# **MAINE TURNPIKE AUTHORITY**

# ADDENDUM NO. 6

# **CONTRACT 2022.07**

# SACO (EXITS 35 & 36) MM 34.7 TO MM 36.6

The bid opening date has been changed to Tuesday December 6, 2022 at 11:00 am.

The following changes are made to the Proposal, Specifications, and Plans.

# **GENERAL**

All questions regarding Contract 2022.07 shall be submitted by November 29, 2022 at 12:00 pm. Questions received after that time may not be answered.

# **PROPOSAL**

• N/A

# **SPECIAL PROVISIONS**

• Page SP-208, Section 620 DRAINAGE GEOTEXTILE (Impervious Liner): In pen and ink delete the first paragraph of Section 620.02 in its entirety and replace with the following:

The Impervious Liner shall consist of linear low-density polyethylene (LLDPE), or PVC with a minimum thickness of 30 mils.

# **PLANS**

- Plan Sheet 102 of 735, BARRIER DETAILS 1 NOTES, has been deleted in its entirety and replaced with Plan Sheet 102 of 735, included in this addendum.
- Plan Sheet 242 of 735, OVERHEAD SIGN FOUNDATION DETAILS (1 OF 3), has been deleted in its entirety and replaced with Plan Sheet 242 of 735, included in this addendum.
- Plan Sheet 724 of 735, TOLL ADMINISTRATION BUILDING ELECTRICAL POWER PLAN - SB, has been deleted in its entirety and replaced with Plan Sheet 724 of 735, included in this addendum.
- Plan Sheet 727 of 735, TOLL ADMINISTRATION BUILDING ELECTRICAL POWER PLAN - NB, has been deleted in its entirety and replaced with Plan Sheet 727 of 735, included in this addendum.

# **OUESTIONS**

1. Question: Sheets E101 and E201 have a note on the building saying "See Mechanical plans for Gutter Ice melt requirements" but the mechanical plans do not show any de-icing information.

**Answer:** The notes on Sheets E101 and E201 have been revised in Addendum No. 6 to refer to the plumbing plans and notes on E101.

2. Question: Does the sign support barrier shown on sheet 242 require any connection detail for connecting to future barrier?

**Answer**: Connection detail notes have been added in Addendum No. 6.

3. Question: How does the roadway curvature affect the Type A barrier spacing detail on sheet 102?

**Answer:** A note has been added to sheet 102 in Addendum No. 6 to require tapering the barrier ends as necessary to maintain the barrier spacing on curved alignments.

4. Question: The answer given to Question No.5 in Addendum 4 states "the numerical analysis of the predicted movements is necessary to be performed during the design process...as it will be used to help determine the necessary nail lengths, spacing, etc. and whether supplemental tie-backs are required..." The tie-backs are currently incidental to the Soil Nail Wall Construction pay item 636.411. As tie-backs are considered supplemental and the need for them is currently unknown and will not be known until the soil nail wall is designed, will the tie-backs be made a provisional bid item? If tie-backs remain incidental to pay item 636.411 the Owner will end up paying more to cover the Contractors' risk at the time of bidding due to the currently unknown need for tie-backs. Making them a provisional item reduces risk to the Contractor and Owner.

**Answer:** The tie-backs will remain incidental to the pay item 636.411.

5. Question: Special Provision 636 Design of Soil Nail Wall – what are the minimum required Factors of Safety for the soil nail wall design?

**Answer:** See Sheet number SN-01, Analysis and Design, Note 2. This note states: "The permanent soil nail retaining wall shall be designed in accordance with AASHTO LRFD Bridge Design Specifications, 9th Edition. The procedures contained in the Federal Highway Administration "Geotechnical Engineering Circular No.7, Soil Nail Walls Reference Manual, Report No. FHWA-NHI-14-007..." Please note that the soil nail wall shall be designed in accordance with the LRFD design methodology which uses a combination of load and resistance factors. The appropriate load and resistance factors

are contained in the above referenced documents. Safety factors are not used in the LRFD design methodology.

6. Question: Per Special Provision 636, Section 636.06, the Contractor "shall use cased drill holes." Can the Contractor select their own means & methods to maintain an open hole provided adequate nail pullout resistance is achieved?

**Answer:** The drill holes must be fully cased to prevent the boreholes from collapsing. This requirement intended to prevent collapsing boreholes which may cause excessive settlement of the active bridge abutments located above the proposed soil nail wall. Uncased boreholes will not be allowed.

7. Question: Per Special Provision 636, Section 636.083, "Excavation to the next lift shall not proceed until nail installation, reinforced shotcrete placement, attachment of bearing plates and nuts and nail testing has been completed and accepted in the current lift." Will the Resident provide adequate notice to the Contractor as to which soil nails will be proof tested and fully accommodate the Contractor's schedule so as not to cause delays to the construction sequence and excavation of the next lift?

**Answer:** The resident will work with the contractor to identify the locations of the proof tests so delays are not incurred.

8. Question: Per Special Provision 636, Section 636.086, "Testing equipment shall include three (3) dial gauges." The use of two (2) dial gauges is consistent with guidance provided by FHWA GEC 7. Will two (2) dial gauges be acceptable?

**Answer:** While we acknowledge that FHWA GEC 7 recommends two dial gauges using three gauges provides redundancy in case one gets disturbed or malfunctions. As per Special Provision 636, Section 636.086, three dial gauges shall be used during testing.

9. Question: Should the impervious liner called out on SP-208 be 30 mils and not 30 mm?

**Answer:** The SP has been revised in Addendum No. 6 to be 30 mils.

# **ATTACHMENTS**

• Plans (4 Pages)

#### BARRIER NOTES:

- I. FLUORESCENT YELLOW PCBM-TI2 BARRIER REFLECTORS SHALL BE INSTALLED ON TOP OF PROPOSED CONCRETE BARRIERS AT A SPACING OF 132'. PAYMENT SHALL BE INCIDENTAL TO THE ASSOCIATED 526 PAY ITEM AS NOTED IN THE SPECIAL PROVISION 645.
- 2. CLEAR PROTECTIVE COATING SHALL BE APPLIED TO ALL VERTICAL, SLOPED, AND TOP SURFACES OF CONCRETE BARRIER AND BARRIER TRANSITION PIECES, INCLUDING BARRIER ENDS, IN ACCORDANCE WITH SPECIAL PROVISION 515. CLEAR PROTECTIVE COATING FOR CONCRETE BARRIER AND BARRIER TRANSITION PIECES SHALL BE INCIDENTAL TO THE ASSOCIATED 526 PAY ITEM.
- 3. EXCAVATION AND GRANULAR BORROW BEDDING MATERIAL FOR INSTALLATION OF ALL BARRIER AND ASSOCIATED TRANSITIONS SHALL NOT BE MEASURED SEPARATELY, BUT SHALL BE INCIDENTAL TO THE ASSOCIATED 526 PAY ITEM.
- 4. THE TOP OF THE BARRIER SHALL BE FLUSH ACROSS ALL JOINTS. THE TOP OF THE BARRIER, EXCEPT AS REQUIRED AT HEIGHT TRANSITIONS, SHALL BE PARALLEL TO THE PAVEMENT SURFACE AT EDGE OF TRAVELWAY.
- 5. SCREW PIN SHALL BE SECURED WITH AN APPROVED THREAD LOCK MATERIAL DURING FINAL ASSEMBLY.
- 6. A D-SHACKLE SHALL BE ATTACHED TO EACH I-BEAM.

### STRUCTURAL NOTES:

- I. PRIOR TO FABRICATING THE PRECAST CONCRETE BARRIER, THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS OF THE PROPOSED BARRIER LAYOUT AND ITS COMPONENTS IN ACCORDANCE WITH SPECIAL PROVISION 526.
- 2. REINFORCING SCHEDULES FOR BARRIER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, PAYMENT FOR ALL WORK ASSOCIATED WITH DEVELOPING THE REINFORCEMENT SCHEDULES WILL BE CONSIDERED INCIDENTAL TO THE ASSOCIATED 526 PAY ITEM.
- 3. ALL BARRIER REINFORCING STEEL SHALL HAVE A MINIMUM COVER OF 3 INCHES AT THE ENDS OF BARRIER SEGMENTS, AND  $2^{\prime}_{2}$  INCHES OF COVER ELSEWHERE, EXCEPT AS OTHERWISE NOTED.
- 4. ALL PROPOSED BARRIER CONNECTION COMPONENTS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM AI23 OR AI53 AS APPLICABLE.
- 5. ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" CHAMFER UNLESS NOTED OTHERWISE.

#### BARRIER LAYOUT NOTES:

- I. CONCRETE BARRIER TYPE A SHALL BE CONSTRUCTED ALONG THE EXIT 35 NORTHBOUND PLAZA & FROM STA. 618+00.00 TO STA. 625+07.75, 7.0' RT.
- 2. CONCRETE BARRIER TYPE C GUARDRAIL TRANSITION BARRIER SHALL BE CONSTRUCTED AT EITHER END OF THE SOIL NAIL WALL ALONG THE SOUTHBOUND C-D ROADWAY & FROM STA. 2743-05.13 TO STA. 2743-19.63, 28.0' LT. AND STA.

2745:94,63 TO STA 2746:09.13, 28.0' LT.

\( \begin{align\*} \lambda \) 3. THE CONTRACTOR SHALL TAPER ENDS OF BARRIER AS NECESSARY WITHIN CURVED ALIGNMENTS TO ACCOMMODATE THE JOINT SPACING SHOWN IN THE BARRIER CONNECTION DETAIL ON SHEET 103.

#### 526.351 - CONCRETE BARRIER - TYPE A

STA. 618+00, RT. TO STA. 625+08, RT. 715 Li

526.368 - CONCRETE BARRIER - TYPE C GUARDRAIL TRANSITION BARRIER

STA. 2743+05, LT. TO STA. 2743+20, LT.

STA. 2745+95, LT. TO STA. 2746+09, LT. / E/

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# THE GOLD STAR MEMORIAL HIGHWAY

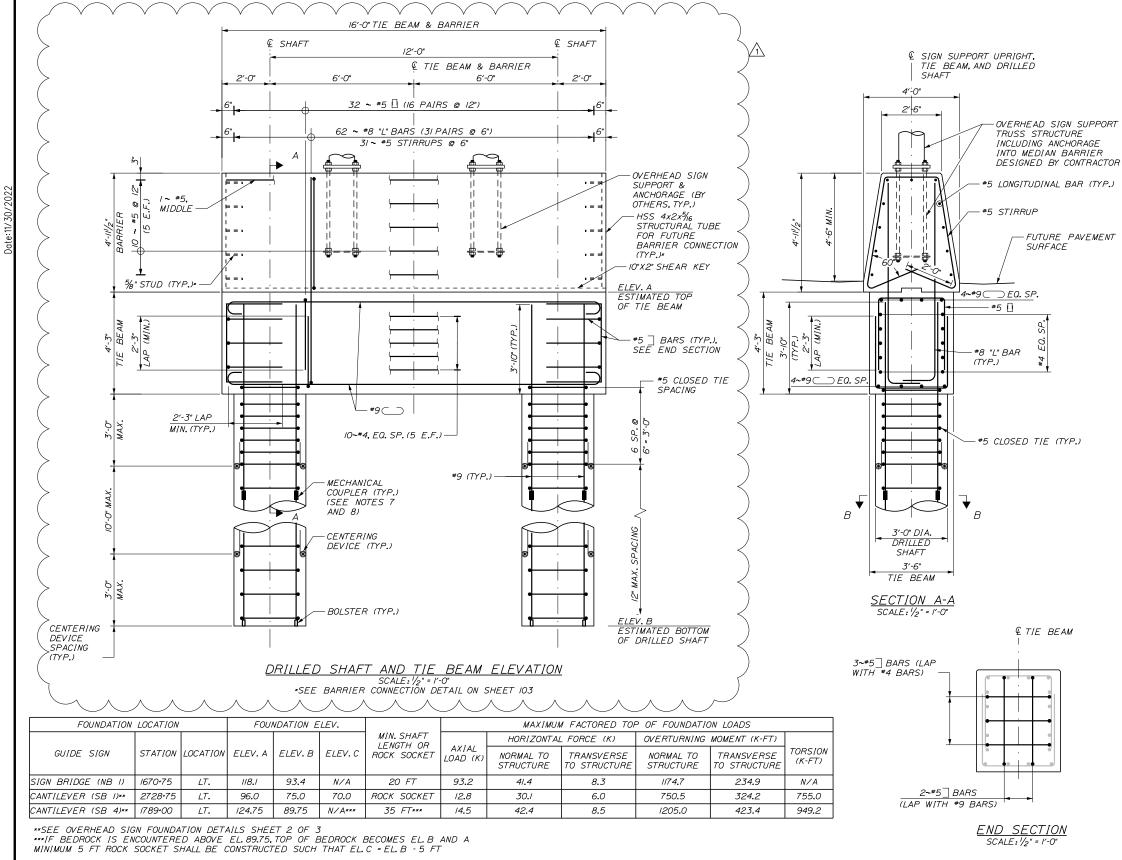
INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) BARRIER DETAILS 1 NOTES

SHEET NUMBER: DET-04

MTA PROJECT MANAGER: RYAN BARNES, PE. CPESC

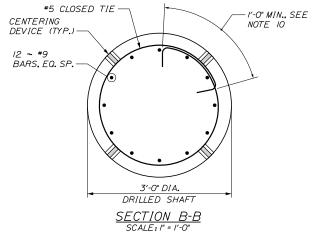
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CONTRACT:2022.07



### DRILLED SHAFT AND TIE BEAM NOTES

- I. SEE OVERHEAD SIGN FOUNDATION DETAILS 2 OF 3 FOR OVERHEAD SIGN STRUCTURE FOUNDATION NOTES.
- 2. ADJUST LONGITUDINAL REINFORCING IN TIE BEAM TO AVOID ANCHOR BOLTS AND SHAFT REINFORCING.
- 3. THESE FOUNDATIONS HAVE BEEN DESIGNED USING THE ASSUMED MAXIMUM TOP OF FOUNDATION LOADS SHOWN IN THE TABLE BELOW. THE LOADS FROM THE OVERHEAD SIGN STRUCTURE SHALL NOT EXCEED THE LOADS SHOWN.
- 4. CONTRACTOR SHALL DETERMINE FINAL TOP OF TIE BEAM ELEVATIONS BASED ON 2'-O' MINIMUM TIE BEAM EMBEDMENT SHOWN IN SECTION A-A. 'ELEV. A' IN THE TABLE BELOW HAS BEEN ASSUMED FOR FOUNDATION DESIGN PURPOSES AND MAY BE SUBJECT TO CHANGE PENDING DESIGN OF THE OVERHEAD SIGN SUPPORT TRUSS STRUCTURE. IF THE FINAL TOP OF TIE BEAM ELEVATION IS BELOW 'ELEV. A', THE MINIMUM SHAFT LENGTHS SHOWN IN THE TABLE (MEASURED FROM THE BOTTOM OF THE TIE BEAM) ARE TO BE MAINTAINED.
- 5. CENTERING DEVICES SHALL BE CONSTRUCTED OF AN APPROVED NON-METALLIC DURABLE MATERIAL AND SHALL BE OF ADEQUATE SIZE TO INSURE A MINIMUM OF 3" ANNULAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCEMENT CAGE AND THE SIDES OF THE EXCAVATED HOLE OR INSIDE OF CASING.
- 6. EACH VERTICAL BAR SHALL BE SUPPORTED BY A 3" HIGH BOLSTER OF APPROVED NON-METALLIC DURABLE MATERIAL.
- 7. IF NEEDED, MECHANICAL COUPLERS SHALL BE IN ACCORDANCE WITH SUBSECTION 503.07 AND SHALL BE CONSIDERED INCIDENTAL TO THE SIGN STRUCTURE FOUNDATION.
- 8. WELDING OF THE REINFORCEMENT BARS SHALL NOT BE PERMITTED.
- 9. LENGTHS OF THE VERTICAL REINFORCEMENT MAY VARY AT EACH DRILLED SHAFT FOUNDATION NEAR BEDROCK AND DEPEND ON ACTUAL BEDROCK ELEVATIONS, BAR LENGTHS SHALL BE LONG ENOUGH TO PROVIDE THE MINIMUM TIE BEAM EMBEDMENT DEPTHS OR CLEARANCES TO TOP OF SHAFT SHOWN
- IO. HOOKS AT THE ENDS OF CLOSED CIRCULAR TIES SHALL ENGAGE A VERTICAL BAR. OVERLAPS AT ENDS OF CIRCULAR TIES SHALL BE STAGGERED ALONG LENGTH OF REBAR CAGE.
- II. REINFORCING STEEL SHALL HAVE A MINIMUM CONCRETE COVER OF 3 INCHES UNLESS OTHERWISE NOTED.



CENTERING DEVICE (TYP.)—	NOTE 10
12 ~ #9 BARS, EQ. SP.	
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SEC7	<u> [ION B-B</u> .E: /" = /'-0"

<b>Stantec</b>
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THE GOLD STAR **MEMORIAL HIGHWAY** 

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) OVERHEAD SIGN FOUNDATION DETAILS (1 OF 3)

SHEET NUMBER: SS-37

MTA PROJECT MANAGER: RYAN BARNES, PE. CPESC

CONTRACT:2022.07

1.2. & 4 12384 BREAK ROOM 2P NEMA 1 250V HD 30A FUSED INTERIOR WALL UNI EXTERIOR 1,2, & 4 28A 208V 1PH 60HZ 2P, NEMA 1, 250V, HD, 30A FUSED 1,2, & 4 RECEPTACLE VIA 15A BREAKER 1 & 2 1.3A, 120V, 1PH, 60HZ WALL HEATER 750W, 120V, 1PH, 60HZ DISCONNECT PROVIDED WITH UNIT STORAGE WALL HEATER 2.85 750W, 120V, 1PH, 60HZ ELECTRIC BASE BOARD 103 BREAK ROOM 2, 4 & 5 BREAK ROOM 250W, 208V, 1PH, 60HZ DISCONNECT PROVIDED WITH UNIT BREAK ROOM 2, 4 & 5 1250W, 208V, 1PH, 60HZ 2P, NEMA 1, 250V, HD, 30A FUSED 1,2, & 3 4500W, 208V, 1PH, 60HZ

PROVIDE PROPERLY SIZED FUSES (MATCH EQUIPMENT NAMEPLATE TYPICAL FOR EACH DISCONNECT

- 2. ALL MECHANICAL EQUIPMENT SHALL HAVE HACR TYPE BREAKERS
- 3. LOCATE DISCONNECTS ABOVE ACCUSTICAL TILE CEILING PER NEC 240.24
- LOCATE DISCONNECTS WITHIN LINE OF SIGHT AND READILY ACCESSIBLE FROM THE EQUIPMENT.
- 5. UNIT SUPPLIED WITH MANUFACTUERER SUPPLIED DISCONNECT.

# **HEAT TRACE NOTES:**

- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR FOR INSTALLATION OF DE-ICING SYSTEM AT ADMIN BUILDING GUTTERS AND TOLLING ROOF DRAINS. ELECTRICAL CONTRACTOR TO PROVIDE POWER FOR EACH CABLE LENGTH, WIRING BETWEEN AND THE TWO CABLE LENGTHS AND WIRING TO A SPST SWITCH WITH PILOT LIGHT MOUNTED WITHIN THE TOLL UTILITY ROOM. PROVIDE CONTROLLER WITH BUILT—IN GF OR FEED VIA BREAKER WITH GROUND FAULT.
- HEAT TRACE SHALL BE SELF REGULATING TYPE CONSISTING OF TWO 16 AWG TINNED—COPPER BUS WIRES EMBEDDED IN PARALLEL IN A SELF REGULATING POLYMER CORE THAT VARIES ITS POWER OUTPUT TO RESPOND TO TEMPERATURE ALL ALONG ITS LENGTH, ALLOWING THE HEATER TO BE CROSSED OVER ITSELF WITHOUT OVERHEATING. THE HEATER SHALL BE COVERED BY A RADIATION CROSS—LINKED MODIFIED POLYOLEFIN DIELECTRIC JACKET.
- 3. THE SYSTEM SHALL ALSO INCLUDE:
- TYPE 10BTV2 HEATERS 120 VAC
  POWER CONNECTIONS TYPE PMKG-LP
  END SEALS TYPE PMKG-LE
  THERMOSTAT IN NEMA 4X ENCLOSURE TYPE AMC-F5
  2" THICK PVC INSULATION WITH WEATHERPROOF
  ALUMINUM SHIELD.

ALL COMPONENTS SHALL BE EQUAL TO RAYCHEM CORP., INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

SOUTHBOUND

ĕ Scale: Designed by: **Stantec** By Date JRH 11/22 No. Re Re Re REVISED NOTE CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E. Ву 10/22 Checked 10/22 Designed In Charge of LEM MLC 10/22 10/22

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THE GOLD STAR **MEMORIAL HIGHWAY** 

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL ADMINISTRATION BUILDING ELECTRICAL POWER PLAN - SB

SHEET NUMBER: E101

CONTRACT: 2022.07

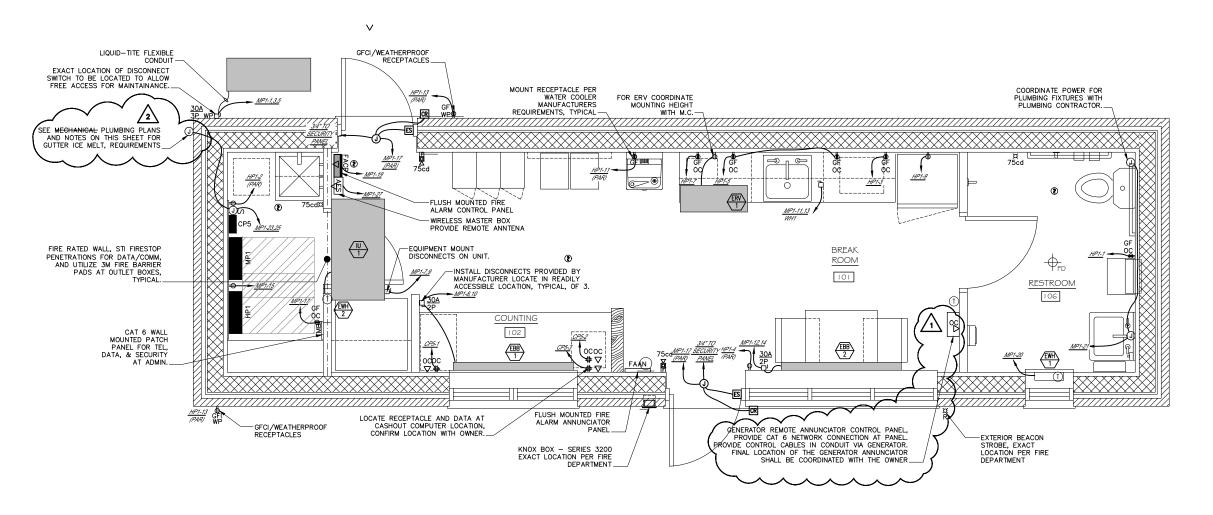
Contract 2022.07 Addnedum No. 6 Page 6 of 7

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

# **HEAT TRACE NOTES:**

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- 3. THE SYSTEM SHALL ALSO INCLUDE:
  - TYPE 10BTV2 HEATERS 120 VAC

  - POWER CONNECTIONS TYPE PMKG-LP
    END SEALS TYPE PMKG-LE
    THERMOSTAT IN NEMA 4X ENCLOSURE TYPE AMC-F5
    2" THICK PVC INSULATION WITH WEATHERPROOF
- ALL COMPONENTS SHALL BE EQUAL TO RAYCHEM CORP., INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S



NORTHBOUND

Contract 2022.07 Addnedum No. 6 Page 7 of 7

Scale: Designed by: Stantec Revision By Date
SHOW GEN ANNUN. ADD NOTE MLC 11/22 REVISED NOTE JRH 11/22 CONSULTANT PROJECT MANAGER: LAUREN MEEK, P.E. Ву 10/22 10/22 Checked Designed In Charge of LEM MLC 10/22

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THE GOLD STAR **MEMORIAL HIGHWAY** 

INTERCHANGE IMPROVEMENTS SACO (EXITS 35 & 36) TOLL ADMINISTRATION BUILDING ELECTRICAL POWER PLAN - NB

SHEET NUMBER: E201

MTA PROJECT MANAGER: RYAN BARNES, PE, CPESC

CONTRACT: 2022.07

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