

STATE OF MAINE DEPARTMENT OF TRANSPORTATION

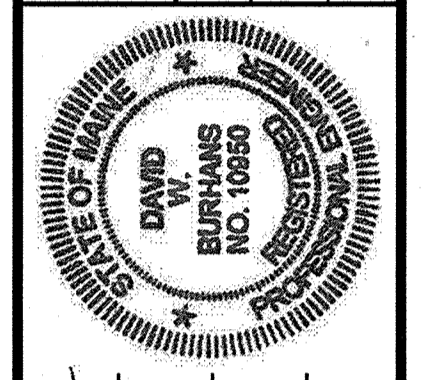


COLUMBIA WASHINGTON COUNTY U.S. ROUTE 1 PROJECT NO. 021772.00 PROJECT LENGTH : 0.057 MILES

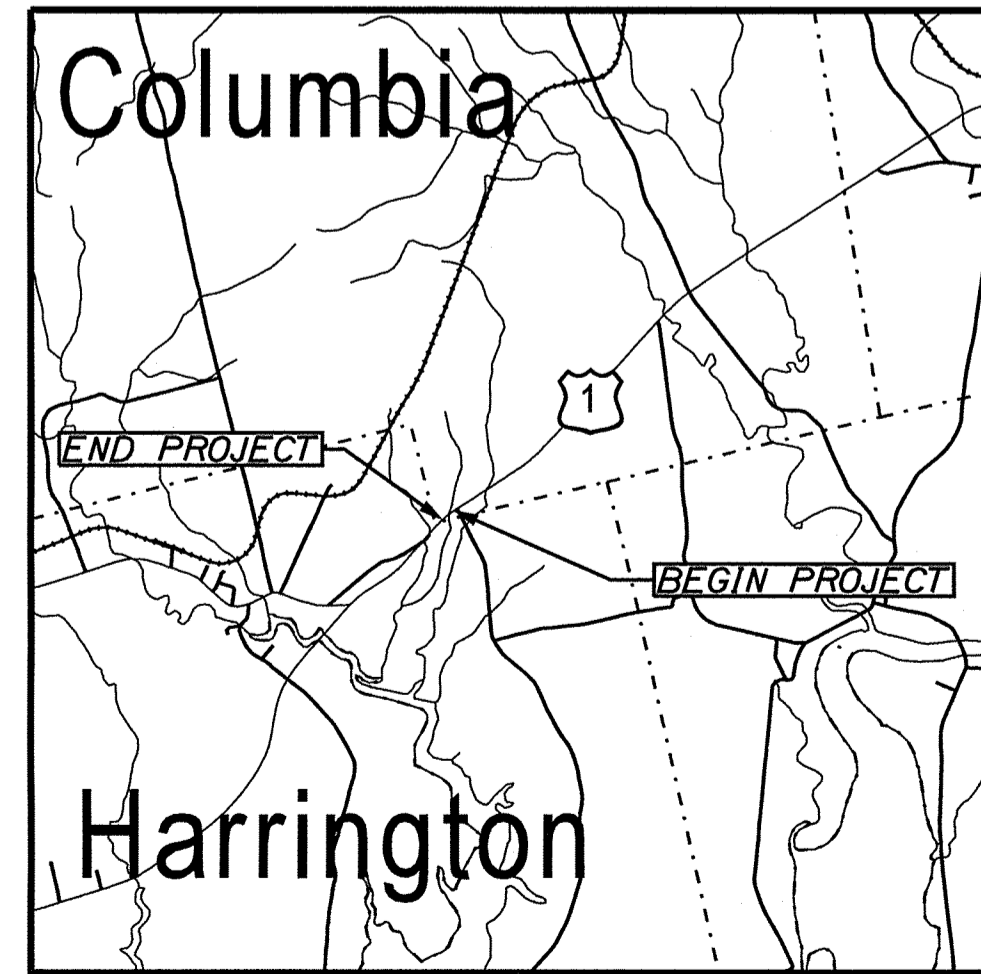
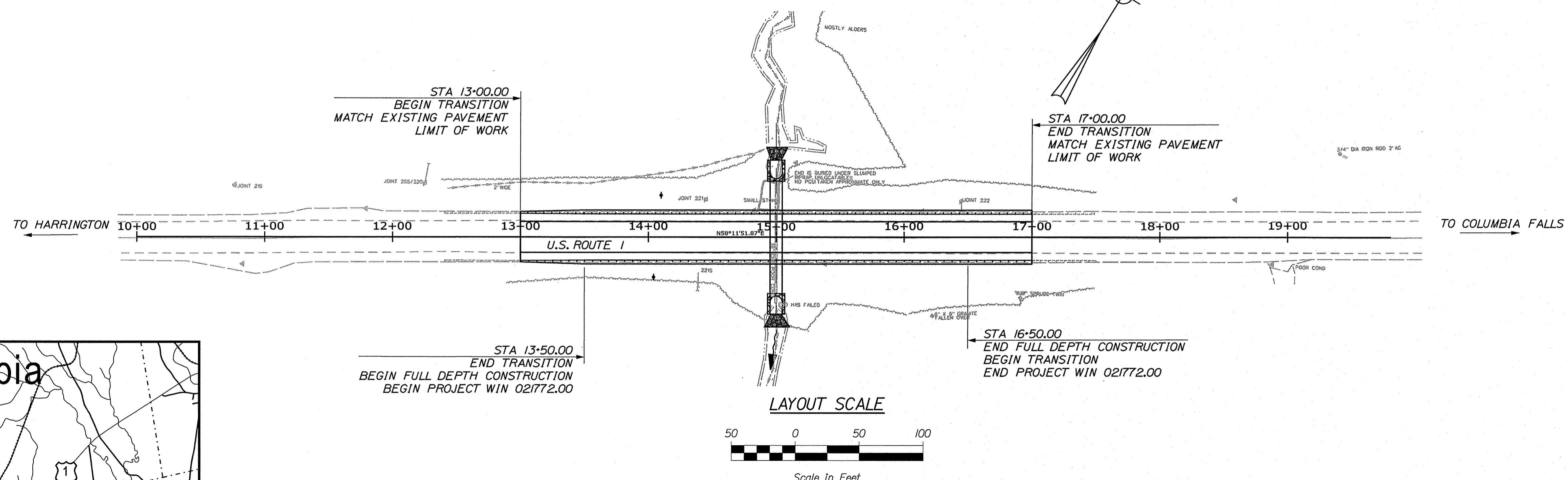
PLAN LEGEND	
Town, County, State	-----
Property Lines	-----
R/W Lines-Existing	-----
R/W Lines-Proposed	-----
Culvert-Existing	=====
Culvert Proposed	=====
Curbing Existing	=====
Curbing Proposed	=====
Type 1	=====
Type 3	=====
Type 5	=====
Outline of Bodies of Water	=====
Exposed Bedrock	=====
Buildings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

INDEX OF SHEETS	
Description	Sheet No.
Title Sheet	1
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Boring Location Plan	6
Interpretive Subsurface Profile	7
Boring Logs	8
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Daft Right of Way Map	14

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: [Signature]	[Signature]	4-24-2020
CHIEF ENGINEER: [Signature]	[Signature]	4-23-2020



[Signature]	SIGNATURE	P.E. NUMBER	DATE



TRAFFIC DATA	
Current (2020) AADT	4650
Future (2032) AADT	4930
DHV - % of AADT	11%
Design Hour Volume	542
% Heavy Trucks (AADT)	12%
% Heavy Trucks (DHV)	10%
Directional Distribution (DHV)	51%
18 kip Equivalent P 2.0	281
18 kip Equivalent P 2.5	268
Design Speed (mph)	55
Functional Class	RURAL MINOR ARTERIAL
Corridor Priority	2

PROJECT LOCATION:	Located on U.S. Route 1 in Columbia 0.35 miles southwest of the Columbia Falls town line.
PROGRAM AREA:	Highway Program
SCOPE OF WORK:	Large culvert replacement

TYLIN INTERNATIONAL

WIN 021772.00

**COLUMBIA
US ROUTE 1
TITLE SHEET**

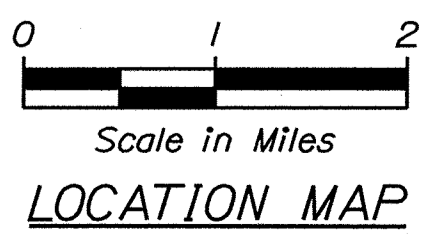
SHEET NUMBER
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OF 14

Date: 3/30/2020

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Division: HIGHWAY

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Date: 3/30/2020

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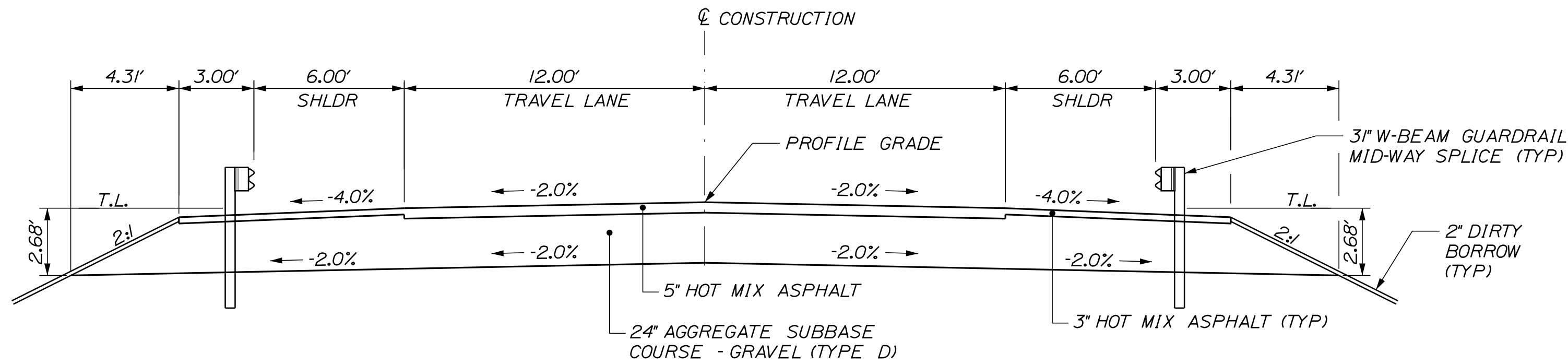
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ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	1450	CY
203.25	GRANULAR BORROW	80	CY
203.33	SPECIAL FILL - STREAMBED MATERIAL	56	CY
203.55	CULVERT BEDDING STONE	110	CY
206.061	STRUCTURAL EARTH EXCAVATION - DRAINAGE MINOR STRUCTURE BELOW GRADE	56	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	1200	CY
403.208	HOT MIX ASPHALT, 12.5 MM NOMINAL MAX. SIZE (SURFACE)	160	T
403.213	HOT MIX ASPHALT, 12.5 MM NOMINAL MAX. SIZE (BASE)	270	T
409.15	BITUMINOUS TACK COAT, APPLIED	96	G
511.07	COFFERDAM: UPSTREAM	1	LS
511.07	COFFERDAM: DOWNSTREAM	1	LS
526.301	TEMPORARY CONCRETE BARRIER TYPE I	1	LS
527.34	WORK ZONE CRASH CUSHIONS	4	UN
603.2891	96" RCP CLASS III	120	LF
603.55	CONCRETE PIPE TIES	4	GP
606.1301	3" W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, SINGLE FACED)	800	LF
606.363	GUARDRAIL, REMOVE AND DISPOSE	800	LF
610.08	PLAIN RIPRAP	40	CY
610.210	STREAM CHANNEL ROCK	32	CY
610.212	STREAMBED ROCK FEATURES	4	CY
615.10	DIRTY BORROW	160	CY
618.14	SEEDING METHOD NUMBER 2	26	UN
619.12	MULCH	26	UN
620.54	STABILIZATION/REINFORCEMENT GEOTEXTILE	440	SY
620.58	EROSION CONTROL GEOTEXTILE	165	SY
620.65	REINFORCEMENT GEOGRID	165	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	1200	LF
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	HR
631.172	LARGE TRUCK (INCLUDING OPERATOR)	20	HR
639.19	FIELD OFFICE TYPE B	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.312	TYPE III BARRICADE	6	EA
652.33	DRUM	50	EA
652.34	CONE	75	EA
652.35	CONSTRUCTION SIGN	250	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	90	CD
652.38	FLAGGER	375	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	2	EA
652.61	STAGED CONSTRUCTION AND TRAFFIC CONTROL	1	LS
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

GENERAL NOTES:

- PAVEMENT THICKNESSES SHOWN ON THE TYPICAL SECTIONS ARE INTENDED TO BE NOMINAL.
- CLEARING LIMITS SHALL BE 10 FEET BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE AUTHORIZED BY THE RESIDENT.
- ALL CLEARING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPERATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AS INDICATED ON THE PLANS AND APPROVED BY THE RESIDENT.
- GRUBBING IN FILL AREAS HAS BEEN SHOWN ON THE CROSS SECTIONS AND THE QUANTITIES NOTED. THESE LIMITS ARE APPROXIMATE AND HAVE BEEN USED FOR ESTIMATING PURPOSES ONLY. ACTUAL GRUBBING LIMITS MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY THE RESIDENT.
- ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN ACCEPTABLE WASTE AREAS REVIEWED BY THE RESIDENT. GRADING, SEEDING, AND MULCHING OF WASTE AREAS SHALL BE CONSIDERED INCIDENTAL.
- EXISTING INSLOPES IN PROPOSED FILL AREAS SHALL BE BENCHED BY EXCAVATING STEPS OF SUFFICIENT WIDTH TO PERMIT PLACING AND COMPACTING THE FILL MATERIAL ALONG WITH THE MATERIAL REMOVED.
- CROSS SLOPES FOR NORMAL AND SUPERELEVATED SECTIONS WILL BE STRAIGHT UNLESS OTHERWISE DIRECTED BY THE DEPARTMENT.
- THE ALGEBRAIC DIFFERENCE BETWEEN TRAVELWAY AND SHOULDER CROSS SLOPE SHALL NOT EXCEED 8 PERCENT.
- ALL EXISTING GUARDRAIL REMOVED AND NOT REUSED ON THE PROJECT WILL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVAL AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.
- CONNECTIONS FOR PROPOSED GUARDRAIL TO EXISTING GUARDRAIL WILL BE CONSIDERED INCIDENTAL TO STANDARD SPECIFICATIONS SECTION 606, GUARDRAIL.
- DIRTY BORROW HAS BEEN ESTIMATED FOR ALL DISTURBED SLOPE AREAS OTHER THAN LAWN AREAS. ACTUAL PLACEMENT OF THE DIRTY BORROW SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
- UNLESS OTHERWISE NOTED SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS; SEEDING METHOD NO. 2 SHALL BE UTILIED ON ALL OTHER AREAS.
- DIRTY BORROW SHALL BE PLACED TO A NOMINAL DEPTH OF 2 INCHES UNLESS OTHERWISE NOTED OR DIRECTED.
- 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.
- THE PROJECT GEOTECHNICAL REPORT TITLED "GEOTECHNICAL DESIGN REPORT FOR THE REPLACEMENT OF: CROSS CULVERT *XC-26958", SOILS REPORT 2020-07, MARCH 27, 2020 CAN BE ACCESSED AT THE MAINEDOT WEBSITE [HTTP://WWW.MAINE.GOV/MDOT/CONTRACTORS/](http://www.maine.gov/mdot/contractors/).
- GEOTECHNICAL INFORMATION FURNISHED OR REFERRED TO IN THE BID DOCUMENTS IS FOR THE USE OF THE BIDDERS. NO ASSURANCE IS GIVEN THAT THE INFORMATION OR INTERPRETATIONS WILL BE REPRESENTATIVE OF THE ACTUAL SUBSURFACE CONDITIONS DRAWN FROM THE GEOTECHNICAL INFORMATION. THE BORING LOGS PROVIDED IN THE BID DOCUMENTS (IF ANY) PRESENT FACTUAL AND INTERPRETIVE SUBSURFACE INFORMATION COLLECTED AT DISCRETE LOCATIONS. DATA PROVIDED MAY NOT BE REPRESENTATIVE OF THE SUBSURFACE CONDITIONS BETWEEN BORING LOCATIONS.
- AREAS ON THE PROJECT REQUIRING FILL WILL COME FROM SUITABLE SITES SUCH AS EXCAVATION, DITCH, AND INSLOPE OR EQUIPMENT RENTAL AREAS.
- NO SEPERATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT AND LAYOUT OF WORK BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.
- FINAL STRIPING FOR THE PROJECT SHALL BE DONE BY THE CONTRACTOR PER THE STRIPING LAYOUT IN THE CONTRACTOR DOCUMENTS OR AS PROVIDED BY THE DEPARTMENT. PAYMENT SHALL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.



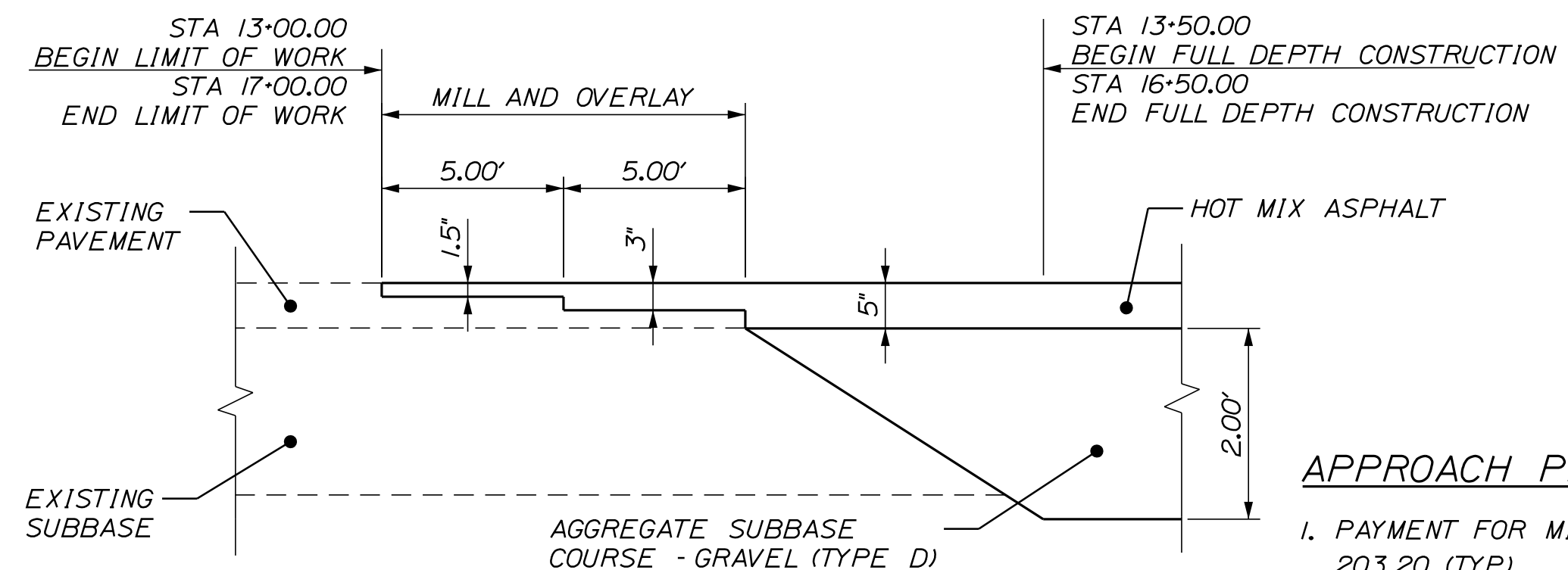
TYPICAL FULL RECONSTRUCTION
NOT TO SCALE

AGGREGATE SUBBASE COURSE GRAVEL		
LEFT SHOULDER	12' TRAVEL LANES	RIGHT SHOULDER
86.74 CY/100 LF	177.77 CY/100 LF	86.74 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
13+50 TO 16+50	13+50 TO 16+50	13+50 TO 16+50

TYPICAL FULL CONSTRUCTION NOTE:

- THE GRAVEL QUANTITY CALCULATION IS BASED ON A 2 INCH DIRTY BORROW DEPTH. THE ACTUAL DEPTH MAY VARY. SEE THE GENERAL NOTES.

T.L. = TRAVEL LANE



APPROACH PAVEMENT STEPPING
NOT TO SCALE

APPROACH PAVEMENT STEPPING NOTE:

- PAYMENT FOR MILLING SHALL BE INCIDENTAL TO ITEM 203.20 (TYP)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
021772.00
WIN
21772.00
HIGHWAY PLANS

PROJ. MANAGER	H. COWAN	BY	DATE	DATE
DESIGN-DETAILED	DWB2	PEM	8/17	
CHECKED-REVIEWED	HEC	HEC	8/17	
DESIGN-DETAILED				SIGNATURE
REVISIONS 1				P.E. NUMBER
REVISIONS 2				DATE
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

COLUMBIA
US ROUTE 1
TYPICAL SECTIONS, GENERAL NOTES
& ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 14

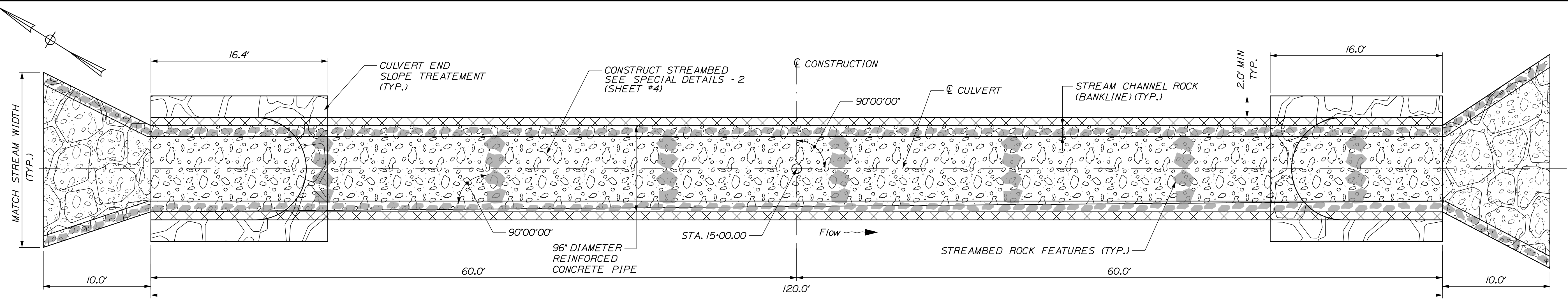
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Date: 3/30/2020

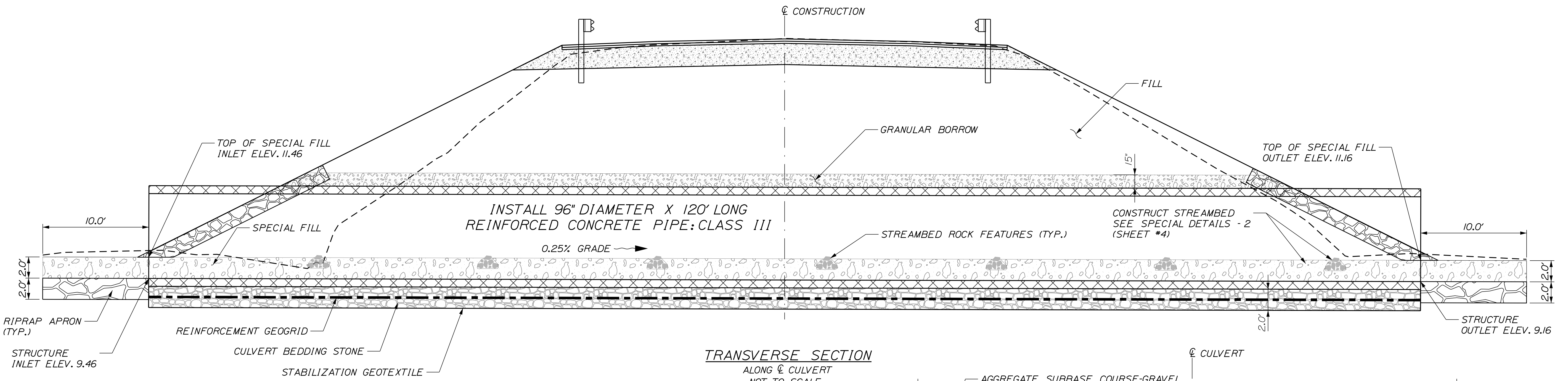
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Division: HIGHWAY

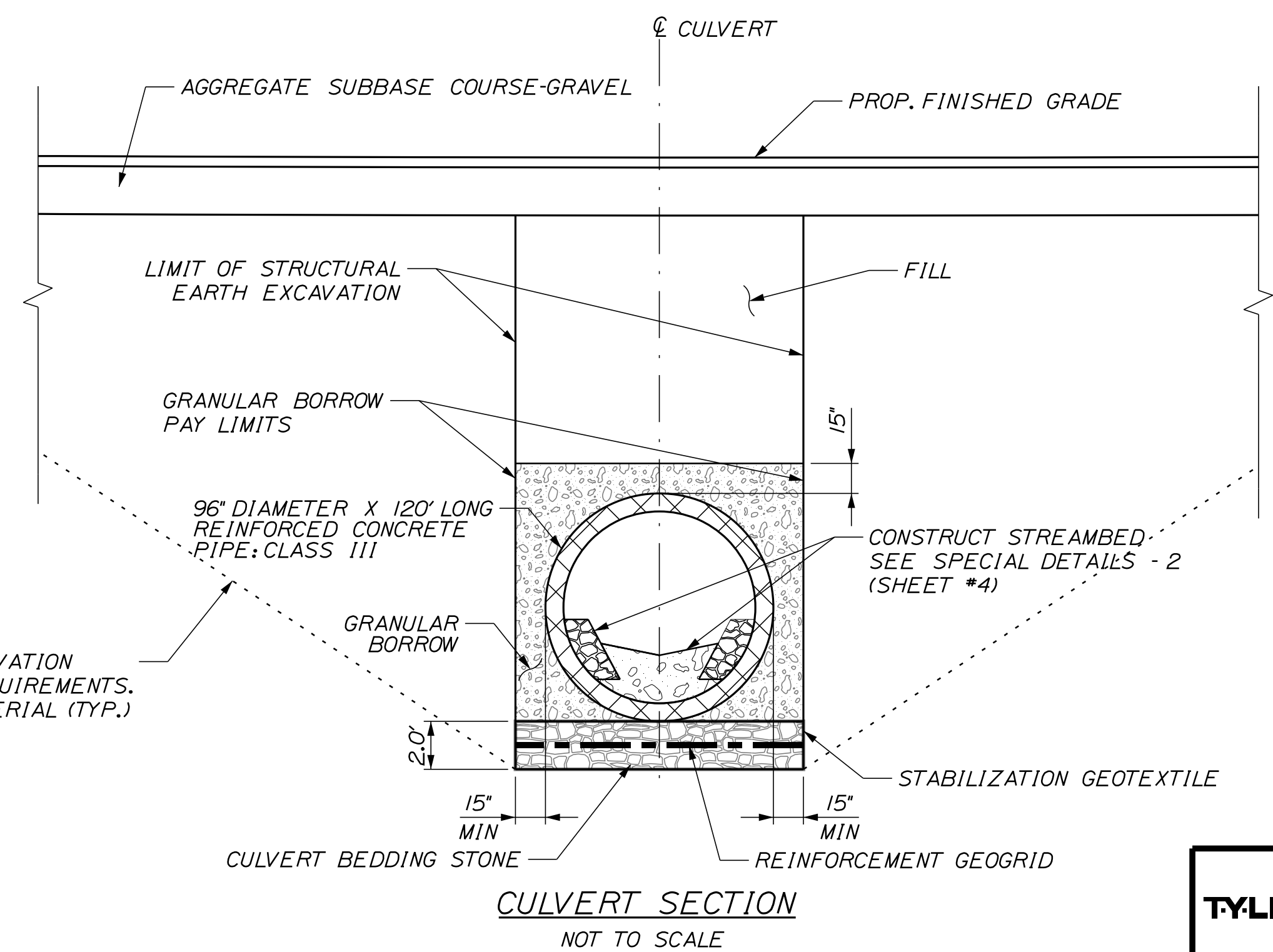
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CULVERT PLAN
NOT TO SCALE



TRANSVERSE SECTION
ALONG CULVERT
NOT TO SCALE



CULVERT SECTION
NOT TO SCALE

CULVERT NOTES:

- SPECIAL FILL SHALL BE PLACED IN THE CULVERT TO A NOMINAL DEPTH OF 2' ON CENTERLINE IN ACCORDANCE WITH SPECIAL PROVISION 203 - SPECIAL FILL, 610 - STREAM CHANNEL STONE, AND SPECIAL DETAILS - 2 (SHEET #4).
- CONSTRUCTION, HANDLING, AND ASSEMBLY OF PRECAST UNITS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS APPLICABLE.
- THE PIPE SHALL BE BEDDED ON A 2" THICK LAYER OF CULVERT BEDDING STONE (UNDERDRAIN BACKFILL MATERIAL TYPE C), WITH A LAYER OF REINFORCEMENT GEOGRID AT THE CENTER. THE CULVERT BEDDING STONE SHALL BE WRAPPED IN STABILIZATION GEOTEXTILE. PAYMENT WILL BE MADE UNDER THE APPROPRIATE CONTRACT ITEMS. PAYMENT FOR EXCAVATION NECESSARY TO PLACE CULVERT BEDDING STONE SHALL BE INCIDENTAL TO THE APPROPRIATE CONTRACT ITEMS.
- BEDDING MATERIAL SHALL MEET THE REQUIREMENTS OF SPECIAL PROVISION 203 - CULVERT BEDDING STONE.
- INLET AND OUTLET GRADING SHALL BE COORDINATED WITH THE MAINE DOT HYDROLOGY SECTION. THE CONTRACTOR SHALL GIVE THE RESIDENT A MINIMUM OF 48 HOURS NOTICE BEFORE INLET OR OUTLET GRADING MAY BEGIN. ROCK EXCAVATION, RIPRAP, AND SPECIAL FILL WILL BE PAID UNDER THE APPROPRIATE ITEMS. ALL OTHER WORK ASSOCIATED WITH THE GRADING WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- STABILIZATION GEOTEXTILE SHALL BE LAPPED A MINIMUM OF 3'.
- VOIDS IN RIPRAP APRONS SHALL BE INFILLED WITH SPECIAL FILL, WATERED-IN, AND TAMPED.

CONTRACTOR'S METHOD OF EXCAVATION IN ACCORDANCE WITH OSHA REQUIREMENTS. BACKFILL WITH EXCAVATED MATERIAL (TYP.)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
021772.00
WIN
21772.00
HIGHWAY PLANS

PROJ. MANAGER	H. COWAN	DATE	DATE
DESIGN-DETAILED	DWB2	8/17	
CHECKED-REVIEWED	HEC	8/17	
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

COLUMBIA
US ROUTE 1
SPECIAL DETAILS - 1

SHEET NUMBER

3

OF 14

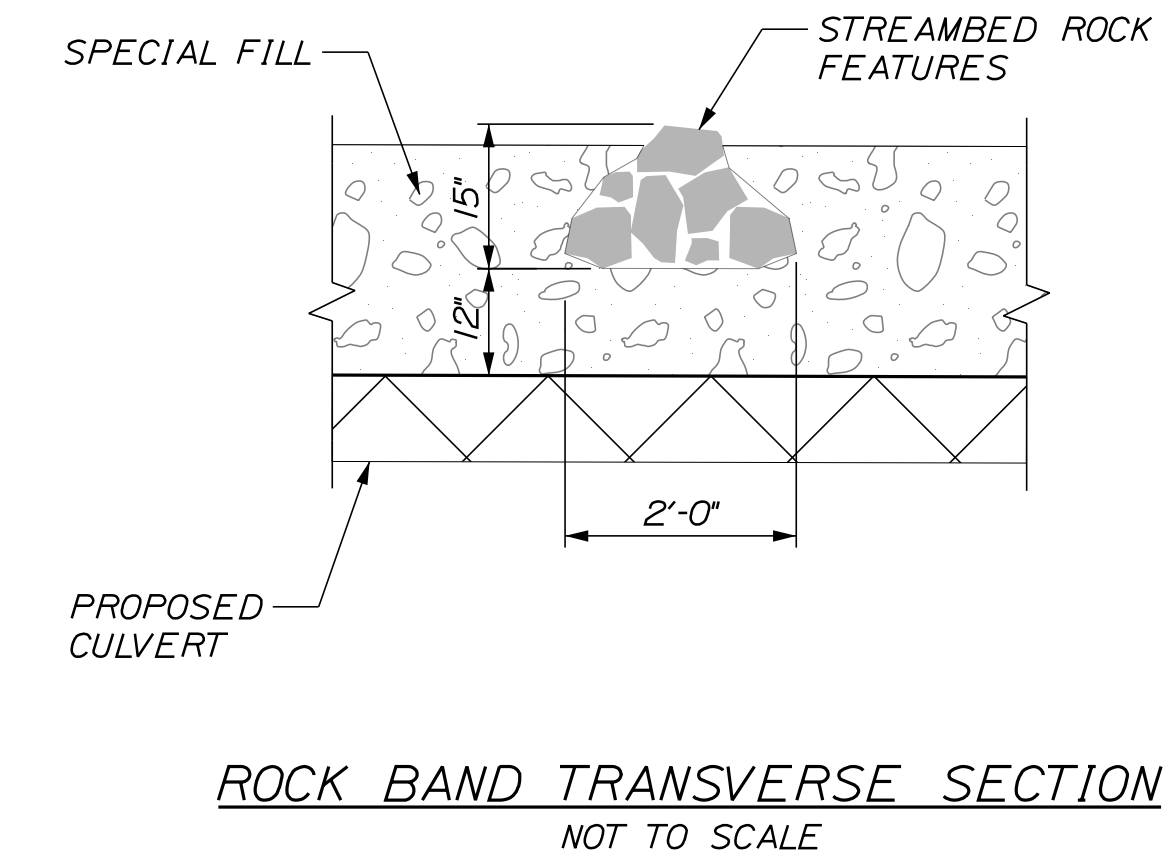
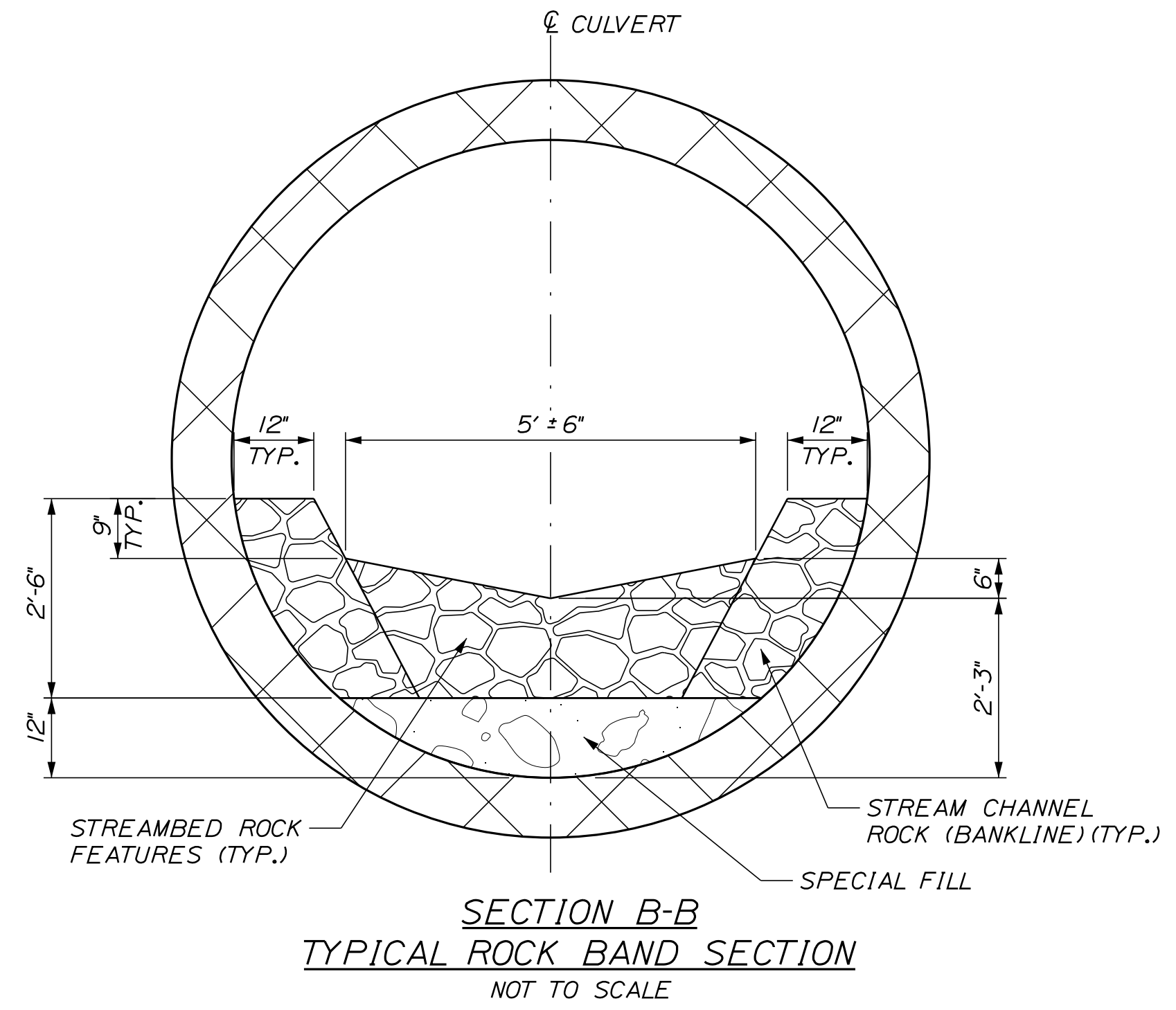
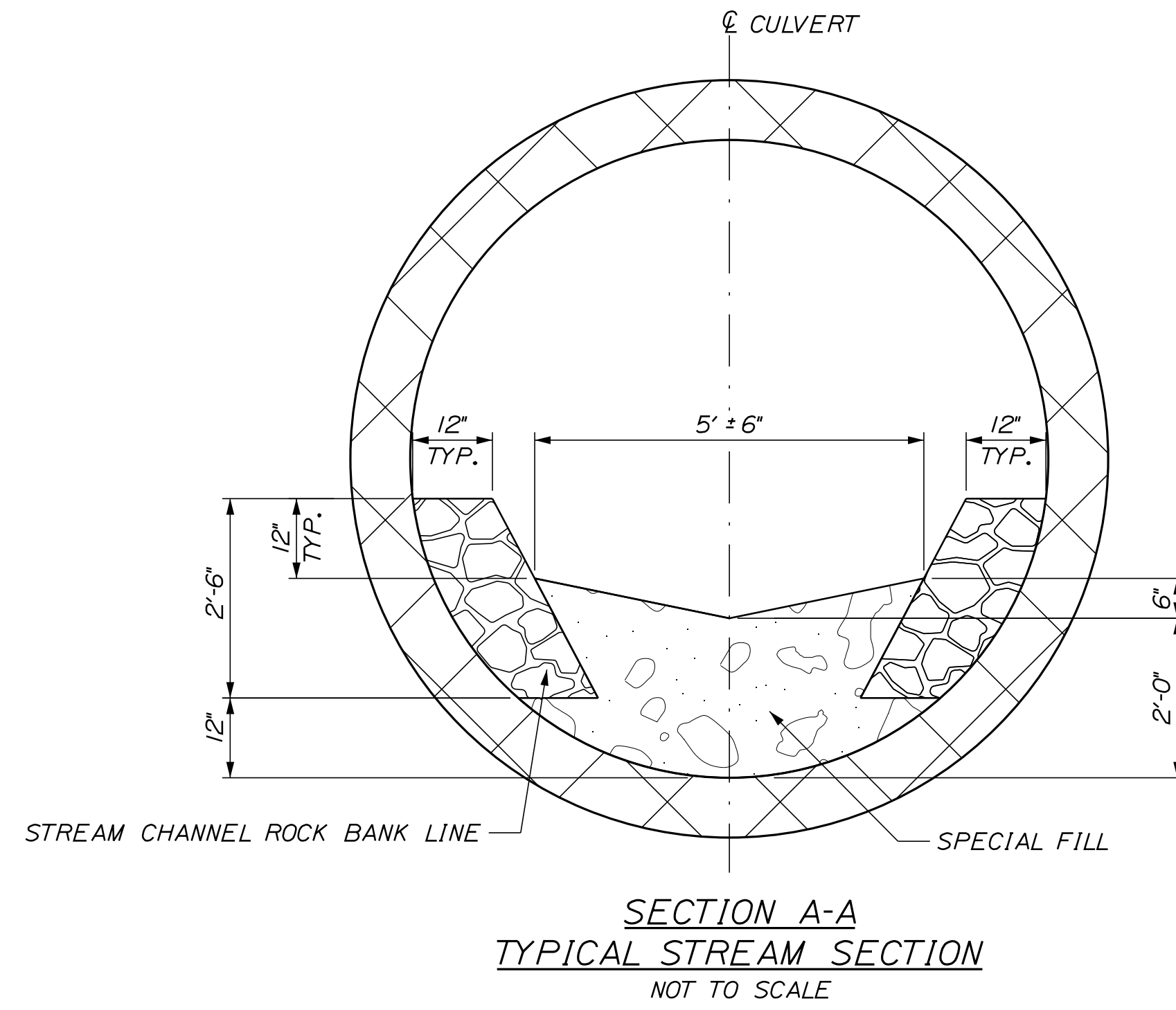
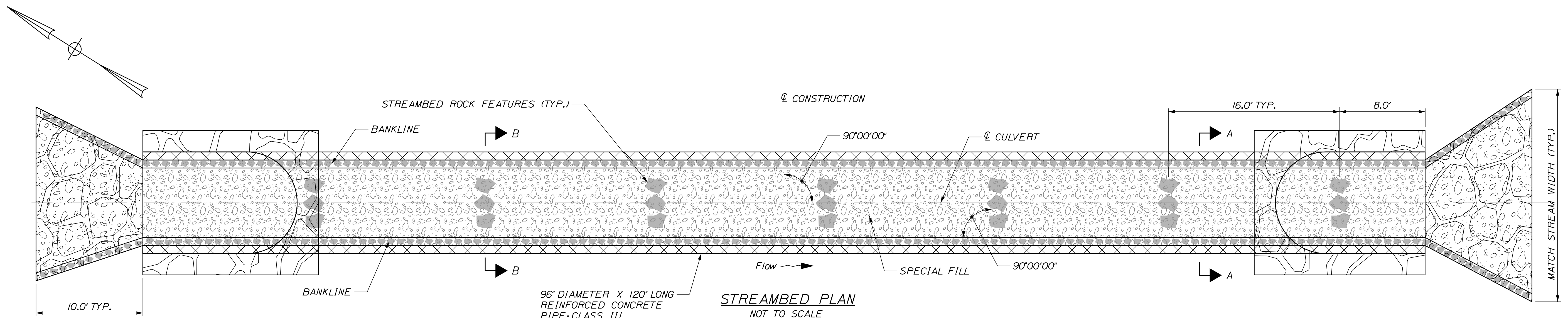
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Date: 3/30/2020

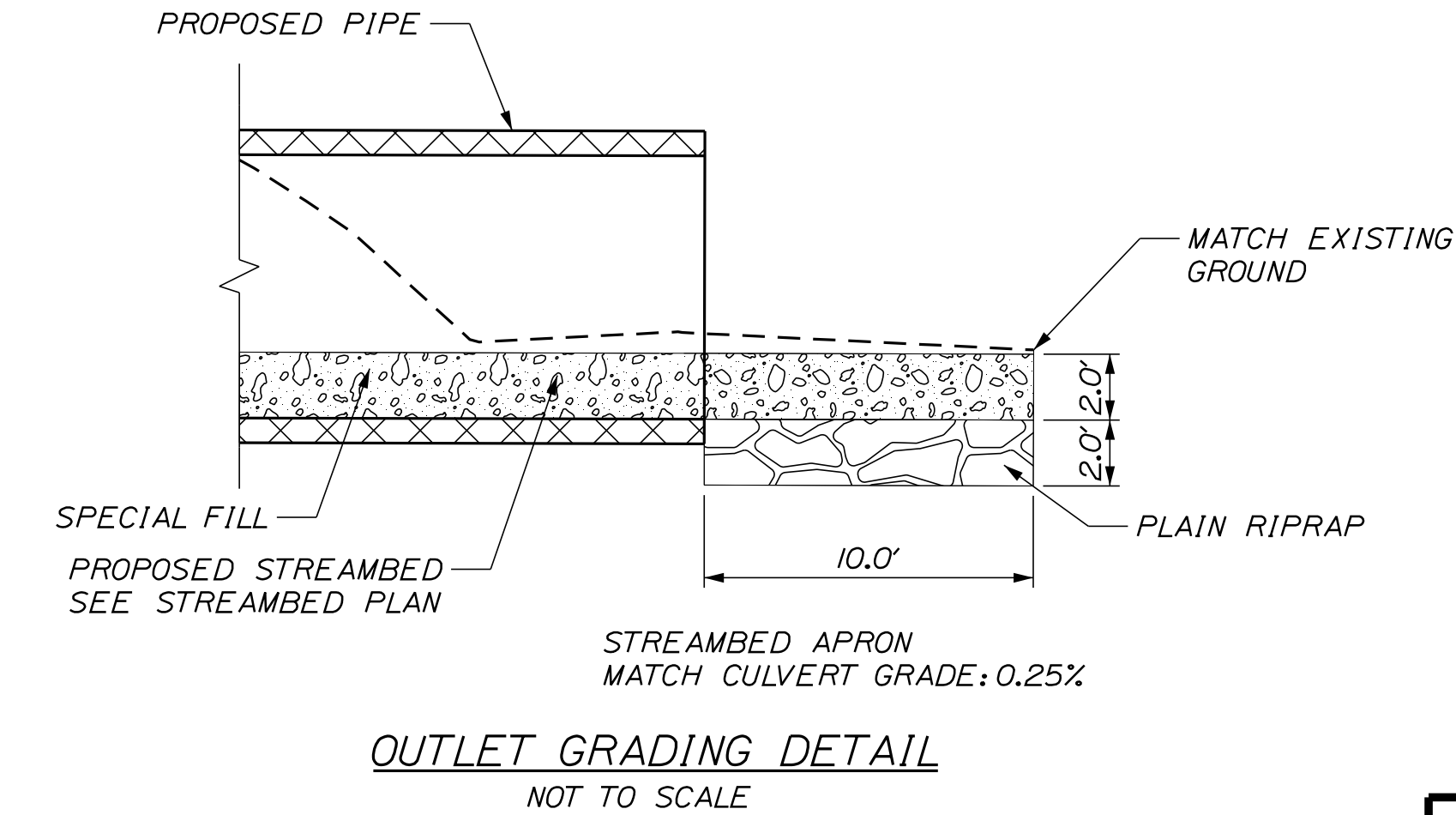
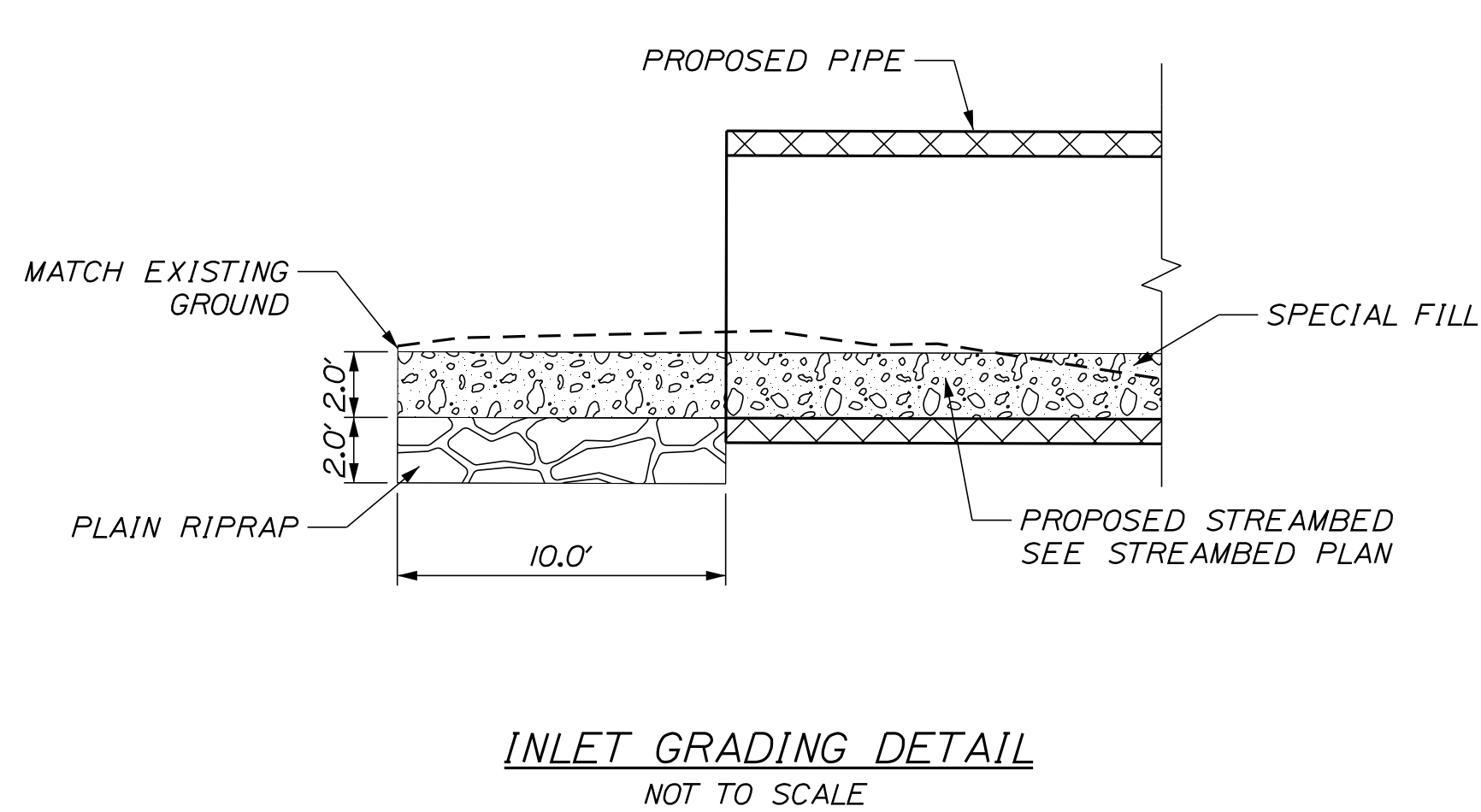
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- STREAMBED NOTES:**
- SPECIAL FILL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIAL PROVISION 203 - SPECIAL FILL.
 - SPECIAL FILL, BANKLINES, AND ROCK BANDS SHALL BE PLACED IN CULVERT SO AS TO NOT DAMAGE THE CULVERT. ANY DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT AT THE CONTRACTOR'S EXPENSE.
 - BANKLINES SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIAL PROVISION 610 - STREAM CHANNEL ROCK.
 - ROCK BANDS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIAL PROVISION 610 - STREAMBED ROCK FEATURES.
 - THE CONTRACTOR SHALL RELEASE COFFERDAMS IN A MANNER SO AS TO NOT DAMAGE OR MOVE THE STREAMBED MATERIAL. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
 - PAYMENT FOR ANY NECESSARY GRADING AT THE INLET OR OUTLET WILL BE CONSIDERED INCIDENTAL TO ITEM 203.33.
 - THE THICKNESS OF THE SPECIAL FILL SHALL BE 2 FEET AT THE CENTERLINE OF THE PIPE, FOR THE TYPICAL CULVERT SECTION AND 12 INCHES AT THE CENTERLINE OF THE PIPE WHERE ROCK BANDS ARE INSTALLED.

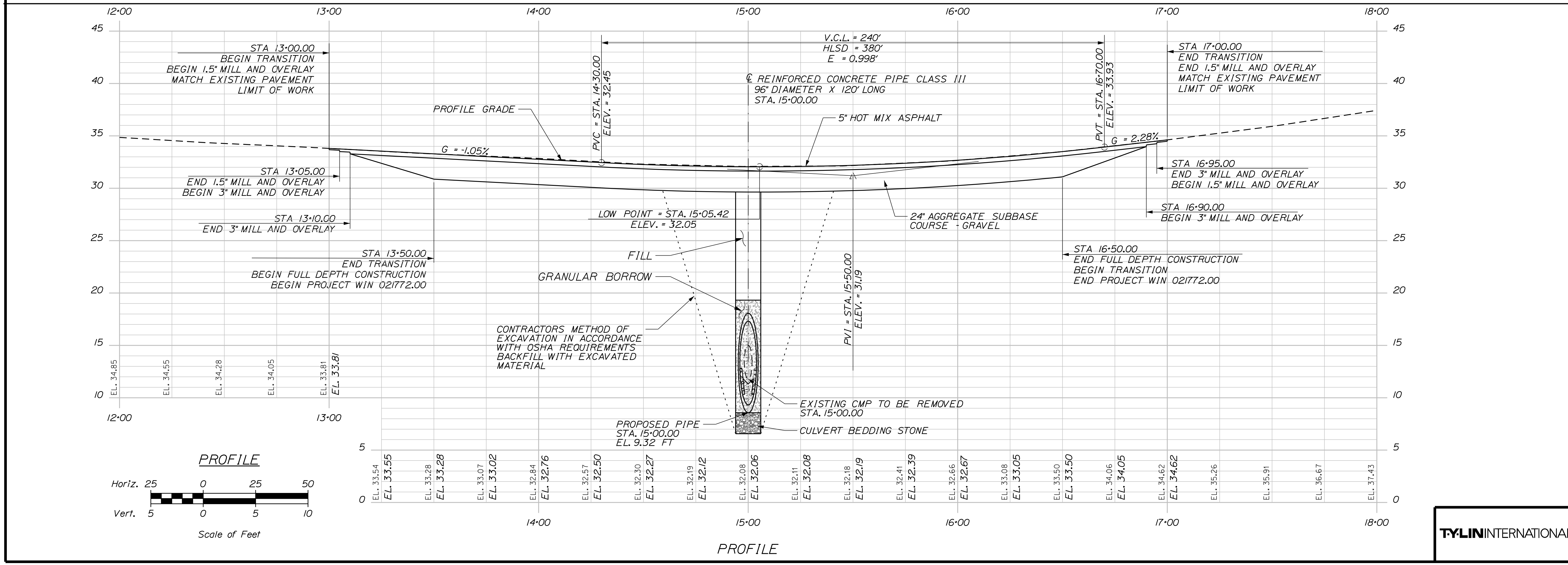
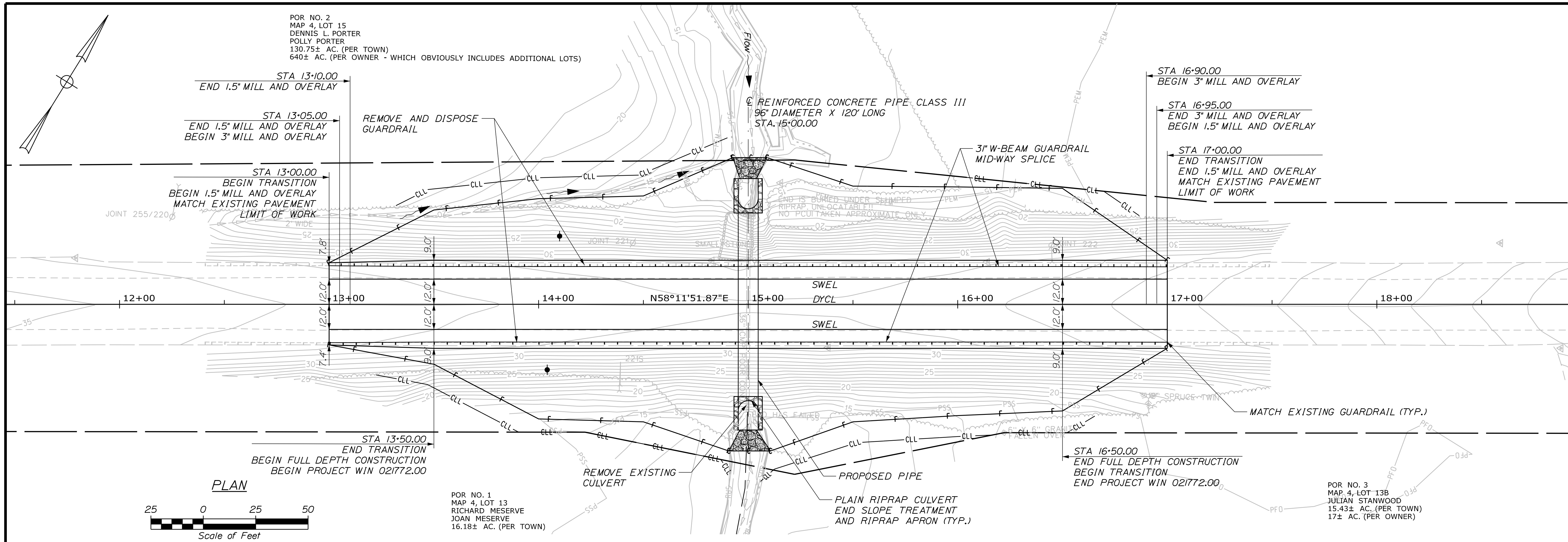


STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		021772.00		WIN		21772.00		HIGHWAY PLANS	
PROJ. MANAGER	H. COWAN	BY	DATE	DESIGN-DETAILED	DWB2	CHECKED-REVIEWED	HEC	DESIGN-DETAILED	HEC	DESIGN-DETAILED	HEC
DESIGN-DETAILED	8/17	CHECKED-REVIEWED	8/17	DESIGN-DETAILED	8/17	DESIGN-DETAILED	8/17	DESIGN-DETAILED	8/17	DESIGN-DETAILED	8/17
REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4		REVISIONS 5		REVISIONS 6	
FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES	
COLUMBIA US ROUTE 1				SPECIAL DETAILS - 2				SHEET NUMBER			
				4				OF 14			
TYLIN INTERNATIONAL											

Date: 3/30/2020

Username:

Filename: ... \00\HIGHWAY\STA005_HDPlan.dgn Division: HIGHWAY

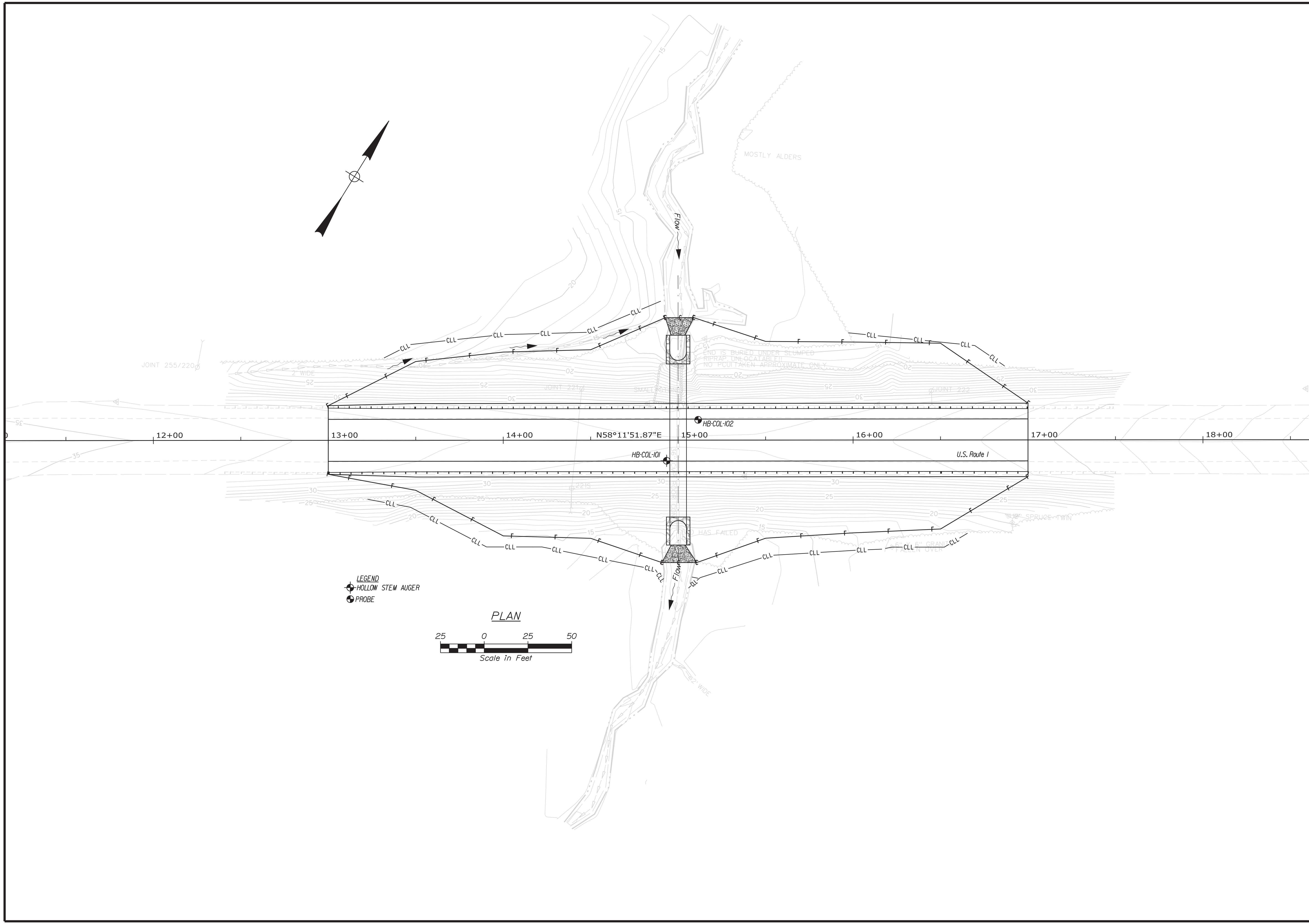


STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		PROJECT NUMBER 021772.00		WIN		HIGHWAY PLANS	
COLUMBIA		US ROUTE 1		PLAN/PROFILE		SHEET NUMBER		5	
OF 14		TYLIN INTERNATIONAL		DATE		SIGNATURE		P.E. NUMBER	
DATE		BY		H. COWAN		DESIGN-DETAILED		DATE	
8/17		PEM		DWB2		CHECKED-REVIEWED		8/17	
8/17		HEC		HEC		DESIGN-DETAILED		8/17	
						DESIGN-DETAILED			
						REVISIONS 1			
						REVISIONS 2			
						REVISIONS 3			
						REVISIONS 4			
						FIELD CHANGES			

POR NO. 2
MAP 4, LOT 15
DENNIS L. PORTER
POLLY PORTER
130.75± AC. (PER TOWN)
640± AC. (PER OWNER - WHICH OBVIOUSLY INCLUDES ADDITIONAL LOTS)

POR NO. 1
MAP 4, LOT 13
RICHARD MESERVE
JOAN MESERVE
16.18± AC. (PER TOWN)

POR NO. 3
MAP 4, LOT 13B
JULIAN STANWOOD
15.43± AC. (PER TOWN)
17± AC. (PER OWNER)



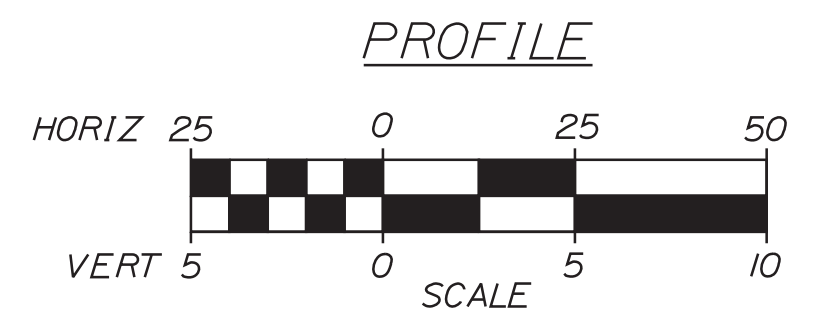
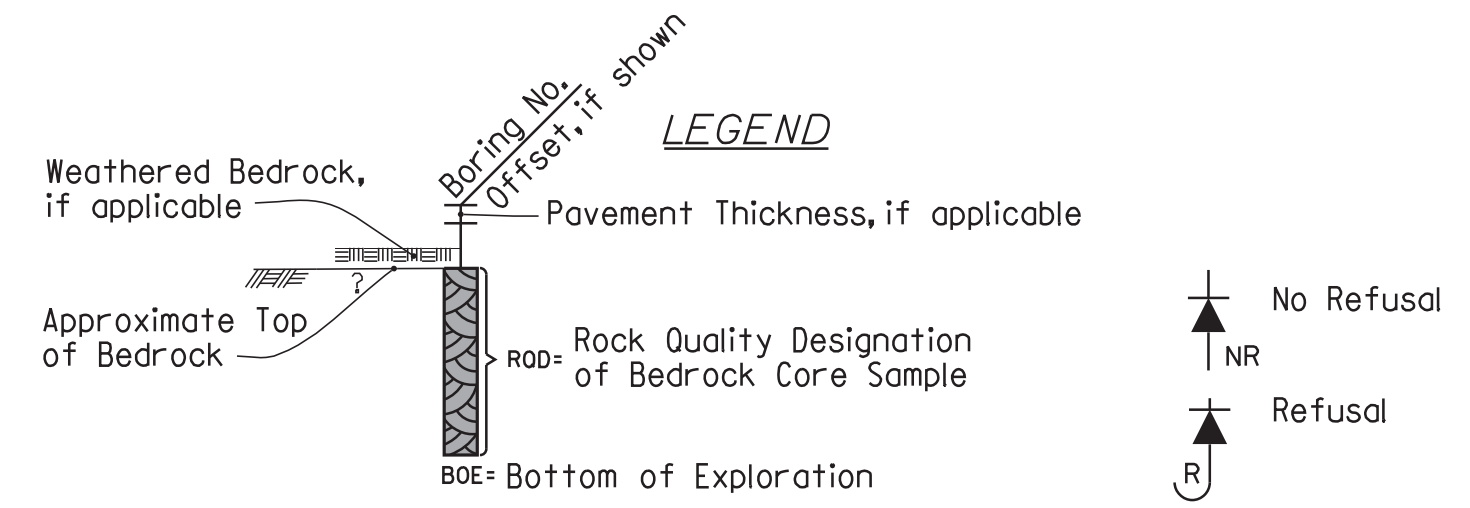
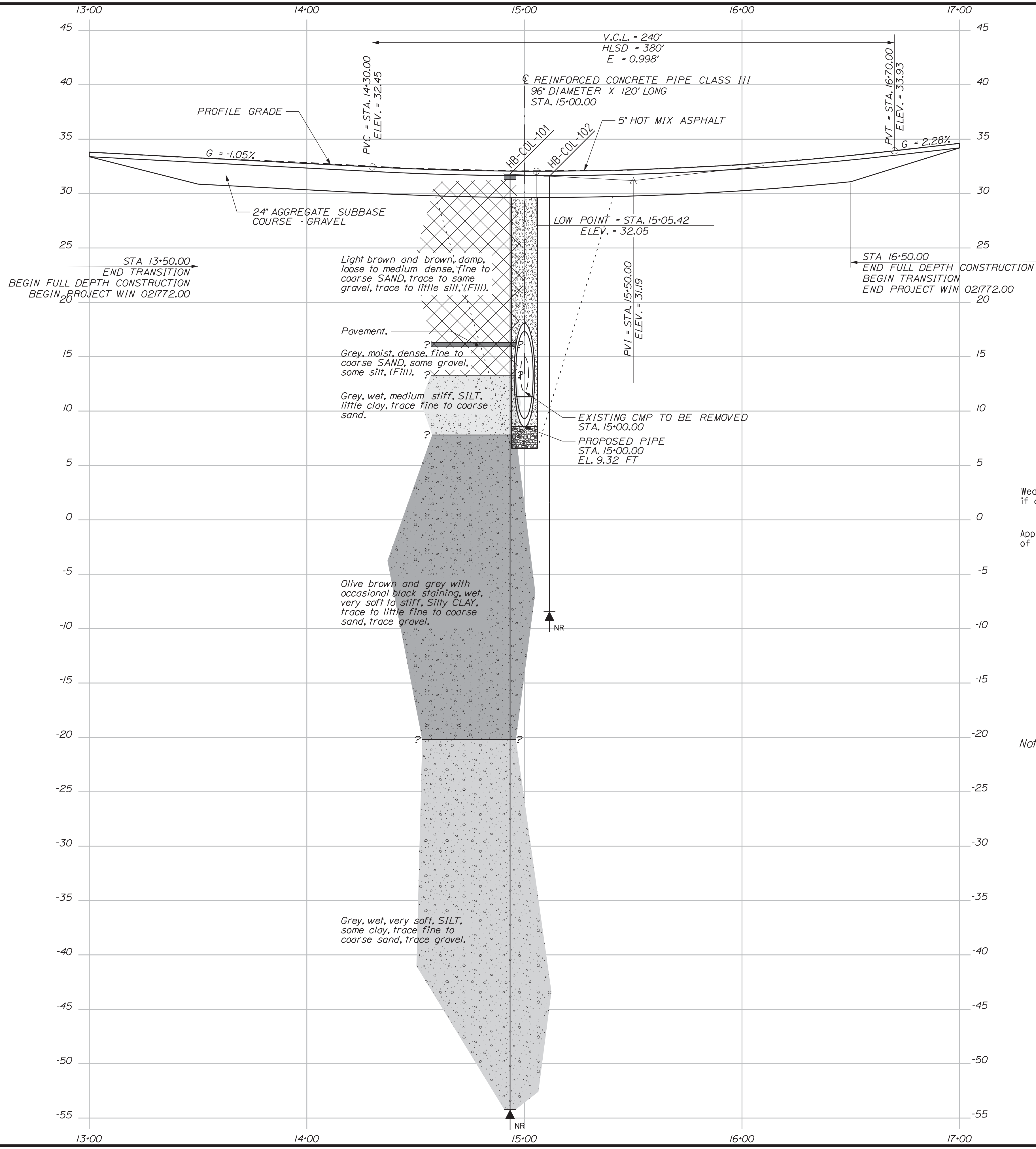
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		021772.00	
Cody A. Russell 15866		WIN 21772.00	
Cody A. Russell 15866		HIGHWAY PLANS	
STATE OF MAINE Cody A. Russell 15866 LICENSED PROFESSIONAL ENGINEER		DATE 3/27/2020	
PROJ. MANAGER	BY	DATE	DATE
DESIGN-DETAILED	T. WHITE	FEB 2020	
CHECKED-REVIEWED	C. RUSSELL		
DESIGN-DETAILED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
COLUMBIA U.S. ROUTE 1 LARGE CULVERT			
BORING LOCATION PLAN			
SHEET NUMBER			
6			
OF 14			

Date: 3/27/2020

Username: Cody A. Russell

Division: GEOTECH

Filename: ... \00\GEOTECH\MSTA\003_ISP1.dgn



Note: This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil and bedrock transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		021772.00	WIN 21772.00	HIGHWAY PLANS
Cody A. Russell	SIGNATURE	15866	P.E. NUMBER	3/27/2020
	DATE	FEB 2020		
	BY	C. RUSSELL		
	DESIGN-REVIEWED	T. WHITE		
	DESIGN-DETAILED	C. RUSSELL		
	DESIGN-DETAILED			
	REVISIONS 1			
	REVISIONS 2			
	REVISIONS 3			
	REVISIONS 4			
	FIELD CHANGES			
COLUMBIA U.S. ROUTE 1 LARGE CULVERT INTERPRETIVE SUBSURFACE PROFILE				
SHEET NUMBER				
7				
OF 14				

Maine Department of Transportation Soil/Bore Exploration Log US CUSTOMARY UNITS		Project: U.S. Route 1 Large Culvert Location: Columbia, Maine		Boring No.: HB-COL-101 WIN: 21772.00							
Driller: New England Boring	Elevation (ft.): 31.6	Auger ID/OD: 2.75-6.25"	Operator: Mike/Shane	Datum: NAVD88	Sampler: Standard Split Spoon						
Logged By: B. Wilder	Rig Type: Mobile B-53	Hammer Wt./Fall: 140#/30"	Date Start/Finish: 3/29/2017: 09:00-13:00	Drilling Method: Hollow Stem Auger	Core Barrel: N/A						
Boring Location: 14+93.4, 11.6 ft Rt.	Casing ID/OD: N/A	Water Level*: None Observed	Hammer Efficiency Factor: 0.75	Hammer Type: Automatic <input checked="" type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cathead <input type="checkbox"/>	Definitions: R = Rock Core Sample, S _u = Peak Retained Field Vane Undrained Shear Strength (psf), S _u (cp) = Lab Vane Undrained Shear Strength (psf), WC = Water Content, percent, D = Split Spoon Sample, SSA = Solid Stem Auger, LL = Liquid Limit, U = Unsuccessful Split Spoon Sample Attempt, HSA = Hollow Stem Auger, q _u = Uncorrected Compressive Strength (ksf), N _u = Unsuccessful Thin Wall Tube Sample Attempt, WC = Water Content, percent, PI = Plasticity Index, v = Field Vane Shear Test, PP = Pocket Penetrometer, WDC = Weight of Rod or Casing, N _u = Unsuccessful Field Vane Shear Test Attempt, WDP = Weight of One Person, C = Consolidation Test						
Sample Information											
Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows 1/6 in. Shear Strength (psf) or RBD (ksi)	N-uncorrected	Neg	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ASTM and Unified Class
0.5	10	24/18	1.00 - 3.00	10/17/7	14	18	HSA	31.3		Brown, damp, medium dense, fine to coarse SAND, some gravel, little silt, (Ffill).	G#269995 A-1-b, SK-SM WC=6.3%
5	20	24/10	5.00 - 7.00	2/2/2/2	4	5				Light brown, damp, loose, fine to coarse SAND, little gravel, trace silt, (Ffill).	G#269996 A-1-b, SK-SM WC=4.4%
10	30	24/19	10.00 - 12.00	2/2/4/5	6	8				Light brown, damp, loose, fine to coarse SAND, trace gravel, trace silt, (Ffill).	G#269997 A-1-b, SK-SM WC=4.5%
15	40/A	24/20	15.00 - 17.00	3/19/9/14	28	35		16.3 15.9		4D (15.0-15.5 ft bgs) Light brown, damp, loose, fine to coarse SAND, some gravel, trace silt, (Ffill). Layer of HMA. 4D/A (15.9-17.0 ft bgs) Grey, moist, dense, fine to coarse SAND, some gravel, some silt, (Ffill).	G#269998 A-1-b, SK-SM G#269999 A-1-b, SM WC=9.6%
20	50	24/20	20.00 - 22.00	1/2/3/4	5	6		13.3		Grey, wet, medium stiff, SILT, little clay, trace fine to coarse sand.	G#270000 A-4, CL WC=19.1%
25	60	24/22	25.00 - 27.00	3/5/7/8	12	15		7.8		Bluish-brown, wet, stiff, Silty CLAY, trace fine to medium sand.	G#270351 A-6, CL WC=24.7% LL=32 PL=22 PI=10
30	70	24/24	30.00 - 32.00	WDH/1/2/3	3	4				Grey, wet, soft, Silty CLAY, trace fine to medium sand, black staining.	G#270352 A-6, CL WC=26.1% LL=31 PL=21 PI=10
35	80	24/24	35.00 - 37.00	WDH/WDH/1/1	1	1				Grey, wet, very soft, Silty CLAY, trace fine to medium sand, black staining.	G#270353 A-4, CL WC=28.0% LL=30 PL=21 PI=9
40	90	24/24	40.00 - 42.00	WDH/WDH/WDH/WDH						Grey, wet, very soft, Silty CLAY, little fine to coarse sand, trace gravel.	G#270354 A-6, CL WC=32.1% LL=32 PL=20 PI=12
45	100	24/24	45.00 - 47.00	WDH/WDH/WDH/WDH						Grey, wet, very soft, Silty CLAY, little fine to coarse sand, trace gravel.	G#270355 A-4, CL WC=29.3% LL=29 PL=20 PI=9
Remarks: -NEBC-1 Auto Hammer						Stratification lines represent approximate boundaries between soil types; transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.					

Maine Department of Transportation Soil/Bore Exploration Log US CUSTOMARY UNITS		Project: U.S. Route 1 Large Culvert Location: Columbia, Maine		Boring No.: HB-COL-101 WIN: 21772.00							
Driller: New England Boring	Elevation (ft.): 31.6	Auger ID/OD: 2.75-6.25"	Operator: Mike/Shane	Datum: NAVD88	Sampler: Standard Split Spoon						
Logged By: B. Wilder	Rig Type: Mobile B-53	Hammer Wt./Fall: 140#/30"	Date Start/Finish: 3/29/2017: 09:00-13:00	Drilling Method: Hollow Stem Auger	Core Barrel: N/A						
Boring Location: 14+93.4, 11.6 ft Rt.	Casing ID/OD: N/A	Water Level*: None Observed	Hammer Efficiency Factor: 0.75	Hammer Type: Automatic <input checked="" type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cathead <input type="checkbox"/>	Definitions: R = Rock Core Sample, S _u = Peak Retained Field Vane Undrained Shear Strength (psf), S _u (cp) = Lab Vane Undrained Shear Strength (psf), WC = Water Content, percent, D = Split Spoon Sample, SSA = Solid Stem Auger, LL = Liquid Limit, U = Unsuccessful Split Spoon Sample Attempt, HSA = Hollow Stem Auger, q _u = Uncorrected Compressive Strength (ksf), N _u = Unsuccessful Thin Wall Tube Sample Attempt, WC = Water Content, percent, PI = Plasticity Index, v = Field Vane Shear Test, PP = Pocket Penetrometer, WDC = Weight of Rod or Casing, N _u = Unsuccessful Field Vane Shear Test Attempt, WDP = Weight of One Person, C = Consolidation Test						
Sample Information											
Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows 1/6 in. Shear Strength (psf) or RBD (ksi)	N-uncorrected	Neg	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ASTM and Unified Class
51.0	110	24/24	50.00 - 52.00	WDH/WDH/WDH/WDH				19.2		Grey, wet, very soft, SILT, some clay, trace fine to coarse sand, trace gravel.	G#270356 A-4, CL-M WC=22 PL=16 PI=6
52.0								20.2		Hydraulic Pushed rods to 86.0 ft bgs.	
55											
60											
65											
70											
75											
80											
85											
86.0								54.2		Bottom of Exploration at 86.0 feet below ground surface. NO REFUSAL.	
90											
95											
100											
Remarks: -NEBC-1 Auto Hammer						Stratification lines represent approximate boundaries between soil types; transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.					

Maine Department of Transportation Soil/Bore Exploration Log US CUSTOMARY UNITS		Project: U.S. Route 1 Large Culvert Location: Columbia, Maine		Boring No.: HB-COL-102 WIN: 21772.00							
Driller: New England Boring	Elevation (ft.): 31.6	Auger ID/OD: 2.75-6.25"	Operator: Mike/Shane	Datum: NAVD88	Sampler: N/A						
Logged By: B. Wilder	Rig Type: Mobile B-53	Hammer Wt./Fall: N/A	Date Start/Finish: 3/29/2017: 13:00-14:25	Drilling Method: Hollow Stem Auger	Core Barrel: N/A						
Boring Location: 15+11.5, 11.7 ft Lt.	Casing ID/OD: N/A	Water Level*: None Observed	Hammer Efficiency Factor:	Hammer Type: Automatic <input checked="" type="checkbox"/> Hydraulic <input type="checkbox"/> Rope & Cathead <input type="checkbox"/>	Definitions: R = Rock Core Sample, S _u = Peak Retained Field Vane Undrained Shear Strength (psf), S _u (cp) = Lab Vane Undrained Shear Strength (psf), WC = Water Content, percent, D = Split Spoon Sample, SSA = Solid Stem Auger, LL = Liquid Limit, U = Unsuccessful Split Spoon Sample Attempt, HSA = Hollow Stem Auger, q _u = Uncorrected Compressive Strength (ksf), N _u = Unsuccessful Thin Wall Tube Sample Attempt, WC = Water Content, percent, PI = Plasticity Index, v = Field Vane Shear Test, PP = Pocket Penetrometer, WDC = Weight of Rod or Casing, N _u = Unsuccessful Field Vane Shear Test Attempt, WDP = Weight of One Person, C = Consolidation Test						
Sample Information											
Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows 1/6 in. Shear Strength (psf) or RBD (ksi)	N-uncorrected	Neg	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ASTM and Unified Class
										No material descriptions given in probe.	
5											
10											
15											
20											
25											
30											
35											
40											
45											
50											
Remarks: -NEBC-1 Auto Hammer						Stratification lines represent approximate boundaries between soil types; transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.					

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COLUMBIA
U.S. ROUTE 1 LARGE CULVERT
BORING LOGS

021772.00
WIN
21772.00
HIGHWAY PLANS

Cody A. Russell
SIGNATURE
15866
P.E. NUMBER
3/27/2020
DATE

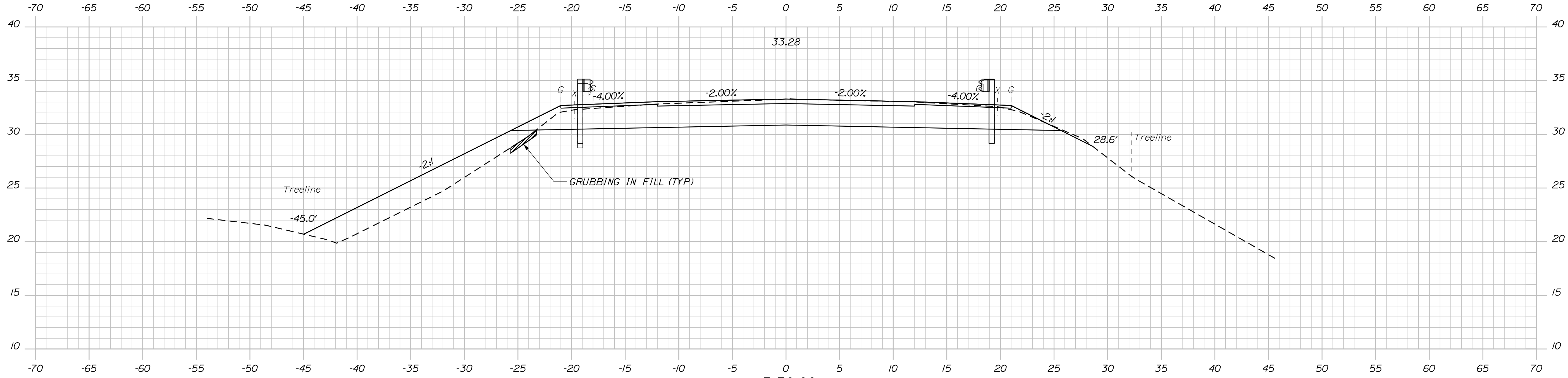
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OF 14

Date: 3/30/2020

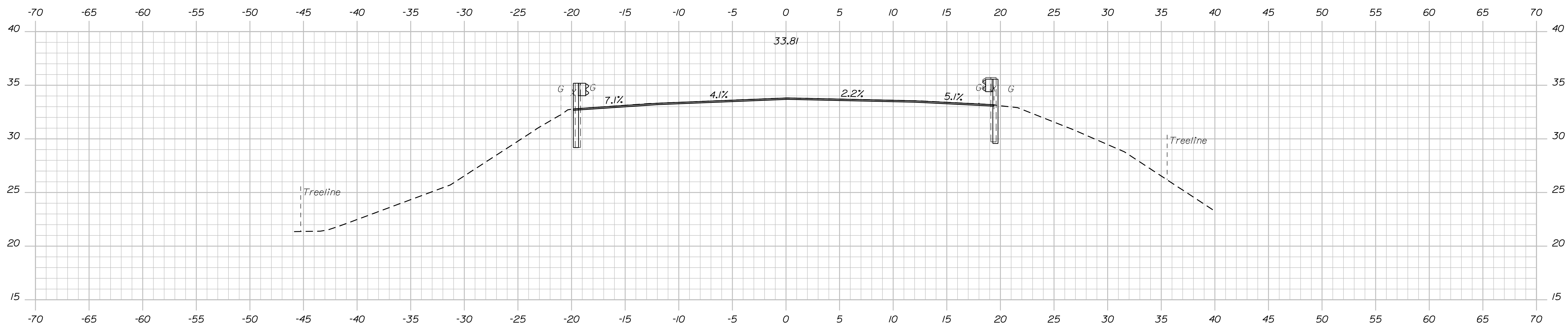
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Division: HIGHWAY

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13+50.00
 END TRANSITION
 BEGIN FULL DEPTH CONSTRUCTION
 BEGIN PROJECT WIN 021772.00



13+00.00
 BEGIN TRANSITION
 MATCH EXISTING PAVEMENT
 LIMIT OF WORK

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 021772.00
 WIN 21772.00
 HIGHWAY PLANS

SIGNATURE
 P.E. NUMBER
 DATE

PROJ. MANAGER	H. COWAN	BY	DATE
DESIGN-DETAILED	DWB2	PEM	8/17
CHECKED-REVIEWED	HEC	HEC	8/17
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

COLUMBIA
 US ROUTE 1
 CROSS SECTIONS

SHEET NUMBER
 9
 OF 14



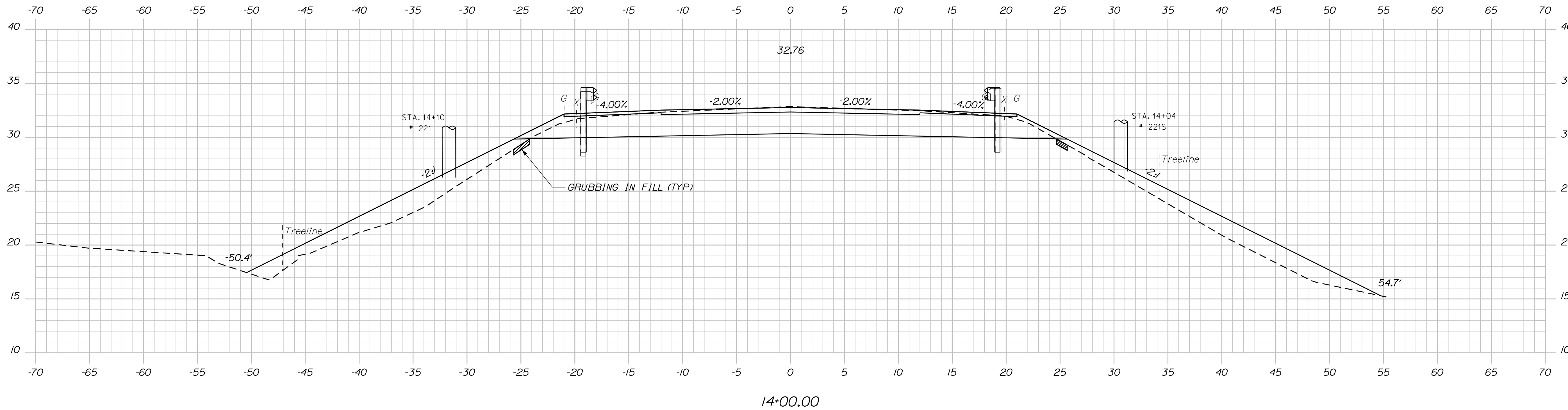
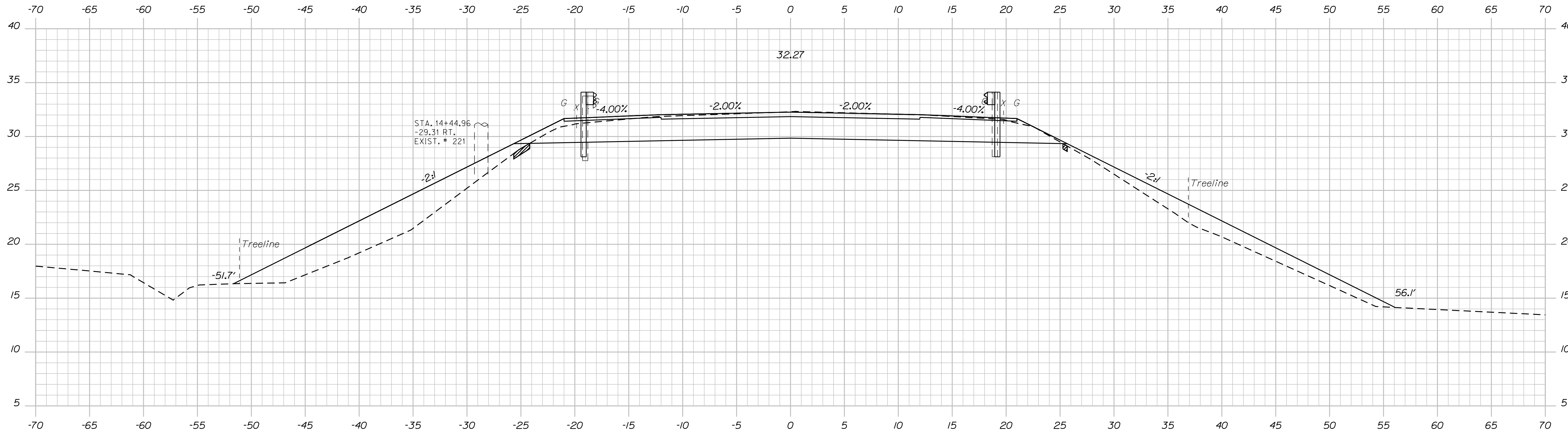
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Date: 3/30/2020

Username:

Division: HIGHWAY

Filename: ... \MSTA\008-012_XSections.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

021772.00
WIN 21772.00
HIGHWAY PLANS

PROJ. MANAGER	DATE
BY	DATE
H. COWAN	8/17
DESIGN-DETAILED	8/17
CHECKED-REVIEWED	
DESIGN-DETAILED	
DESIGN-DETAILED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

SIGNATURE	P.E. NUMBER	DATE

COLUMBIA
US ROUTE 1
CROSS SECTIONS

SHEET NUMBER

10

OF 14



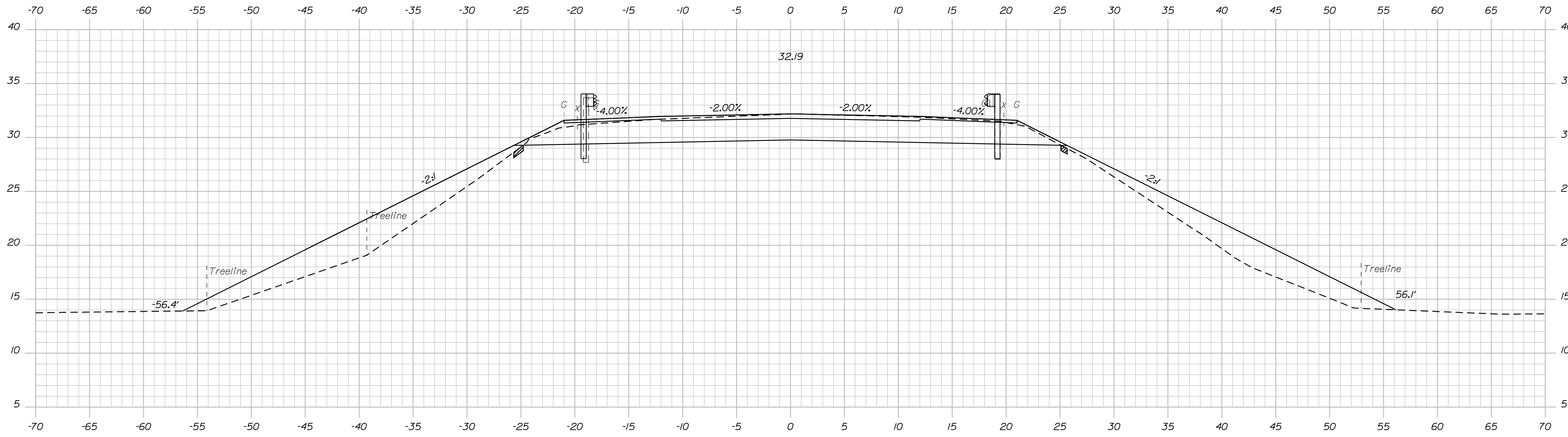
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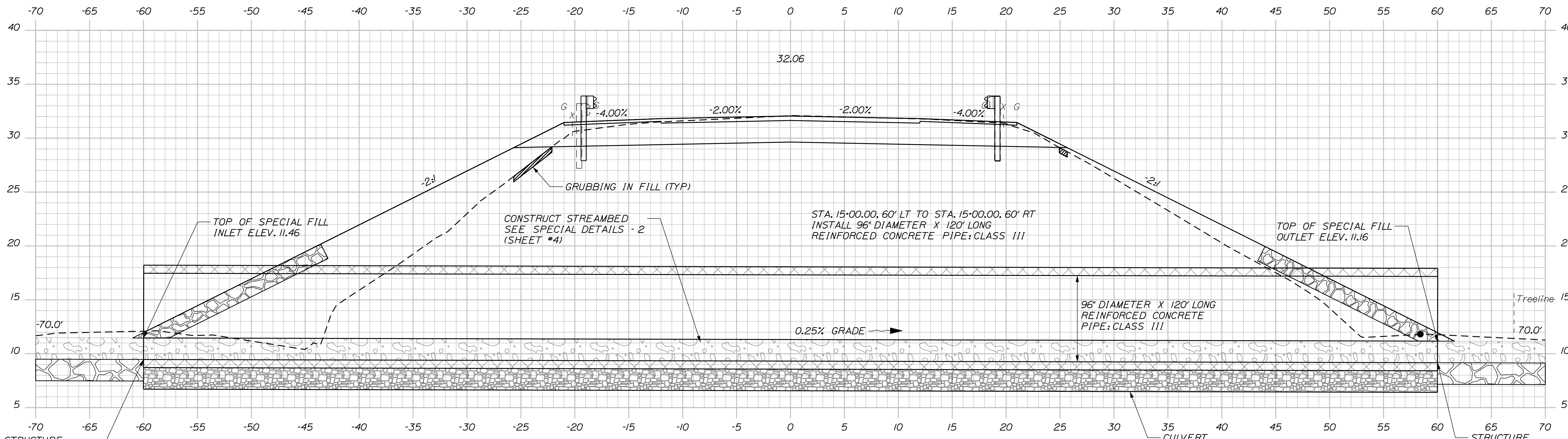
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Division: HIGHWAY

Filename: ... \MSTA\008-012_XSections.dgn



15+50.00



15+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

021772.00
WIN
21772.00
HIGHWAY PLANS

DATE	SIGNATURE
8/17	
8/17	
P.E. NUMBER	DATE

PROJ. MANAGER	H. COWAN
DESIGN DETAILED	DWB2
CHECKED-REVIEWED	HEC
DESIGN DETAILED	
DESIGN DETAILED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

COLUMBIA
US ROUTE 1
CROSS SECTIONS

SHEET NUMBER

11

OF 14

TYLIN INTERNATIONAL

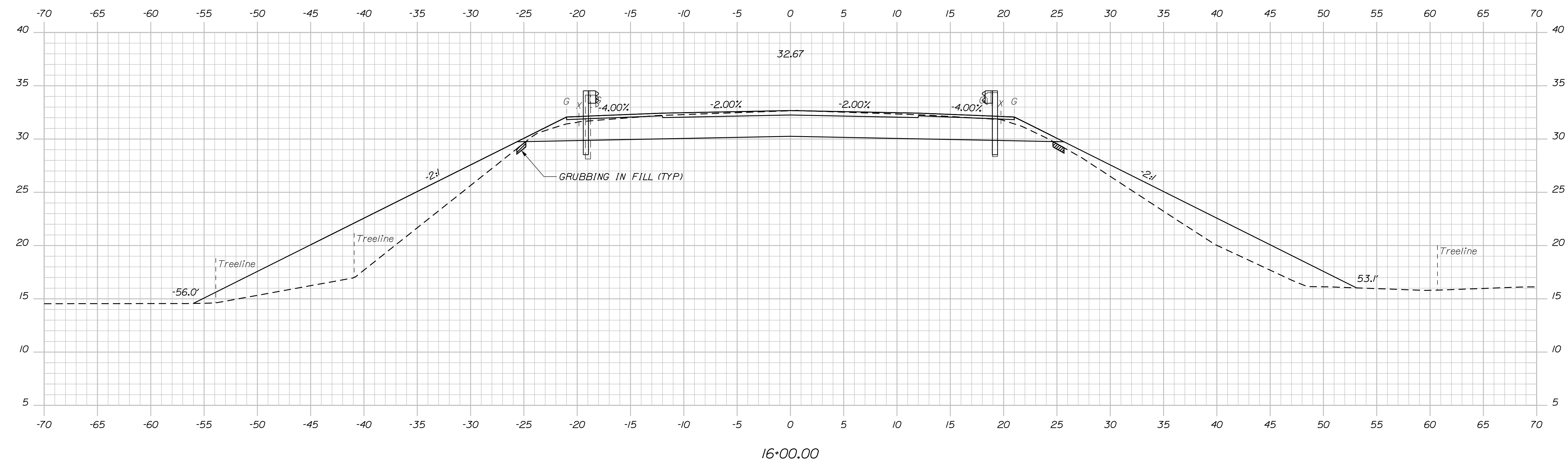
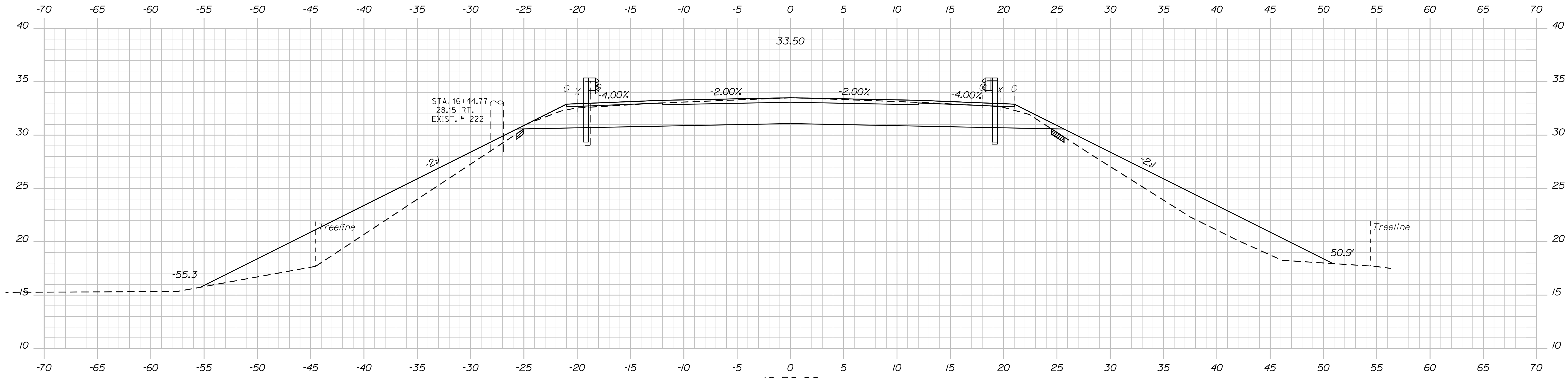
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Date: 3/30/2020

Username:

Division: HIGHWAY

Filename: ... \MSTA\008-012_XSections.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

021772.00

WIN

HIGHWAY PLANS

SIGNATURE

DATE

PROJ. MANAGER	H. COWAN	BY	DATE
DESIGN DETAILED	DWB2	PEM	8/17
CHECKED-REVIEWED	HEC	HEC	8/17
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

COLUMBIA
US ROUTE 1
CROSS SECTIONS

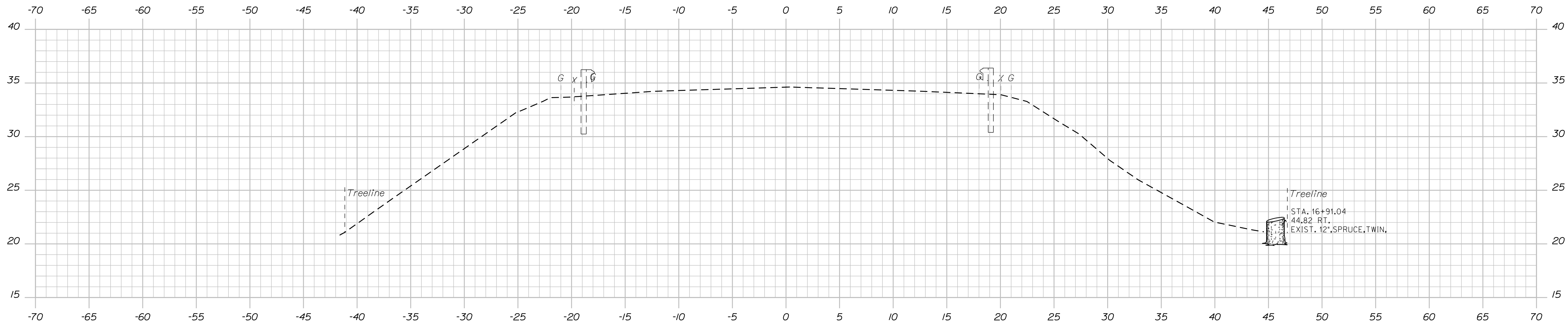
SHEET NUMBER

12

OF 14

TYLIN INTERNATIONAL

Sta. 16+00.00 to Sta. 16+50.00



17+00.00
 END TRANSITION
 MATCH EXISTING PAVEMENT
 LIMIT OF WORK

TYLININTERNATIONAL

SHEET NUMBER

13

OF 14

COLUMBIA
 US ROUTE 1
 CROSS SECTIONS

PROJ. MANAGER	H. COWAN	BY	DATE
DESIGN-DETAILED	DWB2	PEM	8/17
CHECKED-REVIEWED	HEC	HEC	8/17
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
 P.E. NUMBER
 DATE

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 021772.00
 WIN
 21772.00
 HIGHWAY PLANS

Town, County, State _____
 Approx. Property Lines _____
 Existing Right of Way _____
 Limits of Wrought Portion _____
 Control Of Access _____
 New Right of Access _____
 New Easement _____
 New Temporary Rights _____
 New R/W Within Existing R/W _____

New R/W Along Existing R/W _____
 Building _____
 Trees Conifer _____
 Tree Line _____
 Water Edge _____
 Ledge _____
 Fence CHAIN LINK _____
 Sign _____

Clearing Limit Line _____
 Bush Line _____
 Rock/Boulder _____
 BARB WIRE _____
 WELL _____
 Flag Pole _____
 STOCKADE _____
 Mailbox _____

PLAN LEGEND
 Existing Proposed
 Sanitary Sewer _____
 Telephone Line _____
 Electric Line _____
 Water Line _____
 Underdrain Line _____
 Gas Line _____
 Guardrail _____
 Culvert _____

Traveled Way _____
 Ditch _____
 Catch Basin _____
 Manhole _____
 Sewer Manhole _____
 Utility Pole _____
 Fire Hydrant _____
 Curbing _____

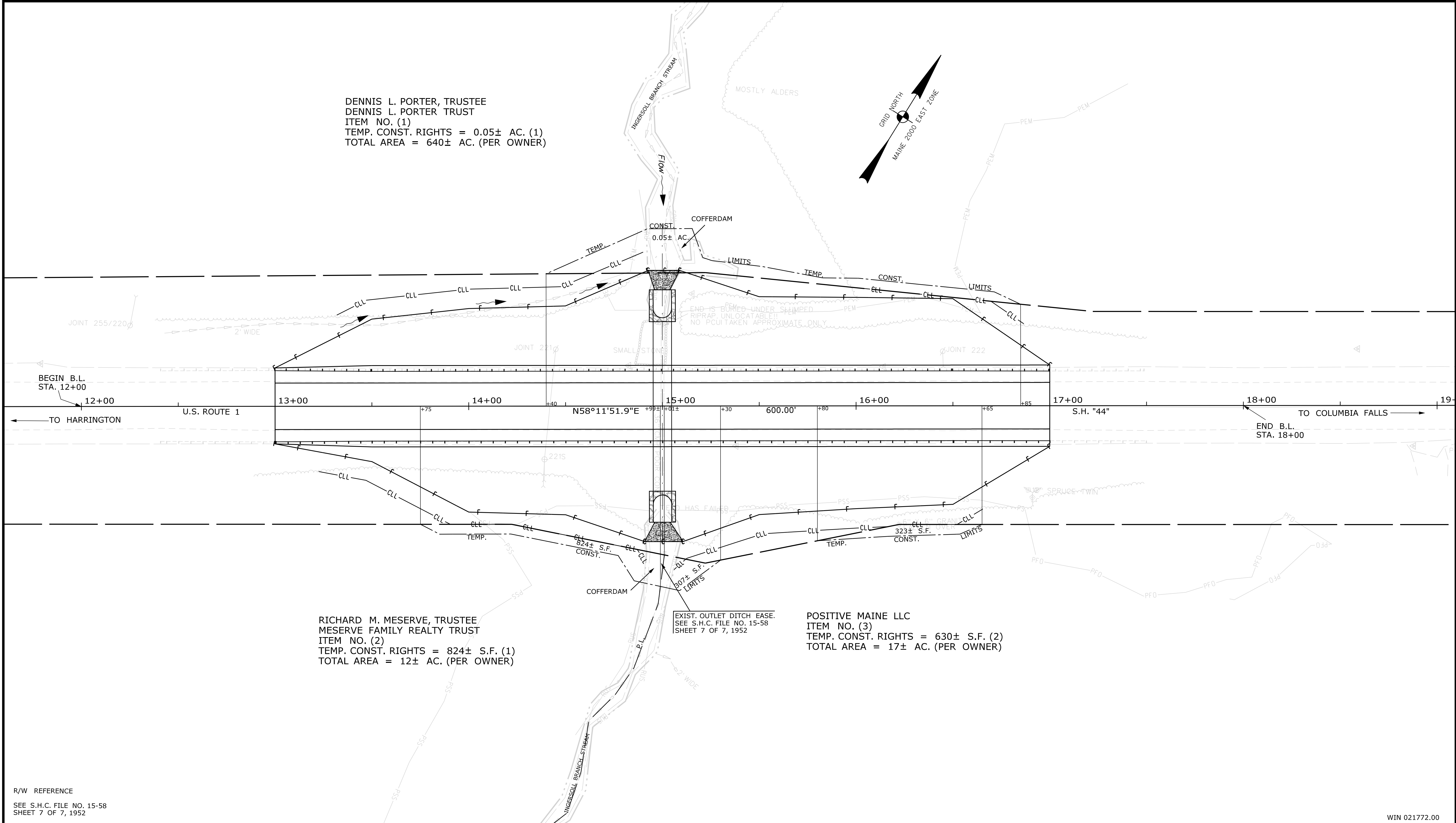
Cut Line _____
 Stonewall _____
 Baseline _____
 Monument _____
 Iron Rod Found _____
 Replacement Pin Set _____

Fill Line _____
 Retaining Wall _____
 Traverse Point _____
 Pipe Found _____

STATE OF MAINE
 REGISTRY OF DEEDS
 COUNTY _____
 RECEIVED _____
 at _____ h _____ m _____ M and recorded in
 Plan Book _____, Page _____
 Attest: _____ REGISTER

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S
 ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES.
 IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN
 ADJACENT PROPERTY OWNERS.

25 0 25 50 75 100
 Scale of Feet



R/W REFERENCE
 SEE S.H.C. FILE NO. 15-58
 SHEET 7 OF 7, 1952

NO.	DATE	REVISIONS DESCRIPTION	BY	PLAN FILED IN PLAN BOOK				PAGE COUNTY RECORD						
				NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE	COND.	3/9/2020	4640	237	

BRUCE A. VAN NOTE
 COMMISSIONER
 JOYCE NOEL TAYLOR
 CHIEF ENGINEER
 DATE _____

STATE HIGHWAY "44"
 U.S. ROUTE 1
 COLUMBIA WASHINGTON COUNTY
 STATE PROJECT NO. 21772.00
 SEPTEMBER 2019
 SCALE 1" = 25'
 RIGHT-OF-WAY MAP
 SHEET 1 OF 1
 D.O.T. FILE NO. 15-336

ITEM	TECH	CHECKED
EXISTING CONDITION PLAN	BDM	
FINAL RIGHT OF WAY	BDM	
AREAS	BDM	

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460
 COLUMBIA
 RIGHT OF WAY MAP

SHEET NUMBER
 14
 OF 14

Date: 3/30/2020
 Username: Guy.Ladd
 Division: ROW
 Filename: ... \00\ROW\WSTA\014_RWPLAN1.dgn

WIN 021772.00