# STATE OF MAINE
# DEPARTMENT OF TRANSPORTATION

## SPECIFICATIONS

Design (New Abutments): Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Ninth Edition 2020.

## DESIGN LOADING

| | |
|---|---|
| Live Load | HL-93 Modified for Strength I |
| Live Load (existing piers and superstructure) | HS-25 (1977 AASHTO Standard Specifications w/ interims through 1979) |

## MATERIALS

| | |
|---|---|
| Concrete: | |
| Abutments, Wingwalls, and Pier Caps | Class "A" |
| Other | Class "A1" |
| Reinforcing: | |
| Plain Steel | ASTM A 615/ A 615M, Grade 60 |
| Structural Steel: | |
| All Material (except as noted) | ASTM A709, Grade 50 (Painted) |
| Steel H-Piles | ASTM A572, Grade 50 |
| High Strength Bolts | ASTM F3125, Grade A325, Type 1 |

## BASIC DESIGN STRESSES

| | |
|---|---|
| Concrete: | |
| Class "A" | f 'c = 4,000 psi |
| Class "A1" | f 'c = 4,000 psi |
| Reinforcing: | |
| Plain Steel | f y = 60,000 psi |
| Structural Steel: | |
| ASTM A709, Grade 50 | F y = 50,000 psi |
| ASTM A572, Grade 50 | F y = 50,000 psi |
| ASTM F3125, Grade A325 | F μ = 120,000 psi |

# BANGOR
# PENOBSCOT COUNTY
# HOGAN ROAD / I95 BRIDGE
# OVER
# I-95
# HOGAN ROAD
# FEDERAL AID PROJECT NO. 1859511
# BRIDGE NO. 5823

## LIST OF DRAWINGS


| | |
|---|---|
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| Boring Location Plan | B4 |
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## UTILITIES

Refer to Highway Plans

## MAINTENANCE OF TRAFFIC

Refer to Highway Plans

| | |
|---|---|
| PROJECT LOCATION | Diverging diamond interchange on Hogan Road/ Interstate 95 Exit 187 and Hogan Road/ I-95 Bridge (#5823) over Interstate 95. Located 0.26 of a mile north of Haskell Road. Lat./Long. 44°49'56.1" N 68°44'30.2" W |
| PROGRAM AREA | Highway |
| OUTLINE OF WORK | Bridge Rehabilitation in conjunction with interchange rebuild. |

WIN 18595.11

01859511

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DATE

APPROVED

COMMISSIONER:

CHIEF ENGINEER:

STATE OF MAINE · LICENSED PROFESSIONAL ENGINEER · Steven M. Hodgdon 11206

SIGNATURE

11206

P.E. NUMBER

11/7/2025

DATE

PROJECT INFORMATION

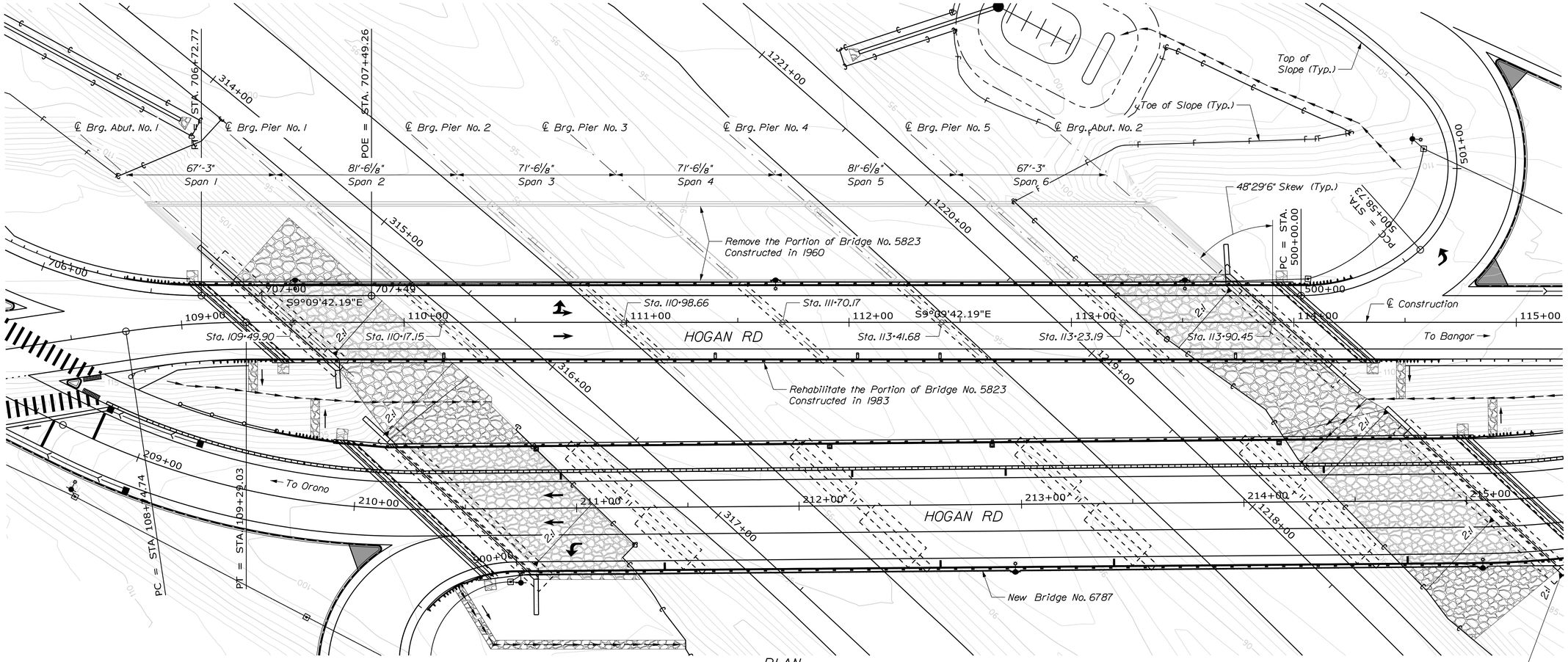
| | |
|---|---|
| PROGRAM | Highway |
| PROJECT MANAGER | Laurie Rowe |
| DESIGNER | VHB |
| CONSULTANT | VHB |
| PROJECT RESIDENT | |
| CONTRACTOR | |
| PROJECT COMPLETION DATE | |

BANGOR
HOGAN ROAD/I95 BRIDGE

TITLE SHEET

SHEET NUMBER
B-1
368
OF 485

Filename:\Eastbound Bridge\XXX_Title.dgn Division: HIGHWAY Username: jomesdavis Date:08/29/2025




PLAN

25 0 25 50

Scale of Feet

## BRIDGE CONSTRUCTION NOTES

1. Hogan Road 195 Bridge in the proposed work has stationing that is reversed from the 1983 as-built plans, where existing Pier 1 is Pier 5 and existing Girder 1 is Girder 6.

2. For General Notes, refer to the Highway Plans.

3. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

4. Place a 24 inch wide strip of Erosion Control Blanket on the sideslopes along the bridge and approach rail berm and behind the wingwalls.

5. Protective Coating for Concrete Surfaces shall be applied to the following areas:

   All exposed surfaces of concrete curbs.
   Fascias down to the drip notch.
   Top of abutment wingwalls, bridge seats, pier cap surfaces, and
   To one foot below the ground on vertical walls and pier stems against earth.

6. The work for this bridge includes jacking and shoring the superstructure to a higher and variable elevation to achieve the desired profile of Hogan Road and minimum vertical clearance to I-95. The superstructure shall be jacked and shored prior to any removal. The removing of the deck concrete along the fascia between the deck end removal limits shall ensure partial deck removal areas are not overstressed during construction.

7. The removal of Bridge No. 5823 consists of the portion constructed in 1960, including the superstructure and the supporting substructures to a minimum of two feet below finish grade. All aluminum bridge rail, rail posts, and associated hardware which are to be removed shall be carefully salvaged by the Contractor and will remain the property of the Department. The removal of the existing bituminous bridge pavement from the 1960 bridge is included under the appropriate 202 item.

8. The existing bridge shall be removed by and become the property of the Contractor as noted. The steel portions of the existing bridge may be coated with a lead-based paint system. The Contractor is responsible for the containment, proper management, and disposal of all lead-contaminated hazardous waste generated by the process of demolishing the bridge. The Contractor is responsible for implement appropriate OSHA mandated personal protection standards related to this process. Once the existing bridge is removed, The Contractor is solely responsible for the care, custody, and control of the components of the existing bridge and any hazardous waste generated as a result of the storage, recycling, or disposal of the bridge components, including lead-coated steel. The Contractor shall recycle or reuse the steel in accordance with the Maine Department of Environmental Protection's "Maine Hazardous Waste Management Regulations," Chapter 850. A copy of this regulation is available at MaineDOT's offices on Child Street in Augusta. Payment for all labor, materials, equipment, and other costs required to remove and dispose of the existing bridge will be considered incidental to the bridge removal pay item.

9. Construct 6 foot by 6 foot Plain Riprap splash pad (2 foot thick) under all bridge drain downspouts not otherwise protected by riprap. Choke all splash pad zones with 2-inch Crushed Stone (Section 703.3) (Incidental to Plain Riprap).

## SHEET NOTES

1. See Highway Plans for approach work and I-95 treatment.

2. See Hogan Road No. 2 Bridge Plans for other bridge work included in the Project and construction phasing.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

| | L. ROWE | DATE |
|---|---|---|
| PROJ. MANAGER | | |
| DESIGN-DETAILED | JAH | KDW 11/25 |
| CHECKED-REVIEWED | YP | SMH 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

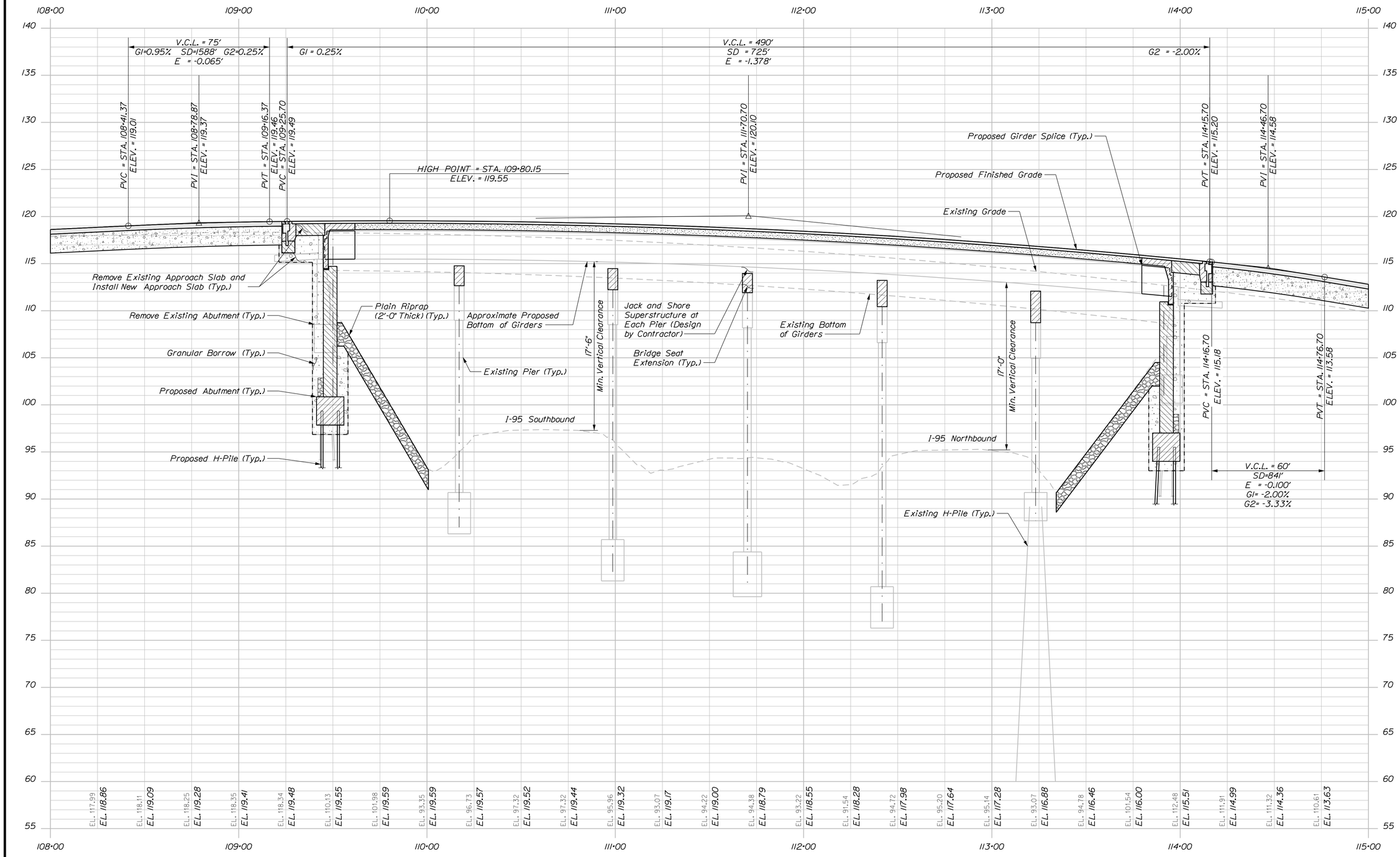
HOGAN ROAD/195 BRIDGE
I-95
BANGOR PENOBSCOT

# BRIDGE PLAN & CONSTRUCTION NOTES

SHEET NUMBER
B-2
369
OF 485

Filename: ...\XXX_Gen_Plan.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

Filename: ...\XXX_Profile_ExistingBridge.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




## PROFILE

(I-95 Roadside Barriers Not Shown)

## NOTES:

1. Existing substructures shown in approximate location for reference only. Refer to record drawings.

2. Alignment and Profile stationing shown on Existing Plans run in the opposite direction, as a result the substructures are numbered in the opposite direction on the Existing Plans.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 5823

WIN 18595.11

BRIDGE PLANS

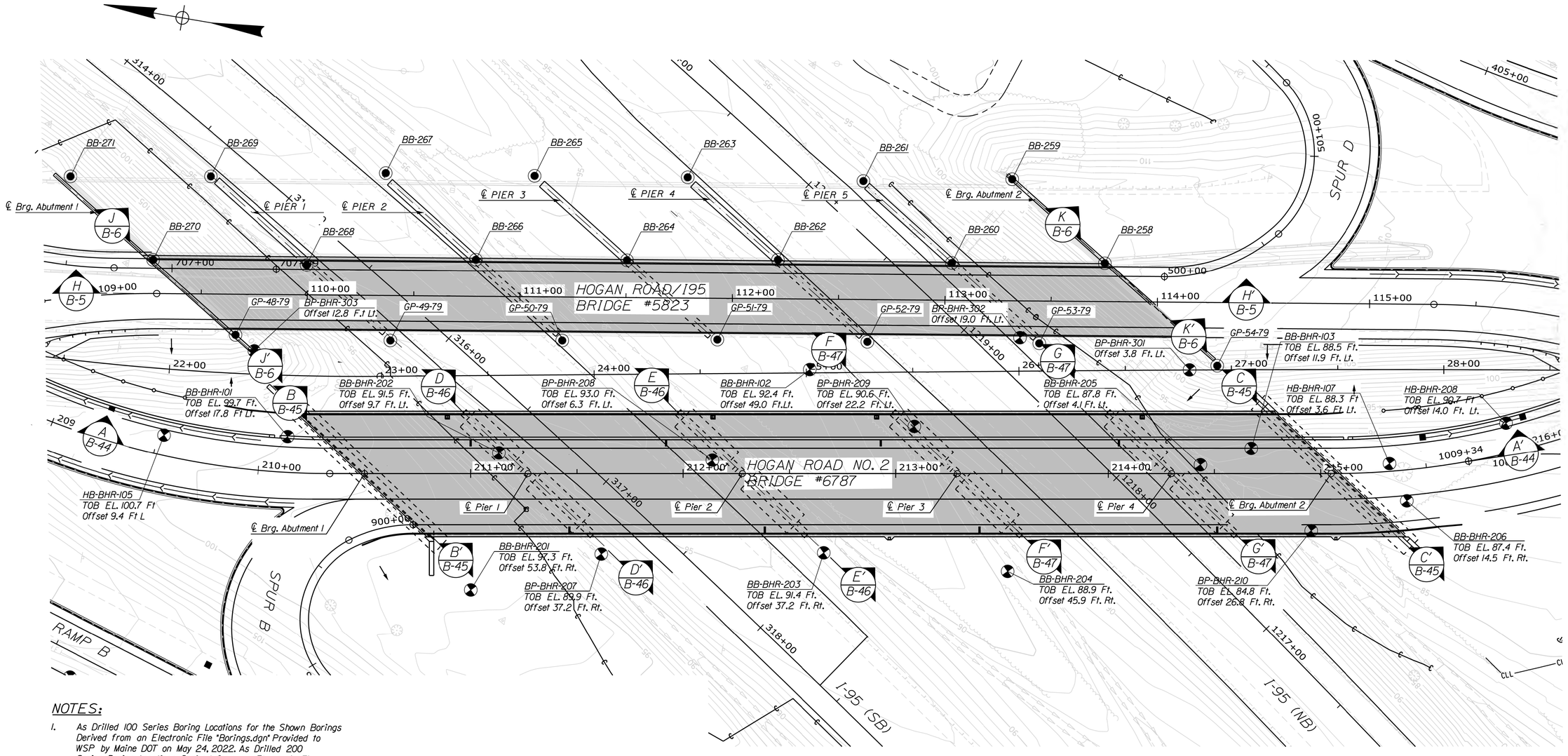
vhb

| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

PROFILE

SHEET NUMBER
B-3
370
OF 485




## NOTES:

1. As Drilled 100 Series Boring Locations for the Shown Borings Derived from an Electronic File "Borings.dgn" Provided to WSP by Maine DOT on May 24, 2022. As Drilled 200 Series Boring Locations Derived from an Electronic File "18595.10BORLOC.200SERIES.10.11.23" Provided to WSP by Maine DOT October 13, 2023.
2. Basemap Elements Shown Derived from a group of Electronic Files "WIN 18595.10-Bangor" Provided to WSP by VHB on May 26, 2022. Proposed elements shown derived from Electronic file "Bridge-Proposed.dgn" Provided by VHB on August 27, 2025.
3. Proposed Stationing Provided to WSP by VHB on August 27, 2022 in an Electronic File "Alignments.dgn".
4. Approximate Historic Boring Locations or the Shown Borings Derived from Historic Plan Set "Department of Transportation Bureau of Highways, Bangor Penobscot County, Maine Federal an Urban Project No. IR-95-8(129) 175 Hogan Road/ I-95 Marked, As-Built 1983".
5. For Detailed Lithologic Descriptions see Boring Logs included in the Geotechnical Design Report (GDR).

## LEGEND

| | |
|---|---|
| BB-BHR-101 | Completed Bridge Series Borings |
| BP-BHR-207 | Completed Bridge Series Rock Probe |
| HB-BHR-105 | Completed Highway Series Borings |
| B-268, GP-48-79 | Historic Borings |
| TOB EL. 99.7 | Elevation of Top of Boring |
| X / X-XX | Interpretive Subsurface Section |

## BORING LOCATION PLAN

25 0 25 50
Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE NO. 5823

BRIDGE PLANS

STATE OF MAINE · CHRISTOPHER MONGER · No. 15164 · PROFESSIONAL ENGINEER

SIGNATURE 15164 P.E. NUMBER

11/07/2025 DATE

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. LANDON | |
| DESIGN-DETAILED | MEL | 9/2022 |
| CHECKED-REVIEWED | DEB | 10/2025 |
| DESIGN2-DETAILED2 | - | - |
| DESIGN3-DETAILED3 | - | - |
| REVISIONS 1 | - | - |
| REVISIONS 2 | - | - |
| REVISIONS 3 | - | - |
| REVISIONS 4 | - | - |
| FIELD CHANGES | - | - |

HOGAN ROAD/I95 BRIDGE
I95
PENOBSCOT
BANGOR

BORING LOCATION PLAN

SHEET NUMBER
B-4
371
OF 485

Filename: ...\MSTA\BorLocPlan_5Span_eb.dgn Division: BRIDGE Username: Date:11/7/2025

D NORTH

D' SOUTH

108+00 109+00 110+00 111+00 112+00 113+00 114+00 115+00

℄ Brg. Abutment 1 Sta. 109+43.83

℄ PIER 1 Sta. 110+16.90

℄ PIER 2 Sta. 110+99.00

℄ PIER 3 Sta. 111+70.00

℄ PIER 4 Sta. 112+41.20

℄ PIER 5 Sta. 113+22.90

℄ Brg. Abutment 2 Sta. 113+91.73

BB-270 El 104.2 Ft. Offset 16.0 Ft. Lt.

GP 48-79 El. 102.6 Ft. Offset 19.1 Ft. Rt.

BB-268 El. 103.6 Ft. Offset 14.0 Ft. Lt.

GP 49-79 El 94.4 Ft. Offset 21.1 Ft. Rt.

BB-266 El. 102.4 Ft. Offset 17.1 Ft. Lt.

GP 50-79 El. 96.76 Ft. Offset 20.4 Ft. Rt.

BB-264 El. 100.9 Ft. Offset 17.5 Ft. Lt.

GP 51-79 El. 95.5Ft. Offset 19.4 Ft. Rt.

BB-262 El. 98.8 Ft. Offset 18.5 Ft. Lt.

GP 52-79 El. 94.8 Ft. Offset 19.8 Ft. Rt.

BB-260 El. 97.5Ft. Offset 18.5 Ft. Lt.

GP 53-79 El. 93.7 Ft. Offset 19.8 Ft. Rt.

BB-258 El. 95.8 Ft. Offset 18.5 Ft. Lt.

GP 54-79 El 91.9 Ft. Offset 30.0 Ft. Rt.

Fill

Stiff to Very Stiff Clay

Glacial Till

I-95 S

I-95 Southbound

Fill

Stiff to Very Stiff Clay

Glacial Till

Stiff to Very Stiff Clay

Stiff to Very Stiff Clay

Glacial Till

Metawacke

I-95 NB

I-95 Northbound

Fill

Stiff to Very Stiff Clay

Fill

Stiff to Very Stiff Clay

Glacial Till

Stiff to Very Stiff Clay

Glacial Till

Weathered Rock

Metawacke

Topsoil

Asphalt

Grey, Medium Dense, Gravelly Fine to Coarse Sand, some Silt (Fill)

Medimum to Stiff, Gray to Brown Mottled and Weathered Silty Clay with Sandy Silt Lines and Lenses (Clay)

Loose to Dense, Grey to Brown, Silty Fine Sand, Angular Rocks and Gravel (Glacial Till)

Fractured Rock, Weathered Rock

Grey, Fine Grained to very Fine Grained Metawacke

Proposed Bridge Substructure and Superstructure

Existing Ground Surface

Boring Location I.D.
Elevation
Offset (Ft.) From Section Line

Top of Boring Probe

—?— Strata Interface

R End of Boring

## GENERAL NOTES:

1. As-drilled boring locations for the shown borings derived from electronic file "Hogan Road borings.dgn" provided to WSP by MaineDOT on October 13, 2023.
2. For detailed lithologic decriptions see Boring Logs included in the Geotechnical Desiogn Report (DGR).
3. Groundwater surface is interpreted from localized surface water levels and measurements taken during the subsurface exploration programs.
4. This generalized subsurface section is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed based on interpretations of widely spaced explorations actual soil and rock transitions may vary amd are probably more erratic.
5. Proposed abutment geometry interpreted from electronic file "xsect_bridge_abutments_piers.dgn" provided to WSP by VHB on August 22, 2025.

## SECTION H-H'

HORIZ 25 0 25 50

VERT 5 0 5 10

SCALE

140 135 130 125 120 115 110 105 100 95 90 85 80 75 70 65 60 55 50 45

Filename: ...\MSTA\GeoProfile_5Span_eb.dgn Division: BRIDGE Username: Date:11/7/2025

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 5823

STATE OF MAINE CHRISTOPHER C. BENDA No. 15164 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 15164 P.E. NUMBER

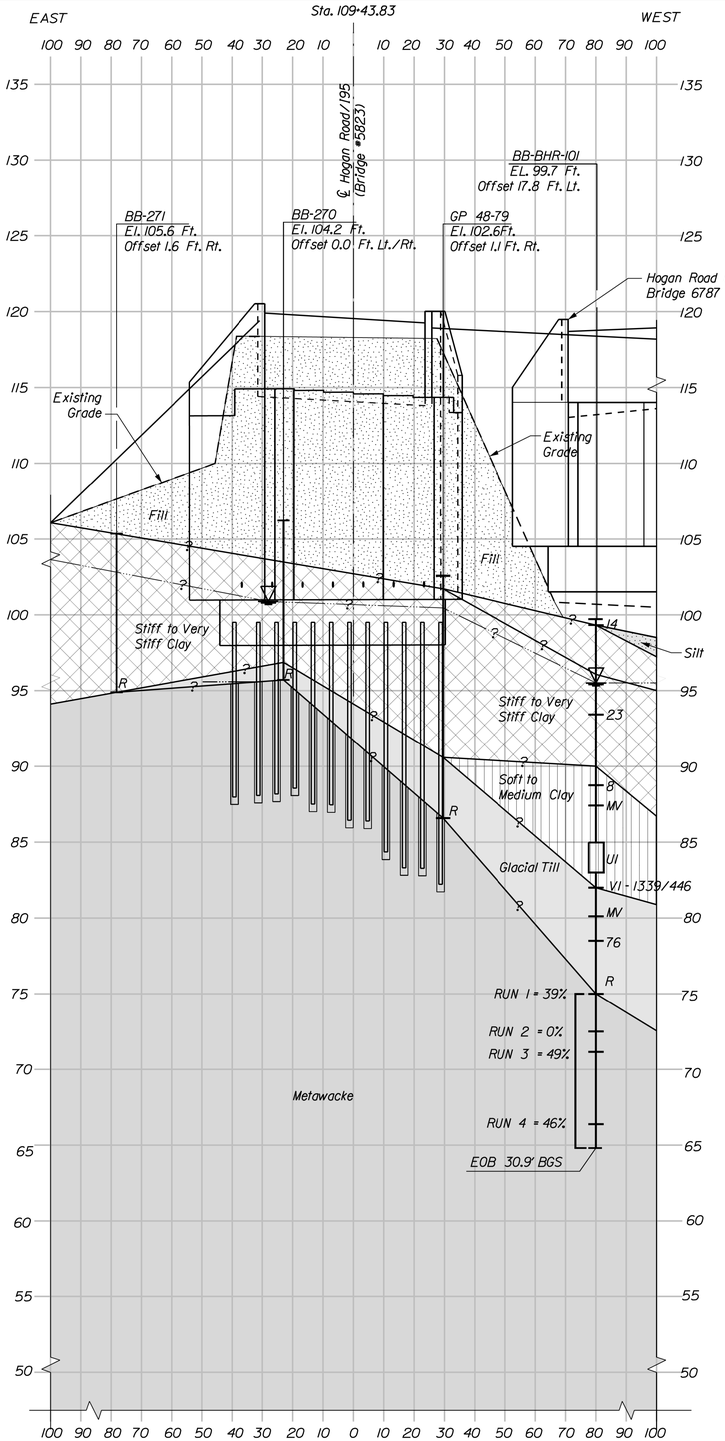
DATE 11/07/2025

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. LANDON | |
| DESIGN-DETAILED | WEG | 5/2024 |
| CHECKED-REVIEWED | DEB | 10/2025 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | XXX | XXX |
| REVISIONS 2 | XXX | XXX |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/I95 BRIDGE
I95 PENOBSCOT
BANGOR

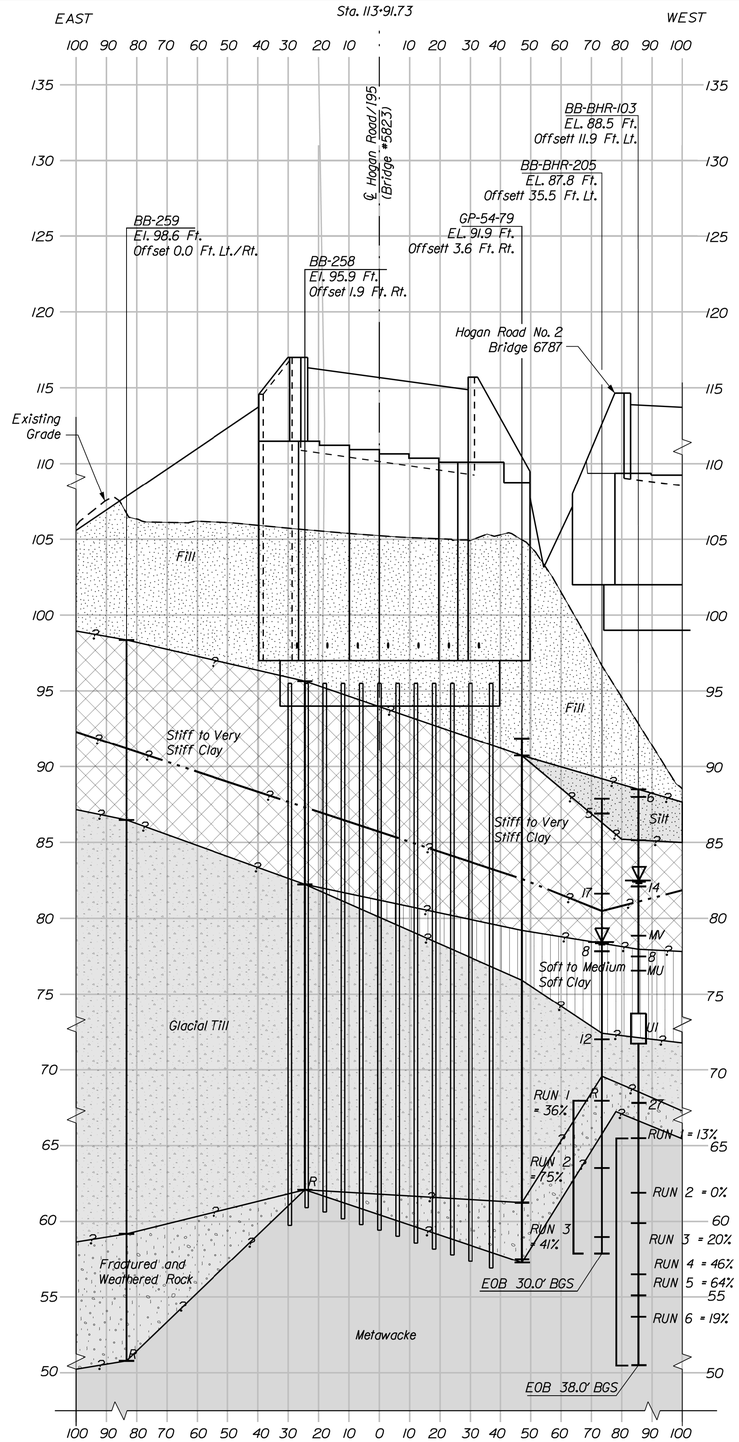
INTERPRETIVE SUBSURFACE SECTIONS
(SHEET 1 OF 2)

SHEET NUMBER
B-5
372
OF 485




SECTION J-J'

HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE




SECTION K-K'

HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE

- Grey, Medium Dense, Gravelly Fine to Coarse Sand, some Silt (Fill)
- Olive-Brown, Medimum Stiff to Very Stiff Silt, Trace Fine Sand and Gravel, Slightly Plastic (Silt)
- Medimum to Soft, Grey to Brown Mottled and Weathered Silty Clay with Sandy Silt Lines and Lenses (Clay)
- Stiff, Grey to Brown Mottled and Weathered Silty Clay with Sandy Silt Lines and Lenses (Clay)
- Fractured and Weathered Rock
- Loose to Dense, Grey to Brown Silty Fine Sand, Angular Rocks and Gravel (Glacial Till)
- Grey, Fine Grained to Very Fine Grained Metawacke
- Proposed Bridge Substructure and Superstructure
- Existing Ground Surface
- Interpreted Ground Water Surface
- Boring Location I.D.
- Elevation
- Offset (Ft.) From Section Line
- Top of Boring Probe
- —?— Strata Interface
- 30 — SPT: N60 - Value (Corrected for Hammer Efficiency)
- VI — Field Vane Shear Test Location and Undrained Shear Strength (PSF) (Peak/Remolded)
- UI Thin Wall Tube Sample
- MV — Missed Vane
- R — End of Boring Depth Below Ground Surface (BGS)

NOTE:

1. See Sheets B-4 and B-5 for General Notes.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 5823

STATE OF MAINE · CHRISTOPHER E. HOBSON No. 15164 · REGISTERED PROFESSIONAL ENGINEER

| | SIGNATURE | 15164 | P.E. NUMBER | 11/07/2025 | DATE |
|---|---|---|---|---|---|

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. LANDON | |
| DESIGN-DETAILED | NVW | 5/2024 |
| CHECKED-REVIEWED | DEB | 10/2025 |
| DESIGN2-DETAILED2 | CCB | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | XXX | XXX |
| REVISIONS 2 | XXX | XXX |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

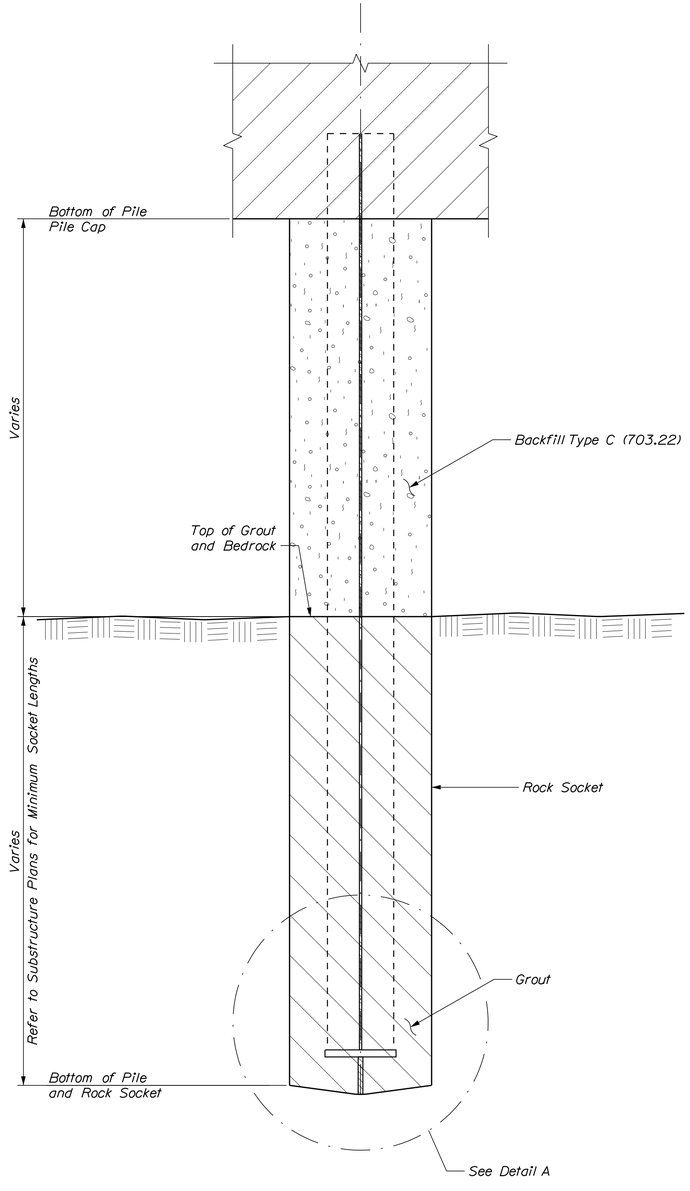
HOGAN ROAD/195 BRIDGE
195 PENOBSCOT
BANGOR

INTERPRETIVE SUBSURFACE SECTIONS
(SHEET 2 OF 2)

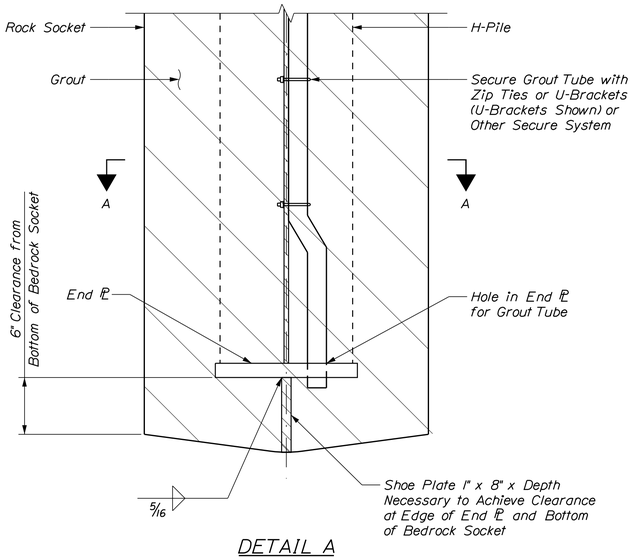
SHEET NUMBER
B-6
373
OF 485

Filename: ...\MSTA\Geoxsect_01_5Span_eb.dgn Division: BRIDGE Username: Date:11/7/2025

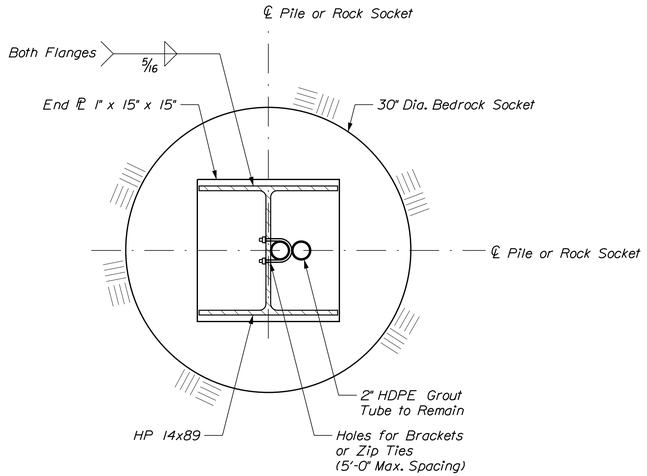
Filename: ...\XXX_socket.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




ROCK SOCKETED H-PILE DETAIL




DETAIL A




VIEW A-A

## PILE NOTES

1. The maximum factored pile load is 230 kips at the Strength Limit State.

2. Unless socketed, piles shall be driven to the required resistance on or within bedrock in accordance with Standard Specification Section 501.

3. Estimate of piles (HP 14x89) required are as shown on substructure plans. The order lengths of the piles shall include an additional 5 feet of length for each test pile to accommodate dynamic pile testing equipment.

4. H-pile material shall be ASTM A572, Grade 50.

5. H-pile splices shall be in accordance with Standard Detail 501(03).

6. All driven piles (not otherwise socketed in bedrock) shall be equipped with a pile tip in accordance with Standard Specifications Subsection 501.048, Prefabricated Pile Tips, and 711.10 H-Beam Piles, Splices and Tips.

7. Piles shall not be out of position shown by more than 2 inches in any direction.

8. Piles marked with an arrow shall be battered 3 inches per foot in the direction of the arrow.

9. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times Fy. The submittal shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system.

10. The Contractor shall perform four (4) dynamic load tests at Abutment 2, two (2) tests on battered piles, and two (2) tests on plumb piles, with 24-hour (minimum) restrike tests to confirm the nominal resistance of the piles. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. Initial dynamic tests shall be performed on the first production battered and plumb piles driven at Abutment 2, and the second set of tests shall be performed on battered and plumb piles selected by the Resident and Engineer of Record from the opposite end of the foundation.

## ROCK SOCKET NOTES:

1. Rock socket H-Piles require excavation and installation in accordance with Special Provision 501 - Rock Socketed H-Pile Foundations.

2. Piles shall not be out of position shown by more than 2 inches in any direction.

3. Adjust the bottom of pile elevation and length of pile to maintain minimum rock socket length for each individual pile.

4. All rock sockets shall be grouted from the bottom of the socket to the top of the bedrock surface.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 5823 | WIN 18595.11 | BRIDGE PLANS

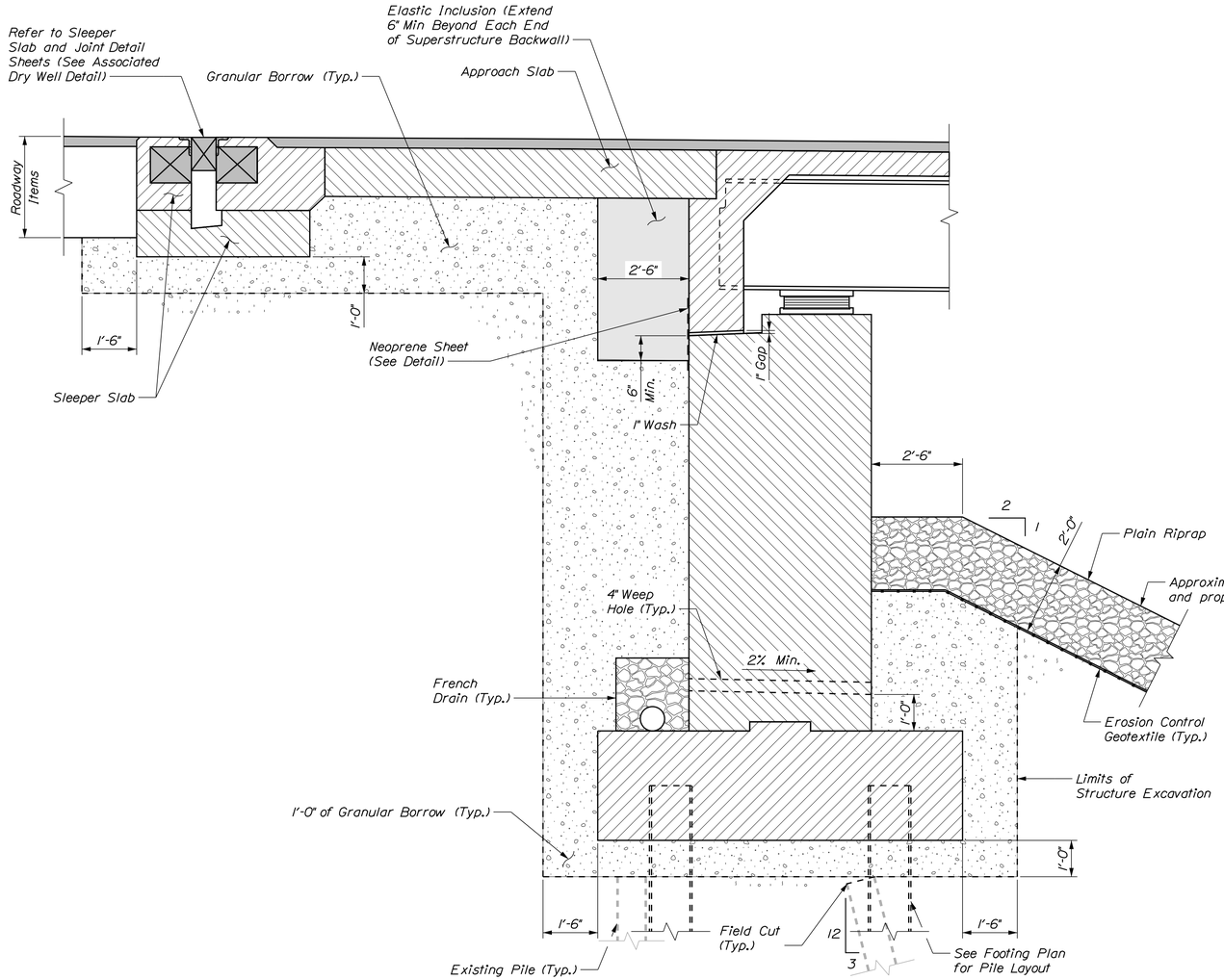
vhb

| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | KDW | BY | DATE |
| CHECKED-REVIEWED | SMH | KDW | 11/25 |
| DESIGN2-DETAILED2 | | SMH | 11/25 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

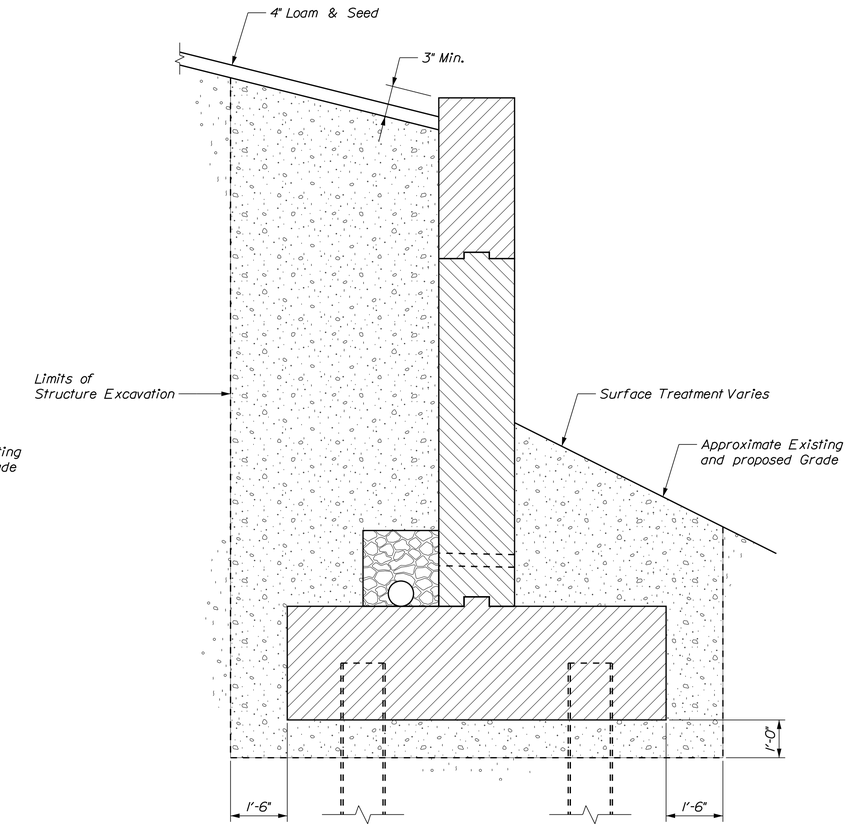
PILE DETAILS

SHEET NUMBER
B-7
374
OF 485



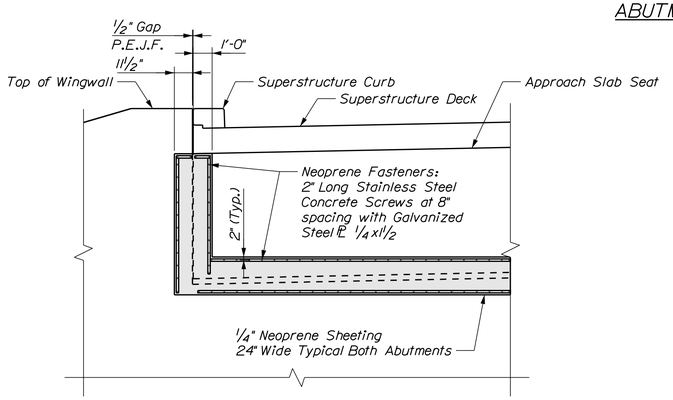

## ABUTMENT EARTHWORK DETAIL

Abutment No. 1 Shown



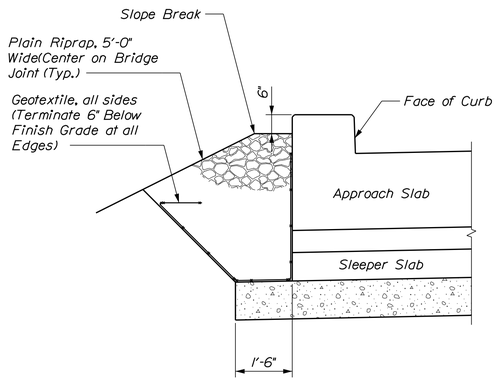

## WINGWALL EARTHWORK DETAIL

Wingwall No. 1 Shown




## SCHEMATIC NEOPRENE ATTACHMENT DETAIL

Typical on backsides of abutments where the end of Superstructure is flush with the Abutment.




## DRY WELL DETAIL

(Both Ends of Bridge Joints at Each Sleeper Slab)
(Expansion Joint Not Shown)

## ABUTMENT NOTES

1. Structural Earth Excavation required more than 12 inches below the bottom of the structure will be paid for in accordance with Standard Specifications Section 206, Structural Excavation.

2. Abutments, wingwalls, and their footings shall be backfilled with Grannular Borrow. Pay limits will be the structural excavation limits in cut areas and a vertical plane located 10 feet behind the walls in fill areas.

3. Reinforcing steel shall have a minimum concrete cover of 2 inches in the walls and 3 inches in the footings unless otherwise noted.

4. Daylight French Drains along back face of abutments and wingwalls on each side of the bridge as approved by the Resident.

5. Cover joints where waterstops are not required in accordance with Standard Details Section 502.

6. Place drains with a 4-inch diameter in the breastwall and wingwalls at 10 feet maximum spacing. The exact location will be determined by the Resident.

7. Existing piles are shown for information only. Contractor shall verify existing pile locations for removal.

8. Elastic inclusion material and installation shall be in accordance with Special Provision 203 - Elastic Inclusion.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 5823

WIN 18595.11

BRIDGE PLANS

vhb

| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

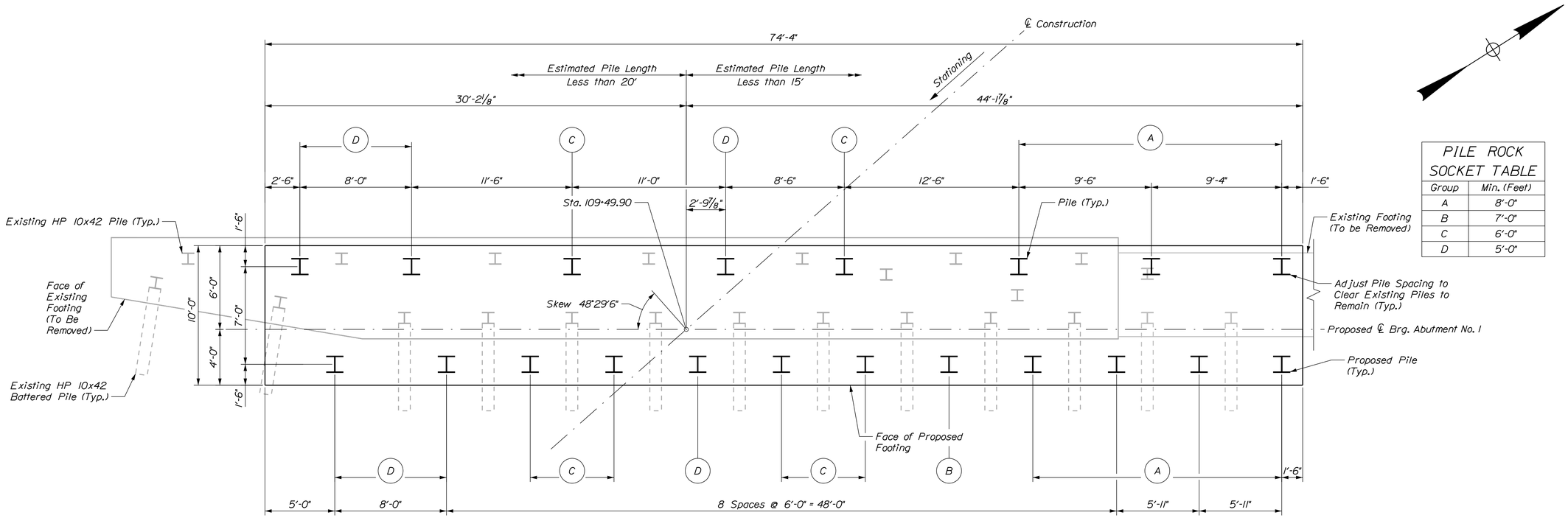
HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

ABUTMENT NOTES & DETAILS

SHEET NUMBER
B-8
375
OF 485

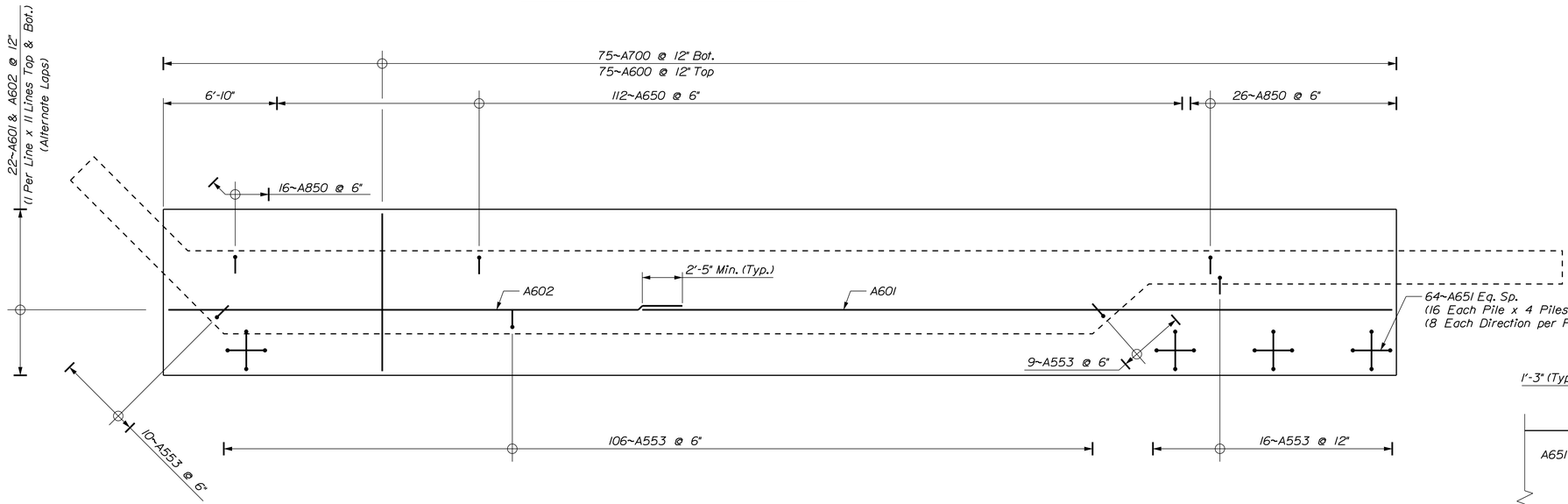
Filename: ...\XXX_Abut_1_Details.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

Filename: ...\XXX_Abut_1_01.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

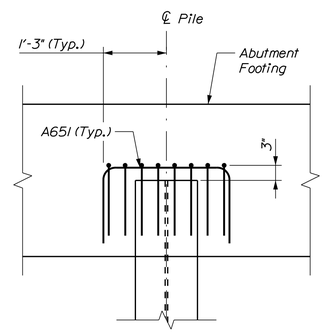



| PILE ROCK SOCKET TABLE | |
|---|---|
| Group | Min. (Feet) |
| A | 8'-0" |
| B | 7'-0" |
| C | 6'-0" |
| D | 5'-0" |

FOOTING PLAN & PILE LAYOUT




REINFORCING PLAN




DETAIL A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

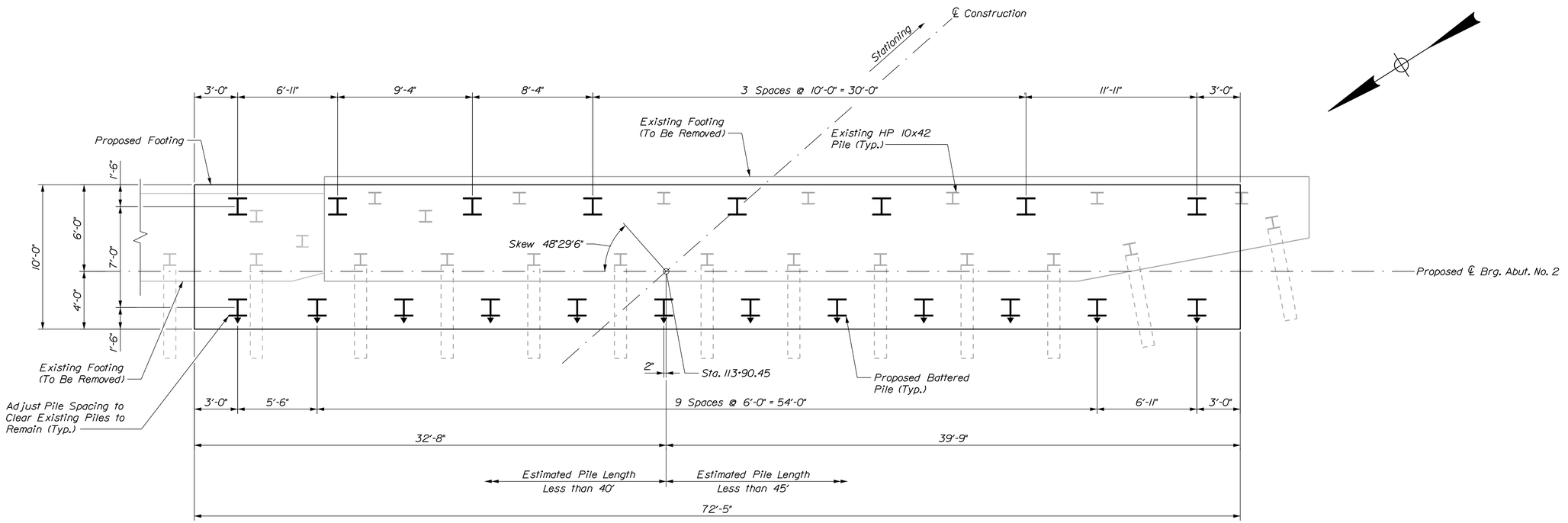
vhb

| | | |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | APS | 11/25 |
| CHECKED-REVIEWED | YP | 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

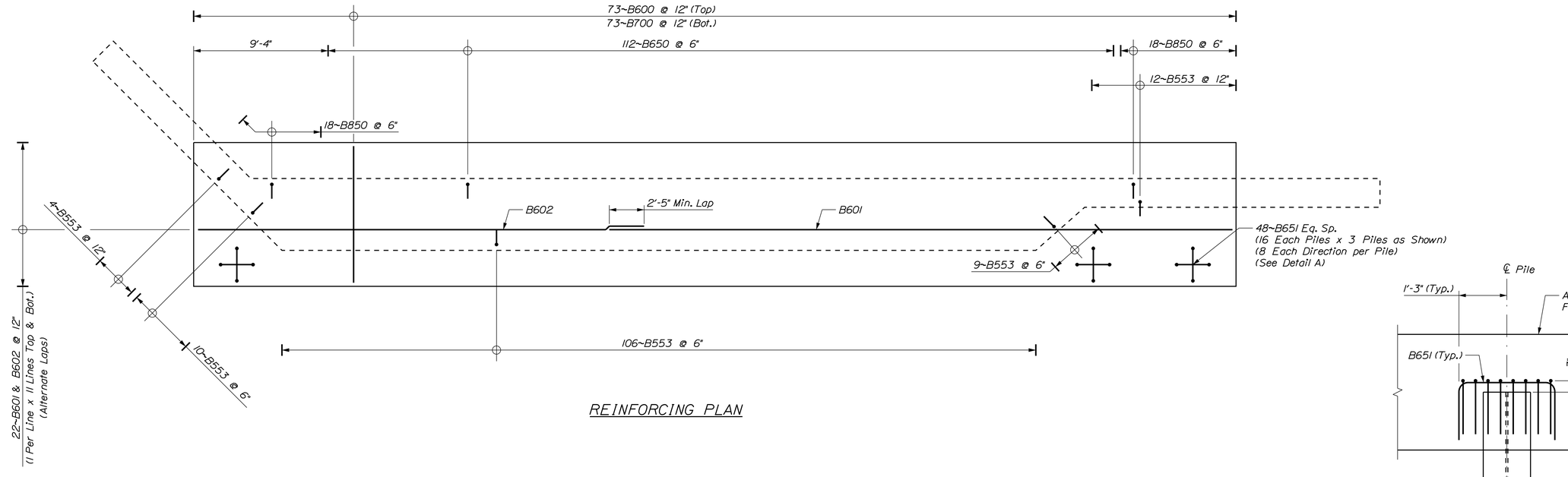
HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

ABUTMENT NO. 1
FOOTING PLAN

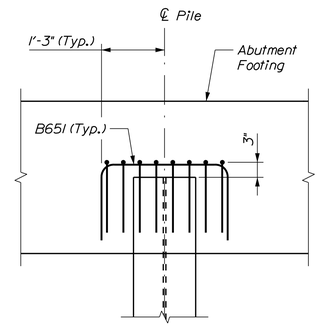
SHEET NUMBER
B-9
376
OF 485




FOOTING PLAN PILE LAYOUT




REINFORCING PLAN




DETAIL A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

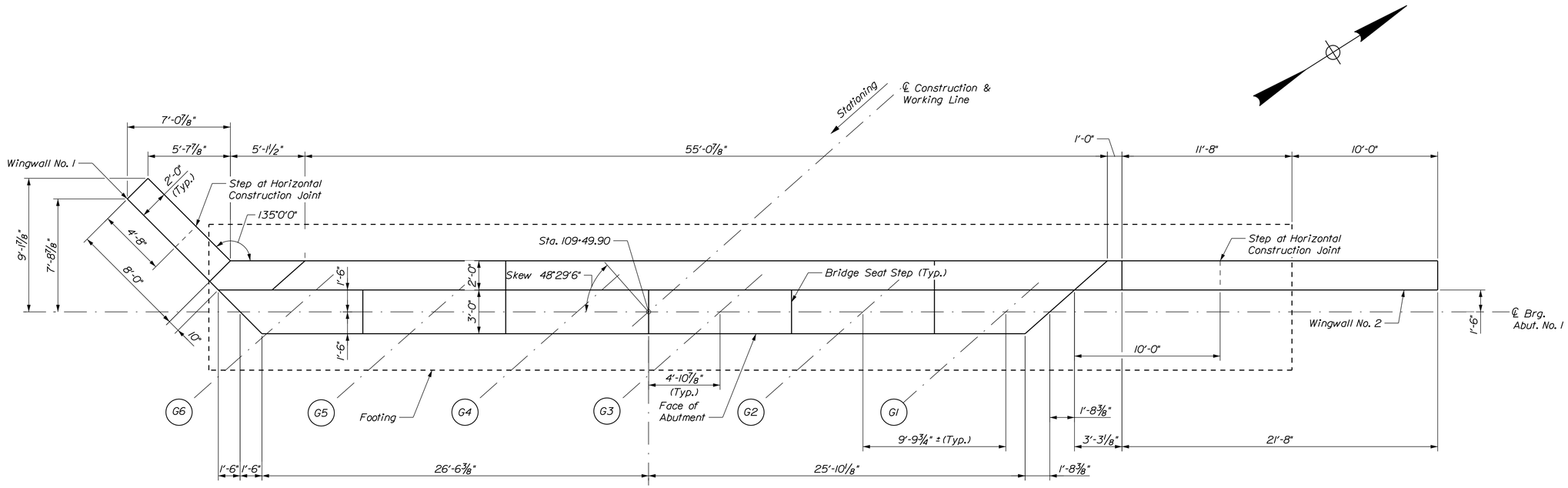
| | | |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | APS | JAH 11/25 |
| CHECKED-REVIEWED | YP | SMH 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

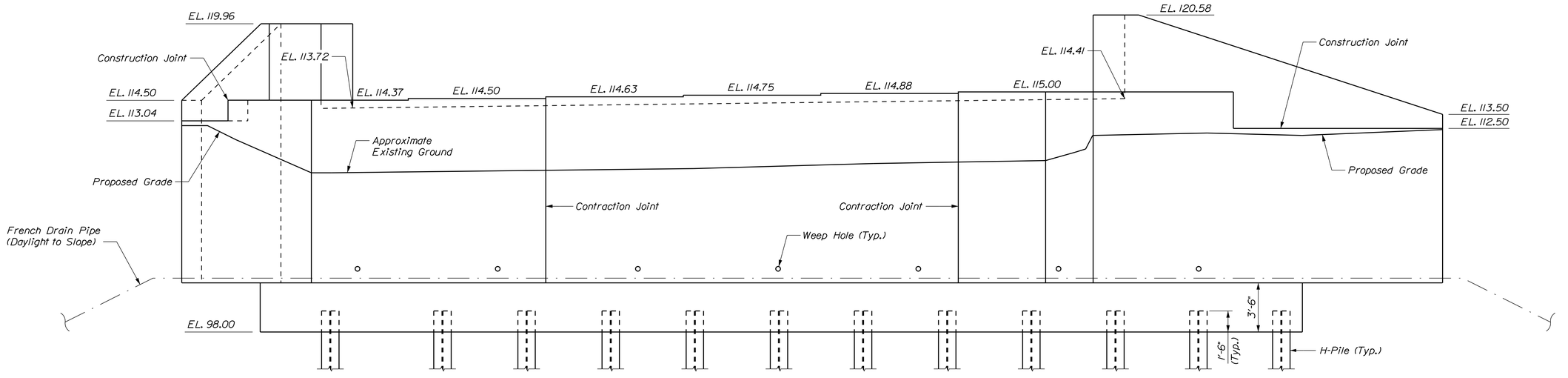
ABUTMENT NO. 2
FOOTING PLAN

SHEET NUMBER
B-10
377
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_Abut_2_01.dgn




PLAN




ELEVATION

NOTES

1. Far face elevations of the lower bridge seat wash are given at the back face of the abutment and the low end of the wash.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

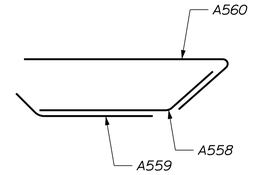
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | K.JB | JAH | 11/25 |
| CHECKED-REVIEWED | JEP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

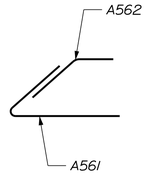
ABUTMENT NO. 1
PLAN & ELEVATION

SHEET NUMBER
B-11
378
OF 485

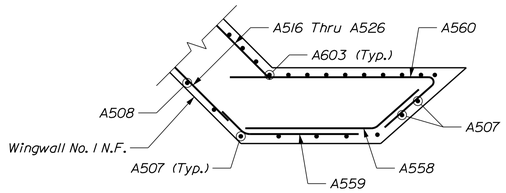
Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_Abut_1_02.dgn



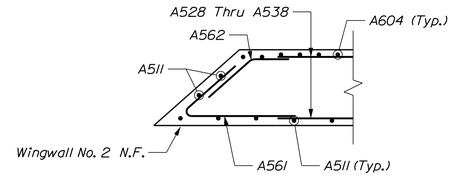

SET B
(1~A558, 1~A559, and 1~A560)



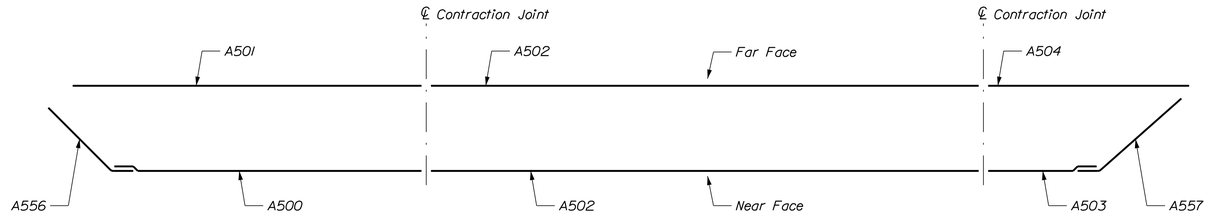

SET C
(1~A561 and 1~A562)



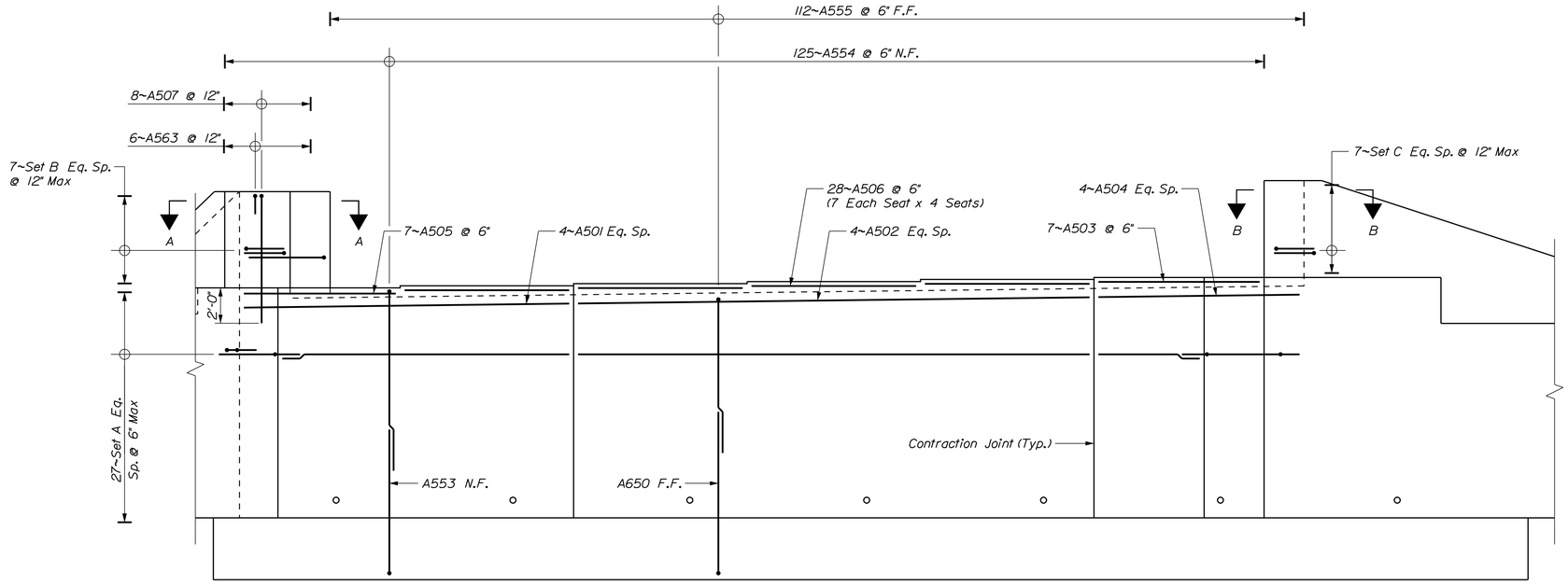

SECTION A-A




SECTION B-B




SET A
(1~A500, 1~A501, 2~A502, 1~A503, 1~A504, 1~A556, and 1~A557)




ABUTMENT NO. 1 REINFORCING ELEVATION
(Wingwall Reinforcing and Piles Not Shown)

REINFORCING KEY

E.F. = Each Face
N.F. = Near Face
F.F. = Far Face

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

| | BY | DATE |
|---|---|---|
| L. ROWE | JAH | 11/25 |
| JEP | SMH | 11/25 |
| APS | | |

PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN2-DETAILED2
DESIGN3-DETAILED3

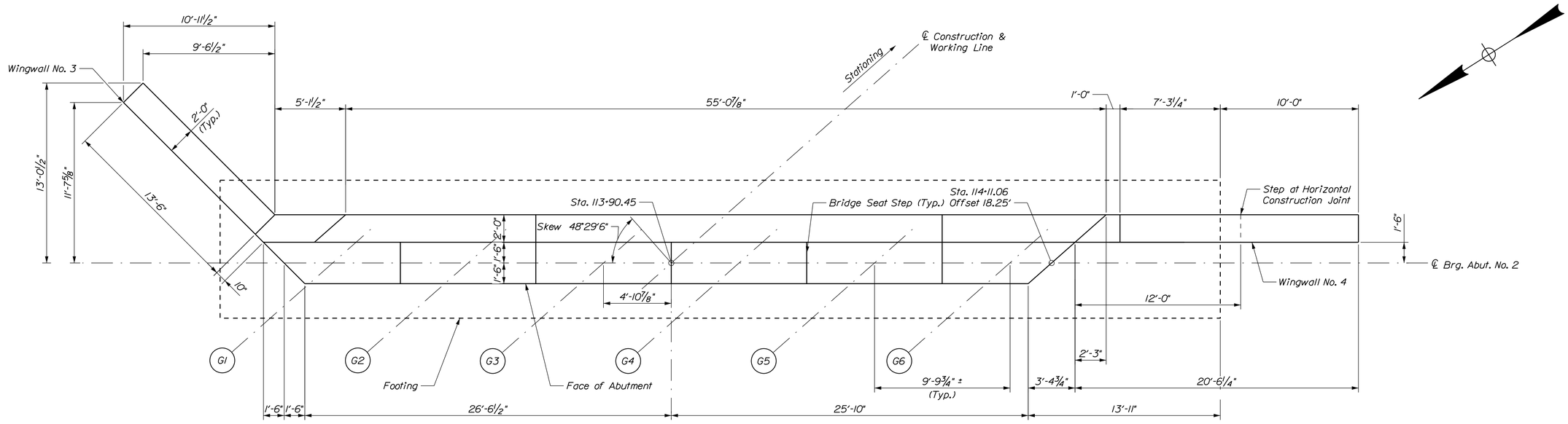
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

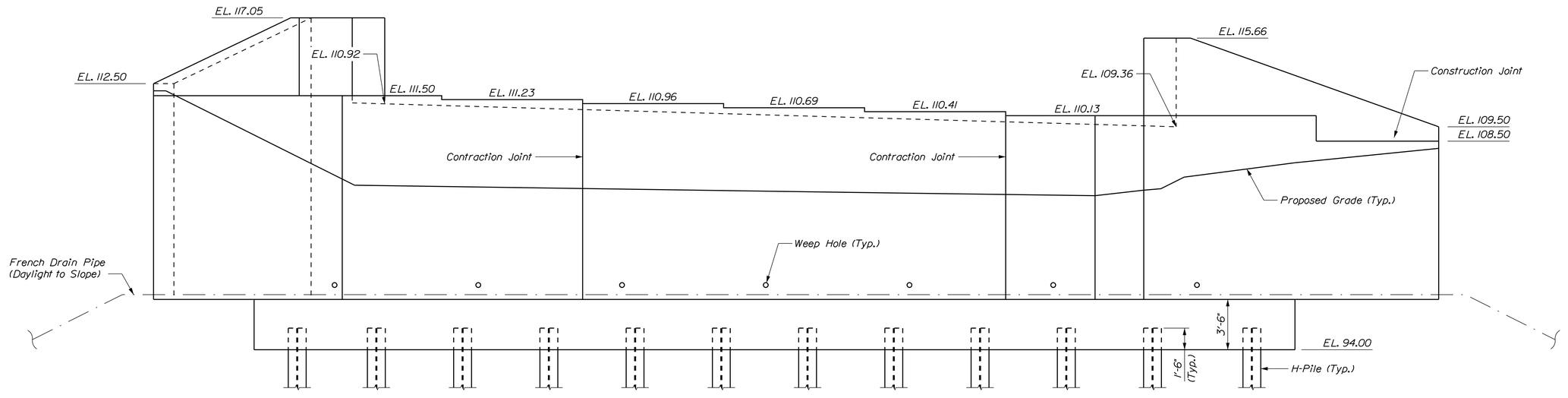
ABUTMENT NO. 1
REINFORCING

SHEET NUMBER
B-12
379
OF 485

Filename: ...\XXX_Abut_1_Rein_01.dgn Username: jamesdavis Date:08/29/2025
Division: HIGHWAY




PLAN




ELEVATION

NOTES

1. Far face elevations of the lower bridge seat wash are given at the back face of the abutment and the low end of the wash.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

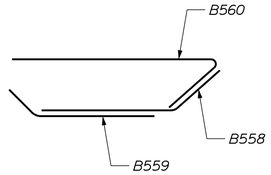
| | | |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | K.JB | JAH 11/25 |
| CHECKED-REVIEWED | JEP | SMH 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

ABUTMENT NO. 2
PLAN & ELEVATION

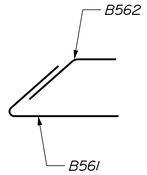
SHEET NUMBER
B-13
380
OF 485

Filename: ...\XXX_Abut_2_02.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



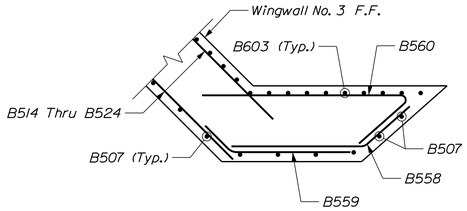

SET E

(1~B558, 1~B559, and 1~B560)

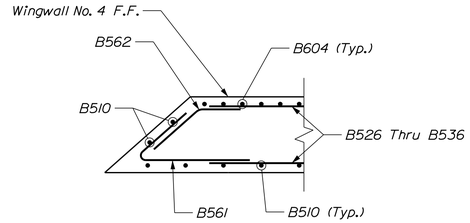



SET F

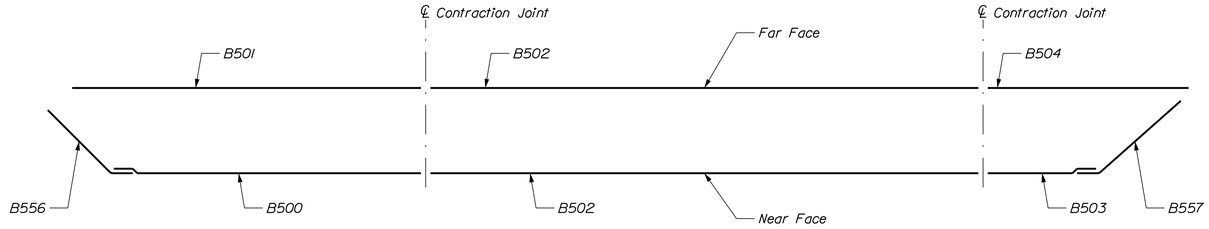
(1~B561 and 1~B562)




SECTION C-C

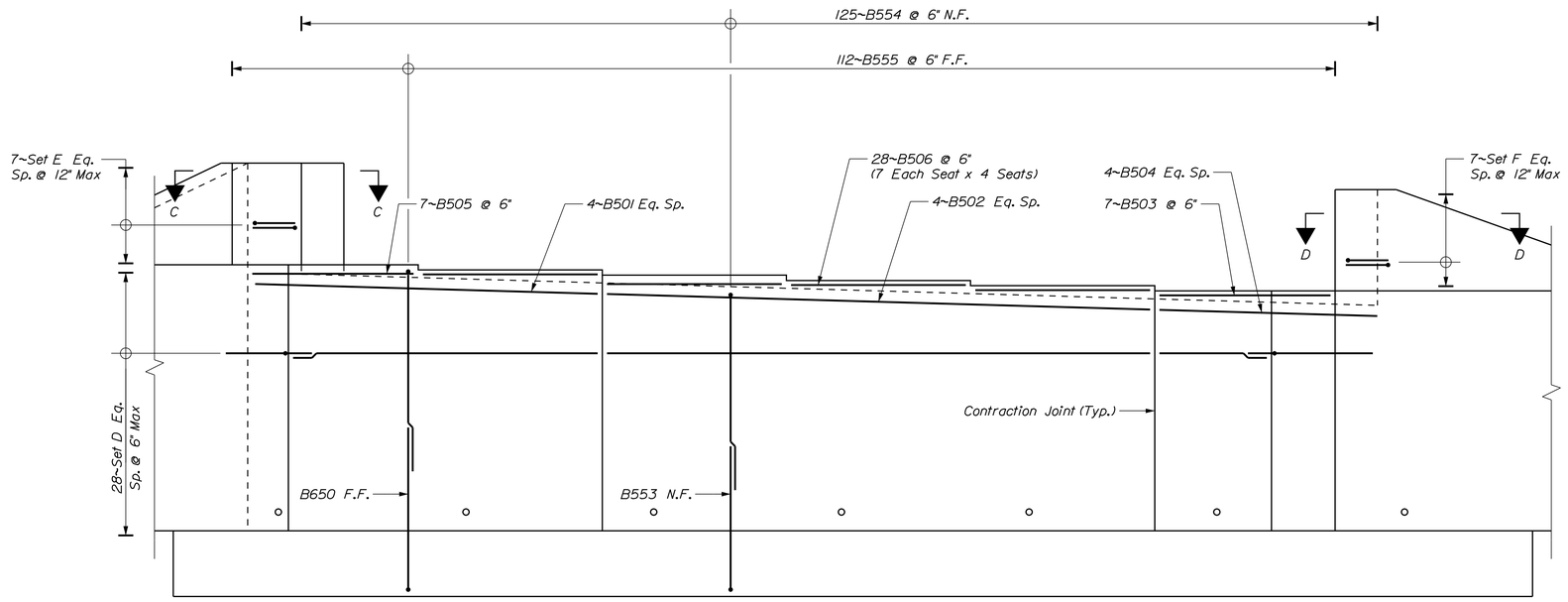



SECTION D-D




SET D

(1~B500, 1~B501, 2~B502, 1~B503, 1~B504, 1~B556, and 1~B557)




ABUTMENT NO. 2 REINFORCING ELEVATION

(Wingwall Reinforcing and Piles Not Shown)

REINFORCING KEY

E.F. = Each Face
N.F. = Near Face
F.F. = Far Face

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 5823

vhb

| | L. ROWE | DATE |
|---|---|---|
| DESIGN-DETAILED | JEP | 11/25 |
| CHECKED-REVIEWED | APS | 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

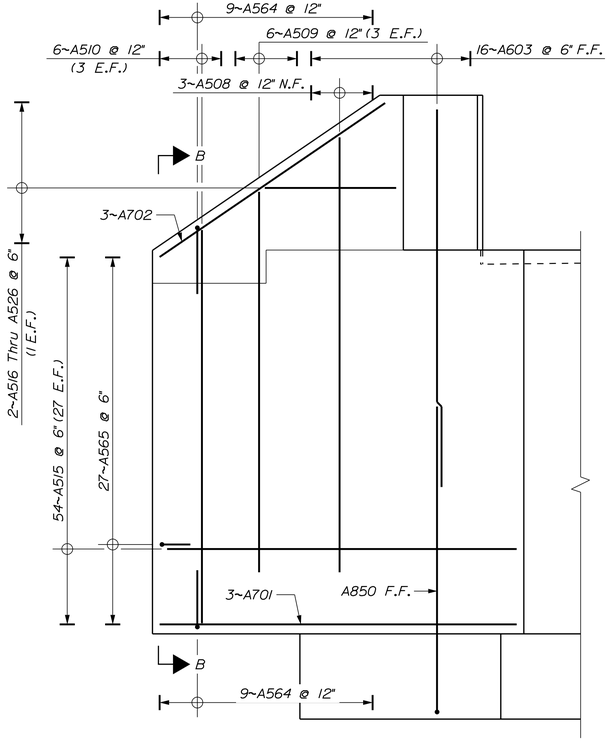
PROJ. MANAGER

HOGAN ROAD/I95 BRIDGE
I-95
PENOBSCOT
BANGOR

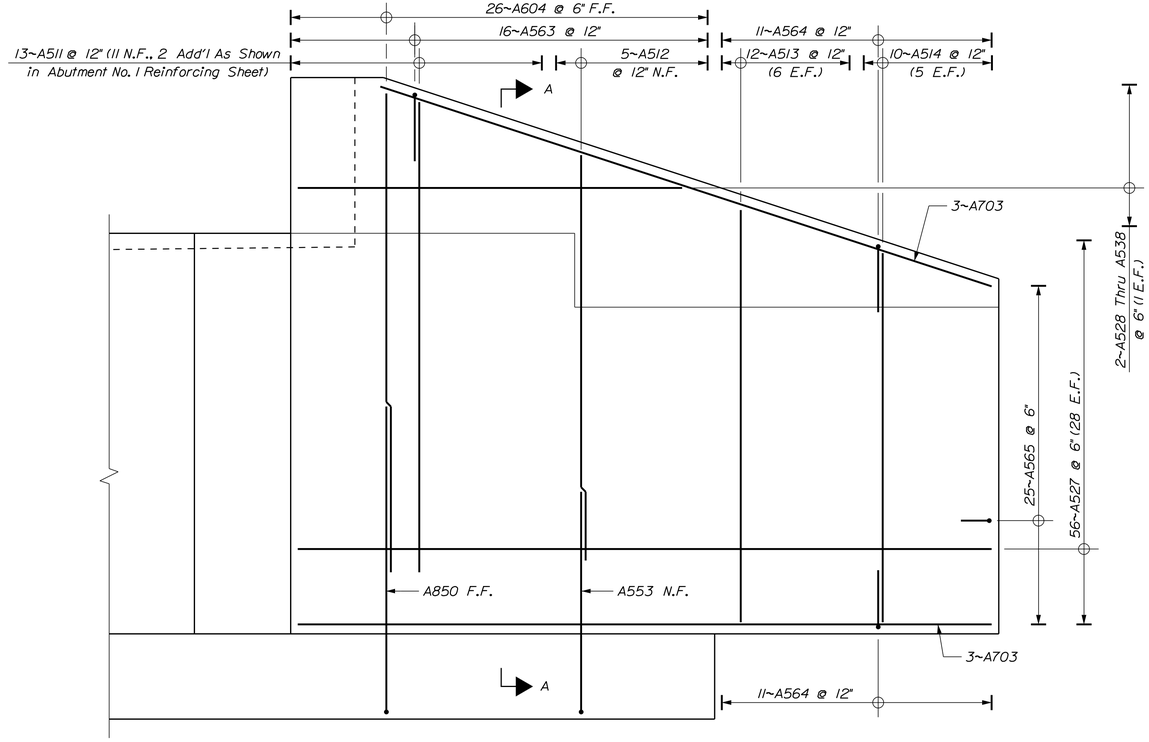
ABUTMENT NO. 2
REINFORCING

SHEET NUMBER
B-14
381
OF 485

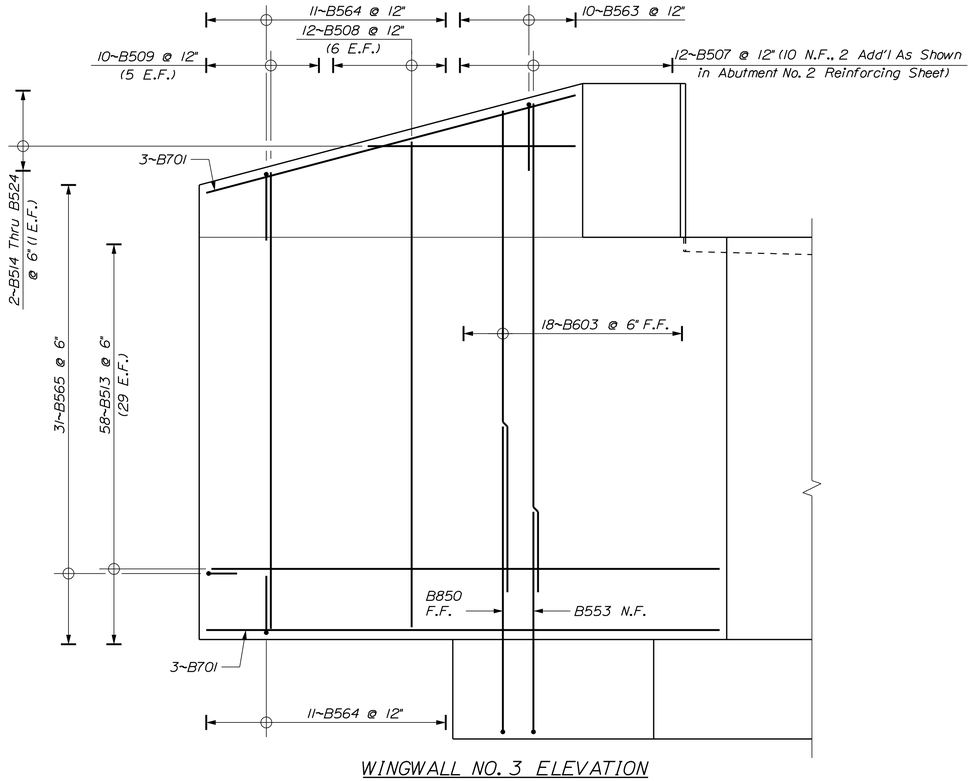
Filename: ...\XXX_Abut_2_Rein_01.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



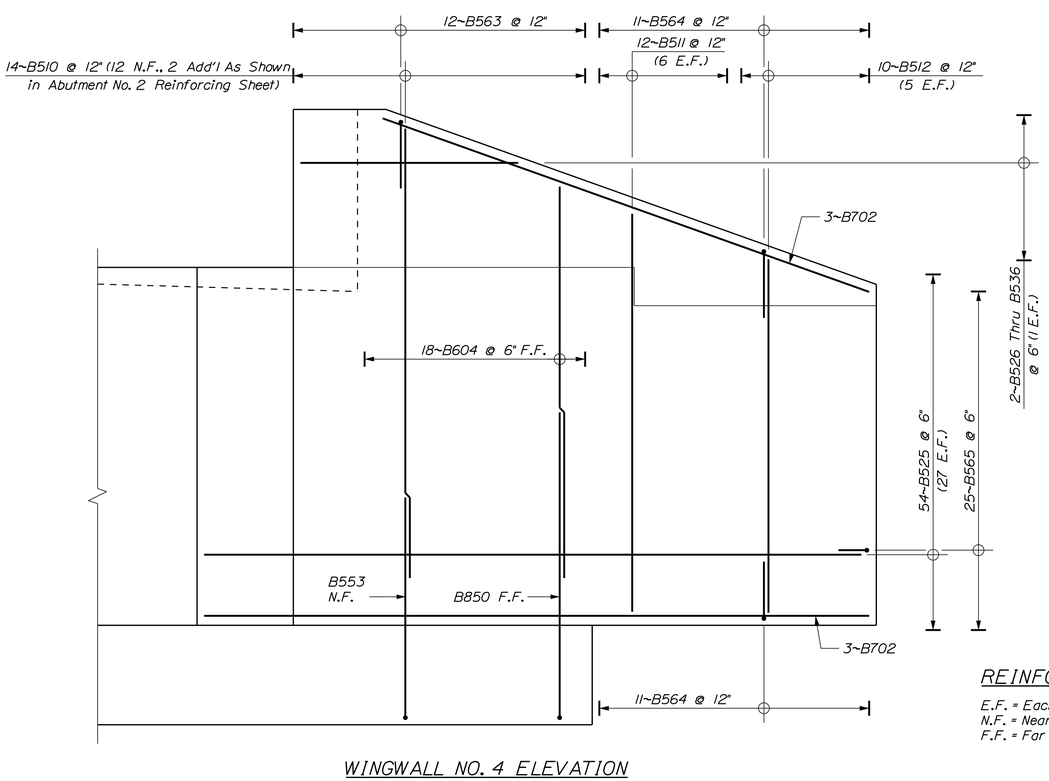

WINGWALL NO. 1 ELEVATION




WINGWALL NO. 2 ELEVATION




WINGWALL NO. 3 ELEVATION




WINGWALL NO. 4 ELEVATION

REINFORCING KEY

E.F. = Each Face
N.F. = Near Face
F.F. = Far Face

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

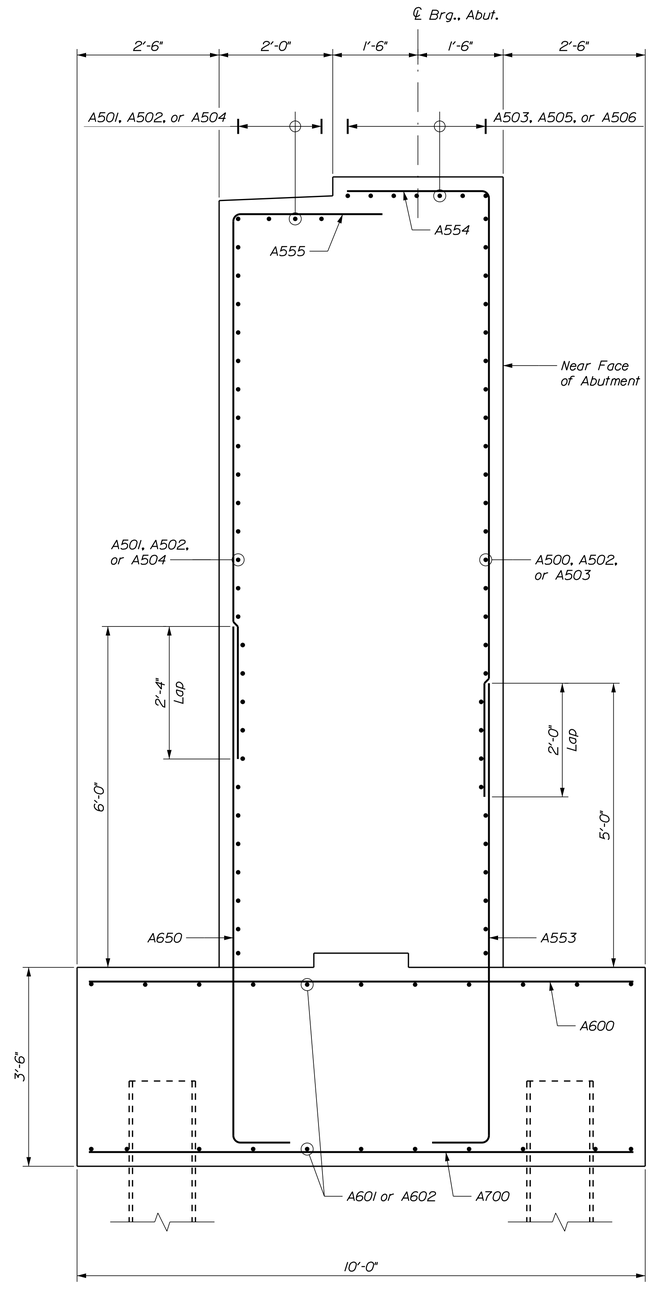
| | BY | DATE |
|---|---|---|
| L. ROWE | | |
| PROJ. MANAGER | JAH | 11/25 |
| DESIGN-DETAILED | JEP | |
| CHECKED-REVIEWED | APS | |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | SMH | 11/25 |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/I95 BRIDGE
I-95
PENOBSCOT
BANGOR

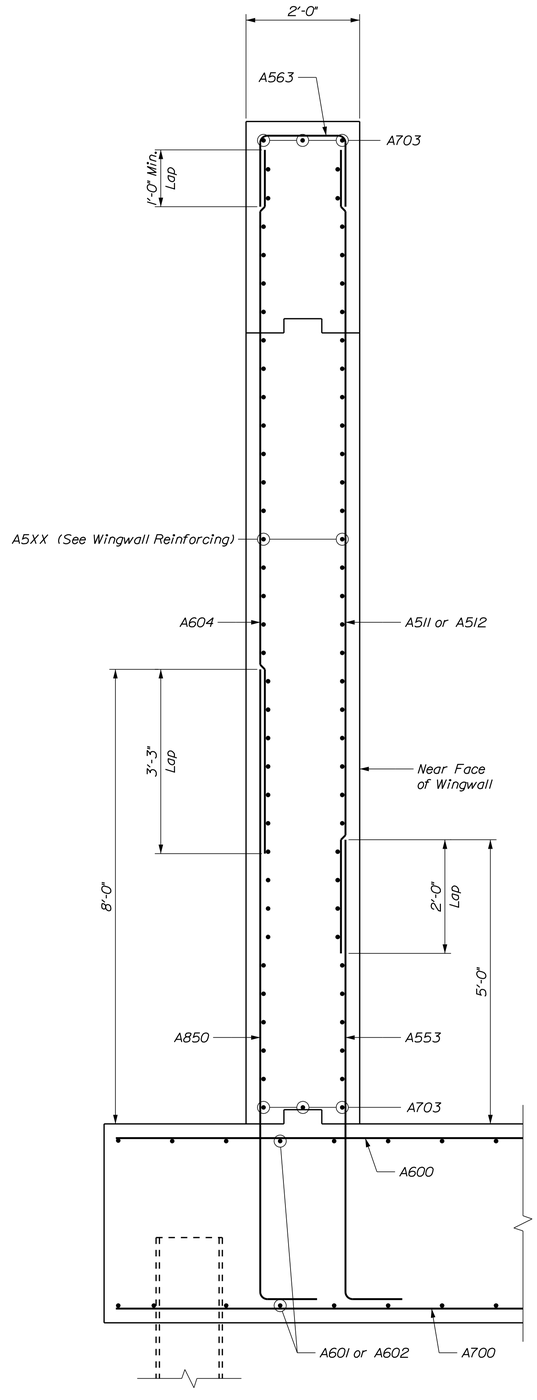
WINGWALL REINFORCING

SHEET NUMBER
B-15
382
OF 485

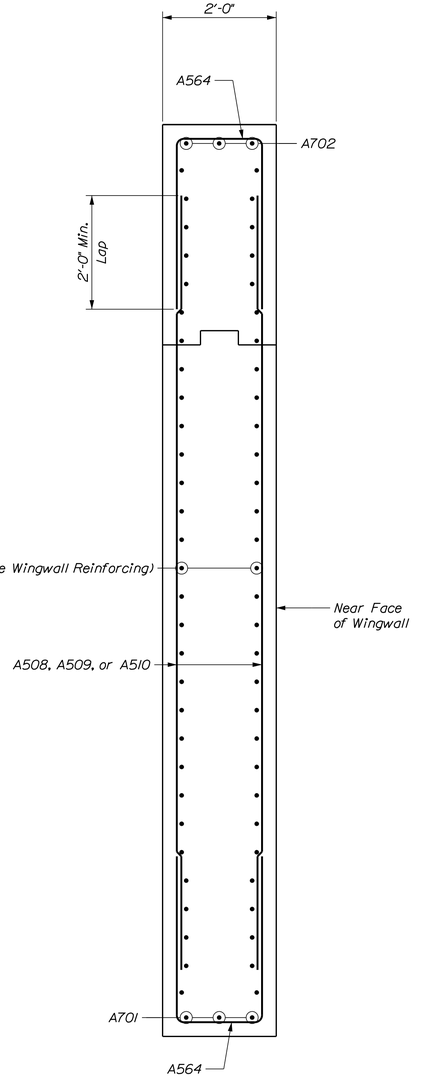
Filename: ...\XXX_Abut_WW_Rein_01.dgn Username: jamesdavis Division: HIGHWAY Date:08/29/2025




ABUTMENT TYPICAL SECTION
(Abutment No. 1 Shown)




WINGWALL SECTION A-A
(Wingwall No. 2 Shown)




WINGWALL SECTION B-B
(Wingwall No. 1 Shown)

NOTES

1. Abutment 1 shown, Abutment 2 similar except front row of foundation piles are battered.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11
BRIDGE NO. 5823

BRIDGE PLANS

vhb

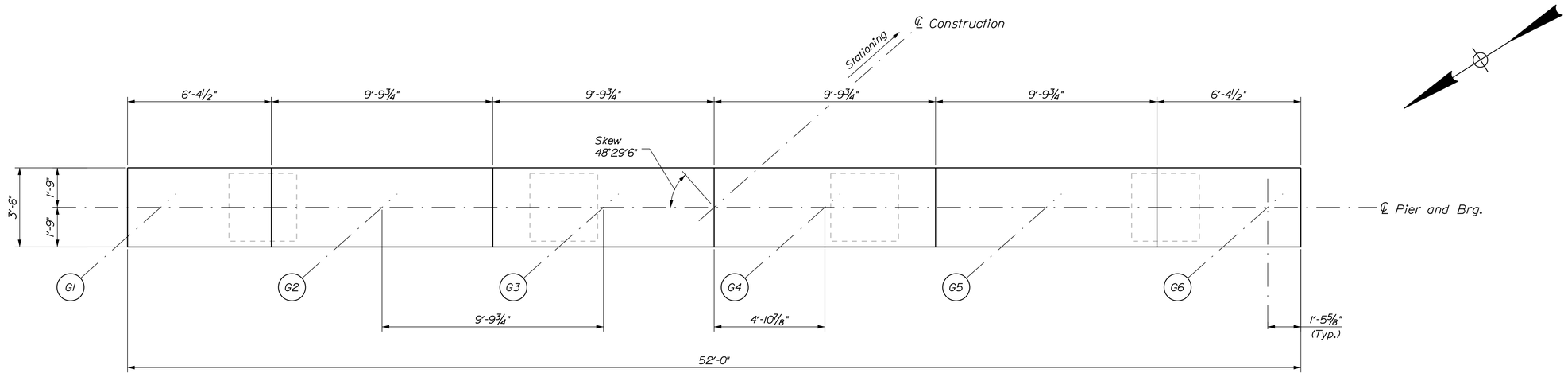
| | BY | DATE |
|---|---|---|
| L. ROWE | | |
| PROJ. MANAGER | JAH | 11/25 |
| DESIGN-DETAILED | JEP | 11/25 |
| CHECKED-REVIEWED | APS | |
| DESIGN2-DETAILED2 | SMH | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/I95 BRIDGE
I-95
PENOBSCOT
BANGOR

ABUTMENT AND WINGWALL
REINFORCING SECTIONS

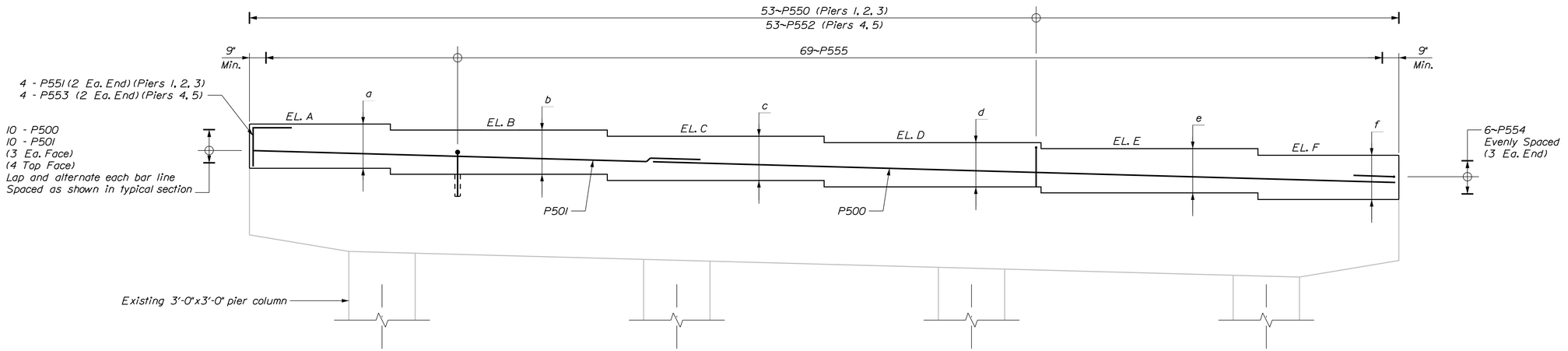
SHEET NUMBER
B-16
383
OF 485

Filename: ...\XXX_Abut _1_Rein_Sect.dgn Username: jamesdavis Division: HIGHWAY Date:08/29/2025



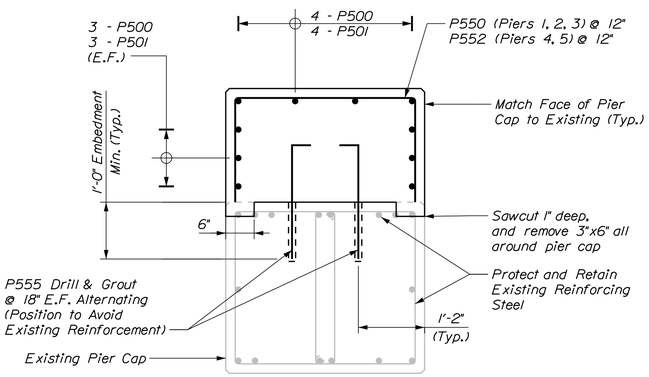

## PIER CAP PLAN

(Pier No. 1 Shown, Others Similar)




## PIER ELEVATION

(Pier No. 1 Shown, Others Similar)




## PIER CAP TYPICAL SECTION

### PIER BUILD-UP DIMENSIONS (+/-) (FT.)

| Location | a | b | c | d | e | f |
|---|---|---|---|---|---|---|
| Pier 1 | 2.14 | 2.16 | 2.20 | 2.24 | 2.26 | 2.29 |
| Pier 2 | 2.40 | 2.42 | 2.46 | 2.49 | 2.51 | 2.55 |
| Pier 3 | 2.33 | 2.36 | 2.39 | 2.42 | 2.45 | 2.49 |
| Pier 4 | 2.96 | 2.99 | 3.02 | 3.06 | 3.08 | 3.11 |
| Pier 5 | 3.35 | 3.38 | 3.41 | 3.45 | 3.46 | 3.51 |

### PROPOSED PIER ELEVATIONS

| Location | A | B | C | D | E | F |
|---|---|---|---|---|---|---|
| Pier 1 | 115.03 | 114.89 | 114.74 | 114.60 | 114.45 | 114.29 |
| Pier 2 | 114.97 | 114.80 | 114.62 | 114.45 | 114.27 | 114.09 |
| Pier 3 | 114.50 | 114.31 | 114.11 | 113.91 | 113.71 | 113.50 |
| Pier 4 | 113.83 | 113.61 | 113.39 | 113.16 | 112.94 | 112.71 |
| Pier 5 | 112.60 | 112.35 | 112.10 | 111.85 | 111.60 | 111.34 |

## PIER NOTES

1. Existing pier dimensions and elevations are taken from limited survey data and existing plans. It is the responsibility of the Contractor to field verify all dimensions and elevations and to be prepared to make adjustments required to complete the work.

2. Drill and grout reinforcing bars per manufacturer's recommendations. It is the responsibility of the Contractor to adjust bar lengths accordingly.

3. No separate payment will be made for drilling and anchoring of reinforcing steel, but shall be considered incidental to the related Contract items.

4. Existing reinforcement shall be retained. The Contractor shall use care not to damage the existing reinforcing steel. Any damaged reinforcing steel due to the Contractor's work shall be replaced as directed by the Resident at no expense to the Department.

5. When drilling and anchoring of reinforcing is required, the Contractor shall use materials listed on the Maine Department of Transportation Qualified Products List.

6. Chamfer exposed edges of concrete cap 3/4".

7. Reinforcing steel in the cap shall have a minimum cover of 2" unless otherwise noted.

8. Adjust cap reinforcement, as approved by the Resident, to accommodate anchor rods for bearings.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

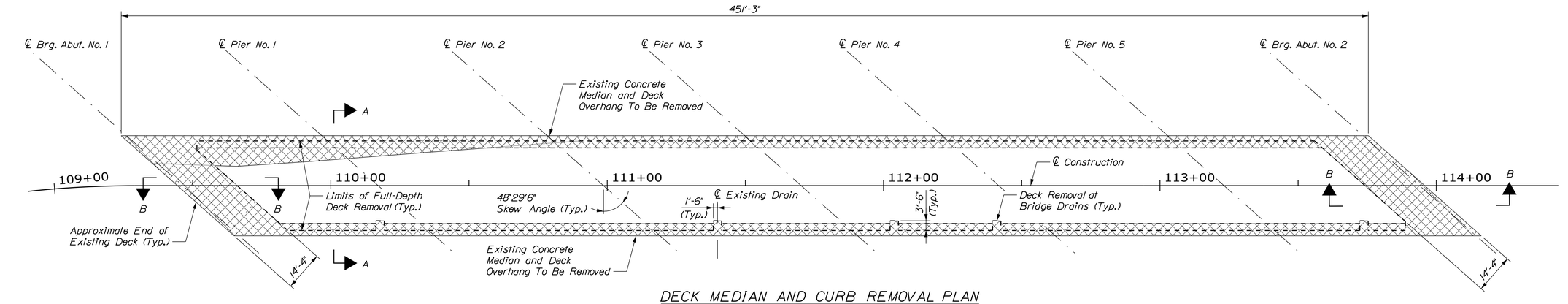
| | | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | K.JB | HMR | 11/25 |
| CHECKED-REVIEWED | JEP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

PIER CAP DETAILS

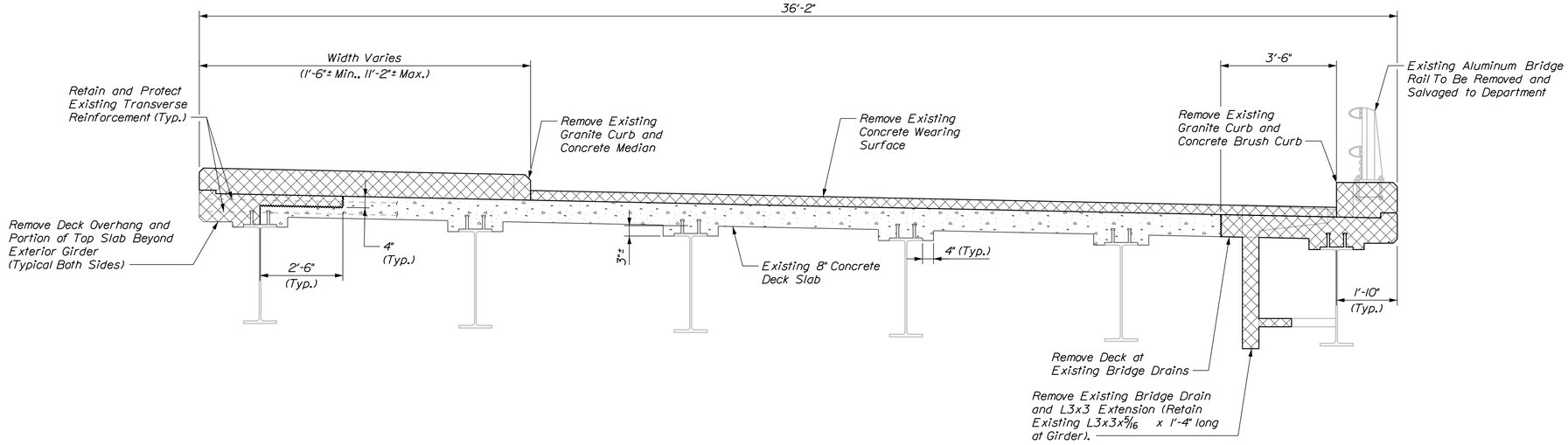
SHEET NUMBER
B-17
384
OF 485

Division: HIGHWAY
Username: jamesdavis
Date:08/29/2025
Filename: ...\XXX_EB_Pier_1.dgn



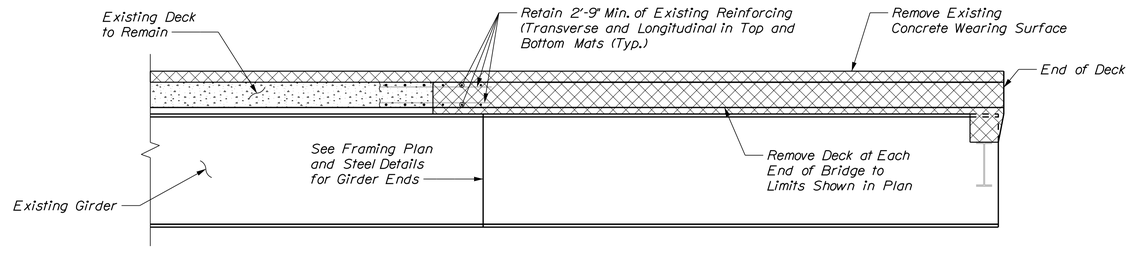

## DECK MEDIAN AND CURB REMOVAL PLAN

(Portion of Bridge No. 5823 Superstructure Constructed in 1960, Not Shown)




## SECTION A-A

(Portion of Bridge No. 5823 Superstructure Constructed in 1960, Not Shown)




## SECTION B-B

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 5823

vhb

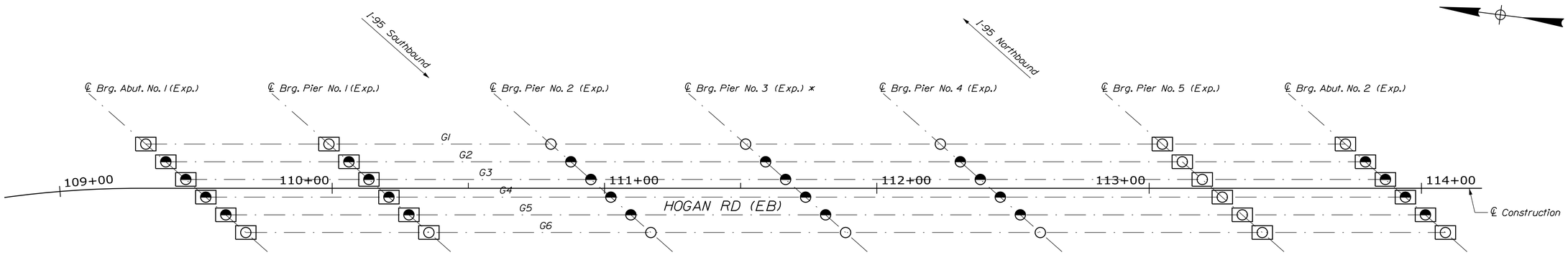
| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | SMH | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

SUPERSTRUCTURE DEMOLITION

SHEET NUMBER
B-18
385
OF 485

Filename: ...\XXX_Deck_Demo_01.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




## BEARING LAYOUT

* See Bearing Note 11

## LEGEND

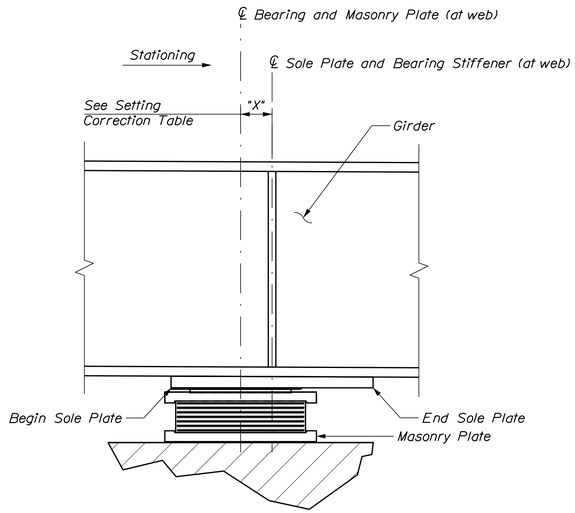
- ○ Non-Guided Bearing Expansion (Multidirectional) (Required for all Girders at Pier 5)
- ◒ Guided Longitudinal Expansion (Unidirectional)
- ▭ Sliding Surface Provided

### SOLE PLATE THICKNESS (INCHES)

| Girder/ Location | Abut. No. 1 | | Pier No. 1 | | Pier No. 2 | | Pier No. 3 | | Pier No. 4 | | Pier No. 5 | | Abut. No. 2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Begin | End | Begin | End | Begin | End | Begin | End | Begin | End | Begin | End | Begin | End |
| G1 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 5/8 | 1 1/2 | 1 3/4 | 1 1/2 | 1 7/8 | 1 1/2 | 1 15/16 | 1 9/16 | 2 | 1 1/2 |
| G2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 5/8 | 1 1/2 | 1 3/4 | 1 1/2 | 1 7/8 | 1 1/2 | 1 15/16 | 1 9/16 | 2 | 1 1/2 |
| G3 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 5/8 | 1 1/2 | 1 3/4 | 1 1/2 | 1 7/8 | 1 1/2 | 1 15/16 | 1 9/16 | 2 | 1 1/2 |
| G4 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 5/8 | 1 1/2 | 1 3/4 | 1 1/2 | 1 7/8 | 1 1/2 | 2 | 1 1/2 | 2 | 1 1/2 |
| G5 | 1 1/2 | 1 1/2 | 1 1/2 | 1 1/2 | 1 5/8 | 1 1/2 | 1 3/4 | 1 1/2 | 1 7/8 | 1 1/2 | 2 | 1 1/2 | 2 | 1 1/2 |
| G6 | 1 1/2 | 1 1/2 | 1 5/8 | 1 1/2 | 1 5/8 | 1 1/2 | 1 3/4 | 1 1/2 | 1 7/8 | 1 1/2 | 2 | 1 1/2 | 2 | 1 1/2 |

### SLIDING BEARING SETTING CORRECTION TABLE

| Location | Dimension "X" (Inches) | | | | | |
|---|---|---|---|---|---|---|
| | 15°F | 30°F | 45°F | 60°F | 75°F | 90°F |
| Abut. No. 1 | 1/2 | 1/4 | 0 | -1/4 | -1/2 | -3/4 |
| Pier No. 1 | 3/8 | 1/8 | 0 | -1/8 | -3/8 | -1/2 |
| Pier No. 5 | -3/8 | -1/8 | 0 | 1/8 | 3/8 | 1/2 |
| Abut. No. 2 | -1/2 | -1/4 | 0 | 1/4 | 1/2 | 3/4 |




## SLIDING BEARING ADJUSTMENT DETAIL

(Not to Scale)

## ELASTOMERIC BEARING NOTES

1. The shear modulus of the elastomer shall be 110 psi. Bearing design is based on Method A.

2. Vulcanization of the elastomer to the steel plates shall be done during the primary mold process. Sole plates for deformable bearings shall be vulcanized to the elastomer.

3. Masonry plates, sole plates and shear blocks shall meet the requirements of ASTM A709, Grade 50. Anchor rods shall meet the requirements of ASTM F1554, Grade 105 and shall be swedged on the embedded portion of the rod. Keeper angles shall conform to the requirements of ASTM A709, Grade 36.

4. Masonry plates shall be galvanized in accordance with Section 506. Sole plates for steel superstructures shall be treated in the same manner as the structural steel. Anchor rods, washers, nuts and shear blocks shall be galvanized to ASTM A153 or ASTM B695, Class 50, Type 1.

5. All bearings shall be marked prior to shipping. The marks shall include the bearing location of the bridge and a direction arrow that points upstation. All marks shall be permanent and shall be visible after the bearing is installed.

6. Bearings shall be covered during shipping and at any time prior to installation that the bearings may be exposed to sunlight.

7. All necessary precautions shall be taken to protect bearing components from field weld flash and spatter. Heat from the welding operations shall be controlled such that steel adjacent to the elastomer does not exceed 200°F. The temperature shall be verified by the use of temperature indicating crayons or other suitable means.

8. Apply lithium grease along the keeper angle vertical face and the edges of sole plates at all guided bearing locations within four inches of keeper angles.

9. The Contractor shall not weld the girders to the sole plates until after all adjustments have been made in accordance with the Standard Specification Section 523.094.

10. The "Bearing Design Load" for each bearing as noted by the Standard Specifications, Subsection 523.23.4. is 192 kips. This is the total load for the Service I load combination, without impact.

11. The Pier 3 bearings shall be temporarily restrained for longitudinal movement at girder lines G2 thru G5 until the superstructure backwalls are constructed. Temporary restraints shall be removed prior to placing backfill against the superstructure backwalls. Any details and any procedural notes for temporary restraint shall be included in the Working Drawings.

12. Any damaged galvanized or metalized surfaces shall be repaired as directed by the resident.

13. In the Sliding Bearing Setting Correction Table, a negative value for Dimension "X" indicates a direction going downstation. A positive value for Dimension "X" indicates a direction going upstation.

14. Temperatures shown in the Sliding Bearing Setting Correction Table are those of the steel girders and not necessarily the ambient air temperature.

15. Sole plates shall be beveled as shown in the Sole Plate Thickness Table. "Begin" and "End" follow the direction of stationing.

16. The abbreviation "PTFE" indicates polytetraflouroethylene.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

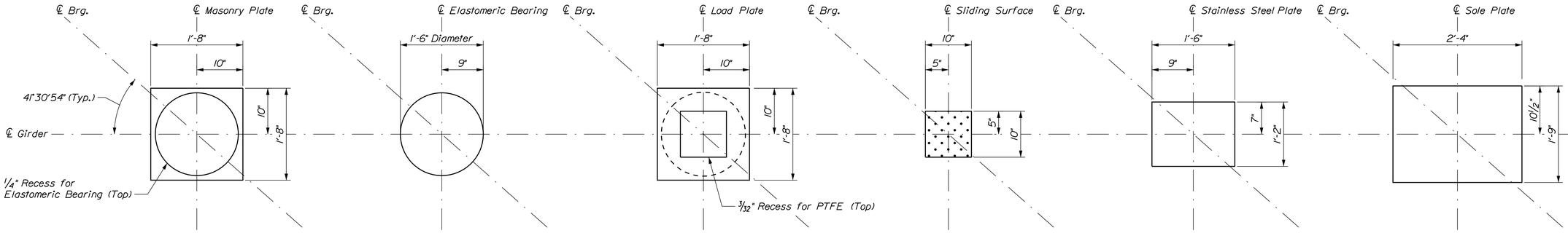
| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | JAH | 11/25 |
| CHECKED-REVIEWED | SMH | 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

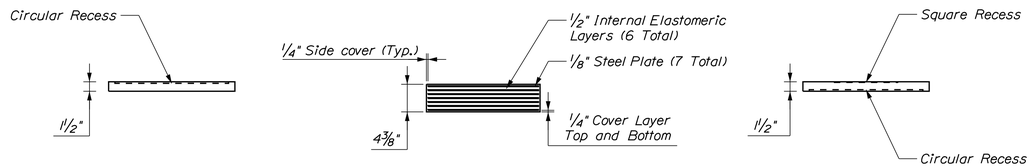
HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

BEARING LAYOUT PLAN

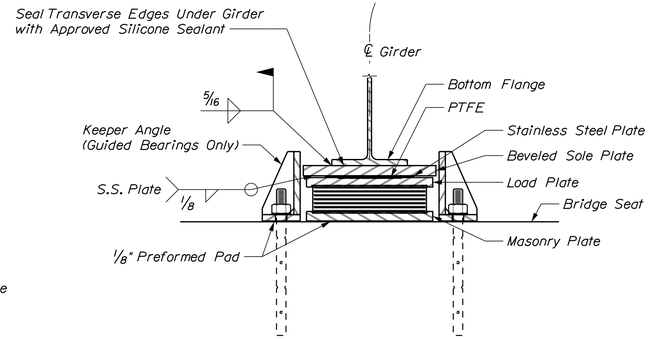
SHEET NUMBER
B-19
386
OF 485

Filename: ...\XXX_Bearing_Plan.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

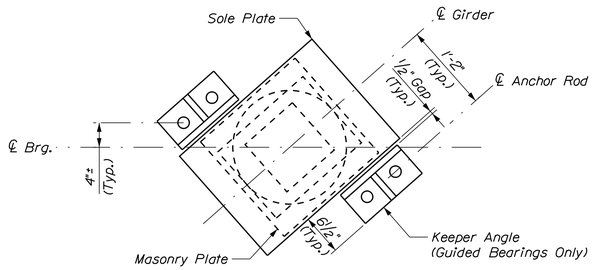


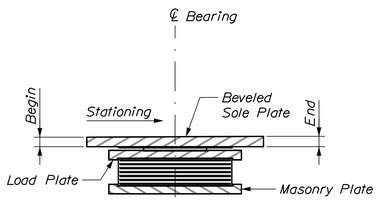

MASONRY PLATE | ELASTOMERIC BEARING | LOAD PLATE | PTFE | STAINLESS STEEL PLATE | BEVELED SOLE PLATE



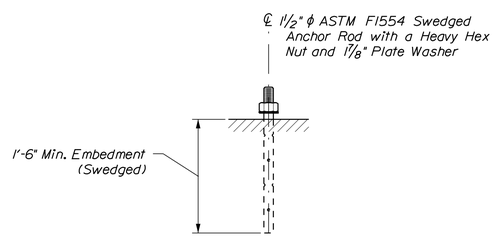

BEARING ELEVATION
(Guided Expansion Bearing with Sliding Surface Shown, Non-guided Expansion Bearing with Sliding Surface Similar without Keeper Angles)



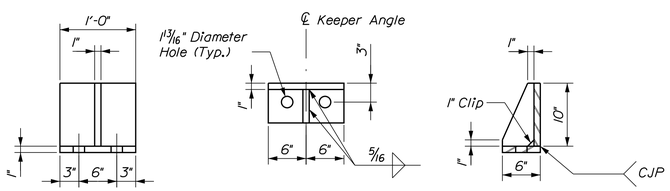

BEARING PLAN
(Guided Expansion Bearing with Sliding Surface Shown, Non-guided Expansion Bearing with Sliding Surface Similar without Keeper Angles)




BEARING SECTION
(See Sole Plate Thickness Table)




ANCHOR ROD DETAIL




ELEVATION | PLAN | SECTION

KEEPER ANGLE DETAILS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

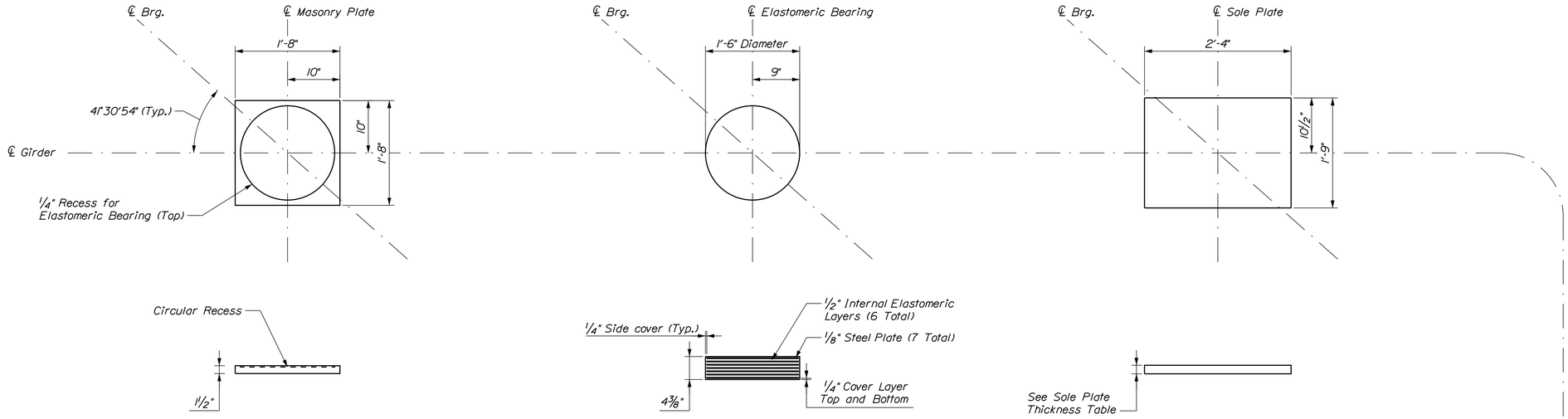
| | L. ROWE | DATE |
|---|---|---|
| PROJ. MANAGER | | |
| DESIGN-DETAILED | YP | 11/25 |
| CHECKED-REVIEWED | JAH | 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

SLIDING BEARING DETAILS

SHEET NUMBER
B-20
387
OF 485

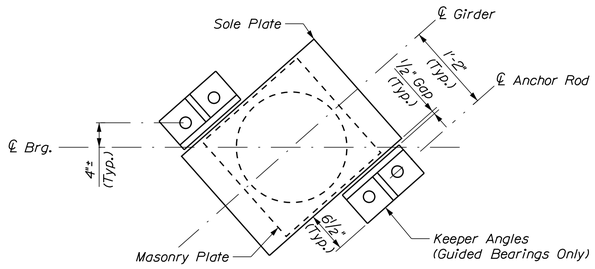
Filename: ...\XXX_Bearing_Details Abutment.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




MASONRY PLATE

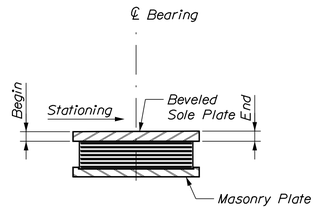
ELASTOMERIC BEARING

BEVELED SOLE PLATE



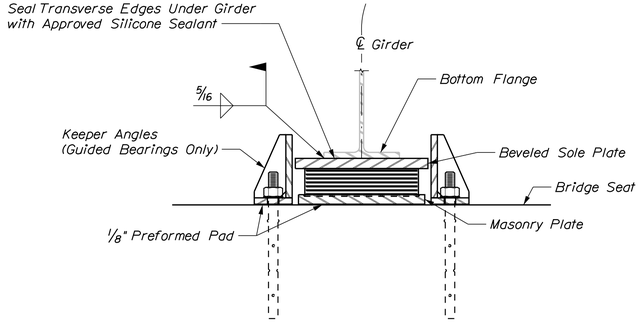

BEARING PLAN

(Guided Expansion Bearing Shown. Non-guided Expansion Bearing Similar without Keeper Angles)



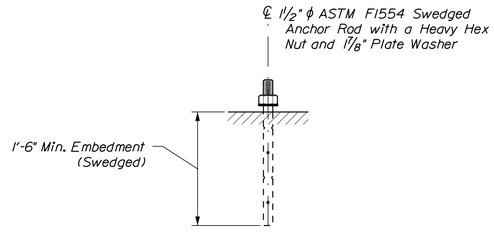

BEARING SECTION

(See Sole Plate Thickness Table)




BEARING ELEVATION

(Guided Expansion Bearing Shown. Non-guided Expansion Bearing Similar without Keeper Angles)




ANCHOR ROD DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

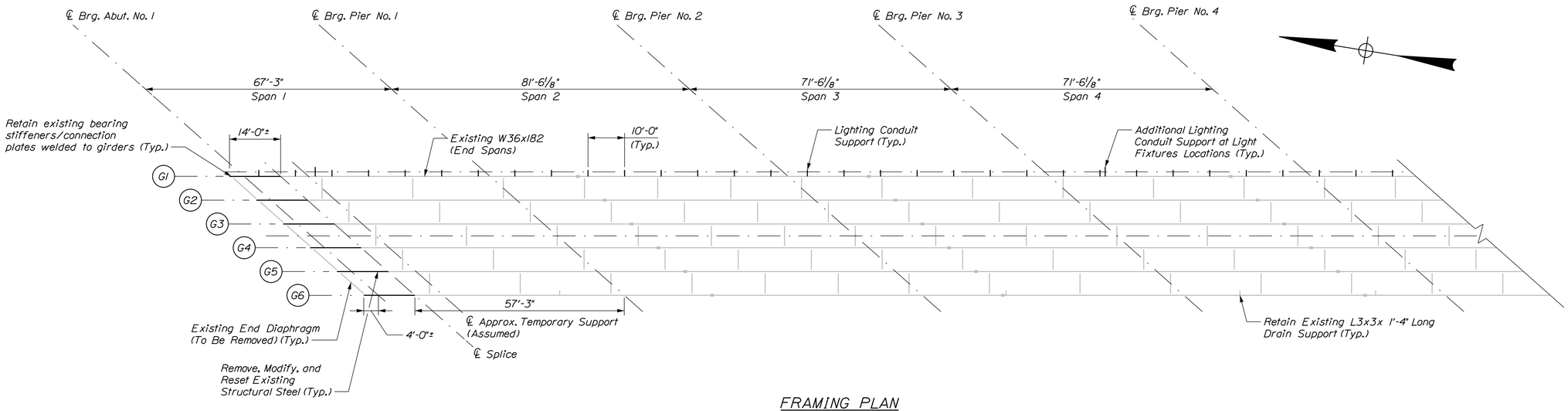
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | YP | JAH | 11/25 |
| CHECKED-REVIEWED | JAH | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
PENOBSCOT
BANGOR

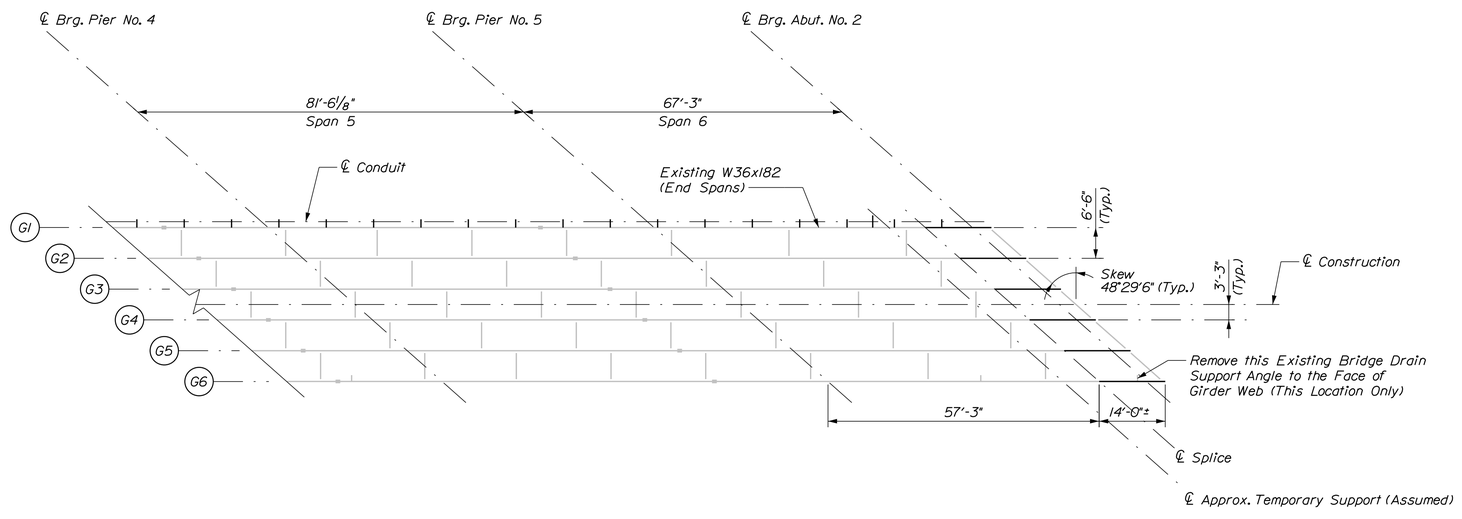
# DEFORMABLE BEARING DETAILS

SHEET NUMBER
B-21
388
OF 485

Filename: ...\XXX_Bearing_Details Pier.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




FRAMING PLAN




FRAMING PLAN

## NOTES

1. Lighting Conduit supports that are field-drilled to existing girders may be shifted up to 2 feet to avoid conflicts with bolted field splices, stiffeners, and/or bridge drains.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

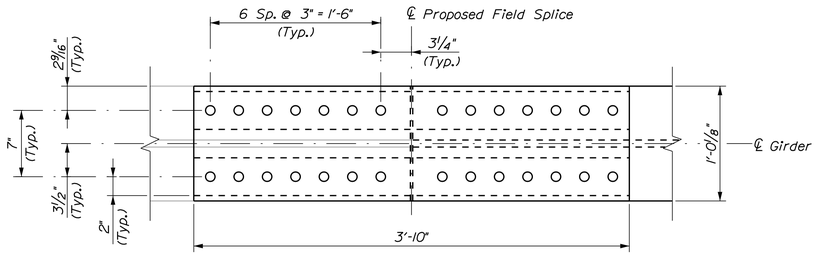
| | | |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | JAH | 11/25 |
| CHECKED-REVIEWED | YP | 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

FRAMING PLAN

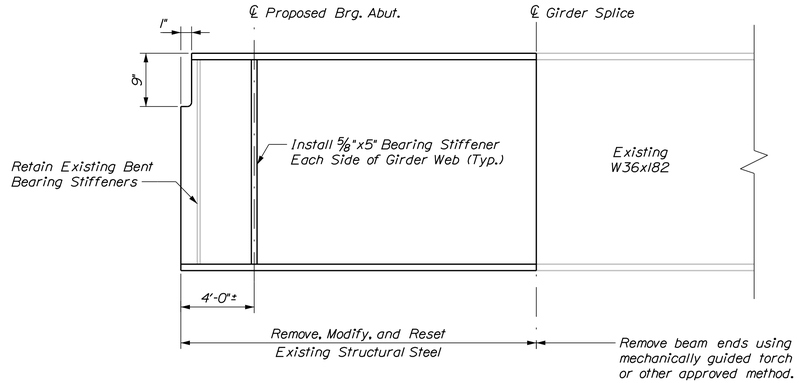
SHEET NUMBER
B-22
389
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_EB_Framing_Plan.dgn



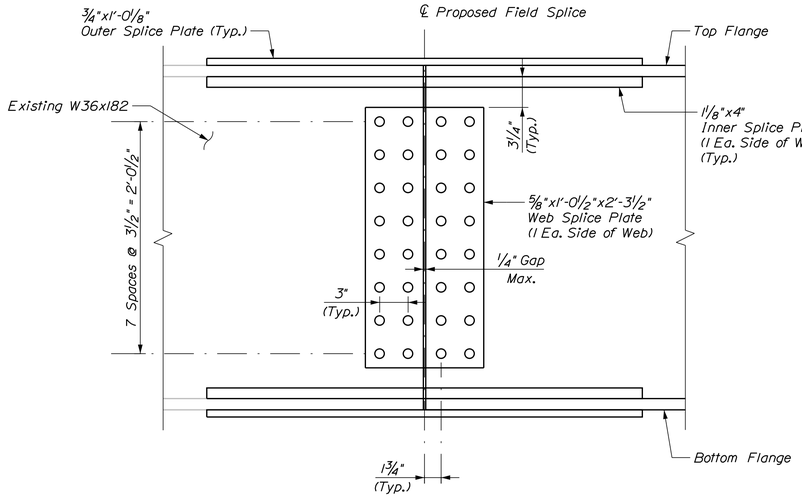

PLAN - TOP FLANGE

(Stud Shear Connectors Not Shown for Clarity)
(Bottom Flange Similar)




GIRDER END ELEVATION

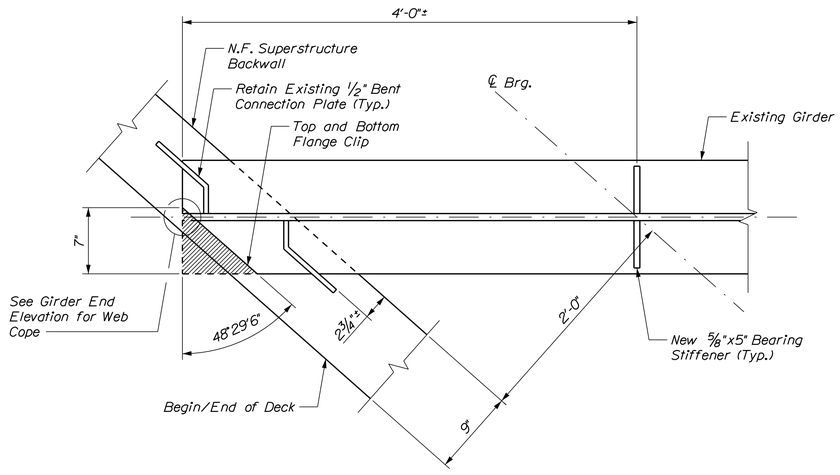
Not to Scale




ELEVATION

BOLTED FIELD SPLICE

(12 Total)




GIRDER END DETAIL

(Thickened Section Below Approach Slab Seat Not Shown)
(Not to Scale)

## NOTES

1. Carefully remove existing stud connectors as required to accommodate new top flange splice plate. Replace stud connectors in-kind in the field after splice is fully assembled and prior to placing deck slab reinforcing. Cost shall be incidental to related Contract items.

2. Field drill holes in existing girders as required to accommodate new splice using new splice plates as a template. Cost shall be incidental to related Contract items.

3. Bolted field splice connections shall be made to be ⅞" diameter ASTM F3125, Grade A325 Type I high strength bolts. Bolt hole size shall be 15/16" diameter. Field splice bolt threads shall be excluded from the shear plane.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | JAP | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

STRUCTURAL STEEL DETAILS

SHEET NUMBER
B-23
390
OF 485

Filename: ...\XXX_EB_Framing_Plan2.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

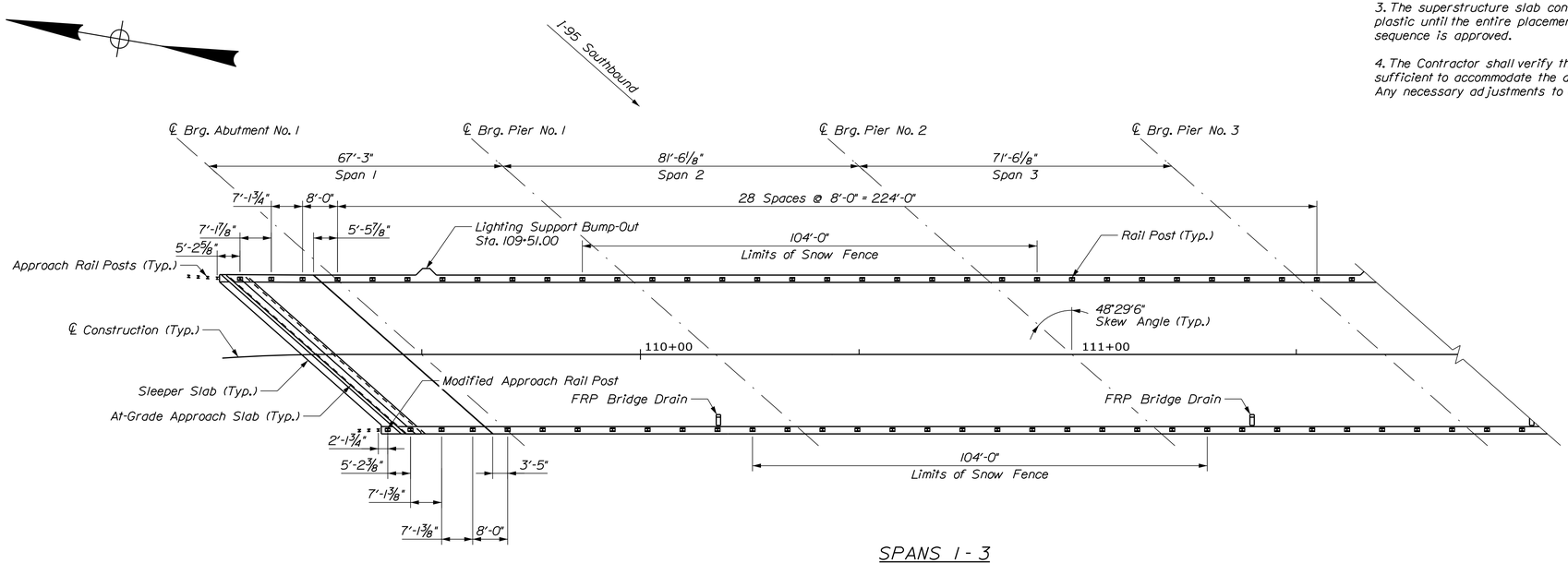
## SUPERSTRUCTURE CONCRETE NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.

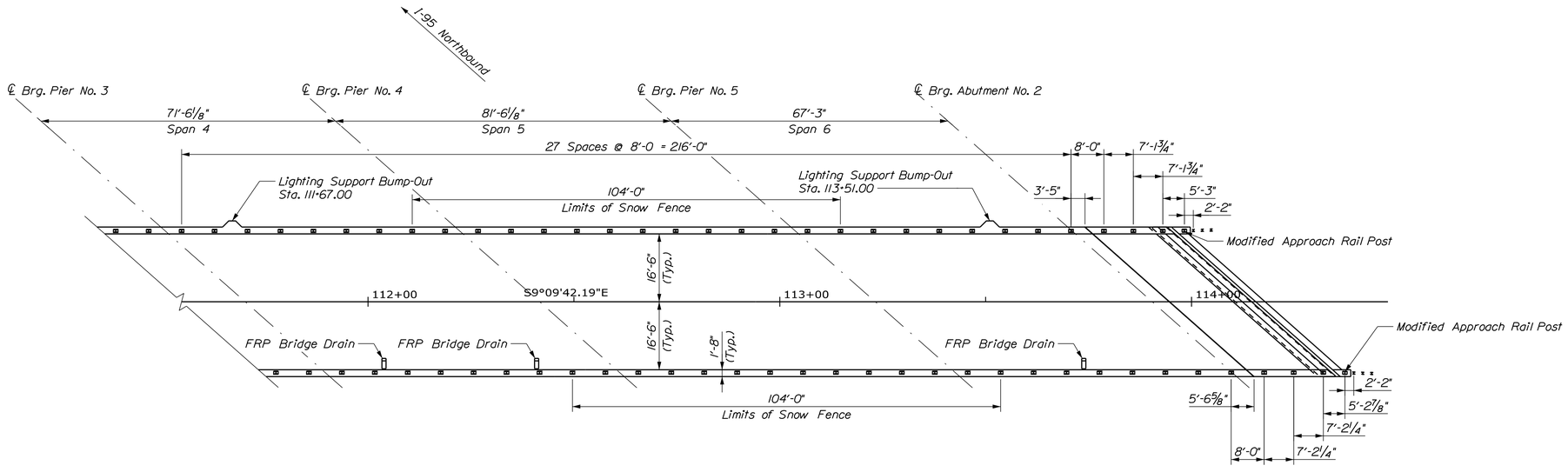
2. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.

3. The superstructure slab concrete shall be placed continuously and shall be kept plastic until the entire placement has been made unless an alternative placement sequence is approved.

4. The Contractor shall verify that the lighting support bumpout in the deck and curb is sufficient to accommodate the actual light standard to be used prior to forming the deck. Any necessary adjustments to dimensions and reinforcing shall be approved by the Resident.




SPANS 1 - 3




SPANS 4 - 6

## BRIDGE RAIL NOTES

1. A Modified Approach Rail includes a shortened first post that is supported with a welded base plate and anchorage system similar to a bridge rail post to accommodate the expansion joint system and sleeper slab stub geometry.

2. Bridge rail post spacing shown at approach and sleeper slabs is based on expansion joint opening of "J" at 45° F. See Temperature Setting Table on Expansion Joint Details sheet.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

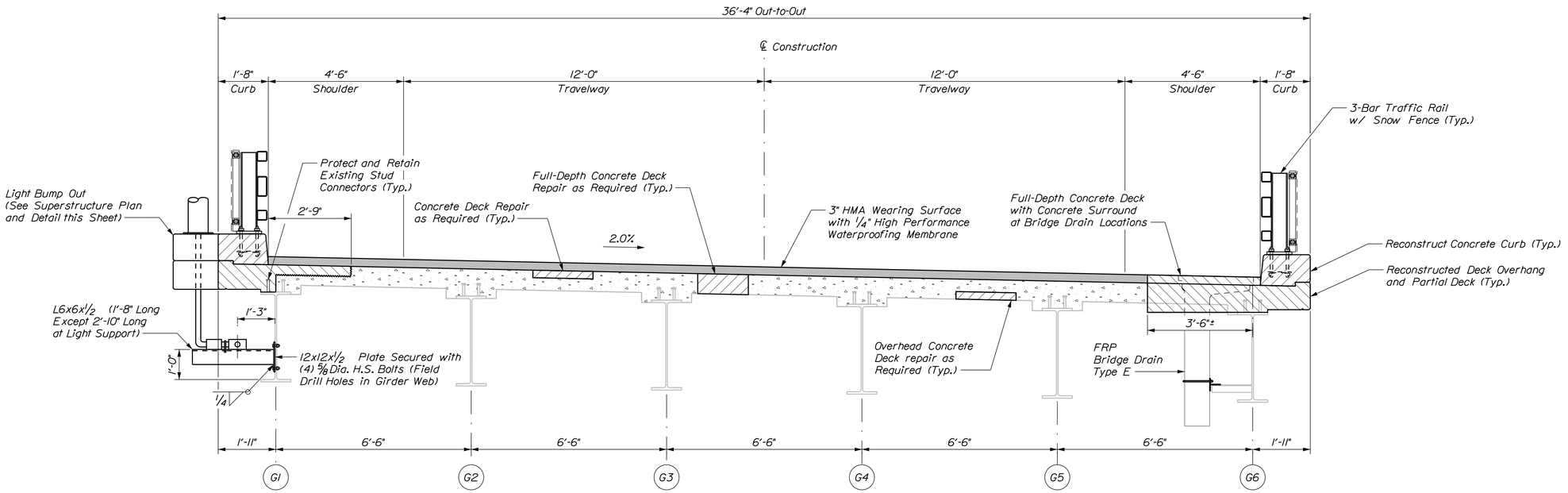
| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
PENOBSCOT
BANGOR

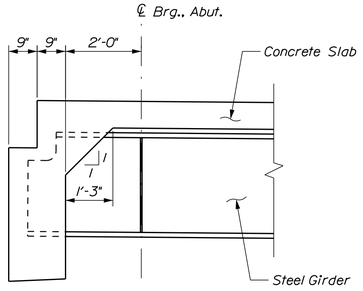
SUPERSTRUCTURE PLAN

SHEET NUMBER
B-24
391
OF 485

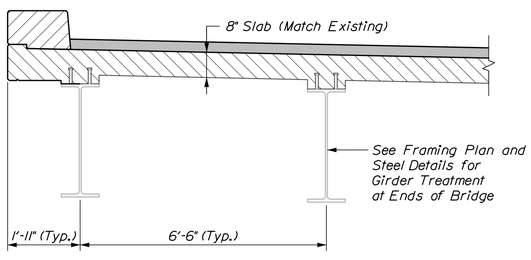
Filename: ...\XXX_EB_Superstructure Plan.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



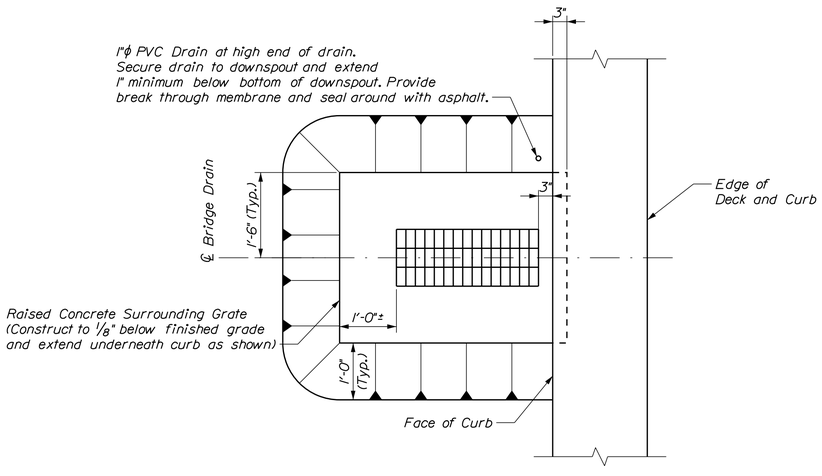

TRANSVERSE SECTION
(New Deck Slab at Bridge Ends Not Shown)



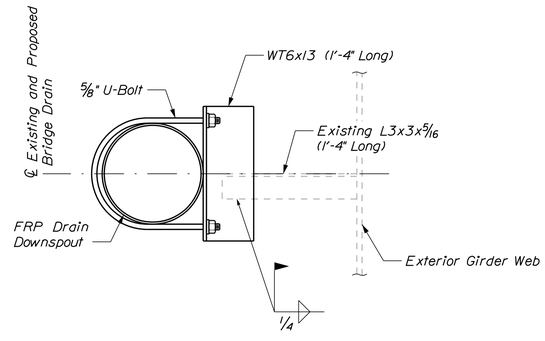

DECK END AND SUPERSTRUCTURE BACKWALL DETAIL
(Horizontal Dimensions Normal to Abutment)




PARTIAL TRANSVERSE SECTION NEAR DECK ENDS
(Bridge Rail Not Shown)




CONCRETE SURROUND DETAIL AT BRIDGE DRAINS
(Not to Scale)




BRIDGE DRAIN GIRDER ATTACHMENT DETAIL
(Not to Scale)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

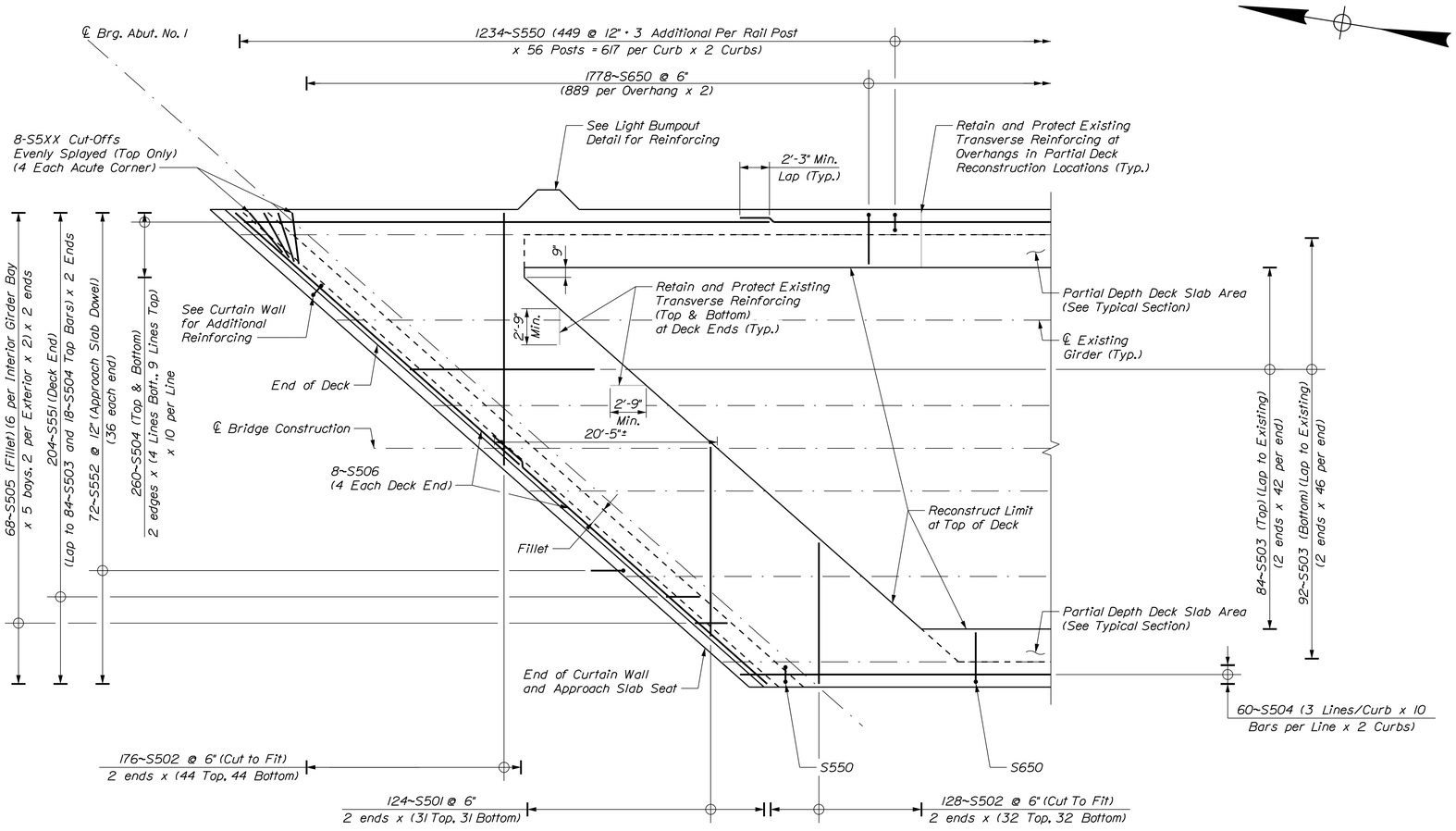
| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | SMH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

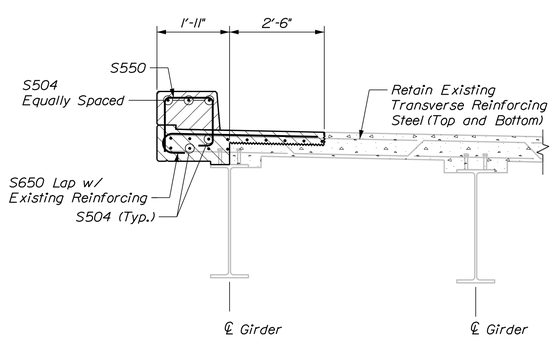
SUPERSTRUCTURE DETAILS
(1 OF 4)

SHEET NUMBER
B-25
392
OF 485

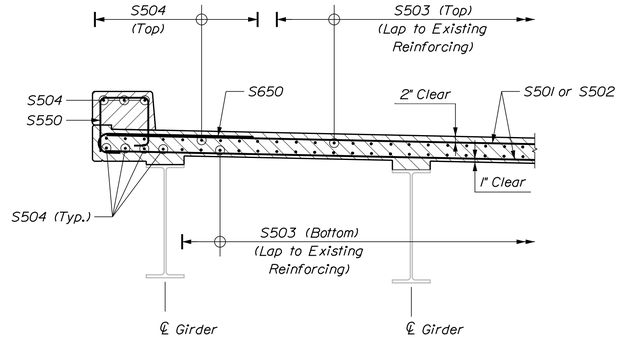
Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_Typ_Sec.dgn




PLAN
(Curb Not Shown)
(Abutment 1 End Shown, Other End Similar)




TYPICAL DECK OVERHANG REINFORCING




PARTIAL SECTION - FULL DEPTH DECK SLAB REINFORCING

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

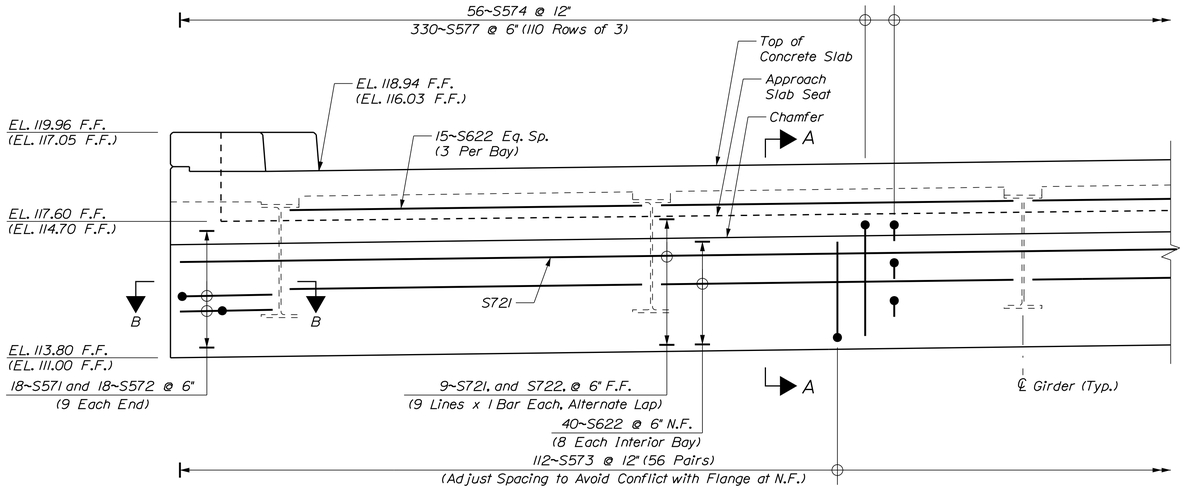
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | SMH | BY | DATE |
| CHECKED-REVIEWED | HMR | KDW | 11/25 |
| DESIGN2-DETAILED2 | | SMH | 11/25 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/195 BRIDGE
I-95
BANGOR PENOBSCOT

SUPERSTRUCTURE DETAILS
(2 OF 4)

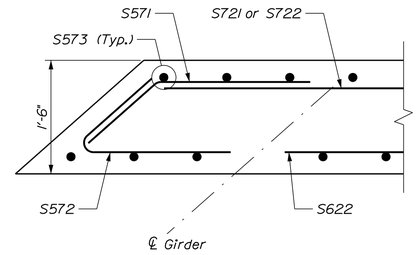
SHEET NUMBER
B-26
393
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_Deck_Demo_02.dgn

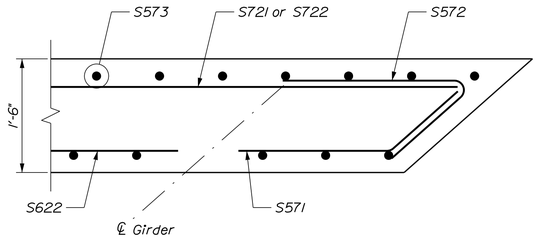



SUPERSTRUCTURE BACKWALL ELEVATION AND REINFORCING

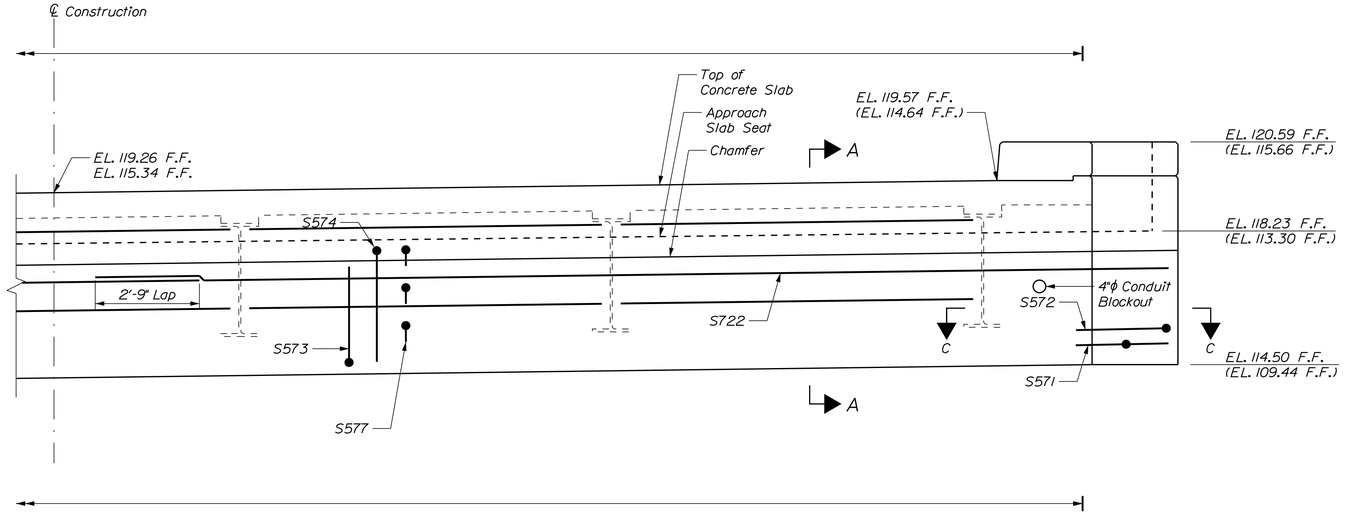
(All Ties Placed Perpendicular to Backwall Face)
(Reinforcing Details at Abutment No. 1 Shown, Abutment No. 2 Similar)
(Abutment 2 Elevations Shown in Parenthesis)
(Deck Slab Reinforcement and Approach Slab Dowels Not Shown)




SECTION B-B

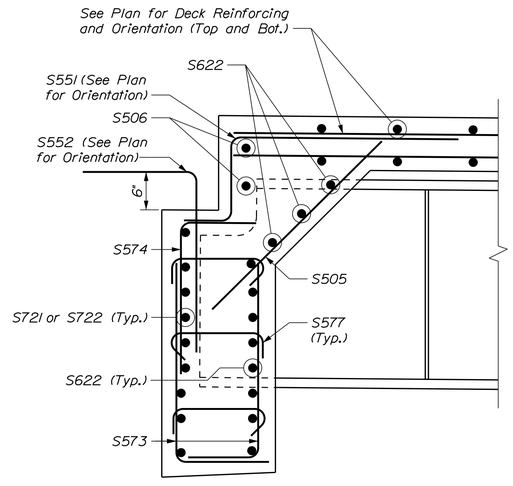



SECTION C-C




SUPERSTRUCTURE BACKWALL ELEVATION AND REINFORCING

(All Ties Placed Perpendicular to Backwall Face)
(Reinforcing Details at Abutment No. 1 Shown, Abutment No. 2 Similar)
(Abutment 2 Elevations Shown in Parenthesis)
(Deck Slab Reinforcement and Approach Slab Dowels not Shown)




SECTION A-A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

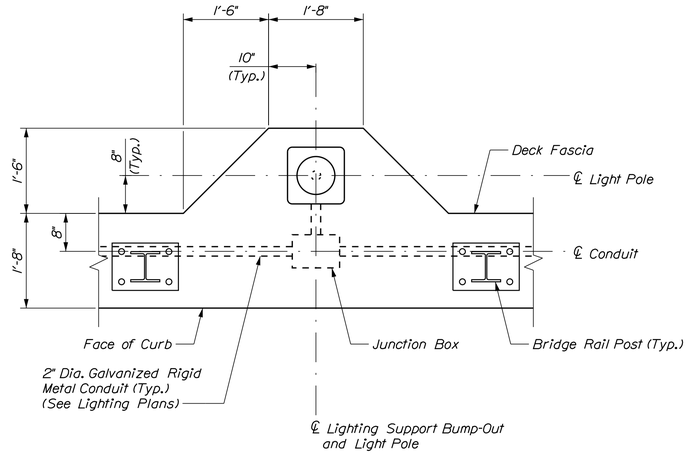
| PROJ. MANAGER | L. ROWE | | |
|---|---|---|---|
| DESIGN-DETAILED | JEP | JAH | 11/25 |
| CHECKED-REVIEWED | APS | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

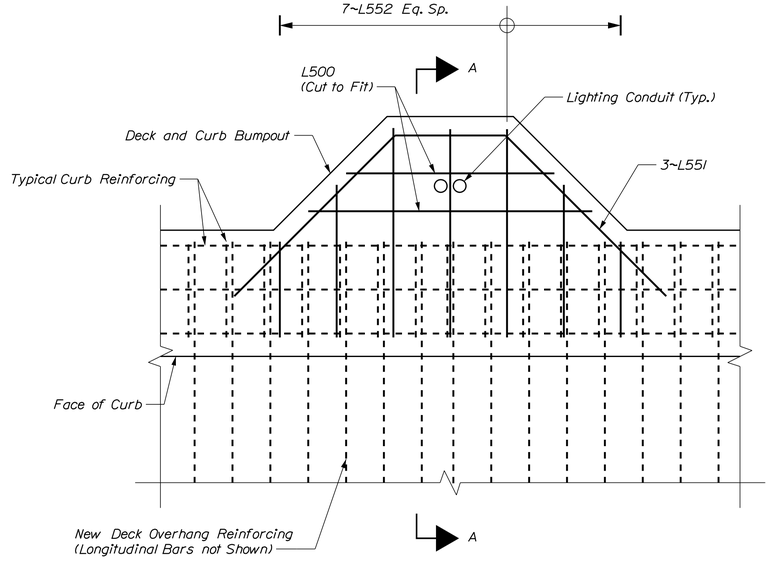
SUPERSTRUCTURE DETAILS
(3 OF 4)

SHEET NUMBER
B-27
394
OF 485

Filename: ...\XXX_Super_Backwall_Rein1_01.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

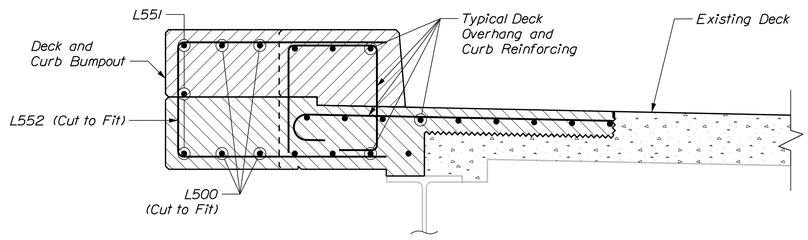



LIGHTING SUPPORT PLAN VIEW




PLAN

(Light Pole Anchorage Not Shown)




SECTION A-A

(Conduit and Light Pole Anchorage Not Shown)

LIGHT POLE BUMPOUT REINFORCING DETAILS

(Existing Deck Reinforcing Not Shown)
(Adjust Reinforcing to Accommodate Lighting Conduit and Anchorages)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

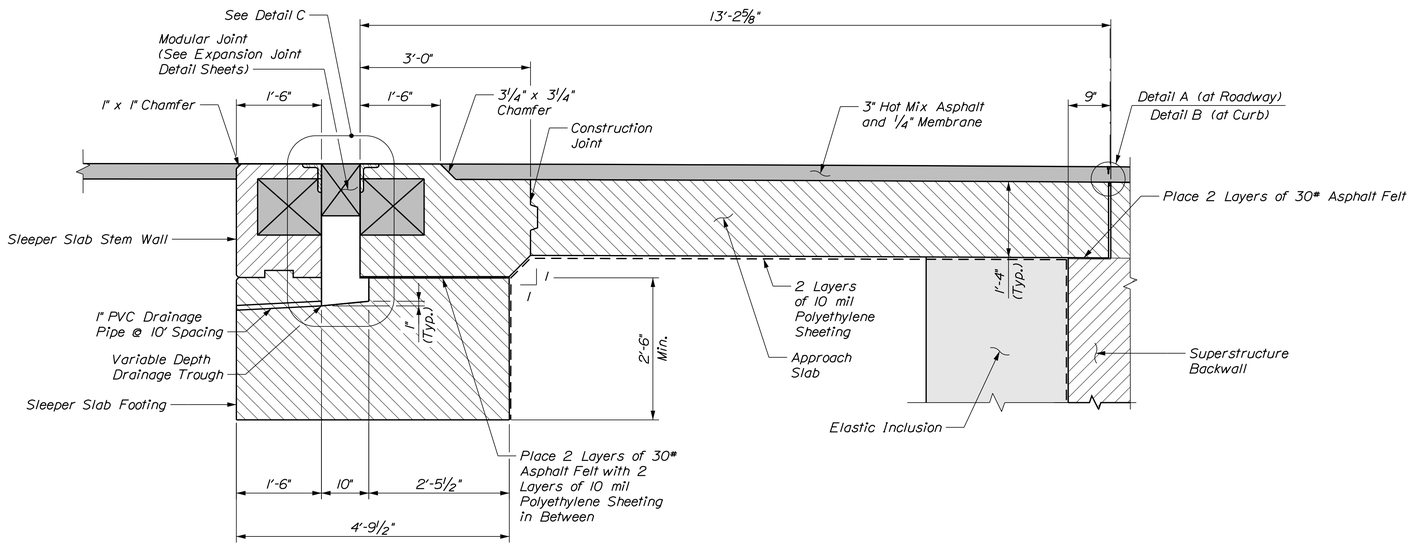
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | SMH | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

SUPERSTRUCTURE DETAILS
(4 OF 4)

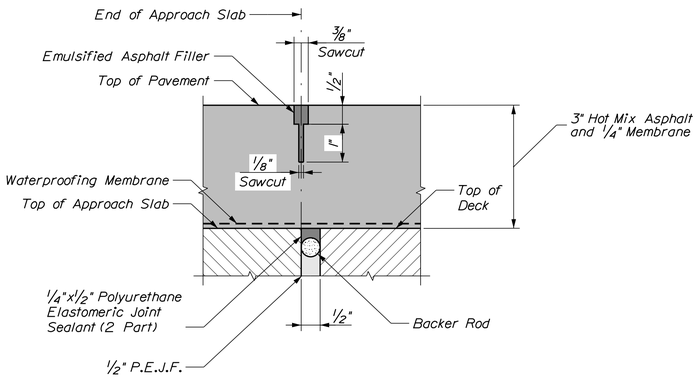
SHEET NUMBER
B-28
395
OF 485

Filename: ...\XXX_OvrHng_Det.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

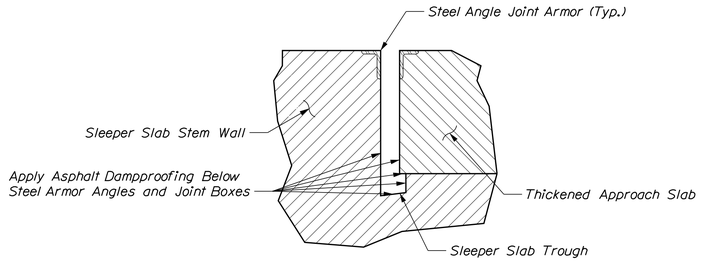



APPROACH AND SLEEPER SLAB TYPICAL SECTION @ ROADWAY

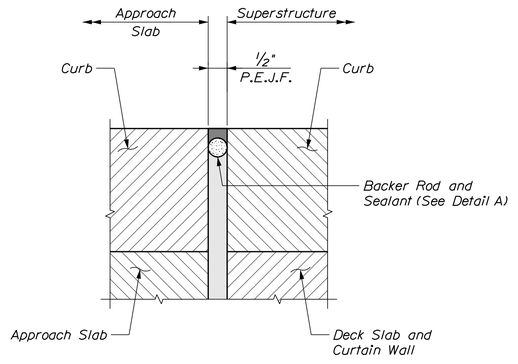
(Horizontal Dimensions Normal to Abutment)
(See Abutment Earthwork Details for Backfill Information)




DETAIL A




DETAIL C




DETAIL B

NOTES

1. Joint sealant, backer rod, and P.E.J.F. shall continue between gaps on all top and side faces at the curbs and separation barrier.

2. Asphalt Dampproofing shall meet the requirements of either ASTM D449 Type II, ASTM D1227 Type II-Class 1, or ASTM D1227 Type III-Class 1. The product shall be applied in accordance with the manufacturer's recommendations. Payment for Asphalt Dampproofing will not be made directly, but will be considered incidental to related Contract Items.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

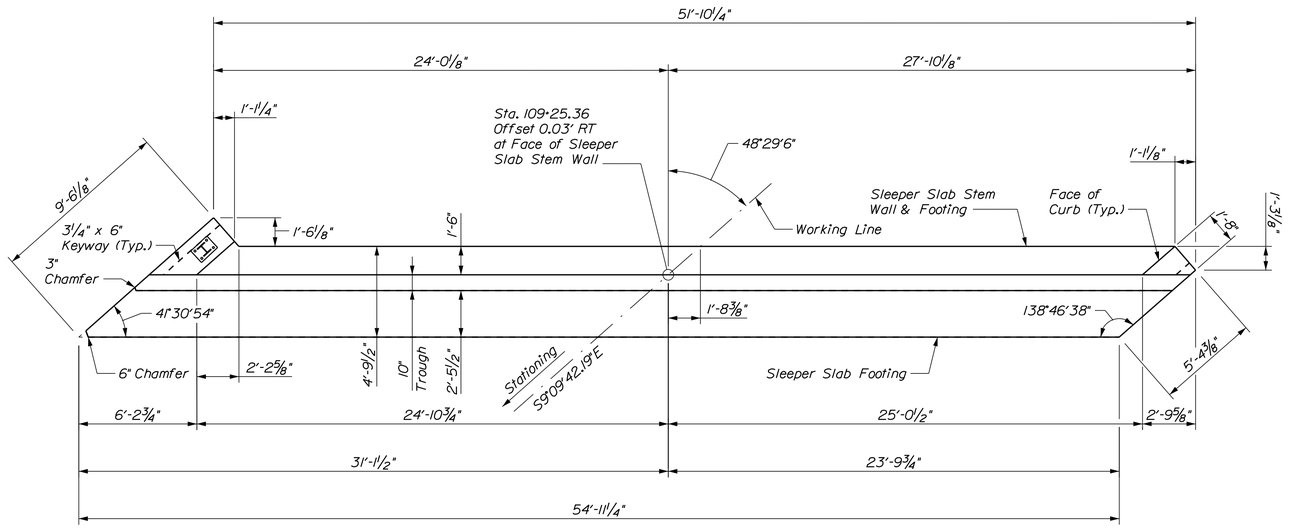
| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | YP | JAH | 11/25 |
| CHECKED-REVIEWED | SMH | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

APPROACH AND SLEEPER SLAB DETAILS (1 OF 5)

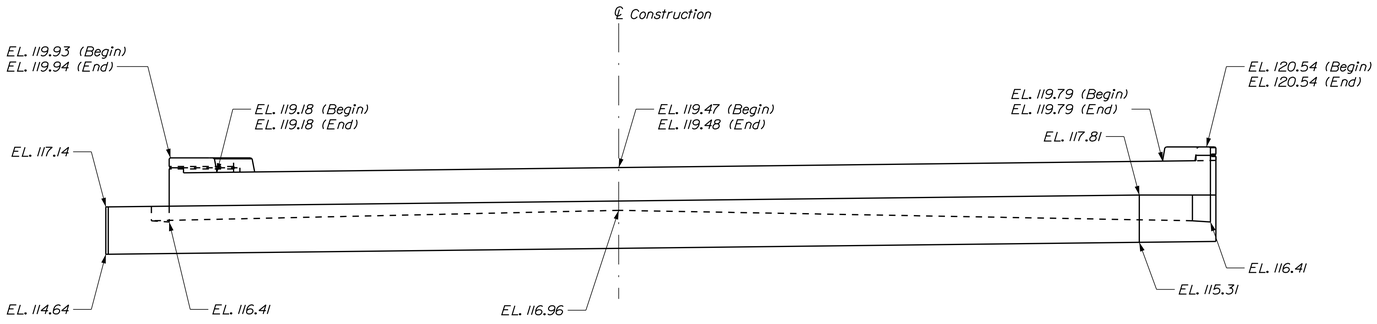
SHEET NUMBER
B-29
396
OF 485

Filename: ...\XXX_Approach and Sleeper Details.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




SLEEPER SLAB NO. 1 PLAN

(Approach Slab Not Shown)




SLEEPER SLAB NO. 1 ELEVATION

(Bridge Joint and Approach Slab Not Shown)

(Elevations at Bottom of Drainage Trough Shown)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 5823

WIN 18595.11

BRIDGE PLANS

vhb

| | | |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | K.JB | BY |
| CHECKED-REVIEWED | JEP | KDW |
| DESIGN2-DETAILED2 | | SMH |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

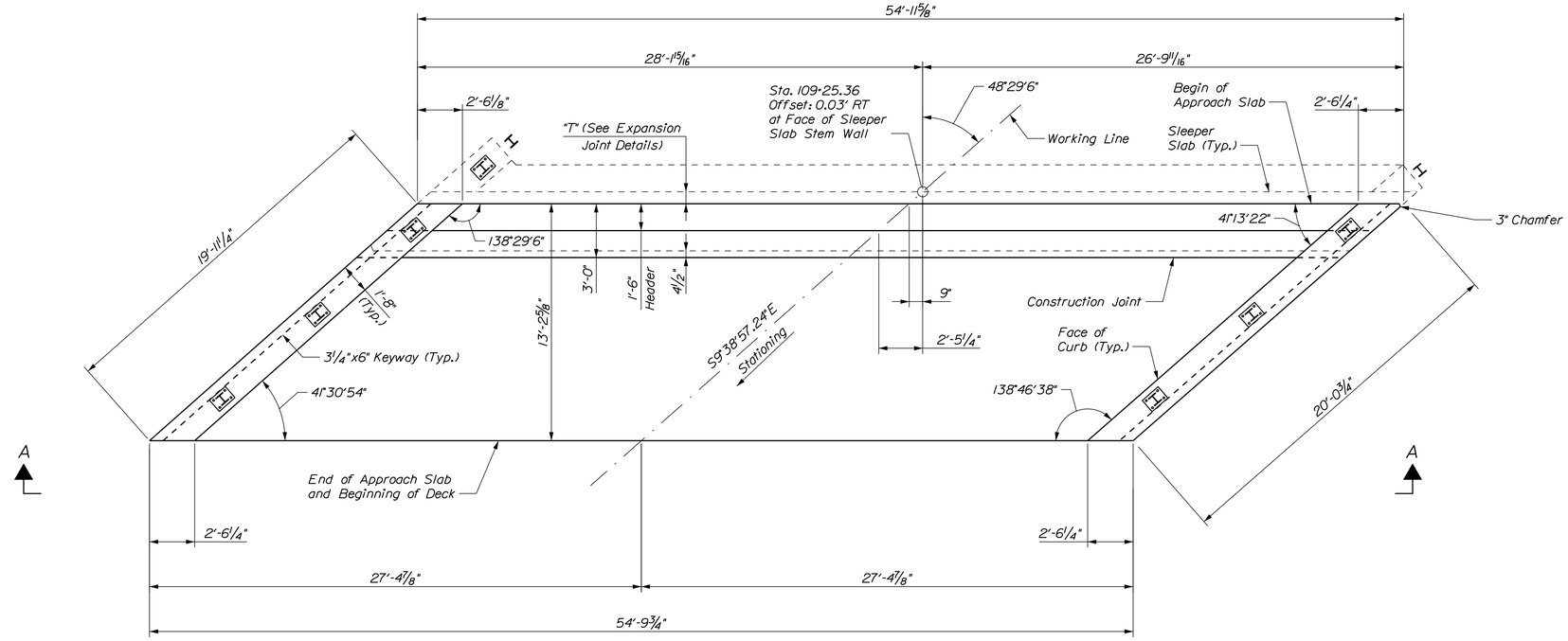
DATE
11/25
11/25

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

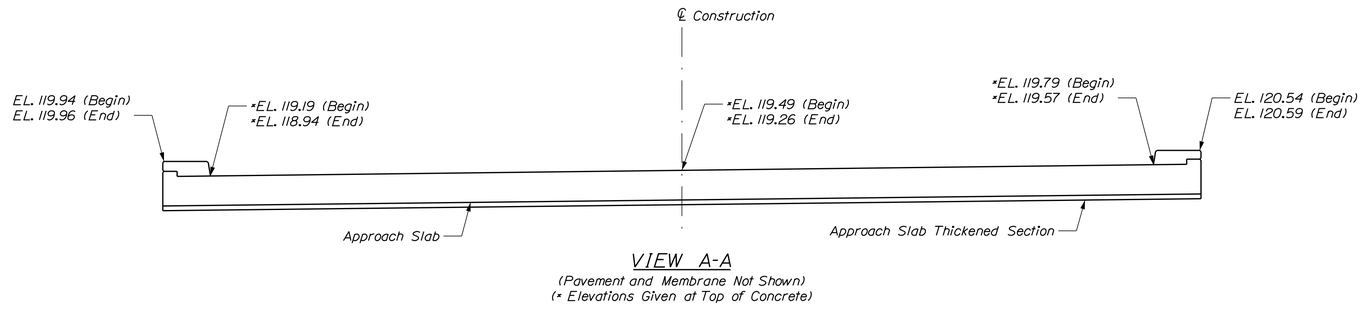
APPROACH AND SLEEPER SLAB DETAILS (2 OF 5)

SHEET NUMBER
B-30
397
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_Sleeper_Slab_1.dgn




APPROACH SLAB NO. 1 PLAN




VIEW A-A

(Pavement and Membrane Not Shown)
(* Elevations Given at Top of Concrete)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

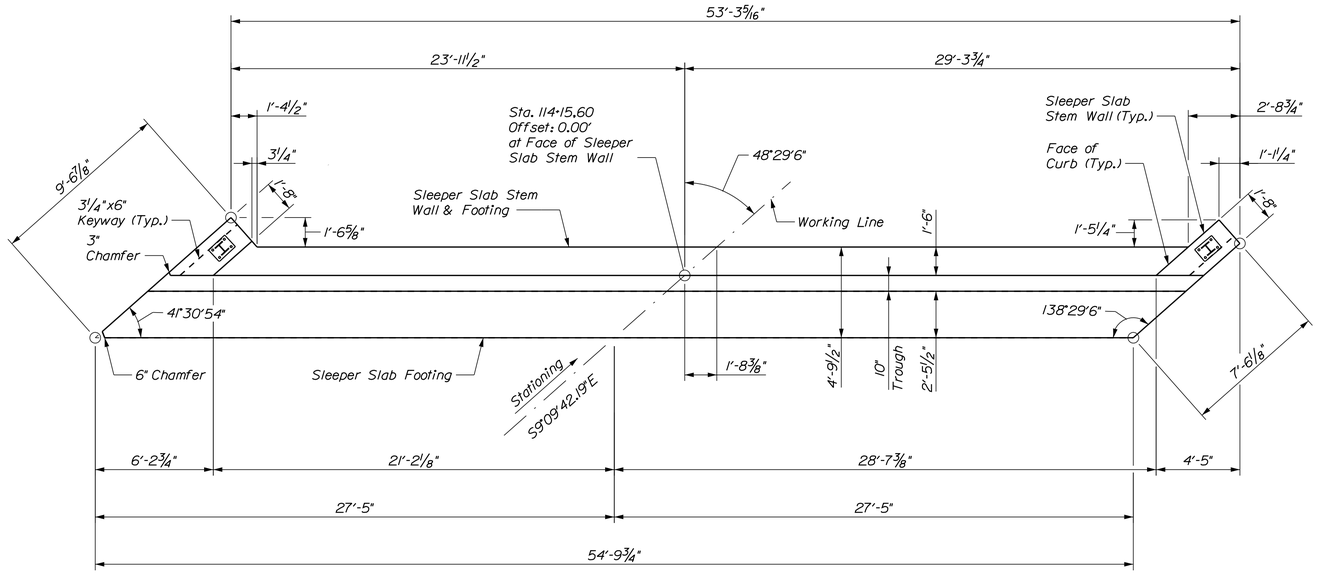
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | K.JB | BY | DATE |
| CHECKED-REVIEWED | JEP | KDW | 11/25 |
| DESIGN2-DETAILED2 | | SMH | 11/25 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

APPROACH AND SLEEPER SLAB DETAILS (3 OF 5)

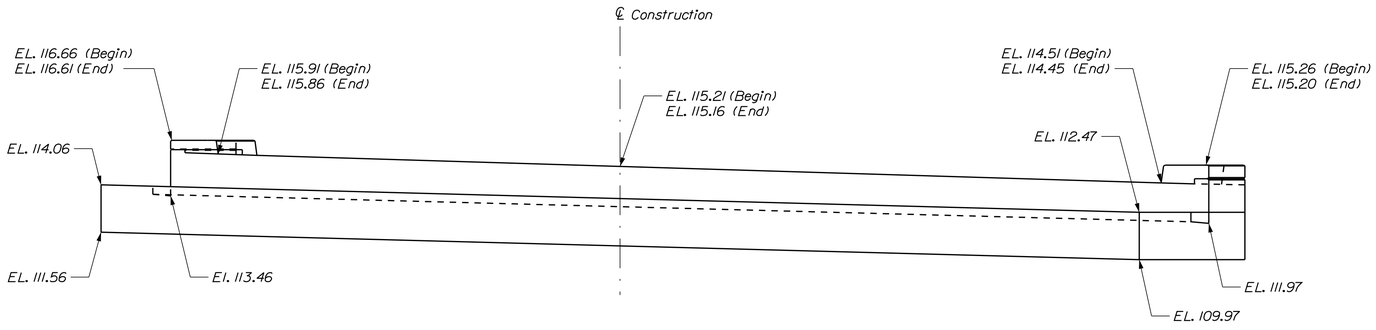
SHEET NUMBER
B-31
398
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_Approach_Slab_1.dgn




## SLEEPER SLAB NO. 2 PLAN

(Approach Slab Not Shown)




## SLEEPER SLAB NO. 2 ELEVATION

(Bridge Joint and Approach Slab Not Shown)
(Elevations at Bottom of Drainage Trough Shown)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

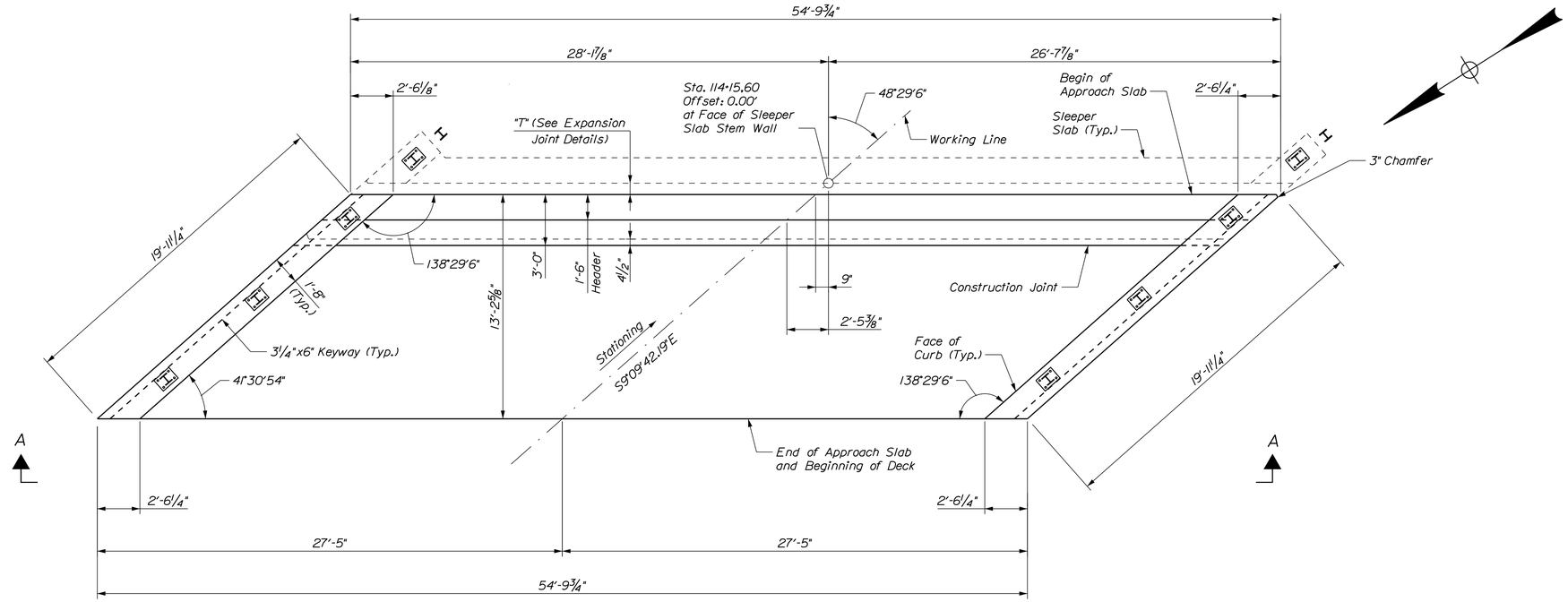
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | KJB | KDW | 11/25 |
| CHECKED-REVIEWED | JEP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

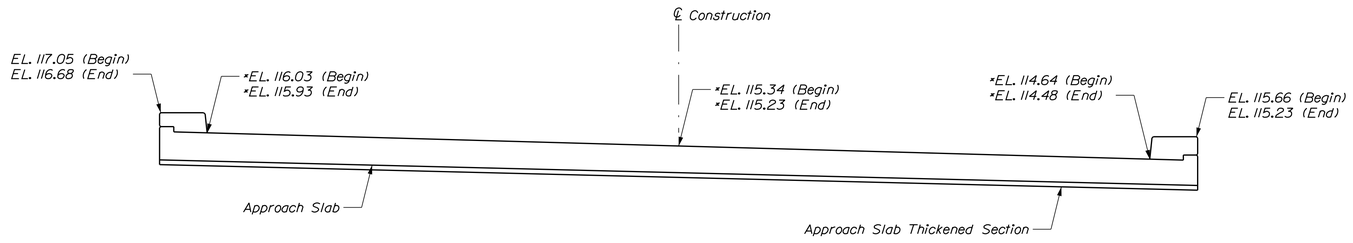
APPROACH AND SLEEPER
SLAB DETAILS (4 OF 5)

SHEET NUMBER
B-32
399
OF 485

Filename: ...\XXX_Sleeper_Slab_2.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




APPROACH SLAB NO. 2 PLAN




VIEW A-A

(Thick Pavement and Membrane Not Shown)
(* Elevations Given at Top of Concrete)

Filename: ...\XXX_Approach_Slab_2.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

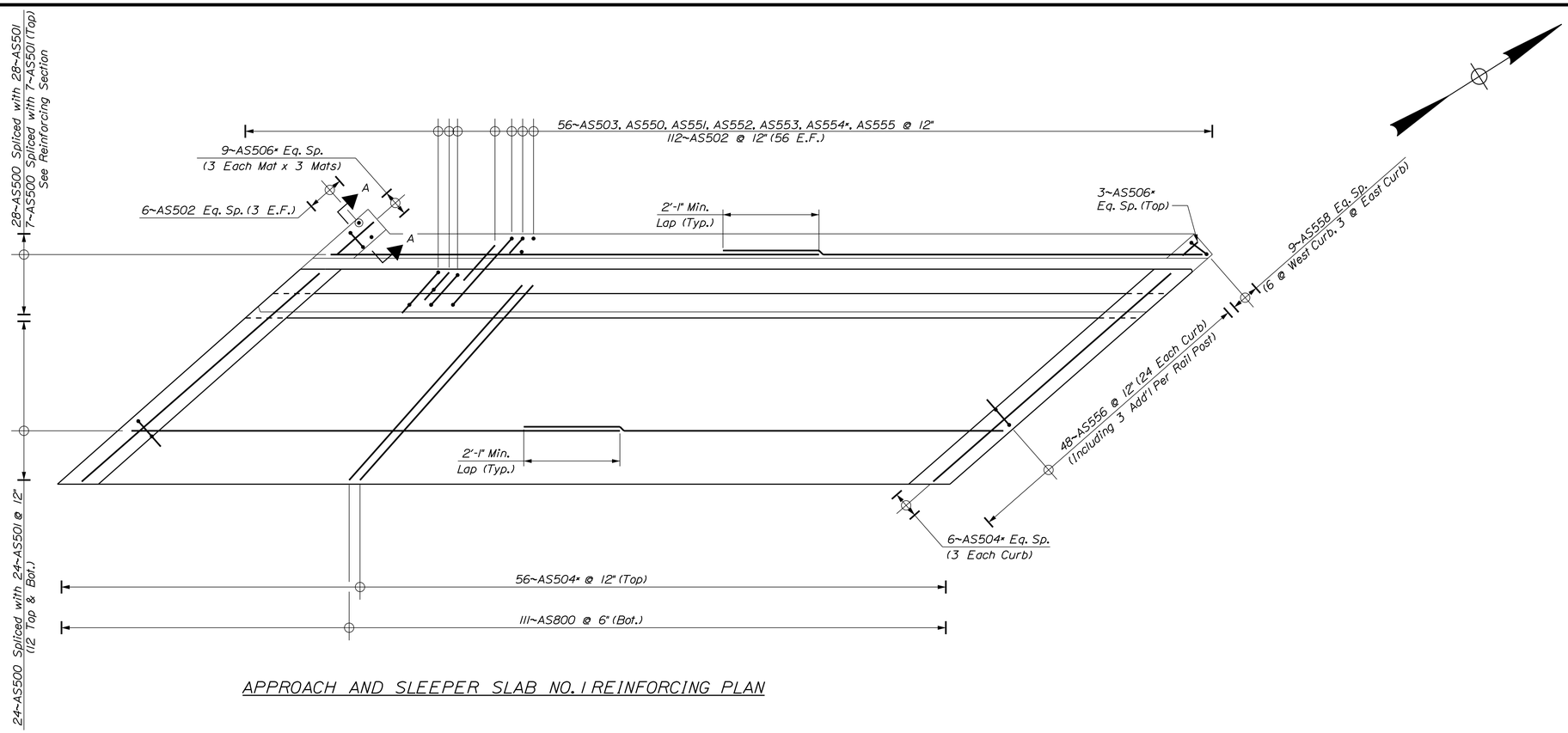
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | BY | DATE |
| DESIGN-DETAILED | KJB | KDW | 11/25 |
| CHECKED-REVIEWED | JEP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

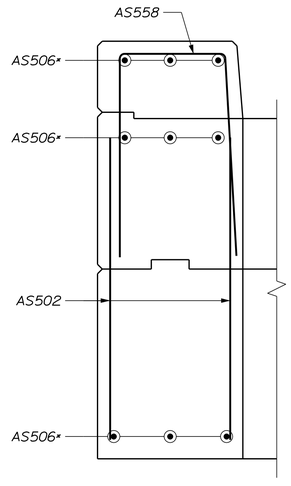
APPROACH AND SLEEPER
SLAB DETAILS (5 OF 5)

SHEET NUMBER
B-33
400
OF 485

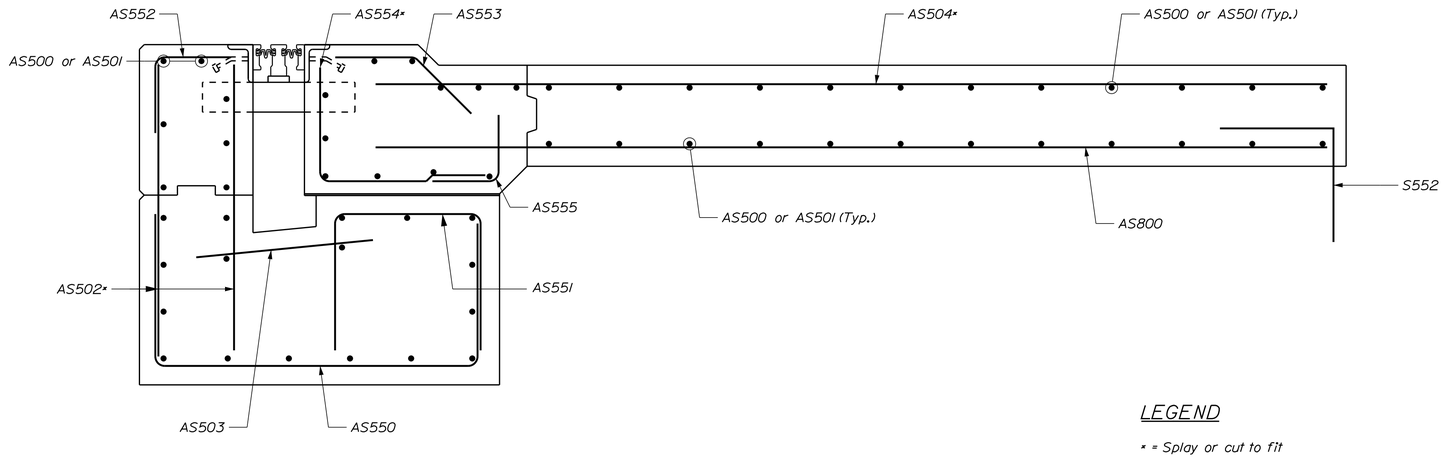
Filename: ...\XXX_Approach_Slab_Rein.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




## APPROACH AND SLEEPER SLAB NO. 1 REINFORCING PLAN




## SECTION A-A
(Reinforcing at Bump-Out Section Shown)




## TYPICAL APPROACH AND SLEEPER SLAB SECTION

## LEGEND

* = Splay or cut to fit

## APPROACH AND SLEEPER SLAB NOTES

1. Reinforcing steel for approach and sleeper slabs shall have a minimum concrete cover of 3 inches at the bottom face against backfill, and 2 inches elsewhere unless otherwise noted.

2. Modular joint and its support boxes are not shown. Splay bars and/or field cut bars to avoid conflict when required.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

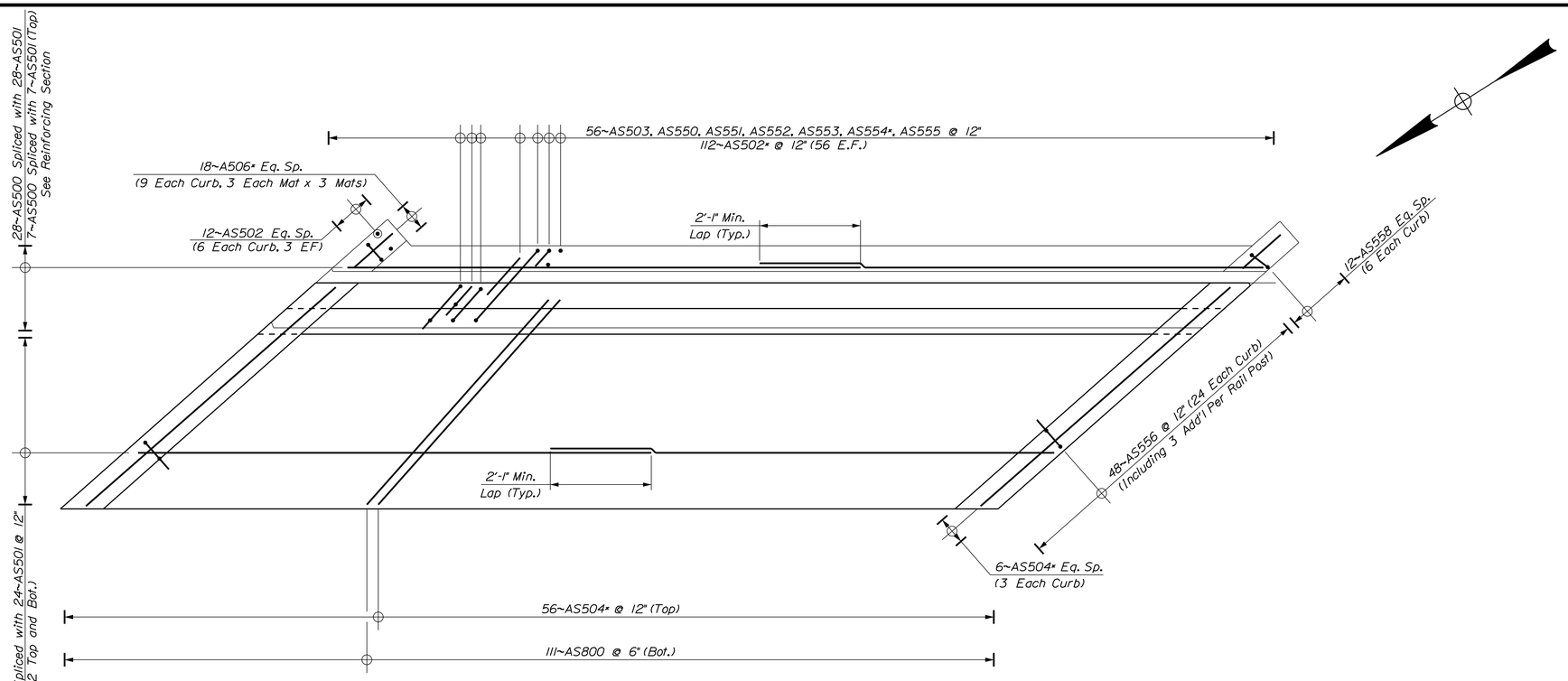
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | JAH | BY | DATE |
| CHECKED-REVIEWED | YP | JAH | 11/25 |
| DESIGN2-DETAILED2 | | SMH | 11/25 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

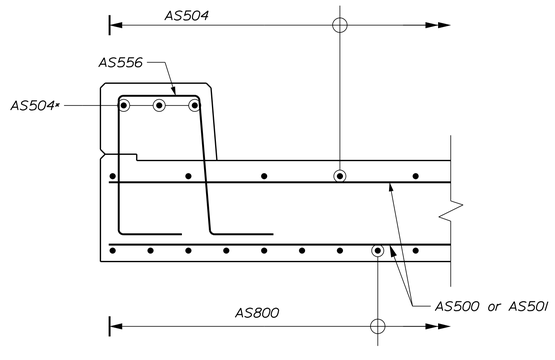
APPROACH AND SLEEPER SLAB REINFORCING (1 OF 2)

SHEET NUMBER
B-34
401
OF 485

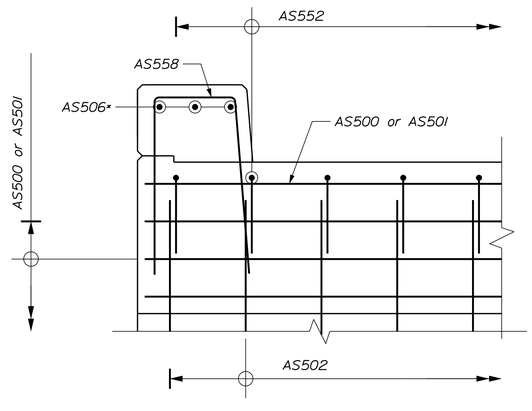
Filename: ...\XXX_Approach_Slab_Rein2.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




APPROACH AND SLEEPER SLAB NO. 2 REINFORCING PLAN




TYPICAL CURB ON APPROACH SLAB DETAIL




TYPICAL CURB ON SLEEPER SLAB DETAIL

LEGEND

* = Splay or Cut to Fit

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

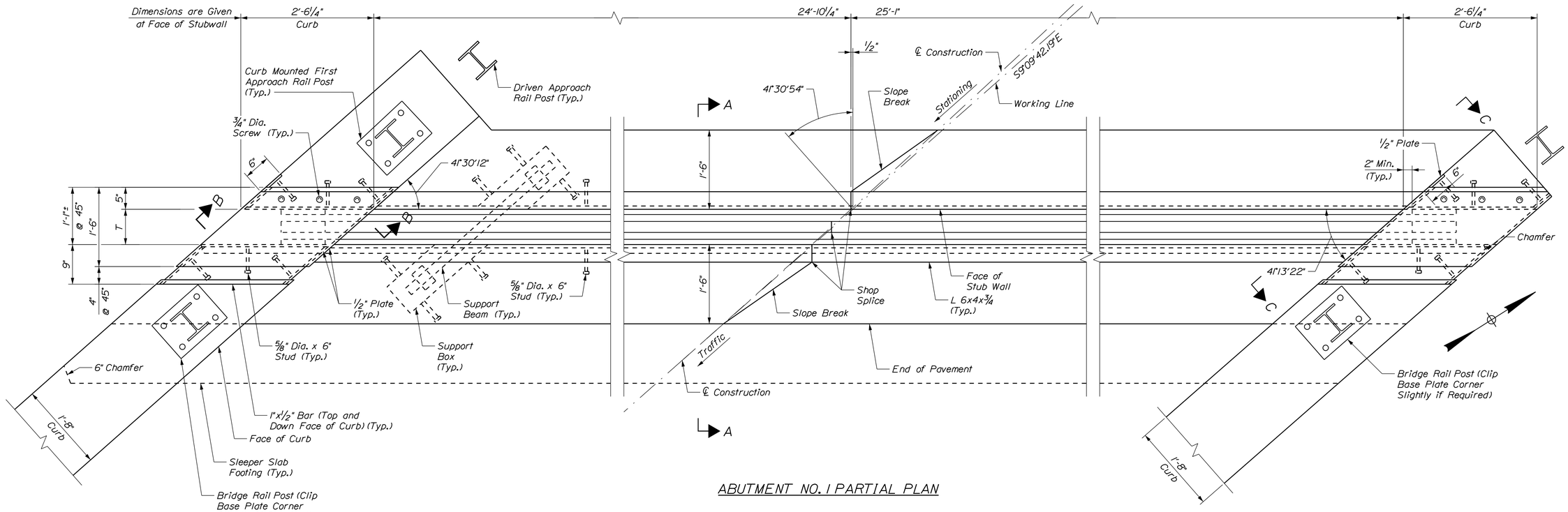
vhb

| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

APPROACH AND SLEEPER SLAB REINFORCING (2 OF 2)

SHEET NUMBER
B-35
402
OF 485




ABUTMENT NO. 1 PARTIAL PLAN

## EXPANSION DEVICE NOTES

1. Each "Expansion Device - Modular Joint" consists of one sleeper slab stem wall element and one approach slab end element with expansion dams and elastomeric seals as required.

2. The Expansion Device shall be fabricated to be installed normal to grade.

3. Anchor studs shall be installed using automatically timed stud welding equipment.

4. The Expansion Device shall be installed with a joint opening of "J" at 45°F. The joint opening shall be adjusted for temperature in the field at the time of installation according to the Temperature Setting Table. A structure above 45°F will result in a smaller joint opening.

5. Welding to reinforcement steel will be allowed within the blockouts at the end of the approach slab and top of sleeper slab stem wall.

6. After the Expansion Device is in final position, secure all positioning adjustment devices with welds or other approved means to ensure proper positioning is maintained during concrete placement.

7. The superstructure slab, sleeper slab, and approach slab concrete shall be in place before the Expansion Device is fixed in position. No allowance for movement due to dead load deflection is necessary.

8. The concrete blockouts may be placed with the curb concrete. An approved epoxy bonding agent shall be applied to all vertical surfaces of the blockout before making the final concrete placement.

9. Modular joint is shown for illustrative purposes only. Actual details and dimensions of expansion device may vary significantly depending on joint supplier. It is the responsibility of the Contractor to adjust dimensions and Temperature Setting Table as required to accommodate the actual joint supplied.

10. Actual blockout dimensions (depth and width) required by the expansion device manufacturer may vary from those shown on the Plans. Changes to the blockout dimensions and support system shall be coordinated by and the responsibility of the Contractor. Payment for changes to the blockout dimensions or support system will be considered incidental to related Contract items.

11. Modular joint shall be supplied by one of the following manufacturers:

The D.S. Brown Company
North Baltimore, OH

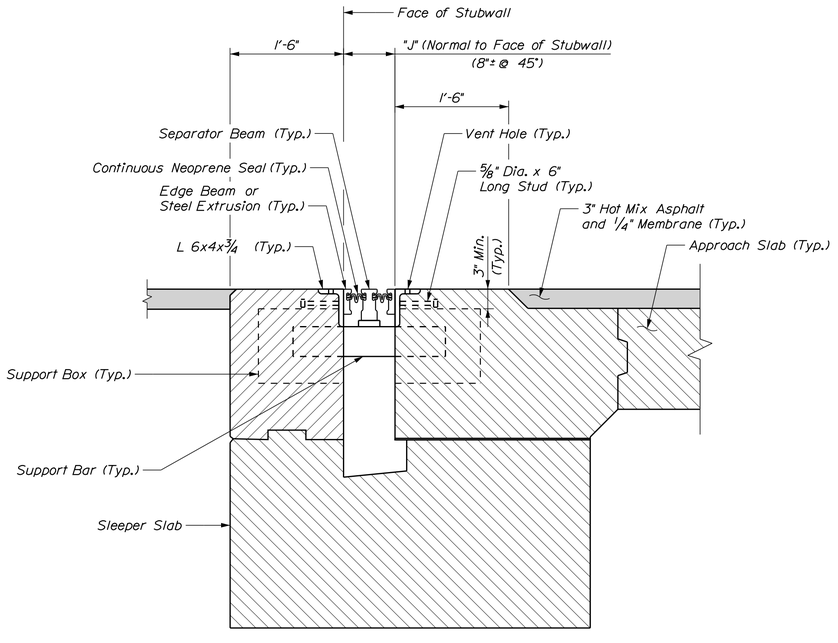
Watson-Bowman Acme Corporation
Amherst, NY

12. Provide 3/4" Dia. vent holes at 1'-6" O.C. along horizontal leg of L6x4x3/4. Warp angle legs to accommodate varying grades on each side slope break to ensure the horizontal angle leg is parallel with finished grade and the vertical leg is plumb. L6x4 may be replaced with an equivalent plate weldment.

## NOTE

1. See Expansion Joint Details (2 of 2) for Section B-B and View C-C.

| Temperature Setting Table | |
|---|---|
| Temp (deg F) | Dimension "J" (inches) |
| 15 | 8.34 |
| 30 | 8.17 |
| 45 | 8 |
| 60 | 7.83 |
| 75 | 7.66 |
| 90 | 7.49 |




SECTION A-A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

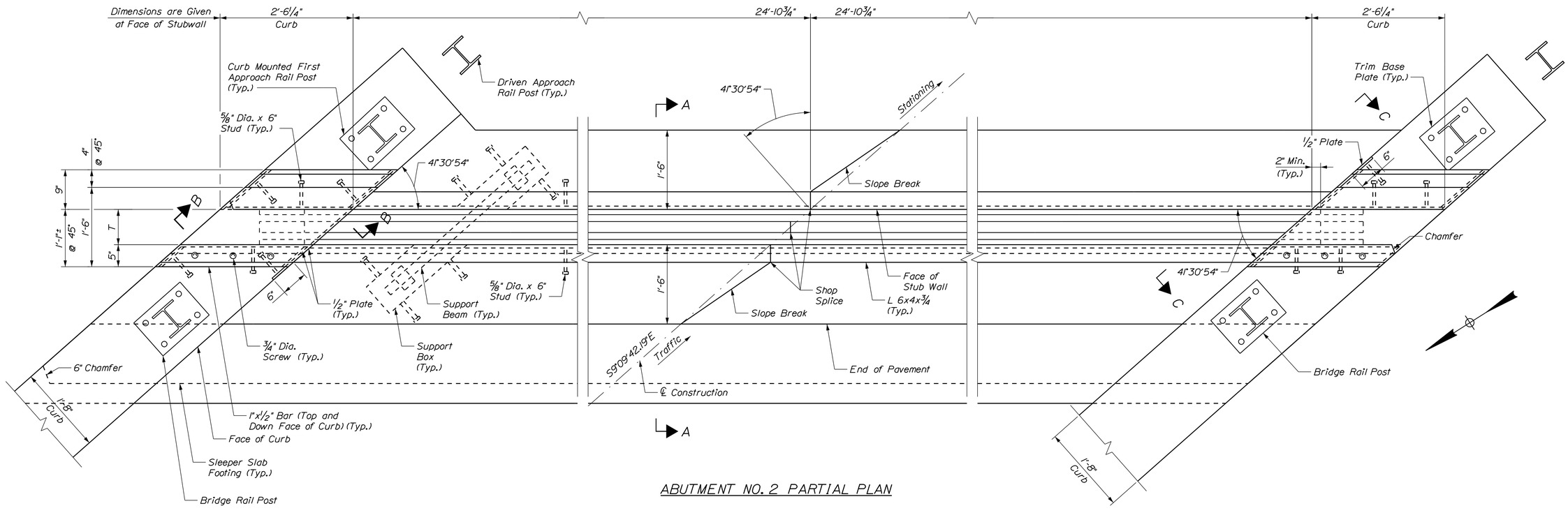
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | KDW | BY | DATE |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | 11/25 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

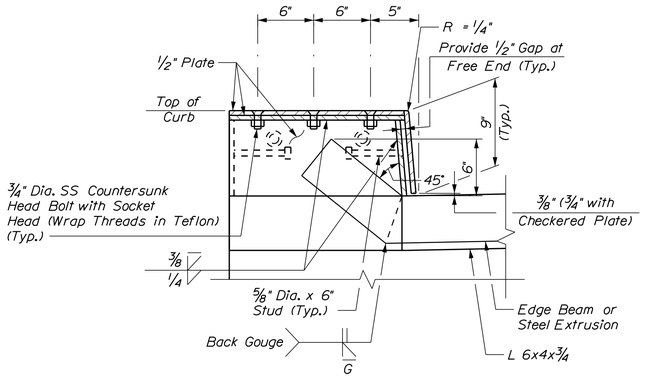
EXPANSION JOINT DETAILS
(1 OF 2)

SHEET NUMBER
B-36
403
OF 485

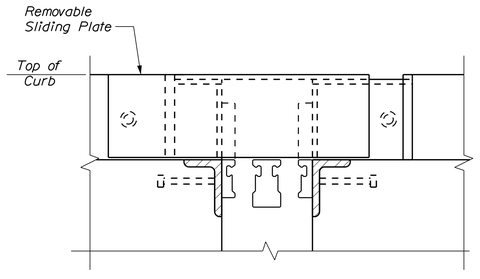
Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_Bridge_Joint_Abut 1.dgn




ABUTMENT NO. 2 PARTIAL PLAN




SECTION B-B
(Curb Details Vary. See Plan)




VIEW C-C

NOTES

1. See Expansion Joint Details 1 of 2 for Section A-A.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 5823

BRIDGE PLANS

vhb

| | | |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | KDW | 11/25 |
| CHECKED-REVIEWED | YP | 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

EXPANSION JOINT DETAILS
(2 OF 2)

SHEET NUMBER
B-37
404
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_Bridge_Joint_Abut 2.dgn

## STRAIGHT BARS

| MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|
| ABUTMENT 1 | | | |
| A500 | 27 | 16'-4" | Abutment Horizontal |
| A501 | 31 | 19'-9" | Abutment Horizontal |
| A502 | 58 | 29'-1" | Abutment Horizontal |
| A503 | 34 | 5'-10" | Abutment Horizontal |
| A504 | 31 | 11'-7" | Abutment Horizontal |
| A505 | 7 | 6'-7" | Abutment Horizontal |
| A506 | 28 | 9'-5" | Abutment Horizontal |
| A507 | 8 | 7'-6" | Wingwall 1 Vertical |
| A508 | 3 | 16'-2" | Flywall 1 Vertical |
| A509 | 6 | 14'-4" | Flywall 1 Vertical |
| A510 | 6 | 12'-6" | Flywall 1 Vertical |
| A511 | 13 | 15'-11" | Wingwall 2 Vertical |
| A512 | 5 | 14'-1" | Wingwall 2 Vertical |
| A513 | 12 | 13'-0" | Flywall 2 Vertical |
| A514 | 10 | 11'-4" | Flywall 2 Vertical |
| A515 | 54 | 10'-8" | Wingwall 1 Horizontal |
| A516 | 2 | 7'-11" | Wingwall 1 Horizontal |
| A517 | 2 | 7'-2" | Wingwall 1 Horizontal |
| A518 | 2 | 6'-5" | Wingwall 1 Horizontal |
| A519 | 2 | 5'-9" | Wingwall 1 Horizontal |
| A520 | 2 | 5'-0" | Wingwall 1 Horizontal |
| A521 | 2 | 4'-3" | Wingwall 1 Horizontal |
| A522 | 2 | 3'-6" | Wingwall 1 Horizontal |
| A523 | 2 | 2'-9" | Wingwall 1 Horizontal |
| A524 | 2 | 2'-1" | Wingwall 1 Horizontal |
| A525 | 2 | 1'-4" | Wingwall 1 Horizontal |
| A526 | 2 | 0'-11" | Wingwall 1 Horizontal |
| A527 | 56 | 25'-0" | Wingwall 2 Horizontal |
| A528 | 2 | 16'-2" | Wingwall 2 Horizontal |
| A529 | 2 | 14'-8" | Wingwall 2 Horizontal |
| A530 | 2 | 13'-1" | Wingwall 2 Horizontal |
| A531 | 2 | 11'-7" | Wingwall 2 Horizontal |
| A532 | 2 | 10'-1" | Wingwall 2 Horizontal |
| A533 | 2 | 8'-6" | Wingwall 2 Horizontal |
| A534 | 2 | 7'-0" | Wingwall 2 Horizontal |
| A535 | 2 | 5'-6" | Wingwall 2 Horizontal |
| A536 | 2 | 3'-11" | Wingwall 2 Horizontal |
| A537 | 2 | 2'-5" | Wingwall 2 Horizontal |
| A538 | 2 | 1'-2" | Wingwall 2 Horizontal |
| A600 | 75 | 9'-6" | Footing Horizontal |
| A601 | 22 | 44'-4" | Footing Horizontal |
| A602 | 22 | 34'-4" | Footing Horizontal |
| A603 | 16 | 13'-7" | Wingwall 1 Vertical |
| A604 | 26 | 14'-2" | Wingwall 2 Vertical |
| A700 | 75 | 9'-6" | Footing Horizontal |
| A701 | 3 | 10'-7" | Wingwall 1 Horizontal |
| A702 | 3 | 9'-4" | Wingwall 1 Horizontal |
| A703 | 6 | 22'-5" | Wingwall 2 Horizontal |
| PIER | | | |
| P500 | 50 | 36'-0" | Horizontal Pier Bar |
| P501 | 50 | 18'-0" | Horizontal Pier Bar |

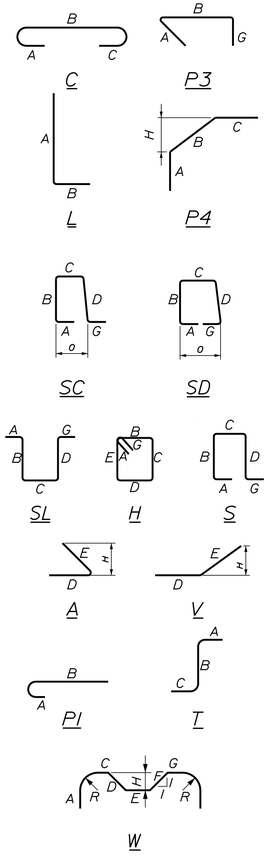
| MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|
| ABUTMENT 2 | | | |
| B500 | 28 | 16'-4" | Abutment Horizontal |
| B501 | 32 | 19'-9" | Abutment Horizontal |
| B502 | 60 | 29'-1" | Abutment Horizontal |
| B503 | 35 | 5'-10" | Abutment Horizontal |
| B504 | 32 | 11'-9" | Abutment Horizontal |
| B505 | 7 | 6'-7" | Abutment Horizontal |
| B506 | 28 | 9'-5" | Abutment Horizontal |
| B507 | 12 | 16'-4" | Wingwall 3 Vertical |
| B508 | 12 | 16'-1" | Flywall 3 Vertical |
| B509 | 10 | 14'-5" | Flywall 3 Vertical |
| B510 | 14 | 15'-0" | Wingwall 4 Vertical |
| B511 | 12 | 13'-3" | Flywall 4 Vertical |
| B512 | 10 | 11'-6" | Flywall 4 Vertical |
| B513 | 58 | 15'-4" | Wingwall 3 Horizontal |
| B514 | 2 | 14'-0" | Wingwall 3 Horizontal |
| B515 | 2 | 14'-0" | Wingwall 3 Horizontal |
| B516 | 2 | 12'-6" | Wingwall 3 Horizontal |
| B517 | 2 | 11'-0" | Wingwall 3 Horizontal |
| B518 | 2 | 9'-6" | Wingwall 3 Horizontal |
| B519 | 2 | 8'-0" | Wingwall 3 Horizontal |
| B520 | 2 | 6'-6" | Wingwall 3 Horizontal |
| B521 | 2 | 5'-1" | Wingwall 3 Horizontal |
| B522 | 2 | 3'-7" | Wingwall 3 Horizontal |
| B523 | 2 | 2'-1" | Wingwall 3 Horizontal |
| B524 | 2 | 1'-4" | Wingwall 3 Horizontal |
| B525 | 54 | 20'-8" | Wingwall 4 Horizontal |
| B526 | 2 | 14'-9" | Wingwall 4 Horizontal |
| B527 | 2 | 13'-4" | Wingwall 4 Horizontal |
| B528 | 2 | 11'-11" | Wingwall 4 Horizontal |
| B529 | 2 | 10'-6" | Wingwall 4 Horizontal |
| B530 | 2 | 9'-1" | Wingwall 4 Horizontal |
| B531 | 2 | 7'-9" | Wingwall 4 Horizontal |
| B532 | 2 | 6'-4" | Wingwall 4 Horizontal |
| B533 | 2 | 4'-11" | Wingwall 4 Horizontal |
| B534 | 2 | 3'-6" | Wingwall 4 Horizontal |
| B535 | 2 | 2'-1" | Wingwall 4 Horizontal |
| B536 | 2 | 1'-1" | Wingwall 4 Horizontal |
| B600 | 73 | 9'-6" | Footing Horizontal |
| B601 | 22 | 43'-5" | Footing Horizontal |
| B602 | 22 | 33'-5" | Footing Horizontal |
| B603 | 18 | 14'-8" | Wingwall 3 Vertical |
| B604 | 18 | 13'-3" | Wingwall 4 Vertical |
| B700 | 73 | 9'-6" | Footing Horizontal |
| B701 | 6 | 13'-10" | Wingwall 3 Horizontal |
| B702 | 6 | 18'-0" | Wingwall 4 Horizontal |

## BENT BARS

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABUTMENT 1 | | | | | | | | | | | | | | |
| A553 | 141 | 9'-1" | L | 8'-3" | 0'-10" | | | | | | | | | Footing Vertical Near Face |
| A554 | 125 | 13'-2" | L | 2'-10" | 10'-4" | | | | | | | | | Abutment Near Face Verticals |
| A555 | 112 | 12'-6" | L | 3'-4" | 9'-2" | | | | | | | | | Abutment Far Face Verticals |
| A556 | 27 | 6'-0" | V | | | | 1'-0" | 5'-0" | | | 3'-7" | | | Abutment Corner Bar |
| A557 | 27 | 7'-1" | V | | | | 1'-0" | 6'-1" | | | 4'-1" | | | Abutment Corner Bar |
| A558 | 7 | 4'-11" | V | | | | 3'-5" | 1'-6" | | | 1'-0" | | | Abutment Cheekwall |
| A559 | 7 | 3'-10" | V | | | | 3'-0" | 0'-10" | | | 0'-8" | | | Abutment Cheekwall |
| A560 | 7 | 7'-7" | A | | | | 5'-7" | 2'-0" | | | 1'-3" | | | Abutment Cheekwall |
| A561 | 7 | 5'-1" | A | | | | 3'-1" | 2'-0" | | | 1'-3" | | | Abutment Cheekwall |
| A562 | 7 | 2'-6" | V | | | | 1'-0" | 1'-6" | | | 1'-0" | | | Abutment Cheekwall |
| A563 | 22 | 4'-8" | S | 0'-0" | 1'-6" | 1'-8" | 1'-6" | | | 0'-0" | | | | Top of Wingwall |
| A564 | 40 | 7'-8" | S | 0'-0" | 3'-0" | 1'-8" | 3'-0" | | | 0'-0" | | | | Flywall U-Bar |
| A565 | 52 | 3'-6" | S | 0'-0" | 1'-0" | 1'-6" | 1'-0" | | | 0'-0" | | | | Flywall End Bar |
| A650 | 112 | 10'-3" | L | 9'-3" | 1'-0" | | | | | | | | | Footing Vertical Far Face |
| A651 | 64 | 4'-2" | S | 0'-0" | 0'-10" | 2'-6" | 0'-10" | | | 0'-0" | | | | Footing Pile Ties |
| A850 | 42 | 12'-7" | L | 11'-3" | 1'-4" | | | | | | | | | Footing Vertical Far Face |
| ABUTMENT 2 | | | | | | | | | | | | | | |
| B553 | 141 | 9'-1" | L | 8'-3" | 0'-10" | | | | | | | | | Footing Vertical Near Face |
| B554 | 125 | 13'-8" | L | 2'-10" | 10'-10" | | | | | | | | | Abutment Near Face Verticals |
| B555 | 112 | 13'-0" | L | 3'-4" | 9'-8" | | | | | | | | | Abutment Far Face Verticals |
| B556 | 28 | 6'-2" | V | | | | 1'-0" | 5'-2" | | | 3'-8" | | | Abutment Corner Bar |
| B557 | 28 | 7'-1" | V | | | | 1'-0" | 6'-1" | | | 4'-1" | | | Abutment Corner Bar |
| B558 | 7 | 4'-11" | V | | | | 3'-5" | 1'-6" | | | 1'-0" | | | Abutment Cheekwall |
| B559 | 7 | 3'-10" | V | | | | 3'-0" | 0'-10" | | | 0'-8" | | | Abutment Cheekwall |
| B560 | 7 | 7'-7" | A | | | | 5'-7" | 2'-0" | | | 1'-3" | | | Abutment Cheekwall |
| B561 | 7 | 5'-1" | A | | | | 3'-1" | 2'-0" | | | 1'-3" | | | Abutment Cheekwall |
| B562 | 7 | 2'-6" | V | | | | 1'-0" | 1'-6" | | | 1'-0" | | | Abutment Cheekwall |
| B563 | 22 | 4'-8" | S | 0'-0" | 1'-6" | 1'-8" | 1'-6" | | | 0'-0" | | | | Top of Wingwall |
| B564 | 44 | 7'-8" | S | 0'-0" | 3'-0" | 1'-8" | 3'-0" | | | 0'-0" | | | | Flywall U-Bar |
| B565 | 56 | 3'-6" | S | 0'-0" | 1'-0" | 1'-6" | 1'-0" | | | 0'-0" | | | | Flywall End Bar |
| B650 | 112 | 10'-3" | L | 9'-3" | 1'-0" | | | | | | | | | Footing Vertical Far Face |
| B651 | 48 | 4'-2" | S | 0'-0" | 0'-10" | 2'-6" | 0'-10" | | | 0'-0" | | | | Footing Pile Ties |
| B850 | 36 | 12'-7" | L | 11'-3" | 1'-4" | | | | | | | | | Footing Vertical Far Face |
| PIER | | | | | | | | | | | | | | |
| P550 | 159 | 6'-11" | S | 0'-0" | 1'-11" | 3'-1" | 1'-11" | | | 0'-0" | | | | Pier Cap Stirrup |
| P551 | 12 | 3'-10" | L | 1'-11" | 1'-11" | | | | | | | | | Pier End Bar |
| P552 | 106 | 8'-5" | S | 0'-0" | 2'-8" | 3'-1" | 2'-8" | | | 0'-0" | | | | Pier Cap Stirrup |
| P553 | 8 | 5'-4" | L | 2'-8" | 2'-8" | | | | | | | | | Pier End Bar |
| P554 | 30 | 7'-7" | S | 0'-0" | 2'-4" | 2'-11" | 2'-4" | | | 0'-0" | | | | Pier Cap Stirrup |
| P555 | 345 | 2'-8" | L | 2'-0" | 0'-8" | | | | | | | | | Pier Dowel Bar |

MARK QTY. LENGTH LOCATION | MARK QTY. LENGTH LOCATION | MARK QTY. LENGTH TYPE A B C D E F G H O R LOCATION

## TYPE - BENDING DIAGRAMS




All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A615, Grade 60

## GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

   Mark "A502" = bar size #5
   Mark "B805" = bar size #8
   Mark "S650" = bar size #6

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 5823

vhb

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | JAH | 11/25 |
| CHECKED-REVIEWED | YP | 11/25 |
| DESIGN2-DETAILED2 | SMH | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

REINFORCING SCHEDULE
(1 OF 2)

SHEET NUMBER
B-38
405
OF 485

Filename: ...\XXX_Reinf_Sched.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

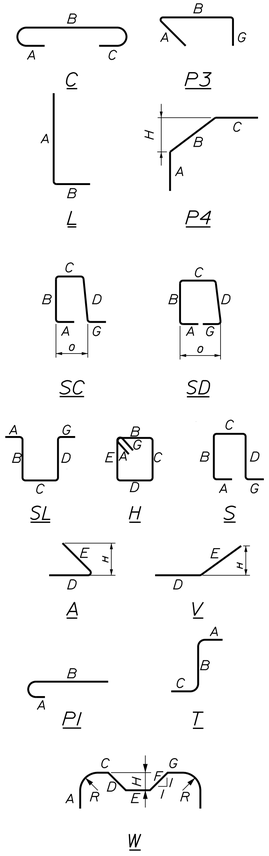
## STRAIGHT BARS

| MARK | QTY. | LENGTH | LOCATION | MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|---|---|---|---|
| APPROACH AND SLEEPER SLAB | | | | | | | |
| AS500 | 118 | 30'-0" | Approach Slab Transverse Bars | | | | |
| AS501 | 118 | 26'-9" | Approach Slab Transverse Bars | | | | |
| AS502 | 242 | 3'-9" | Sleeper Slab Verticals | | | | |
| AS503 | 112 | 2'-6" | Drainage Trough Support | | | | |
| AS504 | 124 | 19'-7" | Approach Slab Longitudinal Bar | | | | |
| AS506 | 30 | 4'-0" | Sleeper Slab Curb Bar | | | | |
| AS800 | 222 | 19'-7" | Approach Slab Bottom Mat | | | | |
| SUPERSTRUCTURE BACKWALL | | | | | | | |
| S622 | 110 | 9'-5" | Backwall Transverse | | | | |
| S721 | 18 | 33'-8" | Backwall Transverse | | | | |
| S722 | 18 | 23'-8" | Backwall Transverse | | | | |
| SUPERSTRUCTURE | | | | | | | |
| S501 | 124 | 17'-6" | Deck Transverse | | | | |
| S502 | 304 | 17'-0" | Deck Transverse | | | | |
| S503 | 176 | 19'-9" | Deck Longitudinal | | | | |
| S504 | 320 | 47'-3" | Deck Longitudinal | | | | |
| S505 | 68 | 4'-0" | Deck Fillet Bar | | | | |
| S506 | 8 | 28'-6" | Deck End Bar | | | | |
| L500 | 12 | 4'-2" | Lighting Bumpout | | | | |

## BENT BARS

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROACH AND SLEEPER SLAB | | | | | | | | | | | | | | |
| AS550 | 112 | 10'-9" | S | 0'-0" | 2'-1" | 6'-7" | 2'-1" | | | 0'-0" | | | | Sleeper Slab Footing |
| AS551 | 112 | 7'-3" | S | 0'-0" | 2'-1" | 3'-1" | 2'-1" | | | 0'-0" | | | | Sleeper Slab Footing |
| AS552 | 112 | 3'-2" | L | 1'-7" | 1'-7" | | | | | | | | | Sleeper Slab Stem |
| AS553 | 112 | 3'-2" | V | | | | 1'-7" | 1'-7" | | | 1'-2" | | | Approach Slab Thickened Section |
| AS554 | 112 | 5'-2" | L | 3'-7" | 1'-7" | | | | | | | | | Approach Slab Thickened Section |
| AS555 | 112 | 2'-0" | L | 1'-0" | 1'-0" | | | | | | | | | Approach Slab Thickened Section |
| AS556 | 96 | 6'-5" | SC | 0'-10" | 1'-9" | 1'-3" | 1'-9" | | | 0'-10" | | 1'-4" | | Curb Stirrups |
| AS558 | 21 | 5'-11" | SC | 0'-0" | 2'-4" | 1'-3" | 2'-4" | | | 0'-0" | | 1'-4" | | Sleeper Slab Stirrups |
| SUPERSTRUCTURE BACKWALL | | | | | | | | | | | | | | |
| S571 | 36 | 3'-8" | V | | | | 2'-4" | 1'-4" | | | 1'-0" | | | Backwall Horizontal |
| S572 | 36 | 3'-8" | A | | | | 2'-4" | 1'-4" | | | 0'-11" | | | Backwall Horizontal |
| S573 | 224 | 4'-6" | L | 3'-4" | 1'-2" | | | | | | | | | Backwall Vertical |
| S574 | 112 | 2'-7" | L | 1'-7" | 1'-0" | | | | | | | | | Backwall Vertical |
| S577 | 660 | 2'-2" | P3 | 0'-6" | 1'-2" | | | | | 0'-6" | | | | Backwall Tie |
| SUPERSTRUCTURE | | | | | | | | | | | | | | |
| S550 | 1234 | 4'-3" | SD | 0'-0" | 1'-3" | 1'-3" | 1'-3" | | | 0'-6" | | 1'-4½" | | Curb Stirrup |
| S551 | 204 | 5'-1" | T | 2'-6" | 1'-6" | 1'-1" | | | | | | | | Deck End |
| S552 | 72 | 4'-10" | L | 2'-5" | 2'-5" | | | | | | | | | Approach Slab Dowel |
| S650 | 1778 | 4'-8" | P1 | 0'-8" | 4'-0" | | | | | | | | | Deck Overhang |
| L551 | 9 | 6'-8" | W | 0'-0" | | 0'-0" | 2'-8" | 1'-4" | 2'-8" | 0'-0" | 1'-10" | | 0'-0" | Lighting Bumpout |
| L552 | 21 | 6'-8" | SL | 0'-0" | 2'-8" | 1'-4" | 2'-8" | | | 0'-0" | | | | Lighting Bumpout |

## TYPE - BENDING DIAGRAMS




All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A615, Grade 60

## GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

   Mark "A502" = bar size #5
   Mark "B805" = bar size #8
   Mark "S650" = bar size #6

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 5823

vhb

| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | JAH | DATE | 11/25 |
| CHECKED-REVIEWED | YP | BY | JAH |
| DESIGN2-DETAILED2 | | DATE | 11/25 |
| DESIGN3-DETAILED3 | | BY | SMH |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/I95 BRIDGE
I-95
BANGOR PENOBSCOT

REINFORCING SCHEDULE
(2 OF 2)

SHEET NUMBER
B-39
406
OF 485

Username: jamesdavis
Date:08/29/2025
Division: HIGHWAY
Filename: ...\XXX_Reinf_Sched2.dgn

# STATE OF MAINE
# DEPARTMENT OF TRANSPORTATION

## SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Ninth Edition 2020.

## DESIGN LOADING

Live Load ..... HL-93 Modified for Strength I

## MATERIALS

Concrete:
- Abutments, Wingwalls, Piers and Moment Slabs ..... Class "A"
- Other ..... Class "A1"

Reinforcing:
- Plain Steel ..... ASTM A 615/ A 615M, Grade 60
- Glass Fiber Reinforcing Polymer (GFRP) ..... ASTM D7957
- Low-Carbon Chromium Steel: ..... ASTM A1035, Type CS, Grade 100

Structural Steel:
- All Material (except as noted) ..... ASTM A709, Grade 50 (Metallized)
- Steel H-Piles ..... ASTM A572, Grade 50
- High Strength Bolts ..... ASTM F3125, Grade A325, Type 1

## BASIC DESIGN STRESSES

Concrete:
- Class "A" and "A1" ..... f 'c = 4,000 psi

Reinforcing:
- Plain Steel ..... f y = 60,000 psi
- Low-Carbon Chromium Steel ..... f y = 100,000 psi
- Glass Fiber Reinforced Polymer:
  - Ultimate Tensile Stress ..... fu = 100,000 psi
  - Minimum Elastic Modulus ..... 8,700,000 psi

Structural Steel:
- ASTM A709, Grade 50 ..... F y = 50,000 psi
- ASTM A572, Grade 50 ..... F y = 50,000 psi
- ASTM F3125, Grade A325 ..... F μ = 120,000 psi

# BANGOR
# PENOBSCOT COUNTY
# HOGAN ROAD NO. 2 BRIDGE
## OVER
# I-95
## HOGAN ROAD
## FEDERAL AID PROJECT NO. 1859511
## BRIDGE NO. 6787

## LIST OF DRAWINGS


Title Sheet ..... B40
Bridge Plan & Construction Notes ..... B41
Profile ..... B42
Boring Location Plan ..... B43
Interpretive Subsurface Sections ..... B44-B47
Boring Logs ..... B48-B50
Phased Construction ..... B51
Pile Details ..... B52
Abutment Notes & Details ..... B53
Abutment No.1 Footing Plan ..... B54
Abutment No.2 Footing Plan ..... B55
Abutment No. 1 Details ..... B56-B57
Abutment No. 2 Details ..... B58-B59
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Abutment and Wingwall Reinforcing Sections ..... B61
Piers ..... B62-B70
Bearings ..... B71-B73
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Superstructure Plan ..... B79
Superstructure Details ..... B80-B83
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Expansion Joint Details ..... B91-B92
Bridge Drain Type A (Mod.) ..... B93
Concrete Path and Barrier Details ..... B94
Reinforcing Schedule ..... B95-B97


## UTILITIES

Refer to Highway Plans

## MAINTENANCE OF TRAFFIC

Refer to Highway Plans

| | |
|---|---|
| PROJECT LOCATION | Diverging diamond interchange on Hogan Road/ Interstate 95 Exit 187 and Hogan Road/ I-95 Bridge (#5823) over Interstate 95. Located 0.26 of a mile north of Haskell Road. Lat./Long. 44°49'56.1" N 68°44'30.2" W |
| PROGRAM AREA | Highway |
| OUTLINE OF WORK | New Bridge in conjunction with interchange rebuild. |

WIN 18595.11

01859511

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED — DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE · LICENSED PROFESSIONAL ENGINEER · Steven M. Hodgdon 11206

SIGNATURE
11206
P.E. NUMBER
11/7/2025
DATE

PROJECT INFORMATION

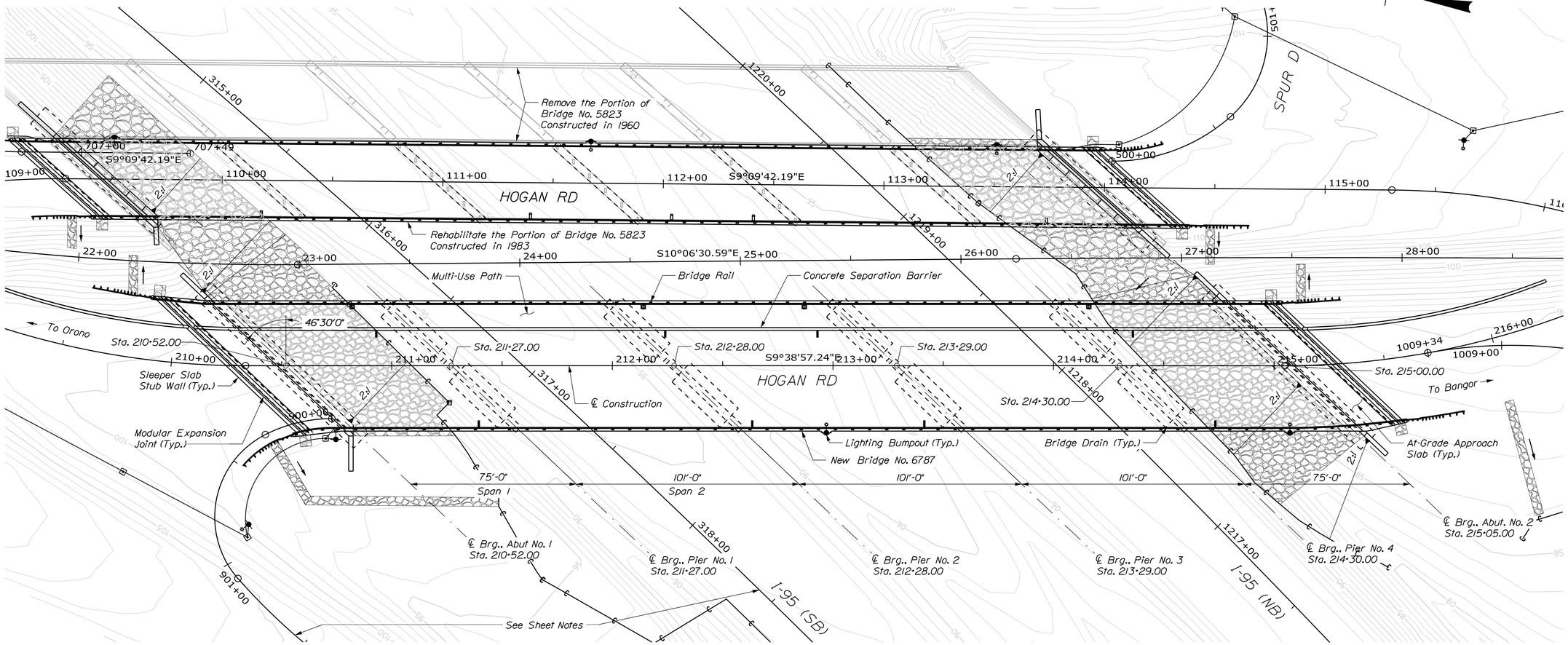
| | |
|---|---|
| PROGRAM | Highway |
| PROJECT MANAGER | Laurie Rowe |
| DESIGNER | VHB |
| CONSULTANT | VHB |
| PROJECT RESIDENT | |
| CONTRACTOR | |
| PROJECT COMPLETION DATE | |

BANGOR
HOGAN ROAD NO. 2 BRIDGE

TITLE SHEET

SHEET NUMBER
B-40
407
OF 485

Filename:\\10\BRIDGE\MSTA\0B1_Title.dgn Division: HIGHWAY Username: jomesdavis Date:08/29/2025




## BRIDGE CONSTRUCTION NOTES

1. For General Notes, refer to the Highway Plans.

2. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.

3. Place a 24 inch wide strip of Erosion Control Blanket on the sideslopes along the bridge and approach rail berm and behind the wingwalls.

4. Protective Coating for Concrete Surfaces shall be applied to the following areas:

   All exposed surfaces of concrete curbs, separation barriers, and multi-use path.
   Fascias down to the drip notch.
   Top of abutment wingwalls, bridge seats, pier surfaces, and
   To one foot below the ground on vertical walls and pier stems against earth.

5. Construct 6 foot by 6 foot Plain Riprap splash pad (2 foot thick) under all bridge drain downspouts not otherwise protected by riprap. Choke all splash pad zones with 2-inch Crushed Stone (Section 703.31) (incidental to Plain Riprap).

## PLAN

25 0 25 50

Scale of Feet

## SHEET NOTES

1. See Highway Plans for approach work and I-95 treatment.

2. See Hogan Road / I95 Bridge Plans for other bridge work and removal included in the Project.

3. Earthwork around piers not shown for clarity. Proposed grade shall match existing ground.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787

WIN 18595.11

BRIDGE PLANS

vhb

| | | DATE |
|---|---|---|
| L. ROWE | | |
| PROJ. MANAGER | JAH | 11/25 |
| DESIGN-DETAILED | KDW | 11/25 |
| CHECKED-REVIEWED | YP | |
| DESIGN2-DETAILED2 | SMH | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

# BRIDGE PLAN & CONSTRUCTION NOTES

SHEET NUMBER
B-41
408
OF 485

Filename: ...\MSTA\0B2_WB_General_Plan.DGN Division: HIGHWAY Username: jamesdavis Date:08/29/2025

PROFILE
(I-95 Roadside Barriers Not Shown)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

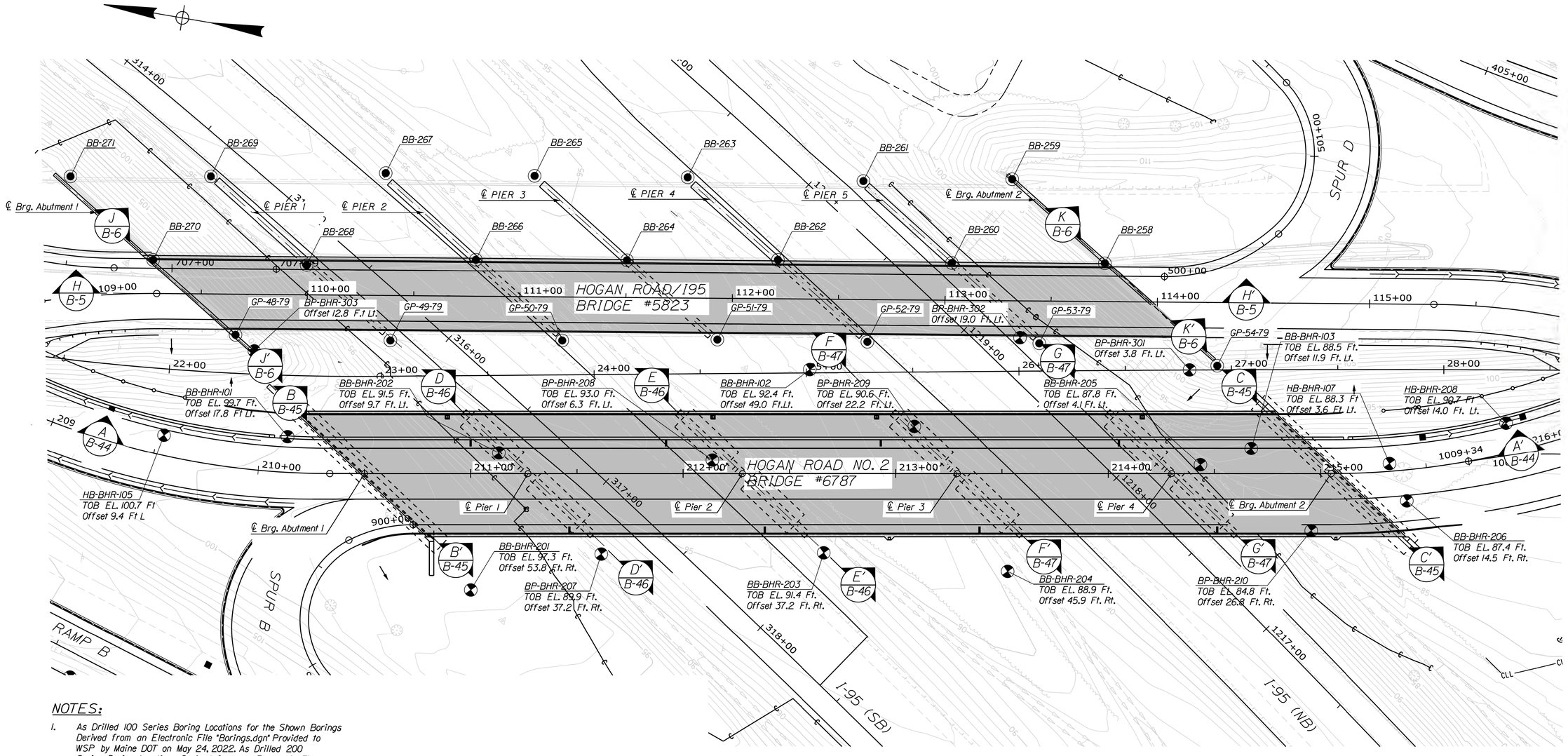
| | | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | JAH | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

PROFILE

SHEET NUMBER
B-42
409
OF 485

Filename: ...\MSTA\XXX_Profile_NewBridge.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




## NOTES:

1. As Drilled 100 Series Boring Locations for the Shown Borings Derived from an Electronic File "Borings.dgn" Provided to WSP by Maine DOT on May 24, 2022. As Drilled 200 Series Boring Locations Derived from an Electronic File "18595.10BORLOC.200SERIES.10.11.23" Provided to WSP by Maine DOT October 13, 2023.
2. Basemap Elements Shown Derived from a group of Electronic Files "WIN 18595.10-Bangor" Provided to WSP by VHB on May 26, 2022. Proposed elements shown derived from Electronic file "Bridge-Proposed.dgn" Provided by VHB on August 27, 2025.
3. Proposed Stationing Provided to WSP by VHB on August 27, 2022 in an Electronic File "Alignments.dgn".
4. Approximate Historic Boring Locations or the Shown Borings Derived from Historic Plan Set "Department of Transportation Bureau of Highways, Bangor Penobscot County, Maine Federal an Urban Project No. IR-95-8(129)175 Hogan Road/ I-95 Marked, As-Built 1983".
5. For Detailed Lithologic Descriptions see Boring Logs included in the Geotechnical Design Report (GDR).

## BORING LOCATION PLAN

25 0 25 50
Scale of Feet

## LEGEND

| | |
|---|---|
| BB-BHR-101 | Completed Bridge Series Borings |
| BP-BHR-207 | Completed Bridge Series Rock Probe |
| HB-BHR-105 | Completed Highway Series Borings |
| B-268, GP-48-79 | Historic Borings |
| TOB EL. 99.7 | Elevation of Top of Boring |
| X / X-XX | Interpretive Subsurface Section |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE NO. 6787

STATE OF MAINE · CHRISTOPHER M. LANDON · No. 15164 · REGISTERED PROFESSIONAL ENGINEER

| | | |
|---|---|---|
| SIGNATURE | 15164 | |
| P.E. NUMBER | | |
| DATE | 11/07/2025 | |

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. LANDON | |
| DESIGN-DETAILED | MEL | 9/2022 |
| CHECKED-REVIEWED | DEB | 10/2025 |
| DESIGN2-DETAILED2 | - | - |
| DESIGN3-DETAILED3 | - | - |
| REVISIONS 1 | - | - |
| REVISIONS 2 | - | - |
| REVISIONS 3 | - | - |
| REVISIONS 4 | - | - |
| FIELD CHANGES | - | - |

HOGAN ROAD/NO. 2 BRIDGE
195
PENOBSCOT
BANGOR

# BORING LOCATION PLAN

SHEET NUMBER
B-43
410
OF 485

Filename: ...\MSTA\BorLocPlan_5Span_wb.dgn Division: BRIDGE Username: Date:11/7/2025

Username:
Date:11/24/2025
Division: BRIDGE
Filename: ...\MSTA\GeoProfile_5Span_wb.dgn

A NORTH — A' SOUTH

209+00 | 210+00 | 211+00 | 212+00 | 213+00 | 214+00 | 215+00 | 216+00

℄ Brg. Abutment 1 Sta. 210+52.00
℄ PIER 1 Sta. 211+27.00
℄ PIER 2 Sta. 212+28.00
℄ PIER 3 Sta. 213+29.00
℄ PIER 4 Sta. 214+30.00
℄ Brg. Abutment 2 Sta. 215+05.00

HB-BHR-105 EL. 100.7 Ft Offset 9.4 Ft Lt
BB-BHR-101 EL. 99.7 Ft. Offset 17.8 Ft. Lt.
BB-BHR-201 EL. 97.3 Ft. Offset 53.8 Ft. RT.
BP-BHR-207 EL. 89.9 Ft. Offset 37.2 Ft. Rt.
BP-BHR-208 EL. 93.0 Ft. Offset 6.3 Ft. Lt.
BB-BHR-102 EL. 92.4 Ft. Offsett 49.0 Ft. Lt.
BP-BHR-209 EL. 90.6 Ft. Offsett 22.2 Ft. Lt.
BB-BHR-204 EL. 88.9 Ft. Offsett 45.9 Ft. Rt.
BB-BHR-205 EL. 87.8 Ft. Offsett 4.1 Ft. Lt.
HB-BHR-107 EL. 88.3 Ft. Offsett 3.6 Ft. Lt.
BB-BHR-202 EL. 91.5 Ft. Offsett 9.7 Ft. Lt.
BB-BHR-203 EL. 91.4 Ft. Offsett 37.2 Ft. Rt.
BB-BHR-103 EL. 88.5 Ft. Offsett 11.9 Ft. Lt.
BB-BHR-206 EL. 87.4 Ft. Offsett 14.5 Ft. Rt.
BP-BHR-210 EL. 84.8 Ft. Offsett 26.8 Ft. Rt.

Aggregate Subbase
Existing Grade
Granular Borrow
Silt
Fill
I-95 SB
I-95 NB
Stiff to Very Stiff Clay
Medium Stiff to Soft Clay
VI-1161/357
V2-1116/223
VI-1339/446
VI > 12.17
Glacial Till
Weathered Bedrock
Medium Stiff to Soft Clay
VI - 659/220
V2 - 1016/302
VI-893/201
VI - 989/110
V2 > 12.17
Metawacke

EOB 29' BGS
EOB 34.9' BGS
EOB 35.0' BGS
EOB 31.2' BGS
EOB 26.7' BGS
EOB 26.7' BGS
EOB 29.7' BGS
EOB 36.2' BGS
EOB 39.6' BGS
EOB 30.0' BGS
EOB 38.0' BGS
EOB 23.5' BGS
EOB 28.8' BGS
EOB 30.8' BGS

SECTION A-A'

HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE

Boring Location I.D.
Elevation
Offset (Ft.) From Section Line
Top of Boring Probe
30 — SPT: N60 - Value (Corrected for Hammer Efficiency)
VI -3378 /1965 — Field Vane Shear Test Location and Undrained Shear Strength (PSF) (Peak/Remolded)
MV — Missed Vane
WOH — Weight of Hammer
R — Refusal
UI — Thin Wall Tube Sample
—? — Strata Interface
Run 1 = 92% — Rock Core Run Number and Rock Quality Designation (RQD)
EOB — End of Boring Depth Below Ground Surface (BGS)

- Topsoil
- Grey, Medium Dense, Gravelly Fine to Coarse Sand, some Silt (Fill)
- Olive-Brown, Medimum Stiff to Very Stiff Silt, Trace Fine Sand and Gravel, Slightly Plastic (Silt)
- Grey-Brown, Medimum Stiff to Soft Low Plasticity, Silt and Clay, Trace Sand (Clay)
- Stiff to Very Stiff Silty Clay (Clay)
- Grey, Medimum Dense to very Dense Gravelly Sand, some Silt/Clay (Glacial Till)
- Weathered Bedrock
- Grey, Fine Grained to Very Fine Grained Metawacke
- Proposed Substructure and Superstructure
- Existing Ground Surface
- Interpreted Ground Water Surface

GENERAL NOTES:

1. As-drilled boring locations for the shown borings derived from electronic file "Hogan Road borings.dgn" provided to WSP by MaineDOT on October 13, 2023.
2. For detailed lithologic decriptions see Boring Logs included in the Geotechnical Desiogn Report (DGR).
3. Groundwater surface is interpreted from localized surface water levels and measurements taken during the subsurface exploration programs.
4. This generalized subsurface section is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed based on interpretations of widely spaced explorations actual soil and rock transitions may vary amd are probably more erratic.
5. Proposed abutment geometry interpreted from electronic file "xsect_bridge_abutments_piers.dgn" provided to WSP by VHB on August 22, 2025.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 6787

STATE OF MAINE — CHRISTOPHER E. BIBEAU No. 15164 — LICENSED PROFESSIONAL ENGINEER

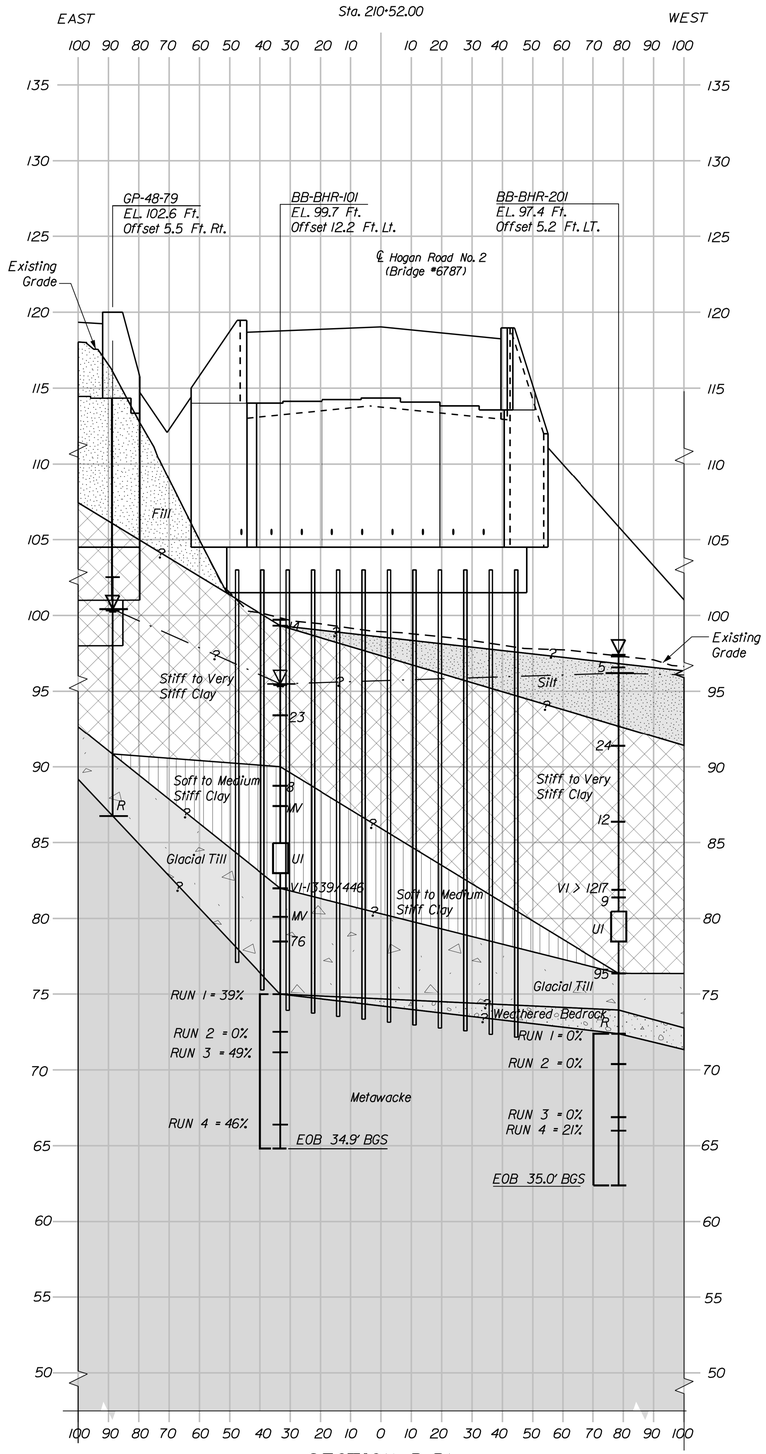
| | SIGNATURE | P.E. NUMBER | DATE |
|---|---|---|---|
| | | 15164 | 11/25/2025 |

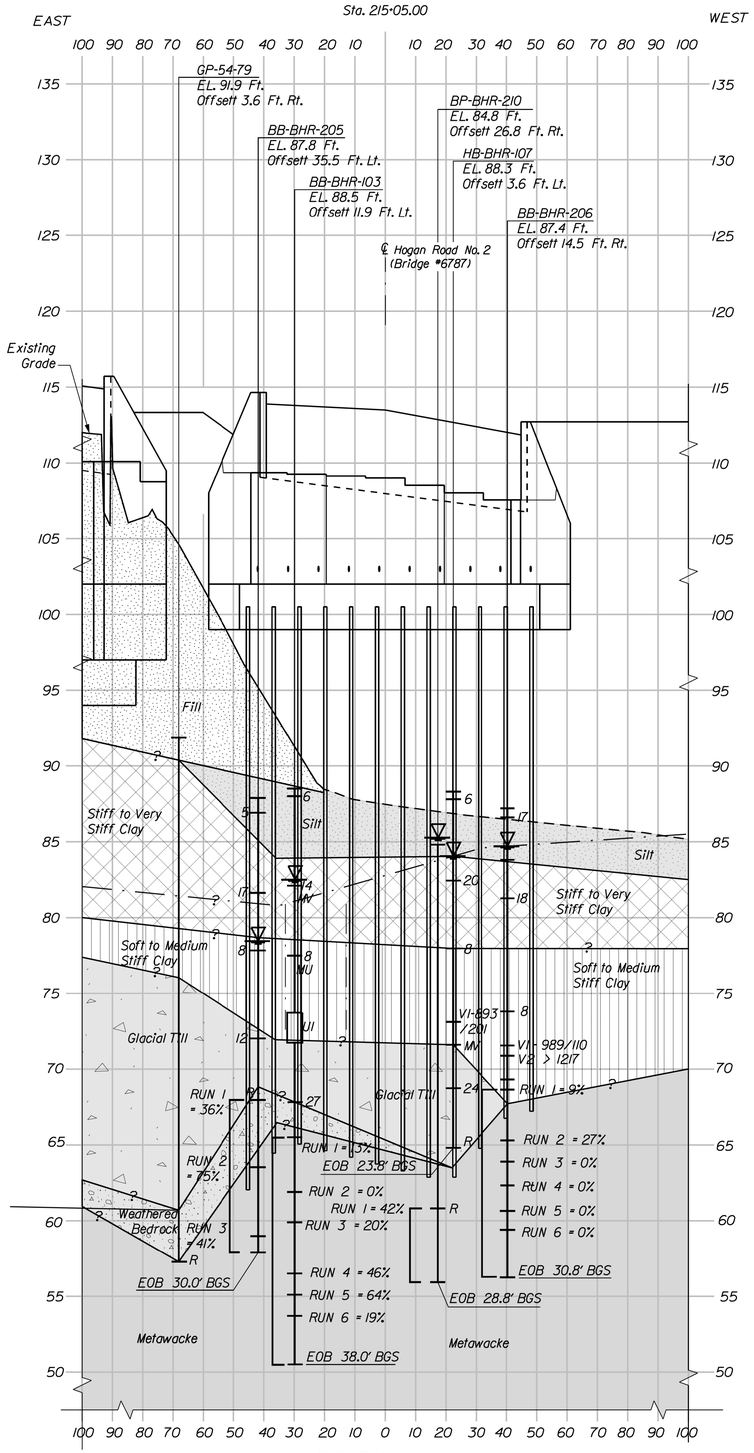
| | M. LANDON | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | WEG | WVW | 5/2024 |
| CHECKED-REVIEWED | DEB | CCB | 10/2025 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | XXX | XXX | |
| REVISIONS 2 | XXX | XXX | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/NO. 2 BRIDGE
195
PENOBSCOT
BANGOR

INTERPRETIVE SUBSURFACE SECTIONS
(SHEET 1 OF 4)

SHEET NUMBER
B-44
411
OF 485




- Topsoil
- Grey, Medium Dense, Gravelly Fine to Coarse Sand, some Silt (Fill)
- Olive-Brown, Medimum Stiff to Very Stiff Silt, Trace Fine Sand and Gravel, Slightly Plastic (Silt)
- Grey-Brown, Medimum Stiff to Soft, Low Plasticity, Silt and Clay, Trace Sand (Clay)
- Silt to Very Stiff (Clay)
- Grey, Medimum Dense to very Dense Gravelly Sand, some Silt/Clay (Glacial Till)
- Weathered Bedrock
- Grey, Fine Grained to Very Fine Grained Metawacke
- Proposed Substructure and Superstructure
- Existing Ground Surface
- Interpreted Ground Water Surface
- Boring Location I.D.
- Elevation
- Offset (Ft.) From Section Line
- Top of Boring Probe
- 30 — SPT: N60 - Value (Corrected for Hammer Efficiency)
- VI — Field Vane Shear Test Location and Undrained Shear Strength (PSF) (Peak/Remolded)
- MV — Missed Vane
- R — Refusal
- UI Thin Wall Tube Sample
- —? — Strata Interface
- Run 1 = 92% Rock Core Run Number and Rock Quality Designation (RQD)
- EOB — End of Boring Depth Below Ground Surface (BGS)

NOTE:

1. See Sheets B-43 and B-44 for General Notes.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 6787

STATE OF MAINE ★ CHRISTOPHER C. BENDA No. 15164 ★ PROFESSIONAL ENGINEER

| | SIGNATURE | P.E. NUMBER | DATE |
|---|---|---|---|
| | | 15164 | 11/07/2025 |

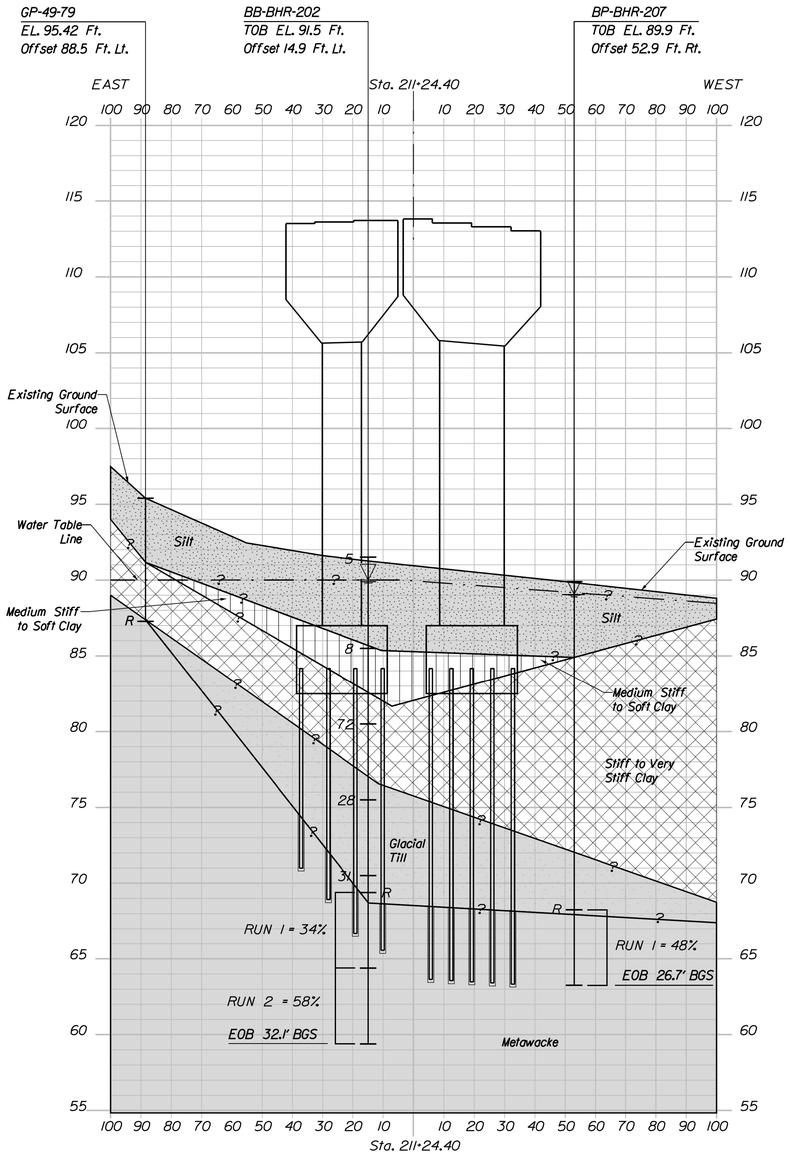
| PROJ. MANAGER | M. LANDON | | |
|---|---|---|---|
| DESIGN-DETAILED | WEG | NVW | 5/2024 |
| CHECKED-REVIEWED | DEB | CCB | 10/2025 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | XXX | XXX | XXX |
| REVISIONS 2 | XXX | XXX | XXX |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

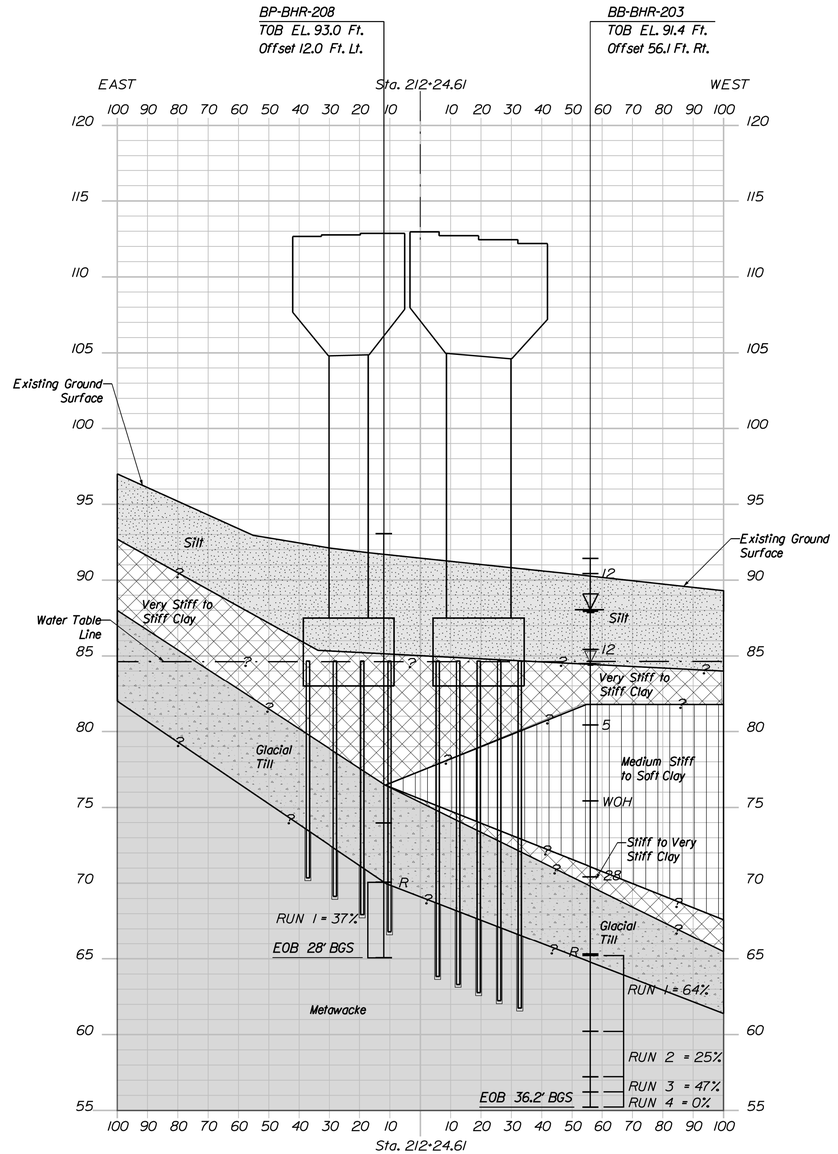
HOGAN ROAD/NO. 2 BRIDGE
195
PENOBSCOT
BANGOR

INTERPRETIVE SUBSURFACE SECTIONS
(SHEET 2 OF 4)

SHEET NUMBER
B-45
412
OF 485

Filename: ...\MSTA\Geoxsect_01_5Span_wb.dgn Division: BRIDGE Username: Date:11/7/2025




Topsoil

Olive-Brown, Medimum Stiff to Very Stiff Silt, Trace Fine Sand and Gravel, Slightly Plastic (Silt)

Grey-Brown, Medimum Stiff to Soft, Low Plasticity, Silt and Clay, Trace Sand (Clay)

Silt to Very Stiff (Clay)

Grey, Medimum Dense to very Dense Gravelly Sand, some Silt/Clay (Glacial Till)

Weathered Bedrock

Grey, Fine Grained to Very Fine Grained Metawacke

Proposed Substructure and Superstructure

Existing Ground Surface

Interpreted Ground Water Surface

Boring Location I.D.
Elevation
Offset (Ft.) From Section Line

Top of Boring

30 — SPT: N60 - Value (Corrected for Hammer Efficiency)

VI-3378 /1965 — Field Vane Shear Test Location and Undrained Shear Strendth (PSF) (Peak/Remolded)

MV — Unsuccessful Field Vane Shear Test Attempt

R — Refusal

IU Thin Wall Tube Sample

—? — Strata Interface

RQD= 40%
Rock Core Run Number and Rock Quality Designation (RQD)

EOB — End of Boring Depth Below Ground Surface (BGS)

NOTE:

1. See Sheets B-43 and B-44 for General Notes.

SECTION D-D'
(PIER 1)

HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE

SECTION E-E'
(PIER 2)

HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 6787

STATE OF MAINE — CHRISTOPHER A. ROSS — No. 15164 — REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 15164 — P.E. NUMBER

11/07/2025 — DATE

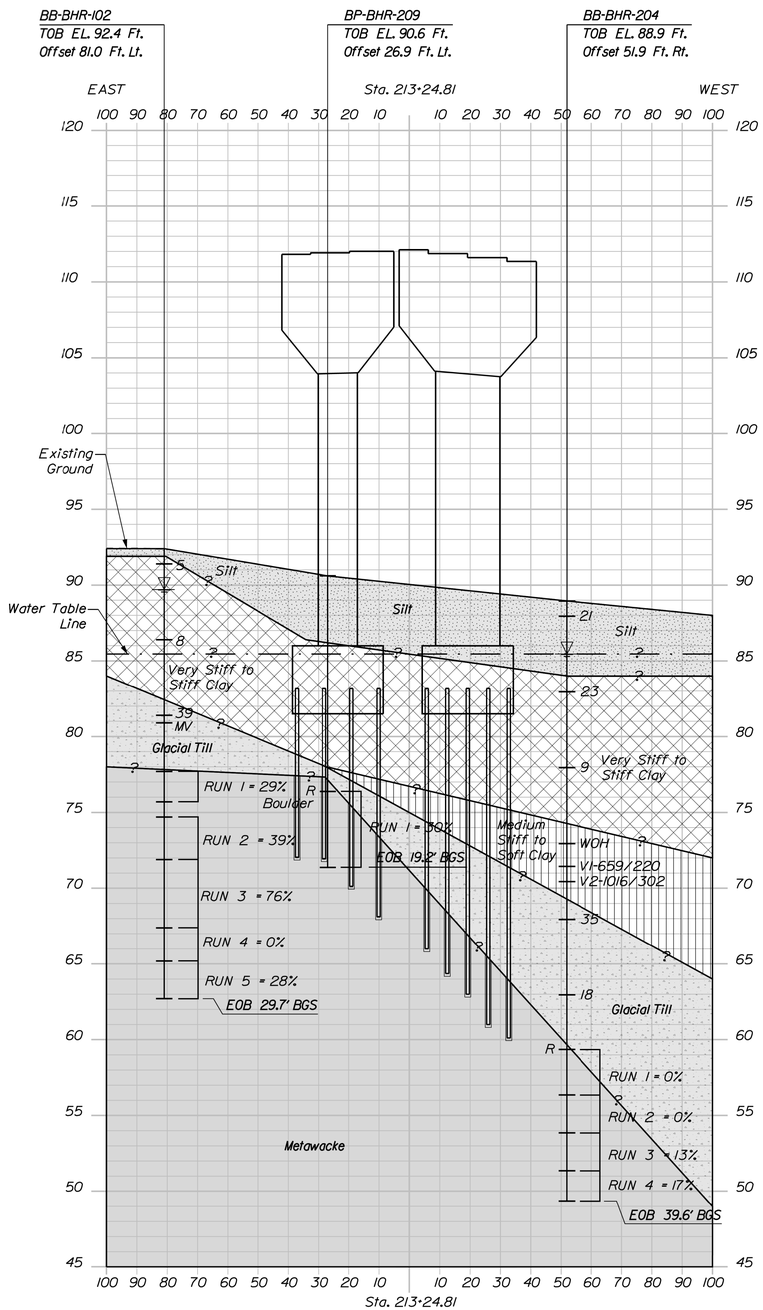
| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. LANDON | |
| DESIGN-DETAILED | DJH | 9/2025 |
| CHECKED-REVIEWED | ATM | 10/2025 |
| DESIGN2-DETAILED2 | DEB | |
| DESIGN3-DETAILED3 | CCB | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD/NO. 2 BRIDGE
195
BANGOR PENOBSCOT

INTERPRETIVE SUBSURFACE SECTIONS
(SHEET 3 OF 4)

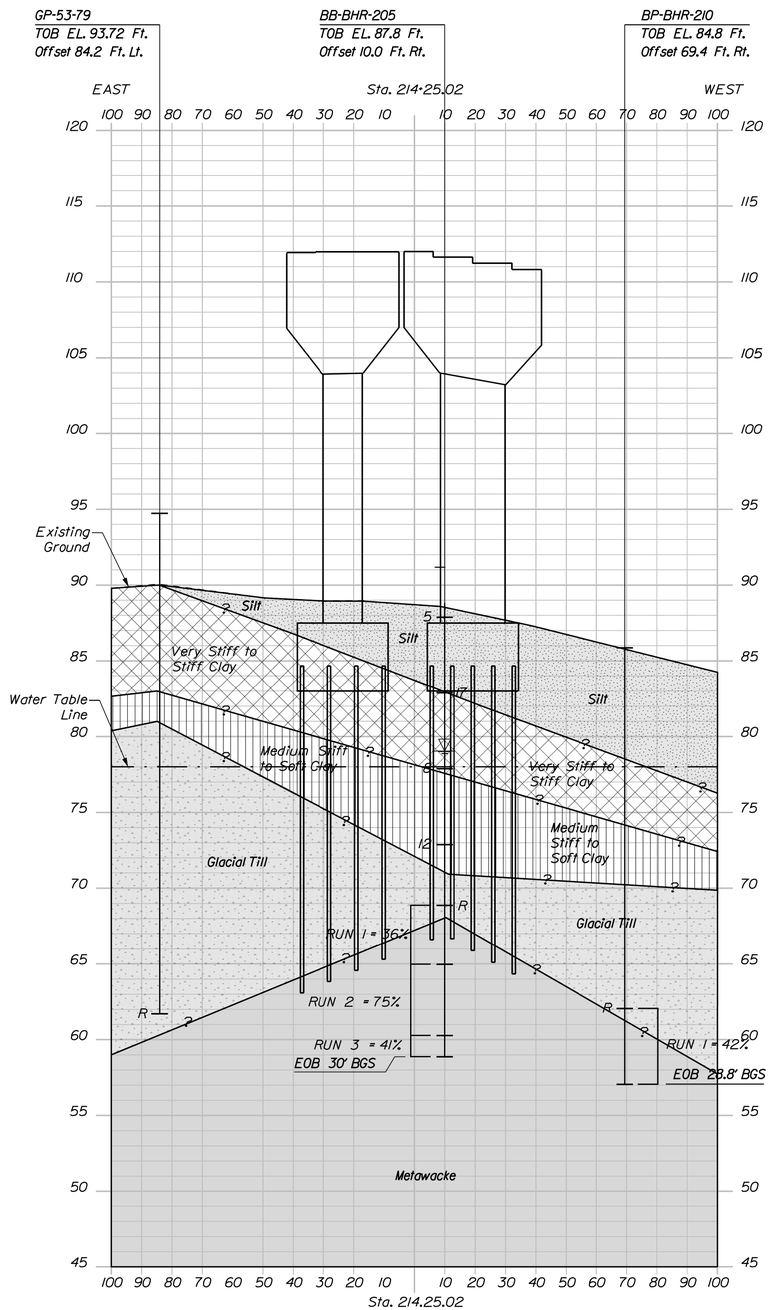
SHEET NUMBER
B-46
413
OF 485

Filename: ...\MSTA\Geoxsect_WB_Pier1-2.dgn Division: BRIDGE Username: Date:11/7/2025




SECTION F-F'
(PIER 3)

HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE




SECTION G-G'
(PIER 4)

HORIZ 25 0 25 50
VERT 5 0 5 10
SCALE

- Topsoil
- Olive-Brown, Medimum Stiff to Very Stiff Silt, Trace Fine Sand and Gravel, Slightly Plastic (Silt)
- Grey-Brown, Medimum Stiff to Soft, Low Plasticity, Silt and Clay, Trace Sand (Clay)
- Medium Stiff to Soft Clay
- Grey, Medimum Dense to very Dense Gravelly Sand, some Silt/Clay (Glacial Till)
- Weathered Bedrock
- Grey, Fine Grained to Very Fine Grained Metawacke
- Proposed Substructure and Superstructure
- Existing Ground Surface
- Interpreted Ground Water Surface

Boring Location I.D.
Elevation
Offset (Ft.) From Section Line

- Top of Boring Probe
- 30 — SPT: N60 - Value (Corrected for Hammer Efficiency)
- VI — Field Vane Shear Test Location and Undrained Shear Strength (PSF) (Peak/Remolded)
- MV — Missed Vane
- R — Refusal
- UI Thin Wall Tube Sample
- —? — Strata Interface
- Run 1 = 92% Rock Core Run Number and Rock Quality Designation (RQD)
- EOB — End of Boring Depth Below Ground Surface (BGS)

NOTE:

1. See Sheets B-43 and B-44 for General Notes.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 6787

STATE OF MAINE
CHRISTOPHER M. HOBBS
No. 15164
REGISTERED PROFESSIONAL ENGINEER

| | SIGNATURE | 15164 |
|---|---|---|
| | P.E. NUMBER | 11/07/2025 |
| | DATE | |

| BY | DATE |
|---|---|
| DJH | 9/2025 |
| CCB | 10/2025 |

| PROJ. MANAGER | M. LANDON |
|---|---|
| DESIGN-DETAILED | ATM |
| CHECKED-REVIEWED | DEB |
| DESIGN2-DETAILED2 | |
| DESIGN3-DETAILED3 | |
| REVISIONS 1 | |
| REVISIONS 2 | |
| REVISIONS 3 | |
| REVISIONS 4 | |
| FIELD CHANGES | |

HOGAN ROAD/NO. 2 BRIDGE
195
BANGOR PENOBSCOT

INTERPRETIVE SUBSURFACE SECTIONS
(SHEET 4 OF 4)

SHEET NUMBER
B-47
414
OF 485

Filename: ...\MSTA\Geoxsect_WB_Pier3-4.dgn Division: BRIDGE Username: Date:11/7/2025

Filename: ...\Bridge_Boring_Log_Plan_01.dgn Username:

Division: BRIDGE

Date:11/7/2025

# Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

**Boring No.: BB-BHR-101** — WIN: 018595.10

| | | | |
|---|---|---|---|
| Driller: | S.W. Cole | Elevation (ft.): | 99.7 |
| Operator: | Kevin Hanscom | Datum: | Maine East Zone |
| Logged By: | Andrew Martin | Rig Type: | Diedrich D-50 |
| Date Start/Finish: | 4/25/22 (1011)01 4/25/22 (1030) | Drilling Methods: | Cased Wash |
| Boring Location: | N: 486077.832, E: 1739764.759 | Casing ID/OD: | 4.0/4.5 in |
| Hammer Efficiency Factor: 0.908 | | Hammer Type: | Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ |
| Auger ID/OD: | N/A | Sampler: | Standard Split Spoon |
| Hammer Wt./Falls: | 140 lbs/30 in | Core Barrel: | 1.98 inch I.D. – NQ2 |
| Water Level*: | 7.1' ft bgs on 4/25/22 at 10:35 | | |

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOR = Weight of 140lb. Hammer; WOH = Weight of Hammer; WOC = Weight of Core & Casing; WOA = Weight of Auger; WOP = Weight of Drill Pipe; $q_u$ = Unconfined Compressive Strength (tsf); $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(rec)}$ = Lab Vane Undrained Shear Strength (psf); $N_{60}$ = SPT Hammer Efficiency Corrected For Hammer Efficiency; $N_{60}$ = (Hammer Efficiency Factor/60%)•Uncorrected; $T_v$ = Pocket Torvane Shear Strength (psf); MC = Water Content, percent; LL = Liquid Limit; PL = Plasticity Index; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows /6 in. Sheer Strength (psf) (SSA) (S) | Uncorrected N | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1D | 24/13 | 0.00 – 2.00 | 1-2-7-9 | 9 | 14 | OPEN | 99.3 | | Brown, moist, stiff, SILT, some fine to medium sand, trace gravel, trace grass roots in top 5 inches (TOPSOIL). — 0.4 | |
| 5 | 2D | 24/24 | 5.00 – 7.00 | 4-6-9-8 | 15 | 23 | 31 | | | Grey-brown, moist, very stiff, Silty CLAY, trace fine sand (CLAY), $q_p$ = 5.7 ksf (Pocket Penetrometer), $T_v$ = 409 psf | |
| | | | | | | | 29 | | | | |
| | | | | | | | 43 | | | | |
| | | | | | | | 45 | | | | |
| 10 | 3D | 24/24 | 10.00 – 12.00 | 2-2-3-3 | 5 | 8 | 35 | 89.7 | | Grey-brown, wet, medium stiff, Silty CLAY, trace fine sand, moderately plastic (CLAY), $q_p$ = 4.0 ksf (Pocket Penetrometer), $T_v$ = 655 psf — 10.0 | WC = 33.0% Fines = 99.5% LL = 39 PL = 23 PI = 16 LI = 0.6 A-6 (18). CL |
| | | | | | | | 39 | | | | |
| | | | | | | | 44 | | | | |
| | MV | | | Would Not Push | | | 48 | | | Failed 55x110 mm vane, would not push to 13 ft bgs. Driller notes wash water color change to grey at 13.5 ft bgs. | |
| | | | | | | | 50 | | | | |
| 15 | 1U | 24/24 | 15.00 – 17.00 | Piston Sampler | | | 38 | | | Grey-brown, wet, Silty CLAY, moderately plastic (CLAY). — 17.0 | WC = 33.0% Fines = 99.5% LL = 31 PL = 18 PI = 13 LI = 0.9 A-6 (13). CL |
| | | | | | | | 41 | | | | |
| | 4D | 24/12 | 17.00 – 19.00 | WOH(12")-10-12 | – | | 43 | 82.7 | | Grey, wet, stiff, Silty CLAY, trace gravel in tip of spoon (CLAY). — 18.0 | |
| | V1 | | | $S_u$=1339/446 psf | | | 64 | 81.7 | | 55x110 mm vane row torque readings: V1= 30/10 ft-lbs MV= Failed vane, would not push to 19 ft bgs. | |
| | | | | | | | 72 | | | | |
| 20 | 5D | 24/10 | 20.00 – 22.00 | 7-13-37-33 | 50 | 76 | OPEN | | | Grey, wet, very dense, GRAVEL, some fine to coarse sand, some silt (GLACIAL TILL). | WC = 10.2% Fines = 23.0% A-1-b (0) |
| | R1 | 33.6/30 | 24.90 – 27.70 | RQD = 39% | | | NQ2 | 75.2 | | Top of Bedrock at Elev. 75.2 ft. Advanced with roller bit to 24.9 ft bgs. — 24.5 | |
| 25 | | | | | | | | | | R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], very strong, fresh discontinuities low angle to steeply dipping, very closely to closely spaced, open average 2.1 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Poor 85% Recovery Rock Core Rate (minisec) 24.9–25.9 ft (13:58) 26.9–27.7 ft (13:12) | |
| | R2 | 12/10.8 | 27.70 – 28.70 | RQD = 0% | | | | | | | |
| | R3 | 60/56.4 | 28.70 – 33.70 | RQD = 49% | | | | | | | |
| 30 | | | | | | | | | | R2: Grey, fine grained to very fine grained, METAWACKE [metasandstone], very strong, moderately weathered discontinuities moderately to steeply dipping, open average 5.0 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Very Poor 90% Recovery Rock Core Rate (minisec) 27.7–28.7 ft (13:04) | |
| | R4 | 14.4/ 14.4 | 33.70 – 34.90 | RQD = 46% | | | | 64.8 | | | |
| 35 | | | | | | | | | | R3: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle to steeply dipping, very closely to moderately closely spaced, open average 2.0 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Poor 94% Recovery Rock Core Rate (minisec) 28.7–29.7 ft (2:54) 29.7–30.7 ft (3:12) 30.7–31.7 ft (3:48) 31.7–32.7 ft (3:42) 32.7–33.7 ft (2:59) | |
| 40 | | | | | | | | | | R4: Grey, fine grained to very fine grained, METAWACKE [metasandstone], very strong, fresh discontinuities steeply dipping, closely spaced, open, thin (0.25 in) milky quartz and calcite vein present at 34.9 bgs average 1.7 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Poor 100% Recovery Rock Core Rate (minisec) 33.7–34.8 ft (2:41) — 34.9 | |
| 45 | | | | | | | | | | Bottom of Exploration at 34.9 feet below ground surface. Boring backfilled with bentonite chips to ground surface. | |
| 50 | | | | | | | | | | | |

Remarks:
1. Hammer Efficiency Factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671" by Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. "-" Sample interval disturbed by vane test before sampling; blow counts not representative of undisturbed material. 4. Water level reading was made 5 minutes after completion of drilling with casing in the ground. 5. Station 210+41, offset 17.8 Ft. Lt.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-BHR-101

# Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

**Boring No.: BB-BHR-102** — WIN: 018595.10

| | | | |
|---|---|---|---|
| Driller: | S.W. Cole | Elevation (ft.): | 92.41 |
| Operator: | Kevin Hanscom | Datum: | Maine East Zone |
| Logged By: | Andrew Martin | Rig Type: | Diedrich D-50 |
| Date Start/Finish: | 4/27/22 (1115)01 4/27/22 (1350) | Drilling Methods: | Cased Wash |
| Boring Location: | N: 485835.891, E: 1739836.204 | Casing ID/OD: | 4.0/4.5 in |
| Hammer Efficiency Factor: 0.908 | | Hammer Type: | Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ |
| Auger ID/OD: | N/A | Sampler: | Standard Split Spoon |
| Hammer Wt./Falls: | 140 lbs/30 in | Core Barrel: | 1.98 inch I.D. – NQ2 |
| Water Level*: | 2.7' ft bgs on 4/27/22 at 13:55 | | |

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOR = Weight of 140lb. Hammer; WOH = Weight of Hammer; WOC = Weight of Core & Casing; WOA = Weight of Auger; WOP = Weight of Drill Pipe; $q_u$ = Unconfined Compressive Strength (tsf); $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(rec)}$ = Lab Vane Undrained Shear Strength (psf); $N_{60}$ = SPT Hammer Efficiency Corrected For Hammer Efficiency; $N_{60}$ = (Hammer Efficiency Factor/60%)•Uncorrected; $T_v$ = Pocket Torvane Shear Strength (psf); MC = Water Content, percent; LL = Liquid Limit; PL = Plasticity Index; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows /6 in. Sheer Strength (psf) (SSA) (S) | Uncorrected N | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1D | 24/19 | 0.00 – 2.00 | 1-1-2-4 | 3 | 5 | OPEN | 91.8 | | 1DA. Top 7 in; Brown, moist, medium stiff, SILT, some fine to coarse sand, trace gravel (TOPSOIL). — 0.6 | |
| | | | | | | | | | | 1DB. Bottom 12 in; Grey-brown, moist, medium stiff, Silty CLAY, trace fine to medium sand (CLAY), $q_p$ = 8.2 ksf (Pocket Penetrometer), $T_v$ = 716 psf | |
| 5 | 2D | 24/24 | 5.00 – 7.00 | 3-2-3-3 | 5 | 8 | 12 | | | Grey-brown, moist, medium stiff, Silty CLAY, trace fine sand, moderately plastic (CLAY), $q_p$ = 1.8 ksf, $T_v$ = 593 psf | WC = 32.5% LL = 36 PL = 22 PI = 14 LI = 0.7 A-6 (18). CL |
| | | | | | | | 21 | | | | |
| | | | | | | | 26 | | | | |
| | | | | | | | 31 | | | | |
| | | | | | | | 44 | | | | |
| 10 | 3D | 24/17 | 10.00 – 12.00 | 11-14-12-11 | 26 | 39 | 22 | 82.1 | | 3DA. Top 4 in; Grey, wet, hard, Silty CLAY (CLAY). — 10.3 | WC = 10.9% Fines = 29.9% A=24 (0) |
| | MV | | | Would Not Push | | | 25 | | | 3DB. Bottom 13 in; Grey, wet, dense, GRAVEL, some silt, some fine to coarse sand, trace clay (GLACIAL TILL). Failed 55x110 mm vane, would not push to 11 ft bgs. | |
| | | | | | | | 41 | | | | |
| | | | | | | | 54 | | | | |
| 15 | R1 | 36/19-2 | 14.70 – 17.70 | RQD = 29% | | | 104 NQ2 | 77.9 | | Casing refusal at 14.5 ft bgs. Advanced with roller bit to 16.7 ft bgs. — 16.5 | |
| | | | | | | | | 75.8 | | R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle to moderately dipping, closely spaced, open, milky quartz and calcite veins (0.1 to 0.2 in thick) present throughout average 1.3 fractures per foot [BOULDER]. Rock Mass Quality = Poor 53% Recovery Rock Core Rate (minisec) 14.7–15.7 ft (1:56) 15.7–16.7 ft (2:10) 16.7–17.7 ft (1:43) | |
| | R2 | 33.6/ 33.6 | 17.70 – 20.50 | RQD = 39% | | | | 74.7 | | | |
| 20 | R3 | 54/51.6 | 20.50 – 25.00 | RQD = 76% | | | | | | Driller notes fast advancement of core barrel from 16.6 ft bgs to 17.7 ft bgs through possible zone of fractured bedrock or gravel seam. No recovery of this material present upon retrieval of core sample — 17.7 | |
| | | | | | | | | | | R2: Grey, fine grained to very fine grained, METAWACKE [metasandstone], medium strong, slightly weathered discontinuities low angle to steeply dipping, very closely to closely spaced, open with grey sand and silt infilling, milky quartz and calcite veins (0.1 to 0.5 in thick) present at 18.5 ft bgs to 19.2 ft bgs and 20.2 ft bgs to 20.5 ft bgs average 2.1 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Poor 100% Recovery Rock Core Rate (minisec) 17.7–18.7 ft (2:13) 18.7–19.7 ft (2:38) 19.7–20.5 ft (3:10) | |
| 25 | R4 | 26.4/ 26.4 | 25.00 – 27.20 | RQD = 0% | | | | | | | |
| | R5 | 30/30 | 27.20 – 29.70 | RQD = 28% | | | | | | | |
| 30 | | | | | | | | 62.7 | | R3: Grey, fine grained to very fine grained, METAWACKE [metasandstone], medium strong, moderately weathered (24.5–25 ft bgs) to fresh discontinuities low angle to moderately dipping, very closely to moderately closely spaced, open, milky quartz and calcite vein (0.25 in thick) present at 34.9 bgs average 0.9 fractures per foot quartz veins 22.5–22.7 ft bgs and 23.5–23.8 ft bgs [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Good 96% Recovery Rock Core Rate (minisec) 20.5–21.5 ft (2:36) 21.5–22.5 ft (2:20) 23.5–24.5 ft (3:14) 24.5–25.0 (2:48) | |
| 35 | | | | | | | | | | R4: Grey, fine grained to very fine grained, METAWACKE [metasandstone], medium strong, moderately weathered discontinuities low angle to steeply dipping, very closely to closely spaced, open, milky quartz and calcite veins 11 in to 1.5 in thick) present at 26 ft bgs and 26.3 bgs broken core [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Very Poor 100% Recovery Rock Core Rate (minisec) 25–26 ft (3:16) 26–27 ft (3:34) 27–27.7 ft (2:10) | |
| 40 | | | | | | | | | | R5: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle to vertical, very closely to closely spaced, open, milky quartz and calcite veins (0.1 in thick) present from 29 ft bgs and 29.7 bgs average 3.6 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Poor 100% Recovery Rock Core Rate (minisec) 27.2–28.2 ft (3:12) 28.2–29.2 ft (2:18) 29.2–29.7 ft (1:42) | |
| 45 | | | | | | | | | | Bottom of Exploration at 29.7 feet below ground surface. Boring backfilled with bentonite chips to ground surface. — 29.7 | |
| 50 | | | | | | | | | | | |

Remarks:
1. Hammer Efficiency Factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671" by Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. "-" Sample interval disturbed by vane test before sampling; blow counts not representative of undisturbed material. 4. Water level reading was made 5 minutes after completion of drilling with bottom of casing at 14.5 ft bgs. 5. Station 212+61, offset 49.0 Ft. Lt.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-BHR-102

# Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

**Boring No.: BB-BHR-103** — WIN: 018595.10

| | | | |
|---|---|---|---|
| Driller: | S.W. Cole | Elevation (ft.): | 88.48 |
| Operator: | Kevin Hanscom | Datum: | Maine East Zone |
| Logged By: | Andrew Martin | Rig Type: | Diedrich D-50 |
| Date Start/Finish: | 4/26/22 (1215)01 4/26/22 (1220) | Drilling Methods: | Cased Wash |
| Boring Location: | N: 485628.925, E: 1739834.412 | Casing ID/OD: | 4.0/4.5 in |
| Hammer Efficiency Factor: 0.908 | | Hammer Type: | Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ |
| Auger ID/OD: | N/A | Sampler: | Standard Split Spoon |
| Hammer Wt./Falls: | 140 lbs/30 in | Core Barrel: | 1.98 inch I.D. – NQ2 |
| Water Level*: | 5.8' ft bgs on 4/26/22 at 10:25 | | |

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOR = Weight of 140lb. Hammer; WOH = Weight of Hammer; WOC = Weight of Core & Casing; WOA = Weight of Auger; WOP = Weight of Drill Pipe; $q_u$ = Unconfined Compressive Strength (tsf); $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(rec)}$ = Lab Vane Undrained Shear Strength (psf); $N_{60}$ = SPT Hammer Efficiency Corrected For Hammer Efficiency; $N_{60}$ = (Hammer Efficiency Factor/60%)•Uncorrected; $T_v$ = Pocket Torvane Shear Strength (psf); MC = Water Content, percent; LL = Liquid Limit; PL = Plasticity Index; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows /6 in. Sheer Strength (psf) (SSA) (S) | Uncorrected N | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1D | 24/19 | 0.00 – 2.00 | 1-1-3-5 | 4 | 6 | OPEN | 88.0 | | Grey-brown, moist, medium stiff, SILT, some fine to medium sand, trace roots in top 6 inches (TOPSOIL). — 0.5 | |
| 5 | 2D | 24/24 | 5.00 – 7.00 | 4-4-5-6 | 9 | 14 | 5 | | | Grey, moist, stiff, Silty CLAY, moderately plastic (CLAY), $q_p$ = 4.0 ksf (Pocket Penetrometer), $T_v$ = 716 psf Failed 55x110 mm vane, would not push to 6 ft bgs. | WC = 27.4% Fines = 99.5% LL = 37 PL = 21 PI = 16 LI = 0.4 A-6 (17). CL |
| | MV | | | Would Not Push | | | 10 | | | | |
| | | | | | | | 19 | | | | |
| | | | | | | | 31 | | | | |
| | MV | | | Would Not Push | | | 33 | 78.5 | | Failed 55x110 mm vane, would not push to 10 ft bgs. — 10.0 | |
| 10 | 3D | 24/24 | 10.00 – 12.00 | 2-2-3-3 | 5 | 8 | 36 | | | Grey, wet, moist, stiff, Silty CLAY, moderately plastic (CLAY), $q_p$ = 3.0 ksf (Pocket Penetrometer), $T_v$ = 716 psf Failed Shelby tube. | WC = 29.8% Fines = 99.6% LL = 36 PL = 21 PI = 15 LI = 0.4 A-6 (16). CL |
| | MU | 0/0 | 12.00 – 12.00 | Piston Sampler | | | 44 | | | | |
| | | | | | | | 40 | | | | |
| | | | | | | | 45 | | | | |
| 15 | 1U | 34.4/5.6 | 15.00 – 16.20 | Piston Sampler | | | 43 | 72.3 | | Grey, wet, Silty CLAY, moderately plastic (CLAY). — 16.2 | WC = 22.0% Fines = 92.6% LL = 27 PL = 12 PI = 15 A-6 (9). CL |
| | | | | | | | 71 | | | | |
| | | | | | | | 78 | | | | |
| | | | | | | | 91 | | | | |
| | | | | | | | 99 | | | | |
| 20 | 4D | 24/8 | 20.00 – 22.00 | 7-6-12-20 | 18 | 27 | 41 | | | Grey, wet, medium dense, Sandy GRAVEL, little silt, trace clay (GLACIAL TILL). — 22.5 | WC = 9.9% Fines = 15.5% A-1-b (0). DM |
| | | | | | | | 45 | | | | |
| | | | | | | | 64 | 66.0 | | Top of Bedrock at Elev. 66.0 ft. Advanced with roller bit to 23 ft bgs. | |
| | R1 | 43.2/42 | 23.00 – 26.60 | RQD = 13% | | | NQ2 | | | R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle to steeply dipping, very closely to closely spaced, open, milky quartz and calcite veins (0.1 in thick) present from 23.3 ft bgs to 24.2 bgs and 26.5ft bgs average 3.1 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Very Poor 97% Recovery Rock Core Rate (minisec) 23–24 ft (2:18) 24–25 ft (1:59) 25–26 ft (2:02) 26–26.6 ft (2:32) | |
| 25 | | | | | | | | | | | |
| | R2 | 24/24 | 26.60 – 28.60 | RQD = 0% | | | | | | | |
| | R3 | 40.8/ 40.8 | 28.60 – 32.00 | RQD = 20% | | | | | | | |
| 30 | | | | | | | | | | R2: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities moderately to steeply dipping, very closely to closely spaced, open, milky quartz and calcite veins (0.1 in to 1 in thick) present from 27 ft bgs to 27.7 bgs average 5.0 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Very Poor 100% Recovery Rock Core Rate (minisec) 26.6–27.6 ft (2:19) 27.6–28.6 ft (3:04) | |
| | R4 | 16.8/ 16.8 | 32.00 – 33.40 | RQD = 46% | | | | | | | |
| 35 | R5 | 16.8/12 | 33.40 – 34.80 | RQD = 64% | | | | 50.5 | | | |
| | R6 | 38.4/ 38.4 | 34.80 – 38.00 | RQD = 19% | | | | | | R3: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities moderately to steeply dipping, very closely to closely spaced, open, milky quartz and calcite veins (0.1 in to 1 in thick) present throughout highly weathered fracture at 32 ft bgs average 4.3 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Poor 100% Recovery Rock Core Rate (minisec) 32–33 ft (2:51) 33–33.4 ft (2:12) | |
| 40 | | | | | | | | | | R4: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle to steeply dipping, very closely to closely spaced, open, milky quartz and calcite veins (0.1 in thick) present throughout highly weathered fracture at 32 ft bgs average 4.3 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Poor 100% Recovery Rock Core Rate (minisec) 32–33 ft (2:51) 33–33.4 ft (2:12) | |
| 45 | | | | | | | | | | R5: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle, closely spaced, open, milky quartz and calcite veins (0.1 in to 0.2 in thick) present throughout average 1.4 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Fair 71% Recovery Rock Core Rate (minisec) 33.4–34.4 ft (2:41) 34.4–34.8 ft (2:48) | |
| 50 | | | | | | | | | | R6: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle to steeply dipping, very closely to closely spaced, open, milky quartz and calcite veins (0.1 in to 0.5 in thick) present throughout average 2.5 fractures per foot [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Very Poor 100% Recovery Rock Core Rate (minisec) 34.8–35.8 ft (2:56) 35.8–36.8 ft (2:14) 36.8–38 ft (2:14) | |
| 55 | | | | | | | | | | | |
| 60 | | | | | | | | | | | |
| 65 | | | | | | | | | | | |
| 70 | | | | | | | | | | | |
| 75 | | | | | | | | | | Bottom of Exploration at 38.0 feet below ground surface. Boring backfilled with bentonite chips to ground surface. — 38.0 | |

Remarks:
1. Hammer Efficiency Factor provided by S.W. Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671" by Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled boring locations and ground surface elevations were provided by MaineDOT. 3. "-" Sample interval disturbed by vane test before sampling; blow counts not representative of undisturbed material. 4. Station 214+67, offset 11.9 Ft. Lt.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-BHR-103

# Maine Department of Transportation — Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

**Boring No.: BB-BHR-201** — WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: | S.W.Cole Explorations LLC | Elevation (ft.): | 97.4 |
| Operator: | Kevin Hanscom | Datum: | NAVD 88 |
| Logged By: | Daniel Burgess | Rig Type: | Diedrich D-50 |
| Date Start/Finish: | 11156 AM 9/25/23-3123 PM 9/25/23 | Drilling Methods: | Solid Stem Auger/Cased wash |
| Boring Location: | N: 485881.059, E: 1739707.931 | Casing ID/OD: | 4.0/4.5 in |
| Hammer Efficiency Factor: 0.918 | | Hammer Type: | Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ |
| Auger ID/OD: | 4.25 in | Sampler: | Standard Split Spoon / U |
| Hammer Wt./Falls: | 140 lbs/30 in | Core Barrel: | 1.98 inch I.D. – NQ2 |
| Water Level*: | 1'-6" ft bgs on 9/25/23 at 15:02 | | |

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WV = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOR = Weight of 140lb. Hammer; WOH = Weight of Hammer; WOC = Weight of Core & Casing; WOA = Weight of Auger; WOP = Weight of Drill Pipe; $q_u$ = Unconfined Compressive Strength (tsf); $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(rec)}$ = Lab Vane Undrained Shear Strength (psf); $N_{60}$ = SPT Hammer Efficiency Corrected For Hammer Efficiency; $N_{60}$ = (Hammer Efficiency Factor/60%)•Uncorrected; $T_v$ = Pocket Torvane Shear Strength (psf); MC = Water Content, percent; LL = Liquid Limit; PL = Plasticity Index; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows /6 in. Sheer Strength (psf) (SSA) (S) | Uncorrected N | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1D | 24/17 | 0.00 – 2.00 | 1-1-2-5 | 3 | 5 | SSA | 96.6 | | (TOPSOIL) — 0.8 | |
| | | | | | | | | | | Olive with brown, dry, medium stiff, Clayey SILT (SILT). | |
| 5 | 2D | 24/22 | 5.00 – 7.00 | 5-7-9-10 | 16 | 24 | | 92.4 | | Olive, moist, very stiff, CLAY, moderately plastic (CLAY). — 5.0 | WC = 24.1% Fines = 99.7% LL = 36 PL = 20 PI = 16 LI = 0.3 A-6 (17). CL |
| | 3D | 24/24 | 10.00 – 12.00 | 3-4-4-4 | 8 | 12 | 45 | | | Olive, wet, stiff, Silty CLAY (CLAY), $q_p$ = 3.5 ksf (pocket penetrometer) | |
| | | | | | | | 48 | | | | |
| | | | | | | | 54 | | | | |
| | | | | | | | 59 | | | | |
| 15 | | | | | | | 39 | | | | |
| | 4D | 24/23 | 15.00 – 17.00 | 3-3-3-4 | 6 | 9 | OPEN | | | Grey, wet, stiff, CLAY, low plasticity (CLAY), $q_p$ = 2.8 ksf (pocket penetrometer) | |
| | V1 | | | $S_u$@1217 psf | | | | | | 65x130 mm vane row torque readings: V1 Reached maximum torque 44.3 ft-lbs without failure. | WC = 21.0% Fines = 98.3% LL = 28 PL = 18 PI = 10 LI = 0.3 A-6 (9). CL |
| | 1U | 24/23 | 17.00 – 19.00 | | | | 4 | | | | |
| | | | | | | | 29 | 77.4 | | | |
| 20 | 5D | 24/12 | 20.00 – 22.00 | 20-32-30-22 | 62 | 95 | 55 | | | Grey, wet, very dense, fine to coarse SAND and GRAVEL, little silt, fractured rock fragment (GLACIAL TILL). — 20.0 | |
| | | | | | | | 78 | | | | |
| | | | | | | | 110 | | | | |
| | | | | | | | 78/6" | 73.4 | | Increase resistance to roller cone. Top of Bedrock at Elev. 73.9 feet. (WEATHERED ROCK). wash to 25 ft. — 23.5 | |
| | | | | | | | OPEN | | | | |
| 25 | R1 | 24/20 | 25.00 – 27.00 | RQD = 0% | | | NQ2 | 72.4 | | R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities moderately to steeply dipping, wide to closer/very closely spaced, open to tight, extremely fractured upper 6" of run [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION]. Rock Mass Quality = Very Poor 85% Recovery Rock Core Rate (minisec) 25–26 ft (2:42) 26–27 ft (2:52) 27–27.9 ft (2:29) R2: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities moderately to steep/vertical dipping, very close to closely spaced, tight to open, extremely fractured bottom 8" of run, milky quartz intrusion present [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 71% Recovery Rock Core Rate (minisec) 27–28 ft (2:19) 28–29 ft (3:02) 29–30 ft (2:41) 30–30.5 ft (1:06) R3: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities, extremely fractured [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 67% Recovery Rock Core Rate (minisec) 30.5–31 ft (1:20) 31–31.4 ft (1:37) R4: Grey, fine grained to very fine grained, METAWACKE [metasandstone], medium strong, fresh discontinuities low angle to steep angle dipping, very close to closely spaced, tight, milky quartz intrusion present [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 100% Recovery Rock Core Rate (minisec) 31.4–32 ft (1:54) 32–33 ft (2:54) 33–34 ft (3:14) 34–35 ft (4:28) — 35.0 | |
| 30 | R3 | 10.8/7.2 | 30.50 – 31.40 | RQD = 0% | | | | 62.4 | | | |
| | R4 | 43.2/ 43.2 | 31.40 – 35.00 | RQD = 21% | | | | | | | |
| 35 | | | | | | | | | | Bottom of Exploration at 35.0 feet below ground surface. Boring backfilled with bentonite chips to ground surface. | |
| 40 | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| 50 | | | | | | | | | | | |

Remarks:
1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT. 3. #D Sample interval disturbed by vane test before sampling; blow counts not representative of undisturbed material. 4. Station 210+89. Offset 53.8 Ft. Rt.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been

Filename: ...\Bridge_Boring_Log_Plan_02.dgn Division: BRIDGE Username: Date:11/7/2025

## Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

**Boring No.: BB-BHR-202** WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: S.W. Cole Explorations LLC | Elevation (ft.): 91.5 | Auger ID/OD: | 4.25 in |
| Operator: Kevin Hanscom | Datum: NAVD 88 | Sampler: | Standard Split Spoon |
| Logged By: Daniel Burgess | Rig Type: Diedrich D-50 | Hammer Wt./Fall: | 140 lbs/30 in |
| Date Start/Finish: 2:37 PM 9/26/23-8:37 AM 9/27/23 | Drilling Methods: Solid Stem Auger/Cased wash | Core Barrel: | 1.98 inch I.D. - NQ2 |
| Boring Location: N: 485077.643; E: 1739732.982 | Casing ID/OD: 4.0/4.5 in | Water Level*: | 1:15 PM Sqs On 9/27/23 at 07:04 |
| Hammer Efficiency Factor: 0.918 | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | | |

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WH = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR = Weight of Rods or Casing; WOH = Weight of One Person; $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_p$ = Unconfined Compressive Strength (tsf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = SPT Blows Corrected for Hammer Efficiency; $N_{60}$ = Hammer Efficiency Factor/60%Hmr-uncorrected; $T_v$ = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows/6 in. Sheargraph (psf) [SPT] (S) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 91.3 | | (TOPSOIL) | |
| | | | | | | | | 91.2 | | Olive with grey and brown,wet, medium stiff, Clayey SILT (SILT), $q_p$ = 2.8 ksf (pocket penetrometer) | |
| 5 | | | | | | | | 86.5 | | | |
| | 20 | 24/24 | 5.00 – 7.00 | 2-2-3-3 | 5 | 8 | | | | Olive, moist to wet, medium stiff, CLAY (CLAY). $q_p$ 2.5 ksf (pocket penetrometer) | |
| 10 | | | | | | | | 81.5 | | | |
| | 30 | 24/15 | 10.00 – 12.00 | WOH-17-30-16 | 47 | 72 | 18 | | | Grey, wet, hard, CLAY, low plasticity, rock fragments at bottom of sample (CLAY). | WC = 18.8% LL = 25 PL = 17 PI = 8 LI = 0.2 CL |
| | | | | | | | 51 | | | | |
| | | | | | | | 149 | | | | |
| 15 | | | | | | | 87 | 76.5 | | | |
| | | | | | | | 70 | | | | |
| | 40 | 24/10 | 15.00 – 17.00 | 7-10-8-10 | 18 | 28 | 15 | | | Grey, wet, medium dense, fine to coarse SAND, some fine gravel, some silt (GLACIAL TILL). | |
| | | | | | | | 25 | | | | |
| | | | | | | | 44 | | | | |
| 20 | | | | | | | 23 | | | | |
| | | | | | | | 63 | | | | |
| | 50 | 18.1/- | 20.00 – 21.51 | 8-11-9-50/1" | 20 | 31 | OPEN | | | Grey, wet, hard, Clayey SILT, trace fine to medium sand (GLACIAL TILL). | WC = 21.3% Fines = 91.6% A-4 (0) |
| | | | | | | | | 69.4 | | Top of Bedrock at 69.4 feet. | |
| | R1 | 60/57.6 | 22.10 – 27.10 | RQD = 34% | | | NQ/HX | | | R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi discontinuities low angle to steep angle and vertical dipping, close to very close spacing, open to tight, milky quartz intrusion 1.2 to 2.2 ft, frequent calcite intrusions. chemical weathering 0.6-2.5ft [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Poor 96% Recovery Rock Core Rate (minsec) 22.1-23.1 ft (4:33) 23.1-24.1 ft (3:55) 24.1-25.1 ft (4:43) 25.1-26.1 ft (5:35) 26.1-27.1 ft (5:15) R2: Grey, fine grained to very fine grained. METAWACKE [metasandstone], strong, freshi discontinuities moderate to steep dipping, very close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Fair 98% Recovery Rock Core Rate (minsec) 27.1-28.1 ft (3:43) 28.1-29.1 ft (3:24) 29.1-30.1 ft (3:27) 30.1-31.1 ft (4:02) 31.1-32.1 ft (4:28) | |
| 25 | | | | | | | | | | | |
| | R2 | 60/58.8 | 27.10 – 32.10 | RQD = 56% | | | | | | | |
| 30 | | | | | | | | 59.4 | | | |
| | | | | | | | | | | | |
| 35 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 50 | | | | | | | | 32.1 | | Bottom of Exploration at 32.1 feet below ground surface. Boring backfilled with bentonite chips to ground surface. | |

Remarks:
1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibration: R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671)" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT. 3. Station 211+13. Offset 9.7 Ft. Lt.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-BHR-202

## Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

**Boring No.: BB-BHR-203** WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: S.W. Cole Explorations LLC | Elevation (ft.): 91.4 | Auger ID/OD: | 4.25 in |
| Operator: Kevin Hanscom | Datum: NAVD 88 | Sampler: | Standard Split Spoon |
| Logged By: Daniel Burgess | Rig Type: Dierich D-50 | Hammer Wt./Fall: | 140 lbs/30 in |
| Date Start/Finish: 9:10 AM 9/28/23-12:00 PM 9/28/ | Drilling Methods: Solid Stem Auger/Drive and Wash | Core Barrel: | 1.98 inch I.D. - NQ2 |
| Boring Location: N: 485818.985; E: 1739752.320 | Casing ID/OD: 4.0/4.5 in | Water Level*: | 6:19 PM Sqs On 9/28/23 at 11:17 |
| Hammer Efficiency Factor: 0.918 | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | | |

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WH = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR = Weight of Rods or Casing; WOH = Weight of One Person; $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_p$ = Unconfined Compressive Strength (tsf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = SPT Blows Corrected for Hammer Efficiency; $N_{60}$ = Hammer Efficiency Factor/60%Hmr-uncorrected; $T_v$ = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows/6 in. Sheargraph (psf) [SPT] (S) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 91.2 | | (TOPSOIL) | |
| | 10 | 24/15 | 0.00 – 2.00 | 1-2-6-4 | 8 | 12 | SSA | | | Olive with grey and brown, mottled, dry to moist, stiff, Clayey SILT, trace fine sand, trace fine gravel (SILT). $q_p$ = 9 ksf (pocket penetrometer) | |
| 5 | | | | | | | | 86.4 | | | |
| | 20 | 24/24 | 5.00 – 7.00 | 3-4-4-5 | 8 | 12 | | | | Olive with grey, moist, stiff, CLAY, moderately plastic (CLAY). $q_p$ = 4.8 ksf (pocket penetrometer) | WC = 26.3% Fines = 99.6% LL = 38 PL = 20 PI = 18 LI = 0.3 A-6 (19), CL |
| 10 | | | | | | | | 81.4 | | | |
| | 30 | 24/24 | 10.00 – 12.00 | 1-1-2-3 | 3 | 5 | | | | Olive, wet, medium stiff, Silty CLAY (CLAY). $q_p$ = 2.5 ksf (pocket penetrometer) | |
| | | | | | | | 9 | | | | |
| | | | | | | | 10 | | | | |
| 15 | | | | | | | 12 | | | | |
| | | | | | | | 8 | | | | |
| | 40 | 24/24 | 15.00 – 17.00 | W.O.H/18"-2 | – | | 12 | | | Grey, wet, very soft, CLAY, moderately plastic (CLAY). $q_p$ = 2 ksf (pocket penetrometer) | WC = 33.9% LL = 33 PL = 19 PI = 14 LI = 1.1 CL |
| | | | | | | | 11 | | | | |
| | | | | | | | 13 | | | | |
| 20 | | | | | | | 16 | | | | |
| | | | | | | | 10 | | | | |
| | 50 | 24/13 | 20.00 – 22.00 | 4-6-10-23 | 18 | 28 | 23 | 71.4 | | Grey, wet, very stiff, CLAY (CLAY). $q_p$ = 3 ksf (pocket penetrometer) | |
| | | | | | | | 55 | 69.9 | | Grey, wet, medium dense, fine to medium Silty SAND, some fine GRAVEL (GLACIAL TILL). | |
| | | | | | | | 76 | | | | |
| 25 | | | | | | | 38 | | | | |
| | | | | | | | 17 | | | | |
| | 60 | 13/3 | 25.00 – 26.08 | 30-16-50/1" | R | | 45 | | | Grey, wet, very dense, fine to medium Silty SAND, some fine GRAVEL, fractured rock at bottom of sample (GLACIAL TILL). | |
| | R1 | 60/56.4 | 26.20 – 31.20 | RQD = 64% | | | 50/5" NQ2 | 65.2 | | Top of Bedrock at 65.2 feet. | |
| 30 | | | | | | | | | | Roller cone refusal encountered at 26.2 feet bgs. R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi discontinuities horizontal to steep dipping, very close spacing, tight, frequent calcite intrusions, chemical weathering at 29.7 ft bgs [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Fair 94% Recovery Rock Core Rate (minsec) 26.2-27.2 ft (2:11) 27.2-28.2 ft (2:20) 28.2-29.2 ft (2:13) 29.2-30.2 ft (2:37) 30.2-31.2 ft (2:33) R2: Grey, fine grained to very fine grained. METAWACKE [metasandstone], strong, freshi discontinuities moderate to steep dipping, very close spacing, tight, chemical weathering from 32.03 to 34.2 ft bgs [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Very poor 100% Recovery Rock Core Rate (minsec) 31.2-32.2 ft (2:08) 32.2-33.2 ft (2:02) 33.2-34.2 ft (2:31) R3: Grey, fine grained to very fine grained. METAWACKE [metasandstone], medium strong, severe chemical weathering on discontinuty surfaces discontinuities moderate to steep dipping, close spacing, open [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Poor 71% Recovery Rock Core Rate (minsec) 34.2-35.2 ft (2:08) R4: Grey, fine grained to very fine grained. METAWACKE [metasandstone], strong, slight chemical weathering! discontinuities moderate to steep dipping, very close spacing, tight [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Very Poor 67% Recovery Rock Core Rate (minsec) 35.2-36.2 ft (2:15) | |
| | R2 | 36/36 | 31.20 – 34.20 | RQD = 25% | | | | | | | |
| 35 | | | | | | | | | | | |
| | R3 | 12/8.4 | 34.20 – 35.20 | RQD = 30% | | | | | | | |
| | R4 | 12/8.4 | 35.20 – 36.20 | RQD = 0% | | | | 55.2 | | | |
| 40 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 50 | | | | | | | | 36.2 | | Bottom of Exploration at 36.2 feet below ground surface. Boring backfilled with bentonite chips to ground surface. | |

Remarks:
1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibration: R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671)" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT.3. Station 212+66. Offset 37.2 Ft. Rt.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-BHR-203

## Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

**Boring No.: BB-BHR-204** WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: S.W. Cole Explorations LLC | Elevation (ft.): 89.0 | Auger ID/OD: | 4.25 in |
| Operator: Kevin Hanscom | Datum: NAVD 88 | Sampler: | Standard Split Spoon |
| Logged By: Daniel Burgess | Rig Type: Dierich D-50 | Hammer Wt./Fall: | 140 lbs/30 in |
| Date Start/Finish: 11:17 PM 9/28/23-4:36 PM 9/28/23 | Drilling Methods: Solid Stem Auger/Drive and Wash | Core Barrel: | 1.98 inch I.D. - NQ2 |
| Boring Location: N: 485732.278; E: 1739758.223 | Casing ID/OD: 4.0/4.5 in | Water Level*: | 3:5 PM Sqs On 9/29/23 at 07:45 |
| Hammer Efficiency Factor: 0.918 | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | | |

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WH = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR = Weight of Rods or Casing; WOH = Weight of One Person; $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_p$ = Unconfined Compressive Strength (tsf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = SPT Blows Corrected for Hammer Efficiency; $N_{60}$ = Hammer Efficiency Factor/60%Hmr-uncorrected; $T_v$ = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows/6 in. Sheargraph (psf) [SPT] (S) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 88.7 | | (TOPSOIL) | |
| | 10 | 24/10 | 0.00 – 2.00 | 1-7-7-5 | 14 | 21 | SSA | | | Olive, moist, very stiff, Clayey SILT, trace fine sand-trace fine gravel (SILT). | |
| 5 | | | | | | | | 84.0 | | | |
| | 20 | 24/23 | 5.00 – 7.00 | 6-7-8-9 | 15 | 23 | | | | Olive, moist, very stiff, CLAY, moderately plastic (CLAY). $q_p$ = 4.5 ksf (pocket penetrometer). | WC = 25.1% Fines = 99.0% LL = 36 PL = 22 PI = 14 LI = 0.2 A-6 (15), CL |
| 10 | | | | | | | | 79.0 | | | |
| | 30 | 24/24 | 10.00 – 12.00 | 2-3-3-4 | 6 | 9 | 7 | | | Olive, moist, stiff, Clayey SILT (SILT). $q_p$ = 3.5 ksf (pocket penetrometer). | |
| | | | | | | | 12 | | | | |
| | | | | | | | 16 | | | | |
| 15 | | | | | | | 20 | | | | |
| | | | | | | | 14 | | | | |
| | 40 | 24/24 | 15.00 – 17.00 | 1-1-WOH/12" | – | | 23 | 74.0 | | Grey, wet, very soft, CLAY, low plasticity (CLAY). $q_p$ = 2 ksf (pocket penetrometer) | |
| | 50 | 24/24 | 17.00 – 19.00 | $S_u$= 659/220 psf | – | | 17 | | | | WC = 18.8% LL = 24 PL = 15 PI = 9 LI = 0.4 CL |
| | V1/V2 | | | $S_u$= 1016/302psf | | | 17 | | | 65x130 mm vane row torque readings: V1: 24 ft-lbs/8 ft-lbs | |
| 20 | | | | | | | 65 | 69.0 | | 65x130 mm vane row torque readings: V2: 37 ft-lbs/11 ft-lbs | |
| | 60 | 24/9 | 20.00 – 22.00 | 12-13-10-7 | 23 | 35 | 32 | | | Grey, wet, dense, fine to coarse Silty SAND, some fine GRAVEL (GLACIAL TILL). | |
| | | | | | | | 33 | | | | |
| | | | | | | | 30 | | | | |
| 25 | | | | | | | 49 | | | | |
| | | | | | | | 44 | | | | |
| | 70 | 24/0 | 25.00 – 27.00 | 7-6-6-8 | 12 | 18 | 35 | | | No recovery | |
| | | | | | | | 40 | | | | |
| | | | | | | | 86 | | | | |
| | | | | | | | 130 | | | | |
| | R1 | 36/32.4 | 29.60 – 32.60 | RQD = 0% | | | 65/5" NQ2 | 59.4 | | Roller cone refusal. Top of Bedrock Elev. 59.4 feet. R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi discontinuities horizontal to vertical dipping, very close to close spacing, tight to open, frequent milky quartz and calcite intrusions [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Very Poor 90% Recovery Rock Core Rate (minsec) 29.6 – 30.6 ft (2:19) 30.6 – 31.6 ft (2:34) 31.6 – 32.6 (2:59) R2: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi extremely fractured-discontinuities steep to vertical dipping, close spacing, open, milky quartz intrusion 34.6 to 35.1 ft bgs [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Very Poor 92% Recovery Rock Core Rate (minsec) 32.6 – 33.6 ft (4:32) 33.6 – 34.6 ft (3:30) 34.6 – 35.1 ft (3:00) R3: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi highly fractured-discontinuities low angle to moderate dipping, very close spacing, tight, frequent milky quartz intrusions [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Very Poor 100% Recovery Rock Core Rate (minsec) 35.1 – 35.6 ft (1:47) 35.6 – 36.6 ft (2:50) 36.6 – 37.6 ft (1:11) R4: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi highly fractured-discontinuities horizontal to steep dipping, very close spacing, tight, milky quartz intrusion 37.6 to 38.06 ft bgs [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Very Poor 80% Recovery Rock Core Rate (minsec) 37.6 – 38.6 ft (2:40) 38.6 – 39.6 ft (2:55) | |
| | R2 | 30/27.6 | 32.60 – 35.10 | RQD = 0% | | | | | | | |
| 35 | | | | | | | | | | | |
| | R3 | 30/30 | 35.10 – 37.60 | RQD = 13% | | | | | | | |
| | R4 | 24/19.2 | 37.60 – 39.60 | RQD = 17% | | | | 49.4 | | | |
| 40 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 50 | | | | | | | | 39.6 | | Bottom of Exploration at 39.6 feet below ground surface. Boring backfilled with bentonite chips to match existing surface. | |
| | | | | | | | | | | | |
| 55 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 60 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 65 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 70 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 75 | | | | | | | | | | | |

Remarks:
1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibration: R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671)" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT. 3. 50 Sample sampling! blow counts not representative of undisturbed material. 4. Station 213+62. Offset 45.9 Ft. Rt.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-BHR-204

## Maine Department of Transportation — Soil/Rock Exploration Log (US CUSTOMARY UNITS)

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

**Boring No.: BB-BHR-205** WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: S.W. Cole Explorations LLC | Elevation (ft.): 87.9 | Auger ID/OD: | 4.25 in |
| Operator: Kevin Hanscom | Datum: NAVD 88 | Sampler: | Standard Split Spoon |
| Logged By: Daniel Burgess | Rig Type: Dierich D-50 | Hammer Wt./Fall: | 140 lbs/30 in |
| Date Start/Finish: 9:19 AM 9/29/23-11:03 AM 9/29/23 | Drilling Methods: Solid Stem Auger/Drive and Wash | Core Barrel: | 1.98 inch I.D. - NQ2 |
| Boring Location: N: 485651.132; E: 1739822.894 | Casing ID/OD: 4.0/4.5 in | Water Level*: | 9:9 PM Sqs On 9/29/23 at 10:56 |
| Hammer Efficiency Factor: 0.918 | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | | |

Definitions: D = Split Spoon Sample; MD = Unsuccessful Split Spoon Sample Attempt; U = Thin Wall Tube Sample; MU = Unsuccessful Thin Wall Tube Sample Attempt; V = Field Vane Shear Test; PP = Pocket Penetrometer; WH = Unsuccessful Field Vane Shear Test Attempt; R = Rock Core Sample; SSA = Solid Stem Auger; HSA = Hollow Stem Auger; RC = Roller Cone; WOH = Weight of 140lb. Hammer; WOR = Weight of Rods or Casing; WOH = Weight of One Person; $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_p$ = Unconfined Compressive Strength (tsf); Unconfined = Raw Field SPT Envelope; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = SPT Blows Corrected for Hammer Efficiency; $N_{60}$ = Hammer Efficiency Factor/60%Hmr-uncorrected; $T_v$ = Pocket Torvane Shear Strength (psf); WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows/6 in. Sheargraph (psf) [SPT] (S) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | | 87.7 | | (TOPSOIL) | |
| | 10 | 24/1 | 0.00 – 2.00 | 1-1-2-3 | 3 | 5 | SSA | | | Wood in sample. | |
| 5 | | | | | | | | 82.9 | | | |
| | 20 | 24/- | 5.00 – 7.00 | 3-5-6-6 | 11 | 17 | | | | Olive with brown and grey, mottled, wet, very stiff, CLAY, trace fine sand, moderately plastic (CLAY). $q_p$ = 6.5 ksf (pocket penetrometer) | WC = 27.1% Fines = 99.4% LL = 40 PL = 20 PI = 20 LI = 0.4 A-6 (21), CL |
| 10 | | | | | | | | 77.9 | | | |
| | 30 | 24/24 | 10.00 – 12.00 | 2-2-3-3 | 5 | 8 | 15 | | | Olive, wet, medium stiff, CLAY, frequent silt seams (CLAY). $q_p$ = 3.5 ksf (pocket penetrometer) | |
| | | | | | | | 6 | | | | |
| | | | | | | | 7 | | | | |
| 15 | | | | | | | 9 | | | | |
| | | | | | | | 7 | | | | |
| | 40(A) | 24/19 | 15.00 – 17.00 | 1/12"-8-16 | 8 | 12 | 4 | 72.9 | | Grey, wet, stiff, CLAY, low plasticity, frequent sand seams (CLAY). $q_p$ = 2.0 ksf (pocket penetrometer) | WC = 29.0% LL = 23 PL = 15 PI = 8 LI = 1.8 CL |
| | 40(B) | | | | | | 25 | 71.9 | | Grey, wet, medium dense, Silty SAND, little fine gravel (GLACIAL TILL). | |
| | | | | | | | 43 | 68.6 | | | |
| 20 | | | | | | | 53 | 67.9 | | | |
| | | | | | | | 79/4" | | | Increased roller cone resistance. Top of Bedrock Elev. 68.4 feet. (WEATHERED BEDROCK). | |
| | R1 | 46.8/ 43.2 | 20.00 – 23.90 | ROD = 36% | | | NQ2 | 67.9 | | | |
| | | | | | | | | | | Roller cone refusal. R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi discontinuities steep to vertical dipping, very close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Poor 92% Recovery Rock Core Rate (minsec) 20-21 ft (3:18) 21-22 ft (2:58) 22-23 ft (3:39) 23-23.9 ft (4:45) R2: Grey, fine grained to very fine grained. METAWACKE [metasandstone], strong, freshi discontinuities moderate to steep dipping, very close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Fair 96% Recovery Rock Core Rate (minsec) 23.9-24 ft (0:30) 24-25 ft (2:49) 25-26 ft (3:16) 26-27 ft (2:49) 27-28 ft (3:18) 28-28.6 ft (1:24) R3: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, freshi discontinuities low angle to moderate dipping, very close spacing, tight, frequent calcite intrusions [MEDIUM BEDDED FACIES. PENOBSCOT RIVER MEMBER. BANGOR FORMATION] Rock Mass Quality = Poor 78% Recovery Rock Core Rate (minsec) 28.6-29.5 ft (1:12) 29-30 ft (1:34) | |
| | R2 | 56.4/54 | 23.90 – 28.60 | ROD = 75% | | | | | | | |
| 25 | | | | | | | | | | | |
| | R3 | 16.8/ 13.2 | 28.60 – 30.00 | ROD = 41% | | | | 57.9 | | | |
| 30 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 35 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 50 | | | | | | | | 30.0 | | Bottom of Exploration at 30.0 feet below ground surface. Boring backfilled with bentonite chips to match existing surface. | |

Remarks:
1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibration: R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671)" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT. and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT.3. Station 214+43. Offset 4.1 Ft. Lt.

Stratification lines represent approximate boundaries between soil typest transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-BHR-205

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11

WIN 018595.11

BRIDGE PLANS

BRIDGE No. 6787

STATE OF MAINE — CHRISTOPHER M. PENOBSCOT — No. 15164 — PROFESSIONAL ENGINEER

| | | | |
|---|---|---|---|
| P.E. NUMBER | 15164 | | |
| SIGNATURE | | | |
| DATE | 11/07/2025 | | |

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. LAMOON | DATE | |
| DESIGN-DETAILED | DEB | BY | DJH |
| CHECKED-REVIEWED | DEB | | CCB |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD/NO. 2 BRIDGE
195
BANGOR PENOBSCOT

BRIDGE BORING LOGS 2 OF 3

SHEET NUMBER
B-49
416
OF 485

Filename: ...\Bridge_Boring_Log_Plan_03.dgn Division: BRIDGE Username: Date:11/7/2025

## Maine Department of Transportation — BB-BHR-206

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

Boring No.: BB-BHR-206
WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: | S.W. Cole Explorations LLC | Elevation (ft.): 87.4 | Auger ID/OD: 4.25 in |
| Operator: | Kevin Hanscom | Datum: NAVD 88 | Sampler: Standard Split Spoon |
| Logged By: | Daniel Burgess | Rig Type: Dierich D-50 | Hammer Wt./Fall: 140 lbs/30 in |
| Date Start/Finish: | 9:20 AM 10/27/23-12:25 PM 10/27/23 | Drilling Method: Solid Stem Auger/Drive and Wash | Core Barrel: 1.98 inch I.D. - NQ2 |
| Boring Location: | Nt 485552.504, Et 1739822.376 | Casing ID/OD: 4.0/4.5 in | Water Level*: 2.3 FT bgs on 10/27/23 at 12:00 |
| Hammer Efficiency Factor: 0.918 | | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | |

Definitions:
S = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test; PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOH = Weight of the Person
$S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(corr)}$ = Lab Vane Undrained Shear Strength (psf)
$q_u$ = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
$N_{60}$ = SPT N-uncorrected Corrected for Hammer Efficiency
$N_{60}$ = (Hammer Efficiency Factor/60)*N-uncorrected
$T_v$ = Pocket Torvane Shear Strength (psf)
MC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows / 6 in. Sheer Strength (psf) (SSA) (S) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1D | 24/7 | 0.00 - 2.00 | 2-3-8-13 | 11 | 17 | SSA | 87.1 | | (TOPSOIL) | |
| | | | | | | | | | | Dark brown, dry, very stiff, CLayey SILT, fine to medium sand, trace organics (roots) (SILT). | 0.3 |
| 5 | 2D | 24/24 | 5.00 - 7.00 | 3-6-6-7 | 12 | 18 | | 82.4 | | Olive with brown, moist, very stiff, CLAY, trace fine sand, moderately plastic (CLAY). $q_p$ = 6.0 ksf (pocket penetrometer) | 5.0 WC = 26.4% Fines = 99.5% LL = 35 PL = 19 PI = 16 LI = 0.5 A-6 (16), CL |
| 10 | 3D | 24/24 | 10.00 - 12.00 | 2-2-3-3 | 5 | 8 | 8 | 77.4 | | Olive, wet, medium stiff, CLAY (CLAY). $q_p$ = 3.3 ksf (pocket penetrometer) | 10.0 |
| | | | | | | | 11 | | | | |
| 15 | | | | | | | 15 | | | | |
| | | | | | | | 24 | | | | |
| | | | | | | | 14 | | | | |
| | 4D | 24/24 | 15.00 - 17.00 | - | - | - | OPEN | | | Grey, wet, medium stiff, CLAY, low plasticity, interbedded brown sand beams (CLAY). 65x130 mm vane raw torque readings: V1: 16 ft-lbs/4 ft-lbs V2: 16 ft-lbs/4 ft-lbs torque readings V3= Beathouse vane torque 44.3 ft-lbs without failure. Missed Tube 17-19 ft bgs. Tube penetrated about 6-in before refusing. | WC = 25.0% Fines = 99.2% LL = 24 PL = 16 PI = 8 LI = 1.1 A-4 (6), CL |
| | V1/V2 | | | $S_u$ = 989/110psf | | | | | | | |
| | MU | | 17.00 - 17.00 | $S_u$ @ 1217 psf | | | 30/4" 50/1" | 69.9 | | | 17.5 |
| | R1 | 42/18 | 18.80 - 22.30 | RQD = 9% | | | NQ2 | 68.6 | | Increased roller cone resistance. Top of Bedrock Elev. 69.9 feet. (WEATHERED ROCK). | 18.8 |
| 20 | | | | | | | | | | Roller cone refusal. R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle dipping, very close spacing, tight, extremely fractured 18.8 to 19.2 ft bgs, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 43% Recovery Rock Core Rate (minsec) 18.8-19.8 ft (2:18) 19.8-20.8 ft (2:04) 20.8-21.8 ft (1:32) 21.8-22.3 ft (1:32) R2: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities moderate to steep dipping, very close spacing, tight, extremely fractured 22.3 to 22.8 ft bgs, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Poor 100% Recovery Rock Core Rate (minsec) 22.3-22.8 ft (1:25) 22.8-23.8 ft (1:55) R3: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities moderate to steep angle dipping, very close to close spacing, tight [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 92% Recovery Rock Core Rate (minsec) 23.8-24.8 ft (1:26) R4: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities moderate to steep angle dipping, close to very close spacing, open to tight, extremely fractured 24.8 ft to 25.2 ft bgs [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 57% Recovery Rock Core Rate (minsec) 24.8-25.8 ft (2:44) 25.8-26.8 ft (2:52) 26.8-28.3 ft (3:45) R5:Grey, fine grained to very fine grained, METAWACKE [metasandstone], medium strong, fresh discontinuities moderate to steep angle dipping, very close spacing, tight, extremely fractured 27.8 to 28.6 ft bgs [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 100% Recovery Rock Core Rate (minsec) 26.9-27.8 ft (1:59) 27.8-28.6 ft (2:09) R6: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities low angle to steep dipping, very close spacing, tight to open, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Very Poor 100% Recovery Rock Core Rate (minsec) 28.6-28.8 ft (0:32) 28.8-29.8 ft (1:58) 29.8-30.8 ft (2:14) | 56.6 |
| | R2 | 18/18 | 22.30 - 23.80 | RQD = 27% | | | | | | | |
| | R3 | 12/10.8 | 23.80 - 24.80 | RQD = 0% | | | | | | | |
| | R4 | 25.2/ 14.4 | 24.80 - 26.90 | RQD = 0% | | | | | | | |
| | R5 | 20.4/ 20.4 | 26.90 - 28.60 | RQD = 0% | | | | | | | |
| | R6 | 26.4/ 25.2 | 28.60 - 30.80 | RQD = 0% | | | | | | | |
| 30 | | | | | | | | | | | |
| 35 | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| 50 | | | | | | | | | | | 30.8 |

Remarks:

1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT. 3. Station 211461. Offset 31.2 Ft. Rt.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

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Boring No.: BB-BHR-206

## Maine Department of Transportation — BP-BHR-207

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

Boring No.: BP-BHR-207
WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: | S.W. Cole Explorations LLC | Elevation (ft.): 90.0 | Auger ID/OD: 4.25 in |
| Operator: | Kevin Hanscom | Datum: NAVD 88 | Sampler: Standard Split Spoon |
| Logged By: | Daniel Burgess | Rig Type: Dierich D-50 | Hammer Wt./Fall: 140 lbs/30 in |
| Date Start/Finish: | 10:43 AM 9/26/23-12:35 PM 9/26/23 | Drilling Method: Solid Stem Auger/Drive and Wash | Core Barrel: 1.98 inch I.D. - NQ2 |
| Boring Location: | Nt 485922.242, Et 1739734.177 | Casing ID/OD: 4.0/4.5 in | Water Level*: 1.0 FT bgs on 9/26/23 at 12:18 |
| Hammer Efficiency Factor: 0.918 | | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | |

Definitions:
S = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test; PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOH = Weight of the Person
$S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(corr)}$ = Lab Vane Undrained Shear Strength (psf)
$q_u$ = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
$N_{60}$ = SPT N-uncorrected Corrected for Hammer Efficiency
$N_{60}$ = (Hammer Efficiency Factor/60)*N-uncorrected
$T_v$ = Pocket Torvane Shear Strength (psf)
MC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows / 6 in. Sheer Strength (psf) (SSA) (S) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | SSA | 80.0 | | Olive, moist to wet, CLayey SILT, classification based on auger cuttings (SILT). | |
| 5 | | | | | | | OPEN | | | | |
| 10 | | | | | | | | | | Grey, wet, Silty CLAY, classification based on auger cuttings and interpreted depth (CLAY). | 10.0 |
| 15 | | | | | | | | 72.3 | | Increased auger resistance. Possible glacial till or weathered rock. | 17.7 |
| | R1 | 60/50.4 | 21.70 - 26.70 | RQD = 48% | | | NQ2 | 68.3 | | Top of Bedrock Elev. 68.3 feet. R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, fresh discontinuities horizontal to low angle dipping, very close to close spacing, tight, frequent milky quartz intrusions throughout entire run [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Poor 84% Recovery Rock Core Rate (minsec) 21.7-22.7 ft (1:02) 22.7-23.7 ft (1:04) 23.7-24.7 ft (1:28) 24.7-25.7 ft (1:06) 25.7-26.7 ft (1:16) | 21.7 |
| 20 | | | | | | | | 63.3 | | Bottom of Exploration at 26.7 feet below ground surface. Backfilled with bentonite chips to match existing ground surface. | 26.7 |
| 25 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 35 | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| 50 | | | | | | | | | | | |

Remarks:

1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT. 3. Station 211461. Offset 31.2 Ft. Rt.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

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Boring No.: BP-BHR-207

## Maine Department of Transportation — BP-BHR-208

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

Boring No.: BP-BHR-208
WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: | S.W. Cole Explorations LLC | Elevation (ft.): 93.1 | Auger ID/OD: 4.25 in |
| Operator: | Kevin Hanscom | Datum: NAVD 88 | Sampler: Standard Split Spoon |
| Logged By: | Daniel Burgess | Rig Type: Dierich D-50 | Hammer Wt./Fall: 140 lbs/30 in |
| Date Start/Finish: | 9:59 AM 9/27/23-11:32 AM 9/27/23 | Drilling Method: Solid Stem Auger/Drive and Wash | Core Barrel: 1.98 inch I.D. - NQ2 |
| Boring Location: | Nt 485878.004, Et 1739786.412 | Casing ID/OD: 4.0/4.5 in | Water Level*: 1.0 FT bgs on 9/27/23 at 11:19 |
| Hammer Efficiency Factor: 0.918 | | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | |

Definitions:
S = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test; PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOH = Weight of the Person
$S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(corr)}$ = Lab Vane Undrained Shear Strength (psf)
$q_u$ = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
$N_{60}$ = SPT N-uncorrected Corrected for Hammer Efficiency
$N_{60}$ = (Hammer Efficiency Factor/60)*N-uncorrected
$T_v$ = Pocket Torvane Shear Strength (psf)
MC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows / 6 in. Sheer Strength (psf) (SSA) (S) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | SSA | 92.8 | | (TOPSOIL) | |
| | | | | | | | | | | Brown, dry to moist, fine to medium Sandy SILT, classification based on auger cuttings (SILT). | 0.3 |
| 5 | | | | | | | | 90.1 | | Olive, wet, CLAY, classification based on cuttings and interpreted depth (CLAY). | 3.0 |
| 10 | | | | | | | | | | Grey, wet, Silty CLAY, classification based on auger cuttings and interpreted depth (CLAY). | |
| 15 | | | | | | | 17 | 76.6 | | Silty SAND and GRAVEL, inferred from casing penetration, resistance and roller cone resistance (GLACIAL TILL). | 16.5 |
| | | | | | | | 70 | | | | |
| | | | | | | | 53 | | | | |
| | | | | | | | 40 | | | (GLACIAL TILL), inferred from casing resistance penetration and roller cone resistance. | |
| | | | | | | | 46 | | | | |
| | | | | | | | 83 | | | | |
| | | | | | | | 87/7" | | | | |
| | R1 | 60/55.2 | 23.00 - 28.00 | RQD = 37% | | | NQ2 | 70.1 | | Roller cone refusal. Top of Bedrock Elev. 70.1 feet. R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], very strong, fresh discontinuities low angle to steep dipping, very close to close spacing, tight to open, frequent calcite intrusions, milky quartz intrusions at 3.8 to 3.9 ft bgs [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Poor 92% Recovery Rock Core Rate (minsec) 23-24 ft (2:38) 24-25 ft (3:06) 25-26 ft (3:23) 26-27 ft (3:39) 27-28 ft (3:01) | 23.0 |
| 20 | | | | | | | | 65.1 | | Bottom of Exploration at 28.0 feet below ground surface. Backfilled with bentonite chips to match existing ground surface. | 28.0 |
| 25 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 35 | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| 50 | | | | | | | | | | | |

Remarks:

1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT. 3. Station 211461. Offset 31.2 Ft. Rt.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

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Boring No.: BP-BHR-208

## Maine Department of Transportation — BP-BHR-209

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

Boring No.: BP-BHR-209
WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: | S.W. Cole Explorations LLC | Elevation (ft.): 90.6 | Auger ID/OD: 4.25 in |
| Operator: | Kevin Hanscom | Datum: NAVD 88 | Sampler: Standard Split Spoon |
| Logged By: | Daniel Burgess | Rig Type: Dierich D-50 | Hammer Wt./Fall: 140 lbs/30 in |
| Date Start/Finish: | 12:12 PM 9/28/23-11:08 PM 9/28/23 | Drilling Method: Solid Stem Auger/Drive and Wash | Core Barrel: 1.98 inch I.D. - NQ2 |
| Boring Location: | Nt 485787.036, Et 1739818.087 | Casing ID/OD: 4.0/4.5 in | Water Level*: 8.1 FT bgs on 9/28/23 at 12:58 |
| Hammer Efficiency Factor: 0.918 | | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | |

Definitions:
S = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test; PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOH = Weight of the Person
$S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(corr)}$ = Lab Vane Undrained Shear Strength (psf)
$q_u$ = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
$N_{60}$ = SPT N-uncorrected Corrected for Hammer Efficiency
$N_{60}$ = (Hammer Efficiency Factor/60)*N-uncorrected
$T_v$ = Pocket Torvane Shear Strength (psf)
MC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows / 6 in. Sheer Strength (psf) (SSA) (S) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | SSA | 90.3 | | (TOPSOIL) | |
| | | | | | | | | | | Olive, moist to wet, CLayey SILT, classification based on auger cuttings and interpreted depth inferred from auger resistance (SILT). | 0.3 |
| 5 | | | | | | | | 85.6 | | Olive, moist to wet, CLAY, classification based on auger cuttings and interpreted depth inferred from auger resistance (CLAY). | 5.0 |
| 10 | | | | | | | | | | Grey, wet, Silty CLAY, classification based on auger cuttings and interpreted depth inferred from auger resistance (CLAY). | |
| 15 | | | | | | | 50/1" | 77.1 | | Increased roller cone resistance, possible glacial till or weathered bedrock. | 13.5 |
| | R1 | 60/46.8 | 14.20 - 19.20 | RQD = 30% | | | NQ2 | 76.8 | | Roller cone refusal. Top of Bedrock Elev. 76.4 feet. R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], very strong, fresh discontinuities low angle to vertical dipping, close to very close spacing, strong to core, frequent calcite intrusions, partial recovery from 17.2 to 17.8 bgs [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Poor 73% Recovery Rock Core Rate (minsec) 14.2-15.2 ft (1:21) 15.2-16.2 ft (1:01) 16.2-17.2 ft (2:02) 17.2-18.2 ft (2:20) 18.2-19.2 ft (2:20) | 14.2 |
| 20 | | | | | | | | 71.4 | | Bottom of Exploration at 19.2 feet below ground surface. | 19.2 |
| 25 | | | | | | | | | | | |
| 30 | | | | | | | | | | | |
| 35 | | | | | | | | | | | |
| 40 | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| 50 | | | | | | | | | | | |

Remarks:

1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT. 3. Station 211493. Offset 6.3 Ft. Lt.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

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Boring No.: BP-BHR-209

## Maine Department of Transportation — BP-BHR-210

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: I-95 Hogan Road Bridge Replacement #5823 (Exit 187) Locations Bangor, Maine

Boring No.: BP-BHR-210
WIN: 18595.10

| | | | |
|---|---|---|---|
| Driller: | S.W. Cole Explorations LLC | Elevation (ft.): 84.9 | Auger ID/OD: 4.25 in |
| Operator: | Kevin Hanscom | Datum: NAVD 88 | Sampler: Standard Split Spoon |
| Logged By: | Daniel Burgess | Rig Type: Dierich D-50 | Hammer Wt./Fall: 140 lbs/30 in |
| Date Start/Finish: | 11:18 AM 9/29/23-12:55 | Drilling Method: Solid Stem Auger/Drive and Wash | Core Barrel: 1.98 inch I.D. - NQ2 |
| Boring Location: | Nt 485594.479, Et 1739801.153 | Casing ID/OD: 4.0/4.5 in | Water Level*: 0.5 FT bgs on 9/29/23 at 12:43 |
| Hammer Efficiency Factor: 0.918 | | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | |

Definitions:
S = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test; PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOH = Weight of the Person
$S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(corr)}$ = Lab Vane Undrained Shear Strength (psf)
$q_u$ = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
$N_{60}$ = SPT N-uncorrected Corrected for Hammer Efficiency
$N_{60}$ = (Hammer Efficiency Factor/60)*N-uncorrected
$T_v$ = Pocket Torvane Shear Strength (psf)
MC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows / 6 in. Sheer Strength (psf) (SSA) (S) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | SSA | 84.7 | | (TOPSOIL) | |
| | | | | | | | | | | Olive, moist to wet, CLayey SILT, inferred from auger cuttings (SILT). | 0.2 |
| 5 | | | | | | | 5 | 77.9 | | Olive, wet, Silty CLAY, inferred from auger cuttings (CLAY). | 7.0 |
| 10 | | | | | | | 9 | | | | |
| | | | | | | | 11 | | | | |
| | | | | | | | 11 | | | | |
| 15 | | | | | | | 31 | 70.4 | | Silty SAND and GRAVEL, inferred from roller cone resistance and wash cuttings (GLACIAL TILL). | 14.5 |
| | | | | | | | 59 | | | | |
| | | | | | | | 45 | | | | |
| | | | | | | | 34 | | | | |
| | | | | | | | 32 | | | | |
| 20 | | | | | | | 42 | | | | |
| | | | | | | | 35 | | | | |
| | | | | | | | 54 | | | | |
| | | | | | | | 61 | | | | |
| | R1 | 60/57.6 | 23.80 - 28.80 | RQD = 42% | | | 92/6" NQ2 | 61.1 | | Roller cone refusal. Top of Bedrock Elev. 61.1 feet. R1: Grey, fine grained to very fine grained, METAWACKE [metasandstone], strong, moderately weathered (25.2 to 26.9 ft bgs) to fresh discontinuities low angle dipping, close to very close spacing, open to tight, extremely fractured 25.2 to 26.9 ft bgs, frequent calcite intrusions [MEDIUM BEDDED FACIES, PENOBSCOT RIVER MEMBER, BANGOR FORMATION] Rock Mass Quality = Poor 96% Recovery Rock Core Rate (minsec) 23.8-24.8 ft (3:01) 24.8-25.8 ft (3:34) 25.8-26.8 ft (3:42) 26.8-27.8 ft (3:33) 27.8-28.8 ft (3:39) | 23.8 |
| 25 | | | | | | | | 56.1 | | Bottom of Exploration at 28.8 feet below ground surface. | 28.8 |
| 30 | | | | | | | | | | | |

Remarks:

1. Hammer Efficiency Factor provide S.W.Cole and taken from "Standard Penetration Test Energy Measurement Calibrations R-2- Diedrich Drill D-50 with Automatic Hammer (S/N: 3671" BY Geosciences Testing and Research, Inc., dated 9/23/2021. 2. As-drilled locations and elevations were provided by MaineDOT, and are derived from electronic file "18595.10.BORINGLOC.2005ERIES.10.11.23.csv" received by WSP on October 13, 2023 from MaineDOT. 3. Station 211495. Offset 26.8 Ft. Rt.

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.

* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: BP-BHR-210

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

018595.11
WIN 018595.11
BRIDGE No. 6787
BRIDGE PLANS

STATE OF MAINE — CHRISTOPHER M. MOORE — No. 15164 — REGISTERED PROFESSIONAL ENGINEER

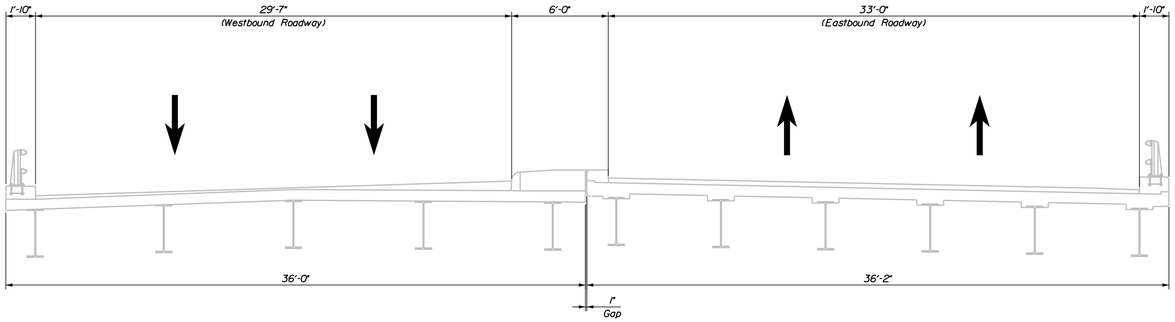
| | NAME | DATE |
|---|---|---|
| P.E. NUMBER | 15164 | |
| SIGNATURE | | 11/07/2025 |
| DATE | | |

| | NAME | DATE |
|---|---|---|
| PROJ. MANAGER | M. LANDON | |
| DESIGN-DETAILED | DJH | 8/2025 |
| CHECKED-REVIEWED | CCB | 10/2025 |
| DESIGN2-DETAILED2 | DEB | |
| DESIGN3-DETAILED3 | DEB | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

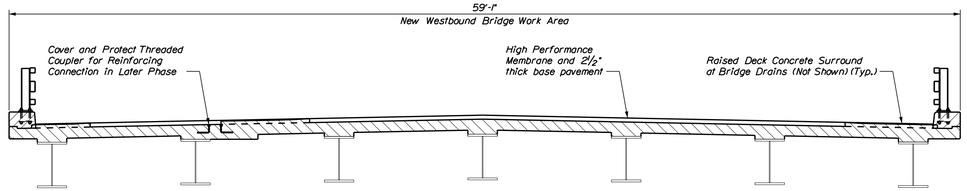
HOGAN ROAD/NO. 2 BRIDGE
195
BANGOR PENOBSCOT

BRIDGE BORING LOGS 3 OF 3

SHEET NUMBER
B-50
417
OF 485

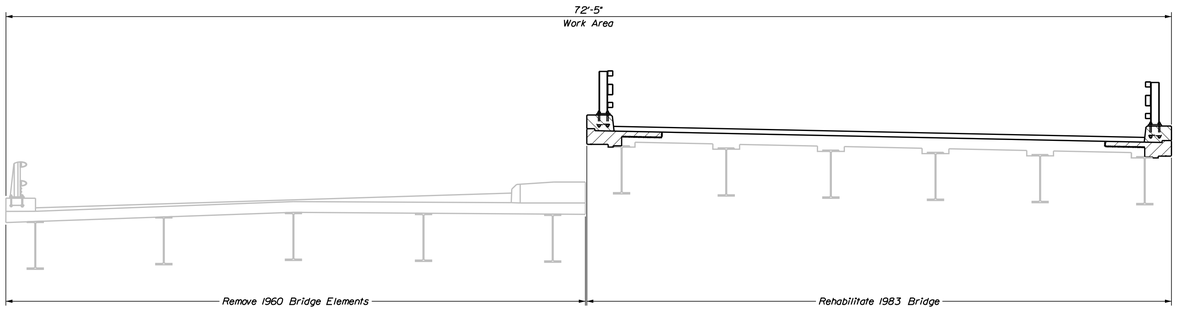


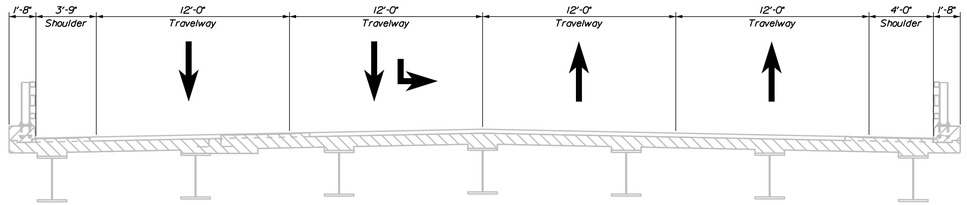

BRIDGE NO. 5823



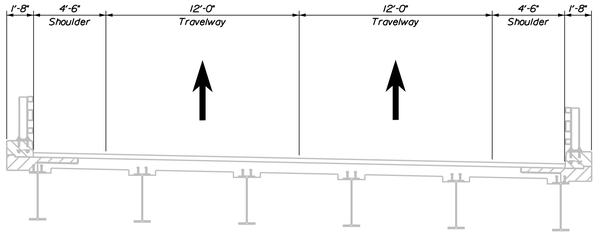

BRIDGE NO. 6787

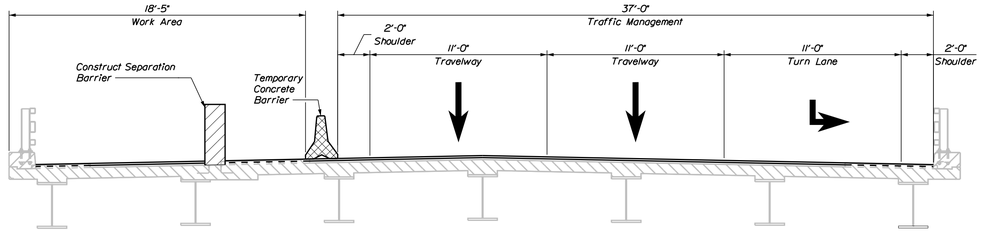
PHASE I CONSTRUCTION




PHASE 2 & 3 CONSTRUCTION




PHASE 4 CONSTRUCTION

(Mill Pavement and Apply HMA Wearing Surface after Separation Barrier Constructed)

## PHASED CONSTRUCTION NOTES

1. See Superstructure Details Sheets for final condition for Bridge No. 6787.

2. See Hogan Road/195 Bridge Plans for Bridge No. 5823 Removal and Rehabilitation Details.

3. The distance between Bridge No. 5823 and Bridge No. 6787 is greater than depicted in these schematic phasing sections.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

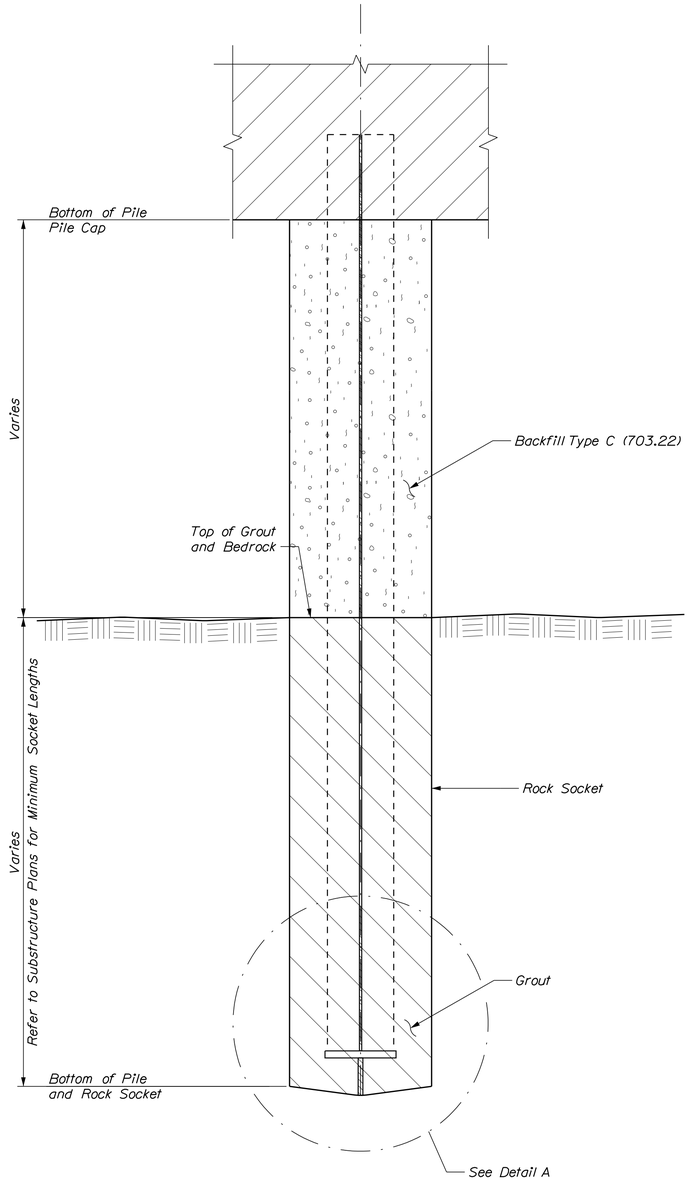
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | YP | JLT | 11/25 |
| CHECKED-REVIEWED | SMH | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

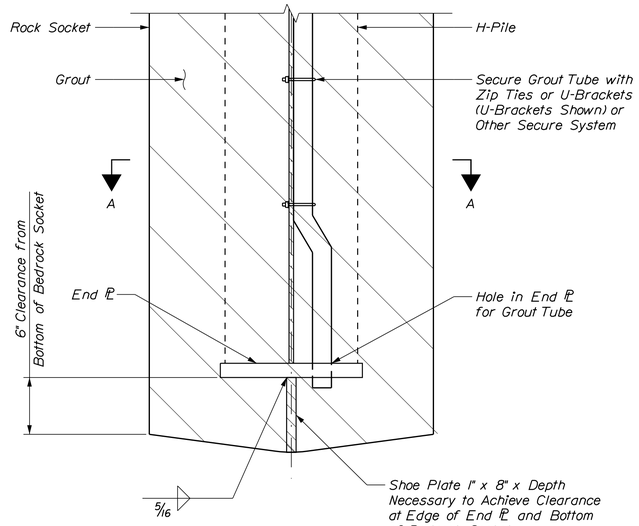
PHASED CONSTRUCTION

SHEET NUMBER
B-51
418
OF 485

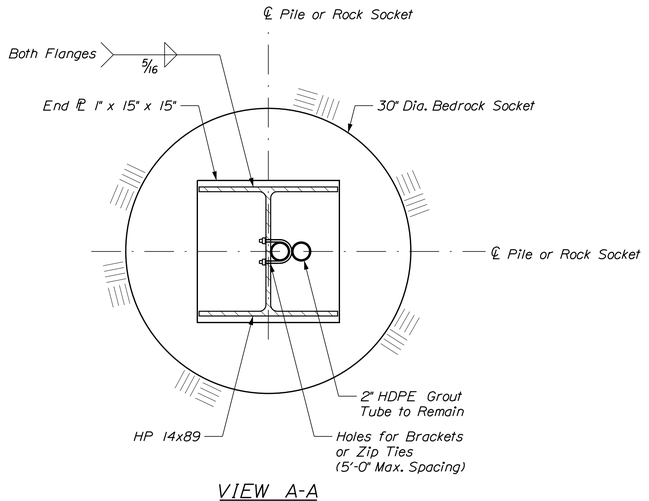
Filename: ...\B17_WB_Phased_Construction.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




ROCK SOCKETED H-PILE DETAIL




DETAIL A




VIEW A-A

## PILE NOTES

1. The maximum factored pile load at Abutment 1 and Abutment 2 is 237 kips (including 22 kips allowed for downdrag) at the Strength Limit State. The maximum factored pile load at Pier 4A and Pier 4B is 393 kips at the Strength Limit State.

2. Unless socketed, piles shall be driven to the required resistance on or within bedrock in accordance with Standard Specification Section 501.

3. Estimate of piles (HP 14x89) required are as shown on substructure plans. The order lengths of the piles shall include an additional 5 feet of length for each test pile to accommodate dynamic pile testing equipment.

4. H-pile material shall be ASTM A572, Grade 50.

5. H-pile splices shall be in accordance with Standard Detail 501(03).

6. All driven piles (not otherwise socketed in bedrock) shall be equipped with a pile tip in accordance with Standard Specifications Subsection 501.048, Prefabricated Pile Tips, and 711.10 H-Beam Piles, Splices and Tips.

7. Piles shall not be out of position shown by more than 2 inches in any direction.

8. Where piles are driven through ULFGA, the Contractor shall pre-slice the upper separation geotextile at the approximate pile locations prior to placement of Granular Borrow.

9. The Contractor shall perform and submit one (1) Wave Equation Analysis for Abutment 1, one (1) Wave Equation Analysis for Abutment 2, and one (1) Wave Equation Analysis for Pier 4A/4B for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times Fy. The submittal shall include the proposed stopping criteria based on the Wave Equation Analysis and the proposed driving system.

10. The Contractor shall perform two (2) dynamic load tests at Abutment 1, two (2) dynamic load tests at Abutment 2, one (1) dynamic load test at Pier 4A, and one (1) dynamic load test at Pier 4B, each with 24-hour (minimum) restrike tests to confirm the nominal resistance of the piles. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. The first dynamic test shall be performed on the first production pile driven at each abutment or pier, and the second dynamic test pile location at the abutments shall be selected by the Resident and Engineer of Record from the opposite end of the foundation.

## ROCK SOCKET NOTES:

1. The maximum factored pile load for rock socketed piles is 407 kips at the Strength Limit State.

2. Rock socket H-Piles require excavation and installation in accordance with Special Provision 501 - Rock Socketed H-Pile Foundations.

3. Piles shall not be out of position shown by more than 2 inches in any direction.

4. Adjust the bottom of pile elevation and length of pile to maintain minimum rock socket length for each individual pile.

5. All rock sockets shall be grouted from the bottom of the socket to the top of the bedrock surface.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787 | WIN 18595.11 | BRIDGE PLANS

vhb

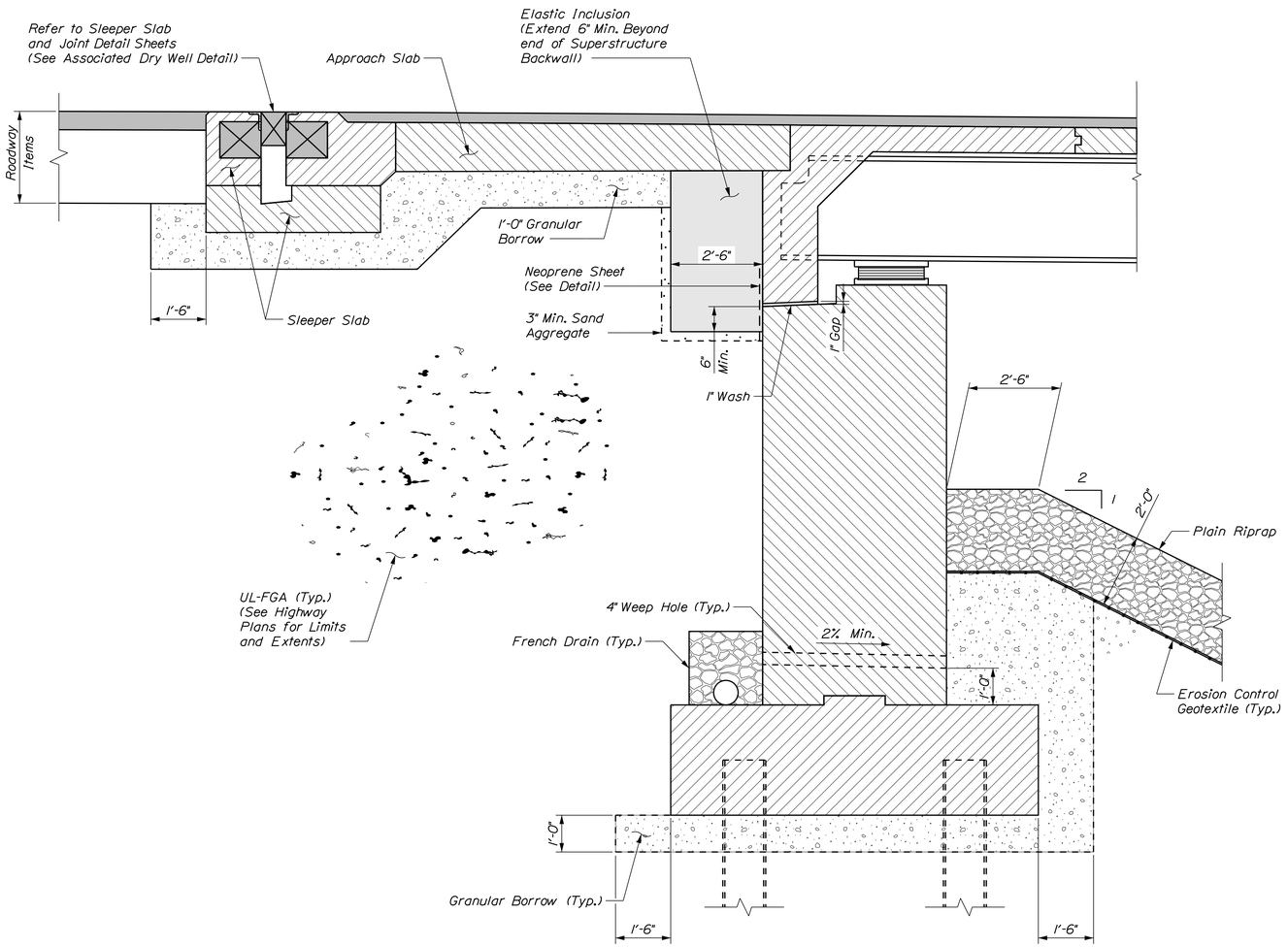
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | KDW | 11/25 | |
| CHECKED-REVIEWED | SMH | 11/25 | |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

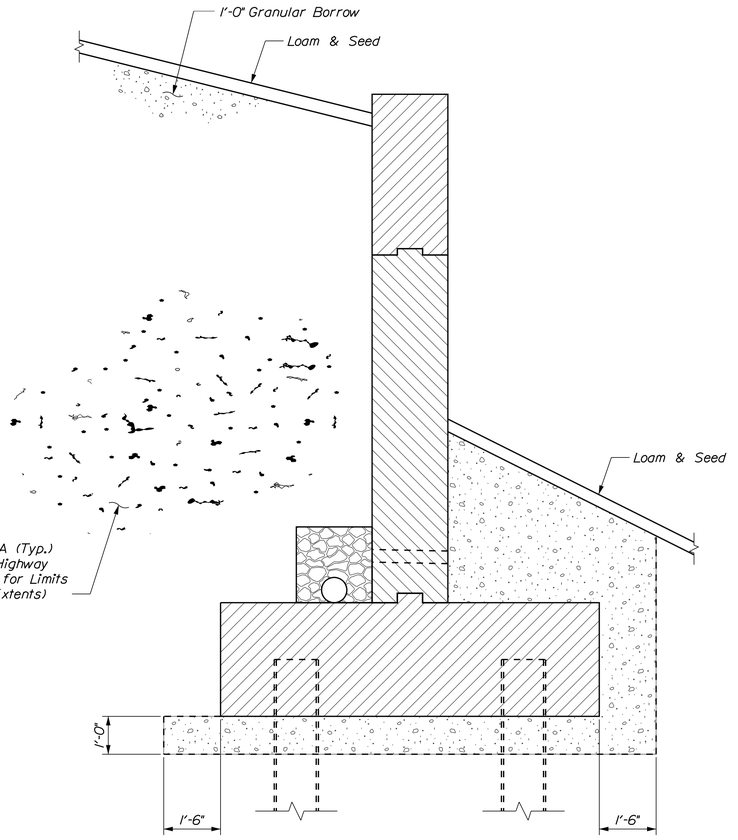
PILE DETAILS

SHEET NUMBER
B-52
419
OF 485

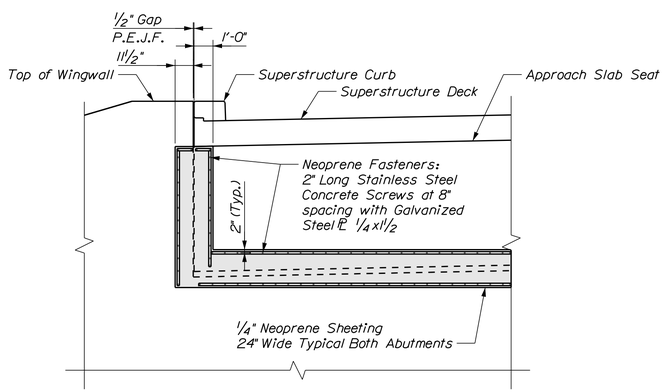
Filename: ...\10\BRIDGE\MSTA\XXX_socket.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




ABUTMENT EARTHWORK DETAIL

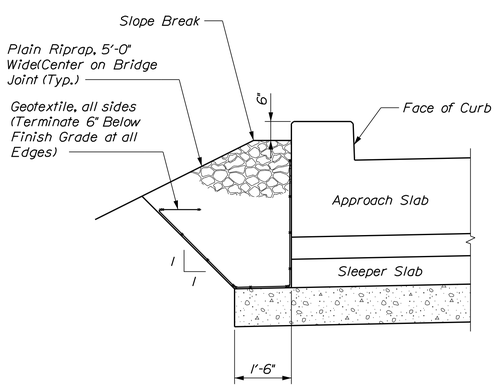



WINGWALL EARTHWORK DETAIL




SCHEMATIC NEOPRENE ATTACHMENT DETAIL

*Typical on backsides of abutments where the end of Superstructure is flush with the Abutment.*




DRY WELL DETAIL

*(Both Ends of Bridge Joints at Each Sleeper Slab)*
*(Expansion Joint Not Shown)*

## ABUTMENT NOTES

1. Abutments, wingwalls, and their footings shall be backfilled with Ultra-Lightweight Foamed Glass Aggregate (UL-FGA).

2. Reinforcing steel shall have a minimum concrete cover of 2 inches in the walls and 3 inches in the footings unless otherwise noted.

3. Daylight French Drains along back face of abutments and wingwalls on each side of the bridge as approved by the Resident.

4. Cover joints where waterstops are not required in accordance with Standard Details Section 502.

5. A separation geotextile (not shown) shall be used along the bottom, sides, and top of all UL-FGA.

6. Place drains with a 4-inch diameter in the breastwall and wingwalls at 10 feet maximum spacing. The exact location will be determined by the Resident.

7. Elastic inclusion material and installation shall be in accordance with Special Provision 203 - Elastic Inclusion.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787

WIN 18595.11

BRIDGE PLANS

vhb

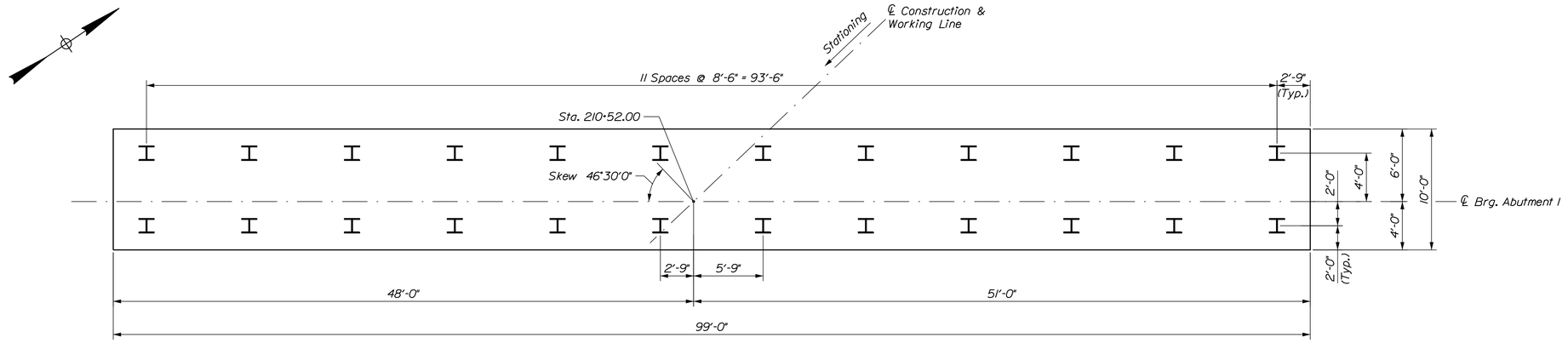
| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

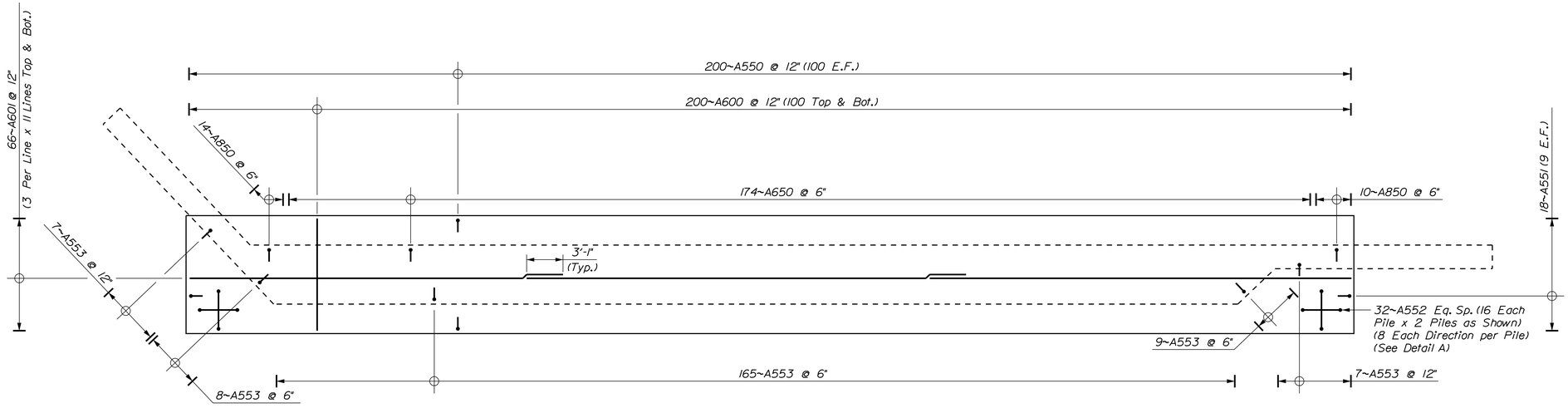
ABUTMENT NOTES & DETAILS

SHEET NUMBER
B-53
420
OF 485

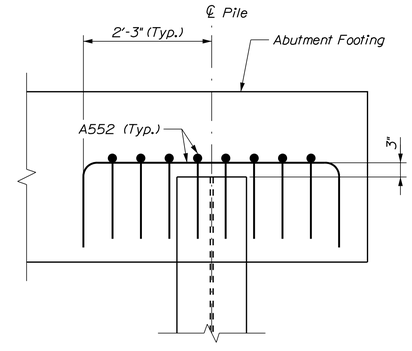
Filename: ...\B18_WB_Abutment_1_Backfill_Det.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




FOOTING PLAN & PILE LAYOUT
(Estimated Pile Lengths are Less Than 35' for all Piles)




REINFORCING PLAN




DETAIL A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

| | | |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | AP'S | JAH |
| CHECKED-REVIEWED | YP | SMH |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

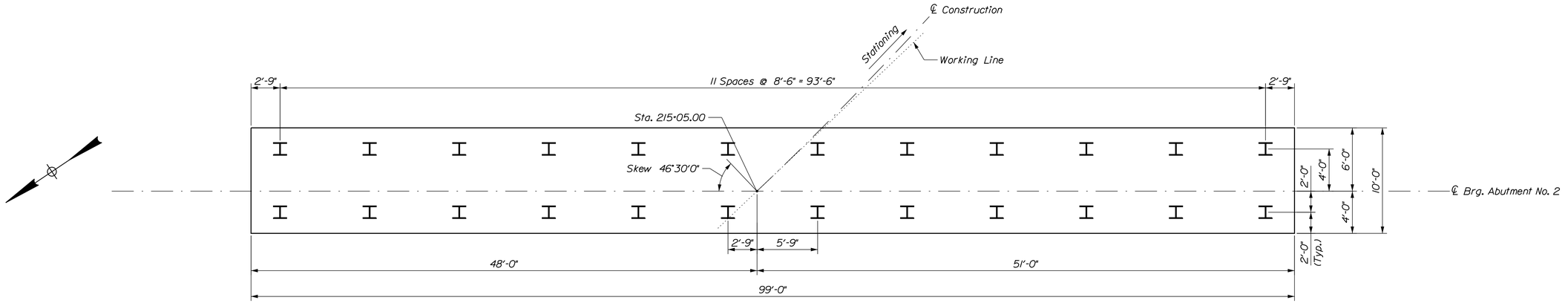
| BY | DATE |
|---|---|
| JAH | 11/25 |
| SMH | 11/25 |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

ABUTMENT NO. 1
FOOTING PLAN

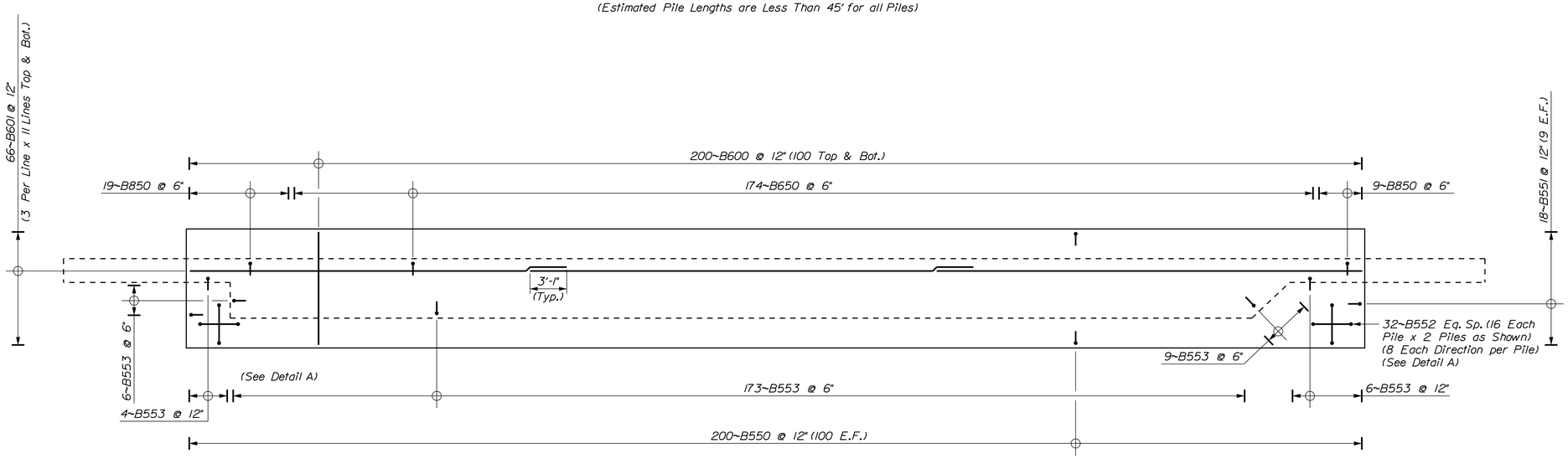
SHEET NUMBER
B-54
421
OF 485

Filename: ...\B19_WB_Abutment_1_Footing.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

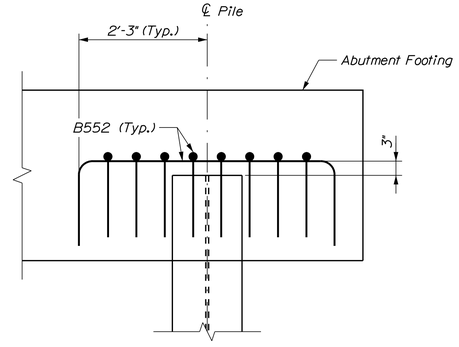



FOOTING PLAN & PILE LAYOUT

(Estimated Pile Lengths are Less Than 45' for all Piles)




REINFORCING PLAN




DETAIL A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

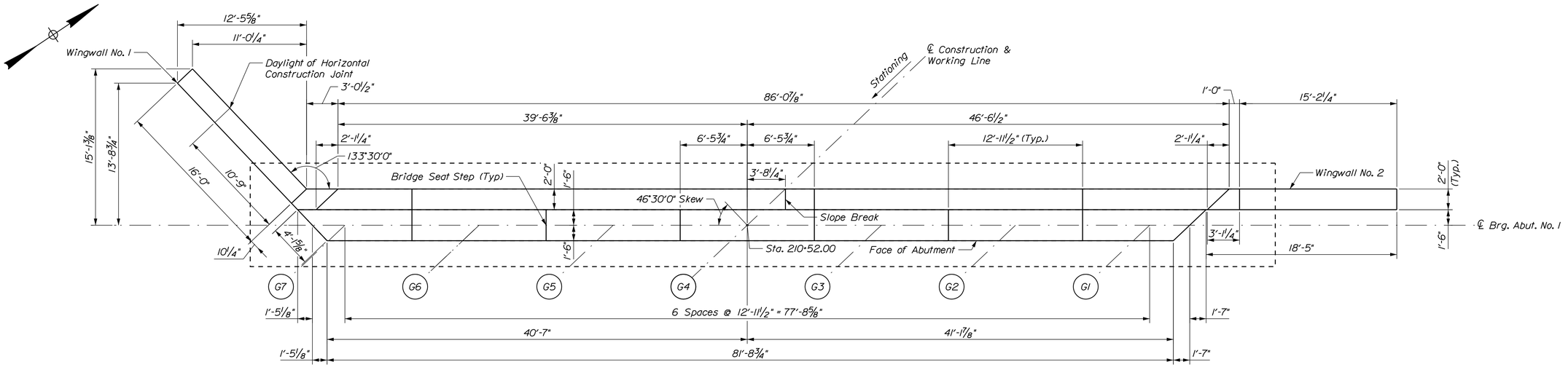
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | APS | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

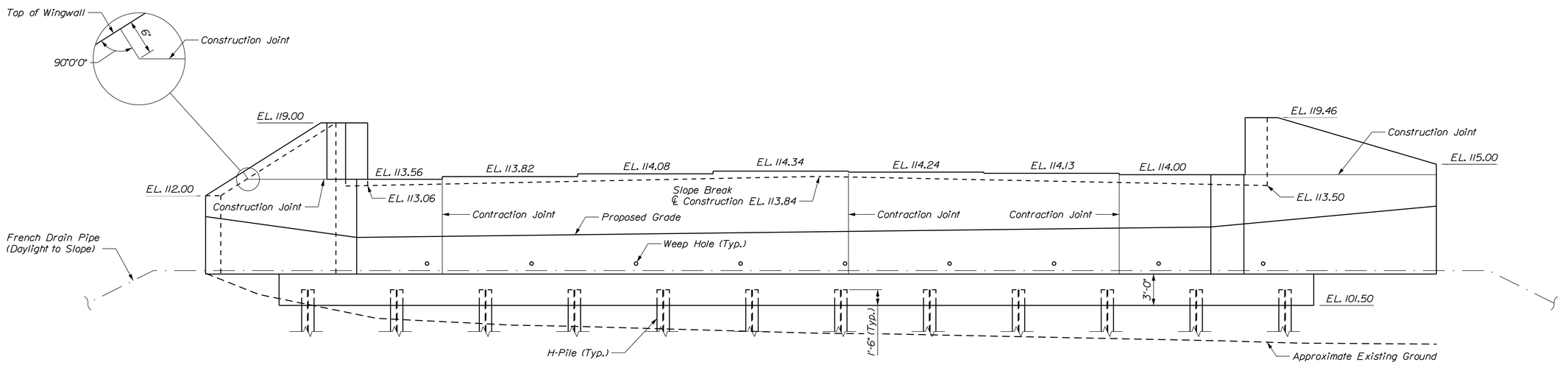
ABUTMENT NO. 2
FOOTING PLAN

SHEET NUMBER
B-55
422
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B22_WB_Abutment_2_Footing.dgn




PLAN




ELEVATION

NOTE

1. Far Face Elevations of the lowered bridge seat wash are given at the back face of the abutment and low end of the wash.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

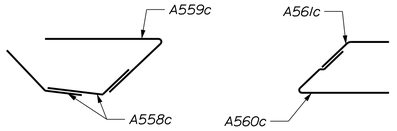
| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

ABUTMENT NO. 1
PLAN & ELEVATION

SHEET NUMBER
B-56
423
OF 485

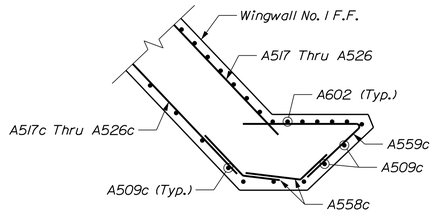
Filename: ...\B20_WB_Abutment_1_Detail.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



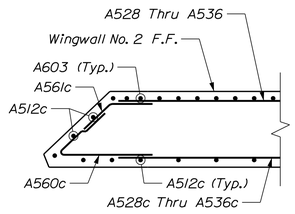

SET B
(2~A558c and 1~A559c)



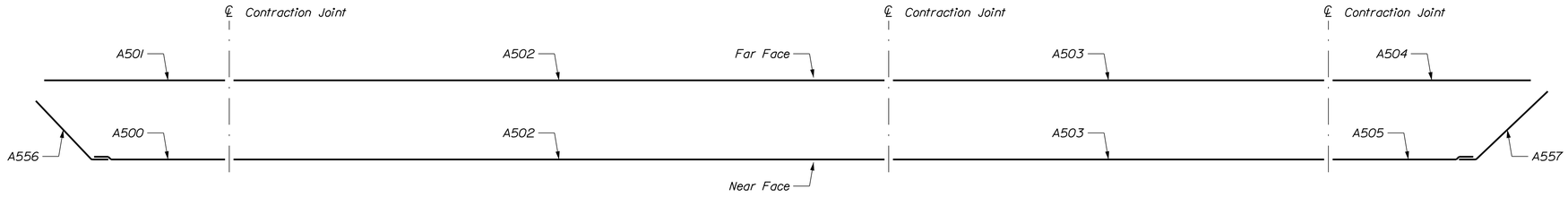

SET C
(1~A560c and 1~A561c)



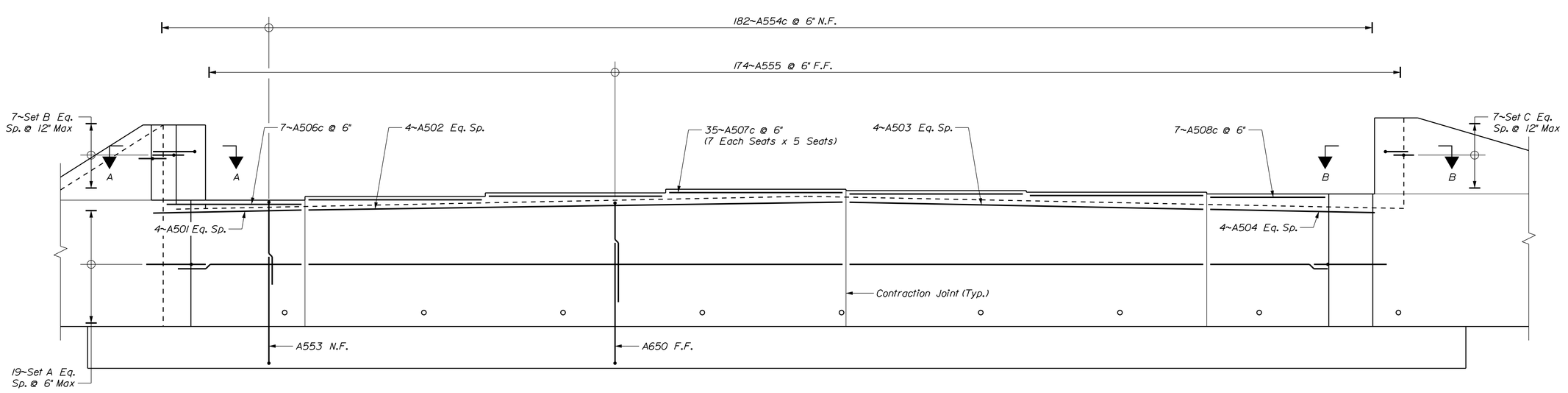

SECTION A-A




SECTION B-B




SET A
(1~A500, 1~A501, 2~A502, 2~A503, 1~A504, 1~A505, 1~A556, and 1~A557)




ABUTMENT NO. 1 REINFORCING ELEVATION
(Wingwall Reinforcing and Piles Not Shown)

REINFORCING KEY

E.F. = Each Face
N.F. = Near Face
F.F. = Far Face

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

| | BY | DATE |
|---|---|---|
| L. ROWE | JAH | 11/25 |
| JEP | SMH | 11/25 |
| APS | | |

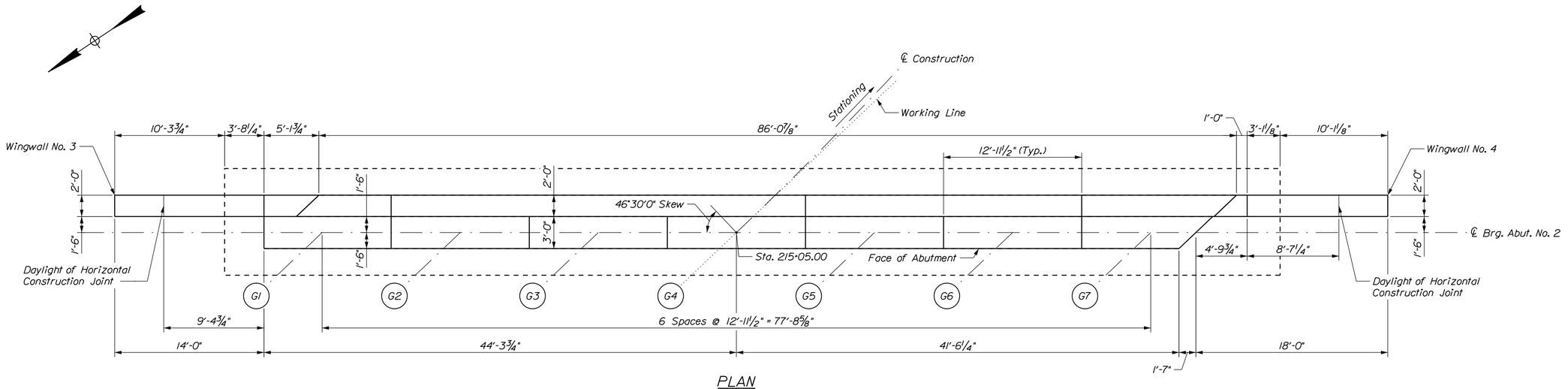
PROJ. MANAGER
DESIGN-DETAILED
CHECKED-REVIEWED
DESIGN2-DETAILED2
DESIGN3-DETAILED3
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

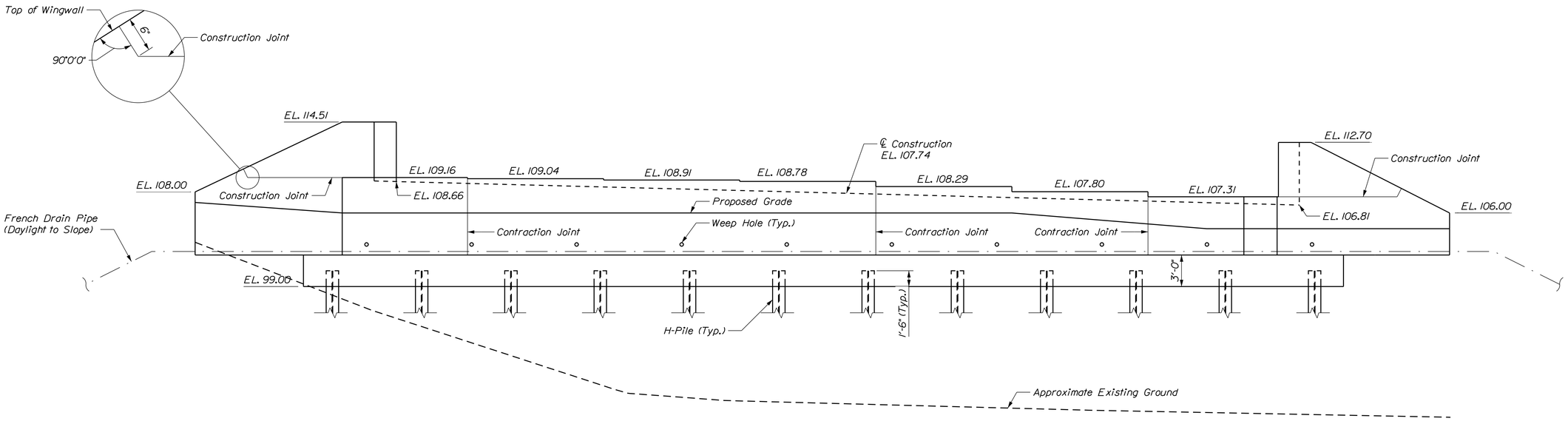
ABUTMENT NO. 1
REINFORCING

SHEET NUMBER
B-57
424
OF 485

Filename: ...\B20_WB_Abutment_1_Rein_Detail.dgn Username: jamesdavis Date:08/29/2025
Division: HIGHWAY




PLAN




ELEVATION

NOTE

1. Far Face Elevations of the lowered bridge seat wash are given at the back face of the abutment and low end of the wash.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

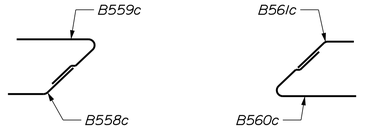
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | JAH | BY | DATE |
| CHECKED-REVIEWED | YP | JAH | 11/25 |
| DESIGN2-DETAILED2 | | SMH | 11/25 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

ABUTMENT NO. 2
PLAN & ELEVATION

SHEET NUMBER
B-58
425
OF 485

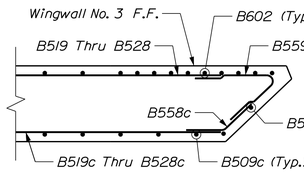
Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B23_WB_Abutment_2_Detail.dgn



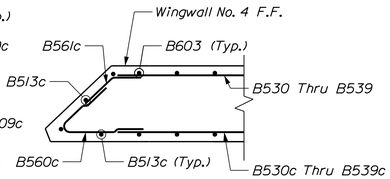

SET E
(1~B558c and 1~B559c)



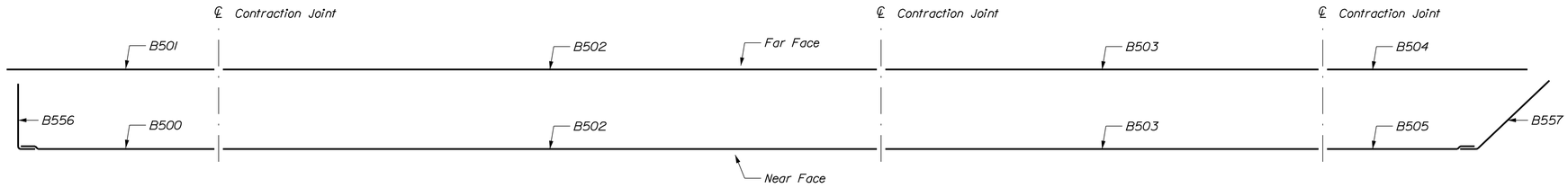

SET F
(1~B560c and 1~B561c)



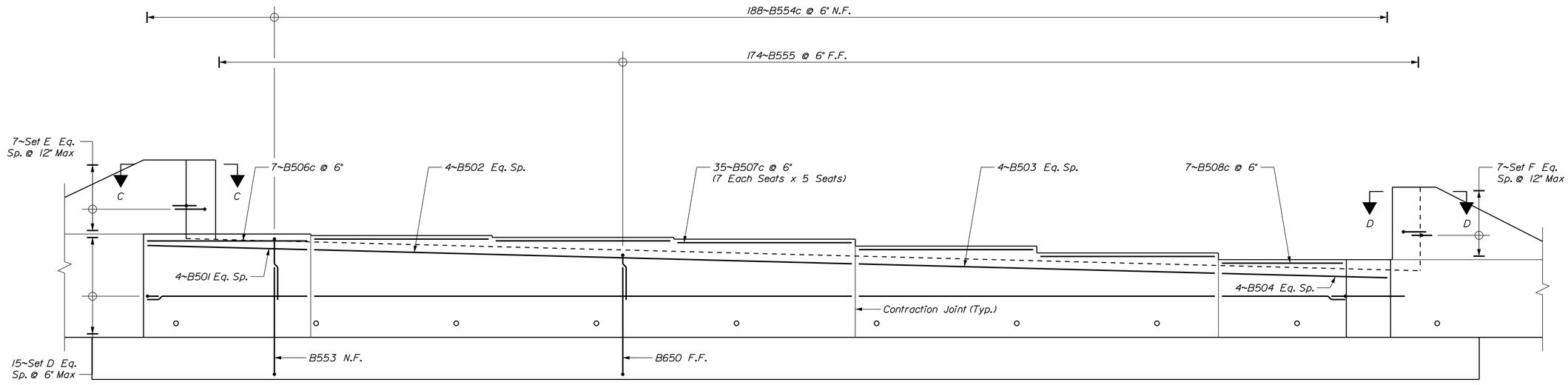

SECTION C-C




SECTION D-D




SET D
(1~B500, 1~B501, 2~B502, 2~B503, 1~B504, 1~B505, 1~B556, and 1~B557)




ABUTMENT NO. 2 REINFORCING ELEVATION
(Wingwall Reinforcing and Piles Not Shown)

REINFORCING KEY
E.F. = Each Face
N.F. = Near Face
F.F. = Far Face

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

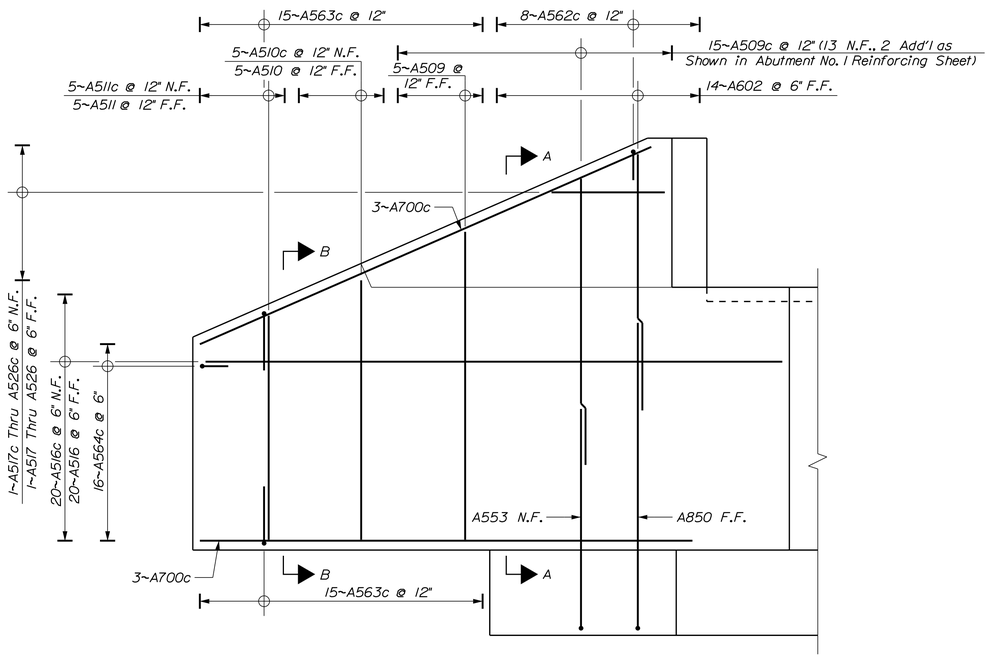
| | L. ROWE | DATE |
|---|---|---|
| PROJ. MANAGER | | |
| DESIGN-DETAILED | JEP | 11/25 |
| CHECKED-REVIEWED | APS | 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

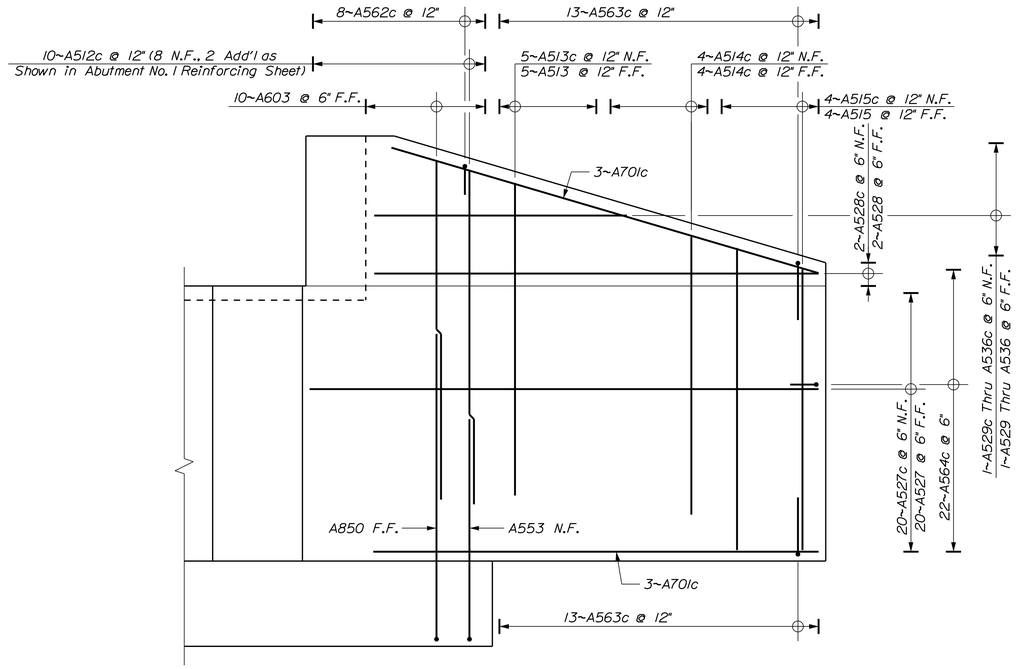
ABUTMENT NO. 2
REINFORCING

SHEET NUMBER
B-59
426
OF 485

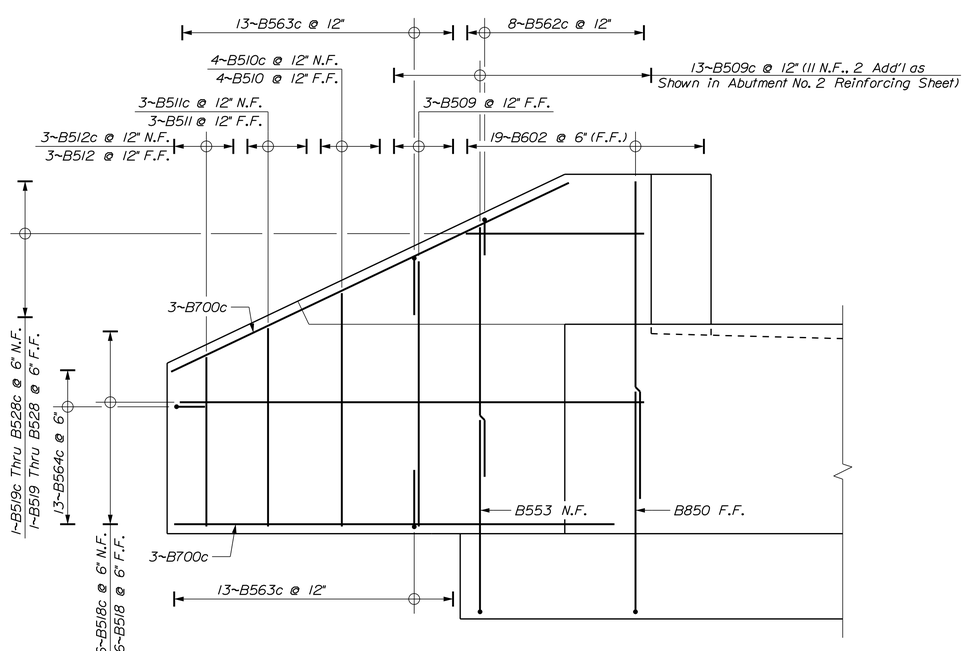
Filename: ...\B23_WB_Abutment_2_Rein_Detail.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



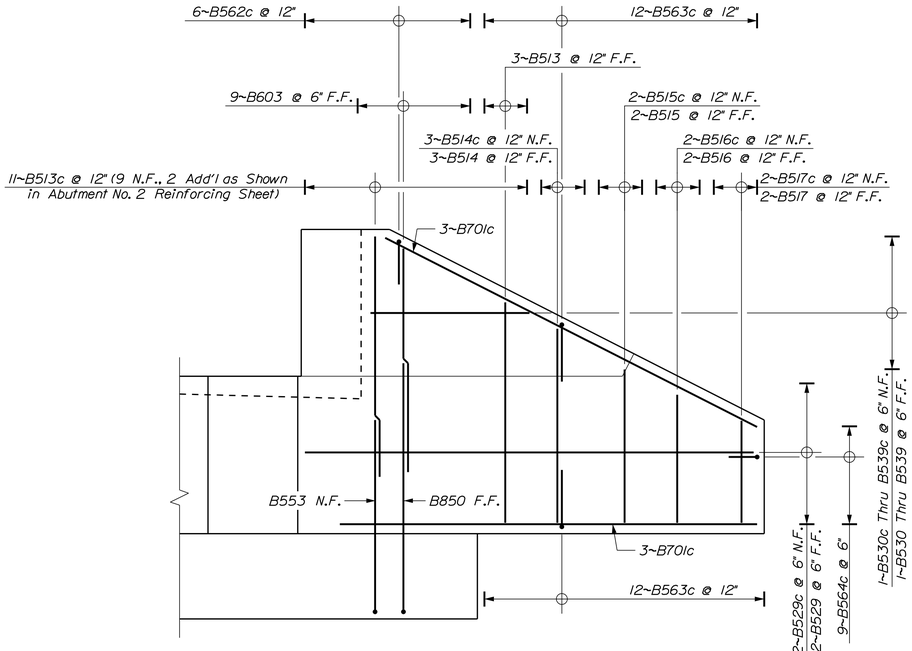

WINGWALL NO. 1 ELEVATION




WINGWALL NO. 2 ELEVATION




WINGWALL NO. 3 ELEVATION




WINGWALL NO. 4 ELEVATION

## REINFORCING KEY

E.F. = Each Face
N.F. = Near Face
F.F. = Far Face

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

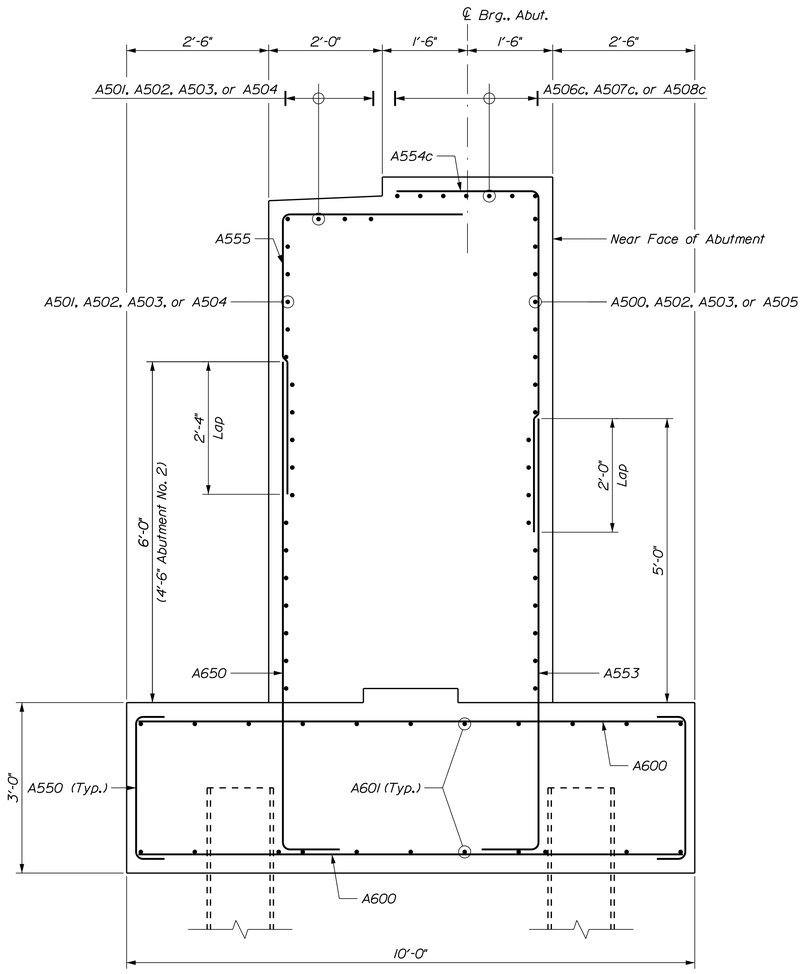
| | | | DATE |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | | BY | 11/25 |
| CHECKED-REVIEWED | JEP | JAH | 11/25 |
| DESIGN2-DETAILED2 | APS | SMH | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

WINGWALL REINFORCING

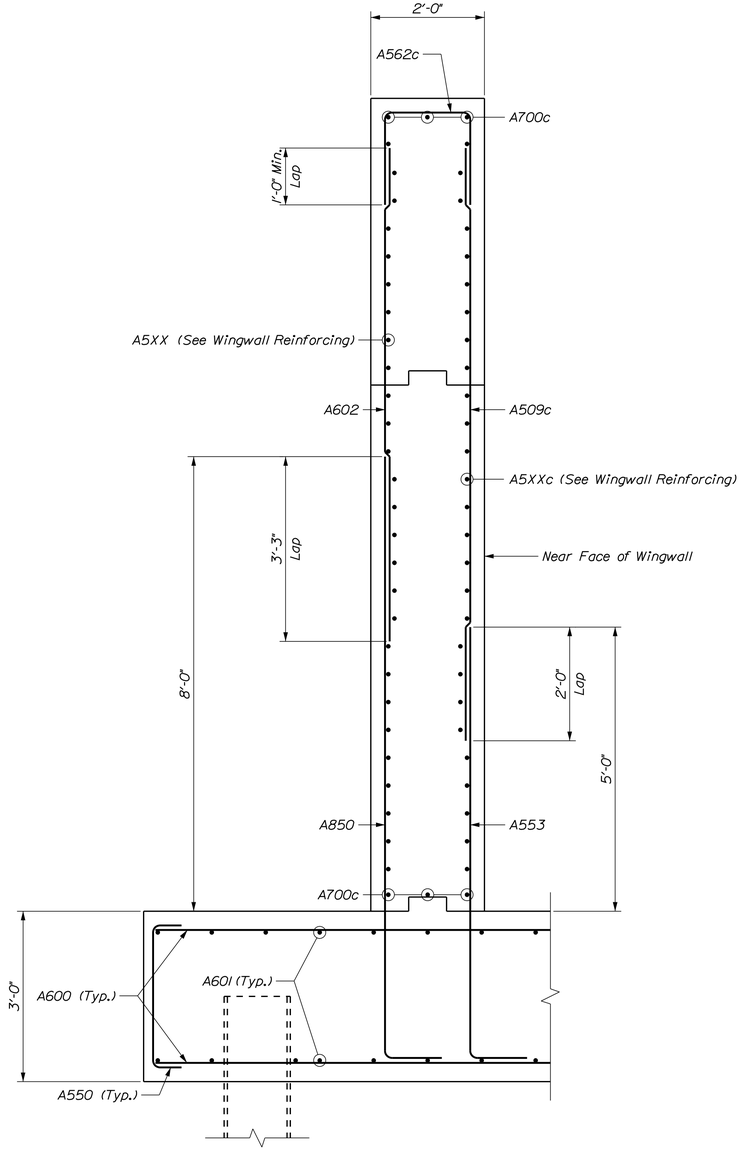
SHEET NUMBER
B-60
427
OF 485

Filename: ...\B20_WB_Abutment_1_WW_Rein_Detail.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



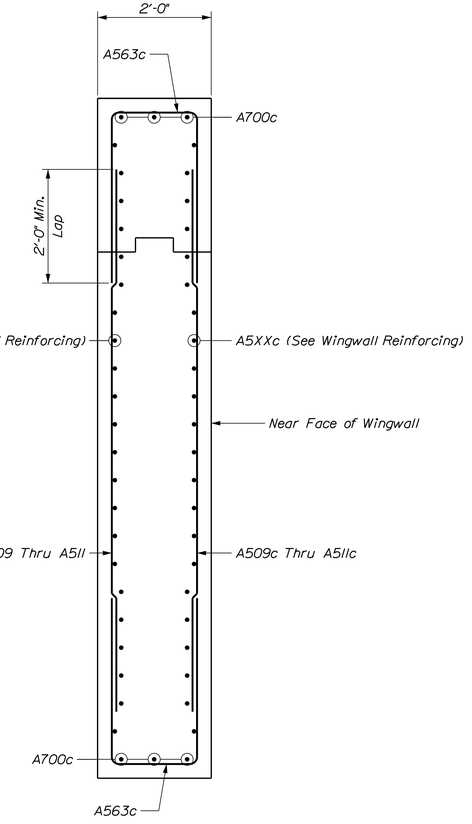

ABUTMENT TYPICAL SECTION

(Abutment No. 1 Shown)




WINGWALL SECTION A-A

(Wingwall No. 1 Shown)




WINGWALL SECTION B-B

(Wingwall No. 1 Shown)

NOTES

1. Abutment 1 shown. Abutment 2 similar.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

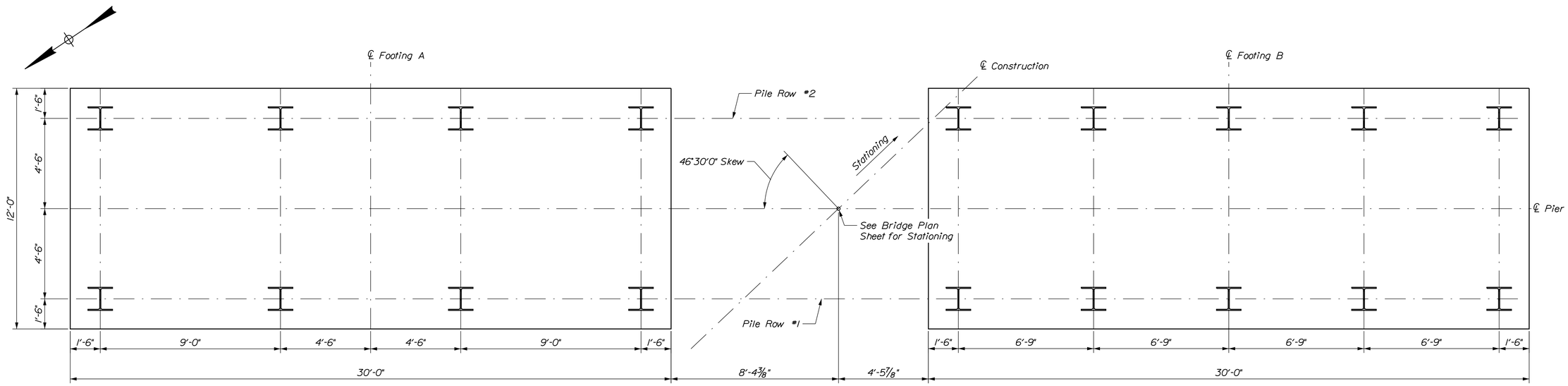
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | BY | DATE |
| DESIGN-DETAILED | JEP | JAH | 11/25 |
| CHECKED-REVIEWED | APS | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
PENOBSCOT
BANGOR

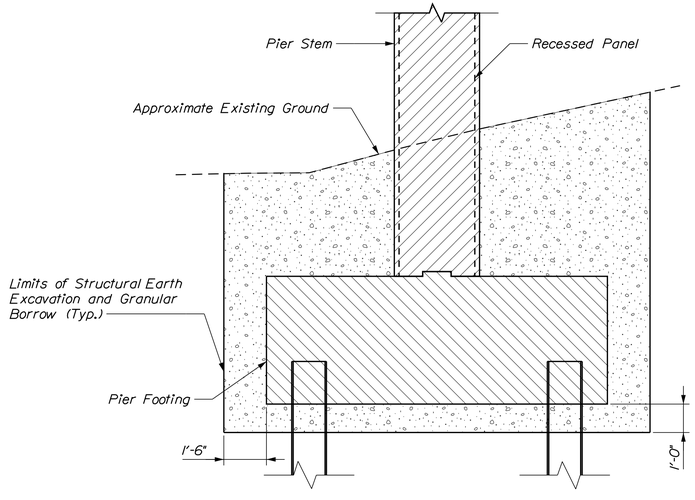
ABUTMENT AND WINGWALL
REINFORCING SECTIONS

SHEET NUMBER
B-61
428
OF 485

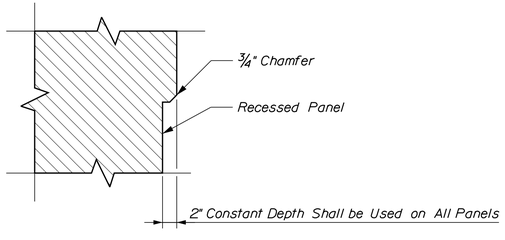
Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B21_WB_Abutment _1_Rein_Sect.dgn




FOOTING PLAN & PILE LAYOUT




PIER EARTHWORK DETAIL




RECESS DETAIL

## PIER NOTES

1. Reinforcing steel shall have a minimum concrete cover of 2 inches except for 3 inches in the footing unless otherwise noted.

2. Payment for Concrete Formliner is considered incidental to related Contract Items.

3. Adjust reinforcing steel spacing and end hook orientations in footings to avoid foundation piles.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

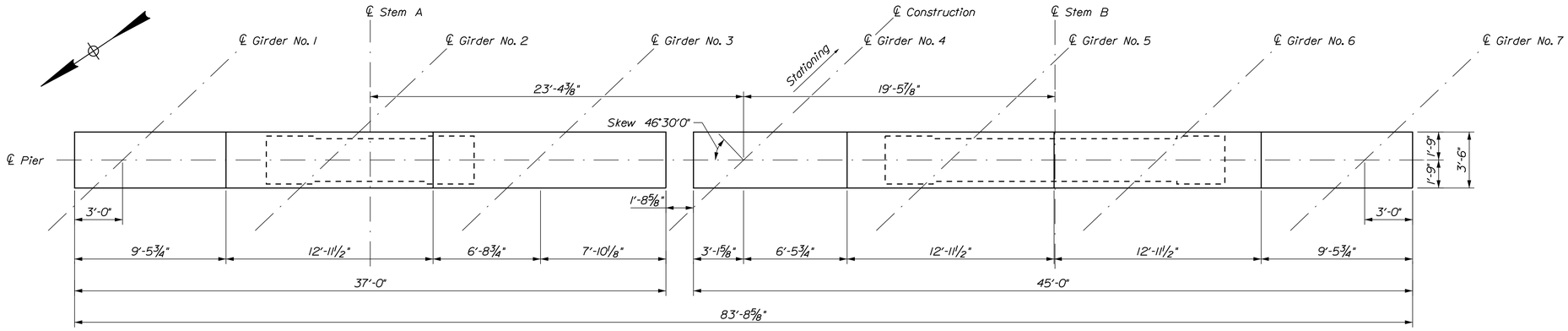
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | JAH | BY | DATE |
| CHECKED-REVIEWED | YP | JAH | 11/25 |
| DESIGN2-DETAILED2 | | SMH | 11/25 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

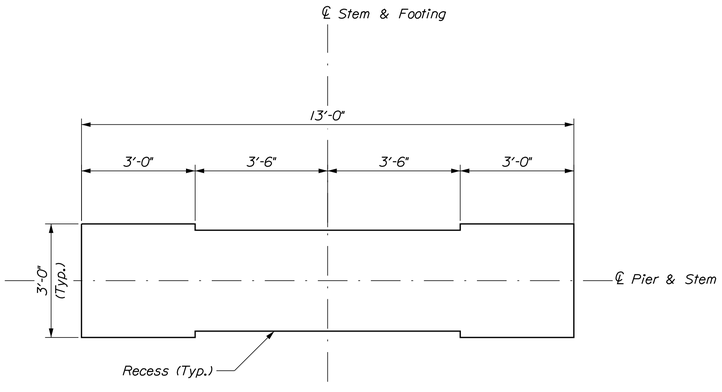
PIER DETAILS AND FOOTING PLAN

SHEET NUMBER
B-62
429
OF 485

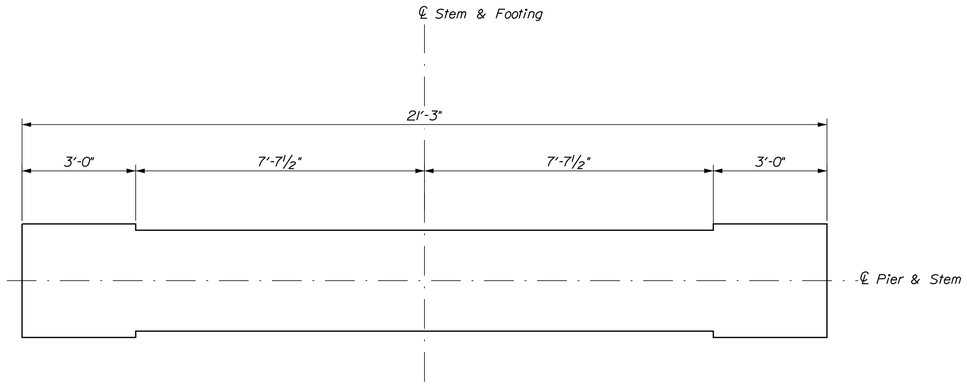
Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\MSTA\B27_WB_Pier_Section.dgn




PIER CAP PLAN
(Pier Footing Not Shown)




STEM A SECTION




STEM B SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787 | WIN 18595.11 | BRIDGE PLANS

vhb

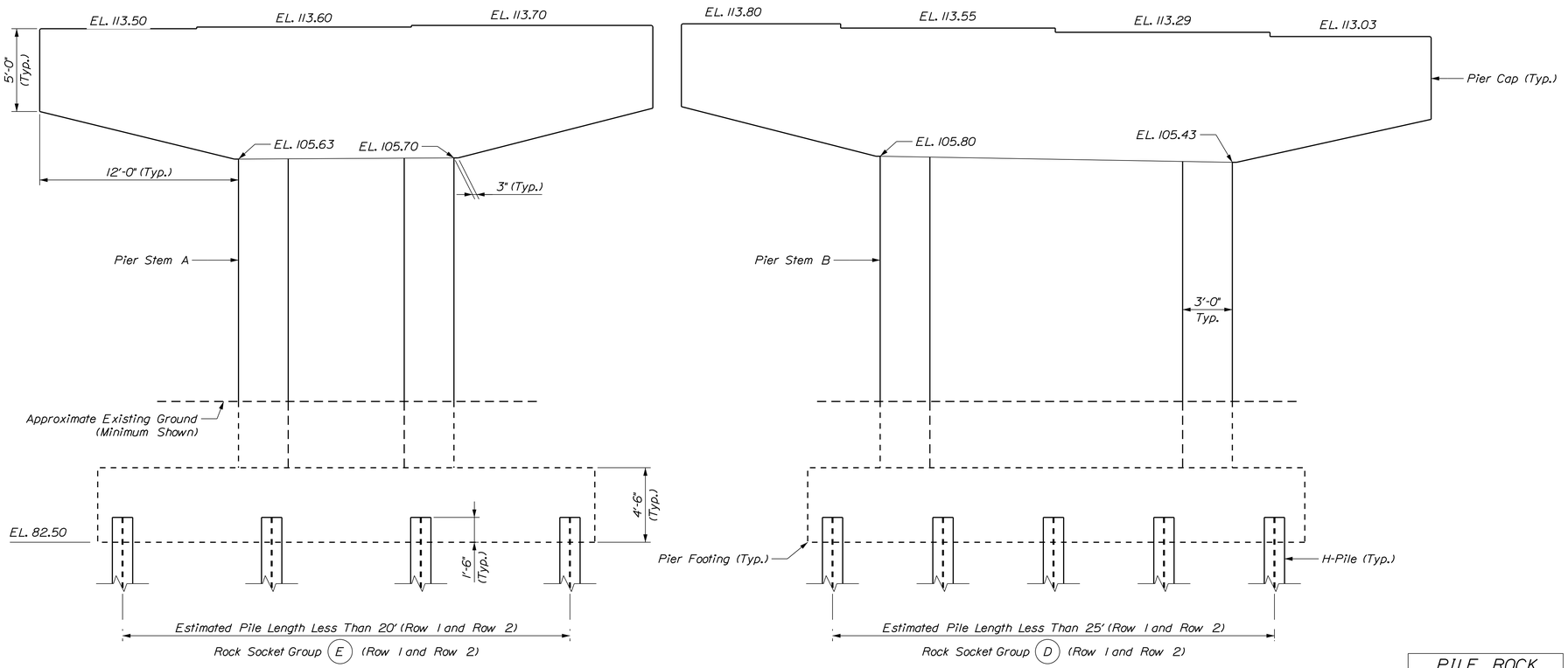
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | JAH | BY | DATE |
| CHECKED-REVIEWED | YP | JAH | 11/25 |
| DESIGN2-DETAILED2 | | SMH | 11/25 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

PIER CAP & COLUMN PLAN

SHEET NUMBER
B-63
430
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\MSTA\B26_WB_Pier_Cap.dgn




ELEVATION

| PILE ROCK SOCKET TABLE | |
|---|---|
| Group | Min. (Feet) |
| D | 5'-0" |
| E | 4'-0" |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787

WIN 18595.11

BRIDGE PLANS

vhb

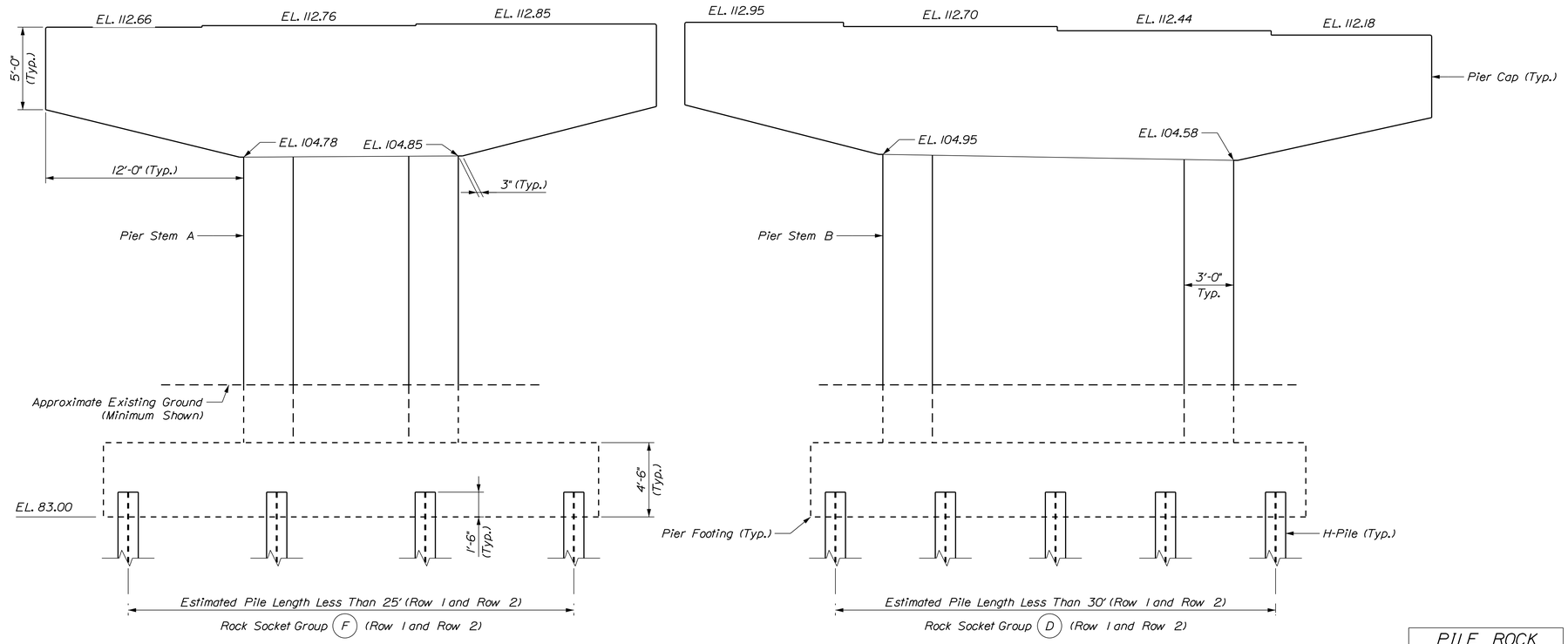
| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

PIER NO. 1 ELEVATION

SHEET NUMBER
B-64
431
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\BRIDGE\MSTA\B28_WB_Pier_1.dgn




ELEVATION

| PILE ROCK SOCKET TABLE | |
|---|---|
| Group | Min. (Feet) |
| D | 5'-0" |
| F | 3'-0" |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787 | WIN 18595.11 | BRIDGE PLANS

vhb

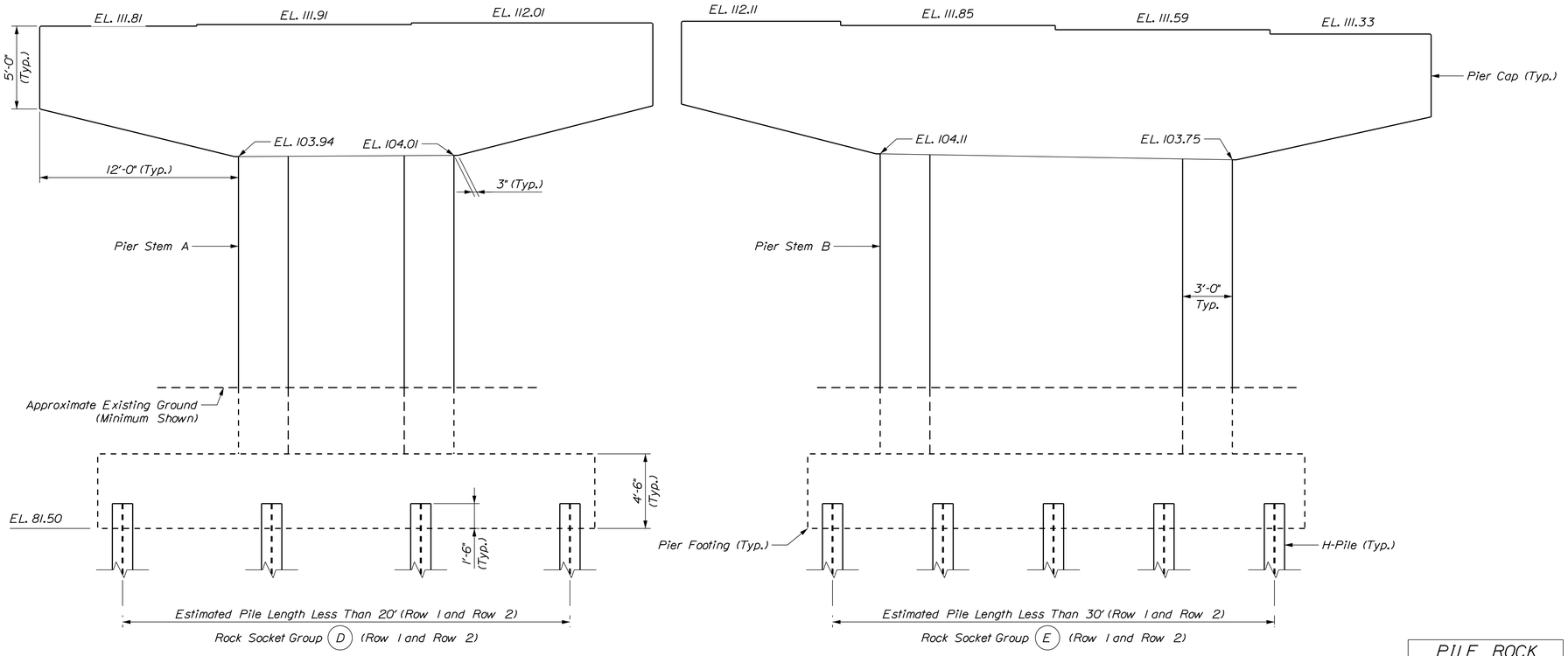
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | JAH | BY | DATE |
| CHECKED-REVIEWED | YP | JAH | 11/25 |
| DESIGN2-DETAILED2 | | SMH | 11/25 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

PIER NO. 2 ELEVATION

SHEET NUMBER
B-65
432
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\BRIDGE\MSTA\B29_WB_Pier_2.dgn




ELEVATION

| PILE ROCK SOCKET TABLE | |
|---|---|
| Group | Min. (Feet) |
| D | 5'-0" |
| E | 4'-0" |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787 | WIN 18595.11 | BRIDGE PLANS

vhb

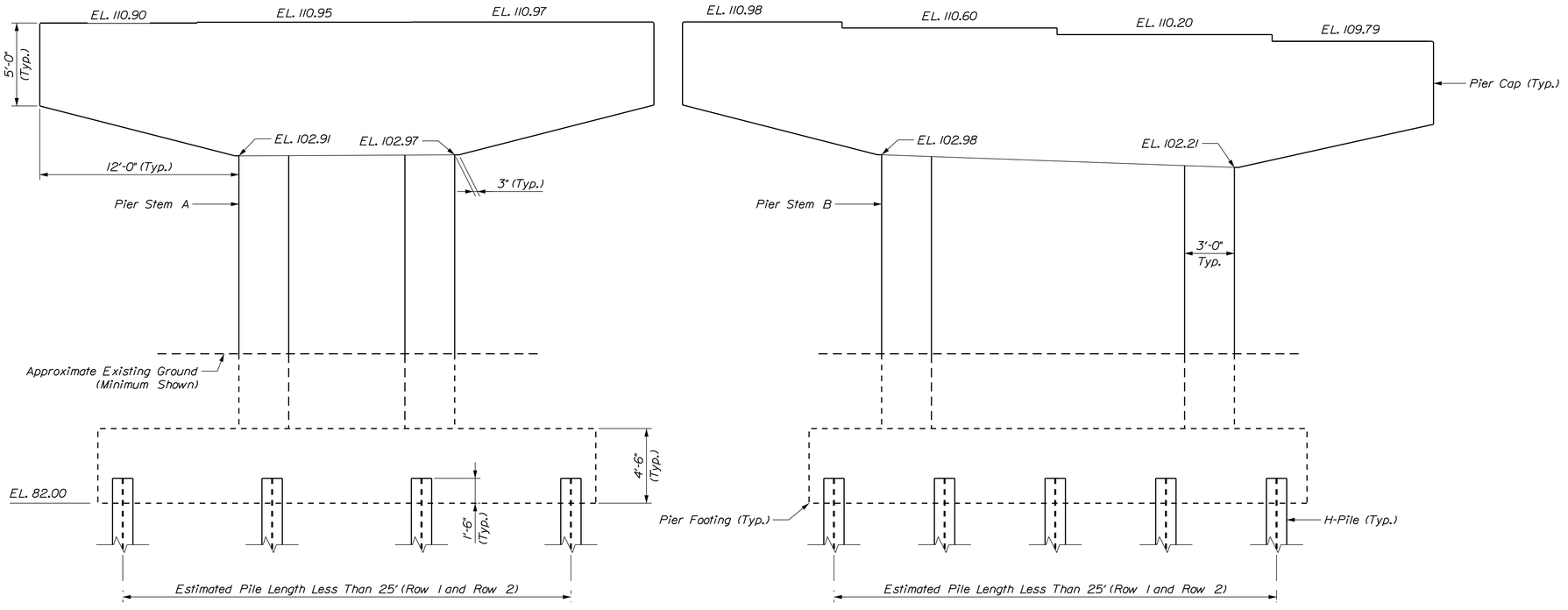
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | BY | DATE |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
PENOBSCOT
BANGOR

PIER NO. 3 ELEVATION

SHEET NUMBER
B-66
433
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\BRIDGE\MSTA\B30_WB_Pier_3.dgn




ELEVATION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787

WIN 18595.11

BRIDGE PLANS

vhb

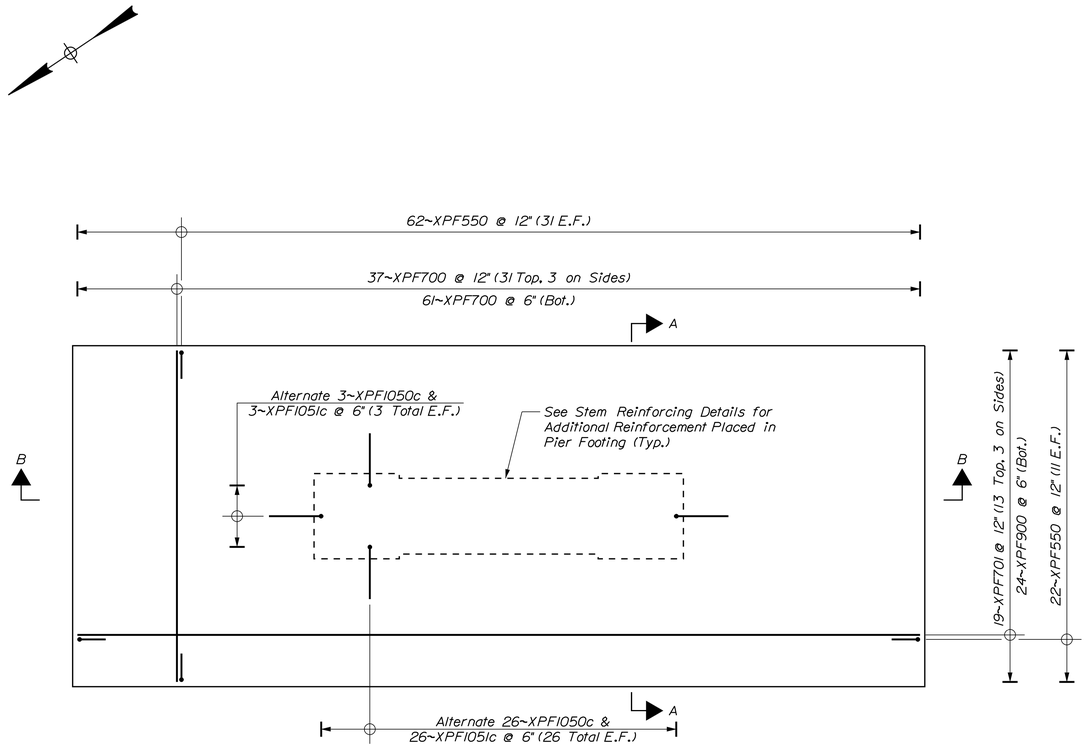
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

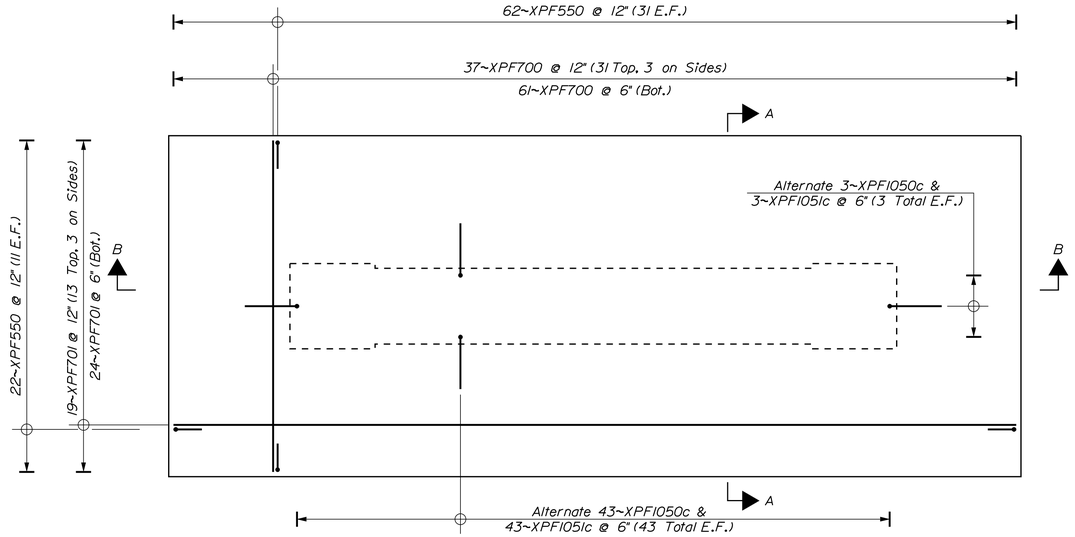
PIER NO. 4 ELEVATION

SHEET NUMBER
B-67
434
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\BRIDGE\MSTA\B31_WB_Pier_4.dgn

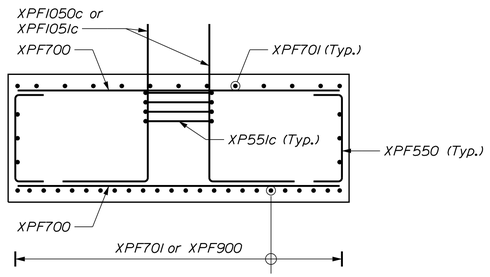



STEM A



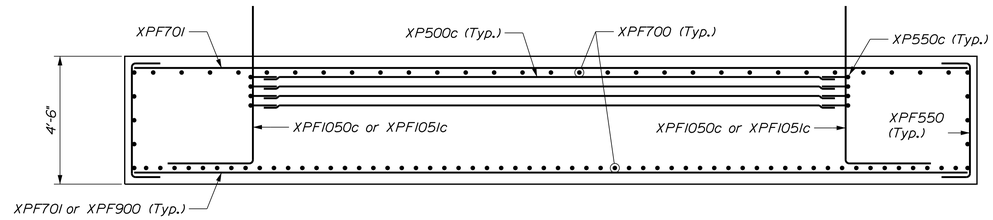

STEM B

## PIER FOOTING REINFORCING PLAN




SECTION A-A

(Place Reinforcement in Bottom Mat to Avoid Piles)
(Bars XP500c and XP550c Not Shown For Clarity)
(See Pier Stem Reinforcing for More Details)




SECTION B-B

(Place Reinforcement in Bottom Mat to Avoid Piles)
(XP551c Not Shown for Clarity)
(See Pier Reinforcing for More Details)
(Stem B Shown)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

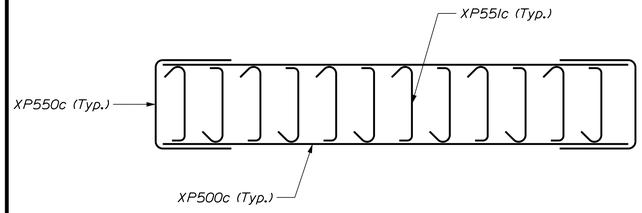
| | L. ROWE | DATE |
|---|---|---|
| PROJ. MANAGER | | |
| DESIGN-DETAILED | JAH | 11/25 |
| CHECKED-REVIEWED | APS | 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
PENOBSCOT
BANGOR

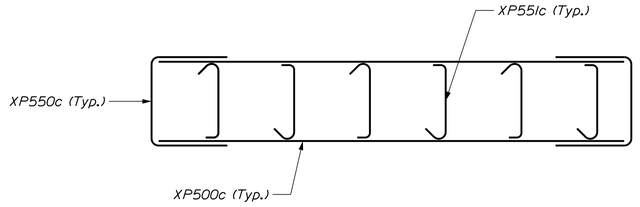
PIER REINFORCING (1 OF 3)

SHEET NUMBER
B-68
435
OF 485

Filename: ...\MSTA\B25_WB_Pier_Footing.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




SET A

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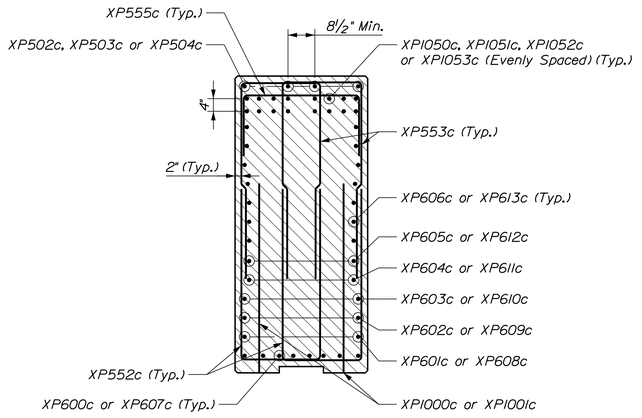
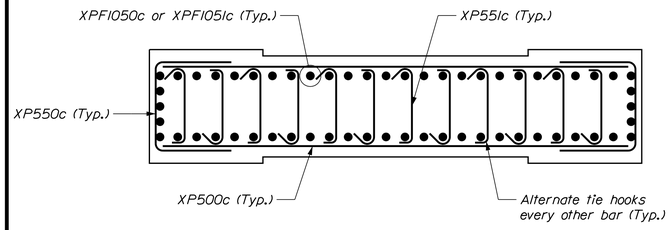
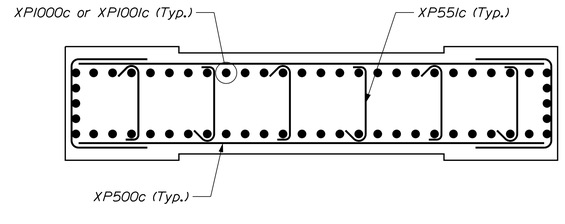



SECTION B-B
(Stem Not Shown)




SECTION C-C

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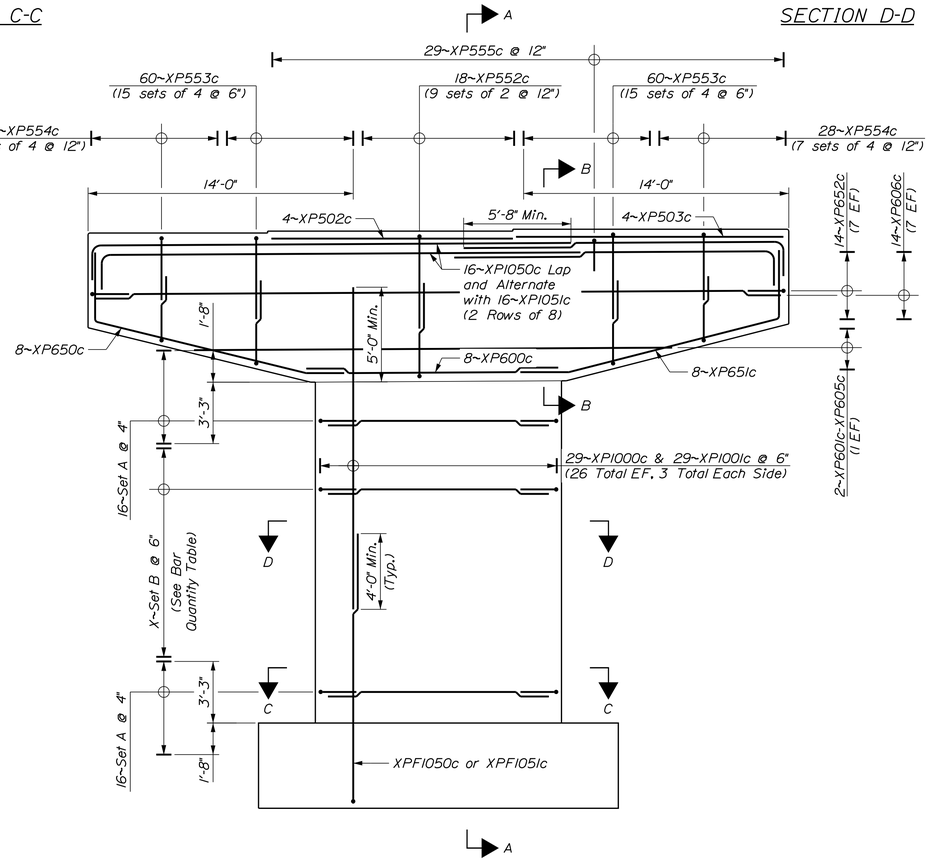
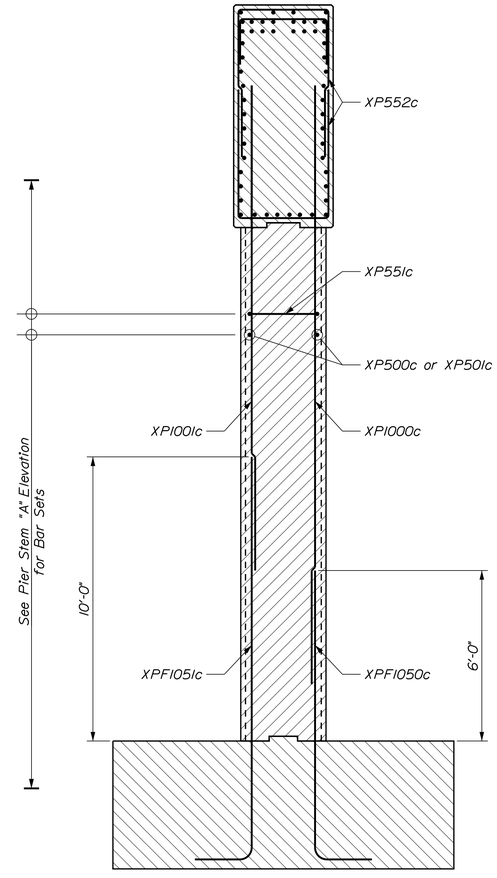



PIER STEM "A" ELEVATION




SECTION A-A

## BAR SETS

Bar Set "A":
2~XP500c
2~XP550c
12~XP551c

Bar Set "B":
2~XP500c
2~XP550c
6~XP551c

| BAR QUANTITY | |
|---|---|
| Location | Set B |
| Pier 1 | 26 |
| Pier 2 | 23 |
| Pier 3 | 25 |
| Pier 4 | 22 |

## PIER NOTES

1. Adjust cap reinforcement, as approved by the Resident, to accommodate anchor rods for bearings.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

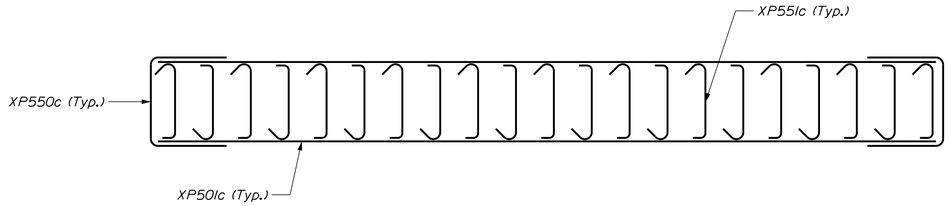
| PROJ. MANAGER | L. ROWE | DATE |
|---|---|---|
| DESIGN-DETAILED | JAH | 11/25 |
| CHECKED-REVIEWED | JAH | 11/25 |
| DESIGN2-DETAILED2 | APS | |
| DESIGN3-DETAILED3 | SMH | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

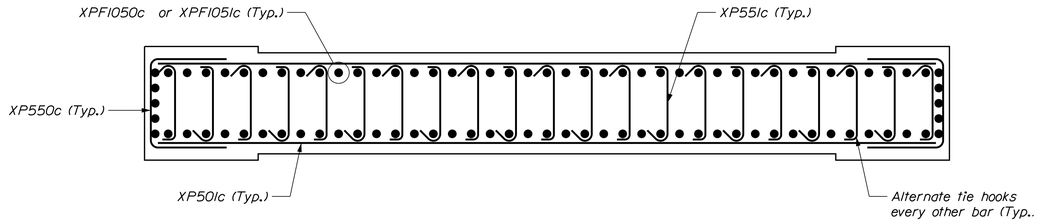
PIER REINFORCING (2 OF 3)

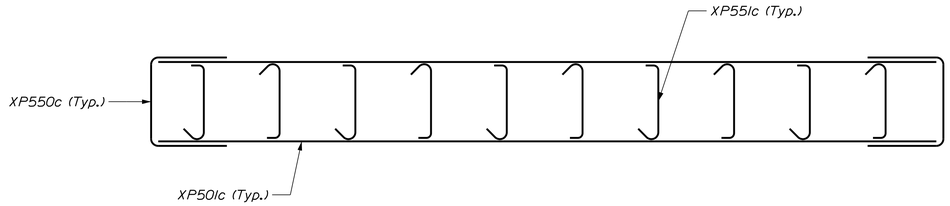
SHEET NUMBER
B-69
436
OF 485

Filename: ...\B31a_WB_Pier_Reinforcing.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

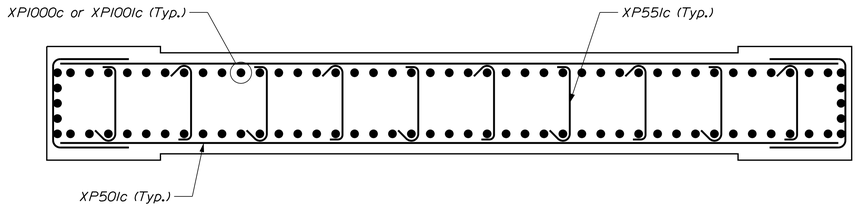



SET C



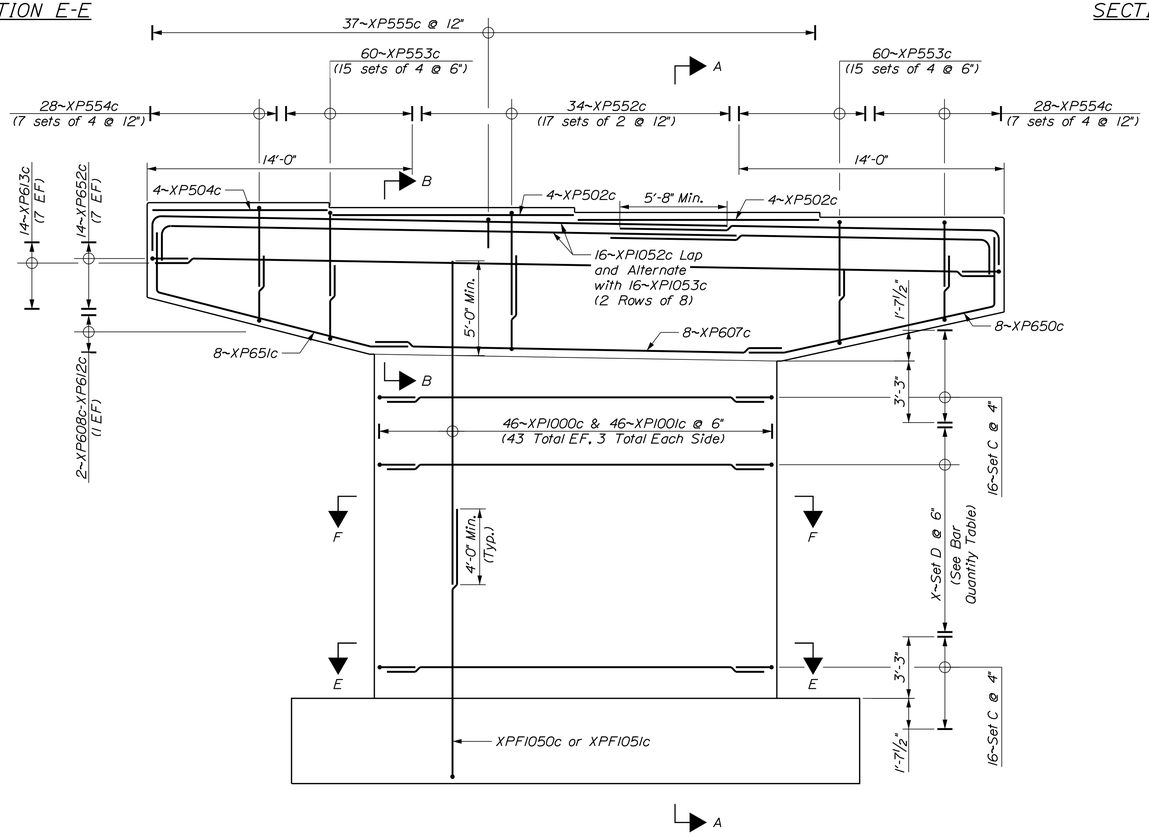




SET D




SECTION E-E

SECTION F-F




PIER STEM "B" ELEVATION

## BAR SETS

Bar Set "C":
2~XP510c
2~XP550c
21~XP551c

Bar Set "D":
2~XP501c
2~XP550c
10~XP551c

| BAR QUANTITY | |
|---|---|
| Location | Set D |
| Pier 1 | 26 |
| Pier 2 | 23 |
| Pier 3 | 25 |
| Pier 4 | 22 |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

| PROJ. MANAGER | L. ROWE |
|---|---|
| DESIGN-DETAILED | JAH |
| CHECKED-REVIEWED | APS |
| DESIGN2-DETAILED2 | |
| DESIGN3-DETAILED3 | |
| REVISIONS 1 | |
| REVISIONS 2 | |
| REVISIONS 3 | |
| REVISIONS 4 | |
| FIELD CHANGES | |

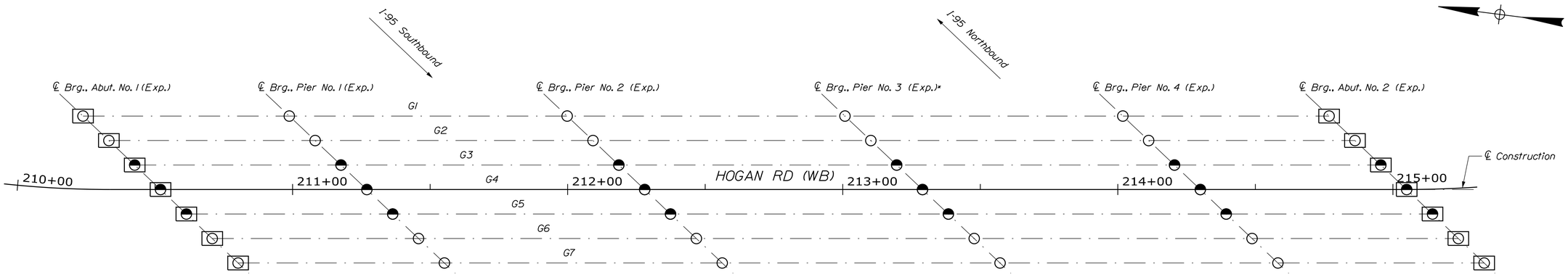
| BY | DATE |
|---|---|
| JAH | 11/25 |
| SMH | 11/25 |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

PIER REINFORCING (3 OF 3)

SHEET NUMBER
B-70
437
OF 485

Filename: ...\B31b_WB_Pier_Reinforcing2.dgn Username: jamesdavis Division: HIGHWAY Date:08/29/2025




## BEARING LAYOUT

*See Bearing Note 11

## LEGEND

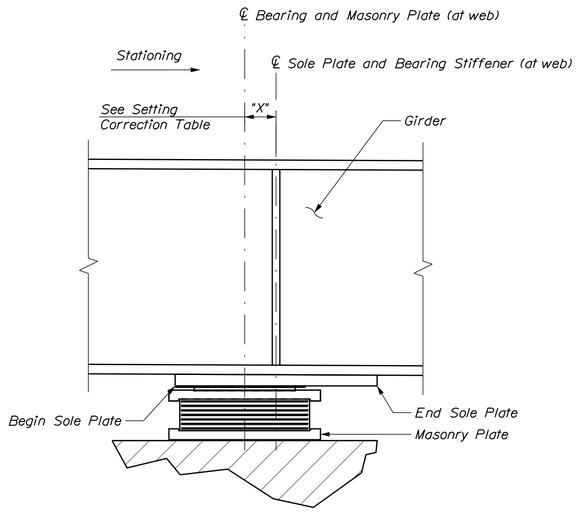
- ○ Non-Guided Bearing Expansion (Multidirectional)
- ◓ Guided Longitudinal Expansion (Unidirectional)
- ▭ Sliding Surface Provided

## SOLE PLATE THICKNESS (INCHES)

| Girder/ Location | Abut. No. 1 | | Pier No. 1 | | Pier No. 2 | | Pier No. 3 | | Pier No. 4 | | Abut. No. 2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Begin | End | Begin | End | Begin | End | Begin | End | Begin | End | Begin | End |
| G1 | 1 11/16 | 1 9/16 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 15/16 | 1 9/16 | 2 3/8 | 1 1/2 |
| G2 | 1 11/16 | 1 9/16 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 15/16 | 1 9/16 | 2 3/8 | 1 1/2 |
| G3 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 2 | 1 1/2 | 2 3/8 | 1 1/2 |
| G4 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 2 | 1 1/2 | 2 3/8 | 1 1/2 |
| G5 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 2 3/16 | 1 9/16 | 2 3/8 | 1 1/2 |
| G6 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 2 3/16 | 1 9/16 | 2 3/8 | 1 1/2 |
| G7 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 1 3/4 | 1 1/2 | 2 1/4 | 1 1/2 | 2 3/8 | 1 1/2 |

## SLIDING BEARING SETTING CORRECTION TABLE

| Location | Dimension "X" (Inches) | | | | | |
|---|---|---|---|---|---|---|
| | 15°F | 30°F | 45°F | 60°F | 75°F | 90°F |
| Abut. No. 1 | 1/2 | 1/4 | 0 | -1/4 | -1/2 | -3/4 |
| Abut. No. 2 | -1/2 | -1/4 | 0 | 1/4 | 1/2 | 3/4 |




## SLIDING BEARING ADJUSTMENT DETAIL

(Not to Scale)

## ELASTOMERIC BEARING NOTES

1. The shear modulus of the elastomer shall be 110 psi. Bearing design is based on Method A.

2. Vulcanization of the elastomer to the steel plates shall be done during the primary mold process. Sole plates for Deformable Bearings shall be vulcanized to the elastomer.

3. Masonry plates, sole plates and load plates shall meet the requirements of ASTM A709, Grade 50. Anchor rods shall meet the requirements of ASTM F1554, Grade 105 and shall be swedged on the embedded portion of the rod. Keeper angles shall conform to the requirements of ASTM A709, Grade 36.

4. Masonry plates shall be galvanized in accordance with Section 506. Sole plates for steel superstructures shall be treated in the same manner as the structural steel. Anchor rods, washers, and nuts shall be galvanized to ASTM A153 or ASTM B695, Class 50, Type 1.

5. All bearings shall be marked prior to shipping. The marks shall include the bearing location of the bridge and a direction arrow that points upstation. All marks shall be permanent and shall be visible after the bearing is installed.

6. Bearings shall be covered during shipping and at any time prior to installation that the bearings may be exposed to sunlight.

7. All necessary precautions shall be taken to protect bearing components from field weld flash and spatter. Heat from the welding operations shall be controlled such that steel adjacent to the elastomer does not exceed 200°F. The temperature shall be verified by the use of temperature indicating crayons or other suitable means.

8. Apply lithium grease along keeper angle vertical face and the edges of sole plates at all guided bearing locations within four inches of keeper angles.

9. The Contractor shall not weld the girders to the sole plates until after all adjustments have been made in accordance with the Standard Specification Section 523.094.

10. The "Bearing Design Load" for each bearing as noted by the Standard Specifications, Subsection 523.23.4. is 359 kips. This is the total load for the Service I load combination, without impact.

11. The Pier 3 bearings shall be temporarily restrained for longitudinal movement at girder lines G2 thru G6 until the concrete deck and superstructure backwalls are constructed. Temporary restraints shall be removed prior to placing backfill against the superstructure backwalls. Temporary restraint details and procedures shall be submitted to the Resident for approval prior to installation.

12. Any damaged galvanized or metalized surfaces shall be repaired as directed by the Resident.

13. In the Sliding Bearing Setting Correction Table, a negative value for Dimension "X" indicates a direction going downstation. A positive value for Dimension "X" indicates a direction going upstation.

14. Temperatures shown in the Sliding Bearing Setting Correction Table are those of the steel girders and not necessarily the ambient air temperature.

15. Sole plates shall be beveled as shown in the Sole Plate Thickness table. "Begin" and "End" follow the direction of stationing.

16. The abbreviate "PTFE" indicates polytetrafluoroethylene.

17. The superstructure may be erected when the ambient air temperature is within the range of 65°F and 90°F. If the ambient air temperature is outside this range, the bearings may need to be reset as directed by the Resident.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

| | L. ROWE |
|---|---|
| PROJ. MANAGER | |
| DESIGN-DETAILED | YP |
| CHECKED-REVIEWED | JAH |
| DESIGN2-DETAILED2 | |
| DESIGN3-DETAILED3 | |
| REVISIONS 1 | |
| REVISIONS 2 | |
| REVISIONS 3 | |
| REVISIONS 4 | |
| FIELD CHANGES | |

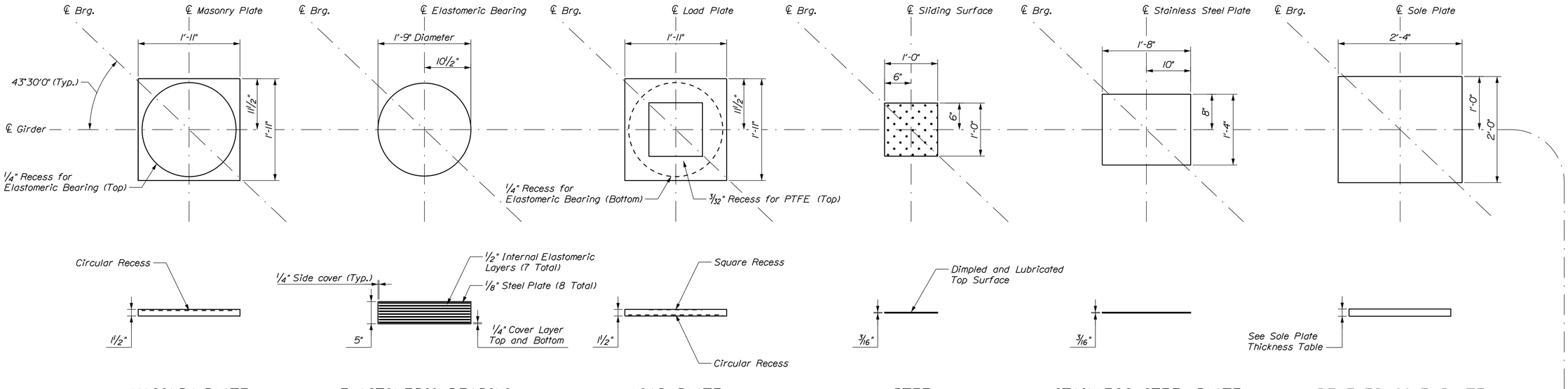
| BY | DATE |
|---|---|
| JAH | 11/25 |
| SMH | 11/25 |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

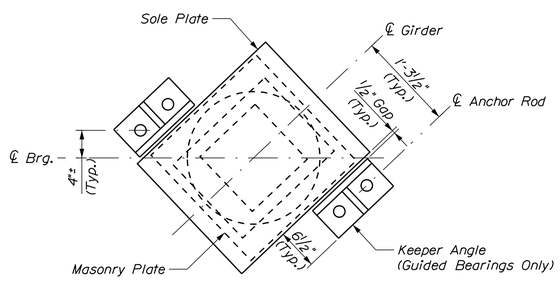
BEARING LAYOUT AND DETAILS

SHEET NUMBER
B-71
438
OF 485

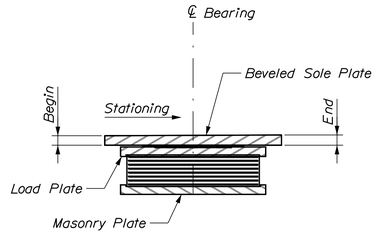
Filename: ...\MSTA\B32_WB_Bearing_Plan.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



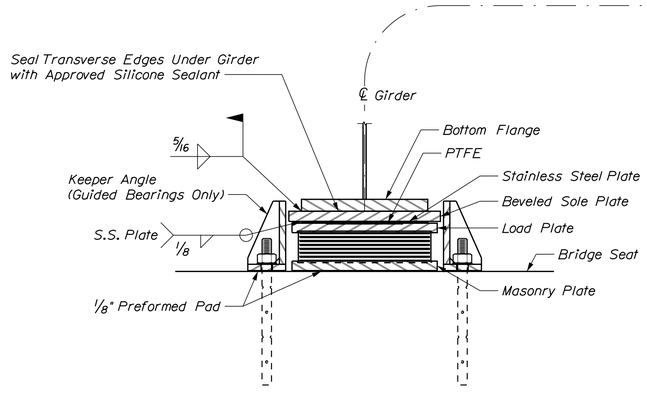

MASONRY PLATE | ELASTOMERIC BEARING | LOAD PLATE | PTFE | STAINLESS STEEL PLATE | BEVELED SOLE PLATE




**BEARING PLAN**
(Guided Expansion Bearing with Sliding Surface Shown, Non-guided Expansion Bearing with Sliding Surface Similar without Keeper Angles)




**BEARING SECTION**
(See Sole Plate Thickness Table)




**BEARING ELEVATION**
(Guided Expansion Bearing with Sliding Surface Shown, Non-guided Expansion Bearing with Sliding Surface Similar without Keeper Angles)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

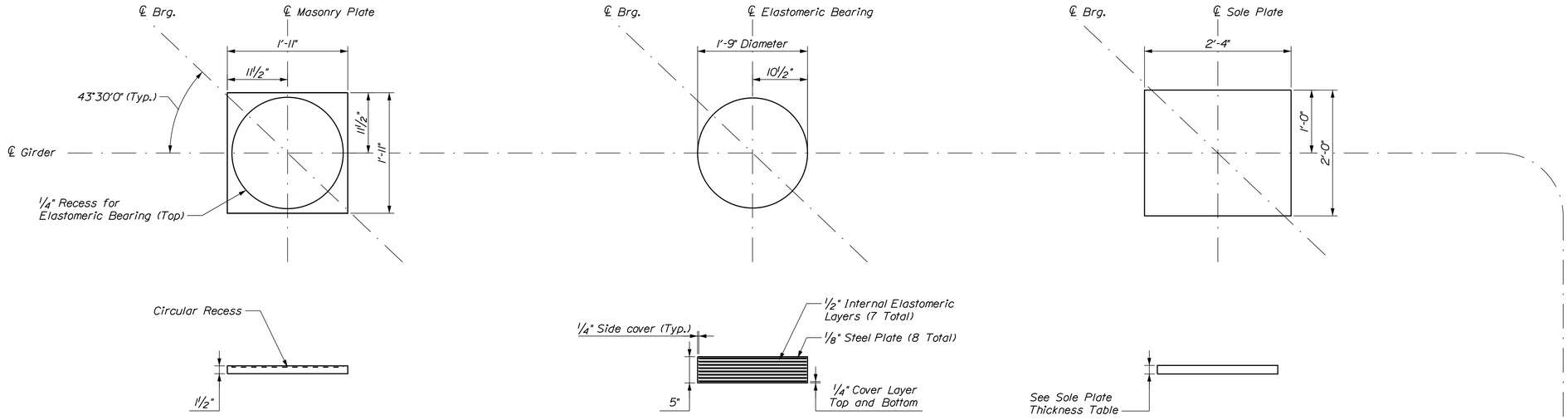
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | YP | JAH | 11/25 |
| CHECKED-REVIEWED | JAH | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

SLIDING BEARING DETAILS

SHEET NUMBER
B-72
439
OF 485

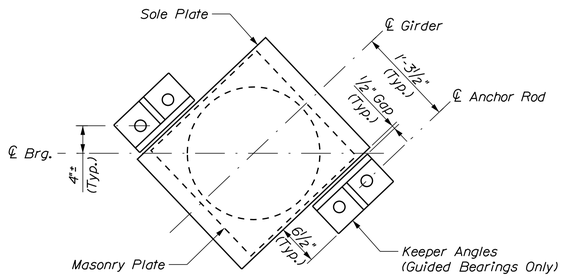
Filename: ...\B33_WB_Bearing_Details Abutment.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025




MASONRY PLATE

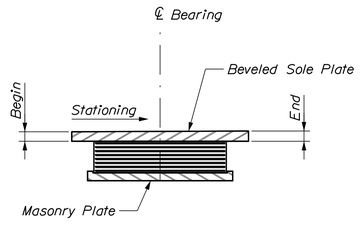
ELASTOMERIC BEARING

BEVELED SOLE PLATE



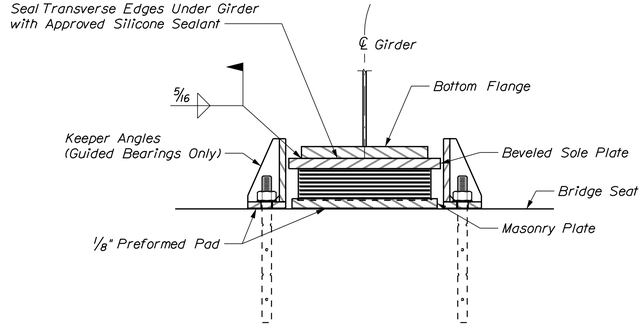

BEARING PLAN

(Guided Expansion Bearing Shown. Non-guided Expansion Bearing Similar without Keeper Angles)



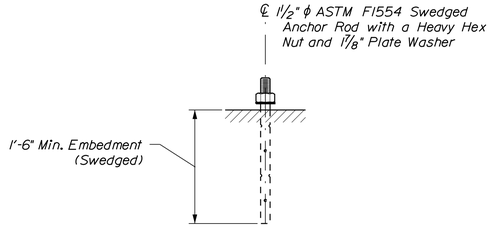

BEARING SECTION

(See Sole Plate Thickness Table)

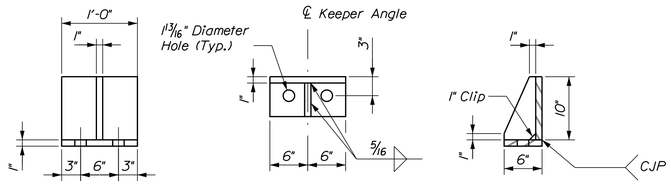



BEARING ELEVATION

(Guided Expansion Bearing Shown. Non-guided Expansion Bearing Similar without Keeper Angles)




ANCHOR ROD DETAIL




ELEVATION PLAN SECTION

KEEPER ANGLE DETAILS


STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

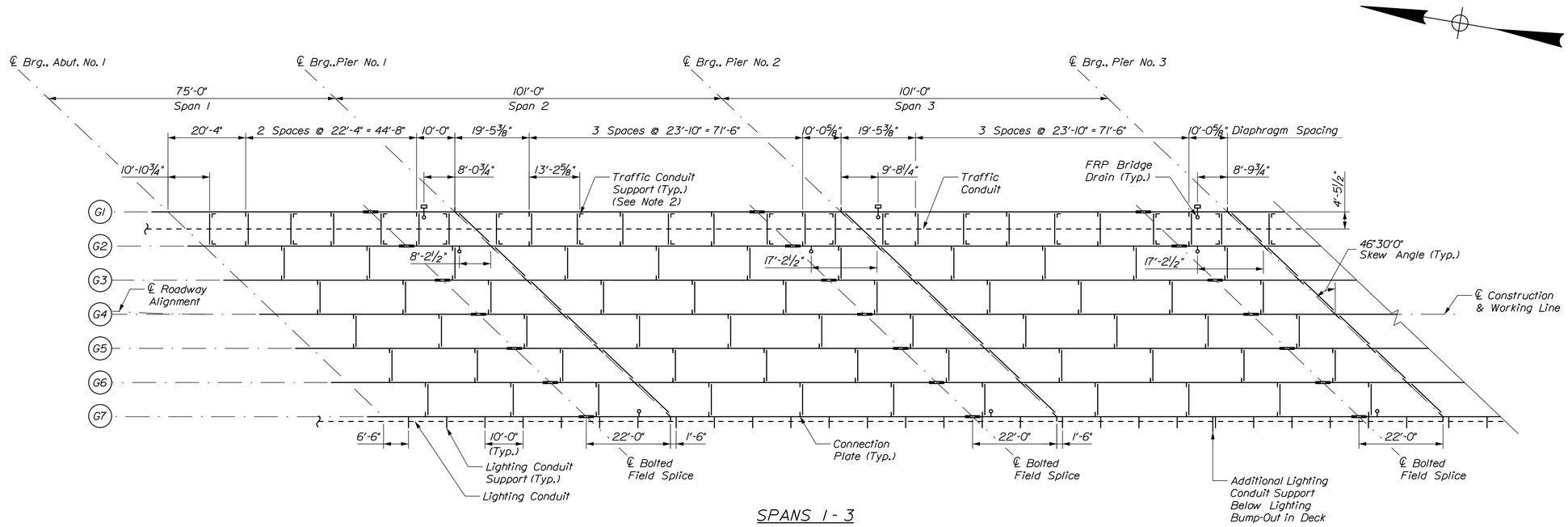
| PROJ. MANAGER | L. ROWE | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | YP | JAH | 11/25 |
| CHECKED-REVIEWED | JAH | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |


HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

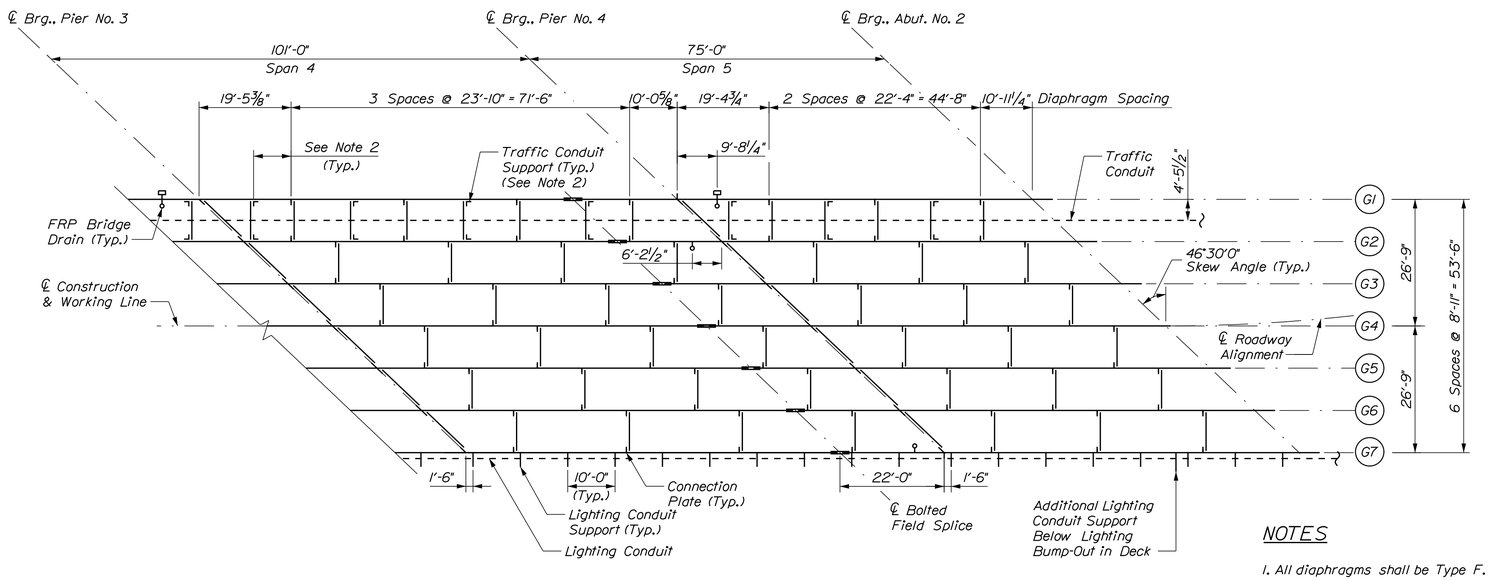
# DEFORMABLE BEARING DETAILS

SHEET NUMBER
B-73
440
OF 485


Filename: ...\B34_WB_Bearing_Details Pier.dgn Username: jamesdavis Date:08/29/2025
Division: HIGHWAY




SPANS 1 - 3




SPANS 4 - 5

## NOTES

1. All diaphragms shall be Type F. All diaphragms and utility supports shall be installed level.

2. Traffic conduit supports shall be centered between diaphragms and shall be set 1.5 feet off the centerline of bearing at all supports. Traffic and lighting conduit supports may be shifted up to 2 feet to avoid conflicts with bolted field splices, stiffeners, and/or bridge drains.

3. Bearing stiffeners and jacking stiffeners are not shown in the framing plan. See Bearing Stiffener and Jacking Stiffener Detail on Structural Steel Details sheet.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

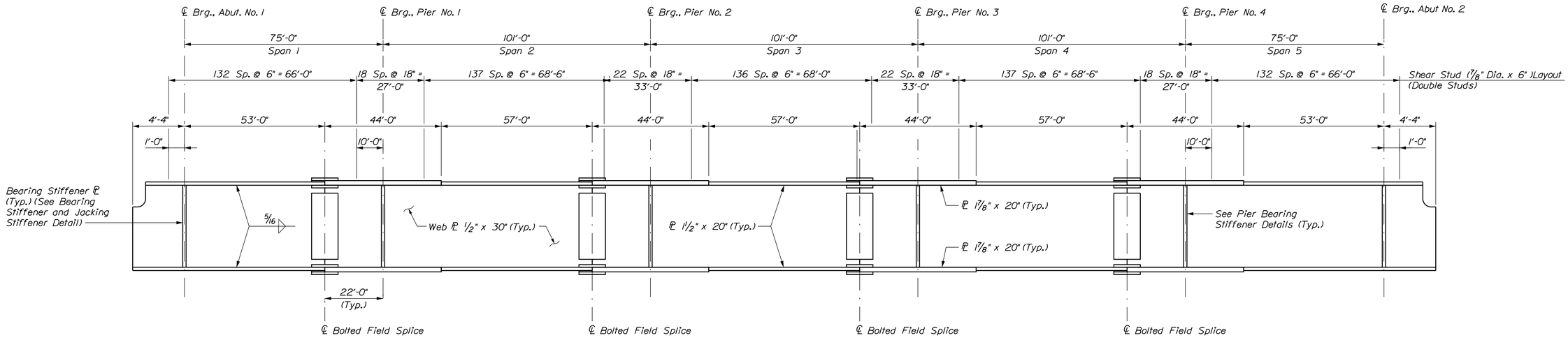
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | YP | KDW | 11/25 |
| CHECKED-REVIEWED | JAP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

FRAMING PLAN

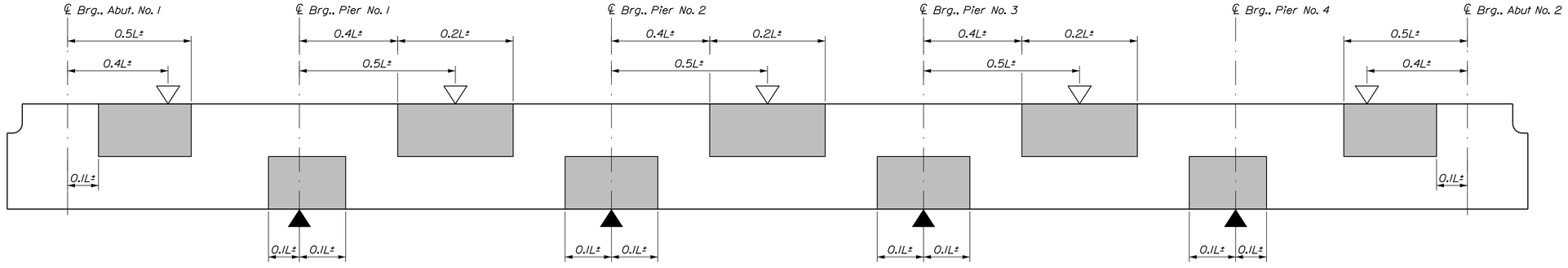
SHEET NUMBER
B-74
441
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\MSTA\B35_WB_Framing_Plan.dgn




## GIRDER ELEVATION AND STUD LAYOUT

(Connection Plates and Jacking Stiffeners Not Shown)
(1510 Studs per Girder)
Not to Scale




## GIRDER STRESS DIAGRAM

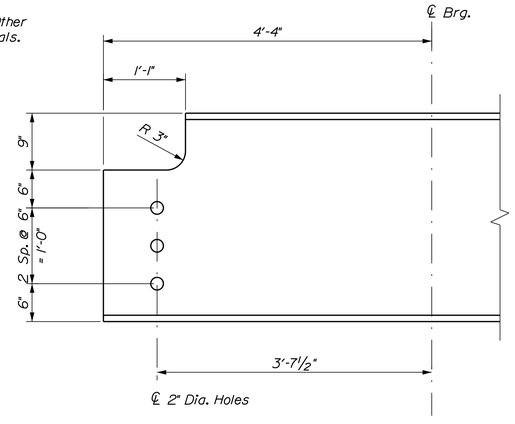
Not to Scale

## LEGEND

Indicates Areas Always in Compression. All Other Areas are in Tension or have Stress Reversals.

Point of Maximum Positive Moment

Point of Maximum Negative Moment




## GIRDER END DETAIL

(Horizontal Dimensions Along Girder)
Not to Scale

## STRUCTURAL STEEL NOTES

1. Camber ordinates, as shown, are computed to compensate for all dead load deflections and for curvature of the finished grade profile.

2. No transverse butt weld splices will be allowed in the flange plates or web plates within 10 feet or 10 percent of the span length (whichever is greater) from the points of maximum negative moment or maximum positive moment. Butt weld splices in flanges shall be not less than one foot from transverse butt welds in the web plates and no transverse web or flange butt welds shall be located within one foot of other transverse welds (e.g. connection plates to web welds) on either flange or web. No transverse butt weld splices will be allowed in areas of stress reversal.

3. Sections of flange plates or web plates between transverse shop splices or between a transverse shop splice and a field splice shall be at least 20 feet in length unless otherwise shown on the Plans.

4. Bearing stiffeners shall be plumb after erection and dead loading of the structure.

5. Intermediate diaphragm connection plates may be either plumb or normal to the top flange.

6. Ends of girder webs shall be vertical under full dead load.

7. All bolts, nuts, and washers shall be hot dip galvanized in accordance with ASTM A153.

8. Bolted field splice connections shall be made using 7/8" diameter ASTM F3125, Grade A325 Type I high strength bolts. Bolt hole size shall be 15/16" diameter. Field splice bolt threads shall be excluded from the shear plane.

9. The splice was designed with Class C slip coefficient.

10. Repairs to the Thermal Spray Coating that modify the surface roughness in the area of the faying surfaces shall not be performed without the approval of the Fabrication Engineer.

11. At the Contractor's option, the diaphragms may be hot-dipped galvanized in accordance with Standard Specification Section 506, Shop Applied Protective Coatings, as approved by the Resident. Payment will be considered incidental to Item 506.9104, Thermal Spray Coating (Shop Applied), no separate payment will be made.

12. Structural steel was designed with a vertical construction load of 50 lb/sf and a lateral wind velocity during construction of 115 MPH.

13. All plan dimensions provided are horizontal at 45° F without accounting for profile grade, unless otherwise noted.

14. Structural steel shall be detailed and fabricated for Steel Dead Load fit.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | YP | KDW | 11/25 |
| CHECKED-REVIEWED | JAP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

STRUCTURAL STEEL DETAILS
(1 OF 4)

SHEET NUMBER
B-75
442
OF 485

Filename: ...\B36_WB_Girder_Elevation.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

| Girder | Load | Span No. 1 | | | | | | | | | | Span No. 2 | | | | | | | | | | Span No. 3 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ℄ Abut. No. 1 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Pier No. 1 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Pier No. 2 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Pier No. 3 |
| ALL | Steel Dead Load | 0.00 | 0.08 | 0.14 | 0.18 | 0.19 | 0.18 | 0.14 | 0.10 | 0.04 | 0.01 | 0.00 | 0.06 | 0.17 | 0.28 | 0.35 | 0.38 | 0.34 | 0.26 | 0.15 | 0.05 | 0.00 | 0.03 | 0.12 | 0.22 | 0.29 | 0.31 | 0.29 | 0.22 | 0.12 | 0.03 | 0.00 |
| | Fluid Dead Load | 0.00 | 0.21 | 0.38 | 0.49 | 0.53 | 0.49 | 0.40 | 0.26 | 0.12 | 0.02 | 0.00 | 0.16 | 0.45 | 0.74 | 0.95 | 1.02 | 0.93 | 0.71 | 0.41 | 0.14 | 0.00 | 0.09 | 0.33 | 0.59 | 0.78 | 0.85 | 0.78 | 0.59 | 0.33 | 0.09 | 0.00 |
| | Superimposed Dead Load | 0.00 | 0.05 | 0.08 | 0.10 | 0.11 | 0.11 | 0.09 | 0.06 | 0.03 | 0.01 | 0.00 | 0.04 | 0.10 | 0.16 | 0.21 | 0.22 | 0.20 | 0.16 | 0.10 | 0.03 | 0.00 | 0.02 | 0.07 | 0.13 | 0.17 | 0.18 | 0.17 | 0.13 | 0.07 | 0.02 | 0.00 |
| | Total Load | 0.00 | 0.33 | 0.60 | 0.77 | 0.83 | 0.78 | 0.62 | 0.42 | 0.19 | 0.03 | 0.00 | 0.27 | 0.72 | 1.18 | 1.51 | 1.61 | 1.47 | 1.13 | 0.66 | 0.22 | 0.00 | 0.15 | 0.52 | 0.93 | 1.23 | 1.35 | 1.23 | 0.93 | 0.52 | 0.15 | 0.00 |

| Girder | Load | Span No. 4 | | | | | | | | | | Span No. 5 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ℄ Pier No. 3 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Pier No. 4 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Abut. No. 2 |
| ALL | Steel Dead Load | 0.00 | 0.05 | 0.15 | 0.26 | 0.34 | 0.38 | 0.35 | 0.28 | 0.17 | 0.06 | 0.00 | 0.01 | 0.04 | 0.10 | 0.14 | 0.18 | 0.19 | 0.18 | 0.14 | 0.08 | 0.00 |
| | Fluid Dead Load | 0.00 | 0.14 | 0.41 | 0.71 | 0.93 | 1.02 | 0.95 | 0.74 | 0.45 | 0.16 | 0.00 | 0.02 | 0.12 | 0.26 | 0.40 | 0.49 | 0.53 | 0.49 | 0.38 | 0.21 | 0.00 |
| | Superimposed Dead Load | 0.00 | 0.03 | 0.10 | 0.16 | 0.20 | 0.22 | 0.21 | 0.16 | 0.10 | 0.04 | 0.00 | 0.01 | 0.03 | 0.06 | 0.09 | 0.11 | 0.11 | 0.10 | 0.08 | 0.05 | 0.00 |
| | Total Load | 0.00 | 0.22 | 0.66 | 1.13 | 1.47 | 1.61 | 1.51 | 1.18 | 0.72 | 0.27 | 0.00 | 0.03 | 0.19 | 0.42 | 0.62 | 0.78 | 0.83 | 0.77 | 0.60 | 0.33 | 0.00 |

## TABLE OF DEFLECTIONS (IN.)

| Girder | ℄ Brg.. Abut. No. 1 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Pier No. 1 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Pier No. 2 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Pier No. 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 117.76 | 117.97 | 118.12 | 118.19 | 118.18 | 118.07 | 117.89 | 117.67 | 117.43 | 117.25 | 117.16 | 117.28 | 117.54 | 117.81 | 117.98 | 117.97 | 117.78 | 117.43 | 116.99 | 116.57 | 116.31 | 116.34 | 116.54 | 116.77 | 116.92 | 116.92 | 116.75 | 116.43 | 116.03 | 115.67 | 115.46 |
| 2 | 117.88 | 118.08 | 118.22 | 118.29 | 118.28 | 118.17 | 117.99 | 117.77 | 117.53 | 117.35 | 117.26 | 117.38 | 117.64 | 117.91 | 118.07 | 118.07 | 117.88 | 117.53 | 117.09 | 116.67 | 116.41 | 116.44 | 116.64 | 116.87 | 117.02 | 117.02 | 116.85 | 116.53 | 116.13 | 115.77 | 115.56 |
| 3 | 117.99 | 118.18 | 118.32 | 118.39 | 118.38 | 118.27 | 118.09 | 117.87 | 117.63 | 117.45 | 117.36 | 117.48 | 117.74 | 118.01 | 118.17 | 118.17 | 117.98 | 117.63 | 117.18 | 116.76 | 116.51 | 116.54 | 116.74 | 116.97 | 117.12 | 117.12 | 116.95 | 116.63 | 116.23 | 115.86 | 115.66 |
| 4 | 118.09 | 118.28 | 118.42 | 118.49 | 118.48 | 118.37 | 118.19 | 117.97 | 117.73 | 117.55 | 117.46 | 117.58 | 117.84 | 118.11 | 118.27 | 118.27 | 118.08 | 117.73 | 117.28 | 116.86 | 116.61 | 116.64 | 116.84 | 117.07 | 117.22 | 117.22 | 117.05 | 116.73 | 116.33 | 115.96 | 115.76 |
| 5 | 117.83 | 118.02 | 118.16 | 118.24 | 118.22 | 118.11 | 117.93 | 117.71 | 117.47 | 117.29 | 117.20 | 117.32 | 117.58 | 117.85 | 118.02 | 118.01 | 117.82 | 117.47 | 117.03 | 116.61 | 116.35 | 116.39 | 116.58 | 116.81 | 116.96 | 116.96 | 116.79 | 116.47 | 116.07 | 115.71 | 115.50 |
| 6 | 117.57 | 117.77 | 117.91 | 117.98 | 117.96 | 117.86 | 117.68 | 117.45 | 117.22 | 117.03 | 116.94 | 117.06 | 117.32 | 117.59 | 117.76 | 117.76 | 117.57 | 117.21 | 116.77 | 116.35 | 116.10 | 116.13 | 116.33 | 116.56 | 116.70 | 116.70 | 116.53 | 116.22 | 115.82 | 115.45 | 115.25 |
| 7 | 117.32 | 117.51 | 117.65 | 117.72 | 117.70 | 117.60 | 117.42 | 117.20 | 116.96 | 116.78 | 116.69 | 116.81 | 117.07 | 117.33 | 117.50 | 117.50 | 117.31 | 116.96 | 116.51 | 116.09 | 115.84 | 115.87 | 116.07 | 116.30 | 116.45 | 116.45 | 116.28 | 115.96 | 115.56 | 115.19 | 114.99 |

| Girder | ℄ Brg.. Pier No. 3 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Pier No. 4 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Abut. No. 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 115.46 | 115.55 | 115.80 | 116.07 | 116.25 | 116.28 | 116.11 | 115.77 | 115.33 | 114.89 | 114.57 | 114.49 | 114.49 | 114.54 | 114.56 | 114.52 | 114.39 | 114.16 | 113.83 | 113.41 | 112.94 |
| 2 | 115.56 | 115.65 | 115.90 | 116.17 | 116.35 | 116.38 | 116.21 | 115.87 | 115.42 | 114.96 | 114.61 | 114.52 | 114.51 | 114.54 | 114.54 | 114.48 | 114.33 | 114.09 | 113.74 | 113.31 | 112.82 |
| 3 | 115.66 | 115.75 | 116.00 | 116.27 | 116.45 | 116.48 | 116.31 | 115.96 | 115.49 | 115.01 | 114.64 | 114.53 | 114.50 | 114.51 | 114.49 | 114.42 | 114.26 | 114.00 | 113.64 | 113.19 | 112.69 |
| 4 | 115.76 | 115.85 | 116.10 | 116.37 | 116.55 | 116.57 | 116.40 | 116.03 | 115.54 | 115.03 | 114.65 | 114.52 | 114.47 | 114.47 | 114.43 | 114.34 | 114.17 | 113.89 | 113.51 | 113.06 | 112.56 |
| 5 | 115.50 | 115.59 | 115.84 | 116.11 | 116.30 | 116.31 | 116.12 | 115.73 | 115.21 | 114.68 | 114.27 | 114.13 | 114.07 | 114.04 | 113.99 | 113.89 | 113.69 | 113.41 | 113.02 | 112.57 | 112.07 |
| 6 | 115.25 | 115.33 | 115.58 | 115.86 | 116.03 | 116.03 | 115.81 | 115.40 | 114.86 | 114.31 | 113.88 | 113.72 | 113.64 | 113.60 | 113.54 | 113.41 | 113.21 | 112.92 | 112.54 | 112.08 | 111.58 |
| 7 | 114.99 | 115.07 | 115.32 | 115.59 | 115.75 | 115.73 | 115.49 | 115.05 | 114.50 | 113.92 | 113.47 | 113.29 | 113.19 | 113.14 | 113.06 | 112.93 | 112.72 | 112.43 | 112.05 | 111.60 | 111.09 |

## BOTTOM OF SLAB @ 10th POINTS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

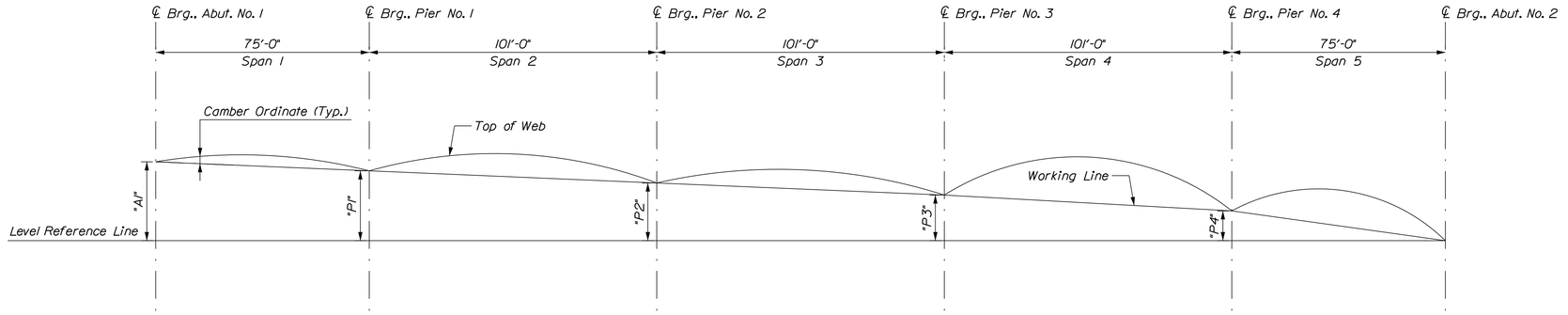
| | | DATE |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | YP | KDW 11/25 |
| CHECKED-REVIEWED | JAP | SMH 11/25 |
| DESIGN2-DETAILED2 | JAP | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
PENOBSCOT
BANGOR

STRUCTURAL STEEL DETAILS
(2 OF 4)

SHEET NUMBER
B-76
443
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B37_WB_StructurDl_DEFL.dgn




CAMBER DIAGRAM

Not to Scale

| TABLE OF CAMBER DIMENSIONS (ft) | | | | | |
|---|---|---|---|---|---|
| Girder | A1 | P1 | P2 | P3 | P4 |
| 1 | 4.82 | 4.22 | 3.38 | 2.53 | 1.63 |
| 2 | 5.06 | 4.44 | 3.59 | 2.75 | 1.80 |
| 3 | 5.30 | 4.67 | 3.82 | 2.97 | 1.95 |
| 4 | 5.53 | 4.90 | 4.05 | 3.20 | 2.09 |
| 5 | 5.76 | 5.13 | 4.28 | 3.44 | 2.20 |
| 6 | 5.99 | 5.36 | 4.51 | 3.67 | 2.30 |
| 7 | 6.22 | 5.59 | 4.75 | 3.90 | 2.37 |

| Girder | ℄ Brg.. Abut. No. 1 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Pier No. 1 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Pier No. 2 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Pier No. 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.00 | 0.52 | 0.88 | 1.07 | 1.08 | 0.99 | 0.79 | 0.54 | 0.27 | 0.07 | 0.00 | 0.27 | 0.72 | 1.18 | 1.50 | 1.61 | 1.47 | 1.12 | 0.66 | 0.22 | 0.00 | 0.15 | 0.52 | 0.93 | 1.23 | 1.35 | 1.23 | 0.93 | 0.52 | 0.15 | 0.00 |
| 2 | 0.00 | 0.43 | 0.72 | 0.87 | 0.92 | 0.85 | 0.68 | 0.46 | 0.22 | 0.05 | 0.00 | 0.27 | 0.72 | 1.18 | 1.50 | 1.61 | 1.47 | 1.13 | 0.66 | 0.22 | 0.00 | 0.15 | 0.52 | 0.93 | 1.23 | 1.35 | 1.23 | 0.93 | 0.52 | 0.15 | 0.00 |
| 3 | 0.00 | 0.34 | 0.61 | 0.78 | 0.84 | 0.78 | 0.63 | 0.42 | 0.19 | 0.03 | 0.00 | 0.27 | 0.72 | 1.18 | 1.50 | 1.61 | 1.47 | 1.13 | 0.66 | 0.22 | 0.00 | 0.15 | 0.52 | 0.93 | 1.23 | 1.35 | 1.23 | 0.93 | 0.52 | 0.15 | 0.00 |
| 4 | 0.00 | 0.33 | 0.60 | 0.77 | 0.83 | 0.78 | 0.62 | 0.42 | 0.19 | 0.03 | 0.00 | 0.27 | 0.72 | 1.18 | 1.50 | 1.61 | 1.47 | 1.13 | 0.66 | 0.22 | 0.00 | 0.15 | 0.52 | 0.93 | 1.23 | 1.35 | 1.23 | 0.93 | 0.52 | 0.15 | 0.00 |
| 5 | 0.00 | 0.33 | 0.60 | 0.77 | 0.83 | 0.78 | 0.62 | 0.42 | 0.19 | 0.03 | 0.00 | 0.27 | 0.72 | 1.18 | 1.50 | 1.61 | 1.47 | 1.12 | 0.66 | 0.22 | 0.00 | 0.15 | 0.52 | 0.93 | 1.23 | 1.35 | 1.23 | 0.93 | 0.52 | 0.15 | 0.00 |
| 6 | 0.00 | 0.33 | 0.60 | 0.77 | 0.83 | 0.78 | 0.62 | 0.42 | 0.19 | 0.03 | 0.00 | 0.27 | 0.72 | 1.18 | 1.50 | 1.61 | 1.47 | 1.13 | 0.66 | 0.22 | 0.00 | 0.15 | 0.52 | 0.93 | 1.23 | 1.35 | 1.23 | 0.93 | 0.52 | 0.15 | 0.00 |
| 7 | 0.00 | 0.33 | 0.60 | 0.77 | 0.83 | 0.78 | 0.62 | 0.42 | 0.19 | 0.03 | 0.00 | 0.27 | 0.72 | 1.18 | 1.50 | 1.61 | 1.47 | 1.13 | 0.66 | 0.22 | 0.00 | 0.15 | 0.52 | 0.93 | 1.23 | 1.35 | 1.23 | 0.93 | 0.52 | 0.15 | 0.00 |

| Girder | ℄ Brg.. Pier No. 3 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Pier No. 4 | 0.1L | 0.2L | 0.3L | 0.4L | 0.5L | 0.6L | 0.7L | 0.8L | 0.9L | ℄ Brg.. Abut. No. 2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.00 | 0.28 | 0.77 | 1.29 | 1.70 | 1.89 | 1.84 | 1.57 | 1.16 | 0.62 | 0.00 | 0.74 | 1.45 | 2.08 | 2.52 | 2.75 | 2.73 | 2.43 | 1.86 | 1.04 | 0.00 |
| 2 | 0.00 | 0.34 | 0.90 | 1.48 | 1.95 | 2.21 | 2.22 | 2.02 | 1.55 | 0.82 | 0.00 | 0.74 | 1.45 | 2.08 | 2.52 | 2.75 | 2.73 | 2.43 | 1.86 | 1.04 | 0.00 |
| 3 | 0.00 | 0.43 | 1.07 | 1.75 | 2.31 | 2.66 | 2.76 | 2.53 | 1.90 | 1.00 | 0.00 | 0.73 | 1.43 | 2.03 | 2.47 | 2.68 | 2.64 | 2.33 | 1.75 | 0.96 | 0.00 |
| 4 | 0.00 | 0.54 | 1.30 | 2.09 | 2.76 | 3.22 | 3.34 | 2.98 | 2.21 | 1.15 | 0.00 | 0.70 | 1.36 | 1.93 | 2.33 | 2.51 | 2.44 | 2.09 | 1.53 | 0.80 | 0.00 |
| 5 | 0.00 | 0.68 | 1.58 | 2.51 | 3.32 | 3.83 | 3.85 | 3.37 | 2.46 | 1.28 | 0.00 | 0.64 | 1.24 | 1.75 | 2.09 | 2.22 | 2.08 | 1.75 | 1.25 | 0.66 | 0.00 |
| 6 | 0.00 | 0.84 | 1.91 | 3.00 | 3.90 | 4.35 | 4.27 | 3.68 | 2.67 | 1.39 | 0.00 | 0.55 | 1.07 | 1.50 | 1.76 | 1.80 | 1.68 | 1.41 | 1.02 | 0.54 | 0.00 |
| 7 | 0.00 | 1.03 | 2.28 | 3.50 | 4.37 | 4.74 | 4.58 | 3.92 | 2.83 | 1.46 | 0.00 | 0.44 | 0.85 | 1.18 | 1.36 | 1.39 | 1.32 | 1.14 | 0.84 | 0.45 | 0.00 |

TABLES OF CAMBER ORDINATES @ 10th POINTS (IN.)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

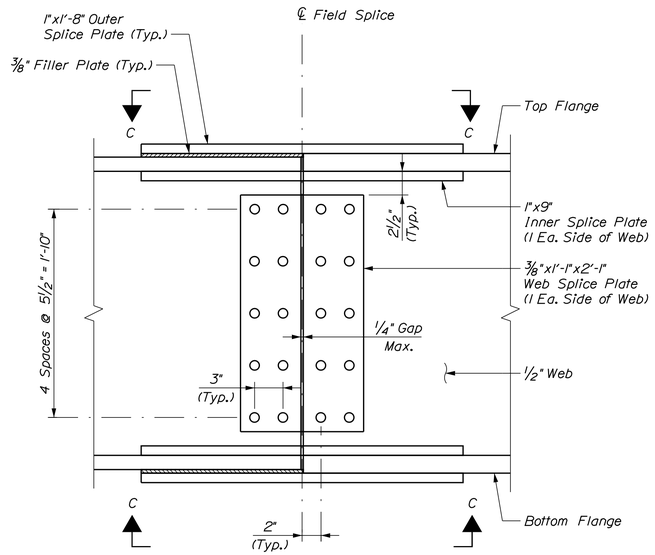
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | YP | KDW | 11/25 |
| CHECKED-REVIEWED | JAH | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
PENOBSCOT
BANGOR

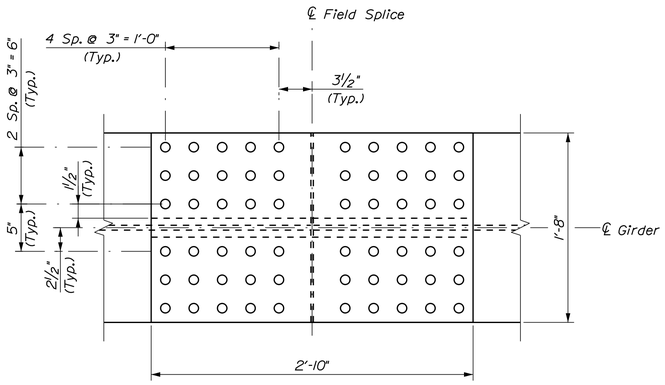
STRUCTURAL STEEL DETAILS
(3 OF 4)

SHEET NUMBER
B-77
444
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B37_WB_Structural_Camber.dgn



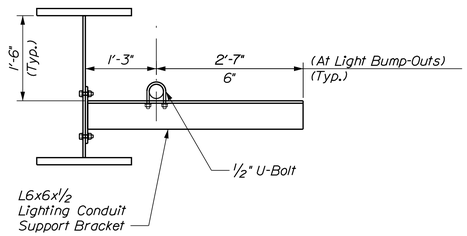

ELEVATION

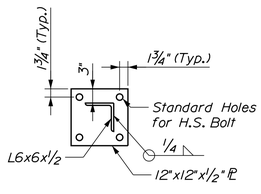



VIEW C-C

## BOLTED FIELD SPLICE

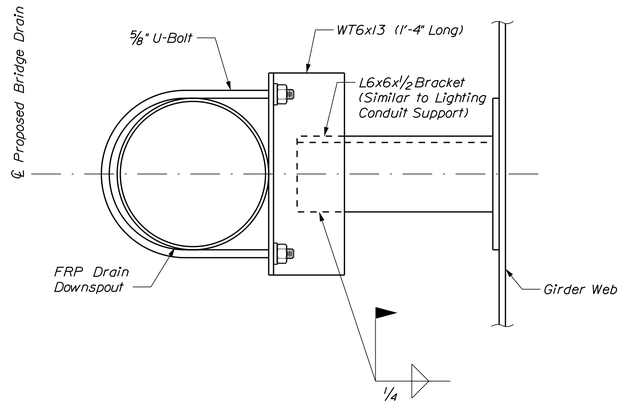
(Field Splice 1 Shown, Field Splice 2, 3, and 4 Similar)
(Stud Shear Connectors Not Shown for Clarity)



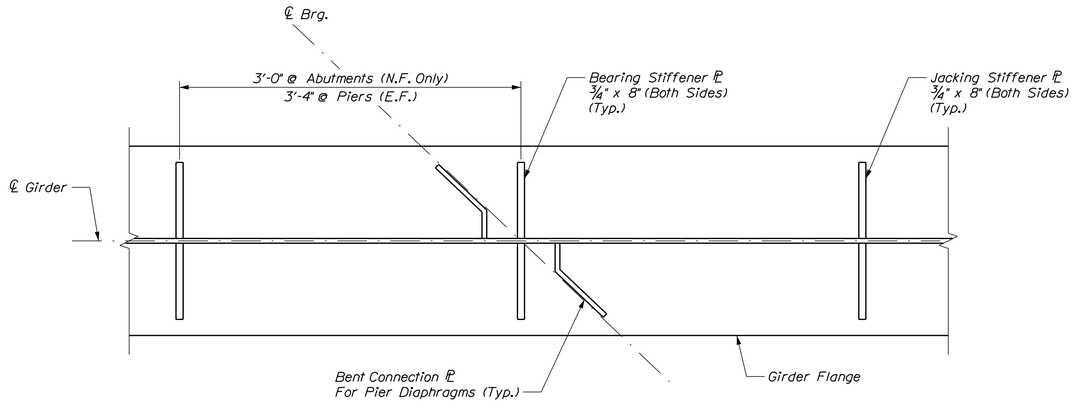

## LIGHTING CONDUIT SUPPORT DETAIL

(All Components HDG)



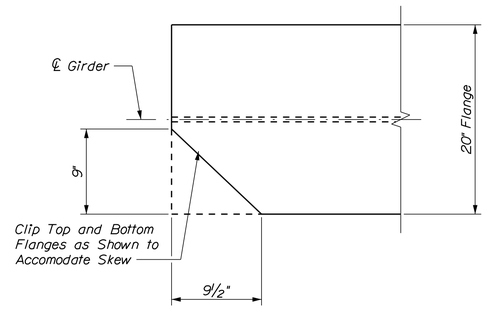

## TYPE "F" BRIDGE DRAIN ATTACHMENT DETAIL

(Not to Scale)



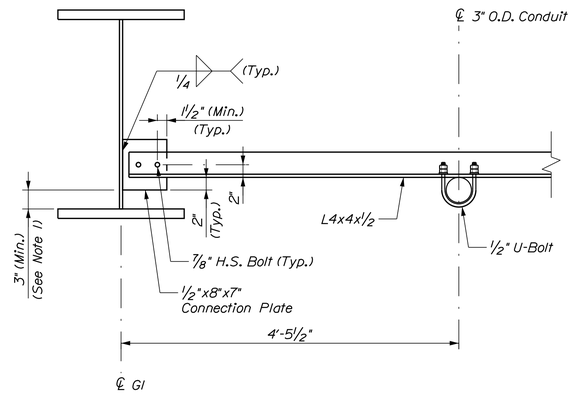

## BEARING STIFFENER AND JACKING STIFFENER DETAIL

(Interior Girder at Pier Shown, Others Similar)
(Not to Scale)




## GIRDER END - CLIPPED FLANGE DETAIL

(Abutment No. 1 Shown, Abutment No. 2 Similar but Opposite Hand)




## TRAFFIC CONDUIT SUPPORT

(All Components HDG)

## TRAFFIC CONDUIT SUPPORT NOTE

1. Contractor and Fabricator shall coordinate location of Traffic Conduit Support based on location of penetration through backwalls. Conduit shall be located without abrupt changes in height and without low spots or dips. Bottom of U-Bolt shall be at least 1 inch above the bottom of bottom flange.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787

WIN 18595.11

BRIDGE PLANS

vhb

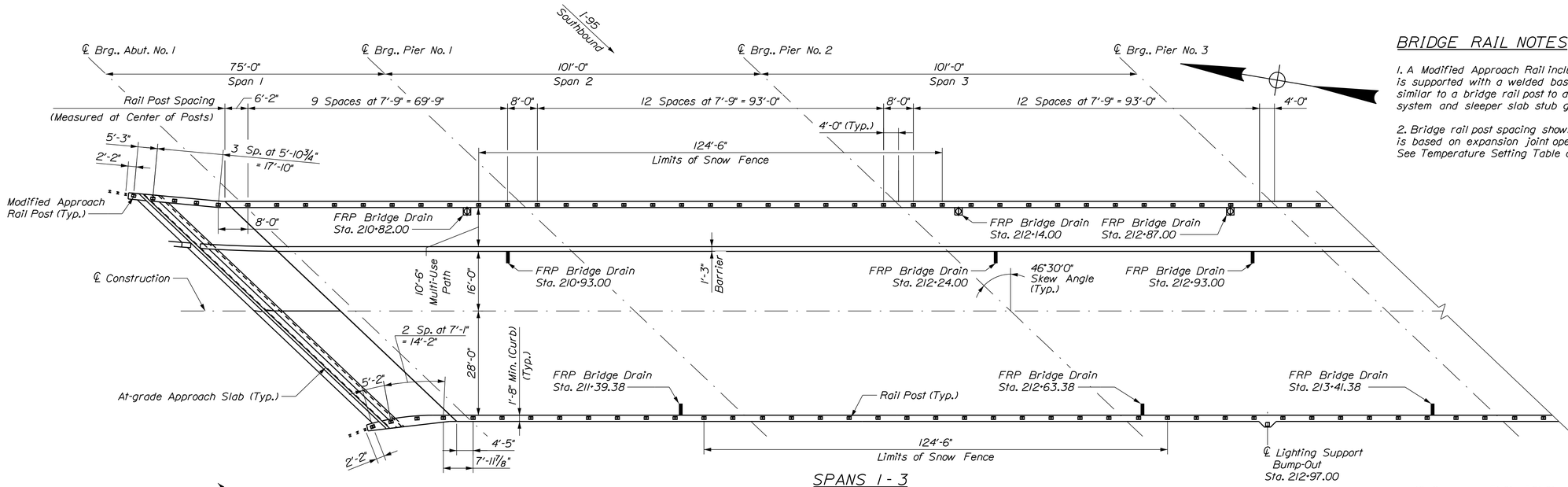
| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | KDW | 11/25 |
| CHECKED-REVIEWED | JAP | 11/25 |
| DESIGN2-DETAILED2 | YP | |
| DESIGN3-DETAILED3 | SMH | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

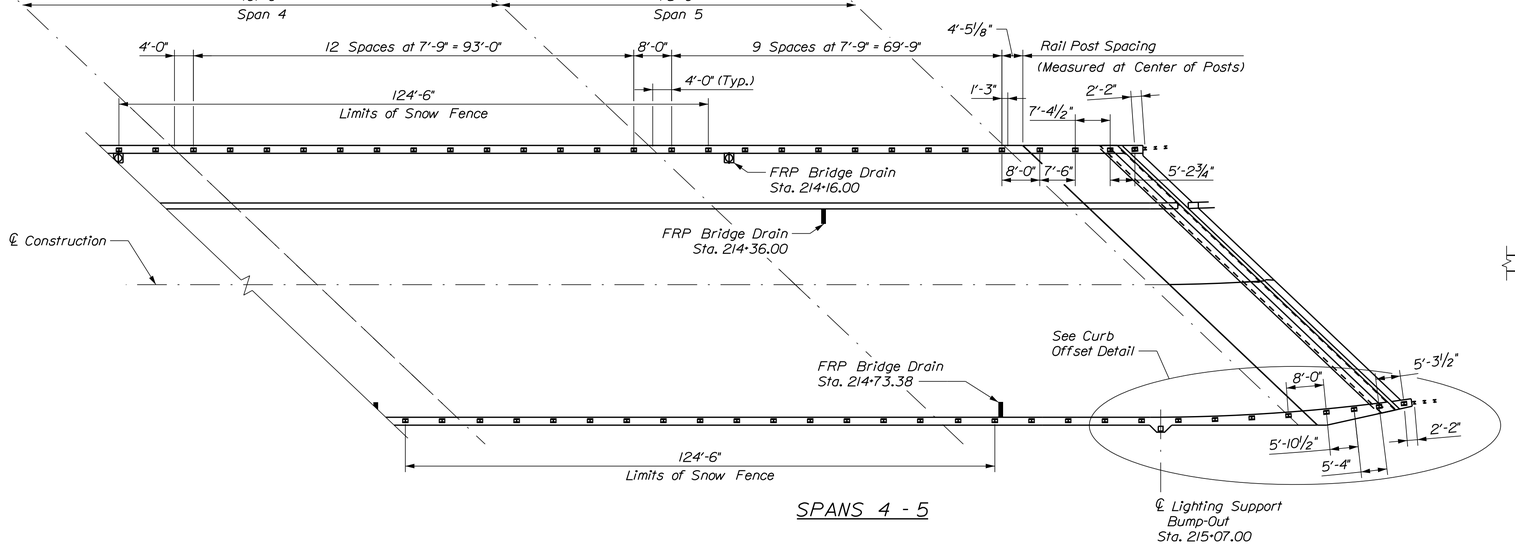
# STRUCTURAL STEEL DETAILS (4 OF 4)

SHEET NUMBER
B-78
445
OF 485

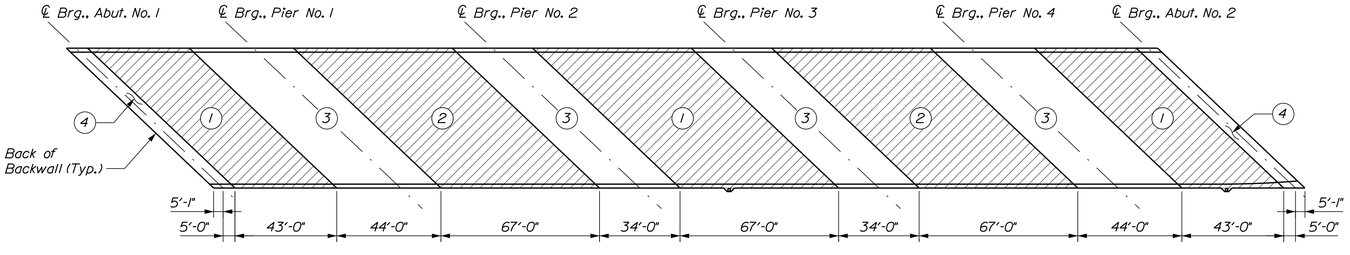
Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B37_WB_Structural_Steel_Details_3.dgn



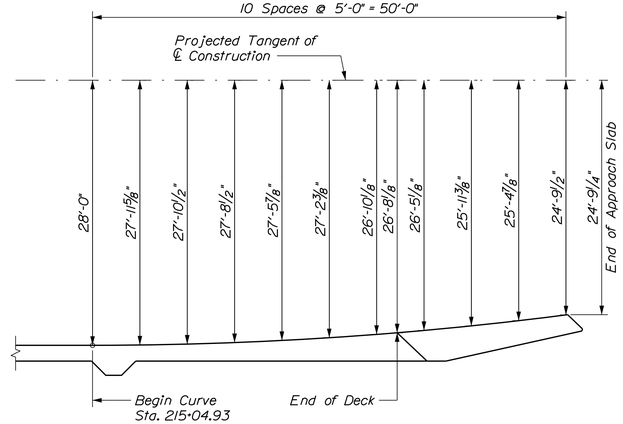

SPANS 1 - 3




SPANS 4 - 5




DECK POUR SEQUENCE




## CURB OFFSET DETAIL

(Rail Posts and Sleeper Slab Not Shown)

## BRIDGE RAIL NOTES

1. A Modified Approach Rail includes a shortened first post that is supported with a welded base plate and anchorage system similar to a bridge rail post to accommodate the expansion joint system and sleeper slab stub geometry.

2. Bridge rail post spacing shown at approach and sleeper slabs is based on expansion joint opening of "J" at 45°F. See Temperature Setting Table on Expansion Joint Details sheet.

## SUPERSTRUCTURE NOTES

1. The theoretical blocking used for design of the structure is 4 inches at the centerline of bearing of the abutments and piers. 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. Unless the superstructure slab concrete is placed in one continuous operation, the placements shall follow the Deck Pour Sequence identified on the Plans. Concrete shall be kept plastic during each placement. A minimum of 5 days shall elapse between successive partial placements. Bottom of Slab Tables provided assume the pour sequence shown. If the concrete is placed in one continuous operation, the concrete shall be kept plastic one complete span behind the span being placed.

5. Precast Concrete Deck Panels are not allowed on this project.

6. Adjust reinforcing steel to fit around the bridge drains in a manner approved by the Resident. Do not cut transverse reinforcing bars.

7. The Contractor shall verify that the lighting support bumpout in the deck and curb is sufficient to accommodate the actual light standard to be used prior to forming the deck. Any necessary adjustments to dimensions and reinforcing shall be approved by the Resident.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

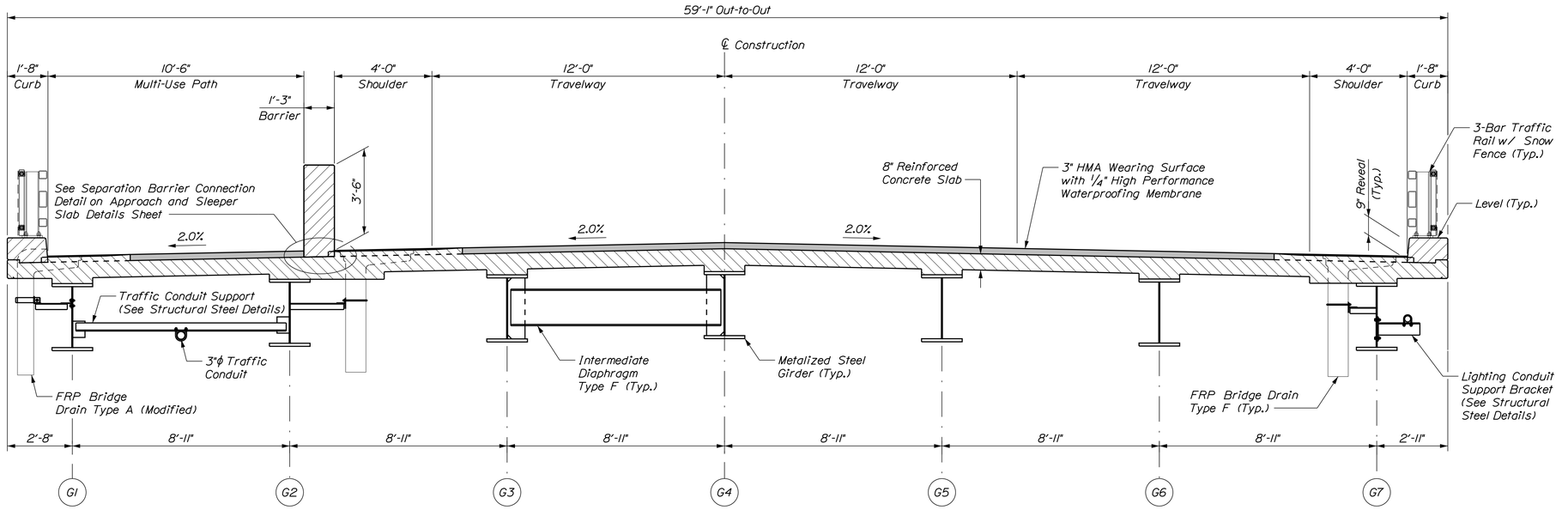
| PROJ. MANAGER | L. ROWE | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

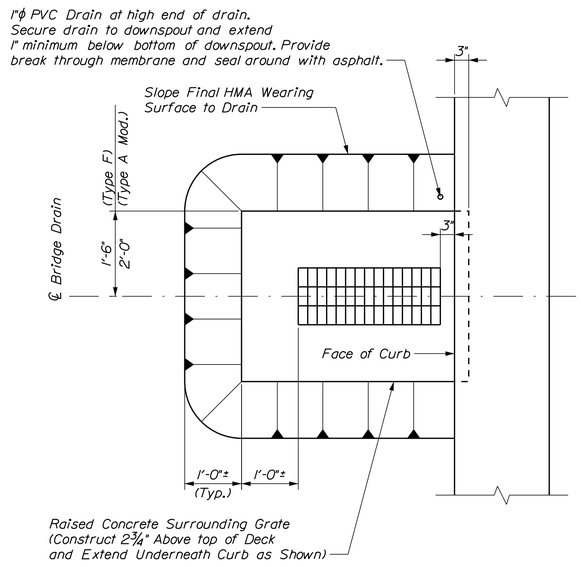
SUPERSTRUCTURE PLAN

SHEET NUMBER
B-79
446
OF 485

Filename: ...\B38_WB_Superstructure Plan.dgn Username: jamesdavis Division: HIGHWAY Date:08/29/2025



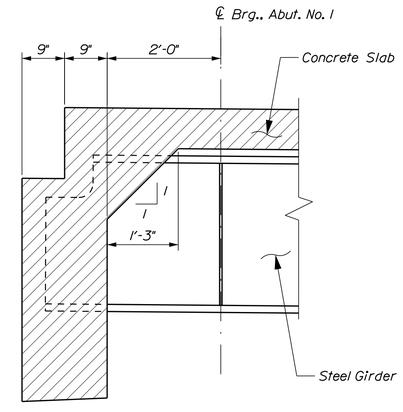

PROPOSED BRIDGE SECTION




CONCRETE SURROUND DETAIL AT BRIDGE DRAINS

(Not to Scale)

(Type F Drain Shown. Concrete Surround and Pavement Depression Similar at Type A (Modified))




DECK END AND SUPERSTRUCTURE BACKWALL DETAIL

(Horizontal Dimensions Normal to Abutment)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

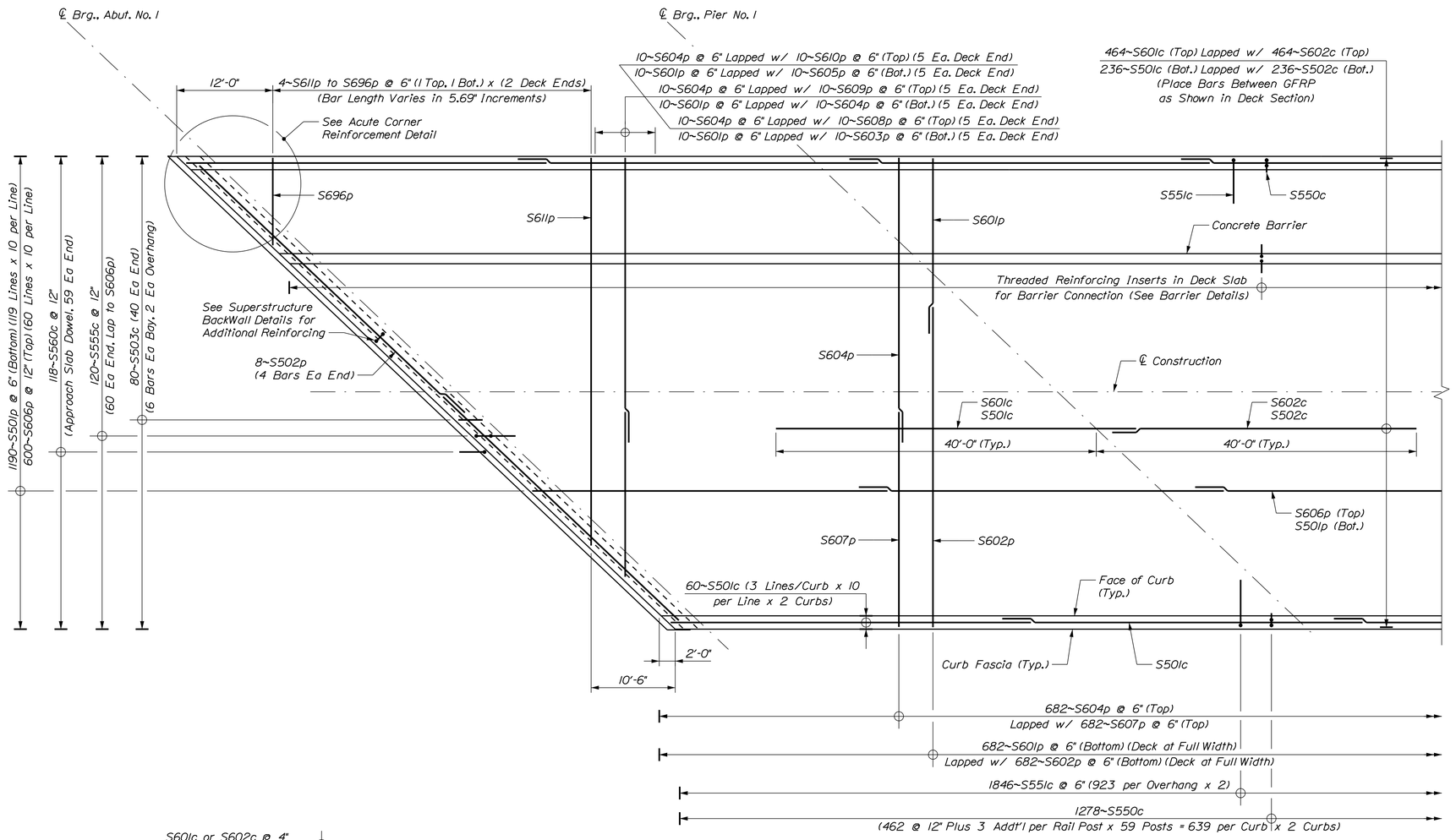
| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

SUPERSTRUCTURE DETAILS (1 OF 4)

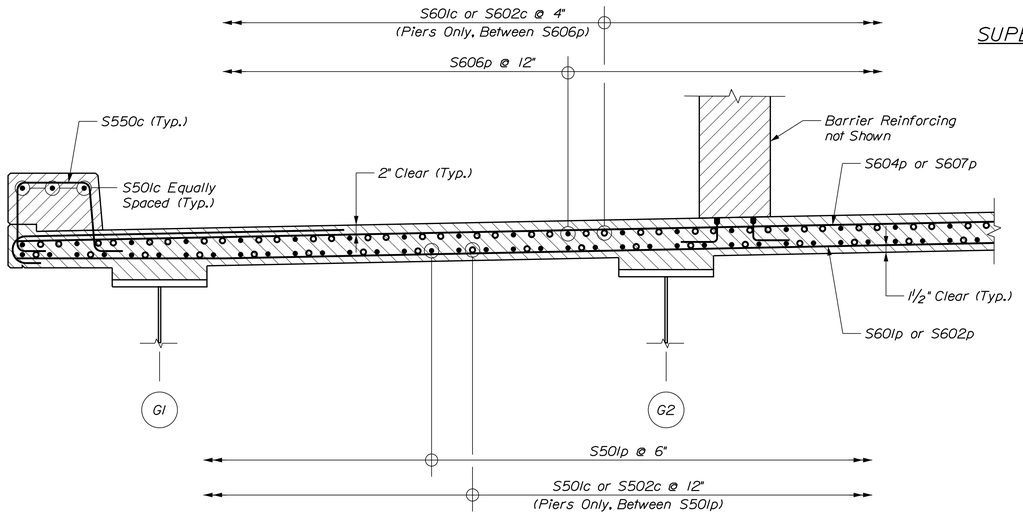
SHEET NUMBER
B-80
447
OF 485

Filename: ...\B39_WB_Transverse_Section.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

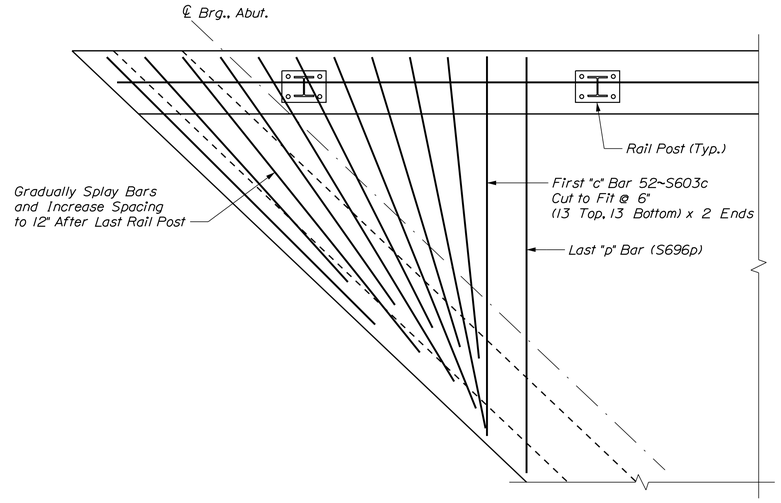



SUPERSTRUCTURE REINFORCING PLAN

| MINIMUM LAP SPLICE LENGTHS | | |
|---|---|---|
| Bar Material | Bar Size | Lap Length (in) |
| "p" Bar | #5 | 34 |
| | #6 | 44 |
| "c" Bar | #5 | 39 |
| | #6 | 47 |




PARTIAL TRANSVERSE REINFORCING SECTION
(Tapered Deck End Reinforcing not Shown)




ACUTE CORNER REINFORCEMENT DETAIL
(Not all Bars Shown for Clarity)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

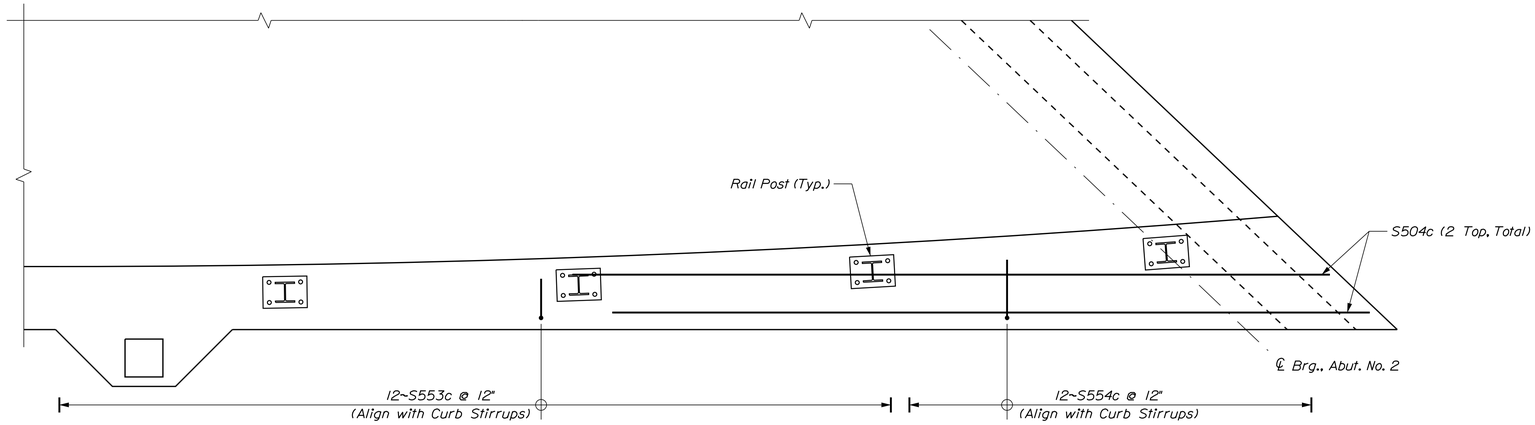
| PROJ. MANAGER | L. ROWE | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | SMH | KDW | 11/25 |
| CHECKED-REVIEWED | HMR | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

SUPERSTRUCTURE DETAILS
(2 OF 4)

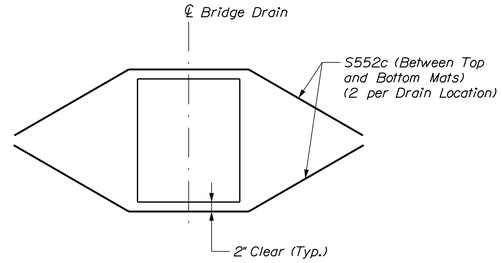
SHEET NUMBER
B-81
448
OF 485

Filename: ...\MSTA\xxx_WB Deck_Rein_01.dgn Division: HIGHWAY Username: jomesdavis Date:08/29/2025



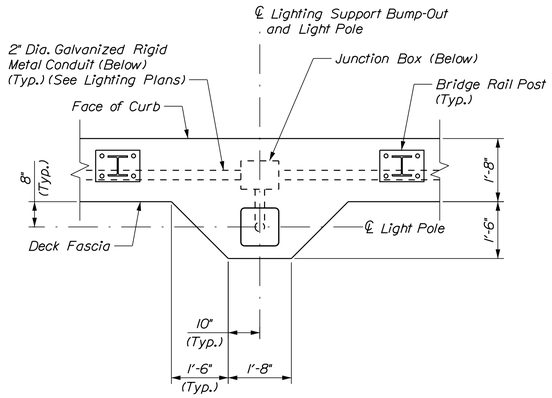

CURB TAPER REINFORCEMENT DETAIL AT ABUTMENT NO. 2

(Typical Curb Reinforcing not Shown)

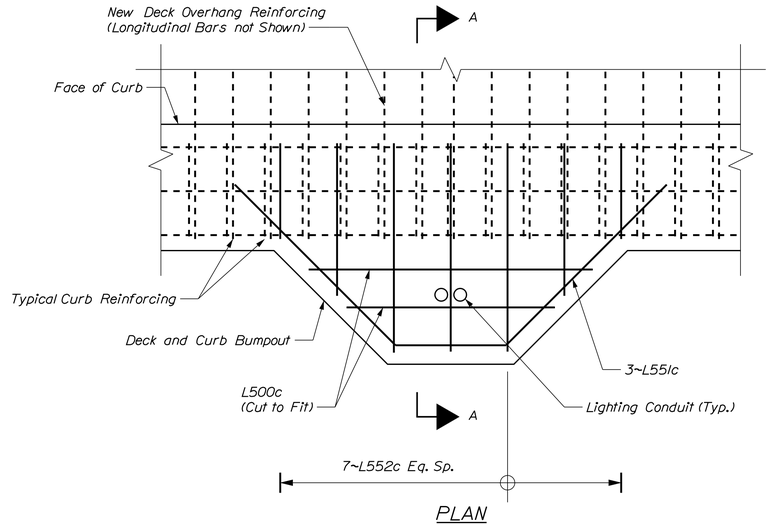



REINFORCING DETAIL AT BRIDGE DRAINS

(Typical Deck Reinforcing Not Shown)

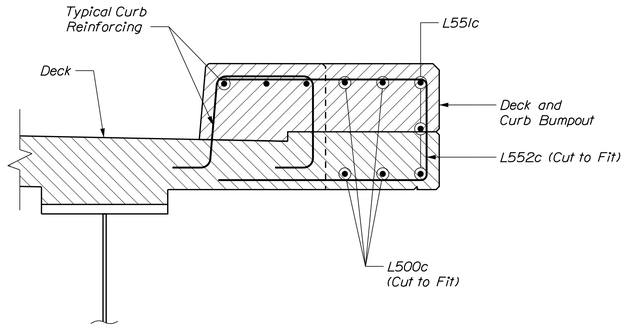



LIGHT POLE BUMP-OUT PLAN




PLAN

(Light Pole Anchorage Not Shown)




SECTION A-A

(Conduit and Light Pole Anchorage Not Shown)
(Typical Deck Reinforcing Not Shown)

LIGHT POLE BUMPOUT REINFORCING DETAILS

(Existing Deck Reinforcing Not Shown)
(Adjust Reinforcing to Accommodate Lighting Conduit and Anchorages)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787

WIN 18595.11

BRIDGE PLANS

vhb

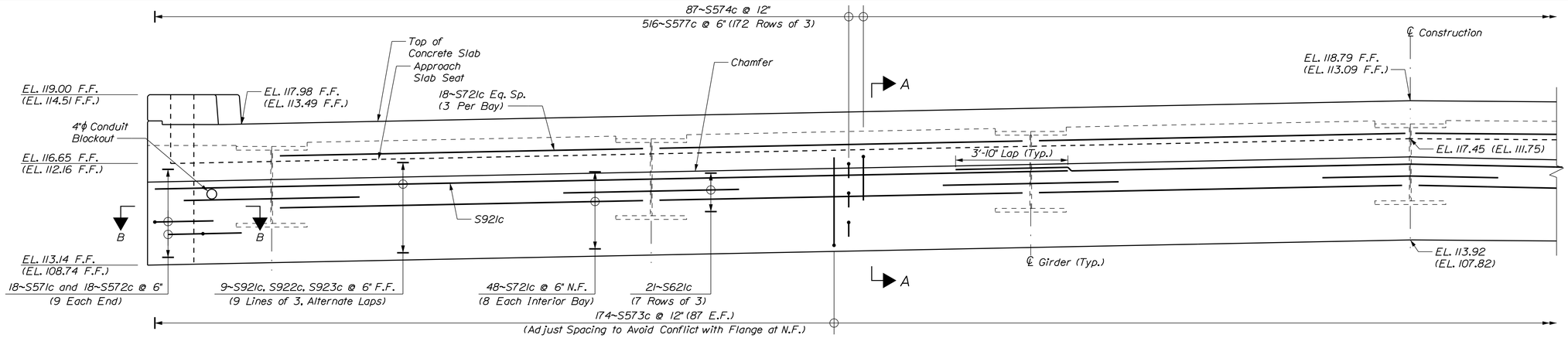
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | SMH | KDW | 11/25 |
| CHECKED-REVIEWED | HMR | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

SUPERSTRUCTURE DETAILS
(3 OF 4)

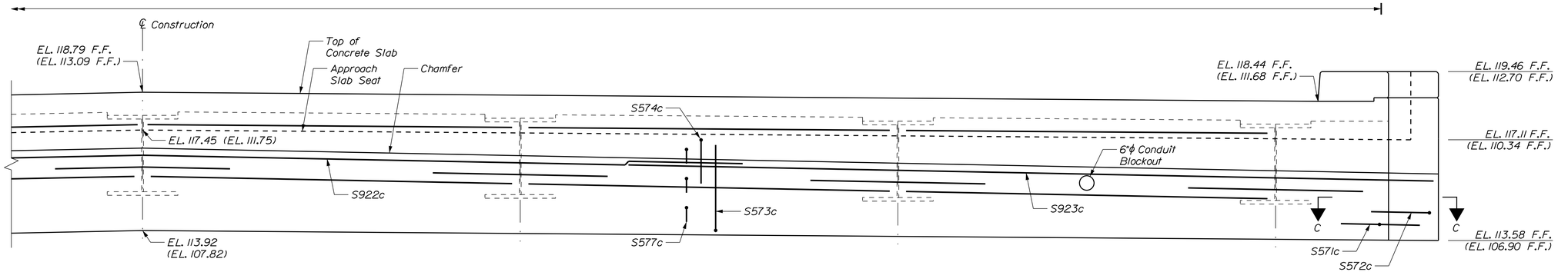
SHEET NUMBER
B-82
449
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\MSTA\xxx_WB Deck_Rein_01.dgn



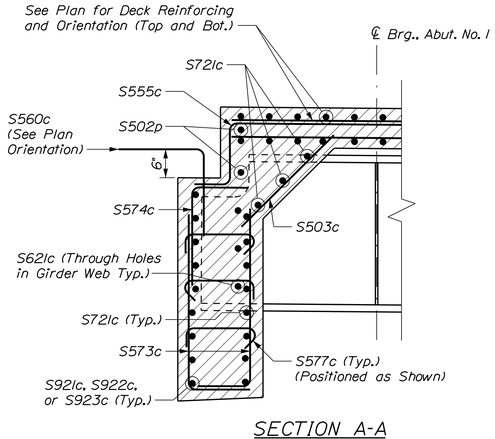

## SUPERSTRUCTURE BACKWALL ELEVATION AND REINFORCING

(All Ties Placed Perpendicular to Backwall Face)
(Reinforcing Details at Abutment No. 1 Shown, Abutment No. 2 Similar)
(Abutment 2 Elevations Shown in Parenthesis)
(Deck Slab Reinforcement and Approach Slab Dowels Not Shown)

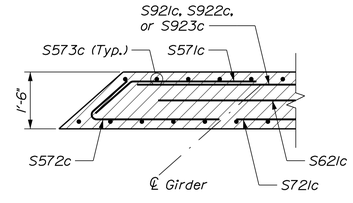



## SUPERSTRUCTURE BACKWALL ELEVATION AND REINFORCING

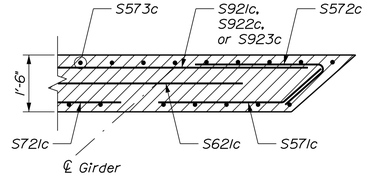
(All Ties Placed Perpendicular to Backwall Face)
(Reinforcing Details at Abutment No. 1 Shown, Abutment No. 2 Similar)
(Abutment 2 Elevations Shown in Parenthesis)
(Deck Slab Reinforcement and Approach Slab Dowels Not Shown)




SECTION A-A




SECTION B-B




SECTION C-C

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

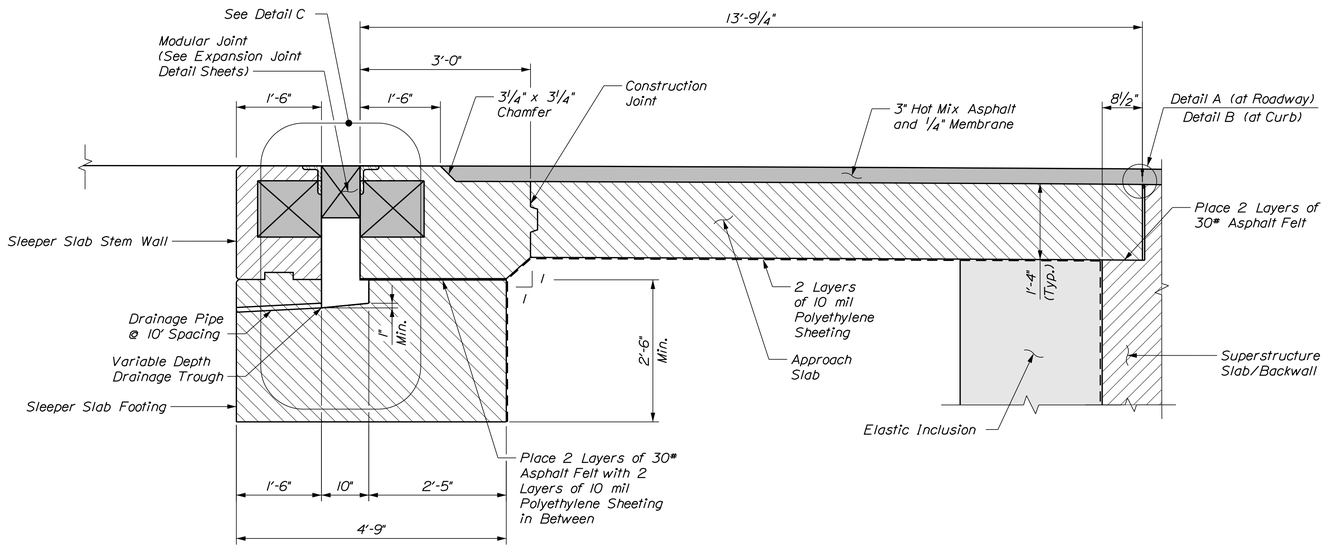
| PROJ. MANAGER | L. ROWE | | |
|---|---|---|---|
| DESIGN-DETAILED | JAH | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

SUPERSTRUCTURE DETAILS
(4 OF 4)

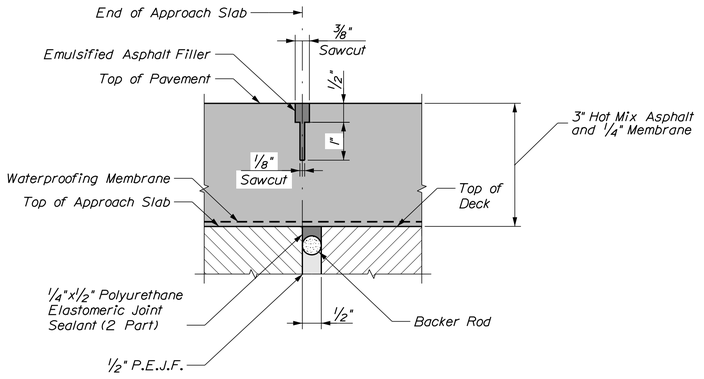
SHEET NUMBER
B-83
450
OF 485

Filename: ...\B40_WB_Superstructure_Details_Backwall.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

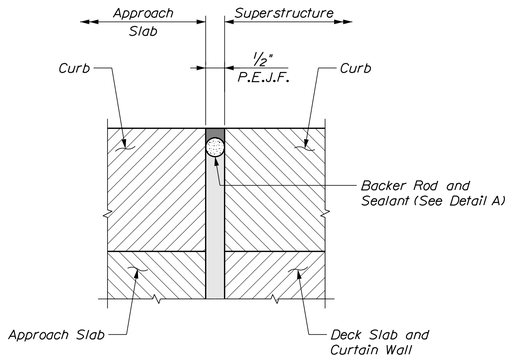



## APPROACH AND SLEEPER SLAB TYPICAL SECTION @ ℄ ROADWAY

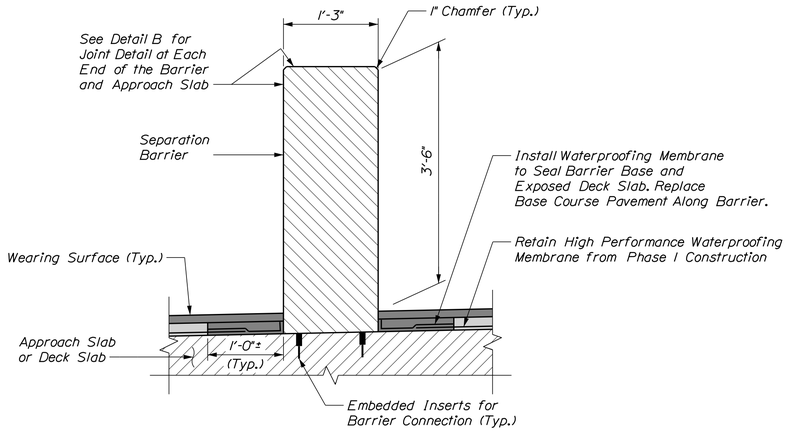
(Approach Slab No. 1 Shown. Approach Slab No. 2 Similar)
(Horizontal Dimensions Normal to Abutment)
(See Abutment Earthwork Details for Backfill Information)




## DETAIL A

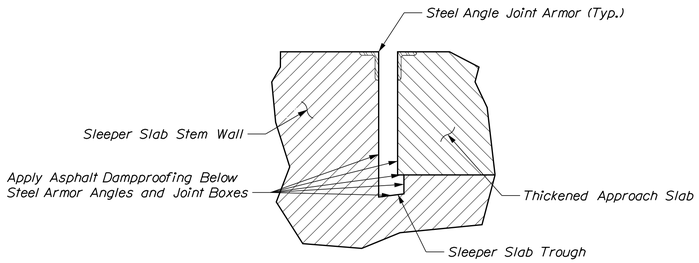



## DETAIL B




## SEPARATION BARRIER CONNECTION DETAIL

(Barrier Reinforcing Not Shown)




## DETAIL C

## NOTES

1. Joint sealant, backer rod, and P.E.J.F shall continue between gaps on all top and side faces at the curbs and separation barrier.

2. Asphalt Dampproofing shall meet the requirements of either ASTM D449 Type II, ASTM D1227 Type II-Class 1, or ASTM D1227 Type III-Class 1. The product shall be applied in accordance with the manufacturer's recommendations. Payment for Asphalt Dampproofing will not be made directly, but will be considered incidental to related Contract Items.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

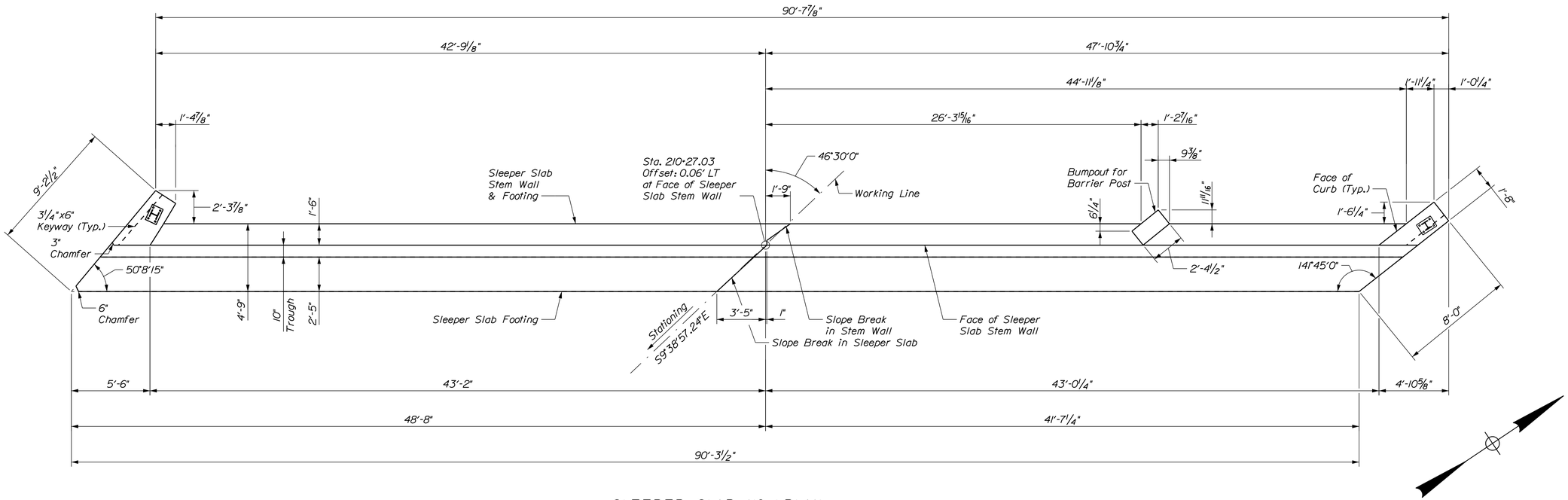
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | | |
| DESIGN-DETAILED | YP | JAH | 11/25 |
| CHECKED-REVIEWED | SMH | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

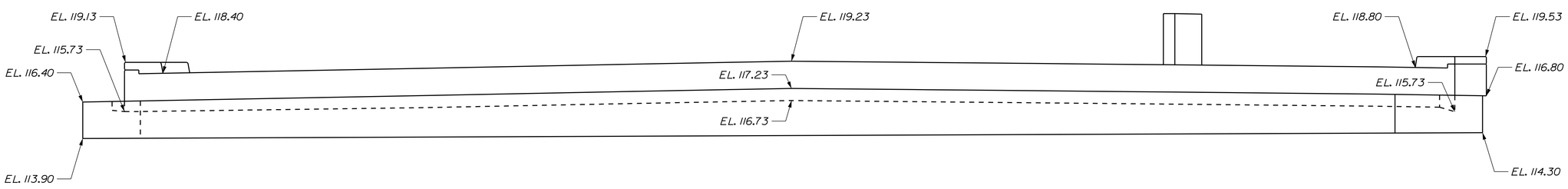
APPROACH AND SLEEPER
SLAB DETAILS (1 OF 5)

SHEET NUMBER
B-84
451
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B46_WB_Approach and Sleeper Details.dgn




## SLEEPER SLAB NO. 1 PLAN
(Approach Slab Not Shown for Clarity)




## SLEEPER SLAB NO. 1 ELEVATION
(Bridge Joint and Approach Slab Not Shown)
(Elevations at Bottom of Drainage Trough Shown)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

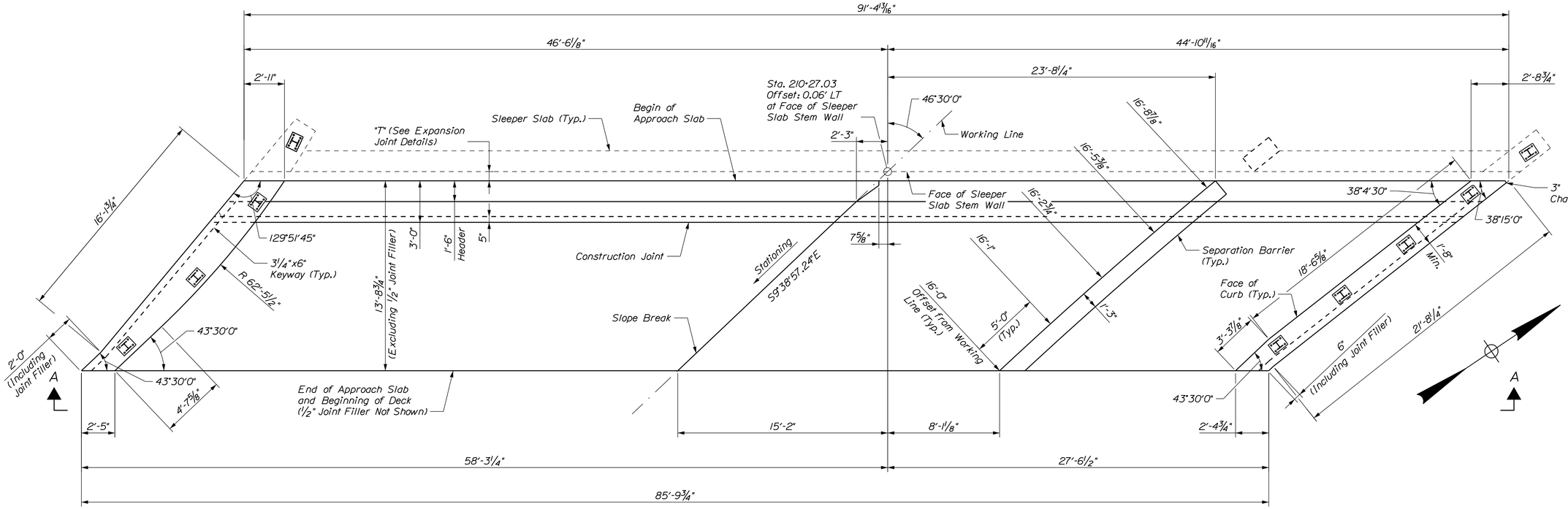
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | BY | DATE |
| DESIGN-DETAILED | JAH | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

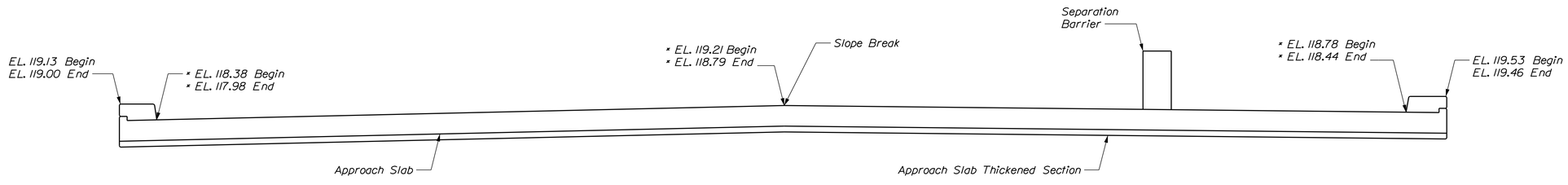
APPROACH AND SLEEPER SLAB DETAILS (2 OF 5)

SHEET NUMBER
B-85
452
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B42_WB_Abutment_1_Sleeper_Slab.dgn




APPROACH SLAB NO. 1 PLAN




VIEW A-A

(Pavement and Membrane Not Shown)

* Elevations Given at Top of Concrete

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

| | L. ROWE | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | JAH | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

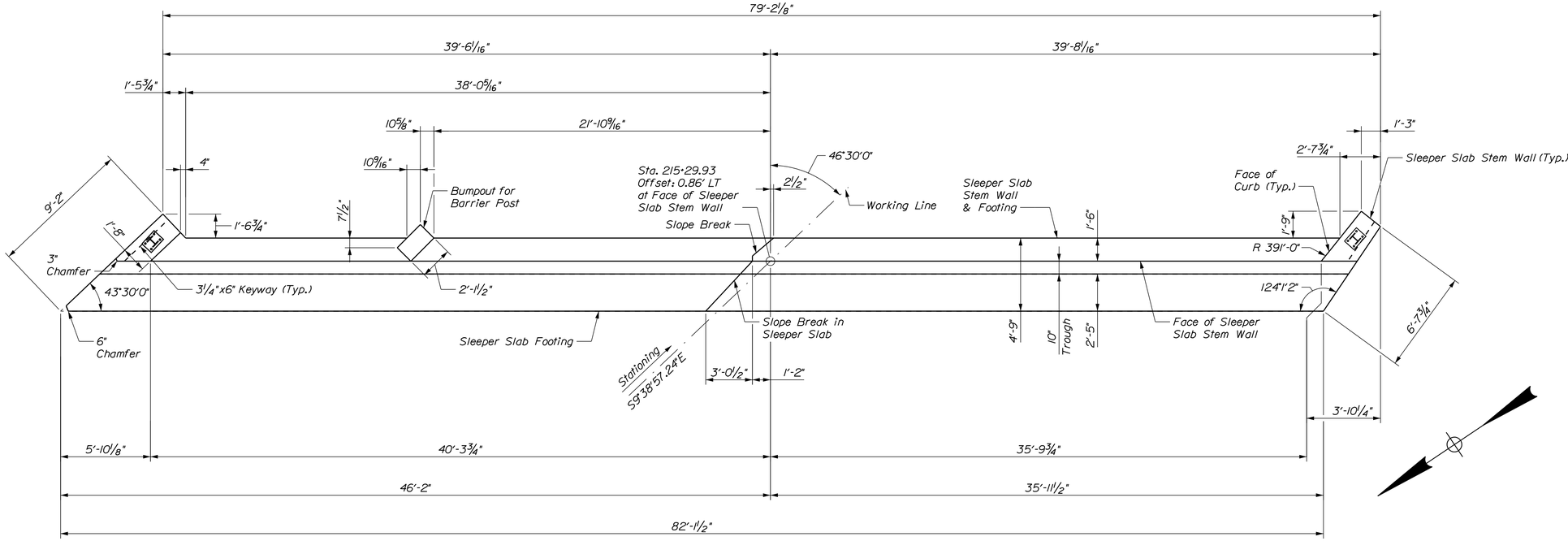
APPROACH AND SLEEPER
SLAB DETAILS (3 OF 5)

SHEET NUMBER
B-86
453
OF 485

Username: jamesdavis Date:08/29/2025

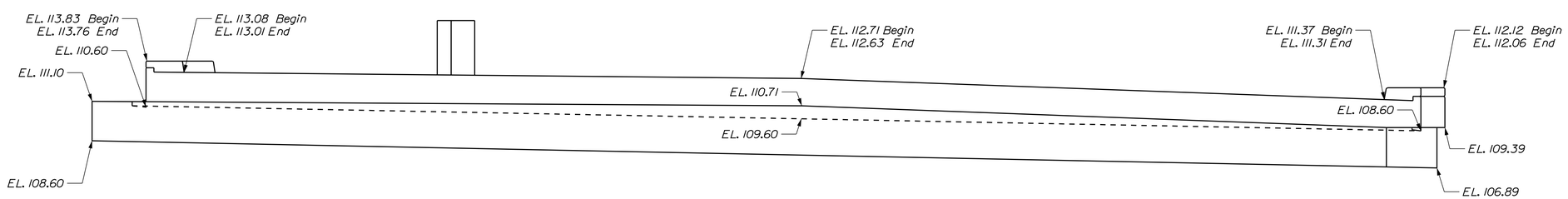
Division: HIGHWAY

Filename: ...\MSTA\B43_WB_Approach Slab.dgn




SLEEPER SLAB NO. 2 PLAN

(Approach Slab Not Shown for Clarity)




SLEEPER SLAB NO. 2 ELEVATION

(Bridge Joint and Approach Slab Not Shown)

(Elevations at Bottom of Drainage Trough Shown)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | BY | DATE |
| DESIGN-DETAILED | JAH | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

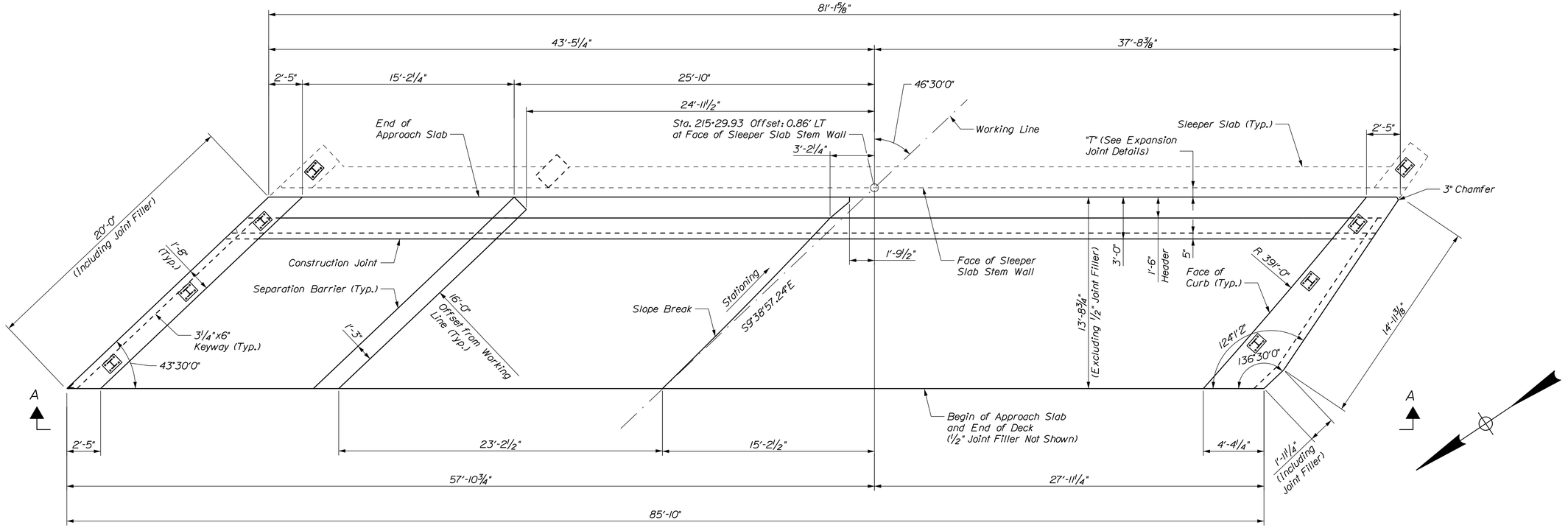
APPROACH AND SLEEPER
SLAB DETAILS (4 OF 5)

SHEET NUMBER
B-87
454
OF 485

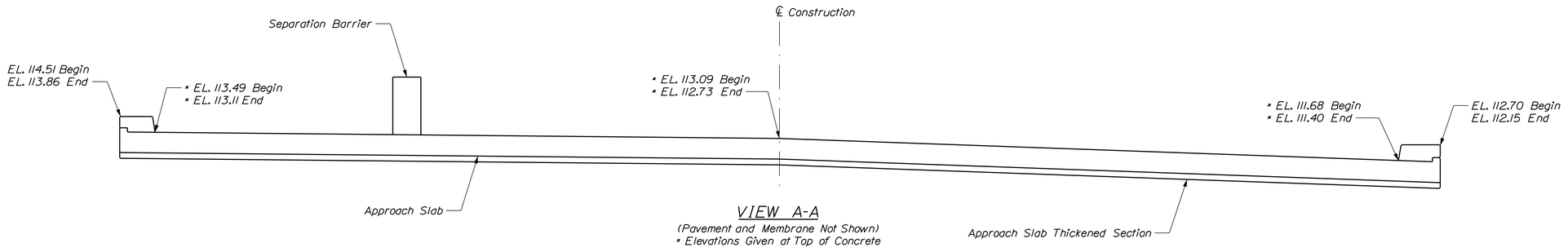
Username: jamesdavis Date:08/29/2025

Division: HIGHWAY

Filename: ...\B44_WB_Abutment_2_Sleeper_Slab.dgn




APPROACH SLAB NO. 2 PLAN




VIEW A-A

(Pavement and Membrane Not Shown)

* Elevations Given at Top of Concrete

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | BY | DATE |
| DESIGN-DETAILED | JAH | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

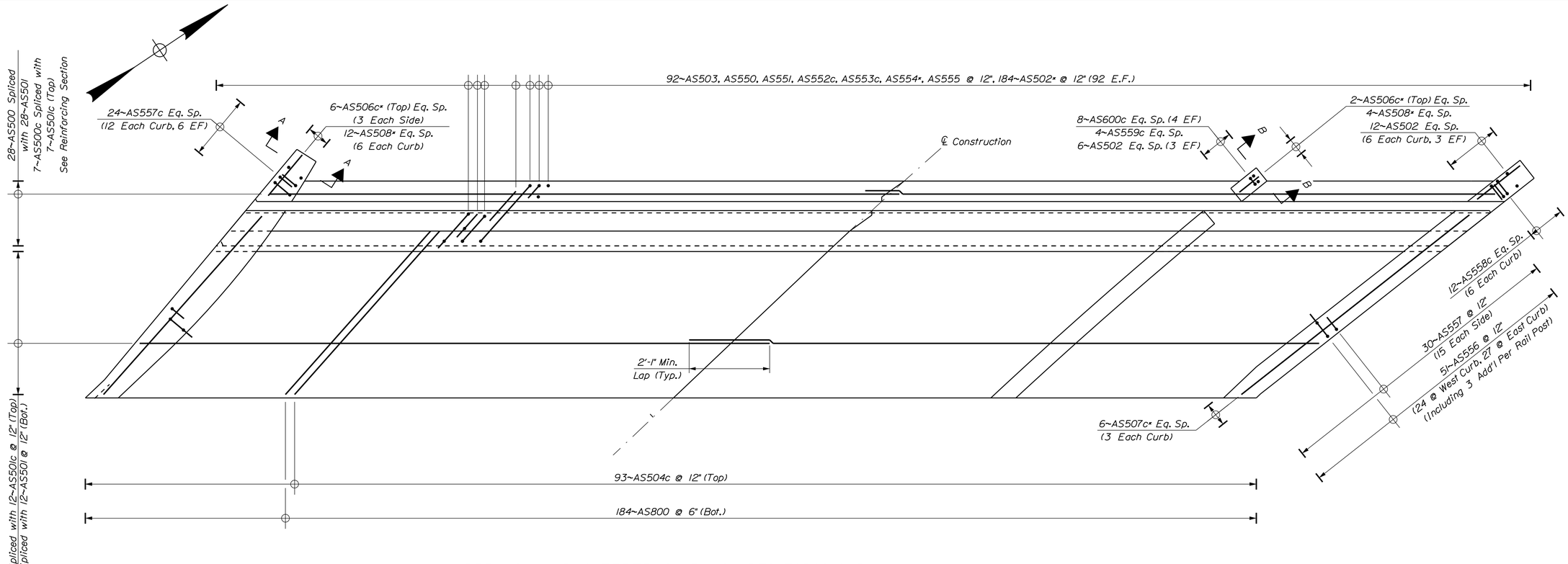
APPROACH AND SLEEPER SLAB DETAILS (5 OF 5)

SHEET NUMBER
B-88
455
OF 485

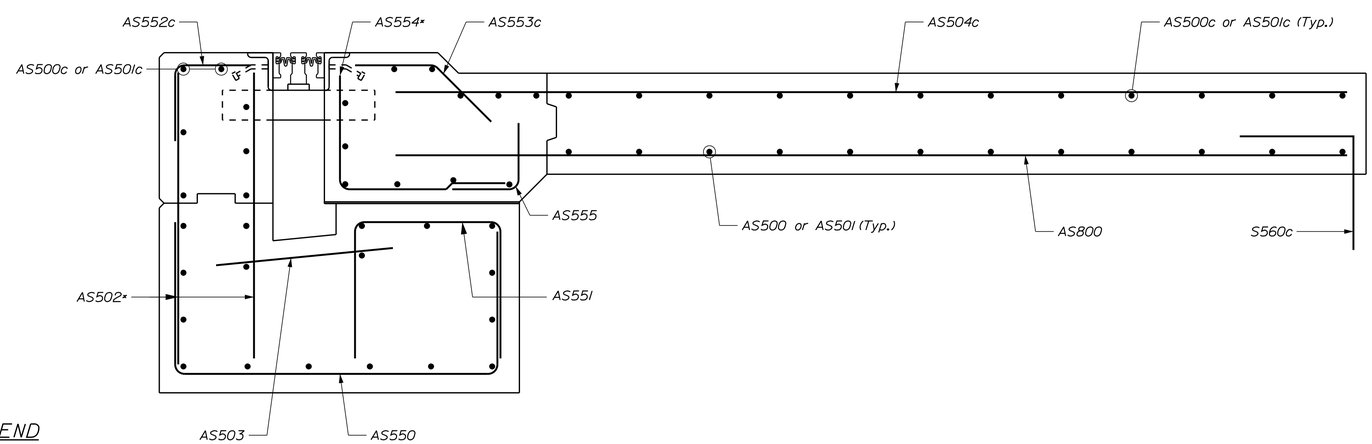
Username: jamesdavis Date:08/29/2025

Division: HIGHWAY

Filename: ...\B45_WB_Approach Slab No. 2.dgn




## APPROACH AND SLEEPER SLAB NO. 1 REINFORCING PLAN




### LEGEND

* = Splay or cut to fit

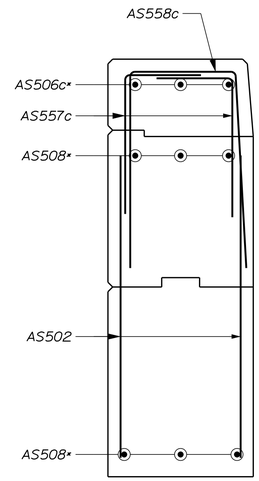
### APPROACH AND SLEEPER SLAB NOTES

1. Reinforcing steel for approach and sleeper slabs shall have a minimum concrete cover of 3 inches at the bottom face against backfill, and 2 inches elsewhere unless otherwise noted.

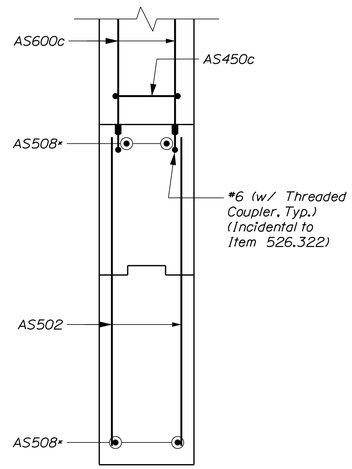
2. Modular joint and its support boxes are not shown. Splay bars and/or field cut bars to avoid conflict when required.

3. Reinforcing for the concrete barrier on approach slab not shown, refer to Concrete Path and Barrier Details for more information.

### TYPICAL APPROACH AND SLEEPER SLAB SECTION




### SECTION A-A




### SECTION B-B

(Reinforcing at Bump Out Section Shown)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

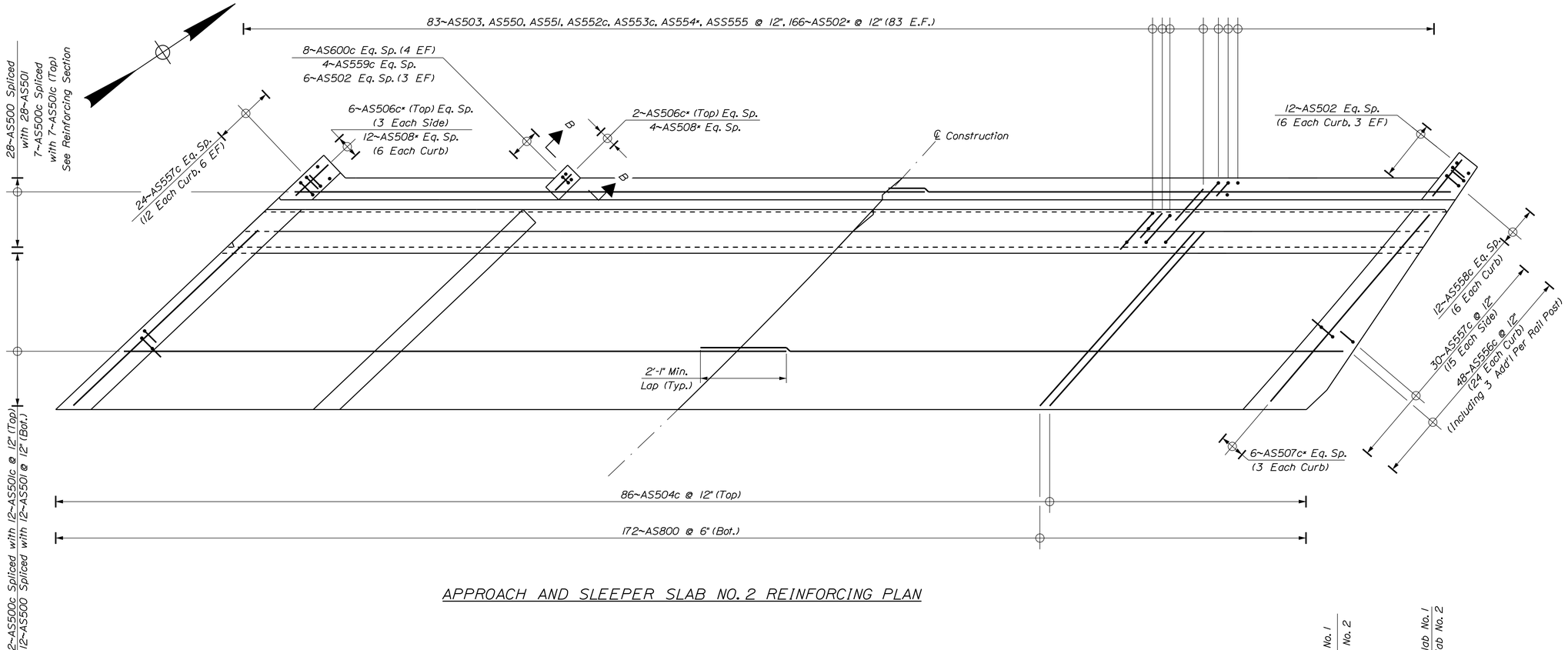
| PROJ. MANAGER | L. ROWE | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | JAH | JAH | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

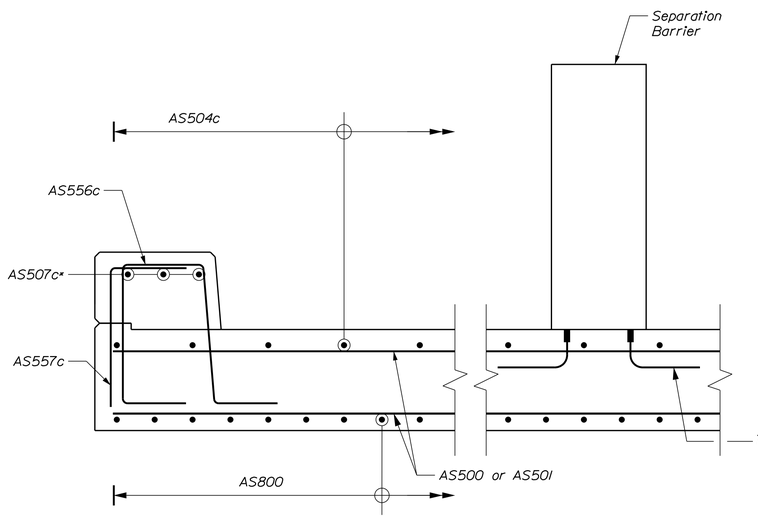
APPROACH AND SLEEPER SLAB REINFORCING (1 OF 2)

SHEET NUMBER
B-89
456
OF 485

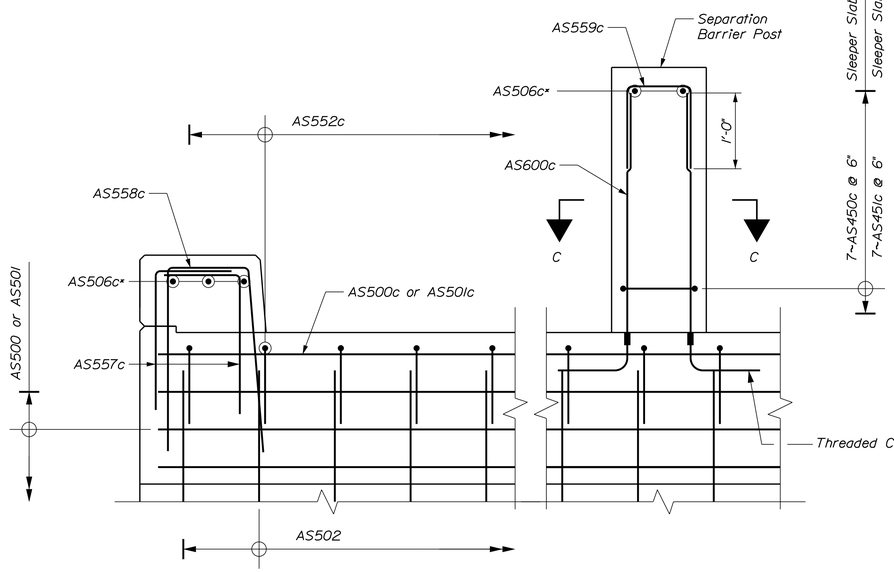
Filename: ...\xxx_WB_Approach Slab 1_Rein.dgn Username: jamesdavis Date:08/29/2025
Division: HIGHWAY




## APPROACH AND SLEEPER SLAB NO. 2 REINFORCING PLAN

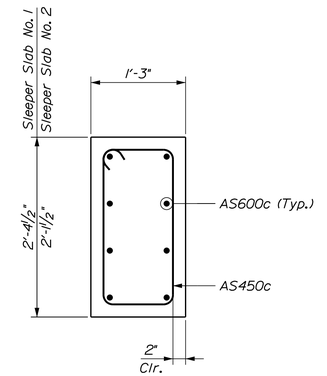



## TYPICAL CURB AND BARRIER ON APPROACH SLAB DETAIL




## TYPICAL CURB AND BARRIER ON SLEEPER SLAB DETAIL

(Expansion Dam Plates Not Shown)




## SECTION C-C

(Barrier Post on Stubwall)

## LEGEND

* = Splay or cut to fit

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

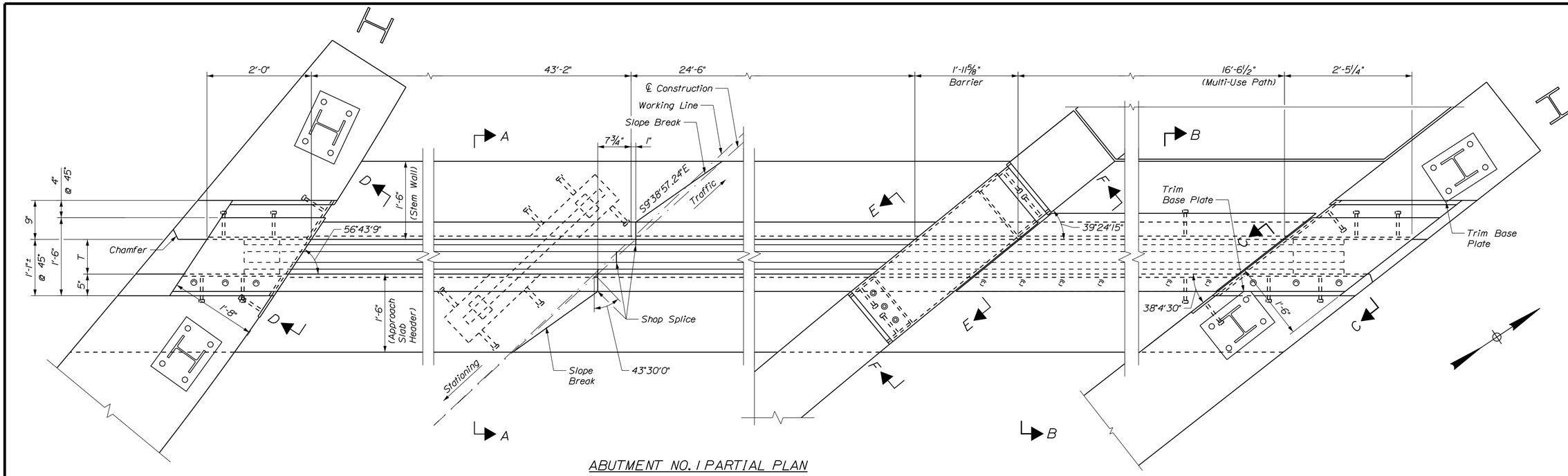
| L. ROWE | BY | DATE |
|---|---|---|
| PROJ. MANAGER | | |
| DESIGN-DETAILED | JAH | 11/25 |
| CHECKED-REVIEWED | YP | |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | SMH | 11/25 |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

APPROACH AND SLEEPER SLAB REINFORCING (2 OF 2)

SHEET NUMBER
B-90
457
OF 485

Filename: ...\xxx_WB_Approach Slab 2_Rein.dgn Division: HIGHWAY Username: jomesdavis Date:08/29/2025




ABUTMENT NO. 1 PARTIAL PLAN

## EXPANSION DEVICE NOTES

1. Each "Expansion Device - Modular Joint" consists of one sleeper slab stem wall element and one approach slab end element with expansion dams and elastomeric seals as required.

2. The Expansion Device shall be fabricated to be installed normal to grade.

3. Anchor studs shall be installed using automatically timed stud welding equipment.

4. The Expansion Device shall be installed with a joint opening of "J" at 45°F. The joint opening shall be adjusted for temperature in the field at the time of installation according to the Temperature Setting Table. A structure above 45°F will result in a smaller joint opening.

5. Welding to reinforcement steel will be allowed within the blockouts at the end of the approach slab and top of sleeper slab stem wall.

6. After the Expansion Device is in final position, secure all positioning adjustment devices with welds or other approved means to ensure proper positioning is maintained during concrete placement.

7. The superstructure slab, sleeper slab, and approach slab concrete shall be in place before the Expansion Device is fixed in position. No allowance for movement due to dead load deflection is necessary.

8. The concrete blockouts may be placed with the curb concrete. An approved epoxy bonding agent shall be applied to all vertical surfaces of the blockout before making the final concrete placement.

9. Modular joint is shown for illustrative purposes only. Actual details and dimensions of expansion device may vary significantly depending on joint supplier. It is the responsibility of the Contractor to adjust dimensions and Temperature Setting Table as required to accommodate the actual joint supplied.

10. Actual blockout dimensions (depth and width) required by the expansion device manufacturer may vary from those shown on the Plans. Changes to the blockout dimensions and support system shall be coordinated by and the responsibility of the Contractor. Payment for changes to the blockout dimensions or support system will be considered incidental to related Contract items.

11. Modular joint shall be supplied by one of the following manufacturers:

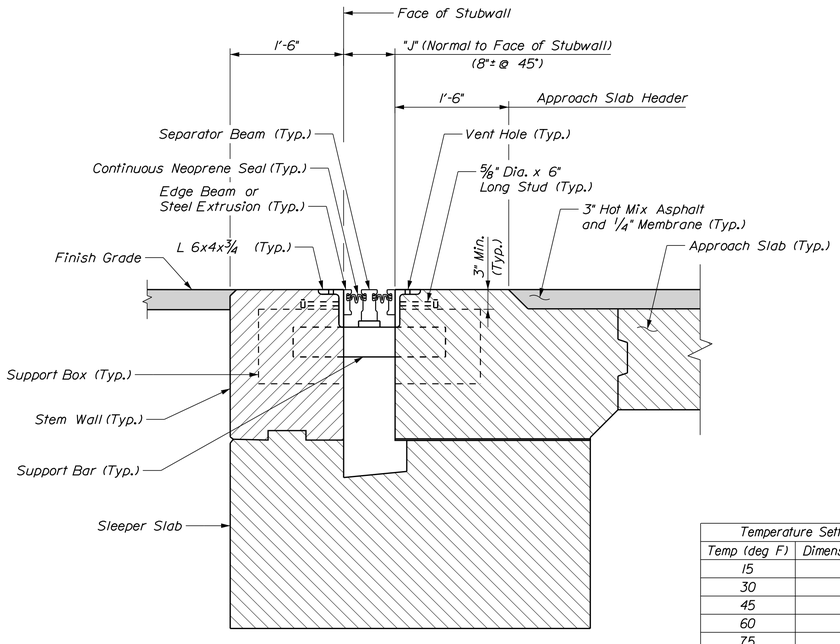
The D.S. Brown Company
North Baltimore, OH

Watson-Bowman Acme Corporation
Amherst, NY

12. Provide ¾" Dia. vent holes at 1'-6" O.C. along horizontal leg of L6x4x¾. Warp angle legs to accommodate varying grades on each side slope break to ensure the horizontal angle leg is parallel with finished grade and the vertical leg is plumb. L6x4 may be replaced with an equivalent plate weldment.

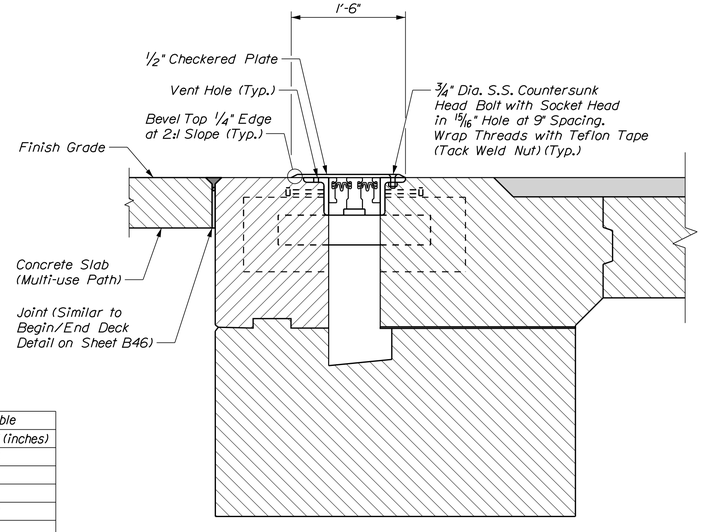
## NOTE

1. See Expansion Joint Details 2 of 2 for additional sections and details.




SECTION A-A

| Temperature Setting Table | |
|---|---|
| Temp (deg F) | Dimension "J" (inches) |
| 15 | 8.36 |
| 30 | 8.18 |
| 45 | 8 |
| 60 | 7.82 |
| 75 | 7.64 |
| 90 | 7.46 |




SECTION B-B
(Multi-Use Path Joint Cover Plate Detail)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

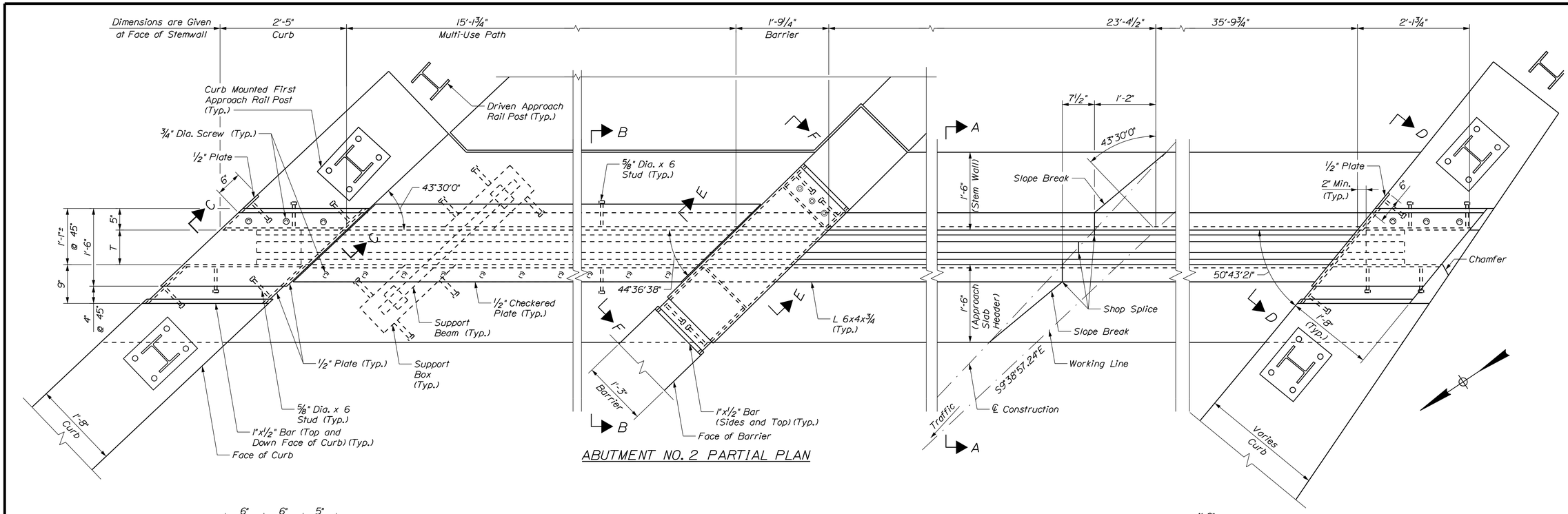
| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | BY | DATE |
| DESIGN-DETAILED | KDW | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

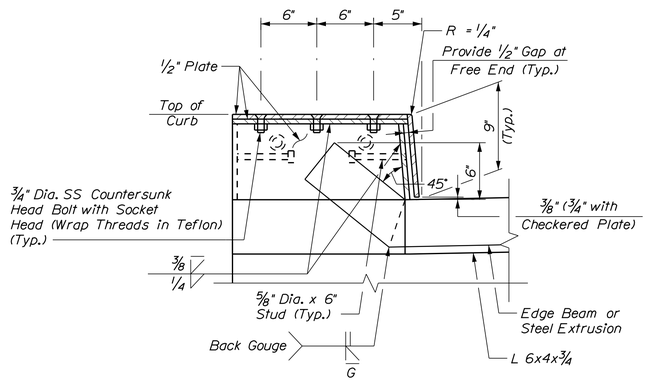
EXPANSION JOINT DETAILS
(1 OF 2)

SHEET NUMBER
B-91
458
OF 485

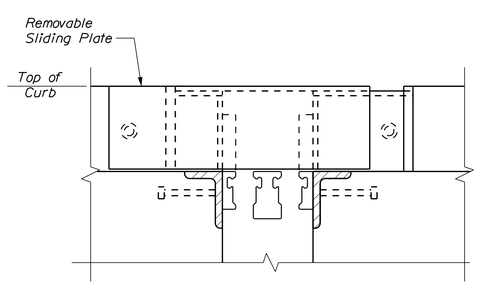
Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B48_Bridge_Joint_Abut 1.dgn



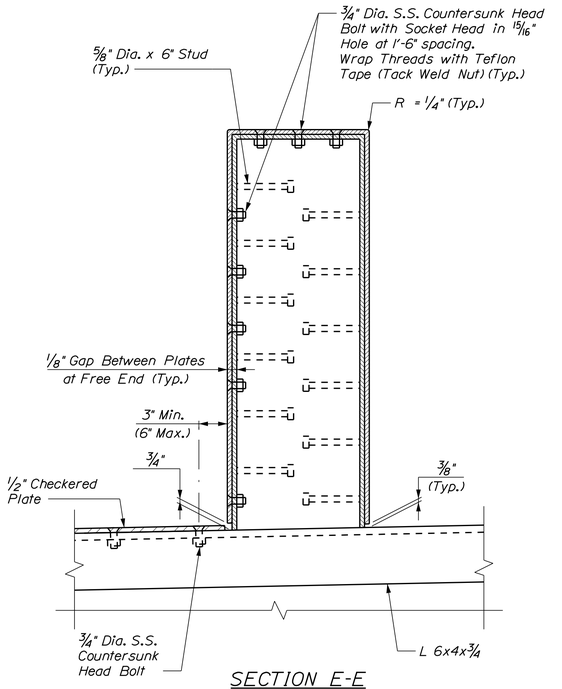

ABUTMENT NO. 2 PARTIAL PLAN



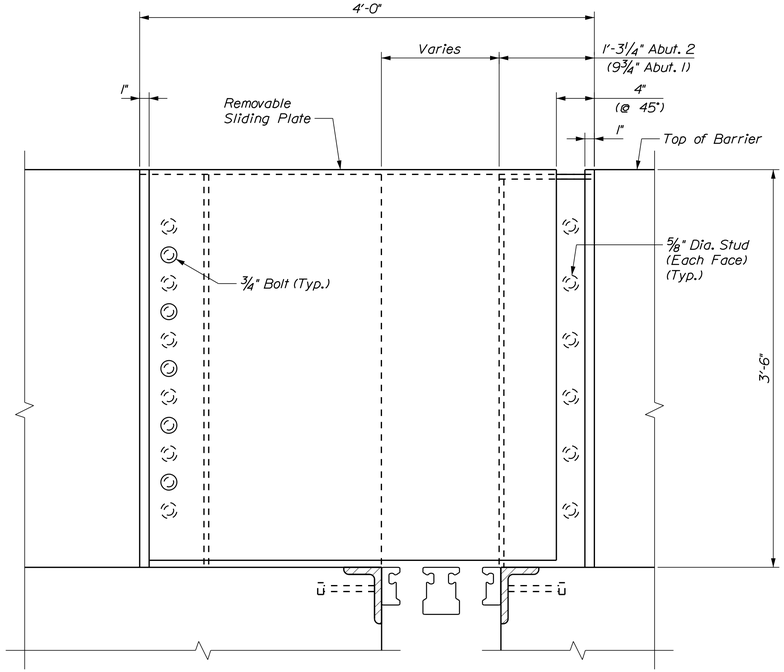

SECTION C-C
(Curb Details Vary. See Plan)




VIEW D-D




SECTION E-E
(Reinforcing Steel and Edge Beam or Steel Extrusion Not Shown for Clarity)




VIEW F-F

NOTES

1. See Expansion Joint Details 1 of 2 for Section A-A and B-B.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

| PROJ. MANAGER | L. ROWE |
|---|---|
| DESIGN-DETAILED | KDW |
| CHECKED-REVIEWED | YP |
| DESIGN2-DETAILED2 | |
| DESIGN3-DETAILED3 | |

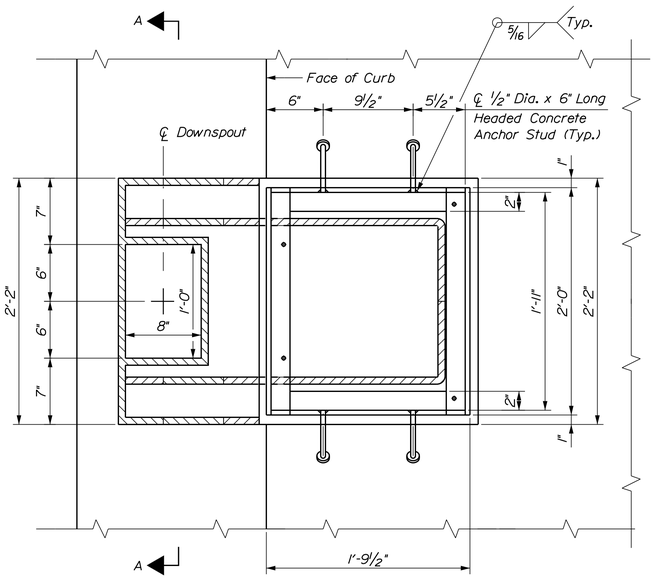
| REVISIONS | BY | DATE |
|---|---|---|
| REVISIONS 1 | KDW | 11/25 |
| REVISIONS 2 | SMH | 11/25 |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

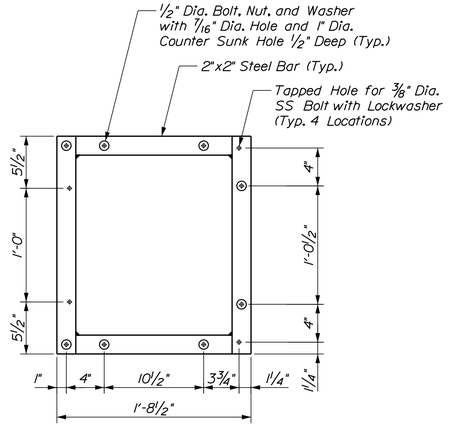
# EXPANSION JOINT DETAILS (2 OF 2)

SHEET NUMBER
B-92
459
OF 485

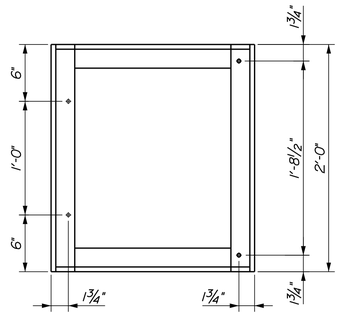
Filename: ...\B47_Bridge_Joint_Abut 2.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



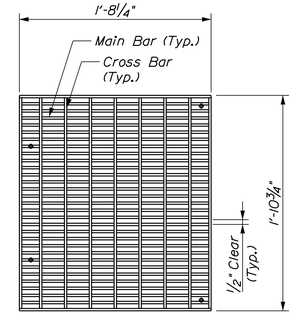

PLAN VIEW
(Raised Concrete Frame Surround Not Shown)
Not to Scale



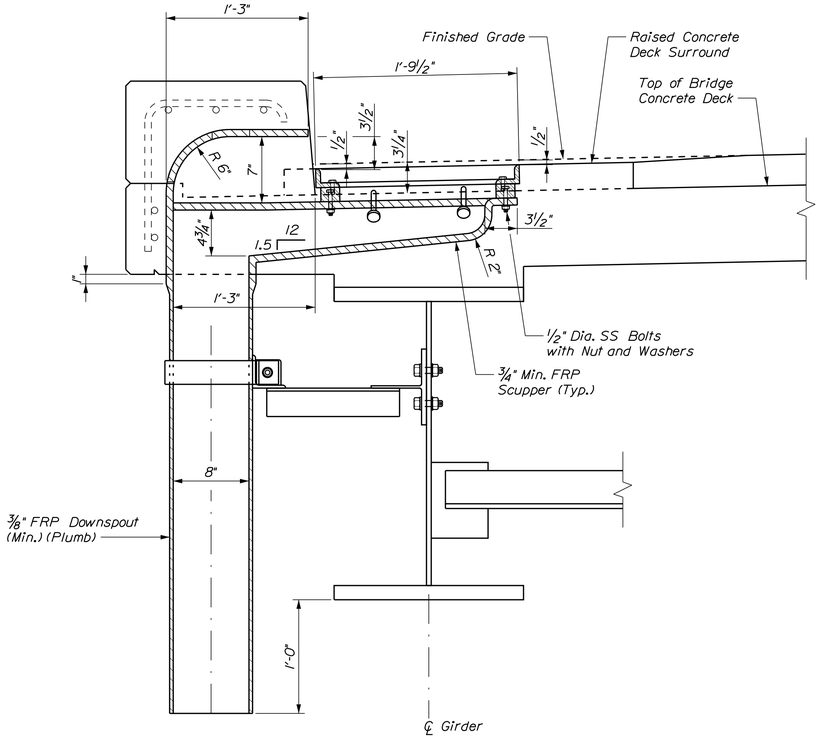

GRATING SUB FRAME
Not to Scale



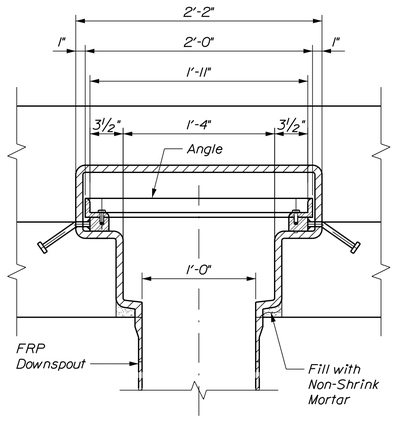

GRATING BASE FRAME
Not to Scale



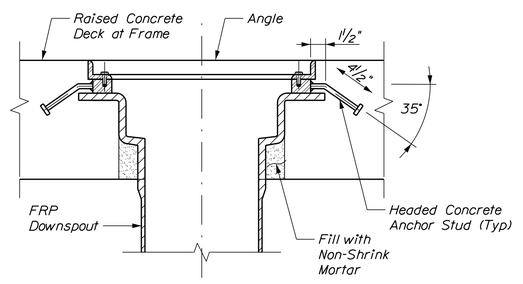

GRATING FRAME
Not to Scale



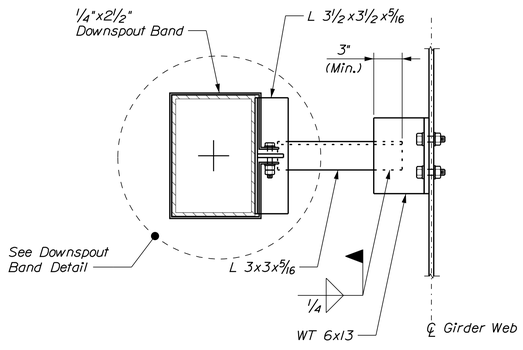

TYPICAL SECTION
Not to Scale



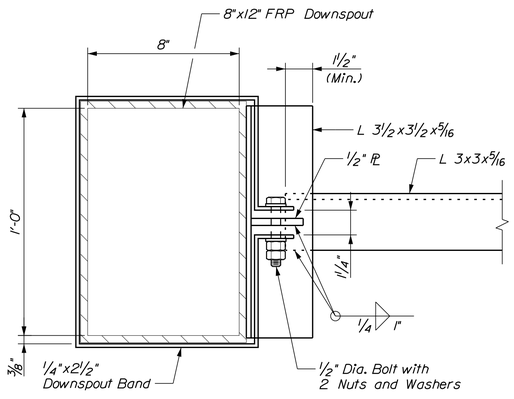

SECTION A-A
Not to Scale




SECTION B-B
Not to Scale




SECTION C-C
Not to Scale




DOWNSPOUT BAND DETAIL
Not to Scale

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE NO. 6787

BRIDGE PLANS

vhb

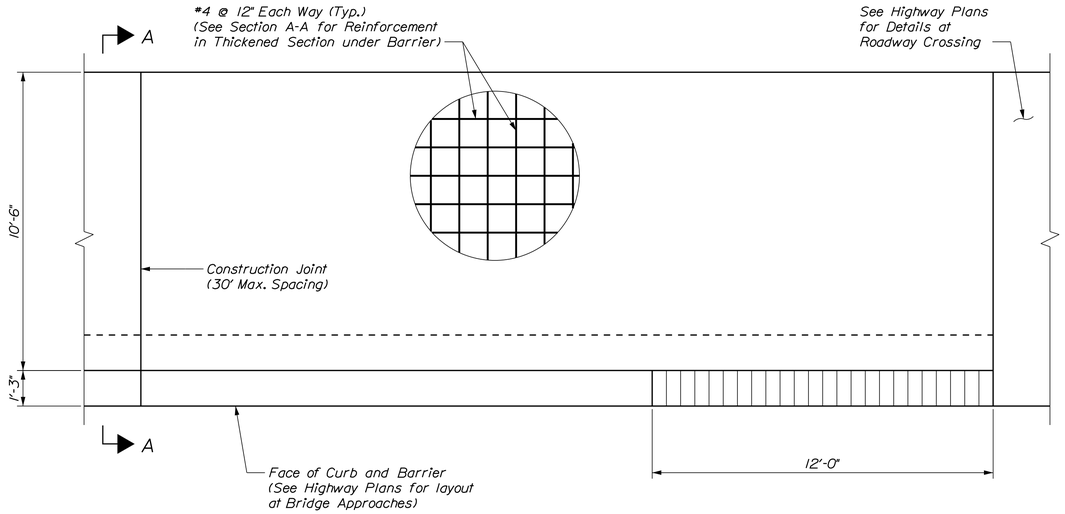
| PROJ. MANAGER | L. ROWE | | |
|---|---|---|---|
| DESIGN-DETAILED | K.JB | KDW | 11/25 |
| CHECKED-REVIEWED | SMH | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

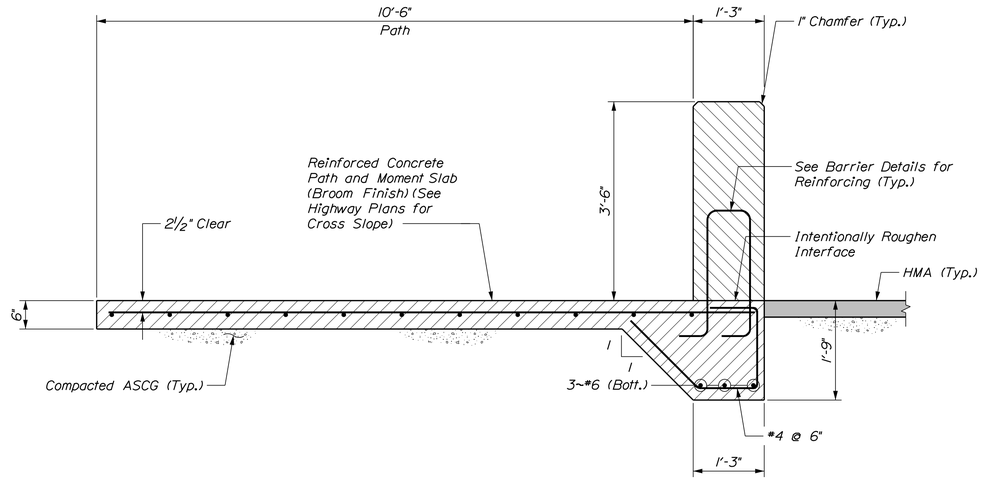
BRIDGE DRAIN TYPE A (MOD.)
DETAILS

SHEET NUMBER
B-93
460
OF 485

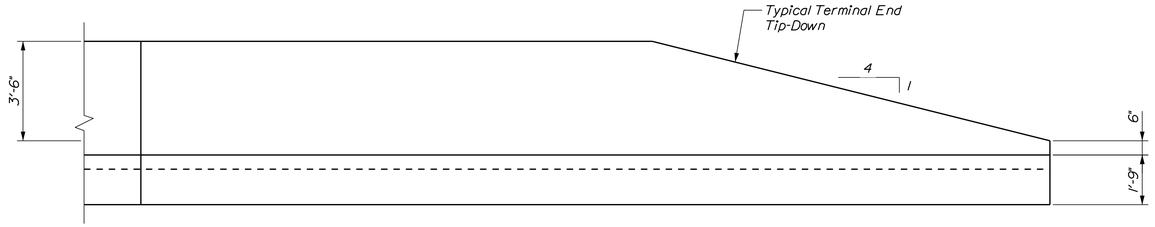
Filename: ...\BRIDGE\MSTA\B50_WB_BDrain.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025



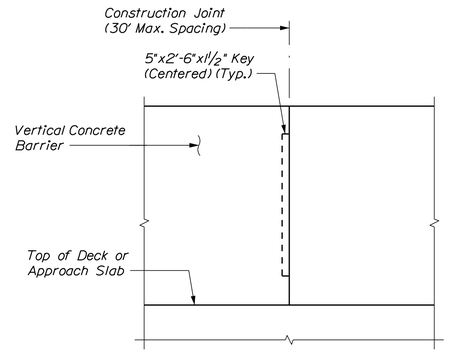

PLAN




SECTION A-A

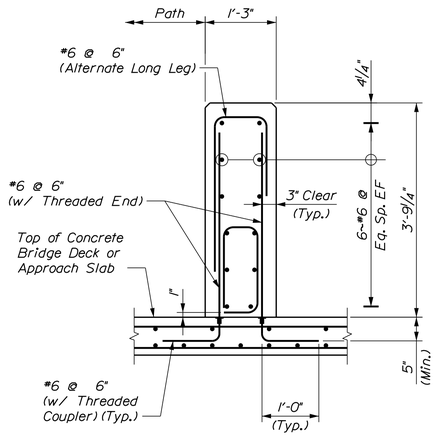



ELEVATION



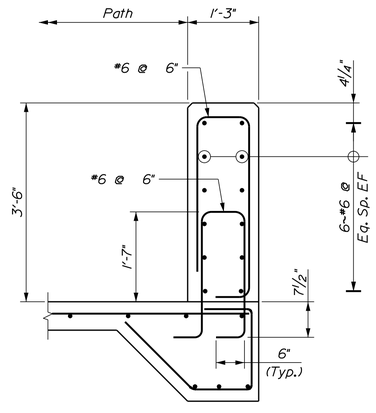

BARRIER CONSTRUCTION JOINT DETAIL

(Front Elevation Shown)
(Joint Detail on Moment Slab Similar)

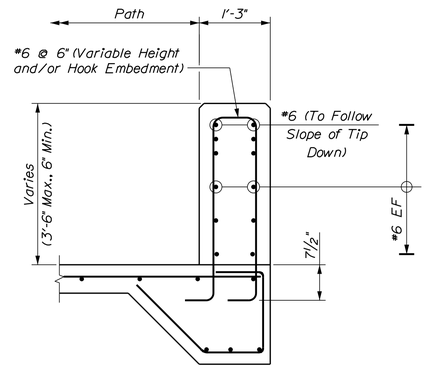



BARRIER ON DECK OR APPROACH SLAB

(3" HMA Pavement and ¼" Membrane Not Shown)




BARRIER ON MOMENT SLAB




BARRIER TIP-DOWN ON MOMENT SLAB

## CONCRETE PATH AND BARRIER NOTES

1. Reinforced concrete path and moment slab shall conform to Special Provision Section 502.

2. Reinforced concrete barrier shall conform to Special Provision Section 526.

3. Protective coating for concrete surfaces shall be applied to all exposed surfaces of path and barrier to 6 inches below grade.

4. Reinforcement for concrete path/moment slab and barrier shall be low carbon chromium. Clear cover shall be 3 inches minimum unless otherwise noted.

5. During phased construction, protect embedded threaded couplers in bridge deck and approach slab as approved by the Resident.

6. Longitudinal bar splices shall be staggered so that 50% or less are at same location in moment slab or barrier.

7. The vertical concrete barrier is similar to a state of Connecticut Department of Transportation parapet detail that was evaluated at a test level 4 (TL-4) and determined to comply with MASH 2016 criteria.

8. Barrier reinforcement shall be low-carbon chromium steel. Moment slab reinforcement shall be plain steel.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

BRIDGE NO. 6787

WIN 18595.11

BRIDGE PLANS

vhb

| | | | |
|---|---|---|---|
| PROJ. MANAGER | L. ROWE | BY | DATE |
| DESIGN-DETAILED | SMH | KDW | 11/25 |
| CHECKED-REVIEWED | YP | SMH | 11/25 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

# CONCRETE PATH AND BARRIER DETAILS

SHEET NUMBER
B-94
461
OF 485

Username: jamesdavis Date:08/29/2025
Division: HIGHWAY
Filename: ...\B49_WB_Pedestrian Railing.dgn

## STRAIGHT BARS

| MARK | QTY. | LENGTH | LOCATION | MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|---|---|---|---|
| ABUTMENT 1 | | | | ABUTMENT 2 | | | |
| A500 | 19 | 7'-10" | Abutment Horizontal | B500 | 15 | 11'-7" | Abutment Horizontal |
| A501 | 23 | 10'-11" | Abutment Horizontal | B501 | 19 | 12'-3" | Abutment Horizontal |
| A502 | 42 | 38'-6" | Abutment Horizontal | B502 | 34 | 38'-6" | Abutment Horizontal |
| A503 | 42 | 25'-7" | Abutment Horizontal | B503 | 34 | 25'-7" | Abutment Horizontal |
| A504 | 23 | 13'-10" | Abutment Horizontal | B504 | 19 | 14'-4" | Abutment Horizontal |
| A505 | 19 | 8'-5" | Abutment Horizontal | B505 | 15 | 8'-9" | Abutment Horizontal |
| A506c | 7 | 7'-10" | Abutment Horizontal | B506c | 7 | 11'-7" | Abutment Horizontal |
| A507c | 35 | 12'-7" | Abutment Horizontal | B507c | 35 | 12'-7" | Abutment Horizontal |
| A508c | 7 | 8'-4" | Abutment Horizontal | B508c | 7 | 8'-9" | Abutment Horizontal |
| A509 | 5 | 11'-4" | Flywall 1 Vertical | B509 | 3 | 9'-5" | Flywall 3 Vertical |
| A509c | 15 | 11'-4" | Wingwall 1 Vertical | B509c | 13 | 9'-5" | Wingwall 3 Vertical |
| A510 | 5 | 8'-9" | Flywall 1 Vertical | B510 | 4 | 7'-4" | Flywall 3 Vertical |
| A510c | 5 | 8'-9" | Flywall 1 Vertical | B510c | 4 | 7'-4" | Flywall 3 Vertical |
| A511 | 5 | 6'-9" | Flywall 1 Vertical | B511 | 3 | 5'-11" | Flywall 3 Vertical |
| A511c | 5 | 6'-9" | Flywall 1 Vertical | B511c | 3 | 5'-11" | Flywall 3 Vertical |
| A512c | 10 | 11'-10" | Wingwall 2 Vertical | B512 | 3 | 4'-7" | Flywall 3 Vertical |
| A513 | 5 | 11'-8" | Flywall 2 Vertical | B512c | 3 | 4'-7" | Flywall 3 Vertical |
| A513c | 5 | 11'-8" | Flywall 2 Vertical | B513 | 3 | 7'-7" | Flywall 4 Vertical |
| A514 | 4 | 10'-6" | Flywall 2 Vertical | B513c | 11 | 7'-7" | Wingwall 4 Vertical |
| A514c | 4 | 10'-6" | Flywall 2 Vertical | B514 | 3 | 5'-8" | Flywall 4 Vertical |
| A515 | 4 | 9'-4" | Flywall 2 Vertical | B514c | 3 | 5'-8" | Flywall 4 Vertical |
| A515c | 4 | 9'-4" | Flywall 2 Vertical | B515 | 2 | 4'-8" | Flywall 4 Vertical |
| A516 | 20 | 17'-10" | Wingwall 1 Horizontal | B515c | 2 | 4'-8" | Flywall 4 Vertical |
| A516c | 20 | 17'-10" | Wingwall 1 Horizontal | B516 | 2 | 3'-8" | Flywall 4 Vertical |
| A517 | 1 | 11'-9" | Wingwall 1 Horizontal | B516c | 2 | 3'-8" | Flywall 4 Vertical |
| A517c | 1 | 11'-9" | Wingwall 1 Horizontal | B517 | 2 | 2'-8" | Flywall 4 Vertical |
| A518 | 1 | 10'-7" | Wingwall 1 Horizontal | B517c | 2 | 2'-8" | Flywall 4 Vertical |
| A518c | 1 | 10'-7" | Wingwall 1 Horizontal | B518 | 16 | 15'-10" | Wingwall 3 Horizontal |
| A519 | 1 | 9'-6" | Wingwall 1 Horizontal | B518c | 16 | 15'-10" | Wingwall 3 Horizontal |
| A519c | 1 | 9'-6" | Wingwall 1 Horizontal | B519 | 1 | 13'-3" | Wingwall 3 Horizontal |
| A520 | 1 | 8'-4" | Wingwall 1 Horizontal | B519c | 1 | 13'-3" | Wingwall 3 Horizontal |
| A520c | 1 | 8'-4" | Wingwall 1 Horizontal | B520 | 1 | 12'-2" | Wingwall 3 Horizontal |
| A521 | 1 | 7'-2" | Wingwall 1 Horizontal | B520c | 1 | 12'-2" | Wingwall 3 Horizontal |
| A521c | 1 | 7'-2" | Wingwall 1 Horizontal | B521 | 1 | 11'-1" | Wingwall 3 Horizontal |
| A522 | 1 | 6'-0" | Wingwall 1 Horizontal | B521c | 1 | 11'-1" | Wingwall 3 Horizontal |
| A522c | 1 | 6'-0" | Wingwall 1 Horizontal | B522 | 1 | 10'-0" | Wingwall 3 Horizontal |
| A523 | 1 | 4'-11" | Wingwall 1 Horizontal | B522c | 1 | 10'-0" | Wingwall 3 Horizontal |
| A523c | 1 | 4'-11" | Wingwall 1 Horizontal | B523 | 1 | 8'-11" | Wingwall 3 Horizontal |
| A524 | 1 | 3'-9" | Wingwall 1 Horizontal | B523c | 1 | 8'-11" | Wingwall 3 Horizontal |
| A524c | 1 | 3'-9" | Wingwall 1 Horizontal | B524 | 1 | 7'-10" | Wingwall 3 Horizontal |
| A525 | 1 | 2'-7" | Wingwall 1 Horizontal | B524c | 1 | 7'-10" | Wingwall 3 Horizontal |
| A525c | 1 | 2'-7" | Wingwall 1 Horizontal | B525 | 1 | 6'-9" | Wingwall 3 Horizontal |
| A526 | 1 | 1'-6" | Wingwall 1 Horizontal | B525c | 1 | 6'-9" | Wingwall 3 Horizontal |
| A526c | 1 | 1'-6" | Wingwall 1 Horizontal | B526 | 1 | 5'-8" | Wingwall 3 Horizontal |
| A527 | 20 | 18'-7" | Wingwall 2 Horizontal | B526c | 1 | 5'-8" | Wingwall 3 Horizontal |
| A527c | 20 | 18'-7" | Wingwall 2 Horizontal | B527 | 1 | 4'-7" | Wingwall 3 Horizontal |
| A528 | 2 | 15'-10" | Wingwall 2 Horizontal | B527c | 1 | 4'-7" | Wingwall 3 Horizontal |
| A528c | 2 | 15'-10" | Wingwall 2 Horizontal | B528 | 1 | 3'-7" | Wingwall 3 Horizontal |
| A529 | 1 | 14'-1" | Wingwall 2 Horizontal | B528c | 1 | 3'-7" | Wingwall 3 Horizontal |
| A529c | 1 | 14'-1" | Wingwall 2 Horizontal | B529 | 12 | 16'-7" | Wingwall 4 Horizontal |
| A530 | 1 | 12'-5" | Wingwall 2 Horizontal | B529c | 12 | 16'-7" | Wingwall 4 Horizontal |
| A530c | 1 | 12'-5" | Wingwall 2 Horizontal | B530 | 1 | 10'-2" | Wingwall 4 Horizontal |
| A531 | 1 | 10'-9" | Wingwall 2 Horizontal | B530c | 1 | 10'-2" | Wingwall 4 Horizontal |
| A531c | 1 | 10'-9" | Wingwall 2 Horizontal | B531 | 1 | 9'-2" | Wingwall 4 Horizontal |
| A532 | 1 | 9'-0" | Wingwall 2 Horizontal | B531c | 1 | 9'-2" | Wingwall 4 Horizontal |
| A532c | 1 | 9'-0" | Wingwall 2 Horizontal | B532 | 1 | 8'-2" | Wingwall 4 Horizontal |
| A533 | 1 | 7'-4" | Wingwall 2 Horizontal | B532c | 1 | 8'-2" | Wingwall 4 Horizontal |
| A533c | 1 | 7'-4" | Wingwall 2 Horizontal | B533 | 1 | 7'-3" | Wingwall 4 Horizontal |
| A534 | 1 | 5'-7" | Wingwall 2 Horizontal | B533c | 1 | 7'-3" | Wingwall 4 Horizontal |
| A534c | 1 | 5'-7" | Wingwall 2 Horizontal | B534 | 1 | 6'-3" | Wingwall 4 Horizontal |
| A535 | 1 | 3'-11" | Wingwall 2 Horizontal | B534c | 1 | 6'-3" | Wingwall 4 Horizontal |
| A535c | 1 | 3'-11" | Wingwall 2 Horizontal | B535 | 1 | 5'-3" | Wingwall 4 Horizontal |
| A536 | 1 | 2'-2" | Wingwall 2 Horizontal | B535c | 1 | 5'-3" | Wingwall 4 Horizontal |
| A536c | 1 | 2'-2" | Wingwall 2 Horizontal | B536 | 1 | 4'-3" | Wingwall 4 Horizontal |
| A600 | 200 | 9'-6" | Footing Horizontal | B536c | 1 | 4'-3" | Wingwall 4 Horizontal |
| A601 | 66 | 34'-11" | Footing Horizontal | B537 | 1 | 3'-3" | Wingwall 4 Horizontal |
| A602 | 14 | 9'-7" | Wingwall 1 Vertical | B537c | 1 | 3'-3" | Wingwall 4 Horizontal |
| A603 | 10 | 10'-1" | Wingwall 2 Vertical | B538 | 1 | 2'-4" | Wingwall 4 Horizontal |
| A700c | 6 | 17'-1" | Wingwall 1 Horizontal | B538c | 1 | 2'-4" | Wingwall 4 Horizontal |
| A701c | 6 | 15'-6" | Wingwall 2 Horizontal | B539 | 1 | 1'-4" | Wingwall 4 Horizontal |
| | | | | B539c | 1 | 1'-4" | Wingwall 4 Horizontal |
| | | | | B600 | 200 | 9'-6" | Footing Horizontal |
| | | | | B601 | 66 | 34'-11" | Footing Horizontal |
| | | | | B602 | 19 | 7'-8" | Wingwall 3 Vertical |
| | | | | B603 | 9 | 5'-10" | Wingwall 4 Vertical |
| | | | | B700c | 6 | 15'-1" | Wingwall 3 Horizontal |
| | | | | B701c | 6 | 14'-5" | Wingwall 4 Horizontal |

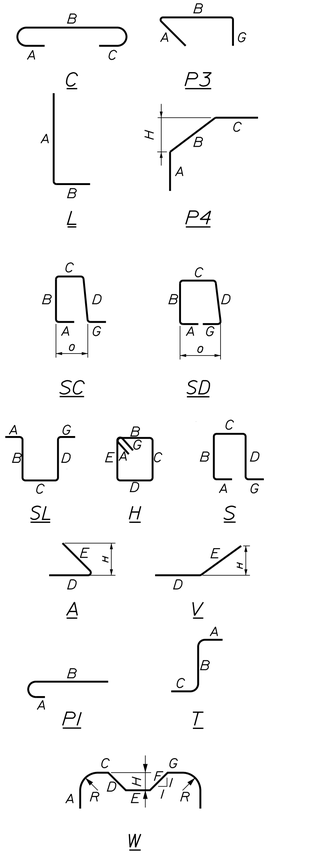
| MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|

## BENT BARS

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABUTMENT 1 | | | | | | | | | | | | | | |
| A550 | 200 | 4'-2" | S | 0'-0" | 0'-10" | 2'-6" | 0'-10" | | | 0'-0" | | | | Footing U-Bar |
| A551 | 18 | 4'-0" | S | 0'-0" | 0'-10" | 2'-4" | 0'-10" | | | 0'-0" | | | | Footing U-Bar |
| A552 | 32 | 6'-2" | S | 0'-0" | 0'-10" | 4'-6" | 0'-10" | | | 0'-0" | | | | Footing Pile Ties |
| A553 | 196 | 8'-7" | L | 7'-9" | 0'-10" | | | | | | | | | Footing Vertical Near Face |
| A554c | 182 | 9'-5" | L | 2'-8" | 6'-9" | | | | | | | | | Abutment Near Face Verticals |
| A555 | 174 | 8'-11" | L | 3'-4" | 5'-7" | | | | | | | | | Abutment Far Face Verticals |
| A556 | 19 | 6'-0" | V | | | | 1'-0" | 5'-0" | | | 3'-7" | | | Abutment Corner Bar |
| A557 | 19 | 6'-8" | V | | | | 1'-0" | 5'-8" | | | 4'-1" | | | Abutment Corner Bar |
| A558c | 14 | 2'-6" | V | | | | 1'-6" | 1'-0" | | | 0'-9" | | | Abutment Cheekwall |
| A559c | 7 | 5'-6" | A | | | | 3'-6" | 2'-0" | | | 1'-4" | | | Abutment Cheekwall |
| A560c | 7 | 4'-9" | A | | | | 3'-0" | 1'-9" | | | 1'-2" | | | Abutment Cheekwall |
| A561c | 7 | 2'-0" | V | | | | 1'-0" | 1'-0" | | | 0'-9" | | | Abutment Cheekwall |
| A562c | 16 | 4'-8" | S | 0'-0" | 1'-6" | 1'-8" | 1'-6" | | | 0'-0" | | | | Top of Wingwall |
| A563c | 56 | 7'-8" | S | 0'-0" | 3'-0" | 1'-8" | 3'-0" | | | 0'-0" | | | | Flywall U-Bar |
| A564c | 38 | 3'-6" | S | 0'-0" | 1'-0" | 1'-6" | 1'-0" | | | 0'-0" | | | | Flywall End Bar |
| A650 | 174 | 9'-9" | L | 8'-9" | 1'-0" | | | | | | | | | Footing Vertical Far Face |
| A850 | 24 | 12'-1" | L | 10'-9" | 1'-4" | | | | | | | | | Footing Vertical Far Face |
| ABUTMENT 2 | | | | | | | | | | | | | | |
| B550 | 200 | 4'-2" | S | 0'-0" | 0'-10" | 2'-6" | 0'-10" | | | 0'-0" | | | | Footing U-Bar |
| B551 | 18 | 4'-0" | S | 0'-0" | 0'-10" | 2'-4" | 0'-10" | | | 0'-0" | | | | Footing U-Bar |
| B552 | 32 | 6'-2" | S | 0'-0" | 0'-10" | 4'-6" | 0'-10" | | | 0'-0" | | | | Footing Pile Ties |
| B553 | 198 | 8'-7" | L | 7'-9" | 0'-10" | | | | | | | | | Footing Vertical Near Face |
| B554c | 188 | 6'-8" | L | 2'-8" | 4'-0" | | | | | | | | | Abutment Near Face Verticals |
| B555 | 174 | 7'-6" | L | 3'-2" | 4'-4" | | | | | | | | | Abutment Far Face Verticals |
| B556 | 15 | 4'-2" | L | 3'-8" | 0'-6" | | | | | | | | | Abutment Corner Bar |
| B557 | 15 | 6'-8" | V | | | | 1'-0" | 5'-8" | | | 4'-1" | | | Abutment Corner Bar |
| B558c | 7 | 2'-6" | V | | | | 1'-6" | 1'-0" | | | 0'-9" | | | Abutment Cheekwall |
| B559c | 7 | 6'-6" | A | | | | 4'-6" | 2'-0" | | | 1'-4" | | | Abutment Cheekwall |
| B560c | 7 | 4'-9" | A | | | | 3'-0" | 1'-9" | | | 1'-2" | | | Abutment Cheekwall |
| B561c | 7 | 2'-0" | V | | | | 1'-0" | 1'-0" | | | 0'-9" | | | Abutment Cheekwall |
| B562c | 14 | 4'-8" | S | 0'-0" | 1'-6" | 1'-8" | 1'-6" | | | 0'-0" | | | | Top of Wingwall |
| B563c | 50 | 7'-8" | S | 0'-0" | 3'-0" | 1'-8" | 3'-0" | | | 0'-0" | | | | Flywall U-Bar |
| B564c | 22 | 3'-6" | S | 0'-0" | 1'-0" | 1'-6" | 1'-0" | | | 0'-0" | | | | Flywall End Bar |
| B650 | 174 | 8'-3" | L | 7'-3" | 1'-0" | | | | | | | | | Footing Vertical Far Face |
| B850 | 28 | 12'-1" | L | 10'-9" | 1'-4" | | | | | | | | | Footing Vertical Far Face |

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

## TYPE - BENDING DIAGRAMS




All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A615, Grade 60
ASTM A1035, Type CS, Grade 100
ASTM D7957, Glass Fiber Reinforced Polymer

## GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

   Mark "A502" = bar size #5
   Mark "B805" = bar size #8
   Mark "S650" = bar size #6

2. Bar Marks ending in a letter indicate the following:

   c = Low Carbon Chromium

   p = Glass Fiber Reinforced Polymer

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

| | L. ROWE | DATE |
|---|---|---|
| PROJ. MANAGER | | |
| DESIGN-DETAILED | JAH | 11/25 |
| CHECKED-REVIEWED | YP | 11/25 |
| DESIGN2-DETAILED2 | SMH | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

REINFORCING SCHEDULE
(1 OF 3)

SHEET NUMBER
B-95
462
OF 485

Filename: ...\MSTA\XXX_Reinf_Sched.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

## STRAIGHT BARS

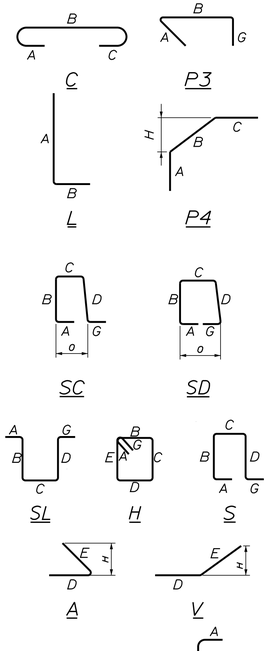
| MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|
| PIER 1 | | | |
| 1PF700 | 196 | 11'-6" | Pier Footing Horizontal |
| 1PF701 | 62 | 29'-6" | Pier Footing Horizontal |
| 1PF900 | 24 | 29'-6" | Pier Footing Horizontal |
| 1P500c | 116 | 12'-8" | Stem A Horizontal |
| 1P501c | 116 | 20'-11" | Stem B Horizontal |
| 1P502c | 12 | 12'-7" | Pedestal Bars |
| 1P503c | 4 | 14'-2" | Pedestal Bars |
| 1P504c | 4 | 9'-3" | Pedestal Bars |
| 1P600c | 8 | 12'-8" | Pier Cap A Horizontal |
| 1P601c | 2 | 16'-8" | Pier Cap A Horizontal |
| 1P602c | 2 | 20'-8" | Pier Cap A Horizontal |
| 1P603c | 2 | 24'-8" | Pier Cap A Horizontal |
| 1P604c | 2 | 28'-8" | Pier Cap A Horizontal |
| 1P605c | 2 | 32'-9" | Pier Cap A Horizontal |
| 1P606c | 14 | 36'-8" | Pier Cap A Horizontal |
| 1P607c | 8 | 20'-11" | Pier Cap B Horizontal |
| 1P608c | 2 | 25'-1" | Pier Cap B Horizontal |
| 1P609c | 2 | 29'-4" | Pier Cap B Horizontal |
| 1P610c | 2 | 33'-7" | Pier Cap B Horizontal |
| 1P611c | 2 | 37'-9" | Pier Cap B Horizontal |
| 1P612c | 2 | 42'-0" | Pier Cap B Horizontal |
| 1P613c | 14 | 44'-8" | Pier Cap B Horizontal |
| 1PI000c | 75 | 21'-10" | Pier Stem Verticals |
| 1PI001c | 75 | 17'-10" | Pier Stem Verticals |
| PIER 2 | | | |
| 2PF700 | 196 | 11'-6" | Pier Footing Horizontal |
| 2PF701 | 62 | 29'-6" | Pier Footing Horizontal |
| 2PF900 | 24 | 29'-6" | Pier Footing Horizontal |
| 2P500c | 110 | 12'-8" | Stem A Horizontal |
| 2P501c | 110 | 20'-11" | Stem B Horizontal |
| 2P502c | 12 | 12'-7" | Pedestal Bars |
| 2P503c | 4 | 14'-2" | Pedestal Bars |
| 2P504c | 4 | 9'-3" | Pedestal Bars |
| 2P600c | 8 | 12'-8" | Pier Cap A Horizontal |
| 2P601c | 2 | 16'-8" | Pier Cap A Horizontal |
| 2P602c | 2 | 20'-8" | Pier Cap A Horizontal |
| 2P603c | 2 | 24'-8" | Pier Cap A Horizontal |
| 2P604c | 2 | 28'-8" | Pier Cap A Horizontal |
| 2P605c | 2 | 32'-9" | Pier Cap A Horizontal |
| 2P606c | 14 | 36'-8" | Pier Cap A Horizontal |
| 2P607c | 8 | 20'-11" | Pier Cap B Horizontal |
| 2P608c | 2 | 25'-1" | Pier Cap B Horizontal |
| 2P609c | 2 | 29'-4" | Pier Cap B Horizontal |
| 2P610c | 2 | 33'-7" | Pier Cap B Horizontal |
| 2P611c | 2 | 37'-9" | Pier Cap B Horizontal |
| 2P612c | 2 | 42'-0" | Pier Cap B Horizontal |
| 2P613c | 14 | 44'-8" | Pier Cap B Horizontal |
| 2PI000c | 75 | 20'-6" | Pier Stem Verticals |
| 2PI001c | 75 | 16'-6" | Pier Stem Verticals |

| MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|
| PIER 3 | | | |
| 3PF700 | 196 | 11'-6" | Pier Footing Horizontal |
| 3PF701 | 62 | 29'-6" | Pier Footing Horizontal |
| 3PF900 | 24 | 29'-6" | Pier Footing Horizontal |
| 3P500c | 114 | 12'-8" | Stem A Horizontal |
| 3P501c | 114 | 20'-11" | Stem B Horizontal |
| 3P502c | 12 | 12'-7" | Pedestal Bars |
| 3P503c | 4 | 14'-2" | Pedestal Bars |
| 3P504c | 4 | 9'-3" | Pedestal Bars |
| 3P600c | 8 | 12'-8" | Pier Cap A Horizontal |
| 3P601c | 2 | 16'-8" | Pier Cap A Horizontal |
| 3P602c | 2 | 20'-8" | Pier Cap A Horizontal |
| 3P603c | 2 | 24'-8" | Pier Cap A Horizontal |
| 3P604c | 2 | 28'-8" | Pier Cap A Horizontal |
| 3P605c | 2 | 32'-9" | Pier Cap A Horizontal |
| 3P606c | 14 | 36'-8" | Pier Cap A Horizontal |
| 3P607c | 8 | 20'-11" | Pier Cap B Horizontal |
| 3P608c | 2 | 25'-1" | Pier Cap B Horizontal |
| 3P609c | 2 | 29'-4" | Pier Cap B Horizontal |
| 3P610c | 2 | 33'-7" | Pier Cap B Horizontal |
| 3P611c | 2 | 37'-9" | Pier Cap B Horizontal |
| 3P612c | 2 | 42'-0" | Pier Cap B Horizontal |
| 3P613c | 14 | 44'-8" | Pier Cap B Horizontal |
| 3PI000c | 75 | 21'-2" | Pier Stem Verticals |
| 3PI001c | 75 | 17'-2" | Pier Stem Verticals |
| PIER 4 | | | |
| 4PF700 | 196 | 11'-6" | Pier Footing Horizontal |
| 4PF701 | 62 | 29'-6" | Pier Footing Horizontal |
| 4PF900 | 24 | 29'-6" | Pier Footing Horizontal |
| 4P500c | 108 | 12'-8" | Stem A Horizontal |
| 4P501c | 108 | 20'-11" | Stem B Horizontal |
| 4P502c | 12 | 12'-7" | Pedestal Bars |
| 4P503c | 4 | 14'-2" | Pedestal Bars |
| 4P504c | 4 | 9'-3" | Pedestal Bars |
| 4P600c | 8 | 12'-8" | Pier Cap A Horizontal |
| 4P601c | 2 | 16'-8" | Pier Cap A Horizontal |
| 4P602c | 2 | 20'-8" | Pier Cap A Horizontal |
| 4P603c | 2 | 24'-8" | Pier Cap A Horizontal |
| 4P604c | 2 | 28'-8" | Pier Cap A Horizontal |
| 4P605c | 2 | 32'-9" | Pier Cap A Horizontal |
| 4P606c | 14 | 36'-8" | Pier Cap A Horizontal |
| 4P607c | 8 | 20'-11" | Pier Cap B Horizontal |
| 4P608c | 2 | 25'-1" | Pier Cap B Horizontal |
| 4P609c | 2 | 29'-4" | Pier Cap B Horizontal |
| 4P610c | 2 | 33'-7" | Pier Cap B Horizontal |
| 4P611c | 2 | 37'-9" | Pier Cap B Horizontal |
| 4P612c | 2 | 42'-0" | Pier Cap B Horizontal |
| 4P613c | 14 | 44'-8" | Pier Cap B Horizontal |
| 4PI000c | 75 | 19'-6" | Pier Stem Verticals |
| 4PI001c | 75 | 15'-6" | Pier Stem Verticals |

## BENT BARS

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PIER 1 | | | | | | | | | | | | | | |
| 1PF550 | 168 | 6'-0" | S | 0'-0" | 1'-0" | 4'-0" | 1'-0" | | | 0'-0" | | | | Pier Footing Stirrup |
| 1PFI050c | 75 | 13'-3" | L | 10'-3" | 3'-0" | | | | | | | | | Column Primary Reinforcing |
| 1PFI051c | 75 | 17'-3" | L | 14'-3" | 3'-0" | | | | | | | | | Column Primary Reinforcing |
| 1P550c | 116 | 6'-8" | S | 0'-0" | 2'-0" | 2'-8" | 2'-0" | | | 0'-0" | | | | Pier Stem Edge Stirrups |
| 1P551c | 1472 | 3'-8" | P3 | 0'-6" | 2'-4" | | | | | 0'-10" | | | | Pier Stem Ties |
| 1P552c | 54 | 13'-2" | S | 0'-0" | 5'-0" | 3'-2" | 5'-0" | | | 0'-0" | | | | Pier Cap Stirrups |
| 1P553c | 240 | 12'-2" | S | 0'-0" | 5'-0" | 2'-2" | 5'-0" | | | 0'-0" | | | | Pier Cap Stirrups |
| 1P554c | 112 | 10'-8" | S | 0'-0" | 4'-3" | 2'-2" | 4'-3" | | | 0'-0" | | | | Pier Cap Stirrups |
| 1P555c | 66 | 6'-2" | S | 0'-0" | 1'-6" | 3'-2" | 1'-6" | | | 0'-0" | | | | Pier Cap Stirrups |
| 1P650c | 16 | 18'-1" | P4 | 4'-0" | 12'-1" | 2'-0" | | | | | 2'-10" | | | Pier Cap Horizontal |
| 1P651c | 16 | 18'-1" | P4 | 4'-0" | 12'-1" | 2'-0" | | | | | 3'-0" | | | Pier Cap Horizontal |
| 1PI050c | 16 | 19'-10" | L | 18'-0" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 1PI051c | 16 | 26'-4" | L | 24'-6" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 1PI052c | 16 | 21'-10" | L | 20'-0" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 1PI053c | 16 | 32'-4" | L | 30'-6" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| PIER 2 | | | | | | | | | | | | | | |
| 2PF550 | 168 | 6'-0" | S | 0'-0" | 1'-0" | 4'-0" | 1'-0" | | | 0'-0" | | | | Pier Footing Stirrup |
| 2PFI050c | 75 | 13'-3" | L | 10'-3" | 3'-0" | | | | | | | | | Column Primary Reinforcing |
| 2PFI051c | 75 | 17'-3" | L | 14'-3" | 3'-0" | | | | | | | | | Column Primary Reinforcing |
| 2P550c | 110 | 6'-8" | S | 0'-0" | 2'-0" | 2'-8" | 2'-0" | | | 0'-0" | | | | Pier Stem Edge Stirrups |
| 2P551c | 1424 | 3'-8" | P3 | 0'-6" | 2'-4" | | | | | 0'-10" | | | | Pier Stem Ties |
| 2P552c | 54 | 13'-2" | S | 0'-0" | 5'-0" | 3'-2" | 5'-0" | | | 0'-0" | | | | Pier Cap Stirrups |
| 2P553c | 240 | 12'-2" | S | 0'-0" | 5'-0" | 2'-2" | 5'-0" | | | 0'-0" | | | | Pier Cap Stirrups |
| 2P554c | 112 | 10'-8" | S | 0'-0" | 4'-3" | 2'-2" | 4'-3" | | | 0'-0" | | | | Pier Cap Stirrups |
| 2P555c | 66 | 6'-2" | S | 0'-0" | 1'-6" | 3'-2" | 1'-6" | | | 0'-0" | | | | Pier Cap Stirrups |
| 2P650c | 16 | 18'-1" | P4 | 4'-0" | 12'-1" | 2'-0" | | | | | 2'-10" | | | Pier Cap Horizontal |
| 2P651c | 16 | 18'-1" | P4 | 4'-0" | 12'-1" | 2'-0" | | | | | 3'-0" | | | Pier Cap Horizontal |
| 2PI050c | 16 | 19'-10" | L | 18'-0" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 2PI051c | 16 | 26'-4" | L | 24'-6" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 2PI052c | 16 | 21'-10" | L | 20'-0" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 2PI053c | 16 | 32'-4" | L | 30'-6" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| PIER 3 | | | | | | | | | | | | | | |
| 3PF550 | 168 | 6'-0" | S | 0'-0" | 1'-0" | 4'-0" | 1'-0" | | | 0'-0" | | | | Pier Footing Stirrup |
| 3PFI050c | 75 | 13'-3" | L | 10'-3" | 3'-0" | | | | | | | | | Column Primary Reinforcing |
| 3PFI051c | 75 | 17'-3" | L | 14'-3" | 3'-0" | | | | | | | | | Column Primary Reinforcing |
| 3P550c | 114 | 6'-8" | S | 0'-0" | 2'-0" | 2'-8" | 2'-0" | | | 0'-0" | | | | Pier Stem Edge Stirrups |
| 3P551c | 1472 | 3'-8" | P3 | 0'-6" | 2'-4" | | | | | 0'-10" | | | | Pier Stem Ties |
| 3P552c | 54 | 13'-2" | S | 0'-0" | 5'-0" | 3'-2" | 5'-0" | | | 0'-0" | | | | Pier Cap Stirrups |
| 3P553c | 240 | 12'-2" | S | 0'-0" | 5'-0" | 2'-2" | 5'-0" | | | 0'-0" | | | | Pier Cap Stirrups |
| 3P554c | 112 | 10'-8" | S | 0'-0" | 4'-3" | 2'-2" | 4'-3" | | | 0'-0" | | | | Pier Cap Stirrups |
| 3P555c | 66 | 6'-2" | S | 0'-0" | 1'-6" | 3'-2" | 1'-6" | | | 0'-0" | | | | Pier Cap Stirrups |
| 3P650c | 16 | 18'-1" | P4 | 4'-0" | 12'-1" | 2'-0" | | | | | 2'-10" | | | Pier Cap Horizontal |
| 3P651c | 16 | 18'-1" | P4 | 4'-0" | 12'-1" | 2'-0" | | | | | 3'-0" | | | Pier Cap Horizontal |
| 3PI050c | 16 | 19'-10" | L | 18'-0" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 3PI051c | 16 | 26'-4" | L | 24'-6" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 3PI052c | 16 | 21'-10" | L | 20'-0" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 3PI053c | 16 | 32'-4" | L | 30'-6" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| PIER 4 | | | | | | | | | | | | | | |
| 4PF550 | 168 | 6'-0" | S | 0'-0" | 1'-0" | 4'-0" | 1'-0" | | | 0'-0" | | | | Pier Footing Stirrup |
| 4PFI050c | 75 | 13'-3" | L | 10'-3" | 3'-0" | | | | | | | | | Column Primary Reinforcing |
| 4PFI051c | 75 | 17'-3" | L | 14'-3" | 3'-0" | | | | | | | | | Column Primary Reinforcing |
| 4P550c | 108 | 6'-8" | S | 0'-0" | 2'-0" | 2'-8" | 2'-0" | | | 0'-0" | | | | Pier Stem Edge Stirrups |
| 4P551c | 1408 | 3'-8" | P3 | 0'-6" | 2'-4" | | | | | 0'-10" | | | | Pier Stem Ties |
| 4P552c | 54 | 13'-2" | S | 0'-0" | 5'-0" | 3'-2" | 5'-0" | | | 0'-0" | | | | Pier Cap Stirrups |
| 4P553c | 240 | 12'-2" | S | 0'-0" | 5'-0" | 2'-2" | 5'-0" | | | 0'-0" | | | | Pier Cap Stirrups |
| 4P554c | 112 | 10'-8" | S | 0'-0" | 4'-3" | 2'-2" | 4'-3" | | | 0'-0" | | | | Pier Cap Stirrups |
| 4P555c | 66 | 6'-2" | S | 0'-0" | 1'-6" | 3'-2" | 1'-6" | | | 0'-0" | | | | Pier Cap Stirrups |
| 4P650c | 16 | 18'-1" | P4 | 4'-0" | 12'-1" | 2'-0" | | | | | 2'-10" | | | Pier Cap Horizontal |
| 4P651c | 16 | 18'-1" | P4 | 4'-0" | 12'-1" | 2'-0" | | | | | 3'-0" | | | Pier Cap Horizontal |
| 4PI050c | 16 | 19'-10" | L | 18'-0" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 4PI051c | 16 | 26'-4" | L | 24'-6" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 4PI052c | 16 | 21'-10" | L | 20'-0" | 1'-10" | | | | | | | | | Pier Cap Top Mats |
| 4PI053c | 16 | 32'-4" | L | 30'-6" | 1'-10" | | | | | | | | | Pier Cap Top Mats |

## TYPE - BENDING DIAGRAMS




All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A615, Grade 60
ASTM A1035, Type CS, Grade 100
ASTM D7957, Glass Fiber Reinforced Polymer

## GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

   Mark "A502" = bar size #5
   Mark "B805" = bar size #8
   Mark "S650" = bar size #6

2. Bar Marks ending in a letter indicate the following:

   c = Low Carbon Chromium

   p = Glass Fiber Reinforced Polymer

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

| | L. ROWE | DATE |
|---|---|---|
| PROJ. MANAGER | | |
| DESIGN-DETAILED | JAH | 11/25 |
| CHECKED-REVIEWED | YP | 11/25 |
| DESIGN2-DETAILED2 | SMH | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

REINFORCING SCHEDULE
(2 OF 3)

SHEET NUMBER
B-96
463
OF 485

Filename: ...\MSTA\XXX_Reinf_Sched2.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025

## STRAIGHT BARS

| MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|
| APPROACH AND SLEEPER SLAB | | | |
| AS500 | 80 | 50'-0" | Approach Slab Transverse Bars |
| AS500c | 38 | 50'-0" | Approach Slab Transverse Bars |
| AS501 | 80 | 43'-2" | Approach Slab Transverse Bars |
| AS501c | 38 | 43'-2" | Approach Slab Transverse Bars |
| AS502 | 386 | 3'-9" | Sleeper Slab Verticals |
| AS503 | 175 | 2'-6" | Drainage Trough Support |
| AS504c | 179 | 19'-6" | Approach Slab Top Mat |
| AS506c | 16 | 4'-0" | Sleeper Slab Curb Bar |
| AS507c | 12 | 21'-8" | Approach Slab Curb Bar |
| AS800 | 356 | 19'-6" | Approach Slab Bottom Mat |
| AS600c | 16 | 3'-2" | Barrier Post Vertical |
| AS508 | 32 | 4'-0" | Sleeper Slab Horizontal Bar |
| SUPERSTRUCTURE BACKWALL | | | |
| S621c | 42 | 6'-0" | Backwall Transverse Dowel |
| S721c | 132 | 12'-7" | Backwall Transverse |
| S921c | 18 | 31'-1" | Backwall Transverse |
| S922c | 18 | 36'-1" | Backwall Transverse |
| S923c | 18 | 26'-1" | Backwall Transverse |
| SUPERSTRUCTURE | | | |
| S501p | 1190 | 49'-0" | Longitudinal |
| S502p | 8 | 44'-3" | Deck End |
| S601p | 712 | 22'-3" | Transverse Bar |
| S602p | 682 | 40'-3" | Transverse Bar |
| S603p | 10 | 37'-11" | Tapered Deck End Bottom |
| S604p | 722 | 35'-7" | Tapered Deck End Bottom |
| S605p | 10 | 33'-3" | Tapered Deck End Bottom |
| S606p | 600 | 49'-10" | Longitudinal |
| S607p | 682 | 27'-0" | Transverse Bar |
| S608p | 10 | 24'-8" | Tapered Deck End Top |
| S609p | 10 | 22'-4" | Tapered Deck End Top |
| S610p | 10 | 20'-0" | Tapered Deck End Top |
| S611p | 4 | 49'-3" | Top and Bot Tapered Bar |
| ↓ ↓ ↓ ↓ Reduce Each Consecutive Bar Length by 5.69 Inches. ↓ ↓ ↓ ↓ | | | |
| S696p | 4 | 9'-5" | Top and Bot Tapered Bar |
| S501c | 296 | 49'-6" | Curb Longitudinal |
| S502c | 236 | 33'-9" | Pier Longitudinal |
| S503c | 80 | 4'-0" | Deck Fillet |
| S504c | 2 | 20'-0" | Abutment 2 Deck End Curb Bar |
| S601c | 464 | 45'-0" | Transverse Bar |
| S602c | 464 | 39'-0" | Over Pier, Longitudinal |
| S603c | 52 | 9'-0" | Acute Corner Bar |
| L500c | 8 | 4'-2" | Lighting Bumpout |

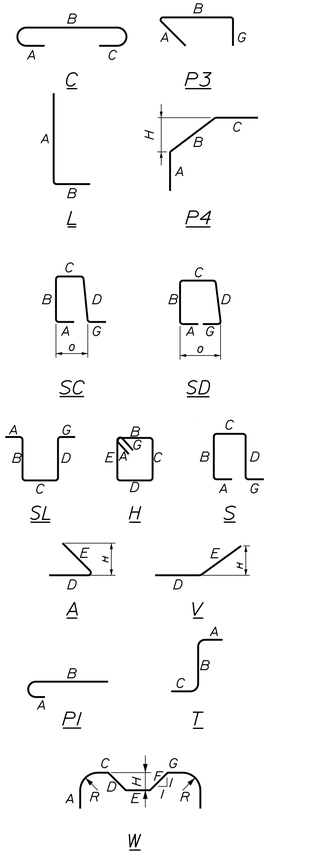
| MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|
| SUPERSTRUCTURE | | | |

## BENT BARS

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROACH AND SLEEPER SLAB | | | | | | | | | | | | | | |
| AS450c | 7 | 4'-8" | H | 0'-5" | 0'-11" | 2'-0" | 0'-11" | 2'-0" | | 0'-5" | | | | Barrier Post Ties - Sleeper Slab 1 |
| AS451c | 7 | 4'-5" | H | 0'-5" | 0'-11" | 1'-9" | 0'-11" | 1'-9" | | 0'-5" | | | | Barrier Post Ties - Sleeper Slab 2 |
| AS550 | 175 | 10'-6" | S | 0'-0" | 2'-1" | 6'-4" | 2'-1" | | | 0'-0" | | | | Sleeper Slab Footing |
| AS551 | 175 | 7'-2" | S | 0'-0" | 2'-1" | 3'-0" | 2'-1" | | | 0'-0" | | | | Sleeper Slab Footing |
| AS552c | 175 | 3'-0" | L | 1'-6" | 1'-6" | | | | | | | | | Sleeper Slab Stem |
| AS553c | 175 | 3'-0" | V | | | | 1'-6" | 1'-6" | | | 1'-1" | | | Approach Slab Thickened Section |
| AS554 | 175 | 5'-1" | L | 3'-6" | 1'-7" | | | | | | | | | Approach Slab Thickened Section |
| AS555 | 175 | 2'-0" | L | 1'-0" | 1'-0" | | | | | | | | | Approach Slab Thickened Section |
| AS556c | 99 | 6'-5" | SC | 0'-10" | 1'-9" | 1'-3" | 1'-9" | | | 0'-10" | | 1'-4" | | Curb Stirrups |
| AS557c | 108 | 3'-0" | L | 1'-9" | 1'-3" | | | | | | | | | Curb Hooks |
| AS558c | 24 | 5'-11" | SC | 0'-0" | 2'-4" | 1'-3" | 2'-4" | | | 0'-0" | | 1'-4" | | Sleeper Slab Curb Stirrups |
| AS559c | 8 | 2'-11" | S | 0'-0" | 1'-0" | 0'-11" | 1'-0" | | | 0'-0" | | | | Barrier Post |
| SUPERSTRUCTURE BACKWALL | | | | | | | | | | | | | | |
| S571c | 36 | 5'-0" | V | | | | 3'-4" | 1'-8" | | | 1'-3" | | | Backwall Horizontal |
| S572c | 36 | 5'-0" | A | | | | 3'-4" | 1'-8" | | | 1'-2" | | | Backwall Horizontal |
| S573c | 348 | 4'-3" | L | 3'-1" | 1'-2" | | | | | | | | | Backwall Vertical |
| S574c | 174 | 2'-11" | L | 1'-11" | 1'-0" | | | | | | | | | Backwall Vertical |
| S577c | 1032 | 2'-2" | P3 | 0'-6" | 1'-2" | | | | | 0'-6" | | | | Backwall Tie |
| SUPERSTRUCTURE | | | | | | | | | | | | | | |
| S550c | 1278 | 4'-11" | SC | 0'-6" | 1'-4" | 1'-3" | 1'-4" | | | 0'-6" | | 1'-5" | | Curb and Railing Stirrups |
| S551c | 1846 | 6'-7" | C | 0'-7" | 6'-0" | 0'-0" | | | | | | | | Transverse Hook Bars |
| S552c | 24 | 5'-2" | P4 | 1'-10" | 1'-6" | 1'-10" | | | | | 1'-3¼" | | | Drain Bar |
| S553c | 12 | 3'-10" | SL | 0'-0" | 1'-3" | 1'-4" | 1'-3" | | | 0'-0" | | | | Curb Flare Supplement |
| S554c | 12 | 5'-4" | SL | 0'-0" | 2'-0" | 1'-4" | 2'-0" | | | 0'-0" | | | | Curb Flare Supplement |
| S555c | 120 | 5'-1" | T | 2'-6" | 1'-6" | 1'-1" | | | | | | | | Deck End Bar |
| S560c | 118 | 4'-10" | L | 2'-5" | 2'-5" | | | | | | | | | Approach Slab Dowel |
| L551c | 6 | 6'-8" | W | 0'-0" | | 0'-0" | 2'-8" | 1'-4" | 2'-8" | 0'-0" | 1'-10" | | 0'-0" | Lighting Support |
| L552c | 14 | 6'-8" | SL | 0'-0" | 2'-8" | 1'-4" | 2'-8" | | | 0'-0" | | | | Lighting Support |

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

## TYPE - BENDING DIAGRAMS




All dimensions are out-to-out of bar.

Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 315 and ACI Standard 318.

Reinforcing Bar: ASTM A615, Grade 60
ASTM A1035, Type CS, Grade 100
ASTM D7957, Glass Fiber Reinforced Polymer

## GENERAL NOTES

1. The first two digits following the letter(s) of the mark indicate the size of the bar:

   Mark "A502" = bar size #5
   Mark "B805" = bar size #8
   Mark "S650" = bar size #6

2. Bar Marks ending in a letter indicate the following:

   c = Low Carbon Chromium

   p = Glass Fiber Reinforced Polymer

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

18595.11

WIN 18595.11

BRIDGE PLANS

BRIDGE NO. 6787

vhb

| | | DATE |
|---|---|---|
| PROJ. MANAGER | L. ROWE | |
| DESIGN-DETAILED | JAH | 11/25 |
| CHECKED-REVIEWED | YP | 11/25 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

HOGAN ROAD NO. 2 BRIDGE
I-95
BANGOR PENOBSCOT

REINFORCING SCHEDULE
(3 OF 3)

SHEET NUMBER
B-97
464
OF 485

Filename: ...\MSTA\XXX_Reinf_Sched3.dgn Division: HIGHWAY Username: jamesdavis Date:08/29/2025