

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



ETNA
PENOBSCOT COUNTY

STAGE ROAD BRIDGE

ROUTE 2

BRIDGE NO. 6722

FEDERAL PROJECT NO. 2427900

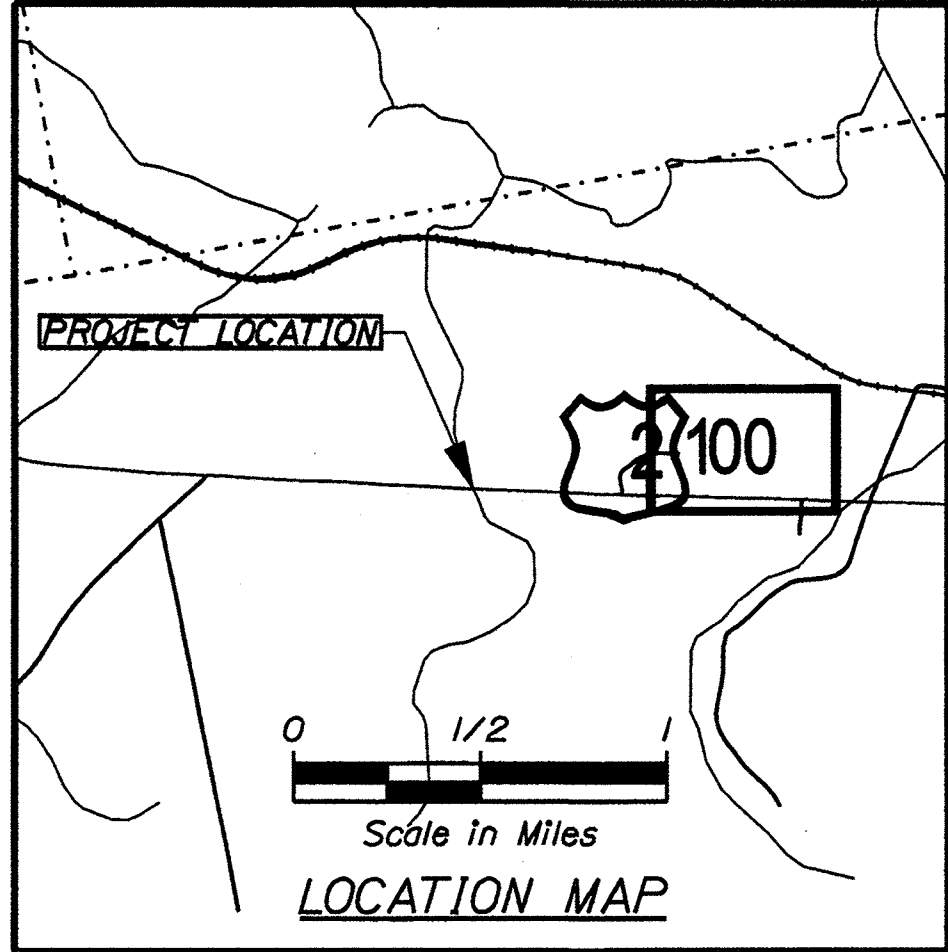
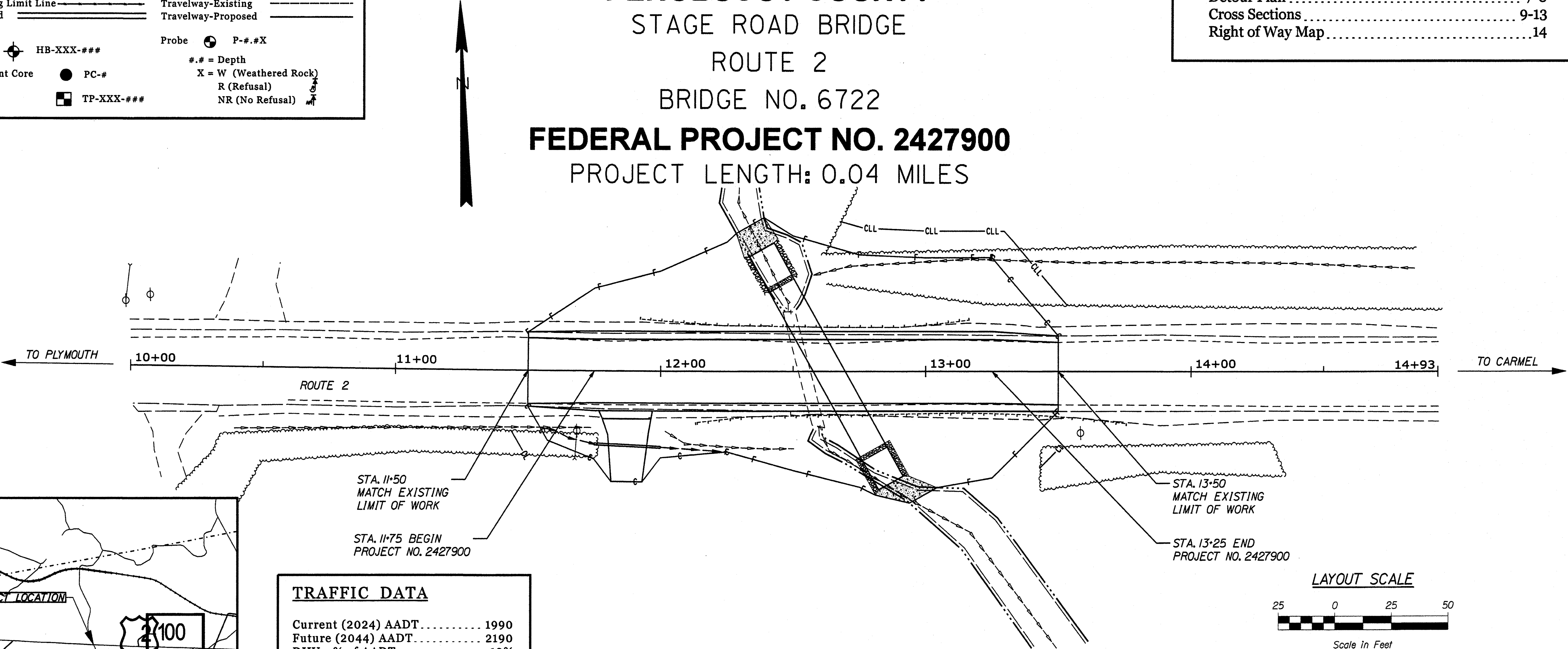
PROJECT LENGTH: 0.04 MILES

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	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	Centerline-Existing		
Tree Line	Centerline-Proposed		
Clearing Limit Line	Travelway-Existing		
Railroad	Travelway-Proposed		
Boring	Probe	P-#.#X	
Pavement Core		#.# = Depth	
Test Pit		X = W (Weathered Rock)	
		R (Refusal)	
		NR (No Refusal)	

INDEX OF SHEETS

Description	Sheet No.
Title Sheet	1
Estimated Quantities & General Notes	2
Typical Sections	3
Culvert Details	4
Boring Location Plan & Interpretive	
Subsurface Profile with Boring Logs	5
Plan / Profile	6
Detour Plan	7-8
Cross Sections	9-13
Right of Way Map	14



TRAFFIC DATA

Current (2024) AADT	1990
Future (2044) AADT	2190
DHV - % of AADT	12%
Design Hour Volume	263
% Heavy Trucks (AADT)	8%
Directional Distribution (DHV)	58%
Design Speed (mph)	50
Functional Class	Major Collector
Corridor Priority	3

PROJECT LOCATION:

REPLACEMENT OF LARGE CULVERT #47394 ON ROUTE 2 IN ETNA LOCATED 0.73 MILES EASTERLY OF WEST ETNA ROAD.

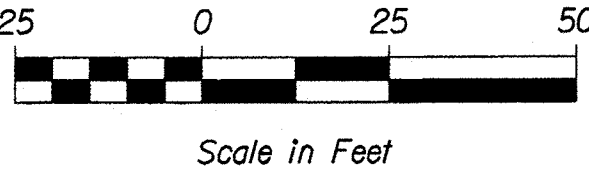
PROGRAM AREA:

REGIONAL PROGRAM

SCOPE OF WORK:

LARGE CULVERT IMPROVEMENTS

LAYOUT SCALE



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>		12-18-24
CHIEF ENGINEER: <i>[Signature]</i>		12-17-2024

SIGNATURE: <i>[Signature]</i>	P.E. NUMBER: 18093	DATE: 12/17/2024
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PROGRAM	REGIONAL
PROJECT MANAGER	R. BARROWS
DESIGNER	J. BARNES
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

ETNA ROUTE 2 TITLE SHEET

SHEET NUMBER 1 OF 14

WIN 24279.00 FEDERAL PROJECT NO. 2427900

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
203.20	COMMON EXCAVATION	510	CY
203.25	GRANULAR BORROW	300	CY
203.33	SPECIAL FILL	100	CY
304.10	AGGR SUBB COURSE - GRAVEL	460	CY
403.208	HOT MIX ASPHALT 12.5 mm HMA SURFACE	60	T
403.209	HOT MIX ASPHALT 9.5 mm (INCIDENTALS)	1	T
403.213	HOT MIX ASPHALT 12.5 mm BASE	120	T
409.15	BITUMINOUS TACK COAT - APPLIED	50	G
511.07	COFFERDAM; UPSTREAM	1	LS
511.07	COFFERDAM; DOWNSTREAM	1	LS
603.16	15" CULV PIPE OPTION 1	30	LF
603.4073	128" SPAN X 83" RISE STEEL PLATE PIPE ARCH	92	LF
606.363	GR REMOVE AND DISPOSE	288	LF
610.08	PLAIN RIPRAP	30	CY
610.212	STREAM ROCKBED FEATURES	5	CY
610.213	VOID-FILLED RIPRAP	20	CY
613.319	EROSION CONTROL BLANKET	20	SY
615.07	LOAM	55	CY
618.14	SEEDING METHOD NUMBER 2	9	UN
619.12	MULCH	9	UN
620.58	EROSION CONTROL GEOTEXTILE	50	SY
627.733	4" WHITE OR YELLOW PAINTED PAVE MRK LINE	600	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.112	HEAVY DUTY ALL PURPOSE EXCAVATOR WITH	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
652.312	TYPE III BARRICADE	4	EA
652.33	DRUM	30	EA
652.34	CONE	30	EA
652.35	CONSTRUCTION SIGNS	482	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	35	CD
652.38	FLAGGER	300	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	2	EA
656.75	TEMP SOIL EROSION & WATER POLLUTION CTRL	1	LS
659.10	MOBILIZATION	1	LS

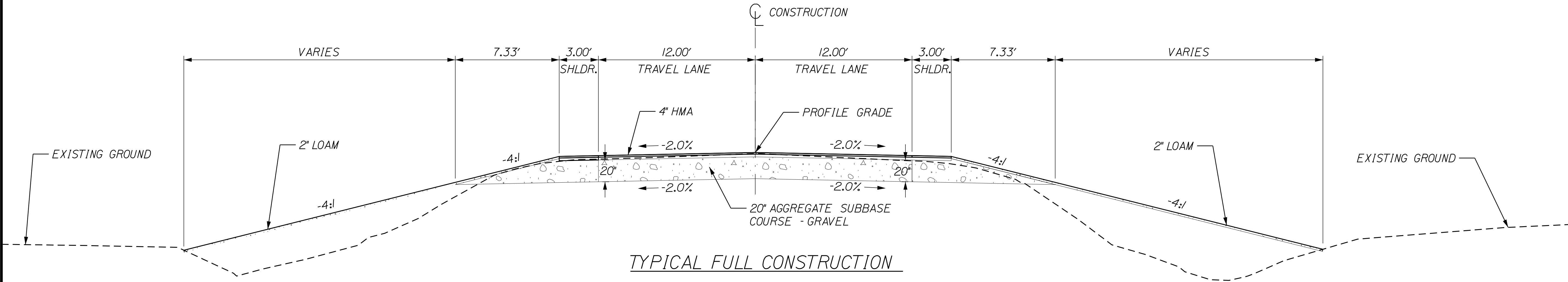
GENERAL NOTES

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. 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.
4. THE CONTRACTOR SHALL PLAN AND CONDUCT WORK SO THAT UPON COMPLETION OF THE PROJECT THERE IS NO DROP-OFF FROM THE EDGE OF THE SHOULDER PAVEMENT.
5. DRIVEWAY FILL SIDE SLOPES SHALL BE THE SAME AS THE FILL SIDE SLOPES WITHOUT GUARDRAIL UNLESS OTHERWISE NOTED ON THE PLANS.
6. 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.
7. GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1 FOOT ABOVE WATER LEVEL OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW MATERIAL FOR UNDERWATER BACKFILL AS SPECIFIED IN STANDARD SPECIFICATION 703.19.
8. 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.
9. GRAVEL ENTRANCES SHALL BE CONSTRUCTED WITH 14 INCHES OF AGGREGATE SUBBASE COURSE GRAVEL OR 11 INCHES OF AGGREGATE SUBBASE COURSE GRAVEL AND 3 INCHES OF UNTREATED AGGREGATE SURFACE COURSE UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE RESIDENT.
10. A 3-FOOT PAVED LIP SHALL BE PLACED AT ALL UNPAVED ENTRANCES UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE RESIDENT.
11. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.
12. INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE RESIDENT.
13. LOAM HAS BEEN ESTIMATED FOR DISTURBED LAWN AREAS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
14. 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.
15. LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 4 INCHES IN LAWN AREAS AND 2 INCHES IN ALL OTHER AREAS UNLESS OTHERWISE NOTED OR DIRECTED.
16. 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.
17. THE PROJECT GEOTECHNICAL REPORT TITLED "GEOTECHNICAL DESIGN REPORT FOR THE CONSTRUCTION OF STAGE COACH BRIDGE". SOILS REPORT 2024-3, NOVEMBER 18, 2024 CAN BE ACCESSED AT THE MAINEDOT WEBSITE [HTTP://WWW.MAINE.GOV/MDOT/CONTRACTORS/](http://www.maine.gov/mdot/contractors/).
18. 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. MAINEDOT WILL NOT BE RESPONSIBLE FOR ANY INTERPRETATIONS OR CONCLUSION 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.
19. AREAS REQUIRING FILL ON THE PROJECT WILL COME FROM SUITABLE EXCAVATION FROM EXCAVATION, DITCH AND INSLOPE OR EQUIPMENT RENTAL AREAS.
20. 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.
21. FINAL STRIPING FOR THE PROJECT SHALL BE DONE BY THE CONTRACTOR PER THE STRIPING LAYOUT IN THE CONTRACT DOCUMENTS OR AS PROVIDED BY THE DEPARTMENT. PAYMENT SHALL BE MADE UNDER APPROPRIATE CONTRACT ITEMS.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
FEDERAL PROJECT NO. 2427900
WIN 24279.00
HIGHWAY PLANS

ETNA
ROUTE 2
ESTIMATED QUANTITIES
& GENERAL NOTES

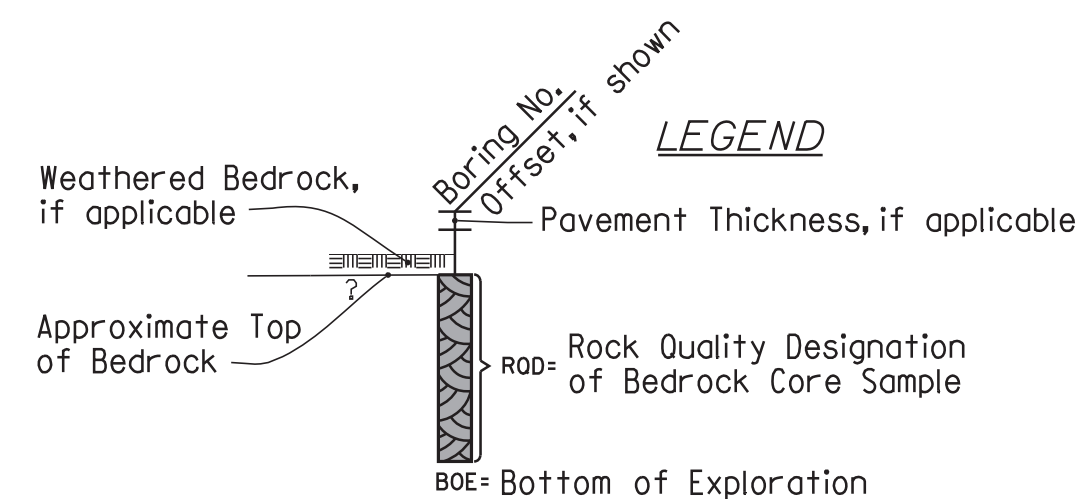
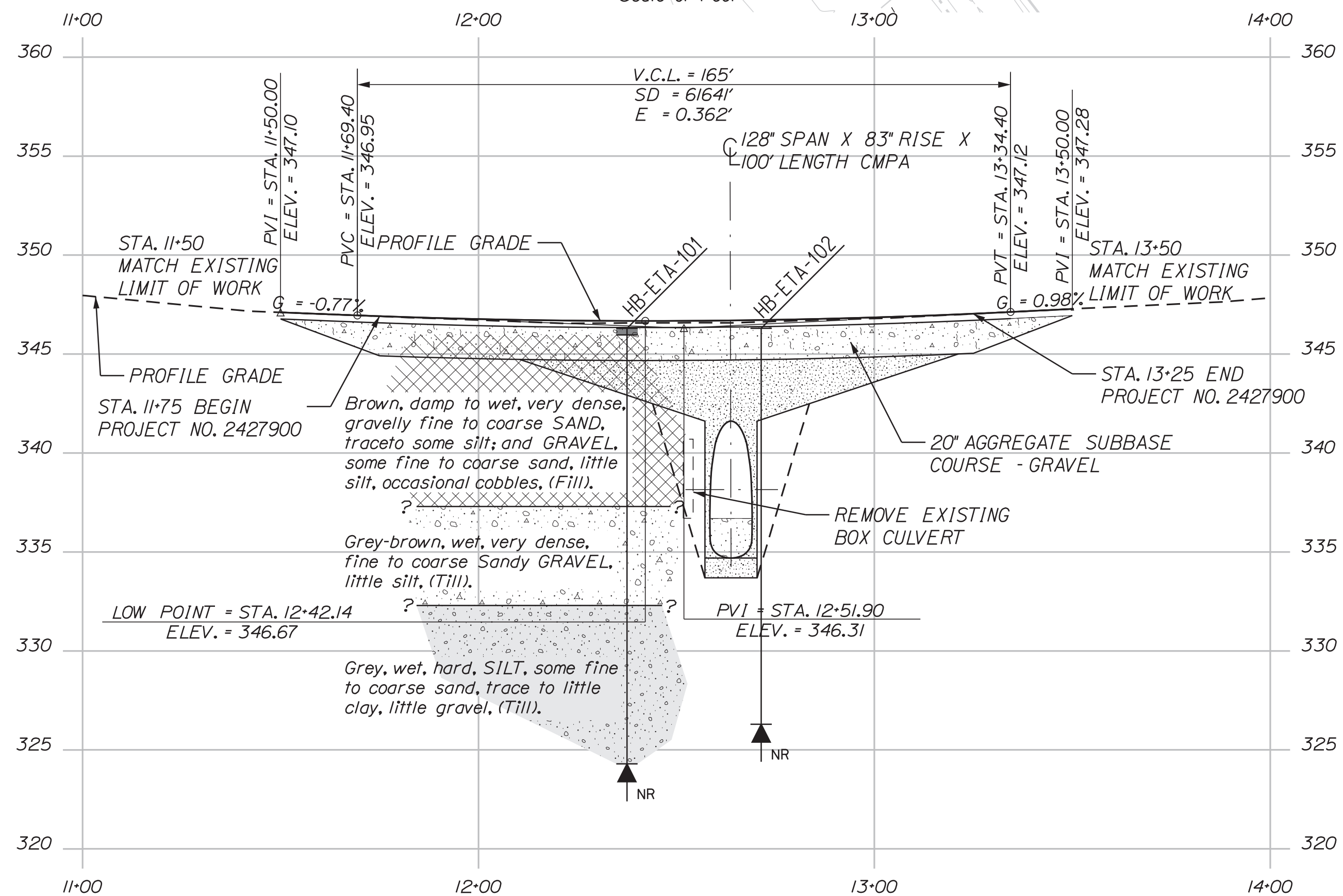
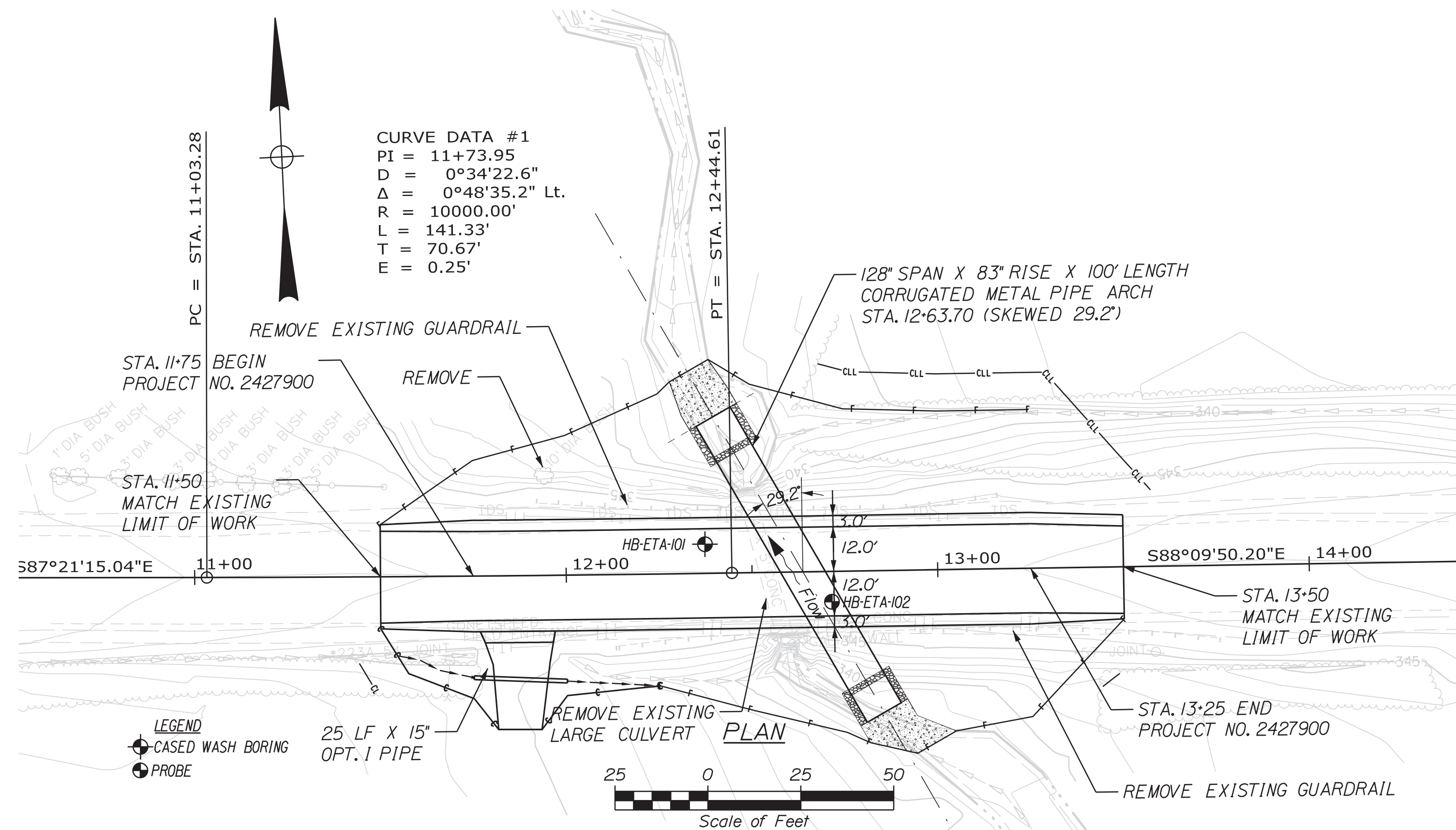
SHEET NUMBER
2
OF 14



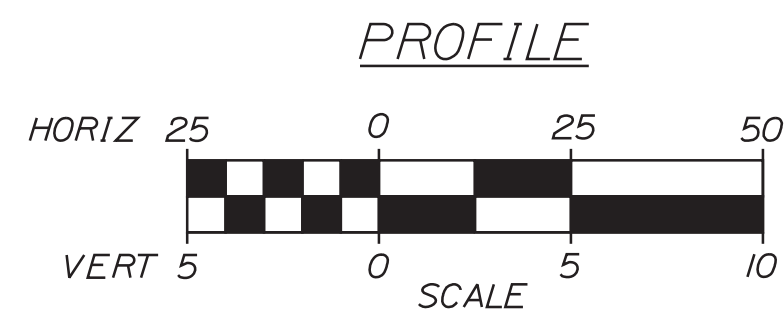
- NOTES:**
1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
 2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER SHALL HAVE THE SAME SLOPE AS THE TRAVELWAY.
 3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
 4. THE ALGEBRAIC DIFFERENCE BETWEEN THE SHOULDER AND TRAVELWAY CROSS SLOPES "ROLLOVER" SHALL NOT EXCEED 8%.
 5. THE STATIONING SHOWN UNDER EACH TYPICAL SECTION IS APPROXIMATE.

NOT TO SCALE

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
FEDERAL PROJECT NO. 2427900		WIN 024279.00	
ETNA ROUTE 2		SIGNATURE	
TYPICAL SECTIONS		P.E. NUMBER	
SHEET NUMBER		DATE	
3		DEC 2024	
OF 14		J. BAINES	
		R. BARROWS	
		DESIGN-DETAILED	
		CHECKED-REVIEWED	
		DESIGN-DETAILED	
		REVISIONS 1	
		REVISIONS 2	
		REVISIONS 3	
		REVISIONS 4	
		FIELD CHANGES	



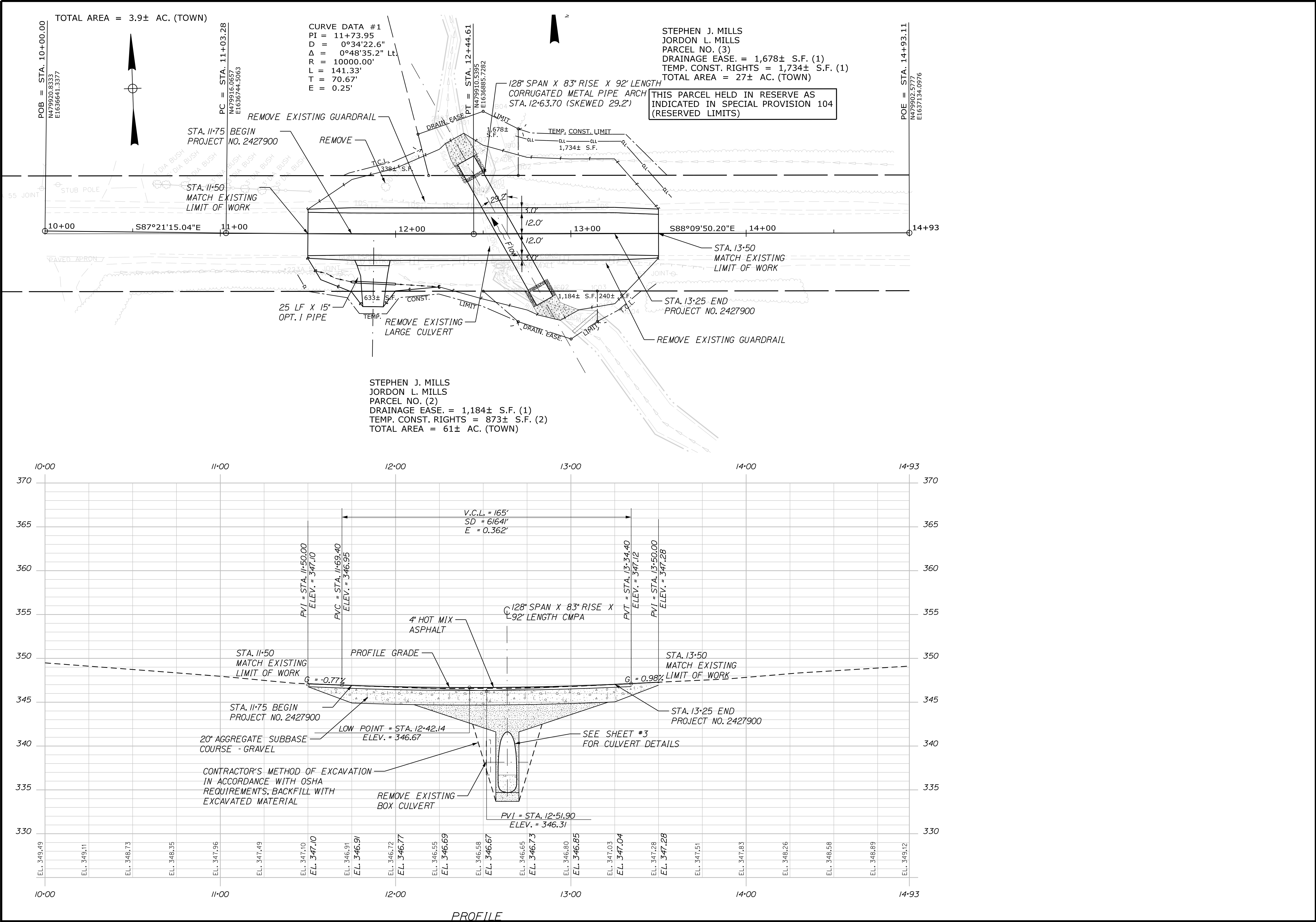
 No Refusal
 Refusal



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.

[illegible]

Maine Department of Transportation Soil/Bore Evaluation Log US CUSTOMARY UNITS				Project: <u>Rout 2 Large Culvert</u> Location: <u>Etna, Maine</u>		Boring No.: <u>HB-E102</u> WIN: <u>24279.00</u>	
Drilling Contractor <u>M&H/DST</u>			Elevation (ft.): <u>346.3</u>		Auger ID/OD: <u>5" Dia.</u>		
Downhole: <u>Open Pit/Track</u>			Downhole: <u>N/A/DH</u>		Sampling: <u>N/A</u>		
Logged By: <u>B. Nader</u>			Rig Type: <u>CNC DSC</u>		Hollow: <u>Wt./Fall</u> <u>N/A</u>		
Date Start/Finish: <u>2/20/2024 08:00-12:00</u>			Drilling Method: <u>Solid Stem Auger</u>		Core Barrels: <u>N/A</u>		
Boring Location: <u>12+71.4, 8.2 ft. Rt.</u>			Casing ID/OD: <u>N/A</u>		Water Level: <u>None Observed</u>		
Definition: <u>S</u> = Soil Spore Sample <u>WU</u> = Unsuccessful Thin Wall Tube Sample Attempt <u>WSP</u> = Weight of Test Soil <u>S</u> = Sample off Auger / <u>W</u> = <u>Wt.</u> = Bulk Core Sample <u>S_u</u> = Unsurpassed Field Vane Undrained Shear Strength (psf) <u>S_u</u> = Bulk Sample off Auger / <u>W</u> = <u>Wt.</u> = Bulk Sample <u>S_u</u> = Lab. Vane Undrained Shear Strength (psf) <u>WU</u> = Unsuccessful Field Vane Spore Sample Attempt <u>WU</u> = Unsuccessful Field Vane Undrained Shear Strength (psf) <u>W</u> = Thin Wall Tube Sample <u>W</u> = Bulk Core Sample <u>W</u> = Bulk Core Sample <u>W</u> = Bulk Core Sample <u>W</u> = Unsuccessful Field Vane Spore Sample Attempt <u>W</u> = Weight of Test Soil <u>W</u> = Bulk Core Sample <u>W</u> = Bulk Core Sample <u>W</u> = Unsuccessful Field Vane Spore Sample Attempt <u>W</u> = Weight of Test Soil <u>W</u> = Bulk Core Sample <u>W</u> = Bulk Core Sample							
Depth (ft.)	Sample No.	Pen./Rec. (in)	Sample Depth (ft.)	Sample Information	Pen./Rec. (in)	Coring Depth (ft.)	Pen./Rec. (in)
0							
5							
10							
15							
20							
24							
Remarks: Bottom of Exploration at 20.0 feet below ground surface. NO RETAIL.							



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		FEDERAL PROJECT NO. 2427900	
ETNA		ROUTE 2		PLAN / PROFILE	
SHEET NUMBER		6		OF 14	
PROJ. MANAGER	R. BARROWS	BY	J. BAINES	DATE	DEC. 2024
DESIGN-DETAILED		CHECKED-REVIEWED		SIGNATURE	
DESIGN-DETAILED		DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		REVISIONS 1		DATE	
REVISIONS 2		REVISIONS 2			
REVISIONS 3		REVISIONS 3			
REVISIONS 4		REVISIONS 4			
FIELD CHANGES		FIELD CHANGES			

1

DETOUR
AHEAD

2

ROAD CLOSED
500 FT

3

ROAD CLOSED
1000 FT

4

ROAD CLOSED
1/2 MILE

12

ROAD CLOSED
X FEET AHEAD
LOCAL TRAFFIC ONLY

13

ROAD CLOSED
X MILES AHEAD
LOCAL TRAFFIC ONLY

14

ROAD CLOSED

15

DETOUR
WEST
2
→

16

DETOUR
WEST
2
←

5

DETOUR
EAST
2
→

6

DETOUR
EAST
2
←

7

DETOUR
EAST
2
↑

8

END
DETOUR

9

DETOUR
EAST
2
↘

10

DETOUR
EAST
2
↙

11

DETOUR
EAST
2
↗

21

EAST [2] CLOSED
X MILES AHEAD
SEEK ALT. ROUTE

22

WEST [2] CLOSED
X MILES AHEAD
SEEK ALT. ROUTE

17

DETOUR
WEST
2
↘

18

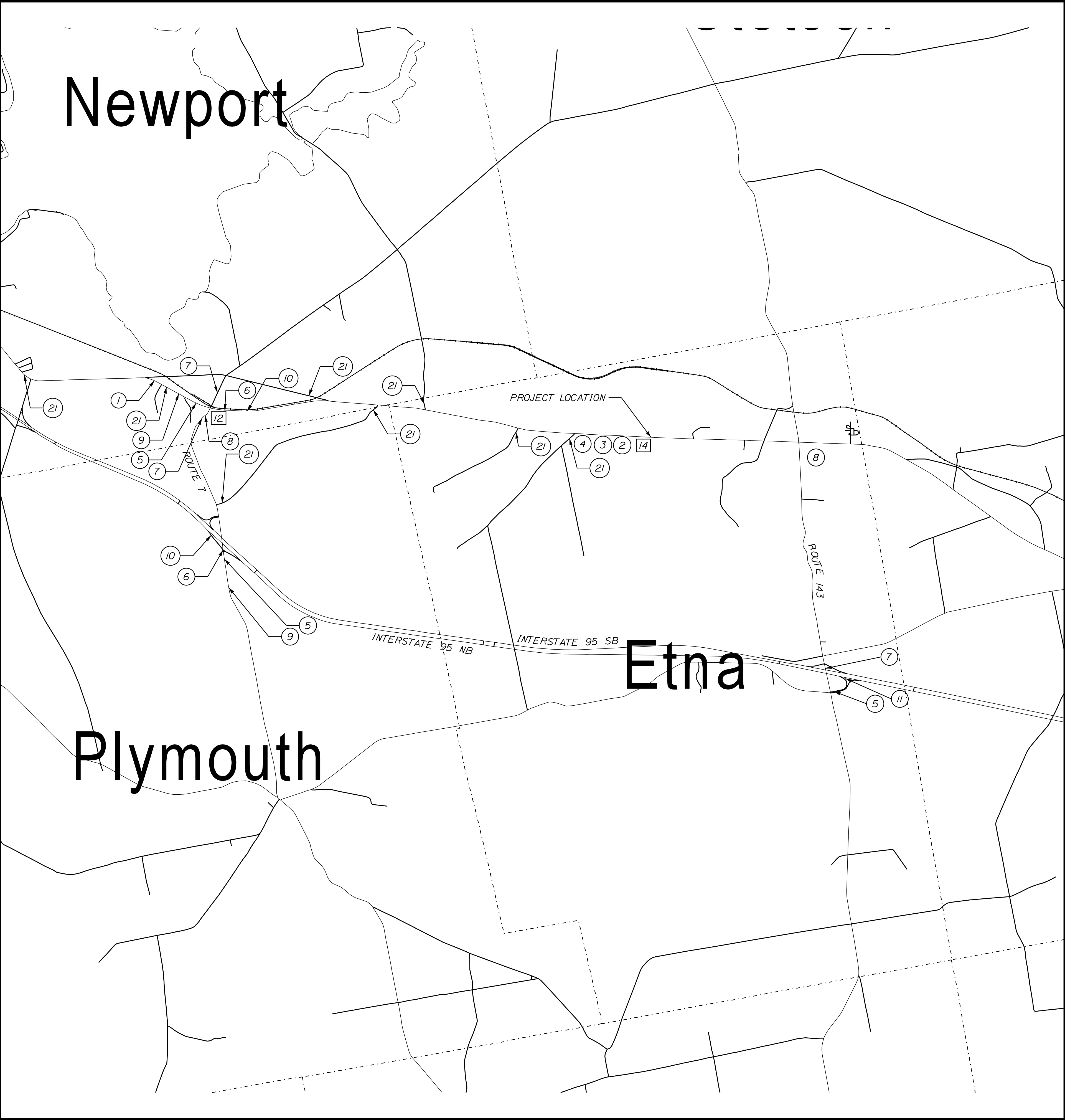
DETOUR
WEST
2
↙

19

DETOUR
WEST
2
↑

20

DETOUR
WEST
2
↗



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
FEDERAL PROJECT NO. 2427900		WIN 2427900	
HIGHWAY PLANS		SIGNATURE	
DATE		P.E. NUMBER	
BY		DATE	
R. BARROWS		DEC. 2024	
J. BAINES		J. BAINES	
DESIGNED-DETAILED		DESIGNED-DETAILED	
CHECKED-REVIEWED		CHECKED-REVIEWED	
DESIGN-DETAILED		DESIGN-DETAILED	
REVISIONS 1		REVISIONS 1	
REVISIONS 2		REVISIONS 2	
REVISIONS 3		REVISIONS 3	
REVISIONS 4		REVISIONS 4	
FIELD CHANGES		FIELD CHANGES	
ETNA ROUTE 2		EASTBOUND DETOUR PLAN	
SHEET NUMBER		2	
OF 14			

1

DETOUR
AHEAD

2

ROAD CLOSED
500 FT

3

ROAD CLOSED
1000 FT

4

ROAD CLOSED
1/2 MILE

12

ROAD CLOSED
X FEET AHEAD
LOCAL TRAFFIC ONLY

DETOUR

13

ROAD CLOSED
X MILES AHEAD
LOCAL TRAFFIC ONLY

DETOUR

14

ROAD CLOSED

15

DETOUR
WEST
2
→

16

DETOUR
WEST
2
←

5

DETOUR
EAST
2
→

6

DETOUR
EAST
2
←

7

DETOUR
EAST
2
↑

8

END
DETOUR

9

DETOUR
EAST
2
↗

10

DETOUR
EAST
2
↖

11

DETOUR
EAST
2
↗

17

DETOUR
WEST
2
↗

18

DETOUR
WEST
2
↖

19

DETOUR
WEST
2
↑

20

DETOUR
WEST
2
↗

21

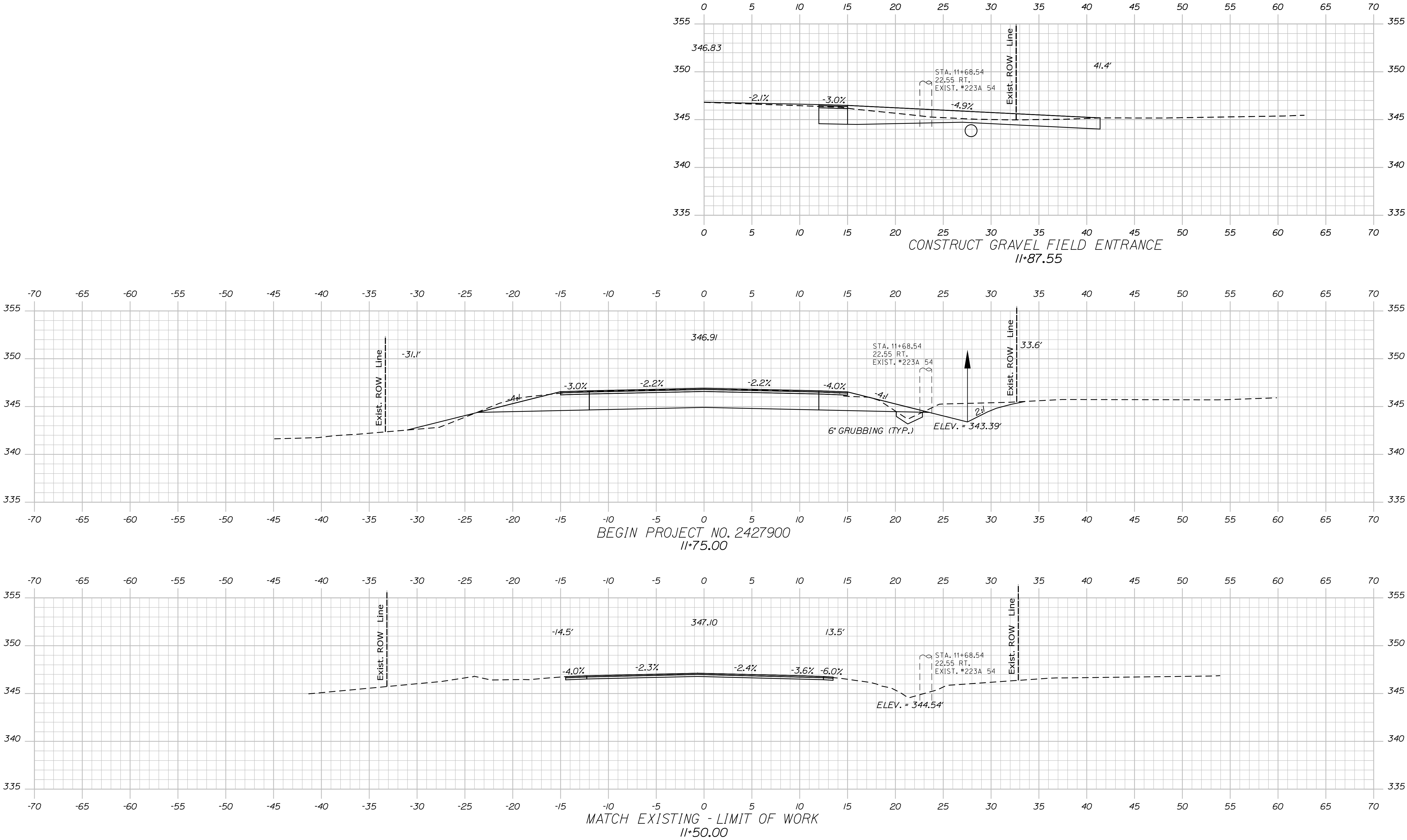
EAST [2] CLOSED
X MILES AHEAD
SEEK ALT. ROUTE

22

WEST [2] CLOSED
X MILES AHEAD
SEEK ALT. ROUTE



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
FEDERAL PROJECT NO. 2427900		WIN 2427900	
HIGHWAY PLANS			
ETNA ROUTE 2		WESTBOUND DETOUR PLAN	
SHEET NUMBER		8	
OF 14			
PROJ. MANAGER	R. BARROWS	BY	DATE
DESIGN-DETAILED		J. BAINES	DEC. 2024
CHECKED-REVIEWED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SIGNATURE		P.E. NUMBER	
DATE			

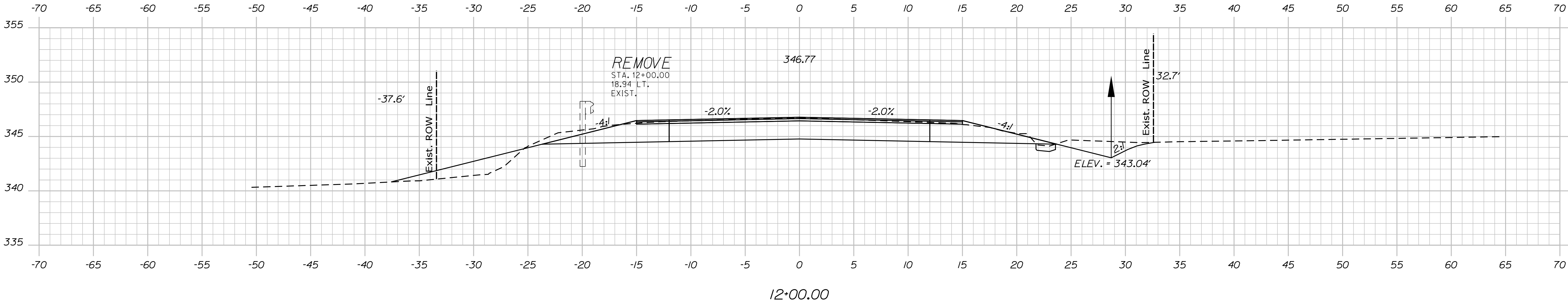
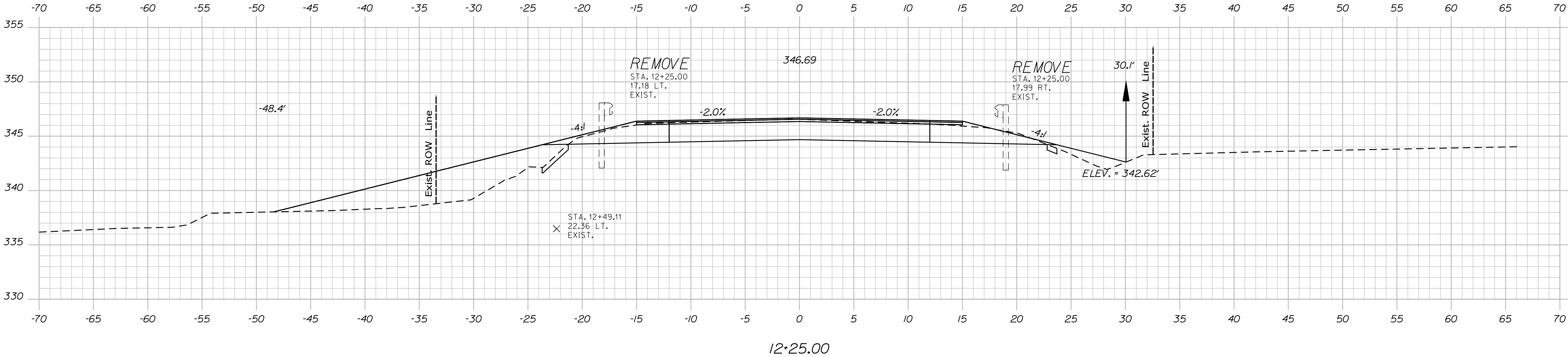
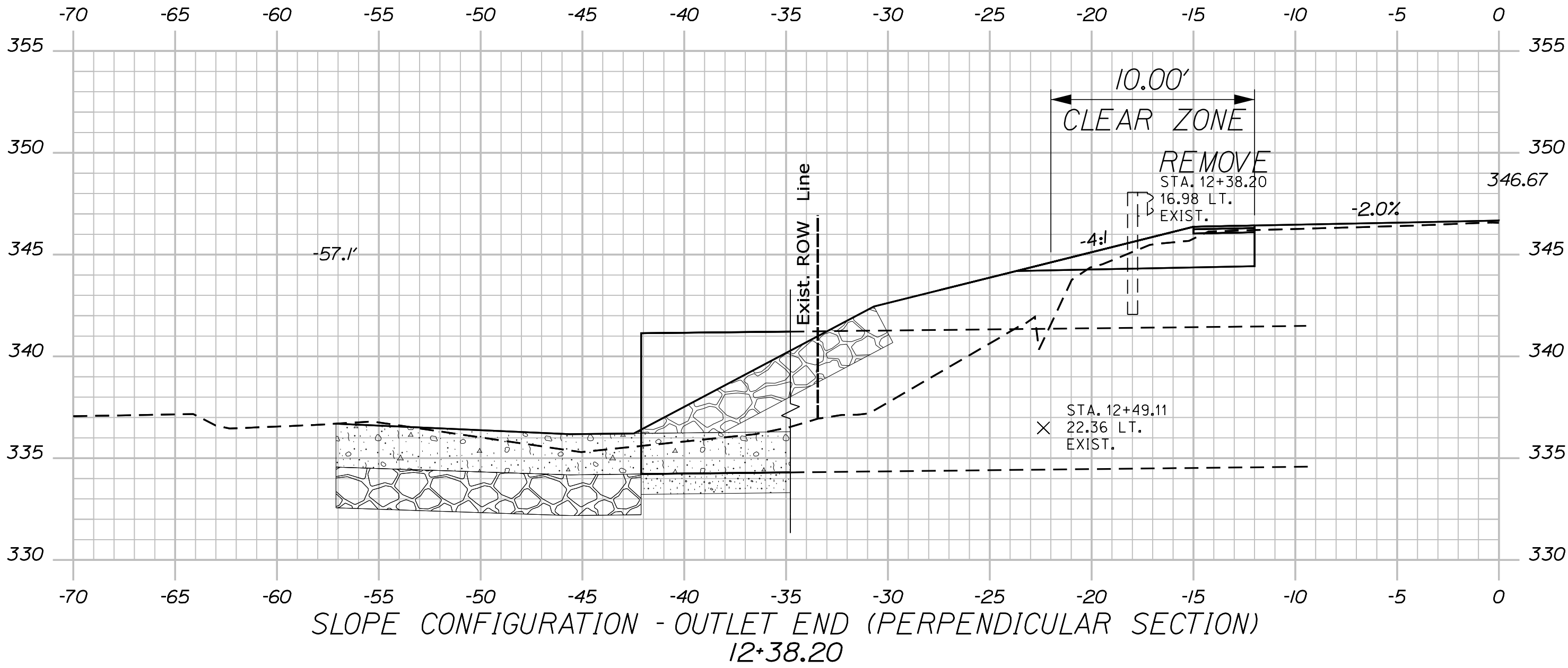


Date:12/17/2024

Username: James.Baines

Division: HIGHWAY

Filename: ... \MSTAD10_XSECT_12+00_002.dgn



PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGNED-DETAILED	J. BAINES	DEC 2024			
CHECKED-REVIEWED					
DESIGNED-DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

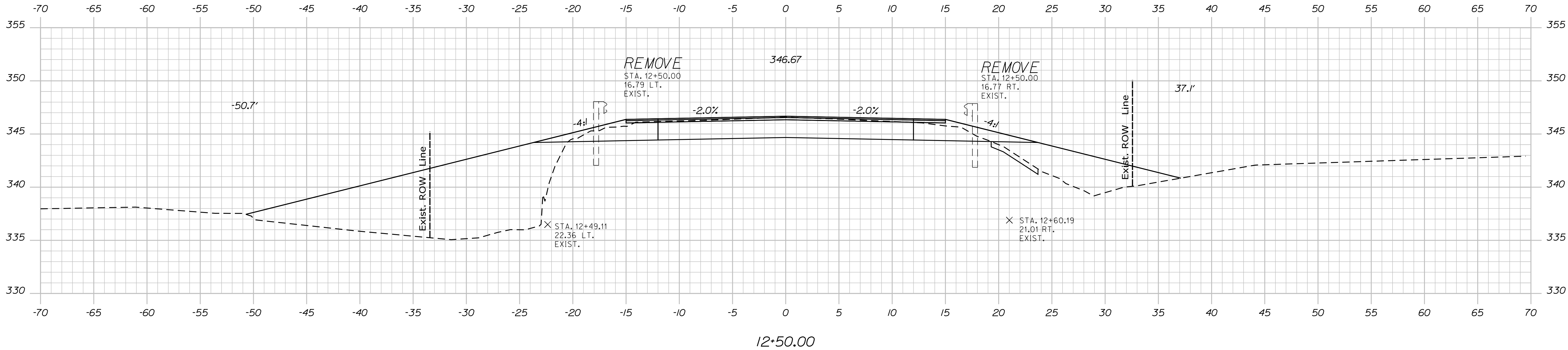
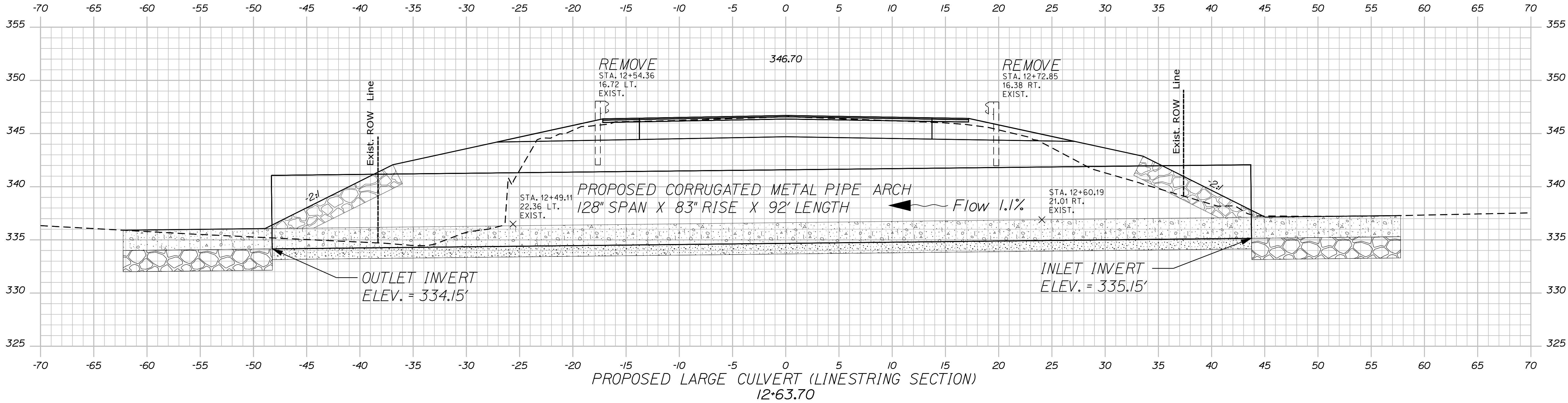
ETNA
ROUTE 2
CROSS SECTIONS

Date:12/17/2024

Username: James.Baines

Division: HIGHWAY

Filename: ... \MSTAN011_XSECT_12+50_003.dgn



Sta. 12+50.00 to Sta. 12+63.70

PROJ. MANAGER	BY	DATE	SIGNATURE
R. BARROWS	J. BAINES	DEC 2024	
CHECKED-REVIEWED	DESIGNED-DETAILED	DESIGNED-DETAILED	P.E. NUMBER
REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4
FIELD CHANGES	DATE	P.E. NUMBER	DATE

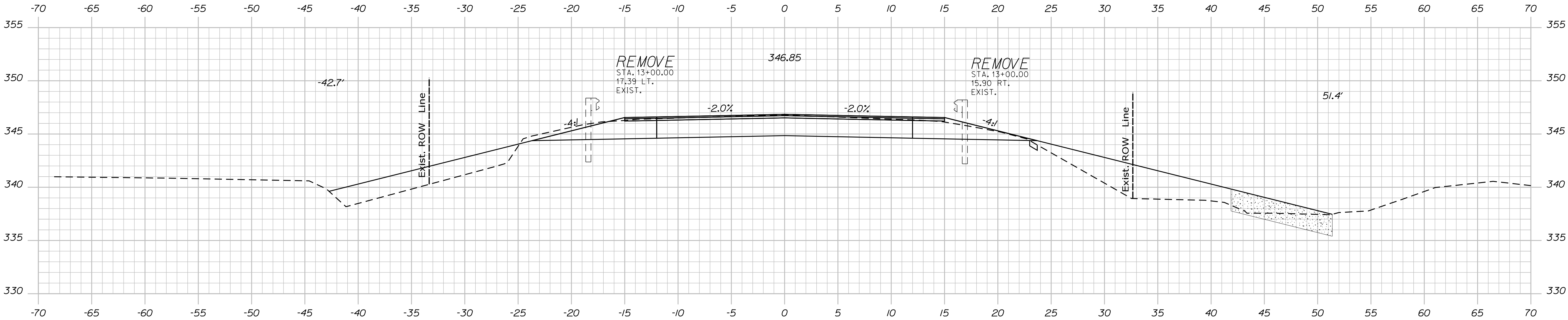
ETNA
 ROUTE 2
 CROSS SECTIONS

Date:12/17/2024

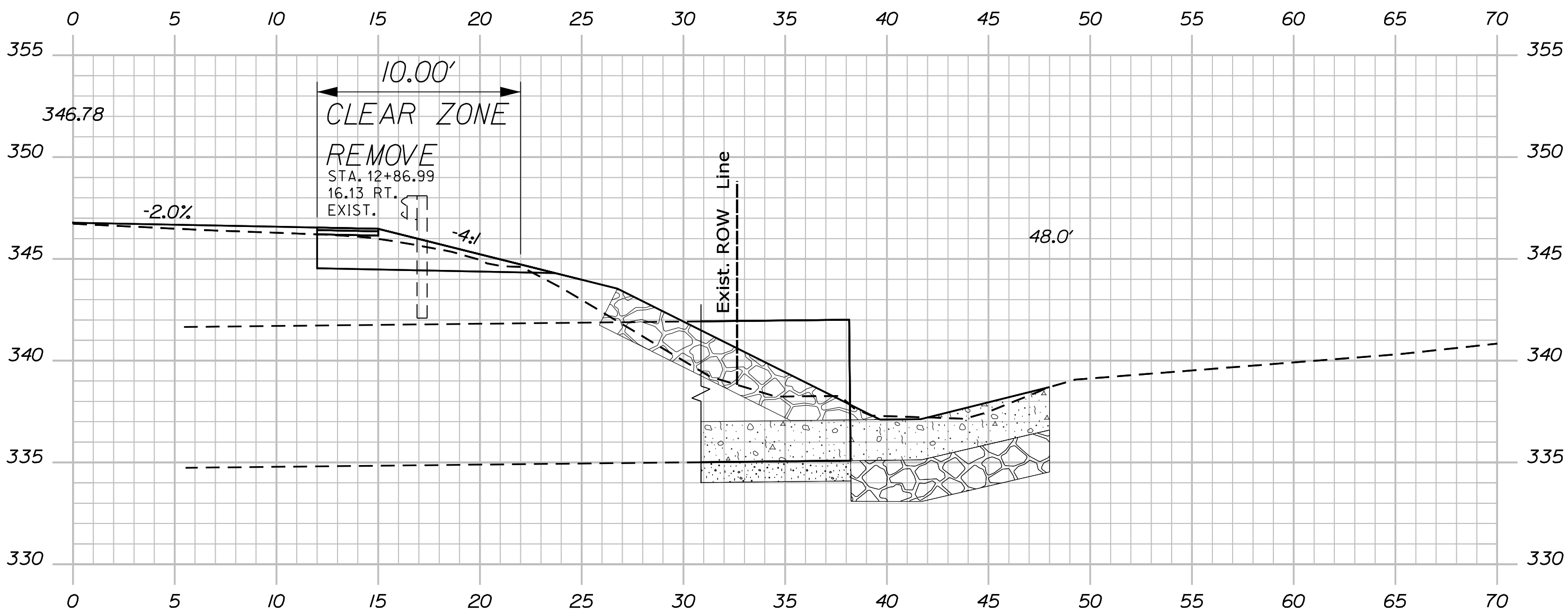
Username: James.Baines

Division: HIGHWAY

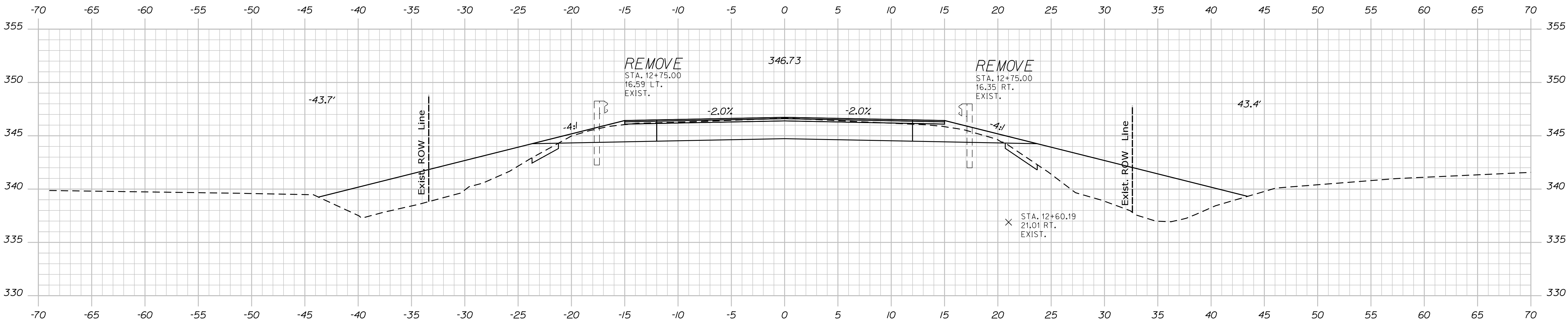
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13+00.00



SLOPE CONFIGURATION - INLET END (PERPENDICULAR SECTION)
12+86.99



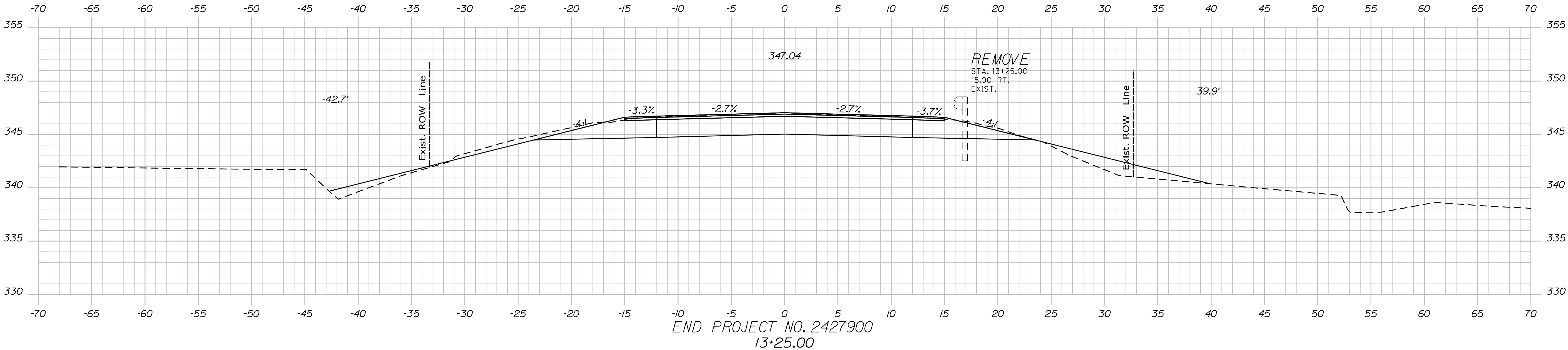
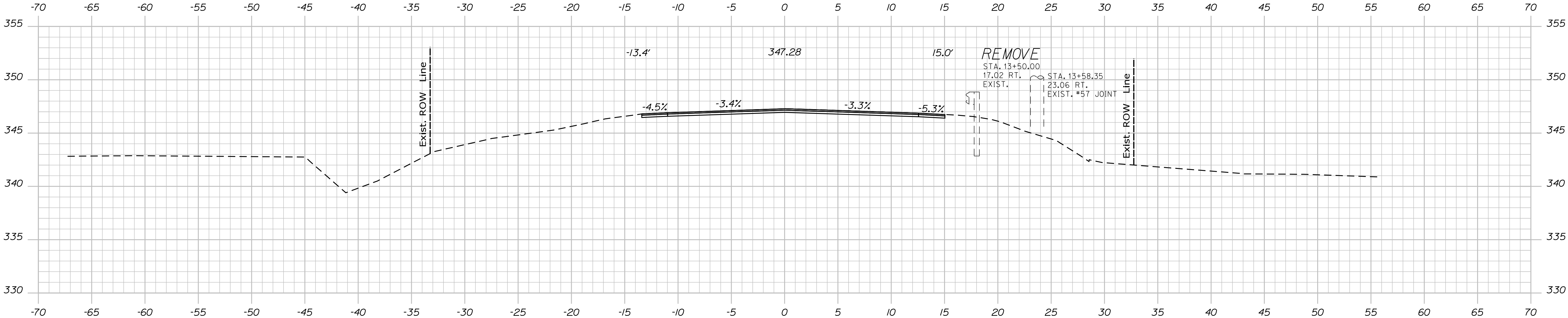
12+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
FEDERAL PROJECT NO. 2427900
WIN 024279.00
HIGHWAY PLANS

PROJ. MANAGER	BY	DATE	SIGNATURE
DESIGN-DETAILED	J. BAINES	DEC 2024	
CHECKED-REVIEWED			
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

ETNA
ROUTE 2
CROSS SECTIONS

SHEET NUMBER
12
OF 14



Date:12/17/2024

Username: James.Boines

Division: HIGHWAY

Filename: ...\\00\\ROW\\MSTA001_RWP\\PLAN1.dgn

