

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



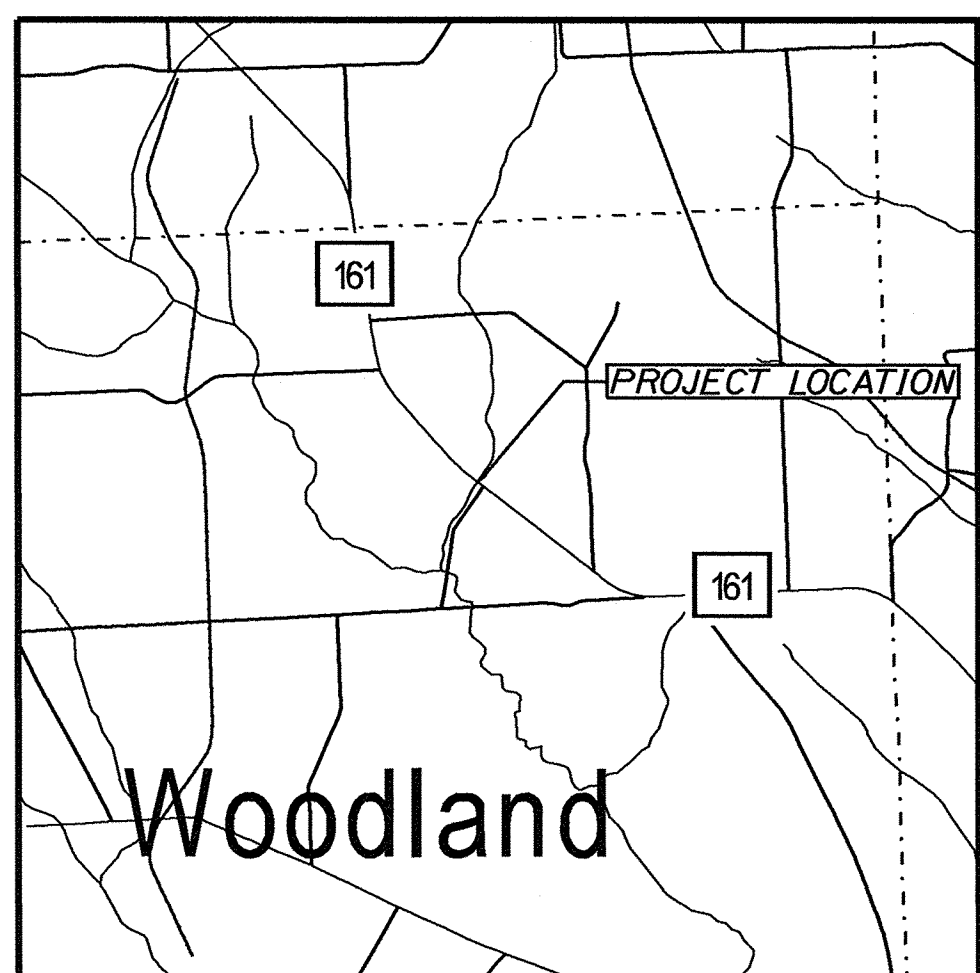
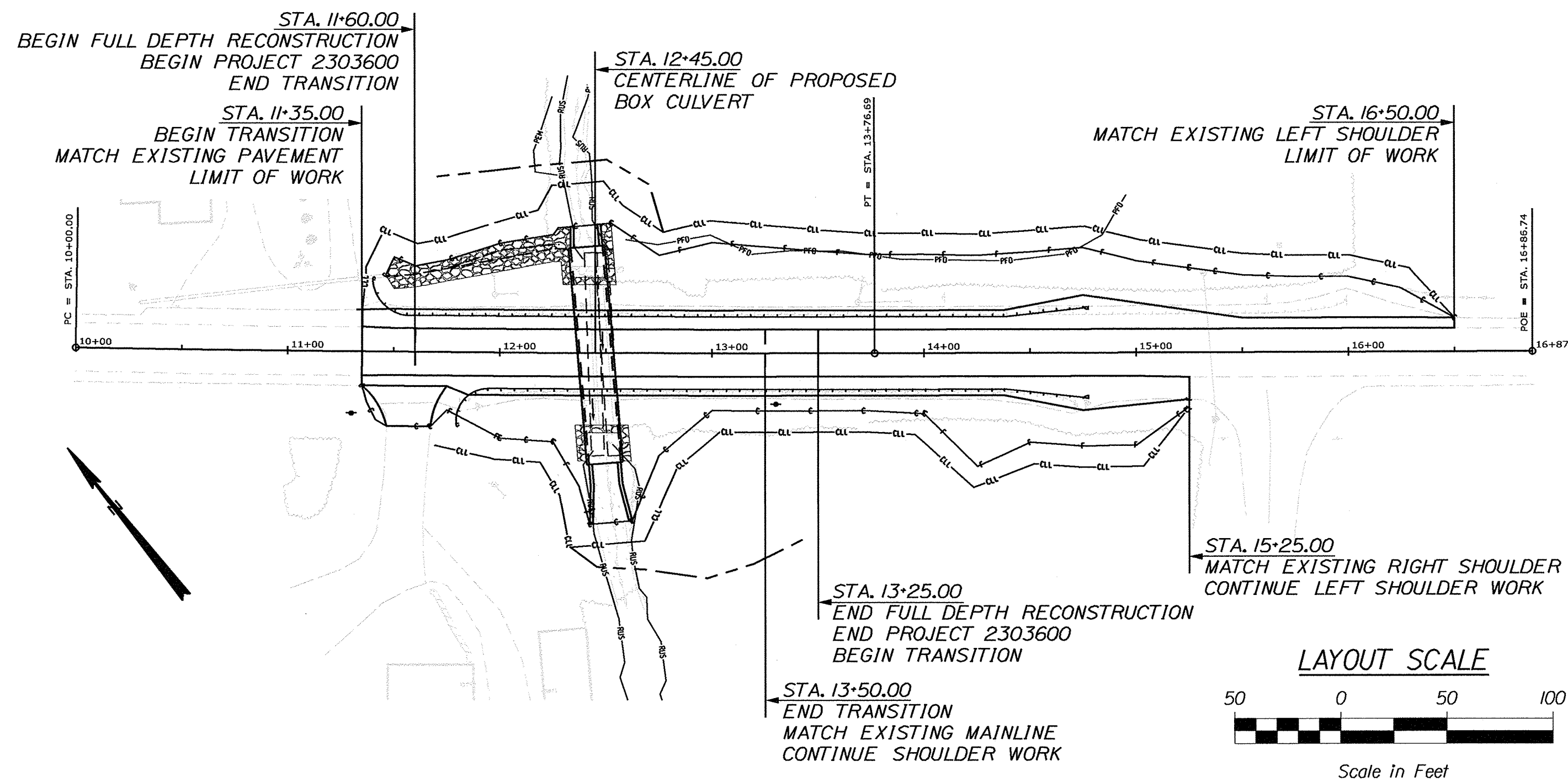
WOODLAND AROOSTOOK COUNTY SEALANDER BROOK BRIDGE ROUTE 161 BRIDGE NO. 6685 FEDERAL PROJECT NO. 2303600 PROJECT LENGTH: 0.10 MILES

PLAN LEGEND

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

INDEX OF SHEETS

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TRAFFIC DATA

Current (2023) AADT	2870
Future (2043) AADT	3160
DHV - % of AADT	10%
Design Hour Volume	316
% Heavy Trucks (AADT)	11%
Directional Distribution (DHV)	55%
Design Speed (mph)	55MPH
Functional Class	Minor Arterial
Corridor Priority	2

PROJECT LOCATION:	IN THE TOWN OF WOODLAND ON ROUTE #161 LOCATED 0.06 MILES NORTHWEST OF GOODWIN ROAD
PROGRAM AREA:	REGION PROGRAM
SCOPE OF WORK:	LARGE CULVERT REPLACEMENT

WIN. 23036.00 FEDERAL PROJECT NO. 2303600

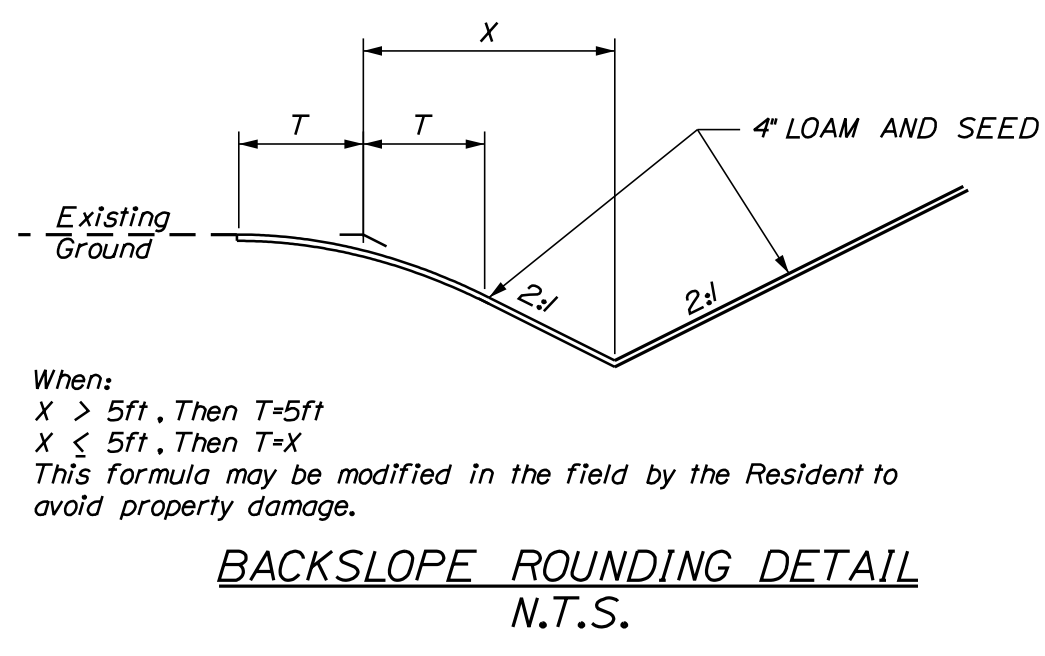
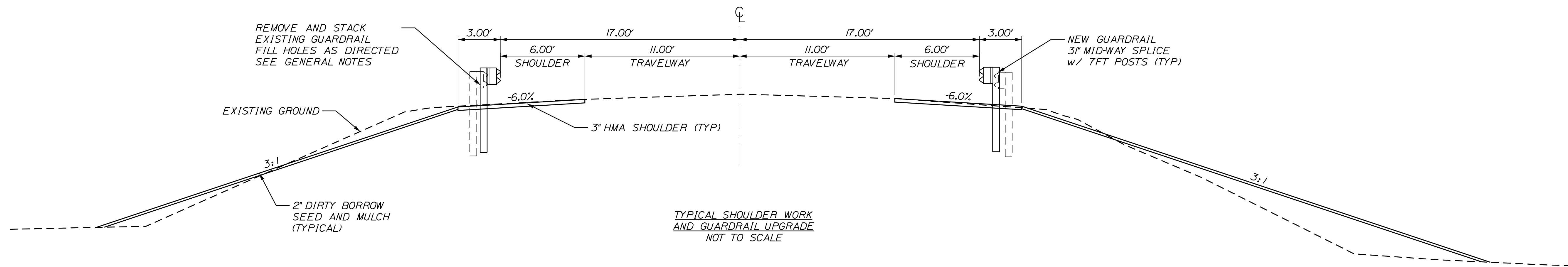
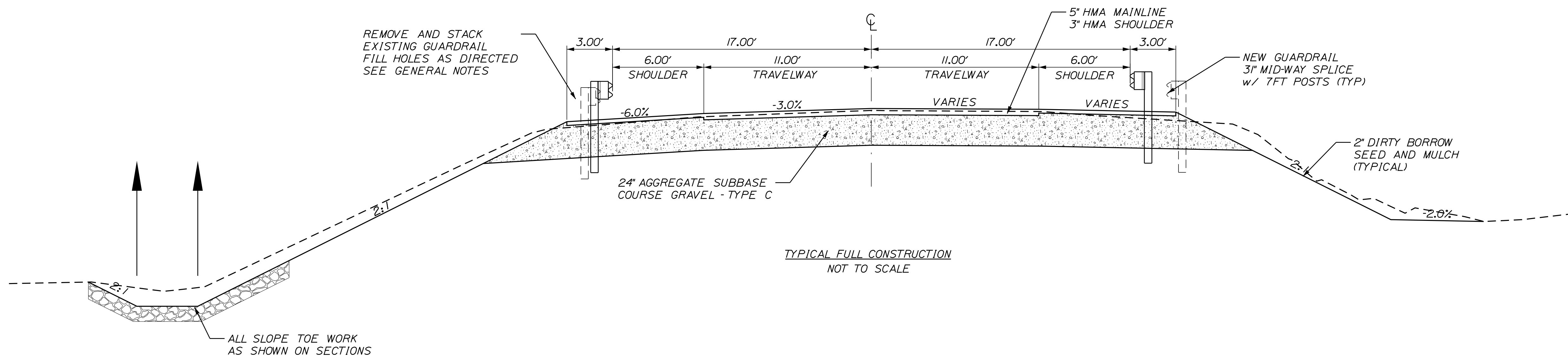
STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>		3-23-23
CHIEF ENGINEER: <i>[Signature]</i>		5-23-2023

PROJECT INFORMATION	
PROGRAM	HIGHWAY
PROJECT MANAGER	ROGER SOUCY
DESIGNER	DAVE WARDWELL
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

WOODLAND
ROUTE 161
TITLE SHEET

SHEET NUMBER
1
OF 20

Filename: ...\\00\HIGHWAY\WSTA\001_Title.dgn
Division: HIGHWAY
Username: David.Wardwell
Date: 2/6/2023



NOTES:

1. THE PAVEMENT AND BASE DEPTH 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 NOMINAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
5. THE STATIONING SHOWN UNDER EACH TYPICAL IS APPROXIMATE.
6. 2" OF DIRTY BORROW SHALL BE USED FOR ALL DISTURBED SLOPES OTHER THAN LAWN AREAS. 4" OF LOAM SHALL BE USE IN ALL LAWN AREAS.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2303600	WIN 023036.00	HIGHWAY PLANS
	SIGNATURE	P.E. NUMBER	DATE	
WOODLAND ROUTE 161	TYPICAL DETAILS			
SHEET NUMBER				
2				
OF 20				

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.202	REMOVE PAVEMENT SURFACE	570	SY
203.20	COMMON EXCAVATION	1010	CY
203.25	GRANULAR BORROW	260	CY
203.33	SPECIAL FILL	50	CY
304.16	AGGREGATE SUBBASE COURSE -TYPE C	690	CY
403.208	HOT MIX ASPHALT 12.5 MM HMA SURFACE	140	T
403.209	HOT MIX ASPHALT 9.5 MM (INCIDENTALS)	8	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	200	T
409.15	BITUMINOUS TACK COAT APPLIED	50	G
508.13	MEMBRANE WATERPROOFING	1	LS
511.070	COFFERDAM UP STREAM	1	LS
511.070	COFFERDAM DOWN STREAM	1	LS
526.301	REPORARY CONC BARRIER,TYPE 1(540LF)	1	LS
527.34	WORK ZONE CRASH CUSHIONS	4	UN
534.7101	PRECAST CONCRETE BOX CULVERT - STATE SUPPLIED	1	LS
606.1301	3"W-BEAM GUARDRAIL - MID-WAY SPLICE	425	LF
606.1303	3"W-BEAM GUARDRAIL - MID-WAY SPLICE 15FT RADIUS OR LESS	30	LF
606.1305	3"W-BEAM GUARDRAIL - MID-WAY SPLICE TERMINAL	2	EA
606.353	REFLECTORIZED FLEXABLE GUARDRAIL MARKER	4	EA
606.754	WIDEN SHOULDER FOR GUARDRAIL 350 FLARED	1	EA
610.08	PLAIN RIPRAP	70	CY
610.18	STONE DITCH PROTECTION	40	CY
610.210	STREAM CHANNEL ROCK	215	CY
610.212	STREAMBED ROCK FEATURES	25	CY
615.10	DIRTY BORROW	110	CY
618.14	SEEDING METHOD NUMBER 2	18	UN
619.12	MULCH	18	UN
620.54	STABILIZATION GEOTEXTILE	50	SY
620.58	EROSION CONTROL GEOTEXTILE	150	SY
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARK	1120	LF
627.78	TEMP 4" PAINT PAVEMENT MARK LINE WHITE OR YELLOW	1120	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.12	ALL-PURPOSE EXCAVATOR (INC OPERATOR)	10	HR
631.172	TRUCK - LARGE (INC OPERATOR)	10	HR
631.18	CHAINSAW RENTAL (INC OPERATOR)	5	HR
631.212	SMALL PAVEMENT GRINDER (INC OPERATOR)	5	HR
631.32	CULVERT CLEANER (INC OPERATOR)	5	HR
639.20	FIELD OFFICE -TYPE C	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.33	DRUM	20	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	510	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	60	CD
652.38	FLAGGER	60	HR
652.61	STAGED CONSTRUCTION AND TRAFFIC CONTROL	1	LS
656.75	TEMPORARY SOIL EROSION & WATER POLLUTION CONTROL PLAN	1	LS
659.10	MOBILIZATION	1	LS

- 1 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.
- 2 ALL CLEARING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AS INDICATED ON THE PLANS AND APPROVED BY THE RESIDENT.
- 3 THE CLEARING AND SELECTIVE CLEARING AND THINNING LINES SHOWN ON THE PLANS ARE FOR ESTIMATING PURPOSES ONLY. THE ACTUAL LINES FOR CLEARING AND THINNING SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE RESIDENT.
- 4 WHERE DEEMED NECESSARY BY THE RESIDENT, UNSUITABLE EXCESS MATERIAL SHALL BE REMOVED FROM THE EDGES OF SHOULDERS AND PLACED IN DESIGNATED AREAS OR DISPOSED OF. PAYMENT WILL BE MADE UNDER THE APPROPRIATE CONTRACT ITEMS.
- 5 ALL INSLOPE AND DITCHES IN CUT AREAS SHALL BE GRADED AS SHOWN ON THE TYPICALS OR FLATTER, OR AS DIRECTED BY THE RESIDENT.
- 6 THE CONTRACTOR SHALL PLAN AND CONDUCT WORK SO THAT UPON FINAL COMPLETION OF THE PROEJECT THERE IS NO DROP-OFF FROM THE EDGE OF SHOULDER PAVEMENT.
- 7 DRIVEWAY FILL SIDE SLOPES SHALL BE THE SAME AS THE FILL SIDE SLOPES WITHOUT GUARDRAIL UNLESS OTHERWISE NOTED ON THE PLANS.
- 8 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.
- 9 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.
- 10 GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1FOOT ABOVE WATER LEVEL OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW MATERIAL FOR UNDERWATER BACKFILL AS SPECIFIED IN STANDARD SPECIFICATIONS ITEM 703.19, GRANULAR BORROW.
- 11 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.
- 12 RESIDENTIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH 2 INCHES OF HOT MIX ASPHALT AND 12 INCHES OF AGGREGATE SUBBASE COURSE GRAVEL.
- 13 ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING (OR MILLING) SHALL BE INCIDENTAL TO THE RELATED PAVING (OR MILLING) ITEMS. THIS INCLUDES KILLING AND REMOVAL OF ALL VEGETATIVE MATTER.
- 14 PRIOR TO SURFACE PAVING, EXISTING CULVERTS TO REMAIN SHALL BE CLEANED AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE MADE UNDER STANDARD SPECIFICATIONS ITEM 631.32, CULVERT CLEANER (INCLUDING OPERATOR).
- 15 NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.
- 16 GUARDRAIL END TREATMENTS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL.
- 17 GUARDRAIL THAT IS REMOVED AND NOT REUSED ON THE PROJECT BECOMES PROPERTY OF THE STATE AND SHALL BE DELIVERED TO -----, REMOVAL, DELIVERY, DISMANTLING, AND STACKING SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.
- 18 HOLES CREATED BY GUARDRAIL REMOVAL WILL BE FILLED AND COMPACTED WITH APPROVED MATERIALS AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE CONSIDERED INCIDENTAL TO STANDARD SPECIFICATIONS SECTION 606, GUARDRAIL. (PRESERVATION ONLY)
- 19 TWO REFLECTORIZED FLEXIBLE GUARDRAIL MARKERS (STANDARD SPECIFICATIONS ITEM 606.353, REFLECTORIZED FLEXIBLE GUARDRAIL MARKER) WILL BE INSTALLED AT EACH GUARDRAIL END.
- 20 DIRTY BORROW HAS BEEN ESTIMATED FOR ALL DISTURBED SLOPE AREAS OTHER THAN LAWN AREAS. ACTUAL PLACEMENT OF THE DIRTY BORROW SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
- 21 UNLESS OTHERWISE NOTED SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS; SEEDING METHOD NO. 2 SHALL BE UTILIZED ON ALL OTHER AREAS.
- 22 DIRTY BORROW SHALL BE PLACED TO A NOMINAL DEPTH OF 2 INCHES UNLESS OTHERWISE NOTED OR DIRECTED.
- 23 THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING MAILBOXES TO ENSURE THAT THE MAIL WILL BE DELIVERABLE. PAYMENT FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 24 THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING OPERATIONAL BUSINESS DIRECTIONAL SIGNS (OBDS) TO ENSURE THAT THEY ARE VISIBLE TO THE TRAVELING PUBLIC. PAYMENT FOR THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- 25 ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 26 THE PROJECT GEOTECHNICAL REPORT TITLED "GEOTECHNICAL DESIGN REPORT FOR THE CONSTRUCTION OF SEALANDER BROOK BRIDGE", SOILS REPORT 2023-04, FEBRUARY 22, 2023 CAN BE ACCESSED AT THE MAINE DOT WEBSITE [HTTP://WWW.MAINE.GOV/MDOT/CONTRACTORS/](http://www.maine.gov/mdot/contractors/).
- 27 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 THROUGHOUT THE CONSTRUCTION SITE. MAINE DOT WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSIONS 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.
- 28 AREAS ON THE PROJECT REQUIRING FILL WILL COME FROM SUITABLE SITES SUCH AS EXCAVATION, DITCH AND INSLOPE OR EQUIPMENT RENTAL AREAS.
- 29 ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITY REQUIRED TO INSTALL DRAINAGE STRUCTURES. ADDITIONAL EXCAVATION FOR THE CONTRACTOR'S CONVENIENCE OR TO COMPLY WITH BACKSLOPING REQUIREMENTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELATED DRAINAGE ITEMS.
- 30 NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT AND LAYOUT OF WORK BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.
- 31 "UNDETERMINED LOCATIONS" SHALL BE DETERMINED BY THE RESIDENT.
- 32 FINAL STRIPING FOR THE PROEJECT SHALL BE DONE BY THE CONTRACTOR PER THE STRIPING LAYOUT IN THE CONTRACT DOCUMENTS OR AS PROVIDED BY THE DEPARTMENT. PAYMENT SHALL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.

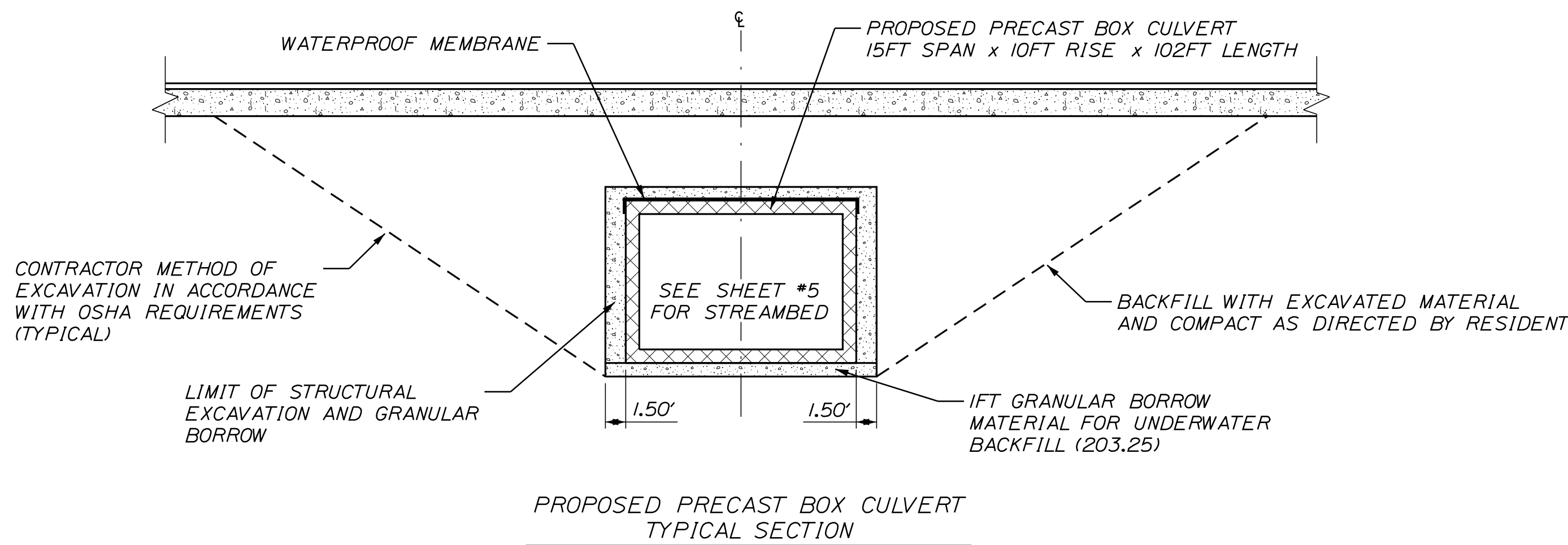
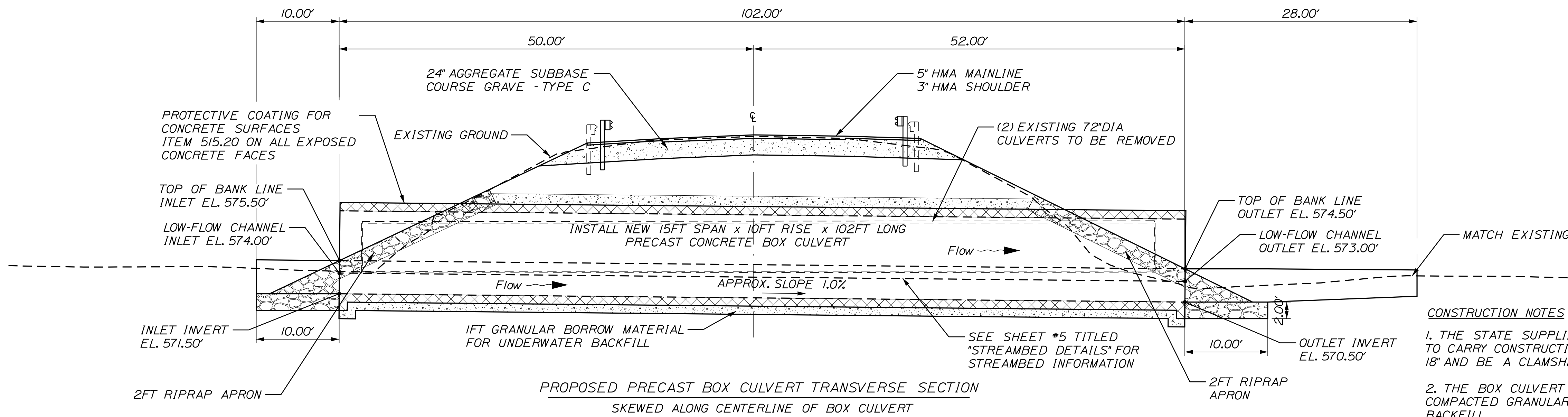
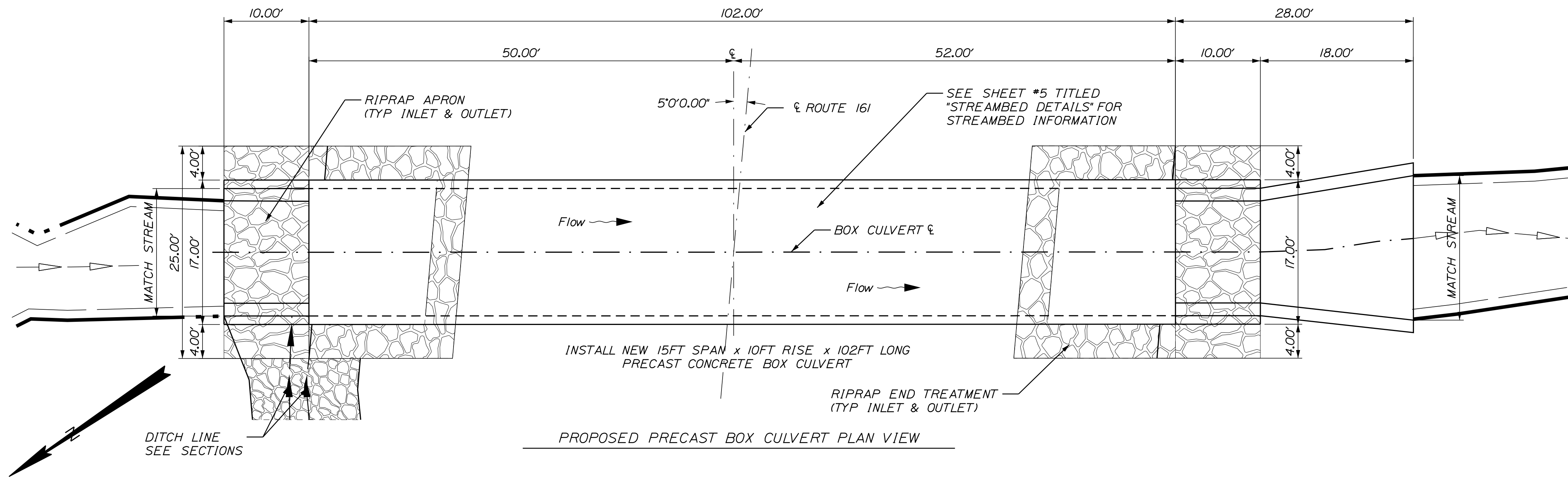
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WOODLAND ROUTE 161		DATE		BY		PROJ. MANAGER		ROGER SOUCY		ESTIMATED QUANTITIES; GENERAL NOTES; CONSTRUCTION NOTES	
		02-2023		WARDWELL SOUCY		WARDWELL		HELSTROM			
		SIGNATURE		P.E. NUMBER		DATE		FIELD CHANGES			
SHEET NUMBER		3		OF 20							

Date: 2/6/2023

Username: David.Wardwell

Division: HIGHWAY

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CONSTRUCTION NOTES

1. THE STATE SUPPLIED BOX CULVERT UNIT SHALL BE DESIGNED TO CARRY CONSTRUCTION LOADINGS WITH A MINIMUM FILL COVER OF 18" AND BE A CLAMSHELL DESIGN TO AID IN STREAMBED PLACEMENT.
2. THE BOX CULVERT SHALL BE BEDDED ON A 1FT LAYER OF COMPACTED GRANULAR BORROW MATERIAL FOR UNDERWATER BACKFILL.
3. INSTALL MEMBRANE WATERPROOFING OVER THE TOP AND 12" DOWN THE EXTERIOR SIDES OF THE PRECAST UNIT.
4. COFFERDAMS ARE TO BE PLACED AT BOTH THE DOWNSTREAM AND UPSTREAM ENDS OF THE STRUCTURE TO ALLOW WATER TO BE PUMPED AND REMOVED DURING CONSTRUCTION OF THE NEW STRUCTURE.
5. RIPRAP WILL BE USED TO INSLOPE AROUND THE CULVERT ENDS AT BOTH THE INLET AND OUTLET. SEE PLAN FOR LOCATIONS
6. RIPRAP SHALL BE PLACED SO AS TO NOT DAMAGE THE NEW BOX CULVERT STRUCTURE.
7. ANY DISTURBANCE TO WETLAND AREAS NOT SHOWN ON THE PLANS SHALL BE REPAIRED TO PRECONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, PERSONNEL, AND MATERIALS NECESSARY TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.
8. ALL DREDGE MATERIAL SHALL BE REUSED ON SITE AS DIRECTED BY THE RESIDENT.
9. THE CULVERT SHALL BE LINED WITH SPECIAL FILL AND STREAM CHANNEL ROCK IN ACCORDANCE WITH SPECIAL PROVISIONS 203 & 610 AS WELL AS SUPPLIED DETAILS.
10. VOIDS IN THE RIPRAP APRONS SHALL BE FILLED WITH GRANULAR BORROW OR OTHER MATERIAL APPROVED BY THE RESIDENT, WATERED-IN AND TAMPED BEFORE PLACING THE FINAL LAYER OF SPECIAL FILL.

NOT TO SCALE

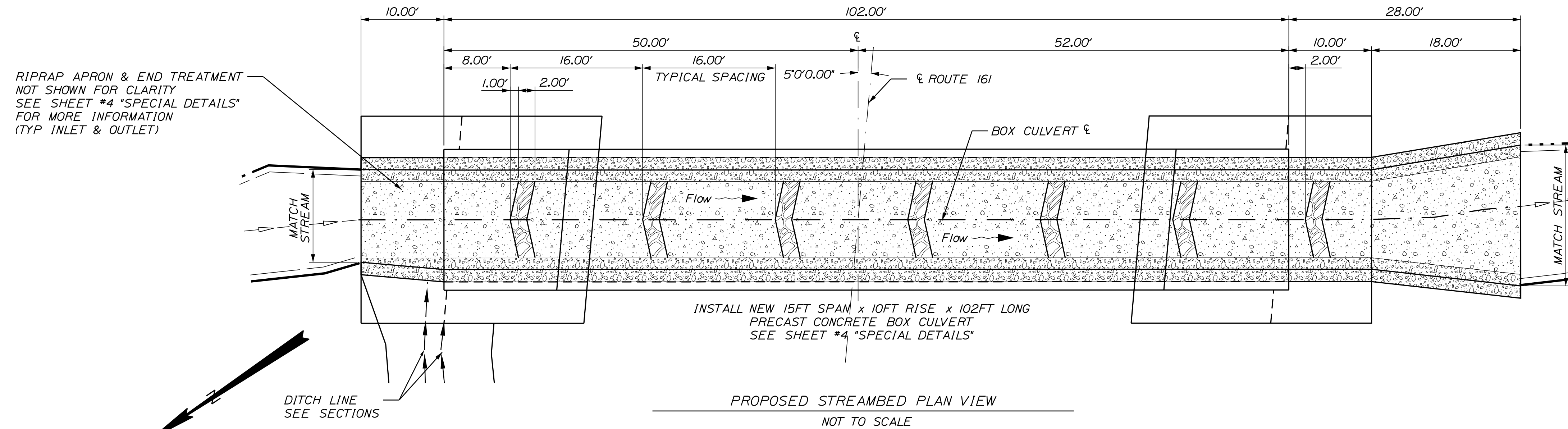
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WOODLAND		ROUTE 161		SPECIAL DETAILS		SHEET NUMBER		4		OF 20	
PROJ. MANAGER	ROGER SOUCY	DESIGN-DETAILED	WARDWELL	CHECKED-REVIEWED	HELSFROM	DESIGN-DETAILED	WARDWELL	DESIGN-DETAILED	WARDWELL	REVISIONS 1	
DATE	02-2023	BY	WARDWELL	DATE	02-2023	SIGNATURE		P.E. NUMBER		DATE	

Date: 2/6/2023

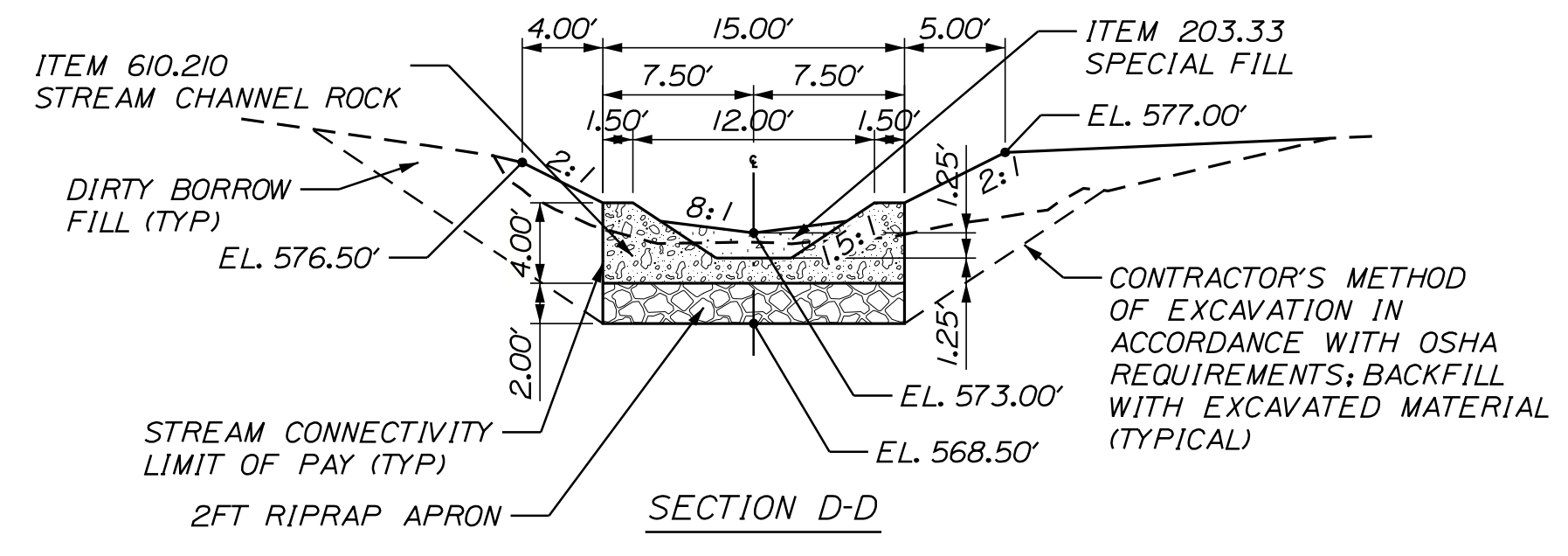
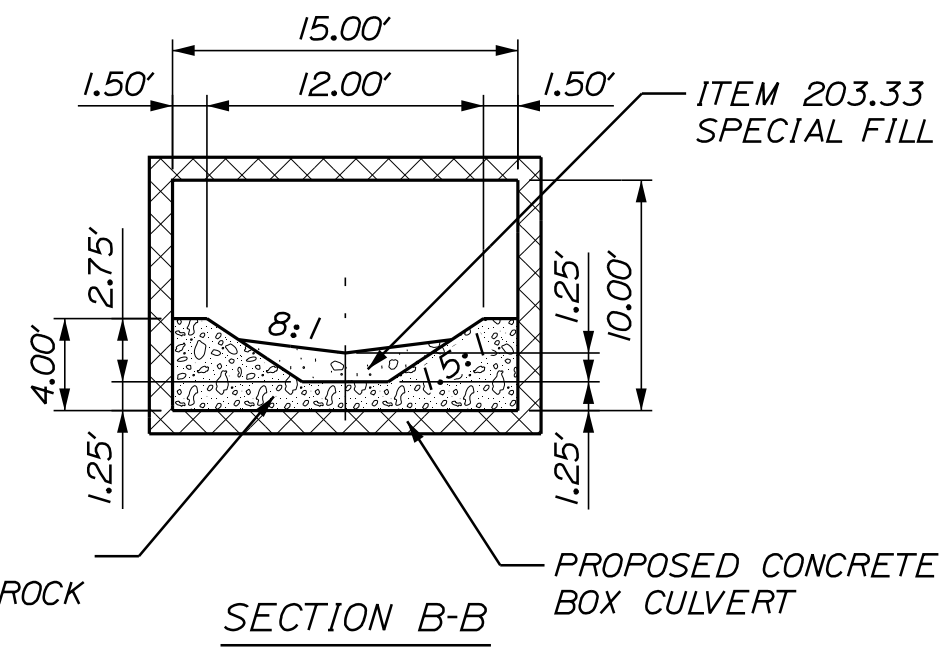
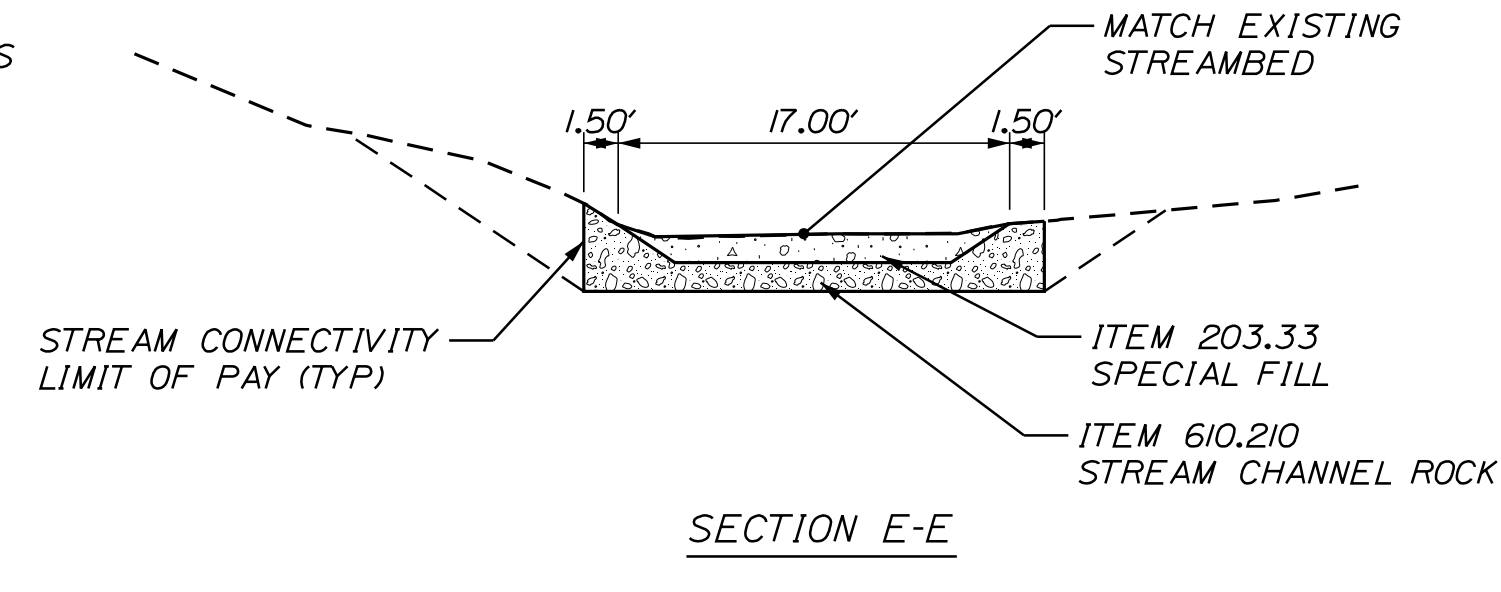
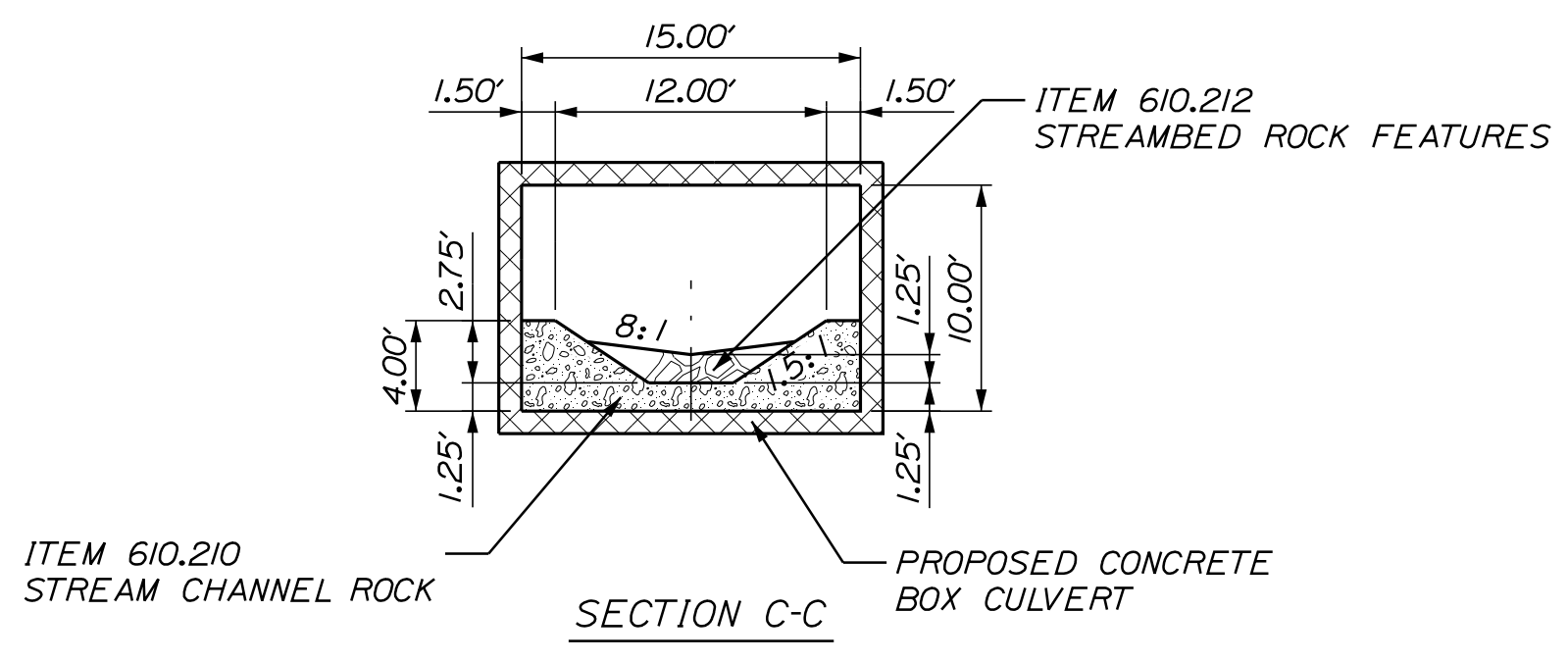
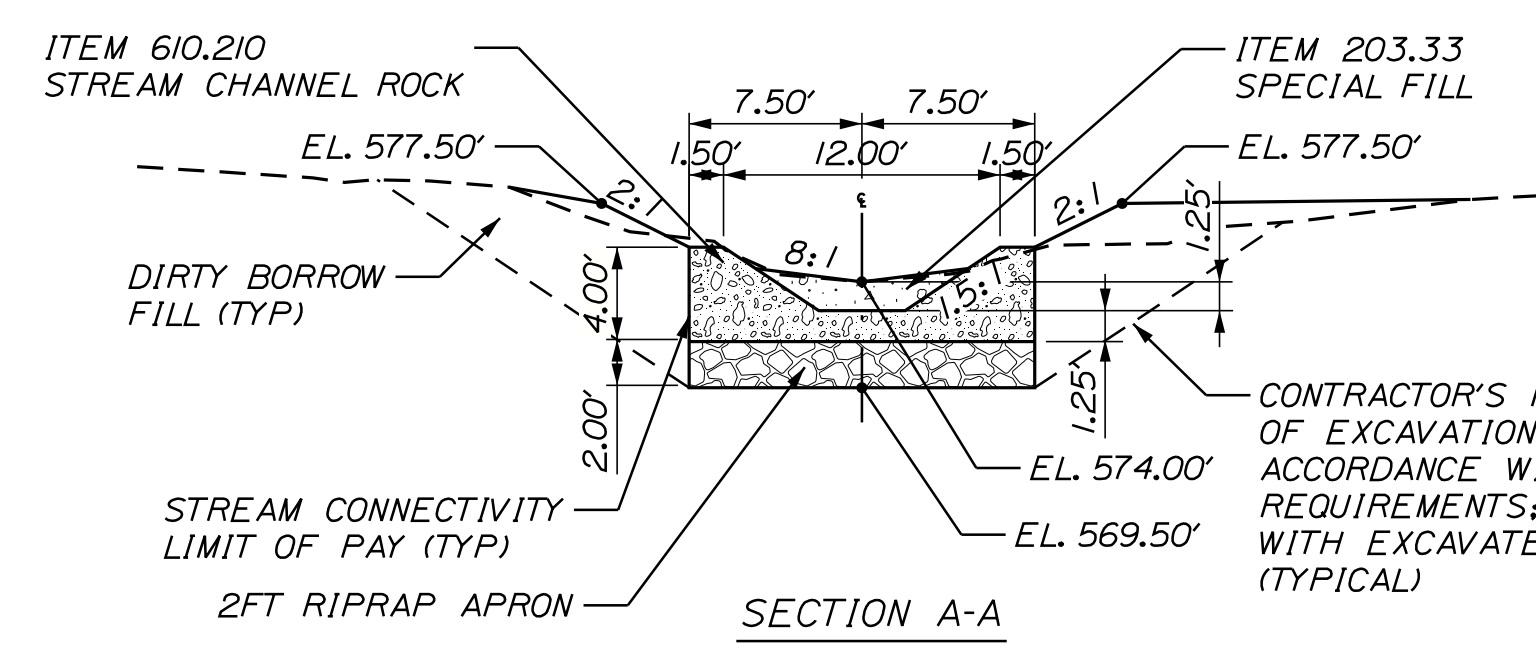
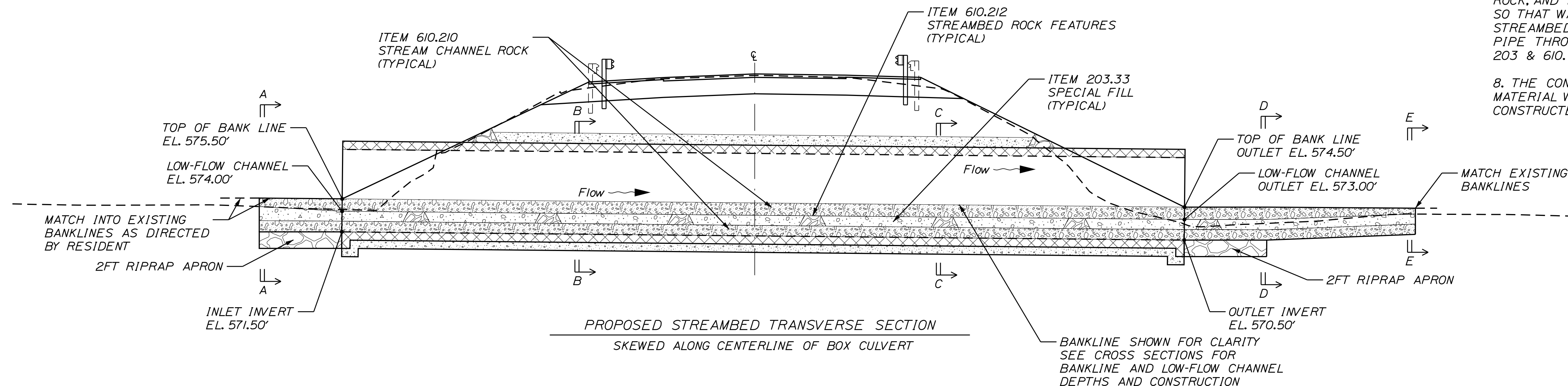
Username: David.Wardwell

Division: HIGHWAY

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- STREAMBED CONSTRUCTION NOTES:**
1. THE CULVERT SHALL BE LINED WITH STREAMBED BACKFILL MATERIAL ACCORDING TO SPECIAL PROVISION 203.33 SPECIAL FILL. BANKLINES SHALL BE PAID FOR UNDER ITEM 610.210 STREAM CHANNEL ROCK; ROCK BANDS SHALL BE PAID UNDER 610.212 STREAMBED ROCK FEATURES.
 2. SPECIAL FILL - STREAMBED MATERIAL WILL BE THOROUGHLY MIXED PRIOR TO PLACEMENT.
 3. LAYOUT AND CONFIGURATION FOR SPECIAL FILL, ROCK BANDS, AND BANKLINES SHALL BE APPROVED BY THE RESIDENT AND MAINE DOT ENVIRONMENTAL STAFF.
 4. PLACE A 1.25FT LIFT OF STREAM CHANNEL ROCK ON THE INVERT, MACHINE TAMP AND WATER-IN. THE RESIDENT SHALL APPROVE THE LIFT BEFORE PLACEMENT OF THE BANKLINES, ROCK BANDS AND THE FINAL LIFT OF SPECIAL FILL.
 5. THE ROCK BANDS SHALL BE SLIGHTLY CURVED OR VEE-SHAPED IN PLAN VIEW WITH THE BEND OR VEE POINTED UPSTREAM.
 6. THE TOP OF THE ROCK BANDS MAY EXTEND UP TO 3 INCHES ABOVE THE AVERAGE FINISHED GRADE OF THE STREAMBED.
 7. VOIDS IN THE STREAMBED MATERIAL, STREAM CHANNEL ROCK, AND ROCK BANDS SHALL BE FILLED AND SEALED SO THAT WATER REMAINS ON THE SURFACE OF THE STREAMBED, STAYS BETWEEN BANKLINES, AND DOES NOT PIPE THROUGH THE STONE. REFER TO SPECIAL PROVISIONS 203 & 610.
 8. THE CONTRACTOR SHALL SALVAGE EXISTING STREAMBED MATERIAL WHEREVER POSSIBLE FOR REUSE IN THE CONSTRUCTED STREAMBED OR AS DIRECTED.



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2303600
WIN
023036.00
HIGHWAY PLANS

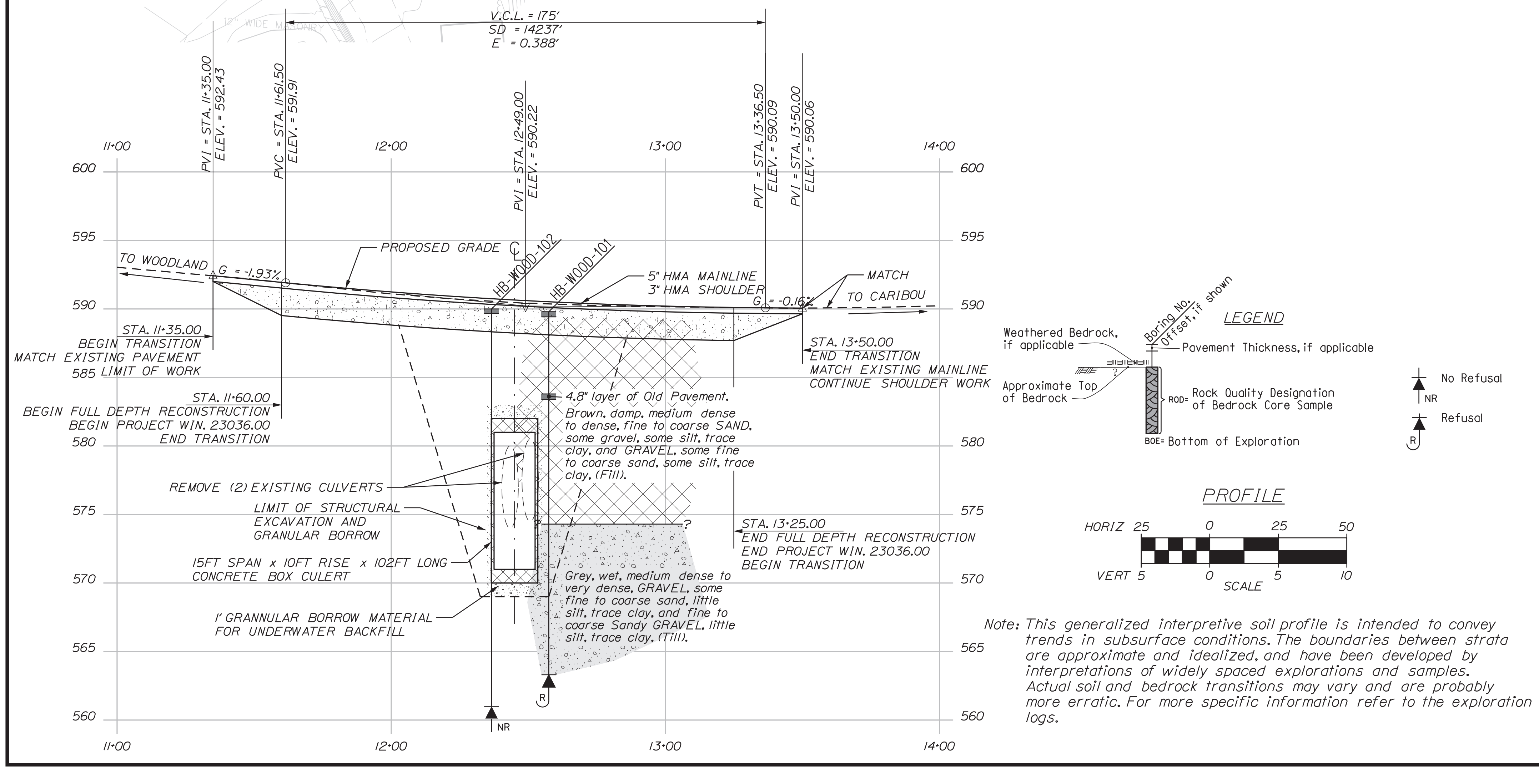
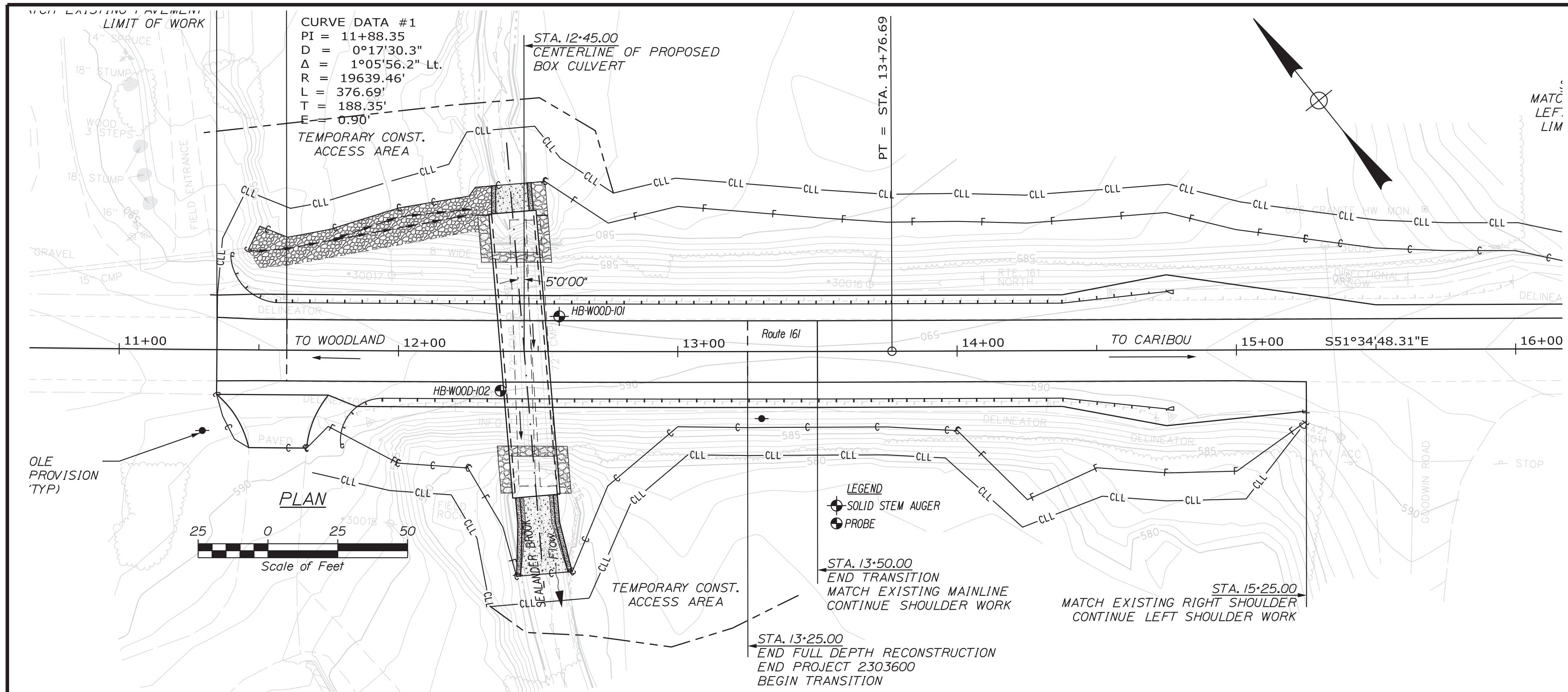
DATE	SIGNATURE	P.E. NUMBER	DATE
02-2023	WARDWELL		
02-2023	SOUCY		

PROJ. MANAGER	ROGER SOUCY	DESIGNED	WARDWELL	CHECKED	WARDWELL	DESIGNED	WARDWELL	DESIGNED	WARDWELL	REVISIONS	DATE
DESIGNED	WARDWELL	02-2023	DESIGNED	WARDWELL	02-2023	DESIGNED	WARDWELL	DESIGNED	WARDWELL	REVISIONS 1	
CHECKED	WARDWELL	02-2023	CHECKED	WARDWELL	02-2023	CHECKED	WARDWELL	CHECKED	WARDWELL	REVISIONS 2	
DESIGNED	WARDWELL	02-2023	DESIGNED	WARDWELL	02-2023	DESIGNED	WARDWELL	DESIGNED	WARDWELL	REVISIONS 3	
DESIGNED	WARDWELL	02-2023	DESIGNED	WARDWELL	02-2023	DESIGNED	WARDWELL	DESIGNED	WARDWELL	REVISIONS 4	

WOODLAND
ROUTE 161
STREAMBED DETAILS

SHEET NUMBER
5
OF 20

NOT TO SCALE



Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS		Project: Route 161 Large Culvert Location: Woodland, Maine		Boring No.: HB-WOOD-101 WIN: 23036.00	
Driller: MaineDOT	Elevation (ft.): 589.8	Auger ID/OD: 5" Dia.	Laboratory Testing Results / ASD450 and Unified Class		
Operator: Travis/Tyson	Datum: NAVD83	Sampler: NAVD83	Visual Description and Remarks		
Logger: B. W. Rider	Rig Type: DME 45C	Sampler: Hammer Wt./Fall: 140lb/3'	4.5' HML		
Date Start/Finish: 11/12/2017-11/12/2017	Drilling Method: Solid Stem Auger	Core Barrel: N/A	Brown, damp, dense, fine to coarse SAND, some gravel, some silt, trace clay, (Fill).		
Boring Location: 12+57.5, 12.6 ft Lt.	Casing ID/OD: N/A	Water Level#: None Observed	Old pavement from 6.0-6.4 ft bgs.		
Header Efficiency Factor: 0.854	Header Type: Automatic 03	Rope & Cablehead: Hydraulic	Boulder from 8.7-9.9 ft bgs.		
Penetration: 10.00	Penetration: 10.00	Penetration: 10.00	Brown, damp, medium dense, GRAVEL, some fine to coarse sand, some silt, trace clay, (Fill).		
Penetration: 10.00	Penetration: 10.00	Penetration: 10.00	Grey, wet, medium dense, GRAVEL, some fine to coarse sand, little silt, trace clay, (Fill).		
Penetration: 10.00	Penetration: 10.00	Penetration: 10.00	Grey, wet, very dense, fine to coarse SANDY GRAVEL, little silt, trace clay, (Fill).		
Penetration: 10.00	Penetration: 10.00	Penetration: 10.00	Grey, wet, very dense, fine to coarse SANDY GRAVEL, little silt, trace clay, (Fill).		
Penetration: 10.00	Penetration: 10.00	Penetration: 10.00	Bottom of Exploration at 26.5 feet below ground surface.		

Maine Department of Transportation Soil/Rock Exploration Log US CUSTOMARY UNITS		Project: Route 161 Large Culvert Location: Woodland, Maine		Boring No.: HB-WOOD-102 WIN: 23036.00	
Drilling Contractor: MaineDOT	Elevation (ft.): 590.0	Auger ID/OD: 5" Dia.	Laboratory Testing Results / ASD450 and Unified Class		
Operator: Travis/Tyson	Datum: NAVD83	Sampler: NAVD83	Visual Description and Remarks		
Logger: B. W. Rider	Rig Type: DME 45C	Sampler: Hammer Wt./Fall: N/A	4" HML		
Date Start/Finish: 11/12/2017-11/12/2017	Drilling Method: Solid Stem Auger	Core Barrel: N/A	Similar soils as HB-WOOD-101.		
Boring Location: 12+36.4, 14.1 ft Rt.	Casing ID/OD: N/A	Water Level#: None Observed	Very dense from 23.0-29.0 ft bgs.		
Header Efficiency Factor: 0.854	Header Type: Automatic 03	Rope & Cablehead: Hydraulic	Bottom of Exploration at 29.0 feet below ground surface.		
Penetration: 10.00	Penetration: 10.00	Penetration: 10.00	Bottom of Exploration at 29.0 feet below ground surface.		
Penetration: 10.00	Penetration: 10.00	Penetration: 10.00	Bottom of Exploration at 29.0 feet below ground surface.		
Penetration: 10.00	Penetration: 10.00	Penetration: 10.00	Bottom of Exploration at 29.0 feet below ground surface.		
Penetration: 10.00	Penetration: 10.00	Penetration: 10.00	Bottom of Exploration at 29.0 feet below ground surface.		

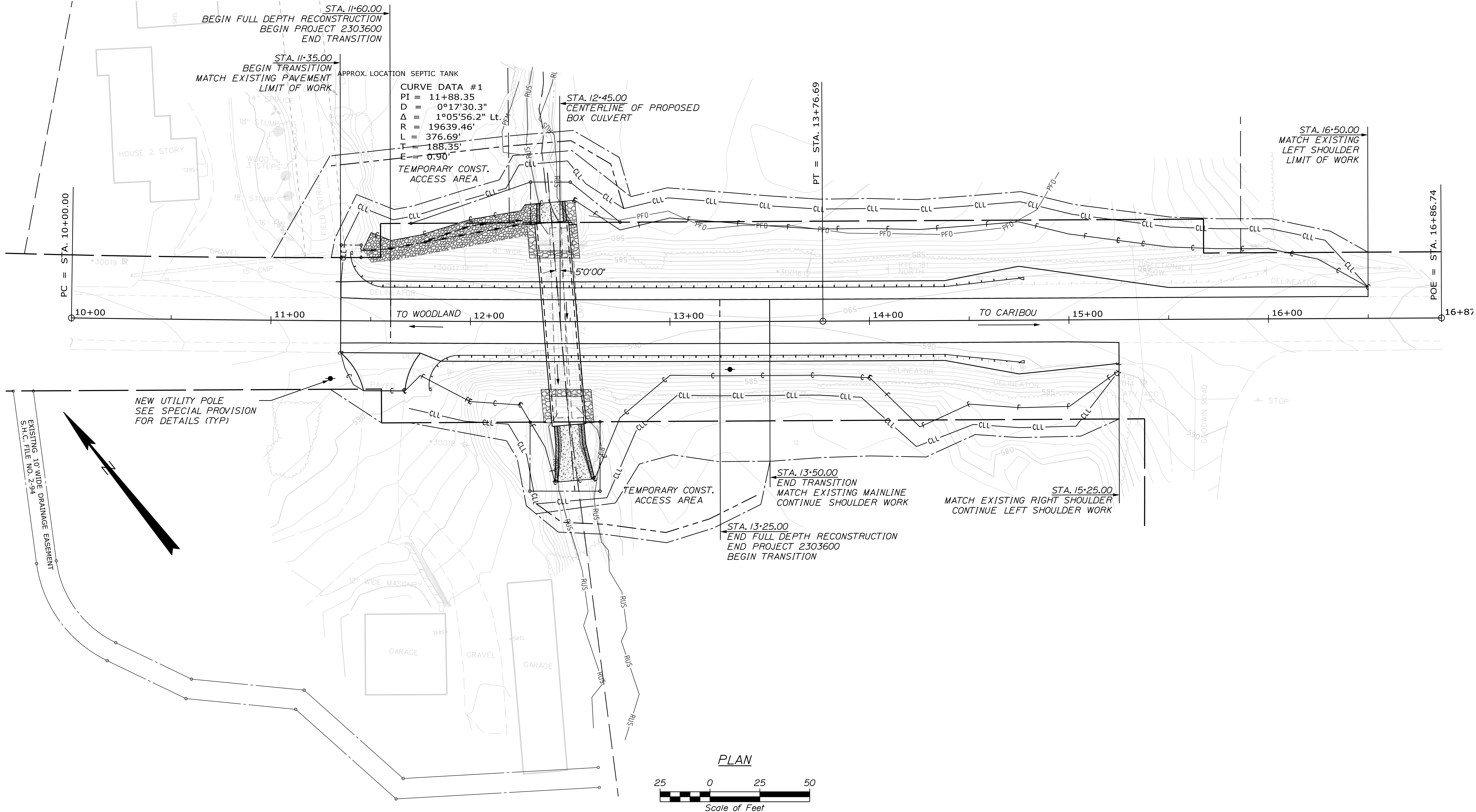
STATE OF MAINE DEPARTMENT OF TRANSPORTATION

WOODLAND ROUTE 161 BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE WITH BORING LOGS

Project No: 2303600
 Date: 3/13/2023
 Signature: Cody A. Russell
 P.E. Number: 15866

6
 OF 20

PROPOSED BOX CULVERT INLET & OUTLET LAYOUT CONTROL		
	INLET \odot CONTROL	OUTLET \odot CONTROL
PERPENDICULAR STATION	STA. 12+40.63	STA. 12+49.51
PERPENDICULAR OFFSET	49.81'	51.80'
INVERT ELEVATION	571.50'	570.50'

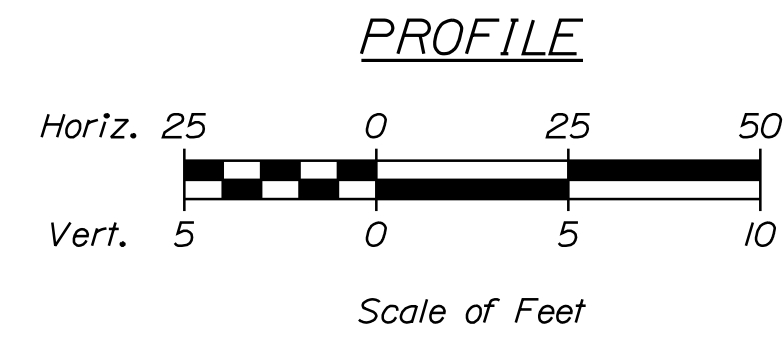
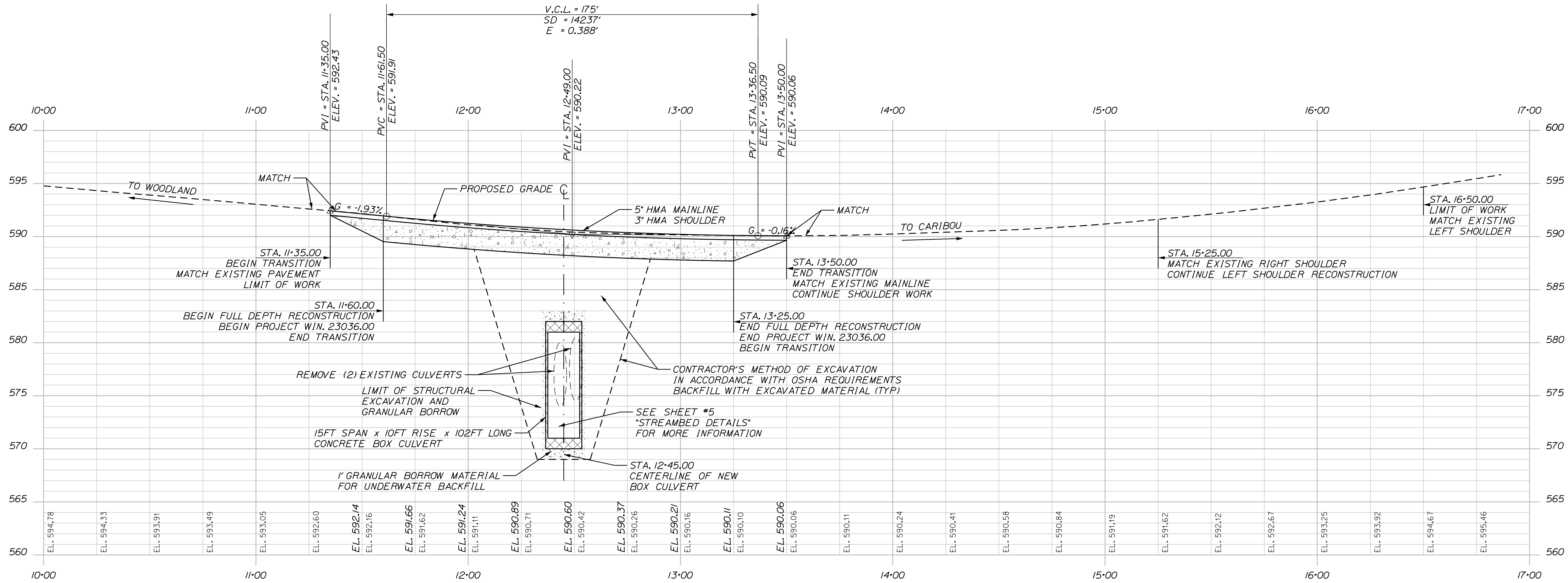


STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
 2303600
 WIN
 023036.00
 HIGHWAY PLANS

PROJ. MANAGER	ROGER SOUCY	BY	DATE
DESIGN-DETAILED	WARDWELL	WARDWELL	02-2023
CHECKED-REVIEWED	HELSTROM	SOUCY	02-2023
DESIGN-DETAILED			
REVISIONS			
REVISIONS			
REVISIONS			
REVISIONS			
FIELD CHANGES			

WOODLAND
 ROUTE 161
 PLAN

SHEET NUMBER
 7
 OF 20



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2303600	
WOODLAND ROUTE 161		WIN 023036.00	
PROFILE		HIGHWAY PLANS	
SHEET NUMBER		8	
OF 20			

PROJ. MANAGER	ROGER SOUCY	BY	DATE
DESIGN-DETAILED	WARDWELL	WARDWELL	02-2023
CHECKED-REVIEWED	HELSTROM	SOUCY	02-2023
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

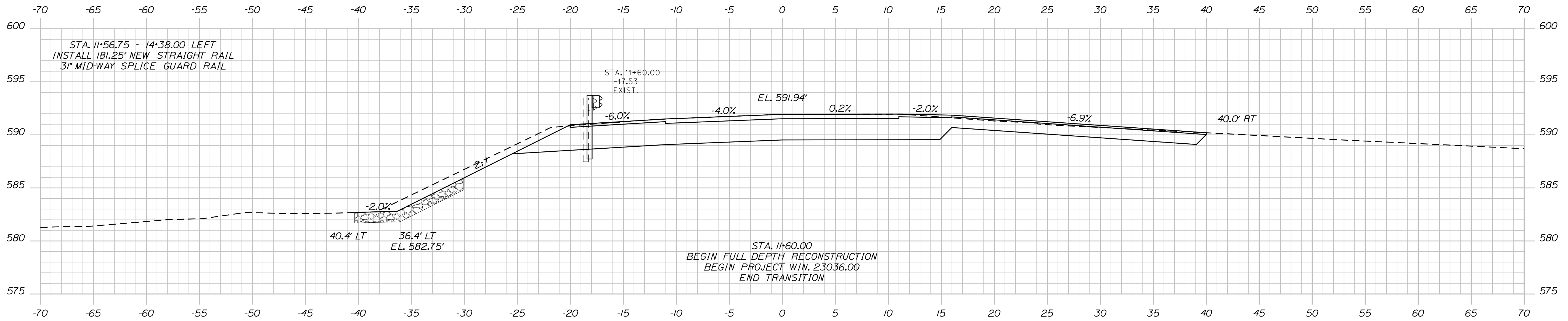
SIGNATURE	DATE
P.E. NUMBER	DATE

Date: 2/6/2023

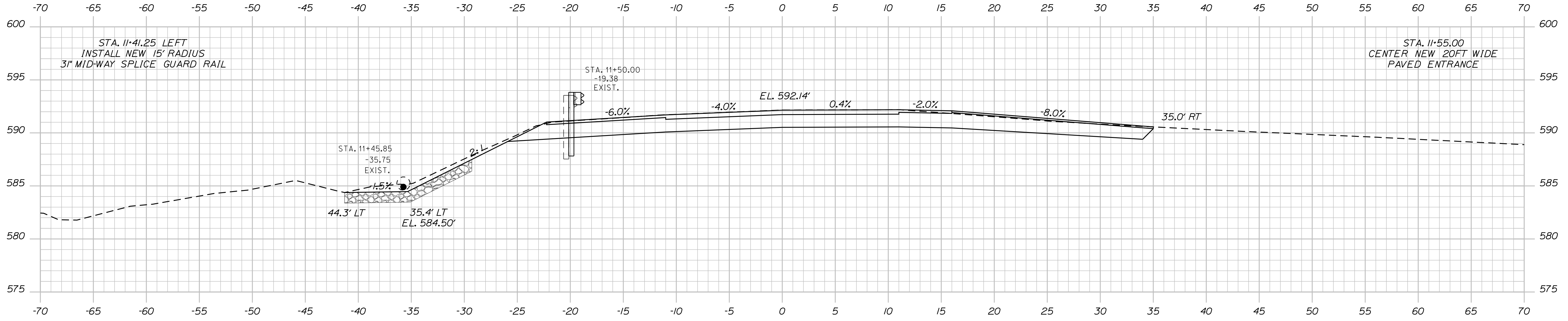
Username: David.Wardwell

Division: HIGHWAY

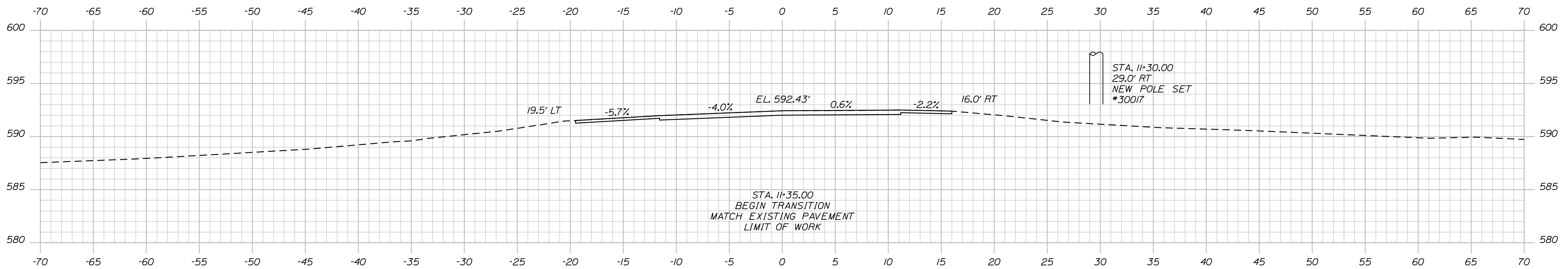
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11+60.00

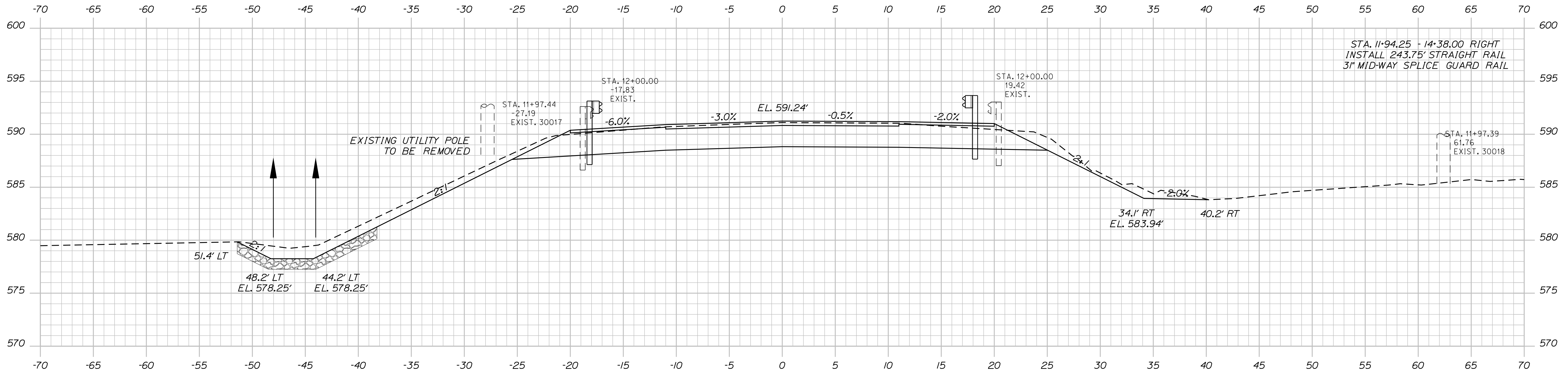


11+50.00

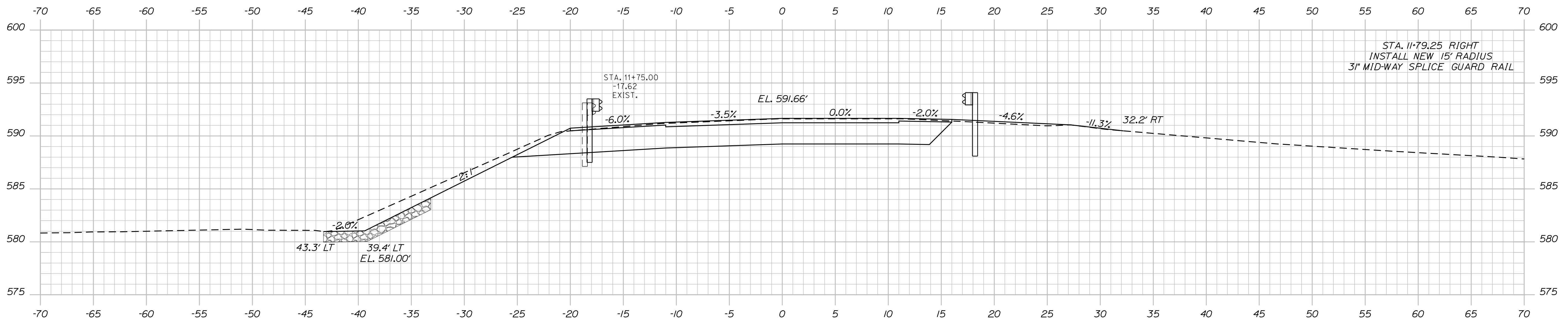


11+35.00

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2303600		WIN 023036.00		HIGHWAY PLANS	
PROJ. MANAGER	ROGER SOUCY	BY	WARDWELL	DATE	02-2023	SIGNATURE	
CHECKED-REVIEWED	HELSFROM	DATE	02-2023	P.E. NUMBER		DATE	
DESIGN DETAILED		REVISIONS 1					
DESIGN DETAILED		REVISIONS 2					
		REVISIONS 3					
		REVISIONS 4					
		FIELD CHANGES					
WOODLAND ROUTE 161				CROSS SECTIONS			
SHEET NUMBER				9			
				OF 20			



12+00.00



11+75.00

SIGNATURE

DATE

BY

ROGER SOUCY

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE

BY

WARDWELL

CHECKED-REVIEWED

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE

P.E. NUMBER

DATE

WARDWELL

HELSTROM

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE

WARDWELL

HELSTROM

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE

WOODLAND
ROUTE 161

CROSS SECTIONS

SHEET NUMBER

10

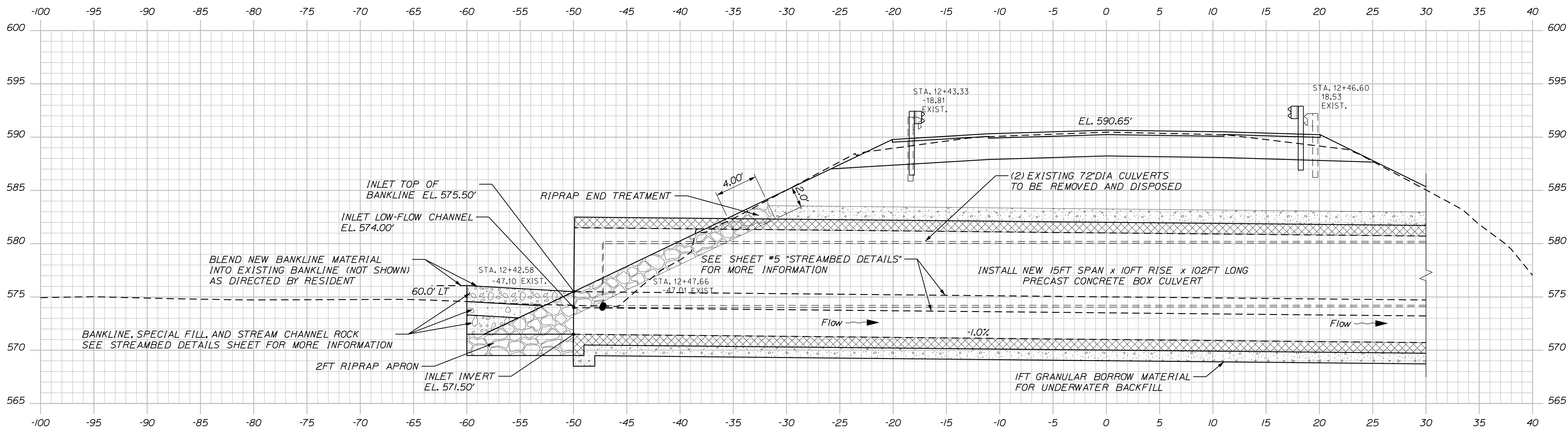
OF 20

Date: 2/6/2023

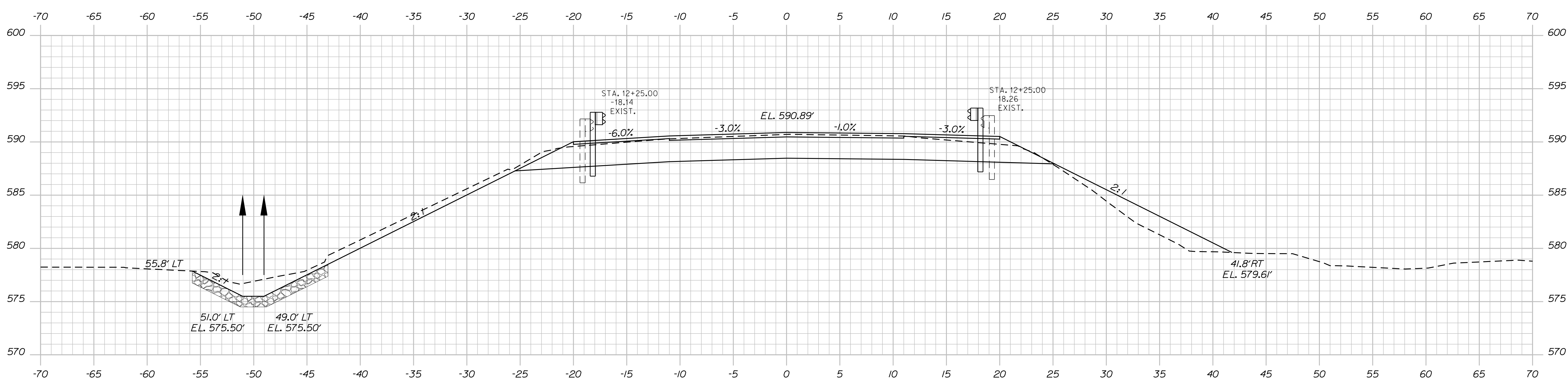
Username: David.Wardwell

Division: HIGHWAY

Filename: ... \MSTA\011_XSECT_12+25_003.dgn



12+45.00 - CENTERLINE OF NEW BOX CULVERT - SKEWED BACK LEFT 5°0'00" - INLET



12+25.00

DATE	SIGNATURE
02-2023	
BY	P.E. NUMBER
WARDWELL	
SOUCY	
ROGER SOUCY	DATE
DESIGN-DETAILED	
CHECKED-REVIEWED	
DESIGN-DETAILED	
DESIGN-DETAILED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

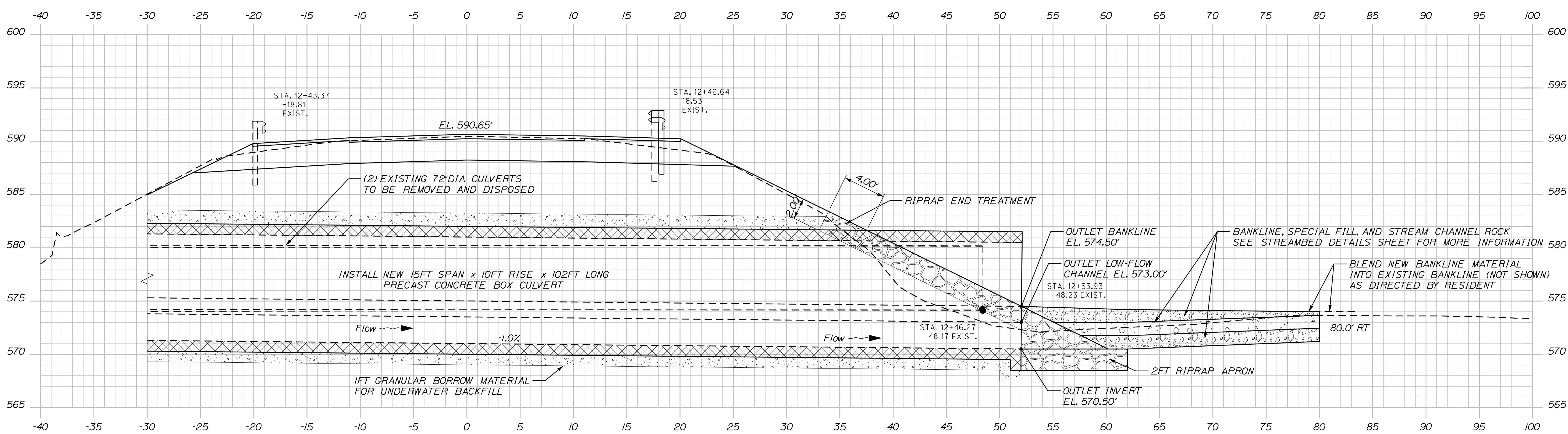
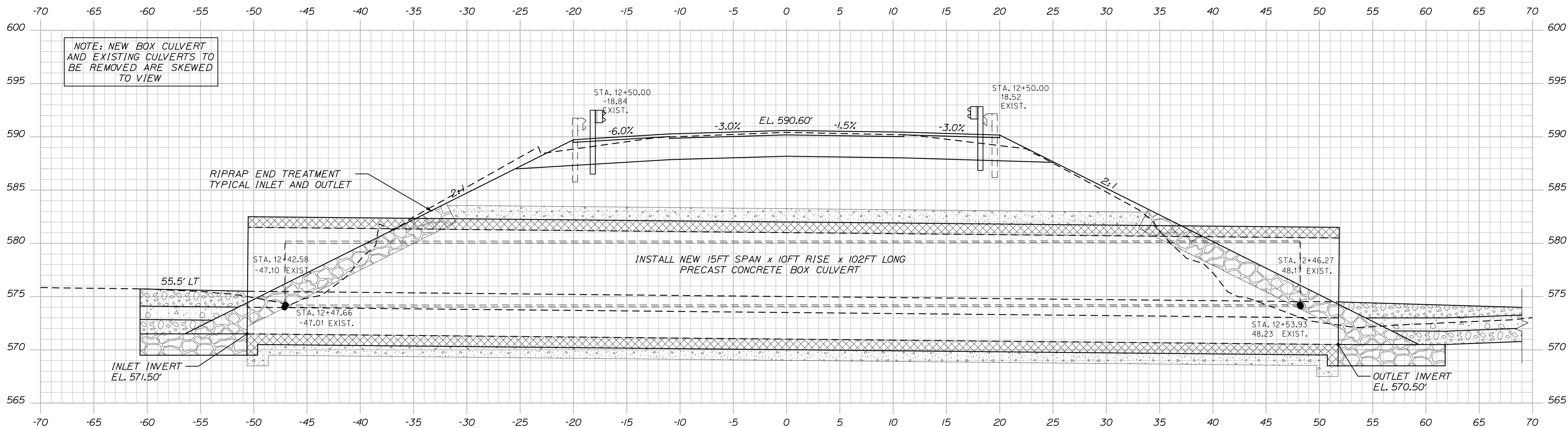
PROJ. MANAGER	DATE
WARDWELL	02-2023
DESIGN-DETAILED	
CHECKED-REVIEWED	
DESIGN-DETAILED	
DESIGN-DETAILED	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

WOODLAND
ROUTE 161
CROSS SECTIONS

Username: David.Wardwell Date: 2/6/2023

Division: HIGHWAY

Filenome: ... \MSTA\012_XSECT_12+45_004.dgn



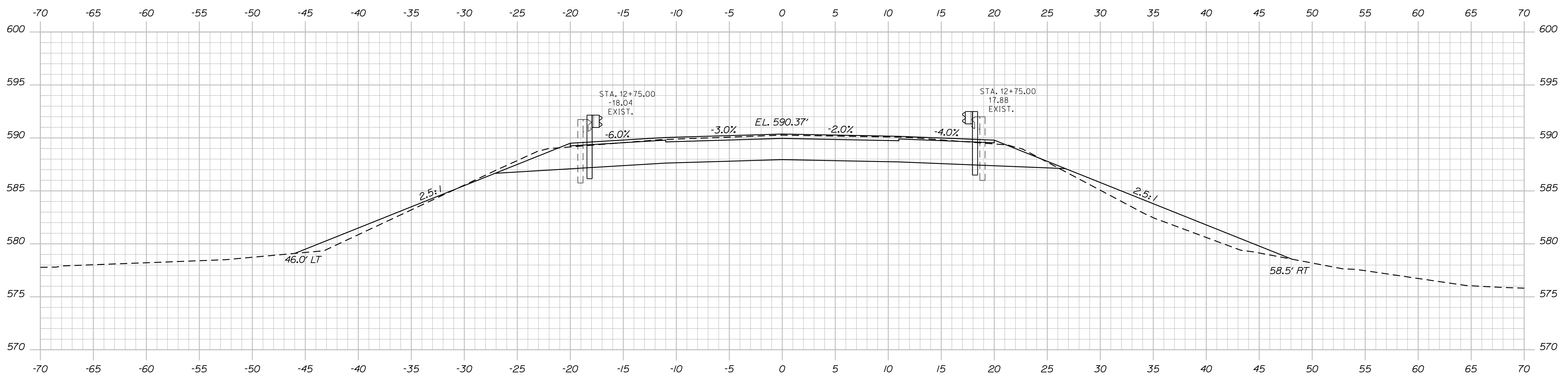
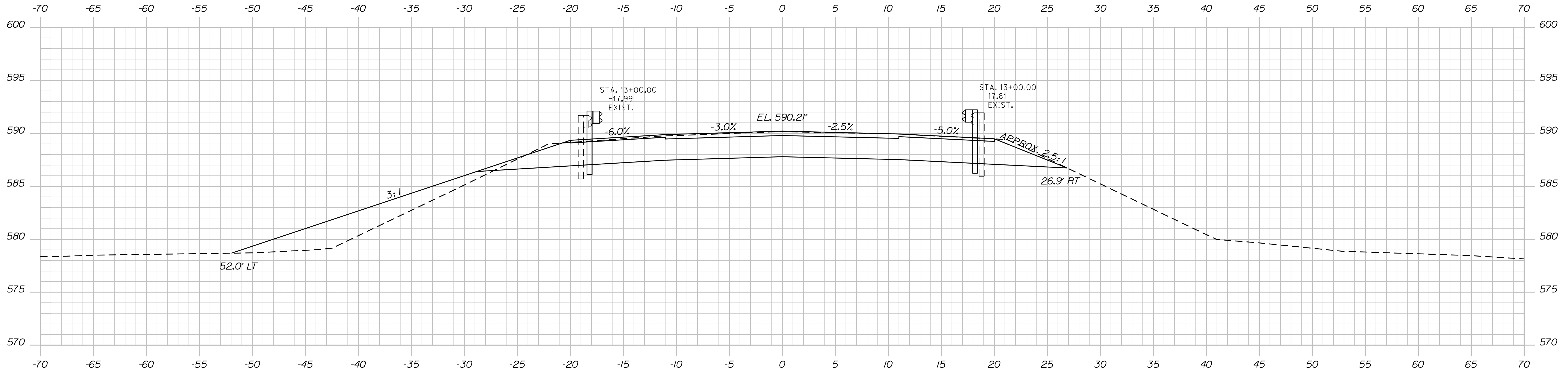
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2303600		WIN		023036.00		HIGHWAY PLANS	
WOODLAND		ROUTE 161		CROSS SECTIONS		SHEET NUMBER		12		OF 20	
PROJ. MANAGER	ROGER SOUCY	DESIGN-DETAILED	WARDWELL	CHECKED-REVIEWED	WARDWELL	DESIGNED-DETAILED	SOUCY	DESIGNED-DETAILED	WARDWELL	REVISIONS 1	
DATE	02-2023	DATE	02-2023	SIGNATURE		P.E. NUMBER		DATE			

Date: 2/6/2023

Username: David.Wardwell

Division: HIGHWAY

Filename: ... \MSTA\013_XSECT_12+75_005.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2303600

WIN

HIGHWAY PLANS

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	ROGER SOUCY	BY	WARDWELL	DATE	02-2023
CHECKED-REVIEWED	HELSFROM	SOUCY	WARDWELL	DATE	02-2023
DESIGN DETAILED					
DESIGN DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

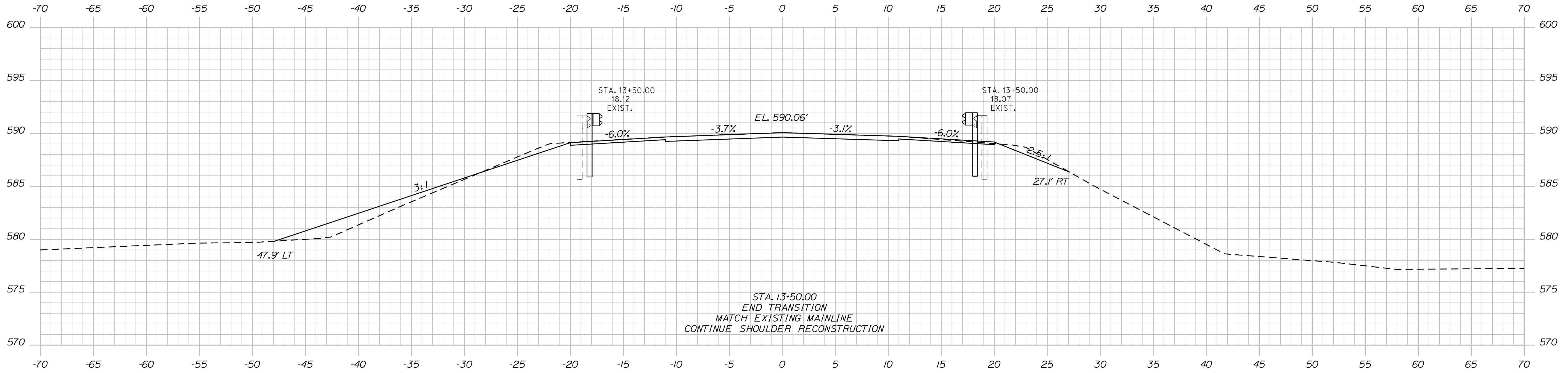
WOODLAND
ROUTE 161

CROSS SECTIONS

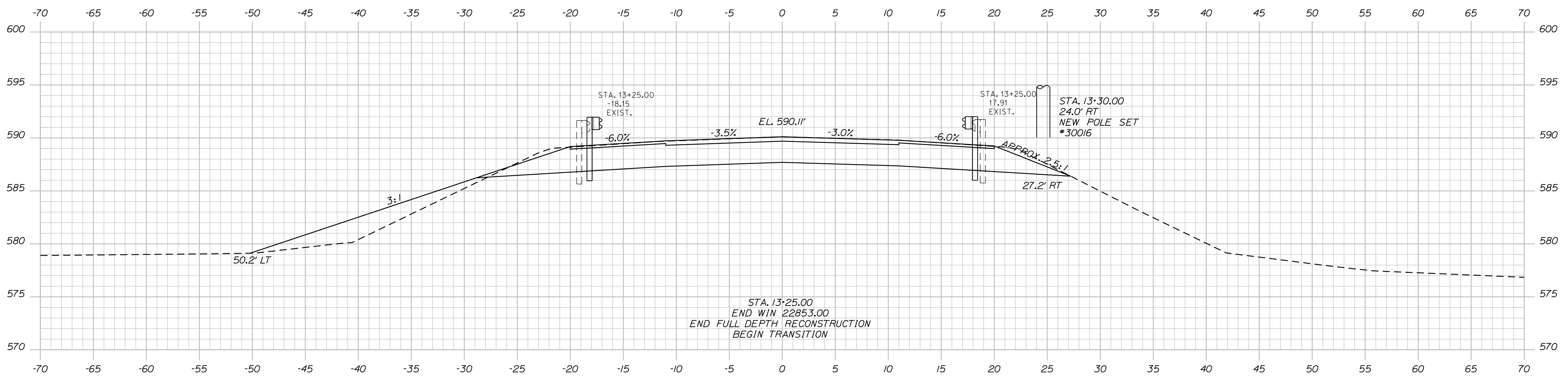
SHEET NUMBER

13

OF 20



13+50.00



13+25.00

PROJ. MANAGER	ROGER SOUCY	BY	DATE
DESIGN-DETAILED	WARDWELL	WARDWELL	02-2023
CHECKED-REVIEWED	HELSTROM	SOUCY	02-2023
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WOODLAND
ROUTE 161
CROSS SECTIONS

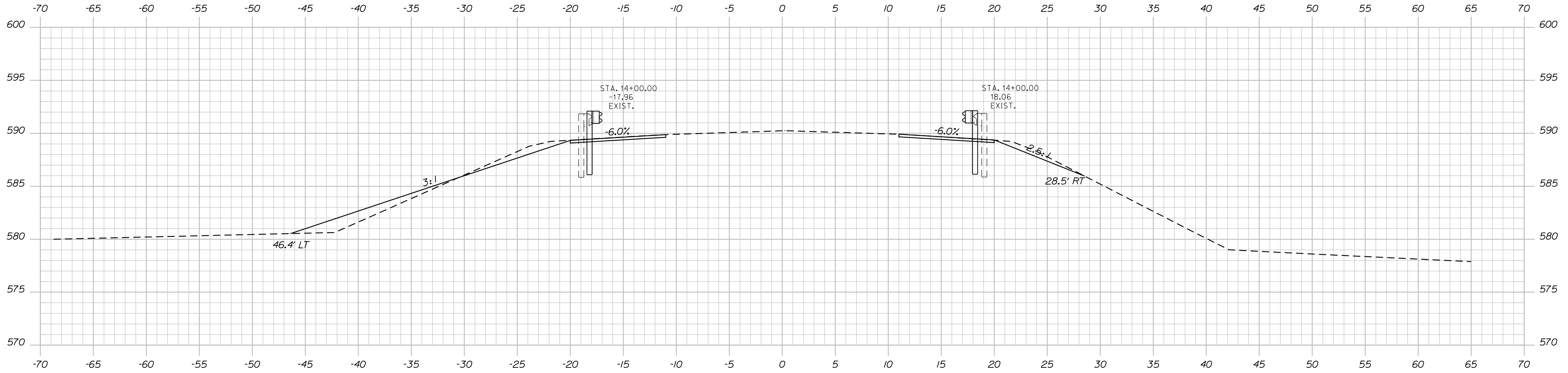
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14
OF 20

Date: 2/6/2023

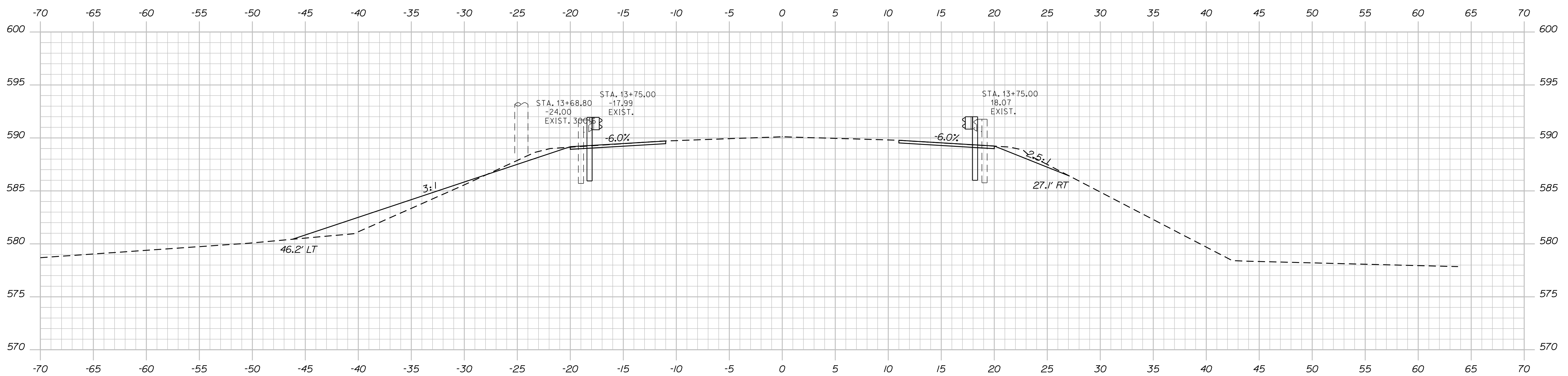
Username: David.Wardwell

Division: HIGHWAY

Filename: ... \MSTAD015_XSECT_13+75_007.dgn



14+00.00



13+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2303600

WIN

HIGHWAY PLANS

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	ROGER SOUCY	BY	WARDWELL	DATE	02-2023
DESIGN-DETAILED	WARDWELL	CHECKED-REVIEWED	WARDWELL	DATE	02-2023
DESIGN-DETAILED	WARDWELL	DESIGN-DETAILED	WARDWELL	DATE	02-2023
REVISIONS 1		REVISIONS 2		DATE	
REVISIONS 3		REVISIONS 4		DATE	
FIELD CHANGES				DATE	

WOODLAND
ROUTE 161

CROSS SECTIONS

SHEET NUMBER

15

OF 20

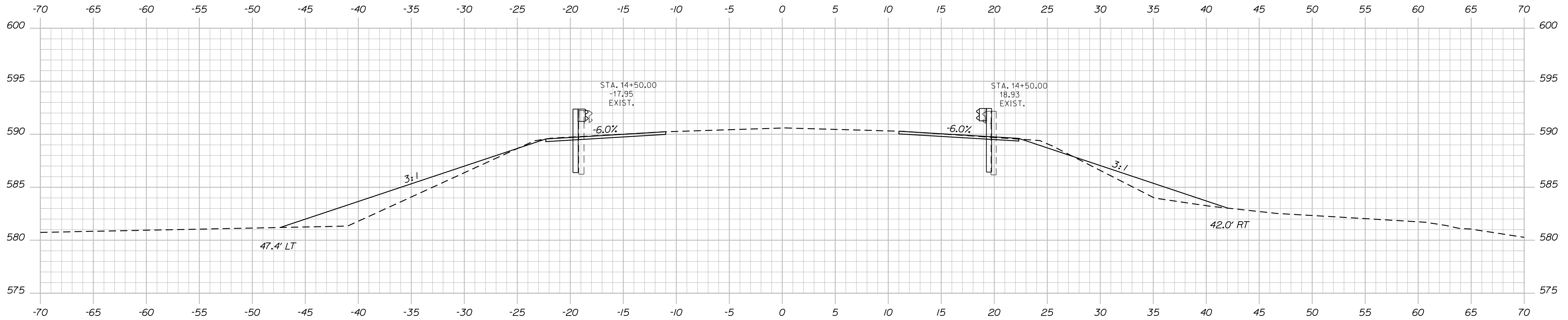
Sta. 13+75.00 to Sta. 14+00.00

Date: 2/6/2023

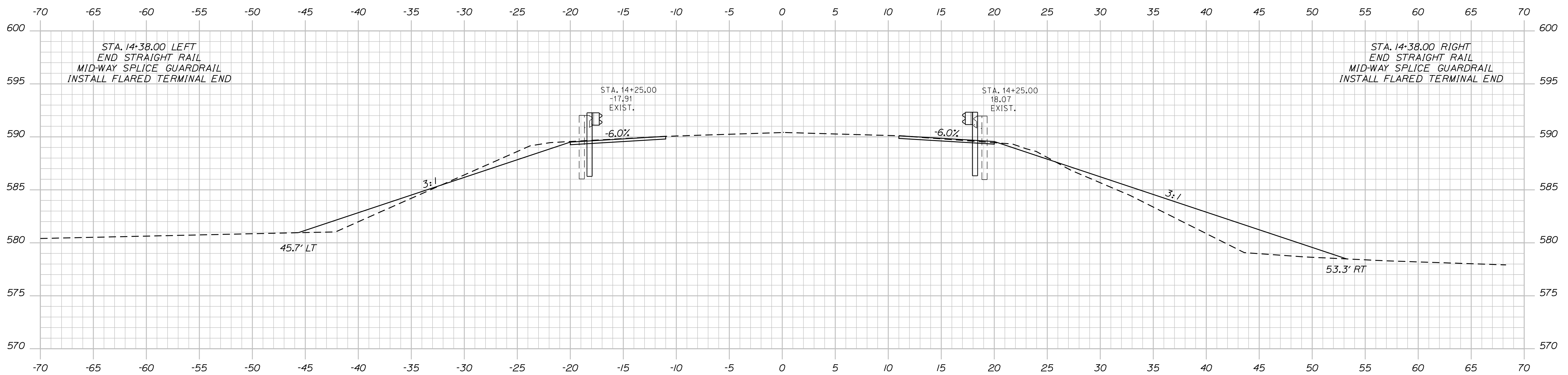
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Division: HIGHWAY

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14+50.00



14+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2303600

WIN

HIGHWAY PLANS

SIGNATURE

DATE

BY

ROGER SOUCY

DESIGN DETAILED
CHECKED-REVIEWED
DESIGN DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

DATE

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WOODLAND
ROUTE 161

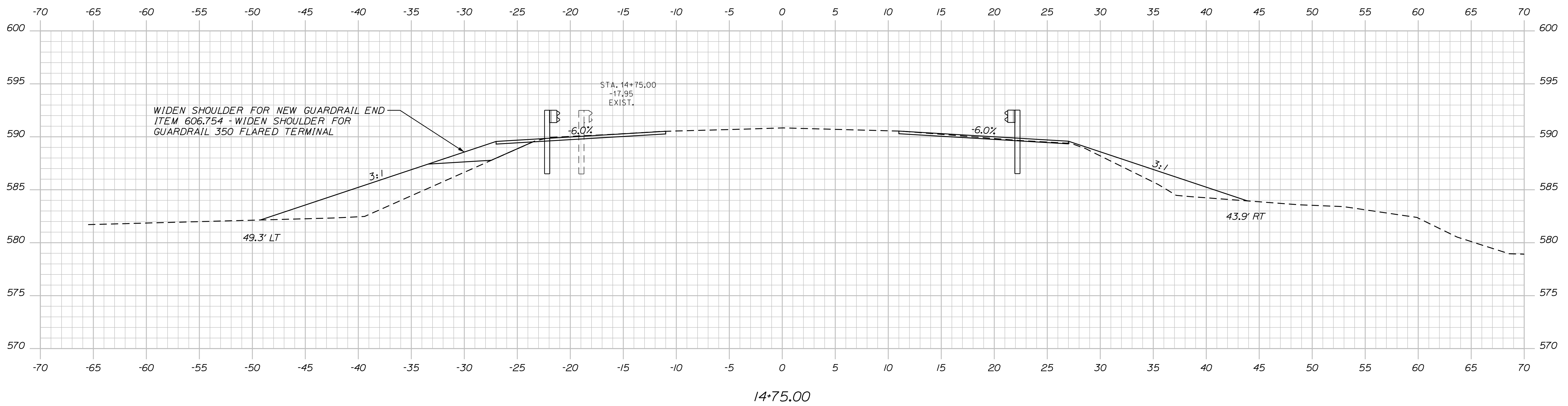
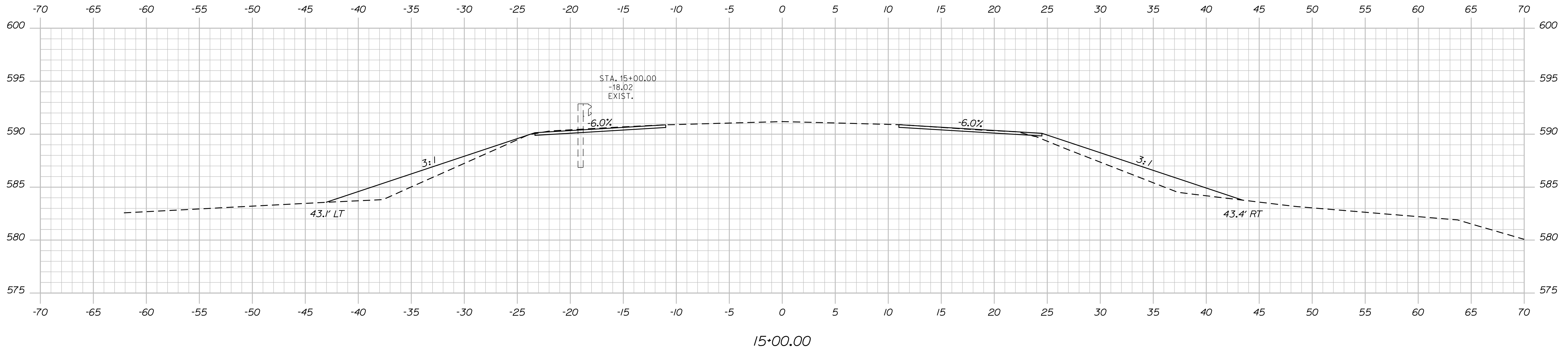
CROSS SECTIONS

SHEET NUMBER

16

OF 20

Sta. 14+25.00 to Sta. 14+50.00



PROJ. MANAGER	ROGER SOUCY	BY	WARDWELL	DATE	02-2023
DESIGN DETAILED	WARDWELL	CHECKED	WARDWELL	SIGNATURE	
DESIGN REVIEWED	HELSFROM	DESIGN DETAILED	SOUCY	P.E. NUMBER	
DESIGN DETAILED		DESIGN DETAILED		DATE	
REVISIONS 1		REVISIONS 1			
REVISIONS 2		REVISIONS 2			
REVISIONS 3		REVISIONS 3			
REVISIONS 4		REVISIONS 4			
FIELD CHANGES		FIELD CHANGES			

WOODLAND
ROUTE 161

CROSS SECTIONS

SHEET NUMBER

17

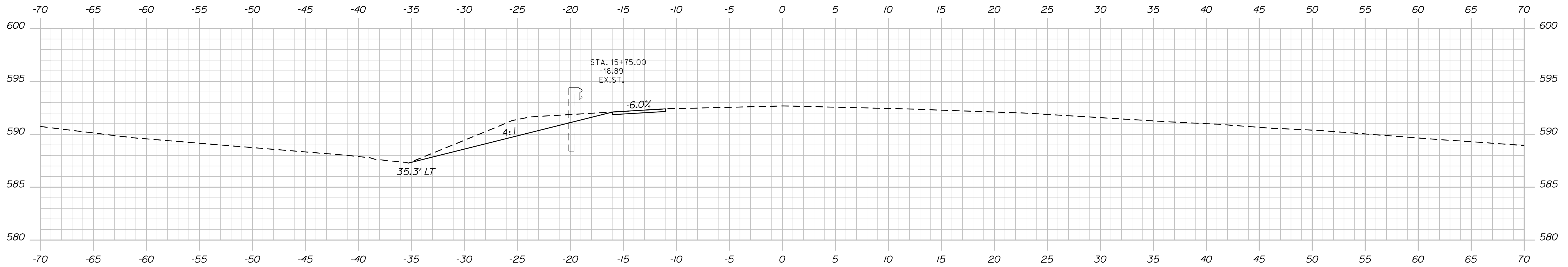
OF 20

Date: 2/6/2023

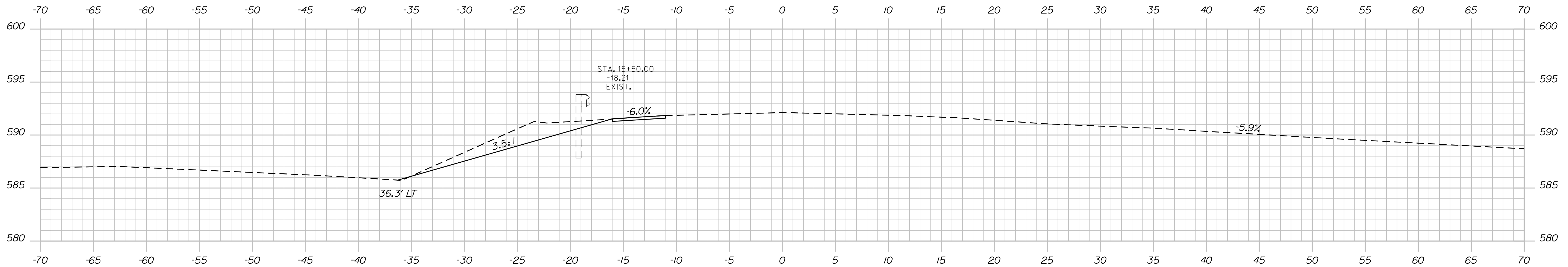
Username: David.Wardwell

Division: HIGHWAY

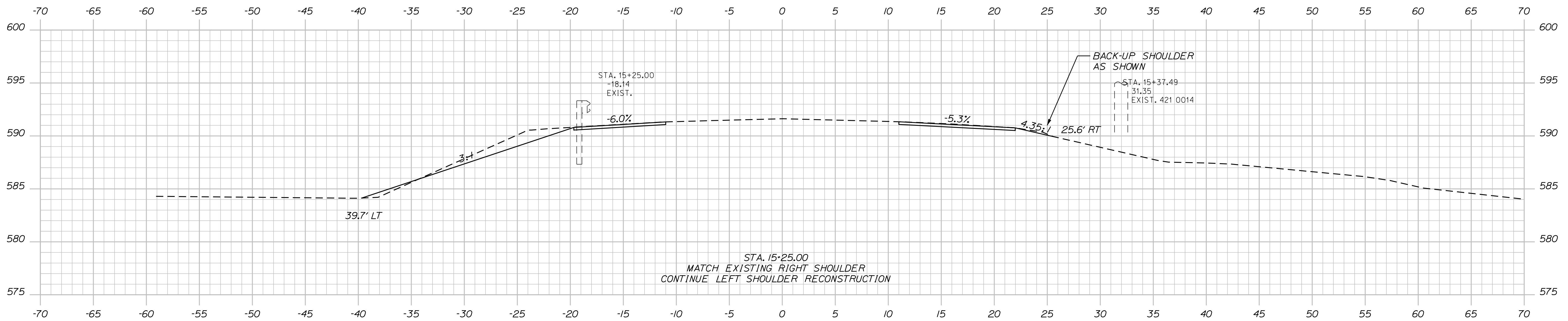
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15+75.00



15+50.00



STA. 15+25.00
MATCH EXISTING RIGHT SHOULDER
CONTINUE LEFT SHOULDER RECONSTRUCTION

15+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2303600

WIN

023036.00

HIGHWAY PLANS

SIGNATURE

DATE

BY

ROGER SOUCY

WARDWELL

HELSFROM

SOUCY

02-2023

02-2023

DESIGN DETAILED

CHECKED-REVIEWED

DESIGN DETAILED

DESIGN DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

P.E. NUMBER

DATE

WOODLAND
ROUTE 161

CROSS SECTIONS

SHEET NUMBER

18

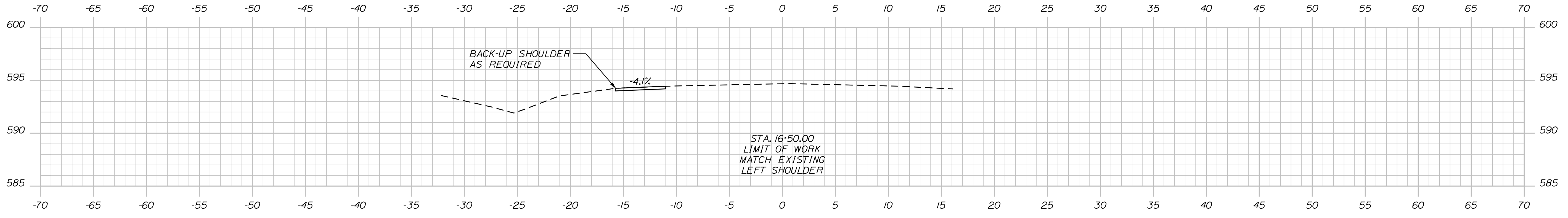
OF 20

Date: 2/6/2023

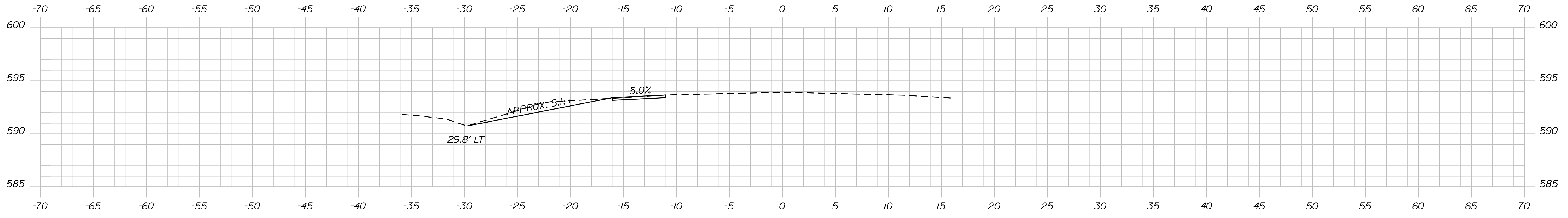
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Division: HIGHWAY

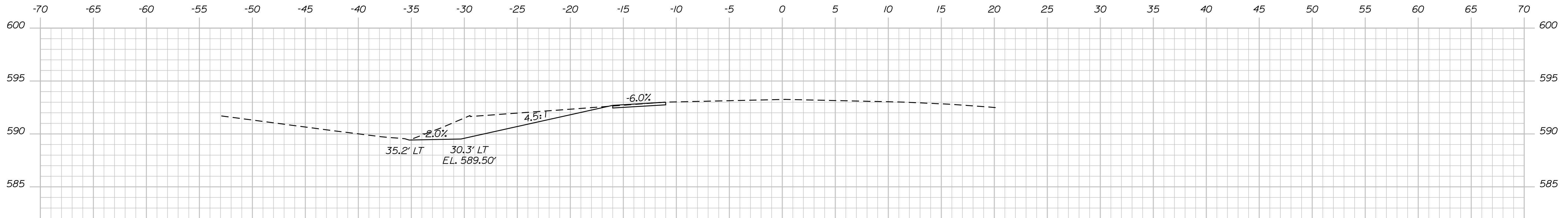
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16+50.00



16+25.00



16+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2303600
WIN
023036.00
HIGHWAY PLANS

DATE: 02-2023
SIGNATURE:
P.E. NUMBER:
DATE:

PROJ. MANAGER	ROGER SOUCY	BY	DATE
DESIGN DETAILED	WARDWELL	WARDWELL	02-2023
CHECKED/REVIEWED	HELSTROM	SOUCY	02-2023
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WOODLAND
ROUTE 161

CROSS SECTIONS

SHEET NUMBER

19

OF 20

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

New R/W Along Existing R/W
 Building _____
 Trees Conifer _____ Deciduous _____
 Tree Line _____
 Water Edge _____
 Ledge _____
 Fence CHAIN LINK _____ BARB WIRE _____ STOCKADE _____
 Sign _____ Well _____ Mailbox _____
 Clearing Limit Line _____
 Bush Line _____
 Rock/Boulder _____
 Flag Pole _____

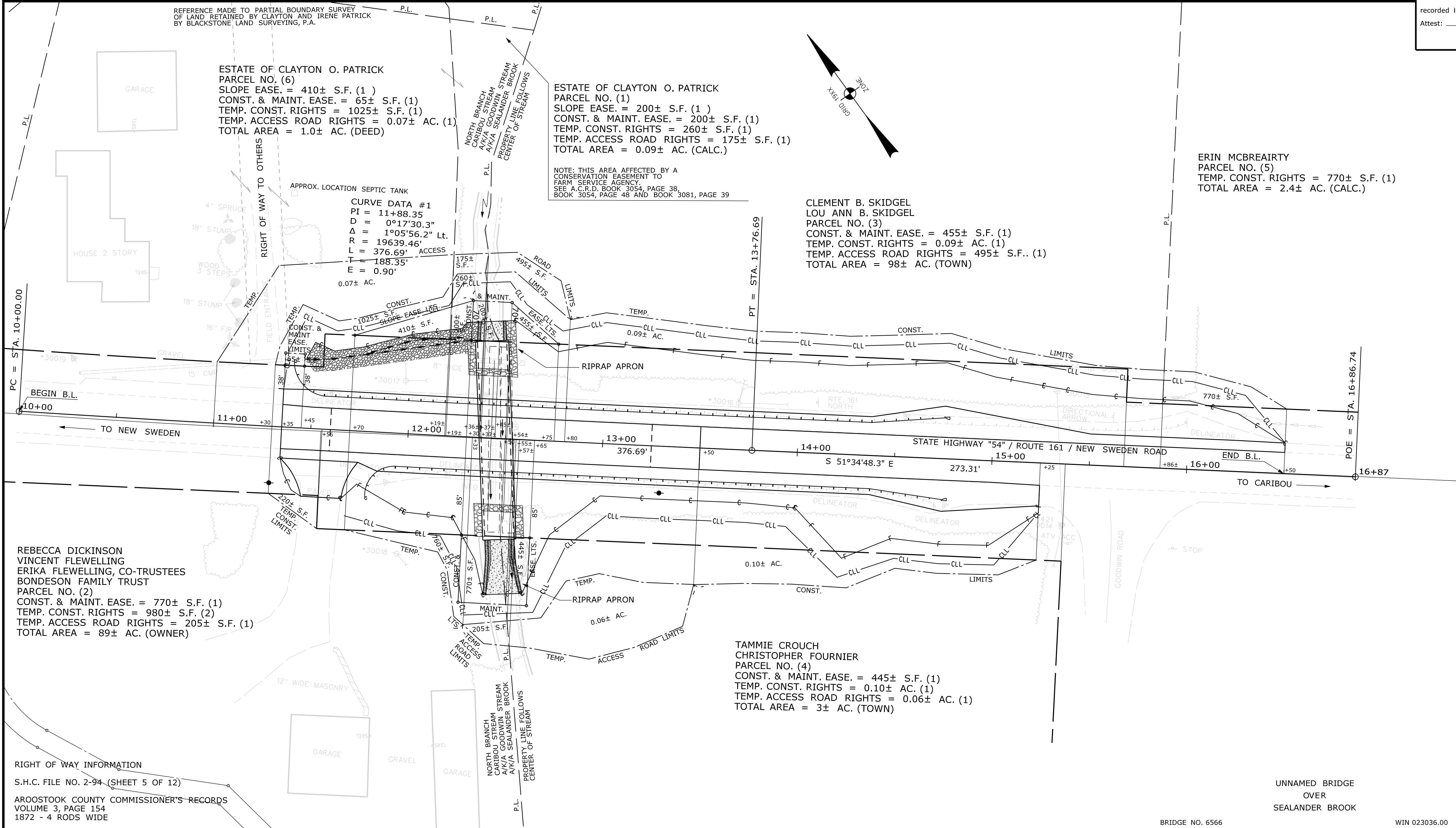
PLAN LEGEND
 Existing Proposed
 Sanitary Sewer _____
 Telephone Line _____
 Electric Line _____
 Water Line _____
 Underdrain Line _____
 Gas Line _____
 Guardrail _____
 Culvert _____
 Traveled Way _____
 Ditch _____
 Catch Basin _____
 Manhole _____
 Sewer Manhole _____
 Utility Pole _____
 Fire Hydrant _____
 Curbing _____

Cut Line _____
 Stonewall _____
 Baseline _____
 Monument _____
 Iron Rod Found _____ IRF
 Replacement Pin Set _____
 Fill Line _____
 Retaining Wall _____
 Traverse Point _____
 Pipe Found _____ IPF

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 ABUTTING PROPERTY OWNERS.

Scale of Feet
 0 25 50 75 100

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



ESTATE OF CLAYTON O. PATRICK
 PARCEL NO. (6)
 SLOPE EASE. = 410± S.F. (1)
 CONST. & MAINT. EASE. = 65± S.F. (1)
 TEMP. CONST. RIGHTS = 1025± S.F. (1)
 TEMP. ACCESS ROAD RIGHTS = 0.07± AC. (1)
 TOTAL AREA = 1.0± AC. (DEED)

ESTATE OF CLAYTON O. PATRICK
 PARCEL NO. (1)
 SLOPE EASE. = 200± S.F. (1)
 CONST. & MAINT. EASE. = 200± S.F. (1)
 TEMP. CONST. RIGHTS = 260± S.F. (1)
 TEMP. ACCESS ROAD RIGHTS = 175± S.F. (1)
 TOTAL AREA = 0.09± AC. (CALC.)

NOTE: THIS AREA AFFECTED BY A CONSERVATION EASEMENT TO FARM SERVICE AGENCY. SEE A.C.R.D. BOOK 3054, PAGE 38, BOOK 3054, PAGE 48 AND BOOK 3081, PAGE 39

CLEMENT B. SKIDGEL
 LOU ANN B. SKIDGEL
 PARCEL NO. (3)
 CONST. & MAINT. EASE. = 455± S.F. (1)
 TEMP. CONST. RIGHTS = 0.09± AC. (1)
 TEMP. ACCESS ROAD RIGHTS = 495± S.F. (1)
 TOTAL AREA = 98± AC. (TOWN)

ERIN MCBREAIRTY
 PARCEL NO. (5)
 TEMP. CONST. RIGHTS = 770± S.F. (1)
 TOTAL AREA = 2.4± AC. (CALC.)

BEGIN B.L. 10+00

END B.L. 16+87

REBECCA DICKINSON
 VINCENT FLEWELLING
 ERIKA FLEWELLING, CO-TRUSTEES
 BONDESON FAMILY TRUST
 PARCEL NO. (2)
 CONST. & MAINT. EASE. = 770± S.F. (1)
 TEMP. CONST. RIGHTS = 980± S.F. (2)
 TEMP. ACCESS ROAD RIGHTS = 205± S.F. (1)
 TOTAL AREA = 89± AC. (OWNER)

TAMMIE CROUCH
 CHRISTOPHER FOURNIER
 PARCEL NO. (4)
 CONST. & MAINT. EASE. = 445± S.F. (1)
 TEMP. CONST. RIGHTS = 0.10± AC. (1)
 TEMP. ACCESS ROAD RIGHTS = 0.06± AC. (1)
 TOTAL AREA = 3± AC. (TOWN)

RIGHT OF WAY INFORMATION
 S.H.C. FILE NO. 2-94 (SHEET 5 OF 12)
 AROOSTOOK COUNTY COMMISSIONER'S RECORDS
 VOLUME 3, PAGE 154
 1872 - 4 RODS WIDE

BRIDGE NO. 6566 WIN 023036.00

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

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

STATE HIGHWAY "54"
 ROUTE 161 / NEW SWEDEN ROAD
 WOODLAND AROOSTOOK COUNTY
 FEDERAL AID PROJECT NO. 2303600
 NOVEMBER 2022 RIGHT-OF-WAY MAP
 SCALE 1" = 25' SHEET 1 OF 1
 D.O.T. FILE NO. 2-639

STATE OF MAINE DEPARTMENT OF TRANSPORTATION 16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460	WOODLAND RIGHT OF WAY MAP
STATE OF MAINE DEPARTMENT OF TRANSPORTATION WOODLAND RIGHT OF WAY MAP	STATE OF MAINE DEPARTMENT OF TRANSPORTATION WOODLAND RIGHT OF WAY MAP
EXISTING CONDITION PLAN	TECH CHECKED
FINAL RIGHT OF WAY	G.L.L.
AREAS	T.L.B.
	T.L.B.
	P.N.S.

SHEET NUMBER
20
 OF 20

Date: 3/10/2023

Username: Terri.L.Blair

Division: ROW

Filename: ... \00\ROW\MSTA001_RWP\PLANT.dgn