INTERPOLATED FROM WIDELY SPACED SUBSURFACE INVESTIGATIONS. THE ACTUAL BEDROCK SURFACE WILL VARY FROM THE BEDROCK PROFILES SHOWN. ACTUAL ROCK EXCAVATION QUANTITIES WILL BE DETERMINED IN THE FIELD.

10. BEDROCK CUT SLOPES SHOWN ON THE PLANS MAY BE CHANGED DURING CONSTRUCTION AS DIRECTED BY THE RESIDENT.

GROUNDWATER

11. GROUNDWATER SEEPS ARE PROBABLE IN CUT SLOPES. IF SEEPS ARE ENCOUNTERED, RIPRAP SHALL BE PLACED OVER A GRANULAR FILTER AT SEEP LOCATIONS AS SHOWN IN THE SPECIAL DETAIL. RIPRAP SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATION 703.26 AND SHALL BE PAID FOR AS PAY ITEM 610.08. AGGREGAGE AND STONE USED IN THE GRANULAR FILTER SHALL MEET THE REQUIREMENTS OF SPECIAL PROVISION 203.35 AND SPECIAL PROVISION 203.38 AND SHALL BE PAID FOR AS THESE ITEMS.

12. IF GROUNDWATER SEEPS ARE ENCOUNTERED UNDER THE HIGHWAY OR SHOULDER, A FRENCH DRAIN SHALL BE CONSTRUCTED ACCORDING TO THE SPECIAL DETAIL INCLUDED IN THIS PLAN SET TO DRAIN THE WATER AWAY FROM THE ROADWAY.

13. FRENCH DRAIN AND GRANULAR FILTER WILL BE USED ONLY IF NEEDED, AS DIRECTED BY THE RESIDENT.

CONCRETE BOX CULVERT NOTES

1. THE PROJECT GEOTECHNICAL REPORT TITLED: GEOTECHNICAL DESIGN REPORT FOR THE NEW CONSTRUCTION OF BEAVER BRIDGE, ROUTE 180 OVER UNNAMED TRIBUTARY TO THE UNION RIVER, ELLSWORTH, MAINE. SOILS REPORT NO. 2011-07, MARCH 24, 2011, MAY BE ACCESSED AT THE MAINEDOT WEB ADDRESS.

2. THE CONTRACTOR SHALL CONSTRUCT THE CULVERT IN THE DRY. COFFER DAMS MAY BE REQUIRED TO DIVERT FLOW AWAY FROM THE NEW CULVERT LOCATION DURING CONSTRUCTION.

3. CRUSHED STONE BEDDING PLACED UNDER THE BOX CULVERT SHALL BE PLACED IN LIFTS BETWEEN 8 INCHES AND 12 INCHES THICK LOOSE MEASURE AND EACH LIFT SHALL BE COMPACTED TO INTERLOCK THE PARTICLES WITH A MINIMUM OF 4 PASSES WITH A VIBRATORY PLATE COMPACTOR.

4. ALL EMBANKMENT MATERIAL, EXCEPT AS OTHERWISE SHOWN, SHALL BE GRANULAR BORROW MEETING THE REQUIREMENTS OF 703.19, MATERIAL FOR UNDERWATER BACKFILL WITH THE ADDITIONAL REQUIREMENT THAT THE MAXIMUM PARTICLE SIZE SHALL BE LIMITED TO 4 INCHES. THE GRANULAR BORROW BACKFILL SHALL BE COMPACTED IN ACCORDANCE WITH THE BOX CULVERT MANUFACTURER'S RECOMMENDATIONS BUT IN NO CASE LESS THAN 92 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY AASHTO T180, METHOD C OR D.

5. RIPRAP ADJACENT TO THE BOX CULVERT SHALL BE PLACED SO AS NOT TO DAMAGE THE CULVERT. ANY DAMAGE TO THE BOX CULVERT DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AS DETERMINED BY THE RESIDENT AT THE CONTRACTOR'S EXPENSE.

6. THE RIPRAP SLOPE PROTECTION SHALL BE CONSTRUCTED AS SHOWN ON MAINEDOT STANDARD DETAIL 610(02). THE PROTECTIVE AGGREGATE CUSHION LAYER SHALL BE 12 INCHES. CLASS 1 NON-WOVEN EROSION CONTROL GEOTEXTILE SHALL BE USED UNDER THE PROTECTIVE AGGREGATE CUSHION LAYER.

7. THE BOX CULVERT SUBGRADE ELEVATION APPROXIMATE ELEVATION 112 FEET MAY CONSIST OF MARINE CLAY-SILT. THE CONTRACTOR SHALL NOT OPERATE EQUIPMENT OVER THE EXCAVATED SUBGRADE TO MINIMIZE SUBGRADE DISTURBANCE. IF THE SUBGRADE IS DISTURBED, WEAKENED, SOFTENED OR OTHERWISE RENDERED UNACCEPTABLE BY THE RESIDENT, THE CONTRACTOR SHALL OVER-EXCAVATE THE DISTURBED SUBGRADE ONE (1) FOOT AND REPLACE WITH COMPACTED GRANULAR BORROW TO THE SUBGRADE LEVEL AT THE CONTRACTOR'S EXPENSE.

8. BENCH EXISTING FILL SLOPE SOILS IN ACCORDANCE WITH MAINEDOT STANDARD SPECIFICATION 203.09, PREPARATION OF EMBANKMENT AREA, WHERE NEW FILL SLOPE EXTENSIONS ARE CONSTRUCTED OVER EXISTING SLOPES WITH GRADES GREATER THAN 2:1 (H:V).

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	X	
CHECKED-REVIEWED	-----	NMC \ JH	
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

DRAINAGE SHEET & GEOTECHNICAL NOTES

SHEET NUMBER

6

OF 151

Filename: ...\MSTA\006_Drainage sheet.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:5/15/2012

GENERAL NOTES

1. UTILITIES INVOLVED IN THIS CONTRACT ARE AS FOLLOWS:
BANGOR HYDRO
ELLSWORTH SEWER DISTRICT
ELLSWORTH WATER DISTRICT
NORTHERN NEW ENGLAND TELEPHONE OPERATIONS
TIME WARNER CABLE
UNION RIVER TELEPHONE COMPANY
MAINE DOT (RAILROAD)

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

3. TRIM ALL TREE BRANCHES TO 20 FEET ABOVE THE PAVEMENT AND 21 FEET FROM CENTERLINE, AS WELL AS ANY BRANCHES DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION. PAYMENT SHALL BE MADE UNDER THE APPROPRIATE RENTAL ITEMS. IF A TREE SPECIALIST IS SUBCONTRACTED FOR THIS WORK, PAYMENT WILL BE MADE BY INVOICE PLUS 5%.

4. 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.

5. THE CLEARING LINES SHOWN ON THE PLANS ARE FOR ESTIMATING PURPOSES ONLY. THE ACTUAL LINES FOR CLEARING SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR, AND APPROVED BY THE RESIDENT.

6. STUMPS HAVE BEEN ESTIMATED TO BE REMOVED UNDER ITEM 201.24 REMOVING STUMPS. HOWEVER, WHERE DIRECTED BY THE RESIDENT, ITEM NO. 631.20 STUMP CHIPPER RENTAL, MAY BE USED TO REMOVE STUMPS.

7. GRUBBING IN FILL AREAS HAVE 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 9 INCHES IN FIELD AREAS AND 15 INCHES IN WOODED AREAS.

8. DRIVEWAY FILL SIDE SLOPES SHALL BE THE SAME AS THE NON-GUARDRAIL FILL SLOPES, UNLESS OTHERWISE NOTED ON THE PLANS.

9. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN WASTE AREAS IN APPROVED WASTE AREAS.

10. 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.

11. IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS, IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW - UNDERWATER BACKFILL AND WILL PAID FOR AS GRANULAR BORROW (ITEM NO. 203.25).

12. GRANULAR BORROW (ITEM NO. 203. 25) USED TO BACKFILL MUCK EXCAVATION, OR IN LOW WET AREAS TO 1' ABOVE WATER LEVEL OR OLD GROUND, SHALL THE MEET REQUIREMENTS FOR GRANULAR BORROW UNDERWATER BACKFILL.

13. ANY EXISTING INSLOPES STEEPER THAN 2:1 IN PROPOSED FILL AREAS SHALL BE BENCHED, AS DIRECTED BY THE RESIDENT.

14. RESIDENTIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH: 2" HOT MIX ASPHALT (ITEM NO. 403.09) AND 12" AGGREGATE SUBBASE COURSE - GRAVEL (ITEM NO. 304.10).

15. COMMERCIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH: 3" HOT MIX ASPHALT (ITEM NO. 403.209) AND 11" AGGREGATE SUBBASE COURSE - GRAVEL (ITEM NO. 304.10).

16. UNPAVED ENTRANCES SHALL BE CONSTRUCTED WITH 14" AGGREGATE SUBBASE COURSE - GRAVEL (ITEM NO. 304.10).

17. A 3' PAVED LIP (ITEM NO. 403.209) SHALL BE PLACED AT ALL GRAVEL AND FIELD ENTRANCES, UNLESS OTHERWISE NOTED IN THE PLANS, OR DIRECTED BY THE RESIDENT.

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

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. EXISTING CULVERTS OR UNDERDRAIN DESIGNATED TO BE REMOVED ON THE PLANS OR BY THE RESIDENT SHALL BE CONSIDERED INCIDENTAL TO THE COMMON EXCAVATION ITEM 203.20.

22. INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED, UNLESS OTHERWISE NOTED ON THE PLANS, OR DIRECTED BY THE RESIDENT.

23. THE CULVERT SIZES SHOWN ON THE PLANS AND CROSS SECTIONS ARE FOR SMOOTHLINED PIPES. FOR COMPARABLE CORRUGATED SIZES SEE THE DRAINAGE TABULATION.

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

25. ALL CONNECTIONS FOR PROPOSED UNDERDRAIN (U.D.) TO EXISTING ROADWAY CULVERTS, UNDERDRAINS, OR MANHOLES, WILL BE INCIDENTAL TO THE PROPOSED U.D. PIPE ITEMS.

26. A 3 FT. X 3 FT. SQUARE RIPRAP PAD SHALL BE CONSTRUCTED AT ALL PROPOSED U.D. OUTLETS.

27. 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.

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

29. TWO REFLECTORIZED FLEXIBLE GUARDRAIL MARKERS (ITEM NO. 606.353) WILL BE INSTALLED AT EACH GUARDRAIL END. AN UNDERDRAIN DELINEATOR POST (ITEM NO. 606.356) WILL BE INSTALLED AT EACH UNDERDRAIN OUTLET.

30. AN UNDERDRAIN DELINEATOR POST (ITEM NO. 606.356) WILL BE INSTALLED AT THE LEADING AND TRAILING END OF EACH SECTION OF BITUMINOUS CURB, AS DIRECTED BY THE RESIDENT.

31. LOAM (ITEM NO. 615.07) OR COMPOST BLANKET (ITEM NO. 615.081) HAS BEEN ESTIMATED FOR 100% OF THE DISTURBED SLOPE AREAS. ACTUAL PLACEMENT OF THE LOAM OR COMPOST BLANKET, SHALL BE AS NOTED ON THE PLANS, OR AS DESIGNATED BY THE RESIDENT. SEE CONSTRUCTION NOTES & TYPICAL SECTIONS FOR PLACEMENT OF THE COMPOST BLANKET.

32. UNLESS OTHERWISE NOTED, SEEDING METHOD NO. 1 (ITEM NO. 618.1301) SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS; SEEDING METHOD NO. 2 (ITEM NO. 618.1401) SHALL BE UTILIZED ON ALL NON - GUARDRAIL SLOPES; AND SEEDING METHOD NO. 3 (ITEM NO. 618.1411) SHALL BE UTILIZED ON ALL GUARDRAIL FILL SLOPES. ON LONG NON - GUARDRAIL BACKSLOPES, SEEDING METHOD NO. 3 MAY BE USED INSTEAD OF METHOD NO. 2, IF NOTED OR DIRECTED BY THE RESIDENT. SPECIAL SEEDING METHOD- COMPOST BLANKET (ITEM NO. 618.143) SHALL BE UTILIZED ON THE COMPOST BLANKET AREAS (ITEM NO. 615.081)

33. LOAM (ITEM NO. 615.07) OR COMPOST BLANKET (ITEM NO. 615.081) SHALL BE PLACED TO A NOMINAL DEPTH OF 2 INCHES, UNLESS OTHERWISE NOTED OR DIRECTED BY THE RESIDENT.

34. MULCH (ITEM NO. 619.12) SHALL BE APPLIED IN AREAS SEEDED BY SEEDING METHOD NO. 1, SEEDING METHOD NO. 2, SEEDING METHOD NO. 3, AND SPECIAL SEEDING METHOD- COMPOST BLANKET, AS DIRECTED BY THE RESIDENT.

35. ACRYLIC LATEX COLOR FINISH, GREEN (ITEM 658.20) SHALL BE PLACED ON ALL PAVED ISLANDS, AS DIRECTED BY THE RESIDENT.

36. WHITE PAVEMENT / CURB MARKING LINE (ITEM 627.75) SHALL BE APPLIED TO ALL ISLAND TAPERED ENDS, AS DIRECTED BY THE RESIDENT.

37. WHITE PAVEMENT / CURB MARKING LINE (ITEM 627.75) SHALL BE APPLIED TO BITUMINOUS CURB ENDS AT DRIVEWAY OPENINGS, AS DIRECTED BY THE RESIDENT.

38. BASE PAVEMENT NOT SURFACED BEFORE WINTER WILL REQUIRE TEMPORARY PAVEMENT MARKINGS OF PAINT, BOTH YELLOW CENTERLINE AND WHITE EDGE LINES, AND WILL BE CONSIDERED PART OF ITEM 627.76.

39. EXISTING LIVESTOCK FENCES SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION, AS DIRECTED BY THE RESIDENT. MAINTENANCE OF THESE FENCES WILL BE INCIDENTAL TO THE CONTRACT.

40. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING MAILBOXES TO ENSURE THAT THE MAIL WILL BE DELIVERABLE. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK; IT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

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

42. 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.

43. PLANS OF ONE PREVIOUSLY CONSTRUCTED PROJECT ARE AVAILABLE ON REQUEST. THIS PROJECT IS: NH - 1000(700) E. THIS PROJECT WAS BUILT IN 2009 - 2010.

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

45. ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES FOR UNDERDRAIN AREAS ONLY (FOUND UNDER THE EARTHWORK SUMMARY) ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITIES REQUIRED TO INSTALL THESE 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.

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

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

48. STATIONS REFERENCED ON THE TYPICAL SECTIONS AND ON THE CONSTRUCTION NOTES ARE APPROXIMATE AND MAY BE ADJUSTED TO MEET FIELD CONDITIONS, AS DIRECTED BY THE RESIDENT.

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

50. IF PAVING EXTENDS OVER TWO SEASONS, BEFORE THE SURFACE IS PLACED, BUTT JOINTS SHALL BE CUT PER STANDARD DETAILS, OR AS DIRECTED BY THE RESIDENT. PAYMENT SHALL BE UNDER ITEM NO. 202.203 - PAVEMENT BUTT JOINTS.

51. THE CONTRACTOR IS RESPONSIBLE FOR TRANSFERRING ANY EXISTING STRIPING PATTERN TO THE SURFACE COURSE.

52. PRIOR TO REMOVAL OF PAVEMENT, THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING CENTERLINE AND MAINTAINING PROJECT STATIONING AT A MINIMUM INTERVAL OF 50 FEET.

53. A 24 HOUR NOTICE IS REQUIRED FOR ANY CHANGE IN WORK SCHEDULE. 48 HOUR NOTICES ARE REQUIRED FOR ANY CHANGE IN PAVING OPERATIONS AND PRIOR TO WORKING ANY SATURDAYS.

54. CURB TYPE 3 IS TO BE INSTALLED WITH MOLD TYPE 3.

55. CONSTRUCT ALL PAVED ISLANDS WITH 6" AGGREGATE SUBBASE COURSE - GRAVEL (ITEM NO. 304.10), AND 2" HOT MIX ASPHALT, 9.5 mm NOMINAL MAXIMUM SIZE (ITEM NO. 403.209).

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\mnsta\007_GeneralNotes.dgn Division: HIGHWAY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

GENERAL NOTES

SHEET NUMBER

7

OF 151

SUPERELEVATION CHART

Lt. Shoulder	Lt. Travelway	Station	Rt. Travelway	Rt. Shoulder
MATCH	MATCH	987+86.090	MATCH	MATCH
-4.00%	-2.00%	989+00.00	-2.00%	-4.00%
Normal				
-4.00%	-2.00%	989+50.000	-2.00%	-4.00%
-4.00%	⇩	989+77.920	⇩	-2.88%
-2.89%		990+00.000		-2.00%
-2.00%		990+17.725		↓
-2.00%	-2.00%	990+50.000	-2.00%	-2.00%
Normal				
-2.00%	-2.00%	994+50.000	-2.00%	-2.00%
↓	↓	994+75.000	↓	-4.00%
-2.00%	-2.00%	995+00.000	-2.00%	↓
Normal				
-2.00%	-2.00%	997+00.000	-2.00%	-4.00%
⇩	⇩	997+50.000	-2.00%	-2.00%
		998+00.000	-0.05%	-0.05%
		998+50.000	•1.90%	•1.90%
-2.00%	-2.00%	998+52.560	•2.00%	•2.00%
-3.85%	-3.85%	999+00.000	•3.85%	•3.85%
-5.80%	-5.80%	999+50.000	•5.80%	•5.80%
Full Superelevation				
-5.80%	-5.80%	1004+00.000	•5.80%	•5.80%
-4.14%	-4.14%	1004+50.000	•4.14%	•4.14%
-2.47%	-2.47%	1005+00.000	•2.47%	•2.47%
-0.81%	-0.81%	1005+50.000	•0.81%	•0.81%
•0.85%	•0.85%	1006+00.000	-0.85%	-0.85%
•2.52%	•2.52%	1006+50.000	-2.52%	-2.52%
•4.18%	•4.18%	1007+00.000	-4.18%	-4.18%
Full Superelevation				
•4.18%	•4.18%	1009+50.000	-4.18%	-4.18%
•2.64%	•2.64%	1010+00.000	-2.64%	-2.64%
•2.00%	•2.00%	1010+20.560	-2.00%	-2.00%
•1.09%	•1.09%	1010+50.000	⇩	⇩
-0.46%	-0.46%	1011+00.000		
-2.00%	-2.00%	1011+50.000		
Normal				
-2.00%	-2.00%	1014+50.000	-2.00%	-2.00%
⇩	⇩	1015+00.000	-0.87%	-2.54%
		1015+50.000	•0.27%	-3.07%
		1016+00.000	•1.41%	-3.61%
-2.00%	-2.00%	1016+26.210	•2.00%	-3.89%
-2.31%	-2.23%	1016+36.160	•2.23%	-4.00%
-2.75%	-2.54%	1016+50.000	•2.54%	⇩
-4.00%	⇩	1016+89.800	⇩	
⇩		1017+00.000		
		1017+50.000		
		1018+00.000		
	-2.54%	1018+50.000	•2.54%	
	-2.00%	1018+73.790	•2.00%	
	⇩	1019+00.000	•1.41%	
		1019+50.000	•0.27%	
		1020+00.000	-0.87%	
		1020+34.540	-1.65%	-4.00%
		1020+50.000	-2.00%	-3.73%
-4.00%		1020+66.150	⇩	-3.45%
-3.19%		1021+00.000		-2.87%
-2.00%	-2.00%	1021+50.000	-2.00%	-2.00%
Normal				
-2.00%	-2.00%	1034+50.000	-2.00%	-2.00%
-0.40%	-0.40%	1035+00.000	⇩	⇩
•1.20%	•1.20%	1035+50.000		
•2.00%	•2.00%	1035+75.000	-2.00%	-2.00%
•2.80%	•2.80%	1036+00.000	-2.80%	-2.80%
4.40%	4.40%	1036+50.000	-4.40%	-4.40%
Full Superelevation				
•4.40%	4.40%	1039+00.000	-4.40%	-4.40%
•2.25%	⇩	1039+50.000	⇩	-4.40%
•0.10%		1040+00.000		-4.25%
-2.05%		1040+50.000		-4.11%
-3.67%		1040+87.800		-4.00%
-4.00%		1040+95.370		⇩
⇩	•4.40%	1041+00.000	-4.40%	
	•2.80%	1041+50.000	-2.80%	
	•2.00%	1041+75.000	-2.00%	
	•1.20%	1042+00.000	⇩	
	-0.40%	1042+50.000		
	-2.00%	1043+00.000		
	⇩	1043+50.000		
		1044+00.200		
-4.00%		1044+45.630		
-3.94%		1044+50.000		
-3.92%		1044+51.580		-4.00%
-3.30%		1045+00.000		-3.35%
-2.65%		1045+50.000		-2.67%
-2.00%	-2.00%	1046+00.000	-2.00%	-2.00%
Normal				
-2.00%	-2.00%	1066+00.000	-2.00%	-2.00%
⇩	⇩	1066+50.000	⇩	-2.68%
		1067+00.000		-3.37%
		1067+46.480		-4.00%
-2.00%		1067+50.000		⇩
-2.75%		1068+00.000		
-3.49%		1068+50.000		
-4.00%		1068+84.000		
-4.00%	-2.00%	1069+00.000	-2.00%	-4.00%
-4.00%	-2.00%	1075+00.000	-2.00%	-4.00%

SUPERELEVATION CHART (cont.)

Normal				
-4.00%	-2.00%	1075+00.000	-2.00%	-4.00%
⇩	⇩	1075+33.980	⇩	-4.00%
		1075+50.000		-3.72%
		1076+00.000		-2.86%
		1076+50.000		-2.00%
		1077+00.000		⇩
		1077+50.000		
-4.00%		1077+84.000		
-3.52%		1078+00.000		
-2.00%	-2.00%	1078+50.000	-2.00%	-2.00%
Normal				
-2.00%	-2.00%	1082+00.000	-2.00%	-2.00%
-5.05%	-1.95%	1082+50.000	-1.55%	-5.45%
MATCH	MATCH	1083+00.000	MATCH	MATCH

CONSTRUCT THE FOLLOWING DRIVES AND ENTRANCES

STATION	OFFSET	DESCRIPTION	
990•01.04	Lt.	Gravel	RESIDENTIAL
990•02.42	Rt.	Gravel	RESIDENTIAL
990•77.16	Rt.	Field	RESIDENTIAL
993•73.32	Rt.	Gravel	COMMERCIAL
994•54.00	Rt.	Gravel	COMMERCIAL
997•85.00	Rt.	Gravel	COMMERCIAL
998•56.39	Rt.	Gravel	COMMERCIAL
1002•64.00	Rt.	Gravel	COMMERCIAL
1003•47.00	Rt.	Gravel	COMMERCIAL
1020•63.64	Rt.	Gravel	RESIDENTIAL
1021•05.16	Lt.	Gravel	RESIDENTIAL
1079•34.66	Rt.	Gravel	RESIDENTIAL
1080•90.81	Rt.	Gravel	RESIDENTIAL
1081•90.28	Rt.	Paved	RESIDENTIAL
1081•91.14	Lt.	Gravel	RESIDENTIAL
21•00.00	Rt.	Gravel	COMMERCIAL
32•50.00	Lt.	Paved	RESIDENTIAL
32•50.00	Rt.	Gravel	RESIDENTIAL

CONSTRUCT THE FOLLOWING BITUMNIOUS ISLANDS:

STATION	TO	STATION	OFFSET
993•94.32		994•33.00	RT.
1002•85.70		1003•25.55	RT.

ITEM NO. 201.11 CLEARING

STATION	TO	STATION	OFFSET
989•26.38		989•60.00	Lt.
989•78.92		989•89.94	Lt.
990•71.79		990•83.44	Rt.
991•32.35		991•84.38	Rt.
991•71.70		992•12.96	Lt.
993•27.47		993•44.32	Rt.
993•82.15		22•46.00	Lt./Lt.
997•14.08		997•51.27	Rt.
998•18.81		998•54.64	Rt.
998•90.75		1000•65.99	Rt.
1001•25.08		1005•28.88	Lt.
1002•10.51		1002•47.85	Rt.
1004•05.00		1020•21.57	Rt.
1005•88.26		1008•06.50	Lt.
1008•06.85		1019•96.15	Lt.
1021•68.25		1026•53.78	Lt.
1021•94.41		1039•12.80	Rt.
1026•83.25		1039•85.60	Lt.
1039•34.01		1042•40.03	Rt.
1040•36.74		1042•09.95	Lt.
1042•98.07		1044•74.13	Rt.
1043•40.94		1072•04.16	Lt./Rt.
1070•82.73		1072•03.00	Rt.
1071•56.86		1078•50.00	Rt./Lt.
1072•31.09		1073•55.98	Lt.
1076•62.25		1079•86.27	Lt.
1079•90.31		1080•18.25	Rt.
1080•46.90		1080•67.95	Rt.
1080•51.45		1081•92.85	Lt.
1081•07.00		1081•96.84	Rt.
40•86.34		41•43.40	Rt.
58•14.02		58•33.70	Rt.

ITEM NO. 201.23 REMOVE SINGLE TREE

STATION	OFFSET	DESCRIPTION
1081•77.66	22.95' Rt.	14" Pine
1082•69.13	28.53' Lt.	36" Pine

ITEM NO. 201.24 REMOVE STUMP

STATION	OFFSET	DESCRIPTION
1081•77.66	22.95' Rt.	14" Pine
1082•69.13	28.53' Lt.	36" Pine

(NON- PAY TREES TO BE REMOVED)

STATION	OFFSET	DESCRIPTION
988•75.52	18.39' Lt.	2" Birch
988•81.75	19.13' Lt.	6" Hack
988•84.64	19.55' Lt.	6" Poplar
988•89.68	19.83' Lt.	2" Birch
990•51.08	23.84' Rt.	10" Apple
990•89.03	23.18' Rt.	10" Apple
992•81.99	30.76' Rt.	5" -9 Cherry
1005•64.98	20.93' Lt.	5" Mapple
1005•89.39	16.10' Lt.	5" Mapple
1081•43.48	27.03 Rt.	8" Spruce
1081•50.96	27.63' Rt.	3" Fir
1081•56.67	26.24' Rt.	3" Spruce
1081•65.40	22.67' Rt.	1" Fir
1082•22.27	23.86' Lt.	3" Fir
1082•32.76	27.99' Lt.	7" Spruce
1082•39.28	27.21' Lt.	9" Spruce
1082•45.00	27.46' Lt.	5" Fir
1082•60.96	25.57' Rt.	2" Fir

(NON-PAY BUSHES TO BE REMOVED)

STATION	OFFSET	DESCRIPTION
989•75.44	17.47' Rt.	3' Dia.
1082•57.43	27.79' Lt.	1' Dia.
1082•13.89	33.52' Rt.	2' Dia.
1082•14.05	33.26' Rt.	2' Dia.
1082•27.58	33.17' Rt.	1' Dia.
1082•46.98	30.87' Rt.	3' Dia.

ITEM NO. 202.15 REMOVE MANHOLE OR CATCHBASIN

STATION	OFFSET
995•87.09	23.38' Rt.

ITEM NO. 203.35 CRUSHED STONE (3/4" STONE)

STATION	TO	STATION	FOR 10' X 6' PRECAST BOX CULVERT
1042•67.00		1042•83.00	

ITEM NO. 513.22 CRUSHED STONE SLOPE PROTECTION

STATION	TO	STATION	FOR 10' X 6' X 68.0' PRECAST BOX CULVERT
1042•53.00		1042•97.00	

ITEM NO. 606.23 GUARDRAIL 3C SINGLE RAIL

STATION	TO	STATION	OFFSET	LENGTH (FT)
1016•36.16		1020•34.54	Rt	400.00
1016•89.80		1020•66.15	Lt	375.00
1020•85.55		1020•90.01	Lt	12.50
1020•56.23		1020•63.93	Rt	12.50
1040•87.80		1044•51.58	Rt	362.50
1040•95.37		1044•45.63	Lt	350.00
1067•46.48		1075•33.98	Rt	787.50
1068•84.00		1077•84.00	Lt	900.00

ITEM NO. 606.232 GUARDRAIL 3C SINGLE RAIL- OVER 15' RADIUS

STATION	TO	STATION	OFFSET	LENGTH (FT)
1020•34.54		1020•56.23	Rt	25.00
1020•66.15		1020•85.55	Lt	25.00
1075•33.98		30•64.75	Rt	75.00

ITEM NO. 606.265 TERMINAL END- SINGLE RAIL GALVANIZED STEEL

STATION	OFFSET	QUANTITY
1020•63.93	Rt	1
1020•90.01	Lt	1

ITEM NO. 606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKERS

STATION	TO	STATION	OFFSET	# OF MARKERS
1016•36.16		1020•34.54	Rt	4
1016•89.80		1020•66.15	Lt	4
1040•87.80		1044•51.58	Rt	4
1040•95.37		1044•45.63	Lt	4
1067•46.48		1075•33.98	Rt	4
1068•84.00		1077•84.00	Lt	4

ITEM NO. 606.356 UNDERDRAIN DELINEATOR POSTS

STATION	OFFSET	QUANTITY
993•35.05	30.0' Rt	1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

BRIDGE NO. 6437

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

SUPERELEVATION CHART & CONSTRUCTION NOTES

SHEET NUMBER

8

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Division: HIGHWAY

Filename: ...\008_Construction Notes 1.dgn

Filename: ...\009_Construction Notes 2.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

ITEM NO. 606.79 GUARDRAIL 350 FLARED TERMINAL

STATION	TO	STATION	OFFSET	QUANTITY
1015+98.66		1016+36.16	Rt	1
1016+52.30		1016+89.80	Lt	1
1040+50.30		1040+87.80	Rt	1
1040+57.88		1040+95.37	Lt	1
1044+51.58		1044+89.08	Rt	1
1044+45.63		1044+83.13	Lt	1
1068+46.50		1068+84.00	Lt	1
1067+08.98		1067+46.48	Rt	1
1077+84.00		1078+21.50	Lt	1
30+64.75		31+02.25	Rt	1

ITEM NO. 609.31 CURB TYPE 3

MAINLINE

STATION	TO	STATION	OFFSET	LENGTH (FT)
987+33.14		989+50.00	Rt.	216.86
987+20.47		989+50.00	Lt.	229.53
994+75.00		997+64.10	Rt.	289.10

ISLANDS

STATION	TO	STATION	OFFSET	LENGTH (FT)
993+94.32		994+33.00	Rt.	38.68
993+94.32		994+33.00	Rt.	38.68
1002+86.04		1003+25.19	Rt.	39.15
1002+86.04		1003+25.19	Rt.	39.15

ITEM NO. 610.08 PLAIN RIPRAP

CULVERT PIPE ENDS

STATION	OFFSET		DESCRIPTION
41+04.62	20.00'	Lt.	18" RCP PIPE
41+04.62	20.00'	Lt.	18" RCP PIPE
41+07.01	20.00'	Rt.	18" RCP PIPE
41+07.01	20.00'	Rt.	18" RCP PIPE
989+66.93	23.50'	Lt.	18" RCP PIPE
989+67.80	28.00'	Rt.	18" RCP PIPE
990+01.04	22.00'	Rt.	18" RCP PIPE
990+35.00	21.00'	Lt.	18" RCP PIPE
993+33.98	22.50'	Lt.	24" RCP PIPE
993+35.05	25.50'	Rt.	24" RCP PIPE
997+68.95	24.45'	Lt.	18" RCP PIPE
998+81.10	24.22'	Lt.	18" RCP PIPE
1001+00.00	23.00'	Lt.	18" RCP PIPE
1001+00.00	29.00'	Rt.	18" RCP PIPE
1014+00.00	24.50'	Lt.	18" RCP PIPE
1014+00.00	27.50'	Rt.	18" RCP PIPE
1018+91.00	43.00'	Rt.	60" RCP PIPE
1018+98.00	41.00'	Lt.	60" RCP PIPE
1027+27.04	23.00'	Lt.	24" RCP PIPE
1027+27.04	25.00'	Rt.	24" RCP PIPE
1031+86.77	23.00'	Lt.	18" RCP PIPE
1031+87.69	25.00'	Rt.	18" RCP PIPE
1049+50.00	23.50'	Lt.	18" RCP PIPE
1049+50.00	24.50'	Rt.	18" RCP PIPE
1077+00.00	24.50'	Lt.	18" RCP PIPE
1077+00.00	25.50'	Rt.	18" RCP PIPE

PRECAST BOX CULVERT

STATION	to	STATION	DESCRIPTION
1042+67.00		1042+83.00	UNDER BOX CULVERT
1042+69.00		1042+81.00	(2) RIPRAP APRONS
1042+53.00		1042+97.00	(2) HEADWALL SLOPE PROTECTION
1042+53.00		1042+97.00	(2) PLAIN RIPRAP SIDE SLOPES

ITEM NO. 609.31 CURB TYPE 3

STATION	TO	STATION	OFFSET	LENGTH (FT)
1070+00.00		1071+86.00	Lt.	186.00
1072+70.00		1075+50.00	Lt.	280.00

ITEM NO. 613.319 EROSION CONTROL BLANKET

STATION	TO	STATION	OFFSET	DESCRIPTION
20+23.50		22+25.00	Lt.	USE IN DITCH
20+23.50		22+40.00	Rt.	
34+00.00		1077+00.00	Lt.	
41+60.00		1080+50.00	Rt./Lt.	
989+67.80		991+00.00	Rt.	
990+35.00		993+00.00	Lt.	
992+95.00		993+05.00	Rt.	
993+18.00		993+25.00	Rt.	
993+18.00		1012+50.00	Lt.	
993+35.05		993+50.00	Rt.	
1002+25.00		1011+78.84	Rt.	
1012+50.00		1014+50.00	Lt.	
1014+50.00		1017+00.00	Lt.	
1017+00.00		1018+91.00	Lt.	
1018+91.00		1018+98.00	Lt.	
1020+00.00		1026+00.00	Rt.	
1020+50.00		1040+50.00	Lt.	
1032+90.90		1040+00.00	Rt.	
1041+85.00		1042+75.00	Lt.	
1043+50.00		1048+50.00	Rt.	
1043+50.00		1049+00.00	Lt.	
1050+50.00		1052+50.00	Rt.	
1052+00.00		1068+00.00	Lt.	
1052+50.00		1067+37.00	Rt.	
1068+00.00		1071+50.00	Lt.	
1073+75.00		1074+25.00	Rt.	
1075+50.00		33+80.20	Rt.	
1077+00.00		1083+00.00	Rt.	
1080+50.00		1083+00.00	Lt.	USE IN DITCH

ITEM NO. 615.081 COMPOST BLANKET

STATION	TO	STATION	OFFSET	LENGTH (FT)
989+50.00		989+75.00	Lt.	25.00
989+50.00		990+07.00	Rt.	57.00
990+35.00		993+00.00	Lt.	265.00
991+00.00		993+00.00	Rt.	200.00
993+18.00		997+75.00	Lt.	457.00
993+18.00		993+50.00	Rt.	32.00
1011+50.00		1016+00.00	Lt.	450.00
1011+50.00		1016+00.00	Rt.	450.00
1016+00.00		1021+50.00	Rt.	550.00
1021+50.00		1035+00.00	Lt.	1,350.00
1021+50.00		1035+00.00	Rt.	1,350.00
1040+50.00		1042+75.00	Lt.	225.00
1044+50.00		1045+50.00	Rt.	100.00
1044+50.00		1045+50.00	Lt.	100.00
1045+50.00		1067+00.00	Rt.	2,150.00
1045+50.00		1067+00.00	Lt.	2,150.00
1067+00.00		1067+50.00	Rt.	50.00
1067+00.00		1067+50.00	Lt.	50.00
1076+60.00		1079+10.00	Rt.	250.00
1077+15.00		1079+45.00	Lt.	230.00
1079+10.00		1080+70.00	Rt.	160.00
1080+65.00		1081+80.00	Lt.	115.00
1081+10.00		1081+80.00	Rt.	70.00
1082+10.00		1083+00.00	Rt.	90.00
1082+15.00		1083+00.00	Lt.	85.00

VITTUM ROAD

20+30.00	22+50.00	Rt.	220.00
20+30.00	22+50.00	Lt.	220.00

OLD RT. 180

30+50.00	32+35.00	Rt.	185.00
30+50.00	32+35.00	Lt.	185.00
32+65.00	34+00.00	Rt.	135.00
32+65.00	34+00.00	Lt.	135.00

BRIDGETWIN ROAD

40+60.00	41+75.00	Rt.	115.00
40+60.00	41+75.00	Lt.	115.00

ITEM NO. 658.20 ACRYLIC LATEX COLOR FINISH- GREEN

STATION	TO	STATION	OFFSET
993+94.32		994+33.00	Rt.
1002+86.04		1003+25.19	Rt.

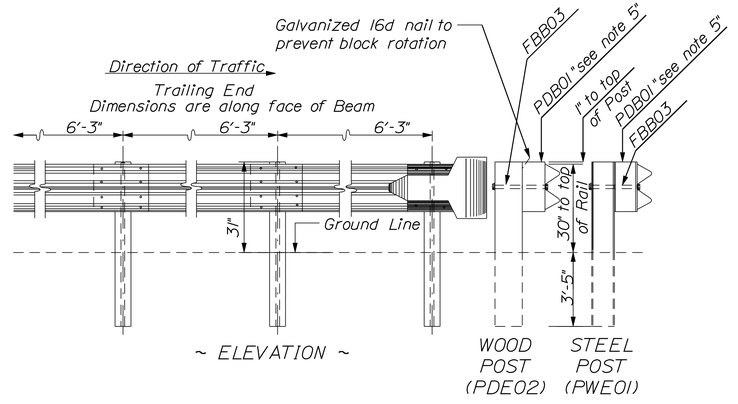
TEMPORARY RAILROAD CROSSING REPLACEMENT DETOUR NOTES

1. ** INSTALLATION OF TEMPORARY RAILROAD CROSSING DETOUR IS TO BE PAID FOR UNDER ITEM NO. 203.25- GRANULAR BORROW. REMOVAL OF THE TEMPORARY DETOUR IS TO BE PAID FOR UNDER ITEM NO. 203.20- COMMON EXCAVATION. THE MATERIAL (GRANULAR BORROW) MAY BE USED TO REDUCE THE AMOUNT OF COMMON BORROW AS NEEDED, OR AS DIRECTED BY THE RESIDENT

2. ITEM NO. 643.720- TEMPORARY TRAFFIC SIGNAL IS FOR USE DURING THE RAILROAD DETOUR. SIGNALS ARE TO BE "TRUCK MOUNTED". LOCATION TO BE DETERMINED IN THE FIELD, AS DIRECTED BY THE RESIDENT

3. SEE PLAN SHEET NO. 22 OF 151 FOR PROPOSED LAYOUT OF THE TEMPORARY DETOUR. FINAL LOCATION TO BE DETERMINED IN THE FIELD AS DIRECTED BY THE RESIDENT.

GUARDRAIL STANDARD DETAIL



NOTES:

1. Intermediate post spacing shall be 6'-3" unless otherwise shown.
2. Wood posts for Guardrail shall be 6" nom. (5½" min.) x 8" nom. (7½" min.) and offset blocks shall be 6" x 8" nom. (5½" x 7½" min.).
3. Steel posts for Guardrail shall be W6x9.0.
4. Steel posts punched with holes in addition to those specified to accommodate other types of Guardrail, will be accepted subject to the approval of the Resident.
5. Composite offset blocks may be used as an alternative to wood offset blocks provided that they meet NCHRP 350 requirements and are installed according to manufacturers specifications.
6. Beam type Guardrail set on a radius of 150' or less shall be circular Guardrail.
7. Offset bracket shall be installed on all posts.
8. Guardrail Terminal End (RWE03A) to be used only on trailing end of Guardrail on divided highway. Washers (FWR03) shall be installed on the last 9 posts.
9. Identification letters and numbers on drawings refer to the standard detail drawings shown in "A guide to Standardized Highway Barrier Hardware" by AASHTO-AGC-ARTBA Joint Committee.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

BRIDGE NO. 6437

HISTORIC PLANS

PROJ. MANAGER	ERNIE MARTIN			
DESIGN-DETAILED	J. Monzer	BY	X	DATE
CHECKED-REVIEWED	-----	NMC \ JH	-----	-----
DESIGN2-DETAILED2	-----	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----	-----
REVISIONS 1	-----	-----	-----	-----
REVISIONS 2	-----	-----	-----	-----
REVISIONS 3	-----	-----	-----	-----
REVISIONS 4	-----	-----	-----	-----
FIELD CHANGES	-----	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

CONSTRUCTION NOTES

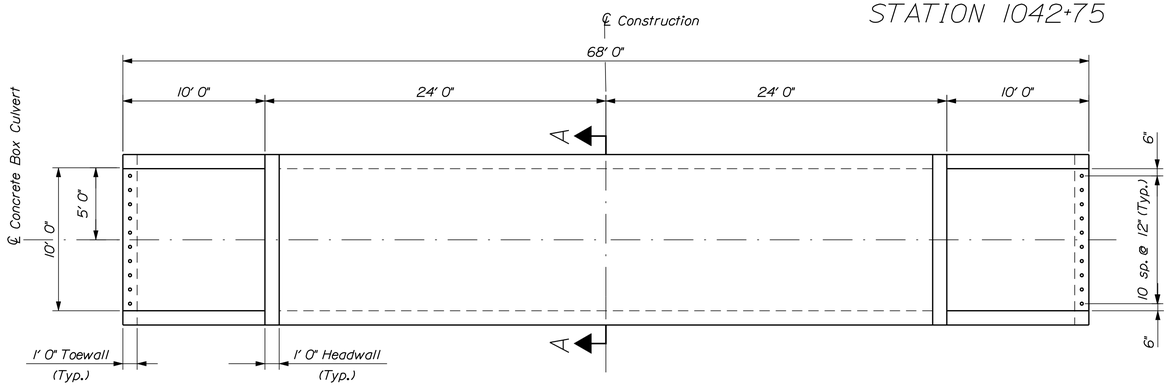
SHEET NUMBER

9

OF 151

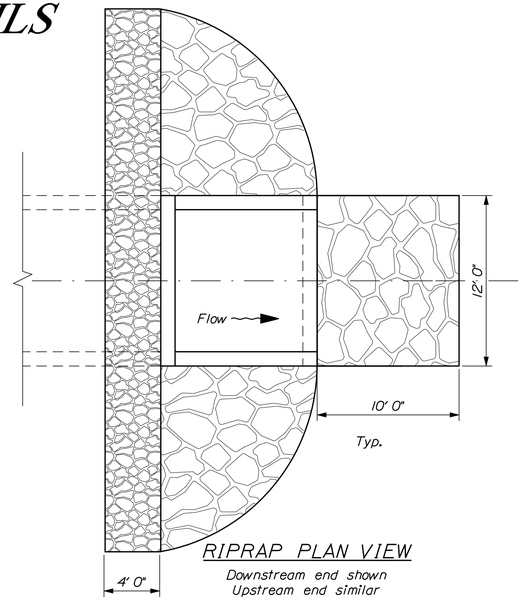
BOX CULVERT DETAILS

STATION 1042+75



CONCRETE BOX CULVERT PLAN VIEW

Sta. 1042+75.00



RIPRAP PLAN VIEW

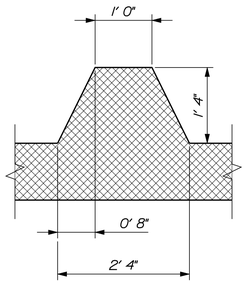
Downstream end shown
Upstream end similar

PRECAST CONCRETE BOX NOTES

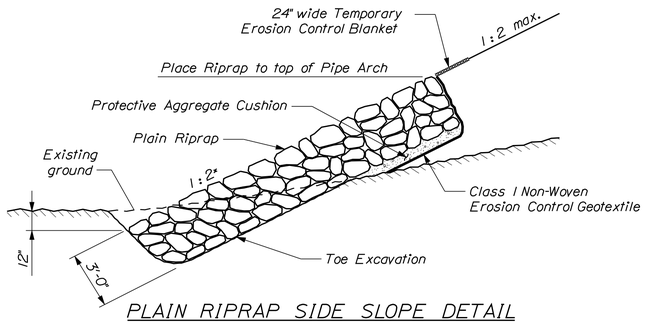
1. The construction, handling, and assembly of the precast units shall be in accordance with Special Provisions Section 534, Precast Structural Concrete and with the manufacturer's specifications as applicable.

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

3. Guardrail Treatment Over Buried Structures, 606(24) payment shall be considered incedental to the guardrail pay items.

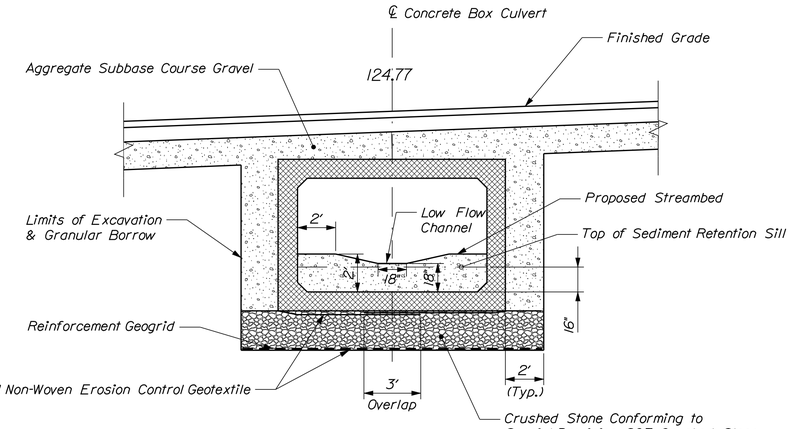


SEDIMENT RETENTION SILL DETAIL

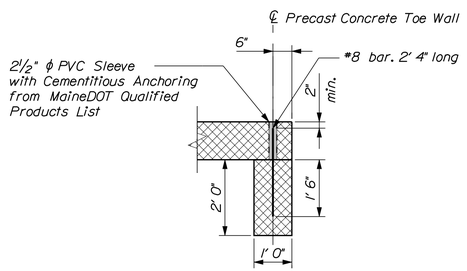


PLAIN RIPRAP SIDE SLOPE DETAIL

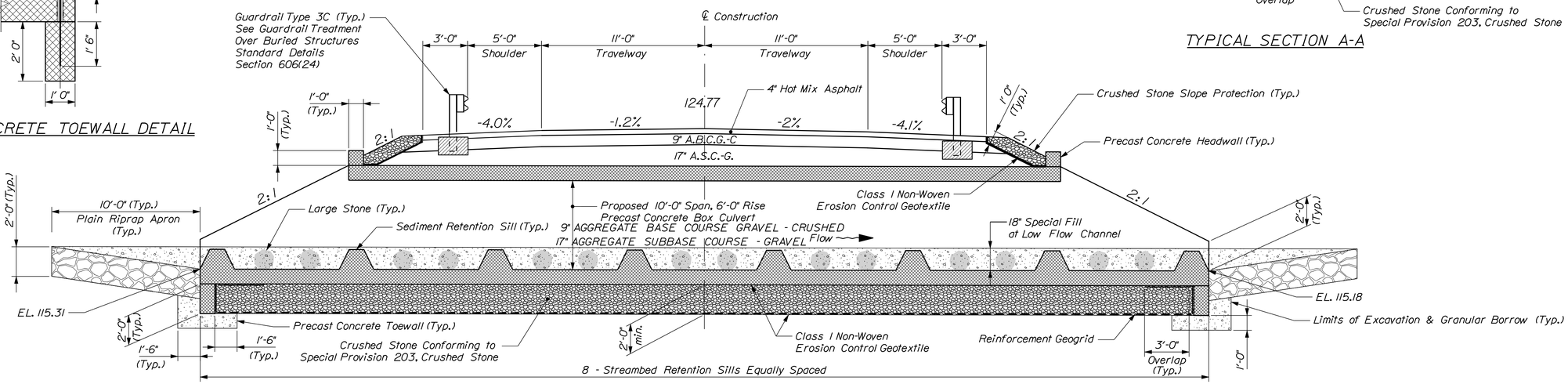
* Match ends of Concrete Box Culvert



TYPICAL SECTION A-A



PRECAST CONCRETE TOEWALL DETAIL



TYPICAL BRIDGE SECTION

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	---	-----	-----
DESIGN2-DETAILED2	---	-----	-----
DESIGN3-DETAILED3	---	-----	-----
REVISIONS 1	---	-----	-----
REVISIONS 2	---	-----	-----
REVISIONS 3	---	-----	-----
REVISIONS 4	---	-----	-----
FIELD CHANGES	---	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

BOX CULVERT DETAILS

SHEET NUMBER

10

OF 151

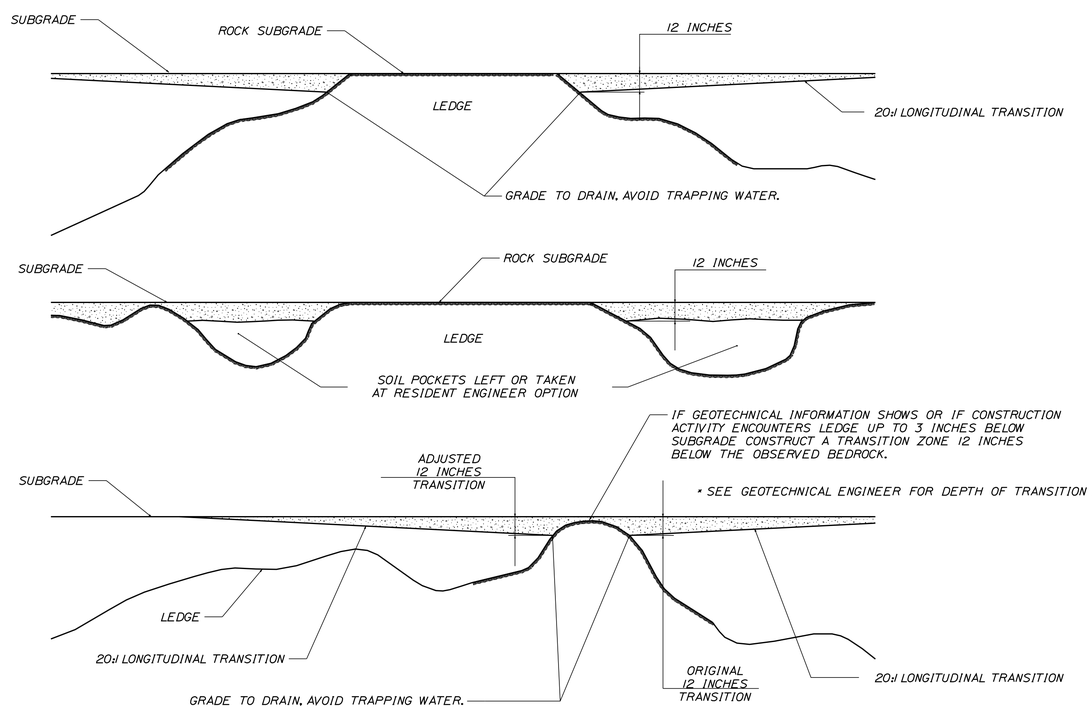
Username: Natasha.M.Collins Date:5/15/2012

Division: HIGHWAY

Filename: ...\010_Typical_BoxCulvert.dgn

GEOTECHNICAL DETAILS

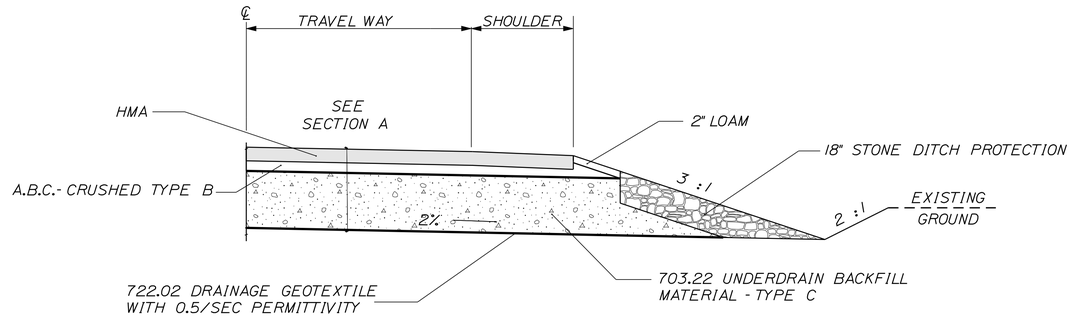
PROFILE OF UNDERCUT OF FROST SUSCEPTIBLE SOILS OVER LEDGE



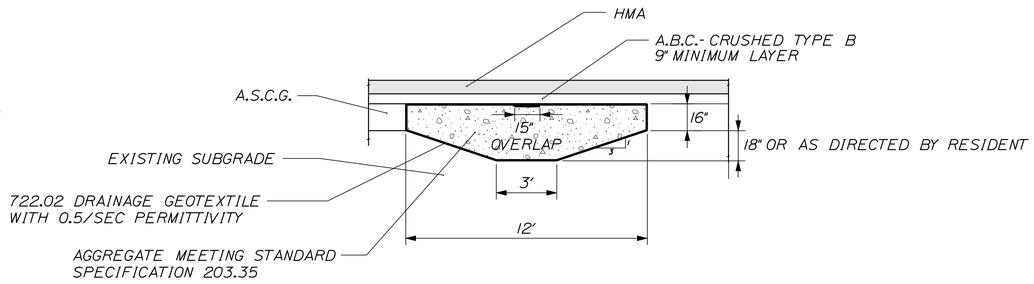
TRANSVERSE UNDERCUT OF FROST SUSCEPTIBLE SOILS OVER LEDGE

IF A SOIL SECTION BETWEEN LEDGE SUBGRADE IS OF SUCH LENGTH THAT THE TRANSITION FROM EACH EDGE WOULD MEET. IT SHOULD BE TREATED AS AN EARTH POCKET

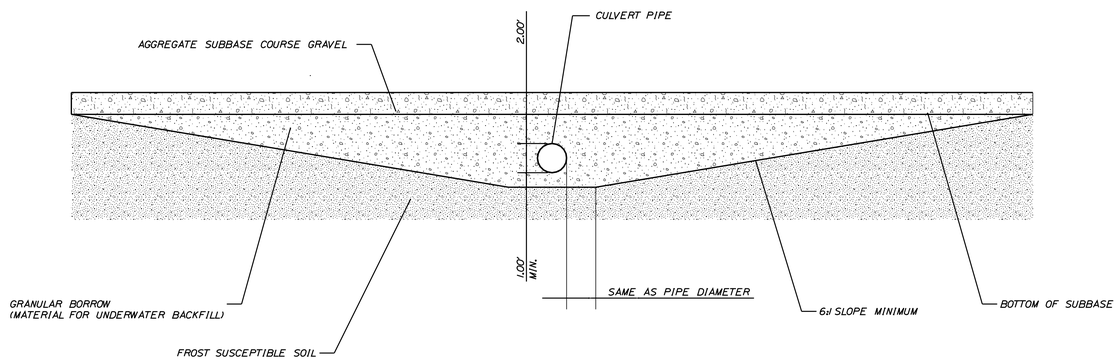
TRANSVERSE FRENCH DRAIN DETAIL

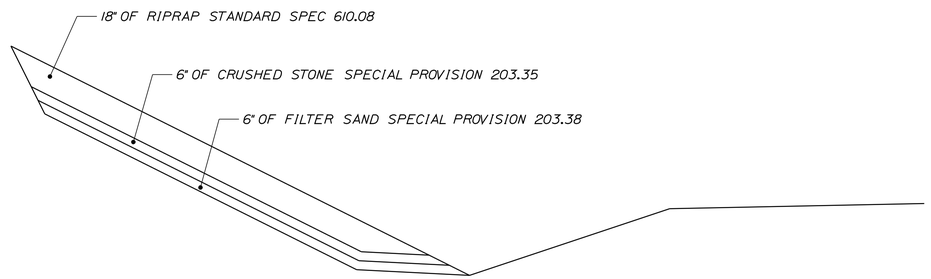


SECTION A



CROSS CULVERT IN FROST SUSCEPTIBLE SOILS





RIPRAP WITH GRANULAR FILTER FOR GROUNDWATER SEEPS

NOTE: EXCAVATION IS TO BE CONSIDERED INCIDENTAL TO RELATED ITEMS

SEE SHEET 8 OF 166 FOR GEOTECHNICAL NOTES

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN			
DESIGN-DETAILED	J. Monzer	NMC \ JH	X	
CHECKED-REVIEWED	-----	-----	-----	
DESIGN2-DETAILED2	-----	-----	-----	
DESIGN3-DETAILED3	-----	-----	-----	
REVISIONS 1	-----	-----	-----	
REVISIONS 2	-----	-----	-----	
REVISIONS 3	-----	-----	-----	
REVISIONS 4	-----	-----	-----	
FIELD CHANGES	-----	-----	-----	

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

GEOTECH DETAILS

SHEET NUMBER

11

OF 151

Username: Natasha.M.Collins Date:4/13/2012
Division: HIGHWAY
Filename: ...\011_Geotech Notes & Details.dgn

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

Project: Route 180
Locations Ellsworth, Maine

Boring No.: HB-ELLS-101
WIN: 10063.10

Driller: Northern Test Boring | Elevation (ft.): | Auger ID/OD: 2.25/5.5"
Operator: Wike/Nick | Datum: NAVD 88 | Sampler: Standard Split Spoon
Logged By: C. Beebe | Rig Type: Diedrich D-50 #283 | Hammer Wt./Fall: 140#/30"
Date Start/Finish: 6/19/08-6/19/08 | Drilling Methods: Hollow Stem Auger | Core Barrel: N/A
Boring Location: 184+71, 6.0 Rt. | Casing ID/OD: N/A | Water Level(ft): None Observed
Hammer Efficiency Factor 0.633 | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Unconfined Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA	-0.30		Grassy surface. 0.30	
	10	24/24	1.00 - 3.00	4/1/3/5	4	4				Red brown, damp, soft, SILT, some clay, trace fine sand, trace coarse sand in first 2", plasticity, banding. (Desecated Glaciomarine Silt).	GM210707 A-4, CL-ML WC=21.0%
5	20	24/24	5.00 - 7.00	5/6/6/6	12	13				Grey and orange brown streaked, moist, stiff, SILT, little clay, some banding. (Desecated Glaciomarine Silt).	GM210708 A-4, CL-ML WC=16.8% LL=23 PL=18 PI=5
10	30/AB	24/24	10.00 - 12.00	3/2/3/3	5	5		-10.20		(30/A) 10.0-10.2' bgs. Similar to 20. (Desecated Glaciomarine Silt). (30/B) 10.2-12.0' bgs. Grey, wet, medium stiff, SILT, some clay. (Undesecated Glaciomarine Silt). -40.20	GM210684 A-6, CL WC=24.7% LL=26 PL=18 PI=8
15	40	24/24	15.00 - 17.00	2/1/2/2	3	3				Dark grey, wet, soft, clayey SILT. (Undesecated Glaciomarine Silt).	GM210709 A-6, CL WC=28.8% LL=31 PL=19 PI=12
20	50	24/24	20.00 - 22.00	1/2/2/2	4	4				Similar to 40, but silvery color.	GM210710 A-6, CL WC=32.5% LL=34 PL=23 PI=11
25	60	24/24	25.00 - 27.00	2/2/2/1	4	4				Similar to 50.	
	70	24/24	27.00 - 29.00					-27.00		Failed TD spoon refusal at 29.0' bgs., but sampled soil from above 29.0' bgs. : Grey, wet, soft, silty CLAY, some fine to very coarse angular sand. (Till). -29.00	GM210711 A-4, CL-ML WC=16.7%
30										Bottom of Exploration at 29.00 feet below ground surface. SPOON REFUSAL	
35											
40											
45											
50											
55											
60											

Remarks:

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

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

Page 1 of 1
Boring No.: HB-ELLS-101

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

Project: Route 180
Locations Ellsworth, Maine

Boring No.: HB-ELLS-102
WIN: 10063.10

Driller: Northern Test Boring | Elevation (ft.): | Auger ID/OD: 2.25/5.5"
Operator: Wike/Nick | Datum: NAVD 88 | Sampler: Standard Split Spoon
Logged By: C. Beebe | Rig Type: Diedrich D-50 #283 | Hammer Wt./Fall: 140#/30"
Date Start/Finish: 6/19/08-6/19/08 | Drilling Methods: Hollow Stem Auger | Core Barrel: N/A
Boring Location: 188+26, 4.0 Rt. | Casing ID/OD: N/A | Water Level(ft): None Observed
Hammer Efficiency Factor 0.633 | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions: (same as HB-ELLS-101)

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Unconfined Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA	-0.40		PAVEMENT. 0.40	
	10	24/24	1.00 - 3.00	4/6/6/9	12	13				Yellow-brown and grey, damp, stiff, mottled SILT, trace sand. (Desecated Presumscot).	GM210712 A-6, CL WC=22.4% LL=33 PL=22 PI=11
5	20	24/22	5.00 - 7.00	9/7/10/10	17	18				Orange brown and grey, damp, stiff, SILT, trace clay. (Desecated Presumscot).	
										Change to softer material at 9.0' bgs.	
10	30	24/21	10.00 - 12.00	4/3/3/5	6	6		-12.00		Grey-brown, moist, medium stiff, SILT, trace clay. (Undesecated Presumscot). -12.00	GM210713 A-6, CL WC=23.4% LL=33 PL=22 PI=11
										Bottom of Exploration at 12.00 feet below ground surface. NO REFUSAL	
15											
20											
25											

Remarks:

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

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

Page 1 of 1
Boring No.: HB-ELLS-102

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

Project: Route 180
Locations Ellsworth, Maine

Boring No.: HB-ELLS-103
WIN: 10063.10

Driller: Northern Test Boring | Elevation (ft.): | Auger ID/OD: 2.25/5.5"
Operator: Wike/Nick | Datum: NAVD 88 | Sampler: Standard Split Spoon
Logged By: C. Beebe | Rig Type: Diedrich D-50 #283 | Hammer Wt./Fall: 140#/30"
Date Start/Finish: 6/19/08-6/19/08 | Drilling Methods: Hollow Stem Auger | Core Barrel: N/A
Boring Location: 992+26, 7.5 Lt. | Casing ID/OD: N/A | Water Level(ft): None Observed
Hammer Efficiency Factor 0.633 | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions: (same as HB-ELLS-101)

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Unconfined Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA	-0.40		PAVEMENT. 0.40	
	10	24/10	1.00 - 3.00	21/18/15/10	33	35				Grey brown, damp, very dense, well graded sandy fine to medium GRAVEL, angular to subangular medium and subrounded fine gravel, angular very coarse sands. (Till).	GM210714 A-1-a, GW-GM WC=3.0%
										3.60	
	20	24/2	5.00 - 7.00	5/7/9/12	16	17				Brown and grey, wet, SILT, little clay, trace fine to coarse sands. (Glaciomarine Clay).	
	30	24/8	7.00 - 9.00	15/17/18/17	35	37				Similar to 20.	GM210715 A-6, CL WC=21.9%
	40/AB	24/24	10.00 - 12.00	4/5/8/11	13	14		-12.00		(40/A) 10.0-10.3' bgs. Grey, wet, stiff, SILT with clay. (Desecated Presumscot). (40/B) 10.3-12.0' bgs. Brown and grey, mottled, damp, stiff, SILT, little clay, trace sand. (Desecated Presumscot). -12.00	GM210716 A-6, CL WC=26.8% LL=36 PL=24 PI=12
										Bottom of Exploration at 12.00 feet below ground surface. NO REFUSAL	
15											
20											
25											

Remarks:

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

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

Page 1 of 1
Boring No.: HB-ELLS-103

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

Project: Route 180
Locations Ellsworth, Maine

Boring No.: HB-ELLS-104
WIN: 10063.10

Driller: Northern Test Boring | Elevation (ft.): | Auger ID/OD: 2.25/5.5"
Operator: Wike/Nick | Datum: NAVD 88 | Sampler: Standard Split Spoon
Logged By: C. Beebe | Rig Type: Diedrich D-50 #283 | Hammer Wt./Fall: 140#/30"
Date Start/Finish: 6/19/08-6/19/08 | Drilling Methods: Hollow Stem Auger | Core Barrel: N/A
Boring Location: 996+26, 3.0 Lt. | Casing ID/OD: N/A | Water Level(ft): None Observed
Hammer Efficiency Factor 0.633 | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions: (same as HB-ELLS-101)

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Unconfined Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA	-0.20		PAVEMENT. 0.20	
	10	24/13	1.00 - 3.00	8/14/25/19	39	41				Brown, damp, dense, gravelly fine to very coarse SAND, well graded, fine to medium subrounded gravel, trace silt. (Fill).	GM210717 A-1-b, SW-SM WC=3.1%
								-4.00		Change to silt at 4.0' bgs. 4.00	
5	2WO	24/0	5.00 - 7.00	6/7/10/11	17	18				Failed spoon attempt, spoon empty, hung up on cobble.	
	30	24/24	7.00 - 9.00	11/11/18/21	29	31				Grey-brown, damp, very stiff, SILT, little clay. One piece of large rounded gravel at 7.5' and blocky very fine gravel sized fragments mixed with coarse to fine sand, similar fragments in seam from 8.7-8.9'. (Fine Till and Marine Sediments).	GM210718 A-6, CL WC=18.1% LL=31 PL=19 PI=12
10								-9.00		9.00	
	40	24/12	10.00 - 12.00	16/16/30/26	46	49				Brown, wet, very dense, gravelly SILT grading downward to gravel with little silt, little fine to coarse sand throughout, angular gravel probably weathered bedrock. (Medium Gravel Till).	GM210719 A-1-b, SM WC=11.7%
								-12.00		12.00	
15										Bottom of Exploration at 12.00 feet below ground surface. NO REFUSAL	
20											
25											

Remarks:

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

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

Page 1 of 1
Boring No.: HB-ELLS-104

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

Project: Route 180
Locations Ellsworth, Maine

Boring No.: HB-ELLS-105
WIN: 10063.10

Driller: Northern Test Boring | Elevation (ft.): | Auger ID/OD: 2.25/5.5"
Operator: Wike/Nick | Datum: NAVD 88 | Sampler: Standard Split Spoon
Logged By: C. Beebe | Rig Type: Diedrich D-50 #283 | Hammer Wt./Fall: 140#/30"
Date Start/Finish: 6/19/08-6/19/08 | Drilling Methods: Hollow Stem Auger | Core Barrel: N/A
Boring Location: 1000+28, 16.0 Lt. | Casing ID/OD: N/A | Water Level(ft): None Observed
Hammer Efficiency Factor 0.633 | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions: (same as HB-ELLS-101)

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Unconfined Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA			Yellow brown and red brown, damp, stiff, SILT, some clay. (Desecated Glaciomarine).	GM210720 A-6, CL WC=22.3% LL=36 PL=22 PI=14
	10	24/24	1.00 - 3.00	3/6/7/10	13	14					
5	20	24/24	5.00 - 7.00	5/6/8/10	14	15				Similar to 10.	GM210721 A-6, CL WC=24.0% LL=30 PL=20 PI=10
								-7.60		7.60	
10	30	24/16	10.00 - 12.00	20/22/14/15	36	38				Brown, moist, dense, silty SAND, some fine to medium gravel.	GM210722 A-2-4, SM WC=7.4%
								-12.00		12.00	
15										Bottom of Exploration at 12.00 feet below ground surface. NO REFUSAL	
20											
25											

Remarks:

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

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

Page 1 of 1
Boring No.: HB-ELLS-105

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

Project: Proposed Route 180 Relocation Project
Locations Ellsworth, Maine

Boring No.: HB-ELLS-B212
WIN: 10063.10

Driller: Maine Test Borings | Elevation (ft.): 124.8 | Auger ID/OD: --
Operator: R. Leonard | Datum: NAD83 | Sampler: Split Spoon - 1.375 in. ID
Logged By: M. Foley | Rig Type: Mobile Drill B53 Bombardier | Hammer Wt./Fall: SS-140/30
Date Start/Finish: 03/04/2010 - 03/04/2010 | Drilling Methods: HSA to 9.6 ft | Core Barrel: --
Boring Location: 1003+00, 22.0 Lt. | Casing ID/OD: HSA 2.5 in. | Water Level(ft): 3.4 ft
Hammer Efficiency Factor 0.6 | Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

Definitions: (same as HB-ELLS-101)

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Unconfined Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/12	0.00 - 2.00	1/1/1/2	2	2	HSA	124.60		-TOPSOIL- 0.20	
										Gray-brown, wet, very loose, coarse to fine sandy SILT, trace gravel -GLACIAL TILL-(ML)	GM237043 A-4, ML WC=31.7%
5	20	24/19	5.00 - 7.00	18/18/41/83	59	59		119.80		Grayish-brown, wet, dense to very dense, gravelly coarse to fine SAND, some silt -WEATHERED BEDROCK-(SM) 5.00	GM237044 A-2-4, SM WC=10.7%
								116.10		8.70	
10								115.20		Note: Competent bedrock encountered at 8.7 ft based on drill action. Augered through bedrock from 8.7 to 9.6 ft. 9.60	
										Bottom of Exploration at 9.60 feet below ground surface.	
15											
20											
25											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1
Boring No.: HB-ELLS-B212

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

Project: Proposed Route 180 Relocation Project
Locations Ellsworth, Maine

Boring No.: HB-ELLS-B211
WIN: 10063.10

Driller: Maine Test Borings | Elevation (ft.): 138.2 | Auger ID/OD: --
Operator: R. Leonard | Datum: NAD83 | Sampler: Split Spoon - 1.375 in. ID
Logged By: M. Foley | Rig Type: Mobile Drill B53 Bombardier | Hammer Wt./Fall: SS-140/30
Date Start/Finish: 03/04/2010 - 03/04/2010 | Drilling Methods: HSA to 6.0 ft | Core Barrel: --
Boring Location: 1001+00, 25.0 Lt. | Casing ID/OD: HSA 2.5 in. | Water Level(ft): 1.3 ft
Hammer Efficiency Factor 0.6 | Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

Definitions: (same as HB-ELLS-101)

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Unconfined Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/19	0.00 - 2.00	WOH/1/1/3	2	2	HSA	137.90		Dark brown, wet, soft, SILT, with organics, leaves and rootlets. -TOPSOIL- 0.30	GM237041 A-4, SM/SC WC=30.7%
										Light grayish-brown, wet, loose, silty, medium to fine SAND, trace gravel and coarse sand -GLACIAL TILL-(SM/SC)	
5	20	12/14	5.00 - 6.00	19/22/50(10")				132.20		Grayish-brown, wet, dense, silty, medium to fine SAND, little gravel, trace coarse sand -GLACIAL TILL-(SM/SC) 6.00 Notes: Split spoon refusal on probable bedrock at 6.0 ft.	GM237042 A-4, SM/SC WC=12.4%
										Bottom of Exploration at 6.00 feet below ground surface.	
10											
15											
20											
25											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1
Boring No.: HB-ELLS-B211

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
10063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	K.BRESKIN	T. WHITE	JUN 2011
CHECKED-REVIEWED	-----	-----	SIGNATURE
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

ELLSWORTH
ROUTE 180

BORING LOGS

P.E. NUMBER

DATE

SHEET NUMBER
12
OF 151

Username: Natasha.M.Collins Date:4/13/2012
Division: HIGHWAY
Filename: ...\MSTA\012_BORING LOGS1.dgn

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\mstа\013_BORING LOGS2.dgn Division: HIGHWAY

Maine Department of Transportation — HB-ELLS-B210

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Projects: Proposed Route 180 Relocation Project
Locations: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B210

Drillers:	Maine Test Borings	Elevation (ft.): 136.5	Auger ID/OD: --
Operators:	R. Leonard	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	03/04/2010 - 03/04/2010	Drilling Methods: HSA to 2.4 ft	Core Barrel: --
Boring Location:	1008+00, 25.0 Rt.	Casing ID/OD: HSA 2.5 in.	Water Level(ft): NA

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psi) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	12/12	0.00 - 1.00	1/1/1/4	2	2	HSA	136.20		Brown, moist, soft, SILT, with organic leaves and rootlets -TOPSOIL-	GM237040 A-4, SM/SC WC=49.3%
								134.30		0.50	
								134.10		Yellow-brown, moist, very loose, silty medium to fine SAND, trace coarse sand (SM/SC)	
										2.20	
										Notes: Probable top of bedrock at 2.2 ft based on drill action. Augered through probable bedrock from 2.2 to 2.4 ft.	
										2.40	
										Bottom of Exploration at 2.40 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B210

Maine Department of Transportation — HB-ELLS-B203

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Projects: Proposed Route 180 Relocation Project
Locations: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B203

Drillers:	Maine Test Borings	Elevation (ft.): 138.0	Auger ID/OD: --
Operators:	R. Leonard	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: --
Date Start/Finish:	03/03/2010 - 03/03/2010	Drilling Methods: --	Core Barrel: NQ 2.0 in. ID
Boring Location:	1008+00, CL	Casing ID/OD: --	Water Level(ft): 1.1 ft

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psi) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	R1	60/59	0.00 - 5.00	RQD = 86%						Top of Bedrock at El.138.0	
										Medium gray, fine-grained to aphanitic, METAMORPHIC SCHIST. Moderately hard, slightly to moderately weathered. Joints moderately to steeply dipping, close to moderately close, open with no infilling. Joint surfaces are weathered, iron oxidation weathering. One joint is severely weathered and has clay gouge in the joint. Frequent quartz seams, both quartz and schist are folded.	
										Rock Mass Quality=Good -ELLSWORTH FORMATION-	
										Rt: Core Times (minssec): 0.0-1.0' (2100)+, 1.0-2.0' (2100)+, 2.0-3.0' (2100)+, 3.0-4.0' (2100)+, 4.0-5.0' (2100)+	
								133.00		5.00	
										Bottom of Exploration at 5.00 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B203

Maine Department of Transportation — HB-ELLS-B209

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Projects: Proposed Route 180 Relocation Project
Locations: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B209

Drillers:	Maine Test Borings	Elevation (ft.): 136.5	Auger ID/OD: --
Operators:	R. Leonard	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	03/03/2010 - 03/03/2010	Drilling Methods: HSA to 1.0 ft	Core Barrel: --
Boring Location:	1009+00, 25.0 Lt.	Casing ID/OD: HSA 2.5 in.	Water Level(ft): NA

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psi) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	12/7	0.00 - 1.00	5/6/50(4")			HSA	136.20		Dark brown, wet, stiff, SILT, with organics and rootlets -TOPSOIL-	GM210638 A-7-6, CL MC=21.4% LL=31 PL=20 PI=11
								135.50		0.70	
										Light brown, wet, stiff, sandy SILT	
										Note: Split spoon refusal on probable bedrock at 1.0 ft.	
										1.00	
										Bottom of Exploration at 1.00 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B209

Maine Department of Transportation — HB-ELLS-B208

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Projects: Proposed Route 180 Relocation Project
Locations: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B208

Drillers:	Maine Test Borings	Elevation (ft.): 145.5	Auger ID/OD: --
Operators:	R. Leonard	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	03/03/2010 - 03/03/2010	Drilling Methods: HSA to 7.5 ft	Core Barrel: --
Boring Location:	1010+00, 25.0 Rt.	Casing ID/OD: HSA 2.5 in.	Water Level(ft): 1.7 ft

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psi) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	20/18	0.00 - 1.67	1/1/1/5	2	2	HSA	145.10		Dark brown, moist, soft, SILT, with rootlets and organics -TOPSOIL-	GM237038 A-2-4, SM WC=23.8%
								144.00		0.40	
										Dark brown, damp to wet, very loose, coarse to fine SAND, some silt, little gravel	
										4.50	
										Brown to rusty-brown, wet, loose, coarse to fine SAND, some silt, little gravel -GLACIAL TILL-(SM)	
	20	24/18	5.00 - 7.00	8/17/23/24	40	40				Grayish-brown, wet, dense, silty, medium to fine SAND, little gravel, trace coarse sand -GLACIAL TILL-(SM/SC)	GM237039 A-4, SM/SC WC=12.5%
								138.00			
								137.50		7.50	
										Notes: Probable top of bedrock at 7.5 ft based on drill action. Augered through probable bedrock from 7.5 to 8.0 ft.	
										8.00	
										Bottom of Exploration at 8.00 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B208

Maine Department of Transportation — HB-ELLS-B207

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Projects: Proposed Route 180 Relocation Project
Locations: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B207

Drillers:	Maine Test Borings	Elevation (ft.): 131.4	Auger ID/OD: --
Operators:	R. Leonard	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	03/03/2010 - 03/03/2010	Drilling Methods: HSA to 8.2 ft	Core Barrel: --
Boring Location:	1011+50, 25.0 Lt.	Casing ID/OD: HSA 2.5 in.	Water Level(ft): NA

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psi) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/18	0.00 - 2.00	WOH/1/1/14	2	2	HSA	130.90		Gray-brown, wet, soft, SILT, with rootlets -TOPSOIL-	GM237036 A-4, SM/SC WC=18.6%
								130.40		0.50	
										Brown, wet, very loose, silty, medium to fine SAND, little gravel, trace coarse sand -GLACIAL TILL-(SM/SC)	
	20	10/10	5.00 - 5.83	27/50(4")						Brown, wet, dense, coarse to fine SAND, some silt, little gravel -GLACIAL TILL-(SM)	GM237037 A-2-4, SM WC=13.1%
								125.90		6.50	
										Note: Probable weathered rock at 5.5 ft.	
										Note: Augered through probable weathered bedrock from 5.5 to 8.2 ft.	
								123.20		8.20	
								122.90		Notes: Probable top of competent bedrock at 8.2 ft.	
										8.50	
										Bottom of Exploration at 8.50 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B207

Maine Department of Transportation — HB-ELLS-B206

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Projects: Proposed Route 180 Relocation Project
Locations: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B206

Drillers:	Maine Test Borings	Elevation (ft.): 122.0	Auger ID/OD: --
Operators:	R. Leonard	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	03/03/2010 - 03/03/2010	Drilling Methods: HSA to 17.0 ft	Core Barrel: --
Boring Location:	1013+50, CL	Casing ID/OD: HSA 2.5 in.	Water Level(ft): 4.5 ft

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psi) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/20	0.00 - 2.00	9/34/14/9	48	48	HSA	121.40		Brown, wet, dense, coarse to fine SAND, little gravel	GM237033 A-4, SM/SC WC=34.3%
										0.60	
								120.00		Brown, wet, dense, silty, medium to fine SAND, trace coarse sand -MARINE DEPOSIT-(SM/SC)	
										2.00	
	20	24/18	5.00 - 7.00	4/11/15/18	26	26				Gray-brown, wet, stiff, silty CLAY, trace fine sand, with mottling and blocky texture -MARINE DEPOSIT-(CL)	A-6, CL WC=23.6% LL=33, PL=18 PI=15
								116.00		6.00	
										Grayish-brown, wet, dense, silty, medium to fine SAND, trace coarse sand and gravel -GLACIAL TILL-(SM/SC)	GM237035 A-4, SM/SC WC=11.1%
								113.50		8.50	
	30	24/24	10.00 - 12.00	5/14/30/23	44	44				Brown, wet, dense, coarse to fine SAND, little gravel and silt -GLACIAL TILL-	
	40	24/20	15.00 - 17.00	18/32/29/30	61	61				Brown, wet, very dense, coarse to fine SAND, little gravel and silt -GLACIAL TILL-	
								105.00		17.00	
										Bottom of Exploration at 17.00 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B206

Maine Department of Transportation — HB-ELLS-110

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Projects: Route 180
Locations: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-110

Drillers:	Northern Test Boring	Elevation (ft.):	Auger ID/OD: 2.25/5.5"
Operators:	Mike/Nick	Datum: NAVD 88	Sampler: Standard Split Spoon
Logged By:	C. Beebe	Rig Type: Diedrich D-50 #283	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	6/17/08, 6/19/08	Drilling Methods: Hollow Stem Auger	Core Barrel: N/A
Boring Location:	1016+27, 60.0 Rt.	Casing ID/OD: N/A	Water Level(ft): 14.0' bgs.

Hammer Efficiency Factor: 0.633 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psi) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA				
	10	24/24	1.00 - 3.00	8/8/10/10	18	19				Yellow-brown and grey, mottled, damp, stiff, SILT and CLAY, trace fine sand, bonding, plasticity, (Desecoted Glaciomarine Silt).	GM210685 A-6, CL WC=21.6% LL=31 PL=20 PI=11
	20	24/24	5.00 - 7.00	7/12/12/13	24	25				Brown, yellow-brown and grey streaks, damp, very stiff, SILT, some clay, bonding, plasticity, (Desecoted Glaciomarine Silt).	
	30	24/22	10.00 - 12.00	2/3/4/5	7	7				Grey-brown, red-brown streaks, moist, medium stiff, clayey SILT, trace organics, bonding, plasticity, (Desecoted Glaciomarine Silt).	GM210686 A-6, CL WC=29.3% LL=32 PL=19 PI=13
								14.00			
	40	24/9	15.00 - 17.00	24/23/15/11	38	40				Grey-brown, wet, dense, silty SAND, trace angular medium gravel, (Till).	GM210687 A-2-4, GC-SM
								17.00			
										Bottom of Exploration at 17.00 feet below ground surface.	
										NO REFUSAL	

Remarks:
Surface heavily wooded, a few cobbles on surface nearby.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-110

Maine Department of Transportation — HB-ELLS-B202

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Projects: Proposed Route 180 Relocation Project
Locations: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B202

Drillers:	Maine Test Borings	Elevation (ft.): 108.7	Auger ID/OD: --
Operators:	R. Leonard	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30, HW-300/30
Date Start/Finish:	03/02/2010 - 03/02/2010	Drilling Methods: HW Push 17.5 ft	Core Barrel: --
Boring Location:	1019+00, CL	Casing ID/OD: HW 4.0 in.	Water Level(ft): 1.4 ft

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psi) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/17	0.00 - 2.00	10/37/39/17	76	76	HW Push			Grayish-brown, wet, very dense, coarse to fine SAND, little gravel, little silt -TILL-(SM-SW)	GM237028 A-1-b, SM-SW WC=10.5%
								105.70		3.00	
	20	24/12	5.00 - 7.00	16/11/12/10	23	23	Open Hole			Grayish-brown, wet, medium dense, medium to fine SAND, some silt, little gravel, trace coarse sand -MARINE DEPOSIT-	
								100.70		8.00	
										Notes: Wash water turned gray at approximately 8.0 ft.	
	30	24/10	10.00 - 12.00	6/5/4/6	9	9				Gray, wet, loose, silty, medium to fine SAND, little gravel, trace coarse sand -GLACIAL TILL-	
	40	24/10	15.00 - 17.00	8/17/17/35	34	34				Gray, wet, dense, silty, coarse to fine SAND, little gravel -GLACIAL TILL-	
								90.90		17.80	
								90.60		Notes: Probable top of bedrock based on drill action at 17.8 ft. Advanced roller cone to 18.1 ft to confirm probable bedrock.	
										18.10	
										Bottom of Exploration at 18.10 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 22 — Boring No.: HB-ELLS-B202

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 10063.10 — HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	K.BRESKIN	JUN 2011
CHECKED-REVIEWED	T. WHITE	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

BORING LOGS

SHEET NUMBER 13 OF 151

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\mstn\014_BORING LOGS3.dgn Division: HIGHWAY

Maine Department of Transportation — Boring No.: HB-ELLS-111

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Route 180 — Locations Ellsworth, Maine — WIN: 10063.10

Driller: Northern Test Boring	Elevation (ft.):	Auger ID/OD:	2.25/5.5"
Operator: Wike/Nick	Datum: NAVD 88	Sampler:	Standard Split Spoon
Logged By: C. Beebe	Rig Type: Diedrich D-50 #283	Hammer Wt./Fall:	140#/30"
Date Start/Finish: 6/18/08; 08:30-	Drilling Methods: Hollow Stem Auger	Core Barrel:	N/A
Boring Locations: 1020+04, 40.0 Rt.	Casing ID/OD: N/A	Water Level*:	13.5' bgs.
Hammer Efficiency Factor: 0.633	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	Nuncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA				
	10	24/23	1.00 - 3.00	5/7/11/13	18	19				Grey and yellow-brown, mottled, damp, very stiff, SILT with clay, trace organics, bonding, plasticity. (Desecated Presumecoit.	GM210688 A-6, CL WC=23.1% LL=36 PL=22 PI=14
5	20	24/24	5.00 - 7.00	5/8/10/10	18	19				Similar to 10. (Desecated Presumecoit.	
10	30	24/24	10.00 - 12.00	1/3/3/4	6	6				Grey-brown, wet, medium stiff, SILT with clay, red brown staining organics, bonding, plasticity. (Desecated Presumecoit.	GM210689 A-6, CL WC=29.0% LL=29 PL=21 PI=8
								-12.50			
15	4MD	24/0	15.00 - 17.00	15/16/19/21	35	37				Failed spoon attempt, probably cobble.	
								-17.30			
20	50	3.6/3.6	17.00 - 17.30	50(3.6")	---					Brown, wet, medium dense, silty fine to very coarse SAND, trace fine gravel.	GM210690 A-4, ML WC=15.5% Non-Plastic
								-17.30		Bottom of Exploration at 17.30 feet below ground surface.	
										SPOON REFUSAL	

Remarks:

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

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

Page 1 of 1 — Boring No.: HB-ELLS-111

Maine Department of Transportation — Boring No.: HB-ELLS-112

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Route 180 — Locations Ellsworth, Maine — WIN: 10063.10

Driller: Northern Test Boring	Elevation (ft.):	Auger ID/OD:	2.25/5.5"
Operator: Wike/Nick	Datum: NAVD 88	Sampler:	Standard Split Spoon
Logged By: C. Beebe	Rig Type: Diedrich D-50 #283	Hammer Wt./Fall:	140#/30"
Date Start/Finish: 6/18/08; 11:00-	Drilling Methods: Hollow Stem Auger	Core Barrel:	N/A
Boring Locations: 1024+05, 28.0 Rt.	Casing ID/OD: N/A	Water Level*:	3.5' bgs.
Hammer Efficiency Factor: 0.633	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	Nuncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA				
	10	24/24	1.00 - 3.00	8/10/12/12	22	23				Brown, damp, very stiff, mottled, grey and red-brown spots, SILT with clay, trace organics. (Desecated Presumecoit.	GM210691 A-6, CL WC=20.1% LL=29 PL=19 PI=10
5	20	24/21	5.00 - 7.00	7/10/12/13	22	23		-5.00		Brown, spotted with red-brown, moist, very stiff, sandy SILT, little fine to medium angular gravel. (Fine Till).	GM210692 A-4, ML WC=11.1% Non-Plastic
10	30	24/16	10.00 - 12.00	6/9/11/7	20	21				Brown, wet, medium dense, silty fine SAND, little medium rounded gravel. (Sandy Till).	GM210693 A-2-4, SM WC=10.1%
15								-15.10		Cobbles at 14.0' bgs.	
	4MD	1.2/0	15.00 - 15.10	50(1.2")	---			-15.10		Failed spoon attempt.	
20										Bottom of Exploration at 15.10 feet below ground surface.	
										SPOON REFUSAL	

Remarks:

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

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

Page 1 of 1 — Boring No.: HB-ELLS-112

Maine Department of Transportation — Boring No.: HB-ELLS-113

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Route 180 — Locations Ellsworth, Maine — WIN: 10063.10

Driller: Northern Test Boring	Elevation (ft.):	Auger ID/OD:	2.25/5.5"
Operator: Wike/Nick	Datum: NAVD 88	Sampler:	Standard Split Spoon
Logged By: C. Beebe	Rig Type: Diedrich D-50 #283	Hammer Wt./Fall:	140#/30"
Date Start/Finish: 6/18/08; 12:30-	Drilling Methods: Hollow Stem Auger	Core Barrel:	N/A
Boring Locations: 1028+25, 31.0 Rt.	Casing ID/OD: N/A	Water Level*:	None Observed
Hammer Efficiency Factor: 0.633	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	Nuncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA				
	10	24/13	1.00 - 3.00	6/10/25/25	35	37				Red-brown, grey and yellow brown, moist, mottled, fine SAND, some silt, some fine to medium rounded gravel, one lense of broken slate. (Till).	GM210694 A-2-4, SM WC=11.8%
								-5.00			
5	20/AB	24/24	5.00 - 7.00	6/5/7/16	12	13		-5.00		(20/A) 5.0-5.7' bgs. Damp, loose, very coarse quartz SAND with one large wood fragment. (Lense).	GM210695 A-4, SM WC=12.7%
								-5.70			
10	30	24/24	10.00 - 12.00	17/22/41/36	63	66		-6.70		(20/B) 5.7-7.0' bgs. Brown, wet, loose, silty fine SAND, little rounded fine gravels. (Till). Cobbles from 8.0-9.0' bgs.	
15								-12.00		Grey brown, moist, hard, well graded sandy SILT with fine to medium rounded gravel. (Till).	GM210696 A-4, ML WC=9.0% LL=19 PL=16 PI=3
								-12.00		Bottom of Exploration at 12.00 feet below ground surface.	
20										NO REFUSAL	

Remarks:

Several cobbles at surface area.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-113

Maine Department of Transportation — Boring No.: HB-ELLS-114

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Route 180 — Locations Ellsworth, Maine — WIN: 10063.10

Driller: Northern Test Boring	Elevation (ft.):	Auger ID/OD:	2.25/5.5"
Operator: Wike/Nick	Datum: NAVD 88	Sampler:	Standard Split Spoon
Logged By: C. Beebe	Rig Type: Diedrich D-50 #283	Hammer Wt./Fall:	140#/30"
Date Start/Finish: 6/18/08; 13:30-	Drilling Methods: Hollow Stem Auger	Core Barrel:	N/A
Boring Locations: 1031+95, 64.0 Rt.	Casing ID/OD: N/A	Water Level*:	6.2' bgs.
Hammer Efficiency Factor: 0.633	Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	Nuncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA				
	10	24/21	1.00 - 3.00	5/9/27/15	36	38				Grey and orange brown, mottled, SILT, some fine sand, trace fine rounded gravel, broken rock fragments in bottom of spoon.	GM210697 A-4, ML WC=12.1%
5	20/AB	24/13	5.00 - 7.00	7/16/23/22	39	41		-5.10		(20/A) 5.0-5.1' bgs. Brown and grey streaked, damp, hard, SILT, some well graded sand.	GM210698 A-1-b, SM WC=7.4%
								-6.10		(20/B) 5.1-7.0' bgs. Brown with red and grey, moist, hard, well graded SAND and fine rounded gravel, trace silt.	
10	30	18/10	10.00 - 11.50	21/25/50(6")	---			-11.50		Brown, wet, very coarse SAND, little silt, little very fine sand, little angular flat gravel. (Till).	GM210699 A-1-b, SM WC=10.4%
								-11.50		Bottom of Exploration at 11.50 feet below ground surface.	
15										SPOON REFUSAL	
20											

Remarks:

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

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

Page 1 of 1 — Boring No.: HB-ELLS-114

Maine Department of Transportation — Boring No.: HB-ELLS-B205

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project — Locations Ellsworth, Maine — WIN: 10063.10

Driller: Maine Test Borings	Elevation (ft.): 128.9	Auger ID/OD:	--
Operator: R. Leonard	Datum: NAD83	Sampler:	SPT: 3200# - 1.375 in.
Logged By: W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall:	SS-140/30
Date Start/Finish: 03/03/2010 - 03/03/2010	Drilling Methods: HSA to 5.9 ft	Core Barrel:	--
Boring Locations: 1034+00, 25.0 Lt.	Casing ID/OD: HSA 2.5 in.	Water Level*:	2.5 ft
Hammer Efficiency Factor: 0.6	Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	Nuncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0								128.70		-TOPSOIL- 0.20	
	10	24/15	0.00 - 2.00	1/1/1/3	2	2	HSA			Light brown, moist, very soft, clayey SILT, trace medium to fine sand, with rootlets -MARINE DEPOSIT-	WC=36.8%
5								124.60		4.30	
								124.10		Note: Possible glacial till or weathered rock based on drill action. 4.80	
								123.00		Note: Augered through probable weathered rock from 4.8 to 5.9 ft. Auger refusal at 5.9 ft.	
10										5.90	
										Bottom of Exploration at 5.90 feet below ground surface.	
15											
20											

Remarks:

2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B205

Maine Department of Transportation — Boring No.: HB-ELLS-B204

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project — Locations Ellsworth, Maine — WIN: 10063.10

Driller: Maine Test Borings	Elevation (ft.): 129.1	Auger ID/OD:	--
Operator: R. Leonard	Datum: NAD83	Sampler:	SPT: 3200# - 1.375 in.
Logged By: W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall:	SS-140/30
Date Start/Finish: 03/03/2010 - 03/03/2010	Drilling Methods: HSA to 17.0 ft	Core Barrel:	--
Boring Locations: 1039+00, 25.0 Lt.	Casing ID/OD: HSA 2.5 in.	Water Level*:	16.5 ft
Hammer Efficiency Factor: 0.6	Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	Nuncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0								128.70		Gray-brown, moist, soft SILT, with organics and wood pieces -TOPSOIL- 0.40	
	10	24/15	0.00 - 2.00	1/1/2/7	3	3	HSA w/ Push			Light brown, moist, soft, clayey SILT, little fine sand, with rootlets -MARINE DEPOSITS-(ML)	GM237029 A-4, ML WC=21.6%
5	20	24/24	5.00 - 7.00	10/15/19/21	34	34		124.10		Gray-brown, moist, hard, silty CLAY, trace fine sand, with mottling and blocky texture -MARINE DEPOSIT-(CL) 5.00	A-6a, CL WC=23.4% LL=34, PL=23 PI=11
10	30	24/24	10.00 - 12.00	7/7/8/8	15	15		117.30		Grayish-brown, moist, stiff, silty CLAY, trace fine sand, with blocky texture and mottling -MARINE DEPOSIT-(CL) 11.80	A-6a, CL WC=23.4% LL=35, PL=22 PI=13
										Gray, wet, stiff, silty CLAY, with occasional fine sandy silt seams -MARINE DEPOSIT-	
15	40	24/24	15.00 - 17.00	2/21/28/32	49	49		114.10		15.00	
								113.60		Grayish-brown, wet, dense, medium to fine sandy SILT, little gravel -MARINE DEPOSIT- 15.50	
								112.10		Brown, wet, dense, coarse to fine SAND, little gravel, trace silt -GLACIAL TILL- 17.00	
20										Bottom of Exploration at 17.00 feet below ground surface.	

Remarks:

2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B204

Maine Department of Transportation — Boring No.: HB-ELLS-B201

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project — Locations Ellsworth, Maine — WIN: 10063.10

Driller: Maine Test Borings	Elevation (ft.): 115.7	Auger ID/OD:	--
Operator: R. Leonard	Datum: NAD83	Sampler:	SPT: 3200# - 1.375 in.
Logged By: W. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall:	SS-140/30, HW-300/30
Date Start/Finish: 03/02/2010 - 3/02/2010	Drilling Methods: HW Drive 12.4 ft	Core Barrel:	--
Boring Locations: 1042+00, 8.0 Rt.	Casing ID/OD: HW 4.0 in.	Water Level*:	0.0 ft
Hammer Efficiency Factor: 0.6	Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	Nuncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0								115.70		Gray-brown, damp, stiff, silty CLAY, trace fine sand with occasional mottling and blocky texture -MARINE DEPOSIT-(CL)	A-6a, CL WC=23.1% LL=33, PL=23 PI=10
	10	24/10	0.00 - 2.00	4/7/6/6	13	13	HSA w/ Push				
										Note: Could not push tube, likely too much sand/ gravel.	
	MU	0/0	3.00 - 3.00					111.20		4.50	
5	20 MV	24/21	5.00 - 7.00 6.00 - 6.02	WOH/1/2/3	3	3		109.20		Gray-brown, wet, soft, silty CLAY, trace gravel, trace sand -MARINE DEPOSIT-(CL) Note: Could not push vane. 6.50	A-6a, CL WC=28.5% LL=32, PL=21 PI=11
										Note: Gravel observed in wash water at 6.5 ft. -GLACIAL TILL-	
10	30	24/13	10.00 - 12.00	8/8/11/22	19	19	21	106.70		9.00	
							23			Brown-gray, wet, medium dense, silty, medium to fine SAND, little gravel, trace coarse sand -GLACIAL TILL-	
15							118/5"	103.10		12.60	
								102.90		Note: Probable top of bedrock based on drill action and drill cuttings in wash water. Advanced roller cone to 12.8 ft to confirm probable bedrock. 12.80	
20										Bottom of Exploration at 12.80 feet below ground surface.	

Remarks:

2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B201

Maine Department of Transportation — Boring No.: HB-ELLS-B301

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project — Locations Ellsworth, Maine — WIN: 10063.10

Driller: Maine Test Borings	Elevation (ft.): 129.8	Auger ID/OD:	HSA 2.5 in. ID
Operator: B. Enos	Datum: NAD83	Sampler:	SPT: 3200# - 1.375 in.
Logged By: M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall:	SS-140/30
Date Start/Finish: 05/13/2010 - 05/13/2010	Drilling Methods: HSA to 12.0 ft	Core Barrel:	--
Boring Locations: 1044+21, 14.0 Rt.	Casing ID/OD: --	Water Level*:	Dry
Hammer Efficiency Factor: 0.6	Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	Nuncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							HSA				
	10	24/14	0.00 - 2.00	1/1/2/3	3	3				Yellow-brown, moist, soft, SILT, little medium to fine sand, contains rootlets and wood fragments -MARINE DEPOSIT-(ML)	GM237001 A-4, ML WC=36%
								127.80		2.00	
										Note: Gravel indicated by drill action.	
5	20	24/#	5.00 - 7.00	7/9/12/16	21	21		124.30		Yellow-brown, moist, medium dense, poorly graded SAND, some fine rounded wood fragments -MARINE DEPOSIT- 6.50	A-4, CL WC=20.8% LL=30, PL= 22 PI=8
										Olive, damp, very stiff, silty CLAY, trace sand, mottled -MARINE DEPOSIT-(CL)	
10	30	24/24	10.00 - 12.00	3/4/5/5	9	9		117.80		Olive, damp, stiff, silty CLAY, trace sand, mottled, contains organics -MARINE DEPOSIT- 12.00	
										Bottom of Exploration at 12.00 feet below ground surface.	
15											
20											

Remarks:

2. Hammer consisted of rope and cathead and safety hammer.
3. *Sample recovery not recorded.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B301

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 10063.10 — HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY
DESIGN-DETAILED	K.BRESKIN	T. WHITE
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

DATE: JUN 2011

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

BORING LOGS

SHEET NUMBER 14

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\msta\015_BORING LOGS4.dgn Division: HIGHWAY

Maine Department of Transportation — HB-ELLS-B302

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 131.9	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: SPT 2" OD — 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/13/2010 – 05/13/2010	Drilling Methods: HSA to 17.0 ft	Core Barrel: --
Boring Location:	1045+00, 24.0 Lt.	Casing ID/OD: --	Water Level*: 11.7 ft
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/14	0.00 – 2.00	WOH/1/4/8	5	5	HSA			Gray-brown, damp, loose, poorly graded SAND, trace clay, contains rootlets and wood fragments -MARINE DEPOSIT-	
5	20	24/24	5.00 – 7.00	5/7/9/10	16	16				Gray-brown, damp, very stiff, silty CLAY, mottled, contains organics and rootlets -MARINE DEPOSIT-(CL)	A-6, CL WC=23.5% LL=37, PL=21 PI=16
10	30	24/24	10.00 – 12.00	2/3/5/18	8	8				Gray-brown, damp, stiff, silty CLAY, mottled -MARINE DEPOSIT-	
								120.10		11.80	
15	40	24/4	15.00 – 17.00	2/10/16/14	26	26				Brown, wet, medium dense, well graded SAND, little fine gravel, trace silt -GLACIAL TILL-	
								114.90		17.00	
20										Bottom of Exploration at 17.00 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.
3. *Sample recovery not recorded

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B302

Maine Department of Transportation — HB-ELLS-B303

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 133.9	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: SPT 2" OD — 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/13/2010 – 05/13/2010	Drilling Methods: HSA to 13.6 ft	Core Barrel: --
Boring Location:	1045+96, 25.0 Rt.	Casing ID/OD: --	Water Level*: 3.0 ft
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/22	0.00 – 2.00	1/2/2/6	4	4	HSA	133.40		Dark brown, damp, loose, well graded SAND with rootlets -TOPSOIL-	
								132.90		0.50	
5	20	24/22	5.00 – 7.00	5/7/7/12	14	14				Light brown grading to olive, moist to wet, SILT, little gravel, trace coarse to fine sand, mottled, contains organic matter -MARINE DEPOSIT-(ML)	GM37004 A-4, ML WC=20.4%
								128.90		5.00	
10	30	24/21	10.00 – 12.00	21/30/20/30	50	50				Brown, damp, stiff, silty CLAY, mottled, contains organics -MARINE DEPOSIT-(CL)	A-6, CL WC=23.7% LL=38, PL=20 PI=18
								123.40		Brown, damp, stiff, silty CLAY with sand seams, mottled, contains organics -MARINE DEPOSIT-	
										10.50	
15										Brown, wet, very dense, well graded GRAVEL, little medium to fine sand, trace silt -GLACIAL TILL-	
								120.30		Notes: Gravel in spoon tip.	
20										13.60	
										Bottom of Exploration at 13.60 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B303

Maine Department of Transportation — HB-ELLS-B306

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 140.7	Auger ID/OD: --
Operator:	B. Enos	Datum: NAD83	Sampler: SPT 2" OD — 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	03/17/2010 – 03/17/2010	Drilling Methods: HSA to 8.5	Core Barrel: NQ – 2.0 in. ID
Boring Location:	1046+94, 26.0 Lt.	Casing ID/OD: NW = 3.0 in. ID	Water Level*: Dry
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/3	0.00 – 2.00	1/2/2/5	4	4	NW	140.50		-TOPSOIL-	
								140.30		0.20	
5	20	24/19	5.00 – 7.00	9/10/16/21	26	26				Brown, damp, medium dense, fine SAND, some silt, little medium sand, trace gravel -GLACIAL TILL-(SM)	GM37006 A-2-4, SM WC=10.9%
								137.20		3.50	
	R1	60/57	8.50 – 13.50	ROD = 87%						Notes: Probable top of rock based on drill action.	
10								132.20		8.50	
										Top of Bedrock at El. 132.2 R1: Dark gray, fine-grained to aphanitic SCHIST, Hards, slightly weathered, joints horizontal to low angle, close to moderately close, open, High angle foliation, quartz veins parallel to foliation. Rock Mass Quality=Good Recovery 97% R1 Core Times (minsec): 8.5-9.5'(61001), 9.5-10.5'(41001), 10.5-11.5'(41001), 11.5-12.5'(51001), 12.5-13.5'(31001)	
15	R2	60/60	13.50 – 18.50	ROD = 83%						R2: Gray, fine-grained to aphanitic SCHIST, Hard-slightly to moderately weathered, joints horizontal to low angle, close- open, Secondary continuous vertical joint, Frequent quartz veins parallel to high angle foliation. Rock Mass Quality=Good Recovery=100% R2 Core Times (minsec): 13.5-14.5'(41001), 14.5-15.5'(51001), 15.5-16.5'(51001), 16.5-17.5'(51001), 17.5-18.5'(41001)	
								122.20		18.50	
20										Bottom of Exploration at 18.50 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.
3. *Casing blows not recorded

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B306

Maine Department of Transportation — HB-ELLS-B304

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 140.2	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: SPT 2" OD — 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/14/2010 – 05/14/2010	Drilling Methods: HSA to 1.3 ft	Core Barrel: --
Boring Location:	1048+00, 26.0 Rt.	Casing ID/OD: --	Water Level*: Dry
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	9/3	0.00 – 0.75	2/50(0.25")			HSA	140.00		-TOPSOIL-	
								139.45		0.20	
5								138.90		Brown, moist, very dense, poorly graded SAND, contains rootlets	
										0.75	
10										Top of Bedrock Notes: Augered to 1.3 ft.	
										1.30	
15										Bottom of Exploration at 1.30 feet below ground surface.	
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B304

Maine Department of Transportation — HB-ELLS-B307

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 137.7	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: SPT 2" OD — 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/14/2010 – 05/14/2010	Drilling Methods: HSA to 12.0 ft	Core Barrel: --
Boring Location:	1050+96, 4.0 Rt.	Casing ID/OD: --	Water Level*: Dry
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/14	0.00 – 2.00	1/1/2/6	3	3	HSA	137.40		-TOPSOIL-	
								137.10		0.30	
5	20	24/24	5.00 – 7.00	4/6/7/9	13	13				Brown, grading to gray-brown, damp, soft, silty CLAY, little sand -MARINE DEPOSIT-(CL)	A-4, CL WC=31.6% LL=30, PL=20 PI=10
										Brown, moist, stiff, silty CLAY, trace sand -MARINE DEPOSIT-	
10	30	24/24	10.00 – 12.00	2/4/15/30	19	19				Brown, wet, very stiff, silty CLAY, trace gravel -MARINE DEPOSIT-	
								126.20		11.50	
15								125.70		Brown, damp, medium dense, well graded SAND, some gravel -GLACIAL TILL-	
										12.00	
20										Bottom of Exploration at 12.00 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B307

Maine Department of Transportation — HB-ELLS-B308

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 145.0	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: SPT 2" OD — 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/14/2010 – 05/14/2010	Drilling Methods: HSA to 12.0 ft	Core Barrel: --
Boring Location:	1052+70, CL	Casing ID/OD: --	Water Level*: Dry
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/16	0.00 – 2.00	1/1/1/2	2	2	HSA			Light brown, moist, loose, poorly graded SAND (SP), trace silt, contains rootlets -MARINE DEPOSIT-	
								142.00		3.00	
5	20	24/24	5.00 – 7.00	5/7/10/13	17	17				Gray-brown, damp, stiff, silty CLAY, mottled, contains organics -MARINE DEPOSIT-	
								136.50		8.50	
10	30	24/15	10.00 – 12.00	7/15/14/13	29	29				Brown, moist, medium dense, well graded SAND, some gravel -GLACIAL TILL-	
								133.00		12.00	
15										Bottom of Exploration at 12.00 feet below ground surface.	
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B308

Maine Department of Transportation — HB-ELLS-B327

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 156.4	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: SPT 2" OD — 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/20/2010 – 05/20/2010	Drilling Methods: SSA to 8.7 ft	Core Barrel: --
Boring Location:	1056+05, 22.0 Lt.	Casing ID/OD: --	Water Level*: Dry
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/14	0.00 – 2.00	1/1/2/12	3	3	SSA	156.10		-TOPSOIL-	
								155.80		0.30	
5	20	6/4	5.00 – 5.50	50(6")				151.90		Light brown, soft, SILT, trace medium to fine sand, contains organics and rootlets -MARINE DEPOSIT-(ML)	GM37014 A-4, ML WC=32.7% LL=30, PL=25 PI=5
										4.50	
10										Light brown, damp, very dense, poorly graded SAND, some gravel, little silt -GLACIAL TILL-	
								147.90		8.50	
15								147.70		Probable bedrock at 8.5 ft based on drill action. Notes: Auger refusal at 8.7 ft.	
										8.70	
20										Bottom of Exploration at 8.70 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B327

Maine Department of Transportation — HB-ELLS-B326

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 162.6	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: SPT 2" OD — 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/20/2010 – 05/20/2010	Drilling Methods: SSA to 6.9 ft	Core Barrel: --
Boring Location:	1056+96, 21.0 Rt.	Casing ID/OD: --	Water Level*: Dry
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/7	0.00 – 2.00	1/1/2/3	3	3	SSA			Brown, wet, soft, SILT, little coarse to medium sand and gravel -MARINE DEPOSIT-(ML)	GM37012 A-4, ML WC=34.8%
5	20	14/13	5.00 – 6.17	5/57/50(2")				156.20		Brown, moist, hard, silty CLAY, some sand (CL) some gravel, little silt Notes: Gravel / weathered rock in spoon tip.	A-6/A-6, CL WC=20.3% LL=35, PL=26 PI=11
10								155.70		Probable top of weathered bedrock at 6.4 ft. based on drill action. Notes: Auger refusal at 6.9 ft.	
										6.40	
15										6.90	
20										Bottom of Exploration at 6.90 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1 — Boring No.: HB-ELLS-B326

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 10063.10 — HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	K.BRESKIN	T. WHITE	JUN 2011
CHECKED-REVIEWED	------	------	SIGNATURE
DESIGN2-DETAILED2	------	------	------
DESIGN3-DETAILED3	------	------	------
REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

BORING LOGS

SHEET NUMBER 15

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\mstio\016_BORING LOGS5.dgn Division: HIGHWAY

Boring No.: HB-ELLS-B325

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 165.3	Auger ID/OD: SSA 3.0 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/20/2010 - 05/20/2010	Drilling Methods: SSA to 11.5 ft	Core Barrel: --
Boring Location:	1058+04, 17.0 Lt.	Casing ID/OD: --	Water Level(*): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/14	0.00 - 2.00	1/1/1/9	2	2	SSA	165.00		-TOPSOIL- 0.30 Light brown, damp, soft, SILT, little medium sand, trace coarse and fine sand, trace gravel -GLACIAL TILL-(ML)	GM237011 A-4, ML WC=22.3% LL=32, PL=28 PI=4
5	20	6/6	5.00 - 5.50	50/6"1						Dark brown, dry, very dense, well graded SAND, some gravel -GLACIAL TILL-	
10								156.00		Probable top of weathered bedrock at 9.3 ft, based on drill action. Note: Auger refusal at 11.5 ft. 9.30	
15								153.80		Bottom of Exploration at 11.50 feet below ground surface. 11.50	
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B325

Boring No.: HB-ELLS-B324

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 175.0	Auger ID/OD: SSA 3.0 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/20/2010 - 05/20/2010	Drilling Methods: SSA to 4.1 ft	Core Barrel: --
Boring Location:	1059+57, 24.0 Rt.	Casing ID/OD: --	Water Level(*): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/4	0.00 - 2.00	1/1/2/2	3	3	SSA	174.70		-TOPSOIL- 0.30 Light brown, damp, very loose, well graded SAND, trace gravel	
5								171.60		Probable top of bedrock at 3.4 ft based on drill action. 3.40 Note: Auger refusal at 4.1 ft. 4.10	
10								170.90		Bottom of Exploration at 4.10 feet below ground surface.	
15											
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B324

Boring No.: HB-ELLS-B309

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 177.4	Auger ID/OD: --
Operator:	B. Enos	Datum: NAD83	Sampler:
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	03/17/2010 - 03/17/2010	Drilling Methods: NW to 6.6 ft	Core Barrel: NQ - 2.0 in. ID
Boring Location:	1059+51, 24.0 Lt.	Casing ID/OD: NW - 3.0 in. ID	Water Level(*): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/12	0.00 - 2.00	1/5/1/8	6	6	N**	176.90		-TOPSOIL- 0.50 Brown, damp, loose, poorly graded SAND, trace gravel, trace silt -GLACIAL TILL-	GM237009 A-4, SM WC=10.1%
5	20	18/12	5.00 - 6.50	52/62/37	99	99		172.40		5.00	
	R1	60/50	6.90 - 11.90	RQD = 37%				171.40		Brown, dry, hard, silty GRAVEL, trace fine to coarse sand -GLACIAL TILL-(GM) Top of Bedrock at Elt. 171.4 R1: Gray-green, fine-grained to aphanitic GRANDFELS. Hard to very hard, slightly to moderately weathered. Joints low angle to moderately dipping, close, open. Highly fractured, moderately weathered zones from approximately 6.9 to 8.0 ft and 9.4 to 12.0 ft. 6.00	
10								167.70		R1: Dark gray, fine-grained aphanitic SCHIST. Moderately hard, moderately to severely weathered. Joints low angle and steeply dipping, close, open, silt infilling on some joint surfaces. Rock Mass Quality=Poor Recovery 83% R1 Core Times (minisec): 6.9-7.5'(4100); 7.9-8.5'(3100); 8.9-9.5'(3100); 9.9-10.5'(3100); 10.9-11.5'(3100); 11.9-12.5'(3100) 9.70	
	R2	36/36	11.90 - 14.90	RQD = 75%				162.50		R2: Dark gray, fine-grained aphanitic SCHIST. Weathered hard, moderately severely weathered. Joints low angle to moderately dipping, and steep secondary joints. Frequent high angle quartz veins parallel to foliation. Rock Mass Quality=Fair Recovery=100% R2 Core Times (minisec): 11.9-12.9'(3100); 12.9-13.9'(3100); 13.9-14.9'(3100); 14.9-15.9'(3100) 14.90	
15										Bottom of Exploration at 14.90 feet below ground surface.	
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.
3. **Casing blows not recorded.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B309

Boring No.: HB-ELLS-B323

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 178.8	Auger ID/OD: SSA 3.0 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/20/2010 - 05/20/2010	Drilling Methods: SSA to 8.6 ft	Core Barrel: --
Boring Location:	1059+86, 26.0 Rt.	Casing ID/OD: --	Water Level(*): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/7	0.00 - 2.00	1/1/2/3	3	3	SSA	178.50		-TOPSOIL- 0.30 Light orange-brown, damp, very loose, well graded SAND	
5	20	24/22	5.00 - 7.00	57/52/49/31	101	101				Light brown, damp, very dense, well graded SAND, some silt, little gravel (SM)	GM237010 A-2-4, SM WC=11.6%
10								170.80		Probable top of weathered rock at 8.0 ft based on drill action. 8.00	
								170.20		Bottom of Exploration at 8.60 feet below ground surface. 8.60	
15											
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B323

Boring No.: HB-ELLS-B322

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 183.9	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/20/2010 - 05/20/2010	Drilling Methods: SSA to 2.8 ft	Core Barrel: --
Boring Location:	1060+16, 21.0 Lt.	Casing ID/OD: --	Water Level(*): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/9	0.00 - 2.00	1/1/2/11	3	3	SSA	183.60		-TOPSOIL- 0.30 Orange-brown, damp, very loose, well graded SAND	
5								181.90		Probable bedrock at 2.0 ft based on drill action Note: Auger refusal at 2.8 ft. 2.00	
10								181.10		Bottom of Exploration at 2.80 feet below ground surface. 2.80	
15											
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B322

Boring No.: HB-ELLS-B321

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 188.6	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/20/2010 - 05/20/2010	Drilling Methods: HSA to 2.4 ft	Core Barrel: --
Boring Location:	1060+50, 24.0 Rt.	Casing ID/OD: --	Water Level(*): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10						HSA	188.20		-TOPSOIL- 0.40 Note: Auger refusal on probable bedrock at 0.4 ft. Encountered schist rock fragments during augering. 0.40 Bottom of Exploration at 0.40 feet below ground surface.	
5											
10											
15											
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B321

Boring No.: HB-ELLS-B320

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 182.4	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/19/2010 - 05/19/2010	Drilling Methods: SSA to 2.8 ft	Core Barrel: --
Boring Location:	1060+50, 29.0 Rt.	Casing ID/OD: --	Water Level(*): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/7	0.00 - 2.00	1/2/5/26	7	7	SSA	181.90		-TOPSOIL- 0.50 Light brown, damp, loose, poorly graded, silty SAND, some gravel	
5								180.00		Probable bedrock at 2.4 ft based on drill action. Note: Auger refusal at 2.8 ft. 2.40	
10								179.60		Bottom of Exploration at 2.80 feet below ground surface. 2.80	
15											
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B320

Boring No.: HB-ELLS-B319

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 182.0	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon - 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/19/2010 - 05/19/2010	Drilling Methods: SSA to 2.1 ft	Core Barrel: --
Boring Location:	1060+97, 29.0 Rt.	Casing ID/OD: --	Water Level(*): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/3	0.00 - 2.00	1/2/3/7	5	5	SSA	181.00		-TOPSOIL- 1.00 Brown, damp to moist, loose, gravelly SAND	
5								180.00		Probable bedrock at 2.0 ft based on drill action. Note: Auger refusal at 2.1 ft. 2.10	
10								179.90		Bottom of Exploration at 2.10 feet below ground surface.	
15											
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B319

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 10063.10 — HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	K.BRESKIN	T. WHITE	JUN 2011
CHECKED-REVIEWED	-----	-----	SIGNATURE
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
			P.E. NUMBER
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	DATE
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

ELLSWORTH
ROUTE 180

BORING LOGS

SHEET NUMBER
16
OF 151

Username: Natasha.M.Collins Date:4/13/2012
Division: HIGHWAY
Filename: ...\mstn\017_BORING LOGS6.dgn

Maine Department of Transportation — HB-ELLS-B310

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine

Boring No.: HB-ELLS-B310
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.):	187.3	Auger ID/OD:	--
Operator:	B. Enos	Datum:	NAD83	Sampler:	SPT 2.00in - 1.375 in. ID
Logged By:	M. Foley	Rig Type:	Mobile Drill B53 Bombardier	Hammer Wt./Fall:	55-140/30
Date Start/Finish:	03/18/2010 - 03/18/2010	Drilling Method:	NW to 1.5	Core Barrel:	NQ - 2.0 in. ID
Boring Location:	1061+00. 21.0 Lt.	Casing ID/OD:	NW - 3.0 in. ID	Water Level(ft):	Dry
Hammer Efficiency Factor: 0.6		Hammer Type:	Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	S1	10	0.00 - 1.50	1/3/50/4")			NH	187.00		-TOPSOIL- 0.30	
	R1	54/41	1.50 - 6.00	RQD = 52%				185.80		Brown, moist, very dense, poorly graded SAND, some gravel 4.50	
5										Top of Bedrock at El. 185.8 R1: Gray-green, fine-grained to aphanitic SCHIST grading to GRANOFELS. Very hard, slightly to moderately weathered. Joints moderate to steeply dipping, close, tight to open. Rock Mass Quality=Fair. Recovery=76% R1 Core Times (minssec): 1.5-2.5'(3:00), 2.5-3.5'(3:00), 3.5-4.5'(3:00), 4.5-5.5'(5:00), 5.5-6.0'(3:00)	
	R2	48/53	6.00 - 10.00	RQD = 83%						Note: Likely recovered 5 in. of core from R1 in R2. R2: Gray-green, fine-grained to aphanitic GRANOFELS. Very hard, slightly weathered, joints moderately to steeply dipping, close to moderately close, tight to open. Rock Mass Quality=Good. Recovery=100% R2 Core Times (minssec): 6.0-7.0'(5:00), 7.0-8.0'(3:00), 8.0-9.0'(3:00), 9.0-10.0'(3:00)	
10	R3	58/58	10.00 - 14.83	RQD = 88%						R3: Gray-green, fine-grained to aphanitic GRANOFELS. Very hard, slightly weathered, joints moderately to steeply dipping, close to moderately close, tight to open. Rock Mass Quality=Good. Recovery=100% 10.0-11.0'(3:00), 11.0-12.0'(3:00), 12.0-13.0'(3:00), 13.0-14.0'(3:00), 14.0-14.8'(2:00)	
	R4	60/59	14.80 - 19.80	RQD = 88%						R4: Green-gray, fine-grained to aphanitic SCHIST. Moderately hard to hard, fresh to slightly weathered, joints low angle and steeply dipping, close to moderately close, tight to open. Slight silt coating on some joint surfaces. Moderate to steeply dipping foliation. Rock Mass Quality=Good. Recovery=98% R4 Core Times (minssec): 14.8-15.8'(2:00), 15.8-16.8'(2:00), 16.8-17.8'(2:00), 17.8-18.8'(2:00), 18.8-19.8'(2:00)	
15	R5	60/60	19.80 - 24.80	RQD = 77%						R5: Green-gray grading to green chlorite hydrothermal alteration), fine-grained to aphanitic SCHIST. Hard, fresh to slightly weathered. Joints moderate to steeply dipping, close to moderately close, tight to open. Rock Mass Quality=Good. Recovery=100% R5 Core Times (minssec): 19.8-20.8'(3:00), 20.8-21.8'(3:00), 21.8-22.8'(5:00), 22.8-23.8'(5:00), 23.8-24.8'(5:00)	
20								162.50		Bottom of Exploration at 24.80 feet below ground surface. 24.80	
25											
30											
35											
40											
45											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.
3. *Casing blows not recorded.

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

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

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Boring No.: HB-ELLS-B310

Maine Department of Transportation — HB-ELLS-B318

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine

Boring No.: HB-ELLS-B318
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.):	180.5	Auger ID/OD:	SSA 3.0 in. OD
Operator:	B. Enos	Datum:	NAD83	Sampler:	SPT 2.00in - 1.375 in. ID
Logged By:	M. Foley	Rig Type:	Mobile Drill B53 Bombardier	Hammer Wt./Fall:	55-140/30
Date Start/Finish:	05/19/2010 - 05/19/2010	Drilling Method:	SSA to 1.0 ft	Core Barrel:	--
Boring Location:	1061+41. 25.0 Rt.	Casing ID/OD:	--	Water Level(ft):	Dry
Hammer Efficiency Factor: 0.6		Hammer Type:	Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

Definitions / Sample Information: same as B310

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	S1	10	0.00 - 0.83	1/25(4")			SSA	179.50		-TOPSOIL- 1.00 Note: Auger refusal on probable bedrock at 1.0 ft. Bottom of Exploration at 1.00 feet below ground surface.	
5											
10											
15											
20											
25											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1

Boring No.: HB-ELLS-B318

Maine Department of Transportation — HB-ELLS-B317

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine

Boring No.: HB-ELLS-B317
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.):	184.9	Auger ID/OD:	SSA 3.0 in. OD
Operator:	B. Enos	Datum:	NAD83	Sampler:	SPT 2.00in - 1.375 in. ID
Logged By:	M. Foley	Rig Type:	Mobile Drill B53 Bombardier	Hammer Wt./Fall:	55-140/30
Date Start/Finish:	05/19/2010 - 05/19/2010	Drilling Method:	SSA to 1.0 ft	Core Barrel:	--
Boring Location:	1061+53. 24.0 Lt.	Casing ID/OD:	--	Water Level(ft):	Dry
Hammer Efficiency Factor: 0.6		Hammer Type:	Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

Definitions / Sample Information: same as B310

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0				No spoon driven			SSA	184.60		-TOPSOIL- 0.30	
								183.90		Brown, damp, poorly graded SAND, trace silt 1.00 Note: Auger refusal on probable bedrock at 1.0 ft. Bottom of Exploration at 1.00 feet below ground surface.	
5											
10											
15											
20											
25											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.
3. Same description based on soil sample collected from auger cuttings. Actual soil types may vary from those shown.

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

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

Page 1 of 1

Boring No.: HB-ELLS-B317

Maine Department of Transportation — HB-ELLS-B316

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine

Boring No.: HB-ELLS-B316
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.):	181.9	Auger ID/OD:	SSA 3.0 in. OD
Operator:	B. Enos	Datum:	NAD83	Sampler:	SPT 2.00in - 1.375 in. ID
Logged By:	M. Foley	Rig Type:	Mobile Drill B53 Bombardier	Hammer Wt./Fall:	55-140/30
Date Start/Finish:	05/19/2010 - 05/19/2010	Drilling Method:	SSA to 1.3 ft	Core Barrel:	--
Boring Location:	1061+85. 19.0 Rt.	Casing ID/OD:	--	Water Level(ft):	Dry
Hammer Efficiency Factor: 0.6		Hammer Type:	Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

Definitions / Sample Information: same as B310

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	S1	10	0.00 - 1.33	2/19/25(4")			SSA	181.40		-TOPSOIL- 0.50	
								180.60		Gray, damp, dense, well graded SAND Note: Auger refusal on probable bedrock at 1.3 ft. 1.30 Bottom of Exploration at 1.30 feet below ground surface.	
5											
10											
15											
20											
25											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

Page 1 of 1

Boring No.: HB-ELLS-B316

Maine Department of Transportation — HB-ELLS-B315

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine

Boring No.: HB-ELLS-B315
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.):	182.3	Auger ID/OD:	SSA 3.0 in. OD
Operator:	B. Enos	Datum:	NAD83	Sampler:	SPT 2.00in - 1.375 in. ID
Logged By:	M. Foley	Rig Type:	Mobile Drill B53 Bombardier	Hammer Wt./Fall:	55-140/30
Date Start/Finish:	05/19/2010 - 05/19/2010	Drilling Method:	SSA to 0.5 ft	Core Barrel:	--
Boring Location:	1062+03. 28.0 Lt.	Casing ID/OD:	--	Water Level(ft):	Dry
Hammer Efficiency Factor: 0.6		Hammer Type:	Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

Definitions / Sample Information: same as B310

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	S1	10	0.00 - 0.33	25(4")			SSA	182.30 181.80		-TOPSOIL- 0.20 Brown, damp, medium dense, poorly graded SAND, trace silt Note: Auger refusal on probable bedrock at 0.5 ft. 0.50 Bottom of Exploration at 0.50 feet below ground surface.	
5											
10											
15											
20											
25											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

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Boring No.: HB-ELLS-B315

Maine Department of Transportation — HB-ELLS-B312

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine

Boring No.: HB-ELLS-B312
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.):	177.9	Auger ID/OD:	HSA 2.5 in. ID
Operator:	B. Enos	Datum:	NAD83	Sampler:	SPT 2.00in - 1.375 in. ID
Logged By:	M. Foley	Rig Type:	Mobile Drill B53 Bombardier	Hammer Wt./Fall:	55-140/30
Date Start/Finish:	05/19/2010 - 05/19/2010	Drilling Method:	HSA to 0.8 ft	Core Barrel:	--
Boring Location:	1062+42. 25.0 Lt.	Casing ID/OD:	--	Water Level(ft):	Dry
Hammer Efficiency Factor: 0.6		Hammer Type:	Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

Definitions / Sample Information: same as B310

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	S1	10	0.00 - 0.83	4/50(4")			HSA	177.60 177.10		-TOPSOIL- 0.30 Gray, damp, dense, well graded SAND, some gravel 0.80 Note: Auger refusal at 0.8 ft. Bottom of Exploration at 0.80 feet below ground surface.	
5											
10											
15											
20											
25											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

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

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

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Boring No.: HB-ELLS-B312

Maine Department of Transportation — HB-ELLS-B311

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine

Boring No.: HB-ELLS-B311
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.):	179.8	Auger ID/OD:	--
Operator:	B. Enos	Datum:	NAD83	Sampler:	SPT 2.00in - 1.375 in. ID
Logged By:	M. Foley	Rig Type:	Mobile Drill B53 Bombardier	Hammer Wt./Fall:	55-140/30
Date Start/Finish:	03/18/2010 - 03/19/2010	Drilling Method:	NW to 3.8 ft	Core Barrel:	NQ - 2.0 in. ID
Boring Location:	1062+50. 24.0 Rt.	Casing ID/OD:	NW - 3.0 in. ID	Water Level(ft):	Dry
Hammer Efficiency Factor: 0.6		Hammer Type:	Automatic ☐ Hydraulic ☐ Rope & Cathead ☒		

Definitions / Sample Information: same as B310

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	S1	10	24/8	0.00 - 2.00	1/2/3/5	5	5	NH	179.30	-TOPSOIL-	
										Gray, damp, loose, poorly graded SAND, contains roottets 0.50	
									178.30	Gray, dry, loose, GRAVEL, some sand 4.50	
5									176.00	3.80	
	R1	60/60	4.10 - 9.10	RQD = 93%						Top of Bedrock at El. 176.0 R1: Gray-green, fine-grained to aphanitic SCHIST. Hards, fresh to slightly weathered. Joints low angle to moderately dipping, close to moderately close, tight to open. Rock Mass Quality=Excellent Recovery=100% R1 Core Times (minssec): 4.1-5.1'(5:00), 5.1-6.1'(3:00), 6.1-7.1'(3:00), 7.1-8.1'(4:00), 8.1-9.1'(3:00)	
10	R2	60/59	9.10 - 14.10	RQD = 73%						R2: Gray-green grading to purple-green, fine-grained to aphanitic SCHIST. Hards, slightly to moderately weathered, weathering increasing with depth. Joints low angle to moderately dipping, very close to close, open. Secondary steeply dipping joints. Rock Mass Quality=Fair Recovery=98% R2 Core Times (minssec): 9.1-10.1'(4:00), 10.1-11.1'(3:00), 11.1-12.1'(4:00), 12.1-13.1'(4:00), 13.1-14.1'(3:00)	
15									165.70	14.10	
20										Bottom of Exploration at 14.10 feet below ground surface.	
25											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.
3. *Casing blows not recorded.

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

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

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Boring No.: HB-ELLS-B311

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
10063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	K.BRESKIN	T. WHITE	JUN 2011
CHECKED-REVIEWED	-----	-----	SIGNATURE
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	P.E. NUMBER
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	DATE

ELLSWORTH
ROUTE 180

BORING LOGS

SHEET NUMBER
17
OF 151

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\msta\018_BORING LOGS7.dgn Division: HIGHWAY

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B313

Driller:	Maine Test Borings	Elevation (ft.): 173.4	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/19/2010 – 05/19/2010	Drilling Methods: HSA to 2.4 ft	Core Barrel: --
Boring Location:	1063+00. 22.0 Lt.	Casing ID/OD: --	Water Level(ft): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/12	0.00 – 2.00	1/1/2/6	3	3	HSA	173.10		-TOPSOIL- 0.30 Yellow-brown, moist, soft, SILT, trace sand, little gravel -MARINE DEPOSIT- 2.20	
								171.20 171.00		Probable bedrock at 2.2 ft based on drill action. Notes: Auger refusal at 2.4 ft. 2.40 Bottom of Exploration at 2.40 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B313

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B314

Driller:	Maine Test Borings	Elevation (ft.): 174.8	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/19/2010 – 05/19/2010	Drilling Methods: SSA to 1.0 ft	Core Barrel: --
Boring Location:	1063+00. 22.0 Rt.	Casing ID/OD: --	Water Level(ft): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	12/5	0.00 – 1.00	1/50(6")			SSA	174.40 173.80		-TOPSOIL- 0.40 Brown, damp, very dense, poorly graded SAND, little silt Notes: Auger refusal on probable bedrock at 1.0 ft. 1.00 Bottom of Exploration at 1.00 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B314

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B328

Driller:	Maine Test Borings	Elevation (ft.): 173.4	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/21/2010 – 05/21/2010	Drilling Methods: HSA to 0.8 ft	Core Barrel: --
Boring Location:	1063+44. 23.0 Rt.	Casing ID/OD: --	Water Level(ft): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	10/3	0.00 – 0.83	20/50(4")			HSA	173.10 172.60		-TOPSOIL- 0.30 Brown, damp, hard, SILT, little medium to fine sand, trace gravel, rootlets Notes: Auger refusal on probable bedrock at 0.8 ft. 0.80 Bottom of Exploration at 0.80 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B328

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B329

Driller:	Maine Test Borings	Elevation (ft.): 163.9	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/21/2010 – 05/21/2010	Drilling Methods: HSA to 4.4 ft	Core Barrel: --
Boring Location:	1063+95. 24.0 Lt.	Casing ID/OD: --	Water Level(ft): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/12	0.00 – 2.00	1/1/1/2	2	2	HSA	163.60		-TOPSOIL- 0.30 Brown, moist, loose, silty, coarse to fine SAND, little gravel, contains rootlets (SM)	GM037015 A-1, SM WC=61.1%
								159.60 159.50		Probable bedrock at 4.3 ft based on drill action. Notes: Auger refusal at 4.4 ft. 4.40 Bottom of Exploration at 4.40 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B329

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B330

Driller:	Maine Test Borings	Elevation (ft.): 163.6	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/21/2010 – 05/21/2010	Drilling Methods: SSA to 8.6 ft	Core Barrel: --
Boring Location:	1064+43. 25.0 Rt.	Casing ID/OD: --	Water Level(ft): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/12	0.00 – 2.00	1/1/3/9	4	4	SSA	163.36		-TOPSOIL- 0.30 Brown, dry, loose, poorly graded SAND, little gravel, little silt	
	20	24/24	4.00 – 6.00	6/7/8/10	15	15		159.60		Gray-brown, moist, stiff, silty CLAY, little sand 4.00 -MARINE DEPOSIT-(CL)	A-6, CL WC=20.9% LL=28, PL=18, PI=10
								155.60 155.00		Probable glacial till based on drill action. 8.00 Notes: Auger refusal on probable bedrock at 8.6 ft. 8.60 Bottom of Exploration at 8.60 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B330

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B331

Driller:	Maine Test Borings	Elevation (ft.): 159.3	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/21/2010 – 05/21/2010	Drilling Methods: SSA to 10.2 ft	Core Barrel: --
Boring Location:	1064+97. 26.0 Lt.	Casing ID/OD: --	Water Level(ft): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/16	0.00 – 2.00	1/1/2/10	3	3	SSA	159.06		-TOPSOIL- 0.30 Brown, moist to wet, loose, poorly graded SAND, trace silt, contains rootlets	
	20	24/24	4.50 – 6.50	7/8/9/15	17	17		154.80		Gray-light brown, moist, very stiff, silty CLAY, little fine sand 4.50 -MARINE DEPOSIT-(CL)	A-4, CL WC=22.1% LL=31, PL=22 PI=9
								149.10		Bottom of Exploration at 10.20 feet below ground surface. 10.20	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B331

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B332

Driller:	Maine Test Borings	Elevation (ft.): 155.6	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/21/2010 – 05/21/2010	Drilling Methods: SSA to 5.5 ft	Core Barrel: --
Boring Location:	1066+07. 31.0 Lt.	Casing ID/OD: --	Water Level(ft): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/14	0.00 – 2.00	1/1/1/2	2	2	SSA	155.30		-TOPSOIL- 0.30 Light brown, moist, soft, SILT, trace coarse to fine sand, trace gravel -MARINE DEPOSIT-(ML)	GM037018 A-4, ML WC=42.3%
	20	12/7	4.50 – 5.50	10/50(5")				151.10 150.10		Brown, wet, dense, well graded SAND, some gravel 4.50 -GLACIAL TILL- Notes: Auger refusal on probable bedrock at 5.5 ft. 5.50 Bottom of Exploration at 5.50 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B332

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

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
WIN: 10063.10

Boring No.: HB-ELLS-B333

Driller:	Maine Test Borings	Elevation (ft.): 154.9	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: 55-140/30
Date Start/Finish:	05/21/2010 – 05/21/2010	Drilling Methods: HSA to 4.3 ft	Core Barrel: --
Boring Location:	1066+97. 21.0 Lt.	Casing ID/OD: --	Water Level(ft): Dry

Hammer Efficiency Factor: 0.6 — Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Strength or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/7	0.00 – 2.00	1/2/2/8	4	4	SSA	154.60		-TOPSOIL- 0.30 Brown, damp, soft, SILT, some medium to fine sand -GLACIAL TILL-(ML) Notes: Advanced auger from approximately 2.0 to 4.3 ft through cobbles.	GM037019 A-4, ML WC=34.5%
								150.60		Notes: Auger refusal at 4.30 ft on probable bedrock. 4.30 Bottom of Exploration at 4.30 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: HB-ELLS-B333

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 10063.10 — HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	K.BRESKIN	T. WHITE	JUN 2011
CHECKED-REVIEWED	-----	-----	SIGNATURE
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	P.E. NUMBER
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	DATE

ELLSWORTH
ROUTE 180

BORING LOGS

SHEET NUMBER
18
OF 151

Username: Natasha.M.Collins Date:4/13/2012
Division: HIGHWAY
Filename: ...\mstc\019_BORING LOGS8.dgn

Maine Department of Transportation — HB-ELLS-B334

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
Boring No.: HB-ELLS-B334
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 140.1	Auger ID/OD: SSA 3.0 in. OD
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/24/2010 – 05/24/2010	Drilling Method: SSA to 1.5 ft	Core Barrel: --
Boring Location:	1068+00, 26.0 Rt.	Casing ID/OD: --	Water Level*: Dry
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0							SSA	138.60		-TOPSOIL- 0.10 Notes Auger refusal on probable top of bedrock at 1.5 ft 1.50 Bottom of Exploration at 1.50 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: HB-ELLS-B334

Maine Department of Transportation — HB-ELLS-B335

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
Boring No.: HB-ELLS-B335
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 134.2	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/24/2010 – 05/24/2010	Drilling Method: HSA to 3.3 ft	Core Barrel: --
Boring Location:	1069+00, CL	Casing ID/OD: --	Water Level*: Dry
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/14	0.00 – 2.00	1/1/1/3	2	2	HSA	133.90		-TOPSOIL- 0.30 Brown, moist, very loose- silty SAND- contains wood fragments and organics -MARINE DEPOSIT- 2.20 Probable glacial till based on drill action. Notes Auger refusal on probable bedrock at 3.3 ft. 3.30 Bottom of Exploration at 3.30 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: HB-ELLS-B335

Maine Department of Transportation — HB-ELLS-B336

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
Boring No.: HB-ELLS-B336
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 112.3	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/24/2010 – 05/24/2010	Drilling Method: HSA to 19.2 ft	Core Barrel: --
Boring Location:	1071+00, CL	Casing ID/OD: --	Water Level*: 2.5
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/18	0.00 – 2.00	1/2/2/2	4	4	HSA	112.10		-TOPSOIL- 0.20 Brown, damp, loose, poorly graded SAND, little silt 3.00	
5	20	24/24	5.00 – 7.00	7/5/4/5	9	9				Gray, damp, stiff, silty fine to coarse SAND, little fine gravel, trace coarse gravel, trace organics -MARINE DEPOSIT-(SM/SC)	GM237020 A-4, SM/SC WC=9.3% LL=22, PL=16 PI=6
10	30	24/24	10.00 – 12.00	6/6/6/6	12	12				Gray, damp, stiff, silty CLAY, little sand 13.00	
								99.30		Notes Encountered glacial till at 13.0 ft based on drill action.	
15	40	24/24	15.00 – 17.00	3/5/12/12	17	17		96.30		Brown, wet, medium dense, poorly graded SAND -GLACIAL TILL- 16.00 Brown, wet, very stiff, SILT, some sand and gravel -GLACIAL TILL- Notes Weathered rock / gravel in spoon tip. Notes Split spoon and auger refusal on probable bedrock at 19.2 ft.	
20								93.10		19.20 Bottom of Exploration at 19.20 feet below ground surface.	

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: HB-ELLS-B336

Maine Department of Transportation — HB-ELLS-B337

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
Boring No.: HB-ELLS-B337
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 111.9	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/24/2010 – 05/24/2010	Drilling Method: HSA to 18.8 ft	Core Barrel: --
Boring Location:	1073+00, CL	Casing ID/OD: --	Water Level*: 3.4
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/16	0.00 – 2.00	WOH/2/5/5	7	7	HSA	111.80		-TOPSOIL- 0.10 Brown, moist, medium stiff, silty CLAY, trace sand (CL)	GM237021 A-6, CL WC=18.8% LL=28, PL=17 PI=11
								108.90		3.00	
5	20	24/24	5.00 – 7.00	3/3/5/5	8	8				Gray-brown, damp, stiff, clayey SILT, little sand, containg sand seams, organics, mottled -MARINE DEPOSIT-(ML)	A-4, ML WC=22.4% LL=31, PL=32 PI=NP
10	30	24/24	10.00 – 12.00	1/6/11/13	17	17				Brown, moist, very stiff, silty CLAY, little sand, mottled, containg sand seams	
								100.90		11.00 Brown, wet, medium dense, well graded SAND -GLACIAL TILL-	
15	40	24/22	15.00 – 17.00	8/25/25/21	50	50				Notes Gravel / weathered rock in spoon tip. Brown, wet, dense, fine to coarse SAND, some silt, little gravel, grading to poorly graded SAND, trace gravel -GLACIAL TILL-(SM)	GM237023 A-2-4, SM WC=11.3%
								93.10		Notes Probable top of bedrock at 18.8 ft based on drill action. 18.80 Bottom of Exploration at 18.80 feet below ground surface.	
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: HB-ELLS-B337

Maine Department of Transportation — HB-ELLS-B338

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
Boring No.: HB-ELLS-B338
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 121.2	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/24/2010 – 05/24/2010	Drilling Method: HSA to 7.2 ft	Core Barrel: --
Boring Location:	1074+00, CL	Casing ID/OD: --	Water Level*: Dry
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/16	0.00 – 2.00	1/1/2/5	3	3	HSA	120.90		-TOPSOIL- 0.30 Brown, damp to moist, very loose, silty SAND, mottled, with rootlets and organics	
								118.20		3.00	
5	20	24/15	5.00 – 7.00	4/14/20/20	34	34		115.70		Brown, damp, medium stiff, silty CLAY, little sand, containg sand seams -MARINE DEPOSIT- 6.50	
								114.00		Brown, moist, medium dense, well graded SAND, some gravel Notes Weathered rock / gravel in tip. Auger refusal on probable bedrock at 7.2 ft 7.20 Bottom of Exploration at 7.20 feet below ground surface.	
10											
15											
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: HB-ELLS-B338

Maine Department of Transportation — HB-ELLS-B339

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Proposed Route 180 Relocation Project
Location: Ellsworth, Maine
Boring No.: HB-ELLS-B339
WIN: 10063.10

Driller:	Maine Test Borings	Elevation (ft.): 136.8	Auger ID/OD: HSA 2.5 in. ID
Operator:	B. Enos	Datum: NAD83	Sampler: Split Spoon – 1.375 in. ID
Logged By:	M. Foley	Rig Type: Mobile Drill B53 Bombardier	Hammer Wt./Fall: SS-140/30
Date Start/Finish:	05/24/2010 – 05/24/2010	Drilling Method: HSA to 14.1 ft	Core Barrel: --
Boring Location:	1077+00, CL	Casing ID/OD: --	Water Level*: 2.5
Hammer Efficiency Factor: 0.6		Hammer Type: Automatic ☐ Hydraulic ☐ Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows / 6 in. Sheer Strength (psf) or RQD (%)	Nuncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/13	0.00 – 2.00	1/2/1/2	3	3	HSA	136.60		-TOPSOIL- 0.20 Brown, moist, soft, SILT, trace medium to fine sand, containg rootlets and organics, mottled -MARINE DEPOSIT-(ML)	GM237024 A-4, ML WC=38.7%
								131.80		5.00	
5	20	24/24	5.00 – 7.00	4/4/6/6	10	10				Brown, damp to dry, stiff, silty CLAY, little sand, mottled, contains organics -MARINE DEPOSIT-(CL)	A-6, CL WC=22.2% LL=30, PL=18 PI=12
								127.80		9.00	
10	30	24/15	10.00 – 12.00	10/12/16/27	28	28				Brown, wet, medium dense, fine to coarse SAND, some silt, trace fine to coarse gravel -GLACIAL TILL-(SM)	GM236938 A-2-4, SM WC=9.2%
								123.00		13.80	
15								122.70		Notes Advanced auger into probable bedrock from 13.8 to 14.1 ft. Auger refusal at 14.1 ft. 14.10 Bottom of Exploration at 14.10 feet below ground surface.	
20											

Remarks:
2. Hammer consisted of rope and cathead and safety hammer.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: HB-ELLS-B339

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 10063.10 — HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	K.BRESKIN	T. WHITE	JUN 2011
CHECKED-REVIEWED	-----	-----	SIGNATURE
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	P.E. NUMBER
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	DATE
FIELD CHANGES	-----	-----	-----

ELLSWORTH
ROUTE 180

BORING LOGS

SHEET NUMBER
19
OF 151

Table I
Summary of "North" Test Probes
Proposed Route 180 Relocation
MaineDOT PIN 10063.10
Ellsworth, Maine

Test Probe No.	Ground Surface Elevation[1,2]	Location Data: Station[3]	Location Data: Offset Distance & Direction[3]	Location Data: Coordinates[4] Northing	Location Data: Coordinates[4] Easting	Approximate Observed Water Depth[5,7] (ft, BGS)	Approximate Refusal Depth[5,7] (ft, BGS)	Observed Soil Conditions[6]
HB-ELLS-P301	129.6	1044+22	33' LT	396,076	1,816,482	NE	> 10	0'-5' grey brown, damp SAND 5' - 10' olive, damp, lean CLAY 7' some gravel
HB-ELLS-P302	132.0	1045+00	24' RT	396,152	1,816,501	NE	> 15	0'-8' olive, damp, lean CLAY 8'-15' grey, wet, lean CLAY
HB-ELLS-P303	135.9	1046+00	24' LT	396,259	1,816,463	12	> 15	0'-5' light brown, mottled CLAY, trace sand 6'-15' brown, moist, SAND, some gravel
HB-ELLS-P304	135.9	1047+00	25' RT	396,350	1,816,521	NE	8.2	0'-5.5' brown, damp, lean CLAY trace sand 5.5'-8' brown, moist, SAND, some gravel
HB-ELLS-P305	138.6	1048+11	10' LT	396,466	1,816,495	NE	> 15	0'-7' brown ,damp, lean CLAY trace sand 7'-15' brown, wet, SAND, with cobbles
HB-ELLS-P306	169.5	1058+97	31' RT	397,553	1,816,526	NE	7.9	light brown, damp, SAND, trace gravel
HB-ELLS-P307	172.6	1059+07	23' LT	397,558	1,816,470	NE	7.8	0'-5.3' brown, damp, SAND, trace gravel 5.3' boulders & cobbles/ weathered rock
HB-ELLS-P308	165.0	1057+95	28' RT	397,450	1,816,530	NE	7.7	0'-5' brown, damp, SAND 5'-7' brown, damp, lean CLAY, trace sand 7' weathered rock
HB-ELLS-P309	162.1	1057+00	21' LT	397,351	1,816,488	NE	4.8	0'-0.6' brown, damp, SAND, some gravel 0.6'-3.8' weathered rock
HB-ELLS-P310	156.7	1055+94	29' RT	397,249	1,816,543	NE	7.1	brown, damp, SAND, some gravel, trace silt
HB-ELLS-P311	169.2	1063+50	24' LT	397,998	1,816,417	NE	3.2	0'-3' brown, damp, SAND, some gravel 3' weathered rock
HB-ELLS-P312	168.2	1063+95	27' RT	398,047	1,816,460	NE	3.7	brown, damp, SAND, some gravel
HB-ELLS-P313	161.0	1064+50	21' LT	398,099	1,816,403	NE	> 10	0'-5' brown, wet, SAND 5-10' brown, wet, sandy SILT
HB-ELLS-P314	162.6	1064+90	21' RT	398,141	1,816,439	NE	> 15	brown, moist, sandy SILT
HB-ELLS-P315	156.4	1065+88	18' RT	398,237	1,816,419	NE (augers saturated)	9.5	0'-6.2' brown, wet, silty SAND 6.2' brown, wet, SAND, some gravel
HB-ELLS-P316	149.8	1067+05	25' RT	398,353	1,816,403	NE	2.3	brown wet, SAND
HB-ELLS-P317	147.3	1068+00	25' LT	398,439	1,816,334	NE	4.3	brown, moist, SAND, some gravel, cobbles

Notes:
[1] Ground surface elevations at test probe locations were determined in the field by MaineDOT using GPS surveying equipment.
[2] Elevations are in feet and reference the North American Vertical Datum of 1988 (NAVD 88).
[3] Stationing references the MaineDOT centerline baseline.
[4] Coordinates reference the NAD83 Maine 2000 Central Zone coordinate system.
[5] Groundwater measurements were taken immediately after drilling; may not represent stabilized conditions; actual conditions will vary from those shown.
[6] Soil descriptions provided are based on observed auger cuttings. Actual soil types may vary from those shown.
[7] NE = not encountered

TABLE I
Summary of Test Probes
Proposed Route 180 Relocation
MaineDOT PIN 10063.10
Ellsworth, Maine

DRAFT

Test Probe No.[1]	Ground Surface Elevation[2,3]	Location Data: Approx. Station[4]	Location Data: Approx. Offset Distance &	Location Data: Coordinates[5] Northing	Location Data: Coordinates[5] Easting	Approx. Observed Groundwater Depth[6,8] (ft, BGS)	Approximate Refusal Depth[6,8] (ft, BGS)	Observed Soil Conditions[7]
HB-ELLS-P201	132.2	1010 + 50	25' LT	392,726	1,816,325	NE	> 10.0	brown, wet, SAND, trace gravel, probable cobble at 3 ft
HB-ELLS-P202	133.5	1010 + 00	25' LT	392,678	1,816,315	NE	> 10.0	brown, wet, SAND, trace gravel
HB-ELLS-P203	131.6	1010 + 50	25' RT	392,721	1,816,374	NE	> 10.0	brown, wet, SAND, trace gravel, probable cobbles at 4, 5, and 7 f
HB-ELLS-P204	135.2	1009 + 50	25' LT	392,632	1,816,308	NE	7.5	brown, wet, SAND
HB-ELLS-P205	133.0	1009 + 50	25' RT	392,629	1,816,359	NE	6.7	brown, wet, SAND, trace gravel
HB-ELLS-P206	135.6	1009 + 00	25' RT	392,572	1,816,351	NE	0.5	topsoil overlying bedrock
HB-ELLS-P207	138.3	1008 + 50	25' LT	392,530	1,816,296	NE	1.1	topsoil overlying bedrock
HB-ELLS-P208	137.3	1008 + 50	25' RT	392,526	1,816,345	NE	4.5	brown, wet SAND
HB-ELLS-P209	138.1	1008 + 00	25' LT	392,480	1,816,295	NE	3.8	light brown, moist, SAND, some gravel, trace silt
HB-ELLS-P210	135.1	1007 + 50	25' LT	392,428	1,816,290	5.0	7.5	light brown, moist, SAND, some gravel, trace silt
HB-ELLS-P211	134.4	1007 + 50	25' RT	392,427	1,816,340	6.5	9.2	brown, wet, SAND, little gravel, trace silt
HB-ELLS-P212	132.1	1007 + 00	25' RT	392,380	1,816,340	5.4	7.4	brown, wet, SAND, little gravel, trace silt

Notes:
[1] Test probe locations are shown on Figures X and X, Site and Subsurface Exploration Location Plans.
[2] Ground surface elevations at test probe locations were determined in the field by MaineDOT using GPS surveying equipment.
[3] Elevations are in feet and reference the North American Vertical Datum of 1988 (NAVD 88).
[4] Stationing references the MaineDOT centerline baseline.
[5] Coordinates reference the NAD83 Maine 2000 Central Zone coordinate system.
[6] Groundwater measurements were taken immediately after drilling; may not represent stabilized conditions; actual conditions will vary from those shown.
[7] Soil descriptions provided are based on observed auger cuttings. Actual soil types may vary from those shown.
[8] NE = not encountered

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 10063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	T. WHITE	JUN. 2011
CHECKED-REVIEWED	K.BRESKIN	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

BORING LOGS

SHEET NUMBER

20

OF 151

Filename: ...\mslo\020_BORING LOGS9.dgn Username: Natasha.M.Collins Division: HIGHWAY Date:4/13/2012

Filename: ...\highway\rmsto\021_HDPlan1.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

PT STA 233+89.46

234+00

235+00

S57°02'02.0"E

US RTE. 1A

STA. 164+27.6015 =
STA. 984+25.1960

97°-10'-4"

LOT "B"

W.W. INVESTMENTS, LLC

985+00

109° - 28' - 54.448"
SIGHT P.T.

STA. 985+89.24 =
PC STA 10+00.00

10+00

986+00

987+00

N35°47'49.8"E

988+00

989+00

990+00

CURVE DATA
BOGGY BROOK RD.

PI = 10+72.50
D = 06° - 59' - 07.9"
Δ = 10° - 06' - 07.3" Rt.
R = 820.21'
L = 144.61'
T = 72.49'
E = 3.20'

52.369'
N29°40'20.0"W

11+00

PT STA 11+44.61

REMOVE EXIST. CULVERT (12" STUB PIPE INTO MH.)

REMOVE EXISTING CURB PIECE

REMOVE EXISTING INLET GRATE UNIT

STA. 987+20.47 CONNECT NEW CURB TO EXIST CURB

STA. 987+20.47 CONNECT NEW UD TO EXIST UD

REMOVE EXISTING 6" UD. PIECE

REMOVE EXISTING CURB PIECE

0.28± AC.

STA. 987+86.09 = BEGIN PROPOSED PROJECT
No. 10063.10 = MATCH EXISTING SECTION =
STA. 30+110.00 PROJECT NO. NH-10007(00)E
BUILT 2009 & 2010 (METRIC PROJECT)

6" x 194.8' UD TYPE B

6" x 229.6' UD TYPE B

REMOVE ROCKS

REMOVE TREES
1610± S.F.

REMOVE EXIST. CULV.

REMOVE BUSH
24" WIDE

18" x 52.0' RCP CLASS III

18" x 56' RCP CLASS III

15" x 48' CULV. OPT. I

REMOVE EXIST. CULV.

CLEAN OUT EXISTING CULVERT

695± S.F.

775± S.F.

LOT 3

LOT 4

75± S.F.

605± S.F.

450± S.F.

865± S.F.

CONST.

TEMP.

LIMITS

CONST. LTS.

P.I.

(NEW RTE. 180)

DRAINAGE OUTLET

EXISTING ROADWAY WAS BUILT AS PART OF PROJECT # NH-1000(700)E

STA. 987+86.092
BEGIN PROPOSED PROJECT
NO. 10063.10 = MATCH EXISTING
SECTION

PROPOSED PROFILE

G = +0.400%

P.V.C. STA. = 990+50.000
ELEV. 101.89

EXISTING PROFILE

STA.984+25.196 =
STA. 164+27.602

STA. 987+20.47 = LIMIT OF WORK
(FOR CURB WORK LT. & UD WORK RT.)

18" CMP

15" CMP

	96.86 (EXISTING)	96.40 (EXISTING)	97.41 (EXISTING)	98.44 (EXISTING)	99.43 (EXISTING)	100.21 (EXISTING)	100.61 (EXISTING)	100.76 (EXISTING)	100.83 (MATCH)	100.89 100.86	101.09 (PROPOSED) 100.96 (EXISTING)	101.29 101.10	101.49 101.17	101.69 101.42	101.89 (PROPOSED) 102.01 (EXISTING)
	-25.196								-86.090						
	984+50	985+00	985+50	986+00	986+50	987+00	987+50	988+00	988+50	989+00	989+50	990+00	990+50		

115 110 105 100 95 90 85 80 75 70

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	DATE	BY	SIGNATURE
PROJ. MANAGER		ERNIE MARTIN	
DESIGN-DETAILED		J. Monzer	
CHECKED-REVIEWED		NMC \ JH	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

21

OF 151

Filename: ...\highway\rmsto\022_HDPlan2.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

CURVE DATA

PI = 995+32.31
D = 00° - 13' - 45.1"
Δ = 01° - 44' - 48.7" Lt
R = 25,000.00'
L = 762.21'
T = 381.13'
E = 2.91'

PC STA 991+51.18

LOT 3 LOT 4 LOT 5

CONST. LIMITS 75± S.F.
CONST. LTS. 605± S.F.
TEMP. CONST. LIMITS 450± S.F.
0.09± AC.
TEMP. CONST. LTS. 145± S.F.
850± S.F.
0.14± AC.
CONST. LIMITS 685± S.F.

18" x 52.0' RCP CLASS III
18" x 56' RCP CLASS III
24" x 48.0' RCP CLASS III
6" x 22.7'0 UD OUTLET
6" x 414.3' UD TYPE B

990+00 991+00 992+00 993+00 994+00 995+00 996+00

REMOVE EXIST. CULV.
REMOVE BUSH
REMOVE EXIST. CULV.
15"x46' CULV. OPT I
15"x30' CULV. OPT I
REMOVE TREE
REMOVE TREE
REMOVE TREE
REMOVE EXIST. CULV.
REMOVE EXISTING CULVERT (CULVERT IS NOT BEING REPLACED)
REMOVE EXIST. C.B. (C.B. IS NOT BEING REPLACED)
PLUG EXIST. CULVERT. AS DIRECTED BY THE RESIDENT

865± S.F.
CLEAN OUT EXISTING CULVERT
695± S.F. CONST. LTS.
775± S.F. CONST.
0.28± AC.
0.10± AC.
0.05± AC.
0.11± AC.

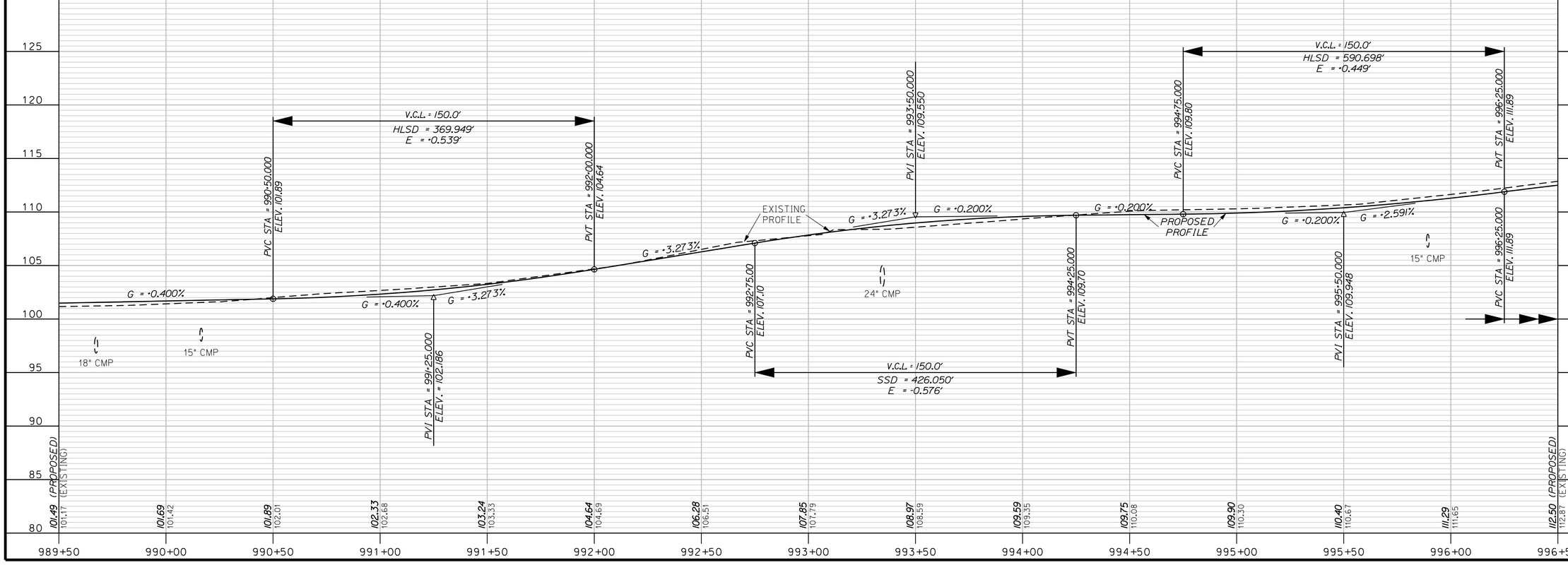
DRAINAGE OUTLET STA.989+64± RT.

TEMPORY DETOUR TO BE CONSTRUCTED FOR RAILROAD CROSSING REPLACEMENT SEE SHEET 11 OF 166 FOR ADDITIONAL INFORMATION LOCATION TO BE DETERMINED IN THE FIELD, AS DIRECTED BY THE RESIDENT

INSTALLATION OF 18" CULVERT PIPE, OPT III MAY BE NEEDED DURING TEMPORARY DETOUR AS DIRECTED BY THE RESIDENT. PAYMENT SHALL BE MADE UNDER ITEM NO. 603.179 18" CP. OPT III

STA. 992+98.00 & STA. 993+20.50 6" TYPE B UNDERDRAIN

NOTE: SEE SURVEY PLAN INDUSTRIAL PARK BOGGY BROOK & VITTUM ROADS DATED: AUG. 1976



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER ERNIE MARTIN		
DESIGN-DETAILED J. Monzer	NMC \ JH	X
CHECKED-REVIEWED -----	-----	-----
DESIGN2-DETAILED2 -----	-----	-----
DESIGN3-DETAILED3 -----	-----	-----
REVISIONS 1 -----	-----	-----
REVISIONS 2 -----	-----	-----
REVISIONS 3 -----	-----	-----
REVISIONS 4 -----	-----	-----
FIELD CHANGES -----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER
22
OF 151

Filename: ...\highway\rmsto\023_HDPlan3.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

CURVE DATA

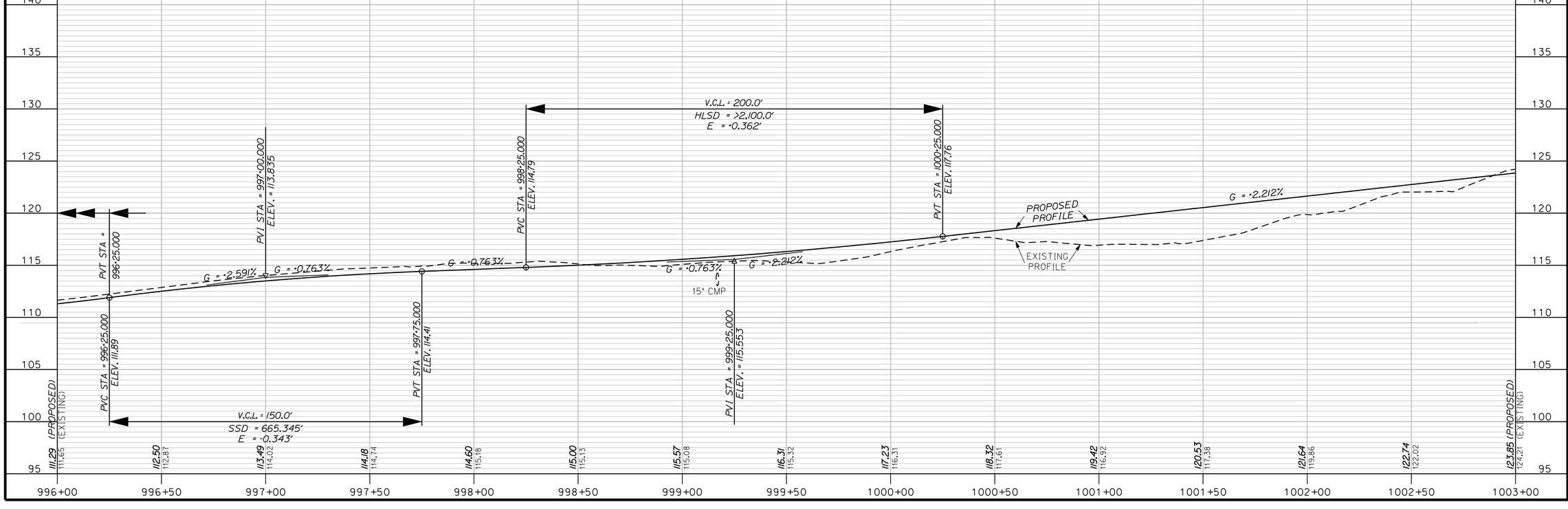
PI = 995+32.31
D = 00° - 13' - 45.1"
Δ = 01° - 44' - 48.7" Lt.
R = 25,000.00'
L = 762.21'
T = 381.13'
E = 2.91'

CURVE DATA

PI = 1001+88.50
D = 06° - 44' - 26.5"
Δ = 35° - 52' - 09.5" Lt.
R = 850.00'
L = 532.13'
T = 275.11'
E = 43.41'

PI = 100[illegible]
D = 06° - 52' - 09.
Δ = 35° - 52' - 09.
R = 850.00'
L = 532.13'
T = 275.11'
E = 43.41'

PC STA 20+34.36
PCC STA 999+13.39
RAD. 50'
N55°44'49.6"W
90° - 18' - 4.3"
SIGHT PCC
STA. 998+25.00
STA. 20+00.00
18" x 112'
CULV. OPT. III
18" x 52.0'
R.C.P. - CLASS III
REMOVE EXISTING CULVERT
(NOTE: CULVERT IS NOT BEING REPLACED)
REMOVE EXISTING CULVERT
REMOVE EXIST. C.B.
(C.B. IS NOT BEING REPLACED)
REMOVE ROCKS
85± S.F.
722± S.F.
1990± S.F.
1878± S.F.
835± S.F.
1045± S.F.
1465± S.F.
500± S.F.
265± S.F.
185± S.F.
1865± S.F.
0.05± AC.
0.28± AC.
1.73± AC.
EASEMENT
LIMITS
CONST.
TEMP.
SLOPE
LTS.
P.L.
DRAINAGE OUTLET
STA. 1001+90± RT.
DRAINAGE OUTLET
STA. 1001+00 RT.
WILLIAM W. PEASLEY
VALERIE J. PEASLEY
TAX MAP 50 LOT 39
PP 19 LOT 39
TA = 30± AC.(CITY)
LOT 9
LOT 10
GRAVEL YARD
SMALL HARDWOOD
PAVED RD.
GRAVEL RD.
WOODS
BLDG. (GARAGE)
"WALLACE MOVING"
COMPANY
CHAIN LINK FENCE
W/BARBED WIRE ON TOP
LP 30000 GAL TANK
BASE FOR PROPANE TANK
PUMP AND METER
STEEL W/ PROPANE FILLER HOSE
996+00
997+00
998+00
999+00
1000+00
1001+00
1002+00
1003+00
20+00
21+00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

23

OF 151

Filename: ...\highway\msto\024_HDPlan4.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

RVEY)

WILLIAM W. PEASLEY
VALERIE J. PEASLEY
TAX MAP 59 LOT 14-1
PP 20

CURVE DATA

PI = 1001+88.50
D = 06° - 44' - 26.5"
Δ = 35° - 52' - 09.5" Lt.
R = 850.00'
L = 532.13'
T = 275.11'
E = 43.41'

PT STA 1004+45.52

REMOVE TREE AS PART OF CLEARING

REMOVE TREE

LIMITS — TEMP. — CONST. — LIMITS

0.05± AC.

1.73± AC.

MIXED GROWTH

5" TWIN MAPLE

2-1" CONDUIT IN 4" PVC

1' WIDE SHOULDER

1' WIDE SHOULDER

3'-11"

(E=144.0' CULV. OPT.)

1865± S.F.

CONST.

GRAVEL FILE AREA

180± S.F.

T.C.L.

0.18± AC.

WILLIAM W. PEASLEY
VALERIE J. PEASLEY
TAX MAP 50 LOT 39
PP 19
TA = 30± AC.(CITY)

PC STA 1006+42.15

N01°49'08.4"W

1003+00 1004+00 1005+00 1006+00 1007+00 1008+00 1009+00

GRAVEL RD.

0.11± AC.

WOODS

LEDGE OUTCROP

HIGH POINT
STA. 1008+66.69

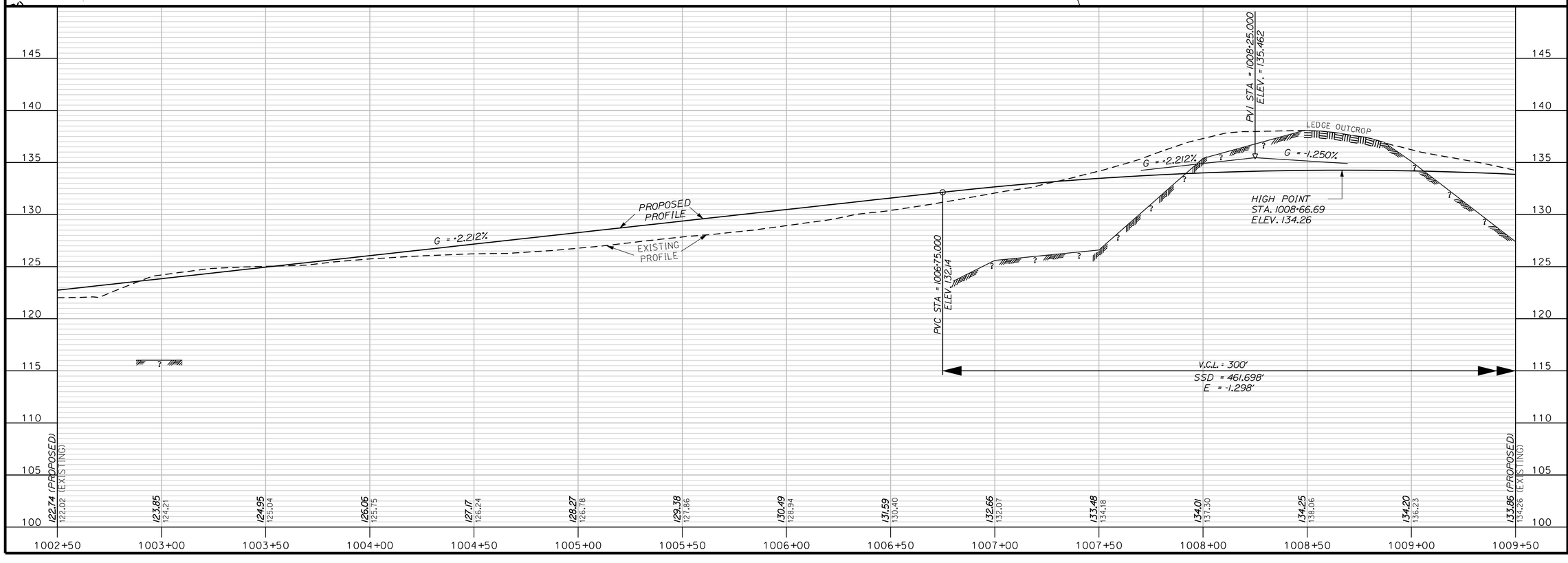
P.I.

140± S.F.

0.06± AC.

CURVE DATA

PI = 1008+19.95
D = 03° - 16' - 26.6"
Δ = 11° - 36' - 11.0" Rt.
R = 1,750.00'
L = 354.40'
T = 177.81'
E = 9.01'



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	X
DESIGN-DETAILED	J. Monzer	-----
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

24

OF 151

Filename: ...\highway\rmsto\025_HDPlan5.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

WILLIAM W. PEASLEY
VALERIE J. PEASLEY
TAX MAP 59 LOT 14-1
POR.NO. 20

PC STA 1016+15.62

TEMP. CONST. LIMITS

0.11± AC.

0.13± AC.

1.73± AC.

1.73± AC.

0.62± AC..

18" x 52' R.C.P. - CLASS III

REMOVE EXIST. CULVERT- CULVERT NOT BEING REPLACED

1375± S.F.

880± S.F.

DRAINAGE OUTLET STA. 1011+90± RT.

DRAINAGE OUTLET STA. 1014+00 RT.

N09°47'02.6"E

P.L.

WOODS

SMALL TREES

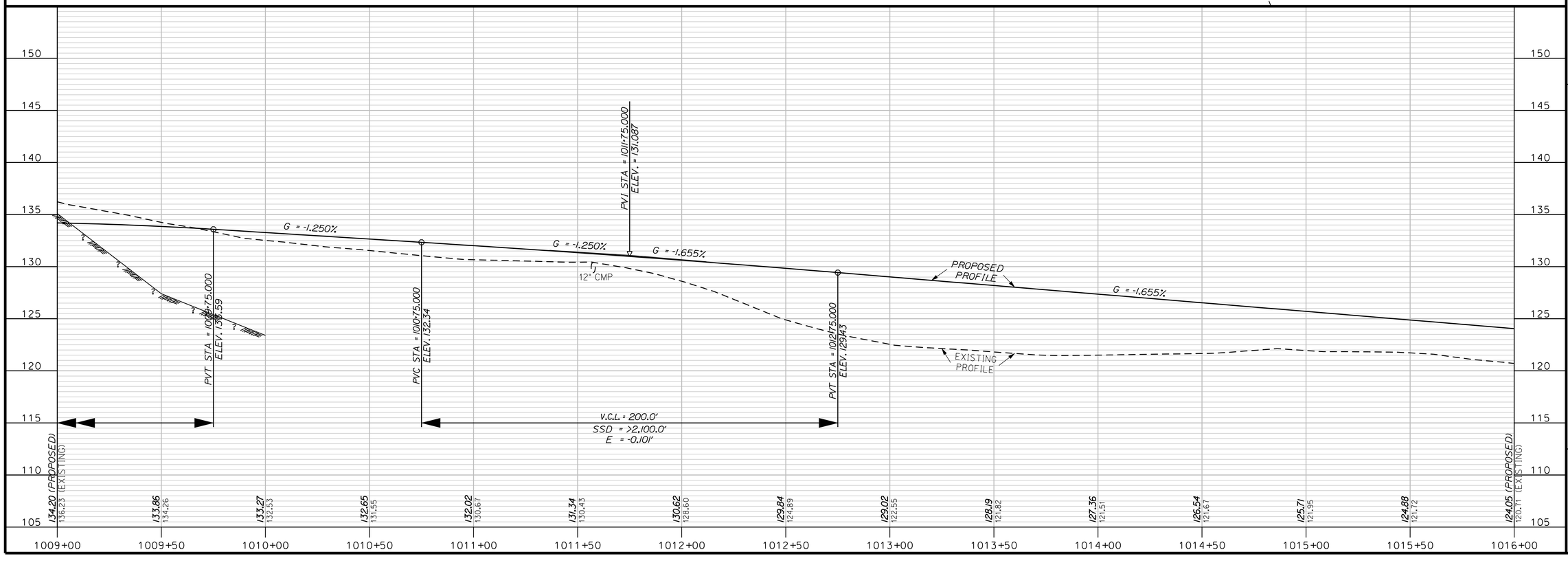
GRAVEL RD.

CURVE DATA

PI = 1008+19.95
D = 03° - 16' - 26.6"
Δ = 11° - 36' - 11.0" Rt.
R = 1,750.00'
L = 354.40'
T = 177.81'
E = 9.01'

PT STA 1009+96.54

1009+00 1010+00 1011+00 1012+00 1013+00 1014+00 1015+00 1016+00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Monzer	X
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

25

OF 151

Filename: ...\highway\rnsto\026_HDPlan6.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

CURVE DATA

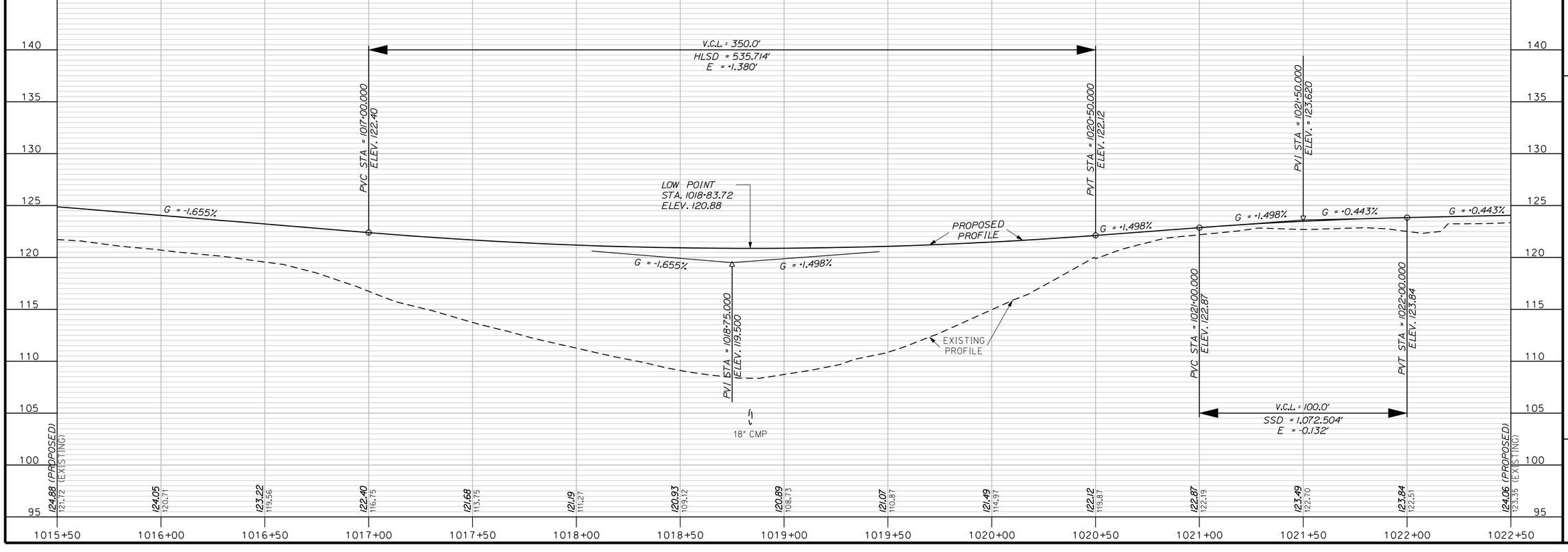
PI = 1017+67.46
D = 01° - 35' - 29.6"
Δ = 04° - 49' - 48.5" Lt.
R = 3,600.00'
L = 303.49'
T = 151.83'
E = 3.20'

CURVE DATA

PI = 1027+75,63
D = 00° - 49' - 06.6"
Δ = 13° - 57' - 07.8" Lt.
R = 7,000.00'
L = 1,704.58'
T = 856.53'
E = 52.21'

NOTE:
SEE PLAN OF SUR
FOR BANGOR HYD
ELLSWORTH ,MAI
DATED NOV. 27,
REVISED DEC. 16
REVISED JAN. 13
BY HERRICK & S

PC STA 1016+15.62
PCC STA 1019+19.11
TOE OF SLOPE DITCH ST6A. 1018+30 TO STA. 1019+50 LT.
INLET DRAINAGE STRUCTURE STA. 1019+00± LT.
TOE OF SLOPE DITCH ST6A. 1018+30 TO STA. 1019+50 LT.
CONST. LIMITS
TEMP.
SLOPE EASE.
560± S.F.
275± S.F.
285± S.F.
1610± S.F.
270± S.F.
345± S.F.
880± S.F.
785± S.F.
680± S.F.
830± S.F.
0.07± AC.
0.07± AC.
0.63± AC.
1.73± AC.
RADIUS = 20.65' PROPOSED GUARDRAIL
RADIUS = 27.8' PROPOSED GUARDRAIL
15'x82' CULV. OPT. 1
15'x46' CULV. OPT. 1
18" CMP POOR COND
WOODS
GRAVEL RD.
WOODS RD.
LOW POINT STA. 1018+83.72
REMOVE EXIST. CULV.
60" x 84' RCP CLASS IV
SMALL BROOK
DRAINAGE OUTLET STA. 1019+25± RT.
OUTLET DRAINAGE STRUCTURE STA. 1018+41± RT.
WILLIAM W. PEASLEY
VALERIE J. PEASLEY
TAX MAP 59 LOT 14-1
PP 20
TA = 46± AC.(CITY)
BANGOR HYDRO-EL
TAX MAP 59 LOT
POR.NO. 21
P.L.
9°47'02.6"E
1016+00
1017+00
1018+00
1019+00
1020+00
1021+00
1022+00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

26

OF 151

NOTE:
SEE PLAN OF SURVEY OF PORTION OF VITTUM LOT
FOR BANGOR HYDRO-ELECTRIC COMPANY
ELLSWORTH ,MAINE
DATED NOV. 27, 1991
REVISED DEC. 16,1991
REVISED JAN. 13, 1992
BY HERRICK & SALSBURY, INC.

CURVE DATA

PI = 1027+75.63
D = 00° - 49' - 06.6"
Δ = 13° - 57' - 07.8" Lt.
R = 7,000.00'
L = 1,704.58'
T = 856.53'
E = 52.21'

LIMITS
TEMP.
CONST.
0.10± AC.
0.63± AC.
0.88± AC.
790± S.F.
LTS.
REMOVE EXIST. CULV.
P.I. CENTER LINE "REEDS BROOK ROAD"
WOODS RD.
WOODS
P.L.
1022+00
1023+00
1024+00
1025+00
1026+00
1027+00
1028+00
24" x 48.0'
R.C.P. - CLASS III
4.33± AC.
1700± S.F.
DRAINAGE OUTLET
STA. 1027+27 RT.

ELIZABETH A. FALLS
BRUCE R. FALLS
TAX MAP 59 LOT 17
PP 22
TA = 198± AC.(CITY)

PVT STA = 1022+00.00
G = -0.443%
PROPOSED PROFILE
EXISTING PROFILE
EXISTING DITCH

123.84 (PROPOSED) 122.51 (EXISTING)	124.06 123.35	124.28 123.66	124.51 124.21	124.73 124.72	124.95 124.70	125.17 124.58	125.39 124.69	125.61 124.00	125.83 123.07	126.06 121.45	126.28 121.80	126.50 121.91	126.72 122.44	126.94 (PROPOSED) 123.45 (EXISTING)
1022+00	1022+50	1023+00	1023+50	1024+00	1024+50	1025+00	1025+50	1026+00	1026+50	1027+00	1027+50	1028+00	1028+50	1029+00

145 140 135 130 125 120 115 110 105 100

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

				DATE
PROJ. MANAGER	ERNIE MARTIN			
DESIGN-DETAILED	J. Monzer	BY	X	
CHECKED-REVIEWED	-----	NMC \ JH	-----	
DESIGN2-DETAILED2	-----	-----	-----	
DESIGN3-DETAILED3	-----	-----	-----	
REVISIONS 1	-----	-----	-----	
REVISIONS 2	-----	-----	-----	
REVISIONS 3	-----	-----	-----	
REVISIONS 4	-----	-----	-----	
FIELD CHANGES	-----	-----	-----	

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER
27
OF 151

Filename: ...\highway\mslo\027_HDPlan7.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\highway\mst0\028_HDPlan8.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

E DATA

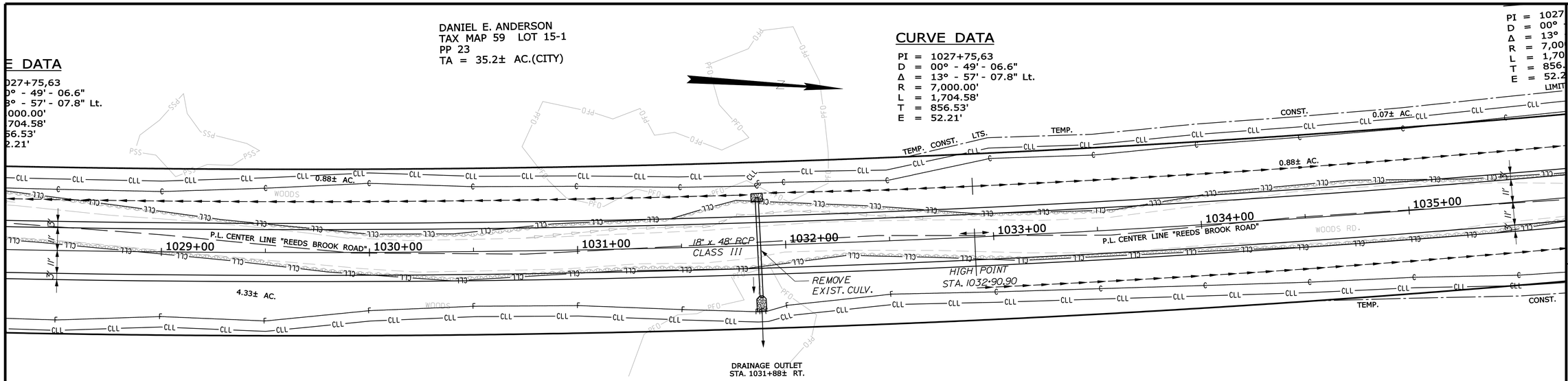
027+75,63
0° - 49' - 06.6"
9° - 57' - 07.8" Lt.
000.00'
704.58'
56.53'
2.21'

DANIEL E. ANDERSON
TAX MAP 59 LOT 15-1
PP 23
TA = 35.2± AC.(CITY)

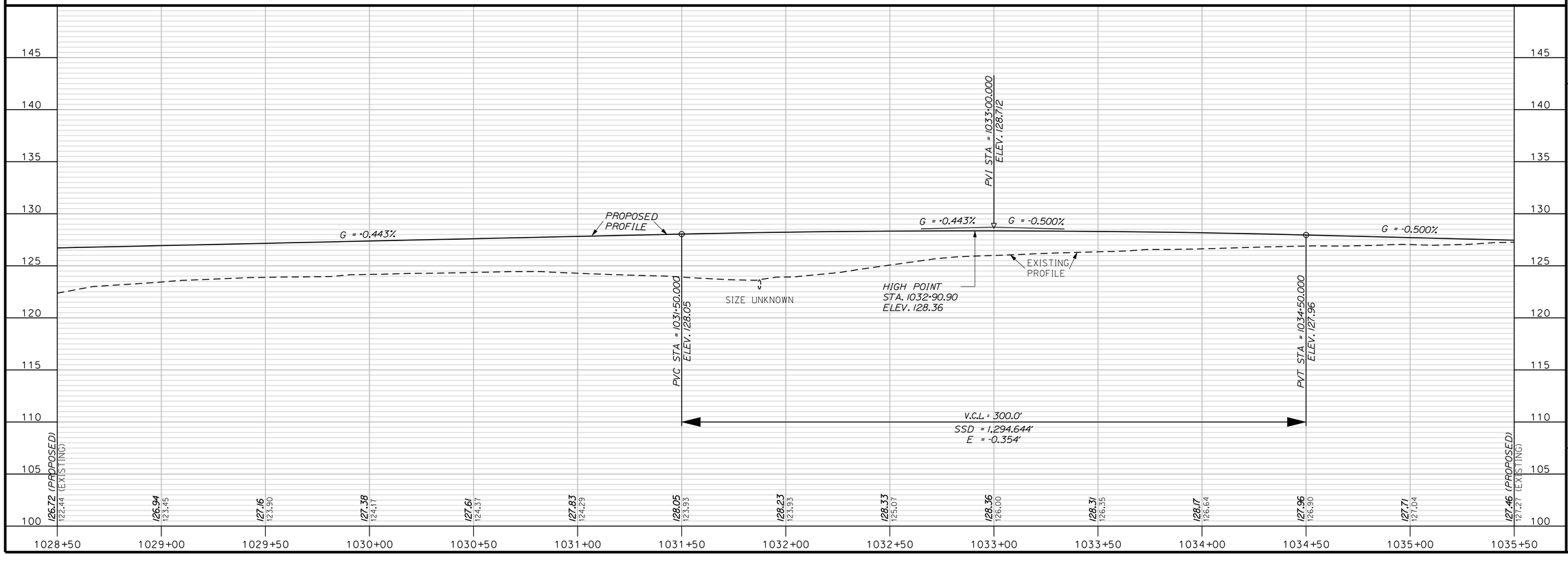
CURVE DATA

PI = 1027+75,63
D = 00° - 49' - 06.6"
Δ = 13° - 57' - 07.8" Lt.
R = 7,000.00'
L = 1,704.58'
T = 856.53'
E = 52.21'

PI = 1027
D = 00°
Δ = 13°
R = 7,00
L = 1,70
T = 856.
E = 52.2
LIMIT



ELIZABETH A. FALLS
BRUCE R. FALLS
TAX MAP 59 LOT 17
PP 22
TA = 198± AC.(CITY)



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	X
DESIGN-DETAILED	J. Monzer	-----
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER
28
OF 151

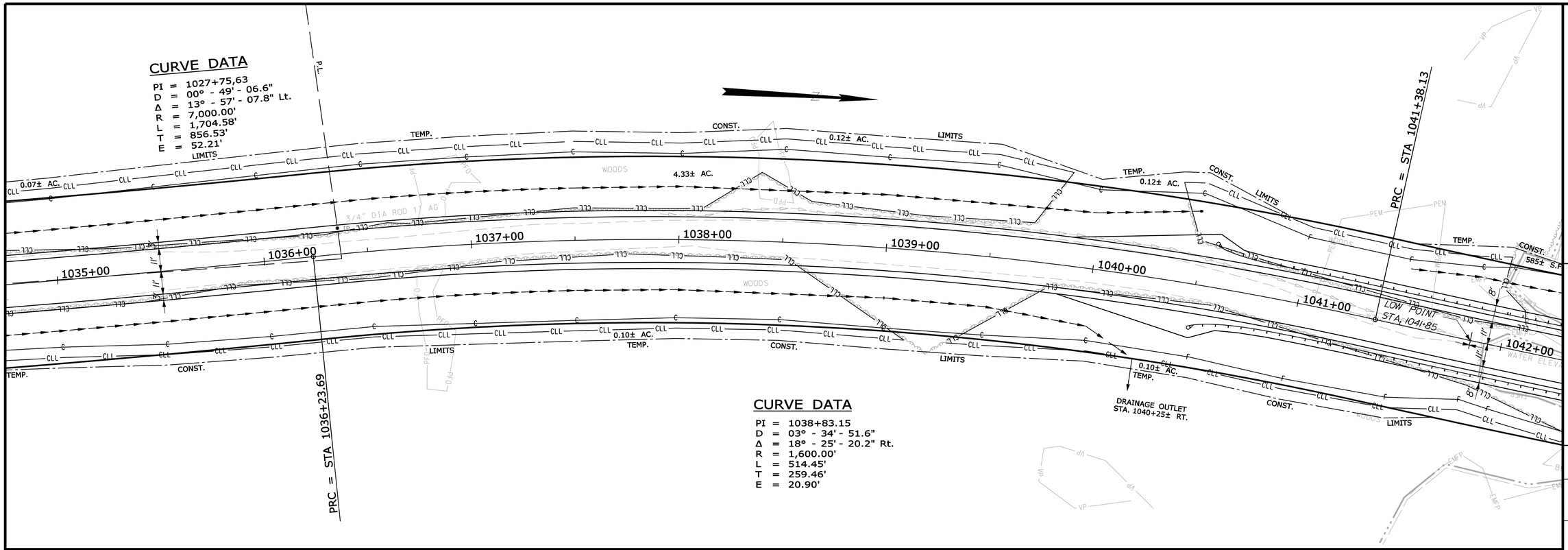
Filename: ...\highway\mstn\029_HDPlan9.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

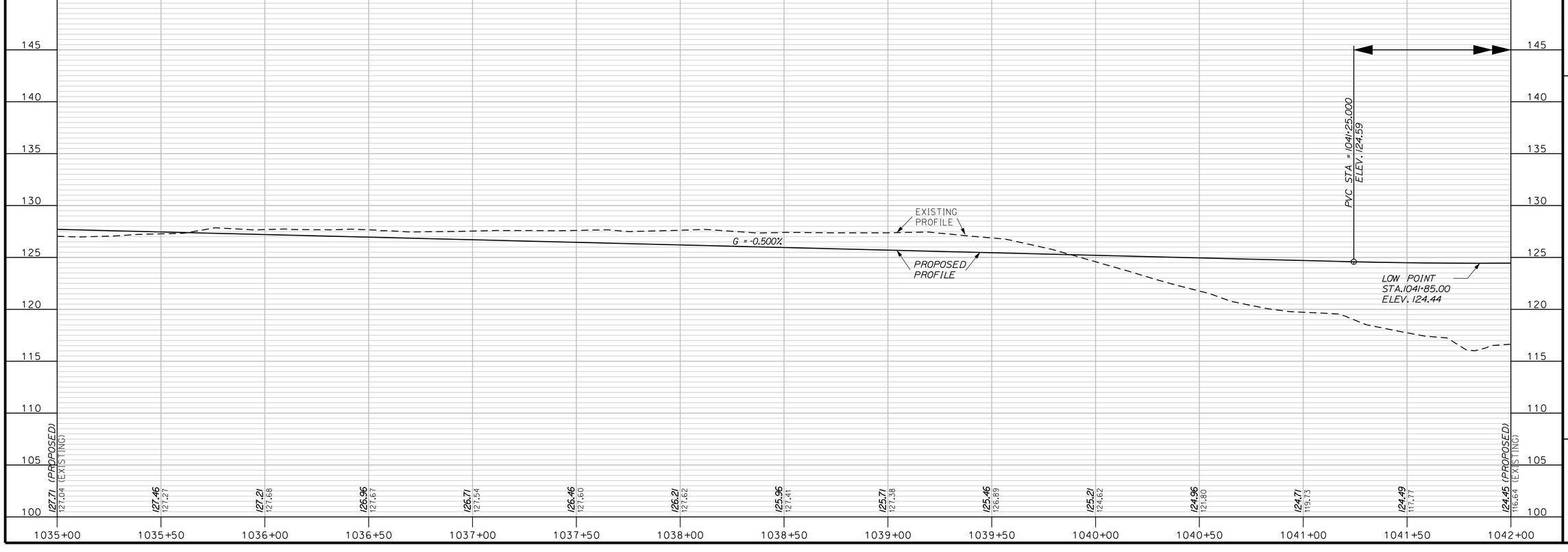
CURVE DATA

PI = 1027+75,63
D = 00° - 49' - 06.6"
Δ = 13° - 57' - 07.8" Lt.
R = 7,000.00'
L = 1,704.58'
T = 856.53'
E = 52.21'

CURVE DATA

PI = 1038+83.15
D = 03° - 34' - 51.6"
Δ = 18° - 25' - 20.2" Rt.
R = 1,600.00'
L = 514.45'
T = 259.46'
E = 20.90'





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

29

OF 151

Filename: ...\highway\rmsto\030_HDPlan10.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

PRC = STA 1041+38.13

INLET DRAINAGE STRUCTURE
STA. 1042+60 TO
STA. 1042+90 LT.

DRAIN. EASE. LTS.
595± S.F.

TEMP. CONST. 585± S.F. LIMITS

EDGE OF BEAVER FLOWAGE

0.05± AC.

CONST. LIMITS EASEMENT LIMITS SLOPE EASEMENT LIMITS

0.21± AC.

LOW POINT
STA. 1041+85

1042+00 1043+00 1044+00 1045+00 1046+00 1047+00 1048+00

10.0' X 6.0' X 68.0' LENGTH
PRECAST CONCRETE BOX CULVERT

WATER ELEVATION

BEAVER DAM

WOODS RD.

4.33± AC.

LIMITS TEMP. CONST. LTS. 390± S.F. SLOPE EASEMENT LTS. 1880± S.F. LIMITS TEMP. CONST. LIMITS TEMP. CONST.

605± S.F.
DRAIN. EASE.

STA. 1043+19.30 TO STA. 1044+81.00 RT.
CLEAR TO THE PROPOSED CUT / FILL LINE,
AS DIRECTED BY THE RESIDENT

OUTLET DRAINAGE STRUCTURE
STA. 1042+55 TO
STA. 1042+95 RT.

1' WIDE 1' WIDE

CURVE DATA

PI = 1054+49.46
D = 00° - 49' - 06.6"
Δ = 21° - 13' - 14.5" Lt.
R = 7,000.00'
L = 2,592.60'
T = 1311.32'
E = 121.77'

V.C.L. = 300.0'
HLSD = 766.667'
E = 0.937'

PVT STA = 1044+25.000
ELEV. 126.84

EXISTING PROFILE

G = +2.000%

LEDGE OUTCROP

PROPOSED PROFILE

G = -0.500% G = +2.000%

LOW POINT
STA. 1041+85.00
ELEV. 124.44

PVI STA = 1042+75.000
ELEV. 123.837

BEAVER DAM
WATER AREA
DEPTH UNKNOWN

	1041+50	1042+00	1042+50	1043+00	1043+50	1044+00	1044+50	1045+00	1045+50	1046+00	1046+50	1047+00	1047+50	1048+00	1048+50
(PROPOSED)	124.49	124.45	124.61	124.99	125.57	126.36	127.34	128.34	129.34	130.34	131.34	132.34	133.34	134.34	135.34
(EXISTING)	117.77	116.64	116.62	116.79	120.88	125.75	130.34	132.14	132.62	134.66	138.42	138.00	138.83	139.56	135.78

145 140 135 130 125 120 115 110 105 100

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

SIGNATURE

P.E. NUMBER

DATE

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Monzer	X
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

30

OF 151

Filename: ...\highway\rnsto\031_HDPlan11.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

CURVE DATA

PI = 1054+49.46
D = 00° - 49' - 06.6"
Δ = 21° - 13' - 14.5" Lt.
R = 7,000.00'
L = 2,592.60'
T = 1311.32'
E = 121.77'

SLOPE EASEMENT LIMITS TEMP. CONST. LIMITS
435± S.F.
4.33± AC.
550± S.F.
5.10± AC.
1048+00 1049+00 1050+00 1051+00 1052+00 1053+00 1054+00 1055+00
18" x 48.0' R.C.P. - CLASS III
DRAINAGE OUTLET STA. 1049+50 RT.
WOODS RD.
WOODS

V.C.L. = 500.0'
HLSD = >2,100.0'
E = 1.155'
PVC STA = 1050+00.000 ELEV. 138.34
PVI STA = 1052+50.000 ELEV. 143.37
PVT STA = 1055+00.000 ELEV. 152.96
PROPOSED PROFILE
EXISTING PROFILE
G = -2.000%
G = +3.848%

134.34 (PROPOSED) 139.56 (EXISTING)	135.34 135.78	136.34 133.66	137.34 133.34	138.34 134.03	139.38 135.36	140.52 137.67	141.75 138.00	143.08 139.83	144.49 143.02	146.00 145.23	147.60 144.94	149.30 146.58	151.08 149.68	152.96 (PROPOSED) 153.50 (EXISTING)

1048+00 1048+50 1049+00 1049+50 1050+00 1050+50 1051+00 1051+50 1052+00 1052+50 1053+00 1053+50 1054+00 1054+50 1055+00

160 155 150 145 140 135 130 125 120 115

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

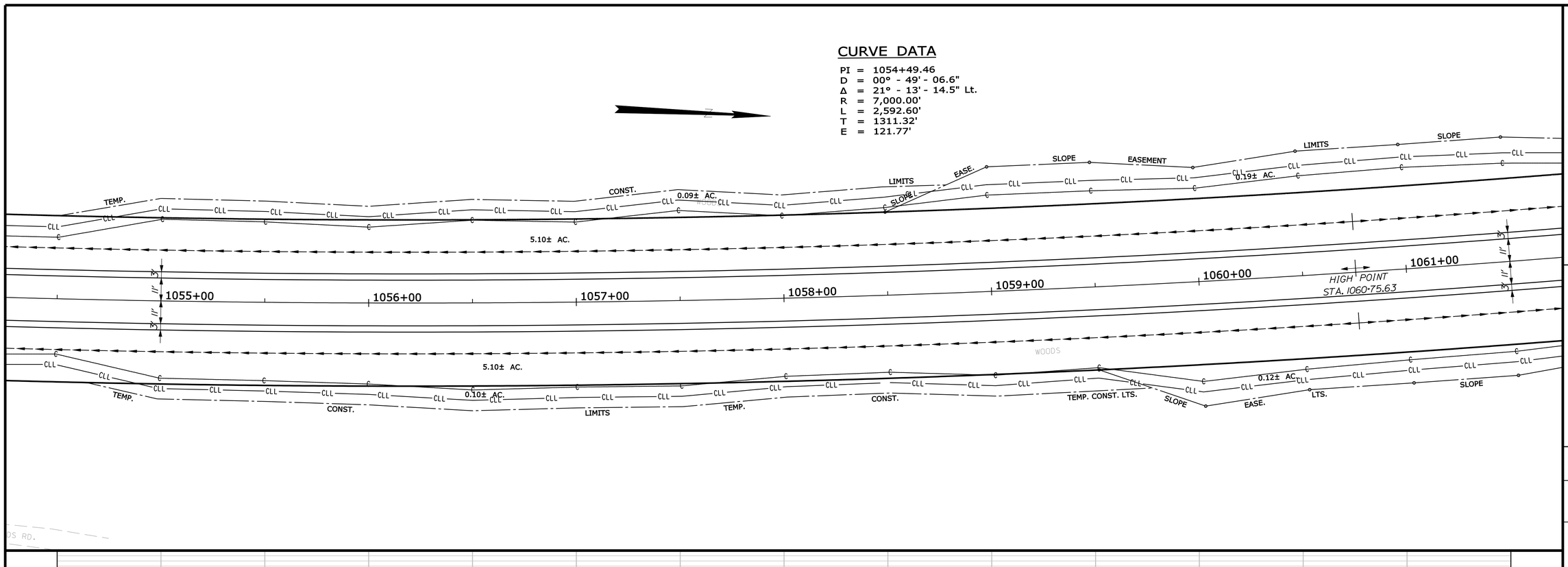
31

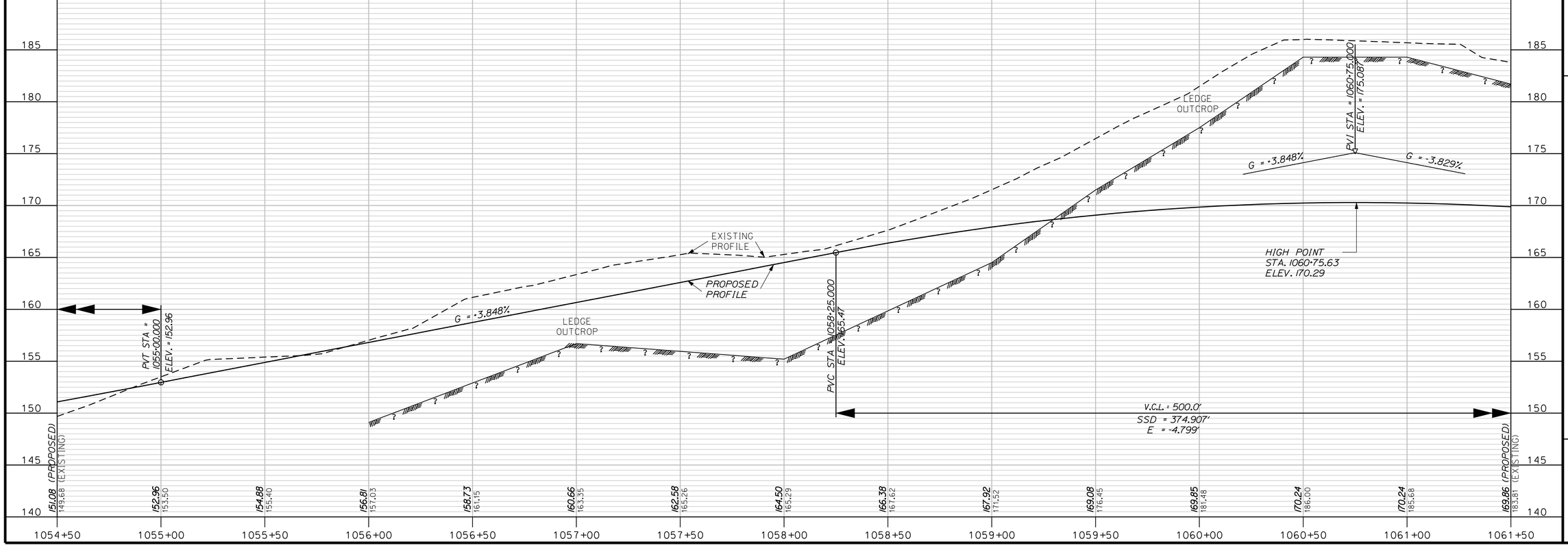
OF 151

Filename: ...\highway\rmsto\032_HDPlan12.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

CURVE DATA

PI = 1054+49.46
D = 00° - 49' - 06.6"
Δ = 21° - 13' - 14.5" Lt.
R = 7,000.00'
L = 2,592.60'
T = 1311.32'
E = 121.77'





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

32

OF 151

Filename: ...\highway\maine\033_HDPlan13.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

CURVE DATA

PI = 1054+49.46
D = 00° - 49' - 06.6"
Δ = 21° - 13' - 14.5" Lt.
R = 7,000.00'
L = 2,592.60'
T = 1311.32'
E = 121.77'

PT STA 1067+30.73

N11°47'48.0"W

SLOPE
EASEMENT
LIMITS
TEMP.
CONST.
0.05± AC.
0.07± AC.
5.10± AC.
0.11± AC.
DRAINAGE OUTLET
STA. 1067+45± RT.

1061+00 1062+00 1063+00 1064+00 1065+00 1066+00 1067+00 1068+00

LEDGE OUTCROP
EXISTING PROFILE
PROPOSED PROFILE
G = -3.829%
PVT STA = 1063+25.000
ELEV. 165.51
V.C.L. = 500.0'
SSD = 374.907'
E = -4.799'

170.24 (PROPOSED) 185.68 (EXISTING)	169.86 183.81	169.10 181.41	167.95 179.52	166.42 175.11	164.56 171.28	162.64 165.38	160.73 162.51	158.81 160.87	156.90 153.62	154.98 155.37	153.07 153.00	151.15 151.79	149.24 149.21	147.33 (PROPOSED) 145.55 (EXISTING)		

185 180 175 170 165 160 155 150 145 140

1061+00 1061+50 1062+00 1062+50 1063+00 1063+50 1064+00 1064+50 1065+00 1065+50 1066+00 1066+50 1067+00 1067+50 1068+00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	X
DESIGN-DETAILED	J. Monzer	-----
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

33

OF 151

Filename: ...\highway\nsla\034_HDPlan14.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

PT STA 1067+30.73

CORDA W. LAFLAMME
KENNETH J. LAFLAMME
TAX MAP 68 LOT 2
PP 24
TA = 149± AC.(OWNER)

TOE OF SLOPE DITCH
STA. 1073+00 TO 1077+00 IT.

℄ BRG. ABUT. 2
STA. 1072+19.16

℄ BRG. ABUT. 1
STA. 1071+84.83

EASEMENT
LIMITS
SLOPE
CONST. & MAINT. EASE. LTS.
CONST. & MAINT. EASE.
0.07± AC.
0.13± AC.
0.12± AC.
0.10± AC.
0.16± AC.
0.10± AC.
0.11± AC.
WOODS
WOODS ROAD
WOODS ENTRANCE
FOFP
PSS
8'
11'

1068+00 1069+00 1070+00 1071+00 1072+00 1073+00 1074+00

N11°47'48.0"W N11°47'48.0"W

LOW POINT
STA. 1072+14.24

STA. 1072+02
℄ COMPOSITE
ARCH

DRAINAGE OUTLET
STA. 1067+45± RT.

330± S.F. TEMP. SLOPE CONST. LTS.

CONST. & MAINT. EASE. LTS.

25° SKEW

34'-4" SPAN

S.E.L.

TOE OF SLOPE DITCH
STA. 1072+35 TO 1073+70 RT.

+/- 5' WIDE

V.C.L. = 385.0'
HLSD = 367.545'
E = 2.313'

PVC STA = 1069+07.500
ELEV. 143.21

PVT STA = 1072+92.500
ELEV. 137.72

G = -3.829%

G = -0.977%

PROPOSED PROFILE

PVI STA = 1071+00.000
ELEV. 135.837

LOW POINT
STA. 1072+14.24
ELEV. 137.34

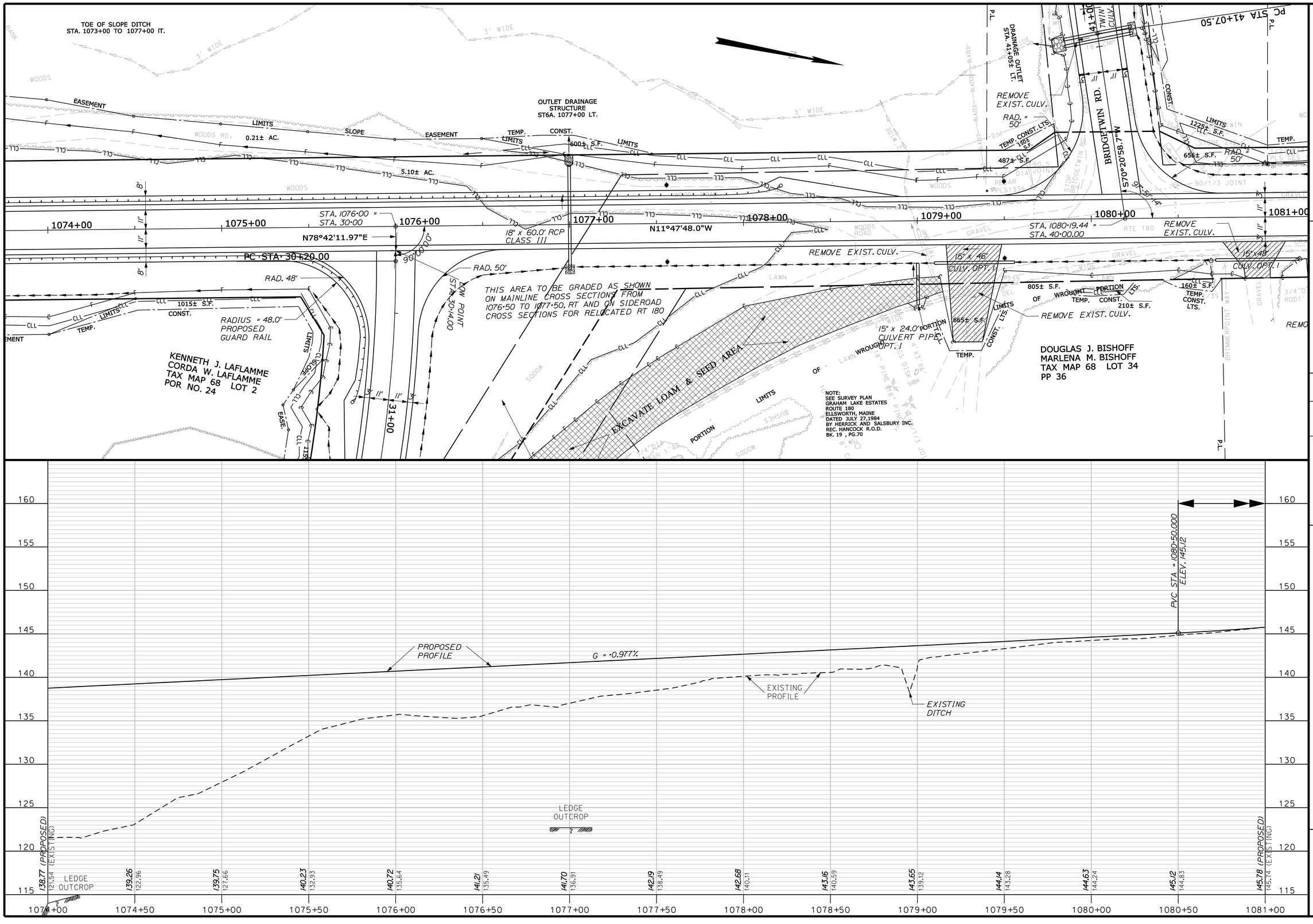
LEDGE OUTCROP

EXISTING PROFILE

EXISTING BROOK CROSSING

150 145 140 135 130 125 120 115 110 105

| | | |



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN			DATE	
DESIGN-DETAILED	J. Manzer	NMC \ JH	X	BY	
CHECKED-REVIEWED	-----	-----	-----	SIGNATURE	
DESIGN2-DETAILED2	-----	-----	-----	-----	
DESIGN3-DETAILED3	-----	-----	-----	P.E. NUMBER	
REVISIONS 1	-----	-----	-----	-----	
REVISIONS 2	-----	-----	-----	-----	
REVISIONS 3	-----	-----	-----	DATE	
REVISIONS 4	-----	-----	-----	-----	
FIELD CHANGES	-----	-----	-----	-----	

ELLSWORTH
ROUTE 180

PLANS

SHEET NUMBER

35

OF 151

Filename: ...\highway\rnsto\035_HDPlan15.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\highway\mnsto\036_HDPlan16.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

PC STA 41+07.50

P.L.

TEMP.

CONST.

LIMITS 1225± S.F.

656± S.F.

RAD = 50'

TEMP.

CONST.

0.05± AC.

LIMITS 580± S.F.

15"x46' CULV. OPT. 1

REMOVE 5 TREES

WOODS

WELL 8" DRILL

WOOD W/METER APPROXIMATE LOCATION

P.L.

JENNIFER PHELPS TAX MAP 68 LOT 5 POR NO. 30

1/2" DIA REBAR 12" AG

WOODS

2-2" SPRUCE

3" POPLAR

LAWN 1' WIDE

92 JOINT

90/1/3 JOINT

91 JOINT

GRAVEL 91/91.5 JOINT

REMOVE EXIST. CULV.

REMOVE BUSH

1081+00

1082+00

1083+00

N11°47'48.0"W

RTE. 180 (TO OTIS)

RTE. 180

REMOVE EXIST. CULV.

REMOVE EXIST. CULV.

GRAVEL DRIVEWAY

15"x48' CULV. OPT. 1

15"x44' CULV. OPT. 1

REMOVE TREE

1" FIR

1" FIR/LUMP 5

WOODS

3/4" DIA ROD 18" AG

160± S.F.

TEMP. CONST. LTS.

3/4"D ROD1' AG

0.05± AC.

LIMITS

CONST.

LAWN

DIA BUSH

REMOVE 4 BUSHES

TEMP.

REMOVE 5 TREES

LOT 3

STA. 1083+00.00 = END PROJECT No. 10063.10 = LIMIT OF WORK - MATCH EXISTING SECTION

V.C.L. = 250.0'
HLSD = 358.018'
E = 1.108'

PVC STA = 1080+50.00
ELEV. 145.12

PVT STA = 1083+00.00
ELEV. 151.99
(MATCH)

STA. 1083+00.00 = END PROJECT No. 10063.10 = LIMIT OF WORK - MATCH EXISTING SECTION

G = 4.524%

EXISTING PROFILE

PROPOSED PROFILE

G = -0.977%

G = 4.524%

EXISTING PROFILE

PVI STA = 1081+75.000
ELEV. = 146.34

145.12 (PROPOSED)	145.78	146.80	148.18	149.91	151.99 (MATCH) (PROPOSED)	154.26 (EXISTING)	155.14 (EXISTING)
144.83 (EXISTING)	145.74	146.78	148.06	149.83	151.99 (EXISTING)		

1080+50 1081+00 1081+50 1082+00 1082+50 1083+00 1083+50 +69.63

170 165 160 155 150 145 140 135 130 125

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN						
DESIGN-DETAILED	J. Monzer	NMC \ JH	X				
CHECKED-REVIEWED	-----	-----	-----				
DESIGN2-DETAILED2	-----	-----	-----				
DESIGN3-DETAILED3	-----	-----	-----				
REVISIONS 1	-----	-----	-----				
REVISIONS 2	-----	-----	-----				
REVISIONS 3	-----	-----	-----				
REVISIONS 4	-----	-----	-----				
FIELD CHANGES	-----	-----	-----				

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

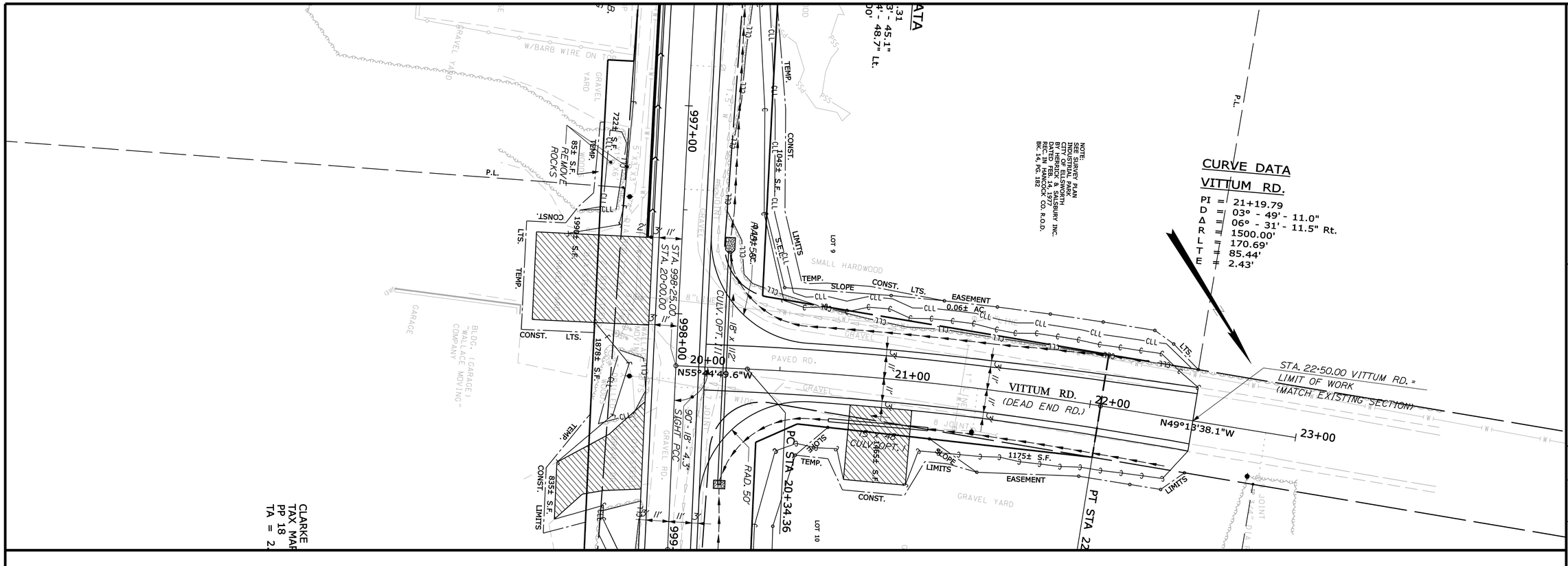
PLANS

SHEET NUMBER

36

OF 151

Username: Natasha.M.Collins Date:4/13/2012
Division: HIGHWAY
Filename: ...\highway\rnsta\037_HDPlan17.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

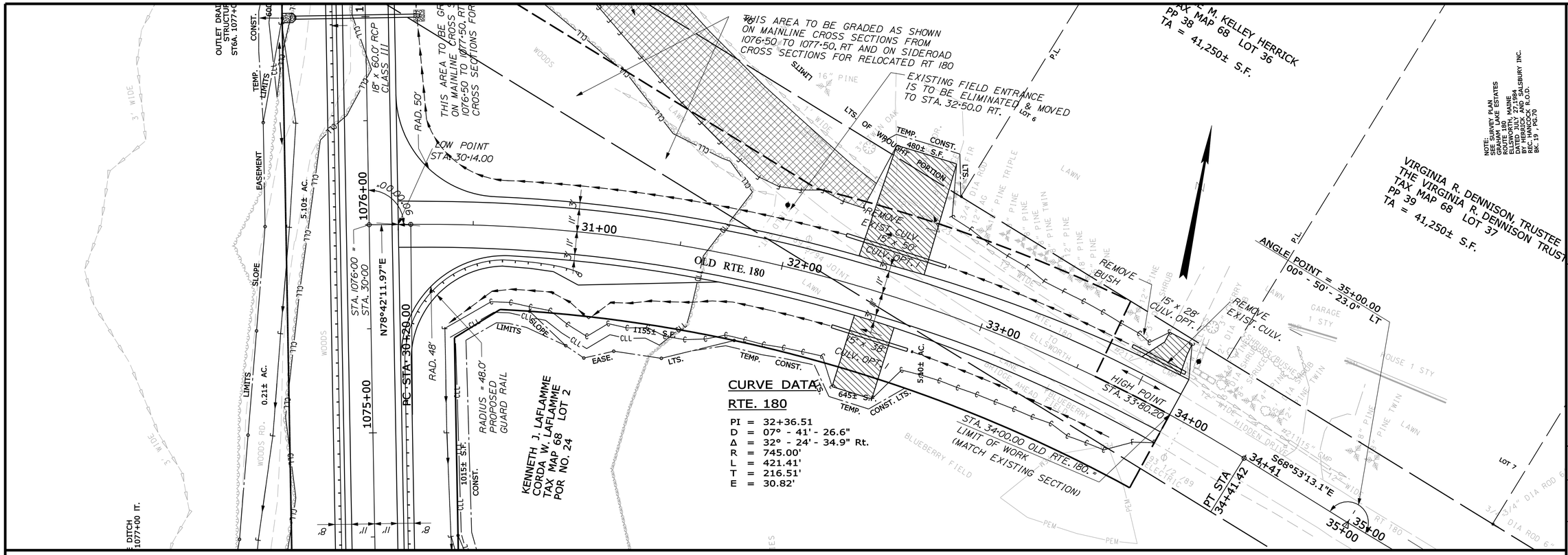
PLANS

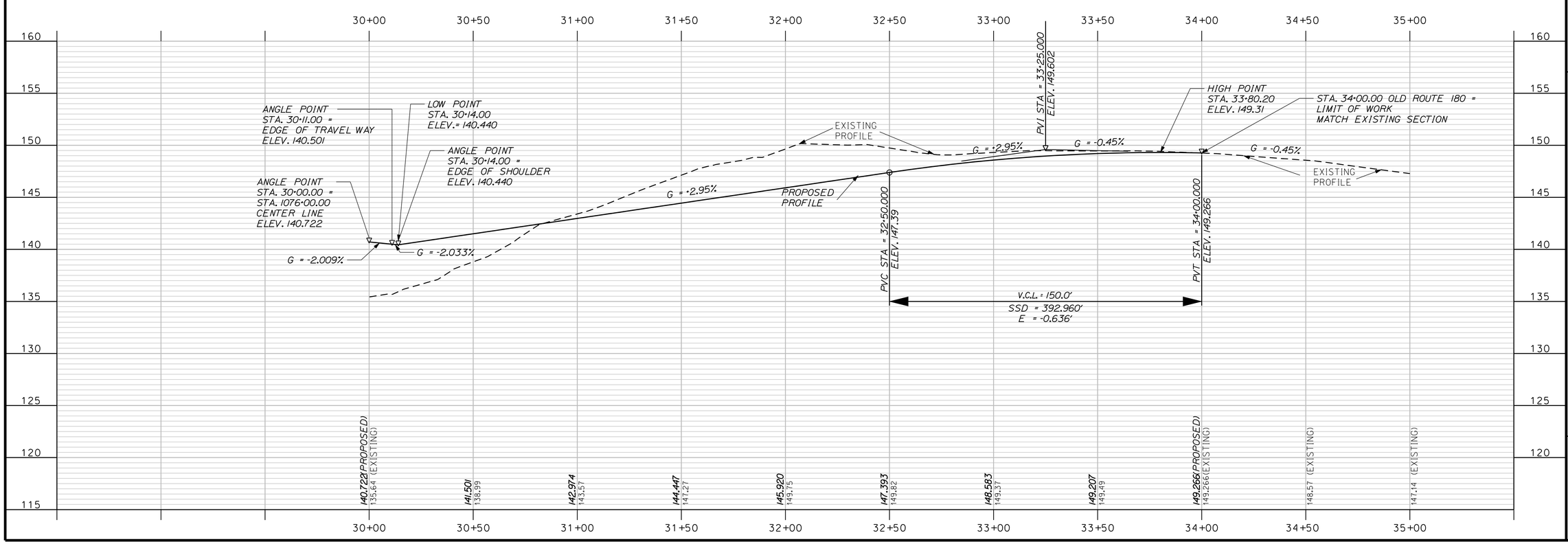
SHEET NUMBER

37

OF 151

Username: Natasha.M.Collins Date:4/13/2012
Division: HIGHWAY
Filename: ...\highway\rmsta\038_HDPlan18.dgn





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	SIGNATURE
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	P.E. NUMBER
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	DATE
FIELD CHANGES	-----	-----	-----

ELLSWORTH
ROUTE 180

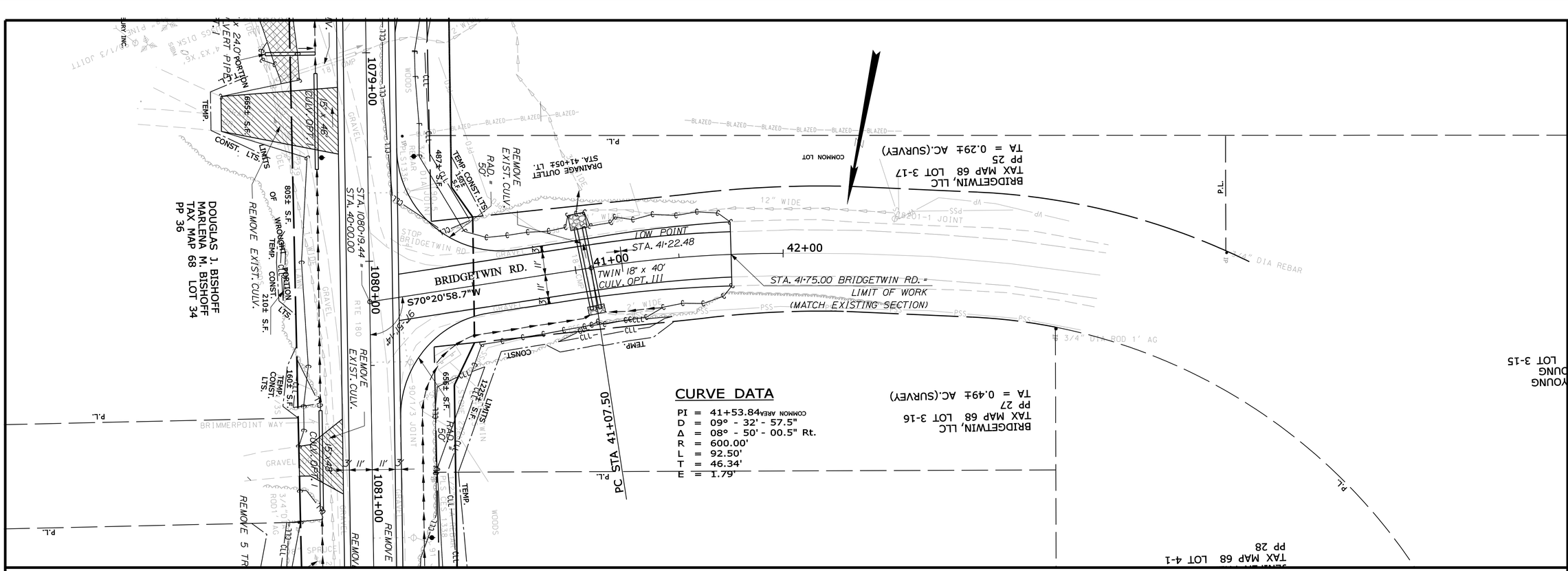
PLANS

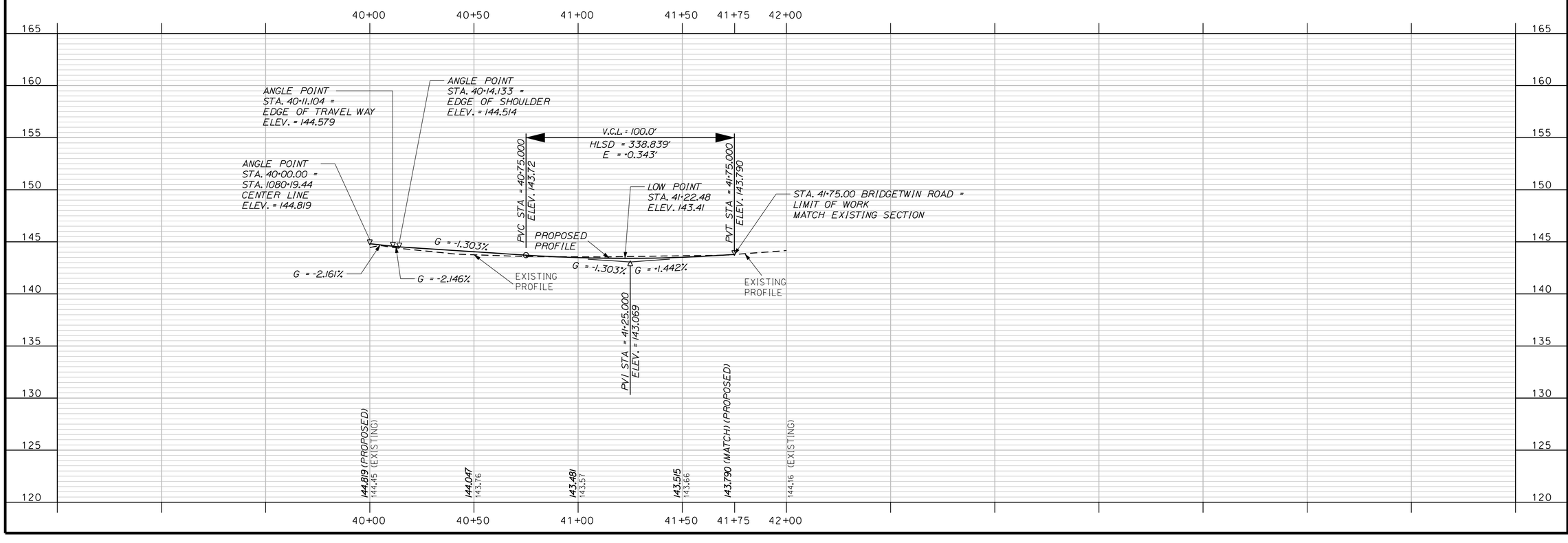
SHEET NUMBER

38

OF 151

Username: Natasha.M.Collins Date:4/13/2012
Division: HIGHWAY
Filename: ...\highway\rmsta\039_HDPlan19.dgn





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

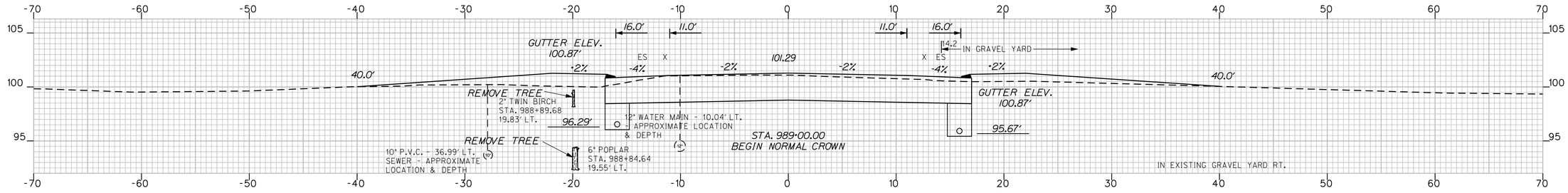
PLANS

SHEET NUMBER

39

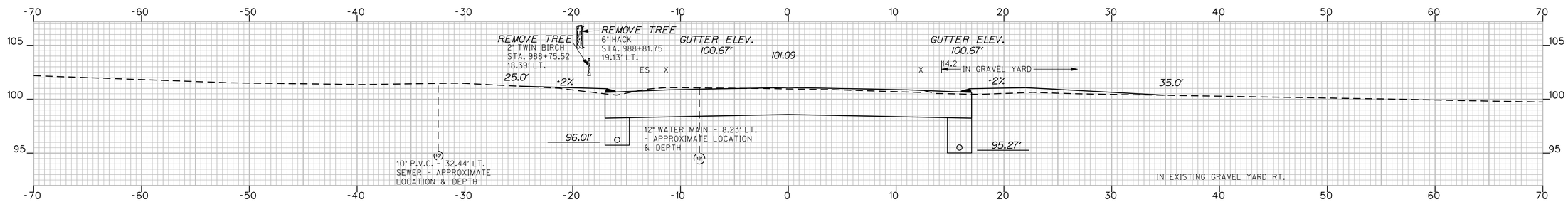
OF 151

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\040_987-86.09-DRAW-XSMC20-SECTSD#s601.dgn HIGHWAY



C = 146.6 C.Y.
F = 29.4 C.Y.

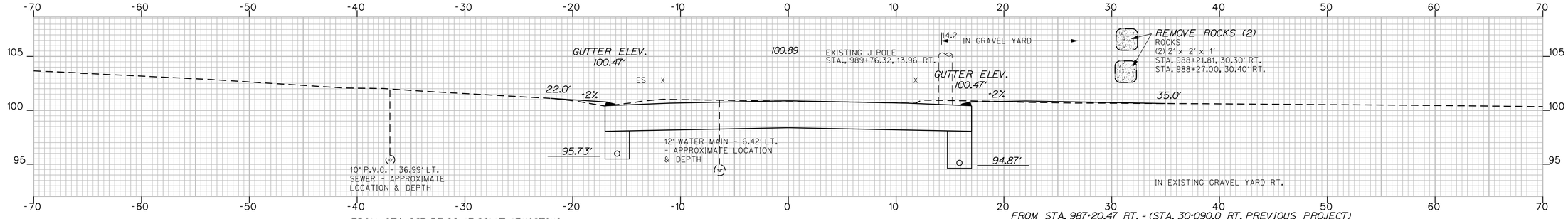
989+00.00



C = 158.6 C.Y.
F = 8.2 C.Y.

988+50.00

HB-ELLS-102
STA. 988+26
4.0m RT.
DEPTH = 12.0m



FROM STA. 987+53.28 LT. = (STA. 30+100.0 PREVIOUS PROJECT) TO STA. 987+86.09 LT. REMOVE EXISTING CURB PIECE AND WIDEN SHOULDER TO 5.0', OR AS DIRECTED BY THE RESIDENT. REMOVAL OF THE CURB PIECE IS TO BE PAID UNDER ITEM NO. 203.20 - COMMON EXCAVATION.

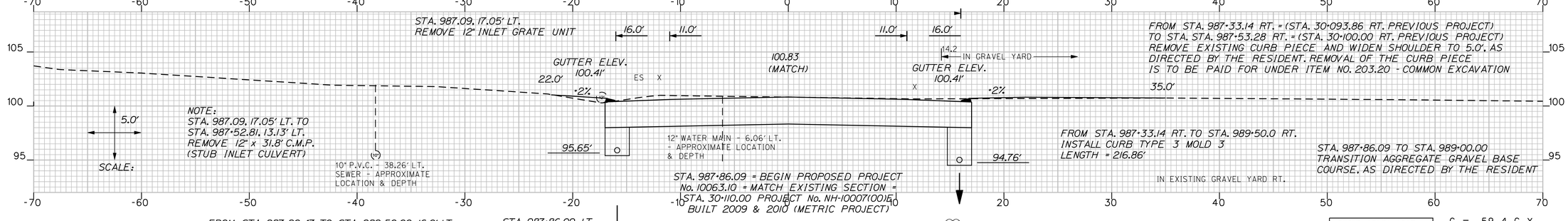
FROM STA. 987+53.28, 13.86' LT. (EXISTING MANHOLE) TO STA. 989+50.00 LT. INSTALL 6" x 194.8' UD TYPE B - (F.L. AT THE EXISTING M.H. = 95.47') - PAYMENT FOR CONNECTION OF THE PROPOSED 6" UD. TO THE EXISTING MANHOLE IS BE INCIDENTAL TO ITEM NO. 605.09 - 6" UNDERDRAIN TYPE "B".

988+00.00

FROM STA. 987+86.09 TO STA. 989+00.00 = TRANSITION EXISTING TW SLOPES LT & RT. TO -2% & TRANSITION EXISTING SHOULDER SLOPES LT. & RT. TO -4%, AS DIRECTED BY THE RESIDENT

FROM STA. 987+20.47 RT. = (STA. 30+090.0 RT. PREVIOUS PROJECT) TO STA. 987+33.14 RT. = (STA. 30+100.0 RT. PREVIOUS PROJECT) REMOVE THE EXISTING 6" UNDERDRAIN PIECE AND FROM STA. 987+20.47 RT. TO STA. 989+50.0 RT. INSTALL 6" x 229.6' U.D. TYPE "B" AND CONNECT THE PROPOSED 6" U.D. TO THE EXISTING 6" U.D. TYPE "B". (F.L. AT STA. 987+20.47 = 94.23') - PAYMENT FOR THE REMOVAL OF THE EXISTING 6" UD. PIECE AND THE NEW CONNECTION OF THE NEW 6" UD. PIECE TO THE EXSITING "6" PIECE IS TO BE INCIDENTAL TO ITEM NO. 605.09 - 6" UNDERDRAIN TYPE "B".

C = 45.8 C.Y.
F = 1.1 C.Y.



5.0'
SCALE:

NOTE:
STA. 987.09, 17.05' LT. TO STA. 987+52.81, 13.13' LT. REMOVE 12" x 31.8' C.M.P. (STUB INLET CULVERT)

FROM STA. 987+33.14 RT. = (STA. 30+093.86 RT. PREVIOUS PROJECT) TO STA. STA. 987+53.28 RT. = (STA. 30+100.00 RT. PREVIOUS PROJECT) REMOVE EXISTING CURB PIECE AND WIDEN SHOULDER TO 5.0', AS DIRECTED BY THE RESIDENT. REMOVAL OF THE CURB PIECE IS TO BE PAID FOR UNDER ITEM NO. 203.20 - COMMON EXCAVATION

FROM STA. 987+33.14 RT. TO STA. 989+50.0 RT. INSTALL CURB TYPE 3 MOLD 3 LENGTH = 216.86'

STA. 987+86.09 TO STA. 989+00.00 TRANSITION AGGREGATE GRAVEL BASE COURSE, AS DIRECTED BY THE RESIDENT

LEGEND
ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

FROM STA. 987+20.47 TO STA. 989+50.00, 16.0' LT. INSTALL CURB TYPE 3 MOLD 3 LENGTH = 229.53' - (CONNECT TO THE EXISTING CURB PIECE)

STA. 987+86.09 LT. BEGIN GRUBBING IN CUT

STA. 989+20.47 = LIMIT OF WORK (FOR CURB WORK LT AND UD WORK RT)

STA. 987+86.09 = BEGIN PROPOSED PROJECT No. 10063.10 = MATCH EXISTING SECTION = STA. 30+110.00 PROJECT No. NH-10007(00)E BUILT 2009 & 2010 (METRIC PROJECT)

987+86.09

STA. 987+86.09 RT. BEGIN GRUBBING IN CUT

EXISTING J POLE
STA., 987+37.46, 14.70 RT.

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 59.4 C.Y.
F = 1.6 C.Y.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN			DATE	
DESIGN-DETAILED	J. Monzer	REVISIONS 1	-----	BY	X
CHECKED-REVIEWED	-----	REVISIONS 2	-----	-----	-----
DESIGN2-DETAILED2	-----	REVISIONS 3	-----	-----	-----
DESIGN3-DETAILED3	-----	REVISIONS 4	-----	-----	-----
		FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

CROSS SECTIONS 989+00.00
987+86.09

SHEET NUMBER
40
OF 151

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Monzer	X
CHECKED-REVIEWED	NMC \ JH	
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

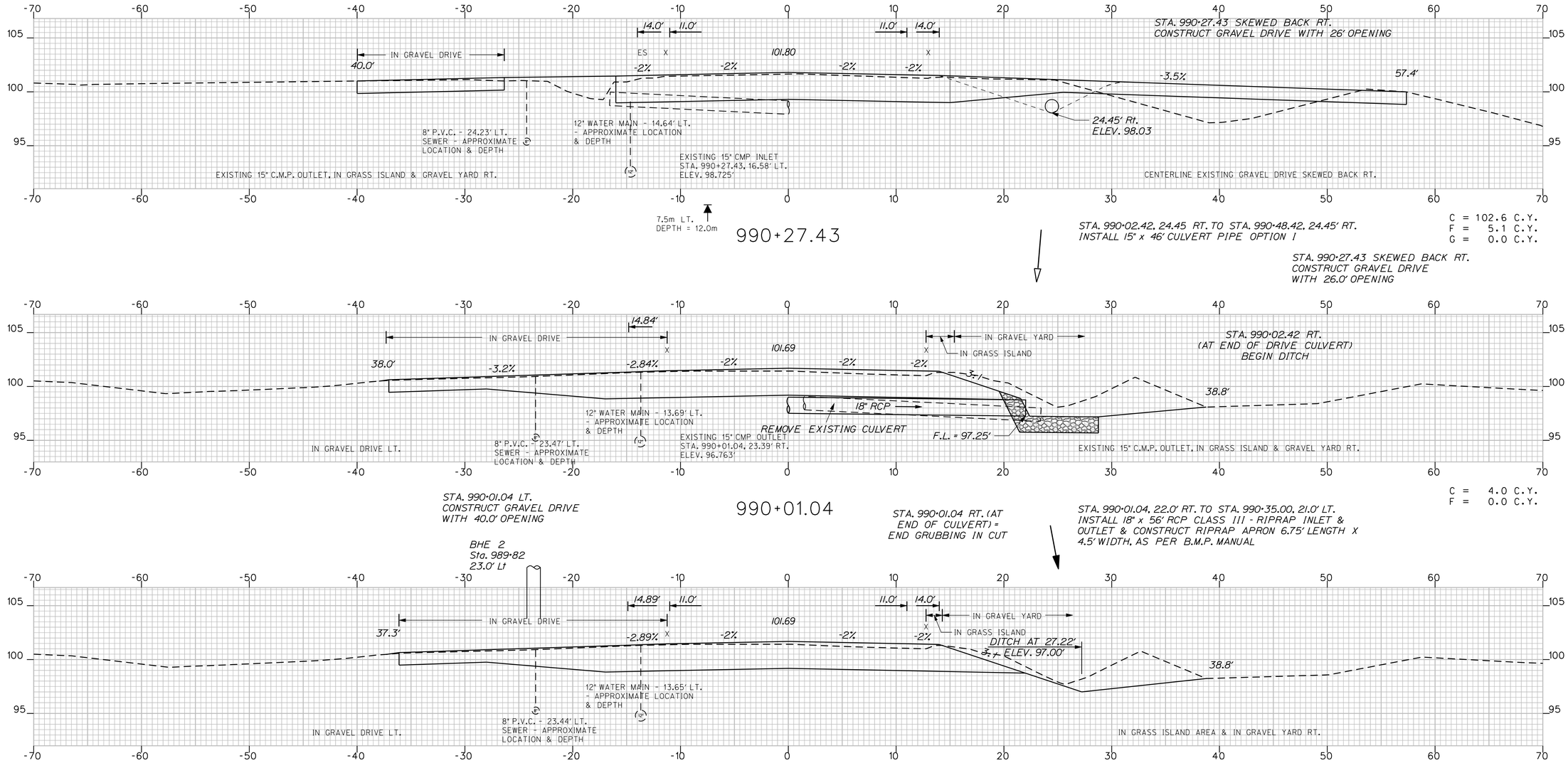
CROSS SECTIONS 989+67.80
989+50.00

SHEET NUMBER

41

OF 151

Filename: ...\041_989+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	BY	NMC \ JH
CHECKED-REVIEWED	-----	X	-----
DESIGN2-DETAILED2	-----	SIGNATURE	-----
DESIGN3-DETAILED3	-----	P.E. NUMBER	-----
REVISIONS 1	-----	DATE	-----
REVISIONS 2	-----		-----
REVISIONS 3	-----		-----
REVISIONS 4	-----		-----
FIELD CHANGES	-----		-----

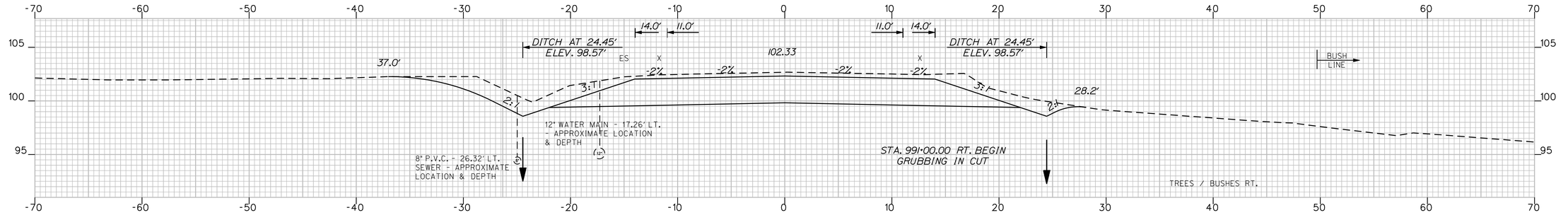
ELLSWORTH
ROUTE 180

CROSS SECTIONS 990+27.43
989+79.74

SHEET NUMBER
42
OF 151

Username: Natasha.M.Collins Date:4/13/2012

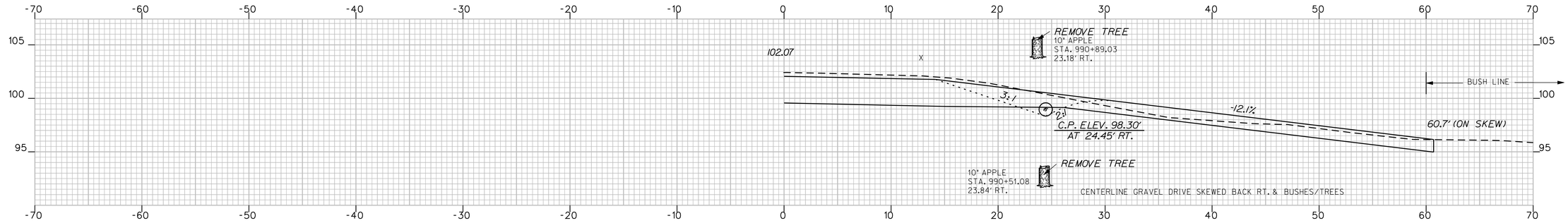
Filename: ...\042_989+79.74-DRAW-XSMC20-SECTSDGN.dgn HIGHWAY



991+00.00

STA. 991+00.00 RT.
END DITCH

C = 108.7 C.Y.
F = 0.0 C.Y.
G = 0.0 C.Y.

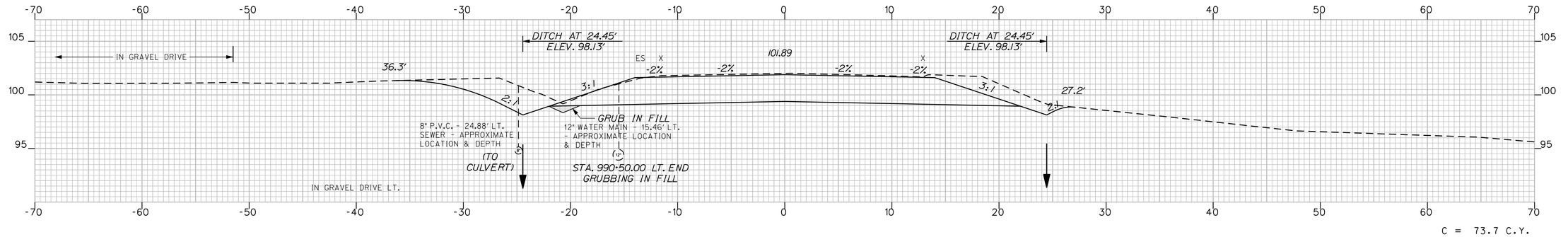


990+77.16

STA. 990+58.58, 24.45' RT. TO STA. 990+88.58, 24.45' RT.
INSTALL 15" x 30' CULVERT PIPE OPT.1

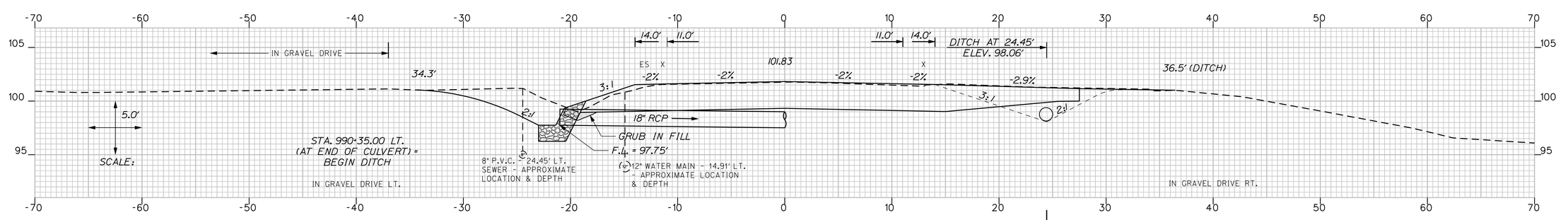
STA. 990+77.16 RT.
CONSTRUCT FIELD ENT.
WITH 20.0' OPENING

C = 123.0 C.Y.
F = 0.0 C.Y.
G = 0.5 C.Y.



990+50.00

C = 73.7 C.Y.
F = 0.0 C.Y.
G = 0.7 C.Y.



990+35.00

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STA. 990+35.00 LT. BEGIN GRUBBING IN CUT AND FILL

FROM STA. 990+35.0 LT. TO STA. 993+00.0 LT.
INSTALL EROSION CONTROL BLANKET

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 34.6 C.Y.
F = 1.5 C.Y.
G = 0.2 C.Y.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

991+00.00 CROSS SECTIONS 990+35.00

SHEET NUMBER

43

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\043_990-35.00-DRAW-XSMC20-SECTSDwg 10063.10 HIGHWAY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

CROSS SECTIONS 992+50.00
991+50.00

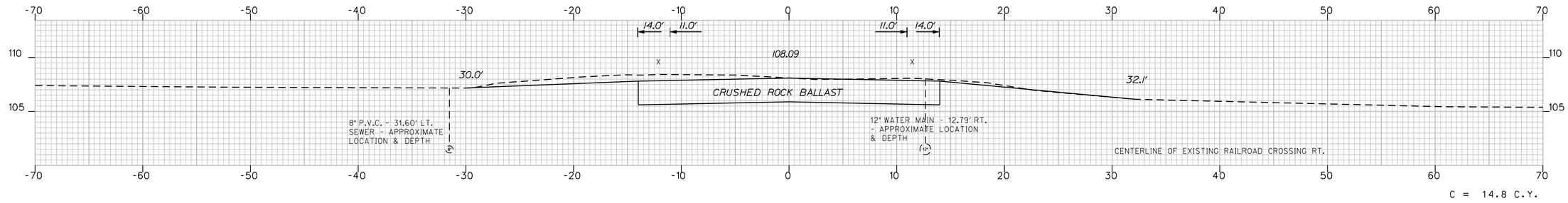
SHEET NUMBER

44

OF 151

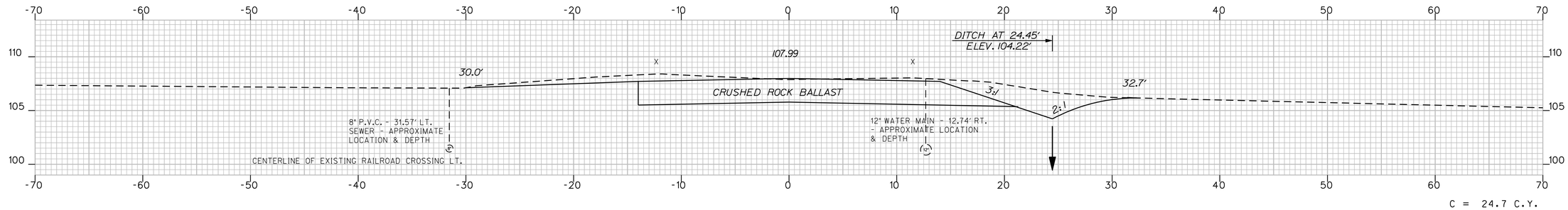
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\044_991+50.00-DRAW-XSMC20-SECTS.dwg Layout: 005 HIGHWAY



C = 14.8 C.Y.

993+09.00

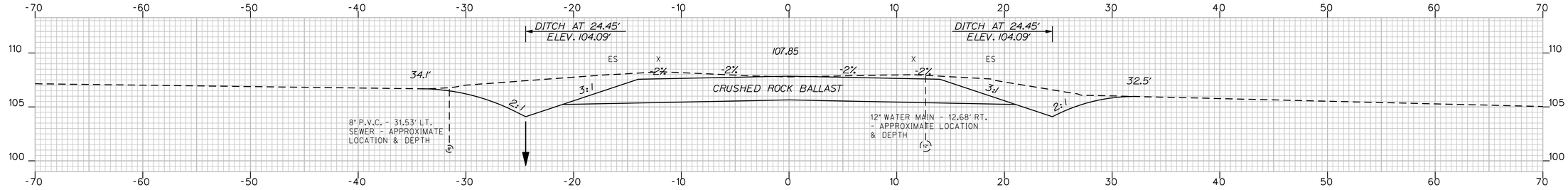


C = 24.7 C.Y.

993+05.00

STA. 993+05.00 RT.
(BEFORE R/R CROSSING) =
END GRUBBING IN CUT

STA. 993+05.00 RT.
END DITCH
(BEFORE R/R
CROSSING)

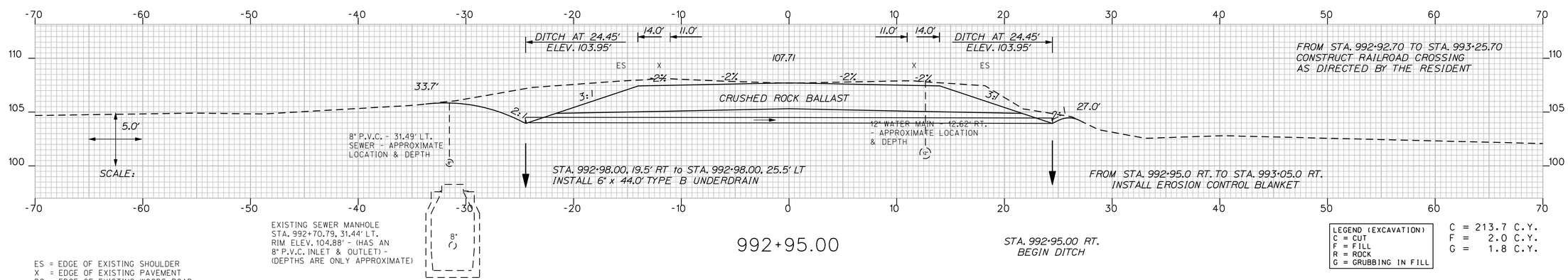


C = 268.0 C.Y
F = 0.0 C.Y.
G = 0.0 C.Y.

993+00.00

STA. 993+0.00 LT.
(BEFORE R/R CROSSING) =
END GRUBBING IN CUT

STA. 993+00.00 LT.
END DITCH
(BEFORE R/R
CROSSING)



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

992+95.00

STA. 992+95.00 RT.
BEGIN DITCH

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 213.7 C.Y.
F = 2.0 C.Y.
G = 1.8 C.Y.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

CROSS SECTIONS 993+09.00
992+95.00

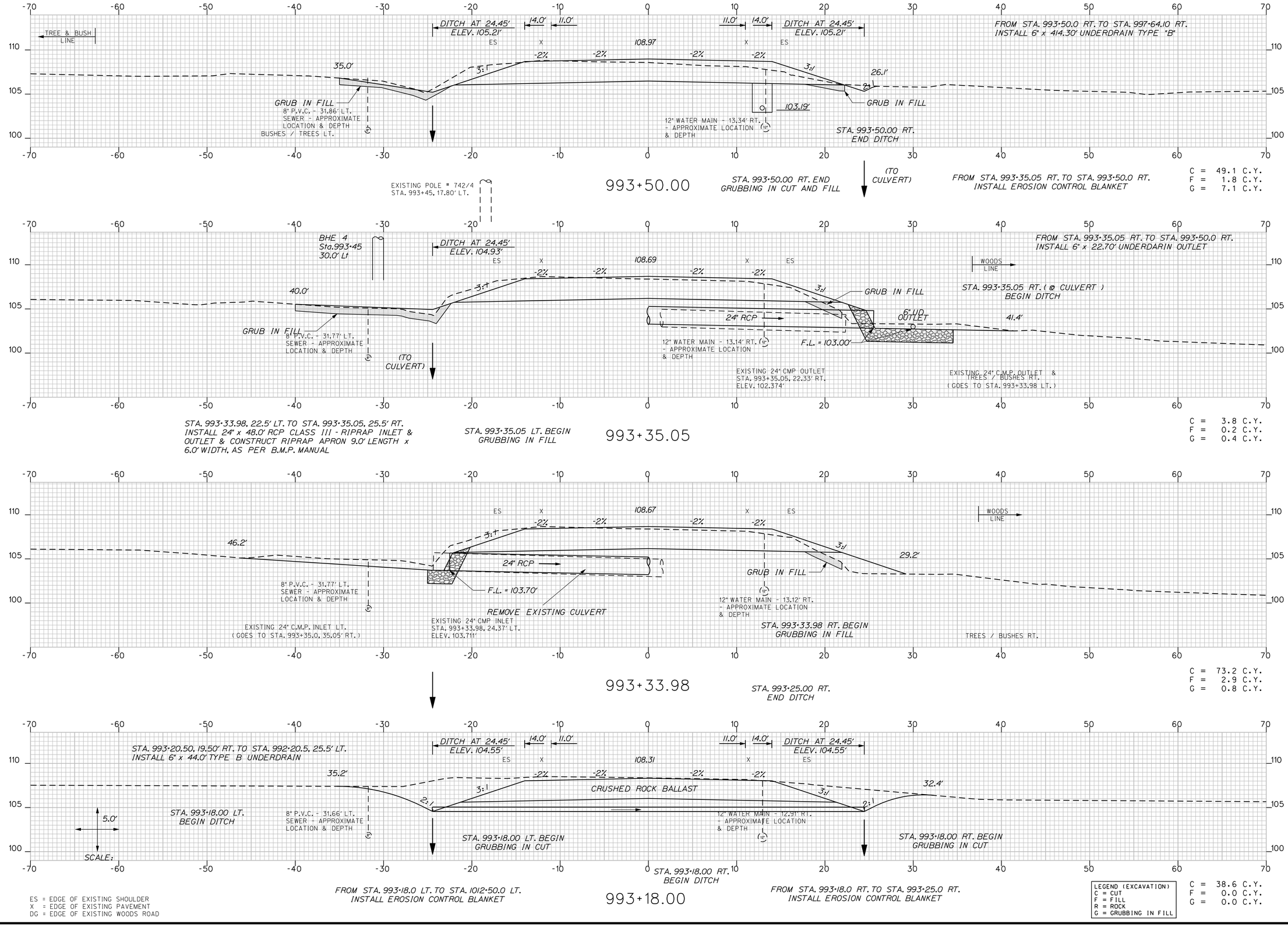
SHEET NUMBER

45

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\045_992+95.00-DRAW-XSMC20-SECTSDetails.dgn HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

993+18.00 CROSS SECTIONS 993+50.00

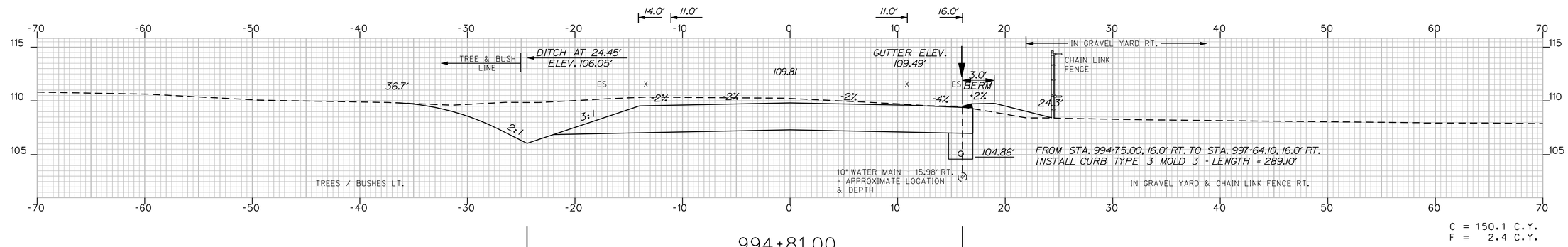
SHEET NUMBER

46

OF 151

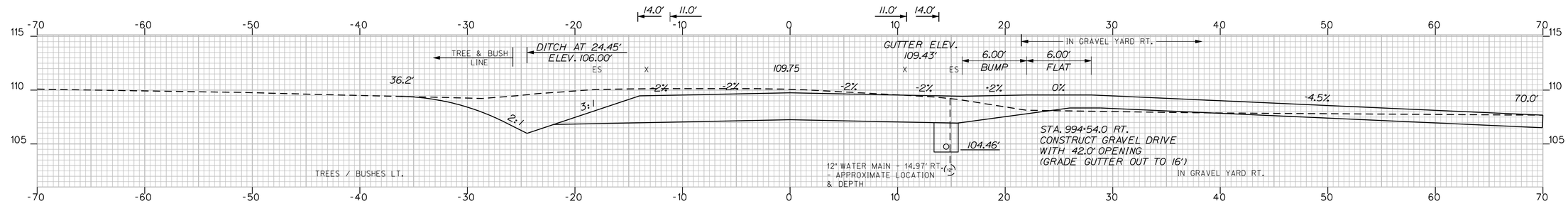
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\046_993+18.00-DRAW-XSMC20-SECTS.Dwg Default HIGHWAY



C = 150.1 C.Y.
F = 2.4 C.Y.

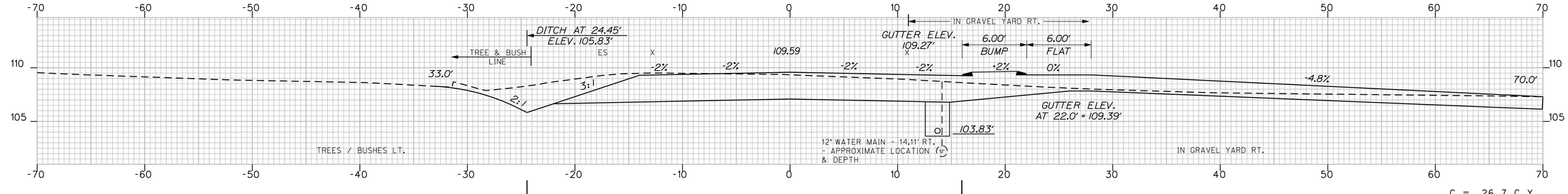
994+81.00



C = 205.3 C.Y.
F = 0.0 C.Y.
G = 0.0 C.Y.

994+50.00

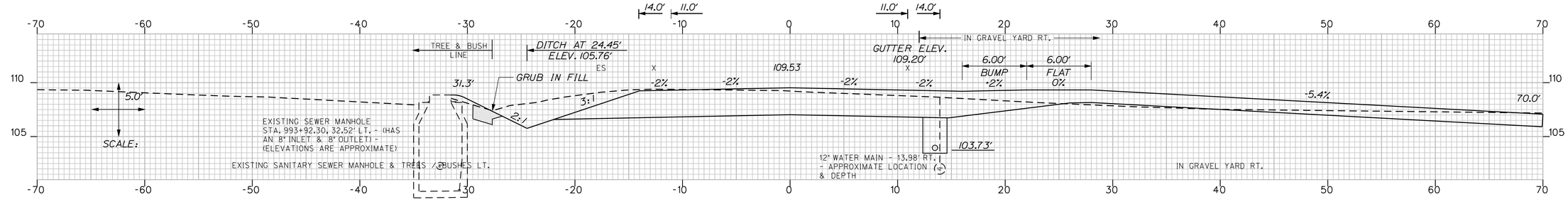
FROM STA. 994+50.0 RT. TO STA. 994+75.0 RT. (AT BEGIN OF CURB RUN) = TRANSITION SHOULDER SLOPE FROM -2.0% TO -4.0% & BEGIN 5.0' SHLDR. RT.



C = 26.7 C.Y.
F = 0.3 C.Y.
G = 0.5 C.Y.

994+00.00

FROM STA. 993+94.32, 16.0' RT. TO STA. 994+33.00, 16.0' RT.
CONSTUCT 6' WIDE PAVED ISLAND
WITH CURB TYPE 3 MOLD 3 - LENGTH = 38.68'
(GRADE GUTTER OUT TO 16')



C = 138.8 C.Y.
F = 1.5 C.Y.
G = 8.8 C.Y.

STA. 993+92.30 LT. END
GRUBBING IN FILL

993+92.30

STA. 993+73.32 RT.
CONSTRUCT GRAVEL DRIVE
WITH 42.0' OPENING
(GRADE GUTTER OUT TO 16')

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

CROSS SECTIONS 994+81.00
993+92.30

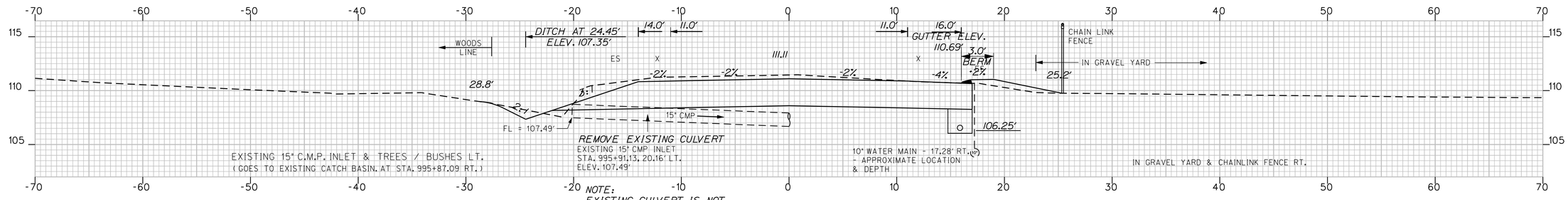
SHEET NUMBER

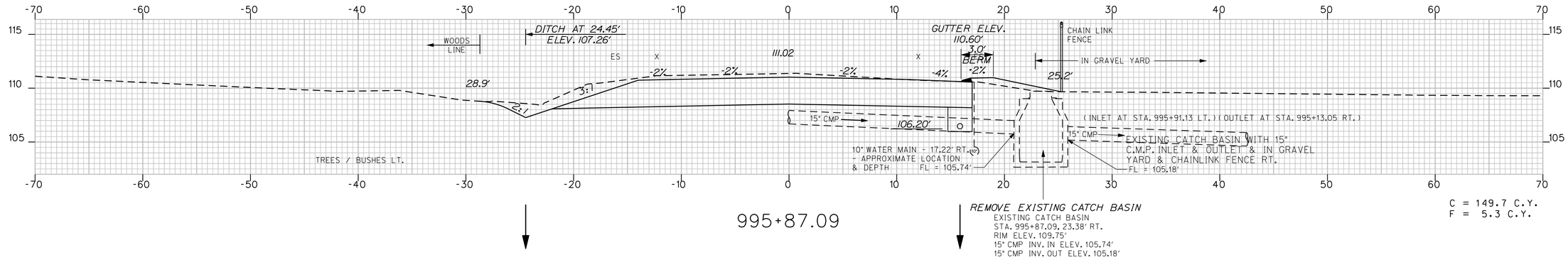
47

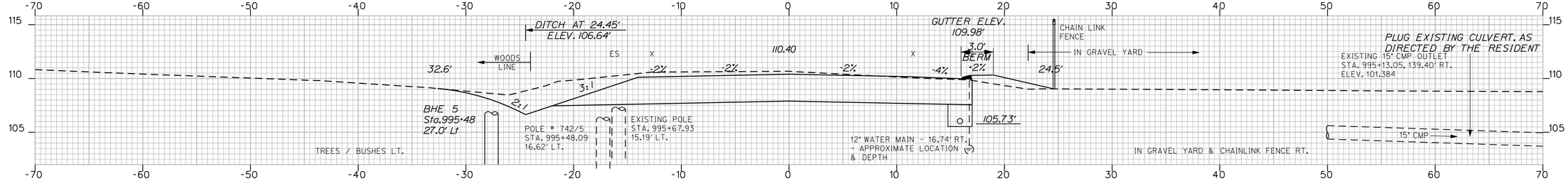
OF 151

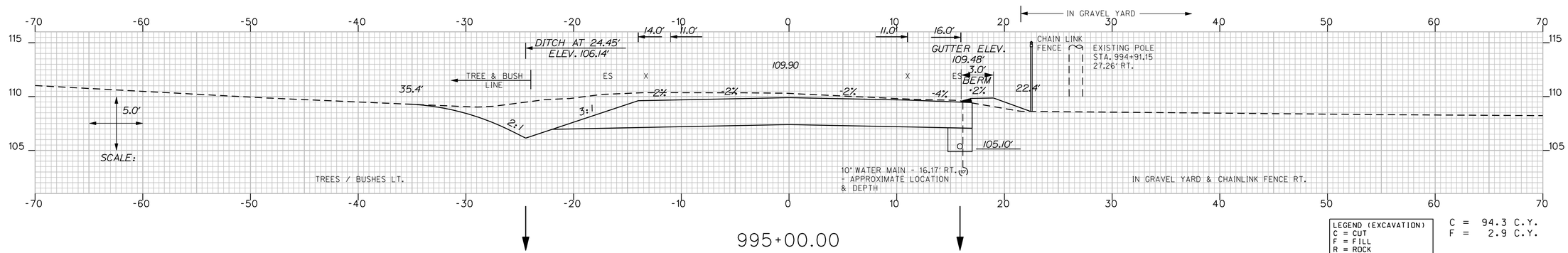
Filename: ...\047_993+92.30-DRAW-XSMC20-SECTSD.dgn Date:4/13/2012 Username: Natasha.M.Collins

HIGHWAY









LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

		DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Manzer	BY
CHECKED-REVIEWED	-----	NMC \ JH
DESIGN2-DETAILED2	-----	X
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

995+00.00 CROSS SECTIONS 995+91.13

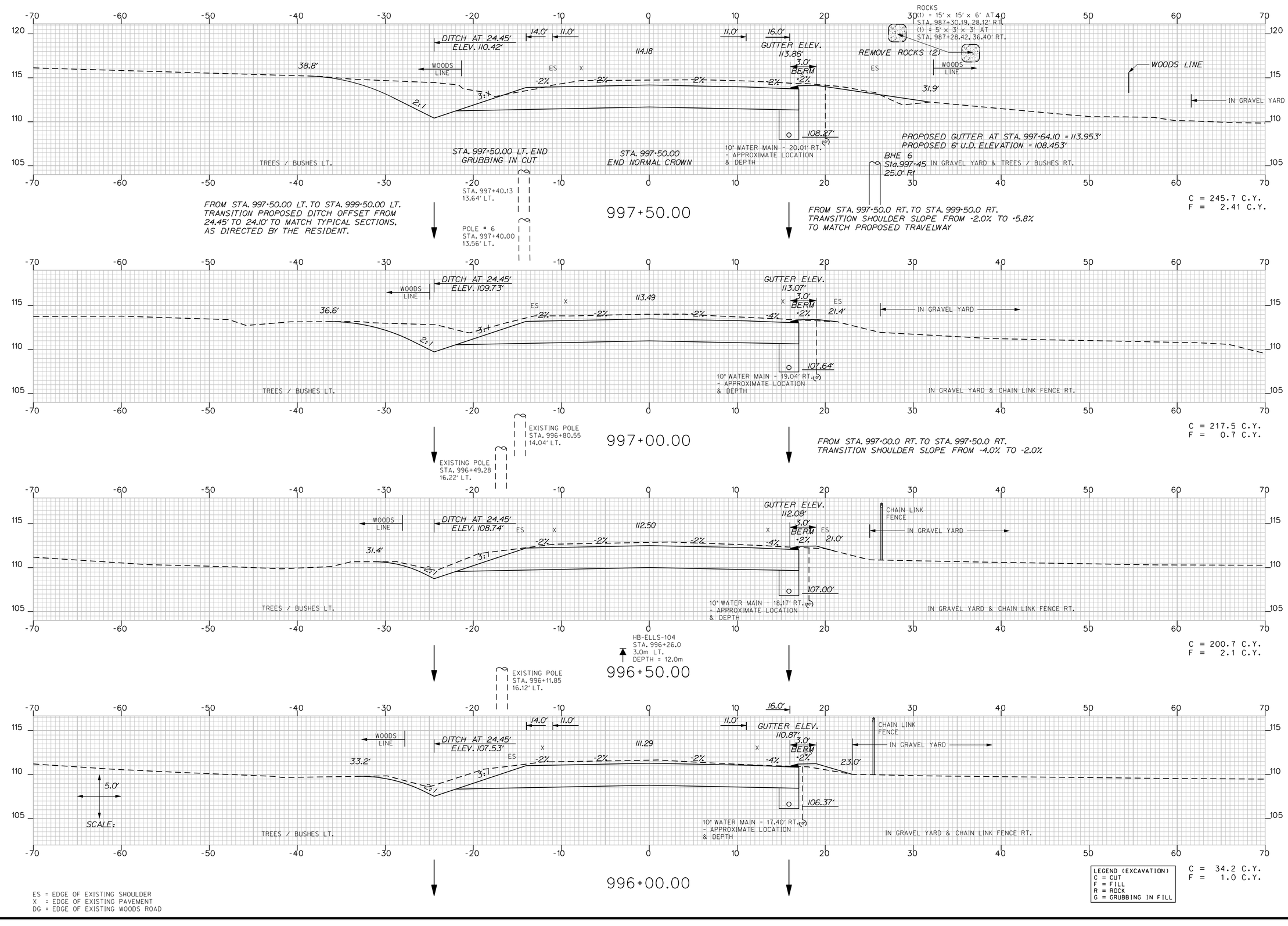
SHEET NUMBER

48

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\048_995+00.00-DRAW-XSMC20-SECTSD.dgn 10063.10 HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		DATE
PROJ. MANAGER	ERNIE MARTIN	BY
DESIGN-DETAILED	J. Monzer	NMC \ JH
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

CROSS SECTIONS 997+50.00 TO 996+00.00

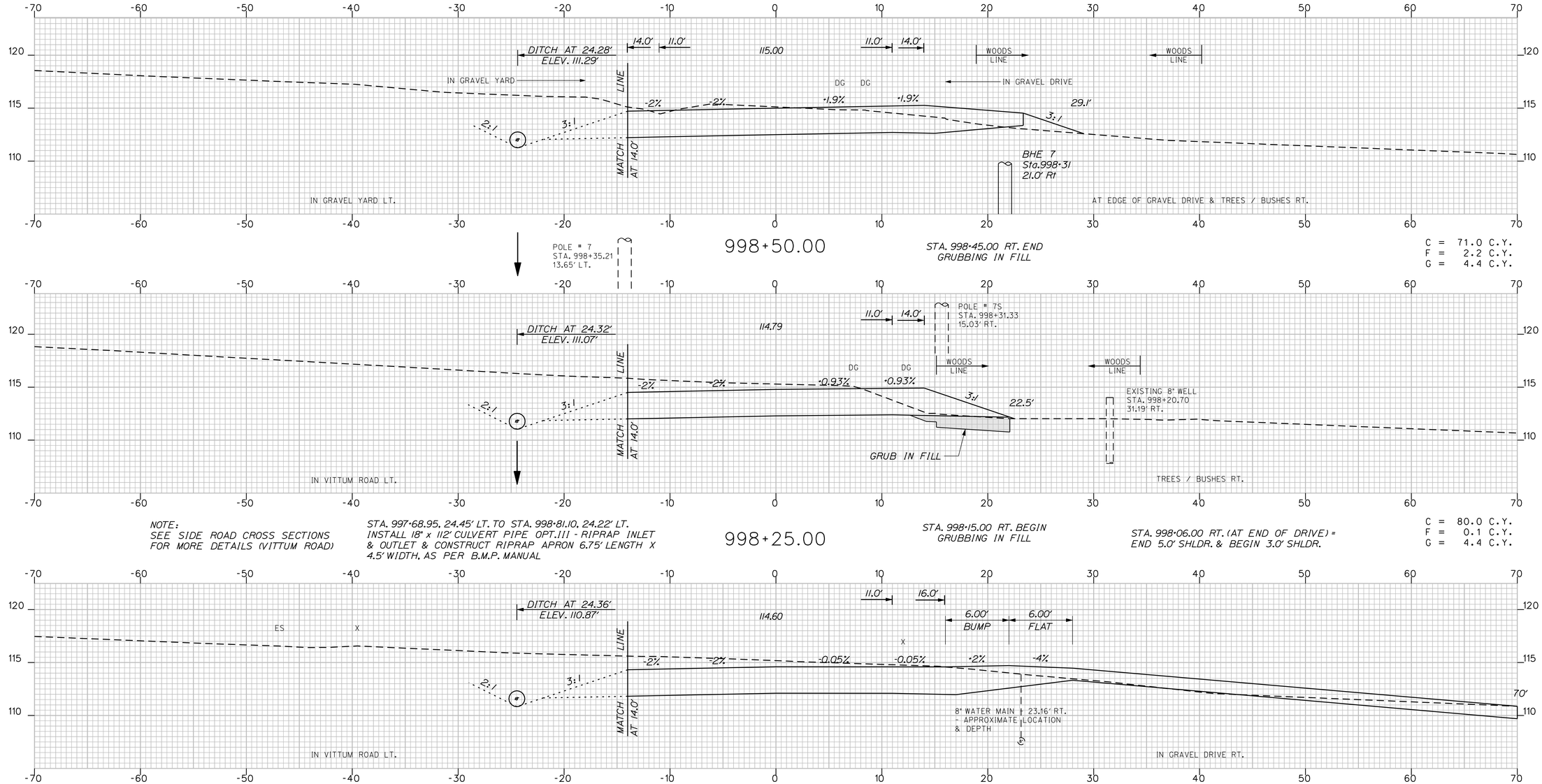
SHEET NUMBER

49

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\049_996+00.00-DRAW-XSMC20-SECTSDGN.dgn HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

997+85.00 CROSS SECTIONS 998+50.00

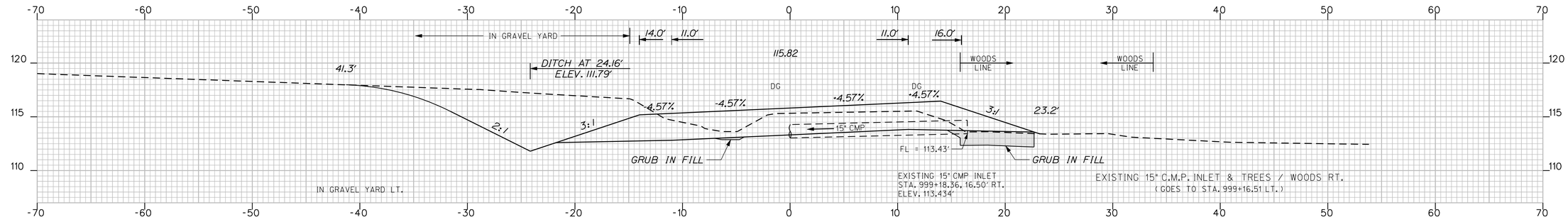
SHEET NUMBER

50

OF 151

Username: Natasha.M.Collins Date:4/13/2012

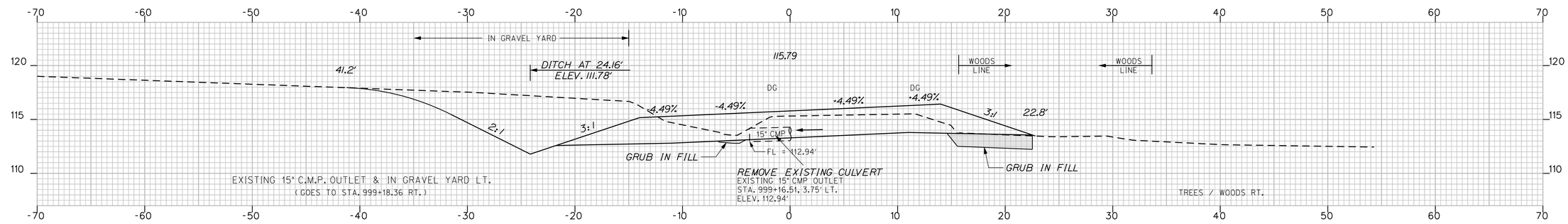
Filename: ...\050_997+85.00-DRAW-XSMC20-SECTSDetail01.dgn HIGHWAY



STA. 999+18.36 LT. END
GRUBBING IN FILL

999+18.36

C = 8.7 C.Y.
F = 0.1 C.Y.
G = 0.7 C.Y.

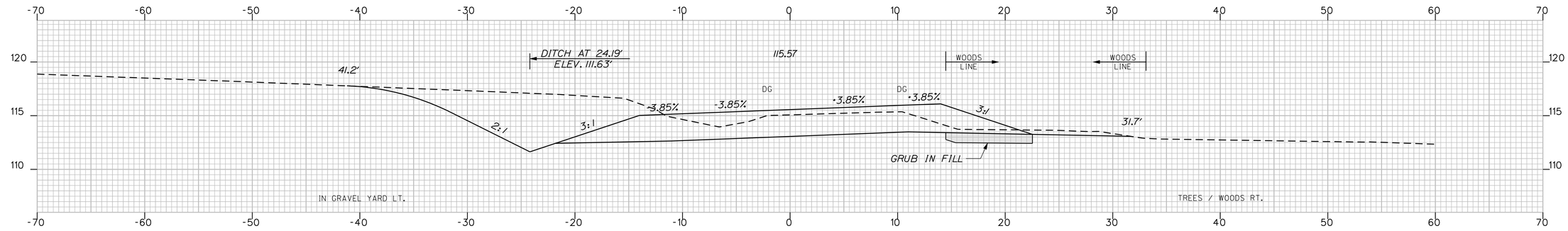


STA. 999+16.51 LT. BEGIN
GRUBBING IN FILL

999+16.51

NOTE:
EXISTING CULVERT IS
NOT BEING REPLACED

C = 81.5 C.Y.
F = 0.1 C.Y.
G = 5.1 C.Y.

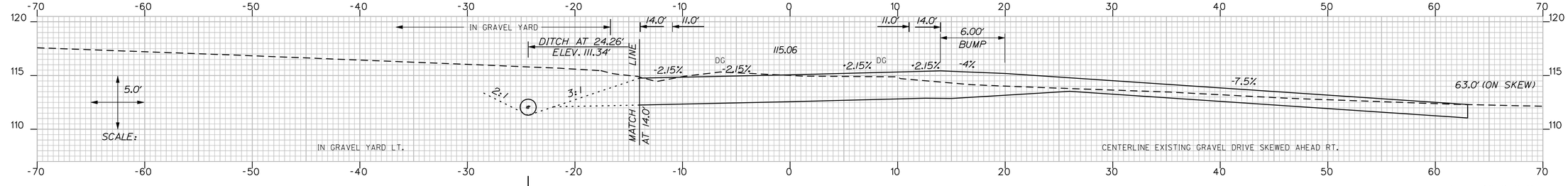


STA. 999+00.00 LT. BEGIN
GRUBBING IN CUT

999+00.00

STA. 999+00.00 RT. BEGIN
GRUBBING IN CUT AND FILL

C = 167.7 C.Y.
F = 1.2 C.Y.
G = 5.7 C.Y.



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

FROM STA. 998+52.56 LT. TO STA. 999+50.0 LT.
TRANSITION SHOULDER SLOPE FROM -2.0% TO -5.8%
TO MATCH PROPOSED TRAVELWAY

998+56.39

STA. 998+56.39 SKEWED AHEAD RT.
CONSTRUCT GRAVEL DRIVE
WITH 42.0' OPENING

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 16.9 C.Y.
F = 1.0 C.Y.
G = 0.0 C.Y.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

CROSS SECTIONS 999+18.36

998+56.39

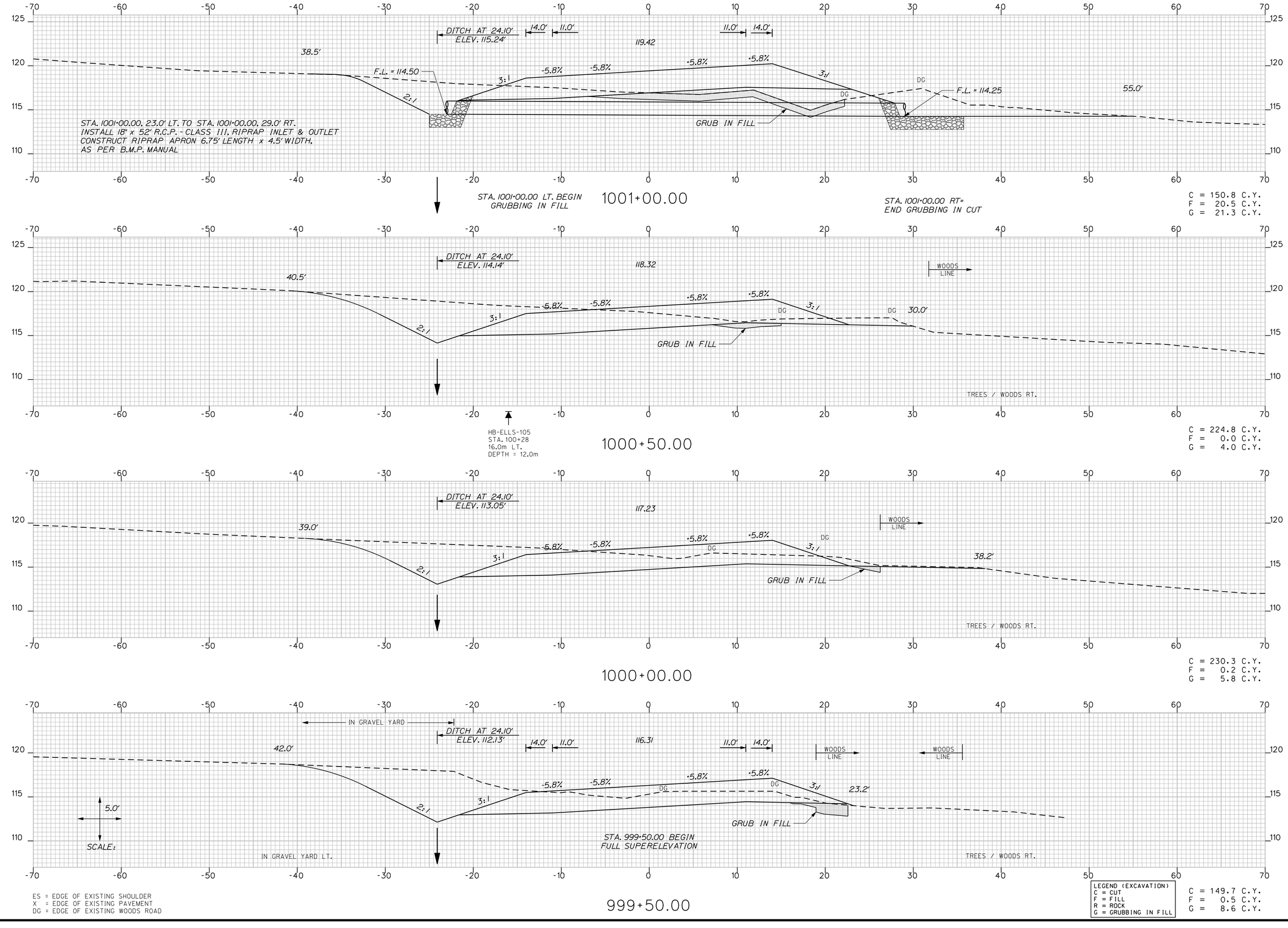
SHEET NUMBER

51

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\051_998+56.39-DRAW-XSMC20-SECTS.dwg HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

CROSS SECTIONS *1001+00.00*
999+50.00

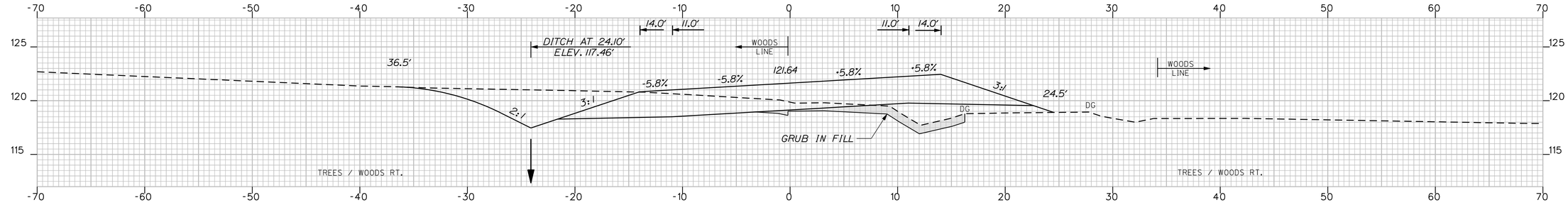
SHEET NUMBER

52

OF 151

Username: Natasha.M.Collins Date:4/13/2012

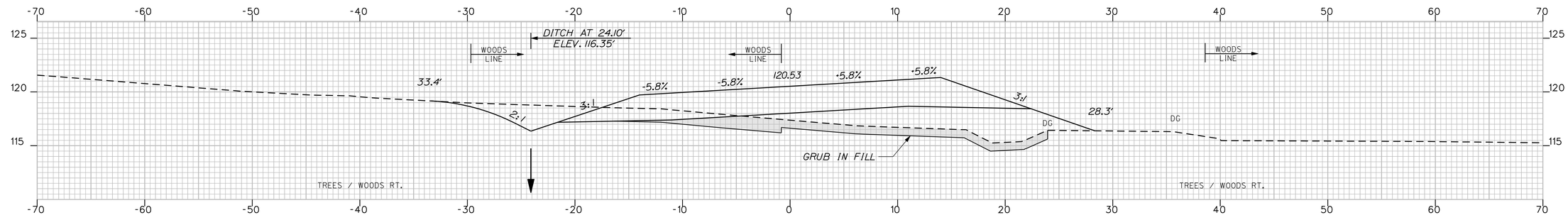
Filename: ...\052_999+50.00-DRAW-XSMC20-SECTS.dgn



STA. 1002+00.00 LT. END
GRUBBING IN FILL

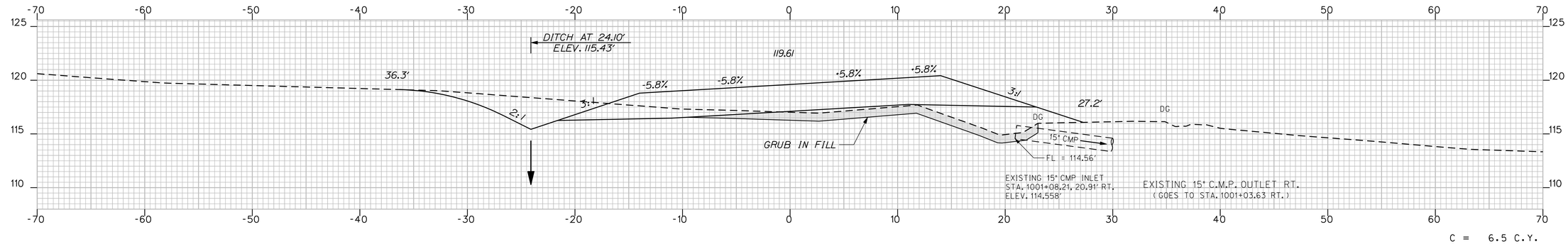
1002+00.00

C = 89.7 C.Y.
F = 61.9 C.Y.
G = 37.0 C.Y.



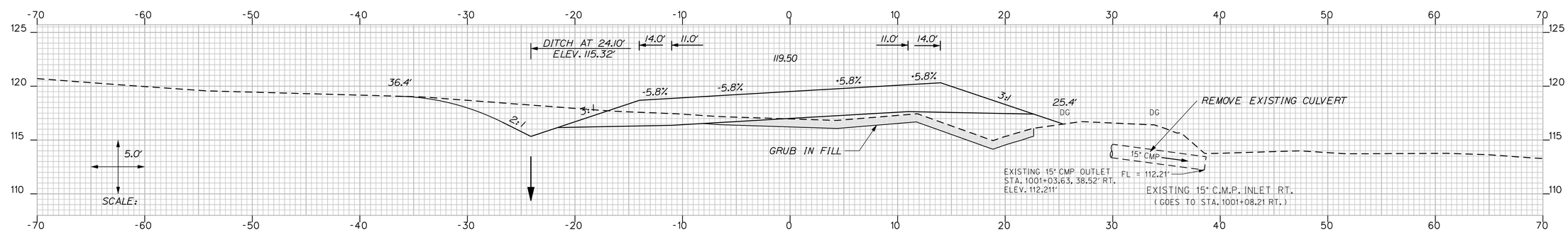
1001+50.00

C = 51.6 C.Y.
F = 58.0 C.Y.
G = 39.5 C.Y.



1001+08.21

C = 6.5 C.Y.
F = 3.8 C.Y.
G = 3.6 C.Y.



1001+03.63

C = 5.3 C.Y.
F = 3.0 C.Y.
G = 2.7 C.Y.

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	BY	NMC \ JH
CHECKED-REVIEWED	-----	DATE	X
DESIGN2-DETAILED2	-----	SIGNATURE	-----
DESIGN3-DETAILED3	-----	P.E. NUMBER	-----
REVISIONS 1	-----	DATE	-----
REVISIONS 2	-----		-----
REVISIONS 3	-----		-----
REVISIONS 4	-----		-----
FIELD CHANGES	-----		-----

ELLSWORTH
ROUTE 180

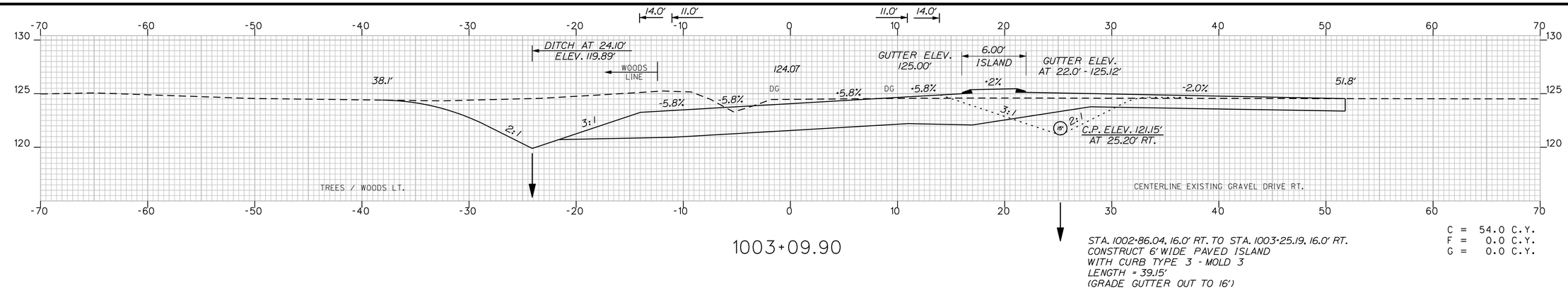
1001+03.63 CROSS SECTIONS 1002+00.00

SHEET NUMBER

53

OF 151

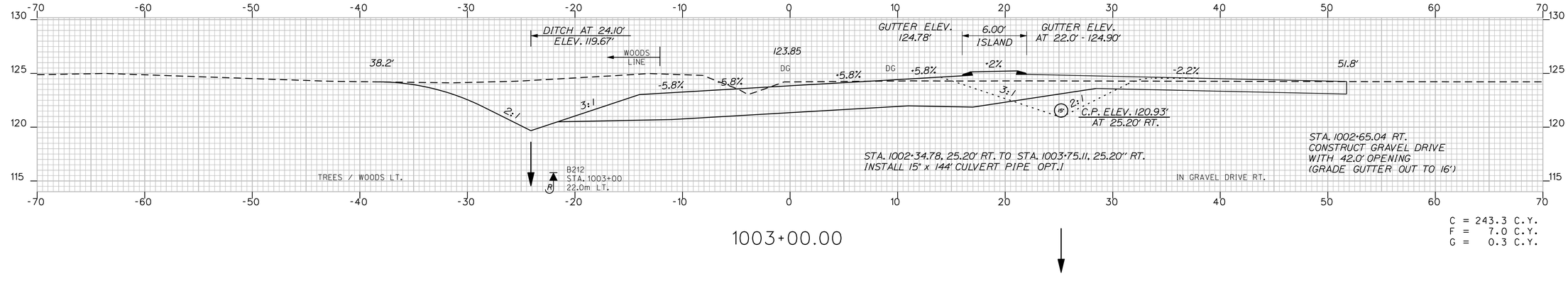
Filename: ...\053_1001+03.63-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins



1003+09.90

STA. 1002+86.04, 16.0' RT. TO STA. 1003+25.19, 16.0' RT.
CONSTRUCT 6' WIDE PAVED ISLAND
WITH CURB TYPE 3 - MOLD 3
LENGTH = 39.15'
(GRADE GUTTER OUT TO 16')

C = 54.0 C.Y.
F = 0.0 C.Y.
G = 0.0 C.Y.

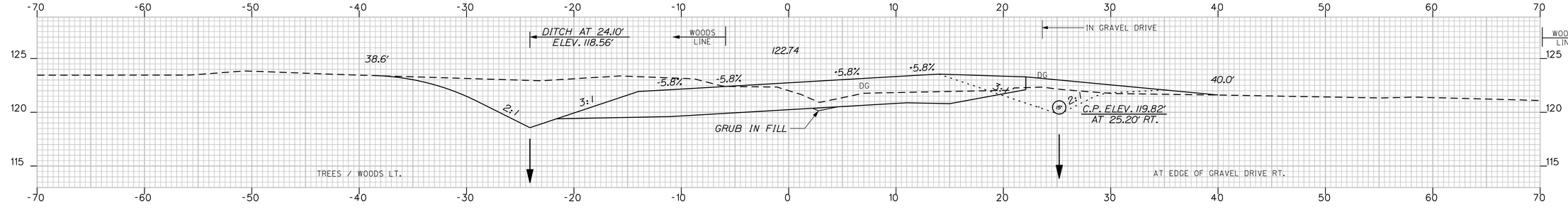


STA. 1002+34.78, 25.20' RT. TO STA. 1003+75.11, 25.20" RT.
INSTALL 15" x 144' CULVERT PIPE OPT.I

STA. 1002+65.04 RT.
CONSTRUCT GRAVEL DRIVE
WITH 42.0' OPENING
(GRADE GUTTER OUT TO 16')

1003+00.00

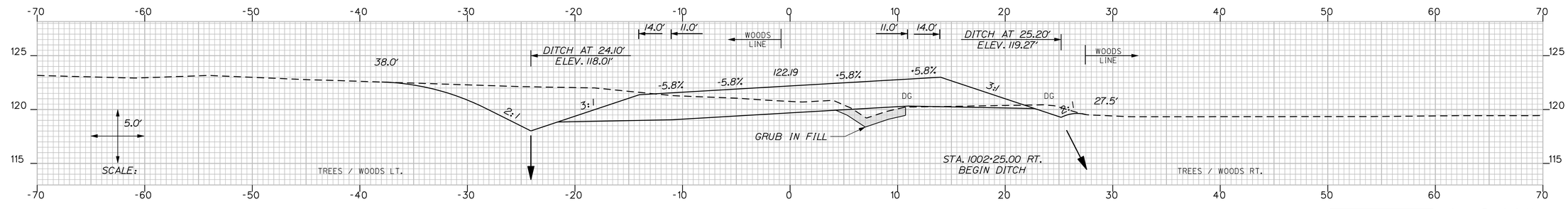
C = 243.3 C.Y.
F = 7.0 C.Y.
G = 0.3 C.Y.



1002+50.00

STA. 1002+50.00 RT. END
GRUBBING IN CUT AND FILL

C = 93.5 C.Y.
F = 4.6 C.Y.
G = 2.3 C.Y.



1002+25.00

FROM STA. 1002+25.0 RT. TO STA. 1011+78.84 RT.
INSTALL EROSION CONTROL BLANKET

STA. 1002+25.00 RT=
BEGIN GRUBBING IN CUT

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 71.4 C.Y.
F = 8.9 C.Y.
G = 7.0 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

P.E. NUMBER

SIGNATURE

DATE

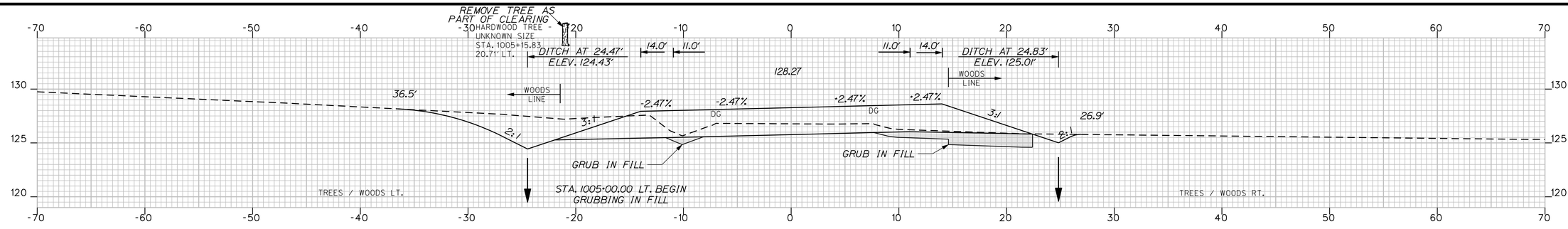
ELLSWORTH
ROUTE 180

1002+25.00 CROSS SECTIONS 1003+09.90

SHEET NUMBER
54
OF 151

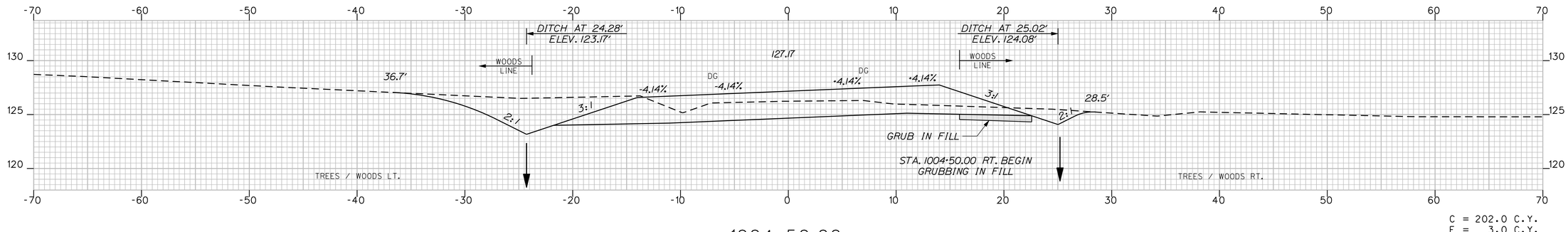
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\054_1002+25.00-DRAW-XSMC20-SECTS.dgn 015 HIGHWAY



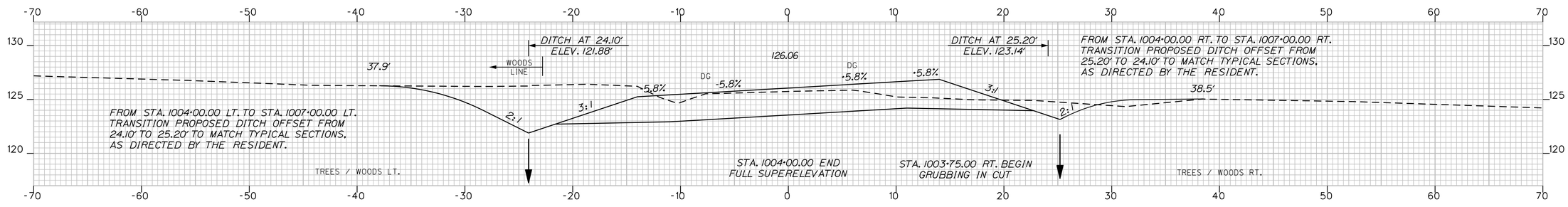
1005+00.00

C = 140.6 C.Y.
G = 16.0 C.Y.



1004+50.00

C = 202.0 C.Y.
F = 3.0 C.Y.
G = 3.2 C.Y.

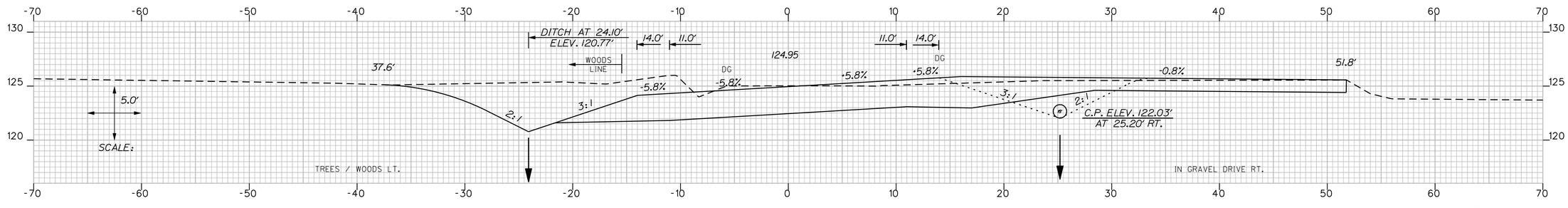


FROM STA. 1004+00.00 LT. TO STA. 1007+00.0 LT.
TRANSITION SHOULDER SLOPE FROM -5.8% TO -4.18%
TO MATCH PROPOSED TRAVELWAY

1004+00.00

FROM STA. 1004+00.00 RT. TO STA. 1007+00.0 RT.
TRANSITION SHOULDER SLOPE FROM -5.8% TO -4.18%
TO MATCH PROPOSED TRAVELWAY

C = 242.2 C.Y.
F = 3.0 C.Y.
G = 0.0 C.Y.



1003+50.00

STA. 1003+49.19 RT.
CONSTRUCT GRAVEL DRIVE
WITH 42.0' OPENING
(GRADE GUTTER OUT TO 16')

C = 209.6 C.Y.

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1003+50.00 CROSS SECTIONS 1005+00.00

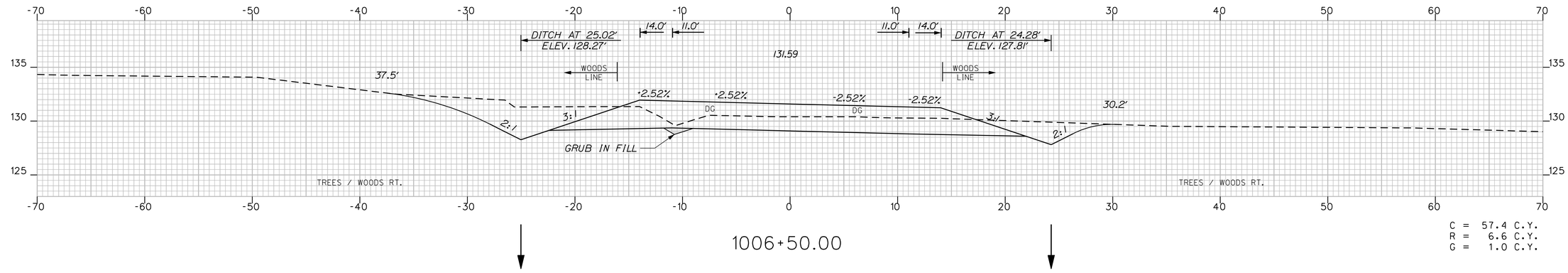
SHEET NUMBER

55

OF 151

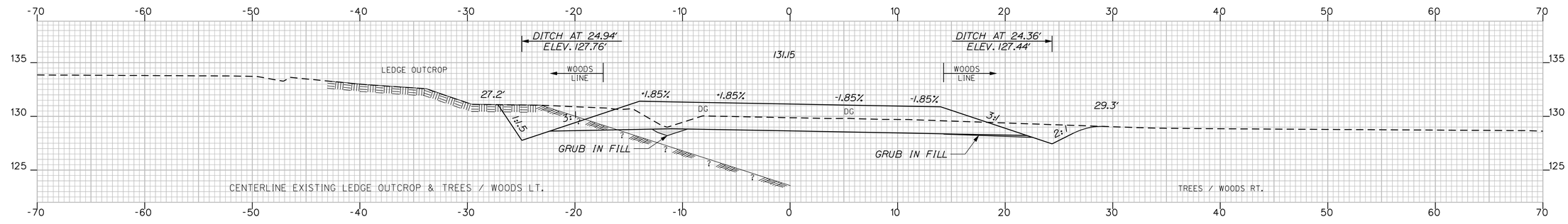
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\055_1003+50.00-DRAW-XSMC20-SECTS.dgn 16-HIGHWAY



C = 57.4 C.Y.
R = 6.6 C.Y.
G = 1.0 C.Y.

1006+50.00

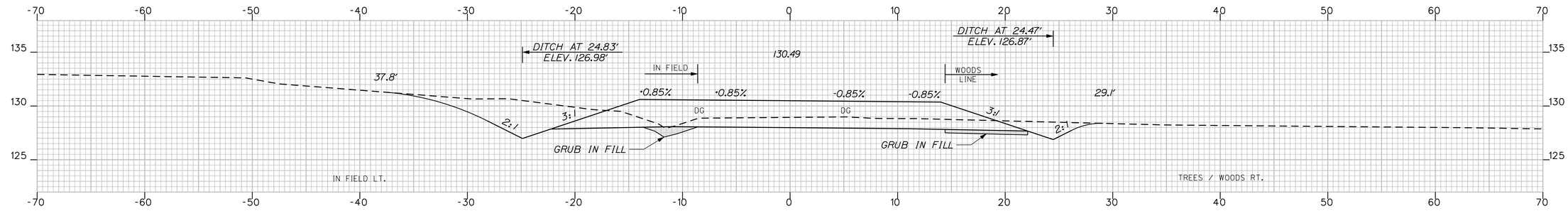


C = 73.4 C.Y.
R = 9.9 C.Y.
G = 3.8 C.Y.

1006+30.00

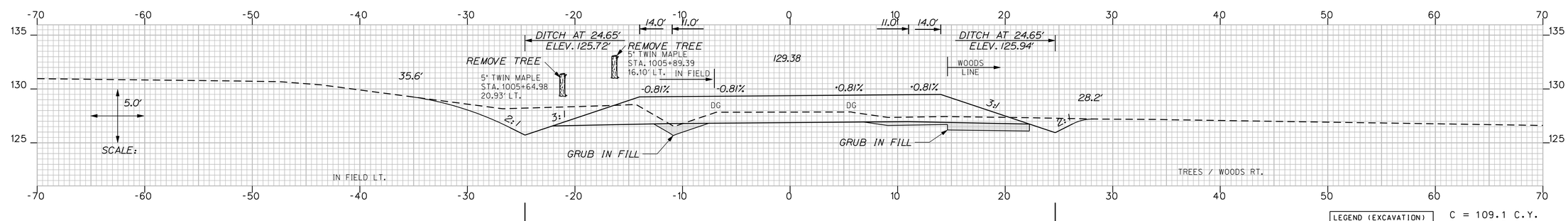
STA. 1006+15.00 LT. TO STA. 1006+45.00 LT.
THE DITCH BACKSLOPE TO BE AS SHOWN,
OR AS DIRECTED BY THE RESIDENT.

STA. 1006+30.00 RT. END
GRUBBING IN FILL



C = 121.5 C.Y.
F = 0.3 C.Y.
G = 13.5 C.Y.

1006+00.00



C = 109.1 C.Y.
F = 0.2 C.Y.
G = 21.8 C.Y.

1005+50.00

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1005+50.00 CROSS SECTIONS *1006+50.00*

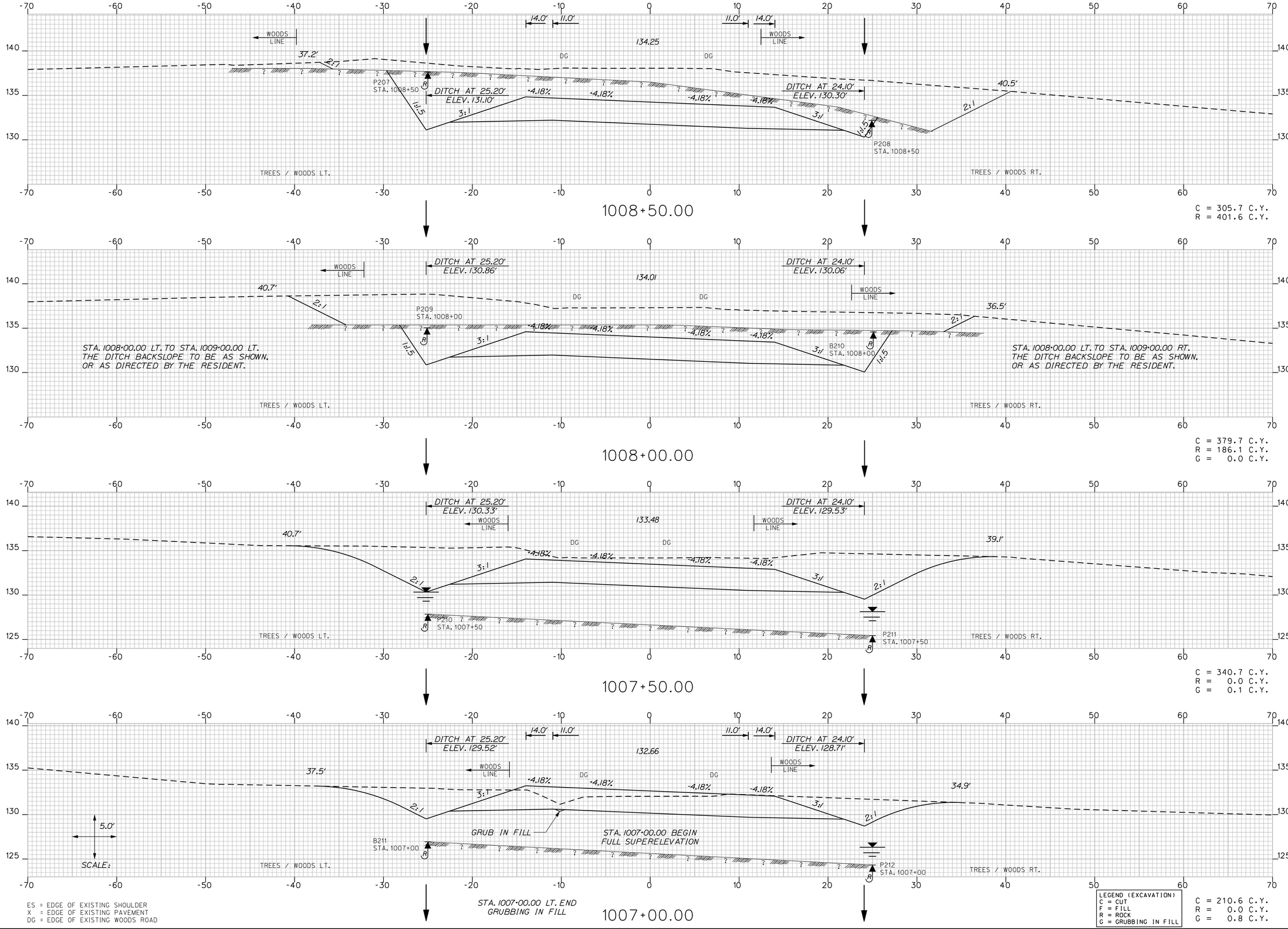
SHEET NUMBER

56

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\056_1005+50.00-DRAW-XSMC20-SECTS.dgn 17:46:01 HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1007+00.00 CROSS SECTIONS *1008+50.00*

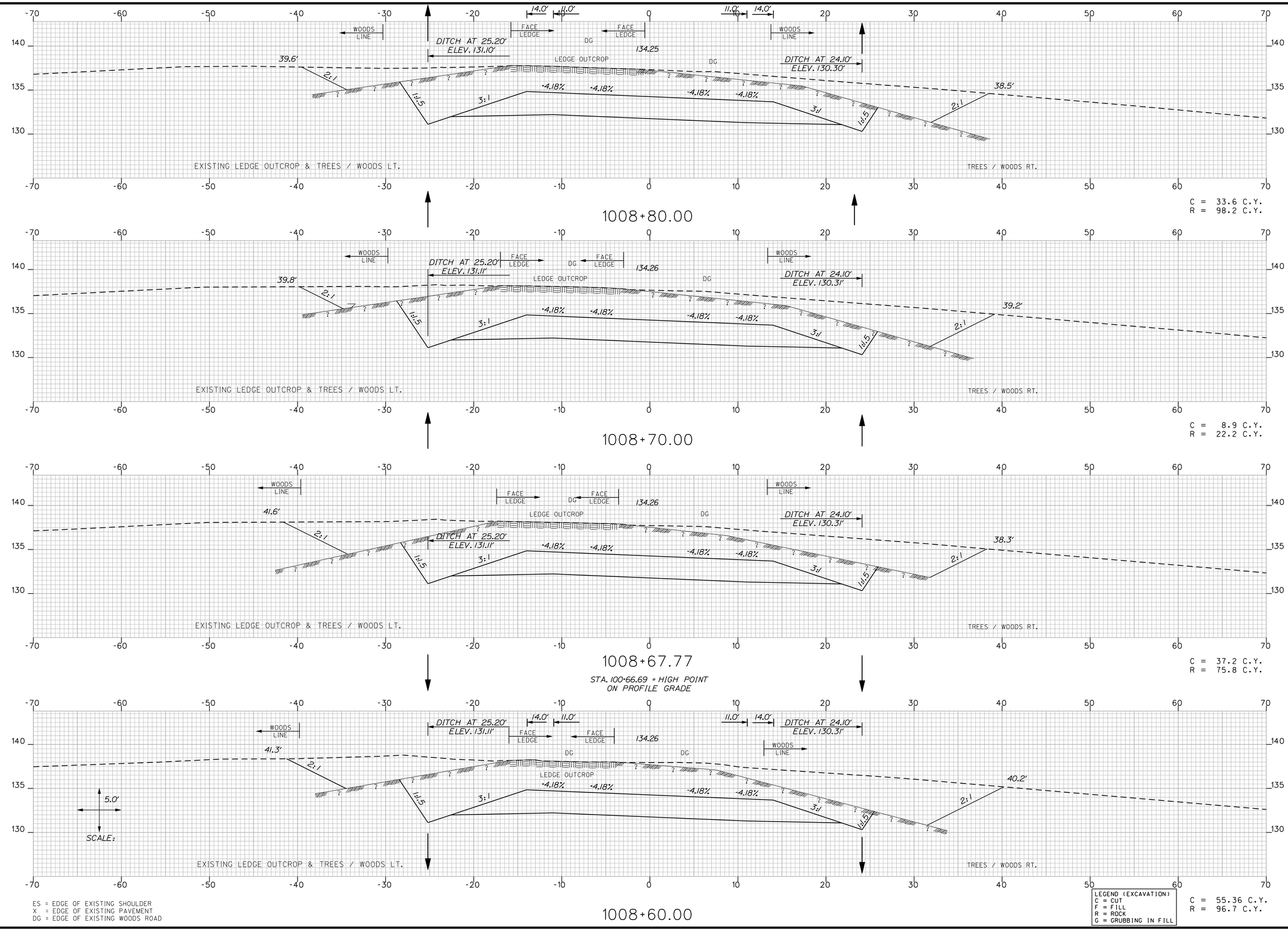
SHEET NUMBER

57

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\057_1007+00.00-DRAW-XSMC20-SECTS.dgn Design018.dgn HIGHWAY



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1008+60.00 CROSS SECTIONS *1008+80.00*

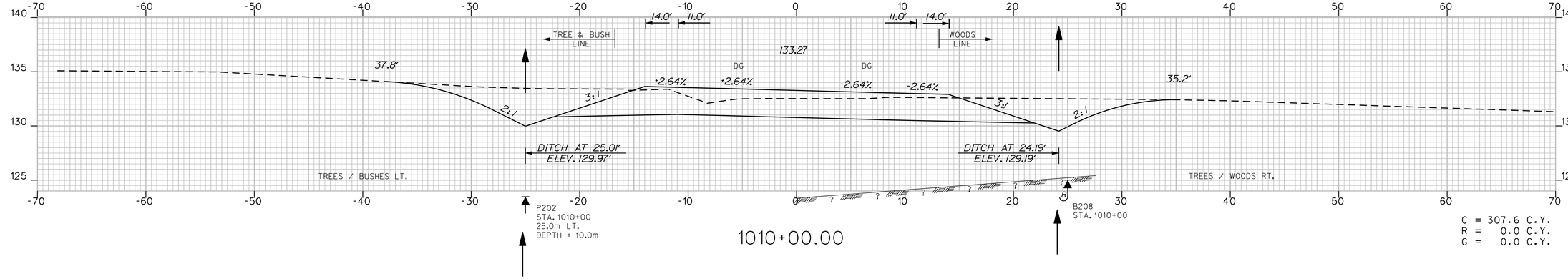
SHEET NUMBER

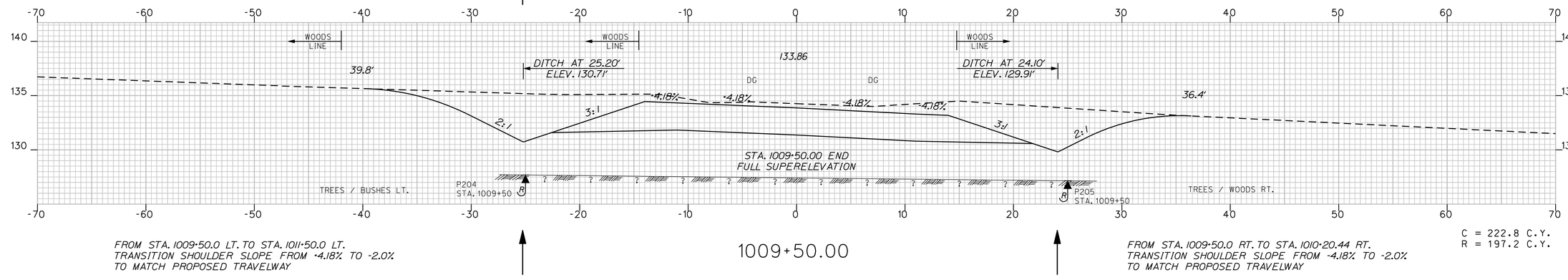
58

OF 151

Username: Natasha.M.Collins Date:4/13/2012

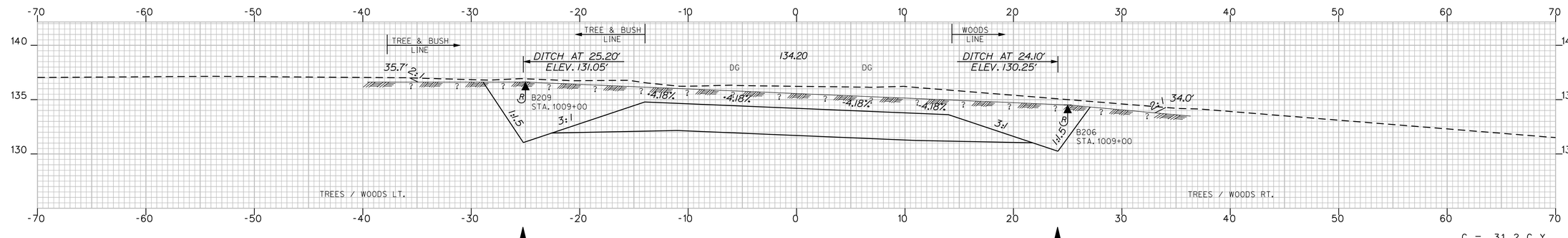
Filename: ...\058_1008+60.00-DRAW-XSMC20-SECTS.dgn Division: HIGHWAY

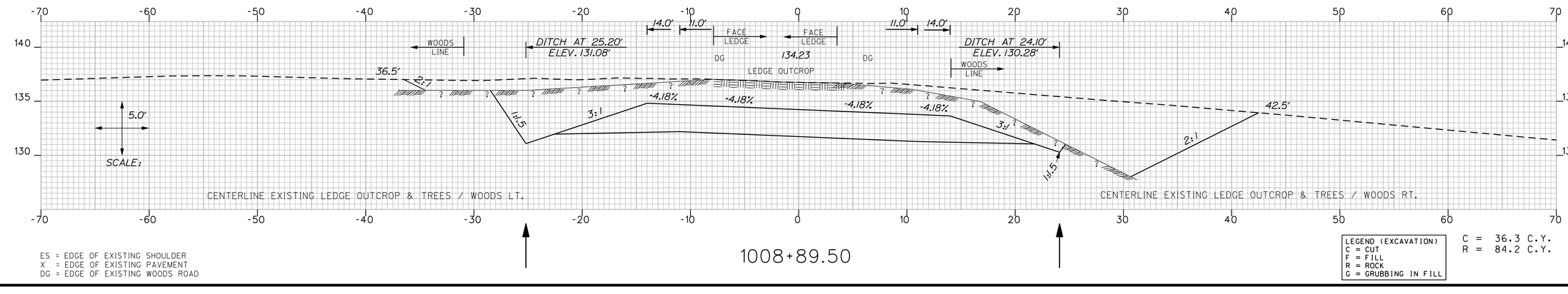




FROM STA. 1009+50.0 LT. TO STA. 1011+50.0 LT.
TRANSITION SHOULDER SLOPE FROM -4.18% TO -2.0%
TO MATCH PROPOSED TRAVELWAY

FROM STA. 1009+50.0 RT. TO STA. 1010+20.44 RT.
TRANSITION SHOULDER SLOPE FROM -4.18% TO -2.0%
TO MATCH PROPOSED TRAVELWAY





ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Monzer	X
CHECKED-REVIEWED	NMC \ JH	
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

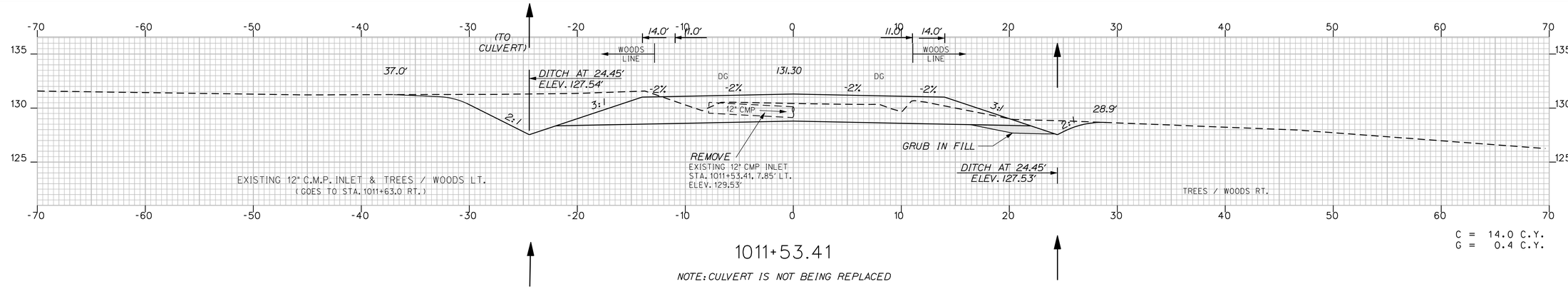
1008+89.50 CROSS SECTIONS 1010+00.00

SHEET NUMBER

59

OF 151

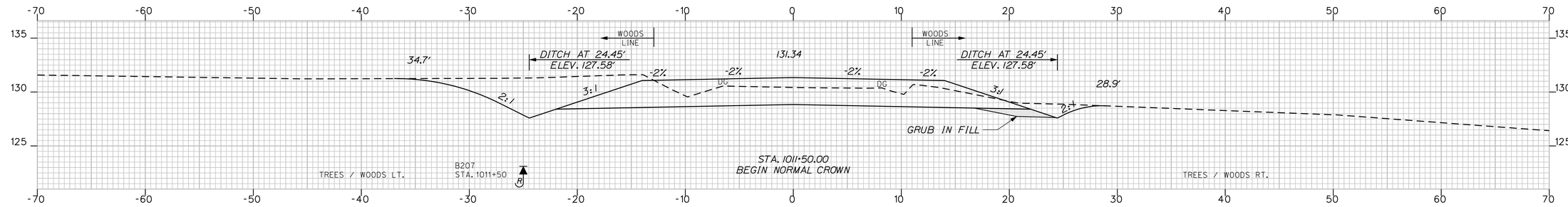
Filename: ...\059_1008+89.50-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins



C = 14.0 C.Y.
G = 0.4 C.Y.

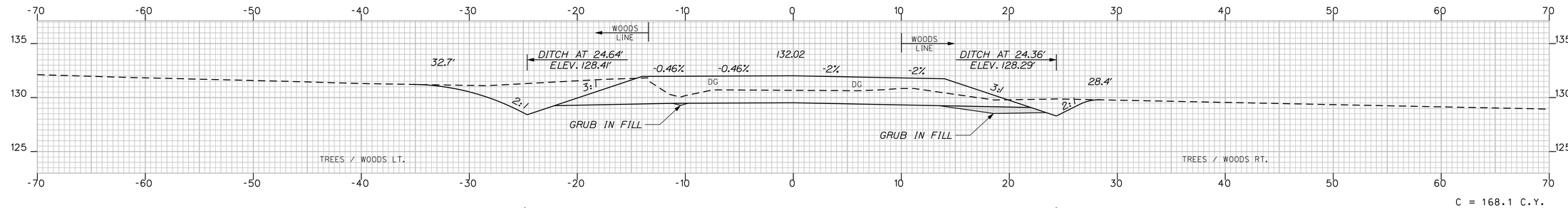
1011+53.41

NOTE: CULVERT IS NOT BEING REPLACED



C = 175.4 C.Y.
G = 6.4 C.Y.

1011+50.00

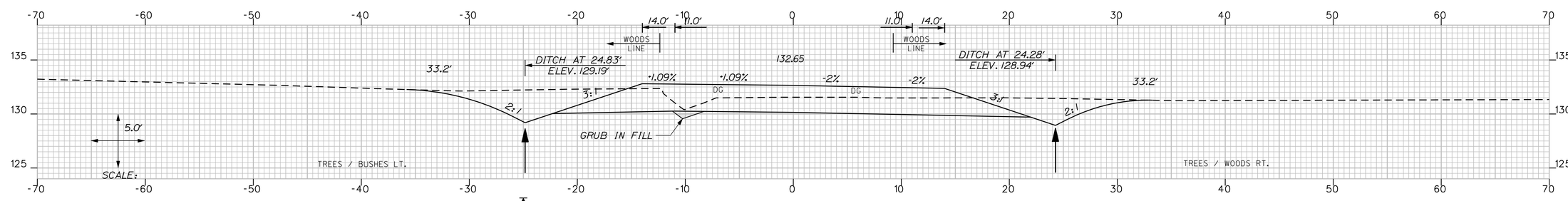


C = 168.1 C.Y.
G = 4.6 C.Y.

1011+00.00

STA. 1011+00.00 LT. END GRUBBING IN FILL

STA. 1011+00.00 RT. BEGIN GRUBBING IN FILL



C = 212.7 C.Y.
G = 0.9 C.Y.

1010+50.00

P201
STA. 1010+50
25.0m LT.
DEPTH = 10.0m

STA. 1010+50.00 LT. BEGIN GRUBBING IN FILL

P203
STA. 1010+50
25.0m RT.
DEPTH = 10.0m

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1010+50.00 CROSS SECTIONS *1011+53.41*

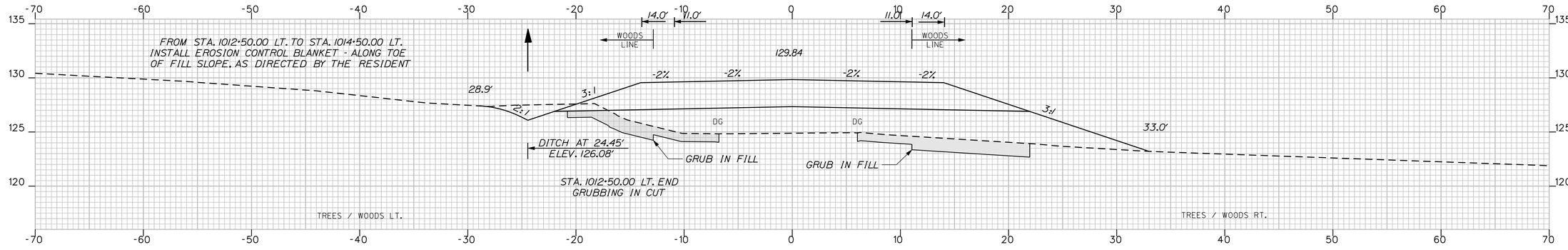
SHEET NUMBER

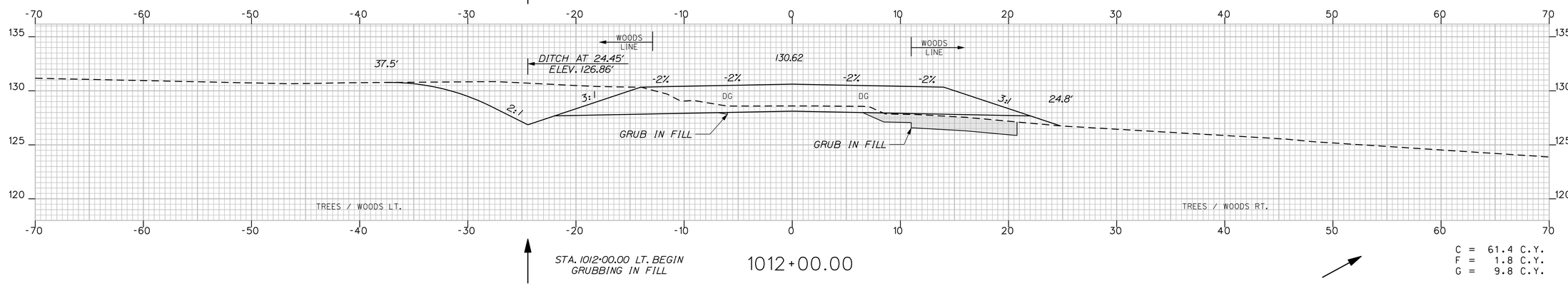
60

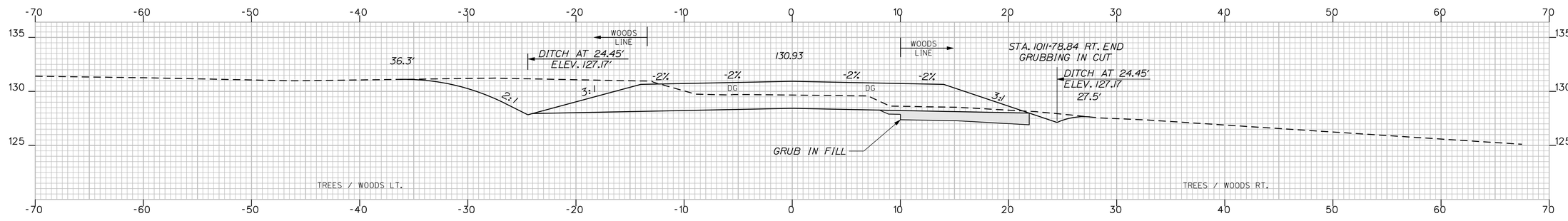
OF 151

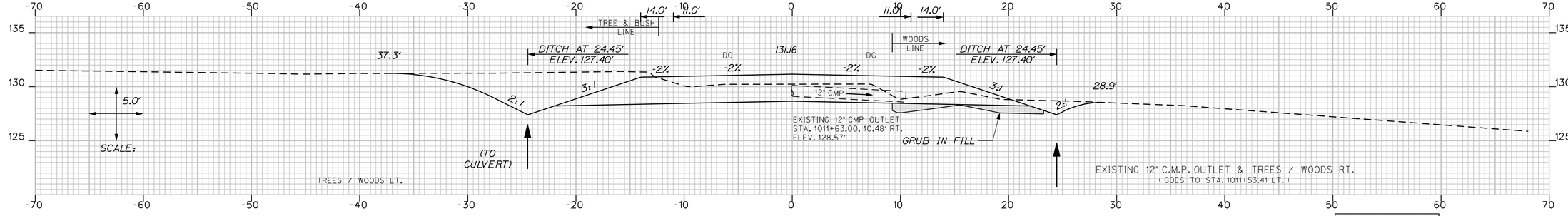
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\060_1010+50.00-DRAW-XSMC20-SECTS.dgn









ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1011+63.00 CROSS SECTIONS *1012+50.00*

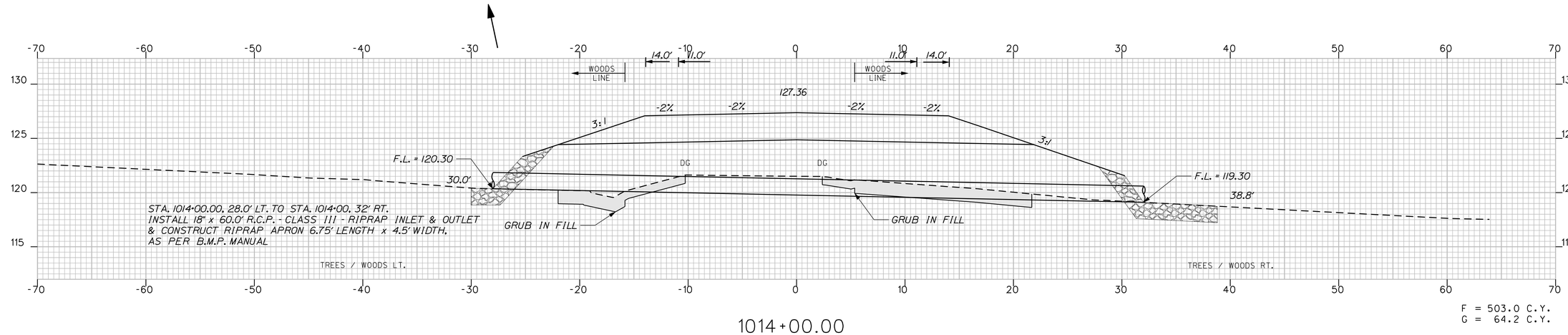
SHEET NUMBER

61

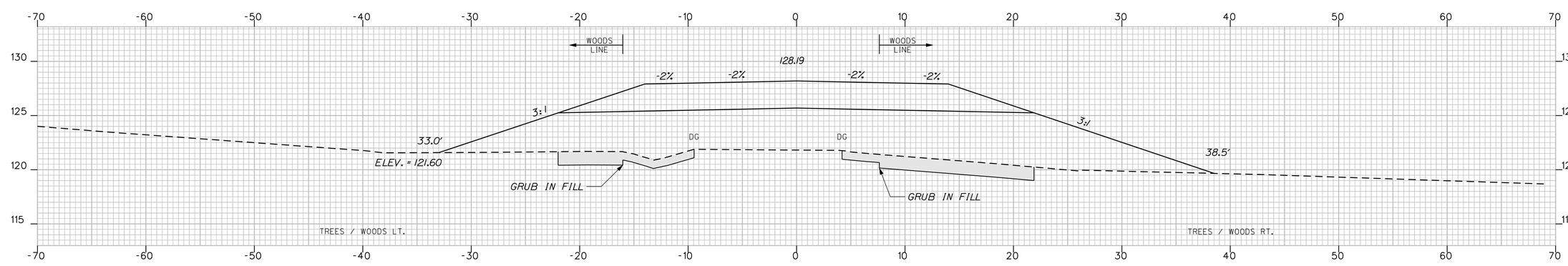
OF 151

Username: Natasha.M.Collins Date:4/13/2012

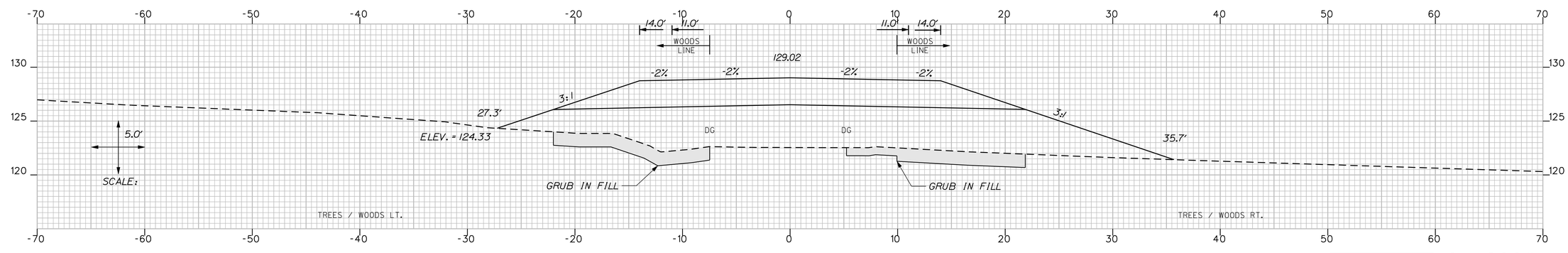
Filename: ...\061_1011+63.00-DRAW-XSMC20-SECTS_Dwg.dgn HIGHWAY



1014+00.00



1013+50.00



1013+00.00

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

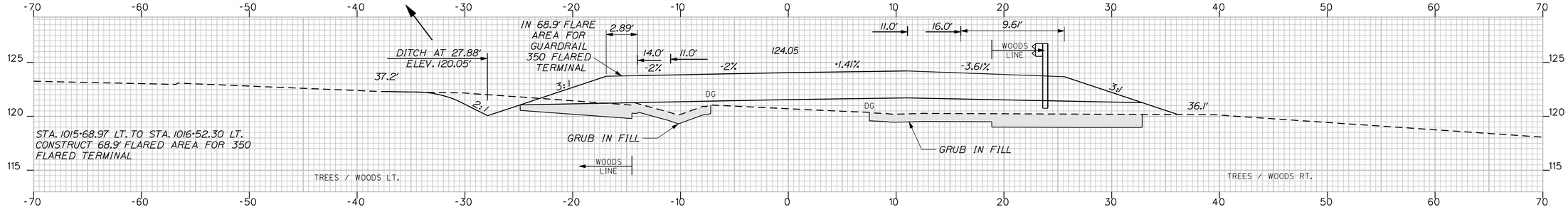
1013+00.00 CROSS SECTIONS 1014+00.00

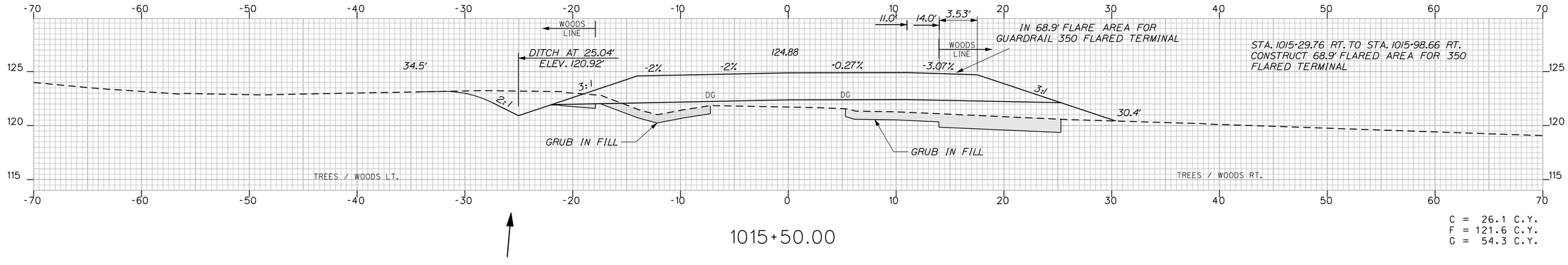
SHEET NUMBER

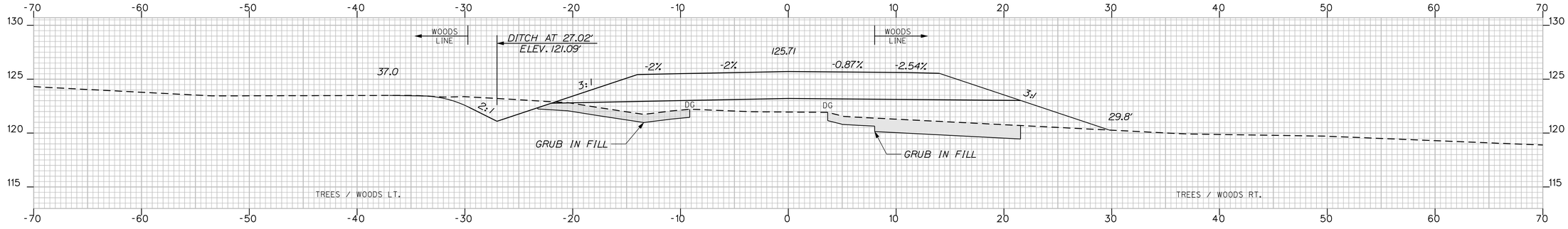
62

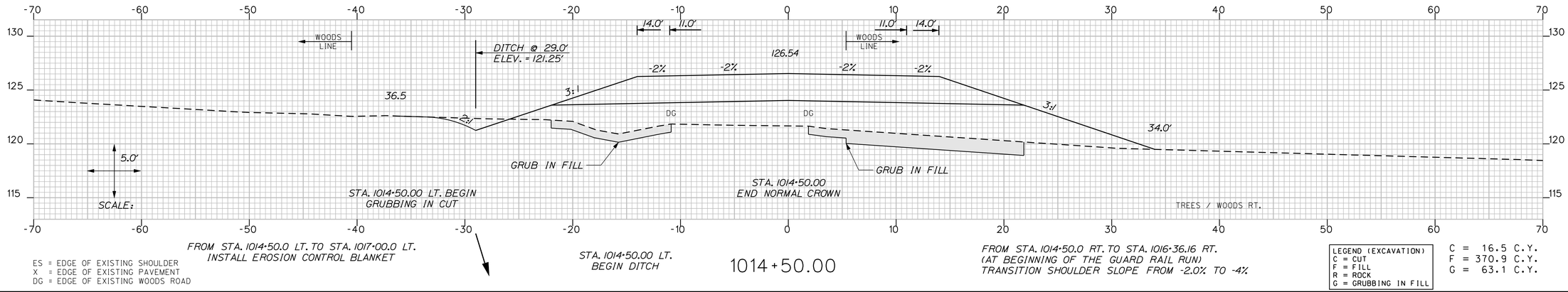
OF 151

Filename: ...\062_1013+00.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012









STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Manzer	X
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	NMC \ JH	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

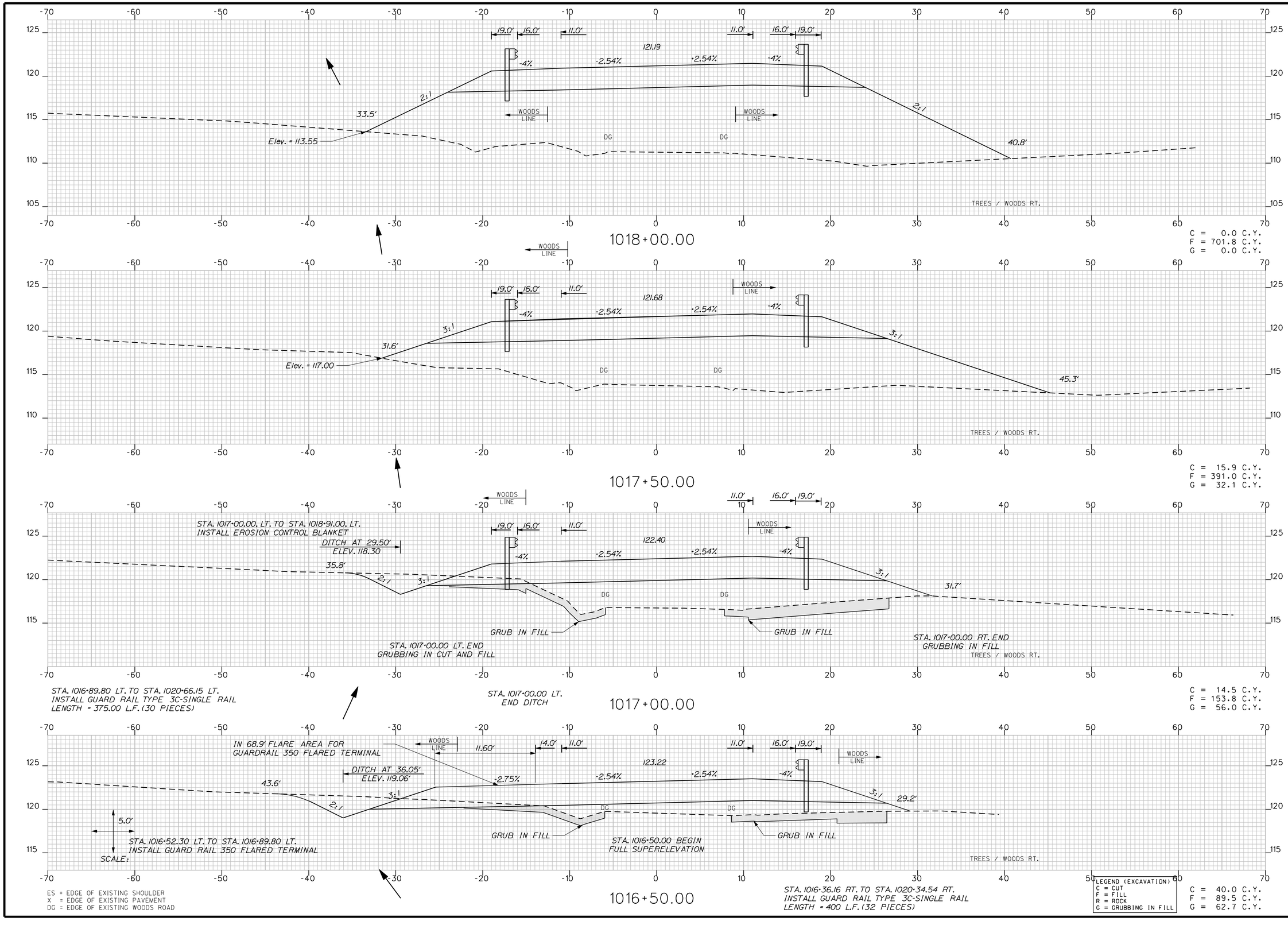
1014+50.00 CROSS SECTIONS 1016+00.00

SHEET NUMBER

63

OF 151

Filename: ...\063_1014+50.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

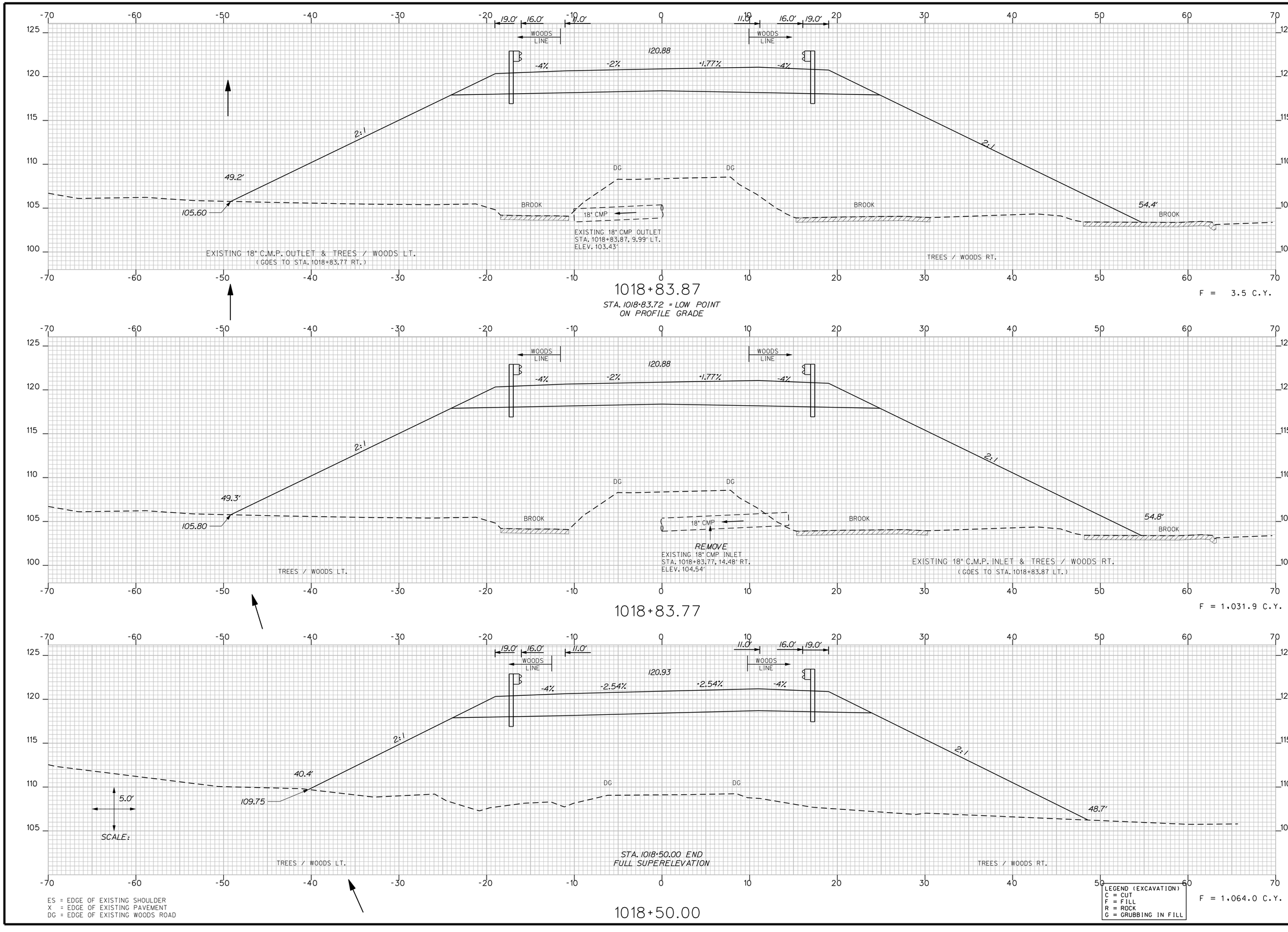
1016+50.00 CROSS SECTIONS *1018+00.00*

SHEET NUMBER

64

OF 151

Filename: ...\064_1016+50.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN				
DESIGN-DETAILED	J. Monzer	BY	X	DATE	
CHECKED-REVIEWED	-----	NMC \ JH	-----	SIGNATURE	
DESIGN2-DETAILED2	-----	-----	-----	-----	
DESIGN3-DETAILED3	-----	-----	-----	P.E. NUMBER	
REVISIONS 1	-----	-----	-----	-----	
REVISIONS 2	-----	-----	-----	-----	
REVISIONS 3	-----	-----	-----	DATE	
REVISIONS 4	-----	-----	-----	-----	
FIELD CHANGES	-----	-----	-----	-----	

ELLSWORTH
ROUTE 180

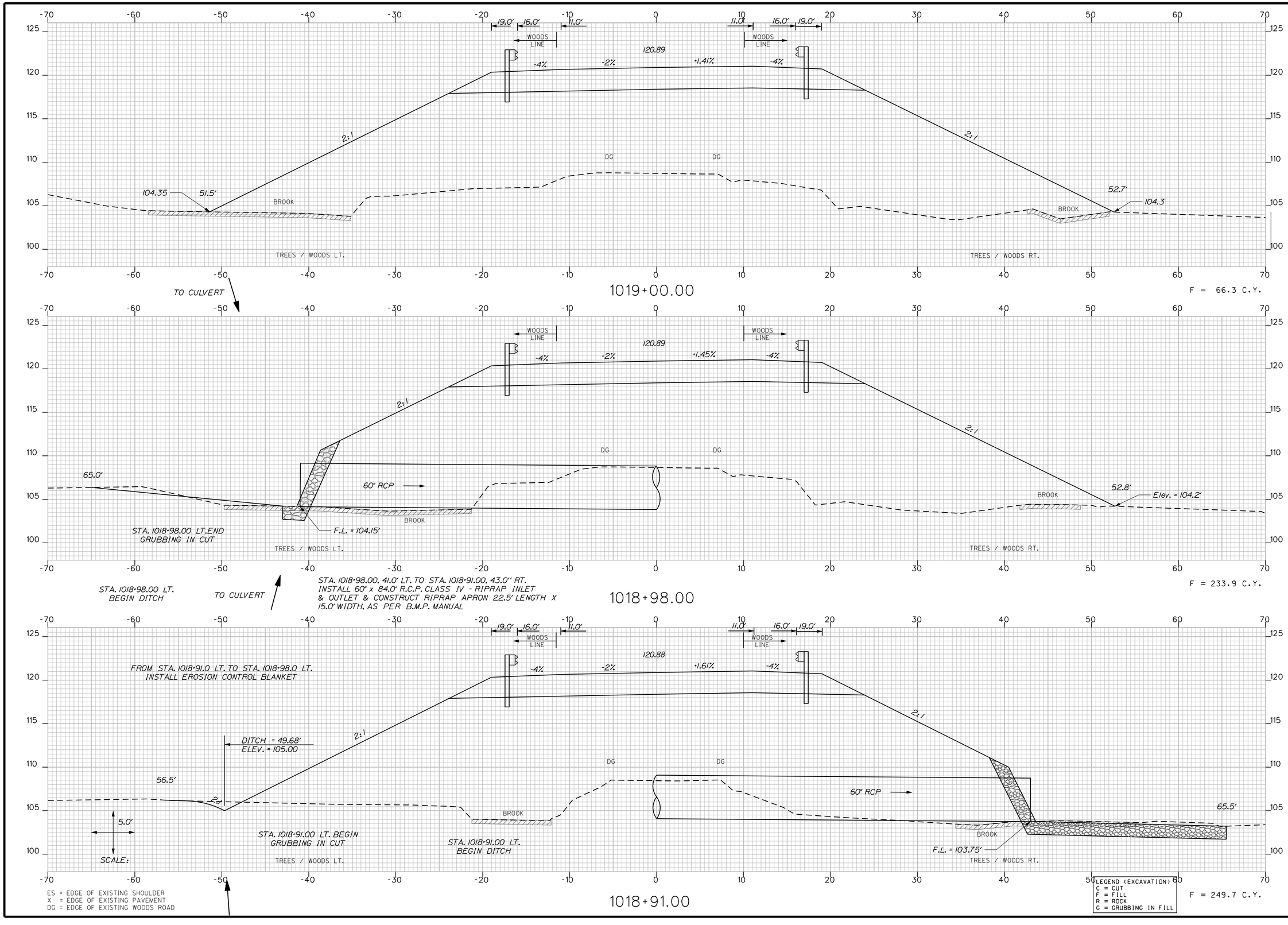
1018+50.00 CROSS SECTIONS *1018+83.87*

SHEET NUMBER

65

OF 151

Filename: ...\065_1018+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	-----	-----
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

BY | DATE

NMC \ JH | X

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1018+91.00 CROSS SECTIONS *1019+00.00*

SHEET NUMBER

66

OF 151

Filename: ...\066_1018-91.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012
Username: Natasha.M.Collins
Division: 07 HIGHWAY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

	BY	DATE
ERNIE MARTIN	X	
PROJ. MANAGER		SIGNATURE
DESIGN-DETAILED	NMC \ JH	
CHECKED-REVIEWED	J. Monzer	P.E. NUMBER
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		DATE
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ELLSWORTH
ROUTE 180

1019+50.00 CROSS SECTIONS 1020+63.64

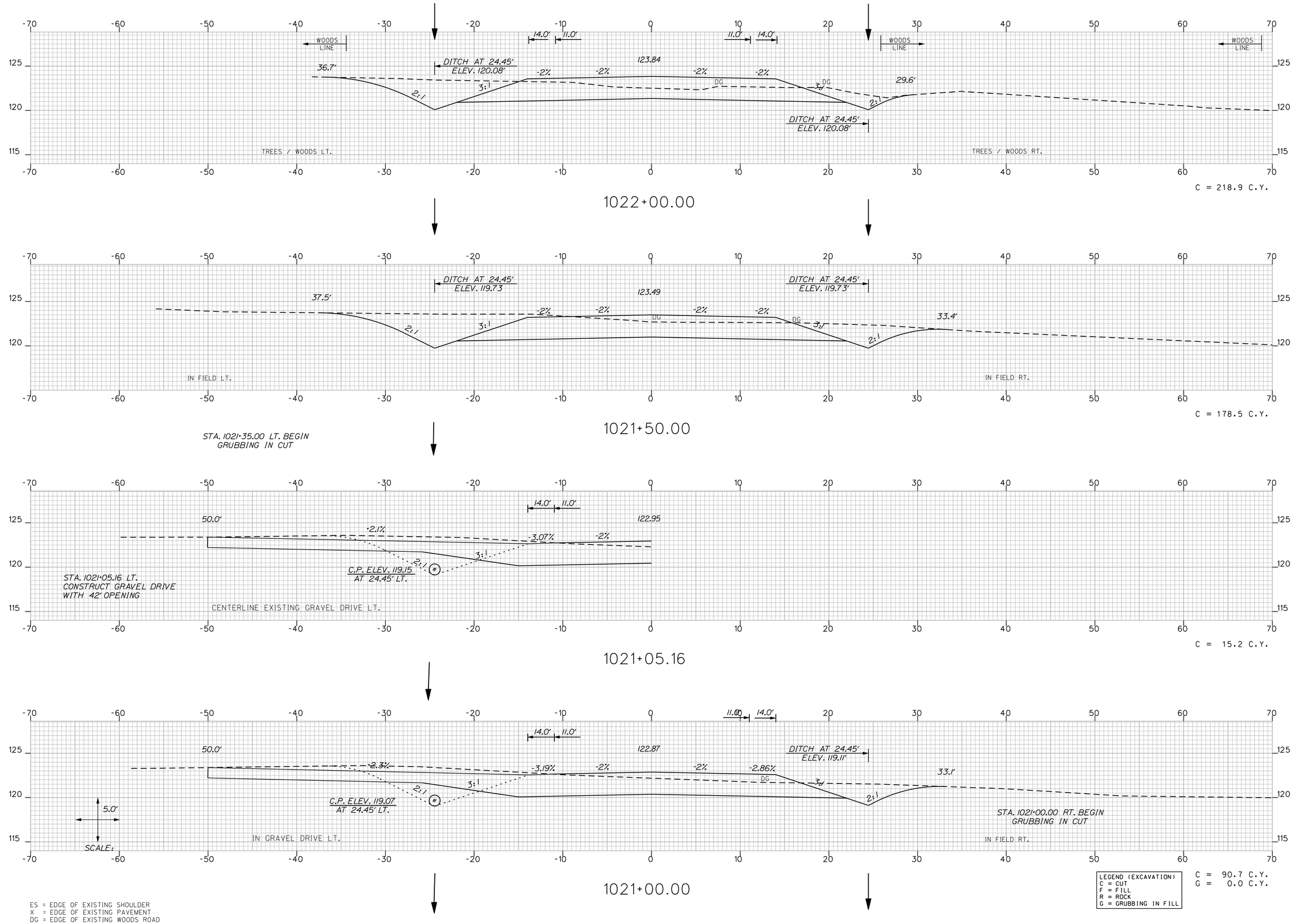
SHEET NUMBER

67

OF 151

Usernome: Natasha.M.Collins Date:4/13/2012

Filename: ...\067_1019+50.00-DRAW-XSMC20-SECTS02.dgn HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1021+00.00 CROSS SECTIONS *1022+00.00*

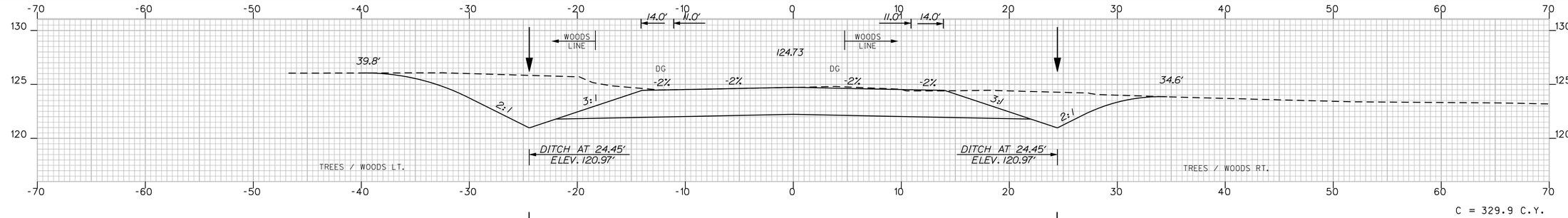
SHEET NUMBER

68

OF 151

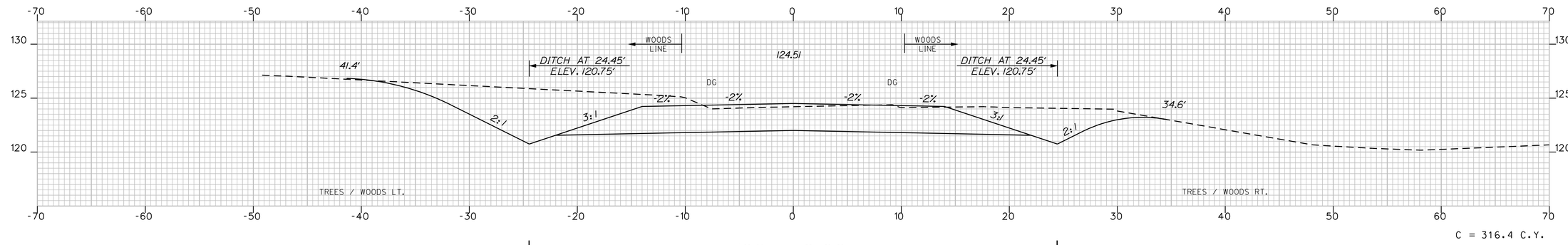
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\068_1021+00.00-DRAW-XSMC20-SECTS.dgn Division: 029 HIGHWAY



C = 329.9 C.Y.

1024+00.00

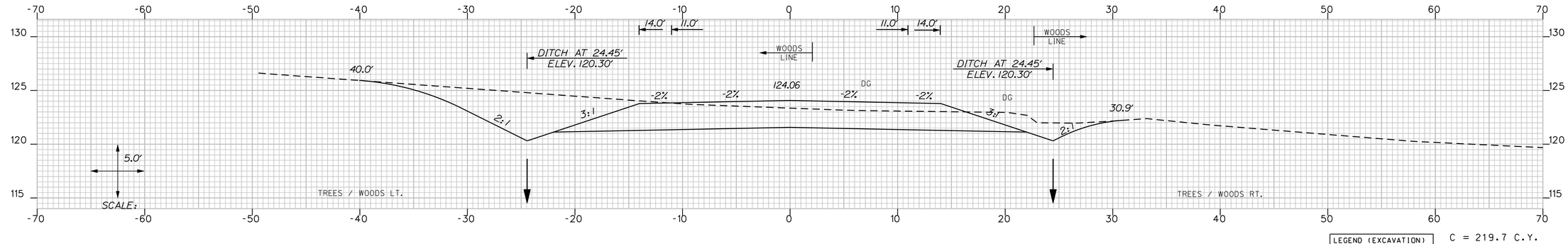


C = 316.4 C.Y.

1023+50.00

C = 273.2 C.Y.

1023+00.00



C = 219.7 C.Y.

1022+50.00

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	BY	DATE
CHECKED-REVIEWED	-----	NMC \ JH	X
DESIGN2-DETAILED2	-----	WED	-----
DESIGN3-DETAILED3	-----	ED2	-----
REVISIONS 1	-----	ED3	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

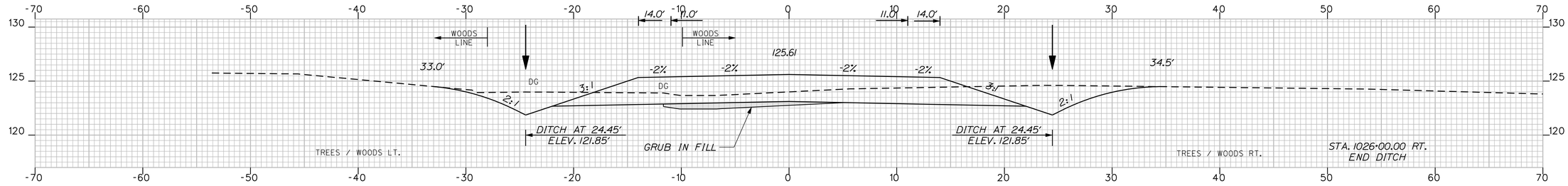
1022+50.00 CROSS SECTIONS *1024+00.00*

SHEET NUMBER

69

OF 151

Filename: ...\069_1022+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins

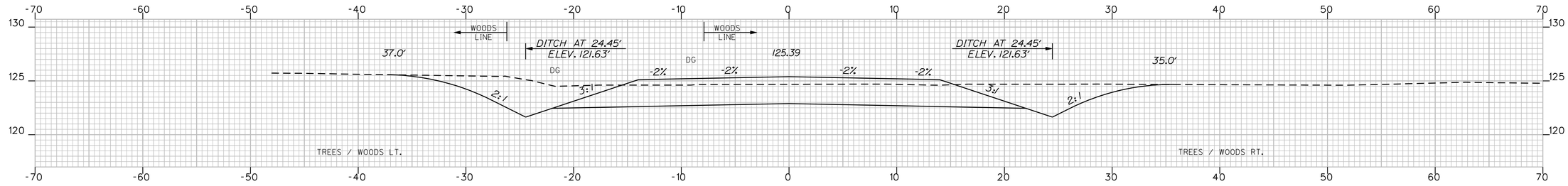


C = 191.9 C.Y.
F = 0.0 C.Y.
G = 5.9 C.Y.

1026+00.00

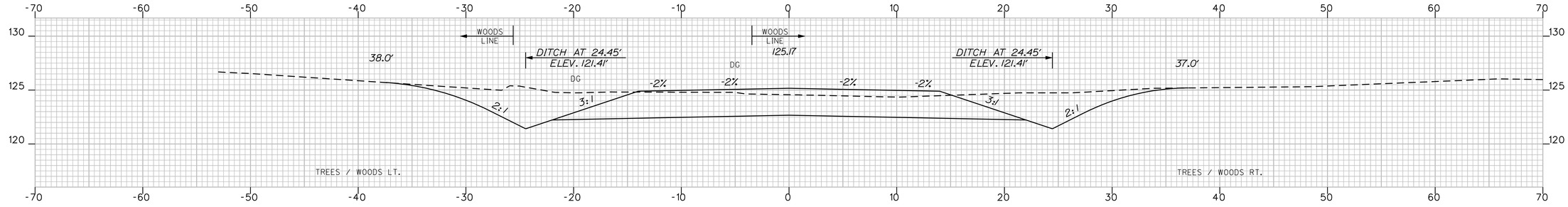
STA. 1026+00.00 LT. = END GRUBBING IN CUT & BEGIN GRUBBING IN FILL

STA. 1026+00.00 RT. END GRUBBING IN CUT AND BEGIN GRUBBING IN FILL



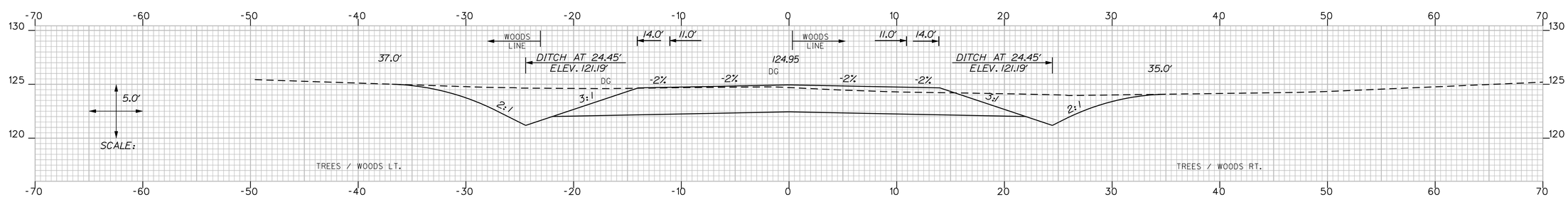
C = 249.5 C.Y.
G = 0.0 C.Y.

1025+50.00



C = 258.4 C.Y.

1025+00.00



C = 288.1 C.Y.

1024+50.00

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

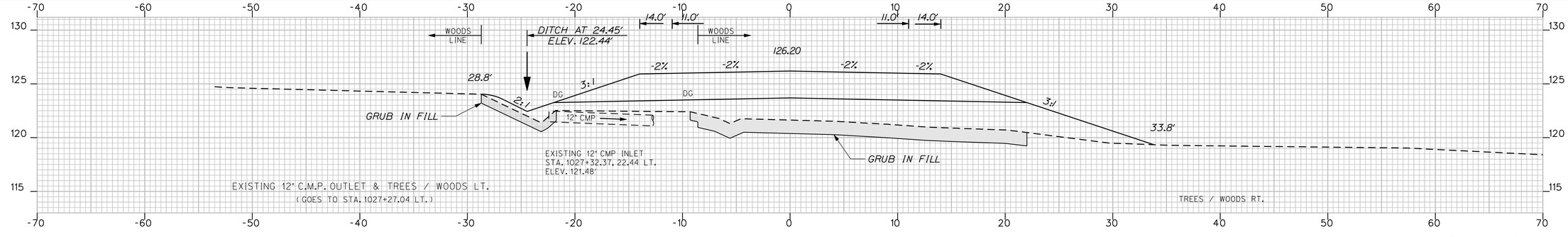
1024+50.00 CROSS SECTIONS 1026+00.00

SHEET NUMBER

70

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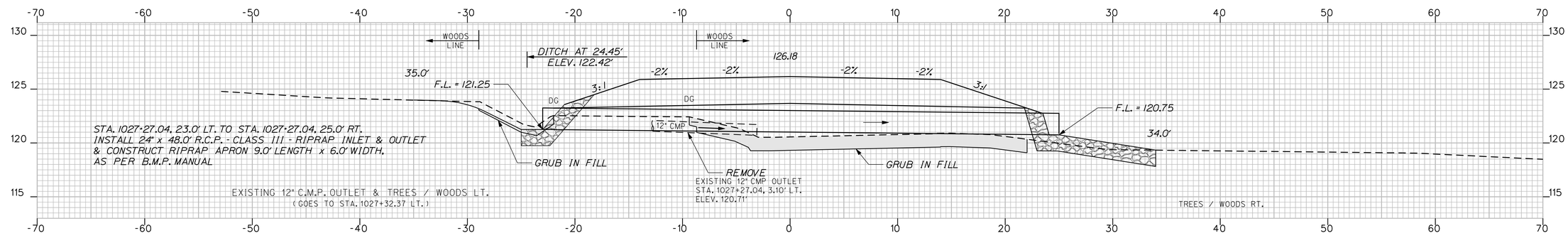
Filename: ...\070_1024+50.00-DRAW-XSMC20-SECTIONS.dgn Date:4/13/2012 Username: Natasha.M.Collins



F = 21.7 C.Y.
G = 8.9 C.Y.

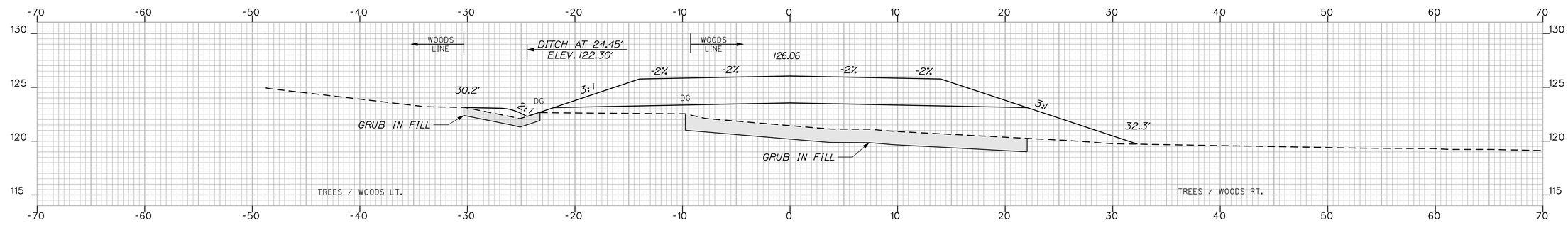
(TO CULVERT)

1027+32.37



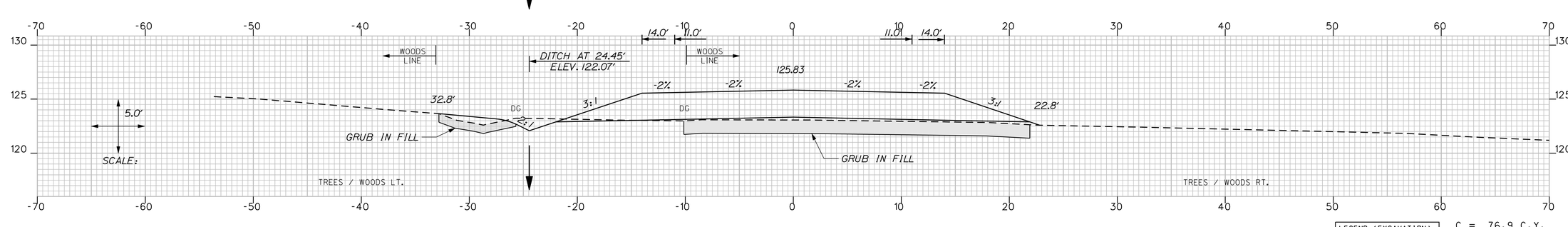
C = 0.0 C.Y.
F = 106.7 C.Y.
G = 45.5 C.Y.

1027+27.04



C = 3.8 C.Y.
F = 96.7 C.Y.
G = 84.3 C.Y.

1027+00.00



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 76.9 C.Y.
F = 8.0 C.Y.
G = 48.0 C.Y.

1026+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		DATE
DESIGN-DETAILED	J. Manzer	BY	X
CHECKED-REVIEWED	-----	NMC \ JH	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

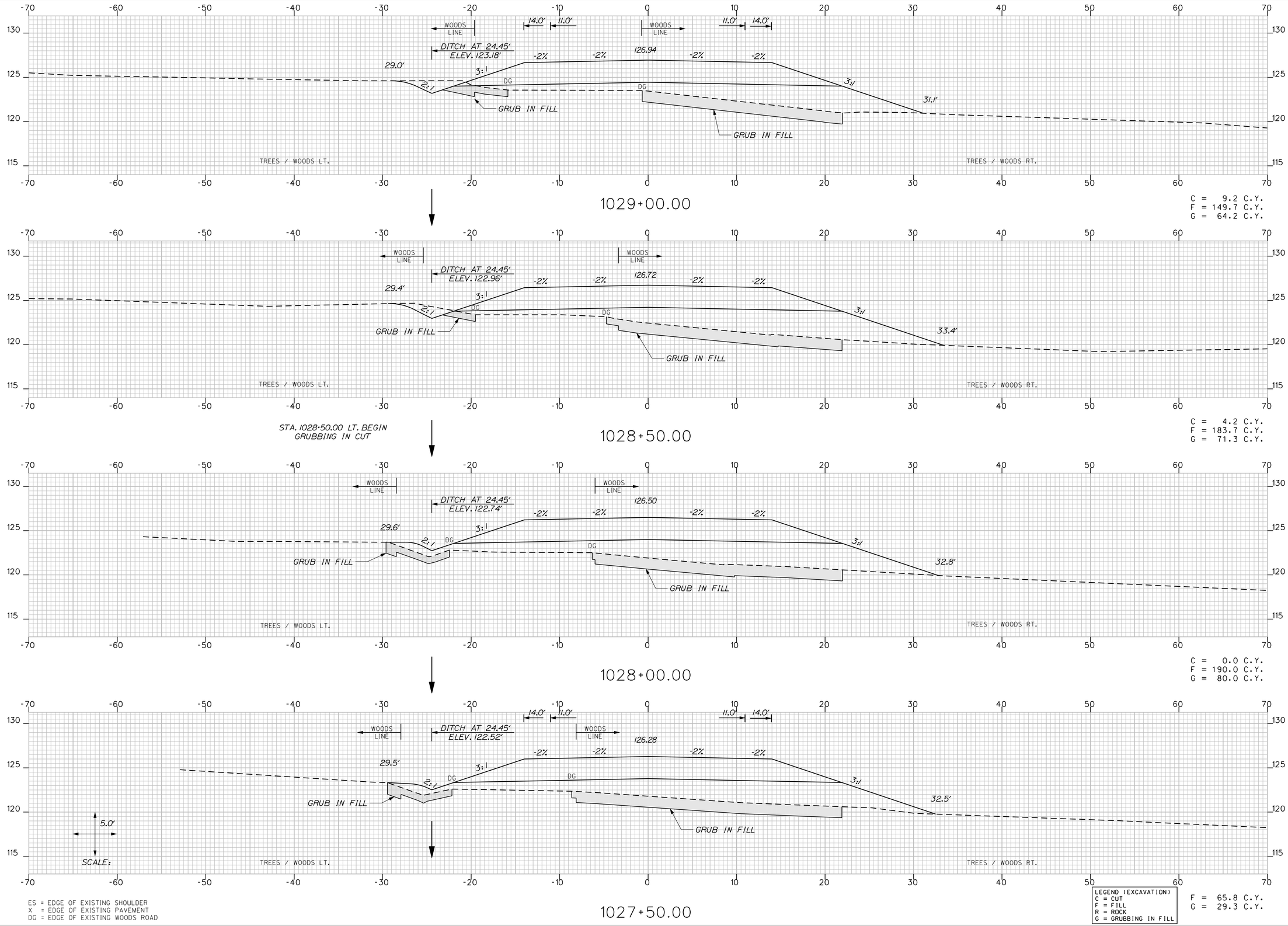
1026+50.00 CROSS SECTIONS 1027+32.37

SHEET NUMBER

71

OF 151

Filename: ...\071_1026+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN2-DETAILED2
DESIGN3-DETAILED3
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES
HIGHWAY



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

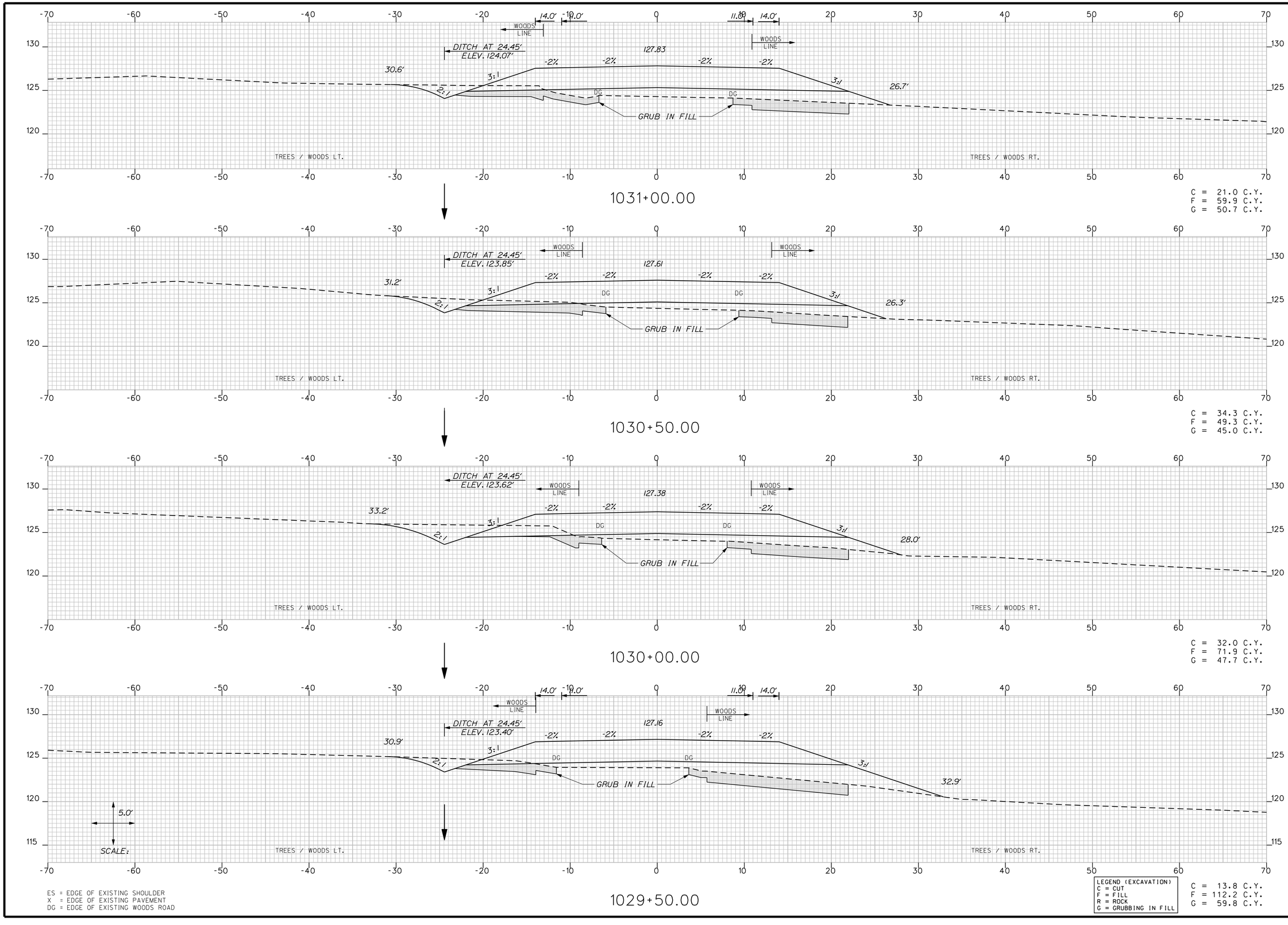
1027+50.00 CROSS SECTIONS 1029+00.00

SHEET NUMBER

72

OF 151

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\072_1027+50.00-DRAW-XSMC20-SECTS.dgn Dgn:3D-HIGHWAY



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\073_1029+50.00-DRAW-XSMC20-SECTS.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

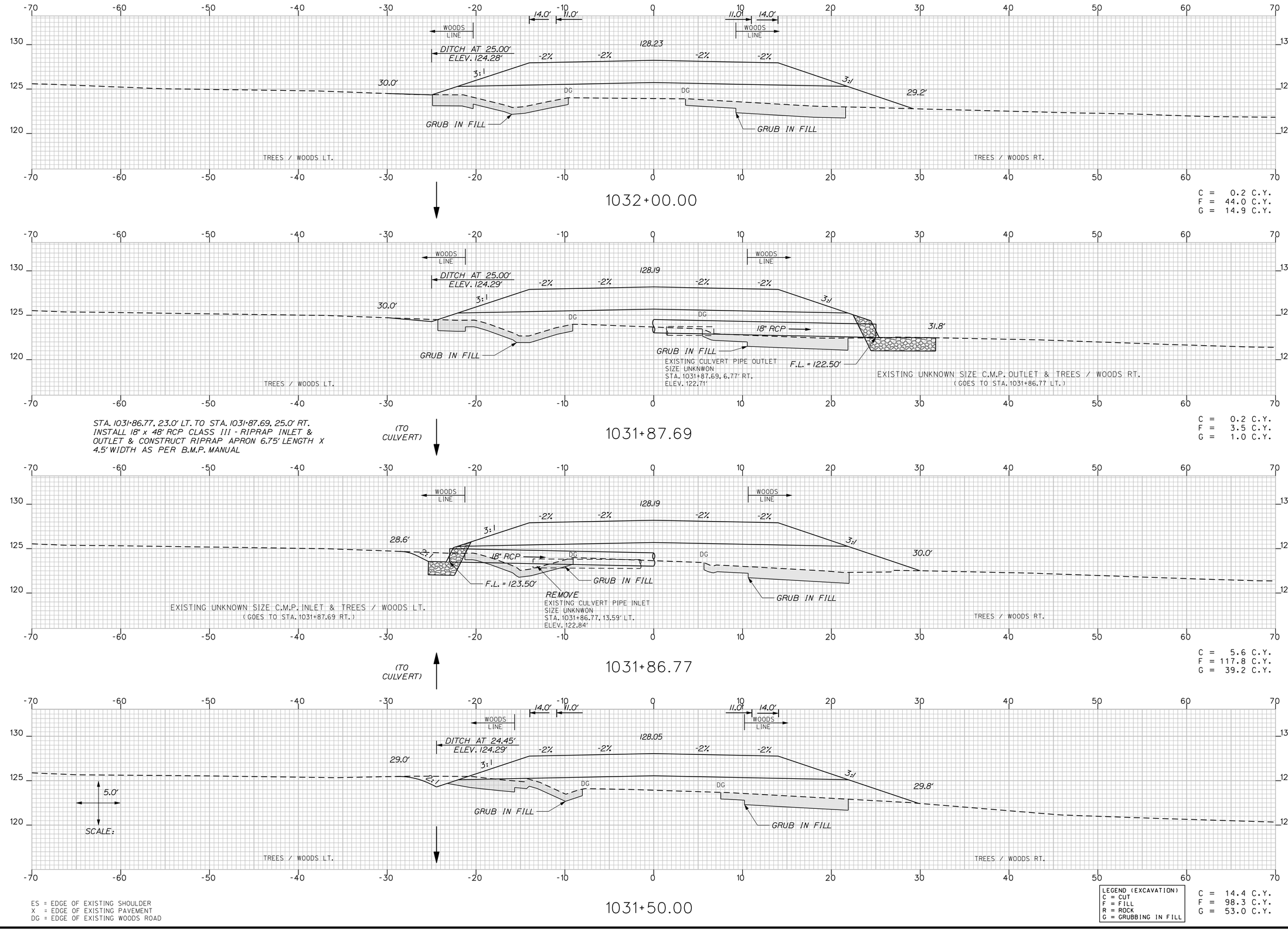
ELLSWORTH
ROUTE 180

1029+50.00 CROSS SECTIONS 1031+00.00

SHEET NUMBER

73

OF 151



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1031+50.00 CROSS SECTIONS 1032+00.00

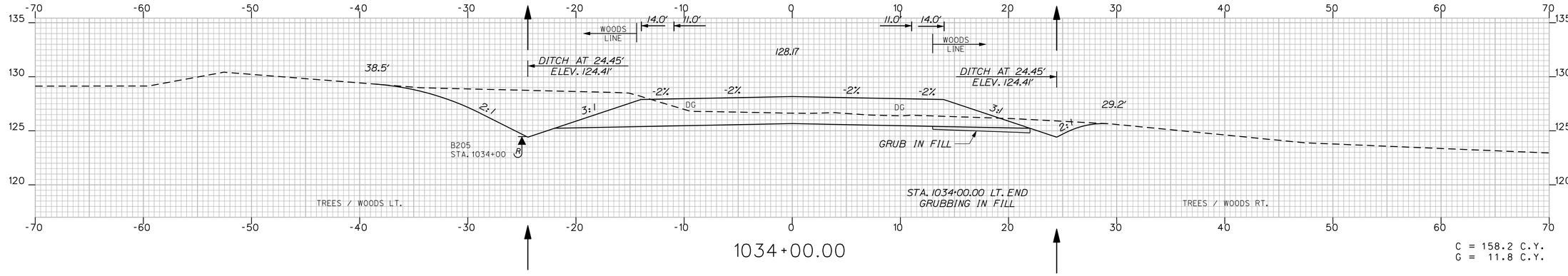
SHEET NUMBER

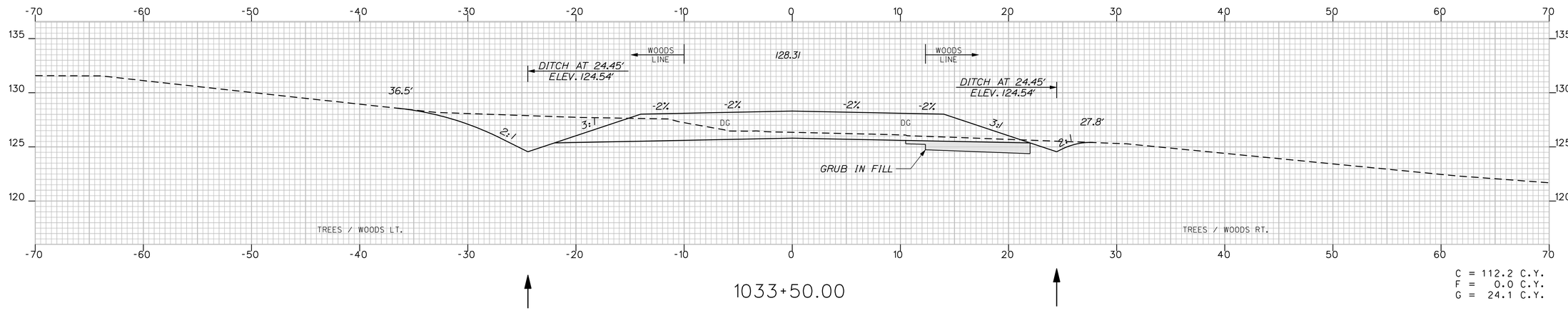
74

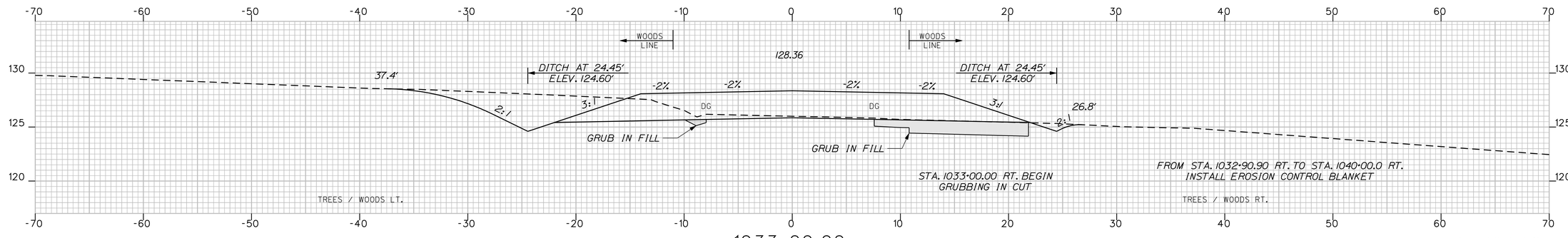
OF 151

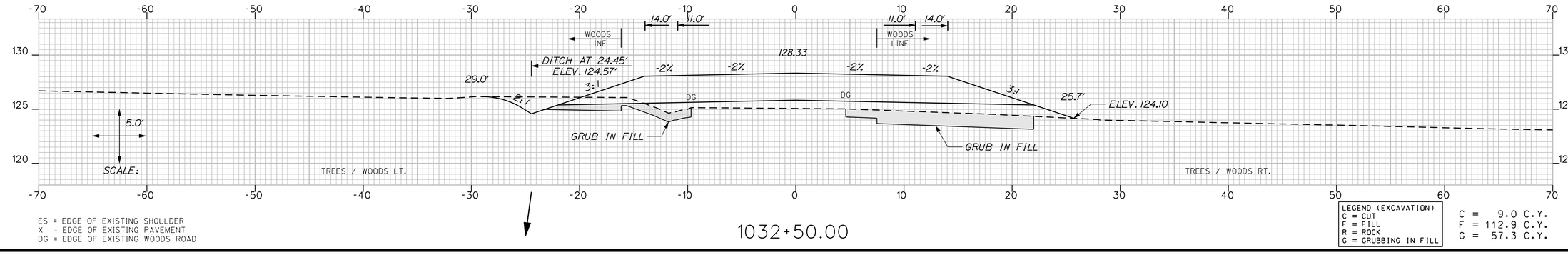
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\074_1031+50.00-DRAW-XSMC20-SECTS.dgn Division: 05 HIGHWAY









ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

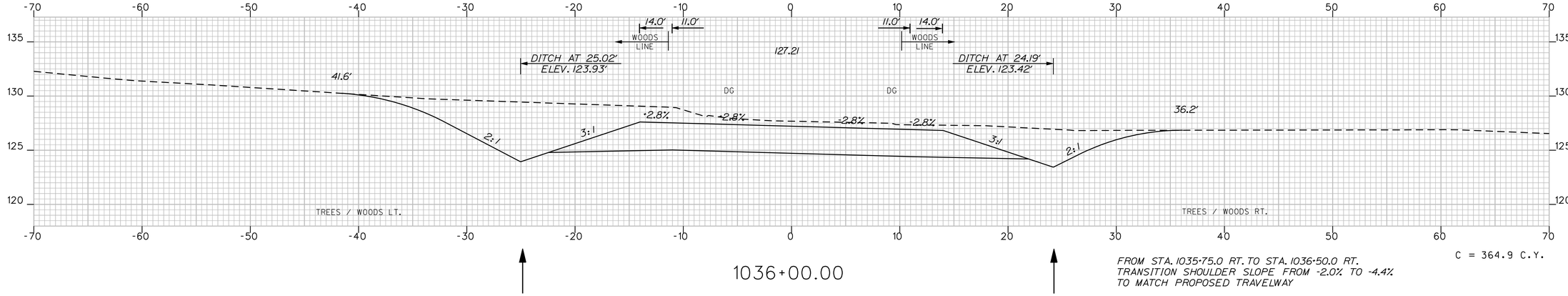
1032+50.00 CROSS SECTIONS *1034+00.00*

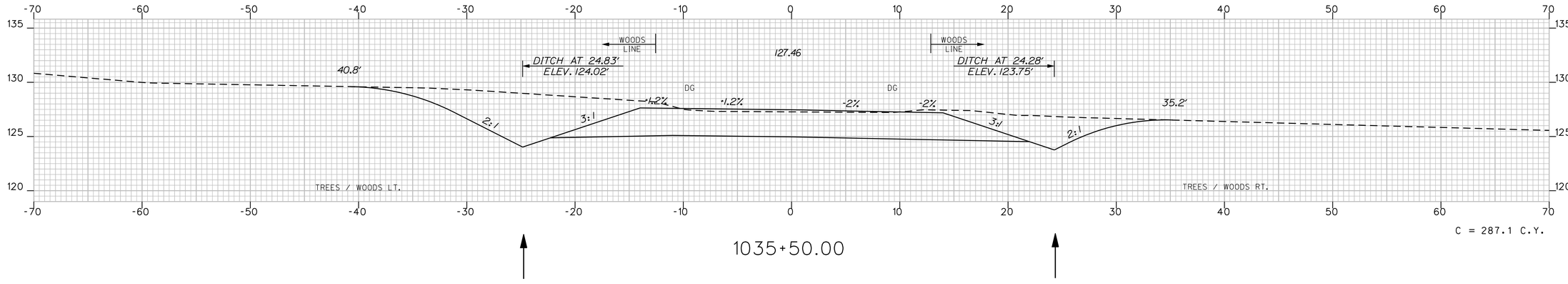
SHEET NUMBER

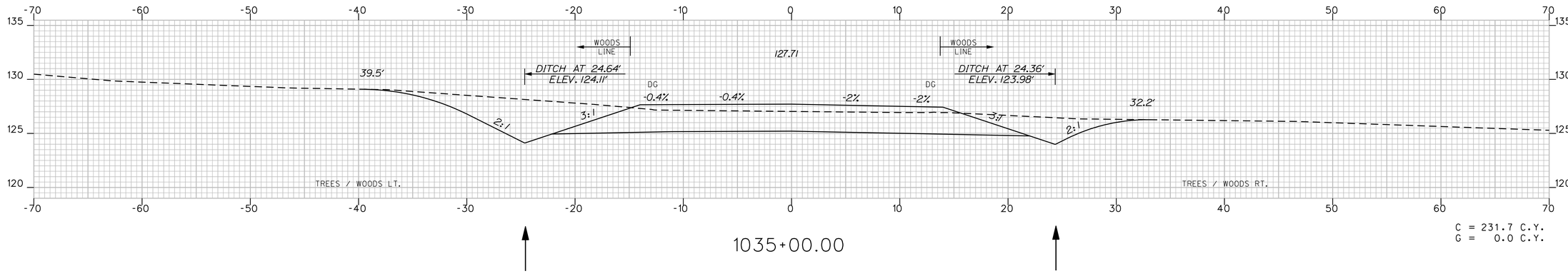
75

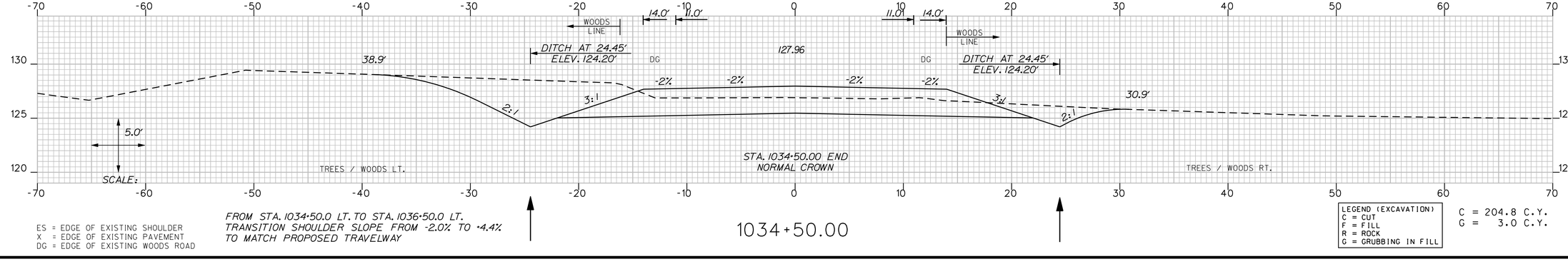
OF 151

Filename: ...\075_1032+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins









STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

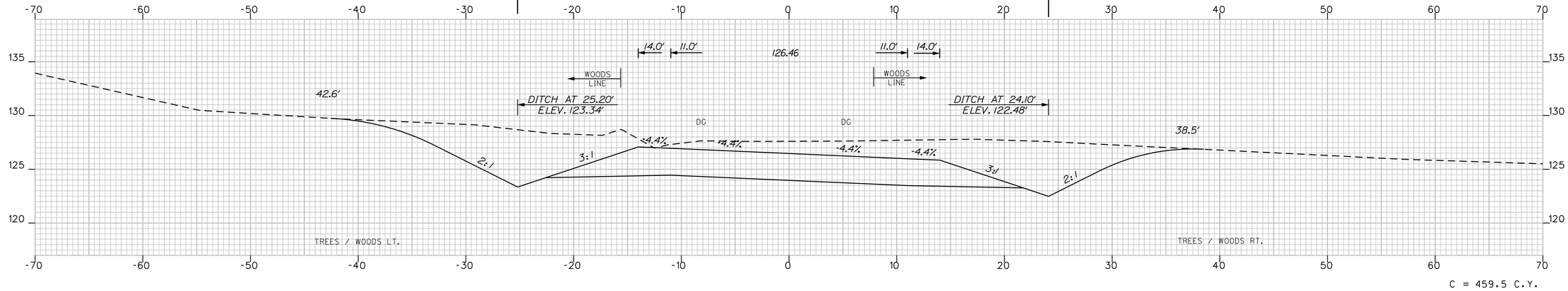
1034+50.00 CROSS SECTIONS 1036+00.00

SHEET NUMBER

76

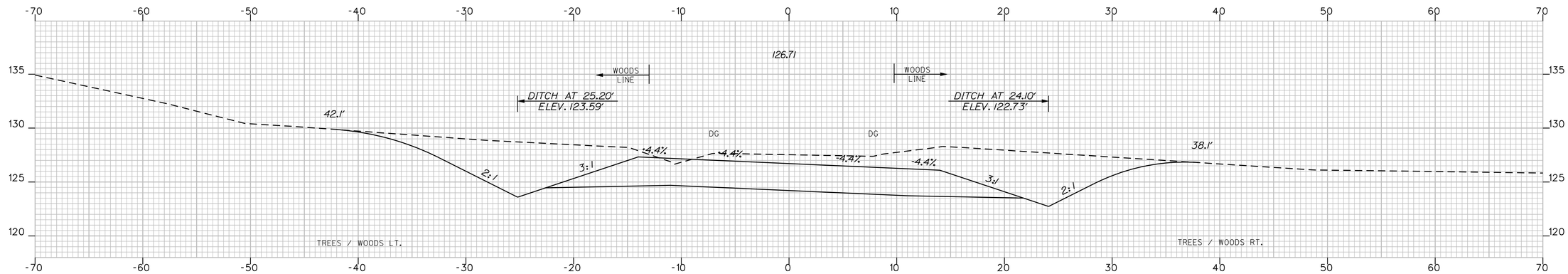
OF 151

Filename: ...\076_1034+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012
Username: Natasha.M.Collins



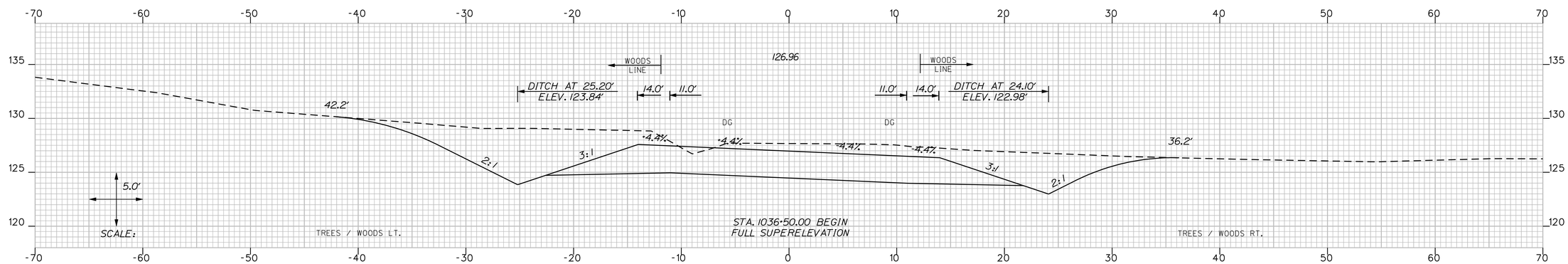
C = 459.5 C.Y.

1037+50.00



C = 421.8 C.Y.

1037+00.00



C = 400.3 C.Y.

1036+50.00

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		DATE
DESIGN-DETAILED	J. Manzer	BY	X
CHECKED-REVIEWED	-----	NMC \ JH	-----
DESIGN2-DETAILED2	-----	-----	SIGNATURE
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	P.E. NUMBER
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	DATE
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

ELLSWORTH
ROUTE 180

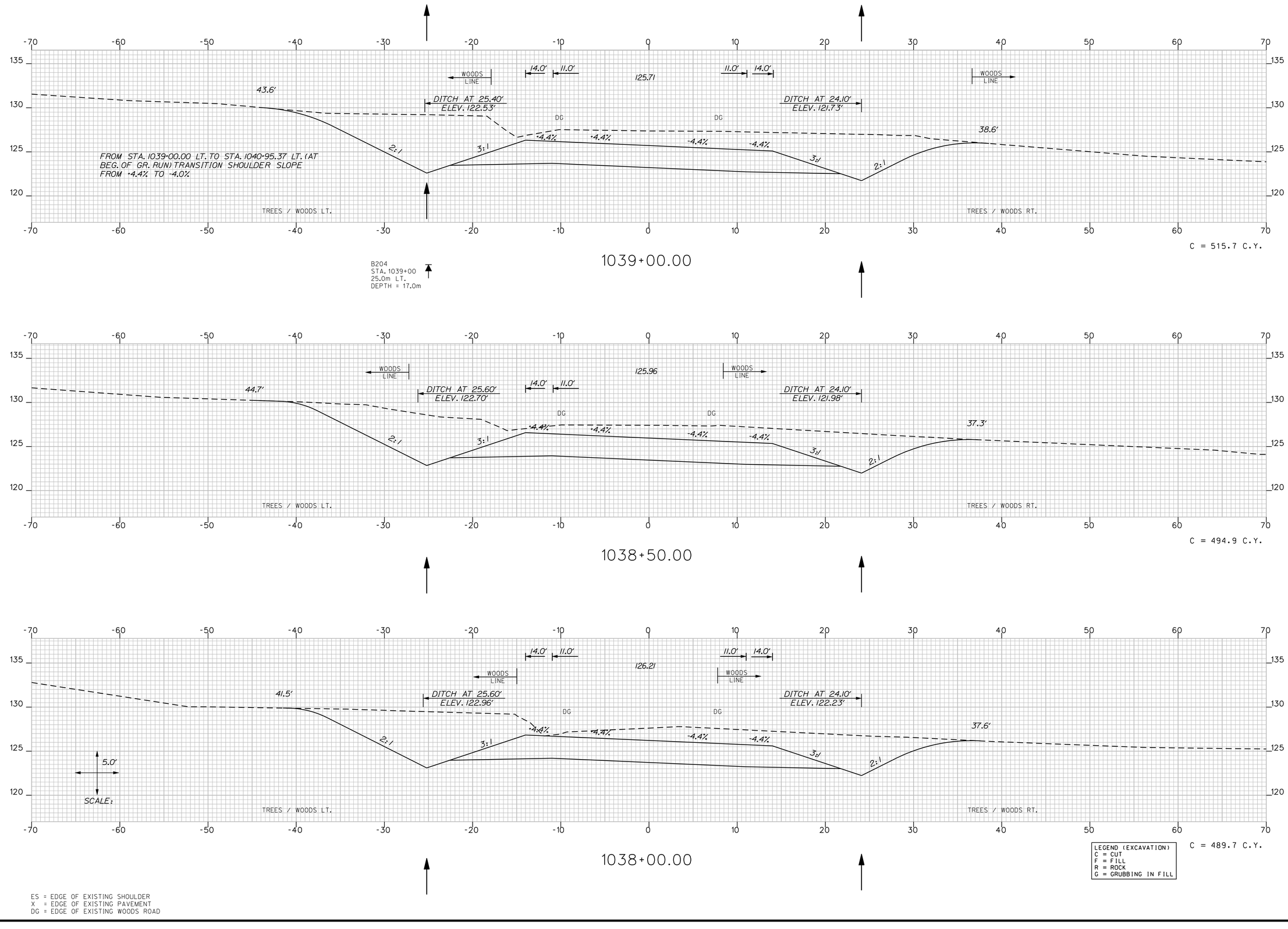
1036+50.00 CROSS SECTIONS *1037+50.00*

SHEET NUMBER

77

OF 151

Filename: ...\077_1036+50.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1038+00.00 CROSS SECTIONS *1039+00.00*

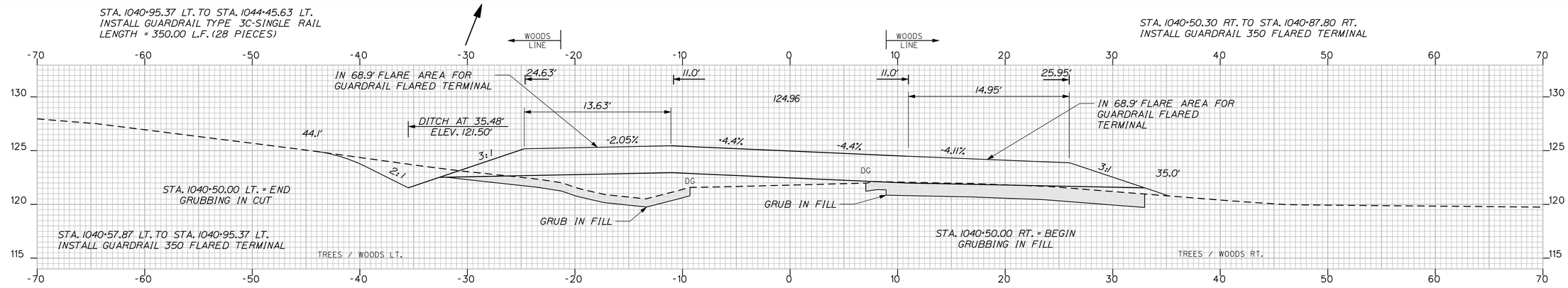
SHEET NUMBER

78

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\078_1038+00.00-DRAW-XSMC20-SECTS.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1039+50.00 CROSS SECTIONS 1040+50.00

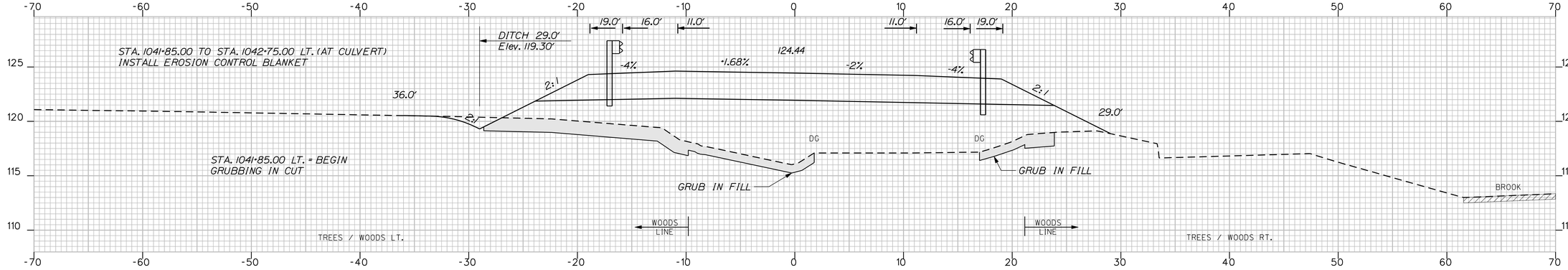
SHEET NUMBER

79

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\079_1039+50.00-DRAW-XSMC20-SECTS.dgn 04 HIGHWAY

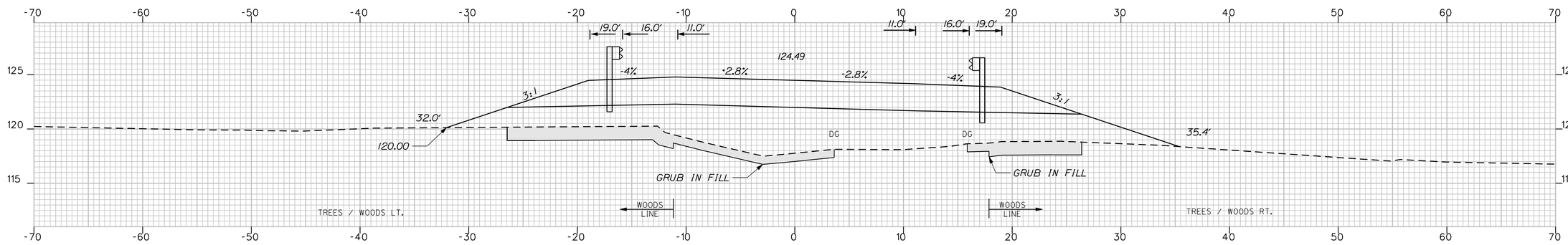


STA. 1041+85.00 LT. BEGIN DITCH
(DITCH AGAINST GRADE TO PROPOSED
CONCRETE BOX CULVERT)

C = 1.8 C.Y.
F = 217.9 C.Y.
G = 53.0 C.Y.

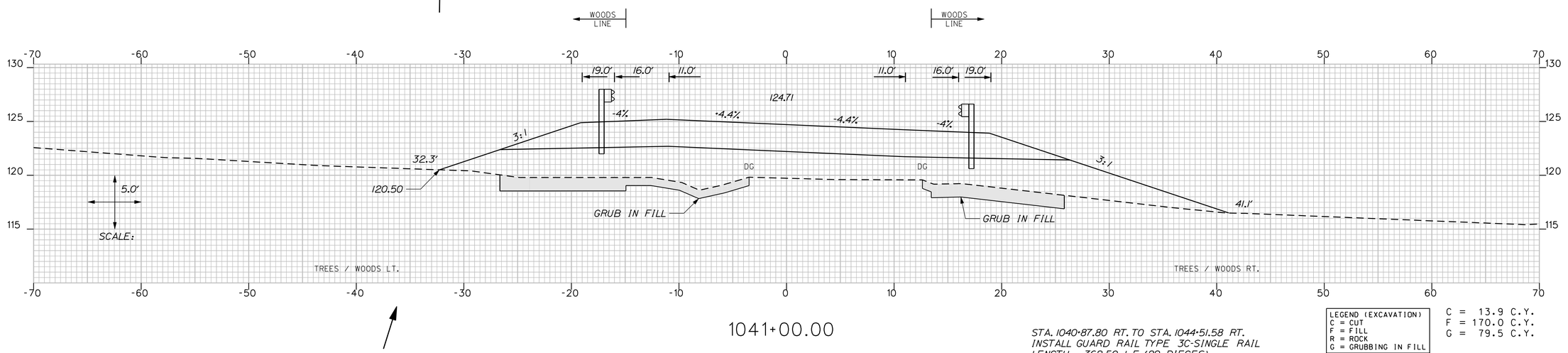
1041+85.00

STA. 1041+85.00 = LOW POINT
ON PROFILE GRADE



C = 0.0 C.Y.
F = 276.5 C.Y.
G = 76.6 C.Y.

1041+50.00



1041+00.00

STA. 1041+00 END
FULL SUPERELEVATION

STA. 1040+87.80 RT. TO STA. 1044+51.58 RT.
INSTALL GUARD RAIL TYPE 3C-SINGLE RAIL
LENGTH = 362.50 L.F. (29 PIECES)

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 13.9 C.Y.
F = 170.0 C.Y.
G = 79.5 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

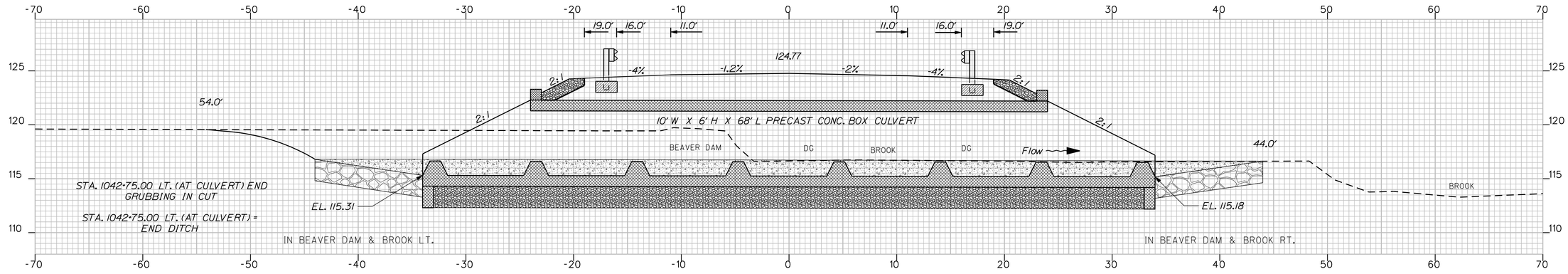
1041+00.00 CROSS SECTIONS 1041+85.00

SHEET NUMBER

80

OF 151

Filename: ...\080_1041+00.00-DRAW-XSMC20-SECTS.dgn Usermame: Natasha.M.Collins Date:4/13/2012

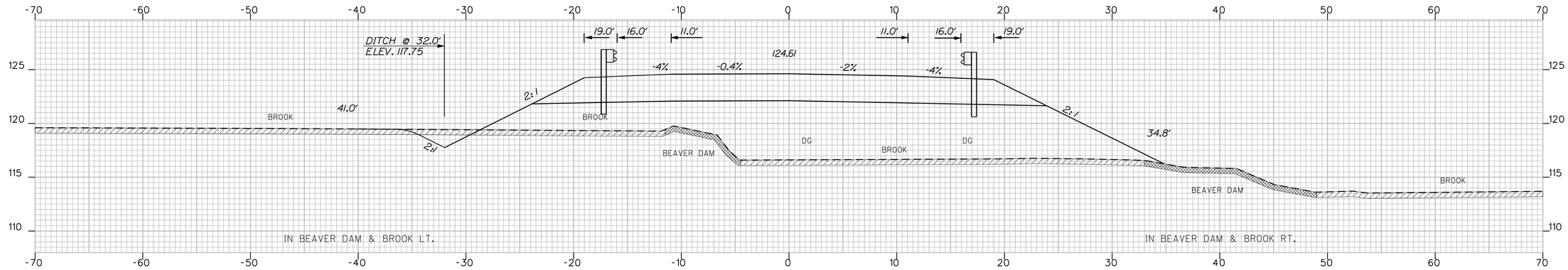


1042+75.00

C = 56.1 C.Y.
F = 208.1 C.Y.
G = 0.0 C.Y.

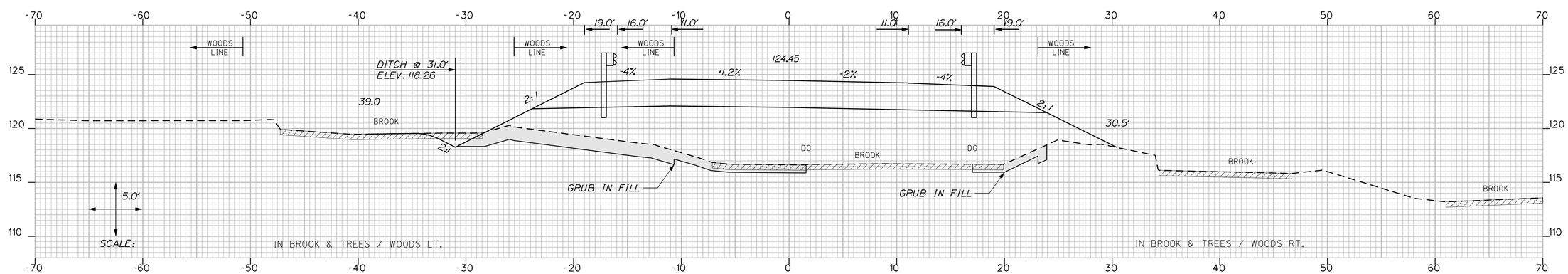
STA. 1042+75.00, 34.0' LT. TO STA. 1042+75.00, 34.0' RT.
INSTALL 10.0' W X 6.0' H X 68.0' L PRECAST CONC. BOX CULVERT RIPRAP INLET & OUTLET
(SEE SPECIAL DETAIL SHEET FOR MORE INFORMATION)

(TO CULVERT)



1042+50.00

C = 8.6 C.Y.
F = 428.4 C.Y.
G = 36.2 C.Y.



1042+00.00

STA. 1042+00.00 LT. END GRUBBING IN FILL

STA. 1042+00.00 RT. END GRUBBING IN FILL

B201
STA. 1042+00
8.0m LT.
DEPTH = 12.8m

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 1.8 C.Y.
F = 114.4 C.Y.
G = 21.7 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	ERNIE MARTIN	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

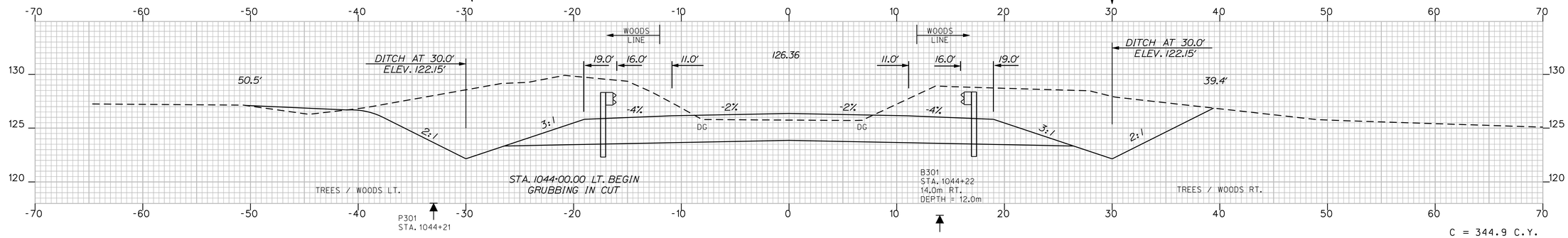
1042+00.00 CROSS SECTIONS 1042+75.00

SHEET NUMBER

81

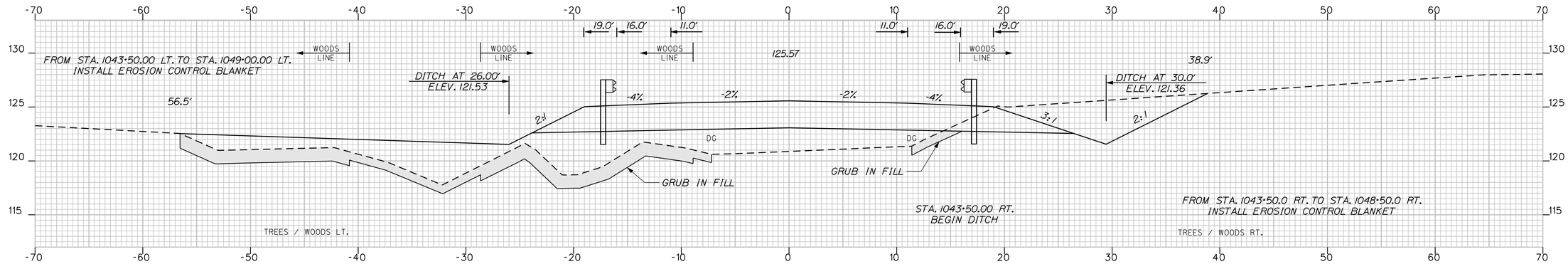
OF 151

Filename: ...\081_1042+00.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012



1044+00.00

C = 344.9 C.Y.
F = 124.2 C.Y.
G = 57.7 C.Y.



1043+50.00

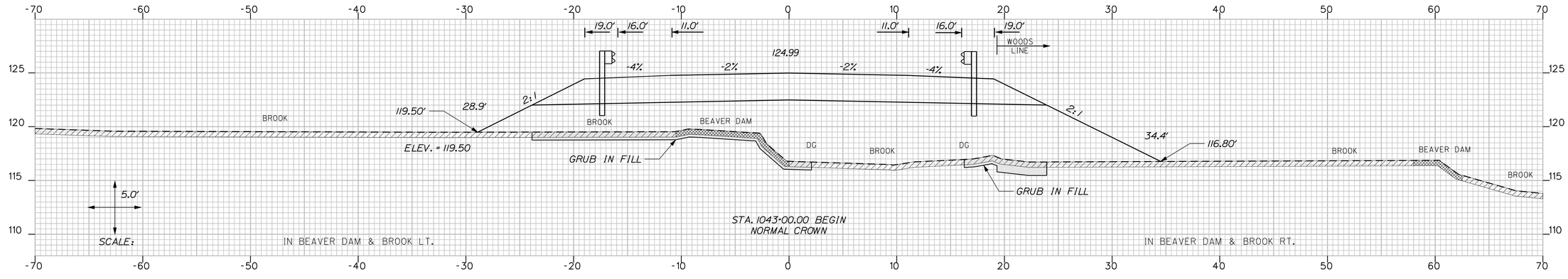
C = 49.9 C.Y.
F = 340.3 C.Y.
G = 81.4 C.Y.

STA. 1043+50.00 LT. END
GRUBBING IN FILL

STA. 1043+50.00 RT. END
GRUBBING IN FILL
AND BEGIN GRUBBING IN CUT

STA. 1043+50.00 RT. TO STA. 1045+00.00 RT. =
DO NOT ROUND BACKSLOPE. AS DIRECTED
BY THE RESIDENT

STA. 1043+50.00 LT.
BEGIN DITCH



1043+00.00

(TO CULVERT)

(TO CULVERT)

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 53.4 C.Y.
F = 205.7 C.Y.
G = 11.9 C.Y.

STA. 1043+00.00 LT. BEGIN
GRUBBING IN FILL

STA. 1043+00.00 RT. BEGIN
GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

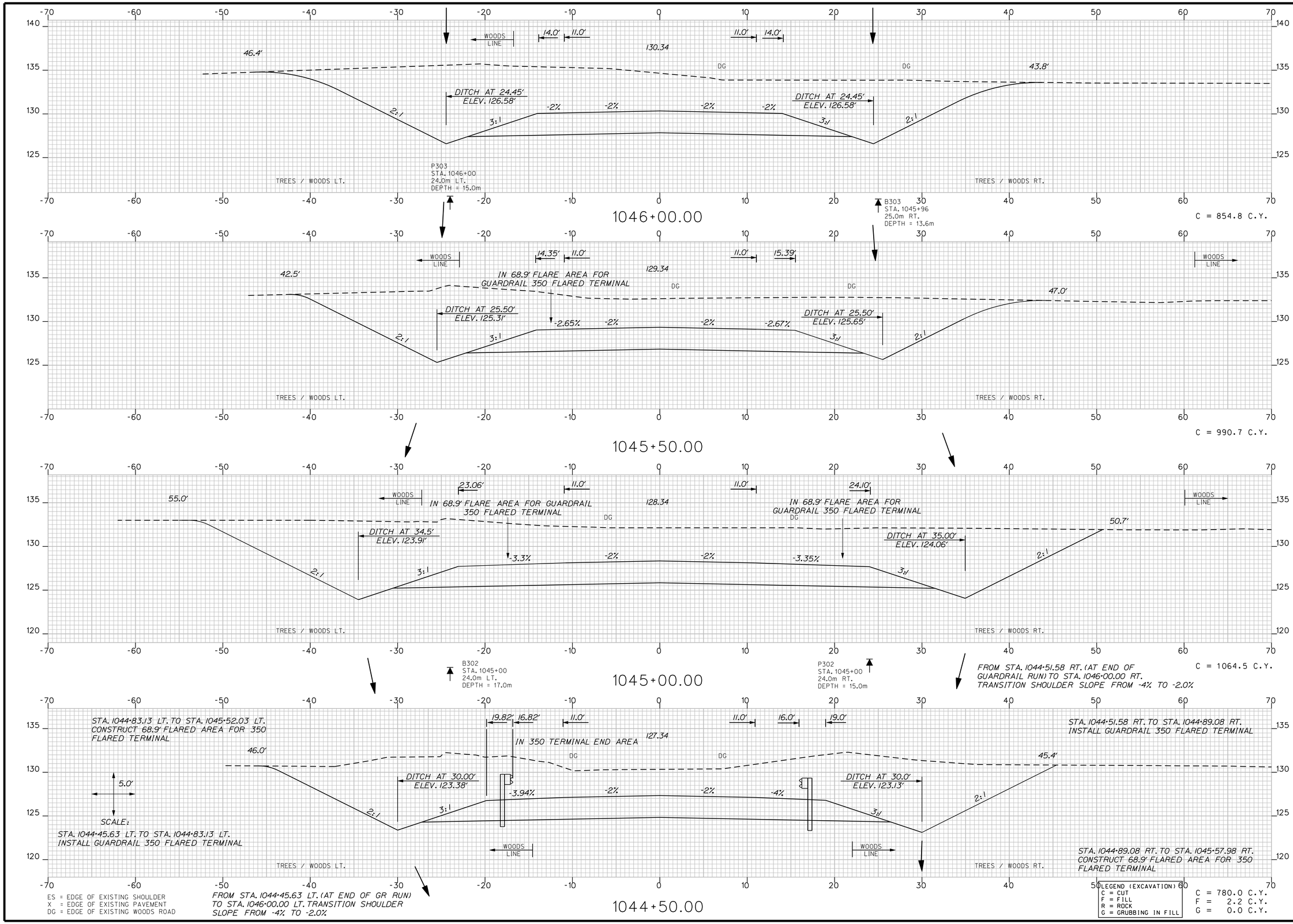
PROJ. MANAGER	ERNIE MARTIN			
DESIGN-DETAILED	J. Manzer	BY	X	DATE
CHECKED-REVIEWED	----	NMC \ JH	----	SIGNATURE
DESIGN2-DETAILED2	----	ED2	----	P.E. NUMBER
DESIGN3-DETAILED3	----	ED3	----	DATE
REVISIONS 1	----		----	
REVISIONS 2	----		----	
REVISIONS 3	----		----	
REVISIONS 4	----		----	
FIELD CHANGES	----		----	

ELLSWORTH
ROUTE 180

1043+00.00 CROSS SECTIONS 1044+00.00

SHEET NUMBER
82
OF 151

Filename: ...\082_1043+00.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

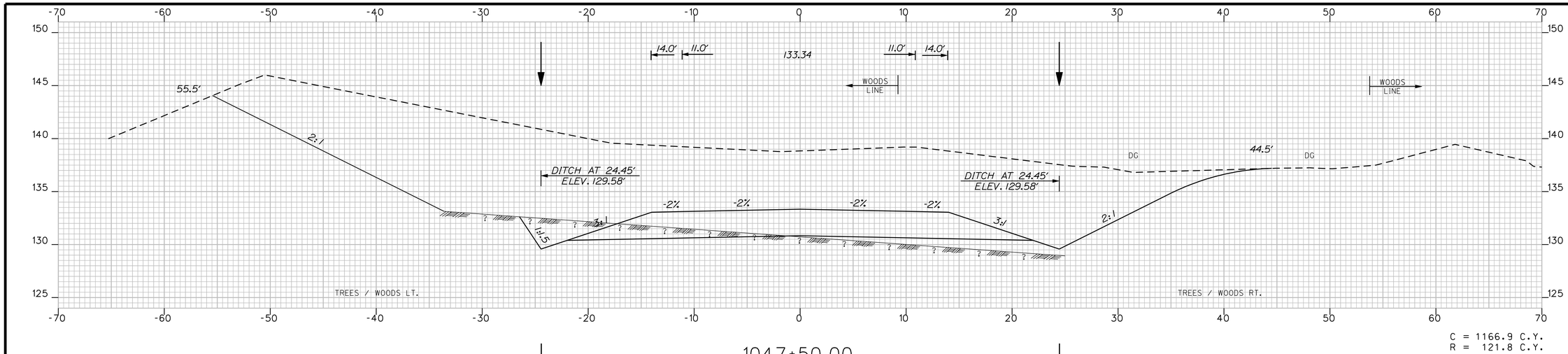
1044+50.00 CROSS SECTIONS *1046+00.00*

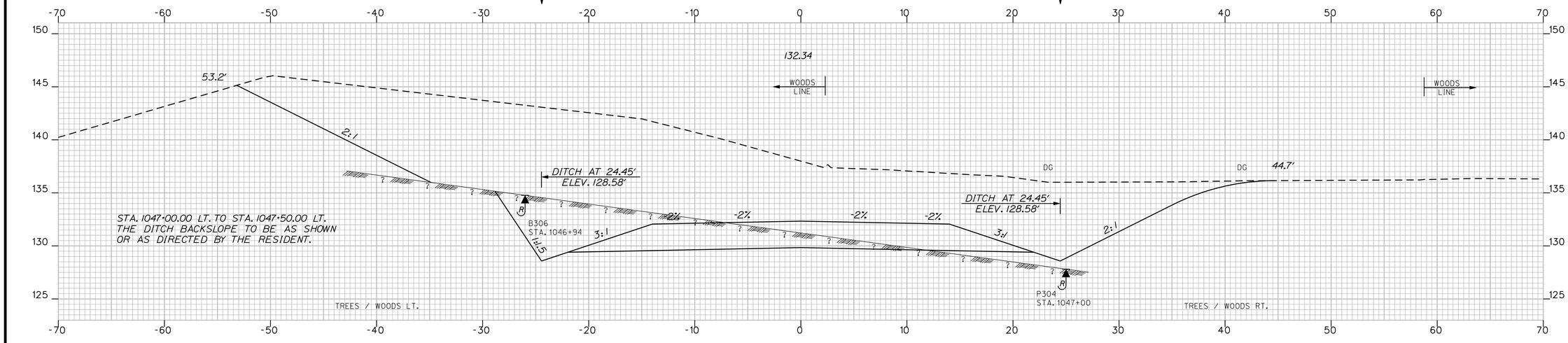
SHEET NUMBER

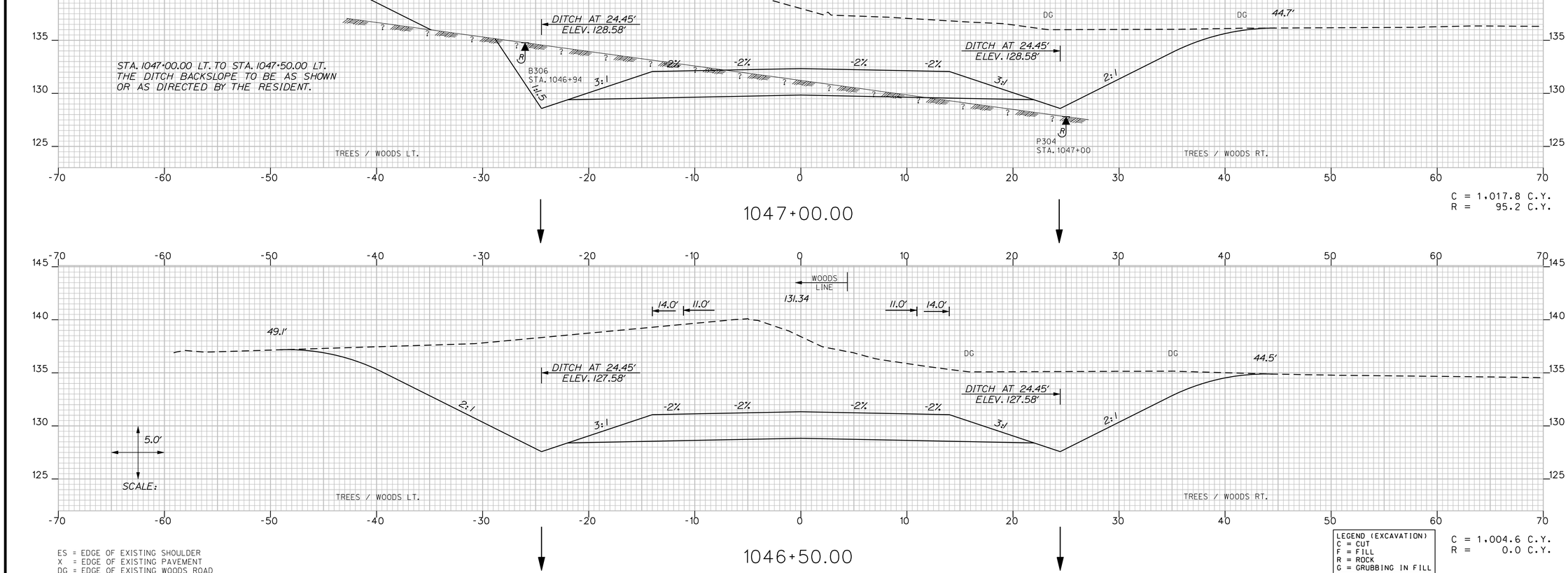
83

OF 151

Filename: ...\083_1044+50.00-DRAW-XSMC20-SECTIONS.dgn Date:4/13/2012 Username: Natasha.M.Collins







ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

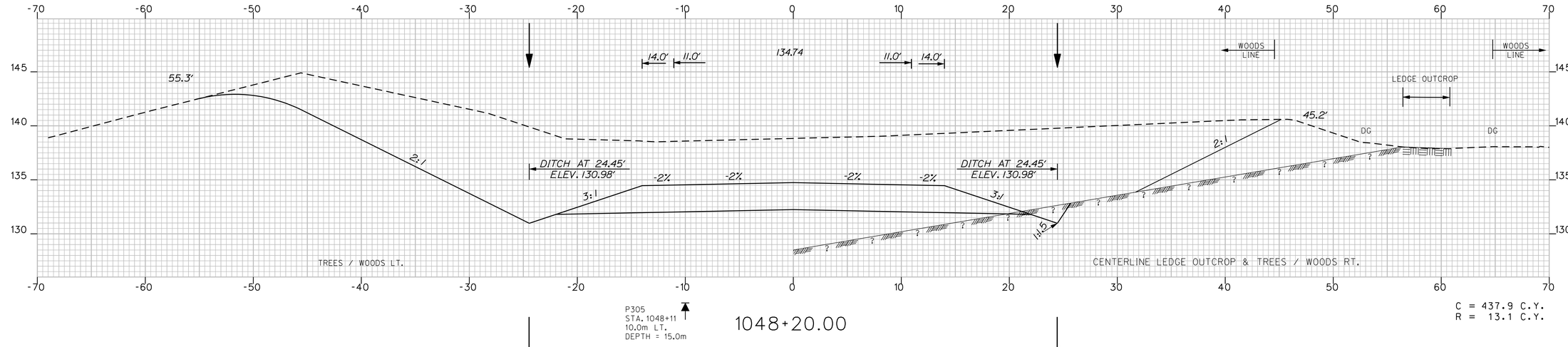
1046+50.00 CROSS SECTIONS *1047+50.00*

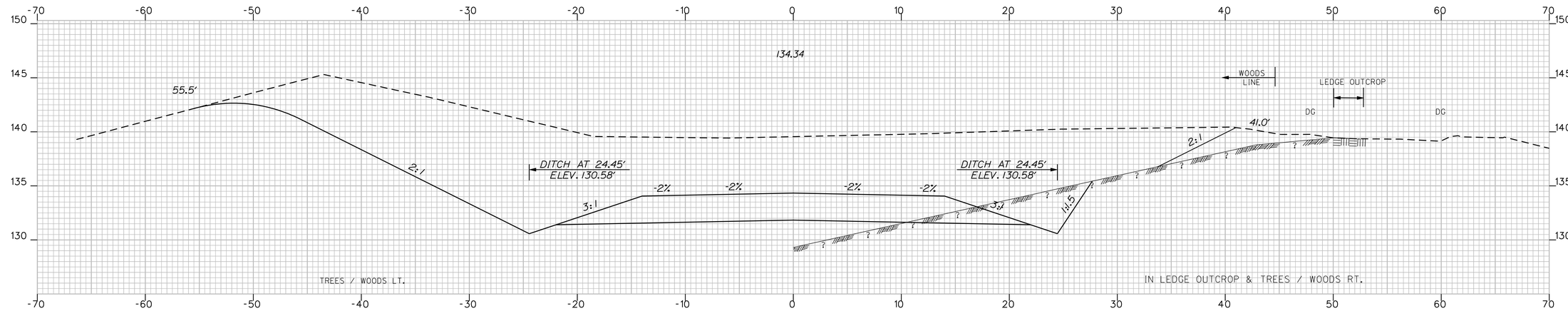
SHEET NUMBER

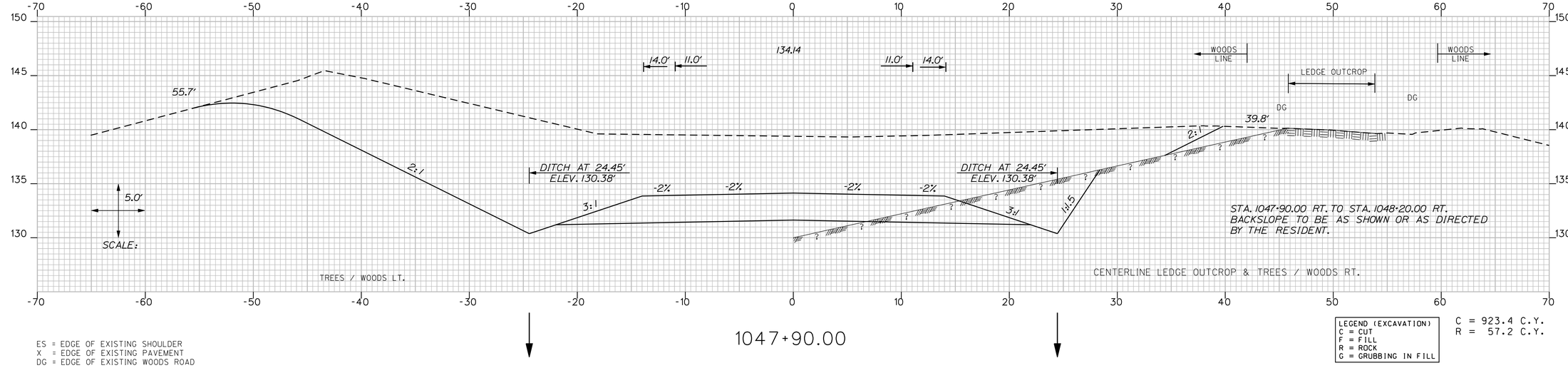
84

OF 151

Filename: ...\084_1046+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012
Username: Natasha.M.Collins
Dgn: Standard







ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Manzer	X
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	NMC \ JH	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1047+90.00 CROSS SECTIONS *1048+20.00*

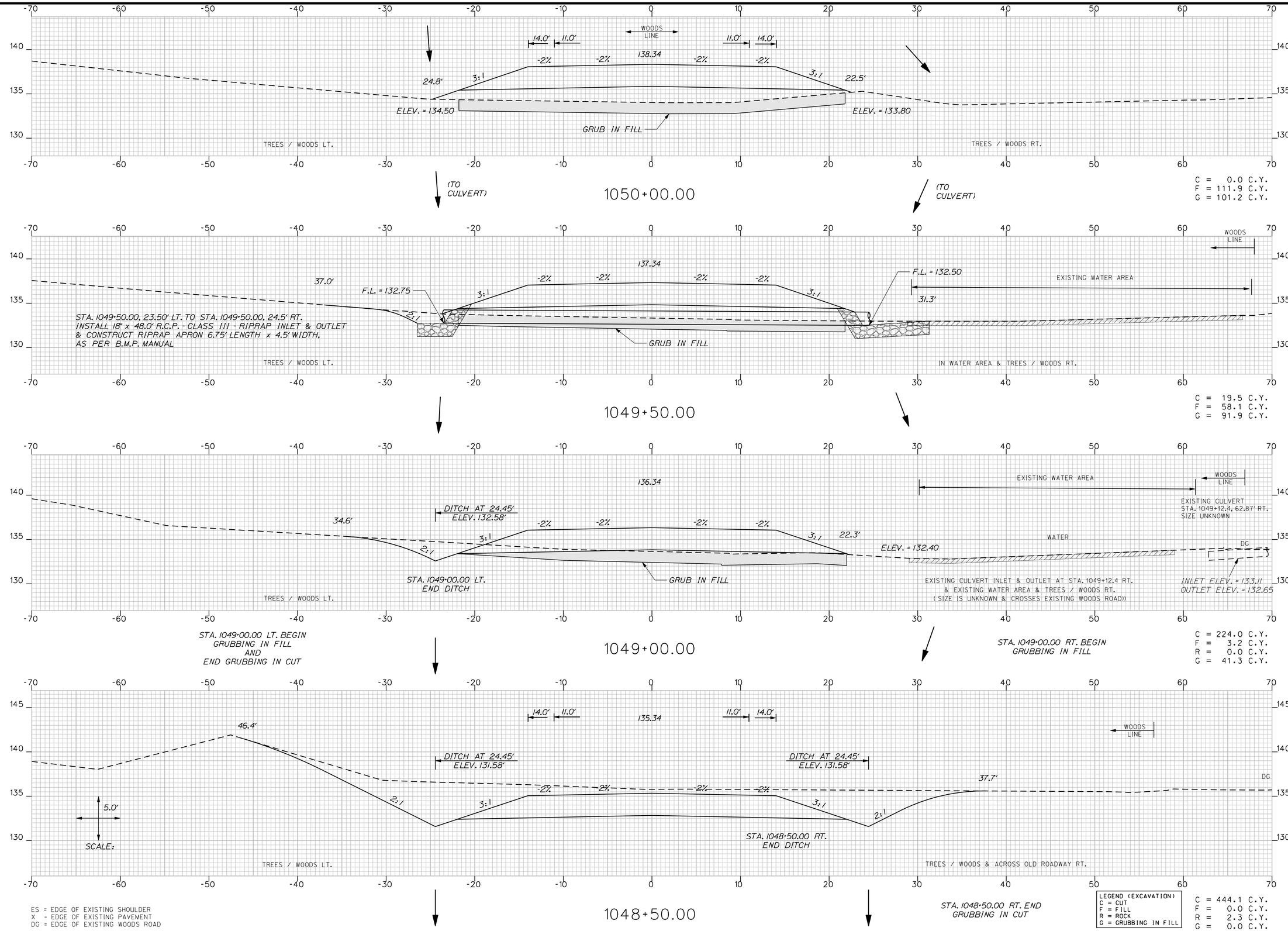
SHEET NUMBER

85

OF 151

Filename: ...\085_1047+90.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\085_1047+90.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\086_1048+50.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	NAME	BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

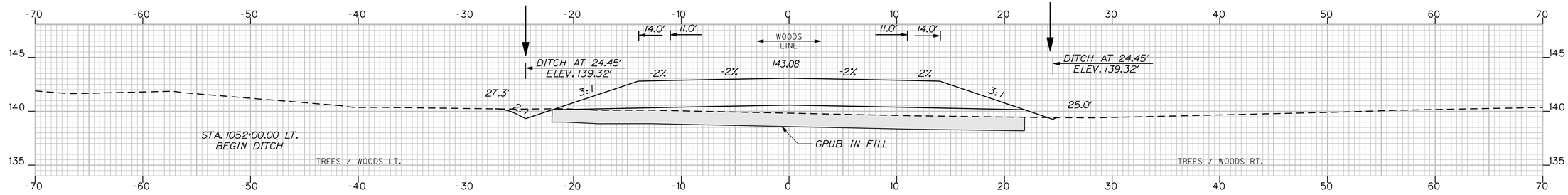
ELLSWORTH
ROUTE 180

1048+50.00 CROSS SECTIONS 1050+00.00

SHEET NUMBER

86

OF 151

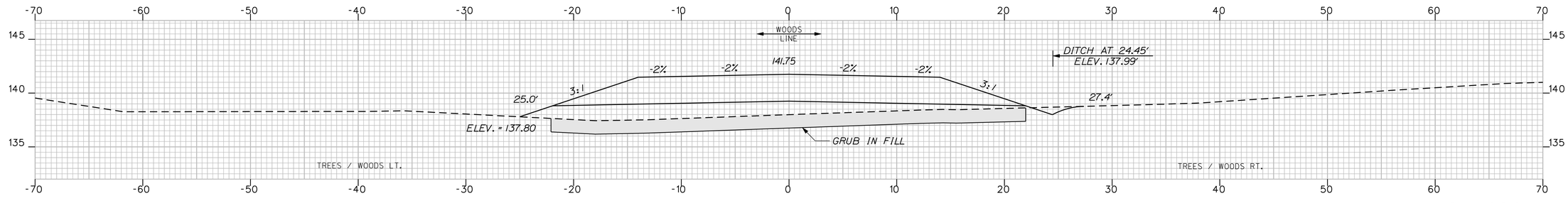


1052+00.00

C = 1.9 C.Y.
F = 65.9 C.Y.
G = 101.8 C.Y.

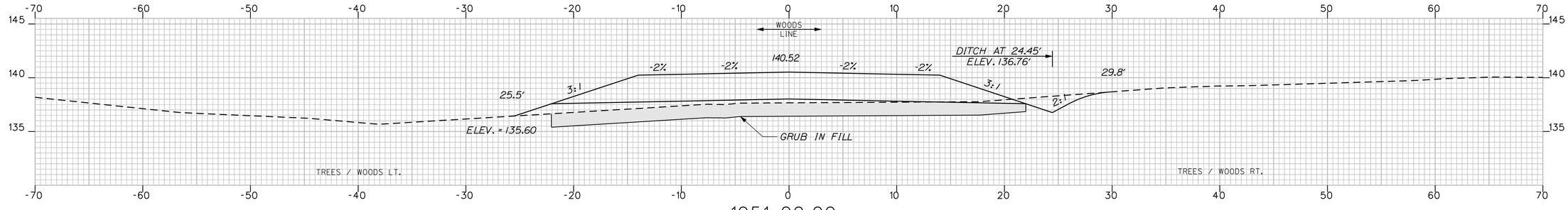
FROM STA. 1052+00.0 LT. TO STA. 1068+00.0 LT.
INSTALL EROSION CONTROL BLANKET

STA. 1052+00.00 LT. BEGIN
GRUBBING IN CUT



1051+50.00

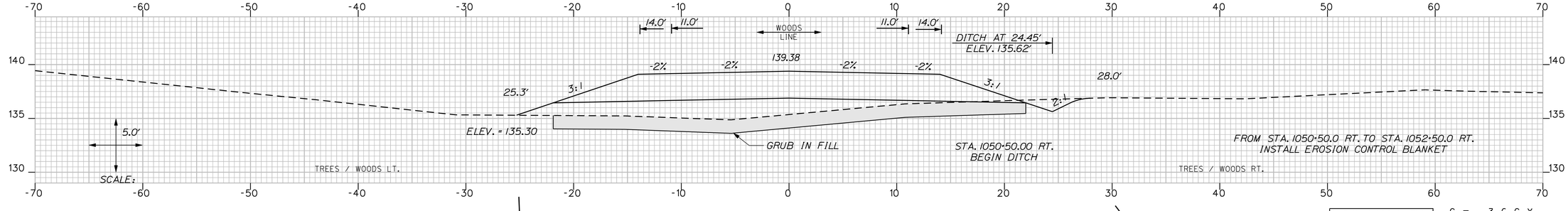
C = 6.3 C.Y.
F = 58.2 C.Y.
G = 100.6 C.Y.



1051+00.00

C = 9.9 C.Y.
F = 57.6 C.Y.
G = 99.8 C.Y.

B307
STA. 1050+96
4.0m RT.
DEPTH = 12.0m



1050+50.00

STA. 1050+50.00 RT. BEGIN
GRUBBING IN CUT

STA. 1050+50.00 RT.
BEGIN DITCH

FROM STA. 1050+50.0 RT. TO STA. 1052+50.0 RT.
INSTALL EROSION CONTROL BLANKET

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 3.6 C.Y.
F = 100.0 C.Y.
G = 100.8 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	BY	NMC \ JH
CHECKED-REVIEWED	-----	DATE	X
DESIGN2-DETAILED2	-----	SIGNATURE	-----
DESIGN3-DETAILED3	-----	P.E. NUMBER	-----
REVISIONS 1	-----	DATE	-----
REVISIONS 2	-----		-----
REVISIONS 3	-----		-----
REVISIONS 4	-----		-----
FIELD CHANGES	-----		-----

ELLSWORTH
ROUTE 180

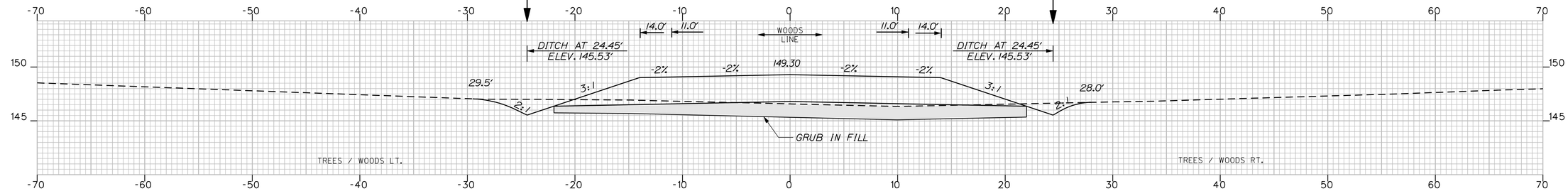
1050+50.00 CROSS SECTIONS 1052+00.00

SHEET NUMBER

87

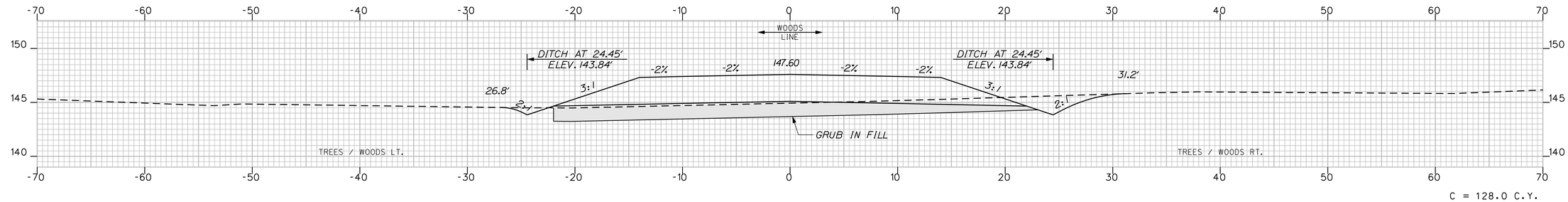
OF 151

Filename: ...\087_1050+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012
Username: Natasha.M.Collins
Design Size: 24 x 36 HIGHWAY



C = 28.4 C.Y.
F = 7.6 C.Y.
G = 88.8 C.Y.

1054+00.00

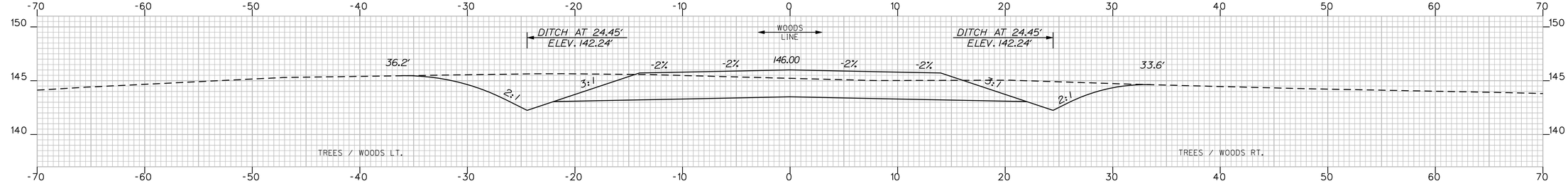


C = 128.0 C.Y.
F = 4.2 C.Y.
G = 44.1 C.Y.

1053+50.00

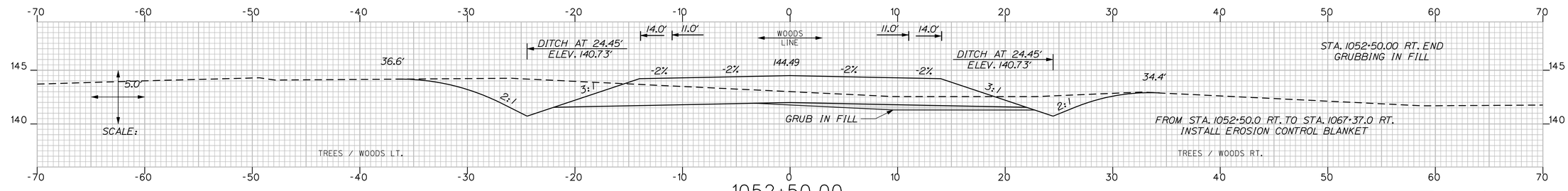
STA. 1053+50.00 LT. BEGIN
GRUBBING IN FILL

STA. 1053+50.00 RT. BEGIN
GRUBBING IN FILL



C = 195.7 C.Y.
F = 0.0 C.Y.
G = 8.0 C.Y.

1053+00.00



STA. 1052+50.00 RT. END
GRUBBING IN FILL

FROM STA. 1052+50.0 RT. TO STA. 1067+37.0 RT.
INSTALL EROSION CONTROL BLANKET

C = 84.4 C.Y.
F = 22.3 C.Y.
G = 58.7 C.Y.

1052+50.00

STA. 1052+50.00 LT. END
GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

B308
STA. 1052+70
CENTERLINE
DEPTH = 12.0m

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1052+50.00 CROSS SECTIONS 1054+00.00

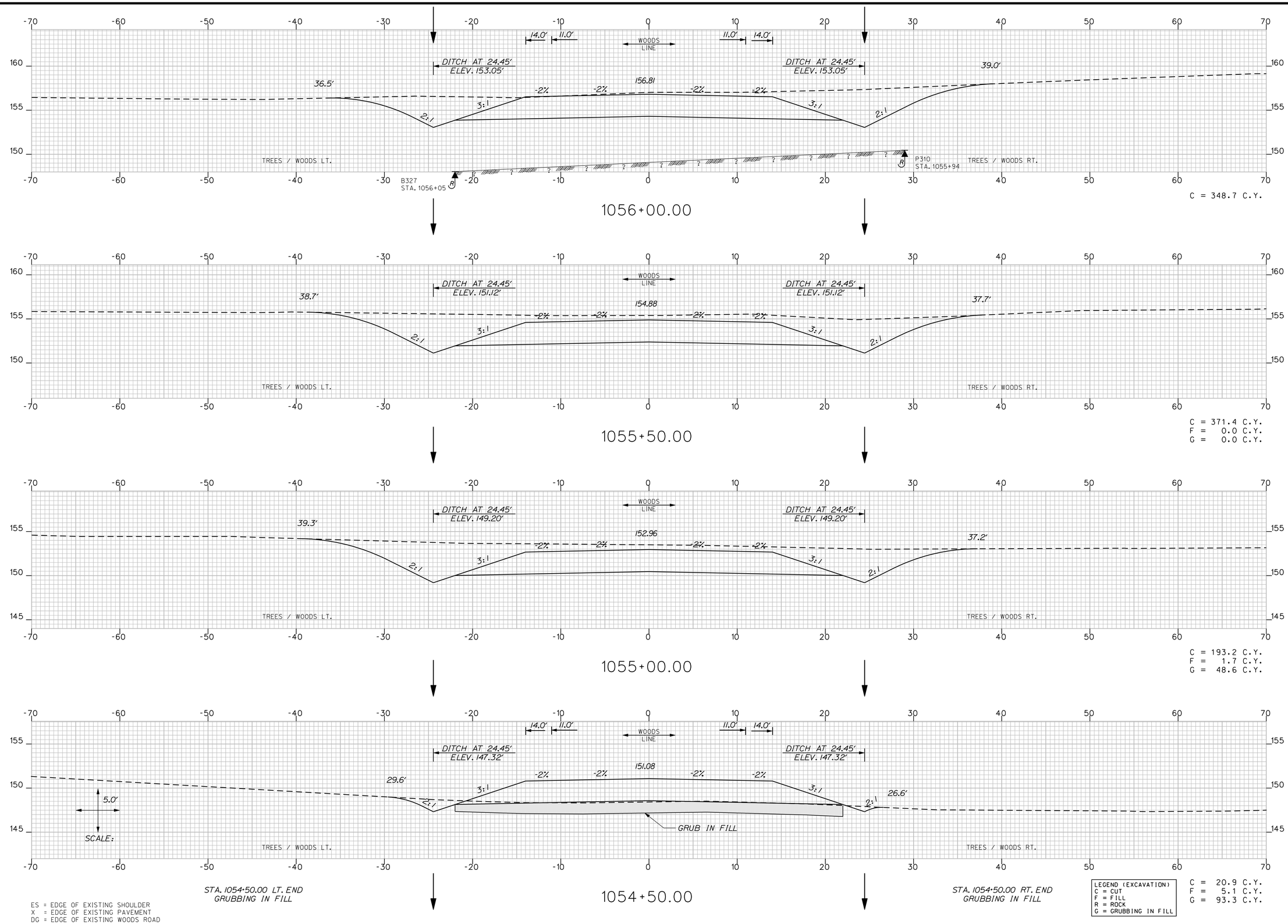
SHEET NUMBER

88

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\088_1052+50.00-DRAW-XSMC20-SECTS.dgn



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1054+50.00 CROSS SECTIONS *1056+00.00*

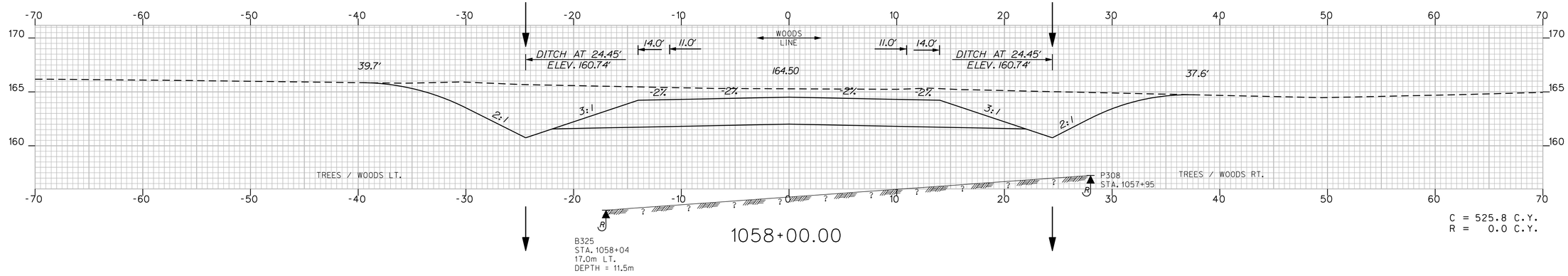
SHEET NUMBER

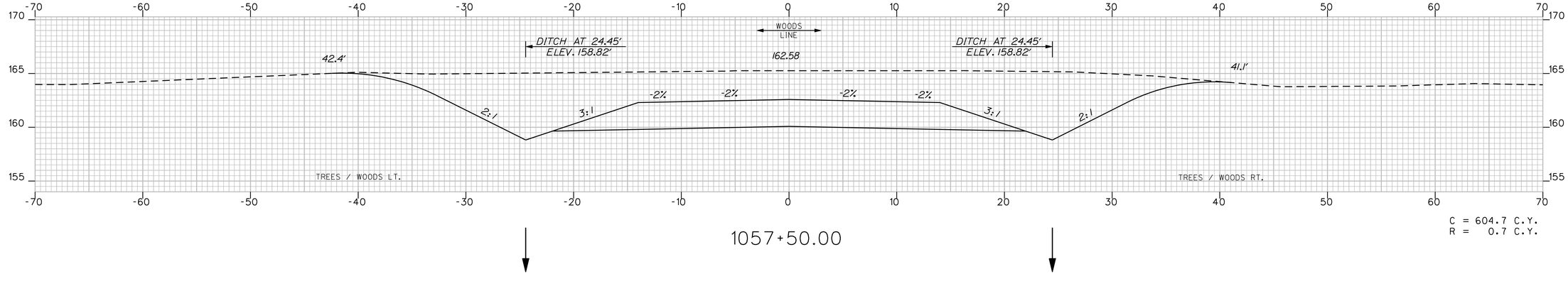
89

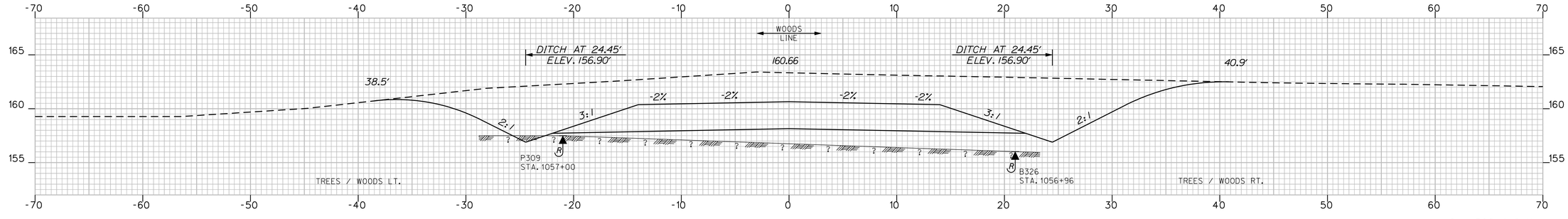
OF 151

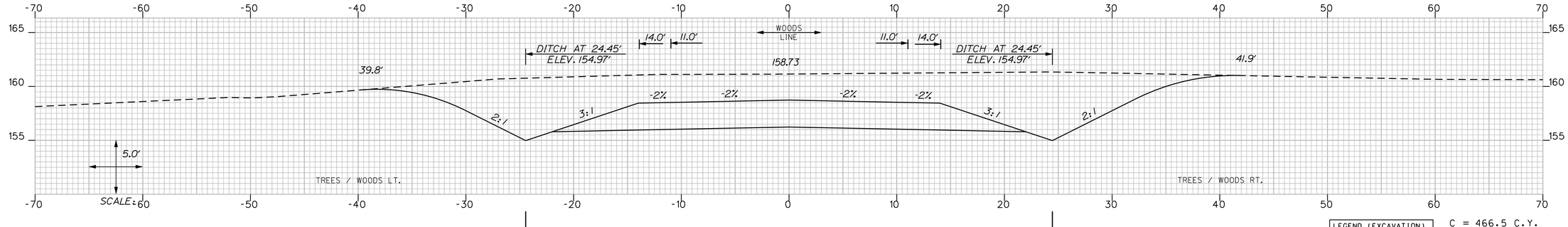
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\089_1054+50.00-DRAW-XSMC20-SECTS.dgn









ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

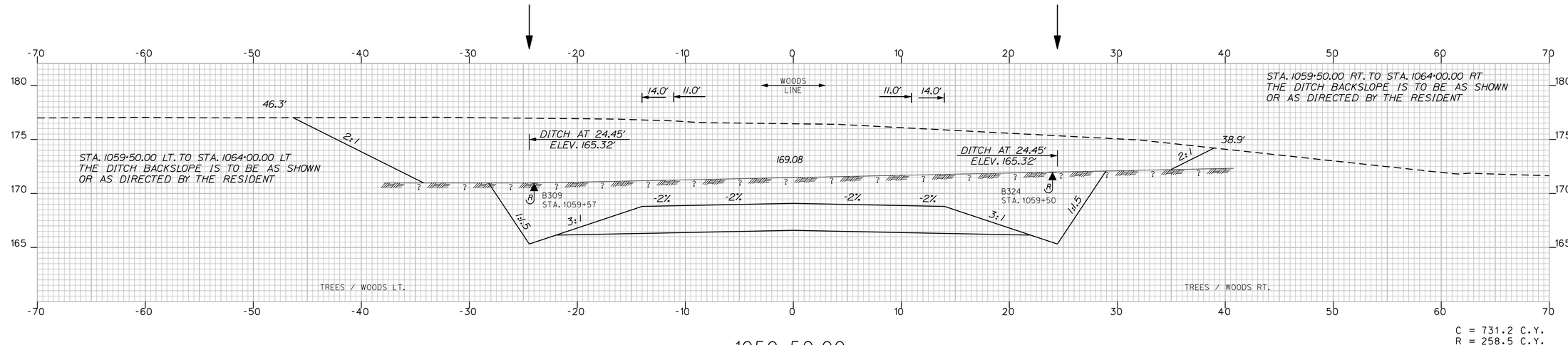
1056+50.00 CROSS SECTIONS *1058+00.00*

SHEET NUMBER

90

OF 151

Filename: ...\090_1056+50.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

CROSS SECTIONS *1059+50.00*

1058+50.00

SHEET NUMBER

91

OF 151

Filename: ...\091_1058+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1060+00.00 CROSS SECTIONS *1060+50.00*

SHEET NUMBER

92

OF 151

Filename: ...\092_1060+00.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012

1061+50.00

C = 368.3 C.Y.
R = 1,715.5 C.Y.

1061+00.00

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 335.8 C.Y.
R = 1,862.0 C.Y.

STA. 1060+75.63 = HIGH POINT ON PROFILE GRADE - ELEVATION = 170.29

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1061+00.00 CROSS SECTIONS *1061+50.00*

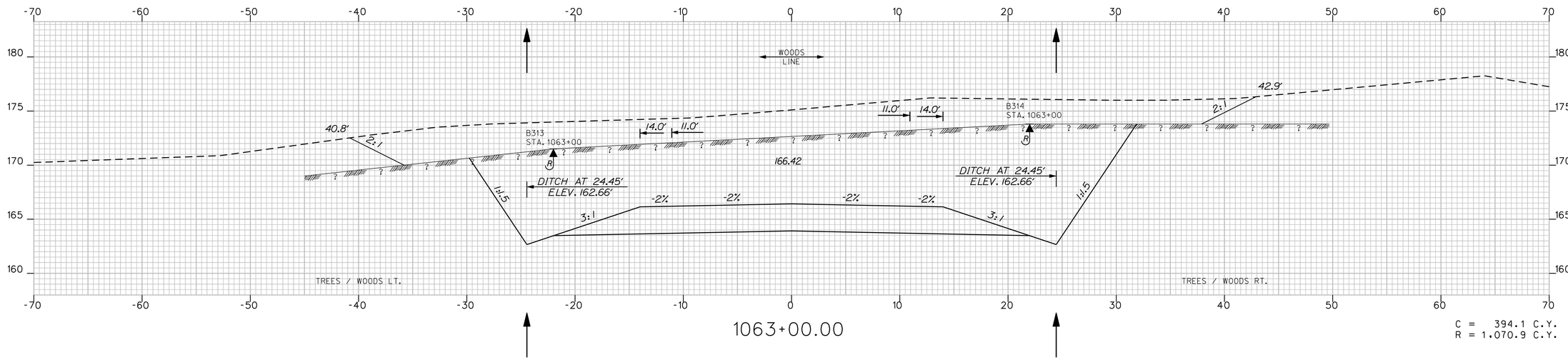
SHEET NUMBER

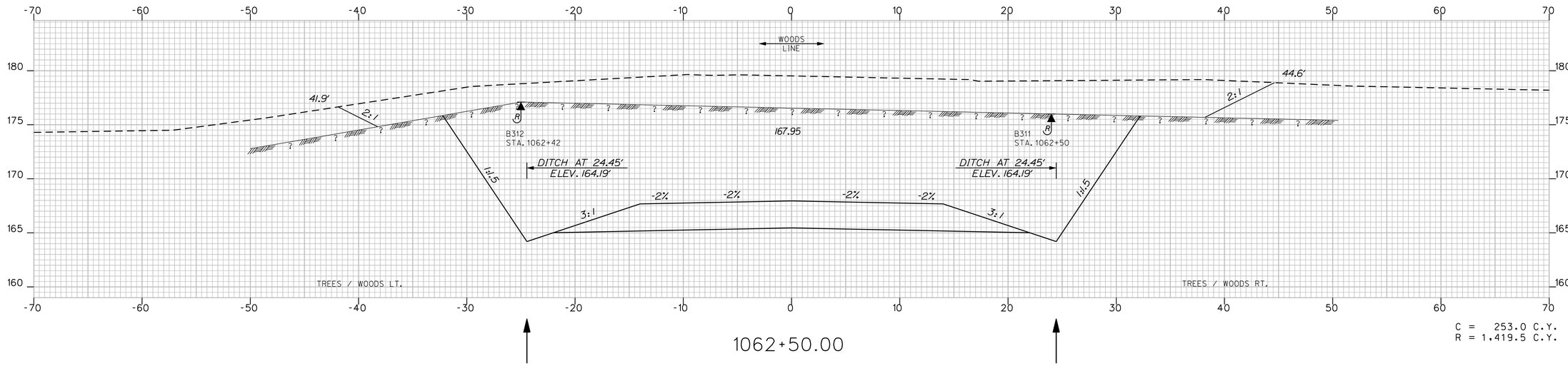
93

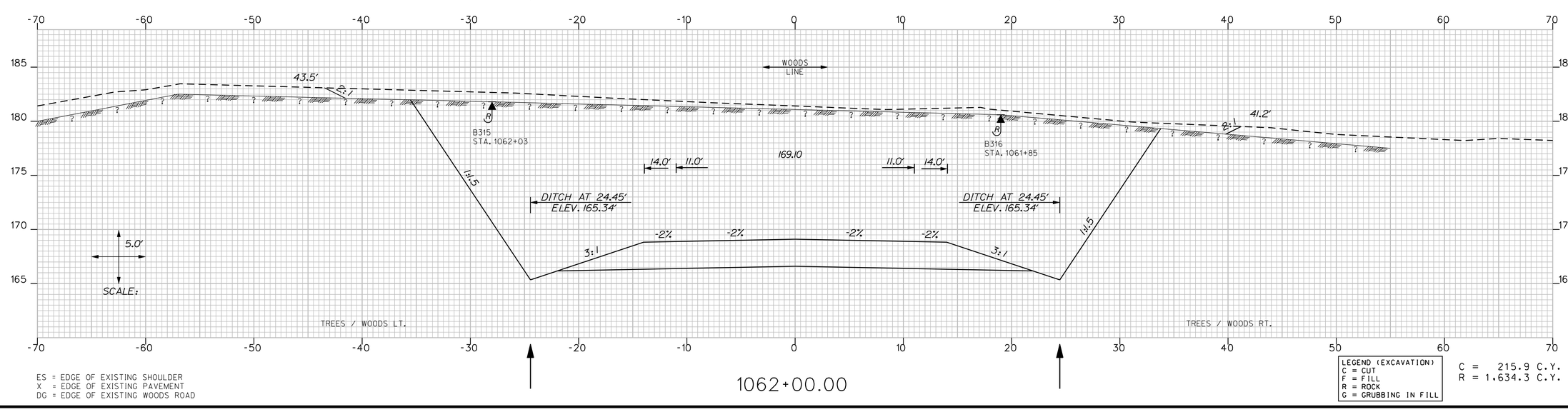
OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\093_1061+00.00-DRAW-XSMC20-SECTSD.dgn 64 HIGHWAY







ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	0	-----
CHECKED-REVIEWED	-----	1	-----
DESIGN2-DETAILED2	-----	2	-----
DESIGN3-DETAILED3	-----	3	-----

	BY	DATE
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	NMC \ JH	X

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1062+00.00 CROSS SECTIONS 1063+00.00

SHEET NUMBER

94

OF 151

Filename: ...\094_1062+00.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1063+50.00 CROSS SECTIONS *1064+50.00*

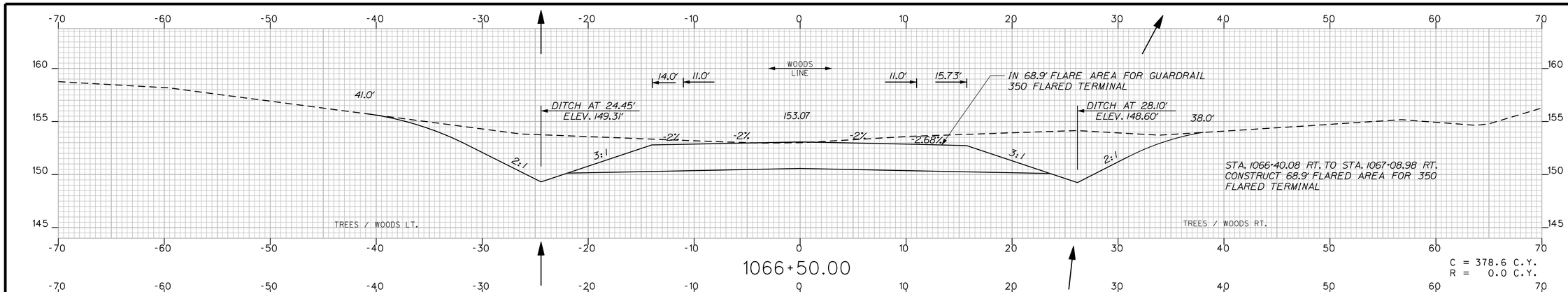
SHEET NUMBER

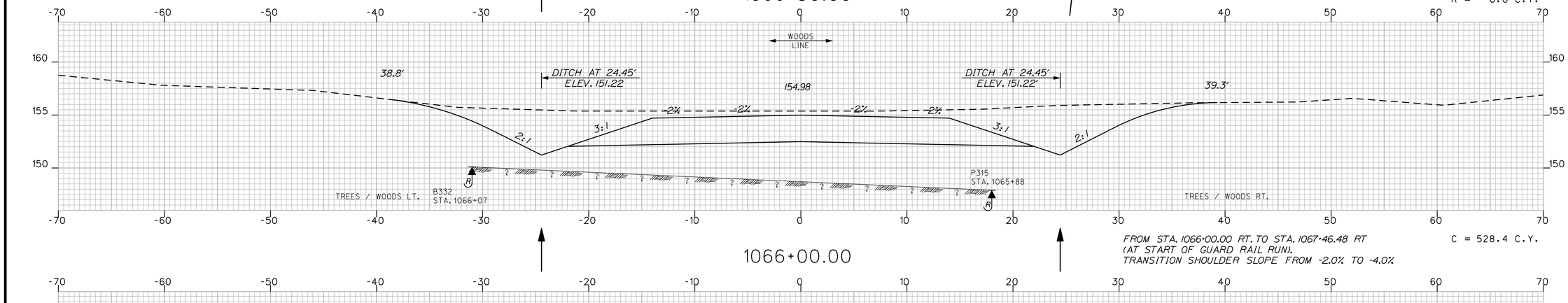
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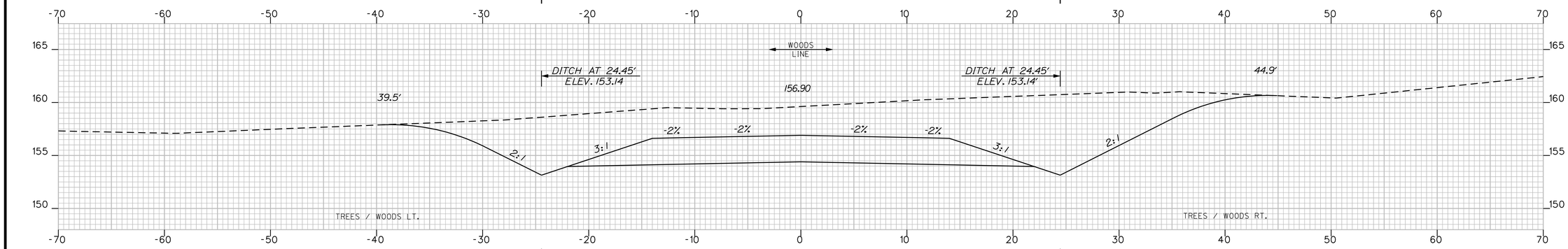
OF 151

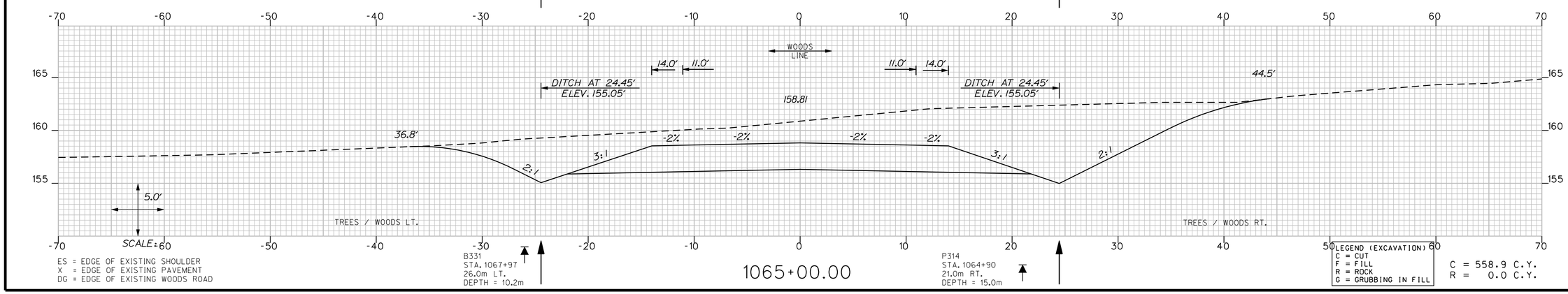
Filename: ...\095_1063-50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins

USE 10063HWAY









STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1065+00.00 CROSS SECTIONS *1066+50.00*

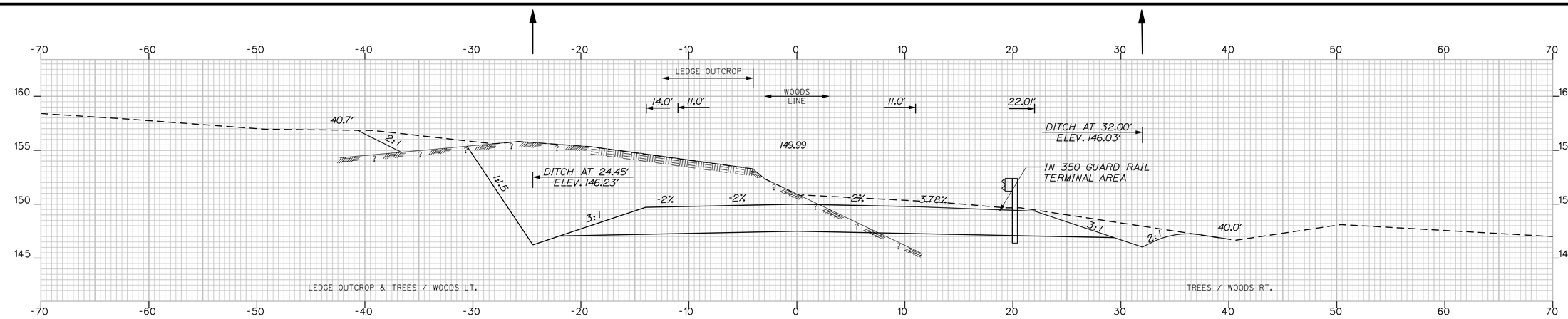
SHEET NUMBER

96

OF 151

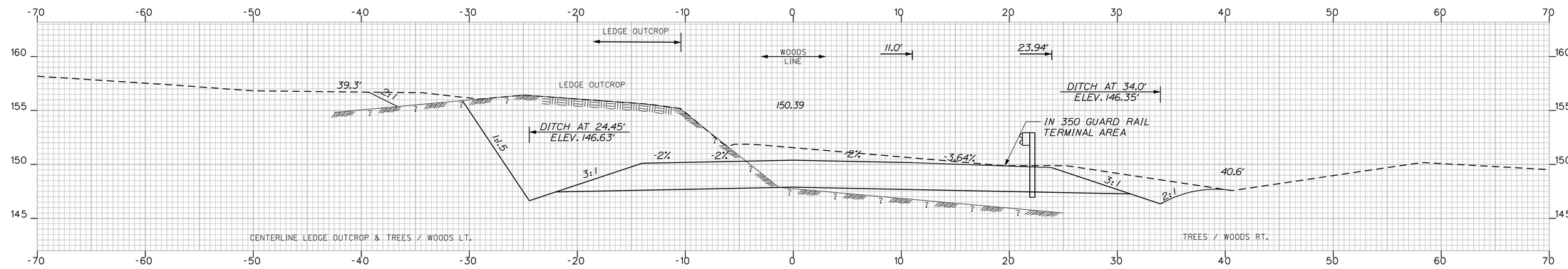
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\096_1065+00.00-DRAW-XSMC20-SECTS.dgn



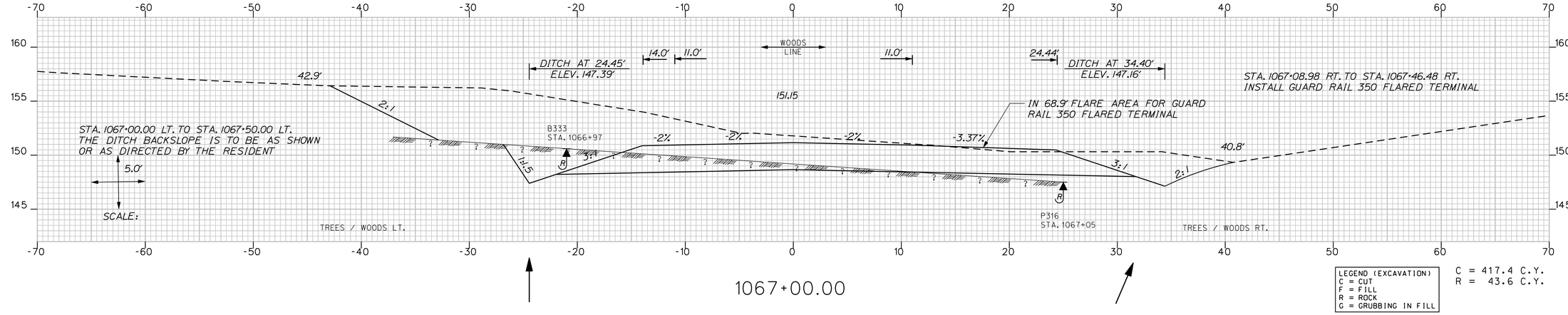
1067+30.37

C = 38.9 C.Y.
R = 75.8 C.Y.



1067+20.00

C = 134.5 C.Y.
R = 86.8 C.Y.



1067+00.00

C = 417.4 C.Y.
R = 43.6 C.Y.

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Monzer	X
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	NMC \ JH	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

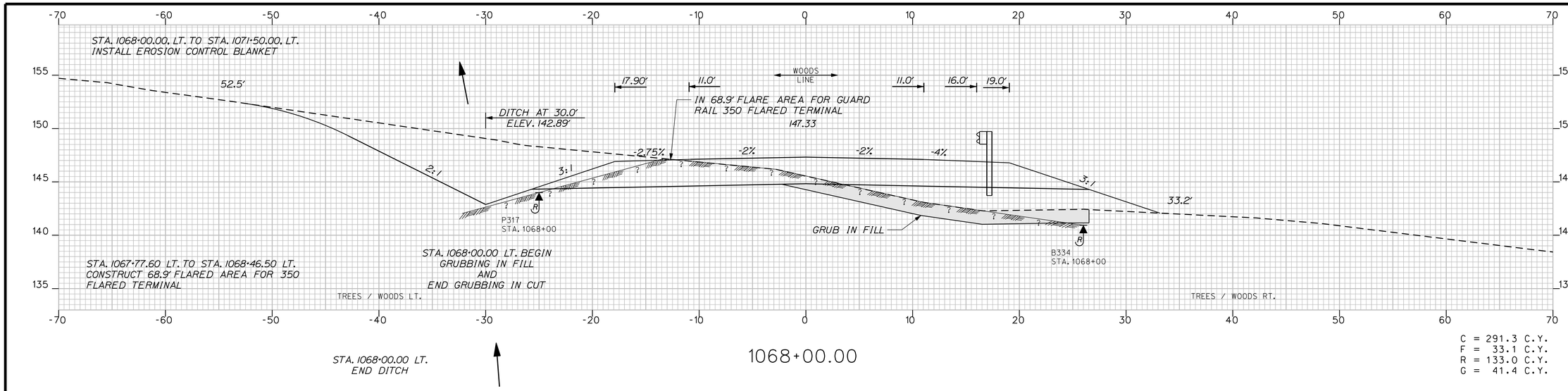
1067+00.00 CROSS SECTIONS 1067+30.37

SHEET NUMBER

97

OF 151

Filename: ...\097_1067+00.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	REVISIONS 1	
CHECKED-REVIEWED	-----	REVISIONS 2	
DESIGN2-DETAILED2	-----	REVISIONS 3	
DESIGN3-DETAILED3	-----	REVISIONS 4	
		FIELD CHANGES	

	BY	DATE
	X	
	NMC \ JH	
	NMC	
	-----	-----
	-----	-----
	-----	-----
	-----	-----
	-----	-----
	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

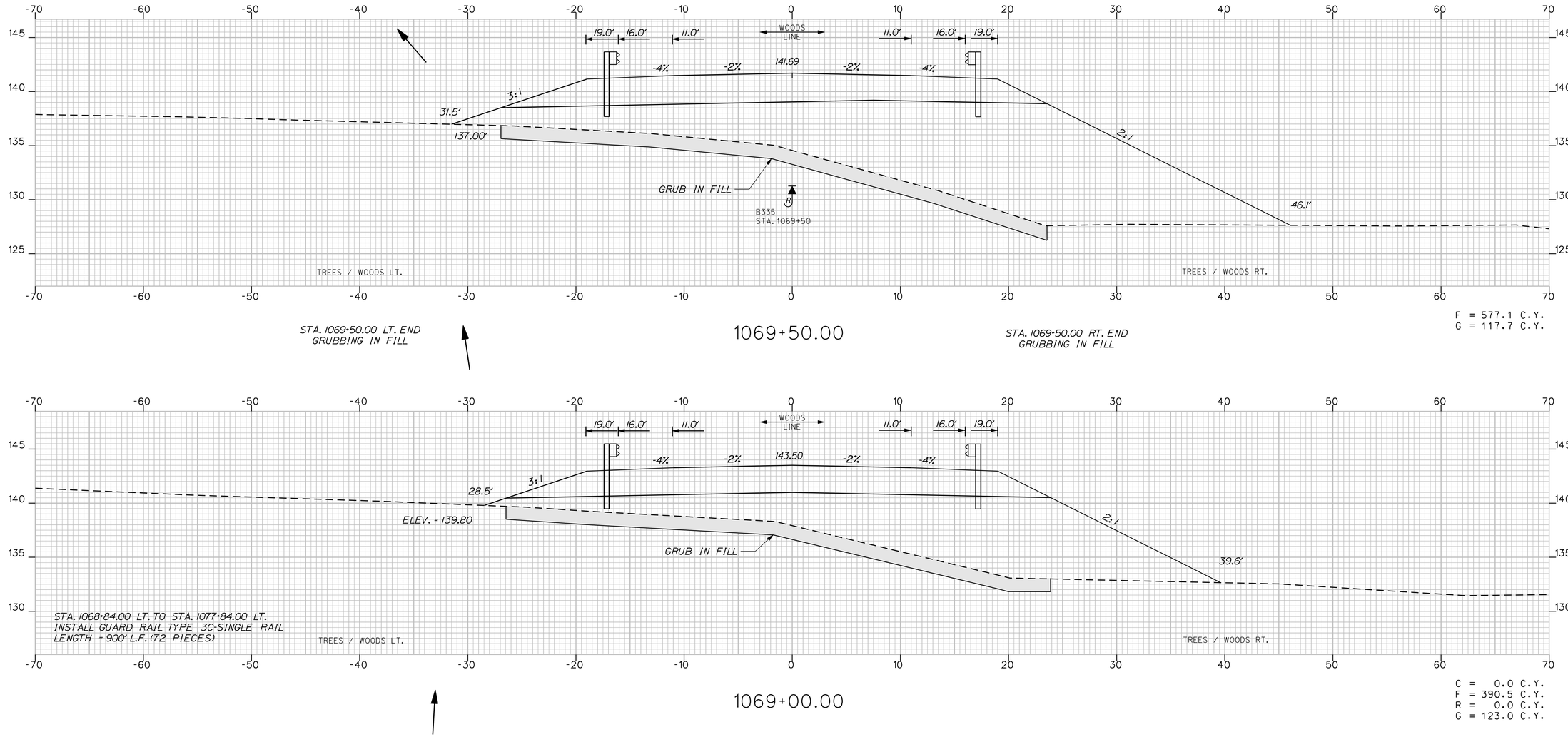
1067+37.00 CROSS SECTIONS *1068+00.00*

SHEET NUMBER

98

OF 151

Filename: ...\098_1067+37.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	X	
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1068+50.00 CROSS SECTIONS *1069+50.00*

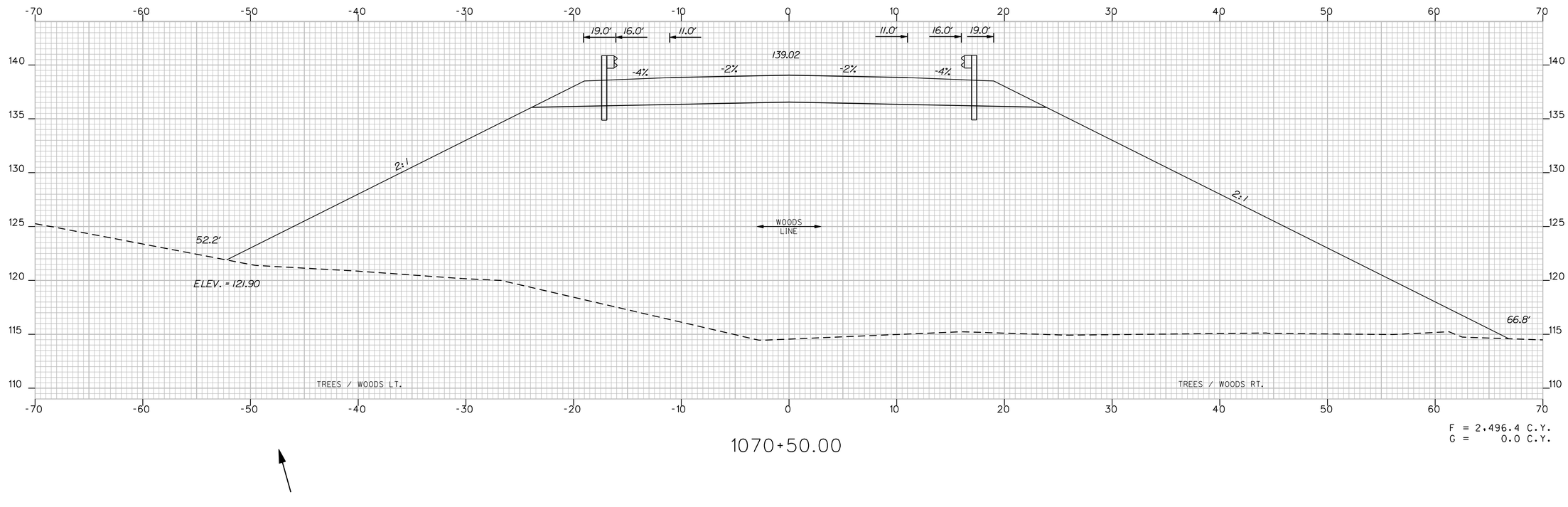
SHEET NUMBER

99

OF 151

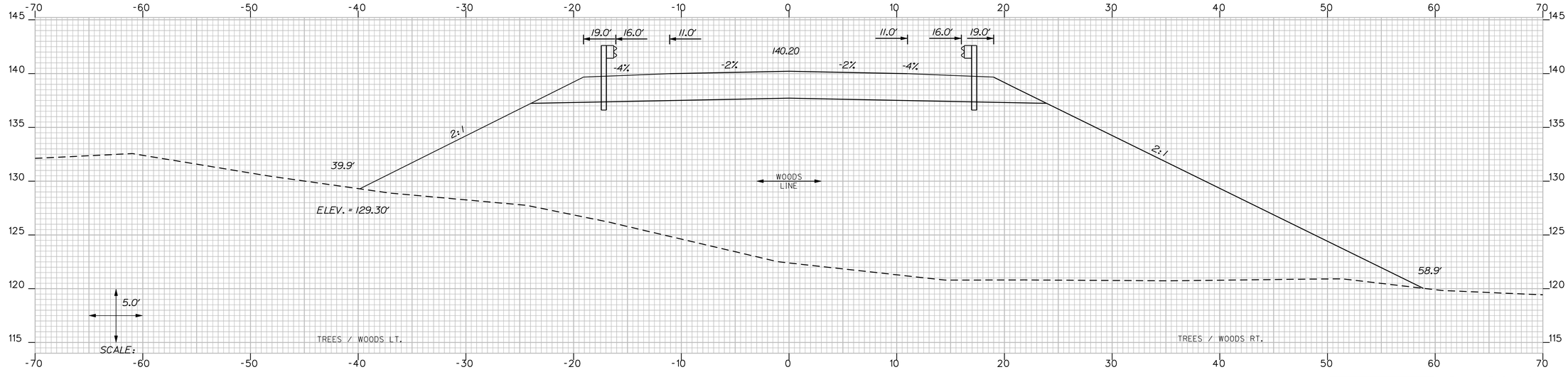
Filename: ...\099_1068+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins

Division 060 HIGHWAY



F = 2,496.4 C.Y.
G = 0.0 C.Y.

1070+50.00



F = 1,316.0 C.Y.
G = 59.5 C.Y.

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

1070+00.00

STA. 1070+00.00 LT. TO STA. 1071+86.00 LT.
(AT BEG. OF RIPRAP AREA FOR BRIDGE)
INSTALL STONE DITCH PROTECTION. AS
DIRECTED BY THE RESIDENT

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1070+00.00 CROSS SECTIONS 1070+50.00

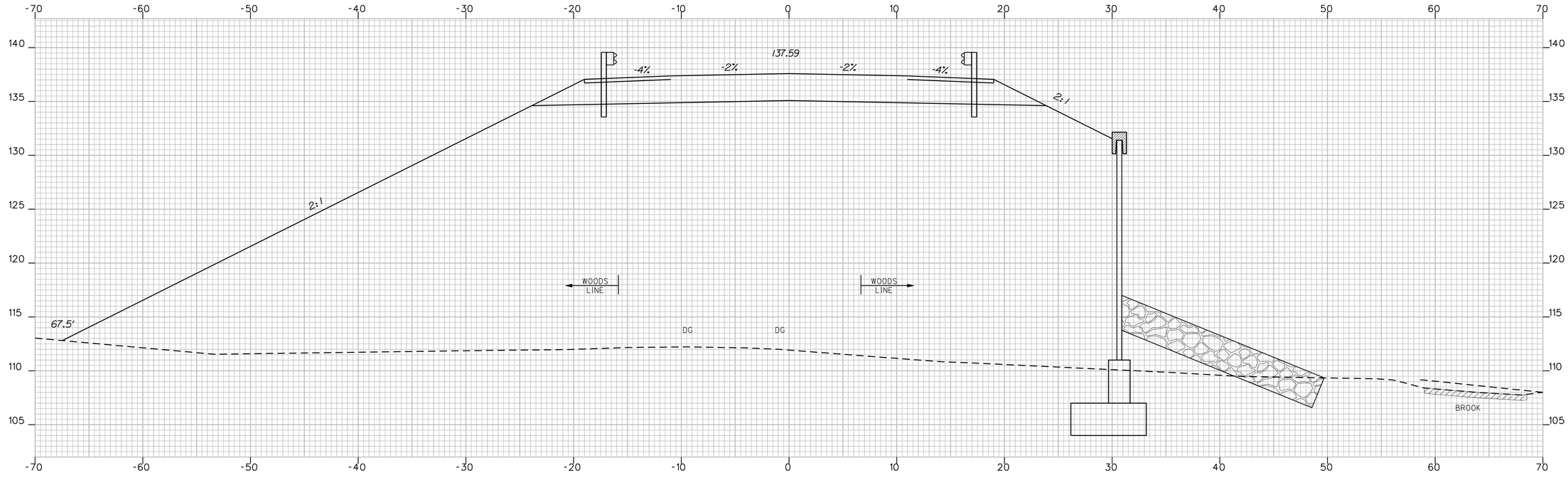
SHEET NUMBER

100

OF 151

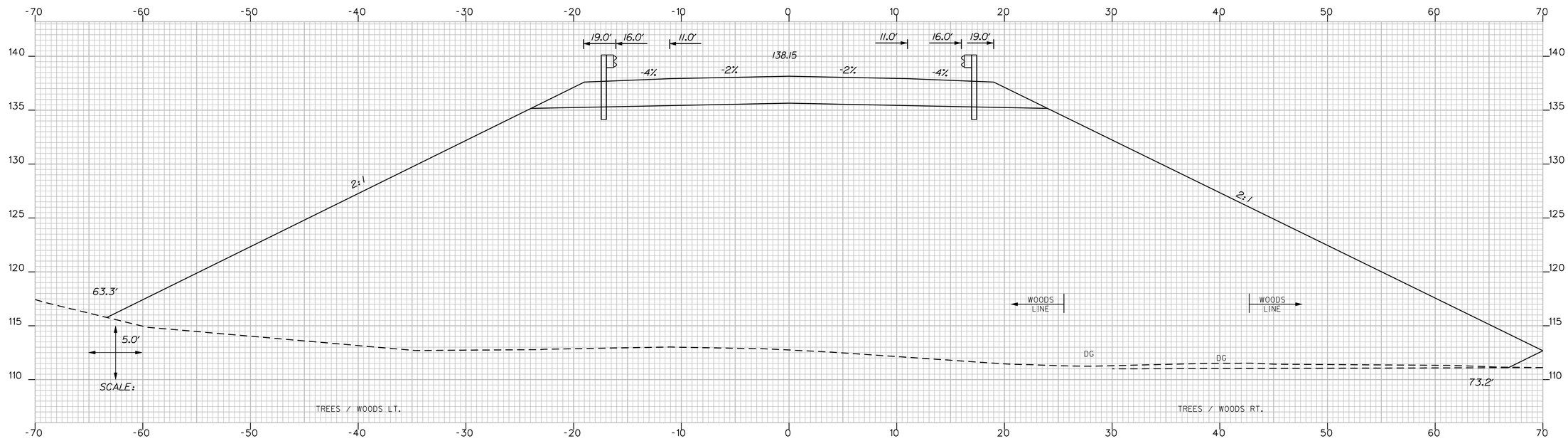
Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\100_1070+00.00-DRAW-XSMC20-SECTS.dgn



1071+50.00

NOTE: SEE BRIDGE PLANS "BRIDGE IN A BACK-PACK" FOR MORE INFO. SHEETS BI-B29



1071+00.00

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

F = 5,372.9 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1071+00.00 CROSS SECTIONS 1071+50.00

SHEET NUMBER

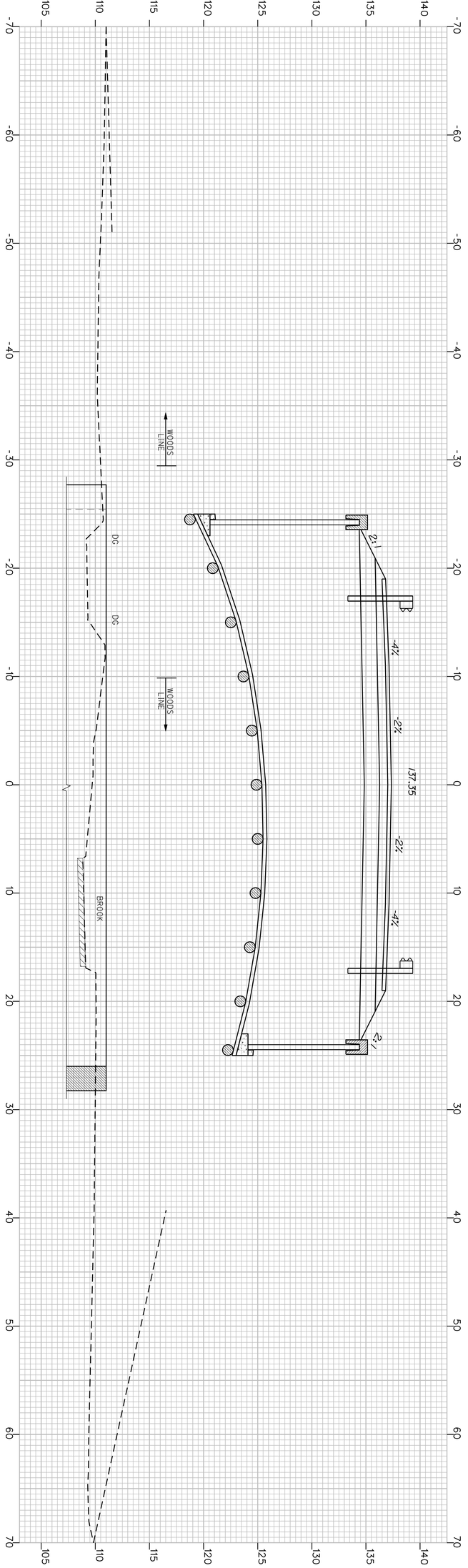
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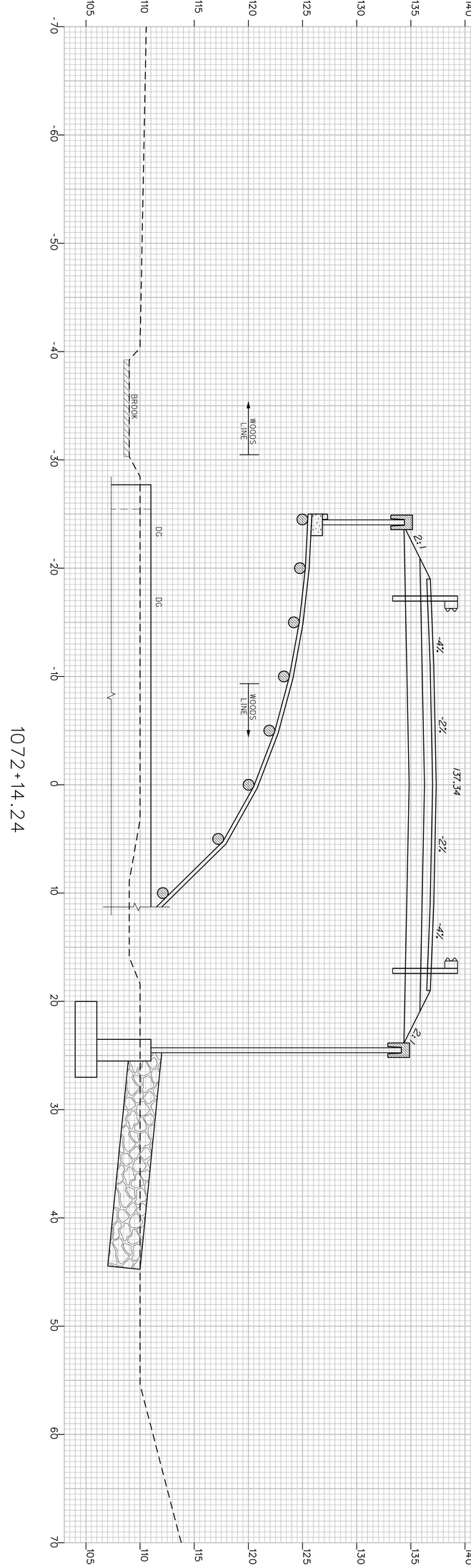
OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\101_1071+00.00-DRAW-XSMC20-SECTS.dgn

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DC = EDGE OF EXISTING WOODS ROAD





LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

SHEET NUMBER 102 OF 151

ELLSWORTH
ROUTE 180

1072+00.00 CROSS SECTIONS *1072+07.00*

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	_____	_____	_____
DESIGN2-DETAILED2	_____	_____	_____
DESIGN3-DETAILED3	_____	_____	_____
REVISIONS 1	_____		_____
REVISIONS 2	_____		_____
REVISIONS 3	_____		_____
REVISIONS 4	_____		_____
FIELD CHANGES	_____		_____

SIGNATURE

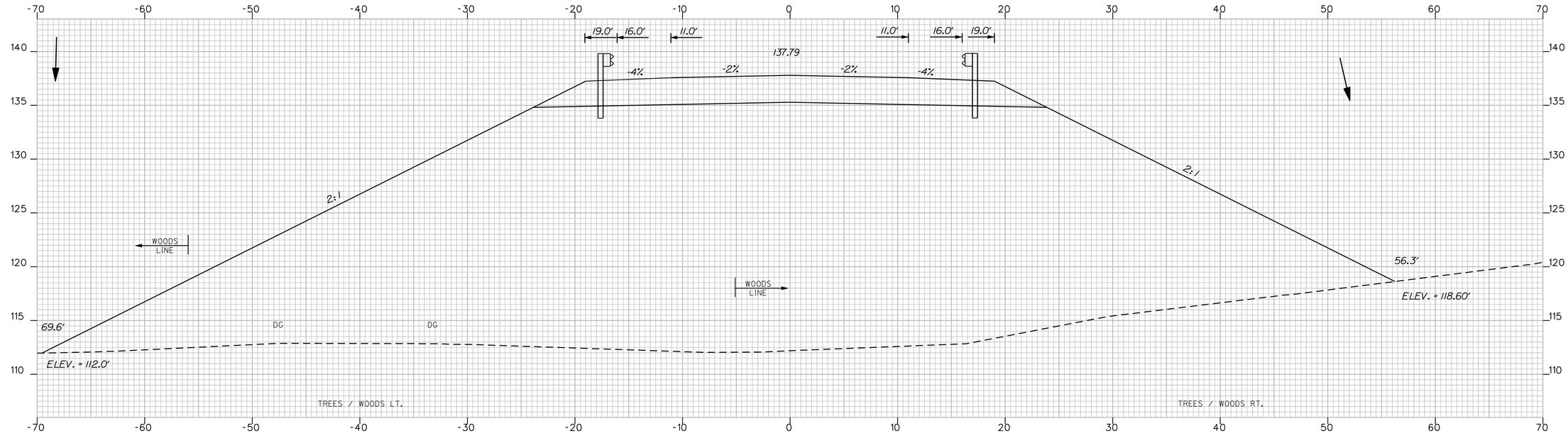
P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

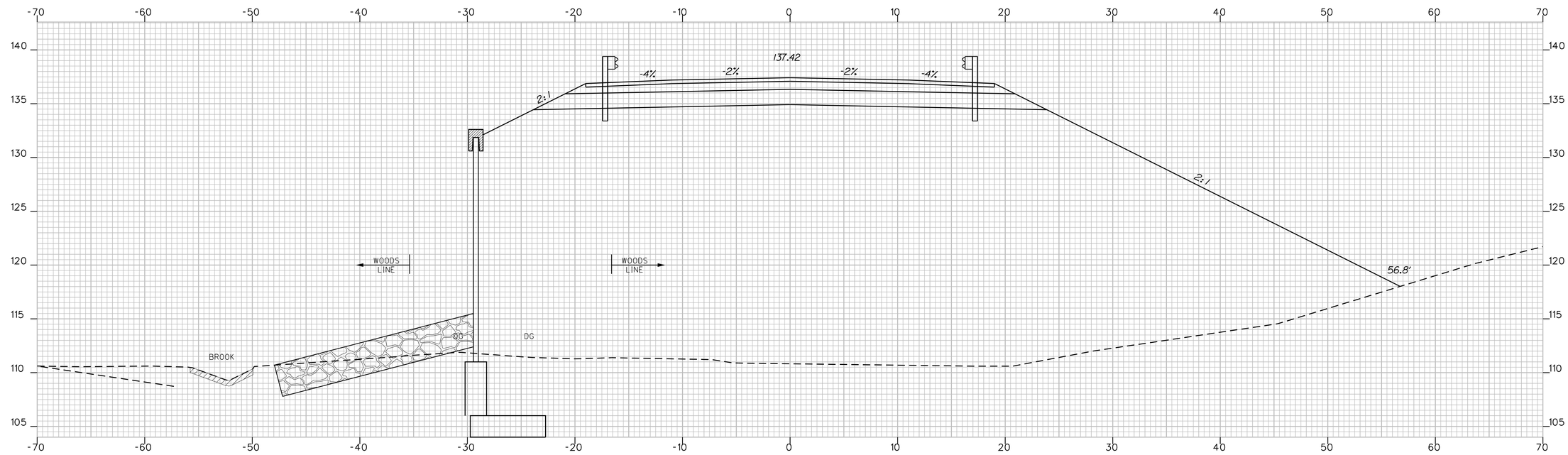
PIN 010063.10 HIGHWAY PLANS



F = 3,692.8 C.Y.

1073+00.00

STA. 1072+70.00 LT. (AT END OF RIPRAP AREA FOR BRIDGE) TO STA. 1075+50.00 LT. INSTALL STONE DITCH PROTECTION, AS DIRECTED BY THE RESIDENT



1072+50.00

STA. 1072+15.00. RT. (AT END OF RIPRAP AREA FOR BRIDGE) TO STA. 1073+75.00. RT. INSTALL STONE DITCH PROTECTION, AS DIRECTED BY THE RESIDENT

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1072+50.00 CROSS SECTIONS 1073+00.00

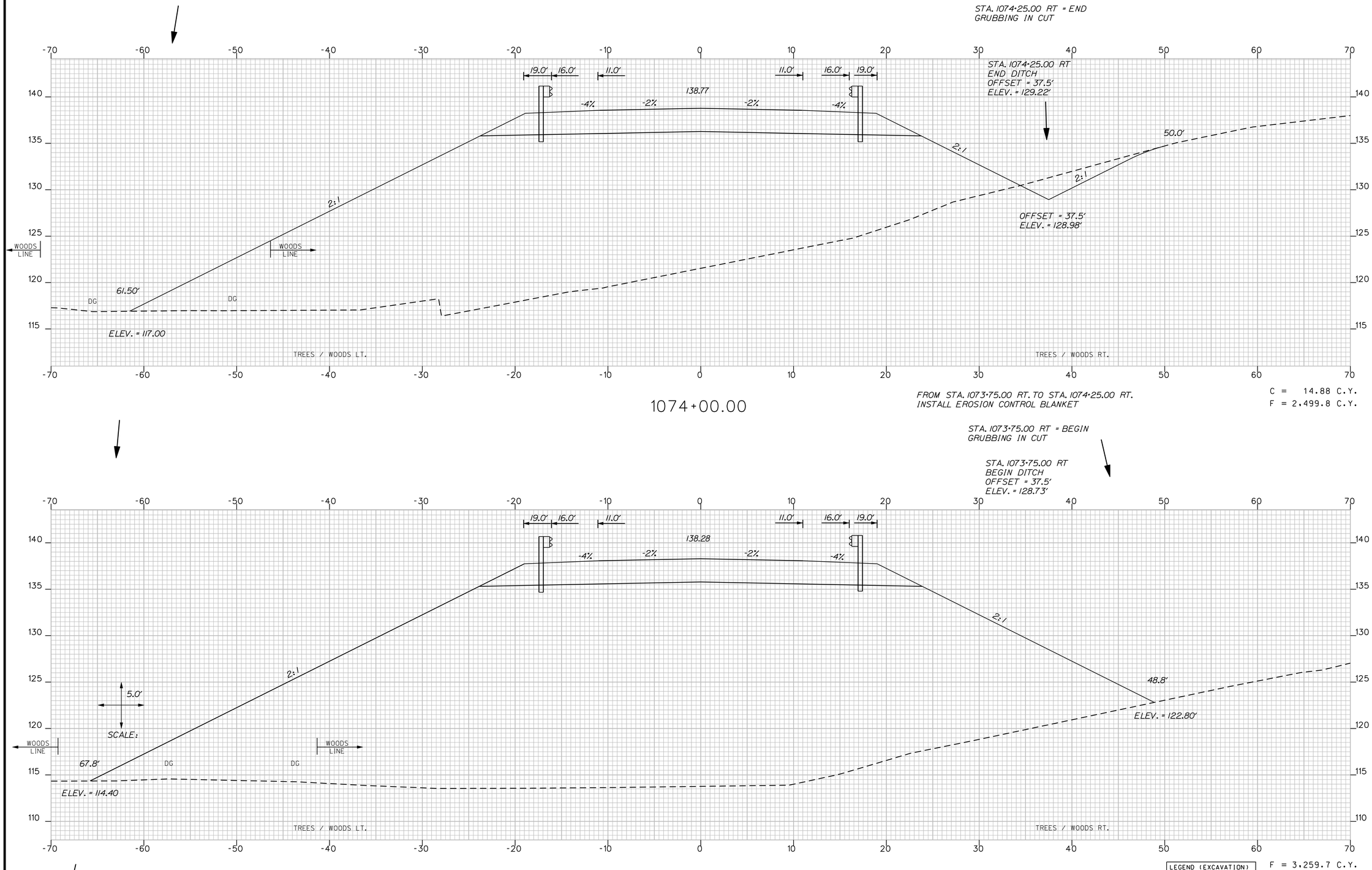
SHEET NUMBER

103

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\103_1072+50.00-DRAW-XSMC20-SECTS.dgn Division: 064 HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN			
DESIGN-DETAILED	J. Monzer	NMC \ JH	X	
CHECKED-REVIEWED	-----	-----	-----	
DESIGN2-DETAILED2	-----	-----	-----	
DESIGN3-DETAILED3	-----	-----	-----	
REVISIONS 1	-----	-----	-----	
REVISIONS 2	-----	-----	-----	
REVISIONS 3	-----	-----	-----	
REVISIONS 4	-----	-----	-----	
FIELD CHANGES	-----	-----	-----	

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

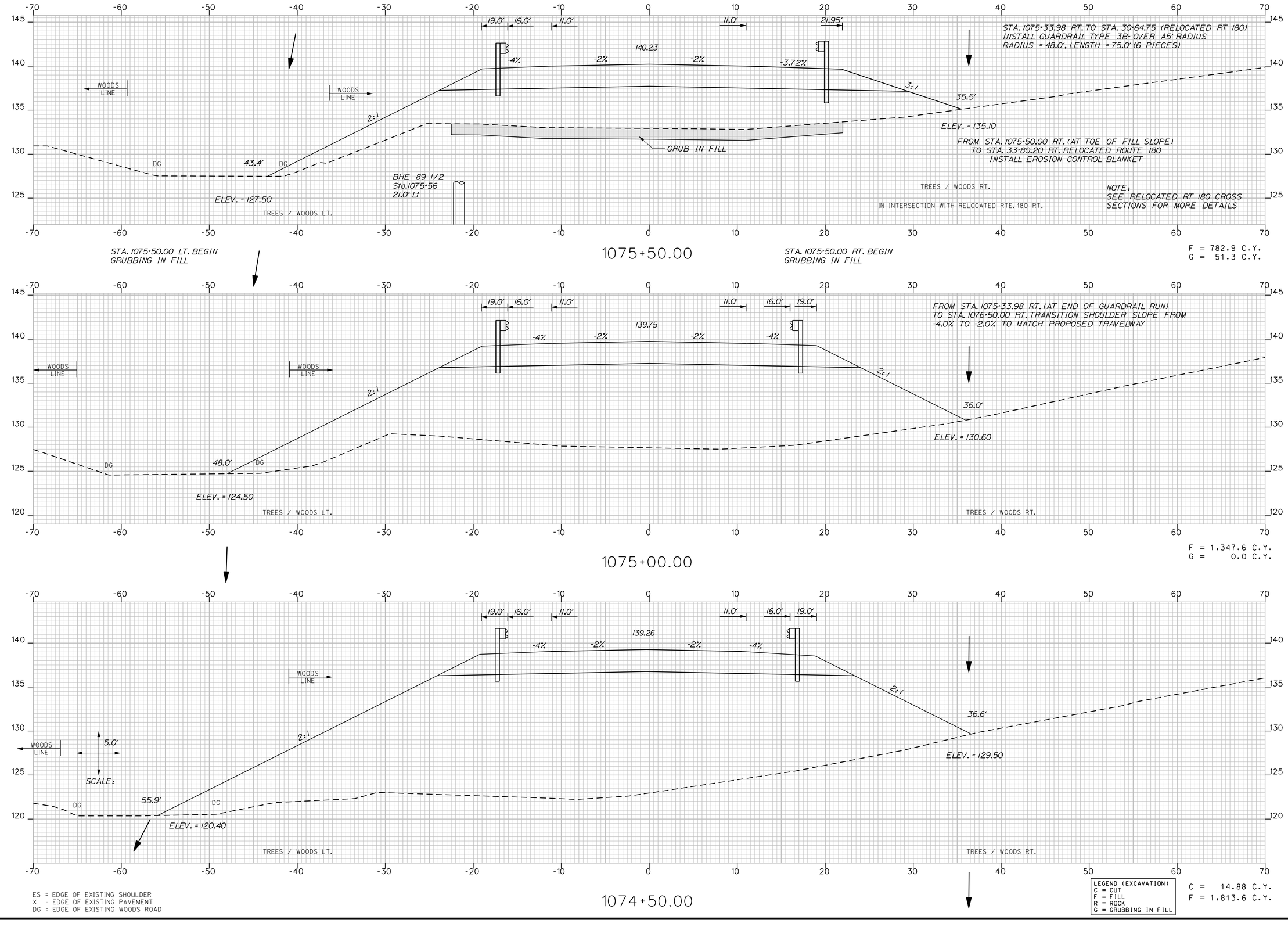
1073+50.00 CROSS SECTIONS *1074+00.00*

SHEET NUMBER

104

OF 151

Filename: ...\104_1073+50.00-DRAW-XSMC20-SECTS.dgn Date:4/13/2012 Username: Natasha.M.Collins



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1074+50.00 CROSS SECTIONS *1075+50.00*

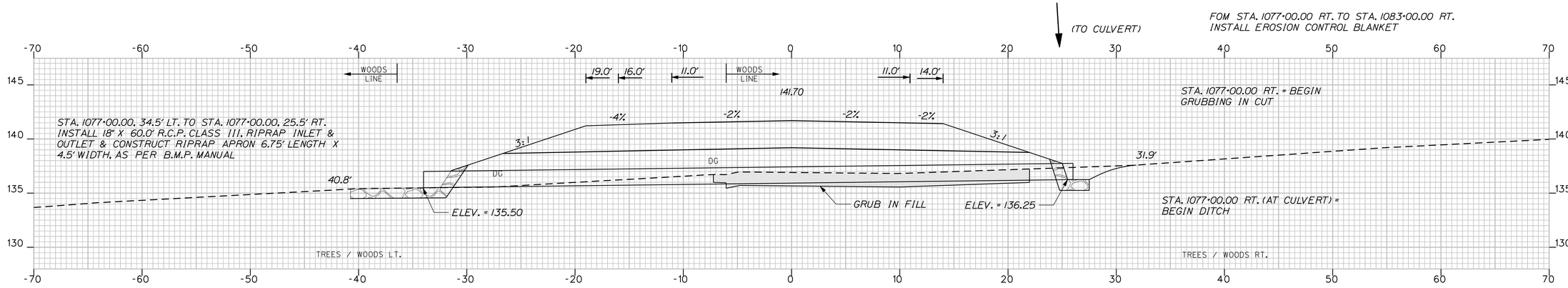
SHEET NUMBER

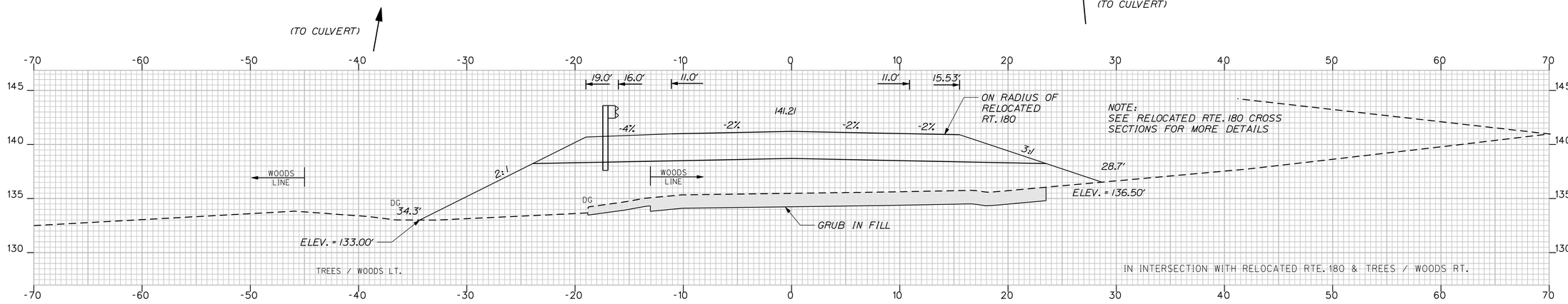
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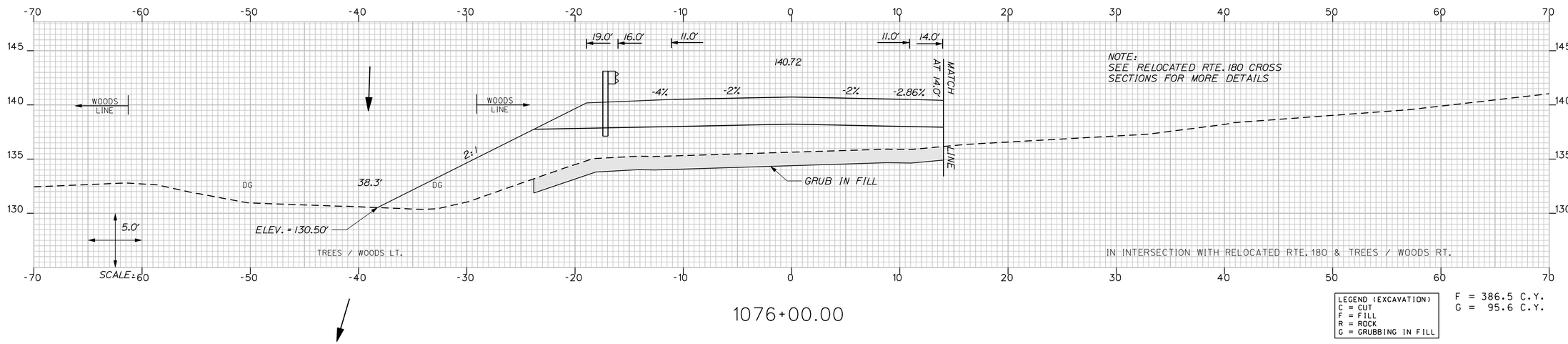
OF 151

Filename: ...\105_1074+50.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\106_1076+00.00-DRAW-XSMC20-SECTSDivision06.dgn HIGHWAY







ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	
DESIGN-DETAILED	J. Monzer	X	
CHECKED-REVIEWED	-----	-----	
DESIGN2-DETAILED2	-----	-----	
DESIGN3-DETAILED3	-----	-----	
REVISIONS 1	-----	-----	
REVISIONS 2	-----	-----	
REVISIONS 3	-----	-----	
REVISIONS 4	-----	-----	
FIELD CHANGES	-----	-----	

SIGNATURE

P.E. NUMBER

DATE

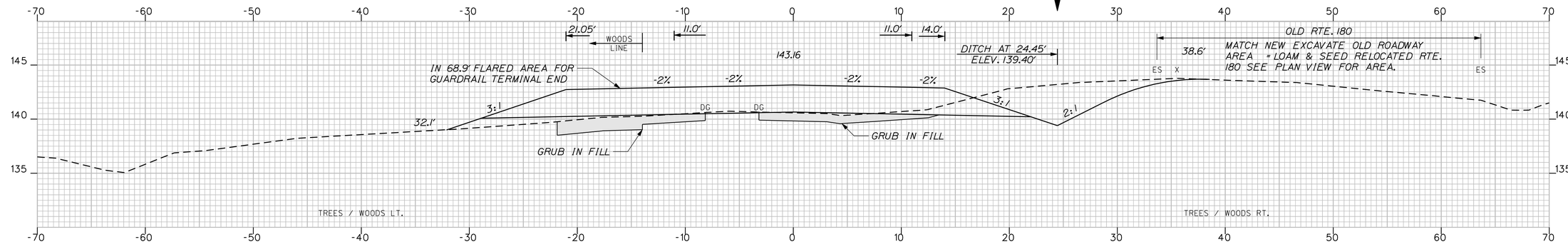
ELLSWORTH
ROUTE 180

1076+00.00 CROSS SECTIONS 1077+00.00

SHEET NUMBER

106

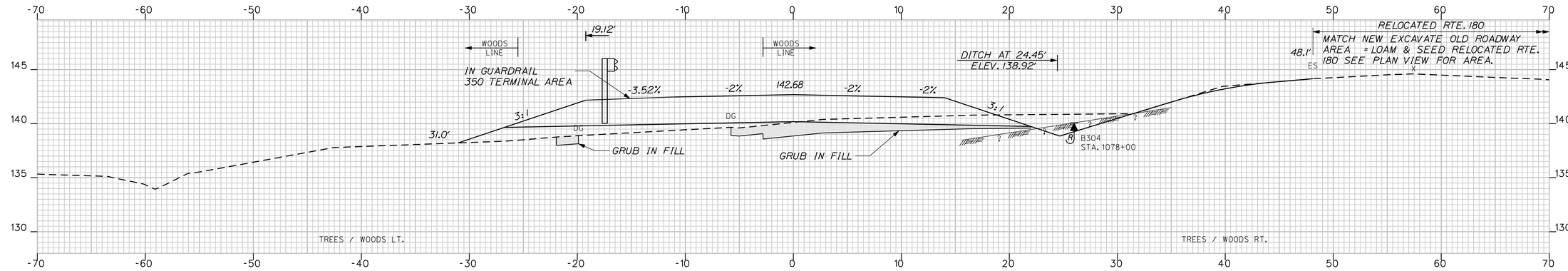
OF 151



1078+50.00

C = 43.8 C.Y.
F = 266.3 C.Y.
R = 8.8 C.Y.
G = 41.0 C.Y.

STA. 1078+21.50 LT. TO STA. 1078+90.40 LT.
CONSTRUCT 68.9' FLARED AREA FOR 350 FLARED TERMINAL

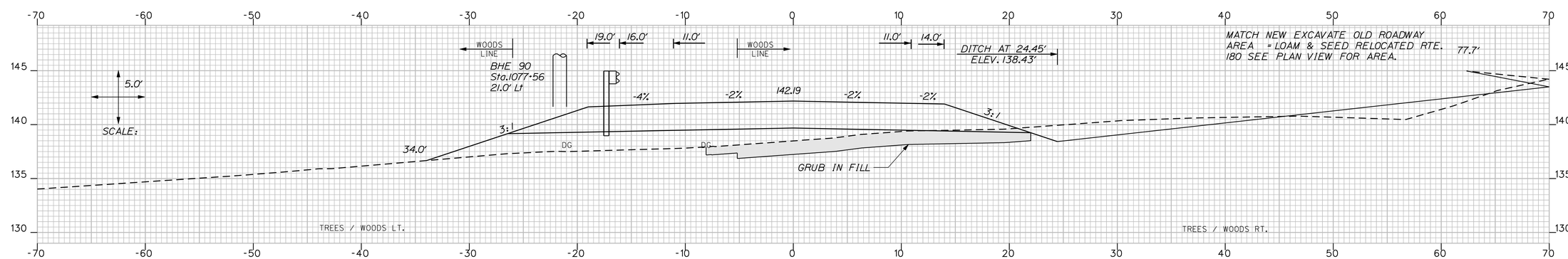


1078+00.00

C = 45.2 C.Y.
F = 72.0 C.Y.
R = 8.8 C.Y.
G = 51.0 C.Y.

STA. 1077+84.00 LT. TO STA. 1078+21.50 LT.
INSTALL GUARDRAIL 350 FLARED TERMINAL

FROM STA. 1077+84.00 LT. (AT END OF GUARDRAIL RUN)
TO STA. 1078+50.00 LT. TRANSITION SHOULDER SLOPE
FROM -4.0% TO -2.0% TO MATCH PROPOSED TRAVELWAY



1077+50.00

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 29.3 C.Y.
F = 127.2 C.Y.
R = 0.0 C.Y.
G = 66.6 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1077+50.00 CROSS SECTIONS 1078+50.00

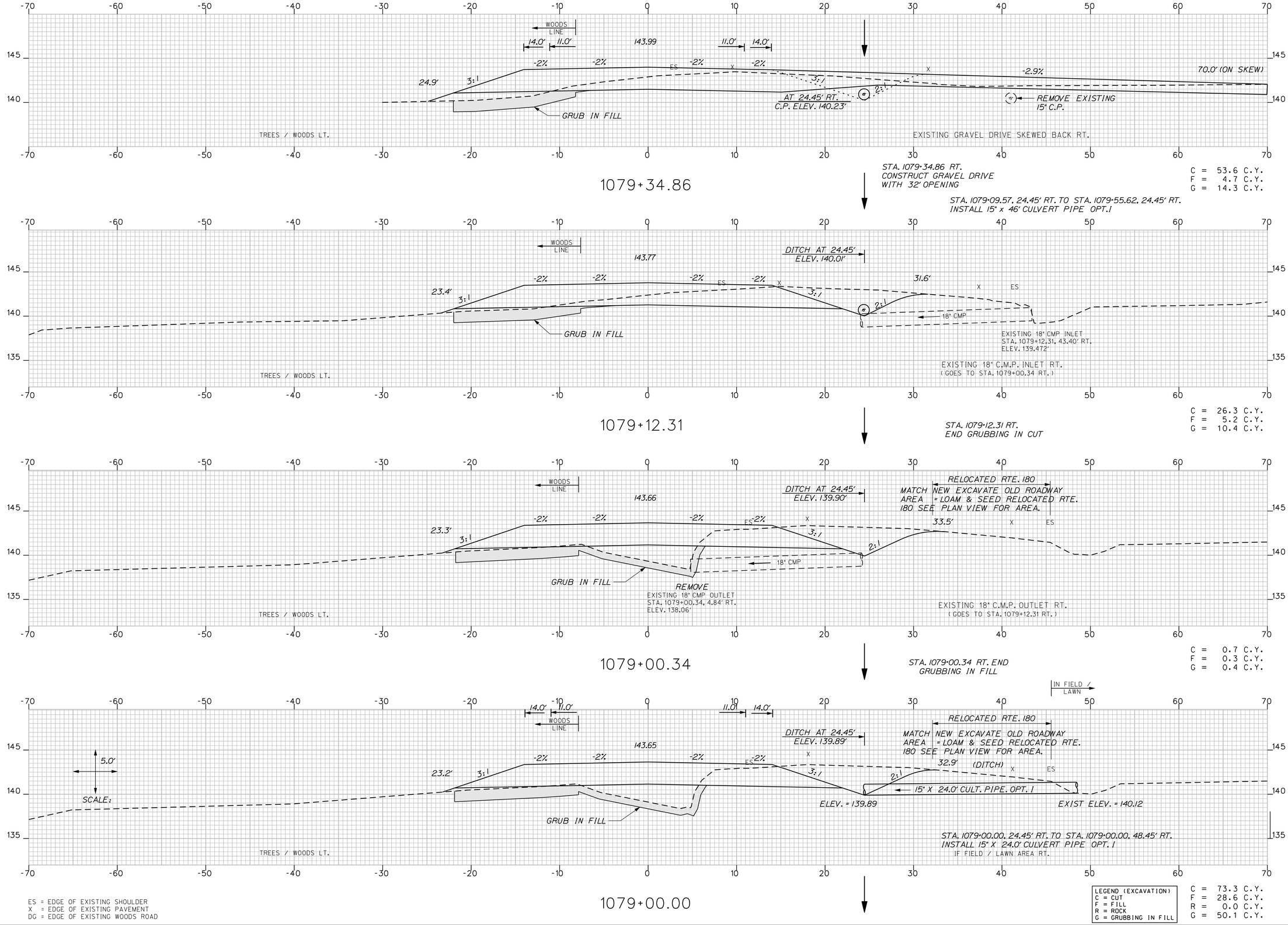
SHEET NUMBER

107

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\107_1077+50.00-DRAW-XSMC20-SECTS.dgn 068 HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1079+00.00 CROSS SECTIONS 1079+34.86

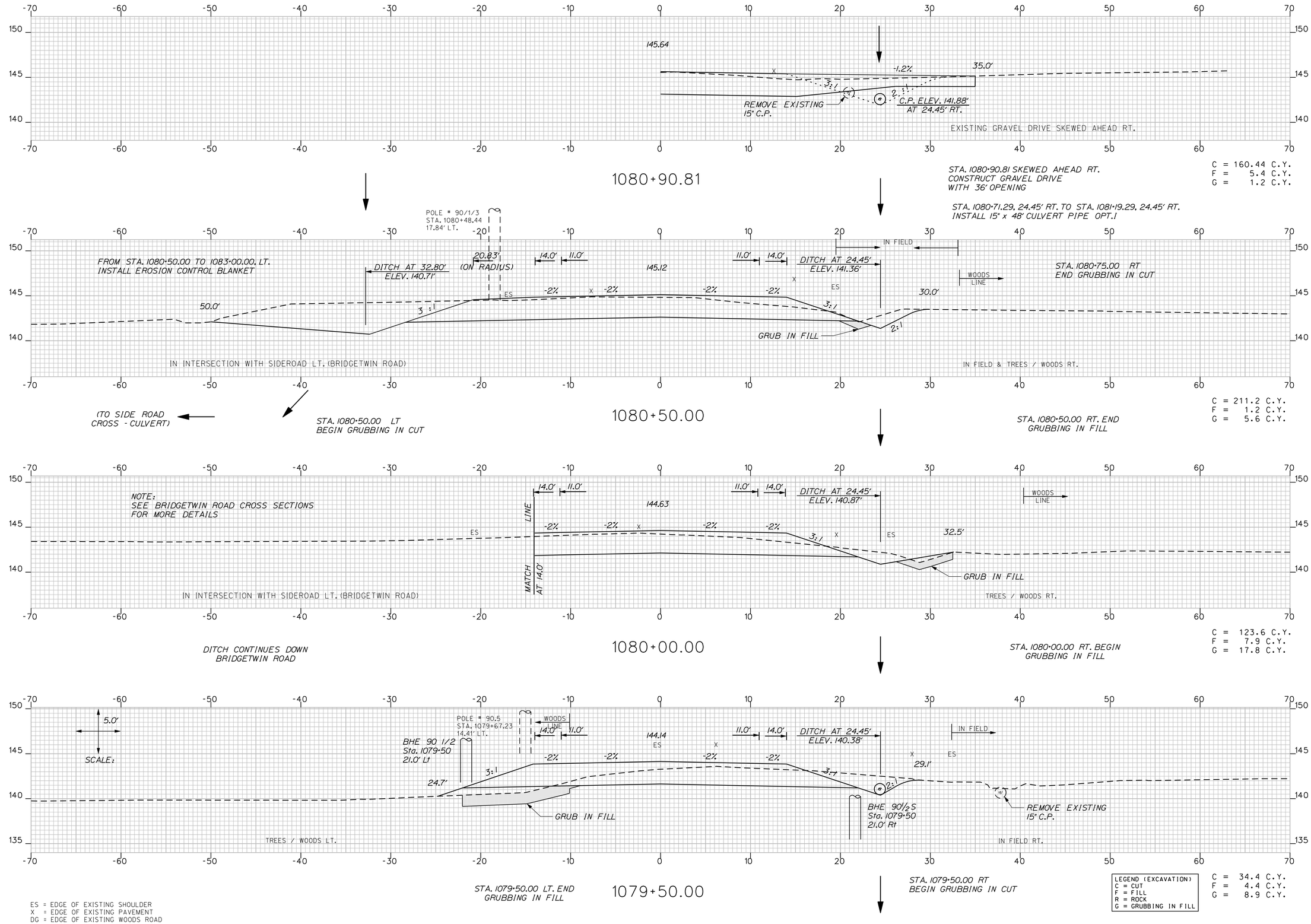
SHEET NUMBER

108

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\108_1079+00.00-DRAW-XSMC20-SECTS.dgn Division:0069 HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Monzer	X
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	NMC \ JH	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

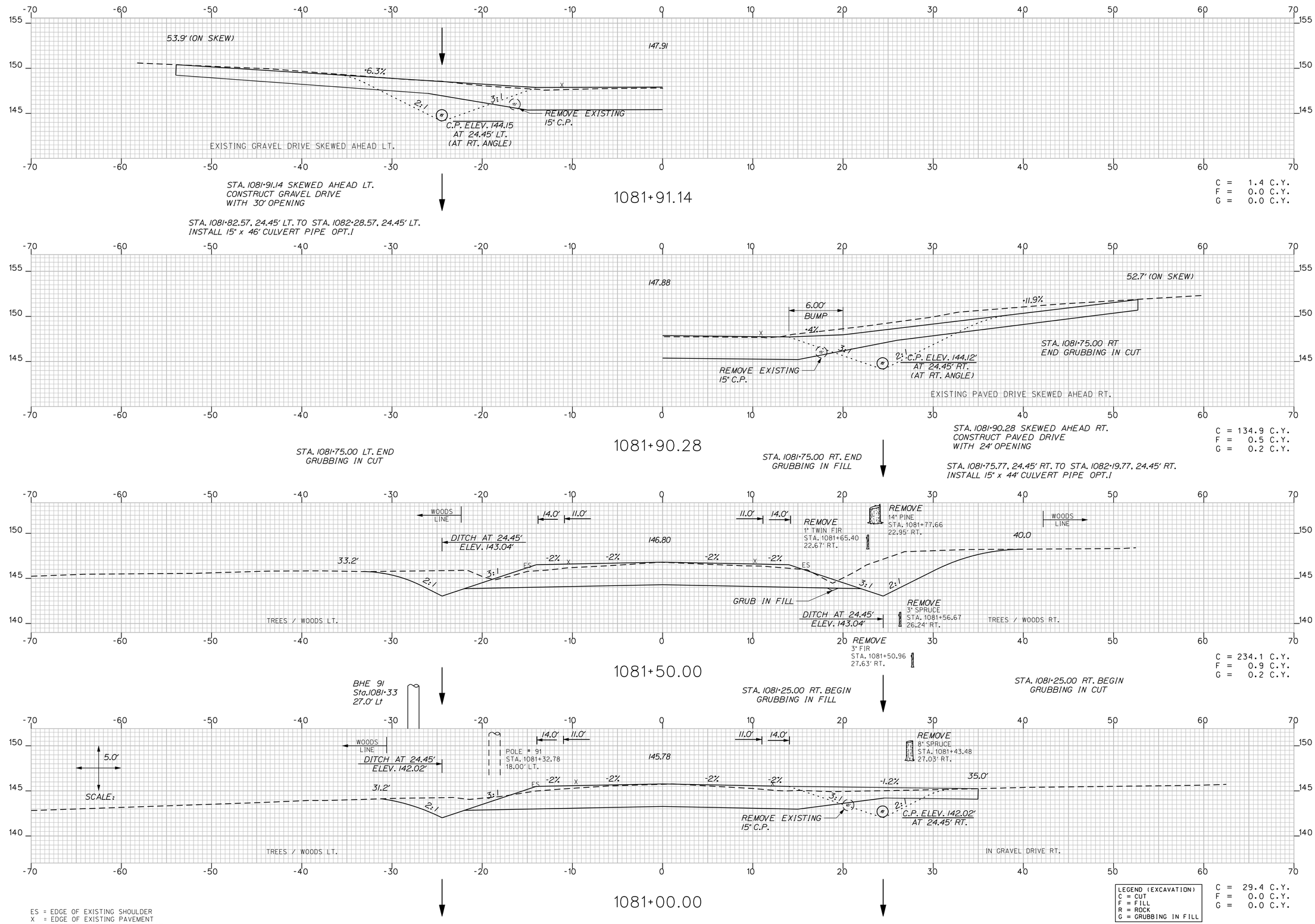
1079+50.00 CROSS SECTIONS 1080+90.81

SHEET NUMBER

109

OF 151

Filename: ...\109_1079+50.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1081+00.00 CROSS SECTIONS *1081+91.14*

SHEET NUMBER

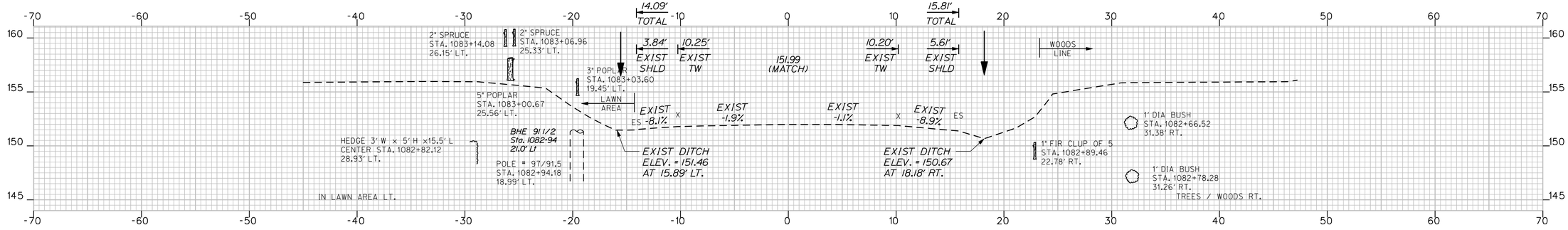
110

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\110_1081+00.00-DRAW-XSMC20-SECTS_Division2.dgn HIGHWAY

STA. 1083+00.00 = END PROPOSED PROJECT NO. 10063.10 = LIMIT OF WORK = MATCH EXISTING SECTION



C = 123.6 C.Y.

STA. 1083+00.0, 15.89' LT. = END DITCH MATCH EXISTING DITCH

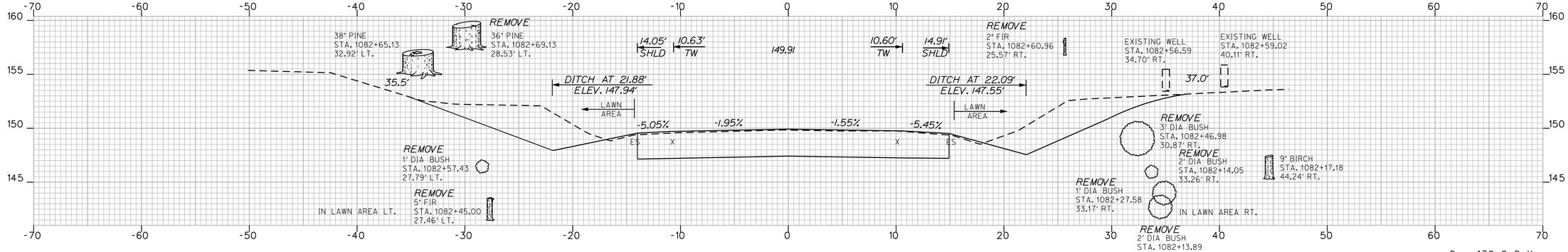
1083+00.00

STA. 1083+00.0, 18.18' RT. = END DITCH MATCH EXISTING DITCH

STA. 1082+85.00 TO STA. 1083+00.00 TRANSITION AGGREGATE GRAVEL BASE COURSE. AS DIRECTED BT THE RESIDENT

STA. 1082+90.00 LT. END GRUBBING IN CUT

STA. 1082+90.00 RT. END GRUBBING IN CUT

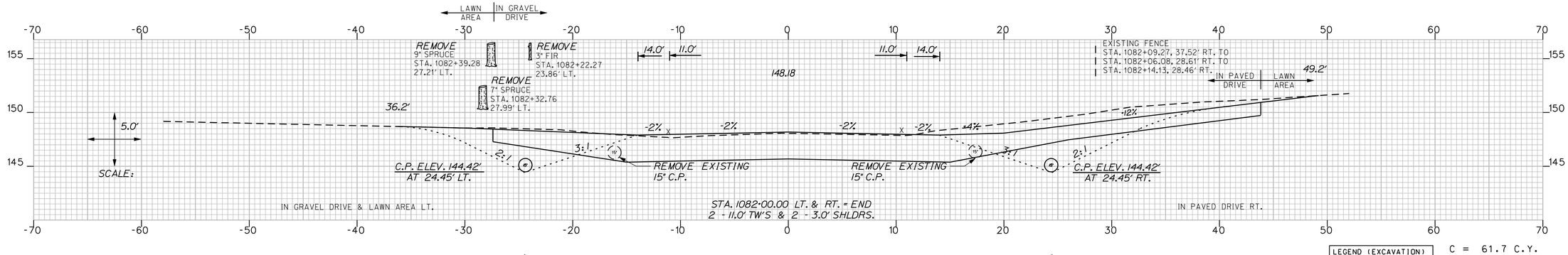


C = 430.0 C.Y.

1082+50.00

STA. 1082+20.00 LT. BEGIN GRUBBING IN CUT

STA. 1082+10.00 RT. BEGIN GRUBBING IN CUT



C = 61.7 C.Y.

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

1082+00.00

STA. 1082+28.57 (AT END OF DRIVE CULVERT) = END REGULAR DITCH OFFSET AT 24.45' LT.

STA. 1082+00.00 END NORMAL CROWN

STA. 1082+19.77 RT. (AT END OF DRIVE CULVERT) = END REGULAR DITCH OFFSET AT 24.45' RT.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

1082+00.00 CROSS SECTIONS 1083+00.00

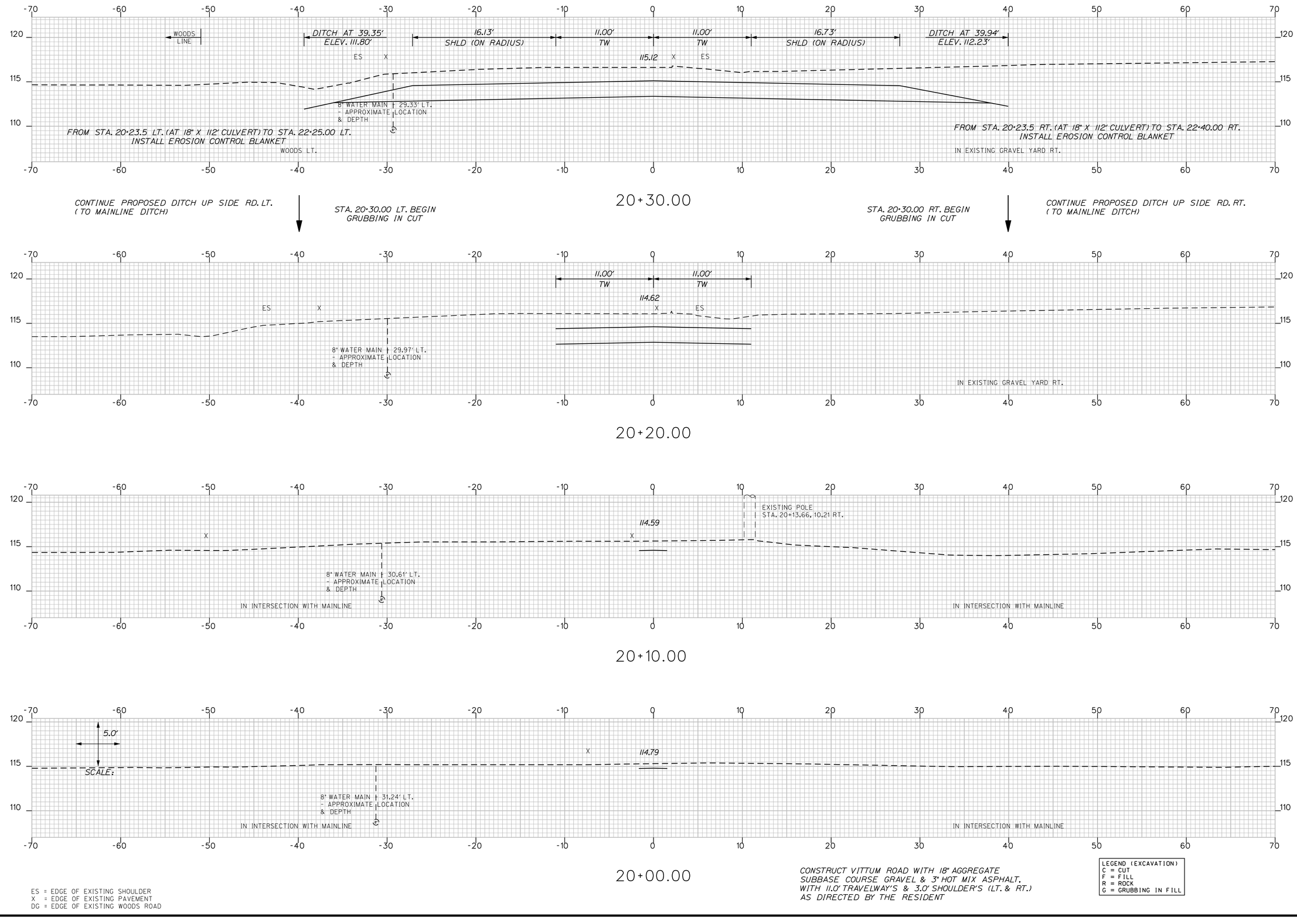
SHEET NUMBER

111

OF 151

Filename: ...\111_1082+00.00-DRAW-XSMC20-SECTS.dgn Username: Natasha.M.Collins Date:4/13/2012

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\112_20+00.00-DRAW-XSECTS-MCB1.dr Design HIGHWAY



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

CONSTRUCT VITTUM ROAD WITH 18" AGGREGATE SUBBASE COURSE GRAVEL & 3" HOT MIX ASPHALT. WITH 11.0' TRAVELWAY'S & 3.0' SHOULDER'S (LT. & RT.) AS DIRECTED BY THE RESIDENT

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

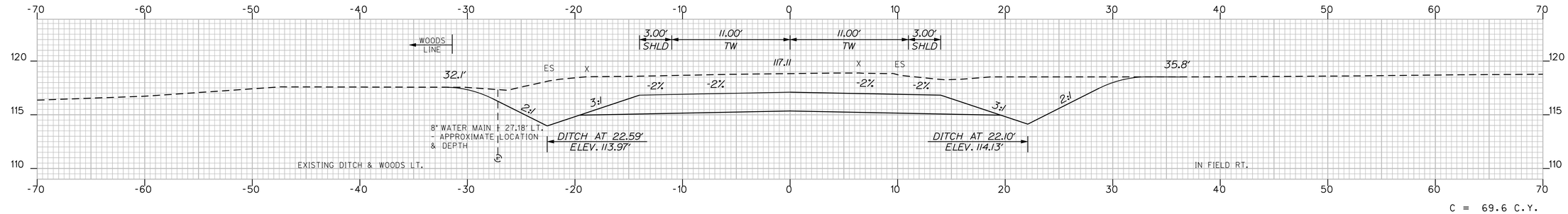
MARIAVILLE
VITTUM RD.

20+00.00 CROSS SECTIONS 20+30.00

SHEET NUMBER

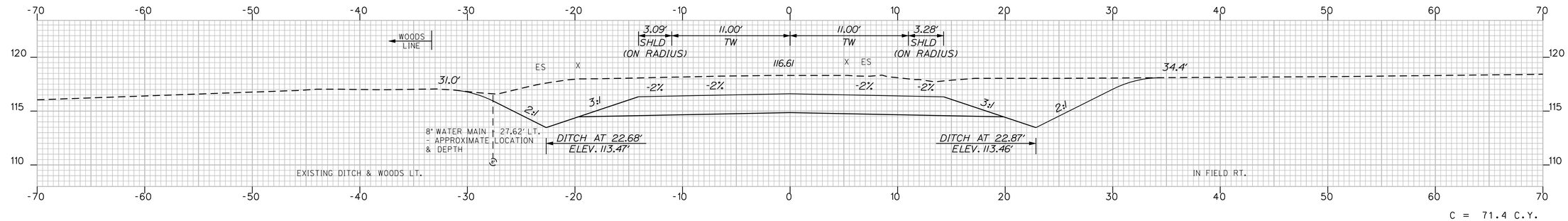
112

OF 151



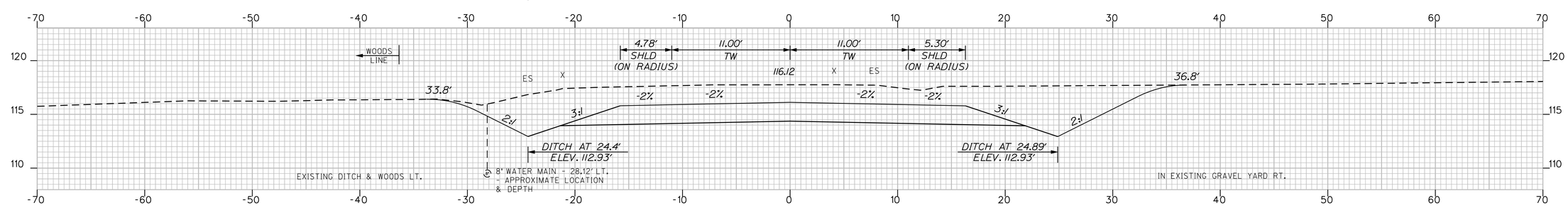
C = 69.6 C.Y.

20+70.00



C = 71.4 C.Y.

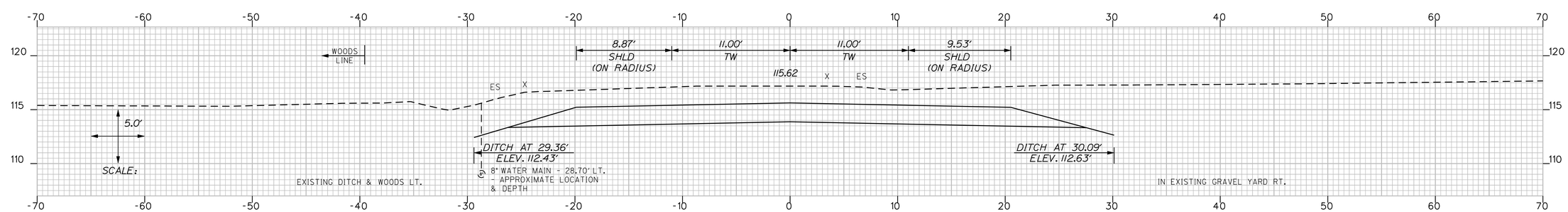
20+60.00



C = 77.4 C.Y.

20+50.00

STA. 20+50.00 = BEGIN -2% CROSS SLOPE ON TW & SHLDRS. RT.& LT.



CONTINUE DITCH LT.

20+40.00

CONTINUE DITCH RT.

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 90.8 C.Y.
F = 0.0 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
VITTUM RD.

20+40.00 CROSS SECTIONS 20+70.00

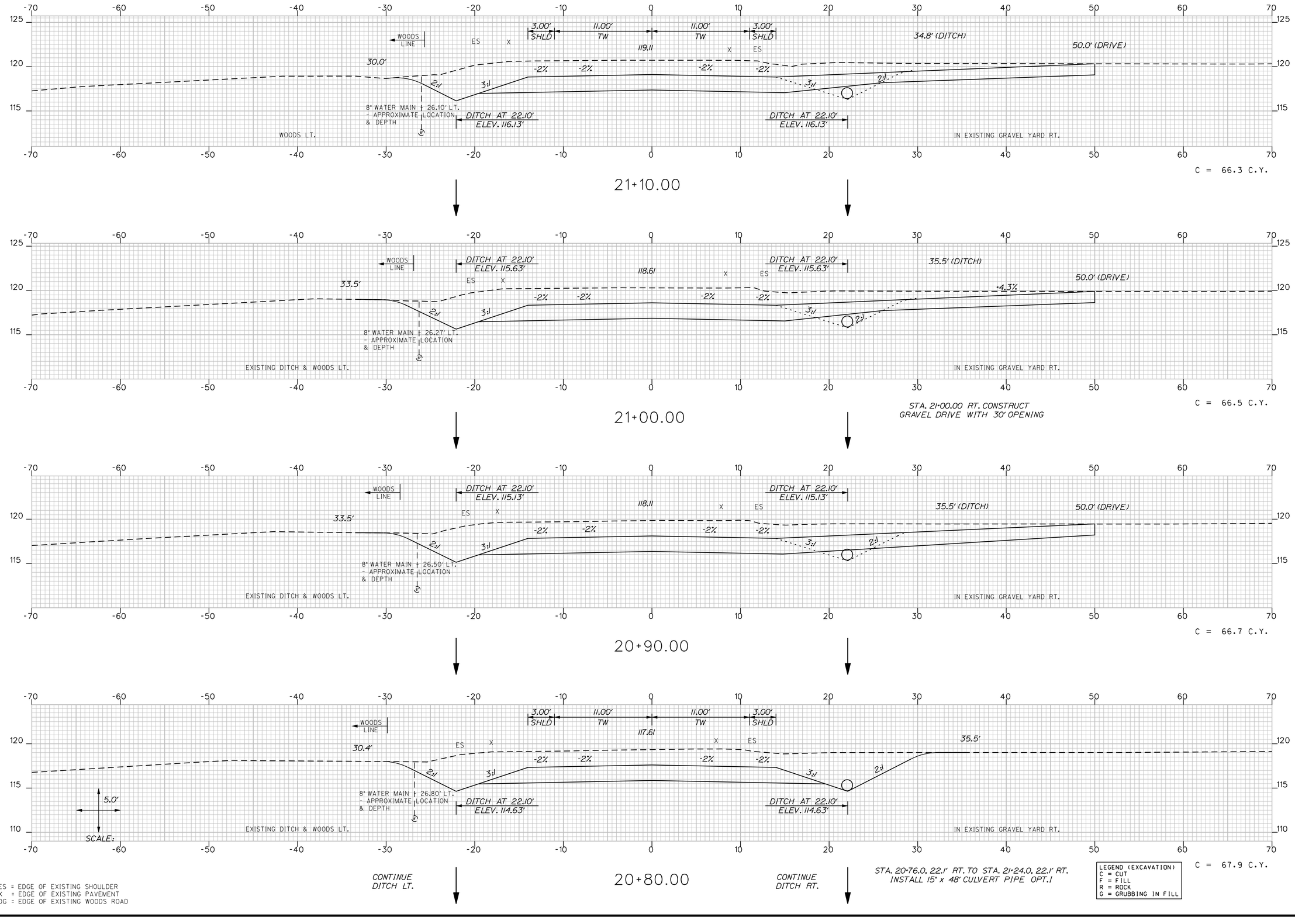
SHEET NUMBER

113

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\113_20+40.00-DRAW-XSECTS-MCB1_dr 10/8/2012 by design HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
VITUM RD.

20+80.00 CROSS SECTIONS 21+10.00

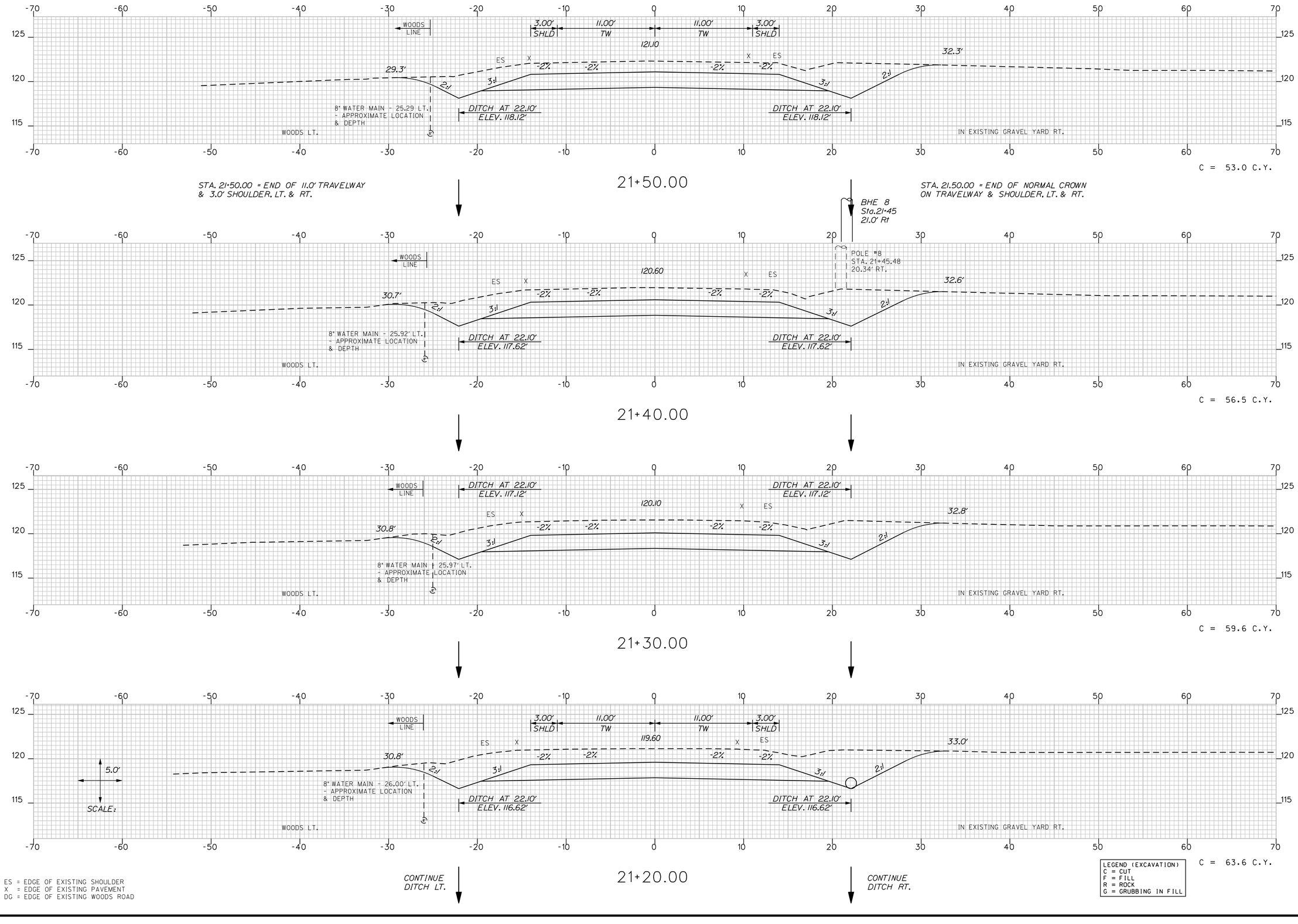
SHEET NUMBER

114

OF 151

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\114_20+80.00-DRAW-XSECTS-MCB1_dr 10063.10 Design HIGHWAY

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\115_21+20.00-DRAW-XSECTS-MCB1_dr_D0.dgn Design HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

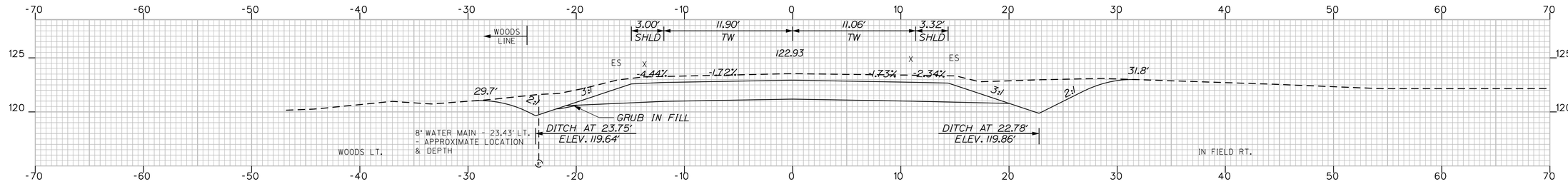
MARIAVILLE
VITUM RD.

21+20.00 CROSS SECTIONS 21+50.00

SHEET NUMBER

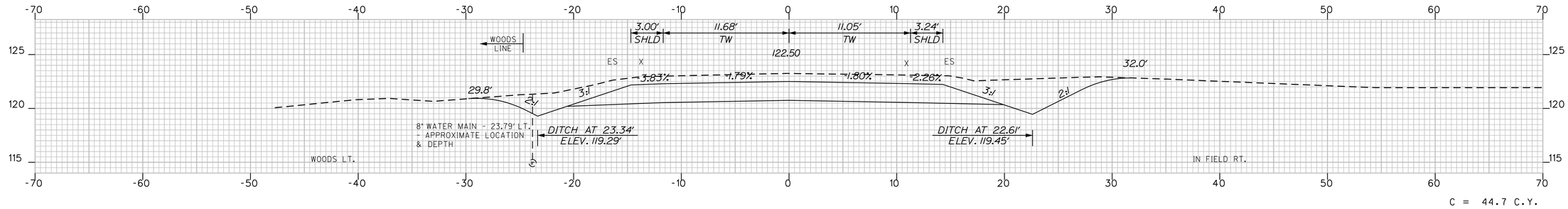
115

OF 151

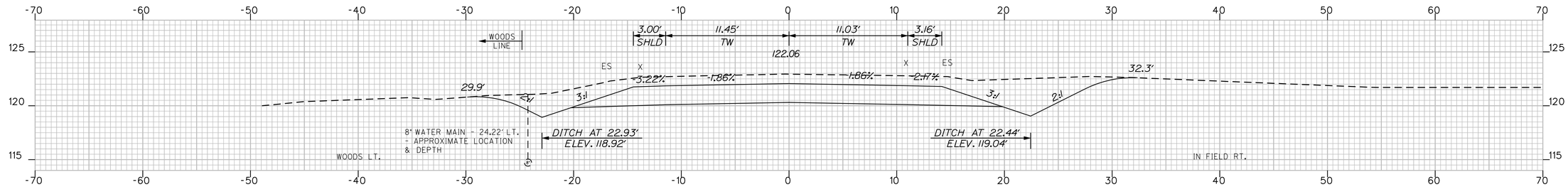


21+90.00

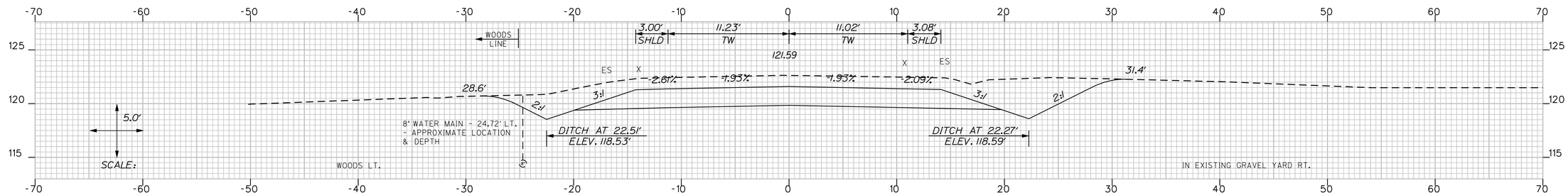
STA. 21+90.00 LT. = BEGIN GRUBBING IN FILL



21+80.00



21+70.00



21+60.00

CONTINUE DITCH LT.

CONTINUE DITCH RT.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
VITTUM RD.

21+60.00 CROSS SECTIONS 21+90.00

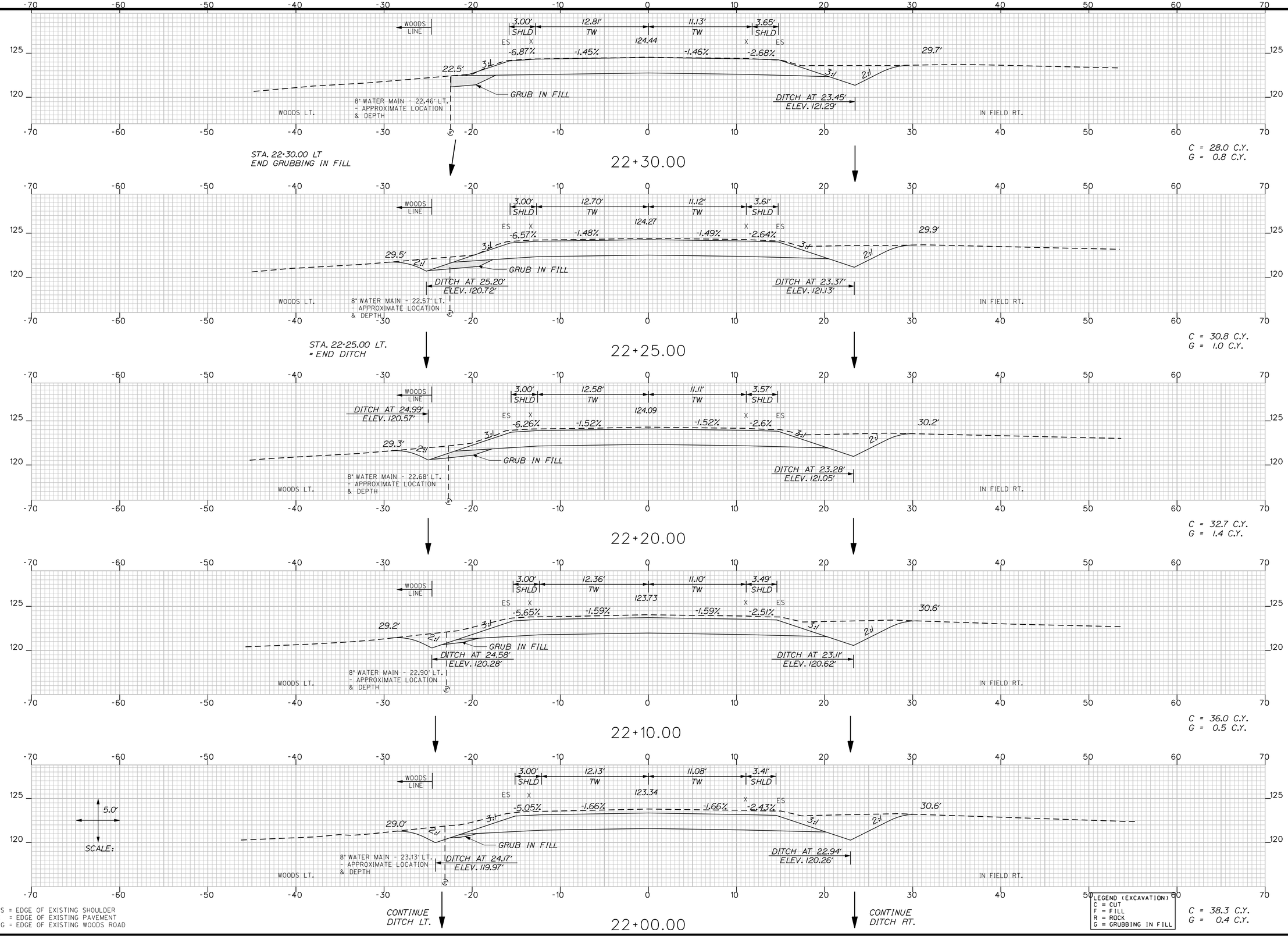
SHEET NUMBER

116

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\116_21+60.00-DRAW-XSECTS-MCB1_dr_D05.dgn Design HIGHWAY



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		DATE
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
VITUM RD.

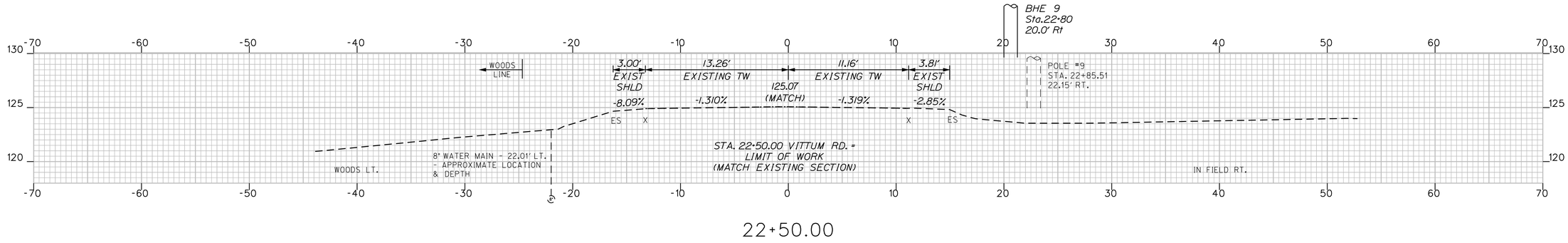
22+00.00 CROSS SECTIONS 22+30.00

SHEET NUMBER

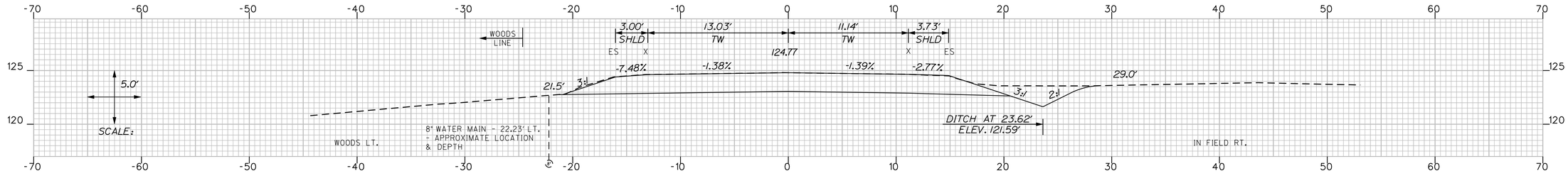
117

OF 151

Filename: ...\117_22+00.00-DRAW-XSECTS-MCB1.dgn Design HIGHWAY
Username: Natasha.M.Collins Date:4/13/2012



22+50.00



22+40.00

STA. 22+40.00 LT. END
GRUBBING IN CUT

STA. 22+40.00 RT.
= END DITCH

STA. 22+40.00 RT. END
GRUBBING IN CUT

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

C = 13.5 C.Y.
G = 0.8 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
VITTUM RD.

22+40.00 CROSS SECTIONS 22+50.00

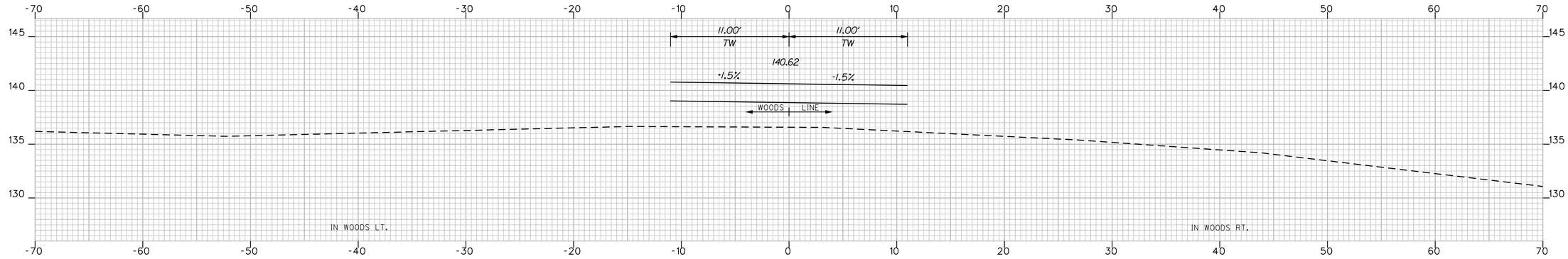
SHEET NUMBER

118

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\118_22+40.00-DRAW-XSECTS-MCB1_dr 10/5/2012 - Design HIGHWAY

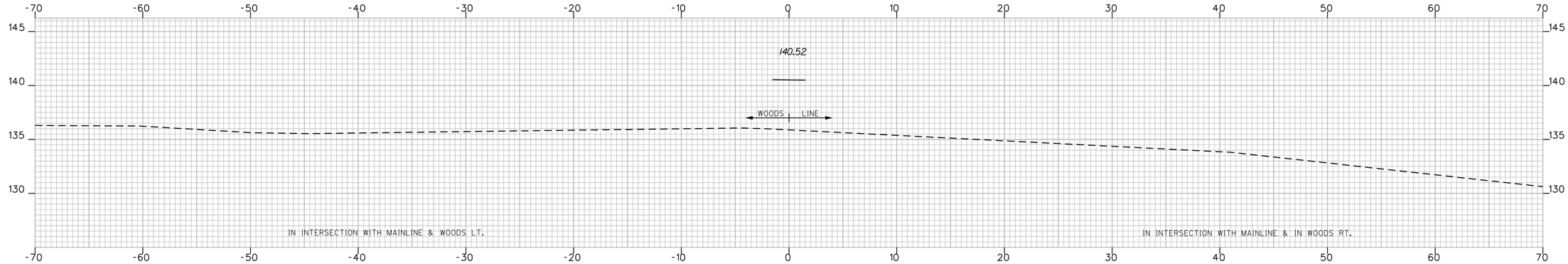


STA. 30+14.00 LT.
BEGIN GUBBING IN FILL
(MATCH INTO MAIN
LINE GRUBBING AREAS)

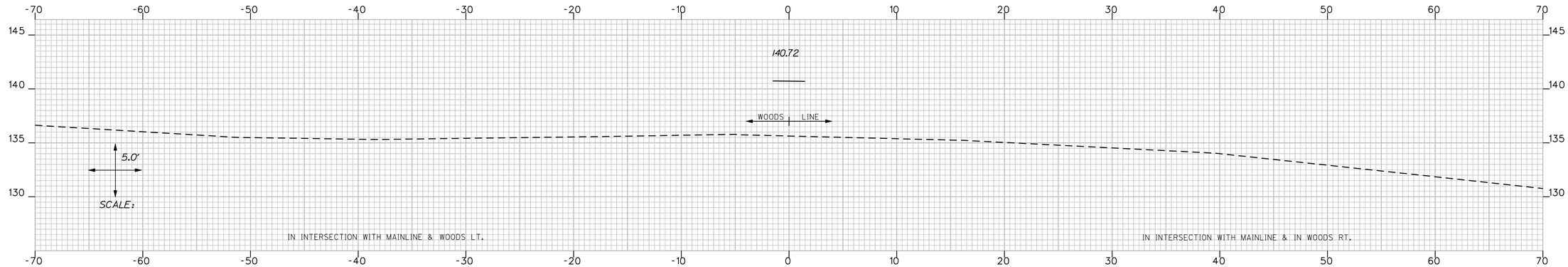
30+20.00

F = 23.9 C.Y.

STA. 30+14.00 RT.
BEGIN GUBBING IN FILL
(MATCH INTO MAIN
LINE GRUBBING AREAS)



30+10.00



30+00.00

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

CONSTRUCT RELOCATED RTE. 180 WITH 18" AGGREGATE SUBBASE COURSE GRAVEL & 3" HOT MIX ASPHALT, WITH 11.0' TRAVELWAY'S & 3.0' SHOULDERS (LT. & RT.) AS DIRECTED BY THE RESIDENT

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

	ERNIE MARTIN	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
RELOCATED RTE. 180

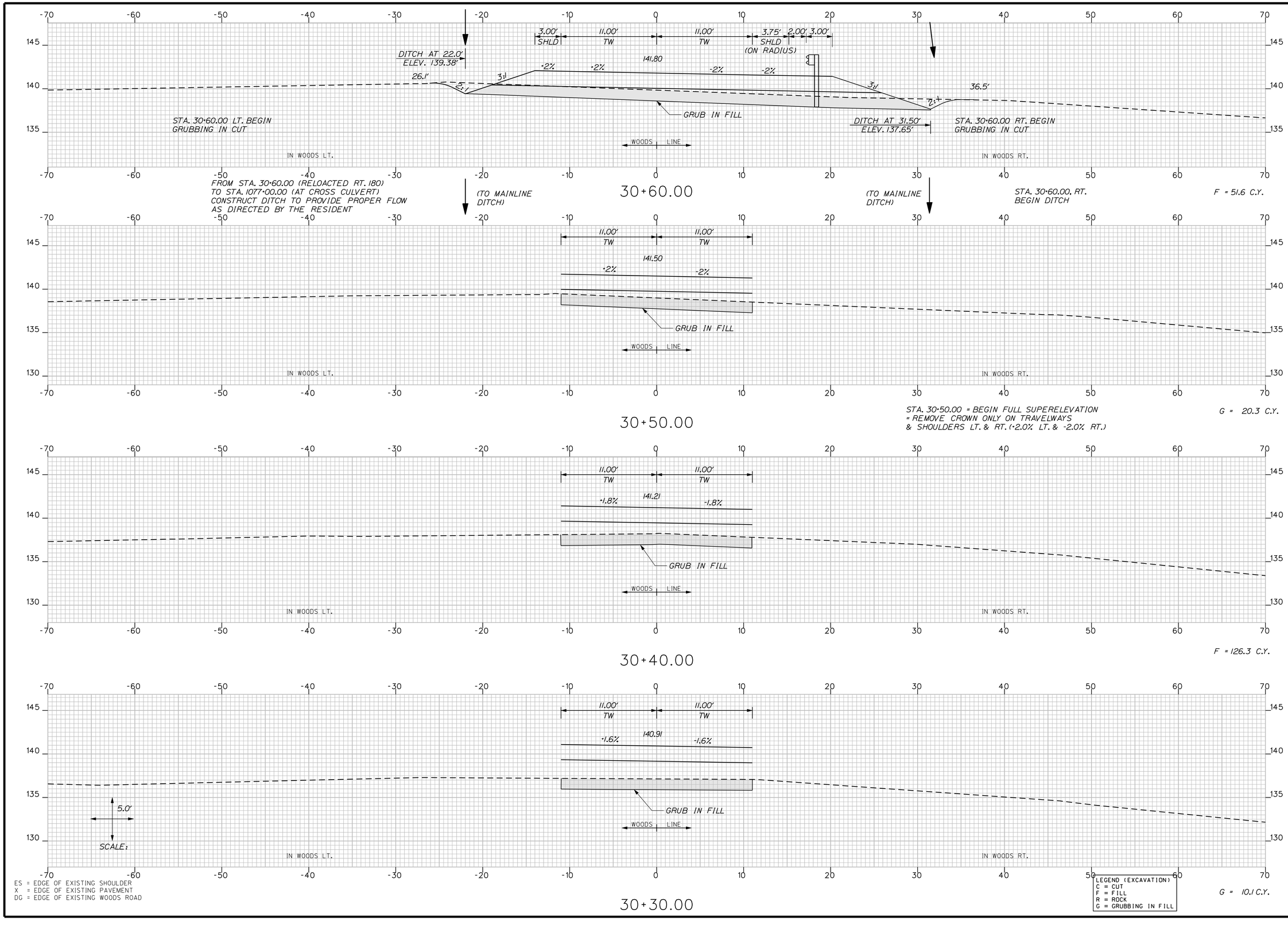
30+00.00 CROSS SECTIONS 30+20.00

SHEET NUMBER

119

OF 151

Filename: ...\119_30+00.00-DRAW-XSECTS-MCC1_dr.dgn Username: Natasha.M.Collins Date:4/13/2012



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

	ERNIE MARTIN	DATE
PROJ. MANAGER		
DESIGN-DETAILED	J. Manzer	X
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

BY: NMC \ JH

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
RELOCATED RTE. 180

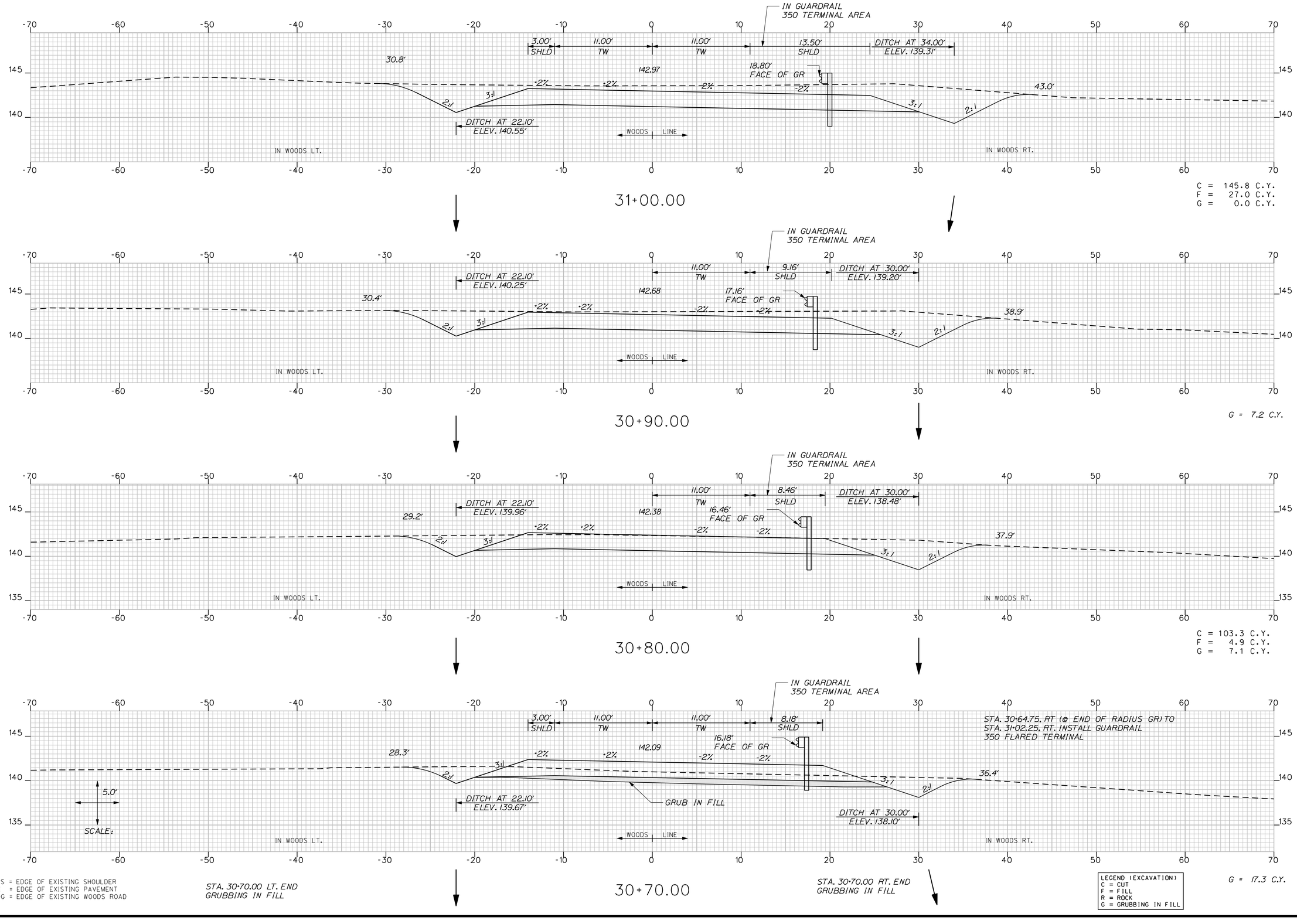
30+30.00 CROSS SECTIONS 30+60.00

SHEET NUMBER

120

OF 151

Filename: ...\120_30+30.00-DRAW-XSECTS-MCC1_dr.dgn Date:4/13/2012 Username: Natasha.M.Collins



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	BY	DATE
CHECKED-REVIEWED	-----	NMC \ JH	X
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
RELOCATED RTE. 180

30+70.00 CROSS SECTIONS 31+00.00

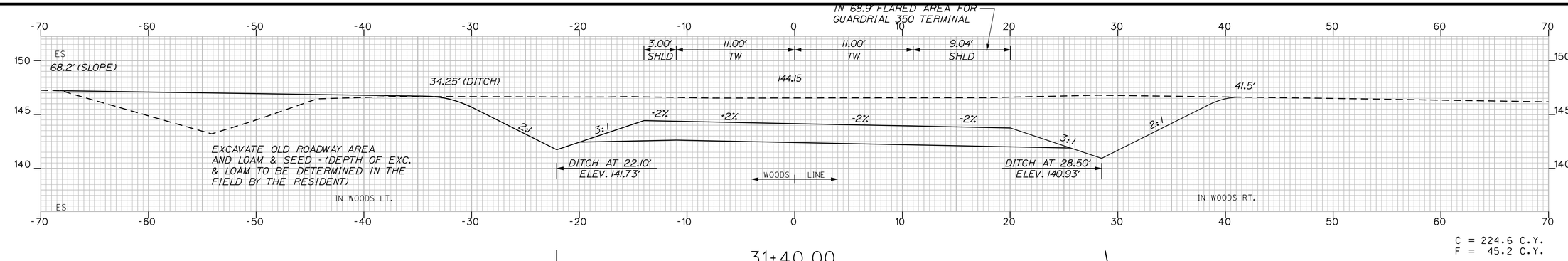
SHEET NUMBER

121

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\121_30+70.00-DRAW-XSECTS-MCC1_dr.DWG Design HIGHWAY



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
RELOCATED RTE. 180

31+10.00 CROSS SECTIONS 31+40.00

SHEET NUMBER

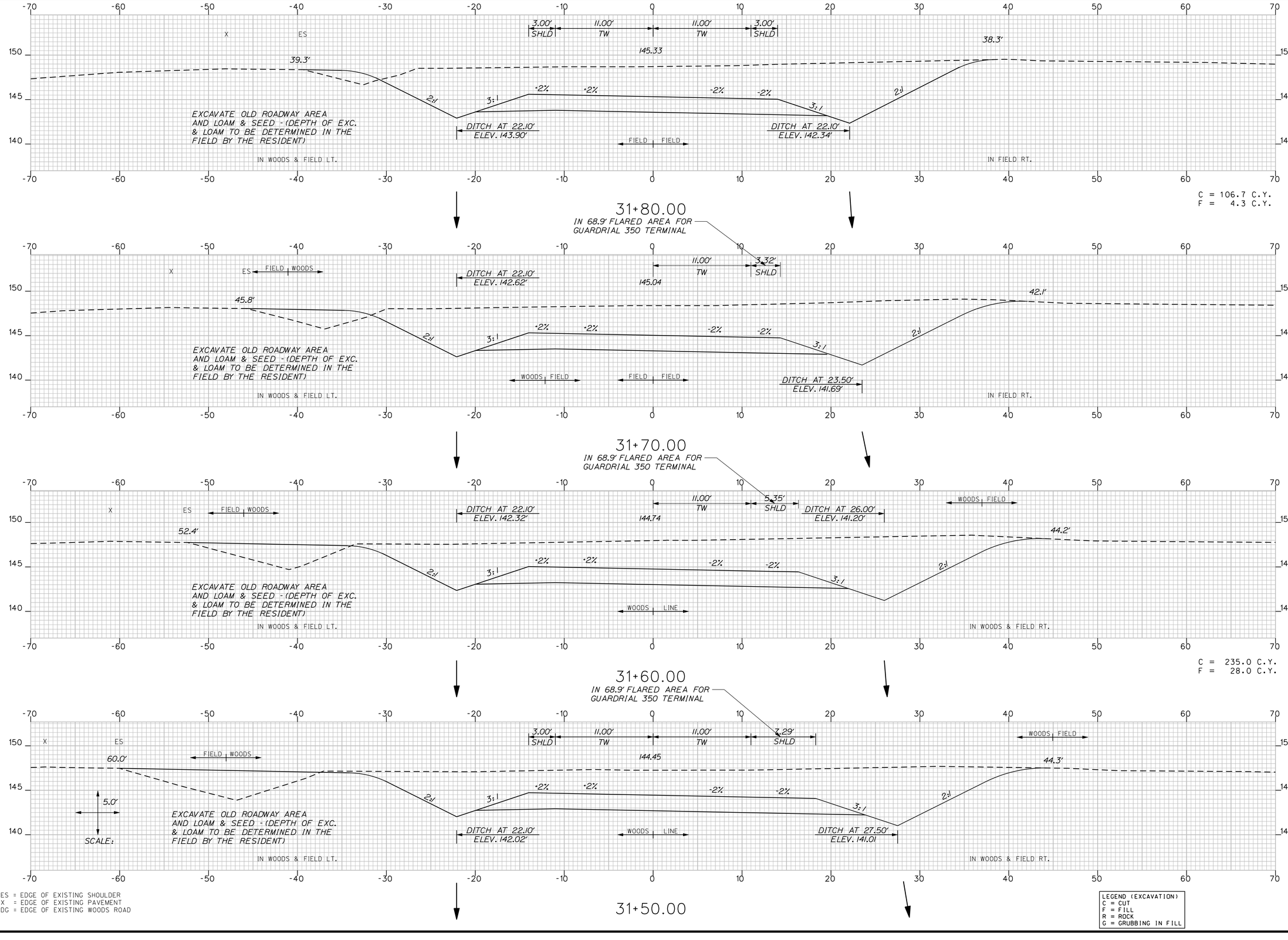
122

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\122_31+10.00-DRAW-XSECTS-MCC1.dgn Default HIGHWAY

Username: Natasha.M.Collins Date:4/13/2012
Filename: ...\123_31+50.00-DRAW-XSECTS-MCC1_dr Default Design HIGHWAY



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	X	
CHECKED-REVIEWED		NMC \ JH	
DESIGN2-DETAILED2		-----	-----
DESIGN3-DETAILED3		-----	-----
REVISIONS 1		-----	-----
REVISIONS 2		-----	-----
REVISIONS 3		-----	-----
REVISIONS 4		-----	-----
FIELD CHANGES		-----	-----

SIGNATURE

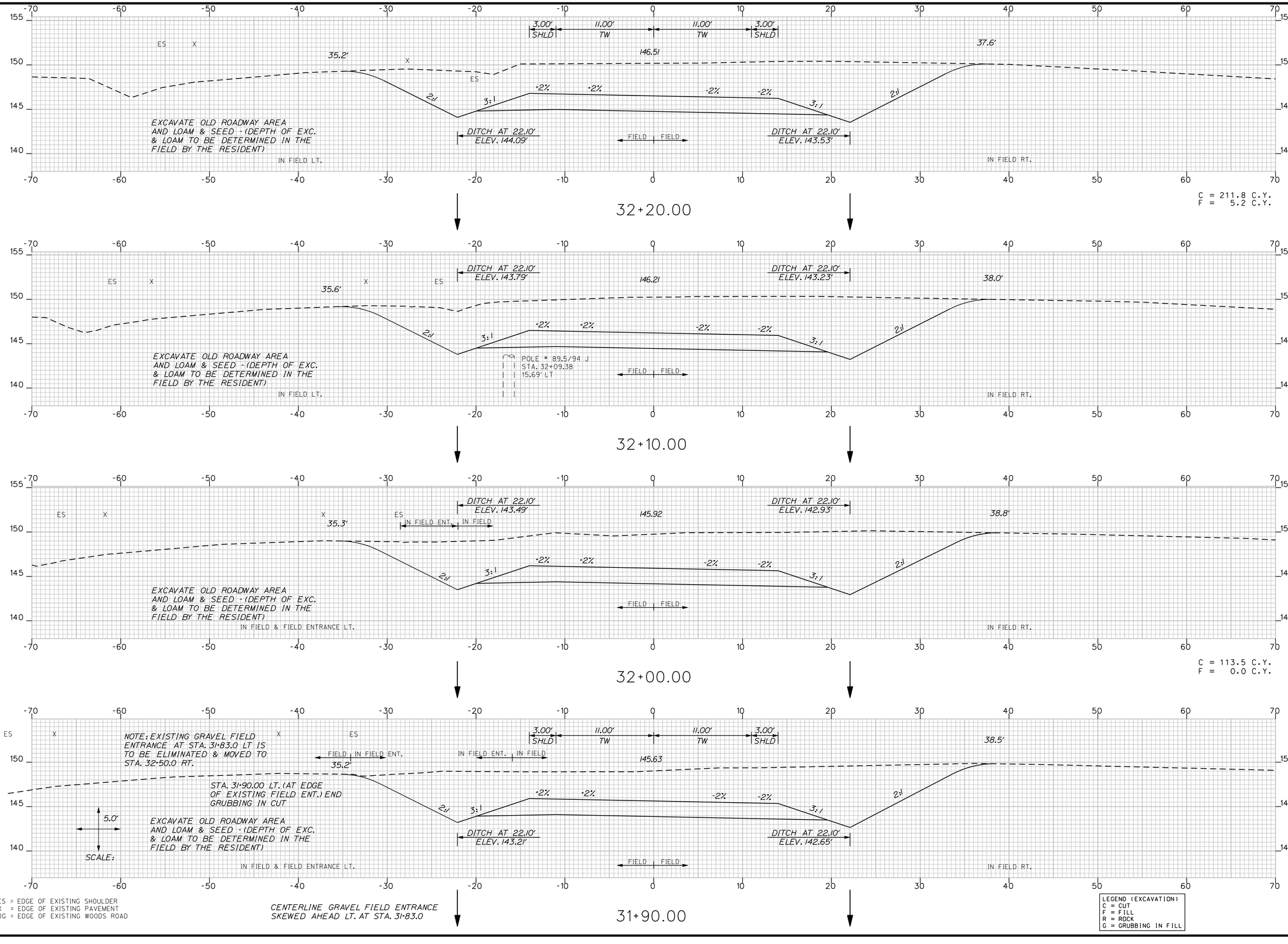
P.E. NUMBER

DATE

MARIAVILLE
RELOCATED RTE. 180

CROSS SECTIONS 31+80.00
31+50.00

SHEET NUMBER
123
OF 151



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

			DATE
PROJ. MANAGER	ERNIE MARTIN	BY	
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
RELOCATED RTE. 180

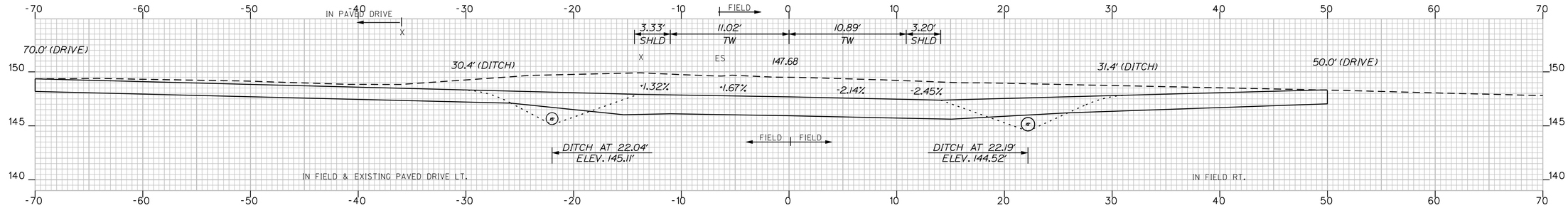
31+90.00 CROSS SECTIONS 32+20.00

SHEET NUMBER

124

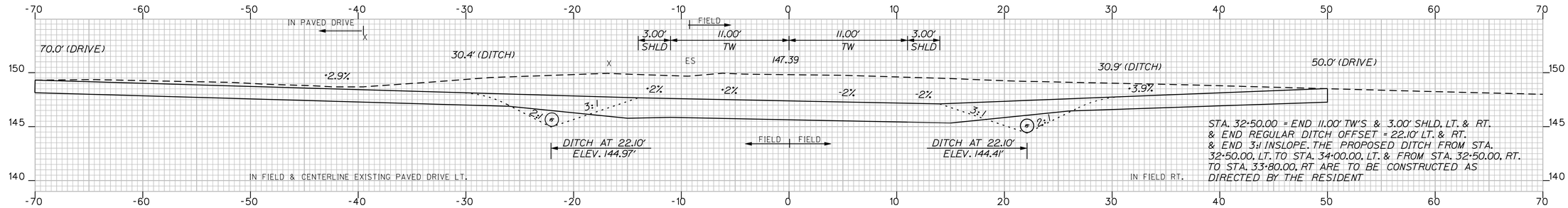
OF 151

Filename: ...\124_31+90.00-DRAW-XSECTS-MCC1_dr Date:4/13/2012 Time:10:06:07 Username: Natasha.M.Collins



C = 134.3 C.Y.
F = 0.0 C.Y.

32+60.00



STA. 32+50.00 LT. CONSTRUCT PAVED DRIVE WITH 32' OPENING

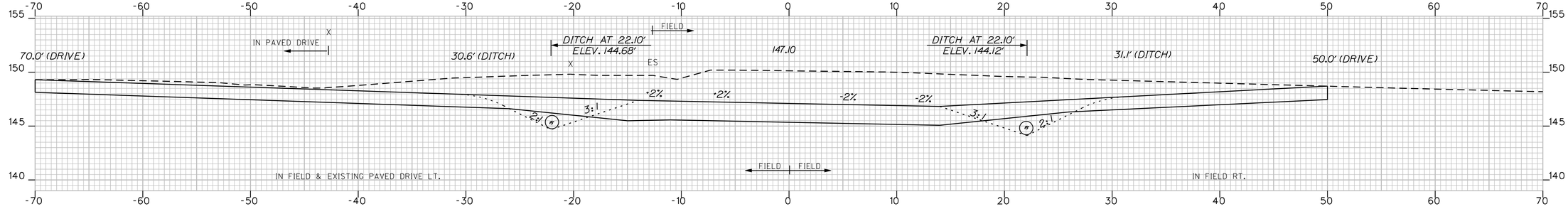
STA. 32+50.00 RT. CONSTRUCT GRAVEL FIELD ENT. WITH 20' OPENING

STA. 32+50.00 = END 11.00' TW'S & 3.00' SHLD. LT. & RT. & END REGULAR DITCH OFFSET = 22.10' LT. & RT. & END 3:1 INSLOPE. THE PROPOSED DITCH FROM STA. 32+50.00. LT. TO STA. 34+00.00. LT. & FROM STA. 32+50.00. RT. TO STA. 33+80.00. RT ARE TO BE CONSTRUCTED AS DIRECTED BY THE RESIDENT

32+50.00

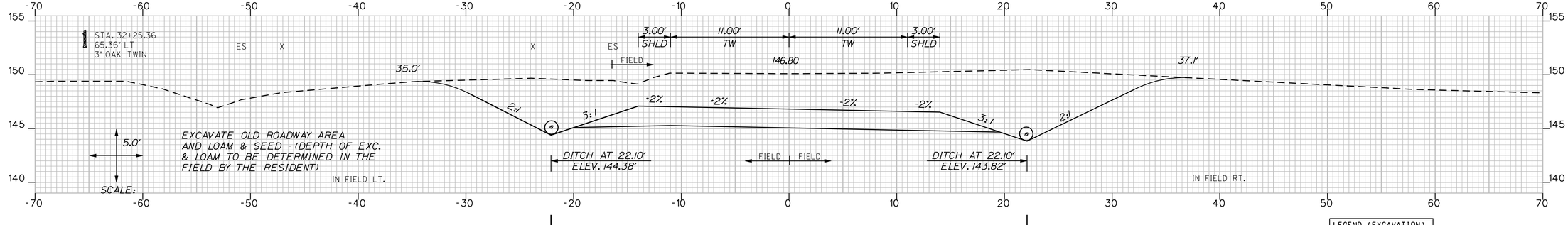
STA. 32+50.00 = END FULL SUPERELEVATION
= REMOVE CROWN (-2.0% LT & -2% RT.)

STA. 32+50.00
END 11.0' TW & 3.0' SHLD LT & RT



C = 170.5 C.Y.

32+40.00



SCALE:

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STA. 32+25.00, 22.1' LT. TO STA. 32+75.00, 22.1' LT.
INSTALL 15" x 50' CULVERT PIPE OPT. 1

32+30.00

STA. 32+31.00, 22.1' RT. TO STA. 32+69.0, 22.1 RT.
INSTALL 15" x 38' CULVERT PIPE OPT.1

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN			DATE	
DESIGN-DETAILED	J. Manzer	BY	X		
CHECKED-REVIEWED	-----	NMC \ JH	-----	SIGNATURE	
DESIGN2-DETAILED2	-----	WED	-----	-----	
DESIGN3-DETAILED3	-----	ED2	-----	-----	
REVISIONS 1	-----	ED3	-----	P.E. NUMBER	
REVISIONS 2	-----	-----	-----	-----	
REVISIONS 3	-----	-----	-----	DATE	
REVISIONS 4	-----	-----	-----	-----	
FIELD CHANGES	-----	-----	-----	-----	

MARIAVILLE
RELOCATED RTE. 180

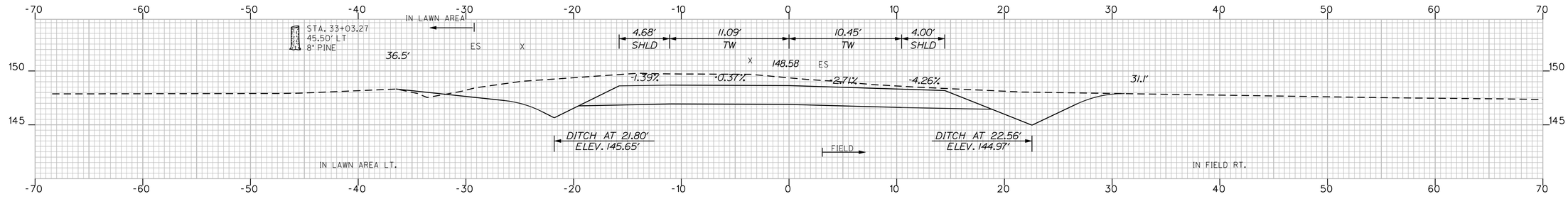
32+30.00 CROSS SECTIONS 32+60.00

SHEET NUMBER

125

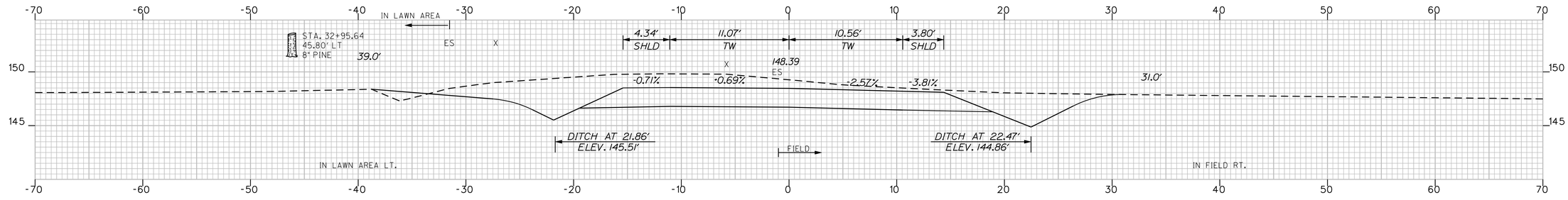
OF 151

Filename: ...\125_32+30.00-DRAW-XSECTS-MCC1_dr D:\Data\dgn\HIGHWAY
Username: Natasha.M.Collins Date:4/13/2012



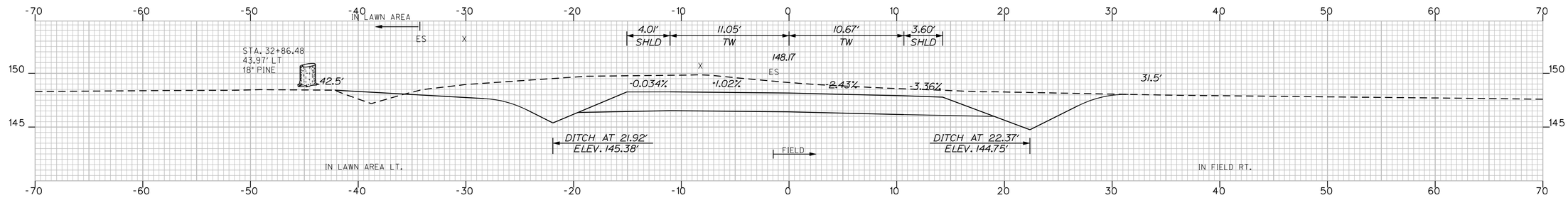
C = 90.4 C.Y.
F = 1.0 C.Y.

33+00.00



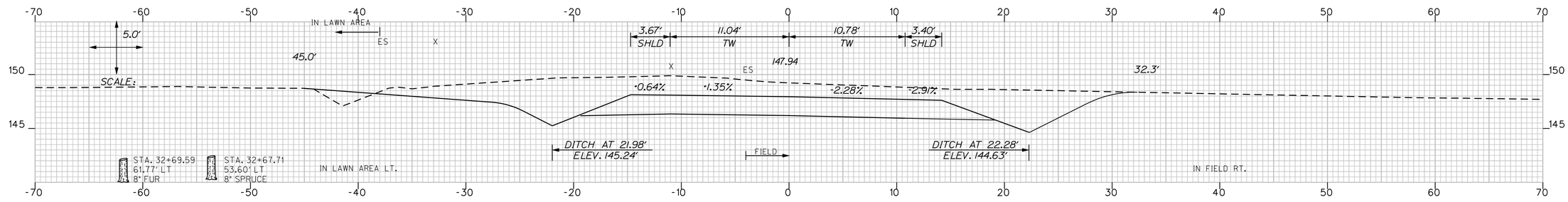
F = 1.1 C.Y.

32+90.00



C = 107.8 C.Y.
F = 1.4 C.Y.

32+80.00



F = 1.0 C.Y.

32+70.00

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
RELOCATED RTE. 180

32+70.00 CROSS SECTIONS 33+00.00

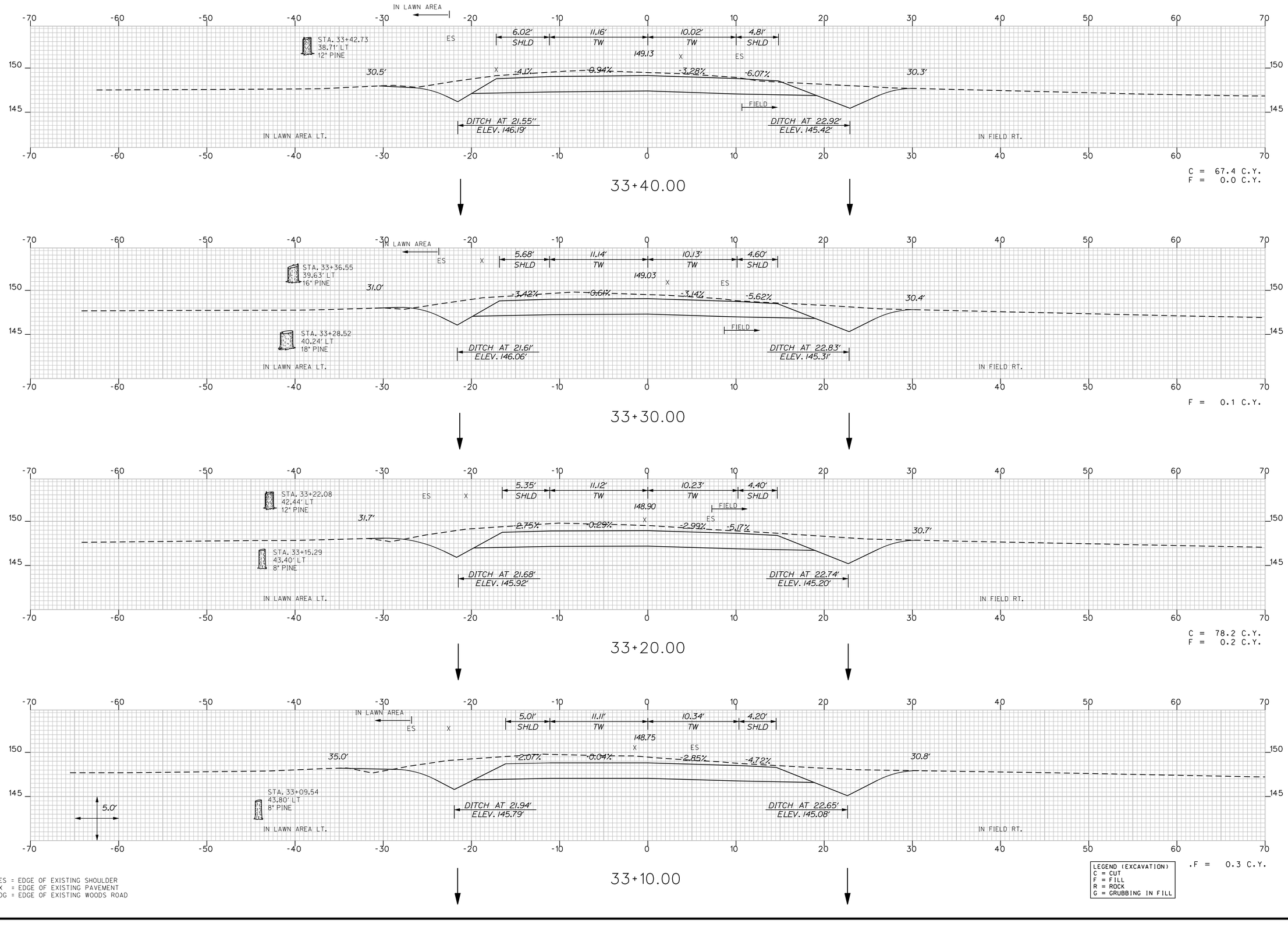
SHEET NUMBER

126

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\126_32+70.00-DRAW-XSECTS-MCC1_dr D:\Bodgn\HIGHWAY



Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\127_33+10.00-DRAW-XSECTS-MCC1_dr Design HIGHWAY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
RELOCATED RTE. 180

33+10.00 CROSS SECTIONS 33+40.00

SHEET NUMBER

127

OF 151

Filename: ...\128_33+50.00-DRAW-XSECTS-MCC1_dr D09 Layout HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

33+90.00

IN GRAVEL DRIVE

26.7' (DITCH) | 7.69' SHLD | 11.25' TW | 9.47' TW | 5.81' SHLD

149.30

35.0' (DRIVE) | 20.0'

-7.49% | -2.57% | -3.99% | -8.34%

DITCH AT 21.25'
ELEV. 146.87'

IN EXISTING GRAVEL DRIVE LT. | IN FIELD | IN FIELD RT.

STA. 33+80.20 RT.
(AT END OF THE PROPOSED DITCH) END GRUBBING IN CUT

33+80.00

IN GRAVEL DRIVE

27.1' (DITCH) | 7.36' SHLD | 11.23' TW | 9.58' TW | 5.61' SHLD

149.31

35.0' (DRIVE) | 30.0'

-2% | -6.81% | -2.25% | -3.85% | -7.88%

STA. 33+80.20 = HIGH POINT ON PROFILE

STA. 33+80.20 RT. = END DITCH (AT HIGH POINT ON PROFILE) NEW DITCH OFFSET = 23.28' & ELEVATION = 145.86

STA. 33+83.00 LT. CONSTRUCT GRAVEL DRIVE WITH 20' OPENING

DITCH AT 21.31'
ELEV. 146.74'

DITCH AT 23.28'
ELEV. 145.86'

IN EXISTING GRAVEL DRIVE LT. | IN FIELD | IN FIELD RT.

C = 27.5 C.Y.

CENTERLINE EXISTING GRAVEL DRIVE AT STA. 33+83.0 LT.

33+70.00

REMOVE
STA. 33+71.46
27.63' LT
3' SHRUB

IN LAWN AREA | 7.02' SHLD | 11.21' TW | 9.69' TW | 5.41' SHLD

149.30

STA. 33+69.00, 21.38' LT. TO STA. 33+97.00, 21.21' LT.
INSTALL 15" x 28' CULVERT PIPE OPT. 1

28.0' | 30.5'

-6.14% | -1.92% | -3.70% | -7.43%

DITCH AT 21.37'
ELEV. 146.60'

DITCH AT 23.20'
ELEV. 145.76'

IN LAWN AREA LT. | IN FIELD | IN FIELD RT.

33+60.00

STA. 33+63.86
35.71' LT
12" PINE

IN LAWN AREA | 6.69' SHLD | 11.20' TW | 9.80' TW | 5.21' SHLD

149.26

28.7' | 31.5'

-5.46% | -1.59% | -3.56% | -6.98%

DITCH AT 21.43'
ELEV. 146.46'

DITCH AT 23.11'
ELEV. 145.65'

IN LAWN AREA LT. | IN FIELD | IN FIELD RT.

C = 58.6 C.Y.

33+50.00

IN LAWN AREA | 6.35' SHLD | 11.18' TW | 9.91' TW | 5.01' SHLD

149.21

5.0' | 29.7' | 29.5'

-4.78% | -1.27% | -3.42% | -6.53%

DITCH AT 21.49'
ELEV. 146.33'

DITCH AT 23.01'
ELEV. 145.53'

IN LAWN AREA LT. | IN FIELD | IN FIELD RT.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	X
DESIGN-DETAILED	J. Manzer	NMC \ JH
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

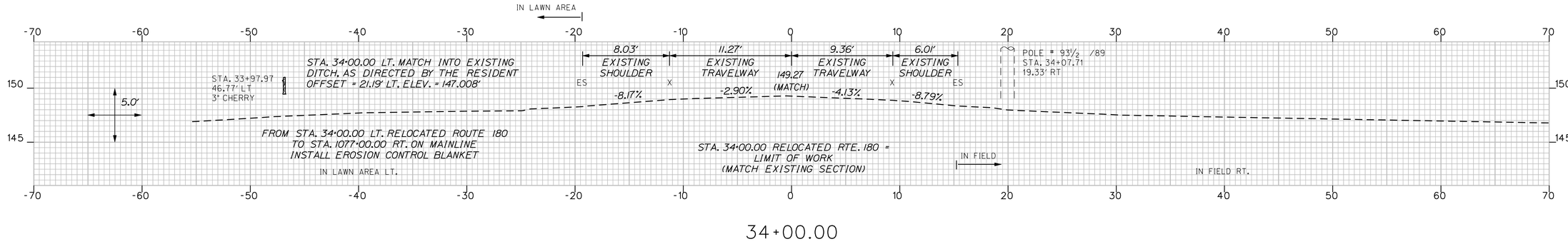
MARIAVILLE
RELOCATED RTE. 180

33+50.00 CROSS SECTIONS 33+90.00

SHEET NUMBER

128

OF 151



34+00.00

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

ELLSWORTH
ROUTE 180

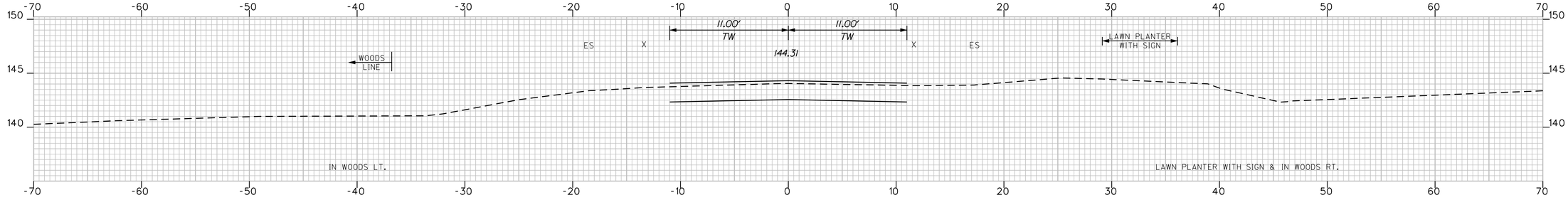
34+00.00 CROSS SECTIONS 34+00.00

SHEET NUMBER

129

OF 151

Filename: ...\129_34+00.00-DRAW-XSECTS-MCC1_dr.dgn Division: HIGHWAY Date:4/13/2012 Username: Natasha.M.Collins

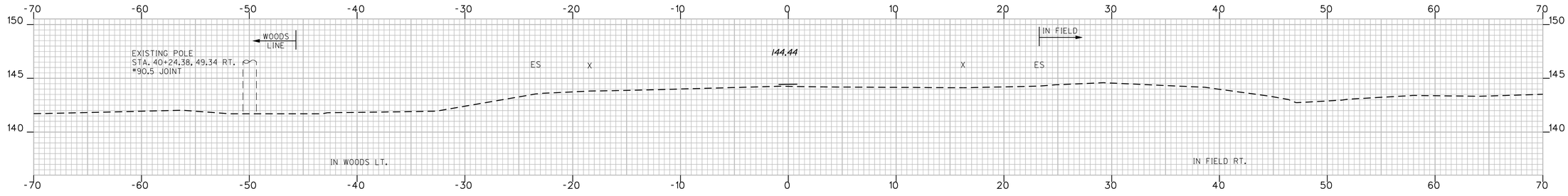


STA. 40+14.00 LT.
BEGIN GUBBING IN CUT
(MATCH INTO MAIN
LINE GRUBBING AREAS)

40+30.00

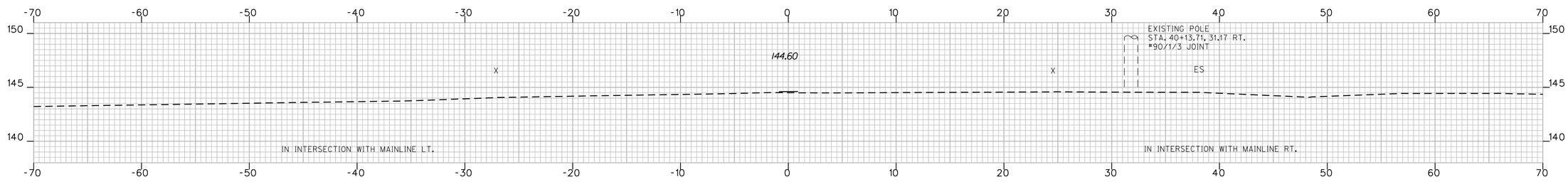
STA. 40+14.00 RT.
BEGIN GUBBING IN CUT
(MATCH INTO MAIN
LINE GRUBBING AREAS)

C = 34.72 C.Y.

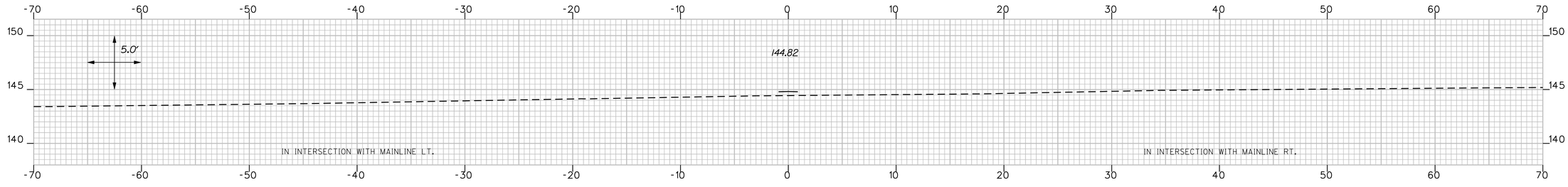


40+20.00

C = 6.06 C.Y.
F = 0.60 C.Y.



40+10.00



40+00.00

CONSTRUCT BRIDGETWIN ROAD WITH 18" AGGREGATE SUBBASE COURSE GRAVEL & 3" HOT MIX ASPHALT, WITH 11.0' TRAVELWAY'S & 3.0' SHOULDERS (LT. & RT.) AS DIRECTED BY THE RESIDENT

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
BRIDGETWIN RD.

40+00.00 CROSS SECTIONS 40+30.00

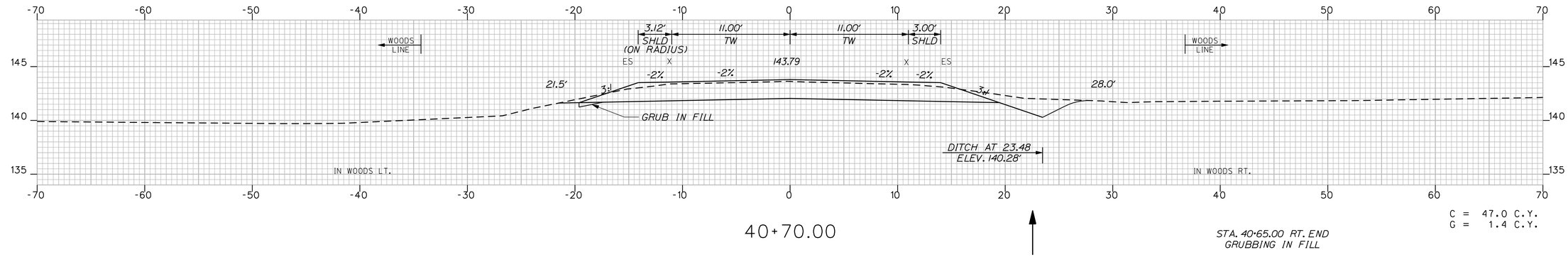
SHEET NUMBER

130

OF 151

Username: Natasha.M.Collins Date:4/13/2012

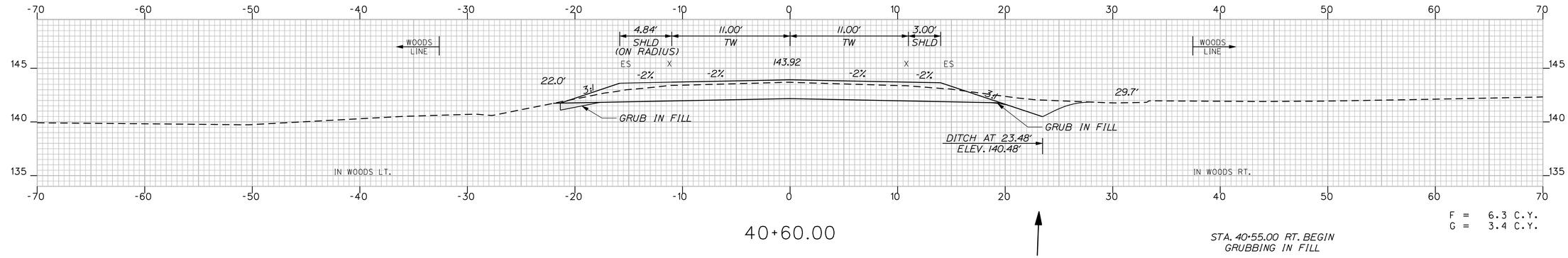
Filename: ...\130_40+00.00-DRAW-XSECTS-MCD1_dr.dwg Design HIGHWAY



40+70.00

C = 47.0 C.Y.
G = 1.4 C.Y.

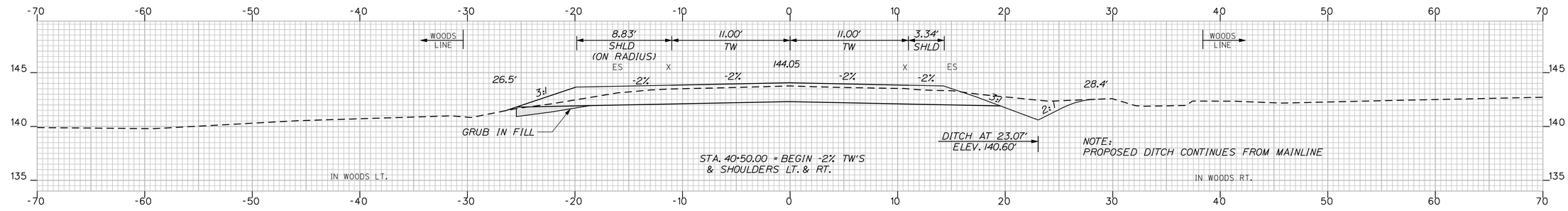
STA. 40+65.00 RT. END
GRUBBING IN FILL



40+60.00

F = 6.3 C.Y.
G = 3.4 C.Y.

STA. 40+55.00 RT. BEGIN
GRUBBING IN FILL

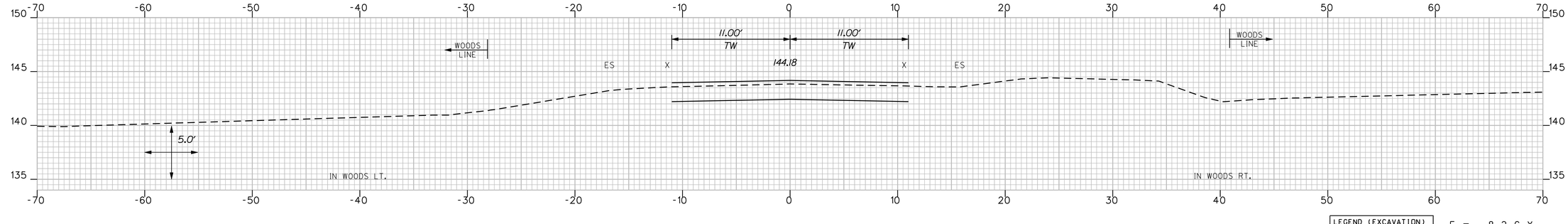


40+50.00

C = 45.4 C.Y.
G = 1.2 C.Y.

STA. 40+50.00 LT. BEGIN
GRUBBING IN FILL

(FROM MAINLINE DITCH)



40+40.00

F = 8.2 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
BRIDGETWIN RD.

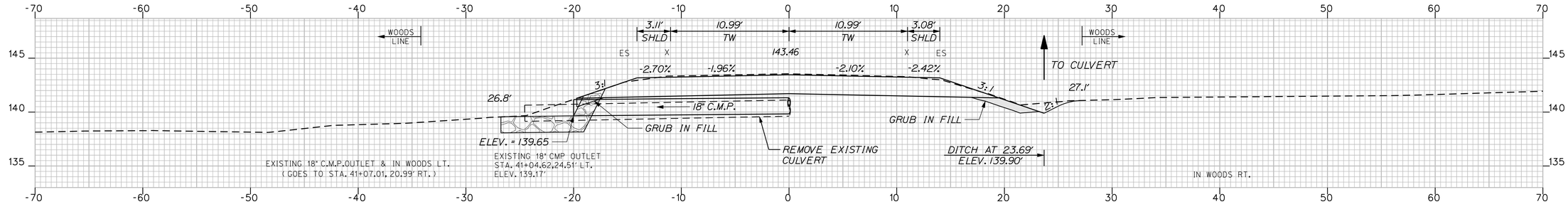
40+40.00 CROSS SECTIONS 40+70.00

SHEET NUMBER

131

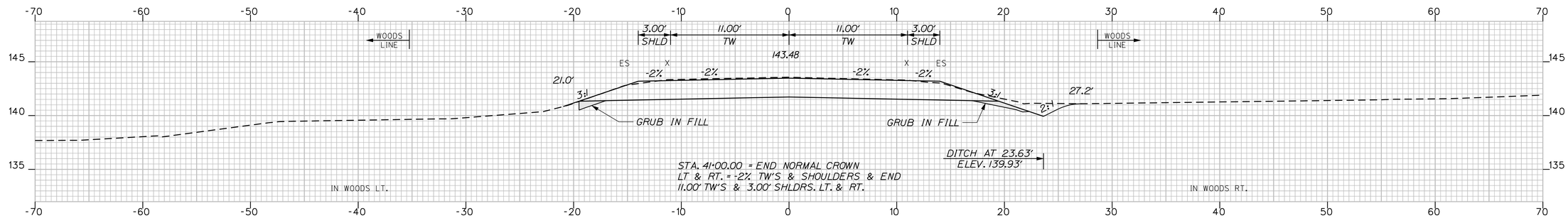
OF 151

Filename: ...\131_40+40.00-DRAW-XSECTS-MCD1_dr 10/8/2012 Design HIGHWAY Username: Natasha.M.Collins Date:4/13/2012



STA. 41+04.62, 20.0' LT. TO STA. 41+07.01, 20.00' RT.
INSTALL TWIN 18" x 40.0' R.C.P - CLASS III
RIPRAP INLET & OUTLET & CONSTRUCT RIPRAP APRON
6.75' LENGTH X 4.5' WIDTH, AS PER B.M.P. MANUAL

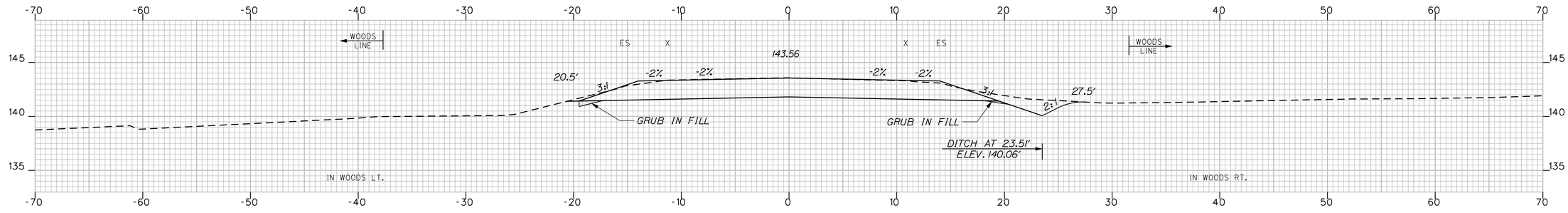
41+04.62



STA. 41+00.00 = END NORMAL CROWN
LT & RT. = -2% TW'S & SHOULDERS & END
11.00' TW'S & 3.00' SHLDRS. LT. & RT.

F = 0.0 C.Y.

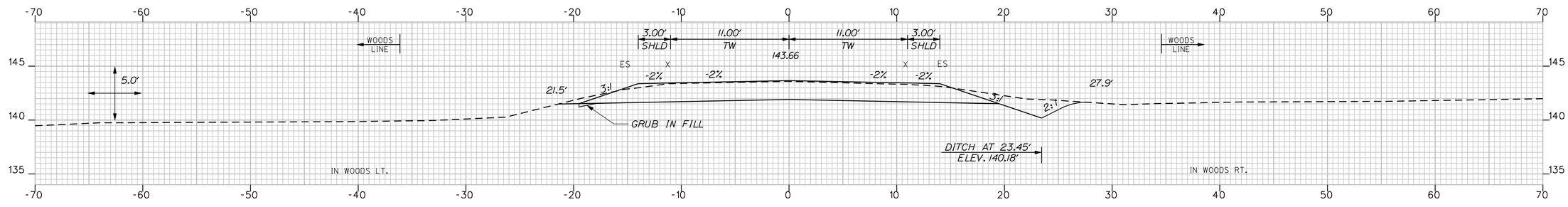
41+00.00



40+90.00

C = 48.0 C.Y.
F = 0.0 C.Y.
G = 0.3 C.Y.

STA. 40+90.00 RT. BEGIN
GRUBBING IN FILL



40+80.00

CONTINUE DITCH RT.

F = 0.0 C.Y.

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
BRIDGETWIN RD.

40+80.00 CROSS SECTIONS 41+04.62

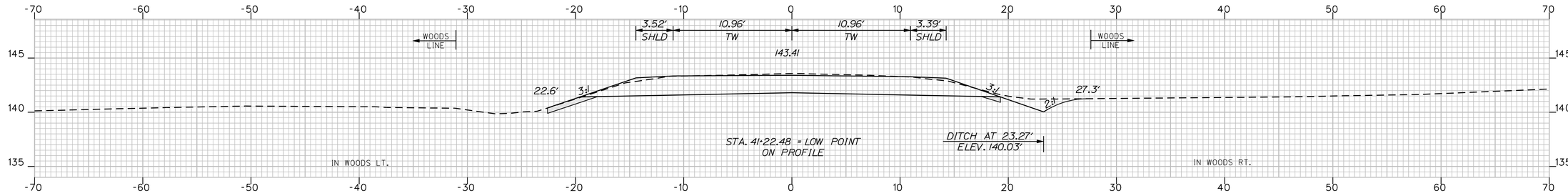
SHEET NUMBER

132

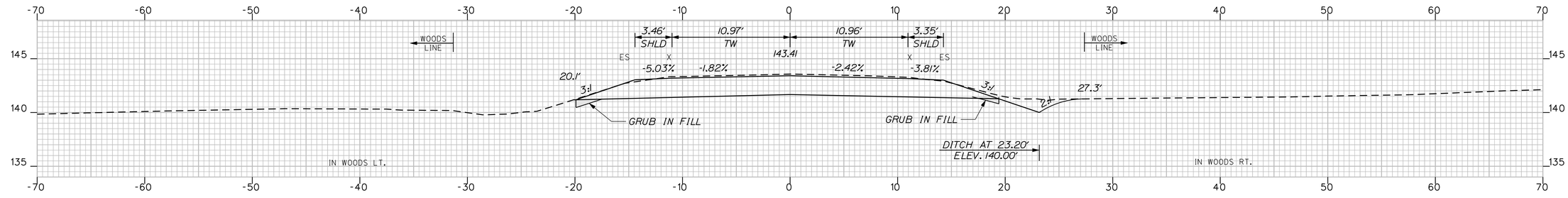
OF 151

Username: Natasha.M.Collins Date:4/13/2012

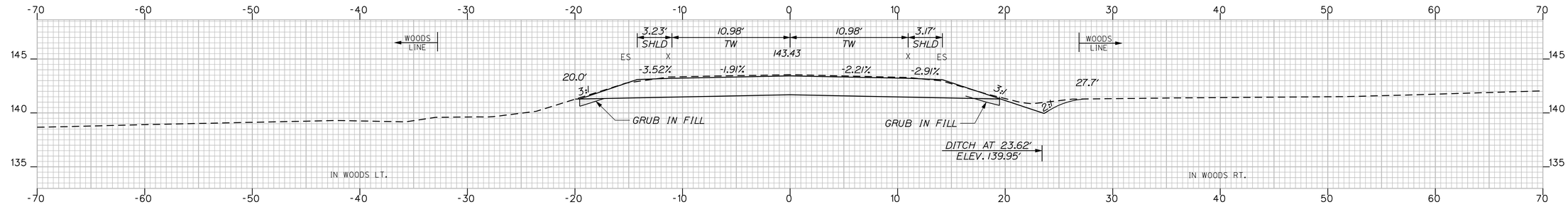
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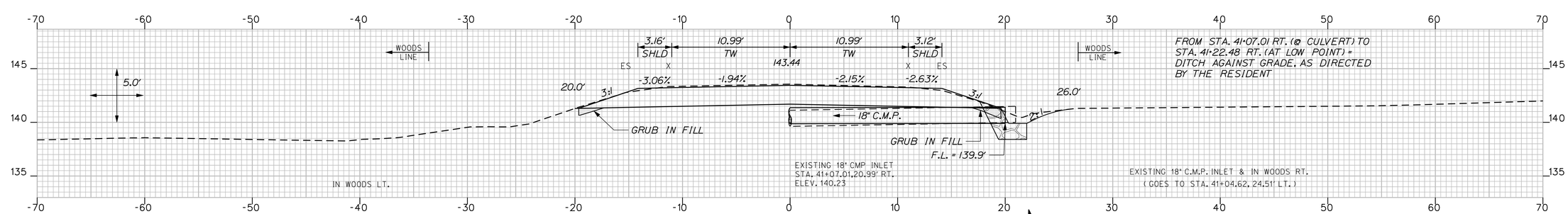
41+22.48



41+20.00



41+10.00



41+07.01

ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

			DATE
PROJ. MANAGER	ERNIE MARTIN	BY	
DESIGN-DETAILED	J. Manzer	NMC \ JH	X
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
BRIDGETWIN RD.

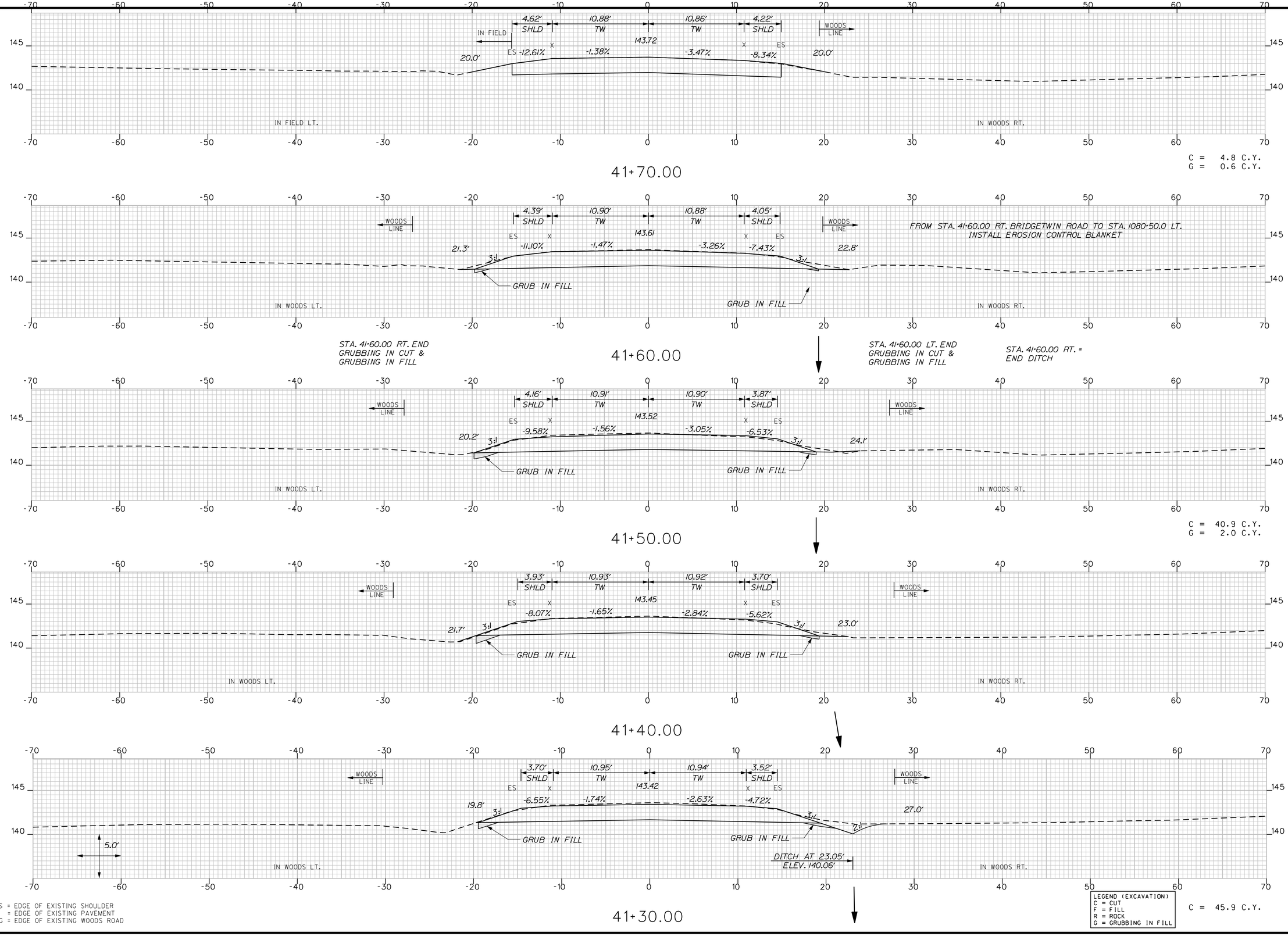
41+07.01 CROSS SECTIONS 41+30.00

SHEET NUMBER

133

OF 151

Filename: ...\133_41+07.01-DRAW-XSECTS-MCD1_dr_D06.dgn HIGHWAY Date:4/13/2012 Username: Natasha.M.Collins



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN 010063.10

HIGHWAY PLANS

		DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	J. Monzer	BY
CHECKED-REVIEWED	-----	NMC \ JH
DESIGN2-DETAILED2	-----	X
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
BRIDGETWIN RD.

41+36.31 CROSS SECTIONS 41+70.00

SHEET NUMBER

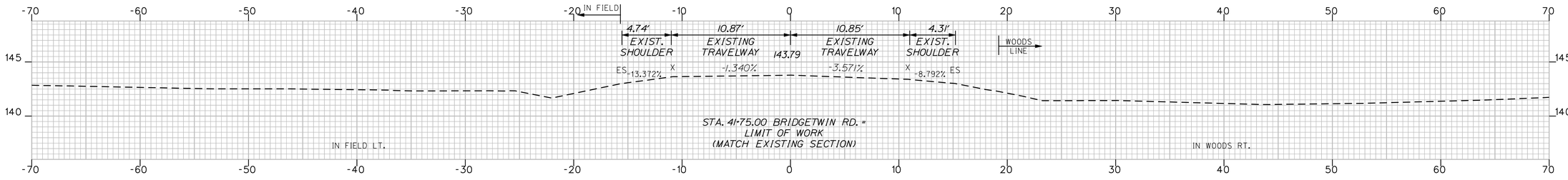
134

OF 151

Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\134_41+30.00-DRAW-XSECTS-MCD1_dr 10063.10 Design HIGHWAY

Filename: ...\135_41+75.00-DRAW-XSECTS-MCD1_dr 10063.10 Design HIGHWAY Username: Natasha.M.Collins Date:4/13/2012



41+75.00



ES = EDGE OF EXISTING SHOULDER
X = EDGE OF EXISTING PAVEMENT
DG = EDGE OF EXISTING WOODS ROAD

LEGEND (EXCAVATION)
C = CUT
F = FILL
R = ROCK
G = GRUBBING IN FILL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

PIN
010063.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J. Monzer	BY	DATE
CHECKED-REVIEWED	-----	NMC \ JH	X
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

MARIAVILLE
BRIDGETWIN RD.

41+75.00 CROSS SECTIONS 41+75.00

SHEET NUMBER

135

OF 151

Username: Natasha.M.Collins Date:4/13/2012
Division: HIGHWAY
Filename: ...\10\ROW\MSTA\001_RWPLAN1.dgn

NOTE:
SEE SURVEY PLAN
INDUSTRIAL PARK
BOGGY BROOK & VITTUM ROADS
DATED: AUG. 1976
BY HERRICK & SALSBURY INC.
REC. IN HANCOCK CO. R.O.D.
BK. 14, PG. 152

NOTE:
SEE SURVEY PLAN
INDUSTRIAL PARK
BOGGY BROOK & VITTUM ROADS
DATED: AUG. 1976
BY HERRICK & SALSBURY INC.
REC. IN HANCOCK CO. R.O.D.
BK. 14, PG. 152

DEAD RIVER CORPORATION
PARCEL NO. (2)
LAND TAKEN = 1210± S.F.
TEMP. CONST. RIGHTS = 605± S.F.(1)
TOTAL AREA = 2.21± AC.(SURVEY)
REM. AREA = 2.18± AC.

ELSCOTT MANUFACTURING, LLC
PARCEL NO. (3)
LAND TAKEN = 0.09± AC.
TEMP. CONST. RIGHTS = 670± S.F.(3)
TOTAL AREA = 2.50± AC.(SURVEY)
REM. AREA = 2.41± AC.

JOHN R. COUGHLIN
PARCEL NO. (1)
LAND TAKEN = 0.28± AC.
DRAINAGE EASEMENT = (1)
TEMP. ROAD RIGHTS = 0.10± AC.(1)
TEMP. CONST. RIGHTS = 0.05± AC.(3)
TOTAL AREA = 4.18± AC.(SURVEY)
REM. AREA = 3.90± AC.

NOTE:
SEE SURVEY PLAN
INDUSTRIAL PARK
BOGGY BROOK & VITTUM ROADS
DATED: AUG. 1976
BY HERRICK & SALSBURY INC.
REC. IN HANCOCK CO. R.O.D.
BK. 14, PG. 152

EXISTING R/W
U.S.ROUTE 1A
SEE D.O.T. FILE NO. 5-272
SHEET NOS. 26 & 27
VITTUM ROAD
CHARLES DUNHAM TO
CITY OF ELLSWORTH
433/77 1906 3 RODS WIDE
INDUSTRIAL PARK SURVEYS
BY HERRICK & SALSBURY
AUG. 1976 PLAN BOOK 14 PG. 152
MARCH 1977 PLAN BOOK 14 PG. 182
50' WIDE
BOGGY BROOK ROAD
INDUSTRIAL PARK SURVEY PLANS
BY HERRICK & SALSBURY, INC.
AUG. 1976 PB 14 PG. 152
MARCH 1977 PB 14 PG 182
50' WIDE

STA. 987+86.09 = BEGIN PROPOSED PROJECT
No. 10063.10 = MATCH EXISTING SECTION =
STA. 30+110.00 PROJECT NO. NH-10007(00)E
BUILT 2009 & 2010 (METRIC PROJECT)

STATE PROJECT NO. 10007.00
NOTICE OF LAYOUT AND TAKING
HANCOCK CO. R.O.D.
BOOK 5199, PAGE 37
5/11/09

BEGIN B.L. SECT.I
STA. 984+25.20

U.S. ROUTE 1A S.H. "43"

TO DEDHAM

TO U.S. ROUTE 1

BOGGY BROOK ROAD

VITTUM ROAD

S.A.H. NO. 19
(RELOCATED RTE. 180)

CITY OF ELLSWORTH

N.35°-47'-49.8"E. 725.98'

N.35°-47'-49.8"E. 725.98'

557'±

687'±

201'±

0.28± AC.

0.09± AC.

DRAINAGE OUTLET
STA.989+64± RT.

LOT 3
LOT 4
LOT 5

75± S.F.
605± S.F.
450± S.F.
865± S.F.
695± S.F.
CONST. LTS.
775± S.F.

CONST. 301.18'

198'±
326'±

PLS 1200

3" WIDE

24" WIDE

SYMBOLS
(WELL) - GRADING LIMIT LINE
CONSTRUCTION LIMIT LINE
PROPERTY LINE P.L.
LIMITS OF "RIGHT-OF-WAY" (LOW.P.)
EXISTING RIGHT OF WAY
NEW RIGHT OF WAY
NEW ROW WITHIN EXIST. ROW
CONTROL OF ACCESS
IPF (IRON PIPE or PIN)
ST. (SEPTIC TANK)
(ROW MONUMENT)
(TRAVERSE POINT)
WATER LINE
GAS LINE
ELECTRIC LINE
TELEPHONE LINE
SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		T.J.K.
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	

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

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h _____m _____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

WIN 010063.10

REVISIONS NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1341
PROFESSIONAL
LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1" = 25'	SHEET 1 OF 16	

SHEET NUMBER
136
OF 151

NOTE:
SEE SURVEY PLAN
INDUSTRIAL PARK
BOGGY BROOK & VITTUM ROADS
DATED: AUG. 1976
BY HERRICK & SALSBURY INC.
REC. IN HANCOCK CO. R.O.D.
BK. 14, PG. 152

NOTE:
SEE SURVEY PLAN
INDUSTRIAL PARK
CITY OF ELLSWORTH
BY HERRICK & SALSBURY INC.
DATED FEB. 14, 1977
REC. IN HANCOCK CO. R.O.D.
BK. 14, PG. 182

ELSCOTT MANUFACTURING, LLC
PARCEL NO. (3)
LAND TAKEN = 0.09± AC.
TEMP. CONST. RIGHTS = 670± S.F.(3)
TOTAL AREA = 2.50± AC.(SURVEY)
REM. AREA = 2.41± AC.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CITY OF ELLSWORTH
PARCEL NO. (4)
LAND TAKEN = 850± S.F
TOTAL AREA = 2.34± AC.(CALC. THIS LOT ONLY)
REM. AREA = 2.32± AC.

MAINE SHELLFISH CO. INC.
PARCEL NO. (6)
LAND TAKEN = 0.14± AC.
SLOPE EASEMENT = 0.06± AC.(1)
TEMP. CONST. RIGHTS = 1730± S.F.(2)
TOTAL AREA = 2.24± AC.(SURVEY)
REM. AREA = 2.10± AC.

P.I. STA. 995+32.31
D = 0°-13'-45.1"
Δ = 1°-44'-48.7" LT.
T = 381.13'
L = 762.21'
E = 2.91'
R = 25,000.00'

P.C. STA. 991+51.18

V. 4
26

N.35°-47'-49.8"E.
725.98'

301.18'

762.21'

S.A.H. NO. 19 (RELOCATED RTE. 180)

VITTUM RD.(PAVED)

JOHN R. COUGHLIN
PARCEL NO. (1)
LAND TAKEN = 0.28± AC,
DRAINAGE EASEMENT = (1)
TEMP. ROAD RIGHTS = 0.10± AC.(1)
TEMP. CONST. RIGHTS = 0.05± AC.(3)
TOTAL AREA = 4.18± AC.(SURVEY)
REM. AREA = 3.90± AC.

NOTE:
SEE SURVEY PLAN
INDUSTRIAL PARK
BOGGY BROOK & VITTUM ROADS
DATED: AUG. 1976
BY HERRICK & SALSBURY INC.
REC. IN HANCOCK CO. R.O.D.
BK. 14, PG. 152

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINE PROPANE DISTRIBUTORS, INC.
PARCEL NO. (5)
LAND TAKEN = 0.07± AC.(2)
TEMP. ROAD RIGHTS = 0.11± AC.(1)
TEMP. CONST. RIGHTS = 85± S.F.(1)
TOTAL AREA = 5.53± AC.(CALC.)
REM. AREA = 5.46± AC.

CLARKE CONSTRUCTION, LLC
PARCEL NO. (7)
LAND TAKEN = 1878± S.F.
TEMP. CONST. RIGHTS = 0.07± AC.(3)
TOTAL AREA = 2.07± AC.(DEED)
REM. AREA = 2.03± AC.

EXISTING R/W
VITTUM ROAD
CHARLES DUNHAM TO
CITY OF ELLSWORTH
433/77 1906 3 RODS WIDE
INDUSTRIAL PARK SURVEYS
BY HERRICK & SALSBURY
AUG. 1976 PLAN BOOK 14 PG. 152
MARCH 1977 PLAN BOOK 14 PG. 182
50' WIDE

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

WIN 010063.10

SYMBOLS
(MELL) (MELL) - GRADING LIMIT LINE
CONSTRUCTION LIMIT LINE
PROPERTY LINE PL
LIMITS OF ROW RIGHT PORTION (LOW P.)
EXISTING RIGHT OF WAY
NEW RIGHT OF WAY
NEW ROW WITHIN EXIST. ROW
CONTROL OF ACCESS
IPF (IRON PIPE or PIN)
ST. (SEPTIC TANK)
(ROW MONUMENT)
(TRAVERSE POINT)
WATER LINE
GAS LINE
ELECTRIC LINE
TELEPHONE LINE
SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		T.J.K.
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	

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

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

PETER A. BELANGER 1341 — STATE OF MAINE — PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1" = 25'	SHEET 2 OF 16	

SHEET NUMBER
137
OF 151

Filename: ...\10\row\msto\002_RWPLAN2.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\10\row\ms1o\003_RWPLAN3.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

NOTE:
SEE SURVEY PLAN
INDUSTRIAL PARK
CITY OF ELLSWORTH
BY HERRICK & SALSBURY INC.
DATED FEB. 14, 1977
REC. IN HANCOCK CO. R.O.D.
BK. 14, PG. 182

MAINE SHELLFISH CO. INC.
PARCEL NO. (6)
LAND TAKEN = 0.14± AC.
SLOPE EASEMENT = 0.06± AC.(1)
TEMP. CONST. RIGHTS = 1730± S.F.(2)
TOTAL AREA = 2.24± AC.(SURVEY)
REM. AREA = 2.10± AC.

P.I. STA. 995+32.31
D = 0°-13'-45.1"
Δ = 1°-44'-48.7" LT.
T = 381.13'
L = 762.21'
E = 2.91'
R = 25,000.00'

INDUSTRIAL ROAD
P.I. STA. 21+19.79
D = 3°-49'-11.0"
Δ = 6°-31'-11.5" RT.
T = 85.44'
L = 170.69'
E = 2.43'
R = 1500.00'

NOTE:
SEE SURVEY PLAN
INDUSTRIAL PARK
CITY OF ELLSWORTH
BY HERRICK & SALSBURY INC.
DATED FEB. 14, 1977
REC. IN HANCOCK CO. R.O.D.
BK. 14, PG. 182

P.I. STA. 1001+88.50
D = 6°-44'-26.5"
Δ = 35°-52'-09.5" LT.
T = 275.11'
L = 532.13'
E = 43.41'
R = 850.00'

ROSS E. GRANT
PARCEL NO. (8)
LAND TAKEN = 0.28± AC.
SLOPE EASE. = 0.08± AC.(2)
TEMP. CONST. RIGHTS = 1965± S.F.(2)
TOTAL AREA = 2.05± AC.(SURVEY)
REM. AREA = 1.77± AC.

WILLIAM W. PEASLEY
VALERIE J. PEASLEY
PARCEL NO. (10)
LAND TAKEN = 1.73± AC.
SLOPE EASEMENT = 0.12± AC.(3)
DRAINAGE EASEMENTS = (3)
TEMP. CONST. RIGHTS = 0.37± AC.(10)
TOTAL AREA = 46± AC.(CITY)
REM. AREA = 24.46± AC.(LT.)
REM. AREA = 19.81± AC.(RT.)

MAINE PROPANE DISTRIBUTORS, INC.
PARCEL NO. (5)
LAND TAKEN = 0.07± AC.(2)
TEMP. ROAD RIGHTS = 715± S.F.(1)
TEMP. CONST. RIGHTS = 0.11± AC.(2)
TOTAL AREA = 5.53± AC.(CALC.)
REM. AREA = 5.46± AC.

CLARKE CONSTRUCTION, LLC
PARCEL NO. (7)
LAND TAKEN = 1878± S.F.
TEMP. CONST. RIGHTS = 0.07± AC.(3)
TOTAL AREA = 2.07± AC.(DEED)
REM. AREA = 2.03± AC.

EXISTING R/W
VITTUM ROAD
CHARLES DUNHAM TO
CITY OF ELLSWORTH
433/77 1906 3 RODS WIDE
INDUSTRIAL PARK SURVEYS
BY HERRICK & SALSBURY
AUG. 1976 PLAN BOOK 14 PG. 152
MARCH 1977 PLAN BOOK 14 PG. 182
50' WIDE
INDUSTRIA ROAD
INDUSTRIAL PARK SURVEY
BY HERRICK & SALSURY, INC.
MARCH 10, 1977 PB 14 PG 182
50' WIDE.

WILLIAM W. PEASLEY
VALERIE J. PEASLEY
PARCEL NO. (9)
LAND TAKEN = 0.18± AC.
DRAINAGE EASEMENT = (2)
TEMP. CONST. RIGHTS = 0.05± AC.(4)
TOTAL AREA = 30± AC.(CITY)
REM. AREA = 29.82± AC.

DRAINAGE OUTLET
STA. 1001+00 RT.

DRAINAGE OUTLET
STA. 1001+90± RT.

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

WIN 010063.10

SYMBOLS
- (WELL) WELL
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE P/L
- LIMITS OF RIGHT-OF-WAY (LOW.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- IPF (IRON PIPE or PIN)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- (TRAVERSE POINT)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		T.J.K.
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	

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

REVISIONS			
NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1341
PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1"= 25'	SHEET 3 OF 16	

SHEET NUMBER
138
OF 151

GRID 19XX ZONE

N

WILLIAM W. PEASLEY
VALERIE J. PEASLEY
PARCEL NO. (10)
LAND TAKEN = 1.73± AC.
SLOPE EASEMENTS = 0.12± AC.(3)
DRAINAGE EASEMENTS = (3)
TEMP. CONST. RIGHTS = 0.37± AC.(10)
TOTAL AREA = 46± AC.(CITY)
REM. AREA = 24.46± AC.(LT.)
REM. AREA = 19.81± AC.(RT.)

P.T. STA. 1004+45.52

P.C. STA. 1006+42.15

P.I. STA. 1008+19.95
D = 3°-16'-26.6"
Δ = 11°-36'-11.0" RT.
T = 177.81'
L = 354.39'
E = 9.01'
R = 1750.00'

P.T. STA. 1009+96.54

CHARLES W. DUNHAM
TO CITY OF ELLSWORTH
433/77 1906
3 RODS WIDE

S.A.H. NO. 19 (RELOCATED RTE. 180)

"REEDS BROOK ROAD"

GRAVEL RD.

MIXED GROWTH

WOODS

LEDGE OUTCROP

SMALL TREES

5" TWIN MAPLE

N.1°-49'-08.4"W. 196.63'

N.9°-47'-02.6"E.

196.63'

626'±

362.49'

354.39'

502'±

487'±

291'±

346.29'

121'±

457'±

239'±

180± S.F.

140± S.F.

56'±

0.11± AC.

0.05± AC.

0.18± AC.

0.06± AC.

1.73± AC.

0.62± AC.

619.08'

40' WIDE

TEMP. CONST.

LIMITS

P.L.

T.C.L.

1005 1006+10 1007 1008 1009 1010 1011

EXISTING R/W
VITTUM ROAD
CHARLES DUNHAM TO
CITY OF ELLSWORTH
433/77 1906 3 RODS WIDE
INDUSTRIAL PARK SURVEYS
BY HERRICK & SALSBURY
AUG. 1976 PLAN BOOK 14 PG. 152
MARCH 1977 PLAN BOOK 14 PG. 182
50' WIDE

WILLIAM W. PEASLEY
VALERIE J. PEASLEY
PARCEL NO. (9)
LAND TAKEN = 0.18± AC.
DRAINAGE EASEMENT = (2)
TEMP. CONST. RIGHTS = 0.05± AC.(4)
TOTAL AREA = 30± AC.(CITY)
REM. AREA = 29.82± AC.

CHRISTOPHER A. PEMBERTON
PETER D. PEMBERTON
HEIRS OF EDWARD P. LORD
HEIRS OF WILLIAM H. BROWN
PARCEL NO. (19)
LAND TAKEN = 0.62± AC.
DRAINAGE EASEMENTS = (2)
TEMP. CONST. RIGHTS = 0.09± AC.(2)
TOTAL AREA = 20± AC.(CITY)
REM. AREA = 19.38± AC.

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h _____m _____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

WIN 010063.10

SYMBOLS

- ○MELL (MELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE PL
- LIMITS OF "RIGHT PORTION (LOW P.)
- NEW RIGHT OF WAY
- EXISTING RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- ●PF (IRON PIPE or PIN)
- □ST. (SEPTIC TANK)
- ⊕BM (ROW MONUMENT)
- ⊿BM (TRAVERSE POINT)
- W WATER LINE
- G GAS LINE
- E ELECTRIC LINE
- T TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.S.G.	T.L.B.
PROP. LINES	T.L.B.	T.L.B.
AREAS	T.L.B.	T.J.K.

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

REVISIONS

NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE · PETER A. BELANGER 1341 · PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 5-288
SCALE 1"= 25' | SHEET 4 OF 16

SHEET NUMBER
139
OF 151

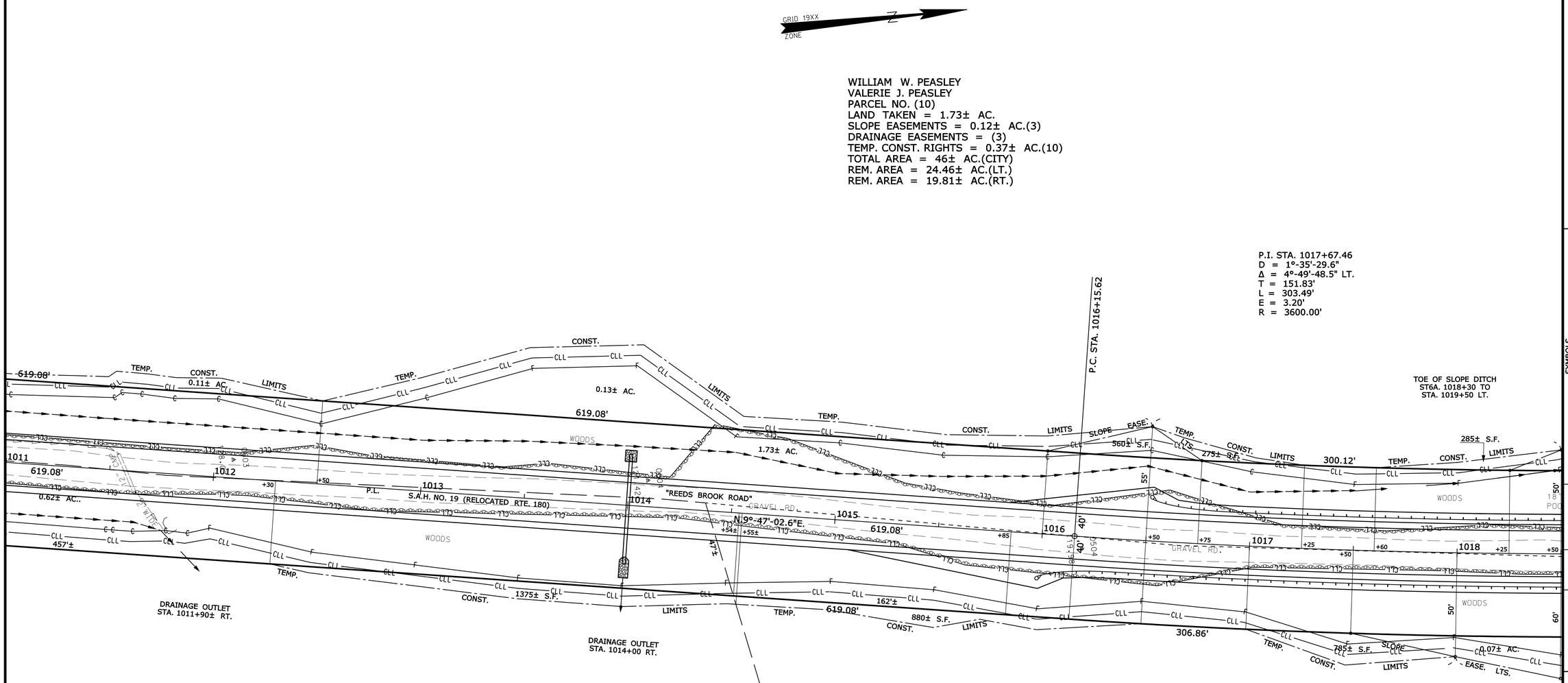
Filename: ...\10\row\msto\004_RWPLAN4.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\10\row\rns1o\005_RWPLAN5.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

GRID 19XX ZONE

WILLIAM W. PEASLEY
VALERIE J. PEASLEY
PARCEL NO. (10)
LAND TAKEN = 1.73± AC.
SLOPE EASEMENTS = 0.12± AC.(3)
DRAINAGE EASEMENTS = (3)
TEMP. CONST. RIGHTS = 0.37± AC.(10)
TOTAL AREA = 46± AC.(CITY)
REM. AREA = 24.46± AC.(LT.)
REM. AREA = 19.81± AC.(RT.)

P.I. STA. 1017+67.46
D = 1°-35'-29.6"
Δ = 4°-49'-48.5" LT.
T = 151.83'
L = 303.49'
E = 3.20'
R = 3600.00'



CHRISTOPHER A. PEMBERTON
PETER D. PEMBERTON
HEIRS OF EDWARD P. LORD
HEIRS OF WILLIAM H. BROWN
PARCEL NO. (19)
LAND TAKEN = 0.62± AC.
DRAINAGE EASEMENTS = (2)
TEMP. CONST. RIGHTS = 0.09± AC.(2)
TOTAL AREA = 20± AC.(CITY)
REM. AREA = 19.38± AC.

SYMBOLS

- ○MELL (MELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE PL
- LIMITS OF "RIGHT-PORTION (LOW-P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- IPF (IRON PIPE or PIN)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- (TRAVERSE POINT)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	T.J.K.

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

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

WIN 010063.10

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE	COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1341
PROFESSIONAL
LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1" = 25'	SHEET 5 OF 16	

SHEET NUMBER
140
OF 151

Filename: ...\10\row\mslo\006_RWPLAN6.dgn Username: Natasha.M.Collins Date:4/13/2012 Division: HIGHWAY

P.I. STA. 1017+67.46
D = 1°-35'-29.6"
Δ = 4°-49'-48.5" LT.
T = 151.83'
L = 303.49'
E = 3.20'
R = 3600.00'

P.I. STA. 1027+75.63
D = 0°-49'-06.6"
Δ = 13°-57'-07.8" LT.
T = 856.53'
L = 1704.58'
E = 52.21'
R = 7000.00'

GRID 19XX ZONE

DANIEL E. ANDERSON
PARCEL NO. (13)
LAND TAKEN = 0.88± AC.
TEMP. CONST. RIGHTS = 0.09± AC.(2)
TOTAL AREA = 35.2± AC.(CITY)
REM. AREA = 34.32± AC.

SURVEY OF THE
ROBERT GERRY LOT
FOR DANIEL ANDERSON
ELLSWORTH, MAINE
DEC.12, 1985
BY HERRICK & SALSBURY, INC.

BANGOR HYDRO-ELECTRIC COMPANY
PARCEL NO. (11)
LAND TAKEN = 0.63± AC.
TEMP. CONST. RIGHTS = 0.12± AC.(2)
TOTAL AREA = 32.7± AC.(SURVEY THIS LOT ONLY)
REM. AREA = 24.88± AC. (LT.)
REM. AREA = 7.19± AC. (RT.)

NOTE:
SEE PLAN OF SURVEY OF PORTION OF VITTUM LOT
FOR BANGOR HYDRO-ELECTRIC COMPANY
ELLSWORTH ,MAINE
DATED NOV. 27, 1991
REVISED DEC. 16,1991
REVISED JAN. 13, 1992
BY HERRICK & SALSBURY, INC.

TOE OF SLOPE DITCH
STA. 1018+30 TO
STA. 1019+50 LT.

INLET DRAINAGE
STRUCTURE
STA. 1019+00± LT.

P.C.C. STA. 1019+19.11

POLE CONNECTORS
POWERLINE
LINE 57 STRUCTURE 4
BOTTOM WIRE
SERVICE LINE #57

CONST. LIMITS 270± S.F.
SLOPE 1610± S.F.
EASE.
TEMP. CONST. LIMITS 345± S.F.
300.12'
120.20'
LINE 11 - 1ST POLE W OF POLE CONNECTORS
POWERLINE
TEMP. CONST. LIMITS 680± S.F.
TEMP. CONST. LIMITS 830± S.F.
84.87'
14.00'
TRAVEL RD.
BOTTOM WIRE
1704.58'
1714.32'
TEMP. CONST. LIMITS 790± S.F.
0.10± AC.
1539.84'
482'±
0.63± AC.
0.88± AC.
WOODS
P.L.
S.A.H. NO. 19 (RELOCATED RTE. 180)
279'±
WOODS RD.
4.33± AC.
1457'±
1700± S.F.
155'±
311'±
1.73± AC.
102'±
306.86'
0.07± AC.
303.49'
1019
1020
1021
1022
1023
1024
1025
"REEDS BROOK ROAD"
GRAVEL RD.
SMALL BROOK
15" CMP POOR COND
OUTLET DRAINAGE
STRUCTURE
STA. 1018+41± RT.
DRAINAGE OUTLET
STA. 1019+25± RT.
SLOPE
EASE.
ELECTRIC
BOTTOM WIRE
SERVICE POLE #11
POLE CONNECTORS
LINE 11 - 1ST POLE E OF RD
40' EASE. FALLS TO BANGOR- HYDRO ELECTRIC BOOK 4693 PAGE 44

WILLIAM W. PEASLEY
VALERIE J. PEASLEY
PARCEL NO. (10)
LAND TAKEN = 1.73± AC.
SLOPE EASEMENTS = 0.12± AC.(3)
DRAINAGE EASEMENTS = (3)
TEMP. CONST. RIGHTS = 0.37± AC.(10)
TOTAL AREA = 46± AC.(CITY)
REM. AREA = 24.46± AC.(LT.)
REM. AREA = 19.81± AC.(RT.)

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h _____m _____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

ELIZABETH A. FALLS
BRUCE R. FALLS
PARCEL NO. (12)
LAND TAKEN = 4.33± AC.
SLOPE EASEMENTS = 0.25± AC.(2)
DRAINAGE EASEMENTS = 1200± S.F.(6)
TEMP. CONST. RIGHTS = 0.41± AC.(8)
TOTAL AREA = 198± AC.(CITY)
REM. AREA = 30.13± AC. (LT.)
REM. AREA = 163.54± AC. (RT.)

WIN 010063.10

SYMBOLS
- (WELL) WELL
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE P.L.
- LIMITS OF "RIGHT-PORTION (LOW-P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- IPF (IRON PIPE or PIN)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- ΔBM (TRAVERSE POINT)
- WATER LINE W
- GAS LINE G
- ELECTRIC LINE E
- TELEPHONE LINE T
- SEWER LINE S

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	T.J.K.

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

REVISIONS			
NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER 1341
PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 5-288
SCALE 1"= 25' | SHEET 6 OF 16

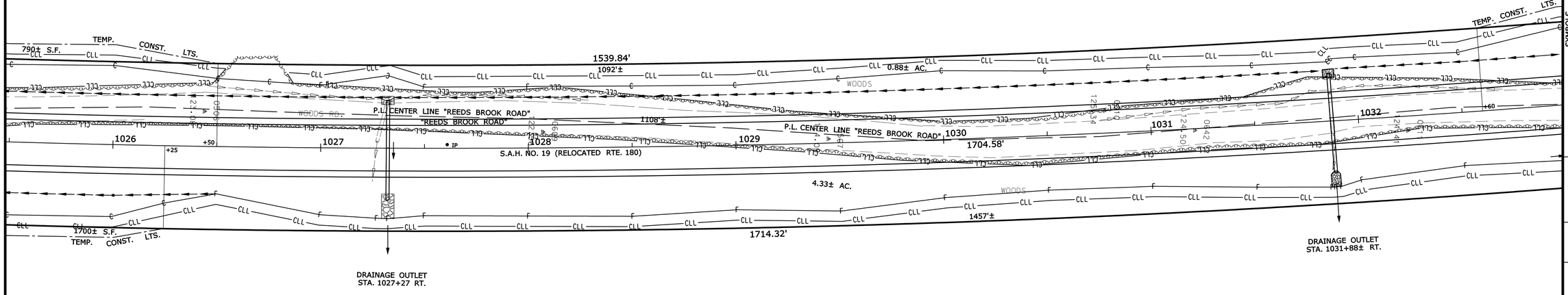
SHEET NUMBER
141
OF 151

SURVEY OF THE
ROBERT GERRY LOT
FOR DANIEL ANDERSON
ELLSWORTH, MAINE
DEC.12, 1985
BY HERRICK & SALSBURY, INC.

GRID 19XX
ZONE

P.I. STA. 1027+75.63
D = 0°-49'-06.6"
Δ = 13°-57'-07.8" LT.
T = 856.53'
L = 1704.58'
E = 52.21'
R = 7000.00'

DANIEL E. ANDERSON
PARCEL NO. (13)
LAND TAKEN = 0.88± AC.
TEMP. CONST. RIGHTS = 0.09± AC.(2)
TOTAL AREA = 35.2± AC.(CITY)
REM. AREA = 34.32± AC.



ELIZABETH A. FALLS
BRUCE R. FALLS
PARCEL NO. (12)
LAND TAKEN = 4.33± AC.
SLOPE EASEMENTS = 0.25± AC.(2)
DRAINAGE EASEMENTS = 1200± S.F.(6)
TEMP. CONST. RIGHTS = 0.41± AC.(8)
TOTAL AREA = 198± AC.(CITY)
REM. AREA = 30.13± AC. (LT.)
REM. AREA = 163.54± AC. (RT.)

SYMBOLS

- (MELL) ○MELL - MONUMENT TO BE SET
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE PL
- LIMITS OF "ROW" RIGHT PORTION (LOW P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- IPF (IRON PIPE or PIN)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- (TRAVERSE POINT)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM		CHECKED
BASE MAP		
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	T.J.K.

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

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

WIN 010063.10

REVISIONS			
NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1341
PROFESSIONAL
LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1" = 25'	SHEET 7 OF 16	

SHEET NUMBER
142
OF 151

Filename: ...\10\row\ms1a\007_RWPLAN7.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

Filename: ...\10\row\msto\008_RWPLAN8.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

P.I. STA. 1027+75.63
D = 0°-49'-06.6"
Δ = 13°-57'-07.8" LT.
T = 856.53'
L = 1704.58'
E = 52.21'
R = 7000.00'

SURVEY OF THE
ROBERT GERRY LOT
FOR DANIEL ANDERSON
ELLSWORTH, MAINE
DEC.12, 1985
BY HERRICK & SALSBURY, INC.

GRID 19XX ZONE

DANIEL E. ANDERSON
PARCEL NO. (13)
LAND TAKEN = 0.88± AC.
TEMP. CONST. RIGHTS = 0.09± AC.(2)
TOTAL AREA = 35.2± AC.(CITY)
REM. AREA = 34.32± AC.

ELIZABETH A. FALLS
BRUCE R. FALLS
PARCEL NO. (12)
LAND TAKEN = 4.33± AC.
SLOPE EASEMENTS = 0.25± AC.(2)
DRAINAGE EASEMENTS = 1200± S.F.(6)
TEMP. CONST. RIGHTS = 0.41± AC.(8)
TOTAL AREA = 198± AC.(CITY)
REM. AREA = 30.13± AC. (LT.)
REM. AREA = 163.54± AC. (RT.)

P.I. STA. 1038+83.15
D = 3°-34'-51.6"
Δ = 18°-25'-20.2" RT.
T = 259.46'
L = 514.44'
E = 20.90'
R = 1600.00'

P.L.

P.R.C. STA. 1036+23.69

"REEDS BROOK ROAD"

S.A.H. NO. 19 (RELOCATED RTE. 180)

P.L. CENTER LINE "REEDS BROOK ROAD" 1704.58'

1033 1034 1035 1036 1037 1038 1039 1040

1108'±

1092'±

1539.84'

1457'±

1714.32'

527.30'

516'±

514.44'

501.58'

0.88± AC.

0.07± AC.

4.33± AC.

0.12± AC.

0.10± AC.

12'±

40'

42'±

3/4" DIA ROD 1' AG

WOODS

TEMP. CONST. LTS.

TEMP.

CONST.

LIMITS

CLL

SYMBOLS

- (WELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE P.L.
- LIMITS OF "RIGHT PORTION (LOW P.)
- IRF (IRON PIPE or PIN)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- (TRAVERSE POINT)
- W WATER LINE
- G GAS LINE
- E ELECTRIC LINE
- T TELEPHONE LINE
- NEW RIGHT OF WAY
- EXISTING RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS

ITEM	TECH	CHECKED
BASE MAP		T.J.K.
EXIST. R/W	D.S.G.	T.L.B.
PROP. LINES	T.L.B.	T.L.B.
AREAS	T.L.B.	

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

WIN 010063.10

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

REVISIONS			
NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE · PETER A. BELANGER 1341 · PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1" = 25'	SHEET 8 OF 16	

SHEET NUMBER
143
OF 151

Filename: ...\10\row\msta\009_RWPLAN9.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

GRID 19XX ZONE

P.I. STA. 1054+49.46
D = 0°-49'-06.6"
Δ = 21°-13'-14.5" LT.
T = 1311.32'
L = 2592.60'
E = 121.77'
R = 7000.00'

P.R.C. STA. 1041+38.13

INLET DRAINAGE STRUCTURE STA. 1042+60 TO STA. 1042+90 LT.

DRAIN. EASE. LTS. 595± S.F.

CONST. 585± S.F.

TEMP. 0.12± AC.

CONST. LIMITS 527.30'

516'±

WOODS

TEMP.

0.05± AC.

SLOPE

EDGE OF BEAVER FLOWAGE

CONST. LIMITS

EASEMENT

LIMITS

0.21± AC.

2577.79'

1040'±

1040 1041 1042 1043 1044 1045 1046 1047

514.44'

WATER ELEVATION

BEAVER DAM

"REEDS BROOK ROAD"

S.A.H. NO. 19 (RELOCATED RTE. 180)

2592.60'

WOODS RD.

0.10± AC.

TEMP.

501.58'

CONST.

WOODS

LIMITS

4.33± AC.

1070'±

2607.41'

DRAINAGE OUTLET STA. 1040+25± RT.

BEAVER DAM 2' WIDE

605± S.F.

DRAIN. EASE.

LTS.

TEMP.

CONST.

390± S.F.

1880± S.F.

SLOPE

EASEMENT

TEMP.

CONST.

LIMITS

1' WIDE

OUTLET DRAINAGE STRUCTURE STA. 1042+55 TO STA. 1042+95 RT.

P.I. STA. 1038+83.15
D = 3°-34'-51.6"
Δ = 18°-25'-20.2" RT.
T = 259.46'
L = 514.44'
E = 20.90'
R = 1600.00'

ELIZABETH A. FALLS
BRUCE R. FALLS
PARCEL NO. (12)
LAND TAKEN = 4.33± AC.
SLOPE EASEMENTS = 0.25± AC.(2)
DRAINAGE EASEMENTS = 1200± S.F.(6)
TEMP. CONST. RIGHTS = 0.41± AC.(8)
TOTAL AREA = 198± AC.(CITY)
REM. AREA = 30.13± AC. (LT.)
REM. AREA = 163.54± AC. (RT.)

SYMBOLS

- (WELL) WELL
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE P.L.
- LIMITS OF "RIGHT PORTION (L.O.W.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- IPF (IRON PIPE or PIN)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- ⊕BM (TRAVERSE POINT)
- W WATER LINE
- G GAS LINE
- E ELECTRIC LINE
- T TELEPHONE LINE
- SEWER LINE

ITEM	CHECKED
BASE MAP	
EXIST. R/W	D.S.G.
PROP. LINES	T.L.B.
AREAS	T.L.B.
	T.J.K.

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

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

WIN 010063.10

REVISIONS NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE · PETER A. BELANGER 1341 · PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 5-288
SCALE 1"= 25' | SHEET 9 OF 16

SHEET NUMBER
144
OF 151

Filename: ...\10\row\msto\010_RWPLAN10.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

GRID 19XX ZONE

P.I. STA. 1054+49.46
D = 0°-49'-06.6"
Δ = 21°-13'-14.5" LT.
T = 1311.32'
L = 2592.60'
E = 121.77'
R = 7000.00'

ELIZABETH A. FALLS
BRUCE R. FALLS
PARCEL NO. (12)
LAND TAKEN = 4.33± AC.
SLOPE EASEMENT = 0.25± AC.(2)
DRAINAGE EASEMENT = 1200± S.F.(6)
TEMP. CONST. RIGHTS = 0.41± AC.(8)
TOTAL AREA = 198± AC.(CITY)
REM. AREA = 30.13± AC.(LT.)
REM. AREA = 163.54± AC.(RT.)

CORDA W. LAFLAMME
KENNETH J. LAFLAMME
PARCEL NO. (14)
LAND TAKEN = 5.10± AC.
SLOPE EASEMENTS = 1.02± AC.(8)
CONST. & MAINT. EASEMENTS = 0.22± AC.(2)
DRAINAGE EASEMENTS = (2)
TEMP. CONST. RIGHTS = 0.42± AC.(9)
TOTAL AREA = 149± AC.(OWNER)
REM. AREA = 55.54± AC. (LT.)
REM. AREA = 88.36± AC. (RT.)

SLOPE EASEMENT
0.21± AC.
TEMP. CONST. LIMITS
435± S.F.
4.33± AC.
1040'±
2577.79'
TEMP. CONST. LIMITS
550± S.F.
1538'±
5.10± AC.
2592.60'
S.A.H. NO. 19
(RELOCATED RTE. 180)
1047 1048 1049 1050 1051 1052 1053
WOODS RD.
TEMP. CONST. LIMITS
1070'±
2607.41'
DRAINAGE OUTLET
STA. 1049+50 RT.
1537'±
WOODS RD.
WOODS
1' WIDE
P.I.

SYMBOLS

○ MELL	(MELL)
	GRADING LIMIT LINE
	CONSTRUCTION LIMIT LINE
	PROPERTY LINE P.L.
	LIMITS OF "RIGHT" PORTION (LOW P.)
	EXISTING RIGHT OF WAY
	NEW RIGHT OF WAY
	NEW ROW WITHIN EXIST. ROW
	CONTROL OF ACCESS
● IPF (IRON PIPE or PIN) □ ST. (SEPTIC TANK) ▣ (ROW MONUMENT) ΔBM (TRAVERSE POINT)	
W WATER LINE	
G GAS LINE	
E ELECTRIC LINE	
T TELEPHONE LINE	
SEWER LINE	

ITEM	TECH	CHECKED
BASE MAP		T.J.K.
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	

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

WIN 010063.10

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
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REGISTER

REVISIONS

NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

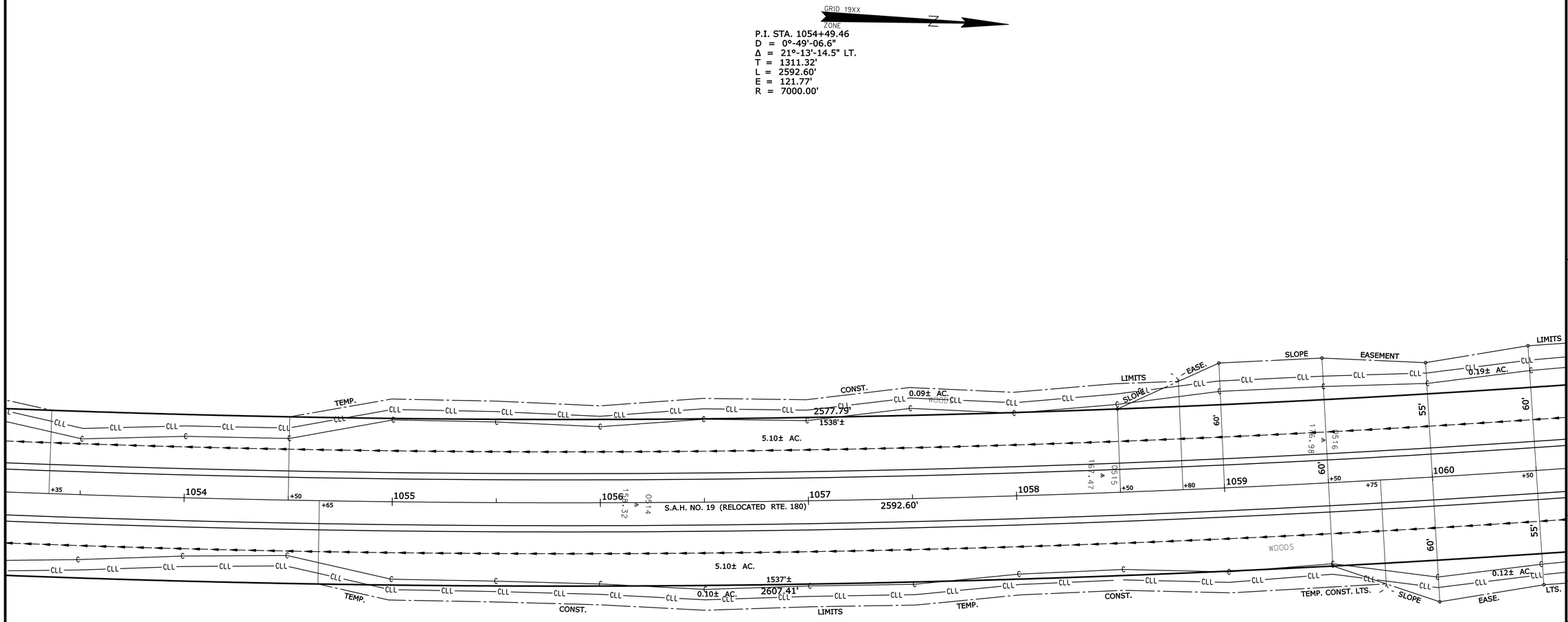
STATE OF MAINE · PETER A. BELANGER 1341 · PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 5-288
SCALE 1" = 25' | SHEET 10 OF 16

SHEET NUMBER
145
OF 151

Filename: ...\10\row\mslo\011_RWPLAN11.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012



CORDA W. LAFLAMME
KENNETH J. LAFLAMME
PARCEL NO. (14)
LAND TAKEN = 5.10± AC.
SLOPE EASEMENTS = 1.02± AC.(8)
CONST. & MAINT. EASEMENTS = 0.22± AC.(2)
DRAINAGE EASEMENTS = (2)
TEMP. CONST. RIGHTS = 0.42± AC.(9)
TOTAL AREA = 149± AC.(OWNER)
REM. AREA = 55.54± AC. (LT.)
REM. AREA = 88.36± AC. (RT.)

SYMBOLS

○MELL	(MELL)
	GRADING LIMIT LINE
	CONSTRUCTION LIMIT LINE
	PROPERTY LINE P.L.
	LIMITS OF "ROW" RIGHT-OF-WAY (LOW-P.)
	EXISTING RIGHT-OF-WAY
	NEW RIGHT OF WAY
	NEW ROW WITHIN EXIST. ROW
	CONTROL OF ACCESS
● IPF (IRON PIPE or PIN)	
□ ST. (SEPTIC TANK)	
▣ (ROW MONUMENT)	
⚓BM (TRAVERSE POINT)	
W WATER LINE	
G GAS LINE	
E ELECTRIC LINE	
T TELEPHONE LINE	
SEWER LINE	

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	T.J.K.

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

WIN 010063.10

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1341
PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1"= 25'	SHEET 11 OF 16	

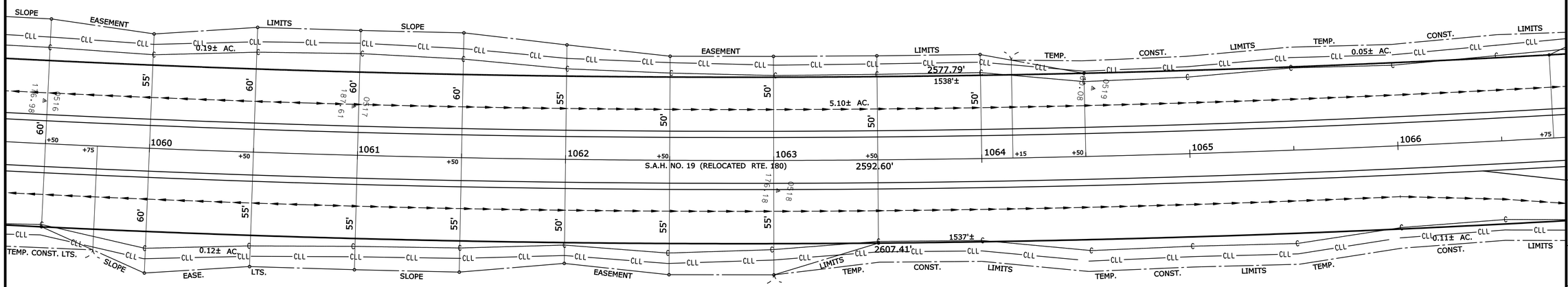
SHEET NUMBER
146
OF 151

Usename: Natasha.M.Collins Date:4/13/2012
Division: HIGHWAY
Filename: ...\10\row\msla\012_RWPLAN12.dgn

GRID 19XX ZONE

P.I. STA. 1054+49.46
D = 0°-49'-06.6"
Δ = 21°-13'-14.5" LT.
T = 1311.32'
L = 2592.60'
E = 121.77'
R = 7000.00'

CORDA W. LAFLAMME
KENNETH J. LAFLAMME
PARCEL NO. (14)
LAND TAKEN = 5.10± AC.
SLOPE EASEMENTS = 1.02± AC.(8)
CONST. & MAINT. EASEMENTS = 0.22± AC.(2)
DRAINAGE EASEMENTS = (2)
TEMP. CONST. RIGHTS = 0.42± AC.(9)
TOTAL AREA = 149± AC.(CITY)
REM. AREA = 55.54± AC. (LT.)
REM. AREA = 88.36± AC. (RT.)



SYMBOLS
- (WELL) WELL
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE PL
- LIMITS OF "PROJECT" PORTION (LOW P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- IPF (IRON PIPE or PIN)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- (TRAVERSE POINT)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	T.J.K.

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

WIN 010063.10

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

REVISIONS NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

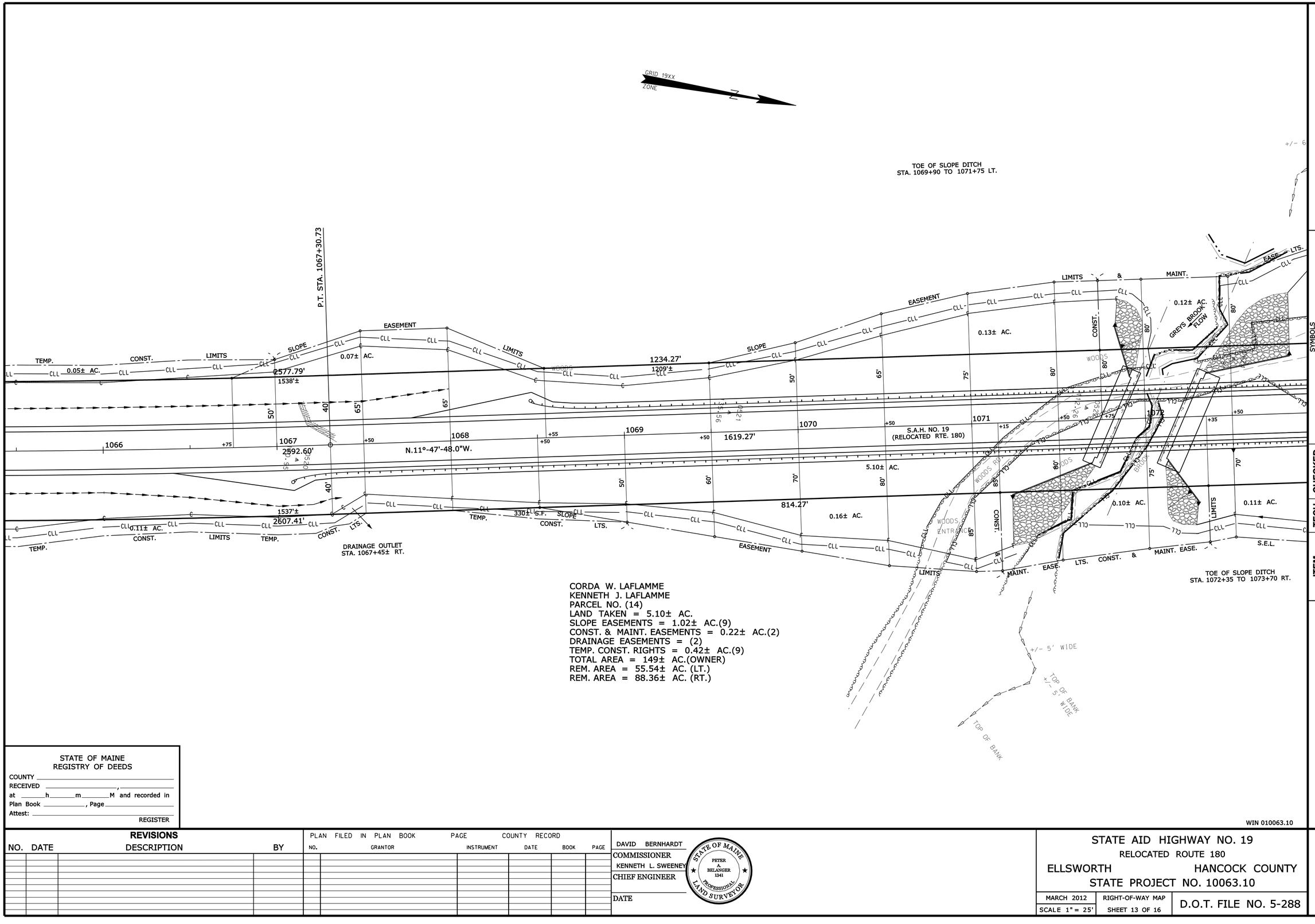
STATE OF MAINE · PETER A. BELANGER 1341 · PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1" = 25'	SHEET 12 OF 16	

SHEET NUMBER
147
OF 151

Filename: ...\10\row\mslo\013_RWPLAN13.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012



CORDA W. LAFLAMME
KENNETH J. LAFLAMME
PARCEL NO. (14)
LAND TAKEN = 5.10± AC.
SLOPE EASEMENTS = 1.02± AC.(9)
CONST. & MAINT. EASEMENTS = 0.22± AC.(2)
DRAINAGE EASEMENTS = (2)
TEMP. CONST. RIGHTS = 0.42± AC.(9)
TOTAL AREA = 149± AC.(OWNER)
REM. AREA = 55.54± AC. (LT.)
REM. AREA = 88.36± AC. (RT.)

WIN 010063.10

SYMBOLS

- (WELL) WELL
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE PL
- LIMITS OF "RIGHT" PORTION (LOW P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- IPF (IRON PIPE or PIN)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- (TRAVERSE POINT)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	T.J.K.

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

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE	COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER 1341
PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1"= 25'	SHEET 13 OF 16	

SHEET NUMBER
148
OF 151

Filename: ...\10\row\ms1o\014_RWPLAN14.dgn Username: Natasha.M.Collins Date:4/13/2012 Division: HIGHWAY

GRID 19XX ZONE

CORDA W. LAFLAMME
KENNETH J. LAFLAMME
PARCEL NO. (14)
LAND TAKEN = 5.10± AC.
SLOPE EASEMENTS = 1.02± AC.(8)
CONST. & MAINT. EASEMENTS = 0.22± AC.(2)
DRAINAGE EASEMENTS = (2)
TEMP. CONST. RIGHTS = 0.42± AC.(9)
TOTAL AREA = 149± AC.(OWNER)
REM. AREA = 55.54± AC. (LT.)
REM. AREA = 88.36± AC. (RT.)

TOE OF SLOPE DITCH
STA. 1073+00 TO 1077+00 LT.

OUTLET DRAINAGE STRUCTURE ST6A. 1077+00 LT.

TOE OF SLOPE DITCH
STA. 1072+35 TO 1073+70 RT.

EXISTING R/W
ROUTE 180
HANCOCK COUNTY COMM. RECORDS
VOL. 2 PG. 139
4 RODS WIDE 1822
HANCOCK COUNTY COMM. RECORDS
VOL. 26 PG. 91
RELOCATES PORTION OF ROUTE 180
OVER DAM AND DISCONTINUES
OLD LOCATION 1940
ALSO SEE S-5-46
(NO CONVEYANCE OR FILING FOUND)
USED WROUGHT PORTION WHERE PLAN
SHOWED RIGHT OF WAY SHOULD HAVE
BEEN ACQUIRED.

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

OLD ROUTE 180
P.I. STA. 32+36.51
D = 7°-41'-26.6"
Δ = 32°-24'-34.9" RT.
T = 216.51'
L = 421.42'
E = 30.82'
R = 745.00'

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

DOUGLAS J. BISHOFF
MARLENA M. BISHOFF
ITEM NO. (15)
TEMP. CONST. RIGHTS = 1035± S.F.(3)
TOTAL AREA = 76,185± S.F.(SURVEY)

JEREMY J. FOSKETT
MICHELLE L. FOSKETT
ITEM NO. (16)
TEMP. CONST. RIGHTS = 480± S.F.(1)
TOTAL AREA = 1.02± AC.(CALC.)

NOTE:
SEE SURVEY PLAN
GRAHAM LAKE ESTATES
ROUTE 180
ELLSWORTH, MAINE
DATED JULY 27,1984
BY HERRICK AND SALSBURY INC.
REC. HANCOCK R.O.D.
BK. 19 , PG.70

SYMBOLS
(MELL) (MELL)
GRADING LIMIT LINE
CONSTRUCTION LIMIT LINE
PROPERTY LINE P.L.
LIMITS OF WROUGHT PORTION (L.O.W.P.)
EXISTING RIGHT OF WAY
NEW RIGHT OF WAY
NEW ROW WITHIN EXIST. ROW
CONTROL OF ACCESS
IPF (IRON PIPE or PIN)
S.T. (SEPTIC TANK)
(ROW MONUMENT)
(TRAVERSE POINT)
WATER LINE
GAS LINE
ELECTRIC LINE
TELEPHONE LINE
SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.S.G.	T.L.B.
PROP. LINES	T.L.B.	T.L.B.
AREAS		T.J.K.

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

WIN 010063.10

REVISIONS			
NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A BELANGER 1341
PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 19
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012 | RIGHT-OF-WAY MAP
SCALE 1" = 25' | SHEET 14 OF 16
D.O.T. FILE NO. 5-288

SHEET NUMBER
149
OF 151

Filename: ...\10\row\ms1o\015_RWPLAN15.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

BRIDGETWIN, LLC
WAYNE WRIGHT
PARCEL NO. (17)
LAND TAKEN = 487± S.F.
DRAINAGE EASEMENT = (1)
TEMP. CONST. RIGHTS = 150± S.F.(1)
TOTAL AREA = 0.29± AC.(SURVEY)
REM. AREA = 0.28± AC.

NOTE:
SEE FINAL SUBDIVISION PLAN
OF BRIDGETWIN ESTATES
OTIS ROAD ELLSWORTH, MAINE
DATED MARCH 22, 2006
REC. HANCOCK COUNTY R.O.D.
BK. 35 PAGE 42

BRIDGETWIN, LLC
WAYNE WRIGHT
PARCEL NO. (18)
LAND TAKEN = 656± S.F.
TEMP. CONST. RIGHTS = 1225± S.F.(1)
TOTAL AREA = 0.49± AC.(SURVEY)
REM. AREA = 0.47± AC.

BRIDGETWIN WAY
P.I. STA. 41+53.84
D = 9°-32'-57.5"
Δ = 8°-50'-00.5" RT.
T = 46.34'
L = 92.50'
E = 1.79'
R = 600.00'

PHILIP A. PHELPS
PARCEL NO. (20)
LAND TAKEN = 0.05± AC.
TEMP. CONST. RIGHTS = 580± S.F.(1)
TOTAL AREA = 2.0± AC.(DEED)
REM. AREA = 1.95± AC.

P.T. STA. 42+00.00
P.C. STA. 41+07.50
DRAINAGE OUTLET STA. 41+05± LT.
S70°-20'-58.7"W.
1234.27'
1209'±
681'±
1619.27'
N.11°-47'-48.0"W.
1083
STA. 1083+00.00 = END PROJECT No. 10063.10 = LIMIT OF WORK - MATCH EXISTING SECTION
END B.L. SECT. 1 STA. 1083+50.00
S.A.H. NO. 19 ROUTE 180
S.A.H. NO. 8 ROUTE 180
STA. 1080+19.44 S.A.H. NO. 19 & 8
STA. 40+00.00 BRIDGETWIN WAY
RTE. 180
BRIDGETWIN WAY 60' R/W
BRIMMER POINT WAY 50' R/W
COMMON LOT
COMMON AREA
GRID 19XX ZONE
N

SEE SHEET NOS. 4 & 5 FOR PARCEL NO. (19)

ROBIN K. WRIGHT

JENNIFER A. GOODRICH
TROY R. WING
THOMAS AMIRAULT
EVAMARIE FLOWER
THOMAS P. DUNN
DIANE J. DUNN
BURRIS T. JESTER
VIVIAN JESTER
FRANZ GOEBEL,
TRUSTEE OF F & H REALTY TRUST
LEON BEHLER
ELEANOR R. BATCHELDER
HAROLD E. BATCHELDER
DAVID WOOLSEY
KATHY JENSCH BROWN

DOROTHY PETTEGROW
FARRELL PETTEGROW
ITEM NO. (21)
TEMP. CONST. RIGHTS = 0.05± AC.(1)
TOTAL AREA = 1.42± AC.(CALC.)

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

EXISTING R/W
ROUTE 180
HANCOCK COUNTY COMM. RECORDS
VOL. 2 PG. 139
4 RODS WIDE 1822
HANCOCK COUNTY COMM. RECORDS
VOL. 26 PG. 91
RELOCATES PORTION OF ROUTE 180
OVER DAM AND DISCONTINUES
OLD LOCATION 1940
ALSO SEE S-5-46
(NO CONVEYANCE OR FILING FOUND)
USED WROUGHT PORTION WHERE PLAN
SHOWED RIGHT OF WAY SHOULD HAVE
BEEN ACQUIRED.
BRIDGETWIN ROAD
PLAN OF BRIDGETWIN ESTATES
PLAN BOOK 35, PAGE 42
ACCEPTED 1/8/07 60'

NOTE:
SEE SURVEY PLAN
GRAHAM LAKE ESTATES
ROUTE 180
ELLSWORTH, MAINE
DATED JULY 27,1984
BY HERRICK AND SALSBURY INC.
REC. HANCOCK R.O.D.
BK. 19 , PG.70

NOTE:
SEE SURVEY PLAN
GRAHAM LAKE ESTATES
ROUTE 180
ELLSWORTH, MAINE
DATED JULY 27,1984
BY HERRICK AND SALSBURY INC.
REC. HANCOCK R.O.D.
BK. 19 , PG.70

DOUGLAS J. BISHOFF
MARLENA M. BISHOFF
ITEM NO. (15)
TEMP. CONST. RIGHTS = 1035± S.F.(3)
TOTAL AREA = 76,185± S.F.(SURVEY)

SYMBOLS
- IPF (IRON PIPE or PIN)
- ST., (SEPTIC TANK)
- ⊕DM (TRAVERSE POINT)
- (WELL)
- WELL - GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE - P.L. -
- LIMITS OF WROUGHT PORTION (L.O.W.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM	CHECKED
BASE MAP	
EXIST. R/W	D.S.G.
PROP. LINES	T.L.B.
AREAS	T.L.B.
	T.J.K.

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

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

WIN 010063.10

REVISIONS			
NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1341
PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NOS. 19 & 8
RELOCATED ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 5-288
SCALE 1"= 25'	SHEET 15 OF 16	

SHEET NUMBER
150
OF 151

OLD ROUTE 180
P.I. STA. 32+36.51
D = 7°-41'-26.6"
Δ = 32°-24'-34.9" RT.
T = 216.51'
L = 421.42'
E = 30.82'
R = 745.00'

CORDA W. LAFLAMME
KENNETH J. LAFLAMME
PARCEL NO. (14)
LAND TAKEN = 5.10± AC.
SLOPE EASEMENTS = 1.02± AC.(9)
CONST. & MAINT. EASEMENTS = 0.22± AC.(2)
DRAINAGE EASEMENTS = (2)
TEMP. CONST. RIGHTS = 0.42± AC.(9)
TOTAL AREA = 149± AC.(OWNER)
REM. AREA = 55.54± AC. (LT.)
REM. AREA = 88.36± AC. (RT.)

JEREMY J. FOSKETT
MICHELLE L. FOSKETT
ITEM NO. (16)
TEMP. CONST. RIGHTS = 480± S.F.(1)
TOTAL AREA = 1.02± AC.(CALC.)

DOUGLAS J. BISHOFF
MARLENA M. BISHOFF
ITEM NO. (15)
TEMP. CONST. RIGHTS = 1035± S.F.(3)
TOTAL AREA = 76,185± S.F.(SURVEY)

ALICE M. KELLEY HERRICK

VIRGINIA R. DENNISON, TRUSTEE OF
THE VIRGINIA R. DENNISON TRUST.

FREDERICK W. HAYNES
CATHERINE P. HAYNES

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

NOTE:
SEE SURVEY PLAN
GRAHAM LAKE ESTATES
ROUTE 180
ELLSWORTH, MAINE
DATED JULY 27,1984
BY HERRICK AND SALSBURY INC.
REC. HANCOCK R.O.D.
BK. 19 , PG.70

EXISTING R/W
ROUTE 180
HANCOCK COUNTY COMM. RECORDS
VOL. 2 PG. 139
4 RODS WIDE 1822
HANCOCK COUNTY COMM. RECORDS
VOL. 26 PG. 91
RELOCATES PORTION OF ROUTE 180
OVER DAM AND DISCONTINUES
OLD LOCATION 1940
ALSO SEE S-5-46
(NO CONVEYANCE OR FILING FOUND)
USED WROUGHT PORTION WHERE PLAN
SHOWED RIGHT OF WAY SHOULD HAVE
BEEN ACQUIRED.

GRID 19XX
ZONE

SYMBOLS
- IPF (IRON PIPE or PIN)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- (TRAVERSE POINT)
- (MELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE
- LIMITS OF WROUGHT PORTION (L.O.W.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP		
EXIST. R/W	D.S.G.	
PROP. LINES	T.L.B.	
AREAS	T.L.B.	T.J.K.

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

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and recorded in
Plan Book _____, Page _____
Attest: _____
REGISTER

WIN 010063.10

REVISIONS NO.	DATE	DESCRIPTION	BY

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

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1541
PROFESSIONAL LAND SURVEYOR

STATE AID HIGHWAY NO. 8
ROUTE 180
ELLSWORTH HANCOCK COUNTY
STATE PROJECT NO. 10063.10

MARCH 2012 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 5-288
SCALE 1" = 25' | SHEET 16 OF 16

SHEET NUMBER
151
OF 151

Filename: ...\10\row\msto\016_RWPLAN16.dgn Division: HIGHWAY Username: Natasha.M.Collins Date:4/13/2012

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Superstructure Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Fifth Edition 2010, supplemented by research from the Univesity of Maine

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

DESIGN LOADING

Live Load ..... HL - 93 Modified

TRAFFIC DATA

Current (2008) AADT	3160
Future (2028) AADT	4740
DHV - % of AADT	10%
Design Hour Volume	493
% Heavy Trucks (AADT)	8%
% Heavy Trucks (DHV)	6%
Directional Distribution (DHV)	70%
18 kip Equivalent P 2.0	128
18 kip Equivalent P 2.5	122
Design Speed (mph)	45

Functional Class: Rural Arterial

MATERIALS

Concrete:

Arch Tube Concrete	See Special Provision
Fill	"Fill"
All Other	Class "A"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60

BASIC DESIGN STRESSES

Concrete Class "A"	f 'c = 4,350 psi
Concrete "Fill"	f 'c = 2,900 psi
Arch Tube Concrete	f 'c = 6,000 psi
Reinforcing Steel	f y = 60,000 psi

ELLSWORTH
HANCOCK COUNTY
GREYS BROOK BRIDGE
OVER
GREYS BROOK
RTE. 180 RELOCATION
PROJECT NO. 10063.10
PROJECT LENGTH 1.802 mi.

LIST OF DRAWINGS

Title Sheet	B1
Estimated Quantities	B2
Plan & Profile	B3
Boring Location Plan	B4
Interpretive Subsurface Profile	B5
Interpretive Soil Transverse Section	B6
Boring Logs	B7
Pile Abutment (Alternate1)	B8
Abutment 1 Dimensional Details (alt.1)	B9
Abutment 1 Reinforcing Details (alt. 1)	B10
Abutment 2 Dimensional Details (alt. 1)	B11
Abutment 2 Reinforcing Details (alt. 1)	B12
Wing Footings (alt. 1)	B13
Wing Footings (alt. 1)	B14
Alternate 1 Reinforcing Schedule	B15
Spread Footing Abutment (Alternate2)	B16
Abutment 1 Dimensional Details (alt.2)	B17
Abutment 1 Reinforcing Details (alt. 2)	B18
Abutment 2 Dimensional Details (alt. 2)	B19
Abutment 2 Reinforcing Details (alt. 2)	B20
Wing Footings (alt. 2)	B21
Wing Footings (alt. 2)	B22
Alternate 2 Reinforcing Schedule	B23
Deck Reinforcing	B24
Headwall Details	B25-B27
Wingwall Details	B28-B30

Engineering Seal applies to details within these plans related to composite concrete arch superstructure

PROJECT LOCATION:	Route 180 Relocation over Greys Brook on SE side of Graham Lake
PROGRAM AREA:	Bridge Program
OUTLINE OF WORK:	Bridge Abutments with a Composite Arch Superstructure

CALDERWOOD ENGINEERING
222 RIVER ROAD
N. RICHMOND, ME 04357
PH. (207) 737-2007 FAX (207) 737-2008

WIN 10063.10

10063.10

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED DATE 5/12/12

COMMISSIONER: Bernard L. Burney

CHIEF ENGINEER: 5/12/12

STATE OF MAINE
ERIC J. CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE P.E. NUMBER 9099 DATE NOVEMBER, 2011

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	NATE BENOIT
DESIGNER	ERIC CALDERWOOD
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

ELLSWORTH
ROUTE 180

TITLE SHEET

SHEET NUMBER
B1

Date:5/11/2012
Username: common
Division: BRIDGE
Filename:\001_Title.dgn

SECTION 1 ESTIMATED QUANTITIES (use for both alternates)			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.35	¾" CRUSHED STONE	75	CY
502.41	STRUCTURAL CONCRETE SUPERSTRUCTURE SLAB	55	cy
503.12	REINFORCING STEEL, FABRICATED & DELIVERED	9,700	LB
503.13	REINFORCING STEEL, PLACING	9,700	LB
509.74	COMPOSITE ARCH SUPERSTRUCTURE	1	LS
511.07	COFFERDAM: ABUTMENT NO. 1	1	LS
511.07	COFFERDAM: ABUTMENT NO. 2	1	LS
512.081	FRENCH DRAINS (124 LF)	1	LS
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (125 SY)	1	LS
610.08	PLAIN RIP-RAP	515	CY
613.319	EROSION CONTROL BLANKET	60	SY
615.07	LOAM	25	CY
618.1411	SEEDING METHOD #3, PLAN QUANTITY	4	UN
619.1401	EROSION CONTROL MIX	50	CY
620.58	EROSION CONTROL NON-WOVEN GEOTEXTILE	515	SY
629.05	HAND LABOR STRAIGHT TIME	40	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	HR
631.172	TRUCK - LARGER (INCLUDING OPERATOR)	20	HR
636.40	MECHANICALLY STABILIZED EARTH RETAINING WALL	4400	SF

SECTION 2 ESTIMATED QUANTITIES (use for alternate 1)			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.25	GRANULAR BORROW	816	CY
206.082	STRUCTURAL EXCAVATION - MAJOR STRUCTURES PLAN QUANTITY	635	CY
501.231	DYNAMIC LOADING TEST	2	EA
501.46	STEEL H-BEAM PILES (73 LB/FT), DELIVERED	416	LF
501.461	STEEL H-BEAM PILES (73 LB/FT), IN PLACE	400	LF
501.90	PILE TIPS	28	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.21	STRUCTURAL CONCRETE, ABUTMENTS & RETAINING WALLS	264	CY
503.12	REINFORCING STEEL, FABRICATED & DELIVERED	14,890	LB
503.13	REINFORCING STEEL, PLACING	14,890	LB

SECTION 3 ESTIMATED QUANTITIES (use for alternate 2)			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.25	GRANULAR BORROW	1415	CY
206.082	STRUCTURAL EXCAVATION - MAJOR STRUCTURES PLAN QUANTITY	1545	CY
502.21	STRUCTURAL CONCRETE, ABUTMENTS & RETAINING WALLS	575	CY
502.56	CONCRETE FILL	20	CY
503.12	REINFORCING STEEL, FABRICATED & DELIVERED	38,270	LB
503.13	REINFORCING STEEL, PLACING	38,270	LB

GENERAL CONSTRUCTION NOTES

1. These plans er not intended to be worked alone, but are intended to be worked in conjuction with the contract details.
2. All Utility Facilities shall be adjusted by the respective Utilities unless otherwise noted.
3. For Easements, Construction Limits, and Right-Of-Way lines, refer to Right of Way Map.
4. Place a 2' wide strip of Temporary Erosion Control Blanket on the side slopes along the top of the Riprap, behind the Wingwalls and Headwalls.
5. The Clearing Limits as shown on the plans are approximate. The exact limits shall be established in the field by the Resident. Payment for clearing will be incidental to related Contract items.
6. Do not excavate for Aggregate Subbase Course where Existing Material is suitable as determined by the Resident.
7. In areas where the Resident directs the Contractor not to excavate to the Subgrade Line shown on the plans, payment for removing Existing Pavement, Grubbing, shaping, ditching, and compacting the Existing Subbase and layers of new Subbase 6" or less thick will be made under appropriate Equipment rental items.
8. Extended-use Erosion Control Blanket, Seeded Gutters, Riprap Downspouts, and other Gutters lined with Stone Ditch protection shall be constructed after Paving and Shoulder work is completed, where it is apparent that Runoff will cause continual Erosion. Payment will be made under appropriate Contract items.
9. Protective Coating for Concrete Surfaces shall be applied to the following areas:
   Precast Coping @ Top of all MSE walls
10. Erosion Control Mix may be substituted in those areas normally receiving Loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specification 619. Mulch. Payment will be made under Item 619.1401 Erosion Control Mix.
11. Bidders and Contractors may obtain a copy of the hydrologic report of the bridge site by contacting the Project Manager. The hydrologic report is based on the Department's interpretation of information obtained for the subject site. No assurance is given that the information or the conclusions of the report will be representative of actual conditions at the time of construction.
12. Geotechnical Information furnished or referred to in this plan set is for the Bidder's and Contractor's use. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the time of construction. The Department shall not be responsible for the Bidder's and Contractor's interpretations of, or conclusions drawn from, the Geotechnical Information. The boring logs contained in the plan set present factual and interpretive subsurface information collected at discrete locations. Data provided may not be representative of the subsurface conditions between boring locations.
13. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the Contractor if the actual final quantities are different from the MaineDOT provided estimated quantities, except as follows:

    a. If a Lump Sum item is eliminated, the requirements of Standard Specifications section 109.2, Elimination of Items, will take precedence.

    b. If other contract items specifically allow a change in payment for a Lump Sum item, those requirements will be followed.

    c. If a design change results in changes to estimated quantities for Lump Sum items, price adjustments will be made in accordance with Standard Specifications section 109.7, Equitable Adjustments to Compensation.

14. The project geotechnical report titled: Geotechnical Design Report for the New Bridge Construction of Grey's Brook Bridge, Route 180 over Grey's Brook, Ellsworth, Maine, Soils Report No. 2011-11, September 30, 2011, may be accessed at the MaineDOT web address: http://www.main.gov/mdot/contractors/

Engineering Seal applies to details within these plans related to composite concrete arch superstructure

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE — ERIC J. CALDERWOOD — No. 9099 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOV 2011

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	NATE BENOIT
DESIGNER	OWEN KRAUSS
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

PROJ. NO. 10063.10 WIN 10063.10

ELLSWORTH
ROUTE 180

ESTIMATED QUANTITIES

SHEET NUMBER

B2

CALDERWOOD ENGINEERING — 225 RIVER ROAD — RICHMOND, ME 04357 — PH: (207) 737-2067 FAX: (207) 737-2068

Filename: ...\002_Estimate.dgn Division: BRIDGE Username: common Date:6/8/2012

PT STA. 1067+30.73

1068+00 1069+00 1070+00 1071+00 1072+00 1073+00 1074+00

N11°47'48.0"W

℄ BRG. ABUT. 2
STA. 1072+19.16

℄ BRG. ABUT.1
STA. 1071+84.83

PLAIN RIPRAP
TYPICAL

LOW POINT
STA. 1072+14.24

STA. 1072+02
℄ COMPOSITE ARCH

25°
SKEW

34'-4"
SPAN

V.C.L. = 385.0'
HLSD = 367.545'
E = +2.313'

G = -3.829%

G = +0.977%

PROPOSED
PROFILE

PVC STA. = 1069+07.500
ELEV. 143.21

PVI STA. = 1071+00.000
ELEV. 135.837

PVT STA. = 1072+92.500
ELEV. 137.72

℄ BRG. ABUT. 1
STA. 1071+84.83

34'-4"

℄ BRG. ABUT. 2
STA. 1072+19.16

℄ COMPOSITE
ARCH
STA. 1072+02

LOW POINT
STA. 1072+14.24
ELEV. 137.34

SPREAD FOOTING OPTION SHOWN.
REFERENCE STRUCTURAL DETAILS
FOR ABUTMENT ON PILE OPTION

EXISTING
PROFILE

EXISTING
BROOK
CROSSING

1067+50	1068+00	1068+50	1069+00	1069+50	1070+00	1070+50	1071+00	1071+50	1072+00	1072+50	1073+00	1073+50	1074+00	1074+50
149.24 (PROPOSED) 149.21 (EXISTING)	147.33 145.55	145.41 140.53	143.50 137.93	141.70 134.56	140.21 122.40	139.05 114.56	138.21 112.75	137.68 111.93	137.48 109.72	137.60 110.83	138.03 112.19	138.58 113.77	139.12 121.54	139.67 (PROPOSED) 122.96 (EXISTING)

145 140 135 130 125 120 115 110 105 100 95 90

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN
10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC A.
CALDERWOOD
No. 9099
LICENSED
PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
NOVEMBER 2011

	DATE	BY
PROJ. MANAGER	MATE BENOIT	
DESIGN-DETAILED	OCK	JJH
CHECKED-REVIEWED	-----	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

ELLSWORTH
ROUTE 180

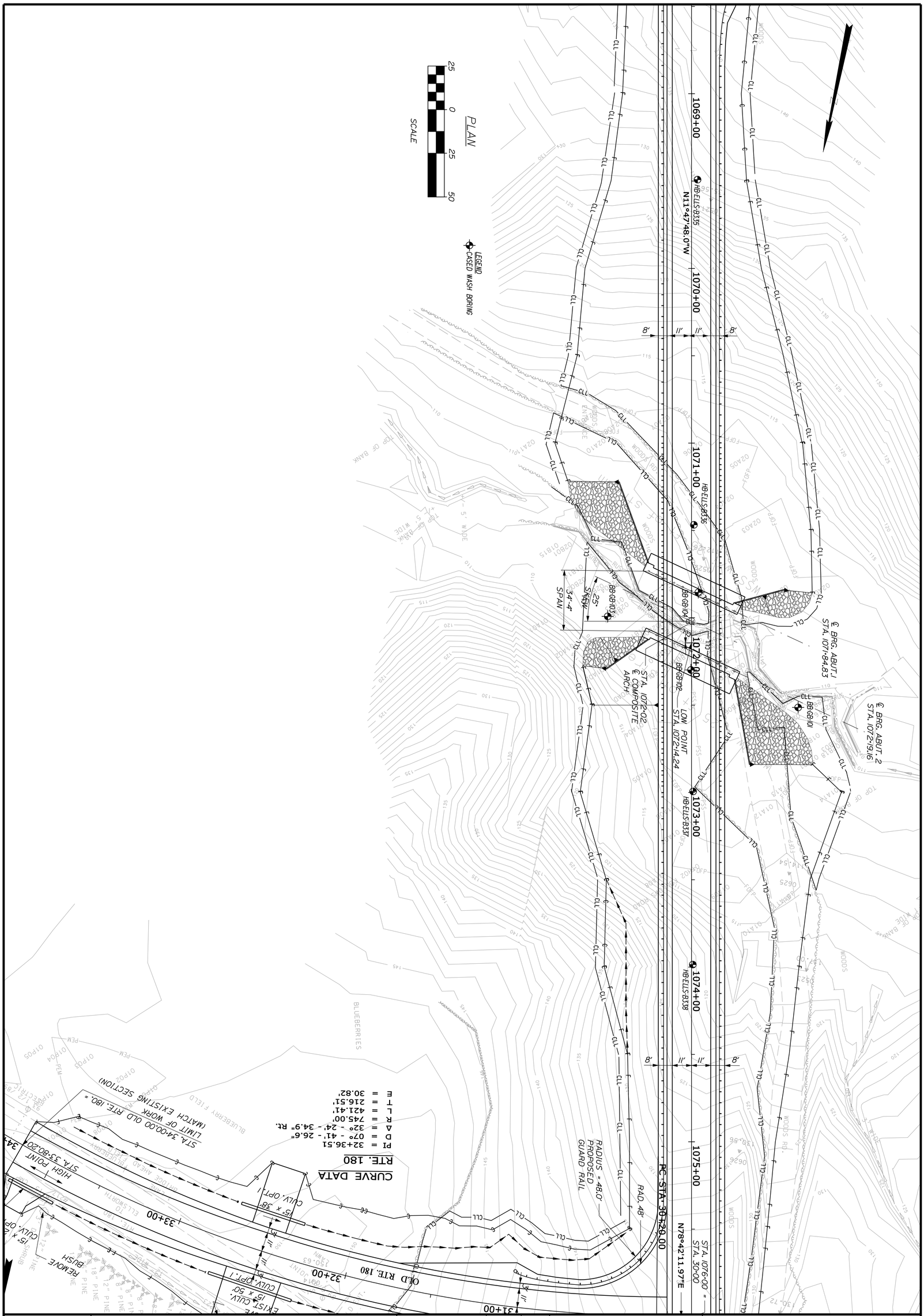
GENERAL PLAN
& PROFILE

SHEET NUMBER

B3

Filename: ...\003_Plan_Profile.dgn Division: BRIDGE Username: common Date:5/14/2012

Filename: ...\MSTA\002_BLP GB1 B4.dgn Division: GEOTECH Username: terry.white Date:5/14/2012



SHEET NUMBER B4

GREYS BROOK BRIDGE
GREYS BROOK
ELLSWORTH HANCOCK COUNTY

BORING LOCATION PLAN

PROJ. MANAGER $PROJMANAGER$		BY	DATE
DESIGN-DETAILED	L.KRUSINSKI	T.WHITE	OCT 2011
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

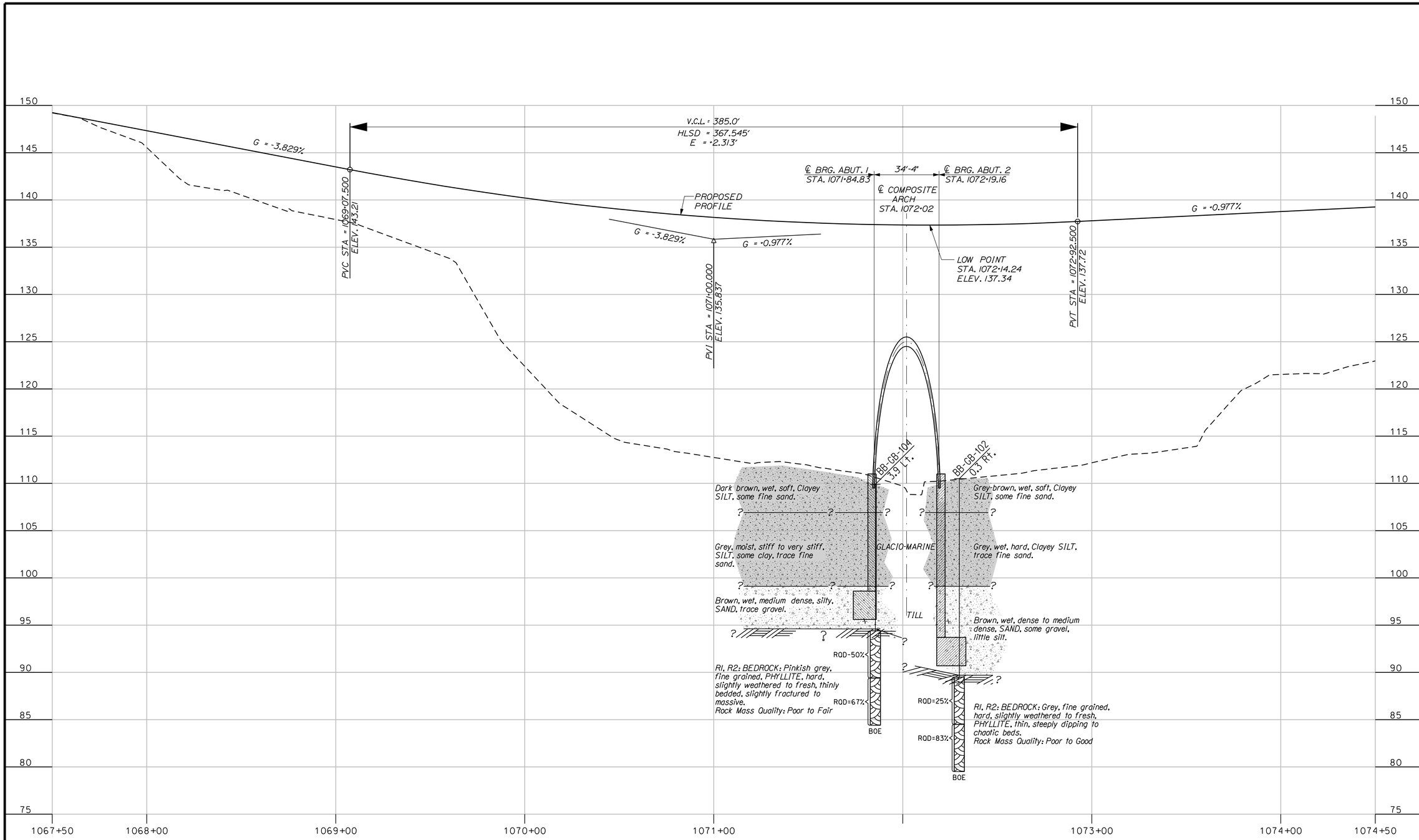
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

BRIDGE NO. 6436 WIN 10063.10 BRIDGE PLANS

Filename: ...\mst0\003_JSP GB1B5.dgn Division: GEOTECH Username: terry.white Date:5/14/2012



Boring No.
Offset if shown

LEGEND

Strata Interface

Boring — RQD= Rock Quality Designation for Rock Core Sample

BOE= Bottom Of Exploration

PROFILE

HORIZ 25 0 25 50

VERT 5 0 5 10

SCALE

Notes: 1. This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.

2. Soil statagraphy for only borings BB-GB-104 and BB-GB-102 shown for clarity. Refer to Sheet No. 4 for generalized soil strata for borings BB-GB-101 and BB-GB-103.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

WIN 10063.10

BRIDGE NO. 6436

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	$PROJMANAGER$	
DESIGN-DETAILED	T. WHITE	OCT 2011
CHECKED-REVIEWED	L.KRUSINSKI	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

GREYS BROOK BRIDGE
GREYS BROOK
ELLSWORTH HANCOCK COUNTY

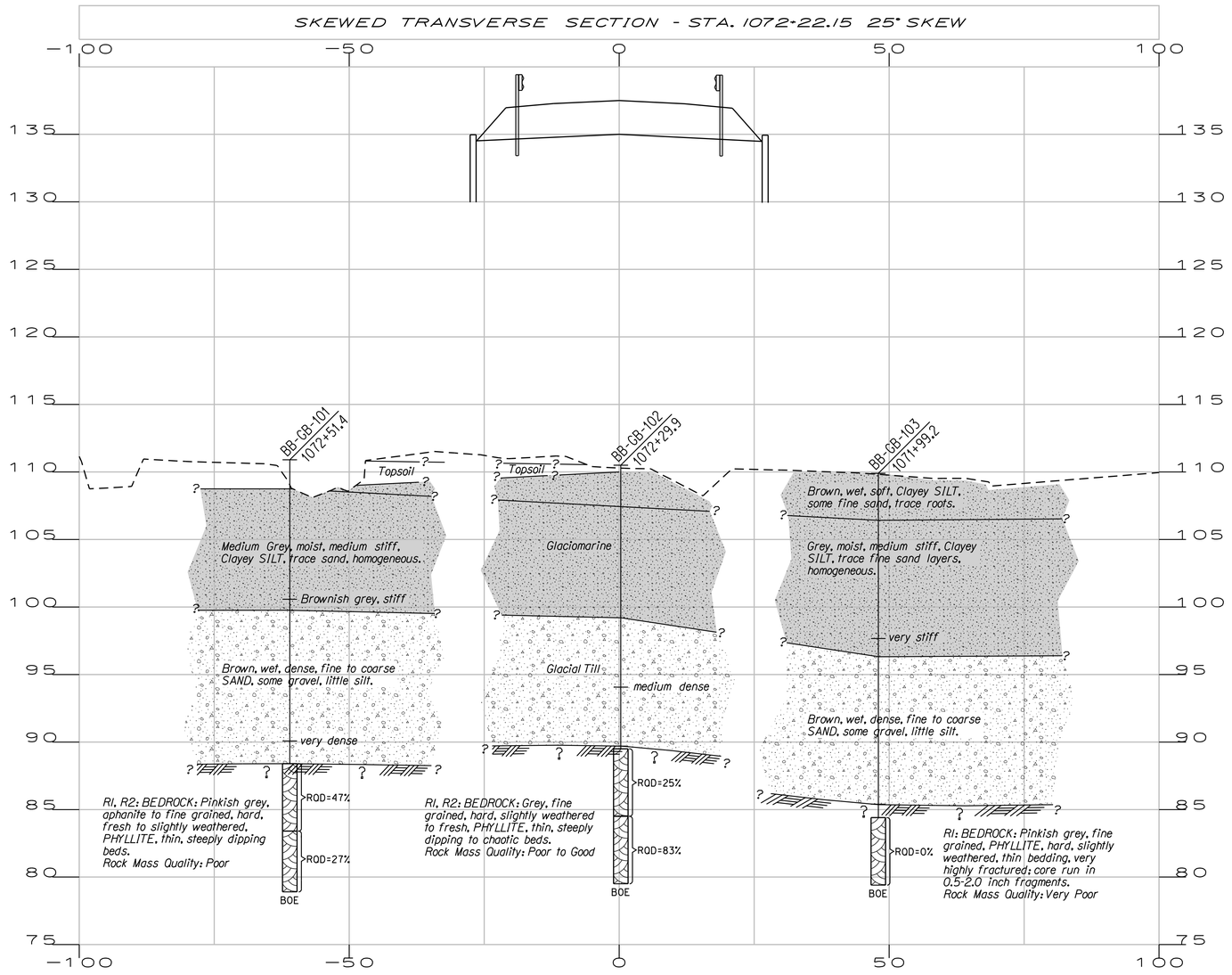
INTERPRETIVE SUBSURFACE PROFILE

SHEET NUMBER

B5

Filename: ...\mslo\004_ ISTS GB1B6.dgn Division: GEOTECH Username: terry.white Date:5/14/2012

SKEWED TRANSVERSE SECTION - STA. 1072+22.15 25° SKEW



Boring No.
Station

LEGEND

Pavement Thickness if applicable

Strata Interface

Boring

RQD= Rock Quality Designation for Rock Core Sample

BOE= Bottom Of Exploration

HORIZ 25 0 25 50

VERT 10 0 10 20

SCALE

Notes:
1. This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.
2. Soil statagraphy for only borings BB-GB-101, BB-GB-102 and BB-GB-103 shown for clarity. Refer to Sheet No. 3 for generalized soil strata for boring BB-GB-104.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

WIN 10063.10

BRIDGE NO. 6436 BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	L.KRUSINSKI	T.WHITE	OCT 2011
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

SIGNATURE

P.E. NUMBER

DATE

GREYS BROOK BRIDGE
GREYS BROOK
ELLSWORTH HANCOCK COUNTY

INTERPRETIVE SOIL TRANSVERSE SECTION

SHEET NUMBER

B6

Filename: ...\005_ BORING LOGS GB1B7.dgn Division: GEOTECH Username: terry.white Date:5/14/2012

Maine Department of Transportation — BB-GB-104

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Greys Brook Bridge #6436 carries Route 180 over Greys Brook
Location: Ellsworth, Maine

Boring No.: BB-GB-104
WIN: 10063.10

Driller:	Northern Test Boring	Elevation (ft.): 109.9	Auger ID/OD: 5" Solid Stem
Operator:	Nick/Ryan	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By:	B. Wilder	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	8/25/10t 07:00-11:00	Drilling Methods: Cased Wash Boring	Core Barrel: NQ-2*
Boring Location:	1071+85.5, 3.9 Lt.	Casing ID/OD: HW	Water Level*: 4.0 ft bgs.
Hammer Efficiency Factor: 0.713	Hammer Type: Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test. PP = Pocket Penetrometer
WH = Sample advanced by static weight of hammer
WR = Sample advanced by weight of rod and hammer
WW = Sample advanced by weight of hammer and wash water
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. hammer
S_v = Insitu Field Vane Shear Strength (tsf)
T_v = Pocket Torvane Shear Strength (tsf)
q_u = Unconfined Compressive Strength (tsf)
Nuncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = Hammer Efficiency Factor/60%*Nuncorrected
$S_{v\ LAB}$ = Lab Vane Shear Strength (tsf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/18	0.00 - 2.00	1/1/1/1	2	2	SSA	109.60		TOPSOIL, 1Sod and Roots. 0.30 Dark brown, wet, soft, clayey SILT, some fine sand.	
								106.90		3.00	
5	MV/20	24/20	5.00 - 7.00	4/6/9/13	15	18				Failed 16x32 mm vane attempt, would not push. Grey, very stiff to stiff, SILTY, some clay, trace fine sand, no structure, some mottling otherwise homogeneous.	GM237516 A-4, GM WC=20.1% LL=29 PL=20 PI=9
10	MV/30	24/18	10.00 - 12.00	5/6/6/12	12	14		98.90		Failed 16x32 mm vane attempt, would not push. 11.00	GM237517 A-4, SM WC=22.0%
										Brown, wet, medium dense, silty, fine to coarse SAND, trace gravel, (Till). Roller Coned ahead to 15.0 ft bgs.	
15	MD R1	3.6/0 60/52	15.00 - 15.30 20.50	50(3.6") ROD = 50%	---		40	94.60 94.40		Failed sample attempt. Roller Coned ahead to 15.5 ft bgs. 15.50 Top of Bedrock at Elev. 94.6 ft. 15.30 Rt1Bedrock: Pinkish grey, fine grained PHYLLITE, hard, fresh to slightly discolored. Thinly bedded, frequent quartz veins, drill breaks along bedding at steep angles and cross bedding (low angles joints). Slightly fractured to massive. Rock Mass Quality: Poor. Ellsworth Formation. Rt1Core Times (minsec) 15.5-16.5 ft (4:35) 16.5-17.5 ft (4:50) 17.5-18.5 ft (5:15) 18.5-19.5 ft (4:40) 19.5-20.5 ft (4:00) 87% Recovery R2tBedrock: Pinkish grey, fine grained PHYLLITE, slightly weathered to fresh. Thin bedding, slightly fractured to massive. Rock Mass Quality: Fair. Ellsworth Formation. R2tCore Times (minsec) 20.5-21.5 ft (--:--) 21.5-22.5 ft (--:--) 22.5-23.5 ft (--:--) 23.5-24.5 ft (--:--) 24.5-25.5 ft (--:--) 100% Recovery 25.50 Bottom of Exploration at 25.50 feet below ground surface.	
20	R2	60/60	20.50 - 25.50	ROD = 67%				84.40			
25											
30											
35											
40											
45											
50											

Remarks:
Auto Hammer #185

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: BB-GB-104

Maine Department of Transportation — BB-GB-103

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Greys Brook Bridge #6436 carries Route 180 over Greys Brook
Location: Ellsworth, Maine

Boring No.: BB-GB-103
WIN: 10063.10

Driller:	Northern Test Boring	Elevation (ft.): 109.9	Auger ID/OD: 5" Solid Stem
Operator:	Nick/Ryan	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By:	B. Wilder	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	8/24/10t 07:00-11:30	Drilling Methods: Cased Wash Boring	Core Barrel: NQ-2*
Boring Location:	1071+99.2, 48.0 Rt.	Casing ID/OD: HW	Water Level*: 4.0 ft bgs.
Hammer Efficiency Factor: 0.713	Hammer Type: Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test. PP = Pocket Penetrometer
WH = Sample advanced by static weight of hammer
WR = Sample advanced by weight of rod and hammer
WW = Sample advanced by weight of hammer and wash water
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. hammer
S_v = Insitu Field Vane Shear Strength (tsf)
T_v = Pocket Torvane Shear Strength (tsf)
q_u = Unconfined Compressive Strength (tsf)
Nuncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = Hammer Efficiency Factor/60%*Nuncorrected
$S_{v\ LAB}$ = Lab Vane Shear Strength (tsf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/5	0.00 - 2.00	1/1/1/1	2	2	SSA	109.60		TOPSOIL, 1Sod and Roots. 0.30 Brown, wet, soft, clayey SILT, some fine sand, little organics, (Topsoil subunit1).	
								106.90		3.00	
5	MV/20	24/20	5.00 - 7.00	3/3/4/3	7	8				Failed 16x32 mm vane attempt, would not push. Grey, very stiff, silty, clayey SILT, trace fine sand layers, homogeneous, no structure, (Glaciomarine).	
10	V1/30	24/18	10.00 - 10.11 10.11 - 12.00	Su=2986/2358 psf WOH/12/2	3	4				16x32 mm vane raw torque readings: V1: 15.0/15.0 in-lbs GMP-Hydraulic Push Grey, wet, very stiff, clayey SILT, trace fine sand, homogeneous, (Glaciomarine).	GM237514 A-4, CL WC=30.1% LL=29 PL=20 PI=9
								96.90		13.00	
15	40	24/18	15.00 - 17.00	9/16/16/14	32	38	12			Brown, wet, dense, fine to coarse SAND, some gravel, little silt, (Till).	GM237515 A-1-b, SM-SM WC=10.7%
20	50	24/10	20.00 - 22.00	13/20/20/14	40	48	5	85.40		Similar to above. Roller Coned ahead to 25.5 ft bgs. 24.50 Top of Bedrock at Elev. 85.4 ft.	
25	R1	60/24	25.50 - 30.50	ROD = 0%			NQ-2	84.40		Rt1Bedrock: Pinkish grey, fine grained PHYLLITE, hard, slightly weathered, thin bedding, no orientation to jointing evident, very highly fractured, core run is in 1/2 to 2-inch fragments. Rock Mass Quality: very poor, Ellsworth Formation. Rt1Core Times (minsec) 25.5-26.5 ft (4:30) 26.5-27.5 ft (3:00) 27.5-28.5 ft (2:25) 28.5-29.5 ft (3:20) 29.5-30.5 ft (4:15) 40% Recovery	
30								79.40		30.50 Bottom of Exploration at 30.50 feet below ground surface.	
35											
40											
45											
50											

Remarks:
Auto Hammer #185

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: BB-GB-103

Maine Department of Transportation — BB-GB-102

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Greys Brook Bridge #6436 carries Route 180 over Greys Brook
Location: Ellsworth, Maine

Boring No.: BB-GB-102
WIN: 10063.10

Driller:	Northern Test Boring	Elevation (ft.): 110.5	Auger ID/OD: 5" Solid Stem
Operator:	Nick/Ryan	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By:	B. Wilder	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	8/24/10t 12:30-17:00	Drilling Methods: Cased Wash Boring	Core Barrel: NQ-2*
Boring Location:	1072+29.9, 0.3 Rt.	Casing ID/OD: HW	Water Level*: 3.6 ft bgs.
Hammer Efficiency Factor: 0.713	Hammer Type: Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test. PP = Pocket Penetrometer
WH = Sample advanced by static weight of hammer
WR = Sample advanced by weight of rod and hammer
WW = Sample advanced by weight of hammer and wash water
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. hammer
S_v = Insitu Field Vane Shear Strength (tsf)
T_v = Pocket Torvane Shear Strength (tsf)
q_u = Unconfined Compressive Strength (tsf)
Nuncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = Hammer Efficiency Factor/60%*Nuncorrected
$S_{v\ LAB}$ = Lab Vane Shear Strength (tsf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/10	0.00 - 2.00	1/1/1/1	2	2	SSA	110.20		TOPSOIL, 1Sod and Roots. 0.50 Grey-brown, wet, soft, clayey SILT, some fine sand, trace roots.	
								107.50		3.00	
5	V1/20	24/20	5.00 - 5.11 5.11 - 7.00	Su=2565& psf 2716/6/	10	12				16x32 mm vane raw torque readings: V1: 15.0 in-lbs Grey, wet, hard, clayey SILT, trace fine sand.	GM237512 A-4, CL WC=21.8% LL=30 PL=20 PI=10
10	30/24	24/16	10.00 - 12.00 10.00 - 10.11	9/13/14/18 Su=2565& psf	27	32		99.50		16x32 mm vane raw torque readings: 11.00	
										Brown, wet, dense, fine to coarse SAND, some gravel, little silt, (Till).	
15	40	24/15	15.00 - 17.00	11/10/11/13	21	25	49				GM237513 A-1-b, SM WC=11.4%
20	50	9.6/6	20.00 - 20.80	19/50(3.6")	---		50	89.70 89.50		Similar to above. 20.80 Top of Bedrock at Elev. 89.7 ft.	
	R1	60/47	21.00 - 26.00	ROD = 25%			NQ-2			Roller Coned ahead to 21.0 ft bgs. 21.00 Rt1Bedrock: Grey, fine grained, hard, slightly weathered, calcareous PHYLLITE, steeploy dipping to chaotic bedding, limited quartz inclusions/veins, highly fractured, Rock Mass Quality: Poor, Ellsworth Formation. Rt1Core Times (minsec) 21.0-22.0 ft (4:00) 22.0-23.0 ft (4:20) 23.0-24.0 ft (5:15) 24.0-25.0 ft (5:45) 25.0-26.0 ft (4:30) 78% Recovery R2tBedrock: Grey, fine grained, hard, fresh, PHYLLITE, typically thinly bedded in steeply dipping, close beds, massive, Rock Mass Quality: Good, Ellsworth Formation. R2tCore Times (minsec) 26.0-27.0 ft (5:00) 27.0-28.0 ft (5:15) 28.0-29.0 ft (5:00) 29.0-30.0 ft (5:00) 30.0-31.0 ft (5:30) 81% Recovery	
25	R2	60/52	26.00 - 31.00	ROD = 83%				79.50		31.00 Bottom of Exploration at 31.00 feet below ground surface.	
30											
35											
40											
45											
50											

Remarks:
Auto Hammer #185

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: BB-GB-102

Maine Department of Transportation — BB-GB-101

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Greys Brook Bridge #6436 carries Route 180 over Greys Brook
Location: Ellsworth, Maine

Boring No.: BB-GB-101
WIN: 10063.10

Driller:	Northern Test Boring	Elevation (ft.): 110.9	Auger ID/OD: 5" Solid Stem
Operator:	Voitolina/Strattard	Datum: NAVD88	Sampler: Standard Split Spoon
Logged By:	Be Schonewald	Rig Type: Diedrich D-50	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	8/23/10t 12:00-16:40	Drilling Methods: Cased Wash Boring	Core Barrel: NQ-2*
Boring Location:	1072+51.4, 61.0 Lt.	Casing ID/OD: HW	Water Level*: 3.2 ft bgs.
Hammer Efficiency Factor: 0.713	Hammer Type: Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample attempt
V = Insitu Vane Shear Test. PP = Pocket Penetrometer
WH = Sample advanced by static weight of hammer
WR = Sample advanced by weight of rod and hammer
WW = Sample advanced by weight of hammer and wash water
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. hammer
S_v = Insitu Field Vane Shear Strength (tsf)
T_v = Pocket Torvane Shear Strength (tsf)
q_u = Unconfined Compressive Strength (tsf)
Nuncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Annual Calibration Value
N_{60} = SPT N-uncorrected corrected for hammer efficiency
N_{60} = Hammer Efficiency Factor/60%*Nuncorrected
$S_{v\ LAB}$ = Lab Vane Shear Strength (tsf)
WC = water content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows/6 in. Penetration Resistance or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class
0	10	24/6	0.00 - 2.00	2/3/2/2	5	6	SSA	108.90		Brown, dry, medium stiff, sandy SILT, trace roots (Topsoil Subsoil)	
										2.00 Top of silt-clay at 2.0 ft bgs based on auger flight.	
5	20	24/24	5.00 - 7.00	3/3/4/6	7	8				Medium grey, moist, medium stiff, clayey SILT, trace sand, no structure, homogeneous except one 2" thick mottled seam at 6.0 ft, (Glaciomarine Silt-Clay).	GM237510 A-6, CL WC=22.6% LL=31 PL=19 PI=12
10	30/4B	24/24	10.00 - 12.00	2/3/6/7	9	11		99.90		30/A (10.0-11.0 ft) Brownish grey, stiff, moist, SILT with CLAY. 11.00 30/B (11.0-11.7 ft) Brown, wet, fine to medium SAND, trace silt, (Till).	
15	40	24/9	15.00 - 17.00	12/11/19/27	30	36	0#&			Brown, wet, dense, fine to coarse SAND, some gravel, little silt, (Till). Pleashed Ahead	GM237511 A-1-b, SM WC=9.3%
20	50	16.8/5	20.00 - 21.40	10/21/50(4.8")	---					Light brownish grey, very dense, fine to medium SAND, some gravel, trace to little silt, trace coarse sand, (Till).	
	R1	60/54	22.50 - 27.50	ROD = 47%			NQ-2	88.40		Top of Bedrock at Elev. 88.4 ft. 22.50 Rt1Bedrock: Pinkish grey, fine grained, hard, fresh to slightly weathered, calcareous feldspar and biotite-rich PHYLLITE, Typically thinly bedded with steeply dipping beds, Limited quartz inclusions veins, Close, low and high angle, stepped and planar, rough, fresh to slightly discolored, open breaks along bedding (high angle), Adding (low angle, possible joints), Rock Mass Quality: Poor, (Ellsworth formation). Rt1Core Times (minsec) 22.5-23.5 ft (3:30) 23.5-24.5 ft (3:40) 24.5-25.5 ft (4:40) 25.5-26.5 ft (4:05) 26.5-27.5 ft (4:15) 90% Recovery R2tBedrock: Upper 1 ft same as Rt with significant quartz inclusions, Lower 3.5 ft predominantly quartz vein with alkali (? green) feldspar, Bottom of core highly fractured, partially decomposed, (Ellsworth Formation), Rock Mass Quality: Poor. R2tCore Times (minsec) 27.5-28.5 ft (5:00) 28.5-29.5 ft (7:00) 29.5-30.5 ft (7:55) 30.5-31.5 ft (8:45) 31.5-32.0 ft (--:--) 89% Recovery	
25								78.90		32.00 Bottom of Exploration at 32.00 feet below ground surface.	
30											
35											
40											
45											
50											

Remarks:

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: BB-GB-101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PROJECT NO. 10063.10

WIN 10063.10

BRIDGE NO. 6436

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	L.KRUSINSKI	T. WHITE	OCT 2011
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

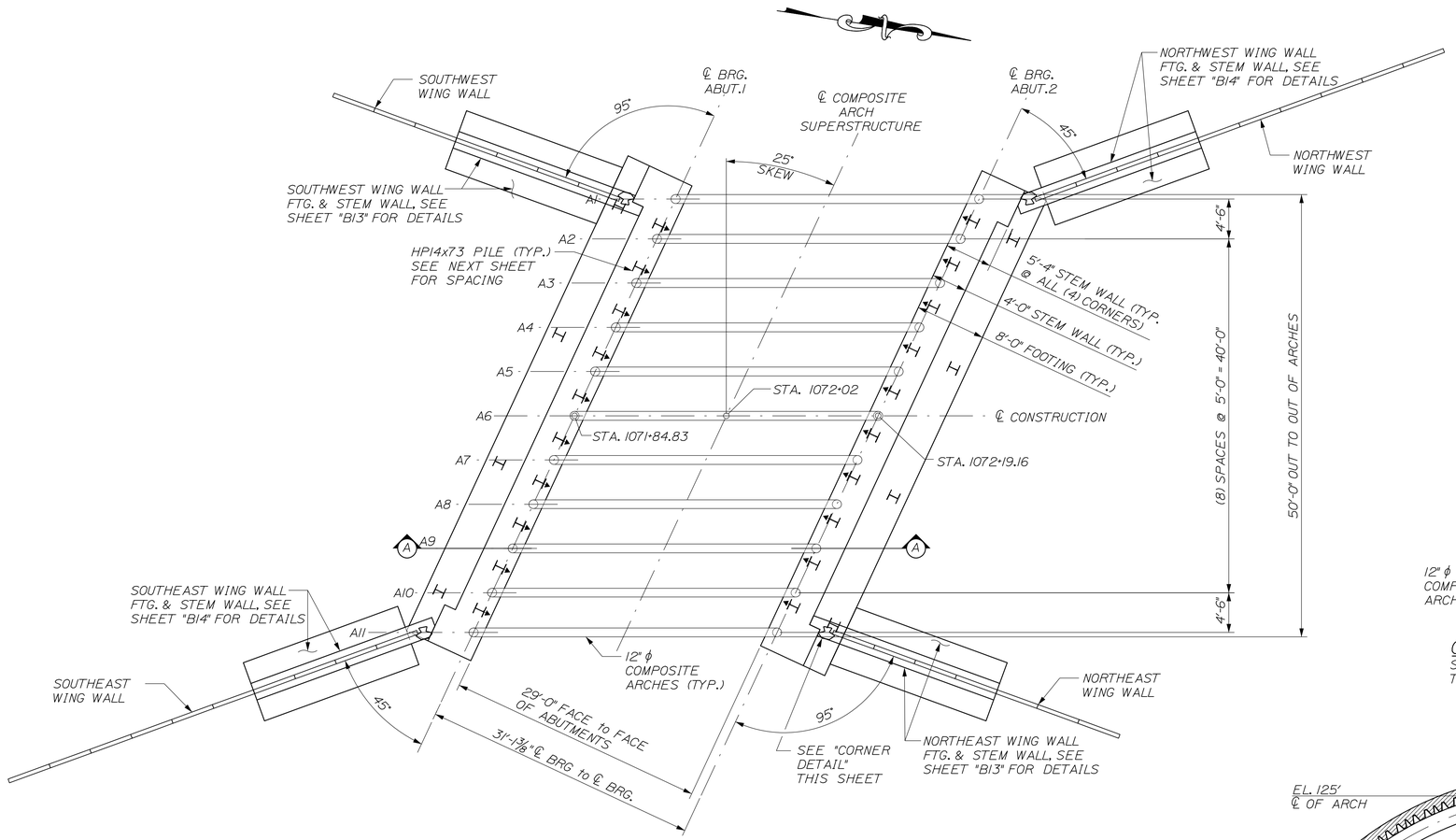
DATE

GREYS BROOK BRIDGE
GREYS BROOK
ELLSWORTH HANCOCK COUNTY

BORING LOGS

SHEET NUMBER

B7



GENERAL PLAN ~ PILE OPTION

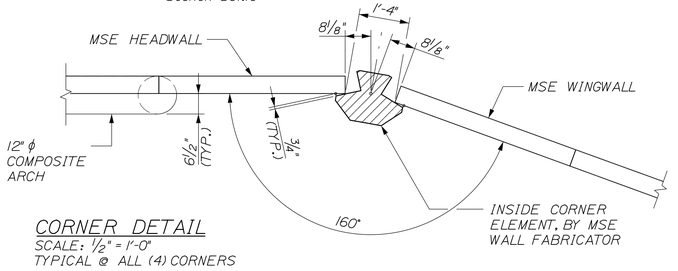
SCALE: 1/8" = 1'-0"

ABUTMENT NOTES

1. Reinforcing Steel shall have 3" cover in the Walls and in the Footings unless otherwise noted.
2. Reinforcing Steel is designed with standard hook lengths, and typical 3" clear to all faces.
3. Cover Joints in accordance with Standard Detail 502(01) where Waterstops are not required.
4. Structural Earth Excavation, Abutment and Retaining Walls, required more than 12 inches below the bottom of the structure, will be paid for in accordance with Standard Specification Section 206, Structural Excavation.
5. Concrete Abutments shall be backfilled with Granular Borrow. Pay limits will be the Structural Excavation Limits.
6. Where the limits of Structural Excavation and Granular Backfill for the Abutments overlap with the MSE Walls, the limits of the MSE Wall will supersede the Structural Excavation and Granular Backfill for the Abutment limits.
7. Roughened surfaces shall be raked to a surface roughness of ±1/4".
8. See standard detail 502(01) for vertical contraction joints or horizontal construction joints.
9. Grubbing of the clayey silt topsoil and excavation for pile cap will expose potentially sensitive clayey silt deposits. The clayey silts will be susceptible to disturbance and rutting as a result of exposure to water or traffic. The contractor shall protect the subgrade from exposure to water or unnecessary traffic. If disturbance occurs, remove and replace the disturbed material with ¾inch stone or compacted Gravel Borrow.

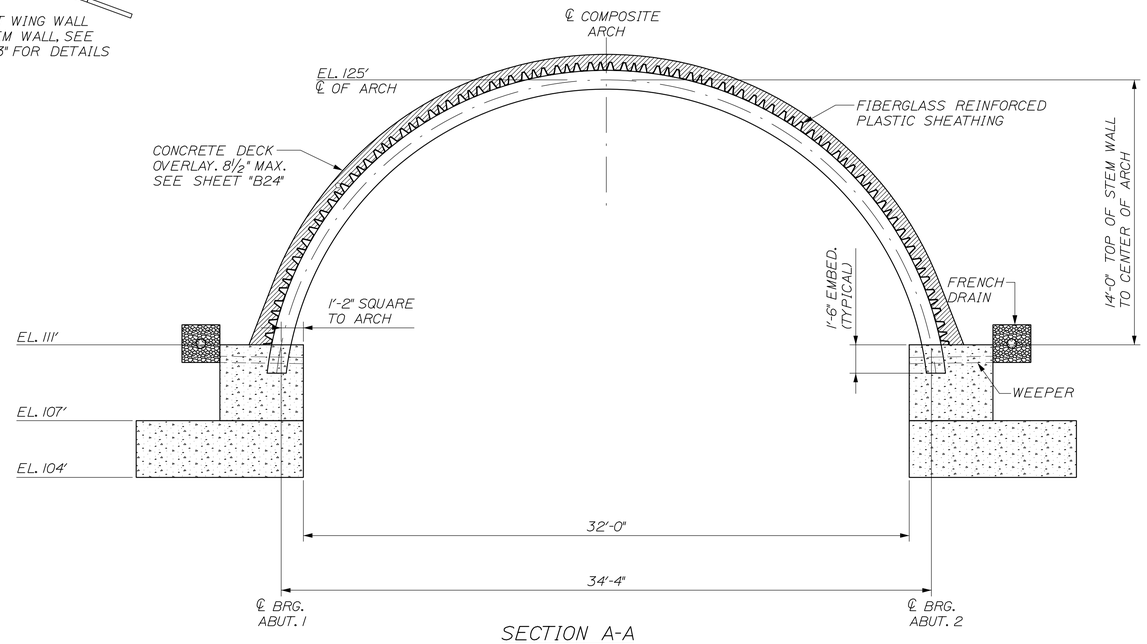
PILE NOTES

1. H-pile material shall be ASTM A572, grade 50.
2. Piles marked thus H►, shall be battered 25% in the direction of the arrow.
3. Maximum factored vertical pile load: 372 kips.
4. Estimate of Piles required:
   - Abutment Number 1: (4)-HP14x73 @ 11'-5" (vertical piles); (10)-HP14x73 @ 11'-9" (battered piles)
   - Abutment Number 2: (4)-HP14x73 @ 16'-4" (vertical piles); (10)-HP14x73 @ 16'-10" (battered piles)
5. The above pile lengths do not take into account locations where the bedrock may be deeper than the borings, or the additional length of pile required for dynamic testing, or additional pile length required for driving equipment.
6. Piles shall not be out of position shown by more than 2" in any direction
7. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The submittal analysis shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system. The stopping criteria shall include the blows per 1" and number of 1" driving intervals at which pile installation may be terminated. The cost of performing the wave equation analysis will be considered incidental to pay Item 501.92, Pile Driving Equipment Mobilization.
8. The Contractor shall perform a dynamic load test with signal matching at each arch pile cap. The required nominal resistance for the pile is the maximum factored axial load divided by a resistance of 0.65." The first pile driven at each cap should be dynamically tested to confirm the nominal pile resistance and verify the stopping criteria developed by the wave equation analysis.
9. All Piles shall be equipped with a pile tip in accordance with Standard Specification Section 501.10



CORNER DETAIL

SCALE: 1/2" = 1'-0"
TYPICAL @ ALL (4) CORNERS



SECTION A-A

SCALE: 1/4" = 1'-0"
SECTION TAKEN PARALLEL TO ℄ OF CONSTRUCTION @ THE ℄ OF THE ARCH
PILES NOT SHOWN, SEE NEXT SHEET

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE — ERIC J. CALDERWOOD — No. 9099 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	BY	DATE
PROJ. MANAGER	NATE BENOIT	
DESIGN-DETAILED	JJH	NOV 2011
CHECKED-REVIEWED	GGK	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

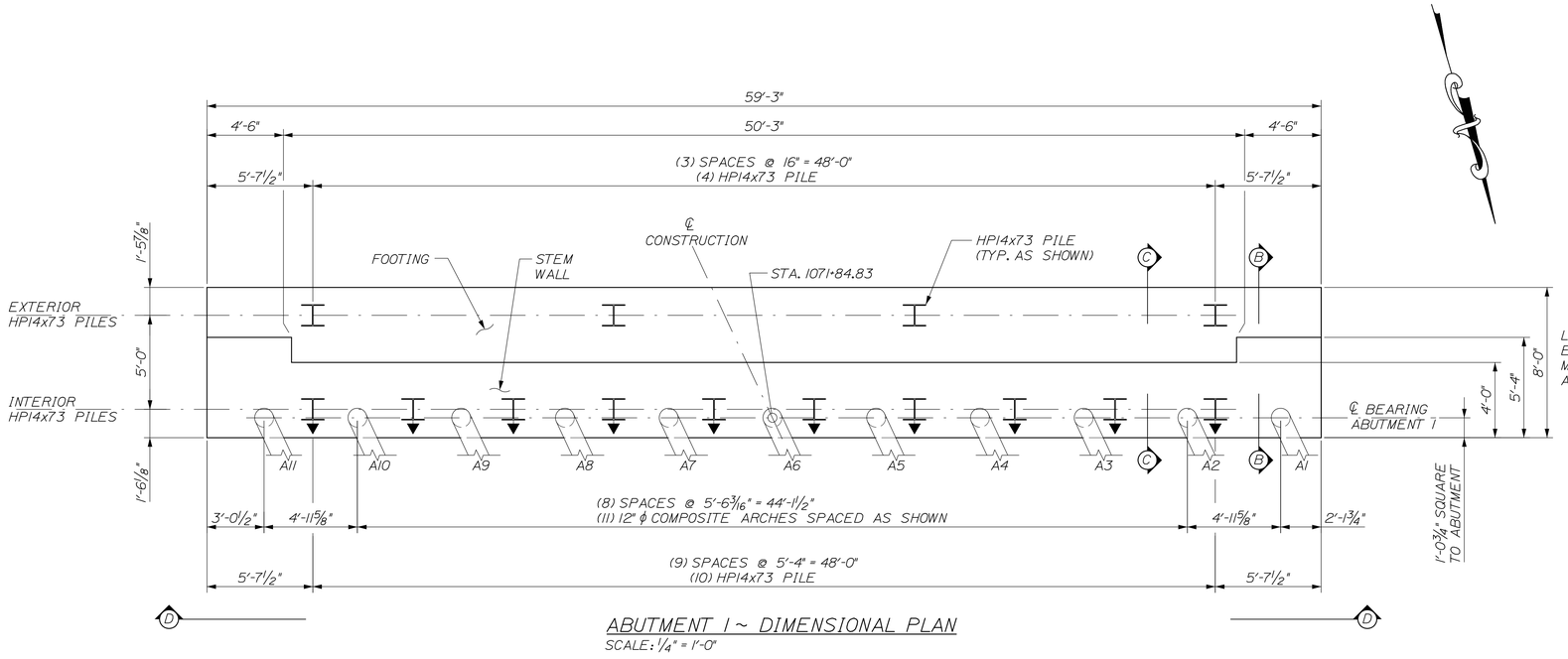
ELLSWORTH
ROUTE 180

ABUTMENT DETAILS
PILE OPTION (ALTERNATE 1)

SHEET NUMBER

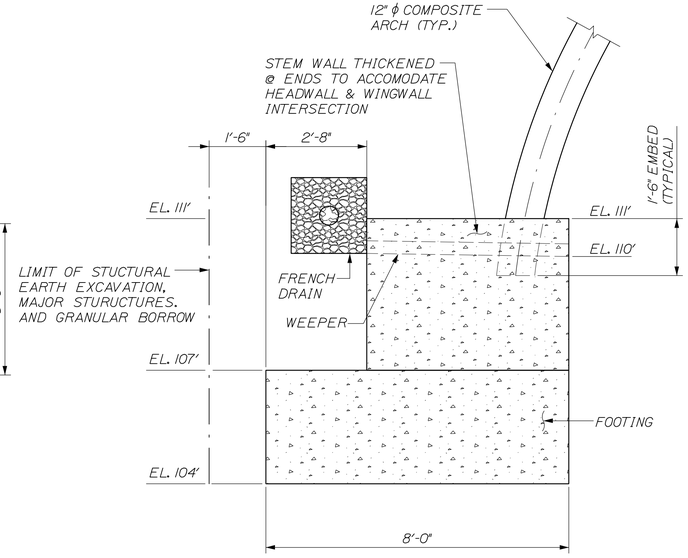
B8

Filename: ...\008_Pile_Abutment.dgn Division: BRIDGE Username: common Date:5/14/2012



ABUTMENT 1 ~ DIMENSIONAL PLAN

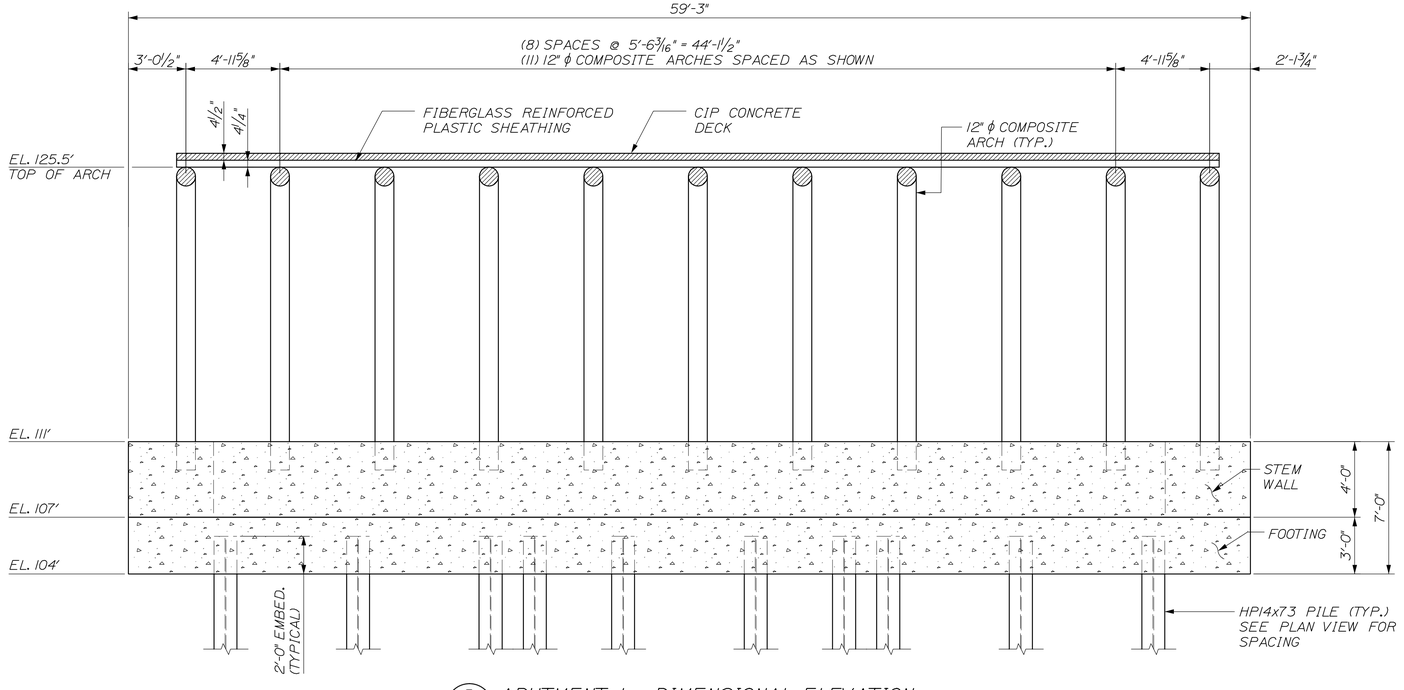
SCALE: 1/4" = 1'-0"



SECTION B-B

SCALE: 1/2" = 1'-0"

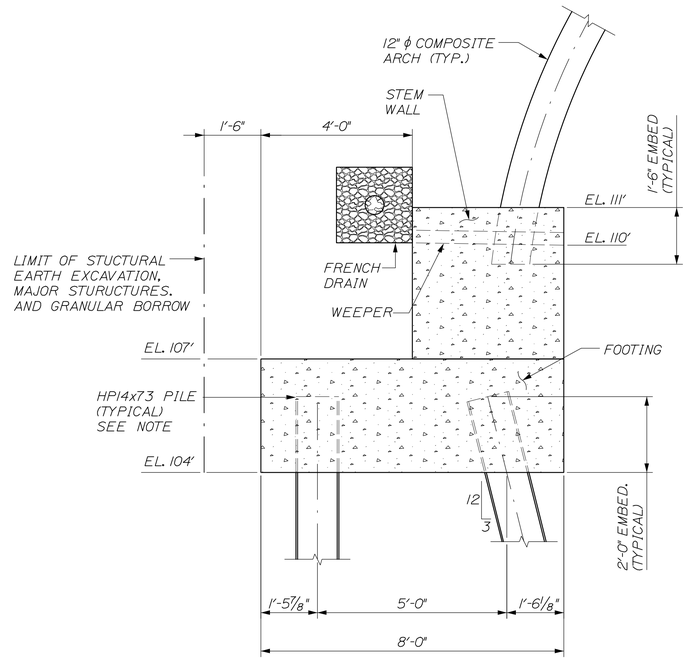
NOTE: DECKING NOT SHOWN FOR CLARITY



ABUTMENT 1 ~ DIMENSIONAL ELEVATION

D D

SCALE: 1/4" = 1'-0"



SECTION C-C

SCALE: 1/2" = 1'-0"

NOTE: DECKING NOT SHOWN FOR CLARITY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

PROJ. MANAGER	NATE BENOIT	BY	DATE
DESIGN-DETAILED	CCK	JJH	NOV 2011
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

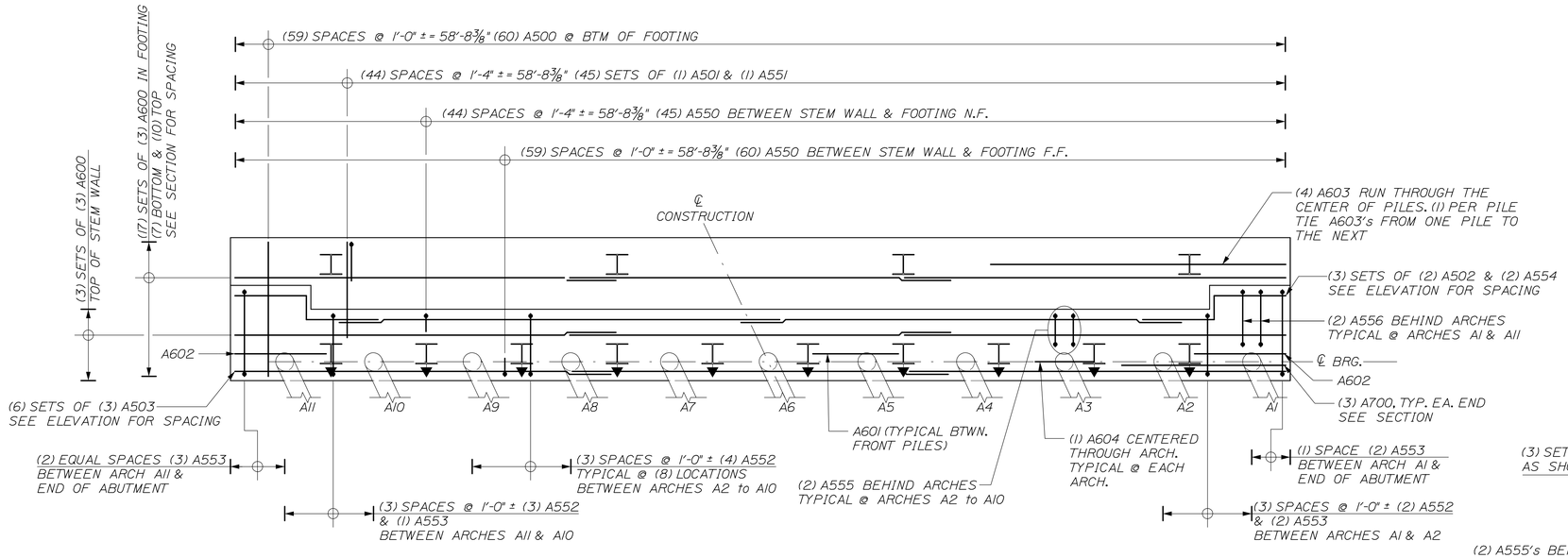
ELLSWORTH
ROUTE 180

ABUTMENT 1 DIMENSION DTLS.
PILE OPTION (ALTERNATE 1)

SHEET NUMBER

B9

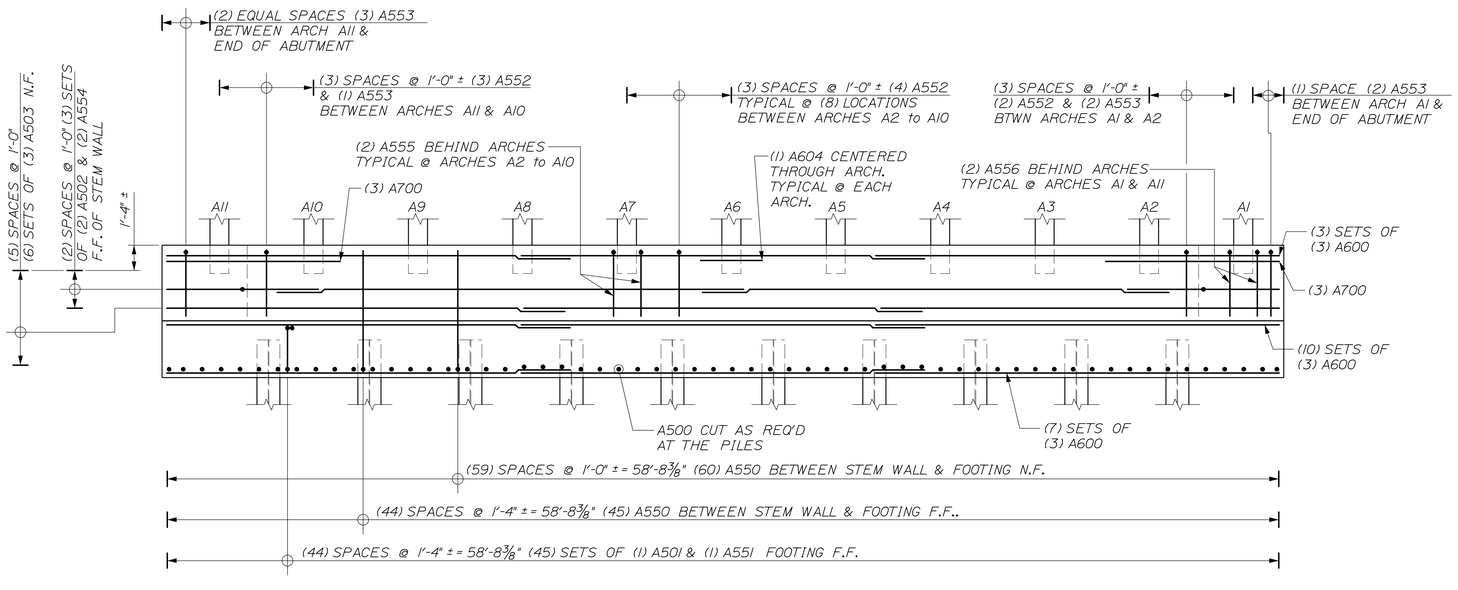
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ABUTMENT 1 ~ REINFORCING PLAN

SCALE: 1/4" = 1'-0"

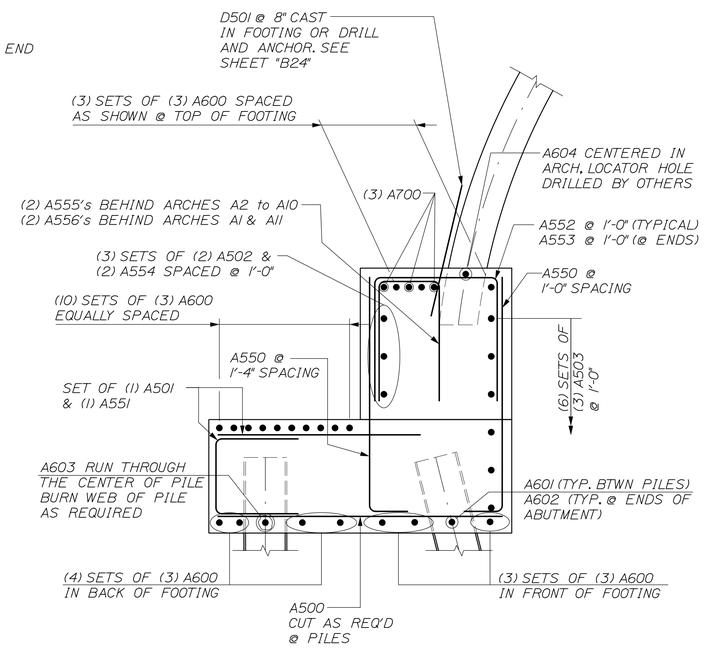
NOTE: SEE SECTION AND ELEVATION VIEWS THIS SHEET FOR BARS AND DETAILS NOT SHOWN IN PLAN VIEW.



ABUTMENT 1 ~ REINFORCING ELEVATION

SCALE: 1/4" = 1'-0"

NOTE: SEE PLAN AND ELEVATION VIEWS THIS SHEET FOR BARS AND DETAILS NOT SHOWN IN ELEVATION VIEW.



ABUTMENT 1 REINFORCING SECTION

SCALE: 1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE — ERIC A. CALDERWOOD — No. 9099 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	NAME	BY	DATE
PROJ. MANAGER	NATE BENOIT		
DESIGN-DETAILED	OCK	JJH	NOV 2011
CHECKED-REVIEWED	---	---	---
DESIGN2-DETAILED2	---	---	---
DESIGN3-DETAILED3	---	---	---
REVISIONS 1	---	---	---
REVISIONS 2	---	---	---
REVISIONS 3	---	---	---
REVISIONS 4	---	---	---
FIELD CHANGES	---	---	---

ELLSWORTH
ROUTE 180

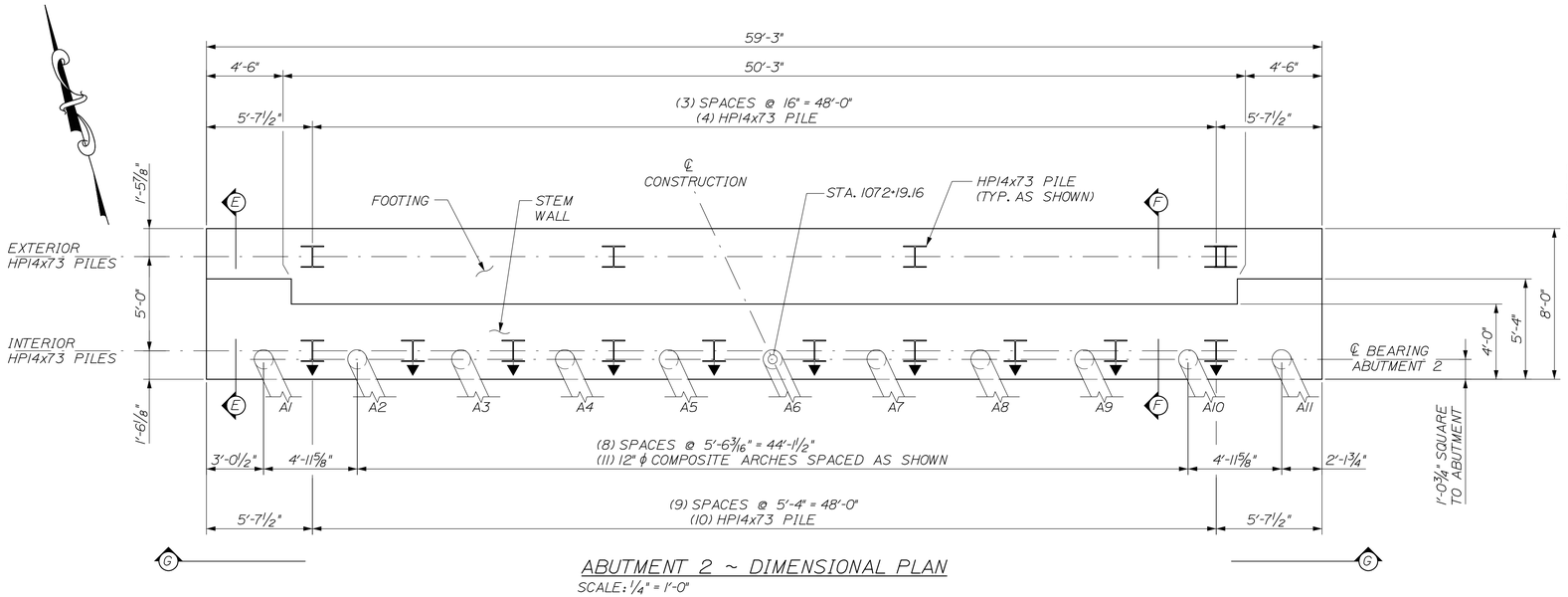
ABUTMENT 1 REINFORCING DTLS.
PILE OPTION (ALTERNATE 1)

SHEET NUMBER

B10

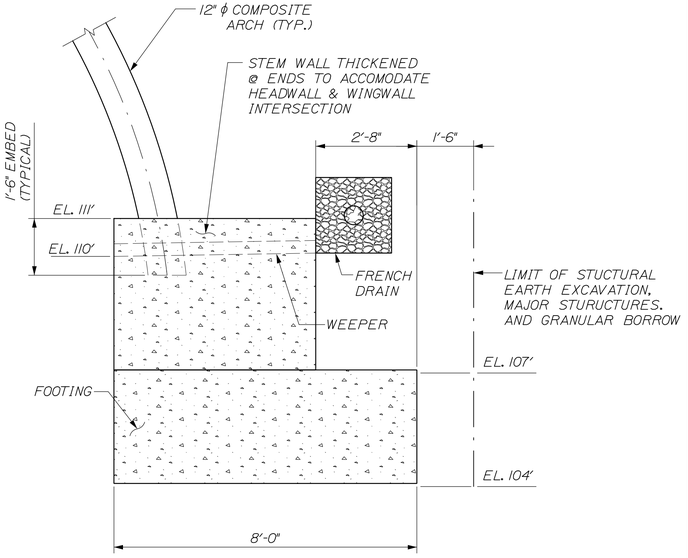
Username: common Division: BRIDGE Date:5/14/2012

Filename: ...\010_Pile_Abut1_Reinforce.dgn



ABUTMENT 2 ~ DIMENSIONAL PLAN

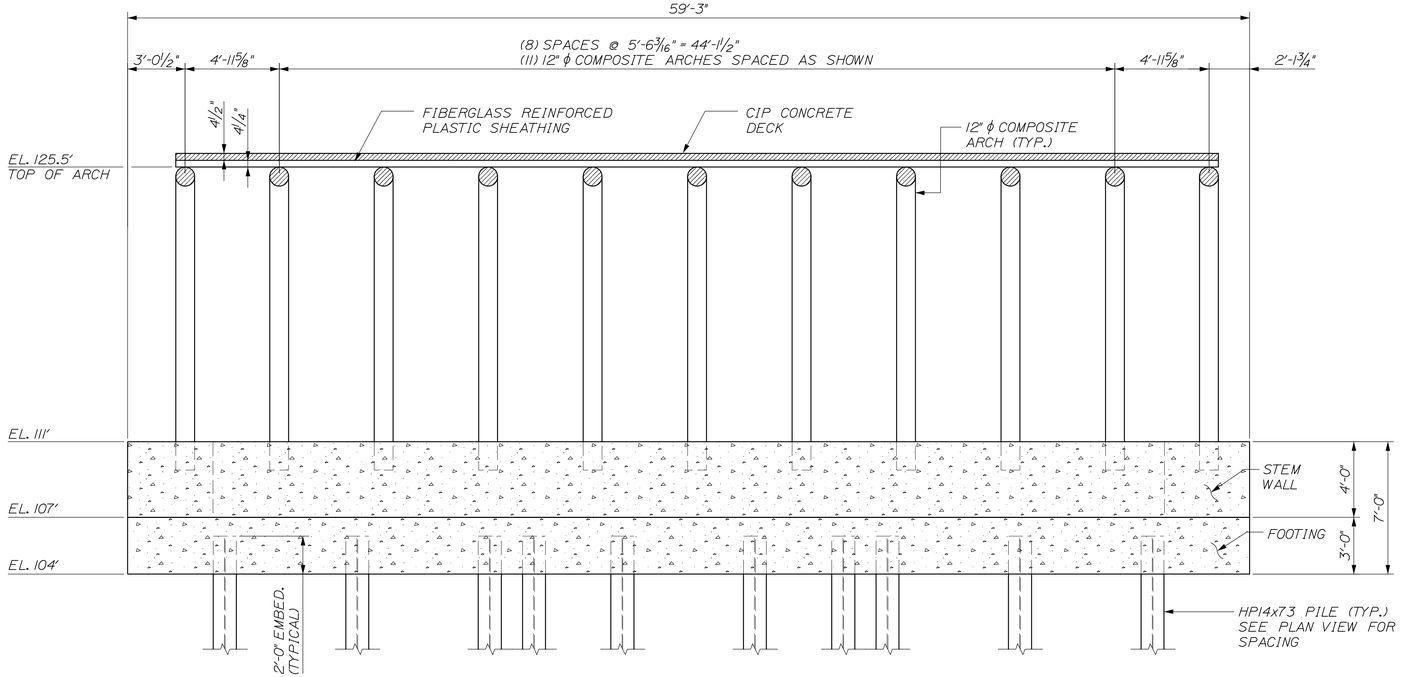
SCALE: ¼" = 1'-0"



SECTION E-E

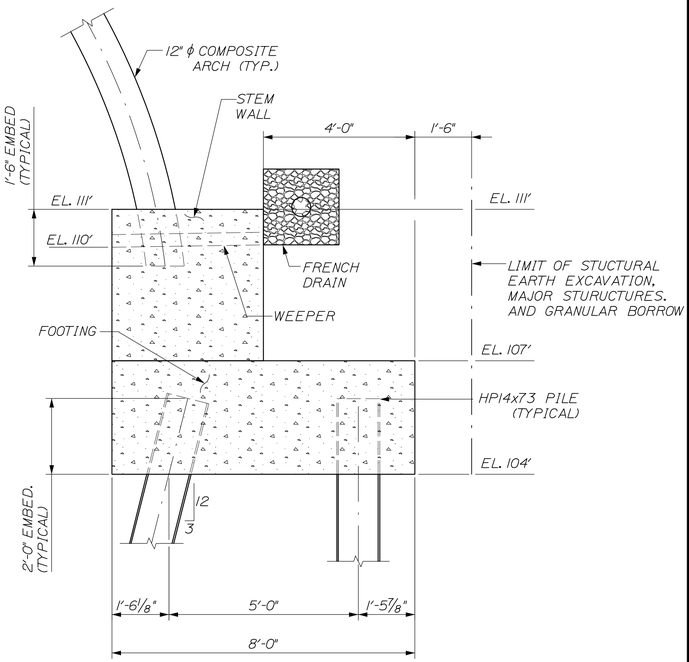
SCALE: ½" = 1'-0"

NOTE: DECKING NOT SHOWN FOR CLARITY



G G ABUTMENT 2 ~ DIMENSIONAL ELEVATION

SCALE: ¼" = 1'-0"



SECTION F-F

SCALE: ½" = 1'-0"

NOTE: DECKING NOT SHOWN FOR CLARITY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC J. CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	NATE BENOIT	DATE
PROJ. MANAGER		
DESIGN-DETAILED	OGK	NOV 2011
CHECKED-REVIEWED	JJH	-----
DESIGN2-DETAILED2	-----	-----
DESIGN3-DETAILED3	-----	-----
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

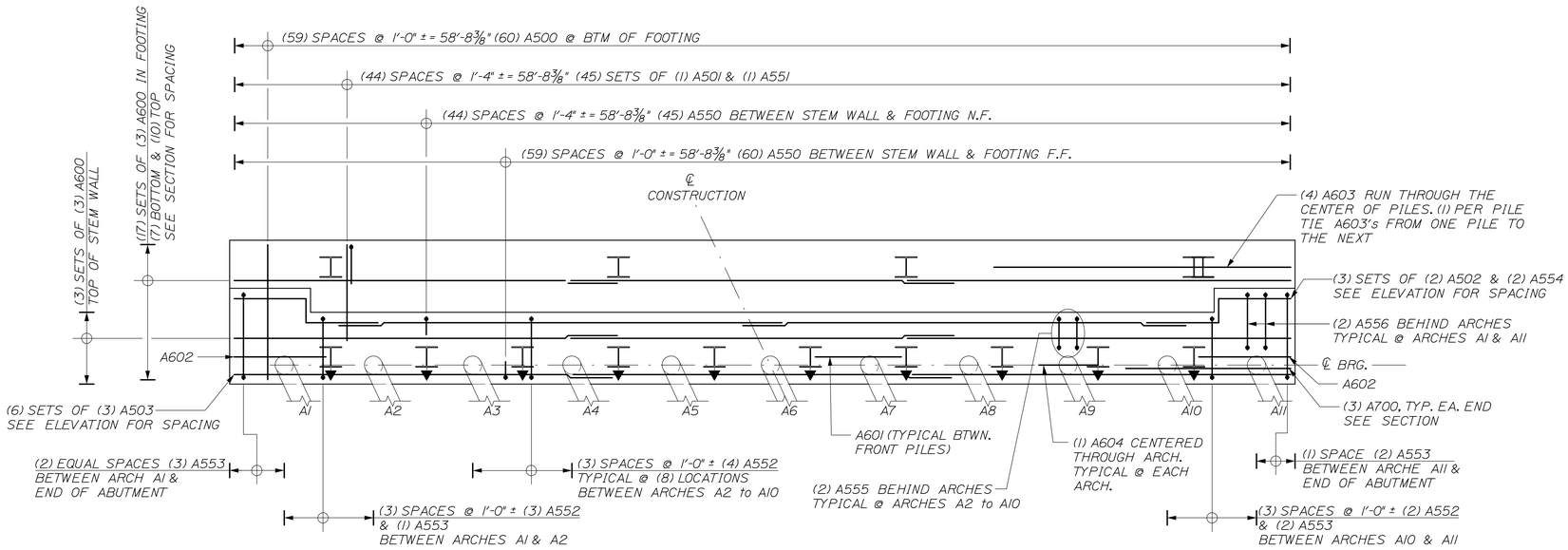
ELLSWORTH
ROUTE 180

ABUTMENT 2 DIMENSION DTLS.
PILE OPTION (ALTERNATE 1)

SHEET NUMBER

B11

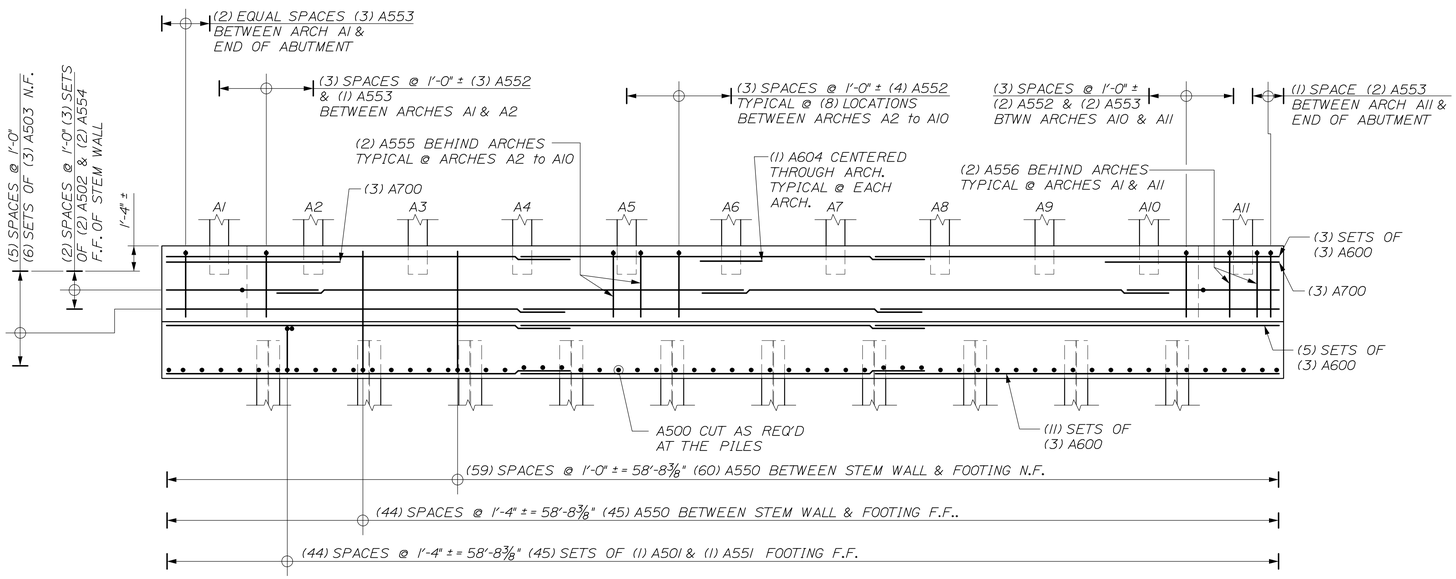
Filename: ...\011_Pile_Abut2_Dimension.dgn Division: BRIDGE Username: common Date:5/14/2012



ABUTMENT 2 ~ REINFORCING PLAN

SCALE: 1/4" = 1'-0"

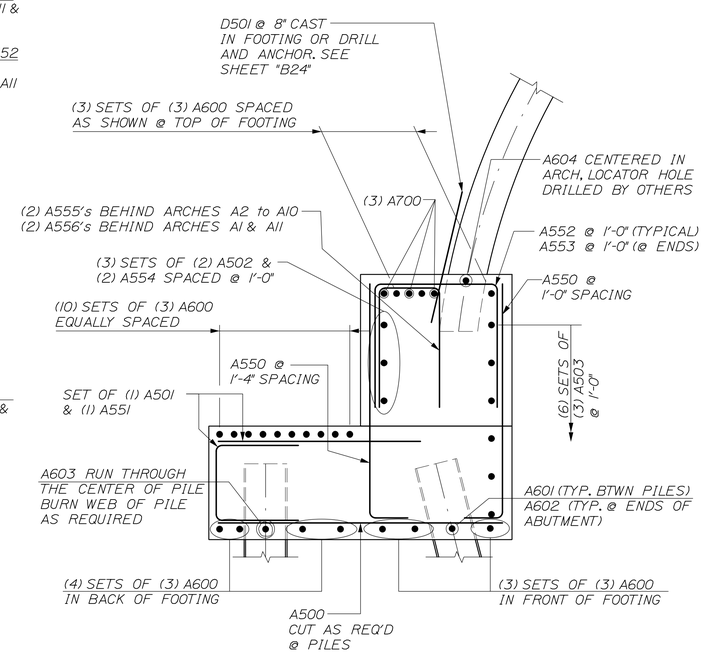
NOTE: SEE SECTION AND ELEVATION VIEWS THIS SHEET FOR BARS AND DETAILS NOT SHOWN IN PLAN VIEW.



ABUTMENT 2 ~ REINFORCING ELEVATION

SCALE: 1/4" = 1'-0"

NOTE: SEE PLAN AND ELEVATION VIEWS THIS SHEET FOR BARS AND DETAILS NOT SHOWN IN ELEVATION VIEW.



ABUTMENT 2 REINFORCING SECTION

SCALE: 1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE ERIC J. CALDERWOOD No. 9099 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

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DATE NOVEMBER 2011

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REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

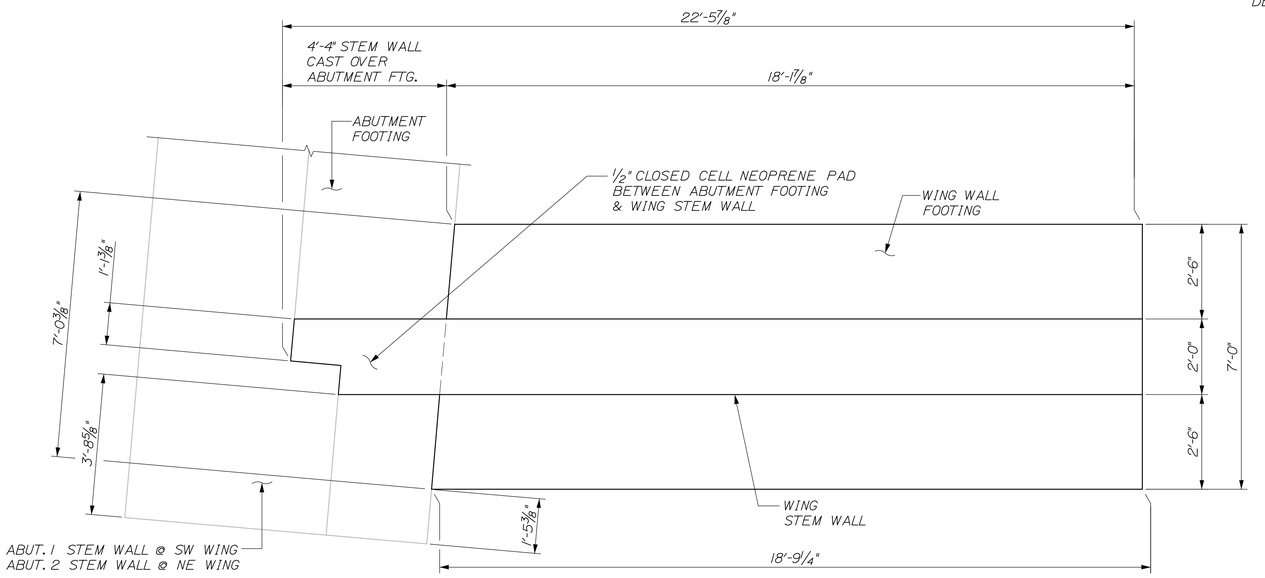
ELLSWORTH
ROUTE 180

ABUTMENT 2 REINFORCING DTLS.
PILE OPTION (ALTERNATE 1)

SHEET NUMBER

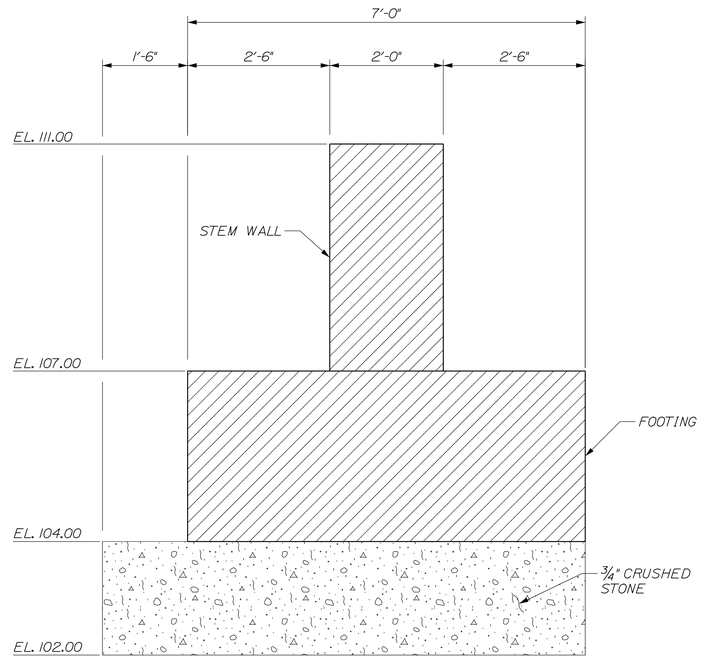
B12

Filename: ...\012_Pile_Abut2_Reinforce.dgn Division: BRIDGE Username: common Date:5/14/2012



SOUTHWEST & NORTHEAST WINGS
DIMENSIONAL PLAN
SCALE: 1/2" = 1'-0"

NOTE:
SEE SHEET "B14" FOR
"DETAIL OVER ABUTMENT FOOTING"



TYPICAL WINGWALL FOOTING SECTION
(ALTERNATE 1)
SCALE: 3/4" = 1'-0"

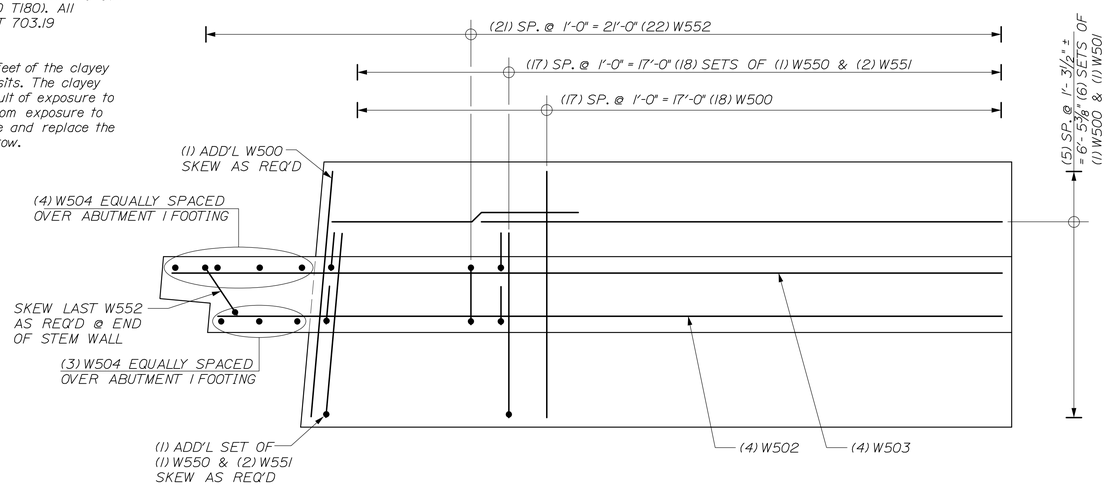
CIP WINGWALL FOOTING NOTES

1. The maximum factored applied footing pressure is 4.17 ksf (Strength Limit State) and 2.38 ksf (Service Limit State)

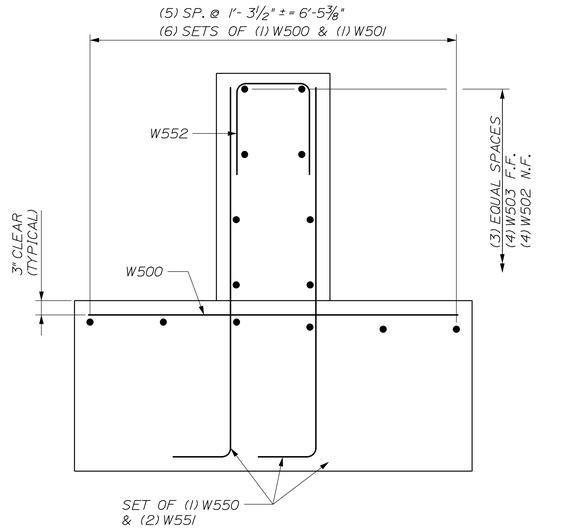
2. Wingwalls and their footings shall be backfilled with Granular Borrow.

3. CIP wingwall spread footings shall be constructed on a bed of compacted 3/4 inch Crushed Stone, 2.0 feet thick, placed in 8-inch maximum lifts. Each lift shall be compacted with at least 4 passes of a heavy, walk-behind vibratory-type compactor (method compaction approximating 97% of AASHTO T180). All other backfill material shall meet the requirements of MaineDOT 703.19 Granular Borrow.

4. Grubbing of the clayey silt topsoil and over excavation of 2 feet of the clayey silt subgrade will expose potentially sensitive clayey silt deposits. The clayey silts will be susceptible to disturbance and rutting as a result of exposure to water or traffic. The contractor shall protect the subgrade from exposure to water and unnecessary traffic. If disturbance occurs, remove and replace the disturbed material with 3/4 inch stone or compacted Gravel Borrow.



SOUTHWEST & NORTHEAST WINGS
REINFORCING PLAN
SCALE: 1/2" = 1'-0"
ABUTMENTS NOT SHOWN, SEE
DIMENSIONAL PLAN THIS SHEET



SOUTHWEST & NORTHEAST WINGS
REINFORCING SECTION
SCALE: 3/4" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

STATE OF MAINE
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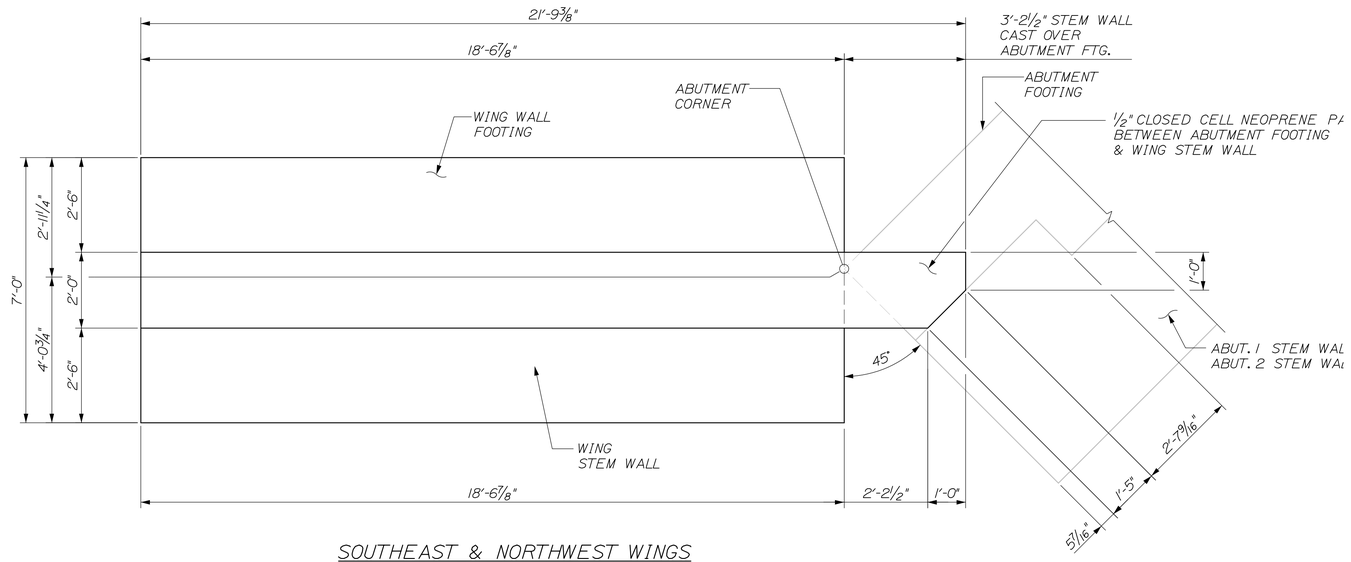
DATE NOVEMBER 2011

PROJ. MANAGER	NATE BENOIT		
DESIGN-DETAILED	OGK	JJH	NOV 2011
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ELLSWORTH
ROUTE 180
SW & NE WING WALL
FOOTING DTLS.
PILE OPTION (ALTERNATE 1)

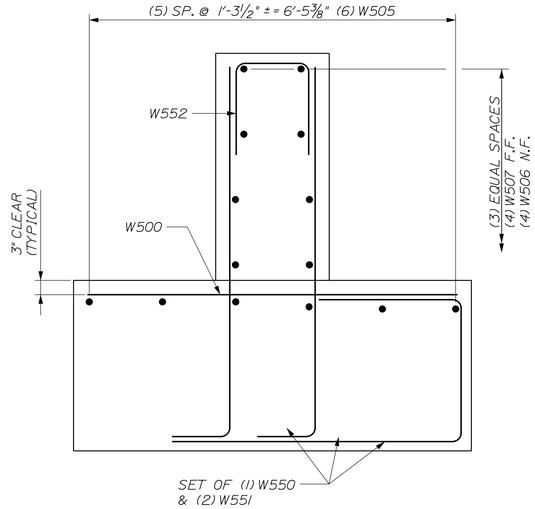
SHEET NUMBER
B13

Username: common Date:5/14/2012
Division: BRIDGE
Filename: ...\013_Pile_Wings.dgn

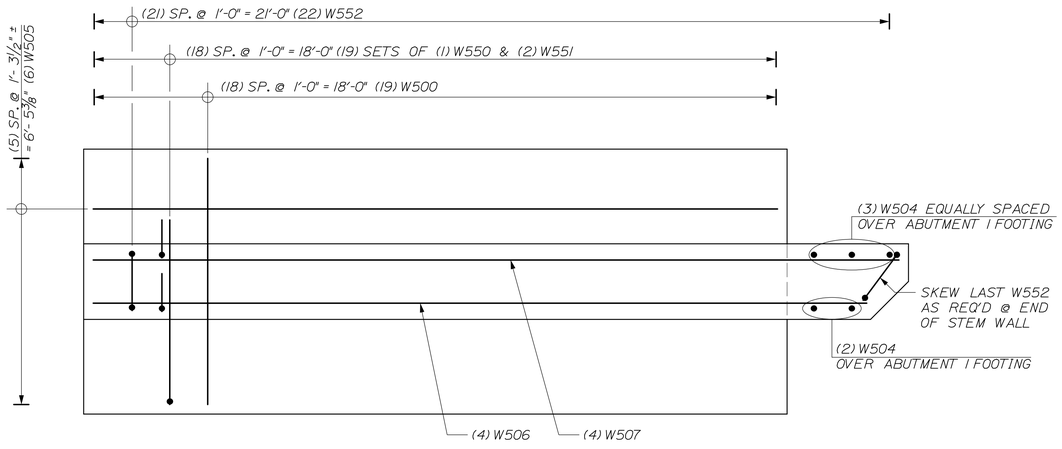


SOUTHEAST & NORTHWEST WINGS
DIMENSIONAL PLAN
SCALE: 1/2" = 1'-0"

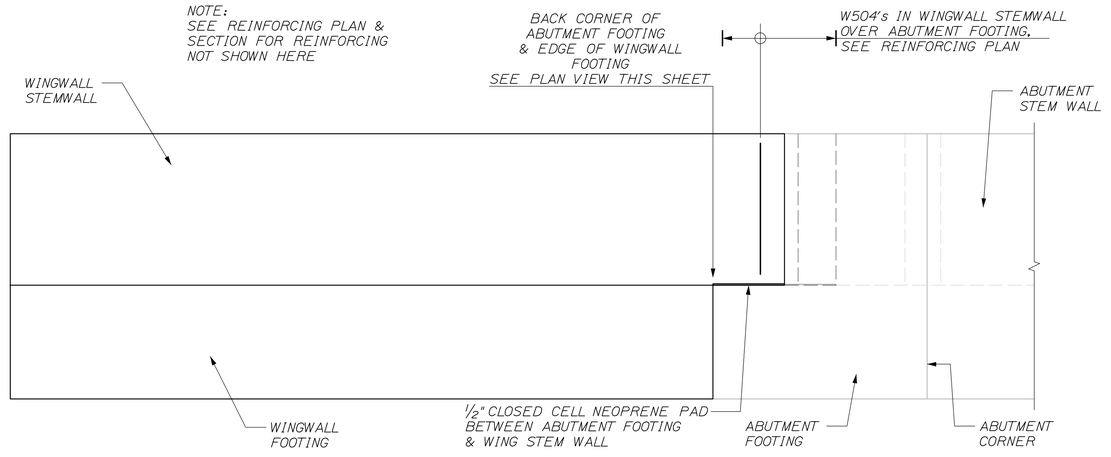
NOTE:
SEE SHEET "B13" FOR
"TYPICAL WINGWALL FOOTING SECTION"



SOUTHEAST & NORTHWEST WINGS
REINFORCING SECTION
SCALE: 3/4" = 1'-0"



SOUTHEAST & NORTHWEST WINGS
REINFORCING PLAN
SCALE: 1/2" = 1'-0"
ABUTMENTS NOT SHOWN, SEE
DIMENSIONAL PLAN THIS SHEET



DETAIL OVER ABUTMENT FOOTING
SCALE: 1/2" = 1'-0"
SOUTHEAST & NORTHWEST WING SHOWN
SW & NE WINGS SIMILIAR

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC J. CALDERWOOD
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REVISIONS 1	------	------	------
REVISIONS 2	------	------	------
REVISIONS 3	------	------	------
REVISIONS 4	------	------	------
FIELD CHANGES	------	------	------

ELLSWORTH
ROUTE 180

SE & NW WING WALL
FOOTING DTLS.
PILE OPTION (ALTERNATE 1)

SHEET NUMBER

B14

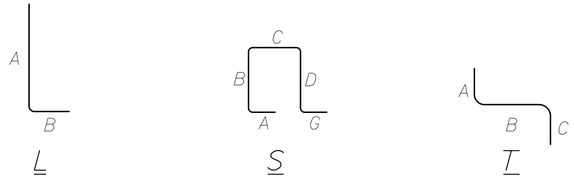
Username: common Date:5/14/2012
Division: BRIDGE
Filename: ...\014_Pile_Wings.dgn

STRAIGHT BARS

MARK	QTY.	LENGTH	LOCATION
			ABUTMENT 1
A500	60	7'-6"	BOTTOM FOOTING MAT
A501	45	5'-4"	TOP FOOTING MAT
A502	6	24'-7 1/2"	BACK OF STEM WALL
A503	18	21'-0 1/2"	FRONT OF STEM WALL AND FOOTING
A600	60	21'-3 3/4"	BOTTOM FOOTING MAT
A601	9	4'-9 1/2"	BOTTOM FOOTING MAT BETWEEN FRONT PILES
A602	2	5'-1 1/4"	BOTTOM FOOTING MAT BETWEEN FRONT PILES & END OF ABUTMENT
A603	4	16'-6"	BOTTOM FOOTING MAT RUN THROUGH BACK PILES
A604	11	3'-3"	LOCATOR BAR CENTERED THROUGH ARCHES
A700	6	9'-2"	TOP OF STEM WALL @ ABUTMENT ENDS
			ABUTMENT 2
A500	60	7'-6"	BOTTOM FOOTING MAT
A501	45	5'-4"	TOP FOOTING MAT
A502	6	24'-7 1/2"	BACK OF STEM WALL
A503	18	21'-0 1/2"	FRONT OF STEM WALL AND FOOTING
A600	60	21'-3 3/4"	BOTTOM FOOTING MAT
A601	9	4'-9 1/2"	BOTTOM FOOTING MAT BETWEEN FRONT PILES
A602	2	5'-1 1/4"	BOTTOM FOOTING MAT BETWEEN FRONT PILES & END OF ABUTMENT
A603	4	16'-6"	BOTTOM FOOTING MAT RUN THROUGH BACK PILES
A604	11	3'-3"	LOCATOR BAR CENTERED THROUGH ARCHES
A700	6	9'-2"	TOP OF STEM WALL @ ABUTMENT ENDS
			WINGWALLS
W500	88	6'-6"	TOP OF FOOTINGS @ ALL WINGS
W501	12	13'-9"	TOP OF FOOTING @ SW & NE WING
W502	8	20'-8 1/2"	HORIZONTAL BAR IN FRONT OF STEMWALL @ SW & NE WINGWALL
W503	8	21'-11"	HORIZONTAL BAR IN BACK OF STEMWALL @ SW & NE WINGWALL
W504	24	3'-5 1/2"	VERTICAL BAR IN STEM WALL OVER ABUTMENT FOOTING
W505	12	18'-1"	TOP OF FOOTING @ SE & NW WING
W506	8	20'-5"	HORIZONTAL BAR IN FRONT OF STEMWALL @ SE & NW WINGWALLS
W507	8	21'-3 3/8"	HORIZONTAL BAR IN BACK OF STEMWALL @ SE & NW WINGWALLS
MARK	QTY.	LENGTH	LOCATION

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	I	J	K	L	LOCATION
																ABUTMENT 1
A550	105	7'-3 3/4"	L	6'-4 5/8"	1'-0"											L-BAR BETWEEN FOOTING AND STEM WALL
A551	45	6'-7"	S	0"	2'-2"	2'-4 1/2"	2'-2"			0"						U-BAR IN BACK OF FOOTING
A552	37	9'-10 1/2"	S	0"	3'-3"	3'-6"	3'-3"			0"						U-BAR @ TOP OF STEM WALL
A553	8	11'-2 1/2"	S	0"	3'-3"	4'-10"	3'-3"			0"						U-BAR IN STEM WALL @ ENDS OF ABUTMENTS
A554	6	9'-2 1/2"	T	4'-0"	1'-4"	4-0"										BENT BAR @ ABUTMENT ENDS IN BACK OF STEM WALL
A555	18	8'-8 1/2"	S	0"	3'-6"	1'-10"	3'-6"			0"						U-BAR IN STEM WALL BEHIND ARCHES A2 to A10
A556	4	10'-0 1/2"	S	0"	3'-6"	3'-2"	3'-6"			0"						U-BAR IN STEM WALL BEHIND ARCHES A1 & A11
																ABUTMENT 2
A550	105	7'-3 3/4"	L	6'-4 5/8"	1'-0"											L-BAR BETWEEN FOOTING AND STEM WALL
A551	45	6'-7"	S	0"	2'-2"	2'-4 1/2"	2'-2"			0"						U-BAR IN BACK OF FOOTING
A552	37	9'-10 1/2"	S	0"	3'-3"	3'-6"	3'-3"			0"						U-BAR @ TOP OF STEM WALL
A553	8	11'-2 1/2"	S	0"	3'-3"	4'-10"	3'-3"			0"						U-BAR IN STEM WALL @ ENDS OF ABUTMENTS
A554	6	9'-2 1/2"	T	4'-0"	1'-4"	4-0"										BENT BAR @ ABUTMENT ENDS IN BACK OF STEM WALL
A555	18	8'-8 1/2"	S	0"	3'-6"	1'-10"	3'-6"			0"						U-BAR IN STEM WALL BEHIND ARCHES A2 to A10
A556	4	10'-0 1/2"	S	0"	3'-6"	3'-2"	3'-6"			0"						U-BAR IN STEM WALL BEHIND ARCHES A1 & A11
																WINGWALLS
W550	76	9'-10 1/2"	S	0"	2'-6"	2'-6"	5'-0"			0"						U-BAR IN FRONT WINGWALL FOOTINGS
W551	152	7'-5 1/4"	L	6'-6"	1'-0"											L-BAR FRONT & BACK STEM WALL @ WINGWALL FOOTINGS
W552	88	4'-4 1/2"	S	0"	1'-6"	1'-6"	1'-6"			0"						U-BAR IN TOP OF STEM WALLS @ WINGWALLS
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	I	J	K	L	LOCATION



All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318.

Reinforcing Bar: ASTM A615, Grade 60

GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size ofthe bar:

   Mark "A502" = bar size #5
   Mark "P801" = bar size #8
   Mark "S650" = bar size #6

2. Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans

CALDERWOOD ENGINEERING
22 A & 1/2 RIVER ROAD
RICHMOND, ME 04357
PH (207) 737-2007 FAX (207) 737-2008

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

STATE OF MAINE
ERIC CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

PROJ. MANAGER	NATE BENOIT	
DESIGN-DETAILED	OGK	JJH NOV 2011
CHECKED-REVIEWED	-----	----- -----
DESIGN2-DETAILED2	-----	----- -----
DESIGN3-DETAILED3	-----	----- -----
REVISIONS 1	-----	----- -----
REVISIONS 2	-----	----- -----
REVISIONS 3	-----	----- -----
REVISIONS 4	-----	----- -----

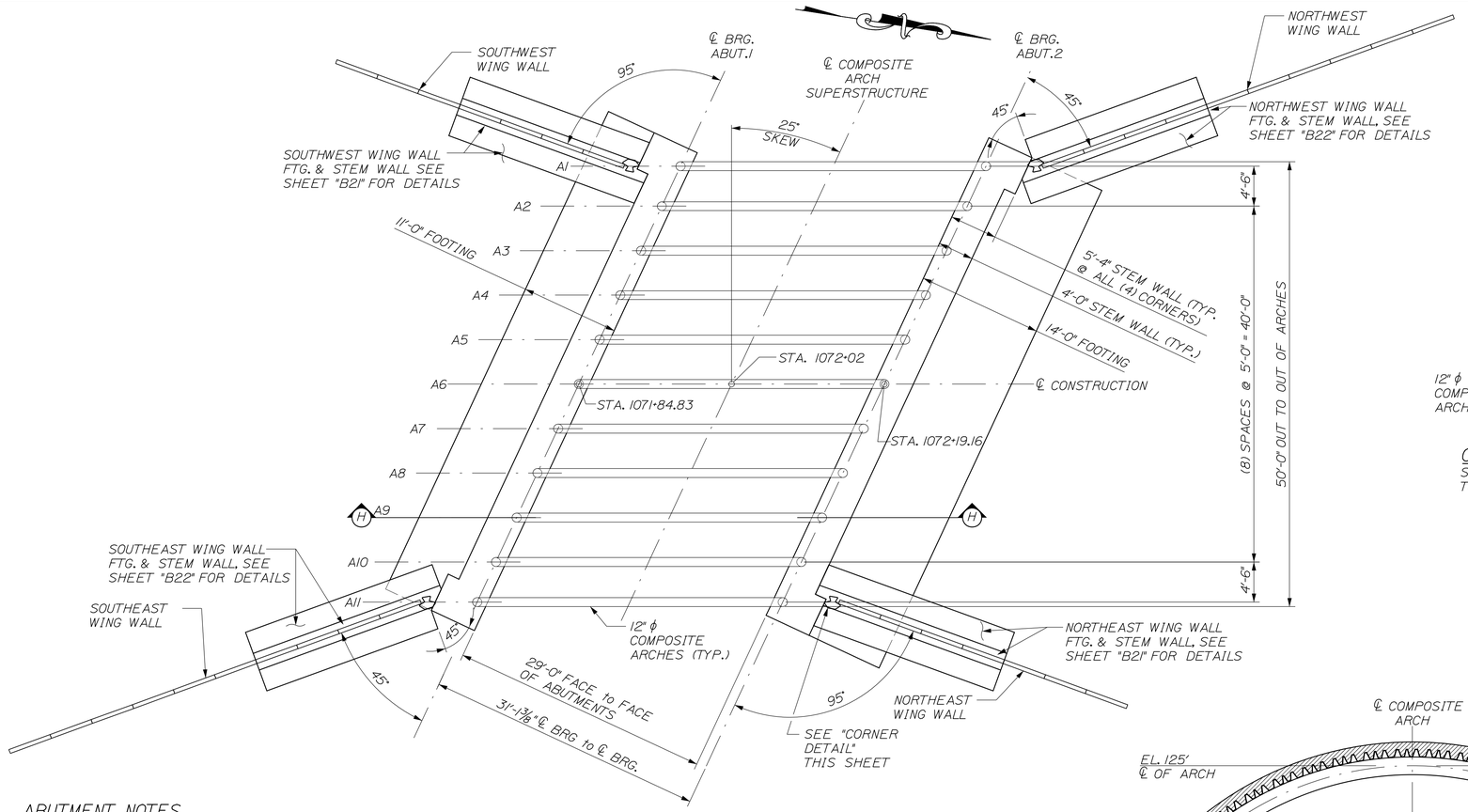
ELLSWORTH
ROUTE 180

PILE OPTION (ALTERNATE 1)
REINFORCING CHART

SHEET NUMBER

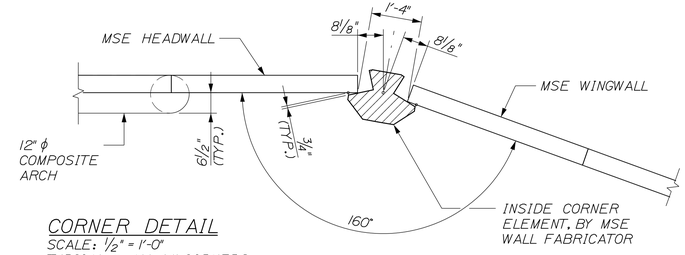
B15

Filename: ...\015_Pile_Rebar.dgn Division: BRIDGE Username: common Date:5/14/2012



GENERAL PLAN ~ PILE OPTION

SCALE: 1/8" = 1'-0"

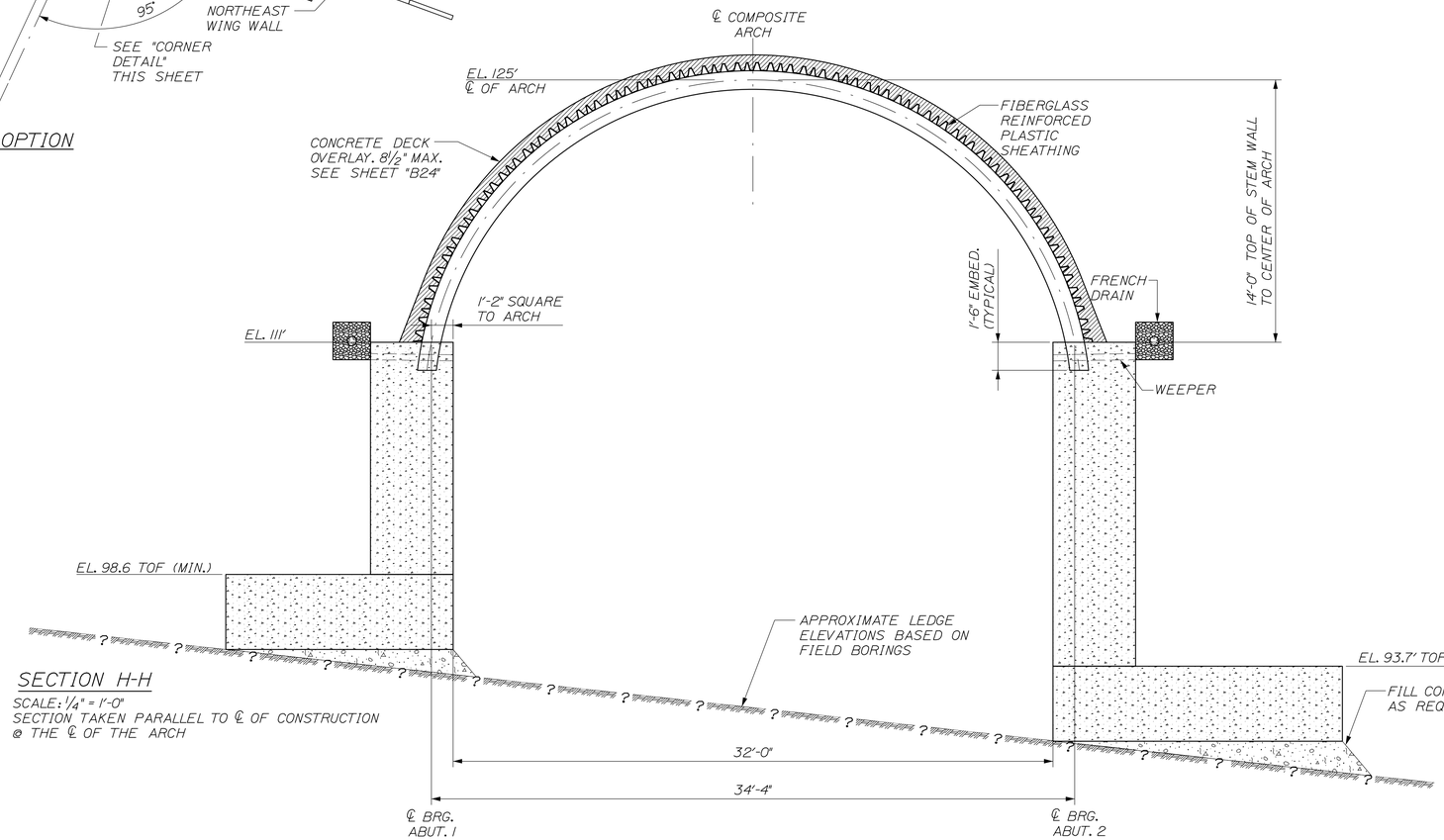


CORNER DETAIL

SCALE: 1/2" = 1'-0"
TYPICAL @ ALL (4) CORNERS

ABUTMENT NOTES

1. The maximum factored applied footing pressure is:
   26.77 ksf @ Abutment 1
   25.40 ksf @ Abutment 2
2. Reinforcing Steel shall have 3" cover in the Walls and in the Footings unless otherwise noted.
3. Reinforcing Steel is designed with standard hook lengths, and typical 3" clear to all faces.
4. Cover Joints in accordance with Standard Detail 502(01) where Waterstops are not required.
5. Structural Earth Excavation, Abutment and Retaining Walls, required more than 12 inches below the bottom of the structure, will be paid for in accordance with Standard Specification Section 206, Structural Excavation.
6. Concrete Abutments shall be backfilled with Granular Borrow. Pay limits will be the Structural Excavation Limits.
7. Where the limits of Structural Excavation and Granular Backfill for the Abutments overlap with the MSE Walls, the limits of the MSE Wall will supersede the Structural Excavation and Granular Backfill for the Abutment limits.
8. Place 4" diameter Drains in Breastwall and Wings at 10' maximum spacing. Exact location to be determined by the Resident.
9. Construct French Drains behind the Abutments and Wings in accordance with Standard Specification Section 512, French Drains.
10. Abutments shall be founded on bedrock or fill concrete.
11. Concrete fill shall be class 'fill'.
12. Abutment Footing Concrete not placed on the Concrete Fill shall be placed on bedrock cleared of all loose rock or soil. Prior to placing the footing, the bearing surface shall be washed with high pressure water and air, and smooth bedrock shall be roughened. Where bedrock surface slope exceeds 4H : 1V the bedrock surface shall be benched in level slopes or made completely level by placing Fill Concrete or Excavating Rock as directed by the Resident.
13. Payment for additional excavation required for Fill Concrete beyond Structural Excavation Limit shall be made incidental to Item 502.56, Concrete Fill.
14. Roughened surfaces shall be raked to a surface roughness of ±1/4".
15. See standard detail 502(01) for vertical contraction joints or horizontal construction joints.



SECTION H-H

SCALE: 1/4" = 1'-0"
SECTION TAKEN PARALLEL TO ℄ OF CONSTRUCTION @ THE ℄ OF THE ARCH

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

STATE OF MAINE
ERIC J. CALDERWOOD
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SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	BY	DATE
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CHECKED-REVIEWED		
DESIGN2-DETAILED2		
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REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

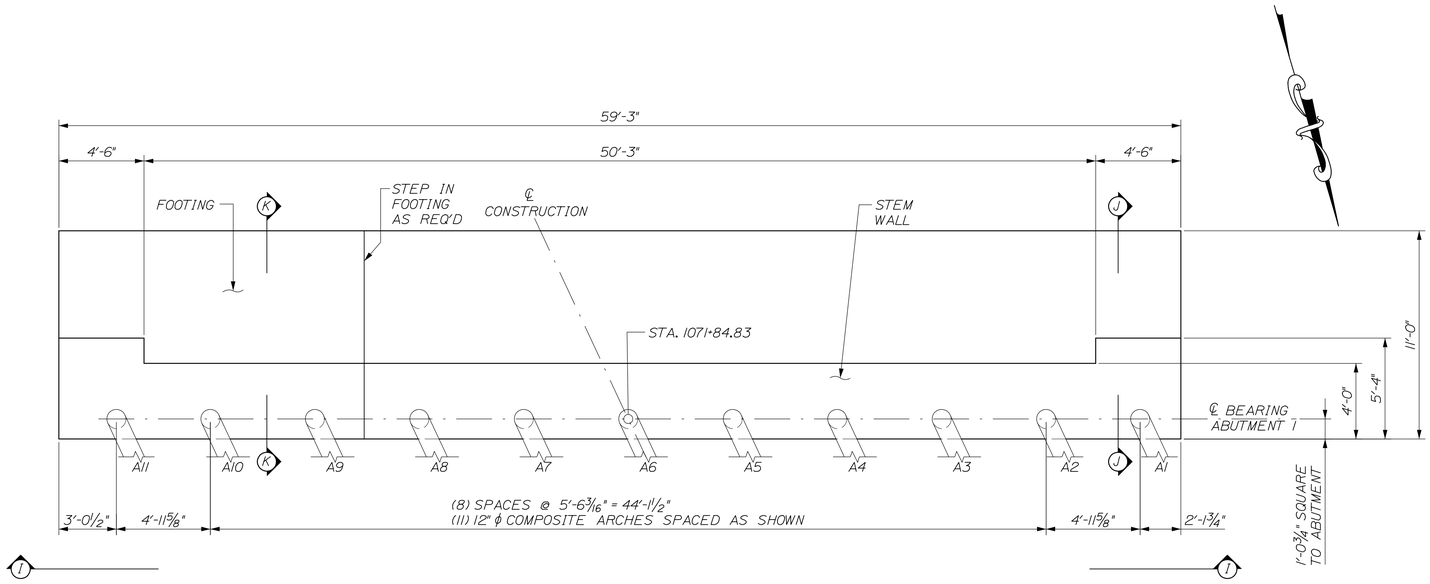
ELLSWORTH
ROUTE 180

ABUTMENT DETAILS
SPREAD FTG. (ALTERNATE 2)

SHEET NUMBER

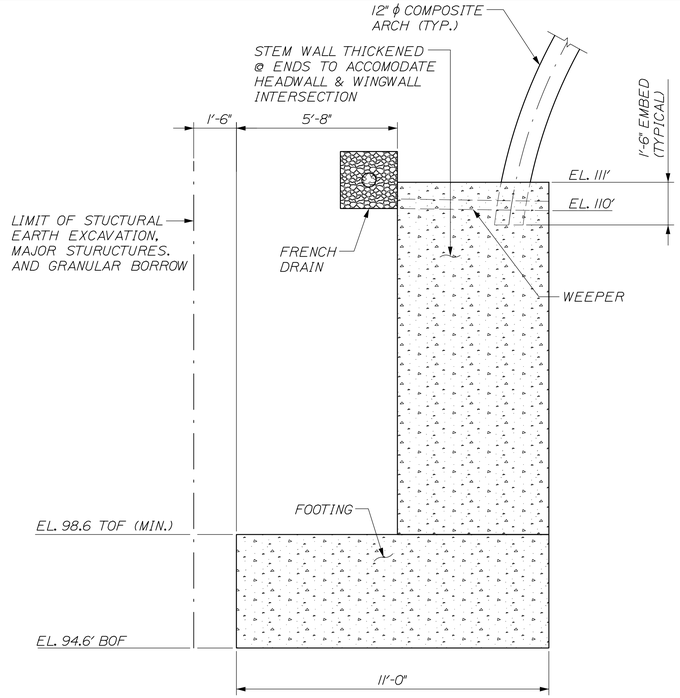
B16

Filename: ...\016_Spread_Abutment.dgn Division: BRIDGE Username: common Date:5/14/2012



ABUTMENT 1 ~ DIMENSIONAL PLAN

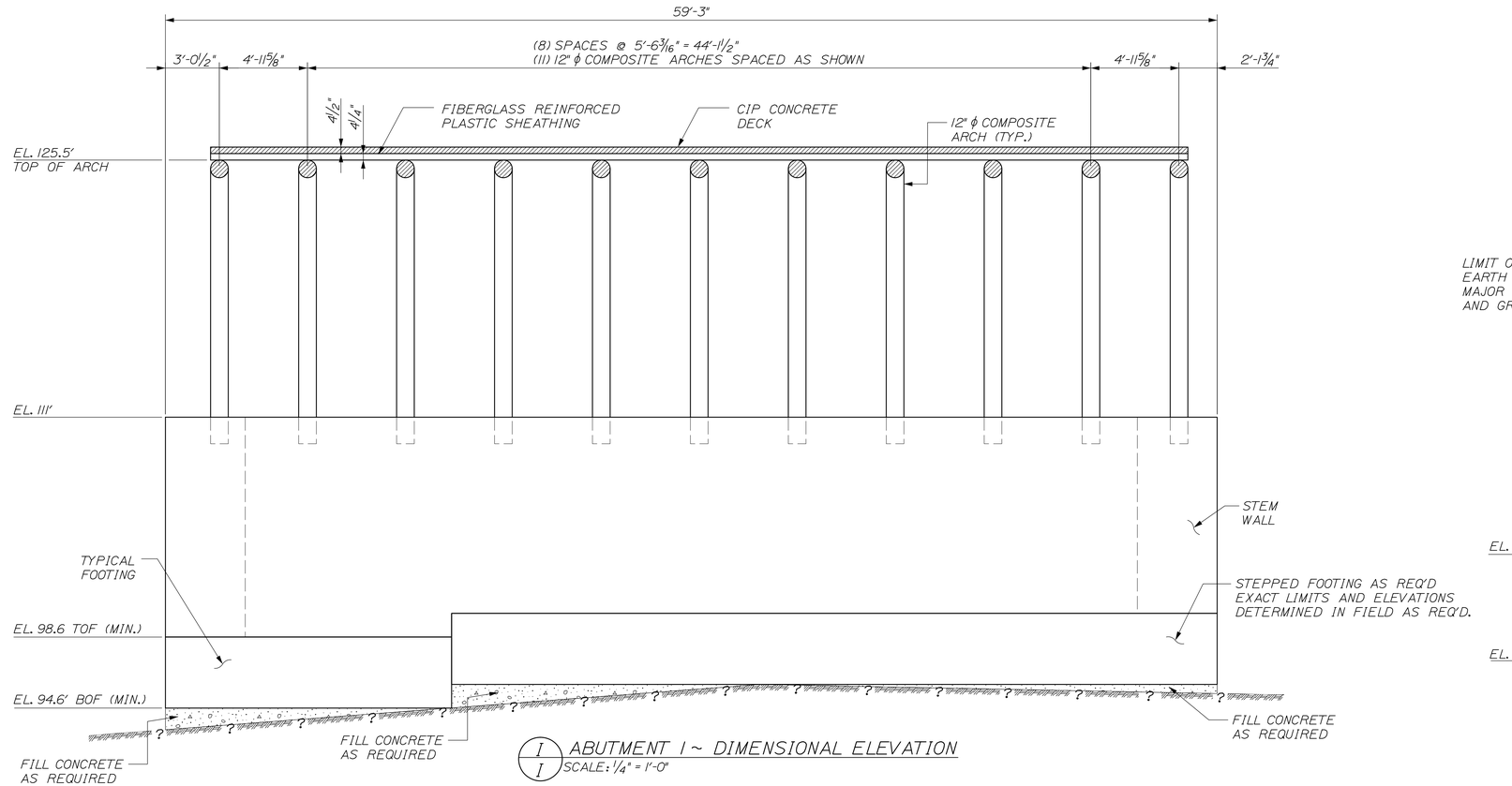
SCALE: 1/4" = 1'-0"



SECTION J-J

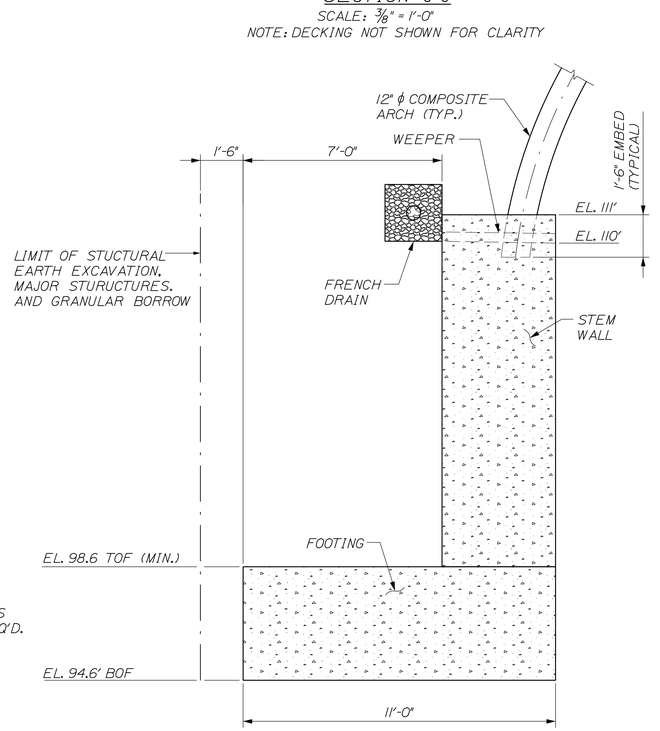
SCALE: 3/8" = 1'-0"

NOTE: DECKING NOT SHOWN FOR CLARITY



I/I ABUTMENT 1 ~ DIMENSIONAL ELEVATION

SCALE: 1/4" = 1'-0"



SECTION K-K

SCALE: 3/8" = 1'-0"

NOTE: DECKING NOT SHOWN FOR CLARITY

STATE OF MAINE
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HIGHWAY PLANS

STATE OF MAINE
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DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

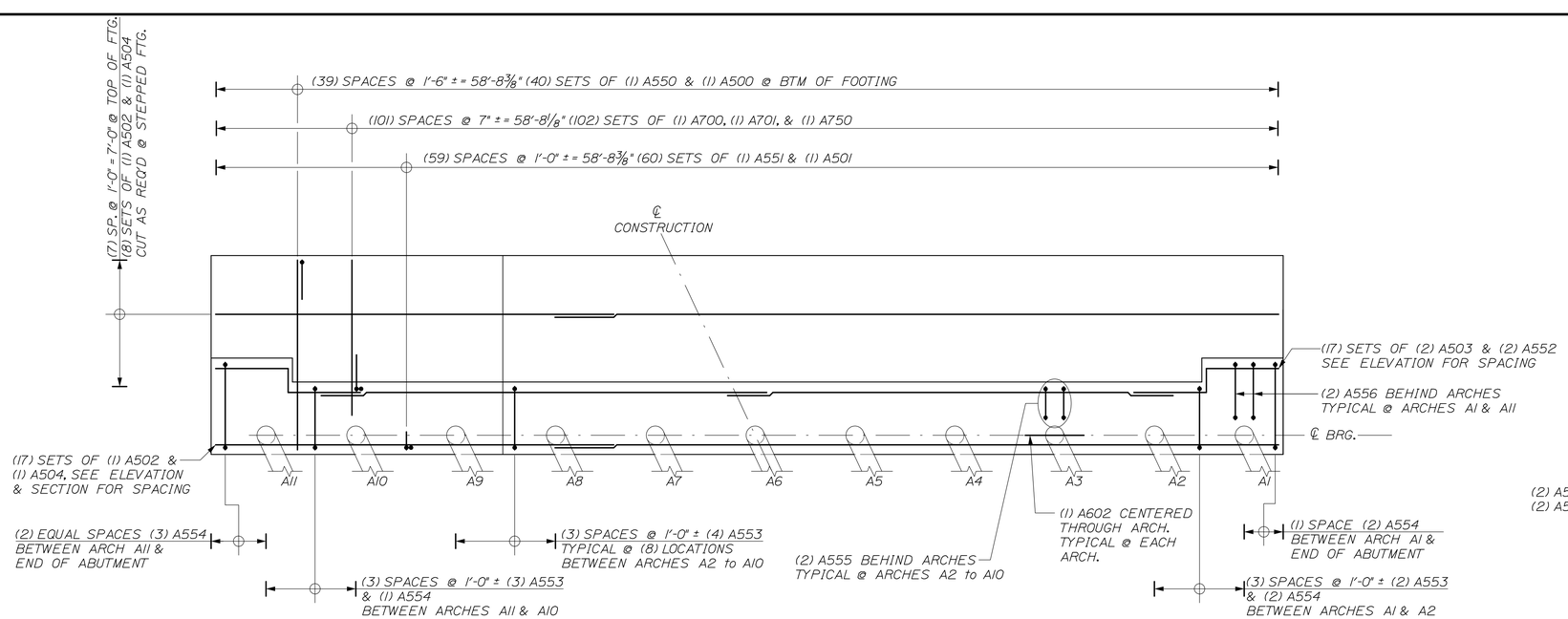
ELLSWORTH
ROUTE 180

ABUTMENT 1 DIMENSION DTLS.
SPREAD FTG. (ALTERNATE 2)

SHEET NUMBER

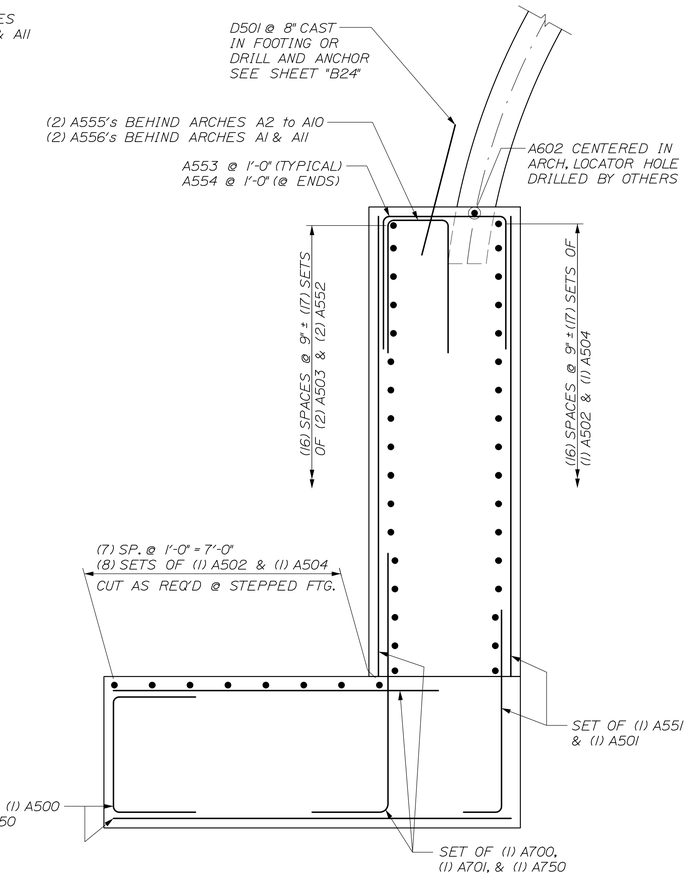
B17

Filename: ...\017_Spread_Abut1_Dimension.dgn Division: BRIDGE Username: common Date:5/14/2012



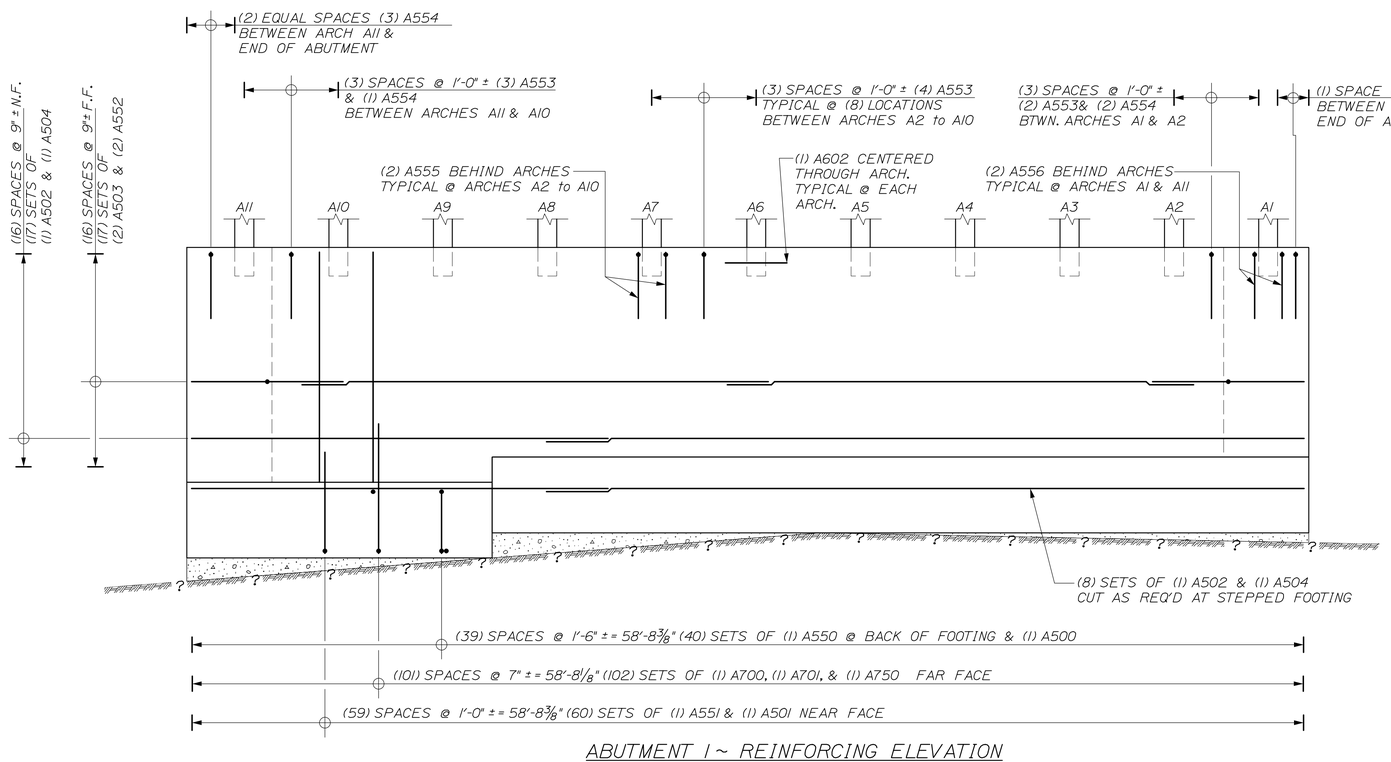
ABUTMENT 1 ~ REINFORCING PLAN

SCALE: 1/4" = 1'-0"



ABUTMENT 1 REINFORCING SECTION

SCALE: 1/2" = 1'-0"



ABUTMENT 1 ~ REINFORCING ELEVATION

SCALE: 1/4" = 1'-0"

NOTE: CUT VERTICAL BARS A501 & A701 AS REQ'D @ STEPPED FOOTING.
CUT HORIZONTAL BARS A502 & A504 AS REQ'D @ STEPPED FOOTING.

STATE OF MAINE
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HIGHWAY PLANS

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PROJ. MANAGER	NATE BENOIT
DESIGN-DETAILED	OOK
CHECKED-REVIEWED	
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES	JJH	NOV 2011

ELLSWORTH
ROUTE 180

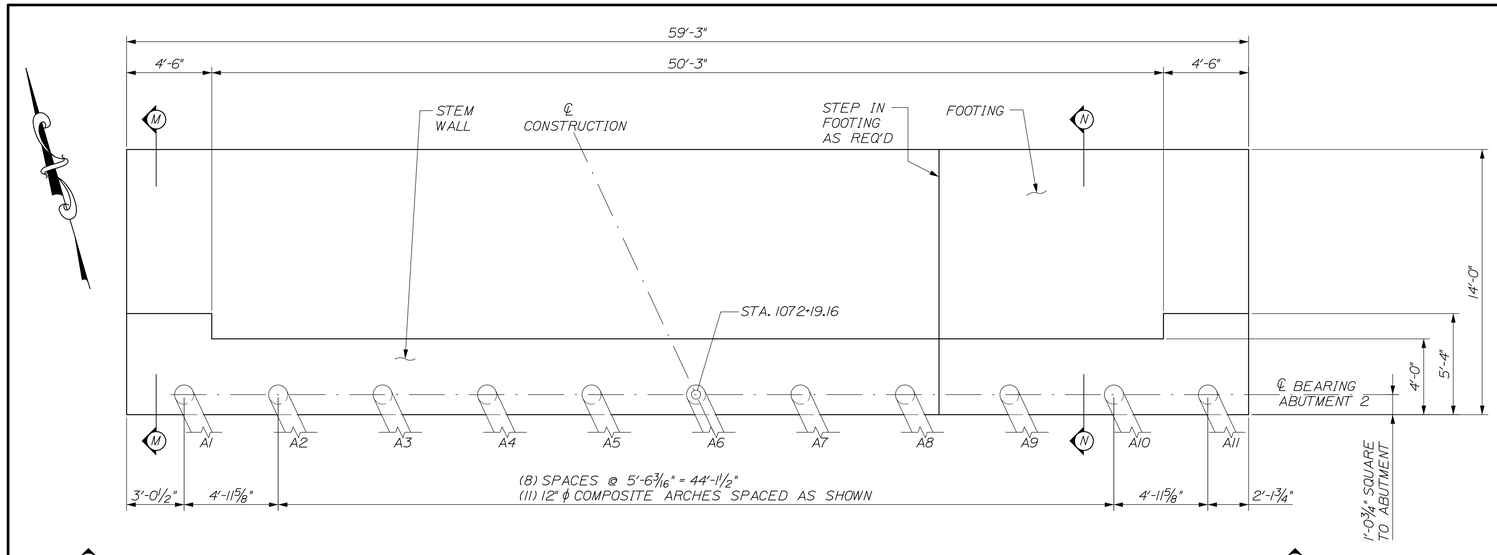
ABUTMENT 1 REINFORCING DTLS.
SPREAD FTG. (ALTERNATE 2)

SHEET NUMBER

B18

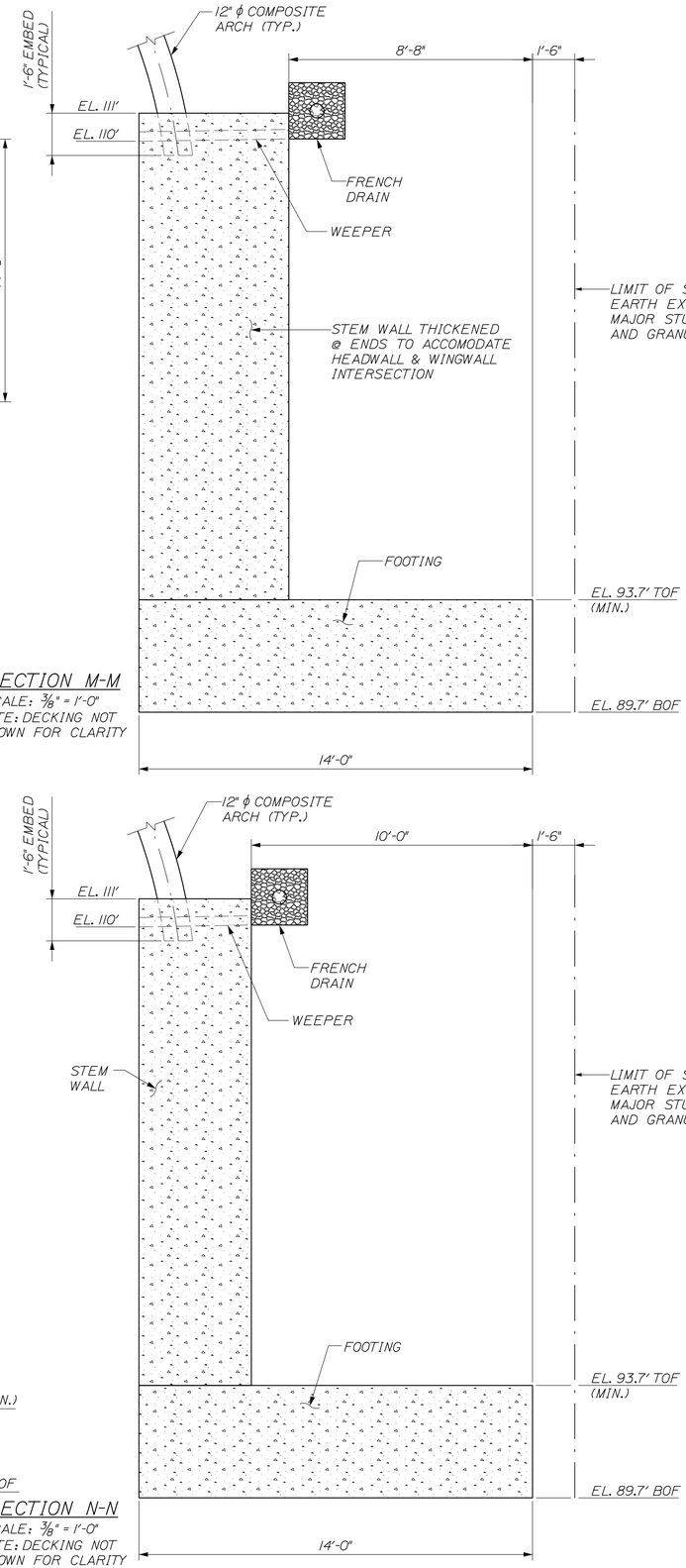
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Filename: ...\019_Spread_Abut2_Dimension.dgn Division: BRIDGE Username: common Date:5/14/2012



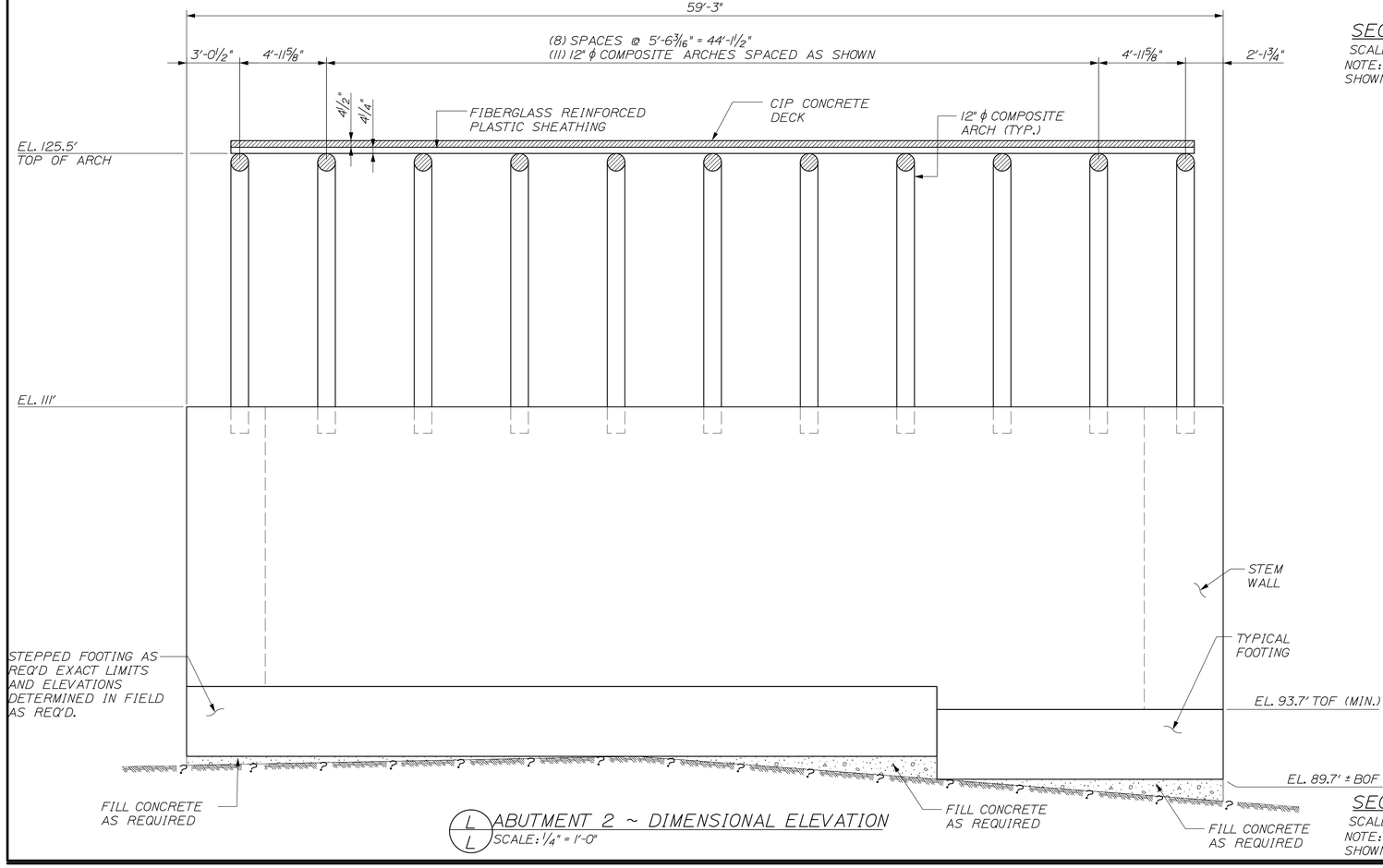
ABUTMENT 2 ~ DIMENSIONAL PLAN

SCALE: ¼" = 1'-0"



SECTION M-M

SCALE: ⅜" = 1'-0"
NOTE: DECKING NOT SHOWN FOR CLARITY



ABUTMENT 2 ~ DIMENSIONAL ELEVATION

SCALE: ¼" = 1'-0"

SECTION N-N

SCALE: ⅜" = 1'-0"
NOTE: DECKING NOT SHOWN FOR CLARITY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC A. CALDERWOOD
No. 9099
PROFESSIONAL ENGINEER
LICENSED

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

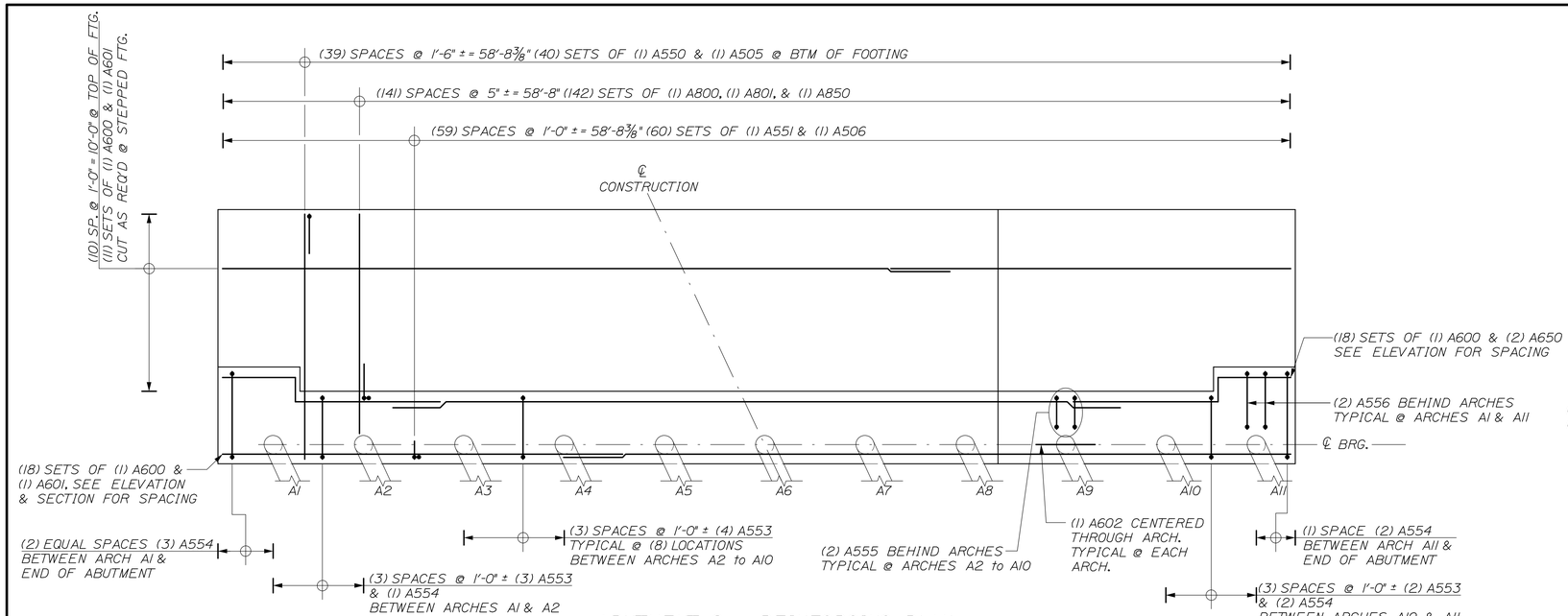
	BY	DATE
PROJ. MANAGER	NATE BENOIT	
DESIGN-DETAILED	JJH	NOV 2011
CHECKED-REVIEWED	GCK	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ELLSWORTH
ROUTE 180

ABUTMENT 2 DIMENSION DTLS.
SPREAD FTG. (ALTERNATE 2)

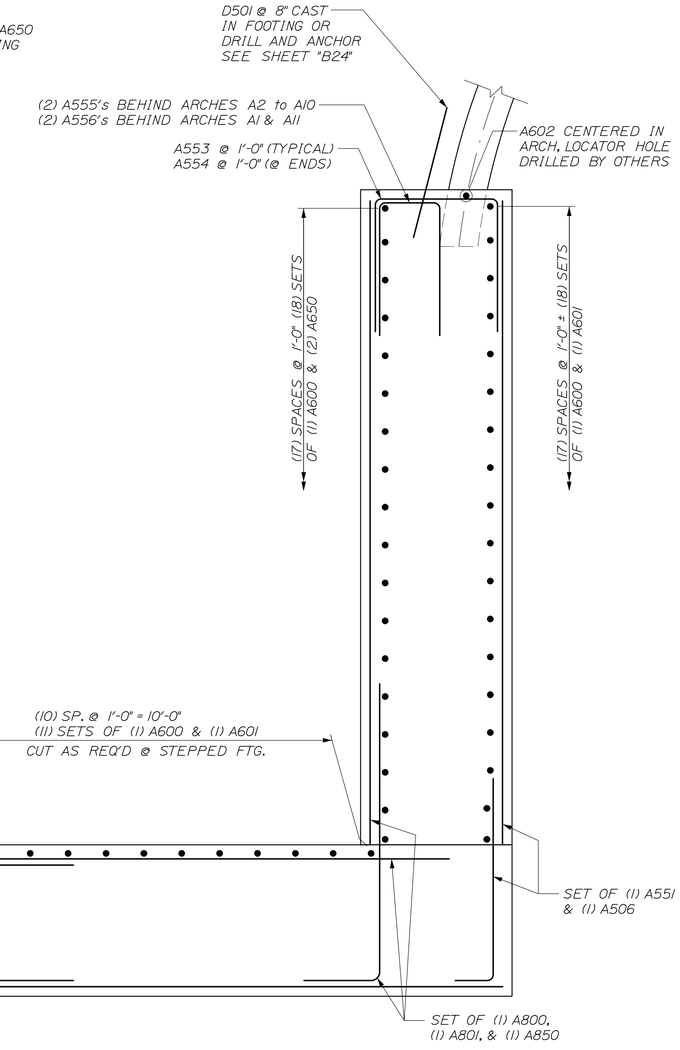
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B19



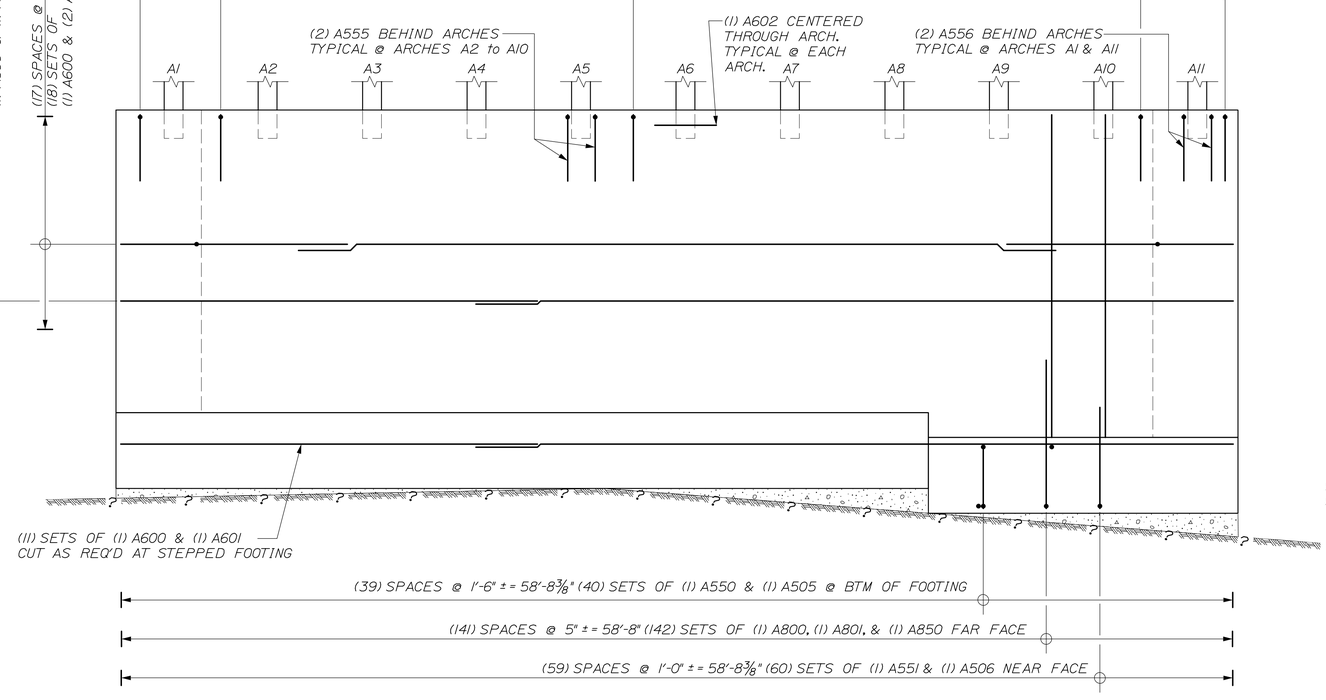
ABUTMENT 2 ~ REINFORCING PLAN

SCALE: 1/4" = 1'-0"



ABUTMENT 2 REINFORCING SECTION

SCALE: 1/2" = 1'-0"



NOTE: CUT VERTICAL BARS A506 & A801 AS REQ'D @ STEPPED FOOTING.
CUT HORIZONTAL BARS A600 & A601 AS REQ'D @ STEPPED FOOTING.

ABUTMENT 2 ~ REINFORCING ELEVATION

SCALE: 1/4" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC A. CALDERWOOD
No. 9099
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	NATE BENOIT	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	DCK	JJH	NOV 2011
CHECKED-REVIEWED	----	----	----
DESIGN2-DETAILED2	----	----	----
DESIGN3-DETAILED3	----	----	----
REVISIONS 1	----	----	----
REVISIONS 2	----	----	----
REVISIONS 3	----	----	----
REVISIONS 4	----	----	----
FIELD CHANGES	----	----	----

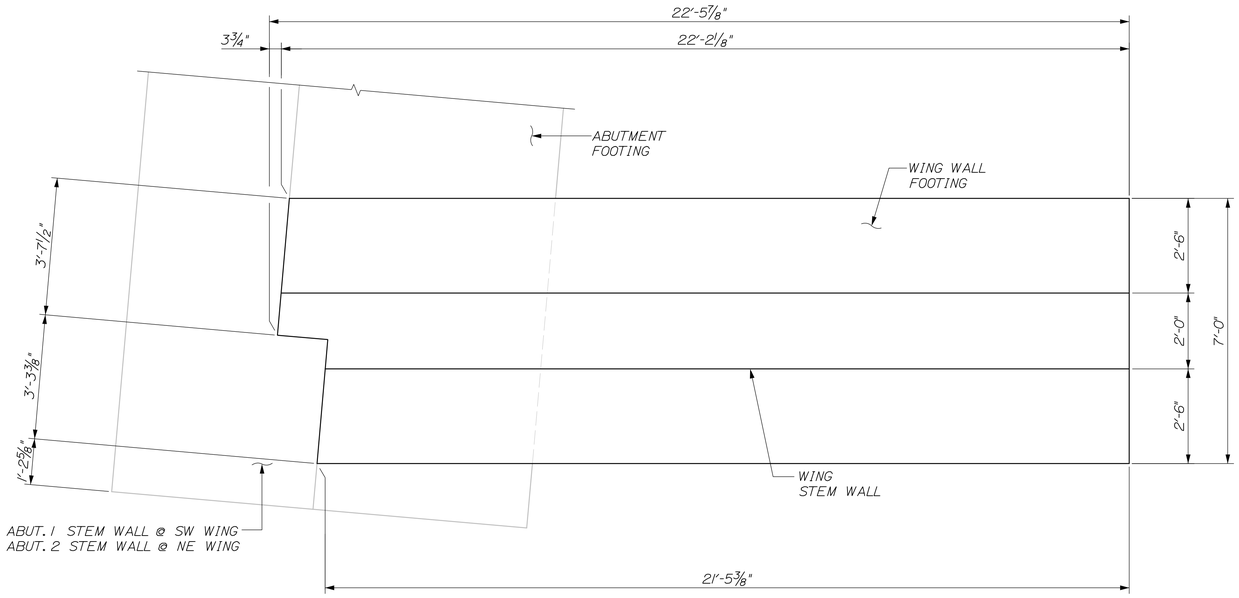
ELLSWORTH
ROUTE 180

ABUTMENT 2 REINFORCING DTLS.
SPREAD FTG. (ALTERNATE 2)

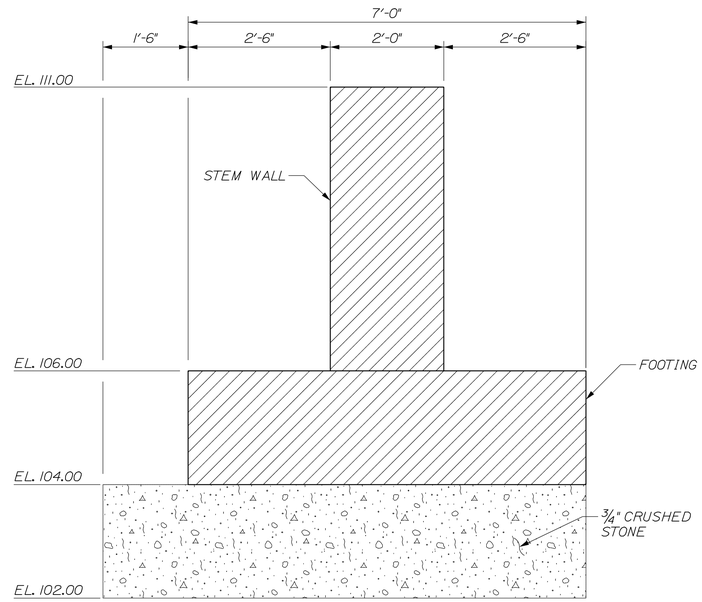
SHEET NUMBER

B20

Filename: ...\020_Spread_Abut2_Reinforce.dgn Division: BRIDGE Username: common Date:5/14/2012



SOUTHWEST & NORTHEAST WINGS
DIMENSIONAL PLAN
SCALE: ½" = 1'-0"



TYPICAL WINGWALL FOOTING SECTION
(ALTERNATE 2)
SCALE: ¾" = 1'-0"

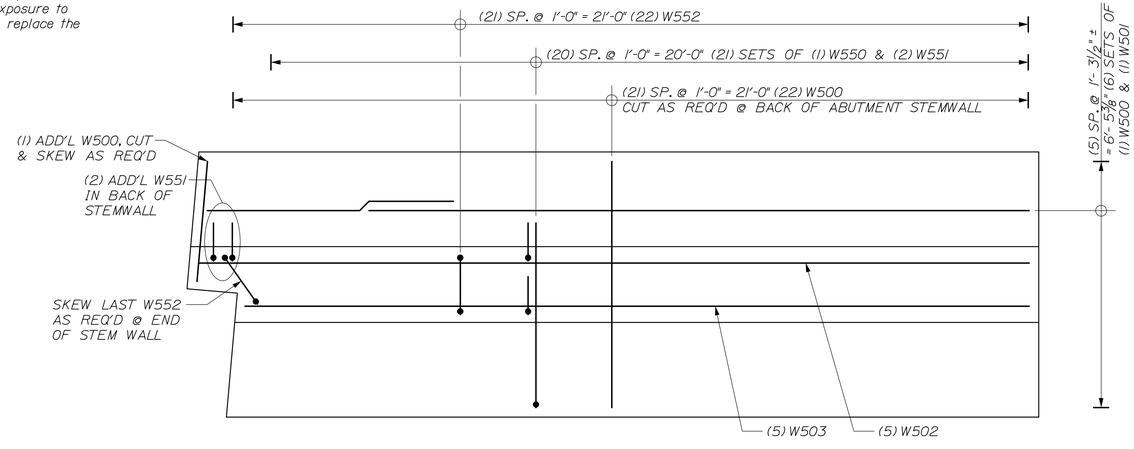
CIP WINGWALL FOOTING NOTES

1. The maximum factored applied footing pressure is 4.15 ksf (Strength Limit State) and 2.35 ksf (Service Limit State)

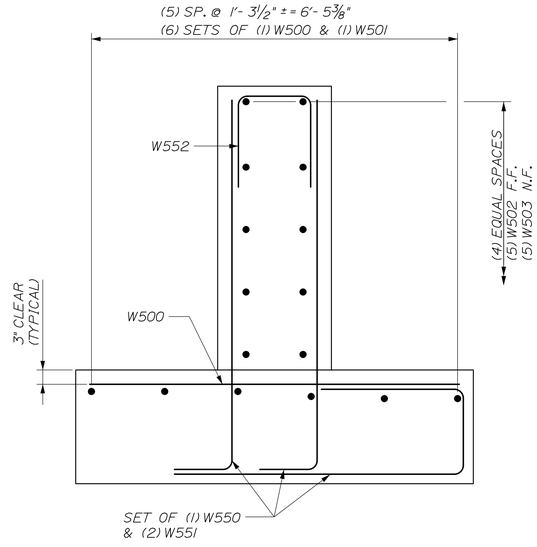
2. Wingwalls and their footings shall be backfilled with Granular Borrow.

3. CIP wingwall spread footings shall be constructed on a bed of compacted ¾ inch Crushed Stone, 2.0 feet thick, placed in 8-inch maximum lifts. Each lift shall be compacted with at least 4 passes of a heavy, walk-behind vibratory-type compactor (method compaction approximating 97% of AASHTO T180). All other backfill material shall meet the requirements of MaineDOT 703.19 Granular Borrow.

4. Grubbing of the clayey silt topsoil and over excavation of 2 feet of the clayey silt subgrade will expose potentially sensitive clayey silt deposits. The clayey silts will be susceptible to disturbance and rutting as a result of exposure to water or traffic. The contractor shall protect the subgrade from exposure to water and unnecessary traffic. If disturbance occurs, remove and replace the disturbed material with ¾ inch stone or compacted Gravel Borrow.



SOUTHWEST & NORTHEAST WINGS
REINFORCING PLAN
SCALE: ½" = 1'-0"
ABUTMENTS NOT SHOWN, SEE
DIMENSIONAL PLAN THIS SHEET



SOUTHWEST & NORTHEAST WINGS
REINFORCING SECTION
SCALE: ¾" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
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REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

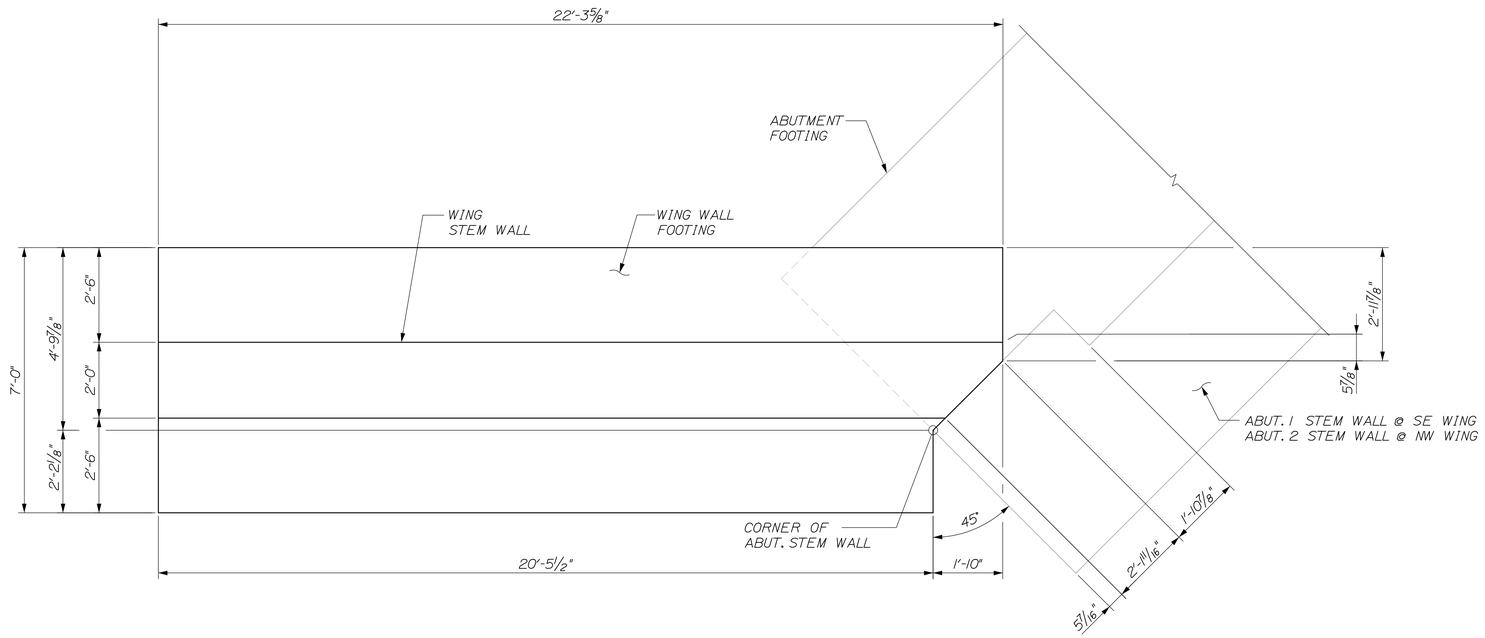
ELLSWORTH
ROUTE 180

SW & NE WING WALL
FOOTING DTLS.
SPREAD FTG. OPTION (ALT. 2)

SHEET NUMBER

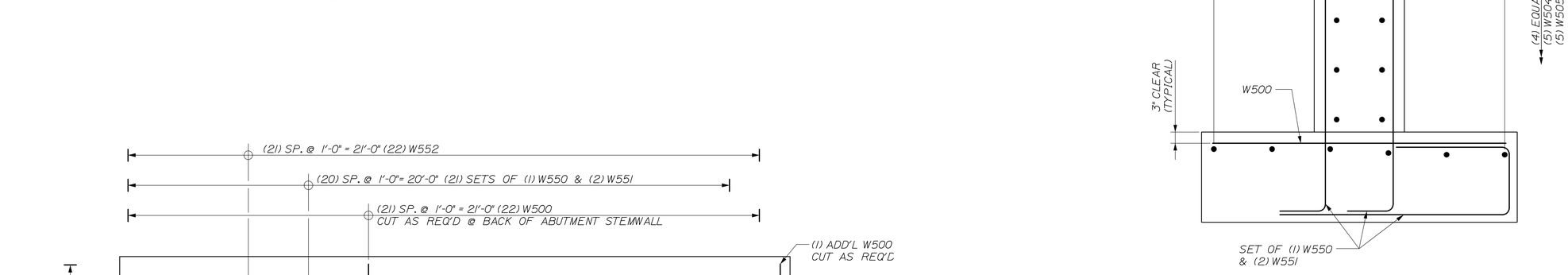
B21

Username: common Date:5/14/2012
Division: BRIDGE
Filename: ...\021_Spread_Wings.dgn

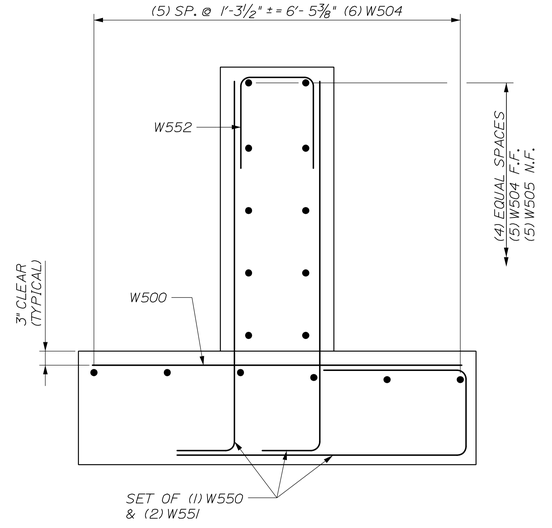


SOUTHEAST & NORTHWEST WINGS
DIMENSIONAL PLAN
SCALE: 1/2" = 1'-0"

NOTE:
SEE SHEET "B21" FOR
"TYPICAL WINGWALL FOOTING SECTION"



SOUTHEAST & NORTHWEST WINGS
REINFORCING PLAN
SCALE: 1/2" = 1'-0"
ABUTMENTS NOT SHOWN, SEE
DIMENSIONAL PLAN THIS SHEET



SOUTHEAST & NORTHWEST WINGS
REINFORCING SECTION
SCALE: 3/4" = 1'-0"

STATE OF MAINE
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HIGHWAY PLANS

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REVISIONS 3	----	----	----
REVISIONS 4	----	----	----
FIELD CHANGES	----	----	----

ELLSWORTH
ROUTE 180

SE & NW WING WALL
FOOTING DTLS.
SPREAD FTG. OPTION (ALT. 2)

SHEET NUMBER

B22

Username: common Date:5/14/2012
Division: BRIDGE
Filename: ...\022_Spread_Wings.dgn

STRAIGHT BARS

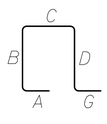
MARK	QTY.	LENGTH	LOCATION
		ABUTMENT 1	
A500	40	10'-6"	BOTTOM OF FOOTING
A501	60	12'-1¾"	VERTICAL BAR IN FRONT OF STEM WALL
A502	25	40'-0"	HORIZONTAL BAR IN FRONT OF STEM WALL & TOP OF FOOTING
A503	34	24'-7½"	HORIZONTAL BAR IN BACK OF STEM WALL
A504	25	22'-0"	HORIZONTAL BAR IN FRONT OF STEM WALL & TOP OF FOOTING
A700	102	8'-7"	TOP OF FOOTING
A701	102	12'-1¾"	VERTICAL BAR IN BACK OF STEM WALL
A602	11	3'-3"	LOCATOR BAR CENTERED THROUGH ARCHES
		ABUTMENT 2	
A505	40	13'-6"	BOTTOM OF FOOTING
A506	60	17'-0"	VERTICAL BAR IN FRONT OF STEM WALL
A600	47	40'-0"	HORIZONTAL BAR IN FRONT & BACK OF STEM WALL & TOP OF FTG.
A601	29	22'-0"	HORIZONTAL BAR IN FRONT OF STEM WALL & TOP OF FOOTING
A602	11	3'-3"	LOCATOR BAR CENTERED THROUGH ARCHES
A800	142	12'-1"	TOP OF FOOTING
A801	142	17'-0"	VERTICAL BAR IN BACK OF STEM WALL
		WINGWALLS	
W500	104	6'-6"	TOP OF FOOTINGS @ ALL WINGS
W501	12	17'-6"	TOP OF FOOTING @ SW & NE WING
W502	10	21'-11"	HORIZONTAL BAR IN BACK OF STEMWALL @ SW & NE WINGWALL
W503	10	20'-8½"	HORIZONTAL BAR IN FRONT OF STEMWALL @ SW & NE WINGWALL
W504	22	21'-9½"	TOP OF FOOTING & BACK OF STEMWALL @ SE & NW WING
W505	10	20'-5"	HORIZONTAL BAR IN BACK OF STEMWALL @ SE & NW WING
MARK	QTY.	LENGTH	LOCATION

BENT BARS

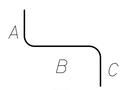
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	I	J	K	L	LOCATION
							ABUTMENT 1									
A550	40	7'-7"	S	0"	2'-2"	3'-4½"	2'-2"			0"						U-BAR IN BACK OF FOOTING
A551	60	6'-3¼"	L	1'-0"	5'-4"											L-BAR FROM FOOTING INTO FRONT OF STEM WALL
A552	34	9'-2½"	T	4'-0"	1'-4"	4-0"										BENT BAR @ ABUTMENT ENDS IN BACK OF STEM WALL
A553	37	10'-4½"	S	0"	3'-6"	3'-6"	3'-6"			0"						U-BAR @ TOP OF STEM WALL
A554	8	11'-8½"	S	0"	3'-6"	4'-10"	3'-6"			0"						U-BAR IN STEM WALL @ ENDS OF ABUTMENTS
A555	18	8'-8½"	S	0"	3'-6"	1'-10"	3'-6"			0"						U-BAR IN STEM WALL BEHIND ARCHES A2 to A10
A556	4	10'-0½"	S	0"	3'-6"	3'-2"	3'-6"			0"						U-BAR IN STEM WALL BEHIND ARCHES A1 & A11
A750	102	8'-8⅞"	L	2'-0"	6'-10"											L-BAR FROM FOOTING INTO BACK OF STEM WALL
							ABUTMENT 2									
A550	40	7'-7"	S	0"	2'-2"	3'-4½"	2'-2"			0"						U-BAR IN BACK OF FOOTING
A551	60	6'-3¼"	L	1'-0"	5'-4"											L-BAR FROM FOOTING INTO FRONT OF STEM WALL
A553	37	10'-4½"	S	0"	3'-6"	3'-6"	3'-6"			0"						U-BAR @ TOP OF STEM WALL
A554	8	11'-8½"	S	0"	3'-6"	4'-10"	3'-6"			0"						U-BAR IN STEM WALL @ ENDS OF ABUTMENTS
A555	18	8'-8½"	S	0"	3'-6"	1'-10"	3'-6"			0"						U-BAR IN STEM WALL BEHIND ARCHES A2 to A10
A556	4	10'-0½"	S	0"	3'-6"	3'-2"	3'-6"			0"						U-BAR IN STEM WALL BEHIND ARCHES A1 & A11
A650	36	13'- 1⅝"	T	7'-11½"	1'-4"	4-0"										BENT BAR @ ABUTMENT ENDS IN BACK OF STEM WALL
A850	142	9'-8¾"	L	2'-0"	7'-10"											L-BAR FROM FOOTING INTO BACK OF STEM WALL
							WINGWALLS									
W550	84	8'-10½"	S	0"	2'-6"	1'-6"	5'-0"			0"						U-BAR IN FRONT WINGWALL FOOTINGS
W551	176	7'-5¼"	L	6'-6"	1'-0"											L-BAR FRONT & BACK STEM WALL @ WINGWALL FOOTINGS
W552	88	4'-4½"	S	0"	1'-6"	1'-6"	1'-6"			0"						U-BAR IN TOP OF STEM WALLS @ WINGWALLS
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	I	J	K	L	LOCATION



L



S



T

All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318.

Reinforcing Bar: ASTM A615, Grade 60

GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size ofthe bar:

   Mark "A502" = bar size #5
   Mark "P801" = bar size #8
   Mark "S650" = bar size #6

2. Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans

CALDERWOOD ENGINEERING
22 AVA ROAD
RICHMOND, ME 04357
PH (207) 737-2007 FAX (207) 737-2008

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN
10063.10

STATE OF MAINE
ERIC CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER
9099

DATE
NOVEMBER 2011

PROJ. MANAGER	NATE BENOIT		
DESIGN-DETAILED	OGK	JJH	NOV 2011
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	-----	-----	-----
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	-----
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	-----
REVISIONS 4	-----	-----	-----

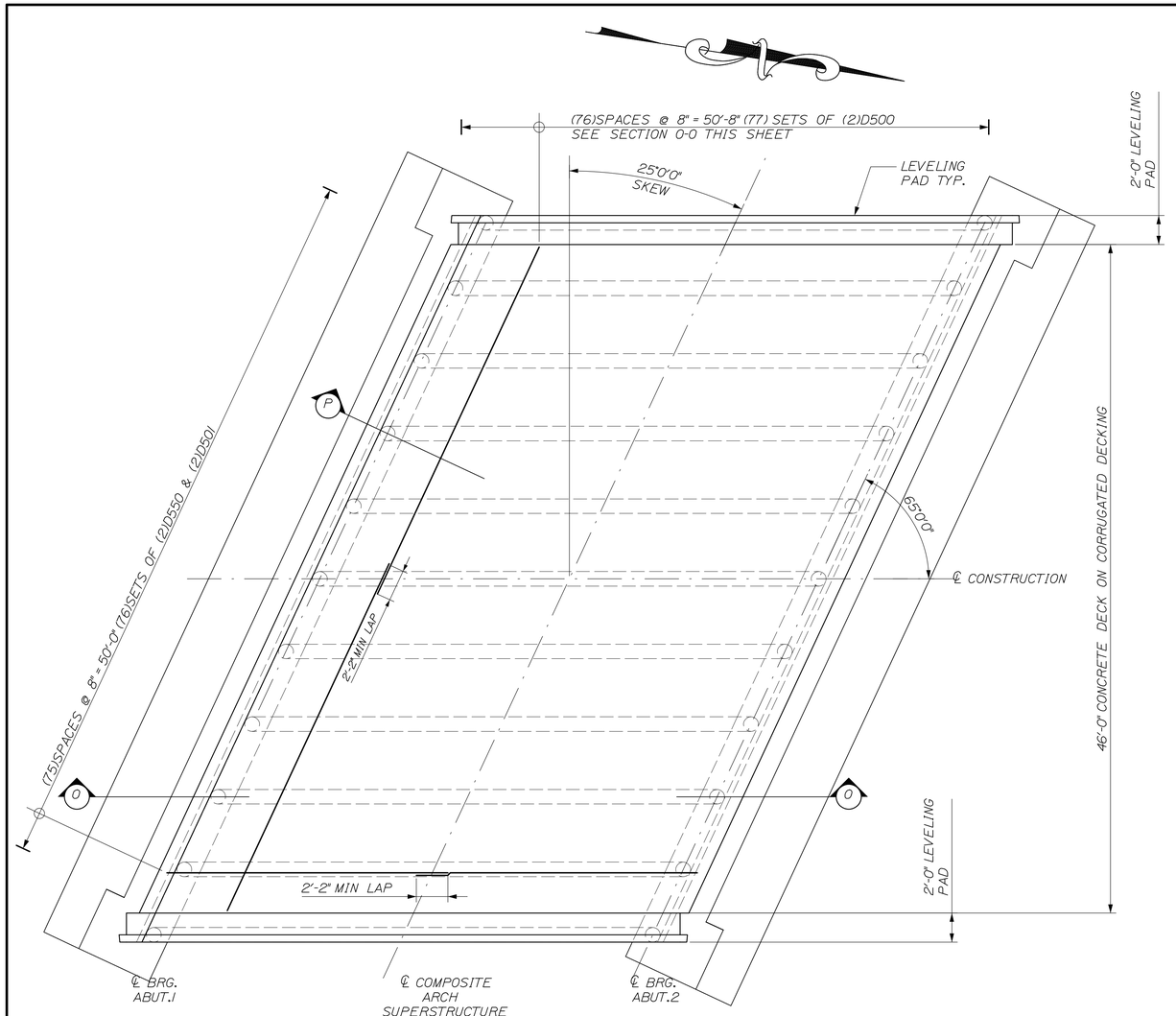
ELLSWORTH
ROUTE 180

SPREAD FTG. (ALTERNATE 2)
REINFORCING CHART

SHEET NUMBER

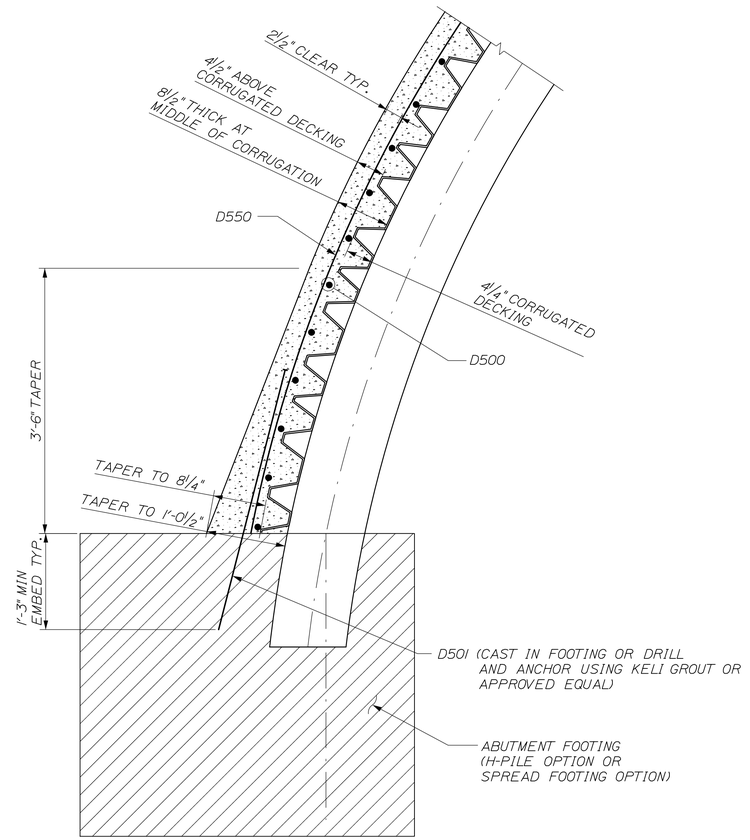
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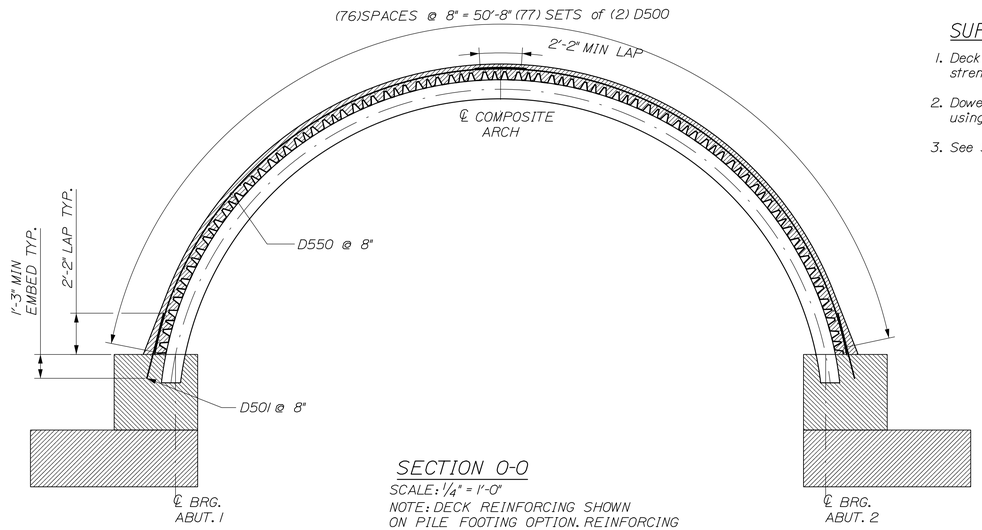
DECK REINFORCING PLAN

SCALE: 1" = 5'-0"



SECTION P

1" = 1'-0"



SECTION 0-0

SCALE: 1/4" = 1'-0"

NOTE: DECK REINFORCING SHOWN ON PILE FOOTING OPTION. REINFORCING FOR SPREAD FOOTING OPTION IS THE SAME

SUPERSTRUCTURE NOTES

1. Deck concrete shall be Class "A" with a 28-Day compressive strength of 4350 psi.
2. Dowel D50I may be cast in the footing or drilled and anchored using Keli-gout or an approved equal at the contractor's option.
3. See Sheet 27 for Rebar Chart

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

STATE OF MAINE
ERIC J. CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

PROJ. MANAGER	NATE BENOIT
DESIGN-DETAILED	OCK
CHECKED-REVIEWED	----
DESIGN2-DETAILED2	------
DESIGN3-DETAILED3	------
FIELD CHANGES	------

	BY	DATE
REVISIONS 1	UJH	NOV 2011
REVISIONS 2	----	----
REVISIONS 3	----	----
REVISIONS 4	----	----
	------	------

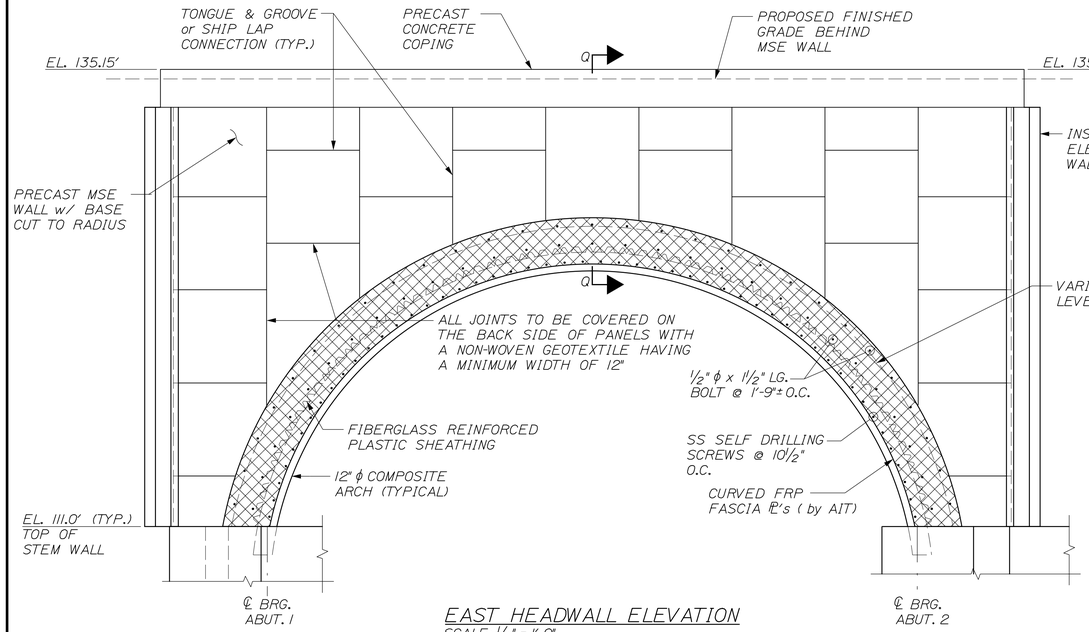
ELLSWORTH
ROUTE 180

DECK REINFORCING

SHEET NUMBER

B24

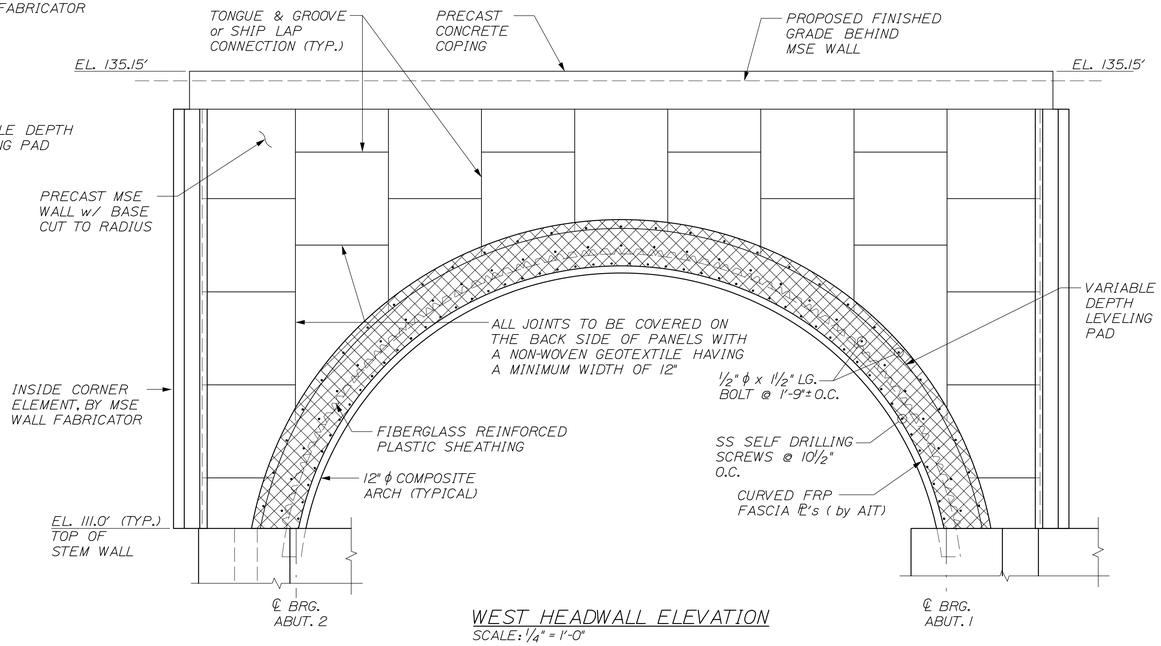
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EAST HEADWALL ELEVATION

SCALE: 1/4" = 1'-0"

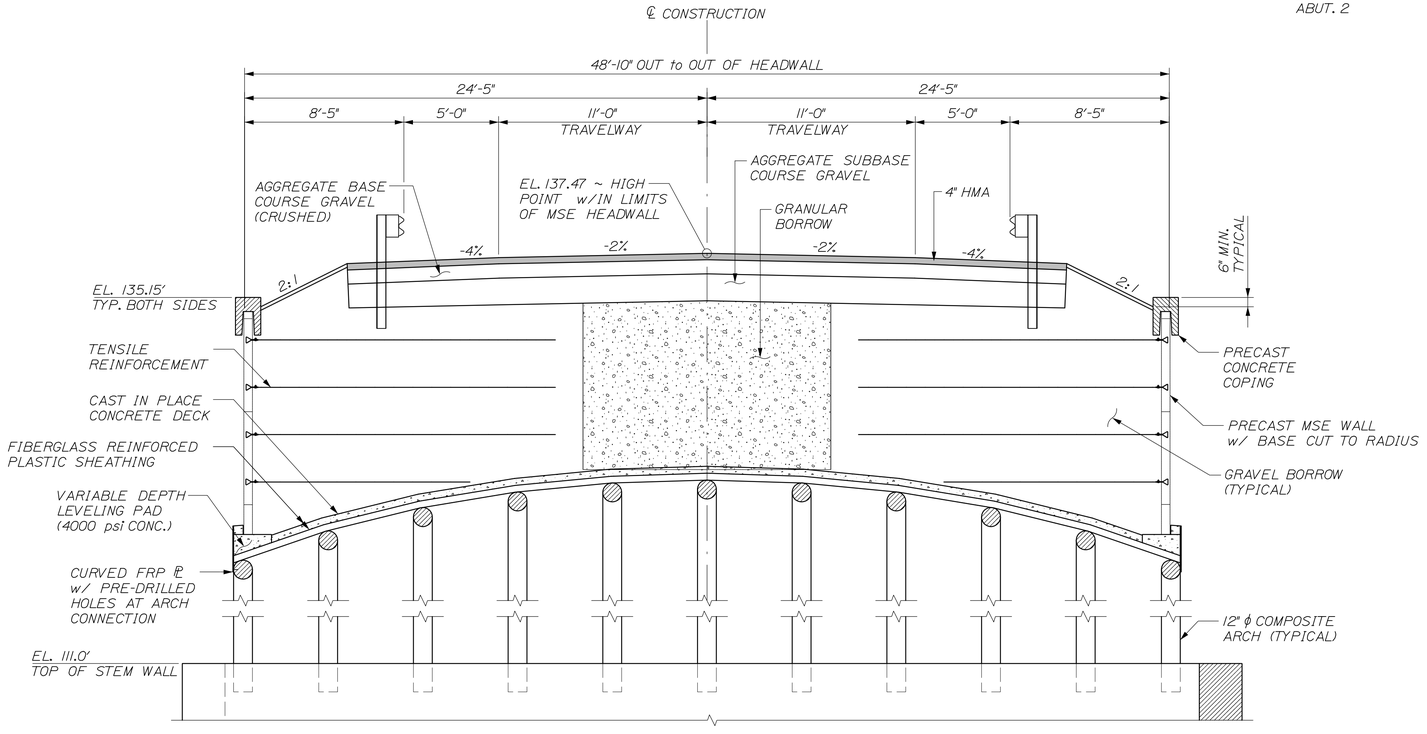
NOTE: EXACT SHAPES AND CONFIGURATION OF MSE WALL COMPONENTS TO BE DETERMINED BY FABRICATOR



WEST HEADWALL ELEVATION

SCALE: 1/4" = 1'-0"

NOTE: EXACT SHAPES AND CONFIGURATION OF MSE WALL COMPONENTS TO BE DETERMINED BY FABRICATOR



TYPICAL TRANSVERSE SECTION

SCALE: 1/4" = 1'-0"

SEE SHEETS "B26" & "B27" FOR BASE CONNECTION, PRECAST COPING, TENSILE REINFORCEMENT, & LEVELING PAD DETAILS.

STATE OF MAINE
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HIGHWAY PLANS

STATE OF MAINE
ERIC J. CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	NAME	BY	DATE
PROJ. MANAGER	MATE BENOIT		
DESIGN-DETAILED	DCK	JJH	NOV 2011
CHECKED-REVIEWED	---	---	---
DESIGN2-DETAILED2	---	---	---
DESIGN3-DETAILED3	---	---	---
REVISIONS 1	---	---	---
REVISIONS 2	---	---	---
REVISIONS 3	---	---	---
REVISIONS 4	---	---	---
FIELD CHANGES	---	---	---

ELLSWORTH
ROUTE 180

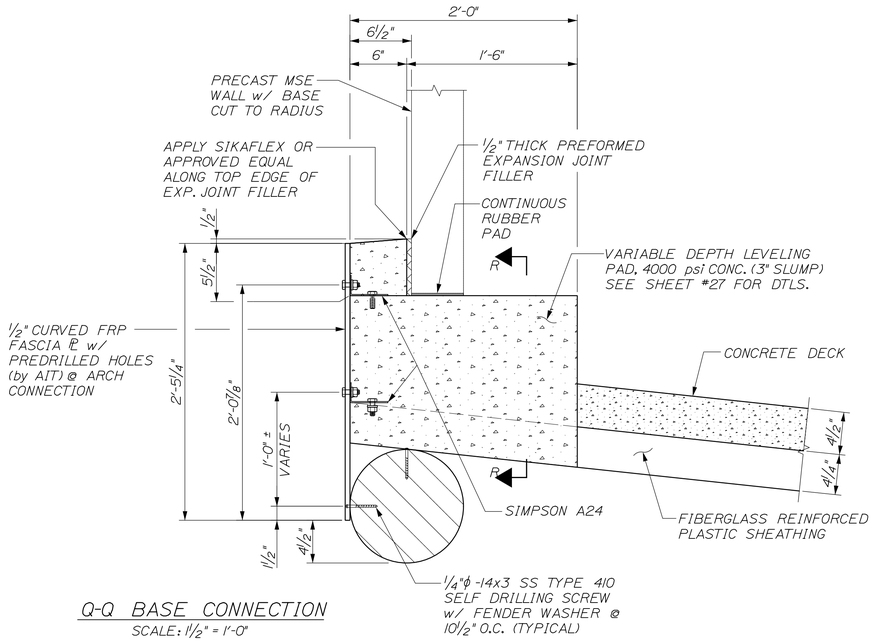
HEADWALL DETAILS

SHEET NUMBER

B25

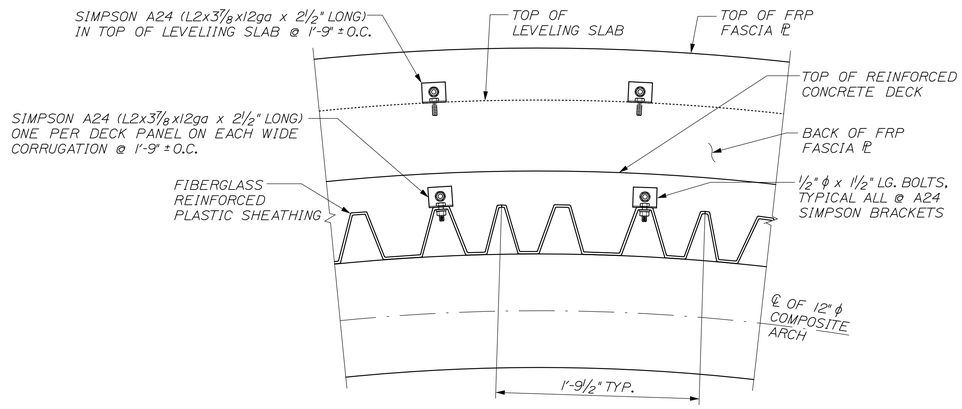
Date:5/14/2012
Username: common
Division: BRIDGE
Filename: ...\025_Headwall_Dtls.dgn

Filename: ...\026_Headwall_Dtls.dgn Division: BRIDGE Username: common Date:5/14/2012



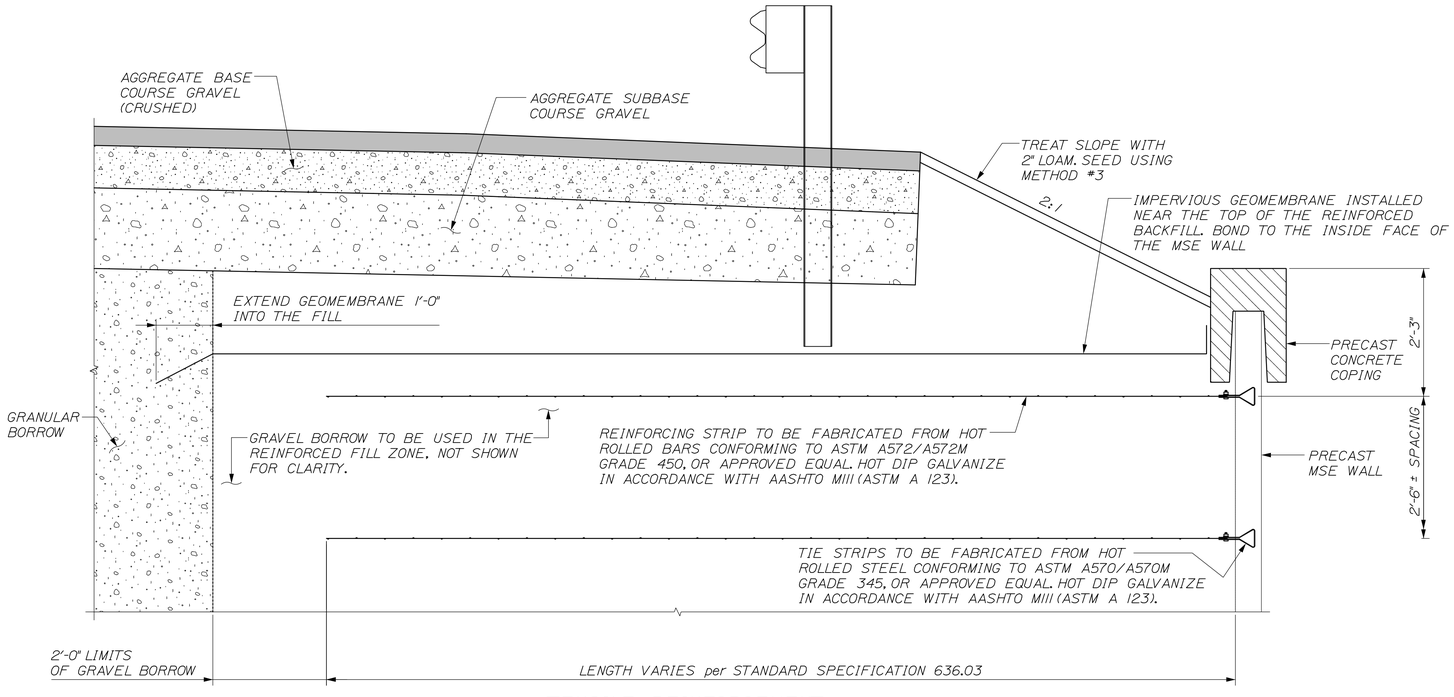
Q-Q BASE CONNECTION

SCALE: 1½" = 1'-0"



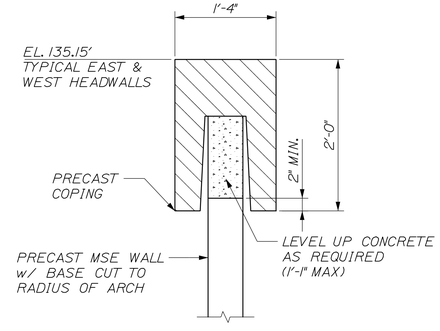
SECTION R-R

SCALE: 1½" = 1'-0"



TENSILE REINFORCEMENT

SCALE: ¾" = 1'-0"
TENSILE REINFORCEMENT SHOWN IS AN EXAMPLE ONLY. ACTUAL TENSILE REINFORCMENT TO BE DESIGNED BY THE MSE WALL FABRICATOR.



PRECAST COPING DETAIL

SCALE: 1" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE ERIC CALDERWOOD No. 9099 LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	BY	DATE
PROJ. MANAGER	NATE BENOIT	
DESIGN-DETAILED	GGK	NOV 2011
CHECKED-REVIEWED	JJH	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ELLSWORTH
ROUTE 180

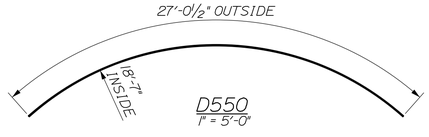
HEADWALL DETAILS

SHEET NUMBER

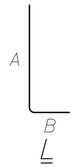
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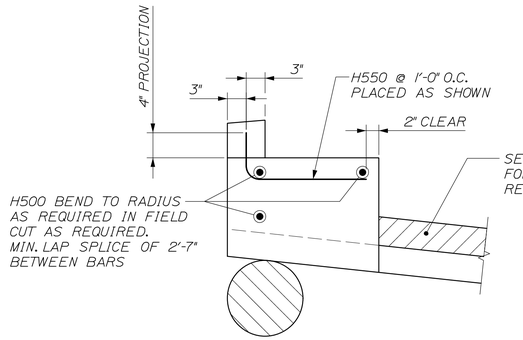
STRAIGHT BARS			
MARK	QTY.	LENGTH	LOCATION
HEADWALL LEVELING PAD			
H500	18	20'-0"	BOTTOM OF FOOTING
DECK REINFORCING			
D500	154	26'-4"	TRANSVERSE MAT
D501	152	3'-6½"	FOOTING CONNECTION
MARK	QTY.	LENGTH	LOCATION

BENT BARS																	
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	I	J	K	L	LOCATION
HEADWALL LEVELING PAD																	
H550	108	2'-1¾"	L	1'-7¼"	0'-7¼"											U-BAR IN BACK OF FOOTING
DECK REINFORCING																	
D550	152	27'-0"	SEE SKETCH													LONGITUDINAL MAT
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	I	J	K	L	LOCATION



D550
1" = 5'-0"



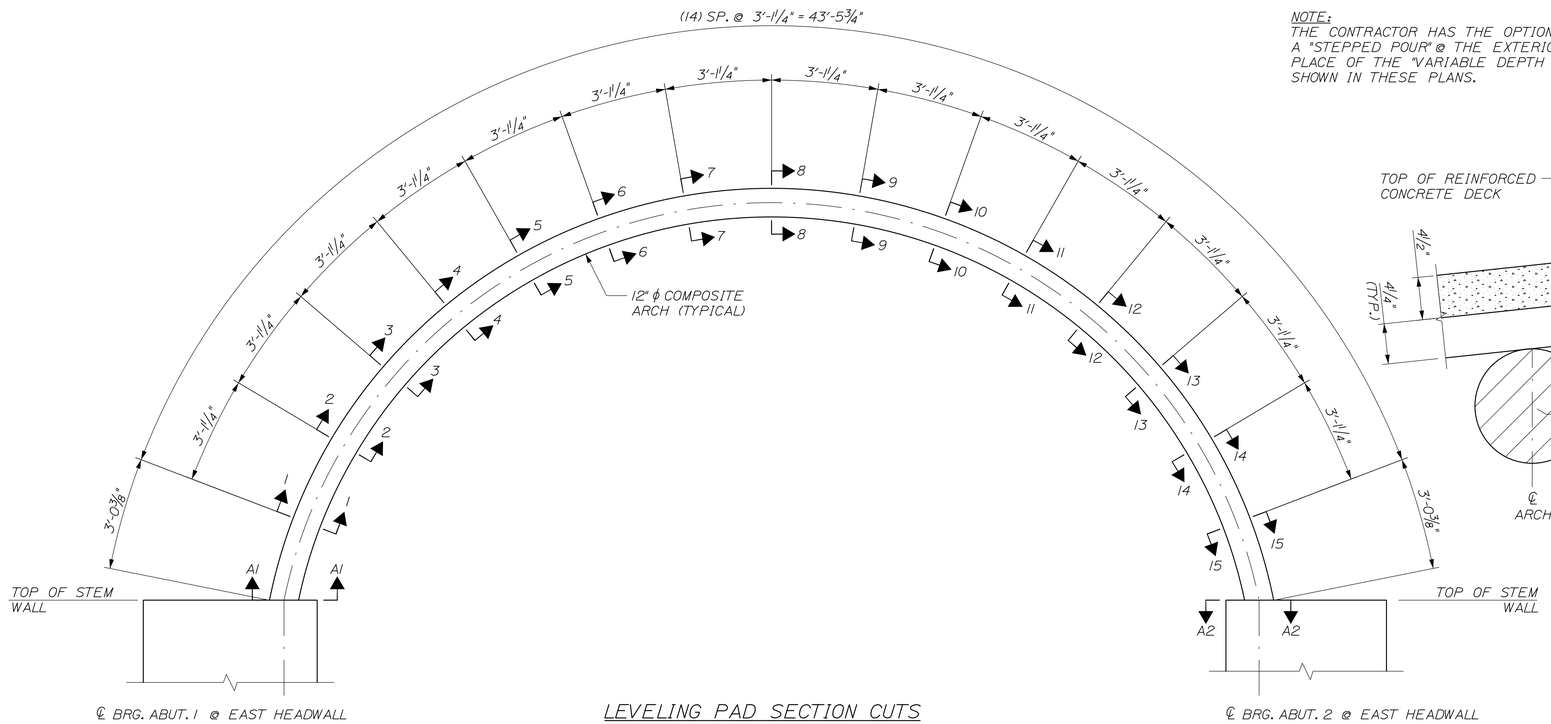


LEVELING PAD REINFORCING
SCALE: 1" = 1'-0"

LEVELING SLAB DIMENSIONS																
	SECTION A1-A1	SECTION 1-1	SECTION 2-2	SECTION 3-3	SECTION 4-4	SECTION 5-5	SECTION 6-6	SECTION 7-7	SECTION 8-8	SECTION 9-9	SECTION 10-10	SECTION 11-11	SECTION 12-12	SECTION 13-13	SECTION 14-14	SECTION 15-15	SECTION A2-A2
DIMENSION 'A'	1'-7 11/16"	1'-6 15/16"	1'-6½"	1'-5 15/16"	1'-5⅛"	1'-4 3/16"	1'-3⅛"	1'-1⅞"	1'-0½"	0'-11"	0'-9½'	0'-8"	0'-6 9/16"	0'-5¼"	0'-4⅛"	0'-3 5/16"	0'-2⅞"
DIMENSION 'B'	0'-11¼"	0'-11 1/16"	0'-11 3/16"	0'-11 5/16"	0'-11½"	0'-11 11/16"	0'-11 13/16"	0'-11 15/16"	1'-0"	1'-0"	1'-0"	0'-11 3/4"	0'-11 5/8"	0'-11 7/16"	0'-11¼"	0'-11 1/16"	0'-11¼"
DIMENSION 'C'	1'-4 9/16"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4¼"	1'-4 9/16"
DIMENSION 'D'	0'-8 7/16"	0'-8 7/16"	0'-8¾"	0'-9⅛"	0'-9⅝"	0'-10 3/16"	0'-10¾"	0'-11 5/16"	0'-11 13/16"	1'-0 5/16"	1'-0 11/16"	1'-1 1/16"	1'-1 5/16"	1'-1½"	1'-1⅝"	1'-1 11/16"	1'-2 1/16"
ELEVATION 'E'	111'	114.39'	117.39'	120.10'	122.43'	124.32'	125.71'	126.57'	126.85'	126.57'	125.71'	124.32'	122.43'	120.10'	117.39'	114.39'	111'
ELEVATION 'F'	111'	114.89'	117.89'	120.60'	122.93'	124.82'	126.21'	127.07'	127.35'	127.07'	126.21'	124.82'	122.93'	120.60'	117.89'	114.89'	111'

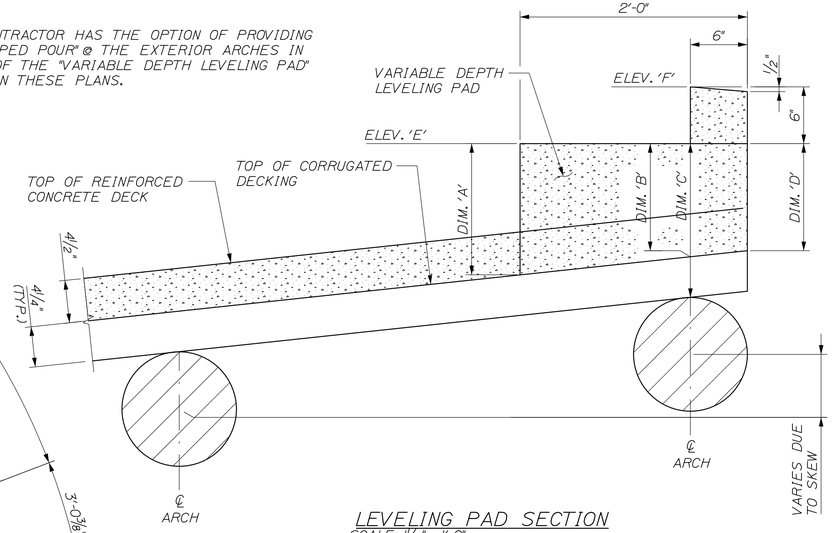
NOTE:
1.) ALL DIMENSIONS AND ELEVATIONS IN SECTIONS '1-1' to '15-15' ARE TAKEN PERPENDICULAR TO THE EXTERIOR ARCH.

2.) DIMENSIONS AND ELEVEATIONS IN SECTIONS 'A1-A1' & 'A2-A2' ARE TAKEN AT THE TOP OF THE ABUTMENT STEMWALL. THEY ARE NOT PERPENDICULART TO THE ARCH.



LEVELING PAD SECTION CUTS
ELEVATION VIEW
SCALE: ⅜" = 1'-0"

NOTE:
THE CONTRACTOR HAS THE OPTION OF PROVIDING A "STEPPED POUR" @ THE EXTERIOR ARCHES IN PLACE OF THE "VARIABLE DEPTH LEVELING PAD" SHOWN IN THESE PLANS.



LEVELING PAD SECTION
SCALE: 1½" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC A. CALDERWOOD
No. 9099
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

PROJ. MANAGER	NATE BENOIT
DESIGN-DETAILED	GCK
CHECKED-REVIEWED	-----
DESIGN2-DETAILED2	-----
DESIGN3-DETAILED3	-----

	BY	DATE
REVISIONS 1	-----	-----
REVISIONS 2	-----	-----
REVISIONS 3	-----	-----
REVISIONS 4	-----	-----
FIELD CHANGES	-----	-----

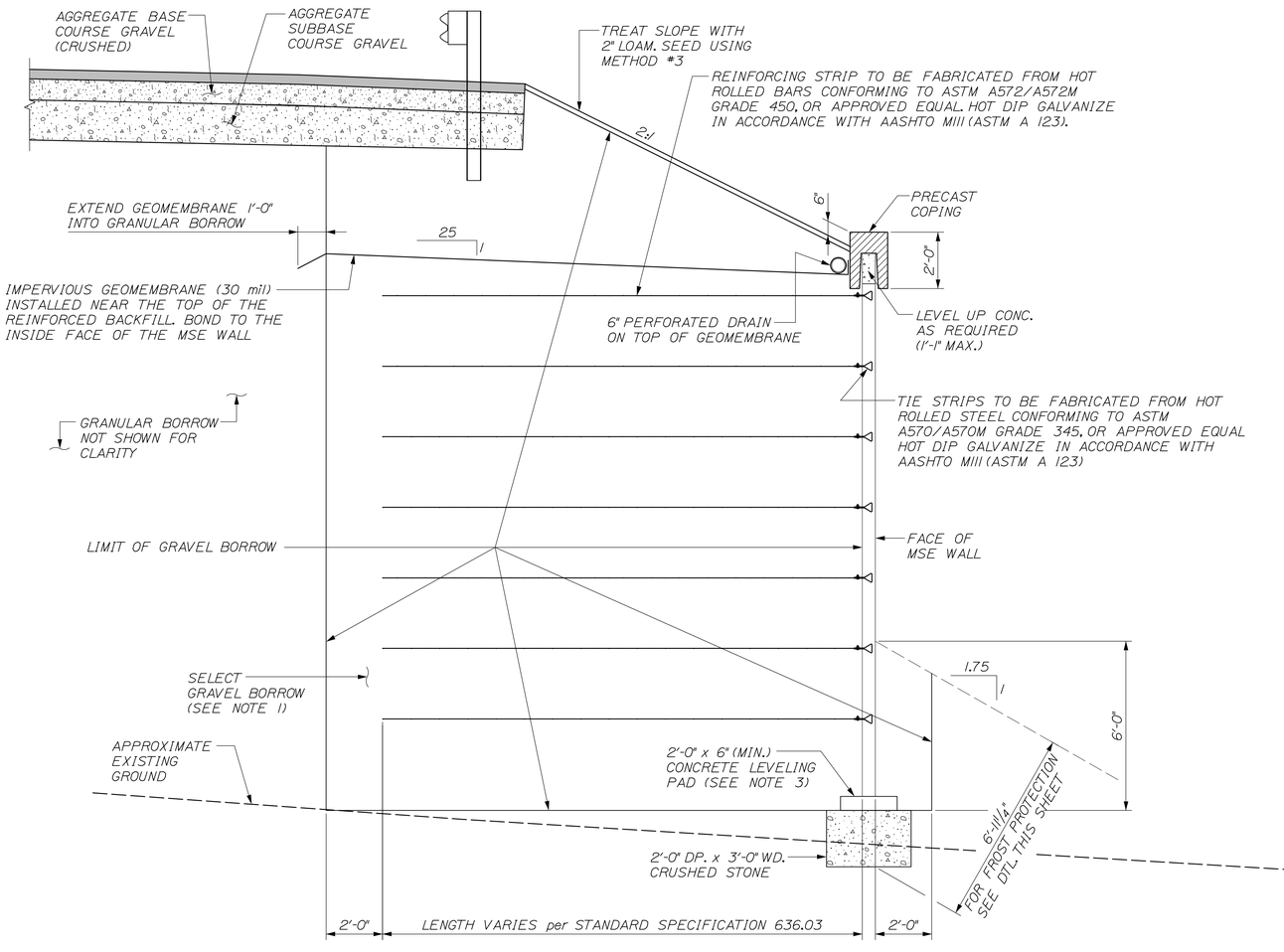
ELLSWORTH
ROUTE 180

HEADWALL DETAILS

SHEET NUMBER

B27

Filename: ...\027_Headwall_Dtls.dgn Division: BRIDGE Username: common Date:5/14/2012



TYPICAL WINGWALL SECTION

SCALE: 3/8" = 1'-0"
SOUTHEAST WING SHOWN.
ALL OTHER WINGS SIMILIAR

MSE WALL NOTES:

1.) BACKFILL IN THE MSE WALL VOLUME SHALL CONFORM TO GRAVEL BORROW AND THE ADDITIONAL PHYSICAL AND CHEMICAL REQUIREMENTS PER SPECIAL PROVISION SECTION 636.048. GRAVEL BORROW SHALL BE INCIDENTAL TO ITEM 636.40, MSE RETAINING WALL. NO ADDITIONAL PAYMENT WILL BE MADE FOR GRAVEL BORROW USED FOR MSE WALL.

2.) PAYMENT FOR CONCRETE LEVELING PAD SHALL BE INCIDENTAL TO ITEM 636.40, MSE RETAINING WALL.

3.) RIP-RAP SLOPES ARE TO BE CONSTRUCTED PER MaineDOT STANDARD DETAIL 610(03), AUGUST 2010.

4.) THE CONTRACTOR SHALL DESIGN AND PROVIDE A MECHANICALLY STABALIZED EARTH (MSE) RETAINING WALL IN ACCORDANCE WITH SPECIAL SPECIFICATION SECTION 636 MODIFIED IN ACCORDANCE WITH SPECIAL PROVISION SECTION 636. THE MSE WALL SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 11 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND SPECIAL PROVISION 636. ALL DESIGN COMPUTATIONS AND SHOP DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MAINE AND SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW. PLAN DETAILS ARE FOR ESTIMATING PURPOSES ONLY.

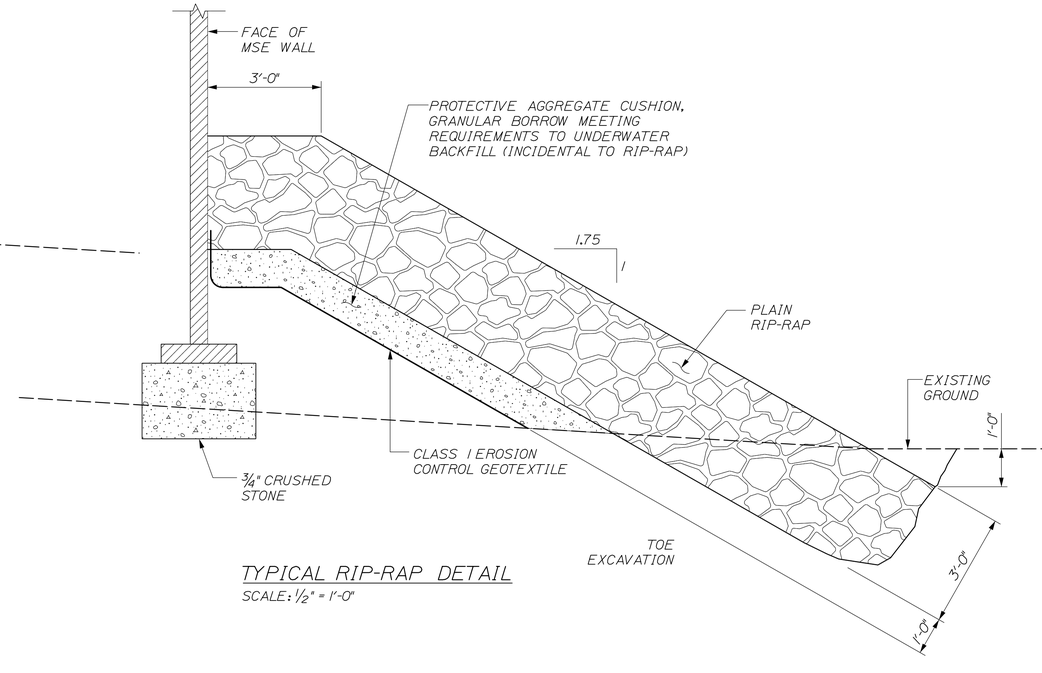
5.) THE BEARING RESISTANCE FOR THE REINFORCED SOIL VOLUMES AND LEVELING PADS FOUNDED ON NATIVE SOILS AT THIS SITE WILL BE EVALUATED AT THE STRENGTH LIMIT STATE USING FACTORED LOADS AND A FACTORED BEARING RESISTANCE OF 7.7 KSF WITH A REINFORCMENT LENGTH OF 16 FEET OR LONGER. A FACTORED BEARING RESISTANCE OF 6.0 KSF SHALL BE USED WEN ANALYZING THE SERVICE LIMIT STATE. REFER TO SOILS REPORT No. 2011-11 FOR ADDITIONAL INFORMATION.

6.) PROVIDE IMPERVIOUS WATERPROOFING MEMBRANE OVER THE REINFORCED ZONE IN ACCORDANCE WITH SPECIAL PROVISION 636. IMPERVIOUS MEMEBRANE AND ACCESSORIES SHALL BE INCIDENTAL TO PAY ITEM 636.40.

7.) TOP SOIL AND ORGANIC SOIL SHALL BE ENTIRELY REMOVED FROM THE APPROACH PLAN AREAS WITHIN 30 FEET OF THE BRIDGE ABUTMENT LOCATIONS AND WITHIN THE REINFORCED SOIL ZONE FOOTPRINT AS DIRECTED BY THE RESIDENT. EXCAVATION REQUIRED WITHIN THE PAY LIMITS OF THE MSE WALLS INCLUDING EXTRA EXCAVATION FOR UNSUITABLE FOUNDATION MATERIAL SHALL BE PAID UNDER ITEM 203.20.

8.) CONCRETE SURFACE FOR THE FRONT FACE SHALL HAVE A SMOOTH STEEL FORMED FINISH. THE REAR FACE SHALL HAVE AN UNFORMED SURFACE FINISH. THE REAR FACE OF THE PANEL SHALL BE LIGHTLY SCREEDED TO ELIMINATE OPEN POCKETS OF AGGREGATE AND SURFACE DISTORTIONS IN EXCESS OF 1/4".

9.) MSE WALL STRAPS SHALL BE ORIENTED TO AVOID INTERFERENCE WITH THE GUARDRAIL POST DRIVING OPERATION.



TYPICAL RIP-RAP DETAIL

SCALE: 1/2" = 1'-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC J. CALDERWOOD
No. 9099
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	BY	DATE
PROJ. MANAGER	NATE BENOIT	
DESIGN-DETAILED	JJH	NOV 2011
CHECKED-REVIEWED	DCK	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

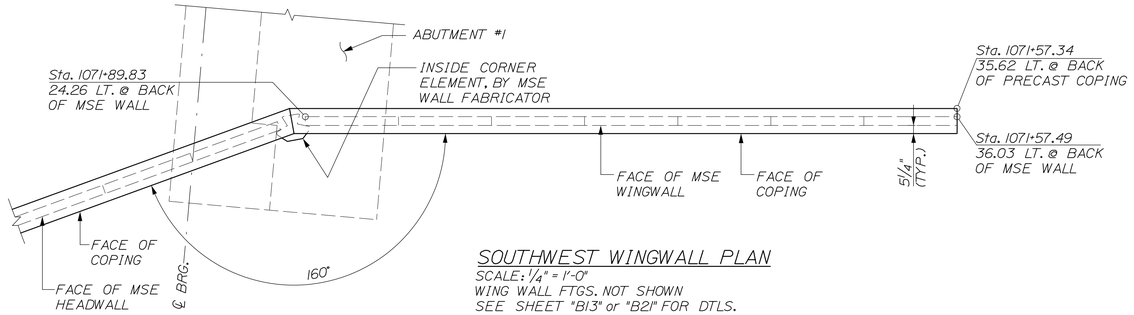
ELLSWORTH
ROUTE 180

WINGWALL TYPICAL SECTION & NOTES

SHEET NUMBER

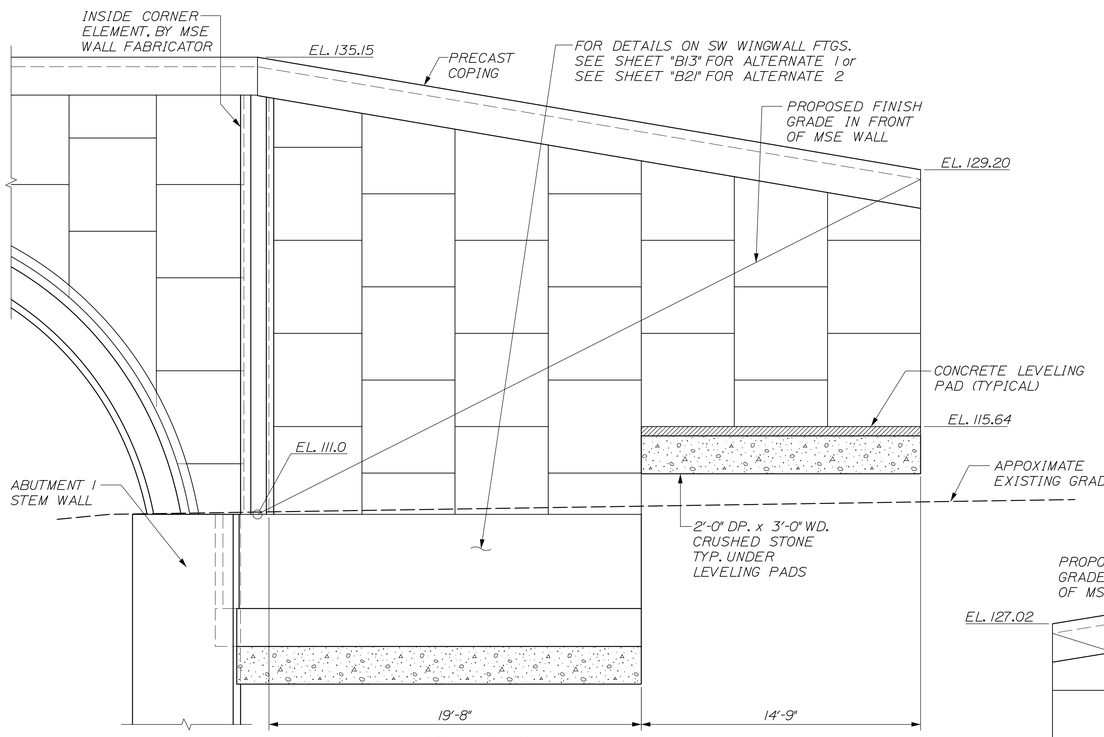
B28

Filename: ...\028_WingWall_Dtls.dgn Division: BRIDGE Username: common Date:6/8/2012



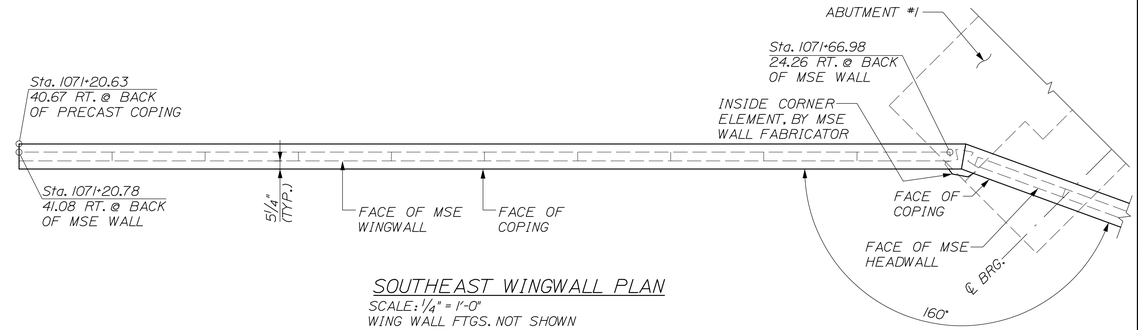
SOUTHWEST WINGWALL PLAN

SCALE: 1/4" = 1'-0"
WING WALL FTGS. NOT SHOWN
SEE SHEET "B13" or "B21" FOR DTLS.



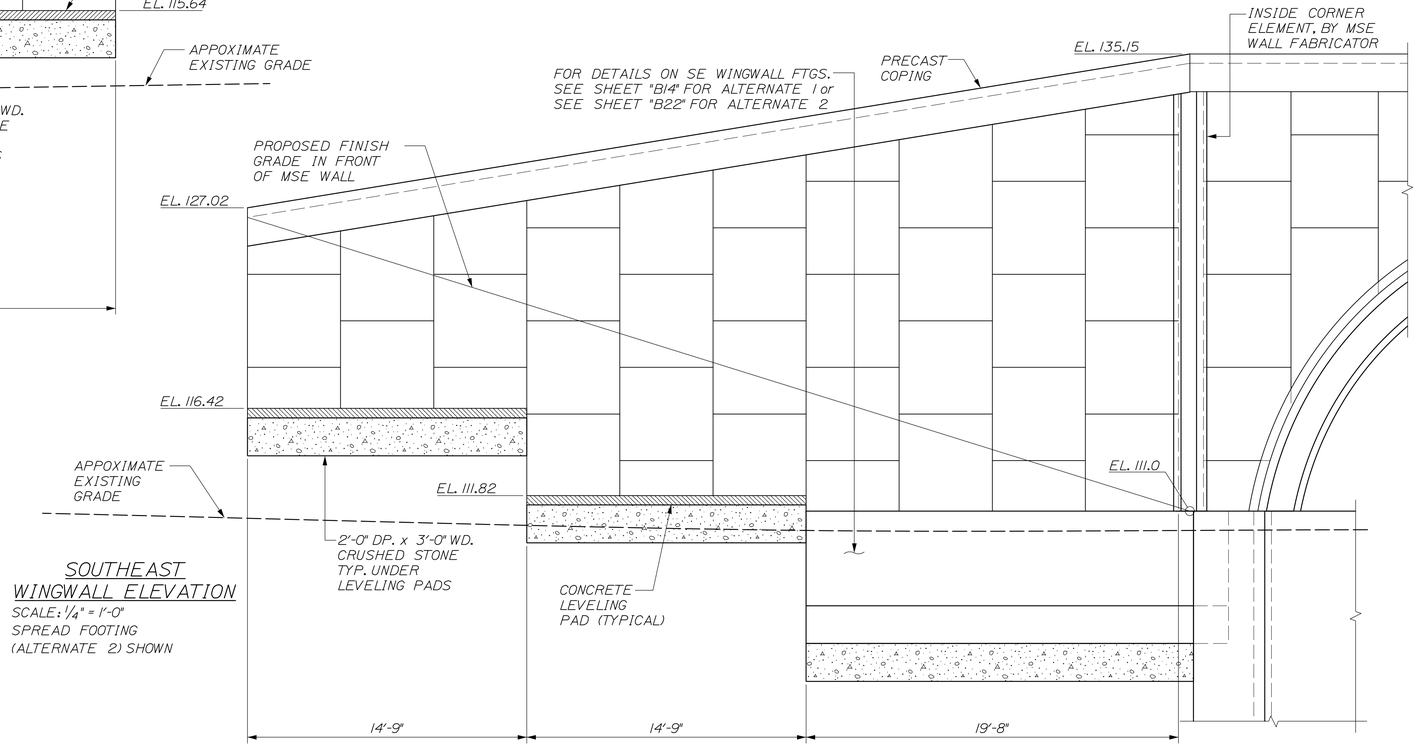
SOUTHWEST WINGWALL ELEVATION

SCALE: 1/4" = 1'-0"
SPREAD FOOTING
(ALTERNATE 2) SHOWN



SOUTHEAST WINGWALL PLAN

SCALE: 1/4" = 1'-0"
WING WALL FTGS. NOT SHOWN
SEE SHEET "B14" or "B22" FOR DTLS.



SOUTHEAST WINGWALL ELEVATION

SCALE: 1/4" = 1'-0"
SPREAD FOOTING
(ALTERNATE 2) SHOWN

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC J. CALDERWOOD
No. 9099
LICENSED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	BY	DATE
PROJ. MANAGER	NATE BENOIT	
DESIGN-DETAILED	JJH	NOV 2011
CHECKED-REVIEWED	GCK	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

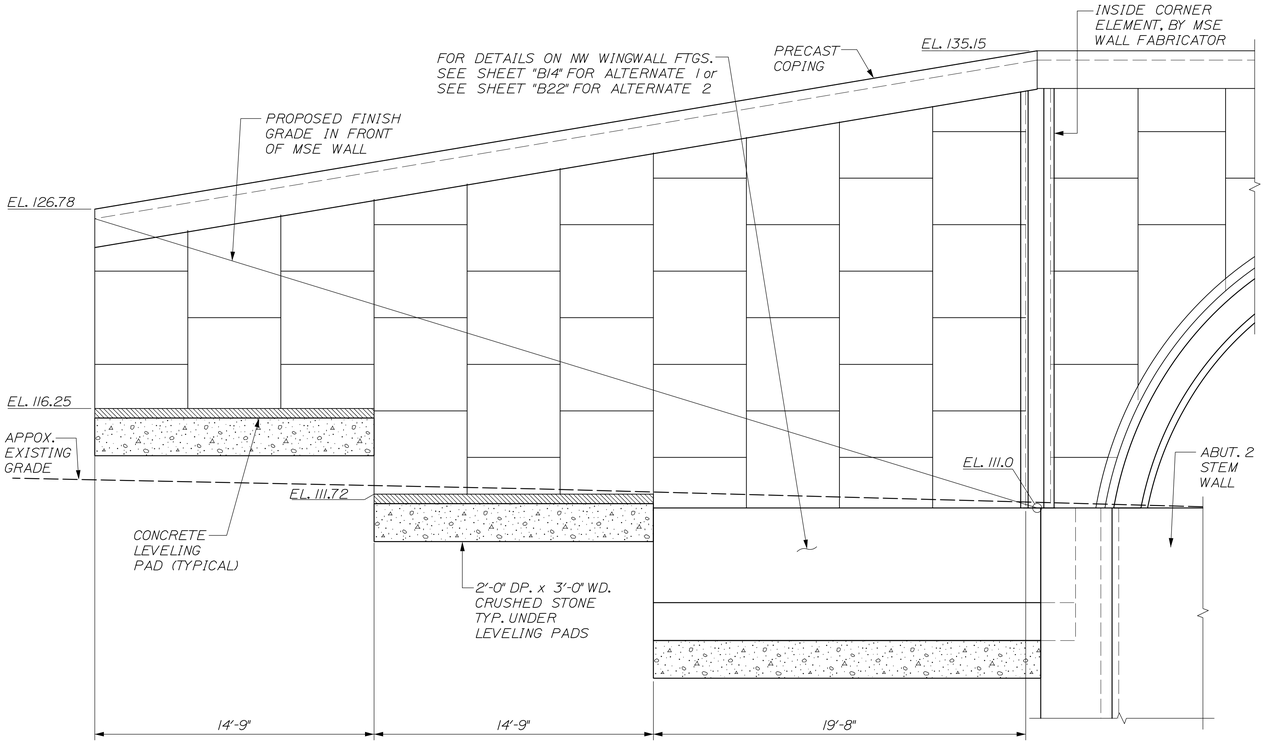
ELLSWORTH
ROUTE 180

ABUTMENT #1
WINGWALLS

SHEET NUMBER

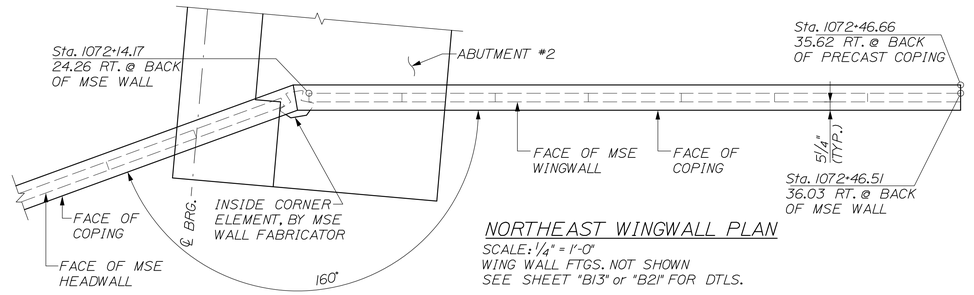
B29

Filename: ...\029_WingWall_DTls.dgn Division: BRIDGE Username: common Date:5/14/2012



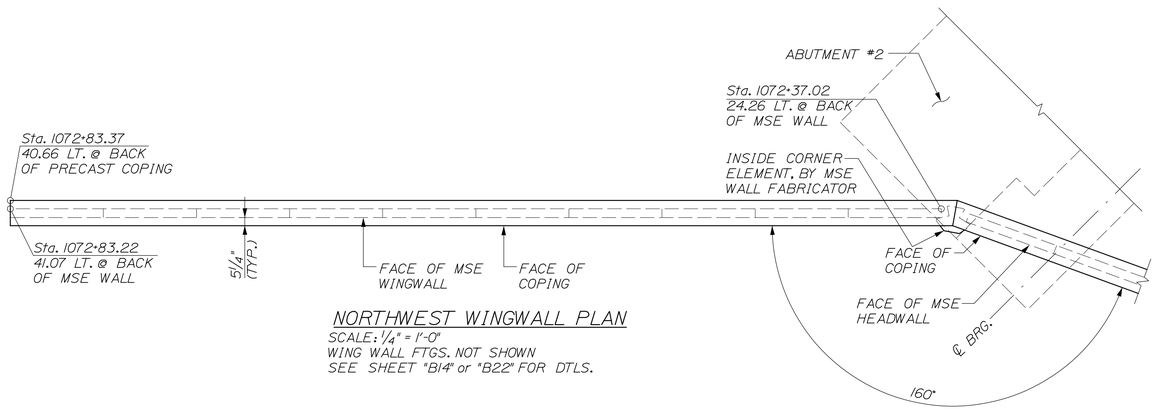
NORTHWEST WINGWALL ELEVATION

SCALE: 1/4" = 1'-0"
SPREAD FOOTING (ALTERNATE 2) SHOWN



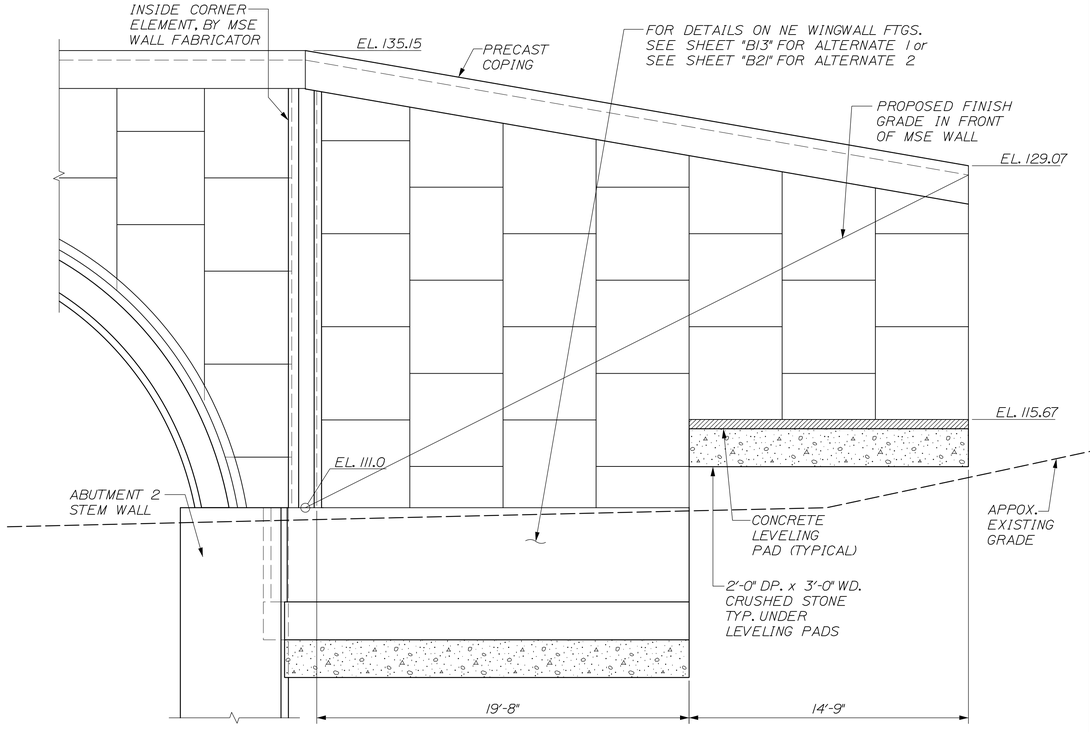
NORTHEAST WINGWALL PLAN

SCALE: 1/4" = 1'-0"
WING WALL FTGS. NOT SHOWN
SEE SHEET "B13" or "B21" FOR DTLS.



NORTHWEST WINGWALL PLAN

SCALE: 1/4" = 1'-0"
WING WALL FTGS. NOT SHOWN
SEE SHEET "B14" or "B22" FOR DTLS.



NORTHEAST WINGWALL ELEVATION

SCALE: 1/4" = 1'-0"
SPREAD FOOTING (ALTERNATE 2) SHOWN

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

10063.10

WIN 10063.10

HIGHWAY PLANS

STATE OF MAINE
ERIC J. CALDERWOOD
No. 9099
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 9099

DATE NOVEMBER 2011

	BY	DATE
PROJ. MANAGER	NATE BENOIT	
DESIGN-DETAILED	JJH	NOV 2011
CHECKED-REVIEWED	CGK	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

ELLSWORTH
ROUTE 180

ABUTMENT #2
WINGWALLS

SHEET NUMBER

B30

Filename: ...\030_WingWall_Dtls.dgn Division: BRIDGE Username: common Date:5/14/2012