

THE GOLD STAR **TURNPIKE** MEMORIAL HIGHWAY MAINE TURNPIKE AUTHORITY DANIEL E. WATHEN, CHAIR ROBERT D. STONE, VICE CHAIR MICHAEL J. CIANCHETTE, MEMBER ANDREW MCLEAN, MEMBER JANE L. LINCOLN, MEMBER

S. PETER MILLS, EXECUTIVE DIRECTOR

THOMAS J. ZUKE, MEMBER

BRUCE A. VAN NOTE, EX-OFFICIO MEMBER

CONTRACT 2022.11

EMERGENCY VEHICLE RAMPS LITTLEFIELD ROAD (MM 17.30)

PAVEMENT IMPROVEMENTS

Estimated Quantities and Earthwork Summary General and Construction Notes

INDEX OF SHEETS

Typical Roadway Sections Fencing Details General Plans (2 Sheets) Profiles (2 Sheets) Disturbance Impact Plans (2 Sheets)

Cross Sections (15 Sheets)

LITTLEFIELD ROAD UNDERPASS (MM 17.30)

APPROVED:

MAINE TURNPIKE AUTHORITY

LOCATION MAP







3/30/2022 DATE

Gordon M. Edington, P.E. Consultant Project Manager

	ESTIMATED QUANTITIES		
ITEM NO.	DESCRIPTION	UNIT	Quantity Total
201.11	Clearing	AC	0. 55
201.23	Removing Single Tree Top Only	EA	2
201.24	Removing Stump	EA	2
202.202	Removing Pavement Surface	SY	860
203.2	Common Excavation	CY	2,220
203.24	Common Borrow	CY	100
<i>203.25</i>	Granular Borrow	CY	155
304.1	Aggregate Subbase Course-Gravel	CY	1,090
304.14	Aggregate Base Course - Type A	CY	340
403.207	Hot Mix Asphalt, 19.0 mm Nominal Maximum Size (Base)	TON	340
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Surface)	TON	280
409.15	Bituminous Tack Coat RS-I or RSIh - Applied	GAL	135
411.1	Untreated Aggregate Surface Course	CY	55
419.3	Sawing Bituminous Pavement	LF	360
<i>526.301</i>	Temporary Concrete Barrier, Type I	LS	1
527 . 341	Work Zone Crash Cushion - TL-3	UNIT	2
<i>603.1</i> 79	I8 inch Culvert Pipe Option !!!	<u>LF</u>	120
606.242	Guardrail Type 3d - Over 15 foot Radius	LF	25
<i>606.265</i>	Terminal End-Single Rail - Galvanized Steel	EA	1
<i>606.278</i>	Terminal End - Anchored End	EA	1
<i>606.353</i>	Reflectorized Flexible Guardrail Marker	EA	2
606.3561	Delineator Post - Remove and Reset	EA	1
606.369	Guardrail - Remove and Stack	LF	25
607.17	Chain Link Fence - 6 foot	LF	40
607.2325	Remove Chain Link Gate	EA	1
<i>607.32</i>	Bracing Assembly Type I - Metal Posts	EA	4
<i>607.33</i>	Bracing Assembly Type II - Metal Posts	EA	2
610 . 08	Plain Riprap	CY	15
610 . 181	Temporary Stone Check Dam	CY	14
<i>613.319</i>	Erosion Control Blanket	SY	770
<i>615.07</i>	Loam	CY	430
618.14	Seeding Method Number 2	UNIT	<i>3</i> 6
619 . 1201	Mulch - Plan Quantity	UNIT	<i>3</i> 6
619.1202	Temporary Mulch	LS	1
<i>620.58</i>	Erosion Control Geotextile	SY	57
<i>627.712</i>	White or Yellow Pavement Marking Line	LF	750
<i>629.05</i>	Hand Labor, Straight Time	HR	30
63I . I	Air Compressor (including operator)	HR	20
63I . II	Air Tool (including operator)	HR	20
631 . 12	All Purpose Excavator (including operator)	HR	30
631.14	Grader (including operator)	HR	30
631 . 171	Truck - small (including operator)	HR	30
<i>631.36</i>	Foreman	HR	30
645.109	Remove and Reset Sign	EA	3
645 . II	Remove and Dispose Sign	EA	1
645 . 271	Regulatory, Warning, Confirmation and Route Assembly Sign, Type I	SF	33
<i>652.3</i>	Flashing Arrow	EA	2
<i>652.33</i>	Drum	EA	90
<i>652.34</i>	Cone	EA	50
<i>652.35</i>	Construction Signs	SF	1,140
652 . 361	Maintenance of Traffic Control Devices	LS	1
<i>652.38</i>	Flaggers	HR	100
<i>652.45</i>	Truck Mounted Attenuator	CD	10
<i>652.4</i> 7	Sequential Flashing Warning Lights	EA	60
656.5	Baled Hay, in place	EA	30
<i>656.632</i>	30 inch Temporary Silt Fence	LF	1,620
<i>659.</i> /	Mobilization	LS	1
<i>827.37</i>	Electrical Conduit Trenching	LF	305
832.41	Type A Steel Bollard	EA	6

^{*} Quantities are Estimated Only

Scale: | Designed by: | | Designed by: | | Designed by: | Designe

VANASSE HANGEN BRUSTLIN, INC.
500 Southborough Dr.
Suite 105B
South Portland, ME 04106
TEL (207) 889-3150
FAX (207) 253-5596

MAINE TURNPIKE THE MEMO

THE GOLD STAR MEMORIAL HIGHWAY

LITTLEFIELD ROAD
EMERGENCY VEHICLE RAMPS
ESTIMATED QUANTITIES
AND EARTHWORK SUMMARY

VHB: 55345.00 SHEET NUMBER: 2
CONTRACT: 2022.11 2 OF 30

	<i>IORTHBOUND</i>	EVR	EARTHWORK	SUMMARY	
--	-------------------	------------	-----------	---------	--

COMMON EXCAVATION FOR ESTIMATE			
COMMON EXCAVATION (FROM CROSS SECTIONS)		984	
EARTH FROM RAMP REMOVAL	-	167	
GRUBBING IN FILL		288	
TOTAL COMMON EXCAVATION (for estimate)			1,439
FILL FOR BORROW CALCULATIONS			
COMMON FILL (FROM CROSS SECTIONS)		159	
GRUBBING IN FILL	<u> </u>	288	
TOTAL FILL			447
AVAILABLE COMMON EXCAVATION FOR BORROW CA	LCULATIONS		
(1) TOTAL COMMON EXCAVATION			1,439
DEDUCTIONS:			
GRUBBING IN CUT		577	
GRUBBING IN FILL		288	
(2) TOTAL DEDUCTIONS			865
TOTAL AVAILABLE COMMON EXCAVATION (1) MINI	US (2)		574
COMPUTATION FOR COMMON BORROW FOR ESTIMAT	ΓΕ		
(3)TOTAL FILL			447
TOTAL AVAIL. NON-ROCK EXCAV.	<u>574</u> x 0.90 =	517	
(4)TOTAL AVAILABLE EXCAVATION			517
SURPLUS MATERIAL = AVAILABLE EXCAVATION MINUS	TOTAL FILL		70

SOUTHBOUND EVR EARTHWORK SUMMARY

COMMON EXCAVATION FOR ESTIMATE		
COMMON EXCAVATION (FROM CROSS SECTIONS)	452	
EARTH FROM RAMP REMOVAL	65	
GRUBBING IN FILL	101	
MUCK EXCAVATION	151	
TOTAL COMMON EXCAVATION (for estimate)		769
FILL FOR BORROW CALCULATIONS		
COMMON FILL (FROM CROSS SECTIONS)	152	
GRUBBING IN FILL	101	
MUCK EXCAVATION	151	
TOTAL FILL		404
AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS		
(1) TOTAL COMMON EXCAVATION		769
DEDUCTIONS:	4.45	
GRUBBING IN CUT	77	
GRUBBING IN FILL	101	
MUCK EXCAVATION	<u> 151</u>	
(2) TOTAL DEDUCTIONS		329
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)		440
COMPUTATION OF GRANULAR BORROW FOR ESTIMATE		
GRANULAR BORROW TO REPLACE MUCK	<u>151</u>	
GRANULAR BORROW =	<u>151</u> x 1.00 =	151
COMPUTATION FOR COMMON BORROW FOR ESTIMATE		
(3)TOTAL FILL		404
TOTAL AVAIL. NON-ROCK EXCAV. 440 x 0.90 =	396	2001
(4)TOTAL AVAILABLE EXCAVATION		396
BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATIO		8
GRANULAR BORROW TO REPLACE MUCK	151	4124
SURPLUS MATERIAL = AVAILABLE EXCAVATION MINUS TOTAL FILL PLUS GRAI	NULAR BORROW	143

- 2. DURING CONSTRUCTION, TRAFFIC WILL BE MAINTAINED AS SHOWN IN THE PLANS AND AS REQUIRED IN THE SPECIAL PROVISIONS.
- 3. ALL EXISTING DELINEATOR AND MILE MARKER POSTS WITHIN LIMITS OF DISTURBANCE SHALL BE REMOVED AND RESET UPON COMPLETION OF THE CONTRACT. PAYMENT WILL BE MADE UNDER ITEM 606.3561.
- 4. EXISTING ROW FENCE AND EXISTING CHAIN LINK FENCE AND GATES WITHIN THE LIMITS OF WORK, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT, SHALL BE REMOVED AND DISPOSED. THIS WORK SHALL BE INCIDENTAL TO THE PROPOSED FENCE ITEMS, PROPOSED CHAIN LINK FENCE AND PIPE ENTRY GATE SHALL BE INSTALLED CONTINUOUSLY WITH NO GAPS, IF REQUIRED, CONNECTION FOR PROPOSED FENCE TO EXISTING FENCE SHALL BE INCIDENTAL TO THE CONTRACT.
- 5. THE PROPOSED ELEVATIONS ARE BASED ON THE NAVD 88 DATUM.
- 6. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID IMPACTS BEYOND WHAT IS SHOWN IN THESE PLANS TO DELINEATED WETLAND AREAS.
- 7. ALL WORK MUST BE COMPLETED WITHIN THE RIGHT OF WAY SHOWN IN THESE PLANS.
- 8. THE CONTRACTOR SHALL SUBMIT PROPOSED STAGING AREA(S) AND FIELD TRAILER LOCATION TO THE RESIDENT FOR APPROVAL PRIOR TO STARTING WORK.
- 9. THE CONTRACTOR SHALL PLACE APPROACH PAVEMENT AT ALL LOCATIONS TO ACHIEVE A SMOOTH TRANSITION BETWEEN EXISTING AND PROPOSED PAVEMENT.
- 10. FOLLOWING THE COMPLETION OF WORK THE CONTRACTOR SHALL PROVIDE THE AUTHORITY THREE HARD COPIES OF ALL O&M MANUALS ASSOCIATED WITH THE PROJECT AND ONE LINKED, TABBED, AND SEARCHABLE PDF DOCUMENT CONTAINING ALL O&M MANUALS IN A SINGLE FILE.
- II. FOLLOWING THE COMPLETION OF WORK THE CONTRACTOR SHALL PROVIDE ONE HARD COPY AND ONE LINKED, TABBED, AND SEARCHABLE PDF DOCUMENT OF ALL APPROVED SUBMITTALS ASSOCIATED WITH THE PROJECT ORGANIZED BY WORK CATEGORY.

EARTHWORK

I. THE CLEARING LIMITS SHALL BE IO' BEYOND AND PARALLEL TO CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS. THE ACTUAL CLEARING LINES SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AND SHALL BE APPROVED BY THE RESIDENT PRIOR TO ANY CLEARING TAKING PLACE. ALL CLEARING SHALL BE DONE WITHIN THE ROW, NO CLEARING SHALL TAKE PLACE IN JUNE OR JULY.

2. THE NORMAL GRUBBING WIDTH IN THE FILLS SHALL BE VARIABLE LEFT OR RIGHT, WHEN SUBGRADE IS LESS THAN 5' ABOVE OLD GROUND. THE GRUBBING DEPTH HAS BEEN ESTIMATED AS 12".

3. MUCK EXCAVATION HAS BEEN ESTIMATED IN ALL WETLAND AREAS AT A 2' DEPTH. THE CONTRACTOR SHALL CONFIRM WITH THE RESIDENT THE ACTUAL LIMITS AND DEPTH BEFORE PLACING ANY AGGREGATE.

4. WASTE MATERIALS SHALL BE DISPOSED OFF THE PROJECT SITE, IN ACCORDANCE WITH CHAPTER 404, DEPARTMENT OF ENVIRONMENTAL PROTECTION SOLID WASTE MANAGEMENT RULES.

5. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA SUBPART P OF 29 CFR PART 1926.650-652 (CONSTRUCTION STANDARDS FOR EXCAVATION).

6. THE CONTRACTOR SHALL MINIMIZE SLOPE DISTURBANCES WHERE POSSIBLE, AS DIRECTED BY THE RESIDENT.

7. GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION, IN LOW WET AREAS I' ABOVE WATER LEVEL. OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW MATERIAL FOR UNDERWATER BACKFILL AS SPECIFIED IN STANDARD SPECIFICATION 703,19.

GUARDRAIL

I. COMPOSITE OFFSET BLOCKS SHALL BE USED WITH GUARDRAIL.

2. AT THE END OF EACH WORK DAY, ALL GUARDRAIL WITHIN WORK AREAS ACCESSIBLE TO TRAFFIC SHALL HAVE AN APPROVED CRASHWORTHY END TREATMENT.

3. CONNECTIONS FOR PROPOSED GUARDRAIL TO EXISTING GUARDRAIL SHALL BE INCIDENTAL TO THE PROPOSED GUARDRAIL ITEMS.

4. CONTRACTOR SHALL STOCKPILE ALL GUARDRAIL TO BE REMOVED AND RESET. AND REMOVED AND DISPOSED UNTIL GUARDRAIL INSTALLATION HAS BEEN COMPLETED.

5. POST HOLES FROM GUARDRAIL REMOVED OR RESET SHALL BE FILLED AND COMPACTED WITH GRANULAR BORROW AND PAVEMENT TO MATCH SURROUNDING PAVEMENT THICKNESS.

DRAINAGE

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

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

3. ALL DITCH ELEVATIONS AND OFFSETS SHOWN ON THE CROSS SECTIONS ARE FOR THE FINISHED DITCH FLOW LINE.

4. IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS, IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW - UNDERWATER BACKFILL AS SPECIFIED IN STANDARD SPECIFICATION 703.19 AND BE PAID FOR AS 203.25 GRANULAR BORROW.

EROSION CONTROL

I. THE ANTICIPATED EROSION CONTROL DEVICES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROPOSE ACTUAL TYPE AND LOCATION OF DEVICES FOR APPROVAL BY THE RESIDENT. ADDITIONAL DEVICES MAY BE PROPOSED BY THE CONTRACTOR TO IMPLEMENT ADDITIONAL MEASURES. ANY ADDITIONAL MEASURES APPROVED BY THE RESIDENT WILL BE MEASURED FOR PAYMENT.

2.4" LOAM HAS BEEN ESTIMATED FOR 100% OF THE DISTURBED AREA UNLESS OTHERWISE SPECIFIED ON THE PLANS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS DESIGNATED BY THE RESIDENT.

3. ALL SLOPES SHALL BE SEEDED WITH SEEDING METHOD

4. TEMPORARY SEED SHALL BE APPLIED TO ALL DISTURBED AREAS THAT WILL NOT BE COMPLETED WITHIN 30 DAYS.

5. ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION BEST MANAGEMENT PRACTICES.

6. TEMPORARY STONE CHECK DAMS SHALL BE INSTALLED IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION BEST MANAGEMENT PRACTICES, STONE CHECK DAMS SHALL BE SPACED APPROXIMATELY 100 FEET FOR DITCH GRADES LESS THAN 3% AND SPACED APPROXIMATELY 50 FEET FOR DITCH GRADES STEEPER THAN 5%. SEE MAINEDOT BEST MANAGEMENT PRACTICES FOR FURTHER DETAILS.

7. EROSION CONTROL BLANKET, ITEM 613.319 SHALL BE INSTALLED ON 2: SLOPES FROM THE TOP TO TOE OF SLOPE. LOAM AND SEED SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE EROSION CONTROL BLANKET. LIMITS OF THE EROSION CONTROL BLANKET IN DITCHES SHALL BE 6' WIDE OR AS DESIGNATED BY THE RESIDENT.

UTILITY

I. EXISTING UTILITIES ON THESE PLANS WERE COMPILED FROM FIELD SURVEY AND VARIOUS OTHER SOURCES. LOCATIONS ARE NOT GUARANTEED TO BE ACCURATE NOR IS IT GUARANTEED THAT ALL UTILITIES ARE SHOWN, NO SEPARATE OR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR DUE TO ANY VARIANCE BETWEEN THE DATA SHOWN ON THE PLANS AND THE ACTUAL FIELD CONDITIONS ENCOUNTERED, NO WORK SHALL BE STARTED UNTIL THE OWNERS OF THE VARIOUS UTILITIES ARE NOTIFIED BY THE CONTRACTOR OF THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL CONTACT DIG SAFE (I-888-DIG-SAFE OR 8II) AT LEAST 72 HOURS PRIOR TO STARTING WORK.

2. THE MAINE TURNPIKE AUTHORITY IS A NON-MEMBER UTILITY OPERATOR AND IS NOT REGISTERED WITH THE DIG SAFE SYSTEM. THE CONTRACTOR SHALL CONTACT ALL NON-MEMBERS THROUGH WWW.OKTODIG.COM OR AS OTHERWISE REQUIRED BY THE MAINE PUBLIC UTILITIES COMMISSION. ALL PROPOSED EXCAVATION LOCATIONS SHALL BE MARKED AT THE TIME OF NOTIFICATION. NO EXCAVATION SHALL BE PERMITTED UNTIL ALL UTILITIES HAVE BEEN LOCATED AND MARKED. THE RESIDENT ENGINEER SHALL BE PROVIDED AN ELECTRONIC COPY OF ALL DIG SAFE TICKETS WITHIN 24 HOURS OF THEIR RELEASE FOR PROJECT NOTIFICATIONS AND 3RD PARTY UTILITY LOCATOR COORDINATION.

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

4. THE UTILITIES INVOLVED IN THIS CONTRACT ARE: CENTRAL MAINE POWER (CMP) CONSOLIDATED COMMUNICATIONS KENNEBUNK & WELLS WATER DISTRICT CHARTER COMMUNICATIONS, INC.

5. GRADING AROUND UTILITY POLES AND GUY WIRES. EXISTING OR PROPOSED, SHALL BE DONE BY HAND.

6. CONTRACTOR SHALL PROTECT ALL NEW AND EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION AS APPROVED BY THE UTILITY OWNERS.

ITEM 603.179 - 18" CULVERT PIPE OPTION III HDPE ONLY

<u>LOCATION</u> LITTLEFIELD RD NB EVR	QUANTITY (LF)
30+38 35+50	38 50
<i>LITTLEFIELD RD SB EVR</i> <i>4I+</i> 56 . 96	<i>30</i>

ITEM 606.242 - GUARDRAIL TYPE 3D - OVER 15' *RADIUS*

STATION T	O STAT	<u>ION</u>	<u>OFFSE</u>	T RADIUS	QUANTITY	(LF)
LITTLEFIE	LD RD	SB	EVR			
40+17 TO 4	<i>10+2</i> 7		LT	<i>30′</i>	<i>2</i> 5	

ITEM 606.265 - TERMINAL END - SINGLE RAIL GALVANIZED STEEL

<u>STATION</u>	<u>OFFSET</u>	QUANTITY (EA)
LITTLEFIELD RD SB EVR		
<i>40+36</i>	LT	1

ITEM 606.278 - TERMINAL END - ANCHORED END

<u>STATION TO STATION</u>	<u>OFFSET</u>	QUANTITY (EA)
LITTLEFIELD RD SB EVR 40+27 TO 40+36	LT	1

ITEM 606.353 - REFLECTORIZED FLEXIBLE GUARDRAIL MARKER

<u>STATION</u>	<u>OFFSET</u>	QUANTITY (EA)
LITTLEFIELD RD SB EVR		
<i>40+36</i>	LT	2

ITEM 606.3631 - GUARDRAIL REMOVE AND DISPOSE

<u>STATION</u>	QUANTITY (LF)
LITTLEFIELD RD SB EVR	
40+17	25

ITEM 607.17 - CHAIN LINK FENCE - 6 FOOT

STATION TO STATION	<u>OFFSET</u>	QUANTITY (LF)
LITTLEFIELD RD NB EVR		
34+84 TO 34+86	RT	20
<i>34+86 TO 35+02</i>	LT	20

ITEM 610.08 - PLAIN RIPRAP

<u>STATION</u>	<u>OFFSET</u>	QUANTITY (CY)
LITTLEFIELD RD NB EVR		
<i>30+33</i>	RT	1.2
<i>30+40</i>	LT	0. 9
<i>35+25</i>	LT	<i>8.3</i>
<i>35+50</i>	LT	1 . 2
<i>35+50</i>	RT	1 . 2
LITTLEFIELD RD SB EVR		
<i>41+56.96</i>	LT	1.0
<i>41+56.96</i>	RT	1.0

ITEM 610,181 - TEMPORARY STONE CHECK DAM

<u>STATION</u>	<u>OFFSET</u>	QUANTITY (CY)
LITTLEFIELD RD NB EVR		
30+40 TO 35+45	LT	<i>8.</i> 0
31+50 TO 35+45	RT	6. 0

ITEM 613.319 - EROSION CONTROL BLANKET

<u>STATION TO STATION</u> LITTLEFIELD RD NB EVR	<u>OFFSET</u>	QUANTITY (SY)
30+40 TO 35+50	LT	356
31+50 TO 35+50 35+50 TO 35+60	RT LT	294 10
NEAR FORMER RAMP GATE LITTLEFIELD RD SB EVR		42
4I+48 TO 42+75	LT	68

ITEM 620.58 - EROSION CONTROL GEOTEXTILE

<u>STATION</u>	<u>OFFSET</u>	<u>QUANTITY (SY)</u>
LITTLEFIELD RD NB EVR		
<i>30+33</i>	RT	7 . 9
<i>30+40</i>	LT	5 . 4
<i>35+25</i>	LT	17.4
<i>35+50</i>	LT	<i>8.</i> 8
<i>35+50</i>	RT	7. /
LITTLEFIELD RD SB EVR		
<i>41+56.96</i>	LT	4.4
<i>41+56.96</i>	RT	4. 7

ITEM 656.632 - 30" TEMPORARY SILT FENCE

<u>STATION TO STATION</u> LITTLEFIELD RD NB EVR	<u>OFFSET</u>	QUANTITY (LF
30+15 TO 30+75	RT	77
30+15 TO 32+50	LT	189
31+00 TO 35+76	RT	500
35+31 TO 35+76	LT	52
<i>LITTLEFIELD RD SB EVR</i>		
40+38 TO 46+I4 . 56	RT	<i>673</i>
45+50 TO 46+14 . 56	LT	79

Designed by: Scale: By Date Revision CONSULTANT PROJECT MANAGER: G. Edington By Date Date ECF 3/30/22 BMD 3/30/22 | Checked Designed BMD| 3/30/22 In Charge of | AG | 3/30/22

VANASSE HANGEN BRUSTLIN, INC. 500 Southborough Dr. Suite 105B

South Portland, ME 04106 TEL (207) 889-3150 FAX (207) 253-5596



THE GOLD STAR MEMORIAL HIGHWAY

LITTLEFIELD ROAD EMERGENCY VEHICLE RAMPS GENERAL AND CONSTRUCTION NOTES

SHEET NUMBER: VHB: 55345.00 CONTRACT: 2022.11

MTA PROJECT MANAGER: Ryan Barnes, PE

3 OF 30

MAINTENANCE OF TRAFFIC GENERAL NOTES

- I. These traffic control details apply to the construction of the Littlefield Road Emergency Vehicle Ramps (EVR) and the mill and overlay along Littlefield Road in the area of the Turnpike underpass bridge. The Contractor is directed to use a typical layout from this project's Maintenance of Traffic Details or from the Maine Turnpike Authority Traffic Control Plans located on the MTA website at www.maineturnpike.com/Projects/Construction-Related-Documents.aspx. See also the Special Provisions for more details on specific temporary traffic controls with time and date restrictions.
- 2. All orange construction signs shall be fluorescent orange with Type VIII, IX or XI sheeting. Placement of signs shall be adjusted to avoid obstructing existing signs and to ensure proper sight lines to the construction signs as determined by the Resident and shall be new or in like new condition.
- 3. Temporary lane closures will be required, with advanced approval, whenever work will occur within four feet of the I-95 traveled way. Temporary lane closures shall be removed if no work is occurring. See Special Provisions for more information.
- 4. All lane closures shall require approval from the Maine Turnpike Authority through the Resident. The Resident is required to submit a request for lane closures by noon on Thursday for any lane closures needed for the following week. The Contractor shall plan the work and requests for lane closures accordingly.
- 5. In the event that lane closure(s) begin to cause back-ups in through traffic of more than five minutes, the Contractor shall deploy the additional signs as indicated in the single lane closure set-up details.
- 6. Approach ends of temporary concrete barrier shall be placed outside of the highway clear zone (minimum 34 feet from the traveled way along I-95) or protected by temporary impact attenuators or with guardrail overlaps as approved by the Resident.
- 7. Maximum spacing for channelizing devices (drums) shall be:

80' on center along tangents

40' on center along tapers

- 8. Work Zone Speed Limits shall only be permitted when temporary lane closures are in place.
- 9. Flaggers for milling and paving operations at the bridge on Littlefield Road shall be paid for at the bid unit price per hour. Any additional use of flaggers shall require approval of the Resident and shall be incidental to the related Maintenance of Traffic Control items.

ABBREVIATIONS FOR ALL WORK ZONE PLANS

BWLL = BROKEN WHITE LANE LINE SWEL = SOLID WHITE EDGE LINE SYEL = SOLID YELLOW EDGE LINE

LOCAL ROAD SINGLE LANE CLOSURE/SHOULDER CLOSURE

CON	CONSTRUCTION SIGN SUMMARY											
		mensions hes)										
Sign	Letter Height	Vertical Spacing	Size	Quantity and Color								
G20-2 END ROAD WORK	Shall C	mensions Conform andard way	36"x18"	2 - Black on Orange								
W20-1 ROAD WORK AHEAD	Signs"	- 2012 	36"x36"	2 - Black on Orange								
W20-4 ONE LANE ROAD AHEAD				2 - Black on Orange								
W20-7			36"×36"	2 - Black on Orange								

STABILIZED CONSTRUCTION ENTRANCE

CON.	CONSTRUCTION SIGN SUMMARY										
		nensions hes)									
Sign	Letter Vertical Height Spacing		Size	Quantity and Color							
G20-2 END ROAD WORK	Shall C	mensions `onform andard way	48" x 24"	I - Black on Orange							
W7-3aP NEXT NEXT X MILES	Signs"	- 2012 	36"x30"	I - Black on Orange							
W20-I (AHE AD)			48" x 48"	2 - Black on Orange							
W21-5 SHOULDER WORK			48" x 48"	I - Black on Orange							
CS-10 TRUCKS ENTERING	•		48" x 48"	I - Black on Orange							

TURNPIKE SHOULDER CLOSURES

CON	VSTRUCT	ION SIG	GN SUMI	MARY
C'aa		mensions hes)		
Sign	Letter Height	Vertical Spacing	Size	Quantity and Color
G20-2 END ROAD WORK	Shall C	mensions Conform andard way	48"x24"	2 - Black on Orange
W20-I (AHEAD)	Signs"	- 2012 	48" x 48"	4 - Black on Orange
W21-5aR RIGHT SHOULDER CLOSED 1000 FT				2 - Black on Orange
W21-5bR RIGHT SHOULDER CLOSED			48"x48"	2 - Black on Orange

TEMPORARY SINGLE LANE CLOSURES

	CON	STRUCT	ION SIG	GN SUMI	MARY
			mensions hes)		
	Sign		Vertical Spacing	Size	Quantity and Color
CS-3	EXPECT STOPPED TRAFFIC	7" 7" 7"	4" 4"	48" x 48"	4 - Black on Orange
G20-2	END ROAD WORK	Shall C to "Sto High		48"x24"	4 - Black on Orange
G20-5aP	WORK ZONE	Signs"	- 2012 	36"x24"	4 - Black on Orange
R2-I(60)	SPEED LIMIT 60			48"x60"	4 - Black on White
R2-6aP	FINES DOUBLE			36"x24"	4 - Black on White
R2-12	END WORK ZONE SPEED LIMIT			36"x54"	4 - Black on White
W 3-4	BE PREPARED TO STOP			48" x 48"	4 - Black on Orange
W3-5(60)	SPEED LIMIT 60			48" x 48"	4 - Black on Orange
W4-2R				48" x 48"	4 - Black on Orange
W8-/	BUMP			48" x 48"	4 - Black on Orange
W8-24a	RUMBLE STRIP AHEAD				4 - Black on Orange
W20-1	ROAD WORK 1 MILE			48" x 48"	4 - Black on Orange
W20-5R	RIGHT LANE CLOSED 1/2 MILE			48" x 48"	4 - Black on Orange

_workzone_U	Scale: NO	T TO SCALE			Designed by	/ :			h	
\004 -	No.	Revision	Ву	Date				VII	U	
					CONSULTANT	PROJE(CT MANAGER:	G. Edington		
me						Ву	Date		Ву	Date
oue					Designed	MLG	3/30/22	Checked	MDS	3/30/22
Filename:					Drawn	JAR	3/30/22	In Charge of	TSB	3/30/22

VANASSE HANGEN BRUSTLIN, INC.
500 Southborough Dr.
Suite 105B
South Portland, ME 04106
TEL (207) 889-3150

FAX (207) 253-5596

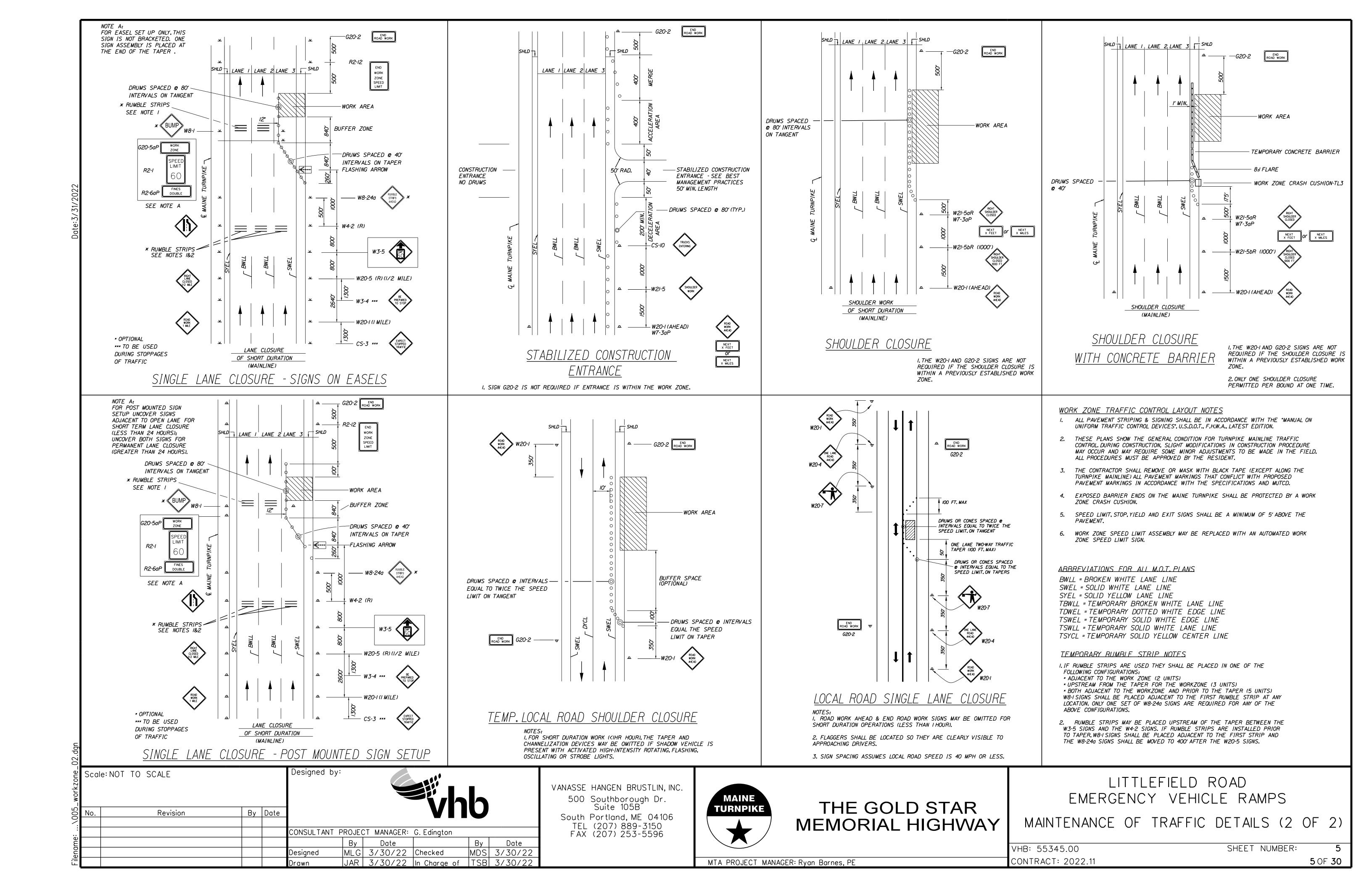


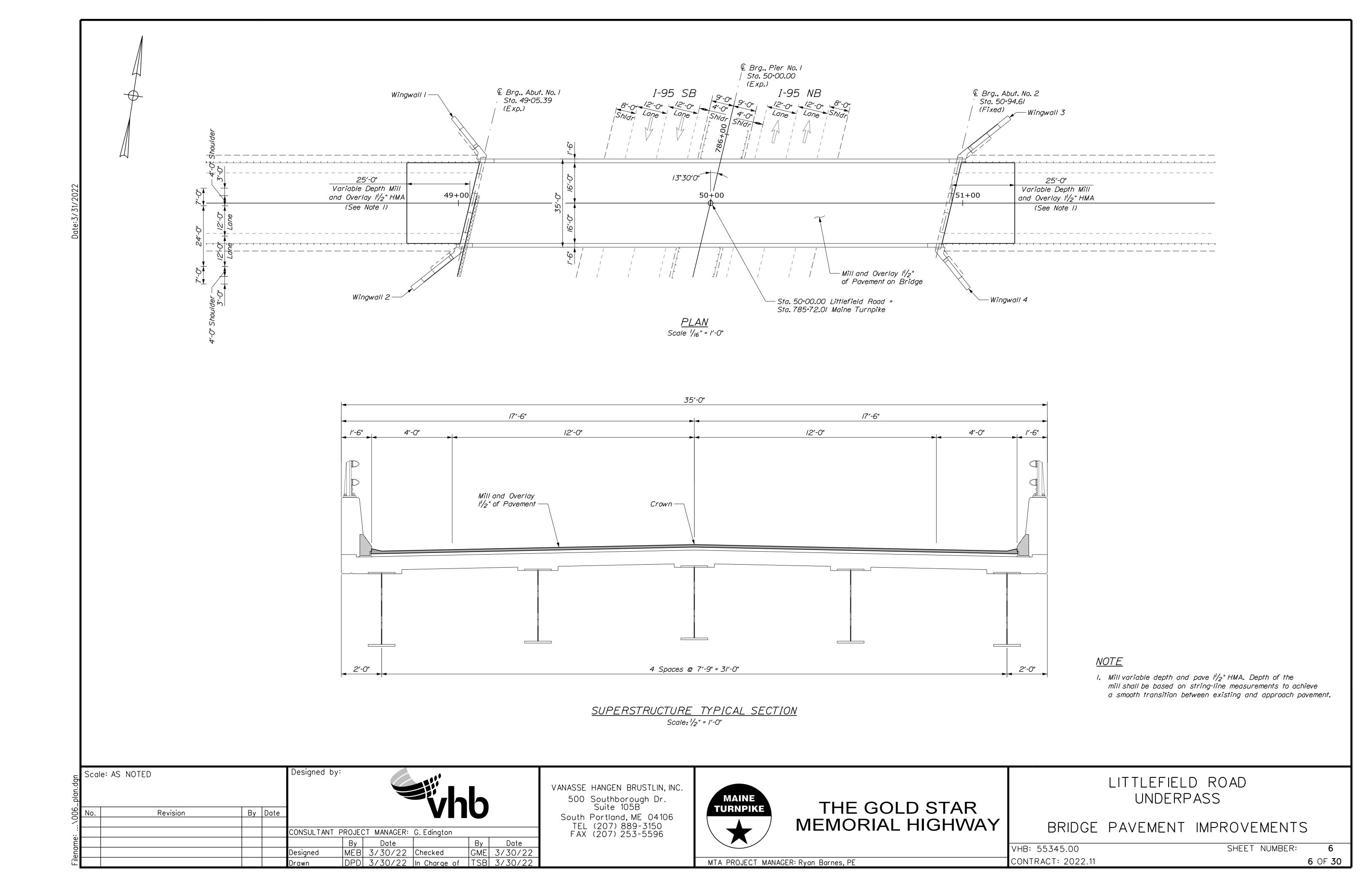
THE GOLD STAR MEMORIAL HIGHWAY

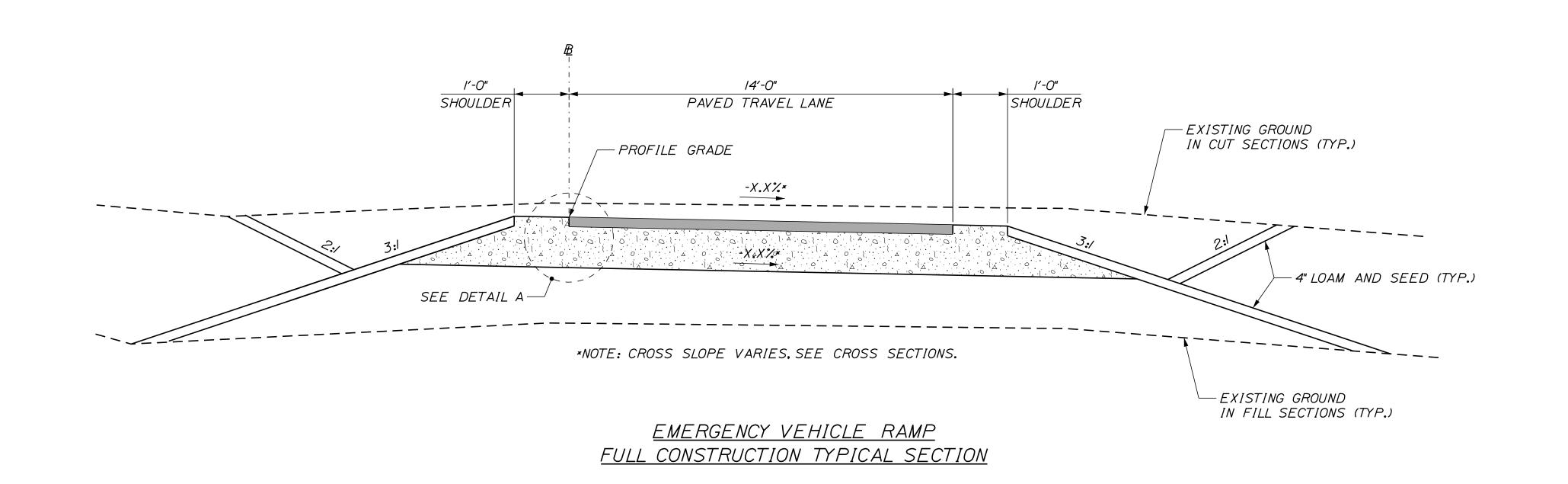
LITTLEFIELD ROAD
EMERGENCY VEHICLE RAMPS

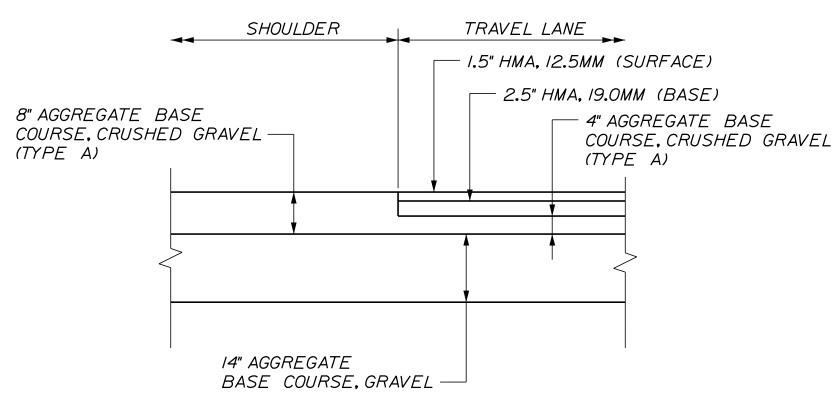
MAINTENANCE OF TRAFFIC DETAILS (1 OF 2)

VHB: 55345.00 SHEET NUMBER: 4
CONTRACT: 2022.11 4 OF 30





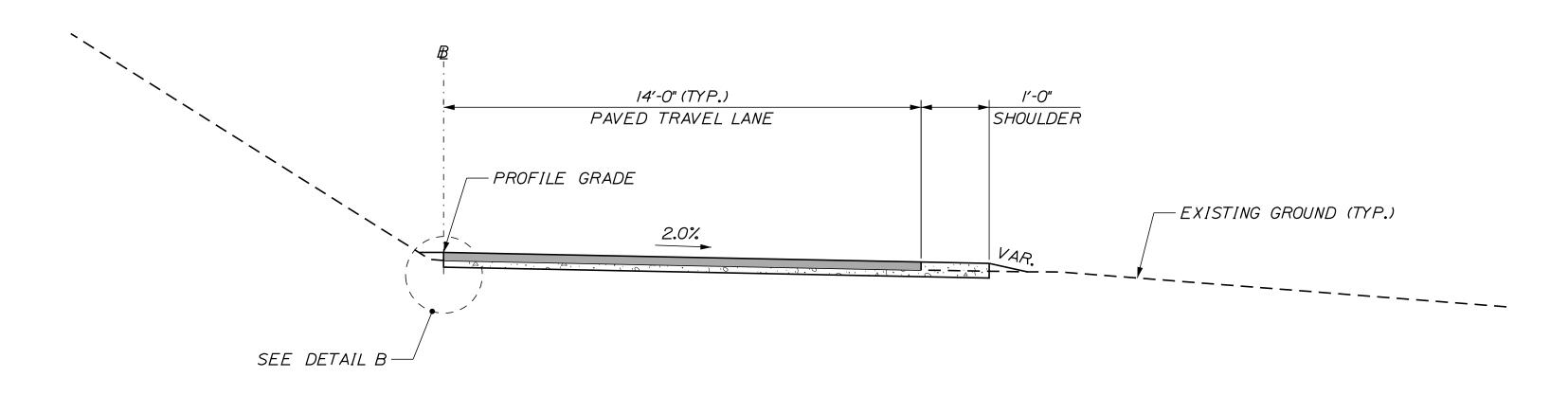




<u>DETAIL A</u>

TYPICAL EMERGENCY VEHICLE RAMP SECTION NOTES

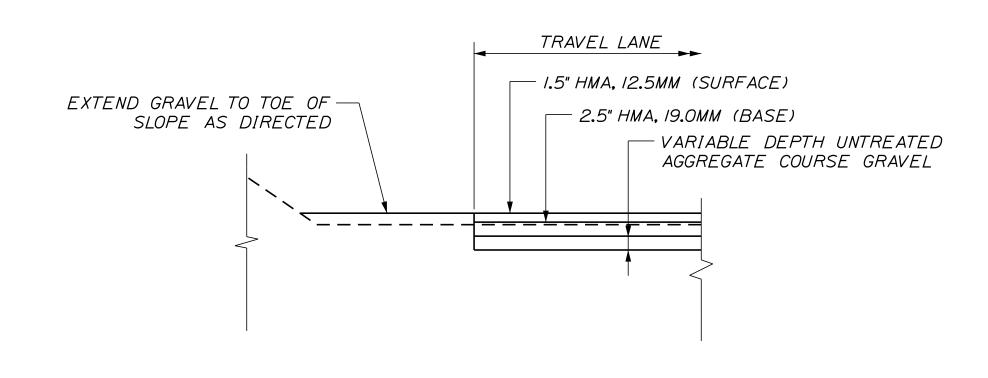
- I. THE PAVEMENT, BASE, AND SUBBASE DEPTHS AS SHOWN ON PLANS ARE INTENDED TO BE NOMINAL.
- 2. ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A MANNER AS TO LEAVE A CLEAN VERTICAL FACE. SAWCUT SHALL BE PAID FOR UNDER ITEM 419.30, SAWCUT BITUMINOUS PAVEMENT.
- 3. BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF PAVEMENT. BITUMINOUS TACK COAT IS REQUIRED ON ALL EXISTING PAVED OR MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.



EMERGENCY VEHICLE RAMP

FULL DEPTH PAVEMENT WITH VARIABLE DEPTH GRAVEL

TYPICAL SECTION



<u>DETAIL B</u>

Scale:				Designed by	y:				
	NOT TO SCA	LE						L	
No.	Revision	Ву	Date				VII	U	
				CONSULTANT	PROJEC	CT MANAGER:	G. Edington		
					Ву	Date		Ву	Date
	-			Designed	BMD	3/30/22	Checked	ECF	3/30/2
				Drawn	BMD	3/30/22	In Charge of	AG	3/30/2

VANASSE HANGEN BRUSTLIN, INC.
500 Southborough Dr.
Suite 105B
South Portland, ME 04106
TEL (207) 889-3150
FAX (207) 253-5596

MAINE
TURNPIKE

MTA PROJECT MANAGER: Ryan Barnes, PE

THE GOLD STAR
MEMORIAL HIGHWAY

LITTLEFIELD ROAD
EMERGENCY VEHICLE RAMPS
TYPICAL ROADWAY SECTIONS

 VHB: 55345.00
 SHEET NUMBER: 7

 CONTRACT: 2022.11
 7 OF 30

DIMENSIONS FOR SLOPE OF 2:1 $(FT) \mid (FT) \mid (FT) \mid (FT) \mid (FT) \mid (FT) \mid DEPTH \mid (CY)$ 12" | 1.00 | 4.00 | 3.00 | 2.00 | 6.00 | 1.00 | 0.50 | 0.43 1.00 | 4.50 | 3.37 | 2.25 | 6.75 | 1.63 | 0.50 1.00 | 5.00 | 3.75 | 2.50 | 7.50 | 2.25 | 0.50 1.00 | 6.00 | 4.50 | 3.00 | 9.00 | 3.50 | 0.50

DIMENSIONS FOR SLOPE OF 4:1

| 1.00 | 7.00 | 5.25 | 3.50 | 10.50 | 4.75 | 0.50

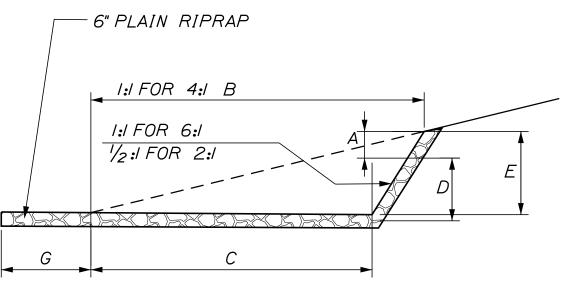
D	A (FT)	B (FT)	C (FT)	E (FT)	F (FT)	G (FT)	STONE DEPTH (FT)	
12"	1.00	8.00	6.00	2.00	6.00	0.00	0.50	0.73
<i>15</i> "	1.00	9.00	6. 75	2.25	6. 75	0.00	0.50	0.93
18"	1.00	10.00	7.50	2.50	7.50	0.00	0.50	1.13
24"	1.00	12.00	9.00	3.00	9.00	0.00	0.50	1.62
30"	1.00	14.00	10.50	<i>3.50</i>	10.50	0.00	0.50	2.19

DIMENSIONS FOR SLOPE OF 6:1

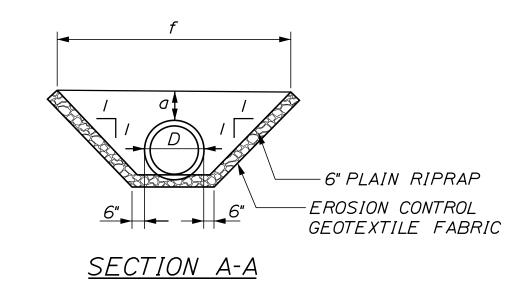
D	A (FT)	B (FT)	C (FT)	E (FT)	F (FT)	G (FT)	STONE DEPTH (FT)	
12"	0.50	9.00	7.50	1.50	4. 50	0.00	0.50	0.77
15"	0.50	10.50	8. 75	1.75	5.50	0.00	0.50	0.98
18"	0.50	12.00	10.00	2.00	6. 50	0.00	0.50	1.19
24"	0.50	15.00	12.50	2.50	8.00	0.00	0.50	1.81
30"	0.50	18.00	15.00	3.00	9.50	0.00	0.50	2.57

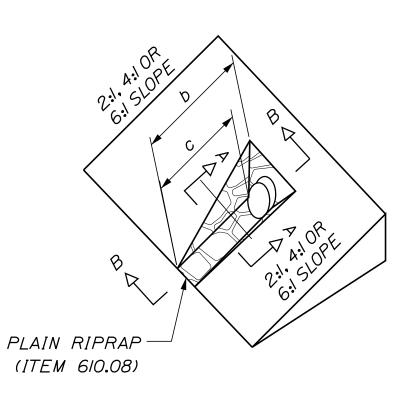
NOTES:

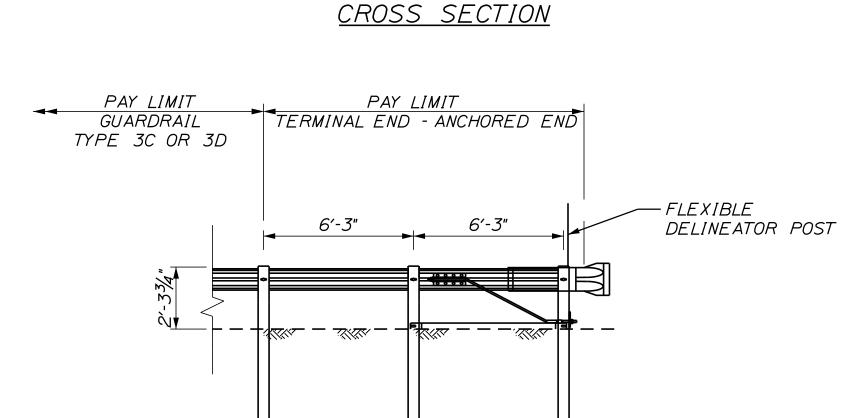
- I. THE DIMENSIONS SHOWN ARE APPROXIMATE AND MAY BE MODIFIED BY THE RESIDENT.
- 2. STONE QUANTITIES ARE FOR ONE END OF THE PIPE.



SECTION B-B







7′-8′ POST

3' (STANDARD) - 7' POSTS

2' (REDUCED) - 8' POSTS

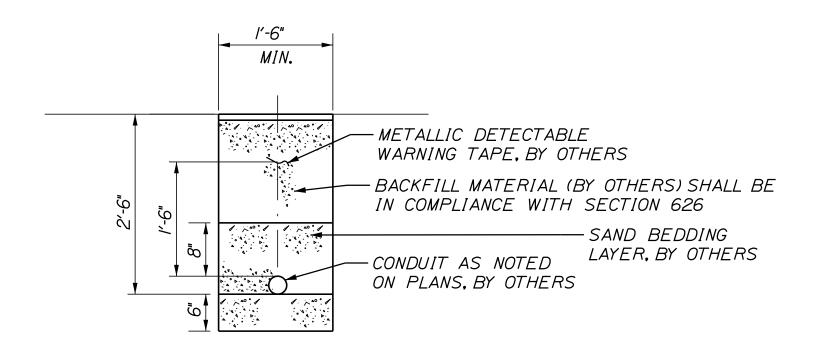
TERMINAL END - ANCHORED END (ITEM 606.278) NOT TO SCALE

GENERAL GUARDRAIL INSTALLATION NOTES:

- I. THE CONTRACTOR SHALL FOLLOW ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE INSTALLATION OF ALL GUARDRAIL COMPONENTS TO BE INSTALLED. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY CONFLICTS OR IRREGULARITIES BETWEEN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THE CONTRACT DOCUMENTS.
- 2. THE CONTRACTOR IS REQUIRED TO HAVE AN APPROVED CRASH END TREATMENT ON ALL GUARDRAIL ENDS PRIOR TO THE REMOVAL OF ANY MOT FEATURES.
- 3. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL CUT BOLTS, DISCARD PARTS, TRASH, PAVEMENT DEBRIS, ETC., AFTER COMPLETING THE GUARDRAIL INSTALLATION.

ROADWAY CULVERT END SLOPE TREATMENT NOT TO SCALE

		SIGN SUMI	MARY			
		Text Dimensions (Inches)	Cira	Ougatity and Color		
	Sign	Letter Vertical Height Spacing	- Size	Quantity and Color		
RI-I	STOP	Text Dimensions Shall Conform to "Standard Highway	36"x36"	2 - WHITE ON RED		
R5-II	AUTHORIZED VEHICLES ONLY	Signs" - 2012	30"x24"	3 - BLACK ON WHITE		



CONTRACT: 2022.11

TRENCH CROSS SECTION NOT TO SCALE

Scale:				Designed b	y:				
No.	Revision	Ву	Date				VII	U	
				CONSULTANT PROJECT MANAGER: G. Edington					
					Ву	Date		Ву	Date
				Designed	BMD	3/30/22	Checked	ECF	3/30/2
				Drawn	BMD	3/30/22	In Charge of	AG	3/30/22

VANASSE HANGEN BRUSTLIN, INC. 500 Southborough Dr. Suite 105B South Portland, ME 04106 TEL (207) 889-3150 FAX (207) 253-5596



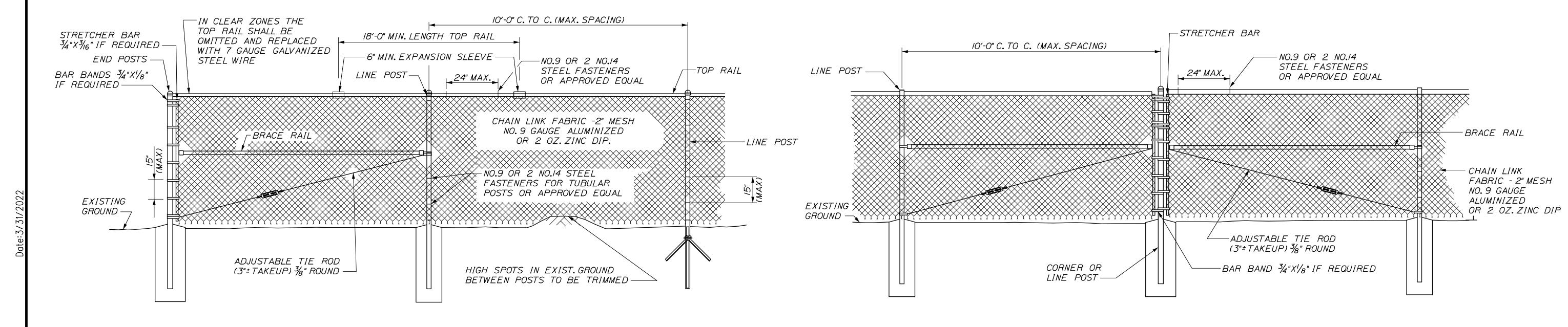
THE GOLD STAR MEMORIAL HIGHWAY

LITTLEFIELD ROAD EMERGENCY VEHICLE RAMPS DETAILS & SIGN SUMMARY

VHB: 55345.00 SHEET NUMBER:

MTA PROJECT MANAGER: Ryan Barnes, PE

8 OF 30



TYPICAL TYPE I END PANEL

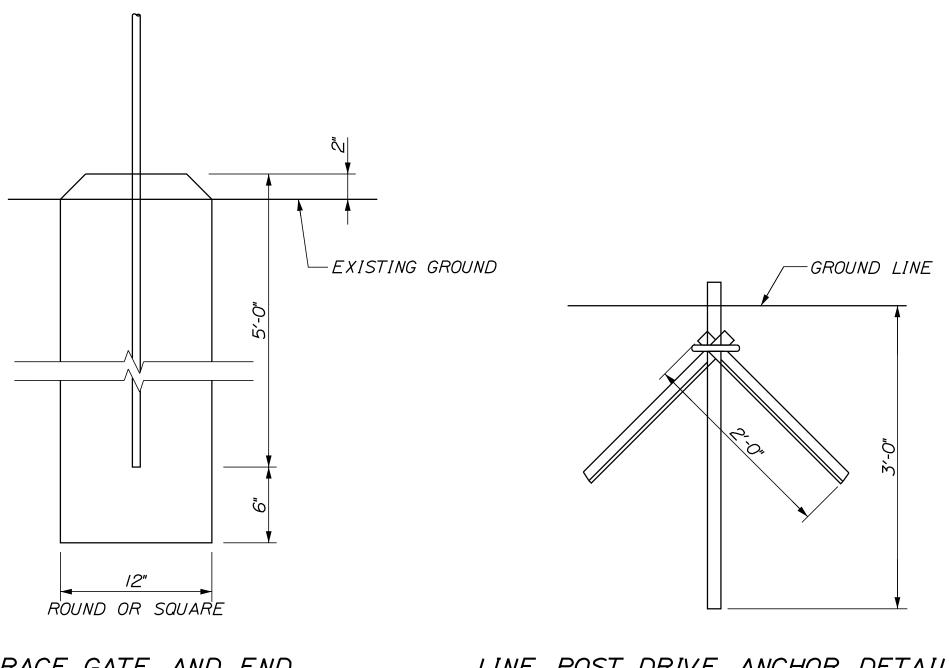
TYPICAL INTERMEDIATE PANEL N.T.S.

TYPICAL TYPE II BRACE PANEL

BENDING MOMENTS BASED ON GRADE I (SCHEDULE 40 STEEL)

CHAIN LINK FENCE	SHAPE	NOMINAL SIZE (INCHES)	BENDING MOMENT* (LBSIN.)				
END & CORNER POSTS	φ	2 I.D.	14,025				
LINE POSTS	φ	1-1/2 I.D.	8,150				
TOP & BRACE RAILS	φ	I-1/4 I.D.	5 , 875				

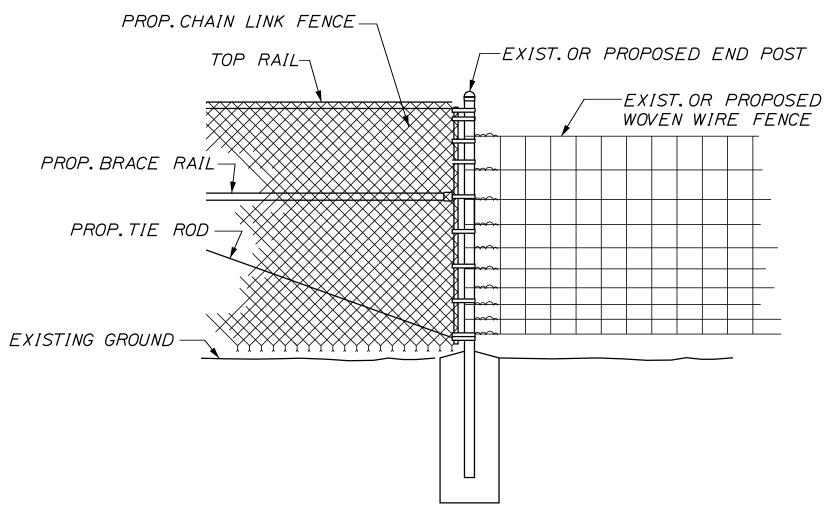
* MATERIAL FOR GRADE 2 END, CORNER & LINE POSTS AND TOP & BRACE RAILS MUST MEET OR EXCEED BENDING MOMENTS FOR GRADE ISTEEL AS NOTED ABOVE.



BRACE, GATE AND END POST BASE DETAIL

N.T.S.





METHOD OF ATTACHING CHAIN LINK FENCE TO WOVEN WIRE FENCE

<u>NOTES</u>

- I. BRACE PANELS SHALL BE INSTALLED WHERE THE CHANGE IN GRADE BETWEEN ANY THREE POSTS EXCEEDS 15 PERCENT.
- 2. NO ADDITIONAL PAYMENT WILL BE MADE FOR LONGER POSTS NECESSITATED BY LARGE GRADE DIFFERENTIAL.
- 3. TYPE I BRACING WILL BE USED AT FENCE ENDS. TYPE II BRACING WILL BE USED AT CORNER POSTS.
- 4. WHEN LEDGE IS ENCOUNTERED, STEEL POSTS SHALL BE SET AND GROUTED 12" DEEP UNLESS THE POSTS PENETRATE THE GROUND TO THE DEPTH INDICATED ON THE DRAWINGS.
- 5. CONCRETE FOR POST FOUNDATION SHALL BE CLASS B.
- 6. BRACE, GATE AND END POSTS SHALL BE SET IN CONCRETE.
- 7. CHAIN LINK FENCE SHALL BE INSTALLED WITH BARBS DOWN.
- 8. ALL COMPONENTS OF CHAIN LINK FENCE SHALL BE IN ACCORDANCE WITH AASHTO MI81.

Scale: NOT TO SCALE				Designed b	y:			h	
No.	Revision	Ву	Date				VII	U	
				CONSULTANT PROJECT MANAGER: G. Edington					
					Ву	Date		Ву	Date
				Designed	BMD	3/30/22	Checked	ECF	3/30/22
				Drawn	BMD	3/30/22	In Charge of	AG	3/30/22

VANASSE HANGEN BRUSTLIN, INC. 500 Southborough Dr. Suite 105B

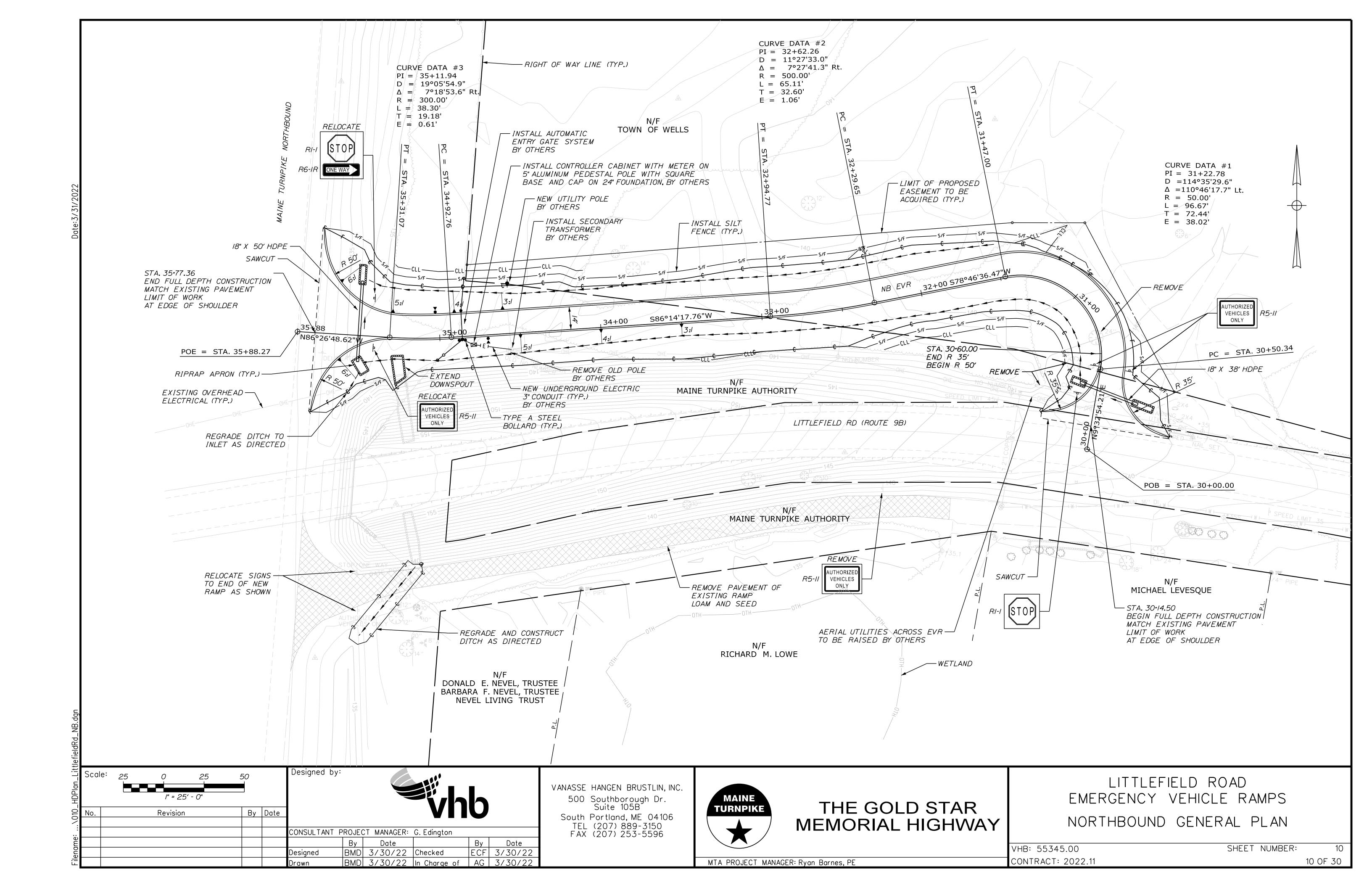
South Portland, ME 04106 TEL (207) 889-3150 FAX (207) 253-5596

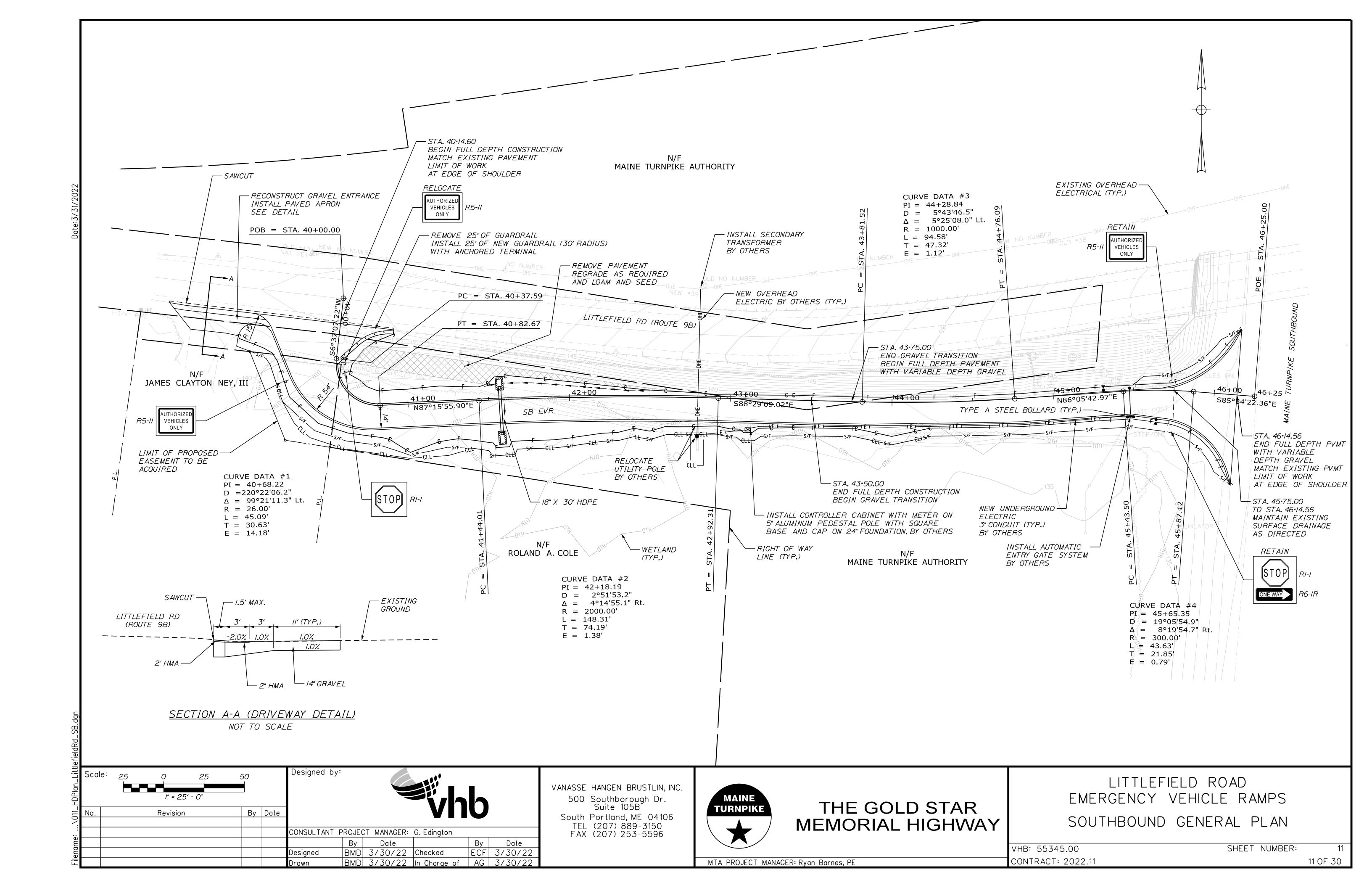


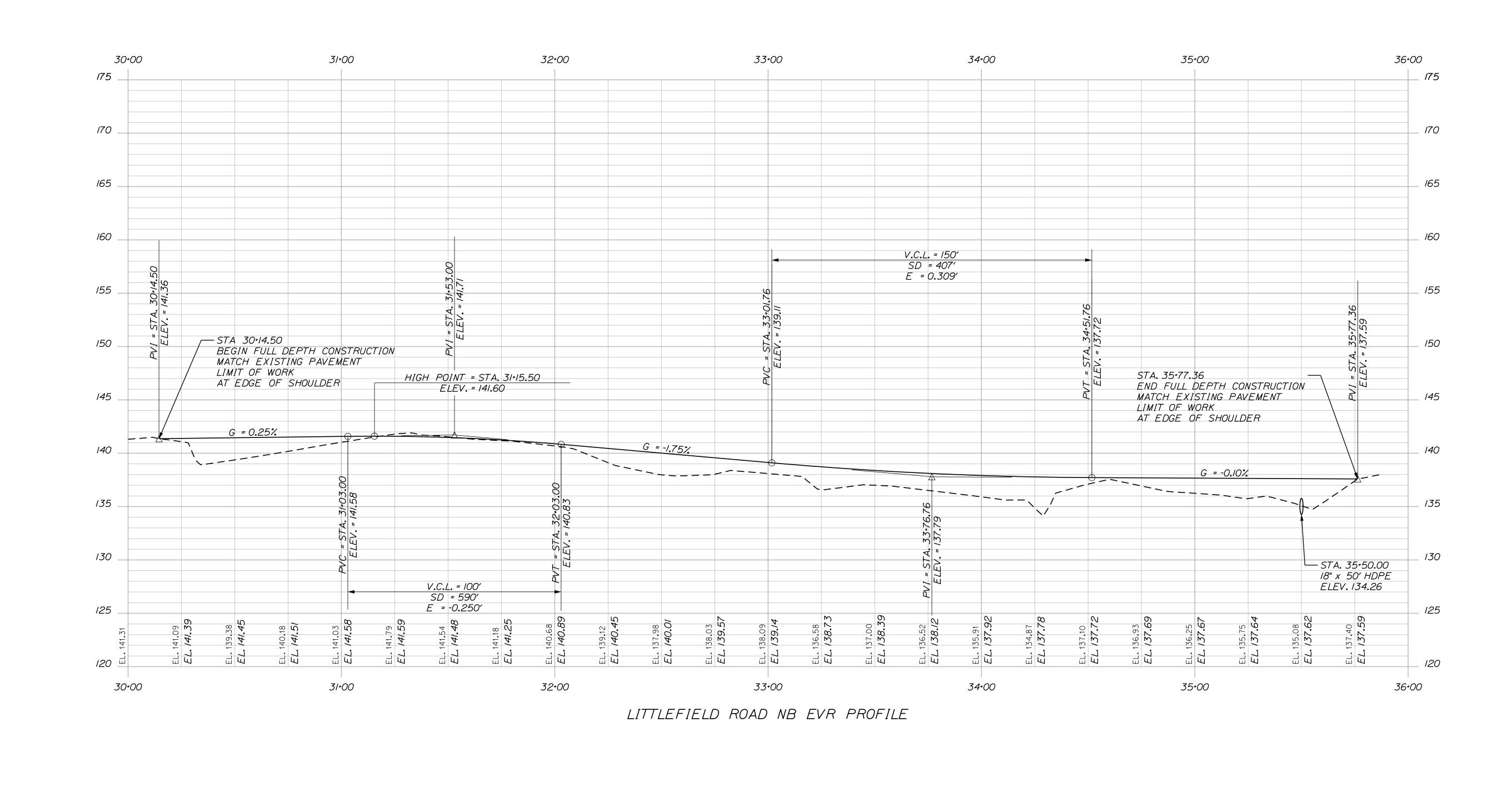
THE GOLD STAR MEMORIAL HIGHWAY

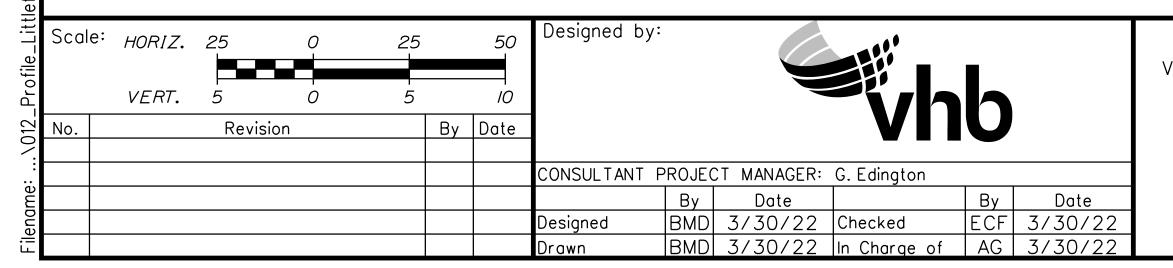
LITTLEFIELD ROAD EMERGENCY VEHICLE RAMPS FENCING DETAILS

SHEET NUMBER: VHB: 55345.00 CONTRACT: 2022.11 9 OF 30





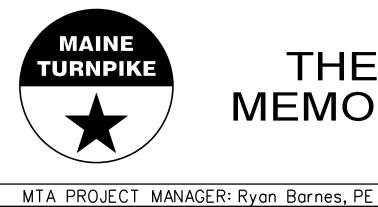




VANASSE HANGEN BRUSTLIN, INC.

500 Southborough Dr.
Suite 105B

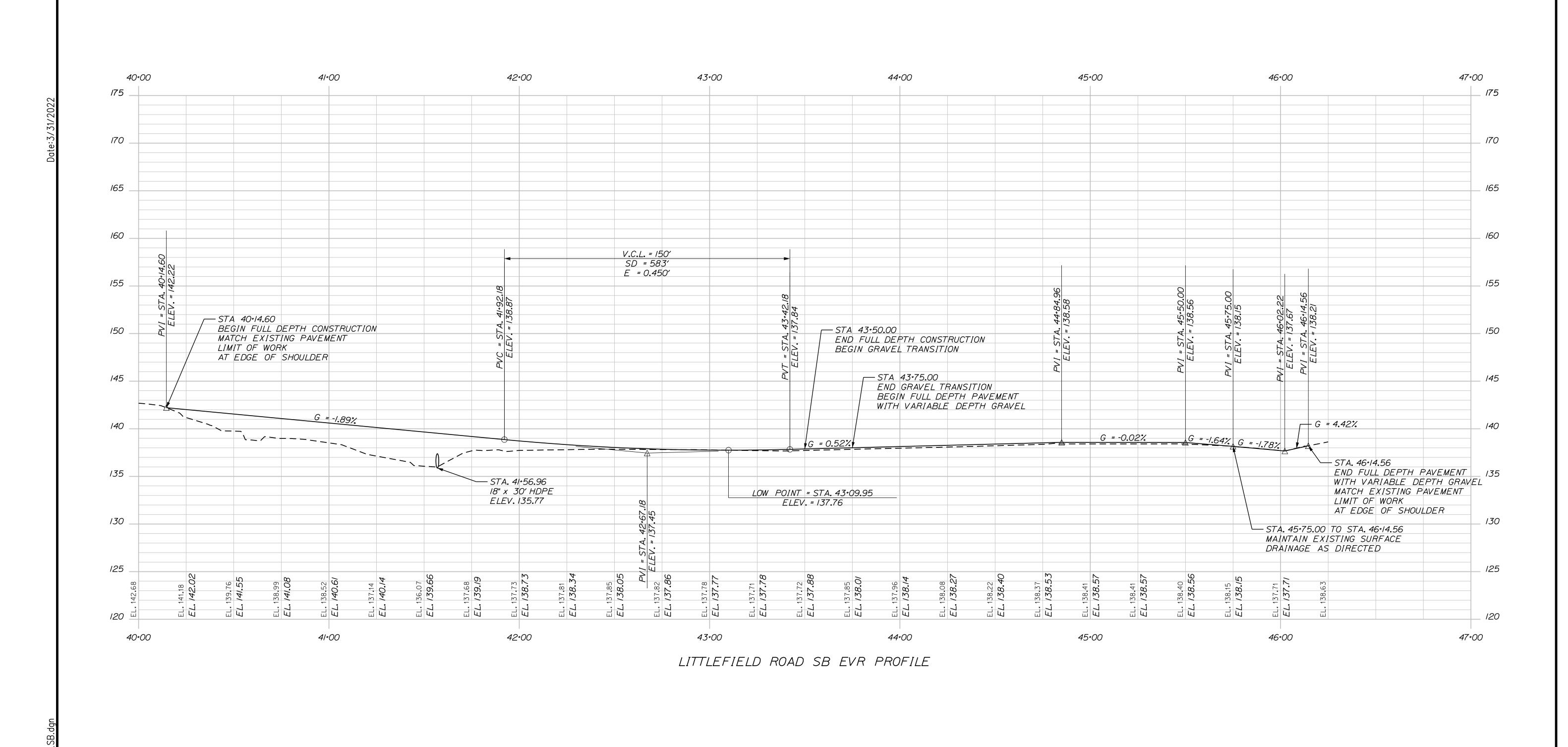
South Portland, ME 04106
TEL (207) 889-3150
FAX (207) 253-5596



THE GOLD STAR MEMORIAL HIGHWAY LITTLEFIELD ROAD EMERGENCY VEHICLE RAMPS NORTHBOUND PROFILE

 VHB: 55345.00
 SHEET NUMBER: 12

 CONTRACT: 2022.11
 12 OF 30



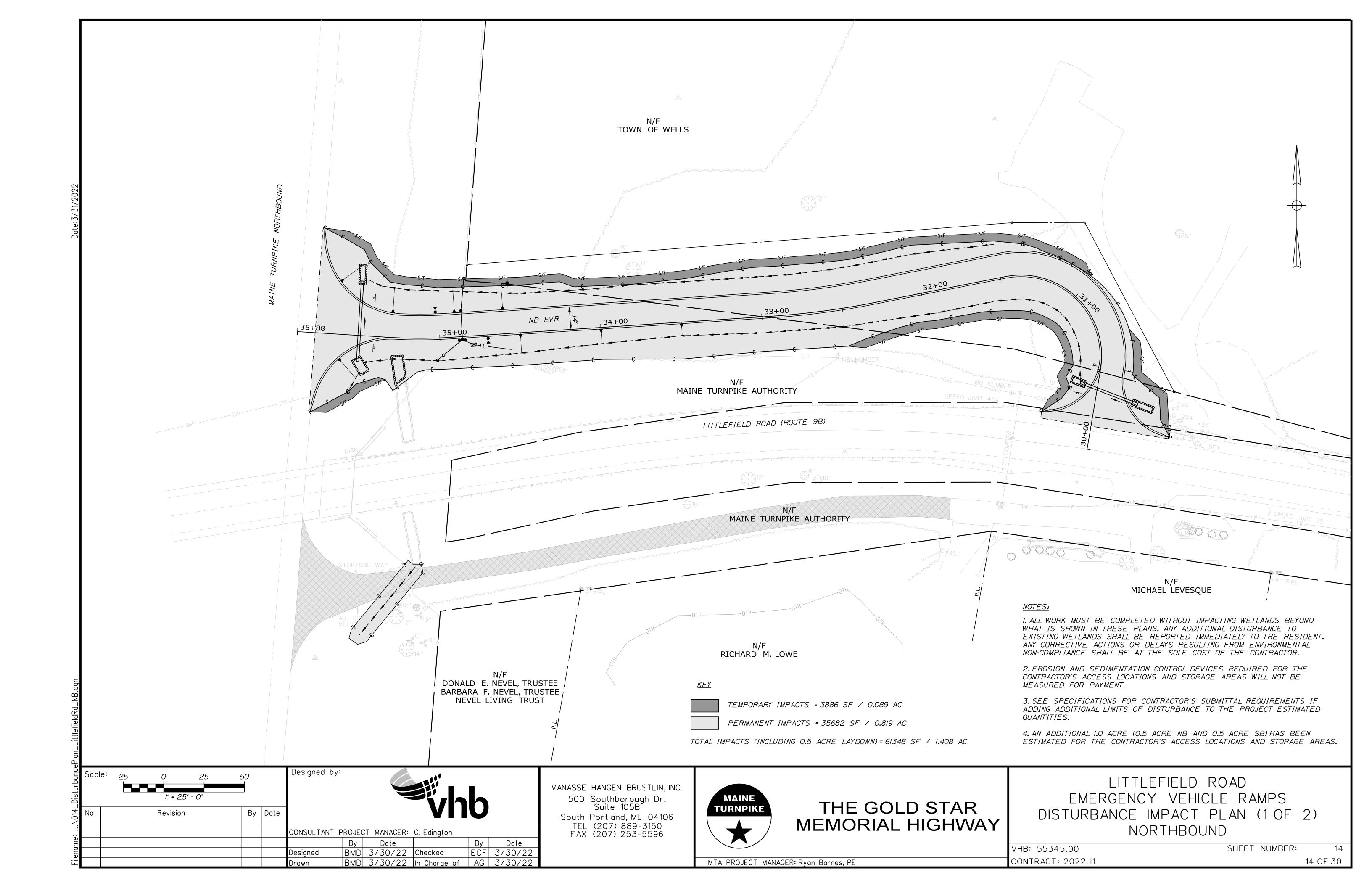
VANASSE HANGEN BRUSTLIN, INC.
500 Southborough Dr.
Suite 105B
South Portland, ME 04106
TEL (207) 889-3150
FAX (207) 253-5596

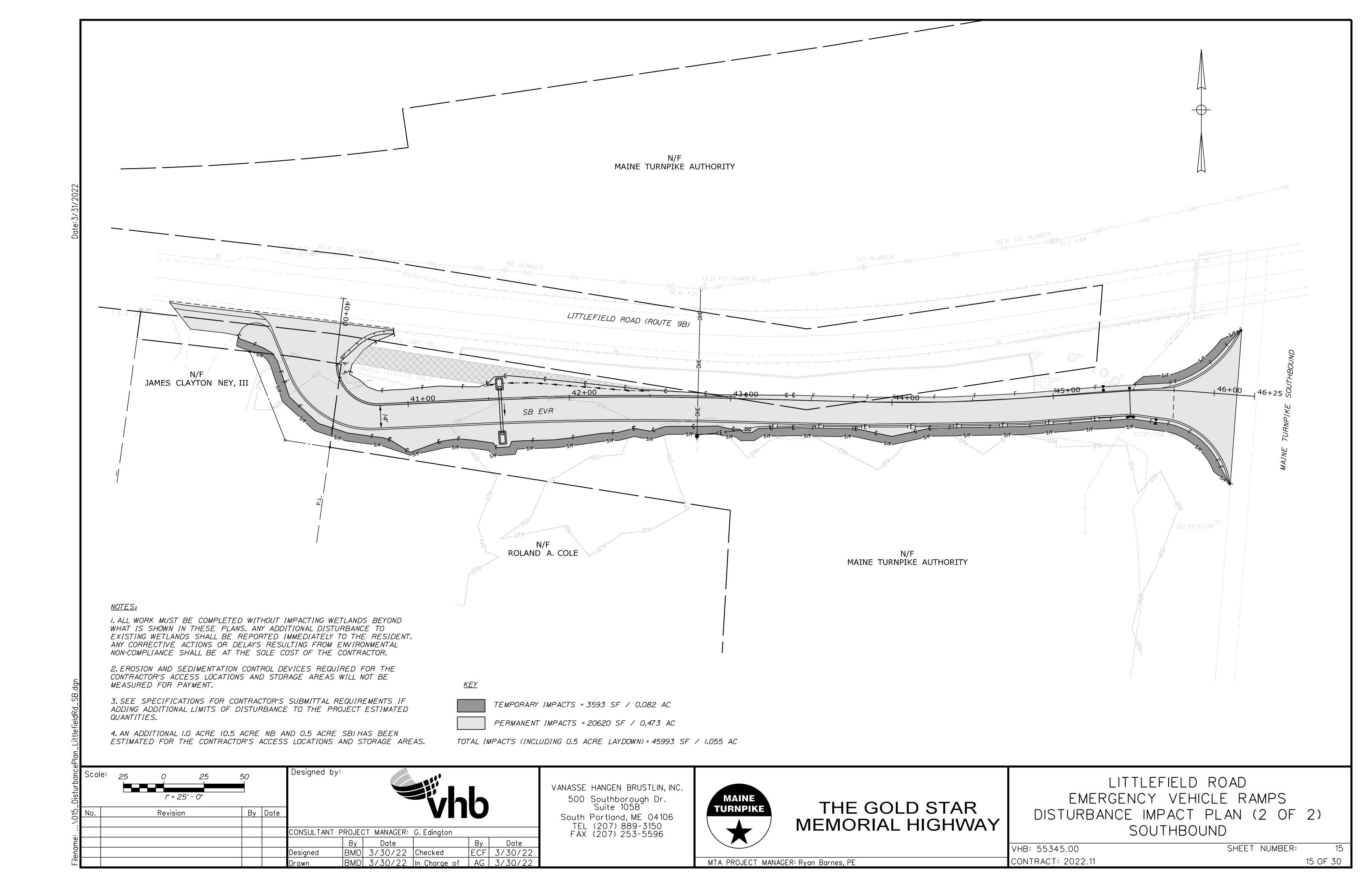
MAINE
TURNPIKE

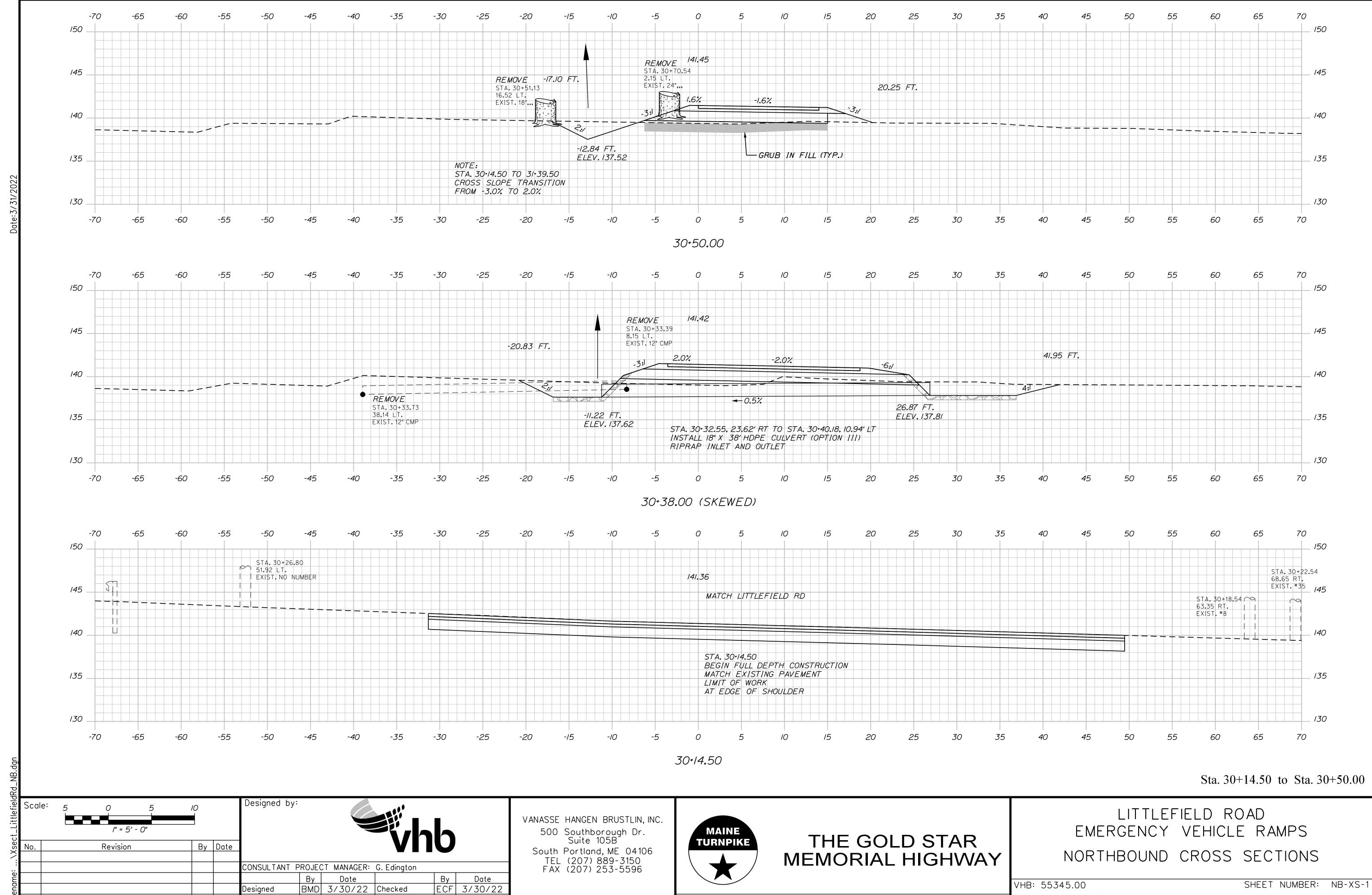
THE GOLD STAR MEMORIAL HIGHWAY

LITTLEFIELD ROAD
EMERGENCY VEHICLE RAMPS
SOUTHBOUND PROFILE

VHB: 55345.00 SHEET NUMBER: 13 CONTRACT: 2022.11 13 OF 30





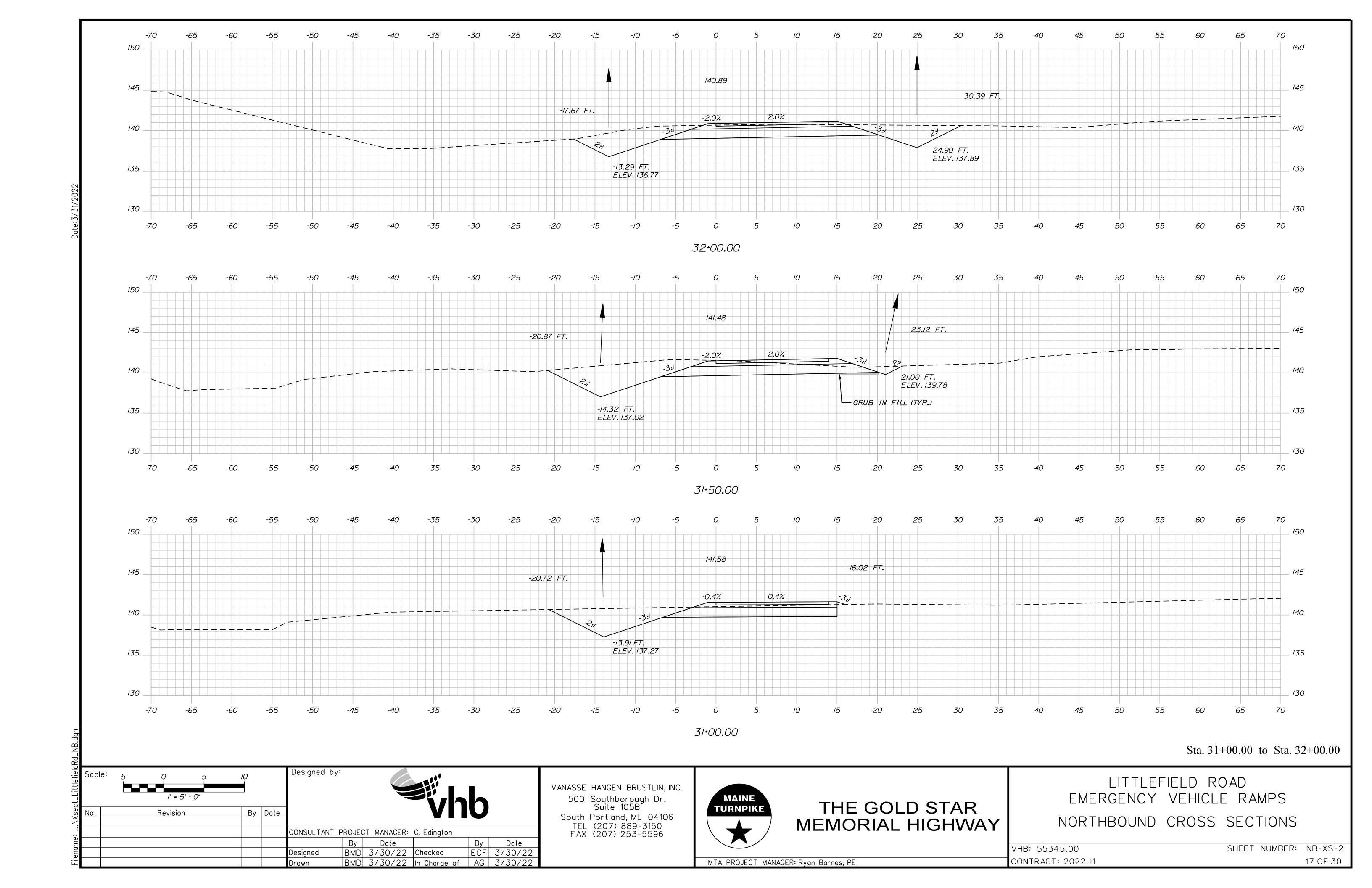


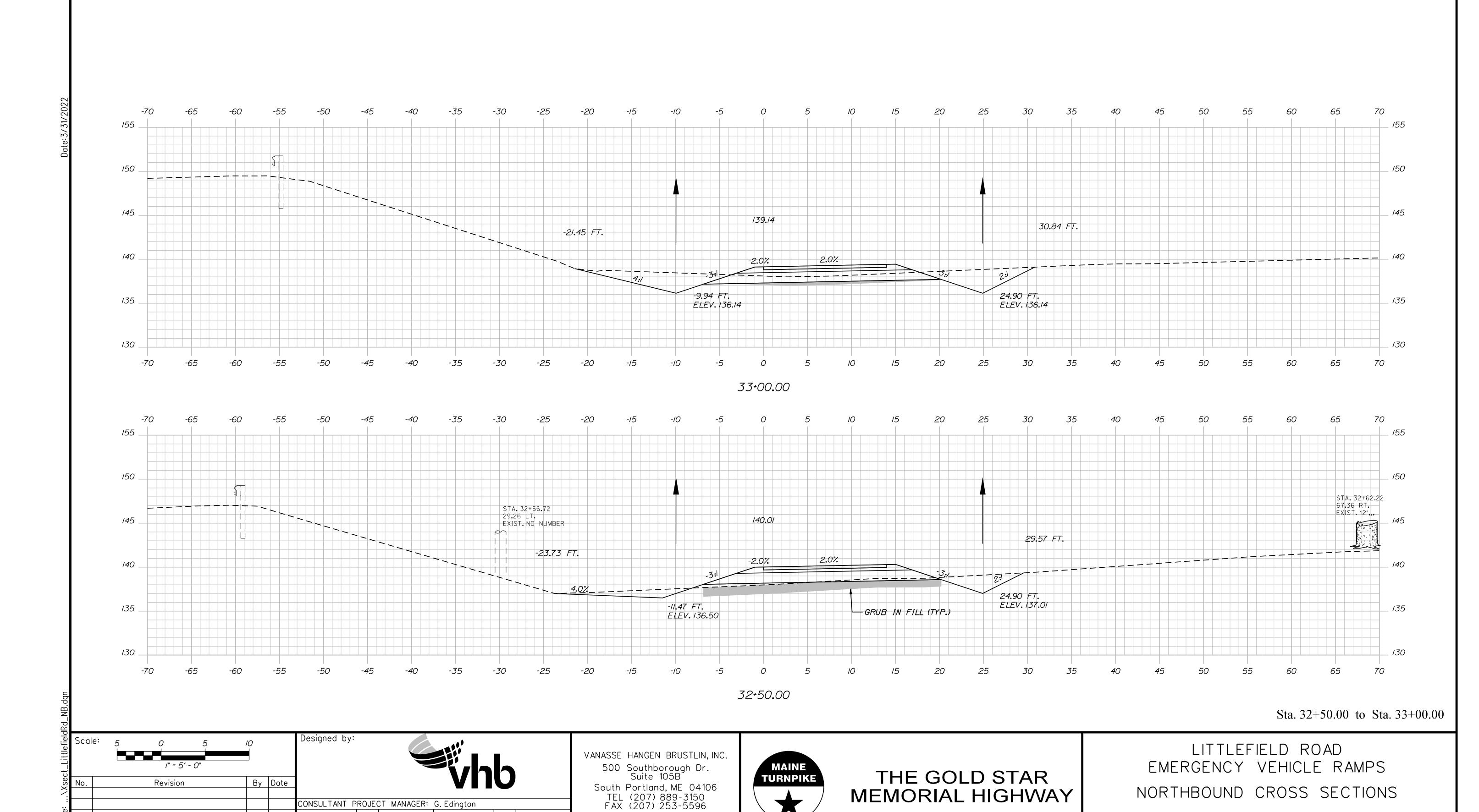
BMD 3/30/22 In Charge of AG 3/30/22

MTA PROJECT MANAGER: Ryan Barnes, PE

CONTRACT: 2022.11

16 OF 30





SHEET NUMBER: NB-XS-3

18 OF 30

VHB: 55345.00

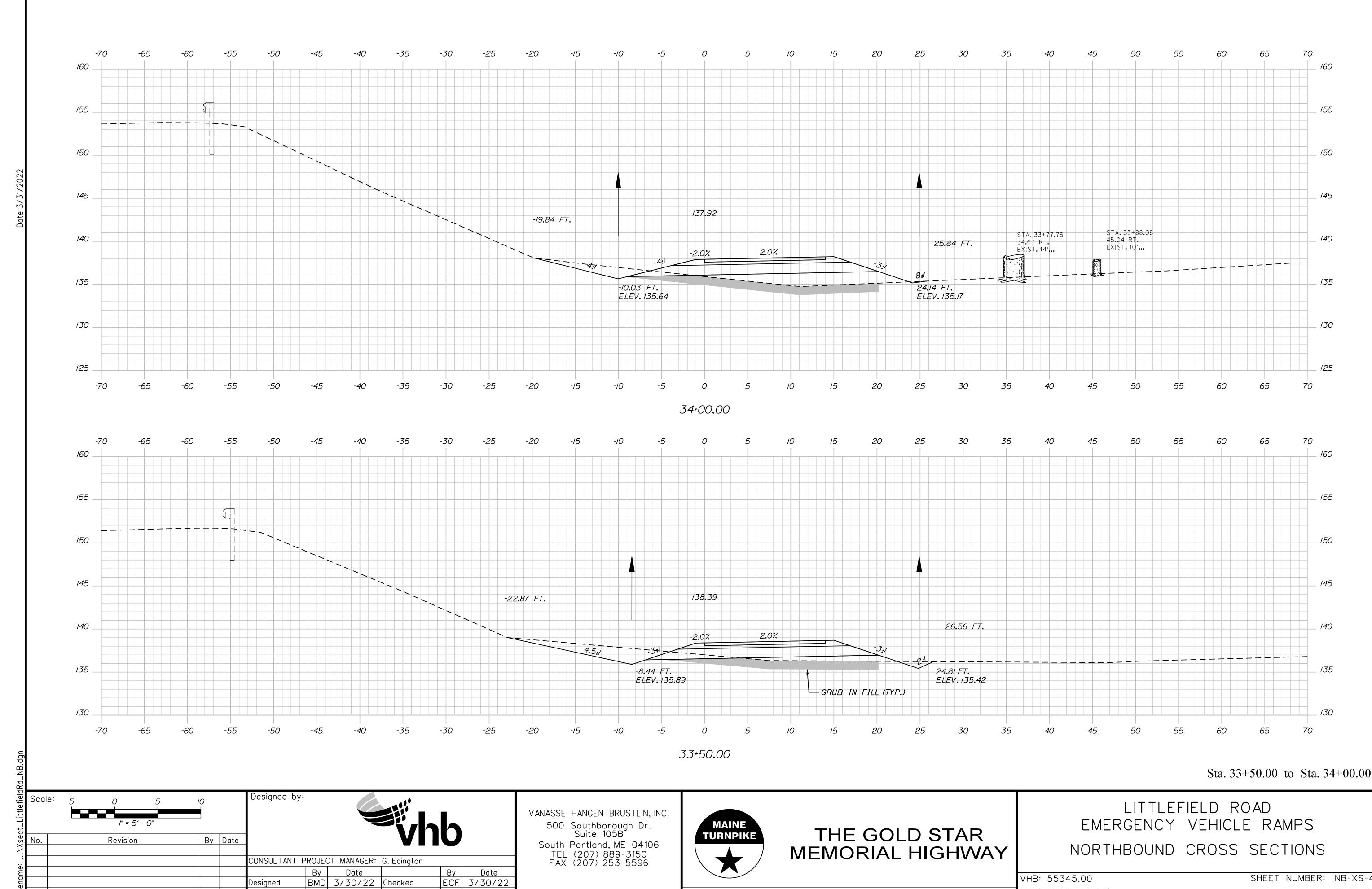
CONTRACT: 2022.11

By Date ECF 3/30/22

BMD 3/30/22 Checked

BMD 3/30/22 In Charge of AG 3/30/22

Designed

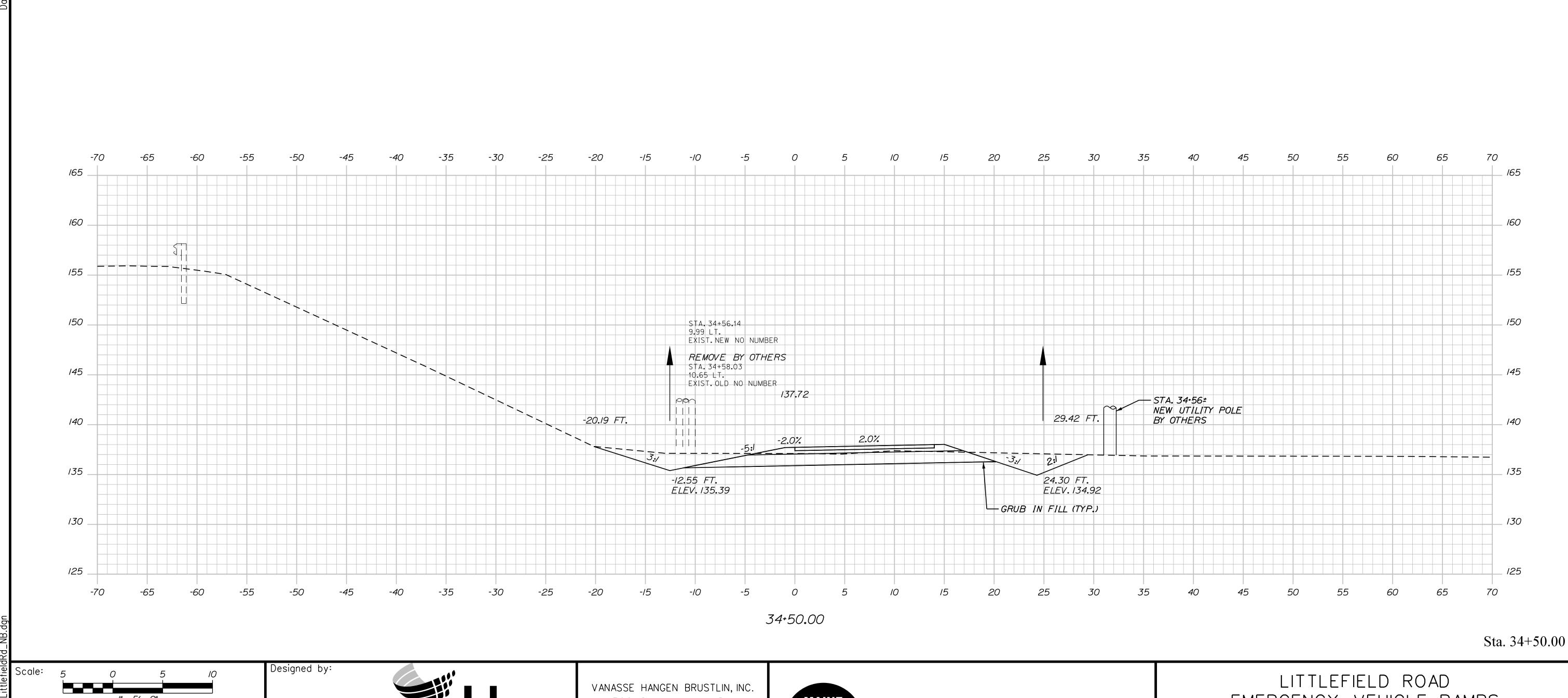


BMD 3/30/22 Checked

BMD 3/30/22 In Charge of AG 3/30/22

Designed

SHEET NUMBER: NB-XS-4 VHB: 55345.00 CONTRACT: 2022.11 19 OF 30



By Date Revision CONSULTANT PROJECT MANAGER: G. Edington By Date ECF 3/30/22 BMD 3/30/22 Checked Designed BMD 3/30/22 In Charge of AG 3/30/22

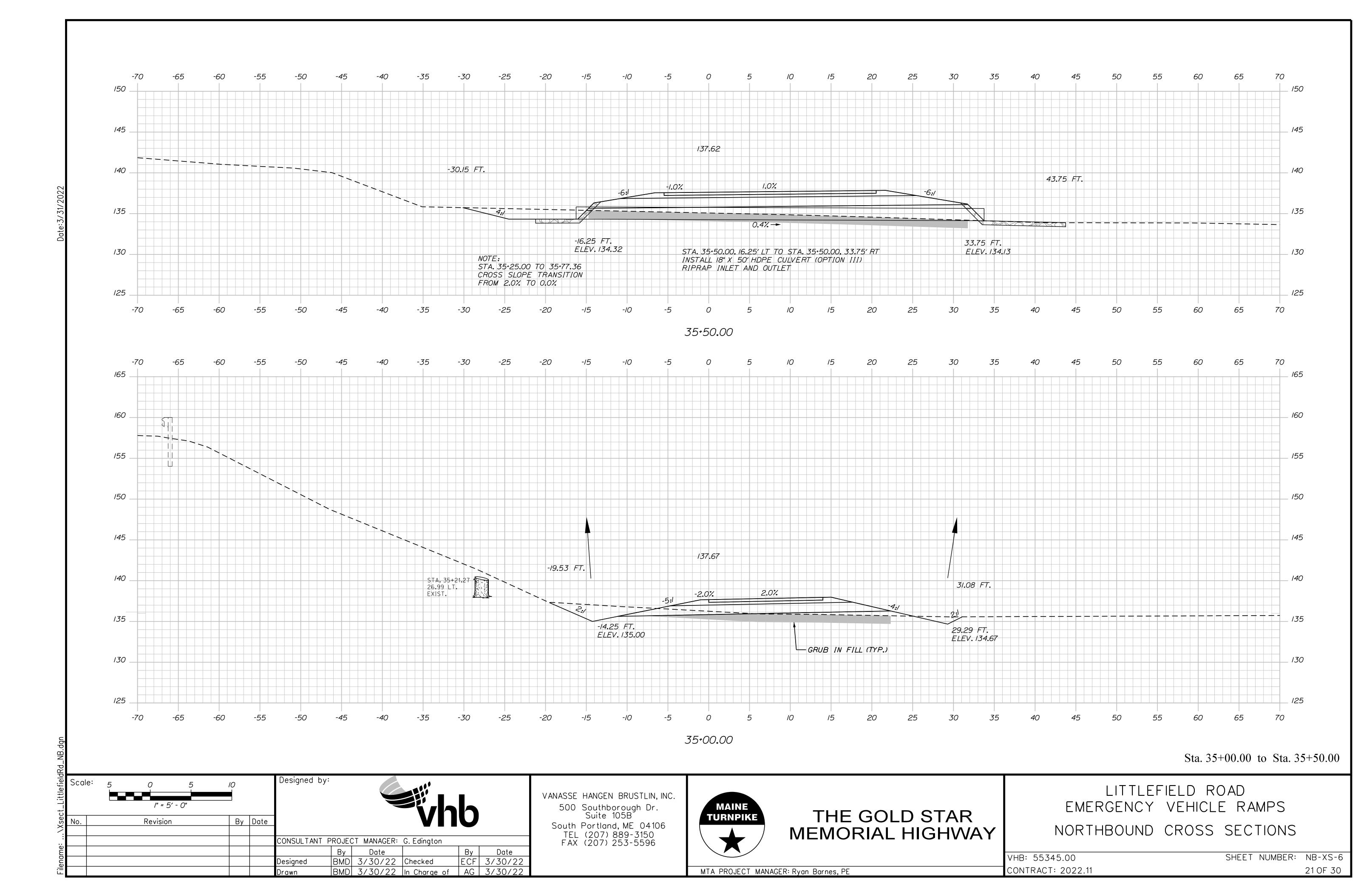
500 Southborough Dr. Suite 105B South Portland, ME 04106 TEL (207) 889-3150 FAX (207) 253-5596

TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

EMERGENCY VEHICLE RAMPS NORTHBOUND CROSS SECTIONS

SHEET NUMBER: NB-XS-5 VHB: 55345.00 CONTRACT: 2022.11 20 OF 30



70 145 137.59 MATCH MAINE TURNPIKE NORTHBOUND 140 STA. 35+77.36

END FULL DEPTH CONSTRUCTION

MATCH EXISTING PAVEMENT

LIMIT OF WORK

AT EDGE OF SHOULDER 65 70 *35+77.36* Sta. 35+77.36 Designed by: Scale: LITTLEFIELD ROAD VANASSE HANGEN BRUSTLIN, INC. EMERGENCY VEHICLE RAMPS 500 Southborough Dr. Suite 105B THE GOLD STAR **TURNPIKE** By Date Revision South Portland, ME 04106

CONSULTANT PROJECT MANAGER: G. Edington By Date ECF 3/30/22 BMD 3/30/22 Checked Designed BMD 3/30/22 In Charge of AG 3/30/22

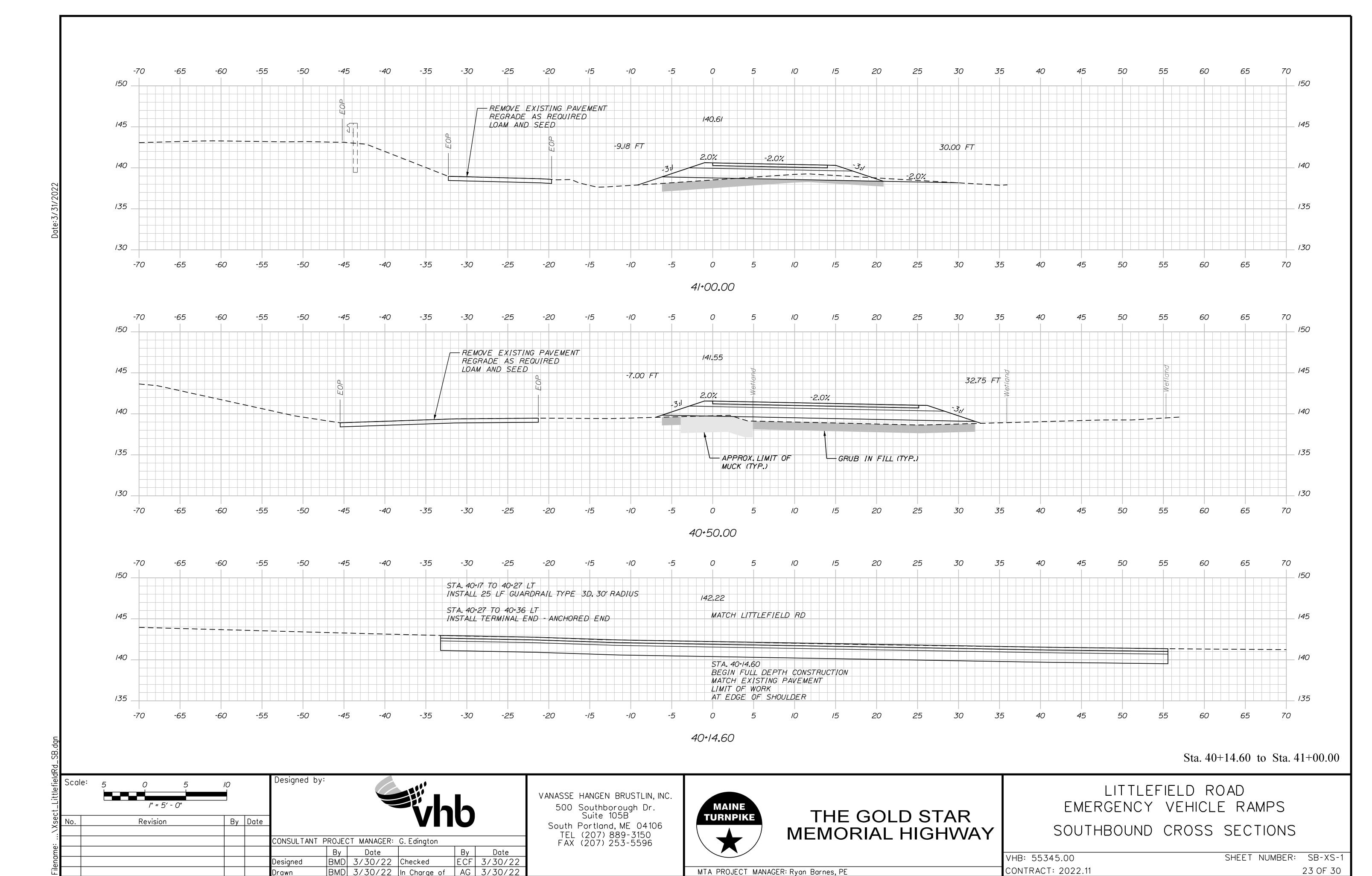
TEL (207) 889-3150 FAX (207) 253-5596

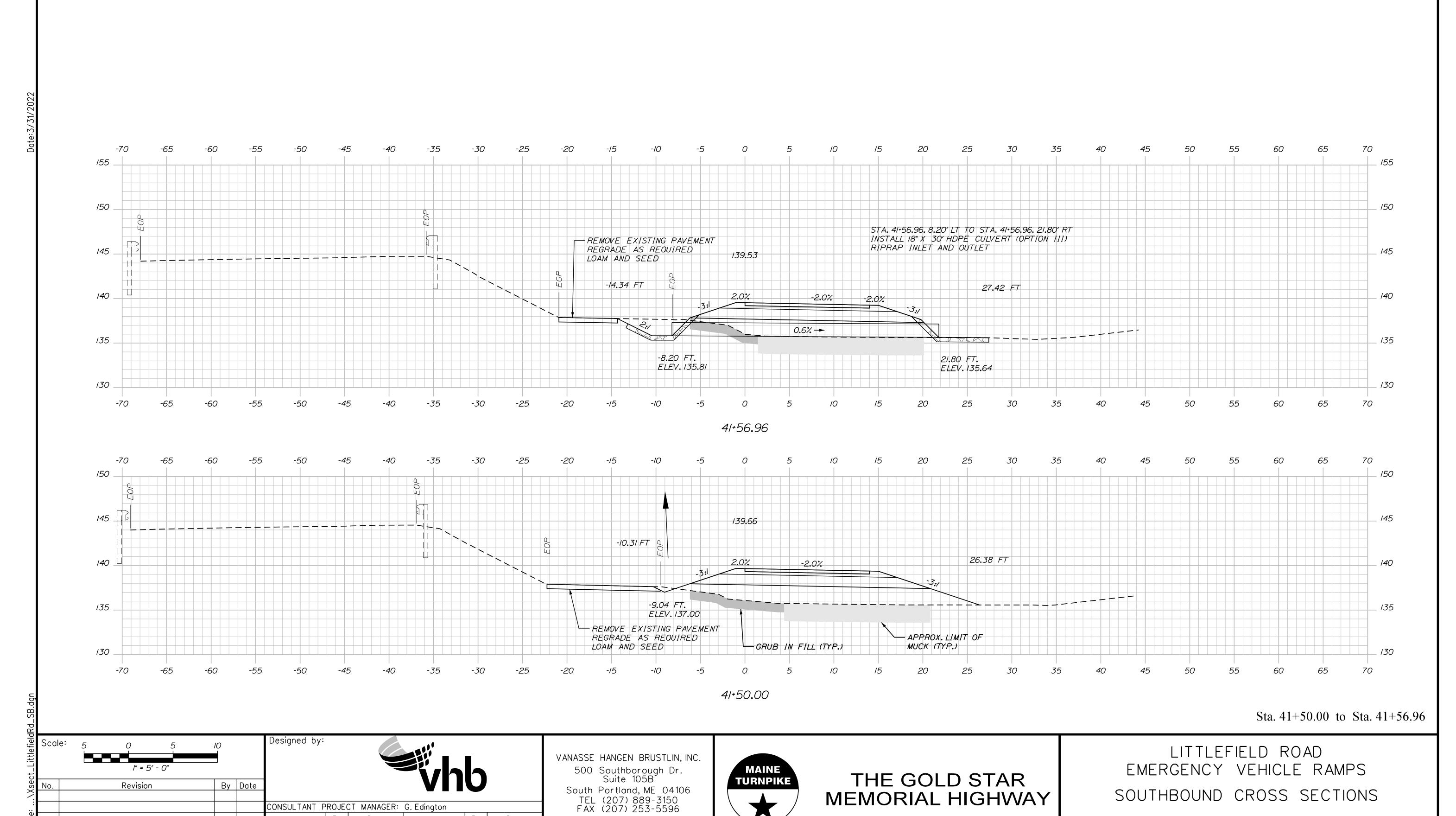


MEMORIAL HIGHWAY

NORTHBOUND CROSS SECTIONS

SHEET NUMBER: NB-XS-7 VHB: 55345.00 CONTRACT: 2022.11 22 OF 30





SHEET NUMBER: SB-XS-2

24 OF 30

VHB: 55345.00

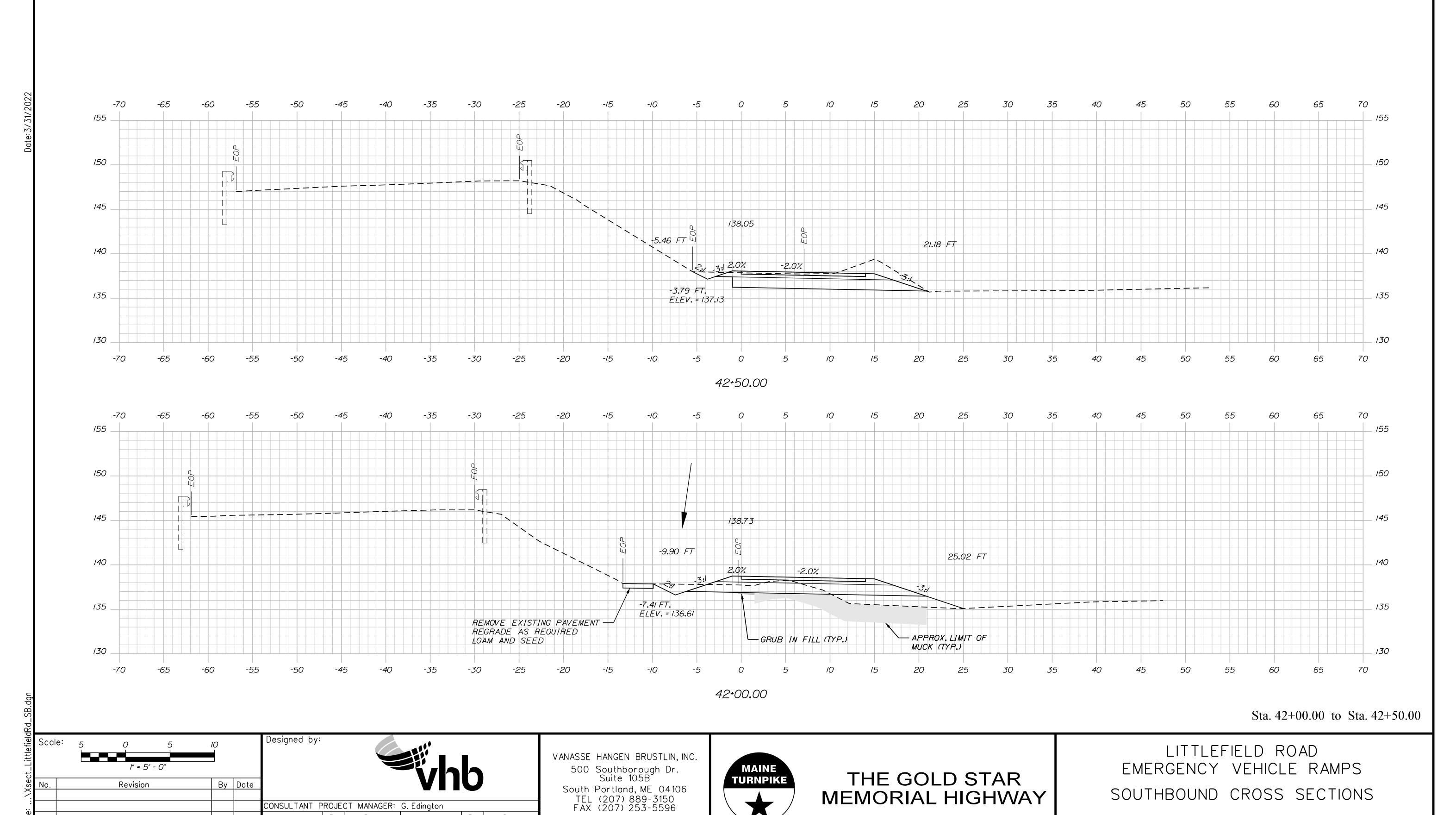
CONTRACT: 2022.11

By Date ECF 3/30/22

BMD 3/30/22 Checked

BMD 3/30/22 In Charge of AG 3/30/22

Designed



SHEET NUMBER: SB-XS-3

25 OF 30

VHB: 55345.00

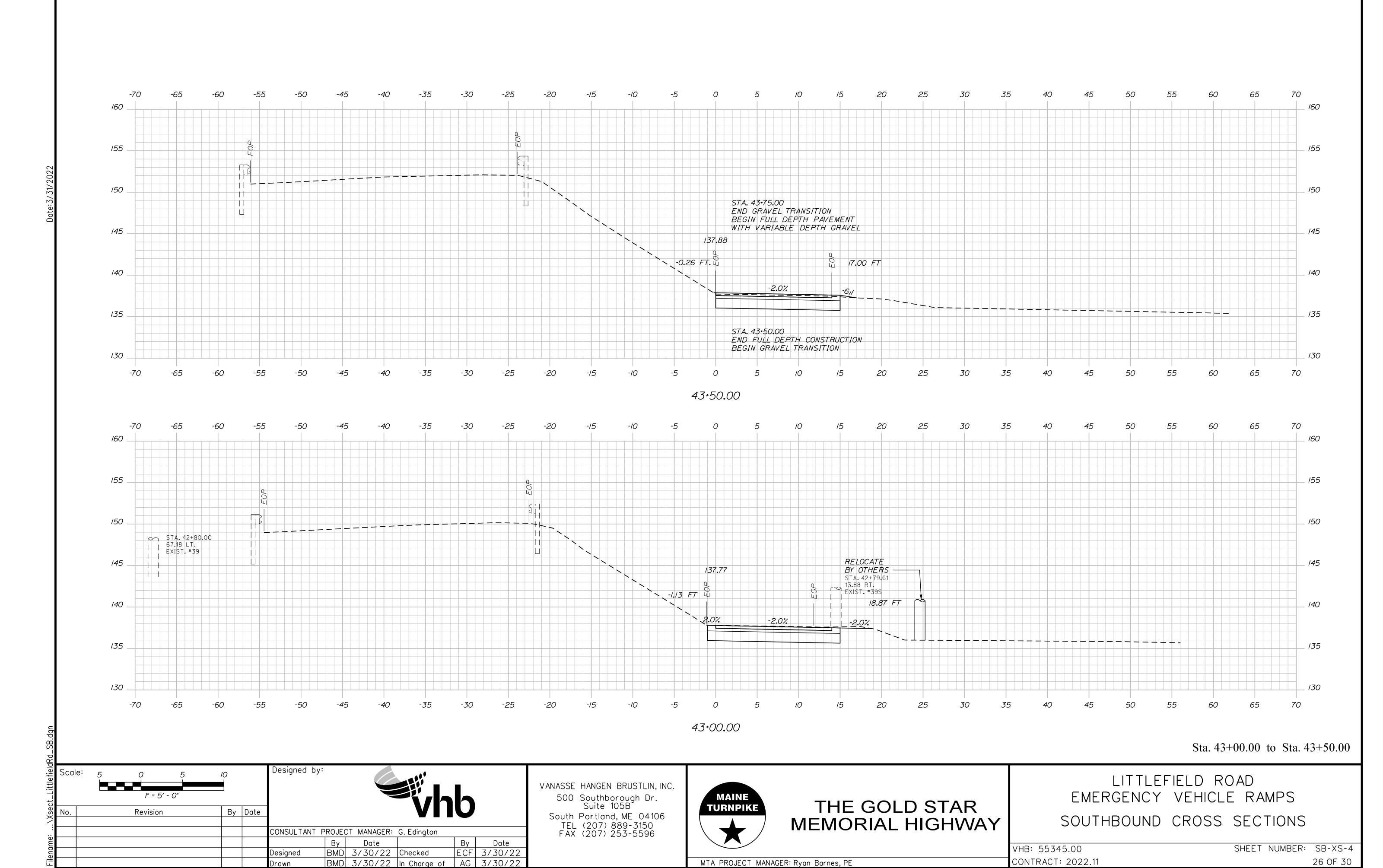
CONTRACT: 2022.11

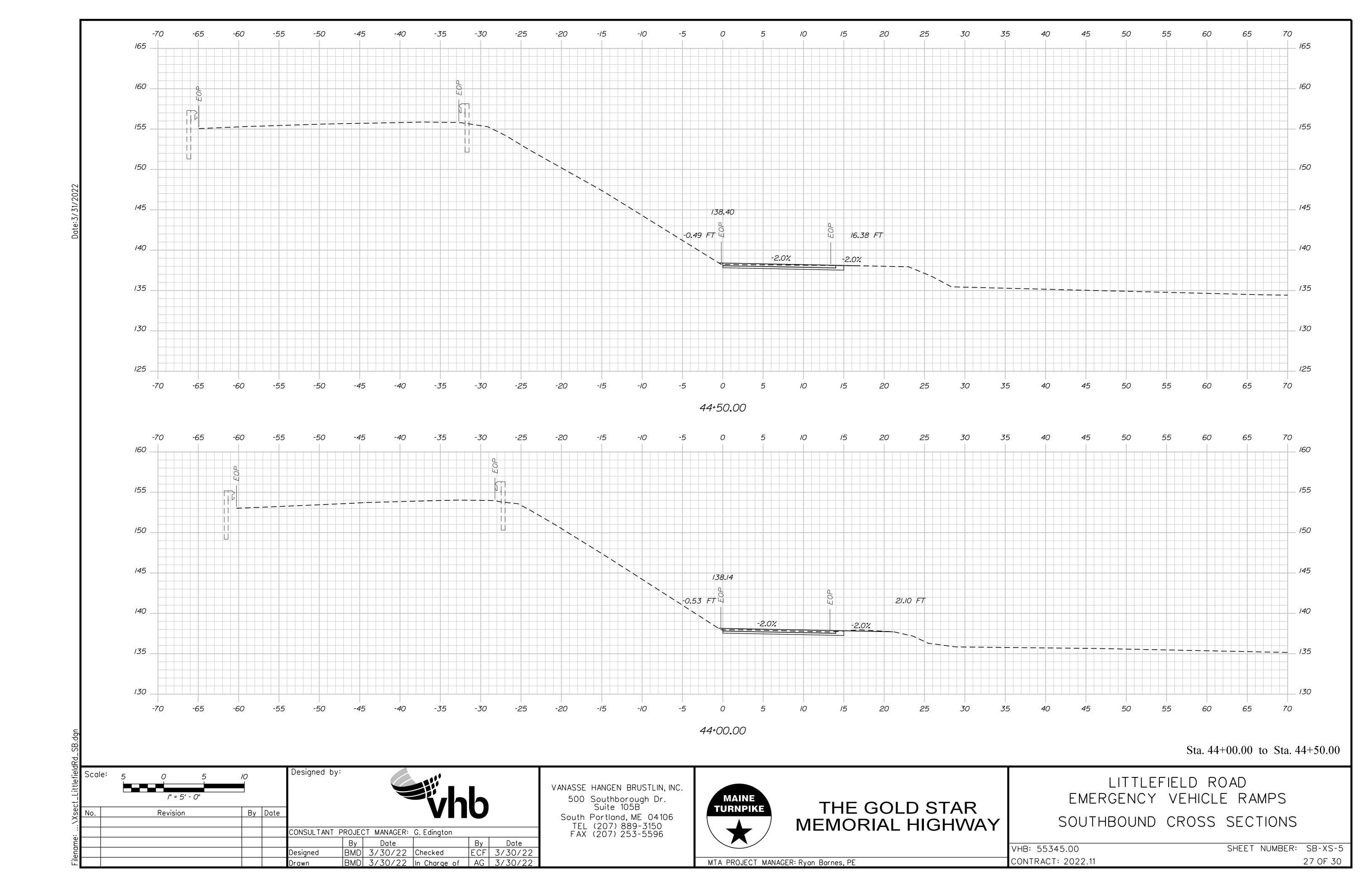
By Date ECF 3/30/22

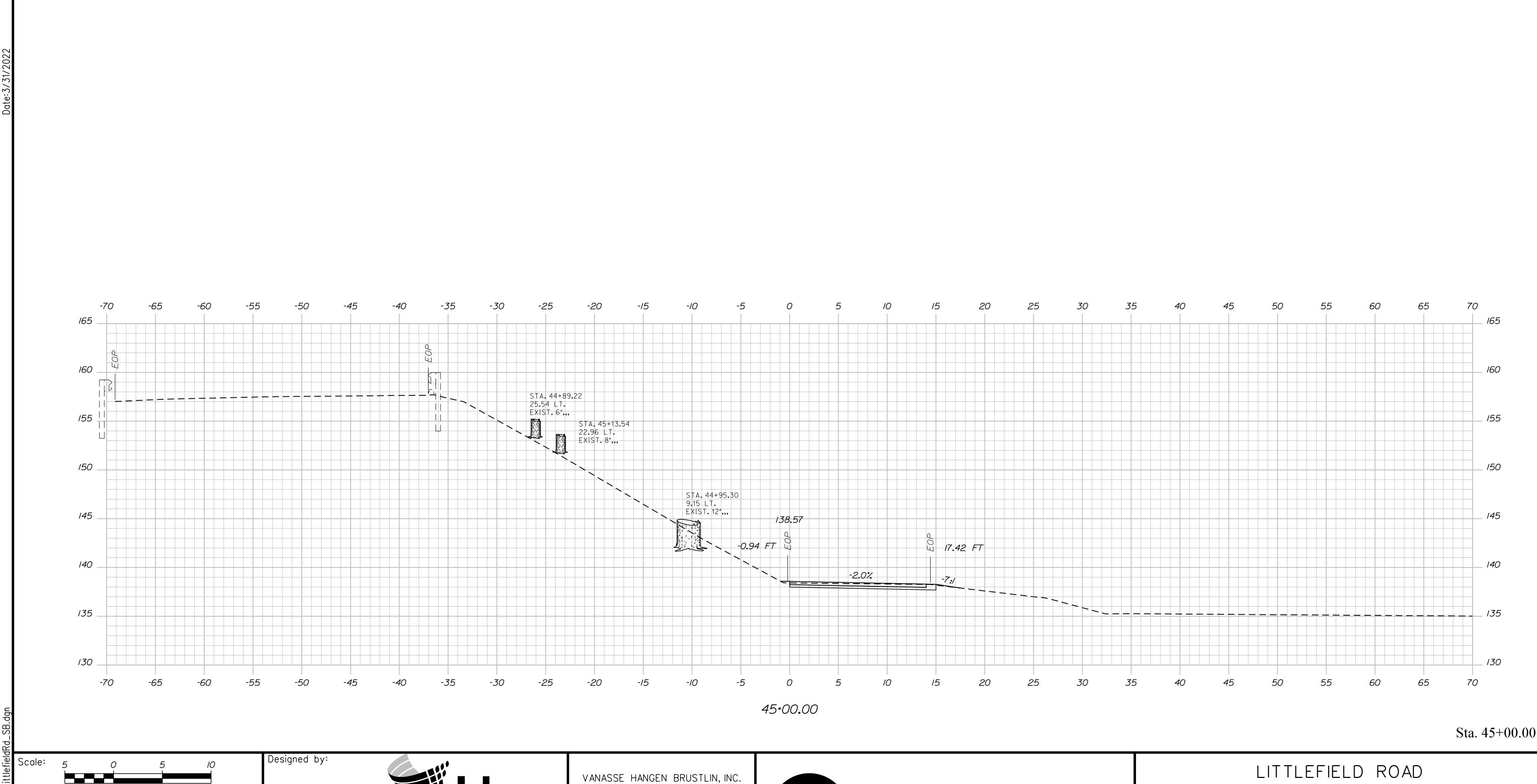
BMD 3/30/22 Checked

BMD 3/30/22 In Charge of AG 3/30/22

Designed







CONSULTANT PROJECT MANAGER: G. Edington

By Date

Designed BMD 3/30/22 Checked ECF 3/30/22

Drawn BMD 3/30/22 In Charge of AG 3/30/22

By Date

Revision

ANASSE HANGEN BRUSTLIN, INC.

500 Southborough Dr.
Suite 105B

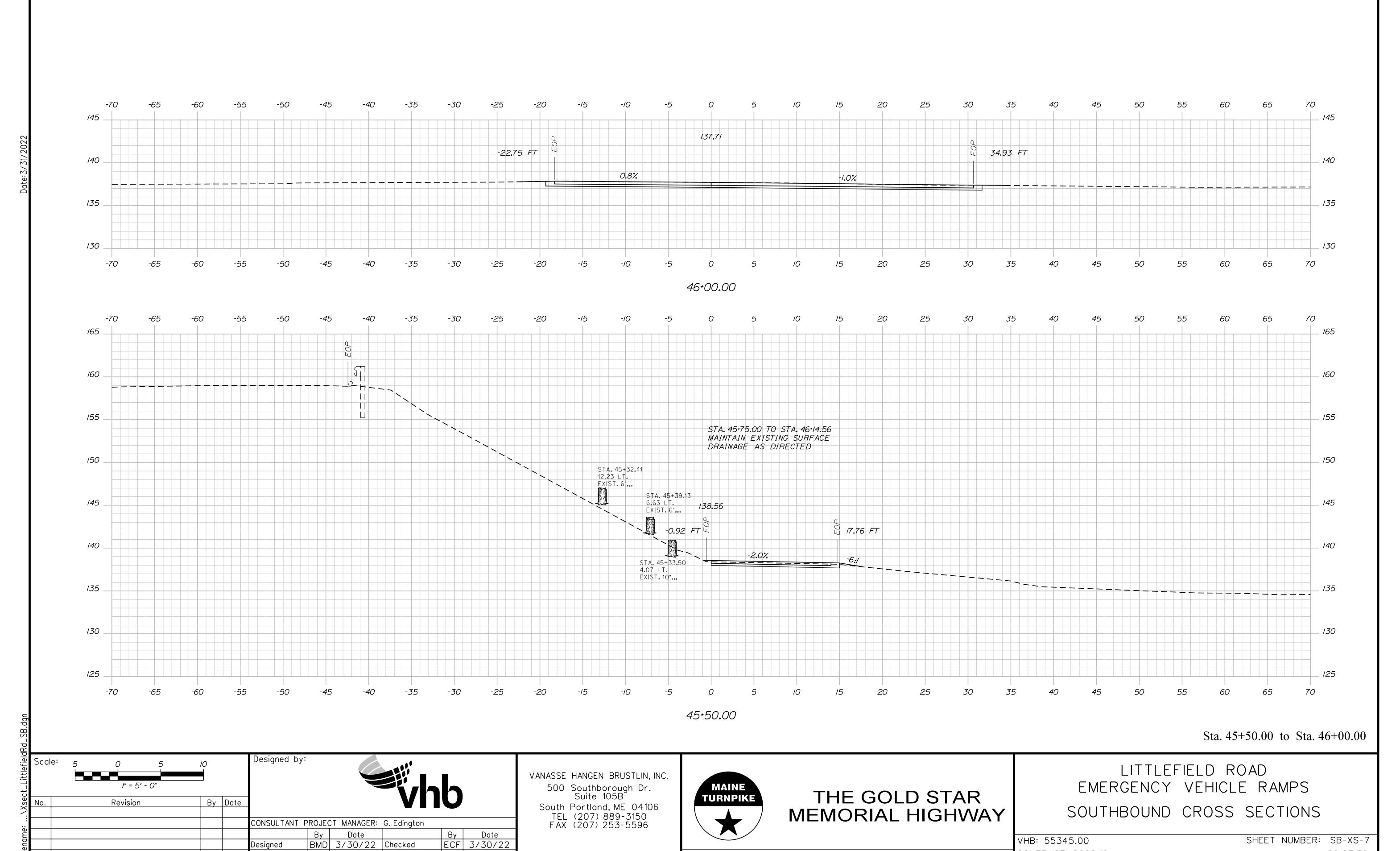
South Portland, ME 04106
TEL (207) 889-3150
FAX (207) 253-5596

MAINE
TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

LITTLEFIELD ROAD
EMERGENCY VEHICLE RAMPS
SOUTHBOUND CROSS SECTIONS

VHB: 55345.00 SHEET NUMBER: SB-XS-6 CONTRACT: 2022.11 28 OF 30



BMD 3/30/22 Checked

BMD 3/30/22 In Charge of AG 3/30/22

Designed

SHEET NUMBER: SB-XS-7

29 OF 30

VHB: 55345.00

CONTRACT: 2022.11

MATCH MAINE TURNPIKE SOUTHBOUND 140 140 STA. 46+14.56 135 135 END FULL DEPTH PAVEMENT WITH VARIABLE DEPTH GRAVEL
MATCH EXISTING PAVEMENT
LIMIT OF WORK
AT EDGE OF SHOULDER 130 . 130 -70 65 70 46+14.56 Sta. 46+14.56 Designed by: Scale: LITTLEFIELD ROAD VANASSE HANGEN BRUSTLIN, INC. EMERGENCY VEHICLE RAMPS 500 Southborough Dr. Suite 105B THE GOLD STAR **TURNPIKE** By Date Revision South Portland, ME 04106 SOUTHBOUND CROSS SECTIONS MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ryan Barnes, PE

SHEET NUMBER: SB-XS-8

30 OF 30

VHB: 55345.00

CONTRACT: 2022.11

TEL (207) 889-3150 FAX (207) 253-5596

By Date ECF 3/30/22

CONSULTANT PROJECT MANAGER: G. Edington

Designed

BMD 3/30/22 Checked

BMD 3/30/22 In Charge of AG 3/30/22