STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

Design: Load and Resistance Factor Design per AASHTO LRFD Bridge Design Specifications, Eighth Edition 2017.

DESIGN LOADING

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

TRAFFIC DATA

Current (2020) AADT	930
Future (2040) AADT	1020
DHV - % of AADT	11%
Design Hour Volume	112
Heavy Trucks (% of AADT)	5%
Heavy Trucks (% of DHV)	6%
Directional Distribution (% of DHV)	64%
18 kip Equivalent P 2.0	17
18 kip Equivalent P 2.5	16
Design Speed (mph)	35

HYDROLOGIC DATA

Drainage Area	332 sq mi
Design Discharge (Q50)	29,240 cfs
Check Discharge (Q100)	33,175 cfs
Headwater Elevation (Q1.1)	275.07 ft
Headwater Elevation (Q10)	283.09 ft
Headwater Elevation (Q25)	283.84 ft
Headwater Elevation (Q50)	285.05 ft
Headwater Elevation (Q100)	285.93 ft
Discharge Velocity (Q1.1)	3.31 fps
Discharge Velocity (Q10)	3.69 fps
Discharge Velocity (Q25)	3.92 fps
Discharge Velocity (Q50)	3.65 fps
Discharge Velocity (Q100)	3.64 fps

MATERIALS

Concrete:	
Curbs	Class "LP"
Seals	Class "S"
All Other	Class "A"
Reinforcing Steel:	
Plain Reinforcing Steel	ASTM A 615 / A 615M, Grade 60
Stainless Reinforcing Steel	ASTM A 955, Grade 75
Glass Fiber Reinforced Polymer (GFRP)	CSA S807-10, ACI 440.1R-15
Structural Steel:	
All Material (except as noted)	ASTM A 709, Grade 50W (Unpainted)
High Strength Bolts	ASTM F 3125, Grade A 325, Type 3

BASIC DESIGN STRESSES

Concrete:	
Class "LP"	f 'c = 5,000 psi
Class "S"	f 'c = 3,000 psi
Class "A"	f 'c = 4,000 psi
Reinforcing Bars:	
Plain Steel	f y = 60,000 psi
Stainless Steel	f y = 75,000 psi
Glass Fiber Reinforced Polymer:	
#5 Bar	f fu = 100,000 psi
#6 Bar	f fu = 100,000 psi
#7 Bar	f fu = 95,000 psi
Minimum Elastic Modulus	E f = 6,150,000 psi
Minimum Nominal Design Tensile Strain	εfu = 1.226%
Structural Steel:	
ASTM 709, Grade 50W	f y = 50,000 psi
ASTM F 3125, Grade A325, Type 3	fu = 120,000 psi

HNTB

MILO
PISCATAQUIS COUNTY
PLEASANT RIVER BRIDGE
OVER
PLEASANT RIVER
PLEASANT STREET
FEDERAL AID PROJECT NO. 2262701
PROJECT LENGTH 0.374 mi.
BRIDGE NO. 3244

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UTILITIES

Versant Power
Charter Communications
Consolidated Communications of Northern New England LLC

MAINTENANCE OF TRAFFIC

Maintain two way traffic on the existing bridge.

PROJECT LOCATION	Pleasant River Bridge #3244 in Milo carrying Pleasant Street over Pleasant River, located .08 miles east of Lakeview Road. Lat./Long. 45°16'0" N 68°58'14" W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Replacement of Pleasant River Bridge #3244 in Milo with associated approach work.

WIN 022627.01

2262701

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED — DATE 8-31-2020
COMMISSIONER: [signature]
CHIEF ENGINEER: [signature] — DATE 8-31-2020

STATE OF MAINE — PAUL T. GODFREY — No. 7718 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE [signature] — P.E. NUMBER 7718 — DATE 8-7-20

PROJECT INFORMATION

PROGRAM	Bridge
PROJECT MANAGER	Andy Lathe
DESIGNER	Lori Driscoll
CONSULTANT	HNTB
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

MILO
PLEASANT RIVER BRIDGE

TITLE SHEET

SHEET NUMBER 1 OF 91

Date:8/5/2020
Username:
Division:
Filename:001_Title.dgn

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.11	Clearing	1.5	AC
202.19	Removing Existing Bridge (Structural Steel = 930 T, Concrete = 600 CY)	1	LS
202.202	Removing Pavement Surface	330	SY
203.20	Common Excavation	2,700	CY
203.24	Common Borrow	3,200	CY
203.25	Granular Borrow	12,600	CY
203.4340	Elastic Inclusion	130	SY
206.082	Structural Earth Excavation - Major Structures	530	CY
304.10	Aggregate Subbase Course - Gravel	4,800	CY
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size	650	TON
403.209	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Sidewalks, Drives, Islands, & Incidentals)	4	TON
403.211	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (Shimming)	10	TON
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size (Base and Intermediate Base Course)	1,050	TON
409.15	Bituminous Tack Coat, Applied	250	GAL
461.131	Temporary Pavement	27	TON
501.237	Hydroacoustic Monitoring and Attenuation	1	LS
501.239	Dynamic Loading Test - Providing For	3	EA
501.54	Steel H-Beam Piles 117 lb/ft, Delivered	4,610	LF
501.541	Steel H-Beam Piles 117 lb/ft, In Place	4,610	LF
501.821	Temporary Casings for Piles	1	LS
501.90	Pile Tips	36	EA
501.91	Pile Splices	102	EA
501.92	Pile Driving Equipment Mobilization	1	LS
502.219	Structural Concrete Abutments and Retaining Walls (215 CY)	1	LS
502.239	Structural Concrete Piers (225 CY)	1	LS
502.24	Structural Concrete Piers Placed Under Water	300	CY
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (370 CY)	1	LS
502.291	Saw Cut Grooving (11781 SF)	1	LS
502.31	Structural Concrete Approach Slab (26 CY)	1	LS
502.49	Structural Concrete Curbs and Sidewalks (35 CY)	1	LS
502.77	Fiber Reinforced Polymer Bridge Drain - Type: E	2	EA
503.12	Reinforcing Steel, Fabricated and Delivered	83,000	LB
503.13	Reinforcing Steel, Placing	83,000	LB
503.26	Stainless Steel Reinforcement, Fabricated and Delivered	31,000	LB
503.27	Stainless Steel Reinforcement, Placing	31,000	LB
504.702	Structural Steel Fabricated and Delivered, Welded (791,000 LB)	1	LS
504.71	Structural Steel Erection (791,000 LB)	1	LS
505.08	Shear Connectors (6,015 EA)	1	LS
507.0821	Steel Bridge Rail, 3 Bar (749 LF)	1	LS
511.07	Cofferdam: Abutment 1	1	LS
511.07	Cofferdam: Pier 1	1	LS
511.07	Cofferdam: Abutment 2	1	LS
512.081	French Drains (80 LF)	1	LS
515.21	Protective Coating for Concrete Surfaces (1,600 SY)	1	LS
519.60	Expansion Device - Asphaltic Plug Joint	75	LF
523.52	Bearing Installation	5	EA
523.5401	Laminated Elastomeric Bearing, Fixed	5	EA
526.301	Temporary Concrete Barrier, Type 1 (40 LF)	1	LS
530.30	Glass Fiber Reinforced Polymer, Fabricated and Delivered	92,270	LF
530.31	Glass Fiber Reinforced Polymer, Placing	92,270	LF
603.16	15" Culvert Pipe Option 1	68	LF
603.219	36" Culvert Pipe Option III	76	LF
606.1301	31" W-Beam Guardrail - Mid-Way Splice (Steel Post, 8" Offset Blocks, Single Faced)	350	LF
606.1303	31" W-Beam Guardrail - Mid-Way Splice (Steel Post, 8" Offset Blocks, 15' Radius and Less)	13	LF
606.1304	31" W-Beam Guardrail - Mid-Way Splice (Steel Post, 8" Offset Blocks, Over 15' Radius)	50	LF
606.1305	31" W-Beam Guardrail - Mid-Way Splice Flared Terminal	6	EA
606.1721	Bridge Transition Type 1	4	EA
606.259	Anchorage Assembly	1	EA
606.353	Reflectorized Flexible Guardrail Marker	15	EA
606.78	Low Volume Guardrail End - Type 3	1	EA
610.08	Plain Riprap	23	CY
610.16	Heavy Riprap	2,800	CY
610.18	Stone Ditch Protection	36	CY
613.319	Erosion Control Blanket	1,250	SY
615.07	Loam	620	CY
618.14	Seeding Method Number 2	100	UNIT
619.12	Mulch	100	UNIT
619.14	Erosion Control Mix	1240	CY
620.58	Erosion Control Geotextile	2290	SY
620.66	Drainage Geocomposite	140	SY
627.733	4" White or Yellow Painted Pavement Marking Line	6,900	LF
629.05	Hand Labor, Straight Time	20	HR
631.12	All Purpose Excavator (Including Operator)	20	HR
631.172	Truck - Large (Including Operator)	20	HR
639.18	Field Office, Type A	1	EA
652.312	Type III Barricade	4	EA
652.33	Drum	46	EA
652.34	Cone	46	EA
652.35	Construction Signs	330	SF
652.361	Maintenance of Traffic Control Devices	1	LS
652.38	Flagger	500	HR
656.75	Temporary Soil Erosion and Water Pollution Control	1	LS
659.10	Mobilization	1	LS

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

			DATE
PROJ. MANAGER	A. Lothel	BY	
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 91

Username:

Date:8/25/2020

Division:

Filename: 002_Estimated Quantities.dgn

GENERAL CONSTRUCTION NOTES

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

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

3. Place a 24 in. wide strip of Temporary Erosion Control Blanket on the sideslopes along the top of riprap and behind the wingwalls.

4. Unless otherwise noted, all embankment material placed below EL. 285.00 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.

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

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

7. Loam shall be placed to a nominal depth of 2 in. on all new or reconstructed sideslopes or as directed by the resident.

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

9. Extended Use 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, where it is apparent that runoff will cause continual erosion. Payment will be made under the appropriate Contract Items.

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

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

11. 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.

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

13. 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.

14. 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 will be representative of actual conditions at the time of construction.

15. The project geotechnical report titled: Geotechnical Design Report, Pleasant River Bridge No. 3244, Pleasant Street over Pleasant River, MaineDOT WIN 22627.01 Milo, ME dated August, 2020 may be accessed at the MaineDOT web address.

16. 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.

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

18. 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. No work related to the removal of the bridge shall be undertaken by the Contractor until the 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.

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

21. Gravel entrances shall be constructed with 14 in. Aggregate Subbase Course Gravel.

22. A 3 ft. Paved lip shall be placed at all unpaved entrances unless otherwise noted on the plans or directed by the Resident.

23. 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.

24. ROW maps were created under WIN 022627.00.

25. Stones which cannot be rolled or compacted into any finished gravel surfaces shall be removed by hand raking. Payment for hand raking will be considered incidental to Pay Item 304.10, Aggregate Subbase Course - Gravel.

26. Place riprap on sideslopes up to elevation 285.00

27. Construct the riprap shelf at each abutment at elevation 283.50

28. Temporary pavement ramps shall be constructed to meet the following criteria:

    a. For roadways with speed limits equaling or exceeding 50 mph, temporary ramps shall be constructed at a length of eight feet per inch of transition depth.

    b. For roadways with speed limits less than 50 mph, temporary ramps shall be constructed at a length of four feet per inch of transition depth.

    c. Materials, placement, maintenance, and removal shall be incidental to contract items.

29. Stone lined ditches shall match the ditch geometry shown on the cross sections, shall be 18" thick and are paid for under Item 610.18 Stone Ditch Protection.

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244 — BRIDGE PLANS

PROJ. MANAGER	A. Lathel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

GENERAL NOTES

SHEET NUMBER

3

OF 91

Username:

Division:

Date:8/7/2020

Filename: 003_GeneralNotes.dgn

Filename: 004_BDPlan_01.dgn Division: Username: Date:8/7/2020

FIELD ENTRANCE
CURVE DATA #1
PI = 400+36.43
D = 28°38'52.4"
Δ = 6°58'42.3" Rt.
R = 200.00'
L = 24.36'
T = 12.19'
E = 0.37'

FIELD ENTRANCE
CURVE DATA #2
PI = 400+96.21
D =190°59'09.4"
Δ = 89°52'46.7" Rt.
R = 30.00'
L = 47.06'
T = 29.94'
E = 12.38'

FIELD ENTRANCE
CURVE DATA #3
PI = 402+47.80
D =190°59'09.4"
Δ = 59°35'05.3" Lt.
R = 30.00'
L = 31.20'
T = 17.18'
E = 4.57'

PLEASANT STREET
CURVE DATA #2
PI = 11+46.12
D = 1°23'50.8"
Δ = 4°03'54.5" Lt.
R = 4100.00'
L = 290.90'
T = 145.51'
E = 2.58'

PLEASANT STREET
CURVE DATA #1
PI = 9+38.04
D = 1°23'50.8"
Δ = 1°44'55.7" Rt.
R = 4100.00'
L = 125.14'
T = 62.58'
E = 0.48'

PLEASANT STREET
CURVE DATA #3
PI = 14+69.01
D = 5°58'05.9"
Δ = 20°57'05.8" Rt.
R = 960.00'
L = 351.05'
T = 177.51'
E = 16.27'

PC = STA. 400+24.24
PT = STA. 400+48.59
PC = STA. 400+66.27
PT = STA. 401+13.33
PC = STA. 402+30.62
PT = STA. 402+61.82
PRC = STA. 12+69.51
PC = STA. 8+75.47
PRC = STA. 10+00.61
S 60°58'29.02" E
S 53°59'46.70" E
S 35°52'59.95" W
N 37°08'22.51" E
To Route 6/11/16
Pleasant Street
77°41'21"
65°00'38"
60°19'29"
R=25'
R=5'
R=10'
HB-MPR-202
HB-MPR-201
400+00
401+00
402+00
15+00
14+00
13+00
12+00
11+00
10+00
9+00
8+00
31" W-Beam Guardrail - Mid-Way Splice Flared Terminal (Typ.)
31" W-Beam Guardrail - Mid-Way Splice (Typ.)
Remove Utility Pole (By Others)
Remove and Reset Mailbox
Sta. 9+20, 31' Lt. Proposed Stub Pole (By Others)
Anchorage Assembly
Remove Utility Pole (By Others)
Sta. 9+20, 24' Rt. Proposed Utility Pole (By Others)
Match Existing Gravel Shoulder
Remove Existing Guardrail (Typ.)
Sta. 11+20, 24' Rt. Proposed Utility Pole (By Others)
Remove Utility Pole (By Others)
Remove Utility Pole (By Others)
Sta. 12+86, 30' Rt, Proposed Utility Pole (By Others)
Remove Existing Pavement, 2" Loam and Seed (Typ.)
36' X 15" C.P. Opt. 1
Sta. 14+00.00 Pleasant Street ℄ = Sta. 402+81.89 Field Entrance ℄
Remove Utility Pole (By Others)
Remove Utility Pole (By Others)
Remove Sign
Sta. 14+50, 26' Rt. Proposed Utility Pole (By Others)
3:1
2:1
5.4:1
3.9:1

PLAN

25 0 25 50
Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
DESIGN-DETAILED	A. Lothe	08\20
CHECKED-REVIEWED	C. Helmick	P. Bishop 08\20
DESIGN2-DETAILED2	L. Driscoll	R. Hanf
DESIGN3-DETAILED3		
PROJ. MANAGER		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

GENERAL PLAN 1

SHEET NUMBER
4
OF 91

Date:8/7/2020

Username:

Division:

Filename: 005_BDPlan_02.dgn

PLEASANT RIVER ROAD
CURVE DATA #1
PI = 200+99.78
D = 4°46'28.7"
Δ = 7°38'30.1" Lt.
R = 1200.00'
L = 160.05'
T = 80.14'
E = 2.67'

PLEASANT RIVER RD.
CURVE DATA #2
PI = 203+89.79
D = 76°23'39.7"
Δ = 40°37'03.1" Rt.
R = 75.00'
L = 53.17'
T = 27.76'
E = 4.97'

PLEASANT STREET
CURVE DATA #3
PI = 14+69.01
D = 5°58'05.9"
Δ = 20°57'05.8" Rt.
R = 960.00'
L = 351.05'
T = 177.51'
E = 16.27'

PC = STA. 400+24.24
PT = STA. 400+48.59
PC = STA. 400+66.27
PT = STA. 401+13.33
PT = STA. 16+42.55
PC = STA. 203+62.04
PT = STA. 204+15.21

S 60°58'29.02" E
S 53°59'46.70" E
S 35°52'59.95" W
S 75°00'28.26" E
N 55°46'29.57" E
89°50'05"
76°26'28"

201+00 To Brownville
400+00
401+00
202+00 Pleasant River Road
203+00
204+00
15+00
16+00
17+00
18+00
19+00
20+00
21+00
22+00

172'-6"
172'-6"
25'0"0" (Typ.)
R=50'
R=25'
R=20'

Pleasant Street
Pleasant River Flow
Bridge Transition Type I (Typ.)
HB-MPR-202
HB-MPR-203

3/4" W-Beam Guardrail - Mid-Way Splice Flared Terminal (Typ.)
3/4" W-Beam Guardrail - Mid-Way Splice (Typ.)
Sta. 16+30, 24' Lt. Proposed Utility Pole (By Others)
℄ Brg. Abut. 1 Sta. 16+75.50
℄ Brg. Pier 1 Sta. 18+48.00
Sta. 201+43, 37' Rt. Proposed Utility Pole (By Others)
Remove Utility Poles (By Others)
Sta. 203+00, 24' Lt. Proposed Utility Pole (By Others)
Begin Pavement
Remove Utility Pole (By Others)
Low Volume End
Sta. 20+40, 27' Lt. Proposed Utility Pole (By Others)
℄ Brg. Abut. 2 Sta. 20+20.50
Reset Sign
Remove Sign
Sta. 14+50, 26' Rt. Proposed Utility Pole (By Others)
Remove Utility Pole (By Others)
3-Bar Steel Rail Transition (Typ.)
Remove Utility Pole (By Others)
Remove Existing Pavement, 2" Loam and Seed (Typ.)
Remove Existing Abutment to Elev. 275 (Typ.)
Remove Existing Guardrail (Typ.)
Remove Existing Bridge
Remove Existing Pier to 2'-0" below stream bed
Heavy Riprap (Typ.)
Remove Utility Pole (By Others)
Sta. 22+25, 46' Rt. Temporary Utility Pole (By Others)
Remove Utility Pole (By Others)
Sta. 21+23.49 Pleasant Street ℄ = Sta. 204+31.26 Pleasant River Road ℄

1.75:1 Max
4:1 Typ 3:1 Max
3:1 Typ.
2:1
3:1

PLAN

25 0 25 50
Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lothel	
DESIGN-DETAILED	C. Hėmick	P. Bishop 08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf 08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

GENERAL PLAN 2

SHEET NUMBER
5
OF 91

Date:8/7/2020

Username:

Division:

Filename: 006_BDPlan_03.dgn

Sta. 22+25, 46' Rt. Temporary Utility Pole (By Others)

Remove and Reset Sign

Remove Utility Pole (By Others)

Service Utility Pole (By Others)

Remove and Reset Sign

Remove Sign

Remove and Reset Mailbox

32' X 15" C.P. Opt I

Sta. 105+58, 39' Lt. Proposed Utility Pole (By Others)

Remove Utility Pole (By Others)

Sta. 103+60, 24' Lt. Proposed Utility Pole (By Others)

Remove Utility Pole (By Others)

Match Existing Gravel Shoulder (Typ.)

PT = STA. 103+28.89

PC = STA. 104+03.54

N 87°23'12.59" W

Medford Road

PT = STA. 204+15.21

Sta. 22+10, 29' Lt. Proposed Utility Pole (By Others)

PC = STA. 22+60.38

Pleasant Street

HB-MPR-204

HB-MPR-205

HB-MPR-206

Remove and Reset Sign

Sta. 106+44.91

Sta. 24+70, 27' Rt. Proposed Utility Pole (By Others)

Remove and Reset Sign

Remove Utility Pole (By Others)

Remove and Reset Sign

Remove Existing Pavement 2" Loam and Seed (Typ.)

76' X 36" C.P. Opt. III (Remove Exist. Culvert)

Sta. 23+50.47 Pleasant Street/Lakeview Road ℄ = Sta. 106+63.61 Medford Road ℄

N 48°58'19.62" W

Riprap Downspout

Lakeview Road

PT = STA. 26+59.90

Sta. 26+45, 24' Rt. Proposed Utility Pole (By Others)

Reset From Sta. 24+50± Rt.

N 9°37'38.60" W

PC = STA. 27+17.71

Sta. 28+30, 30' Lt. Proposed Utility Pole (By Others)

Remove Utility Pole (By Others)

Sta. 28+30, 23' Rt. Proposed Utility Pole (By Others)

Remove Utility Pole (By Others)

Match Existing Gravel Shoulder (Typ.)

PT = STA. 28+89.20

To Schoodic Lake

MEDFORD ROAD
CURVE DATA #1
PI = 102+57.46
D = 0°34'22.6"
Δ = 0°49'06.8" Rt.
R = 10000.00'
L = 142.87'
T = 71.43'
E = 0.26'

MEDFORD ROAD
CURVE DATA #2
PI = 105+28.96
D = 15°54'55.8"
Δ = 38°24'53.0" Rt.
R = 360.00'
L = 241.37'
T = 125.42'
E = 21.22'

PLEASANT STREET/
LAKEVIEW ROAD
CURVE DATA #4
PI = 24+85.09
D = 16°22'12.8"
Δ = 65°24'08.2" Lt.
R = 350.00'
L = 399.52'
T = 224.71'
E = 65.92'

LAKEVIEW ROAD
CURVE DATA #5
PI = 28+03.86
D = 7°54'10.3"
Δ = 13°33'11.2" Rt.
R = 725.00'
L = 171.50'
T = 86.15'
E = 5.10'

PLAN

25 0 25 50

Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel	BY	DATE
DESIGN-DETAILED	C. Hémick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

GENERAL PLAN 3

SHEET NUMBER

6

OF 91

Username:
Division:
Filename: 007_Profile_01.dgn
Date:8/7/2020

100'-0" Variable Depth Mill, Shim & 1½" Overlay and Shoulder Reconstruction

50'-0" Transition

1725'-0" Project

Sta. 9+00.00
Begin Variable Depth Mill, Shim & 1½" Overlay, Begin Shoulder Reconstruction

Sta. 10+00.00
End Variable Depth Mill, Shim & 1½" Overlay
Begin Transition

Sta. 10+50.00
End Transition
Begin Project
WIN 022627.00

V.C.L. = 350'
HLSD = 257'
E = 3.009'

PVC = STA. 9+40.00
ELEV. = 285.32

PVT = STA. 12+90.00
ELEV. = 282.88

Sta. 14+00.00 Pleasant Street ℄
= Sta. 402+81.89 Field Entrance ℄

G = -4.14%

G = 2.74%

Existing Ground

Proposed Grade

4" HMA

Proposed Subgrade

Common Borrow (Typ.)

Granular Borrow (Typ.)

LOW POINT = STA. 11+50.50
ELEV. = 280.96

PVI = STA. 11+15.00
ELEV. = 278.08

8+00	9+00	10+00	11+00	12+00	13+00	14+00	15+00
Match Existing	EL. 285.94	EL. 284.91	EL. 283.99	EL. 283.19	EL. 282.51	EL. 281.96	EL. 281.52
EL. 281.21	EL. 281.03	EL. 280.96	EL. 281.02	EL. 281.20	EL. 281.51	EL. 281.94	EL. 282.49
EL. 283.15	EL. 283.84	EL. 284.52	EL. 285.21	EL. 285.89	EL. 286.58	EL. 287.26	EL. 287.95
EL. 288.63							

315 310 305 300 295 290 285 280 275 270 265 260 255

PLEASANT STREET
PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2	ED2		
DESIGN3-DETAILED3	ED3		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

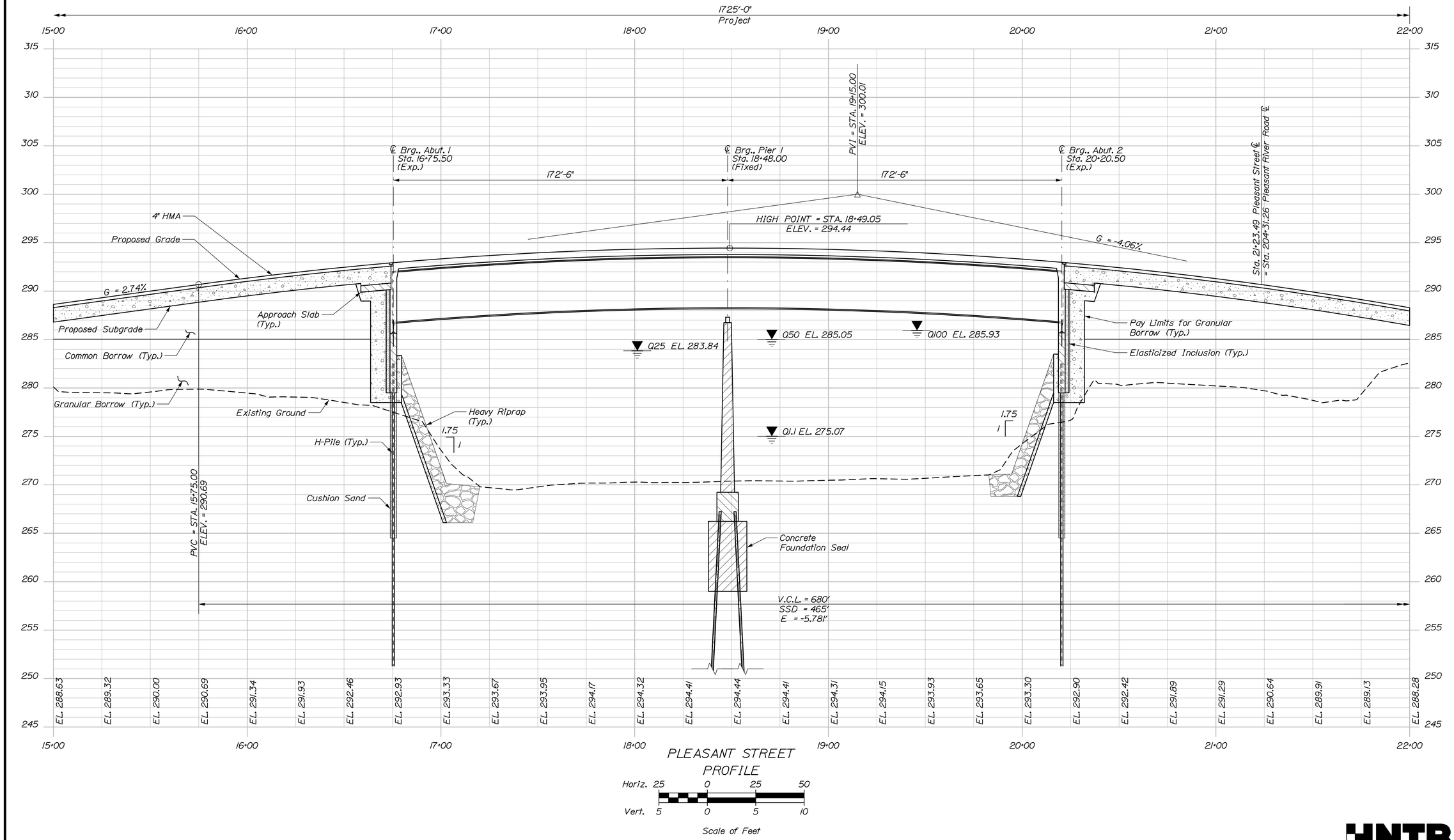
P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

PROFILE 1

SHEET NUMBER
7
OF 91



PLEASANT STREET
PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

HNTB

Username:

Division:

Date:8/7/2020

Filename: 008_Profile_02.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN
022627.01

BRIDGE NO. 3244

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	A. Lothel		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

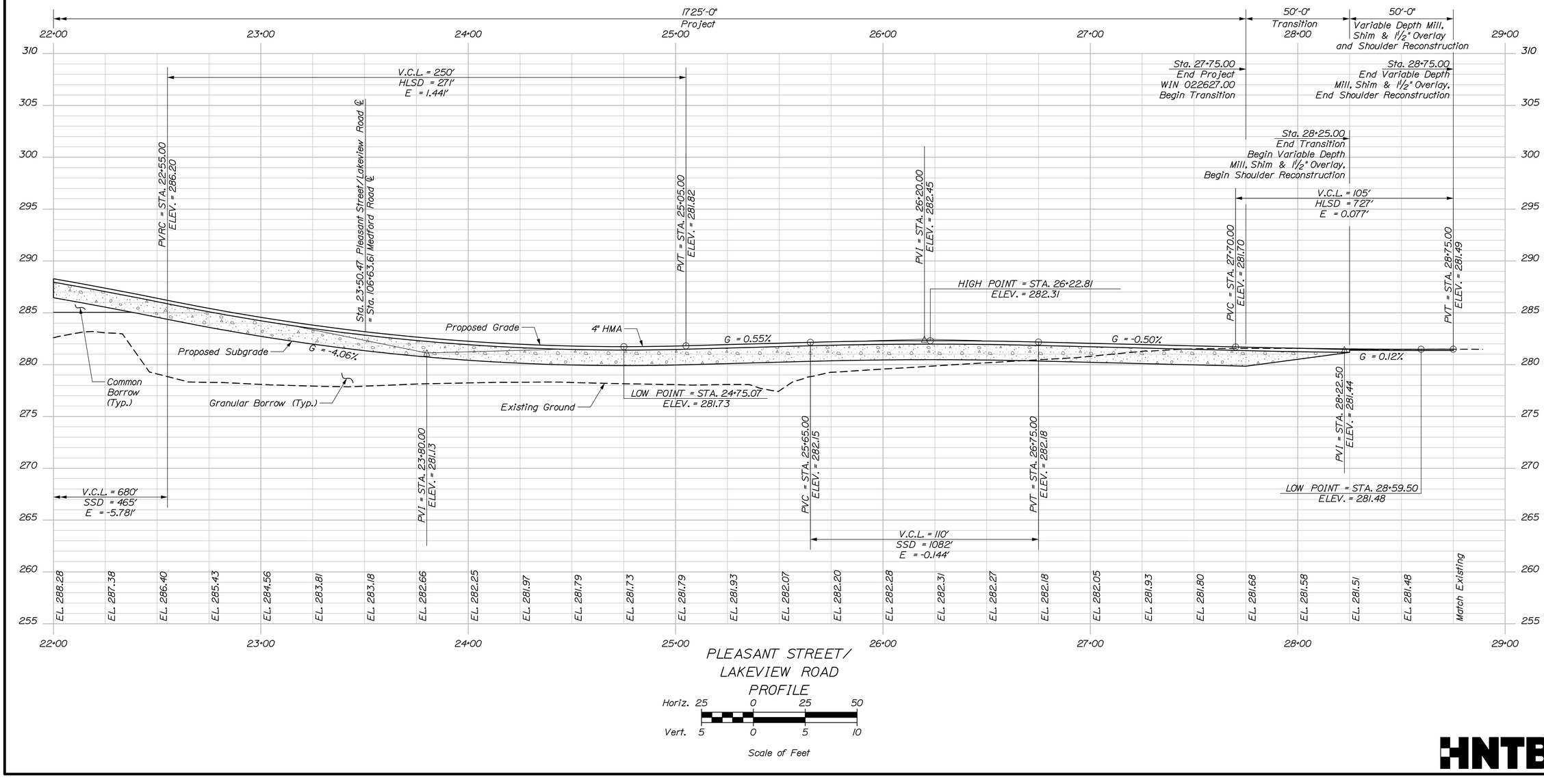
PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

PROFILE 2

SHEET NUMBER

8

OF 91



PLEASANT STREET/
LAKEVIEW ROAD
PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10

Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN
022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathel	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

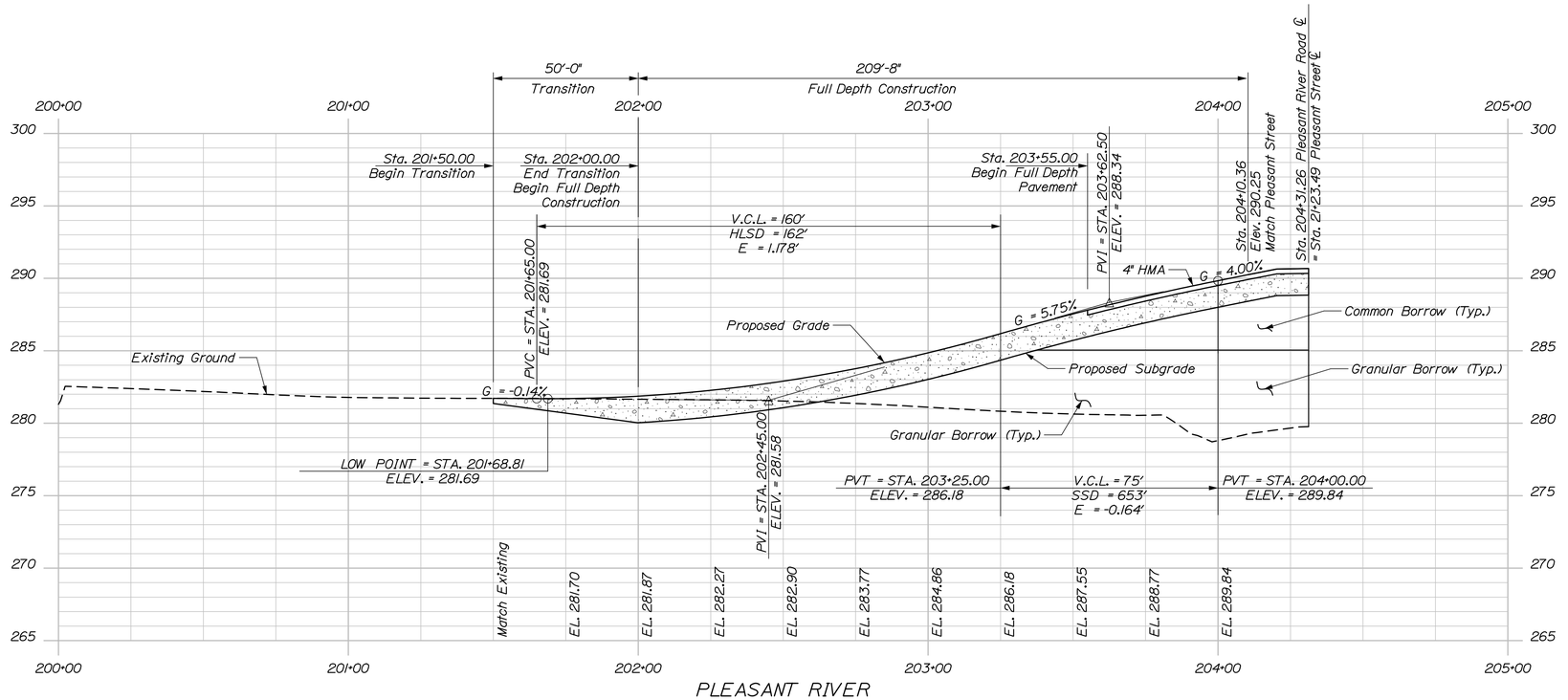
PROFILE 3

SHEET NUMBER

9

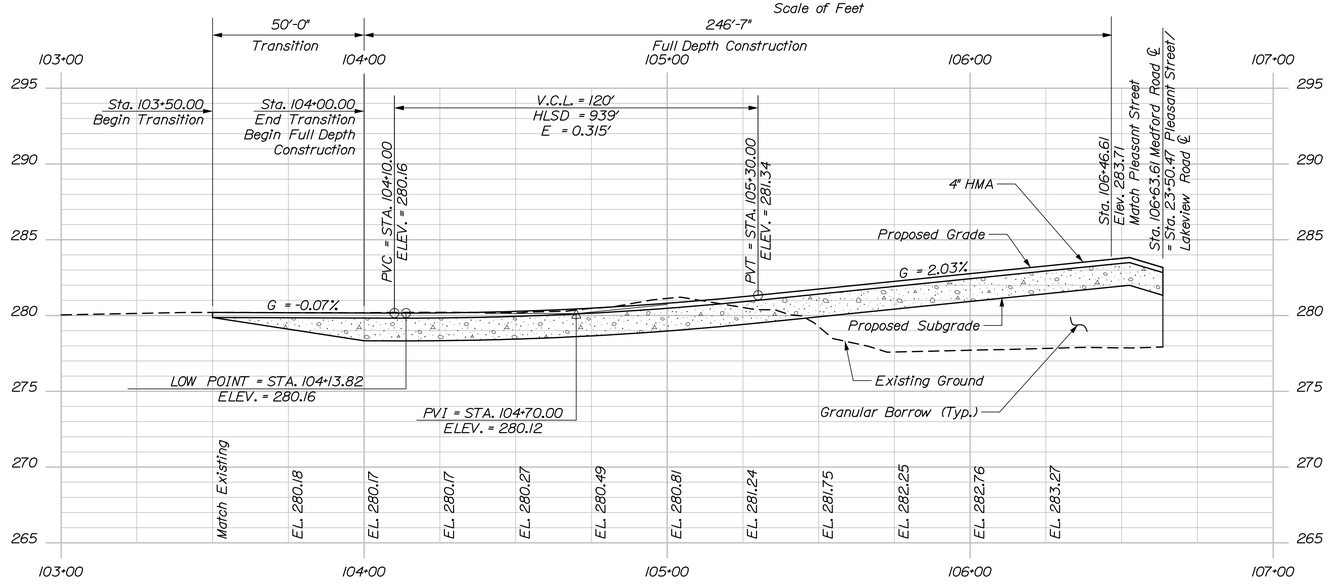
OF 91

Filename: 009_Profile_03.dgn Division: Username: Date:8/7/2020



PLEASANT RIVER
ROAD PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet



MEDFORD ROAD
PROFILE

Horiz. 25 0 25 50
Vert. 5 0 5 10
Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

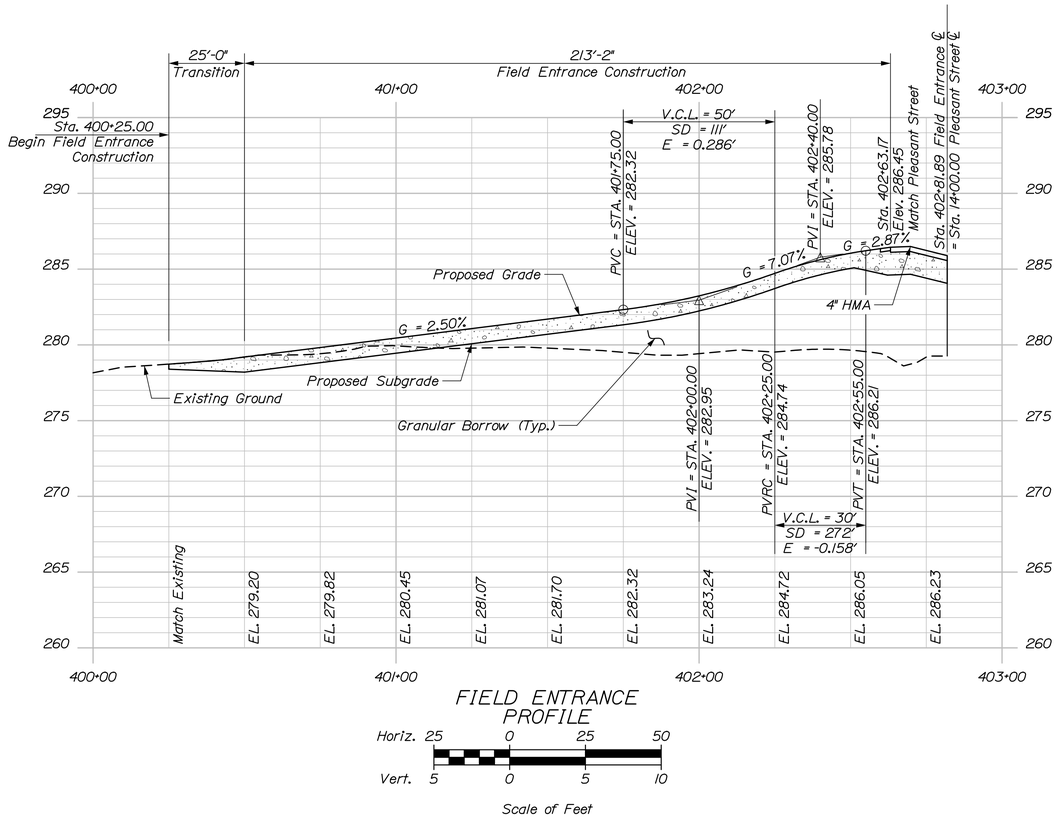
DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

PROFILE 4

SHEET NUMBER
10
OF 91

Username:
Division:
Date:8/7/2020
Filename: 010_Profile_04.dgn



FIELD ENTRANCE PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244 BRIDGE PLANS

			DATE
PROJ. MANAGER	A. Lothel	BY	
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

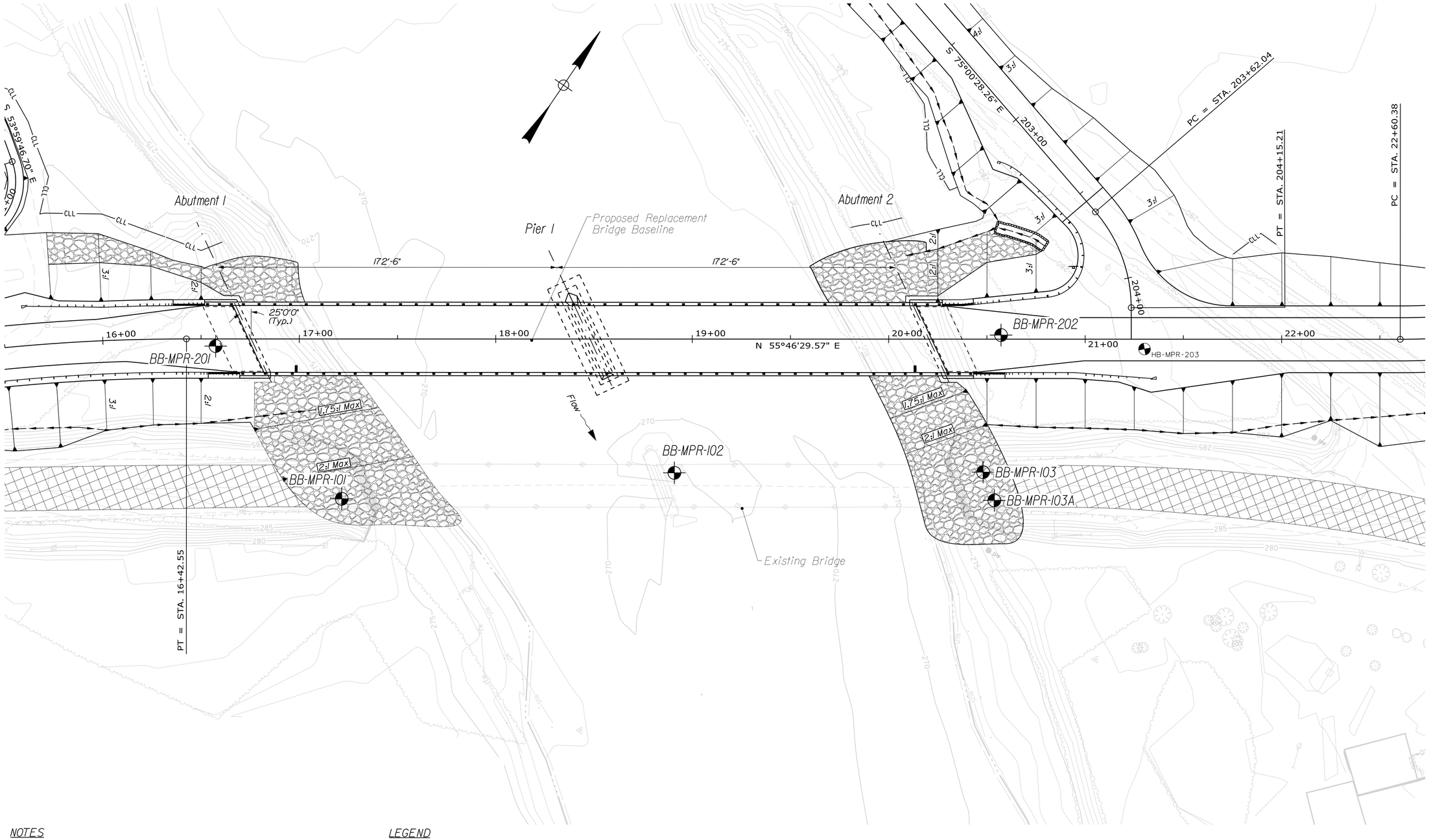
PROFILE 5

SHEET NUMBER

11

OF 91

Filename: 011_Profile_05.dgn Division: Username: Date:8/7/2020



PLAN

25 0 25 50

Scale In Feet

NOTES

1) Base map developed from electronic files (Files included Alignments.dgn, 3DContours.dgn, 3DTopo_20May19.dgn, and Wetlands.dgn) provided by HNTB on January 31, 2020 and electronic files (Files included Bridge.dgn and Highway.dgn) provided by HNTB on August 5, 2020.

2) The as-drilled boring locations were surveyed by a MaineDOT survey crew and provided to GZA in an electronic file (Borings.dgn).

LEGEND

BB-MPR-103 — Location and designation of 100-Series Bridge borings performed by New England Boring Contractors between April 30, 2018 and May 21, 2018.

BB-MPR-202 — Location and designation of 200-Series Bridge borings performed by New England Boring Contractors between October 8, 2019 and October 24, 2019.

HB-MPR-206 — Location and designation of 200-Series Highway borings performed by New England Boring Contractors between March 3, 2020 and March 4, 2020.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 22627.01

BRIDGE NO. 3244 BRIDGE PLANS

	BY	DATE
PROJ. MANAGER		
DESIGN-DETAILED	MRJ	02/2020
CHECKED-REVIEWED	ARB	02/2020
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE NO. 3244
PLEASANT STREET OVER PLEASANT RIVER
MILO, ME PISCATAQUIS COUNTY

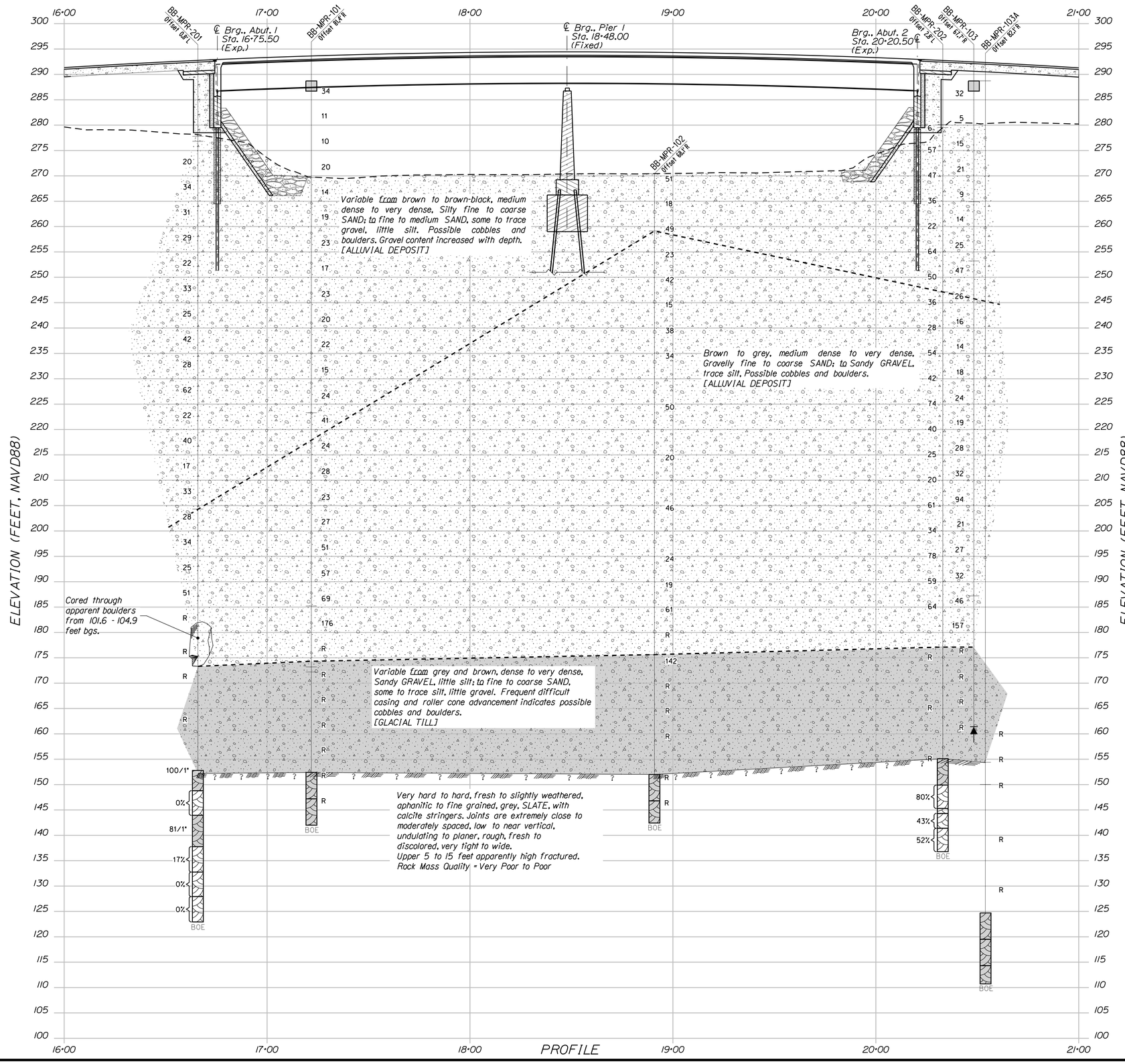
BORING LOCATION PLAN

PREPARED BY: GZA

SHEET NUMBER 12 OF 91

Division: Bridge
Filename: ...\BLP\BLP.dgn

Date:8/7/2020
Username: BMC



Division: Bridge
Filename: ...\VSP\Milo_ISP.dgn

Date:8/5/2020
Username: BMC

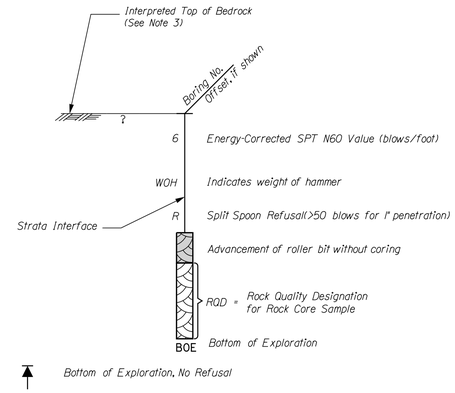
NOTES

1) Base map developed from electronic files provided by HNTB on August 5, 2020 (File included Profile.dgn)

2) The as-drilled boring locations were surveyed by a MaineDOT survey crew and provided to GZA in an electronic file (Borings.dgn).

3) 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 rock transitions may vary and are probably more erratic. For more specific information refer to the exploration logs.

LEGEND



PROFILE

Horiz. 25 0 25 50
Vert. 10 0 10 20

Scale in Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 22627.01

BRIDGE NO. 3244

	BY	DATE
DESIGN-DETAILED	MRJ	
CHECKED-REVIEWED	ARB	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1	BMC	02/2020
REVISIONS 2	CLS	02/2020
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		
PROJ. MANAGER		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE NO. 3244
PLEASANT STREET OVER PLEASANT RIVER
MILO, ME
PISCATAQUIS COUNTY

INTERPRETIVE SUBSURFACE PROFILE

PREPARED BY:

GZA

SHEET NUMBER

13

OF 91

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244 Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-201

WIN: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.):	277.8	Auger ID/OD:	SSA 4.25" OD
Operator:	Mike Porter	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	B. Woodman	Rig Type:	ATV Mobile B53	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	10/8/19-10/17/19	Drilling Method:	Drive & Wash	Core Barrel:	NX
Boring Location:	N6443144.3, E1679995.3	Casing ID/OD:	5/5.5", 4/4.5", 3/3.5"	Water Level: *1	6.7'

Hammer Efficiency Factor: 0.931 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (in. drv.) Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	1D	24/17	0.0 - 2.0	WOH-WOH-1-3	1	2	55A	276.8		Brown, moist, very loose, fine to medium SAND, some silt and roots, (Topsoil). ---1.0	
5	2D	24/12	5.0 - 7.0	2-6-7-17	13	20	133			Brown, moist, medium dense, fine to medium SAND, some fine to coarse gravel, little silt, (Alluvial Deposit). Significant difficulty advancing casing, apparent coarse gravel and cobbles, roller cone to 10.0' bgs.	O-20-S-056 WC=7.5 A-1-b, SP-SM
							42/4"				
							RC				
10	3D	24/0	10.0 - 12.0	16-11-11-36	22	34	63			No recovery, drove 3" OD spoon to retrieve sample. Grey/brown, wet, dense, gravelly fine to coarse SAND, (Alluvial Deposit).	
							136				
							94				
							81				
15	4D	24/16	15.0 - 17.0	12-11-9-12	20	31	56			Brown, wet, dense, fine SAND, little silt, (Alluvial Deposit).	
							69				
							76				
							72				
							70				
20	5D	24/16	20.0 - 22.0	8-9-10-11	19	29	72			Brown, wet, medium dense, fine SAND, some silt, (Alluvial Deposit).	O-*-20-S-057 WC=20.3 a-2-4(0) SM
							67				
							77				
							85				
							71				
25	6D	24/7	25.0 - 27.0	7-7-7-11	14	22	59			Grey and brown, wet, medium dense, fine to medium SAND, little silt, trace gravel, (Alluvial Deposit).	
							63				
							82				
							93				
							105				
30	7D	24/16	30.0 - 32.0	12-11-10-17	21	33	80			Grey and brown, wet, dense, fine to medium SAND, little silt, (Alluvial Deposit).	
							73				
							100				
							97				
							98				
35	8D	24/11	35.0 - 37.0	7-8-8-10	16	25				Grey and brown, wet, medium dense, fine to coarse SAND, little silt, (Alluvial Deposit).	
							65				
							80				
							106				
							119				
40	9D	24/11	40.0 - 42.0	17-15-12-11	27	42	91			Grey and brown, wet, dense, Gravelly fine to coarse SAND, trace silt, (Alluvial Deposit).	O-20-S-058 A-1-a SW-SM
							82				
							97				
							110				
							100				
45	10D	24/9	45.0 - 47.0	7-9-9-13	18	28	80			Grey and brown, wet, medium dense, fine to coarse SAND, little gravel, trace silt, (Alluvial Deposit).	
							108				
							121				
							142				
							187				
50	11D	24/6	50.0 - 52.0	12-23-17-18	40	62	97			Grey and brown, wet, very dense, fine to coarse SAND, trace silt, (Alluvial Deposit).	
							124				
							140				
							149				
							161				
55	12D	24/11	55.0 - 57.0	5-7-7-12	14	22	94			Top 7": Grey and brown, wet, medium dense, fine to coarse SAND, little silt, (Alluvial Deposit). Bottom 4": Brown, wet, Silty fine SAND, (Alluvial Deposit).	
							133				
							152				
							181				
							190				
60	13D	24/0	60.0 - 62.0	15-12-14-16	26	40	152			No recovery with 3" spoon. Wash material similar to bottom 4" of 12D.	
							157				
							170				
							160				
							167				
65	14D	24/13	65.0 - 67.0	3-5-6-9	11	17	145			Brown, wet, medium dense, fine to medium Silty SAND, trace gravel, (Alluvial Deposit).	O-20-S-059 A-4(0) SM
							149				
							196				
							176				
							185				
70	15D	24/0	70.5 - 72.5	14-9-12-9	21	33	93/5"			No recovery, Drive 3" spoon: coarse gravel in spoon, 0" recovery.	
							35				
							45				
							55	204.3		---73.5	
75							79				

Remarks:
1. Automatic hammer NEBC *0.20 Energy Transfer Ratio = 0.931.
2. Water level measured after 14 hours, with borehole and casing at 95 feet deep within casing.
3. 5" casing installed to 70.5'. Sample 150 from 70.5'-72.5' and advance 4" casing.
4. Soil came up into casing 1.0' after washout for samples 160-200, re-wash, and attempt sample agan.

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.

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244 Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-201

WIN: 22627.00

Driller: New England Boring Contractors | Elevation (ft.): 277.8 | Auger ID/OD: SSA 4.25" OD
Operator: Mike Porter | Datum: NAVD 88 | Sampler: Standard Splitspoon
Logged By: B. Woodman | Rig Type: ATV Mobile B53 | Hammer Wt./Fall: 140#/30"
Date Start/Finish: 10/8/19-10/17/19 | Drilling Method: Drive & Wash | Core Barrel: NX
Boring Location: N6443144.3, E1679995.3 | Casing ID/OD: 5/5.5", 4/4.5", 3/3.5" | Water Level: *1 6.7'

Hammer Efficiency Factor: 0.931 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (in. drv.) Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
75	16D	24/24	75.0 - 77.0	15-10-8-10	18	28	16			Brown, wet, medium dense, fine to coarse SAND, little gravel, trace silt, (Alluvial Deposit). See Remark 4.	
							37				
							93				
							82				
80	17D	24/10	80.5 - 82.5	8-13-9-7	22	34	57			Grey and brown, wet, dense, fine to coarse SAND, little gravel, trace silt, (Alluvial Deposit). See Remark 4.	
							17				
							47				
							58				
85	18D	24/8	85.0 - 87.0	4-8-8-11	16	25	59				
							66				
							69				
							103				
							83				
90	19D	24/10	90.0 - 92.0	18-16-17-22	33	51	114			Brown, wet, very dense, GRAVEL, some fine to coarse sand, trace silt, (Alluvial Deposit). See Remark 4.	O-20-S-060 A-1-a GW-GM
							RC				
							83				
							108				
							131				
							146				
95	20D	12/4	95.0 - 96.0	53-83	83/6"	129	RC			Grey, wet, very dense, fine to coarse SAND, some gravel, trace silt, (Alluvial Deposit). See Remark 4.	
							149				
							206				
							160				
100							R/C			Casing refusal at 99.0'. Roller cone ahead to 100.0'. Splitspoon refusal, advance 3" casing and set up to core.	
	R1	35/24	101.6 - 104.5	RQD = 0%			NA			#1: Multiple Boulders. - ALLUVIAL DEPOSIT. Rock Core Times (min/sec): 101.6-102.6' (3:45), 102.6-103.6' (4:47), 103.6-104.9' (3:46)	
105							NA	173.3		---104.5	
	21D	11/8	106.5 - 107.4	86-97/5"	97/5"	151				Brown, wet, very dense, fine to coarse SAND, little silt, trace gravel, (Glacial Till).	
110											
115	22D	11/11	115.0 - 115.9	64-184/4"	184/4"	286				Brown, wet, very dense, Clayey fine to coarse SAND, little fine gravel, (Glacial Till).	O-20-S-061 A-4(0) SC
120											
125	23D	7/4	125.0 - 125.6	126-100/1"	100/1"	155		152.2		Top 2": Brown, wet, very dense, fine to coarse SAND, some silt, trace gravel, (Glacial Till). ---125.6	
										Bottom 2": Rock fragments, probable top of rock. Roller cone to 129'. Rock chips in wash return. Set up to core.	
130	R2	58/20	129.0 - 133.8	RQD = 0%			NA			Joints are extremely close, recovery consists of gravel-like material. R2: Highly fractured rock. Rock Mass Quality = Very Poor Recovery = 34% Rock Core Times (min:sec): 129.0-130.0' (3:40), 130.0-131.0' (3:13), 131.0-132.0' (2:52), 132.0-133.0' (2:50), 133.0-133.8' (4:10)	
							RC				
135							R/C				
	24D	1/1	136.4 - 136.5	81/1"	81/1"	126	NA			Angular gravel fragments, apparent fractured bedrock.	
140	R3	60/58	140.0 - 145.0	RQD = 17%						R3: Hard, fresh to slightly weathered, aphanitic, SLATE. Joints are extremely close to closely spaced, ice angle to near vertical, undulating, rough, fresh to decomposed, open to wide. Rock Mass Quality = Very Poor Recovery = 47% Rock Core Times (min:sec): 140.0-141.0' (3:56), 141.0-142.0' (5:59), 142.0-143.0' (3:31), 143.0-144.0' (3:38), 144.0-144.8' (3:52)	
145	R4	58/24	145.0 - 149.8	RQD = 0%						R4: Hard, fresh to slightly weathered, aphanitic, SLATE. Joints are extremely close to closely spaced, horizontal to high angle, undulating, rough, fresh to discolored, partially open to open. Rock Mass Quality = Very Poor Recovery = 50% Rock Core Times (min:sec): 145.0-146.0' (2:37), 146.0-147.0' (2:46), 147.0-148.0' (9:46), 148.0-149.0' (7:23), 149.0-149.8' (9:04)	
150	R5	62/45	149.8 - 155.0	RQD = 0%							

Remarks:
1. Automatic hammer NEBC *0.20 Energy Transfer Ratio = 0.931.
2. Water level measured after 14 hours, with borehole and casing at 95 feet deep within casing.
3. 5" casing installed to 70.5'. Sample 150 from 70.5'-72.5' and advance 4" casing.
4. Soil came up into casing 1.0' after washout for samples 160-200, re-wash, and attempt sample agan.

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.

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244 Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-201

WIN: 22627.00

Driller: New England Boring Contractors | Elevation (ft.): 277.8 | Auger ID/OD: SSA 4.25" OD
Operator: Mike Porter | Datum: NAVD 88 | Sampler: Standard Splitspoon
Logged By: B. Woodman | Rig Type: ATV Mobile B53 | Hammer Wt./Fall: 140#/30"
Date Start/Finish: 10/8/19-10/17/19 | Drilling Method: Drive & Wash | Core Barrel: NX
Boring Location: N6443144.3, E1679995.3 | Casing ID/OD: 5/5.5", 4/4.5", 3/3.5" | Water Level: *1 6.7'

Hammer Efficiency Factor: 0.931 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (in. drv.) Strength (psf) or RQD (%)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
150										R5: Hard, fresh to slightly weathered, aphanitic, SLATE, with calcite stringer at 153.0'-154.0'. Joints are extremely close to closely spaced, low angle to near vertical, undulating, rough, fresh to discolored, tight to open. Rock Mass Quality = Very Poor Recovery = 73% Rock Core Times (min:sec): 149.8-150.8' (4:29), 150.8-151.8' (3:58), 151.8-152.8' (3:25), 152.8-153.8' (3:17), 153.8-155.0' (6:48)	
								122.8		---155.0	
155										Bottom of Exploration at 155.0 feet below ground surface.	
160											
165											
170											
175											

Remarks:
1. Automatic hammer NEBC *0.20 Energy Transfer Ratio = 0.931.
2. Water level measured after 14 hours, with borehole and casing at 95 feet deep within casing.
3. 5" casing installed to 70.5'. Sample 150 from 70.5'-72.5' and advance 4" casing.
4. Soil came up into casing 1.0' after washout for samples 160-200, re-wash, and attempt sample agan.

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.

Division: Bridge
Filename: ...\Boring logs sheets Milo.dgn

Date:8/5/2020
Username: BMC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 22627.01

BRIDGE NO. 3244

BY	DATE	
BMC	02/2020	SIGNATURE
CLS	02/2020	
		P.E. NUMBER
		DATE

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

PLEASANT RIVER BRIDGE NO. 3244
PLEASANT STREET OVER PLEASANT RIVER
MILO, ME
PISCATAQUIS COUNTY

BORING LOGS 1

PREPARED BY:

SHEET NUMBER
14
OF 91

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-101-1
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation: (ft.)	289 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	B. Woodman	Rig Type:	Mobile B53	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	4-30-18 / 5-3-18	Drilling Method:	Drive & Wash	Core Barrel:	-
Boring Location:	N644096.1, E680092.1	Casing ID/OD:	4"/4.5", 3"/3.5"	Water Level *1:	Not Measured
Hammer Efficiency Factor:	0.6	Hammer Type:	Automatic ☐ Hydraulic ☐	Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength (psf) or RQD (%)	N-uncorrected	%(f)	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
								288.5		ASPHALT: 0.5	
	10	24/5	1.0 - 3.0	11-16-18-16	34	34				Dark brown, dry, dense, fine to coarse SAND, some fine gravel, little silt, (Fill).	G*1 A-1-b SM-SW WC=8.7%
5	20	24/12	5.0 - 7.0	8-6-5-5	11	11				Dark brown, dry, medium dense, Gravelly fine to coarse SAND, trace silt, (Fill).	G*2 A-1-a SP-SM WC=4.3%
10	30	24/4	10.0 - 12.0	8-5-5-3	10	10	25			Brown, wet, loose, fine to coarse SAND, little gravel, (Fill).	
							42				
							31				
							43				
15	40	24/3	15.0 - 17.0	9-9-11-21	20	20	15				
							93				
							147				
							RC	270.0		-19.0	
20	50	22/20	20.0 - 21.8	6-5-9-10	14	14				Top 14": Olive-grey, wet, stiff, Clayey SILT, little fine sand, (Alluvial Deposit).	A-4(0) ML WC=23.3% LL=22 PL=18 PI=4
								267.8		Bottom 6": Grey, wet, medium dense, Clayey SAND, (Alluvial Deposit). -21.2	
								265.5		-23.5	
25	60	24/11	25.0 - 27.0	8-10-9-17	19	19	81	263.9		Top 1": Olive-grey, medium stiff, Clayey SILT, little fine sand, (Alluvial Deposit). Bottom 10": Brown, wet, medium dense, fine SAND, little silt, (Alluvial Deposit). -25.1	G*4 A-2-4(0) SM
							113				
							129				
							138				
30	70	24/13	30.0 - 32.0	9-9-14-20	23	23	97			Grey and brown, wet, medium dense, Silty fine SAND, trace gravel, (Alluvial Deposit).	G*5 A-4(0) SM
							151				
							161				
							161				
							170				
35	80	24/13	35.0 - 37.0	11-7-10-12	17	17	103	253.9		Top 1": Grey and brown, wet, medium dense, fine to medium SAND, little silt, (Alluvial Deposit). Bottom 12": Brown, wet, medium dense, fine to medium SAND, (Alluvial Deposit). -35.1	
							112				
							127				
							134				
40	90	24/8	40.0 - 42.0	12-11-12-14	23	23	109			Dark brown, wet, medium dense, fine to coarse SAND, (Alluvial Deposit).	
							100				
							113				
							136				
45	100	24/8	45.0 - 47.0	14-11-9-14	20	20	95			Dark brown, wet, medium dense, medium to coarse SAND, little gravel, (Alluvial Deposit).	
							121				
							159				
							183				
50	110	24/10	50.0 - 52.0	15-11-11-11	22	22		238.6		Top 4": Olive-brown, wet, medium dense, Silty SAND, (Alluvial Deposit). -50.4	
							115			Bottom 6": Brown, fine to coarse SAND, some gravel, (Alluvial Deposit).	
							121				
							126				
							137				
55	120	24/8	55.0 - 57.0	10-8-7-12	15	15	111			Dark brown/grey, wet, medium dense, fine to medium SAND, trace gravel, trace silt, (Alluvial Deposit).	G*6 A-1-b SP-SM
							117				
							153				
							176				
							168				
60	130	24/<1	60.0 - 62.0	8-12-12-13	24	24	148			Minimal recovery, fine to medium gravel.	
							146				
							RC				
65	140	24/8	65.0 - 67.0	19-20-21-23	41	41	176	223.6		Top 4": Brown, wet, dense, fine to medium SAND, trace silt, (Alluvial Deposit). -65.4	
							176			Bottom 4": Brown, wet, dense, GRAVEL, little fine to coarse sand, (Alluvial Deposit).	
							186				
							195				
							227				
70	150	24/6	70.0 - 72.0	9-11-13-15	24	24	RC			Brown, wet, medium dense, fine to coarse SAND, some gravel, (Alluvial Deposit).	

Remarks:
1. Roller cone grinding at 18.1' bgs, roller cone ahead to 20.0'.
2. Switched from rope & cathead / safety hammer to automatic hammer at 100.0', see log BB-MPR-101-2.
3. Fine-Grained Soil Descriptions on this log are based on plasticity estimated using visual-manual classification techniques or laboratory Atterburg Limit tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.

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 2

Boring No.: BB-MPR-101-1

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-101-1
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation: (ft.)	289 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	B. Woodman	Rig Type:	Mobile B53	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	4-30-18 / 5-3-18	Drilling Method:	Drive & Wash	Core Barrel:	-
Boring Location:	N644096.1, E680092.1	Casing ID/OD:	4"/4.5", 3"/3.5"	Water Level *1:	Not Measured
Hammer Efficiency Factor:	0.6	Hammer Type:	Automatic ☐ Hydraulic ☐	Rope & Cathead ☒	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength (psf) or RQD (%)	N-uncorrected	%(f)	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
75	160	24/11	75.0 - 77.0	14-15-13-17	28	28				Brown, moist, medium dense, fine SAND, some silt, (Alluvial Deposit).	G*7 A-2-4(0) SM
							291				
							293				
80	170	24/5	80.0 - 82.0	23-11-12-15	23	23	RC			Brown, wet, medium dense, GRAVEL, some fine to coarse sand, (Alluvial Deposit).	
							141				
							153				
							208				
85	180	24/10	85.0 - 87.0	12-11-16-28	27	27	137				G*8 A-1-b SW-SM
							187				
							227				
							251				
90	190	24/9	90.0 - 92.0	22-20-31-34	51	51	118			Brown, moist, very dense, fine to medium SAND, trace silt, (Alluvial Deposit).	
							259				
							290				
							274				
							321				
95	200	24/5	95.0 - 97.0	35-30-27-27	57	57	RC			Brown, wet, very dense, Gravelly fine to coarse SAND, trace silt, (Alluvial Deposit).	
								189.0			
										Bottom of Exploration at 100.0 feet below ground surface.	
100								100.0		Bottom of Exploration at 100.0 feet below ground surface.	
105											
110											
115											
120											
125											
130											
135											
140											
145											
150											

Remarks:
1. Roller cone grinding at 18.1' bgs, roller cone ahead to 20.0'.
2. Switched from rope & cathead / safety hammer to automatic hammer at 100.0', see log BB-MPR-101-2.
3. Fine-Grained Soil Descriptions on this log are based on plasticity estimated using visual-manual classification techniques or laboratory Atterburg Limit tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.

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

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Page 2 of 2

Boring No.: BB-MPR-101-1

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-101-2
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation: (ft.)	289 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	B. Woodman	Rig Type:	Rubber-Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	4-30-18 / 5-3-18	Drilling Method:	Drive & Wash	Core Barrel:	-
Boring Location:	N644096.1, E680092.1	Casing ID/OD:	4"/4.5", 3"/3.5"	Water Level *1:	Not Measured
Hammer Efficiency Factor:	0.677	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength (psf) or RQD (%)	N-uncorrected	%(f)	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
100	210	24/5	100.0 - 102.0	53-36-25-39	61	69	84			Brown, wet, very dense, GRAVEL, little fine to coarse sand, trace silt, (Alluvial Deposit).	
							129				
							200				
							159	185.5		-103.5	
105	220	23/4	105.0 - 106.9	47-68-88-55/4"	156	176	RC			Grey, wet, very dense, GRAVEL, little fine to coarse sand, little silt, (Glacial Till).	
							139				
110	230	10/6	110.0 - 110.8	64-120/3"						Grey-brown, wet, very dense, fine to coarse SAND, some silt, little gravel, (Glacial Till).	
115	240	6/2	115.0 - 115.5	35-103/0				173.5		Dark grey to black, wet, very dense, gravel, (Glacial Till). -115.5	
								172.5		Failed attempt to core from 115.5'-116.5'. Apparent cobble/boulder. -116.5	
120	250	7/4	120.0 - 120.6	206-96/1"						Olive-brown, wet, very dense, fine to medium SAND, some silt, trace gravel, (Glacial Till).	
125	260	6/4	125.0 - 125.5	329/6"	-					Grey-brown, wet, very dense, fine to medium SAND, little silt, little angular gravel, (Glacial Till).	
130	270	7/6	130.0 - 130.6	154-108/1"	-					Grey-brown, wet, very dense, fine SAND, some silt, little angular gravel, (Glacial Till).	
135	280	4/3	135.0 - 135.3	299/3"	-			153.0		Grey-brown, wet, very dense, fine SAND, some silt, little angular gravel, (Glacial Till). -136.0	
										Increased roller cone resistance at 136.0', probable top of bedrock. Advance roller cone with down pressure of 200 psi to assess possible rock based on increased resistance and wash return. Roller cone times (min/sec): 135-136: (2:34), 136-137: (2:47), 137-138: (1:43), 138-139: (3:00), 139-140: (3:02), 140-141: (3:04), 141-142: (3:05), 142-143: (3:05), 143-144: (3:08)	
140											
145										Increased resistance and rock chips in wash from 144'-147', possible bedrock. Roller cone times (min/sec): 144-145: (4:25), 145-146: (4:28), 146-147: (5:40)	
150								142.0		-147.0	
										Bottom of Exploration at 147.0 feet below ground surface.	

Remarks:
1. Switched to automatic hammer at sample 210 for remainder of boring, NEBC *2, ETR = 0.677.
2. Stopped driving 4" casing at 100.0', telescoped and drove 3" casing. Drove casing to 105.0', roller coned ahead below 105.0'.
3. Rods experience resistance below 120' due to crimped casing shoe and crooked hole, blow counts may be affected for samples 250-280.
4. Fine-Grained Soil Descriptions on this log are based on plasticity estimated using visual-manual classification techniques or laboratory Atterburg Limit tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.

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-MPR-101-2

Division: Bridge
Filename: ...\Boring logs sheets Milo.dgn

Date:8/5/2020
Username: BMC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 22627.01

BRIDGE NO. 3244

BY	DATE
BMC	02/2020
CLS	02/2020

SIGNATURE

P.E. NUMBER

DATE

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

PLEASANT RIVER BRIDGE NO. 3244
PLEASANT STREET OVER PLEASANT RIVER
MILO, ME PISCATAQUIS COUNTY

BORING LOGS 2

PREPARED BY:

SHEET NUMBER

15

OF 91

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-102
W/N: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.):	270 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	B. Woodman	Rig Type:	Mobile B53 Rubber-Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	5-9-18 / 5-11-18	Drilling Method:	Spin & Wash	Core Barrel:	--
Boring Location:	N644122.4, E1680224.6	Casing ID/OD:	4"/4.5", 3"/3.5"	Water Level *1:	River
Hammer Efficiency Factor:	0.677	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Spoon Split Strength or RQD (/)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/4	0.0 - 2.0	22-24-21-21	45	51	SPN	258.7		Brown, wet, very dense, fine to coarse GRAVEL, little medium to coarse sand, trace silt, (Alluvial Deposit). Driven with 3" OD spoon.	G*9 A-1-a GW WC=2.8%
5	20	24/9	5.0 - 7.0	7-9-7-10	16	18				Brown, wet, medium dense, Silty SAND, trace gravel, (Alluvial Deposit).	G*10 A-4(0) SM WC=21.0%
10	30	24/21	10.0 - 12.0	7-18-25-46	43	49				Top 15+/- Dark grey/brown, wet, dense, fine to medium SAND, trace silt, trace fine gravel, (Alluvial Deposit).	G*11 A-1-b SP-SM WC=4.2%
										Bottom 8+/- Brown, wet, dense, Sandy GRAVEL, (Alluvial Deposit). 11.3	
15	40	24/0	15.0 - 17.0	7-5-15-16	20	23				No recovery, drove 3" OD spoon through interval. Black/brown, wet, medium dense, GRAVEL, some silt, little sand, (Alluvial Deposit).	G*12 A-1-b GM WC=3.1%
20	50	24/9	20.0 - 22.0	13-20-17-17	37	42				Brown, wet, dense, Sandy GRAVEL, (Alluvial Deposit).	
25	60	24/15	25.0 - 27.0	5-5-8-9	13	15				Top 4+/- Brown, wet, medium dense, fine SAND, little silt, (Alluvial Deposit). Bottom 11+/- Brown/grey, wet, medium dense, fine to coarse SAND, (Alluvial Deposit).	
30	70	24/10	30.0 - 32.0	10-13-21-36	34	58				Brown, wet, dense, Sandy GRAVEL, (Alluvial Deposit).	
35	80	24/8	35.0 - 37.0	12-13-17-17	30	34				Brown, wet, dense, Sandy GRAVEL, little silt, ALLUVIAL DEPOSIT- (GM)	G*13 A-1-a GW-GM
40											
45	90	24/11	45.0 - 47.0	24-26-18-8	44	50				Brown, wet, dense, Sandy fine GRAVEL, trace silt, (Alluvial Deposit).	
50											
55	100	24/9	55.0 - 57.0	7-9-9-9	18	20				Brown, wet, medium dense, Sandy GRAVEL, (Alluvial Deposit).	
60											
65	110	24/9	65.0 - 67.0	17-22-19-17	41	46				Brown, wet, dense, Sandy GRAVEL, (Alluvial Deposit).	
70											

Remarks:
1. Boring was drilled through 0.8' thick concrete bridge deck. Mudline was 19.0' below top of deck. Boring depths are referenced to the mudline. Mudline elevation calculated using the surveyed bridge deck elevation and measured distance to mudline.
2. Auto hammer NEBC *2, ETR = 0.677.
3. Casing advancement resistance increased from about 12.0' to 34.0'.
4. Stopped spinning 4" casing at 76.0', telescoped 3" casing and began spinning.

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.

Boring No.: BB-MPR-102

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-102
W/N: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.):	270 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	B. Woodman	Rig Type:	Mobile B53 Rubber-Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	5-9-18 / 5-11-18	Drilling Method:	Spin & Wash	Core Barrel:	--
Boring Location:	N644122.4, E1680224.6	Casing ID/OD:	4"/4.5", 3"/3.5"	Water Level *1:	River
Hammer Efficiency Factor:	0.677	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Spoon Split Strength or RQD (/)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
80	120	24/7	75.0 - 77.0	10-11-10-21	21	24				Brown, wet, medium dense, GRAVEL, some fine to coarse sand, trace silt, (Alluvial Deposit).	
	130	24/7	80.0 - 82.0	15-9-8-22	17	19				Brown/black, wet, medium dense, GRAVEL, some fine to coarse sand, (Alluvial Deposit).	
85	140	24/9	85.0 - 87.0	20-20-34-30	54	61		186.5		Olive-brown, wet, very dense, Sandy GRAVEL, little silt, (Glacial Till). 83.5	
90	150	11/0	90.0 - 90.9	75-117/.4						No recovery.	
95	160	24/15	95.0 - 97.0	50-75-51-45						Brown, wet, very dense, fine to coarse GRAVEL, some fine to coarse sand, little silt, (Glacial Till).	G*14 A-1-a GP-GM
100	170	16/11	100.0 - 101.3	40-59-100/.4				157.0		Apparent sand layer/seam, roller bit advancement smooth and constant, rougher above and below. 103.0	
105	180	6/6	105.0 - 105.5	263/.5			RC	165.2		Grey, wet, very dense, Gravelly fine to coarse SAND, trace silt, (Glacial Till). 104.8	
110	190	2/2	110.0 - 110.2	154/.2						Gray, wet, very dense, fine to coarse SAND, some fine gravel, some silt, (Glacial Till).	G*15 A-1-b SM
115								156.5		Grey to brown wash water at 113.5'. 113.5	
120										Could not sample from 115.0'-117.0' due to collapsed hole.	
125								152.0		Increased roller cone resistance at 118.0', probable top of rock, advance roller cone with down pressure of 200 psi to assess possible rock based on increased resistance and wash return. Roller cone times (min:sec): 118-119' (5:00), 119-120' (4:30), 120-121' (3:15), 121-122' (5:14), 122-123' (3:09), 123-124' (3:48), 124-125' (3:37), 125-126' (4:13), 126-127' (3:05) 118.0	
130											
135								141.0		Increased resistance and rock chips in return wash from 127'-129'. Possible bedrock. Roller cone times (min:sec) per foot: 5-27 (127-128), 7-44 (128-129) 129.0	
140										Bottom of Exploration at 129.0 feet below ground surface.	
145											
150											

Remarks:
1. Boring was drilled through 0.8' thick concrete bridge deck. Mudline was 19.0' below top of deck. Boring depths are referenced to the mudline. Mudline elevation calculated using the surveyed bridge deck elevation and measured distance to mudline.
2. Auto hammer NEBC *2, ETR = 0.677.
3. Casing advancement resistance increased from about 12.0' to 34.0'.
4. Stopped spinning 4" casing at 76.0', telescoped 3" casing and began spinning.

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.

Boring No.: BB-MPR-102

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-103
W/N: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.):	289 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	B. Woodman	Rig Type:	Mobile B53 Rubber-Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	5-9-18 / 5-11-18	Drilling Method:	Drive & Wash	Core Barrel:	--
Boring Location:	N644215.1, E1680354.3	Casing ID/OD:	4"/4.5", 3"/3.5"	Water Level *1:	14.6' bgs
Hammer Efficiency Factor:	0.677	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Spoon Split Strength or RQD (/)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SSA	288.0		ASPHALT- 1.0	
	10	24/8	1.0 - 3.0	50-13-15-11	28	32				Brown, dry, dense, Gravelly fine to coarse SAND, little silt, (Fill).	G*16 A-1-a SP-SM
5	20	24/4	5.0 - 7.0	3-2-2-5	4	5	4.3			Brown, dry, loose, Gravelly fine to coarse SAND, little silt, (Fill).	G*17 A-1-b SM WC=12.4%
							23				
							22				
10							22				
	30	24/5	10.0 - 12.0	8-6-7-8	13	15	28			Brown, wet, medium dense, fine to coarse SAND, some gravel, (Fill).	
							RC				
							33	275.5		13.5	
15	40	24/0	15.0 - 17.0	6-6-13-17	19	21	3			No recovery. Drove 3" OD spoon through interval. Brown, wet, medium dense, GRAVEL, some sand, 2" gravel fragment recovered in spoon, (Fill).	
							13				
							45				
20							46				
	50	24/0	20.0 - 22.0	9-4-4-12	8	9	35			No recovery. Drove 3" OD spoon through interval. Brown, wet, loose, Sandy GRAVEL, trace silt, (Fill).	G*18 A-1-a GW WC=5.8%
							57				
							12				
							57	265.2		23.8	
25							64			Increased roller cone resistance/grinding at 23.9'.	
	60	24/11	25.0 - 27.0	4-6-6-7	12	14	29			Dark grey/black, wet, medium dense, fine to coarse SAND, (Alluvial Deposit).	
							48				
							76				
30							87				
	70	24/14	30.0 - 32.0	9-10-12-15	22	25	RC			Brown, wet, medium dense, fine to medium SAND, little silt, (Alluvial Deposit).	G*19 A-2-4(0) SM
							106				
							110				
35							128				
	80	24/15	35.0 - 37.0	7-16-26-28	42	47	34	253.5		Top 6+/- Brown, wet, dense, fine to coarse SAND, some silt, (Alluvial Deposit).	
							140			35.5	
							149			Bottom 7+/- Dark brown, wet, Gravelly fine to coarse SAND, little silt, (Alluvial Deposit).	
40							93				
							99				
	90	24/11	40.0 - 42.0	10-10-13-8	23	26	RC			Minimal recovery, drove 3" spoon through interval. Gray-brown, wet, medium dense, fine to coarse GRAVEL, some sand, trace silt, (Alluvial Deposit).	
							86				
							76				
45							90				
							110				
	100	24/10	45.0 - 47.0	13-7-7-6	14	16	75			No recovery, drove 3" spoon through interval. Dark brown/black, wet, medium dense, fine to coarse GRAVEL, trace sand, trace silt, (Alluvial Deposit).	G*20 A-1-a GW
							85				
							81				
50							119				
							128				
	110	24/10	50.0 - 52.0	14-6-6-6	12	14	62			No recovery, drove 3" spoon through interval. Dark brown, wet, medium dense GRAVEL, some sand, 2" thick brown Silty sand layer, (Alluvial Deposit).	
							80				
							104				
55							115				
							163				
	120	24/4	55.0 - 57.0	13-8-8-9	16	18	RC			Dark brown/black, wet, medium dense, fine to medium SAND, some gravel, trace silt, (Alluvial Deposit).	G*21 A-1-a SP
							98				
							131				
60							124				
							142				
	130	24/0	60.0 - 62.0	7-9-12-11	21	24	79			No recovery, drove 3" spoon through interval. Dark brown/black, wet, medium dense, GRAVEL, little sand, (Alluvial Deposit).	
							94				
							117				
65							176				
							159				
	140	24/5	65.0 - 67.0	16-8-9-7	17	19	RC			Brown, wet, medium dense, fine to coarse Gravelly SAND, (Alluvial Deposit).	
							98				
							87				
70							104				
							92				
	150	24/6	70.0 - 72.0	12-14-11-12	25	28	98			Brown, wet, medium dense, Sandy GRAVEL, little silt, (Alluvial Deposit).	
							87				
							104				
75							92				
							91				

Remarks:
1. Auto hammer NEBC *2, ETR = 0.677.
2. Casing driven with 140 lb to 65', then 300 lb hammer to 95', then auto hammer below 85'.
3. 4" Casing refusal at 114.9'; telescope and begin driving 3" casing. Roller cone ahead of casing.
4. 260' piece of casing shoe broke off at 125.0'; grind through with roller cone and sample at 127.0'-127.3'.
5. Due to a bend in the 3" casing removed it after attempted sample 260' and spin shoe on casing and attempt to advance. 4" casing broken at

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

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Boring No.: BB-MPR-103

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-103
W/N: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.):	289 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	B. Woodman	Rig Type:	Mobile B53 Rubber-Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	5-9-18 / 5-11-18	Drilling Method:	Drive & Wash	Core Barrel:	--
Boring Location:	N644215.1, E1680354.3	Casing ID/OD:	4"/4.5", 3"/3.5"	Water Level *1:	14.6' bgs
Hammer Efficiency Factor:	0.677	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
D = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
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HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOR = Weight of One Person
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N-uncorrected = Raw Field SPT N-value
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N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor*60/Hfr-uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Spoon Split Strength or RQD (/)	N-uncorrected	N60	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
80	160	24/0	75.0 - 77.0	4-14-14-14	28	32	71			No recovery, drove 3" spoon through interval. Brown/black, wet, medium dense, to coarse SAND, some fine gravel, trace silt, (Alluvial Deposit).	G*22 A-1-a SW-SM
							86				
							99	211.5		77.5	
							116				
							138				
	170	24/10	80.0 - 82.0	32-43-40-35	83	94	RC	208.6		Top 4+/- Brown, wet, very dense, fine SAND, little silt, (Alluvial Deposit). 80.4	
85										Bottom 6+/- Brown, wet, very dense, Gravelly fine to coarse SAND, trace silt, (Alluvial Deposit).	
	180	24/1	85.0 - 87.0	12-9-10-11	19	21	190			Minimal recovery, Sandy GRAVEL.	
							198				
							192				
90							263				
							216				
	190	24/6	90.0 - 92.0	14-12-12-12	24	27	125			Brown/black, wet, medium dense, GRAVEL, some sand, (Alluvial Deposit).	
							149				
							153				
95							141				
							140				
	200	24/6	95.0 - 97.0	19-17-11-17	28	32	152			Brown/black, wet, dense, GRAVEL, some sand, (Alluvial Deposit).	
							146				
							168				
100							319				
							269				
	210	20/4	100.3 - 102.0	32-17-24-48/.2	41	46	RC	187.5		Brown, wet, dense, fine to coarse SAND, some gravel, little silt, (Alluvial Deposit). Spoon refusal at 102.2'. 101.5	
105										Increased roller cone resistance/grinding at 101.5'.	
	220	24/6	105.0 - 107.0	61-80-59-98	139	157				Brown, wet, very dense, Sandy GRAVEL, little silt, (Glacial Till) Increased roller cone resistance at 107.5'. Losing water at 107.5'-110.4'.	
110											
	230	14/7	110.4 - 111.6	81-57-55/.2				178.3		Top 3+/- Grey/black, wet, very dense, fine to coarse GRAVEL, (Glacial Till). Possible cobble. 110.7	
115										Bottom 4+/- Brown, wet, very dense, Gravelly fine to coarse SAND, little silt, (Glacial Till).	
	240	14/10	115.0 - 116.2	53-69-44/.2						Brown, wet, very dense, fine to coarse SAND, some fine gravel, little silt, (Glacial Till).	G*23 A-1-b SM
120											
	250	17/10	120.0 - 121.4	111-115-100/.4						Brown, wet, very dense, Gravelly fine to coarse SAND, little silt, (Glacial Till).	
125											
	260	3/0	127.0 - 127.3	200/.3				161.7		Steel shoe fragments in spoon, see remarks *4 and *5. Borehole terminated. See BB-MPR-103A for redrilled boring 127.3	
130										Bottom of Exploration at 127.3 feet below ground surface.	
135											
140											

Remarks:
1. Auto hammer NEBC *2, ETR = 0.677.
2. Casing driven with 140 lb to 65', then 300 lb hammer to 95', then auto hammer below 85'.
3. 4" Casing refusal at 114.9'; telescope and begin driving 3" casing. Roller cone ahead of casing.
4. 260' piece of casing shoe broke off at 125.0'; grind through with roller cone and sample at 127.0'-127.3'.
5. Due to a bend in the 3" casing removed it after attempted sample 260' and spin shoe on casing and attempt to advance. 4" casing broken at

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

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Boring No.: BB-MPR-103

Division: Bridge
Filename: ...\Boring logs sheets Milo.dgn

Date:8/5/2020
Username: BMC

PREPARED BY:

GZA

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 22627.01

BRIDGE NO. 3244

P.E. NUMBER

DATE

SIGNATURE

BY	DATE
BMC	02/2020
CLS	02/2020

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

PLEASANT RIVER BRIDGE NO. 3244
PLEASANT STREET OVER PLEASANT RIVER
MILO, ME
PISCATAQUIS COUNTY

BORING LOGS 3

SHEET NUMBER

16

OF 91

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-103-A
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation: (ft.)	289 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	E. Friede	Rig Type:	Mobile B53 Rubber-Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	5-16-18 / 5-21-18	Drilling Method:	Spin & Wash	Core Barrel:	-
Boring Location:	N644202.4, E680367.1	Casing ID/OD:	5"/5.5", 4"/4.5", 3"/3.5"	Water Level *:	Not Measured
Hammer Efficiency Factor:	0.677	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOR = Weight of One Person
q_p = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor-80)/4th-uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) or RQD (/)	N-uncorrected	%Q	Casing Blows	Penetration (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							SPIN			Boring advanced to 129' without sampling, stratification assumed to be the same as BB-MPR-103.	
5											
10											
15											
20											
25											
30											
35											
40											
45											
50										Boring advanced to 129' without sampling, stratification assumed to be the same as BB-MPR-103.	
55											
60											
65											
70											
EOI											

Remarks:
1. Auto hammer NEBC =2, ETR = 0.677.
2. Spun casing beyond bottom of BB-MPR-103 prior to sampling.
3. Roller cone ahead from 141-160.1' while advancing casing prior to retrieving each sample.
4. Unable to advance the casing beyond 160.1'. Roller coned ahead without casing advancement.
5. Fine-Grained Soil Descriptions on this log are based on plasticity estimated using visual-manual classification techniques or laboratory.

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

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Boring No.: BB-MPR-103-A

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-103-A
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation: (ft.)	289 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	E. Friede	Rig Type:	Mobile B53 Rubber-Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	5-16-18 / 5-21-18	Drilling Method:	Spin & Wash	Core Barrel:	-
Boring Location:	N644202.4, E680367.1	Casing ID/OD:	5"/5.5", 4"/4.5", 3"/3.5"	Water Level *:	Not Measured
Hammer Efficiency Factor:	0.677	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

Definitions:
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WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140 lb. Hammer
WOR/C = Weight of Rods or Casing
WOR = Weight of One Person
q_p = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor-80)/4th-uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) or RQD (/)	N-uncorrected	%Q	Casing Blows	Penetration (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
75										Boring advanced to 129' without sampling, stratification assumed to be the same as BB-MPR-103.	
80											
85											
90											
95											
100											
105										Boring advanced to 129' without sampling, stratification assumed to be the same as BB-MPR-103.	
110											
115											
120											
125											
130											
135											
140											
145											
EOI											

Remarks:
1. Auto hammer NEBC =2, ETR = 0.677.
2. Spun casing beyond bottom of BB-MPR-103 prior to sampling.
3. Roller cone ahead from 141-160.1' while advancing casing prior to retrieving each sample.
4. Unable to advance the casing beyond 160.1'. Roller coned ahead without casing advancement.
5. Fine-Grained Soil Descriptions on this log are based on plasticity estimated using visual-manual classification techniques or laboratory.

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Boring No.: BB-MPR-103-A

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-103-A
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation: (ft.)	289 (est.)	Auger ID/OD:	4.25" SSA
Operator:	Brad Enos	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	E. Friede	Rig Type:	Mobile B53 Rubber-Track	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	5-16-18 / 5-21-18	Drilling Method:	Spin & Wash	Core Barrel:	-
Boring Location:	N644202.4, E680367.1	Casing ID/OD:	5"/5.5", 4"/4.5", 3"/3.5"	Water Level *:	Not Measured
Hammer Efficiency Factor:	0.677	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

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WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140 lb. Hammer
WOR/C = Weight of Rods or Casing
WOR = Weight of One Person
q_p = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor-80)/4th-uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) or RQD (/)	N-uncorrected	%Q	Casing Blows	Penetration (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
150	40	5/1	150.0 - 150.1	300/0.1'	-					Grey, wet, very dense, Silty fine to coarse SAND, trace gravel, (Glacial Till). Metal fragment observed in spoom possible fragment from casing spin shoe	
155										Minimal water return at 156'.	
160	50	5/1	160.0 - 160.1	30/0.1	-					Grey, wet, very dense, Silty fine to coarse SAND, little gravel, (Glacial Till).	
165								125.0		164.0 — Increased roller cone resistance at 164'; probable top of rock, advance roller cone with down pressure of 200 psi to assess possible rock based on increased resistance and wash return. Roller cone times (minisec): 164-165' (4:00), 165-166' (3:20), 166-167' (3:20), 167-168' (3:05), 168-169' (3:15), 169-170' (3:30), 170-171' (3:18), 171-172' (3:14), 172-173' (3:36), 173-174' (3:34), 174-175' (3:40), 175-176' (3:28), 176-177' (4:56)	
170								111.0		Increased resistance and rock chips in wash return at 176.8', possible bedrock. Roller cone times (minisec) per foot: 177-178' (5:56)	
175										178.0 — Bottom of Exploration at 178.0 feet below ground surface.	
180											
185											
190											
195											
200											
EOI											

Remarks:
1. Auto hammer NEBC =2, ETR = 0.677.
2. Spun casing beyond bottom of BB-MPR-103 prior to sampling.
3. Roller cone ahead from 141-160.1' while advancing casing prior to retrieving each sample.
4. Unable to advance the casing beyond 160.1'. Roller coned ahead without casing advancement.
5. Fine-Grained Soil Descriptions on this log are based on plasticity estimated using visual-manual classification techniques or laboratory.

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Boring No.: BB-MPR-103-A

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Shear Strength (psf) or RQD (/)	N-uncorrected	%Q	Casing Blows	Penetration (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
125	10	2/2	129.0 - 129.2	300/.15'	-		RC	160.0		129.0 — Advanced (spun) casing to 129', past end of BB-MPR-103, prior to sampling. Light brown, wet, very dense, fine to coarse SAND, some silt, little gravel, (Glacial Till).	
130							RC				
135	20 R1	4/4 56/7	134.0 - 134.5 139.0	266/.3	-					Olive grey, wet, very dense, fine to coarse SAND, some silt, little gravel, (Glacial Till). R1: Core times (minisec): 134.3-135' (1:01), 135-136' (1:27), 136-137' (2:31), 137-138' (3:07), 138-138.7' (2:30)	
140	30	6/6	138.7 - 139.2	183/.5	-		RC			Brown, wet, very dense, fine to coarse SAND, some silt, little gravel, (Glacial Till).	
145										Roller cone ahead from 141'.	
EOI											

Remarks:
1. Auto hammer NEBC =2, ETR = 0.677.
2. Spun casing beyond bottom of BB-MPR-103 prior to sampling.
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5. Fine-Grained Soil Descriptions on this log are based on plasticity estimated using visual-manual classification techniques or laboratory.

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Boring No.: BB-MPR-103-A

Division: Bridge
Filename: ...\Boring logs sheets Milo.dgn

Date:8/5/2020
Username: BMC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 22627.01

BRIDGE NO. 3244

BY	DATE	SIGNATURE
BMC	02/2020	
CLS	02/2020	

P.E. NUMBER

DATE

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

PLEASANT RIVER BRIDGE NO. 3244
PLEASANT STREET OVER PLEASANT RIVER
MILO, ME
PISCATAQUIS COUNTY

BORING LOGS 4

PREPARED BY:

SHEET NUMBER

17

OF 91

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pleasant River Bridge •3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-202
W/N: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.): 280.1	Auger ID/OD: SSA 4.25" OD
Operator:	Mike Porter	Datum: NAVD 88	Sampler: Standard Splitspoon
Logged By:	B. Woodman/A. Hazard	Rig Type: ATV Mobile B53	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	10/17/19-10/24/19	Drilling Method: Drive & Wash	Core Barrel: NX
Boring Location:	N642733.9, E1680322.6	Casing ID/OD: 3.5"/5", 4"/4.5"	Water Level *: 7.9'

Hammer Efficiency Factor: 0.931 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOR = Weight of Ore Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60/1hh-uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (c/6 in.) Strength or RQD (/)	N-uncorrected	%RQD	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	1D	24/21	0.0 - 2.0	2-2-2-3	4	6	SSA	279.7		Brown, moist, very loose, silty fine SAND, trace gravel, (Topsoil).	
										0.4	
5	2D	24/6	5.0 - 7.0	3-11-26-31	37	57	38			Brown, moist, very dense, fine to medium SAND, little silt, trace, (Alluvial Deposit).	O•20-S-062 WC•10.8 A-1-b SM
							106				
							130				
							109				
							72				
10	3D	24/3	10.0 - 12.0	12-20-10-9	30	47	65			Brown, moist, dense, GRAVEL, some fine to coarse sand, trace silt, (Alluvial Deposit).	O•20-S-063 WC•5.1 A-1-a GW
							99				
							107				
							82				
							89				
15	4D	24/2	15.0 - 17.0	20-12-11-14	23	36	84			Brown, wet, dense, fine to coarse SAND, little gravel, trace silt, (Alluvial Deposit).	
							105				
							84				
							79				
							91				
20	5D	24/11	20.2 - 22.2	6-7-7-11	14	22	54			Brown, wet, medium dense, fine to medium SAND, trace silt, (Alluvial Deposit).	
							43				
							58				
							68				
							73				
25	6D	24/6	25.0 - 27.0	12-21-20-43	41	64	73			Brown, wet, very dense, fine to coarse SAND, little gravel, little silt, (Alluvial Deposit).	
							96	253.1		27.0	
							75				
							88				
							130				
30	7D	24/8	30.0 - 32.0	23-17-15-17	32	50	112				O•20-S-061 A-1-a GP-GM
							97				
							104				
							111				
							129				
35	8D	24/3	35.0 - 37.0	15-10-13-12	23	36	112			Brown, wet, dense, gravelly fine to coarse SAND, trace silt, (Alluvial Deposit).	
							113				
							97				
							92				
							97				
40	9D	24/7	40.0 - 42.0	6-9-9-9	18	28	96			Brown, wet, medium dense, gravelly fine to coarse SAND, trace silt, (Alluvial Deposit).	
							95				
							97				
							138				
							130				
45	10D	24/8	45.0 - 47.0	15-21-14-15	35	54	120			Brown, wet, very dense, fine to coarse SAND, some gravel, little silt, (Alluvial Deposit).	
							94				
							113				
							113				
							103				
50	11D	24/0	50.0 - 52.0	17-15-12-12	27	42	130			No recovery. Apparent coarse sandy Gravel.	
							106				
							110				
							164				
55	12D	24/11	55.0 - 57.0	13-23-25-29	48	74	IRC			Brown, wet, very dense, fine to coarse SAND, some gravel, little silt, (Alluvial Deposit).	O•20-S-066 A-1-b SP-SM
							134				
							147				
							155				
							168				
60	13D	24/3	60.0 - 62.0	15-12-14-15	26	40	142			Brown, wet, dense, fine to medium SAND, little gravel, little silt, (Alluvial Deposit).	
							133				
							143				
							176				
							174				
65	14D	24/0	65.0 - 67.0	12-8-8-8	16	25	117			No recovery. Drove 3" spoon through interval. Brownstock, wet, medium dense, GRAVEL, some medium to coarse sand, trace silt, (Alluvial Deposit).	
							110				
							148				
							150				
70	15D	24/0	70.0 - 72.0	6-7-6-6	13	20	132			No recovery. Drove 3" spoon through interval. Grey, wet, medium dense, GRAVEL, trace sand, (Alluvial Deposit).	
							138				
							127				
							150				
75							166				

Remarks:
1. Automatic hammer NEBC •D-20 Energy Transfer Ratio = 0.931.
2. Water level measured within casing after stabilizing overnight with borehole and casing at 120.0' deep.

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Page 1 of 2
Boring No.: BB-MPR-202

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pleasant River Bridge •3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: BB-MPR-202
W/N: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.): 280.1	Auger ID/OD: SSA 4.25" OD
Operator:	Mike Porter	Datum: NAVD 88	Sampler: Standard Splitspoon
Logged By:	B. Woodman/A. Hazard	Rig Type: ATV Mobile B53	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	10/17/19-10/24/19	Drilling Method: Drive & Wash	Core Barrel: NX
Boring Location:	N642733.9, E1680322.6	Casing ID/OD: 3.5"/5", 4"/4.5"	Water Level *: 7.9'

Hammer Efficiency Factor: 0.931 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

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N_{60} = Hammer Efficiency Factor/60/1hh-uncorrected
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Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (c/6 in.) Strength or RQD (/)	N-uncorrected	%RQD	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
75	16D	24/4	75.0 - 77.0	29-24-15-10	39	61	205			Brown, wet, very dense, fine to medium SAND, little gravel, little silt, (Alluvial Deposit).	
							178				
							205				
							200				
80	17D	24/7	80.0 - 82.0	11-10-12-16	22	34	229				
							210				
							178				
							197				
							222				
85	18D	24/6	85.0 - 87.0	26-23-17-18	50	78	210			Brown/grey, wet, very dense, sandy GRAVEL, trace silt, (Alluvial Deposit).	
							226				
							344				
							260				
							259				
90	19D	24/8	90.0 - 92.0	13-16-22-26	38	59	278			Brown/grey, wet, very dense, Gravelly fine to coarse SAND, trace silt, (Alluvial Deposit).	
							236				
							255				
							326				
							380				
95	20D	24/7	95.0 - 97.0	19-21-20-30	41	64	365			Brown/grey, wet, very dense, GRAVEL, some fine to coarse sand, trace silt, (Alluvial Deposit).	
							307				
							297				
							393				
							739				
100							600				
							RC				
								177.1		103.0	
105	21D	17/5	105.0 - 106.4	29-52-110/3"	110/3"	171				Brown/grey, wet, very dense, to coarse SAND, some fine gravel, some silt, (Glacial Till).	O•20-S-067 A-1-b SM
110											
115	22D	7/2	115.0 - 115.6	19-50/1"	50/1"	78				Brown, wet, very dense, fine to coarse SAND, little gravel, little silt, (Glacial Till).	
120											
125	23D	2/0	125.0 - 125.2	50/1"	50/1"	78		155.0		No recovery. Increased resistance and rock chips in wash return at 125.1'. Possible bedrock.	
										125.1	
										Advanced roller bit from 125.1' to 130.2', increasing resistance. Set up to core at 130.2'.	
130	R1	55/54	130.2 - 134.8	RQD = 80%			NX			R1: Very hard, fresh to slightly weathered, fine grained, grey, SLATE. Joints are moderately spaced, high angle, planar to undulating, smooth, fresh to discolored, tight to partialy open. One horizontal joint. Rock Mass Quality = Fair Recovery = 98% Rock Core Times (min-sec)= 130.2-131.2' (3:42), 131.2-132.2' (3:03), 132.2-133.2' (2:28), 133.2-134.2' (2:19), 134.2-134.8' (2:35)	
	R2	12/9	134.8 - 135.8	RQD = 0%						R2: Very hard, fresh, fine grained, grey, SLATE. Joints are extremely close to very close, low angle to high angle, planar to undulating, rough to smooth, fresh, tight to open. Rock Mass Quality = Very Poor Recovery = 75% Rock Core Times (min-sec)= 134.8-135.8' (2:55)	
135	R3	35/35	135.8 - 138.7	RQD = 43%						R3: Very hard, fresh, fine grained, grey, SLATE. Primary joints are very close to moderately spaced, horizontal to low angle, undulating, smooth, fresh, partialy open to wide. Secondary joints are extremely close to close, planar to undulating, fresh, very tight to partialy open. Rock Mass Quality = Poor Recovery = 100% Rock Core Times (min-sec)= 135.8-136.8' (3:04), 136.8-137.8' (2:17), 137.8-138.7' (2:56)	
140	R4	54/54	138.7 - 143.2	RQD = 52%						R4: Very hard, fresh, fine grained, grey, SLATE. Primary joints are very close to moderately spaced, horizontal to low angle, undulating, smooth, fresh, partialy open to wide. Secondary joints are extremely close to close, high angle to near vertical, planar to undulating, fresh, very tight to partialy open. Rock Mass Quality = Poor Recovery = 100% Rock Core Times (min-sec)= 138.7-139.7' (1:01), 139.7-140.7 (2:11), 140.7-141.7' (2:23), 141.7-142.7' (1:48), 142.7-143.2' (1:55)	
145								136.9		143.2	
										Bottom of Exploration at 143.2 feet below ground surface.	
150											

Remarks:
1. Automatic hammer NEBC •D-20 Energy Transfer Ratio = 0.931.
2. Water level measured within casing after stabilizing overnight with borehole and casing at 120.0' deep.

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 2 of 2
Boring No.: BB-MPR-202

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pleasant River Bridge •3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: HB-MPR-201
W/N: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.): 280.0	Auger ID/OD: SSA 2.5" OD
Operator:	Mike Porter	Datum: NAVD 88	Sampler: Standard Splitspoon
Logged By:	M. Johnescu	Rig Type: Track-Mounted Mobile Drill B53	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	03/04/2020-03/04/2020	Drilling Method: SSA	Core Barrel: NQ
Boring Location:	N643790.1, E1679738.7	Casing ID/OD: N/A	Water Level *: 6.0'

Hammer Efficiency Factor: 0.931 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOR = Weight of Ore Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60/1hh-uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (c/6 in.) Strength or RQD (/)	N-uncorrected	%RQD	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	1D	24/11	0.0 - 2.0	4-4-2-2	6	9	SSA			Brown, moist, loose, fine to coarse SAND, some gravel, little silt, (Fill).	
	2D	24/9	2.0 - 4.0	2-1-1-2	2	3		276.0		Brown, moist, very loose, fine a coarse SAND, some gravel, little silt, (Fill).	
5	3D	24/7	4.0 - 6.0	11-7-4-5	11	17				4.0 Brown, moist, medium dense, fine to coarse SAND, little Silt, (Alluvial Deposit).	
10	4D	24/14	9.0 - 11.0	11-14-21-19	35	54		269.0		11.0 Bottom of Exploration at 11.0 feet below ground surface.	
15											
20											

Remarks:
1. Automatic hammer NEBC •D-20 Energy Transfer Ratio = 0.931.
2. Water level measured after completion of drilling and after solid stem augers were removed from the borehole.

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-MPR-201

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pleasant River Bridge •3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: HB-MPR-202
W/N: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.): 279.3	Auger ID/OD: SSA 2.5" OD
Operator:	Mike Porter	Datum: NAVD 88	Sampler: Standard Splitspoon
Logged By:	M. Johnescu	Rig Type: Track-Mounted Mobile Drill B53	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	03/04/2020-03/04/2020	Drilling Method: SSA	Core Barrel: NQ
Boring Location:	N643933.1, E1679865.9	Casing ID/OD: N/A	Water Level *: 4.0'

Hammer Efficiency Factor: 0.931 — Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Definitions:
D = Split Spoon Sample
MS = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
WU = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt
R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOR = Weight of Ore Person
S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(LAB)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (ksf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60/1hh-uncorrected
T_v = Pocket Torvane Shear Strength (psf)
WC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (c/6 in.) Strength or RQD (/)	N-uncorrected	%RQD	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	1D	24/16	0.0 - 2.0	8-6-5-3	11	17	SSA	278.8		0'-0.5': Topsoil.	
										0.5	
	2D	24/14	2.0 - 4.0	4-3-4-4	7	11				0.5'-2.0': Brown, moist, medium dense, fine to coarse SAND, some gravel, some silt, (Alluvial Deposit).	
										Brown, moist, medium dense, fine to coarse SAND, some gravel, trace silt, (Alluvial Deposit).	
5	3D	24/16	4.0 - 6.0	2-2-1-1	3	5				Brown, wet, loose, fine to coarse SAND, little gravel, trace silt, (Alluvial Deposit).	
10	4D	24/12	10.0 - 12.0	17-12-11-10	23	36		267.3		Brown, wet, dense, GRAVEL, some fine to coarse sand, trace silt, (Alluvial Deposit).	
										12.0	
15										Bottom of Exploration at 12.0 feet below ground surface.	
20											

Remarks:
1. Automatic hammer NEBC •D-20 Energy Transfer Ratio = 0.931.
2. Water level measured after completion of drilling and after solid stem augers were removed from the borehole.

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-MPR-202

Division: Bridge
Filename: ...\Boring logs sheets Milo.dgn
Date:8/5/2020
Username: BMC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 22627.01

BRIDGE NO. 3244

BY	DATE
BMC	02/2020
CJS	02/2020

SIGNATURE

P.E. NUMBER

DATE

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

PLEASANT RIVER BRIDGE NO. 3244
PLEASANT STREET OVER PLEASANT RIVER
MILO, ME
PISCATAQUIS COUNTY

BORING LOGS 5

PREPARED BY:
GZA

SHEET NUMBER
18
OF 91

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: HB-MPR-203
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.):	279.6	Auger ID/OD:	SSA 2.25" OD
Operator:	Mike Porter	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	M. Johnescu	Rig Type:	Track-Mounted Mobile Drill B53	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	03/03/2020-03/03/2020	Drilling Method:	SSA	Core Barrel:	NQ
Boring Location:	N644309.1, E680386.9	Casing ID/OD:	N/A	Water Level *:	6.6'
Hammer Efficiency Factor:	0.931	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (cf) per 6in. Intervals 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	24/14	0.0 - 2.0	4-WOH-1-WOH	1	2	SSA	279.3		0'-0.3': Topsoil. 0.3'	
										0.3'-2': Brown, moist, very loose, fine to medium SAND, little silt, (Alluvial Deposit).	
	2D	24/12	3.0 - 5.0	1-2-3-6	5	8				Brown, moist, loose, fine to coarse SAND, some gravel, trace silt, (Alluvial Deposit).	
5	3D	24/5	5.0 - 7.0	10-8-9-8	17	26				Brown/grey, wet, medium dense, GRAVEL, some fine to coarse sand, trace silt, (Alluvial Deposit).	
10	4D	24/4	10.0 - 12.0	3-4-3-3	7	11		267.6		Bottom of Exploration at 12.0 feet below ground surface. 12.0	
15											
20											

Remarks:
1. Automatic hammer NEBC #D-20 Energy Transfer Ratio = 0.931.
2. Water level measured after completion of drilling and after solid stem augers were removed from the borehole.

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-MPR-203

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: HB-MPR-204
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.):	278.2	Auger ID/OD:	SSA 2.5" OD
Operator:	Mike Porter	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	M. Johnescu	Rig Type:	Track-Mounted Mobile Drill B53	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	03/03/2020-03/03/2020	Drilling Method:	SSA	Core Barrel:	NQ
Boring Location:	N644400.8, E680524.9	Casing ID/OD:	N/A	Water Level *:	
Hammer Efficiency Factor:	0.931	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (cf) per 6in. Intervals 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	24/18	0.0 - 2.0	2-1-2-2	3	5	SSA	277.9		0'-0.3': Topsoil. 0.3'	
										0.3'-2.0': Brown, wet, loose, fine to m edium SAND, little silt, trace roots, (Alluvial Deposit).	
	2D	24/16	2.0 - 4.0	2-4-3-8	7	11				Brown, wet, medium dense, fine to coarse SAND, some fine to coarse gravel, trace silt, (Alluvial Deposit).	
5	3D	24/13	4.0 - 6.0	11-13-13-19	26	40				Brown, wet, dense, fine to coarse G RAVEL, some fine to coarse sand, trace silt, (Alluvial Deposit).	
10	4D	24/24	10.0 - 12.0	3-5-6-8	11	17		266.2		Bottom of Exploration at 12.0 feet below ground surface. 12.0	
15											
20											

Remarks:
1. Automatic hammer NEBC #D-20 Energy Transfer Ratio = 0.931.
2. Water level measured after completion of drilling and after solid stem augers were removed from the borehole.

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-MPR-204

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: HB-MPR-205
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.):	277.5	Auger ID/OD:	SSA 2.5" OD
Operator:	Mike Porter	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	M. Johnescu	Rig Type:	Track-Mounted Mobile Drill B53	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	03/03/2020-03/03/2020	Drilling Method:	SSA	Core Barrel:	NQ
Boring Location:	N644398.8, E680638.6	Casing ID/OD:	N/A	Water Level *:	5.0'
Hammer Efficiency Factor:	0.931	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (cf) per 6in. Intervals 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	24/3	0.0 - 2.0	4-1-1-1	2	3	SSA	277.0		0'-0.5': Topsoil. 0.5'	
										0.5'-2.0': Brown, moist, very loose, fine to medium Silty SAND, trace roots, (Alluvial Deposit).	
	2D	24/16	2.0 - 4.0	1-2-3-4	5	8				Brown, moist, loose, fine to coarse SAND, little gravel, trace silt, (Alluvial Deposit).	
5	3D	24/11	4.0 - 6.0	9-16-17-17	33	51				Brown, wet, very dense, Gravelly fine to coarse SAND, trace silt, (Alluvial Deposit).	
10	4D	24/18	10.0 - 12.0	12-8-8-10	16	25		265.5		Bottom of Exploration at 12.0 feet below ground surface. 12.0	
15											
20											

Remarks:
1. Automatic hammer NEBC #D-20 Energy Transfer Ratio = 0.931.
2. Water level measured after completion of drilling and after solid stem augers were removed from the borehole.

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-MPR-205

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Pleasant River Bridge #3244
Pleasant Street over Pleasant
Location: Milo, Maine

Boring No.: HB-MPR-206
WIN: 22627.00

Driller:	New England Boring Contractors	Elevation (ft.):	278.3	Auger ID/OD:	SSA 2.5" OD
Operator:	Mike Porter	Datum:	NAVD 88	Sampler:	Standard Splitspoon
Logged By:	M. Johnescu	Rig Type:	Track-Mounted Mobile Drill B53	Hammer Wt./Fall:	140#/30"
Date Start/Finish:	03/03/2020-03/04/2020	Drilling Method:	SSA	Core Barrel:	NQ
Boring Location:	N644568.6, E680644.1	Casing ID/OD:	N/A	Water Level *:	7.6' / 2.5'
Hammer Efficiency Factor:	0.931	Hammer Type:	Automatic ☒ Hydraulic ☐	Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (cf) per 6in. Intervals 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	24/22	0.0 - 2.0	2-1-1-1	2	3	SSA	278.0		0'-0.3': Topsoil. 0.3'	
										0.3'-2.0': Dark brown, moist, very loose, Silty fine to medium SAND, trace roots, (Alluvial Deposit).	
	2D	24/17	2.0 - 4.0	2-2-1-4	3	5				Brown, moist, loose, fine to coarse SAND, little silt, little gravel, (Alluvial Deposit).	
	3D	24/11	4.0 - 6.0	6-17-15-16	32	50				Brown, wet, dense, fine to coarse GRAVEL, some fine to coarse sand, little silt, (Alluvial Deposit).	
5								270.3		8.0	
10	4D	24/24	10.0 - 12.0	2-3-3-4	6	9				Grey, wet, stiff, Sandy CLAY, trace silt, (Alluvial Deposit). Low to medium plasticity.	
	5D	24/24	14.0 - 16.0	3-2-2-3	4	6				Grey, wet, medium stiff to stiff, CLAY, some fine sand, some silt, (Alluvial Deposit).	
15	6D	24/24	19.0 - 21.0	2-2-3-5	5	8				Grey, wet, stiff, Sandy CLAY, little silt, (Alluvial Deposit).	
	7D	24/24	24.0 - 26.0	1-3-2-4	5	8				Grey, wet, stiff, Sandy CLAY, little silt, (Alluvial Deposit).	
20								250.8		27.5	
	8D	24/24	29.0 - 31.0	WOR-1-2-4	3	5				Grey, wet, loose, fine to coarse SAND, little silt, (Alluvial Deposit).	
25								244.3		Bottom of Exploration at 34.0 feet below ground surface. 34.0	
30											
35											
40											
45											
50											

Remarks:
1. Automatic hammer NEBC #D-20 Energy Transfer Ratio = 0.931.
2. Water level measured after completion of drilling and after solid stem augers were removed from the borehole.
3. Stopped drilling at 34.0'. Driller lowered splitspoon and it was 2.0' above drill depth, indicating running sands. Spoon was pulled out and the borehole sounded with a weighted tape. Sand was measured to be at 26.0', with a water level at 2.5' possible artesian effect.

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-MPR-206

Division: Bridge
Filename: ...\Boring logs sheets Milo.dgn

Date:8/5/2020
Username: BMC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 22627.01

BRIDGE NO. 3244

P.E. NUMBER

DATE

SIGNATURE

	BY	DATE
DESIGN-DETAILED	MRJ	02/2020
CHECKED-REVIEWED	ARB	02/2020
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

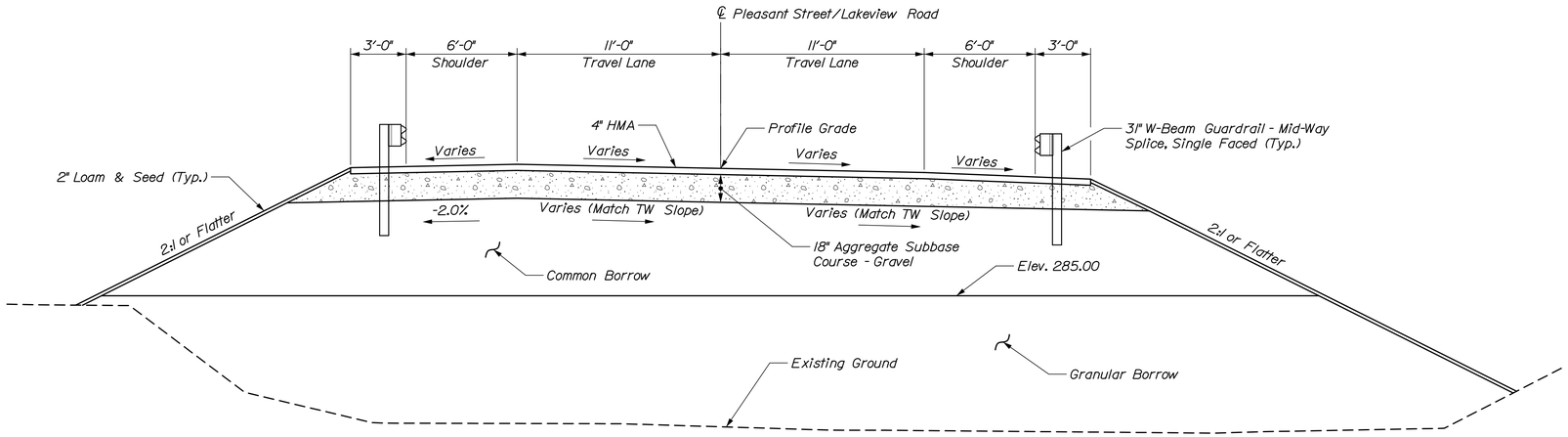
PROJ. MANAGER

PLEASANT RIVER BRIDGE NO. 3244
PLEASANT STREET OVER PLEASANT RIVER
MILO, ME PISCATAQUIS COUNTY

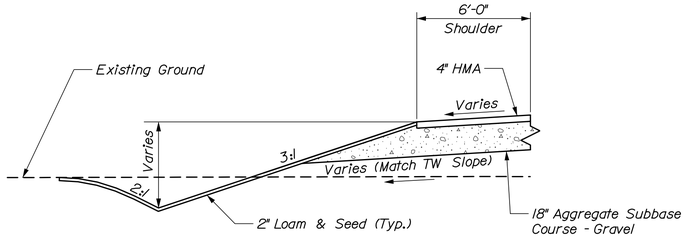
BORING LOGS 6

PREPARED BY:

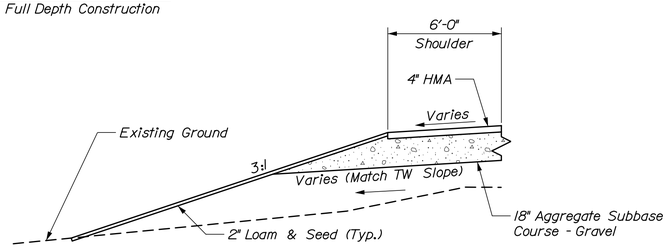
SHEET NUMBER
19
OF 91



PLEASANT STREET/LAKEVIEW ROAD
DESIGN SECTION
Full Depth Construction

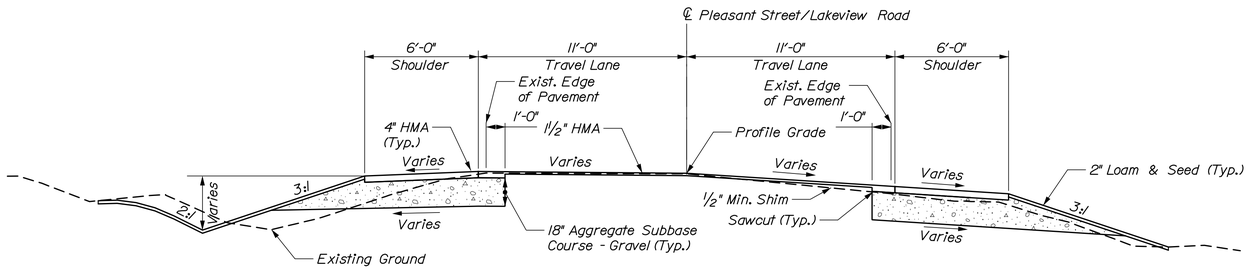


TYPICAL DITCH SECTION
Without Guardrail



TYPICAL EMBANKMENT SECTION
Without Guardrail

Pleasant Street/Lakeview Road Superelevation Table				
Lt. Shoulder	Lt. Travelway	Station	Rt. Travelway	Rt. Shoulder
Match Existing		9+00.00	Match Existing	
-4.0%	-2.0%	9+25.00	-3.9%	-4.0%
-4.0%	-2.0%	9+50.00	-3.0%	-4.0%
-4.0%	-2.0%	9+75.00	-2.0%	-4.0%
↓	↓	-	↓	↓
-4.0%	-2.0%	12+00.00	-2.0%	-4.0%
-4.0%	-0.8%	12+25.00	-2.0%	-4.0%
-4.0%	0.5%	12+50.00	-2.0%	-4.0%
-4.0%	1.7%	12+75.00	-2.0%	-4.0%
-3.0%	3.0%	13+00.00	-3.0%	-4.0%
-2.0%	4.2%	13+25.00	-4.2%	-4.2%
↓	↓	-	↓	↓
-2.0%	4.2%	16+00.00	-4.2%	-4.2%
-2.0%	3.1%	16+25.00	-3.1%	-4.0%
-2.0%	2.0%	16+50.00	-2.0%	-4.0%
N/A	2.0%	16+75.00	-2.0%	-4.0%
N/A	2.0%	17+00.00	-2.0%	N/A
↓	↓	-	↓	↓
N/A	2.0%	20+00.00	-2.0%	N/A
-4.0%	2.0%	20+25.00	-2.0%	N/A
-4.0%	2.0%	20+50.00	-2.0%	-4.0%
-4.0%	1.2%	20+75.00	-1.2%	-4.0%
-4.0%	0.4%	21+00.00	-0.4%	-4.0%
-4.0%	-0.4%	21+25.00	0.4%	-4.0%
-4.0%	-1.2%	21+50.00	1.2%	-4.0%
-4.0%	-2.0%	21+75.00	2.0%	-4.0%
-4.0%	-2.8%	22+00.00	2.8%	-4.0%
-4.0%	-3.6%	22+25.00	3.6%	-3.0%
-4.4%	-4.4%	22+50.00	4.4%	-2.0%
-5.2%	-5.2%	22+75.00	5.2%	-2.0%
-6.0%	-6.0%	23+00.00	6.0%	-2.0%
↓	↓	-	↓	↓
-6.0%	-6.0%	26+00.00	6.0%	-2.0%
-4.6%	-4.6%	26+25.00	4.6%	-2.0%
-4.0%	-3.3%	26+50.00	3.3%	-3.0%
-4.0%	-1.9%	26+75.00	1.9%	-4.0%
-4.0%	-0.5%	27+00.00	0.5%	-4.0%
-4.0%	0.9%	27+25.00	-0.9%	-4.0%
-4.0%	2.2%	27+50.00	-2.2%	-4.0%
-4.0%	2.2%	27+75.00	-3.6%	-4.0%
-4.0%	2.2%	28+00.00	-5.0%	-5.0%
-4.0%	0.9%	28+25.00	-6.4%	-6.4%
-4.0%	-0.5%	28+50.00	-7.7%	-7.7%
Match Existing		28+75.00	Match Existing	



PLEASANT STREET/LAKEVIEW ROAD
DESIGN SECTION
Shoulder Construction With
Variable Depth Mill, Shim & 1-1/2" Overlay

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE PLANS

BRIDGE NO. 3244

	NAME	BY	DATE
PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

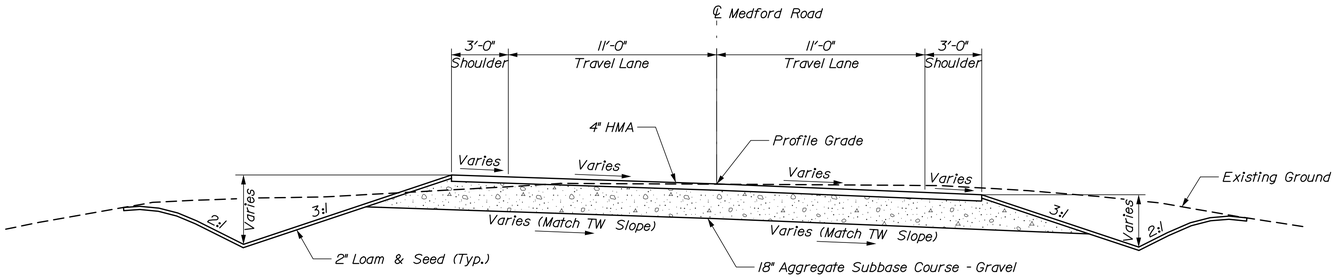
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

TYPICAL SECTIONS 1

SHEET NUMBER
20
OF 91

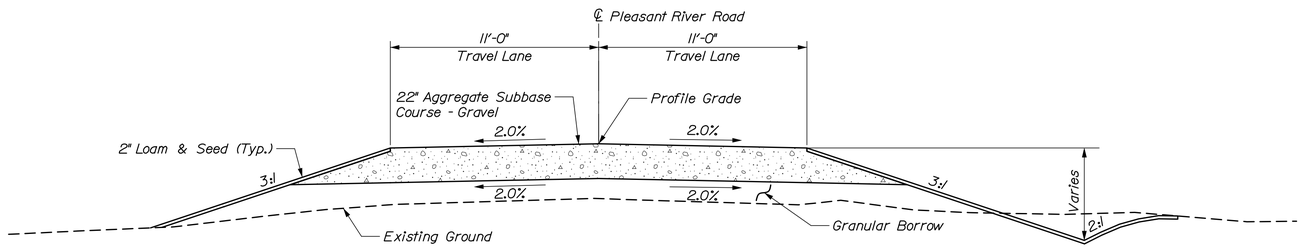
HNTB

Date:8/7/2020
Username:
Division:
Filename: 020_Typical Sections.dgn



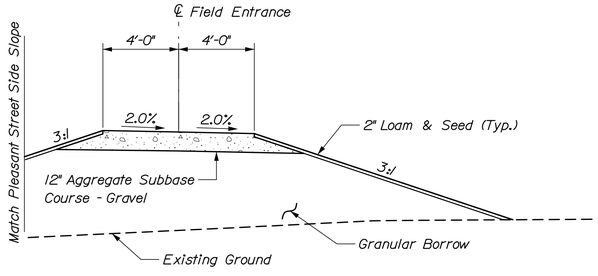
MEDFORD ROAD DESIGN TYPICAL SECTION

Medford Road Superelevation Table				
Lt. Shoulder	Lt. Travelway	Station	Rt. Travelway	Rt. Shoulder
Match Existing		103+50.00	Match Existing	
-2.4%	-2.4%	103+75.00	-4.1%	-4.1%
-1.0%	-1.0%	104+00.00	-4.1%	-4.1%
0.4%	0.4%	104+25.00	-4.1%	-4.1%
1.8%	1.8%	104+50.00	-4.1%	-4.1%
3.2%	3.2%	104+75.00	-4.1%	-4.1%
4.6%	4.6%	105+00.00	-4.6%	-4.6%
↓	↓	-	↓	↓
4.6%	4.6%	106+00.00	-4.6%	-4.6%
3.5%	3.5%	106+25.00	-3.5%	-3.5%



Pleasant River Road Superelevation Table		
Lt. Travelway	Station	Rt. Travelway
Match Existing	201+50.00	Match Existing
-2.0%	201+75.00	-2.0%
↓	-	↓
-2.0%	203+25.00	-2.0%
-2.0%	203+50.00	0.0%
-2.0%	203+75.00	2.0%
-3.4%	204+00.00	3.8%

PLEASANT RIVER ROAD DESIGN SECTION



FIELD ENTRANCE DESIGN SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel	BY	DATE
DESIGN-DETAILED	C. Hémick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

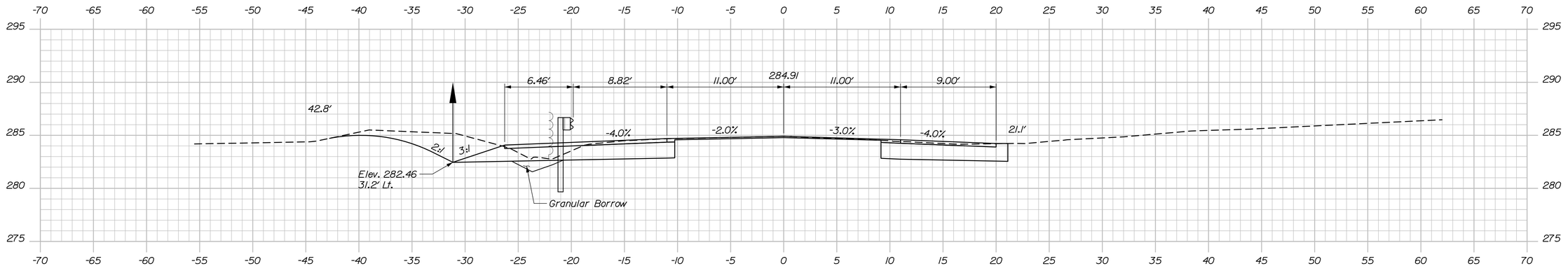
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

TYPICAL SECTIONS 2

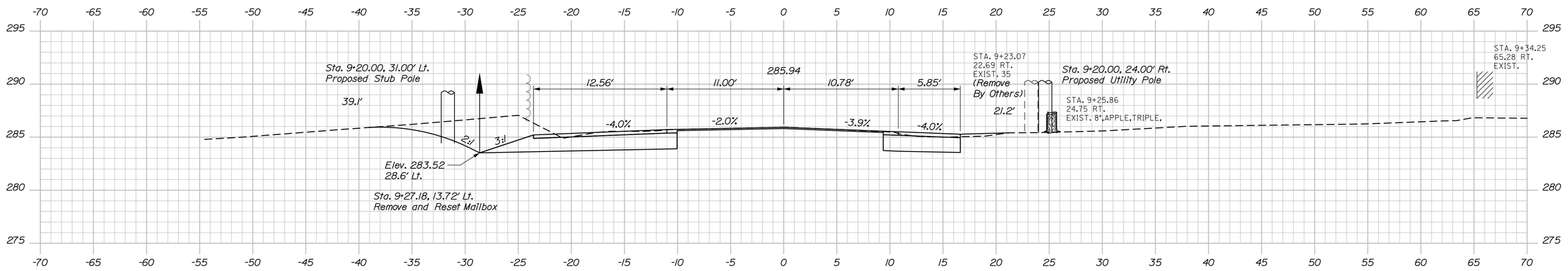
SHEET NUMBER
21
OF 91

HNTB

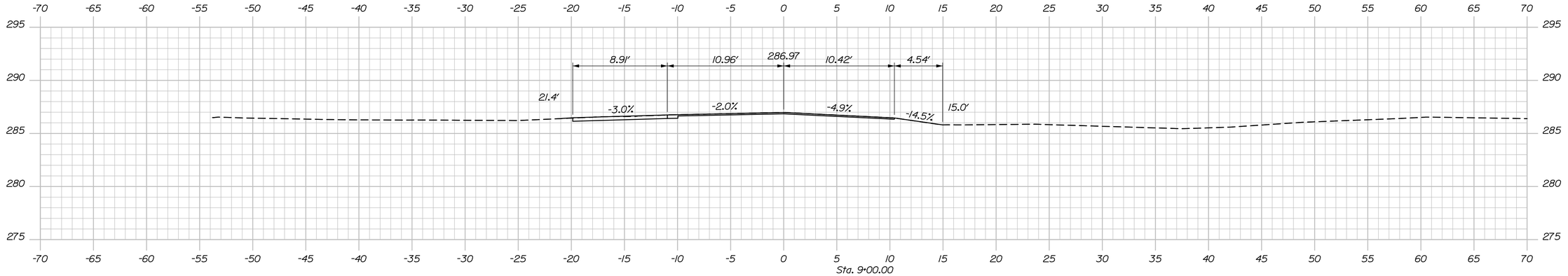
Username:
Division:
Date:8/7/2020
Filename: 021_Typical Sections.dgn



9+50.00



9+25.00



9+00.00

Sta. 9+00.00
Match Existing
Begin Variable Depth
Mill, Shim, & 2" Overlay
Begin Shoulder Reconstruction

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Hdmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

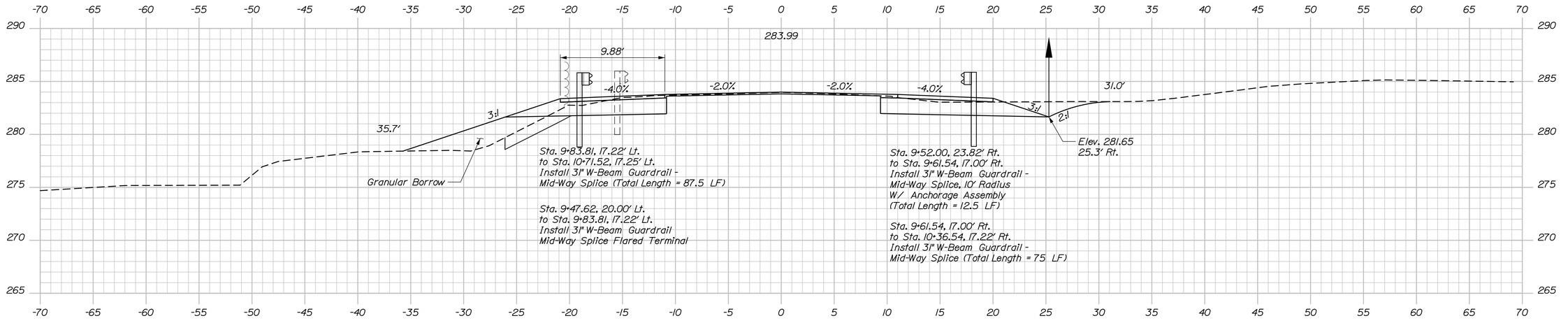
PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

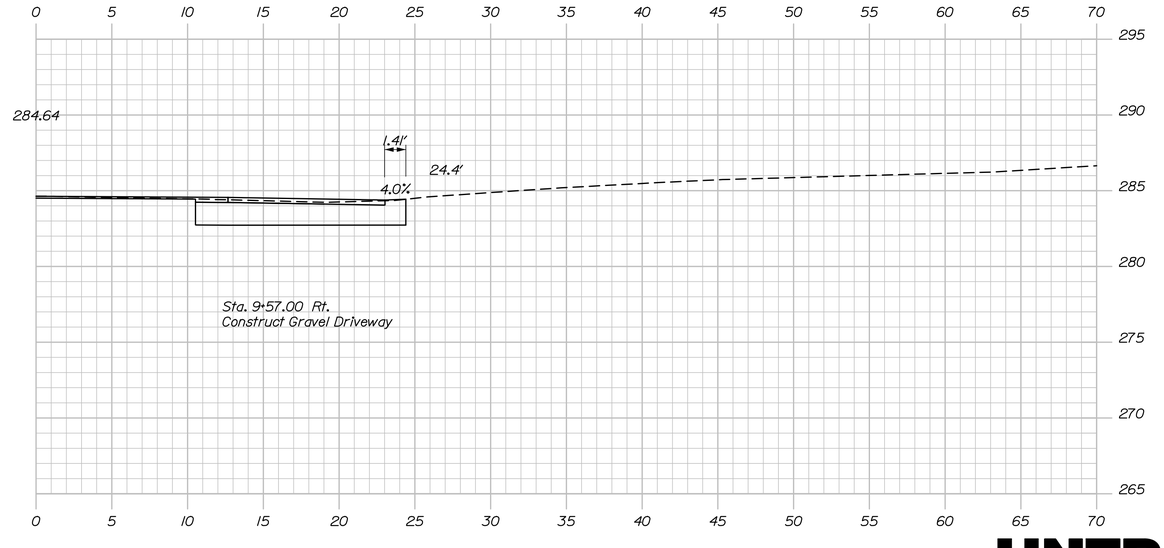
SHEET NUMBER
22
OF 91

Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn

Sta. 9+00.00 to Sta. 9+50.00



9+75.00



9+57.00 (SKEWED)

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

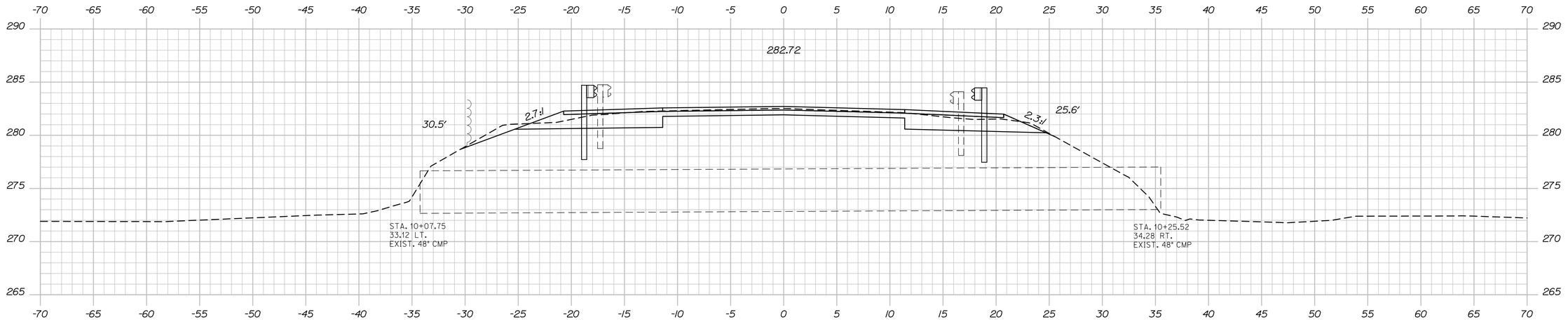
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

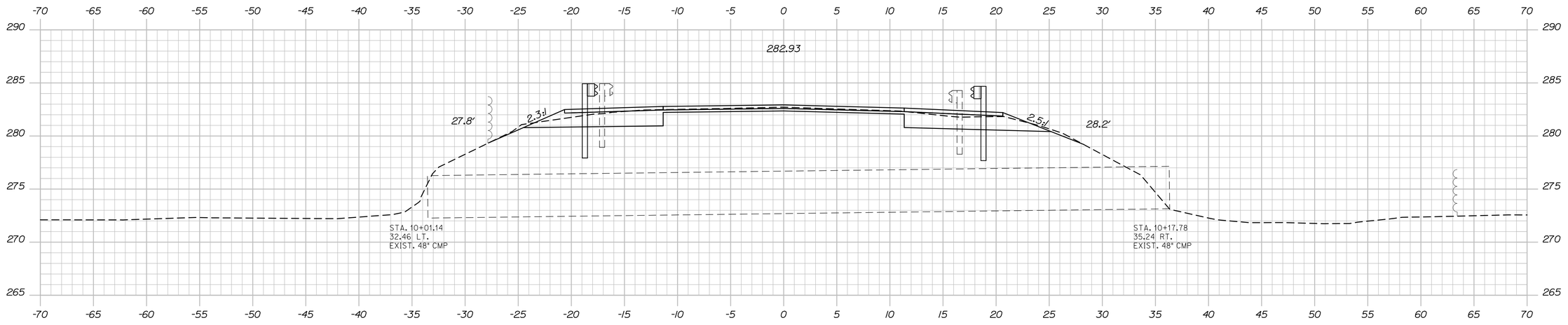
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23
OF 91

Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn

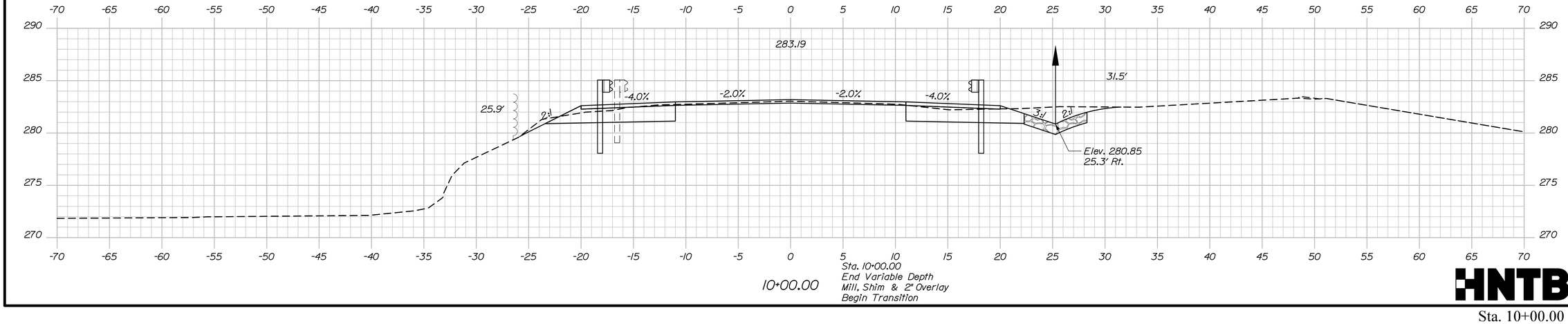
Sta. 9+57.00 to Sta. 9+75.00



10+17.00 (SKEWED)



10+09.00 (SKEWED)



10+00.00

Sta. 10+00.00
End Variable Depth
Mill, Shim & 2" Overlay
Begin Transition

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathel	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

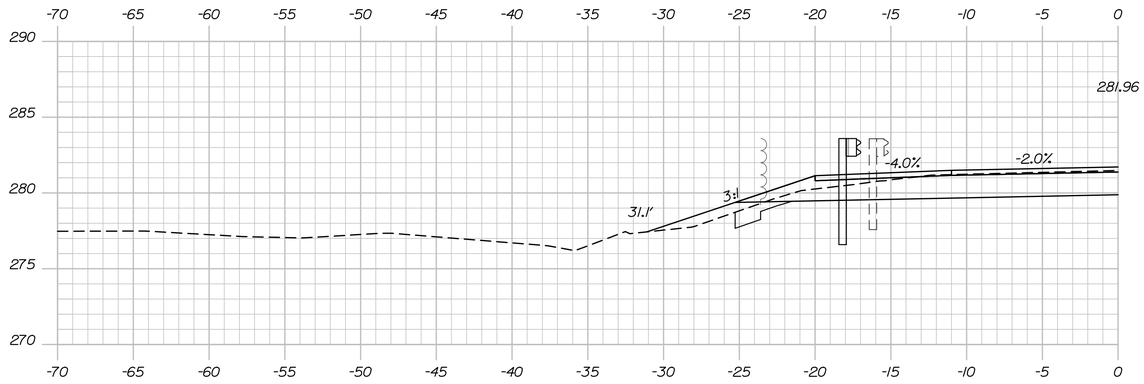
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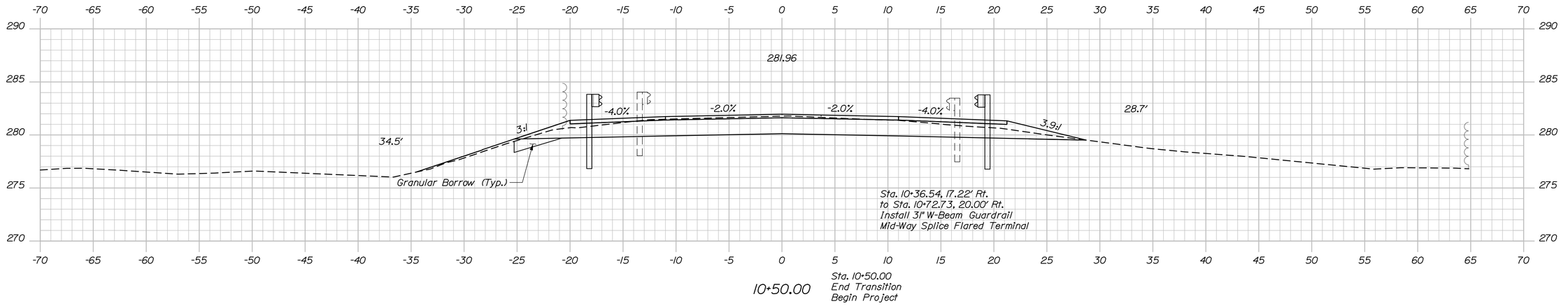
OF 91

Sta. 10+00.00 to Sta. 10+17.00

Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn

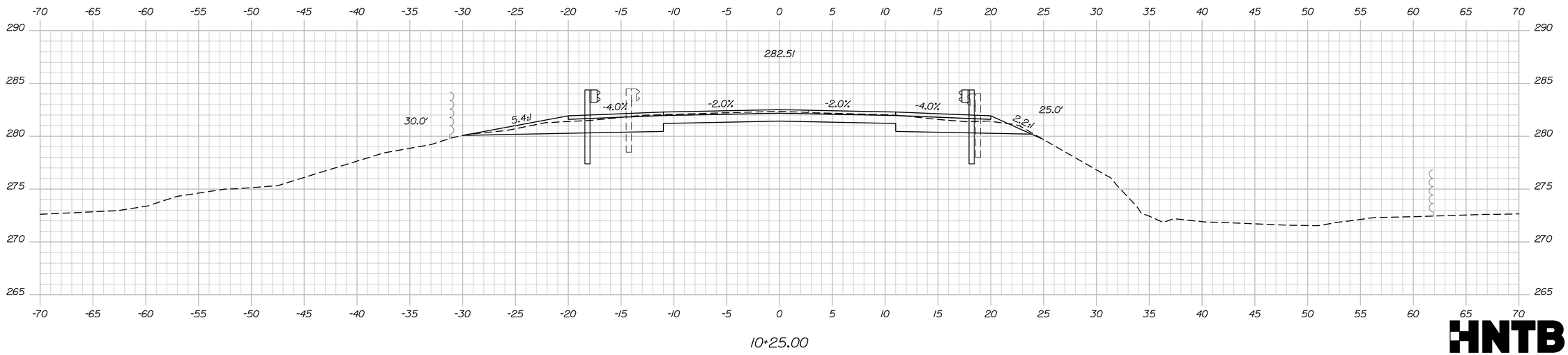


10+63.00



10+50.00

Sta. 10+50.00
End Transition
Begin Project



10+25.00

Sta. 10+25.00 to Sta. 10+63.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lothel	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

25

OF 91

HNTB

Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	A. Lothel	BY	DATE
CHECKED-REVIEWED	C. Hémick	P. Bishop	08\20
DESIGN2-DETAILED2	L. Driscoll	R. Hanf	08\20
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

26

OF 91

HNTB

Sta. 10+75.00 to Sta. 11+25.00

Username:

Date:8/7/2020

Division:

Filename: Xsect.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

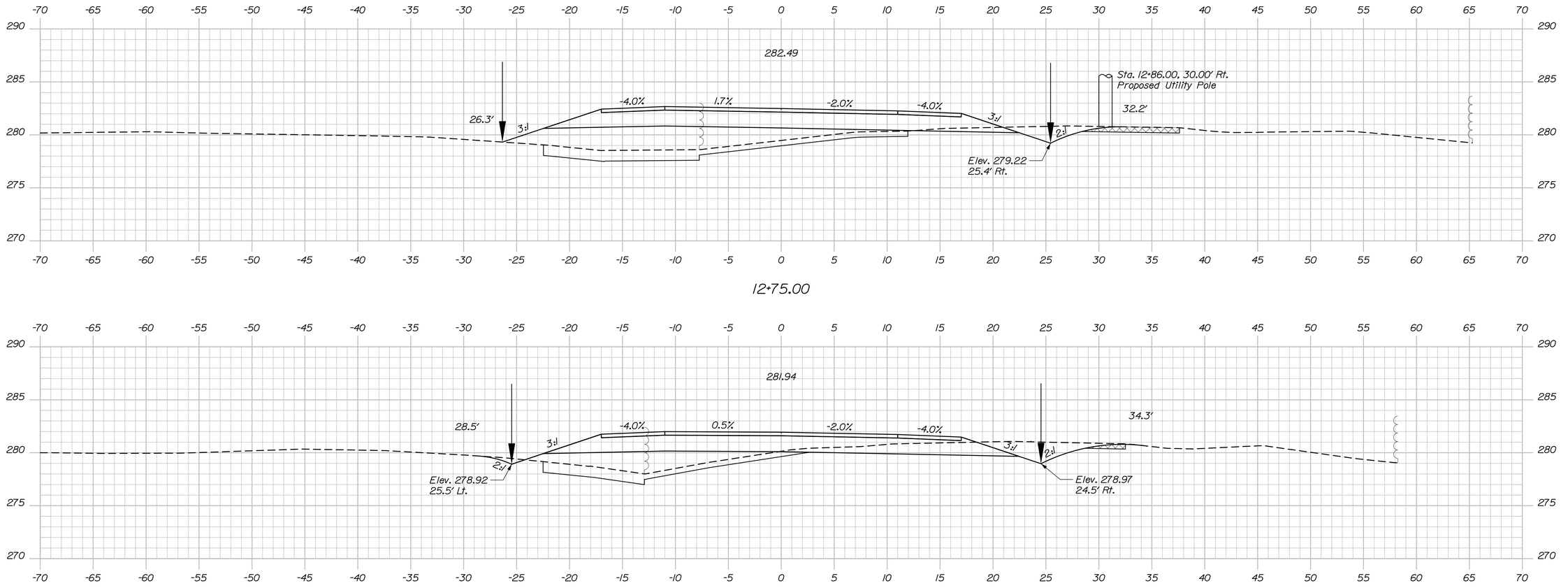
27

OF 91

HNTB

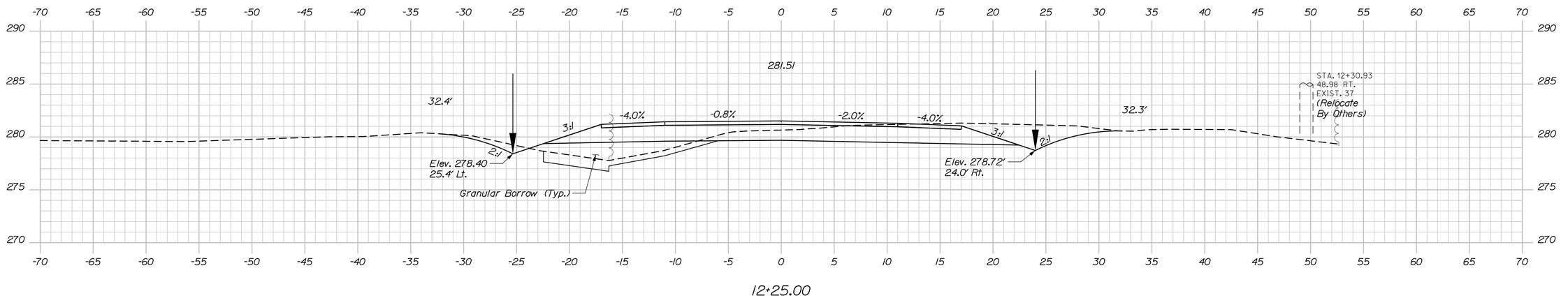
Sta. 11+50.00 to Sta. 12+00.00

Username:
Division:
Date:8/7/2020
Filename: Xsect.dgn



12+75.00

12+50.00



12+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathel	
DESIGN-DETAILED	C. Helmick	P. Bishop 08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf 08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

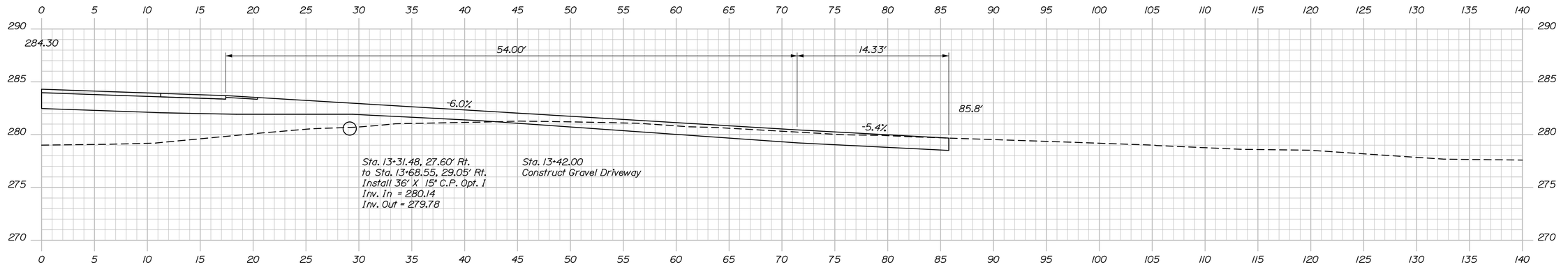
28

OF 91

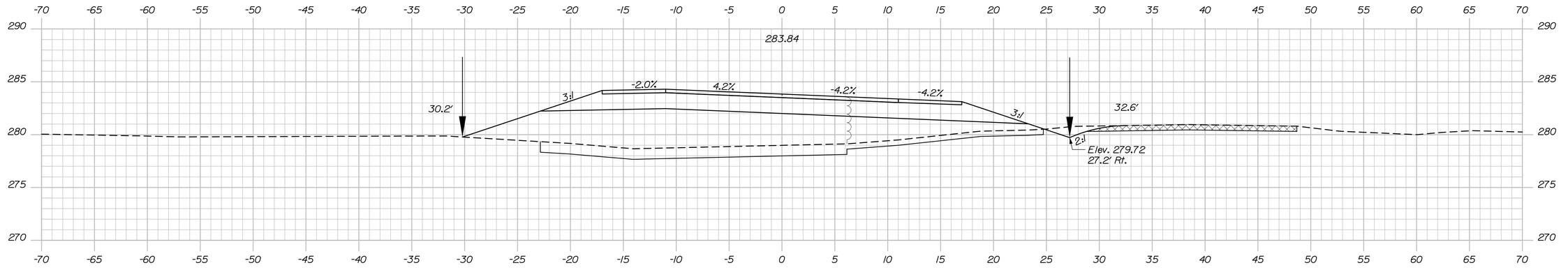
HNTB

Sta. 12+25.00 to Sta. 12+75.00

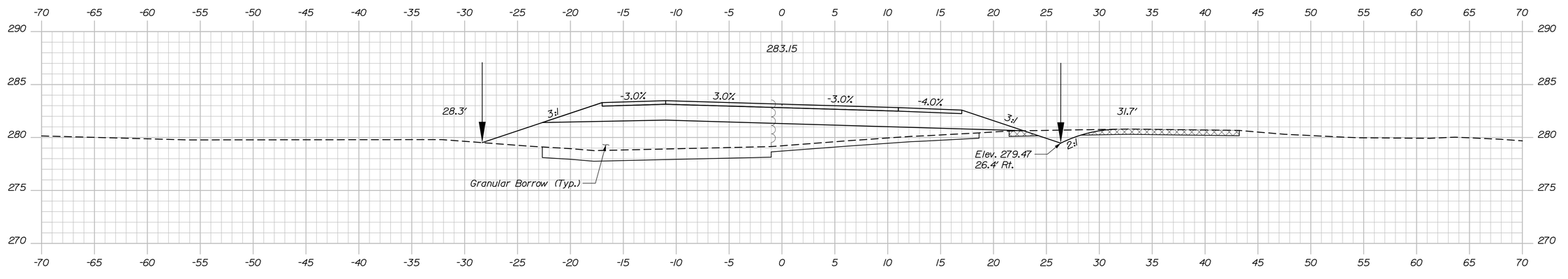
Username:
Division:
Filename: Xsect.dgn
Date:8/7/2020



13+42.00 (SKEWED)



13+25.00



13+00.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

P.E. NUMBER

DATE

SIGNATURE

		BY	DATE
PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

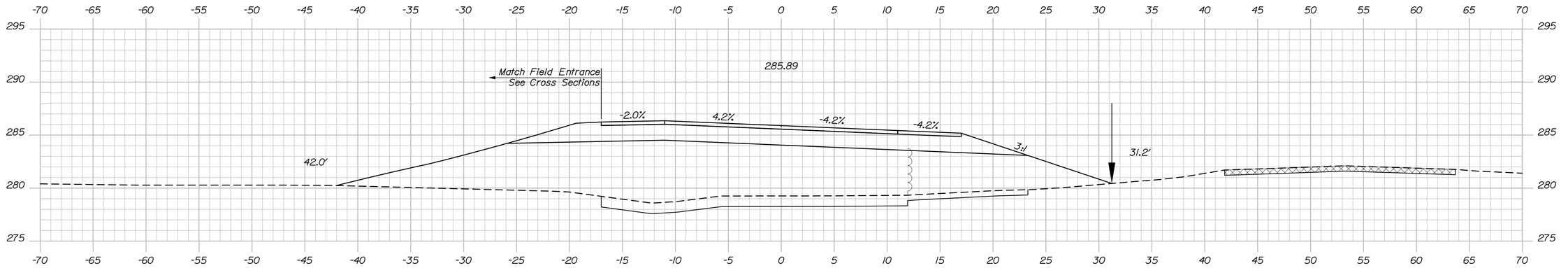
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29

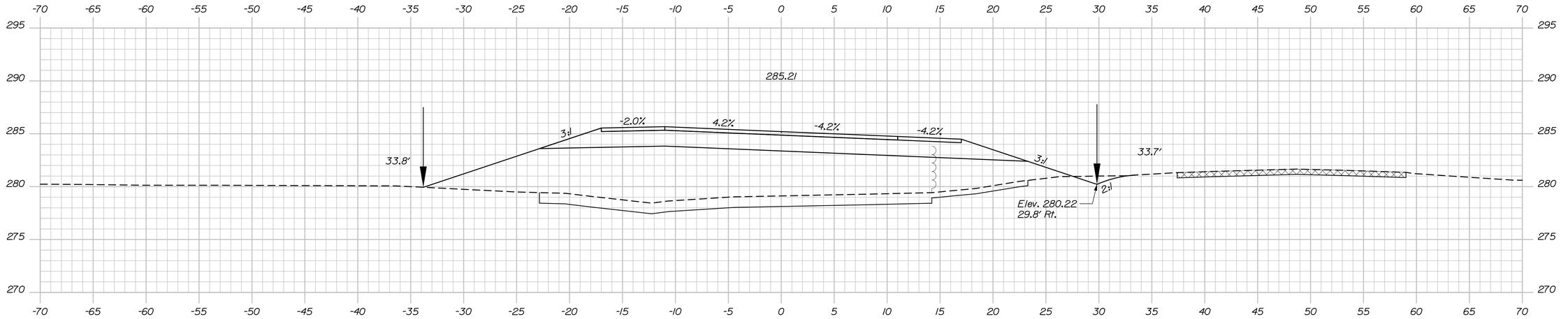
OF 91

Sta. 13+00.00 to Sta. 13+42.00

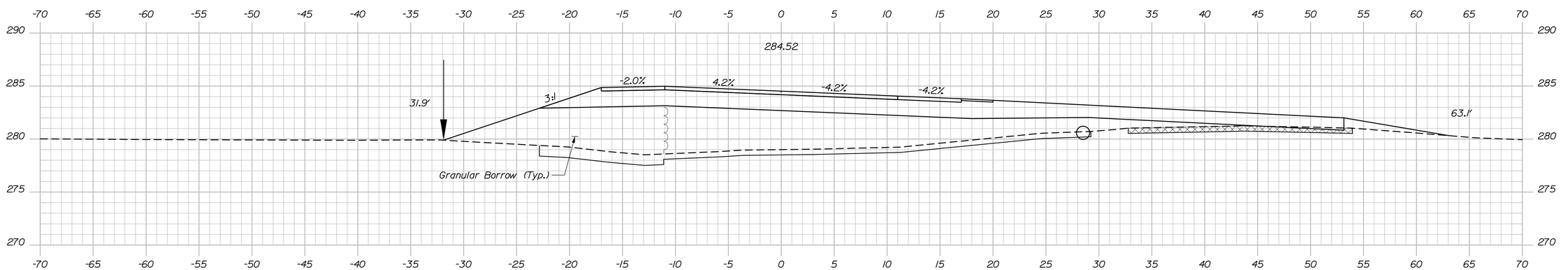
Username:
Division:
Filename: Xsect.dgn
Date:8/7/2020



14+00.00



13+75.00



13+50.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE PLANS

BRIDGE NO. 3244

	BY	DATE
PROJ. MANAGER	A. Luthe	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1	P. Bishop	08\20
REVISIONS 2	R. Hanf	08\20
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

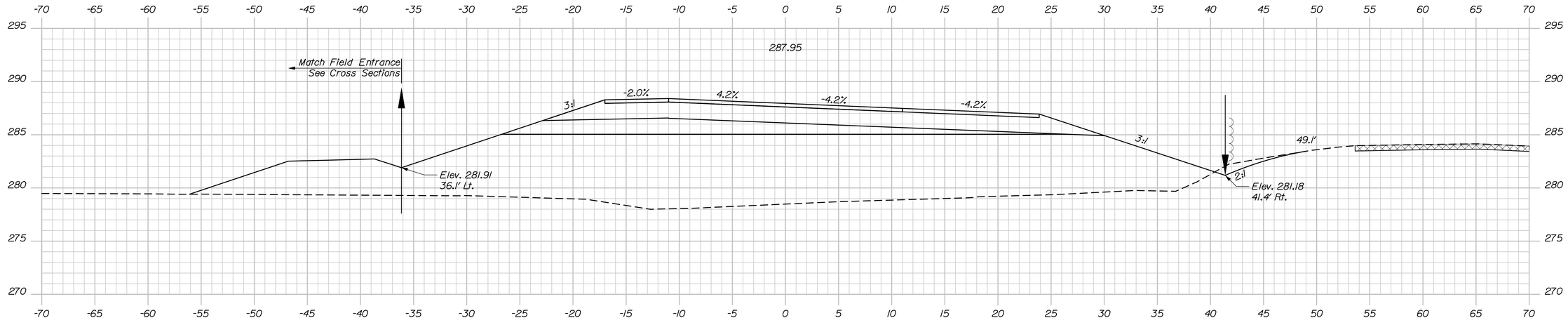
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

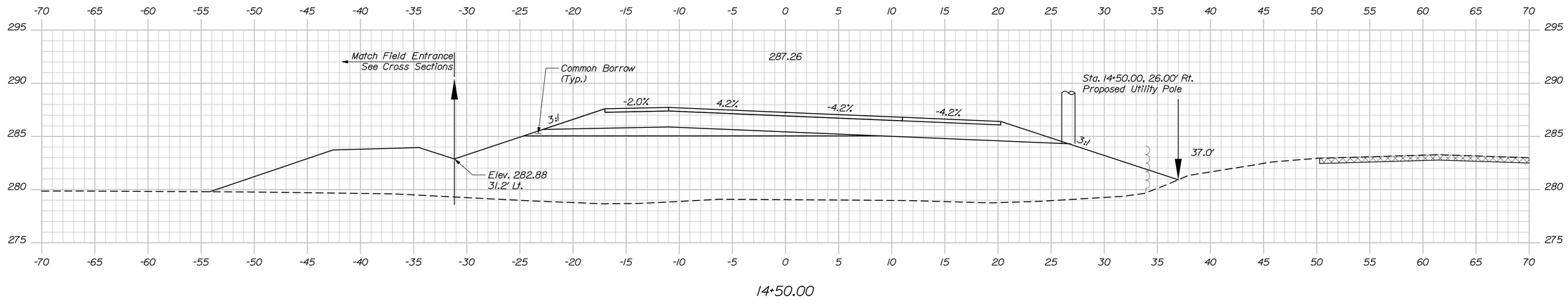
SHEET NUMBER
30
OF 91

Sta. 13+50.00 to Sta. 14+00.00

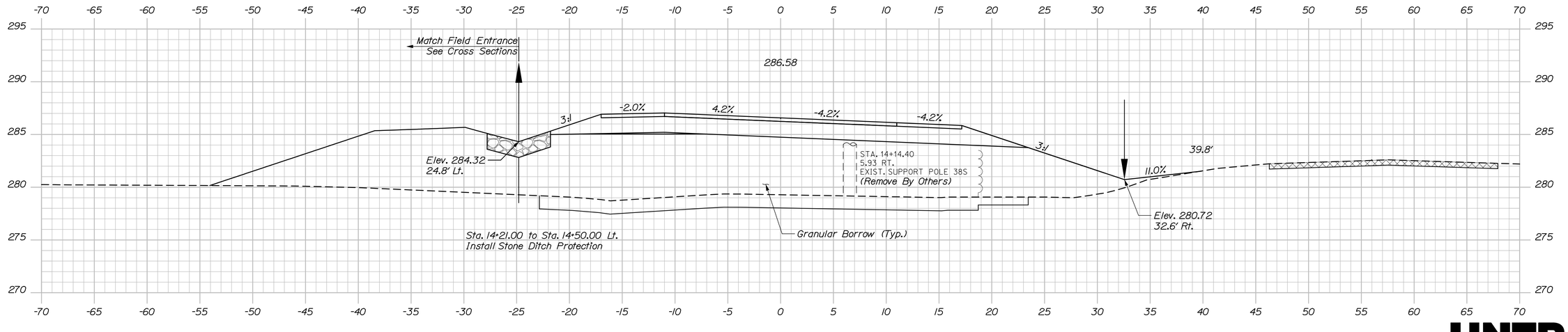
Filename: Xsect.dgn
Division:
Username:
Date:8/7/2020



14+75.00



14+50.00



14+25.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

	BY	DATE
PROJ. MANAGER	A. Luthe	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

31

OF 91

Sta. 14+25.00 to Sta. 14+75.00

Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothe	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

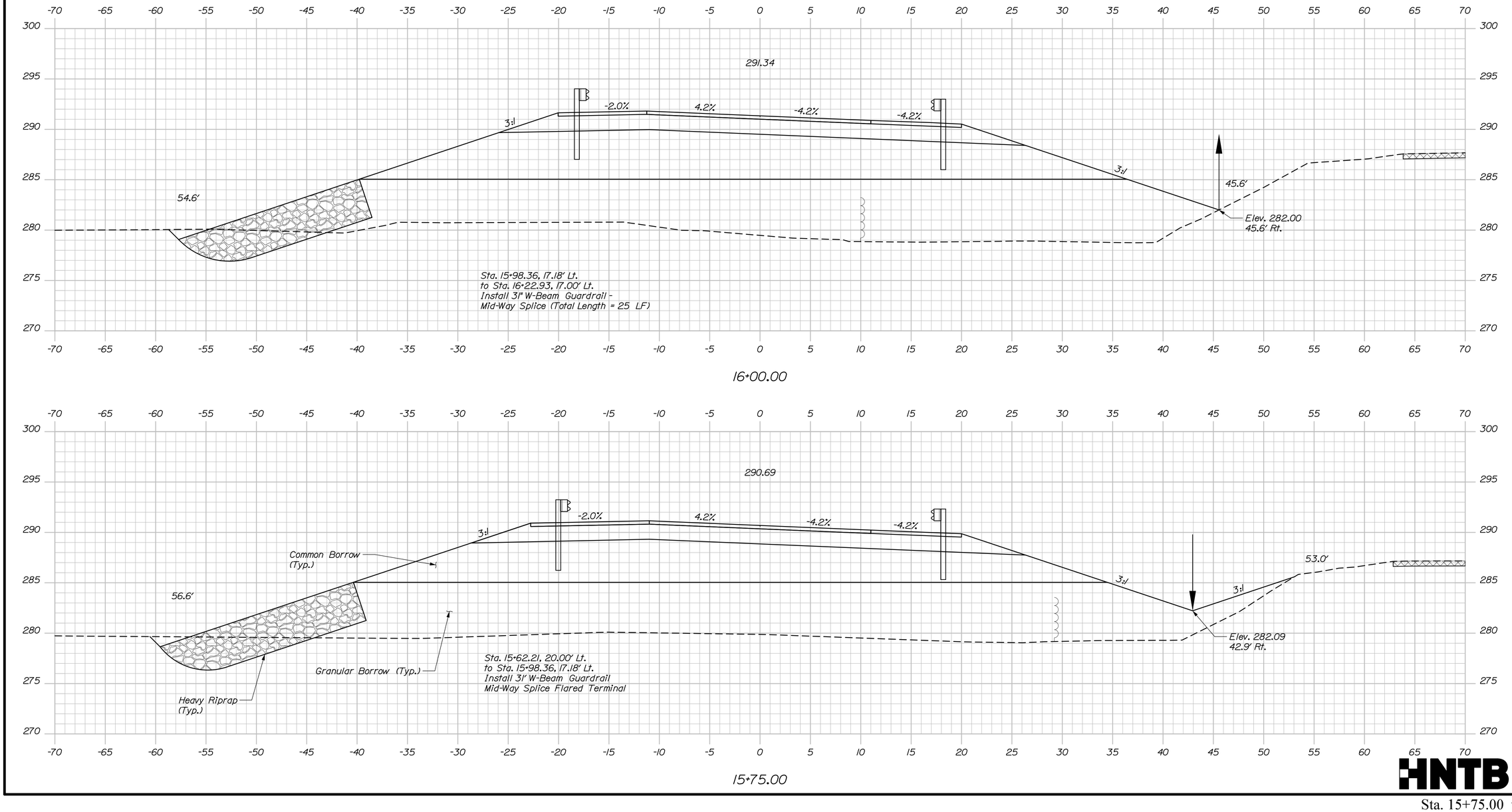
32

OF 91

HNTB

Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn

Sta. 15+00.00 to Sta. 15+50.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

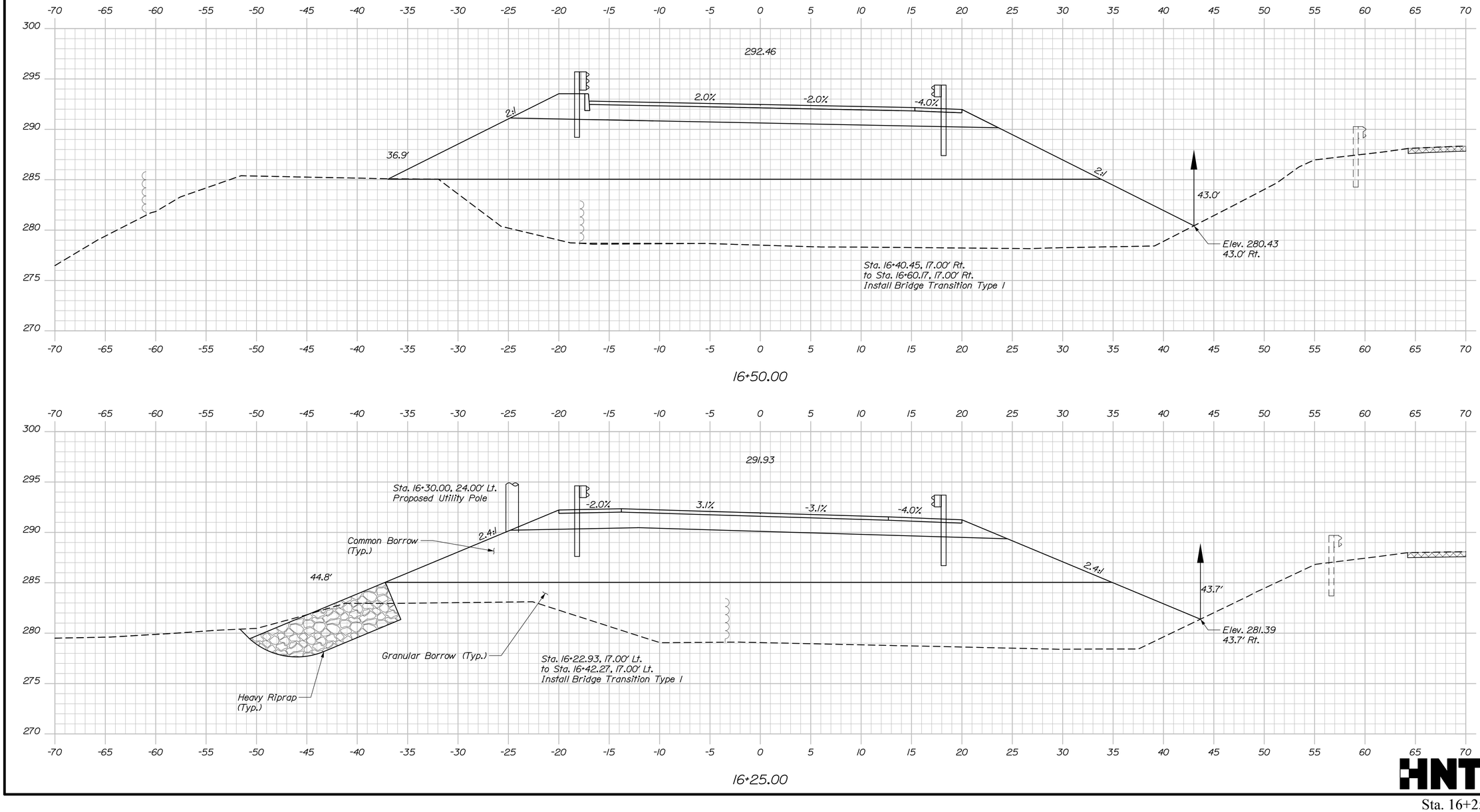
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OF 91

HNTB

Sta. 15+75.00 to Sta. 16+00.00

Username:
Division:
Filename: Xsect.dgn
Date:8/7/2020



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN
022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathel	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

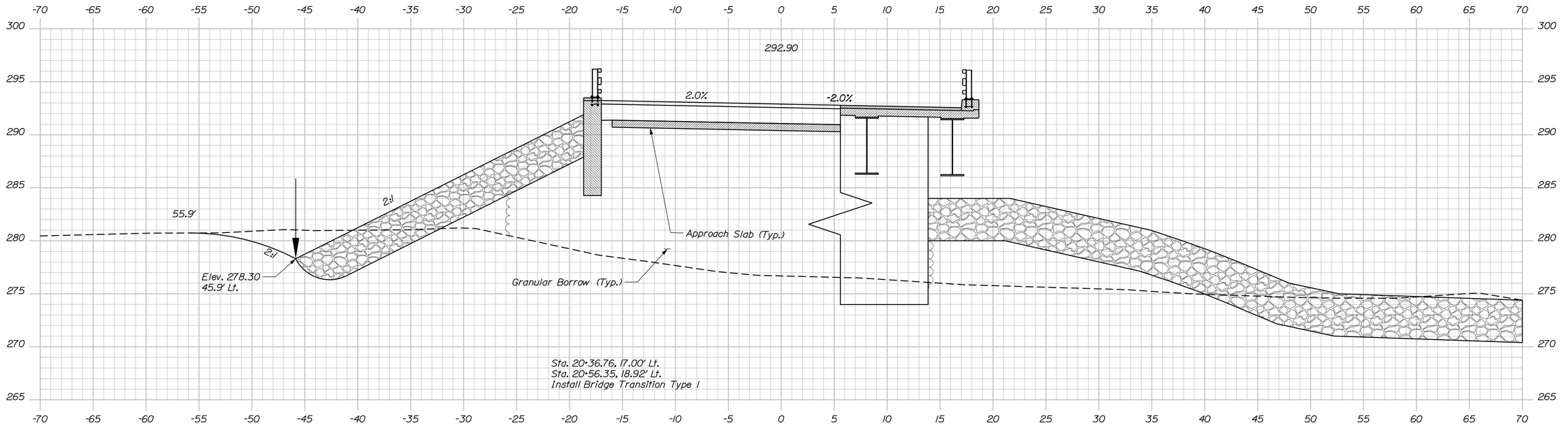
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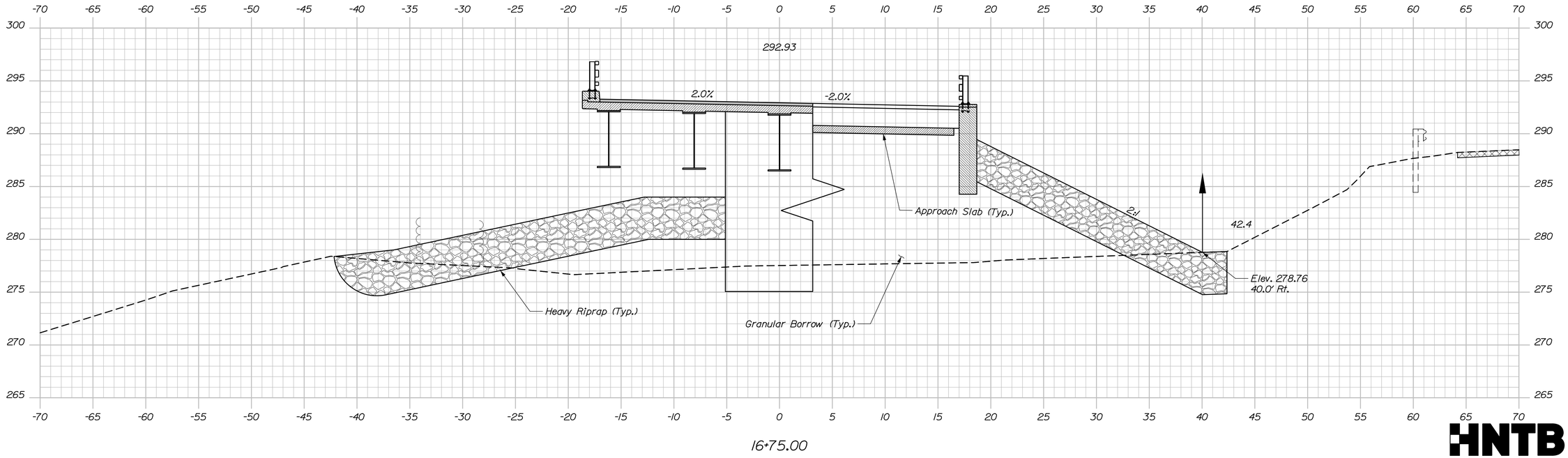
OF 91

HNTB

Sta. 16+25.00 to Sta. 16+50.00

Username:
Division:
Filename: Xsect.dgn
Date:8/7/2020





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathel	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

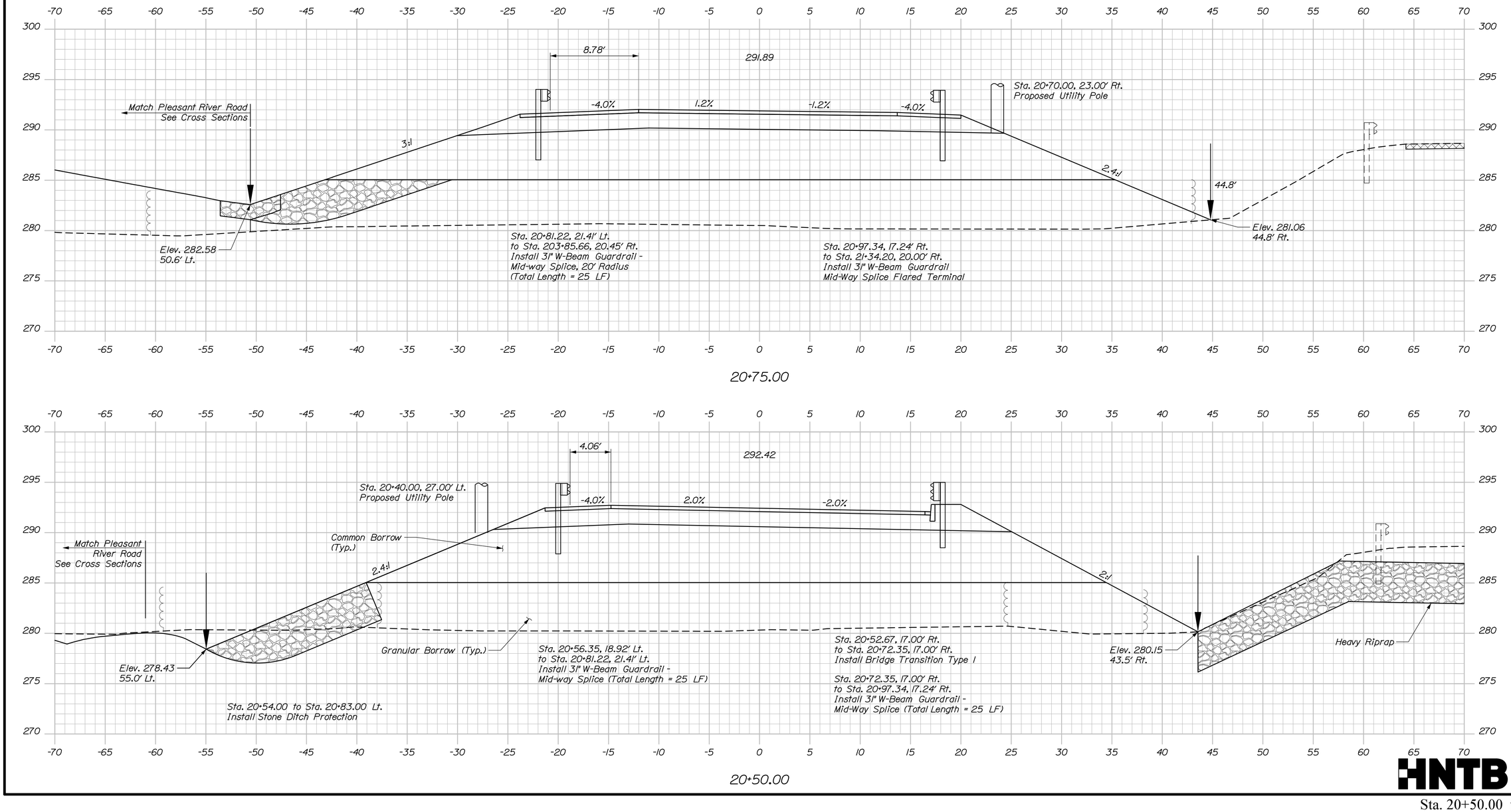
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OF 91

HNTB

Sta. 16+75.00 to Sta. 20+25.00

Username:
Division:
Date:8/7/2020
Filename: Xsect.dgn



Sta. 20+50.00 to Sta. 20+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

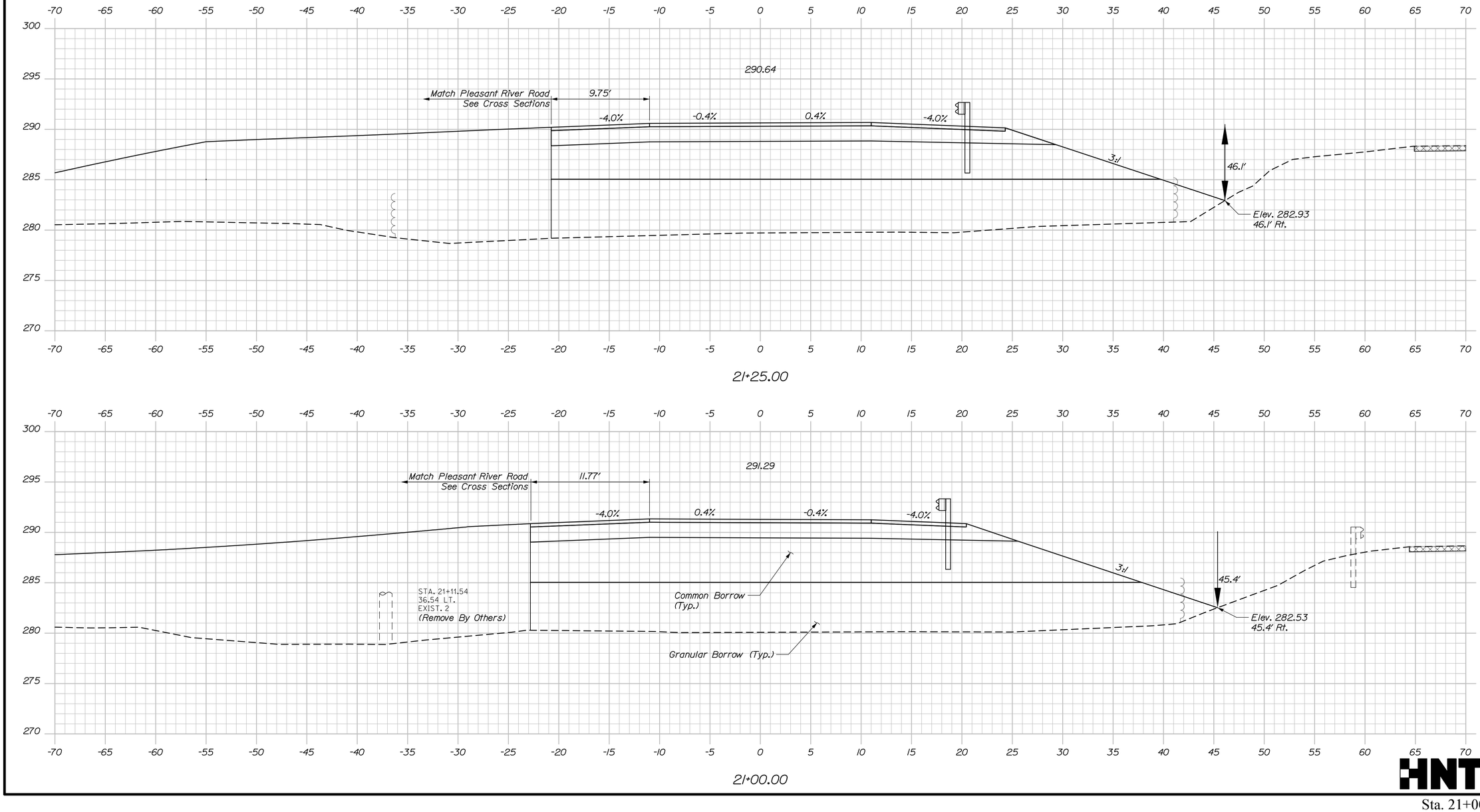
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER
36
OF 91

HNTB

Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Helmick	BY	P. Bishop
CHECKED-REVIEWED	L. Driscoll		R. Hanf
DESIGN2-DETAILED2		DATE	08\20
DESIGN3-DETAILED3			08\20
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

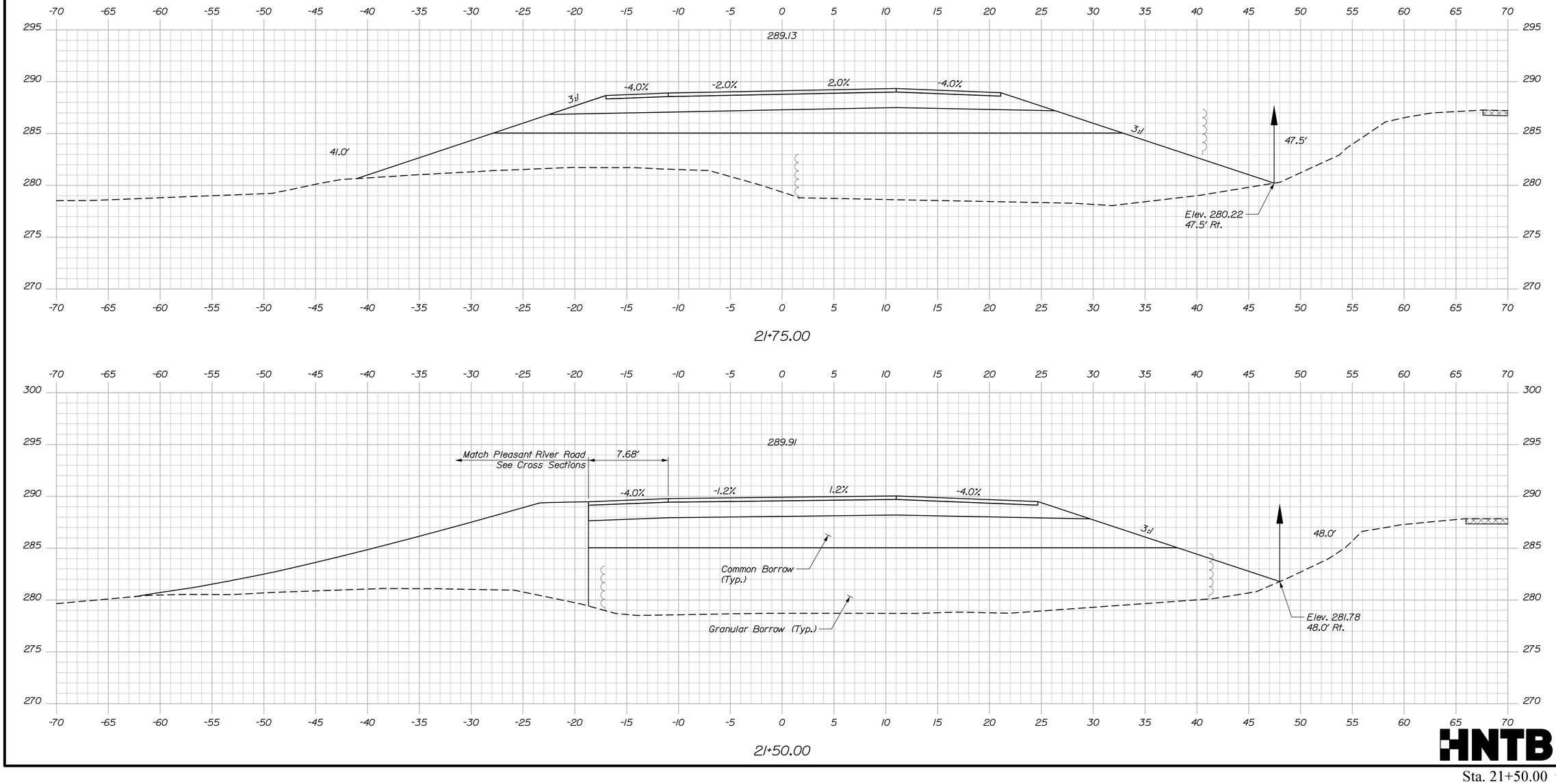
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OF 91

HNTB

Sta. 21+00.00 to Sta. 21+25.00

Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn



Sta. 21+50.00 to Sta. 21+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER

38

OF 91

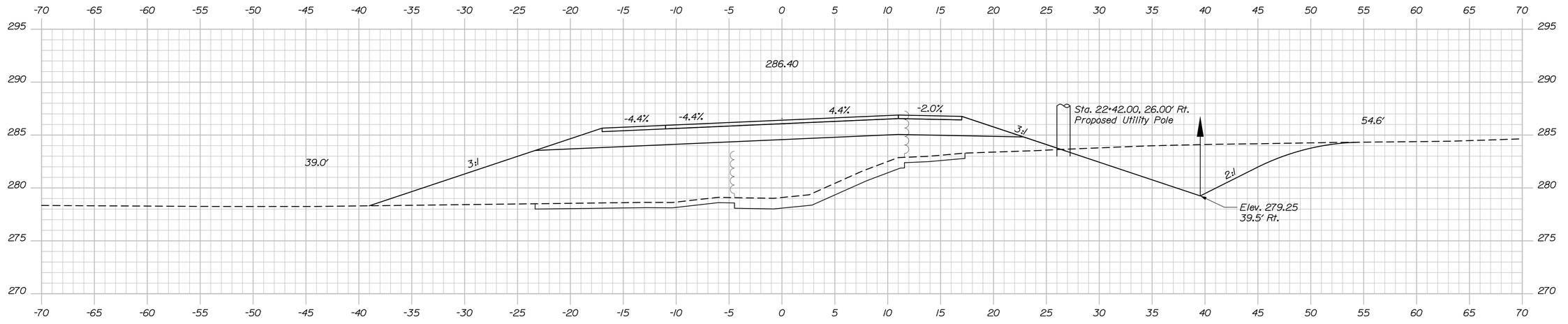
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Username:

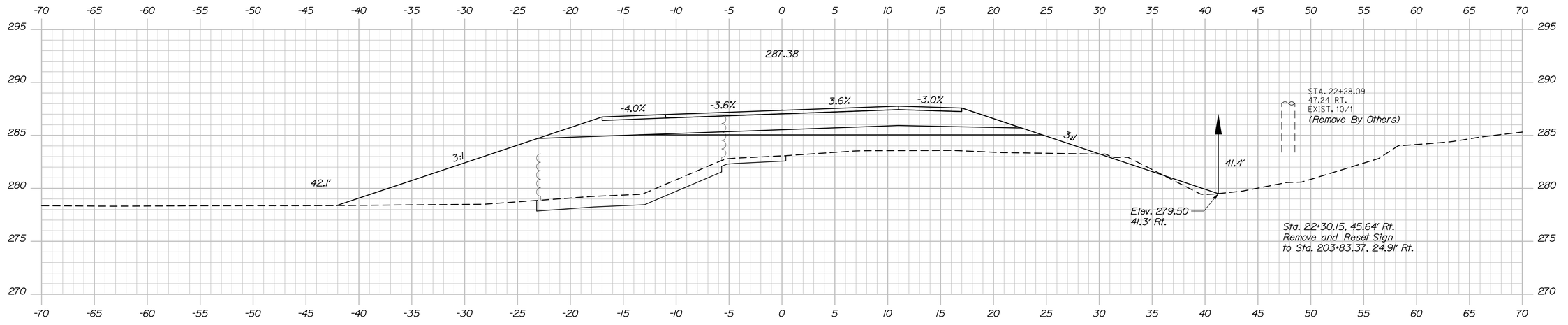
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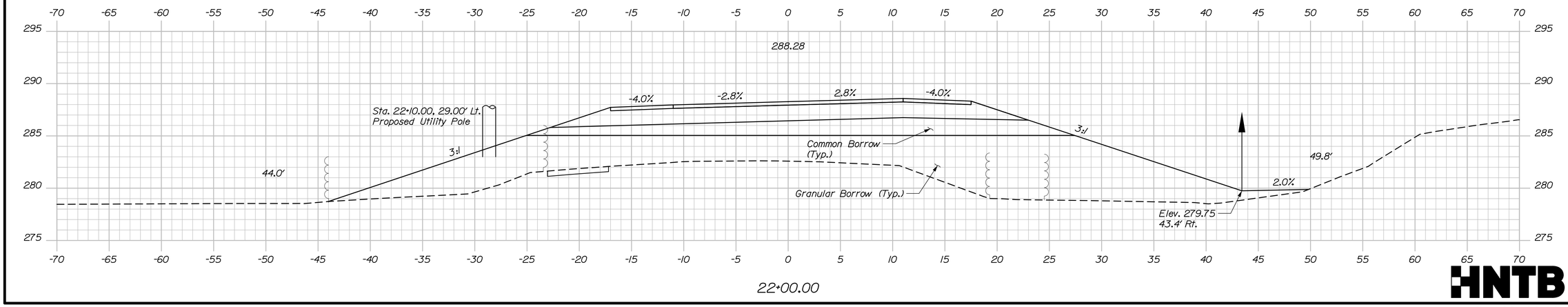
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22+50.00



22+25.00



22+00.00

HNTB

Sta. 22+00.00 to Sta. 22+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathe	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

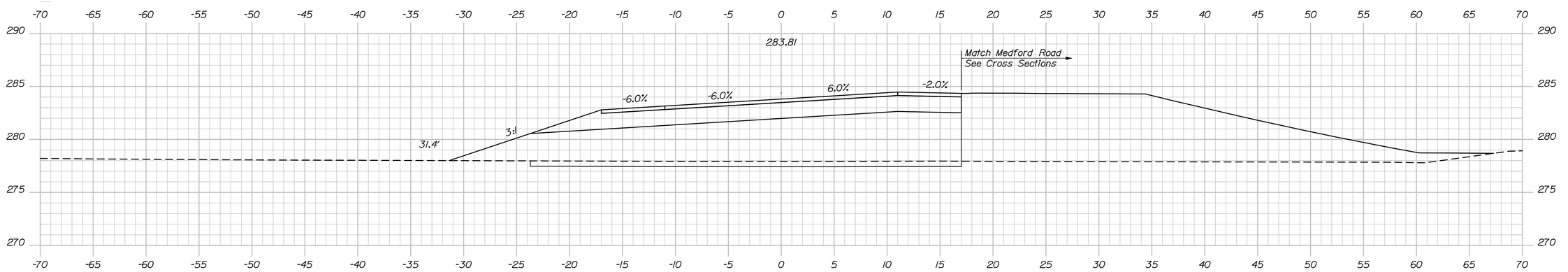
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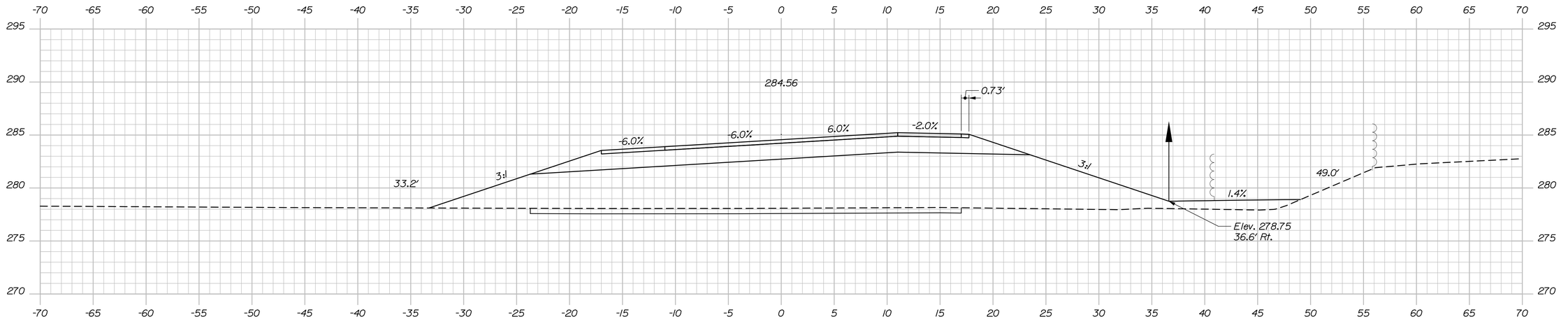
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OF 91

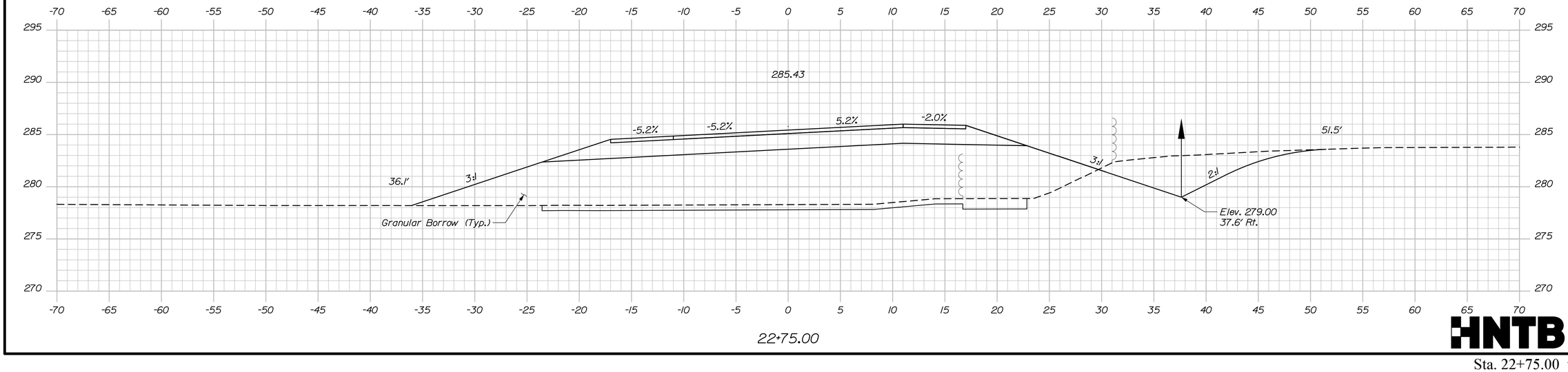
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23+25.00



23+00.00



22+75.00

HNTB

Sta. 22+75.00 to Sta. 23+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

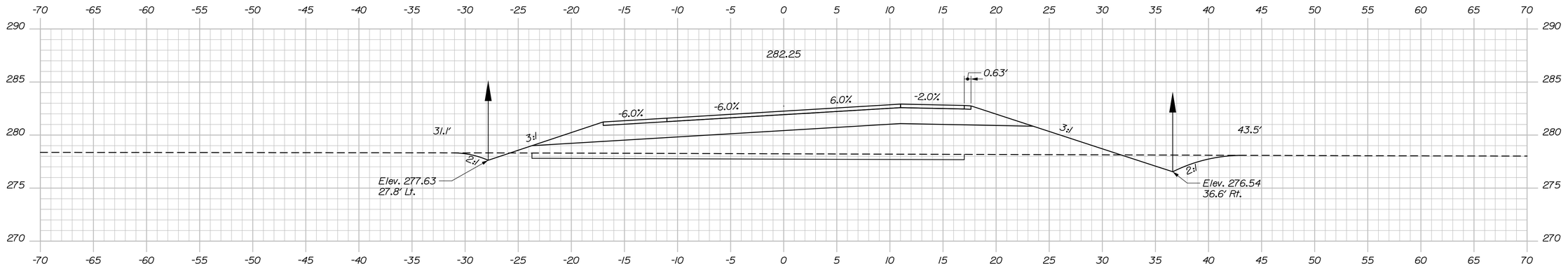
DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

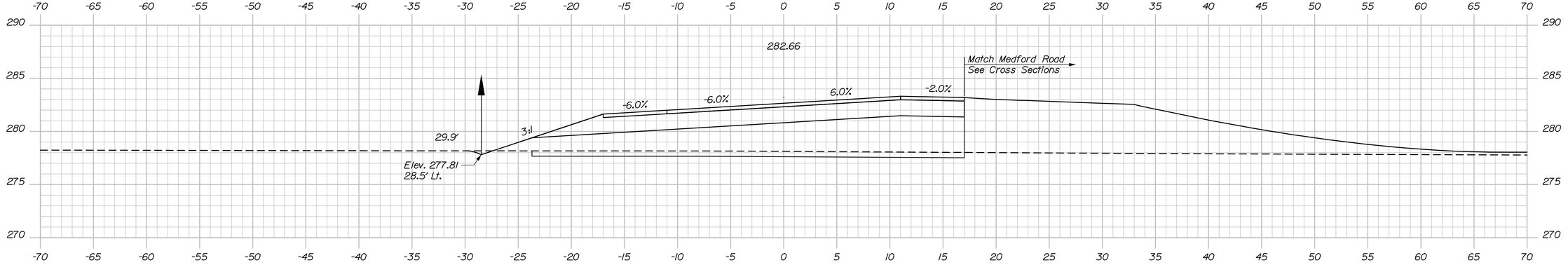
CROSS SECTIONS
PLEASANT STREET

SHEET NUMBER
40
OF 91

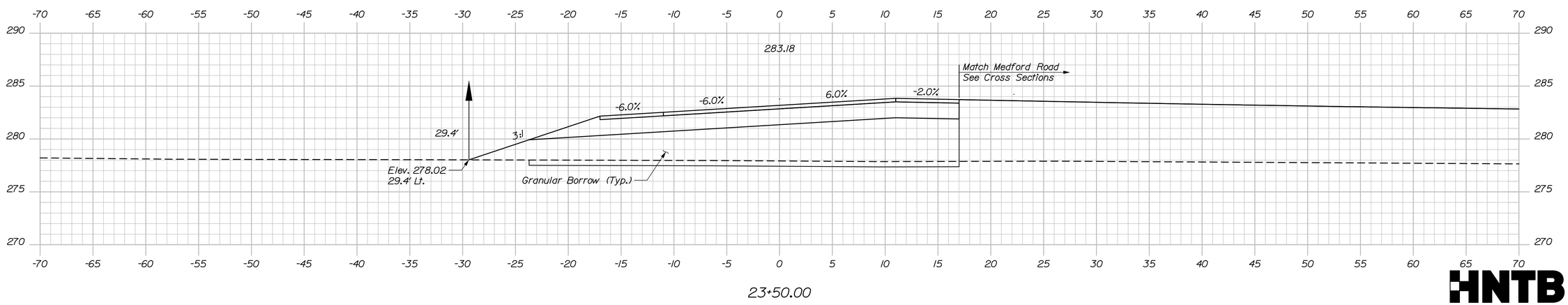
Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn



24+00.00



23+75.00



23+50.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

P.E. NUMBER

SIGNATURE

DATE

PROJ. MANAGER	A. Lothel	
DESIGN-DETAILED	C. Helmick	BY
CHECKED-REVIEWED	L. Driscoll	P. Bishop
DESIGN2-DETAILED2		R. Hanf
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		DATE
		08\20
		08\20

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT ST/LAKEVIEW RD

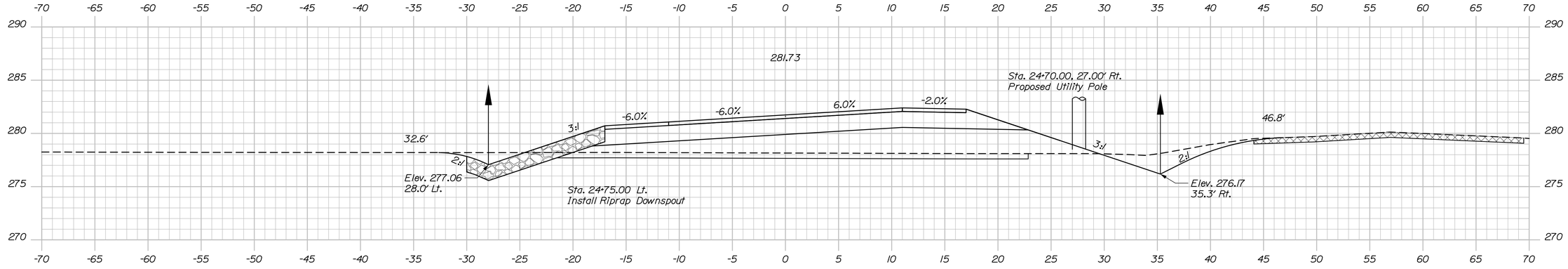
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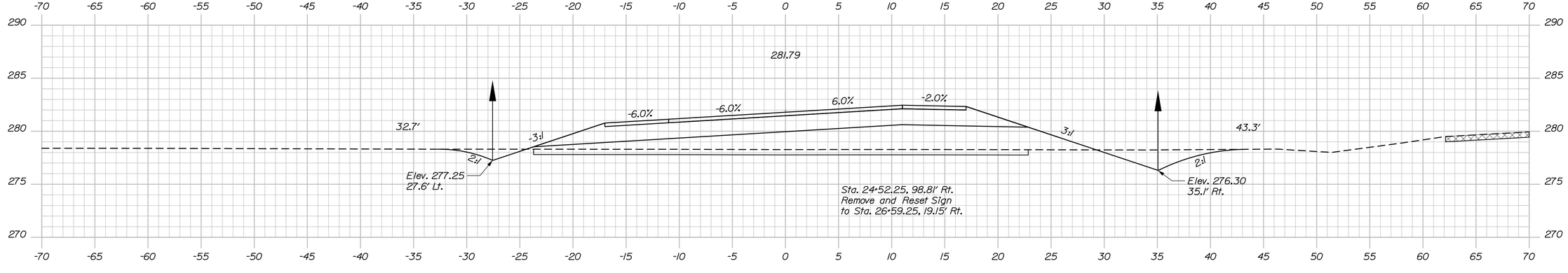
OF 91

Sta. 23+50.00 to Sta. 24+00.00

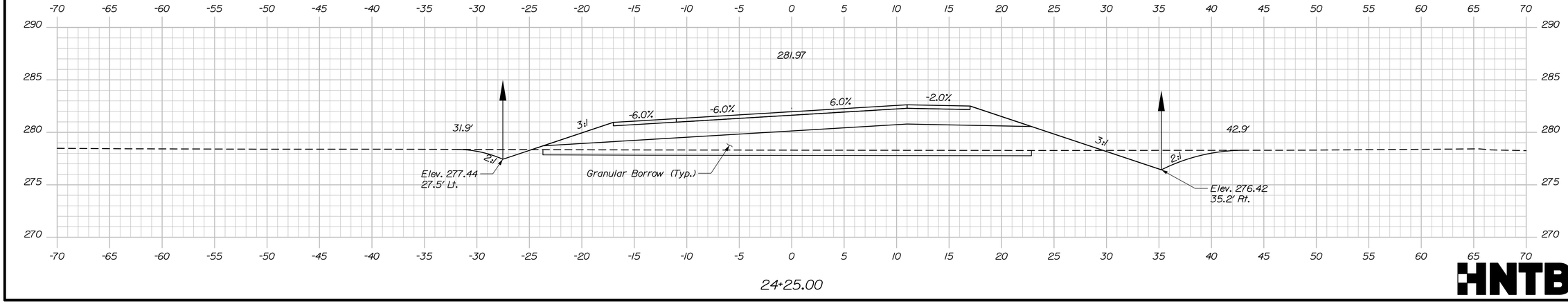
Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn



24+75.00



24+50.00



24+25.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathel	
DESIGN-DETAILED	C. Helmick	P. Bishop 08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf 08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT ST/LAKEVIEW RD

SHEET NUMBER

42

OF 91

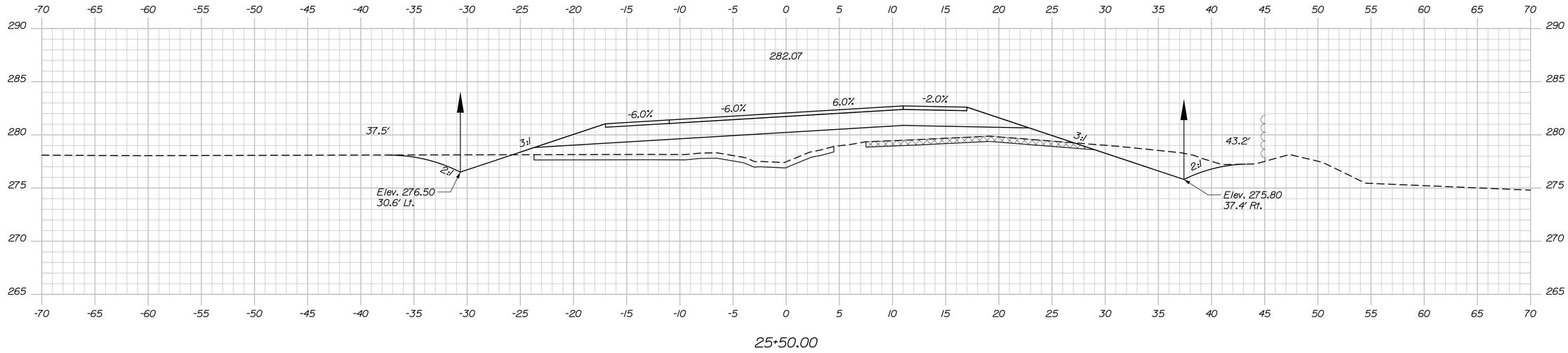
Sta. 24+25.00 to Sta. 24+75.00

Date:8/7/2020

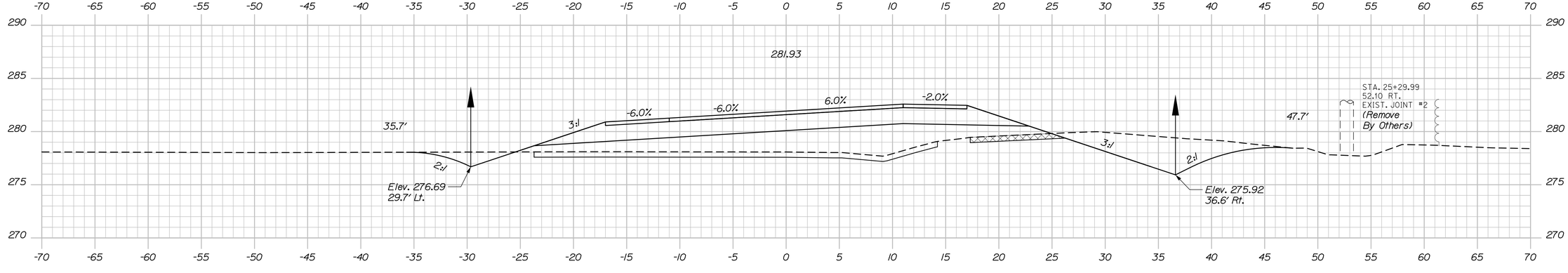
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Division:

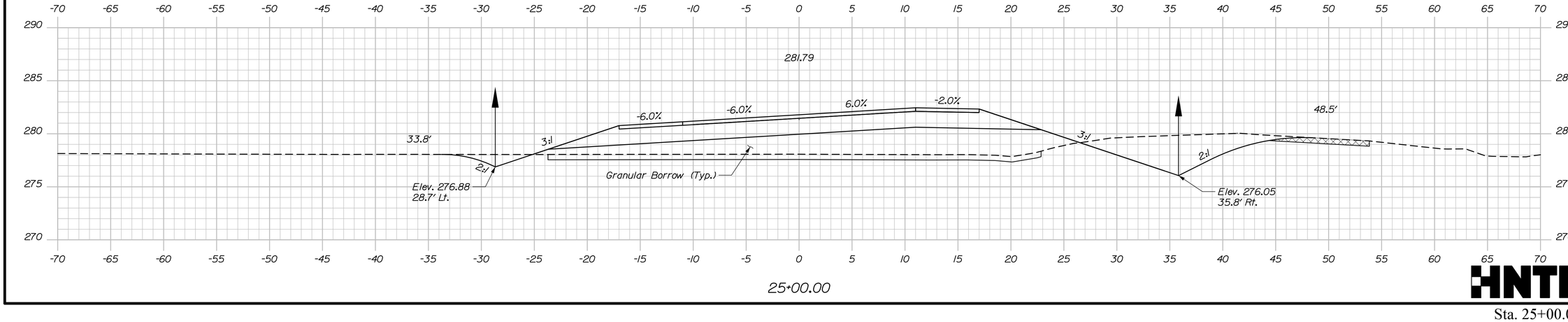
Filename: Xsect.dgn



25+50.00



25+25.00



25+00.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

	BY	DATE
DESIGN-DETAILED	A. Lathel	
CHECKED-REVIEWED	C. Helmick	
DESIGN2-DETAILED2	L. Driscoll	
DESIGN3-DETAILED3	P. Bishop	08\20
REVISIONS 1	R. Hanf	08\20
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT ST/LAKEVIEW RD

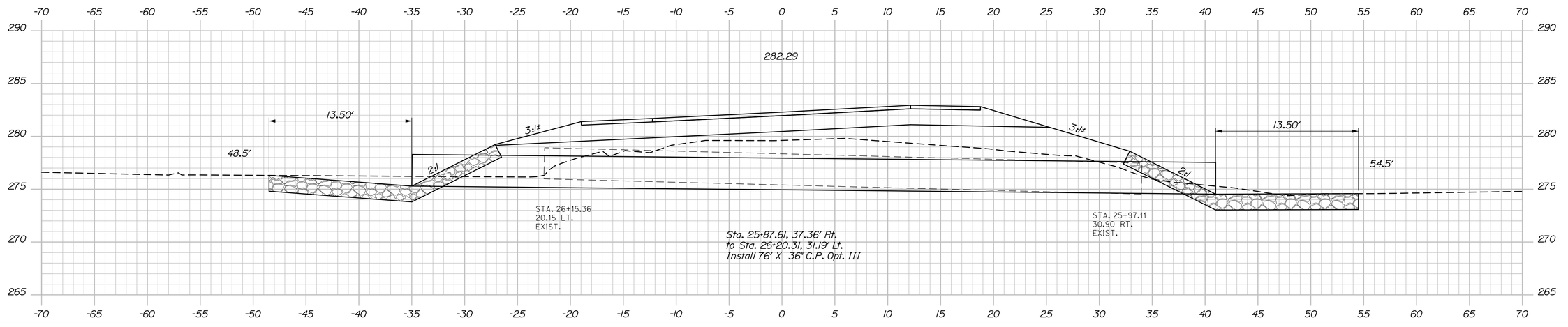
SHEET NUMBER

43

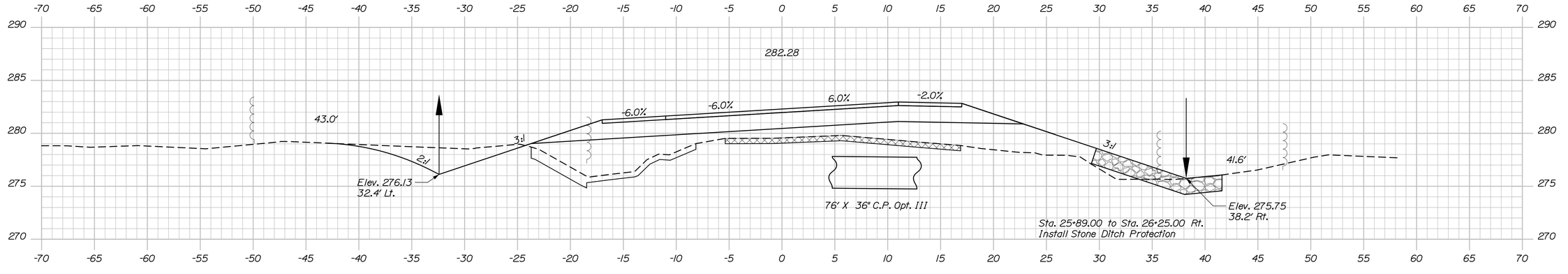
OF 91

Sta. 25+00.00 to Sta. 25+50.00

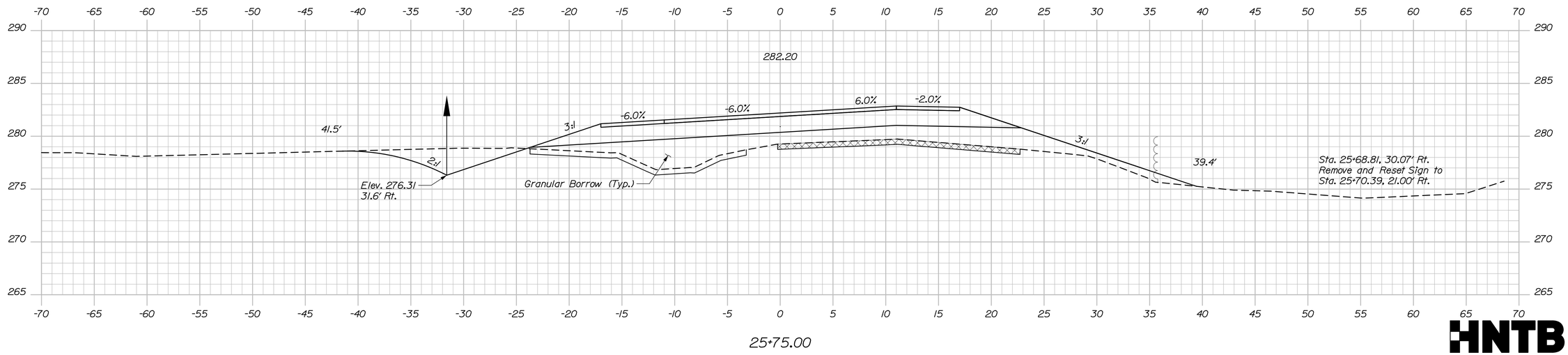
Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn



26+04.00 (SKEWED)



26+00.00



25+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	SIGNATURE	P.E. NUMBER	DATE
PROJ. MANAGER			
DESIGN-DETAILED	A. Lothel		
CHECKED-REVIEWED	C. Hélmick		
DESIGN2-DETAILED2	L. Driscoll		
DESIGN3-DETAILED3			

	BY	DATE
REVISIONS 1	P. Bishop	08\20
REVISIONS 2	R. Hanf	08\20
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

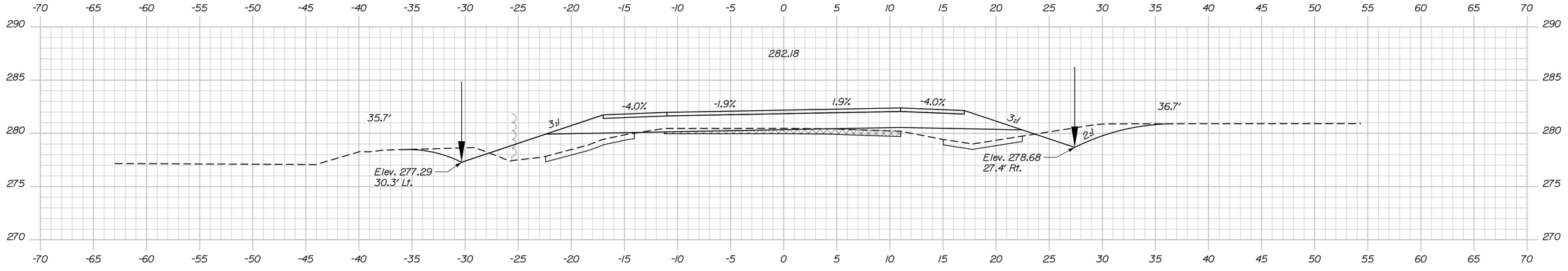
CROSS SECTIONS
PLEASANT ST/LAKEVIEW RD

SHEET NUMBER
44
OF 91

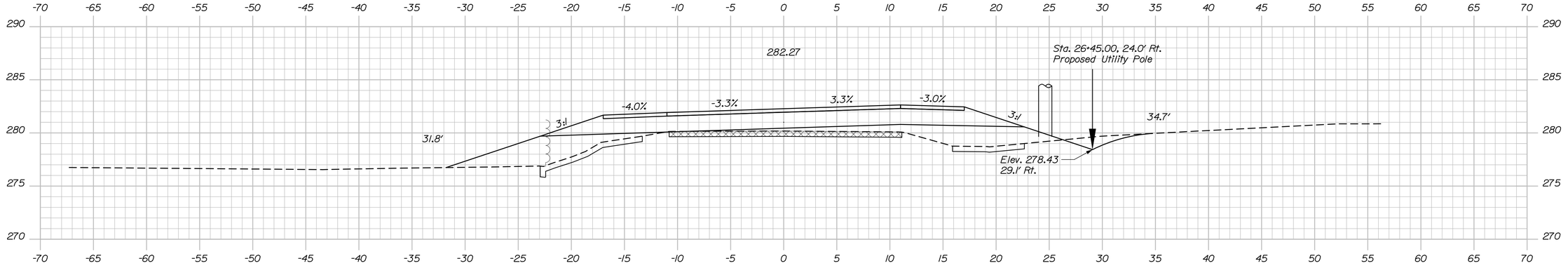
HNTB

Sta. 25+75.00 to Sta. 26+04.00

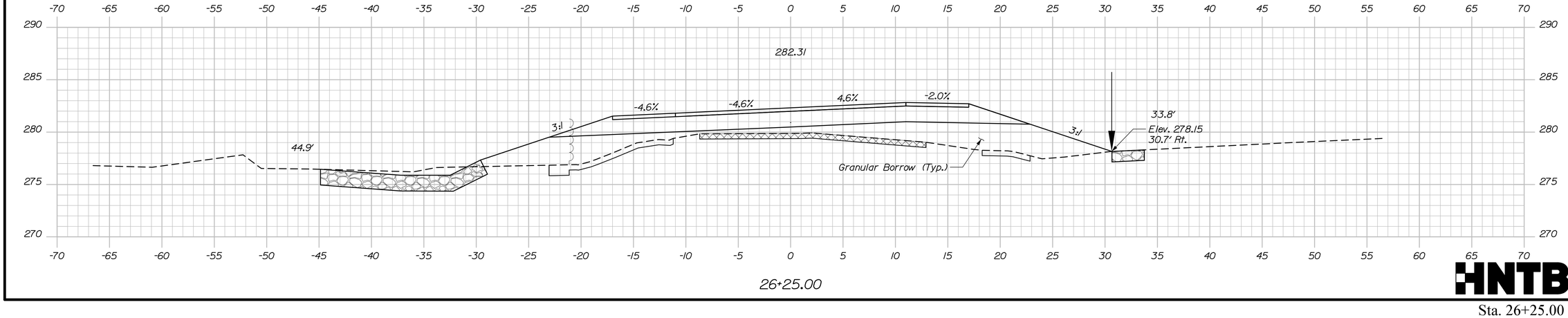
Date:8/7/2020
Username:
Division:
Filename: Xsect.dgn



26+75.00



26+50.00



26+25.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

			DATE
PROJ. MANAGER	A. Lathel	BY	
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2	ED2		
DESIGN3-DETAILED3	ED3		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT ST/LAKEVIEW RD

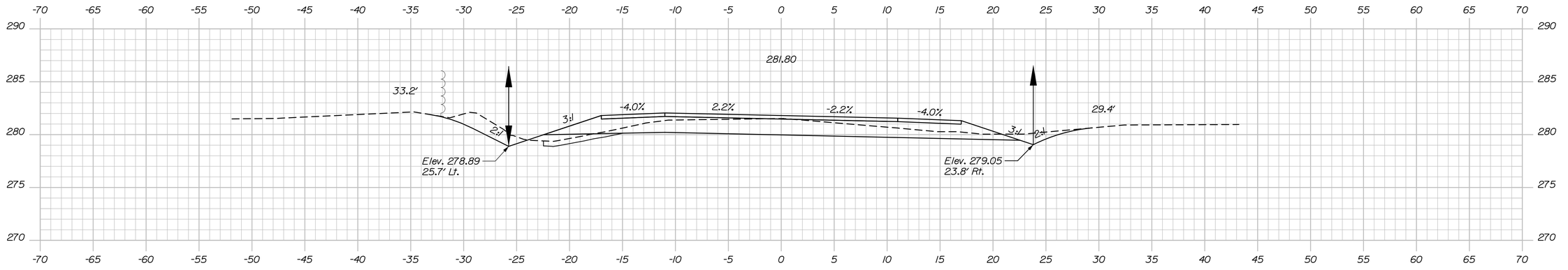
SHEET NUMBER

45

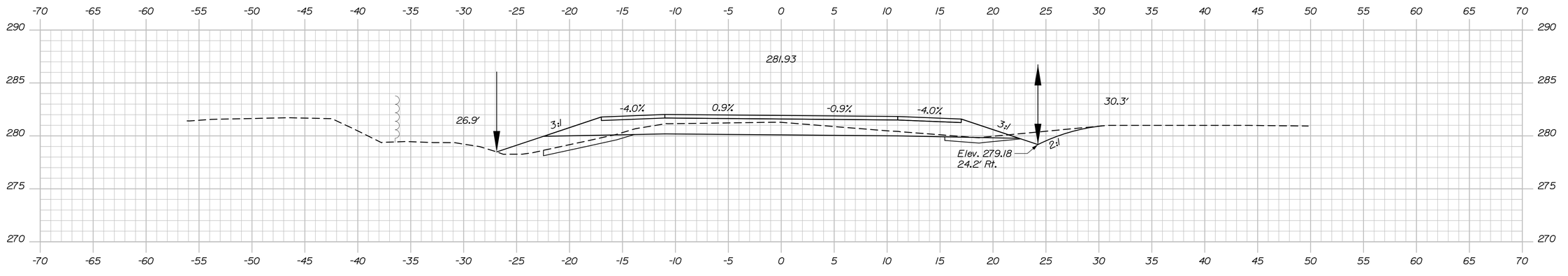
OF 91

Sta. 26+25.00 to Sta. 26+75.00

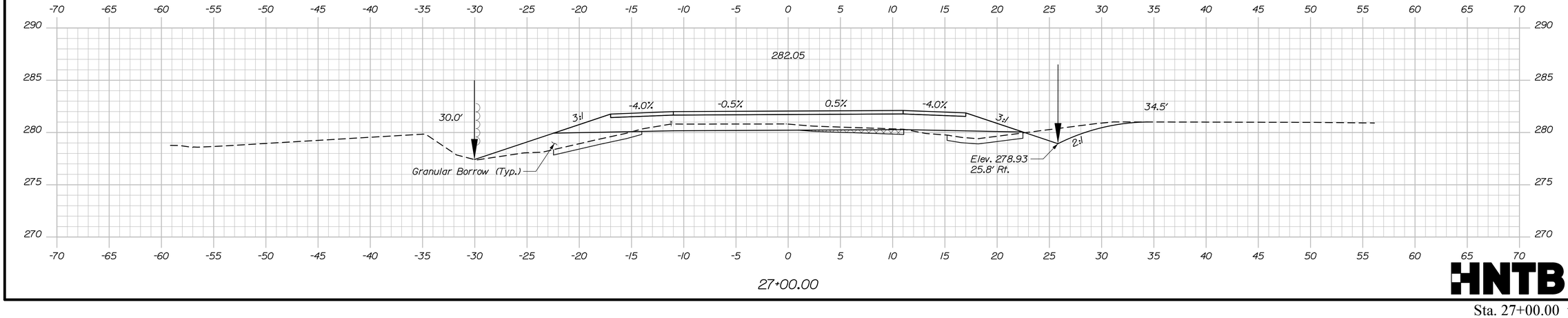
Username:
Division:
Filename: Xsect.dgn
Date:8/7/2020



27+50.00



27+25.00



27+00.00

HNTB

Sta. 27+00.00 to Sta. 27+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244 BRIDGE PLANS

			DATE
PROJ. MANAGER	A. Lathel	BY	
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT ST/LAKEVIEW RD

SHEET NUMBER
46
OF 91

Username:
Division:
Filename: Xsect.dgn
Date:8/7/2020

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lothe	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1	P. Bishop	08\20
REVISIONS 2	R. Hanf	08\20
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT ST/LAKEVIEW RD

SHEET NUMBER

47

OF 91

HNTB

Sta. 27+75.00 to Sta. 28+25.00

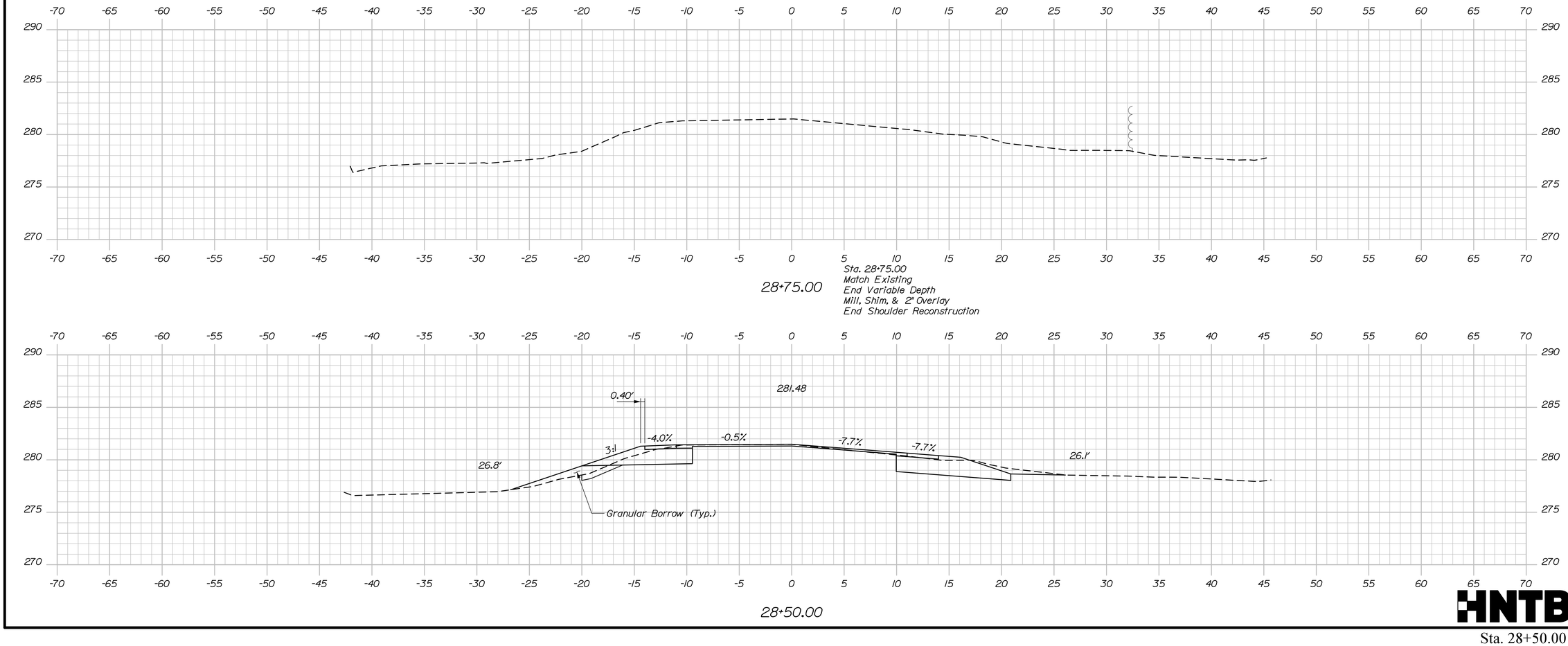
Date:8/7/2020

Username:

Division:

Filename: Xsect.dgn

Filename: Xsect.dgn Username: Division: Date:8/7/2020



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244 BRIDGE PLANS

PROJ. MANAGER	A. Lothe	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT ST/LAKEVIEW RD

SHEET NUMBER
48
OF 91

HNTB

Sta. 28+50.00 to Sta. 28+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

CROSS SECTIONS
MEDFORD ROAD

SHEET NUMBER

49

OF 91

HNTB

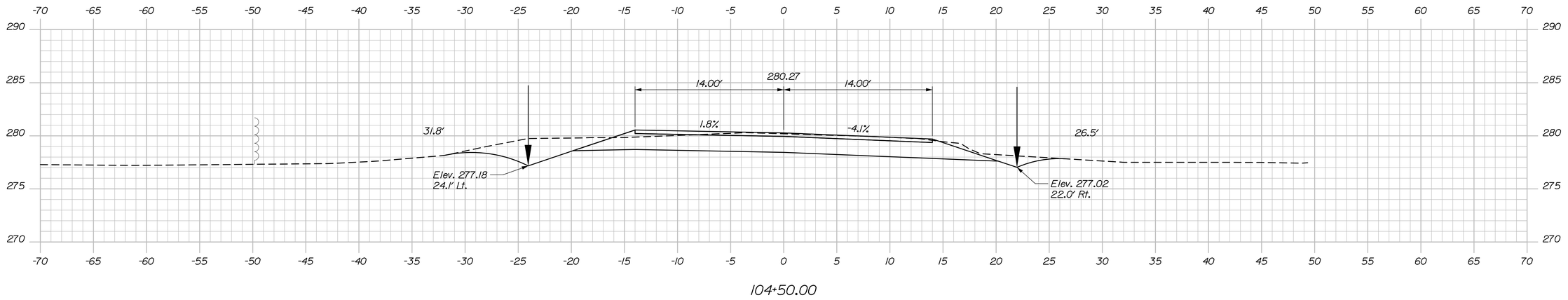
Sta. 103+50.00 to Sta. 103+75.00

Date:8/7/2020

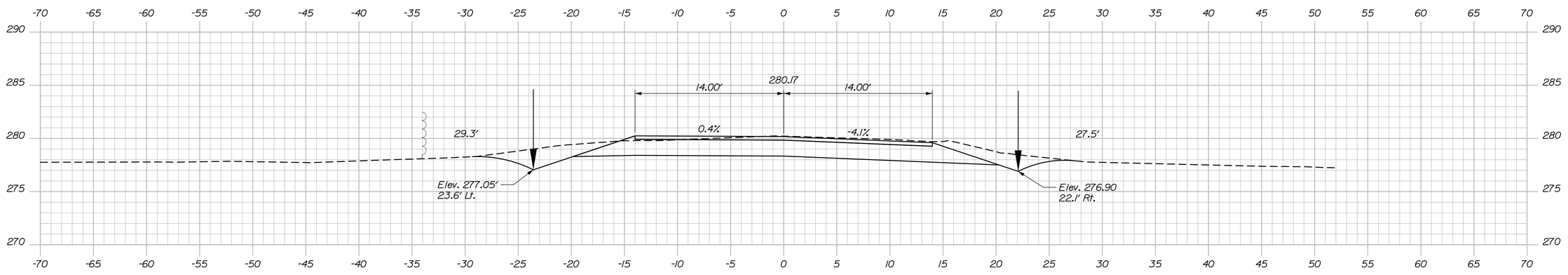
Username:

Division:

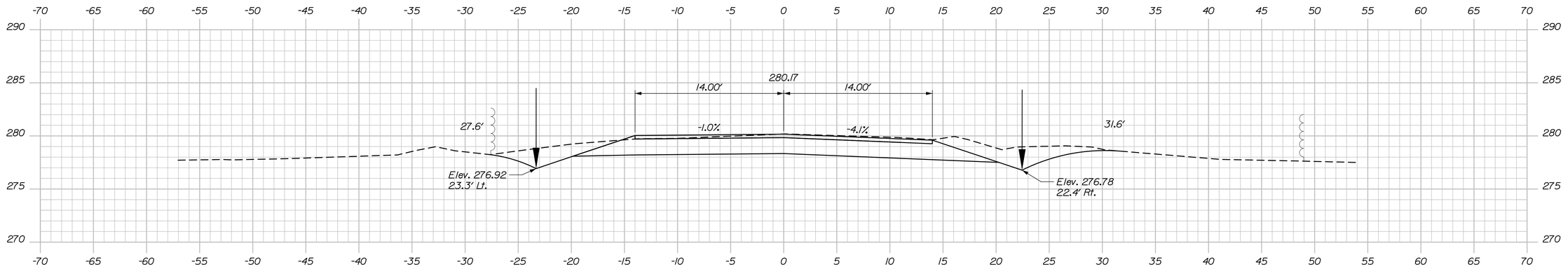
Filename: Xsect.dgn



104+50.00



104+25.00



104+00.00

Sta. 104+00.00
End Transition
Begin Full Depth
Construction

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Luthe		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
MEDFORD ROAD

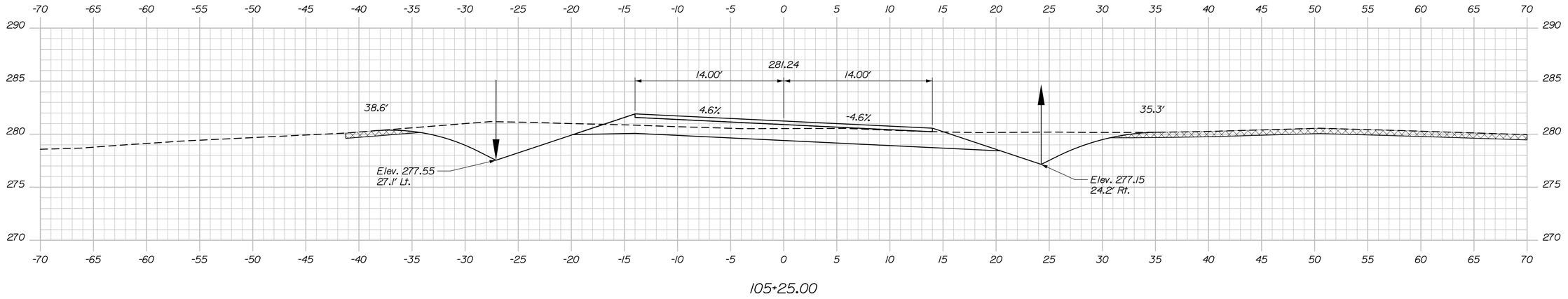
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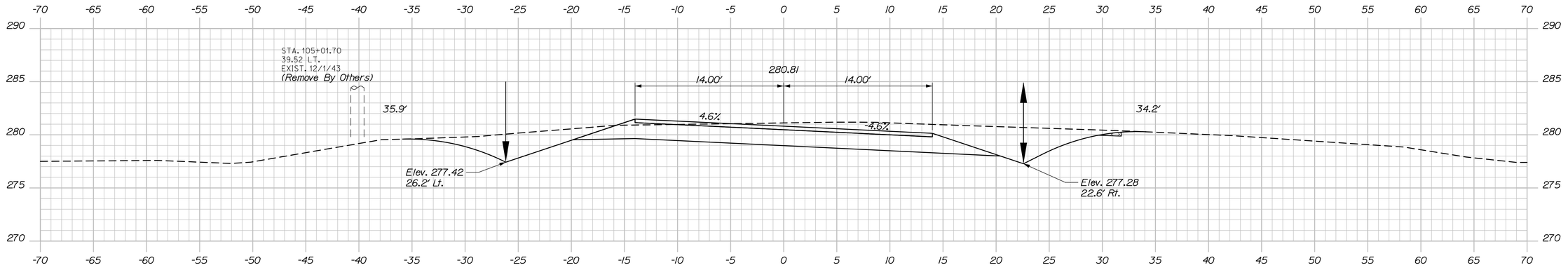
OF 91

Sta. 104+00.00 to Sta. 104+50.00

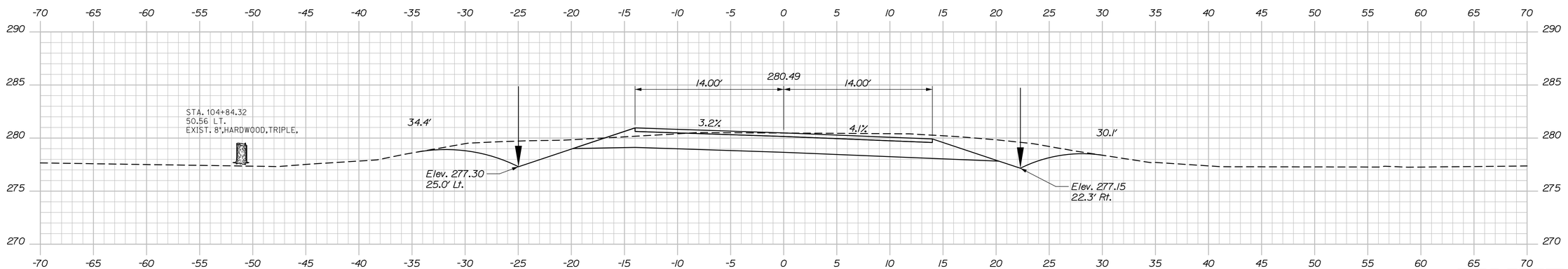
Filename: Xsect.dgn
Division:
Username:
Date:8/7/2020



105+25.00



105+00.00



104+75.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE PLANS

BRIDGE NO. 3244

		BY	DATE
PROJ. MANAGER	A. Lathe		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

CROSS SECTIONS
MEDFORD ROAD

SHEET NUMBER

51

OF 91

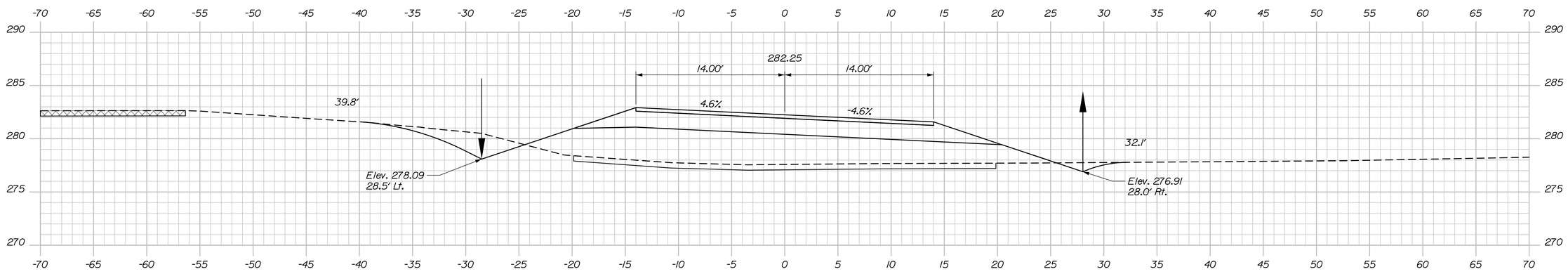
Sta. 104+75.00 to Sta. 105+25.00

Date:8/7/2020

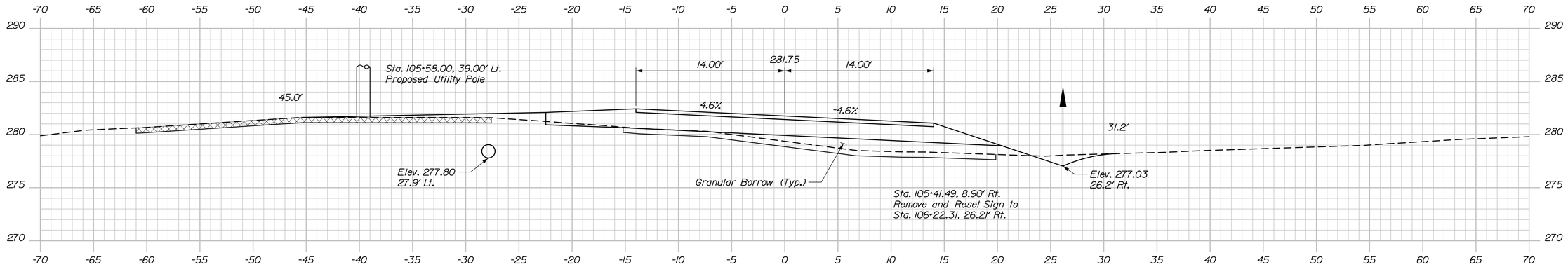
Username:

Division:

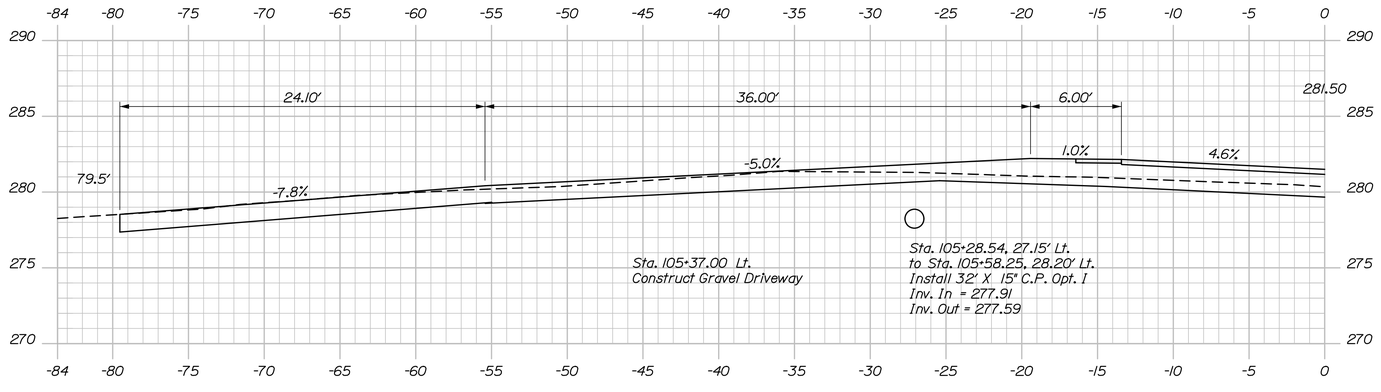
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105+75.00



105+50.00



105+37.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	SIGNATURE	P.E. NUMBER	DATE

	BY	DATE
PROJ. MANAGER	A. Lothe	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1	P. Bishop	08\20
REVISIONS 2	R. Hanf	08\20
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

CROSS SECTIONS
MEDFORD ROAD

SHEET NUMBER

52

OF 91

HNTB

Sta. 105+37.00 to Sta. 105+75.00

Username:
Division:
Filename: Xsect.dgn
Date:8/7/2020

Date:8/7/2020

Username:

Division:

Filename: Xsect.dgn

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathe	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
MEDFORD ROAD

SHEET NUMBER

53

OF 91

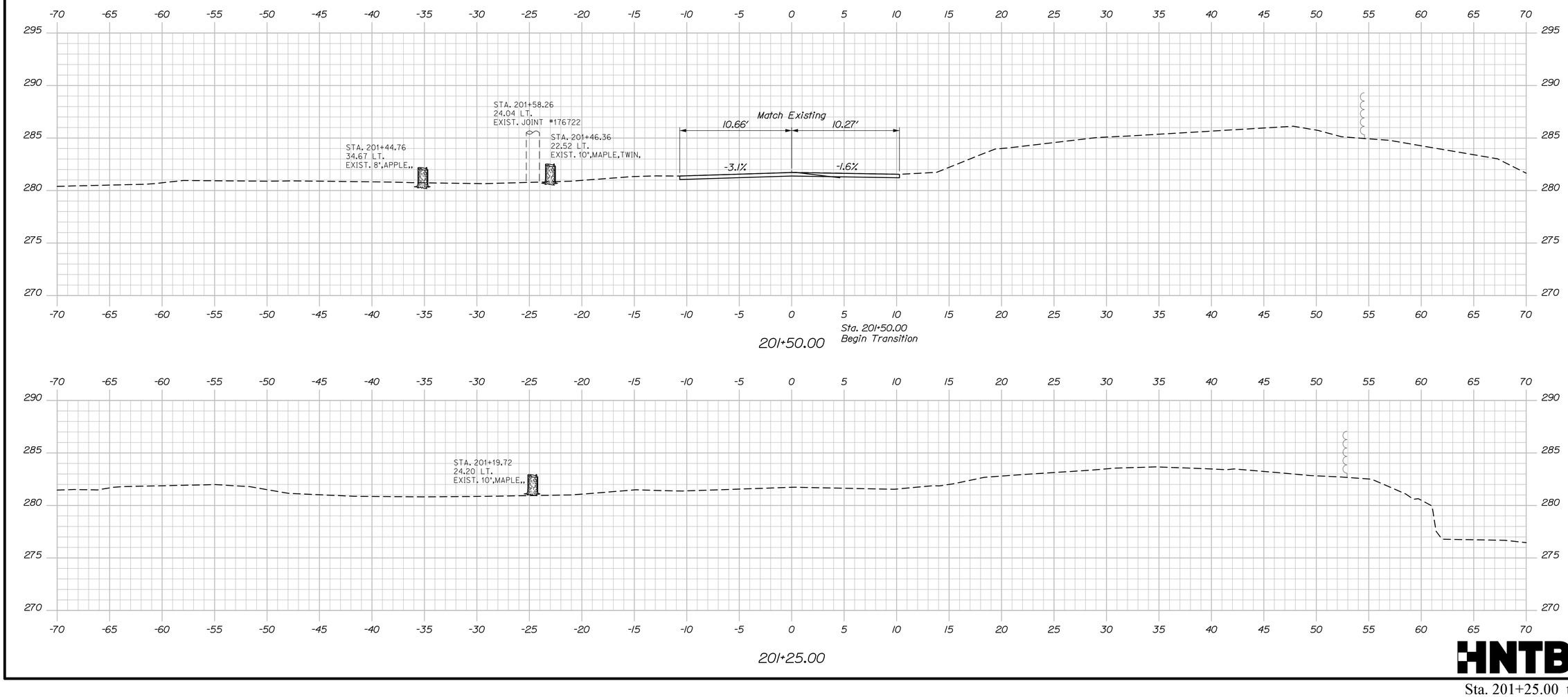
Sta. 106+00.00 to Sta. 106+25.00

Username:

Division:

Filename: Xsect.dgn

Date:8/7/2020



HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathe	
DESIGN-DETAILED	P. Bishop	08\20
CHECKED-REVIEWED	R. Hanf	08\20
DESIGN2-DETAILED2	C. Helmick	
DESIGN3-DETAILED3	L. Driscoll	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

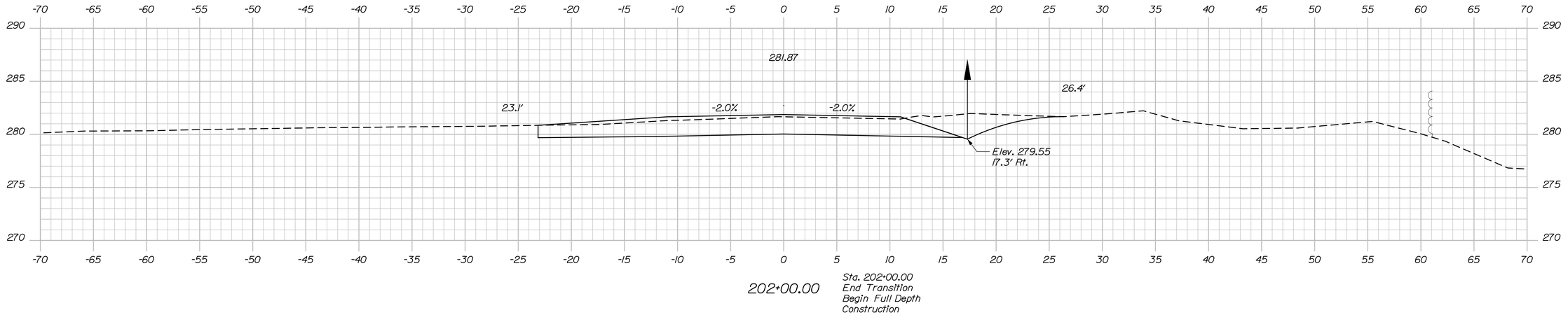
CROSS SECTIONS
PLEASANT RIVER ROAD

SHEET NUMBER

54

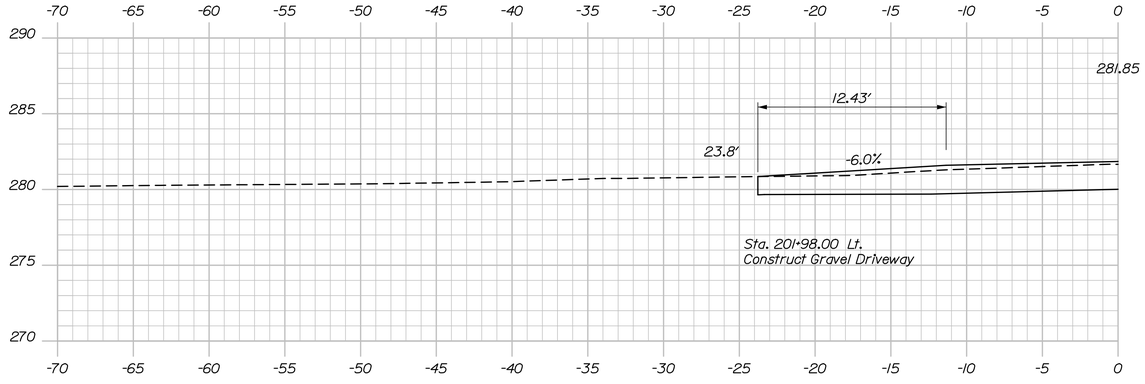
OF 91

Sta. 201+25.00 to Sta. 201+50.00



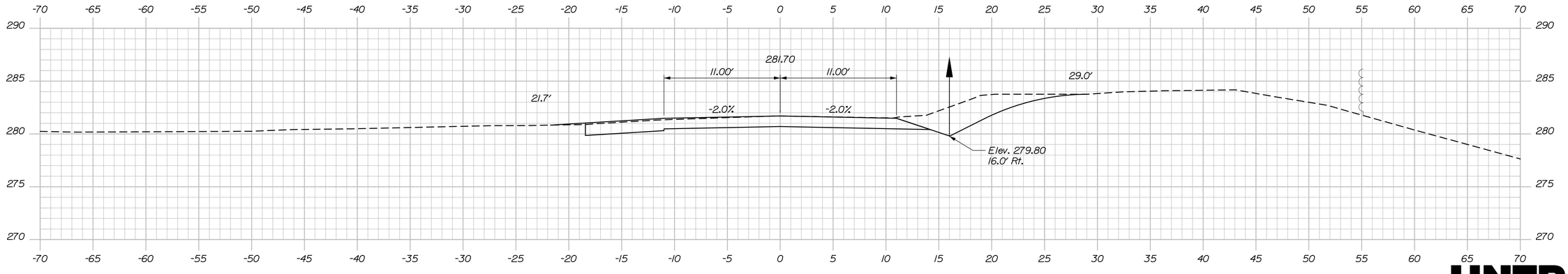
202+00.00

Sta. 202+00.00
End Transition
Begin Full Depth
Construction



Sta. 201+98.00 Lt.
Construct Gravel Driveway

201+98.00 (SKEWED)



201+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	SIGNATURE	P.E. NUMBER	DATE
PROJ. MANAGER	A. Lathe		
DESIGN-DETAILED	C. Helmick		
CHECKED-REVIEWED	L. Driscoll		
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

	BY	DATE
A. Lathe	B	
C. Helmick	P. Bishop	08\20
L. Driscoll	R. Hanf	08\20

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

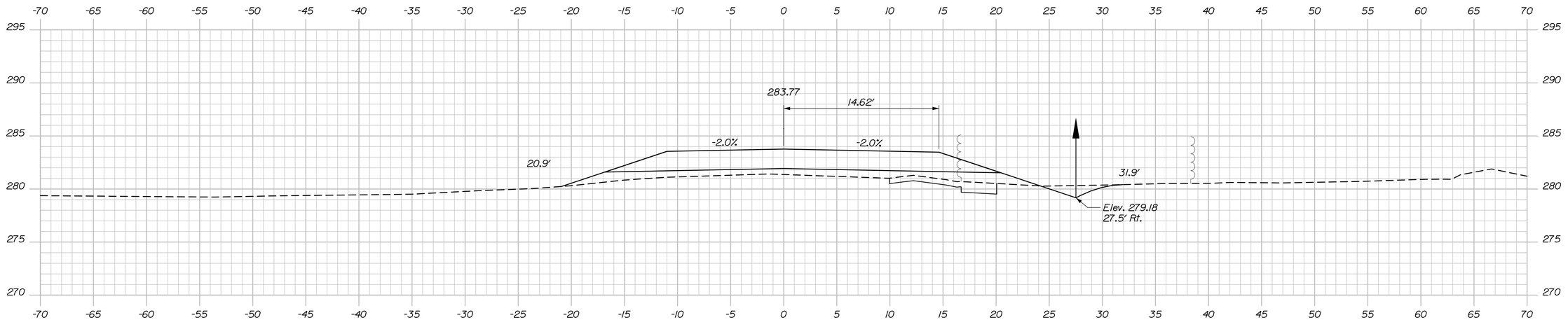
CROSS SECTIONS
PLEASANT RIVER ROAD

SHEET NUMBER
55
OF 91

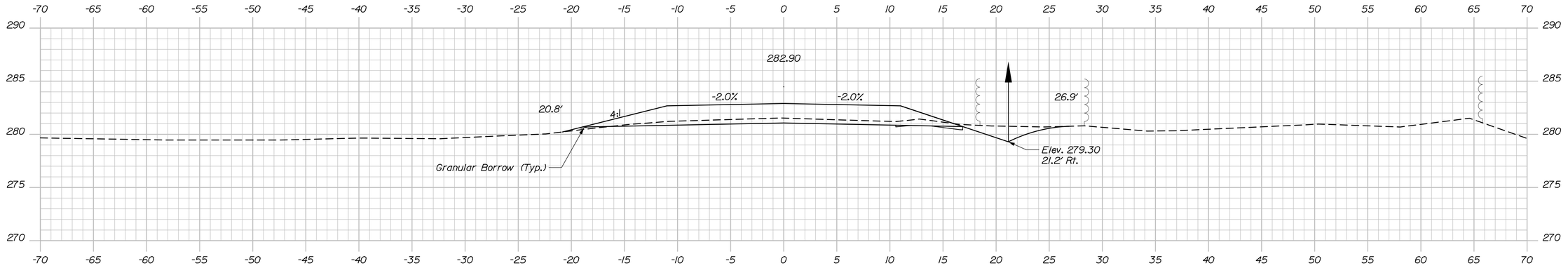
HNTB

Sta. 201+75.00 to Sta. 202+00.00

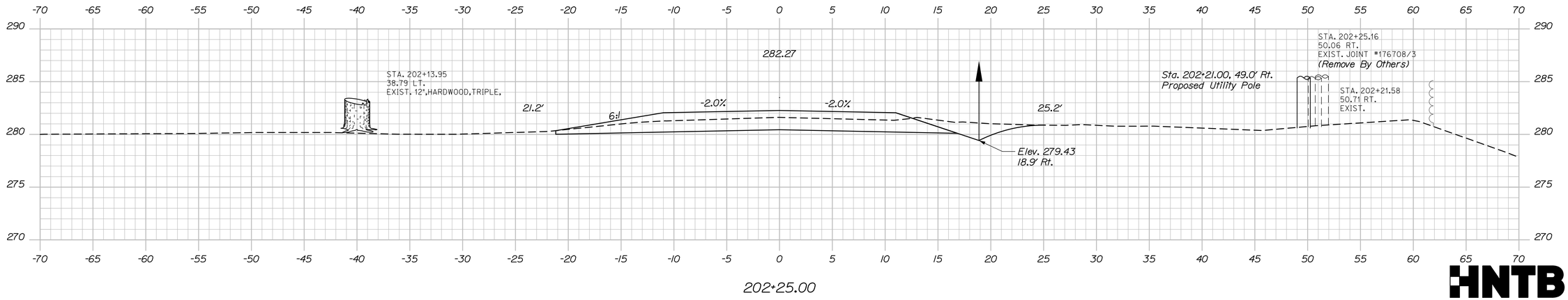
Filename: Xsect.dgn Division: Username: Date:8/7/2020



202+75.00



202+50.00



202+25.00

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

	BY	DATE
PROJ. MANAGER	A. Lothel	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

CROSS SECTIONS
PLEASANT RIVER ROAD

SHEET NUMBER

56

OF 91

Sta. 202+25.00 to Sta. 202+75.00

Filename: Xsect.dgn Division: Username: Date:8/7/2020

Sta. 203+00.00 to Sta. 203+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Hémick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
PLEASANT RIVER ROAD

SHEET NUMBER
57
OF 91

HNTB

Date:8/7/2020

Username:

Division:

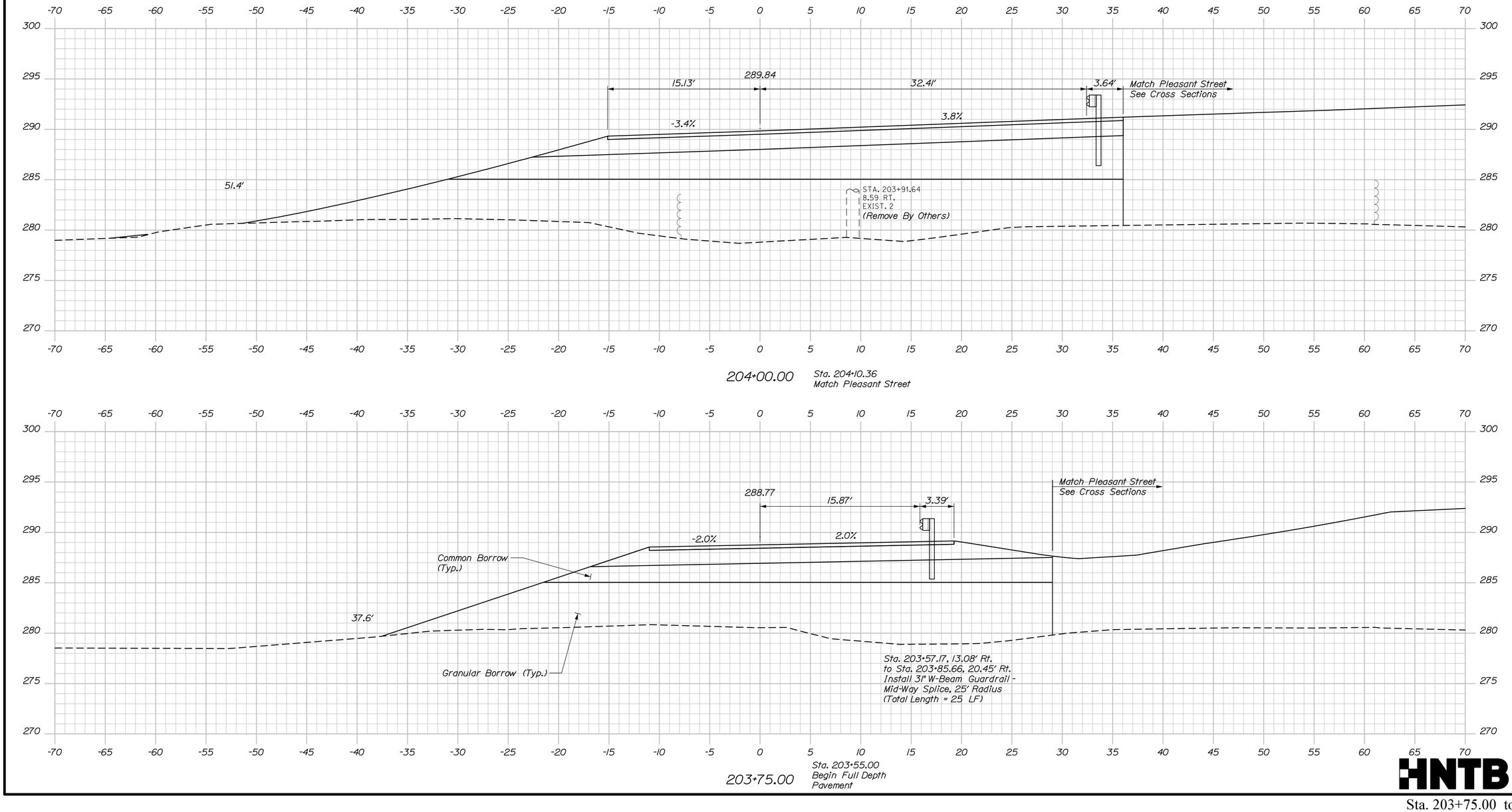
Filename: Xsect.dgn

Date:8/7/2020

Username:

Division:

Filename: Xsect.dgn



HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

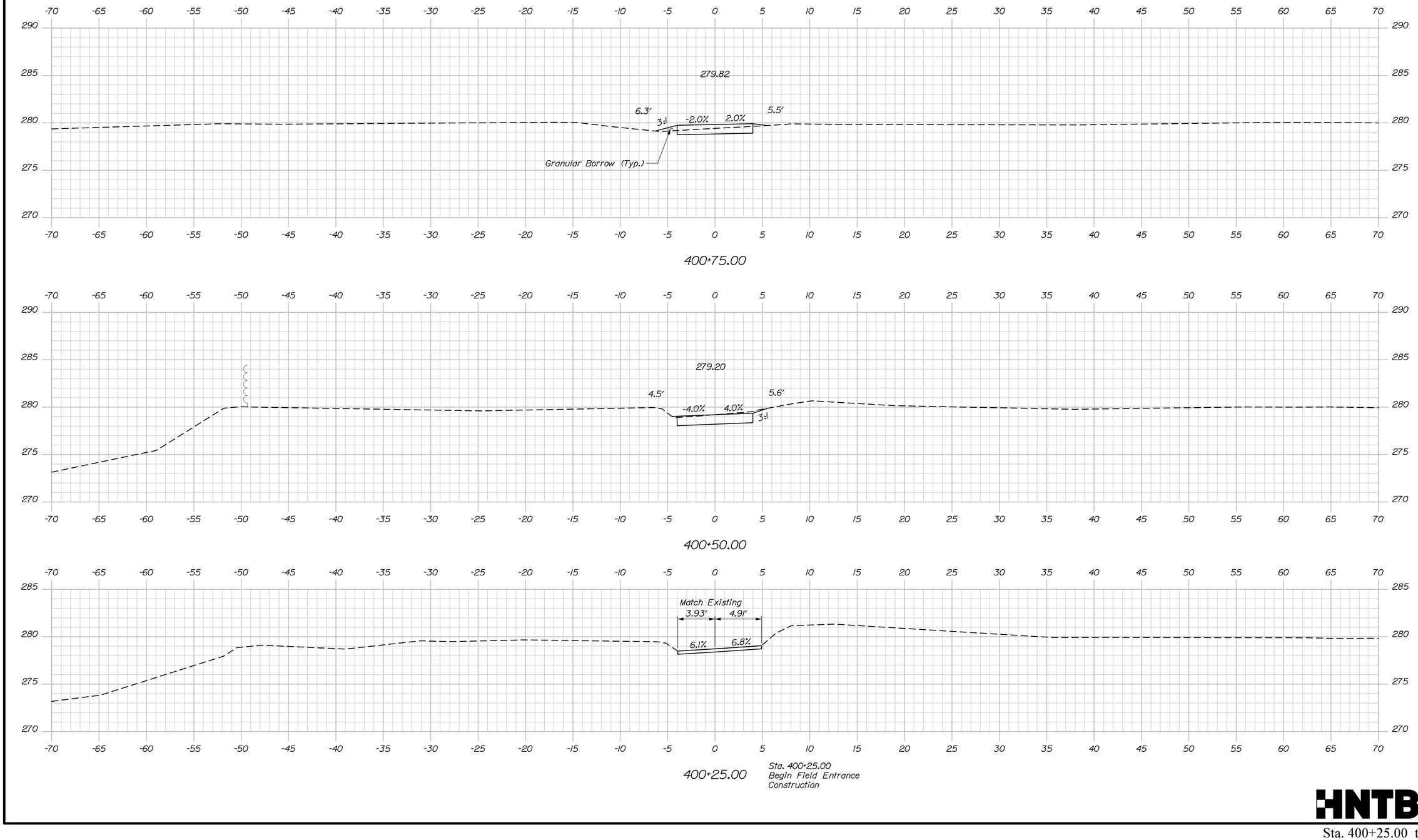
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SHEET NUMBER

58

OF 91

Sta. 203+75.00 to Sta. 204+00.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN
022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathel	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

CROSS SECTIONS
FIELD ENTRANCE

SHEET NUMBER

59

OF 91

HNTB

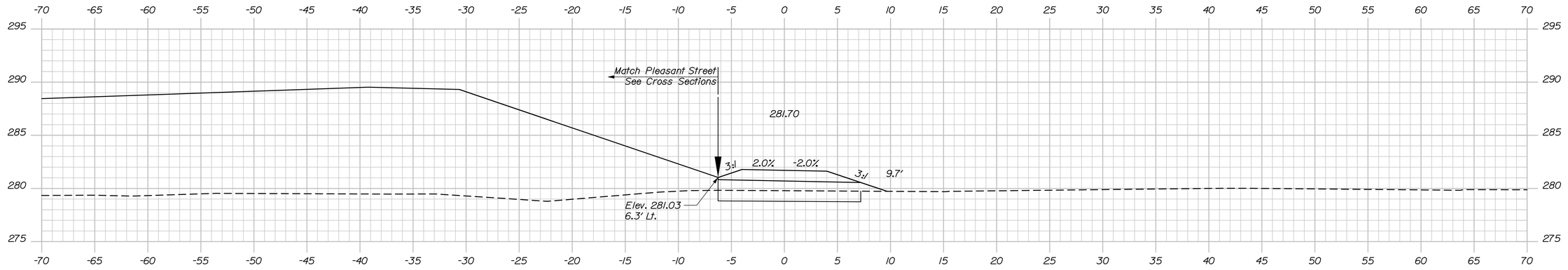
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Date:8/7/2020

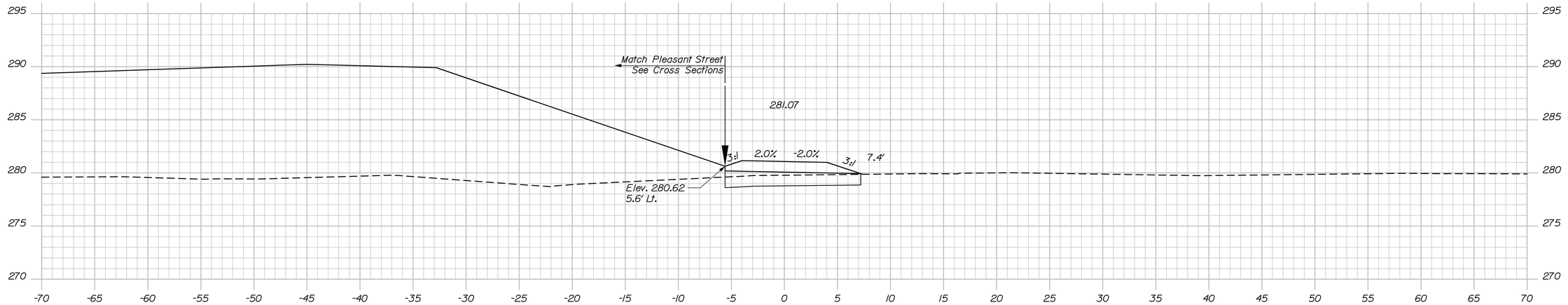
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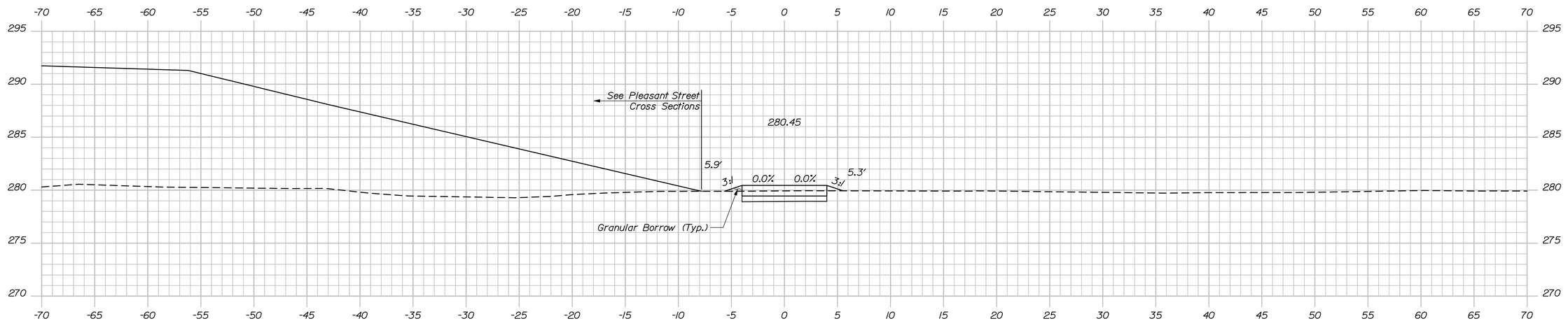
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401+50.00



401+25.00



401+00.00

HNTB

Sta. 401+00.00 to Sta. 401+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothe		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

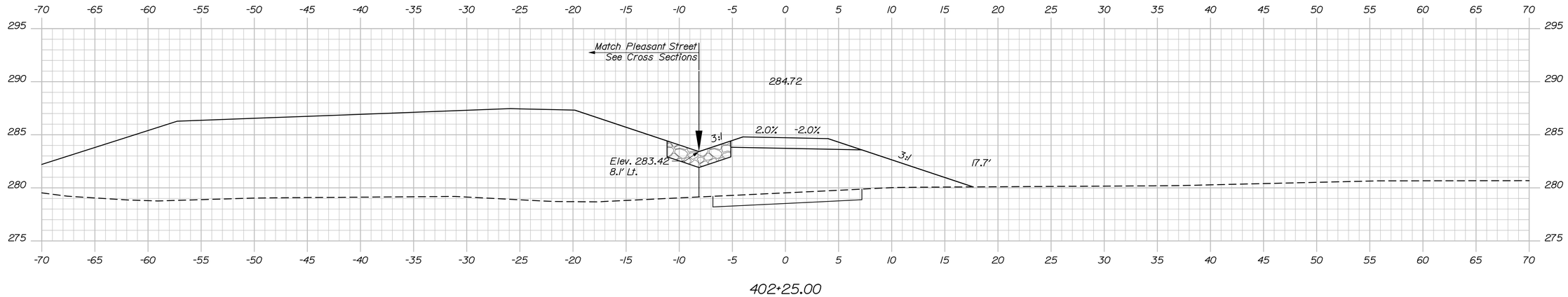
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PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

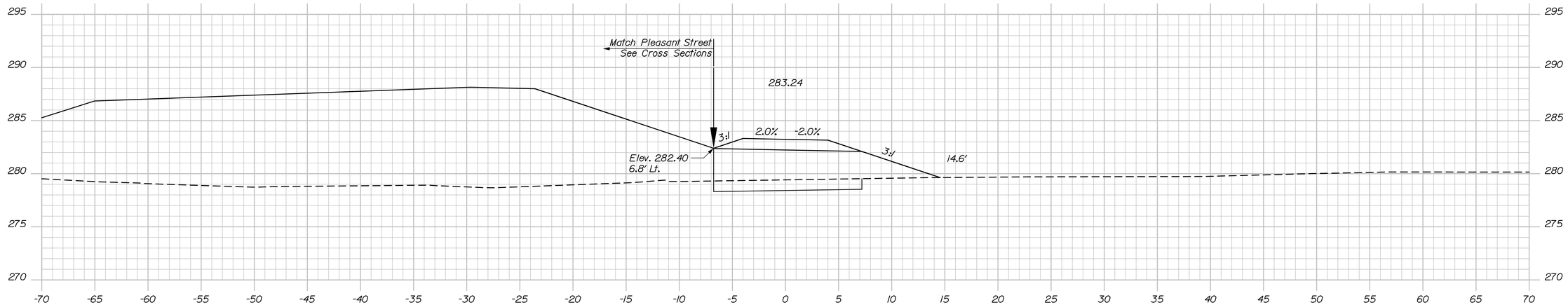
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SHEET NUMBER
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OF 91

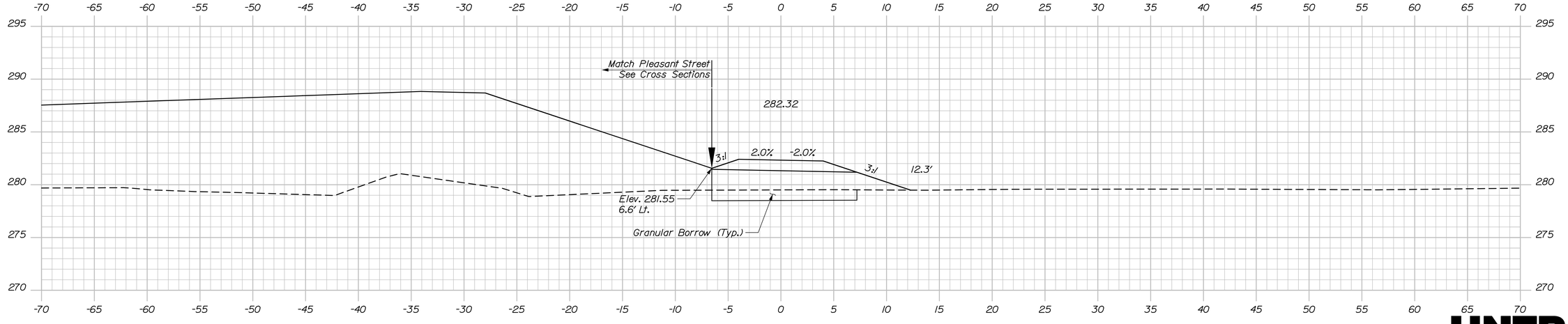
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402+25.00



402+00.00



401+75.00

HNTB

Sta. 401+75.00 to Sta. 402+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Helmick	BY	DATE
CHECKED-REVIEWED	L. Driscoll	P. Bishop	08\20
DESIGN2-DETAILED2	ED2	R. Hanf	08\20
DESIGN3-DETAILED3	ED3		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

CROSS SECTIONS
FIELD ENTRANCE

SHEET NUMBER

61

OF 91

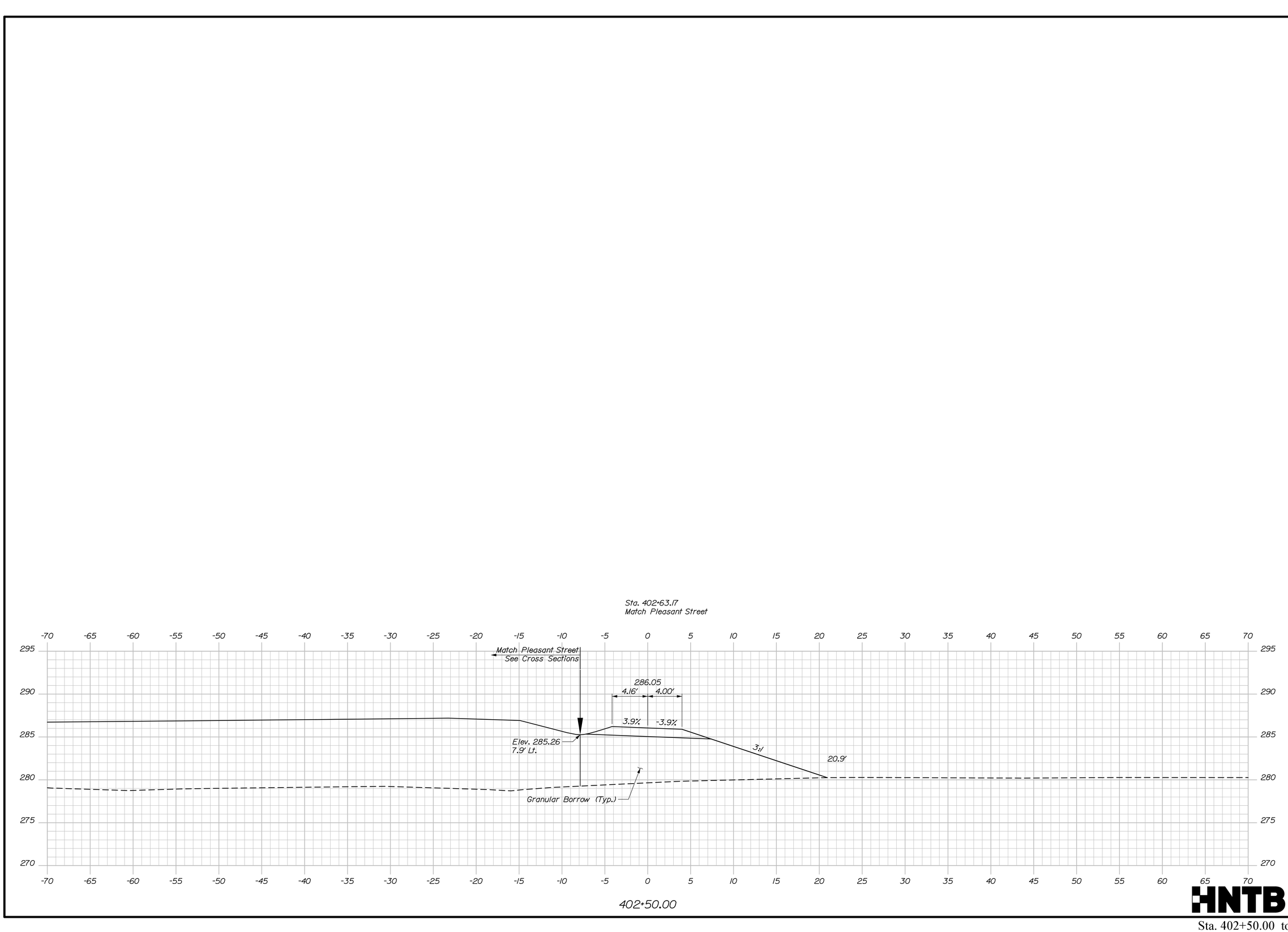
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Username:

Date:8/7/2020

Division:

Filename: Xsect.dgn



PROJ. MANAGER	A. Lothel	BY	DATE
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN
022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

CROSS SECTIONS
FIELD ENTRANCE

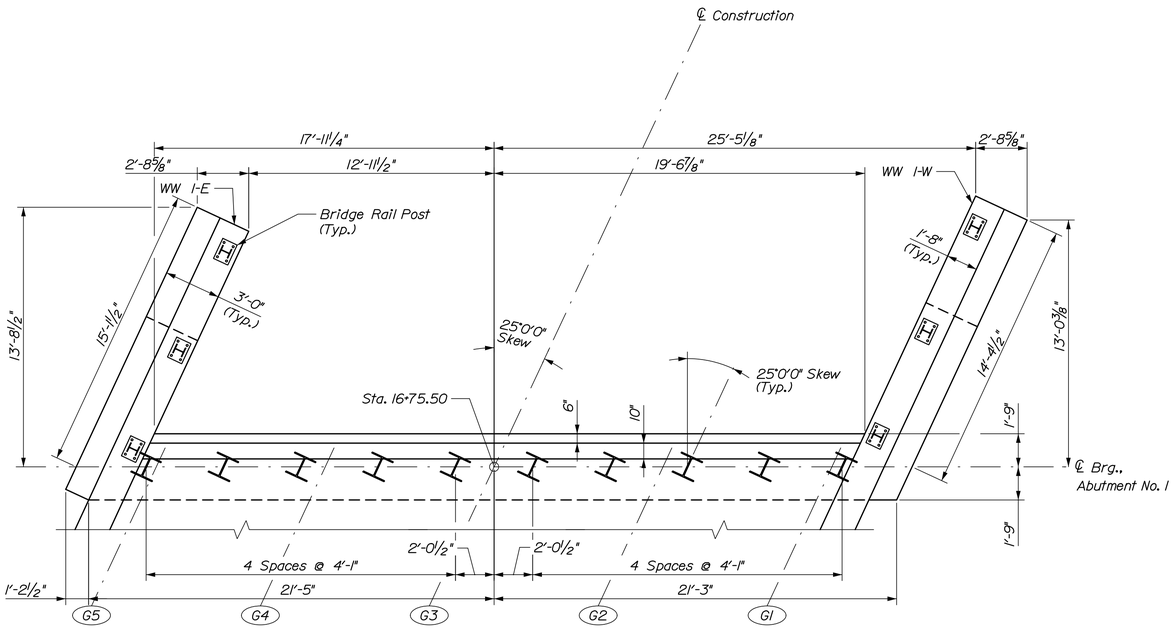
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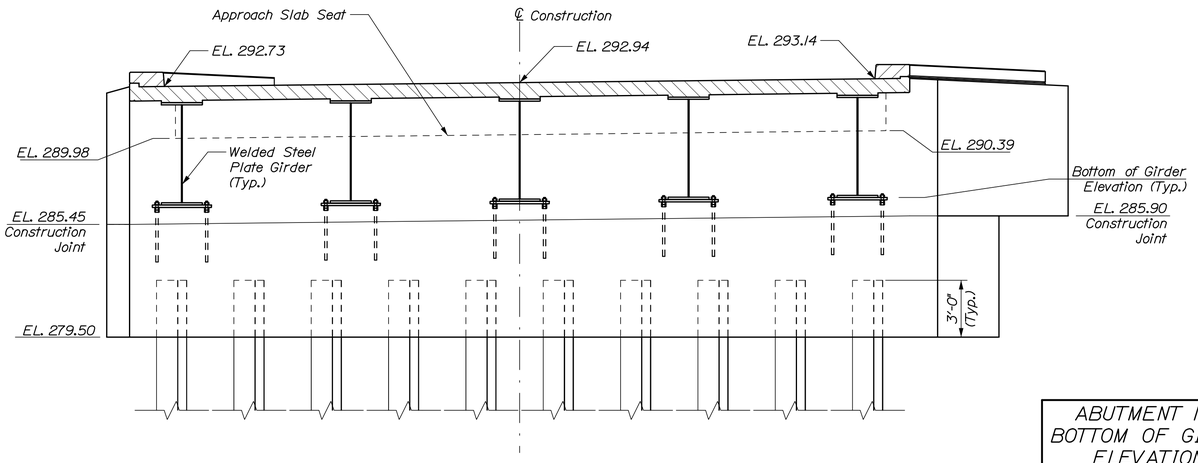
OF 91

HNTB

Sta. 402+50.00 to Sta. 402+50.00



ABUTMENT NO. 1 PLAN



ABUTMENT NO. 1 ELEVATION

ABUTMENT NO. 1 BOTTOM OF GIRDER ELEVATIONS

Girder	Elevation
1	286.73
2	286.64
3	286.54
4	286.45
5	286.35

ABUTMENT NOTES:

1. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted, except for the bottom of the abutment where minimum concrete cover shall be 3 inches.

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

3. Cover joints where waterstops are not required in accordance with the Standard Details.

4. Construct Drainage Geocomposite behind the elasticized inclusion 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 material for Underwater Backfill behind installed elasticized inclusion. Abutments and wingwalls shall not be backfilled until abutments, wingwalls and deck concrete has fully cured. Backfill Pay limits will be shown on the "Abutment Details" sheet.

6. Bar A553ss and B553ss to be placed in wingwall stem prior to placing the top section of wingwall concrete.

ABUTMENT PILE NOTES:

1. The maximum factored pile load is 235 kips at the Strength Limit State.

2. H-pile material shall be ASTM A 572, Grade 50.

3. Estimate of piles required (includes extra 5 feet per pile as contingency):

   Abutment No. 1: 10 ~ HP 14x117 @ 131.0 feet
   Abutment No. 2: 10 ~ HP 14x117 @ 128.0 feet

4. All piles shall be equipped with a pile tip in accordance with Standard Specification Section 501.048. Prefabricated Pile Tip.

5. Piles shall not be out of position shown by more than 1 inch in any direction. Piles shall be driven with a variation of not more than 1/8 inch per foot from the vertical. The orientation of the piles shall be within 10 degrees of the orientation shown on the plan.

6. The Contractor shall submit to the Department, for review and acceptance, their proposed pile driving equipment with a compiled "Pile and Driving Equipment Data Form," Figure 1, of Standard Specification Section 501 - Foundation Piles. Approval of the proposed pile driving equipment by the Department will be based on Department - conducted wave equation analyses and the criteria specified in Section 501 and Subsection 501.042, Equipment for Driving Piles. If the Department - conducted wave equation analyses show that the proposed driving system(s) is unacceptable, the Contractor shall modify or replace the proposed driving equipment in an amendment of the QCP, at their own expense, until subsequent wave equation analyses by the Department indicate the pile can be driven to the required resistance, without damage or excessive blows.

7. The Contractor shall provide access for the agents of the Department to perform one (1) dynamic load test, at each abutment, with signal matching and 24-hour (minimum) restrike, as specified in Special Provision 501 - Dynamic Loading Test, to confirm the nominal resistance of the piles. The pile load test will be completed on the first production pile driven. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. The Contractor may drive production piles to the preliminary driving criteria, however pile cut-off will not be permitted until completion of restrike testing and establishment of final driving criteria.

8. The girder support, including studs or fasteners, leveling plates and any associated hardware and labor required for installation shall not be paid for directly. Payment shall be incidental to Pay Item No. 502.219, Structural Concrete, Abutments and Retaining Walls.

9. Abutment Piles shall be encased in a column of cushion sand in the final condition see "Abutment Pile Installation Sequence:" below. Payment for the cushion sand and installation of cushion sand shall be paid for under Item 501.821, Temporary Casing for Piles. See Special Provision 501 for additional information. Temporary Casing Detail is shown on "Abutment Details" sheet.

ABUTMENT PILE INSTALLATION SEQUENCE:

1. Install 30" I.D. temporary casing.

2. Remove material from temporary casing.

3. Set pile in casing.

4. Conduct final pile driving to achieve required nominal resistance.

5. Backfill temporary casing with cushion sand to the bottom of pile cap.

6. Remove temporary casing and refill top of hole with cushion sand as required.

CUSHION SAND NOTES:

1. Cushion sand shall consist of clean, hard, durable, uncoated particles, free from lumps of clay and all deleterious substances.

2. Laboratory gradation test results shall be provided for the proposed cushion sand. The cushion sand shall meet the following gradation requirements:

Sieve Designation	Percent by Weight Passing Square Mesh
	Cushion Sand
1/4 - inch	100
No. 20	20 - 60
No. 60	0 - 30
No. 100	0 - 10

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathe	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

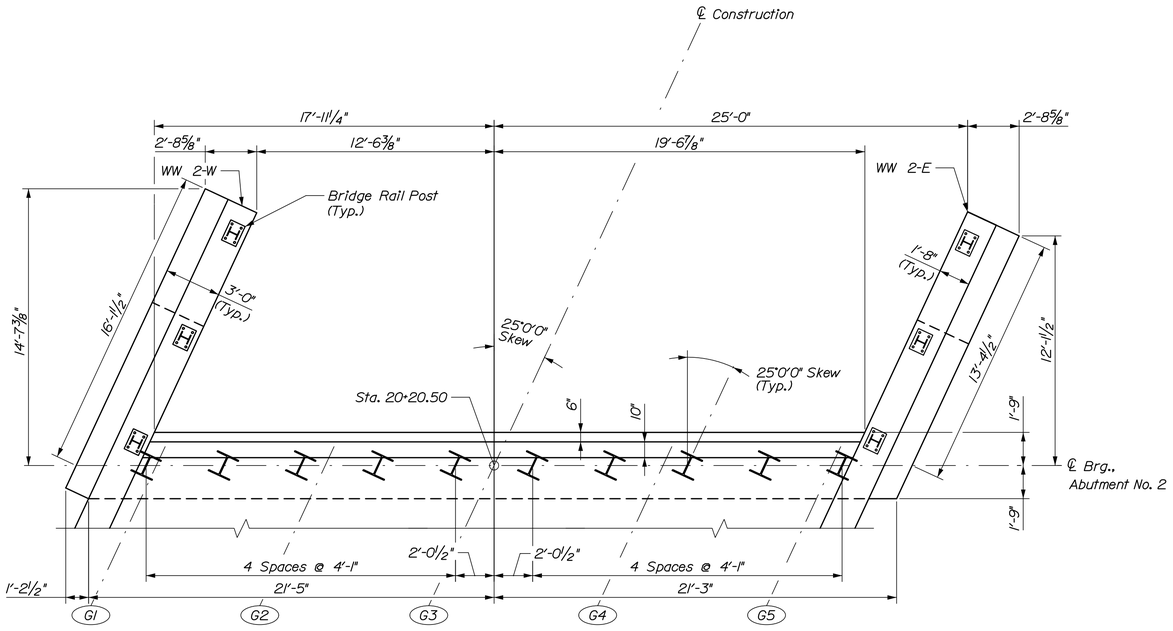
ABUTMENT 1
PLAN AND ELEVATION

SHEET NUMBER

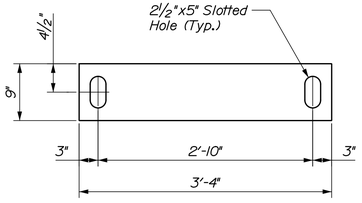
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OF 91

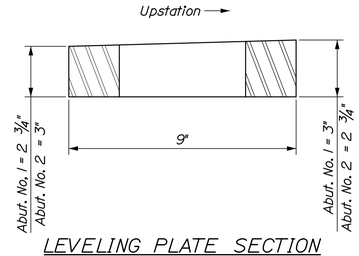
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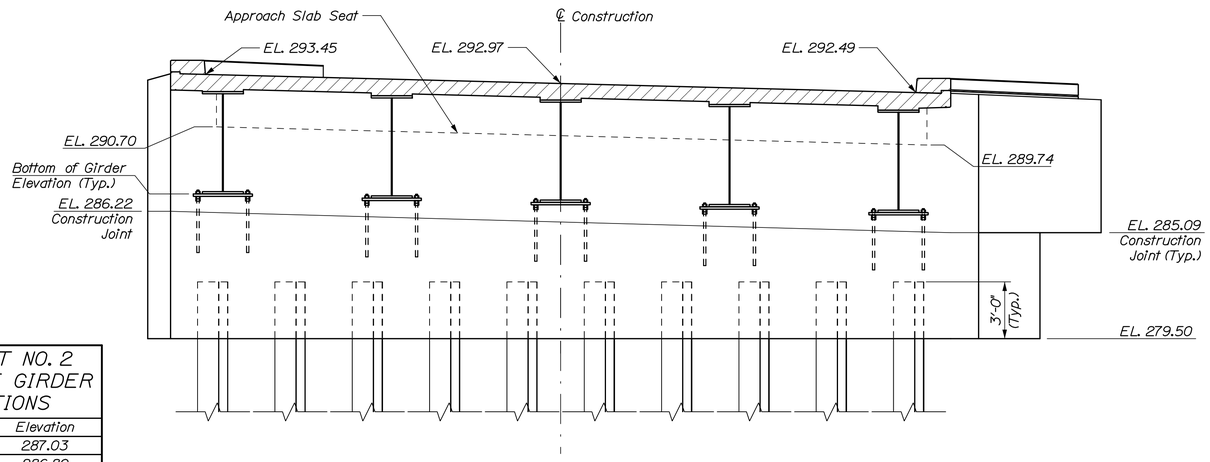
ABUTMENT NO. 2 PLAN



LEVELING PLATE



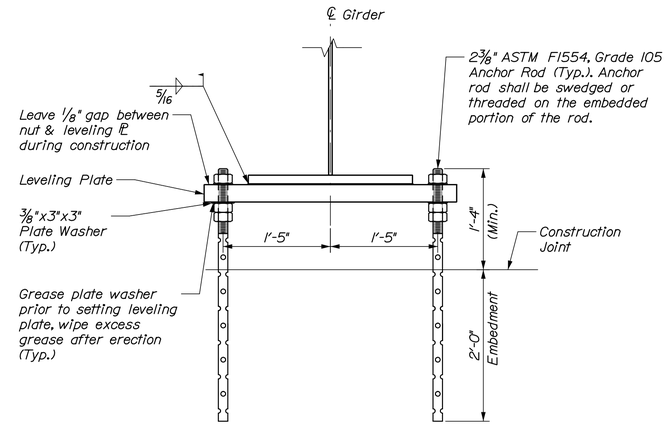
LEVELING PLATE SECTION



ABUTMENT NO. 2 ELEVATION

ABUTMENT NO. 2 BOTTOM OF GIRDER ELEVATIONS

Girder	Elevation
1	287.03
2	286.80
3	286.58
4	286.35
5	286.12



GIRDER SUPPORT DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	Andy Lathel		
DESIGN-DETAILED	S. Cho	D. Estanislau	08\20
CHECKED-REVIEWED	M. Kuchas	A. Stephens	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

ABUTMENT 2
PLAN AND ELEVATION

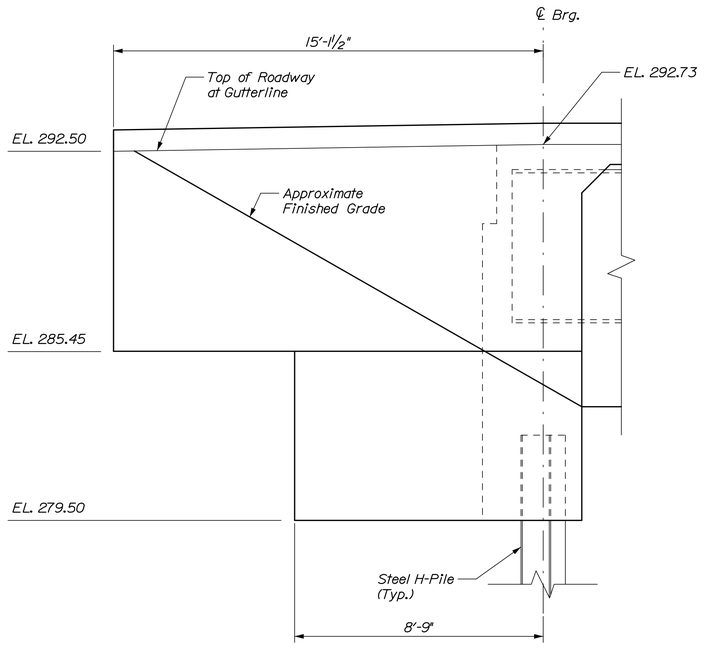
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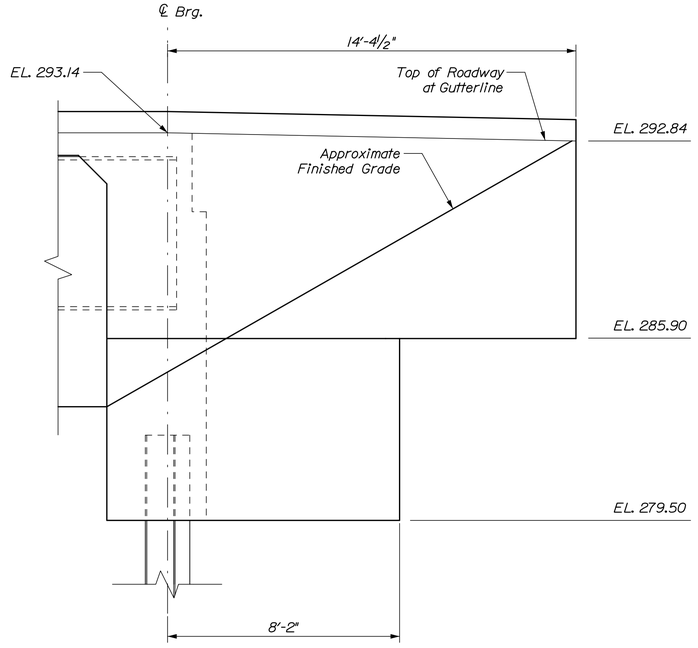
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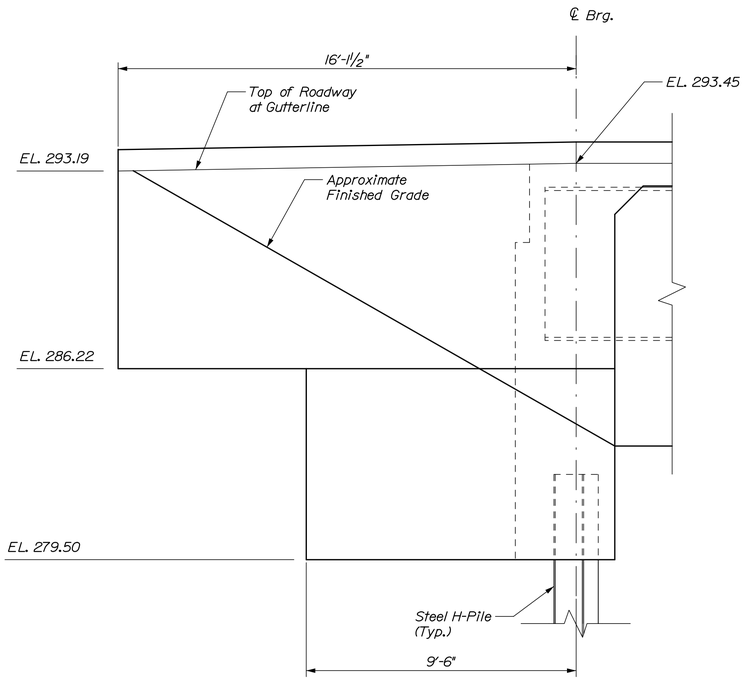
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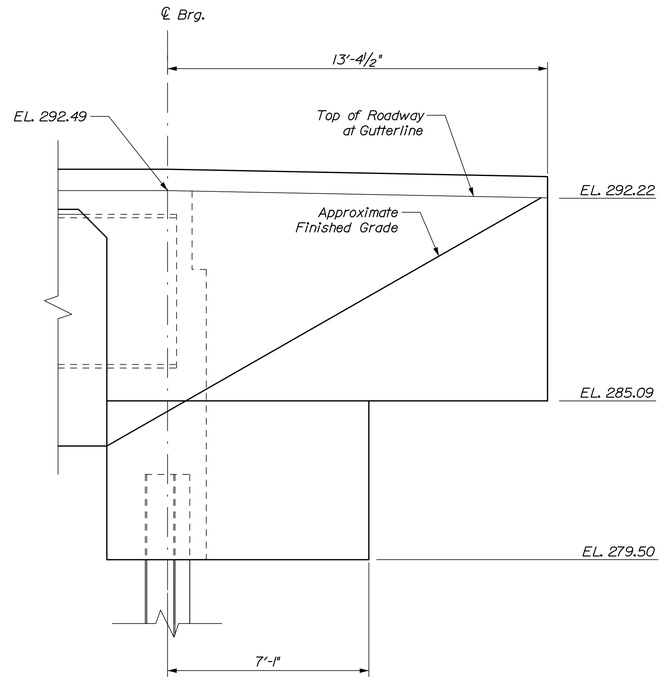
WW 1-E ELEVATION



WW 1-W ELEVATION



WW 2-W ELEVATION



WW 2-E ELEVATION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	Andy Lathel	BY	DATE
DESIGN-DETAILED	S. Cho	D. Estonsiolu	08\20
CHECKED-REVIEWED	M. Kuchas	A. Stephens	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

WINGWALL DETAILS

SHEET NUMBER

65

OF 91

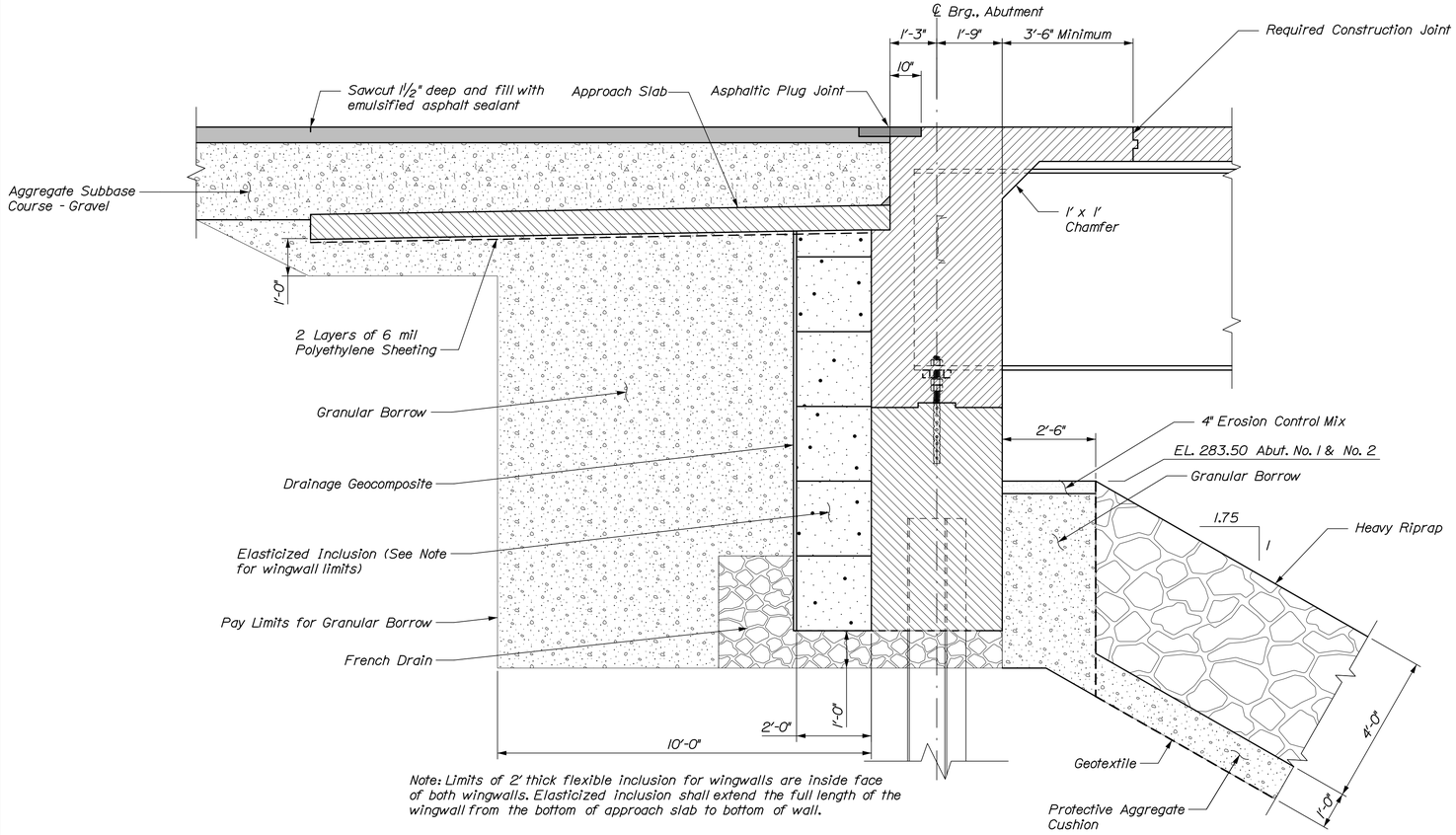
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Date:8/7/2020

Division:

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ABUTMENT BACKFILL DETAIL

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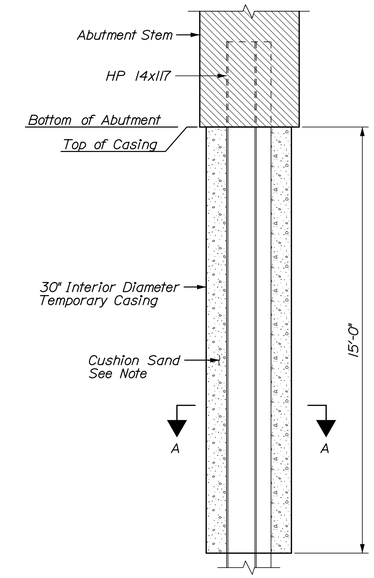
1. Transverse sawcuts in the pavement at the ends of approach slabs shall be sealed with emulsified asphalt sealing compound conforming to Specification 702.12. The sawcut and emulsified asphalt sealing shall not be paid for directly, but considered incidental to related Contract items.

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.

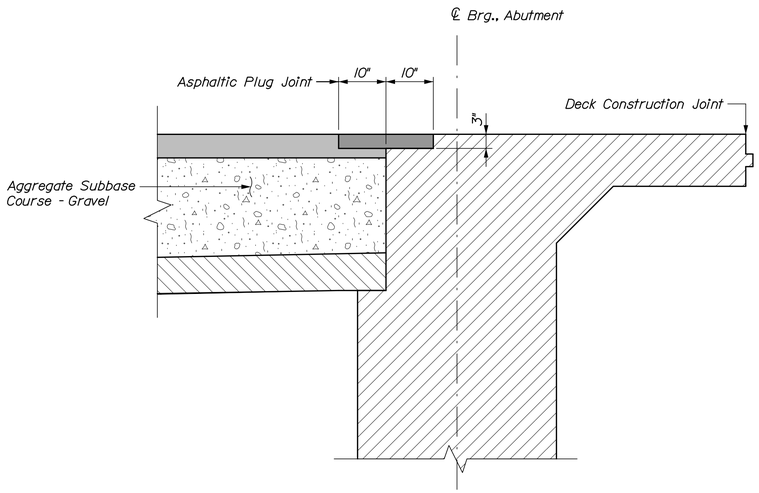
3. Asphaltic plug joint shall be installed between temperatures ranging from 40 degrees to 55 degrees fahrenheit.

4. The asphaltic plug joint shall not use a bridging plate.

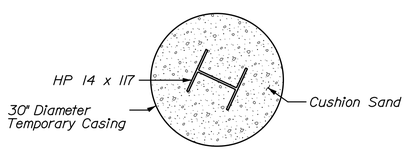
5. Elasticized inclusion shall consist of an elasticized expanded polystyrene material. Material properties, submittals, protection, testing and placement requirements are provided in Special Provision 203, Excavation and Embankment (Elastic Inclusion for Integral Abutment).



TEMPORARY CASING DETAIL



ABUTMENT SLAB SEAT AND JOINT DETAIL



SECTION A-A

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	Andy Lathel		
DESIGN-DETAILED	S. Cho	D. Estonsiau	08\20
CHECKED-REVIEWED	M. Kuchas	A. Stephens	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

ABUTMENT DETAILS

SHEET NUMBER

66

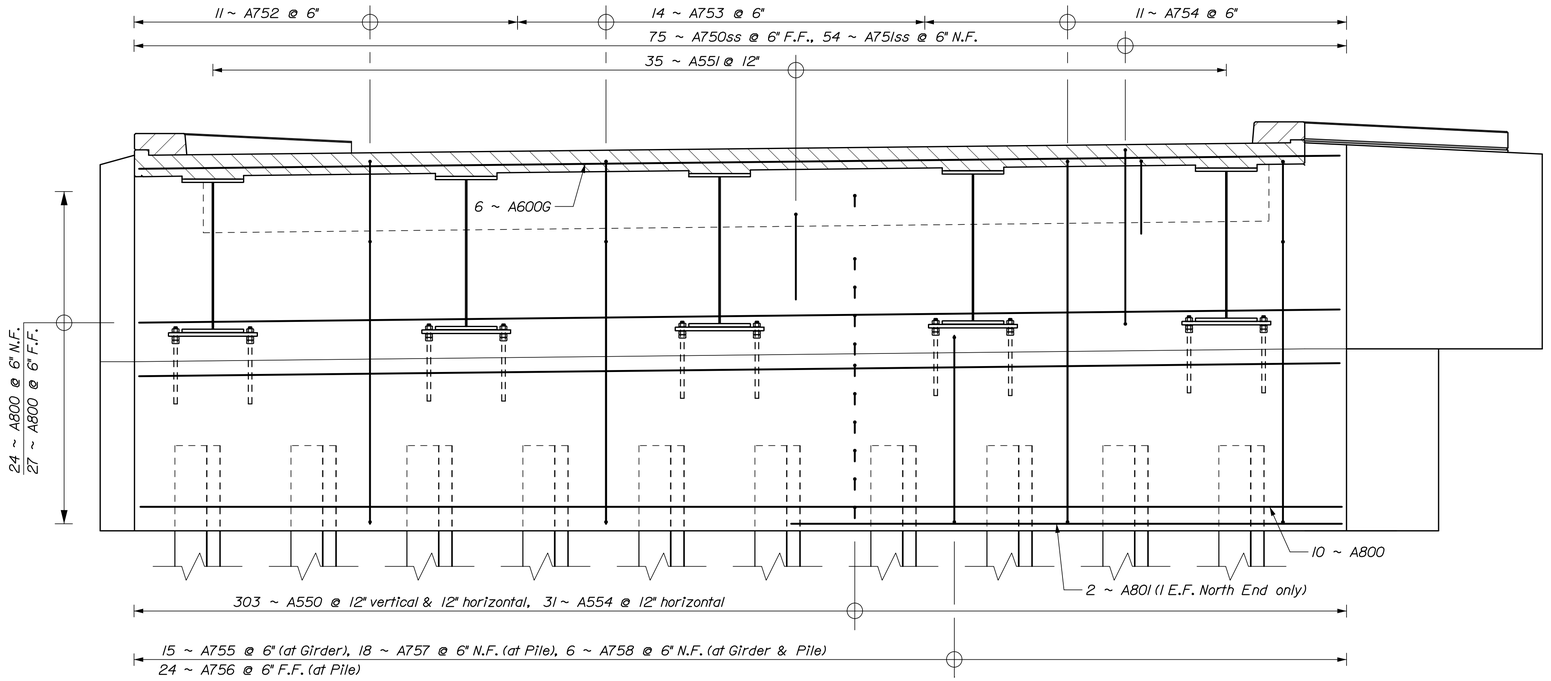
OF 91

Date:8/7/2020

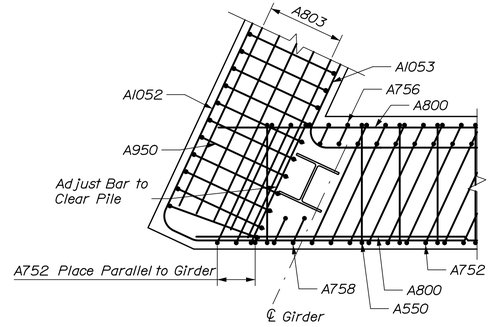
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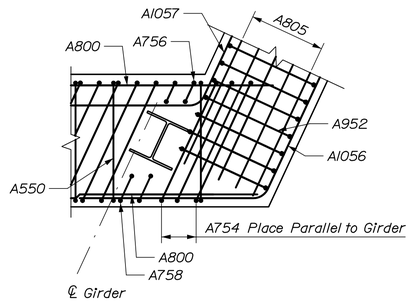


ELEVATION



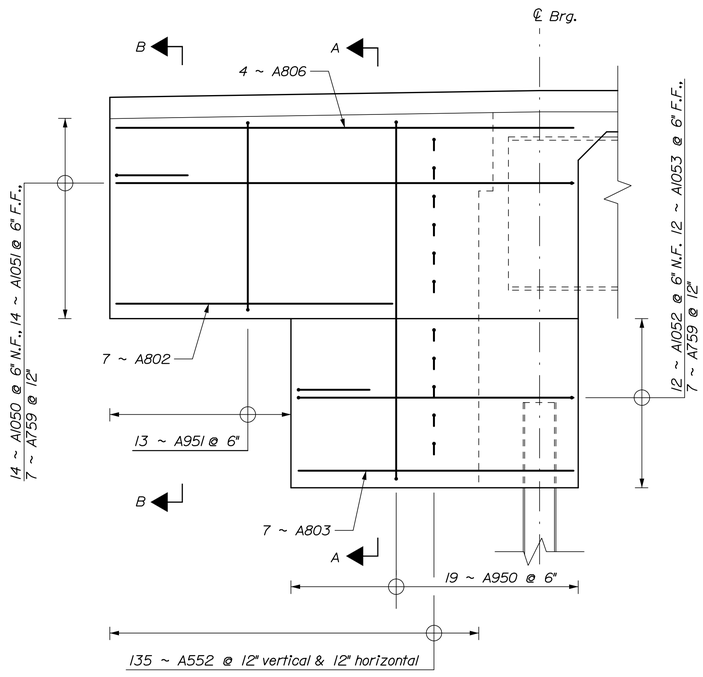
ACUTE CORNER DETAIL

(Abutment No. 2 Similar)

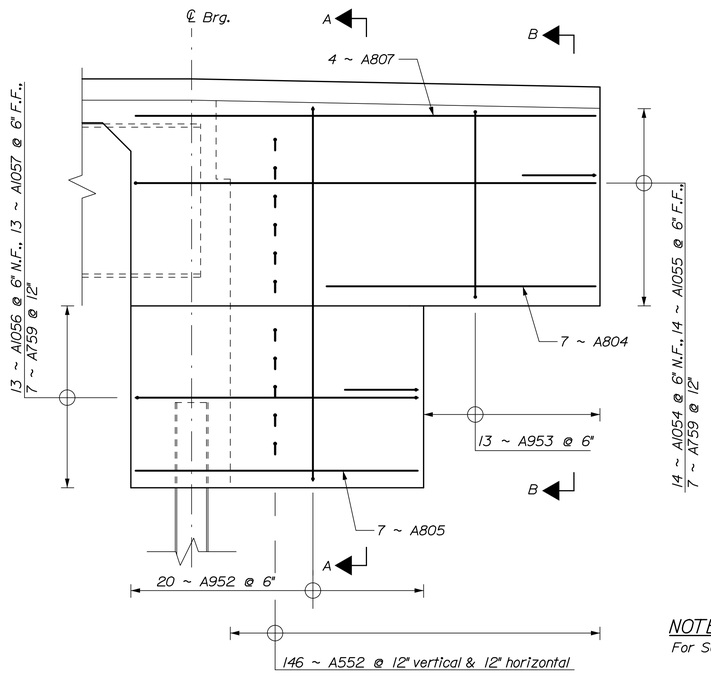


OBTUSE CORNER DETAIL

(Abutment No. 2 Similar)



WW I-E ELEVATION



WW I-W ELEVATION

NOTE:

For Sections A-A and B-B, see Sheet 70.

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothel			
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CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20	
DESIGN2-DETAILED2				
DESIGN3-DETAILED3				
REVISIONS 1				
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REVISIONS 4				
FIELD CHANGES				

SIGNATURE

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PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATIQUIS
MILO

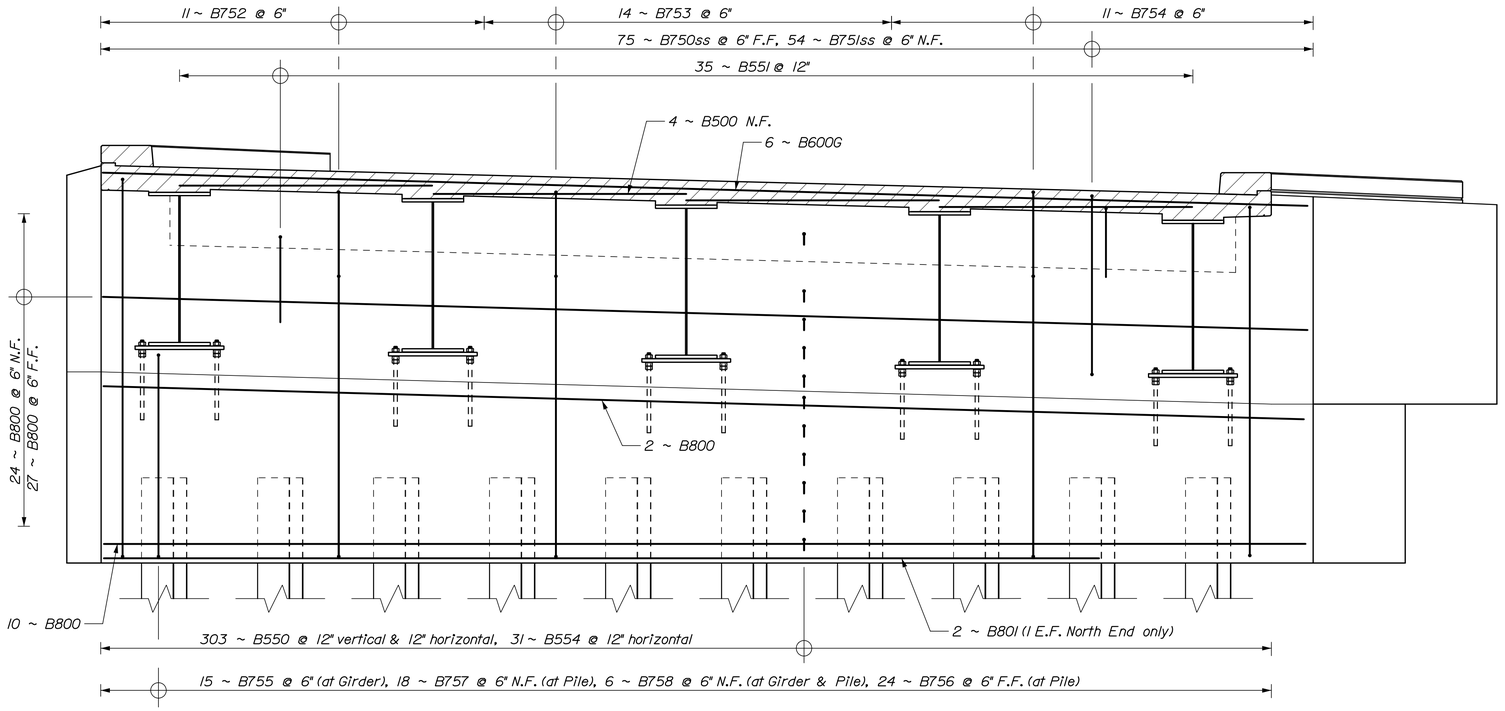
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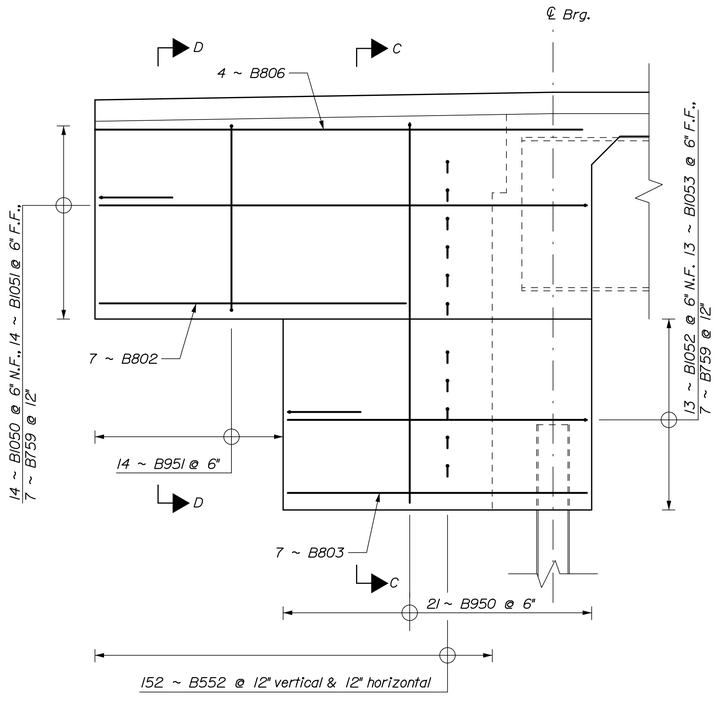
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OF 91

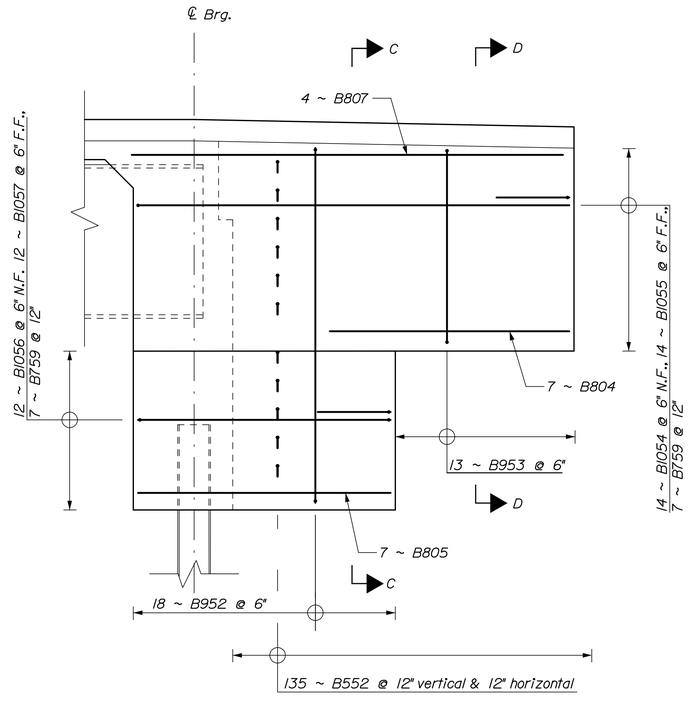
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ELEVATION



WW 2-W ELEVATION



WW 2-E ELEVATION

NOTE:
For Sections C-C and D-D, see Sheet 72.

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lothel		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

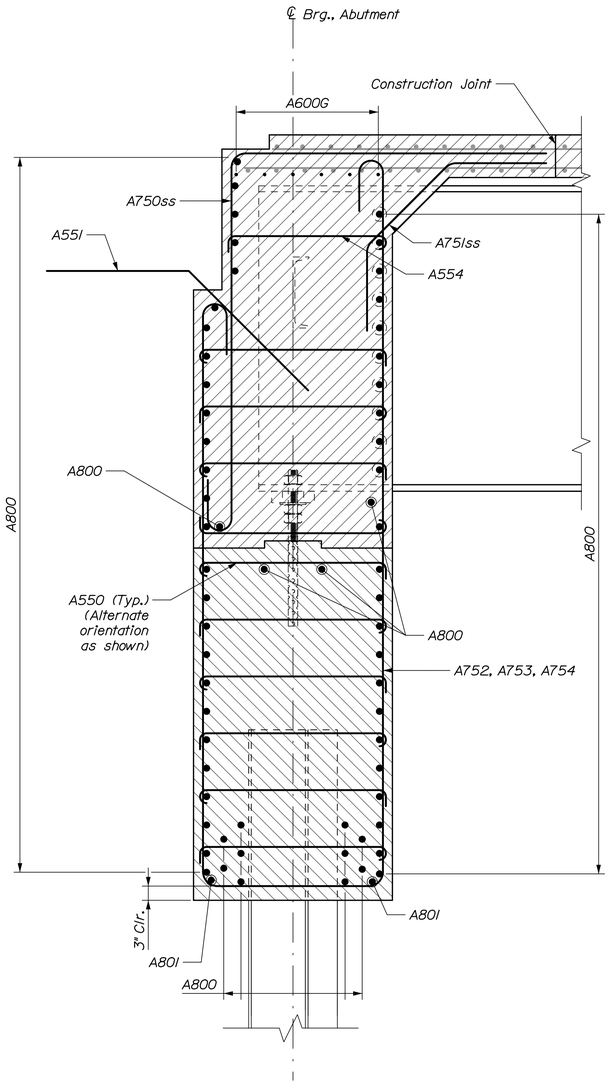
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PLEASANT RIVER BRIDGE
PLEASANT RIVER
MILO PISCATIQUIS

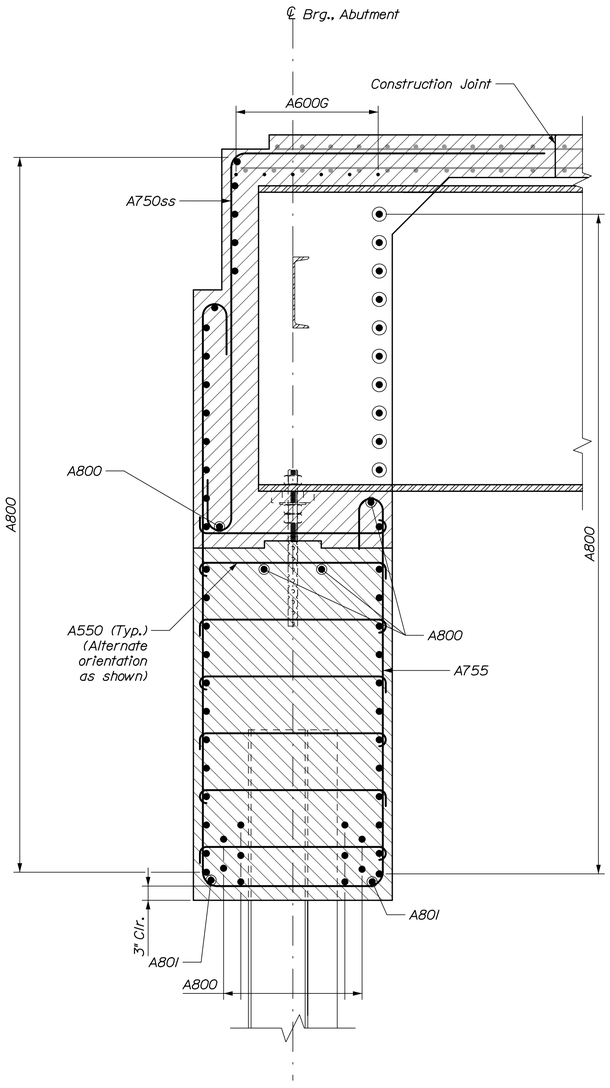
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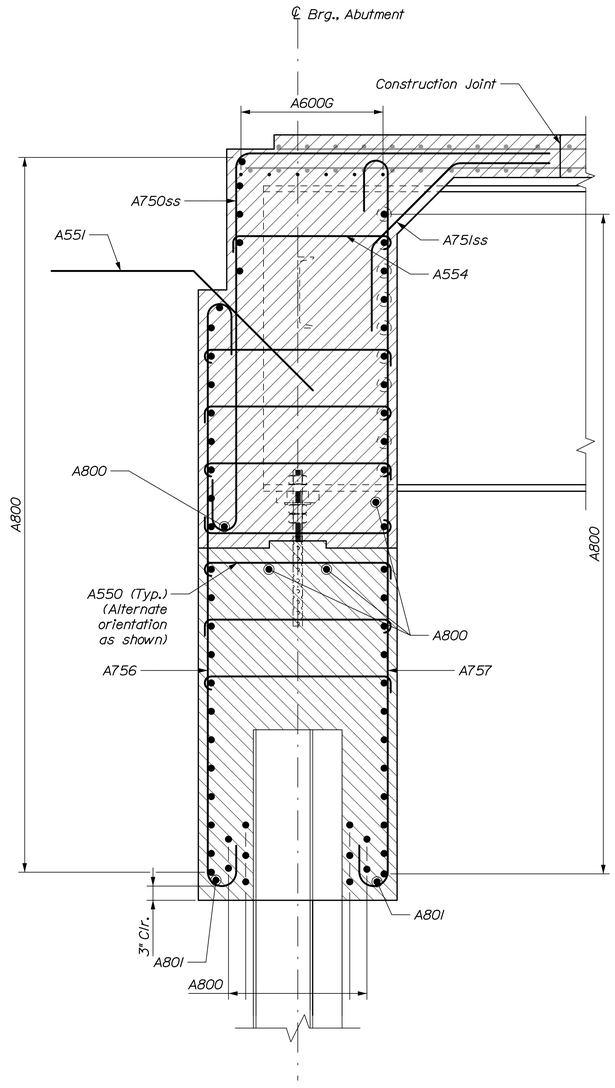
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SECTION BETWEEN GIRDER AND PILES



SECTION AT GIRDER



SECTION AT PILE

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2262701

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BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	Andy Lathel		
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CHECKED-REVIEWED	M. Kuchas	A. Stephens	08\20
DESIGN2-DETAILED2			
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REVISIONS 1			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

ABUTMENT SECTIONS 1

SHEET NUMBER

69

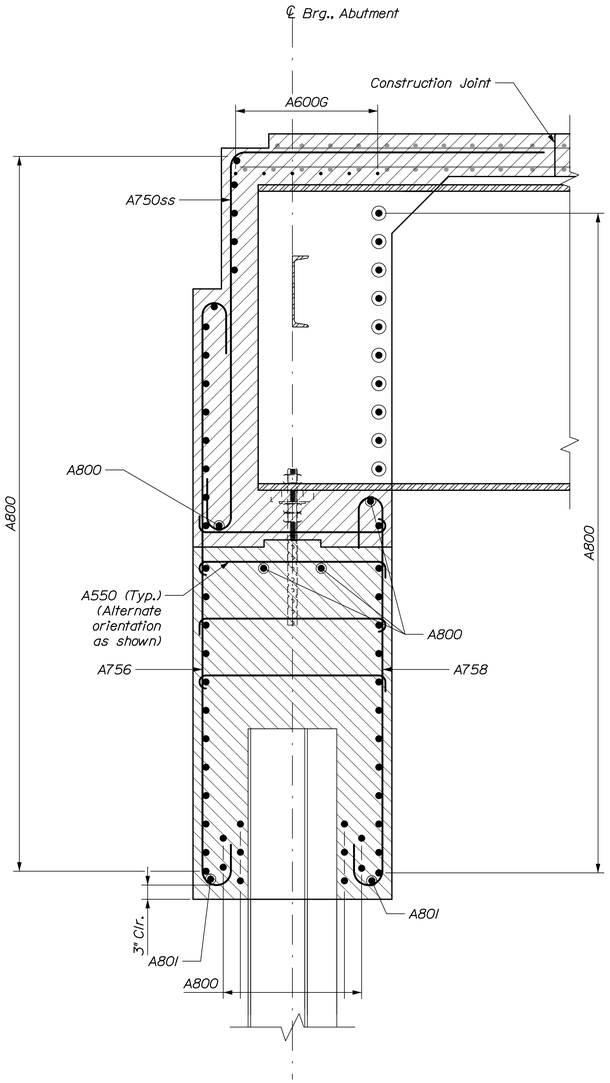
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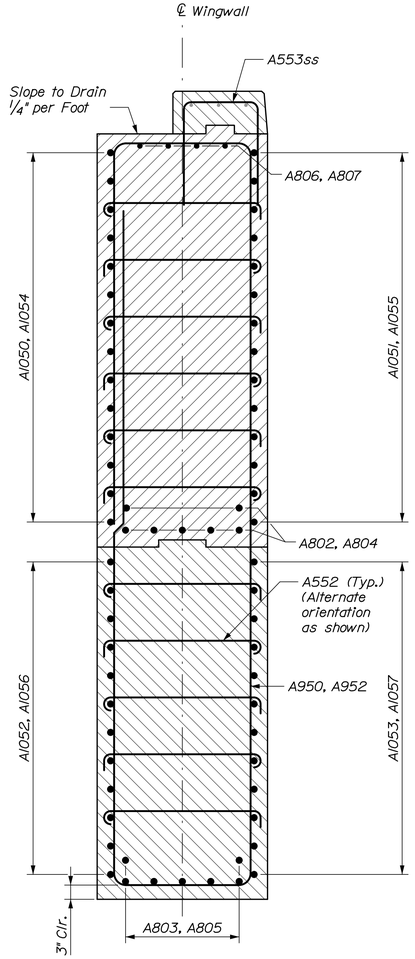
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Date:8/7/2020

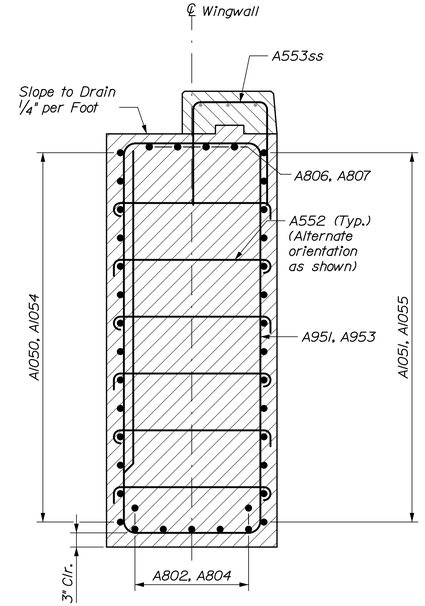
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SECTION AT GIRDER AND PILE



SECTION A-A
(Abutment No. 1 Wingwall Section)



SECTION B-B
(Abutment No. 1 Wingwall Section)

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	Andy Lathe	BY	DATE
DESIGN-DETAILED	S. Cho	D. Estanislau	08\20
CHECKED-REVIEWED	M. Kuchos	A. Stephens	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
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REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

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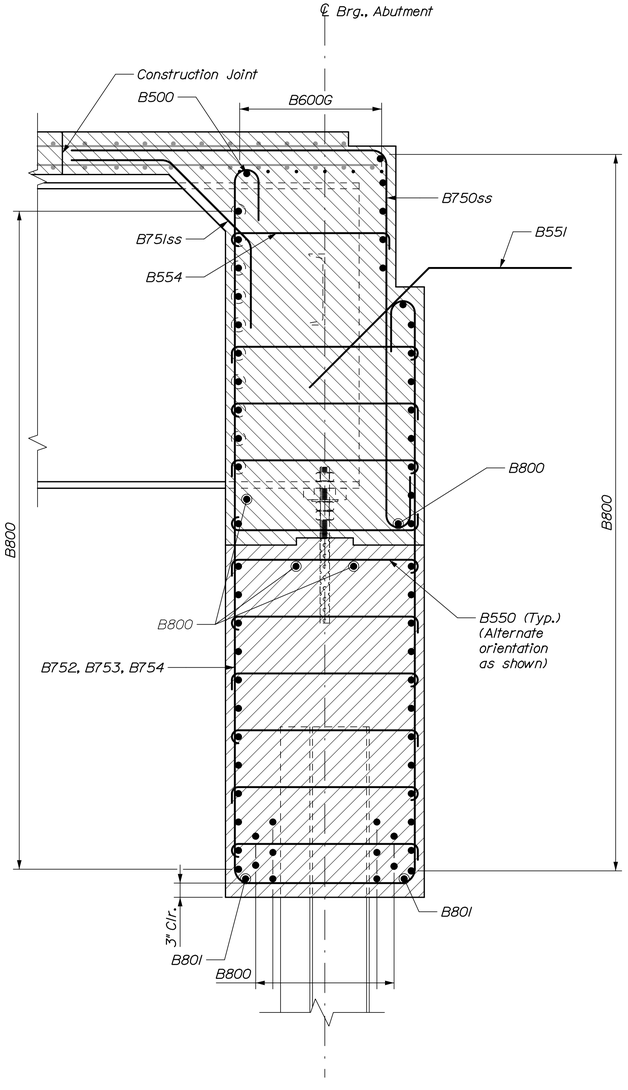
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PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

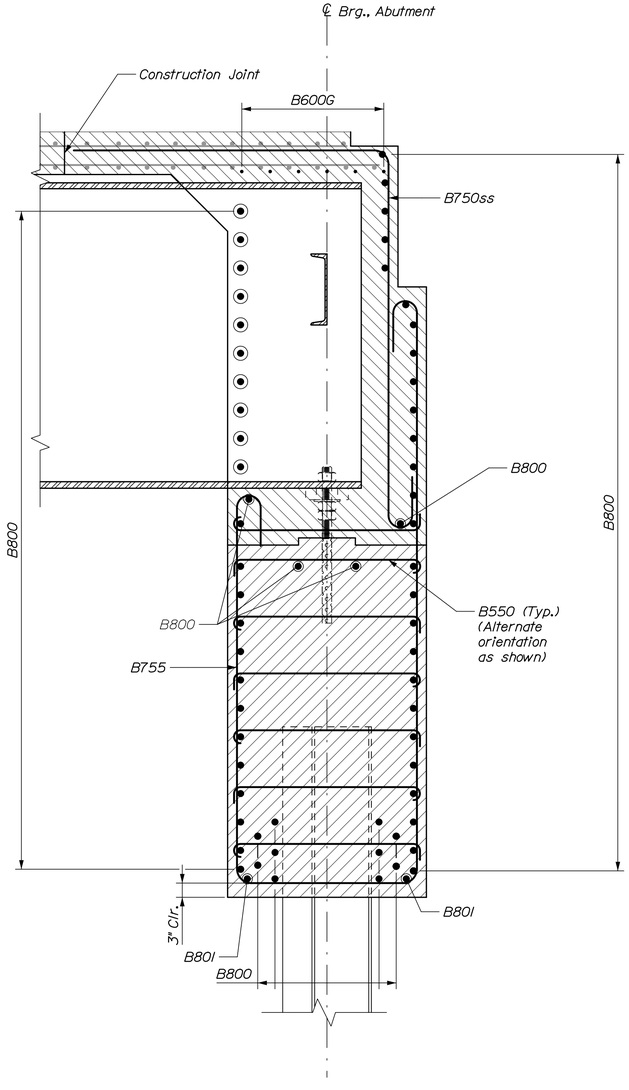
ABUTMENT SECTIONS 2

SHEET NUMBER
70
OF 91

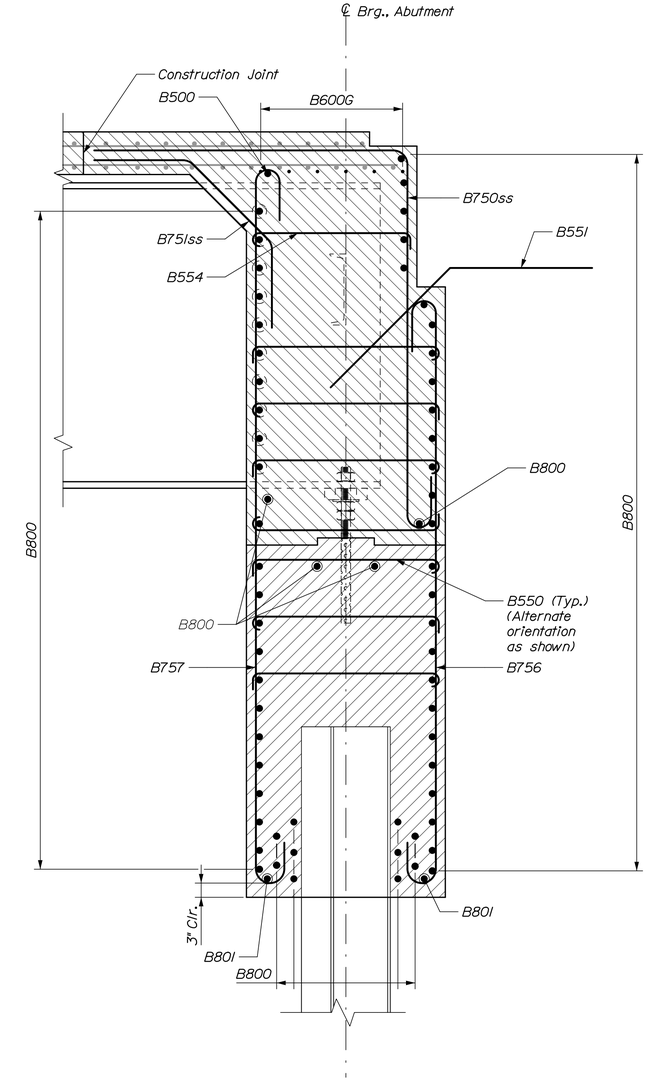
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SECTION BETWEEN GIRDER AND PILES



SECTION AT GIRDER



SECTION AT PILE

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	Andy Lathel	
DESIGN-DETAILED	S. Cho	D. Estanislau 08\20
CHECKED-REVIEWED	M. Kuchas	A. Stephens 08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
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PISCATAQUIS COUNTY
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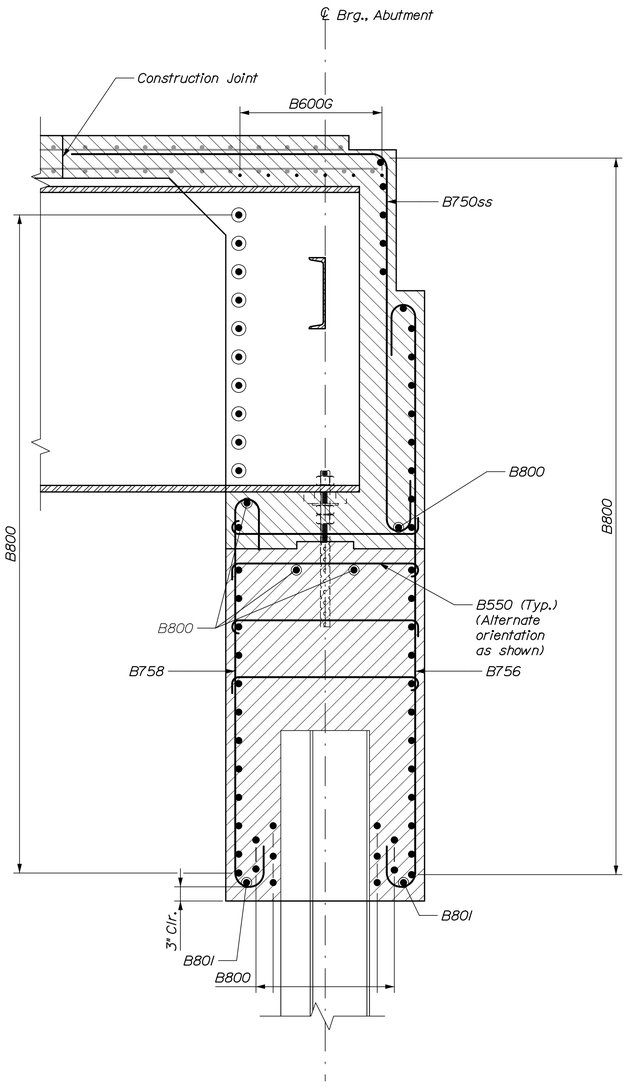
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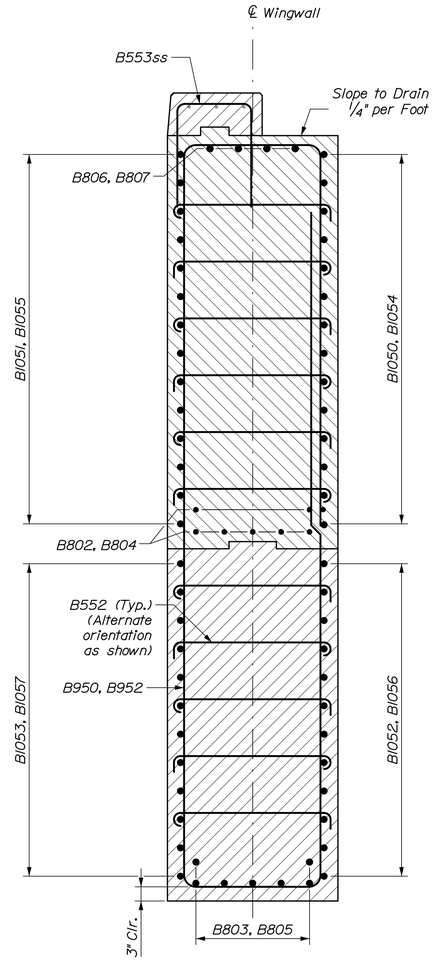
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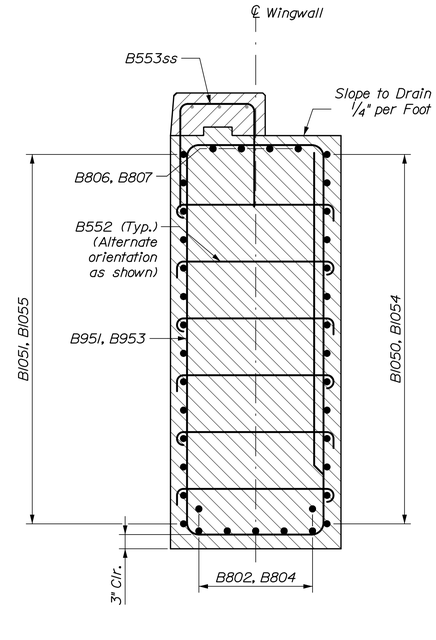


SECTION AT GIRDER AND PILE



SECTION C-C

(Abutment No. 2 Wingwall Section)



SECTION D-D

(Abutment No. 2 Wingwall Section)

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE NO. 3244 BRIDGE PLANS

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FIELD CHANGES			

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PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

ABUTMENT SECTIONS 4

SHEET NUMBER

72

OF 91

Username: Date:8/7/2020

Division:

Filename: ...\072_Abutment Sections 4.dgn

PIER DESIGN CRITERIA

1. Controlling AASHTO Load Combination - Strength Limit State.

2. Buoyancy: Water level assumed at EL. 276.00.

3. Stream flow: Velocity of 3.64 fps skewed at 0.0° to longitudinal centerline of pier.

4. Wind: 115 mph.

5. Ice: Thickness 2.5 feet, pressure 28.8 ksf at EL. 275.07, 30% of nose force applied transverse to pier.

PIER NOTES

1. Reinforcing steel shall have a minimum concrete cover of 3 inches unless otherwise noted.

PIER NOSE ARMOR NOTES

1. Pier Nose Protection shall be extended from the top of footing to bottom of pier cap for the pier.

2. Nose armor, including anchor studs, shall be cleaned and galvanized in accordance with Section 506 of the Standard Specifications. Payment forfurnishing and placing Nose Armor shall be incidental to Pay Item 502.239 - Structural Concrete Piers.

SEAL COFFERDAM NOTES

1. When sheet piling is used for seal cofferdams, appropriate rolled corners shall be used, and the inside face of the sheet piling shall be at or outside of the seal concrete dimensions shown.

2. The seal concrete placement dimensions shown represent the minimum seal size necessary to meet design requirements and are not based on the use of any particular sheet pile section.

3. The horizontal pay limit for seal concrete will be to the dimensions shown on the plans. No additional payment will be made for concrete placed outside these limits.

4. The depth of the seal is set for a water elevation of 276.00. If the water elevation at the time of construction is higher, the depth of the seal shall be adjusted.

5. Pier Seal Concrete shall be Class "S" concrete.

PIER PILE NOTES

1. The maximum factored pile load is 435 kips at the Strength limit state.

2. H-pile material shall be ASTM A 572, Grade 50.

3. Estimate of piles required (Includes an extra 5 feet per pile as contingency):

Pier: 6 ~ HP 14x117 @ 121 feet Plumb
10 ~ HP 14x117 @ 127.5 feet Battered

4. All piles shall be equipped with a pile tip in accordance with Standard Specifications Section 501.048, Prefabricated Pile Tips.

5. Piles marked with an arrow shall be battered 4in./ft in the direction of the arrow.

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

7. The Contractor shall submit to the Department, for review and acceptance, their proposed pile driving equipment with a compiled "Pile and Driving Equipment Data Form," Figure 1, of Standard Section 501 - Foundation Piles. Approval of the proposed pile driving equipment by the Department will be based on Department - conducted wave equation analyses and the criteria specified in Section 501 and Subsection 501.042, Equipment for Driving Piles. If the Department - conducted wave equation analyses show that the proposed driving system(s) is unacceptable, the Contractor shall modify or replace the proposed driving equipment in an amendment of the QCP, at their own expense, until subsequent wave equation analyses by the Department indicate the pile can be driven to the required resistance, without damage or excessive blows.

8. The Contractor shall provide access for the agents of the Department to perform one (1) dynamic load test with signal matching and restrike, as specified in Special Provision 501 - Dynamic Loading Test, to confirm the nominal resistance of the piles. The dynamic pile load test at Pier 1 will be completed on the first production pile driven, which shall be a battered pile. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. The Contractor may drive production piles to the preliminary driving criteria, however pile cut-off will not be permitted until completion of restrike testing and establishment of final driving criteria.

9. In preparation for dynamic pile tests, piles may be partially installed prior to dynamic pile testing. Each pile may be installed to a tip elevation of El. 200, or shallower. The dynamic pile test instrumentation shall then be attached to the pile segment which is spliced onto the length of pile already installed to EL. 200. Dynamic pile test measurements shall be recorded for the remaining length of the driven test pile.

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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BRIDGE NO. 3244 BRIDGE PLANS

PROJ. MANAGER	A. Lothel	BY	DATE
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CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
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DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

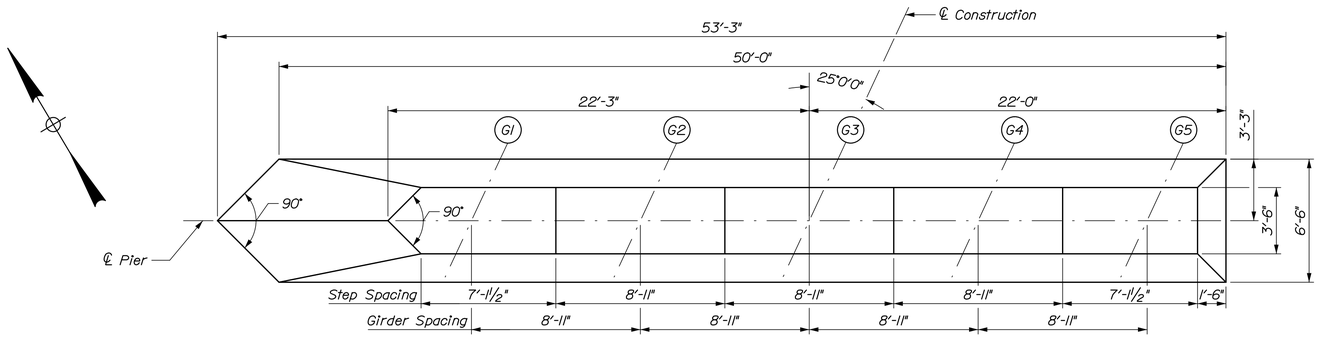
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PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

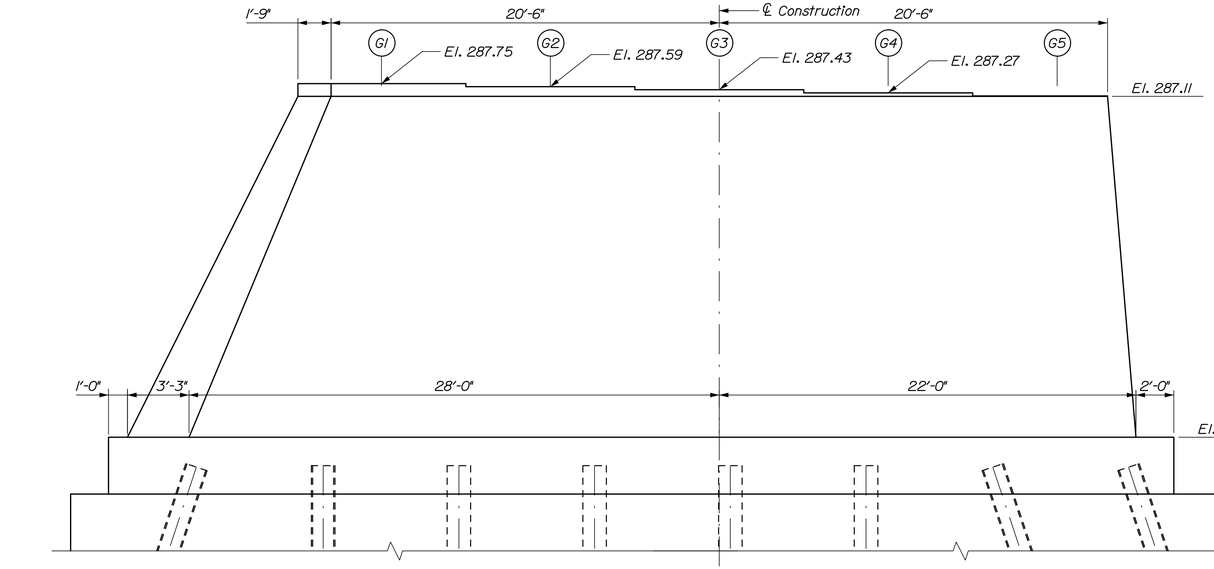
PIER NOTES

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OF 91

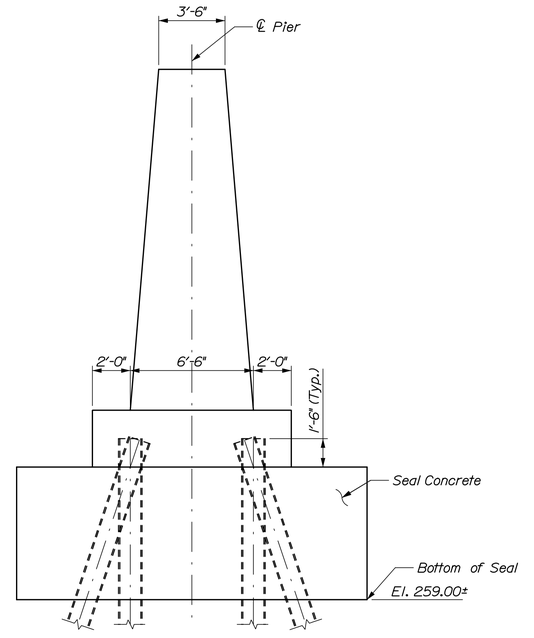
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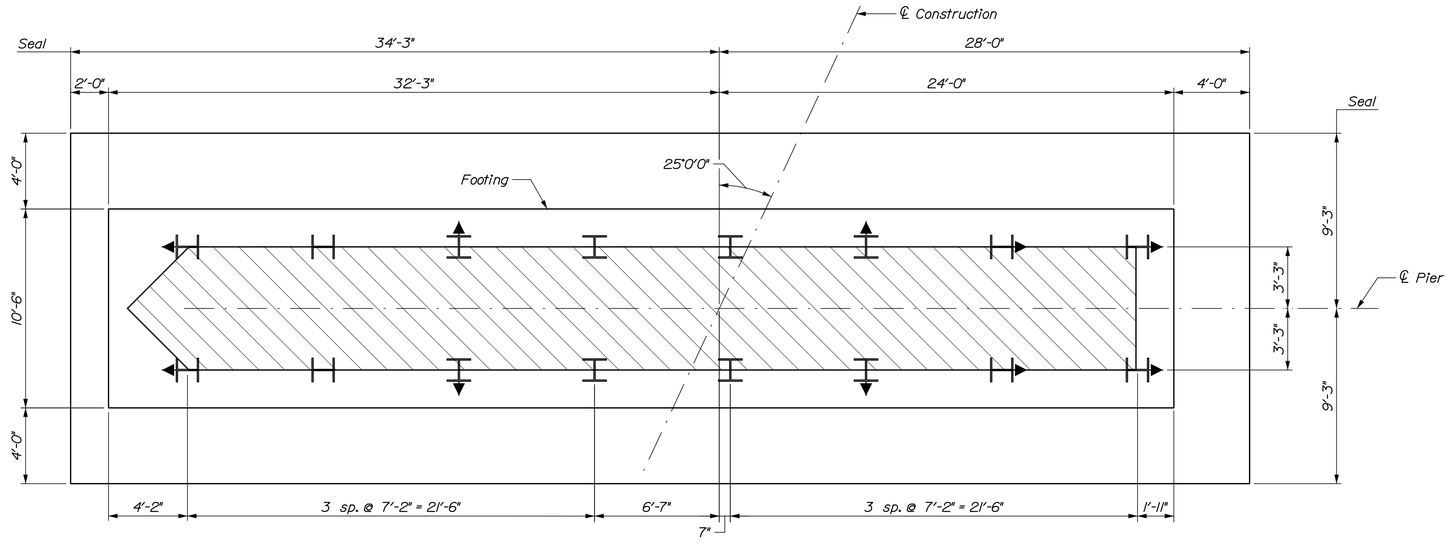
PIER SHAFT PLAN



PIER ELEVATION



PIER END ELEVATION



PIER SEAL & FOOTING PLAN

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STATE OF MAINE
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2262701

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BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
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DESIGN2-DETAILED2	M. Kuchos	
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REVISIONS 1		
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FIELD CHANGES		

SIGNATURE

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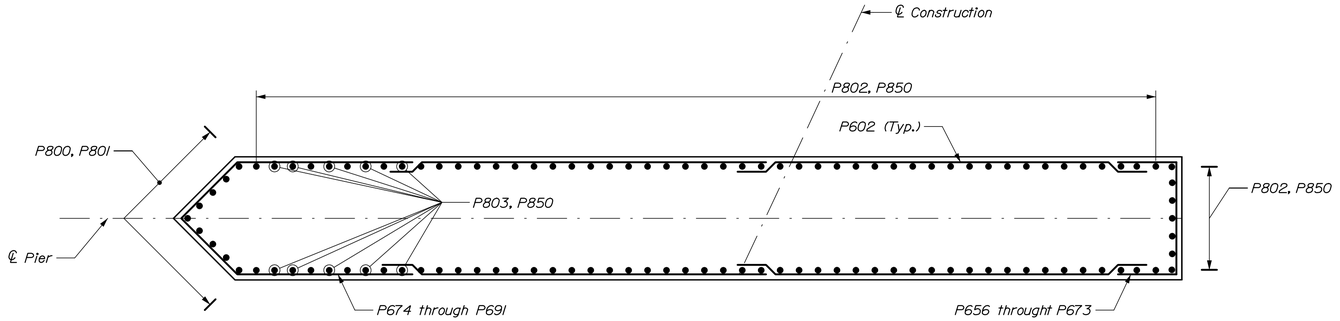
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PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

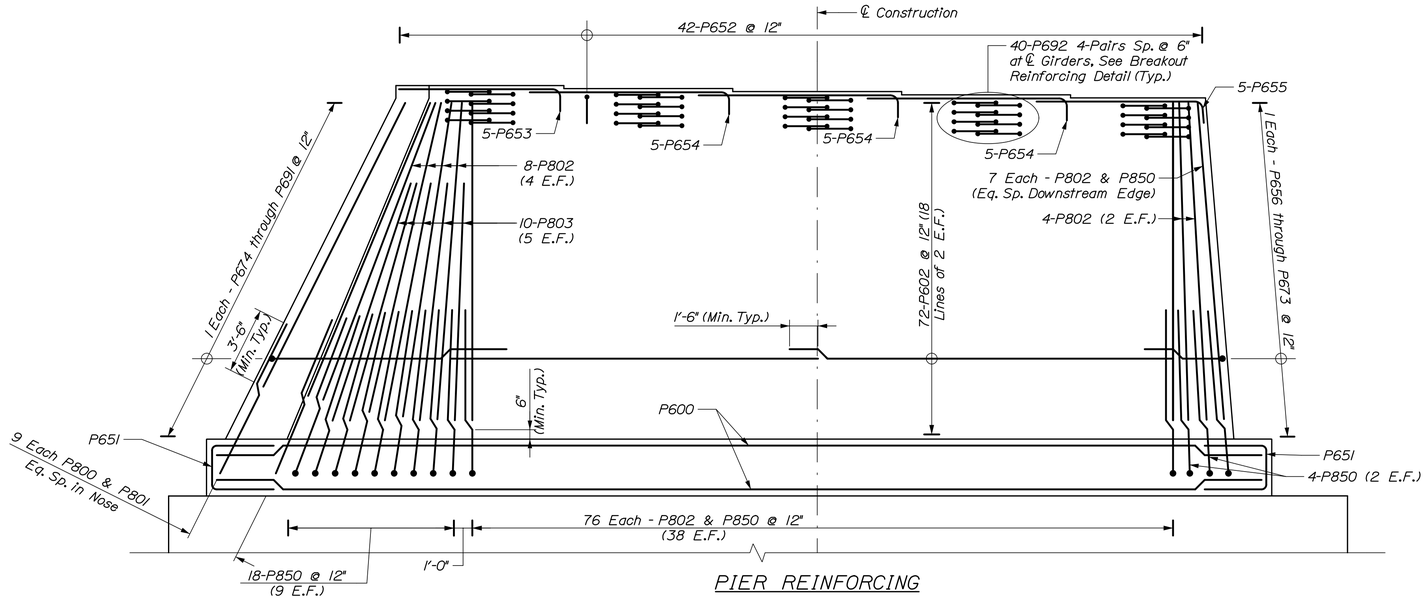
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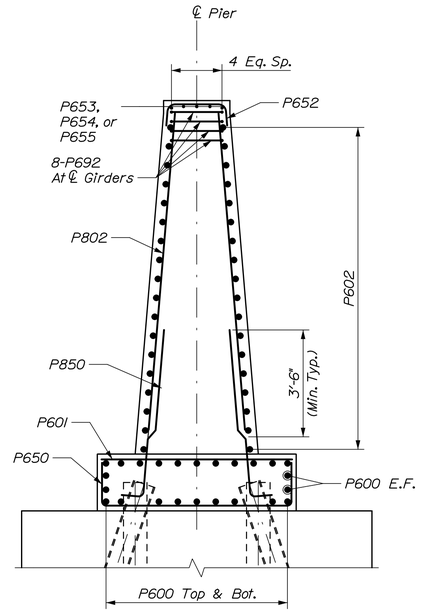
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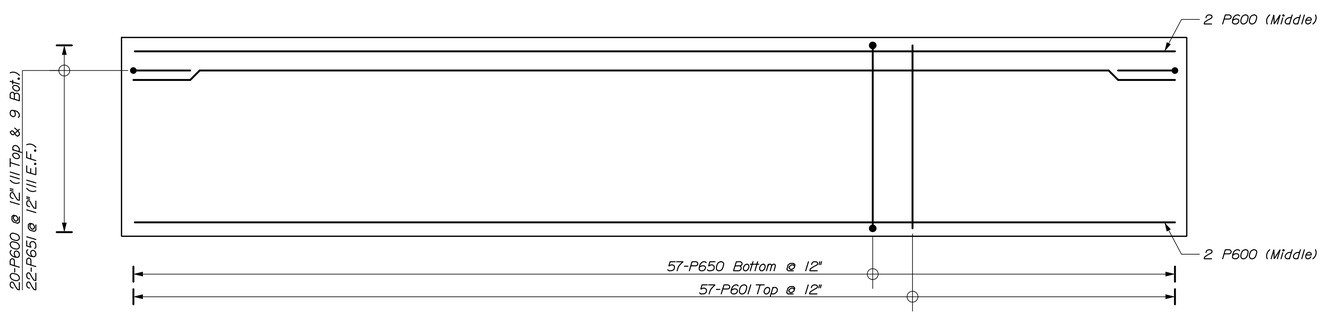
PIER SHAFT PLAN



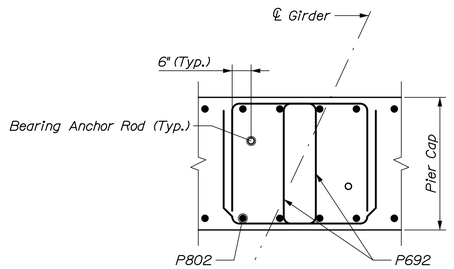
PIER REINFORCING



PIER REINFORCING



PIER FOOTING REINFORCING



BREAKOUT REINFORCING DETAIL

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	Andy Lathel	BY	DATE
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FIELD CHANGES			

SIGNATURE

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PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

PIER REINFORCING

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75

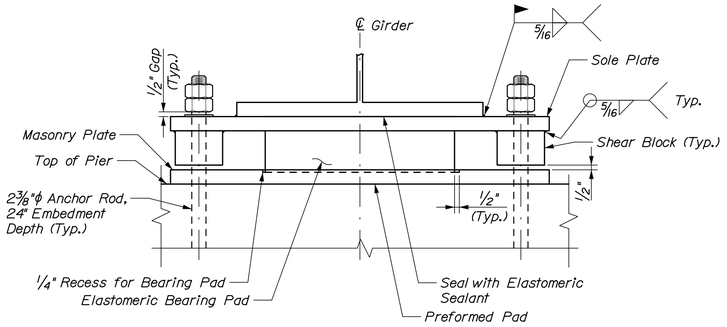
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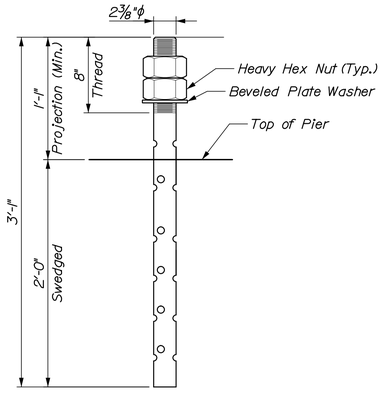
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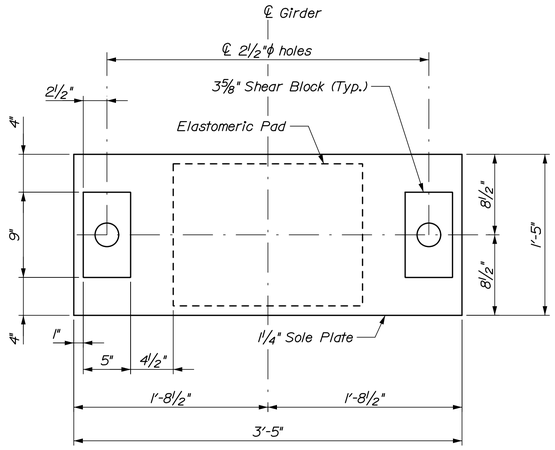
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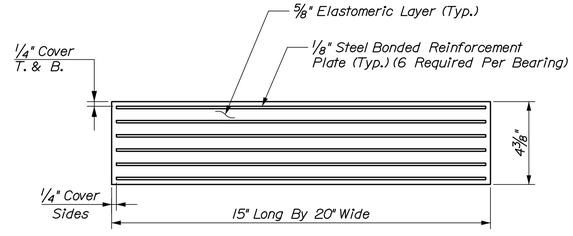
PIER BEARING ELEVATION



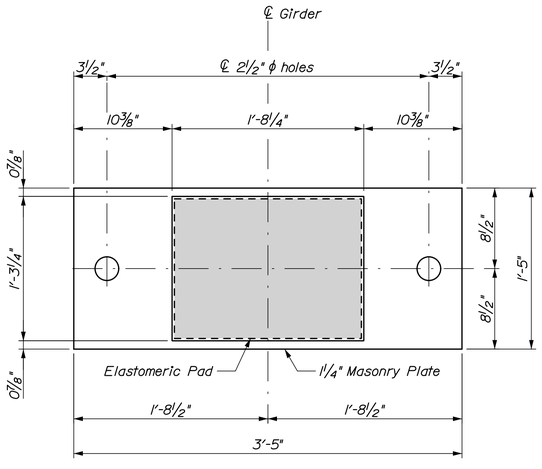
ANCHOR ROD DETAIL



SOLE PLATE PLAN
Looking up at bottom of Sole Plate



PIER ELASTOMERIC BEARING PAD
(5 REQUIRED)



MASONRY PLATE PLAN
Showing laminated elastomeric pad

ELASTOMERIC BEARING NOTES:

1. The shear modulus of the elastomer shall be 130 psi.

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

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

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

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

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

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

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

9. Upset the threads on the anchor rods after assembly of the bearing.

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

11. The "Bearing Design Load" for each bearing as noted in Standard Specifications, subsection 523.23.4, is 549 kips. This is the total load for the Service I load combination, without impact.

BEARING DESIGN CRITERIA	
CRITERIA	PIERS
Unfactored Dead Load	346.0 Kips
Unfactored Live Load	203.0 Kips
Max. Longitudinal Displ.	0 Inches
Rotational Tolerance	0.005 Rad
Dead Load Rotation	0.00117 Rad
Max. Live Load Rotation	0.00182 Rad

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BRIDGE NO. 3244

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DESIGN-DETAILED	D. Estanislau	08\20	
CHECKED-REVIEWED	A. Stephens	08\20	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

BEARING DETAILS

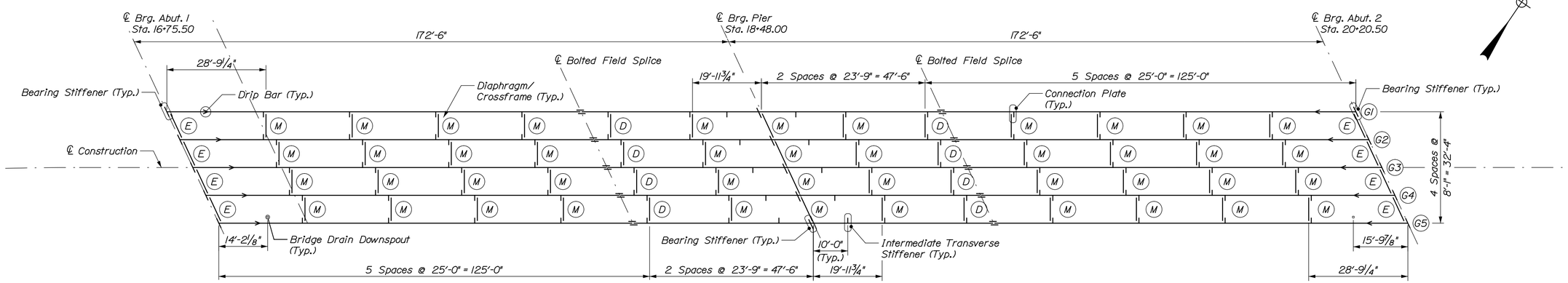
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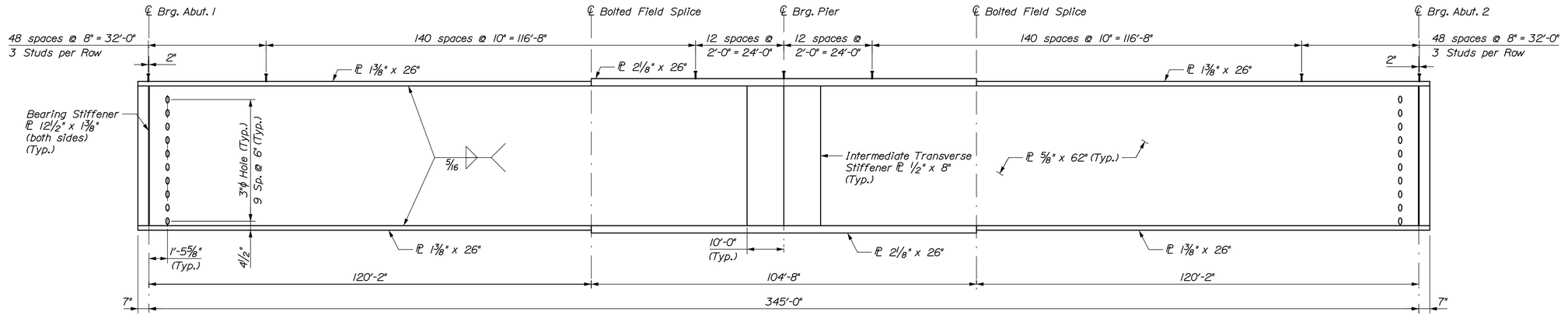
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Division:

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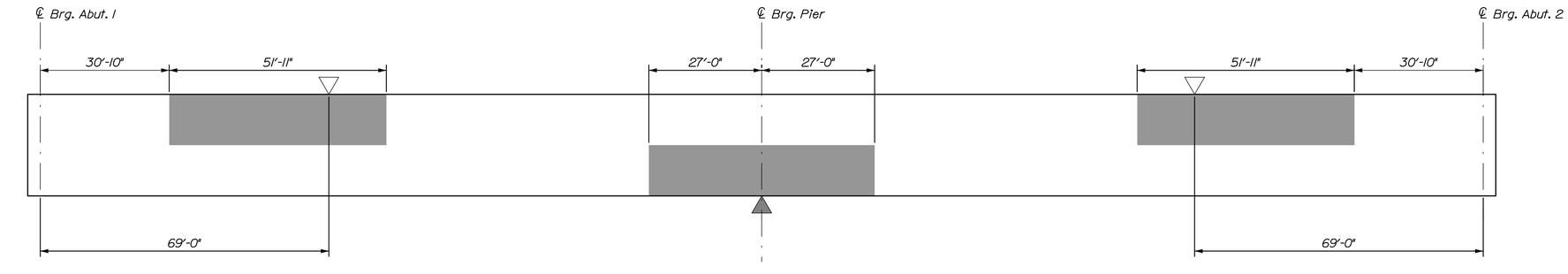


FRAMING PLAN



GIRDER ELEVATION

1,203 studs per girder (6,015 studs total)



GIRDER STRESS DIAGRAM

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	Andy Lathe	
DESIGN-DETAILED	D. Estanislau	08\20
CHECKED-REVIEWED	S. Cho	
DESIGN2-DETAILED2	M. Kuchas	
DESIGN3-DETAILED3	A. Stephens	08\20
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

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DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

FRAMING PLAN

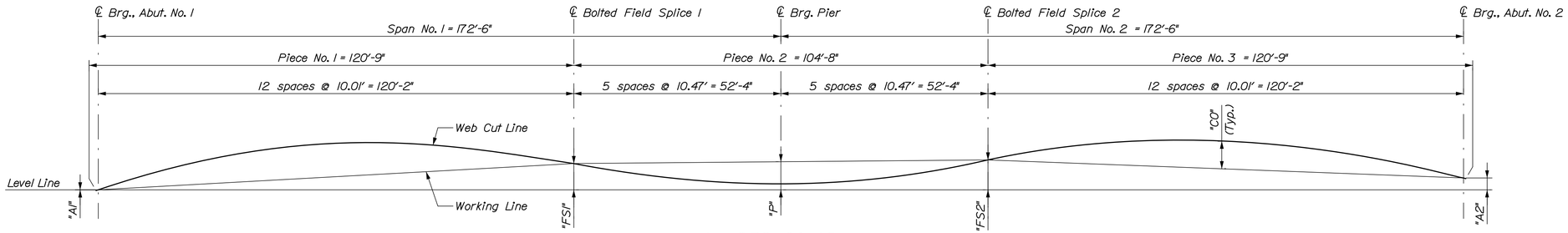
SHEET NUMBER

77

OF 91

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Filename: ...\Bridge\077_Framing Plan.dgn Division: Username: Date:8/7/2020



CAMBER DIAGRAM

TABLE OF CAMBER DIMENSIONS (FEET)					
GIRDER	A1	FS1	P	FS2	A2
G1	0.000	1.630	1.635	1.720	0.295
G2	0.000	1.610	1.570	1.660	0.165
G3	0.000	1.564	1.505	1.575	0.034
G4	0.096	1.615	1.536	1.586	0.000
G5	0.226	1.675	1.601	1.606	0.000

GIRDER	CAMBER ORDINATES "CO" (INCHES)																																
	"A1"	Piece No. 1											"FS1"	Piece No. 2									"FS2"	Piece No. 3										"A2"
Location	0.00'	10.01'	20.03'	30.04'	40.06'	50.07'	60.08'	70.10'	80.11'	90.13'	100.14'	110.15'	0.00'	10.47'	20.93'	31.40'	41.87'	52.33'	62.80'	73.27'	83.73'	94.20'	0.00'	10.01'	20.03'	30.04'	40.06'	50.07'	60.08'	70.10'	80.11'	90.13'	100.14'	110.15'	120.17'
G1	0.000	1.341	2.523	3.483	4.189	4.668	4.784	4.697	4.226	3.536	2.569	1.372	0.000	0.005	-0.090	-0.239	-0.342	-0.479	-0.342	-0.239	-0.090	0.005	0.000	1.372	2.569	3.536	4.226	4.697	4.784	4.668	4.189	3.483	2.523	1.341	0.000
G2	0.000	1.437	2.710	3.745	4.508	5.030	5.153	5.062	4.550	3.805	2.761	1.472	0.000	-0.076	-0.249	-0.465	-0.609	-0.774	-0.609	-0.465	-0.249	-0.076	0.000	1.472	2.761	3.805	4.550	5.062	5.153	5.030	4.508	3.745	2.710	1.437	0.000
G3	0.000	1.437	2.710	3.745	4.508	5.030	5.153	5.062	4.550	3.805	2.761	1.472	0.000	-0.076	-0.249	-0.465	-0.609	-0.774	-0.609	-0.465	-0.249	-0.076	0.000	1.472	2.761	3.805	4.550	5.062	5.153	5.030	4.508	3.745	2.710	1.437	0.000
G4	0.000	1.437	2.710	3.745	4.508	5.030	5.153	5.062	4.550	3.805	2.761	1.472	0.000	-0.076	-0.249	-0.465	-0.609	-0.774	-0.609	-0.465	-0.249	-0.076	0.000	1.472	2.761	3.805	4.550	5.062	5.153	5.030	4.508	3.745	2.710	1.437	0.000
G5	0.000	1.341	2.523	3.483	4.189	4.668	4.784	4.697	4.226	3.536	2.569	1.372	0.000	0.005	-0.090	-0.239	-0.342	-0.479	-0.342	-0.239	-0.090	0.005	0.000	1.372	2.569	3.536	4.226	4.697	4.784	4.668	4.189	3.483	2.523	1.341	0.000

GIRDER	DEAD LOAD COMPONENT	DEAD LOAD DEFLECTIONS (INCHES)																																	
		Span No. 1																		Span No. 2																
		0.0'	10.0'	20.0'	30.0'	40.0'	50.0'	60.0'	70.0'	80.0'	90.0'	100.0'	110.0'	120.0'	130.0'	140.0'	150.0'	160.0'	170.0'	172.5'	0.0'	10.0'	20.0'	30.0'	40.0'	50.0'	60.0'	70.0'	80.0'	90.0'	100.0'	110.0'	120.0'	130.0'	140.0'	150.0'	160.0'	170.0'	172.5'
G1 & G5	Steel Dead Load	0.000	0.253	0.494	0.707	0.880	1.021	1.092	1.139	1.106	1.046	0.939	0.799	0.641	0.474	0.312	0.174	0.074	0.015	0.000	0.000	0.059	0.140	0.278	0.432	0.600	0.759	0.912	1.019	1.098	1.131	1.106	1.050	0.915	0.760	0.547	0.316	0.063	0.000
	Fluid Dead Load	0.000	0.536	1.047	1.494	1.858	2.154	2.299	2.393	2.320	2.187	1.954	1.656	1.323	0.974	0.637	0.355	0.149	0.030	0.000	0.000	0.119	0.284	0.567	0.887	1.237	1.573	1.896	2.129	2.301	2.374	2.327	2.214	1.932	1.606	1.159	0.670	0.134	0.000
	Superimposed Dead Load	0.000	0.057	0.111	0.159	0.198	0.229	0.245	0.255	0.248	0.234	0.210	0.178	0.143	0.105	0.069	0.038	0.016	0.003	0.000	0.000	0.013	0.030	0.061	0.096	0.133	0.169	0.203	0.228	0.246	0.253	0.248	0.236	0.206	0.170	0.123	0.071	0.014	0.000
G2, G3, G4	Steel Dead Load	0.000	0.248	0.484	0.692	0.861	1.000	1.068	1.114	1.083	1.023	0.918	0.781	0.627	0.463	0.305	0.171	0.072	0.014	0.000	0.000	0.058	0.137	0.271	0.422	0.586	0.742	0.892	0.997	1.075	1.106	1.082	1.028	0.896	0.743	0.536	0.309	0.062	0.000
	Fluid Dead Load	0.000	0.659	1.287	1.836	2.283	2.647	2.825	2.941	2.851	2.687	2.401	2.034	1.624	1.196	0.783	0.435	0.183	0.037	0.000	0.000	0.147	0.348	0.696	1.088	1.518	1.932	2.330	2.615	2.828	2.918	2.860	2.721	2.374	1.973	1.424	0.823	0.165	0.000
	Superimposed Dead Load	0.000	0.055	0.108	0.154	0.192	0.223	0.238	0.248	0.241	0.227	0.204	0.173	0.139	0.102	0.067	0.038	0.016	0.003	0.000	0.000	0.013	0.030	0.060	0.093	0.130	0.165	0.198	0.222	0.239	0.246	0.241	0.229	0.200	0.166	0.119	0.069	0.014	0.000

STRUCTURAL STEEL NOTES:

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

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

3. Sections of flange plates or web plates between transverse shop splices or between a transverse shop splice and a field splice shall be not less than 20 feet in length unless otherwise shown on the plans.

4. Bearing stiffeners shall be plumb after erection and dead loading of the structure. Intermediate web stiffeners may be either plumb or normal to the top flange.

5. Crossframe or diaphragm connection plates may be either plumb or normal to the top flange and shall be ½" thick.

6. All connection plates shall be welded to the top and bottom flanges using 5/16" fillet welds.

7. Bolted field splice connections shall be made using 7/8"ϕ ASTM A325 bolts. Hole size shall be 15/16"ϕ. Bolts shall be installed with heads down at all bottom flange connections and heads up at all top flange connections. Bolt threads shall be excluded from the shear plane of the field splice connection.

8. Coat girder ends and cross frames/diaphragms to a distance of 10 feet from each abutment centerline of bearing in accordance with Standard Specification Section 506, Shop Applied Protective Coating - Steel (Zinc Rich Coating System), except NEPCOAT Qualified Products List C may be used. Paint color shall meet Federal Color 30045 (BROWN) of Federal Color Standard 595B. All costs related to coating will not be paid for directly, but will be considered incidental to related structural steel contract items.

9. The "Drip Bar" detail shall be used on the high side of each abutment on all girders as shown and in accordance with the Standard Details.

11. After placement of the superstructure concrete, thoroughly clean the abutments and pier of all stains with a method approved by the Resident. Payment will be considered incidental to related Contract items.

12. Structural steel was designed with a vertical construction live load of 50 psf and a lateral wind velocity of 115 mph.

13. Bolted diaphragms or cross frame connections shall be made using 7/8"ϕ bolts. Bolt threads shall be excluded from the shear plane of the connections.

BOTTOM OF SLAB ELEVATIONS (FEET)																				
GIRDER	Span No. 1																			
	0.0'	10.0'	20.0'	30.0'	40.0'	50.0'	60.0'	70.0'	80.0'	90.0'	100.0'	110.0'	120.0'	130.0'	140.0'	150.0'	160.0'	170.0'	172.5'	
G1	292.38	292.60	292.82	293.01	293.19	293.36	293.50	293.62	293.72	293.80	293.87	293.92	293.95	293.98	293.99	294.00	294.01	294.01	294.01	
G2	292.28	292.52	292.74	292.94	293.12	293.28	293.42	293.55	293.64	293.72	293.77	293.81	293.84	293.85	293.86	293.86	293.86	293.86	293.85	
G3	292.19	292.42	292.63	292.83	293.01	293.17	293.30	293.42	293.51	293.59	293.64	293.68	293.70	293.71	293.71	293.71	293.70	293.70	293.69	
G4	292.09	292.32	292.53	292.72	292.90	293.05	293.19	293.30	293.39	293.46	293.51	293.54	293.56	293.56	293.56	293.55	293.54	293.54	293.53	
G5	291.99	292.20	292.40	292.58	292.75	292.90	293.02	293.13	293.21	293.28	293.33	293.37	293.39	293.40	293.40	293.39	293.38	293.37	293.37	
GIRDER	Span No. 2																			
	0.0'	10.0'	20.0'	30.0'	40.0'	50.0'	60.0'	70.0'	80.0'	90.0'	100.0'	110.0'	120.0'	130.0'	140.0'	150.0'	160.0'	170.0'	172.5'	
G1	294.01	294.03	294.04	294.05	294.05	294.05	294.03	294.00	293.96	293.90	293.82	293.72	293.60	293.46	293.30	293.12	292.93	292.73	292.67	
G2	293.85	293.87	293.88	293.89	293.89	293.89	293.88	293.85	293.81	293.75	293.67	293.56	293.44	293.29	293.12	292.93	292.72	292.51	292.45	
G3	293.69	293.70	293.71	293.71	293.72	293.71	293.69	293.67	293.62	293.55	293.47	293.36	293.23	293.08	292.91	292.71	292.50	292.28	292.22	
G4	293.53	293.54	293.54	293.54	293.54	293.53	293.51	293.48	293.43	293.36	293.27	293.15	293.02	292.87	292.69	292.49	292.28	292.05	292.00	
G5	293.37	293.37	293.36	293.36	293.34	293.32	293.29	293.25	293.19	293.12	293.02	292.91	292.77	292.62	292.44	292.25	292.05	291.82	291.77	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE NO. 3244

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	Andy Lathe
DESIGN-DETAILED	S. Cho
CHECKED-REVIEWED	M. Kuchos
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	D. Estonilau	08\20
REVISIONS 2	A. Stephens	08\20
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

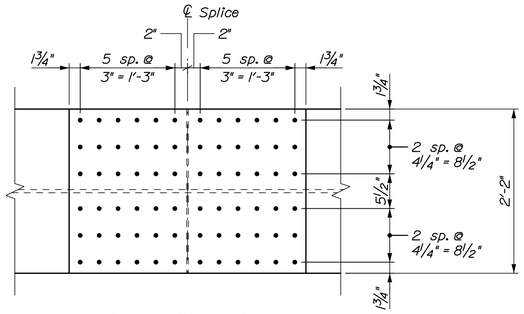
PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

STRUCTURAL STEEL DETAILS 1

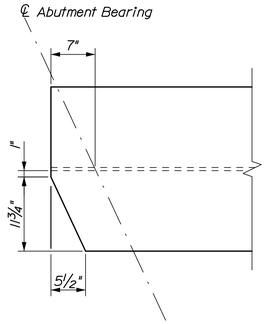
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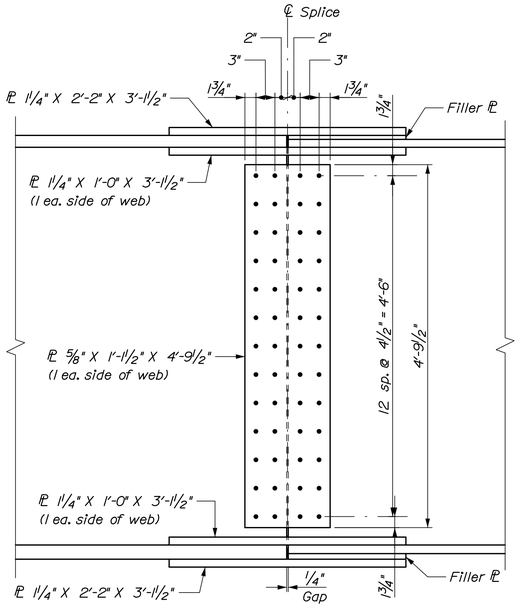
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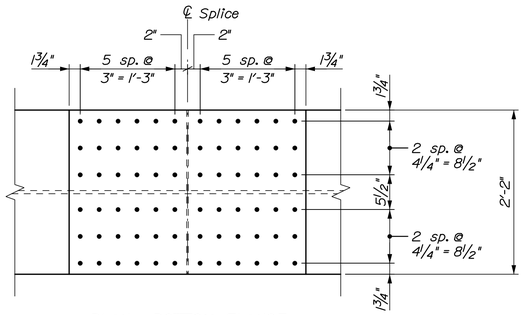
PLAN - TOP FLANGE



FLANGE CLIP DETAIL



ELEVATION



PLAN - BOTTOM FLANGE

BOLTED FIELD SPLICE

STATE OF MAINE
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BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	Andy Lathel		
DESIGN-DETAILED	S. Cho	D. Estonsiau	08\20
CHECKED-REVIEWED	M. Kuchas	A. Stephens	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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PISCATAQUIS COUNTY
MILO

STRUCTURAL STEEL DETAILS II

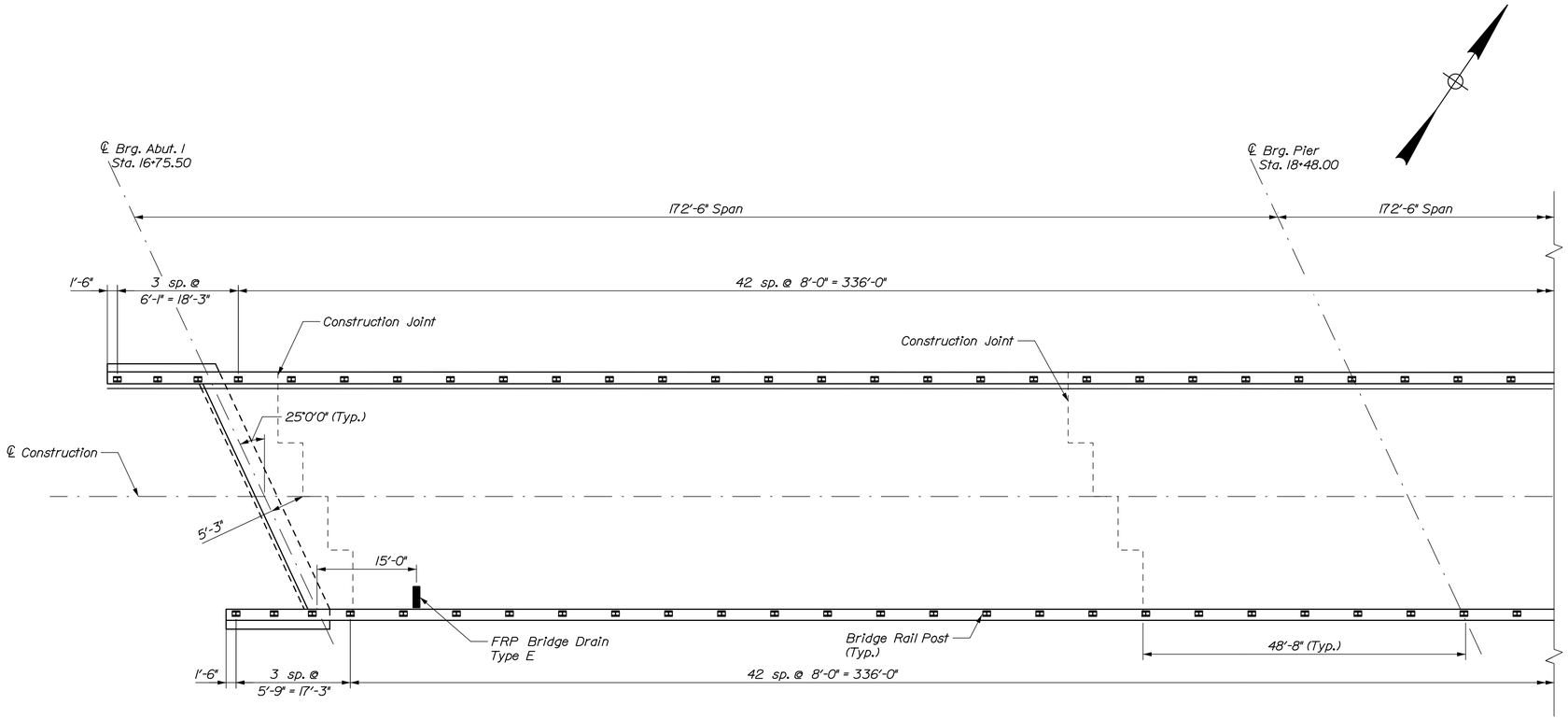
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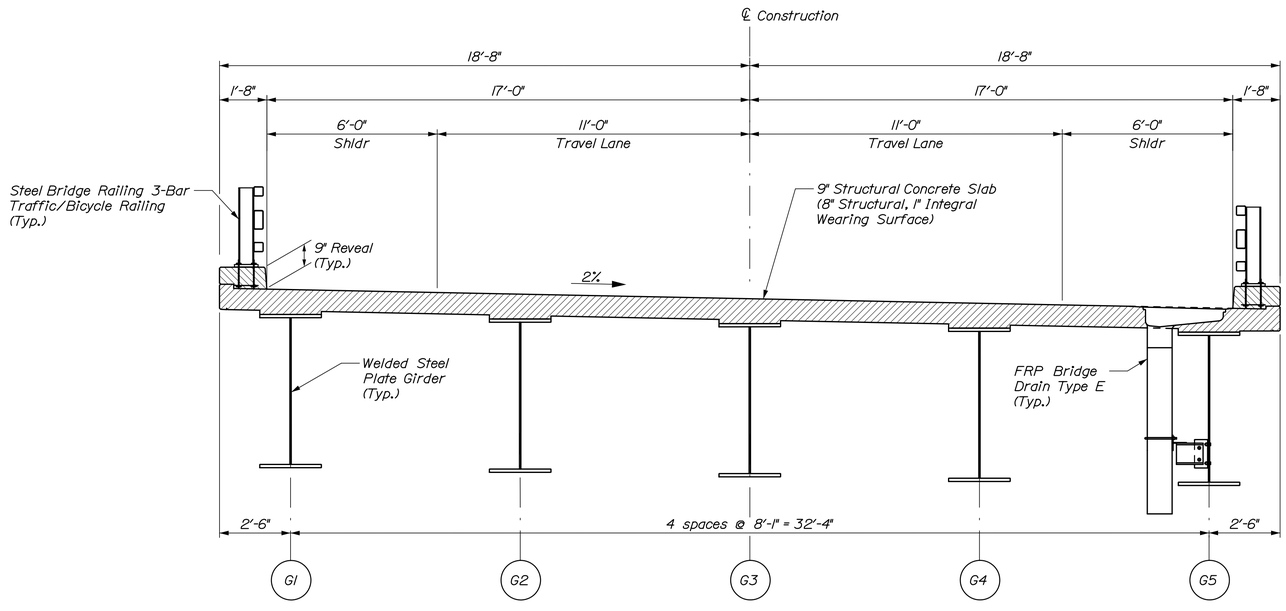
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Filename: ...\079_Structural Steel Details II.dgn Division: Username: Date:8/7/2020



SUPERSTRUCTURE PLAN



TRANSVERSE SECTION

SUPERSTRUCTURE NOTES:

1. The theoretical blocking used for design of the structure is 4 3/8 inches at the centerline of bearing of the abutments and pier. Refer to Standard Detail 502(03) for blocking details.

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

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

4. The superstructure slab concrete shall be placed in the sequence as directed in the "Deck Placement Diagram". A minimum of 5 days shall elapse between successive partial placements.

5. Bar supports for GFRP reinforcement shall be plastic, dielectric material, or other approved material. See Special Provisions Subsection 530.6 for additional requirements.

6. The use of Precast Concrete Deck Panels will not be allowed on this project.

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

8. Saw cut grooving shall be transverse.

STATE OF MAINE
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BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	A. Lathel		
DESIGN-DETAILED	C. Helmick	P. Bishop	08\20
CHECKED-REVIEWED	L. Driscoll	R. Hanf	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

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PLEASANT RIVER
MILO PISCATIQUIS

SUPERSTRUCTURE PLAN I

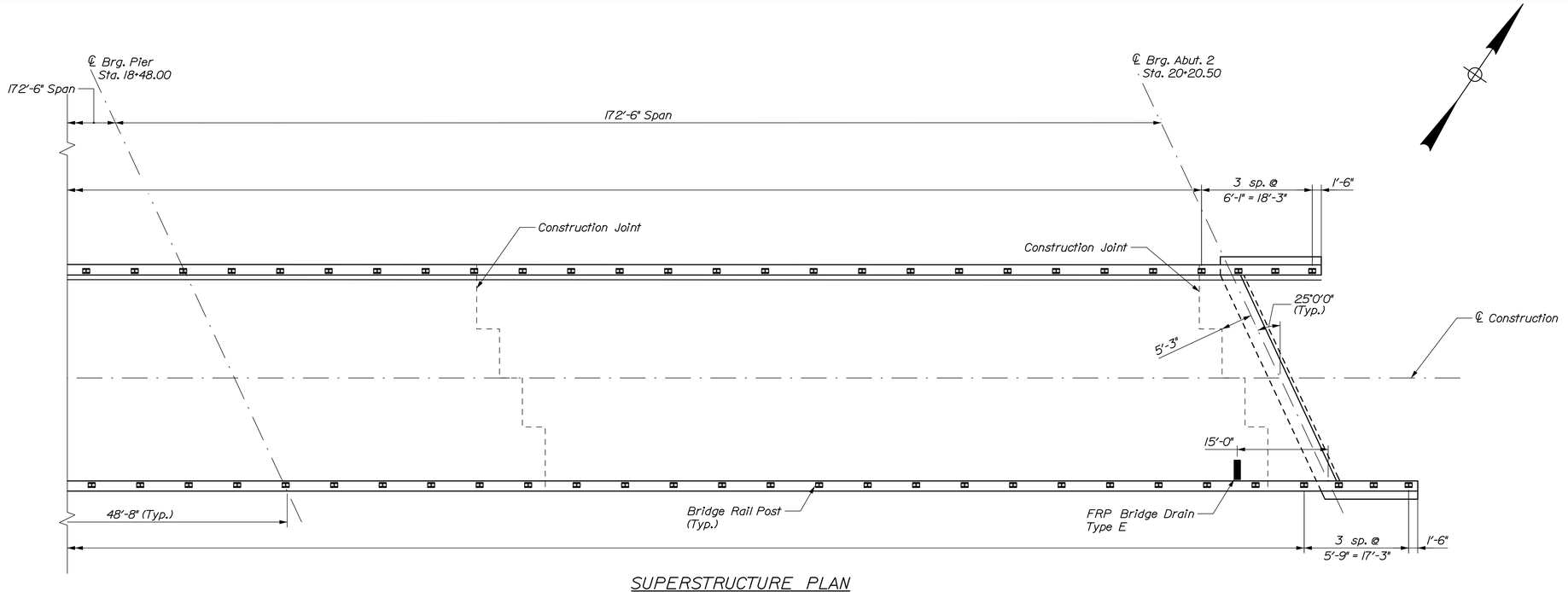
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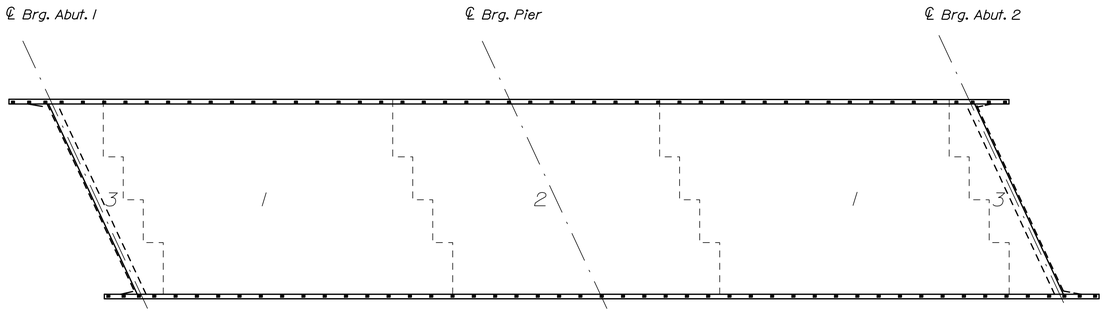
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Filename: 080_Superstructure Plan I.dgn Division: Username: Date:8/17/2020



SUPERSTRUCTURE PLAN



Note: Place deck based on the number sequence provided in the diagram. Previous placed deck must be cured before placement of the next section of deck.

DECK PLACEMENT DIAGRAM

Filename: ...\081_Superstructure Plan II.dgn Division: Username: Date:8/7/2020

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2262701

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BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	Andy Lathel	
DESIGN-DETAILED	S. Cho	D. Estonsiou 08\20
CHECKED-REVIEWED	M. Kuchas	A. Stephens 08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
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REVISIONS 3		
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FIELD CHANGES		

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PLEASANT RIVER BRIDGE
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MILO PISCATAQUIS COUNTY

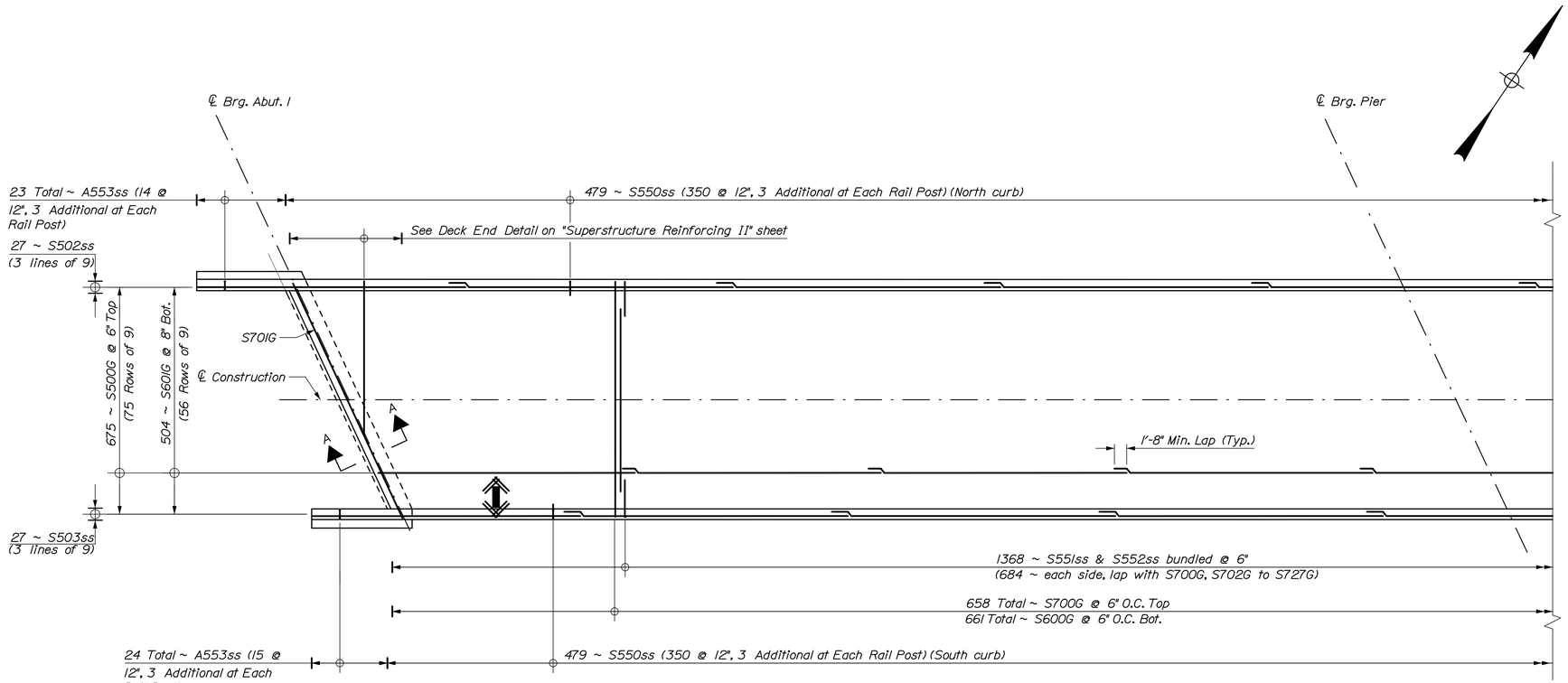
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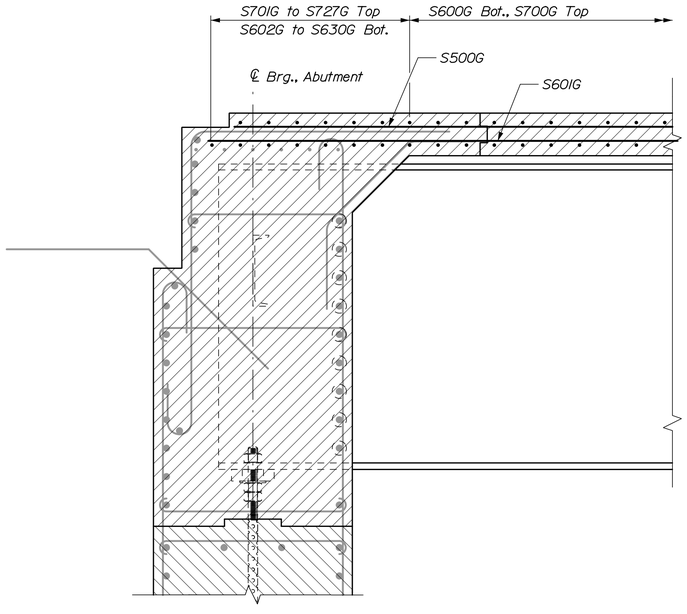
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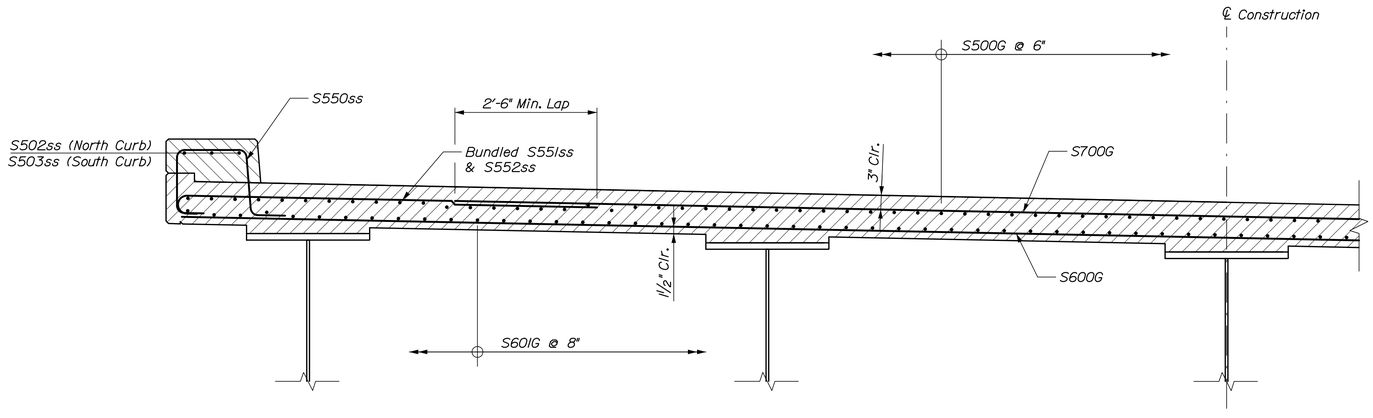
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SUPERSTRUCTURE REINFORCING



SECTION A-A



PARTIAL TRANSVERSE SECTION

NOTE:
1. Abutment reinforcing shown screened for clarity.

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BRIDGE NO. 3244

BRIDGE PLANS

PROJ. MANAGER	Andy Lathel		
DESIGN-DETAILED	S. Cho	D. Estanislau	08\20
CHECKED-REVIEWED	M. Kuchas	A. Stephens	08\20
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

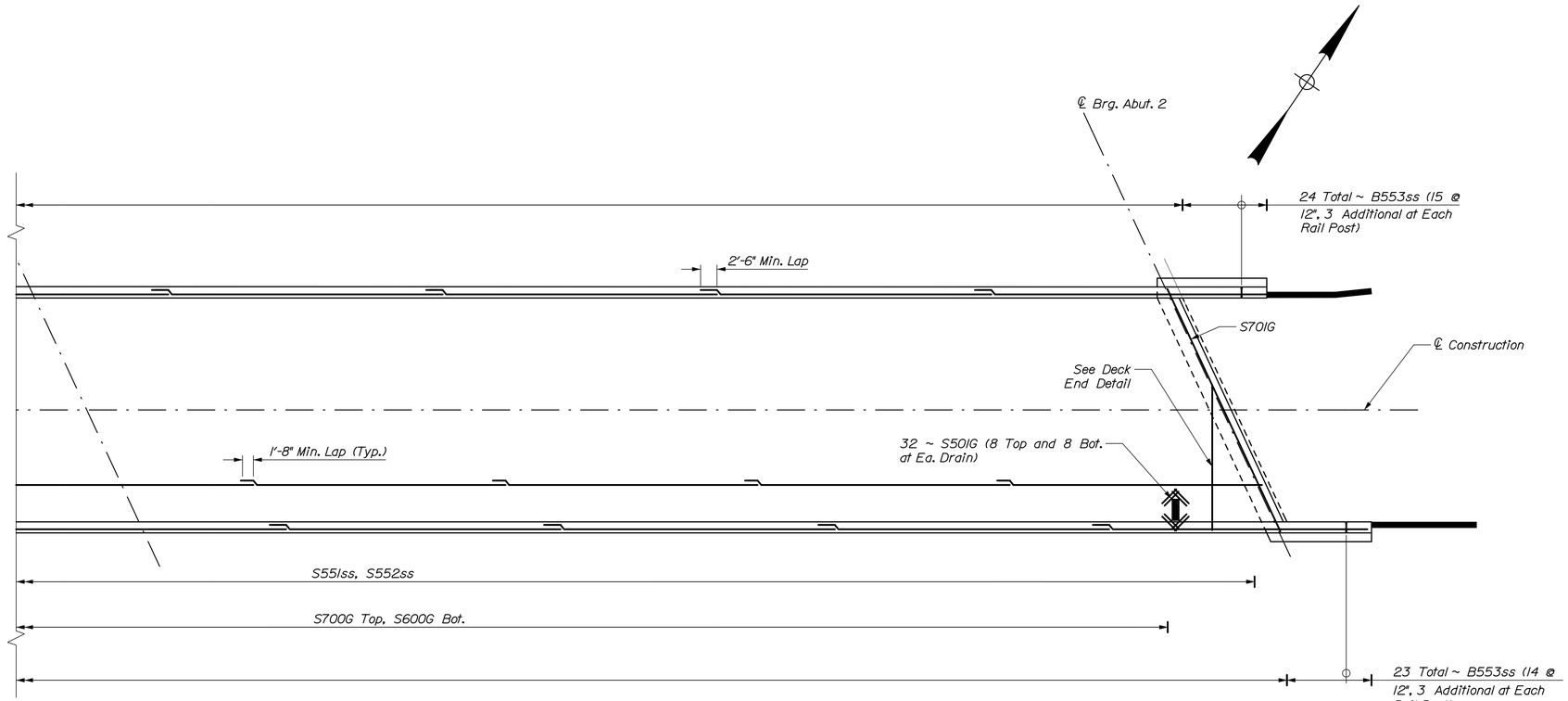
DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

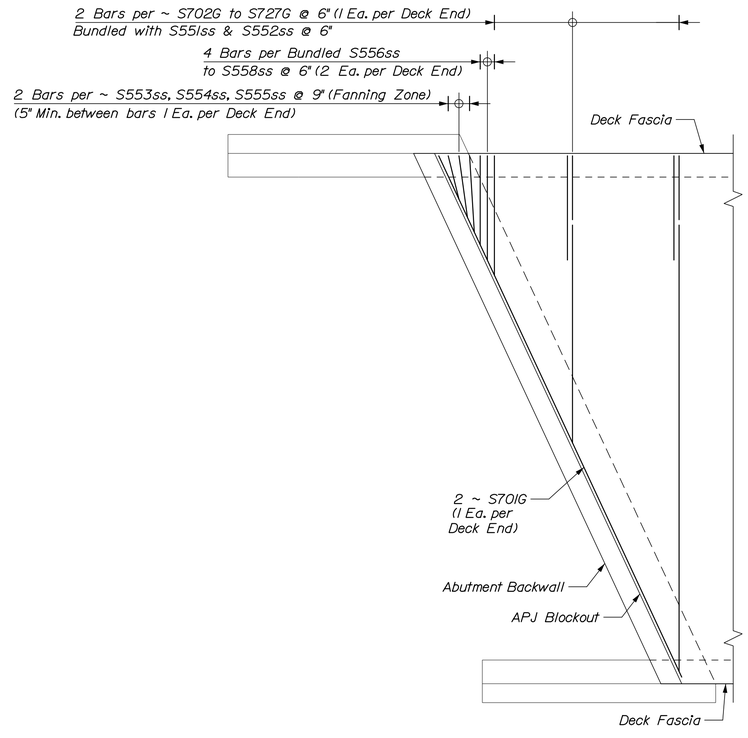
SUPERSTRUCTURE REINFORCING I

SHEET NUMBER
82
OF 91

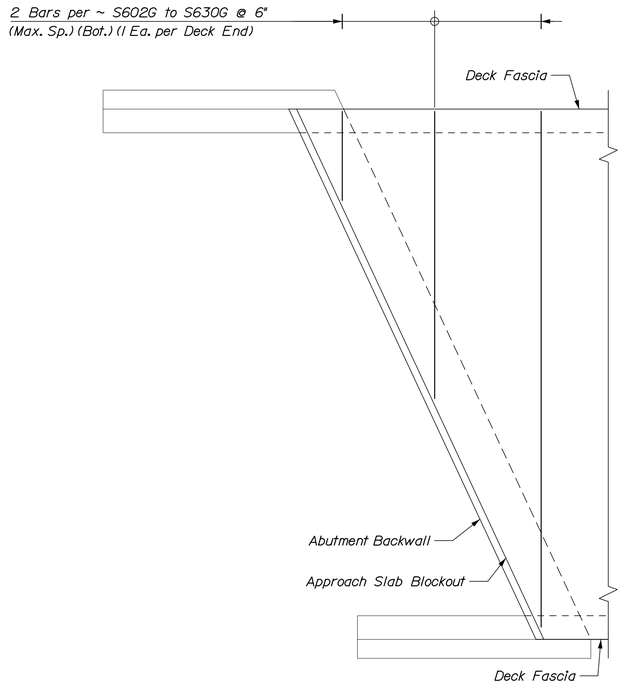
Username:
Date:8/7/2020
Filename: ...\082_Superstructure Reinforcing I.dgn Division:



SUPERSTRUCTURE PLAN



DECK END DETAIL
(Top Mat Reinforcing)



DECK END DETAIL
(Bottom Mat Reinforcing)

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 022627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	A. Lathe	
DESIGN-DETAILED	C. Helmick	08\20
CHECKED-REVIEWED	L. Driscoll	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER PISCATIQUIS
MILO

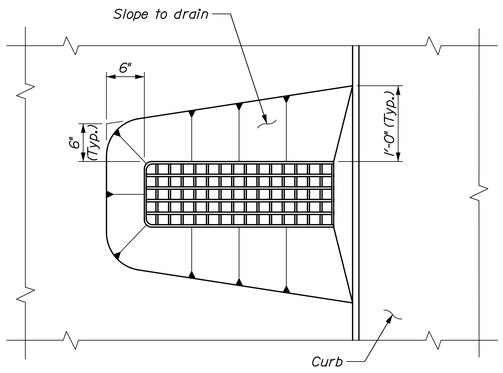
SUPERSTRUCTURE REINFORCING II

SHEET NUMBER

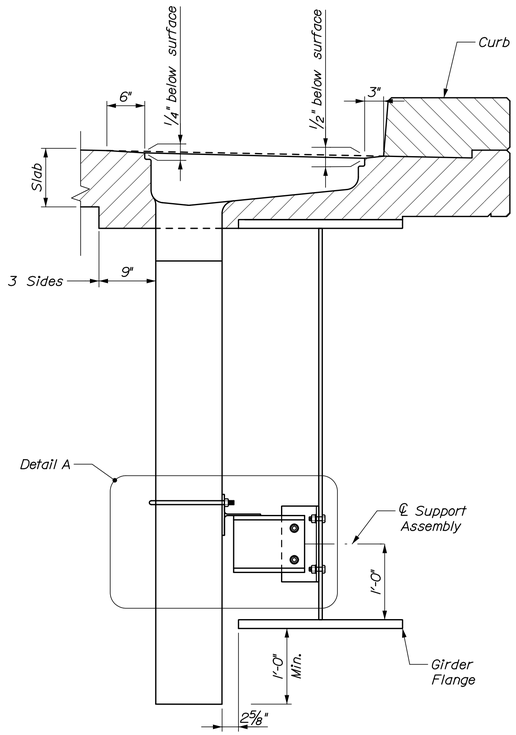
83

OF 91

Filename: 083_Superstructure Reinforcing II.dgn Division: Username: Date:8/17/2020



PLAN



ELEVATION

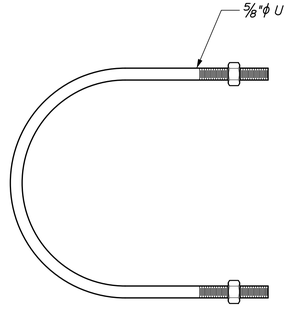
BRIDGE DRAIN NOTES

1. FRP Bridge Drains shall be designed and detailed based on the dimensions for the bridge drain details shown, and in accordance with Special Provisions Section 502, Fiber Reinforced Polymer Bridge Drains and Downspouts.

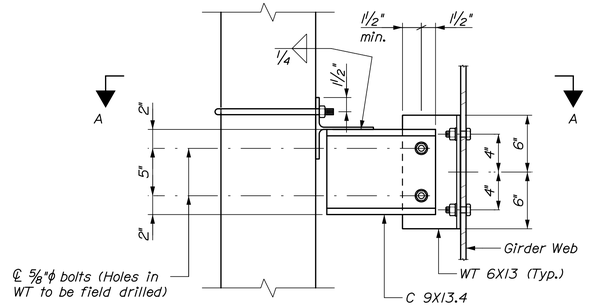
2. Shear connectors welded to the top flange of steel beams may require adjustment to clear the bridge drains. No extra payment will be made for needed adjustment to the studs.

3. Support Assembly components and hardware shall meet the grade and protective coating requirements identified on Standard Detail 502(24).

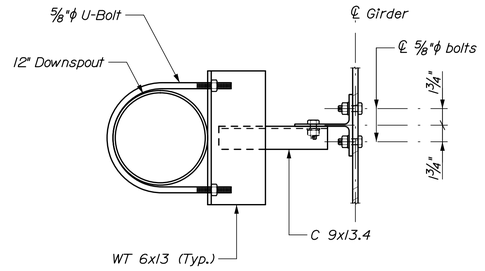
4. For weathering or painted steel superstructures, the WT 6x13 in contact with the steel girder shall be coated with a zinc rich coating system in accordance with Standard Specifications Section 506. Bolts in contact with weathering steel shall be Type 3. Nuts and washers shall be treated in the same manner as their associated bolt.



U-BOLT DETAIL



DETAIL A



SECTION A-A

HNTB

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	Andy Lathe	
DESIGN-DETAILED	S. Cho	08\20
CHECKED-REVIEWED	M. Kuchos	08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

BRIDGE DRAIN DETAILS

SHEET NUMBER

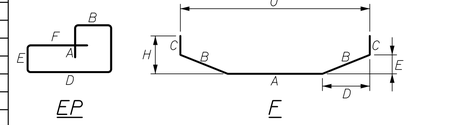
84

OF 91

Filename: ...\084_Bridge Drain Details.dgn Division: Username: Date:8/7/2020

STRAIGHT BARS				BENT BARS														
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
			ABUTMENT NO. 1										ABUTMENT NO. 1					
A600G	6	40'-10"	Deck End Transverse - Stem (Top)	A550	303	4'-1 1/2"	P3	5 1/2"	3'-2"	-	-	-	-	6"	-	-	-	Transverse - Stem (Tie)
				A551	35	5'-6"	V	-	-	-	2'-6"	3'-0"	-	-	2'- 1 1/2"	-	-	Approach Slab - Seat
A800	63	42'-4"	Transverse - Stem	A552	281	3'-7 1/2"	P3	5 1/2"	2'-8"	-	-	-	-	6"	-	-	-	Transverse - Wingwall (Tie)
A801	2	19'-4"	Transverse - Stem (Bottom)	A553ss	47	6'-3"	U	-	2'-6"	1'-3"	2'-6"	-	-	-	-	-	-	Transverse - Wingwall Curb
A802	7	9'-3"	East Wingwall	A554	31	3'-7 1/2"	P3	5 1/2"	2'-8"	-				6"				Transverse - Stem (Tie)
A803	7	8'-11"	East Wingwall															
A804	7	9'-0"	West Wingwall	A750ss	75	13'-3"	CA	10"	6'-4"	6'-1"	-	-	-	-	6'-1"	-	-	Approach Slab - Seat
A805	7	9'-9"	West Wingwall	A751ss	54	6'-11"	P4	2'-9"	1'-10"	2'-4"	-	-	-	-	1'-3"	-	-	Abutment Backwall
A806	4	15'-3"	East Wingwall	A752	11	27'-7"	UA	10"	10'-0"	3'-6"	12'-5"	-	-	-	-	-	-	Vertical - Stem
A807	4	15'-11"	West Wingwall	A753	14	27'-10"	UA	10"	10'-2"	3'-6"	12'-6"	-	-	-	-	-	-	Vertical - Stem
				A754	11	28'-2"	UA	10"	10'-4"	3'-6"	12'-8"	-	-	-	-	-	-	Vertical - Stem
				A755	15	21'-6"	UA	10"	10'-0"	3'-6"	6'-4"	-	-	-	-	-	-	Vertical - Stem
				A756	24	11'-8"	C	10"	10'-0"	10"	-	-	-	-	-	-	-	Vertical - Stem
				A757	18	14'-1"	C	10"	12'-5"	10"	-	-	-	-	-	-	-	Vertical - Stem
				A758	6	8'-0"	C	10"	6'-4"	10"								Vertical - Stem
				A759	28	9'-4"	U	-	3'-4"	2'-8"	3'-4"	-	-	-	-	-	-	Transverse - Wingwall (Tie)
				A950	19	35'-5"	HB	5'-6"	2'-4 1/2"	12'-7"	2'-4 1/2"	12'-7"	-	-	-	-	-	Wingwall (Stirrups)
				A951	13	23'-5"	HB	5'-6"	2'-4 1/2"	6'-7"	2'-4 1/2"	6'-7"	-	-	-	-	-	Wingwall (Stirrups)
				A952	20	36'-3"	HB	5'-6"	2'-4 1/2"	13'-0"	2'-4 1/2"	13'-0"	-	-	-	-	-	Wingwall (Stirrups)
				A953	13	23'-3"	HB	5'-6"	2'-4 1/2"	6'-6"	2'-4 1/2"	6'-6"	-	-	-	-	-	Wingwall (Stirrups)
				A1050	14	23'-2"	VA	16'-0"	1'-0"	6'-2"	-	-	-	-	2'-7"	-	-	Transverse - Wingwall
				A1051	14	17'-10"	A	-	-	-	12'-7"	5'-3"	-	-	4'-9"	-	-	Transverse - Wingwall
				A1052	12	16'-9"	VA	9'-7"	1'-0"	6'-2"	-	-	-	-	2'-7"	-	-	Transverse - Wingwall
				A1053	12	11'-6"	A	-	-	-	6'-3"	5'-3"	-	-	4'-9"	-	-	Transverse - Wingwall
				A1054	14	24'-3"	V	-	-	-	16'-0"	8'-3"	-	-	7'-5"	-	-	Transverse - Wingwall
				A1055	14	19'-8"	V	-	-	-	14'-6"	5'-2"	-	-	4'-8"	-	-	Transverse - Wingwall
				A1056	13	18'-0"	V	-	-	-	9'-9"	8'-3"	-	-	7'-5"	-	-	Transverse - Wingwall
				A1057	13	13'-5"	V	-	-	-	8'-3"	5'-2"	-	-	4'-8"	-	-	Transverse - Wingwall
			ABUTMENT NO. 2										ABUTMENT NO. 2					
B500	4	8'-10"	Transverse - Stem	B550	303	4'-1 1/2"	P3	5 1/2"	3'-2"	-	-	-	-	6"	-	-	-	Transverse - Stem (Tie)
				B551	35	5'-6"	V	-	-	-	2'-6"	3'-0"	-	-	2'- 1 1/2"	-	-	Approach Slab - Seat
B600G	6	40'-10"	Deck End Transverse - Stem (Top & Bot.)	B552	287	3'-7 1/2"	P3	5 1/2"	2'-8"	-	-	-	-	6"	-	-	-	Transverse - Wingwall (Tie)
				B553ss	47	6'-3"	U	-	2'-6"	1'-3"	2'-6"	-	-	-	-	-	-	Transverse - Wingwall Curb
B800	63	42'-4"	Transverse - Stem	B554	31	3'-7 1/2"	P3	5 1/2"	2'-8"	-	-	-	-	6"	-	-	-	Transverse - Stem (Tie)
B801	2	35'-0"	Transverse - Stem (Bottom)															
B802	7	9'-6"	West Wingwall	B750ss	75	13'-3"	CA	10"	6'-4"	6'-1"	-	-	-	-	6'-1"	-	-	Approach Slab - Seat
B803	7	9'-8"	West Wingwall	B751ss	54	6'-11"	P4	2'-9"	1'-10"	2'-4"	-	-	-	-	1'-3"	-	-	Abutment Backwall
B804	7	9'-1"	East Wingwall	B752	11	28'-6"	UA	10"	10'-6"	3'-6"	12'-10"	-	-	-	-	-	-	Vertical - Stem
B805	7	8'-8"	East Wingwall	B753	14	27'-8"	UA	10"	10'-1"	3'-6"	12'-5"	-	-	-	-	-	-	Vertical - Stem
B806	4	16'-3"	West Wingwall	B754	11	27'-1"	UA	10"	9'-10"	3'-6"	12'-1"	-	-	-	-	-	-	Vertical - Stem
B807	4	14'-11"	East Wingwall	B755	15	21'-4"	UA	10"	9'-10"	3'-6"	6'-4"	-	-	-	-	-	-	Vertical - Stem
				B756	24	11'-6"	C	10"	9'-10"	10"	-	-	-	-	-	-	-	Vertical - Stem
				B757	18	13'-9"	C	10"	12'-1"	10"	-	-	-	-	-	-	-	Vertical - Stem
				B758	6	7'-9"	C	10"	6'-1"	10"	-	-	-	-	-	-	-	Vertical - Stem
				B759	28	9'-4"	U	-	3'-4"	2'-8"	3'-4"	-	-	-	-	-	-	Transverse - Wingwall (Tie)
				B950	21	36'-11"	HB	5'-6"	2'-4 1/2"	13'-4"	2'-4 1/2"	13'-4"	-	-	-	-	-	Wingwall (Stirrups)
				B951	14	23'-3"	HB	5'-6"	2'-4 1/2"	6'-6"	2'-4 1/2"	6'-6"	-	-	-	-	-	Wingwall (Stirrups)
				B952	18	34'-11"	HB	5'-6"	2'-4 1/2"	12'-4"	2'-4 1/2"	12'-4"	-	-	-	-	-	Wingwall (Stirrups)
				B953	13	23'-7"	HB	5'-6"	2'-4 1/2"	6'-8"	2'-4 1/2"	6'-8"	-	-	-	-	-	Wingwall (Stirrups)
				B1050	14	24'-2"	VA	17'-0"	1'-0"	6'-2"	-		-	-	2'-7"	-	-	Transverse - Wingwall
				B1051	14	18'-11"	A	-	-	-	13'-8"	5'-3"	-	-	4'-9"	-	-	Transverse - Wingwall
				B1052	13	17'-6"	VA	10'-4"	1'-0"	6'-2"	-		-	-	2'-7"	-	-	Transverse - Wingwall
				B1053	13	12'-3"	A	-	-	-	7'-0"	5'-3"	-	-	4'-9"	-	-	Transverse - Wingwall
				B1054	14	23'-2"	V	-	-	-	14'-11"	8'-3"	-	-	7'-5"	-	-	Transverse - Wingwall
				B1055	14	18'-8"	V	-	-	-	13'-6"	5'-2"	-	-	4'-8"	-	-	Transverse - Wingwall
				B1056	12	16'-11"	V	-	-	-	8'-8"	8'-3"	-	-	7'-5"	-	-	Transverse - Wingwall
				B1057	12	12'-2"	V	-	-	-	7'-0"	5'-2"	-	-	4'-8"	-	-	Transverse - Wingwall

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 A955, GRADE 75
CSA S807-10, AC1 440.1r-15

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 'S650ss' = bar size #6 Stainless Steel
   Mark 'S600G' = bar size #6 GFRP

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 'G' indicate GFRP. Bar marks ending with 'SS' indicate stainless steel. All other bars are plain (uncoated).

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE NO. 3244

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	Andy Lathel	
DESIGN-DETAILED	S. Cho	D. Estanislau 08\20
CHECKED-REVIEWED	M. Kuchas	A. Stephens 08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

REINFORCING STEEL
SCHEDULE I

SHEET NUMBER

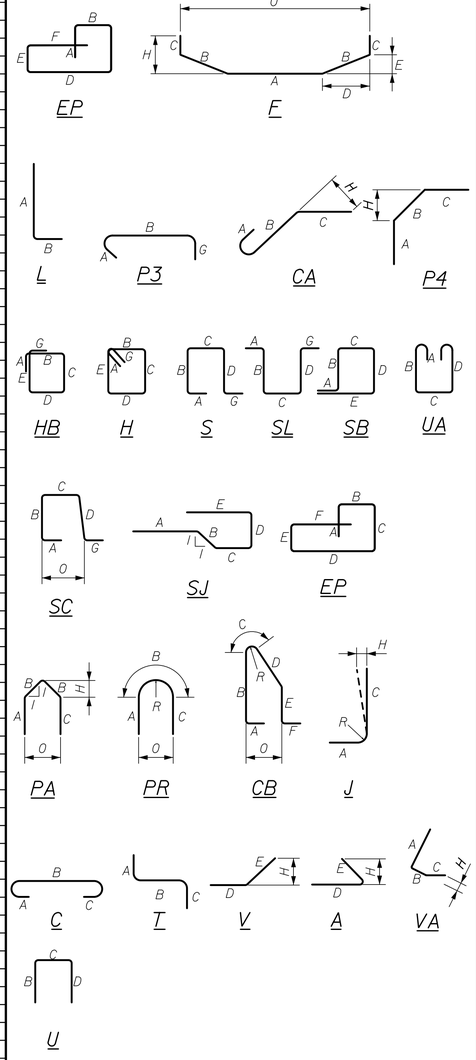
85

OF 91

Filename: ...\085_Reinforcing Steel Schedule I.dgn Division:
Username:
Date:8/7/2020

STRAIGHT BARS				BENT BARS														
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
			PIER										PIER NO. 1					
P600	24	55'-9"	Longitudinal - Footing (Top, Bot. & Sides)	P650	57	14'-2"	U	-	2'-1"	10'-0"	2'-1"	-	-	-	-	-	-	Transverse - Footing (Bottom)
P601	57	10'-0"	Transverse - Footing (Top)	P651	22	8'-4"	U		2'-11"	2'-6"	2'-11"	-	-	-	-	-	-	Longitudinal - Footing
-	-	-	-															
P602	72	20'-3"	Transverse - Stem	P652	42	4'-6"	U	-	9"	3'-0"	9"	-	-	-	-	-	-	Vertical - Bearing Pedestal (Top Stirrup)
				P653	5	9'-2"	L	8'-0"	1'-2"	-	-	-	-	-	-	-	-	Longitudinal - Bearing Pedestal (Pedestal 1)
P800	9	8'-9"	Vertical Footing to Stem @ Nose	P654	15	11'-6"	L	10'-6"	1'-0"	-	-	-	-	-	-	-	-	Longitudinal - Bearing Pedestal (Pedestals 2,3,4)
P801	9	16'-8"	Vertical - Stem @ Nose	P655	5	9'-2"	L	8'-8"	6"	-	-	-	-	-	-	-	-	Longitudinal - Bearing Pedestal (Pedestal 5)
P802	95	17'-4"	Vertical - Stem	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
P803	10	13'-9"	Vertical - Stem	P656	1	14'-3"	U	-	4'-2"	5'-11"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
-	-	-	-	P657	1	14'-1"	U	-	4'-2"	5'-9"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P658	1	13'-11"	U	-	4'-2"	5'-7"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P659	1	13'-9"	U	-	4'-2"	5'-5"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P660	1	13'-7"	U	-	4'-2"	5'-3"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P661	1	13'-5"	U	-	4'-2"	5'-1"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P662	1	13'-3"	U	-	4'-2"	4'-11"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P663	1	13'-1"	U	-	4'-2"	4'-9"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P664	1	12'-11"	U	-	4'-2"	4'-7"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P665	1	12'-9"	U	-	4'-2"	4'-5"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P666	1	12'-7"	U	-	4'-2"	4'-3"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P667	1	12'-5"	U	-	4'-2"	4'-1"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P668	1	12'-3"	U	-	4'-2"	3'-11"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P669	1	12'-1"	U	-	4'-2"	3'-9"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P670	1	11'-11"	U	-	4'-2"	3'-7"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P671	1	11'-9"	U	-	4'-2"	3'-5"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P672	1	11'-7"	U	-	4'-2"	3'-3"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P673	1	11'-5"	U	-	4'-2"	3'-1"	4'-2"	-	-	-	-	-	-	Horizontal - Stem Downstream Side Cap
				P674	1	27'-6"	PA	9'-8"	4'-1"	9'-8"	-	-	-	-	2'-10"	5'-11½"	-	Horizontal - Stem Upstream Side Cap
				P675	1	27'-4"	PA	9'-8"	4'-0"	9'-8"	-	-	-	-	2'-9"	5'-9½"	-	Horizontal - Stem Upstream Side Cap
				P676	1	27'-2"	PA	9'-8"	3'-11"	9'-8"	-	-	-	-	2'-8"	5'-7½"	-	Horizontal - Stem Upstream Side Cap
				P677	1	26'-10"	PA	9'-8"	3'-9"	9'-8"	-	-	-	-	2'-6"	5'-5½"	-	Horizontal - Stem Upstream Side Cap
				P678	1	26'-8"	PA	9'-8"	3'-8"	9'-8"	-	-	-	-	2'-6"	5'-3½"	-	Horizontal - Stem Upstream Side Cap
				P679	1	26'-4"	PA	9'-8"	3'-6"	9'-8"	-	-	-	-	2'-5"	5'-1½"	-	Horizontal - Stem Upstream Side Cap
				P680	1	26'-2"	PA	9'-8"	3'-5"	9'-8"	-	-	-	-	2'-4"	4'-11½"	-	Horizontal - Stem Upstream Side Cap
				P681	1	26'-0"	PA	9'-8"	3'-4"	9'-8"	-	-	-	-	2'-3"	4'-9½"	-	Horizontal - Stem Upstream Side Cap
				P682	1	25'-8"	PA	9'-8"	3'-2"	9'-8"	-	-	-	-	2'-2"	4'-7½"	-	Horizontal - Stem Upstream Side Cap
				P683	1	25'-6"	PA	9'-8"	3'-1"	9'-8"	-	-	-	-	2'-1"	4'-5½"	-	Horizontal - Stem Upstream Side Cap
				P684	1	25'-2"	PA	9'-8"	2'-11"	9'-8"	-	-	-	-	2'-0"	4'-3½"	-	Horizontal - Stem Upstream Side Cap
				P685	1	25'-0"	PA	9'-8"	2'-10"	9'-8"	-	-	-	-	1'-11"	4'-1½"	-	Horizontal - Stem Upstream Side Cap
				P686	1	24'-10"	PA	9'-8"	2'-9"	9'-8"	-	-	-	-	1'-10"	3'-11½"	-	Horizontal - Stem Upstream Side Cap
				P687	1	24'-6"	PA	9'-8"	2'-7"	9'-8"	-	-	-	-	1'-9"	3'-9½"	-	Horizontal - Stem Upstream Side Cap
				P688	1	24'-4"	PA	9'-8"	2'-6"	9'-8"	-	-	-	-	1'-8"	3'-7½"	-	Horizontal - Stem Upstream Side Cap
				P689	1	24'-0"	PA	9'-8"	2'-4"	9'-8"	-	-	-	-	1'-7"	3'-5½"	-	Horizontal - Stem Upstream Side Cap
				P690	1	23'-10"	PA	9'-8"	2'-3"	9'-8"	-	-	-	-	1'-6"	3'-3½"	-	Horizontal - Stem Upstream Side Cap
				P691	1	23'-6"	PA	9'-8"	2'-1"	9'-8"	-	-	-	-	1'-5"	3'-1½"	-	Horizontal - Stem Upstream Side Cap
				P692	40	13'-3"	HB	2'-9"	2'-3"	3'-2"	2'-3"	3'-2"	-	-	-	-	-	Horizontal - Stem Anchor Bolt Breakout Hoop
				P850	105	9'-6"	L	8'-5"	1'-1"	-	-	-	-	-	-	-	-	Vertical Footing to Stem
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION

TYPE - BENDING DIAGRAMS



* Bar is incidental to related concrete pay item.

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

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

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.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2262701

WIN 22627.01

BRIDGE PLANS

BRIDGE NO. 3244

	BY	DATE
PROJ. MANAGER	Andy Lathel	
DESIGN-DETAILED	S. Chio	D. Estonsiou 08\20
CHECKED-REVIEWED	M. Kuchas	A. Stephens 08\20
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

PLEASANT RIVER BRIDGE
PLEASANT RIVER
PISCATAQUIS COUNTY
MILO

REINFORCING STEEL SCHEDULE II

SHEET NUMBER

86

OF 91

Date:8/7/2020

Username:

Filename: ...\086_Reinforcing Steel Schedule II.dgn Division:

Filename: ...\087_Reinforcing Steel Schedule III.dgn Division:

Username:

Date:8/7/2020

STRAIGHT BARS

MARK	QTY.	LENGTH	LOCATION
SUPERSTRUCTURE (stainless steel)			
S502ss	27	43'-11"	Longitudinal - North Curb
S503ss	27	43'-9"	Longitudinal - South Curb
-	-	-	-
SUPERSTRUCTURE (GFRP)			
S500G	675	39'-10"	Deck Longitudinal (Top)
S501G	32	3'-0"	Drain Corner
S600G	661	37'-0"	Deck Transverse (Bot.)
S601G	504	40'-1"	Deck Longitudinal (Bot.)
S602G	2	6'-3"	Deck Transverse (Normal) - Deck Ends (Bot.)
S603G	2	7'-4"	Deck Transverse (Normal) - Deck Ends (Bot.)
S604G	2	8'-5"	Deck Transverse (Normal) - Deck Ends (Bot.)
S605G	2	9'-5"	Deck Transverse (Normal) - Deck Ends (Bot.)
S606G	2	10'-6"	Deck Transverse (Normal) - Deck Ends (Bot.)
S607G	2	11'-8"	Deck Transverse (Normal) - Deck Ends (Bot.)
S608G	2	12'-9"	Deck Transverse (Normal) - Deck Ends (Bot.)
S609G	2	13'-9"	Deck Transverse (Normal) - Deck Ends (Bot.)
S610G	2	14'-10"	Deck Transverse (Normal) - Deck Ends (Bot.)
S611G	2	15'-11"	Deck Transverse (Normal) - Deck Ends (Bot.)
S612G	2	17'-0"	Deck Transverse (Normal) - Deck Ends (Bot.)
S613G	2	18'-1"	Deck Transverse (Normal) - Deck Ends (Bot.)
S614G	2	19'-2"	Deck Transverse (Normal) - Deck Ends (Bot.)
S615G	2	20'-3"	Deck Transverse (Normal) - Deck Ends (Bot.)
S616G	2	21'-3"	Deck Transverse (Normal) - Deck Ends (Bot.)
S617G	2	22'-4"	Deck Transverse (Normal) - Deck Ends (Bot.)
S618G	2	23'-5"	Deck Transverse (Normal) - Deck Ends (Bot.)
S619G	2	24'-6"	Deck Transverse (Normal) - Deck Ends (Bot.)
S620G	2	25'-7"	Deck Transverse (Normal) - Deck Ends (Bot.)
S621G	2	26'-7"	Deck Transverse (Normal) - Deck Ends (Bot.)
S622G	2	27'-9"	Deck Transverse (Normal) - Deck Ends (Bot.)
S623G	2	28'-9"	Deck Transverse (Normal) - Deck Ends (Bot.)
S624G	2	29'-10"	Deck Transverse (Normal) - Deck Ends (Bot.)
S625G	2	30'-11"	Deck Transverse (Normal) - Deck Ends (Bot.)
S626G	2	32'-0"	Deck Transverse (Normal) - Deck Ends (Bot.)
S627G	2	33'-1"	Deck Transverse (Normal) - Deck Ends (Bot.)
S628G	2	34'-2"	Deck Transverse (Normal) - Deck Ends (Bot.)
S629G	2	35'-3"	Deck Transverse (Normal) - Deck Ends (Bot.)
S630G	2	36'-3"	Deck Transverse (Normal) - Deck Ends (Bot.)
S700G	658	27'-4"	Deck Transverse (Top)
S701G	2	36'-1"	Deck Transverse (Skew) - Deck Ends (Top)
S702G	2	4'-8"	Deck Transverse (Normal) - Deck Ends (Top)
S703G	2	5'-9"	Deck Transverse (Normal) - Deck Ends (Top)
S704G	2	6'-10"	Deck Transverse (Normal) - Deck Ends (Top)
S705G	2	7'-10"	Deck Transverse (Normal) - Deck Ends (Top)
S706G	2	8'-11"	Deck Transverse (Normal) - Deck Ends (Top)
S707G	2	10'-0"	Deck Transverse (Normal) - Deck Ends (Top)
S708G	2	11'-1"	Deck Transverse (Normal) - Deck Ends (Top)
S709G	2	12'-2"	Deck Transverse (Normal) - Deck Ends (Top)
S710G	2	13'-3"	Deck Transverse (Normal) - Deck Ends (Top)
S711G	2	14'-4"	Deck Transverse (Normal) - Deck Ends (Top)
S712G	2	15'-4"	Deck Transverse (Normal) - Deck Ends (Top)
S713G	2	16'-5"	Deck Transverse (Normal) - Deck Ends (Top)
S714G	2	17'-6"	Deck Transverse (Normal) - Deck Ends (Top)
S715G	2	18'-6"	Deck Transverse (Normal) - Deck Ends (Top)
S716G	2	19'-8"	Deck Transverse (Normal) - Deck Ends (Top)
S717G	2	20'-9"	Deck Transverse (Normal) - Deck Ends (Top)
S718G	2	21'-10"	Deck Transverse (Normal) - Deck Ends (Top)
S719G	2	22'-10"	Deck Transverse (Normal) - Deck Ends (Top)
S720G	2	23'-11"	Deck Transverse (Normal) - Deck Ends (Top)
S721G	2	25'-1"	Deck Transverse (Normal) - Deck Ends (Top)
S722G	2	26'-2"	Deck Transverse (Normal) - Deck Ends (Top)
S723G	2	27'-2"	Deck Transverse (Normal) - Deck Ends (Top)
S724G	2	28'-3"	Deck Transverse (Normal) - Deck Ends (Top)
S725G	2	29'-4"	Deck Transverse (Normal) - Deck Ends (Top)
S726G	2	30'-4"	Deck Transverse (Normal) - Deck Ends (Top)
S727G	2	31'-5"	Deck Transverse (Normal) - Deck Ends (Top)
SUPERSTRUCTURE (Plain)			
AS501	32	30'-0"	Transverse - Approach Slab
AS502	32	7'-11"	Transverse - Approach Slab
AS601	132	15'-2"	Longitudinal - Approach Slab

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
SUPERSTRUCTURE (stainless steel)														
S550ss	958	5'-4"	SC	10"	1'-1"	1'-4"	1'-1"	-	-	10"	-	1'-6"	-	Transverse - Curb
S551ss	1,368	5'-5"	C	7"	4'-10"	-	-	-	-	-	-	-	-	Transverse - Deck
S552ss	1,368	7'-11"	C	7"	7'-4"	-	-	-	-	-	-	-	-	Transverse - Deck
S553ss	2	3'-9"	C	7"	3'-2"	-	-	-	-	-	-	-	-	Transverse - Deck (Fanning Zone)
S554ss	2	4'-11"	C	7"	4'-4"	-	-	-	-	-	-	-	-	Transverse - Deck (Fanning Zone)
S555ss	2	5'-11"	C	7"	5'-4"	-	-	-	-	-	-	-	-	Transverse - Deck (Fanning Zone)
S556ss	4	6'-10"	C	7"	6'-3"	-	-	-	-	-	-	-	-	Transverse - Deck (Transition)
S557ss	4	7'-11"	C	7"	7'-4"	-	-	-	-	-	-	-	-	Transverse - Deck (Transition)
S558ss	4	9'-0"	C	7"	8'-5"	-	-	-	-	-	-	-	-	Transverse - Deck (Transition)

Filename: ...\00\ROW\MSTA\001_RWPLAN1.dgn Division: ROW Username: Benjamin.Singer Date:8/6/2020

PLAN LEGEND

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

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

Coordinate System: Maine State Plane NAD83(2011)
Zone: Maine 2000 Central
Vertical datum: NAVD88
Combined factor: 0.99997194

GRID NORTH
MAINE 2000 CENTRAL ZONE

PLEASANT STREET
CURVE DATA #2
PI = 11+46.12
D = 1°23'50.8"
Δ = 4°03'54.5" Lt.
R = 4100.00'
L = 290.90'
T = 145.51'
E = 2.58'

SHEILA L. KUCHINSKI
PARCEL NO. (2)
LAND TAKEN = 0.49± AC.
SLOPE EASE. = 1,035± S.F. (1)
DRAINAGE EASE. = (1)
TEMP. CONST. RIGHTS = 0.24± AC. (2)
TOTAL AREA = 37.50± AC. (TOWN)
REM. AREA = 37.01± AC.

PRC = STA. 12+91.51

DRAINAGE OUTLET
STA. 15+16 LT.

TEMP. CONST. LIMITS
CLL
101.71'
12'±
45'
33'±
L.O.W.P.
TEMP. CONSTRUCTION LIMITS
2,167± S.F.
287.71'
453'±
TEMP. CONST. LIMITS
0.19± AC.
367.50'
SLOPE
1,035± S.F.
0.49± AC.
308'±
TOTAL LENGTH = 470'±
351.04'
P.L.

TO MAIN STREET
(ROUTES 6, 11 & 16)
125.14'
BEGIN B.L.
9+00
10+00
11+00
12+00
13+00
14+00
15+00
STATE AID HIGHWAY NO. 1
PLEASANT STREET
RELOCATED STATE AID HWY. NO. 1
PLEASANT STREET
290.90'
37'
38'
42'
40'
32'
33'±
TEMP. CONST. LIMITS
100± S.F.
498'±
SLOPE
EASEMENT
LTS.
1,411± S.F.
SLOPE EASE.
768± S.F.
TEMPORARY CONSTRUCTION LIMITS
102'±
50'
50'±
65'
60'
17'±
33'±
0.85± AC.
L.O.W.P.
0.08± AC.
1,400± S.F.
SLOPE EASE. LIMITS
229.92'
EASEMENT LIMITS
171 S.F. TEMP. CONST. LTS

PC = STA. 8+75.47
R/W TO OTHERS
PRC = STA. 10+00.61
DRAINAGE OUTLET
STA. 10+11± RT.
DRAINAGE OUTLET
STA. 11+92 RT.

PLEASANT STREET
CURVE DATA #1
PI = 9+38.04
D = 1°23'50.8"
Δ = 1°44'55.7" Rt.
R = 4100.00'
L = 125.14'
T = 62.58'
E = 0.48'

EXISTING RIGHT OF WAY INFORMATION

PLEASANT STREET AND NORTH ROAD
PENOBSCOT COUNTY COMMISSIONERS RECORDS
VOLUME 1, PAGE 433
1833, 4 RODS WIDE

PLEASANT RIVER ROAD AND NORTH ROAD
PENOBSCOT COUNTY COMMISSIONERS RECORDS
VOLUME 1, PAGE 255
1828, 4 RODS WIDE

LAKEVIEW ROAD
PISCATAQUIS COUNTY COMMISSIONERS RECORDS
VOLUME 3, PAGE 195
1871, 4 RODS WIDE

PLEASANT RIVER BRIDGE
OVER PLEASANT RIVER
S.H.C. FILE NO. 27-4
JULY 1935

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

DANNY URELLA
ITEM NO. (1)
DRAINAGE EASE. = (1)
TEMPORARY CONSTRUCTION RIGHTS = 100± S.F. (1)
TOTAL AREA = 4.4± AC.
(PLAN AND DEED)

PROPERTY SURVEY
JAMES L. LADD
BY FORREST A. SMART
DATED JULY 11, 1981
P.C.R.D., PLAN BOOK J, PAGE 5

DANIEL HARKNESS
~~DANA E. PERKINS, SR.~~
PARCEL NO. (3)
LAND TAKEN (PRESC. EASE.) = 0.08± AC.
LAND TAKEN (OTHER) = 0.85± AC.
TOTAL LAND TAKEN = 0.93± AC.
SLOPE EASE. = 0.06± AC. (2)
DRAINAGE EASE. = (1)
CONST. & MAINT. EASE. = 307± S.F. (1)
TEMP. CONST. RIGHTS = 0.10± AC. (3)
TOTAL AREA = 59.00± AC. (TOWN)
REM. AREA = 58.07± AC.

TAPE AND COMPASS SURVEY
BROWN PROPERTY
BY DARRELL MILES
FOR DARROL ROBINSON
OCTOBER 8, 2007
UNRECORDED

STATE AID HWY. NO. 1
PLEASANT STREET
PLEASANT STREET
CURVE DATA #3
PI = 14+69.01
D = 5°58'05.9"
Δ = 20°57'05.8" Rt.
R = 960.00'
L = 351.04'
T = 177.51'
E = 16.27'
PT = STA. 16+42.55
ORIGINAL LOT LINE OF RECORD. CLEAR TITLE NOT FOUND FOR LAND NORTHEASTERLY HEREOF, OCCUPIED BY DANIEL HARKNESS

PLEASANT RIVER BRIDGE
OVER
PLEASANT RIVER
BRIDGE NO. 3244
WIN 022627.00

ITEM	CHECKED
EXISTING CONDITION PLAN	G.L.L.
FINAL RIGHT OF WAY	B.S.
AREAS	G.L.L.
	B.S.
	G.L.L.

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

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
		COND.	8/3/2020	2699	104

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

STATE AID HIGHWAY NO. 1
PLEASANT STREET
MILO PISCATAQUIS COUNTY
FEDERAL AID PROJECT NO. STP-2262(700)

MAY 2020 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 11-149
SCALE 1" = 25' | SHEET 1 OF 4

SHEET NUMBER
88
OF 91

Filename: ...\00\ROW\MSTA\002_RWPLAN2.dgn Division: ROW
Username: Benjamin.Singer Date:8/6/2020

PLAN LEGEND

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

Cut Line C C C	Fill Line F F F	Monument	Traverse Point
Stonewall	Retaining Wall	Iron Rod Found IRF	Pipe Found IPF
Baseline 10+00 11+00 12+00		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

Coordinate System: Maine State Plane NAD83(2011)
Zone: Maine 2000 Central
Vertical datum: NAVD88
Combined factor: 0.99997194

GRID NORTH
MAINE 2000 CENTRAL ZONE

ANDRE P. BOUCHARD
THERESA R. BOUCHARD

PLEASANT RIVER ROAD
CURVE DATA #1
PI = 200+99.78
D = 4°46'28.7"
Δ = 7°38'30.1" Lt.
R = 1200.00'
L = 160.05'
T = 80.14'
E = 2.67'

FLOW

TOTAL LENGTH = 316'±
FORMER CENTERLINE OF OLD BRIDGE
TOTAL LENGTH = 470'±

SHEILA L. KUCHINSKI
PARCEL NO. (2)
LAND TAKEN = 0.49± AC.
SLOPE EASE. = 1,035± S.F. (1)
DRAINAGE EASE. = (1)
TEMP. CONST. RIGHTS = 0.24± AC. (2)
TOTAL AREA = 37.50± AC. (TOWN
REM. AREA = 37.01± AC.

DANA E. PERKINS, SR.
PARCEL NO. (4)

PLEASANT RIVER RD.
CURVE DATA #2
PI = 203+89.79
D = 76°23'39.7"
Δ = 40°37'03.1" Rt.
R = 75.00'
L = 53.17'
T = 27.76'
E = 4.97'

PLEASANT RIVER ROAD
182.35' S 75°00'28.3" E

ANDRE P. BOUCHARD
THERESA R. BOUCHARD
PARCEL NO. (5)
LAND TAKEN (PRESC. EASE.) = 500± S.F.
LAND TAKEN (OTHER) = 0.57± AC. (2)
TOTAL LAND TAKEN = 0.58± AC.
SLOPE EASE. = 0.07± AC. (3)
DRAINAGE EASE. = 756± S.F. (2)
TEMP. CONST. RIGHTS = 0.06± AC. (1)
TOTAL AREA = 83.13± AC. (TOWN)
REM. AREA = 82.55± AC.

PC = STA. 203+62.04
PT = STA. 204+15.21
PC = STA. 22+60.38
COUNTY LAYOUTS (VOL. 1, PAGES 255 & 433)
SLOPE EASEMENT LIMITS
1,301± S.F.
0.55± AC.
RELOCATED S.A. HWY. NO. 1 PLEASANT ST.
END B.L. STA. 204+31.27 PLEASANT RIVER ROAD =STA. 21+23.48 PLEASANT STREET
N 55°46'29.6" E
617.83'
N 34°23'25" E
53.17'
204+00
206+00
1.18± AC.
332'±
179'±
106'±
93'±
182'±
192'±
51.6'±
52'±
1'±
TEMP. CONST. LTS.
SLOPE EASE.
CLL LIMITS
1,035± S.F.
0.49± AC.
308'±
RELOCATED PLEASANT STREET
STATE AID HIGHWAY NO. 1
PLEASANT
P.L.
CLL
TLO
16+00
17+00
18+00
19+00
20+00
21+00
22+00
0.85± AC.
0.08± AC.
1,400± S.F.
SLOPE EASE. LIMITS
L.O.W.P.
232'±
439± S.F.
TEMPORARY CONSTRUCTION LIMITS
578'±
558± S.F.
TEMPORARY CONSTRUCTION LIMITS
CONST. & MAINT. EASE. LTS.
307± S.F.
MAINT. EASE. LTS.
348± S.F.
EASE. LTS.
346'±
1,041± S.F.
107'
110'
103'
STATE AID HWY. NO. 1
PLEASANT STREET
PLEASANT RIVER RD.
PLEASANT ST.
RIVER
FLOW

PLEASANT STREET
CURVE DATA #3
PI = 14+69.01
D = 5°58'05.9"
Δ = 20°57'05.8" Rt.
R = 960.00'
L = 351.04'
T = 177.51'
E = 16.27'
PT = STA. 16+42.55
ORIGINAL LOT LINE OF RECORD. CLEAR TITLE NOT FOUND FOR LAND NORTHEASTERLY HEREOF, OCCUPIED BY DANIEL HARKNESS

10' SEWER EASEMENT TO MILO WATER DISTRICT LOCATION APPROXIMATE P.C.R.D., BOOK 360, PAGE 282

DANIEL HARKNESS
~~DANA E. PERKINS, SR.~~
PARCEL NO. (3)
LAND TAKEN (PRESC. EASE.) = 0.08± AC.
LAND TAKEN (OTHER) = 0.85± AC.
TOTAL LAND TAKEN = 0.93± AC.
SLOPE EASE. = 0.06± AC. (2)
DRAINAGE EASE. = (1)
CONST. & MAINT. EASE. = 307± S.F. (1)
TEMP. CONST. RIGHTS = 0.10± AC. (3)
TOTAL AREA = 59.00± AC. (TOWN)
REM. AREA = 58.07± AC.

EXISTING RIGHT OF WAY INFORMATION

PLEASANT STREET AND NORTH ROAD
PENOBSCOT COUNTY COMMISSIONERS RECORDS
VOLUME 1, PAGE 433
1833, 4 RODS WIDE

PLEASANT RIVER ROAD AND NORTH ROAD
PENOBSCOT COUNTY COMMISSIONERS RECORDS
VOLUME 1, PAGE 255
1828, 4 RODS WIDE

LAKEVIEW ROAD
PISCATAQUIS COUNTY COMMISSIONERS RECORDS
VOLUME 3, PAGE 195
1871, 4 RODS WIDE

PLEASANT RIVER BRIDGE
OVER PLEASANT RIVER
S.H.C. FILE NO. 27-4
JULY 1935

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

BOUNDARY SURVEY
DANA E. PERKINS, SR.
BY McLAUGHLIN LAND SURVEYING
DATED DECEMBER 15, 2014
P.C.R.D., PLAN BOOK 2015, PAGE 4,

DANA E. PERKINS, SR.
PARCEL NO. (4)
LAND TAKEN (PRESC. EASE.) = 1,041± S.F.
LAND TAKEN (OTHER) = 1.18± AC.
TOTAL LAND TAKEN = 1.20± AC.
CONST. & MAINT. EASE. = 348± S.F. (1)
TEMP. CONST. RIGHTS = 42.45± AC. (2)
TOTAL AREA = 1,676± S.F. (3)
REM. AREA = 41.25± AC.

PLEASANT RIVER BRIDGE
OVER
PLEASANT RIVER

BRIDGE NO. 3244 WIN 022627.00

ITEM	CHECKED
EXISTING CONDITION PLAN	G.L.L.
FINAL RIGHT OF WAY	G.L.L.
AREAS	G.L.L.

TECH B.S. B.S. B.S.

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

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD					
NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
		COND.	8/3/2020	2699	104

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

STATE AID HIGHWAY NO. 1
PLEASANT STREET
MILO PISCATAQUIS COUNTY
FEDERAL AID PROJECT NO. STP-2262(700)

MAY 2020	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 11-149
SCALE 1" = 25'	SHEET 2 OF 4	

SHEET NUMBER
89
OF 91

Filename: ...\00\ROW\MSTA\003_RWPLAN3.dgn Username: Benjamin.Singer Date:8/6/2020 Division: ROW

PLAN LEGEND

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

Coordinate System: Maine State Plane NAD83(2011)
Zone: Maine 2000 Central
Vertical datum: NAVD88
Combined factor: 0.99997194

EXISTING RIGHT OF WAY INFORMATION

PLEASANT STREET AND NORTH ROAD
PENOBSCOT COUNTY COMMISSIONERS RECORDS
VOLUME 1, PAGE 433
1833, 4 RODS WIDE

PLEASANT RIVER ROAD AND NORTH ROAD
PENOBSCOT COUNTY COMMISSIONERS RECORDS
VOLUME 1, PAGE 255
1828, 4 RODS WIDE

LAKEVIEW ROAD
PISCATAQUIS COUNTY COMMISSIONERS RECORDS
VOLUME 3, PAGE 195
1871, 4 RODS WIDE

PLEASANT RIVER BRIDGE
OVER PLEASANT RIVER
S.H.C. FILE NO. 27-4
JULY 1935

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

GRID NORTH
MAINE 2000 CENTRAL ZONE

PLEASANT STREET/
LAKEVIEW ROAD
CURVE DATA #4
PI = 24+85.09
D = 16°22'12.8"
Δ = 65°22'08.2" Lt.
R = 350.00'
L = 399.52'
T = 224.71'
E = 65.92'

ANDRE P. BOUCHARD
THERESA R. BOUCHARD
PARCEL NO. (5)
LAND TAKEN (PRESC. EASE.) = 500± S.F.
LAND TAKEN (OTHER) = 0.57± AC. (2)
TOTAL LAND TAKEN = 0.58± AC.
SLOPE EASE. = 0.07± AC. (3)
DRAINAGE EASE. = 756± S.F. (2)
TEMP. CONST. RIGHTS = 0.06± AC. (1)
TOTAL AREA = 83.13± AC. (TOWN)
REM. AREA = 82.55± AC.

PLEASANT RIVER RD.
CURVE DATA #2
PI = 203+89.79
D = 76°23'39.7"
Δ = 40°37'03.1" Rt.
R = 75.00'
L = 53.17'
T = 27.76'
E = 4.97'

PC = STA. 200+19.64
PT = STA. 201+79.69
PC = STA. 203+62.04
PT = STA. 204+15.21
PC = STA. 22+60.38

SLOPE EASEMENT LIMITS
1,490± S.F.
1,301± S.F.
1,641± S.F.
347'±
399.52'
RELOCATED STATE AID HWY. NO. 6
LAKEVIEW RD.
24+00
END B.L. STA. 24+85.09 PENOBSCOT ROAD
BEG. B.L. STA. 24+85.09 PISCATAQUIS COUNTY
STA 106+44.9
STATE AID HIGHWAY NO. 6
(VOL. 3, PAGE 195)
LAKEVIEW ROAD PT
N 48°58'19.6" W
106+00
105+00
241.37'
+43'±
337'±
+47
+22
+19'±
+21±
+86±
+50
+56±
+63±
+32
+13
+10
+05
+00
+15
+20
+25
+30
+35
+40
+45
+55
+60
+65
+70
+75
+80
+85
+90
+95
+100
+105
+110
+115
+120
+125
+130
+135
+140
+145
+150
+155
+160
+165
+170
+175
+180
+185
+190
+195
+200
+205
+210
+215
+220
+225
+230
+235
+240
+245
+250

Filename: ...\00\ROW\MSTA\004_RWPLAN4.dgn Division: ROW Username: Benjamin.Singer Date:8/6/2020

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	E	Catch Basin	
Control Of Access	C.O.A.	Water Edge		Water Line	W	Manhole	
New Right of Way		Ledge	Rock/Boulder	Underdrain Line		Sewer Manhole	
New Easement		Fence CHAIN LINK	BARB WIRE	Gas Line		Utility Pole	
New Temporary Rights		Sign	Well WELL	Guardrail		Fire Hydrant	
New R/W Within Existing R/W			Mailbox	Culvert		Curbing	

Cut Line C C C	Fill Line F F F	
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

Coordinate System: Maine State Plane NAD83(2011)
Zone: Maine 2000 Central
Vertical datum: NAVD88
Combined factor: 0.99997194

GRID NORTH
MAINE 2000 CENTRAL ZONE

DANA E. PERKINS, SR.
PARCEL NO. (4)
LAND TAKEN (PRESC. EASE.) = 1,041± S.F.
LAND TAKEN (OTHER) = 1.18± AC.
TOTAL LAND TAKEN = 1.20± AC.
CONST. & MAINT. EASE. = 348± S.F. (1)
TEMP. CONST. RIGHTS = 1,676± S.F. (3)
TOTAL AREA = 42.45± AC. (TOWN)
REM. AREA = 41.25± AC.

ANDRE P. BOUCHARD
THERESA R. BOUCHARD
PARCEL NO. (5)
LAND TAKEN (PRESC. EASE.) = 500± S.F.
LAND TAKEN (OTHER) = 0.57± AC. (2)
TOTAL LAND TAKEN = 0.58± AC.
SLOPE EASE. = 0.07± AC. (3)
DRAINAGE EASE. = 756± S.F. (2)
TEMP. CONST. RIGHTS = 0.06± AC. (1)
TOTAL AREA = 83.13± AC. (TOWN)
REM. AREA = 82.55± AC.

BOUNDARY SURVEY
DANA E. PERKINS, SR.
BY McLAUGHLIN LAND SURVEYING
DATED DECEMBER 15, 2014
P.C.R.D.
PLAN BOOK 2015, PAGE 4,

PLEASANT STREET/ LAKEVIEW ROAD CURVE DATA #4
PI = 24+85.09
D = 16°22'12.8"
Δ = 65°24'08.2" Lt.
R = 350.00'
L = 399.52'
T = 224.71'
E = 65.92'

PLEASANT RIVER RD.
STATE AID HWY. NO. 1
PLEASANT STREET
L.O.W.P.
RELOCATED S.A.H.W. NO. 1 PLEASANT ST.
0.55± AC.
1,301± S.F.
SLOPE EASE. LIMITS 347'±
23+00
710
710
20+00
TEMP. CONST. LIMITS
29'±
37.9'±
106+00
N 48°58'19.6" W
18.70
+50
END B.L. RELOCATED S.A.H.W. NO. 1 PLEASANT ST. STA. 23+50.48
MEDFORD ROAD
SLOPE EASEMENT LIMITS
1,490± S.F.
24+00
RELOCATED STATE AID HWY. NO. 6 LAKEVIEW RD.
399.52'
SLOPE EASEMENT
TEMP. CONST. LIMITS
8" CLL
DRAIN
EASE
756± S.F.
CLL
TEMP. CONSTRUCTION LIMITS
SLOPE EASE.
314± S.F.
CLL
TEMPORARY CONST. LIMITS
0.06± AC.
255'±
PT = STA. 26+59.90
INLET DRAINAGE STRUCTURE
STA. 26+00 TO STA. 26+50 LT.
DRAINAGE OUTLET
STA. 26+63± LT.
45'
55'
40'
CLL
+47
+22
105+00
241.37'
+72
+68±
+43
+35
+04
25+00
337'±
COUNTY LAYOUT
(VOL. 3, PAGE 195)
PT = STA. 106+44.91
LAKEVIEW ROAD / STATE AID HIGHWAY NO. 6
+50
+75
26+00
+25
+44±
33'
+50
+70
57.81'
27+00
N 9°37'38.6" W
32'±
33'
STATE AID HWY. NO. 6
LAKEVIEW ROAD
28+00
171.49'
TO BROWNVILLE & LAKEVIEW
END B.L.
+34±
+83±
33.0'±
40'
45'
40'
CLL
CLL
DRAINAGE EASEMENT
1,075± S.F.
55'
65'
LIMITS
910± S.F.
SLOPE
1'±
EASEMENT LIMITS
745± S.F.
167'±
158'±
33'
34.0'
6'±
423'±
DRAINAGE OUTLET
STA. 28+38± RT.
OUTLET DRAINAGE STRUCTURES
STA. 25+50 TO STA. 26+27 RT.
PC = STA. 27+17.71
PT = STA. 28+89.20

DANA E. PERKINS, SR.
PARCEL NO. (4)
CONSTRUCTION LIMITS
CLL
828± S.F.
TEMPORARY
CLL
NORTH ROAD / MEDFORD ROAD
74.65'
N 87°23'12.6" W
104+00
27.0'±
+68±
+72
+43
+35
142± S.F. SLOPE EASE. LIMITS
132'±
PC = STA. 104+03.54
EXISTING OPEN DITCH EASEMENT TO STATE OF MAINE (S.H.C.) DEED BOOK 394, PAGE 107, P.C.R.D.
32.5'±
+40
BEGIN B.L.
66.0'±
33.5'±
PT = STA. 103+28.89
P.L.
CATHY LYNN MELLO
TO MEDFORD
103+00
COUNTY LAYOUTS (VOL. 1, PAGES 255 & 433)

MEDFORD ROAD
CURVE DATA #2
PI = 105+28.96
D = 15°54'55.8"
Δ = 38°24'53.0" Rt.
R = 360.00'
L = 241.37'
T = 125.42'
E = 21.22'

LOUIS W. RITTER
PARCEL NO. (6)
LAND TAKEN = 745± S.F.
SLOPE EASE. = 1,052± S.F. (2)
DRAINAGE EASE. = 1,075± S.F. (2)
TOTAL AREA = 97.00± AC. (TOWN)
REM. AREA = 96.98± AC.

MEDFORD ROAD
CURVE DATA #1
PI = 102+57.46
D = 0°34'22.6"
Δ = 0°49'06.8" Rt.
R = 10000.00'
L = 142.87'
T = 71.43'
E = 0.26'

LAKEVIEW ROAD
CURVE DATA #5
PI = 28+03.86
D = 7°54'10.3"
Δ = 13°33'11.2" Rt.
R = 725.00'
L = 171.50'
T = 86.15'
E = 5.10'

EXISTING RIGHT OF WAY INFORMATION

PLEASANT STREET AND NORTH ROAD
PENOBSCOT COUNTY COMMISSIONERS RECORDS
VOLUME 1, PAGE 433
1833, 4 RODS WIDE

PLEASANT RIVER ROAD AND NORTH ROAD
PENOBSCOT COUNTY COMMISSIONERS RECORDS
VOLUME 1, PAGE 255
1828, 4 RODS WIDE

LAKEVIEW ROAD
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VOLUME 3, PAGE 195
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PLEASANT RIVER BRIDGE
OVER PLEASANT RIVER
S.H.C. FILE NO. 27-4
JULY 1935

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

PLEASANT RIVER BRIDGE
OVER
PLEASANT RIVER
BRIDGE NO. 3244 WIN 022627.00

ITEM	CHECKED
EXISTING CONDITION PLAN	G.L.L.
TECH	B.S.
FINAL RIGHT OF WAY	G.L.L.
TECH	B.S.
AREAS	G.L.L.
PLAN	B.S.

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

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
		COND.	8/3/2020	2699	104

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

STATE AID HIGHWAY NOS. 1 & 6
PLEASANT STREET & LAKEVIEW ROAD
MILO PISCATAQUIS COUNTY
FEDERAL AID PROJECT NO. STP-2262(700)

MAY 2020	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 11-149
SCALE 1" = 25'	SHEET 4 OF 4	

SHEET NUMBER
91
OF 91