

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



BRIDGEWATER AROOSTOOK COUNTY WHITNEY BROOK BRIDGE OVER WHITNEY BROOK US ROUTE 1 FEDERAL AID PROJECT NO. 2309401 PROJECT LENGTH 0.105 mi. BRIDGE NO. 2942

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UTILITIES

Versant Power
Charter Communications

Maine Fiber Company
Consolidated Communications

TRAFFIC DATA

Current (2020) AADT	4650
Future (2040) AADT	5120
DHV - % of AADT	9%
Design Hour Volume	461
Heavy Trucks (% of AADT)	20%
Heavy Trucks (% of DHV)	18%
Directional Distribution (% of DHV)	51%
18 kip Equivalent P 2.0	1211
18 kip Equivalent P 2.5	1153
Design Speed (mph)	30

MAINTENANCE OF TRAFFIC

Maintain two lanes of traffic on temporary bridge.

SPECIFICATIONS

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

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

HYDROLOGIC DATA

Drainage Area	27.90 sq mi
Design Discharge (Q50)	898.8 cfs
Check Discharge (Q100)	1018.2 cfs
Special Detour Design Discharge (Q10)	641.7 cfs
Headwater Elevation (Q1.1)	395.5 ft
Headwater Elevation (Q25)	397.7 ft
Headwater Elevation (Q50)	398.0 ft
Headwater Elevation (Q100)	398.2 ft
Discharge Velocity (Q1.1)	2.1 fps
Discharge Velocity (Q50)	4.4 fps
Discharge Velocity (Q100)	4.7 fps

MATERIALS

Concrete:	
Curbs & Sidewalks	Class "LP"
Precast	Class "P"
All Other	Class "A"
Reinforcing:	
Plain Reinforcing Steel	ASTM A615, Grade 60
Low-Carbon Chromium	ASTM A1035-CS, Grade 100
Glass Fiber Reinforcing Polymer (GFRP)	ASTM D7957
Prestressing Strands	AASHTO M 203 (ASTM A416), Grade 270, Low Relaxation

BASIC DESIGN STRESSES

Concrete:	
Class "A"	f'c = 4,000 psi
Class "LP"	f'c = 5,000 psi
Class "P"	f'c = 8,000 psi
	f'ci = 6,000 psi
Reinforcing:	
Plain Reinforcing Steel	f y = 60,000 psi
Low-Carbon Chromium	f y = 100,000 psi
Glass Fiber Reinforced Polymer	
#5 & #6 Bar	f fu = 100,000 psi
Minimum Elastic Modulus	Ef = 6,500,000 psi
Minimum Nominal Design Tensile Strain	et = 1.1%
Prestressing Strand	Fu = 270,000 psi

PROJECT LOCATION	US Route 1 in Bridgewater, Immediately North of the Boundary Line Road Intersection. Lat./Long. 46°25'13.84"N 67°50'36.42"W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Bridge Replacement

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STATE OF MAINE DEPARTMENT OF TRANSPORTATION	DATE 9/19/22
APPROVED	9/19/22
COMMISSIONER	
CHIEF ENGINEER	

STATE OF MAINE ARON M. LACHANCE NO. 13594 PROFESSIONAL ENGINEER	
SIGNATURE	DATE
13294	September 14, 2022
P. E. NUMBER	

PROJECT INFORMATION	
PROGRAM	BRIDGE
PROJECT MANAGER	JASON SLETSON
DESIGNER	KAYLA HAMPE
CONSULTANT	HOYLE, TANNER & ASSOC., INC.
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

BRIDGEWATER WHITNEY BROOK BRIDGE	WIN 24783.01
TITLE SHEET	2309401

SHEET NUMBER	1
OF 35	

Date: 9/13/2022
Username:
Division: BRIDGE
Filename: \01\BRIDGE\MSTAN\001L_Title.dgn

Date: 9/19/2022

Username:

Division: BRIDGE

Filename: ... \BRIDGE\MSTA\002_Estimate.dgn

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.23	REMOVING SINGLE TREE TOP ONLY	1	EA
201.24	REMOVING STUMP	2	EA
202.13	REMOVE EXISTING RAILINGS (RETAINED BY DEPARTMENT)	68	LF
202.19	REMOVING EXISTING BRIDGE (600 CY)	1	LS
202.202	REMOVING PAVEMENT SURFACE	750	SY
203.20	COMMON EXCAVATION	1700	CY
203.2318	DISPOSAL OF SPECIAL WASTE	21	T
203.24	COMMON BORROW	10	CY
203.25	GRANULAR BORROW	470	CY
203.33	SPECIAL FILL	15	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	1300	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	1400	CY
403.2081	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE (POLYMER MODIFIED)	250	T
403.209	HOT MIX ASPHALT, 9.5 MM (SIDEWALKS, DRIVES, & INCIDENTALS)	50	T
403.213	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE BASE COURSE)	490	T
403.2131	HOT MIX ASPHALT, 12.5 MM NOMINAL MAXIMUM SIZE (BASE AND INTERMEDIATE BASE COURSE, POLYMER MODIFIED)	240	T
409.15	BITUMINOUS TACK COAT, APPLIED	270	G
461.131	TEMPORARY PAVEMENT	290	T
501.239	DYNAMIC LOADING TESTS	2	EA
501.46	STEEL H-BEAM PILES 73 LBS/FT, DELIVERED	410	LF
501.461	STEEL H-BEAM PILES 73 LBS/FT, IN PLACE	340	LF
501.903	PILE TIPS - ROCK INJECTOR POINT	14	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.219	STRUCTURAL CONCRETE, ABUTMENTS & RETAINING WALLS (140 CY)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLAB (33 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (25 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	10800	LB
503.13	REINFORCING STEEL, PLACING	10800	LB
503.19	LOW-CARBON CHROMIUM REINFORCMENT, FABRICATED/DELIVERED	5300	LB
503.20	LOW-CARBON CHROMIUM REINFORCMENT, PLACING	5300	LB
507.08161	STEEL APPROACH RAILING, 4 BAR	2	EA
507.0821	STEEL BRIDGE RAILING, 3 BAR (69 LF)	1	LS
507.0822	STEEL APPROACH RAILING, 3 BAR	2	EA
507.0831	STEEL BRIDGE RAILING, 4 BAR (69 LF)	1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (380 SY)	1	LS
510.10	SPECIAL DETOUR 3' ROADWAY, TRAFFIC NOT SEPARATED	1	LS
511.07	COFFERDAM: ABUTMENT NO. 1	1	LS
511.07	COFFERDAM: ABUTMENT NO. 2	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (230 SY)	1	LS
526.301	PORTABLE CONCRETE BARRIER, TYPE 1 (60 LF)	1	LS
527.34	WORK ZONE CRASH CUSHIONS	4	UN
531.511	BRIDGE SUPERSTRUCTURE - DETAIL BUILD	1	LS
603.16	15" CULVERT PIPE OPTION 1	50	LF
603.17	18" CULVERT PIPE OPTION 1	70	LF
603.19	24" CULVERT PIPE OPTION 1	42	LF
604.262	CATCH BASIN TYPE B5-C	5,625	EA
605.11	12" UNDERDRAIN TYPE C	205	LF
605.12	15" UNDERDRAIN TYPE C	285	LF
605.15	24" UNDERDRAIN TYPE C	263	LF
606.1301	31" W-BEAM GUARDRAIL, MIDWAY-SPLICE, SINGLE FACED	12.5	LF
606.1303	31" W-BEAM GUARDRAIL, MIDWAY-SPLICE, 15' RADIUS & LESS	25	LF
606.1306	31" W-BEAM GUARDRAIL, MIDWAY SPLICE TANGENT TERMINAL	3	EA
606.1721	BRIDGE TRANSITION - TYPE 1	4	EA
606.265	TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	1	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	6	EA
608.26	CURB RAMP DETECTABLE WARNING FIELD	13	SF
609.31	CURB TYPE 3	690	LF
610.08	PLAIN RIPRAP	320	CY
613.319	EROSION CONTROL BLANKET	160	SY
615.07	LOAM	45	CY
618.13	SEEDING METHOD NUMBER 1	8	UN
619.12	MULCH	8	UN
619.14	EROSION CONTROL MIX	90	CY
620.58	EROSION CONTROL GEOTEXTILE	510	SY
620.66	DRAINAGE GEOCOMPOSITE	88	SY
621.129	SMALL DECIDUOUS TREE (6'-8') MULTIPLE STEM CLUMP	1	EA
621.201	MEDIUM DECIDUOUS TREE (2-2.5 INCH CALIPER)	5	EA
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	1670	LF
627.77	REMOVING PAVEMENT MARKINGS	270	SF
627.78	TEMPORARY 4" PAINT PAVEMENT MARKING LINE WHITE OR YELLOW	1500	LF
629.05	HAND LABOR, STRAIGHT TIME	10	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.14	GRADER (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
639.19	FIELD OFFICE TYPE B	1	EA
652.312	TYPE III BARRICADE	8	EA

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
652.33	DRUM	25	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	360	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGER	700	HR
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	2	EA
656.75	TEMPORARY SOIL EROSION & WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2309401		WIN		BRIDGE NO. 2942		BRIDGE PLANS	
WHITNEY BROOK BRIDGE		WHITNEY BROOK		ARROSTOOK COUNTY		ESTIMATED QUANTITIES		SHEET NUMBER		2	
BRIDGEWATER		ARROSTOOK COUNTY		ESTIMATED QUANTITIES		SHEET NUMBER		2		OF 35	
PROJ. MANAGER	J. STETSON	BY	B. NICHOLS	DATE	Aug 2022	CHECKED-REVIEWED	A. LACHANCE	DATE	Aug 2022	SIGNATURE	
DESIGN-DETAILED	K. HAMPE	DESIGN-DETAILED	A. LACHANCE	DESIGN-DETAILED		DESIGN-DETAILED		DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4		REVISIONS 5		DATE	
FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		FIELD CHANGES		DATE	

Date: 9/13/2022

Username:

Division: BRIDGE

Filename: ... \MSTA\003_GeneralNotes.dgn

GENERAL CONSTRUCTION NOTES

- 1. For easements, construction limits, and right of way lines, refer to the Right of Way Map.
- 2. The clearing limits as shown on the plans are approximate. The exact limits will be established in the field by the Resident. Payment for clearing will be considered incidental to Contract items.
- 3. All utility facilities shall be adjusted by the respective utilities unless otherwise noted.
- 4. Existing signs within the Project limits shall be removed and reset as directed by the Resident. Payment for removal and reinstallation of existing signs will be considered incidental to the Contract. No separate payment will be made.
- 5. All aluminum bridge rail, rail posts, and associated hardware which are to be removed shall be carefully salvaged by the Contractor and will remain the property of the Department.
- 6. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
- 7. In areas where the Resident directs the Contractor not to excavate to the subgrade line shown on the plans, payment for removing existing pavement, grubbing, shaping, ditching, and compacting the existing subbase and layers of new subbase 6 inches or less thick will be made under appropriate equipment rental items.
- 8. All embankment material, except as otherwise shown, placed below EL. 398.0 shall be Granular Borrow meeting the requirements of Standard Specifications Subsection 703.19, Granular Borrow, for Material for Underwater Backfill.
- 9. Construct the granular borrow abutment shelf at EL. 398.1 for Abutment No. 1 and EL. 397.6 for Abutment No. 2.
- 10. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.
- 11. Place a 24 inch wide strip of Erosion Control Blanket on the sideslopes along the top of the riprap and behind the wingwalls.
- 12. A MASH compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail.
- 13. Where it is apparent that runoff will cause continual erosion, Erosion Control Blanket, seeded gutters, riprap downspouts, and other gutters lined with Stone Ditch Protection shall be constructed after paving and shoulder work is completed. Payment will be made under the appropriate Contract items.
- 14. Protective Coating for Concrete Surfaces shall be applied to the following areas:
 - All exposed surfaces of concrete curbs and sidewalks,
 - Fascias down to the drip notch,
 - Top of abutment backwalls and wingwalls, and
 - To one foot below the ground on vertical walls against earth.
- 15. Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>
- 16. 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 life span.
- 17. Reports on hydrology and/or hydraulics applicable to the bridge site may be accessed at the MaineDOT web address. The reports are based on MaineDOT'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.
- 18. The project geotechnical report titled: Geotechnical Design Report, Whitney Brook Bridge No. 2942, Route 1 over Whitney Brook, Bridgewater, Maine, prepared by GZA GeoEnvironmental, Inc., dated September 2022 may be accessed at the MaineDOT web address.
- 19. 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 Bidders' or Contractor's interpretations of, 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 the boring locations.

- 20. 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 the 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 a 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 adjustments will be made in accordance with Standard Specifications Section 109.7, Equitable Adjustments to Compensation and Time.
- 21. Excavation required between the backside of the existing abutments and the front side of the proposed abutment shall be paid for as Structural Earth Excavation.

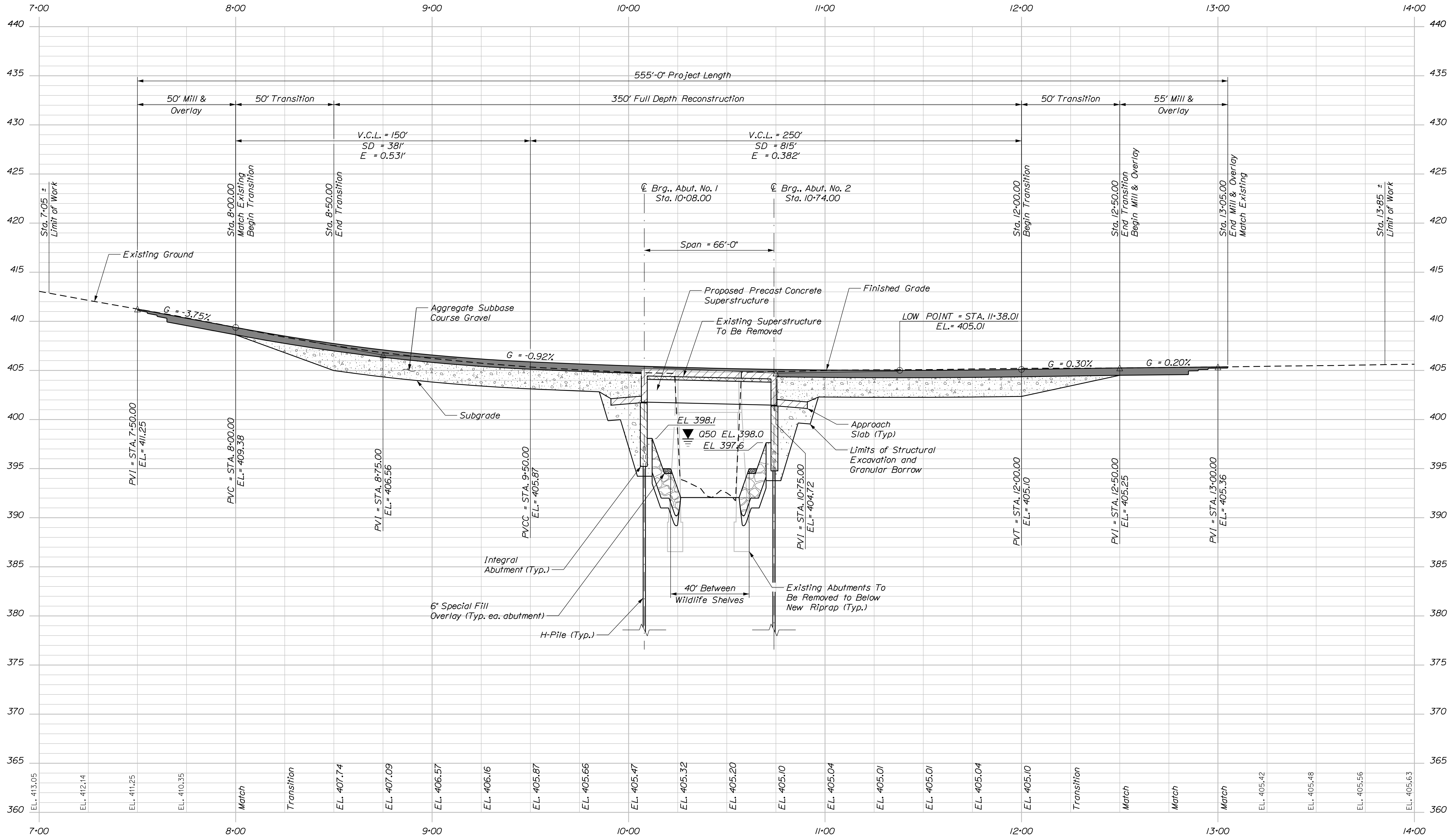
STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2309401		BRIDGE NO. 2942 WIN 24783.01 BRIDGE PLANS
WHITNEY BROOK BRIDGE WHITNEY BROOK BRIDGEWATER AROOSTOOK COUNTY GENERAL CONSTRUCTION NOTES	SHEET NUMBER 3 OF 35	
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED DESIGNS-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	J. STETSON K. HAMPE A. LACHANCE B. NICHOLS K. HAMPE	DATE Aug 2022 Aug 2022
BY DATE SIGNATURE P.E. NUMBER DATE	J. STETSON K. HAMPE A. LACHANCE B. NICHOLS K. HAMPE	DATE Aug 2022 Aug 2022

Date: 9/13/2022

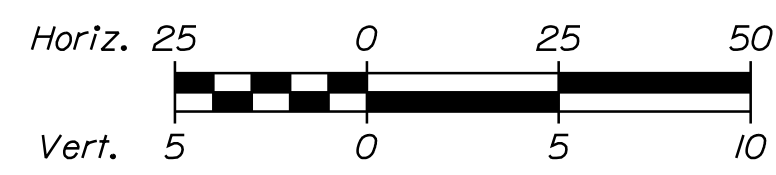
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Division: BRIDGE

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PROFILE



STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

2309401

WIN

BRIDGE NO. 2942

BRIDGE PLANS

SIGNATURE

DATE

BY

DESIGN-DETAILED

CHECKED-REVIEWED

DESIGN-DETAILED

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE

P.E. NUMBER

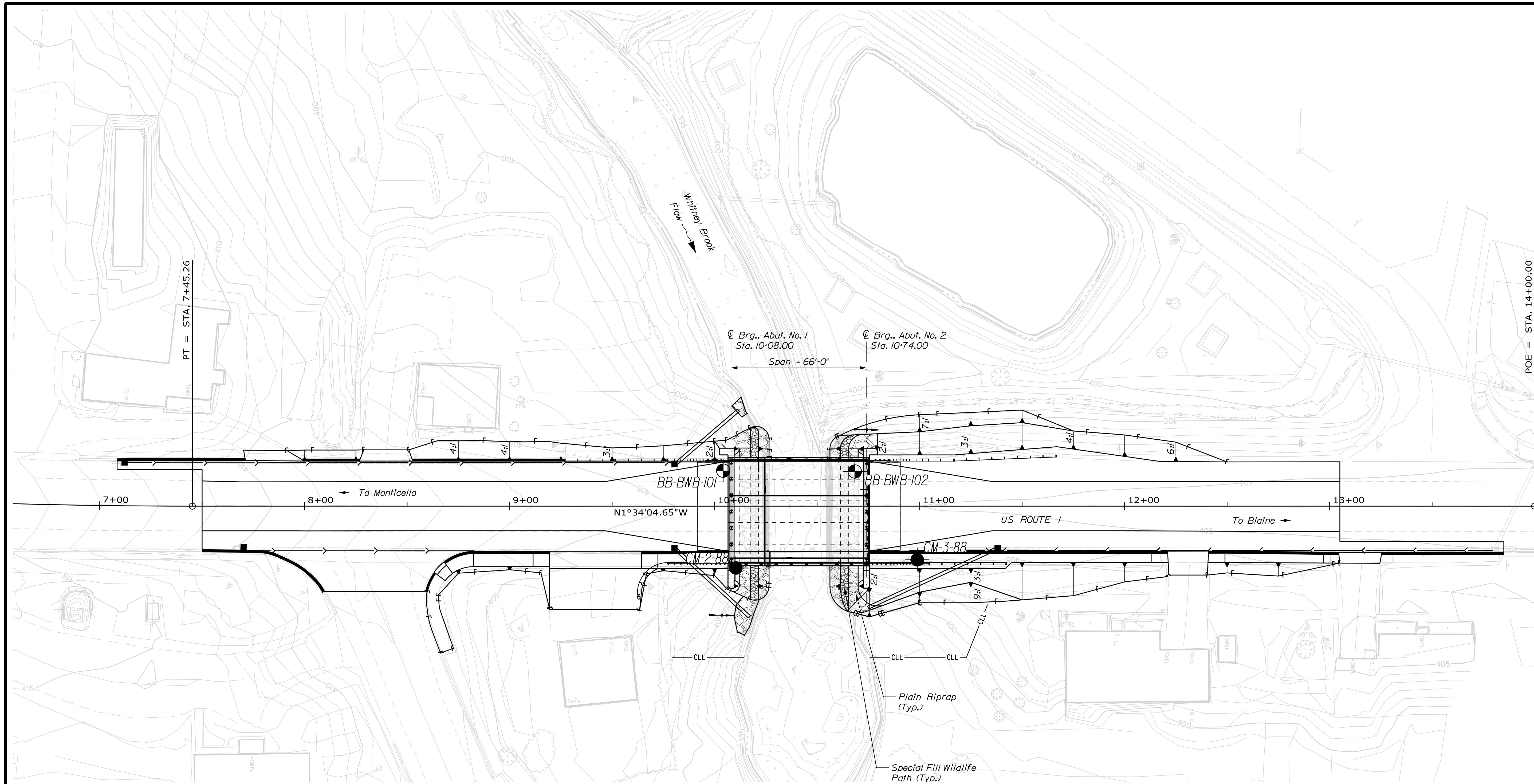
WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY

SHEET NUMBER

5

OF 35

PROFILE

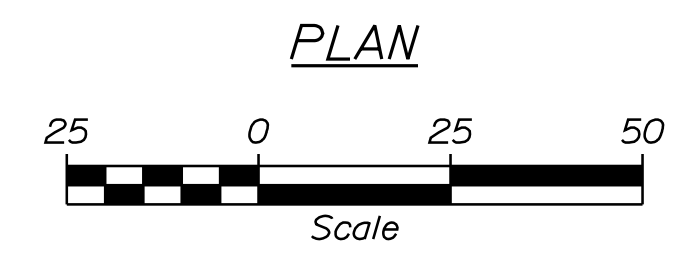


NOTES

- 1) Base map developed from electronic files (Bridge.dgn, Topo.dgn, Text.dgn, Contours.dgn, Alignments.dgn, z_abutment_2.dgn, z_superstructure.dgn, and z_Existing.dgn) provided by Hoyle, Tanner & Associates on June 30, 2022.
- 2) The as-drilled locations of the 100-Series test borings were surveyed by MaineDOT and developed from test borings logs provided by MaineDOT on September 23, 2020.
- 3) The locations of the 1988 borings were estimated by measuring test borings from the 1988 boring location plan to existing bridge structural elements and should be considered approximate.

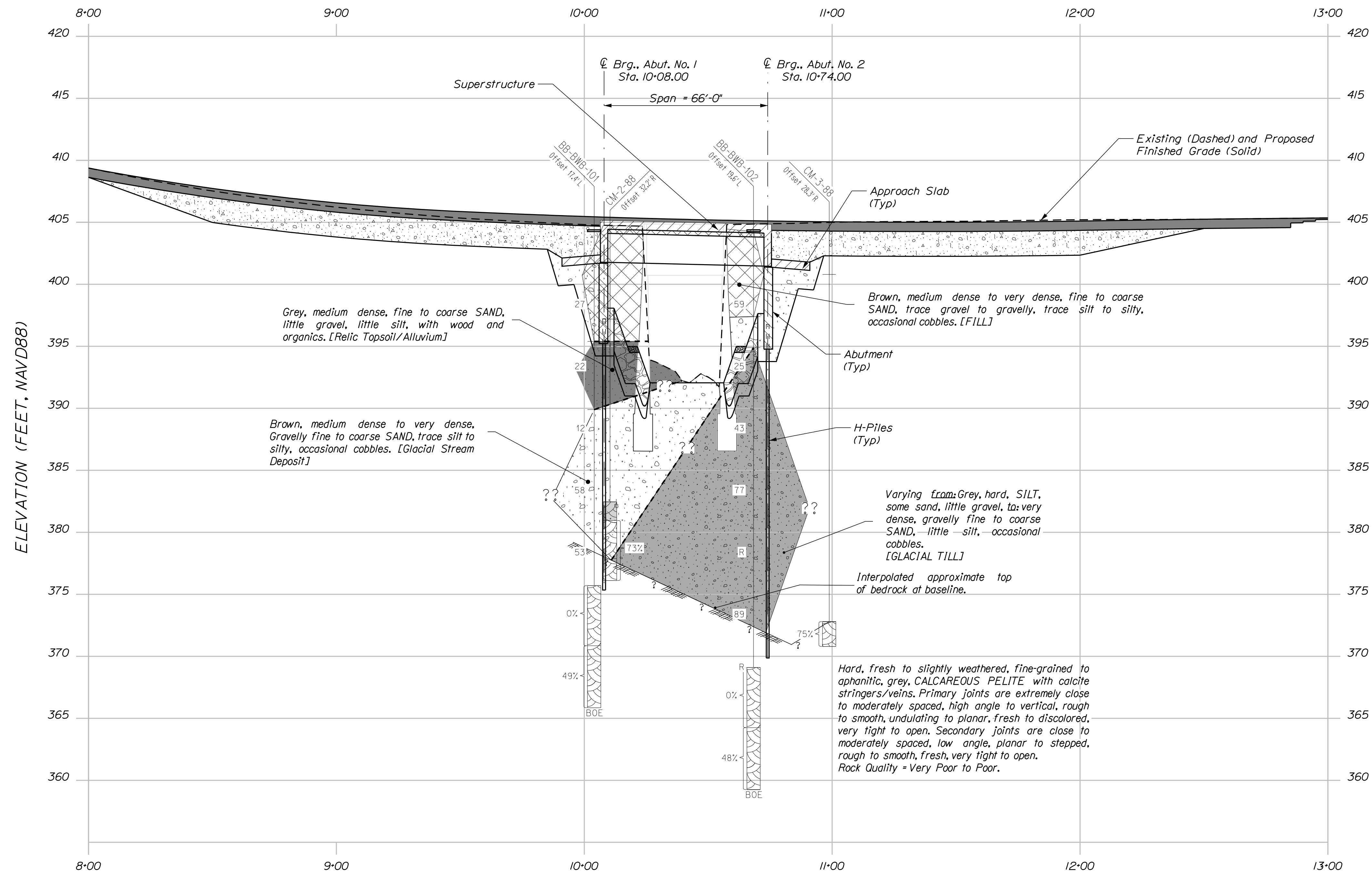
BORING LOCATION PLAN LEGEND

- BB-BWB-102 Location and designation of 100-Series cased wash boring
- CM-3-88 Approximate location and designation of historic explorations provided in 1989 Geotechnical Report



STATE OF MAINE DEPARTMENT OF TRANSPORTATION 24783.01	BRIDGE NO. 2942 WIN 24783.01 BRIDGE PLANS	WHITNEY BROOK BRIDGE WHITNEY BROOK AROOSTOOK COUNTY BRIDGEWATER BORING LOCATION PLAN
PROJ. MANAGER J. STEINSON MP ENT ARB	BY ENT ARB	DATE JULY 2022 SIGNATURE P.E. NUMBER DATE
DESIGN/DETAILED CHECKED/REVIEWED DESIGN/DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES		SHEET NUMBER <div style="font-size: 2em; font-weight: bold; text-align: center;">6</div> OF 35

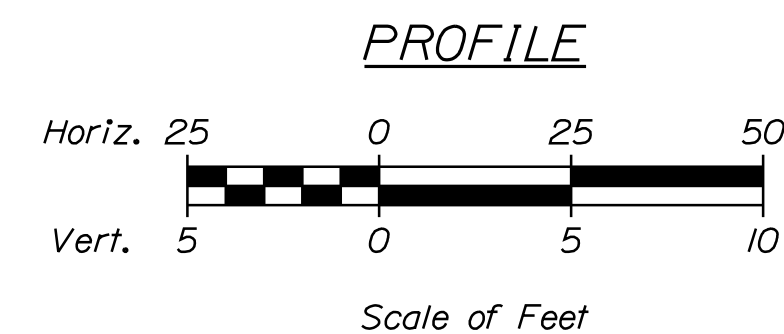




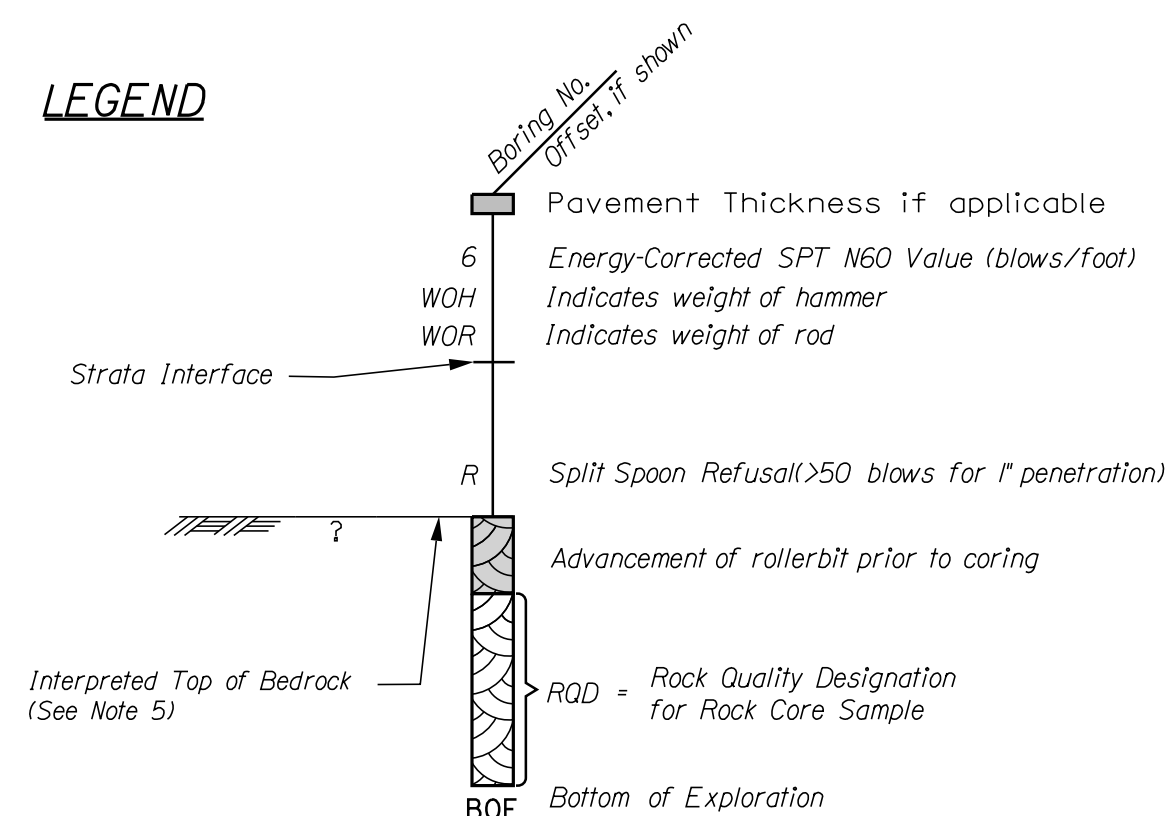
NOTES

- 1) Base map developed from electronic files provided by Hoyle, Tanner & Associates, Inc. on May 18, 2022. Files include 003_Prelim 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) BB-BWB-100 series borings were performed and logged by MaineDOT personnel between June 23 and 24, 2020. Soil and bedrock samples were reviewed by GZA at the MaineDOT storage facility in May 2022.
- 4) The CM-series borings were conducted by MaineDOT in 1988.

5) 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. Boring data are shown for borings drilled off alignment, but interpreted strata are based on the borings drilled closest to the project baseline. For more specific information refer to the exploration logs.



LEGEND



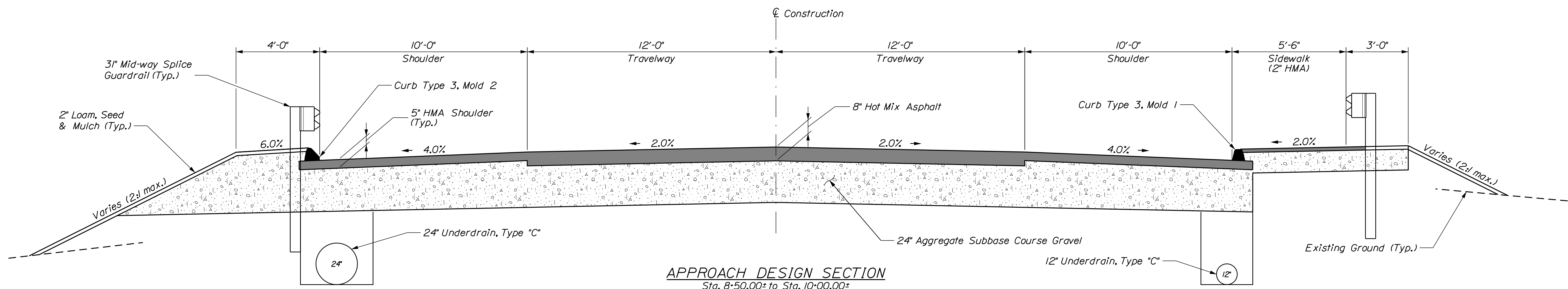
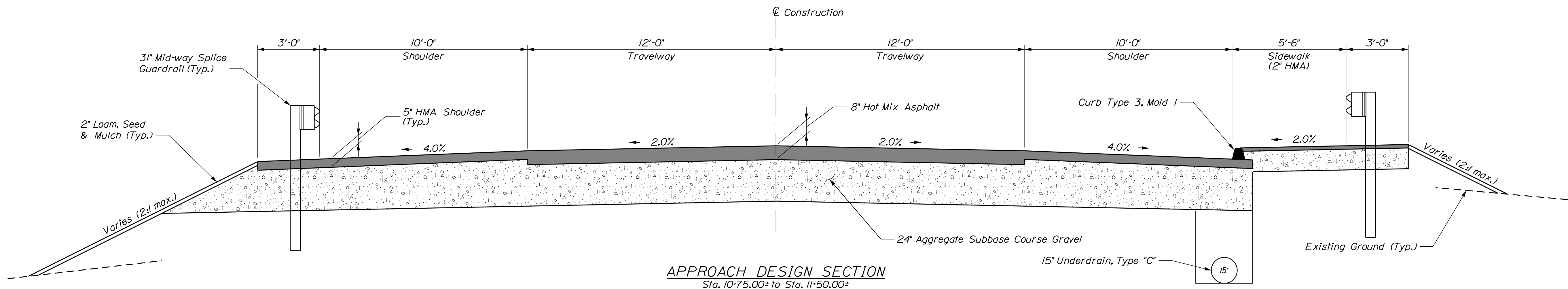
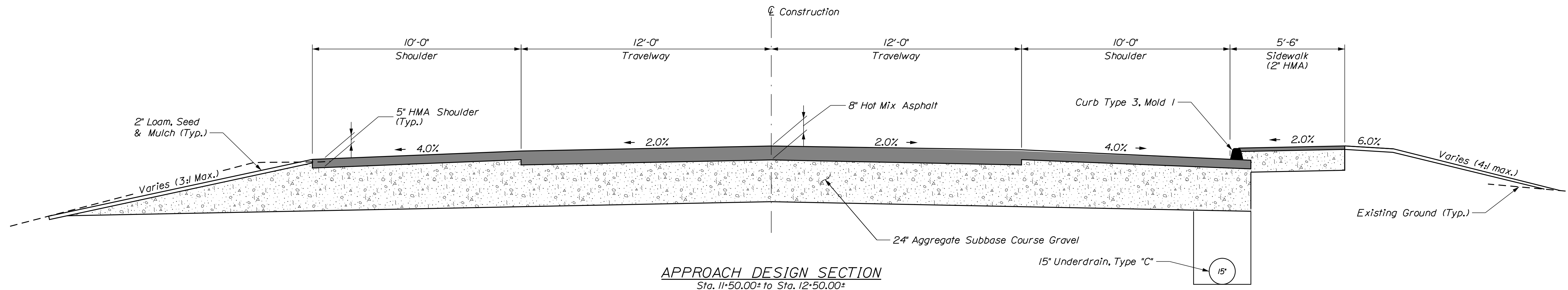
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		24783.01	
BRIDGE NO. 2942		WIN 24783.01 BRIDGE PLANS	
	DATE JULY 2022	BY ENT ARB	SIGNATURE
			P.E. NUMBER
			DATE
PROJ. MANAGER DESIGN-DETAILED CHECKED-REVIEWED		J. STEINSON MPS CLS	
DESIGN-DETAILED		DESIGN-DETAILED	
REVISIONS 1		REVISIONS 1	
REVISIONS 2		REVISIONS 2	
REVISIONS 3		REVISIONS 3	
REVISIONS 4		REVISIONS 4	
FIELD CHANGES		FIELD CHANGES	
WHITNEY BROOK BRIDGE WHITNEY BROOK ARROOSTOOK COUNTY BRIDGEWATER INTERPRETIVE SUBSURFACE PROFILE			
SHEET NUMBER			
PREPARED BY:			
7			
OF 35			

Date: 9/13/2022

Username:

Division: BRIDGE

Filename: ... \BRIDGE\MSTA\009_Btypical_1.dgn

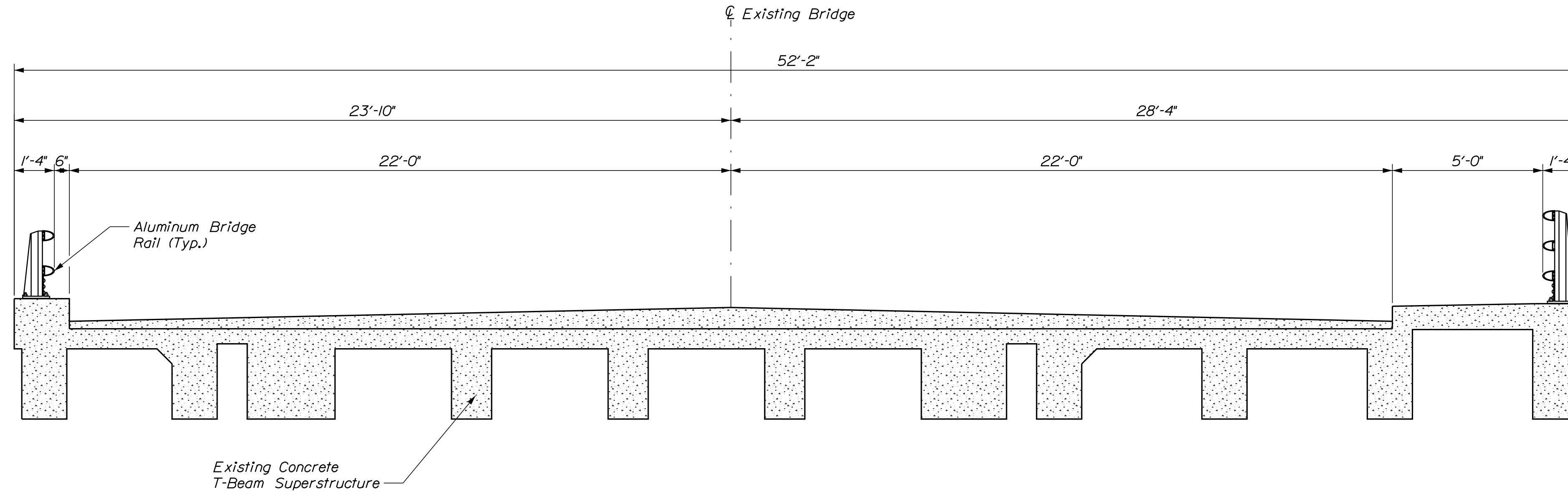


STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2309401
WIN 24783.01
BRIDGE NO. 2942
BRIDGE PLANS

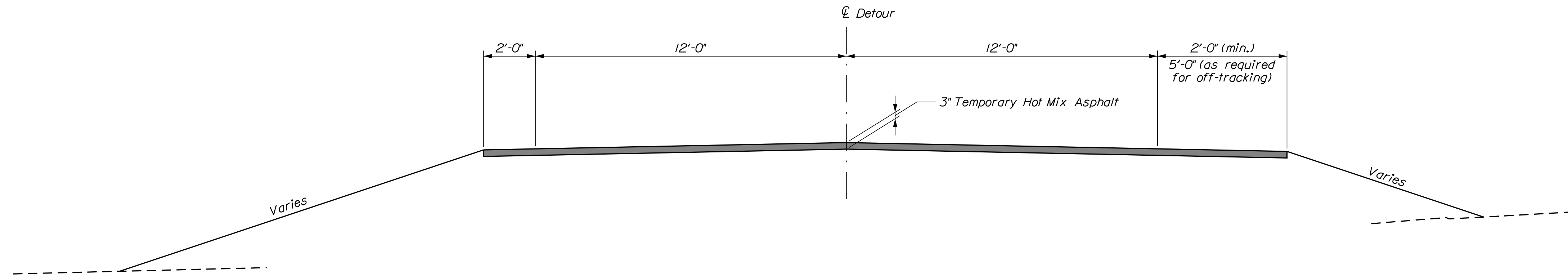
PROJ. MANAGER	J. STETSON	BY	B. NICHOLS	DATE	AUG 2022
DESIGN-DETAILED	K. HAMPE	CHECKED-REVIEWED	A. LACHANCE	SIGNATURE	
DESIGN-DETAILED		DESIGN-DETAILED		P.E. NUMBER	
REVISIONS 1		REVISIONS 2		DATE	
REVISIONS 3		REVISIONS 4			
FIELD CHANGES					

WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY
TYPICAL SECTIONS

SHEET NUMBER
9
OF 35



EXISTING BRIDGE SECTION
 Existing bridge has undergone multiple widening projects since its initial construction. See existing plans for locations of construction joints.



TYPICAL DETOUR SECTION

DESIGNED	BY	DATE
CHECKED	BY	DATE
DESIGNED	BY	DATE
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER	J. STETSON	
DESIGN-DETAILED	K. HAMPE	B. NICHOLS
CHECKED-REVIEWED	A. LACHANCE	K. HAMPE
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

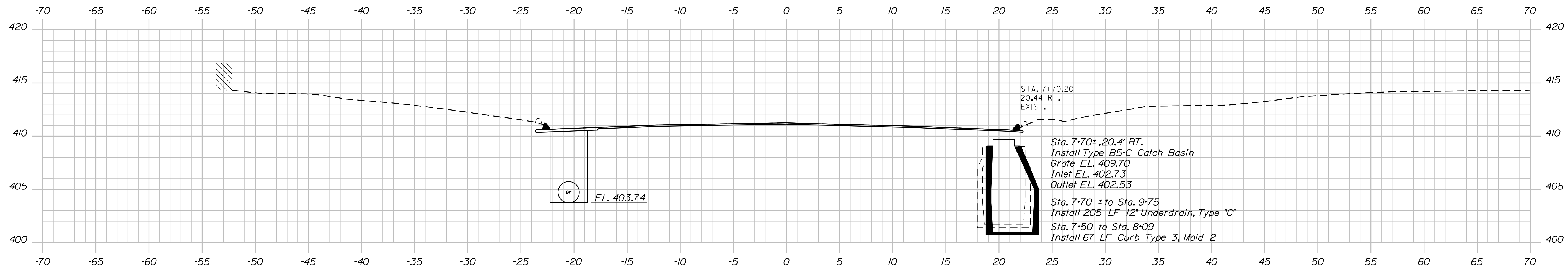
WHITNEY BROOK BRIDGE
 WHITNEY BROOK
 BRIDGEWATER AROOSTOOK COUNTY
TYPICAL SECTIONS

Date: 9/13/2022

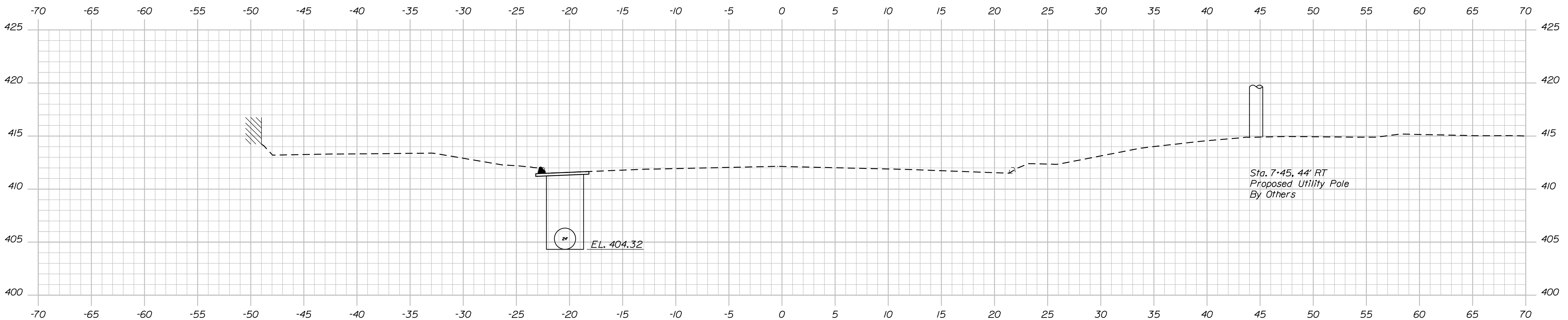
Username:

Division: BRIDGE

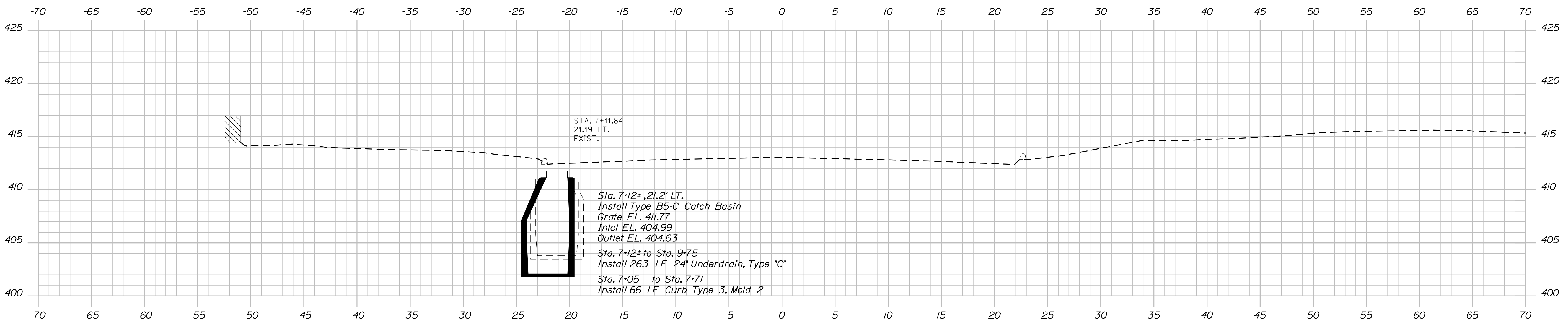
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7+50.00
MATCH EXISTING
BEGIN MILL & OVERLAY



7+25.00



7+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2309401
WIN
24783.01
BRIDGE NO. 2942
BRIDGE PLANS

PROJ. MANAGER	J. STETSON	BY	DATE
DESIGN-DETAILED	K. HAMPE	B. NICHOLS	Aug 2022
CHECKED-REVIEWED	A. LACHANCE	K. HAMPE	Aug 2022
DESIGN-DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY
CROSS SECTIONS

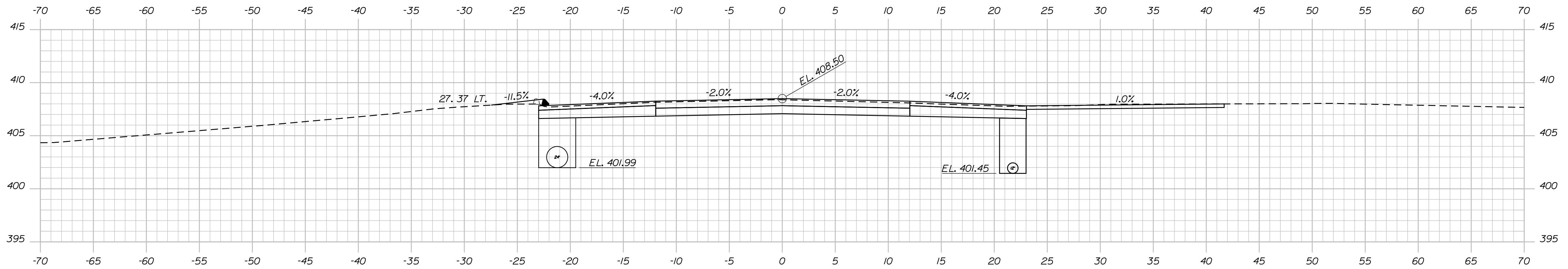
SHEET NUMBER
11
OF 35

Date: 9/13/2022

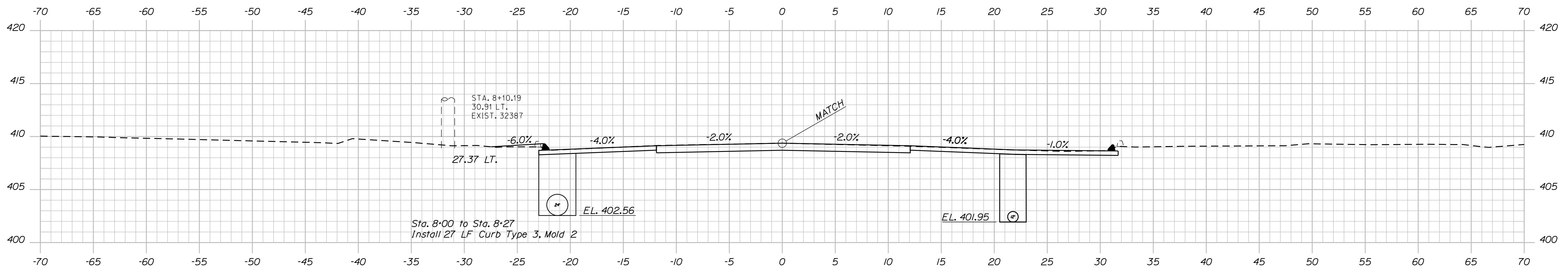
Username:

Division: BRIDGE

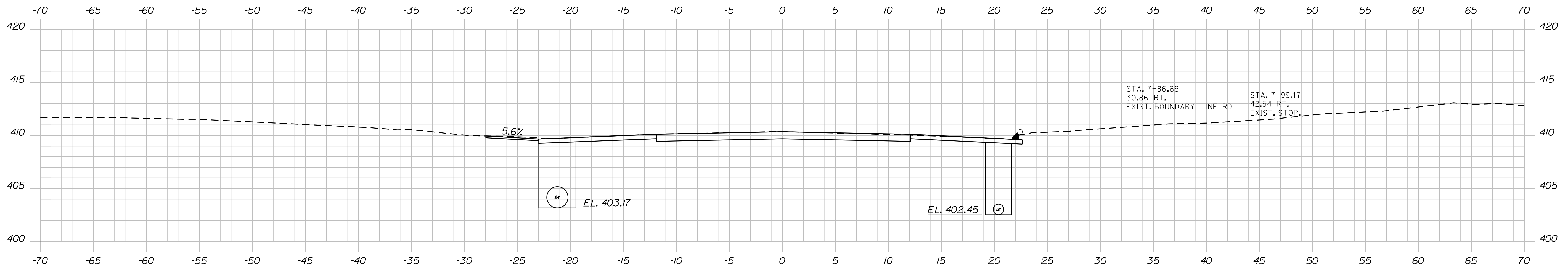
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8+25.00



8+00.00
END MILL & OVERLAY
BEGIN TRANSITION



7+75.00 (Construct Drive Lt.)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2309401
WIN
24783.01
BRIDGE NO. 2942
BRIDGE PLANS

DESIGNED	BY	DATE
CHECKED	BY	DATE
DESIGNED	BY	DATE
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER	J. STETSON
DESIGN DETAILED	K. HAMPE
CHECKED/REVIEWED	B. NICHOLS
DESIGN DETAILED	A. LACHANCE
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY
CROSS SECTIONS

SHEET NUMBER
12
OF 35

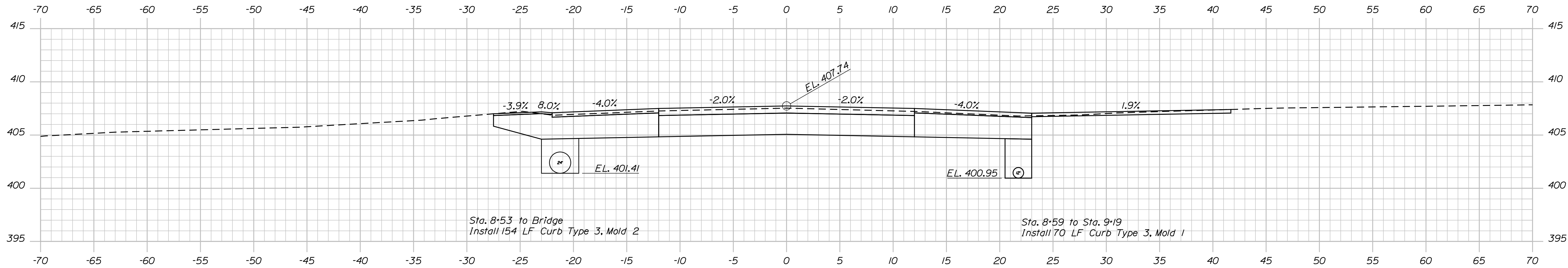
Sta. 7+75.00 to Sta. 8+25.00

Date: 9/13/2022

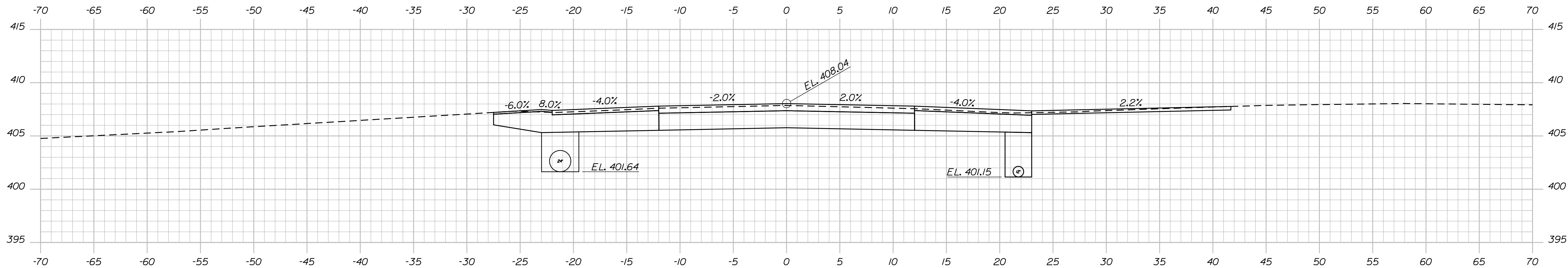
Username:

Division: BRIDGE

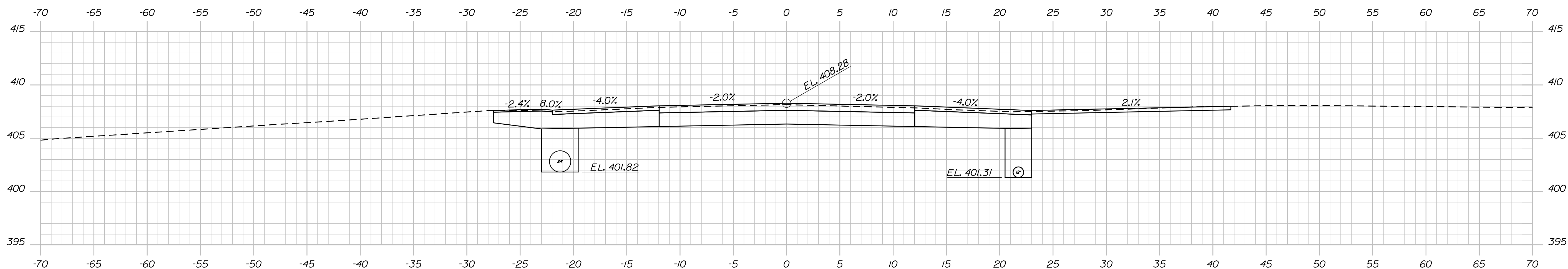
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8+50.00
END TRANSITION
BEGIN FULL DEPTH RECONSTRUCTION



8+40.00 (Construct Boundary Line Rd. Rt.)



8+32.00 (Construct Drive Lt.)

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2309401	
BRIDGE NO. 2942		WIN		24783.01	
BRIDGE PLANS		SIGNATURE		P.E. NUMBER	
DATE		DATE		DATE	
PROJ. MANAGER	J. STETSON	BY	B. NICHOLS	DATE	Aug 2022
DESIGN DETAILED	K. HAMPE	CHECKED	K. HAMPE	DATE	Aug 2022
DESIGN REVIEWED	A. LACHANCE	DESIGN DETAILED		DATE	
DESIGN DETAILED		REVISIONS 1		DATE	
REVISIONS 1		REVISIONS 2		DATE	
REVISIONS 2		REVISIONS 3		DATE	
REVISIONS 3		REVISIONS 4		DATE	
REVISIONS 4		FIELD CHANGES		DATE	

WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY

CROSS SECTIONS

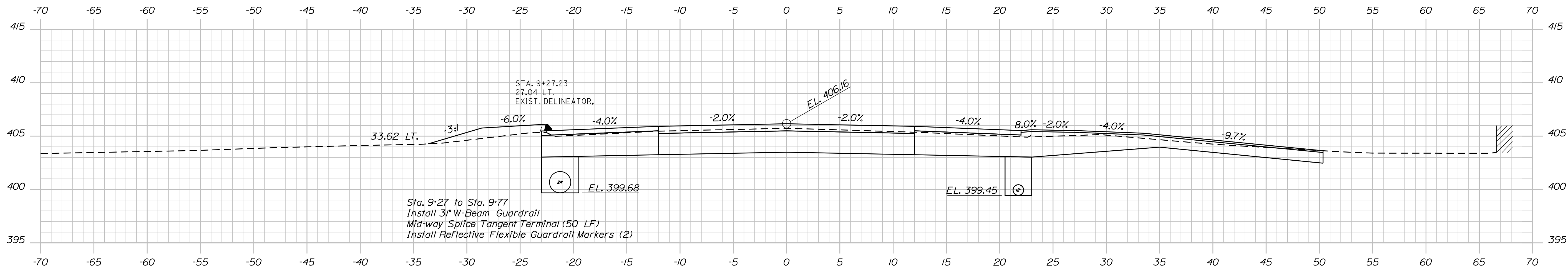
SHEET NUMBER
13
OF 35

Date: 9/13/2022

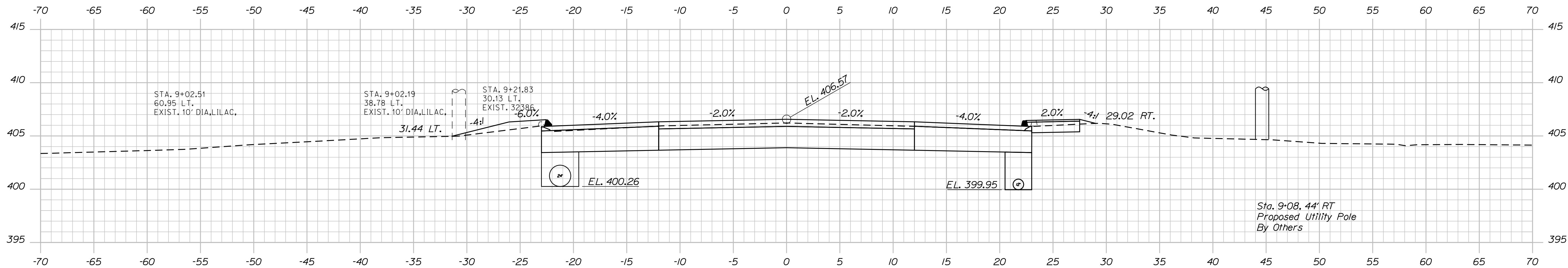
Username:

Division: BRIDGE

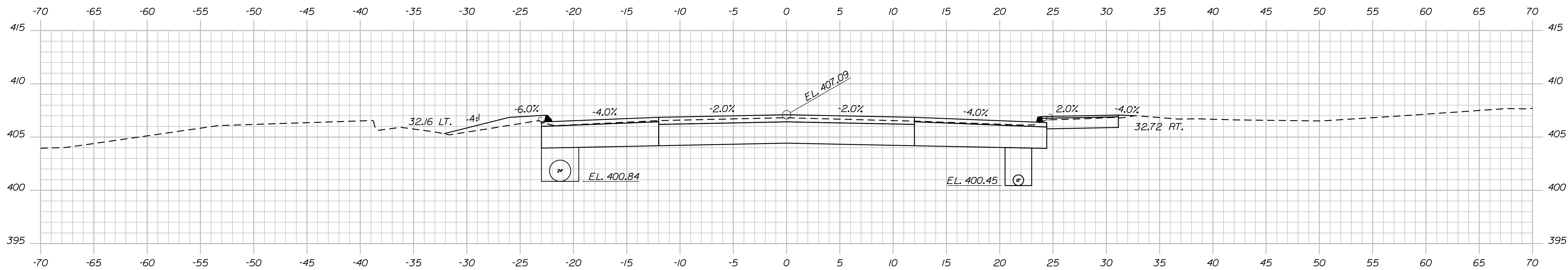
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9+25.00



9+00.00



8+75.00

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2309401	WIN 24783.01	BRIDGE NO. 2942 BRIDGE PLANS
WHITNEY BROOK BRIDGE WHITNEY BROOK BRIDGEWATER AROOSTOOK COUNTY		CROSS SECTIONS		
SHEET NUMBER		14		
OF 35		Sta. 8+75.00 to Sta. 9+25.00		

PROJ. MANAGER	J. STETSON	BY	DATE
DESIGN DETAILED	K. HAMPE	B. NICHOLS	Aug 2022
CHECKED/REVIEWED	A. LACHANCE	K. HAMPE	Aug 2022
DESIGN DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

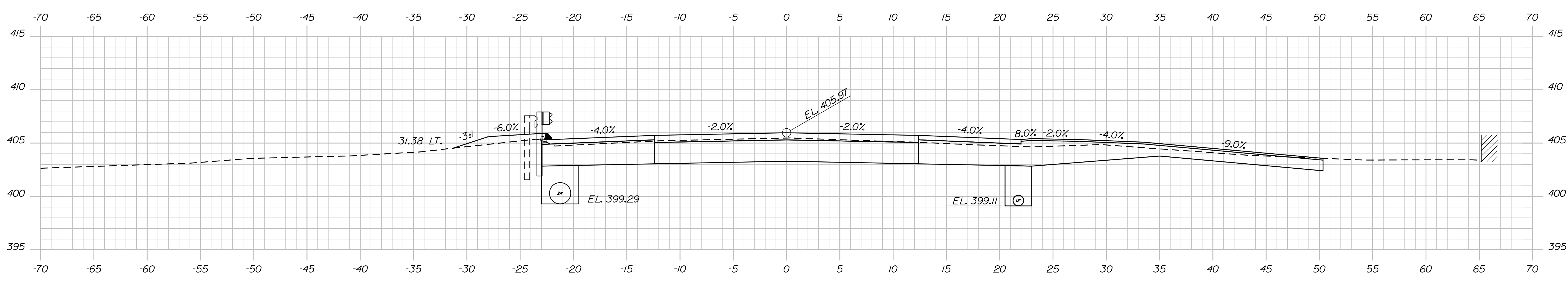
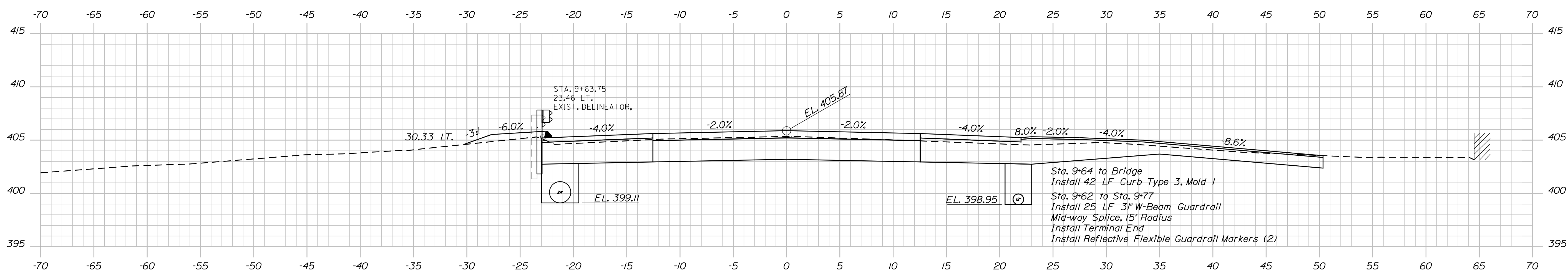
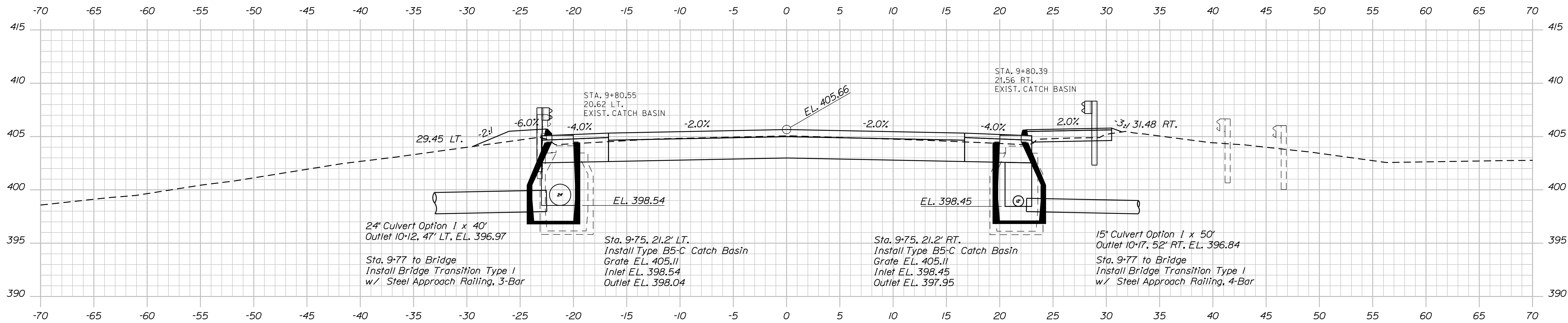
SIGNATURE	P.E. NUMBER	DATE

Date: 9/13/2022

Username:

Division: BRIDGE

Filename: ... \MSTAD015_XSECT_9+42_005.dgn



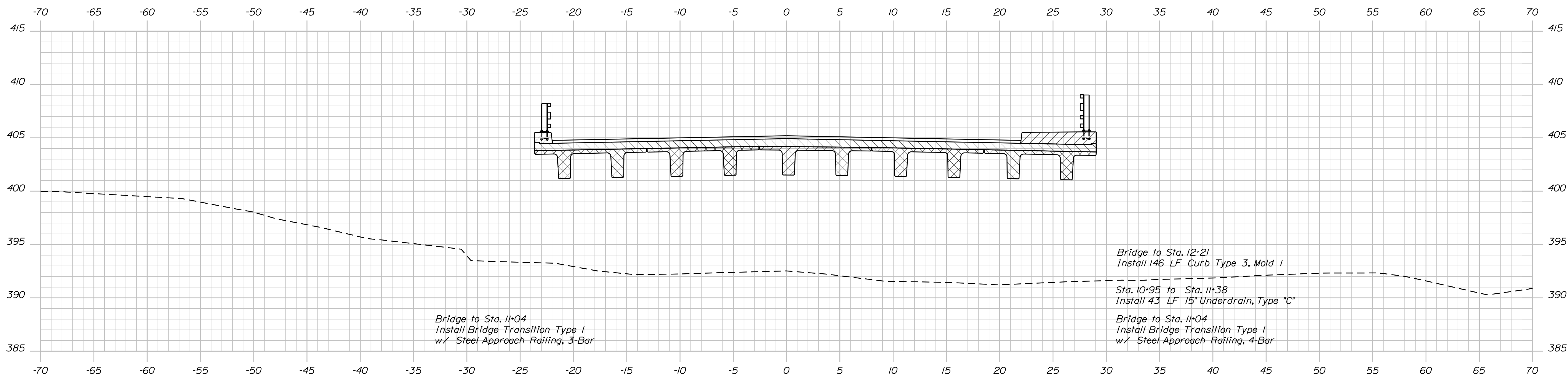
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2309401		WIN		24783.01		BRIDGE NO. 2942		BRIDGE PLANS	
PROJ. MANAGER		BY		DATE		SIGNATURE		P.E. NUMBER		DATE			
DESIGN DETAILED		K. HAMPE		Aug 2022									
CHECKED/REVIEWED		A. LACHANCE		Aug 2022									
DESIGN DETAILED													
REVISIONS 1													
REVISIONS 2													
REVISIONS 3													
REVISIONS 4													
FIELD CHANGES													
WHITNEY BROOK BRIDGE		WHITNEY BROOK		ARROSTOOK COUNTY		CROSS SECTIONS							
BRIDGEWATER													
SHEET NUMBER		15		OF 35									

Date: 9/13/2022

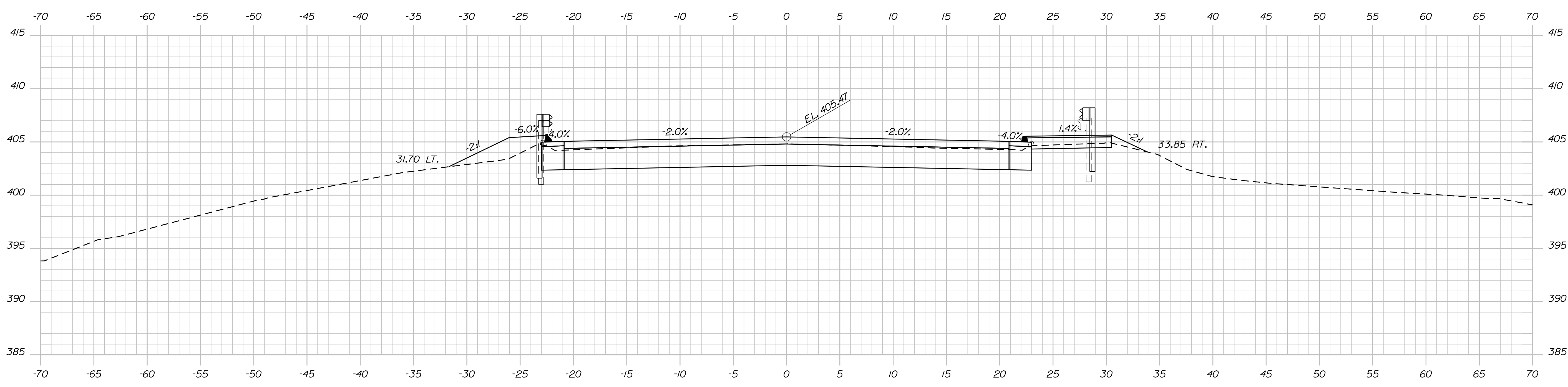
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Division: BRIDGE

Filename: ... \MST\A016_XSECT_10+00_006.dgn



10+06.50 to 10+75.50
BRIDGE



10+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2309401
WIN
24783.01
BRIDGE NO. 2942
BRIDGE PLANS

DESIGNED	BY	DATE
CHECKED-REVIEWED	BY	DATE
DESIGNED-REVIEWED	BY	DATE
DESIGNED-REVIEWED	BY	DATE
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER	J. STETSON
DESIGNED	K. HAMPE
CHECKED-REVIEWED	B. NICHOLS
DESIGNED-REVIEWED	A. LACHANCE
DESIGNED-REVIEWED	K. HAMPE
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY
CROSS SECTIONS

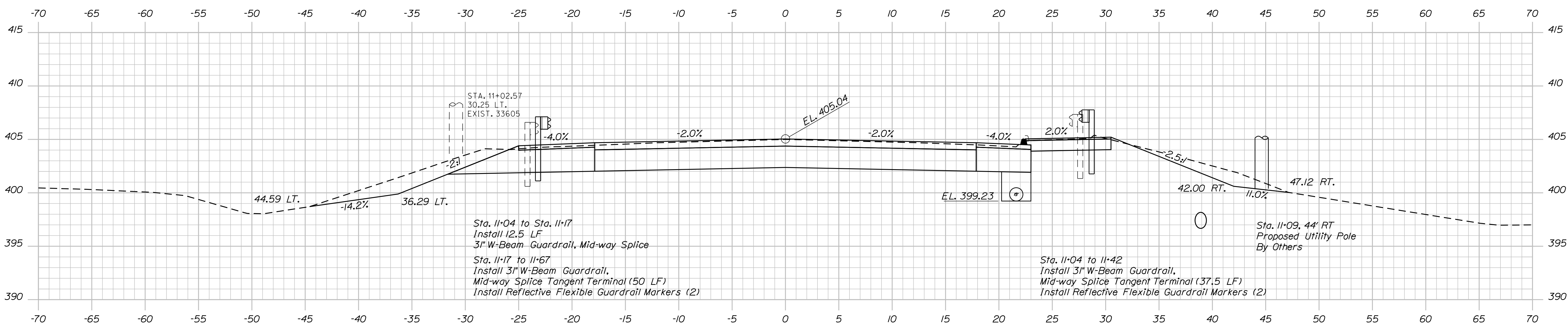
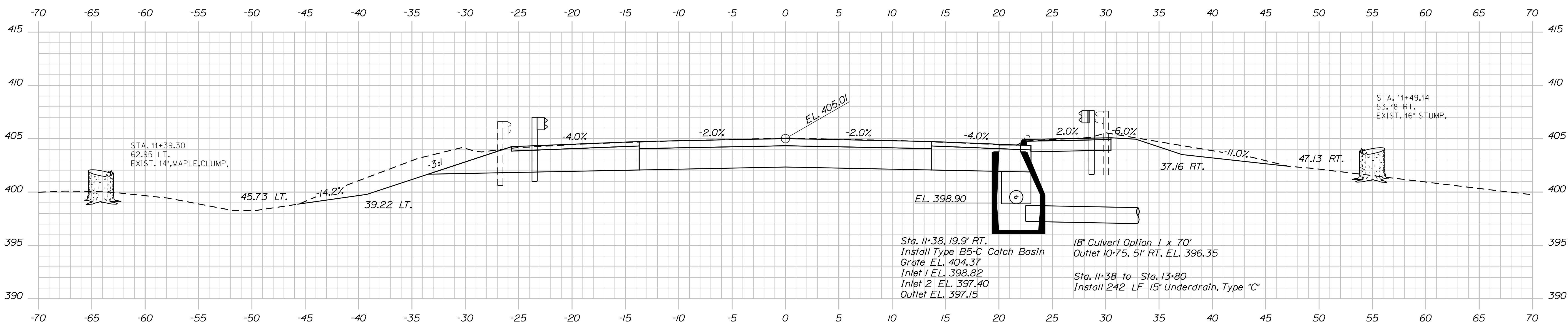
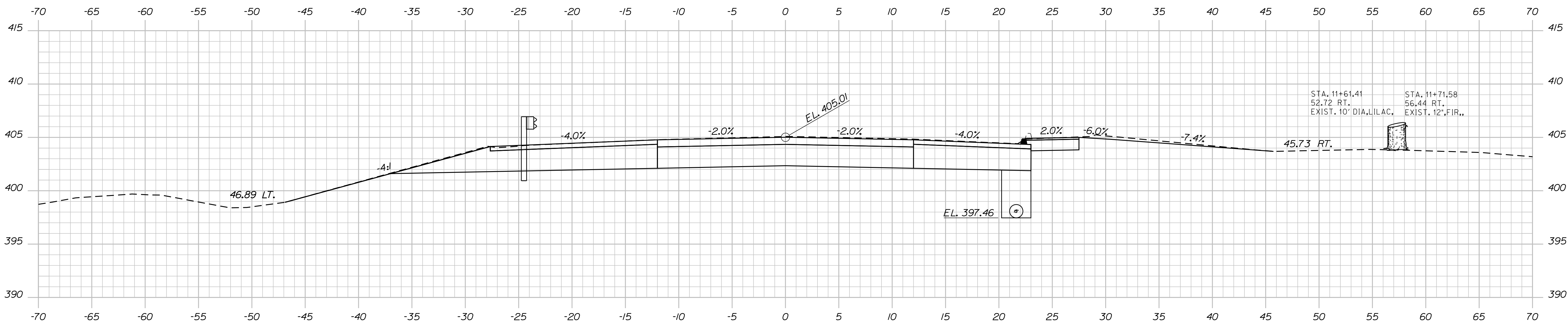
SHEET NUMBER
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OF 35

Date: 9/13/2022

Username:

Division: BRIDGE

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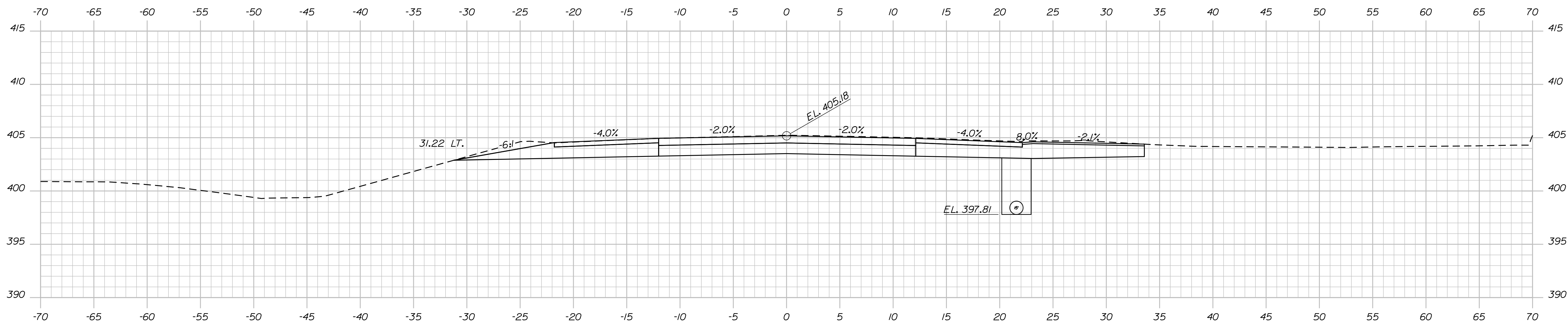
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2309401		BRIDGE NO. 2942		WIN		24783.01		BRIDGE PLANS	
PROJECT		DATE		BY		CHECKED		DESIGNED		SIGNATURE	
WHITNEY BROOK BRIDGE		Aug 2022		B. NICHOLS		K. HAMPE		A. LACHANCE		K. HAMPE	
BRIDGEWATER		Aug 2022		J. STETSON		K. HAMPE		A. LACHANCE		K. HAMPE	
WHITNEY BROOK		DESIGN DETAILED		DESIGNED		CHECKED		DESIGNED		P.E. NUMBER	
ARROSTOOK COUNTY		DESIGN DETAILED		DESIGNED		CHECKED		DESIGNED		DATE	
CROSS SECTIONS		REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4		FIELD CHANGES	
SHEET NUMBER		17		OF 35							

Date: 9/13/2022

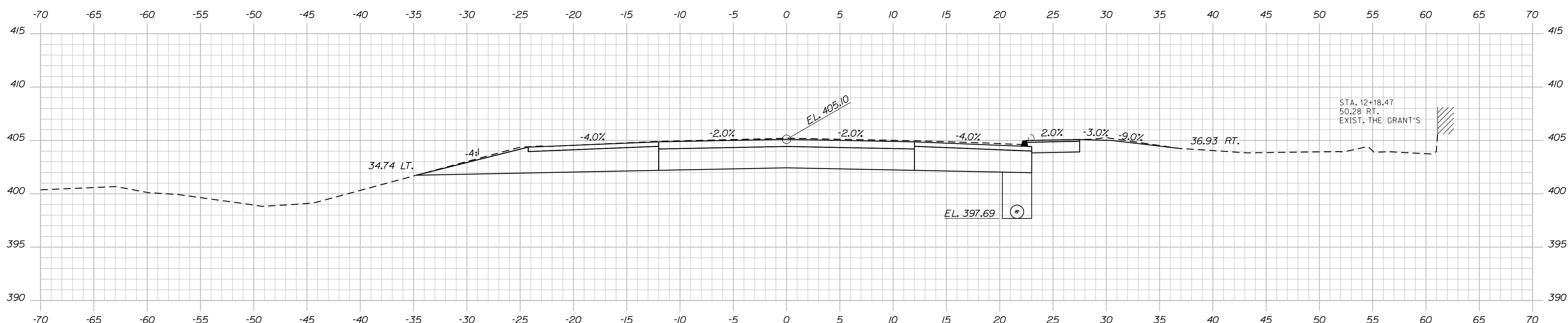
Username:

Division: BRIDGE

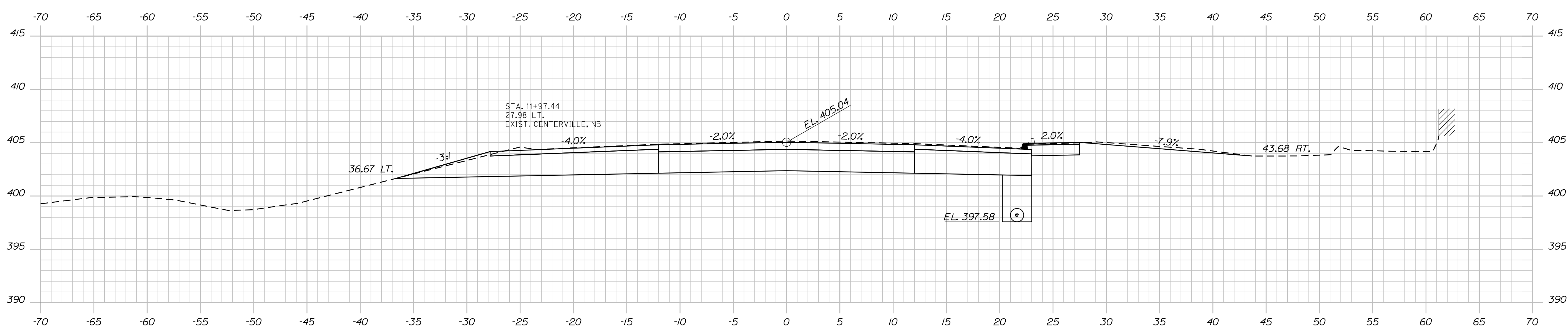
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12+25.00



12+00.00
END FULL DEPTH RECONSTRUCTION
BEGIN TRANSITION



11+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2309401
WIN
24783.01
BRIDGE NO. 2942
BRIDGE PLANS

PROJ. MANAGER	DATE	BY	DATE
J. STETSON	Aug 2022	B. NICHOLS	Aug 2022
K. HAMPE	Aug 2022	K. HAMPE	Aug 2022
A. LACHANCE			

DESIGN/REVIEWED	DESIGN/REVIEWED	DESIGN/REVIEWED	DESIGN/REVIEWED
K. HAMPE	A. LACHANCE		
A. LACHANCE			

WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY
CROSS SECTIONS

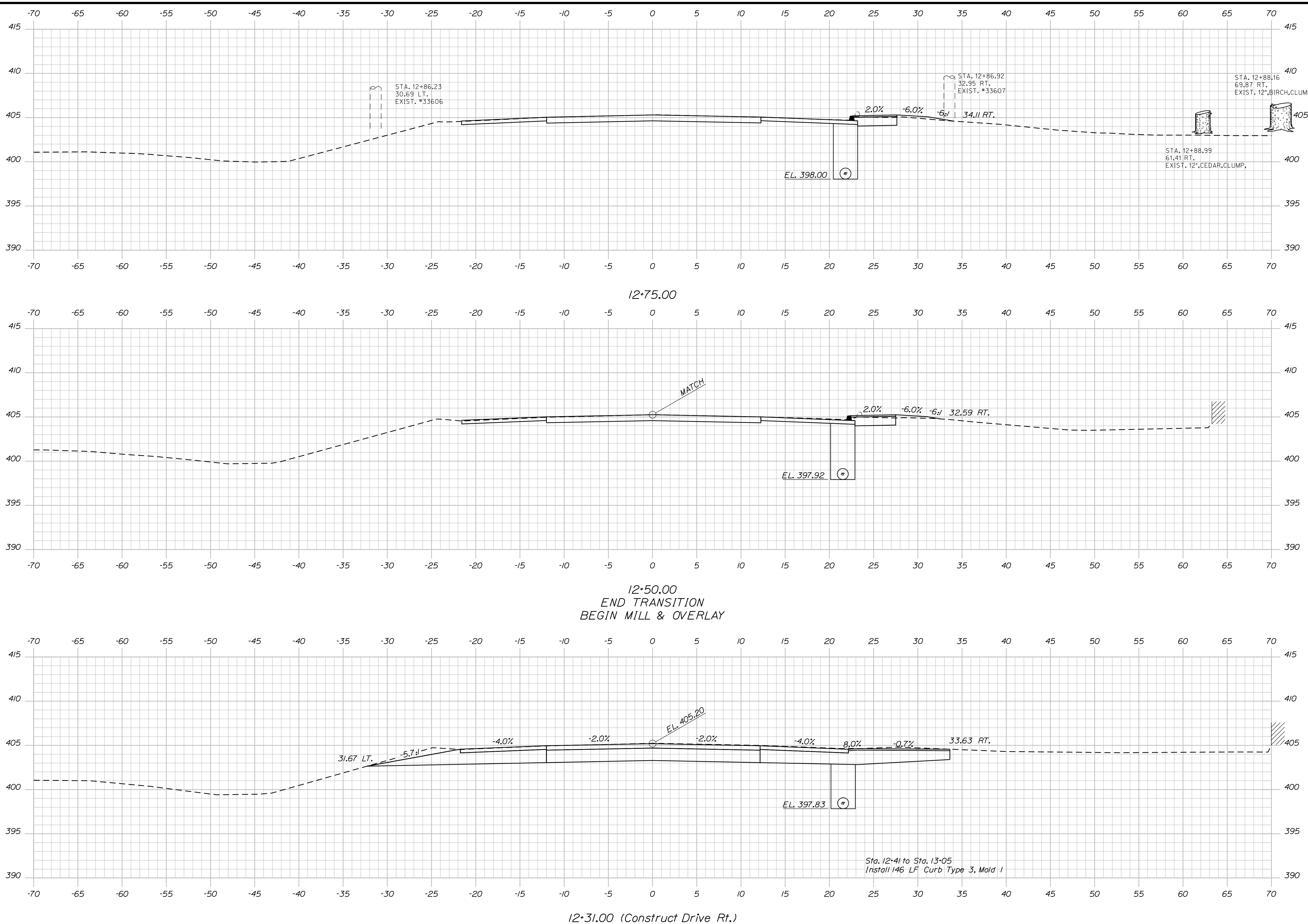
SHEET NUMBER
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OF 35

Date: 9/13/2022

Username:

Division: BRIDGE

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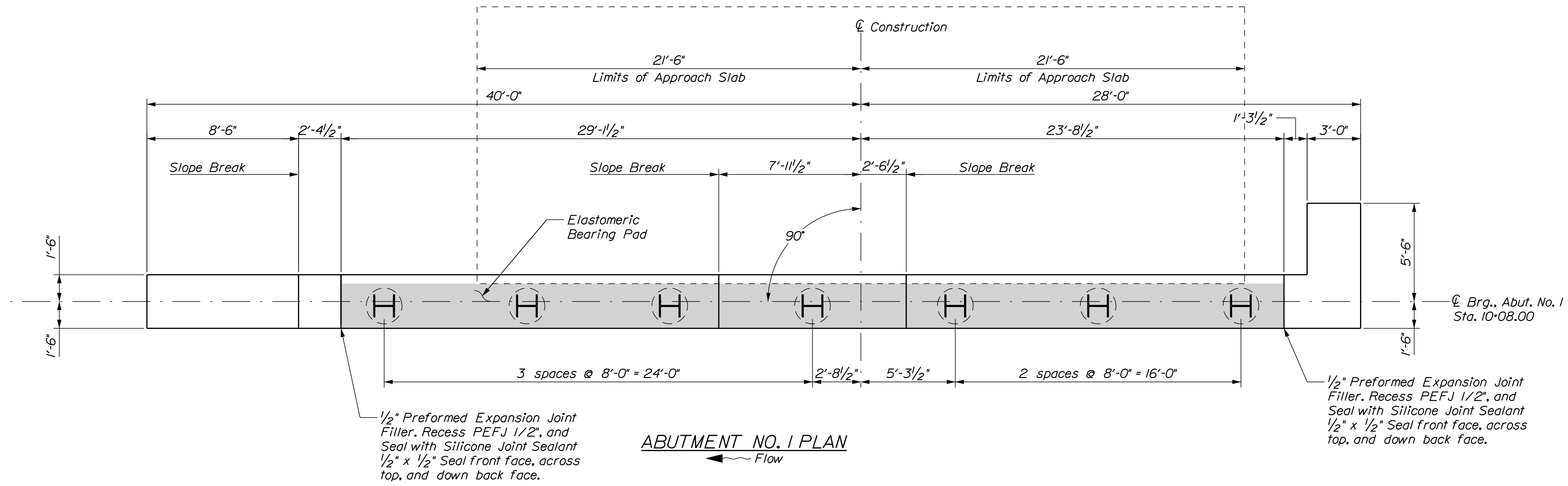
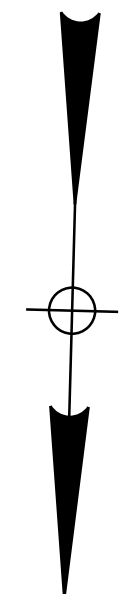
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2309401
WIN
24783.01
BRIDGE NO. 2942
BRIDGE PLANS

DESIGNED	BY	DATE	SIGNATURE
CHECKED	BY	DATE	P.E. NUMBER
DESIGNED	BY	DATE	DATE

PROJ. MANAGER	J. STETSON
DESIGN DETAILER	K. HAMPE
CHECKED/REVIEWED	A. LACHANCE
DESIGN DETAILER	K. HAMPE
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

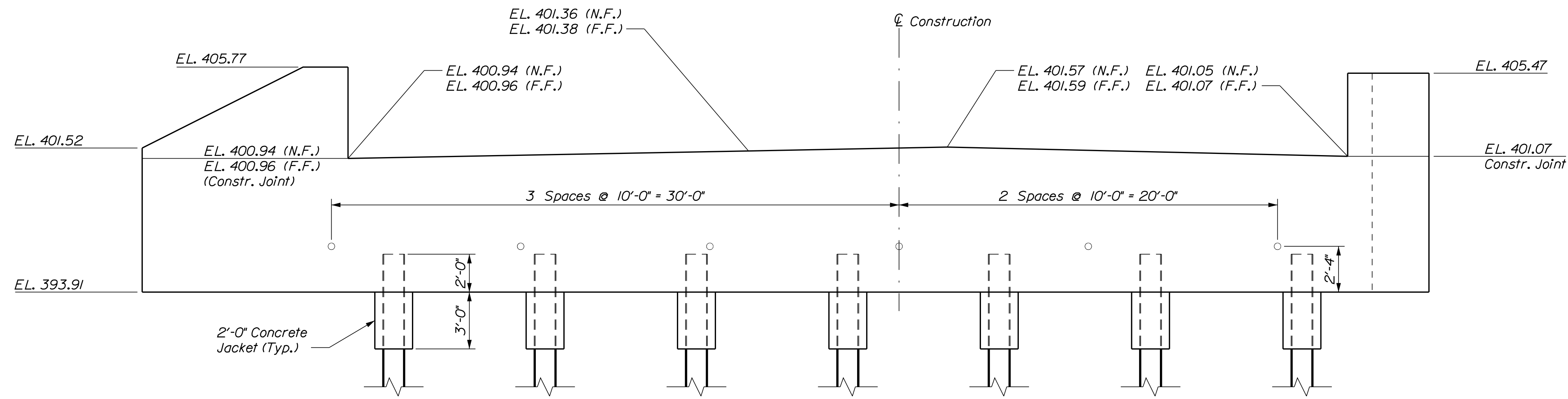
WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY
CROSS SECTIONS

SHEET NUMBER
19
OF 35



ABUTMENT NO. 1 PLAN

← Flow



ABUTMENT NO. 1 ELEVATION

← Flow

SIGNATURE

P.E. NUMBER

DATE

PROJ. MANAGER	J. STETSON	BY	DATE
DESIGN-DETAILED	K. HAMPE	B. NICHOLS	Aug 2022
CHECKED-REVIEWED	A. LACHANCE	K. HAMPE	Aug 2022
DESIGNS-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WHITNEY BROOK BRIDGE
BRIDGEWATER

WHITNEY BROOK
ARROSTOOK COUNTY

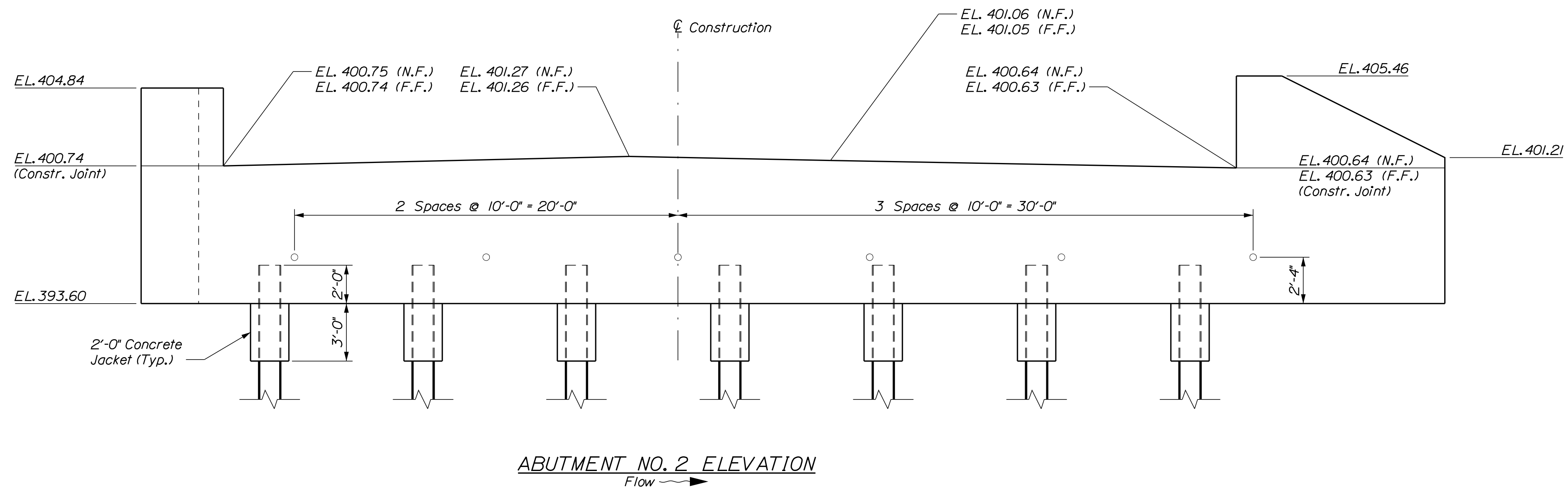
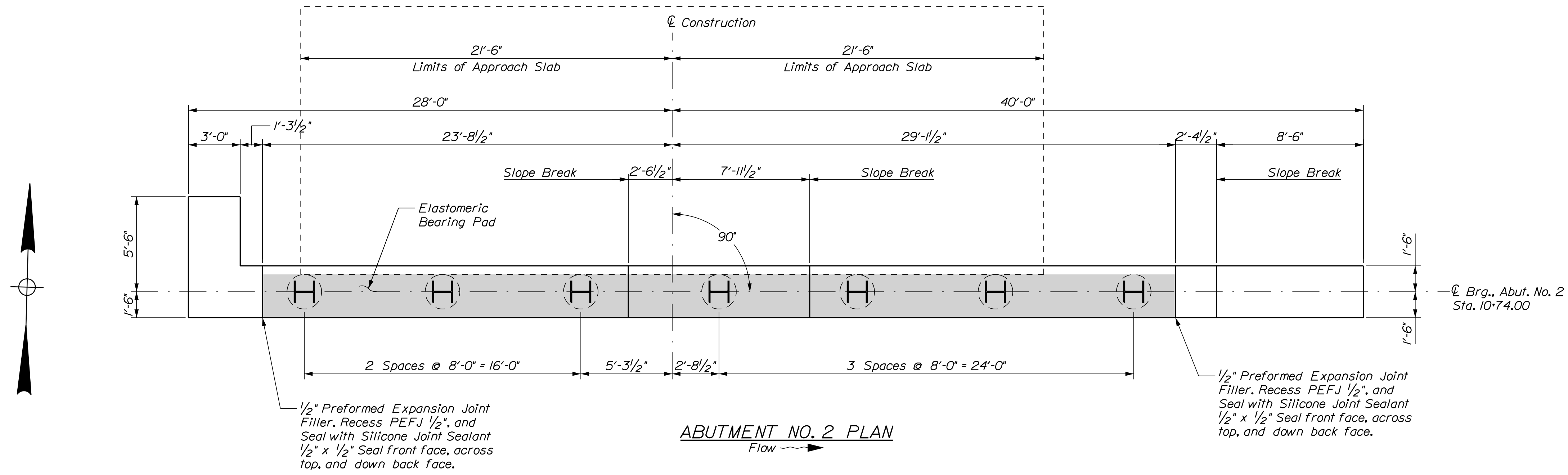
ABUTMENT NO. 1 PLAN

& ELEVATION

SHEET NUMBER

23

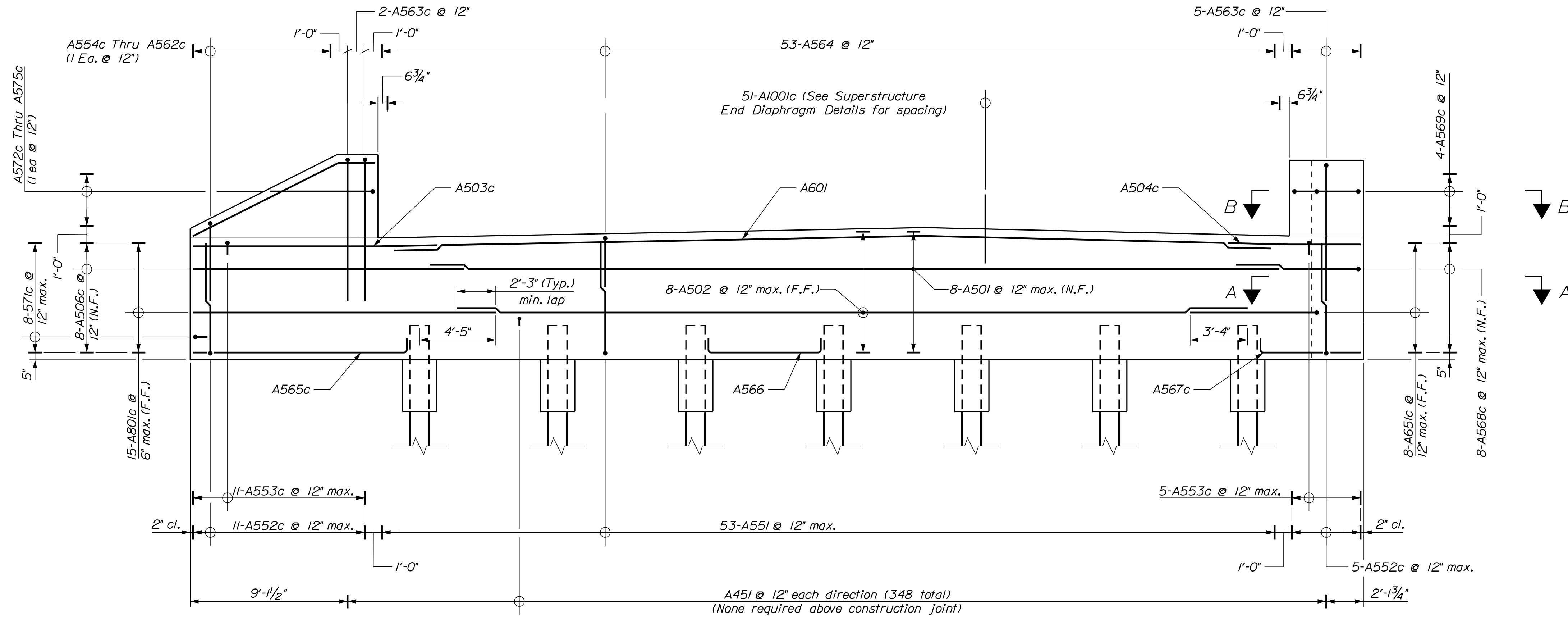
OF 35



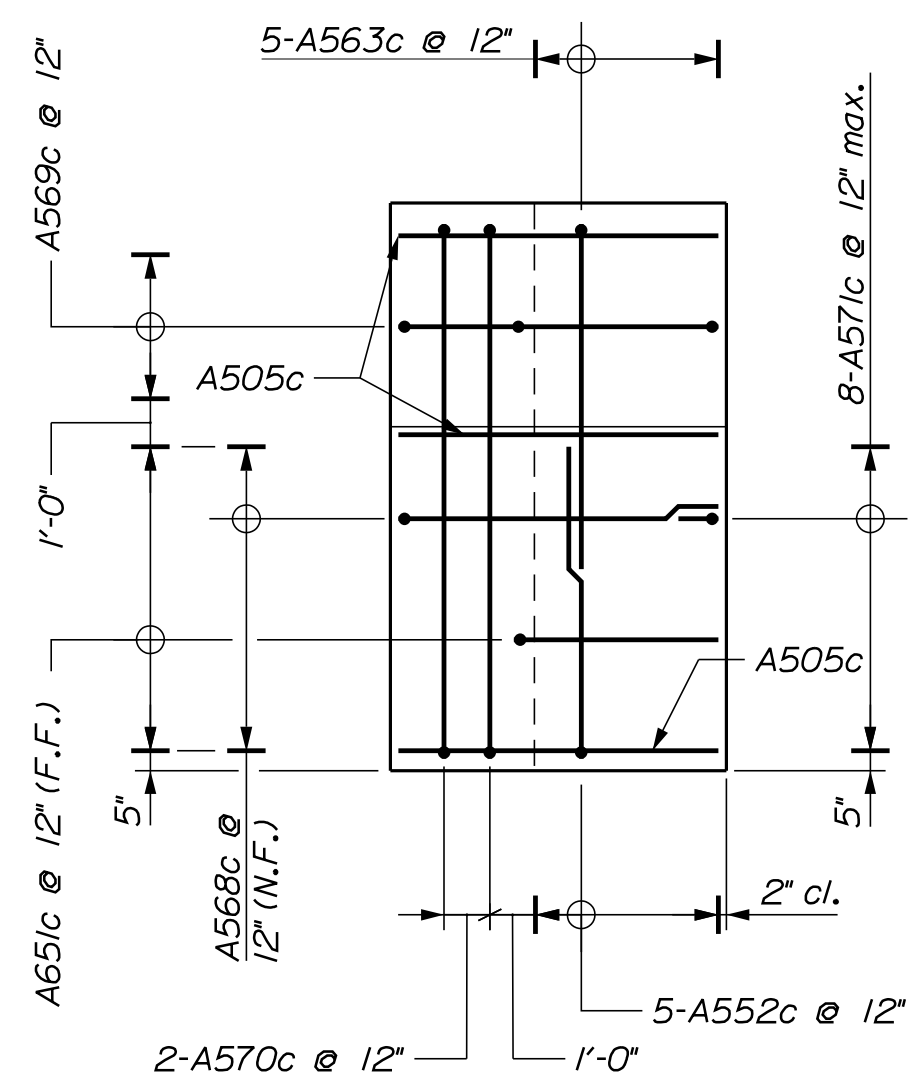
DESIGNED	BY	DATE	SIGNATURE
CHECKED	B. NICHOLS	Aug 2022	
DESIGNED	K. HAMPE	Aug 2022	
CHECKED	A. LACHANCE		
DESIGNED			
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

PROJ. MANAGER	J. STETSON
DESIGN DETAILED	K. HAMPE
CHECKED/REVIEWED	B. NICHOLS
DESIGN DETAILED	A. LACHANCE
REVISIONS 1	
REVISIONS 2	
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REVISIONS 4	
FIELD CHANGES	

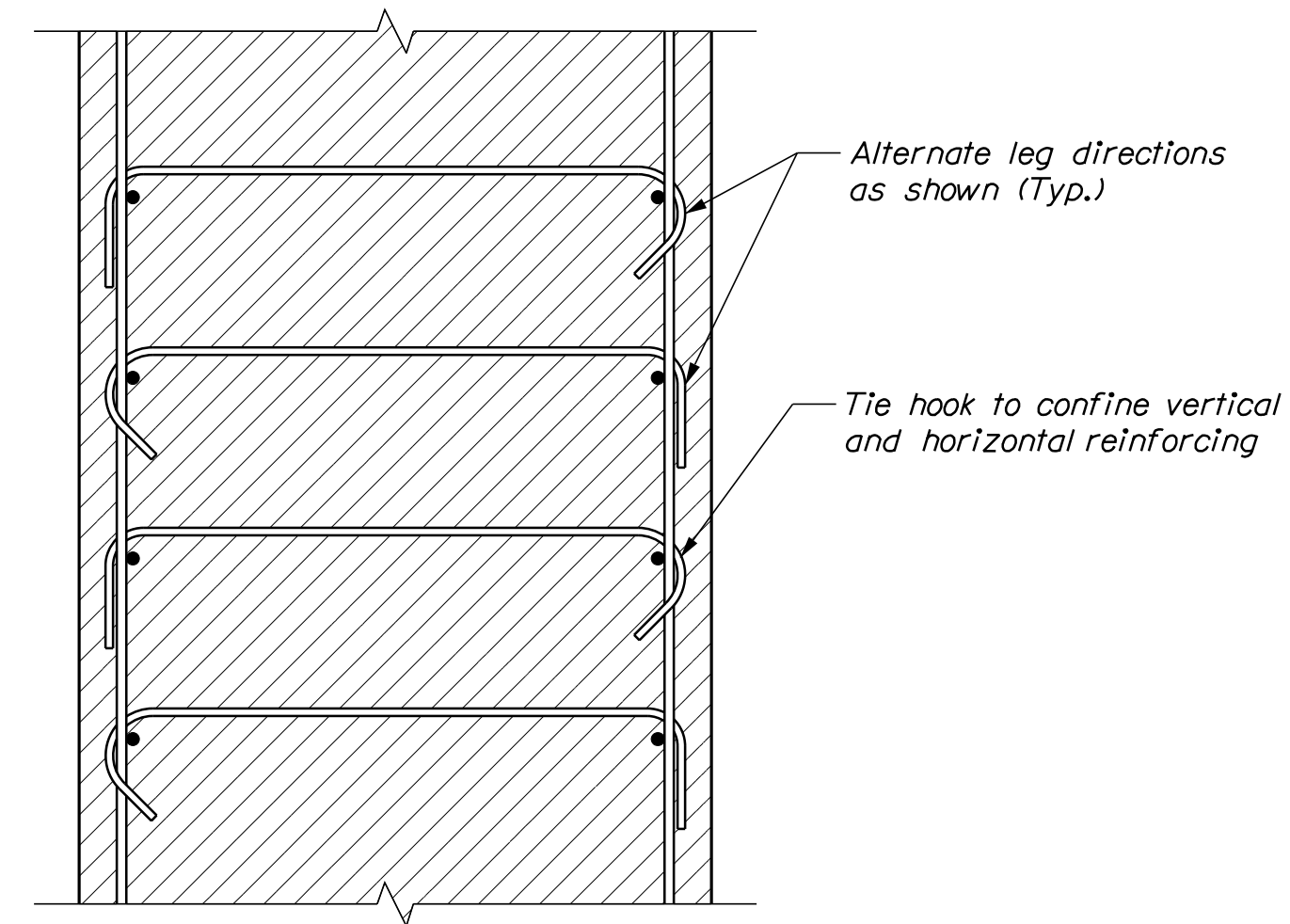
WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY
**ABUTMENT NO. 2 PLAN
& ELEVATION**



ABUTMENT REINFORCING ELEVATION
Abutment No. 1 Shown, Abutment No. 2 Opposite Hand



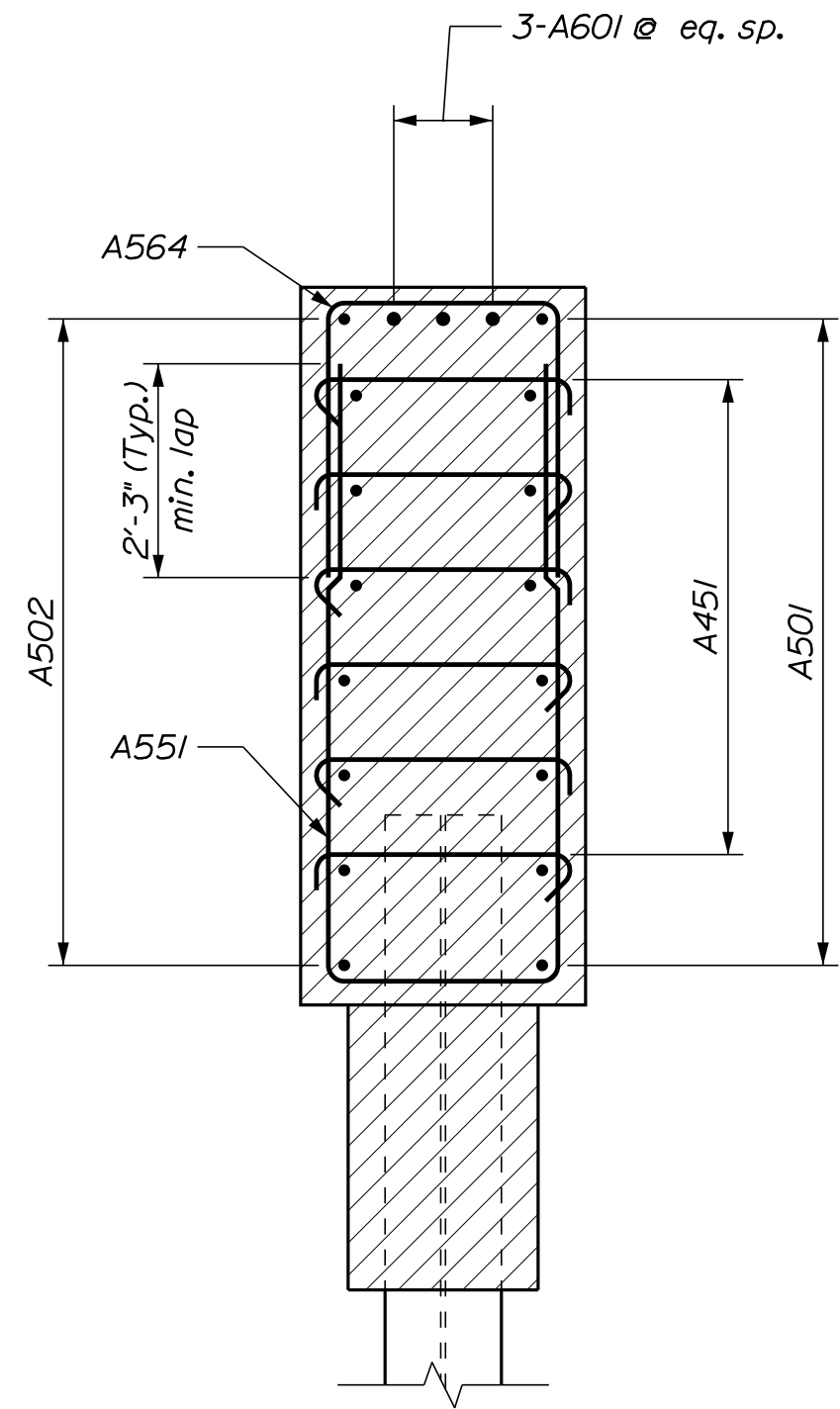
UPSTREAM WING REINFORCING ELEVATION



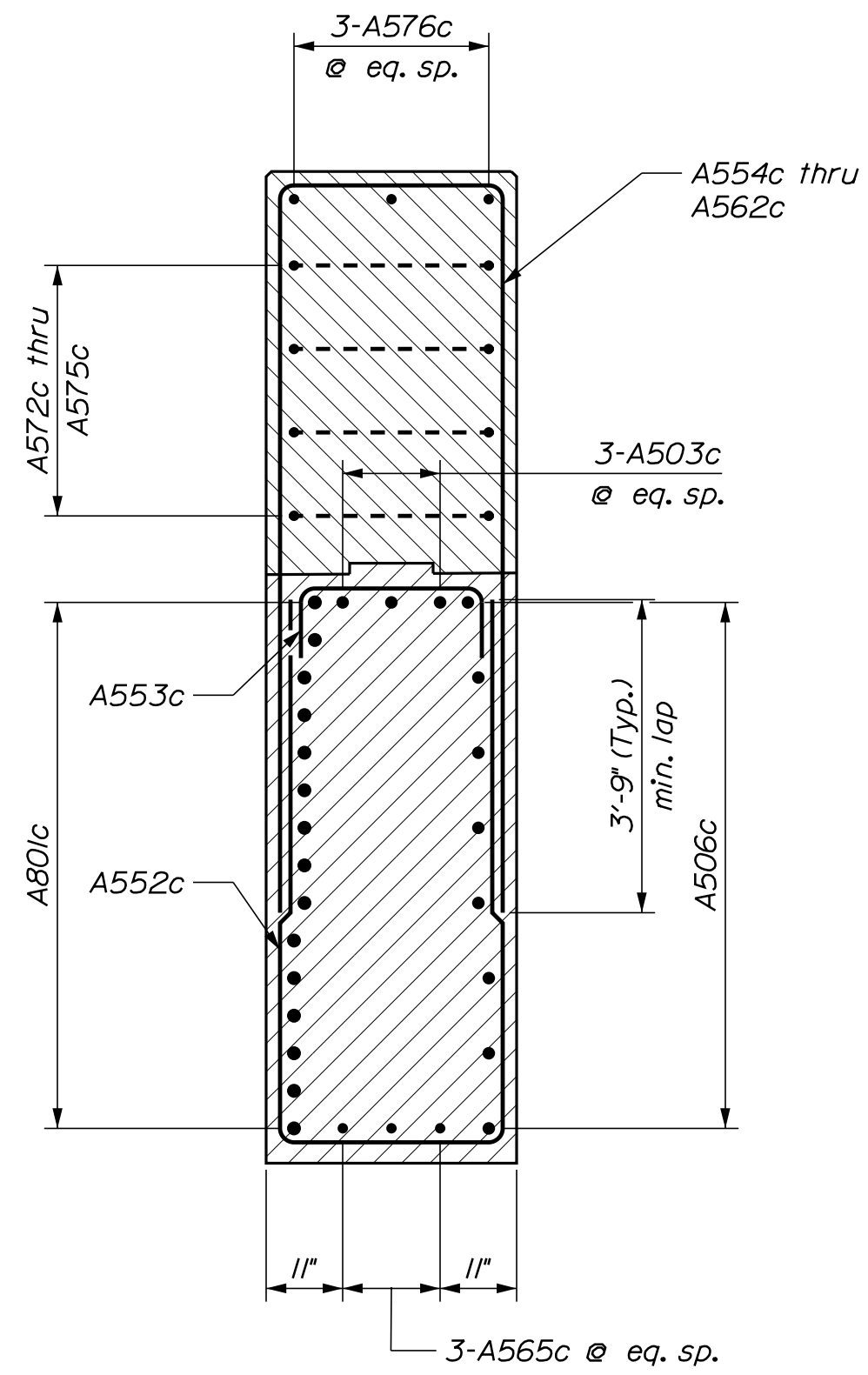
ABUTMENT TIE DETAIL

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

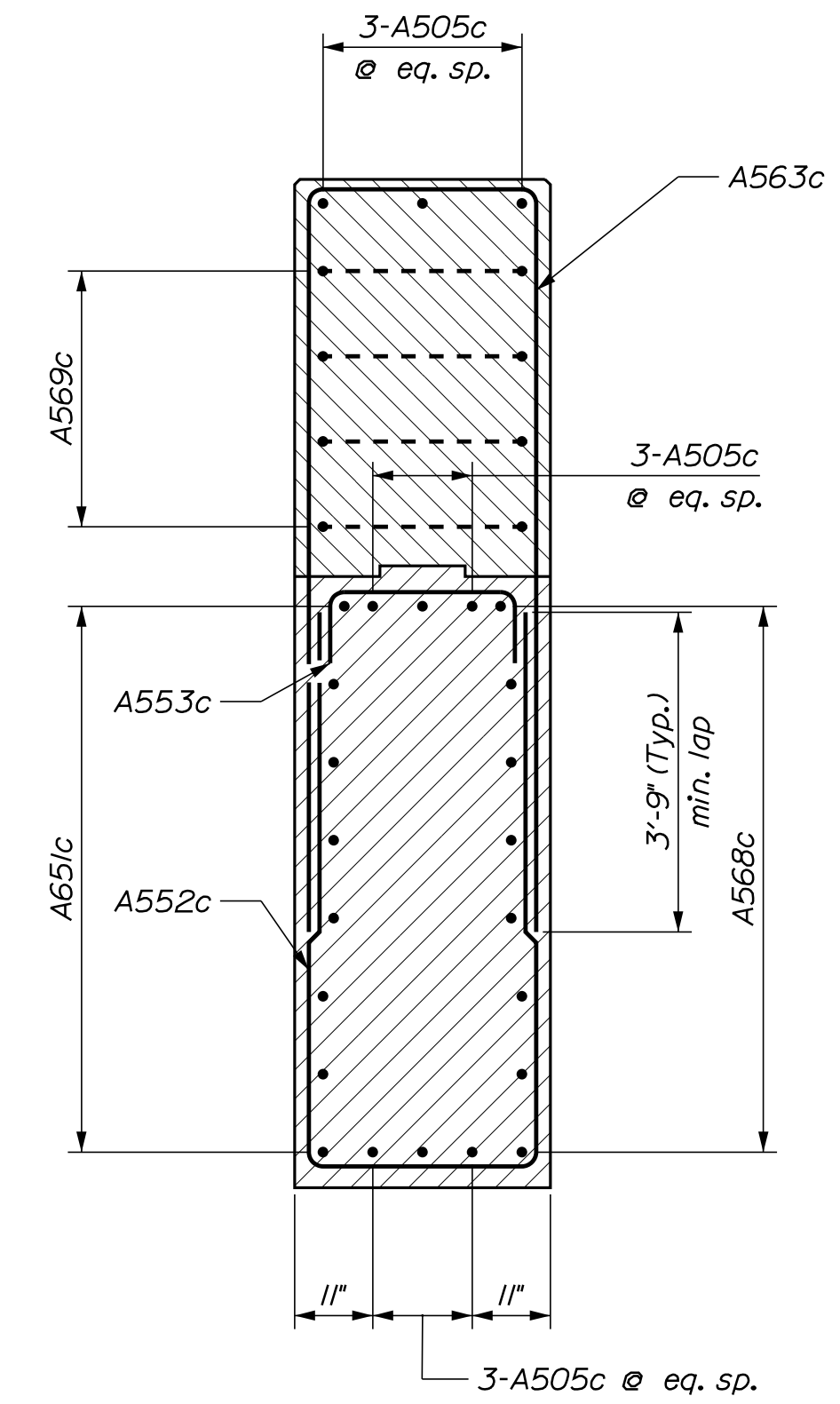
PROJ. MANAGER	J. STETSON	BY	DATE
DESIGN-DETAILED	K. HAMPE	B. NICHOLS	Aug 2022
CHECKED-REVIEWED	A. LACHANCE	K. HAMPE	Aug 2022
DESIGN-DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



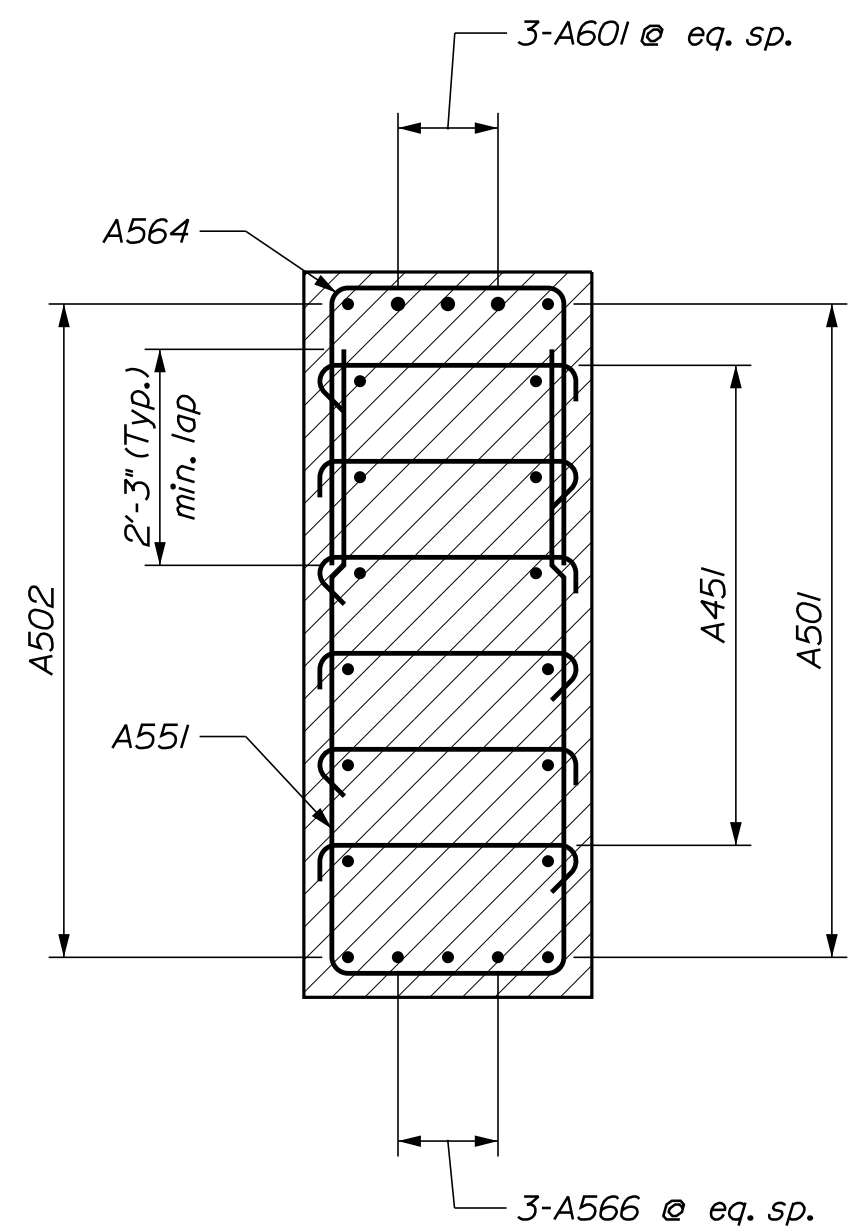
ABUTMENT SECTION
~Through Piles~



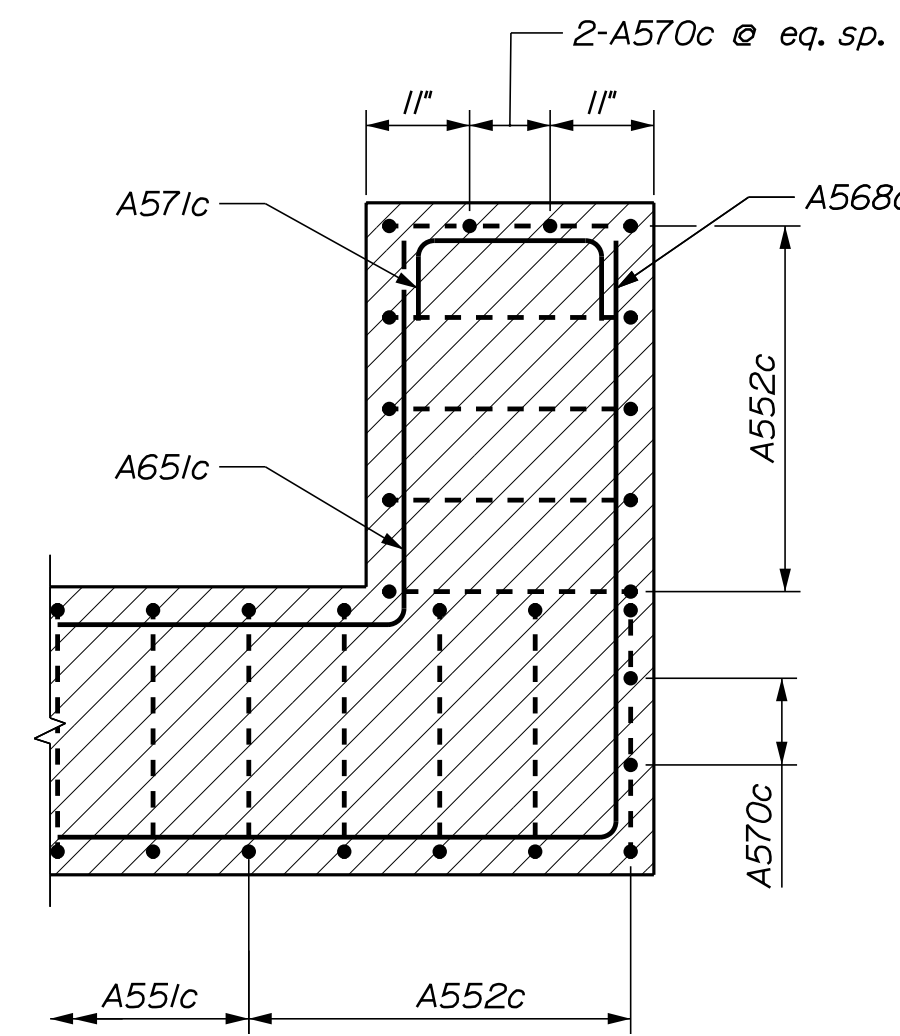
DOWNSTREAM WINGWALL SECTION



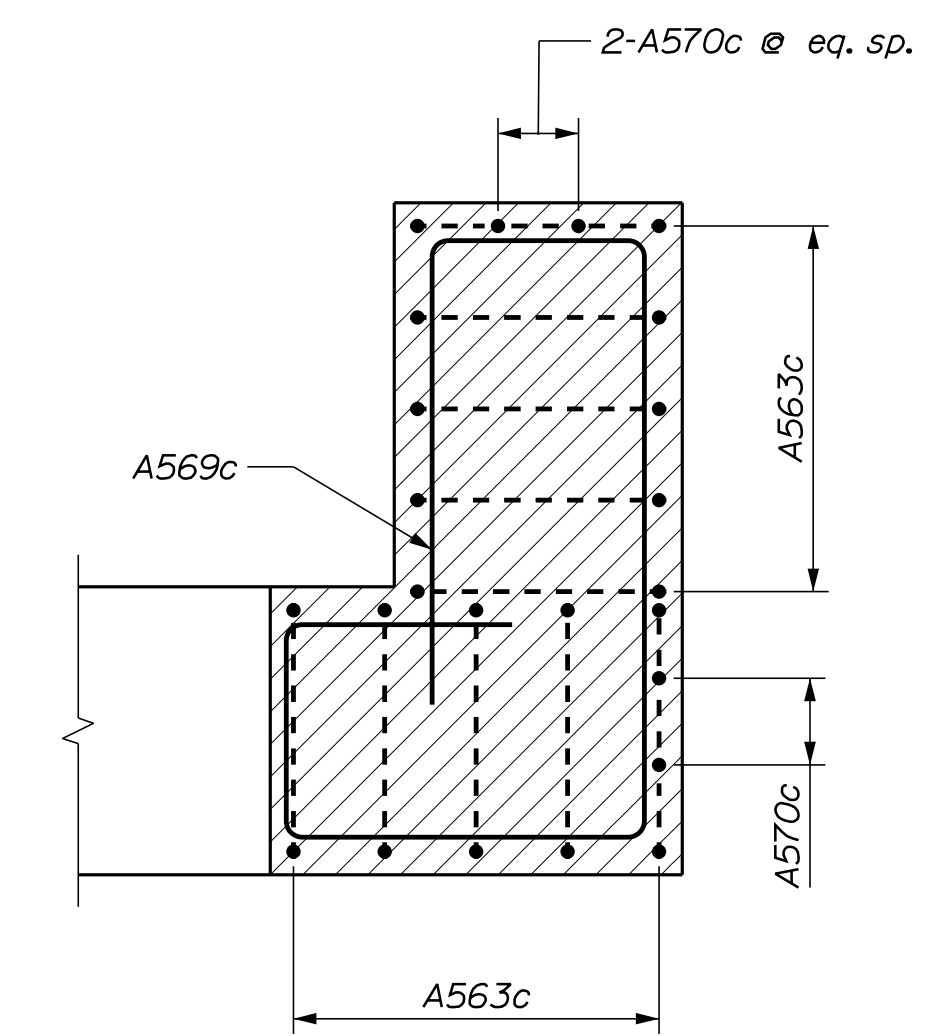
UPSTREAM WINGWALL SECTION



ABUTMENT SECTION
~Between Piles~



WING SECTION "A-A"



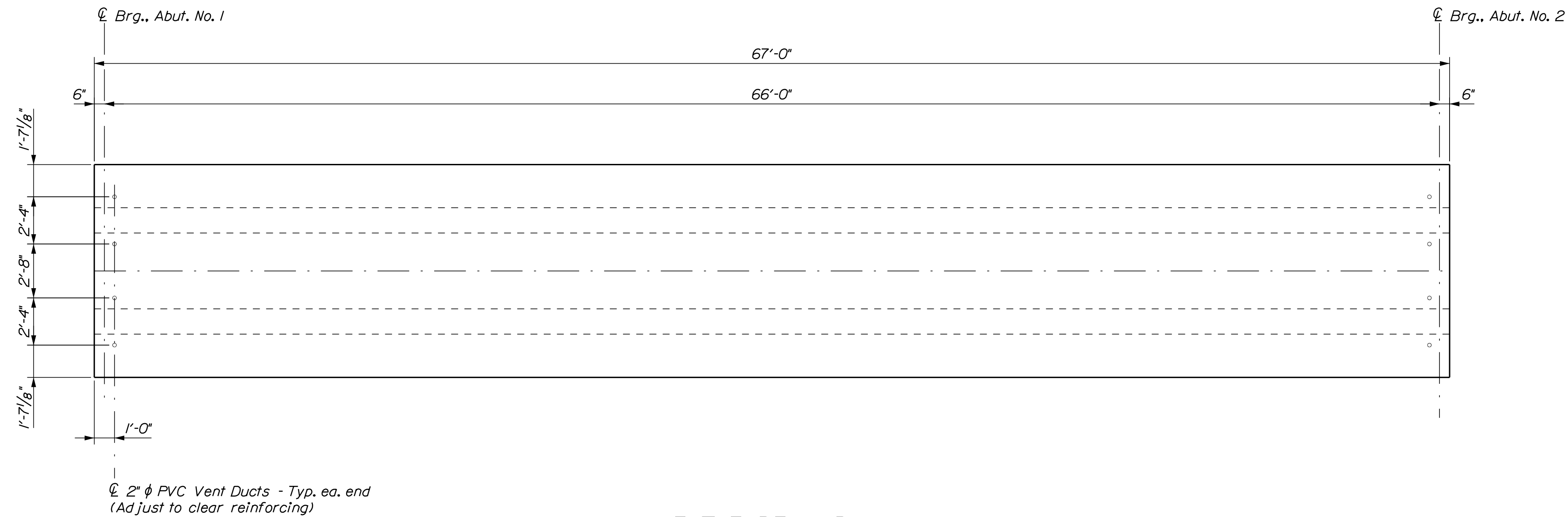
WING SECTION "B-B"

Date: 9/13/2022

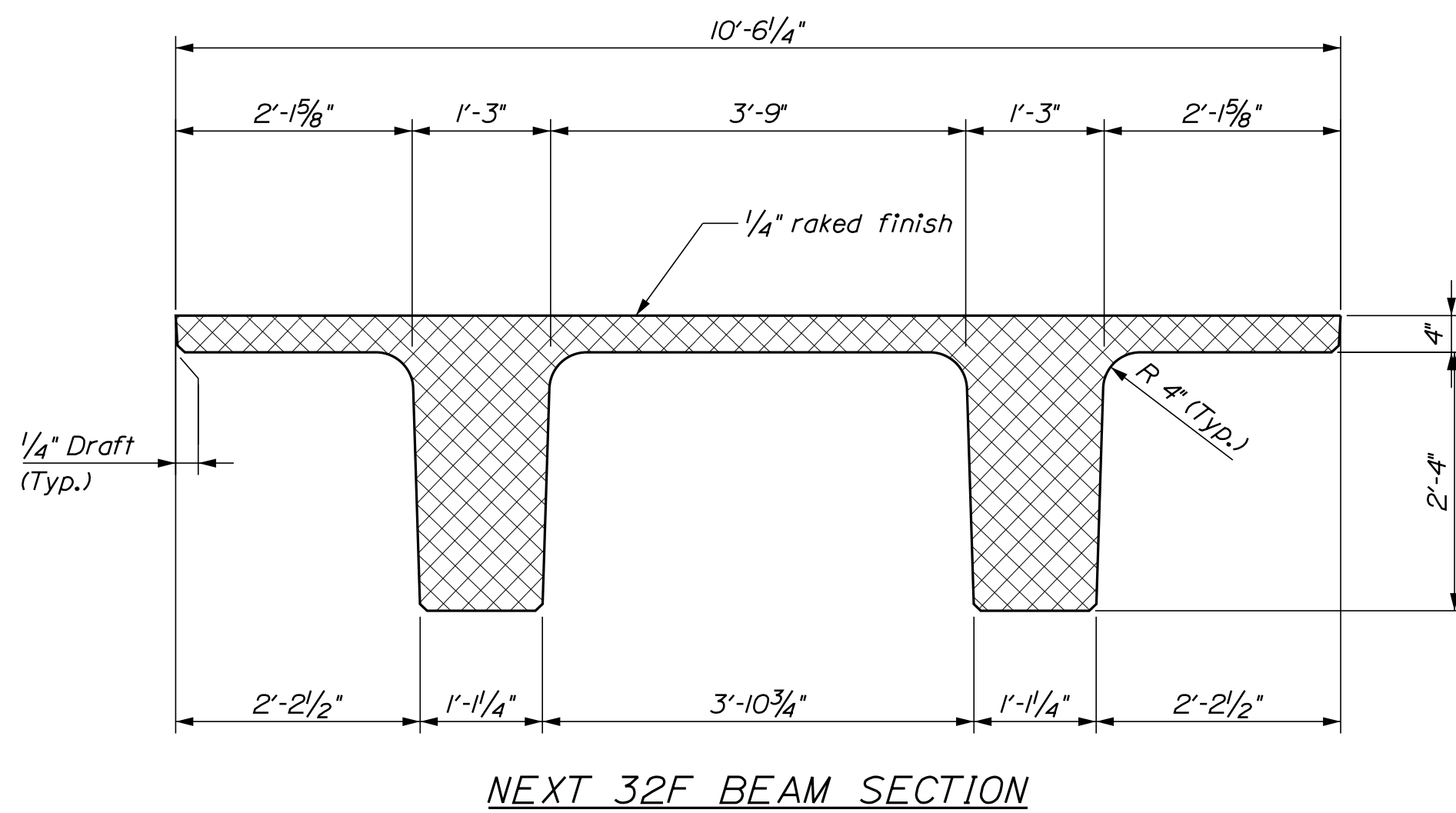
Username:

Division: BRIDGE

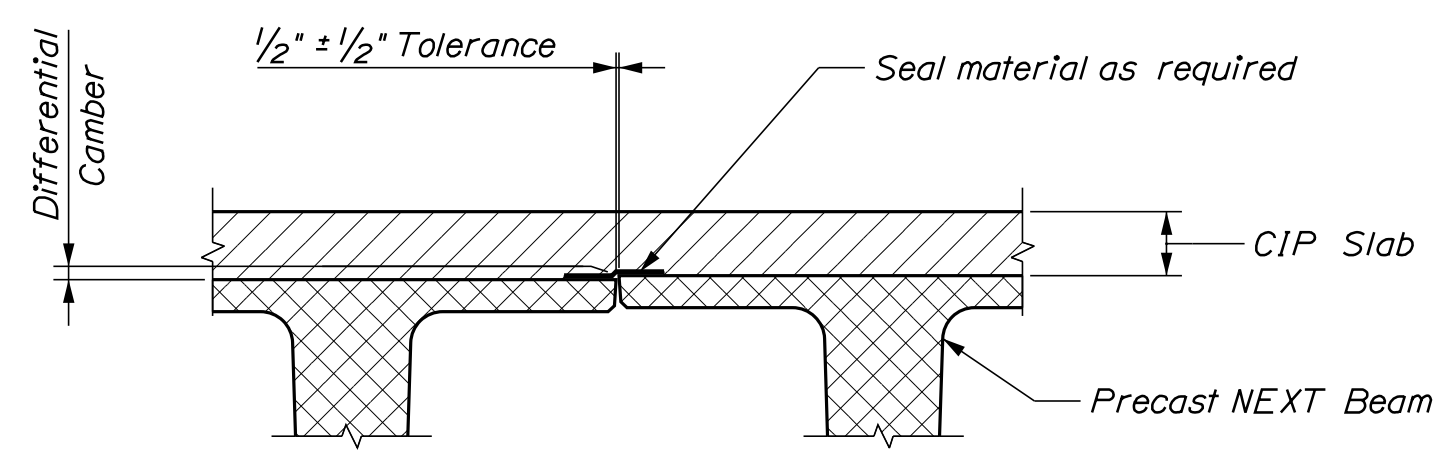
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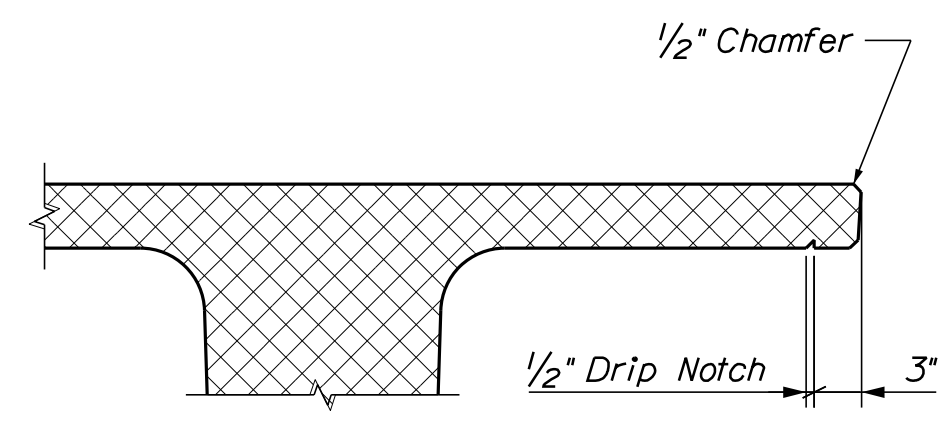
NEXT F BEAM PLAN



NEXT 32F BEAM SECTION



NEXT BEAM GAP FORM DETAIL



FASCIA OVERHANG DETAIL

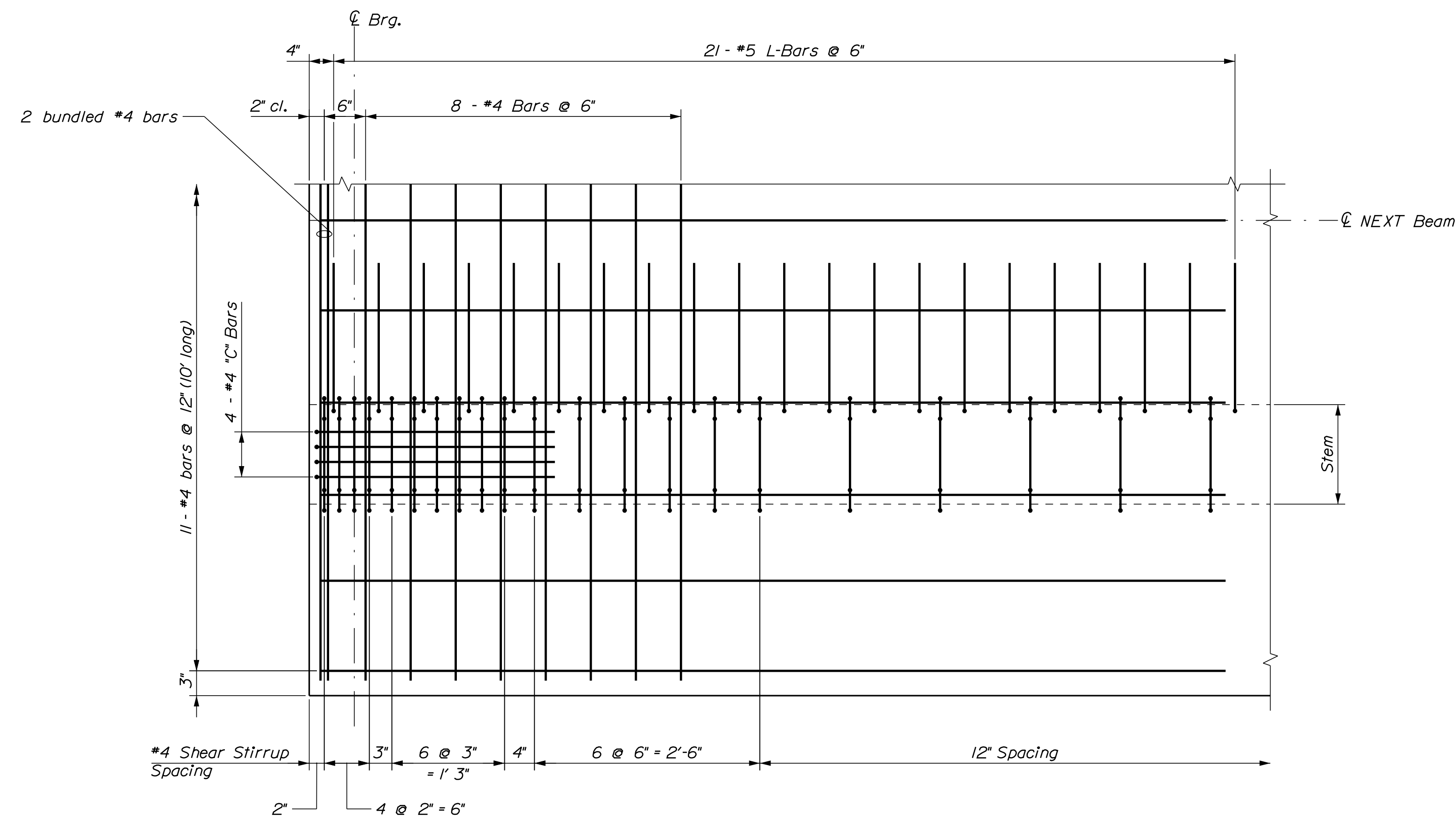
PRECAST CONCRETE SUPERSTRUCTURE NOTES

- NEXT Beams are a non-proprietary shape developed by PCI Northeast (PCINE). Standardized section properties and details may be found at <http://www.pcine.org>.
- Prestressing strands shall be 0.6 inch diameter. The tensioning force is 44 kips per prestressing strand.
- Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
- Unless otherwise noted, rake the top surface of the upper flange of the prestressed beams to a surface roughness of 1/4 inch, except at locations corresponding to the blocking points. At these locations, finish a flattened area of sufficient size to facilitate taking elevations for setting the bottom of slab elevations.
- Do not drill holes or use powder actuated tools on the prestressed beams without the approval of the Fabrication Engineer.
- The estimated camber at release is 1.7 inches and the estimated camber at erection is 2.1 inches. Refer to Special Provision 535, Precast, Prestressed Concrete Superstructure-Camber.
- Lifting loops and temporary/storage/shipping dunnage shall be a maximum of 2 feet from each beam end.

ELASTOMERIC BEARING NOTES

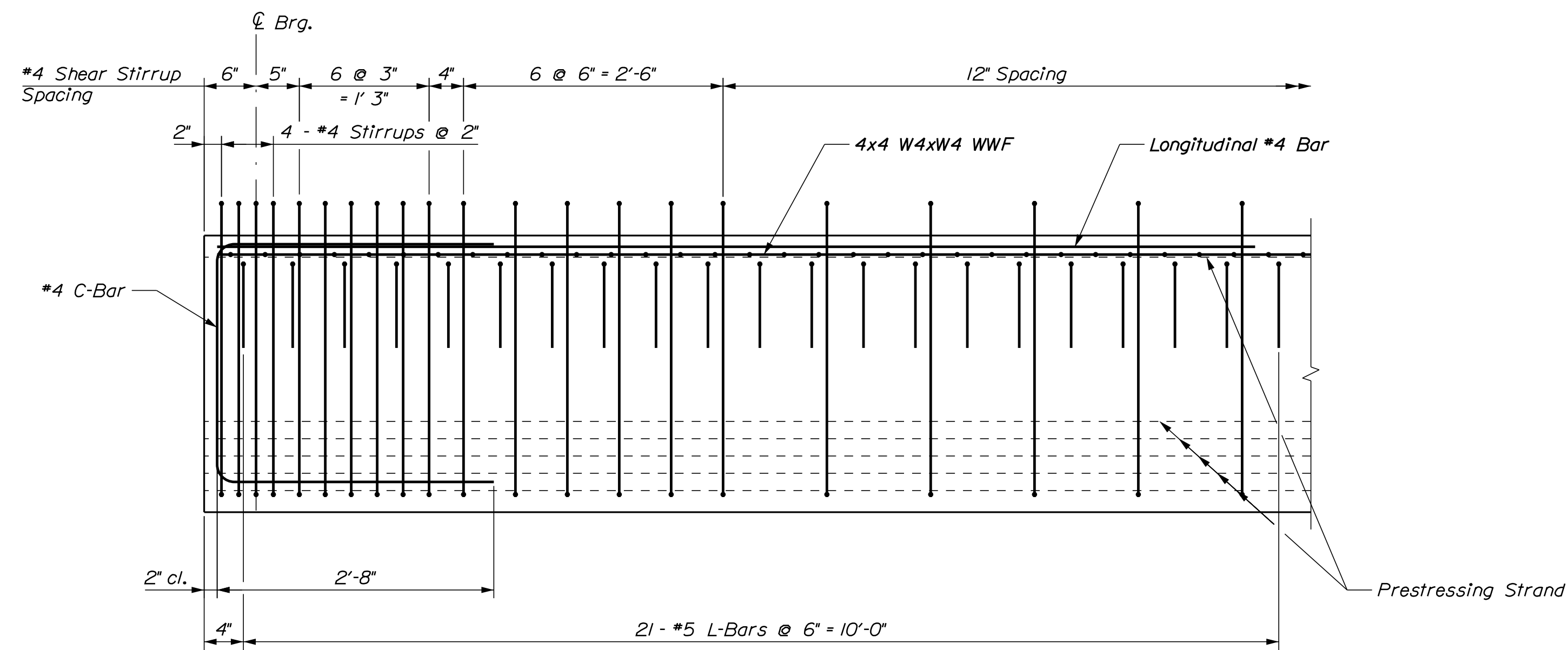
- Elastomeric Bearing Pads shall be 2'-6" x 52'-9" in plan and 1" tall for each abutment.
- The shear modulus of the elastomer shall be 112.5 psi.
- Elastomeric Bearing Pads shall conform to the requirements of the latest edition of the AASHTO LRFD Bridge Construction Specifications, Section 18.2.
- Elastomeric Bearing Pads will not be paid for directly but will be considered incidental to related Contract Items. No separate payment will be made.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2309401	BRIDGE NO. 2942 WIN 24783.01 BRIDGE PLANS
WHITNEY BROOK BRIDGE WHITNEY BROOK BRIDGEWATER AROOSTOOK COUNTY	PRECAST NEXT BEAMS
DESIGN: J. STETSON CHECKED: K. HAMPE DESIGNED: A. LACHANCE REVISIONS: 1 REVISIONS: 2 REVISIONS: 3 REVISIONS: 4 FIELD CHANGES	DATE: Aug 2022 BY: B. NICHOLS K. HAMPE SIGNATURE: _____ P.E. NUMBER: _____ DATE: _____
SHEET NUMBER 27 OF 35	

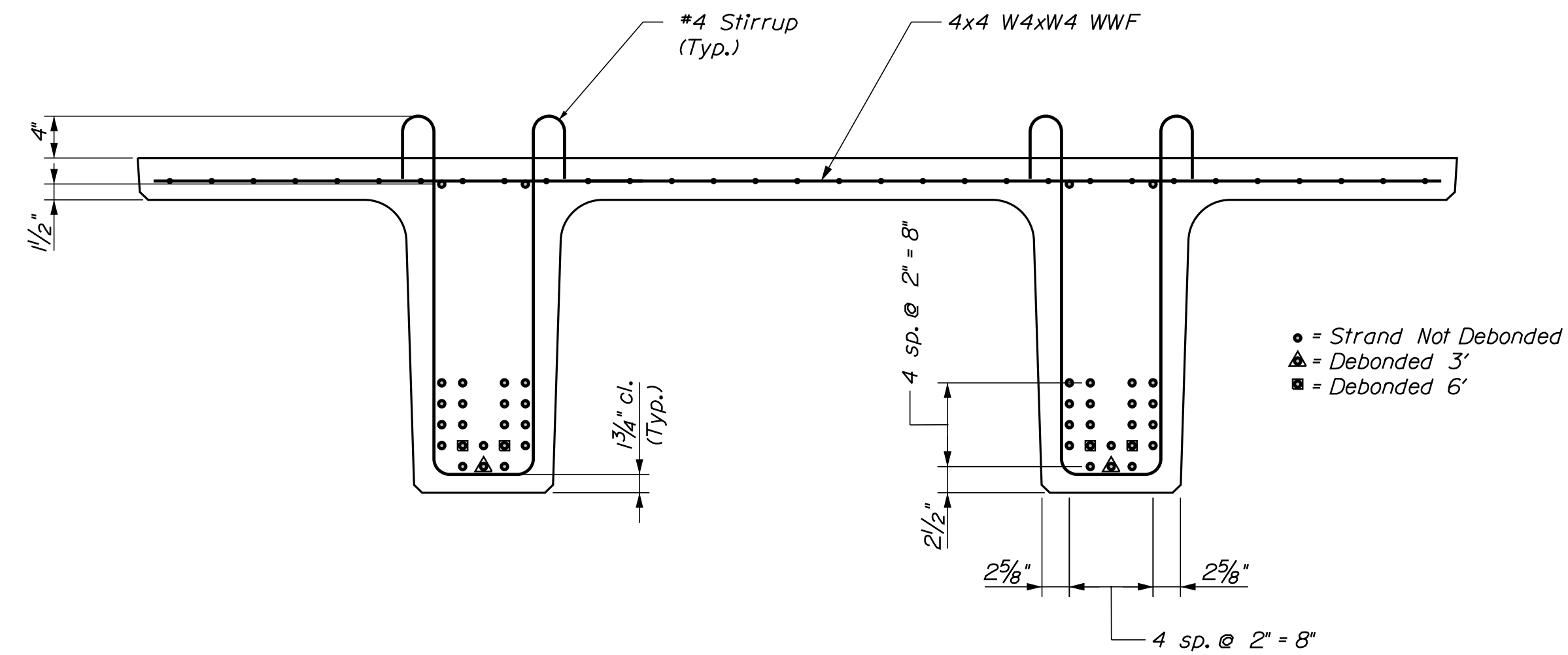


PARTIAL TOP FLANGE REINFORCING PLAN

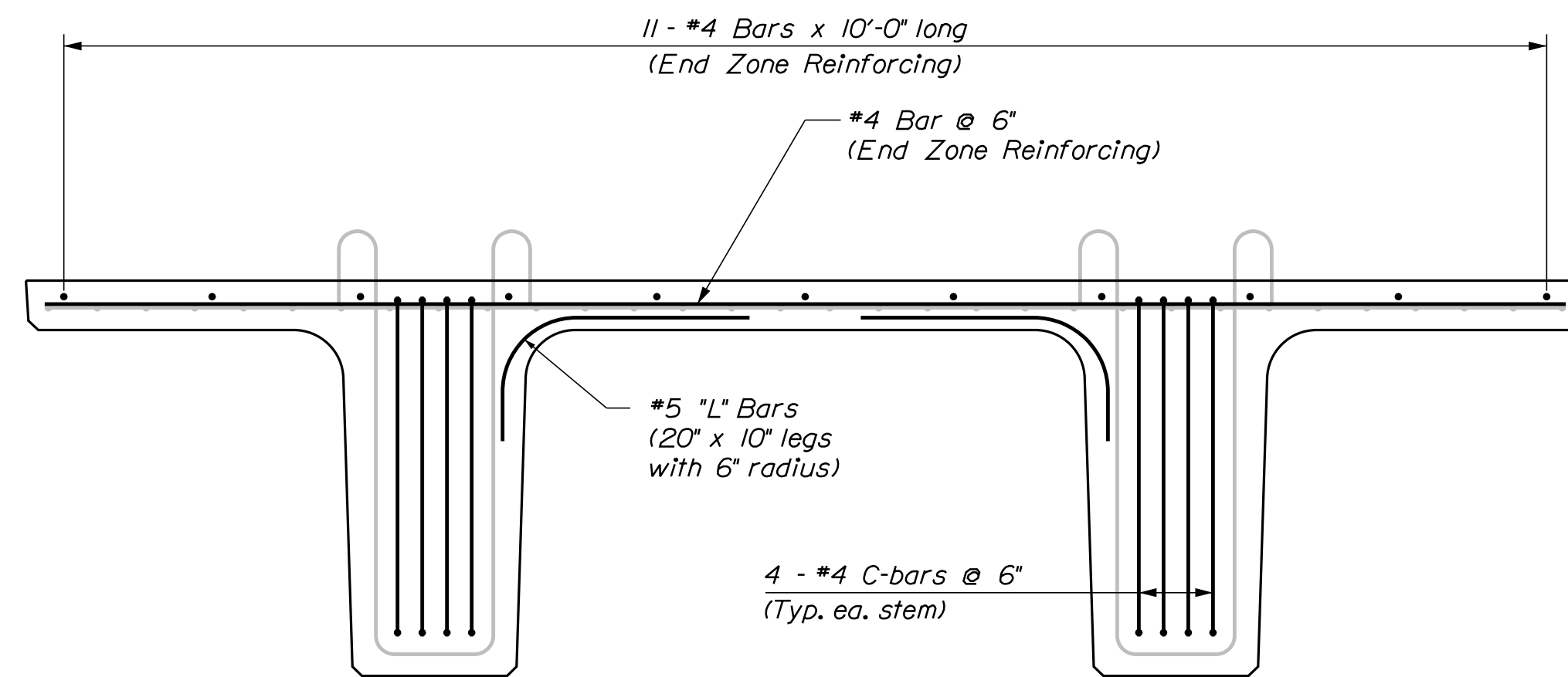
Prestressing strands, welded wire fabric, and top longitudinal bars not shown for clarity
Opposite end similar



LONGITUDINAL SECTION THROUGH STEM

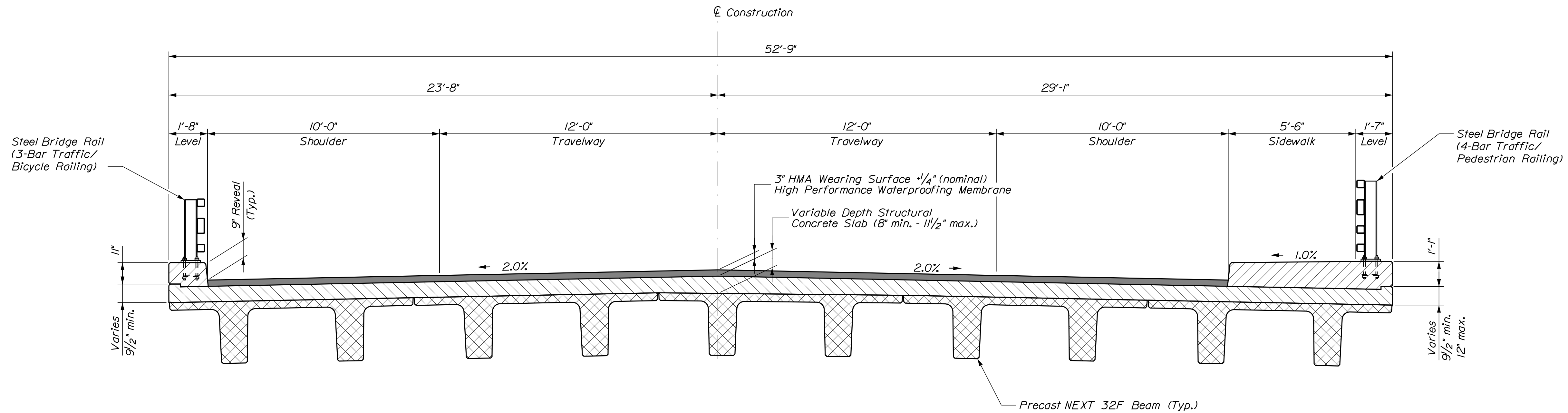


NEXT F BEAM TYPICAL REINFORCING SECTION

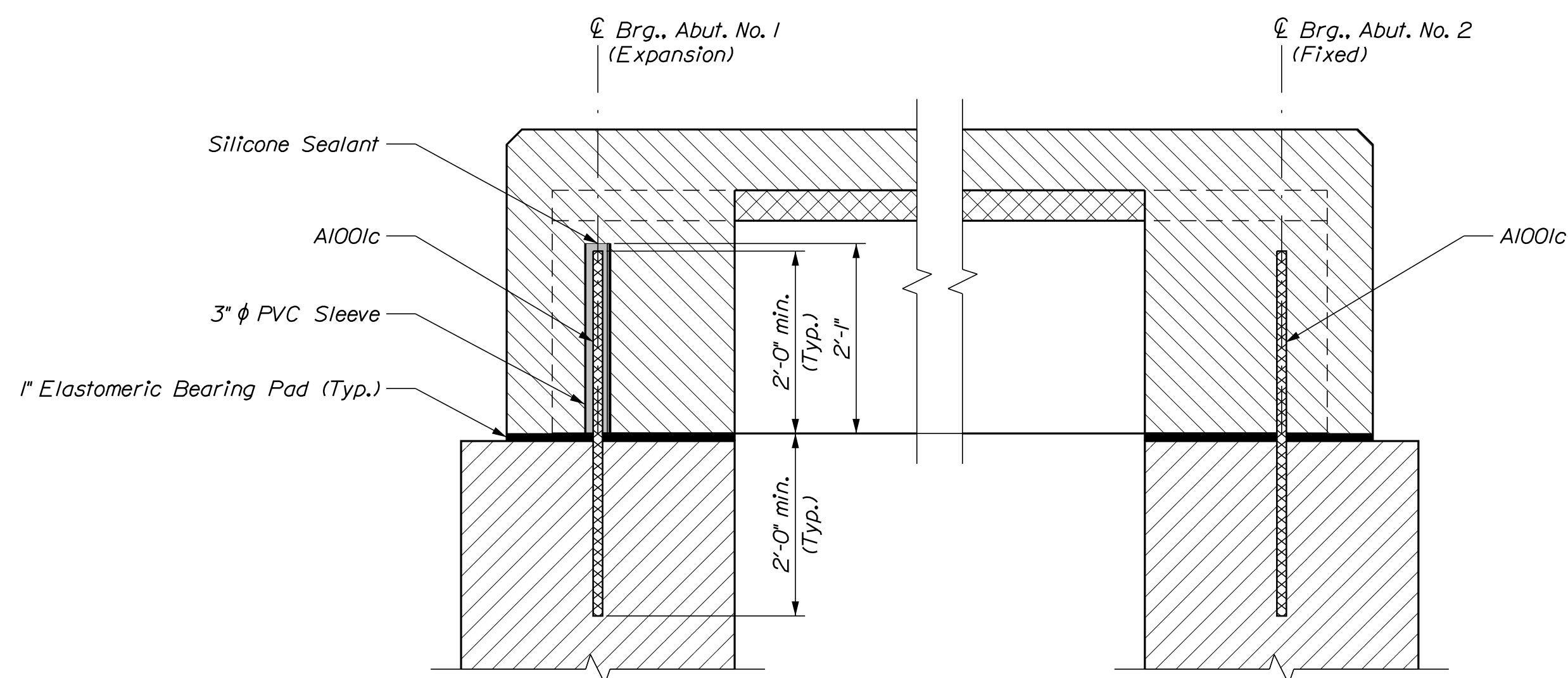


NEXT F BEAM END REINFORCING SECTION

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2309401		BRIDGE NO. 2942		BRIDGE PLANS	
WHITNEY BROOK BRIDGE WHITNEY BROOK BRIDGEWATER AROOSTOOK COUNTY		PRECAST NEXT BEAMS		WIN 24783.01			
PROJ. MANAGER	J. STETSON	BY	B. NICHOLS	DATE	Aug 2022	SIGNATURE	
CHECKED/REVIEWED	K. HAMPE	DESIGNED/REVIEWED	A. LACHANCE	DATE	Aug 2022	P.E. NUMBER	
DESIGN/REVIEWED		DESIGNED/REVIEWED		DATE		DATE	
REVISIONS 1		REVISIONS 1					
REVISIONS 2		REVISIONS 2					
REVISIONS 3		REVISIONS 3					
REVISIONS 4		REVISIONS 4					
FIELD CHANGES							
SHEET NUMBER		28					
		OF 35					



TYPICAL SUPERSTRUCTURE SECTION



SUPERSTRUCTURE ANCHORAGE DETAIL

SUPERSTRUCTURE NOTES

1. Superstructure option shown on plans is for NEXT 32F precast, prestressed concrete beam. Refer to Special Provision 53I for alternative superstructure type(s) allowed as a detail build option.
2. The Detail Build Superstructure option shall have a minimum clear span of 63 feet and a low chord at or above EL. 400.77
3. The bearing elevation and deck thickness shall be adjusted in accordance with the Special Provision Section 535, Precast, Prestressed Concrete Superstructure, Camber.
4. Both top and bottom mats of reinforcing shall be placed parallel to the finished profile. Reinforcing shall have a constant top cover of 2 inches. Bottom concrete cover may be variable with a minimum cover of 1/2 inch.
5. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
6. End diaphragm concrete will be paid for under Item No. 531.51I, Bridge Superstructure - Detail Build and shall be placed with the deck.
7. The superstructure slab concrete for each span shall be placed continuously and shall be kept plastic until the entire placement has been made.
8. Place one piece of 1/2" thick preformed expansion joint filler between the end diaphragm and wingwall parapet. Expansion joint filler shall extend from the bridge seat to 1/2" below the top of wingwall parapet and the full wingwall parapet thickness. The preformed expansion joint filler shall be sealed with 1/2" x 1/2" silicone joint sealant minus 1/2" on each side. The preformed expansion joint filler and silicone joint sealant will be considered incidental to 531.51I Bridge Superstructure - Detail Build.
9. The Contractor shall alternate splice locations of all bars.
10. 3" diameter PVC sleeve and silicone sealant at Abutment No. 1 will be considered incidental to 531.51I Bridge Superstructure - Detail Build

DESIGNED BY	B. NICHOLS	DATE	Aug 2022
CHECKED BY	K. HAMPE	REVIEWED BY	K. HAMPE
DESIGNED BY	A. LACHANCE	DATE	Aug 2022
DESIGNED BY	A. LACHANCE	DATE	Aug 2022
REVISIONS	1	DATE	
REVISIONS	2	DATE	
REVISIONS	3	DATE	
REVISIONS	4	DATE	
FIELD CHANGES		DATE	

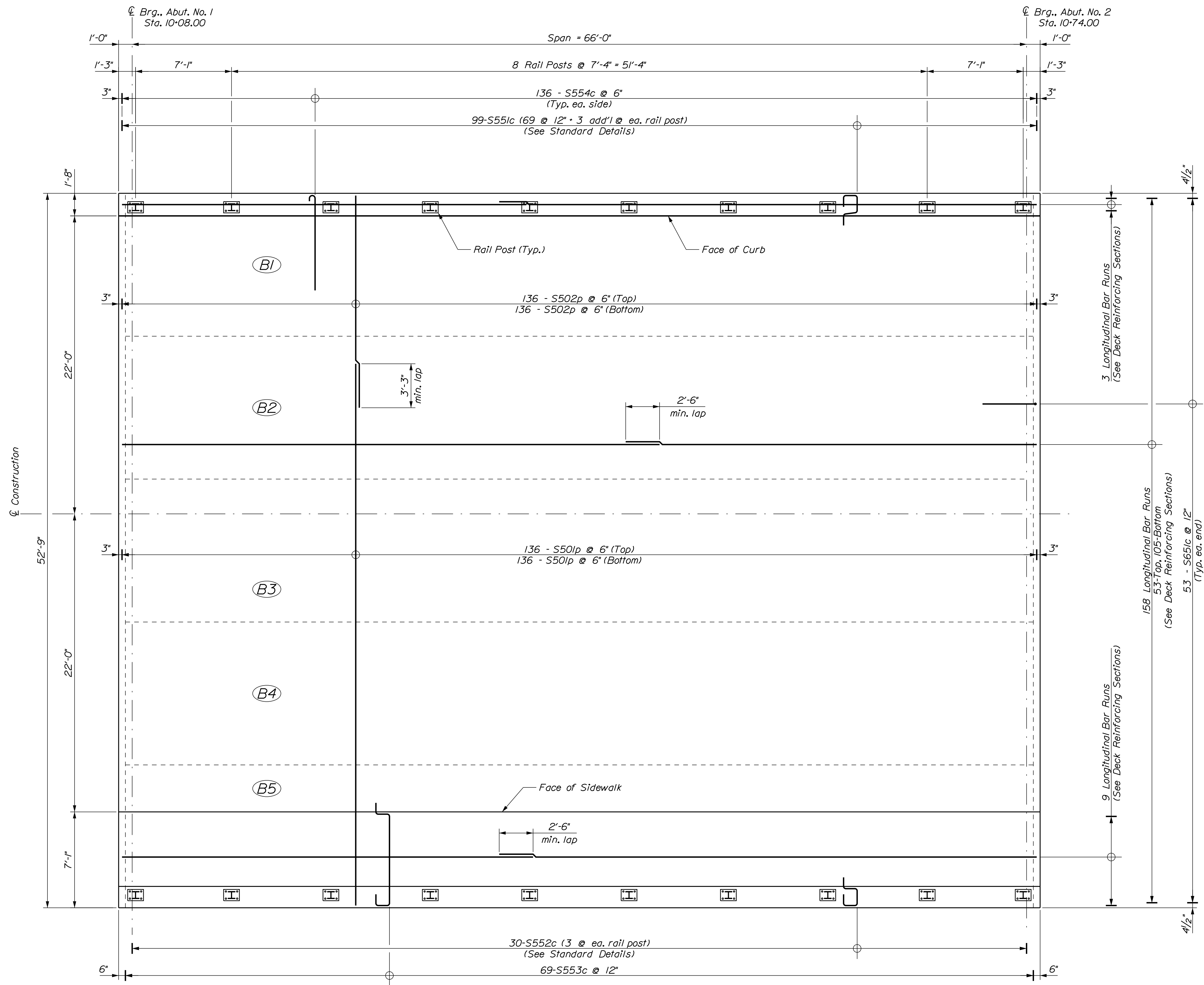
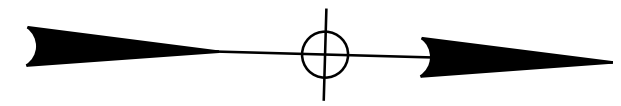
PROJ. MANAGER	J. STETSON
DESIGN DETAIL	K. HAMPE
CHECKED/REVIEWED	A. LACHANCE
DESIGN DETAIL	A. LACHANCE
REVISIONS	1
REVISIONS	2
REVISIONS	3
REVISIONS	4
FIELD CHANGES	

WHITNEY BROOK BRIDGE
WHITNEY BROOK
BRIDGEWATER AROOSTOOK COUNTY
SUPERSTRUCTURE SECTION
& NOTES

SHEET NUMBER

29

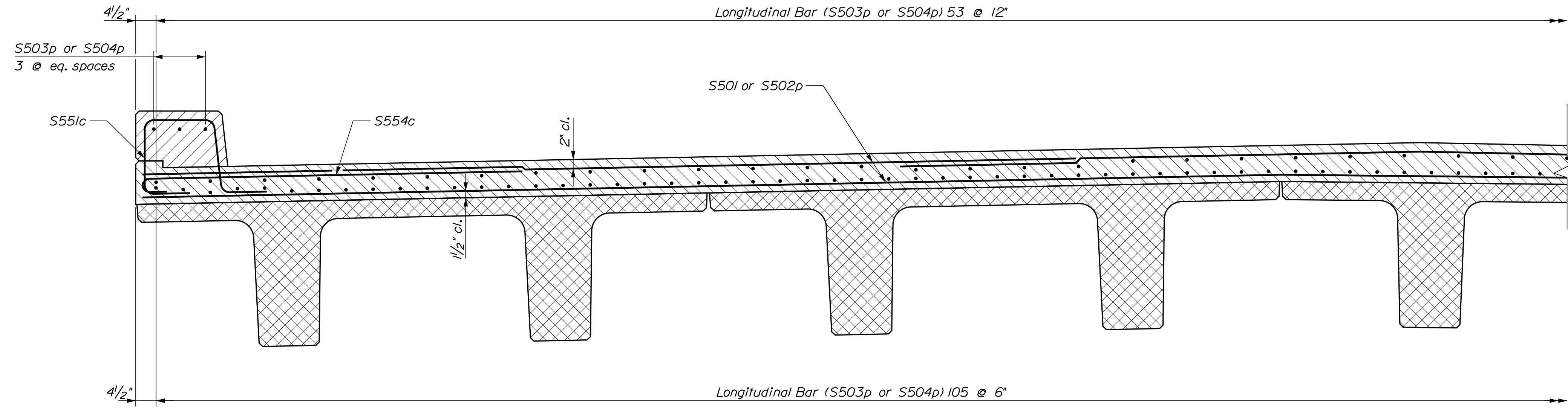
OF 35



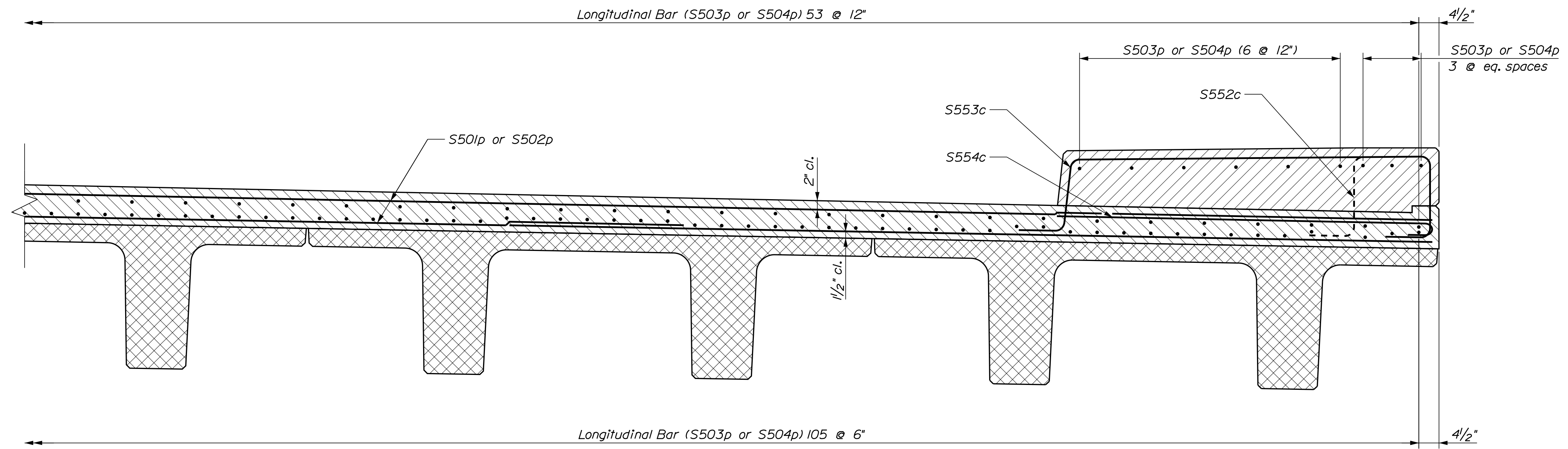
SUPERSTRUCTURE PLAN

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2309401	
BRIDGE NO. 2942		WIN 24783.01	
BRIDGE PLANS			
WHITNEY BROOK BRIDGE WHITNEY BROOK BRIDGEWATER AROOSTOOK COUNTY		SIGNATURE	
SUPERSTRUCTURE PLAN		P.E. NUMBER	
SHEET NUMBER		DATE	
30			
OF 35			

PROJ. MANAGER	J. STETSON	BY	DATE
DESIGN-DETAILED	K. HAMPE	B. NICHOLS	Aug 2022
CHECKED-REVIEWED	A. LACHANCE	K. HAMPE	Aug 2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



PARTIAL DECK REINFORCING SECTION



PARTIAL DECK REINFORCING SECTION

PROJ. MANAGER	J. STETSON	BY	DATE
DESIGN-DETAILED	K. HAMPE	B. NICHOLS	Aug 2022
CHECKED-REVIEWED	A. LACHANCE	K. HAMPE	Aug 2022
DESIGN-DETAILED			SIGNATURE
REVISIONS 1			P.E. NUMBER
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WHITNEY BROOK BRIDGE
 WHITNEY BROOK
 BRIDGEWATER AROOSTOOK COUNTY
 DECK REINFORCING SECTIONS

SHEET NUMBER

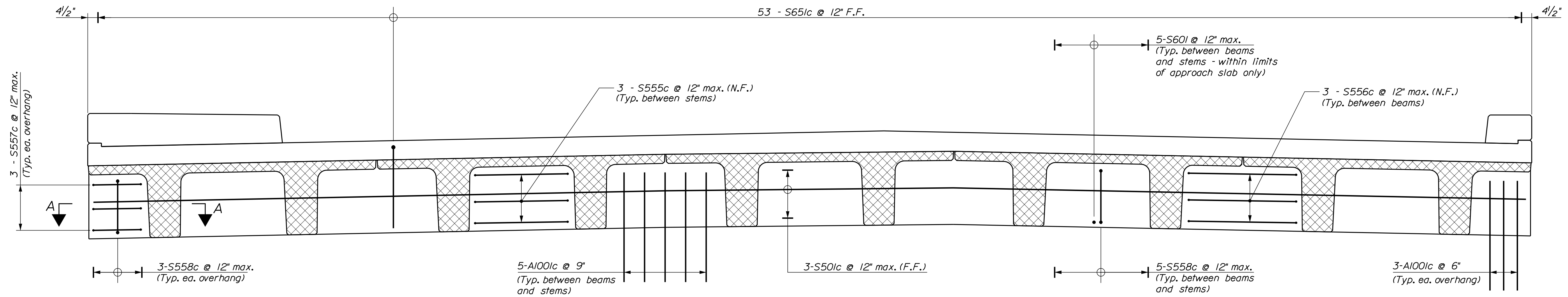
31

OF 35

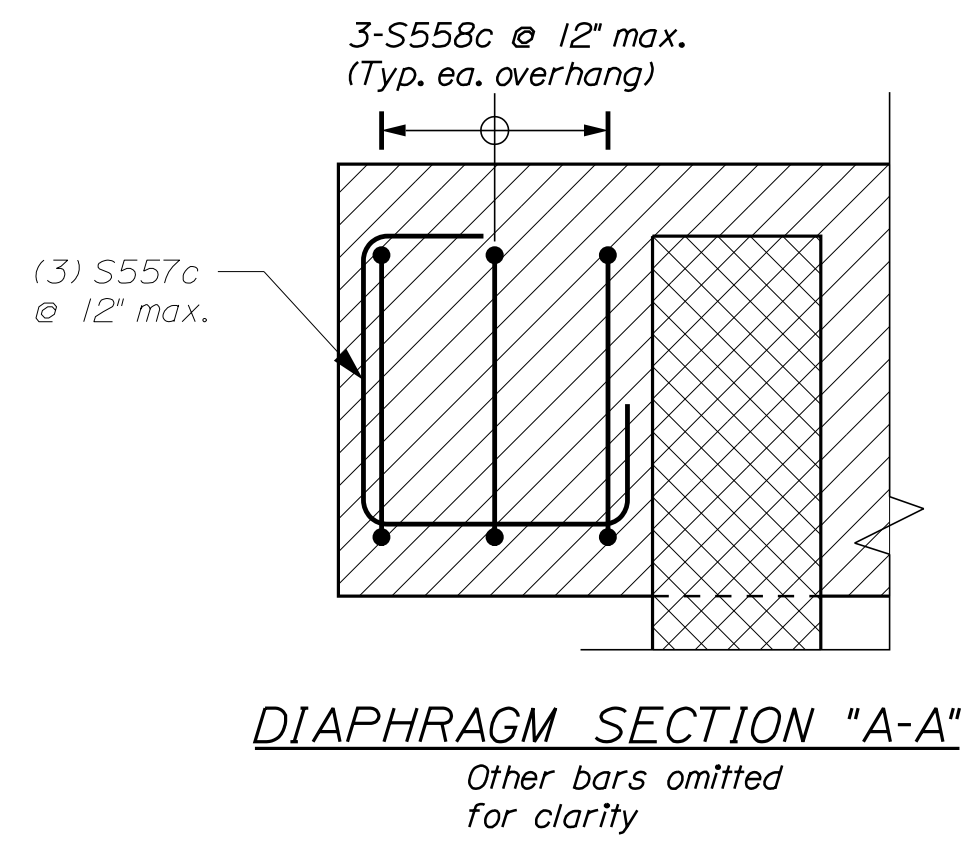
Date: 9/13/2022

Username:

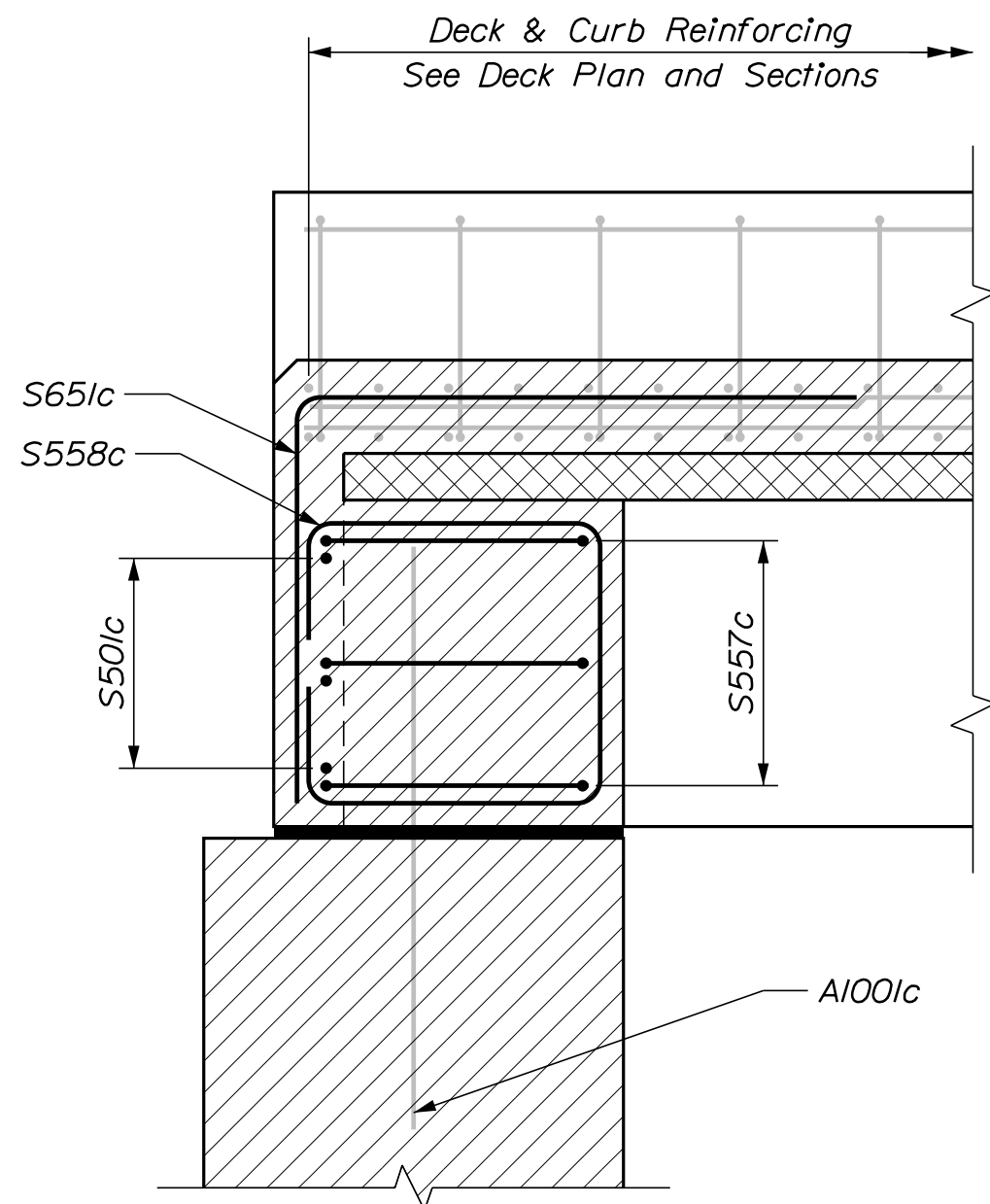
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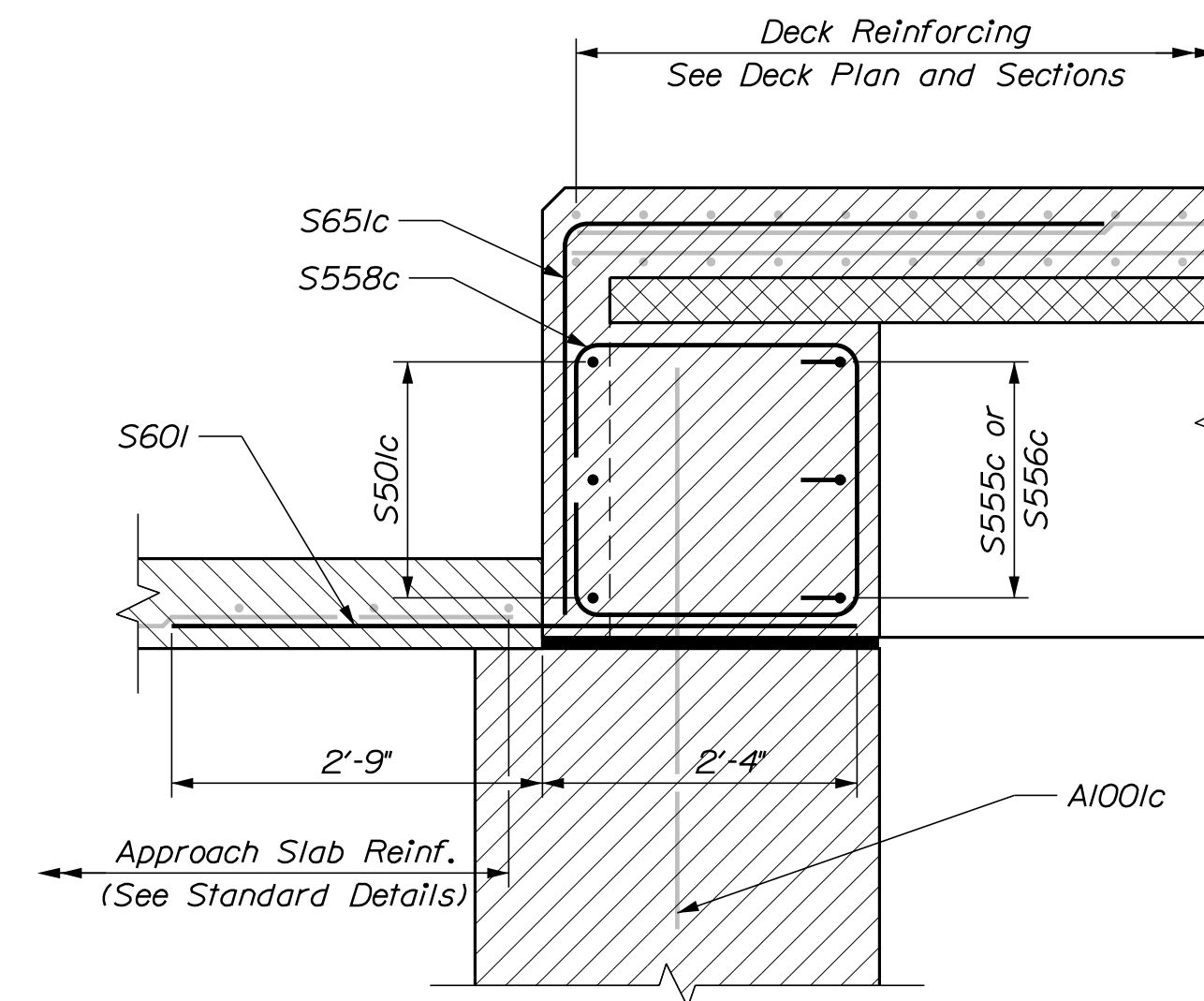
END DIAPHRAGM ELEVATION
 Abutment No. 1 Shown, Abutment No. 2 Opposite Hand



DIAPHRAGM SECTION "A-A"
 Other bars omitted for clarity



END DIAPHRAGM SECTION THROUGH CURB/SIDEWALK



END DIAPHRAGM SECTION AT ROADWAY

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

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

2309401

WIN

BRIDGE NO. 2942

BRIDGE PLANS

SIGNATURE

DATE

P.E. NUMBER

DATE

PROJ. MANAGER
 DESIGN/DETAILED
 CHECKED/REVIEWED
 DESIGNS/DETAILED
 REVISIONS 1
 REVISIONS 2
 REVISIONS 3
 REVISIONS 4
 FIELD CHANGES

SHEET NUMBER

32

OF 35

WHITNEY BROOK BRIDGE
 BRIDGEWATER

WHITNEY BROOK
 AROOSTOOK COUNTY

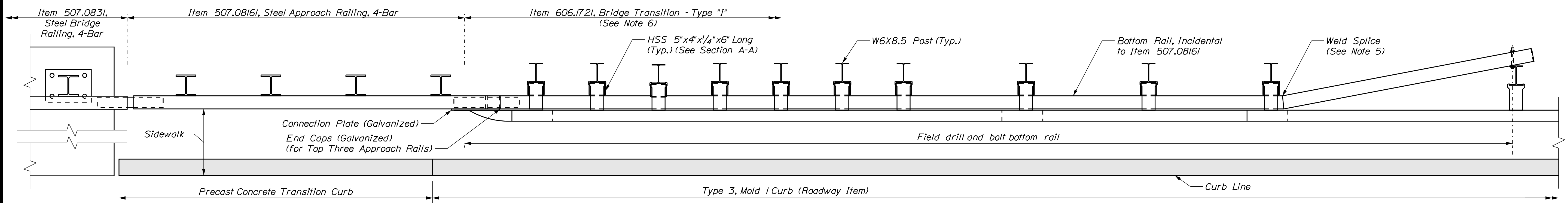
SUPERSTRUCTURE
 DIAPHRAGM DETAILS

Date: 9/13/2022

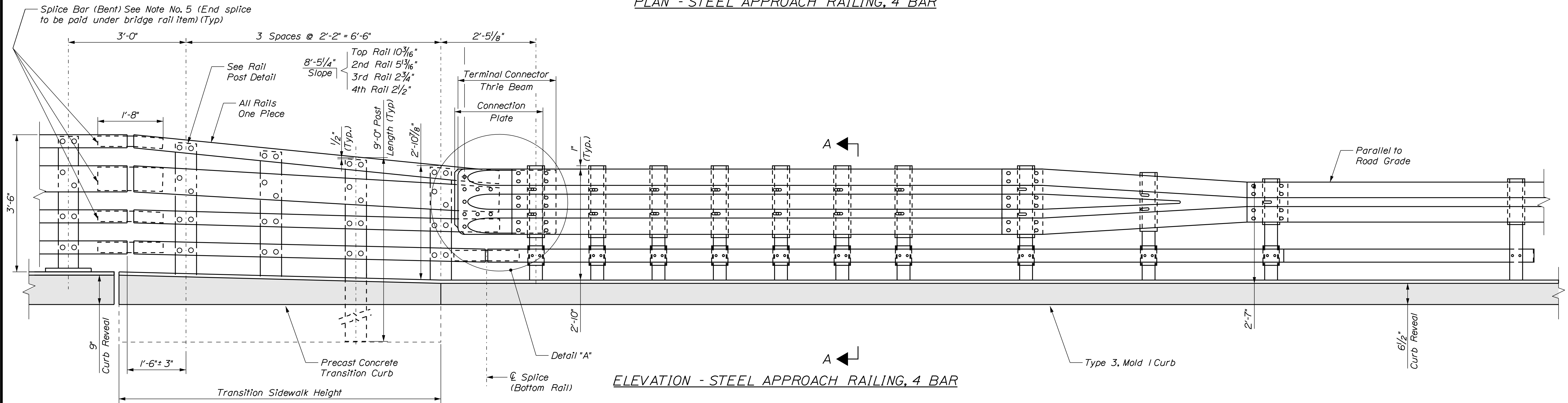
Username:

Division: BRIDGE

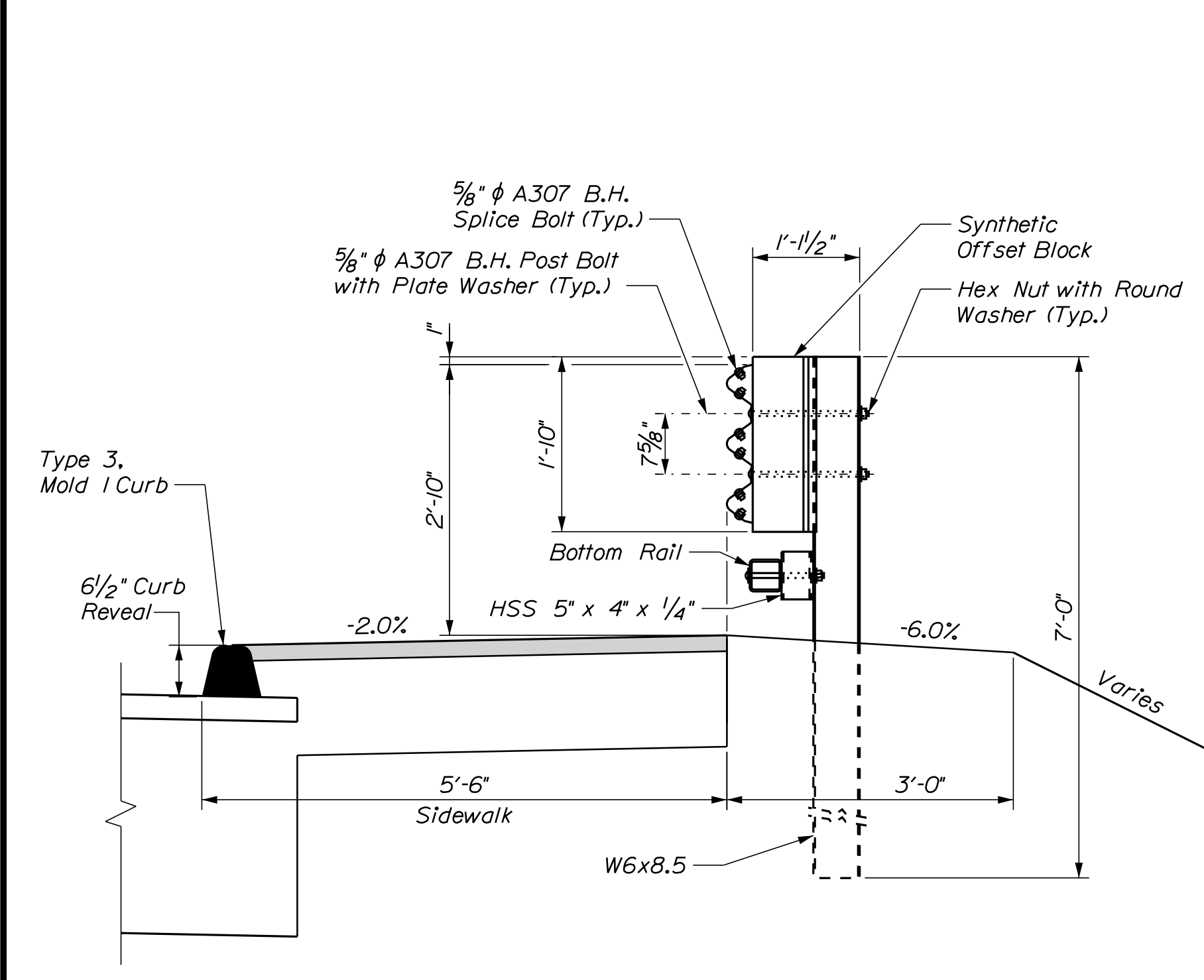
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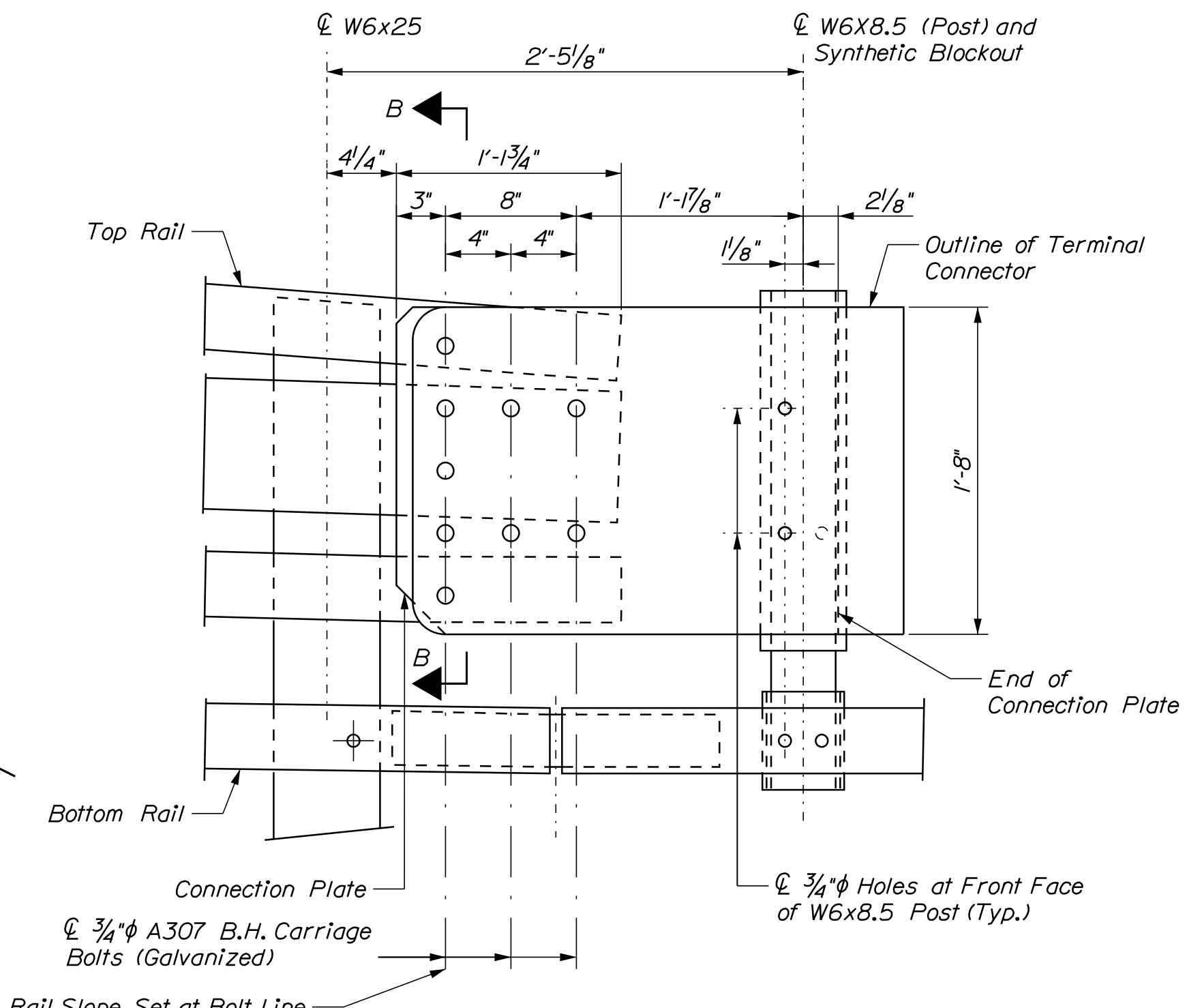
PLAN - STEEL APPROACH RAILING, 4 BAR



ELEVATION - STEEL APPROACH RAILING, 4 BAR

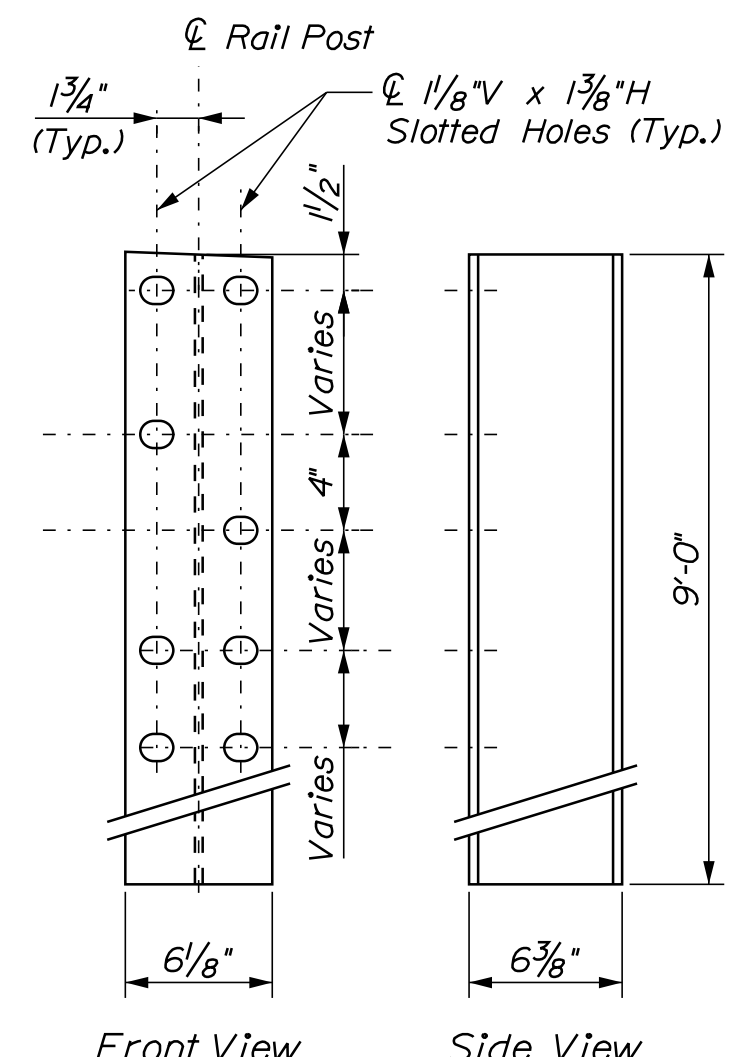


SECTION A-A (POST RAIL ASSEMBLY)



DETAIL A

(Overlapping of Double nested Thrie-Beam not Shown for Clarity)



RAIL POST (W6x25)

NOTES: STEEL BRIDGE RAILING, 4-BAR

1. Refer to Steel Bridge Railing and Steel Approach Railing, 3-Bar Standard Details for additional details, notes and materials specifications. For Section B-B, refer to Standard Detail 507(24).
2. Rail bar welds shall have a minimum penetration of 80% as demonstrated by a test weld performed by the fabricator.
3. The precast concrete vertical or transition curb shall meet the provisions of Section 609 - Curbing of the Standard Specifications. The bridge end of the curb shall be saw-cut in the field to fit flush against the backwall, as dictated by the bridge skew angle and the profile grade. Where curbing is specified on the adjacent highway, the transition shall be modified accordingly.
4. After installation of the guard rail is complete, upset the threads on the anchor bolts in three (3) places around each bolt, at the junction of the nut and the exposed thread, with a center punch or similar tool.
5. Splice Bar (bent): Weld splice bar to fit bend. Use complete joint penetration butt weld (B-U2). End splice bars to be paid under the Bridge Railing Item.
6. Standard Bridge Transition may require longer posts to account for higher rail height. No additional payment will be made for this modification.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2309401		BRIDGE NO. 2942		BRIDGE PLANS	
WHITNEY BROOK BRIDGE		WHITNEY BROOK		AROSTOOK COUNTY		STEEL APPROACH RAIL	
BRIDGEWATER		AROSTOOK COUNTY		AROSTOOK COUNTY		4-BAR	
PROJ. MANAGER	J. STETSON	BY	K. HAMPE	DATE	Aug 2022	SIGNATURE	
DESIGN DETAILED	K. HAMPE	CHECKED/REVIEWED	A. LACHANCE	DATE	Aug 2022	P.E. NUMBER	
DESIGNED/DETAILS		DESIGNED/DETAILS		DATE		DATE	
REVISIONS 1		REVISIONS 1		DATE		DATE	
REVISIONS 2		REVISIONS 2		DATE		DATE	
REVISIONS 3		REVISIONS 3		DATE		DATE	
REVISIONS 4		REVISIONS 4		DATE		DATE	
FIELD CHANGES		FIELD CHANGES		DATE		DATE	
SHEET NUMBER				33			
				OF 35			

Date: 9/13/2022

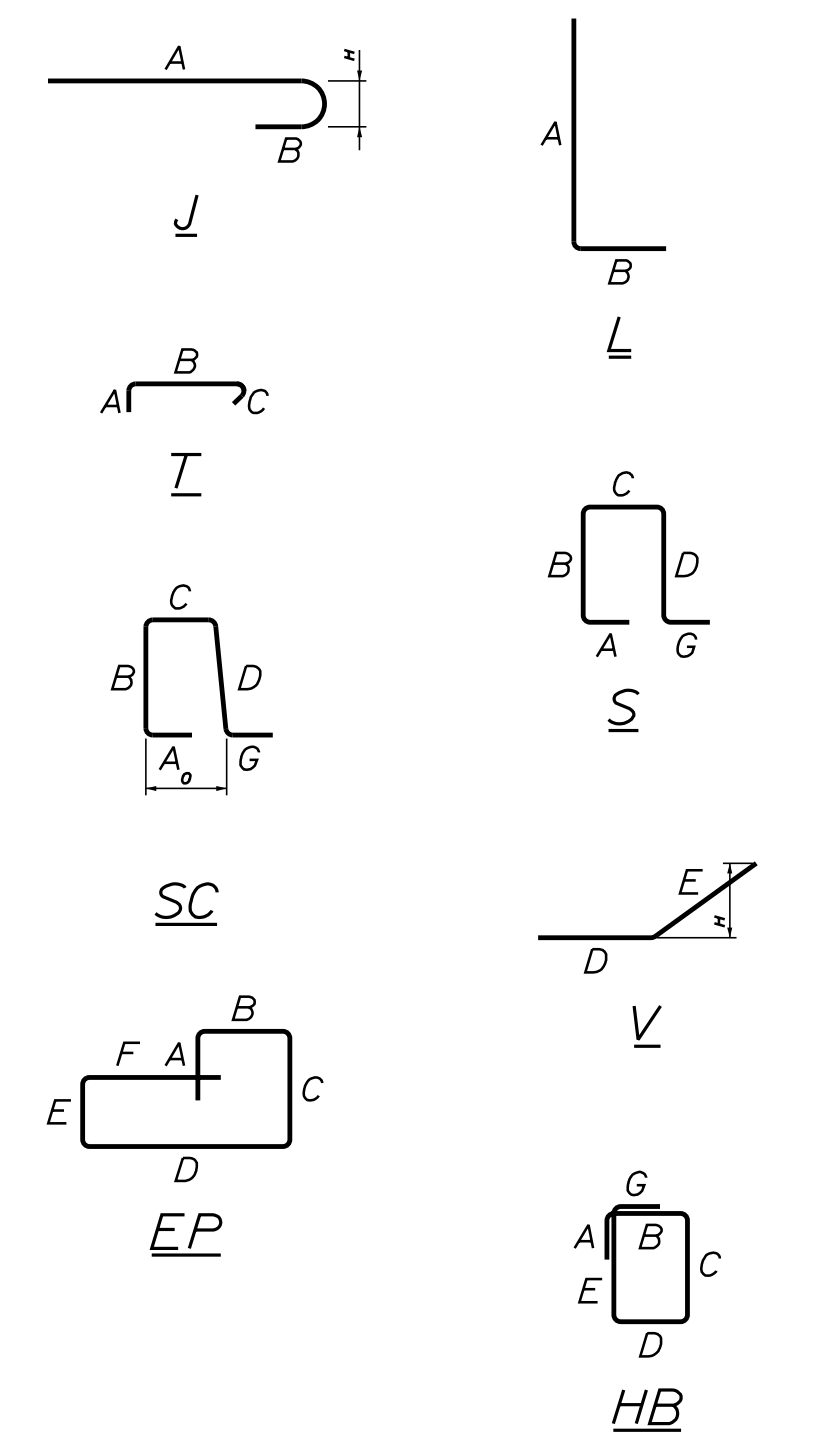
Username:

Division: BRIDGE

Filename: ... \01\BRIDGE\WSTA\034_Rebar.dgn

STRAIGHT BARS				STRAIGHT BARS				BENT BARS												LOCATION			
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
<i>Abutment Bars (Plain)</i>				<i>Approach Slab Bars (Plain)</i>				<i>Abutment Bars (Plain)</i>															
A501	16	5'-8"	Abutment Horizontal	AS501	32	30'-0"	Approach Slab Transverse	A451	696	3'-6"	T	0'-5"	2'-8"	0'-5"	-	-	-	0"	-	-	-	-	Seismic Tie
A502	16	45'-3"	Abutment Horizontal	AS502	32	14'-7"	Approach Slab Transverse	A551	106	15'-3"	S	0"	6'-4"	2'-7"	6'-4"	-	-	0"	-	-	-	-	Abutment Vertical
A601	6	51'-4"	Abutment Horizontal	AS601	172	15'-2"	Approach Slab Longitudinal	A564	106	8'-7"	S	0"	3'-3"	2'-7"	3'-3"	-	-	0"	-	-	-	-	Abutment Vertical
								<i>Abutment Bars (Low-Carbon Chromium)</i>															
<i>Abutment Bars (Low-Carbon Chromium)</i>				S601	80	5'-1"	Approach Slab Dowel	A552c	42	15'-7"	S	0"	6'-6"	2'-7"	6'-6"	-	-	0"	-	-	-	-	Wingwall Vertical
A503c	6	14'-2"	Wingwall Horizontal					A553c	32	4'-3"	S	0"	0'-10"	2'-7"	0'-10"	-	-	0"	-	-	-	-	Wingwall Stirrup
A504c	6	7'-8"	Wingwall Horizontal					A554c	2	11'-5"	S	0"	4'-8"	2'-7"	4'-8"	-	-	0"	-	-	-	-	Wingwall Vertical
A505c	12	6'-6"	Wingwall Horizontal					A555c	2	12'-5"	S	0"	5'-2"	2'-7"	5'-2"	-	-	0"	-	-	-	-	Wingwall Vertical
A506c	16	15'-3"	Wingwall Horizontal	<i>Superstructure Bars (GFRP)</i>				A556c	2	13'-5"	S	0"	5'-8"	2'-7"	5'-8"	-	-	0"	-	-	-	-	Wingwall Vertical
				S501p	272	40'-0"	Deck Transverse	A557c	2	14'-5"	S	0"	6'-2"	2'-7"	6'-2"	-	-	0"	-	-	-	-	Wingwall Vertical
A801c	30	17'-7"	Wingwall Horizontal	S502p	272	15'-8"	Deck Transverse	A558c	2	15'-5"	S	0"	6'-8"	2'-7"	6'-8"	-	-	0"	-	-	-	-	Wingwall Vertical
				S503p	170	40'-0"	Deck Longitudinal	A559c	2	16'-5"	S	0"	7'-2"	2'-7"	7'-2"	-	-	0"	-	-	-	-	Wingwall Vertical
A1001c	102	4'-0"	Superstructure Anchor Dowel	S504p	170	30'-4"	Deck Longitudinal	A560c	2	17'-5"	S	0"	7'-8"	2'-7"	7'-8"	-	-	0"	-	-	-	-	Wingwall Vertical
				<i>Superstructure Bars (Low-Carbon Chromium)</i>				A561c	2	18'-7"	S	0"	8'-2"	2'-7"	8'-2"	-	-	0"	-	-	-	-	Wingwall Vertical
				S501c	6	52'-5"	End Diaphragm Transverse	A562c	2	19'-7"	S	0"	8'-8"	2'-7"	8'-8"	-	-	0"	-	-	-	-	Wingwall Vertical
								A563c	24	20'-1"	S	0"	8'-11"	2'-7"	8'-11"	-	-	0"	-	-	-	-	Wingwall Vertical
								A565c	6	13'-2"	L	0'-10"	12'-4"	-	-	-	-	-	-	-	-	-	Bottom of Wing
								A567c	6	6'-7"	L	0'-10"	5'-9"	-	-	-	-	-	-	-	-	-	Bottom of Wing
								A568c	16	15'-10"	L	9'-4"	6'-6"	-	-	-	-	-	-	-	-	-	Wingwall Horizontal
								A569c	8	22'-8"	EP	2'-4"	2'-6"	3'-10"	6'-6"	2'-6"	5'-0"	-	-	-	-	-	Wingwall Horizontal
								A570c	8	12'-9"	S	0"	0'-10"	11'-1"	0'-10"	-	-	0"	-	-	-	-	Wingwall Vertical
								A571c	32	4'-2"	S	0"	0'-10"	2'-6"	0'-10"	-	-	0"	-	-	-	-	Wingwall Horizontal
								A572c	2	22'-8"	S	0"	10'-1"	2'-6"	10'-1"	-	-	0"	-	-	-	-	Wingwall Horizontal
								A573c	2	18'-8"	S	0"	8'-1"	2'-6"	8'-1"	-	-	0"	-	-	-	-	Wingwall Horizontal
								A574c	2	14'-8"	S	0"	6'-1"	2'-6"	6'-1"	-	-	0"	-	-	-	-	Wingwall Horizontal
								A575c	2	10'-8"	S	0"	4'-1"	2'-6"	4'-1"	-	-	0"	-	-	-	-	Wingwall Horizontal
								A576c	6	11'-6"	V	-	-	-	9'-4"	2'-2"	-	-	1'-2"	-	-	-	Top of Wingwall
								A651c	16	11'-9"	L	7'-9"	4'-0"	-	-	-	-	-	-	-	-	-	Wingwall Horizontal
				<i>Superstructure Bars (Plain)</i>				<i>Superstructure Bars (Low-Carbon Chromium)</i>															
				S556	24	5'-8"	End Diaphragm	S551c	99	5'-9"	SC	0'-10"	1'-5"	1'-3"	1'-5"	-	-	0'-10"	-	1'-5"	-	-	Curb Stirrup
								S552c	30	6'-2"	S	0'-10"	1'-7"	1'-5"	1'-6"	-	-	0'-10"	-	-	-	-	Sidewalk Stirrup
								S553c	69	11'-4"	SC	0'-10"	1'-7"	6'-8"	1'-5"	-	-	0'-10"	-	6'-10"	-	-	Sidewalk Stirrup
								S554c	272	7'-7"	J	7'-0"	0'-7"	-	-	-	-	-	0'-5"	-	-	-	Overhang Bar
								S555c	30	5'-1"	S	0"	0'-10"	3'-5"	0'-10"	-	-	0"	-	-	-	-	End Diaphragm
								S557c	12	5'-6"	S	0'-10"	2'-0"	1'-10"	0'-10"	-	-	0"	-	-	-	-	End Diaphragm
								S558c	102	8'-0"	HB	0"	0'-10"	2'-2"	2'-0"	2'-2"	-	0'-10"	-	-	-	-	End Diaphragm
								S651c	106	7'-0"	L	3'-0"	4'-0"	-	-	-	-	-	-	-	-	-	End Diaphragm

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.

Plain Reinforcing Steel: ASTM A 615, Grade 60
 Stainless Steel Reinforcing: ASTM A955, Grade 75
 Glass Fiber Reinforced Polymer: ASTM D7957
 Low-Carbon Chromium Steel: ASTM A1035, Type CS, Grade 100

GENERAL NOTES

- The first digit(s) following the letter(s) of the mark indicate the size of the bar:
 Mark "A502" = bar size #5
 Mark "P805" = bar size #8
 Mark "S650" = bar size #6
 Mark "P1404" = bar size #14
- The lower case letter following the bar number indicates the material of the bar.

"A500" = (Black) Plain Steel
 "A550s", s = Stainless Steel
 "S500p", p = Glass Fiber Reinforced Polymer
 "P510c", c = Low-Carbon Chromium Steel

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2309401		WIN		24783.0T		BRIDGE NO. 2942		BRIDGE PLANS	
WHITNEY BROOK BRIDGE		WHITNEY BROOK		AROSTOOK COUNTY		REINFORCING		STEEL SCHEDULE		SHEET NUMBER		34	
BRIDGEWATER		AROSTOOK COUNTY		REINFORCING		STEEL SCHEDULE		SHEET NUMBER		34		OF 35	

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 _____
 Trees Conifer _____
 Tree Line _____
 Water Edge _____
 Ledge _____
 Fence CHAIN LINK _____
 Sign _____
 Clearing Limit Line _____
 Deciduous _____
 Bush Line _____
 Rock/Boulder _____
 Flag Pole _____
 STOCKADE _____
 WELL _____
 Mailbox _____

PLAN LEGEND

Sanitary Sewer	Existing	Proposed	Traveled Way	Existing	Proposed
Telephone Line	Existing	Proposed	Ditch	Existing	Proposed
Electric Line	Existing	Proposed	Catch Basin	Existing	Proposed
Water Line	Existing	Proposed	Manhole	Existing	Proposed
Underdrain Line	Existing	Proposed	Sewer Manhole	Existing	Proposed
Gas Line	Existing	Proposed	Utility Pole	Existing	Proposed
Guardrail	Existing	Proposed	Fire Hydrant	Existing	Proposed
Culvert	Existing	Proposed	Curbing	Existing	Proposed

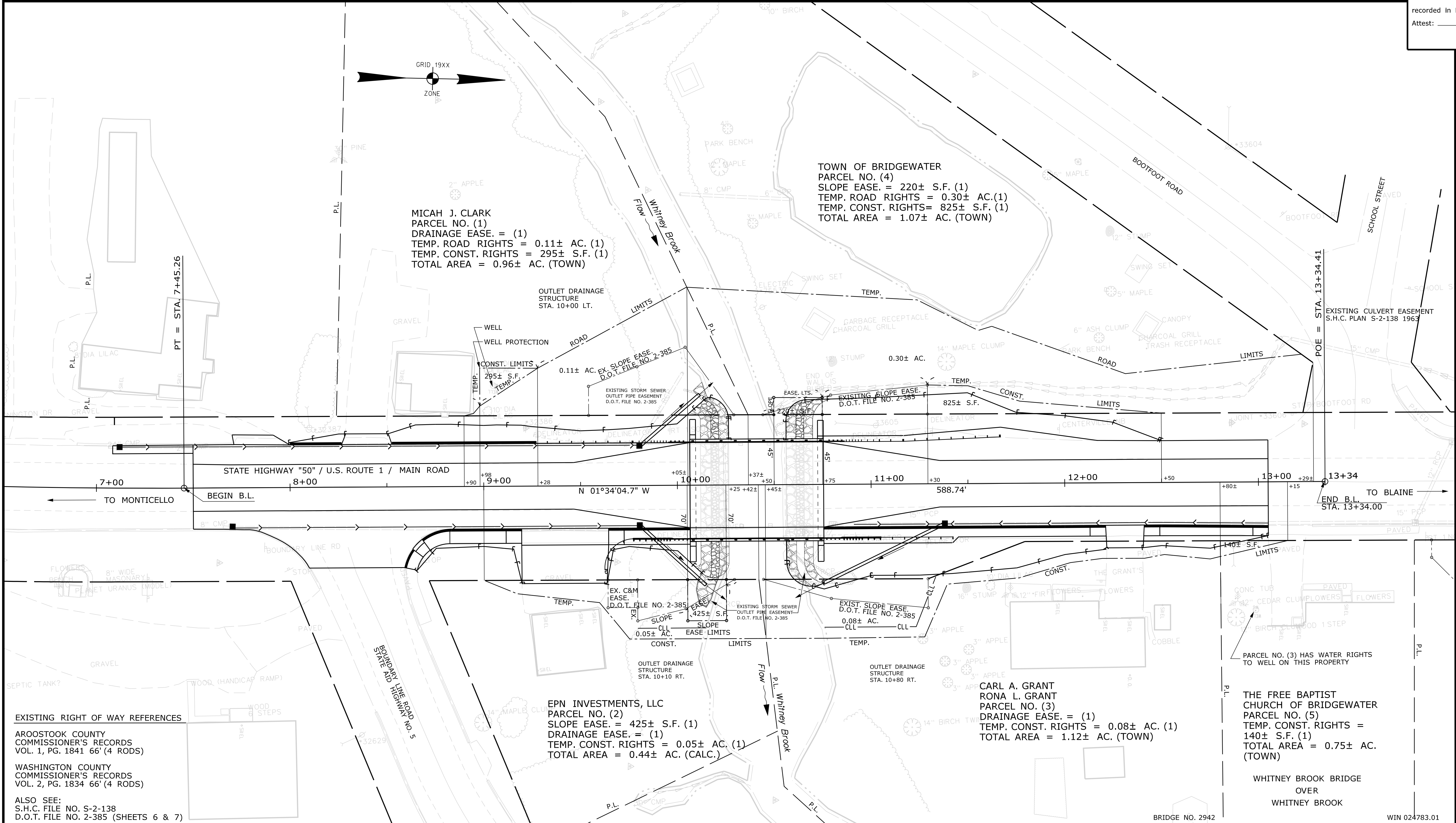
Cut Line _____
 Stonewall _____
 Baseline 10+00 _____
 Monument _____
 Iron Rod Found _____ IRF
 Replacement Pin Set _____
 Fill Line _____
 Retaining Wall _____
 Traverse Point _____
 Pipe Found _____ IPF

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 ADJACENT PROPERTY OWNERS.

Scale of Feet
 0 25 50 75 100

STATE OF MAINE
 REGISTRY OF DEEDS

COUNTY _____
 RECEIVED _____
 at _____ h _____ m _____ M and
 recorded in Plan Bk _____, Pg. _____
 Attest: _____ REGISTER



EXISTING RIGHT OF WAY REFERENCES

AROOSTOOK COUNTY COMMISSIONER'S RECORDS VOL. 1, PG. 1841 66' (4 RODS)

WASHINGTON COUNTY COMMISSIONER'S RECORDS VOL. 2, PG. 1834 66' (4 RODS)

ALSO SEE:
 S.H.C. FILE NO. S-2-138
 D.O.T. FILE NO. 2-385 (SHEETS 6 & 7)

NO.	DATE	REVISIONS DESCRIPTION	BY

PLAN FILED IN PLAN BOOK	PAGE	COUNTY RECORD
NO.	GRANTOR	INSTRUMENT

BRUCE A. VAN NOTE
 COMMISSIONER
 JOYCE NOEL TAYLOR
 CHIEF ENGINEER

DATE _____

STATE HIGHWAY "50"
 U.S. ROUTE 1 / MAIN ROAD
 BRIDGEWATER AROOSTOOK COUNTY
 FEDERAL AID PROJECT NO. 2309401

MAY 2022
 SCALE 1" = 25'

RIGHT-OF-WAY MAP
 SHEET 1 OF 1

D.O.T. FILE NO. 2-637

STATE OF MAINE DEPARTMENT OF TRANSPORTATION BRIDGEWATER RIGHT OF WAY MAP	TECH	CHECKED
EXISTING CONDITION PLAN	T.L.B.	
FINAL RIGHT OF WAY	T.L.B.	P.N.S.
AREAS	T.L.B.	P.N.S.

SHEET NUMBER
35
 OF 35

Date: 9/14/2022

Username: TerriLBlair

Division: ROW

Filename: ... \00\ROW\MSTA001_RWP\PLAN1.dgn

WIN 024783.01