# 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 1

## TRAFFIC DATA

| | |
|---|---|
| Current (2020) AADT | 3,490 |
| Future (2040) AADT | 3,840 |
| DHV - % of AADT | 11% |
| Design Hour Volume | 422 |
| Heavy Trucks (% of AADT) | 3% |
| Heavy Trucks (% of DHV) | 2% |
| Directional Distribution (% of DHV) | 71% |
| 18 kip Equivalent P 2.0 | 72 |
| 18 kip Equivalent P 2.5 | 69 |
| Design Speed (mph) | 35 |

## HYDROLOGIC DATA

| | |
|---|---|
| Drainage Area | 3.8 sq mi |
| Design Discharge (Q50) | 327.6 cfs |
| Check Discharge (Q100) | 383.6 cfs |
| Headwater Elevation (Q1.1) | 68.45 ft |
| Headwater Elevation (Q10) | 77.72 ft |
| Headwater Elevation (Q50) | 81.52 ft |
| Headwater Elevation (Q100) | 83.81 ft |
| Discharge Velocity (Q1.1) | 1.72 fps |
| Discharge Velocity (Q10) | 0.69 fps |
| Discharge Velocity (Q50) | 0.70 fps |
| Discharge Velocity (Q100) | 0.65 fps |

## MATERIALS

| | |
|---|---|
| Concrete: | |
| Curbs | Class "LP" |
| Precast | Class "P" |
| All Other | Class "A" |
| Reinforcing Steel: | |
| Plain | ASTM A 615, Grade 60 |
| Low-Carbon Chromium | ASTM A 1035, Type CS, Grade 100 |
| Prestressing Strands | AASHTO M 203 (ASTM A 416), Grade 270, Low Relaxation |

## BASIC DESIGN STRESSES

| | |
|---|---|
| Concrete, Class "A" | f 'c = 4,000 psi |
| Concrete, Class "P" | f 'ci = 6,500 psi |
| | f 'c = 8,000 psi |
| Concrete, Class "LP" | f 'c = 5,000 psi |
| Plain Reinforcing Steel | f y = 60,000 psi |
| Low-Carbon Chromium Reinforcing Steel | f y = 100,000 psi |
| Prestressing Strands | F μ = 270,000 psi |

# DURHAM
# ANDROSCOGGIN COUNTY
# TRACY BROOK BRIDGE
## OVER
# MEADOW BROOK
## STATE ROUTE 125
## FEDERAL AID PROJECT NO. 2365700
## PROJECT LENGTH 0.18 mi.
## BRIDGE NO. 2852

## LIST OF DRAWINGS


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## UTILITIES

Central Maine Power
Consolidated Communications
Comcast

## MAINTENANCE OF TRAFFIC

Maintain one lane of alternating one-way traffic using temporary traffic signals and staged construction.

| | |
|---|---|
| PROJECT LOCATION: | Tracy Brook Bridge (#2852) over Meadow Brook. Located 0.17 of a mile east of Brickyard Hill Road. |
| PROGRAM AREA: | Bridge Program |
| OUTLINE OF WORK: | Bridge Replacement with associated approach work. |

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED

COMMISSIONER: [signature] DATE 11-2-22

CHIEF ENGINEER: [signature] DATE 11-18-2022

STATE OF MAINE ★ ASHLEY E STEPHENS No. 13888 LICENSED PROFESSIONAL ENGINEER ★

[signature] 10/28/22
SIGNATURE 13888 P.E. NUMBER 10/28/22 DATE

| PROJECT INFORMATION | | |
|---|---|---|
| PROGRAM | BRIDGE | |
| PROJECT MANAGER | TONY BEAULIEU, P.E. | |
| DESIGNER | ASHLEY STEPHENS, P.E. | |
| CONSULTANT | HNTB | |
| PROJECT RESIDENT | | |
| CONTRACTOR | | |
| PROJECT COMPLETION DATE | | |

WIN 023657.00

02365700

DURHAM
TRACY BROOK BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 79

Date:10/28/2022
Username:
Division:
Filename:801_Title.dgn

Filename: 002_Estimated Quantities.dgn Username: Division: Date:11/3/2022

ESTIMATED QUANTITIES

| ITEM NO. | DESCRIPTION | QUANTITY | UNIT |
|---|---|---|---|
| 202.19 | Removing Existing Bridge (205 CY) | 1 | LS |
| 202.202 | Removing Pavement Surface | 265 | SY |
| 203.20 | Common Excavation | 5,250 | CY |
| 203.25 | Granular Borrow | 1,890 | CY |
| 203.33 | Special Fill | 50 | CY |
| 206.082 | Structural Earth Excavation - Major Structures, Plan Quantity | 580 | CY |
| | | | |
| 304.10 | Aggregate Subbase Course - Gravel | 2,650 | CY |
| | | | |
| 403.208 | Hot Mix Asphalt, 12.5 mm Nominal Maximum Size | 250 | TON |
| 403.213 | Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base course) | 400 | TON |
| 409.15 | Bituminous Tack Coat - Applied | 100 | G |
| | | | |
| 501.502 | Rock-Socketed Steel H-Piles 102 lb/ft, in place | 245 | LF |
| 501.52 | Steel H-beam Piles 102 lb/ft, delivered | 245 | LF |
| 501.804 | Drilling Equipment and Mobilization, Rock-Socketed H-beam Piles | 1 | LS |
| 502.219 | Structural Concrete, Abutments and Retaining Walls (140 CY) | 1 | LS |
| 502.261 | Structural Concrete Roadway and Sidewalk Slab on Concrete Bridges (125 CY) | 1 | LS |
| 502.291 | Saw Cut Grooving - Longitudinal (2650 SF) | 1 | LS |
| 502.31 | Structural Concrete Approach Slab (25 CY) | 1 | LS |
| 502.49 | Structural Concrete Curbs and Sidewalks (9 CY) | 1 | LS |
| 503.12 | Reinforcing Steel, Fabricated and Delivered | 21,100 | LB |
| 503.13 | Reinforcing Steel, Placing | 21,100 | LB |
| 503.17 | Mechanical/Welded Splice | 382 | EA |
| 503.19 | Low-Carbon Chromium Reinforcement, Fabricated and Delivered | 33,600 | LB |
| 503.20 | Low-Carbon Chromium Reinforcement, Placing | 33,600 | LB |
| 507.0821 | Steel Bridge Railing, 3 Bar (170 LF) | 1 | LS |
| 507.0822 | Steel Approach Railing, 3 Bar | 4 | EA |
| 511.07 | Cofferdam: All Cofferdams | 1 | LS |
| 513.12 | Slope Protection (Wire Mesh) | 668 | SY |
| 515.21 | Protective Coating for Concrete Surfaces (450 SY) | 1 | LS |
| 526.301 | Portable Concrete Barrier, Type I (680 LF) | 1 | LS |
| 526.305 | Portable Concrete Barrier, Braced Type I (100 LF) | 1 | LS |
| 527.34 | Work Zone Crash Cushions | 2 | UN |
| 535.622 | Prestressed Structural Concrete NEXT Beam (106 CY) | 1 | LS |
| | | | |
| 603.169 | 15 Inch Culvert Pipe Option III | 90 | LF |
| 604.092 | Catch Basin Type BI-C | 1 | EA |
| 604.246 | Catch Basin Type F5 | 1 | EA |
| 605.09 | 6 inch Underdrain Type B | 280 | LF |
| 606.1301 | 31" W-Beam Guardrail - Mid-Way Splice - Single Faced | 1,000 | LF |
| 606.1304 | 31" W-Beam Guardrail - Mid-Way Splice, Over 15' Radius | 25 | LF |
| 606.1308 | Buried-In-Slope Guardrail End, Mid-Way Splice | 2 | EA |
| 606.1721 | Bridge Transition - Type I | 4 | EA |
| 606.259 | Anchorage Assembly | 1 | EA |
| 606.353 | Reflectorized Flexible Guardrail Marker | 5 | EA |
| 610.08 | Plain Riprap | 2,100 | CY |
| 610.18 | Stone Ditch Protection | 24 | CY |
| 610.213 | Void Filled Riprap | 430 | CY |
| 613.319 | Erosion Control Blanket | 1,745 | SY |
| 615.07 | Loam | 150 | CY |
| 618.14 | Seeding Method Number 2 | 27 | UN |
| 619.12 | Mulch | 27 | UN |
| 619.14 | Erosion Control Mix | 300 | CY |
| 620.58 | Erosion Control Geotextile | 3,600 | SY |
| 620.66 | Drainage Geocomposite | 120 | SY |
| 627.733 | 4" White or Yellow Painted Pavement Marking Line | 2,650 | LF |
| 627.77 | Removing Existing Pavement Marking | 50 | SF |
| 627.78 | Temporary 4" Painted Pavement Marking Line, White or Yellow | 2,000 | LF |
| 629.05 | Hand Labor, Straight Time | 40 | HR |
| 631.12 | All Purpose Excavator (including operator) | 40 | HR |
| 631.14 | Grader (including operator) | 40 | HR |
| 631.15 | Roller, earth and base (including Operator) | 40 | HR |
| 631.172 | Truck-large (including operator) | 40 | HR |
| 639.18 | Field Office, Type A | 1 | EA |
| 643.72 | Temporary Traffic Signal: Route 125 | 1 | LS |
| 652.312 | Type III Barricades | 4 | EA |
| 652.33 | Drum | 50 | EA |
| 652.34 | Cone | 50 | EA |
| 652.35 | Construction Signs | 175 | SF |
| 652.361 | Maintenance of Traffic Control Devices | 1 | LS |
| 652.38 | Flaggers | 450 | HR |
| 652.41 | Portable-Changeable Message Sign | 3 | EA |
| 656.75 | Temporary Soil Erosion and Water Pollution Control | 1 | LS |
| 659.10 | Mobilization | 1 | LS |
| 675.10 | Soil Nails | 2,660 | LF |
| 675.11 | Verification Test for Soil Nails | 4 | EA |

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 09\2022 |
| CHECKED-REVIEWED | B. Grenier | A. Stephens | 09\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 79

# GENERAL CONSTRUCTION NOTES

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

2. The location of utilities shown are approximate and should be verified in the field by the Contractor.

3. For easements, construction limits, and right of way lines, refer to Right of Way Maps.

4. Seeding Method No. 1 shall be utilized on all lawns and developed areas. Seeding Method No. 2 shall be utilized on all other areas, unless otherwise noted or directed.

5. Two reflectorized flexible guardrail markers will be installed at each guardrail end.

6. Clearing limits shall be 10 feet beyond and parallel to the construction slope lines or as shown on the plans unless otherwise authorized by the Resident.

7. The clearing limits as shown on the Plans are approximate. The exact limits will be established in the field by the Resident. Tree and stump removal within the clearing limits shall be considered clearing.

8. Place loam 2 inches deep on all new or reconstructed side slopes and 4 inches in lawn areas or as directed by the Resident.

9. A MASH Compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.

10. Where it is apparent that runoff will cause continual erosion, Erosion Control Blankets, seeded gutters, riprap downspouts, and other gutters lined with Stone Ditch Protection shall be constructed after paving and shoulder work is completed. Payment will be made under the appropriate Contract Items.

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

    All exposed surfaces of concrete curbs,
    Fascias down to the drip notch,
    Concrete wearing surfaces,
    Top of abutment backwalls and to one foot below the top of backwalls on the back side, wingwalls top face and roadway face to one foot below roadway grade.

12. Erosion Control Mix may be substituted in those areas normally receiving loam and seed as directed by the Resident. Placement shall be in accordance with Standard Specifications Section 619, Mulch. Payment will be made under Item Number 619.14, Erosion Control Mix.

13. Place a 24 inches wide strip of Erosion Control Blanket on the sideslopes along the top of riprap and behind the wingwalls.

14. Project information referred to below may be accessed at the following MaineDOT web address: http://www.maine.gov/mdot/contractors/.

15. The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its lifespan.

16. The project geotechnical report titled: Geotechnical Design Report for the Replacement of Tracy Brook Bridge in Durahm, dated October 28, 2022 may be accessed at the MaineDOT web address.

17. Geotechnical information furnished or referred to in this Plan set is for the use of the Bidders and the Contractor. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the construction site. MaineDOT will not be responsible for the Bidder's or Contractor's interpretations or conclusions drawn from the geotechnical information. The boring logs contained in the plan set present factual and interpretive subsurface information collected at discrete locations. Data provided may not be representative of the subsurface conditions between boring locations.

18. The hydrologic report of the bridge site may be accessed at the MaineDOT web address. The hydrologic report is based on the designer's interpretation of the information obtained for the subject site. No assurance is given that the information or the conclusions of the report or values provided in these plans will be representative of actual conditions at the time of construction.

19. Quantities included for pay items measured and paid for by Lump Sum are estimated quantities and are provided by MaineDOT for informational purposes only. Lump Sum pay items will be paid for at the Contract Bid amount, with no addition or reduction in payment to the contractor if the actual final quantities are different from MaineDOT provided estimated quantities, except as follows:

    a. If a Lump Sum pay item is eliminated, the requirements of Standard Specifications Section 109.2, Elimination of Items will take precedence.

    b. If other Contract Documents specifically allow a change in payment for Lump Sum pay item, those requirements will be followed.

    c. If a design change results in changes to estimated quantities for Lump Sum pay items, price and adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation and Time.

20. Unless otherwise noted, all embankment material placed below EL. 81.52 and beyond the abutment backfill limits shown on the "Abutment Details" sheet shall be Granular Borrow meeting the requirements of Standard Specifications Subsection 703.19, Material for Underwater Backfill.

21. No existing drainage shall be abandoned, removed or plugged without prior approval of the Resident.

22. Inlets and outlets of all culverts shall be riprapped unless otherwise noted on the plans or directed by the resident.

23. Existing culverts may be shallow, care shall be taken during excavation to avoid damaging.

24. Gravel entrances shall be constructed with 14 inches Aggregate Subbase Course Gravel.

25. A 3 foot paved lip shall be placed at all unpaved entrances unless otherwise noted on the Plans or directed by the Resident.

26. The Contractor will be responsible for maintaining all existing mailboxes to ensure that the mail will be deliverable. Payment for this work will be considered incidental to the contract.

27. Where called for on the Plans, where new pavement joins existing pavement, the existing pavement shall be sawcut along a smooth line to a neat, even, vertical joint as directed by the Resident. Broken or raveled edges will not be permitted. All work necessary for the preparation of this joint will be considered incidental to the related contract items.

28. The Contractor shall submit a Bridge Demolition Plan to the Resident at least 10 business days prior to the start of demolition work. This plan shall outline the methods and equipment to be used to remove and dispose of all materials included in the existing bridge. The Bridge Demolition Plan shall include plans and calculations designed by a Professional Engineer licensed in the State of Maine. No work related to the removal of the bridge shall be undertaken by the Contractor until MaineDOT has reviewed the Bridge Demolition Plan for appropriateness and completeness. Payment for all work necessary for developing, submitting and finalizing the Demolition Plan will be considered incidental to the bridge removal pay item.

29. Any base pavement not surfaced before winter will require temporary pavement markings of paint, both yellow centerline and white edge lines and will be considered part of Standard Specifications Item 627.78, Temporary Pavement Marking Line, White or Yellow.

30. The existing bridge shall be removed by and become the property of the Contractor. The Contractor is responsible for the containment, proper management, and disposal of all hazardous waste generated by the process of demolishing the bridge. The Contractor is responsible for implementing appropriate OSHA mandated personal protection standards related to this process. Once the existing bridge is removed, the Contractor is soley responsible for the care, custody and control of the components of the existing bridge and any hazardous waste generated as a restult of the storage, recycling or disposal of the bridge components. 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.

31. Existing bridge abutments shall be removed to EL. 69.0.

32. Remove and reset, and remove and dispose of signs shall be performed in accordance with section 645 - Highway Signing and as directed by the Resident. Payment will be incidental to related Contract Items.

33. This site lends itself to different cofferdam configurations, depending on the Contractor's means and methods. Rather than speculate on how the bidders will want to configure the cofferdams, the Department has provided a single pay item to be used to cover all cofferdams on the project, regardless of how many are actually used.

Username:
Date:10/28/2022
Division:
Filename: 003_General Notes.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

GENERAL NOTES

SHEET NUMBER

3

OF 79

HNTB

RELOCATED BROOK
CURVE DATA #1
PI = 30+86.15
D =229°10'59.2"
Δ = 36°58'31.1" Lt.
R = 25.00'
L = 16.13'
T = 8.36'
E = 1.36'

RELOCATED BROOK
CURVE DATA #2
PI = 31+27.28
D =229°10'59.2"
Δ = 47°43'52.0" Lt.
R = 25.00'
L = 20.83'
T = 11.06'
E = 2.34'

RELOCATED BROOK
CURVE DATA #3
PI = 32+07.03
D =143°14'22.0"
Δ = 11°38'07.7" Lt.
R = 40.00'
L = 8.12'
T = 4.08'
E = 0.21'

RELOCATED BROOK
CURVE DATA #4
PI = 32+52.84
D =143°14'22.0"
Δ = 43°01'25.2" Lt.
R = 40.00'
L = 30.04'
T = 15.77'
E = 2.99'

RELOCATED BROOK
CURVE DATA #5
PI = 33+20.42
D =260°26'07.3"
Δ =111°27'12.1" Rt.
R = 22.00'
L = 42.80'
T = 32.28'
E = 17.07'

DRIVE CURVE DATA #2
PI = 1+85.50
D =110°11'03.1"
Δ = 49°13'58.7" Rt.
R = 52.00'
L = 44.68'
T = 23.83'
E = 5.20'

DRIVE CURVE DATA #1
PI = 0+51.69
D =286°28'44.0"
Δ = 45°23'42.2" Lt.
R = 20.00'
L = 15.85'
T = 8.37'
E = 1.68'

ROUTE 125
CURVE DATA #1
PI = 11+93.19
D = 16°51'06.1"
Δ = 36°05'53.1" Lt.
R = 340.00'
L = 214.21'
T = 110.79'
E = 17.60'

ROUTE 125
CURVE DATA #2
PI = 14+65.36
D = 4°05'33.2"
Δ = 13°44'45.0" Lt.
R = 1400.00'
L = 335.87'
T = 168.75'
E = 10.13'

PC = STA. 10+82.40
PT = STA. 30+93.92
PCC = STA. 12+96.61
PC = STA. 30+77.79
PC = STA. 31+16.22
PT = STA. 31+37.05
PC = STA. 32+37.07
PT = STA. 32+11.07
PC = STA. 32+02.95
℄ Relocated Brook
PT = STA. 32+67.11
PC = STA. 32+88.13
PT = STA. 2+06.36
PC = STA. 1+61.68
PT = STA. 16+32.48
PT = STA. 0+59.17
PC = STA. 0+43.33
℄ Brg. Abut. 1 Sta. 15+71.50
℄ Brg. Abut. 2 Sta. 16+47.00
75'-0"
℄ Route 125
Flow
20'00"00" (Typ.)
11' X 15" Opt. III
Install CB Type BI-C
Install CB Type F5
R=15'
R=20'
Riprap Downspout Anchorage Assembly 72' X 15" Opt. III
Bridge Transition Type I (Typ.)
Buried in Slope Guardrail End, Mid-way Splice
Remove and Replace Utility Pole (By Others)
Remove Utility Pole (By Others)
Proposed Utility Pole w/ Push Brace (By Others)
Clearing and Temporary Grading Limits for Construction
To Durham
Sawcut
Plain Riprap (Typ.)
3I" W-Beam Guardrail - Mid-way Splice (8' Posts) (Typ.)
Remove Existing Guardrail (Typ.)
Remove Utility Pole (By Others)
Remove and Reset Sign
Remove Existing Bridge Abutments (See General Notes)
Remove Utility Pole (By Others)
Remove and Reset Sign
Plain Riprap (Typ.)
Remove Existing Guardrail (Typ.)
Sta. 17+42.00 Route 125 = Sta. 0+00.00 Drive
NO PARKING
GRAVEL DRIVE
PAVE DRIVE
WOOD
GRASS
BRICK WALK
CONCRETE WALK

PLAN

25 0 25 50
Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. McKechnie | 10\2022 |
| CHECKED-REVIEWED | E. Raymond | 10\2022 |
| DESIGN2-DETAILED2 | L. Driscoll | |
| DESIGN3-DETAILED3 | B. Hovu | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

GENERAL PLAN 1

SHEET NUMBER
4
OF 79

Date:10/28/2022
Username:
Division:
Filename: 004_General Plan 1.dgn

DRIVE CURVE DATA #2
PI = 1+85.50
D =110°11'03.1"
Δ = 49°13'58.7" Rt.
R = 52.00'
L = 44.68'
T = 23.83'
E = 5.20'

DRIVE CURVE DATA #1
PI = 0+51.69
D =286°28'44.0"
Δ = 45°23'42.2" Lt.
R = 20.00'
L = 15.85'
T = 8.37'
E = 1.68'

ROUTE 125
CURVE DATA #3
PI = 20+01.84
D = 5°58'05.9"
Δ = 14°37'57.5" Lt.
R = 960.00'
L = 245.17'
T = 123.26'
E = 7.88'

PT = STA. 2+06.36
PC = STA. 1+61.68
℄ Relocated Brook
PT = STA. 32+67.11
PC = STA. 32+88.13
PT = STA. 16+32.48
℄ Brg. Abut. 1 Sta. 15+71.50
℄ Brg. Abut. 2 Sta. 16+47.00
75'-0"
Proposed Utility Pole w/ Push Brace (By Others)
Flow
Riprap Downspout
Anchorage Assembly 72" X 15" Opt. III
PT = STA. 0+59.17
PC = STA. 0+43.33
R=15'
R=20'
Remove Utility Pole (By Others)
PC = STA. 18+78.59
PT = STA. 21+23.76
Sawcut (Typ.)
20'00"00" (Typ.)
11" X 15" Opt. III
Install CB Type BI-C
Install CB Type F5
272" X 6" UD "B"
℄ Route 125
Route 125
To Lisbon
Match Existing Guardrail
Bridge Transition Type I (Typ.)
Remove and Reset Sign
Remove Existing Bridge Abutments (See General Notes)
Remove Utility Pole (By Others)
Flow
Remove and Reset Sign
Plain Riprap (Typ.)
Remove Existing Guardrail (Typ.)
Sta. 17+42.00 Route 125 = Sta. 0+00.00 Drive
31" W-Beam Guardrail - Mid-way Splice (8' Posts) (Typ.)
Proposed Utility Pole (By Others)
Remove Utility Pole (By Others)
HIDDEN DRIVE
NO PARKING
15"CMP
18"CMP
1/2"IR UP3"

PLAN
25 0 25 50
Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. McKechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\2022 |
| DESIGN2-DETAILED2 | B. Hovu | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

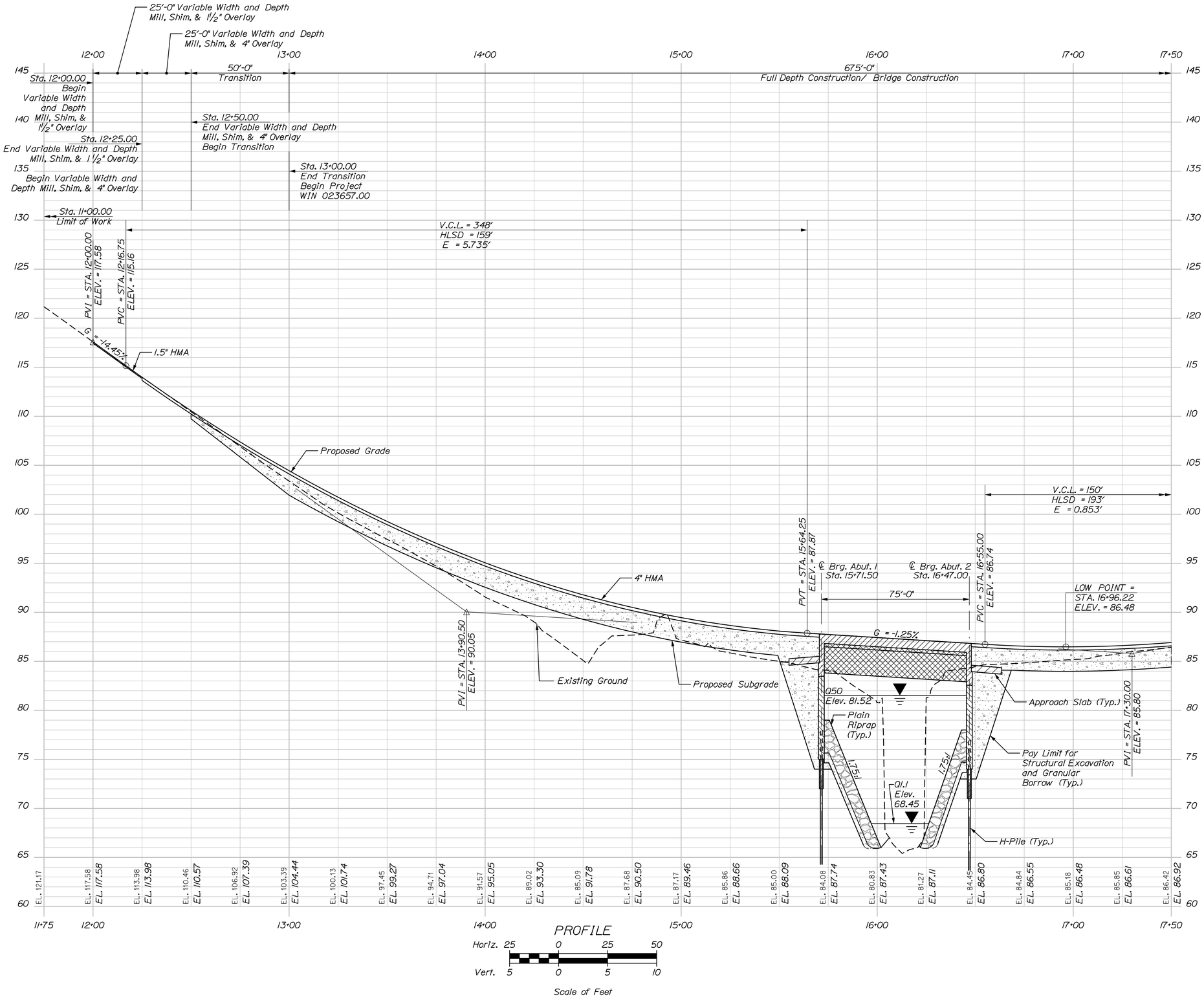
DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

GENERAL PLAN 2

SHEET NUMBER
5
OF 79

Username:
Date:10/28/2022
Division:
Filename: 005_General Plan 2.dgn




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | BY |
| DESIGN-DETAILED | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\.2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

PROFILE 1

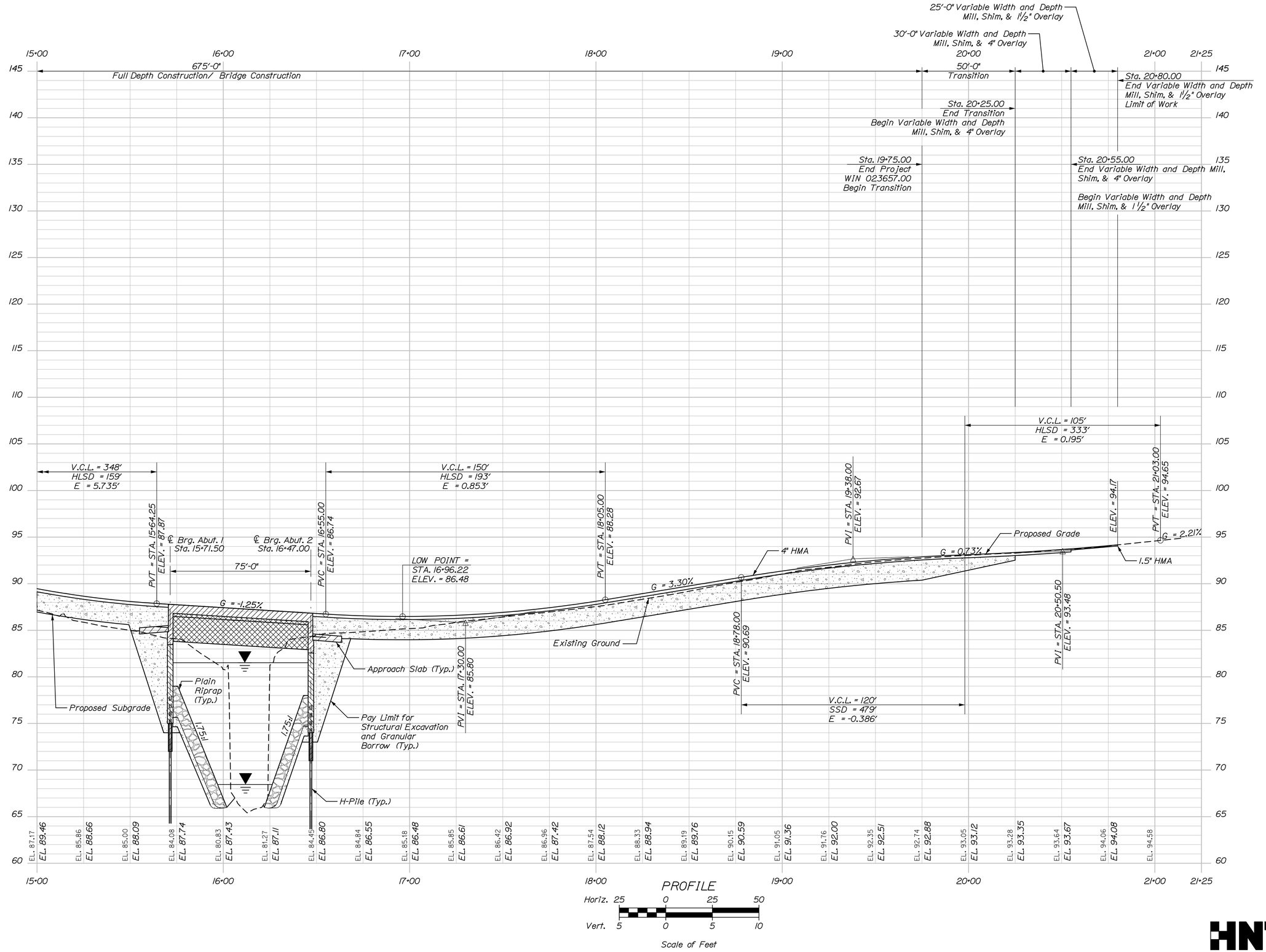
SHEET NUMBER

6

OF 79

HNTB

Filename: 006_Profile1.dgn Division: Username: Date:10/28/2022




HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE PLANS

BRIDGE NO. 2852

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\.2022 |
| DESIGN2-DETAILED2 | B. Hovu | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

PROFILE 2

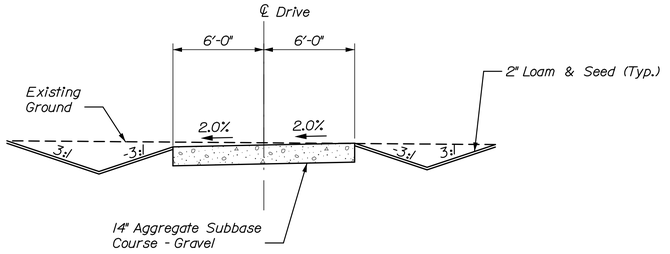
SHEET NUMBER

7

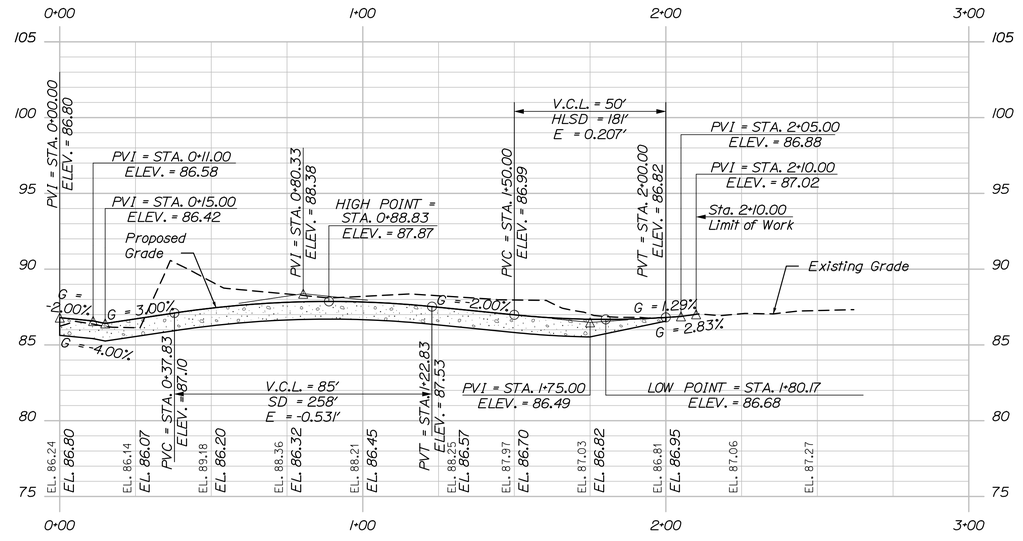
OF 79

Filename: 007_Profile2.dgn Division: Username: Date:10/28/2022

Username:
Date:10/28/2022
Division:
Filename: 008_DriveProfile.dgn




RELOCATED DRIVE TYPICAL




PROFILE

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 — BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\.2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\.2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

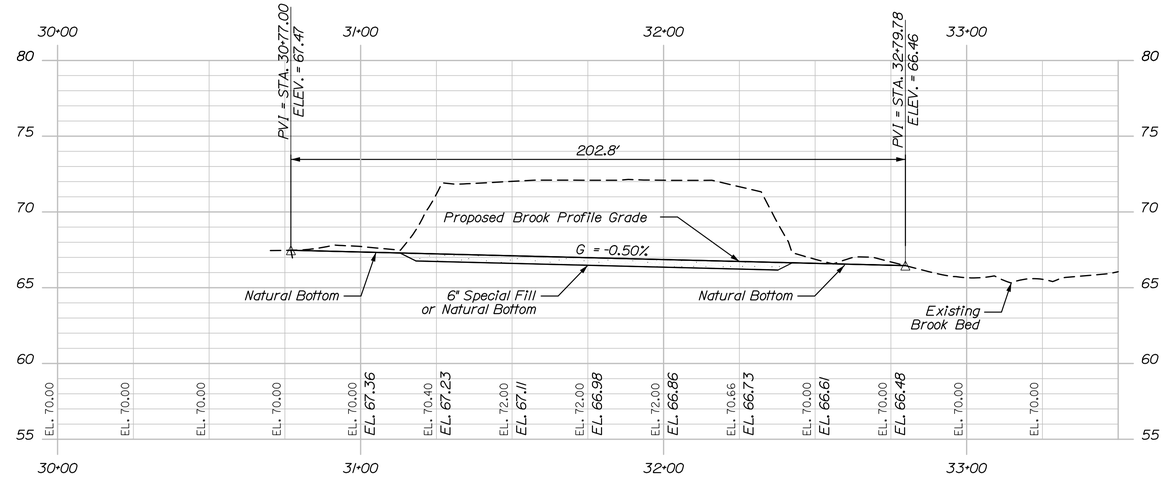
TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# RELOCATED DRIVE PROFILE & TYPICAL

SHEET NUMBER

8

OF 79

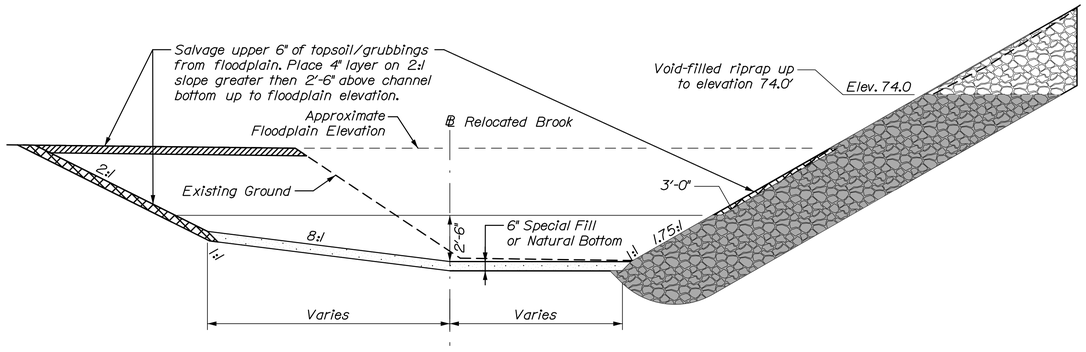



RELOCATED BROOK PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

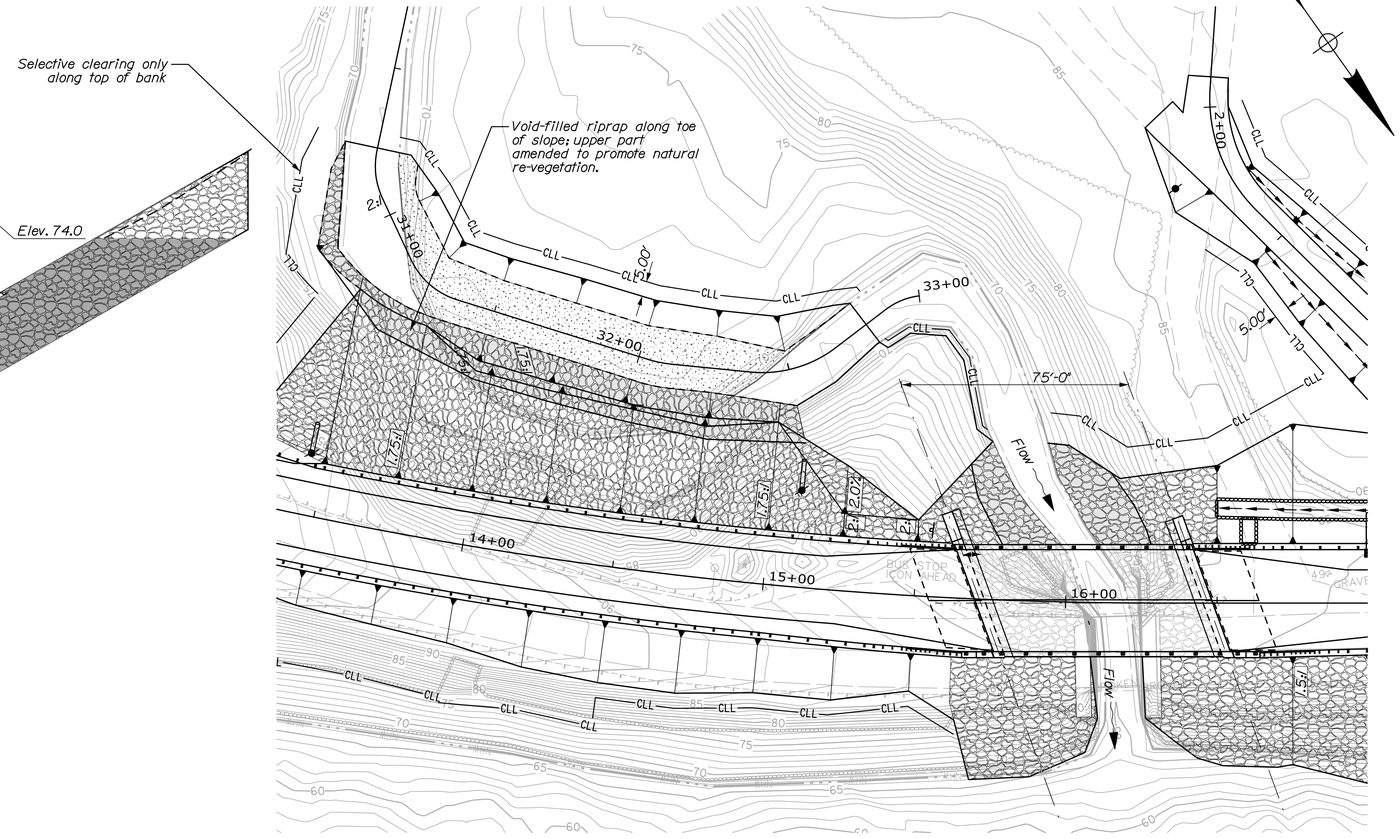



RELOCATED BROOK SECTION

N.T.S.

NOTES:

1. Contractor shall coordinate with Resident to have on-site meeting with MeDOT Environmental staff to review clearing limits and stream layout prior to clearing or excavation.
2. Contractor shall excavate to proposed grade for review by MeDOT Environmental staff to determine if excavation for and placement of Special Fill is needed. Refer to Special Provision 203.
3. Excavation of 6" of topsoil/grubbings shall be paid for under Item 203.20 Common Excavation. Stockpiling and placing topsoil/grubbings on sideslopes shall be Incidental to Item 610.213 Void-Filled Riprap.




RELOCATED BROOK PLAN

25 0 25 50

Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

BROOK RELOCATION
PLAN/PROFILE/SECTION

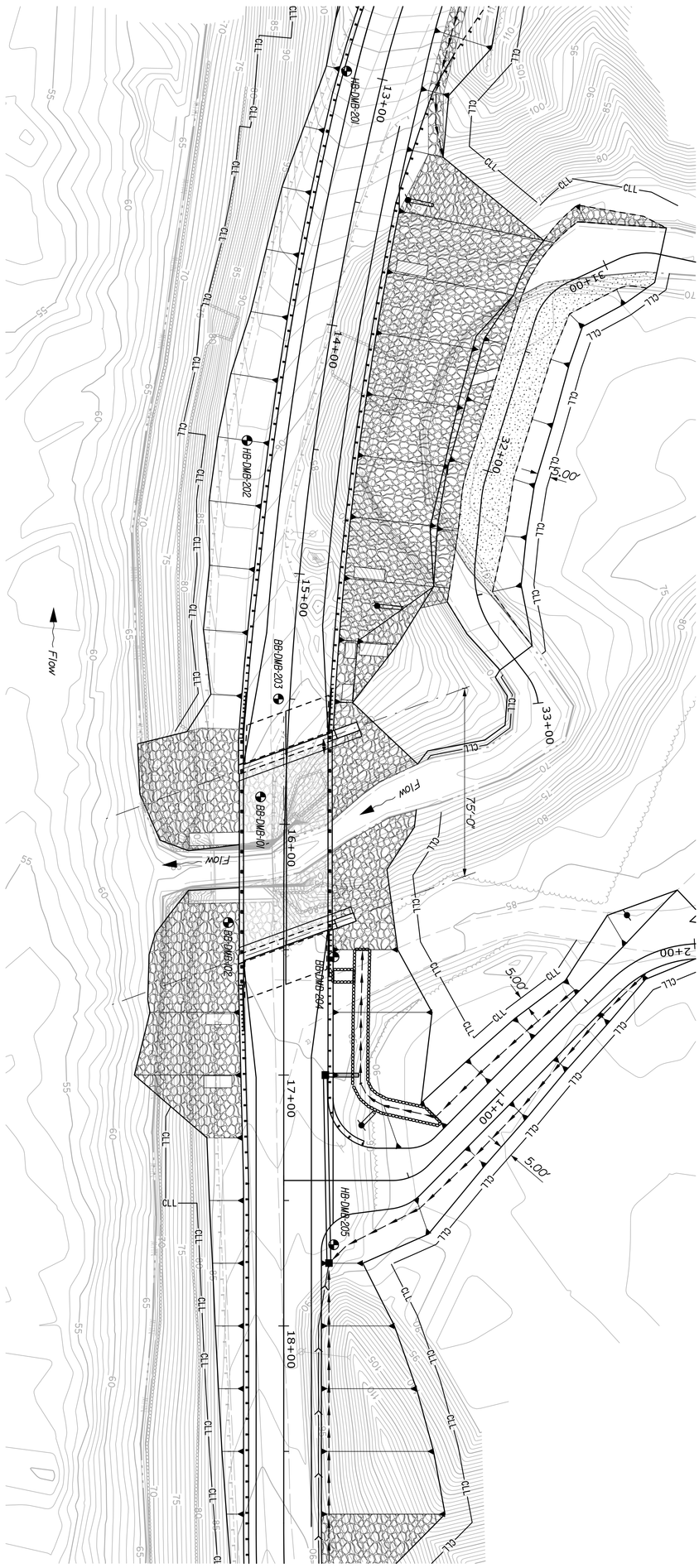
SHEET NUMBER

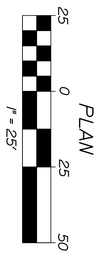
9

OF 79

Filename: 009_Stream Profile.dgn Division: Username: Date:10/28/2022

Filename: 010_Boring Location Plan.dgn Division: Username: Date:10/28/2022




HNTB

SHEET NUMBER 10 OF 79

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# BORING LOCATION PLAN

| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | B. Grenier | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

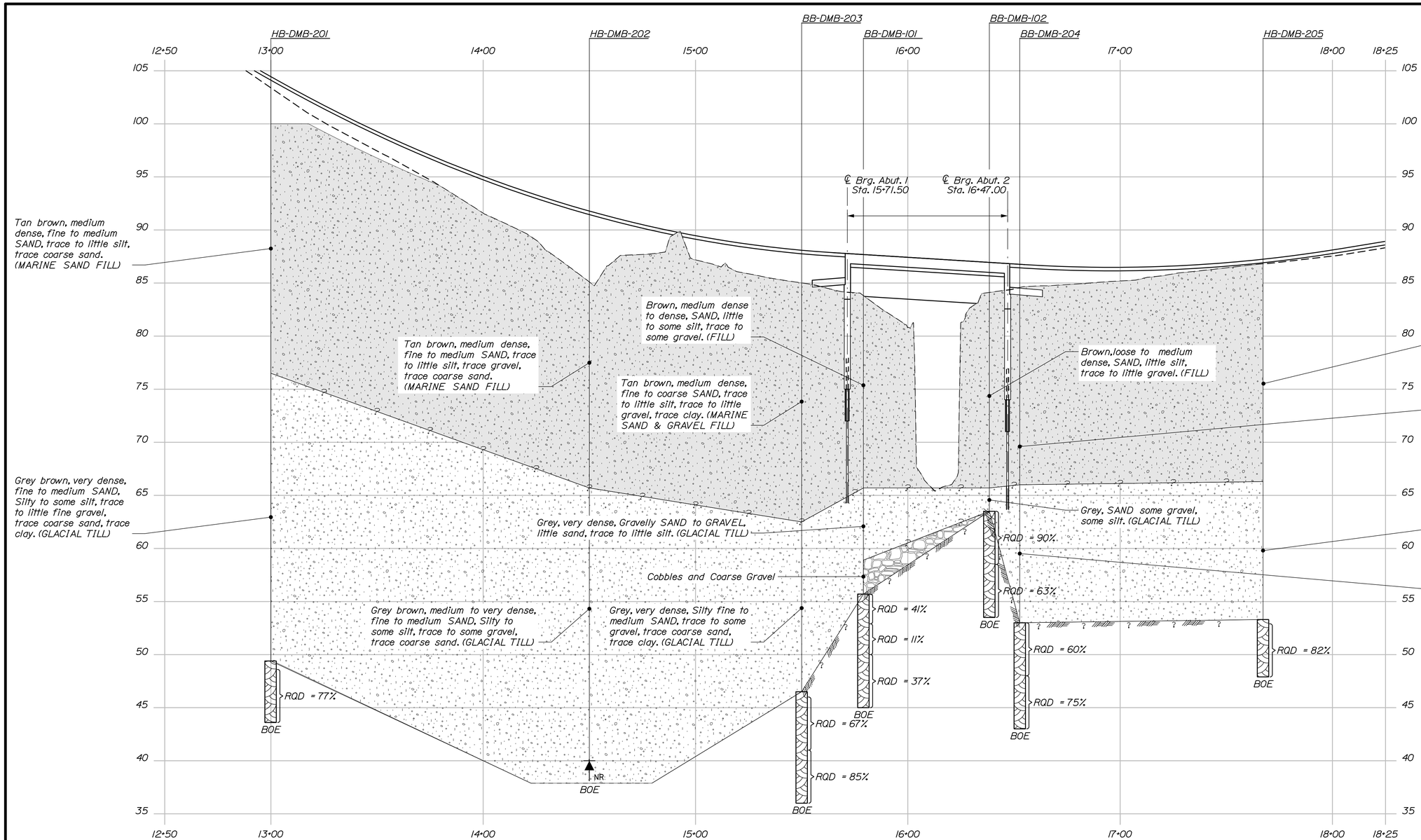
P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

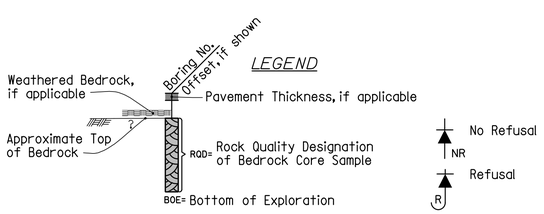
BRIDGE NO. 2852 WIN 023657.00 BRIDGE PLANS




*Note:*
*This generalized interpretive soil profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples. Actual soil and bedrock transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.*

PROFILE
HORIZ: 25 0 25 50
VERT: 5 0 5 10

LEGEND




HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | B. Gremer | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# INTERPRETATIVE SUBSURFACE PROFILE

SHEET NUMBER
11
OF 79

Date:10/28/2022
Username:
Division:
Filename: 011_Interpretative Subsurface Profile.dgn

Username:

Division:

Date:10/28/2022

Filename: 012_Boring Logs I.dgn

## Maine Department of Transportation — Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Tracy Brook Bridge #2852 carries Route 125 over Meadow Brook
Location: Durham, Maine

**Boring No.: BB-DMB-101**
WIN: 23657.00

| | | | |
|---|---|---|---|
| Driller: | MaineDOT | Elevation (ft.) | 84.7 |
| Operator: | Wilder/Doggett/Niles | Datum | NAVD88 |
| Logged By: | A. Van Buskirk | Rig Type | CME 45C |
| Date Start/Finish: | 3/20/20191 09:00-13:30 | Drilling Method: | Cased Wash Boring |
| Boring Location: | 15+89.4, 9.9 Rt Rt. | Casing ID/OD: | NW-3"/3.5" |
| Hammer Efficiency Factor: 0.928 | | Hammer Type: | Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ |
| Auger ID/OD: | 5" Solid Stem | | |
| Sampler: | Standard Split Spoon | | |
| Hammer Wt./Fall: | 140#/30" | | |
| Core Barrel: | NQ-2" | | |
| Water Level*: | None observed. See note. | | |

Definitions:
D = Split Spoon Sample; SSA = Solid Stem Auger; WD = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; U = Thin Wall Tube Sample; RC = Roller Cone; W = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of Hammer; V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR = Weight of Rods or Casing; WH = Unsuccessful Field Vane Shear Test Attempt; WOH+R = Weight of One Person; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_u$ = Unconfined Compressive Strength (tsf); N-uncorrected = Raw Field SPT N-value; N-corrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test; $T_{50}$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_u$ = Unconfined Compressive Strength (tsf); N-uncorrected = Raw Field SPT N-value; N-corrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; WOR = Weight of Rods or Casing; WOH+R = Weight of One Person; 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. (Shear Strength psf or RQD %) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | SSA | 84.3 | | 5" HMA. | |
| | | | | | | | | 84.0 | | 0.4 | |
| 5 | 1D | 24/10 | 5.00 - 7.00 | 7/14/14/9 | 28 | 43 | | | | Brown, damp, dense. SAND, little silt, little gravel. (Fill). | GM337212 A-2-4, SM WC=4.7% |
| 10 | 2D | 24/15 | 10.00 - 12.00 | 2/2/2/5 | 4 | 6 | 5 | | | Brown, moist, loose. SAND, some silt, trace gravel. (Fill). | GM337213 A-2-4, SM WC=13.8% |
| | | | | | | | 7 | | | | |
| | | | | | | | 41 | | | | |
| | | | | | | | 61 | | | | |
| 15 | 3D | 24/10 | 15.00 - 17.00 | 15/4/6/5 | 10 | 15 | 69 | | | Brown, wet, medium dense, fine to coarse SAND, some gravel, little silt. (Fill). | |
| | | | | | | | 18 | | | | |
| | | | | | | | 22 | | | | |
| | | | | | | | 24 | | | | |
| | | | | | | | 41 | | | | |
| | | | | | | | 68 | | | | |
| 20 | 4D | 9.6/5 | 20.50 - 21.30 | 60/5013.6") | --- | | RC | 65.7 | | 19.0 | |
| | | | | | | | | | | Cobble from 20.0-20.5 ft bgs. Grey, moist, very dense. Gravelly SAND, little silt. (Glacial Till). | GM337214 A-1-b, SM WC=6.9% |
| 25 | SO R1 | 4.8/3 58.4/10 | 25.00 - 25.40 29.00 - 29.00 | 46(4.8") | --- | | NQ-2 | 58.9 | | Grey, moist, GRAVEL, little sand, trace silt. (Glacial Till). | |
| | | | | | | | | | | 25.8 | |
| | | | | | | | | | | R1: Cobbles and Coarse Gravel (25.8 - 29.0 bgs). | |
| 30 | R2 | 34/25 | 29.00 - 31.83 | RQD = 41% | | | | 55.7 | | 29.0 | |
| | | | | | | | | | | Top of Bedrock at Elev. 55.7 ft. R2: Black and white banded, fine grained quartz-feldspar, biotite, and garnet SCHIST, moderately hard, moderately weathered, 0 to 10 degree breaks along biotite foliation, several 70 to 90 degree joints associated with core fragmentation, moderately close spacing, open with Till infilling, mud infilling at 30.1 ft (29.0-31.8 ft bgs). Rock Mass Quality = Very Poor R2: Core Times (min:sec) 29.0-30.0 ft (0:41) 30.0-31.0 ft (1:13) 31.0-31.8 ft (1:57) R3: Bedrock: Similar to R2, except moderately severe weathering with notable pyrite, and shattered from 31.8-32.6 ft bgs. Near vertical joints in the top two-thirds of the core. Rock Mass Quality = Very Poor R3: Core Times (min:sec) 31.8-32.1 ft (3:05) Core Blocked 32.1-32.8 ft (1:04) 32.8-33.8 ft (1:52) 33.8-34.7 ft (2:04) Core Blocked 34.7-35.7 ft (1:28) 35.7-36.7 ft (1:49) 36.7-37.7 ft (1:43) 37.7-38.7 ft (1:57) 38.7-39.7 ft (2:18) 100% Recovery | |
| 35 | R3 | 34.8/ 34.8 | 31.80 - 34.70 | RQD = 11% | | | | | | | |
| | R4 | 60/60 | 34.70 - 39.70 | RQD = 37% | | | | | | | |
| 40 | | | | | | | | 45.0 | | 39.7 | |
| | | | | | | | | | | Bottom of Exploration at 39.7 feet below ground surface. | |
| 45 | | | | | | | | | | | |

Remarks:
After removal of casing, bore hole caved at 14.0 ft bgs.

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-DMB-101

## Maine Department of Transportation — Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Tracy Brook Bridge #2852 carries Route 125 over Meadow Brook
Location: Durham, Maine

**Boring No.: BB-DMB-102**
WIN: 23657.00

| | | | |
|---|---|---|---|
| Driller: | MaineDOT | Elevation (ft.) | 84.7 |
| Operator: | Wilder/Doggett/Niles | Datum | NAVD88 |
| Logged By: | A. Van Buskirk | Rig Type | CME 45C |
| Date Start/Finish: | 3/26/20191 09:00-11:30 | Drilling Method: | Cased Wash Boring |
| Boring Location: | 16+39.2, 22.1 ft Rt. | Casing ID/OD: | NW-3"/3.5" |
| Hammer Efficiency Factor: 0.928 | | Hammer Type: | Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ |
| Auger ID/OD: | 5" Solid Stem | | |
| Sampler: | Standard Split Spoon | | |
| Hammer Wt./Fall: | 140#/30" | | |
| Core Barrel: | NQ-2" | | |
| Water Level*: | None observed. See note. | | |

Definitions:
D = Split Spoon Sample; SSA = Solid Stem Auger; WD = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; U = Thin Wall Tube Sample; RC = Roller Cone; W = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of Hammer; V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR = Weight of Rods or Casing; WH = Unsuccessful Field Vane Shear Test Attempt; WOH+R = Weight of One Person; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_u$ = Unconfined Compressive Strength (tsf); N-uncorrected = Raw Field SPT N-value; N-corrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test; $T_{50}$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_u$ = Unconfined Compressive Strength (tsf); N-uncorrected = Raw Field SPT N-value; N-corrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; WOR = Weight of Rods or Casing; WOH+R = Weight of One Person; 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. (Shear Strength psf or RQD %) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | SSA | 84.3 | | 5" HMA. | |
| | | | | | | | | 84.0 | | 0.4 | |
| 5 | 1D | 24/10 | 5.00 - 7.00 | 3/2/2/3 | 4 | 6 | | | | Brown, damp, loose. SAND, little silt, trace gravel. (Fill). | GM337215 A-2-4, SM WC=4.4% |
| 10 | 2D | 24/10 | 10.00 - 12.00 | 6/7/10/8 | 17 | 26 | 29 | | | Brown, damp, medium dense. SAND, little silt, little gravel. (Fill). | |
| | | | | | | | 41 | | | | |
| | | | | | | | 26 | | | | |
| | | | | | | | 23 | | | Wood in wash water. | |
| 15 | 3D | 24/4 | 15.00 - 17.00 | 1/2/3/3 | 5 | 8 | 16 | | | Brown, wet, loose. SAND, trace silt, trace gravel. | |
| | | | | | | | 1 | | | | |
| | | | | | | | 7 | | | | |
| | | | | | | | 19 | | | | |
| | | | | | | | 42 | | | | |
| 20 | 4D | 7.2/4 | 20.50 - 21.10 | 17/25 (1.2") | --- | | 160 | 65.7 | | 19.0 | |
| | | | | | | | 60 | | | Cobble from 20.0-20.5 ft bgs. Grey, moist, SAND, some gravel, some silt. (Glacial Till). | GM337217 A-2-4, SM WC=10.0% |
| | R1 | 60/60 | 21.20 - 26.20 | RQD = 90% | | | 452 NQ-2 | 63.5 | | 102 blows for 0.2 ft. | |
| 25 | | | | | | | | | | 21.2 | |
| | | | | | | | | | | Top of Bedrock at Elev. 63.5 ft. R1: Bedrock: White with black blotches, coarse grained, granite-like MIGMATITE, hard, fresh, massive, no joint set evident, spacing close, tight to open, changing back to SCHIST in bottom 1-foot of core run, no infilling. Rock Mass Quality = Good R1: Core Times (min:sec) 21.2-22.2 ft (3:53) 22.2-23.2 ft (2:23) 23.2-24.2 ft (2:23) 24.2-25.2 ft (3:01) 25.2-26.2 ft (2:04) 100% Recovery R2: Bedrock: Grey, fine grained, SCHIST (with less banding), blocky feldspar crystals interspersed and several Migmatite zones, hard, fresh, joints sub-horizontal along the foliation and one approximately 70 degrees, no infilling. Rock Mass Quality = Fair R2: Core Times (min:sec) 26.2-27.2 ft (1:41) 27.2-28.2 ft (1:44) 28.2-29.2 ft (1:59) 29.2-30.2 ft (2:17) 30.2-31.2 ft (2:59) 100% Recovery | |
| 30 | R2 | 60/60 | 26.20 - 31.20 | RQD = 63% | | | 53.5 | | | | |
| 35 | | | | | | | | 31.2 | | Bottom of Exploration at 31.2 feet below ground surface. | |
| 40 | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| 50 | | | | | | | | | | | |

Remarks:
The bore hole caved at 8.0 ft bgs after the casing was withdrawn.

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-DMB-102

## Maine Department of Transportation — Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Tracy Brook Bridge #2852
Route 125 over Meadow Brook
Location: Durham, ME

**Boring No.: HB-DMB-201**
WIN: 23657.00

| | | | |
|---|---|---|---|
| Driller: | New England Boring Contractors | Elevation (ft.) | 103 ft (est'd) |
| Operator: | Enos/ Gamm | Datum | NGVD 88 |
| Logged By: | Schonewald | Rig Type | MOBILE DRILL B-53 TRUCK (NEBC-23) |
| Date Start/Finish: | 5/9/221 2225-5/10/221 0415 | Drilling Method: | cased wash boring |
| Boring Location: | see remarks | Casing ID/OD: | HW (4.0/4.5) |
| Hammer Efficiency Factor: 0.859 | | Hammer Type: | Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ |
| Auger ID/OD: | SSA (4.5" OD) | | |
| Sampler: | Standard Split-Spoon | | |
| Hammer Wt./Fall: | 140 lbs/ 30 in | | |
| Core Barrel: | N02 | | |
| Water Level*: | | | |

Definitions:
D = Split Spoon Sample; SSA = Solid Stem Auger; WD = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; U = Thin Wall Tube Sample; RC = Roller Cone; W = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of Hammer; V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR = Weight of Rods or Casing; WH = Unsuccessful Field Vane Shear Test Attempt; WOH+R = Weight of One Person; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_u$ = Unconfined Compressive Strength (tsf); N-uncorrected = Raw Field SPT N-value; N-corrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test; $T_{50}$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_u$ = Unconfined Compressive Strength (tsf); N-uncorrected = Raw Field SPT N-value; N-corrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; WOR = Weight of Rods or Casing; WOH+R = Weight of One Person; 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. (Shear Strength psf or RQD %) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | SSA | 102.2 | | 10 inches HMA | |
| | | | | | | | | 101.9 | | 0.8 | |
| 5 | 1D | 24/17 | 1.0 - 3.0 | 4-6-8-6 | 14 | 20 | | | | Dark brown, damp, fine to coarse SAND, little to some silt, little gravel. ROAD GRAVELS | |
| | | | | | | | | 101.1 | | 1.9 | |
| | | | | | | | | | | Changing at 1.9 ft to 1D: Tan brown, damp, fine to medium SAND, trace to little silt, trace coarse sand. MARINE SAND | |
| | 2D | 24/18 | 4.0 - 6.0 | 5-5-6-6 | 11 | 16 | | | | Tan brown, damp, medium dense, fine to medium SAND, little silt, trace coarse sand, with occasional layers Silty fine to medium SAND, trace coarse sand. MARINE SAND | |
| 10 | | | | | | | | | | | |
| | 3D | 24/20 | 9.0 - 11.0 | 5-5-6-8 | 11 | 16 | HW | | | Tan brown, damp to moist, medium dense, fine to medium SAND, trace to little silt, trace coarse sand. MARINE SAND | |
| | | | | | | | 66 | | | | |
| | | | | | | | 76 | | | | |
| | | | | | | | 82 | | | | |
| 15 | 4D | 24/10 | 14.0 - 16.0 | 12-11-12-12 | 23 | 33 | 112 RC | | | Tan brown, medium dense, fine to medium SAND, little silt, trace coarse sand. MARINE SAND | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 20 | 5D | 24/9 | 19.0 - 21.0 | 8-8-9-11 | 17 | 24 | | | | Tan brown, medium dense, fine to medium SAND, little silt, trace coarse sand. MARINE SAND | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 25 | 6D | 24/9 | 24.0 - 26.0 | 8-12-10-11 | 22 | 31 | | | | Tan brown, medium dense, fine to medium SAND, trace to little silt, trace coarse sand. MARINE SAND | |
| | | | | | | | | 76.5 | | 26 ft: Soil in tip of spoon is grey brown, fine to medium SAND, little silt, little fine gravel, trace coarse sand. | |
| | | | | | | | | | | 26.5 | |
| | | | | | | | | | | 26.5 ft: Change in drilling behavior noted. | |
| 30 | 7D | 24/18 | 29.0 - 31.0 | 23-49-68-56 | 117 | 168 | | | | Grey brown, very dense, fine to medium SAND, some silt, little to some fine gravel, trace coarse sand. TILL | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 35 | 8D | 18/17 | 34.0 - 35.5 | 24-72-134 | 206 | 295 | OPEN | | | Grey brown, very dense, fine to medium SAND, some gravel, little to some silt, trace coarse sand, trace clay; some gravel pieces partially decomposed; some zones varved. TILL | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 40 | 9D | 21/19 | 39.0 - 40.8 | 39-50-71-50/3" | 121 | 173 | | | | Dark grey, very dense. Silty fine to medium SAND, trace fine gravel, trace coarse sand, trace clay. TILL | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 45 | 10D | 15/15 | 44.0 - 45.3 | 39-58-50/3" | C108 | | | | | Dark grey, very dense. Silty fine to medium SAND, trace to little fine gravel, trace coarse sand, trace clay. TILL | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 50 | 11D | 24/24 | 49.0 - 51.0 | 26-39-40-55 | 79 | 113 | | | | Dark grey, very dense. Silty fine to medium SAND, trace to little fine gravel, trace coarse sand, trace clay. TILL | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | 49.4 | | 53.6 | |
| | R1 | 60/60 | 54.4 - 59.4 | RQD= 46" = 77% | | | N02 | | | Top of bedrock at Elev. 49.4 ft. R1: Bedrock: Light and dark grey, fine to medium grained, biotite- and muscovite-rich SCHIST, with occasional quartzite inclusions, hard, typically fresh/ banding beginning to form, typically low angle, close to tight joints across bedding, rough-undulating, rough-typically fresh, slightly discolored, and open, with occasional mud infilling. (VASSALBORO GROUP) Core times: 3140/ 4100/ 3150/ 3125/ 4100 minisec/ft. ROCK QUALITY = GOOD | |
| 55 | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | 43.6 | | 59.4 | |
| 60 | | | | | | | | | | Bottom of Exploration at 59.4 feet below ground surface. | |
| 65 | | | | | | | | | | | |

Remarks:
auto hammer last calibrated on 9/20/21
location: in line with geophysical layout stake RE05; similar elevation (RE05 = 103.14 ft); offset 5.2 ft from stake into road

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.: HB-DMB-201

## Maine Department of Transportation — Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Tracy Brook Bridge #2852
Route 125 over Meadow Brook
Location: Durham, ME

**Boring No.: HB-DMB-202**
WIN: 23657.00

| | | | |
|---|---|---|---|
| Driller: | New England Boring Contractors | Elevation (ft.) | 91 ft (est'd) |
| Operator: | Enos/ Gamm | Datum | NGVD 88 |
| Logged By: | Schonewald | Rig Type | MOBILE DRILL B-53 TRUCK (NEBC-23) |
| Date Start/Finish: | 5/8/221 2310-5/9/221 0415 | Drilling Method: | cased wash boring |
| Boring Location: | see remarks | Casing ID/OD: | HW (4.0/4.5) |
| Hammer Efficiency Factor: 0.859 | | Hammer Type: | Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ |
| Auger ID/OD: | SSA (4.5" OD) | | |
| Sampler: | Standard Split-Spoon | | |
| Hammer Wt./Fall: | 140 lbs/ 30 in | | |
| Core Barrel: | not applicable | | |
| Water Level*: | | | |

Definitions:
D = Split Spoon Sample; SSA = Solid Stem Auger; WD = Unsuccessful Split Spoon Sample Attempt; HSA = Hollow Stem Auger; U = Thin Wall Tube Sample; RC = Roller Cone; W = Unsuccessful Thin Wall Tube Sample Attempt; WOH = Weight of Hammer; V = Field Vane Shear Test; PP = Pocket Penetrometer; WOR = Weight of Rods or Casing; WH = Unsuccessful Field Vane Shear Test Attempt; WOH+R = Weight of One Person; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; $S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_u$ = Unconfined Compressive Strength (tsf); N-uncorrected = Raw Field SPT N-value; N-corrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; WC = Water Content, percent; LL = Liquid Limit; PL = Plastic Limit; PI = Plasticity Index; G = Grain Size Analysis; C = Consolidation Test; $T_{50}$ = Peak/Remolded Field Vane Undrained Shear Strength (psf); $S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf); $q_u$ = Unconfined Compressive Strength (tsf); N-uncorrected = Raw Field SPT N-value; N-corrected = Raw Field SPT N-value; Hammer Efficiency Factor = Rig Specific Annual Calibration Value; $N_{60}$ = Hammer Efficiency Factor-60%-Uncorrected; $N_{cr}$ = Hammer Efficiency Factor-60%-Uncorrected; WOR = Weight of Rods or Casing; WOH+R = Weight of One Person; 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. (Shear Strength psf or RQD %) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | SSA | 90.5 | | 6 inches HMA | |
| | | | | | | | | 90.0 | | 0.5 | |
| 5 | 1D | 18/10 | 0.5 - 2.0 | 16-19-18 | 37 | 53 | SSA | | | Brown, damp, dense, fine to coarse SAND, some gravel, trace to little silt. ROAD GRAVELS | |
| | | | | | | | | 87.0 | | 4.0 | |
| | | | | | | | | | | 4 ft: Change in drilling behavior and auger cuttings noted. | |
| | 2D | 24/11 | 5.0 - 7.0 | 2-3-6-5 | 9 | 13 | | | | Tan brown, damp, loose, fine to medium SAND, trace to little silt, trace gravel, trace coarse sand. MARINE SAND | |
| 10 | | | | | | | | | | | |
| | 3D | 24/15 | 9.0 - 11.0 | 5-5-7-8 | 12 | 17 | HW | | | Tan brown, damp, medium dense, fine to medium SAND, trace gravel, trace silt, trace coarse sand. MARINE SAND | |
| | | | | | | | 97 | | | | |
| | | | | | | | 101 | | | | |
| | | | | | | | 88 | | | | |
| 15 | 4D | 24/14 | 14.0 - 16.0 | 9-10-12-11 | 22 | 31 | 92 52 | | | Tan brown, medium dense, fine SAND, little silt, trace medium to coarse sand. MARINE SAND | |
| | | | | | | | 67 | | | | |
| | | | | | | | 92 | | | | |
| | | | | | | | 112 | | | | |
| 20 | 5D | 24/9 | 19.0 - 21.0 | 12-15-16-18 | 31 | 44 | 137 RC | | | Tan brown, dense, fine to medium SAND, trace to little silt, trace coarse sand. SAME SAND | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 25 | 6D | 24/12 | 24.0 - 26.0 | 7-25-26-26 | 51 | 73 | | | | Tan brown, fine to coarse SAND, trace fine gravel, trace silt. MARINE SAND | |
| | | | | | | | | 65.7 | | 25.3 | |
| | | | | | | | | | | Changing at 25.3 ft to 6D: Grey tan, Silty fine to medium SAND, little fine gravel, trace coarse sand. TILL | |
| | 7D | 24/8 | 29.0 - 31.0 | 12-21-42-16 | 63 | 90 | | | | Grey brown, very dense, fine to medium Sandy GRAVEL, little to some silt, trace coarse sand. TILL | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 35 | 8D | 24/9 | 34.0 - 36.0 | 25-27-30-40 | 57 | 82 | | | | Grey brown, very dense, fine to medium SAND, some gravel, little to some silt, trace coarse sand; piece of gravel in tip of spoon. TILL | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 40 | 9D | 18/12 | 39.0 - 40.5 | 39-74-94 | 168 | 241 | | | | Grey, very dense. Gravelly fine to medium SAND, little silt, trace coarse sand. TILL | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 45 | 10D | 24/16 | 44.0 - 46.0 | 8-12-12-16 | 24 | 34 | OPEN | | | Grey, medium dense. Silty fine to medium SAND, some fine (angular) gravel, trace coarse sand. TILL | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 50 | 11D | 24/23 | 49.0 - 51.0 | 26-37-52-93 | 89 | 127 | | | | Dark grey, very dense. Silty fine to medium SAND, trace to little fine gravel, trace coarse sand. TILL | |
| | | | | | | | | 40.0 | | 51.0 | |
| | | | | | | | | | | Bottom of Exploration at 51.0 feet below ground surface. No refusal. | |
| 55 | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| 60 | | | | | | | | | | | |
| 65 | | | | | | | | | | | |

Remarks:
auto hammer last calibrated on 9/20/21
location: in line with geophysical layout stake RE06; elevation approx. 0.6' higher at boring (RE06 = 90.4 ft); offset 7.9 ft from stake into road

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.: HB-DMB-202

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

BORING LOGS I

SHEET NUMBER
12
OF 79

HNTB

Date:10/28/2022

Username:

Division:

Filename: 013_Boring Logs II.dgn

## Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Tracy Bridge #2852
Route 125 over Meadow Brook
Location: Durham, ME

**Boring No.: BB-DMB-203**
WIN: 23657.00

| | | | |
|---|---|---|---|
| Driller: | New England Boring Contractors | Elevation (ft.): 85 ft (est'd) | Auger ID/OD: SSA (4.5" OD) |
| Operator: | Enos/ Gamm | Datum: NGVD 88 | Sampler: Standard Split-Spoon |
| Logged By: | Schoneweld | Rig Type: MODIFIED CME 75 TRACK MOUNTED DRILL | Hammer Wt./Fall: 140 lbs/ 30 in |
| Date Start/Finish: | 5/10/221 2150-5/11/221 0310 | Drilling Method: cased wash boring | Core Barrel: NQ2 |
| Boring Location: | see remarks | Casing ID/OD: HW (4.0/4.5)/ NW (3.0/3.5) | Water Level*: |
| Hammer Efficiency Factor: 0.859 | | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | |

Definitions:
R = Rock Core Sample
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
W = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Test, FP = Pocket Penetrometer
MK = Unsuccessful Field Vane Shear Test Attempt
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of Hoist
WOR = Weight of Rods or Casing
WIH = Weight of Hammer
$N_{60}$ = SPT N-value corrected for Hammer Efficiency
$N_{60}$ = Uncorrected Hammer Efficiency Factor/60%-Uncorrected
$S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
$q_u$ = Unconfined Compressive Strength (tsf)
N-uncorrected = Raw Field SPT N-value
$N_{60}$ = SPT N-value corrected for Hammer Efficiency
Hammer Efficiency Factor = Ratio to Annual Calibration Value
PP = Pocket Penetrometer Value in tsf
RQD = Rock Quality Designation
Qt = Quartz Content, percent
C = Consolidation Test
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
$T_v$ = Peak/Remolded Torvane Shear Strength (psf)
Plasticity: N = Non-Plastic, L = Low, M = Medium, H = High

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows (in.) Shear Strength or RQD (%) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | SSA | | | GRAVEL SHOULDER | |
| | 1D | 24/10 | 1.0 - 3.0 | 7-6-5-5 | 11 | 16 | | | | Tan brown, damp, medium dense, fine to medium SAND, little to some gravel, trace to little silt, trace coarse sand. MARINE NEARSHORE SAND & GRAVEL | |
| 5 | 2D | 24/11 | 4.0 - 6.0 | 6-7-6-11 | 13 | 19 | | | | | |
| | 3D | 24/16 | 9.0 - 11.0 | 6-5-7-6 | 12 | 17 | HW | | | Tan brown, damp, medium dense, fine to coarse SAND, little to some fine gravel, trace silt. MARINE NEARSHORE SAND & GRAVEL | |
| 10 | | | | | | | | | | | |
| | 4D | 24/8 | 14.0 - 16.0 | 10-11-17-31 | 28 | 40 | RC | | | Tan brown, medium dense, fine to coarse SAND, little fine gravel, trace silt. MARINE NEARSHORE SAND & GRAVEL | |
| 15 | | | | | | | | | | | |
| | 5D | 24/4 | 19.0 - 21.0 | 8-13-12-10 | 25 | 36 | | | | | |
| 20 | | | | | | | | 62.5 | | -22.5 | |
| | 6D | 5/2 | 24.0 - 24.4 | 100/5" | --- | | | | | (very poor recovery) Brown, medium dense, Silty fine to coarse SAND, some fine gravel, trace clay. MARINE NEARSHORE SAND & GRAVEL | |
| 25 | | | | | | | | | | (tip of spoon split and remained in borehole retrieved with 3-in dia. spoon) | |
| | 7D | 24/19 | 29.0 - 31.0 | 61-39-63-94 | 102 | 146 | | | | Grey, very dense, Silty fine to medium SAND, trace fine gravel, trace coarse sand, trace clay. TILL | |
| 30 | | | | | | | | | | | |
| | 8D | 24/10 | 34.0 - 36.0 | 44-41-100-66 | 141 | 202 | | | | Grey, very dense, Silty fine to medium SAND, little fine gravel, trace coarse sand, trace clay; some gravel pieces decomposed; some zones varved. TILL | |
| 35 | | | | | | | NW | | | | |
| | R1 | 60/60 | 39.0 - 44.0 | RQD: 40" = 67% | | | NQ2 | 46.5 | | -38.5 | |
| 40 | | | | | | | | | | Top of bedrock at Elev. 46.5 ft.<br>R1: Bedrock: Light and dark gray, fine to medium grained, biotite- and muscovite-rich SCHIST, with occasional quartzite inclusions, hard, typically fresh; banding beginning to form. Typically low angle, closely spaced breaks; undulating, rough, typically fresh to slightly discolored, and open, with occasional mud infilling. Quartzite veins at 41.6 to 41.8 and 43.6 to 44.0 ft; wide open fracture with mud and sand infilling at 43.2 ft.<br>(VASSALBORO GROUP)<br>Core times: 2125/ 1150/ 1145/ 2110/ 2120 minsec/ft.<br>ROCK QUALITY = FAIR<br>R2: Similar to R1, except typically close to moderately spaced breaks. Quartzite inclusions at 44.2 to 44.6, 45.0 to 45.2, and 47.5 to 48.3 ft.<br>Core times: 2155/ 2110/ 2110/ 2115/ 2115 minsec/ft.<br>ROCK QUALITY = GOOD | |
| | R2 | 60/60 | 44.0 - 49.0 | RQD: 51" = 85% | | | | | | | |
| 45 | | | | | | | | | | | |
| | | | | | | | | 36.0 | | -49.0 | |
| 50 | | | | | | | | | | Bottom of Exploration at 49.0 feet below ground surface. | |

Remarks:
auto hammer last calibrated on 9/20/21
location:
offset from centerline = 13.7 ft southerly
ties to prominent features: pole to east = 67.5 ft and sign to southwest = 15.1 ft

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-DMB-203

## Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Tracy Bridge #2852
Route 125 over Meadow Brook
Location: Durham, ME

**Boring No.: BB-DMB-204**
WIN: 23657.00

| | | | |
|---|---|---|---|
| Driller: | New England Boring Contractors | Elevation (ft.): 84 ft (est'd) | Auger ID/OD: SSA (4.5" OD) |
| Operator: | Enos/McDougal | Datum: NGVD 88 | Sampler: Standard Split-Spoon |
| Logged By: | Schoneweld | Rig Type: MODIFIED CME 75 TRACK MOUNTED DRILL | Hammer Wt./Fall: 140 lbs/ 30 in |
| Date Start/Finish: | 5/6/221 0825-1225 | Drilling Method: cased wash boring | Core Barrel: NQ2 |
| Boring Location: | see remarks | Casing ID/OD: HW (4.0/4.5)/ NW (3.0/3.5) | Water Level*: |
| Hammer Efficiency Factor: 0.859 | | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | |

Definitions:
R = Rock Core Sample
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
W = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Test, FP = Pocket Penetrometer
MK = Unsuccessful Field Vane Shear Test Attempt
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of Hoist
WOR = Weight of Rods or Casing
WIH = Weight of Hammer
$N_{60}$ = SPT N-value corrected for Hammer Efficiency
$N_{60}$ = Uncorrected Hammer Efficiency Factor/60%-Uncorrected
$S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
$q_u$ = Unconfined Compressive Strength (tsf)
N-uncorrected = Raw Field SPT N-value
$N_{60}$ = SPT N-value corrected for Hammer Efficiency
Hammer Efficiency Factor = Ratio to Annual Calibration Value
PP = Pocket Penetrometer Value in tsf
RQD = Rock Quality Designation
Qt = Quartz Content, percent
C = Consolidation Test
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
$T_v$ = Peak/Remolded Torvane Shear Strength (psf)
Plasticity: N = Non-Plastic, L = Low, M = Medium, H = High

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows (in.) Shear Strength or RQD (%) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1D | 24/13 | 0.0 - 2.0 | 3-6-6-6 | 12 | 17 | HW PUSH | | | Brown, damp, medium dense, fine to medium SAND, some silt, trace gravel, trace coarse sand. MARINE NEARSHORE SAND & GRAVEL | |
| | | | | | | | 32 | | | | |
| | | | | | | | 80 | | | | |
| 5 | | | | | | | 85 | | | | |
| | 2D | 24/8 | 4.0 - 6.0 | 6-16-21-20 | 37 | 53 | 30 | | | Brown, dense, Silty fine to coarse SAND, little fine gravel. MARINE NEARSHORE SAND & GRAVEL | |
| | | | | | | | 61 | | | | |
| | | | | | | | 55 | | | | |
| 10 | | | | | | | 44 | | | | |
| | 3D | 24/8 | 9.0 - 11.0 | 6-7-6-6 | 13 | 19 | 42 | | | Brown, medium dense, fine to coarse SAND, some gravel, trace to little silt. MARINE NEARSHORE SAND & GRAVEL | |
| | | | | | | | 13 | | | | |
| | | | | | | | 37 | | | | |
| 15 | | | | | | | 48 | | | | |
| | 4D | 24/6 | 14.0 - 16.0 | 4-5-5-5 | 10 | 14 | 60 | | | Brown, loose, fine to coarse SAND, little gravel, trace to little silt. MARINE NEARSHORE SAND & GRAVEL | |
| | | | | | | | 18 | | | | |
| | | | | | | | 32 | | | | |
| 20 | | | | | | | 76 | | | | |
| | 5D | 24/16 | 19.0 - 21.0 | 11-18-18-18 | 36 | 52 | 87 | 66.0 | | -18.0 | |
| | | | | | | | 112 | | | | |
| | | | | | | | RC | | | Dark grey, dense, Silty fine to medium SAND, trace to little fine gravel, trace coarse sand. TILL | |
| 25 | 6D | 24/10 | 24.0 - 26.0 | 17-18-19-23 | 37 | 53 | | | | Grey, dense, fine to medium SAND, some silt, little gravel, trace coarse sand, with decomposed gravel throughout. TILL | |
| | 7D | 13/9 | 29.0 - 30.1 | 34-82-50/1" | --- | | | | | Dark grey, very dense, Silty fine to medium SAND, some fine gravel, trace coarse sand. TILL | |
| 30 | | | | | | | | 53.0 | | -31.0 | |
| | R1 | 60/60 | 31.0 - 36.0 | RQD: 36" = 60% | | | NQ2 | | | Top of bedrock at Elev. 53.0 ft.<br>R1: Bedrock: Light and dark grey, fine to medium grained, biotite- and muscovite-rich SCHIST, with quartzite inclusions and occasional garnets, hard, fresh to slightly weathered; banding beginning to form. Horizontal to low angle, close to moderately spaced breaks; undulating, rough, typically fresh, and open, with no observed infilling. Vertical fracture 31.0 to 31.9 ft; quartzite inclusions 31.0 to 31.3, 32.7 to 33.1, and 34.7 to 36.0 ft.<br>(VASSALBORO GROUP)<br>Core times: 1130/ 1130/ 1145/ 2105/ 2130 minsec/ft.<br>ROCK QUALITY = FAIR<br>R2: Similar to R1, except no observed garnets. Quartzite inclusion 38.8 to 39.3 ft.<br>Core times: 1150/ 1140/ 2115/ 2100/ 1125 minsec/ft.<br>ROCK QUALITY = FAIR | |
| 35 | R2 | 60/57 | 36.0 - 41.0 | RQD: 45" = 75% | | | | | | | |
| | | | | | | | | 43.0 | | -41.0 | |
| 40 | | | | | | | | | | Bottom of Exploration at 41.0 feet below ground surface. | |
| 45 | | | | | | | | | | | |
| 50 | | | | | | | | | | | |

Remarks:
auto hammer last calibrated on 9/20/21
location: ties as follows:
pole = 15.1 ft\ soap pole (brace) = 7.5 ft\ #49 = 35.2 ft

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-DMB-204

## Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Tracy Bridge #2852
Route 125 over Meadow Brook
Location: Durham, ME

**Boring No.: HB-DMB-205**
WIN: 23657.00

| | | | |
|---|---|---|---|
| Driller: | New England Boring Contractors | Elevation (ft.): 87 ft (est'd) | Auger ID/OD: SSA (4.5" OD) |
| Operator: | Enos/ Gamm/ McDougal | Datum: NGVD 88 | Sampler: Standard Split-Spoon |
| Logged By: | Schoneweld | Rig Type: MODIFIED CME 75 TRACK MOUNTED DRILL | Hammer Wt./Fall: 140 lbs/ 30 in |
| Date Start/Finish: | 5/5/221 1410 - 5/6/221 0815 | Drilling Method: cased wash boring | Core Barrel: NQ2 |
| Boring Location: | see remarks | Casing ID/OD: HW (4.0/4.5)/ NW (3.0/3.5) | Water Level*: |
| Hammer Efficiency Factor: 0.859 | | Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐ | |

Definitions:
R = Rock Core Sample
D = Split Spoon Sample
WO = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
W = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Test, FP = Pocket Penetrometer
MK = Unsuccessful Field Vane Shear Test Attempt
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of Hoist
WOR = Weight of Rods or Casing
WIH = Weight of Hammer
$N_{60}$ = SPT N-value corrected for Hammer Efficiency
$N_{60}$ = Uncorrected Hammer Efficiency Factor/60%-Uncorrected
$S_u$ = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
$q_u$ = Unconfined Compressive Strength (tsf)
N-uncorrected = Raw Field SPT N-value
$N_{60}$ = SPT N-value corrected for Hammer Efficiency
Hammer Efficiency Factor = Ratio to Annual Calibration Value
PP = Pocket Penetrometer Value in tsf
RQD = Rock Quality Designation
Qt = Quartz Content, percent
C = Consolidation Test
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
$T_v$ = Peak/Remolded Torvane Shear Strength (psf)
Plasticity: N = Non-Plastic, L = Low, M = Medium, H = High

| Depth (ft.) | Sample No. | Pen./Rec. (in.) | Sample Depth (ft.) | Blows (in.) Shear Strength or RQD (%) | N-uncorrected | $N_{60}$ | Casing Blows | Elevation (ft.) | Graphic Log | Visual Description and Remarks | Laboratory Testing Results/ AASHTO and Unified Class. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1D | 24/9 | 0.0 - 2.0 | WOH-1-6-5 | 7 | 10 | HW PUSH | | | Brown, damp, loose, fine to coarse SAND, little to some silt, trace gravel. MARINE NEARSHORE SAND & GRAVEL | |
| | | | | | | | PUSH | | | | |
| | | | | | | | 34 | | | | |
| 5 | | | | | | | 53 | | | | |
| | 2D | 24/9 | 4.0 - 6.0 | 10-13-14-13 | 27 | 39 | 21 | | | Tan brown, medium dense, fine to coarse SAND, little fine gravel, little silt. MARINE NEARSHORE SAND & GRAVEL | |
| | | | | | | | 56 | | | | |
| | | | | | | | 70 | | | | |
| 10 | | | | | | | 75 | | | | |
| | 3D | 24/8 | 9.0 - 11.0 | 12-13-12-12 | 25 | 36 | 98 | | | Tan brown, medium dense, fine to coarse SAND, little fine gravel, trace to little silt. MARINE NEARSHORE SAND & GRAVEL | |
| | | | | | | | 25 | | | | |
| | | | | | | | 56 | | | | |
| 15 | | | | | | | 70 | | | | |
| | 4D | 24/8 | 14.0 - 16.0 | 12-16-18-17 | 34 | 49 | 88 | | | Tan brown, dense, fine to coarse SAND, little to some fine gravel, trace to little silt. MARINE NEARSHORE SAND & GRAVEL | |
| | | | | | | | 35 | | | | |
| | | | | | | | 85 | | | | |
| 20 | | | | | | | 77 | | | | |
| | 5D | 24/8 | 19.0 - 21.0 | 13-17-35-25 | 52 | 74 | 74 | 66.3 | | -20.7 | |
| | | | | | | | 83 | | | | |
| | | | | | | | RC | | | Changing at 20.7 ft to SDI Tan brown, Silty GRAVEL, some fine to coarse sand. TILL | |
| 25 | 6D | 24/9 | 24.0 - 26.0 | 22-43-49-21 | 92 | 132 | | | | Tan brown, very dense, Silty fine to medium SAND, little to some fine gravel, trace coarse sand. TILL | |
| | 7D | 24/15 | 29.0 - 31.0 | 50-62-57-76 | 119 | 170 | | | | Dark grey, very dense, Silty fine to medium SAND, little to some fine gravel, trace coarse sand. TILL | |
| 30 | | | | | | | | | | | |
| | | | | | | | NW | | | | |
| 35 | R1 | 60/60 | 34.1 - 39.1 | RQD: 49" = 82% | | | NQ2 | 53.3 | | -33.7 | |
| | | | | | | | | | | Top of bedrock at Elev. 53.3 ft<br>R1: Bedrock: Light and dark grey, fine to medium grained, biotite- and muscovite-rich SCHIST, hard, fresh to slightly weathered; banding beginning to form. Typically low angle, closely spaced breaks; undulating, rough, typically fresh, and open, with no observed infilling.<br>(VASSALBORO GROUP)<br>Core times: 1155/ 1140/ 1150/ 1145/ 1140 minsec/ft.<br>ROCK QUALITY = GOOD | |
| 40 | | | | | | | | 47.9 | | -39.1 | |
| | | | | | | | | | | Bottom of Exploration at 39.1 feet below ground surface. | |
| 45 | | | | | | | | | | | |
| 50 | | | | | | | | | | | |

Remarks:
auto hammer last calibrated on 9/20/21
location: ties to geophysical layout stakes:
DC06 = 3.0 ft\ DC11 = 14.9 ft\ DC12 = 28.8 ft

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.: HB-DMB-205

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | H. Walton | 10\2022 |
| DESIGN2-DETAILED2 | B. Gremier | |
| DESIGN3-DETAILED3 | A. Stephens | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

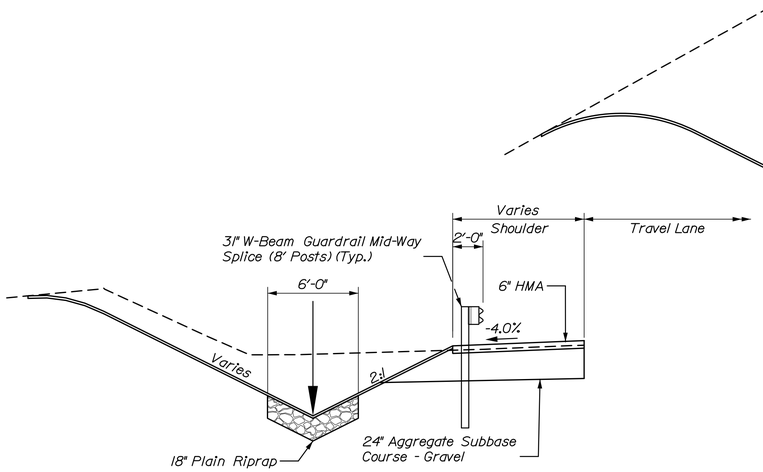
P.E. NUMBER

DATE

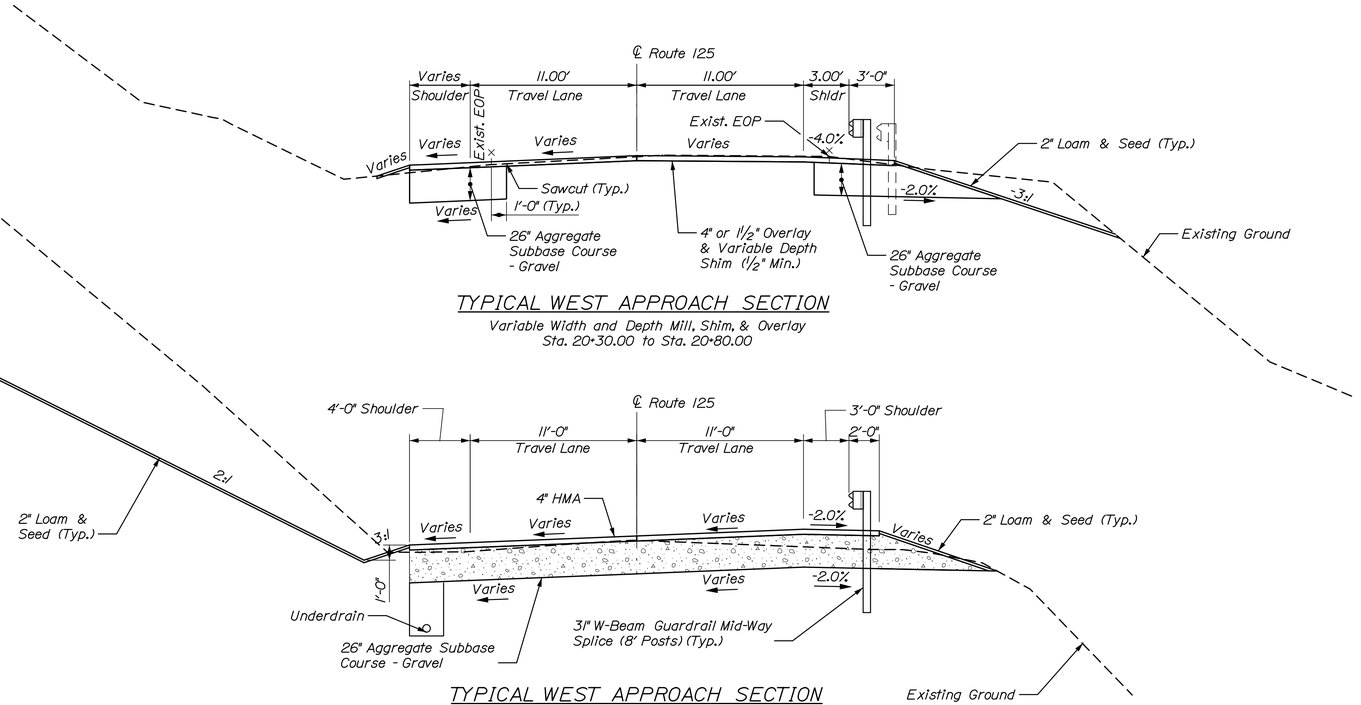
TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

BORING LOGS II

SHEET NUMBER
13
OF 79




## STONE DITCH SECTION
Sta. 16+50 to 17+00

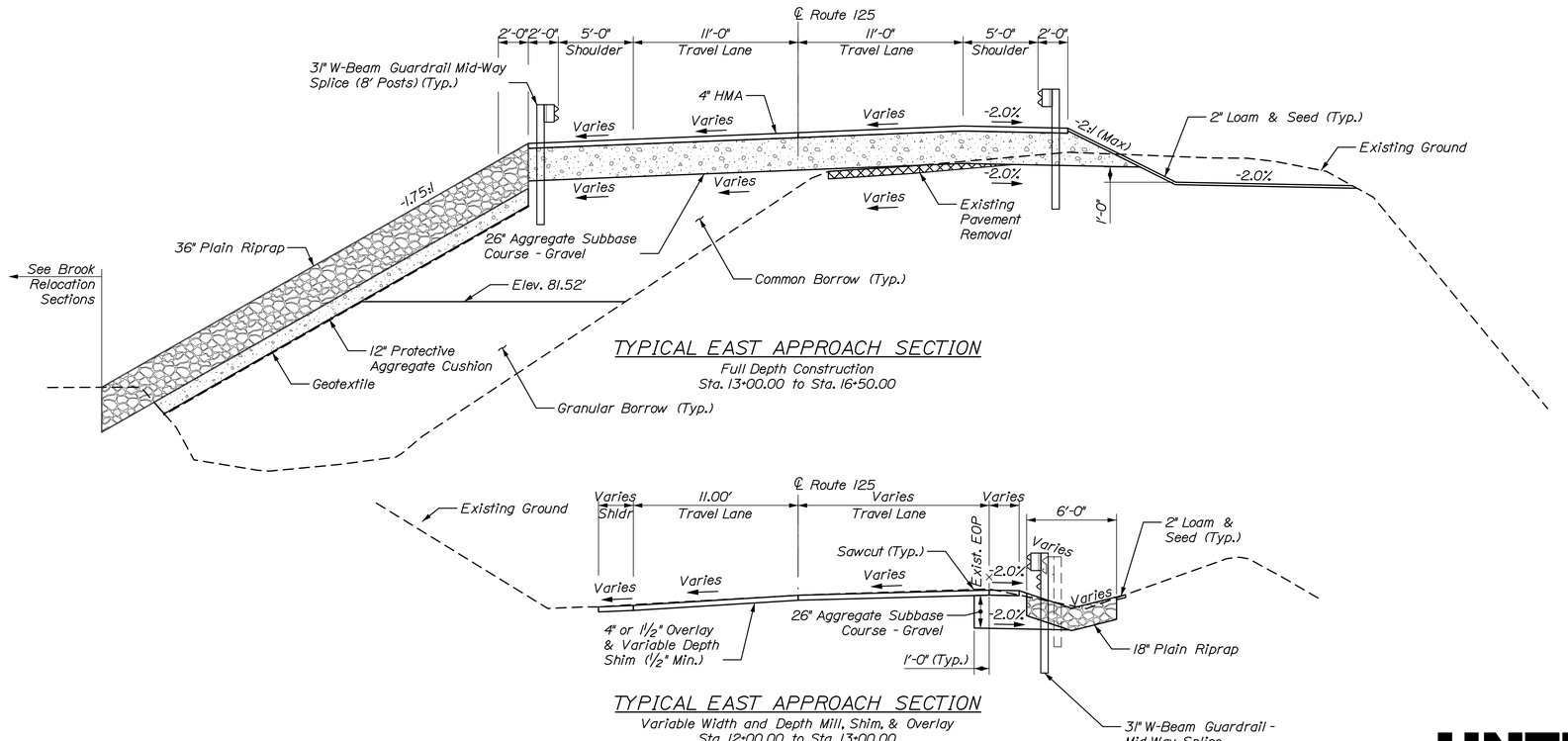



## TYPICAL WEST APPROACH SECTION
Variable Width and Depth Mill, Shim, & Overlay
Sta. 17+75.00 to Sta. 20+30.00




## TYPICAL WEST APPROACH SECTION
Variable Width and Depth Mill, Shim, & Overlay
Sta. 20+30.00 to Sta. 20+80.00

| Route 125 Cross Slope Table | | | | |
|---|---|---|---|---|
| Left Shoulder | Left Travel Lane | Station | Right Travel Lane | Right Shoulder |
| Match Existing | | 12+00 | Match Existing | |
| -6.2% | -6.2% | 12+25 | 2.7% | -2.0% |
| -6.0% | -6.0% | 12+50 | 3.6% | -2.0% |
| -6.0% | -6.0% | 12+75 | 3.6% | -2.0% |
| -4.8% | -4.8% | 13+00 | 3.6% | -2.0% |
| -4.0% | -3.6% | 13+25 | 3.6% | -2.0% |
| - | | | | |
| -4.0% | -3.6% | 15+50 | 3.6% | -2.0% |
| BRIDGE | | | | |
| -4.0% | -3.6% | 16+55 | 3.6% | -2.0% |
| -4.0% | -2.5% | 16+75 | 2.5% | -2.0% |
| -4.0% | -2.0% | 16+85 | 2.0% | -2.0% |
| -4.0% | -2.0% | 17+00 | 2.0% | -2.0% |
| - | | | | |
| -4.0% | -2.0% | 18+50 | 2.0% | -2.0% |
| -4.0% | -3.1% | 18+75 | 3.1% | -2.0% |
| -4.2% | -4.2% | 19+00 | 4.2% | -2.0% |
| -4.2% | -4.2% | 19+25 | 4.2% | -2.0% |
| -4.2% | -4.2% | 19+35 | 4.2% | -2.0% |
| -4.2% | -4.2% | 19+50 | 3.4% | -2.6% |
| -4.2% | -4.2% | 19+75 | 2.0% | -4.0% |
| -4.2% | -4.2% | 20+00 | 0.6% | -4.0% |
| -4.2% | -4.2% | 20+25 | -0.8% | -4.0% |
| -5.5% | -5.5% | 20+50 | -2.1% | -4.0% |
| -6.7% | -6.7% | 20+75 | -3.5% | -4.0% |
| Match Existing | | 20+80 | Match Existing | |




## TYPICAL EAST APPROACH SECTION
Full Depth Construction
Sta. 13+00.00 to Sta. 16+50.00




## TYPICAL EAST APPROACH SECTION
Variable Width and Depth Mill, Shim, & Overlay
Sta. 12+00.00 to Sta. 13+00.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

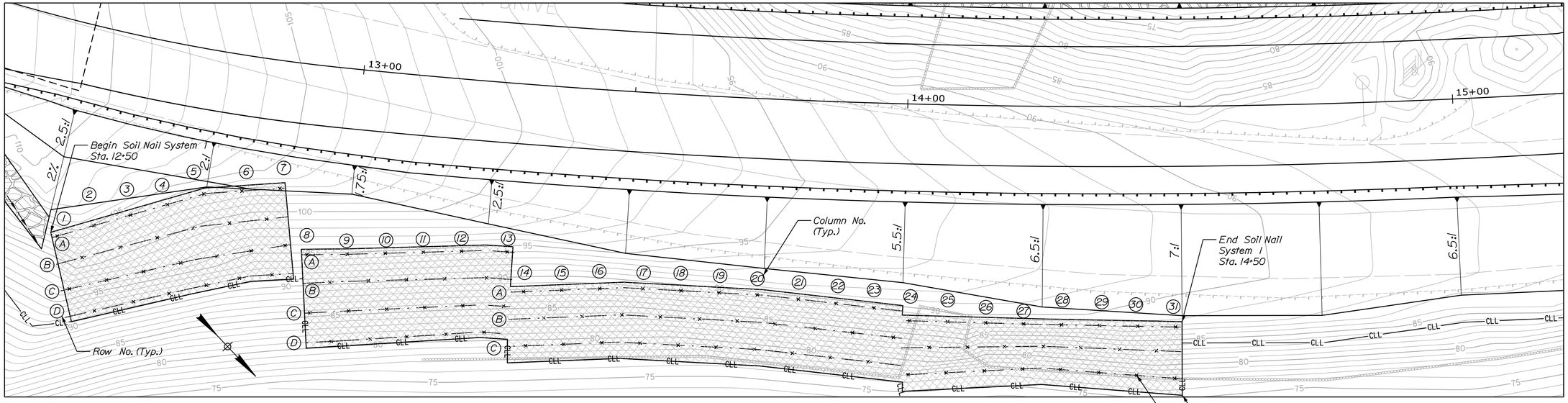
DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

TYPICAL SECTIONS

SHEET NUMBER
14
OF 79

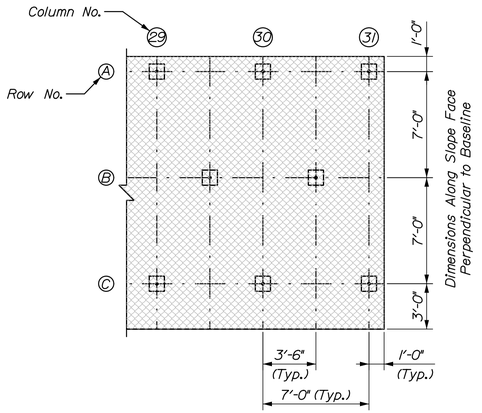
Filename: 014_Typical Sections.dgn Division: Username: Date:10/28/2022




PLAN

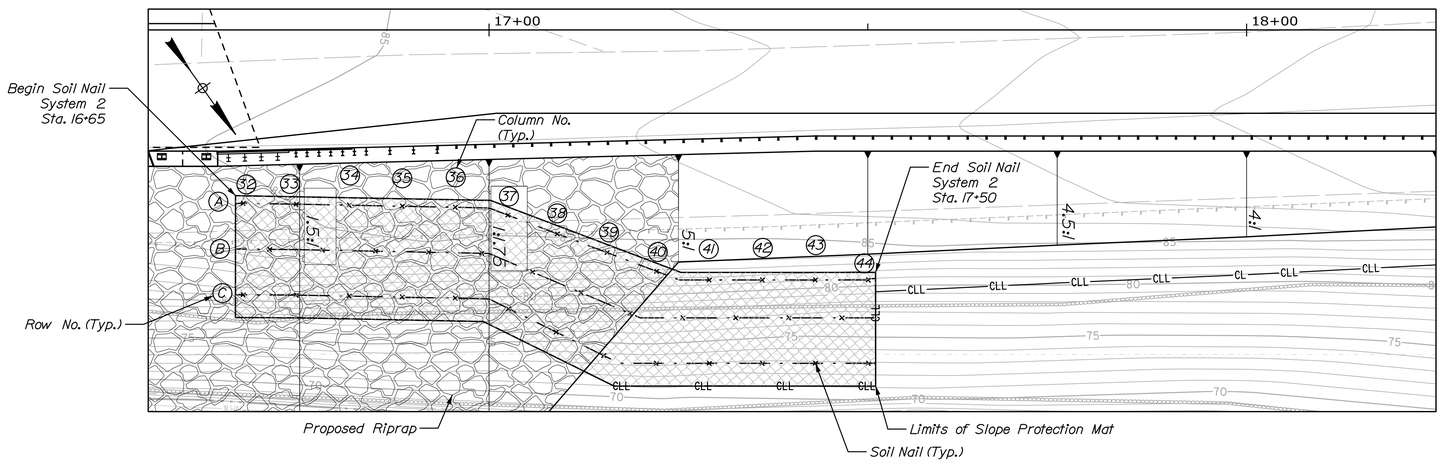
10 0 10 20

Scale of Feet




TYPICAL SOIL NAIL SPACING

NOT TO SCALE




PLAN

10 0 10 20

Scale of Feet

*Note:*

1. *Soil nail plan layout as shown is schematic only. Final layout shall be determined per Contractor's shop drawing as reviewed and approved by the Department. Soil nails shall be located in accordance with the Typical Soil Nail Spacing detail on this sheet and per the Soil Nail Details.*

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | J. Zwicknagl | 10\2022 |
| DESIGN2-DETAILED2 | J. Juzwin | |
| DESIGN3-DETAILED3 | B. Materek | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

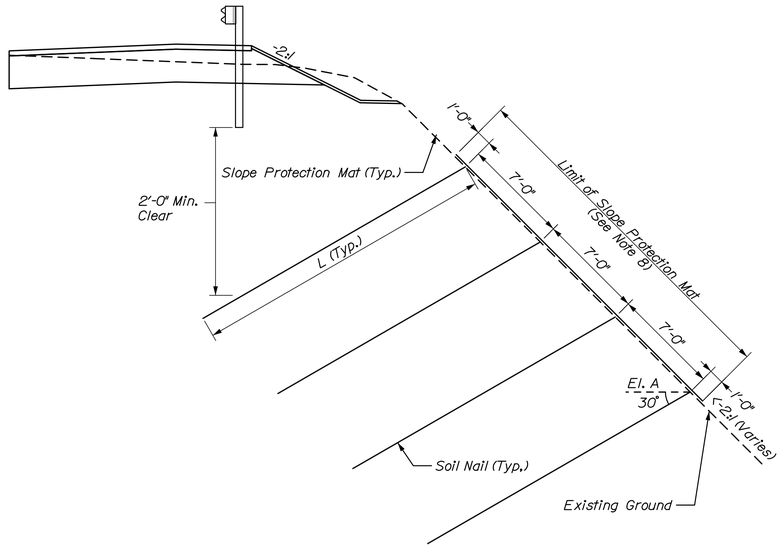
# SOIL NAIL PLAN

SHEET NUMBER

15

OF 79

Filename: 015_Soil Nail Plan.dgn Division: Username: Date:10/28/2022

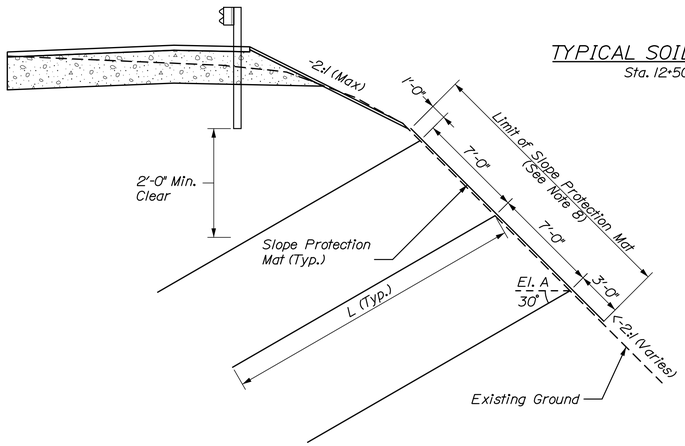



## TYPICAL SOIL NAIL SECTION

Sta. 12+50 to Sta. 13+60

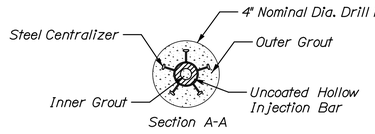
| Verification Load Test Table | | | | | | |
|---|---|---|---|---|---|---|
| Test Nail Designation | Station | Offset (Ft.) | Elevation (Ft.) | Bond Length (Ft.) | Inclination (Degrees) | Service Design Load (KIPS) |
| T1 | 13+00 | +37.5 | 92.5 | 20 | 30 | 23 |
| T2 | 13+90 | +40.0 | 86.5 | 20 | 30 | 23 |
| T3 | 17+00 | +27.0 | 78.5 | 15 | 30 | 23 |
| T4 | 17+25 | +41.0 | 75.0 | 15 | 30 | 23 |

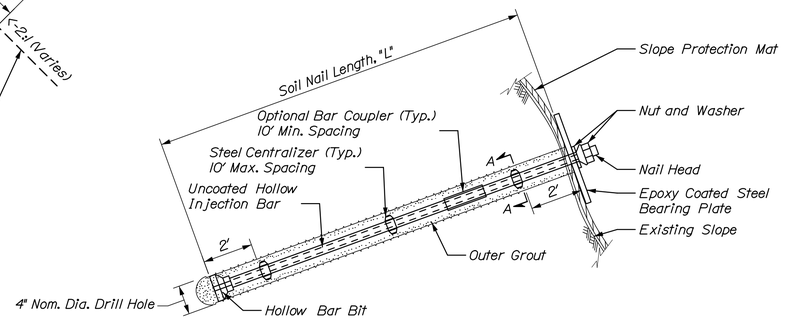
| Production Soil Nail Table | | | | | |
|---|---|---|---|---|---|
| Station Limits | Number of Rows | Soil Nail Length, "L" (Ft.) | Inclination (Degrees) | Service Design Load (KIPS) | EL. A (Ft.) |
| 12+50 TO 12+90 | 4 | 20 | 30 | 23 | 92.00 |
| 12+91 TO 13+30 | 4 | 20 | 30 | 23 | 81.00 |
| 13+31 TO 13+60 | 4 | 20 | 30 | 23 | 79.00 |
| 13+60 TO 14+00 | 3 | 20 | 30 | 23 | 79.00 |
| 14+01 TO 14+50 | 3 | 20 | 30 | 23 | 77.00 |
| 16+65 TO 17+50 | 3 | 15 | 30 | 23 | 73.00 |




## TYPICAL SOIL NAIL SECTION

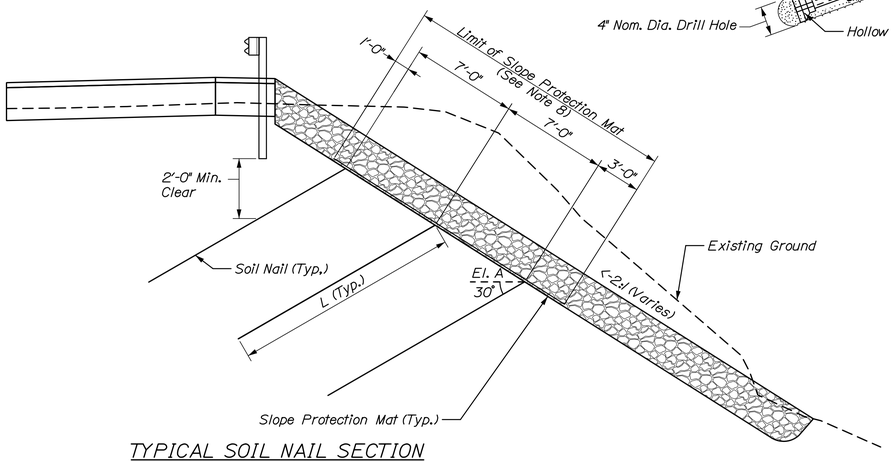
Sta. 13+61 to Sta. 14+50
Sta. 17+25 to Sta. 17+50




## TYPICAL SOIL NAIL DETAIL

Not to Scale




## TYPICAL SOIL NAIL SECTION

Sta. 16+65 to Sta. 17+25

*Soil Nail Notes:*

1. *On the Androscoggin River side (Stage 2), temporary excavation and grading at the top of slope to accommodate drilling equipment is permitted. Soil nails must be installed before placing fill to finished grade and paving.*
2. *Construct and test Hollow Bar Soil Nails in accordance with Special Provision Section 675, Soil Nail Wall (Hollow Bar Soil Nails).*
3. *Uncoated hollow injection bar shall be continuously threaded high-strength steel tubing meeting the requirements of ASTM A519, with a minimum yield strength of 75 ksi, a minimum nominal outer diameter of 1.5 inches, and a minimum net area through threads of 1.067 square inches. Soil nail hollow injection bars have been sized accounting for corrosion for a design life of 100 years.*
4. *Final grout shall have a minimum 28 day compressive strength of 4,000 psi.*
5. *Epoxy-coated steel bearing plate with dimensions no less than 10" x 10" x 2" shall meet requirements of ASTM A709 Grade 50 and shall be fastened to each nail head using a threaded bar nut and washer.*
6. *The Contractor shall be responsible for submitting the final nail lengths, locations, diameters and details as part of the requirements for working drawings as per the Special Provisions. Soil nail locations shall be approved in the field by the Department prior to the start of construction. Locations as provided may be adjusted in the field by the Department.*
7. *Efforts shall be made to minimize disturbance to the existing slope face prior to and during construction. No benching or excavation of the existing slope shall be permitted to facilitate construction, except where indicated in the Plans. Trees and vegetation obstructing construction shall be cut at the ground line such that the root system is left in place.*
8. *The Contractor shall seed the finished ground and install a Slope Protection Mat over the ground surface and under soil nail bearing plates within the indicated limits. Slope Protection Mat shall consist of an erosion control blanket in accordance with Section 613 of the Standard Specifications, overlain by double-twisted galvanized steel mesh in accordance with Special Provision Section 513, Slope Protection (Wire Mesh). Extend erosion control blanket above top of wire mesh to the top of slope.*
9. *Where soil nails overlap proposed riprap, the soil nails and steel mesh shall be installed before the riprap is placed. The riprap shall be placed over the steel mesh, bearing plate, and nail head. Seeding and erosion control blanket shall be omitted within riprap limits.*
10. *Should the Contractor notice any displacement of the existing slope during construction, or if any raveling or local instability of the slope occurs, the Department shall be notified immediately.*
11. *Pre-production verification tests shall be performed by the Contractor prior to the installation of production nails to verify the Contractor's installation methods and nail pullout resistance. The Contractor shall design and perform verification testing of designated sacrificial test nails at the locations indicated on the plan and in accordance with the Special Provisions. Verification test nails shall be loaded to double the Service Design Load indicated in the Verification Load Test Table.*
12. *No less than 5 percent of the production soil nails in each row, a minimum of 1 nail per row, shall be proof tested in accordance with the Special Provisions. The proposed locations of the proof tests will be specified by the Department following review of Contractor soil nail layout submittals.*

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | J. Zwetchkenbaum | 10\1\2022 |
| CHECKED-REVIEWED | P. Mckechnie | 10\1\2022 |
| DESIGN2-DETAILED2 | B. Materek | 10\1\2022 |
| DESIGN3-DETAILED3 | J. Jazwin | 10\1\2022 |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

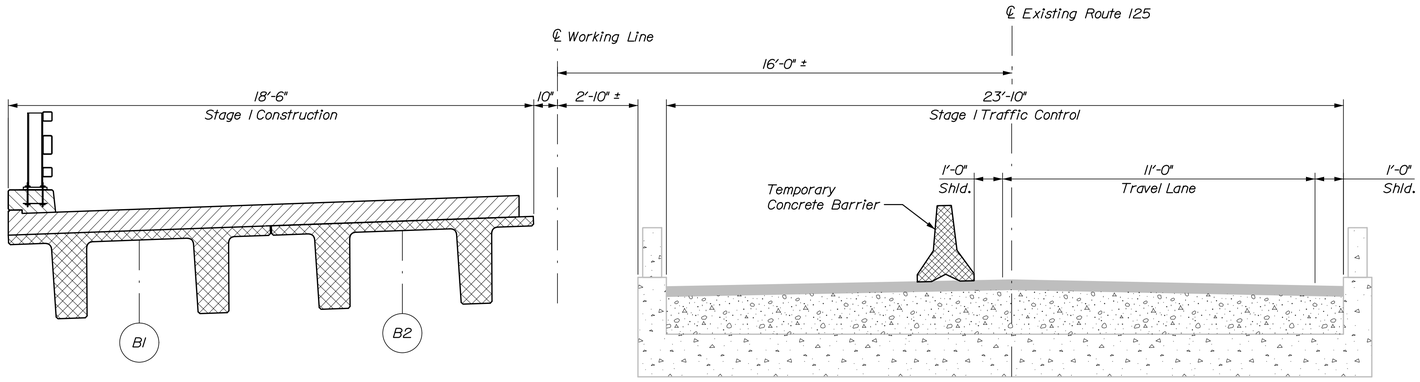
SOIL NAIL DETAILS

SHEET NUMBER

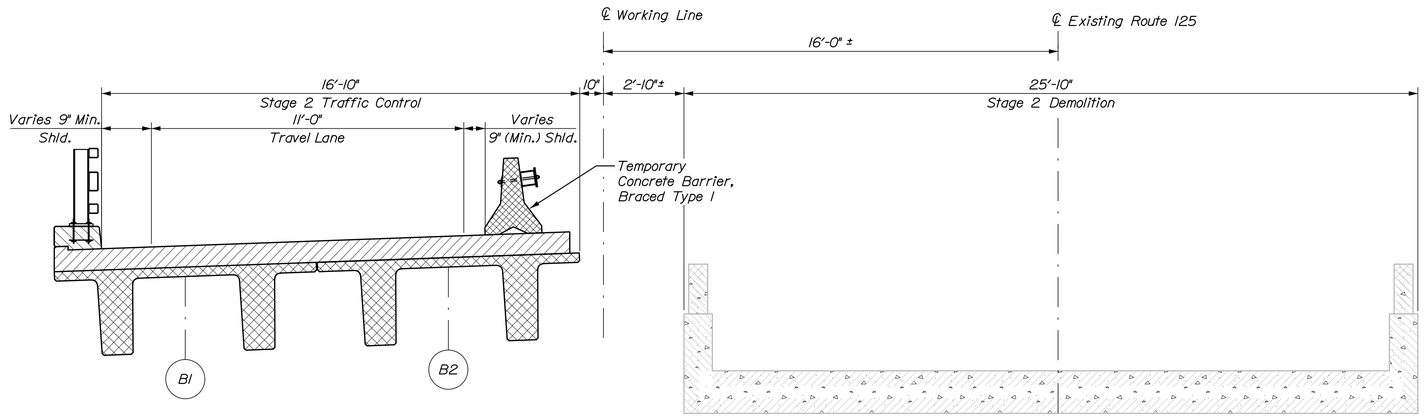
16

OF 79

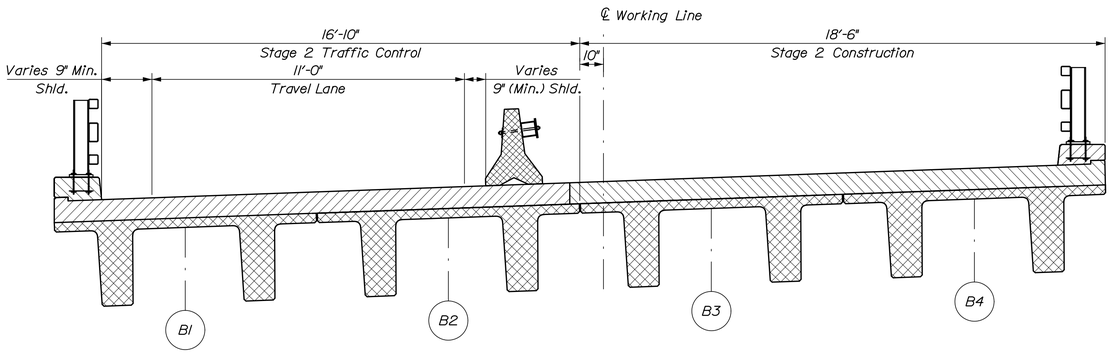
Filename: 016_Soil Nail Details.dgn Division: Username: Date:10/28/2022




STAGE I CONSTRUCTION




STAGE 2 DEMOLITION




STAGE 3 CONSTRUCTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

BY
P. Mckechnie
B. Hovu

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

CONSTRUCTION STAGING

SHEET NUMBER

17

OF 79

HNTB

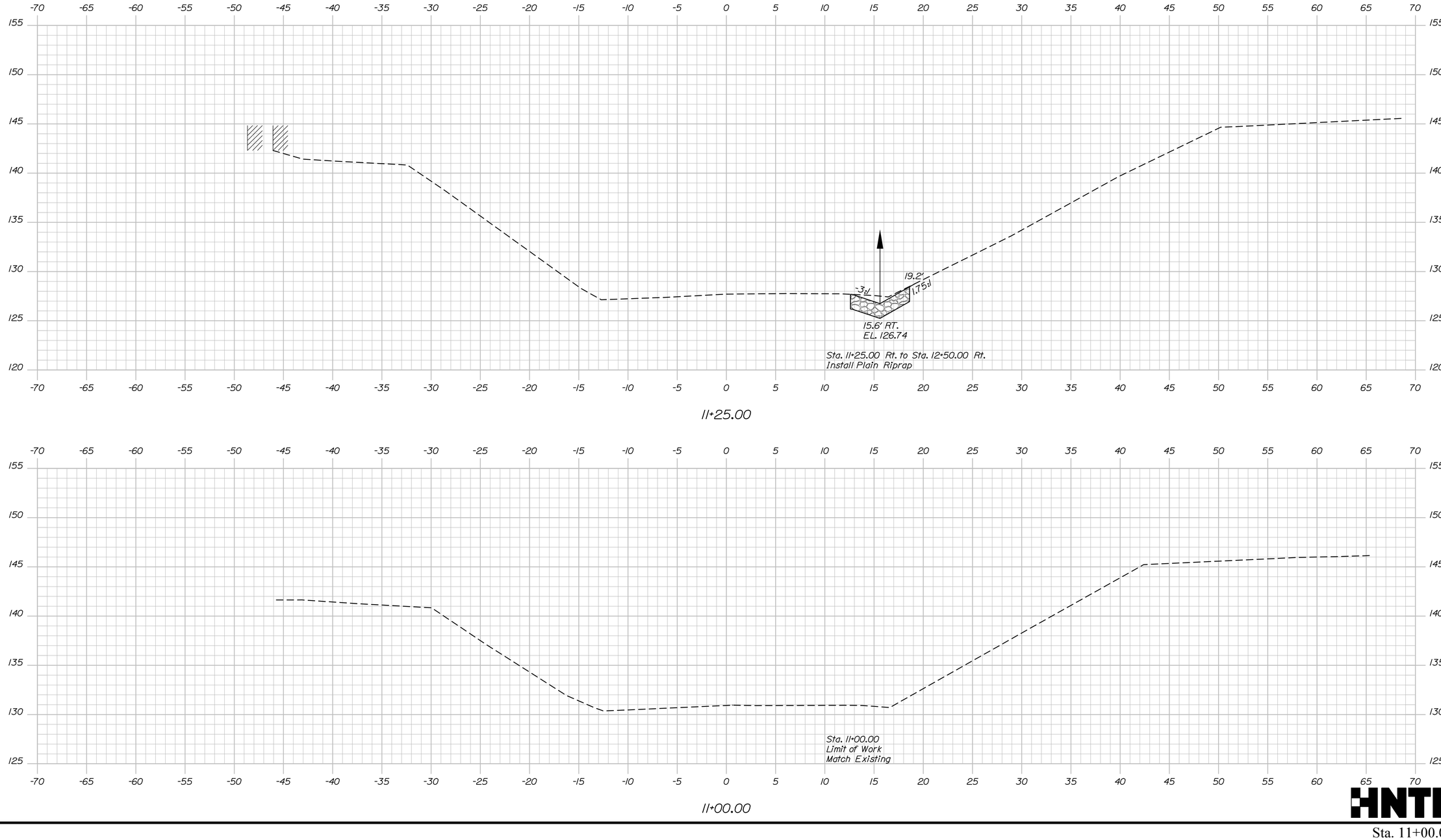
Filename: 017_Staging.dgn Username: Division: Date:10/28/2022

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

CROSS SECTIONS

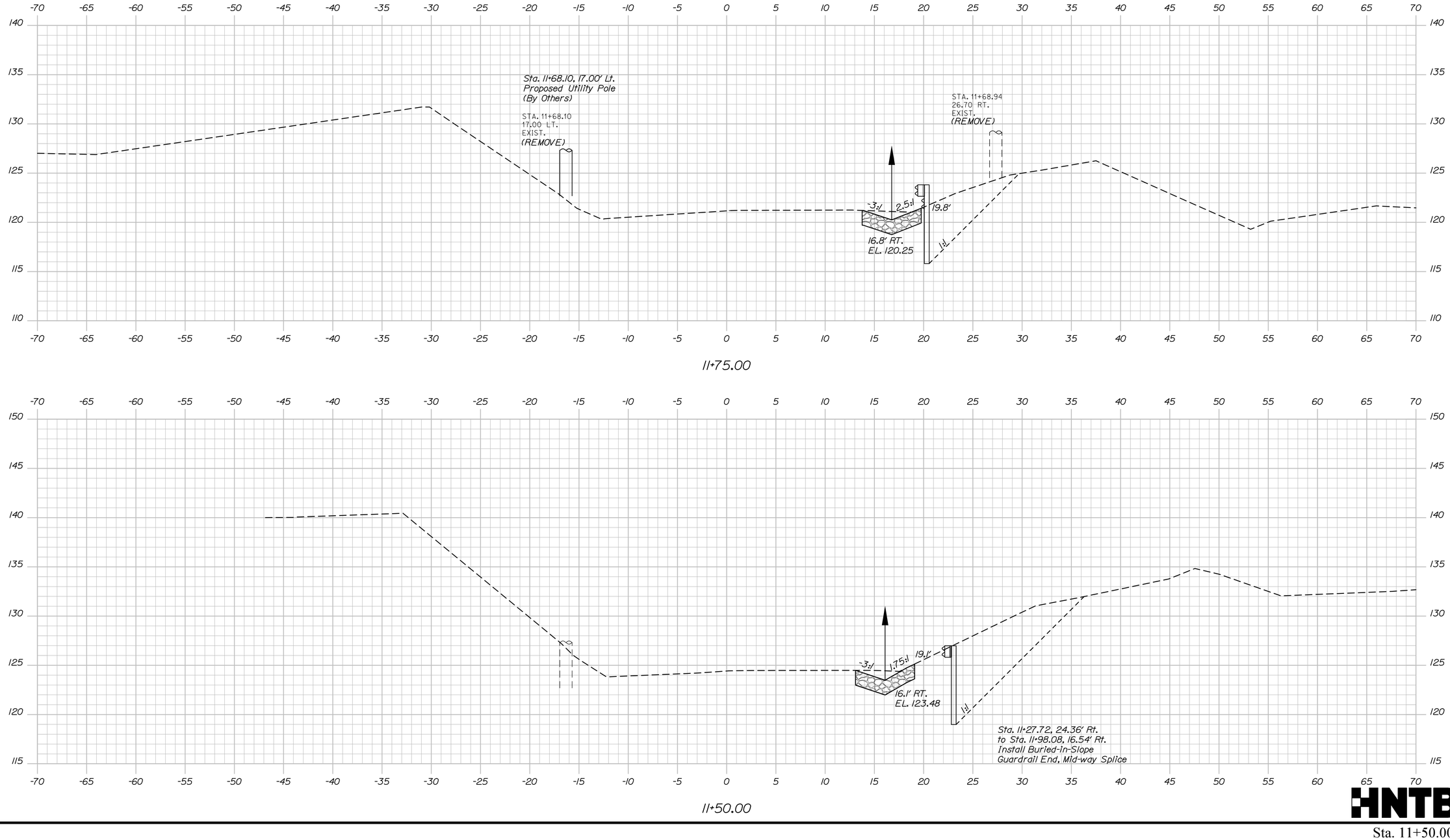
SHEET NUMBER

18

OF 79

HNTB

Sta. 11+00.00 to Sta. 11+25.00




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852 BRIDGE PLANS

| | | | | |
|---|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | | |
| DESIGN-DETAILED | P. Mckechnie | BY | DATE | |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\2022 | SIGNATURE |
| DESIGN2-DETAILED2 | | B. Hovu | 10\2022 | |
| DESIGN3-DETAILED3 | | | | P.E. NUMBER |
| REVISIONS 1 | | | | DATE |
| REVISIONS 2 | | | | |
| REVISIONS 3 | | | | |
| REVISIONS 4 | | | | |
| FIELD CHANGES | | | | |

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER

19

OF 79

HNTB

Date:10/28/2022
Username:
Division:
Filename: Xsect.dgn

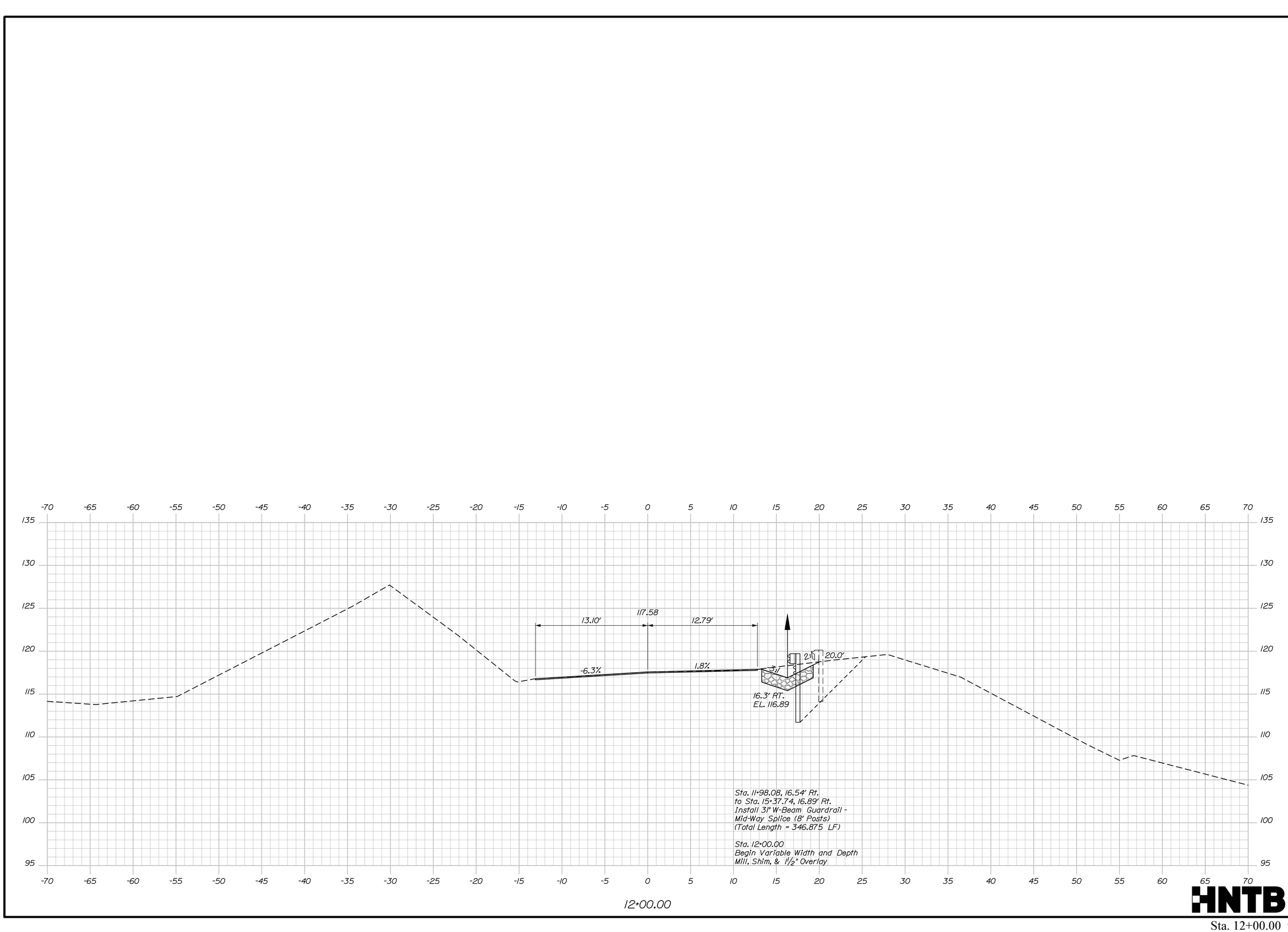
Sta. 11+50.00 to Sta. 11+75.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




| | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | | | |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2852

BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CROSS SECTIONS

SHEET NUMBER

20

OF 79

HNTB

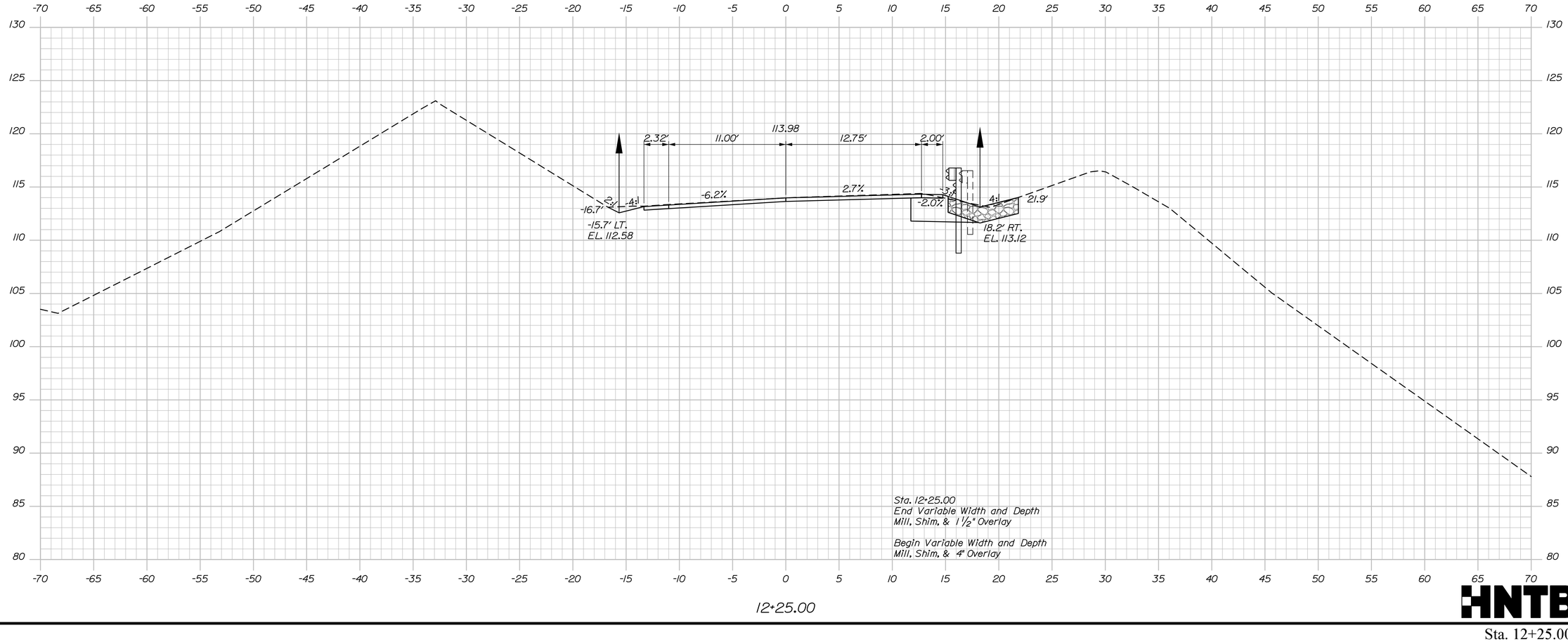
Sta. 12+00.00 to Sta. 12+00.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




| PROJ. MANAGER | M. KERSBERGEN | | |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\.2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\.2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2852

BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER

21

OF 79

HNTB

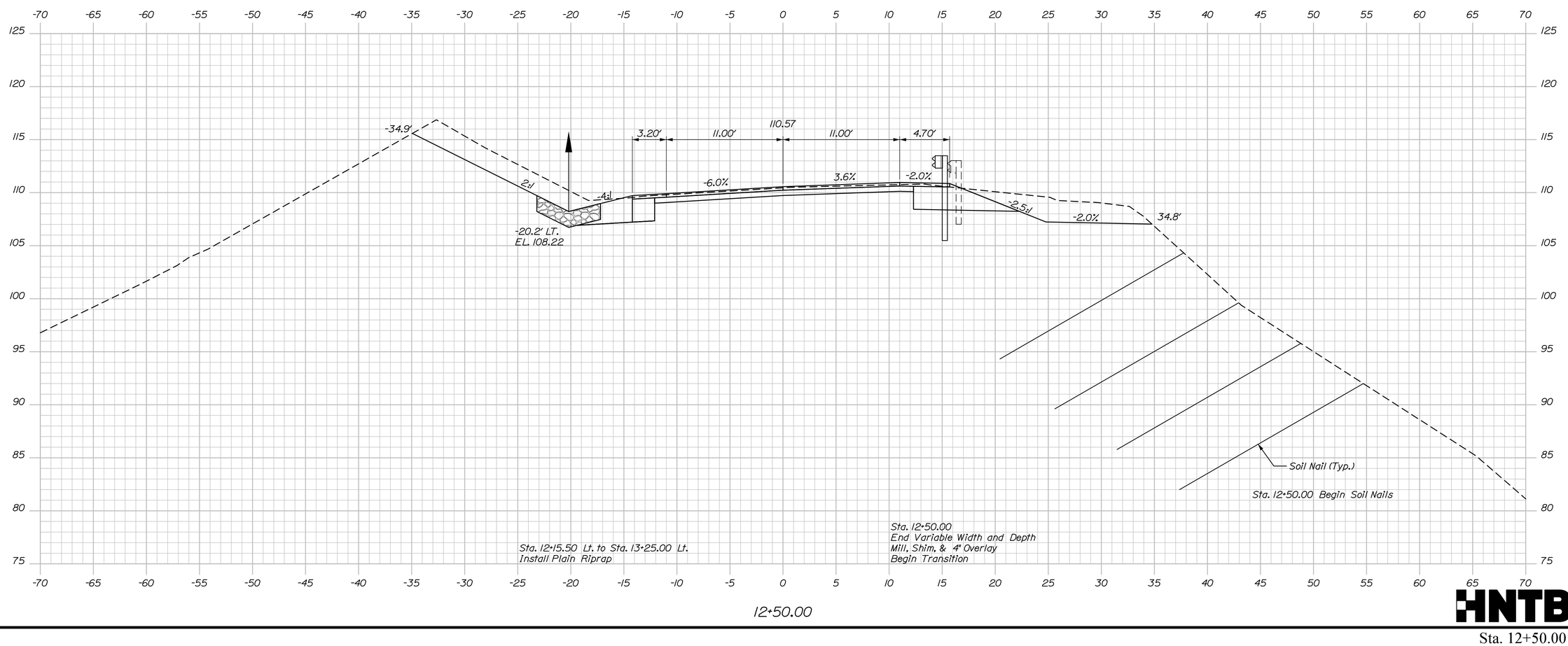
Sta. 12+25.00 to Sta. 12+25.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




| PROJ. MANAGER | M. KERSBERGEN | | |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\.2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\.2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2852

BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER

22

OF 79

HNTB

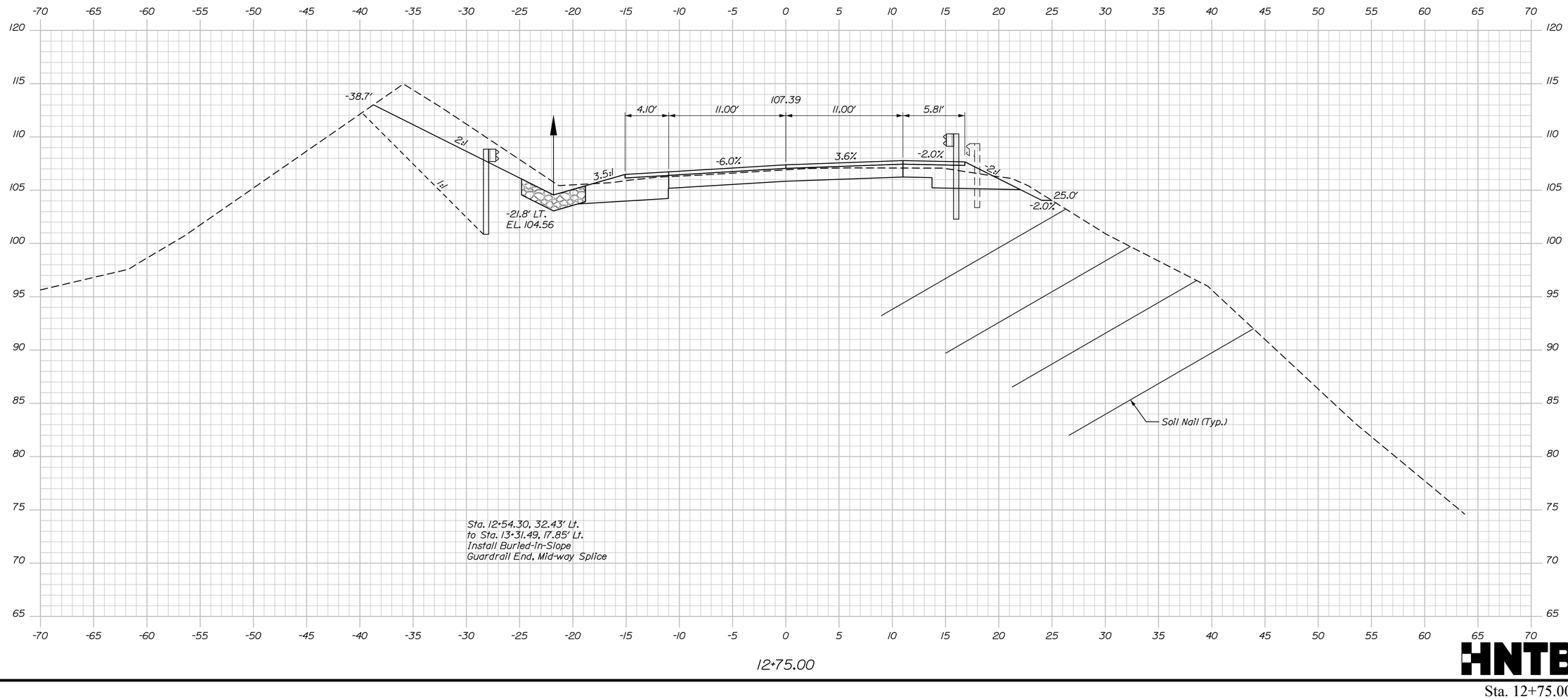
Sta. 12+50.00 to Sta. 12+50.00

Date:10/28/2022

Username:

Division:

Filename: Xsect.dgn




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER M. KERSBERGEN | | |
| DESIGN-DETAILED P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CROSS SECTIONS

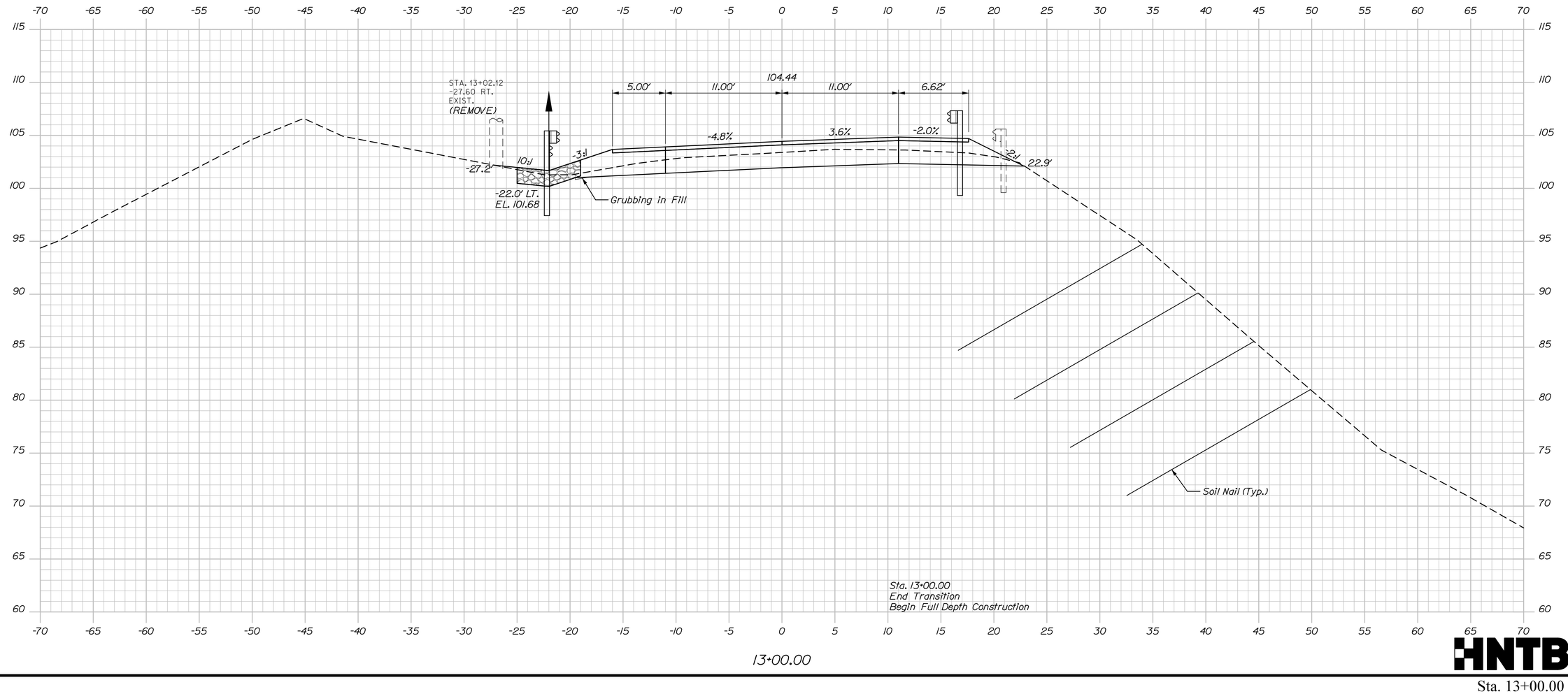
SHEET NUMBER

23

OF 79

HNTB

Sta. 12+75.00 to Sta. 12+75.00




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\2022 |
| DESIGN2-DETAILED2 | B. Hovu | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

CROSS SECTIONS

SHEET NUMBER

24

OF 79

HNTB

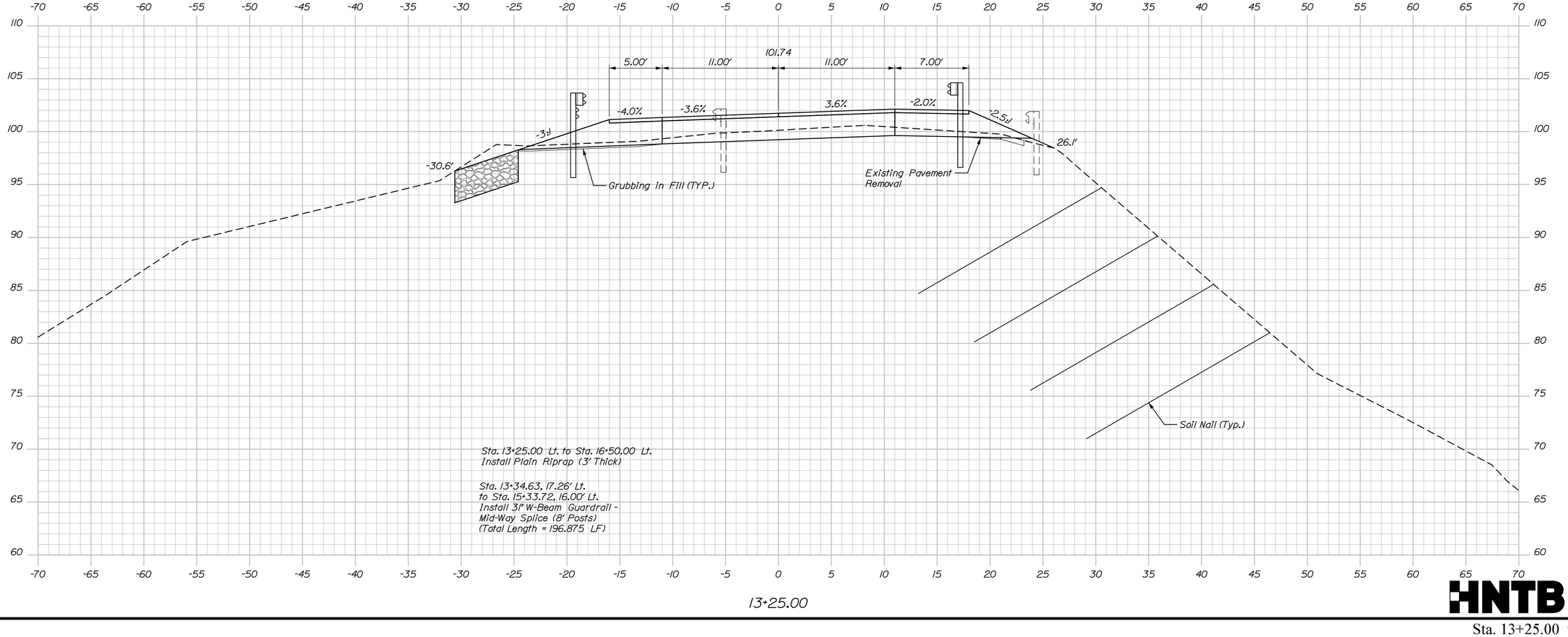
Sta. 13+00.00 to Sta. 13+00.00

Date:10/28/2022

Username:

Division:

Filename: Xsect.dgn




Date:10/28/2022

Username:

Division:

Filename: Xsect.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 — BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\.2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\.2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER

25

OF 79

HNTB

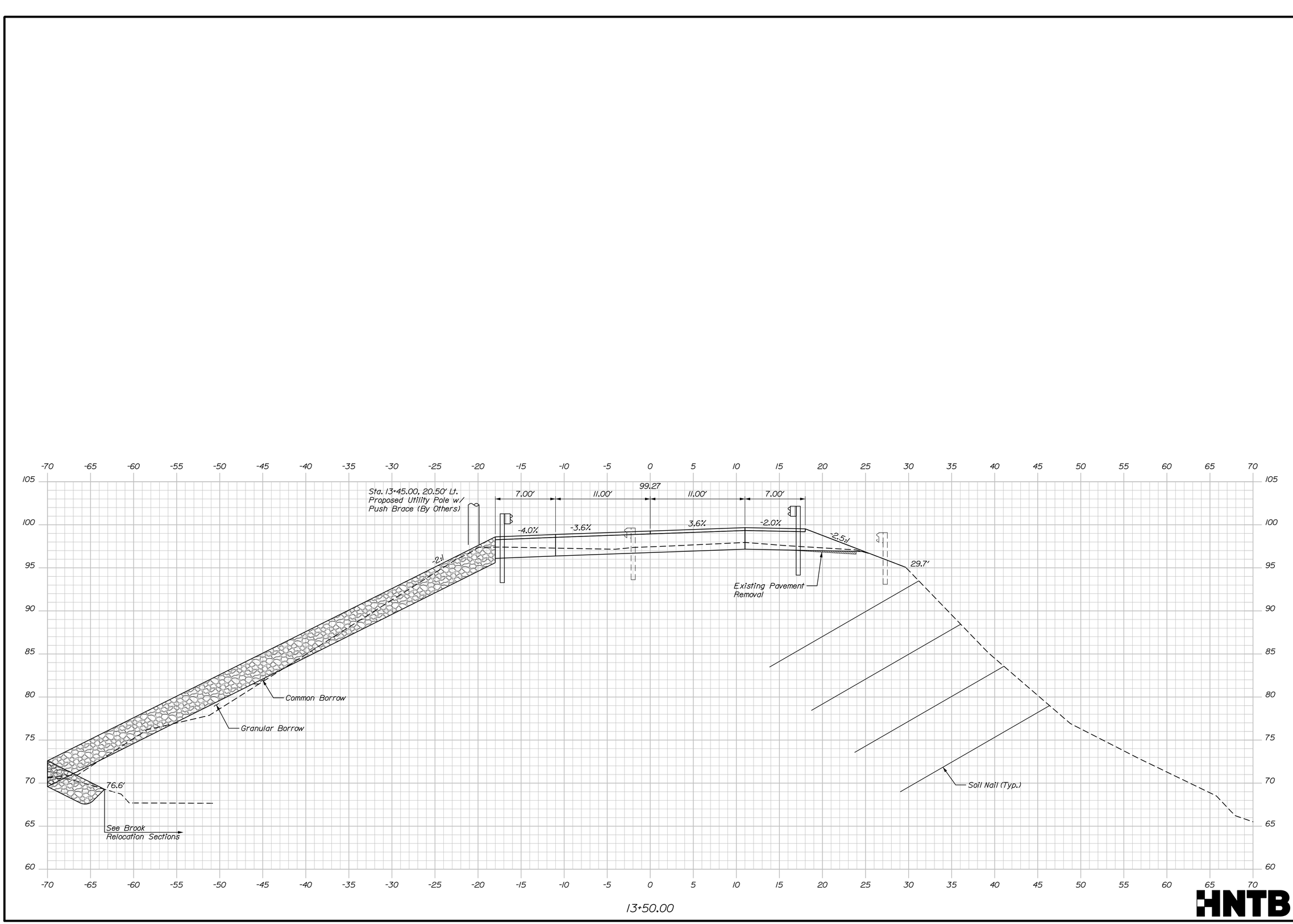
Sta. 13+25.00 to Sta. 13+25.00

Username:

Division:

Filename: Xsect.dgn

Date:10/28/2022




| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2852

BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CROSS SECTIONS

SHEET NUMBER

26

OF 79

HNTB

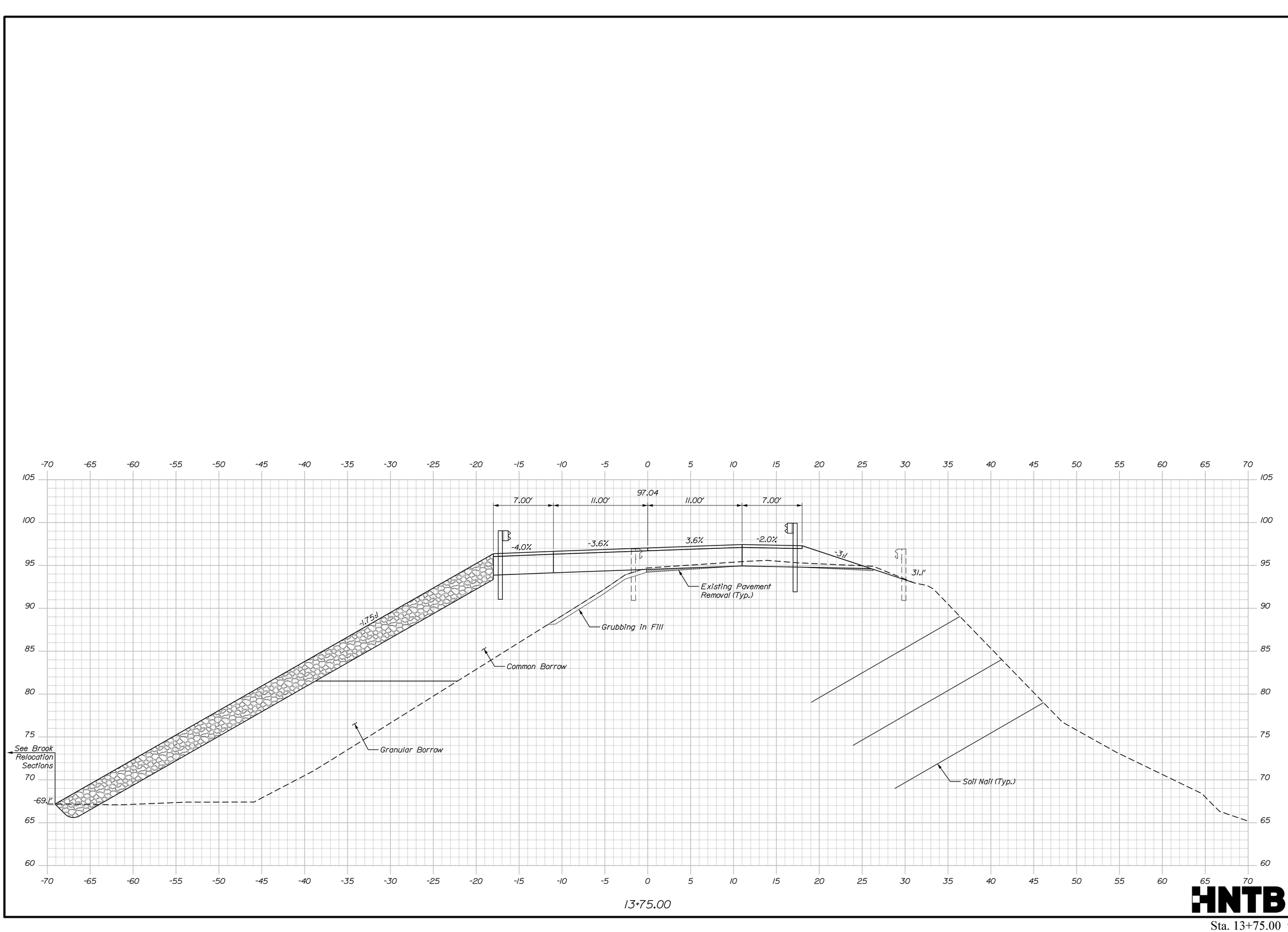
Sta. 13+50.00 to Sta. 13+50.00

Username:

Division:

Filename: Xsect.dgn

Date:10/28/2022




| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2852

BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CROSS SECTIONS

SHEET NUMBER

27

OF 79

HNTB

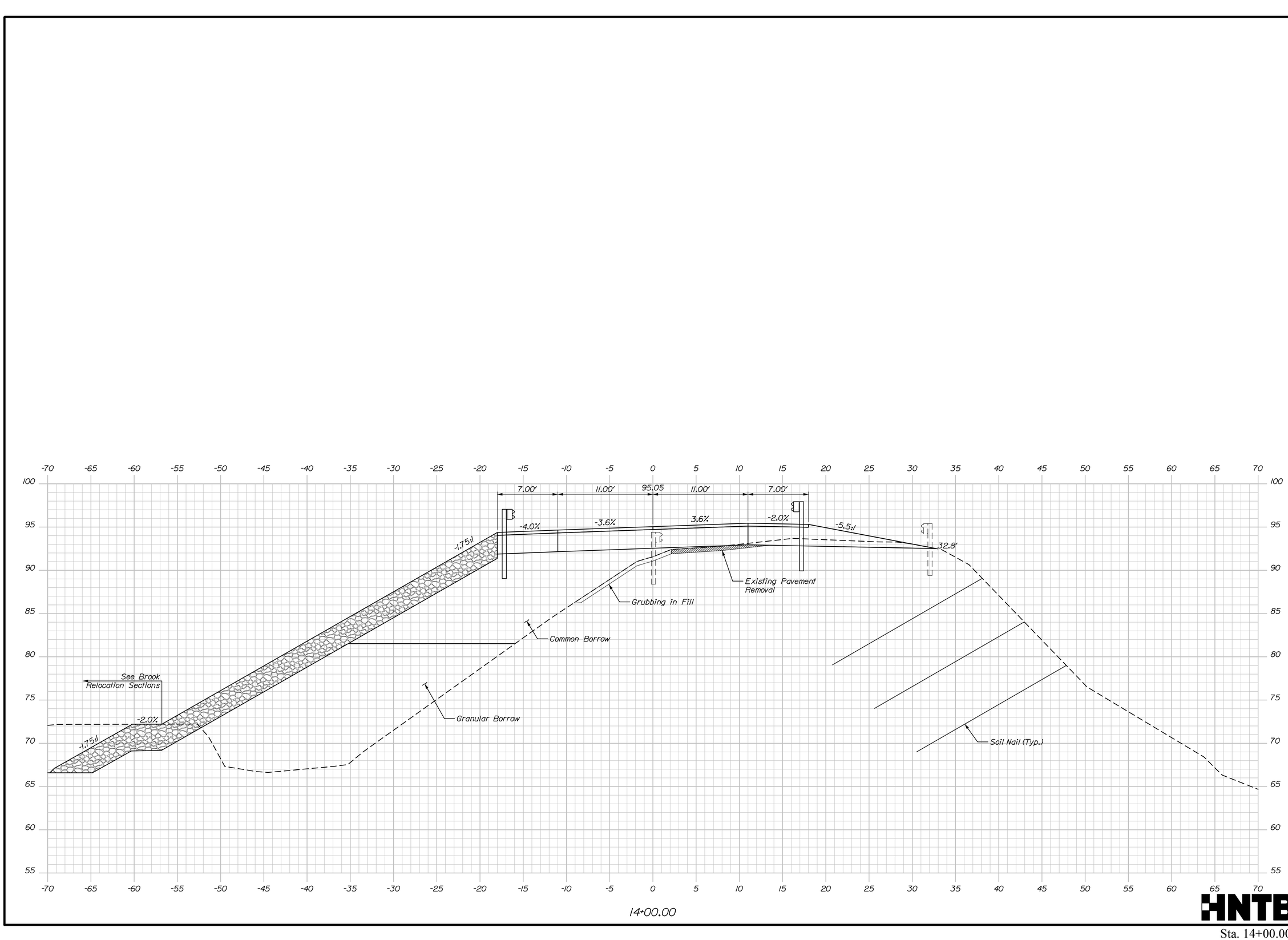
Sta. 13+75.00 to Sta. 13+75.00

Username:

Division:

Filename: Xsect.dgn

Date:10/28/2022




| | BY | DATE |
|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\.2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

PROJ. MANAGER: M. KERSBERGEN

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CROSS SECTIONS

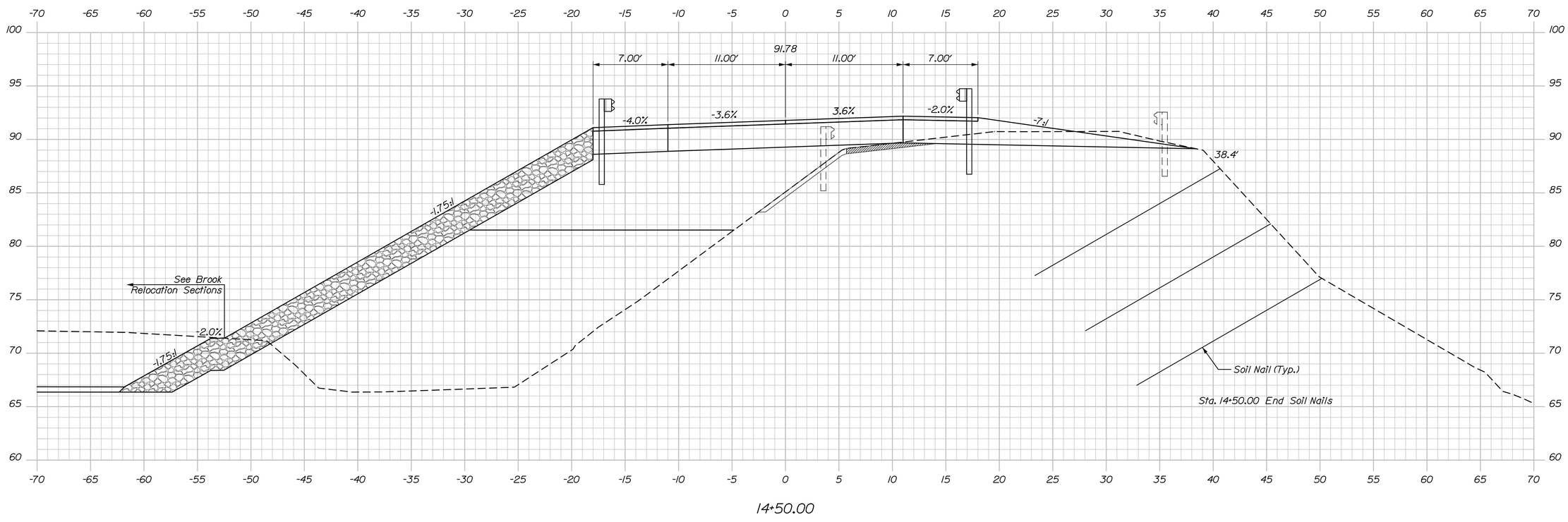
SHEET NUMBER

28

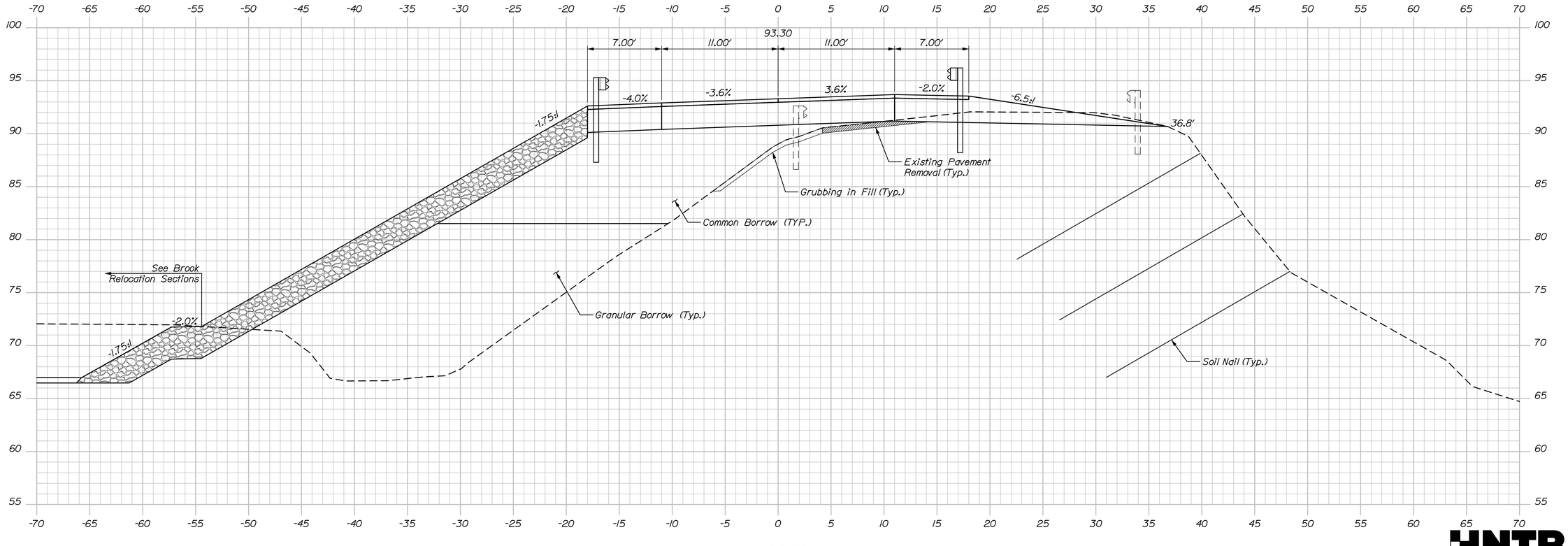
OF 79

HNTB

Sta. 14+00.00 to Sta. 14+00.00




14+50.00




14+25.00

Sta. 14+25.00 to Sta. 14+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 | |
| CHECKED-REVIEWED | L. Driscoll | 10\2022 | |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

P.E. NUMBER

SIGNATURE

DATE

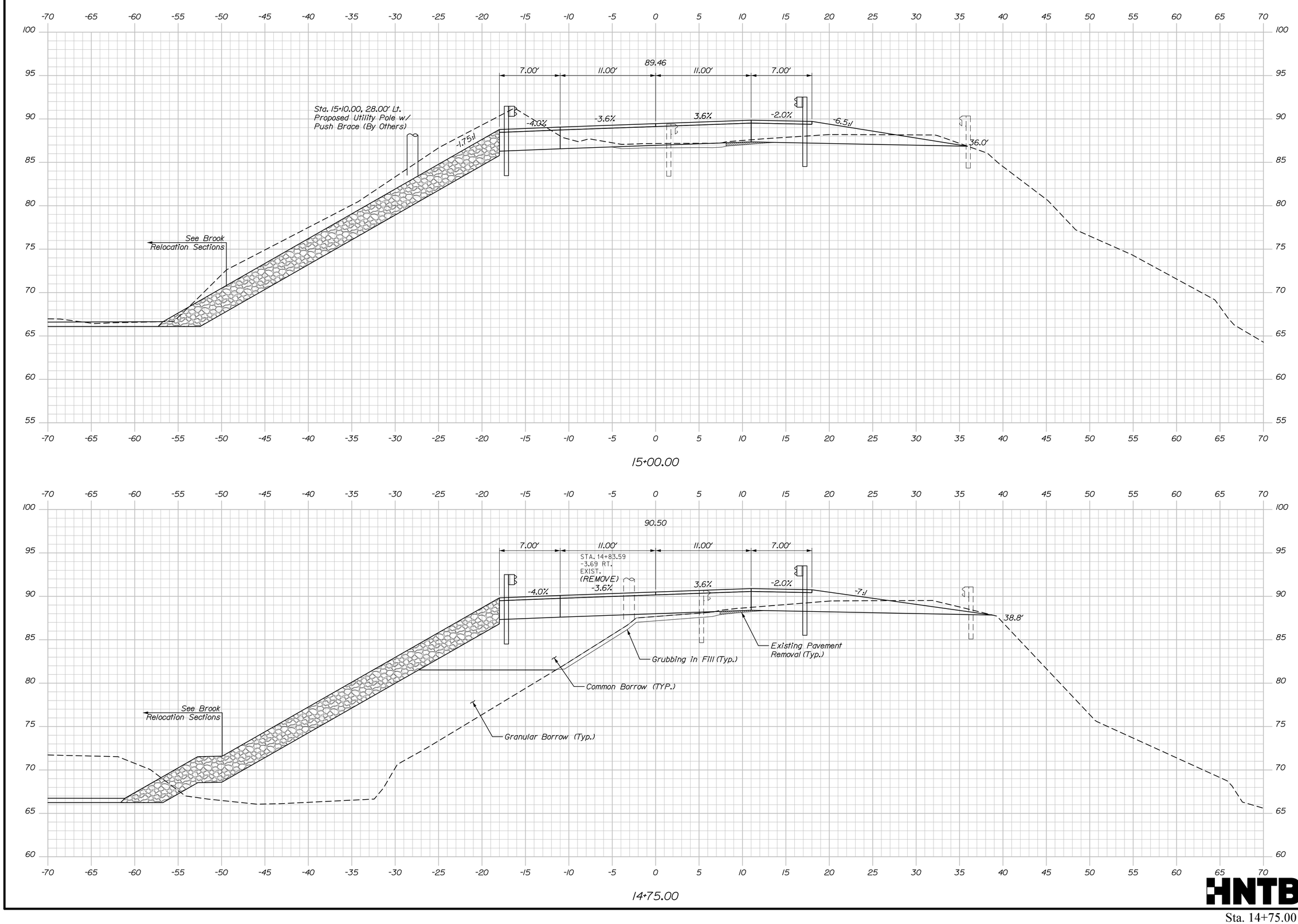
TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

CROSS SECTIONS

SHEET NUMBER
29
OF 79

HNTB

Date:10/28/2022
Username:
Division:
Filename: Xsect.dgn




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

CROSS SECTIONS

SHEET NUMBER

30

OF 79

HNTB

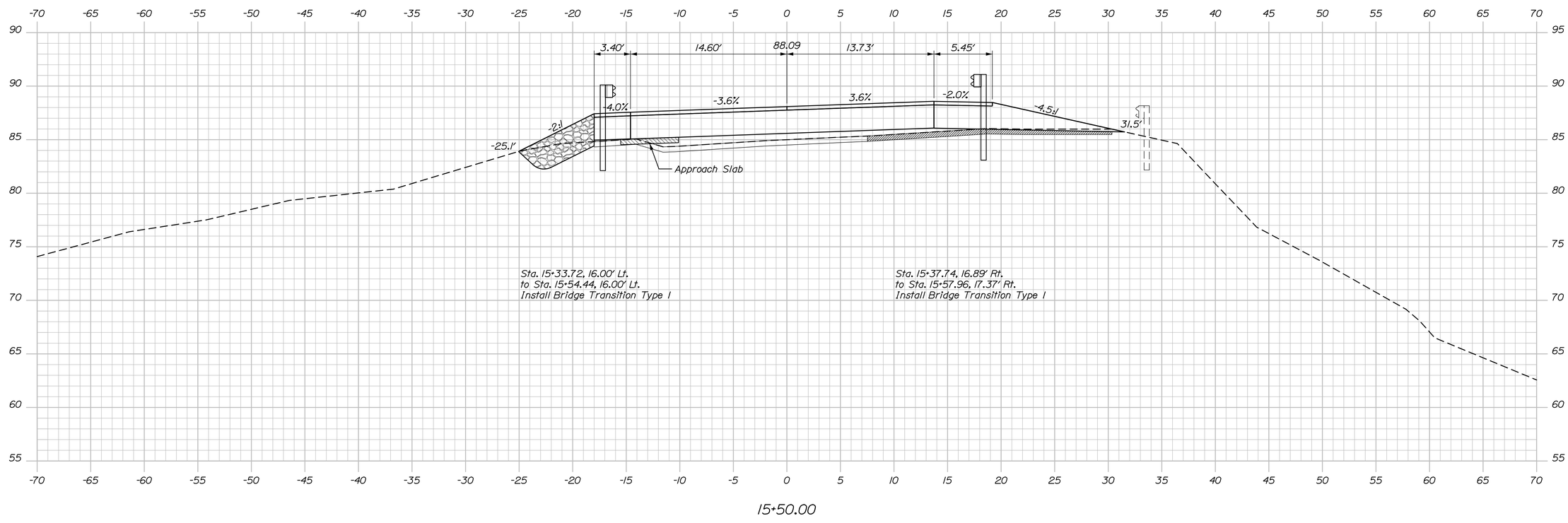
Sta. 14+75.00 to Sta. 15+00.00

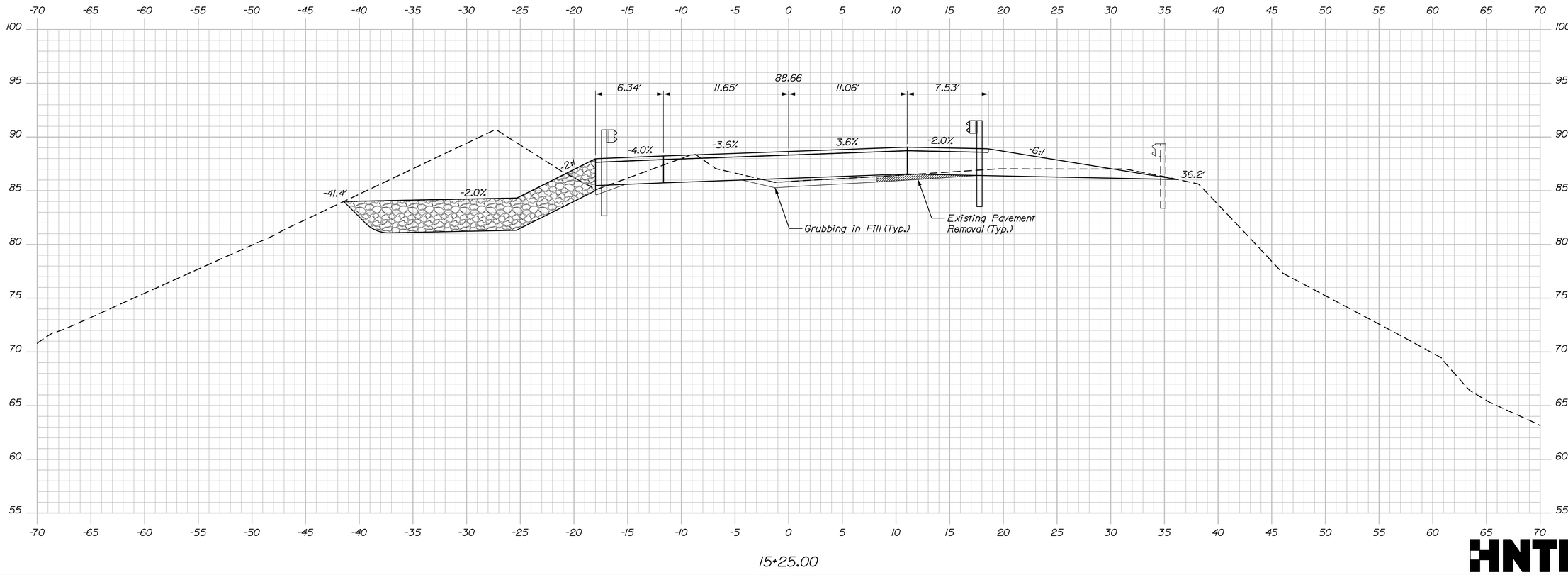
Username:

Division:

Date:10/28/2022

Filename: Xsect.dgn




Sta. 15+25.00 to Sta. 15+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2862

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | P. Mckechnie | 10\2022 |
| DESIGN2-DETAILED2 | L. Driscoll | |
| DESIGN3-DETAILED3 | B. Hovu | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

CROSS SECTIONS

SHEET NUMBER

31

OF 79

HNTB

Date:10/28/2022

Username:

Division:

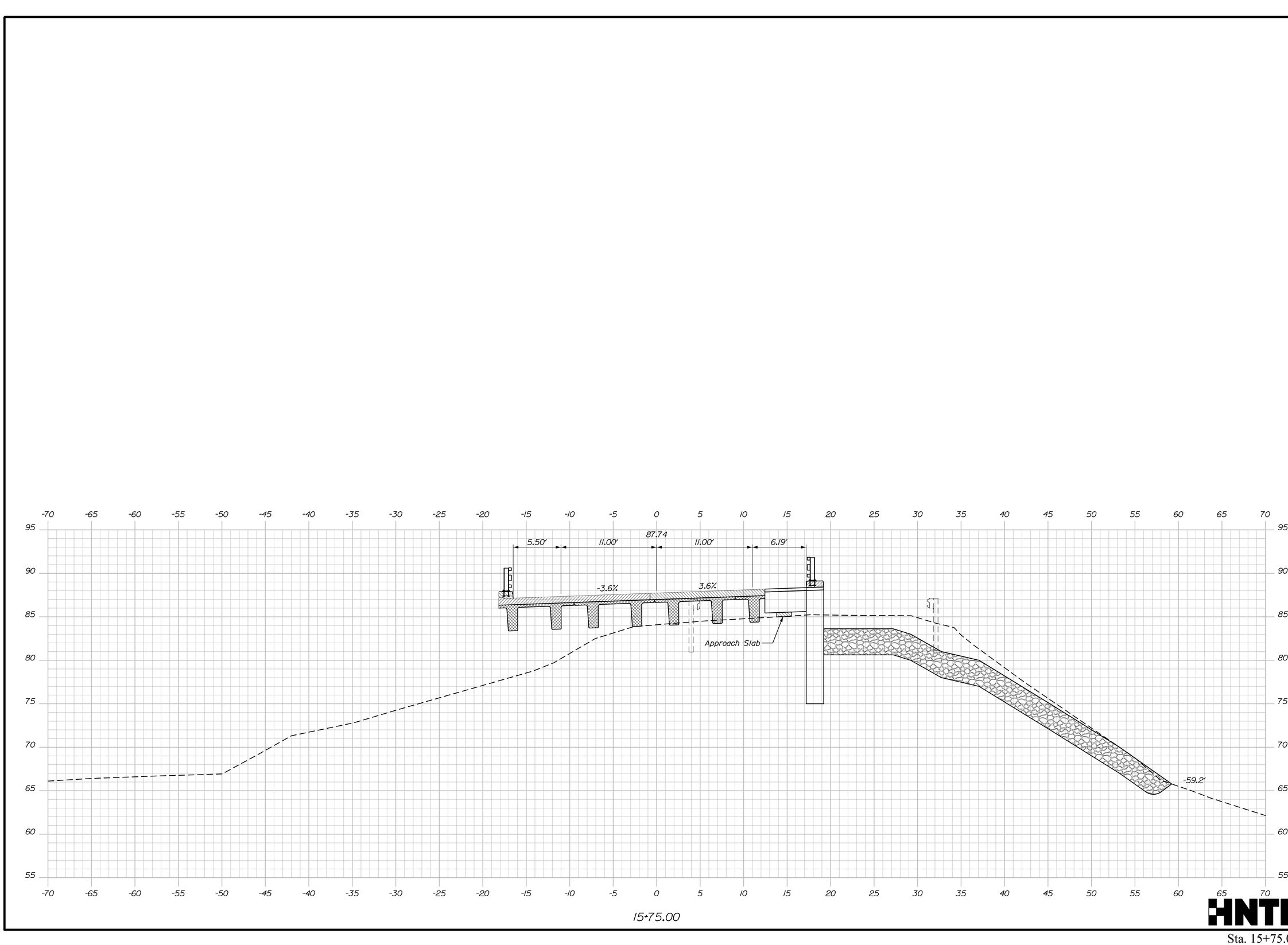
Filename: Xsect.dgn

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SIGNATURE

P.E. NUMBER

DATE

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852

BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CROSS SECTIONS

SHEET NUMBER

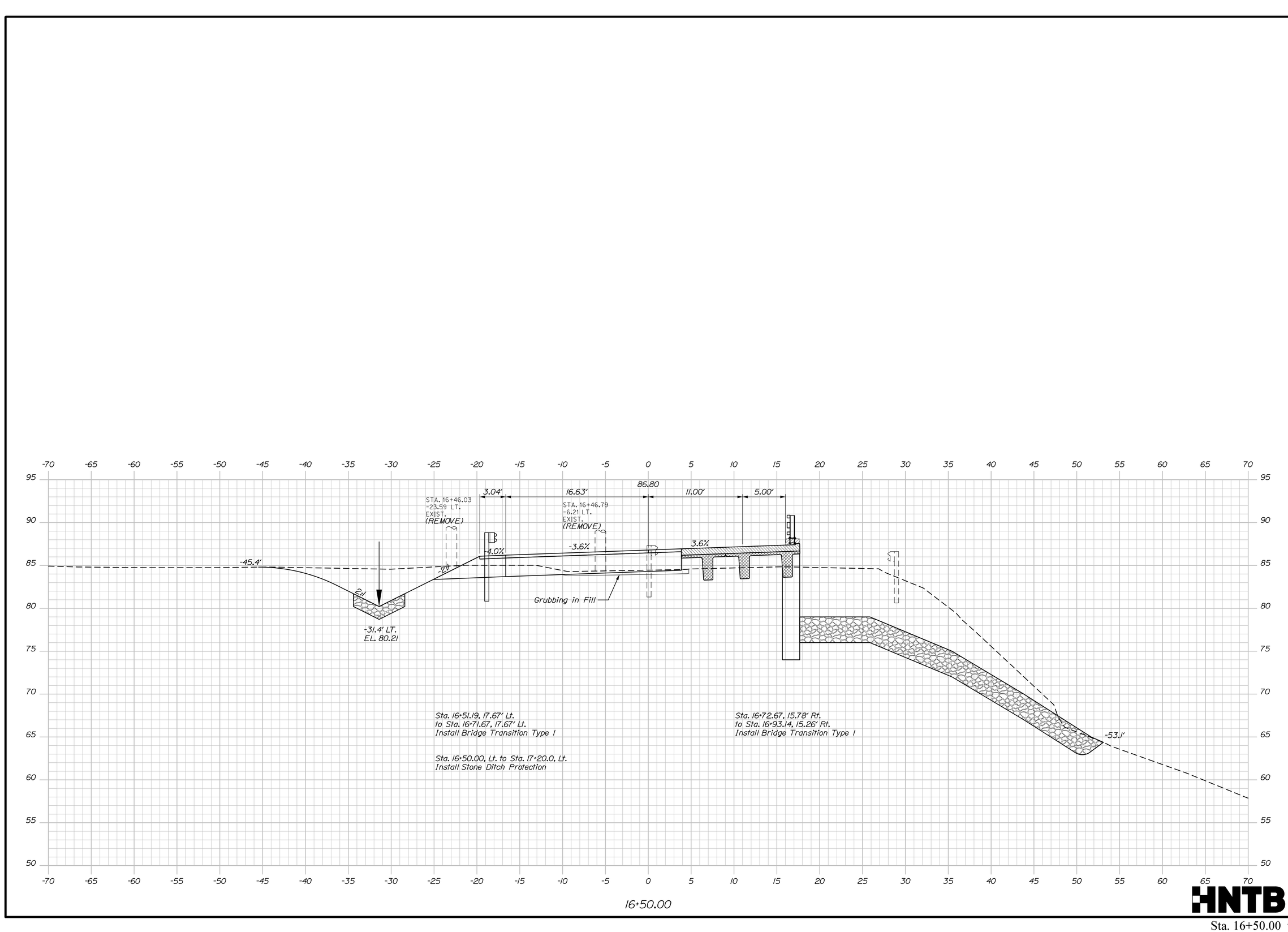
32

OF 79

HNTB

Sta. 15+75.00 to Sta. 15+75.00

Filename: Xsect.dgn Division: Username: Date:10/28/2022




| | | |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | BY |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

DATE
P. Mckechnie 10\.2022
B. Hovu 10\.2022

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER
33
OF 79

HNTB

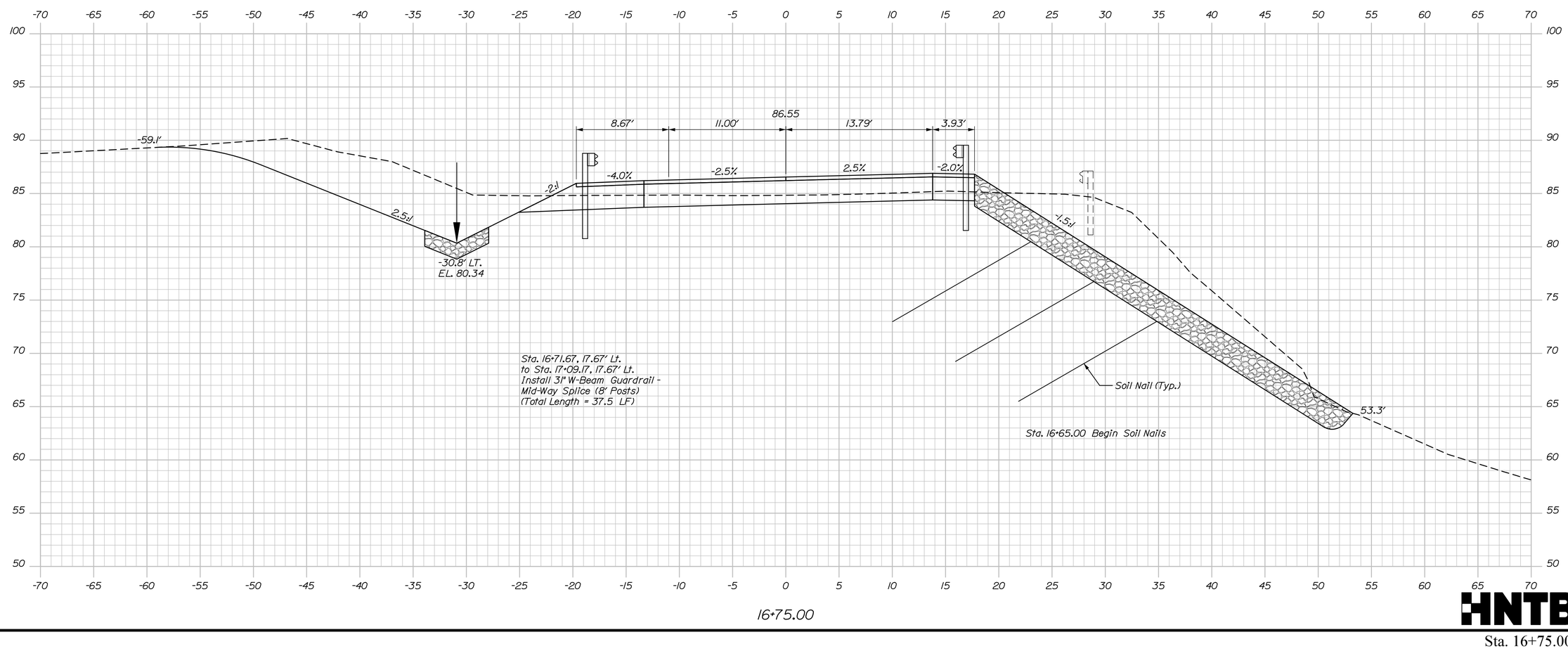
Sta. 16+50.00 to Sta. 16+50.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




| PROJ. MANAGER | M. KERSBERGEN | | |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\.2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\.2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2852

BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER

34

OF 79

HNTB

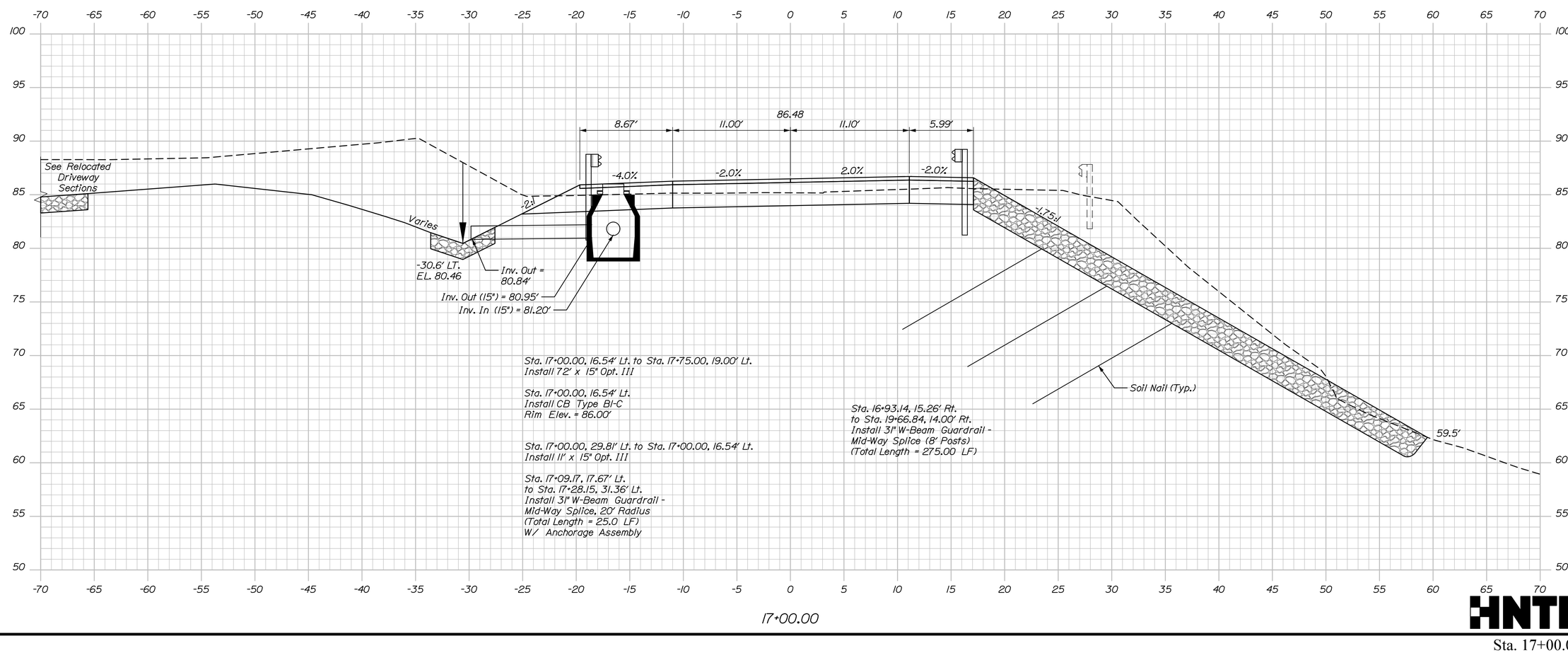
Sta. 16+75.00 to Sta. 16+75.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

| | | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

CROSS SECTIONS

SHEET NUMBER

35

OF 79

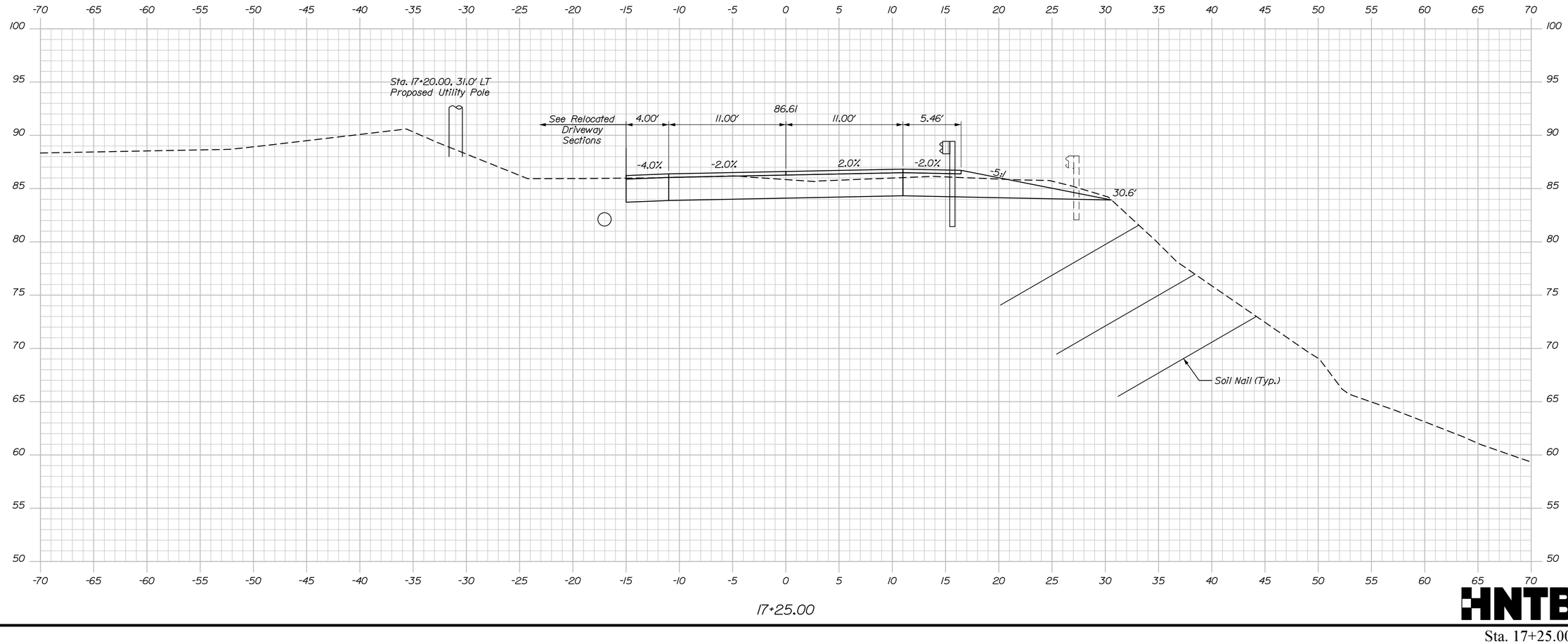
Sta. 17+00.00 to Sta. 17+00.00

Date:10/28/2022

Username:

Division:

Filename: Xsect.dgn




| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | ED2 | | |
| DESIGN3-DETAILED3 | ED3 | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2862 BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CROSS SECTIONS

SHEET NUMBER

36

OF 79

HNTB

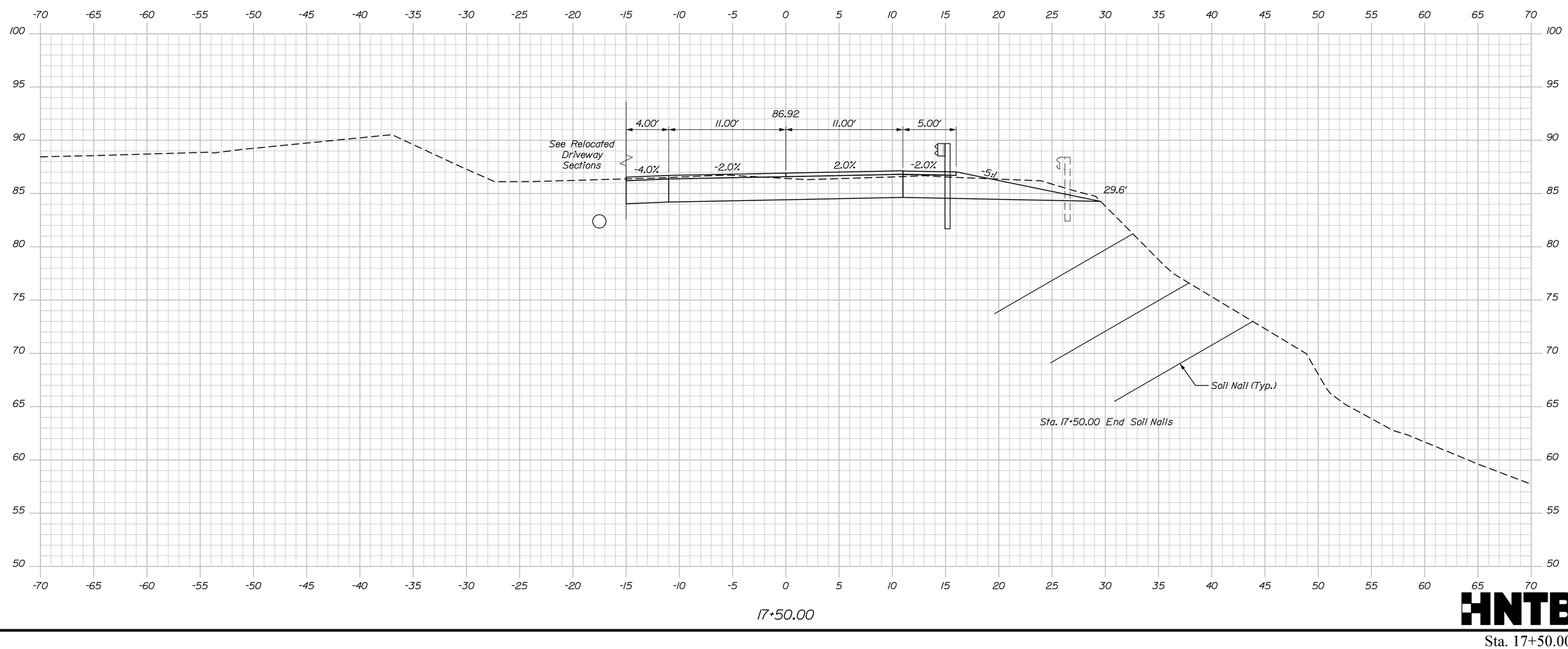
Sta. 17+25.00 to Sta. 17+25.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




HNTB

| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 — BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM — ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER

37

OF 79

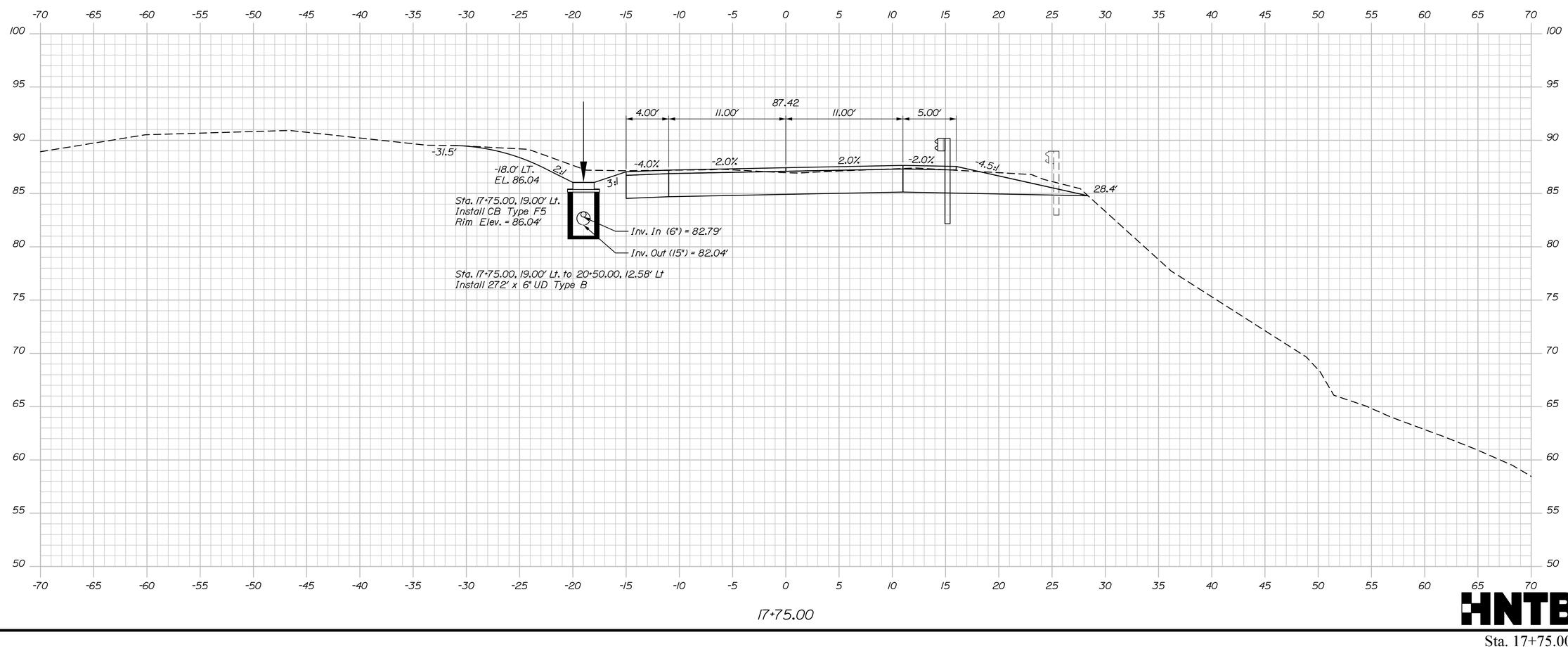
Sta. 17+50.00 to Sta. 17+50.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

CROSS SECTIONS

SHEET NUMBER

38

OF 79

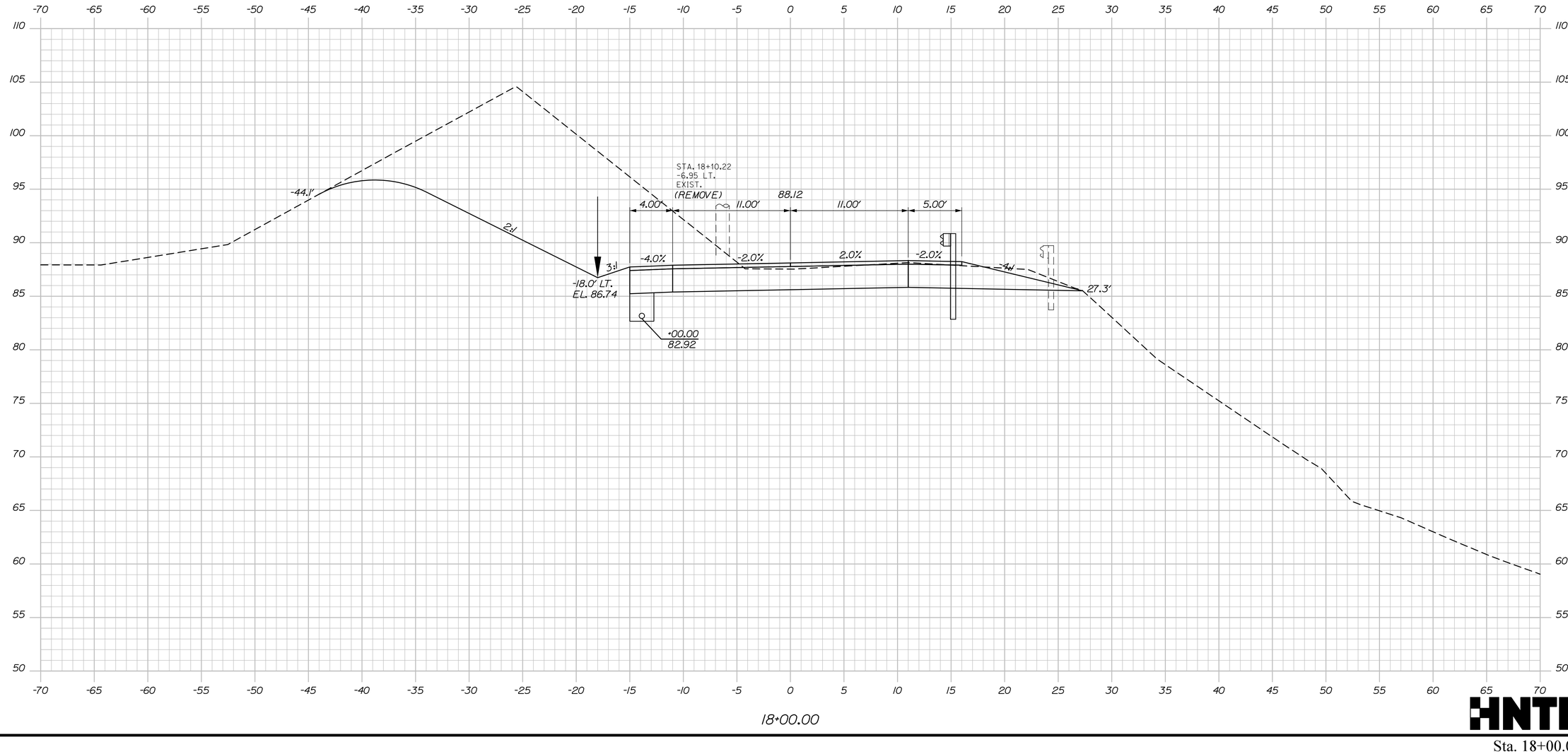
Sta. 17+75.00 to Sta. 17+75.00

Date:10/28/2022

Username:

Division:

Filename: Xsect.dgn




| | | |
|---|---|---|
| STATE OF MAINE<br>DEPARTMENT OF TRANSPORTATION | 2365700 | WIN<br>023857.00<br>BRIDGE NO. 2852 BRIDGE PLANS |

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | BY | P. Mckechnie |
| CHECKED-REVIEWED | L. Driscoll | DATE | 10\2022 |
| DESIGN2-DETAILED2 | | BY | B. Hovu |
| DESIGN3-DETAILED3 | | DATE | 10\2022 |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# CROSS SECTIONS

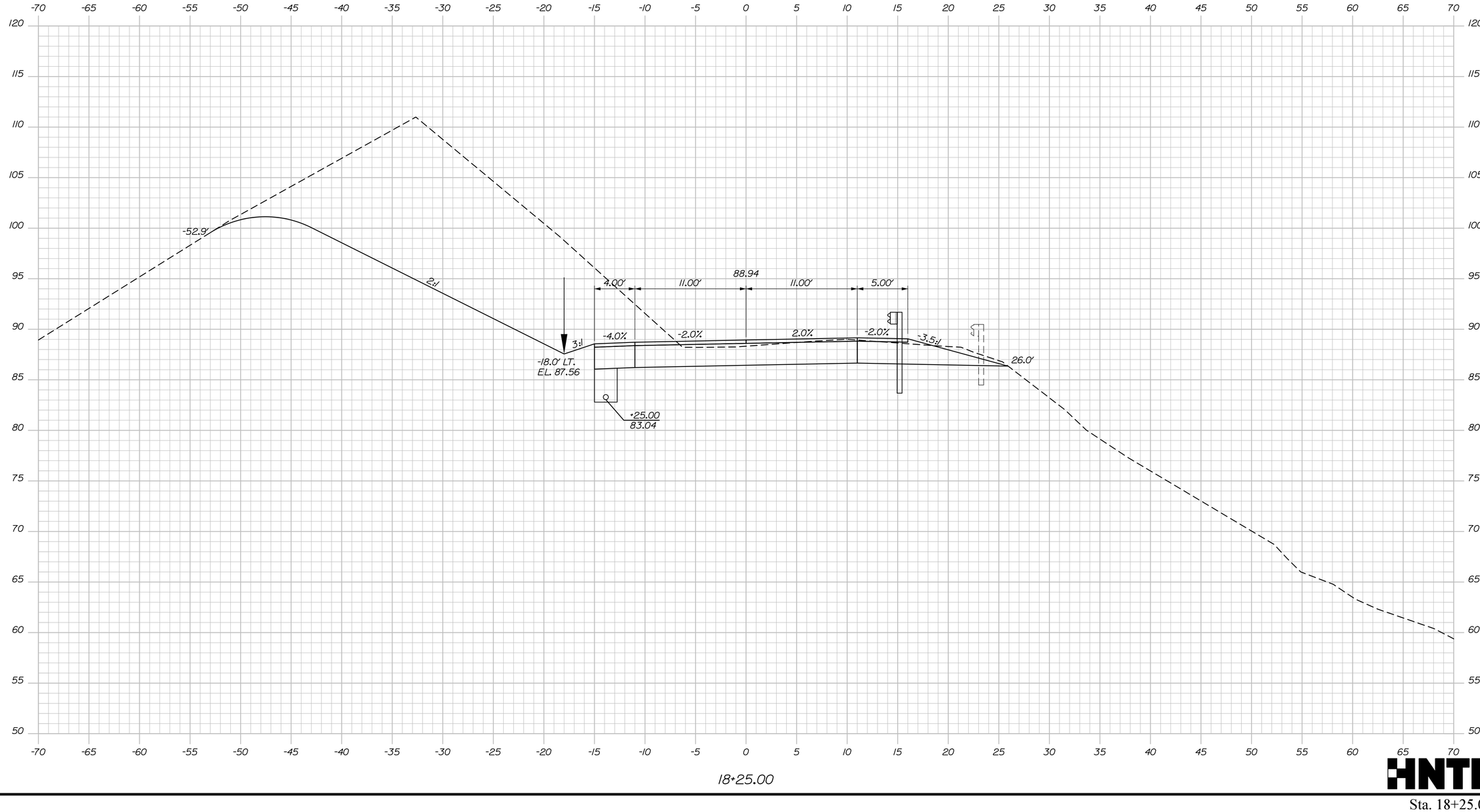
SHEET NUMBER

39

OF 79

HNTB

Sta. 18+00.00 to Sta. 18+00.00




Sta. 18+25.00 to Sta. 18+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| DESIGNED | M. KERSBERGEN | |
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

CROSS SECTIONS

SHEET NUMBER

40

OF 79

HNTB

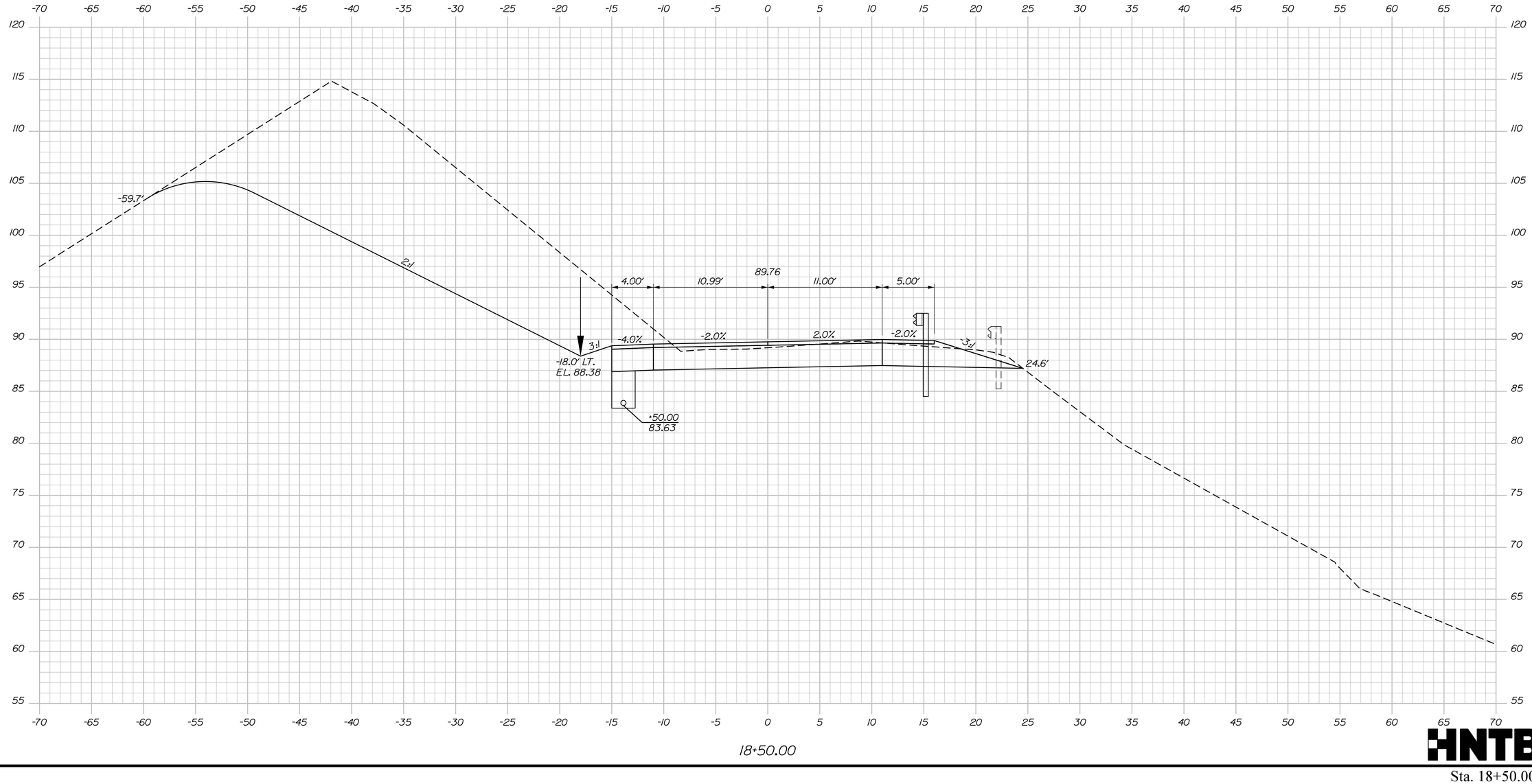
Filename: Xsect.dgn Division: Username: Date:10/28/2022

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

CROSS SECTIONS

SHEET NUMBER

41

OF 79

HNTB

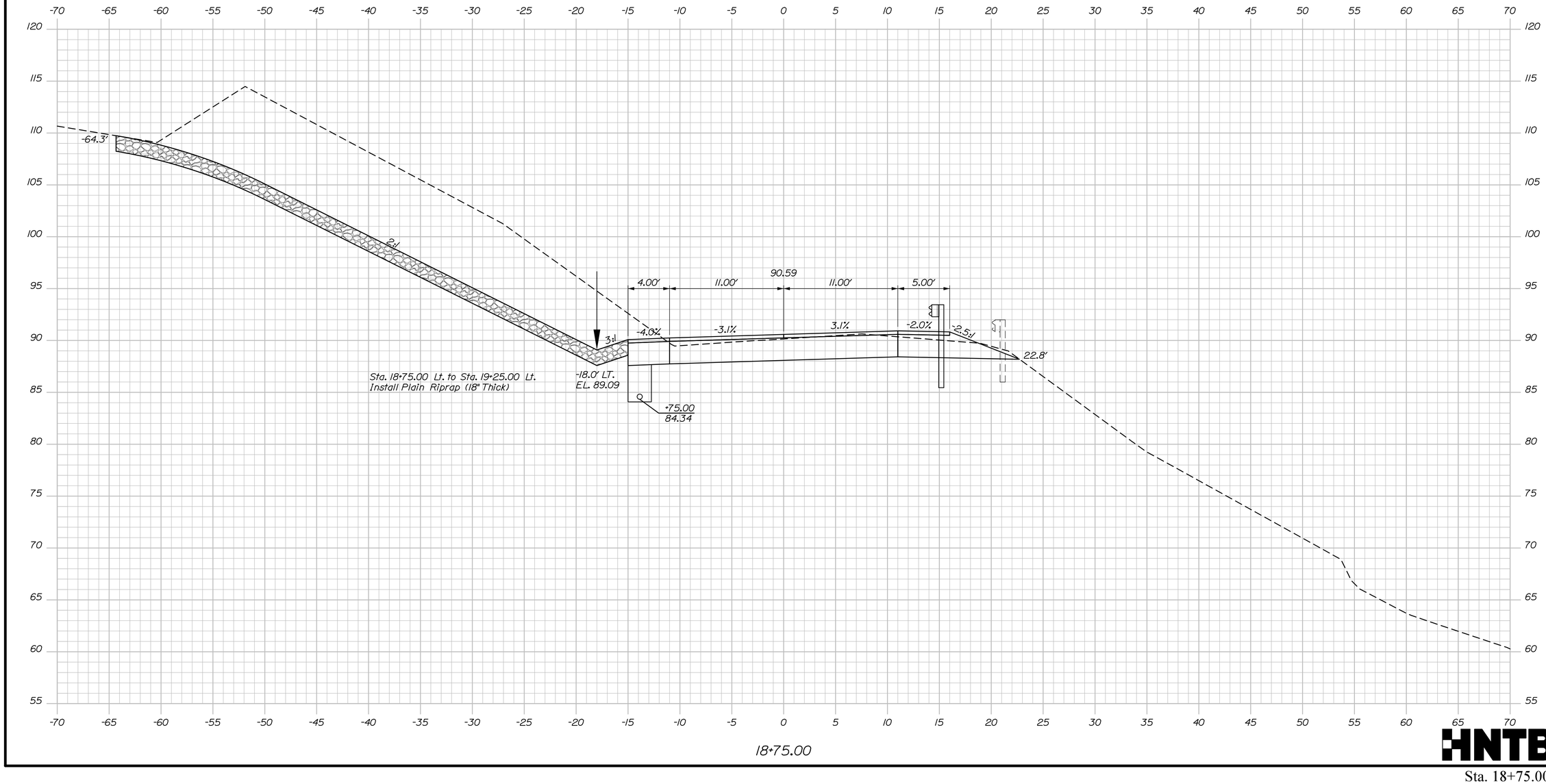
Sta. 18+50.00 to Sta. 18+50.00

Date:10/28/2022

Username:

Division:

Filename: Xsect.dgn




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 | |
| CHECKED-REVIEWED | L. Driscoll | 10\2022 | |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

BY | DATE

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

CROSS SECTIONS

SHEET NUMBER

42

OF 79

HNTB

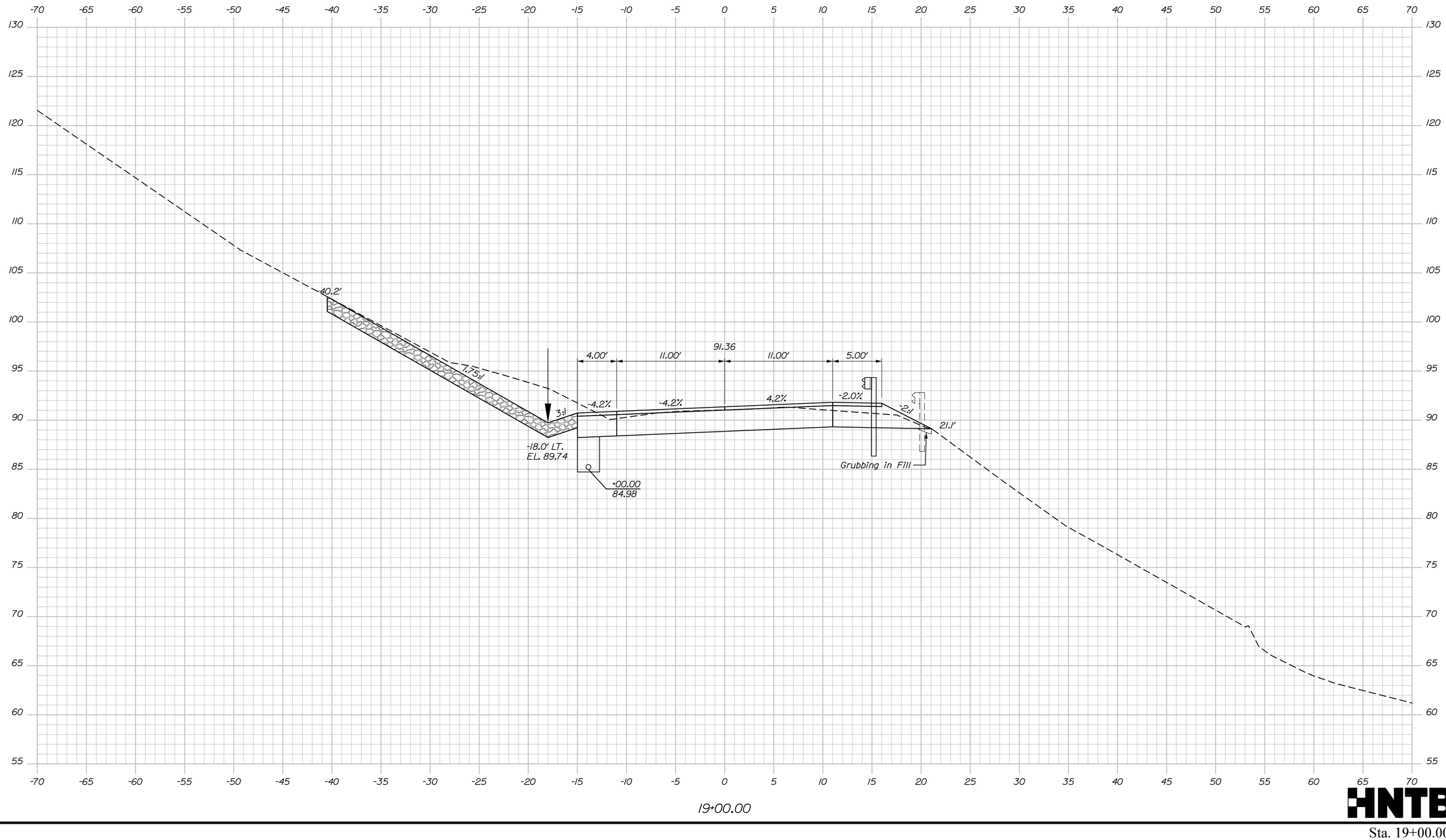
Sta. 18+75.00 to Sta. 18+75.00

Date:10/28/2022

Username:

Division:

Filename: Xsect.dgn




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER

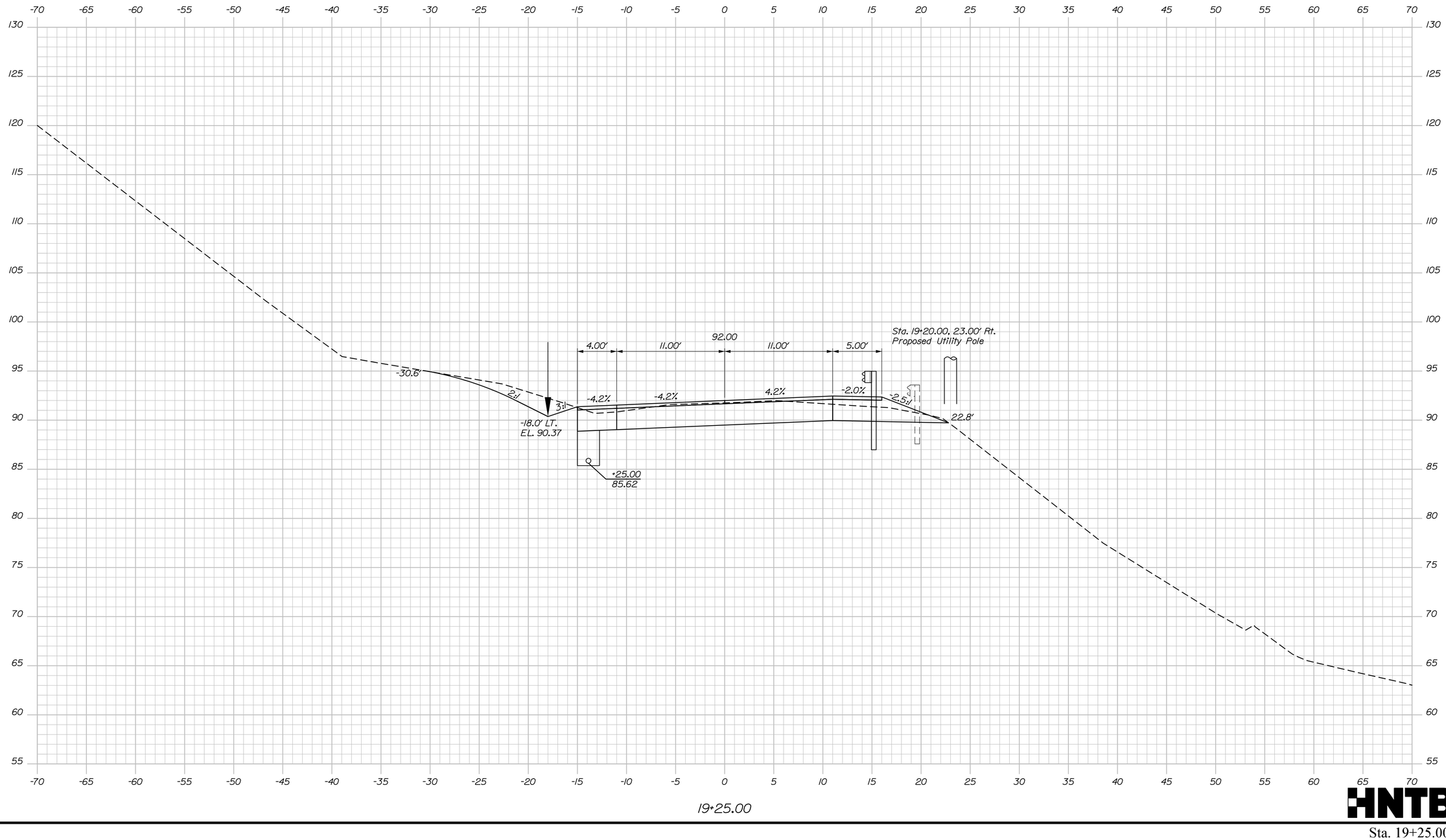
43

OF 79

HNTB

Sta. 19+00.00 to Sta. 19+00.00

Filename: Xsect.dgn Username: Division: Date:10/28/2022




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2862

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

CROSS SECTIONS

SHEET NUMBER

44

OF 79

HNTB

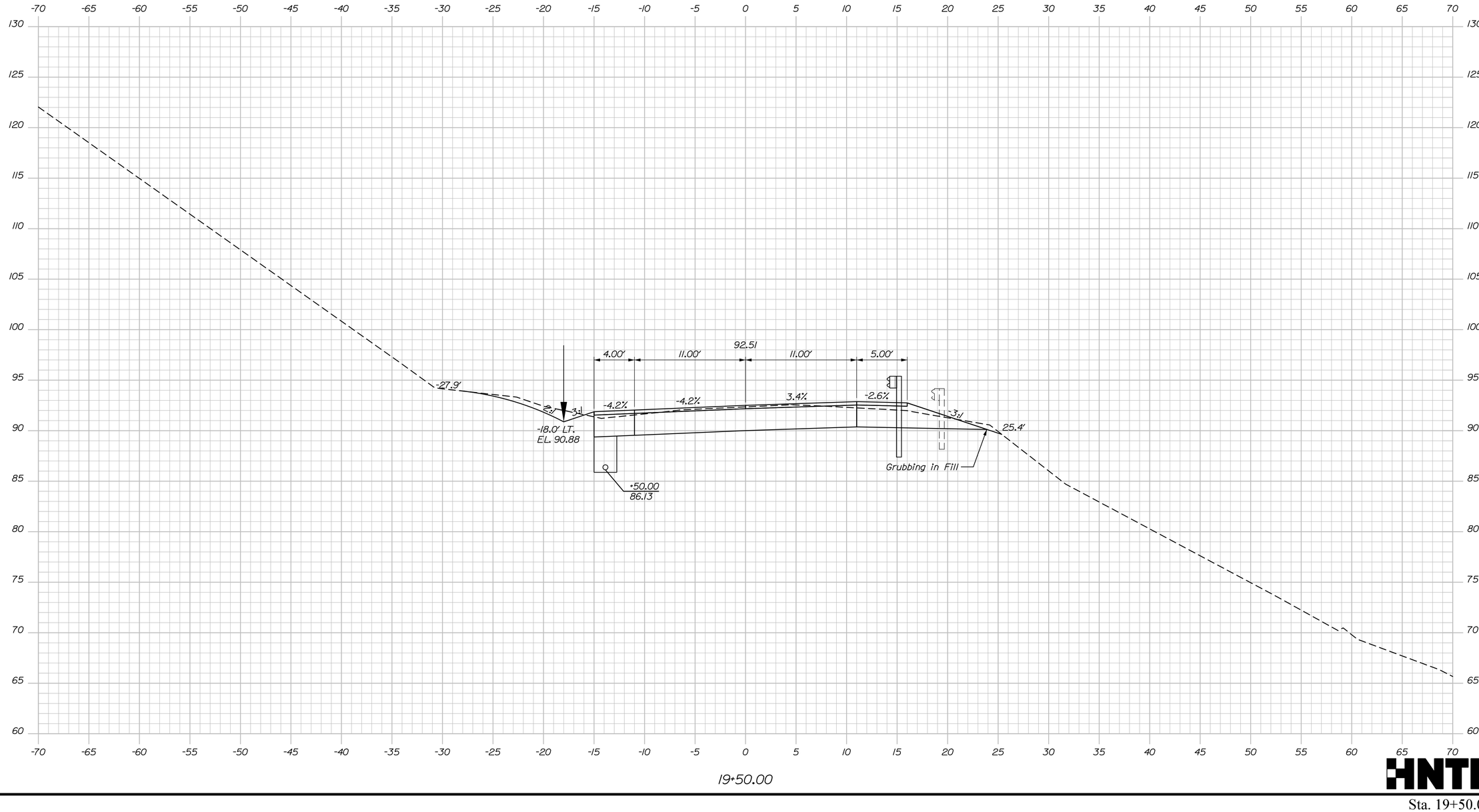
Sta. 19+25.00 to Sta. 19+25.00

Username:

Division:

Date:10/28/2022

Filename: Xsect.dgn




HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852

BRIDGE PLANS

| | | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

CROSS SECTIONS

SHEET NUMBER

45

OF 79

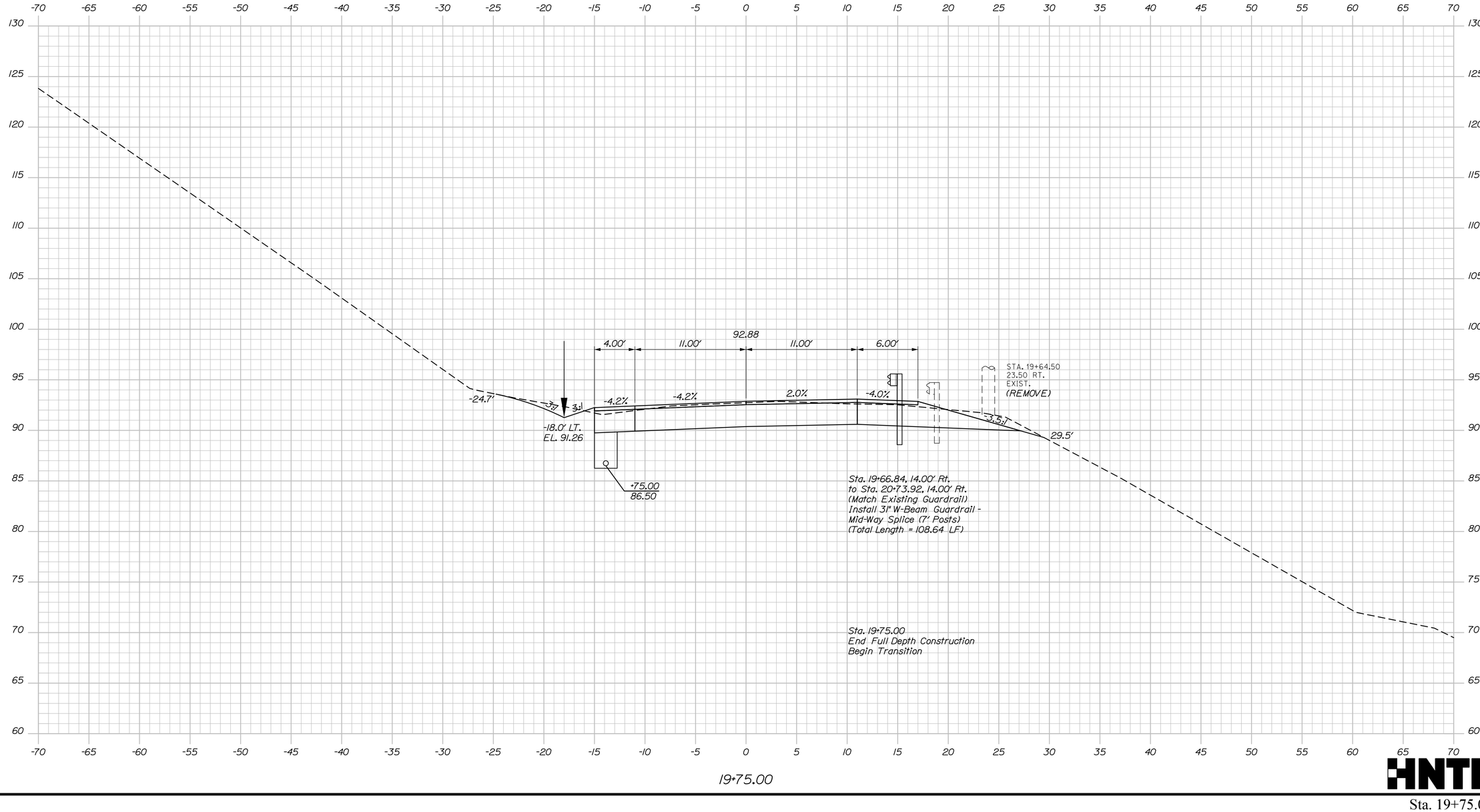
Sta. 19+50.00 to Sta. 19+50.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 — BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER

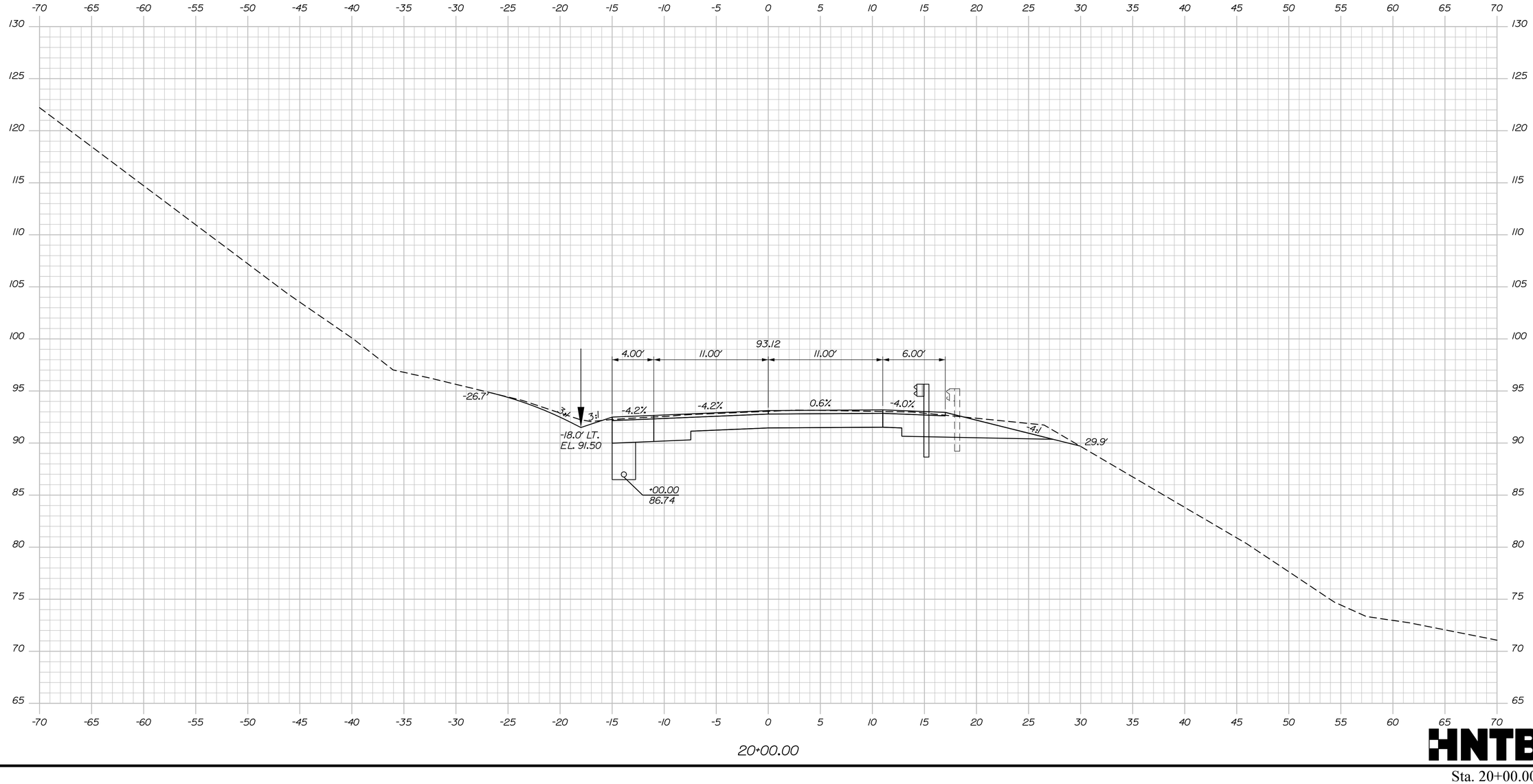
46

OF 79

HNTB

Sta. 19+75.00 to Sta. 19+75.00

Filename: Xsect.dgn Division: Username: Date:10/28/2022




STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852 BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

CROSS SECTIONS

SHEET NUMBER

47

OF 79

HNTB

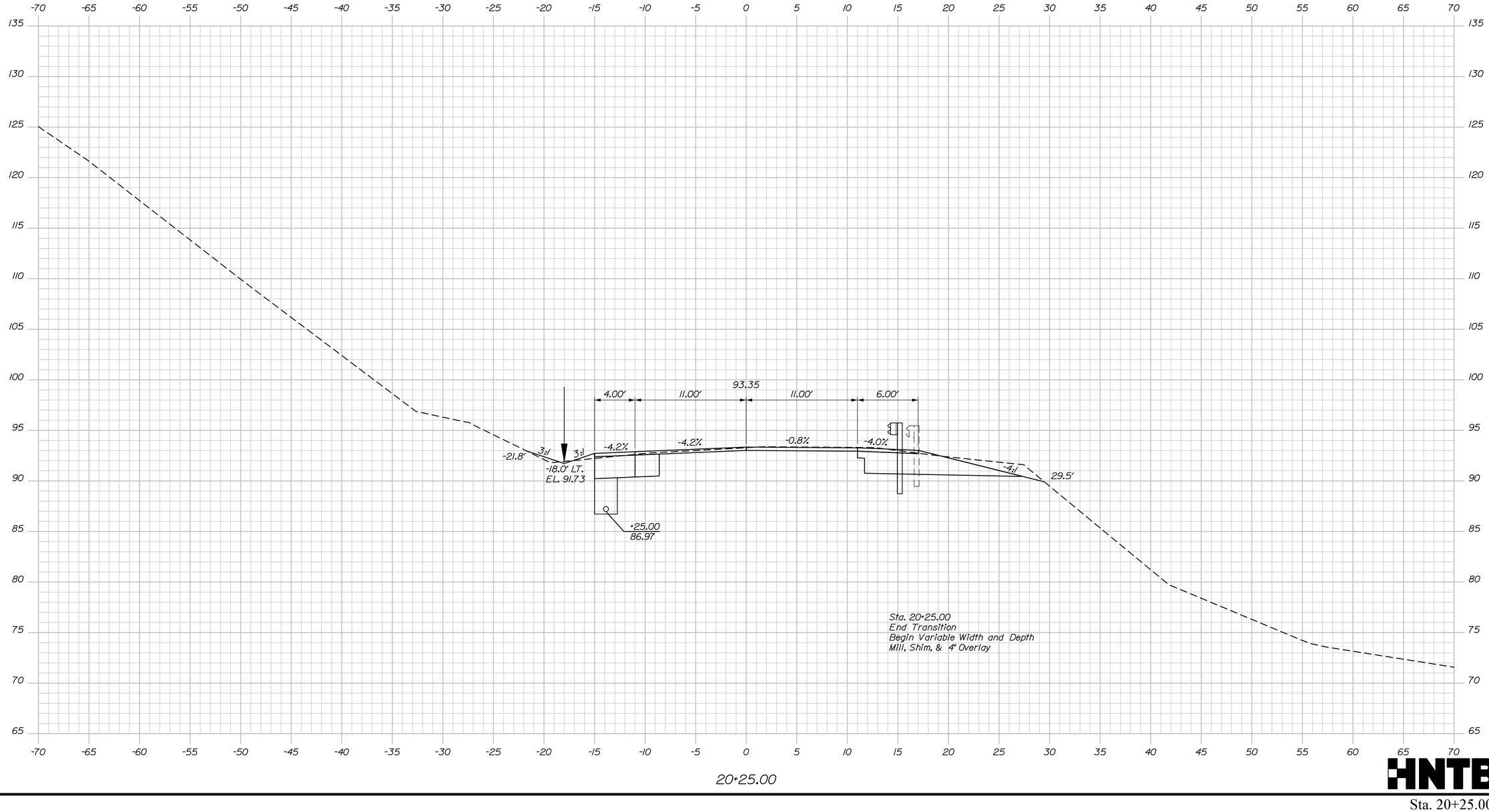
Sta. 20+00.00 to Sta. 20+00.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 — BRIDGE PLANS

| | | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM — ANDROSCOGGIN

# CROSS SECTIONS

SHEET NUMBER

48

OF 79

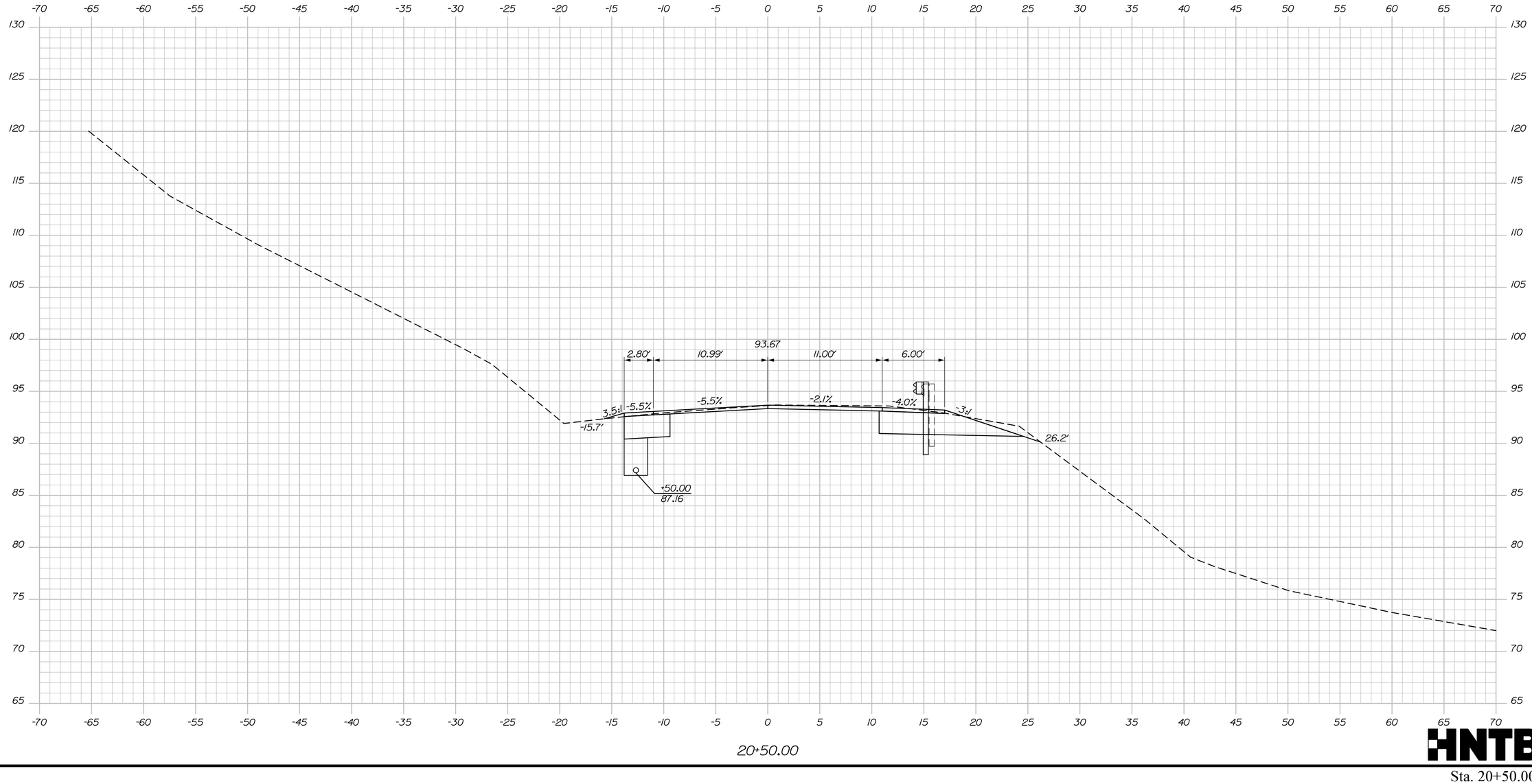
Sta. 20+25.00 to Sta. 20+25.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

CROSS SECTIONS

SHEET NUMBER

49

OF 79

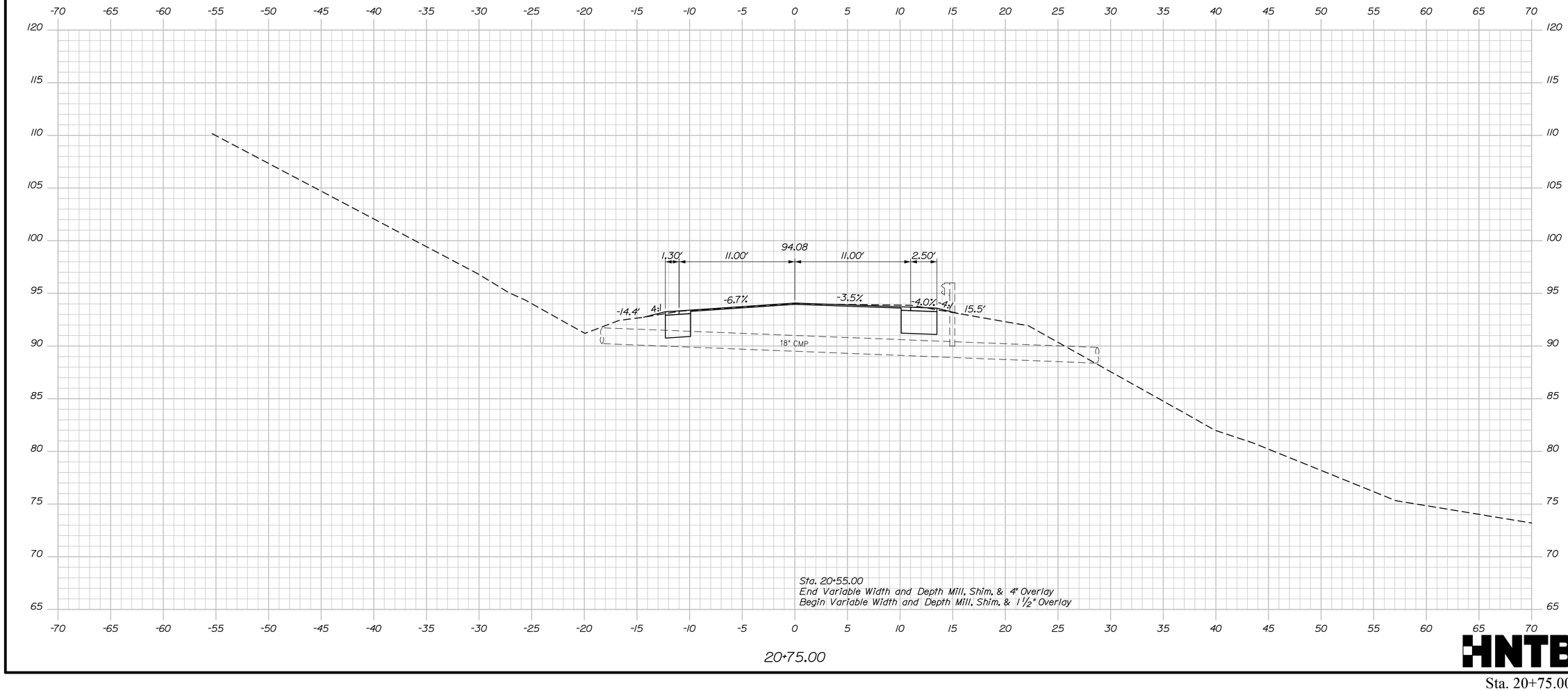
Sta. 20+50.00 to Sta. 20+50.00

Date:10/28/2022

Username:

Division:

Filename: Xsect.dgn




| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\2022 |
| DESIGN2-DETAILED2 | ED2 | | |
| DESIGN3-DETAILED3 | ED3 | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2852

BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CROSS SECTIONS

SHEET NUMBER

50

OF 79

HNTB

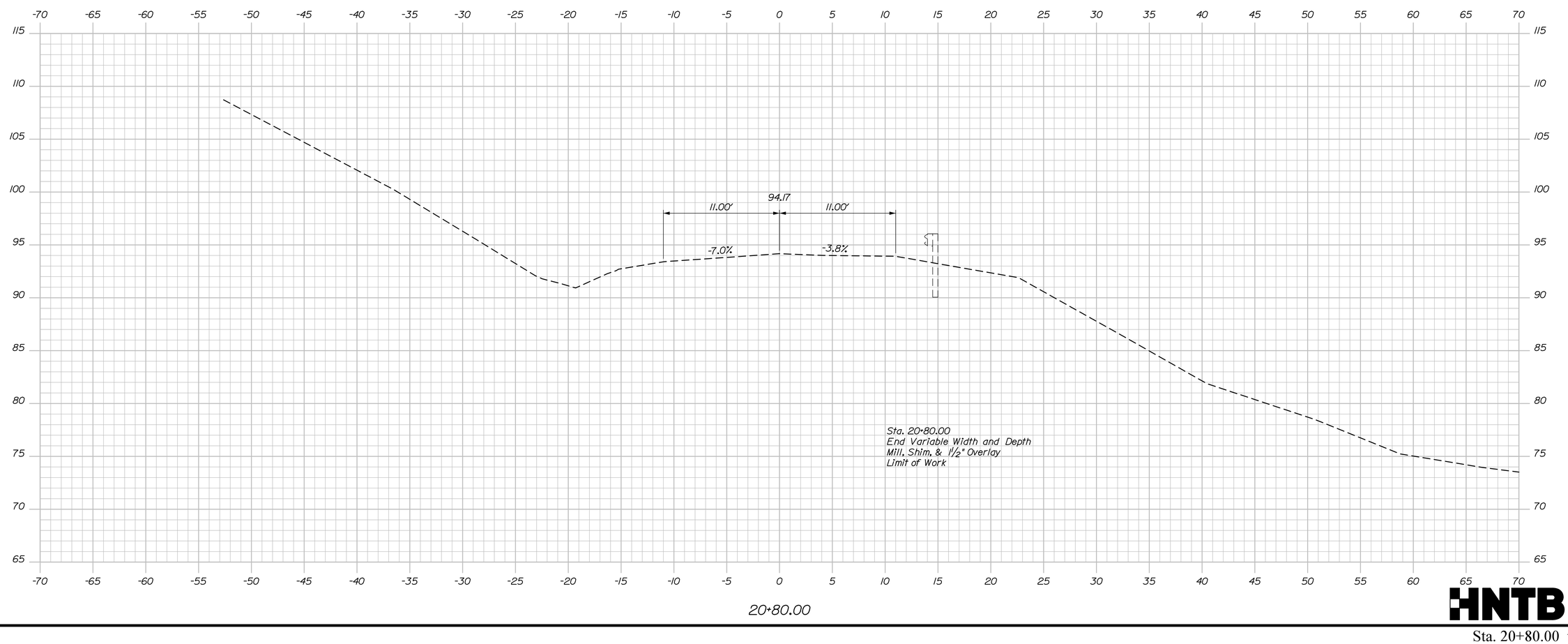
Sta. 20+75.00 to Sta. 20+75.00

Username:

Date:10/28/2022

Division:

Filename: Xsect.dgn




| PROJ. MANAGER | M. KERSBERGEN | | |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2862

BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CROSS SECTIONS

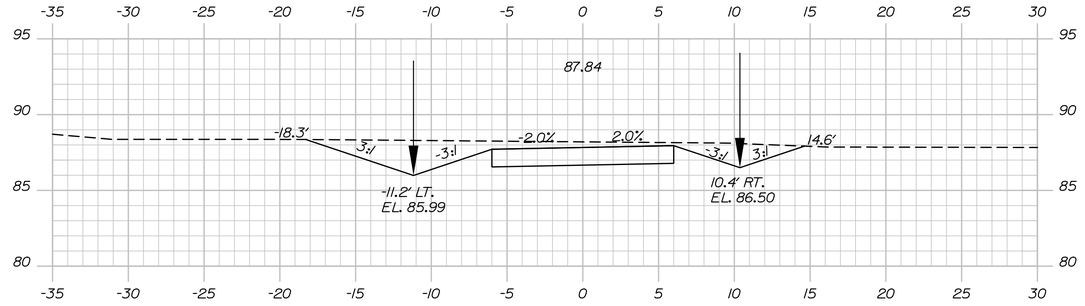
SHEET NUMBER

51

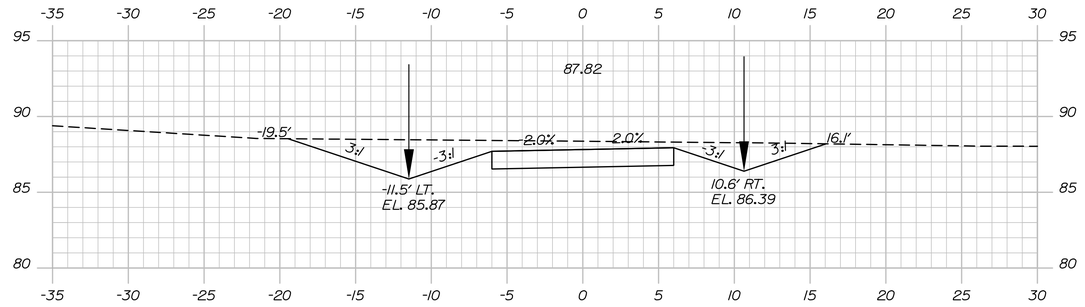
OF 79

HNTB

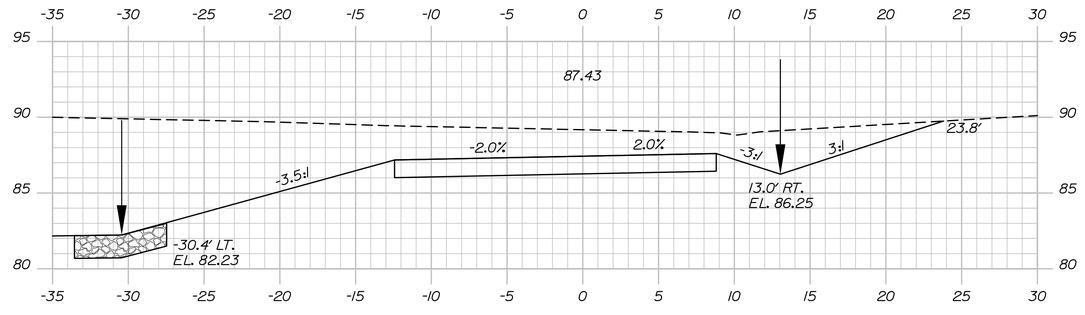
Sta. 20+80.00 to Sta. 20+80.00



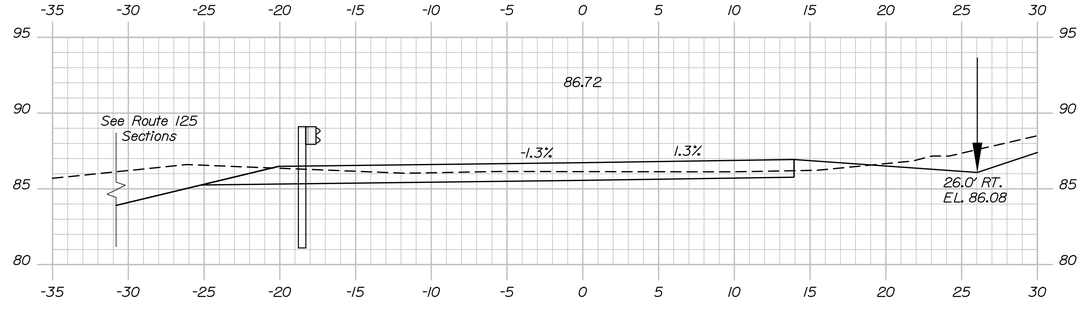

1+00.00



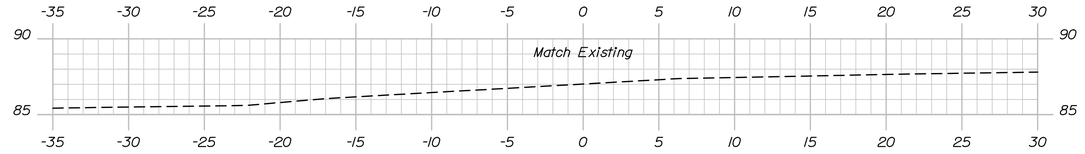

0+75.00



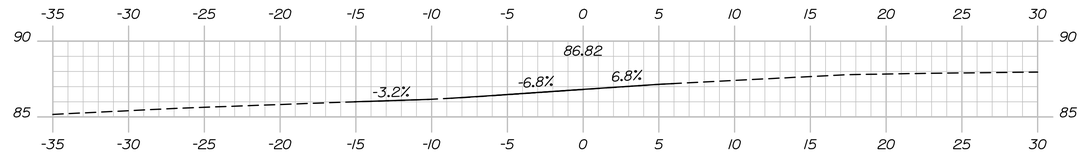

0+50.00



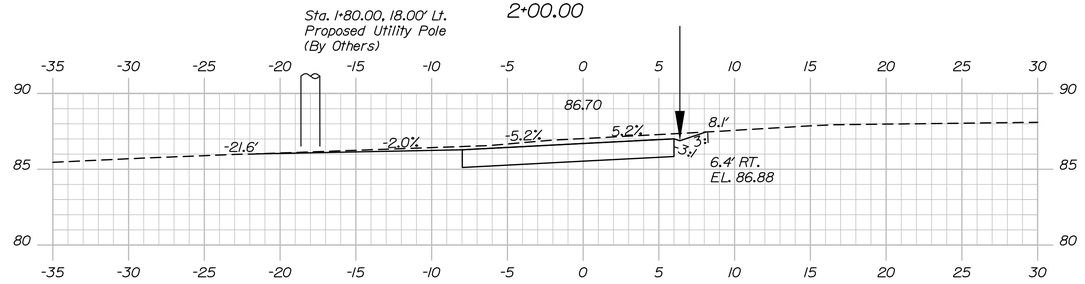

0+25.00



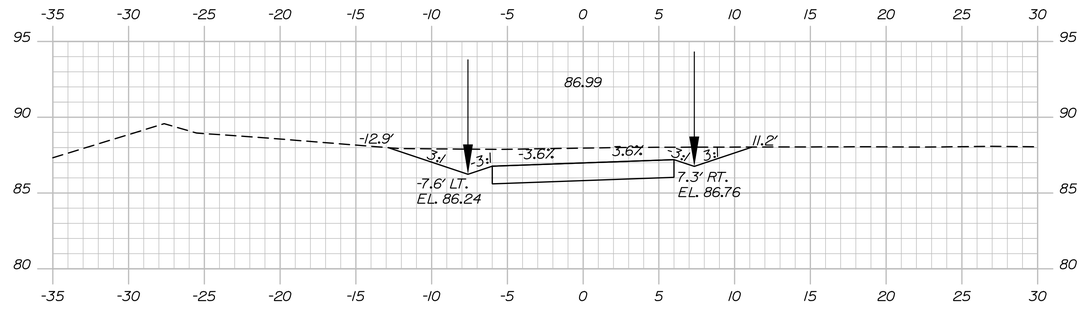

2+10.00



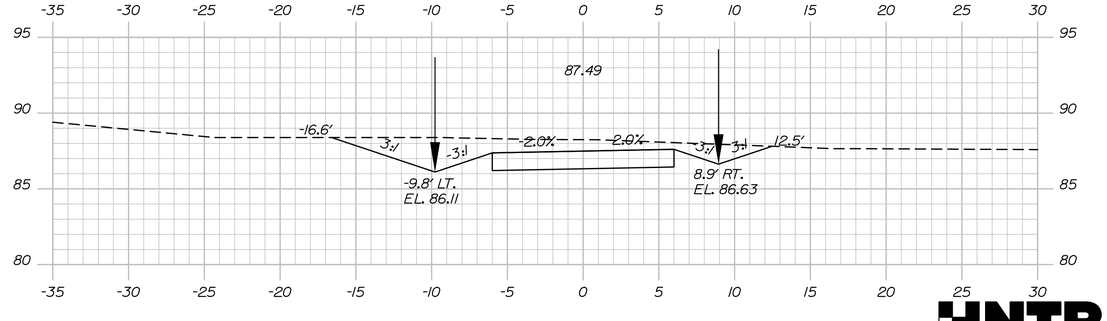

2+00.00




1+75.00




1+50.00




1+25.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE PLANS

BRIDGE NO. 2852

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | P. Mckechnie | BY | DATE |
| CHECKED-REVIEWED | L. Driscoll | P. Mckechnie | 10\2022 |
| DESIGN2-DETAILED2 | | B. Hovu | 10\2022 |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

RELOCATED DRIVE
CROSS SECTIONS

SHEET NUMBER

52

OF 79

Sta. 00+25.00 to Sta. 2+10.00

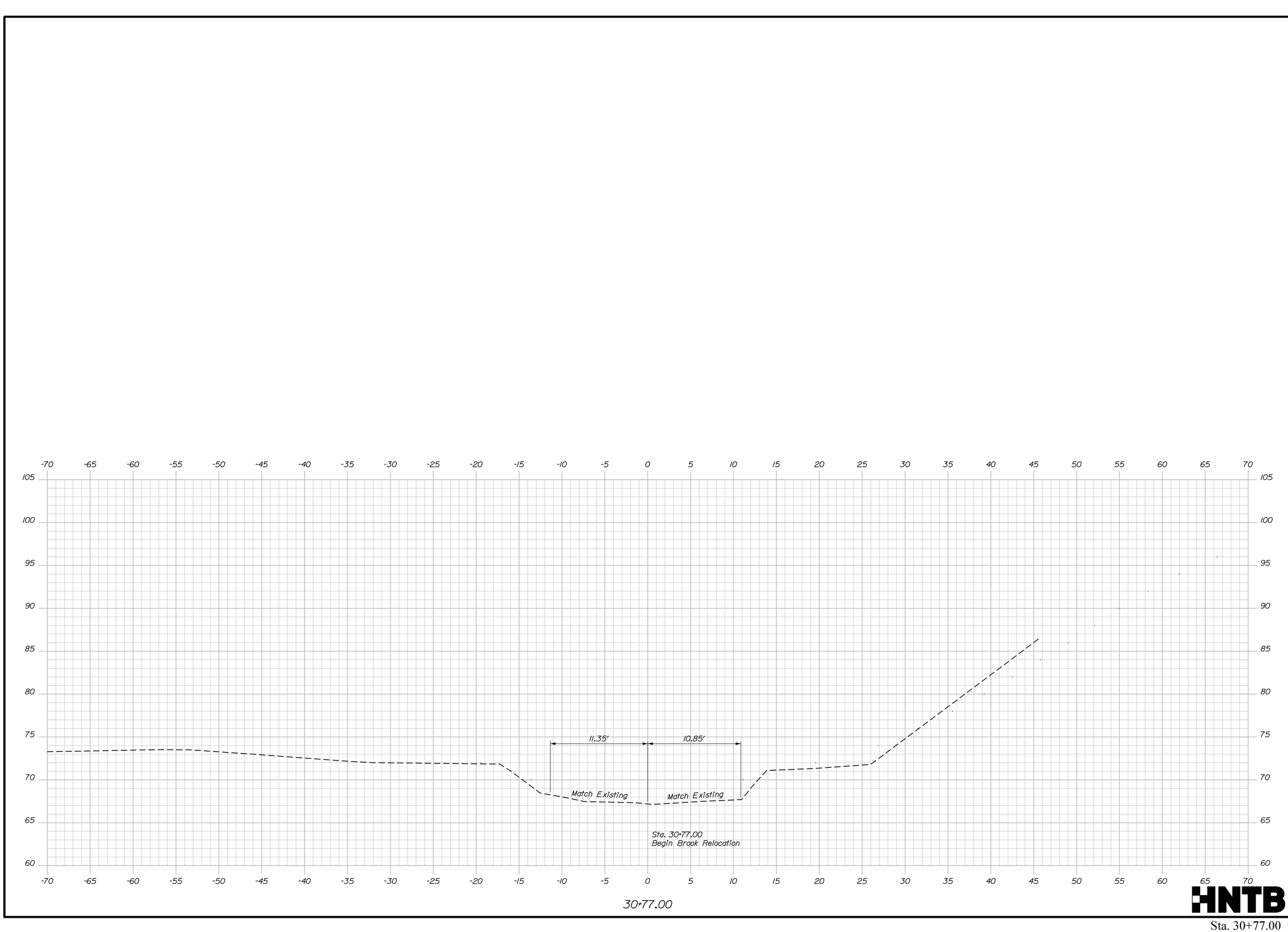
Date:10/28/2022

Username:

Division:

Filename: Xsect_Drive.dgn

Filename: Xsect_Relocated Stream.dgn Division: Username: Date:10/28/2022




| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SIGNATURE

P.E. NUMBER

DATE

**2365700**

**WIN**
**023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# RELOCATED BROOK CROSS SECTIONS

SHEET NUMBER

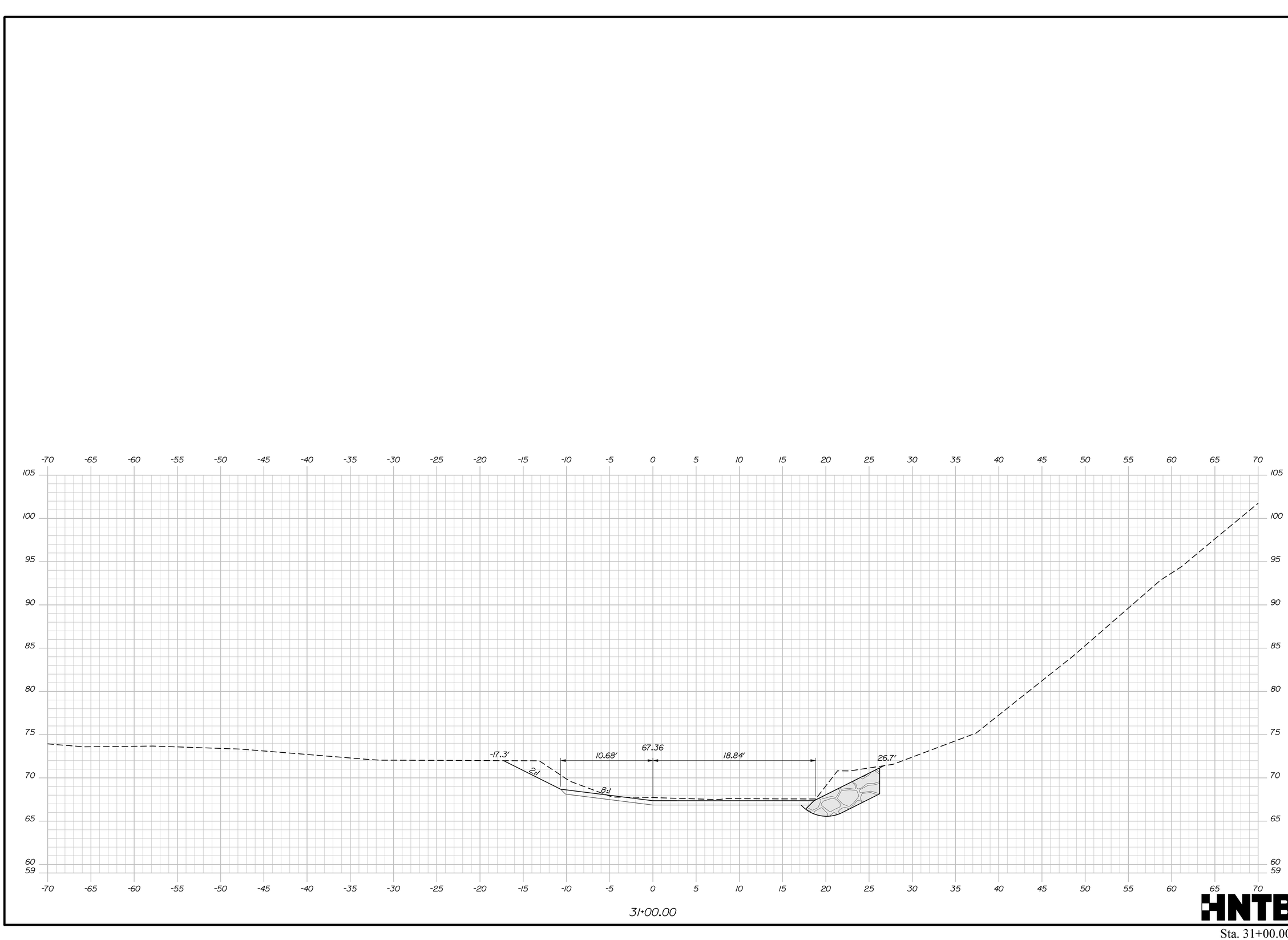
53

OF 79

HNTB

Sta. 30+77.00 to Sta. 30+77.00

Filename: Xsect_Relocated Stream.dgn Division: Username: Date:10/28/2022




| | | |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\.2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# RELOCATED BROOK CROSS SECTIONS

SHEET NUMBER

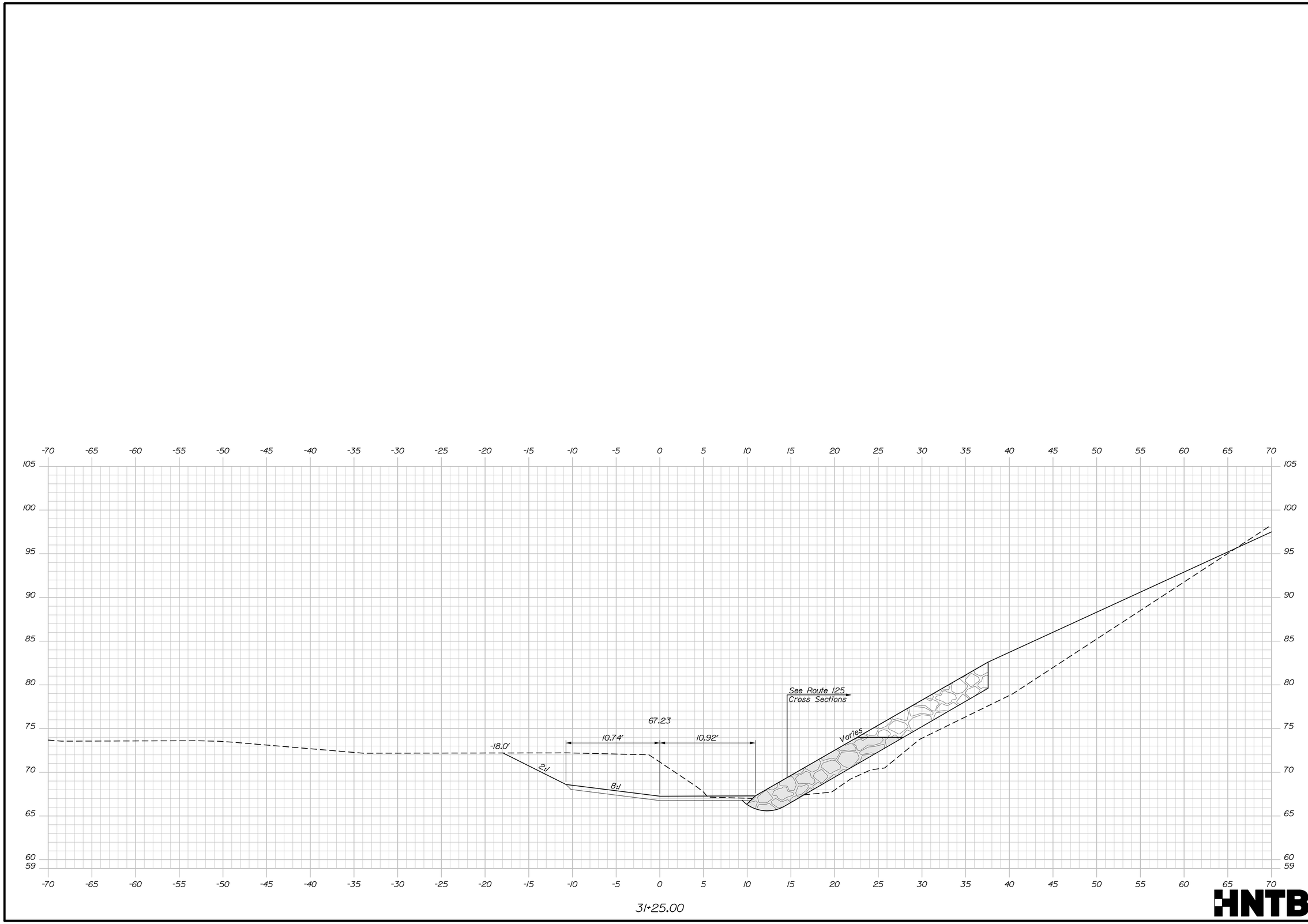
54

OF 79

HNTB

Sta. 31+00.00 to Sta. 31+00.00

Filename: Xsect_Relocated Stream.dgn Division: Username: Date:10/28/2022




| | | |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu 10\.2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# RELOCATED BROOK CROSS SECTIONS

SHEET NUMBER

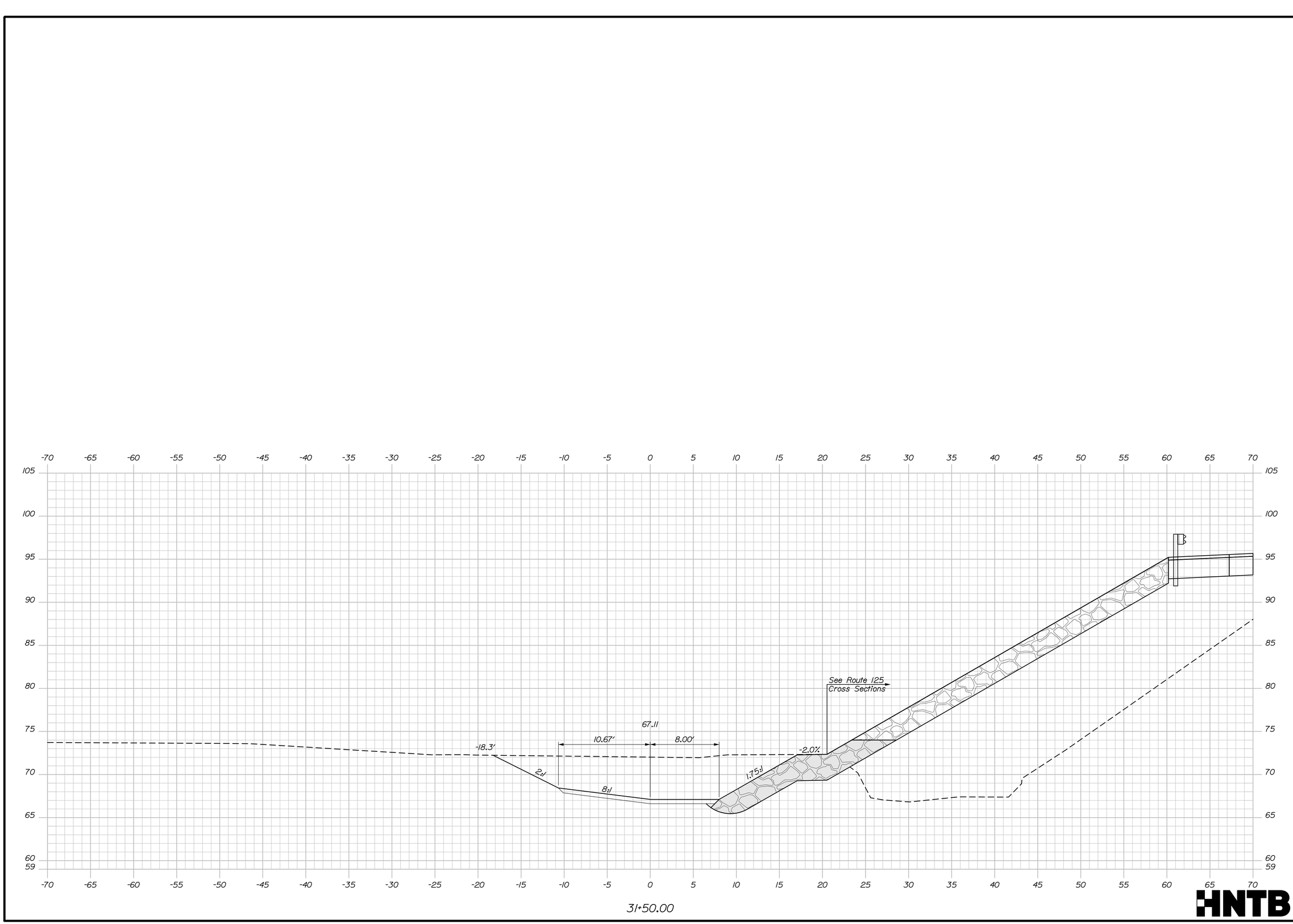
55

OF 79

HNTB

Sta. 31+25.00 to Sta. 31+25.00

Filename: Xsect_Relocated Stream.dgn Division: Username: Date:10/28/2022




| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# RELOCATED BROOK CROSS SECTIONS

SHEET NUMBER

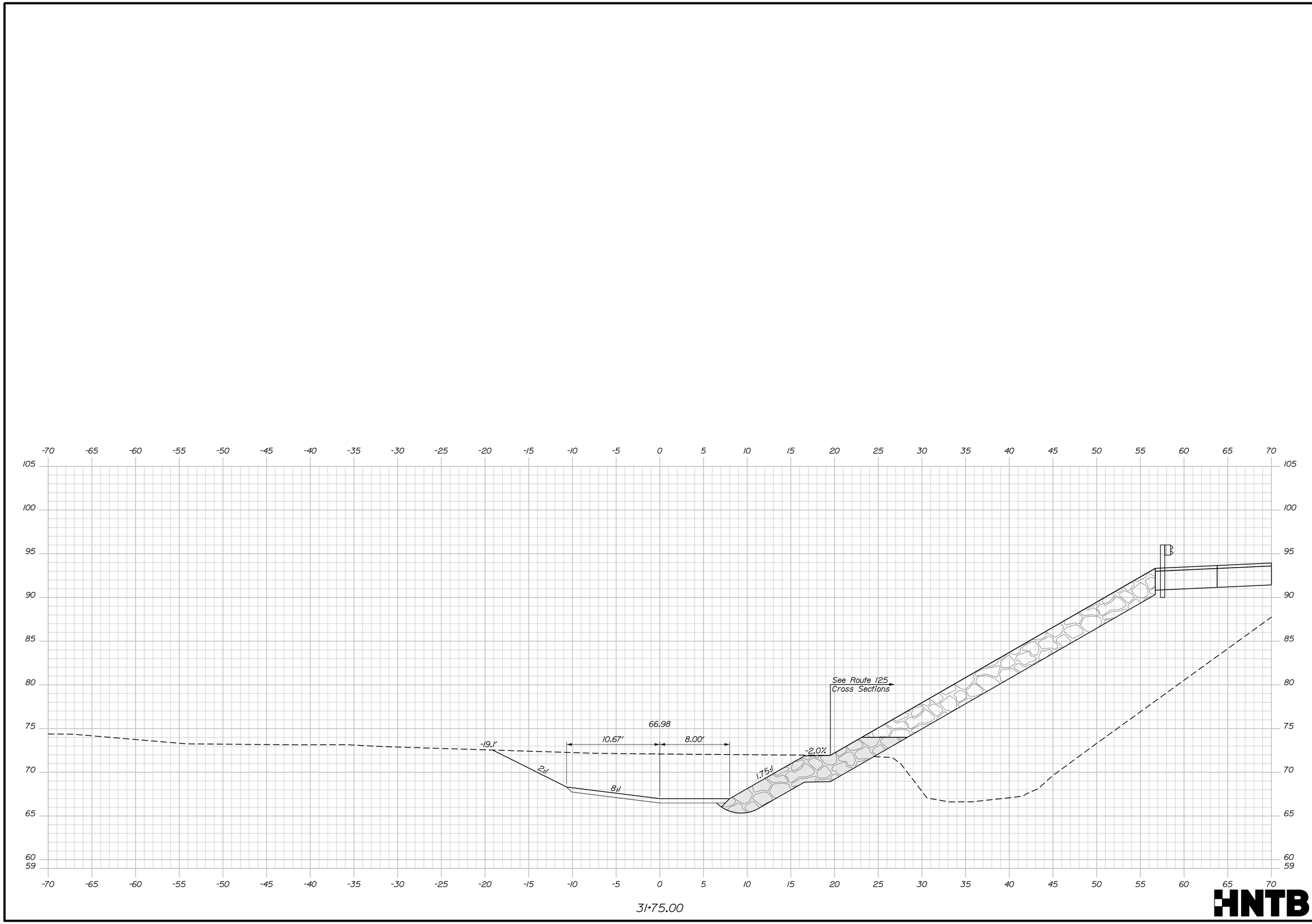
56

OF 79

HNTB

Sta. 31+50.00 to Sta. 31+50.00

Filename: Xsect_Relocated Stream.dgn Division: Username: Date:10/28/2022




| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK ANDROSCOGGIN
DURHAM

# RELOCATED BROOK CROSS SECTIONS

SHEET NUMBER

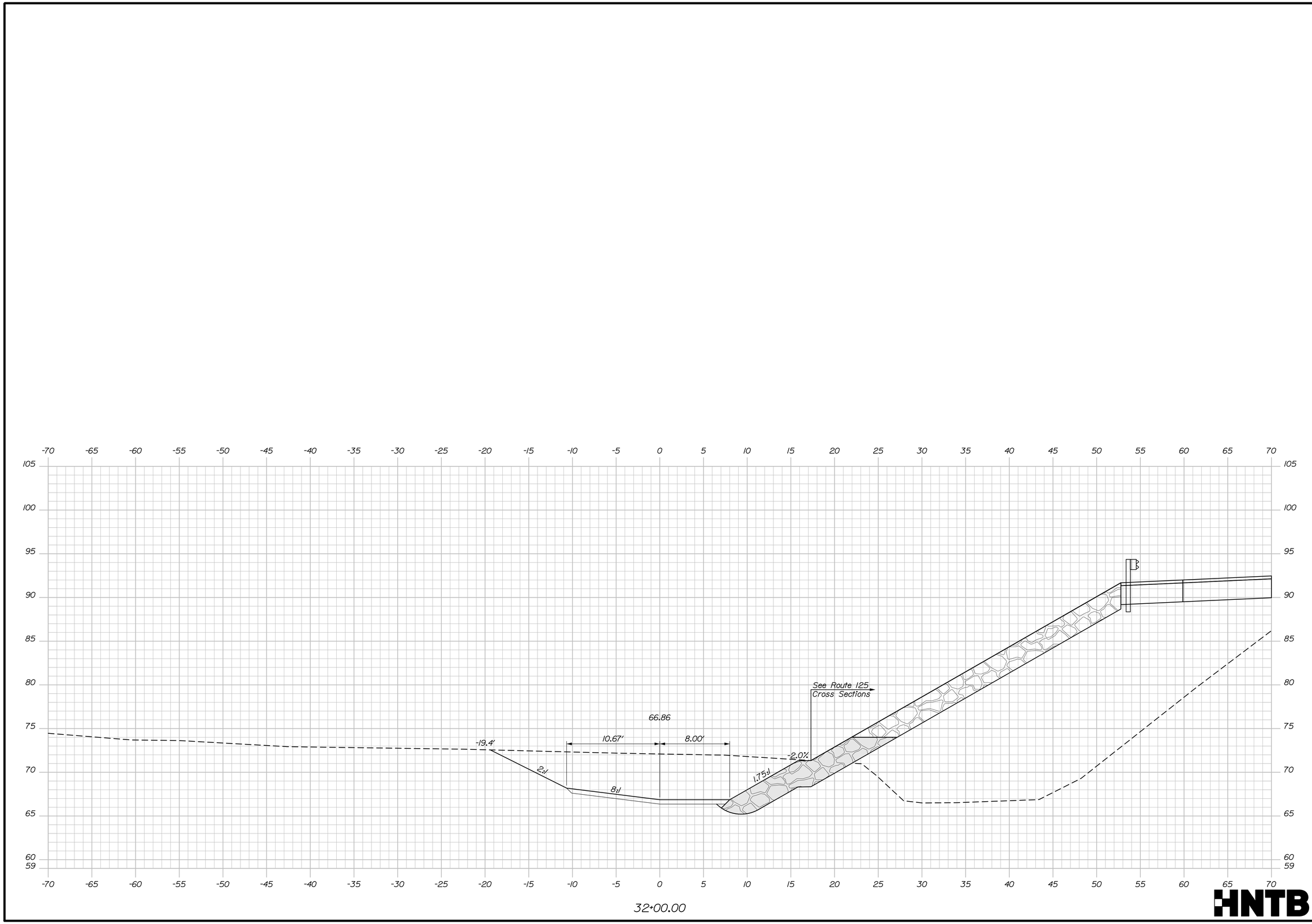
57

OF 79

HNTB

Sta. 31+75.00 to Sta. 31+75.00

Filename: Xsect_Relocated Stream.dgn Division: Username: Date:10/28/2022




| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\.2022 |
| DESIGN2-DETAILED2 | B. Hovu | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK ANDROSCOGGIN
DURHAM

# RELOCATED BROOK CROSS SECTIONS

SHEET NUMBER

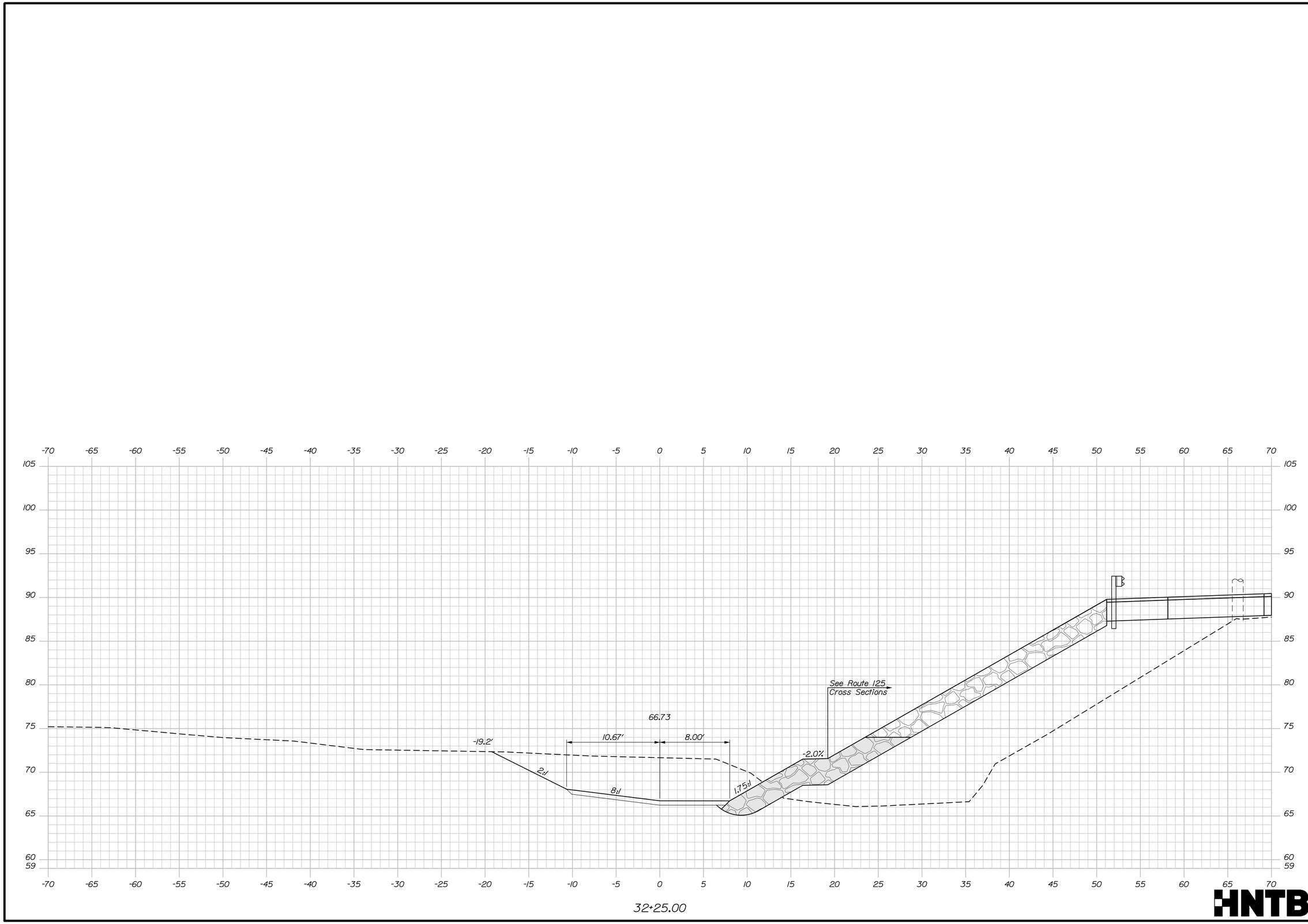
58

OF 79

HNTB

Sta. 32+00.00 to Sta. 32+00.00

Filename: Xsect_Relocated Stream.dgn Division: Username: Date:10/28/2022




| | | |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\.2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# RELOCATED BROOK CROSS SECTIONS

SHEET NUMBER

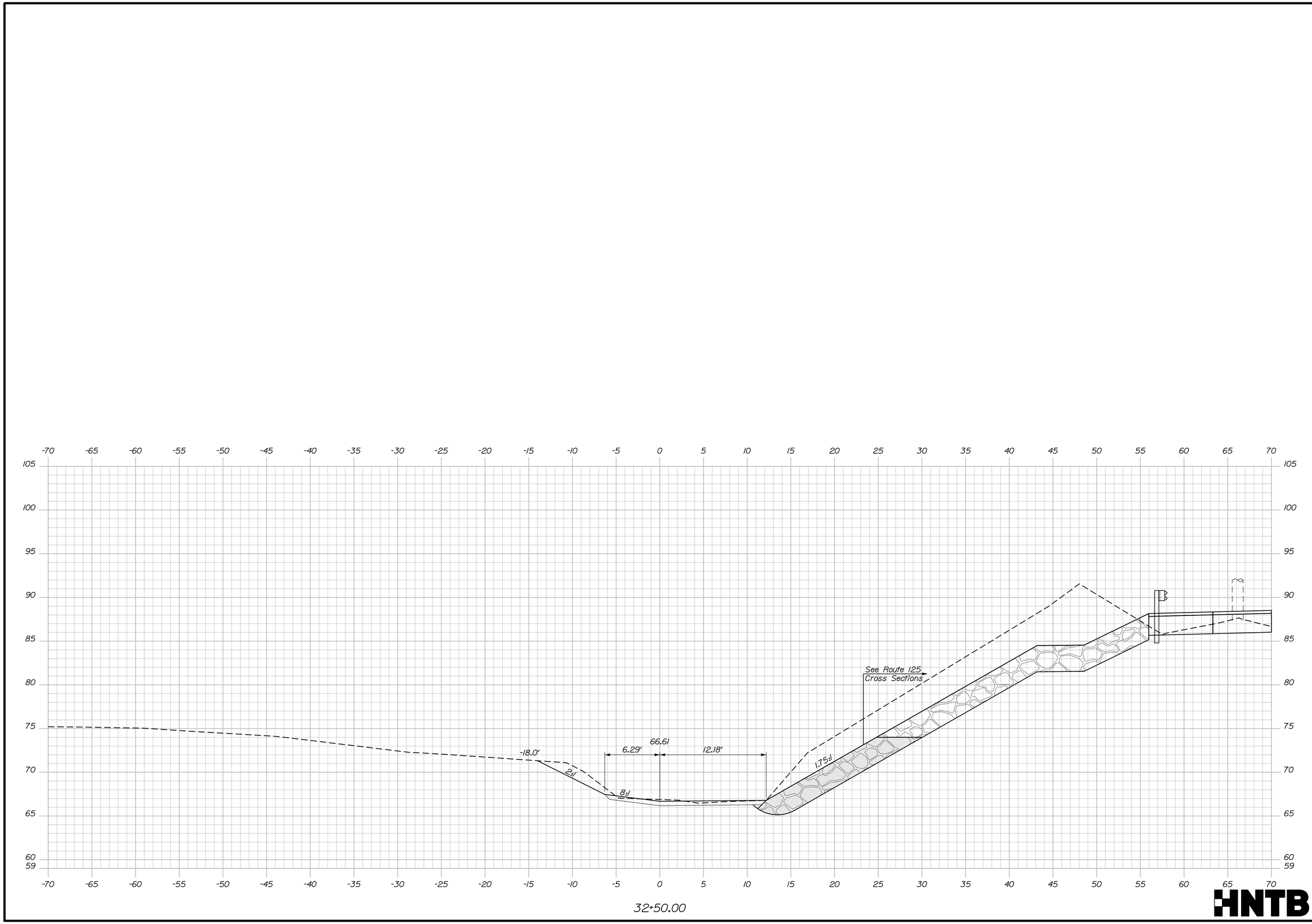
59

OF 79

HNTB

Sta. 32+25.00 to Sta. 32+25.00

Filename: Xsect_Relocated Stream.dgn Division: Username: Date:10/28/2022




HNTB

| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
|---|---|---|---|
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# RELOCATED BROOK CROSS SECTIONS

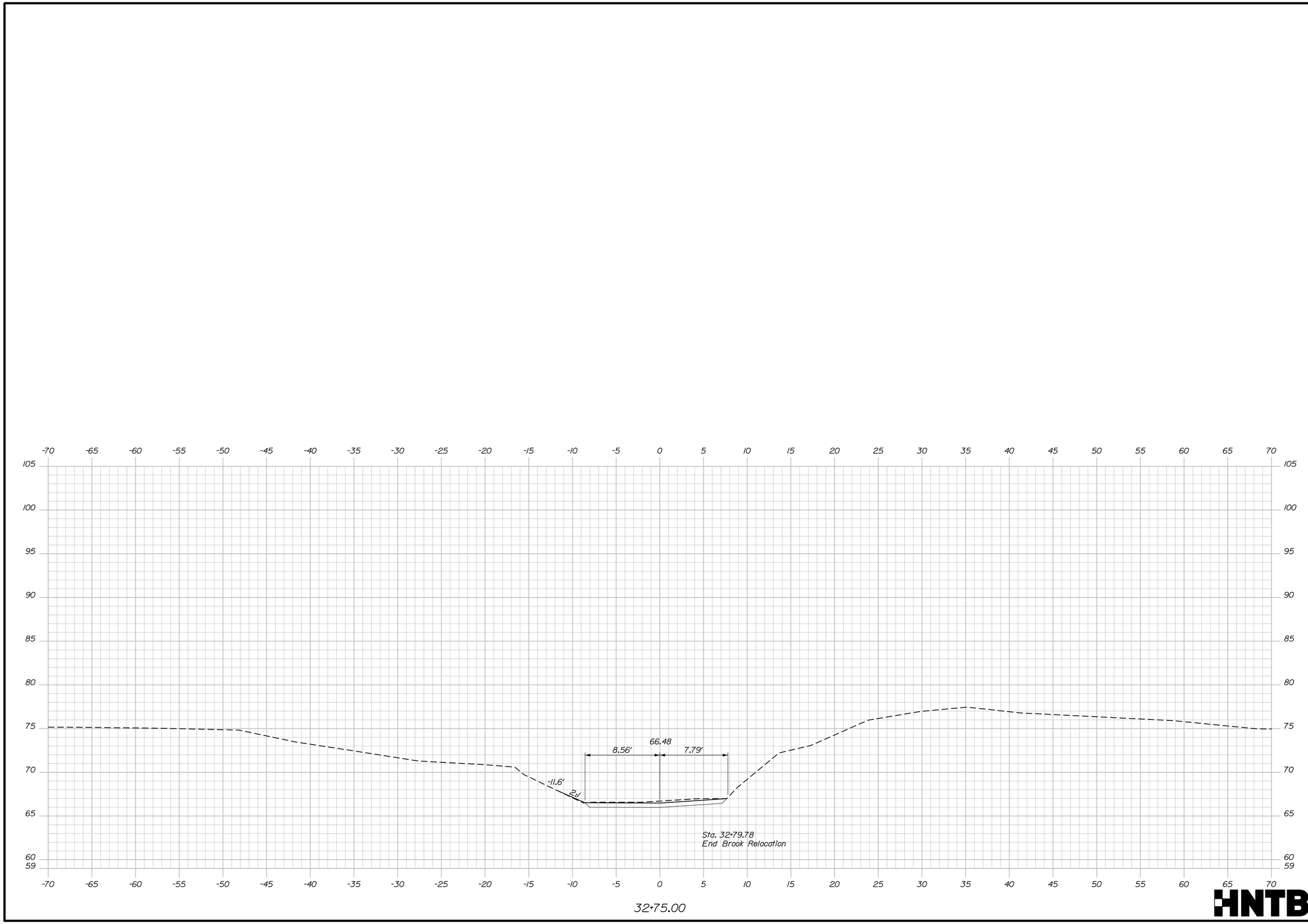
SHEET NUMBER

60

OF 79

Sta. 32+50.00 to Sta. 32+50.00

Filename: Xsect_Relocated Stream.dgn Division: Username: Date:10/28/2022




| | | |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | 10\.2022 |
| DESIGN2-DETAILED2 | B. Hovu | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

**2365700**

**WIN 023657.00**

BRIDGE NO. 2852 BRIDGE PLANS

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

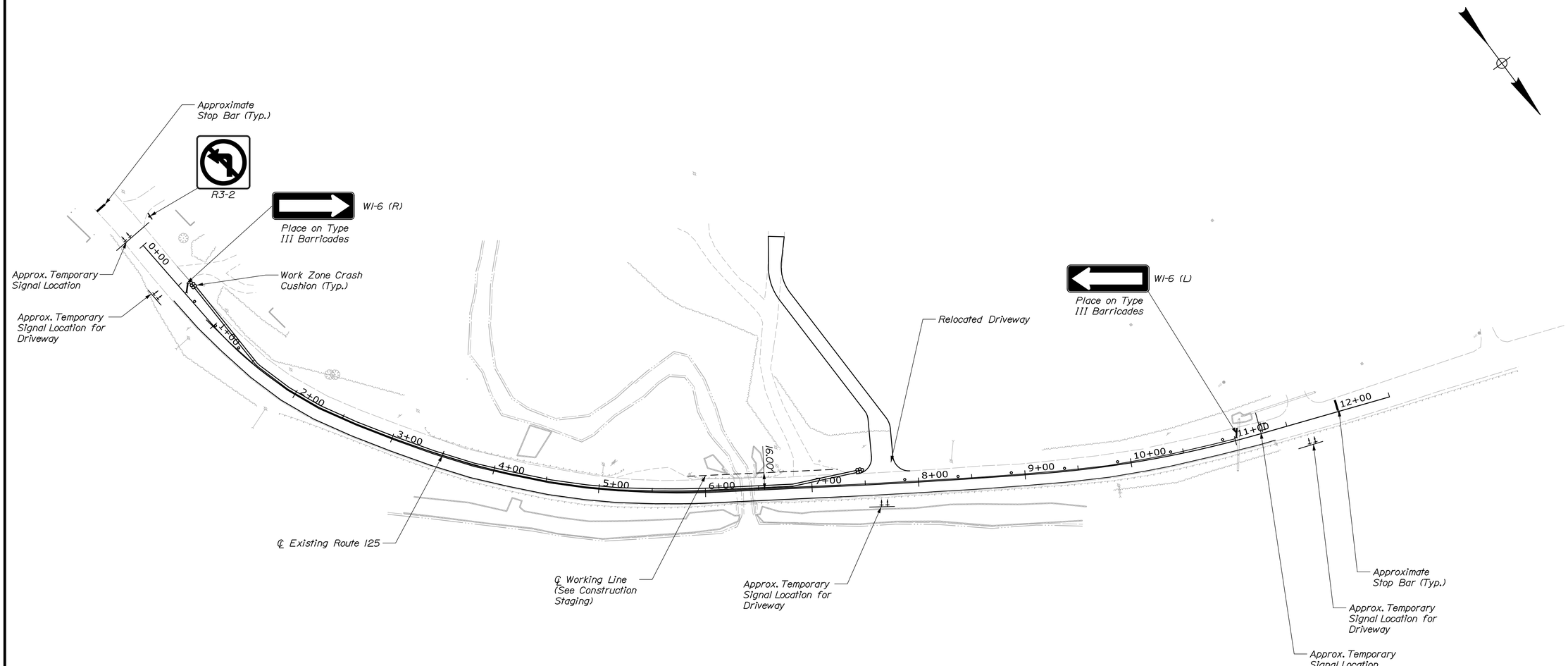
# RELOCATED BROOK CROSS SECTIONS

SHEET NUMBER

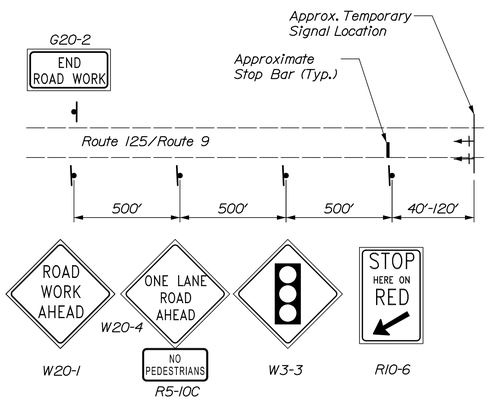
61

OF 79

Sta. 32+75.00 to Sta. 32+75.00




NOTE:
Stage 1 Construction shown,
Stage 2 Construction is similar
with identical signal locations.




SIGNAL APPROACH SIGNING

PLAN

50 0 50 100

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
| DESIGN-DETAILED | P. Mckechnie | P. Mckechnie | 10\.2022 |
| CHECKED-REVIEWED | L. Driscoll | B. Hovu | 10\.2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# CONCEPTUAL TRAFFIC CONTROL PLAN

SHEET NUMBER

62

OF 79

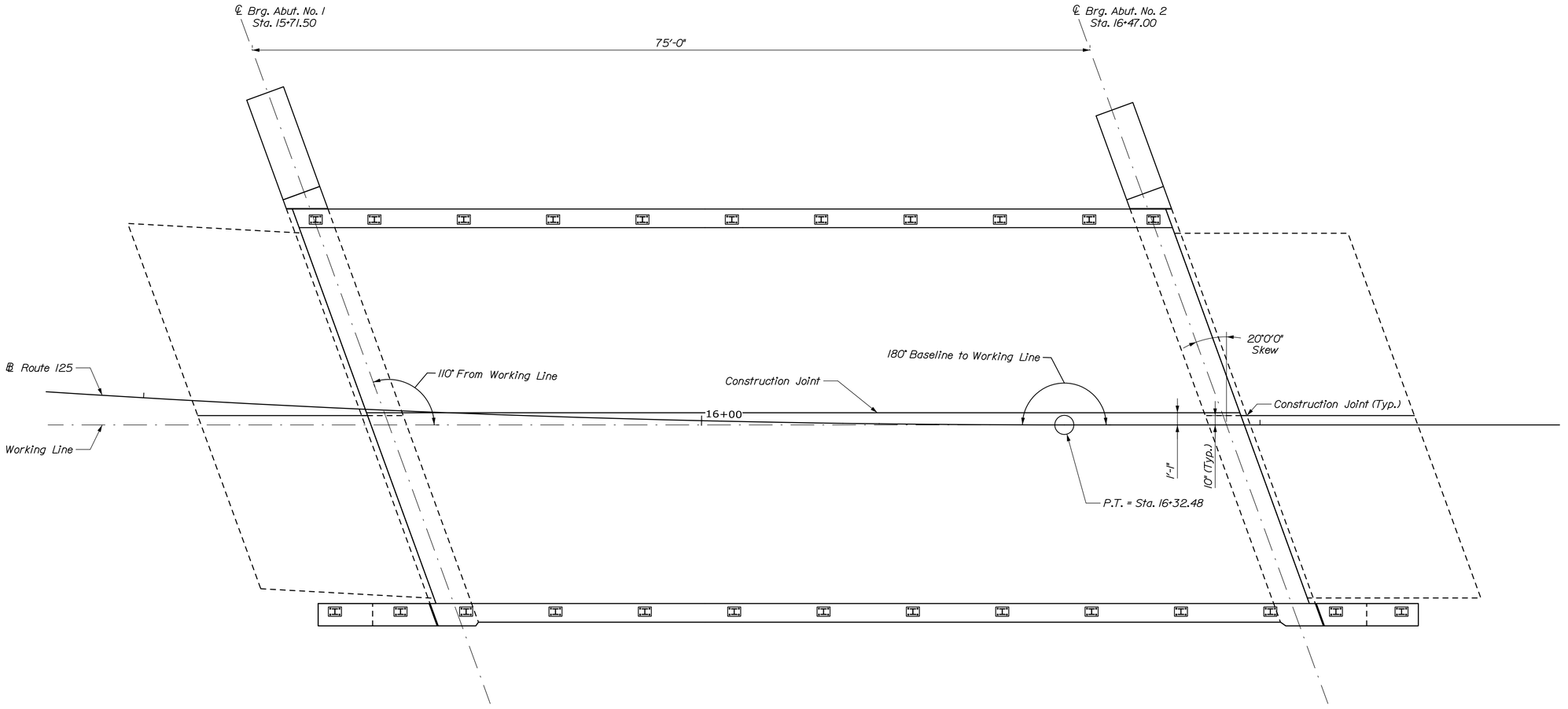
HNTB

Date:10/28/2022

Username:

Division:

Filename: 062_Temporary SignalLayout.dgn




GEOMETRIC LAYOUT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | H. Walton | 10\2022 |
| CHECKED-REVIEWED | E. Beausoleil | 10\2022 |
| DESIGN2-DETAILED2 | B. Grenier | |
| DESIGN3-DETAILED3 | A. Stephens | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

GEOMETRIC LAYOUT

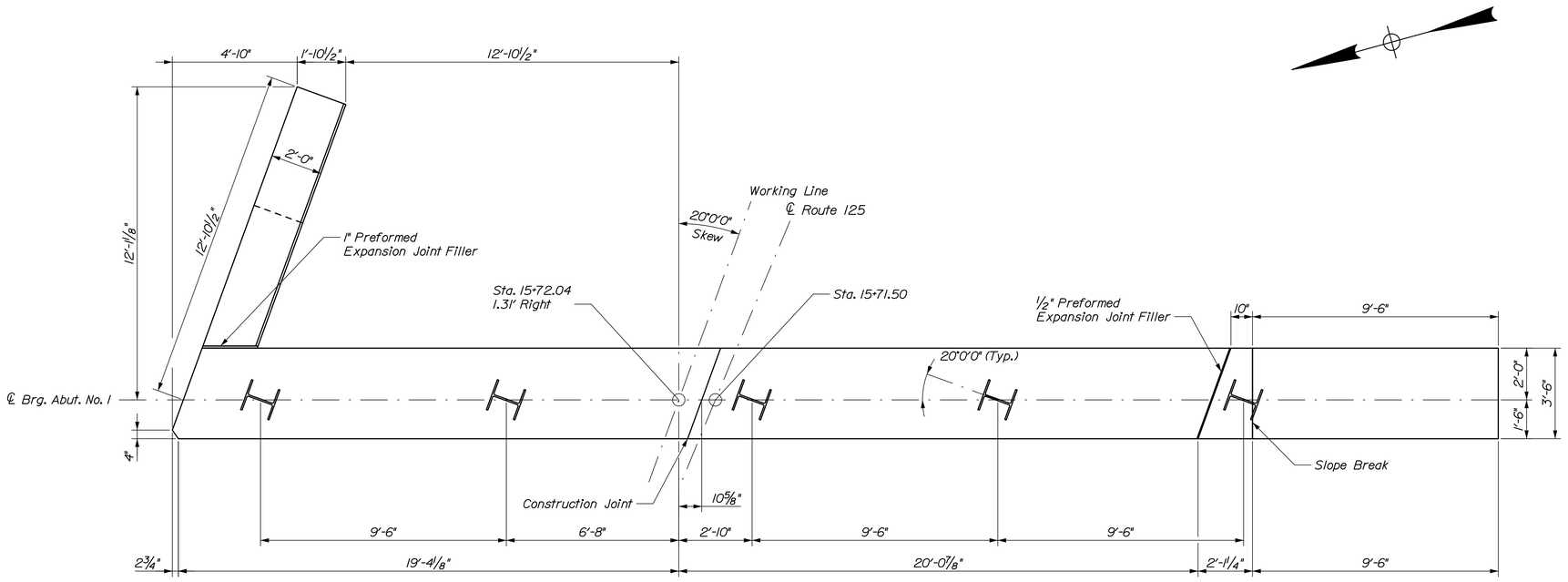
SHEET NUMBER

63

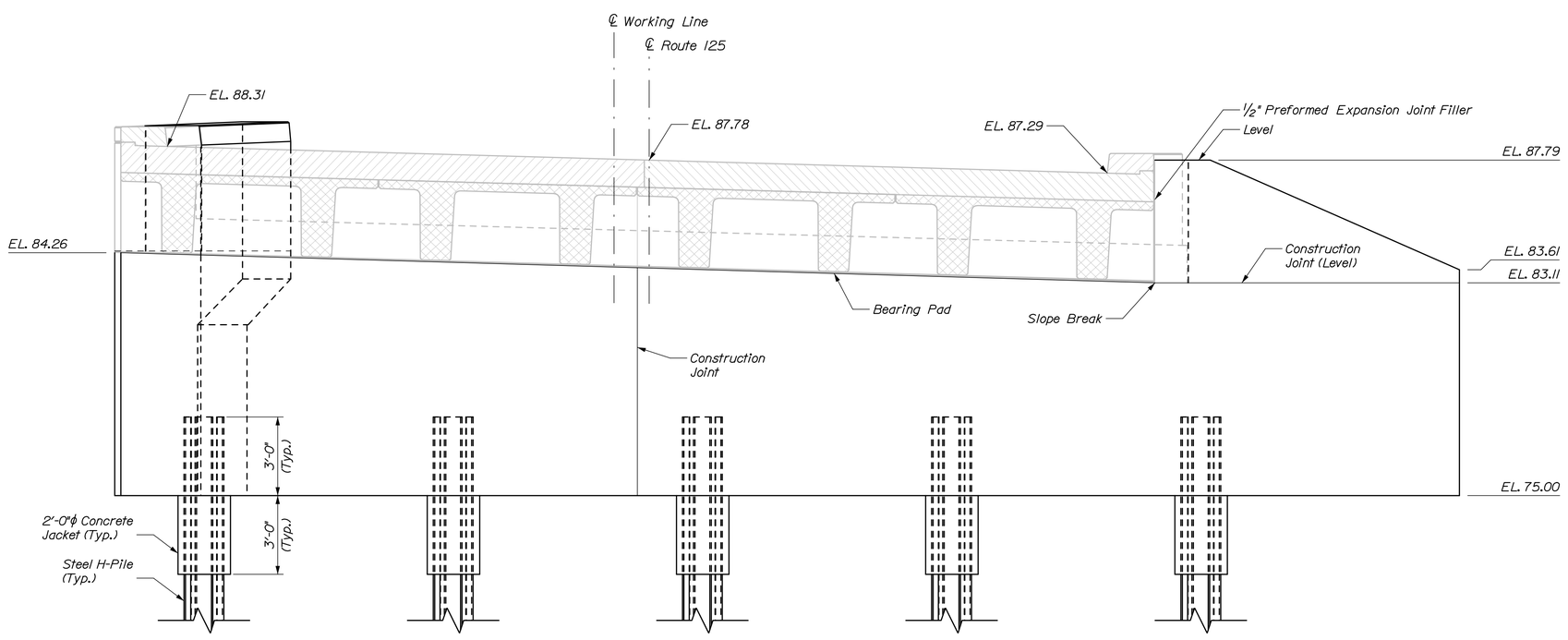
OF 79

HNTB

Filename: 063_Geometric Layout.dgn Division: Username: Date:10/28/2022




ABUTMENT NO. 1 PLAN




ABUTMENT NO. 1 ELEVATION
(Superstructure shown screened for clarity)

## ABUTMENT NOTES

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

2. Cover joints where waterstops are not required in accordance with Standard Detail 502(01).

3. Place 4 inch diameter drains in abutment and wingwalls at 10 feet maximum spacing. The exact location will be determined by the Resident.

4. Construct Drainage Geocomposite behind the abutments and wingwalls in accordance with Special Provision Section 620, Geotextiles - Drainage Geocomposite.

5. Abutments and wingwalls shall be backfilled with Granular Borrow for Underwater Backfill. Pay limits will be the structural excavation limits as shown on the "Abutment Details" sheet.

6. All elevations are provided at centerline of bearing unless otherwise noted.

7. Payment for concrete jacket around the tops of the H-piles will not be paid for directly. Payment shall be incidental to Item 502.219, Structural Concrete, Abutments and Retaining Walls. Fill concrete may be used for the concrete jackets.

9. Anchor dowels (bars 1000c) shall be installed plumb and may either be cast-in or drilled and anchored in accordance with Subsection 503.06. See Abutment Reinforcing sheets and End Diaphragm Reinforcing sheet for additional information.

## PILE NOTES

1. The maximum factored pile load is 398 kips (Strength I Load Combination).

2. Estimate of Piles required (5'-0" contingency included):

   Abutment No. 1: 5 - HP 14x102 @ 29 ft
   Abutment No. 2: 5 - HP 14x102 @ 20 ft

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

4. Piles shall be installed in accordance with Special Provision Section 501, Rock-Socketed H-Pile Foundation.

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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | BY | DATE |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\1\2022 |
| CHECKED-REVIEWED | B. Grenier | A. Stephens | 10\1\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
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| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

ABUTMENT NO. 1

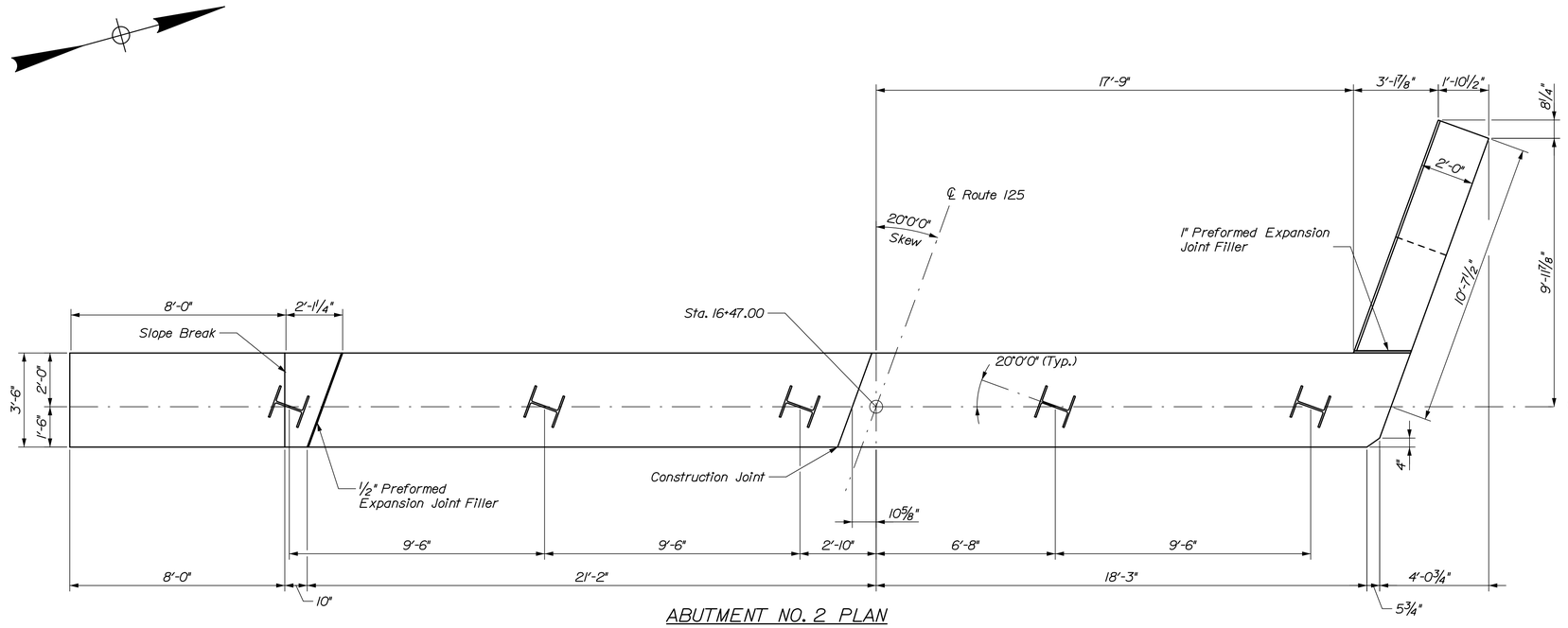
SHEET NUMBER

64

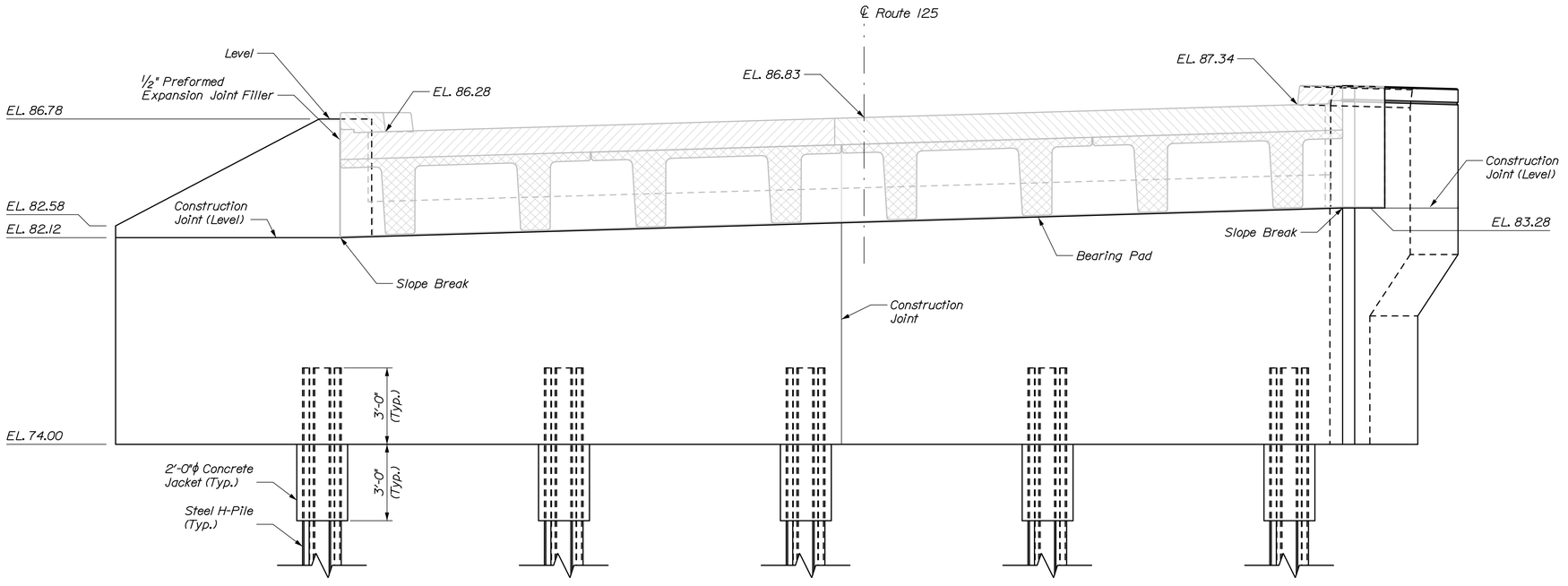
OF 79

HNTB

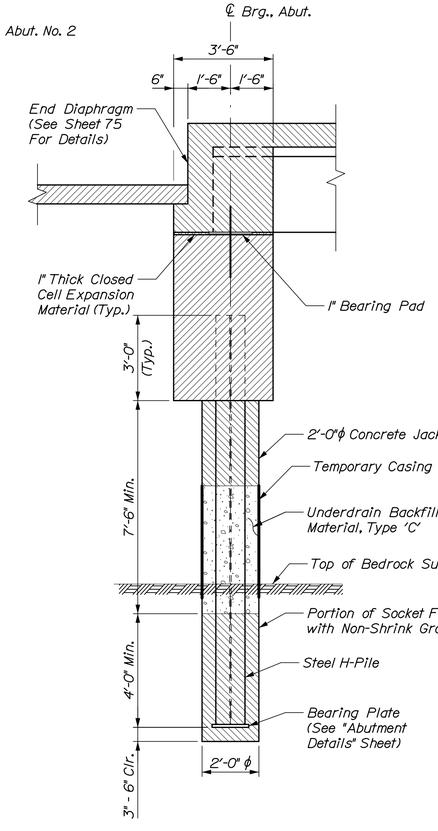
Filename: 064_Abutment 1.dgn Division: Username: Date:10/28/2022




ABUTMENT NO. 2 PLAN




ABUTMENT NO. 2 ELEVATION




TYPICAL SECTION
(Both Abutments)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\1\2022 |
| CHECKED-REVIEWED | B. Grenier | A. Stephens | 10\1\2022 |
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| DESIGN3-DETAILED3 | | | |
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| REVISIONS 4 | | | |
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SIGNATURE

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DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

ABUTMENT NO. 2

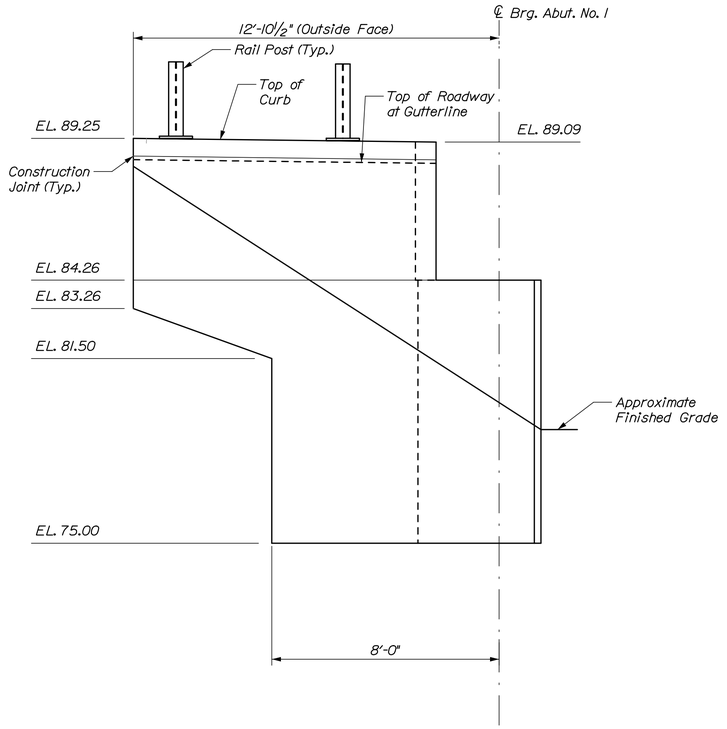
SHEET NUMBER

65

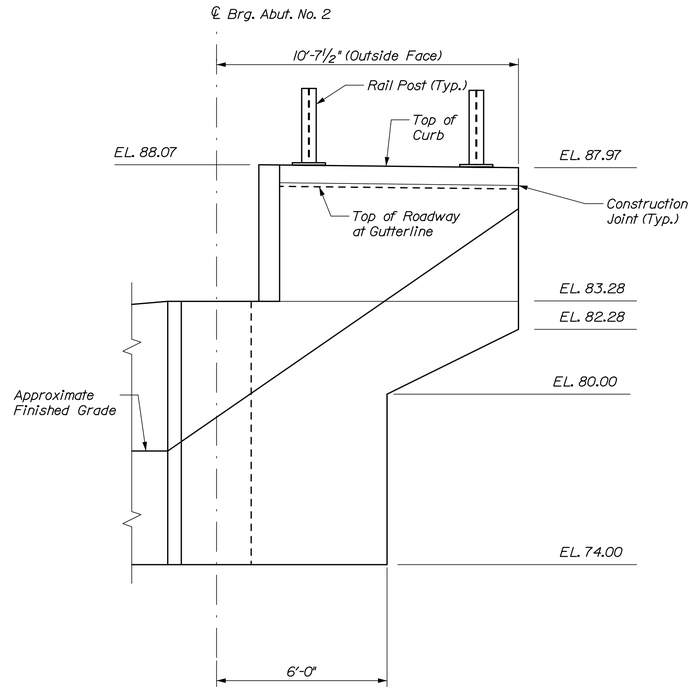
OF 79

HNTB

Filename: 065_Abutment 2.dgn Division: Username: Date:10/28/2022




ABUTMENT NO. 1 RETURN WINGWALL ELEVATION




ABUTMENT NO. 2 RETURN WINGWALL ELEVATION

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | B. Grenier | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
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| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

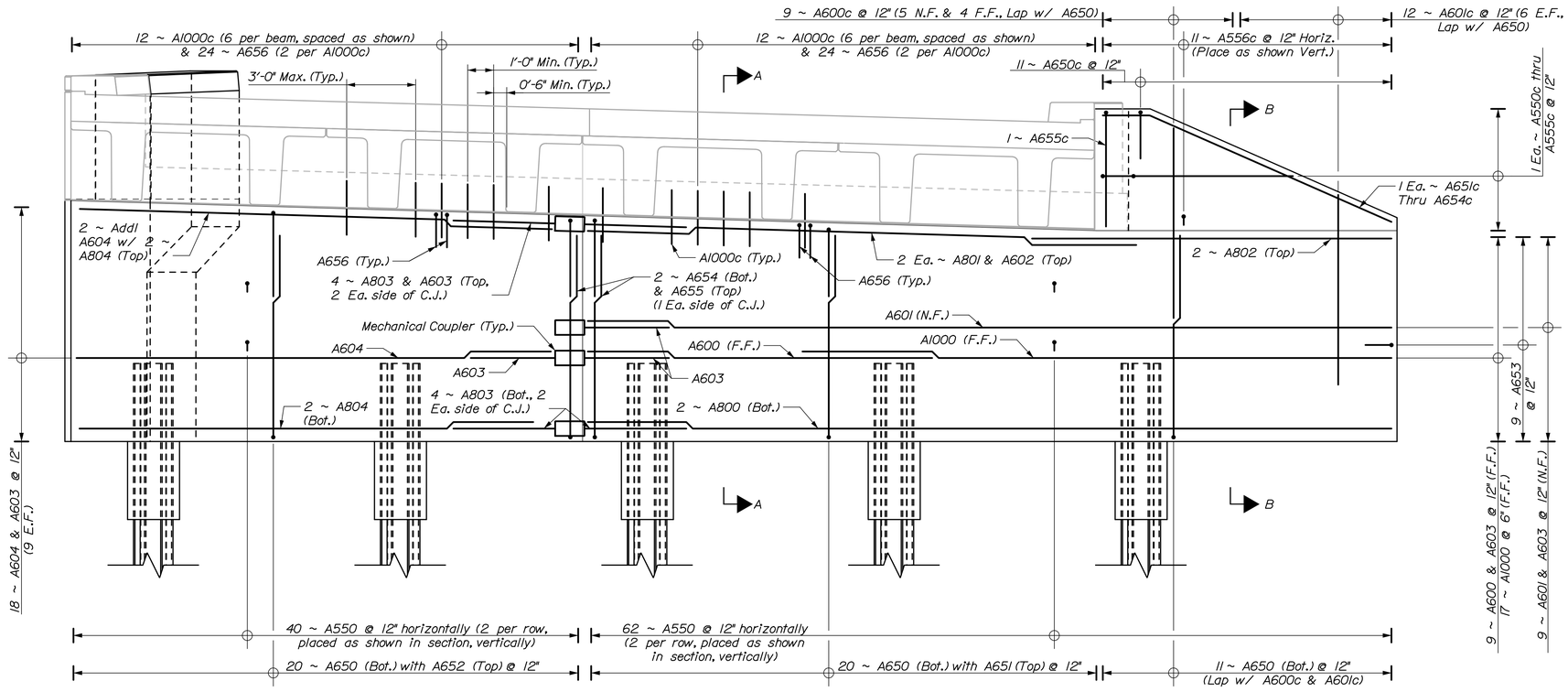
WINGWALL DETAILS

SHEET NUMBER

66

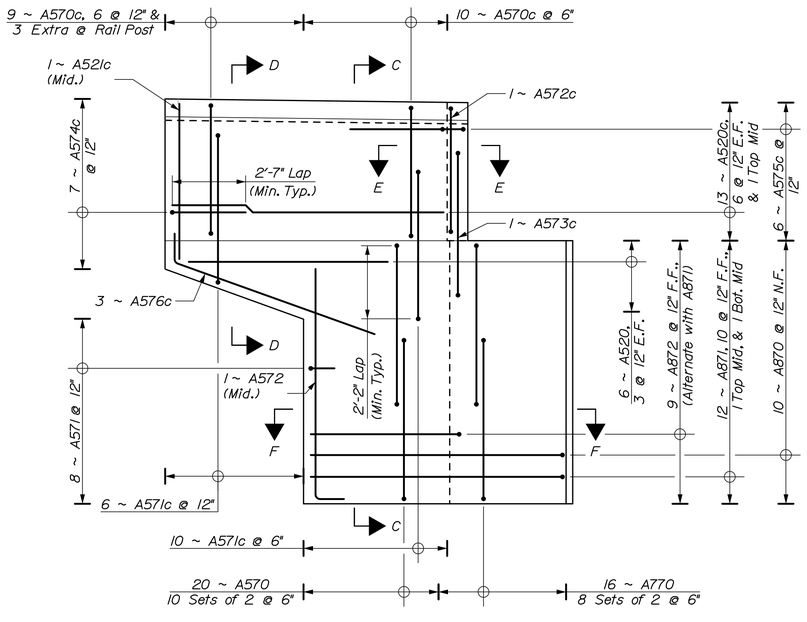
OF 79

Filename: 066_WingwallDetails.dgn Division: Username: Date:10/28/2022

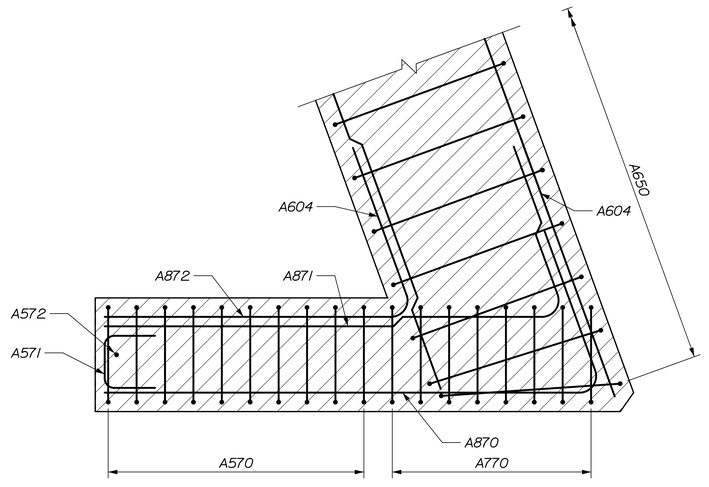



## ABUTMENT NO. 1 REINFORCING
(Superstructure shown screened for clarity)

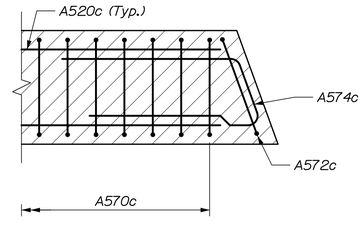
**NOTES:**
1. For Sections A-A, B-B, C-C & D-D See Abutment Reinforcing Sections sheet.




## ABUTMENT NO. 1 RETURN WINGWALL REINFORCING




## SECTION F-F




## SECTION E-E

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | BY | DATE |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | B. Grenier | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# ABUTMENT NO. 1 REINFORCING

SHEET NUMBER

67

OF 79

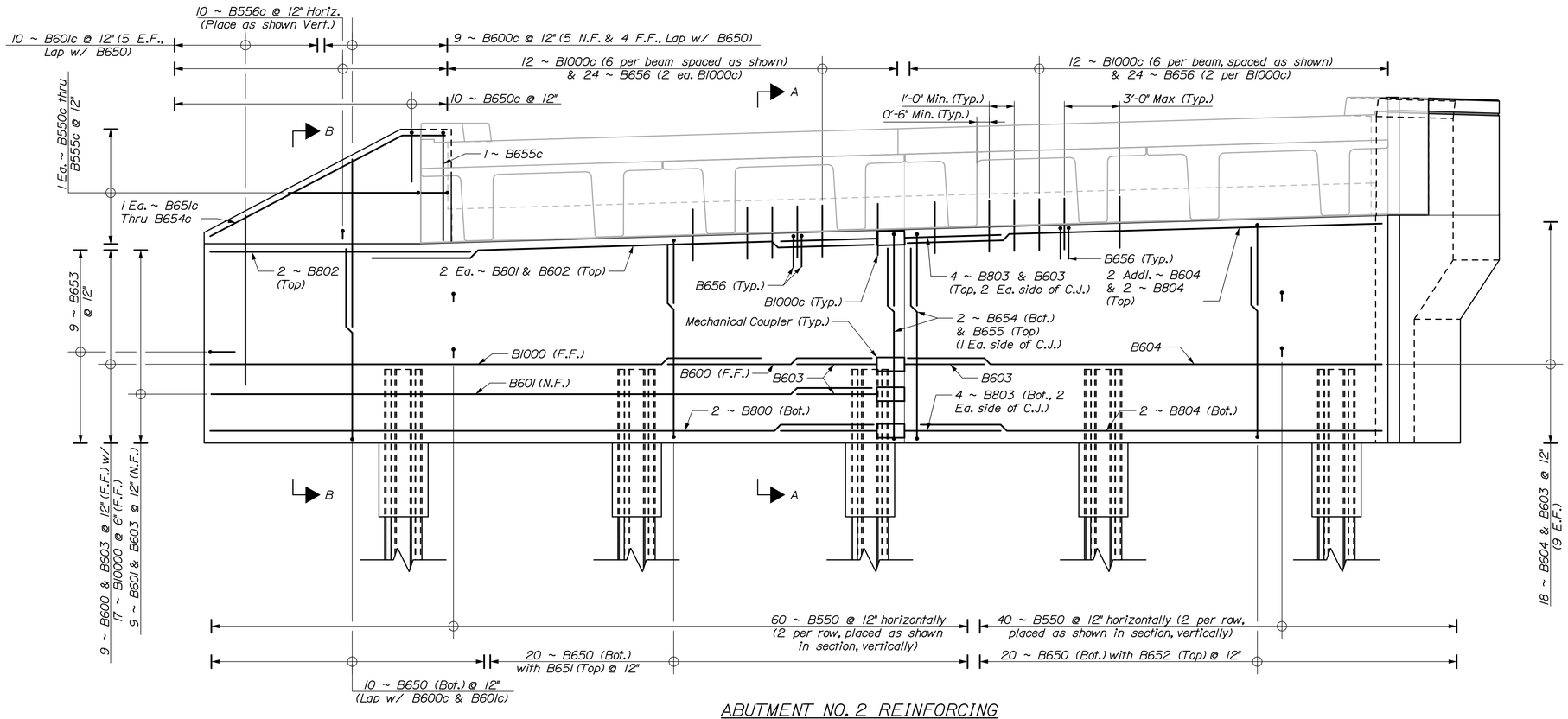
HNTB

Username:

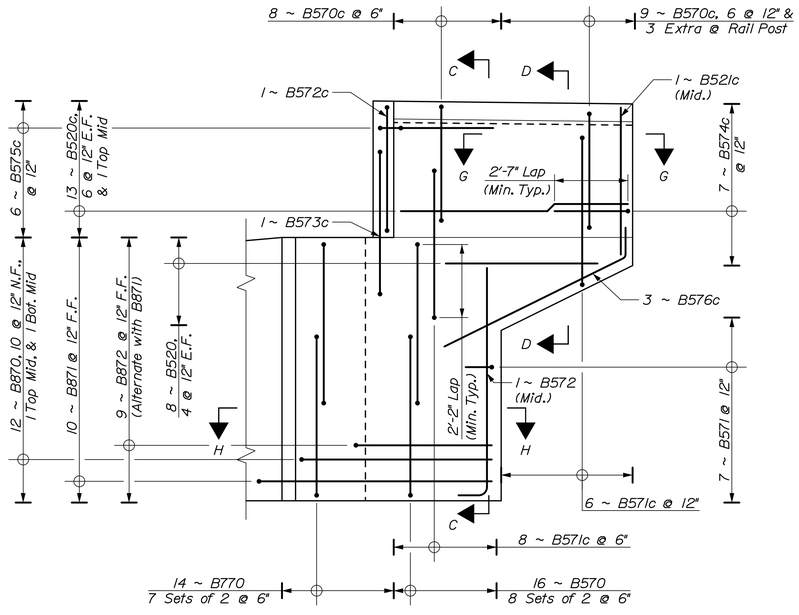
Division:

Date:10/28/2022

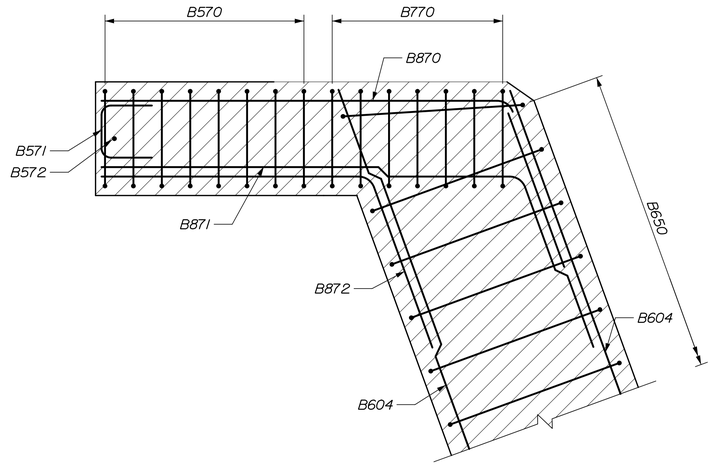
Filename: 067_Abutment 1 Reinforcing.dgn



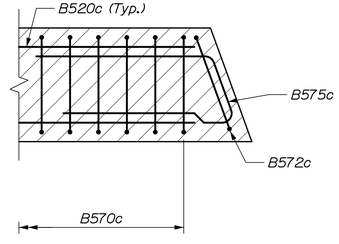

ABUTMENT NO. 2 REINFORCING
(Superstructure shown screened for clarity)




ABUTMENT NO. 2 RETURN WINGWALL REINFORCING




SECTION H-H




SECTION G-G

NOTES:
1. For Sections A-A, B-B, C-C & D-D See Abutment Reinforcing Sections sheet.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | B. Greiner | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

BY | DATE

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P.E. NUMBER

DATE

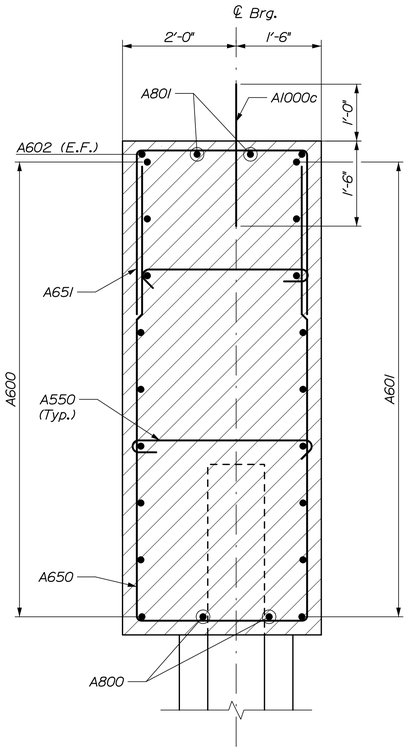
TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

ABUTMENT NO. 2 REINFORCING

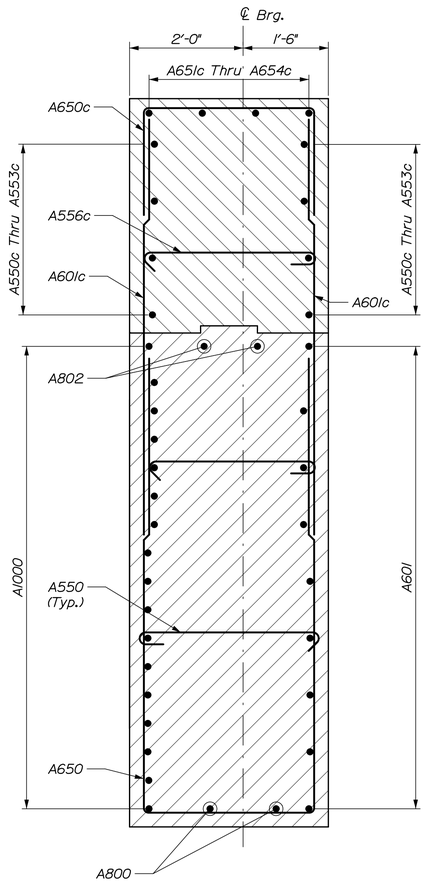
SHEET NUMBER
68
OF 79

HNTB

Filename: 068_Abutment 2 Reinforcing.dgn Division: Username: Date:10/28/2022




SECTION A-A
ABUTMENT SECTION
(Abutment No. 1, Stage 1 Shown, Stage 2 Similar)
(Abutment No. 1 Shown, Abutment No. 2 Similar)




SECTION B-B
WINGWALL SECTION
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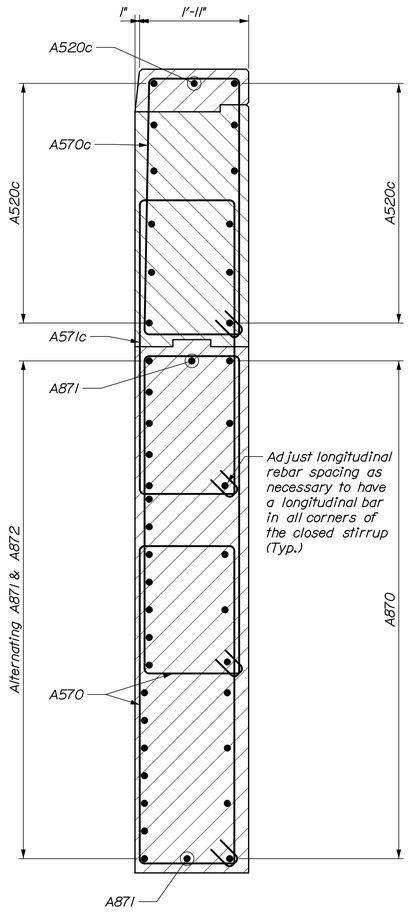


SECTION C-C
WINGWALL SECTION
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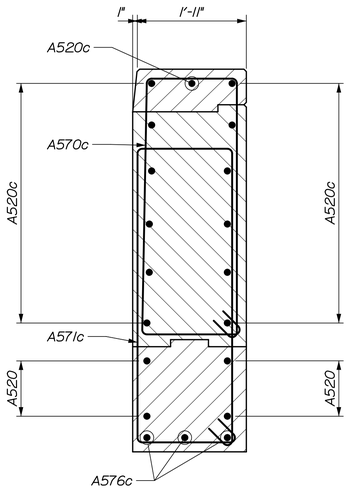



SECTION D-D
WINGWALL SECTION
(Abutment No. 1 Shown, Abutment No. 2 Similar)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852 BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | B. Grenier | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

BY DATE

SIGNATURE

P.E. NUMBER

DATE

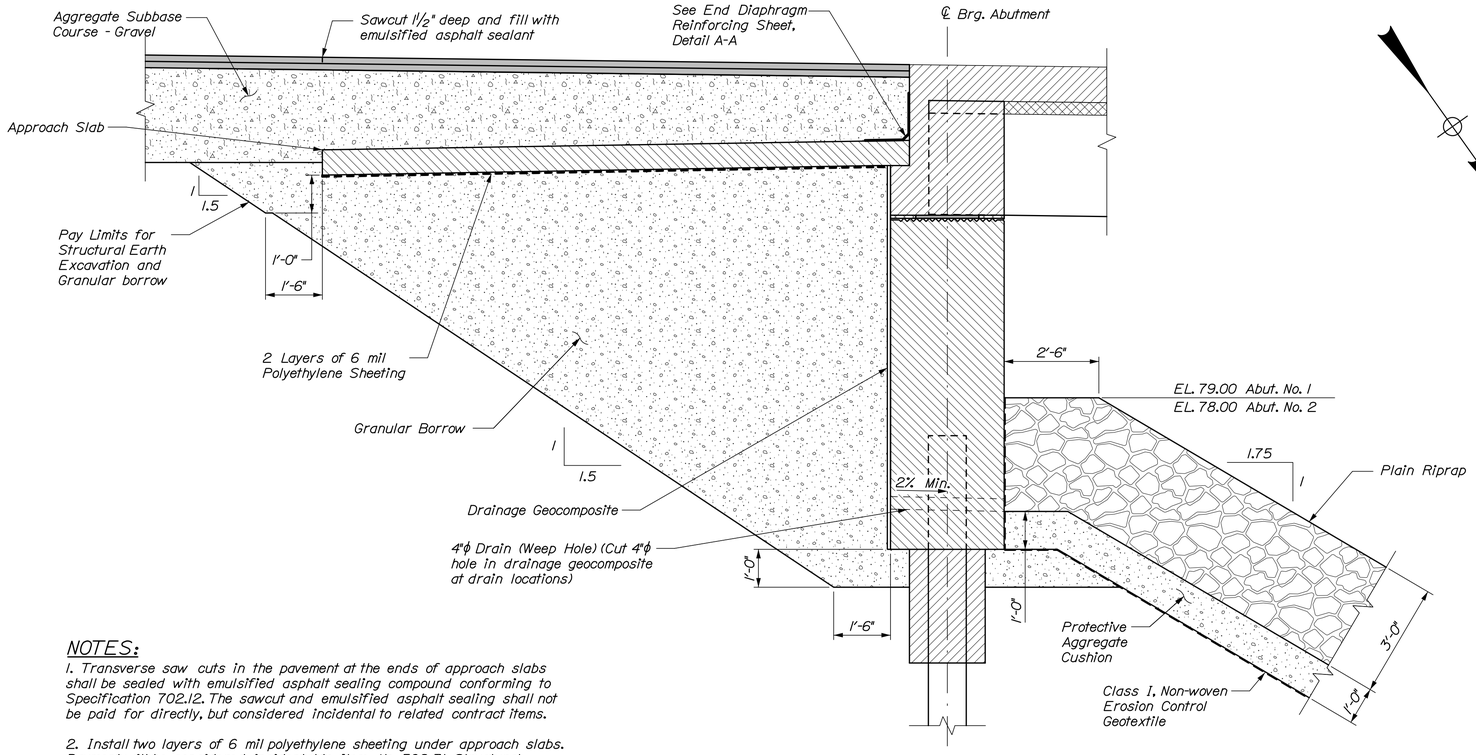
TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

ABUTMENT REINFORCING SECTIONS

SHEET NUMBER
69
OF 79

HNTB

Username:
Date:10/28/2022
Division:
Filename: 069_Abutment Reinforcing Sections.dgn




ABUTMENT BACKFILL DETAIL

**NOTES:**

1. Transverse saw cuts in the pavement at the ends of approach slabs shall be sealed with emulsified asphalt sealing compound conforming to Specification 702.12. The sawcut and emulsified asphalt sealing shall not be paid for directly, but considered incidental to related contract items.

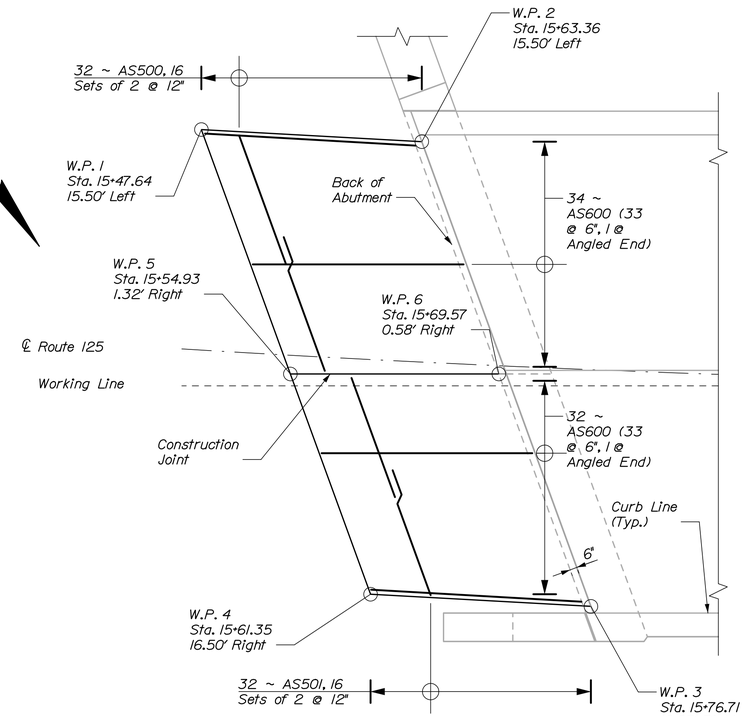
2. Install two layers of 6 mil polyethylene sheeting under approach slabs. Payment will be considered incidental to Item No. 502.31, Structural Concrete Approach Slab.



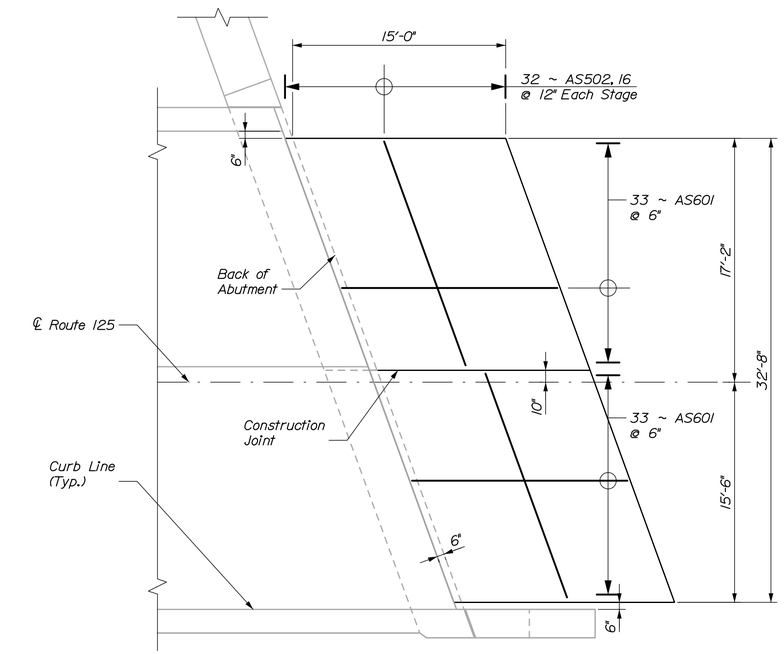




PILE BEARING PLATE DETAIL




APPROACH SLAB PLAN - ABUTMENT NO. 1




APPROACH SLAB PLAN - ABUTMENT NO. 2

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE PLANS

BRIDGE NO. 2852

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | H. Walton | 10\2022 |
| DESIGN2-DETAILED2 | B. Grenier | |
| DESIGN3-DETAILED3 | A. Stephens | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

ABUTMENT DETAILS

SHEET NUMBER

70

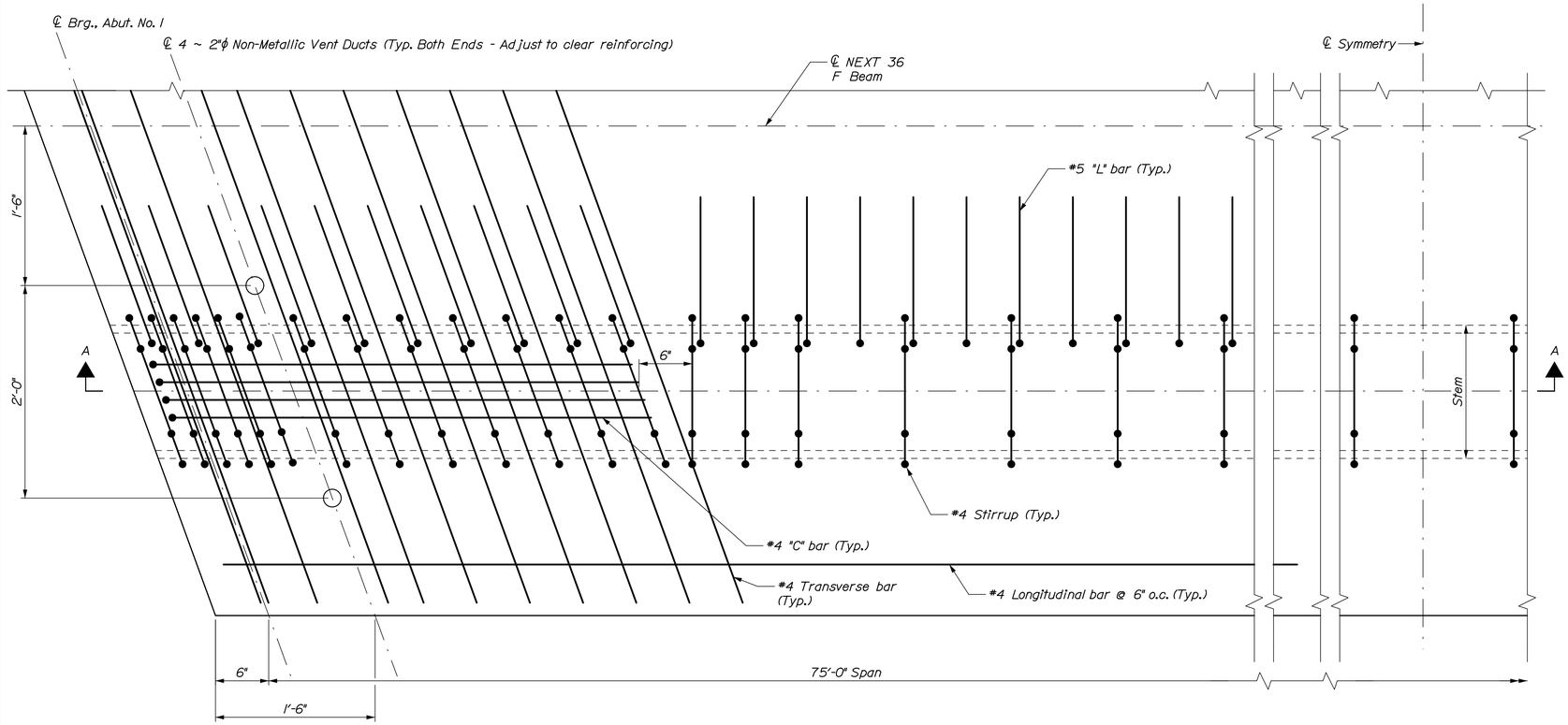
OF 79

Username:

Division:

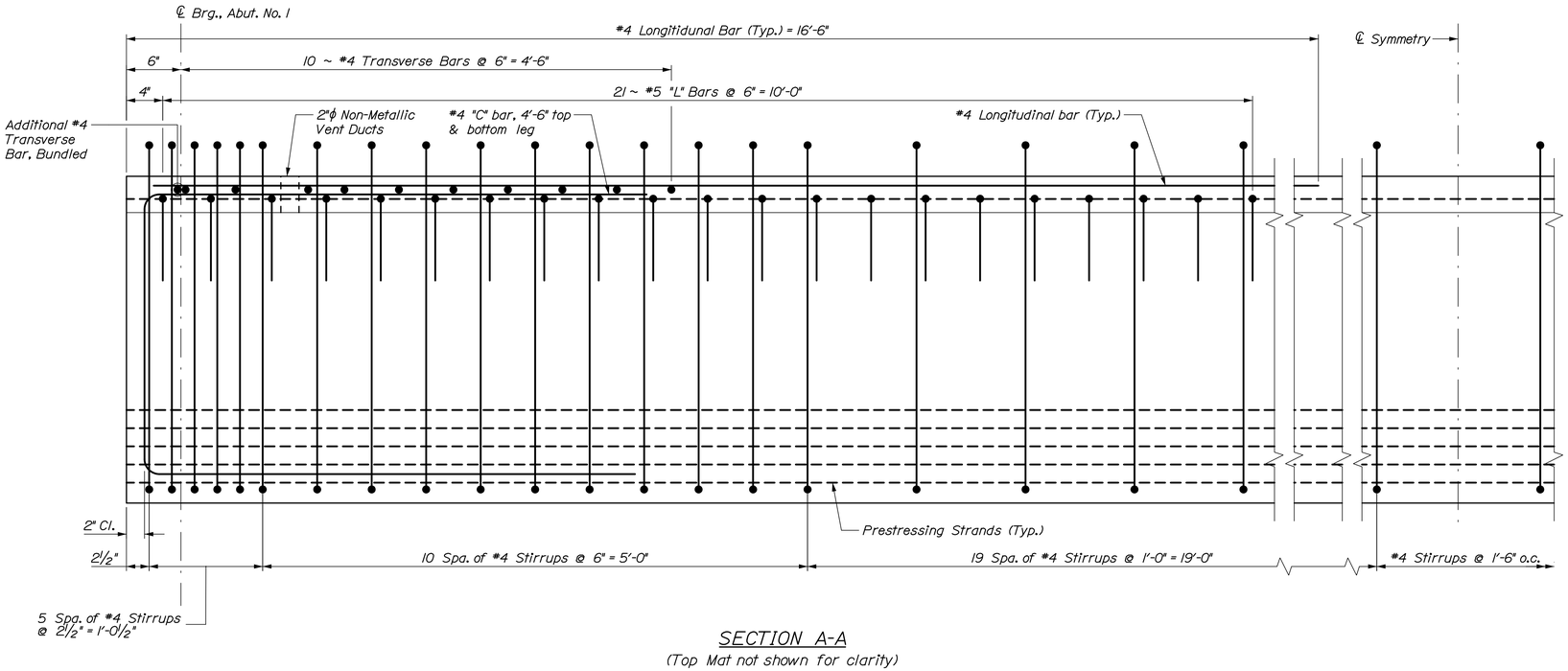
Date:10/28/2022

Filename: 070_Abutment Details.dgn




## NEXT 36 F BEAM PLAN

(Strands and Top Mat not shown for clarity)




## SECTION A-A

(Top Mat not shown for clarity)

## PRECAST NEXT BEAM NOTES

1. NEXT F Beams are a non - proprietary shape developed by PCI Northeast (PCINE). Standardized section properties and details may be found at http://www.pcine.org.

2. The estimated camber at release is 2.18 inches; the estimated camber at erection is 3.86 inches; and the estimated final camber at completion of the project is 2.69 inches.

3. Prestressing strands shall be 0.6 inch diameter. The tensioning force is 44 kips per prestressing strand, including the top strands.

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

5. The drilling of holes in the prestressed beams and the use of power - actuated tools on the beams will not be permitted.

6. A mat of mild reinforcing steel, #4 bars @ 12 inches in both directions, may be substituted for the welded wire fabric.

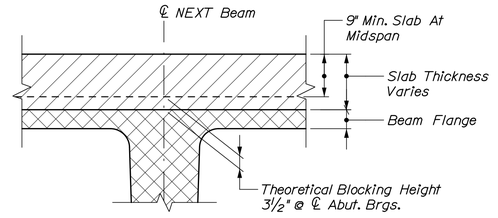
7. Girder reinforcement detailed in plan and elevation is typical about the midspan and centerline of each girder.

8. Concrete retarding admixture shall be applied to the form surfaces of the NEXT beam stems that will come in contact with the cast in-place concrete end diaphragms. All such surfaces shall be power washed with water prior to installation to provide a nominal 1/8-inch roughened surface with exposed aggregate. Alternate methods of achieving an equivalent roughened surface may be proposed. Payment for achieving the surface finish will be considered incidental to related Contract Items.

9. Bearing pads shall be either polychloroprene or natural polyisoprene with a shear modulus of 115 psi, and shall conform to the requirements of Section 18.2 of the LRFD Bridge Construction Specifications, Fourth Edition. Bearing pads and Closed Cell Expansion Material will not be paid for directly but will be considered incidental to related Contract Items.

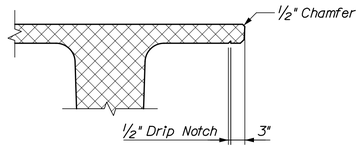
10. Bearing Pad seams perpendicular to the centerline of bearing will be allowed, provided that the seams are located approximately half way between NEXT Beam stems.

11. A maximum of 12 additional strands per beam (6 per stem) may be debonded for a distance of 6-inches within the bottom 5 rows to reduce the potential for end cracking during release. All 4 top row strands shall be fully bonded.




## DECK THICKNESS DETAIL

Not to Scale




## FASCIA OVERHANG DETAIL

Not to Scale

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | B. Grenier | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
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| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

GIRDER DETAILS I

SHEET NUMBER

71

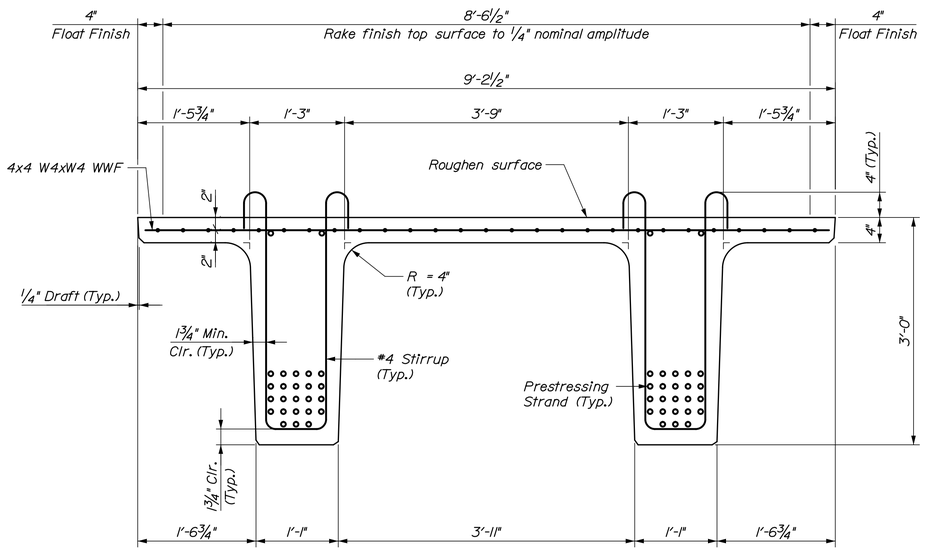
OF 79

Username:

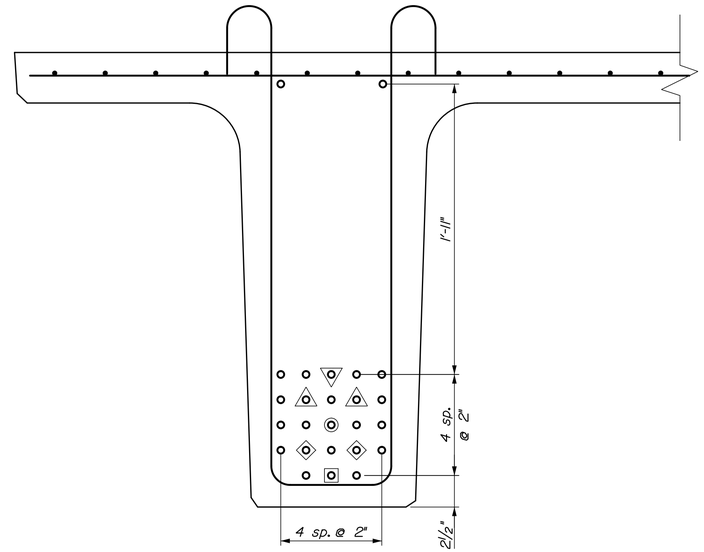
Division:

Date:10/28/2022

Filename: 071_Girder Details I.dgn

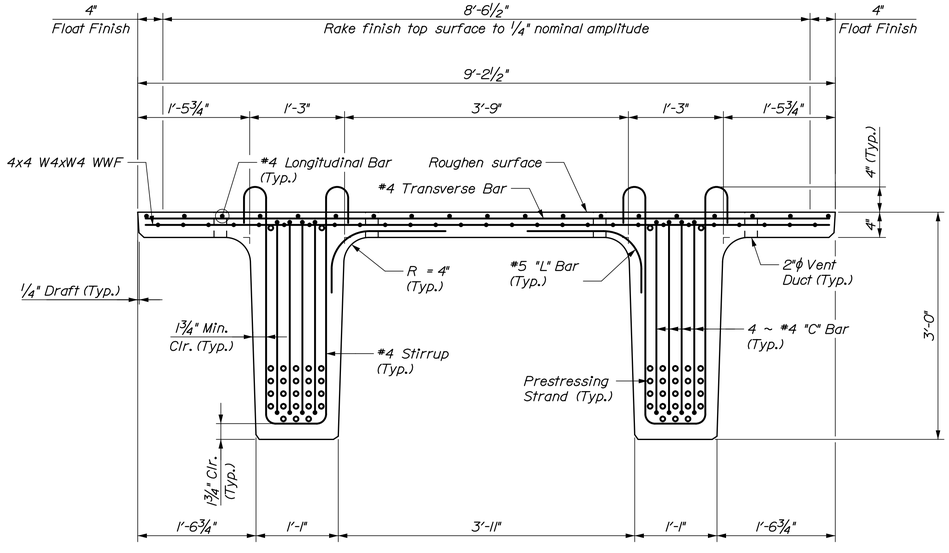



NEXT 36 F BEAM TYPICAL SECTION - AT MIDSPAN




NEXT 36 F BEAM STRAND PATTERN

- Strands debonded 15ft
- Strands debonded 12ft
- Strands debonded 9ft
- Strands debonded 6ft
- Strands debonded 3ft




NEXT 36 F BEAM TYPICAL SECTION - AT ENDS

| DEAD LOAD DEFLECTIONS (INCH) (Deck, Rail, and Curbs) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ℄ Brg. Abut. 1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | ℄ Brg. Abut. 2 |
| 0.00 | 0.27 | 0.52 | 0.73 | 0.86 | 0.90 | 0.86 | 0.73 | 0.52 | 0.27 | 0.00 |

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER M. KERSBERGEN | | |
| DESIGN-DETAILED | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

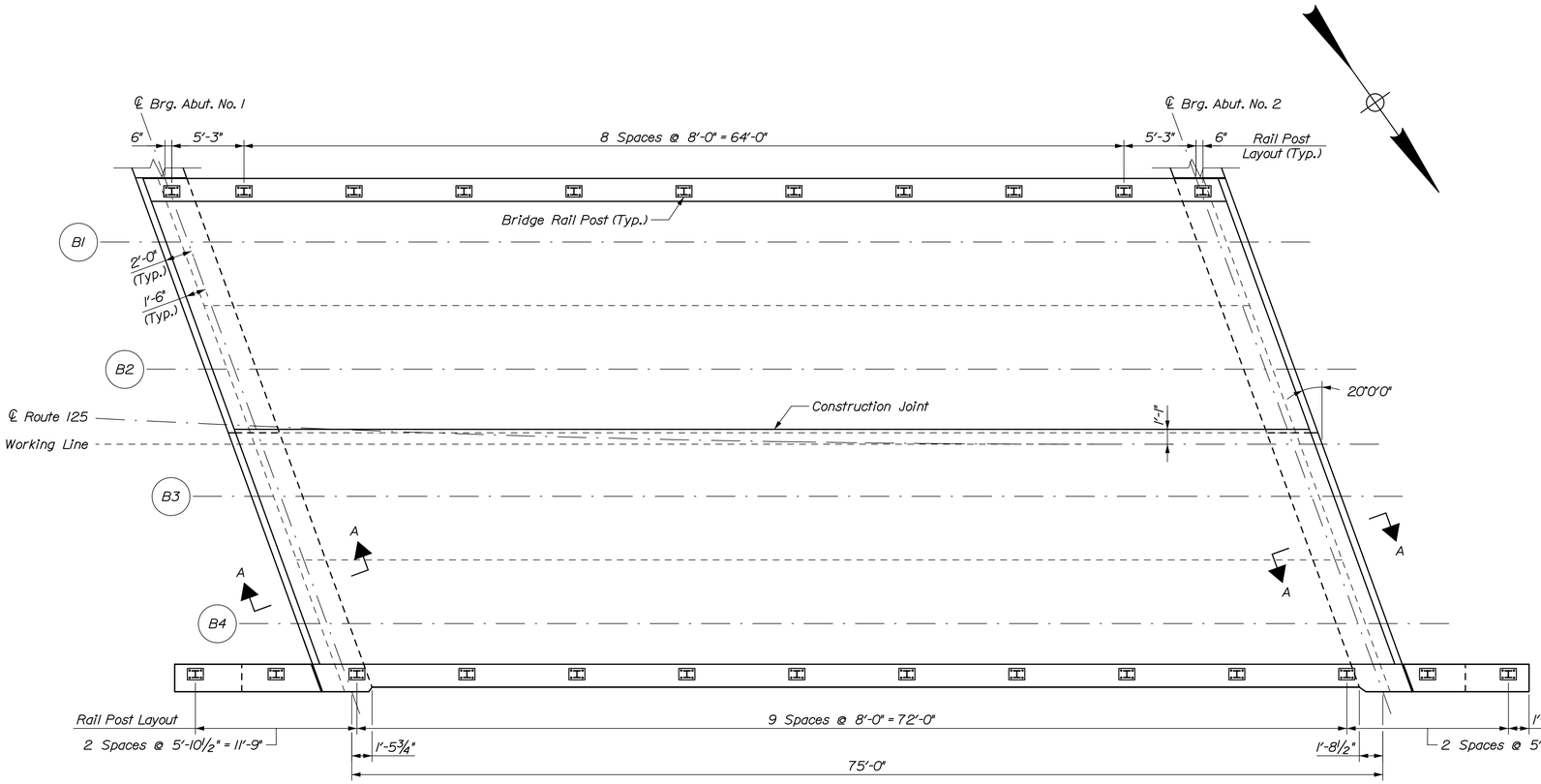
GIRDER DETAILS II

SHEET NUMBER

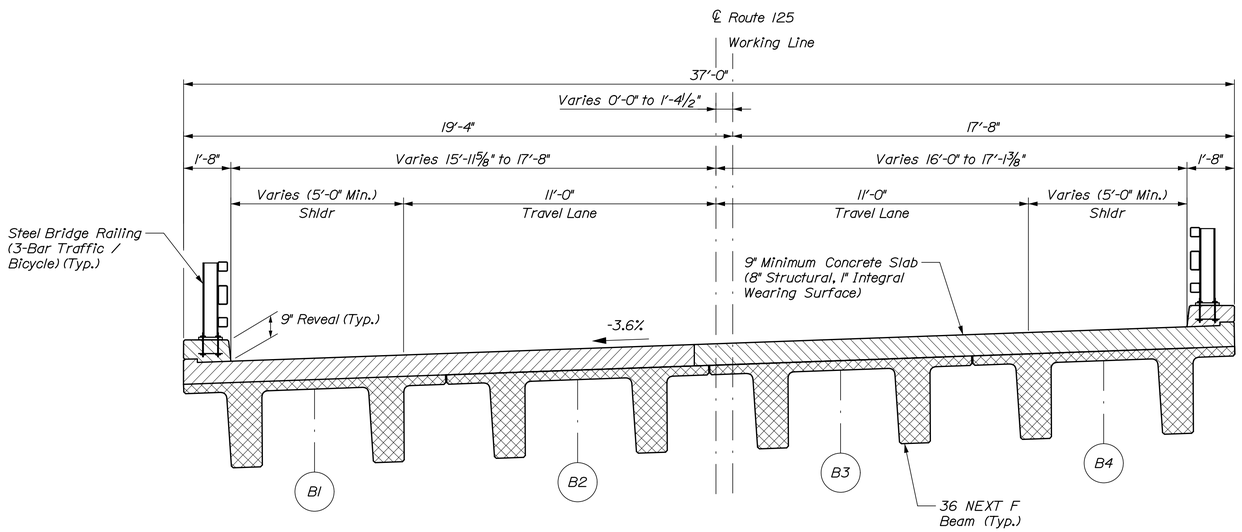
72

OF 79

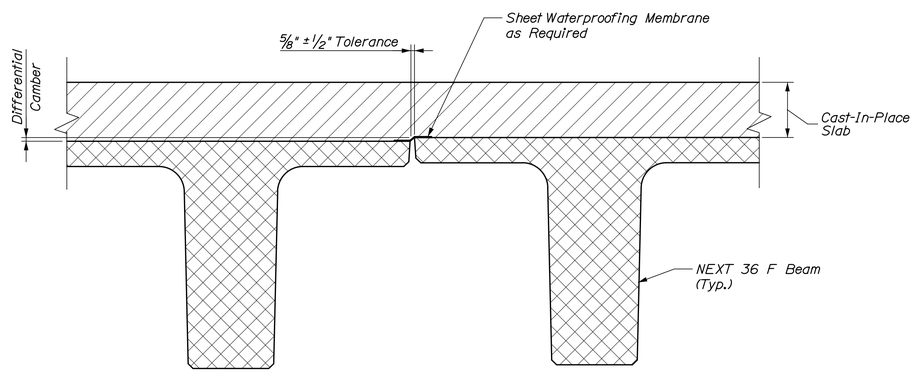
Filename: 072_Girder Details II.dgn Division: Username: Date:10/28/2022




## SUPERSTRUCTURE PLAN




## TRANSVERSE SECTION




## NEXT BEAM GAP FORM DETAIL

## SUPERSTRUCTURE NOTES

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

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

3. The superstructure slab and upper portions of the abutment shall be placed in one continuous operation and shall be kept plastic until the entire placement has been made.

4. Payment for the End Diaphragm Concrete will be made under Item No. 502.261 Structural Concrete Roadway and Sidewalk Slabs on Concrete Bridges.

5. Payment for Sheet Waterproofing Membrane over joints between adjacent NEXT Beams will not be made directly, but will be considered incidental to related Contract Items. Alternate methods of sealing the gap between the flanges may be submitted to the Resident for approval.

6. Payment for Sheet Waterproofing Membrane and mortared chamfer at the joint between the Approach Slab and the End Diaphragm will not be made directly, but will be considered incidental to related Contract Items. See End Diaphragm Reinforcing Sheet, Section A-A for details.

7. As shown on Section A-A End Diaphragm Reinforcing Sheet, PVC sleeves shall be centered on the anchor dowels and the annular space filled with a joint sealant. The sealant shall be one of the polyurethane - based products listed on the MaineDOT Qualified Products List of Pour - In - Place Joint Sealant. Payment for all labor and materials will not be made directly and will be considered incidental to related Contract Items.

8. Payment for Preformed Expansion Joint Filler between the end diaphragms and the wingwalls will not be made directly, but will be considered incidental to Item 502.261, Structural Concrete Roadway and Sidewalk Slab on Concrete Bridges.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | H. Walton | 10\2022 |
| DESIGN2-DETAILED2 | B. Grenier | A. Stephens |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

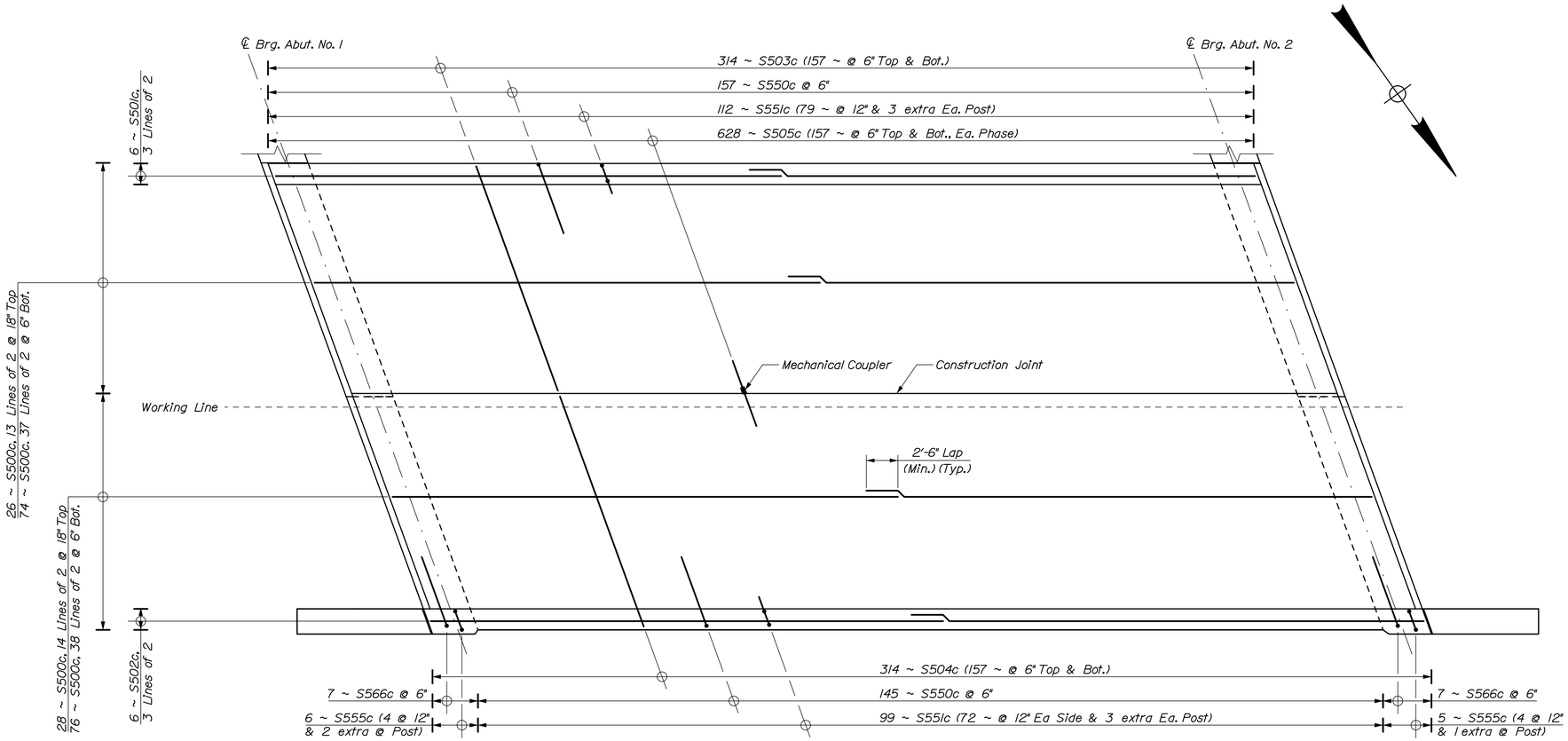
TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

SUPERSTRUCTURE PLAN

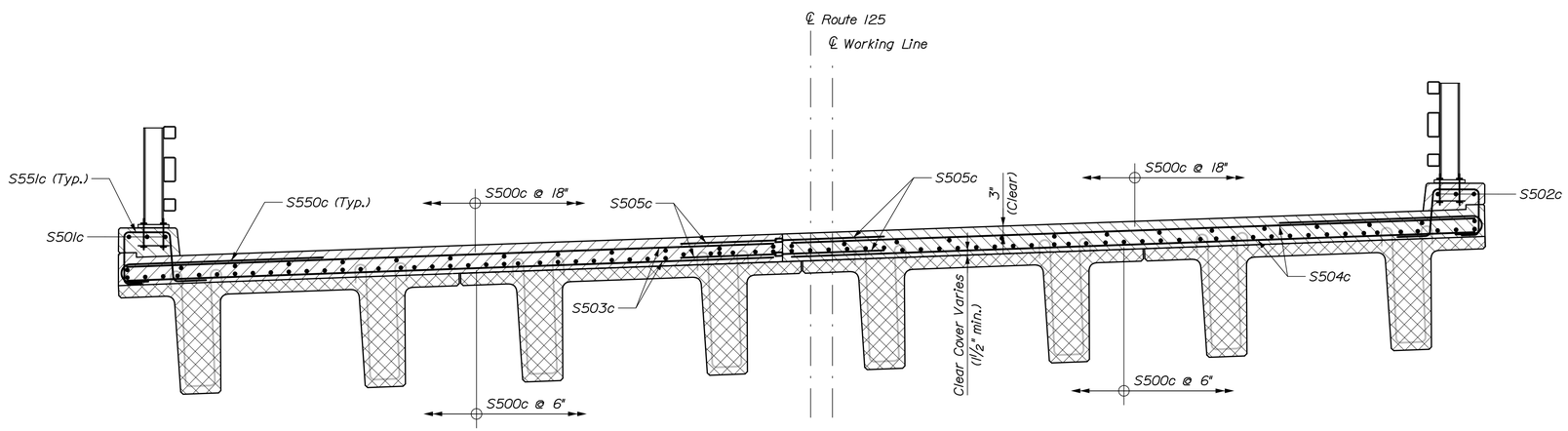
SHEET NUMBER
73
OF 79

HNTB

Filename: 073_Superstructure Plan.dgn Division: Username: Date:10/28/2022




SUPERSTRUCTURE REINFORCING PLAN




TRANSVERSE REINFORCING SECTION

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | B. Greiner | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

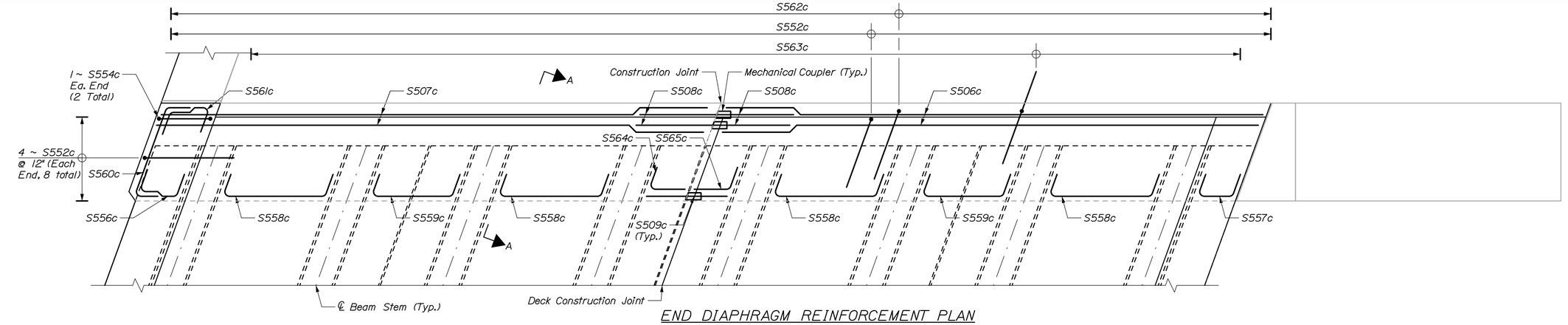
SUPERSTRUCTURE REINFORCING

SHEET NUMBER

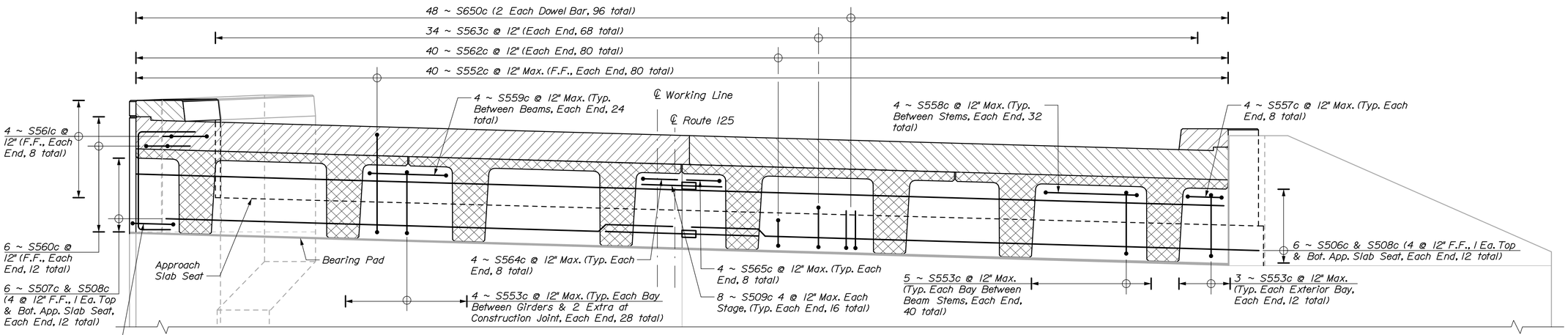
74

OF 79

Filename: 074_Superstructure Reinforcing Plan.dgn Division: Username: Date:10/28/2022

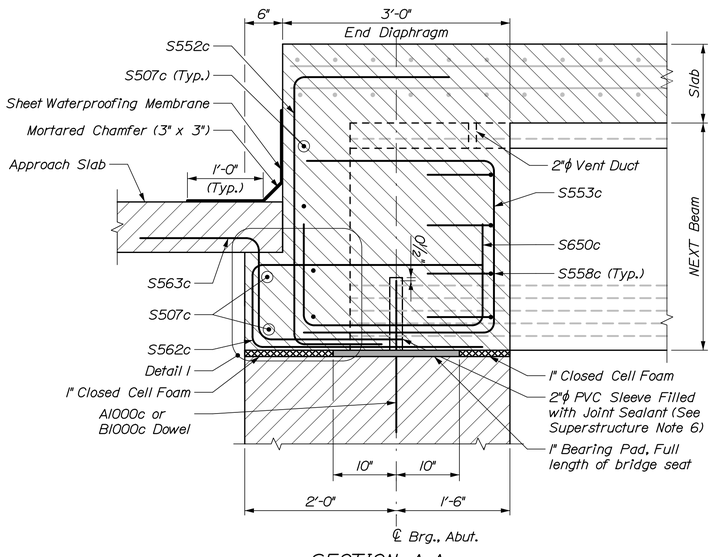



END DIAPHRAGM REINFORCEMENT PLAN



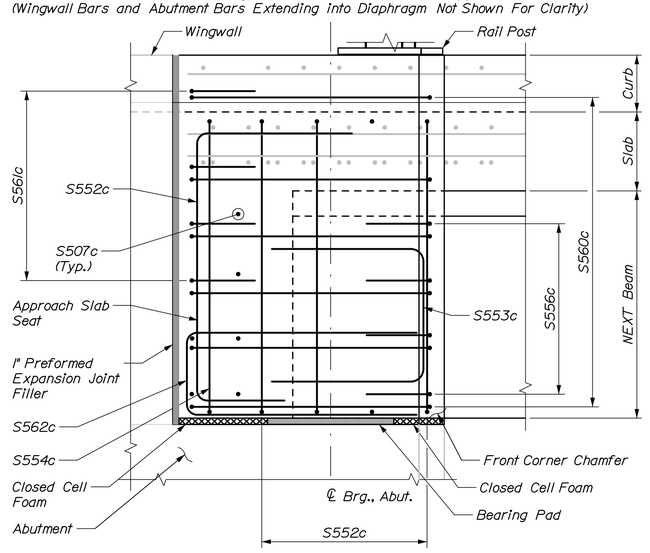

END DIAPHRAGM REINFORCEMENT ELEVATION

(Abutment No. 1 Shown Looking Downstation: Abutment No. 2 Opposite Hand)
(Wingwall Bars and Abutment Bars Extending into Diaphragm Not Shown For Clarity)



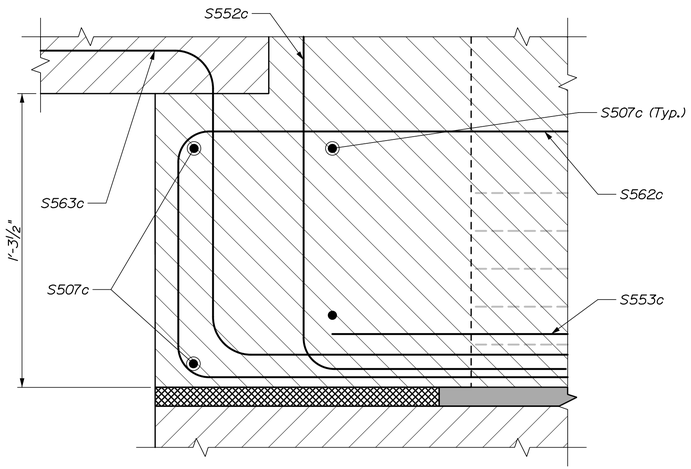

SECTION A-A

(Deck reinforcing shown screened for clarity)




END DIAPHRAGM END ELEVATION

(Looking perpendicular to ℄ Brg.)
(Deck reinforcing shown screened for clarity)




DETAIL I

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE NO. 2852

BRIDGE PLANS

| | | | |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | E. Beausoleil | 10\2022 |
| CHECKED-REVIEWED | B. Grenier | A. Stephens | 10\2022 |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

P.E. NUMBER

SIGNATURE

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

END DIAPHRAGM REINFORCING

SHEET NUMBER

75

OF 79

Filename: 075_End Diaphragm Reinforcing.dgn Division: Username: Date:10/28/2022

## STRAIGHT BARS

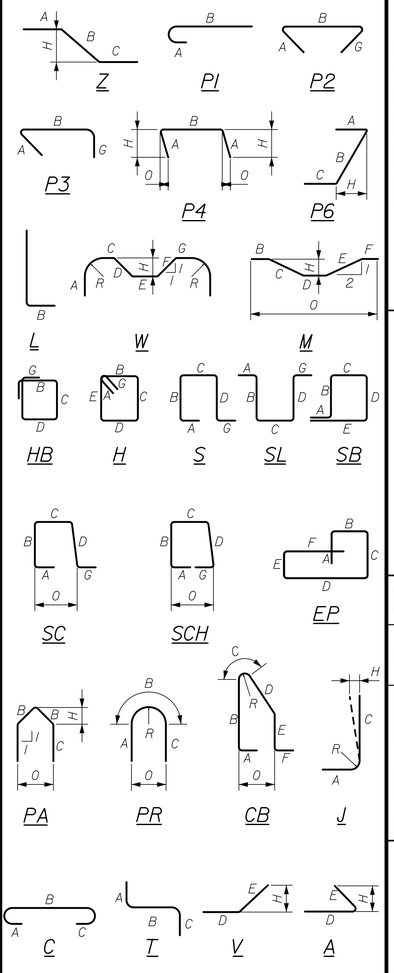
| MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|
| *Abutment No. 1 (Low-Carbon Chromium)* | | | |
| A520c | 13 | 9'-11" | Longitudinal Bars, Stage 2 Wingwall Upper Portion Flying Tip |
| A521c | 1 | 5'-7" | Upper End Stage 2 Wingwall Vertical Bar |
| | | | |
| A600c | 9 | 7'-8" | Wingwall Vertical Bar, Stage 1 |
| A601c | 12 | 6'-4" | Wingwall Vertical Bar, Stage 1 |
| | | | |
| A1000c | 24 | 2'-1" | Abutment Dowel |
| *Abutment No. 1 (Plain Rebar)* | | | |
| A520 | 6 | 7'-6" | Longitudinal Bars, Stage 2 Wingwall Lower Portion Flying Tip |
| | | | |
| A600 | 9 | 13'-3" | Abutment Horizontal Bars, Stage 1, F.F. |
| A601 | 9 | 31'-0" | Wingwall Horizontal Bars, Stage 1, N.F. |
| A602 | 2 | 21'-11" | Horizontal Bars @ Top C.J., Stage 1 |
| A603 | 40 | 3'-3" | Coupler Bars |
| A604 | 20 | 19'-6" | Abutment Horizontal Bars, Stage 2 |
| | | | |
| A800 | 2 | 30'-1" | Abutment Bot. Bars, Stage 1 |
| A801 | 2 | 21'-2" | Abutment Top Bars, Stage 1 |
| A802 | 2 | 13'-0" | Wingwall Top Bars, Stage 1 |
| A803 | 8 | 4'-11" | Coupler Bars |
| A804 | 4 | 18'-11" | Horizontal Bars at Top & Bot., Stage 2 |
| | | | |
| A1000 | 17 | 22'-8" | Wingwall Horizontal Bars, F.F., Stage 1 |
| *Abutment No. 2 (Low-Carbon Chromium)* | | | |
| B520c | 13 | 8'-1" | Longitudinal Bars, Stage 2 Wingwall Upper Portion Flying Tip |
| B521c | 1 | 5'-3" | Upper End Stage 2 Wingwall Vertical Bar |
| | | | |
| B600c | 9 | 7'-8" | Wingwall Vertical Bar, Stage 1 |
| B601c | 10 | 6'-1" | Wingwall Vertical Bar, Stage 1 |
| | | | |
| B1000c | 24 | 2'-1" | Abutment Dowel |
| *Abutment No. 2 (Plain Rebar)* | | | |
| B520 | 8 | 7'-1" | Longitudinal Bars, Stage 2 Wingwall Lower Portion Flying Tip |
| | | | |
| B600 | 9 | 13'-3" | Abutment Horizontal Bars, Stage 1, F.F. |
| B601 | 9 | 28'-4" | Wingwall Horizontal Bars, Stage 1, N.F. |
| B602 | 2 | 21'-11" | Horizontal Bars @ Top C.J., Stage 1 |
| B603 | 40 | 3'-3" | Coupler Bars |
| B604 | 20 | 19'-7" | Abutment Horizontal Bars, Stage 2 |
| | | | |
| B800 | 2 | 29'-4" | Abutment Bot. Bars, Stage 1 |
| B801 | 2 | 21'-2" | Abutment Top Bars, Stage 1 |
| B802 | 2 | 11'-6" | Wingwall Top Bars, Stage 1 |
| B803 | 8 | 4'-11" | Coupler Bars |
| B804 | 4 | 19'-0" | Horizontal Bars at Top & Bot., Stage 2 |
| | | | |
| B1000 | 17 | 21'-2" | Wingwall Horizontal Bars, F.F., Stage 1 |
| *Approach Slab (Plain Rebar)* | | | |
| AS500 | 32 | 9'-11" | Transverse Bars, Abutment 1, Stage 1 |
| AS501 | 32 | 9'-6" | Transverse Bars, Abutment 1, Stage 2 |
| AS502 | 32 | 17'-0" | Transverse Bars, Abutment 2 |
| | | | |
| AS600 | 67 | 14'-10" | Long. Bars, Abutment 1 |
| AS601 | 66 | 15'-2" | Long. Bars, Abutment 2 |

## BENT BARS

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Abutment No. 1 (Low-Carbon Chromium)* | | | | | | | | | | | | | | |
| A550c | 1 | 24'-8" | P6 | 10'-0" | 3'-5" | 11'-3" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| A551c | 1 | 22'-4" | P6 | 8'-10" | 3'-5" | 10'-1" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| A552c | 1 | 18'-4" | P6 | 6'-10" | 3'-5" | 8'-1" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| A553c | 1 | 14'-4" | P6 | 4'-10" | 3'-5" | 6'-1" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| A554c | 1 | 10'-4" | P6 | 2'-10" | 3'-5" | 4'-1" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| A555c | 1 | 6'-4" | P6 | 0'-10" | 3'-5" | 2'-1" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| A556c | 11 | 4'-1½" | P3 | 0'-5½" | 3'-2" | | | | | 0'-6" | | | | Wingwall Shear Ties, Stage 1 |
| A570c | 19 | 13'-0" | H | 0'-5½" | 1'-8" | 4'-5" | 1'-7" | 4'-5" | | 0'-5½" | | | | Closed Top Stirrup, Stage 2 Wingwall |
| A571c | 16 | 14'-9" | H | 0'-5½" | 1'-8" | 5'-3" | 1'-8" | 5'-3" | | 0'-5½" | | | | Closed Middle Stirrup, Stage 2 Wingwall |
| A572c | 1 | 13'-3" | H | 0'-5½" | 1'-9½" | 4'-5" | 1'-8½" | 4'-5" | | 0'-5½" | | | | Skewed Closed Top Stirrup, Stage 2 Wingwall |
| A573c | 1 | 15'-0" | H | 0'-5½" | 1'-9½" | 5'-3" | 1'-9½" | 5'-3" | | 0'-5½" | | | | Skewed Closed Middle Stirrup, Stage 2 Wingwall |
| A574c | 7 | 6'-8" | S | 0'-0" | 2'-7" | 1'-6" | 2'-7" | | | 0'-0" | | | | Horizontal End Stirrup, Stage 2 Wingwall, Upper Portion |
| A575c | 6 | 8'-3" | P4 | 3'-4" | 1'-7" | | | | | | 3'-11½" | 1'-11½" | | Horizontal Front Stirrup, Stage 2 Wingwall, Upper Portion |
| A576c | 3 | 8'-0" | V | | | | 0'-10" | 7'-2" | | | 6'-9" | | | Bottom Longitudinal Bar, Stage 2 Wingwall Flying Tip |
| *Abutment No. 1 (Plain Rebar)* | | | | | | | | | | | | | | |
| A550 | 102 | 4'-1½" | P3 | 0'-5½" | 3'-2" | | | | | 0'-6" | | | | Abutment Shear Ties |
| A570 | 20 | 15'-5" | H | 0'-5½" | 1'-8" | 5'-7" | 1'-8" | 5'-7" | | 0'-5½" | | | | Closed Stirrup, Stage 2 Wingwall, Lower Portion |
| A571 | 8 | 3'-3" | S | 0'-0" | 0'-10" | 1'-7" | 0'-10" | | | 0'-0" | | | | Horizontal End Stirrup, Stage 2 Wingwall, Lower Portion |
| A572 | 1 | 9'-6" | L | 8'-6" | 1'-0" | | | | | | | | | Wingwall Vertical Bar, Stage 2, Lower End |
| | | | | | | | | | | | | | | |
| A650 | 51 | 18'-8" | S | 0'-0" | 7'-9" | 3'-2" | 7'-9" | | | 0'-0" | | | | Abutment Bot. U-Bars |
| A651 | 20 | 9'-4" | S | 0'-0" | 3'-1" | 3'-2" | 3'-1" | | | 0'-0" | | | | Abutment Top U-Bars, Stage 1 |
| A652 | 20 | 10'-8" | S | 0'-0" | 3'-9" | 3'-2" | 3'-9" | | | 0'-0" | | | | Abutment Top U-Bars, Stage 2 |
| A653 | 9 | 5'-2" | S | 0'-0" | 1'-0" | 3'-2" | 1'-0" | | | 0'-0" | | | | Horizontal U-Bars @ Wingwall End, Stage 1 |
| A654 | 2 | 18'-11" | S | 0'-0" | 7'-9" | 3'-5" | 7'-9" | | | 0'-0" | | | | Bottom U-Bars @ C.J. |
| A655 | 2 | 9'-7" | S | 0'-0" | 3'-1" | 3'-5" | 3'-1" | | | 0'-0" | | | | Top U-Bars @ C.J. |
| A656 | 48 | 5'-8" | S | 0'-0" | 1'-3" | 3'-2" | 1'-3" | | | 0'-0" | | | | Supplemental Anchorage Stirrups |
| | | | | | | | | | | | | | | |
| A770 | 16 | 16'-0" | H | 0'-9" | 1'-8" | 5'-7" | 1'-8" | 5'-7" | | 0'-9" | | | | Closed Stirrup, Stage 2 Wingwall, Lower Portion @ Abutment |
| | | | | | | | | | | | | | | |
| A870 | 10 | 12'-4" | A | | | | 9'-2" | 3'-2" | | | 3'-0" | | | Longitudinal Bars, Stage 2 Wingwall, Lower Portion, N.F. |
| A871 | 12 | 11'-7" | A | | | | 8'-5" | 3'-2" | | | 3'-0" | | | Longitudinal Bars, Stage 2 Wingwall, Lower Portion, F.F. |
| A872 | 9 | 8'-4" | A | | | | 5'-2" | 3'-2" | | | 3'-0" | | | Longitudinal Bars, Stage 2 Wingwall, Lower Portion, F.F. |
| *Abutment No. 2 (Low-Carbon Chromium)* | | | | | | | | | | | | | | |
| B550c | 1 | 21'-9" | P6 | 9'-9" | 3'-5" | 8'-7" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| B551c | 1 | 19'-6" | P6 | 8'-8" | 3'-5" | 7'-5" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| B552c | 1 | 16'-3" | P6 | 7'-1" | 3'-5" | 5'-10" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| B553c | 1 | 13'-0" | P6 | 5'-5" | 3'-5" | 4'-2" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| B554c | 1 | 9'-8" | P6 | 3'-9" | 3'-5" | 2'-6" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| B555c | 1 | 6'-4" | P6 | 2'-1" | 3'-5" | 0'-10" | | | | | 1'-2" | | | Wingwall Horizontal Bars, Stage 1 |
| B556c | 10 | 4'-1½" | P3 | 0'-5½" | 3'-2" | | | | | 0'-6" | | | | Wingwall Shear Ties, Stage 1 |
| B570c | 17 | 12'-10" | H | 0'-5½" | 1'-8" | 4'-4" | 1'-7" | 4'-4" | | 0'-5½" | | | | Closed Top Stirrup, Stage 2 Wingwall |
| B571c | 14 | 15'-7" | H | 0'-5½" | 1'-8" | 5'-8" | 1'-8" | 5'-8" | | 0'-5½" | | | | Closed Middle Stirrup, Stage 2 Wingwall |
| B572c | 1 | 13'-1" | H | 0'-5½" | 1'-9½" | 4'-4" | 1'-8½" | 4'-4" | | 0'-5½" | | | | Skewed Closed Top Stirrup, Stage 2 Wingwall |
| B573c | 1 | 15'-10" | H | 0'-5½" | 1'-9½" | 5'-8" | 1'-9½" | 5'-8" | | 0'-5½" | | | | Skewed Closed Middle Stirrup, Stage 2 Wingwall |
| B574c | 7 | 6'-8" | S | 0'-0" | 2'-7" | 1'-6" | 2'-7" | | | 0'-0" | | | | Horizontal End Stirrup, Stage 2 Wingwall, Upper Portion |
| B575c | 6 | 8'-3" | P4 | 3'-4" | 1'-7" | | | | | | 3'-11½" | 1'-11½" | | Horizontal Front Stirrup, Stage 2 Wingwall, Upper Portion |
| B576c | 3 | 8'-0" | V | | | | 0'-10" | 7'-2" | | | 6'-5" | | | Bottom Longitudinal Bar, Stage 2 Wingwall Flying Tip |
| | | | | | | | | | | | | | | |
| B650c | 10 | 5'-2" | S | 0'-0" | 1'-0" | 3'-2" | 1'-0" | | | 0'-0" | | | | Wingwall Top U-Bars, Stage 1 |
| B651c | 1 | 9'-5" | V | | | | 0'-6" | 8'-11" | | | 4'-2½" | | | Wingwall Top Bar, Stage 1 |
| B652c | 1 | 9'-9" | V | | | | 0'-10" | 8'-11" | | | 4'-2½" | | | Wingwall Top Bar, Stage 1 |
| B653c | 1 | 10'-5" | V | | | | 1'-6" | 8'-11" | | | 4'-2½" | | | Wingwall Top Bar, Stage 1 |
| B654c | 1 | 10'-8" | V | | | | 1'-9" | 8'-11" | | | 4'-2½" | | | Wingwall Top Bar, Stage 1 |
| B655c | 1 | 12'-1" | S | 0'-0" | 4'-4" | 3'-5" | 4'-4" | | | 0'-0" | | | | Angled Top Wingwall U-Bar, Stage 1 |
| | | | | | | | | | | | | | | |
| *Abutment No. 2 (Plain Rebar)* | | | | | | | | | | | | | | |
| B550 | 100 | 4'-1½" | P3 | 0'-5½" | 3'-2" | | | | | 0'-6" | | | | Abutment Shear Ties |
| B570 | 16 | 15'-7" | H | 0'-5½" | 1'-8" | 5'-8" | 1'-8" | 5'-8" | | 0'-5½" | | | | Closed Stirrup, Stage 2 Wingwall, Lower Portion |
| B571 | 7 | 3'-3" | S | 0'-0" | 0'-10" | 1'-7" | 0'-10" | | | 0'-0" | | | | Horizontal End Stirrup, Stage 2 Wingwall, Lower Portion |
| B572 | 1 | 8'-10" | L | 7'-10" | 1'-0" | | | | | | | | | Wingwall Vertical Bar, Stage 2, Lower End |
| | | | | | | | | | | | | | | |
| B650 | 50 | 18'-8" | S | 0'-0" | 7'-9" | 3'-2" | 7'-9" | | | 0'-0" | | | | Abutment Bot. U-Bars |
| B651 | 20 | 9'-4" | S | 0'-0" | 3'-1" | 3'-2" | 3'-1" | | | 0'-0" | | | | Abutment Top U-Bars, Stage 1 |
| B652 | 20 | 10'-8" | S | 0'-0" | 3'-9" | 3'-2" | 3'-9" | | | 0'-0" | | | | Abutment Top U-Bars, Stage 2 |
| B653 | 9 | 5'-2" | S | 0'-0" | 1'-0" | 3'-2" | 1'-0" | | | 0'-0" | | | | Horizontal U-Bars @ Wingwall End, Stage 1 |
| B654 | 2 | 18'-11" | S | 0'-0" | 7'-9" | 3'-5" | 7'-9" | | | 0'-0" | | | | Bottom U-Bars @ C.J. |
| B655 | 2 | 9'-7" | S | 0'-0" | 3'-1" | 3'-5" | 3'-1" | | | 0'-0" | | | | Top U-Bars @ C.J. |
| B656 | 48 | 5'-8" | S | 0'-0" | 1'-3" | 3'-2" | 1'-3" | | | 0'-0" | | | | Supplemental Anchorage Stirrups |
| | | | | | | | | | | | | | | |
| B770 | 14 | 16'-0" | H | 0'-9" | 1'-8" | 5'-8" | 1'-8" | 5'-8" | | 0'-9" | | | | Closed Stirrup, Stage 2 Wingwall, Lower Portion @ Abutment |
| | | | | | | | | | | | | | | |
| B870 | 12 | 10'-4" | V | | | | 7'-2" | 3'-2" | | | 3'-0" | | | Longitudinal Bars, Stage 2 Wingwall, Lower Portion, N.F. |
| B871 | 10 | 11'-1" | V | | | | 7'-11" | 3'-2" | | | 3'-0" | | | Longitudinal Bars, Stage 2 Wingwall, Lower Portion, F.F. |
| B872 | 9 | 7'-9" | V | | | | 4'-7" | 3'-2" | | | 3'-0" | | | Longitudinal Bars, Stage 2 Wingwall, Lower Portion, F.F. |

MARK QTY. LENGTH 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/A615M, Grade 60
ASTM A1035, Grade 100

## GENERAL NOTES

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

1. Mark 'A502' = bar size #5
   Mark 'P805' = bar size #8
   Mark 'S650' = bar size #6
   Mark 'S600c' = bar size #6 Low-Carbon Chromium
2. Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans.
3. Bar marks ending with 'c' indicate low-carbon chromium steel. All other bars are plain (uncoated).

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2366700

WIN 023657.00

BRIDGE PLANS

BRIDGE NO. 2852

| | BY | DATE |
|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | |
| DESIGN-DETAILED | H. Walton | 10\1\2022 |
| CHECKED-REVIEWED | B. Gremer | 10\1\2022 |
| DESIGN2-DETAILED2 | A. Stephens | |
| DESIGN3-DETAILED3 | | |
| REVISIONS 1 | | |
| REVISIONS 2 | | |
| REVISIONS 3 | | |
| REVISIONS 4 | | |
| FIELD CHANGES | | |

SIGNATURE

P.E. NUMBER

DATE

TRACY BROOK BRIDGE
MEADOW BROOK
DURHAM ANDROSCOGGIN

# REINFORCING SCHEDULE I

SHEET NUMBER

76

OF 79

Filename: 076_Reinforcing Schedule1.dgn Division: Username: Date:10/28/2022

Date:10/28/2022

Username:

Division:

Filename: 077_Reinforcing Schedule2.dgn

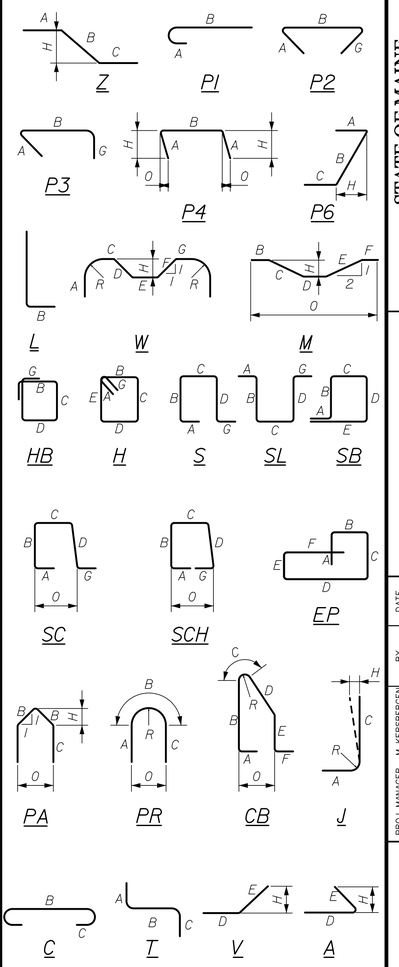
## STRAIGHT BARS

| MARK | QTY. | LENGTH | LOCATION |
|---|---|---|---|
| *Superstructure (Low Carbon Chromium)* | | | |
| S500c | 204 | 40'-2" | Deck Longitudinal Reinforcing |
| S501c | 6 | 40'-2" | Curb Longitudinal Reinforcing, Stage 1 |
| S502c | 6 | 40'-7" | Curb Longitudinal Reinforcing, Stage 2 |
| S503c | 314 | 19'-1" | Deck Transverse Reinforcing, Stage 1 |
| S504c | 314 | 19'-7" | Deck Transverse Reinforcing, Stage 2 |
| S505c | 628 | 2'-9" | Deck Coupled Bar |
| S506c | 12 | 19'-4" | End Diaphragm Horizontal F.F., Stage 1 |
| S507c | 12 | 19'-8" | End Diaphragm Horizontal F.F., Stage 2 |
| S508c | 24 | 2'-10" | End Diaphragm F.F. Coupled Bar |
| S509c | 16 | 1'-4" | End Diaphragm N.F. Coupled Bar |

## BENT BARS

| MARK | QTY. | LENGTH | TYPE | A | B | C | D | E | F | G | H | O | R | LOCATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *Superstructure (Low Carbon Chromium)* | | | | | | | | | | | | | | |
| S550c | 302 | 5'-10" | C | 0'-7" | 5'-3" | 0'-0" | | | | | | | | Deck Overhang Reinforcing |
| S551c | 211 | 5'-4" | SC | 0'-10" | 1'-2½" | 1'-3" | 1'-2½" | | | 0'-10" | | 1'-4" | | Curb Stirrups |
| S552c | 88 | 6'-11" | S | 0'-0" | 2'-7" | 3'-6" | 0'-10" | | | 0'-0" | | | | End Diaphragm F.F. Vertical |
| S553c | 80 | 8'-0" | S | 0'-0" | 2'-10" | 2'-4" | 2'-10" | | | 0'-0" | | | | End Diaphragm N.F. Vertical |
| S554c | 2 | 8'-10" | S | 0'-10" | 3'-6" | 1'-9" | 2'-9" | | | 0'-0" | | | | End Diaphragm, Stage 2, F.F. Vertical |
| S555c | 11 | 5'-9½" | SCH | 0'-10" | 1'-2½" | 1'-8½" | 1'-2½" | | | 0'-10" | | 1'-9½" | | Curb Stirrups, Wider Curb, Stage 2 |
| S556c | 8 | 3'-3" | P6 | 0'-10" | 1'-7" | 0'-10" | | | | | 0'-6½" | | | End Diaphragm N.F. Horizontal, Stage 2 Overhang |
| S557c | 8 | 2'-11" | P6 | 0'-10" | 1'-3" | 0'-10" | | | | | 0'-5" | | | End Diaphragm N.F. Horizontal, Stage 1 Overhang |
| S558c | 32 | 5'-3" | P6 | 0'-10" | 3'-7" | 0'-10" | | | | | 1'-2½" | | | End Diaphragm N.F. Horizontal, Between Beam Stems |
| S559c | 16 | 4'-5" | P6 | 0'-10" | 2'-9" | 0'-10" | | | | | 0'-11" | | | End Diaphragm N.F. Horizontal, Between Beams |
| S560c | 12 | 5'-0½" | P6 | 0'-10" | 3'-4½" | 0'-10" | | | | | 1'-2" | | | End Diaphragm Horizontal Phase 2 End |
| S561c | 8 | 3'-11" | P6 | 0'-10" | 1'-9" | 1'-4" | | | | | 0'-7½" | | | End Diaphragm Horizontal Phase 2 Corner F.F. |
| S562c | 80 | 5'-11" | S | 0'-0" | 2'-6" | 0'-11" | 2'-6" | | | 0'-0" | | | | Approach Slab Corbel |
| S563c | 68 | 5'-6" | S | 0'-0" | 0'-0" | 2'-0" | 1'-6" | | | 2'-0" | | | | Approach Slab Dowel |
| S564c | 8 | 2'-0" | A | | | | 1'-2" | 0'-10" | | | 0'-9½" | | | End Diaphragm N.F. Horizontal, Acute Corner @ C.J. |
| S565c | 8 | 2'-0" | V | | | | 1'-2" | 0'-10" | | | 0'-9½" | | | End Diaphragm N.F. Horizontal, Obtuse Corner @ C.J. |
| S566c | 14 | 6'-2" | C | 0'-7" | 5'-7" | 0'-0" | | | | | | | | Deck Overhang, Wider Curb, Stage 2 |
| | | | | | | | | | | | | | | |
| S650c | 96 | 5'-6" | S | 0'-0" | 1'-4" | 2'-10" | 1'-4" | | | 0'-0" | | | | End Diaphragm, Supplemental Dowel Stirrup |

## 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/A615M, Grade 60
ASTM A1035, Grade 100

## GENERAL NOTES

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

   Mark "A502" = bar size #5
   Mark "P805" = bar size #8
   Mark "S650" = bar size #6
   Mark "S600c" = bar size #6 Low-Carbon Chromium

2. Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans.

3. Bar marks ending with "c" indicate low-carbon chromium steel. All other bars are plain (uncoated).

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2365700

WIN 023657.00

BRIDGE PLANS

BRIDGE NO. 2852

| | SIGNATURE | P.E. NUMBER | DATE |
|---|---|---|---|
| PROJ. MANAGER | M. KERSBERGEN | | |
| DESIGN-DETAILED | H. Walton | | |
| CHECKED-REVIEWED | B. Grenier | | |
| DESIGN2-DETAILED2 | | | |
| DESIGN3-DETAILED3 | | | |
| REVISIONS 1 | | | |
| REVISIONS 2 | | | |
| REVISIONS 3 | | | |
| REVISIONS 4 | | | |
| FIELD CHANGES | | | |

| BY | DATE |
|---|---|
| E. Beausoleil | 10\2022 |
| A. Stephens | 10\2022 |

TRACY BROOK BRIDGE
MEADOW BROOK
ANDROSCOGGIN
DURHAM

# REINFORCING SCHEDULE II

SHEET NUMBER

77

OF 79

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

Filename: ...\00\ROW\MSTA\078_RWPLAN1.dgn Division: ROW Username: Jude.Hogan Date:11/3/2022

## PLAN LEGEND

| | | | | | |
|---|---|---|---|---|---|
| Town, County, State | New R/W Along Existing R/W | | Existing | Proposed | Existing | Proposed | Cut Line / Fill Line |
| Approx. Property Lines P.L. | Building / Clearing Limit Line | Sanitary Sewer | | Traveled Way | | Stonewall / Retaining Wall |
| Existing Right of Way | Trees Conifer / Deciduous | Telephone Line | | Ditch | | Baseline 10+00 11+00 12+00 |
| Limits of Wrought Portion L.O.W.P. | Tree Line / Bush Line | Electric Line | | Catch Basin | | Monument / Traverse Point |
| Control Of Access C.O.A. | Water Edge | Water Line | | Manhole | | Iron Rod Found IRF / Pipe Found IPF |
| New Right of Way | Ledge / Rock/Boulder / Flag Pole | Underdrain Line | | Sewer Manhole | | Replacement Pin Set |
| New Easement | Fence CHAIN LINK / BARB WIRE / STOCKADE | Gas Line | | Utility Pole | | |
| New Temporary Rights | Sign / Well / Mailbox | Guardrail | | Fire Hydrant | | |
| New R/W Within Existing R/W | | Culvert | | Curbing | | |

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.

25 0 25 50 75 100
Scale of Feet

STATE OF MAINE
REGISTRY OF DEEDS
COUNTY _____
RECEIVED _____, _____
at _____h _____m _____M and
recorded in Plan Bk _____, Pg. _____
Attest: _____
REGISTER

# PRELIMINARY PLAN

MARGARET M. AUCLAIR

JASON D. TURCOTTE
PARCEL NO. (3)
EASE. FOR HIGHWAY PURPOSES = 1058± S.F. (1)
SLOPE EASE. = 1505± S.F. (1)
CHANNEL DIVERSION EASE. = 0.26± AC. (1)
TEMP. CONST. RIGHTS = 0.72± AC. (1)
TOTAL AREA = 28.75± AC. (TOWN)
REM. AREA = 28.73± AC.

CURVE DATA
PI = 11+93.19
D = 16°51'06.1"
Δ = 36°05'53.1" Lt.
R = 340.00'
L = 214.21'
T = 110.79'
E = 17.60'

FLOWAGE EASEMENT GRANTED TO TOPSHAM HYDRO PARTNERS LIMITED PARTNERSHIP A.C.R.D. BOOK 2188, PAGE 280

DONNA J. LACY
PARCEL NO. (2)
EASE. FOR HIGHWAY PURPOSES = 550± S.F. (1)
SLOPE EASE. = 241± S.F. (1)
CHANNEL DIVERSION EASE. = 0.07± AC. (2)
TEMP. CONST. RIGHTS = 852± S.F. (1)
TOTAL AREA = 1.40± AC. (DEED)
REM. AREA = 1.39± AC.

FLOWAGE EASEMENT GRANTED TO MERIDIAN TRUST COMPANY A.C.R.D. BOOK 2210, PAGE 198

0.72± AC.

CURVE DATA
ROUTE 125
PI = 14+65.36
D = 4°05'33.2"
Δ = 13°44'45.0" Lt.
R = 1400.00'
L = 335.87'
T = 168.75'
E = 10.13'

DONNA J. LACY
P/O PARCEL NO. (2)

HAROLD C. MERRILL, JR.
ITEM NO. (1)
SLOPE EASE. = 1048± S.F. (1)
DRAINAGE EASEMENT = (1)
TEMP. CONST. RIGHTS = 0.06± AC. (1)
TOTAL AREA = 27.73 AC. (TOWN)

UTILITY EASEMENT TO CENTRAL MAINE POWER A.C.R.D. BOOK 502, PAGE 208

UTILITY EASEMENT TO CENTRAL MAINE POWER A.C.R.D. BOOK 495, PAGE 243 PLAN BOOK 7, PAGE 315

FLOWAGE RIGHTS RESERVED BY WILLIAM SMALL, JR. IN A.C.R.D. BOOK 85, PAGE 271

ACCESS AND RIGHTS TO TIMBER AND GRAVEL RESERVED IN A.C.R.D. BOOK 113, PAGE 530

DRAINAGE OUTLET STA. 12+32± RT.

APPROXIMATE BOUNDARY FERC PROJECT 4784 AT ELEVATION 74.35' (NAVD88) WHICH EQUATES TO ELEVATION 75.00' (NGVD29)

NOTE: PRESCRIPTIVE EASEMENT FOR HIGHWAY PURPOSES WITHIN LIMITS OF WROUGHT PORTION (L.O.W.P.)

EXISTING RIGHT OF WAY REFERENCES/NOTES:
1) ANDROSCOGGIN COUNTY COMMISSIONERS RECORDS VOLUME 6, PAGE 199 (1936), VARIABLE WIDTH
2) ANDROSCOGGIN COUNTY COMMISSIONERS RECORDS VOLUME 4, PAGE 417 (1903), VARIABLE WIDTH

CONTROL INFORMATION
HORIZONTAL DATUM: U.S. STATE PLANE NAD83 (2011)
VERTICAL DATUM: NAVD 88
ZONE: MAINE 2000 WEST
COMBINED SCALE FACTOR: 0.9999841

GRID NORTH

ANDROSCOGGIN RIVER Flow

TRACY BROOK BRIDGE
OVER
MEADOW BROOK
BRIDGE NO. 2852 WIN 023657.00

| TECH | CHECKED |
|---|---|
| N.T.A. | C.W.K. |
| J.H. | J.H. |
| J.H. | J.H. |

| ITEM |
|---|
| EXISTING CONDITION PLAN |
| FINAL RIGHT OF WAY |
| AREAS |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460
DURHAM
RIGHT OF WAY MAP

| REVISIONS | | | |
|---|---|---|---|
| NO. | DATE | DESCRIPTION | BY |

| PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD | | | | | |
|---|---|---|---|---|---|
| NO. | GRANTOR | INSTRUMENT | DATE | BOOK | PAGE |

BRUCE A. VAN NOTE
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE AID HIGHWAY NO. 1
ROUTE 125/PINKHAM BROOK ROAD
DURHAM ANDROSCOGGIN COUNTY
FEDERAL AID PROJECT NO. 2365700

| AUGUST 2022 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 1-353 |
|---|---|---|
| SCALE 1" = 25' | SHEET 1 OF 2 | |

SHEET NUMBER
78
OF 79

Filename: ...\00\ROW\MSTA\079_RWPLAN2.dgn Division: ROW

Username: Jude.Hogan Date:11/3/2022

## PLAN LEGEND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Town, County, State | New R/W Along Existing R/W | | Existing | Proposed | | Existing | Proposed |
| Approx. Property Lines P.L. | Building | Clearing Limit Line | Sanitary Sewer | | Traveled Way | | |
| Existing Right of Way | Trees Conifer | Deciduous | Telephone Line | | Ditch | | |
| Limits of Wrought Portion L.O.W.P. | Tree Line | Bush Line | Electric Line | | Catch Basin | | |
| Control Of Access C.O.A. | Water Edge | | Water Line | | Manhole | | |
| New Right of Way | Ledge | Rock/Boulder Flag Pole | Underdrain Line | | Sewer Manhole | | |
| New Easement | Fence CHAIN LINK | BARB WIRE STOCKADE | Gas Line | | Utility Pole | | |
| New Temporary Rights | Sign | Well Mailbox | Guardrail | | Fire Hydrant | | |
| New R/W Within Existing R/W | | | Culvert | | Curbing | | |

| | |
|---|---|
| Cut Line | Fill Line |
| Stonewall | Retaining Wall |
| Baseline 10+00 11+00 12+00 | |
| Monument | Traverse Point |
| Iron Rod Found IRF | Pipe Found IPF |
| Replacement Pin Set | |

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.

25 0 25 50 75 100
Scale of Feet

STATE OF MAINE
REGISTRY OF DEEDS

COUNTY _____
RECEIVED _____, _____
at _____h_____m_____M and
recorded in Plan Bk _____, Pg._____
Attest: _____
REGISTER

NOTE: PRESCRIPTIVE EASEMENT FOR HIGHWAY PURPOSES WITHIN LIMITS OF WROUGHT PORTION (L.O.W.P.)

GUYING AND UTILITY EASEMENTS GRANTED TO CMP OR CMP & NETT
A.C.R.D. BOOK 2107, PAGES 90 & 91
A.C.R.D. BOOK 2186, PAGE 102
A.C.R.D. BOOK 2273, PAGE 309

JASON D. TURCOTTE
PARCEL NO. (3)
EASE. FOR HIGHWAY PURPOSES = 1058± S.F. (1)
SLOPE EASE. = 1505± S.F. (1)
CHANNEL DIVERSION EASE. = 0.26± AC. (1)
TEMP. CONST. RIGHTS = 0.72± AC. (1)
TOTAL AREA = 28.75± AC. (TOWN)
REM. AREA = 28.73± AC.

CURVE DATA
ROUTE 125
PI = 14+65.36
D = 4°05'33.2"
Δ = 13°44'45.0" Lt.
R = 1400.00'
L = 335.87'
T = 168.75'
E = 10.13'

DRIVE CURVE DATA
PI = 1+85.50
D = 110°11'03.1"
Δ = 49°13'58.7" Rt.
R = 52.00'
L = 44.68'
T = 23.83'
E = 5.20'

CURVE DATA
PI = 20+01.84
D = 5°58'05.9"
Δ = 14°37'57.5" Lt.
R = 960.00'
L = 245.17'
T = 123.26'
E = 7.88'

DRIVE CURVE DATA
PI = 0+51.69
D = 286°28'44.0"
Δ = 45°23'42.2" Lt.
R = 20.00'
L = 15.85'
T = 8.37'
E = 1.68'

CHRISTIAN TELEMACO
DIVERNA FERNANDO

DONNA J. LACY
P/O PARCEL NO. (2)

THE HEARST CORPORATION

THE HEARST CORPORATION
SEE A.C.R.D. BOOK 1989, PAGE 159
AND A.C.R.D. BOOK 1824, PAGE 65
FOR EASEMENTS AND FLOW RIGHTS

STATE AID HIGHWAY NO. 1 / ROUTE 125 / PINKHAM BROOK ROAD

ANDROSCOGGIN RIVER

Flow

APPROXIMATE BOUNDARY FERC PROJECT 4784
AT ELEVATION 74.35' (NAVD88), WHICH
EQUATES TO ELEVATION 75.00' (NGVD29)

EXISTING RIGHT OF WAY REFERENCES/NOTES:

1) ANDROSCOGGIN COUNTY COMMISSIONERS RECORDS VOLUME 6, PAGE 199 (1936), VARIABLE WIDTH
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CONTROL INFORMATION
HORIZONTAL DATUM: U.S. STATE PLANE NAD83 (2011)
VERTICAL DATUM: NAVD 88
ZONE: MAINE 2000 WEST
COMBINED SCALE FACTOR: 0.9999841

PLAN OF LAND TITLE SURVEY
RECORD OWNER MILLER HYDRO GROUP
(NOW BROWN BEAR II HYDRO, INC.)
CANAL ST., NEWALL BROOK RD., PINKHAM BROOK RD.
BY WRIGHT-PIERCE
DATED APRIL 9, 2015
A.C.R.D. PLAN BOOK 50, PAGE 199

TRACY BROOK BRIDGE
OVER
MEADOW BROOK
BRIDGE NO. 2852 WIN 023657.00

PRELIMINARY PLAN

| ITEM | CHECKED |
|---|---|
| EXISTING CONDITION PLAN | C.W.K. |
| FINAL RIGHT OF WAY | N.T.A. |
| AREAS | J.H. |
| | J.H. |

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016 - 207-624-3460

DURHAM
RIGHT OF WAY MAP

| REVISIONS NO. | DATE | DESCRIPTION | BY |
|---|---|---|---|

| PLAN FILED IN PLAN BOOK PAGE | COUNTY RECORD NO. | GRANTOR | INSTRUMENT | DATE | BOOK | PAGE |
|---|---|---|---|---|---|---|

BRUCE A. VAN NOTE
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE AID HIGHWAY NO. 1
ROUTE 125/PINKHAM BROOK ROAD
DURHAM ANDROSCOGGIN COUNTY
FEDERAL AID PROJECT NO. 2365700

AUGUST 2022 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 1-353
SCALE 1" = 25' | SHEET 2 OF 2

SHEET NUMBER
79
OF 79