

STATE OF MAINE DEPARTMENT OF TRANSPORTATION 16 STATE HOUSE STATION AUGUSTA, MAINE 04333-0016

Bruce A. Van Note

November 9, 2023

Subject: Bridge Construction

State WIN: 025631.01 Location: Medway Amendment No. 3

Dear Sir/Ms.:

CHANGE on page 14 "NOTICE TO CONTRACTORS", the bid opening date in the first paragraph from "November 22, 2023" to "November 29, 2023". Make this change in pen and ink

In the Bid Book:

REMOVE pages 16 to 26 titled Proposed Schedule of Items dated 10/27/2023 and REPLACE with the attached Proposed Schedule of Items dated 11/9/2023 (11 pages).

ADD the attached Special Provision Section 107 Time (Supplemental Liquidated Damages for Fabrication Time), dated November 9, 2023 (1 page).

ADD the attached Special Provision Section 502 Structural Concrete (Precast Deck Panels), dated November 6, 2023 (1 page).

ADD the attached Special Provision Section 535 Precast, Prestressed Concrete Superstructure (Tolerances), dated November 6, 2023 (1 page).

In the Plan Set:

REMOVE Sheet Number 2 of 168, ESTIMATED QUANTITIES dated 10/16/2023 and REPLACE with the attached Sheet Number 2 of 168, ESTIMATED QUANTITIES dated 11/7/2023.

REMOVE Sheet Number 124 of 168, KEY PLAN & SHEAR CONNECTOR LAYOUT dated 10/3/2023 and REPLACE with the attached Sheet Number124 of 168, KEY PLAN & SHEAR CONNECTOR LAYOUT dated 11/7/2023.

REMOVE Sheet number 125 of 168, SUPERSTRUCTURE PLAN & DETAILS dated 10/3/2023 and REPLACE with the attached Sheet Number 125 of 168, SUPERSTRUCTURE PLAN & DETAILS dated 11/7/2023.

REMOVE Sheet Number 130 of 168, TRANSVERSE SECTION and REPLACE dated 10/3/2023 with the attached Sheet Number 130 of 168, TRANSVERSE SECTION and REPLACE dated 11/7/2023. REMOVE SHEET NUMBER 157 of 168, WINGWALL MODIFICATIONS dated 10/3/2023 and REPLACE with the attached SHEET NUMBER 157 of 168, WINGWALL MODIFICATIONS, dated 10/16/2023.

The following questions have been received:

Question: For the I-95 bridges, the new bridge deck appears to be wider than the existing bridge deck. This implies the intention is to replace one entire bridge deck in one season (7 months). Will the contractor be permitted to replace a portion of the deck only in each season?

Response: No, the contractor is not permitted to replace only a portion of the deck in each season.

Question: For the I-95 bridges, would stay in place metal forms or precast deck panels be acceptable to expedite construction?

Response: Stay-in-place metal forms are not permissible. Partial depth precast concrete deck panels are not permissible for the Route 116 Bridges (#1411 and #6077) carrying I-95 NB and SB over Route 116. Partial depth precast concrete deck panels are not permissible for the Route 157/I-95 Interchange Bridge #6141. The option to use partial depth Precast Concrete Deck Panels as shown in the Standard Details has been added to the Contract Documents for the Vaughan Daggett Memorial Bridges (#1410 & #6078) carrying I-95 SB & NB over the Penobscot River. See revised sheets 2, 124, 125, and 130. For these two bridges, payment of the superstructure reinforcing is now incidental to the 502 Pay Items. All mild reinforcing steel in the deck and the panels shall be Low-Carbon Chromium and welded wire fabric will not be allowed. If the Contractor opts to use the Precast Deck Panels, all costs associated with the change in deck thickness including adjustments to the profile grade line are considered incidental to the related 502 Pay Items, including Working Drawings for the profile grade changes prepared by the Contractor. This includes changes to the elevations at top of the substructures. After review of the working drawings, the Department will update the Bottom of Slab Tables and the Load Rating.

Question: For the I-95 bridges, would a transverse construction joint between the existing bridge and a newly placed deck be permitted? Would traffic be permitted in this condition?

Response: No, transverse construction joints between the existing bridge and a newly placed deck will not be permitted.

Question: For the I-95 bridges, would a longitudinal construction joint between the existing bridge and a newly placed deck be permitted? Would traffic be permitted in this condition?

Response: No, longitudinal construction joints between the existing bridge and a newly placed deck will not be permitted.

Consider these changes and information prior to submitting your bid on November 29, 2023.

Sincerely,

George M. A. Macdougall P.E. Contracts & Specifications Engineer

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Proposal Schedule of Items

Page 1 of 11

Proposal ID: 025631.01 **Project(s):** 025631.01, 025631.02, 025631.03, 025631.04, 025631.05

SECTION: 1 INITIAL GROUP

Al Set ID: Alt Mbr ID:

| Proposal Line | l e ID | Approximate | Unit Price | Bid A oun |
|------------------|---|-----------------------|---------------|---------------|
| Number | Description | Quantity and Uni s | Dollars Cents | Dollars Cents |
| 0010 | 202.10 REMOVING EXISTING SUPERSTRUCTURE (PROPERTY OF CONTRACTOR) 195 NB RT 116 | LUMP SUM | LUMP SUM | <u></u> |
| 0020 | 202.10 REMOVING EXISTING SUPERSTRUCTURE (PROPERTY OF CONTRACTOR) 195 SB RT 116 | LUMP SUM | LUMP | ! |
| 0030 | 202.10 REMOVING EXISTING SUPERSTRUCTURE (PROPERTY OF CONTRACTOR) NB VDM BR | LUMP SUM | LUMP | ! |
| 0040 | 202.10 REMOVING EXISTING SUPERSTRUCTURE (PROPERTY OF CONTRACTOR) RT 157 I-95 BR | LUMP SUM | LUMP | <u></u> |
| 0050 | 202.10 REMOVING EXISTING SUPERSTRUCTURE (PROPERTY OF CONTRACTOR) SB VDM BR | LUMP SUM | LUMP | <u> </u> |
| 0060 | 202.12 REMOVING EXISTING STRUCTURAL CONCRETE | 549.000 CY | ! | ! |
| 0070 | 202.13 REMOVING EXISTING RAILINGS (RETAINED BY DEPARTMENT) | 5,620.000 LF | ! | ! |
| 0800 | 202.202 REMOVING PAVEMENT SURFACE | 48,670.000 SY | <u></u> ! | |
| 0090 | 202.205 RUMBLE STRIPS - SHOULDER | 2,600.000 LF | <u></u> ! | |
| 0100 | 203.20 COMMON EXCAVATION | 3,510.000 CY | <u> </u> | |

Proposal Schedule of Items

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SECTION: 1 **INITIAL GROUP**

Alt Set ID: Alt Mbr ID:

| Proposal Line | Item ID | Approximate | Unit Price | Bid Amount |
|------------------|---|-----------------------|---------------|---------------|
| Number | Description | Quantity and Units | Dollars Cents | Dollars Cents |
| 0110 | 203.24 COMMON BORROW | 3,498.000 CY | | ! |
| 0120 | 203.25 GRANULAR BORROW | 679.000 CY | | ! |
| 0130 | 206.082 STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES | 770.000 CY | <u></u> ! | ! |
| 0140 | 304.10 AGGREGATE SUBBASE COURSE - GRAVEL | 3,858.000 CY | ! | ! |
| 0150 | 403.2081 12.5 MM POLYMER MODIFIED HOT MIX ASPHALT | 3,410.000 T | ! | ! |
| 0160 | 403.211 HOT MIX ASPHALT (SHIMMING) | 100.000 T | | <u>!</u> |
| 0170 | 403.2131 12.5 MM POLYMER MODIFIED HMA BASE | 2,070.000 T | <u></u> | ! |
| 0180 | 409.15 BITUMINOUS TACK COAT - APPLIED | 2,730.000 G | | ! |
| 0190 | 461.131 TEMPORARY PAVEMENT | 1,096.000 T | ! | ! |
| 0200 | 502.21 STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS | 327.000 CY | ! | ! |
| 0210 | 502.26 STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES 195 NB RT 116 | LUMP SUM | LUMP SUM | ! |

Proposal Schedule of Items

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SECTION: 1 **INITIAL GROUP**

Alt Set ID: Alt Mbr ID:

| Proposal Line | Item ID | Approximate | Unit Price | Bid Amount |
|------------------|--|-----------------------|---------------|---------------|
| Number | Description | Quantity and Units | Dollars Cents | Dollars Cents |
| 0220 | 502.26 STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES 195 SB RT 116 | LUMP SUM | LUMP SUM | <u></u> ! |
| 0230 | 502.26 STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES NB VDM BR | LUMP SUM | LUMP SUM | <u> </u> |
| 0240 | 502.26 STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES RT 157 I-95 BR | LUMP SUM | LUMP SUM | <u> </u> |
| 0250 | 502.26 STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLABS ON STEEL BRIDGES SB VDM BR | LUMP SUM | LUMP SUM | <u>.</u> |
| 0260 | 502.31 STRUCTURAL CONCRETE APPROACH SLABS | LUMP SUM | LUMP SUM | ! |
| 0270 | 502.49 STRUCTURAL CONCRETE CURBS AND SIDEWALKS | LUMP SUM | LUMP SUM | ! |
| 0280 | 502.77 FIBER REINFORCED POLYMER BRIDGE DRAIN - TYPE: F | 48.000 EA | <u> </u> | |
| 0290 | 503.12 REINFORCING STEEL, FABRICATED AND DELIVERED | 21,250.000 LB | <u> </u> | |
| 0300 | 503.13 REINFORCING STEEL, PLACING | 21,250.000 LB | | |
| 0310 | 503.17 MECHANICAL WELDED SPLICE | 1,400.000 EA | <u> </u> | |

Proposal Schedule of Items

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SECTION: 1 **INITIAL GROUP**

Alt Set ID: Alt Mbr ID:

| Proposal Line | Item ID | Approximate | Unit Price | Bid Amount |
|------------------|---|-----------------------|---------------|---------------|
| Number | Description | Quantity and Units | Dollars Cents | Dollars Cents |
| 0320 | 503.19 LOW-CARBON, CHROMIUM REINFORCEMENT - FABRICATED & DELIVERED | 254,900.000 LB | | ! |
| 0330 | 503.20 LOW-CARBON, CHROMIUM REINFORCEMENT - PLACING | 254,900.000 LB | <u></u> j | ! |
| 0340 | 504.70 STRUCTURAL STEEL FABRICATED AND DELIVERED | LUMP SUM | LUMP SUM | ! |
| 0350 | 504.71 STRUCTURAL STEEL ERECTION | LUMP SUM | LUMPSUM | ! |
| 0360 | 505.08 SHEAR CONNECTORS | LUMP SUM | LUMPSUM | <u></u> ! |
| 0370 | 506.1775 FIELD PAINTING NEW AND EXIST STL W/ ZINC RICH PAINT 195 NB RT 116 BR | LUMP SUM | LUMP SUM | ! |
| 0380 | 506.1775 FIELD PAINTING NEW AND EXIST STL W/ ZINC RICH PAINT RT 157 BR | LUMP SUM | LUMP SUM | ! |
| 0390 | 507.0821 STEEL BRIDGE RAILING, 3 BAR | LUMP SUM | LUMP SUM | ! |
| 0400 | 507.0822 STEEL APPROACH RAILING, 3-BAR | 20.000 EA | ! | <u> </u> |
| 0410 | 508.14 HIGH PERFORMANCE WATERPROOFING MEMBRANE | LUMP SUM | LUMP SUM | |
| 0420 | 515.21 PROTECTIVE COATING FOR CONCRETE SURFACES | LUMP SUM | LUMP SUM | ! |

Proposal Schedule of Items

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SECTION: 1 **INITIAL GROUP**

Alt Set ID: Alt Mbr ID:

| Proposal Line | Item ID | Approximate | Unit Price | Bid Amount |
|------------------|--|-----------------------|---------------|---------------|
| Number | Description | Quantity and Units | Dollars Cents | Dollars Cents |
| 0430 | 518.60 REPAIR OF VERTICAL SURFACES < 8 IN. | 35.000 SF | ! | |
| 0440 | 520.21 EXPANSION DEVICE - GLAND SEAL | 2.000 EA | | |
| 0450 | 520.22 EXPANSION DEVICE - COMPRESSION SEAL | 2.000 EA | | ! |
| 0460 | 521.23 EXPANSION DEVICE FINGER JOINT | 4.000 EA | | |
| 0470 | 523.52 BEARING INSTALLATION | 25.000 EA | | ! |
| 0480 | 523.5304 STEEL BEARINGS, EXPANSION, ROCKER | 1.000 EA | ! | |
| 0490 | 523.5401 LAMINATED ELASTOMERIC BEARINGS, FIXED | 12.000 EA | | |
| 0500 | 523.5402 LAMINATED ELASTOMERIC BEARINGS, EXPANSION | 12.000 EA | ! | |
| 0510 | 524.301 TEMPORARY STRUCTURAL SUPPORT 195 NB RT 116 BEARING REPL | LUMP SUM | LUMP SUM | ! |
| 0520 | 524.301 TEMPORARY STRUCTURAL SUPPORT 195 SB RT 116 BEARING REPL | LUMP SUM | LUMP SUM | ! |
| | | | | |

Proposal Schedule of Items

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Proposal ID: 025631.01 **Project(s):** 025631.01, 025631.02, 025631.03, 025631.04, 025631.05

SECTION: 1 **INITIAL GROUP**

Alt Set ID: Alt Mbr ID:

| Proposal Line | Item ID | Approximate | Unit Price | Bid Amount |
|------------------|--|-----------------------|---------------|---------------|
| Number | Description | Quantity and Units | Dollars Cents | Dollars Cents |
| 0530 | 524.301 TEMPORARY STRUCTURAL SUPPORT NB VDM BR BEARING REPL | LUMP SUM | LUMP SUM | ! |
| 0540 | 524.301 TEMPORARY STRUCTURAL SUPPORT RT 157 I-95 BR APPR | LUMP SUM | LUMP | ! |
| 0550 | 524.40 PROTECTIVE SHIELD 195 NB RT 116 BR | LUMP SUM | LUMP | ! |
| 0560 | 524.40 PROTECTIVE SHIELD 195 SB RT 116 BR | LUMP SUM | LUMP SUM | ! |
| 0570 | 524.40 PROTECTIVE SHIELD NB VDM BR | LUMP SUM | LUMP SUM | |
| 0580 | 524.40 PROTECTIVE SHIELD RT 157 I-95 BR | LUMP SUM | LUMP SUM | ! |
| 0590 | 524.40 PROTECTIVE SHIELD SB VDM BR | LUMP SUM | LUMP SUM | <u>!</u> |
| 0600 | 526.301 PORTABLE CONCRETE BARRIER TYPE I | LUMP SUM | LUMP | |
| 0610 | 526.301 PORTABLE CONCRETE BARRIER TYPE I RT 157 I-95 BR | LUMP SUM | LUMP SUM | |
| 0620 | 526.305 PORTABLE CONCRETE BARRIER, BRACED TYPE 1 | LUMP SUM | LUMP SUM | ! |
| 0630 | 527.33 TRUCK MOUNTED ATTENUATOR | 3.000 EA | ! | ! |

Proposal Schedule of Items

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SECTION: 1 **INITIAL GROUP**

Alt Set ID: Alt Mbr ID:

| Proposal Line | Item ID | Approximate | Unit Price | Bid Amount |
|------------------|---|-----------------------|---------------|---------------|
| Number | Description | Quantity and Units | Dollars Cents | Dollars Cents |
| 0640 | 527.34 WORK ZONE CRASH CUSHIONS | 8.000 UN | <u> </u> | ! |
| 0650 | 603.179 18 INCH CULVERT PIPE OPTION III | 1,360.000 LF | <u> </u> | ! |
| 0660 | 604.09 CATCH BASIN TYPE B1 | 2.000 EA | <u></u> | ! |
| 0670 | 606.1301 31" W-BM GR, MID-WAY SPLICE-SGL FACED | 3,150.000 LF | <u></u> | ! |
| 0680 | 606.1305 31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL | 5.000 EA | <u></u> ! | <u> </u> |
| 0690 | 606.1721 BRIDGE TRANSITION - TYPE 1 | 20.000 EA | | |
| 0700 | 606.265 TERMINAL END - SINGLE RAIL - GALVANIZED STEEL | 4.000 EA | <u></u> ! | <u> </u> |
| 0710 | 606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER | 16.000 EA | <u></u> ! | ! |
| 0720 | 606.363 GUARDRAIL REMOVE AND DISPOSE | 316.000 LF | <u> </u> | |
| 0730 | 607.183 CHAIN LINK SNOW FENCE 33 INCH | LUMP SUM | LUMPSUM | |
| 0740 | 609.40 RESET CURB TYPE 5 | 79.000 LF | | |
| 0750 | 610.08 PLAIN RIPRAP | 278.000 CY | ! | |

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Alt Set ID: Alt Mbr ID:

| Proposal Line | Item ID | Approximate | Unit Price | Bid Amount |
|------------------|--|-----------------------|---------------|---------------|
| Number | Description | Quantity and Units | Dollars Cents | Dollars Cents |
| 0760 | 613.319 EROSION CONTROL BLANKET | 520.000 SY | | |
| 0770 | 615.10 DIRTY BORROW | 2,200.000 CY | | |
| 0780 | 618.14 SEEDING METHOD NUMBER 2 | 100.000 UN | | |
| 0790 | 619.12 MULCH | 6.000 UN | | |
| 0800 | 619.14 EROSION CONTROL MIX | 25.000 CY | | <u></u> ! |
| 0810 | 620.58 EROSION CONTROL GEOTEXTILE | 480.000 SY | | |
| 0820 | 620.6012 HDPE GEOMEMBRANE | 54.000 SY | | <u></u> ! |
| 0830 | 627.18 12 " SOLID WHITE PAVEMENT MARKING | 1,328.000 LF | | ! |
| 0840 | 627.30 GROOVING FOR PAVEMENT MARKING | 25,100.000 SF | ! | <u>!</u> |
| 0850 | 627.733 4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE | 2,100.000 LF | ! | ! |
| 0860 | 627.744 6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE | 25,100.000 LF | ! | |
| 0870 | 627.77 REMOVING PAVEMENT MARKINGS | 3,870.000 SF | | ! |

Proposal Schedule of Items

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SECTION: 1 **INITIAL GROUP**

Alt Set ID: Alt Mbr ID:

| Proposal Line | Item ID | Approximate | Unit Price | Bid Amount |
|------------------|--|-----------------------|---------------|---------------|
| Number | Description | Quantity and Units | Dollars Cents | Dollars Cents |
| 0880 | 627.78 TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW | 280.000 LF | ! | ! |
| 0890 | 627.781 TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW | 30,000.000 LF | ! | <u> </u> |
| 0900 | 629.05 HAND LABOR, STRAIGHT TIME | 125.000 HR | <u> </u> | |
| 0910 | 631.10 AIR COMPRESSOR (INCLUDING OPERATOR) | 25.000 HR | <u>!</u> | |
| 0920 | 631.11 AIR TOOL (INCLUDING OPERATOR) | 25.000 HR | <u> </u> | ! |
| 0930 | 631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR) | 125.000 HR | <u></u> ! | ! |
| 0940 | 631.172 TRUCK - LARGE (INCLUDING OPERATOR) | 125.000 HR | <u></u> ! | |
| 0950 | 631.22 FRONT END LOADER (INCLUDING OPERATOR) | 125.000 HR | <u></u> ! | |
| 0960 | 639.18 FIELD OFFICE TYPE A | 1.000 EA | <u> </u> | |
| 0970 | 643.72 TEMPORARY TRAFFIC SIGNAL | LUMP SUM | LUMP SUM | |
| 0980 | 644.31 GLARE SCREEN TEMPORARY | 900.000 LF | | |

Proposal Schedule of Items

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Proposal ID: 025631.01 **Project(s):** 025631.01, 025631.02, 025631.03, 025631.04, 025631.05

SECTION: 1 **INITIAL GROUP**

Alt Set ID: Alt Mbr ID:

| Proposal Line | Item ID | Approximate | Unit Price | Bid Amount |
|------------------|---|-----------------------|---------------|---------------|
| Number | Description | Quantity and Units | Dollars Cents | Dollars Cents |
| 0990 | 652.30 FLASHING ARROW BOARD | 4.000 EA | <u> </u> | ! |
| 1000 | 652.312 TYPE III BARRICADE | 18.000 EA | ! | ! |
| 1010 | 652.33 DRUM | 400.000 EA | ! | ! |
| 1020 | 652.34 CONE | 30.000 EA | ! | ! |
| 1030 | 652.35 CONSTRUCTION SIGNS | 1,020.000 SF | ! | ! |
| 1040 | 652.361 MAINTENANCE OF TRAFFIC CONTROL DEVICES | LUMP SUM | LUMP | ! |
| 1050 | 652.38 FLAGGER | 180.000 HR | ! | <u> </u> |
| 1060 | 652.41 PORTABLE CHANGEABLE MESSAGE SIGN | 4.000 EA | <u></u> j | ! |
| 1070 | 652.45 AUTOMATED TRAILER MOUNTED SPEED LIMIT SIGN | 2.000 EA | <u></u> ! | ! |
| 1080 | 656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL | LUMP SUM | LUMP SUM | ! |
| 1090 | 659.10 MOBILIZATION | LUMP SUM | LUMP SUM | ! |
| | Section: 1 | | Total: | |

| Total Bid: | |
|------------|--|

Medway Vaughan Daggett Memorial Bridge SB & NB WIN 025631.01 & 025631.02 November 9, 2023

Special Provision Section 107 Time

(Supplemental Liquidated Damages for Fabrication Time)

Section 107 of the Standard Specification is amended by addition of the following:

<u>107.8.1 Fabrication Time</u> The Department has budgeted for the following amounts of continuous full time fabrication/shop QA inspection for the following Work components:

| | <u>Time</u> | Supplemental Liquidated Damages |
|--|-------------|---------------------------------|
| <u>Element</u> | (Calendar | (\$ per Calendar Day) |
| | Days) | |
| Precast Prestressed Concrete Deck Panels | 180 | \$1,000 |

The Contractor is responsible for requiring their fabricators and suppliers to produce these products for the Work continuously until finished, including any needed actions to correct unacceptable workmanship or materials. If the Department determines that QA inspection beyond these times is required, then the corresponding Supplemental Liquidated Damages will be deducted as they occur from the amounts otherwise due to the Contractor. These allowed Fabrication Time begins on the first day of fabrication and runs consecutively until expiration or the work is complete.

If a fabricator or supplier works more than one shift per day and the Department determines that inspection is required for each shift, each shift will count as a calendar day and the Supplemental Liquidated Damages rate will be the noted amount <u>per shift per Calendar Day</u> in lieu of <u>per Calendar Day</u>.

QA inspector presence is required but not limited to the following activities:

Tensioning of strands, batching and casting of concrete, breaking of test cylinders, detensioning of strands, repairs, finishing fascia surfaces and any other times as required in the Standard Specifications or Special Provisions.

SPECIAL PROVISION <u>SECTION 535</u> PRECAST, PRESTRESSED CONCRETE SUPERSTRUCTURE (Tolerances)

Remove subsection 535.22 Tolerances and replace with the following:

Product dimensional tolerances shall be in conformance with the latest edition of PCI MNL-135, Tolerance Manual for Precast and Prestressed Concrete Construction, as applicable to the particular product (e.g., slab, I-girder, box beam), the Plans, and this Specification. Use Box Beam fabrication tolerances for voided or solid slab beams and use Double Tee tolerances for NEXT beams. In case of dispute, the Fabrication Engineer shall determine the allowable tolerance.

SPECIAL PROVISION <u>SECTION 502</u> STRUCTURAL CONCRETE

(Precast Deck Panels)

<u>Description</u> This work shall consist of casting, furnishing, and erecting prestressed structural concrete deck panels (hereafter called "precast deck panels") and all related materials as an optional stay-in-place forming system in accordance with the contract plans, standard details, and specifications.

<u>Construction</u> Precast Deck Panels shall comply with Section 535 - Precast, Prestressed Concrete Superstructure.

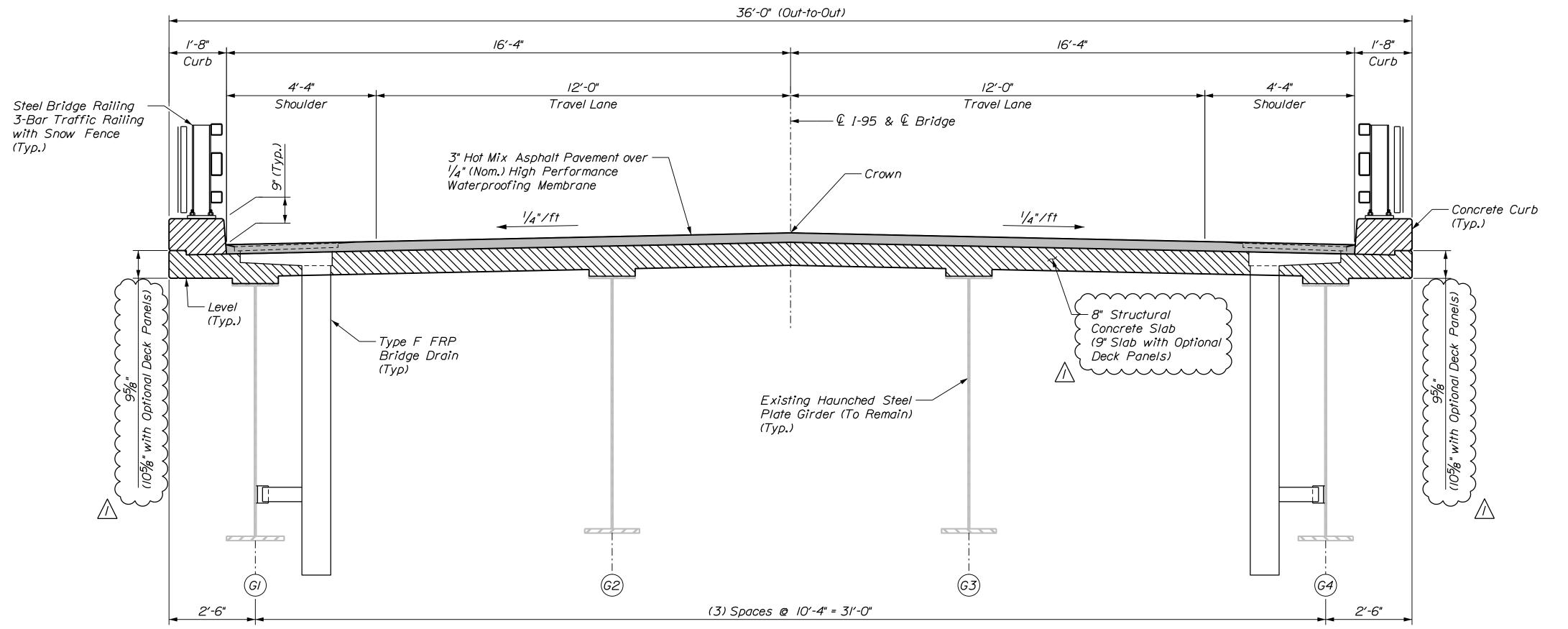
Precast deck panels shall be manufactured in conformity with the following tolerances:

| Depth | -1/8 in, + 1/4 in | | | | | |
|---|---|--|--|--|--|--|
| Width | -0, + 1/4 in | | | | | |
| Length | \pm 1/4 in | | | | | |
| Sweep | 1/4 in (deviation from line parallel to centerline) | | | | | |
| Variation from specified plan end | 1/2 in max. | | | | | |
| squareness or skew | Difference in diagonal meas. | | | | | |
| Location of strand group perpendicular | +0, -1/4 in | | | | | |
| to plane of panel | Meas. from bottom of slab | | | | | |
| Location of individual strand perpendicular to plane of panel | ± 1/4 in | | | | | |
| Location of individual strand parallel to plane of panel | ± 1/2 in | | | | | |
| Strand projection from end | - 1/4 in, + 3/4 in | | | | | |
| Bowing Bowing | $\pm 1/4 \text{ in}$ | | | | | |
| Threaded jack inserts | \pm 1/4 in longitudinally and transversely | | | | | |

Refer to PCI MNL-135 Fig 10.22.1 Bridge Deck Units for definitions of standard measurements.

Materials Welded wire fabric is not allowed.

<u>Basis of Payment</u> All work will be considered incidental to and included in Pay Item 502.26 Structural Concrete Roadway and Sidewalk Slab on Steel Bridges. Payment shall include full compensation for all materials wholly or partly in the precast deck panels and related materials or work required for the panel erected as shown on the plans. Related materials and work will include, but not limited to, furnishing and installing temporary supports, including adhesive and grout bedding, reinforcing steel, and cast-in-place concrete.



TRANSVERSE SECTION

I-95 Northbound shown.

I-95 Southbound opposite hand.

I-95 SB & NB VAUGHAN DAGGETT MEMORIAL BRIDGES
BR NOS. 1410 & 6078

MEDWAY

TRANSVERSE SECTION

REVISIO

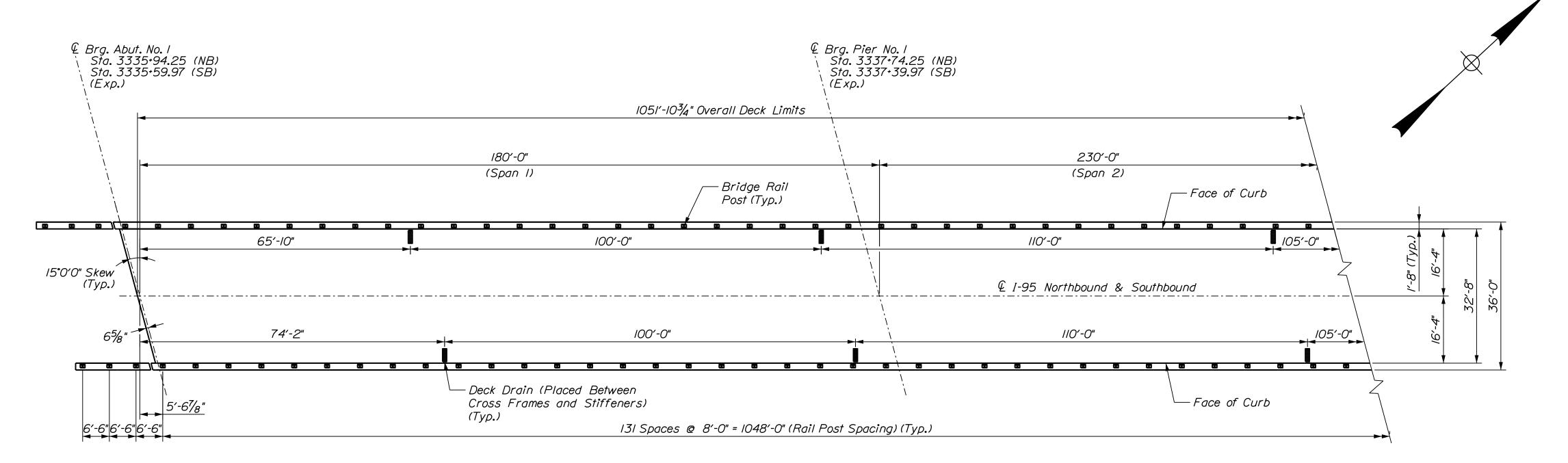
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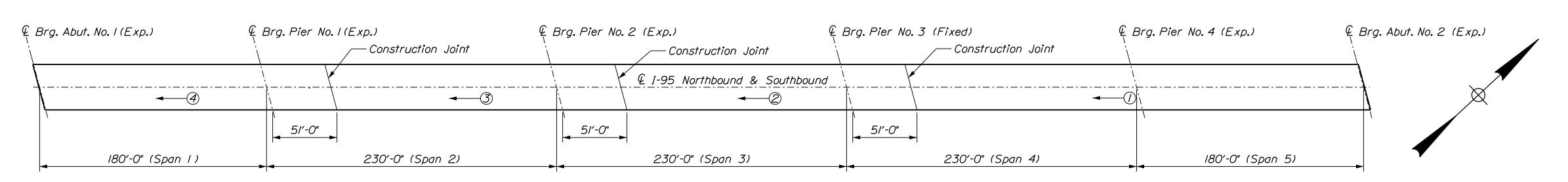
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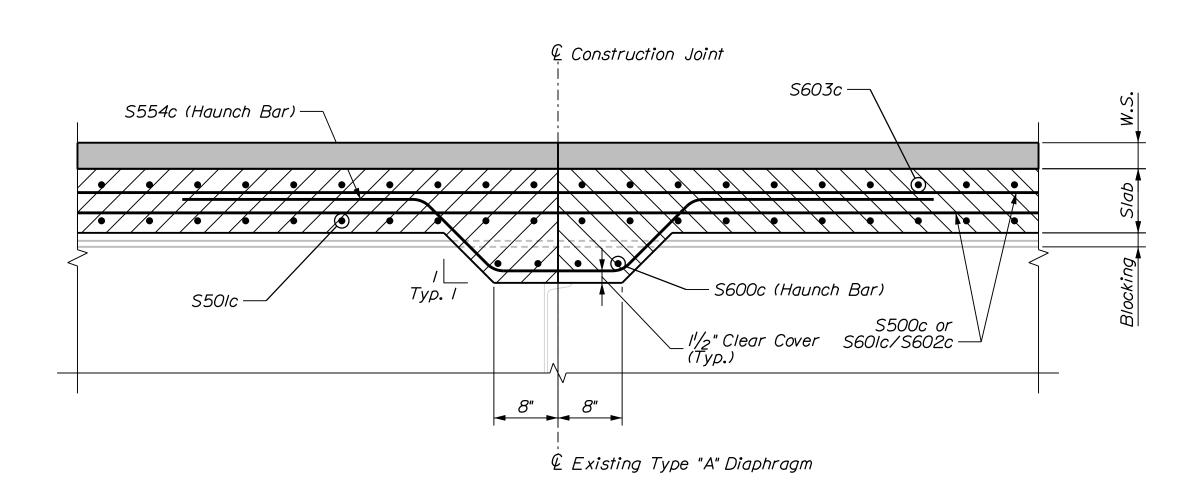
OF 168



SUPERSTRUCTURE PLAN



DECK POURING SEQUENCE



LONGITUDINAL SECTION AT CONSTRUCTION JOINT

SUPERSTRUCTURE NOTES

- I. The theoretical blocking used for design of the structure is 3 inches at the centerlines of bearing of the abutments and piers as measured from the top of the girder web. Refer to Standard Detail 502(03) for blocking details.
- 2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
- 3. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
- 4. The detailed deck pouring sequence matches the existing as-built plans. The initial superstructure slab concrete placement shall begin at a simply supported end of the deck slab and shall terminate at the completion of a positive moment section. Successive placements shall proceed from the end of the previous placement, terminate at the completion of a positive moment section, and include one more span. Concrete in a placement shall be kept plastic. A minimum of 5 days shall elapse between successive partial placements. The superstructure slab concrete placement sequence shall be approved by the Resident. Bottom of Slab Tables provided assume the pour sequence shown.
- 5. At the Contractor's option, Precast Concrete Deck Panels may be used in place of full depth cast-in-place deck slab, in accordance with Special Provision Section 502, Structural Concrete Precast Deck Panels, and in accordance with the Standard Details. If used, the total slab thickness shall increase to 9 inches.
- 6. Payment for reinforcing steel fabricated, delivered, and placed in the cast-in-place portion of the structural concrete slab, sidewalk, and curb will be considered incidental to the appropriate 502 Pay Items. If Contractor opts to use Precast Concrete Deck Panels, Contractor is responsible for revising the Reinforcement Schedule, including updates to bar dimensions that are impacted by the increase in total deck thickness.
- 7. The centerline elevations in the I-95 profiles and the Bottom of Slab elevations are based on an 8 inch deck. If Precast Concrete Deck Panels are used, all adjustments to roadway grades and other elevations in the Plans to account for the additional deck thickness shall be the responsibility of the Contractor, and shall be submitted to the Department for review as Working Drawings.
- 8. All reinforcement shall be Low-Carbon Chromium unless otherwise noted.
- 9. Contractor shall stagger the splice locations of the longitudinal and transverse bars.
- IO.) Location of bridge drains shall be finalized in the field. Placement may shift up to 1.5 feet upstation or downstation to avoid conflicts with girder web stiffeners for attachment of bridge drain support assembly.

SB & NB VAUGHAN DAGGETT MEMORIAL BRIDGES

BR NOS. 1410 & 6078

DWAY

SUPERSTRUCTURE PLAN

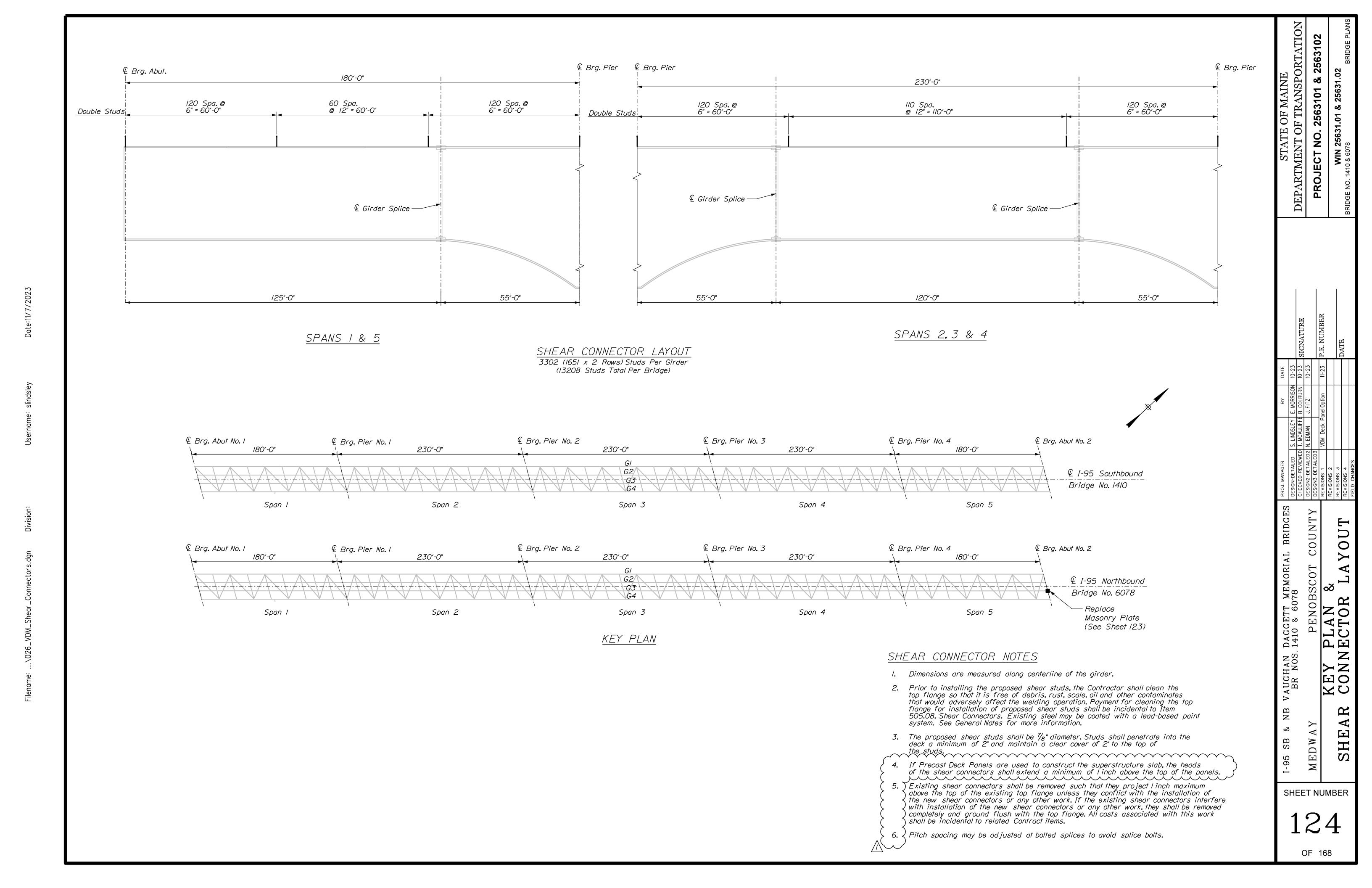
& DETAILS

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SHEET NUMBER

OF 168

95



| | ESTIMATED QUAI | NTITIES | | | | | | | |
|----------------------|--|------------------|----------------|--------------|--------------|--------------|--------------|----------------|---------------------------------------|
| ITEM NO. | ITEM DESCRIPTION | | BR # 1410 | BR # 6078 | BR # 6141 | BR # 1411 | BR # 6077 | Total Quantity | UNIT |
| TIEM NO. | TIEM DESCRIPTION | | WIN 25631.01 | WIN 25631.02 | WIN 25631.03 | WIN 25631.04 | WIN 25631.05 | rotal Quantity | UNII |
| 202.10 | REMOVE EXISTING SUPERSTRUCTURE PROPERTY OF CONTRACTOR: SB VDM BRIDGE | 1,430 CY | 1 | 0 | 0 | 0 | 0 | 1 | LS |
| 202.10 | REMOVE EXISTING SUPERSTRUCTURE PROPERTY OF CONTRACTOR: NB VDM BRIDGE | 1,430 CY | 0 | 1 | 0 | 0 | 0 | 1 | LS |
| 202.10 | REMOVE EXISTING SUPERSTRUCTURE PROPERTY OF CONTRACTOR: RTE 157 BRIDGE | 375 CY | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 202.10 | REMOVE EXISTING SUPERSTRUCTURE PROPERTY OF CONTRACTOR: SB RTE 116 BRIDGE | 160 CY | 0 | 0 | 0 | 1 | 0 | 1 | LS |
| 202.10 | REMOVE EXISTING SUPERSTRUCTURE PROPERTY OF CONTRACTOR: NB RTE 116 BRIDGE | 160 CY | 0 | 0 | 0 | 0 | 1 | 1 | LS |
| 202.12 | REMOVE EXISTING STRUCTURAL CONCRETE | | 170 | 170 | 82 | 65 | 62 | 549 | CY |
| 202.13 | REMOVE EXISTING RAILINGS (RETAINED BY DEPARTMENT) | | 2200 | 2200 | 720 | 250 | 250 | 5620 | LF |
| 202.202 | REMOVING PAVEMENT SURFACE | | 12000 | 12000 | 670 | 12000 | 12000 | 48670 | SY |
| 202.205 | RUMBLE STRIPS- SHOULDER | | 650 | 650 | 0 | 650 | 650 | 2600 | LF |
| 203.20 | COMMON EXCAVATION | | 830 | 830 | 130 | 860 | 860 | 3510 | CY |
| 203.24 | COMMON BORROW | | 870 | 870 | 18 | 870 | 870 | 3498 | CY |
| 203.25 | GRANULAR BORROW | | 210 | 210 | 110 | 74 | 75 | 679 | CY |
| 206.082 | STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES, PLAN QUANTITY | | 220 | 220 | 110 | 110 | 110 | 770 | CY |
| 304.10 | AGGREGATE SUBBASE COURSE - GRAVEL | | 920 | 920 | 98 | 960 | 960 | 3858 | CY |
| | | | | | 170 | | | | T |
| 103.2081 | HOT MIX ASPHALT - 12.5 MM NOMINAL MAXIMUM SIZE (POLYMER MODIFIED) | | 940 | 940 | | 680 | 680 | 3410 | , , , , , , , , , , , , , , , , , , , |
| 403.211 | HOT MIX ASPHALT, 9.5 MM NOMINAL MAXIMUM SIZE (SHIMMING) | | 25 | 25 | 100 | 25 | 25 | 100 | , , , , , , , , , , , , , , , , , , , |
| 403.2131 | HOT MIX ASPHALT - 12.5 MM NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE BASE COURSE, POLYMER MODIFIED) | | 580 | 590 | 180 | 350 | 370 | 2070 | 1 |
| 109.15 | BITUMINOUS TACK COAT, APPLIED | | 710 | 710 | 390 | 460 | 460 | 2730 | G - |
| 161.131 | TEMPORARY PAVEMENT | | 270 | 270 | 16 | 270 | 270 | 1096 | T |
| 502.21 | STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS | | 110 | 110 | 49 | 29 | 29 | 327 | CY |
| 502.26 | STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES: SB VDM BRIDGE | 1,030 CY | 1 | 0 | 0 | 0 | 0 | 1 | LS |
| 02.26 | STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES: NB VDM BRIDGE | 1,030 CY | 0 | 1 | 0 | 0 | 0 | 1 | LS |
| 502.26 | STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES: RTE 157 BRIDGE | 320 CY | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 502.26 | STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES: SB RTE 116 BRIDGE | 140 CY | 0 | 0 | 0 | 1 | 0 | 1 | LS |
| 02.26 | STRUCTURAL CONCRETE ROADWAY AND SIDEWALK SLAB ON STEEL BRIDGES: NB RTE 116 BRIDGE | 140 CY | 0 | 0 | 0 | 0 | 1 | 1 | LS |
| 02.31 | STRUCTURAL CONCRETE APPROACH SLAB: SB VDM BRIDGE | 24 CY | 1 | 0 | 0 | 0 | 0 | 1 | LS |
| 02.31 | STRUCTURAL CONCRETE APPROACH SLAB: NB VDM BRIDGE | 24 CY | 0 | 1 | 0 | 0 | 0 | 1 | LS |
| 502.31 | STRUCTURAL CONCRETE APPROACH SLAB: ROUTE 157 BRIDGE | 23 CY | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 502.31 | STRUCTURAL CONCRETE APPROACH SLAB: SB ROUTE 116 BRIDGE | 30 CY | 0 | 0 | 0 | 1 | 0 | 1 | LS |
| 502.31 | STRUCTURAL CONCRETE APPROACH SLAB: NB ROUTE 116 BRIDGE | 30 CY | 0 | 0 | 0 | 0 | 1 | 1 | LS |
| 502.49 | STRUCTURAL CONCRETE CURBS AND SIDEWALKS: SB VDM BRIDGE | 140 CY | 1 | 0 | 0 | 0 | 0 | 1 | LS |
| 502.49 | STRUCTURAL CONCRETE CURBS AND SIDEWALKS: NB VDM BRIDGE | 140 CY | 0 | 1 | 0 | 0 | 0 | 1 | LS |
| 502.49 | STRUCTURAL CONCRETE CURBS AND SIDEWALKS: ROUTE 157 BRIDGE | 47 CY | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 502.49 | STRUCTURAL CONCRETE CURBS AND SIDEWALKS: SB ROUTE 116 BRIDGE | 18 CY | 0 | 0 | 0 | 1 | 0 | 1 | LS |
| 502.49 | STRUCTURAL CONCRETE CURBS AND SIDEWALKS: NB ROUTE 116 BRIDGE | 18 CY | 0 | 0 | 0 | 0 | 1 | 1 | LS |
| 502.77 | FRP BRIDGE DRAIN, TYPE F | 70 01 | 22 | 22 | 4 | 0 | , | 48 | EA |
| 503.12 | REINFORCING STEEL, FABRICATED AND DELIVERED | | 4000 | 4000 | 3650 | 4800 | 4800 | 21250 | LB |
| | | Λ | (|) | 3650 | | | 1 | <u> </u> |
| 503.13 | REINFORCING STEEL, PLACING | | 4000 | 4000 | | 4000 | 4800 | 21230 | //\ LB |
| 503.17 | MECHANICAL WELDED SPLICE | | | | 1400 | | | 7400 | EA |
| 503.19 | LOW-CARBON CHROMIUM REINFORCEMENT, FABRICATED AND DELIVERED | ^ | 16300 | 16400 | 118700 | 51700 | 51800 | 254900 | LB |
| 503.20 | LOW-CARBON CHROMIUM REINFORCEMENT, PLACING | /2\ | 16300 | 16400 | 118700 | 51700 | 51800 | 254900 | // LB |
| 504.70 | STRUCTURAL STEEL FABRICATED AND DELIVERED: ROUTE 157 BRIDGE | 1,500 LB | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 04.70 | STRUCTURAL STEEL FABRICATED AND DELIVERED: NB ROUTE 116 BRIDGE | 370 LB | 0 | 0 | 0 | 0 | 1 | 1 | LS |
| 504.71 | STRUCTURAL STEEL ERECTION: ROUTE 157 BRIDGE | 1,500 LB | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 04.71 | STRUCTURAL STEEL ERECTION: NB ROUTE 116 BRIDGE | 370 LB | 0 | 0 | 0 | 0 | 1 | 1 | LS |
| 05.08 | SHEAR CONNECTORS: SB VDM BRIDGE | 13,208 EA | 1 | 0 | 0 | 0 | 0 | 1 | LS |
| 05.08 | SHEAR CONNECTORS: NB VDM BRIDGE | 13,208 EA | 0 | 1 | 0 | 0 | 0 | 1 | LS |
| 05.08 | SHEAR CONNECTORS: ROUTE 157 BRIDGE | 9,255 EA | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 05.08 | SHEAR CONNECTORS: SB ROUTE 116 BRIDGE | 4,374 EA | 0 | 0 | 0 | 1 | 0 | 1 | LS |
| 05.08 | SHEAR CONNECTORS: NB ROUTE 116 BRIDGE | 4,374 EA | 0 | 0 | 0 | 0 | 1 | 1 | LS |
| 06.1775 | FIELD PAINTING, NEW AND EXISTING STEEL WITH ZINC RICH PAINT: ROUTE 157 BRIDGE | 35 SF | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 06.1775 | FIELD PAINTING, NEW AND EXISTING STEEL WITH ZINC RICH PAINT: NB ROUTE 116 BRIDGE | 5 SF | 0 | 0 | 0 | 0 | 1 | 1 | LS |
| 07.0821 | STEEL BRIDGE RAILING, 3 BAR: SB VDM BRIDGE | 2,180 LF | 1 | 0 | 0 | 0 | 0 | 1 | LS |
| 07.0821 | STEEL BRIDGE RAILING, 3 BAR: NB VDM BRIDGE | 2,180 LF | 0 | 1 | 0 | 0 | 0 | 1 | LS |
| 07.0821 | STEEL BRIDGE RAILING, 3 BAR: ROUTE 157 BRIDGE | 745 LF | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 07.0821 | STEEL BRIDGE RAILING, 3 BAR: SB ROUTE 116 BRIDGE | 275 LF | 0 | 0 | 0 | 1 | 0 | 1 | LS |
| 507.0821 507.0821 | | 275 LF 275 LF | 0 | 0 | 0 | 0 | 1 | 1 | LS |
| | STEEL ARRENACH BAU ING: 3 BAR | 2/3 LF | 4 | 4 | 4 | <i>J</i> | 1 | 20 | |
| 507.0822 | STEEL APPROACH RAILING: 3-BAR | 0.005 517 | 4 | 4 | 4 | 4 | 4 | 20 | EA |
| 508.14 | HIGH PERFORMANCE WATERPROOFING MEMBRANE: SB VDM BRIDGE | 3,825 SY | 1 | 0 | 0 | 0 | 0 | 1 | LS |
| 508.14 | HIGH PERFORMANCE WATERPROOFING MEMBRANE: NB VDM BRIDGE | 3,825 SY | 0 | 1 | 0 | 0 | 0 | 1 | LS |
| 508.14 | HIGH PERFORMANCE WATERPROOFING MEMBRANE: ROUTE 157 BRIDGE | 1,250 SY | 0 | 0 | 1 | 0 | 0 | 1 | LS |
| 508.14 | HIGH PERFORMANCE WATERPROOFING MEMBRANE: SB ROUTE 116 BRIDGE | 555 SY | 0 | 0 | 0 | 1 | 0 | 1 | LS |
| | HIGH PERFORMANCE WATERPROOFING MEMBRANE: NB ROUTE 116 BRIDGE | 555 SY | 0 | 0 | 0 | 0 | 1 | 4 | LS |

I-95 SB & NB VAUGHAN DAGGETT MEMORIAL BRIDGES,
I-95 SB & NB OVER ROUTE 116,
& ROUTE 157 INTERCHANGE BRIDGE
BRIDGE NOS. 1410, 6078, 1411, 6077, 6141
MEDWAY QUANTITIES ESTIMATED SHEET NUMBER

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OF 168

