

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



FORT FAIRFIELD
AROOSTOOK COUNTY
PUDDLE DOCK BRIDGE
OVER
PATTEE BROOK
ROUTE 161
2545300
PROJECT LENGTH 0.085 mi.
BRIDGE NO. 2691

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 37.23 sq mi
Design Discharge (Q50) 1,840 cfs
Check Discharge (Q100) 2,080 cfs
Headwater Elevation (Q1.1) 354.88 ft
Headwater Elevation (Q25) 358.41 ft
Headwater Elevation (Q50) 358.85 ft
Headwater Elevation (Q100) 361.19 ft
Discharge Velocity (Q1.1) 2.68 fps
Discharge Velocity (Q50) 5.34 fps
Discharge Velocity (Q100) 5.63 fps

MATERIALS

Concrete:
Curbs, Sidewalks & Transition Barriers Class "LP"
Precast Class "P"
All Other Class "A"
Reinforcing:
Plain Reinforcing Steel ASTM A615, Grade 60
Glass Fiber Reinforcing Polymer (GFRP) ASTM D7957
Low-Carbon Chromium Steel: ASTM A1035, Type CS, Grade 100
Prestressing Strands AASHTO M 203 (ASTM A416),
Grade 270, Low Relaxation
Structural Steel:
H-Piles ASTM A572, Grade 50

BASIC DESIGN STRESSES

Concrete:
Class "A" f 'c = 4,000 psi
Class "LP" f 'c = 5,000 psi
Class "P" f 'c = 10,000 psi
f 'ci = 8,000 psi
Reinforcing:
Plain Reinforcing Steel f y = 60,000 psi
Glass Fiber Reinforced Polymer
Minimum Tensile Strength f fu = 100,000 psi
Minimum Elastic Modulus E f = 8,700,000 psi
Minimum Nominal Design Tensile Strain e fu = 1.1%
Low-Carbon Chromium Steel: f y = 100,000 psi
Prestressing Strand F μ = 270,000 psi
Structural Steel:
H-Piles F y = 50,000 psi

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UTILITIES

Versant Power
Charter Communications
Consolidated Communications
Fort Fairfield Utilities District

TRAFFIC DATA

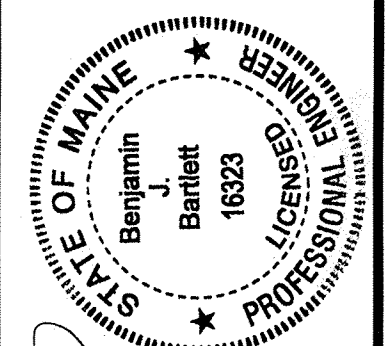
Current (2021) AADT	1,770
Future (2041) AADT	1,950
DHV - % of AADT	13
Design Hour Volume	254
Heavy Trucks (% of AADT)	11
Heavy Trucks (% of DHV)	4
Directional Distribution (% of DHV)	58
18 kip Equivalent P 2.0	225
18 kip Equivalent P 2.5	214
Design Speed (mph)	25

MAINTENANCE OF TRAFFIC

Maintain one lane of alternating one - way traffic on temporary detour using traffic signals.

PROJECT LOCATION	Puddle Dock Bridge (#2691) over Pattee Brook. Located 0.02 of a mile north of Dorsey Road. Lat./Long. 46°45'55.8" N 67°48'59.9" W
PROGRAM AREA	Highway-Bridges
OUTLINE OF WORK	Replace the existing bridge with a new bridge and raise the road grade approximately 1 foot.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER: <i>[Signature]</i>	<i>[Signature]</i>	1-27-25
CHIEF ENGINEER: <i>[Signature]</i>	<i>[Signature]</i>	1-27-2025



<i>[Signature]</i>	SIGNATURE	P.E. NUMBER	DATE
	16323	01/09/2025	

PROJECT INFORMATION	PROGRAM	PROJECT MANAGER	DESIGNER	CONSULTANT	PROJECT RESIDENT	CONTRACTOR	PROJECT COMPLETION DATE
BRIDGE		MARK PARLIN	BENJAMIN BARTLETT				

FORT FAIRFIELD PUDDLE DOCK BRIDGE	TITLE SHEET
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SHEET NUMBER
1
OF 32

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
201.23	REMOVING SINGLE TREE TOP ONLY	1	EA
201.24	REMOVING STUMP	1	EA
202.15	REMOVING MANHOLE OR CATCH BASIN	2	EA
202.19	REMOVING EXISTING BRIDGE (660 CY)	1	LS
202.202	REMOVING PAVEMENT SURFACE	570	SY
203.20	COMMON EXCAVATION	2200	CY
203.25	GRANULAR BORROW	440	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	650	CY
304.16	AGGREGATE BASE COURSE - TYPE C	1630	CY
403.2081	12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	224	T
403.209	HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	76	T
403.2131	12.5 MM POLYMER MODIFIED HMA BASE	331	T
409.15	BITUMINOUS TACK COAT - APPLIED	215	G
461.131	TEMPORARY PAVEMENT	185	T
501.231	DYNAMIC LOADING TEST	2	EA
501.54	STEEL H-BEAM PILES 117 LBS/FT, DELIVERED	985	LF
501.541	STEEL H-BEAM PILES 117 LBS/FT, IN PLACE	985	LF
501.90	PILE TIPS	10	EA
501.91	PILE SPLICES	20	EA
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	1	LS
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (92 CY)	1	LS
502.261	STRUCT. CONC. ROADWAY & SIDEWALK SLAB ON CONCRETE BRIDGE (126 CY)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLABS (23 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (29 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	19,300	LB
503.13	REINFORCING STEEL, PLACING	19,300	LB
503.19	LOW-CARBON, CHROMIUM REINFORCEMENT - FABRICATED & DELIVERED	16,500	LB
503.20	LOW-CARBON, CHROMIUM REINFORCEMENT - PLACING	16,500	LB
507.0821	STEEL BRIDGE RAILING, 3 BAR (69 LF)	1	LS
507.0831	STEEL BRIDGE RAILING, 4 BAR (69 LF)	1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (270 SY)	1	LS
510.12	SPECIAL DETOUR 14 FT. ROADWAY WIDTH, VEH. AND PED. TRAFFIC SEPARATED	1	LS
511.07	COFFERDAM: ABUTMENT NO. 1	1	LS
511.07	COFFERDAM: ABUTMENT NO. 2	1	LS
512.081	FRENCH DRAINS (160 LF)	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (185 SY)	1	LS
526.301	PORTABLE CONCRETE BARRIER TYPE 1 (60 LF)	1	LS
526.34	PERMANENT CONCRETE TRANSITION BARRIER	2	EA
526.3401	PERMANENT CONCRETE TRANSITION BARRIER - MODIFIED	2	EA
527.34	WORK ZONE CRASH CUSHIONS	4	UN
530.30	GFRP, REINFORCEMENT BARS, FABRICATED & DELIVERED	18,330	LF
530.31	GFRP, REINFORCEMENT BARS, PLACING	18,330	LF
535.622	PRESTRESSED STRUCTURAL CONCRETE NEXT BEAM (109 CY)	1	LS
603.159	12 INCH CULVERT PIPE OPTION III	94	LF
604.072	CATCH BASIN TYPE A1-C	3	EA
605.11	12 INCH UNDERDRAIN TYPE C	251	LF
606.1301	31" W-BM GR, MID-WAY SPLICE-SGL FACED	63	LF
606.1303	31" W-BM GR, MID-WAY SPLICE-15' RAD AND LESS	13	LF
606.1305	31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	2	EA
606.1307	BRIDGE TRANSITION (ASYMMETRICAL) TYPE 1A	2	EA
606.1307	BRIDGE TRANSITION (ASYMMETRICAL) TYPE 1A, MODIFIED	2	EA
606.265	TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	2	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EA
608.26	CURB RAMP DETECTABLE WARNING FIELD	39	SF
609.11	VERTICAL CURB TYPE 1	67	LF
609.238	TERMINAL CURB TYPE 1 - 8 FOOT	4	EA
609.31	CURB TYPE 3	220	LF
610.08	PLAIN RIPRAP	514	CY
613.319	EROSION CONTROL BLANKET	129	SY
615.07	LOAM	29	CY
618.14	SEEDING METHOD NUMBER 2	5	UN
619.12	MULCH	5	UN
619.14	EROSION CONTROL MIX	57	CY
620.58	EROSION CONTROL GEOTEXTILE	714	SY
626.11	PRECAST CONCRETE JUNCTION BOX	1	EA
626.21	METALLIC CONDUIT	100	LF
626.22	NON-METALLIC CONDUIT	328	LF
626.251	NON-METALLIC UNDER PAVEMENT CONDUIT (SCH. 80 OR GREATER RATING)	94	LF
626.421	24 INCH DIAMETER FOUNDATION	35	LF
627.18	12" SOLID WHITE PAVEMENT MARKING	20	LF
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	1590	LF
627.77	REMOVING PAVEMENT MARKINGS	360	SF
627.78	TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	1060	LF
629.05	HAND LABOR, STRAIGHT TIME	20	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	HR
631.14	GRADER (INCLUDING OPERATOR)	10	HR
631.15	ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	10	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	10	HR
634.160	HIGHWAY LIGHTING	1	LS
634.2042	LED LUMINARIES	3	EA

ESTIMATED QUANTITIES (Continued)			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
634.210	CONVENTIONAL LIGHT STANDARD	2	EA
634.70	ORNAMENTAL LIGHTING	3	EA
639.19	FIELD OFFICE TYPE B	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.312	TYPE III BARRICADE	12	EA
652.33	DRUM	25	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	400	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (120 CD)	1	LS
652.38	FLAGGER	360	HR
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS
845.10	STRUCTURAL STEEL UTILITY SUPPORT	1	LS
910.301	SPECIAL WORK - UTILITY CONDUIT AND HANGERS ON BRIDGE	1	LS

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. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.
6. 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.
7. All embankment material, except as otherwise shown, placed below EL. 355.0 shall be Granular Borrow meeting the requirements of Standard Specifications Subsection 703.19, Granular Borrow, for Material for Underwater Backfill.
8. Construct the riprap shelf at EL. 362.1 for abutment 1 and at EL. 359.2 for abutment 2.
9. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.
10. 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 Pay Item 619.14, Erosion Control Mix.
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, All exposed surfaces of Concrete Transition Barriers, 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 for the Replacement of Puddle Dock Bridge, Fort Fairfield, Maine, Soils Report 2024-17, dated October 30, 2024, 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 Limits of Structural Earth Excavation and Granular Borrow and the existing abutments shall be paid for as Common Excavation.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2545300

WIN
25453.00
BRIDGE NO. 2691
BRIDGE PLANS

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

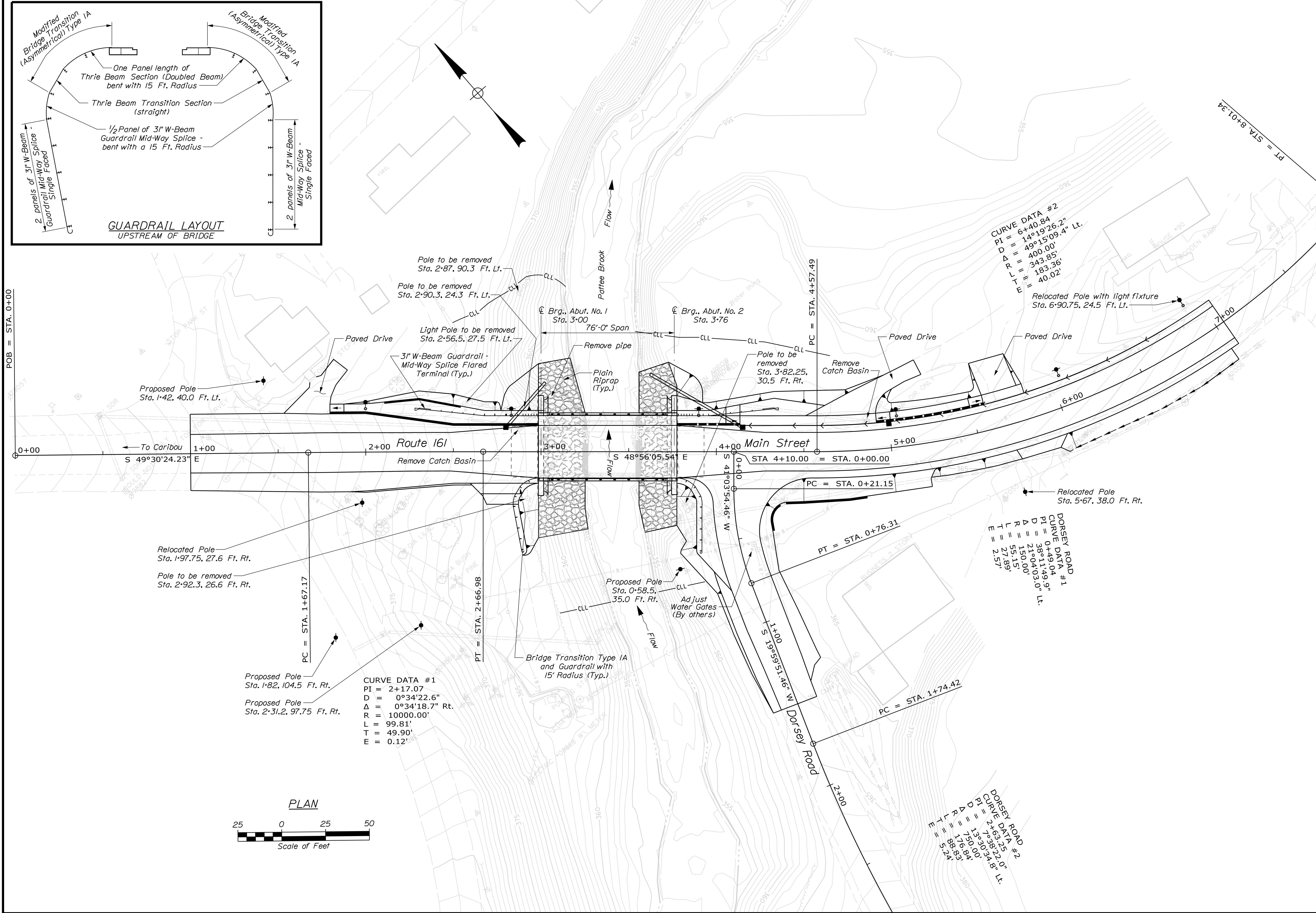
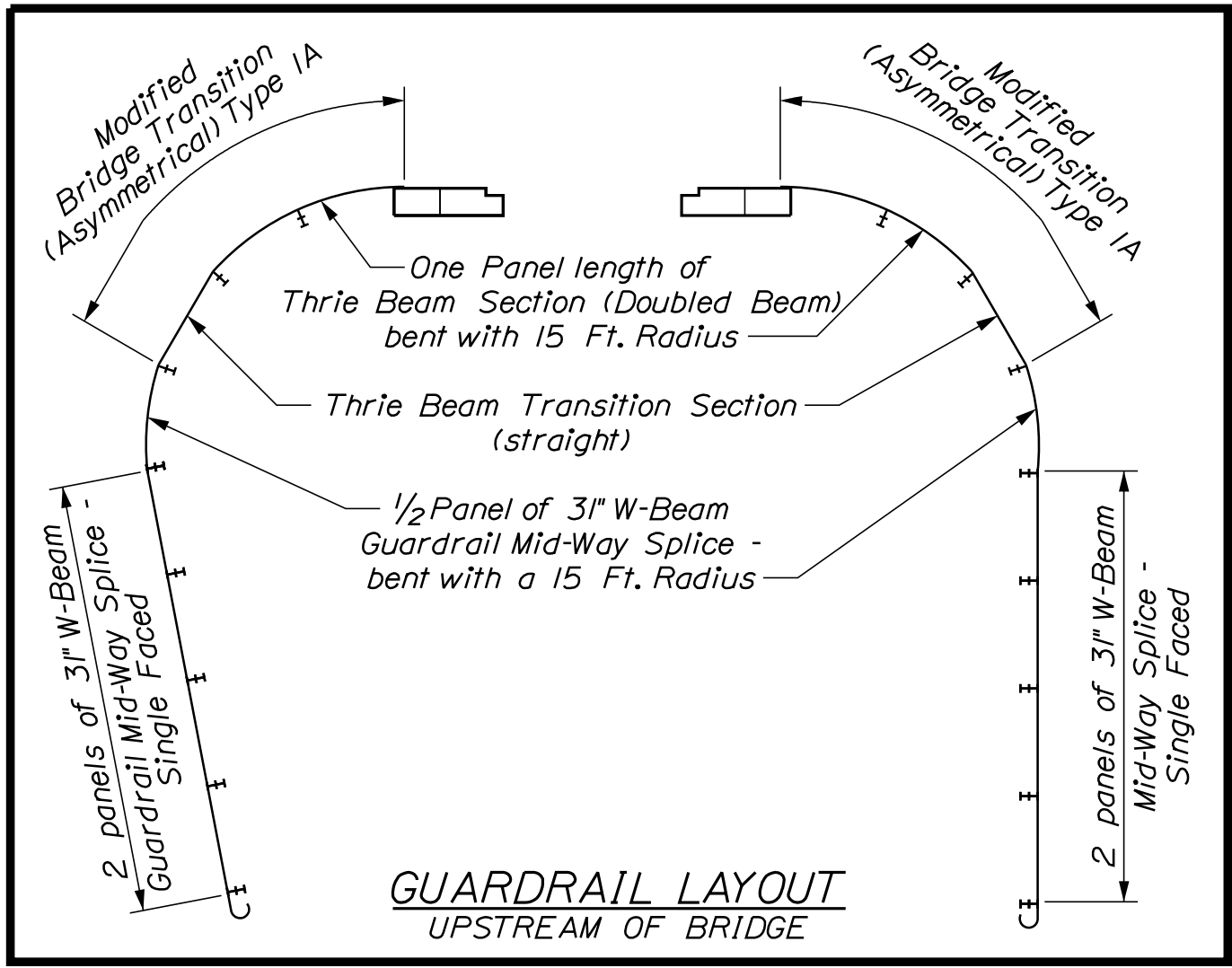
M. PARLIN
B. BARTLETT
D. SHAW
T. WHITE

DATE
AUG 2022

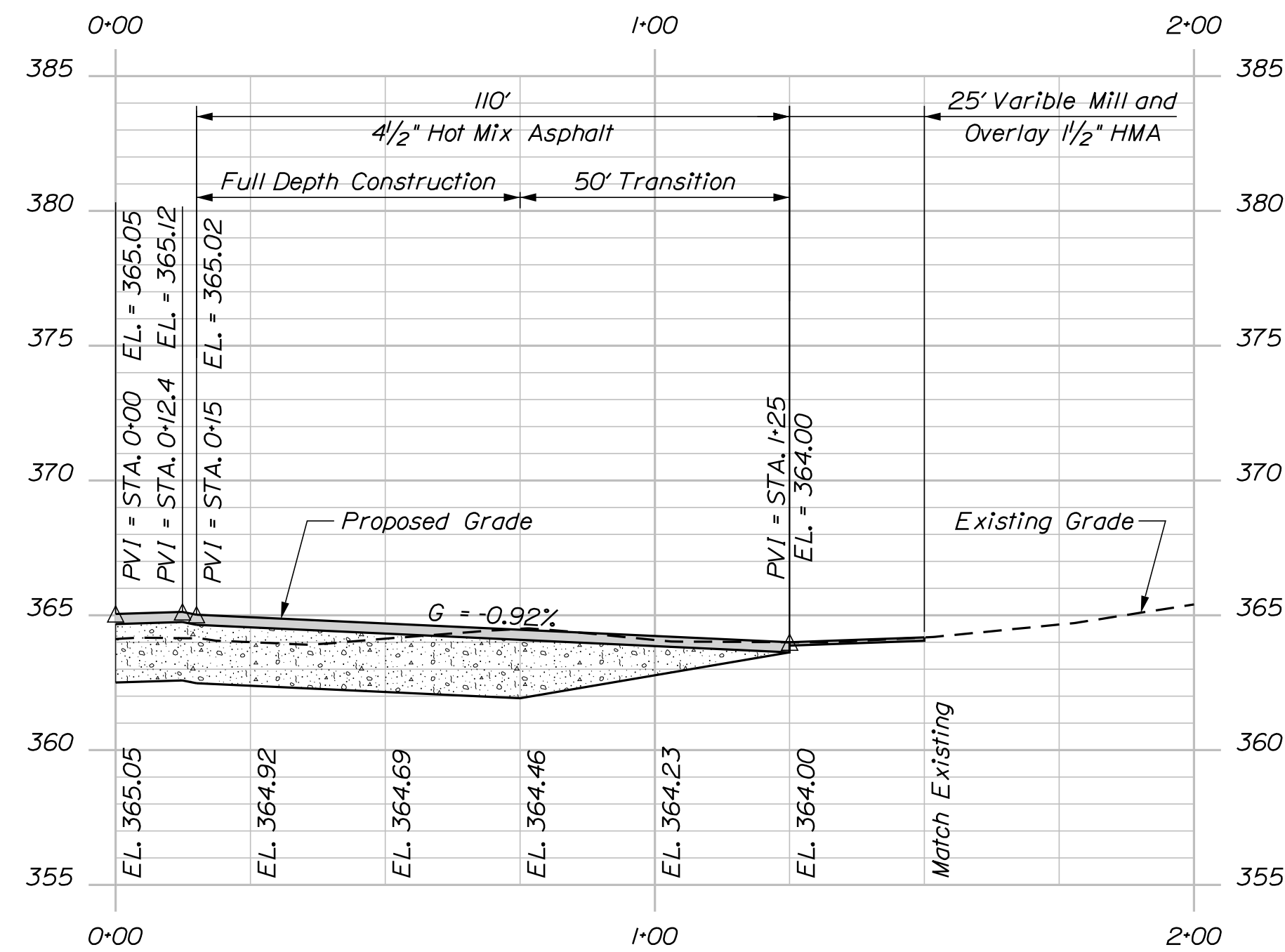
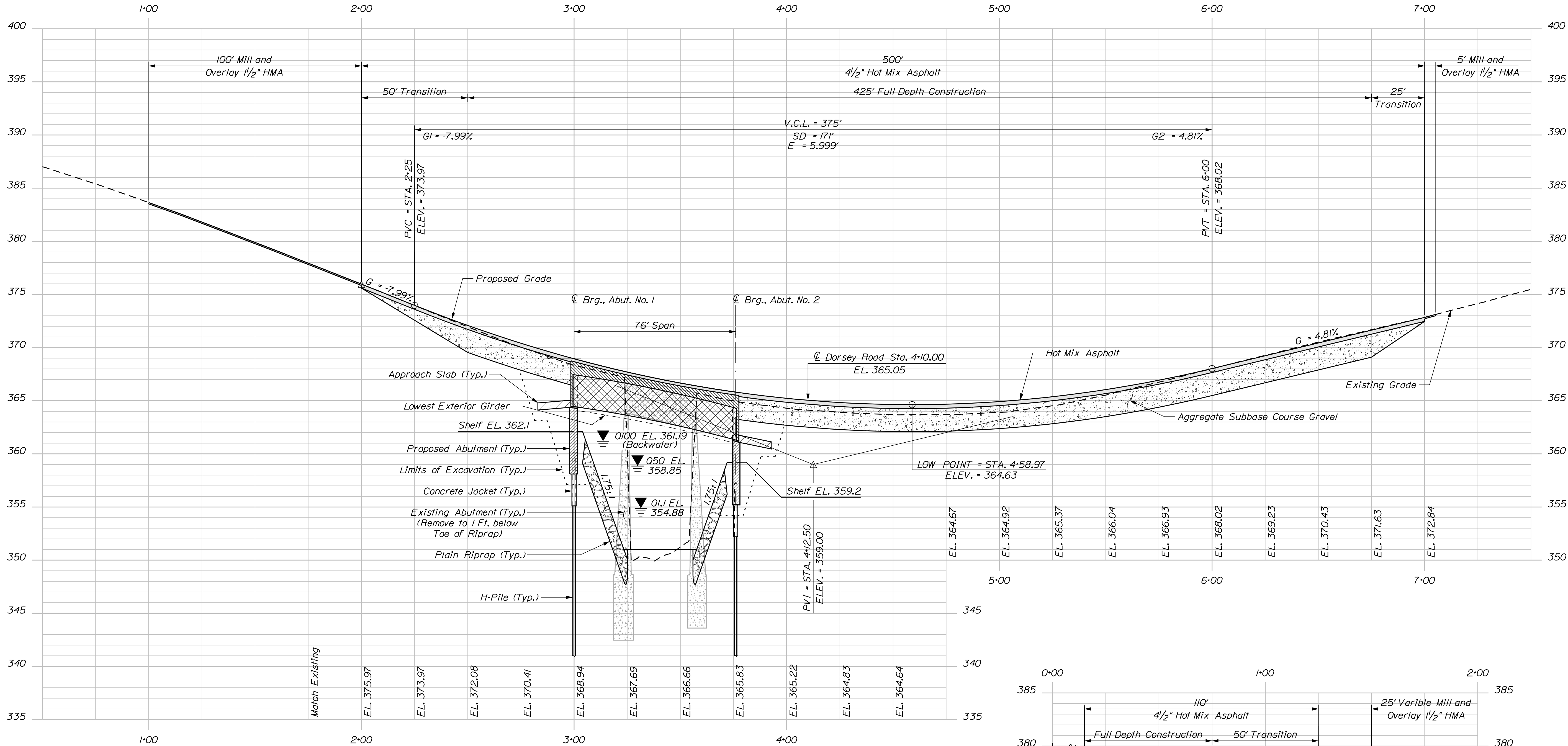
P.E. NUMBER
DATE

PUDDLE DOCK BRIDGE
PATTEE BROOK
FORT FAIRFIELD AROOSTOOK COUNTY
ESTIMATED QUANTITIES AND
GENERAL CONSTRUCTION NOTES

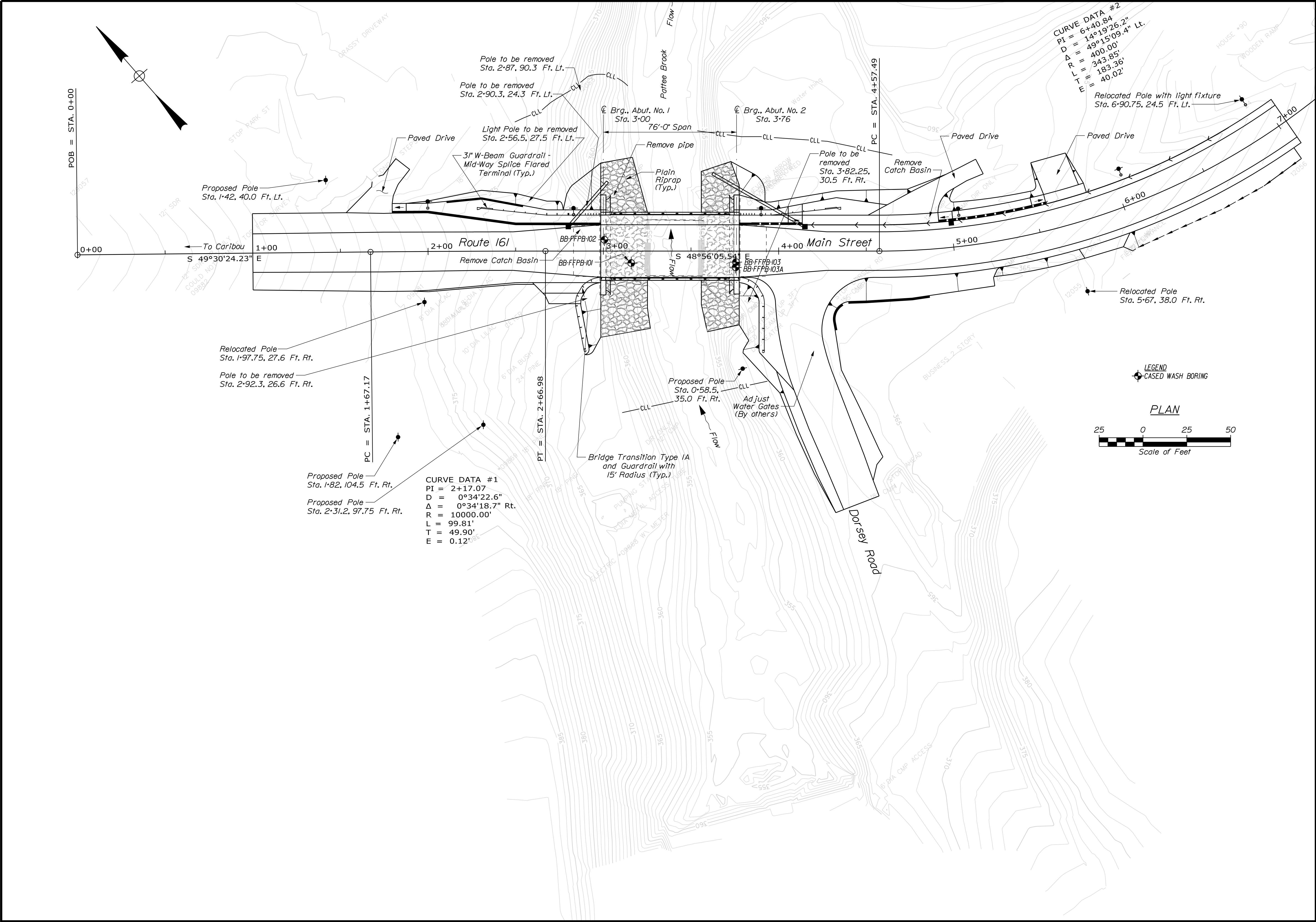
SHEET NUMBER
2
OF 32



SHEET NUMBER 3 OF 32	PUDDLE DOCK BRIDGE PATTEE BROOK FORT FAIRFIELD AROOSTOOK COUNTY GENERAL PLAN	PROJ. MANAGER	M. PARLIN	BY	DATE
		DESIGN-DETAILED	B. BARTLETT	D. SHAW	
		CHECKED-REVIEWED			
		DESIGN2-DETAILED2	N. RUKAY	I. WHITE	AUG 2022
		DESIGN3-DETAILED3			
		REVISIONS 1			P.E. NUMBER
		REVISIONS 2			
		REVISIONS 3			
		REVISIONS 4			DATE
		FIELD CHANGES			
STATE OF MAINE DEPARTMENT OF TRANSPORTATION		BRIDGE NO. 2691			
2545300		WIN 25453.00			
BRIDGE PLANS					



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2545300		WIN		BRIDGE NO. 2691		BRIDGE PLANS	
PUDDLE DOCK BRIDGE		PATTEE BROOK		FORT FAIRFIELD		AROOSTOOK COUNTY		MAIN STREET PROFILE AND		DORSEY ROAD PROFILE	
PROJECT MANAGER		DESIGN-REVIEWED		DESIGN-REVIEWED		DESIGN-REVIEWED		REVISIONS 1		REVISIONS 2	
BY		DATE		DATE		DATE		DATE		DATE	
M. PARLIN		D. SHAW		T. WHITE							
SIGNATURE		P.E. NUMBER		DATE							
SHEET NUMBER		4		OF 32							



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2545300

WIN 25453.00
BRIDGE NO. 2691
BRIDGE PLANS

PUDDLE DOCK BRIDGE
PATTEE BROOK
FORT FAIRFIELD AROOSTOOK COUNTY

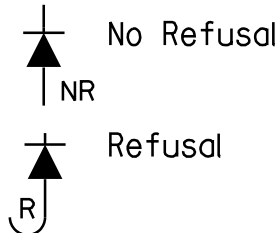
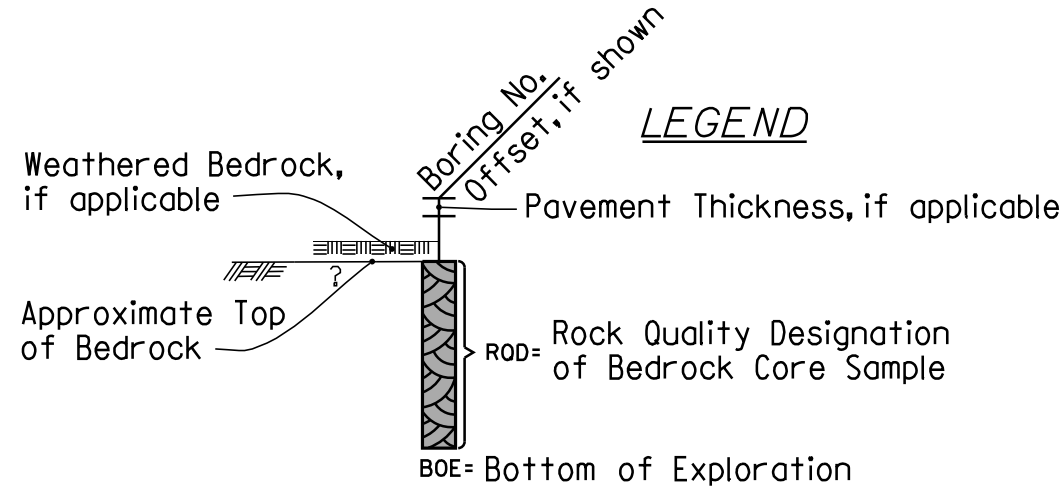
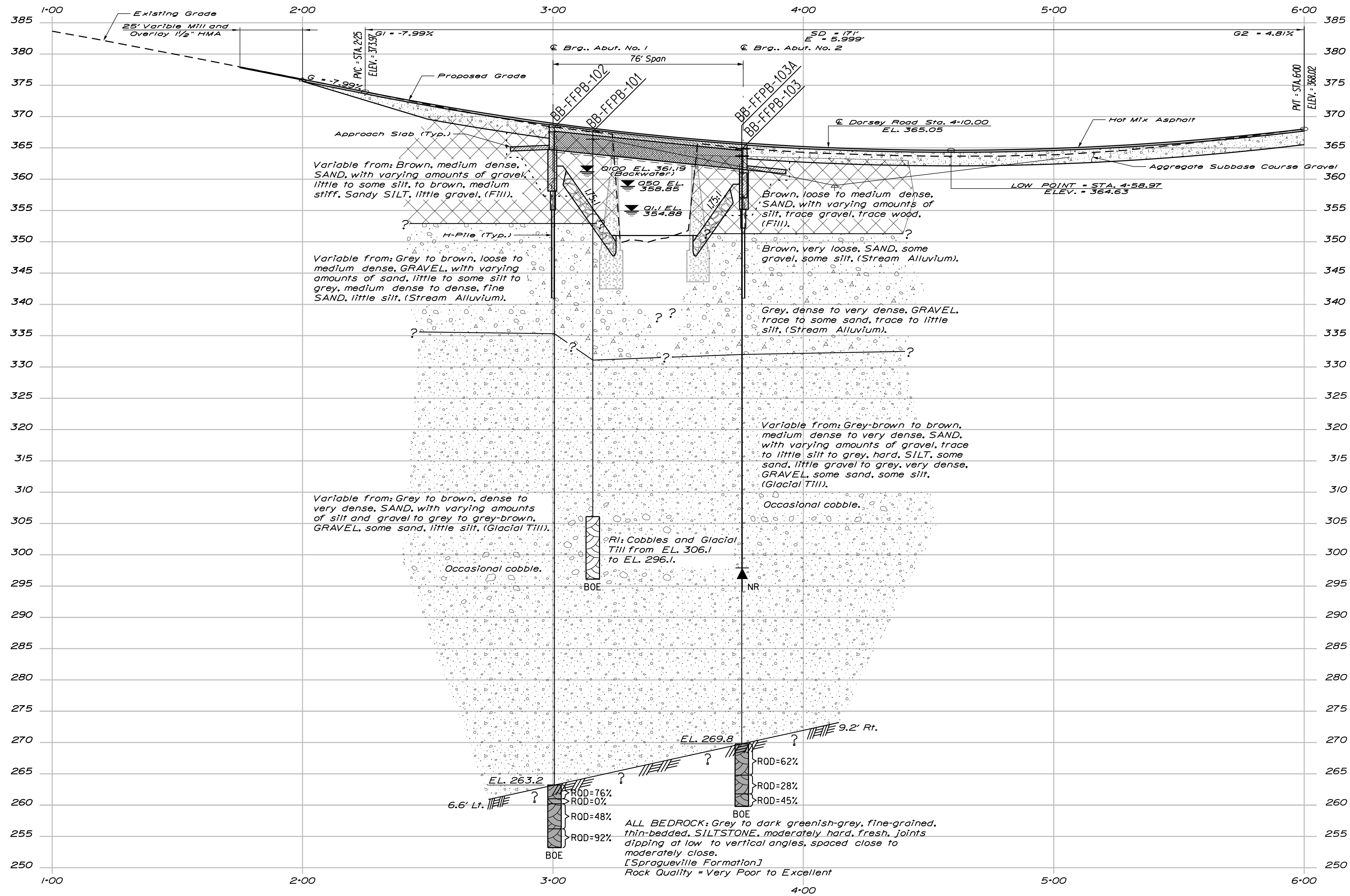
BORING LOCATION PLAN

SHEET NUMBER

5

OF 32

PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
DESIGN-DETAILED					
CHECKED-REVIEWED	T. WHITE	OCT 2024			
DESIGN-DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					



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

"Varying Amounts" term = Portion is 0 to 50 percent of Total.

STATE OF MAINE
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2545300

WIN
25453.00
BRIDGE NO. 2691

BRIDGE PLANS

PUDDLE DOCK BRIDGE
PATTEE BROOK
FORT FAIRFIELD AROOSTOOK COUNTY

INTERPRETIVE SUBSURFACE PROFILE

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

BY
DATE
T. WHITE
OCT 2024

SIGNATURE
P.E. NUMBER
DATE

SHEET NUMBER

6

OF 32

Boring No.: BB-FFPB-101

Boring No.: BB-FFPB-102

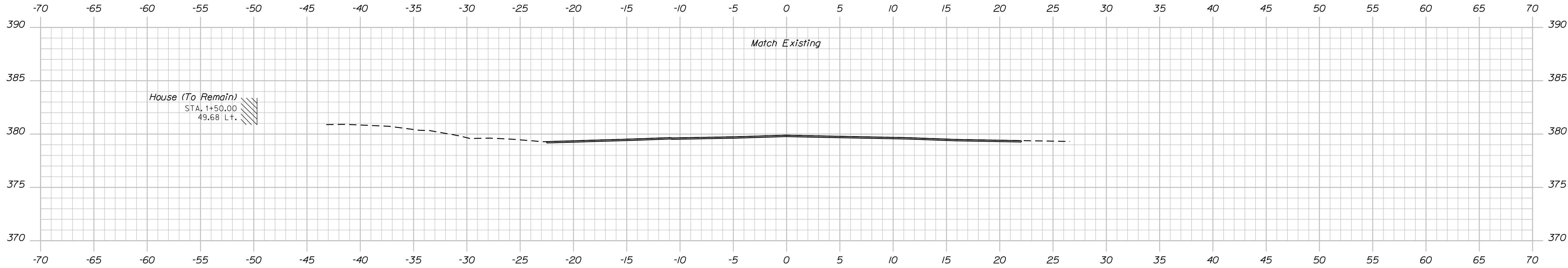
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Date:1/8/2025

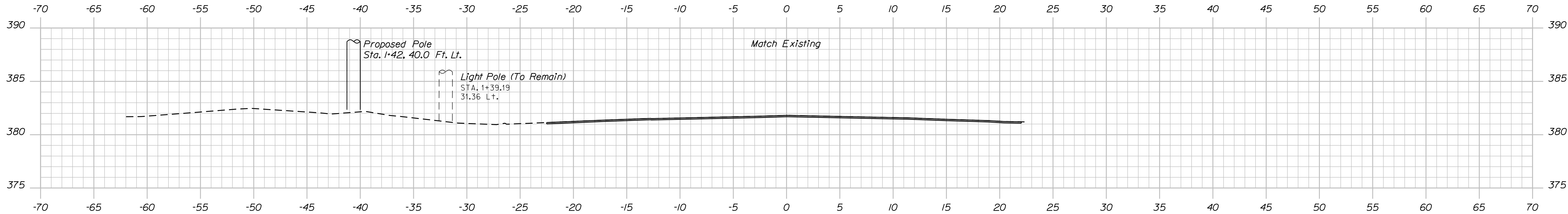
Username: David Shaw

Division: BRIDGE

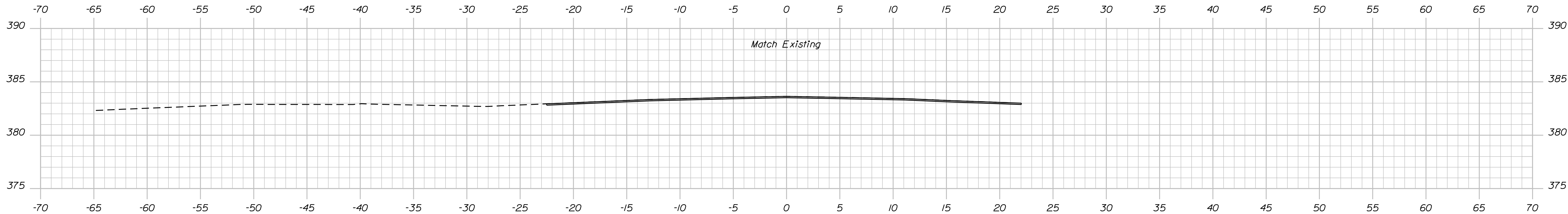
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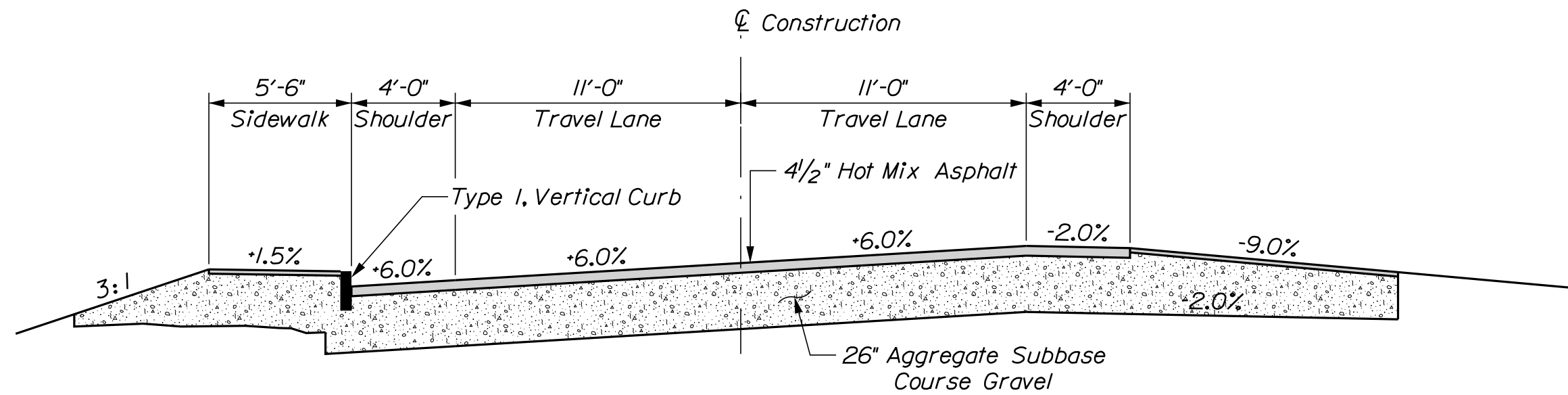
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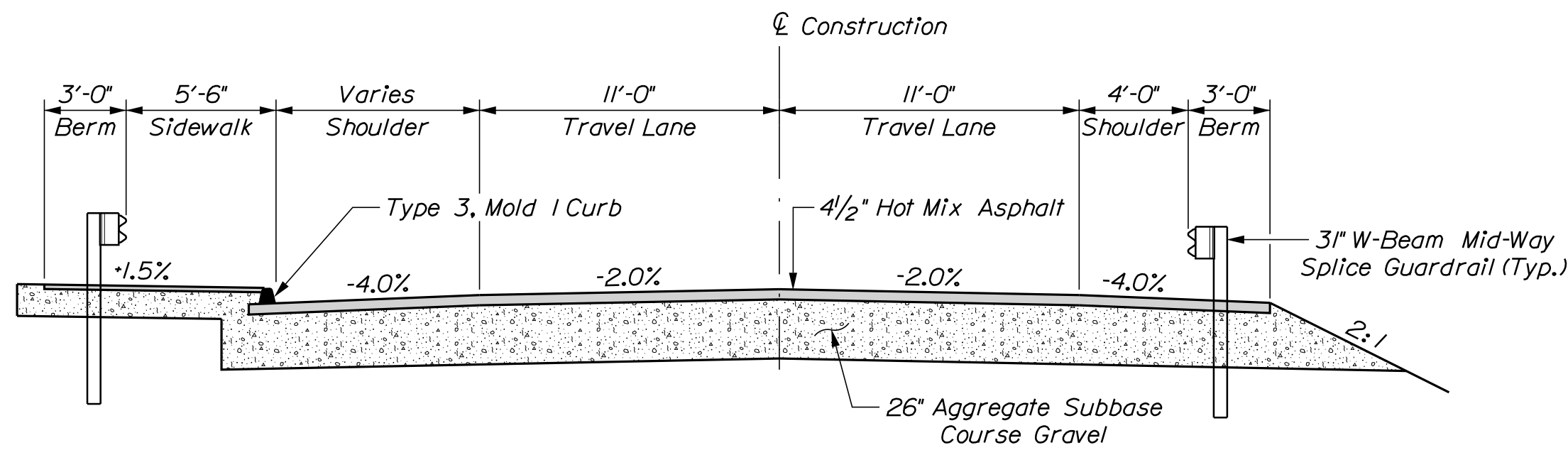
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I+00.00
Begin 1 1/2" Mill and Overlay



TYPICAL APPROACH SECTION
Main Street - Superelevated Section



TYPICAL APPROACH SECTION
Main Street

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
2545300	
WIN	
25453.00	
BRIDGE NO. 2691	
BRIDGE PLANS	

PROJ. MANAGER	M. PARLIN	BY	DATE	SIGNATURE
DESIGN-DETAILED	B. BARTLETT	D. SHAW	AUG. 2022	P.E. NUMBER
DESIGN-DETAILED	N. PUKAY	T. WHITE		DATE
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

PUDDLE DOCK BRIDGE	
PATTEE BROOK	
FORT FAIRFIELD AROOSTOOK COUNTY	
CROSS SECTIONS	
MAIN STREET	

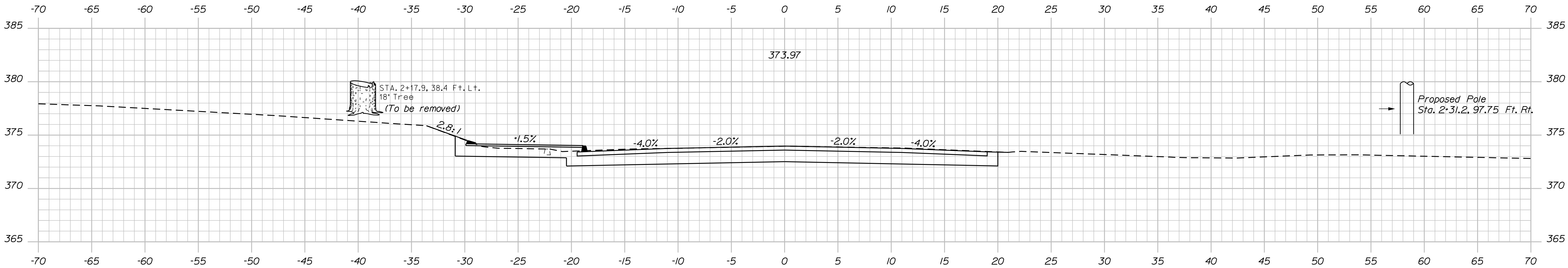
SHEET NUMBER	
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OF 32	

Date:1/8/2025

Username: David.Shaw

Division: BRIDGE

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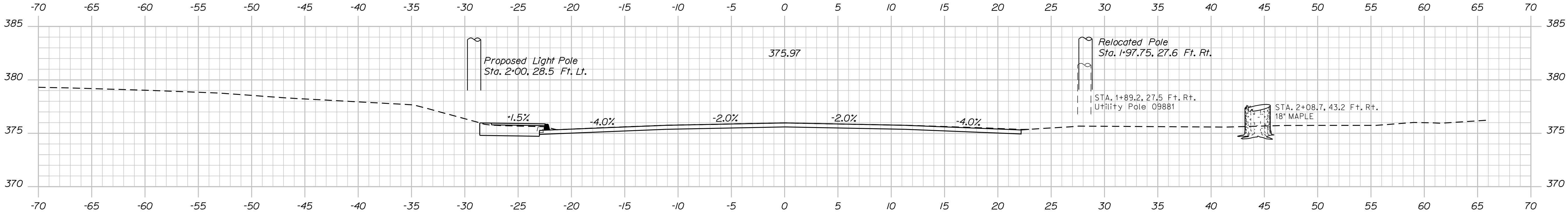


STA. 2+17.9, 38.4 Ft. Lt.
18" Tree
(To be removed)

Install 3" W-Beam Guardrail - Mid-Way Splice Flared Terminal
Sta. 2+30.6±, 24.5± Ft. Lt. to Sta. 2+67.8±, 20.5± Ft. Lt.

2+25.00
Transitioning

Proposed Pole
Sta. 2+31.2, 97.75 Ft. Rt.



Proposed Light Pole
Sta. 2+00, 28.5 Ft. Lt.

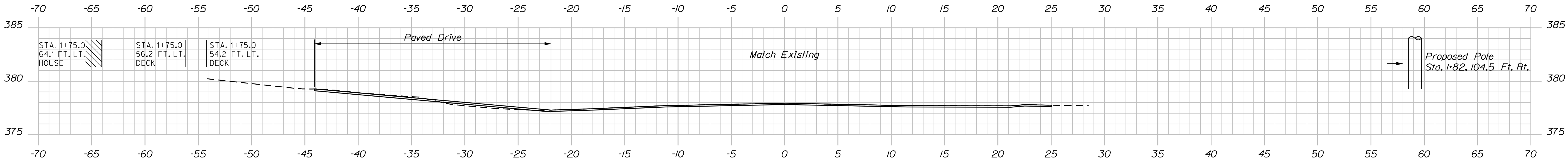
Install 44 L.F. of Type 3, mold 3 Curb
Sta. 10+8, 27.5 Ft. Lt. to Sta. 2+30.6, 29.4 Ft. Lt.
to Sta. 2+54.1, 25 Ft. Lt.

2+00.00
Begin Transition
End Mill and Overlay / Begin 4 1/2" Hot Mix Asphalt

Relocated Pole
Sta. 1+97.75, 27.6 Ft. Rt.

STA. 1+89.2, 27.5 Ft. Rt.
Utility Pole 09881

STA. 2+08.7, 43.2 Ft. Rt.
18" MAPLE



STA. 1+75.0
64.1 FT. LT.
HOUSE

STA. 1+75.0
56.2 FT. LT.
DECK

STA. 1+75.0
54.2 FT. LT.
DECK

Paved Drive

Match Existing

Proposed Pole
Sta. 1+82, 104.5 Ft. Rt.

Install Sidewalk Delineator for ramp
Install 112.4 L.F. of Type 3, Mold 1 Curb
Sta. 1+79.8, 22.0 Ft. Lt. to Sta. 1+87.7, 22.0 Ft. Lt.
Sta. 1+87.7, 22.0 Ft. Lt., Sta. 2+00, 22.0 Ft. Lt.,
Sta. 2+50, 15.0 Ft. Lt. to Sta. 2+91.5, 15.0 Ft. Lt.
Install Precast Concrete Transition Curb
Sta. 2+91.5, 15.0 Ft. Lt. to Bridge

1+75.00

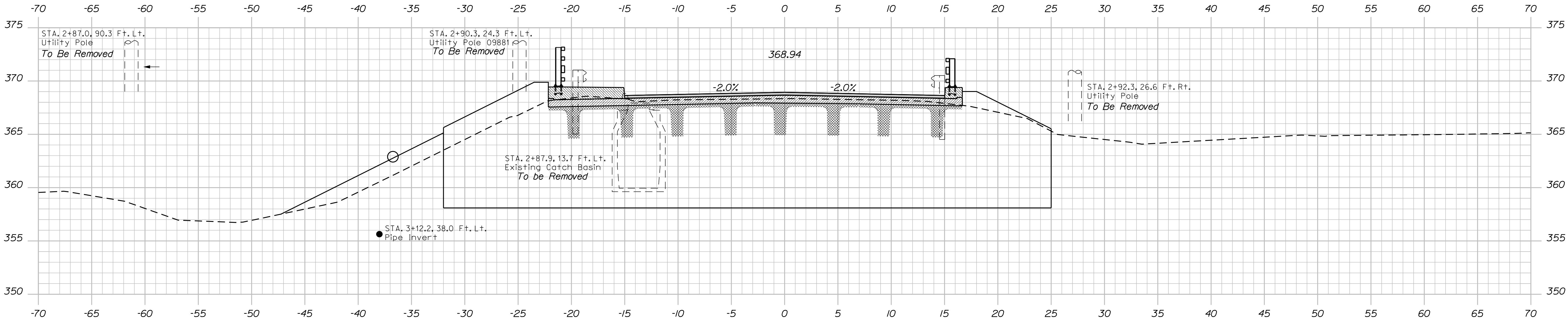
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PUDDLE DOCK BRIDGE				PATTEE BROOK				AROOSTOOK COUNTY				CROSS SECTIONS				MAIN STREET				SHEET NUMBER				10			
FORT FAIRFIELD				DESIGN-DETAILED				DESIGN-DETAILED				DESIGN-DETAILED				DESIGN-DETAILED				SIGNATURE				P.E. NUMBER			
M. PARLIN				B. BARTLETT				N. PUKAY				T. WHITE				AUG. 2022				DATE				DATE			
BY				D. SHAW				T. WHITE																			
DATE				AUG. 2022																							
PROJ. MANAGER				CHECKED-REVIEWED				DESIGN-DETAILED				REVISIONS 1				REVISIONS 2				REVISIONS 3				REVISIONS 4			
FIELD CHANGES																											

Date:1/8/2025

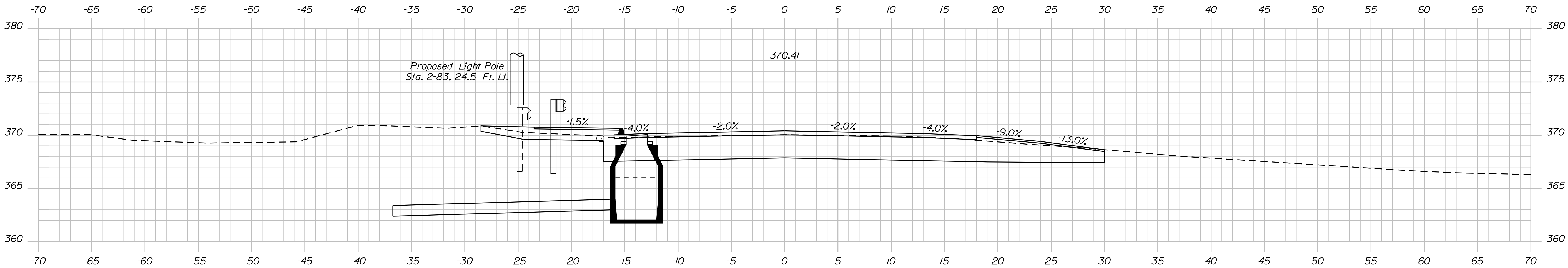
Username: David Shaw

Division: BRIDGE

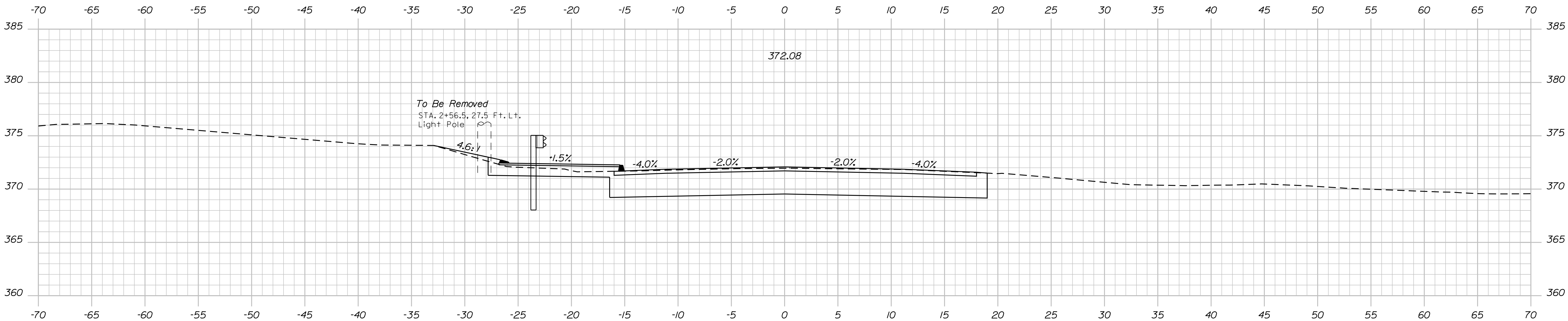
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3+00.00



2+75.00

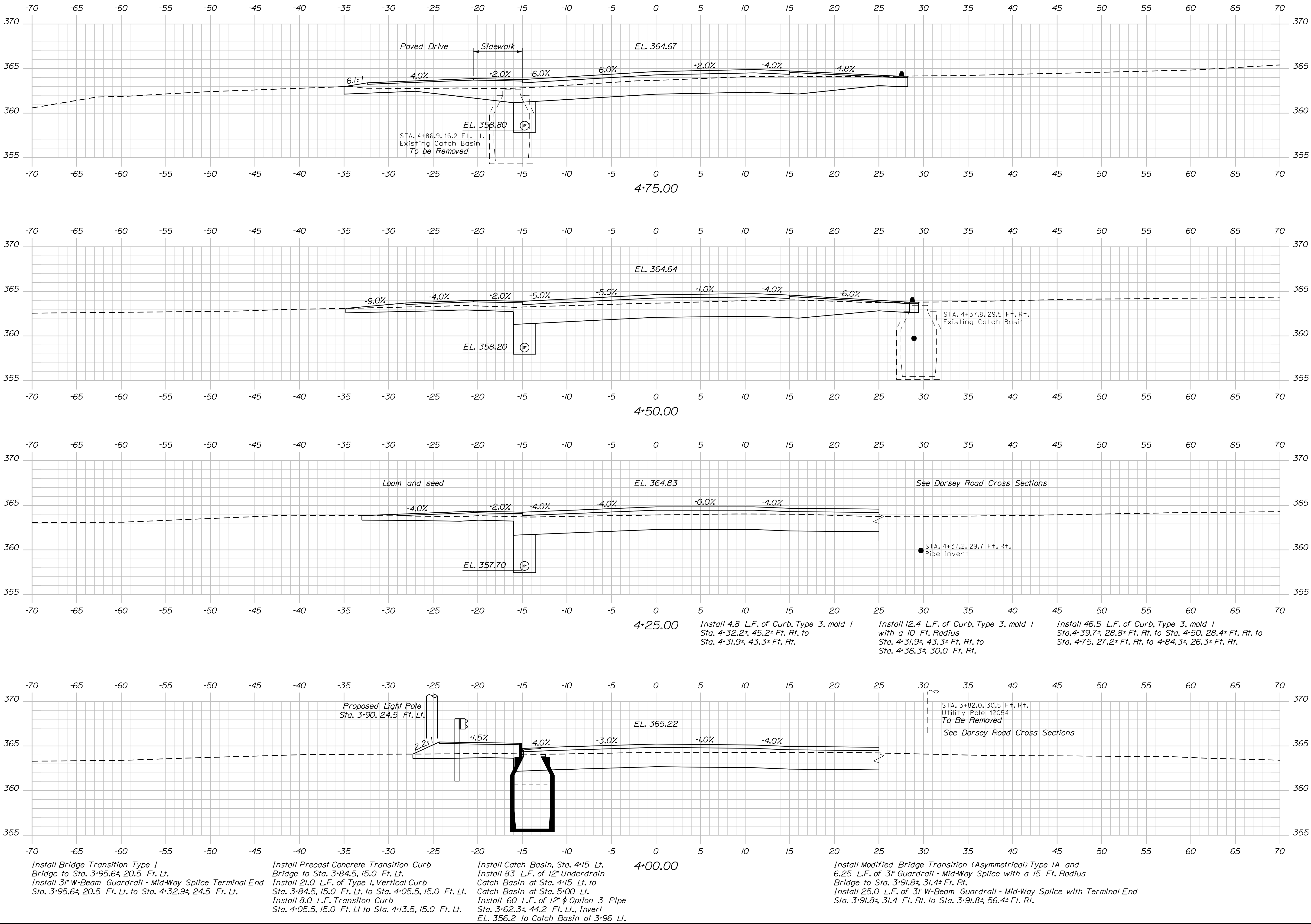


2+50.00

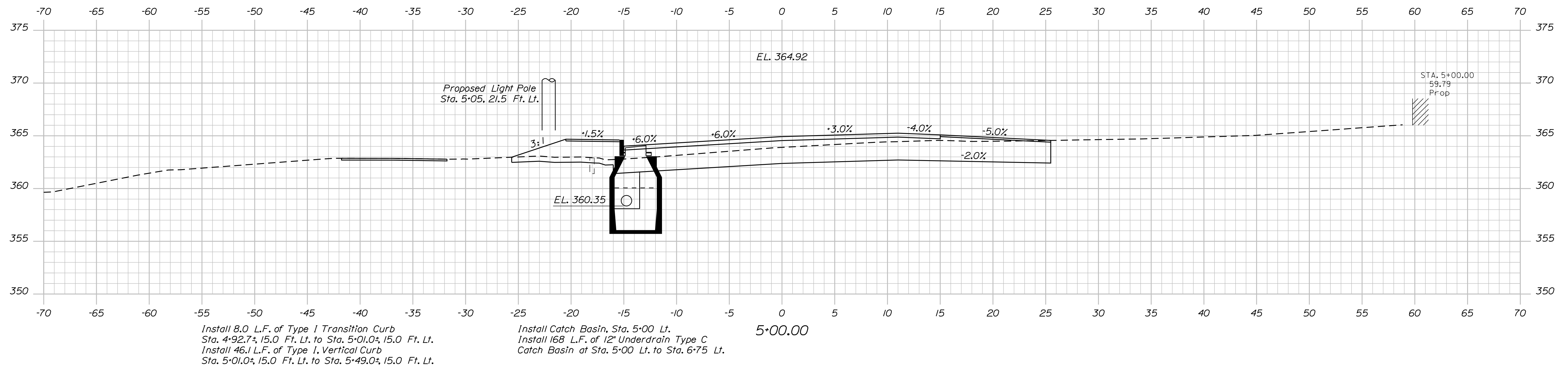
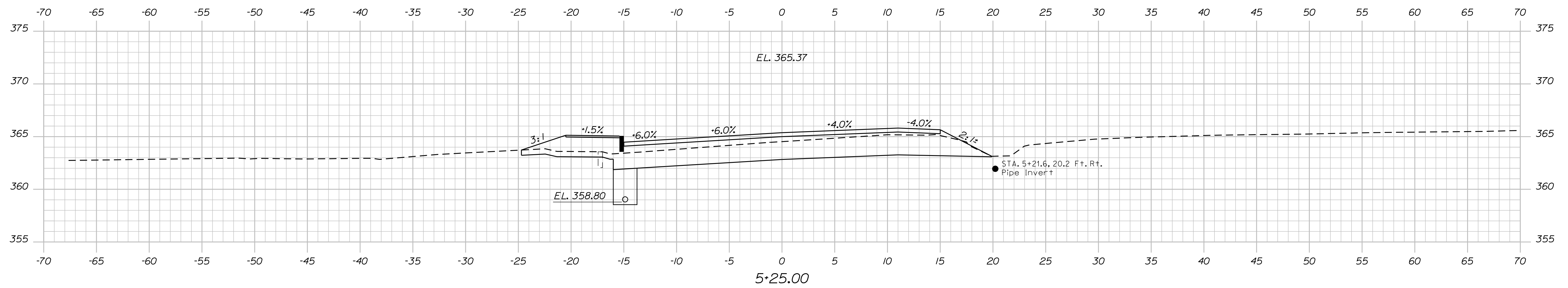
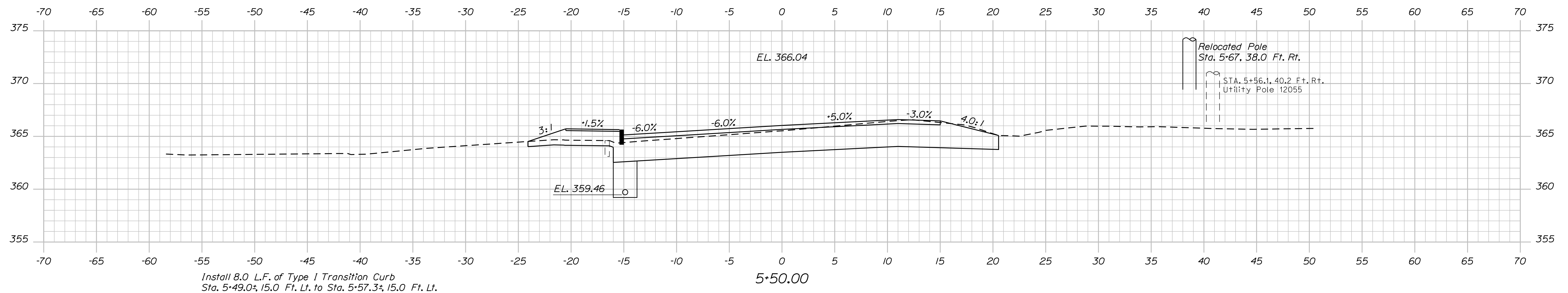
End Transition / Begin Full Depth Construction

PROJ. MANAGER	BY	DATE	SIGNATURE
M. PARLIN	D. SHAW	AUG 2022	
CHECKED-REVIEWED	B. BARTLETT		
DESIGNED-DETAILED	N. PIKAY		
DESIGNED-DETAILED	T. WHITE		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

Filename: ... \MSTAO12_XSECT_4+00-4+75.dgn Username: David.Shaw Date:1/8/2025 Division: BRIDGE



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	2545300		WIN 25453.00		BRIDGE NO. 2691		BRIDGE PLANS		
	SIGNATURE		P.E. NUMBER		DATE		PUDDLE DOCK BRIDGE PATTEE BROOK FORT FAIRFIELD AROOSTOOK COUNTY CROSS SECTIONS MAIN STREET		
PROJ. MANAGER		BY	DATE	DESIGN-DETAILED		CHECKED-REVIEWED		FIELD CHANGES	
M. PARLIN		D. SHAW	AUG 2022	N. PUKAY		T. WHITE			
DESIGN-DETAILED		DESIGN-DETAILED		REVISIONS 1		REVISIONS 2		REVISIONS 3	
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STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
	2545300
BRIDGE NO. 2691	WIN
	25453.00
	BRIDGE PLANS

PROJ. MANAGER	M. PARLIN	BY	DATE
DESIGN-DETAILED	B. BARTLETT	D. SHAW	
CHECKED-REVIEWED			
DESIGN/2-DETAIL/3-D	N. PUKAY	T. WHITE	AUG. 2022
DESIGN/3-DETAIL/3-D			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

PUDDLE DOCK BRIDGE
PATTEE BROOK
FORT FAIRFIELD AROOSTOOK COUNTY
CROSS SECTIONS
MAIN STREET

SHEET NUMBER

13

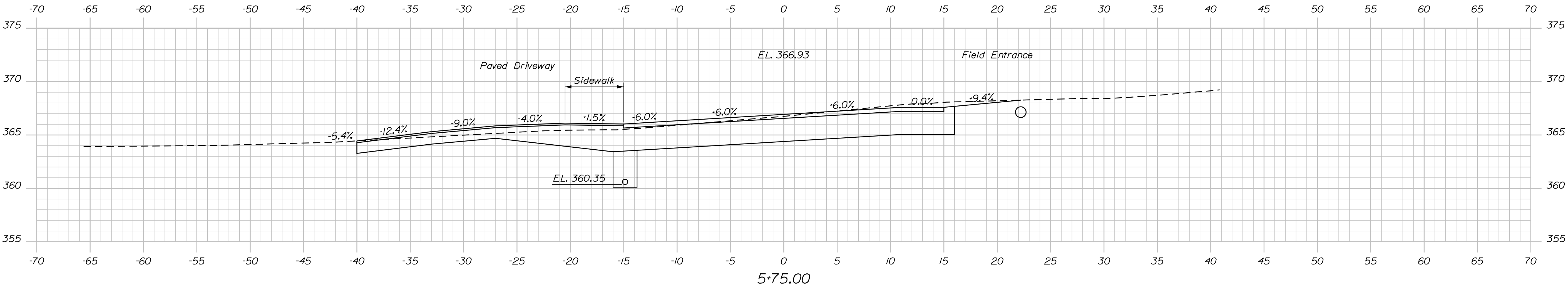
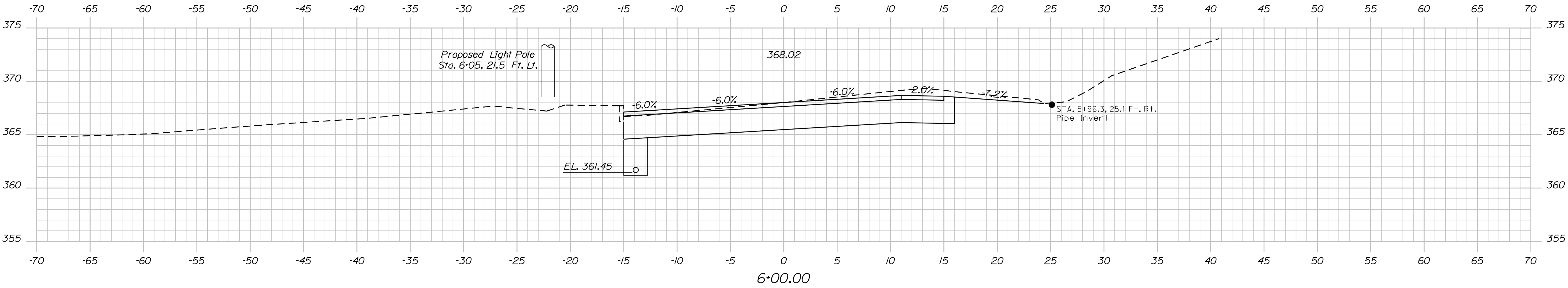
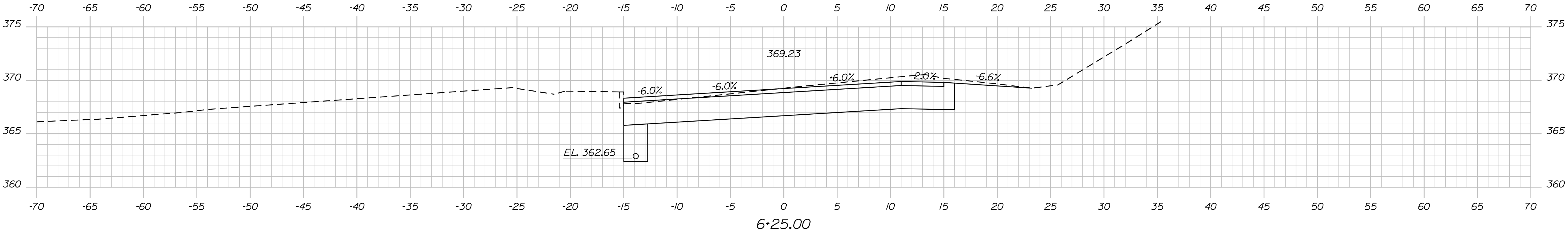
OF 32

Date:1/8/2025

Username: David Shaw

Division: BRIDGE

Filename: ... \MSTA\014_XSECT_5+75-6+25.dgn



STATE OF MAINE DEPARTMENT OF TRANSPORTATION		
	2545300	
	WIN	25453.00
BRIDGE NO. 2691		
BRIDGE PLANS		

PROJ. MANAGER	M. PARLIN	BY	DATE	SIGNATURE
CHECKED-REVIEWED	B. BARTLETT	D. SHAW	AUG 2022	P.E. NUMBER
DESIGN-REVIEWED	N. PIKAY	T. WHITE		DATE
DESIGNS-DETAILS				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

PUDDLE DOCK BRIDGE PATTEE BROOK FORT FAIRFIELD AROOSTOOK COUNTY	CROSS SECTIONS MAIN STREET

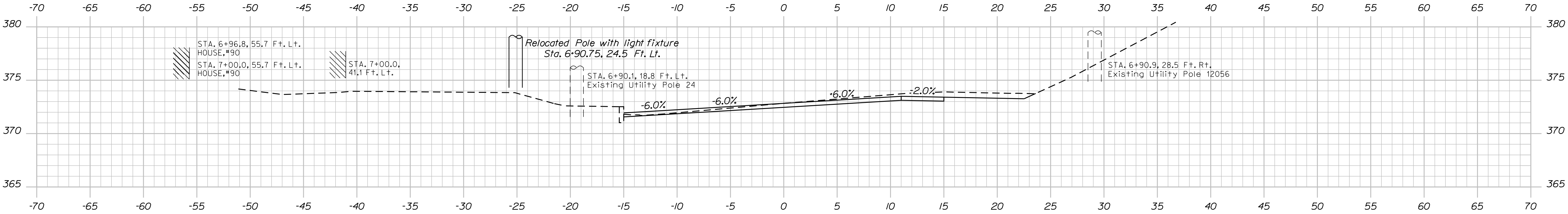
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OF 32

Date:1/8/2025

Username: David.Shaw

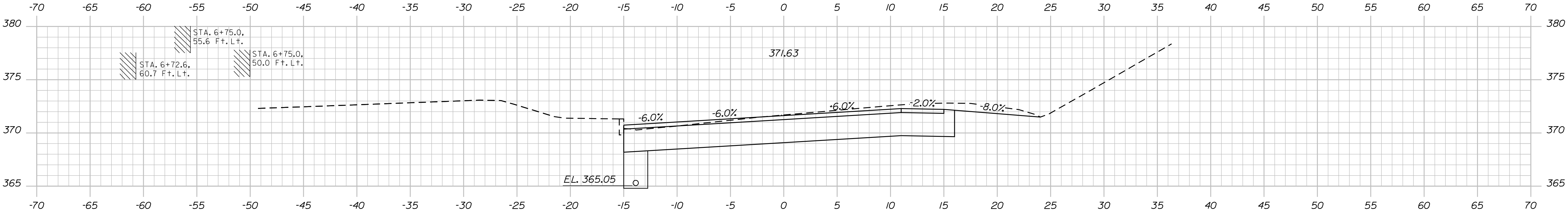
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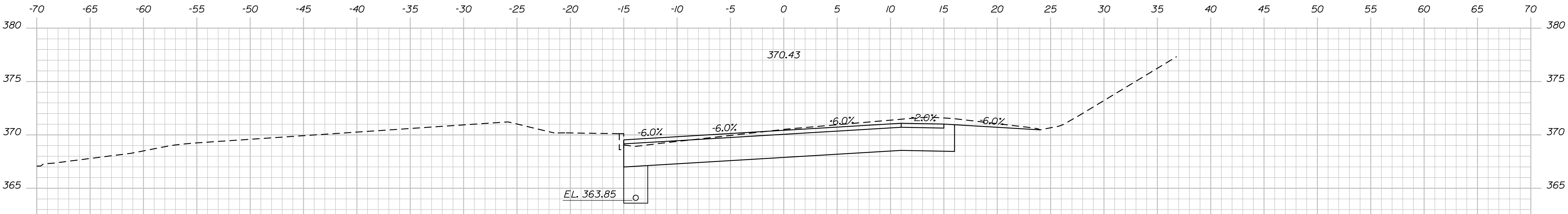
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End 4 1/2" Hot Mix Asphalt and Subbase Transition



6+75.00

End Full Depth Construction and Begin Subbase Transition



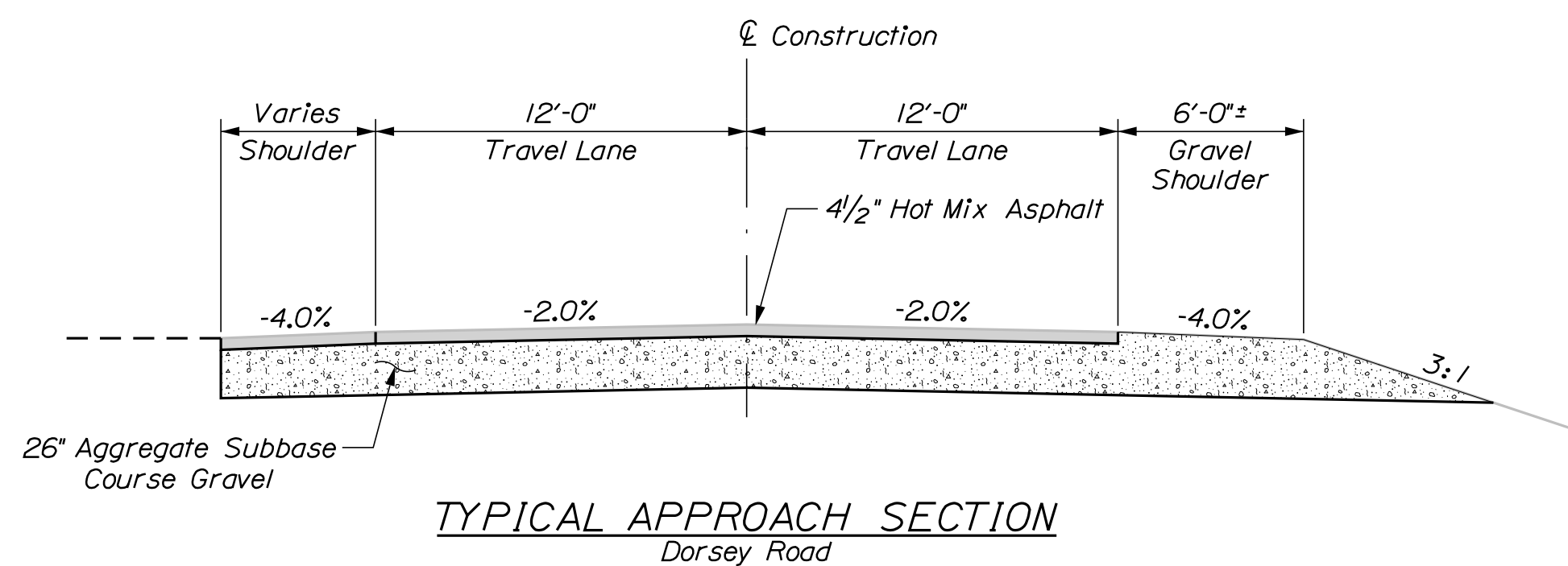
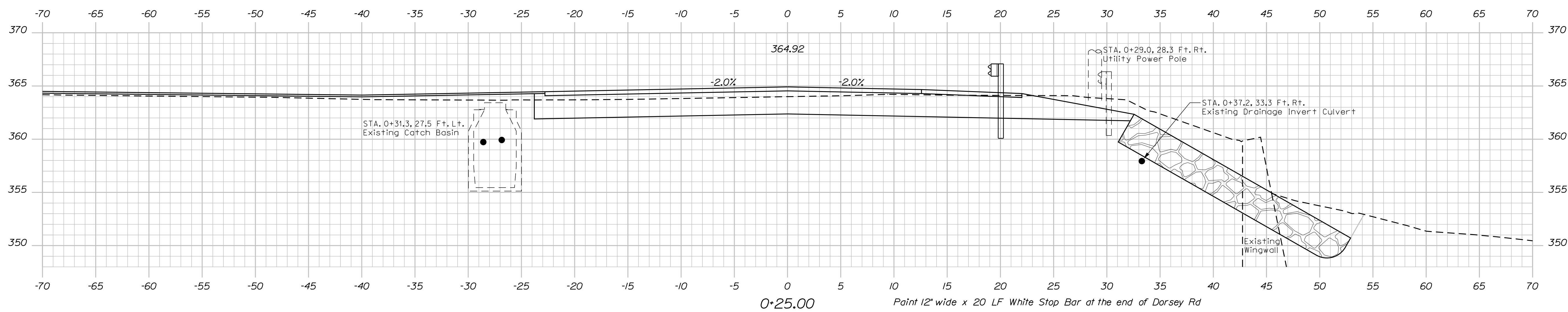
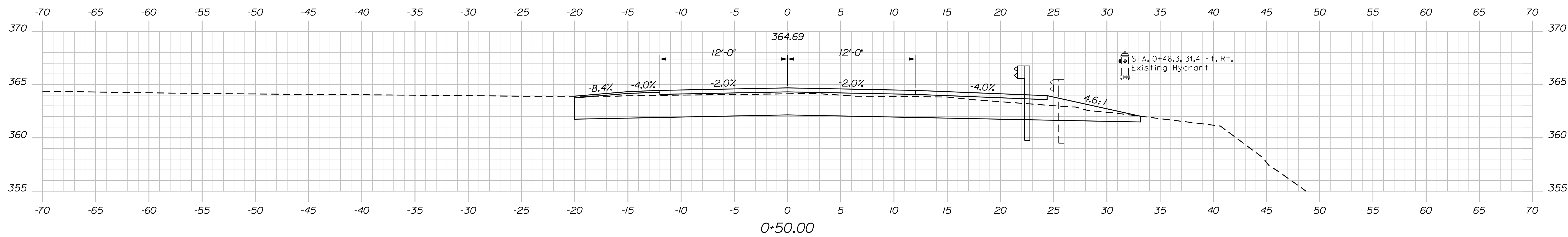
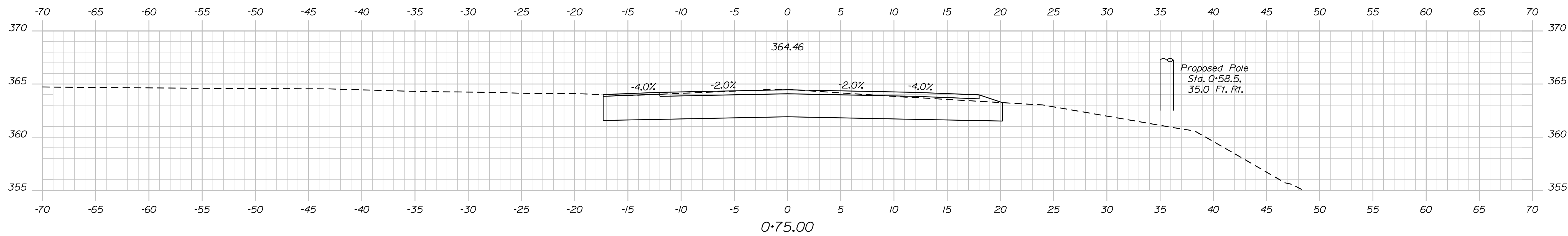
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STATE OF MAINE DEPARTMENT OF TRANSPORTATION		
	2545300	
	WIN	25453.00
BRIDGE NO. 2691		
BRIDGE PLANS		

PROJ. MANAGER M. PARLIN	BY D. SHAW	DATE AUG 2022	SIGNATURE
CHECKED-REVIEWED B. BARTLETT	DESIGNED-DETAILED N. PUKAY		P.E. NUMBER
DESIGN-DETAILED T. WHITE			DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

PUDDLE DOCK BRIDGE PATTEE BROOK FORT FAIRFIELD AROOSTOOK COUNTY	CROSS SECTIONS MAIN STREET

SHEET NUMBER
15
OF 32



STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
2545300	
BRIDGE NO. 2691	WIN 25453.00
BRIDGE PLANS	

PROJ. MANAGER	M. PARLIN	BY	DATE
DESIGN-DETAILED	B. BARTLETT	D. SHAW	
CHECKED-REVIEWED			
DESIGN-2-DETAILED	D2	T. WHITE	AUG 2022
DESIGN-3-DETAILED	D3		
DESIGNS 1			P.E. NUMBER
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			DATE
FIELD CHANGES			

PUDDLE DOCK BRIDGE	CROSS SECTIONS DORSEY ROAD
PATTEE BROOK	
FORT FAIRFIELD AROOSTOOK COUNTY	

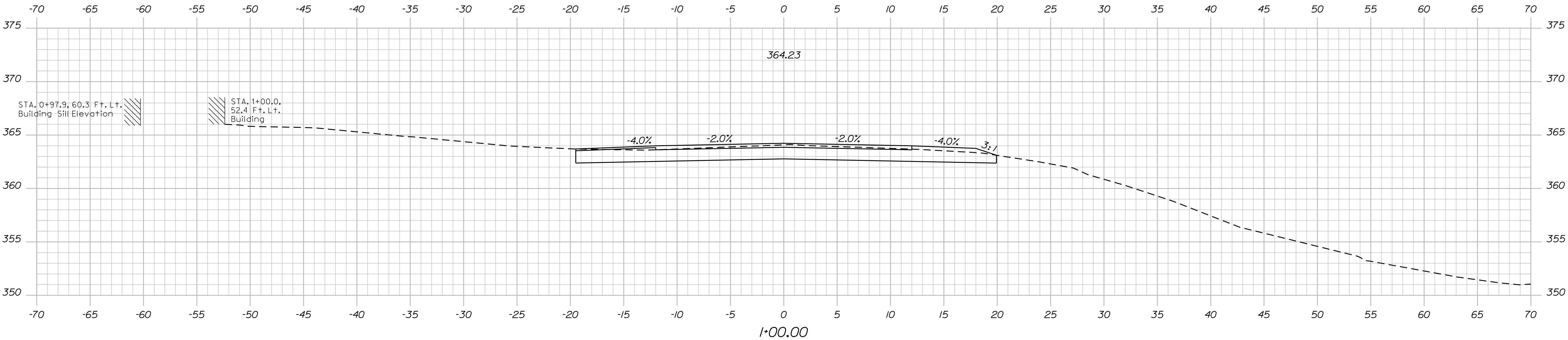
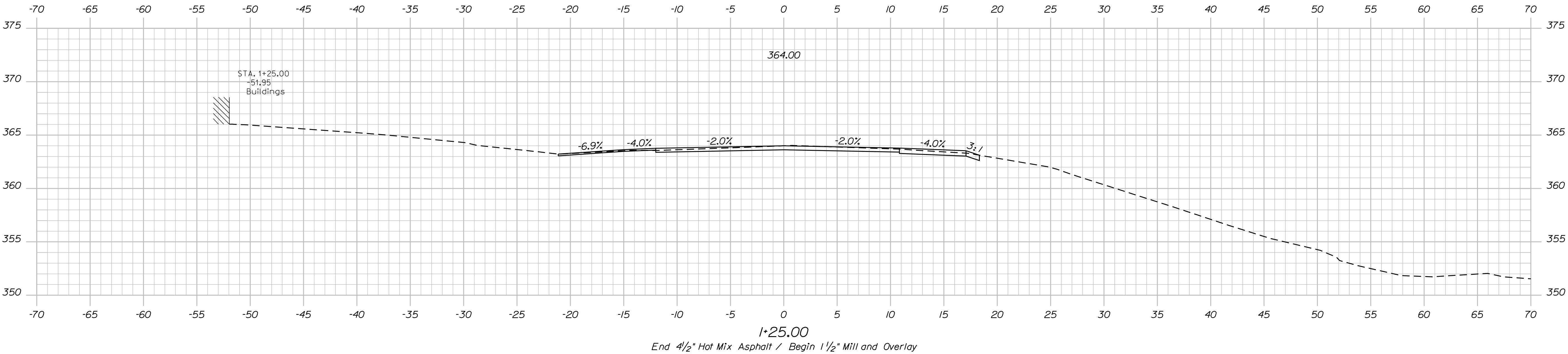
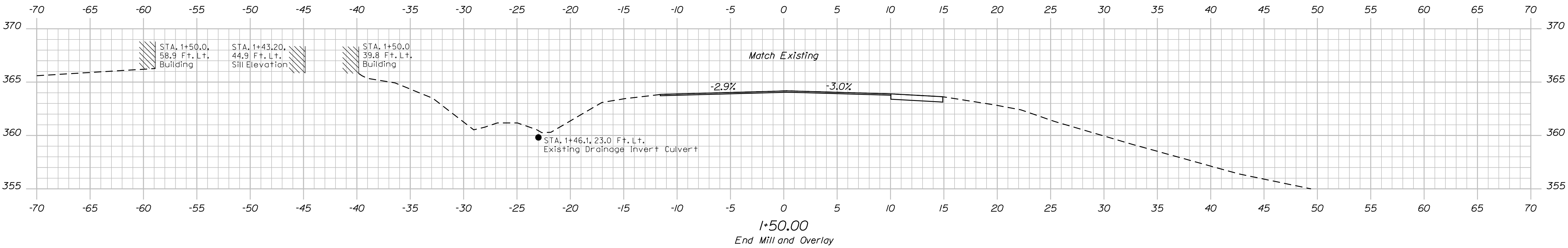
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OF 32

Date:1/9/2025

Username: Richard.Mayer

Division: BRIDGE

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STATE OF MAINE DEPARTMENT OF TRANSPORTATION		
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BRIDGE NO. 2691		BRIDGE PLANS

PROJ. MANAGER	M. PARLIN	BY	DATE
DESIGN-DETAILED	B. BARTLETT	D. SHAW	
CHECKED-REVIEWED			
DESIGN-DETAILED02	N. PIKAY	T. WHITE	AUG 2022
DESIGN-DETAILED03			
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FIELD CHANGES			
		SIGNATURE	
		P.E. NUMBER	
		DATE	

PUDDLE DOCK BRIDGE PATTEE BROOK FORT FAIRFIELD AROOSTOOK COUNTY	CROSS SECTIONS DORSEY ROAD

SHEET NUMBER
17
OF 32

ABUTMENT NOTES

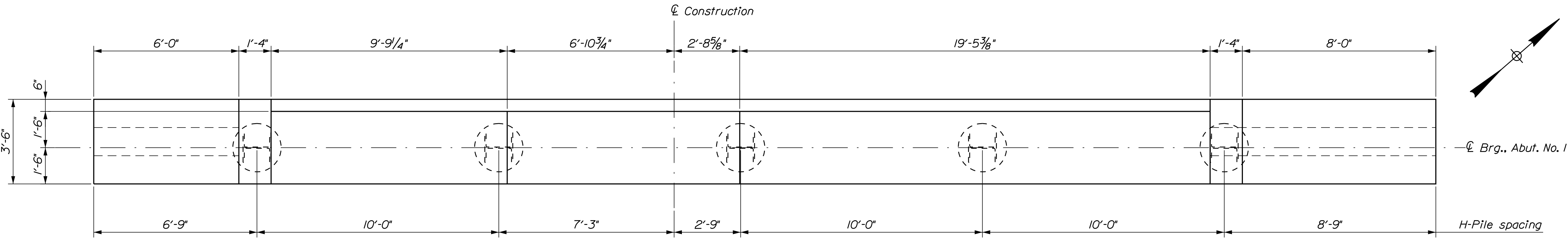
1. Abutments, wingwalls, and their footings shall be backfilled with Granular Borrow, meeting the requirements of Material for Underwater Backfill. Pay limits will be the structural excavation limits in cut areas and a vertical plane located 10 feet behind the walls in fill areas.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
3. Place drains with a 4-inch diameter in the breastwall and wingwalls at 10 feet maximum spacing. The exact location will be determined by the Resident.
4. Cover joints where waterstops are not required in accordance with Standard Details Section 502.
5. Payment for the concrete jackets around the tops of the H-piles will not be paid for directly but will be considered incidental to Pay Item 502.219 Structural Concrete Abutments and Retaining Walls. Fill Concrete may be used for the concrete jackets.
6. The utility conduit passing through the abutments shall either be cast in place or run through a utility blackout, at the option of the Contractor. All costs associated with construction of the utility conduit blockouts shall be paid for under Pay Item 910.301, Special Work.
7. Place the parapet portions of the wingwalls after erection of the precast units.

PILE NOTES

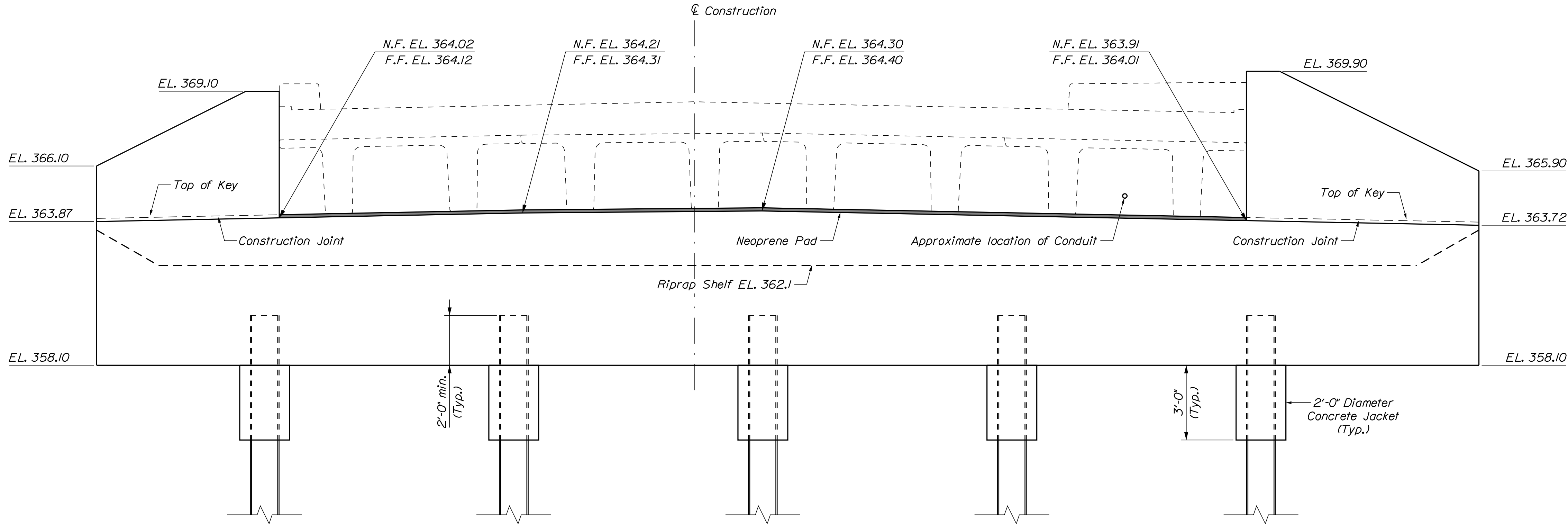
1. The maximum factored pile load is 373 kips at the Strength Limit State.
2. Piles shall be driven to the required nominal resistance on or within bedrock in accordance with Standard Specification Section 501.
3. Estimate of piles required:
- Abutment No. 1: 5 ~ HP 14x117 @ 97 feet
Abutment No. 2: 5 ~ HP 14x117 @ 88 feet
- The order lengths of the piles shall include an additional 5 feet of length for each test pile to accommodate dynamic pile testing equipment and any additional pile length needed to accomodate leads, template and driving system.
4. H-pile material shall be ASTM A572, Grade 50.
5. H-pile splices shall be in accordance with Standard Detail 501(03).
6. All piles shall be equipped with a pile tip in accordance with Standard Specifications Subsections 501.048 , Prefabricated Pile Tips and 711.10 H-Beam Piles, Spliced and Tips.
7. Piles shall not be out of position shown by more than 2 inches in any direction.

PILE NOTES (Continued)

8. The Contractor shall perform and submit a wave equation analysis for review and acceptance by the Resident. The maximum allowable driving stress is 0.90 times Fy. The submittal analyses shall include the proposed stopping criteria based on the wave equation analysis and the proposed driving system.
9. The Contractor shall perform 2 dynamic load test(s) with 24-hour (minimum) restrike tests to confirm the nominal resistance of the piles. The required nominal resistance for the pile is the factored axial pile load divided by a resistance factor of 0.65 per LRFD Specifications. Each dynamic test shall be performed on the first production pile driven at each abutment.

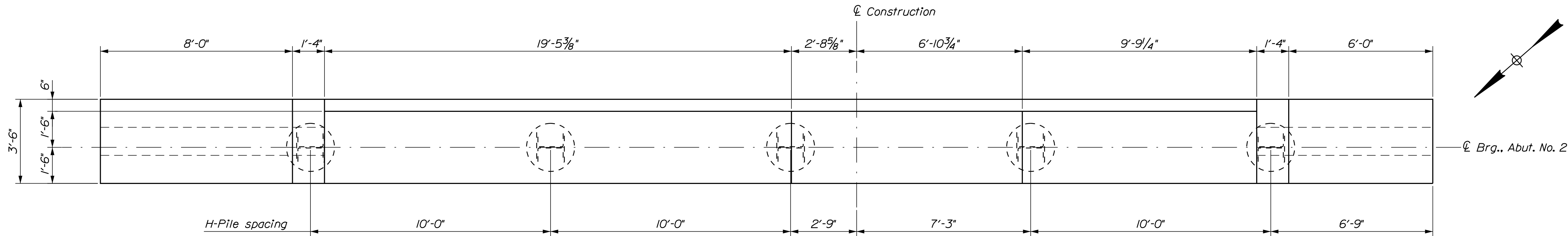


ABUTMENT NO. 1 PLAN

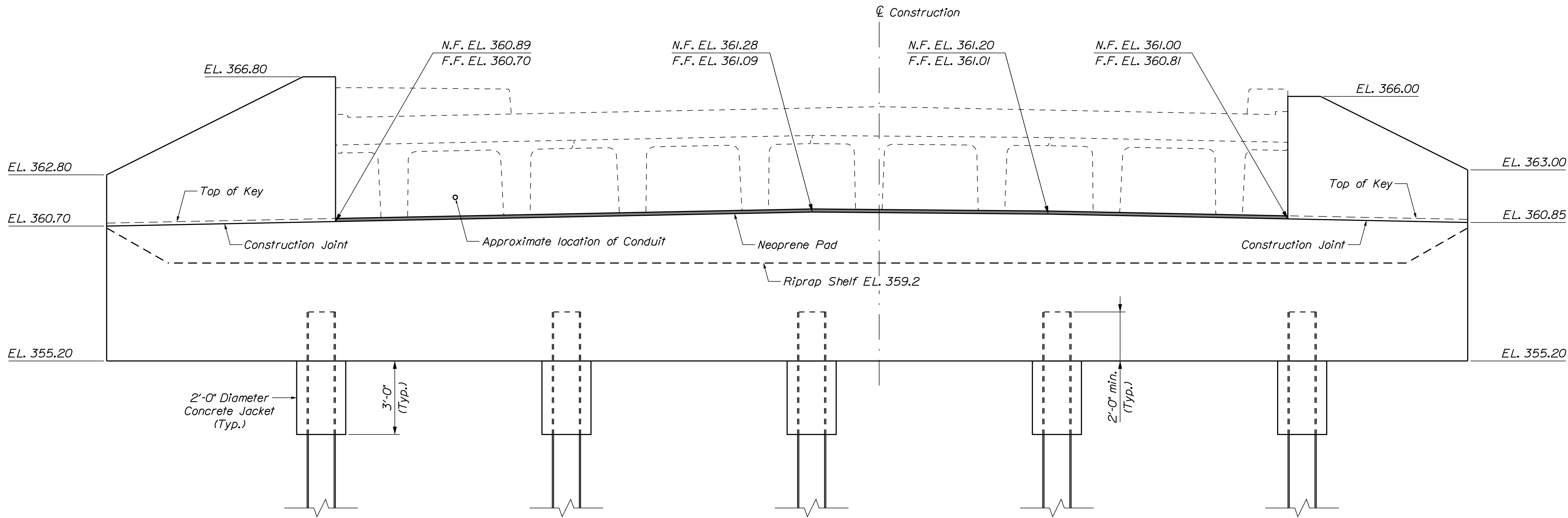


ABUTMENT NO. 1 ELEVATION

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2545300		WIN		25453.00		BRIDGE NO. 2691		BRIDGE PLANS	
PUDDLE DOCK BRIDGE		PATTEE BROOK		FORT FAIRFIELD		AROOSTOOK COUNTY		ABUTMENT NO. 1		SHEET NUMBER		18	
PROJ. MANAGER		M. PARLIN		BY		DATE		SIGNATURE		P.E. NUMBER		DATE	
DESIGN-DETAILED		B. BARTLETT		D. SHAW		AUG. 2022							
CHECKED-REVIEWED		N. PUKAY		T. WHITE									
DESIGN-DETAILED													
REVISIONS 1													
REVISIONS 2													
REVISIONS 3													
REVISIONS 4													
FIELD CHANGES													

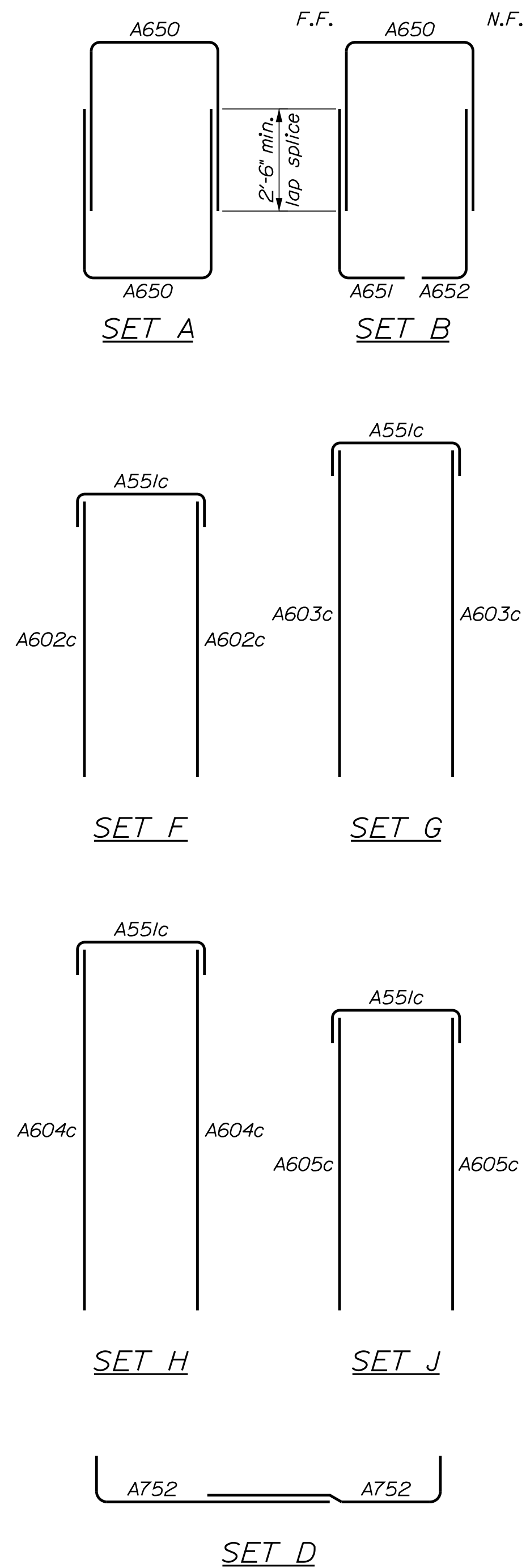
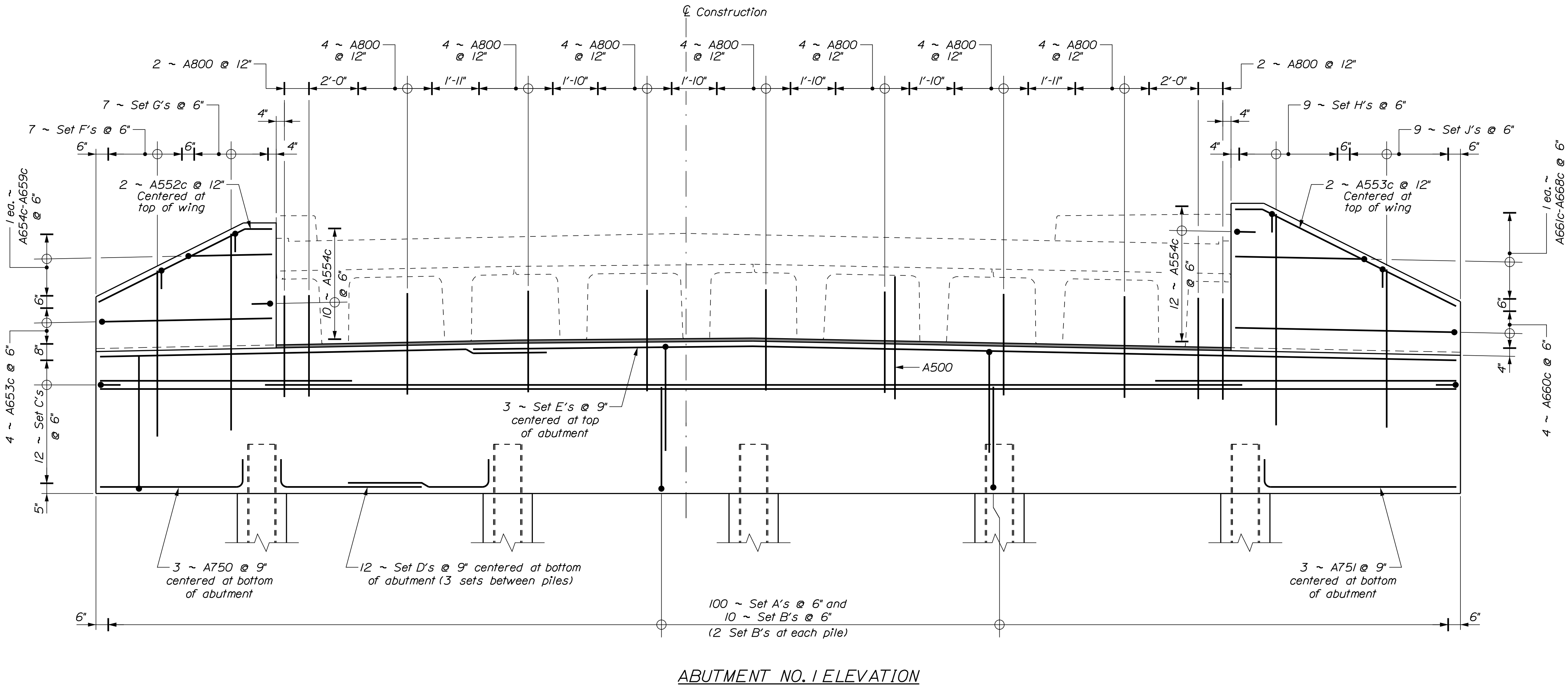
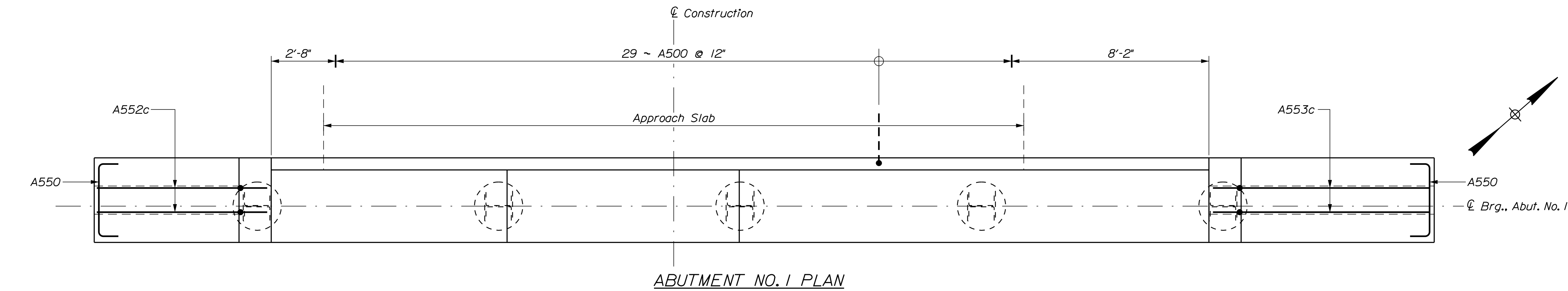


ABUTMENT NO. 2 PLAN

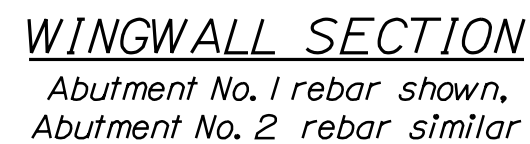
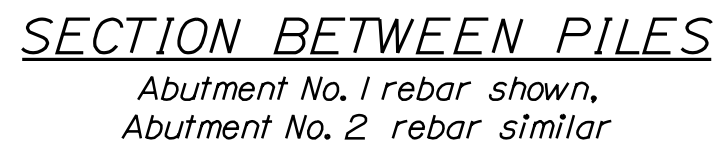
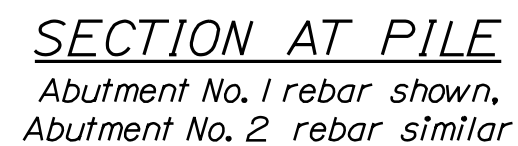


ABUTMENT NO. 2 ELEVATION

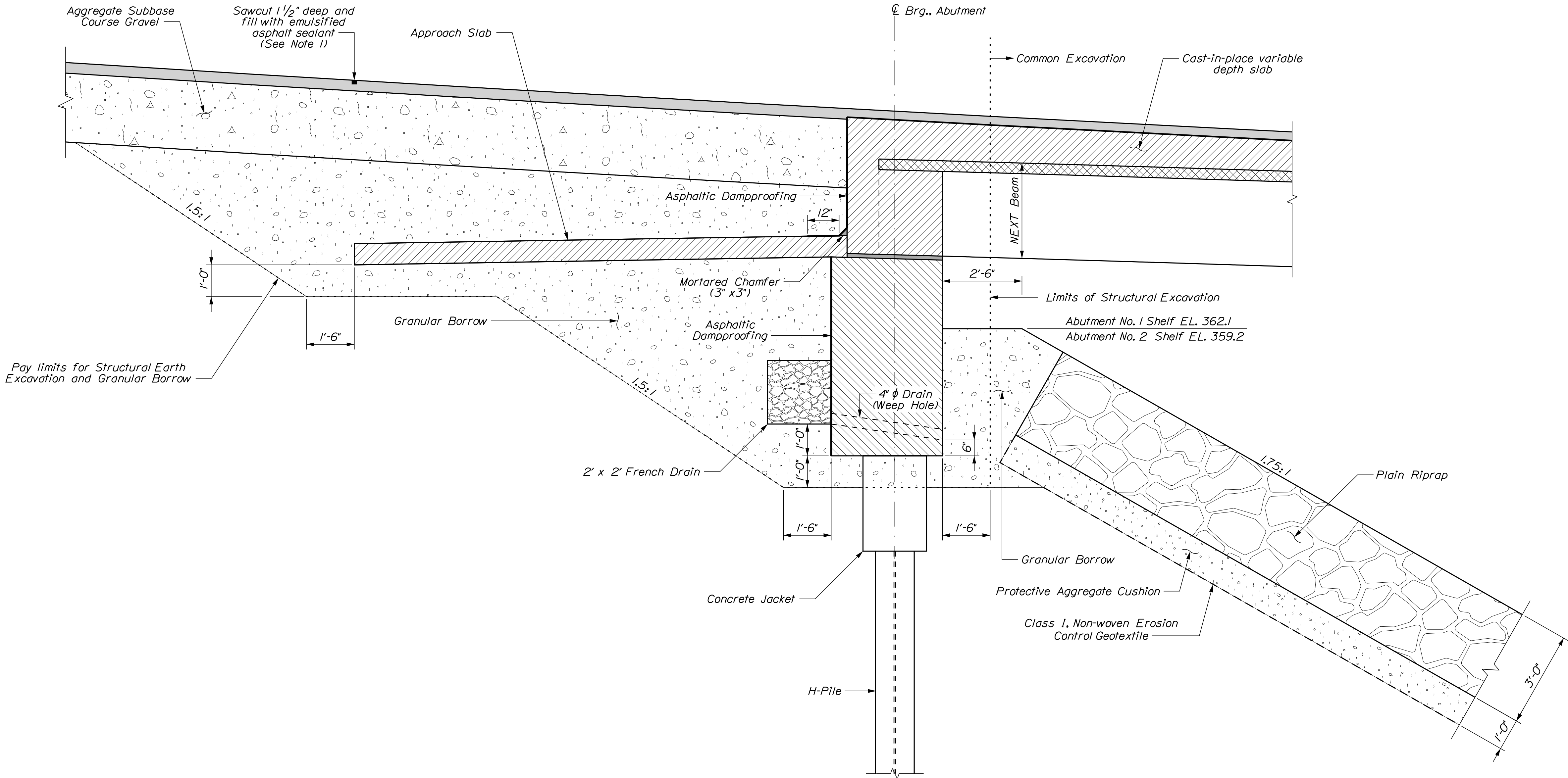
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2545300		WIN		25453.00		BRIDGE NO. 2691		BRIDGE PLANS	
PUDDLE DOCK BRIDGE		PATTEE BROOK		FORT FAIRFIELD		AROOSTOOK COUNTY		ABUTMENT NO. 2		SHEET NUMBER		19	
DESIGNED-Detailed		CHECKED-Reviewed		DESIGNED-Detailed		CHECKED-Reviewed		DESIGNED-Detailed		CHECKED-Reviewed		DESIGNED-Detailed	
M. PARLIN		B. BARTLETT		D. SHAW		T. WHITE		AUG. 2022		SIGNATURE		P.E. NUMBER	
REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4		FIELD CHANGES		DATE		DATE	



STATE OF MAINE DEPARTMENT OF TRANSPORTATION				2545300				WIN 25453.00				BRIDGE NO. 2691				BRIDGE PLANS			
PUDDLE DOCK BRIDGE PATTEE BROOK FORT FAIRFIELD AROOSTOOK COUNTY				ABUTMENT NO. 1 REINFORCEMENT				SHEET NUMBER				20				OF 32			
PROJ. MANAGER M. PARLIN				BY D. SHAW				DATE AUG 2022				SIGNATURE				P.E. NUMBER			
DESIGN-REVIEWED J. BARTLETT				DESIGN-REVIEWED N. PUKAY				DESIGN-REVIEWED T. WHITE				REVISIONS 1				REVISIONS 2			
REVISIONS 3				REVISIONS 4				FIELD CHANGES				DATE				DATE			



22 OF 32		SHEET NUMBER		PUDDLE DOCK BRIDGE				PROJ. MANAGER	M. PARLIN	BY	DATE	STATE OF MAINE	
				PATTEE BROOK				DESIGN-DETAILED		B. BARTLETT	D. SHAW		
		FORT FAIRFIELD AROOSTOOK COUNTY				CHECKED-REVIEWED				SIGNATURE			
						DESIGNER-DETAILED		N. PIKAY	I. WHITE	AUG 2022			
						DESIGNER-DETAILED		DESIGNER-DETAILED		P.E. NUMBER			
						REVISIONS 1							
		REVISIONS 2											
		REVISIONS 3											
		REVISIONS 4				DATE							
		FIELD CHANGES											
				BRIDGE NO. 2691		WIN	25453.00		BRIDGE PLANS				

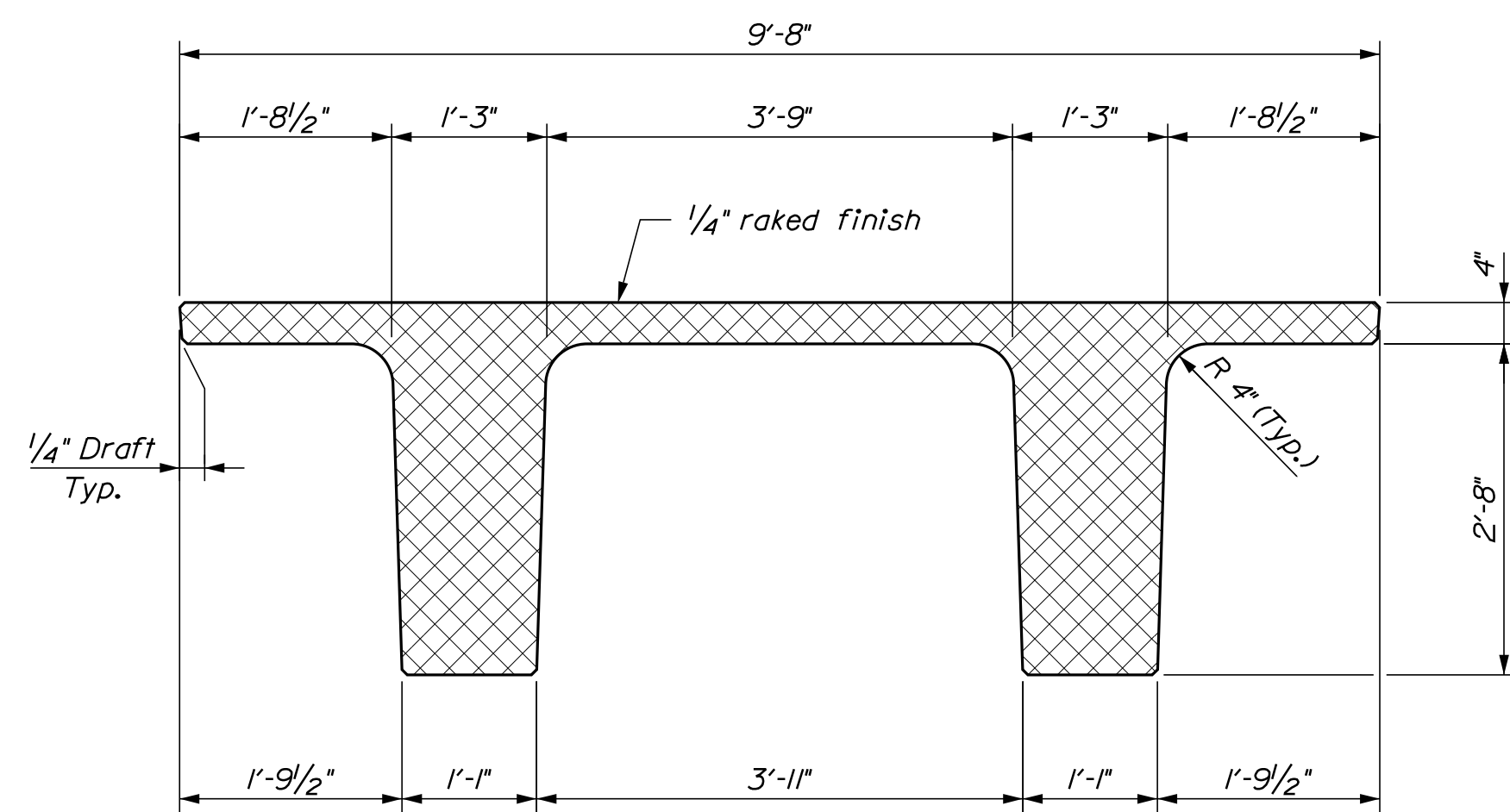


ABUTMENT BACKFILL DETAIL
Abutment No. 1 shown, Abutment No. 2 similar.

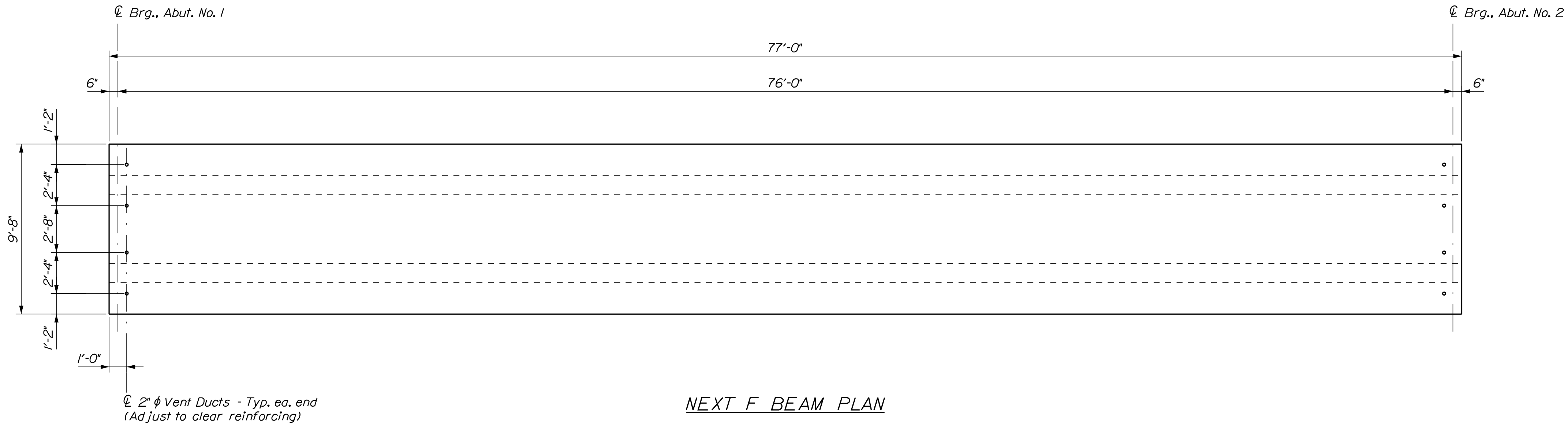
NOTES:

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. Payment for mortared chamfer at approach slabs shall not be paid for directly, but shall be considered incidental to related Contract Items.
3. Asphalt Dampproofing shall meet the requirements of either ASTM D449 Type II, ASTM D1227 Type II-Class I, or ASTM D1227 Type III-Class I. The product shall be applied in accordance with the manufacturer's recommendations.
4. Asphalt Dampproofing shall be applied to the backside of the wingwalls up to 1 foot below grade, in addition to the locations shown on the Abutment Backfill Detail.
5. Payment for Asphalt Dampproofing will not be made directly, but will be considered incidental to related Contract Items.

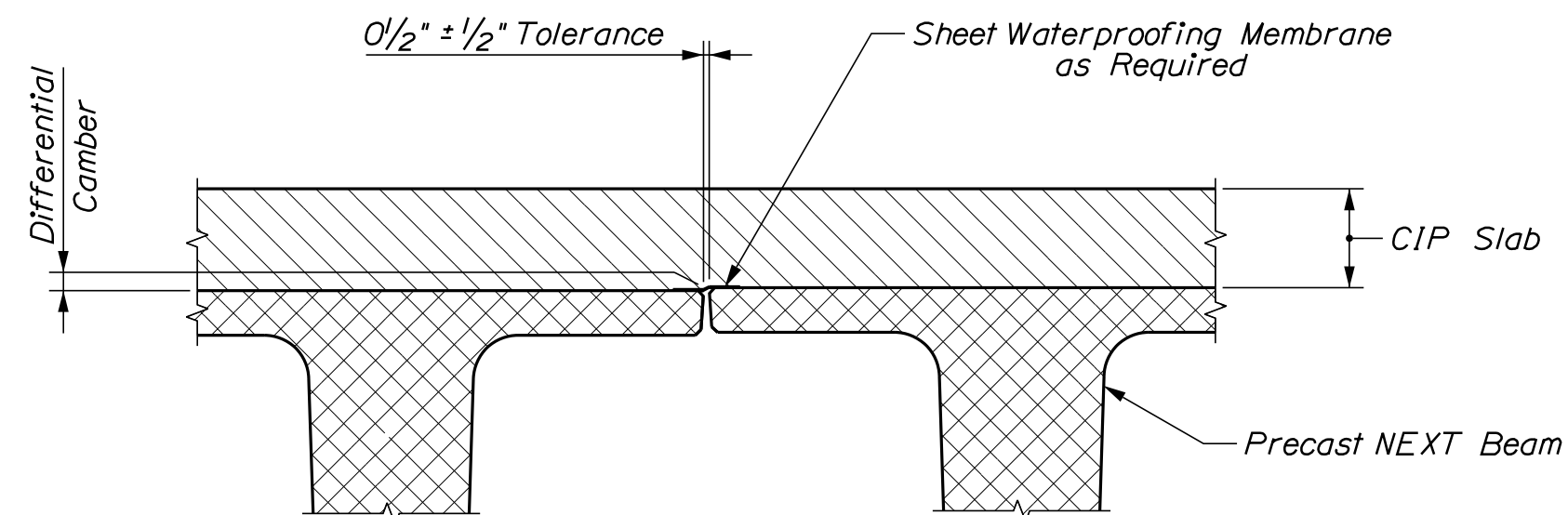
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2545300		WIN		25453.00		BRIDGE NO. 2691		BRIDGE PLANS	
PUDDLE DOCK BRIDGE		PATTEE BROOK		FORT FAIRFIELD		AROOSTOOK COUNTY		ABUTMENT DETAILS		SHEET NUMBER		23	
PROJ. MANAGER		M. PARLIN		BY		DATE		SIGNATURE		P.E. NUMBER		DATE	
DESIGNED		B. BARTLETT		D. SHAW		AUG. 2022							
CHECKED		N. PUKAY		T. WHITE									
DESIGNED													
REVISIONS 1													
REVISIONS 2													
REVISIONS 3													
REVISIONS 4													
FIELD CHANGES													



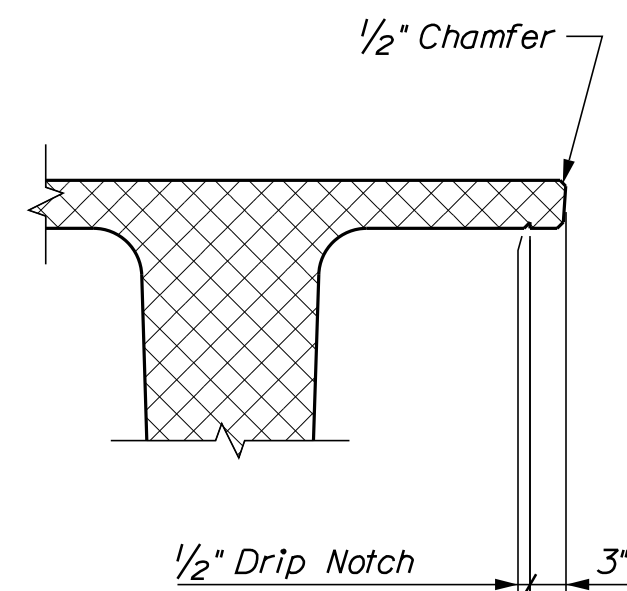
NEXT 36 F BEAM SECTION



NEXT F BEAM PLAN



NEXT BEAM GAP FORM DETAIL



FASCIA OVERHANG DETAIL

PRECAST CONCRETE SUPERSTRUCTURE NOTES

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

2. The estimated camber at release is 1 3/4 inches and the estimated camber at erection is 3 1/4 inches. Refer to Special Provision Section 535, Precast, Prestressed Concrete Superstructure - Camber.

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

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

5. Do not drill or use powder actuated tools on the prestressed beams without the approval of the Fabrication Engineer.

6. The top surface of the upper flange of the prestressed beams shall be raked to a surface roughness of 1/4 inch, except at 10-ft. increments along the centerline of each beam. At these locations a flattened area of sufficient size shall be left to facilitate taking elevations for setting bottom of slab elevations.

7. A maximum of 50 percent of the strands in the bottom 5 rows may be debonded 6 inches from the end of the beam. All 4 top row strands shall be fully bonded.

8. *Lifting loops and temporary/storage/shipping dunnage shall be a maximum of 2 feet from each beam end.*

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

ELASTOMERIC BEARING PAD NOTES

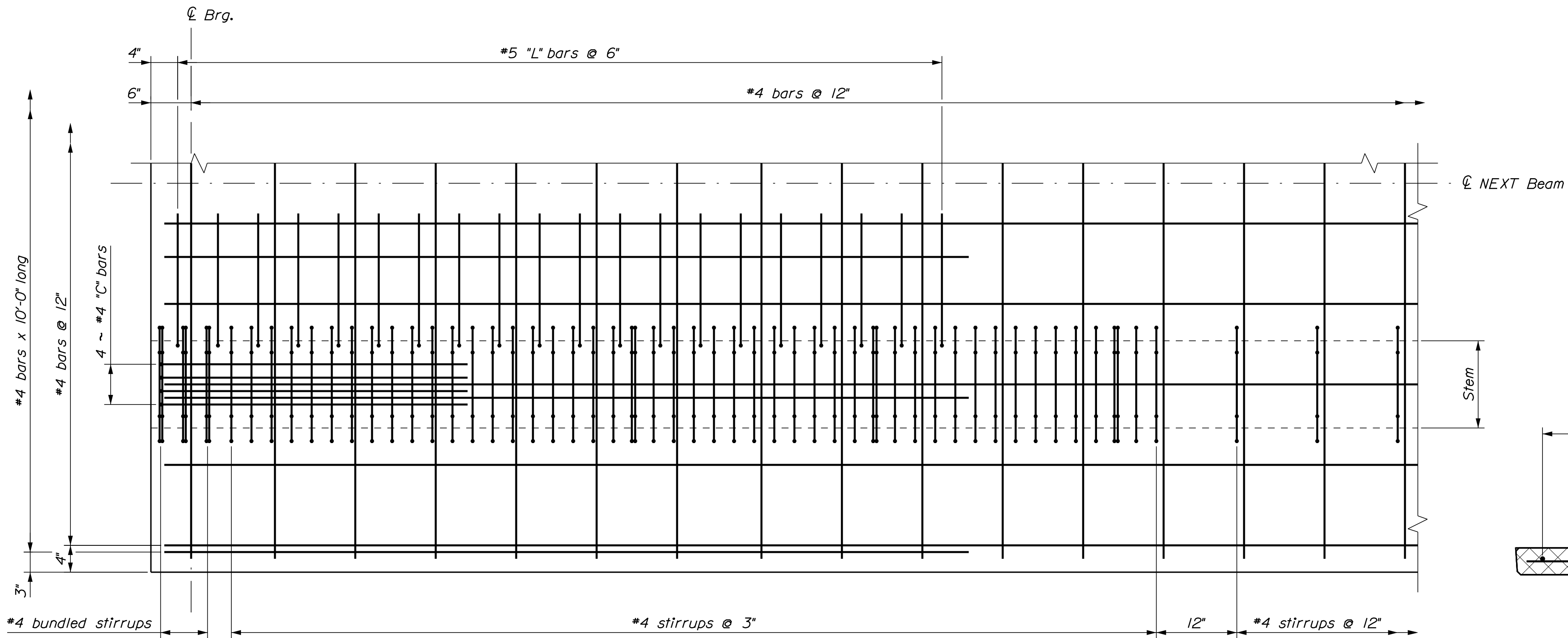
1. Elastomeric Bearing Pads shall be 1 1/2"x3'-0"x38'-10" per abutment.

2. The elastomer shall have a shear modulus of 95 psi and a Shore A Durometer hardness of 50.

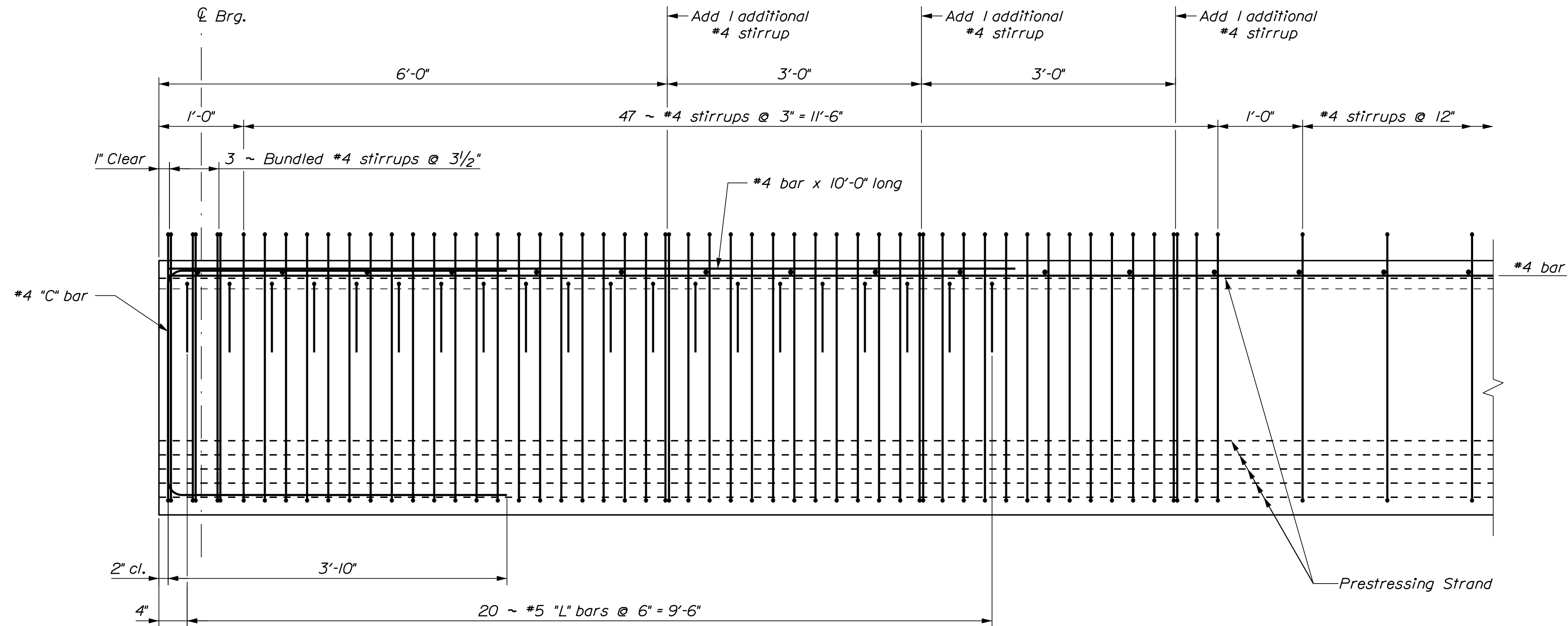
3. *Elastomeric Bearing Pads shall conform to the requirements of the latest edition of the AASHTO LRFD Bridge Construction Specifications, Section 18.2.*

4. *Elastomeric Bearing Pads will not be paid for directly but will be considered incidental to related Contract items. No separate payment will be made.*

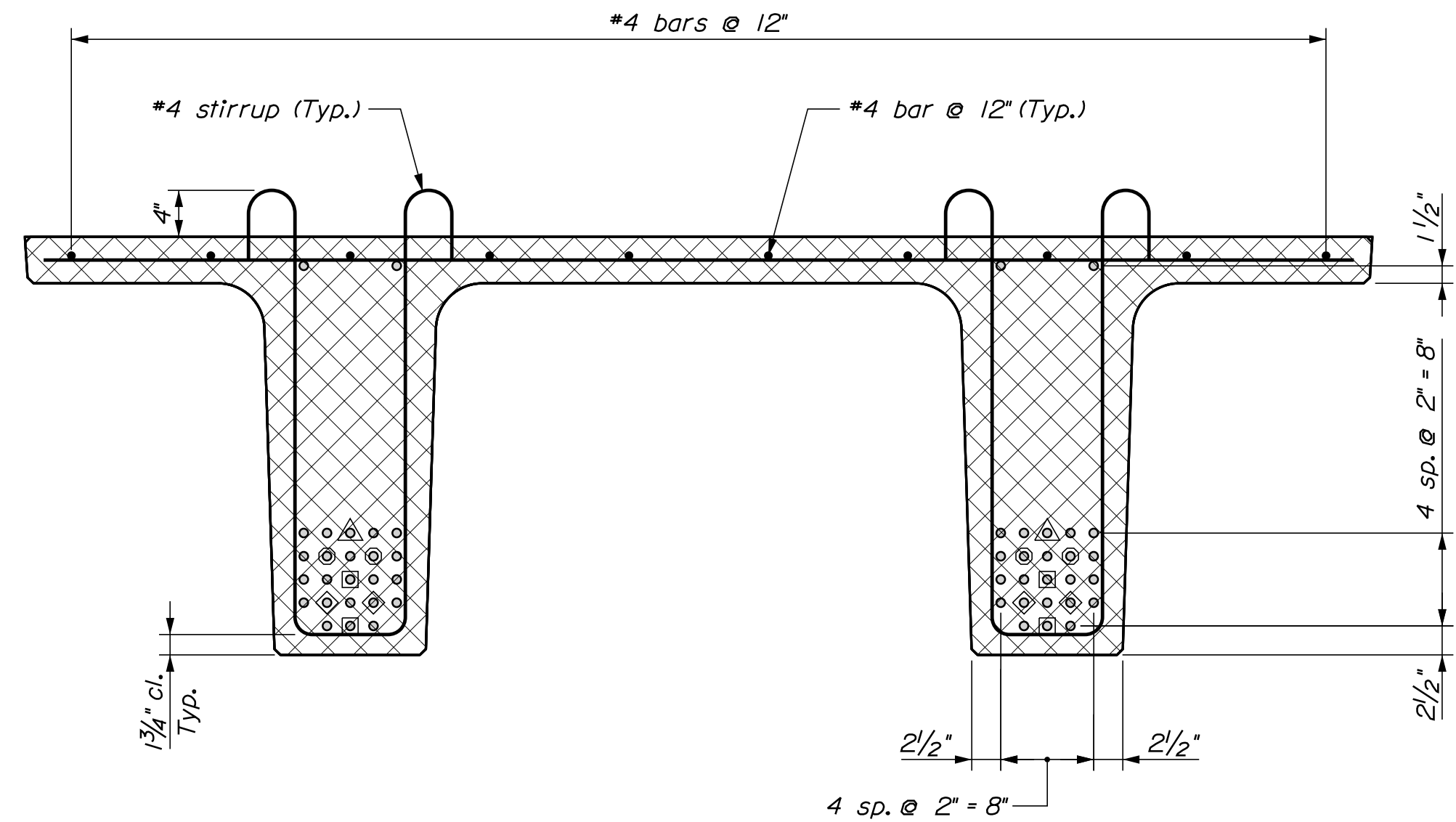
SHEET NUMBER 24 OF 32	PUDDLE DOCK BRIDGE PATTEE BROOK FORT FAIRFIELD AROOSTOOK COUNTY						
	PROJ. MANAGER		M. PARLIN	BY	DATE		
	DESIGN-DETAILED		B. BARTLETT	D. SHAW			
	CHECKED-REVIEWED						
	DESIGN2-DETAILED2		N. PUKAY	T. WHITE	AUG 2022	SIGNATURE	
	DESIGN3-DETAILED3						
PRECAST NEXT BEAM							
		REVISIONS 1			P.E. NUMBER		
		REVISIONS 2					
		REVISIONS 3					
		REVISIONS 4			DATE		
		FIELD CHANGES					
STATE OF MAINE DEPARTMENT OF TRANSPORTATION							
2545300							
BRIDGE NO. 2691						WIN	BRIDGE PLANS
						25453.00	



PARTIAL TOP FLANGE REINFORCING PLAN
Prestressing strands not shown

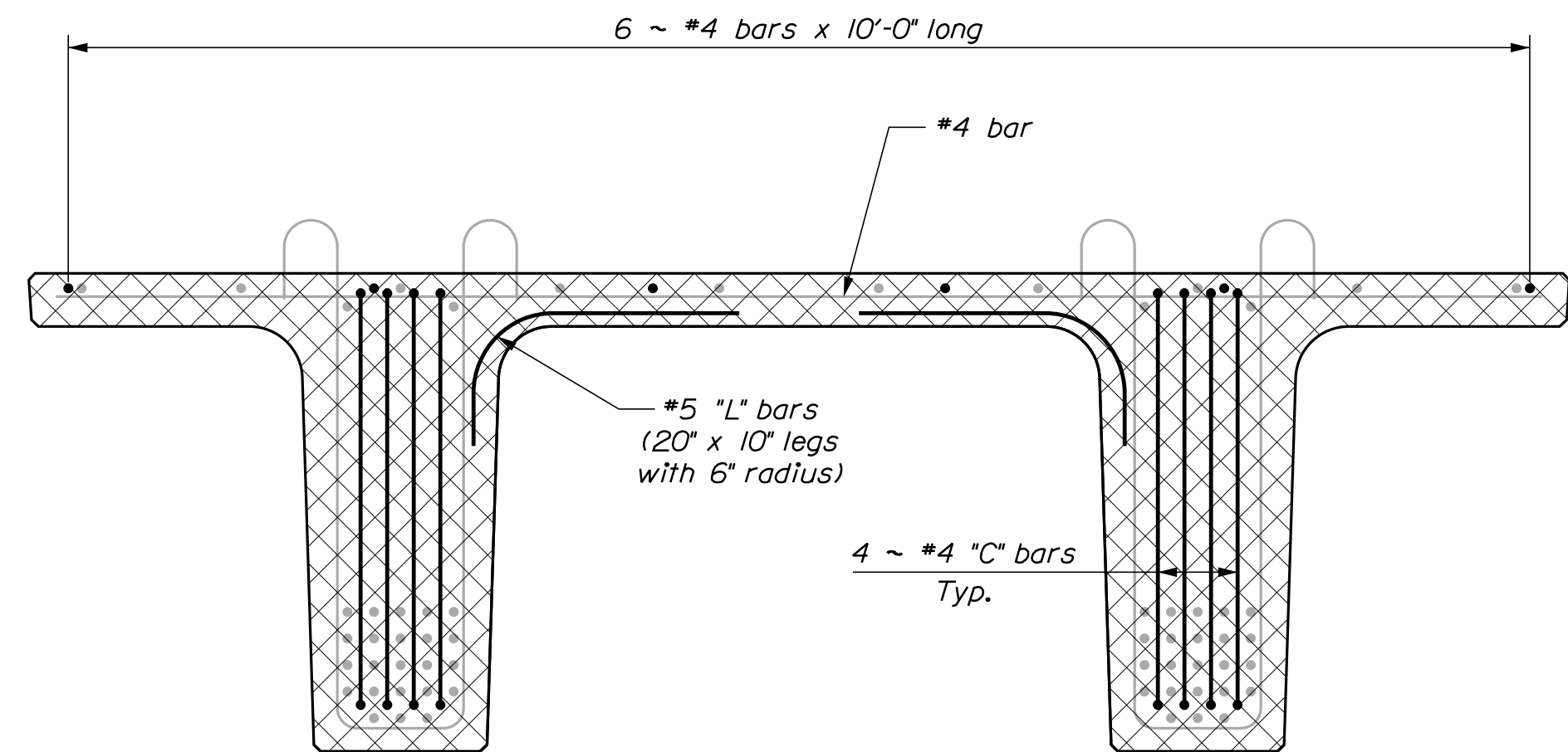


LONGITUDINAL SECTION THROUGH STEM



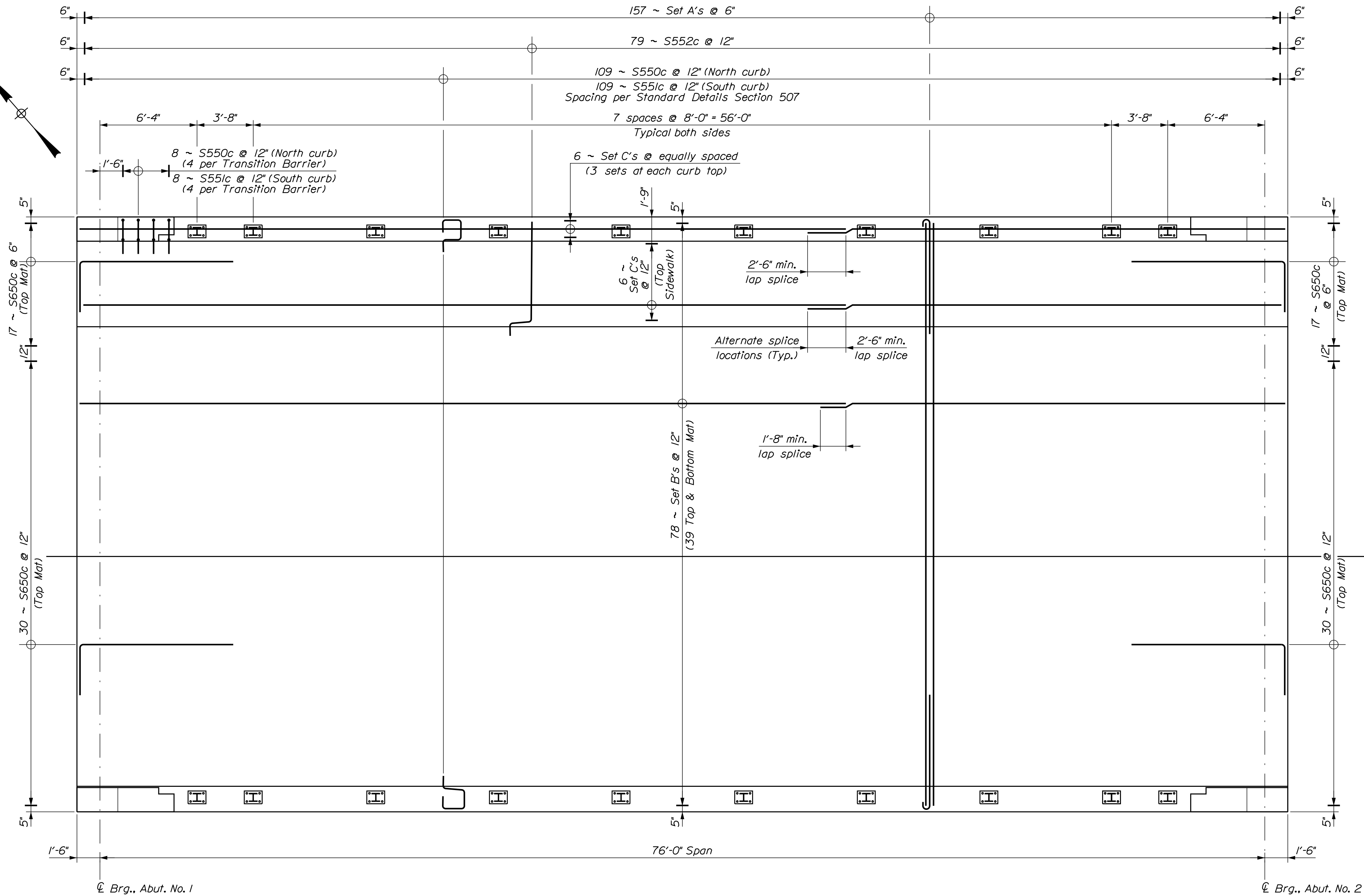
NEXT F BEAM TYPICAL REINFORCING SECTION

- ▣ Strands debonded 12.2 ft. from end of girder
- ◊ Strands debonded 9.0 ft. from end of girder
- ⊙ Strands debonded 6.0 ft. from end of girder
- △ Strands debonded 3.0 ft. from end of girder

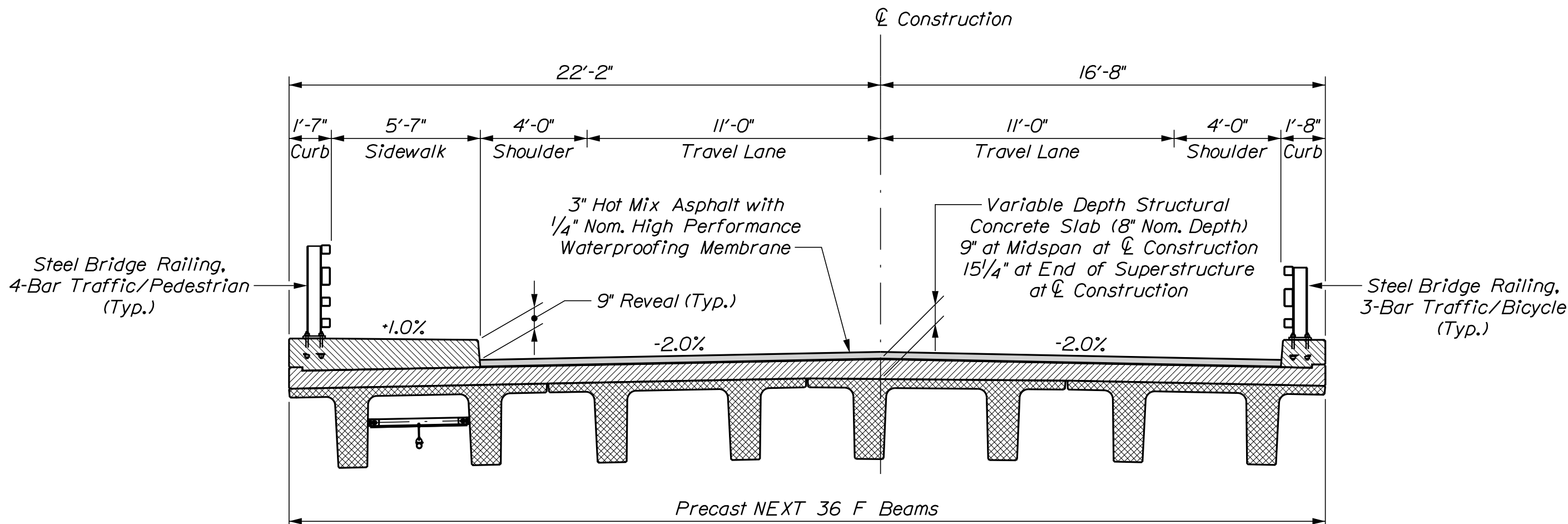
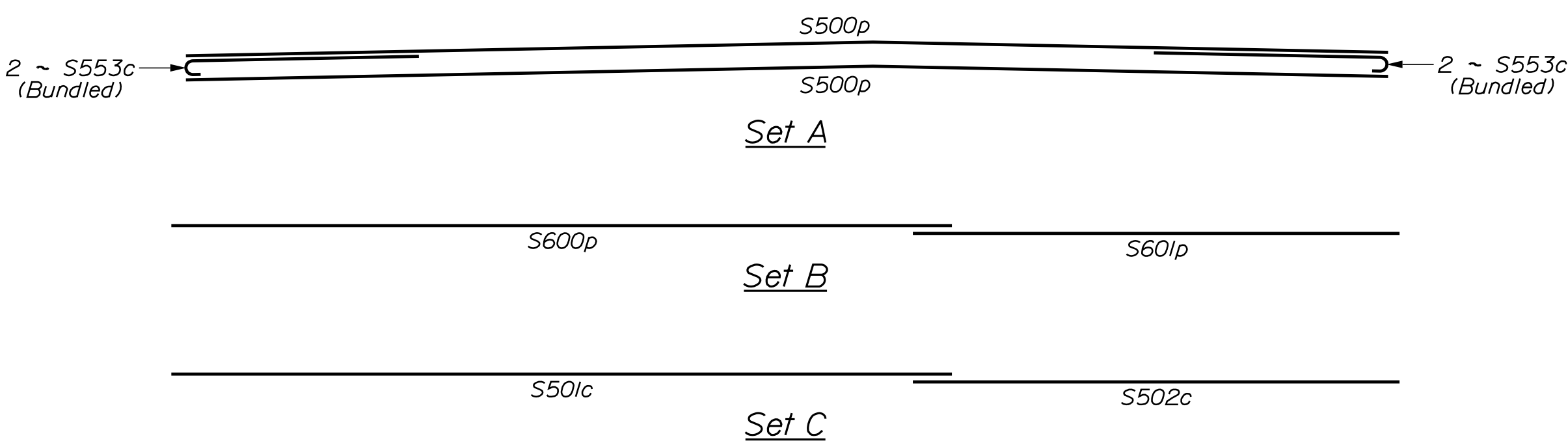


NEXT F BEAM END REINFORCING SECTION

PROJ. MANAGER	BY	DATE
M. PARLIN	D. SHAW	
DESIGN-DETAILED	B. BARTLETT	
CHECKED-REVIEWED	T. WHITE	AUG 2022
DESIGN-DETAILED2	N. PIKAY	
DESIGN3-DETAILED3		
REVISIONS 1		SIGNATURE
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		
		P.E. NUMBER
		DATE



SUPERSTRUCTURE PLAN



PROPOSED BRIDGE SECTION

SUPERSTRUCTURE NOTES

1. The deck thickness shall be adjusted in accordance with Special Provision Section 535, Precast, Prestressed Concrete Superstructure, Camber.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted. To accommodate the variable deck thickness, the concrete cover for the top mat of reinforcing can range from 2 inches at midspan to a maximum of 3.5 inches at the abutment and the concrete cover for the bottom mat of reinforcing can range from 1 inch at midspan to a maximum of 2.5 inches at the abutment.
3. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
4. End diaphragm concrete will be paid for under Item No. 502.261, Structural Concrete Roadway and Sidewalk Slabs on Concrete Bridges and shall be placed with the deck.
5. The Contractor shall install Transition Barrier vertical closed stirrups, as shown in Standard Details Section 526, prior to placement of the curb concrete.
6. Provide 4 additional stirrups in the curbs at each Transition Barrier location.
7. The Contractor shall install Transition Barrier vertical closed stirrups, as shown in Standard Details Section 526, prior to the placement of the curb or sidewalk concrete.
8. Transition Barrier reinforcing steel shall be Low-Carbon Chromium.
9. The superstructure slab and end diaphragms shall be placed in one continuous operation and shall be kept plastic until the entire placement has been made.
10. Bar supports for GFRP reinforcement shall be plastic, dielectric material, or other approved material. See Special Provision Subsection 530.06 for additional requirements.

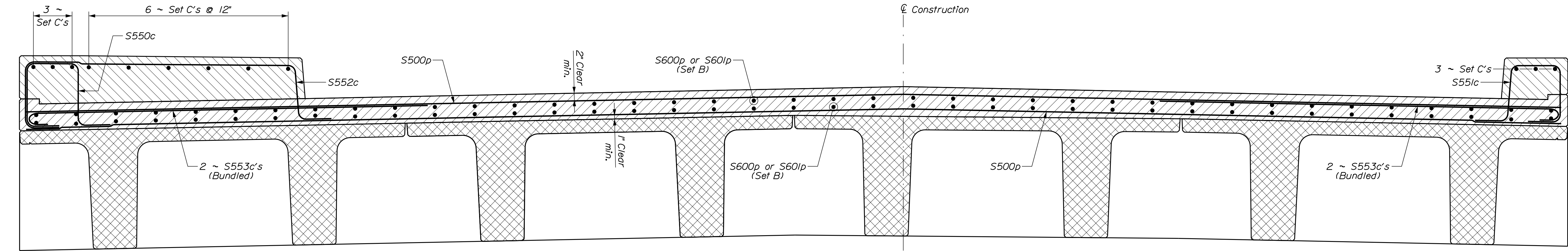
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2545300		WIN		25453.00		BRIDGE NO. 2691		BRIDGE PLANS	
PUDDLE DOCK BRIDGE		PATTEE BROOK		FORT FAIRFIELD		AROOSTOOK COUNTY		SUPERSTRUCTURE PLAN		SHEET NUMBER		26	
PROJ. MANAGER		M. PARLIN		BY		DATE		SIGNATURE		P.E. NUMBER		DATE	
DESIGNED-DETAILED		B. BARTLETT		D. SHAW		AUG. 2022							
CHECKED-REVIEWED		N. PUKAY		T. WHITE									
DESIGNED-DETAILED													
REVISIONS 1													
REVISIONS 2													
REVISIONS 3													
REVISIONS 4													
FIELD CHANGES													

Date:1/8/2025

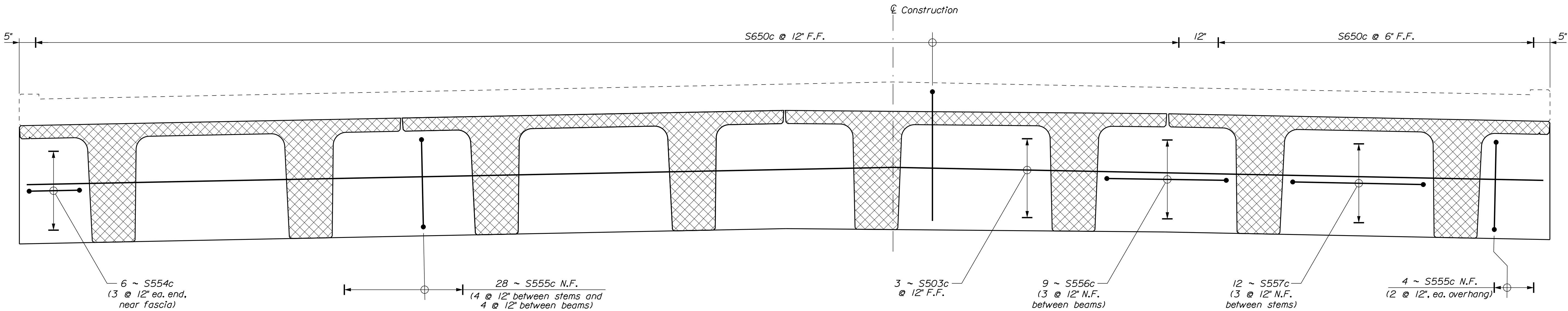
Username: David.Shaw

Division: BRIDGE

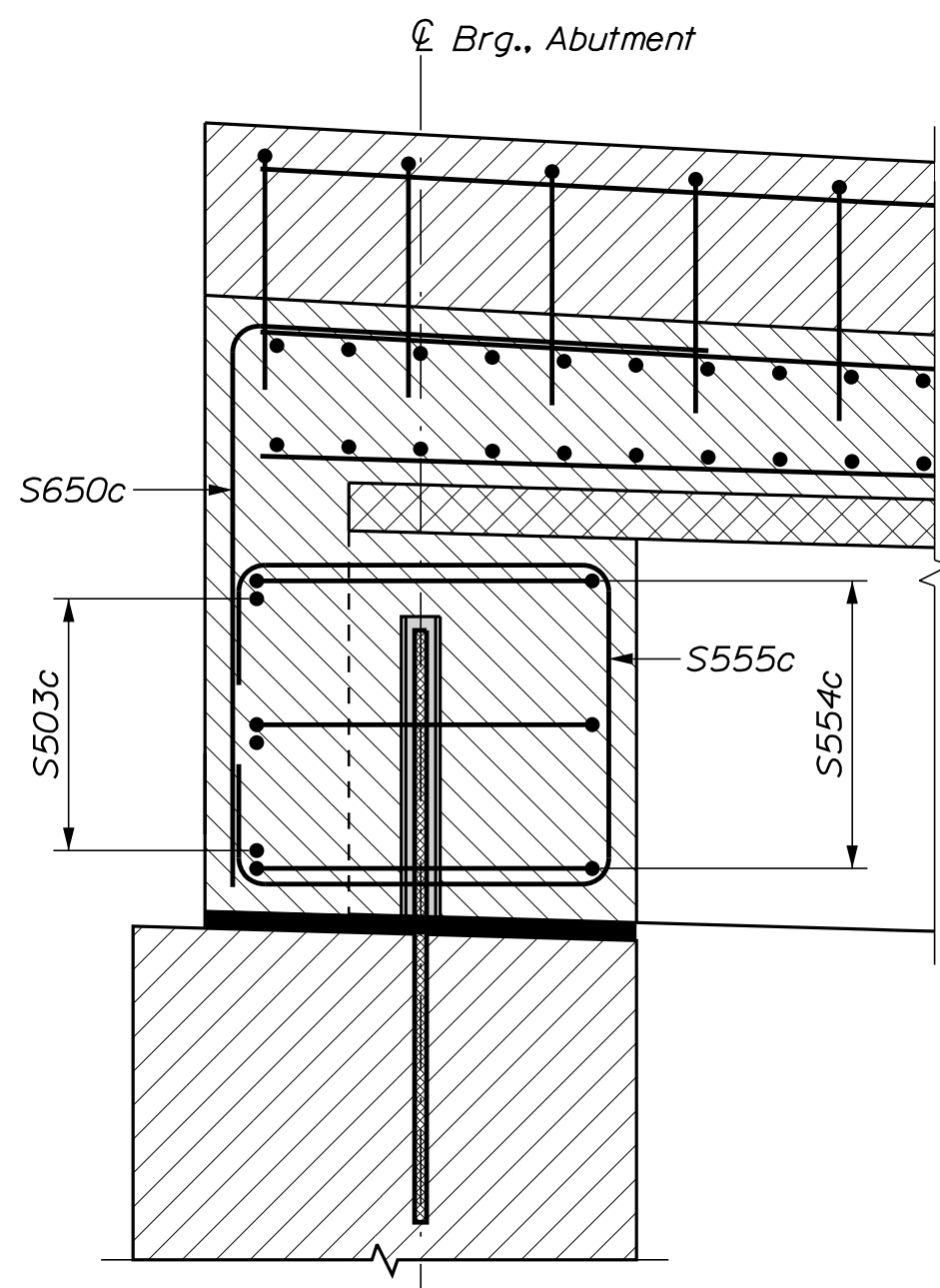
Filename: ... \027_Superstructure_Sections.dgn



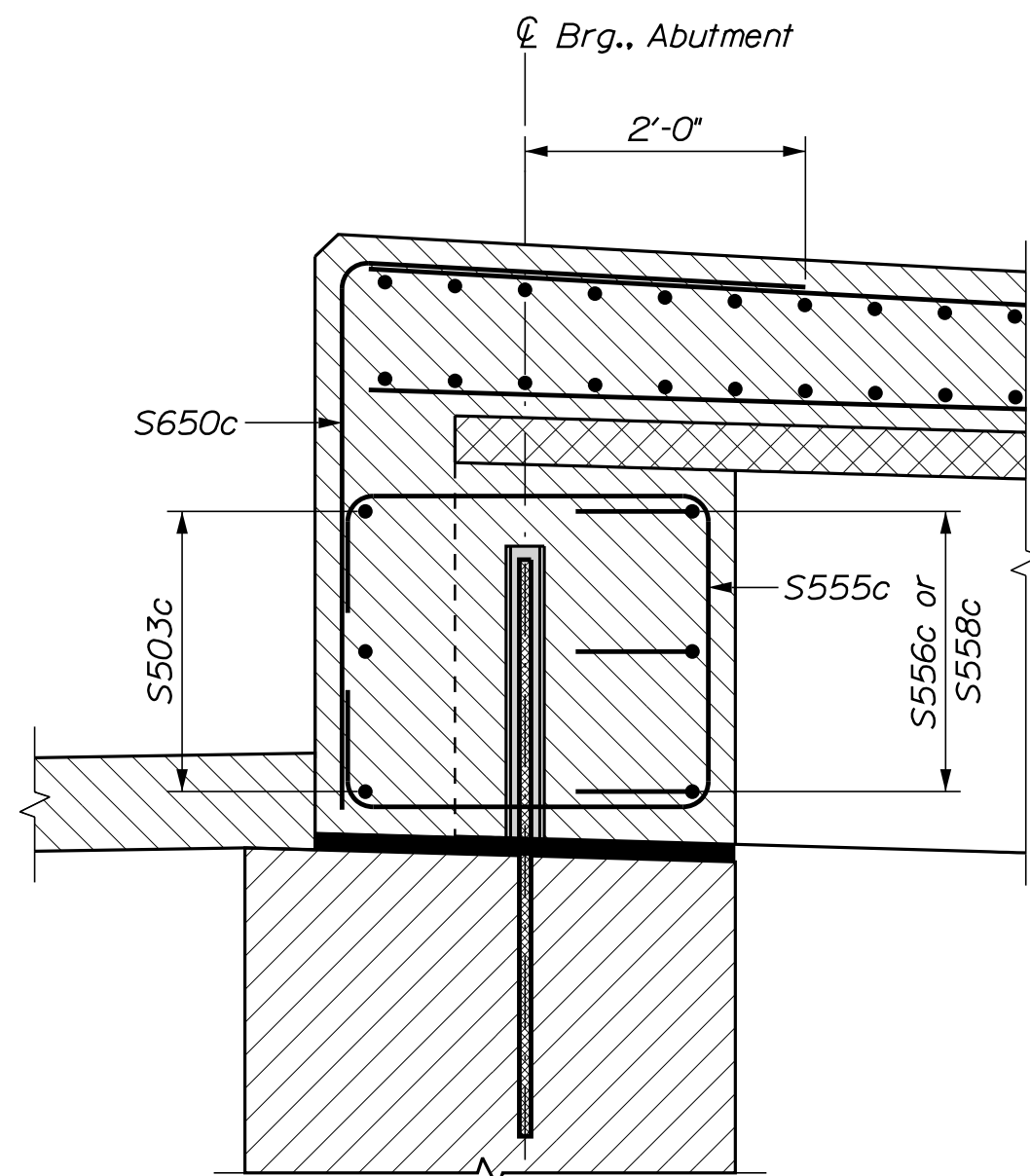
SUPERSTRUCTURE SLAB REINFORCEMENT



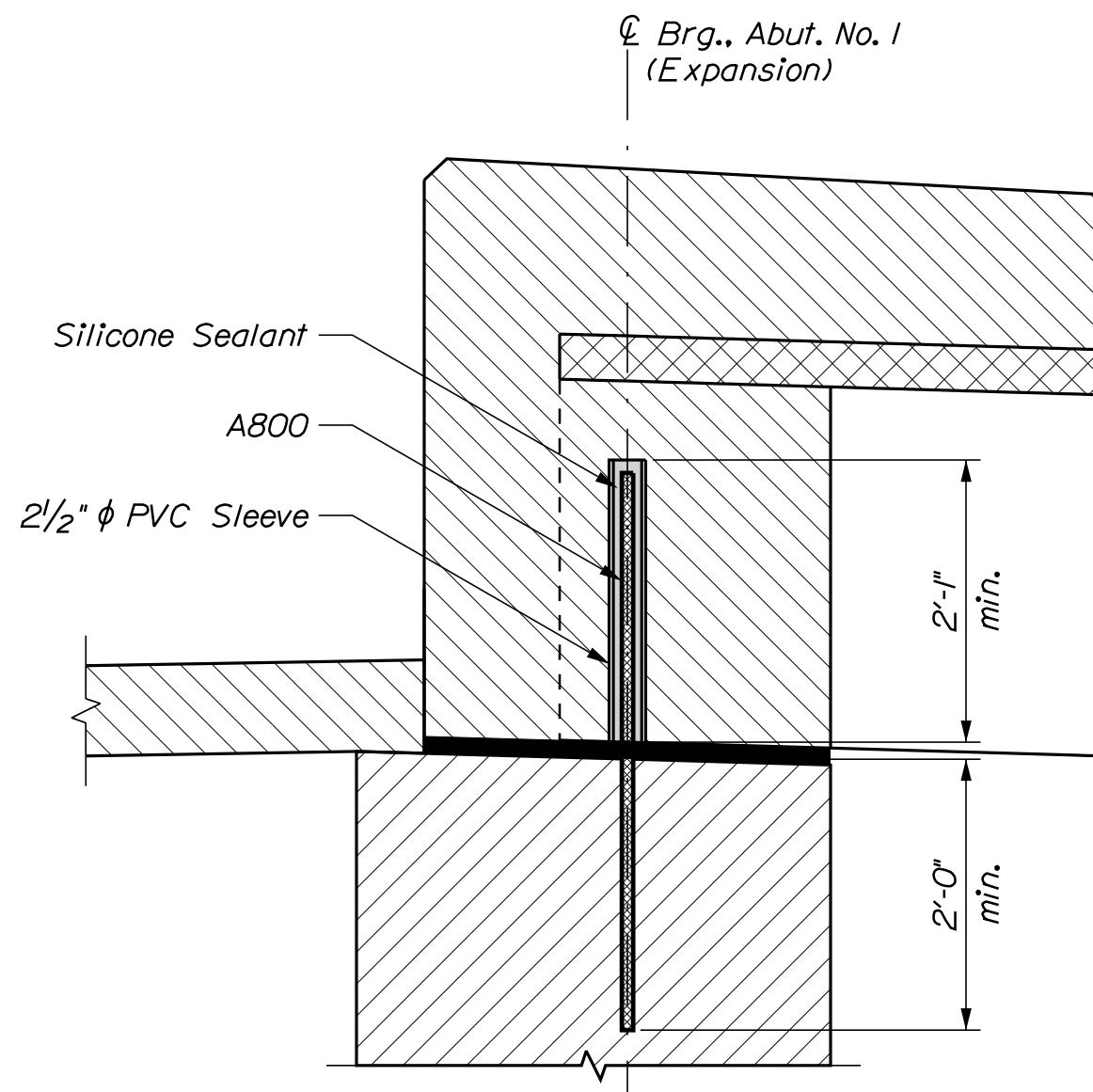
END DIAPHRAGM ELEVATION
Abutment No. 2 end shown, Abutment No. 1 end, opposite hand



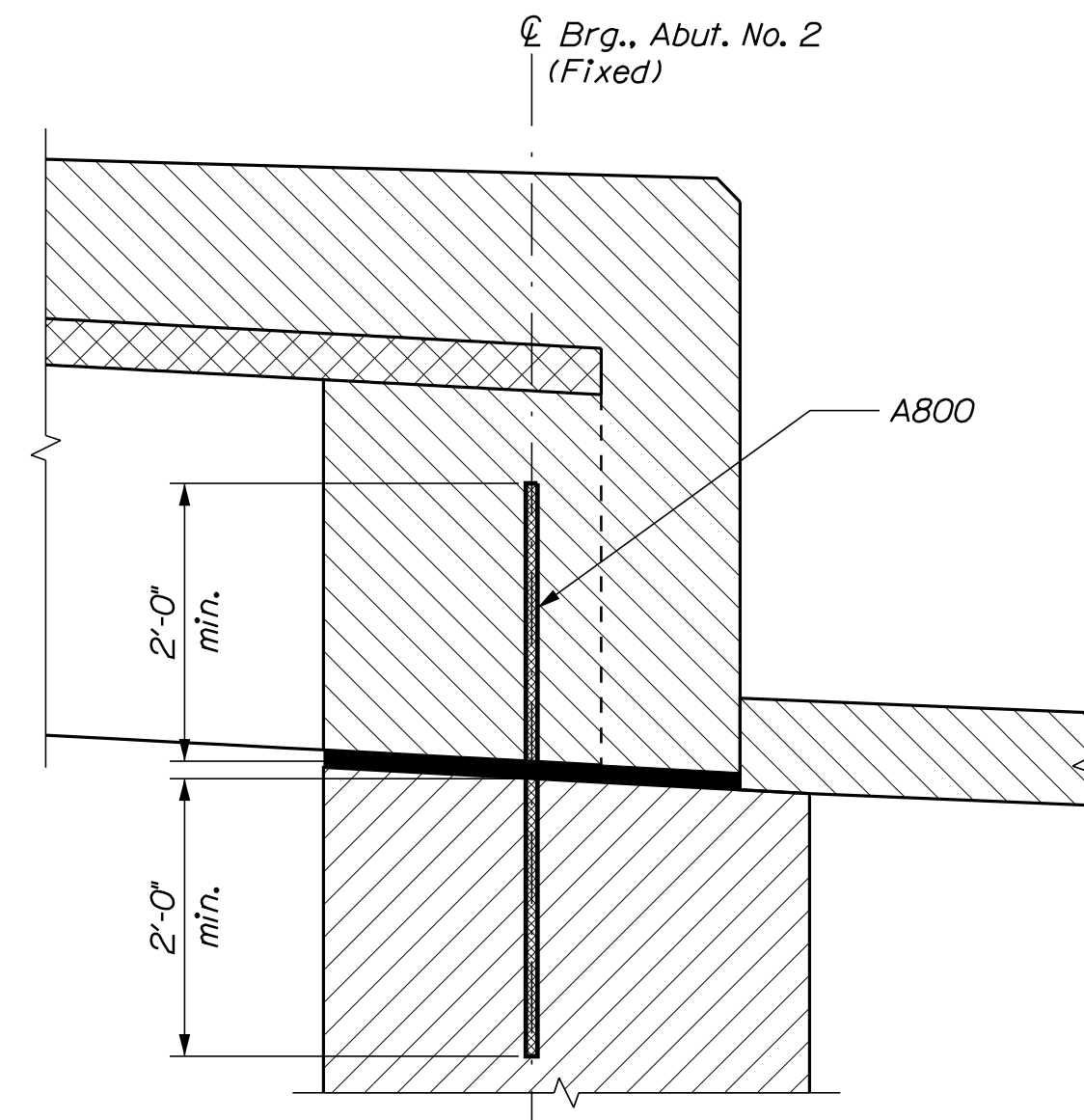
END DIAPHRAGM SECTION AT CURB
Abutment rebar not shown for clarity.



END DIAPHRAGM SECTION AT ROADWAY
Approach slab and Abutment rebar not shown for clarity.

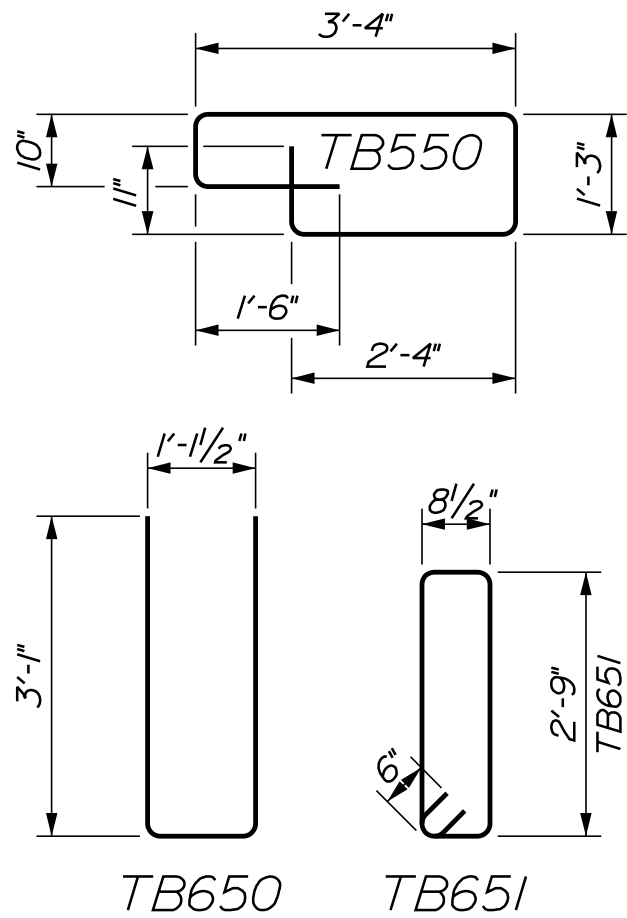


SUPERSTRUCTURE ANCHORAGE DETAIL



PROJ. MANAGER	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
M. PARLIN	D. SHAW	AUG 2022			
CHECKED-REVIEWED	D. BARTLETT				
DESIGNED-DETAILED	N. PUKAY				
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

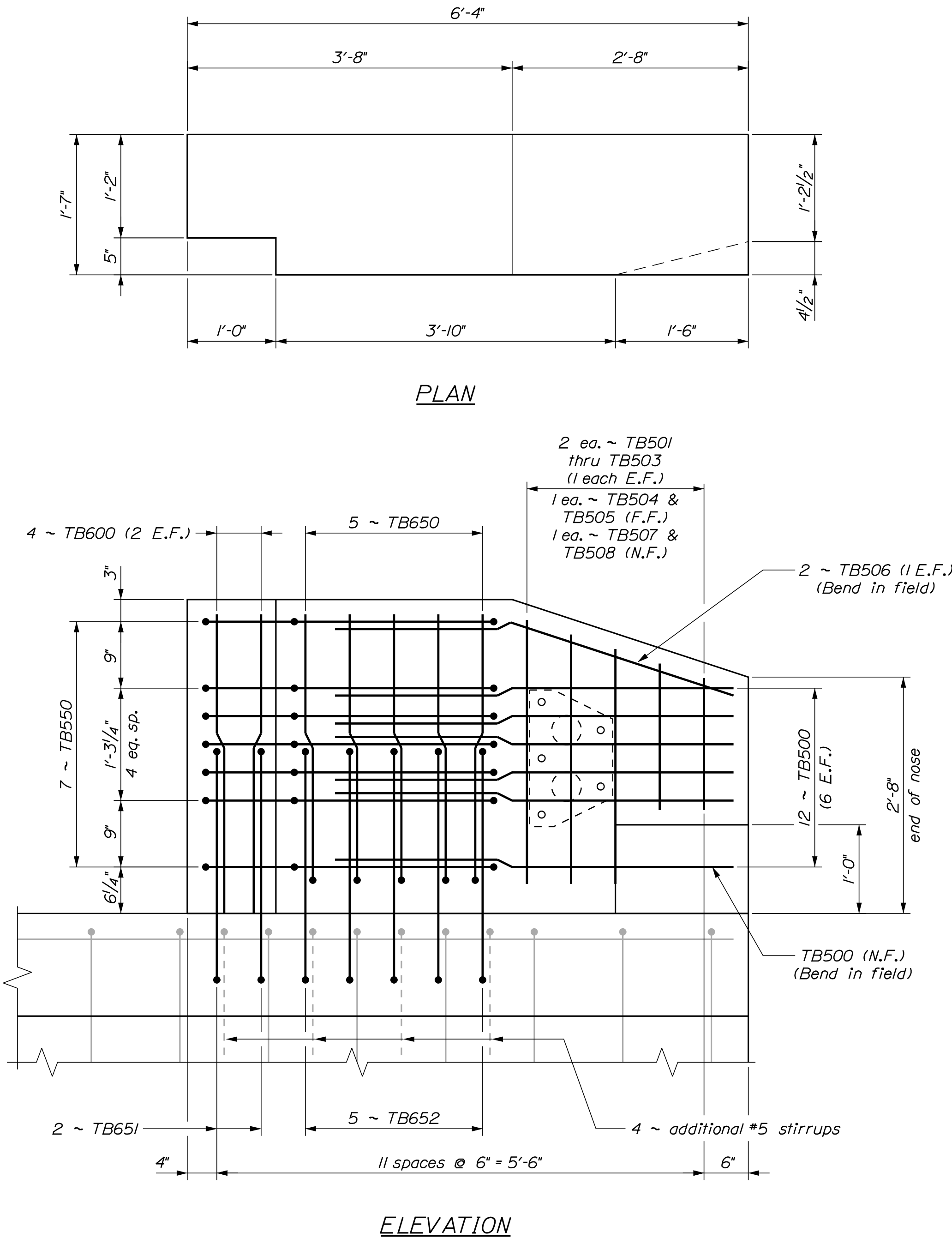
REINFORCING STEEL SCHEDULE		
	Qty.	Length
TB500	12	4'-6"
TB501	2	2'-11"
TB502	2	2'-9"
TB503	2	2'-7"
TB504	1	2'-5"
TB505	1	2'-3"
TB506	2	4'-8"
TB507	1	1'-7"
TB508	1	1'-5"
TB550	7	10'-2"
TB600	4	3'-4"
TB650	5	7'-4"
TB651	2	7'-11"
TB652	5	8'-9"



Notes:
The first digit following the letters of the mark indicate the size of the reinforcing bar. (TB500 = bar size #5.)
All dimensions are out - to - out of bar.

Quantities given are for one Transition Barrier.

For additional notes and dimensions, see Standard Details Section 526.



MODIFIED CONCRETE TRANSITION BARRIER
4 - Bar Pedestrian Railing

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2545300

WIN
25453.00

BRIDGE NO. 2691

BRIDGE PLANS

PUDDLE DOCK BRIDGE
PATTEE BROOK
FORT FAIRFIELD AROOSTOOK COUNTY

MODIFIED CONCRETE TRANSITION
BARRIER - 4 BAR PEDESTRIAN

SHEET NUMBER

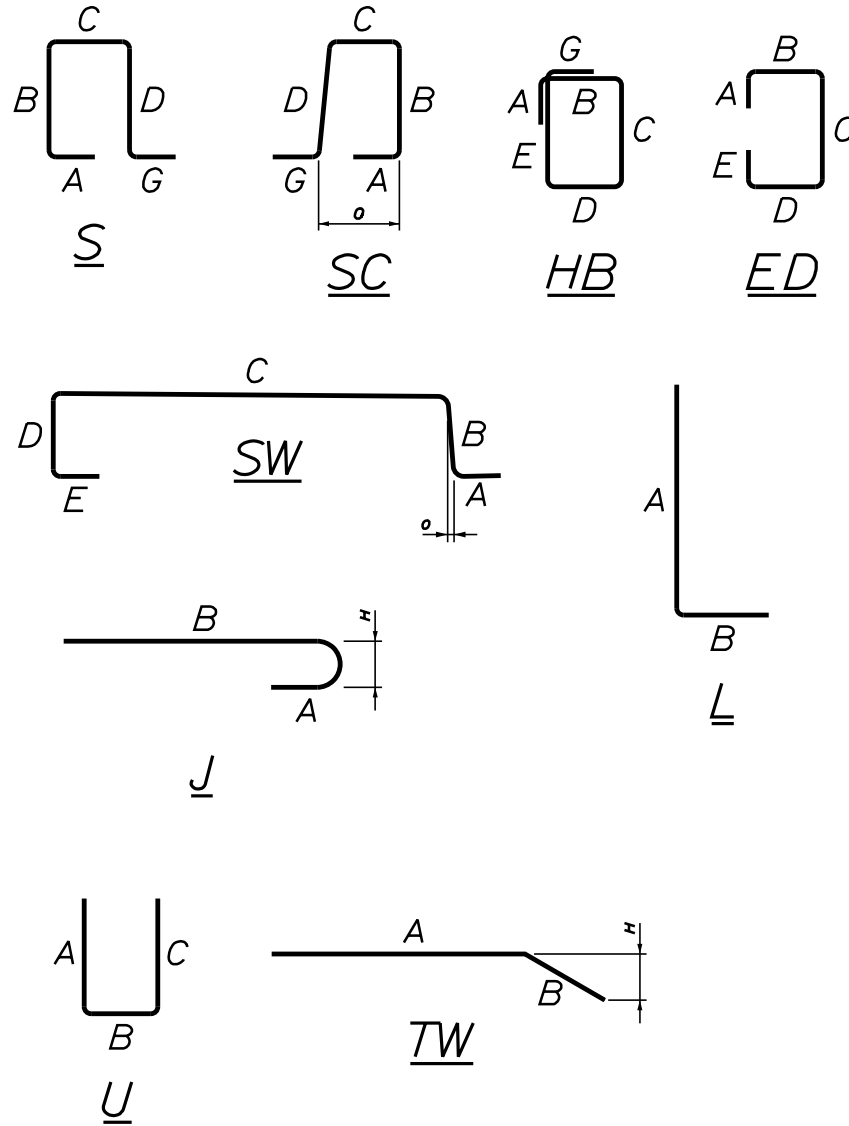
28

OF 32

PROJ. MANAGER	BY	DATE	SIGNATURE
DESIGNED-Detailed	M. PARLIN	D. SHAW	
CHECKED-Reviewed	B. BARTLETT		
DESIGNED-Detailed	N. PUKAY	T. WHITE	
DESIGNED-Detailed			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STRAIGHT BARS								BENT BARS															
MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION	MARK	QTY	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
SUPERSTRUCTURE								SUPERSTRUCTURE															
S500p	314	38'-5"	Superstructure Deck/Diaphragm	AS50I	32	28'-8"	Approach Slab	S550c	117	6'-2"	S	10"	1'-7/4"	1'-4"	1'-6¾"	10"							Superstructure Curb
S501c	12	50'-0"	Superstructure Curb/Sidewalk					S551c	117	5'-9/4"	SC	10"	1'-5/4"	1'-3"	1'-5"	10"					1'-3¾"		Superstructure Curb
S502c	12	31'-2"	Superstructure Curb/Sidewalk	AS60I	116	15'-2"	Approach Slab	S552c	79	11'-5/4"	SW	10"	1'-5"	6'-9"	1'-7/4"	10"					1"		Superstructure Sidewalk
S503c	6	38'-5"	End Diaphragm					S553c	628	10'-7"	J	7"	10'-0"						5"				Superstructure Fascia
								S554c	12	9'-4"	HB	10"	1'-4"	2'-6"	1'-4"	2'-6"		10"					End Diaphragm near Fascia
S600p	78	50'-0"	Superstructure Deck					S555c	64	8'-11/2"	ED	10"	2'-6"	2'-3/2"	2'-6"	10"							End Diaphragm
S601p	78	30'-4"	Superstructure Deck					S556c	18	4'-10"	U	10"	3'-2"		10"								End Diaphragm
								S557c	24	5'-1"	U	10"	3'-5"	10"									End Diaphragm
ABUTMENT NO. 1								ABUTMENT NO. 2								ABUTMENT NO. 1							
A500	29	4'-10"	Approach Slab Dowels	B500	29	4'-10"	Approach Slab Dowels	S650c	94	13'-4"	L	10'-0"	3'-4"										End Diaphragm
A600	12	55'-2"	Lower Portion of Abutment	B600	12	55'-2"	Lower Portion of Abutment	A550	24	4'-8/2"	U	10"	3'-0/2"	10"									Lower Portion of Abutment
A60I	12	39'-9"	Lower Portion of Abutment	B60I	12	39'-9"	Lower Portion of Abutment	A551c	32	4'-10"	U	10"	3'-2"	10"									Top of Wingwall
A602c	14	6'-9"	Wingwall	B602c	14	6'-9"	Wingwall	A552c	2	7'-8/2"	TW	6'-7/2"	1'-1"						5¾"				Top of Wingwall
A603c	14	8'-0"	Wingwall	B603c	14	8'-0"	Wingwall	A553c	2	9'-10/2"	TW	8'-9/2"	1'-1"						5¾"				Top of Wingwall
A604c	18	8'-10"	Wingwall	B604c	18	8'-10"	Wingwall	A554c	22	4'-8/2"	U	10"	3'-0/2"	10"									Wingwall Near Superstructure
A605c	18	7'-2"	Wingwall	B605c	18	7'-2"	Wingwall																
A700	3	40'-0"	Lower Portion of Abutment	B700	3	40'-0"	Lower Portion of Abutment	A650	210	11'-6"	U	4'-2"	4'-2"	4'-2"									Lower Portion of Abutment
A70I	3	18'-2"	Lower Portion of Abutment	B70I	3	18'-2"	Lower Portion of Abutment	A65I	10	5'-9/2"	L	4'-2"	1'-1/2"										Lower Portion Abutment @ Pile
								A652	10	5'-3/2"	L	4'-2"	1'-1/2"										Lower Portion Abutment @ Pile
A800	32	4'-11/2"	Abutment/Superstructure Dowels	B800	32	4'-11/2"	Abutment/Superstructure Dowels	A653c	4	17'-0/2"	U	7'-0"	3'-0/2"	7'-0"									Wingwall
								A654c	1	16'-2/2"	U	6'-7"	3'-0/2"	6'-7"									Wingwall
								A655c	1	14'-1/2"	U	5'-6/2"	3'-0/2"	5'-6/2"									Wingwall
A900	12	10'-3"	Lower Portion of Abutment	B900	12	10'-3"	Lower Portion of Abutment	A656c	1	12'-0/2"	U	4'-6"	3'-0/2"	4'-6"									Wingwall
A90I	12	12'-3"	Lower Portion of Abutment	B90I	12	12'-3"	Lower Portion of Abutment	A657c	1	9'-11/2"	U	3'-5/2"	3'-5/2"	3'-5/2"									Wingwall
								A658c	1	7'-10/2"	U	2'-5"	3'-0/2"	2'-5"									Wingwall
								A659c	1	5'-10/2"	U	1'-5"	3'-0/2"	1'-5"									Wingwall
								A660c	4	21'-0/2"	U	9'-0"	3'-0/2"	9'-0"									Wingwall
								A661c	1	19'-11/2"	U	8'-5/2"	3'-0/2"	8'-5/2"									Wingwall
								A662c	1	17'-10/2"	U	7'-5"	3'-0/2"	7'-5"									Wingwall
								A663c	1	15'-9/2"	U	6'-4/2"	3'-0/2"	6'-4/2"									Wingwall
								A664c	1	13'-8/2"	U	5'-4"	3'-0/2"	5'-4"									Wingwall
								A665c	1	11'-7/2"	U	4'-3/2"	3'-0/2"	4'-3/2"									Wingwall
								A666c	1	9'-6/2"	U	3'-3"	3'-0/2"	3'-3"									Wingwall
								A667c	1	7'-5/2"	U	2'-2/2"	3'-0/2"	2'-2/2"									Wingwall
								A668c	1	5'-4/2"	U	1'-2"	3'-0/2"	1'-2"									Wingwall
								A750	3	7'-0"	L	5'-10"	1'-2"										Lower Abutment Near Pile
								A75I	3	9'-0"	L	7'-10"	1'-2"										Lower Abutment Near Pile
								A752	24	6'-11"	L	5'-9"	1'-2"										Lower Abutment Near Pile
								ABUTMENT NO. 2															
								B550	24	4'-8/2"	U	10"	3'-0/2"	10"									Lower Portion of Abutment
								B551c	32	4'-10"	U	10"	3'-2"	10"									Top of Wingwall
								B552c	2	7'-8/2"	TW	6'-7/2"	1'-1"						5¾"				Top of Wingwall
								B553c	2	9'-10/2"	TW	8'-9/2"	1'-1"						5¾"				Top of Wingwall
								B554c	22	4'-8/2"	U	10"	3'-0/2"	10"									Wingwall Near Superstructure
								B650	210	11'-6"	U	4'-2"	4'-2"	4'-2"									Lower Portion of Abutment
								B65I	10	5'-9/2"	L	4'-2"	1'-7/2"										Lower Portion Abutment @ Pile
								B652	10	5'-3/2"	L	4'-2"	1'-1/2"										Lower Portion Abutment @ Pile
								B653c	4	17'-0/2"	U	7'-0"	3'-0/2"	7'-0"									Wingwall
								B654c	1	16'-2/2"	U	6'-7"	3'-0/2"	6'-7"									Wingwall
								B655c	1	14'-1/2"	U	5'-6/2"	3'-0/2"	5'-6/2"									Wingwall
								B656c	1	12'-0/2"	U	4'-6"	3'-0/2"	4'-6"									Wingwall
								B657c	1	9'-11/2"	U	3'-5/2"	3'-5/2"	3'-5/2"									Wingwall
								B658c	1	7'-10/2"	U	2'-5"	3'-0/2"	2'-5"									Wingwall
								B659c	1	5'-10/2"	U	1'-5"	3'-0/2"	1'-5"									Wingwall
								B660c	4	21'-0/2"	U	9'-0"	3'-0/2"	9'-0"									Wingwall
								B661c	1	19'-11/2"	U	8'-5/2"	3'-0/2"	8'-5/2"									Wingwall
								B662c	1	17'-10/2"	U	7'-5"	3'-0/2"	7'-5"									Wingwall
								B663c	1	15'-9/2"	U	6'-4/2"	3'-0/2"	6'-4/2"									Wingwall
								B664c	1	13'-8/2"	U	5'-4"	3'-0/2"	5'-4"									Wingwall
								B665c	1	11'-7/2"	U	4'-3/2"	3'-0/2"	4'-3/2"									Wingwall
								B666c	1	9'-6/2"	U	3'-3"	3'-0/2"	3'-3"									Wingwall
								B667c	1	7'-5/2"	U	2'-2/2"	3'-0/2"	2'-2/2"									Wingwall
								B668c	1	5'-4/2"	U	1'-2"	3'-0/2"	1'-2"									Wingwall
								B750	3	7'-0"	L	5'-10"	1'-2"										Lower Abutment Near Pile
								B75I	3	9'-0"	L	7'-10"	1'-2"										Lower Abutment Near Pile
								B752	24	6'-11"	L	5'-9"	1'-2"										Lower Abutment Near Pile

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

1. 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

2. The lower case letter following the bar number indicates the material of the bar.
"A500b", b = (Black) Plain Steel
"A550s", s = Stainless Steel
"S500p", p = Glass Fiber Reinforced Polymer
"P510c", c = Low-Carbon Chromium Steel

X. All reinforcement bars shall be Stainless Steel except in the approach slabs. Approach slab reinforcement will be Plain Reinforcing Steel.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2545300
WIN 25453.00
BRIDGE NO. 2691
BRIDGE PLANS

PUDDLE DOCK BRIDGE
PATTEE BROOK
FORT FAIRFIELD AROOSTOOK COUNTY
REINFORCING
STEEL SCHEDULE

SHEET NUMBER
29
OF 32

Date:1/8/2025

Username: David.Shaw

Division: BRIDGE

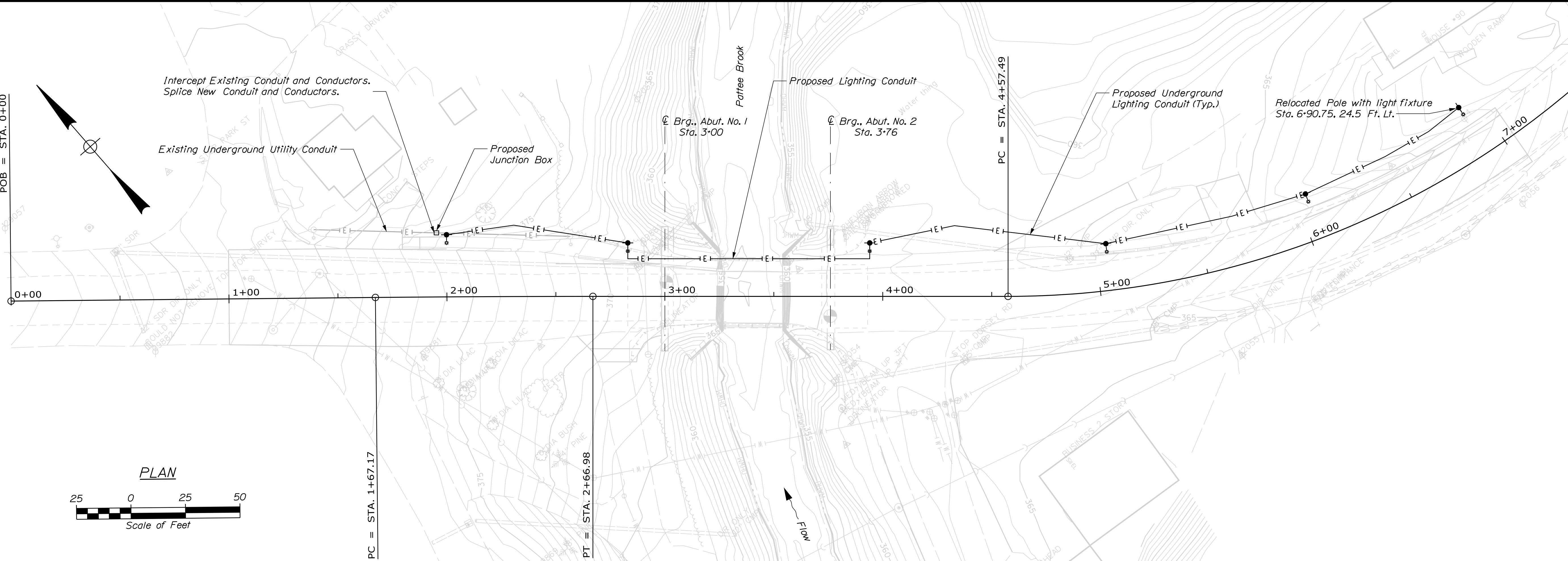
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LIGHTING NOTES

1. Scope of work: Install lighting on approaches as shown on these plans. Install new conduit, wiring, ornamental light standards, conventional light standards, LED luminaires, foundations and related hardware.
2. All materials and workmanship shall conform to applicable provisions of the Maine Department of Transportation Standard Specifications and Standard Details, National Electrical Code, and any requirements of the power company.
3. The Contractor shall notify utility companies at least 48 hours before any operations are conducted that potentially could conflict with aerial utilities.
4. Locations of any existing underground utilities shown are approximate. The Contractor shall be responsible for determining the presence of underground utility facilities prior to commencing any excavation work or installation of poles, foundations, conduit, junction boxes, or other work involving subsurface disturbance and shall notify utilities of proposed work in accordance with MRSA Title 23 Section 3360-A, Maine "Dig Safe" system. The Contractor shall contact Dig Safe at least 3 working days prior to the beginning of excavation.
5. Fixture voltage shall be 240 volts.
6. All exposed steel fittings and hardware shall be galvanized except non-conductive bushings, which shall be used for connection of rigid metal conduit to aluminum cabinets.
7. All conduit buried off the bridge shall be 2" PVC schedule 40 conduit and all buried conduit under pavement shall be 2" PVC schedule 80 conduit. All exposed conduit shall be galvanized rigid metal conduit, including conduit under the bridge.
8. Pull wire shall be installed in all conduit and payment shall be considered incidental to 626 items.
9. All galvanized rigid metal conduit threads shall have non-metallic insulated bushing. Payment shall be considered incidental to Item 626.21 Metallic Conduit.
10. Ornamental Luminaires shall be American Electric Lighting fixtures, catalog number: ARDCL P452 MVOLT 30K R2 BK PR7 AO SS NLXI LDR SCC 20KV.

11. Ornamental Poles and Ornamental Bases shall be Burlington Aluminum Poles, catalog number: BLA 14 F4J IIS C03 BK ABG.
12. All lighting fixtures shall be gasketed, have surge protection, and a double fuse kit. Payment shall be considered incidental to the 634 items.
13. All field wiring shall be neatly bundled and clearly identified with permanent, legible, weatherproof tags securely attached to each cable.
14. Upon completion of this project, the Contractor shall furnish to MaineDOT a set of as-built lighting plans for future reference and system maintenance. This work shall be considered incidental to Item 634.160 Highway Lighting.
15. Requirement of larger conduit size shall be determined by the Contractor in accordance with conduit fill requirements of the National Electrical Code. All conduit in the highway right of way shall be schedule 80 unless concrete-encased. If schedule 40 PVC conduit encased in concrete is used, concrete encasement will be incidental to payment for conduit.
16. All lighting circuits are to be photocell activated.
17. All conduit threads shall be red-headed. There shall be no splices or junction boxes for lighting except as noted on the project plans or approved by the Resident. Junction boxes are intended for wire pulling access only. Estimated quantities include an allowance for installation of Item 626.11, Precast Junction Box, at undetermined locations.
18. Foundations for light standards shall be 24 inch diameter precast foundations in accordance with Standard Specification 626.036 unless otherwise directed by the Resident. The Contractor shall be responsible for calculation of pole base reactions at the top of foundation in accordance with the latest revision of AASHTO "LRFD Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals" and the latest revision of MaineDOT Standard Specification Section 634.
19. All lighting foundations shall have a ground rod located in or adjacent to the foundation that is bonded to the grounding connector. Payment for the ground rod shall be included in Item 634.160 Highway Lighting.
20. All lighting equipment shall be bonded to the grounding connector.
21. If structural rock is encountered during installation of foundations, payment for excavation and doweling reinforcement into rock shall be considered incidental to foundation items.

LIGHTING LOCATIONS (OFFSETS TO CENTER OF FOUNDATIONS)		
LEFT SIDE		
STATION	OFFSET	TYPE
2+00	28.5'	ORNAMENTAL
2+83	24.5'	ORNAMENTAL
3+90	24.5'	ORNAMENTAL
5+05	21.5'	CONVENTIONAL
6+05	21.5'	CONVENTIONAL

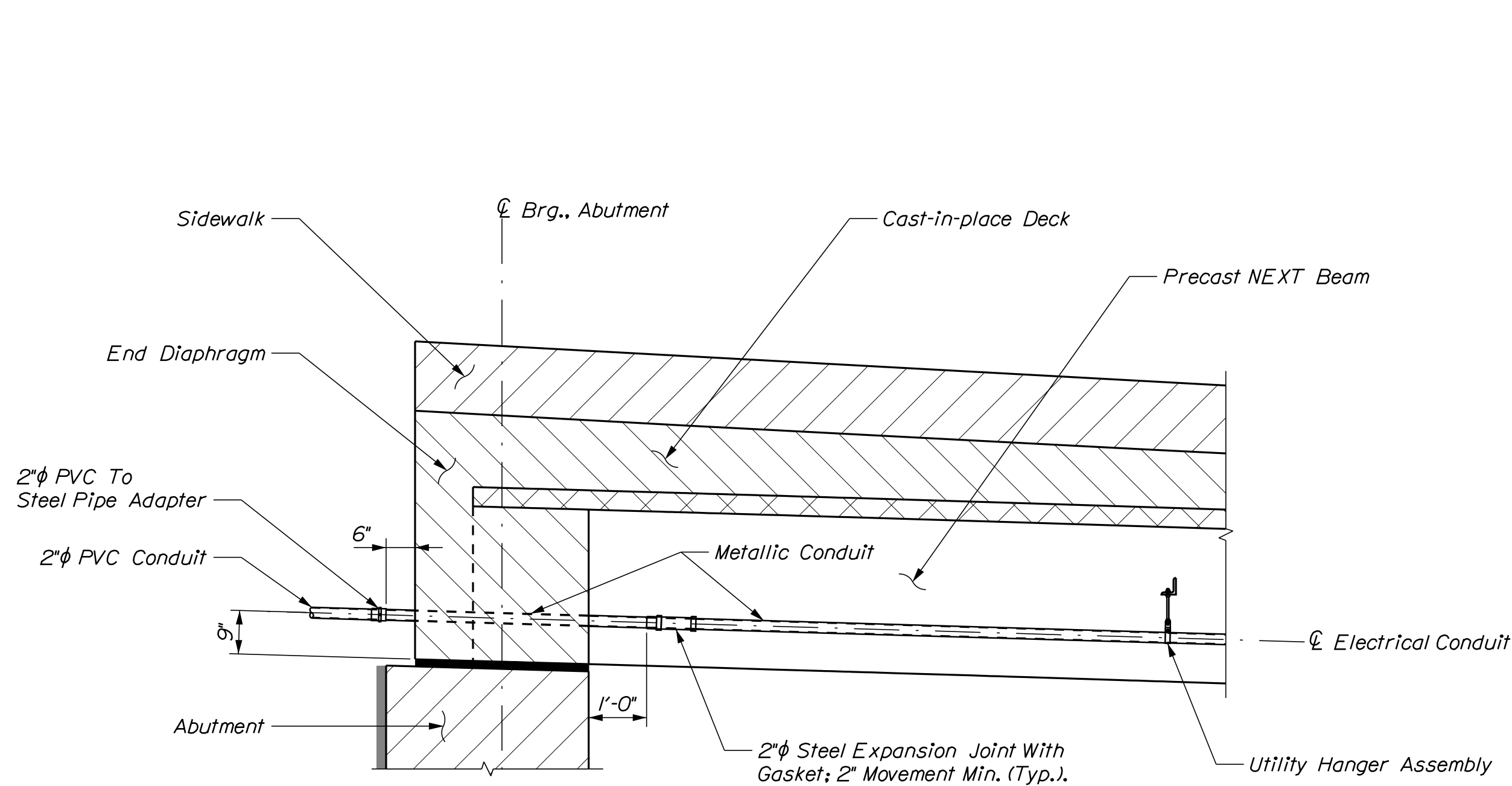


STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2545300
WIN 25453.00
BRIDGE NO. 2691
BRIDGE PLANS

PROJECT: PUDDLE DOCK BRIDGE
PATTEE BROOK
FORT FAIRFIELD AROOSTOOK COUNTY
SHEET NUMBER 30 OF 32

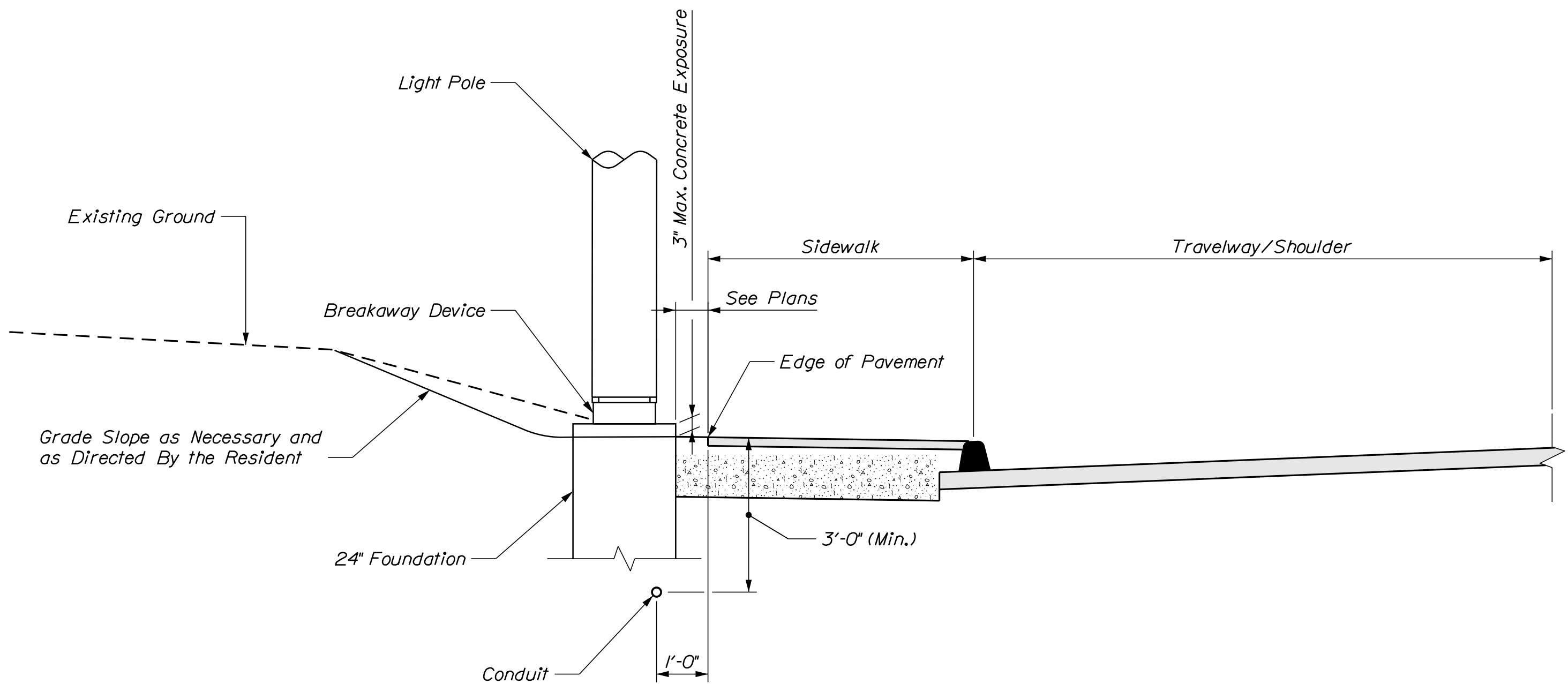
DESIGNER: M. PARLIN
CHECKED: J. BARTLETT
DESIGNED: N. PUKAY
REVISIONS: 1, 2, 3, 4
FIELD CHANGES

DATE: AUG 2022
SIGNATURE: T. WHITE
P.E. NUMBER: _____
DATE: _____

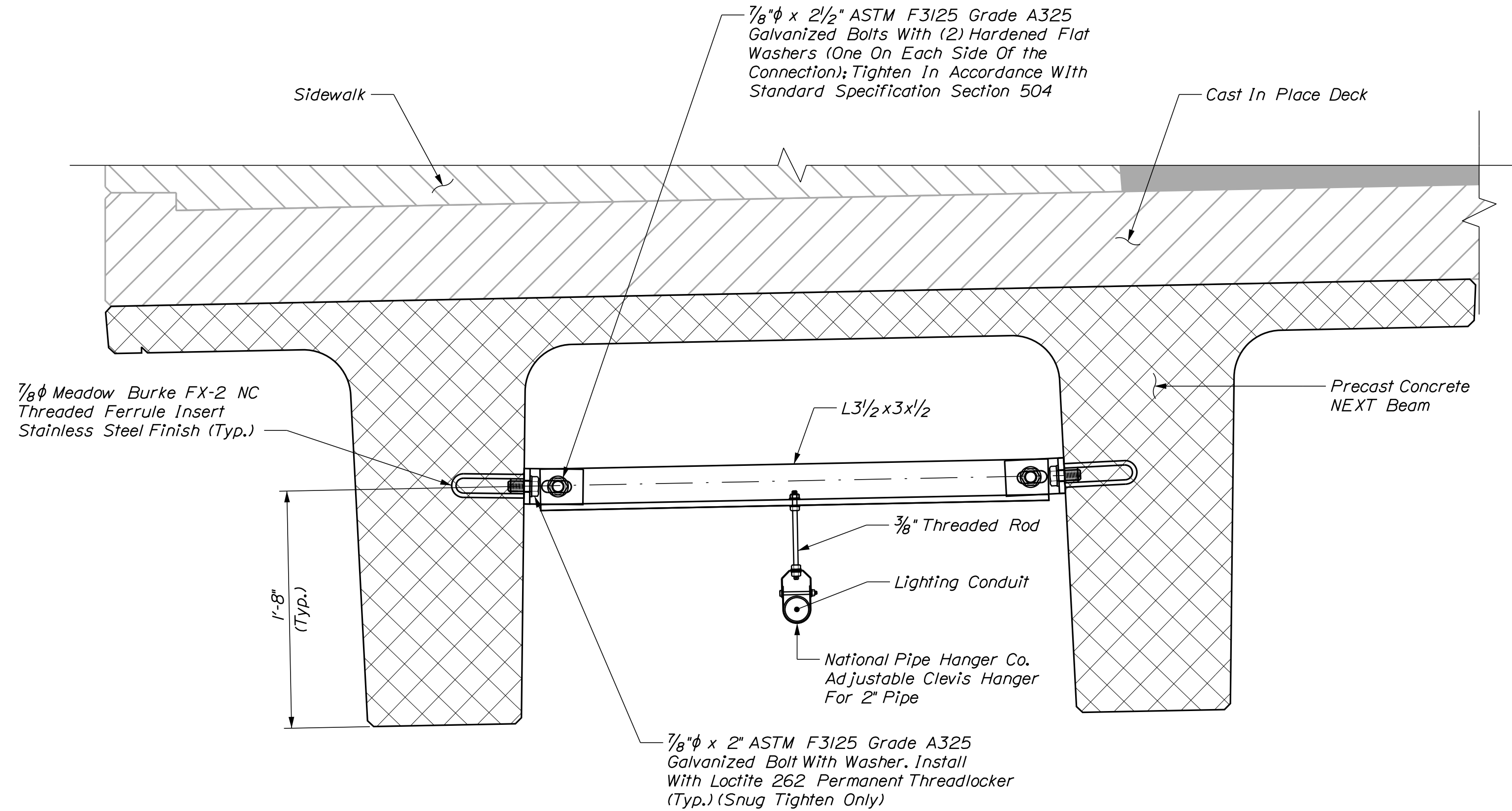


ABUTMENT SECTION ~ LIGHTING

Expansion joint must be set according to ambient air temperature per Manufacturer's instructions.

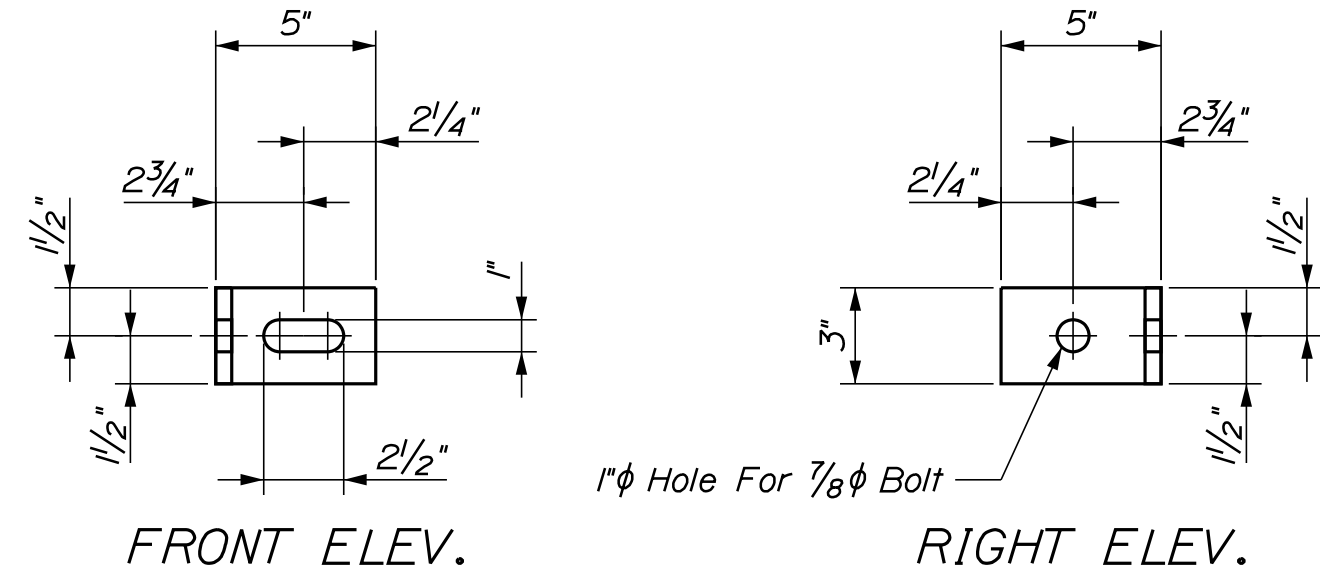


TYPICAL SECTION ~ LIGHTING



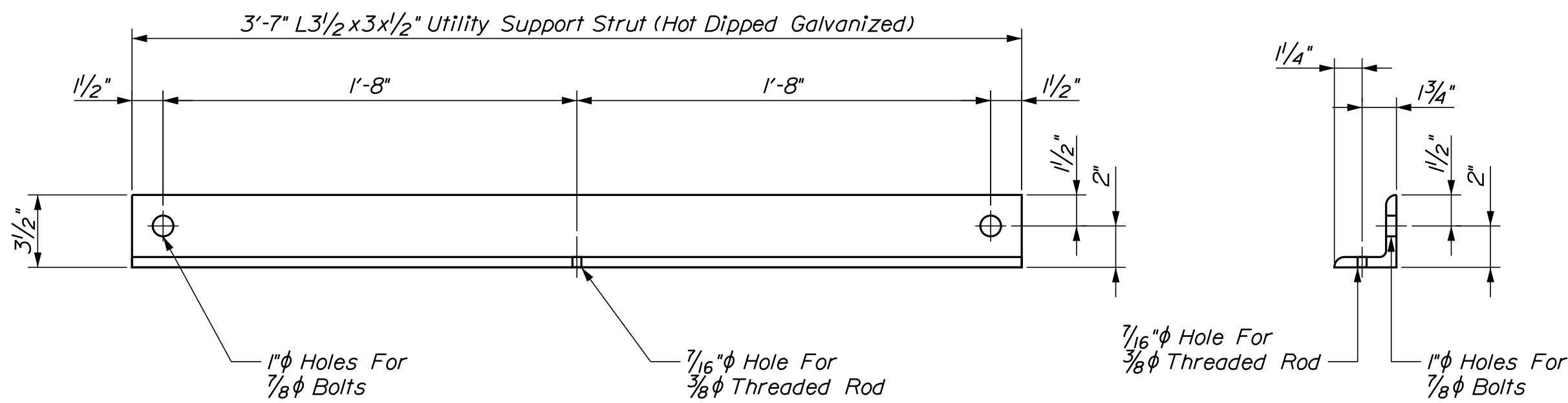
UTILITY SECTION LOOKING UPSTATION

Install hanger assemblies at a maximum spacing of 10'-0". Do not install hanger assemblies at expansion joint locations.



LEFT SIDE CLIP ANGLE

Right Side Clip Angle To Be Opposite Hand
(1) Left Side and (1) Right Side Clip Angle
Required At Each Hanger Location
Clip Angles To Be L5x5x1/2 Hot Dipped Galvanized



FRONT ELEVATION

UTILITY SUPPORT STRUT

(1) L3/2 x 3x1/2 Hanger Strut Required
At Each Utility Hanger Location

PROJ. MANAGER	BY	DATE
M. PARLIN	D. SHAW	AUG 2022
CHECKED-REVIEWED	T. WHITE	
DESIGN-DETAILED		
DESIGN-REVIEWED		
DESIGN-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

[illegible]