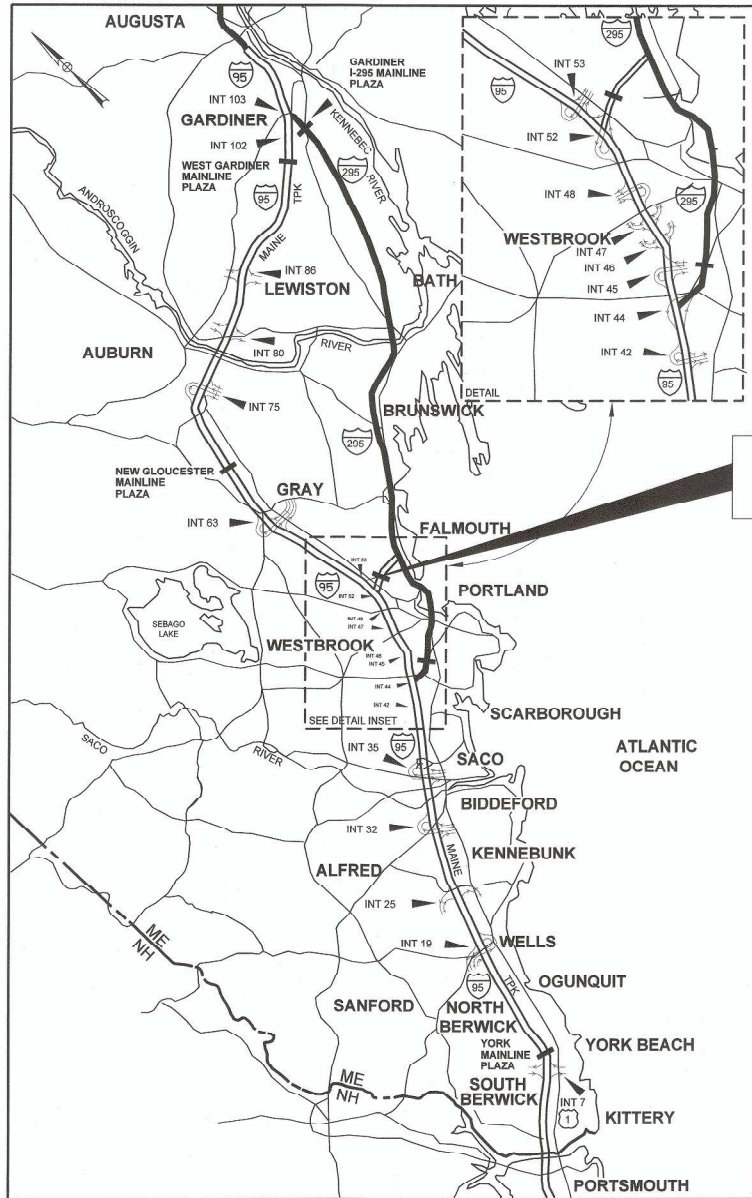


Date: 5/15/2018

Filename: 001_Title_Sheet.dgn



LOCATION MAP

CONTRACT 2018.16
EMERGENCY VEHICLE RAMPS
BLACKSTRAP ROAD UNDERPASS



THE GOLD STAR
MEMORIAL HIGHWAY

MAINE TURNPIKE AUTHORITY

DANIEL E. WATHEN, CHAIR
ROBERT D. STONE, VICE CHAIR
MICHAEL J. CIANCHETTE, MEMBER
JOHN E. DORITY, MEMBER
ANN R. ROBINSON, MEMBER
THOMAS J. ZUKE, MEMBER
KAREN S. DOYLE, MEMBER EX-OFFICIO

S. PETER MILLS, EXECUTIVE DIRECTOR

CONTRACT 2018.16 EMERGENCY VEHICLE RAMPS BLACKSTRAP ROAD UNDERPASS MILE 52.0

INDEX OF SHEETS

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| 3 | GENERAL NOTES |
| 4 | TYPICAL SECTION & MISCELLANEOUS DETAILS |
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APPROVED:
MAINE TURNPIKE AUTHORITY

Peter S. Merfeld
PETER S. MERFELD, P.E. - CHIEF OPERATIONS OFFICER

5/23/18
DATE

Stephen R. Tartre
STEPHEN R. TARTRE, P.E. - DIRECTOR OF ENGINEERING &
BUILDING MAINTENANCE

5/23/18
DATE

HNTB



Roland A. Lavallee
ROLAND A. LAVALLEE P.E., PLS
VICE PRESIDENT
DIRECTOR OF OPERATIONS

5/22/18
DATE

CONTRACT 2018.16

Date:6/1/2018

| Item No. | Item | Unit | Project Items | Southbound EVR | Northbound EVR | EVR Total Quantity |
|----------|--|------|---------------|----------------|----------------|--------------------|
| 202.202 | Removing Pavement Surface | SY | | | 940 | 940 |
| 203.20 | Common Excavation | CY | | 3800 | 1290 | 5090 |
| 203.25 | Granular Borrow | CY | | 210 | | 210 |
| 304.10 | Aggregate Subbase Course - Gravel | CY | | 1150 | 1250 | 2400 |
| 304.14 | Aggregate Base Course - Type A | CY | | 330 | 270 | 600 |
| 403.207 | Hot Mix Asphalt, 19.0 mm Nominal Maximum Size | TON | | 160 | | 160 |
| 403.208 | Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Surface) | TON | | 220 | 260 | 480 |
| 403.212 | Hot Mix Asphalt, 4.75 mm Nominal Maximum Size (Shim) | TON | | | 30 | 30 |
| 403.213 | Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate) | TON | | 220 | 260 | 480 |
| 409.15 | Bituminous Tack Coat, Applied | GAL | | 130 | 180 | 310 |
| 419.30 | Sawing Bituminous Pavement | LF | | 440 | 820 | 1260 |
| 526.306 | Temporary Concrete Barrier, Type I - Supplied by Authority (840') | LS | | | 1 | 1 |
| 527.431 | Work Zone Crash Cushion | EA | | | 1 | 1 |
| 603.155 | 12 inch Reinforced Concrete Pipe Class III | LF | | | 4 | 4 |
| 603.159 | 12 inch Culvert Pipe Option III | LF | | | 72 | 72 |
| 603.179 | 18 inch Culvert Pipe Option III | LF | | | 38 | 38 |
| 603.199 | 24 inch Culvert Pipe Option III | LF | | 80 | | 80 |
| 603.219 | 36 inch Culvert Pipe Option III | LF | | 72 | | 72 |
| 603.28 | Concrete Collar | EA | | | 1 | 1 |
| 606.1301 | 31" W-Beam Guardrail - Mid-Way Splice (Steel Post, 8" Offset Blocks, Single Faced) | LF | | | 250 | 250 |
| 606.1305 | 31" W-Beam Guardrail - Mid-Way Splice Flared Terminal (31" Height) | EA | | | 1 | 1 |
| 606.242 | Guardrail Type 3d - Over 15 feet Radius | LF | | 25 | | 25 |
| 606.278 | Terminal End - Anchored End | EA | | | 1 | 1 |
| 606.3561 | Delineator Post - Remove and Reset | EA | | 1 | 1 | 2 |
| 606.369 | Guardrail - Remove and Stack | LF | | 25 | 360 | 385 |
| 606.48 | Single Galvanized Post | EA | | 1 | 1 | 2 |
| 607.17 | Chain Link Fence - 6' | LF | | 12 | 127 | 139 |
| 607.2325 | Pipe Entry Gate | EA | | 2 | 1 | 3 |
| 607.2326 | Remove and Reset Pipe Entry Gate | EA | | 1 | | 1 |
| 607.32 | Bracing Assembly, Type I - Metal Post | EA | | 2 | 2 | 4 |
| 607.33 | Bracing Assembly, Type II - Metal Post | EA | | | 2 | 2 |
| 610.08 | Plain Riprap | CY | | 45 | 430 | 475 |
| 610.18 | Stone Ditch Protection | CY | | 185 | 11 | 196 |
| 610.181 | Temporary Stone Check Dams | CY | | 50 | 5 | 55 |
| 613.319 | Erosion Control Blanket | SY | | 640 | 580 | 1220 |
| 615.07 | Loam | CY | | 380 | 250 | 630 |
| 618.14 | Seeding Method Number 2 | UNIT | | 31 | 21 | 52 |
| 619.1201 | Mulch, Plan Quantity | UNIT | | 31 | 21 | 52 |
| 619.1202 | Temporary Mulch | LS | | 0.5 | 0.5 | 1 |
| 620.58 | Erosion Control Geotextile | SY | | 680 | 1890 | 2570 |
| 621.043 | Evergreen Tr (6'-8') GP A | EA | | 50 | | 50 |
| 626.13 | 18" x 12" x 18" Quazite Junction Box | EA | | 4 | 5 | 9 |
| 626.32 | 24 inch Diameter Foundation | EA | | 2 | 2 | 4 |
| 629.05 | Hand Labor, Straight Time | HR | 10 | | | 10 |
| 631.12 | All Purpose Excavator (including operator) | HR | 10 | | | 10 |
| 631.171 | Truck - small (including operator) | HR | 10 | | | 10 |
| 631.36 | Foreman | HR | 10 | | | 10 |
| 634.2041 | Luminaires | EA | | | 1 | 1 |
| 634.208 | Remove and Reset Light Standard | EA | | 2 | 1 | 3 |
| 634.210 | Conventional Light Standard | EA | | | 1 | 1 |
| 634.2156 | #6 AWG THHN Wire | LF | | 870 | 1750 | 2620 |
| 634.2157 | #6 AWG THHN Ground Wire | LF | | 440 | 880 | 1320 |
| 645.1061 | Relocate Existing Sign Assembly and Post | EA | | | 1 | 1 |
| 652.30 | Flashing Arrow | EA | 1 | | | 1 |
| 652.33 | Drum | EA | 87 | | | 87 |
| 652.34 | Cone | EA | 87 | | | 87 |
| 652.35 | Construction Signs | SF | 650 | | | 650 |
| 652.361 | Maintenance of Traffic Control Devices | LS | 1 | | | 1 |
| 652.38 | Flaggers | HR | 300 | | | 300 |
| 652.45 | Truck Mounted Attenuator | CD | 10 | | | 10 |
| 652.451 | Automated Trailer Mounted Speed Limit Sign | CD | 10 | | | 10 |
| 655.2031 | 2" Schedule 80 PVC conduit | LF | | 440 | 910 | 1350 |
| 655.204 | 3" Schedule 80 PVC conduit | LF | | 280 | | 280 |
| 656.50 | Baled Hay, in place | EA | 30 | | | 30 |
| 656.632 | 30" Temporary Silt Fence | LF | | 2100 | 1100 | 3200 |
| 659.10 | Mobilization | LS | 1 | | | 1 |

SOUTHBOUND RAMP

COMMON EXCAVATION FOR ESTIMATE

| | |
|---|--------------|
| COMMON EXCAVATION (FROM CROSS SECTIONS) | 3,715 |
| EARTH FROM DRIVES, OLD ROAD, ETC. | 17 |
| GRUBBING IN FILL | 50 |
| TOTAL COMMON EXCAVATION (for estimate) | 3,782 |

FILL FOR BORROW CALCULATIONS

| | |
|-----------------------------------|-----------|
| COMMON FILL (FROM CROSS SECTIONS) | 13 |
| GRUBBING IN FILL | 50 |
| TOTAL FILL | 63 |

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

| | |
|--|--------------|
| (1) TOTAL COMMON EXCAVATION | 3,782 |
| DEDUCTIONS: | |
| GRUBBING IN CUT | 614 |
| GRUBBING IN FILL | 50 |
| (2) TOTAL DEDUCTIONS | 664 |
| TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2) | 3,118 |

| | |
|--|--------------|
| RIPRAP EXCAVATION | 230 |
| TOTAL AVAILABLE NON-ROCK EXCAVATION | 3,348 |

COMPUTATION FOR COMMON BORROW FOR ESTIMATE

| | |
|---|----------------------|
| (3) TOTAL FILL | 63 |
| TOTAL AVAIL. NON-ROCK EXCAV. | 3,348 x 0.90 = 3,013 |
| (4) TOTAL AVAILABLE EXCAVATION | = 3,013 |
| BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION | -2,950 |

SURPLUS MATERIAL = AVAILABLE EXCAVATION MINUS TOTAL FILL 2,950

NORTHBOUND RAMP

COMMON EXCAVATION FOR ESTIMATE

| | |
|---|--------------|
| COMMON EXCAVATION (FROM CROSS SECTIONS) | 1,094 |
| GRUBBING IN FILL | 193 |
| TOTAL COMMON EXCAVATION (for estimate) | 1,287 |

FILL FOR BORROW CALCULATIONS

| | |
|-----------------------------------|------------|
| COMMON FILL (FROM CROSS SECTIONS) | 745 |
| GRUBBING IN FILL | 193 |
| TOTAL FILL | 938 |

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

| | |
|--|------------|
| (1) TOTAL COMMON EXCAVATION | 1,287 |
| DEDUCTIONS: | |
| GRUBBING IN CUT | 319 |
| GRUBBING IN FILL | 193 |
| (2) TOTAL DEDUCTIONS | 512 |
| TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2) | 775 |

| | |
|--|--------------|
| RIPRAP EXCAVATION | 441 |
| TOTAL AVAILABLE NON-ROCK EXCAVATION | 1,216 |

COMPUTATION FOR COMMON BORROW FOR ESTIMATE

| | |
|---|----------------------|
| (3) TOTAL FILL | 938 |
| TOTAL AVAIL. NON-ROCK EXCAV. | 1,216 x 0.90 = 1,094 |
| (4) TOTAL AVAILABLE EXCAVATION | = 1,094 |
| BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION | -156 |

SURPLUS MATERIAL = AVAILABLE EXCAVATION MINUS TOTAL FILL 156

Filename: 002_Est_Qtys & EWSummary.dgn

| | | | |
|--------|----------|----|------|
| Scale: | | | |
| No. | Revision | By | Date |
| | | | |
| | | | |
| | | | |

| | | | | | |
|--|-----|-------|--------------|-----|-------|
| Designed by: | | | | | |
| HNTB | | | | | |
| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | | | |
| | By | Date | | By | Date |
| | AJS | 05\18 | Checked | DAM | 05\18 |
| | SLS | 05\18 | In Charge of | RAL | 05\18 |

HNTB CORPORATION
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FAX (207) 228-0909

**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV, P.E., P.T.O.E.

**BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS**

ESTIMATED QUANTITIES
& EARTHWORK SUMMARY

SHEET NUMBER: ES-01

CONTRACT: 2018.16 2 OF 37

GENERAL

1. ALL DETAILS SHALL BE IN CONFORMANCE WITH MAINE DEPARTMENT OF TRANSPORTATION (MDOT) STANDARD DETAILS HIGHWAYS AND BRIDGES LATEST REVISION AND MDOT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL LATEST REVISION UNLESS OTHERWISE INCLUDED IN THESE PLANS.

2. 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.

3. IN AREAS OF PROPOSED PIPE ENTRY GATES, EXIST. CHAIN LINK FENCE SHALL BE REMOVED AND RESET. EXISTING CHAIN LINK FENCE AND PIPE ENTRY GATE SHALL BE INSTALLED CONTINUOUSLY WITH NO GAPS TO ACCOMMODATE THE REVISED GRADING OF THE EMERGENCY VEHICLE RAMP, CHAIN LINK FENCE MAY NEED TO BE CUT OR ADDITIONAL POSTS, BRACING ASSEMBLIES OR FABRIC MAY NEED TO BE INSTALLED. ANY REMAINING FENCE SHALL BE DISPOSED. REMOVING AND DISPOSING OF EXISTING FENCE SHALL BE INCIDENTAL TO PIPE ENTRY AND CHAIN LINK BID ITEMS.

4. IF REQUIRED, CONNECTION FOR PROPOSED FENCE TO EXISTING FENCE SHALL BE INCIDENTAL TO THE CONTRACT.

EARTHWORK

1. 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 6" (12" IN WOODED AREAS).

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

3. 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).

GUARDRAIL

1. AT THE END OF THE WORK DAY, EVERYDAY, THE CONTRACTOR IS REQUIRED TO HAVE AN APPROVED CRASHWORTHY END TREATMENT ON ALL GUARDRAIL WITHIN ALL WORK AREAS.

2. CONNECTIONS FOR PROPOSED GUARDRAIL TO EXISTING GUARDRAIL SHALL BE INCIDENTAL TO THE CONTRACT.

3. CONTRACTOR SHALL STOCKPILE ALL GUARDRAIL TO BE REMOVED AND RESET, AND REMOVED AND DISPOSED UNTIL GUARDRAIL INSTALLATION HAS BEEN COMPLETE.

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

5. WHERE A CONNECTION TO BRIDGE TRANSITION TYPE "I" OCCURS, A 9'-4 1/2" W-BEAM PANEL MAY BE USED TO SPLICE INTO THE BRIDGE TRANSITION. TRANSITION GUARDRAIL HEIGHT OVER 37'-6" TO MATCH THE HEIGHT OF THE BRIDGE TRANSITION TYPE "I".

DRAINAGE

1. 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.

5. ANY NECESSARY CUTTING OF EXISTING CATCH BASINS TO TAKE A PROPOSED PIPE WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCIDENTAL TO THE PROPOSED CULVERT ITEMS.

EROSION CONTROL

1. 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 MEASURES MAY BE PROPOSED BY THE CONTRACTOR DUE TO SITE OR WEATHER CONDITIONS. THE RESIDENT MAY DIRECT THE CONTRACTOR TO IMPLEMENT ADDITIONAL MEASURES.

2. 4" LOAM HAS BEEN ESTIMATED FOR 100% OF THE DISTURBED SLOPE 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 NO. 2.

4. MULCH SHALL BE APPLIED IN AREAS SEEDED EXCEPT WHERE EROSION CONTROL BLANKET IS SPECIFIED.

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 WILL BE INSTALLED IN ACCORDANCE WITH THE MDOT BEST MANAGEMENT PRACTICES. STONE CHECK DAMS SHALL BE PLACED APPROXIMATELY 100 FEET FOR DITCH GRADES LESS THAN 3% AND SPACED APPROXIMATELY 50 FEET FOR DITCH GRADES STEEPER THAN 5%. SEE MDOT BEST MANAGEMENT PRACTICES FOR FURTHER DETAILS.

7. TEMPORARY EROSION CONTROL BLANKET, SHALL BE INSTALLED IN ALL DITCHES AND 2:1 SLOPES FROM 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.

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

LOCAL ROAD

1. WHERE HOT MIX ASPHALT, 12.5 MM IS TO MEET EXISTING PAVEMENT, A BUTT JOINT WILL BE REQUIRED. CUTTING OF THE JOINT AND REMOVAL AND DISPOSAL OF THE EXISTING PAVEMENT SHALL BE INCIDENTAL TO THE CONTRACT.

2. UNPAVED ENTRANCES SHALL BE CONSTRUCTED WITH:
4" AGGREGATE BASE COURSE - CRUSHED (TYPE A) ON
10" AGGREGATE SUBBASE COURSE GRAVEL.

3. CONTRACTOR IS REQUIRED TO MAINTAIN ACCESS TO ALL DRIVEWAYS AND SIDE ROADS DURING CONSTRUCTION UNLESS OTHERWISE SHOWN ON THE PLANS.

4. DRIVEWAY FILL SIDESLOPES SHALL BE THE SAME AS THE NON-GUARDRAIL FILL SLOPES UNLESS OTHERWISE NOTED ON THE PLANS.

UTILITY

1. 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 IS ALSO REQUIRED TO CALL DIG SAFE AT 1-888-344-7233 PRIOR TO THE START OF THE WORK.

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

3. THE UTILITIES INVOLVED IN THIS CONTRACT ARE:
CENTRAL MAINE POWER
TIMEWARNER/SPECTRUM
FAIRPOINT

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

NORTHBOUND EMERGENCY VEHICLE RAMP GEOMETRIC DATA

| POINT | STATION | DELTA | Dc | R | T | L | EXT. | N | E | BEARING |
|-------|----------|-----------------|-----------|---------|---------|---------|--------|-----------|------------|---------------|
| POB | 20+00.00 | | | | | | | 324386.29 | 2917190.47 | S 59°28'22" W |
| PC | 23+51.10 | | | | | | | 324207.95 | 2916888.03 | |
| PI | 24+49.02 | 30°55'29" Right | 16'11"07" | 354.00' | 97.92' | 191.07' | 13.29' | 324158.21 | 2916803.69 | |
| INT. | 25+42.17 | | | | | | | 324158.89 | 2916705.77 | |
| PC | 30+00.00 | | | | | | | 324232.66 | 2917043.71 | |
| PI | 31+77.30 | 25°25'23" Right | 7'17"22" | 786.00' | 177.30' | 348.76' | 19.75' | 324157.66 | 2916883.06 | |
| PCC | 33+48.76 | | | | | | | 324158.89 | 2916705.77 | |
| PI | 35+75.75 | 7°45'03" Right | 19'21"24" | 296.00' | 226.99' | 387.29' | 77.02' | 324160.46 | 2916478.78 | |
| PCC | 37+36.05 | | | | | | | 324380.09 | 2916421.42 | |
| PI | 38+48.78 | 21°46'36" Right | 9'46'39" | 586.00' | 112.72' | 222.72' | 10.74' | 324489.16 | 2916392.94 | |
| PT | 39+58.78 | | | | | | | 324601.01 | 2916406.96 | N 7°08'30" E |

SOUTHBOUND EMERGENCY VEHICLE RAMP GEOMETRIC DATA

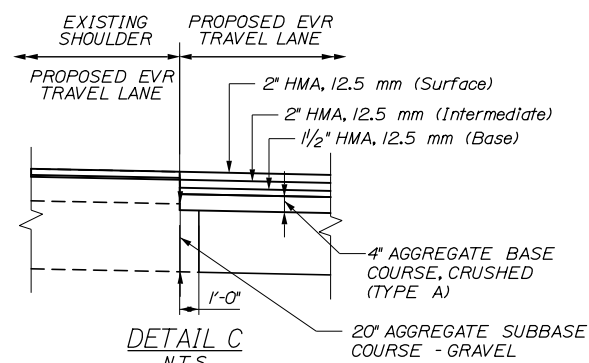
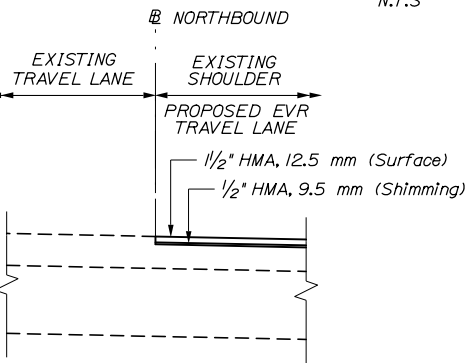
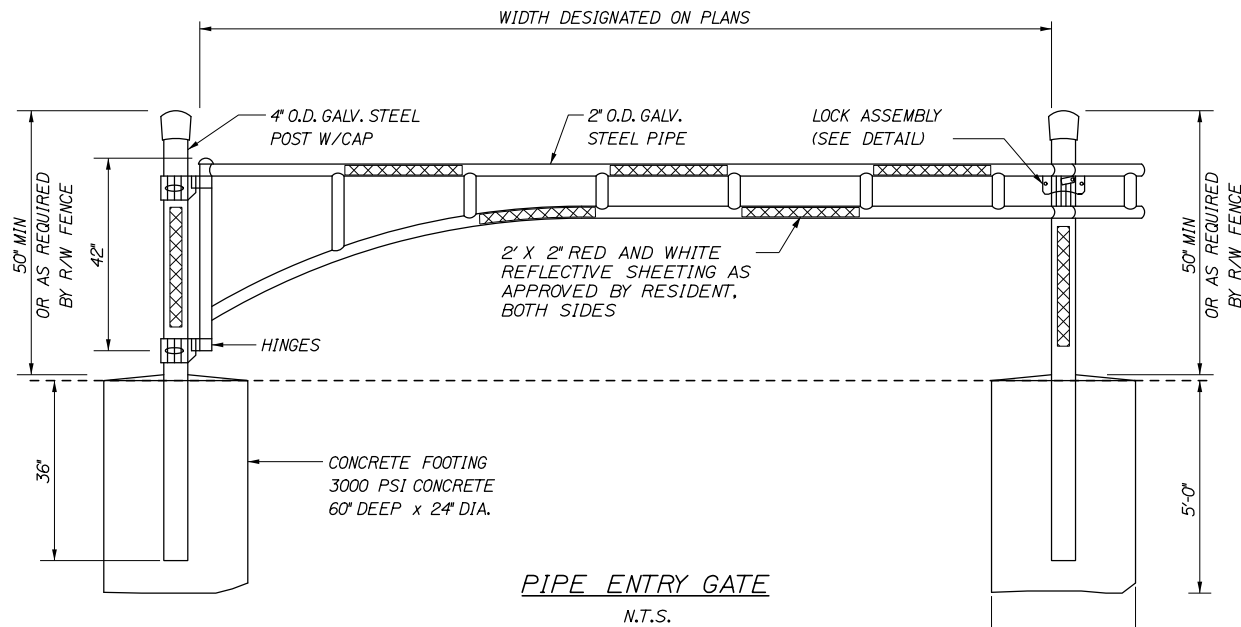
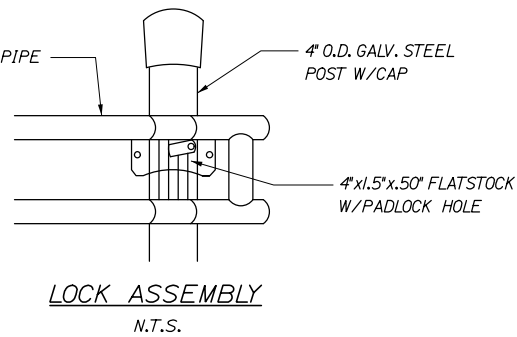
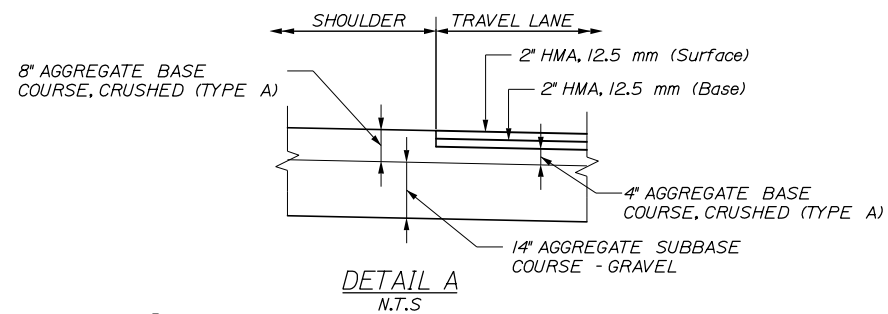
| POINT | STATION | DELTA | Dc | R | T | L | EXT. | N | E | BEARING |
|-------|----------|-----------------|-----------|---------|---------|---------|--------|-----------|------------|---------------|
| POB | 40+00.00 | | | | | | | 325389.37 | 2916495.58 | N 80°00'14" W |
| PC | 40+55.90 | | | | | | | 325399.07 | 2916440.53 | |
| PI | 41+72.39 | 60°26'11" Right | 28°38'52" | 200.00' | 116.49' | 210.96' | 31.45' | 325419.29 | 2916325.81 | |
| PT | 42+66.86 | | | | | | | 325529.05 | 2916286.79 | N 19°34'02" W |
| PC | 44+43.25 | | | | | | | 325695.26 | 2916227.72 | |
| PI | 45+01.62 | 32°32'14" Left | 28°38'52" | 200.00' | 58.37' | 113.58' | 8.34' | 325750.25 | 2916208.17 | |
| PRC | 45+56.83 | | | | | | | 325786.10 | 2916162.11 | |
| PI | 46+50.69 | 50°16'55" Right | 28°38'52" | 200.00' | 93.86' | 175.52' | 20.93' | 325843.75 | 2916088.04 | |
| PT | 47+32.35 | | | | | | | 325937.57 | 2916085.06 | N 1°49'22" W |
| PC | 47+95.56 | | | | | | | 326000.74 | 2916083.05 | |
| PI | 48+26.70 | 17°42'11" Left | 28°38'52" | 200.00' | 31.15' | 61.80' | 2.41' | 326031.87 | 2916082.05 | |
| PT | 48+57.35 | | | | | | | 326061.23 | 2916071.64 | N 19°31'33" W |
| PC | 49+48.81 | | | | | | | 326147.43 | 2916041.08 | |
| PI | 49+82.00 | 67°08'54" Right | 11°43'30" | 50.00' | 33.19' | 58.60' | 10.01' | 326178.71 | 2916029.98 | |
| PT | 50+07.41 | | | | | | | 326201.08 | 2916054.50 | N 47°37'21" E |
| POE | 50+21.72 | | | | | | | 326210.72 | 2916065.07 | |

Date: 6/11/2018

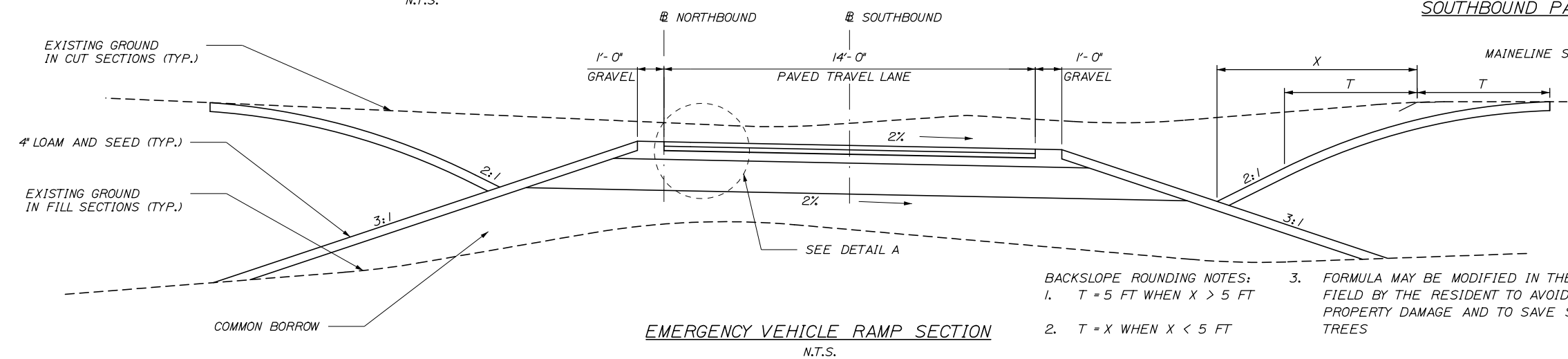
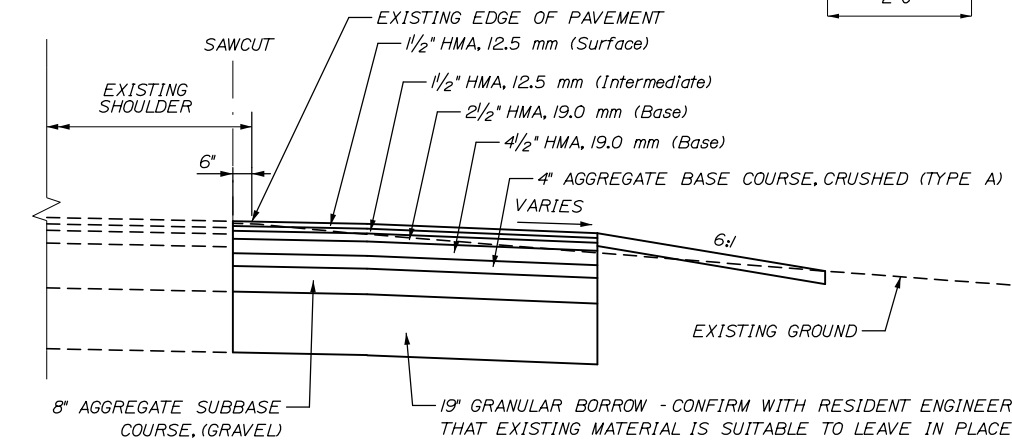
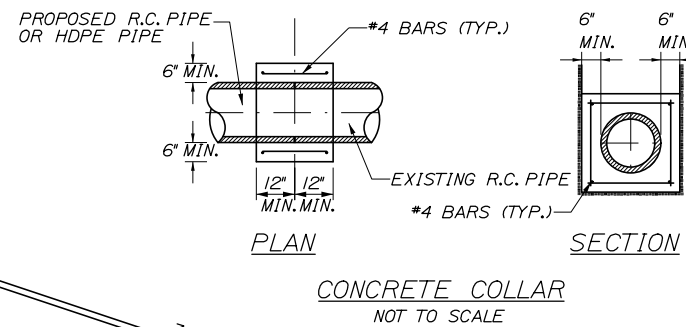
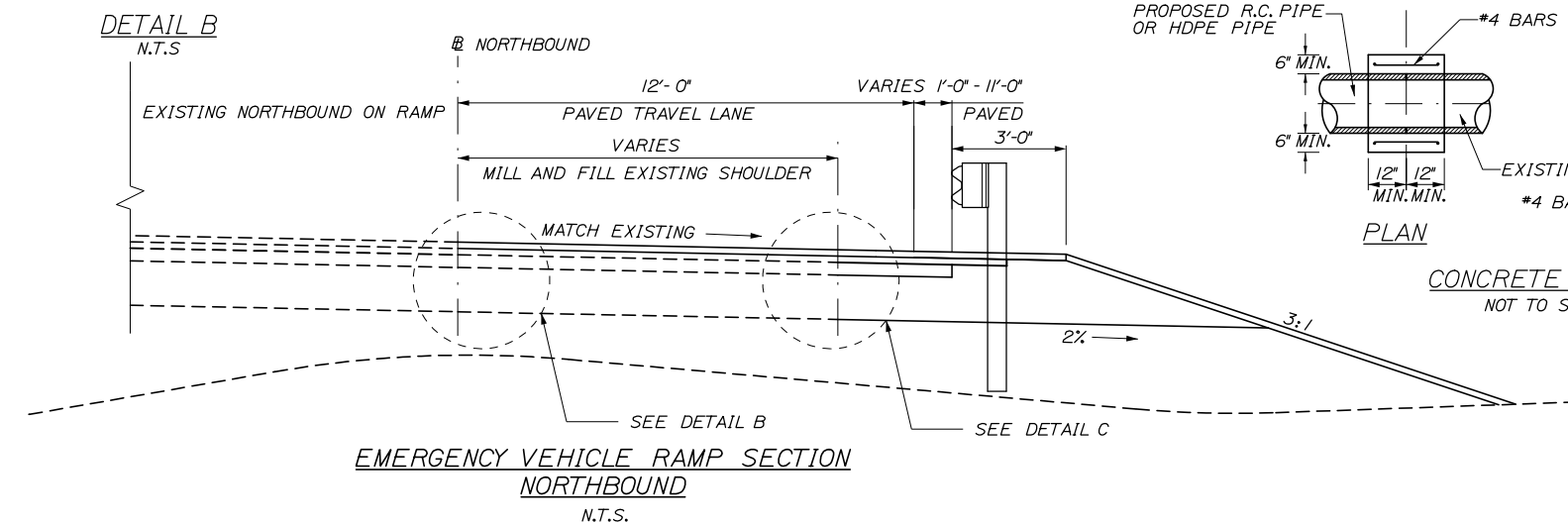
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| | | | | | | | | | | | | | | | | | | | |
|--------|--|--------------|--|-----------|--|--|--|-----------|--|--|--|---|--|--|------|--|---|--|--|
| Scale: | | Designed by: | | | | <p>HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909</p> | | | <p>THE GOLD STAR MEMORIAL HIGHWAY</p> | | | <p>BLACKSTRAP ROAD EMERGENCY VEHICLE RAMPS GENERAL NOTES & GEOMETRIC DATA</p> | | | | | | | |
| No. | | Revision | | By | | | | | | | | | | | Date | | SHEET NUMBER: GN-01 CONTRACT: 2018.16 3 OF 37 | | |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | | | | | | | | | | | |
| | | By | | Date | | By | | Date | | | | | | | | | | | |
| | | Designed | | AJS 05\18 | | Checked | | DAM 05\18 | | | | | | | | | | | |
| | | Drawn | | SLS 05\18 | | In Charge of | | RAL 05\18 | | | | | | | | | | | |
| | | | | | | MTA PROJECT MANAGER: Ralph C. Norwood IV, P.E., P.T.O.E. | | | | | | | | | | | | | |

Date: 6/11/2018



DETAIL B
N.T.S.



BACKSLOPE ROUNDING NOTES:

- T = 5 FT WHEN X > 5 FT
- T = X WHEN X < 5 FT
- FORMULA MAY BE MODIFIED IN THE FIELD BY THE RESIDENT TO AVOID PROPERTY DAMAGE AND TO SAVE SHADE TREES

- GENERAL NOTES**
- THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
 - ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A MANNER TO LEAVE A CLEAN, VERTICAL FACE.
 - BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF PAVEMENT, OR AS DIRECTED BY RESIDENT. BITUMINOUS TACK COAT IS REQUIRED ON ALL EXISTING PAVED OR MILLED SURFACES PRIOR TO ALL PROPOSED PAVEMENT.
 - A COATING OF HOT RUBBERIZED ASPHALT SHALL BE APPLIED TO SURFACE LAYER OF ALL SAWCUT AND PAVEMENT JOINTS PRIOR TO PAVING.

Scale:

| No. | Revision | By | Date |
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Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | | By | Date |
|----------|-----|-------|--------------|-----|-------|
| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
| Drawn | SLS | 05\18 | In Charge of | RAL | 05\18 |

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

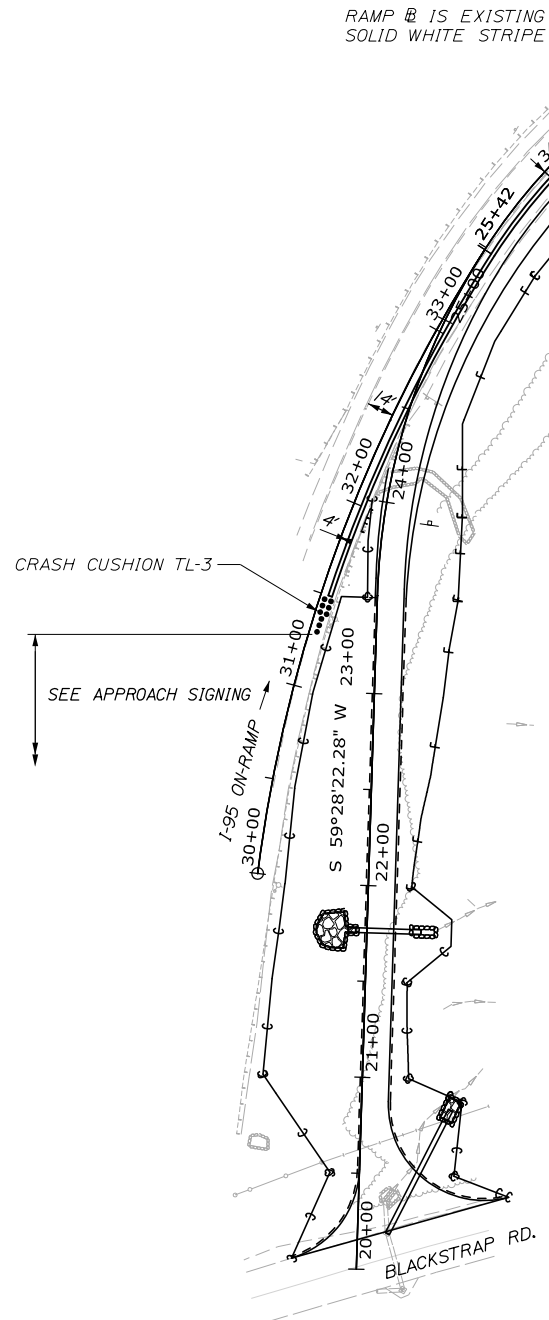
BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
TYPICAL SECTION &
MISCELLANEOUS DETAILS

SHEET NUMBER: TYP-01

CONTRACT: 2018.16

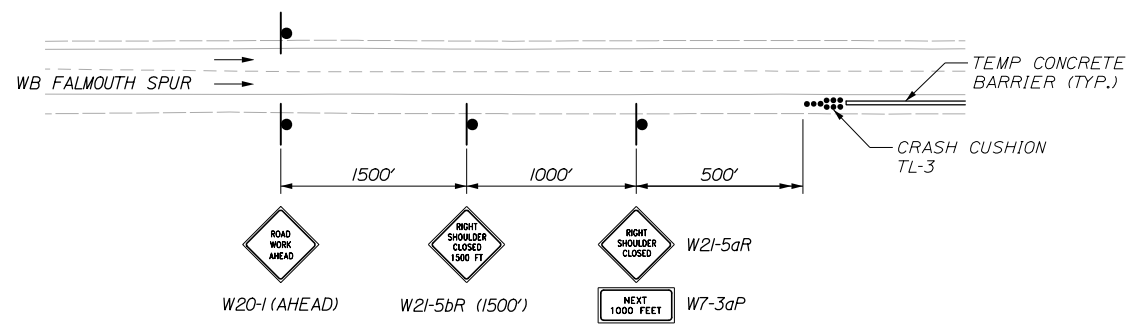
4 OF 37

Date: 6/1/2018

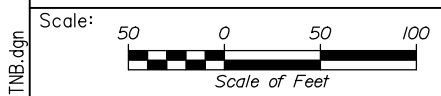


TEMPORARY CONCRETE BARRIER 840 LF

- NOTE:
1. FOR MAINTENANCE OF TRAFFIC ON BLACKSTRAP ROAD AND I-95 NORTHBOUND SEE STANDARD MAINTENANCE OF TRAFFIC DETAILS ON SHEET MT-01.
 2. 30 SERIES # IS ALONG THE EXISTING SOLID WHITE LANE LINE.
 3. A MINIMUM WIDTH OF 17' SHALL BE MAINTAINED AT ALL TIMES FROM YELLOW LINE TO EDGE OF T.C.B.



APPROACH SIGNING



Designed by:



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THE GOLD STAR
 MEMORIAL HIGHWAY

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 NORTHBOUND EVR MOT PLAN

| No. | Revision | By | Date |
|-----|----------|----|------|
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|--|-----------|--------------|-----------|
| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| By | Date | By | Date |
| Designed | AJS 05\18 | Checked | DAM 05\18 |
| Drawn | AJS 05\18 | In Charge of | RAL 05\18 |

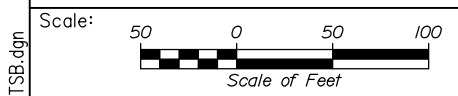
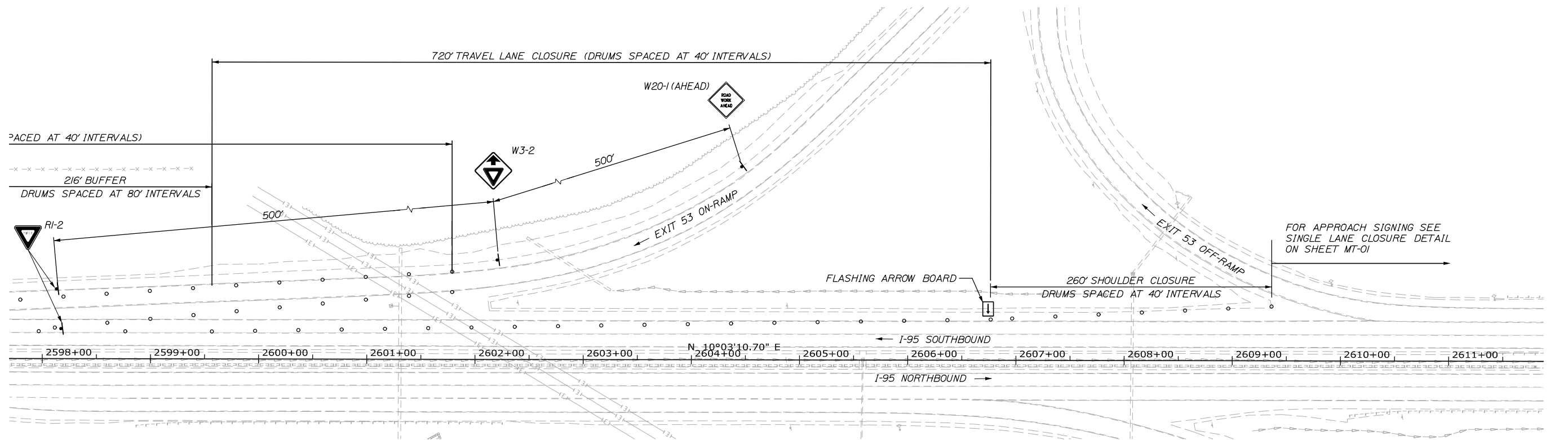
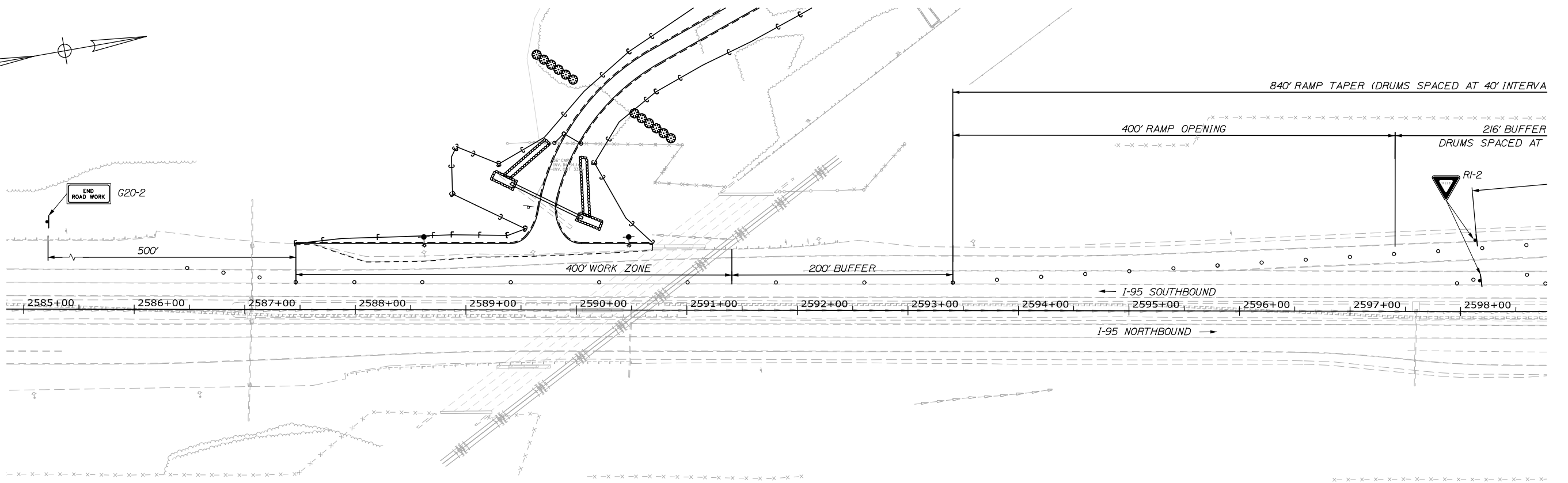
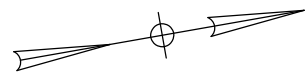
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

CONTRACT: 2018.16

SHEET NUMBER: MOT-01

5 OF 37

Date: 6/1/2018



| No. | Revision | By | Date |
|-----|----------|----|------|
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Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | Checked | By | Date |
|----------|-----|-------|--------------|-----|-------|
| Designed | AJS | 05\18 | | DAM | 05\18 |
| Drawn | AJS | 05\18 | In Charge of | RAL | 05\18 |

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

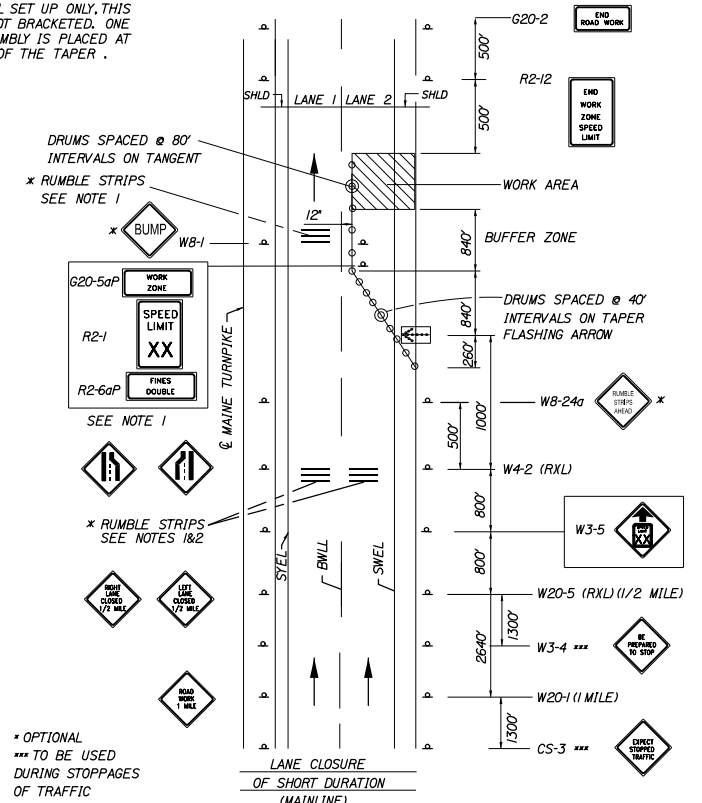
**BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
SOUTHBOUND EVR MOT PLAN**

SHEET NUMBER: MOT-02
 6 OF 37

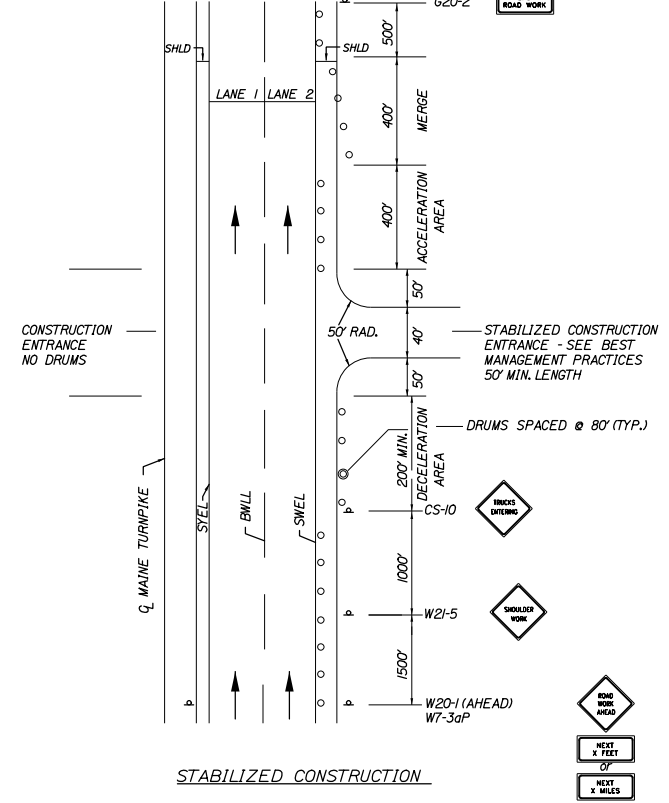
CONTRACT: 2018.16

Date: 6/1/2018

NOTE A:
FOR EASEL SET UP ONLY, THIS SIGN IS NOT BRACKETED. ONE SIGN ASSEMBLY IS PLACED AT THE END OF THE TAPER.

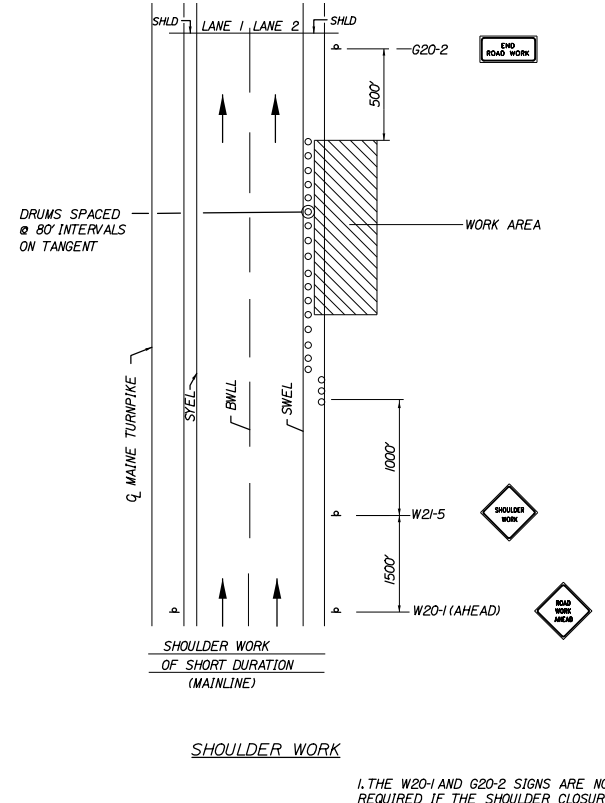


SINGLE LANE CLOSURE - SIGNS ON EASELS



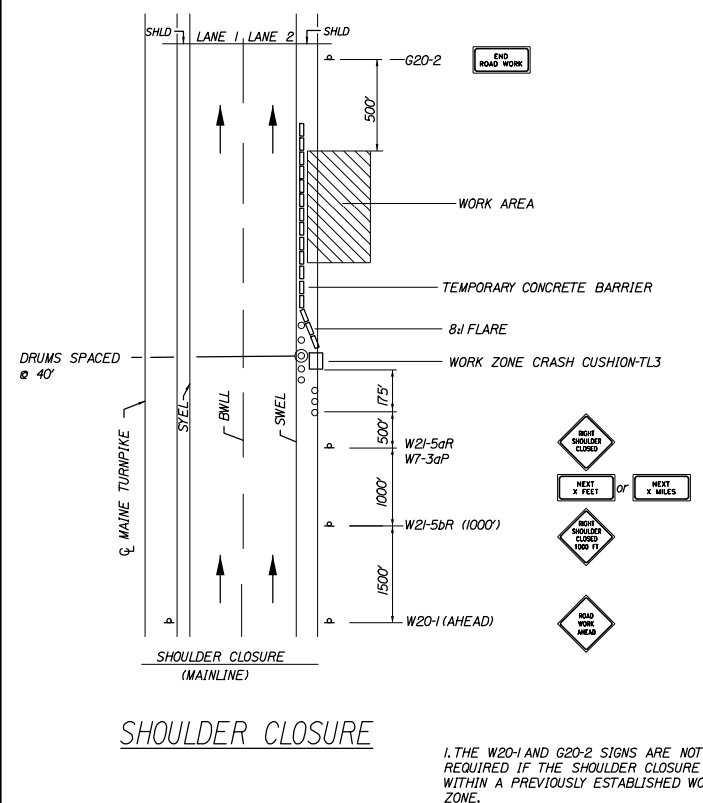
STABILIZED CONSTRUCTION ENTRANCE

1. SIGN G20-2 IS NOT REQUIRED IF ENTRANCE IS WITHIN THE WORK ZONE.



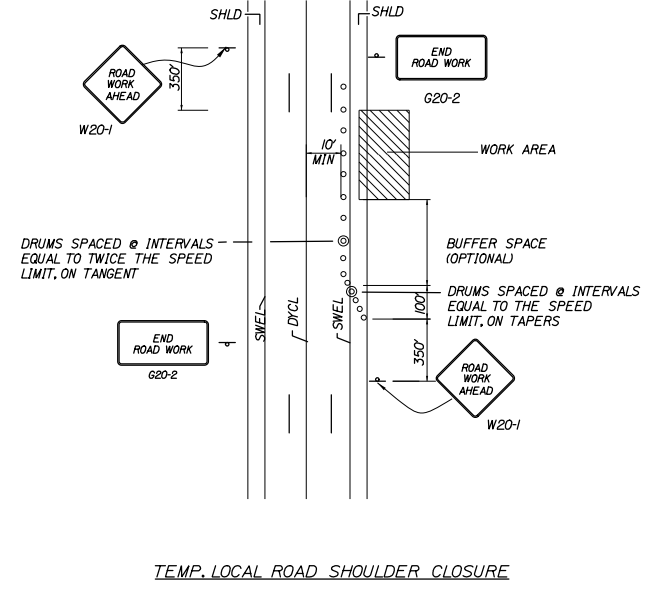
SHOULDER WORK

1. THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.



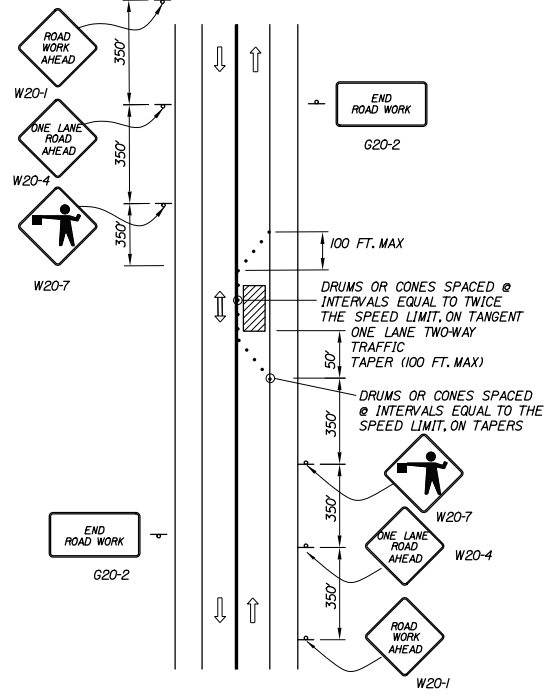
SHOULDER CLOSURE

1. THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.
2. ONLY ONE SHOULDER CLOSURE PERMITTED PER BOUND AT ONE TIME.



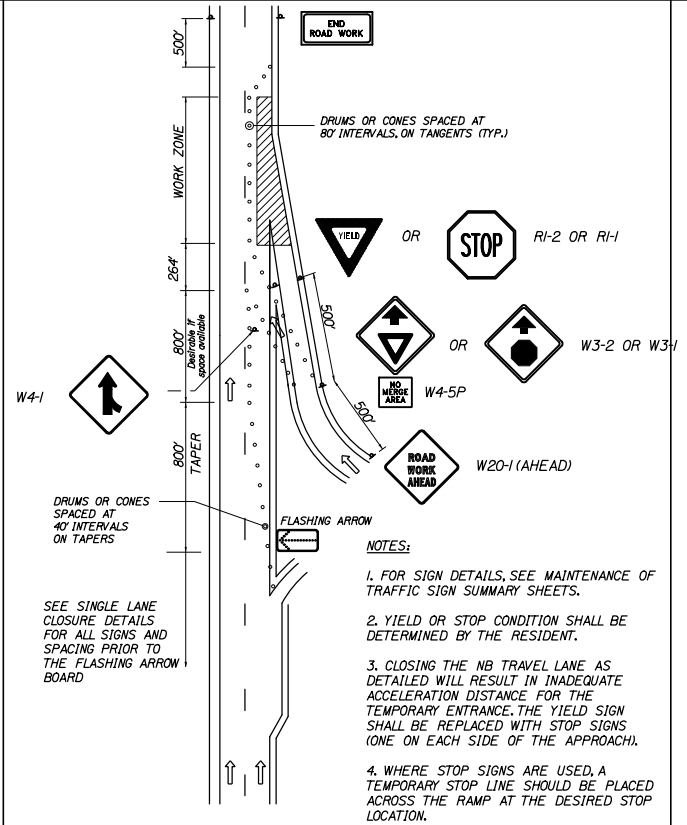
TEMP. LOCAL ROAD SHOULDER CLOSURE

NOTES:
1. FOR SHORT DURATION WORK (<1 HOUR), THE TAPER AND CHANNELIZATION DEVICES MAY BE OMITTED IF SHADOW VEHICLE IS PRESENT WITH ACTIVATED HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING OR STROBE LIGHTS.



LOCAL ROAD SINGLE LANE CLOSURE

NOTES:
1. ROAD WORK AHEAD & END ROAD WORK SIGNS MAY BE OMITTED FOR SHORT DURATION OPERATIONS (LESS THAN 1 HOUR).
2. FLAGGERS SHALL BE LOCATED SO THEY ARE CLEARLY VISIBLE TO APPROACHING DRIVERS.
3. SIGN SPACING ASSUMES LOCAL ROAD SPEED IS 40 MPH OR LESS.



TRAVEL LANE CLOSURE AT AN ENTRANCE RAMP

NOTES:
1. FOR SIGN DETAILS, SEE MAINTENANCE OF TRAFFIC SIGN SUMMARY SHEETS.
2. YIELD OR STOP CONDITION SHALL BE DETERMINED BY THE RESIDENT.
3. CLOSING THE NB TRAVEL LANE AS DETAILED WILL RESULT IN INADEQUATE ACCELERATION DISTANCE FOR THE TEMPORARY ENTRANCE. THE YIELD SIGN SHALL BE REPLACED WITH STOP SIGNS (ONE ON EACH SIDE OF THE APPROACH).
4. WHERE STOP SIGNS ARE USED, A TEMPORARY STOP LINE SHOULD BE PLACED ACROSS THE RAMP AT THE DESIRED STOP LOCATION.

- GENERAL MAINTENANCE OF TRAFFIC NOTES:**
- ALL PAVEMENT STRIPING & SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T., F.H.W.A., LATEST EDITION.
 - THESE PLANS SHOW THE GENERAL CONDITION FOR TURNPIKE MAINLINE TRAFFIC CONTROL DURING CONSTRUCTION, SLIGHT MODIFICATIONS IN CONSTRUCTION PROCEDURE MAY OCCUR AND MAY REQUIRE SOME MINOR ADJUSTMENTS TO BE MADE IN THE FIELD. ALL PROCEDURES MUST BE APPROVED BY THE RESIDENT.
 - THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH THE SPECIFICATIONS AND MUTCD. PAYMENT SHALL BE MADE UNDER ITEM 627.77 - REMOVING PAVEMENT MARKINGS.
 - EXPOSED BARRIER ENDS SHALL BE PROTECTED BY A WORK ZONE CRASH CUSHION. PAYMENT WILL BE UNDER ITEM 527.341 - WORK ZONE CRASH CUSHION - TL-3.
 - GEOMETRIC INFORMATION FOR TRAFFIC PHASES SHOWN ON THE PLANS WILL BE SUPPLIED TO THE CONTRACTOR AFTER AWARD.
 - SPEED LIMIT, STOP AND YIELD SIGNS SHALL BE A MINIMUM OF 5' ABOVE THE PAVEMENT.

- ABBREVIATIONS FOR ALL M.O.T. PLANS**
- BWLL = BROKEN WHITE LANE LINE
 SWLL = SOLID WHITE LANE LINE
 SYLL = SOLID YELLOW LANE LINE
 TBWLL = TEMPORARY BROKEN WHITE LANE LINE
 TSWLL = TEMPORARY SOLID WHITE LANE LINE
 TSYLL = TEMPORARY SOLID YELLOW LANE LINE

- TEMPORARY RUMBLE STRIP NOTES**
- IF RUMBLE STRIPS ARE USED THEY SHALL BE PLACED IN ONE OF THE FOLLOWING CONFIGURATIONS:
 - ADJACENT TO THE WORK ZONE (1 UNIT)
 - UPSTREAM FROM THE TAPER FOR THE WORKZONE (2 UNITS)
 - BOTH ADJACENT TO THE WORKZONE AND PRIOR TO THE TAPER (3 UNITS)
 W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST RUMBLE STRIP AT ANY LOCATION. ONLY ONE SET OF W8-24a SIGNS ARE REQUIRED FOR ANY OF THE ABOVE CONFIGURATIONS.
 - RUMBLE STRIPS MAY BE PLACED UPSTREAM OF THE TAPER BETWEEN THE W3-5 SIGNS AND THE W4-2 SIGNS. IF RUMBLE STRIPS ARE INSTALLED PRIOR TO TAPER, W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST STRIP AND THE W8-24a SIGNS SHALL BE MOVED TO 400' AFTER THE W20-5 SIGNS.

Filename: 007_MOT_Details.dgn

| No. | Revision | By | Date |
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Scale: _____

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| By | Date | By | Date |
|----------|-----------|--------------|-----------|
| Designed | AJS 05\18 | Checked | DAM 05\18 |
| Drawn | SLS 05\18 | In Charge of | RAL 05\18 |

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV, P.E., P.T.O.E.

BLACKSTRAP ROAD EMERGENCY VEHICLE RAMPS

MAINTENANCE OF TRAFFIC DETAILS 1

SHEET NUMBER: MT-01

CONTRACT: 2018.16

7 OF 37

CONSTRUCTION SIGN SUMMARY

| IDENTIFI- CATION NUMBER | SIZE OF SIGN | | TEXT | TEXT DIMENSIONS (INCHES) | | | NUMBER OF SIGNS REQUIRED | COLOR | | AREA IN SQUARE FEET |
|-------------------------------|-----------------|--------|------|--|---------------------|--------------------|-----------------------------------|-----------------|------------------|---------------------------|
| | WIDTH | HEIGHT | | LETTER HEIGHT | VERTICAL SPACING | ARROW RTE. MKR. | | BACK- GROUND | LEGEND BORDER | |
| G20-2 | 48" | 24" | | TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT | | | 4 | ORANGE | BLACK | 8.00 (32.0) |
| G20-5aP | 48" | 24" | | 6" 6" | 4.5" | | 1 | ORANGE | BLACK | 8.00 (8.0) |
| R1-2 | 60" | 60" | | TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT | | | 2 | WHITE | BLACK | 10.83 (21.66) |
| R2-1 (45) | 48" | 60" | | | | | 1 | WHITE | BLACK | 20.00 (20.0) |
| R2-6aP | 48" | 24" | | 6" 6" | 4.5" | | 1 | WHITE | BLACK | 8.00 (8.0) |
| R2-12 | 48" | 60" | | TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT | | | 2 | WHITE | BLACK | 20.00 (40.0) |
| W3-2 | 48" | 48" | | | | | 2 | ORANGE | BLACK | 16.00 (32.0) |
| W3-5 (50) | 48" | 48" | | | | | 2 | | | 16.00 (32.0) |
| W4-1 | 48" | 48" | | | | | 2 | | | 16.00 (32.0) |
| W4-2R | 48" | 48" | | | | | 2 | | | 16.00 (32.0) |
| W4-5P | 24" | 30" | | | | | 2 | | | 5.00 (10.0) |
| W7-3aP | 36" | 30" | | | | | 1 | | | 7.50 (7.5) |

| IDENTIFI- CATION NUMBER | SIZE OF SIGN | | TEXT | TEXT DIMENSIONS (INCHES) | | | NUMBER OF SIGNS REQUIRED | COLOR | | AREA IN SQUARE FEET |
|-------------------------------|-----------------|--------|------|--|---------------------|--------------------|-----------------------------------|-----------------|------------------|----------------------------|
| | WIDTH | HEIGHT | | LETTER HEIGHT | VERTICAL SPACING | ARROW RTE. MKR. | | BACK- GROUND | LEGEND BORDER | |
| W8-1 | 48" | 48" | | TEXT DIMENSIONS SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS 2004 EDITION AND 2012 SUPPLEMENT | | | 2 | ORANGE | BLACK | 16.00 (32.0) |
| W8-24a | 48" | 48" | | | | | 2 | | | 16.00 (32.0) |
| W20-1 (AHEAD) (1 MILE) | 48" | 48" | | | | | 8 2 | | | 16.00 (128.0) (32.0) |
| W20-4 | 48" | 48" | | | | | 2 | | | 16.00 (32.0) |
| W20-5R (1/2 MILE) | 48" | 48" | | | | | 2 | | | 16.00 (32.0) |
| W20-7 | 48" | 48" | | | | | 2 | | | 16.00 (32.0) |
| W21-5 | 48" | 48" | | | | | 1 | | | 16.00 (16.0) |
| W21-5aR | 48" | 48" | | | | | 1 | | | 16.00 (16.0) |
| W21-5bR | 48" | 48" | | | | | 1 | | | 16.00 (16.0) |

Date: 6/1/2018

Filename: 008_Sign_Summary.dgn

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| Scale: | | | |
| No. | Revision | By | Date |
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| Designed by: | | | | | |
| HNTB | | | | | |
| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | | | |
| | By | Date | | By | Date |
| | Designed | AJS 05\18 | | Checked | DAM 05\18 |
| | Drawn | SLS 05\18 | | In Charge of | RAL 05\18 |

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood IV, P.E., P.T.O.E.

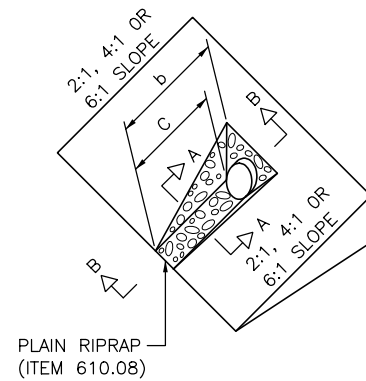
BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 MAINTENANCE OF TRAFFIC
 SIGN SUMMARY

SHEET NUMBER: MT-02
 8 OF 37

CONTRACT: 2018.16

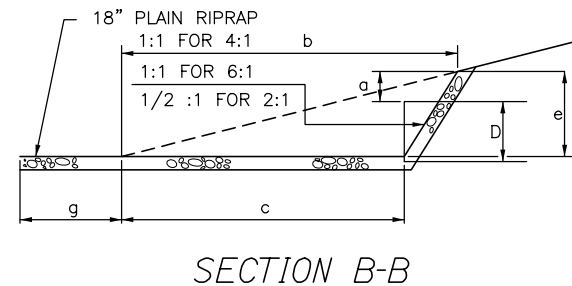
DIMENSIONS FOR SLOPE OF 2:1

| D | a (FT) | b (FT) | c (FT) | e (FT) | f (FT) | g (FT) | STONE DEPTH (FT) | STONE (CY) |
|-----|--------|--------|--------|--------|--------|--------|------------------|------------|
| 12" | 1.00 | 4.00 | 3.00 | 2.00 | 6.00 | 1.00 | 1.50 | 1.30 |
| 15" | 1.00 | 4.50 | 3.37 | 2.25 | 6.75 | 1.63 | 1.50 | 1.70 |
| 18" | 1.00 | 5.00 | 3.75 | 2.50 | 7.50 | 2.25 | 1.50 | 2.09 |
| 21" | 1.00 | 5.50 | 4.13 | 2.75 | 8.25 | 2.88 | 1.50 | 2.58 |
| 24" | 1.00 | 6.00 | 4.50 | 3.00 | 9.00 | 3.50 | 1.50 | 3.12 |
| 30" | 1.00 | 7.00 | 5.25 | 3.50 | 10.50 | 4.75 | 1.50 | 4.33 |
| 36" | 1.00 | 8.00 | 6.00 | 4.00 | 12.00 | 6.00 | 1.50 | 5.75 |
| 42" | 1.00 | 9.00 | 6.75 | 4.50 | 13.50 | 7.25 | 1.50 | 7.37 |
| 48" | 1.00 | 10.00 | 7.50 | 5.00 | 15.00 | 8.50 | 1.50 | 9.18 |
| 54" | 1.00 | 11.00 | 8.25 | 5.50 | 16.50 | 9.75 | 1.50 | 11.19 |
| 60" | 1.00 | 12.00 | 9.00 | 6.00 | 18.00 | 11.00 | 1.50 | 13.40 |
| 66" | 1.00 | 13.00 | 9.75 | 6.50 | 19.50 | 12.25 | 1.50 | 15.81 |
| 72" | 1.00 | 14.00 | 10.50 | 7.00 | 21.00 | 13.50 | 1.50 | 18.41 |
| 84" | 1.00 | 16.00 | 12.00 | 8.00 | 24.00 | 16.00 | 1.50 | 24.22 |



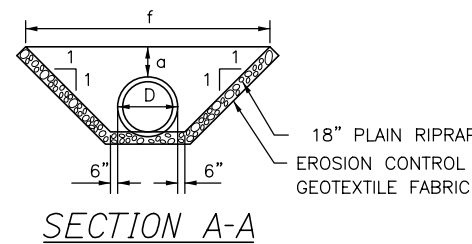
DIMENSIONS FOR SLOPE OF 4:1

| D | a (FT) | b (FT) | c (FT) | e (FT) | f (FT) | g (FT) | STONE DEPTH (FT) | STONE (CY) |
|-----|--------|--------|--------|--------|--------|--------|------------------|------------|
| 12" | 1.00 | 8.00 | 6.00 | 2.00 | 6.00 | 0.00 | 1.50 | 2.20 |
| 15" | 1.00 | 9.00 | 6.75 | 2.25 | 6.75 | 0.00 | 1.50 | 2.80 |
| 18" | 1.00 | 10.00 | 7.50 | 2.50 | 7.50 | 0.00 | 1.50 | 3.40 |
| 21" | 1.00 | 11.00 | 8.25 | 2.75 | 8.25 | 0.00 | 1.50 | 4.10 |
| 24" | 1.00 | 12.00 | 9.00 | 3.00 | 9.00 | 0.00 | 1.50 | 4.86 |
| 30" | 1.00 | 14.00 | 10.50 | 3.50 | 10.50 | 0.00 | 1.50 | 6.58 |
| 36" | 1.00 | 16.00 | 12.00 | 4.00 | 12.00 | 0.00 | 1.50 | 8.56 |
| 42" | 1.00 | 18.00 | 13.50 | 4.50 | 13.50 | 0.50 | 1.50 | 10.92 |
| 48" | 1.00 | 20.00 | 15.00 | 5.00 | 15.00 | 1.00 | 1.50 | 13.57 |
| 54" | 1.00 | 22.00 | 16.50 | 5.50 | 16.50 | 1.50 | 1.50 | 16.50 |
| 60" | 1.00 | 24.00 | 18.00 | 6.00 | 18.00 | 2.00 | 1.50 | 19.72 |
| 66" | 1.00 | 26.00 | 19.50 | 6.50 | 19.50 | 2.50 | 1.50 | 23.22 |
| 72" | 1.00 | 28.00 | 21.00 | 7.00 | 21.00 | 3.00 | 1.50 | 27.01 |
| 84" | 1.00 | 32.00 | 24.00 | 8.00 | 24.00 | 4.00 | 1.50 | 35.45 |



DIMENSIONS FOR SLOPE OF 6:1

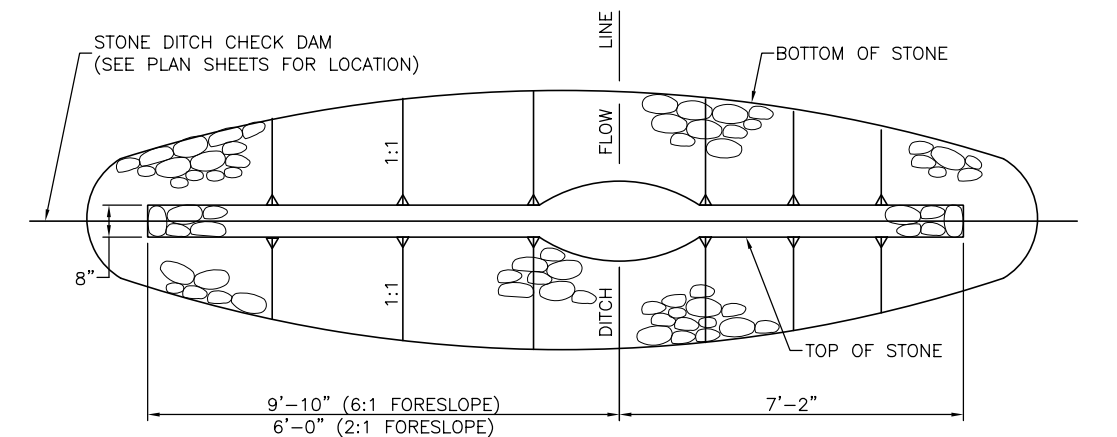
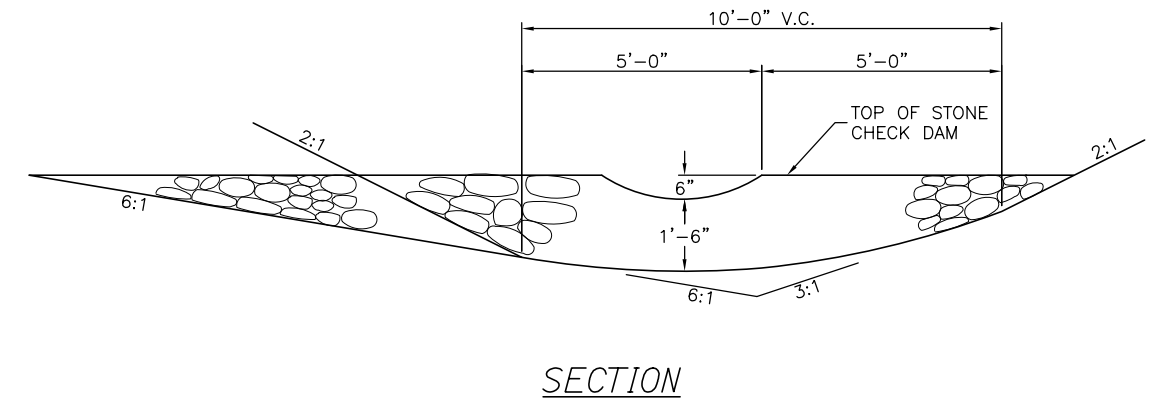
| D | a (FT) | b (FT) | c (FT) | e (FT) | f (FT) | g (FT) | STONE DEPTH (FT) | STONE (CY) |
|-----|--------|--------|--------|--------|--------|--------|------------------|------------|
| 12" | 0.50 | 9.00 | 7.50 | 1.50 | 4.50 | 0.00 | 1.50 | 2.30 |
| 15" | 0.50 | 10.50 | 8.75 | 1.75 | 5.50 | 0.00 | 1.50 | 2.93 |
| 18" | 0.50 | 12.00 | 10.00 | 2.00 | 6.50 | 0.00 | 1.50 | 3.57 |
| 21" | 0.50 | 13.50 | 11.25 | 2.25 | 7.25 | 0.00 | 1.50 | 4.46 |
| 24" | 0.50 | 15.00 | 12.50 | 2.50 | 8.00 | 0.00 | 1.50 | 5.44 |
| 30" | 0.50 | 18.00 | 15.00 | 3.00 | 9.50 | 0.00 | 1.50 | 7.71 |
| 36" | 0.50 | 21.00 | 17.50 | 3.50 | 11.00 | 0.00 | 1.50 | 10.37 |
| 42" | 0.50 | 24.00 | 20.00 | 4.00 | 12.50 | 0.00 | 1.50 | 13.42 |
| 48" | 0.50 | 27.00 | 22.50 | 4.50 | 14.00 | 0.00 | 1.50 | 16.87 |
| 54" | 0.50 | 30.00 | 25.00 | 5.00 | 15.50 | 0.00 | 1.50 | 20.70 |
| 60" | 0.50 | 33.00 | 27.50 | 5.50 | 17.00 | 0.00 | 1.50 | 24.93 |
| 66" | 0.50 | 36.00 | 30.00 | 6.00 | 18.50 | 0.00 | 1.50 | 29.55 |
| 72" | 0.50 | 39.00 | 32.50 | 6.50 | 20.00 | 0.00 | 1.50 | 34.56 |
| 84" | 0.50 | 45.00 | 37.50 | 7.50 | 23.00 | 0.00 | 1.50 | 45.76 |



ROADWAY CULVERT END SLOPE TREATMENT

NOTES:

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



STONE CHECK DAM
1" = 2'-0"

| FORESLOPE | BACKSLOPE | QUANTITY C.Y. STONE |
|-----------|-----------|---------------------|
| 6:1 | 3:1 | 2.5 |
| 2:1 | 3:1 | 2.0 |

NOTES:

1. STONE FOR TEMPORARY AND PERMANENT STONE CHECK DAMS SHALL MEET THE REQUIREMENTS OF MDOT SPECIFICATION 703.29, STONE DITCH PROTECTION.
2. TEMPORARY STONE CHECK DAMS WILL BE PAID FOR UNDER ITEM 610.181.


Date:6/1/2018

Filename: 009_Erosion_Con_Det1.dgn

| No. | Revision | By | Date |
|-----|----------|----|------|
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|--|-----|-------|--------------|
| Designed by: | | | |
| HNTB | | | |
| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| Designed | By | Date | Checked |
| Drawn | By | Date | In Charge of |
| | AJS | 05\18 | DAM |
| | SLS | 05\18 | RAL |

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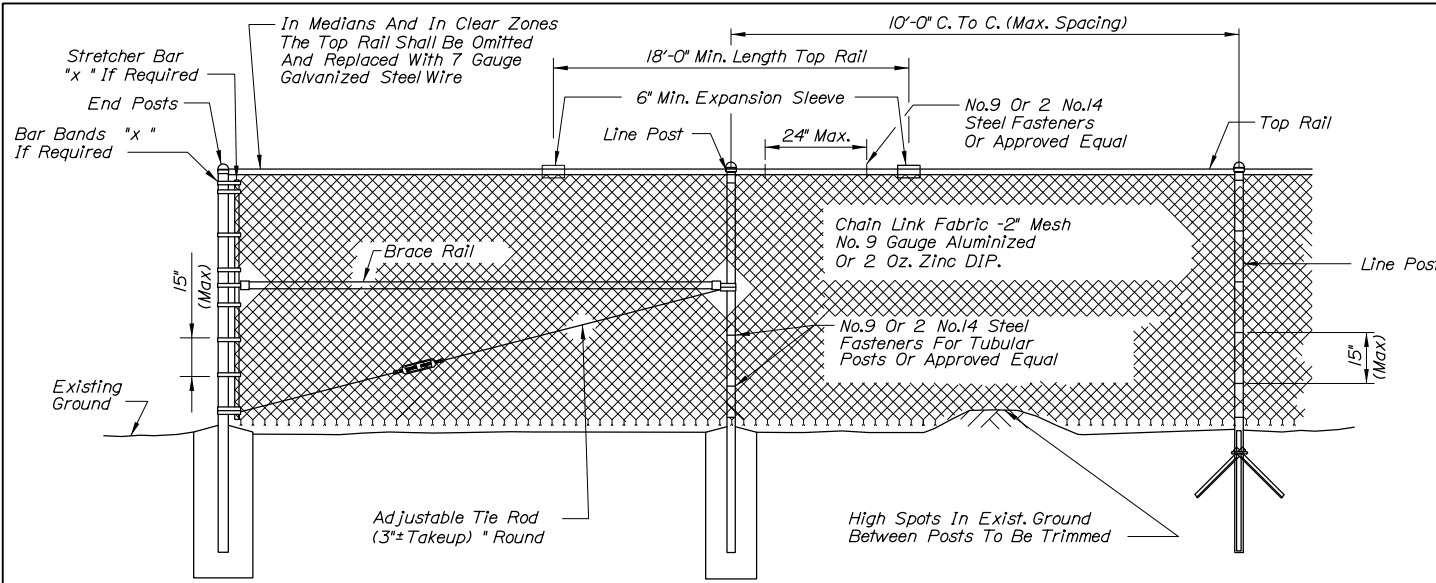
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV, P.E., P.T.O.E.

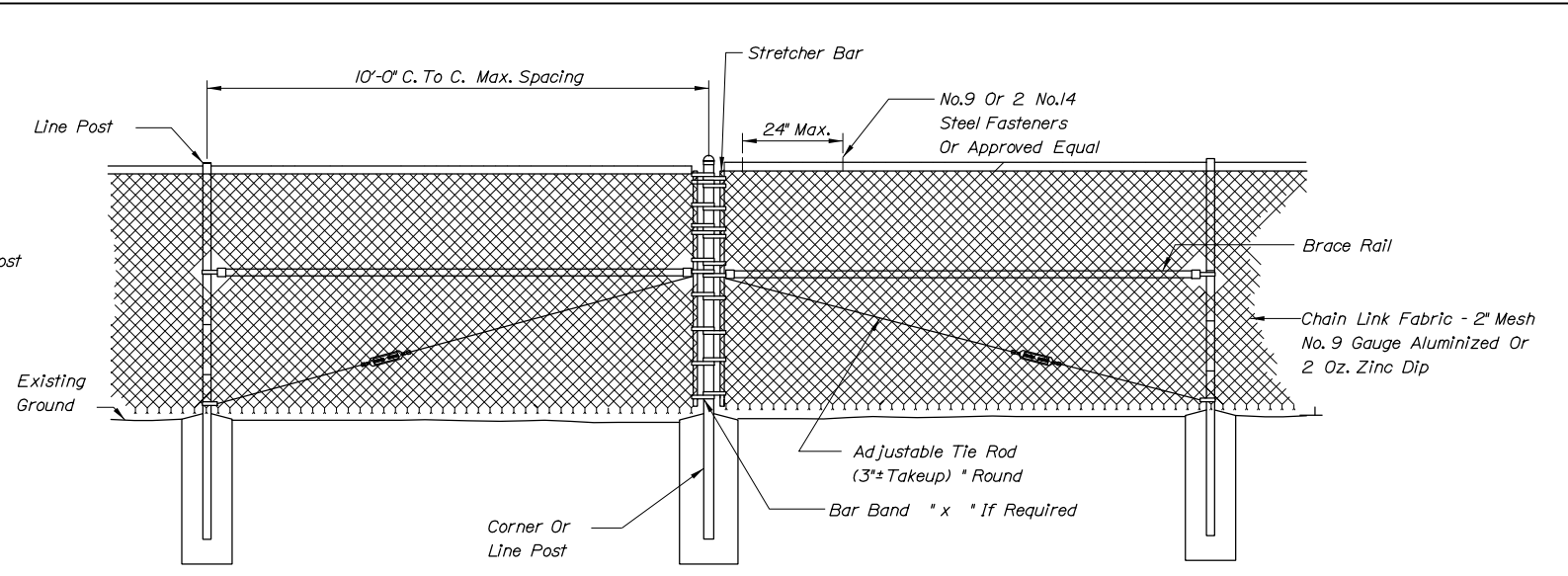
**BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
EROSION CONTROL DETAILS**

SHEET NUMBER: MD-01
CONTRACT:2018.16
9 OF 37

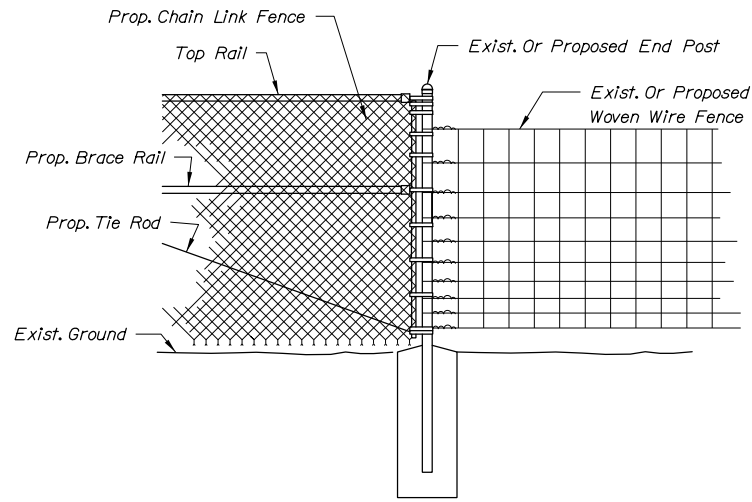
Date: 6/1/2018



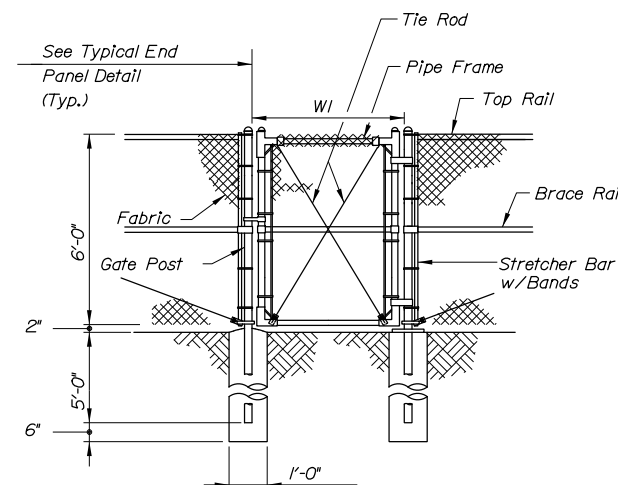
TYPICAL TYPE I END PANEL
N.T.S.



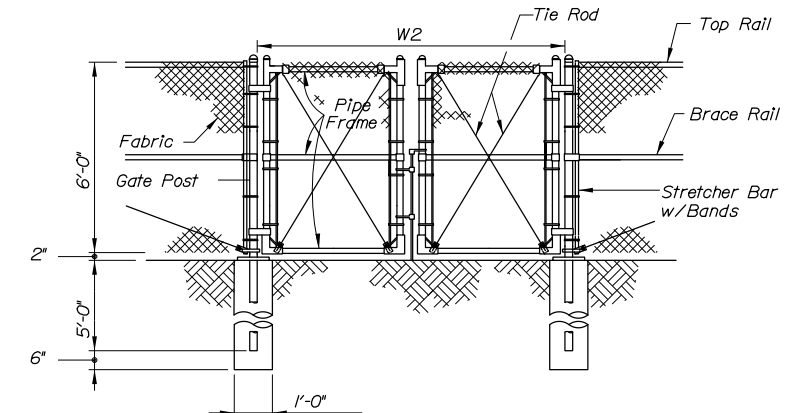
TYPICAL TYPE II BRACE PANEL
N.T.S.



METHOD OF ATTACHING CHAIN LINK FENCE TO WOVEN WIRE FENCE
N.T.S.



SINGLE GATE



DOUBLE GATE

| Gate Width | | Gate Post O.D. |
|------------|------------|----------------|
| W1 | W2 | |
| to 6' | to 12' | 3" |
| 6' to 12' | 12' to 24' | 4" |
| 12' to 18' | 24' to 36' | 6" |

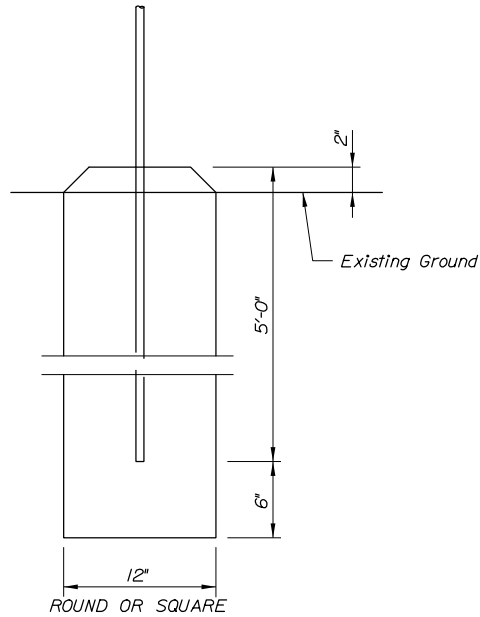
BENDING MOMENTS BASED ON GRADE 1 (SCHEDULE 40 STEEL)

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

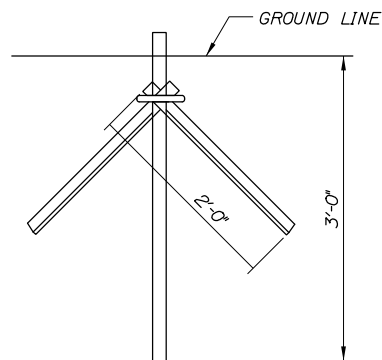
* MATERIAL FOR GRADE 2 END, CORNER & LINE POSTS AND TOP & BRACE RAILS MUST MEET OR EXCEED BENDING MOMENTS FOR GRADE 1 STEEL AS NOTED ABOVE.

NOTES:

- BRACE PANELS SHALL BE INSTALLED WHERE THE CHANGE IN GRADE BETWEEN ANY THREE POSTS EXCEEDS 15 PERCENT.
- NO ADDITIONAL PAYMENT WILL BE MADE FOR LONGER POSTS NECESSITATED BY LARGE GRADE DIFFERENTIAL.
- TYPE I BRACING WILL BE USED AT FENCE ENDS. TYPE II BRACING WILL BE USED AT CORNER POSTS.
- 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.
- CONCRETE FOR POST FOUNDATION SHALL BE CLASS B.
- BRACE, GATE AND END POSTS SHALL BE SET IN CONCRETE.
- CHAIN LINK FENCE SHALL BE INSTALLED WITH BARBS DOWN.
- ALL COMPONENTS OF CHAIN LINK FENCE SHALL BE IN ACCORDANCE WITH AASHTO M181.



BRACE, GATE AND END POST BASE DETAIL
N.T.S.



LINE POST DRIVE ANCHOR DETAIL
N.T.S.

Filename: 010_Fence Details.dgn

| No. | Revision | By | Date |
|-----|----------|----|------|
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Scale: _____ Designed by: _____

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | By | Date | |
|----------|-----|-------|--------------|------|-------|
| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
| Drawn | SLS | 05\18 | In Charge of | RAL | 05\18 |

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MAINE TURNPIKE

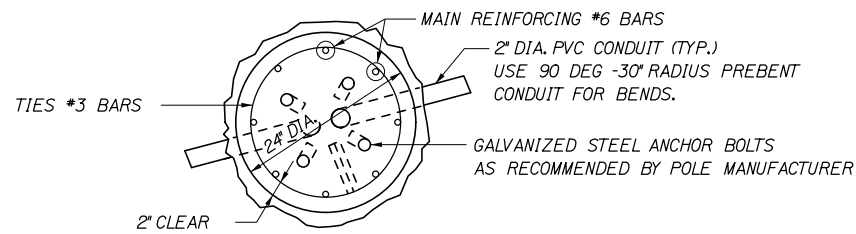
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph C. Norwood IV, P.E., P.T.O.E.

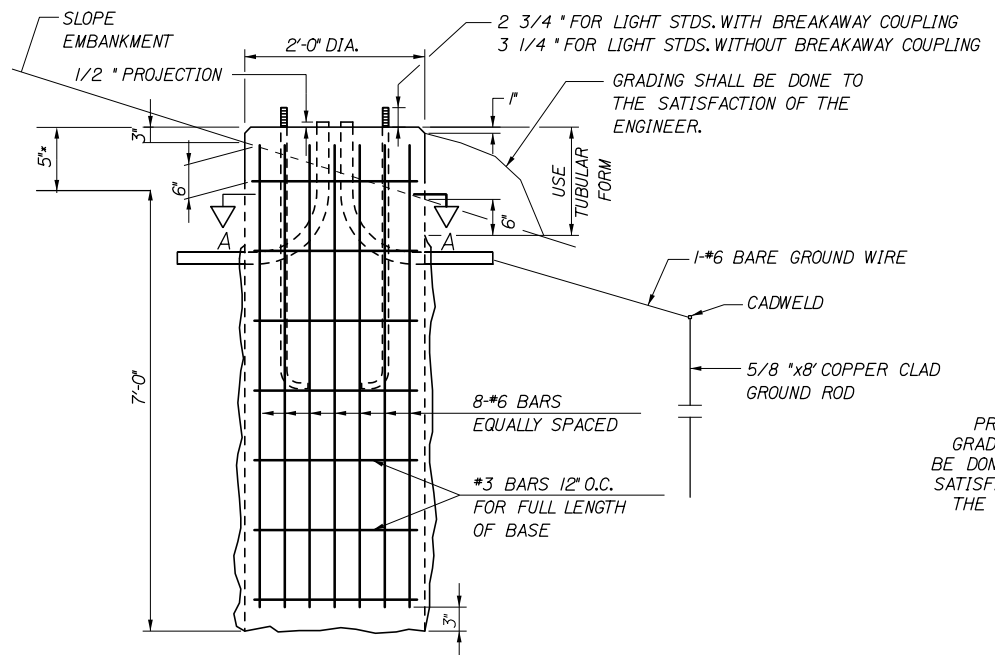
BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
CHAIN LINK FENCE DETAILS

SHEET NUMBER: MD-02
CONTRACT: 2018.16
10 OF 37

Date: 6/1/2018

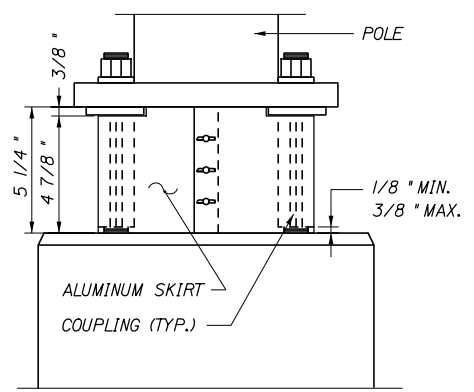


SECTION A-A
NOT TO SCALE



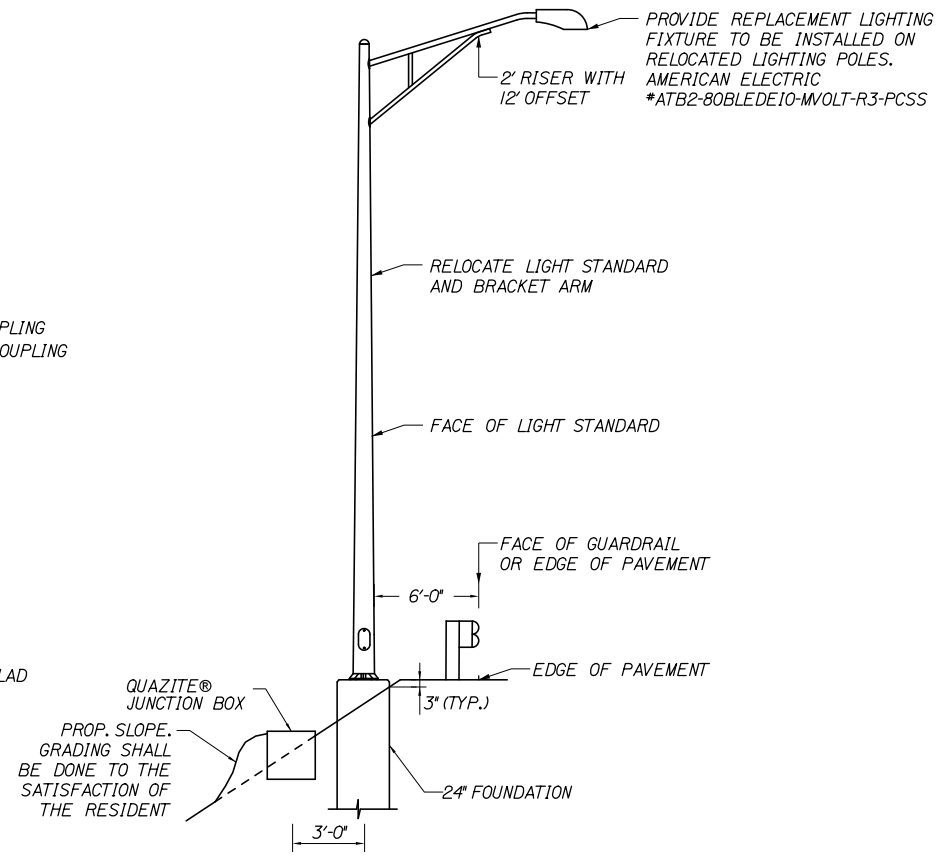
24 INCH FOUNDATION
NOT TO SCALE

NOTE:
WHERE SOLID ROCK IS ENCOUNTERED AT LESS THAN THE REQUIRED DISTANCE BELOW GROUND LEVEL, REINFORCING STEEL SHALL BE DOWELED INTO LEDGE AS SHOWN ON MAINE DOT STANDARD DETAIL 626(06). PAYMENT SHALL BE INCIDENTAL TO THE FOUNDATION PAY ITEM.

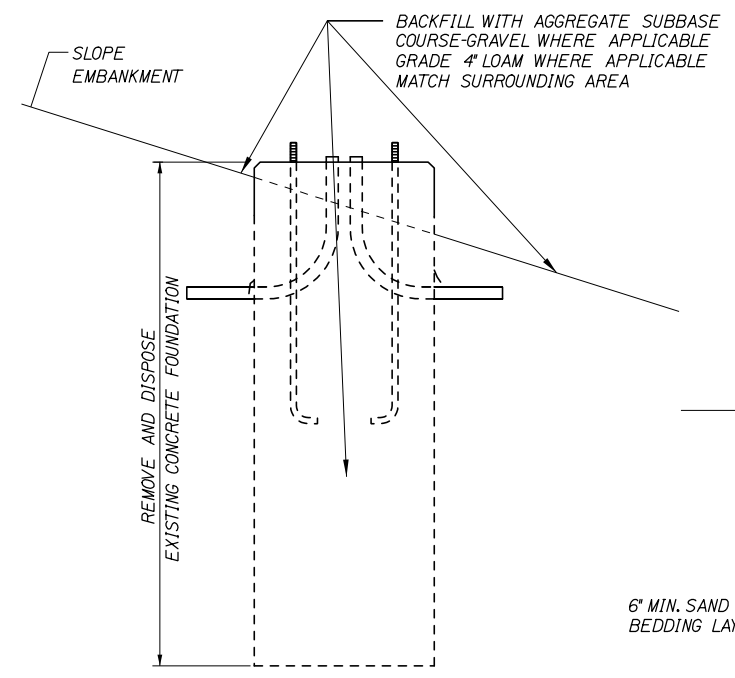


BREAKAWAY COUPLINGS AND SKIRT DETAIL
NOT TO SCALE

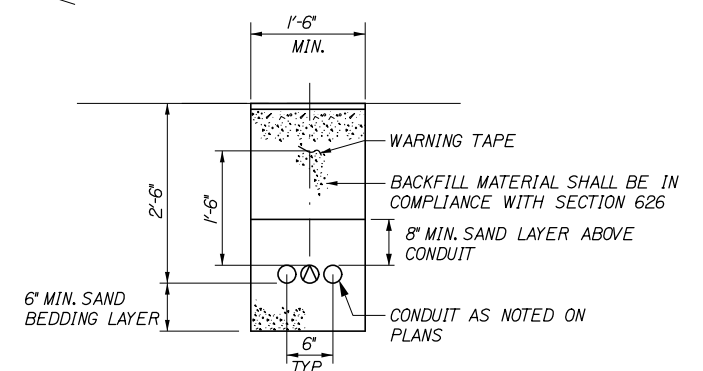
* BREAKAWAY COUPLINGS SHALL BE REQUIRED ON ALL NEW LIGHT STANDARDS



PLACEMENT OF LIGHT STANDARD
NOT TO SCALE



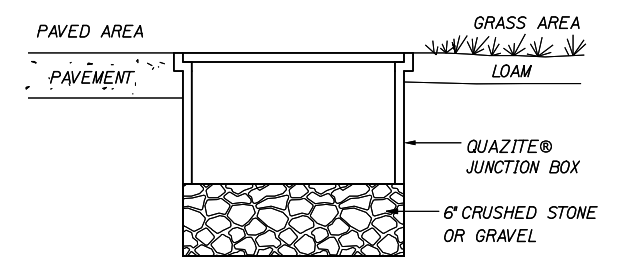
REMOVAL OF CONCRETE FOUNDATION
NOT TO SCALE



TRENCH CROSS SECTION
NOT TO SCALE

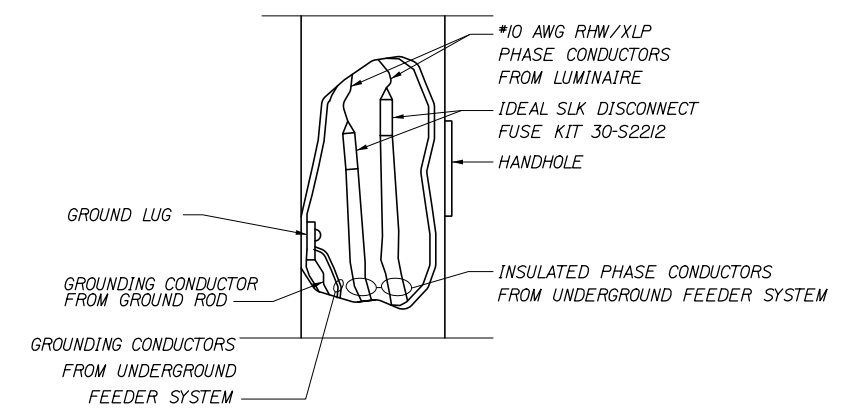
NOTES:

- SPLICES IN JUNCTION BOX SHALL BE MADE WITH ILSCO USPA-350-SS-DB SAFETYSUB WATER TIGHT DIRECT BURY SPLICE WIRE RANGE 350MCM-10-STR, ONLY. PROVIDE ENOUGH SLACK IN THE WIRE TO ALLOW REMOVAL OF SPLICES AND NEATLY ARRANGE WIRE IN BOX.
- QUAZITE® JUNCTION BOXES FOR HIGHWAY LIGHTING SHALL BE QUAZITE AND IN ACCORDANCE WITH SPECIAL PROVISION 626.



JUNCTION BOX COVER & FRAME
NOT TO SCALE

NOTE:
INSTALL JUNCTION BOXES ON GRADE



TYPICAL POLE WIRING DETAIL
NOT TO SCALE

Filename: 011_Lighting_Details.dgn

| | | | |
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| Scale: | | Designed by: | |
| No. | Revision | By | Date |
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| HNTB | | | |
| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| Designed | AJS | 05\18 | Checked DAM 05\18 |
| Drawn | SLS | 05\18 | In Charge of RAL 05\18 |

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**THE GOLD STAR
MEMORIAL HIGHWAY**

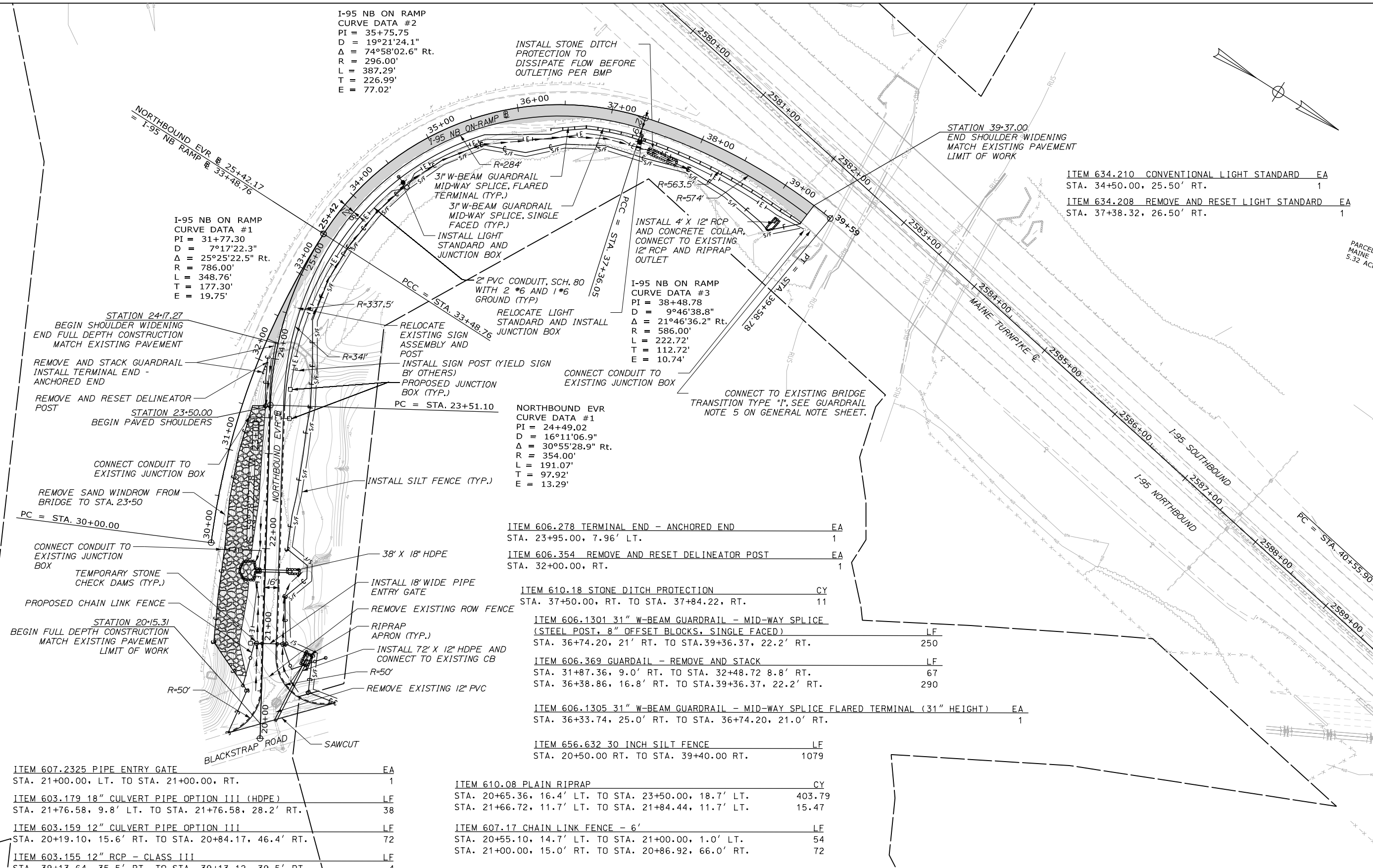
MTA PROJECT MANAGER: Ralph C. Norwood IV, P.E., P.T.O.E.

**BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS**

LIGHTING DETAILS

SHEET NUMBER: MD-03
CONTRACT: 2018.16
11 OF 37

Date: 6/11/2018



| | | |
|--------------|---------------------------------|----|
| ITEM 634.210 | CONVENTIONAL LIGHT STANDARD | EA |
| | STA. 34+50.00, 25.50' RT. | 1 |
| ITEM 634.208 | REMOVE AND RESET LIGHT STANDARD | EA |
| | STA. 37+38.32, 26.50' RT. | 1 |

| | | |
|---------------|--|------|
| ITEM 606.278 | TERMINAL END - ANCHORED END | EA |
| | STA. 23+95.00, 7.96' LT. | 1 |
| ITEM 606.354 | REMOVE AND RESET DELINEATOR POST | EA |
| | STA. 32+00.00, RT. | 1 |
| ITEM 610.18 | STONE DITCH PROTECTION | CY |
| | STA. 37+50.00, RT. TO STA. 37+84.22, RT. | 11 |
| ITEM 606.1301 | 31" W-BEAM GUARDRAIL - MID-WAY SPLICE (STEEL POST, 8" OFFSET BLOCKS, SINGLE FACED) | LF |
| | STA. 36+74.20, 21' RT. TO STA. 39+36.37, 22.2' RT. | 250 |
| ITEM 606.369 | GUARDRAIL - REMOVE AND STACK | LF |
| | STA. 31+87.36, 9.0' RT. TO STA. 32+48.72 8.8' RT. | 67 |
| | STA. 36+38.86, 16.8' RT. TO STA. 39+36.37, 22.2' RT. | 290 |
| ITEM 606.1305 | 31" W-BEAM GUARDRAIL - MID-WAY SPLICE FLARED TERMINAL (31" HEIGHT) | EA |
| | STA. 36+33.74, 25.0' RT. TO STA. 36+74.20, 21.0' RT. | 1 |
| ITEM 656.632 | 30 INCH SILT FENCE | LF |
| | STA. 20+50.00 RT. TO STA. 39+40.00 RT. | 1079 |

| | | |
|---------------|--|----|
| ITEM 607.2325 | PIPE ENTRY GATE | EA |
| | STA. 21+00.00, LT. TO STA. 21+00.00, RT. | 1 |
| ITEM 603.179 | 18" CULVERT PIPE OPTION III (HDPE) | LF |
| | STA. 21+76.58, 9.8' LT. TO STA. 21+76.58, 28.2' RT. | 38 |
| ITEM 603.159 | 12" CULVERT PIPE OPTION III | LF |
| | STA. 20+19.10, 15.6' RT. TO STA. 20+84.17, 46.4' RT. | 72 |
| ITEM 603.155 | 12" RCP - CLASS III | LF |
| | STA. 39+13.64, 35.5' RT. TO STA. 39+13.12, 39.5' RT. | 4 |

| | | |
|-------------|--|--------|
| ITEM 610.08 | PLAIN RIPRAP | CY |
| | STA. 20+65.36, 16.4' LT. TO STA. 23+50.00, 18.7' LT. | 403.79 |
| | STA. 21+66.72, 11.7' LT. TO STA. 21+84.44, 11.7' LT. | 15.47 |
| ITEM 607.17 | CHAIN LINK FENCE - 6' | LF |
| | STA. 20+55.10, 14.7' LT. TO STA. 21+00.00, 1.0' LT. | 54 |
| | STA. 21+00.00, 15.0' RT. TO STA. 20+86.92, 66.0' RT. | 72 |

Scale: 50 0 50 100
Scale of Feet

| No. | Revision | By | Date |
|-----|----------|----|------|
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Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | | By | Date |
|----------|-----|-------|--------------|-----|-------|
| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
| Drawn | AJS | 05\18 | In Charge of | RAL | 05\18 |

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MAINE TURNPIKE

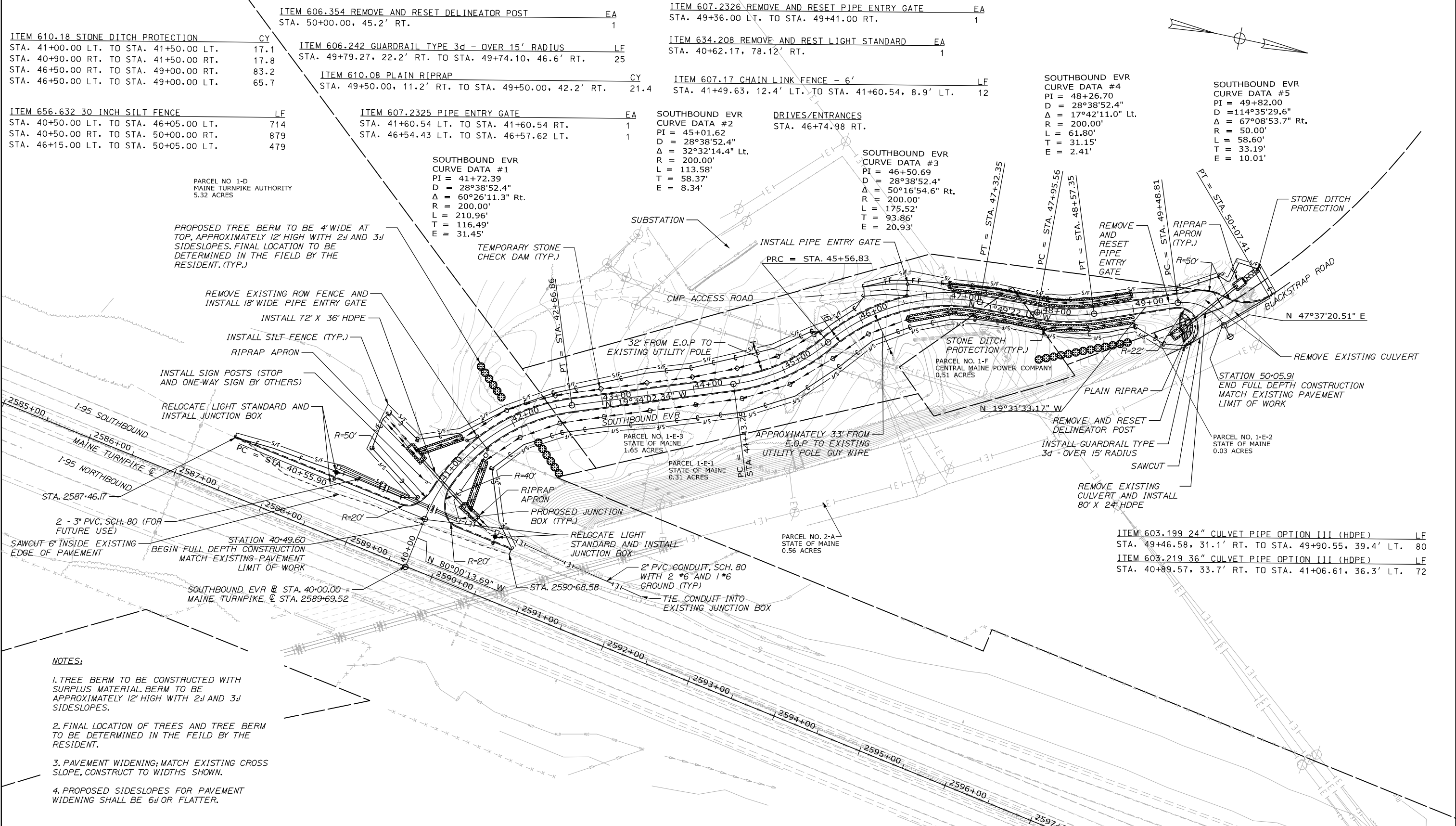
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
NORTHBOUND EVR PLAN

SHEET NUMBER: PL-01
CONTRACT: 2018.16
12 OF 37

Date: 6/1/2018



- NOTES:**
1. TREE BERM TO BE CONSTRUCTED WITH SURPLUS MATERIAL. BERM TO BE APPROXIMATELY 12' HIGH WITH 2:1 AND 3:1 SIDESLOPES.
 2. FINAL LOCATION OF TREES AND TREE BERM TO BE DETERMINED IN THE FIELD BY THE RESIDENT.
 3. PAVEMENT WIDENING; MATCH EXISTING CROSS SLOPE, CONSTRUCT TO WIDTHS SHOWN.
 4. PROPOSED SIDESLOPES FOR PAVEMENT WIDENING SHALL BE 6:1 OR FLATTER.

Scale: 1" = 50'

| No. | Revision | By | Date |
|-----|----------|----|------|
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Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | | By | Date |
|----------|-----|-------|--------------|-----|-------|
| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

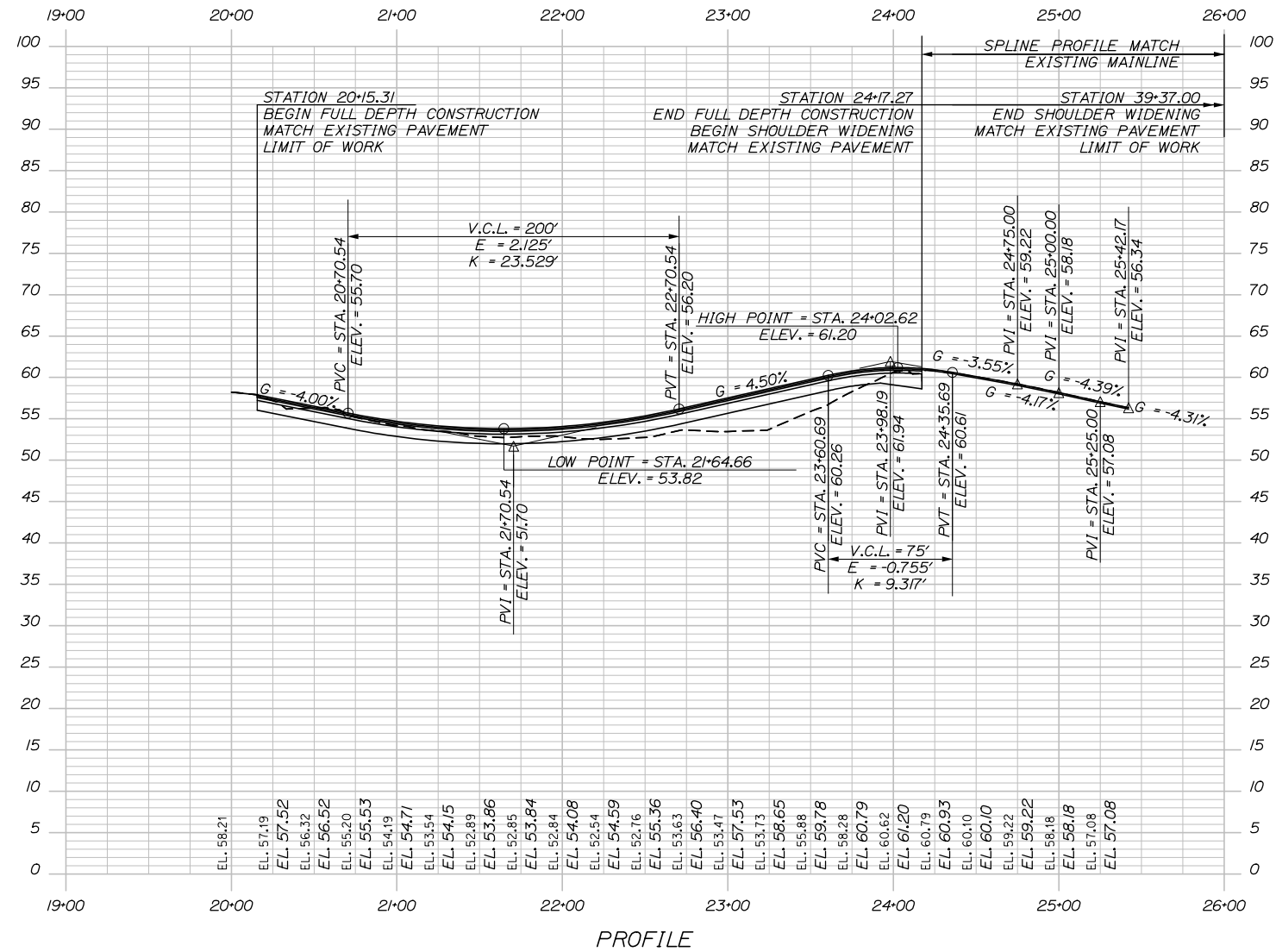
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

**BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 SOUTHBOUND EVR PLAN**

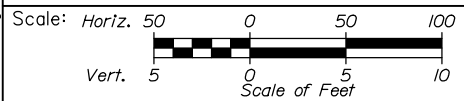
SHEET NUMBER: PL-02
 13 OF 37

CONTRACT: 2018.16

Date: 6/1/2018



Filename: 014_Profile_NB.dgn



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THE GOLD STAR
MEMORIAL HIGHWAY

BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
NORTHBOUND EVR PROFILE

| No. | Revision | By | Date |
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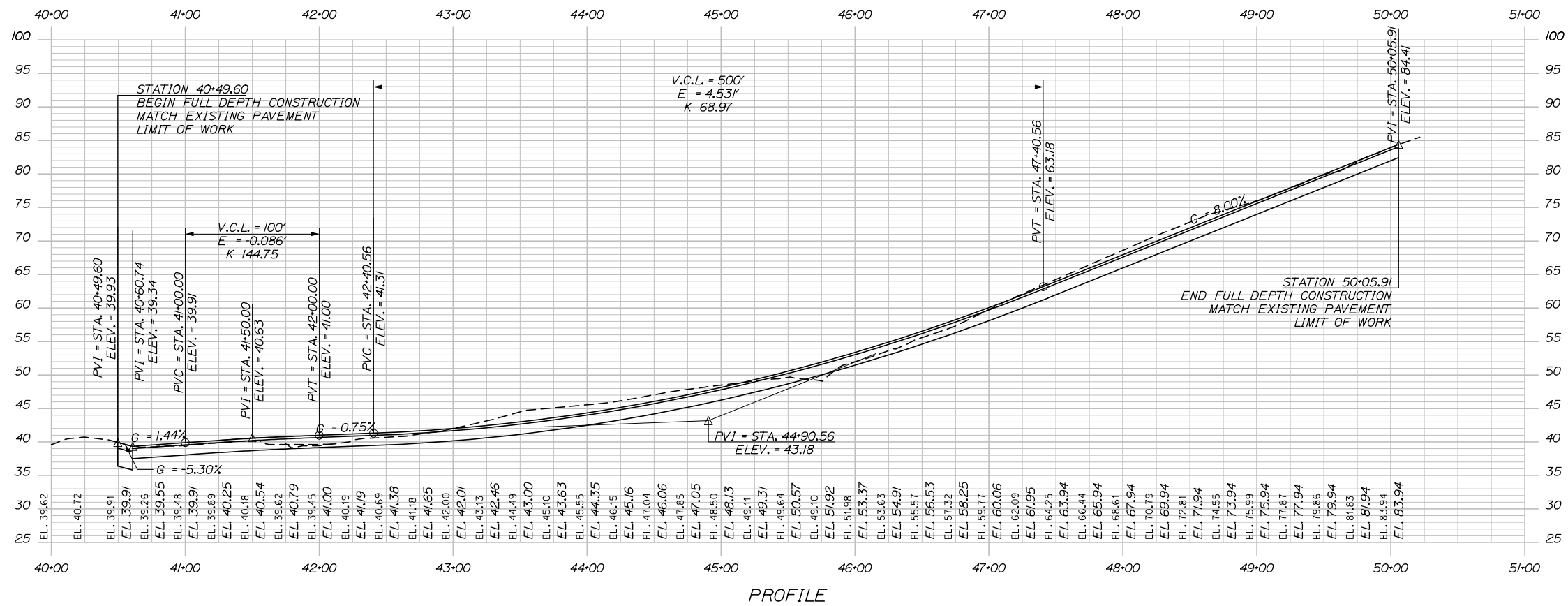
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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| | By | Date | |
| Designed | AJS | 05\18 | Checked DAM 05\18 |
| Drawn | AJS | 05\18 | In Charge of RAL 05\18 |

MTA PROJECT MANAGER: Ralph Norwood, P.E., PTOE

CONTRACT: 2018.16

SHEET NUMBER: PR-01

14 OF 37



Scale: Horiz. 50 0 50 100
Vert. 5 0 5 10
Scale of Feet

| No. | Revision | By | Date |
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Designed by:

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | Checked | By | Date |
|----------|-----|-------|--------------|-----|-------|
| Designed | AJS | 05\18 | | DAM | 05\18 |
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MAINE TURNPIKE

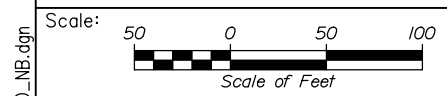
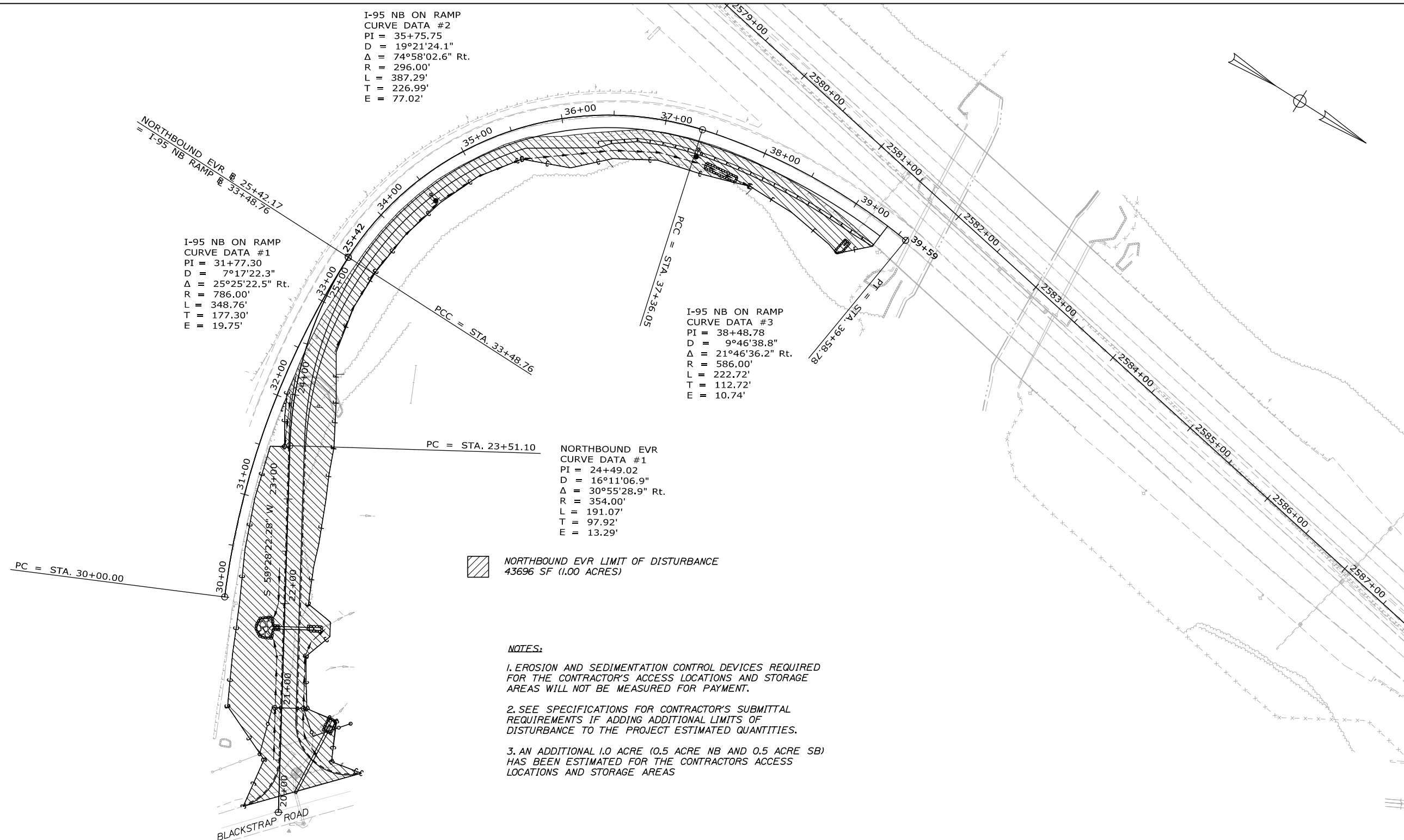
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
SOUTHBOUND EVR PROFILE

SHEET NUMBER: PR-02
CONTRACT: 2018.16
15 OF 37

Date: 6/1/2018



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|--|-----|-------|--------------|------|-------|
| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | | | |
| | By | Date | By | Date | |
| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

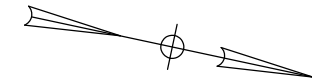
BLACKSTRAP ROAD EMERGENCY VEHICLE RAMPS
LIMIT OF DISTURBANCE PLAN - NB

SHEET NUMBER: LOD-01
 16 OF 37

CONTRACT: 2018.16

Filename: 016_LOD_NB.dgn

Date: 6/1/2018



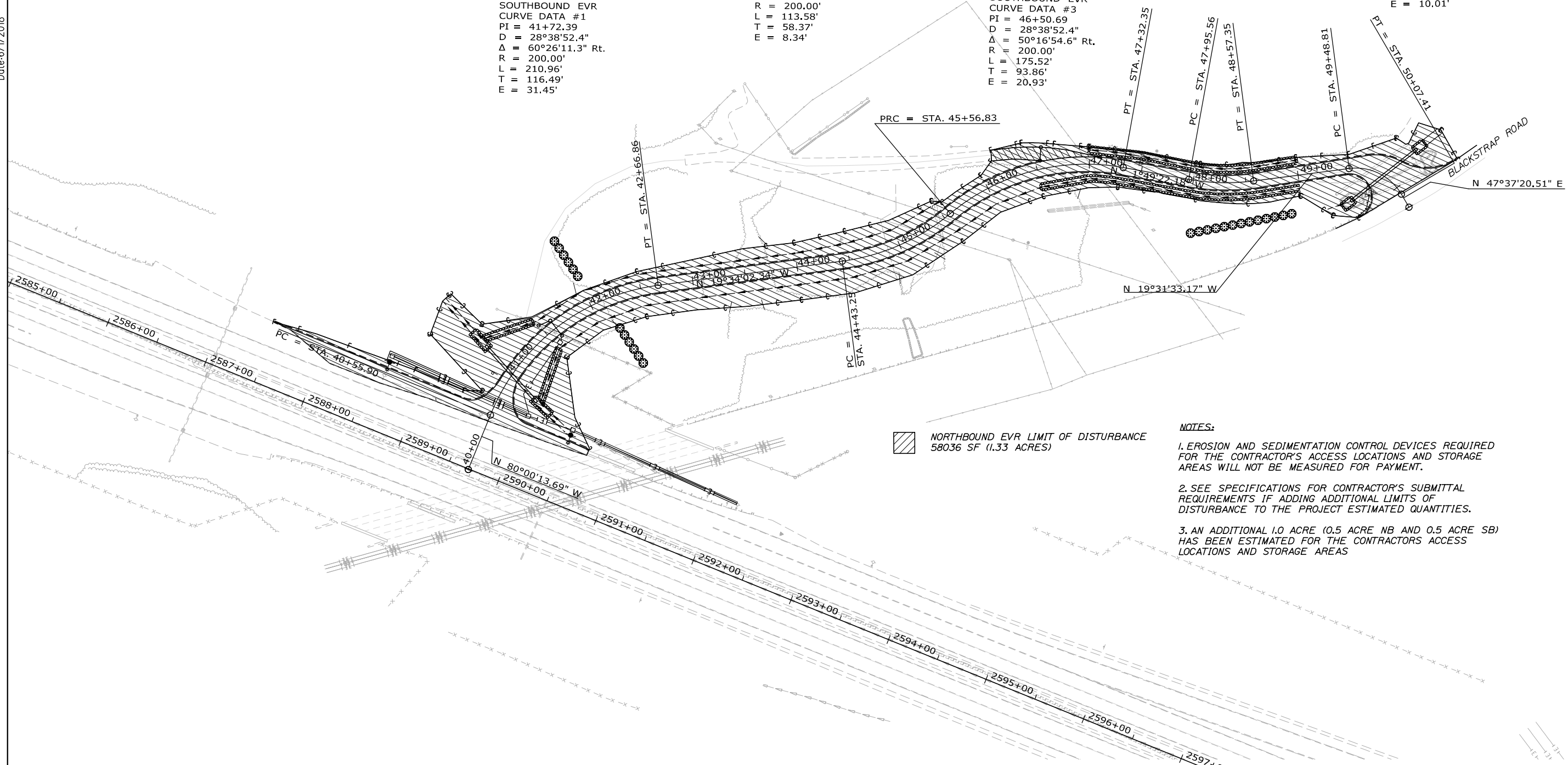
SOUTHBOUND EVR
CURVE DATA #1
PI = 41+72.39
D = 28°38'52.4"
Δ = 60°26'11.3" Rt.
R = 200.00'
L = 210.96'
T = 116.49'
E = 31.45'

SOUTHBOUND EVR
CURVE DATA #2
PI = 45+01.62
D = 28°38'52.4"
Δ = 32°32'14.4" Lt.
R = 200.00'
L = 113.58'
T = 58.37'
E = 8.34'

SOUTHBOUND EVR
CURVE DATA #3
PI = 46+50.69
D = 28°38'52.4"
Δ = 50°16'54.6" Rt.
R = 200.00'
L = 175.52'
T = 93.86'
E = 20.93'

SOUTHBOUND EVR
CURVE DATA #4
PI = 48+26.70
D = 28°38'52.4"
Δ = 17°42'11.0" Lt.
R = 200.00'
L = 61.80'
T = 31.15'
E = 2.41'

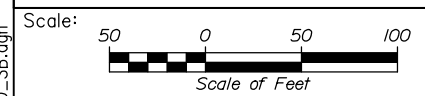
SOUTHBOUND EVR
CURVE DATA #5
PI = 49+82.00
D = 114°35'29.6"
Δ = 67°08'53.7" Rt.
R = 50.00'
L = 58.60'
T = 33.19'
E = 10.01'



NORTHBOUND EVR LIMIT OF DISTURBANCE
58036 SF (1.33 ACRES)

NOTES:

1. EROSION AND SEDIMENTATION CONTROL DEVICES REQUIRED FOR THE CONTRACTOR'S ACCESS LOCATIONS AND STORAGE AREAS WILL NOT BE MEASURED FOR PAYMENT.
2. SEE SPECIFICATIONS FOR CONTRACTOR'S SUBMITTAL REQUIREMENTS IF ADDING ADDITIONAL LIMITS OF DISTURBANCE TO THE PROJECT ESTIMATED QUANTITIES.
3. AN ADDITIONAL 1.0 ACRE (0.5 ACRE NB AND 0.5 ACRE SB) HAS BEEN ESTIMATED FOR THE CONTRACTORS ACCESS LOCATIONS AND STORAGE AREAS



| No. | Revision | By | Date |
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| | | | |

Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | Checked | By | Date |
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| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
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**THE GOLD STAR
MEMORIAL HIGHWAY**

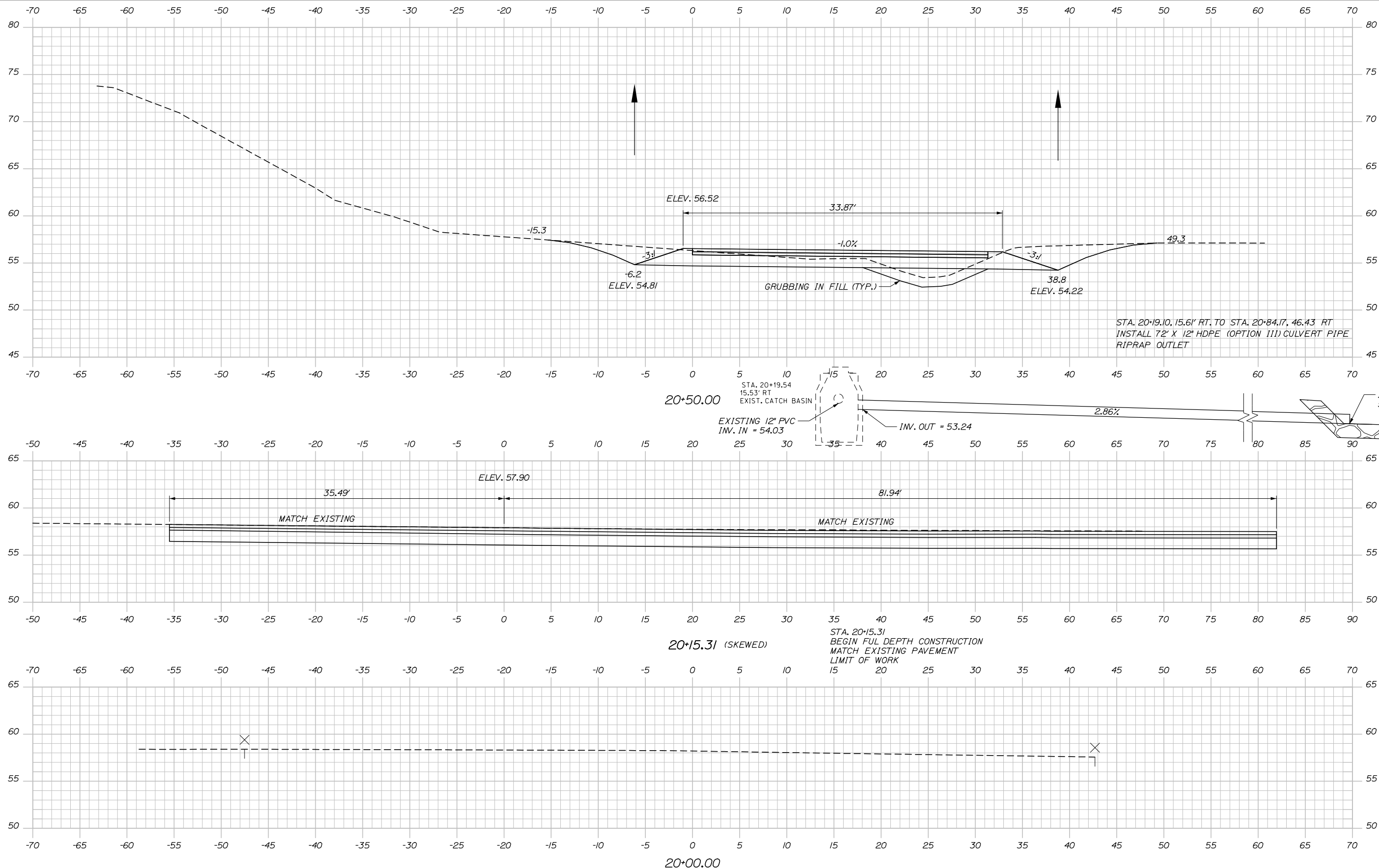
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMP
LIMITS OF DISTURBANCE
PLAN - SB

SHEET NUMBER: LOD-02
17 OF 37

CONTRACT: 2018.16

Date: 6/1/2018



Filename: Xsect_Northbound.dgn

Scale: Scale of Feet

| No. | Revision | By | Date |
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Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | Checked | By | Date |
|----------|-----|-------|--------------|-----|-------|
| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
| Drawn | AJS | 05\18 | In Charge of | RAL | 05\18 |

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 340 County Road, Suite 6-C
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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

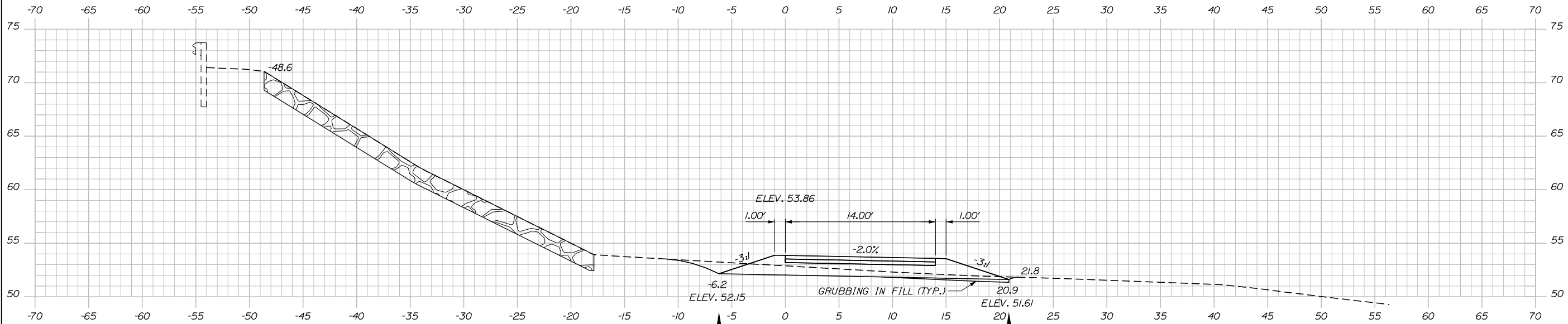
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 NORTHBOUND RAMP CROSS SECTIONS
 STA. 20+00.00 TO STA. 20+50.00

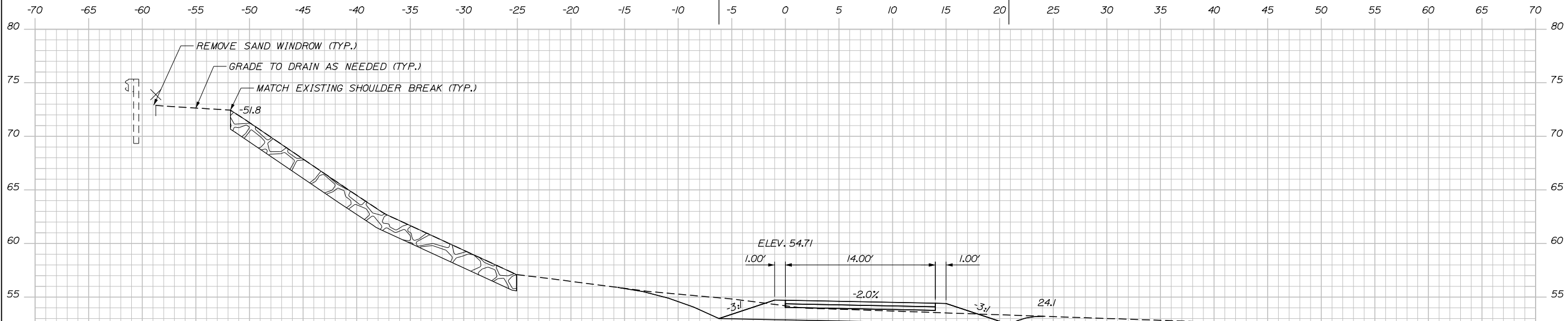
SHEET NUMBER: XS-01
 18 OF 37

CONTRACT: 2018.16

Date: 6/1/2018



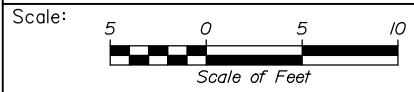
21+50.00



21+00.00

STA. 20+67.92, 56.5' LT. TO STA. 23+50.00, 18.7' LT.
 INSTALL PLAIN RIPRAP, GEOTEXTILE;
 MATCH EXISTING SLOPE (TYP.)
 SEE NOTES (ON THIS SECTION) FOR TOP OF
 SLOPE REPAIRS (TYP.)

STA. 21+00.00, LT. TO STA. 21+00.00, RT.
 INSTALL PIPE ENTRY GATE



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THE GOLD STAR
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BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 NORTHBOUND RAMP CROSS SECTIONS
 STA. 21+00.00 TO STA. 21+50.00

| No. | Revision | By | Date |
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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
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| | Checked | DAM | 05\18 |
| | By | Date | |
| | AJS | 05\18 | |
| | In Charge of | RAL | 05\18 |

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

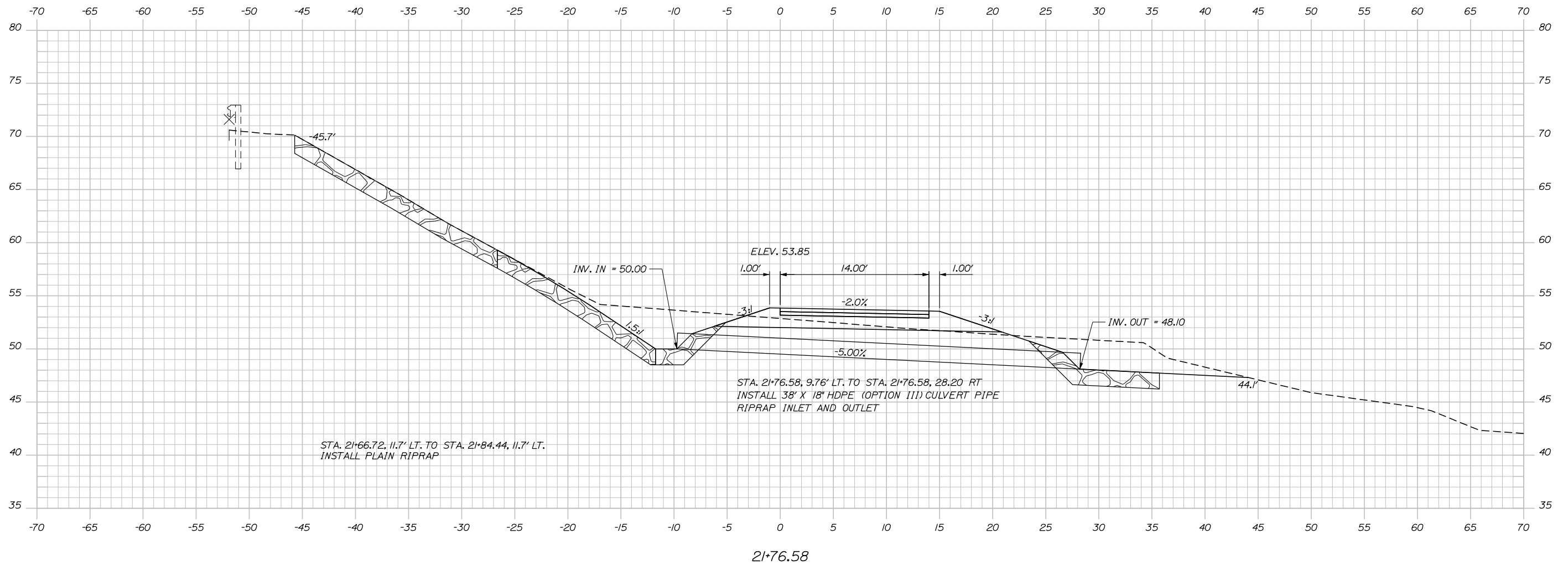
CONTRACT: 2018.16

SHEET NUMBER: XS-02

19 OF 37

Filename: Xsect_Northbound.dgn

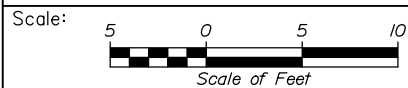
Date: 6/1/2018



STA. 21+66.72, 11.7' LT. TO STA. 21+84.44, 11.7' LT.
INSTALL PLAIN RIPRAP

STA. 21+76.58, 9.76' LT. TO STA. 21+76.58, 28.20' RT
INSTALL 38" X 18" HDPE (OPTION III) CULVERT PIPE
RIPRAP INLET AND OUTLET

21+76.58



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THE GOLD STAR
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BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
NORTHBOUND RAMP CROSS SECTIONS
STA. 21+76.58

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| | By | Date | |
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| Drawn | AJS | 05\18 | In Charge of RAL 05\18 |

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

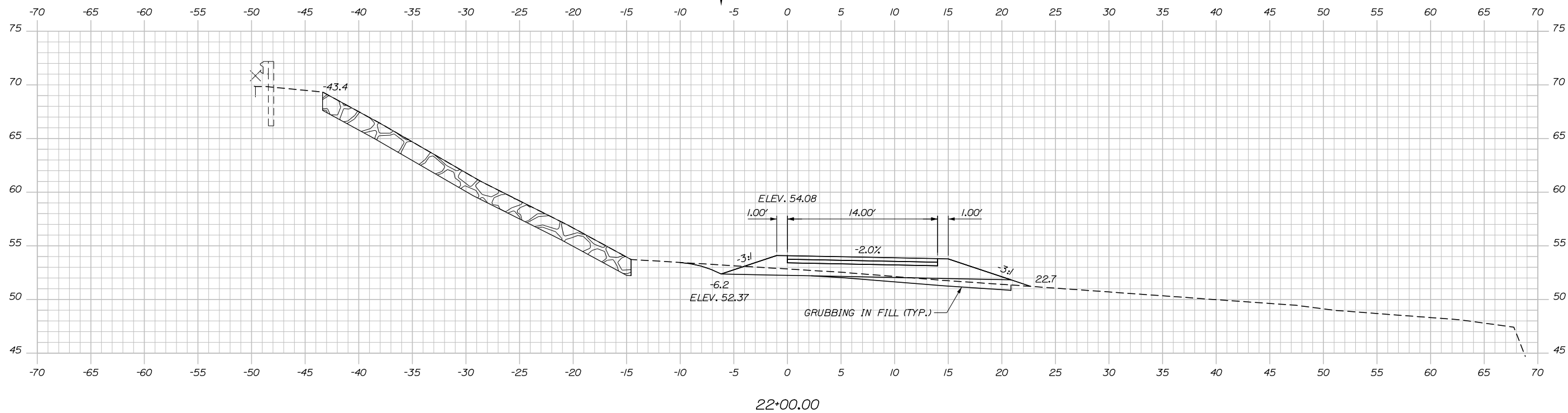
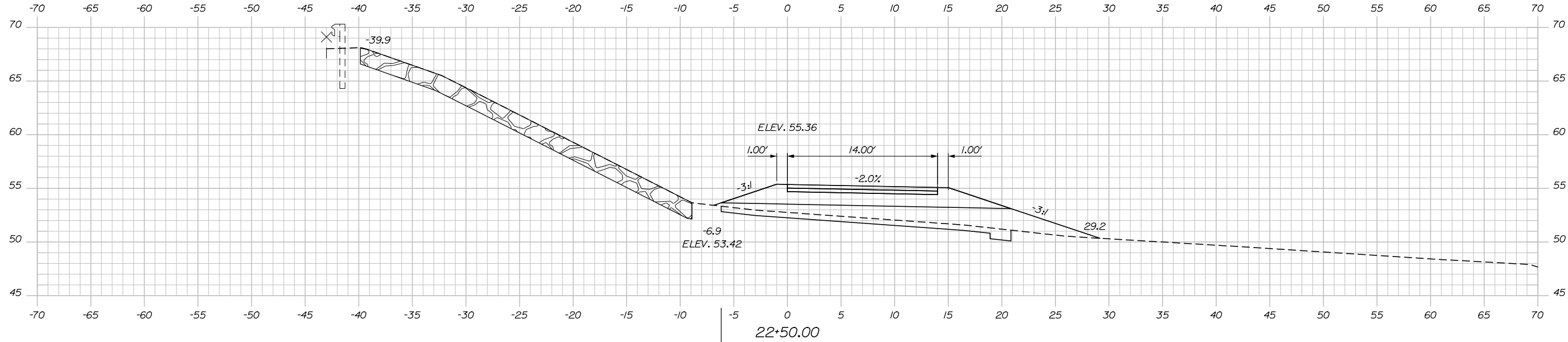
CONTRACT: 2018.16

SHEET NUMBER: XS-03

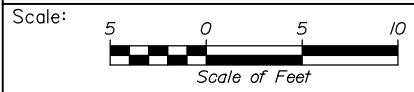
20 OF 37

Filename: Xsect_Northbound.dgn

Date: 6/1/2018



Filename: Xsect_Northbound.dgn



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THE GOLD STAR
 MEMORIAL HIGHWAY

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 NORTHBOUND RAMP CROSS SECTIONS
 STA. 22+00.00 TO STA. 22+50.00

| No. | Revision | By | Date |
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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| | By | Date | |
| Designed | AJS | 05\18 | Checked DAM 05\18 |
| Drawn | AJS | 05\18 | In Charge of RAL 05\18 |

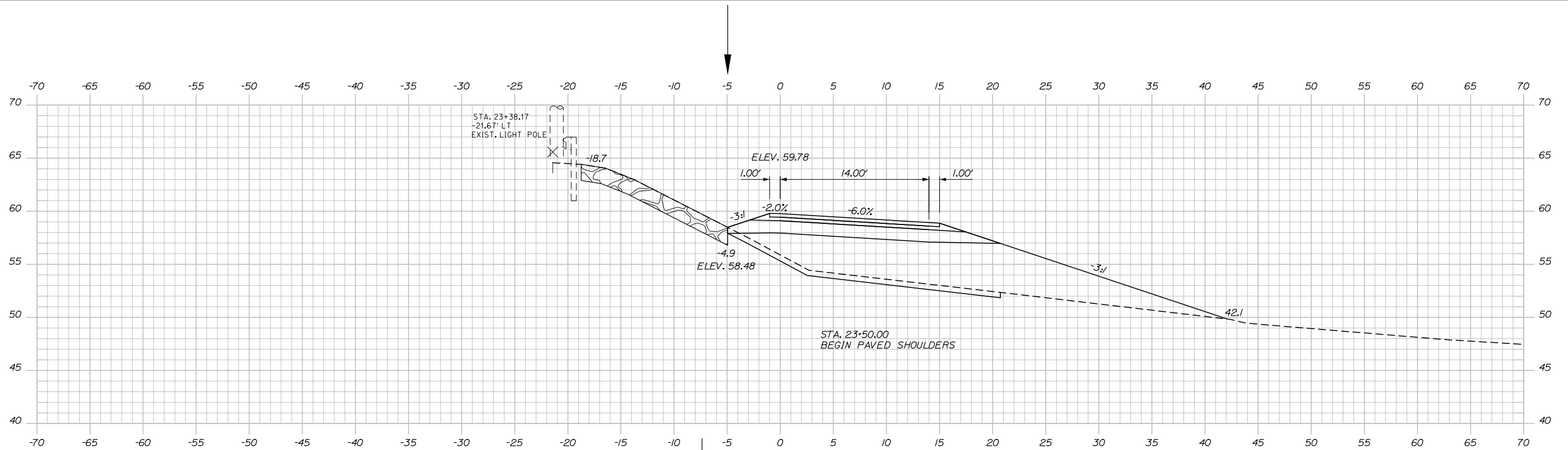
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

CONTRACT: 2018.16

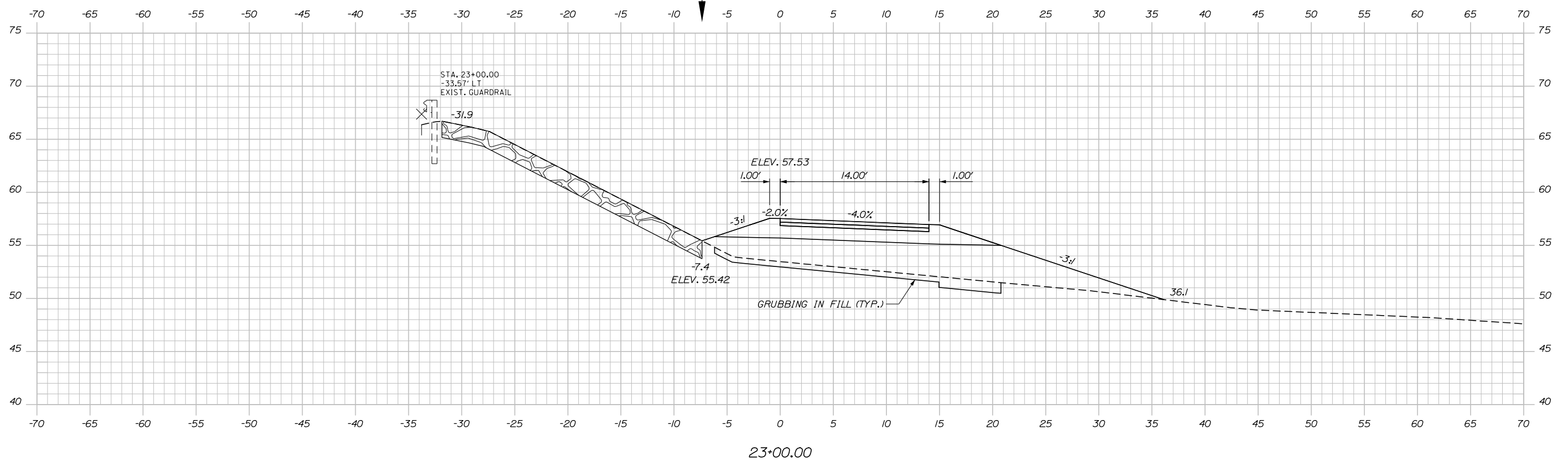
SHEET NUMBER: XS-04

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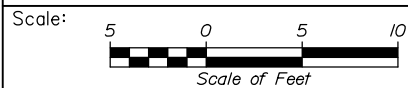
Date: 6/1/2018



23+50.00



23+00.00



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THE GOLD STAR
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BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMP
NORTHBOUND RAMP CROSS SECTIONS
STA. 23+00.00 TO STA. 23+50.00

| No. | Revision | By | Date |
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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| Designed | By | Date | Checked |
| Drawn | By | Date | In Charge of |
| | AJS | 05\18 | DAM 05\18 |
| | AJS | 05\18 | RAL 05\18 |

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

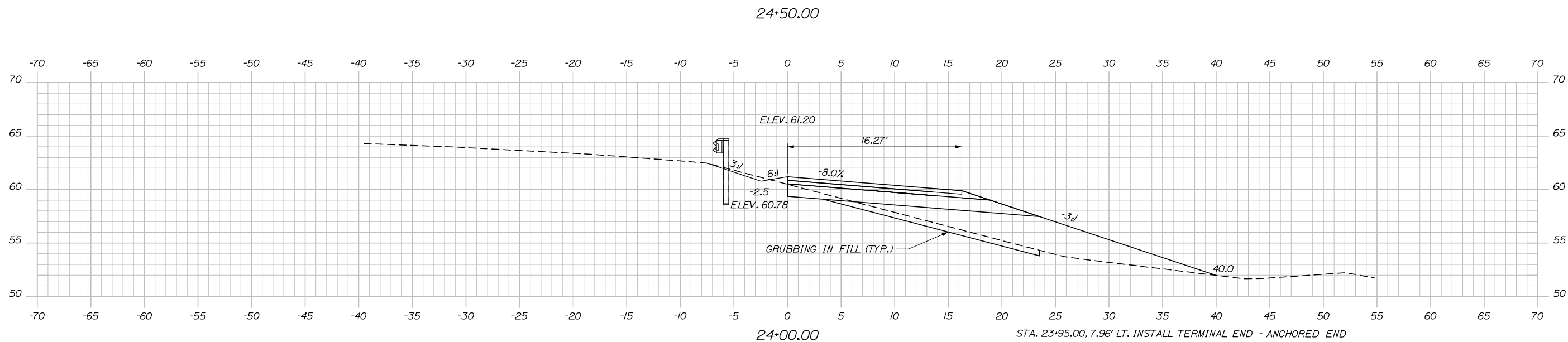
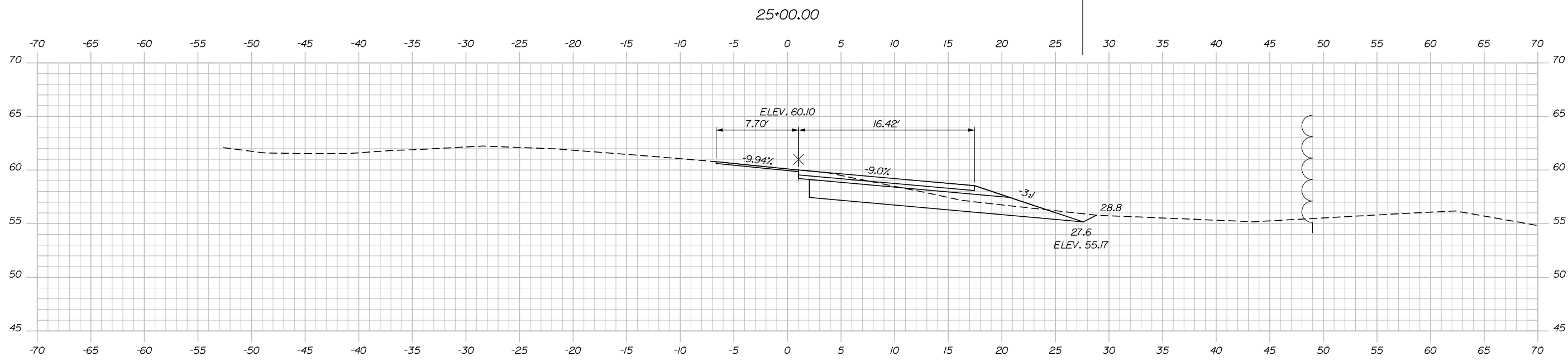
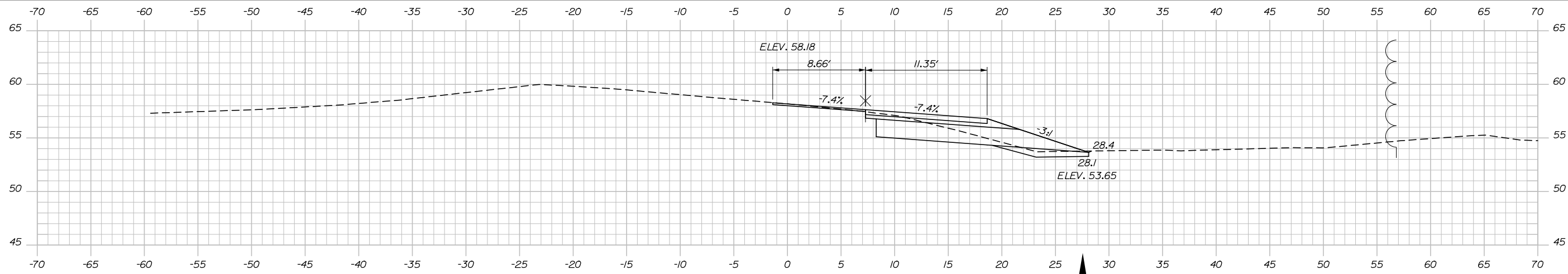
CONTRACT: 2018.16

SHEET NUMBER: XS-05

22 OF 37

Filename: Xsect_Northbound.dgn

Date: 6/1/2018



Scale: 5 0 5 10
Scale of Feet

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MAINE TURNPIKE

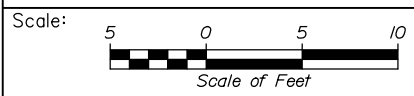
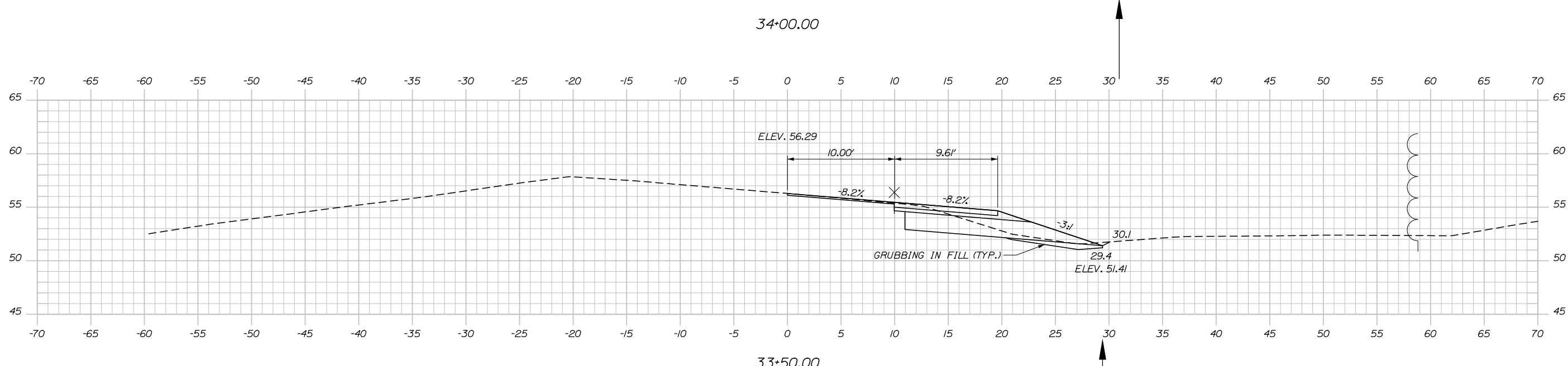
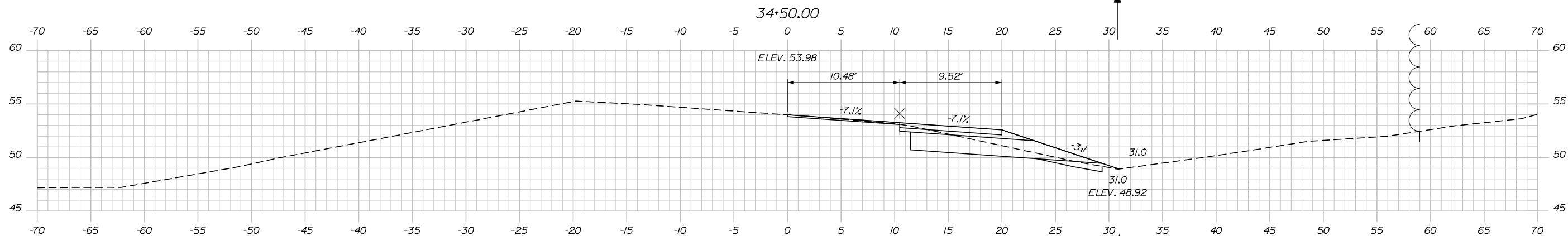
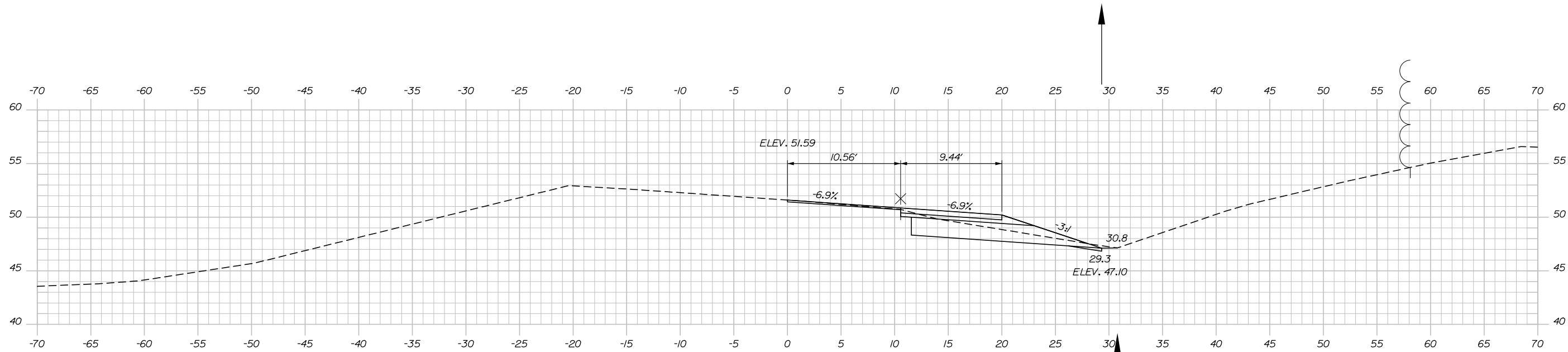
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
NORTHBOUND RAMP CROSS SECTIONS
STA. 24+00.00 TO STA. 25+00.00

SHEET NUMBER: XS-06
CONTRACT: 2018.16
23 OF 37

Date: 6/1/2018



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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | | | |
| | By | Date | By | Date | |
| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
| Drawn | AJS | 05\18 | In Charge of | RAL | 05\18 |

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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 NORTHBOUND RAMP CROSS SECTIONS
 STA. 33+50.00 TO STA. 34+50.00

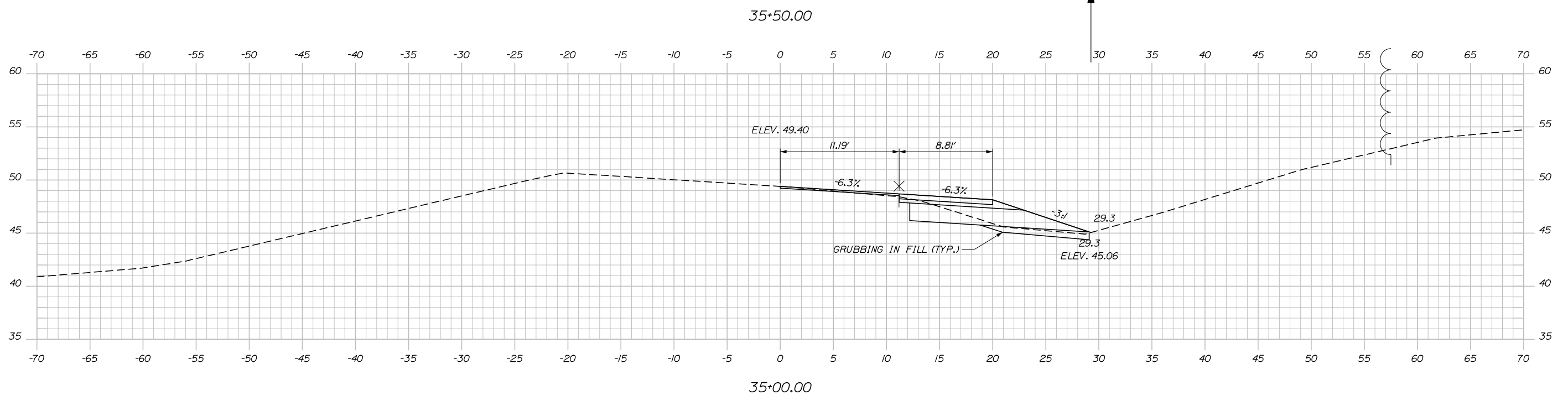
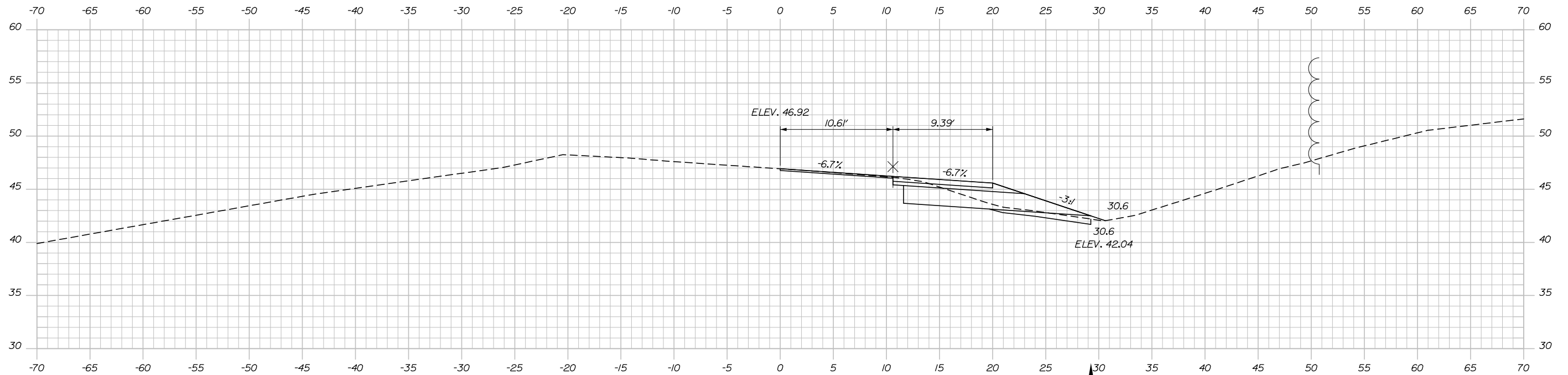
CONTRACT: 2018.16

SHEET NUMBER: XS-07

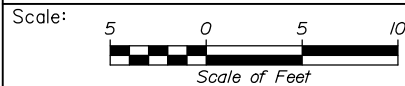
24 OF 37

Filename: Xsect_Northbound.dgn

Date: 6/1/2018



Filename: Xsect_Northbound.dgn



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THE GOLD STAR
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BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 NORTHBOUND RAMP CROSS SECTIONS
 STA. 35+00.00 TO STA. 35+50.00

| No. | Revision | By | Date |
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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| | By | Date | |
| Designed | AJS | 05\18 | Checked DAM 05\18 |
| Drawn | AJS | 05\18 | In Charge of RAL 05\18 |

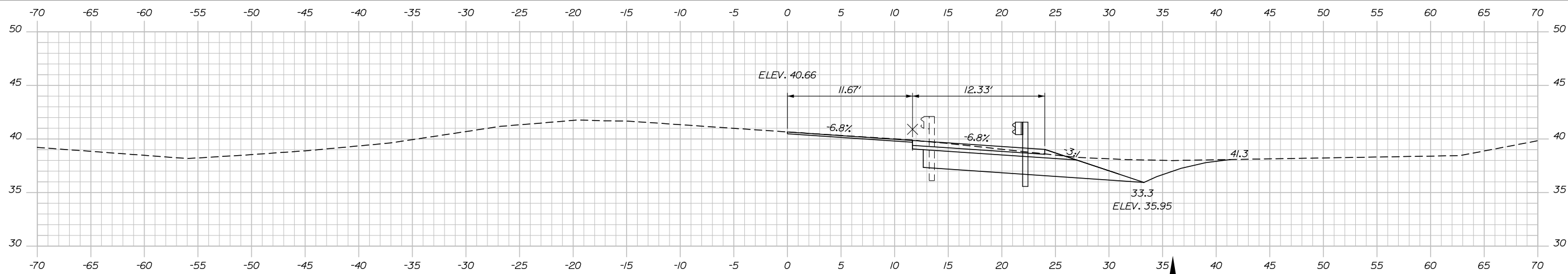
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

CONTRACT: 2018.16

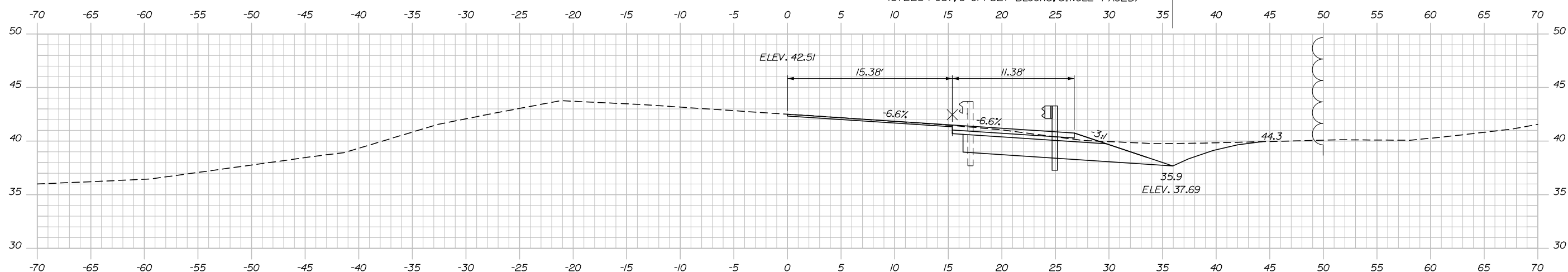
SHEET NUMBER: XS-08

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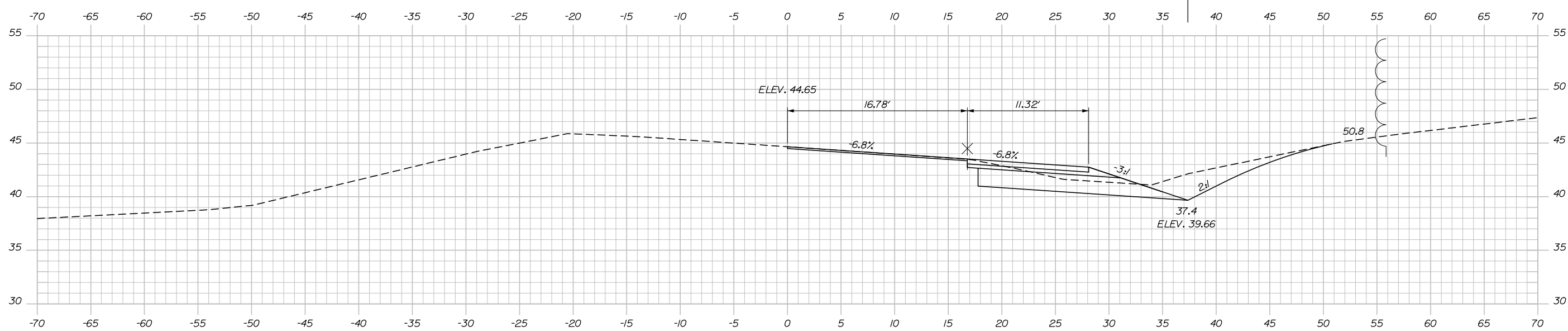
Date: 6/1/2018



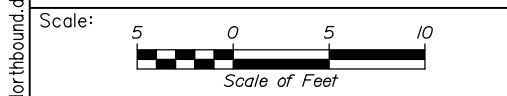
37+00.00
 STA. 36+74.20, 21' RT. TO STA. 39+36.37, 22.2' RT.
 INSTALL 31" W-BEAM GUARDRAIL - MID-WAY SPLICE
 (STEEL POST, 8" OFFSET BLOCKS, SINGLE FACED)



36+50.00
 STA. 36+33.74, 25.0' RT. TO STA. 36+74.20, 21.0' RT.
 INSTALL 31" W-BEAM GUARDRAIL - MID-WAY
 SPLICE FLARED TERMINAL



36+00.00



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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 NORTHBOUND RAMP CROSS SECTIONS
 STA. 36+00.00 TO STA. 37+00.00

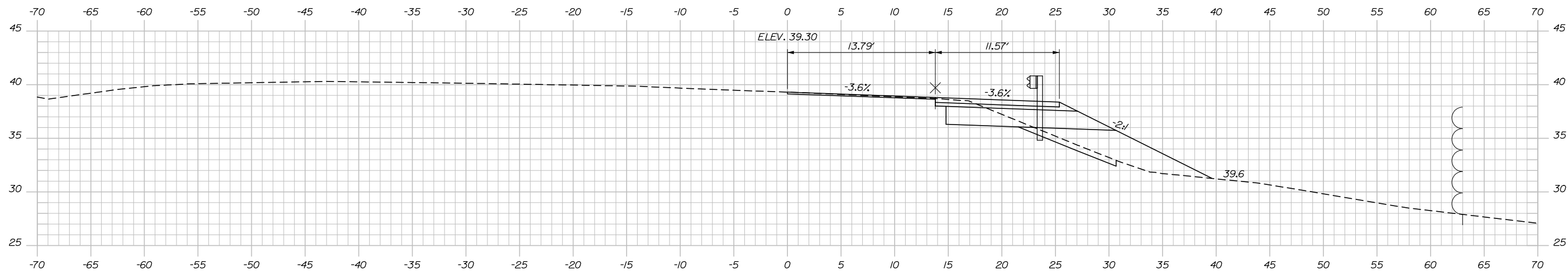
CONTRACT: 2018.16

SHEET NUMBER: XS-09

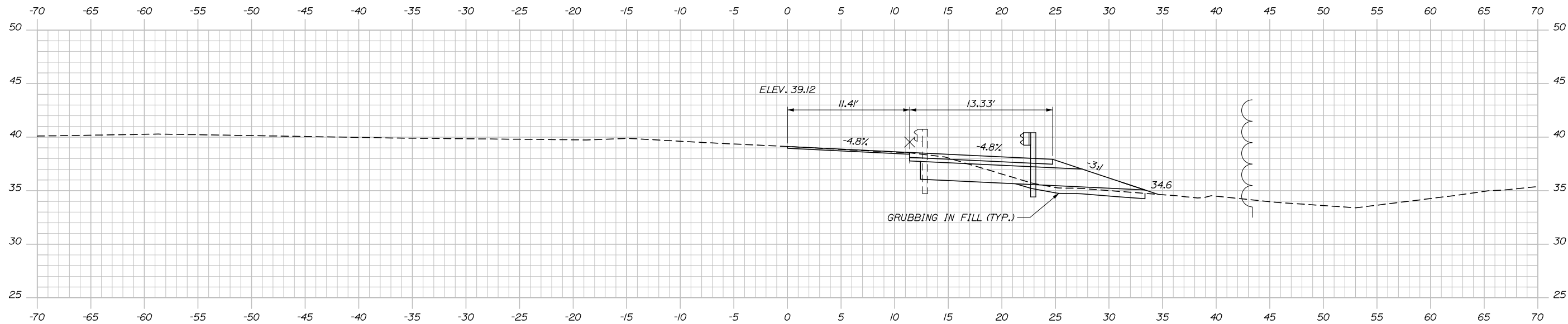
26 OF 37

Filename: Xsect_Northbound.dgn

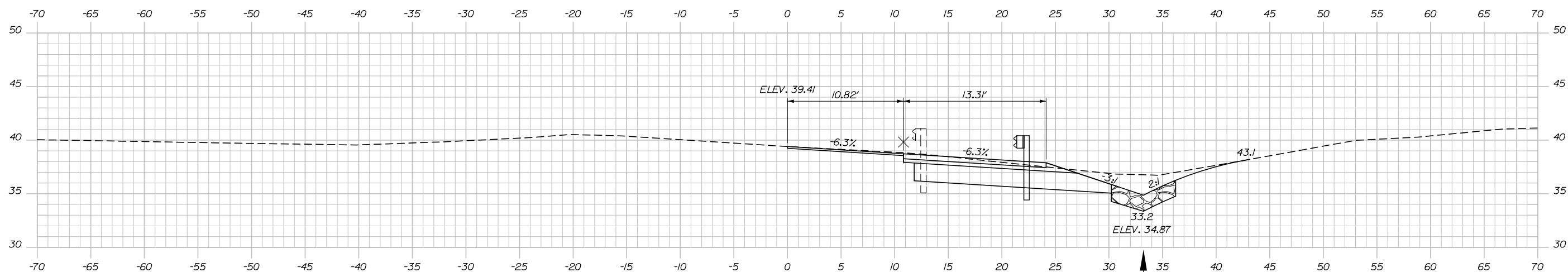
Date: 6/1/2018



38+50.00

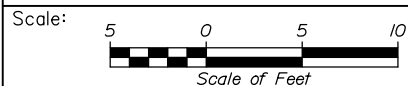


38+00.00



37+50.00

STA. 37+50.00, RT. TO STA. 37+84.22, RT
INSTALL STONE DITCH PROTECTION



| No. | Revision | By | Date |
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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | Checked | By | Date |
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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

**BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
NORTHBOUND RAMP CROSS SECTIONS
STA. 37+50.00 TO STA. 38+50.00**

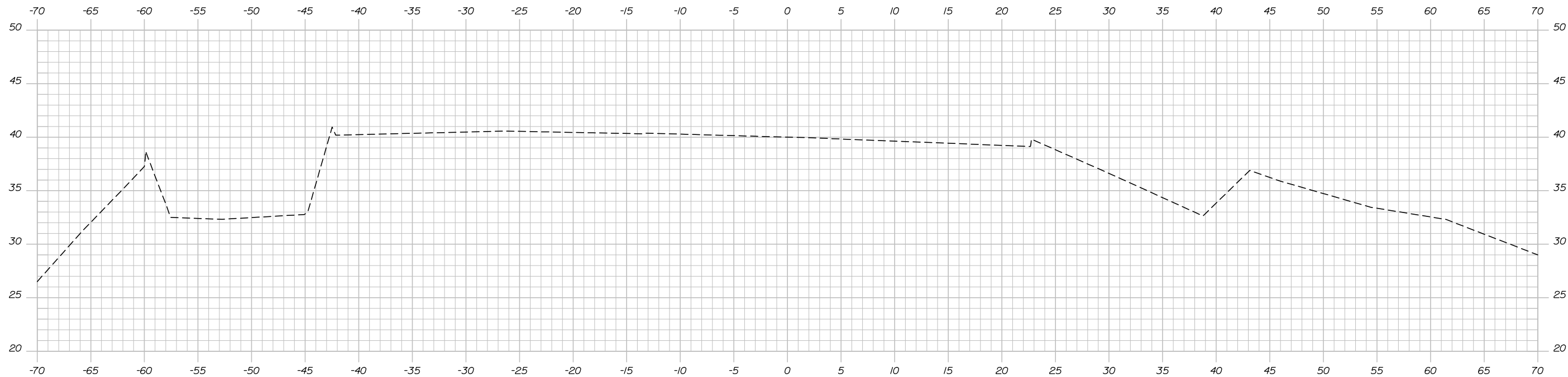
CONTRACT: 2018.16

SHEET NUMBER: XS-10

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Filename: Xsect_Northbound.dgn

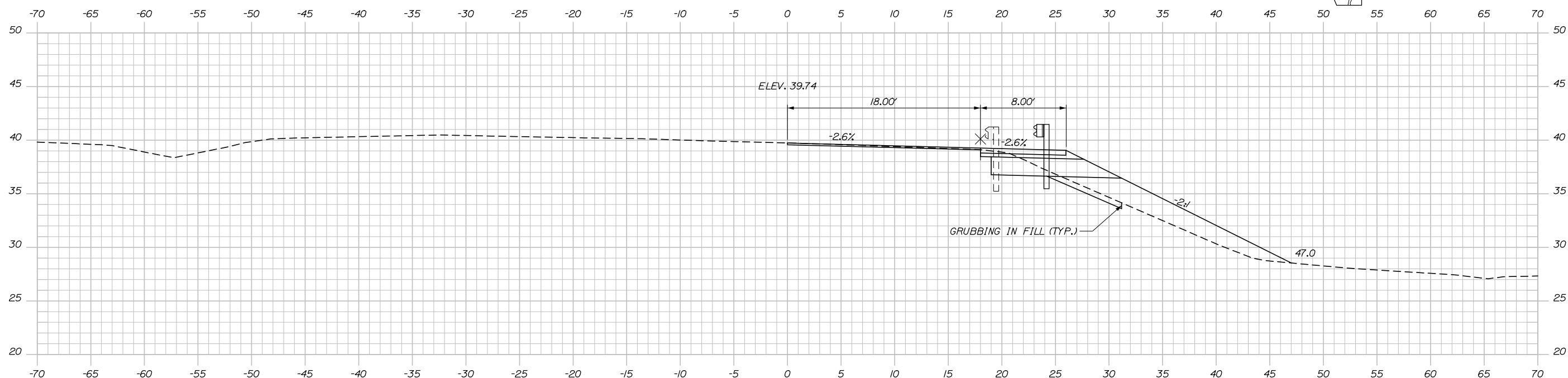
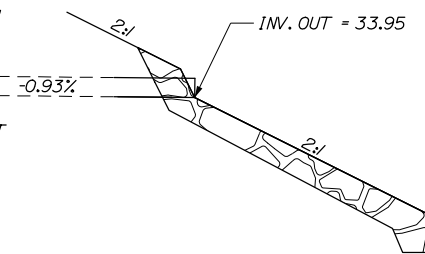
Date: 6/1/2018



39+50.00

STA. 39+37.00
END FULL DEPTH CONSTRUCTION
MATCH EXISTING PAVEMENT
LIMIT OF WORK

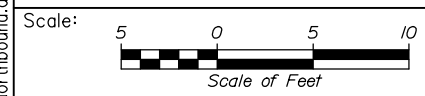
STA. 39+3.64, 35.54' RT. TO STA. 39+3.12, 39.51' RT
INSTALL 4' X 12' RCP CLASS III CULVERT PIPE
RIPRAP OUTLET AND RIPRAP DOWNSPOUT



39+00.00

STA. 39+36.37, 22.2' RT. CONNECT TO EXISTING BRIDGE TRANSITION.
SEE GUARDRAIL NOTE 5 ON GENERAL NOTE SHEET.

Filename: Xsect_Northbound.dgn



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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

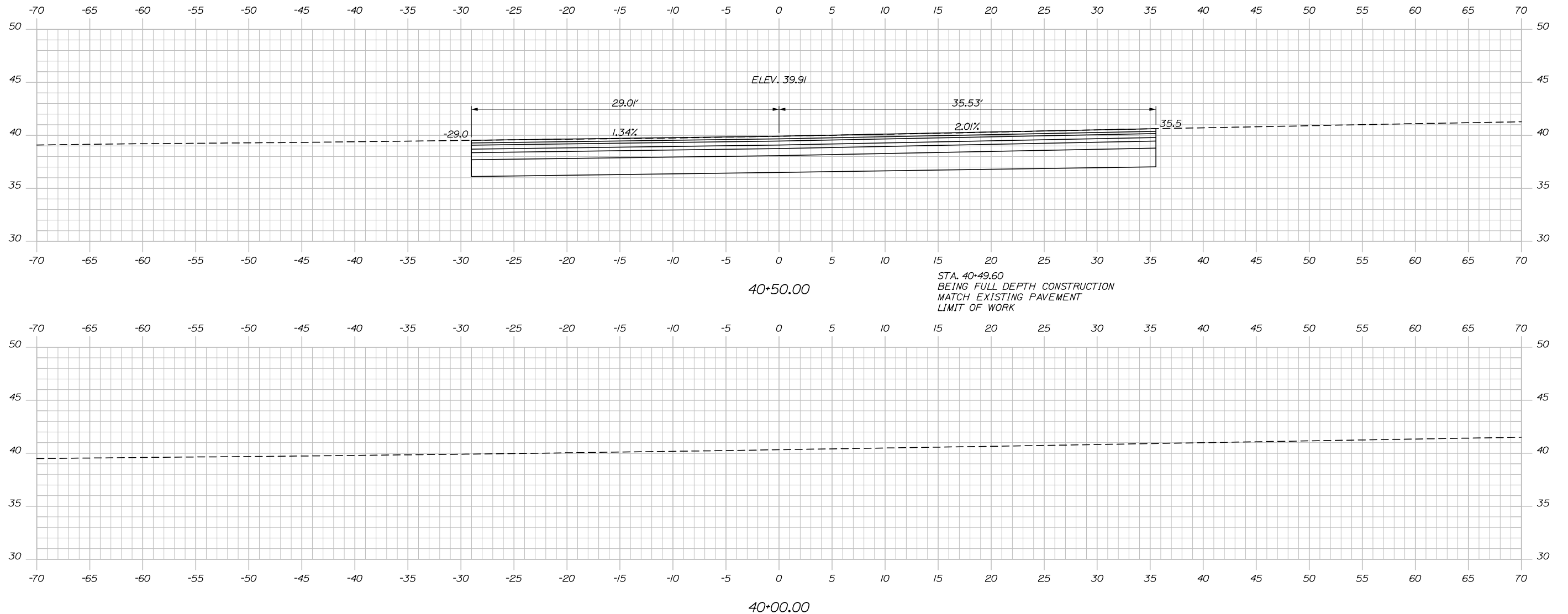
BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS
NORTHBOUND RAMP CROSS SECTIONS
STA. 39+00.00 TO STA. 39+50.00

CONTRACT: 2018.16

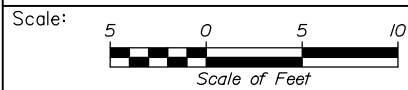
SHEET NUMBER: XS-11

28 OF 37

Date: 6/1/2018



Filename: Xsect_Southbound.dgn



| No. | Revision | By | Date |
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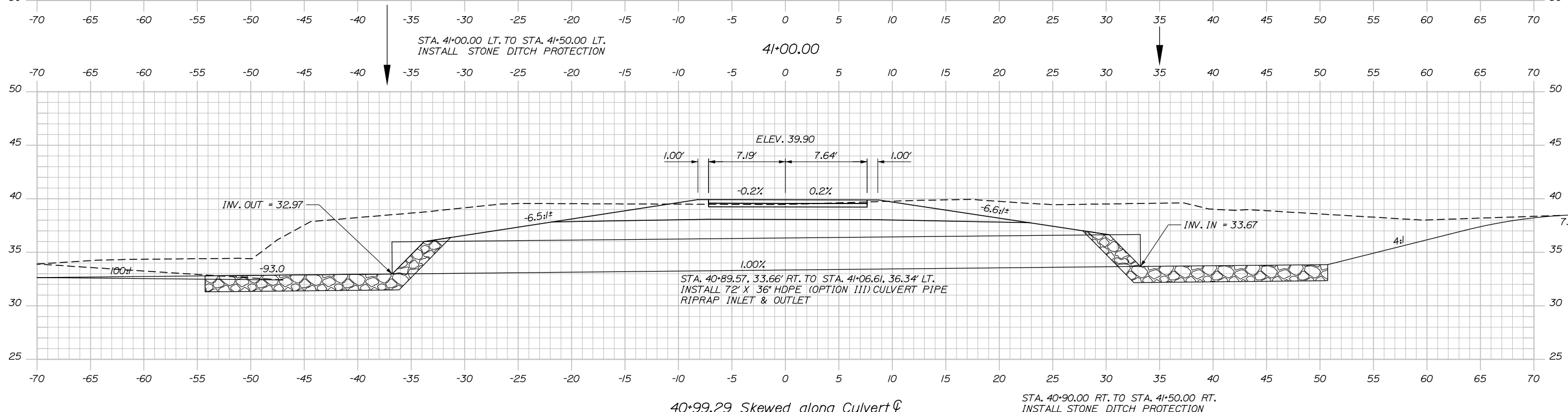
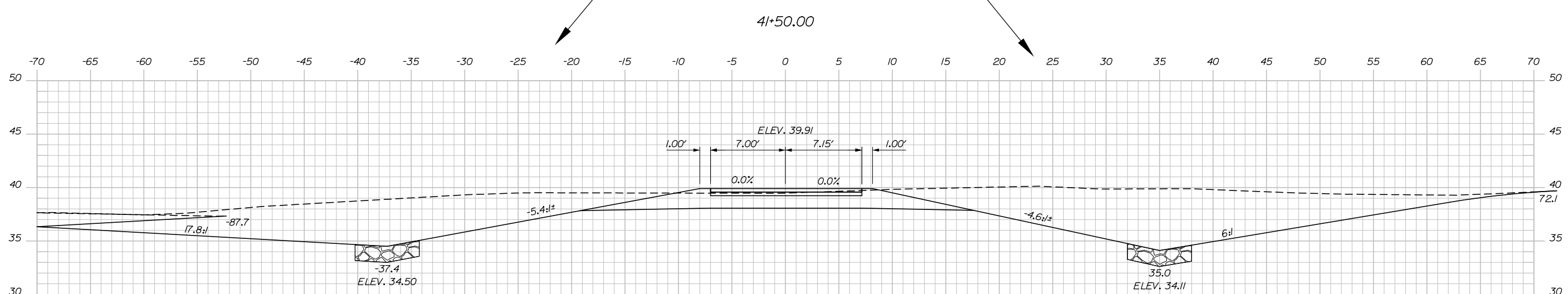
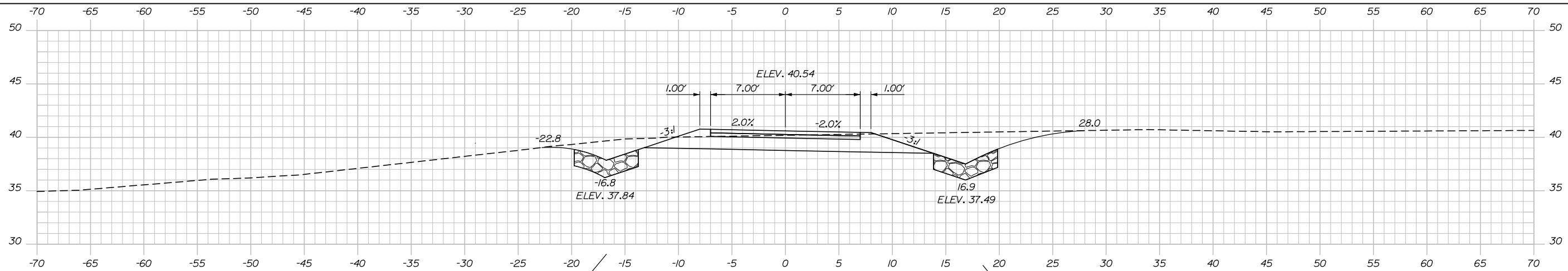
**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMPS
 SOUTHBOUND RAMP CROSS SECTIONS
 STA. 40+00.00 TO STA. 40+50.66

SHEET NUMBER: XS-12
 CONTRACT: 2018.16
 29 OF 37

Date: 6/1/2018



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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

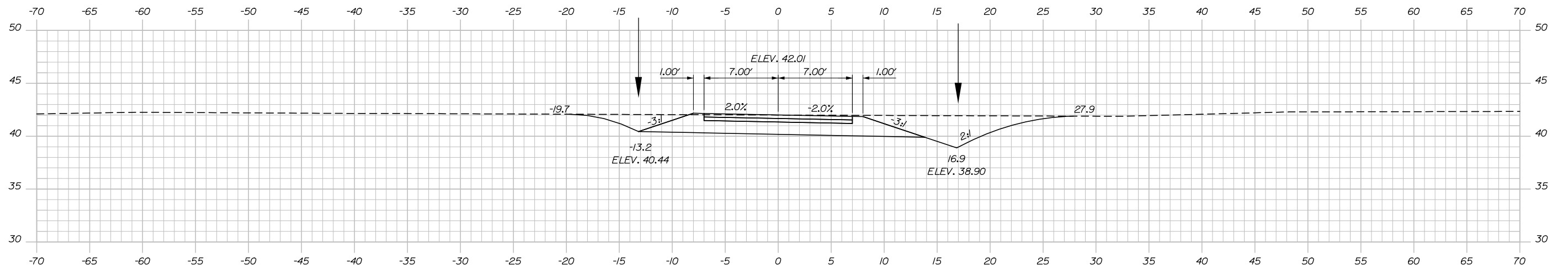
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMP
 SOUTHBOUND RAMP CROSS SECTIONS
 STA. 40+99.29 TO STA. 41+50.00

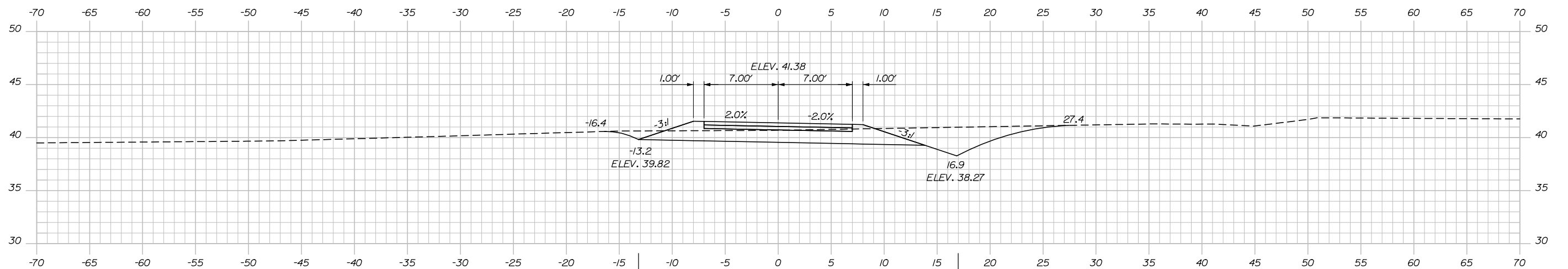
SHEET NUMBER: XS-13
 CONTRACT: 2018.16
 30 OF 37

Filename: Xsect_Southbound.dgn

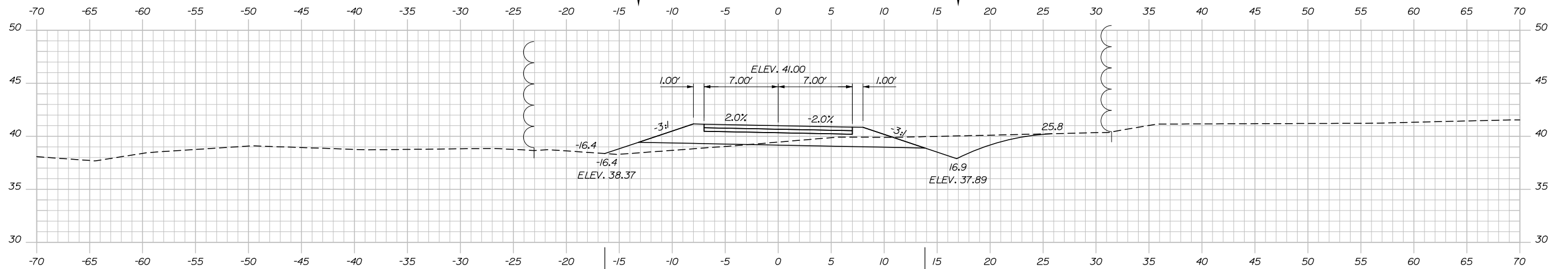
Date: 6/1/2018



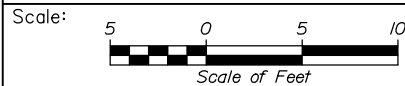
43+00.00



42+50.00



42+00.00



Designed by:



HNTB CORPORATION
 340 County Road, Suite 6-C
 Westbrook, ME 04092
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THE GOLD STAR
 MEMORIAL HIGHWAY

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMP
 SOUTHBOUND RAMP CROSS SECTIONS
 STA. 42+00.00 TO STA. 43+00.00

| No. | Revision | By | Date |
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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| | By | Date | |
| Designed | AJS | 05\18 | Checked DAM 05\18 |
| Drawn | AJS | 05\18 | In Charge of RAL 05\18 |

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

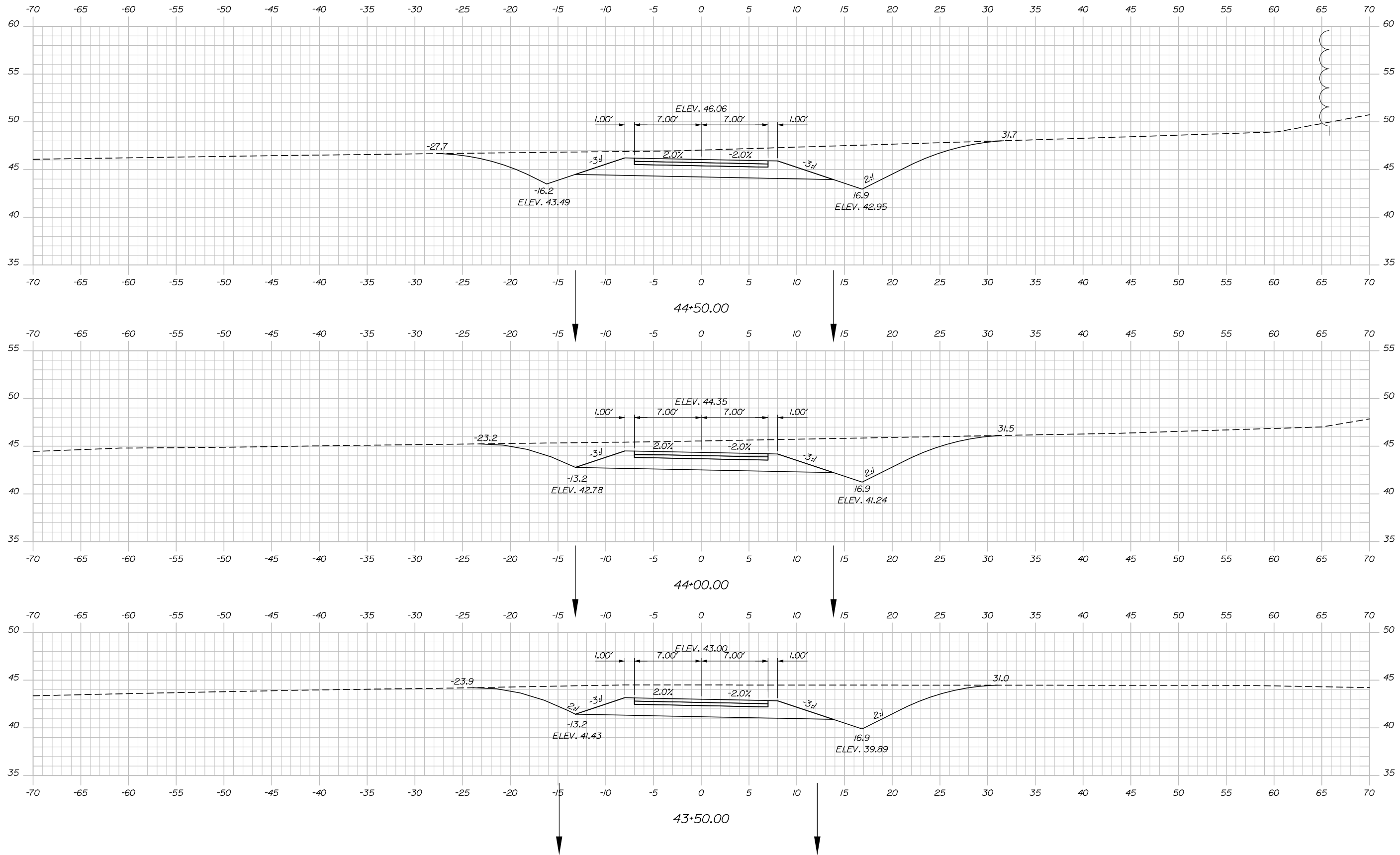
CONTRACT: 2018.16

SHEET NUMBER: XS-14

31 OF 37

Filename: Xsect_Southbound.dgn

Date: 6/1/2018



Filename: Xsect_Southbound.dgn



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THE GOLD STAR
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BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMP
 SOUTHBOUND RAMP CROSS SECTIONS
 STA. 43+50.00 TO STA. 44+50.00

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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | | | |
| | By | Date | | By | Date |
| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
| Drawn | AJS | 05\18 | In Charge of | RAL | 05\18 |

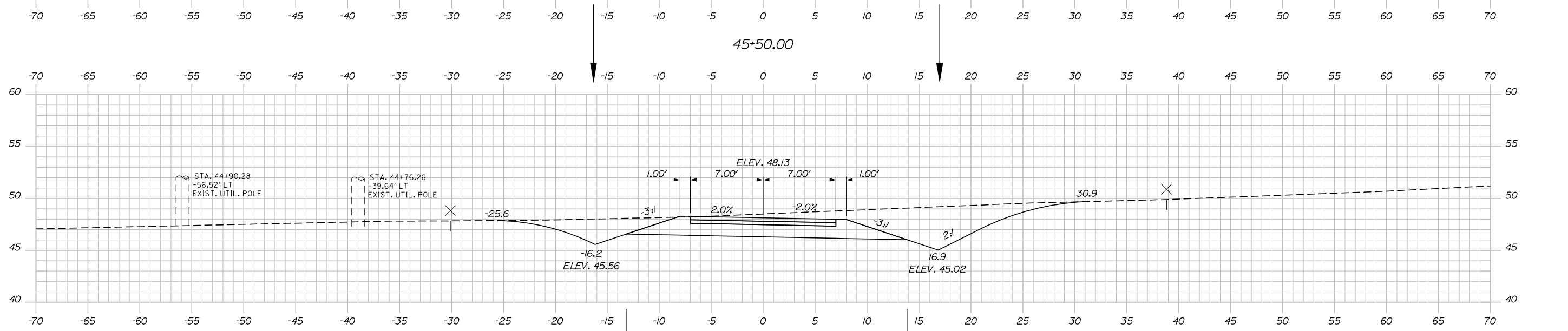
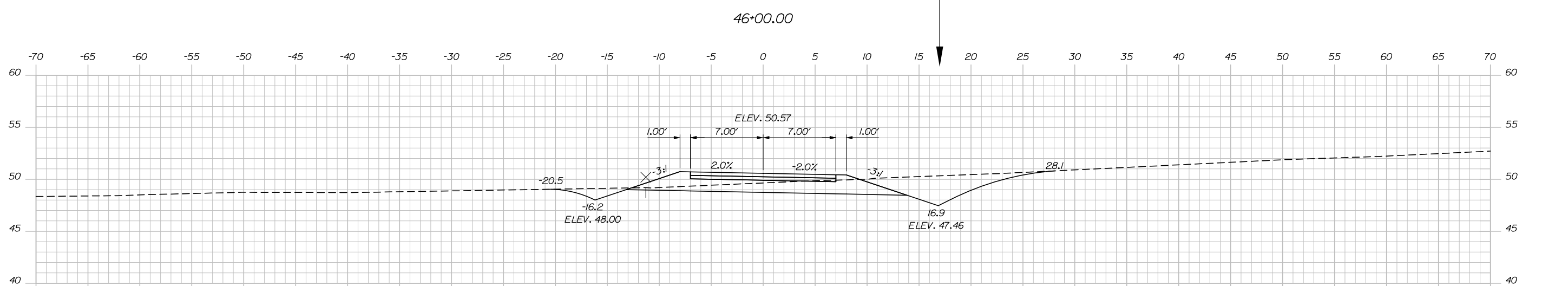
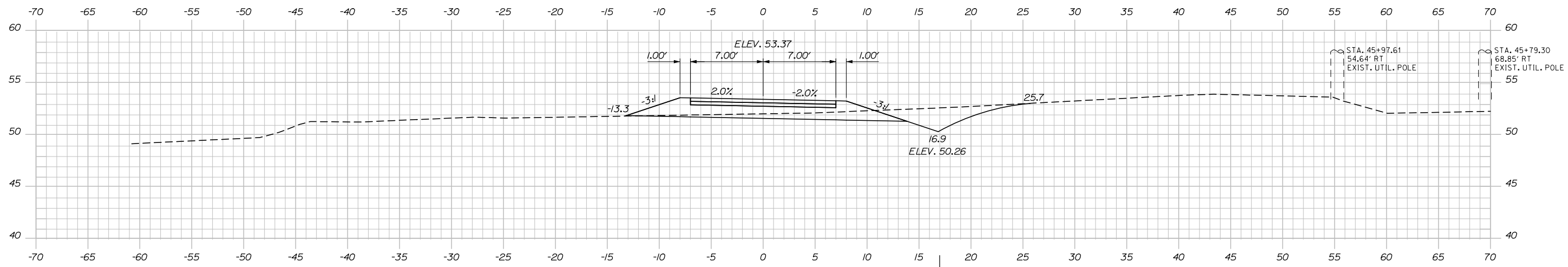
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

CONTRACT: 2018.16

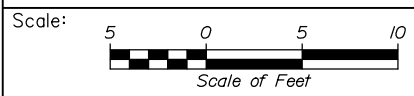
SHEET NUMBER: XS-15

32 OF 37

Date: 6/1/2018



Filename: Xsect_Southbound.dgn



Designed by:

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| No. | Revision | By | Date |
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| | By | Date | | By | Date |
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| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
| Drawn | AJS | 05\18 | In Charge of | RAL | 05\18 |

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MAINE TURNPIKE

THE GOLD STAR MEMORIAL HIGHWAY

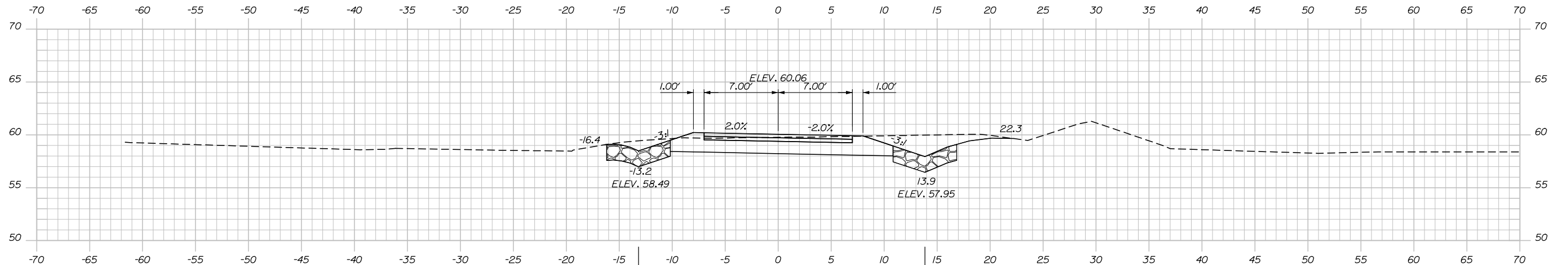
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMP
 SOUTHBOUND RAMP CROSS SECTIONS
 STA. 45+00.00 TO STA. 46+00.00

SHEET NUMBER: XS-16
 33 OF 37

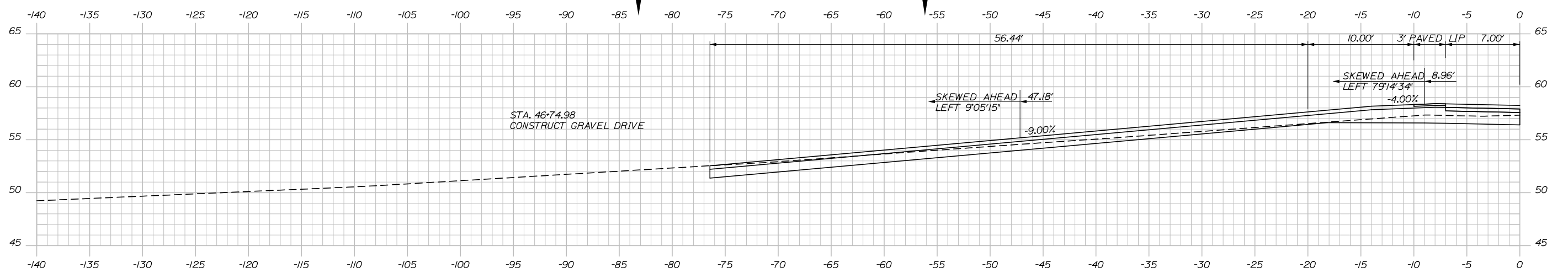
CONTRACT: 2018.16

Date: 6/1/2018



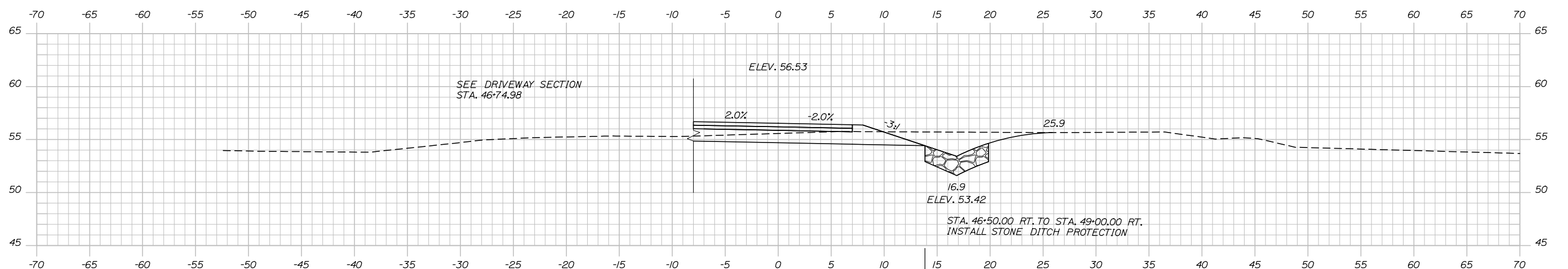
STA. 46+50.00 LT. TO STA. 49+00.00 LT.
INSTALL STONE DITCH PROTECTION

47+00.00



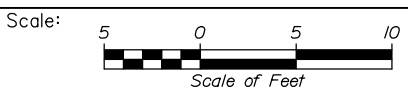
STA. 46+74.98
CONSTRUCT GRAVEL DRIVE

46+74.98



SEE DRIVEWAY SECTION
STA. 46+74.98

46+50.00



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THE GOLD STAR
MEMORIAL HIGHWAY

BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMP
SOUTHBOUND RAMP CROSS SECTIONS
STA. 46+50.00 TO STA. 47+00.00

| No. | Revision | By | Date |
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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| Designed | AJS | 05\18 | Checked |
| Drawn | AJS | 05\18 | In Charge of |
| | | | DAM |
| | | | RAL |
| | | | 05\18 |

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

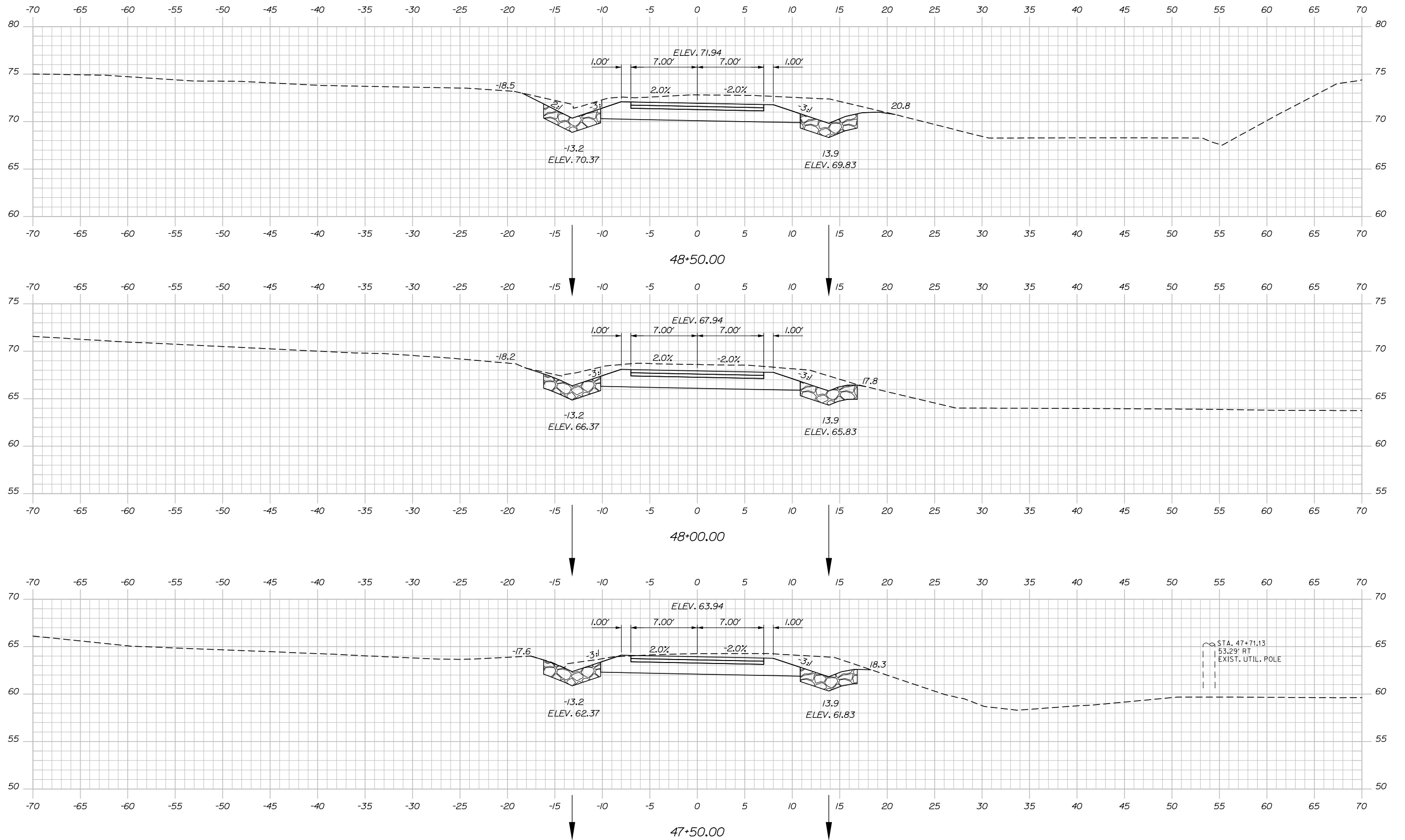
CONTRACT: 2018.16

SHEET NUMBER: XS-17

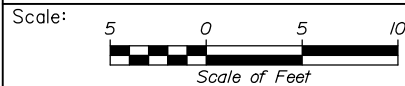
34 OF 37

Filename: Xsect_Southbound.dgn

Date: 6/1/2018



Filename: Xsect_Southbound.dgn



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THE GOLD STAR
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BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMP
 SOUTHBOUND RAMP CROSS SECTIONS
 STA. 47+50.00 TO STA. 48+50.00

| No. | Revision | By | Date |
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| CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E. | | | |
| | By | Date | |
| Designed | AJS | 05\18 | Checked DAM 05\18 |
| Drawn | AJS | 05\18 | In Charge of RAL 05\18 |

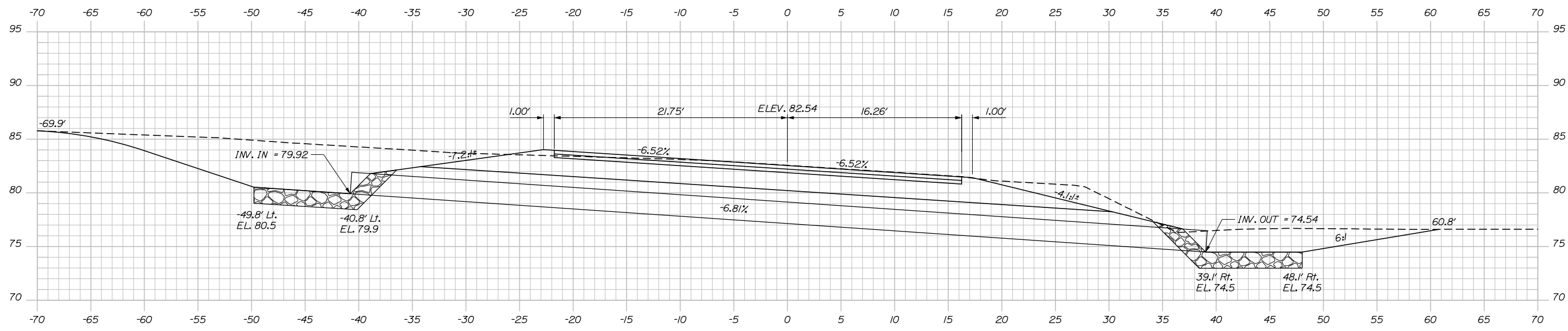
MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

CONTRACT: 2018.16

SHEET NUMBER: XS-18

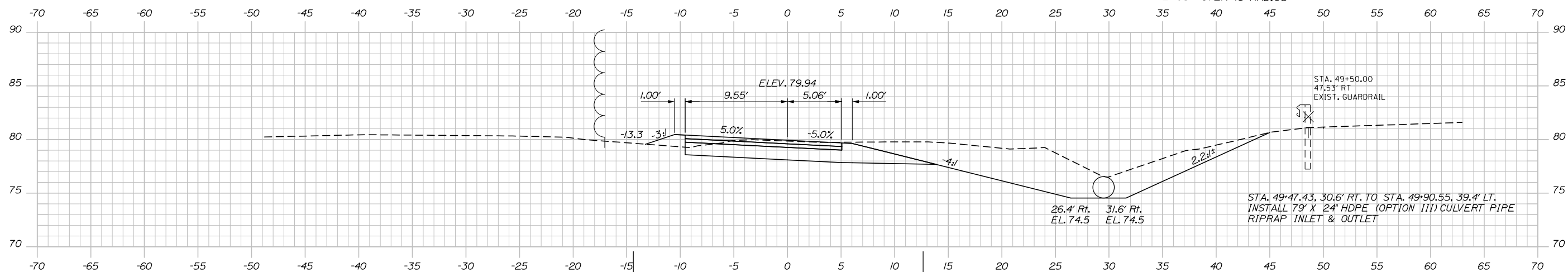
35 OF 37

Date: 6/1/2018



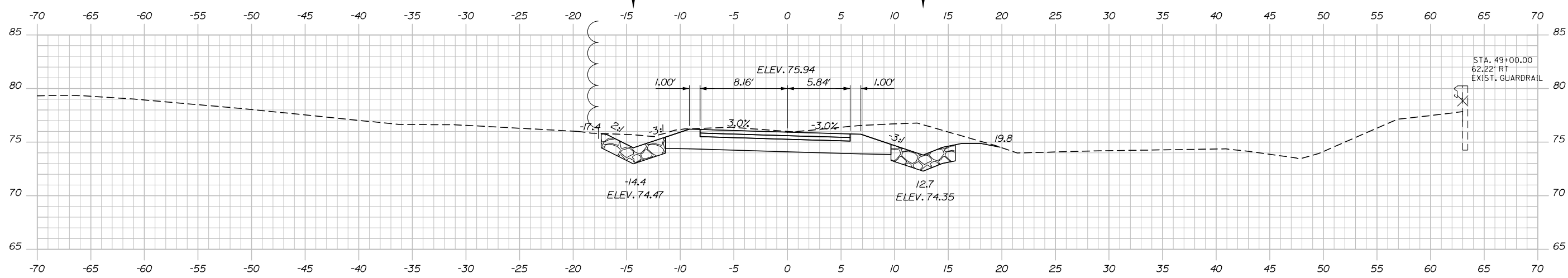
49+82.61 Skewed along Culvert \hat{C}

STA. 49+79.27, 22.2' RT. TO STA. 49+74.10, 46.6' RT.
INSTALL GUARDRAIL TYPE 3d - OVER 15' RADIUS



49+50.00

STA. 49+50.00, 11.2' RT. TO STA. 49+50.00, 42.2' RT.
INSTALL PLAIN RIPRAP



49+00.00

Scale:

| No. | Revision | By | Date |
|-----|----------|----|------|
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Designed by:

HNTB

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | Checked | By | Date |
|----------|-----|-------|--------------|-----|-------|
| Designed | AJS | 05\18 | | DAM | 05\18 |
| Drawn | AJS | 05\18 | In Charge of | RAL | 05\18 |

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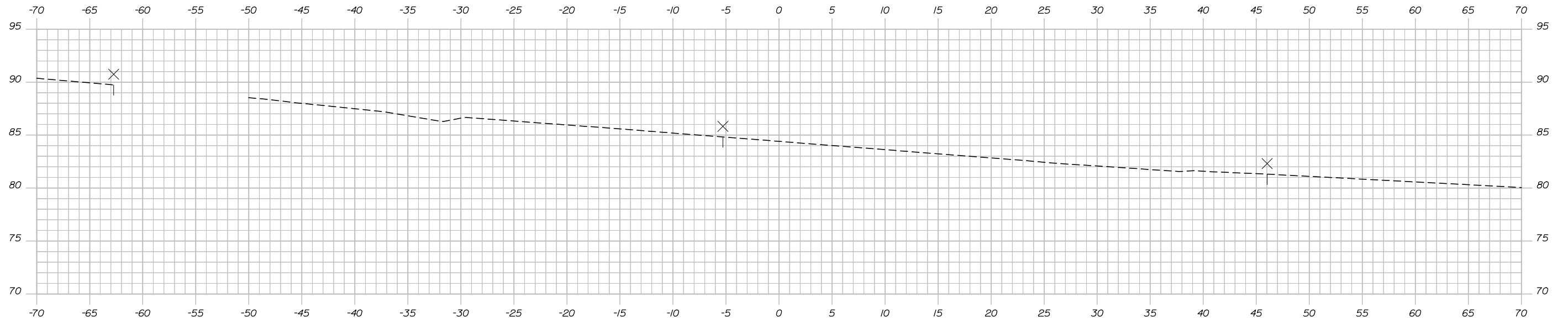

**THE GOLD STAR
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

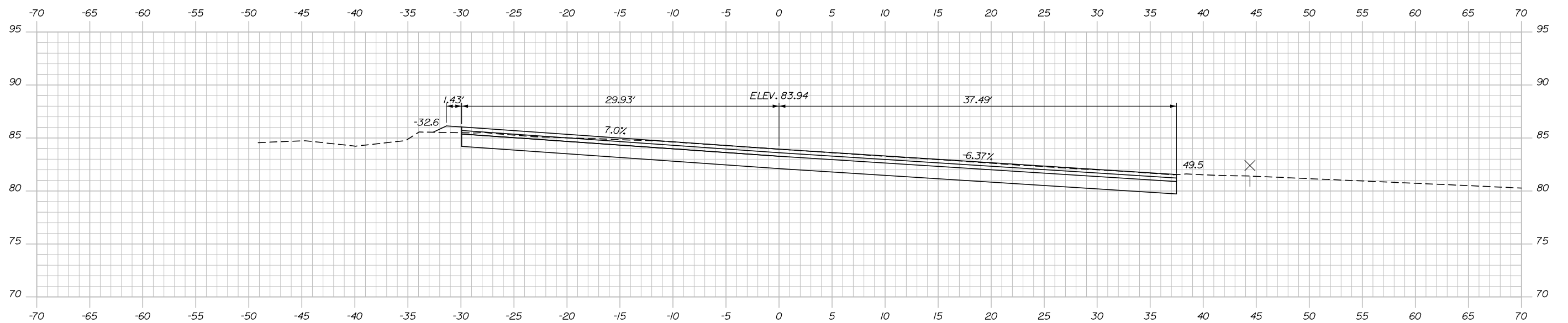
**BLACKSTRAP ROAD
EMERGENCY VEHICLE RAMPS**
 SOUTHBOUND RAMP CROSS SECTIONS
 STA. 49+00.00 TO STA. 49+82.61
 SHEET NUMBER: XS-19
 CONTRACT: 2018.16

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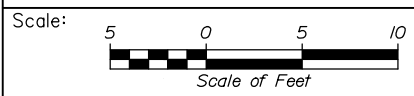
Date: 6/1/2018



50+05.91
 STA. 50+05.91
 END FULL DEPTH CONSTRUCTION
 MATCH EXISTING PAVEMENT
 LIMIT OF WORK



Filename: Xsect_Southbound.dgn



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| No. | Revision | By | Date |
|-----|----------|----|------|
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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

| | By | Date | Checked | By | Date |
|----------|-----|-------|--------------|-----|-------|
| Designed | AJS | 05\18 | Checked | DAM | 05\18 |
| Drawn | AJS | 05\18 | In Charge of | RAL | 05\18 |

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**THE GOLD STAR
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph Norwood IV, P.E., PTOE

BLACKSTRAP ROAD
 EMERGENCY VEHICLE RAMP
 SOUTHBOUND RAMP CROSS SECTIONS
 STA. 50+00.00 TO STA. 50+05.91

SHEET NUMBER: XS-20
 CONTRACT: 2018.16
 37 OF 37