

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

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

DESIGN LOADING

Live Load HL - 93 Modified for Strength I

HYDROLOGIC DATA

Drainage Area 32.20 sq mi
Design Discharge (Q50) 3660 cfs
Check Discharge (Q100) 4240 cfs
Headwater Elevation (Q1.1) 363.4 ft
Headwater Elevation (Q25) 368.2 ft
Headwater Elevation (Q50) 369.0 ft
Headwater Elevation (Q100) 369.8 ft
Discharge Velocity (Q1.1) 4.6 fps
Discharge Velocity (Q50) 9.6 fps
Discharge Velocity (Q100) 10.1 fps

MATERIALS

Concrete:
Curbs, Sidewalks & Transition Barriers Class "LP"
Precast Class "P"
Fill "Fill"
All Other Class "A"
Reinforcing:
Plain Reinforcing Steel ASTM A615, Grade 60
Low-Carbon Chromium ASTM A 1035, Type CS, Grade 100
Glass Fiber Reinforcing Polymer (GFRP) ASTM D7957
Prestressing Strands AASHTO M 203 (ASTM A416),
Grade 270, Low Relaxation
CT Girder:
Tensile Strength ASTM D3039
Shear Strength ASTM D7078

BASIC DESIGN STRESSES

Concrete Class "A" f 'c = 4000 psi
Concrete Class "LP" f 'c = 5000 psi
Concrete Class "P" f 'c = 8000 psi
..... f 'ci = 6000 psi
Reinforcing
Plain Reinforcing Steel f y = 60,000 psi
Glass Fiber Reinforced Polymer
#5 & #6 Bar f fu = 100,000 psi
Minimum Elastic Modulus E f = 6,500,000 psi
Minimum Nominal Design Tensile Strain e fu = 1.1%
Prestressing Strand F μ = 270,000 psi
CT Girder:
Ultimate Tensile Stress
Zone 1 65,000 psi
Zone 2 139,000 psi
Zone 3 139,000 psi
Ultimate Tensile Stain 0.009 in/in
Ultimate Shear Stress 10,000 psi

SOLON
SOMERSET COUNTY
MAIN STREET BRIDGE
OVER
FALL BROOK
U.S. ROUTE 201
FEDERAL AID PROJECT NO. 2189401
PROJECT LENGTH 0.13 mi.
BRIDGE NO. 2504

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UTILITIES

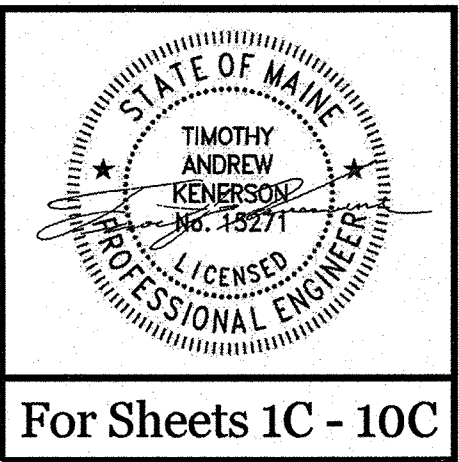
Central Maine Power
Somerset Telephone Co.
Charter Communications
Solon Water District
Consolidated Communications

TRAFFIC DATA

Current (2022) AADT.....	4220
Future (2042) AADT.....	4640
DHV - % of AADT.....	10%
Design Hour Volume.....	464
Heavy Trucks (% of AADT).....	20%
Heavy Trucks (% of DHV).....	19%
Directional Distribution (% of DHV).....	52%
18 kip Equivalent P 2.0.....	1073
18 kip Equivalent P 2.5.....	1022
Design Speed (mph).....	35

MAINTENANCE OF TRAFFIC

Maintain one lane of alternating traffic and pedestrian sidewalk on a temporary bridge using temporary traffic signals.



For Sheets 1C - 10C

PROJECT LOCATION	Route 201 in Solon, Approximately 300' northerly of the Route 201A Intersection. Lat./Long. 44°57'01.0 N 69°51'38.4 W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Bridge Replacement

WIN022260.01

2189401

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED

COMMISSIONER: [Signature]
CHIEF ENGINEER: [Signature]

DATE
12-20-22
12-20-2023

PROJECT INFORMATION

PROGRAM
BRIDGE

PROJECT MANAGER
ANDREW LATH

DESIGNER
OWEN KRALGS

CONSULTANT
HOYLE TANNER

PROJECT RESIDENT
CONTRACTOR

PROJECT COMPLETION DATE

SOLON
MAIN STREET BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 66

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.08	REMOVING BUILDING NO.1	1	LS
202.08	REMOVING BUILDING NO.2	1	LS
202.19	REMOVING EXISTING BRIDGE	1	LS
202.202	REMOVING PAVEMENT SURFACE	990	SY
203.20	COMMON EXCAVATION	1500	CY
203.24	COMMON BORROW	2800	CY
203.25	GRANULAR BORROW	880	CY
206.07	STRUCTURAL ROCK EXCAVATION - DRAINAGE & MINOR STRUCTURES	20	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	850	CY
206.092	STRUCTURAL ROCK EXCAVATION - MAJOR STRUCTURES	23	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	2600	CY
403.2081	12.5 MM POLYMER MODIFIED HMA	350	T
403.209	HOT MIX ASPHALT 9.5 MM (INCIDENTALS)	48	T
403.213	HOT MIX ASPHALT 12.5 MM BASE	260	T
403.2131	12.5 MM POLYMER MODIFIED HMA BASE	510	T
409.15	BITUMINOUS TACK COAT - APPLIED	200	G
461.131	TEMPORARY PAVEMENT	180	T
502.219	STRUCTURAL CONCRETE, ABUTMENT & RETAINING WALLS (560 CY)	1	LS
502.22	STRUCTURAL CONCRETE ABUTMENT & RETAINING WALL UNDERWATER	240	CY
502.31	STRUCTURAL CONCRETE APPROACH SLABS (25 CY)	1	LS
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	50100	LB
503.13	REINFORCING STEEL, PLACING	50100	LB
507.0821	STEEL BRIDGE RAILING, 3 BAR (45 LF)	1	LS
507.0831	STEEL BRIDGE RAILING, 4 BAR (45 LF)	1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (230 SY)	1	LS
510.12	SPECIAL DETOUR 12FT ROAD - VEHICLE PEDESTRIAN SEPARATED	1	LS
511.07	COFFERDAM: ABUTMENT 1	1	LS
511.07	COFFERDAM: ABUTMENT 2	1	LS
512.081	FRENCH DRAINS (240 LF)	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (390 SY)	1	LS
519.60	EXPANSION DEVICE - ASPHALTIC PLUG JOINT	68	LF
526.301	TEMPORARY CONCRETE BARRIER TYPE 1 (60 LF)	1	LS
526.34	PERMANENT CONCRETE TRANSITION BARRIER	4	EA
527.34	WORK ZONE CRASH CUSHIONS	4	UN
603.16	15" CULVERT PIPE OPTION 1	78	LF
603.179	18" CULVERT PIPE OPTION III	230	LF
604.072	CATCH BASIN TYPE A1-C	8.5	EA
604.252	CATCH BASIN TYPE A5-C	1	EA
605.09	6" UNDERDRAIN TYPE B	61	LF
605.12	15" UNDERDRAIN TYPE C	610	LF
606.1301	31" W-BEAM GUARDRAIL, MID-WAY SPLICE-SINGLE FACED	180	LF
606.1304	31" W-BEAM GUARDRAIL, MID-WAY SPLICE-OVER 15' RADIUS	88	LF
606.1305	31" W-BEAM GUARDRAIL, MID-WAY SPLICE FLARED TERMINAL	2	EA
606.1306	31" W-BEAM GUARDRAIL, MID-WAY SPLICE TANGENT TERMINAL	1	EA
606.1307	BRIDGE TRANSITION (ASYMMETRICAL) TYPE 1A	4	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	7	EA
606.78	LOW VOLUME GUARDRAIL END	1	EA
608.26	CURB RAMP DETECTABLE WARNING FIELD	30	SF
609.11	VERTICAL CURB TYPE 1	470	LF
609.12	VERTICAL CURB TYPE 1- CIRCULAR	59	LF
609.221	TERMINAL CURB TYPE 1	78	LF
609.222	TERMINAL CURB TYPE 1- CIRCULAR	28	LF
610.08	PLAIN RIPRAP	250	CY
610.16	HEAVY RIPRAP	570	CY
610.18	STONE DITCH PROTECTION	180	CY
613.319	EROSION CONTROL BLANKET	280	SY
615.07	LOAM	120	CY
618.14	SEEDING METHOD NUMBER 2	18	UN
619.12	MULCH	18	UN
619.14	EROSION CONTROL MIX	240	CY
620.58	EROSION CONTROL GEOTEXTILE	910	SY
627.18	12" SOLID WHITE PAVEMENT MARKING	60	LF
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARK LINE	2100	LF
627.77	REMOVING PAVEMENT MARKINGS	200	SF
627.78	TEMPORARY 4" PAINT PAVEMENT MARK LINE W OR Y	1200	LF
629.05	HAND LABOR, STRAIGHT TIME	40	HR
631.12	ALL PURPOSE EXCAVATOR (INC OPERATOR)	20	HR
631.14	GRADER (INCLUDING OPERATOR)	20	HR
631.15	ROLLER EARTH BASE CRS (INC OP)	25	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	20	HR
639.19	FIELD OFFICE TYPE B	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.312	TYPE III BARRICADE	4	EA
652.33	DRUM	25	EA
652.34	CONE	50	EA
652.35	CONSTRUCTION SIGNS	750	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGER	600	HR
656.75	TEMPORARY SOIL EROSION & WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS
672.10	PRECAST CONCRETE BLOCK GRAVITY WALL	340	SF

BID ALTERNATE #1 - PRECAST NEXT BEAM SUPERSTRUCTURE			
ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.261	STRUCTURAL CONCRETE ROAD & SIDEWALK SLAB ON CONCRETE BRIDGE (120 CY)	1	LS/CY
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (23 CY)	1	LS/CY
503.19	LOW-CARBON, CHROMIUM REINFORCING - FABRICATED & DELIVERED	5050	LB
503.20	LOW-CARBON, CHROMIUM REINFORCING - PLACING	5050	LB
530.30	GFRP REINFORCEMENT BARS, FABRICATED & DELIVERED	18300	LF
530.31	GFRP REINFORCEMENT BARS, PLACING	18300	LF
535.622	PRESTRESSED STRUCTURAL CONCRETE NEXT BEAM (75 CY)	1	LS/CY

BID ALTERNATE #2 - COMPOSITE G BEAM			
ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.262	STRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON COMPOSITE BRIDGES (17 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (23 CY)	1	LS
503.19	LOW-CARBON CHROMIUM REINFORCEMENT, FABRICATED AND DELIVERED	447	LB
503.20	LOW-CARBON CHROMIUM REINFORCEMENT, PLACING	447	LB
509.743	COMPOSITE TUB GIRDER, FABRICATION (327 LF)	1	LS
509.744	COMPOSITE TUB GIRDER, ERECTION (327 LF)	1	LS
530.30	GFRP, REINFORCEMENT BARS, FABRICATED & DELIVERED	2124	LF
530.31	GFRP, REINFORCEMENT BARS, PLACING	2124	LF

SOLON WATER DISTRICT			
ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
801.03	Test Pits	4	EA
822.3302	6" Class 52 CLDI Water Main	425	LF
822.34	8" Class 52 CLDI Water Main	680	LF
823.3251	8" Gate Valve with Box	4	EA
823.33	6" Gate Valve with Box	3	EA
824.30	Fire Hydrant Assembly	3	EA
825.311	¾" Corporation	7	EA
825.312	¾" Curb Stop with Box	9	EA
825.32	2" Corporation	1	EA
825.322	2" Curb Stop with Box	1	EA
825.41	¾" Copper Service Pipe	210	LF
825.42	2" Copper Service Pipe	50	LF
825.5411	Temporary Water Main	1	LS
827.301	Rock Excavation Water Main	10	CY
827.302	Unsuitable Soil Excavation - Below Grade	10	CY
827.331	Trench Insulation, 2 Inch Rigid	100	SY
827.3642	Remove and Dispose Asbestos Cement Pipe	1	LS
830.10	Water Main, Bridge Crossing	1	LS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2189401

WIN
022260.01

BRIDGE NO. 2504
BRIDGE PLANS

MAIN STREET BRIDGE
FALL BROOK
SOLON
SOMERSET COUNTY

ESTIMATED QUANTITIES

SHEET NUMBER

2

OF 66

PROJ. MANAGER ANDREW LATHE

BY B. NICHOLS

DATE NOV 2022

DESIGN-DETAILED J. KRALISS

CHECKED-REVIEWED RPM

DESIGN-DETAILED NLC

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

SIGNATURE

P.E. NUMBER

DATE

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. Place loam 2 inches deep on all new or reconstructed sideslopes or as directed by the Resident.
8. 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.
9. Place a 24 inch wide strip of Erosion Control Blanket on the sideslopes along the top of the riprap and behind the wingwalls.
10. Guardrail posts as shown in the Standard Details shall be modified from the indicated length of 7 feet to a length of 8 feet with an embedment of 5.25 feet. Payment will be considered incidental to the guardrail pay items.
11. A MASH compliant guardrail end treatment shall be installed concurrently with the placement of each section of beam guardrail. On Brook Street a Low Volume Guardrail End shall be installed concurrently with the placement of each section of beam guardrail.
12. 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.
13. 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,
Concrete barrier railing,
Top of abutment backwalls and wingwalls, and
To one foot below the ground on vertical walls against earth.
14. Project information referred to below may be accessed at the following MaineDOT web address: <http://www.maine.gov/mdot/contractors/>
15. The project geotechnical report titled: Geotechnical Design Report, Main Street Bridge No 2504, Fall Brook, December, 2022, may be accessed at the MaineDOT web address.
16. Geotechnical information furnished or referred to in this plan set is for the use of the Bidders and the Contractor. No assurance is given that the information or interpretations will be representative of actual subsurface conditions at the construction site. MaineDOT will not be responsible for the 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.
17. 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.

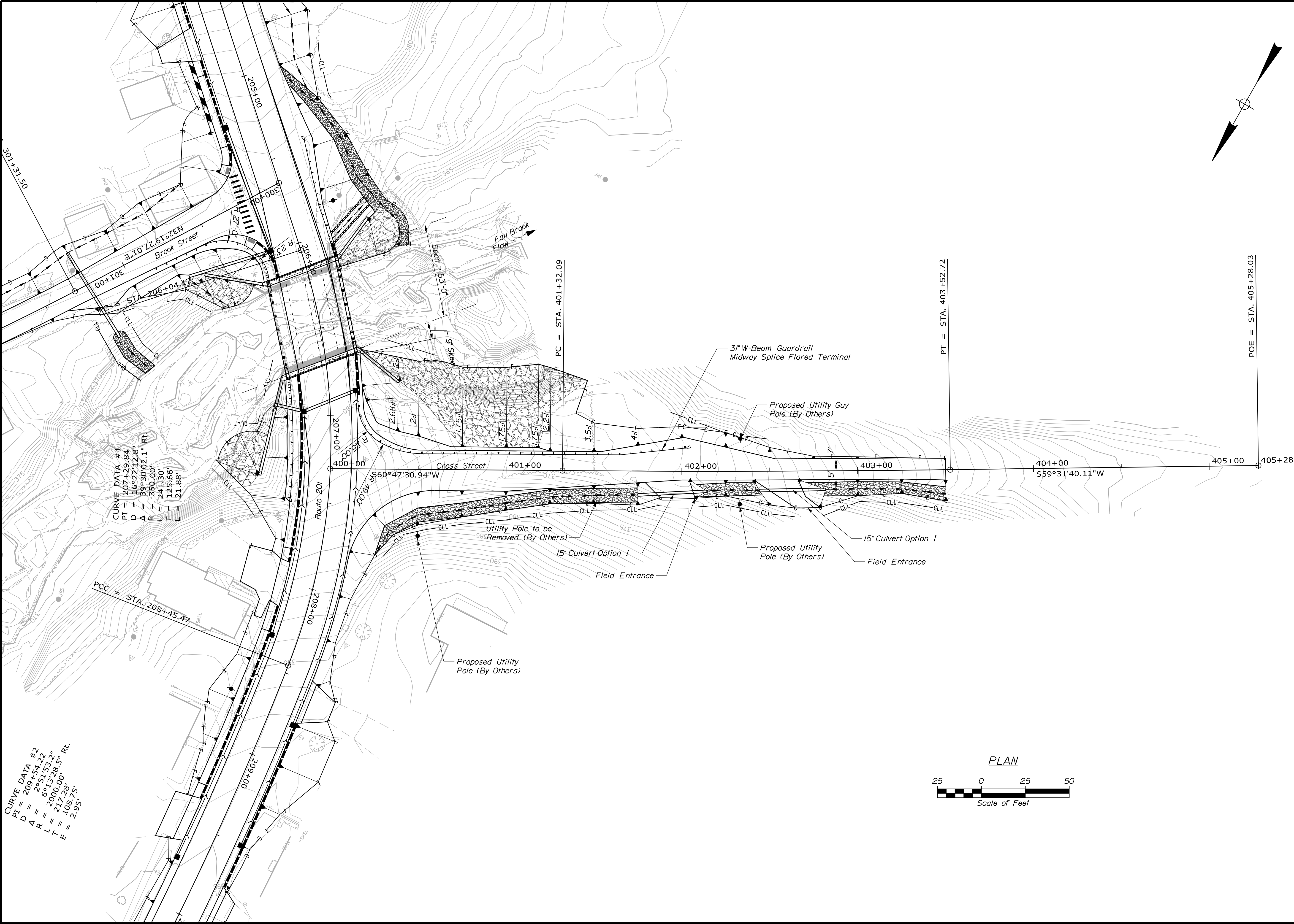
b. If other Contract Documents specifically allow a change in payment for a Lump Sum pay item, those requirements will be followed.

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. Design changes resulting from differences in layout of Superstructure Bid Alternates will be considered incidental to related bid alternate superstructure items.

GENERAL CONSTRUCTION NOTES (CONTINUED)

18. Commercial paved entrances shall be constructed with: 3 inches of hot mix asphalt and 11 inches of Aggregate Subbase Course - Gravel.
19. Residential paved entrances shall be constructed with: 2 inches of hot mix asphalt and 12 inches of Aggregate Subbase Course - Gravel.
20. All paved walks shall be constructed with 12 inches of Aggregate Subbase Course - Gravel and 2 inches of hot mix asphalt, unless noted otherwise in the plans or directed by the Resident.
21. A 3' paved apron shall be placed at all unpaved entrances unless otherwise directed by the Resident.
22. All embankment material, except as otherwise shown, placed below elevation 369.0', shall be Granular Borrow meeting the requirements of Subsection 703.19, Material for Underwater Backfill, of the Standard Specifications, with the additional requirement that the maximum particle size shall be limited to 3 inches.
23. Place riprap on sideslopes up to EL. 369.0', or as shown on plans.
24. Properties depicted on the Right of Way Maps as Parcels 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 and 13 will not become available to the Contractor until the date identified within Special Provision 104, Reserved Limits.
25. Existing carport at driveway 208-01 RT (parcel 13) may be need to be temporarily relocated for grading of drive. Payment for relocating and resetting carport will be considered incidental to the Contract.
26. Any fill or work to maintain access to Brook Street during construction will be incidental to Pay Item 510.12 Special Detour.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2189401 WIN 022260.01 BRIDGE NO. 2504 BRIDGE PLANS		SIGNATURE P.E. NUMBER DATE	DATE	BY	PROJ. MANAGER	ANDREW	LATHE
			NOV 2022	B. NICHOLS	CHECKED-DETAILED	O. KRALISS	
			NOV 2022	LOCK	DESIGN-REVIEWED	RPM	
			APR 2022	AGB	DESIGN-DETAILED	RLC	
					REVISIONS 1		
					REVISIONS 2		
					REVISIONS 3		
					REVISIONS 4		
					FIELD CHANGES		
MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY GENERAL CONSTRUCTION NOTES		SHEET NUMBER 3 OF 66					

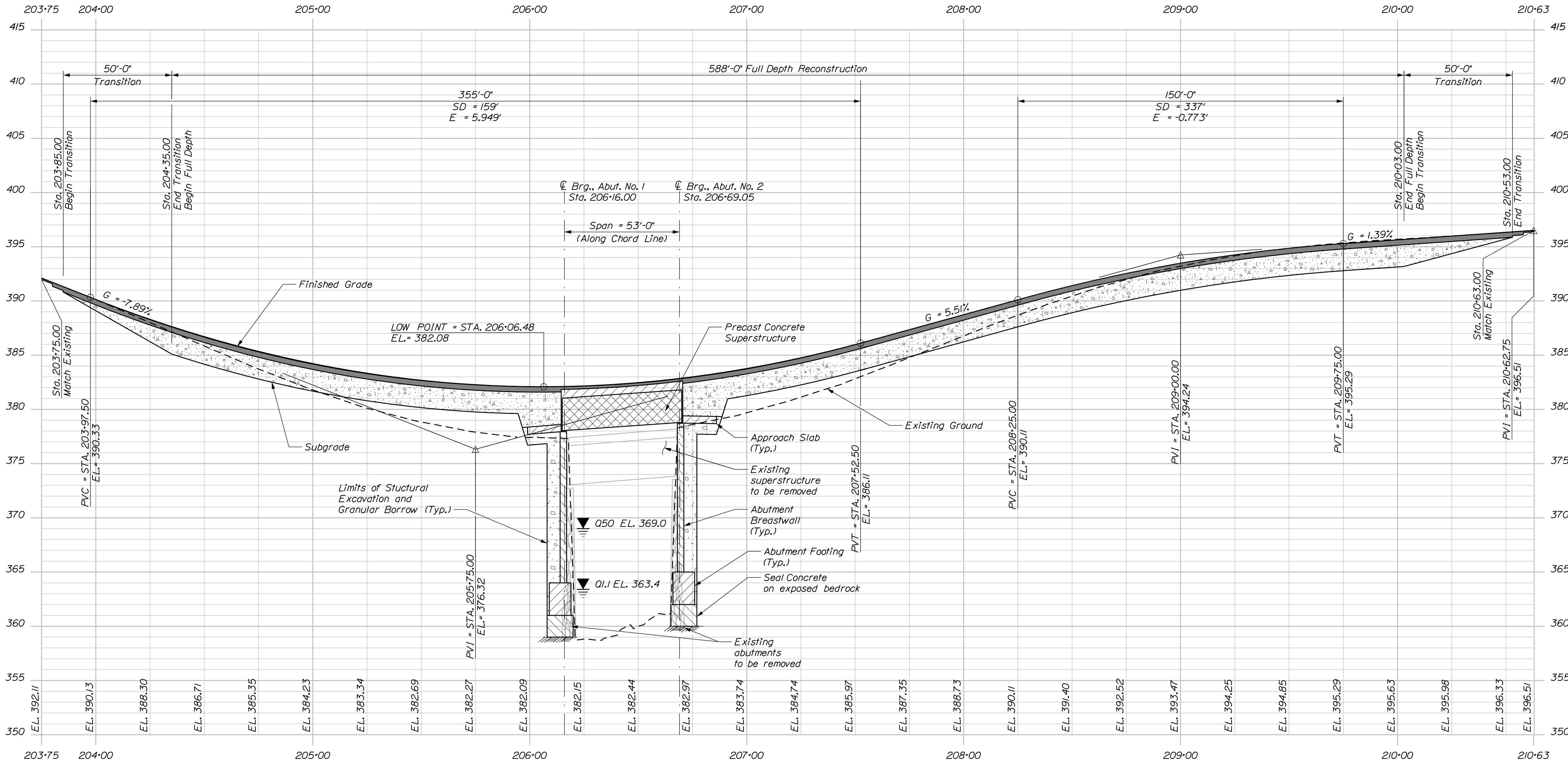


Date:12/7/2022

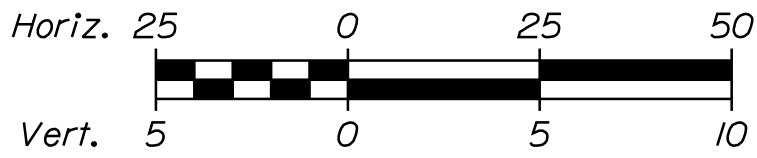
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Division: BRIDGE

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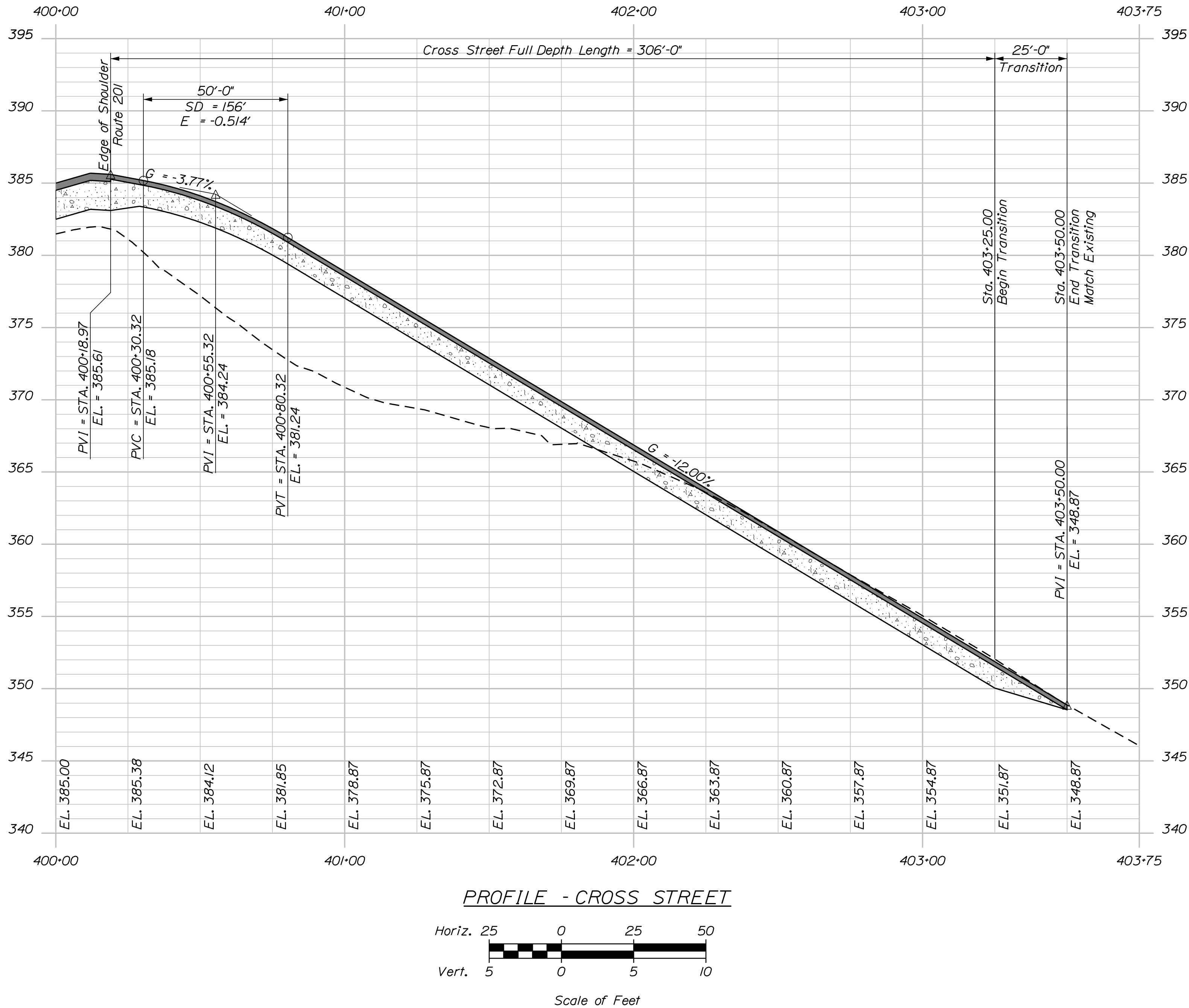
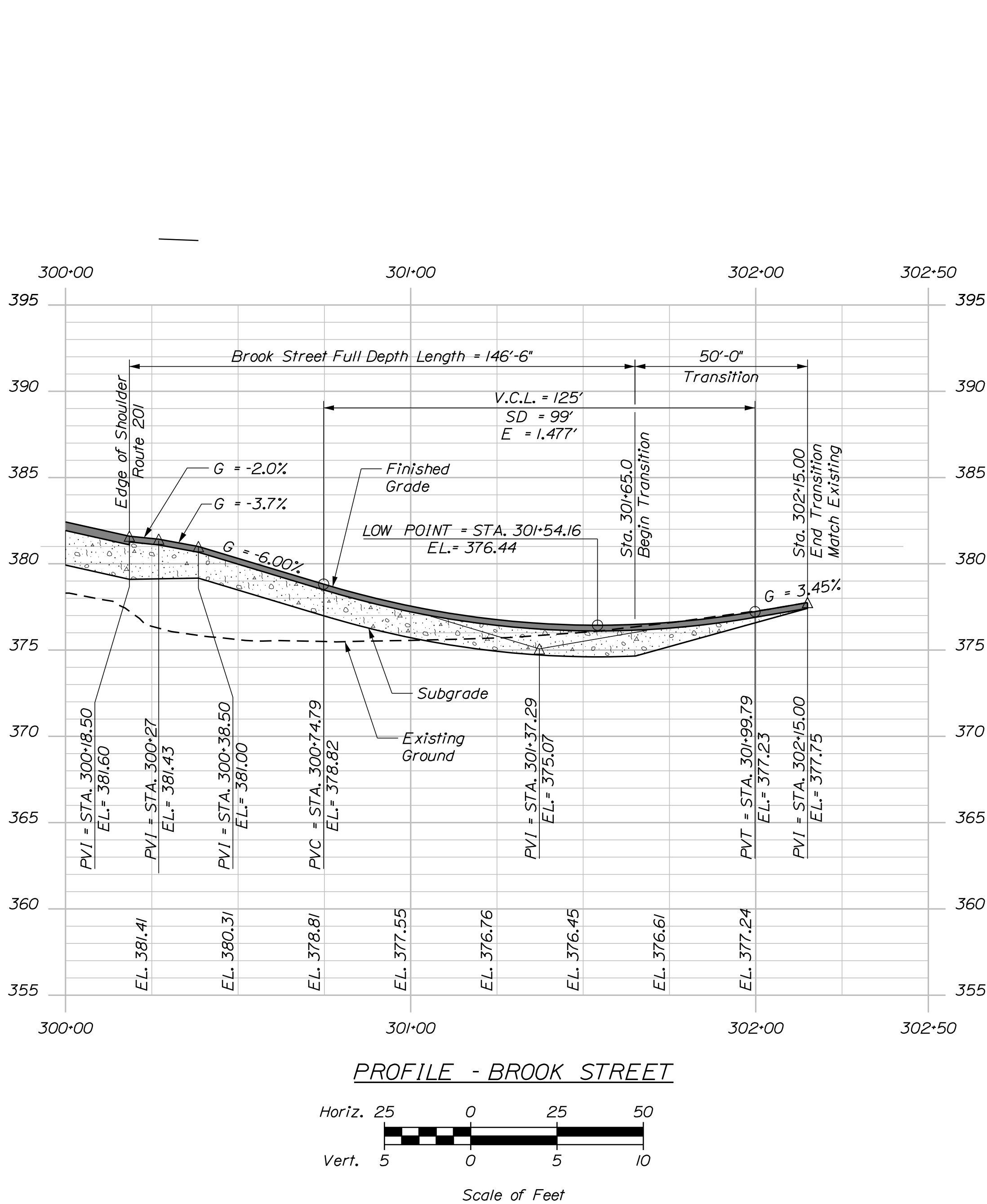


PROFILE - MAIN STREET (ROUTE 201)

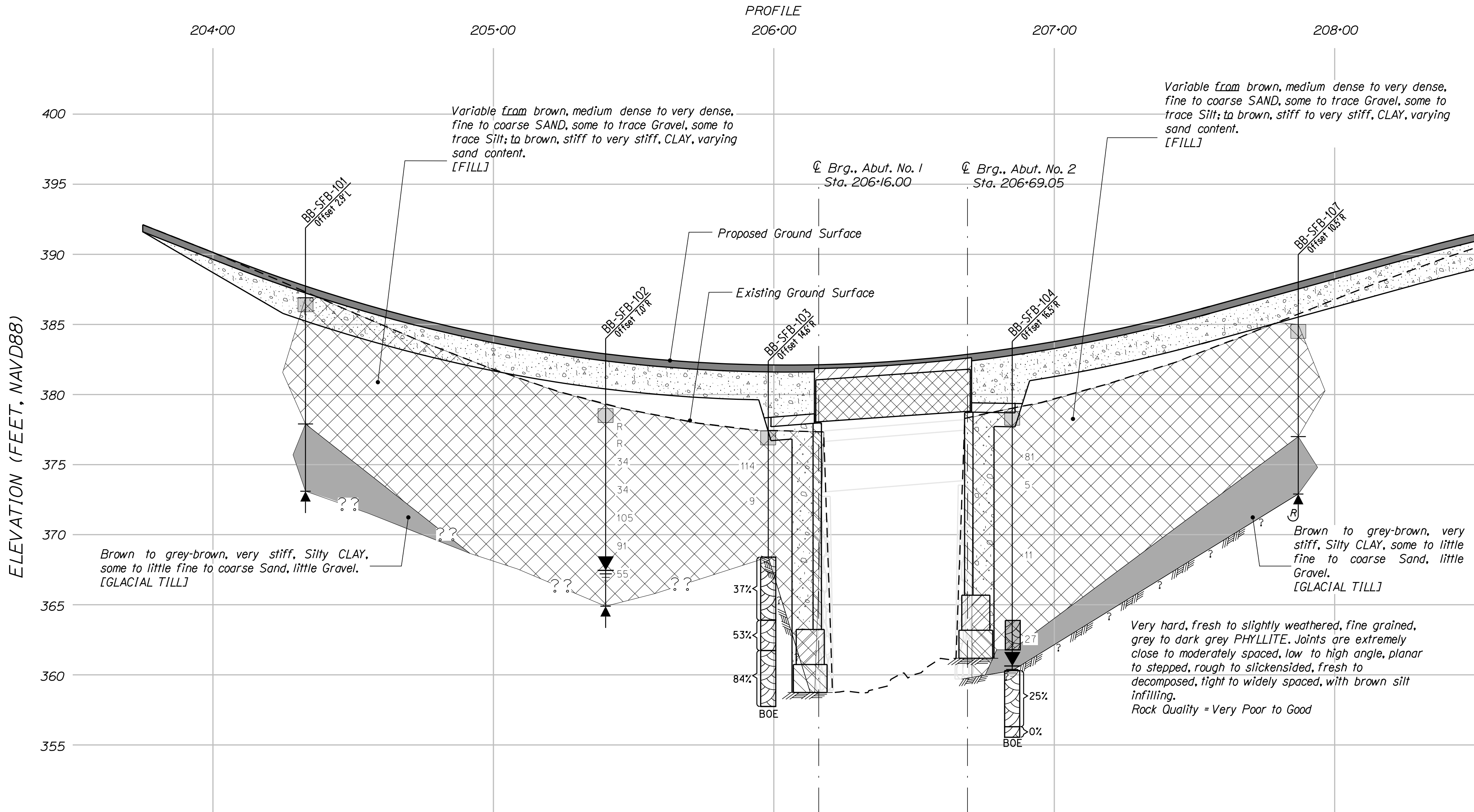
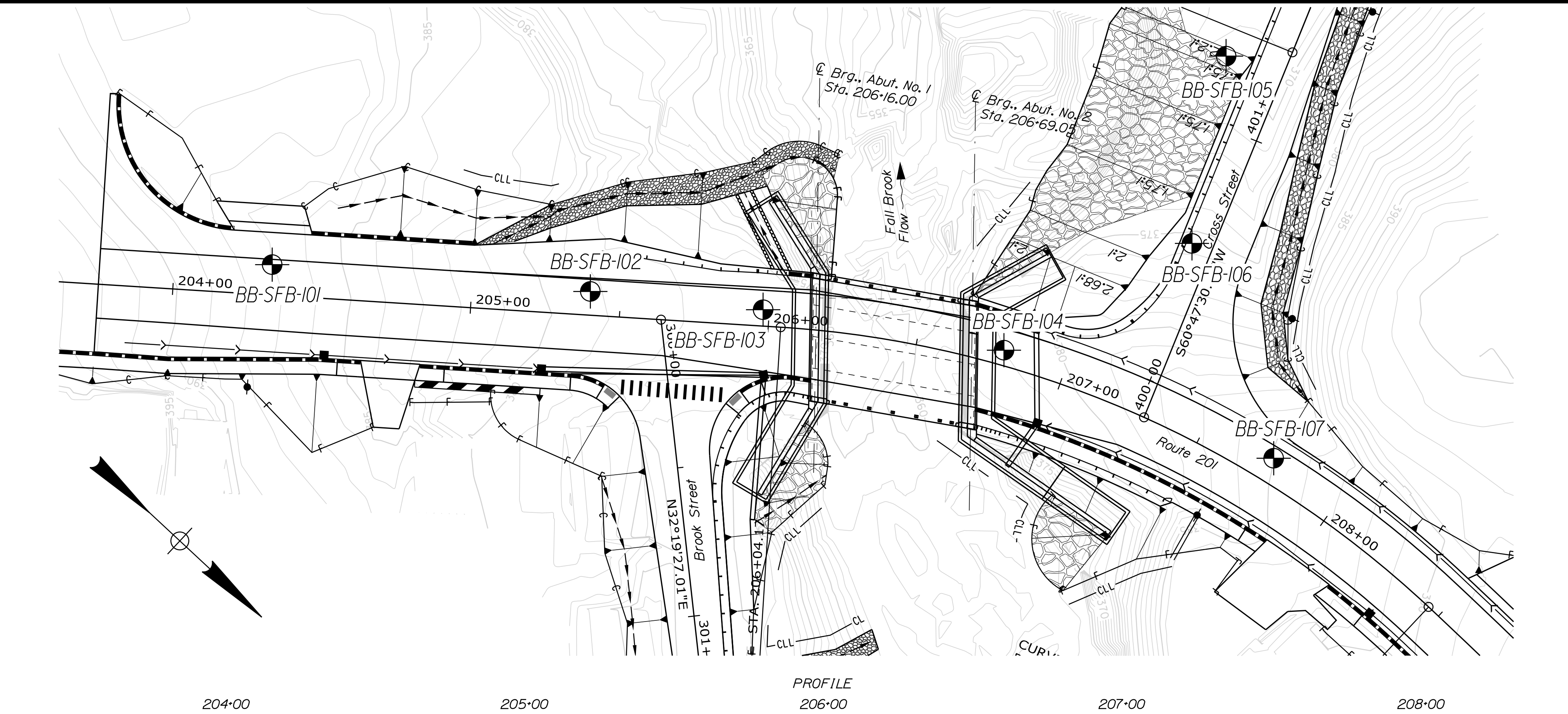


PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	G. KRALLISS	B. NICHOLS	NOV 2022
CHECKED-REVIEWED	R.M.	OKB	NOV 2022
DESIGN-DETAILED	N.C.	AGB	APR 2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
P.E. NUMBER
DATE



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
2189401		BRIDGE NO. 2504	
WIN		022260.01	
BRIDGE PLANS			
MAIN STREET BRIDGE		SOMERSET COUNTY	
FALL BROOK		PROFILE	
SOLON		BROOK & CROSS STREETS	
SHEET NUMBER		2	
OF 66			
PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGNED-DETAILED	G. KRALLISS	B. NICHOLS	NOV. 2022
CHECKED-REVIEWED	R.M. OCK	NOV. 2022	SIGNATURE
DESIGNED-DETAILED	NLC	APR. 2022	P.E. NUMBER
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



NOTES

1) Base map developed from electronic files provided by Hoyle, Tanner & Associates, Inc. on September 26, 2022 (Files included Alignments.dgn, Bridge.dgn and Contours.dgn).

2) Profile developed from electronic file Profile.dgn provided by Hoyle, Tanner & Associates, Inc. on June 16, 2021.

3) The as-drilled locations of the test borings were surveyed by a MaineDOT survey crew and supplied to GZA, except for BB-SFB-105 and -106, which were located by GZA using taped ties from known features and should be considered approximate.

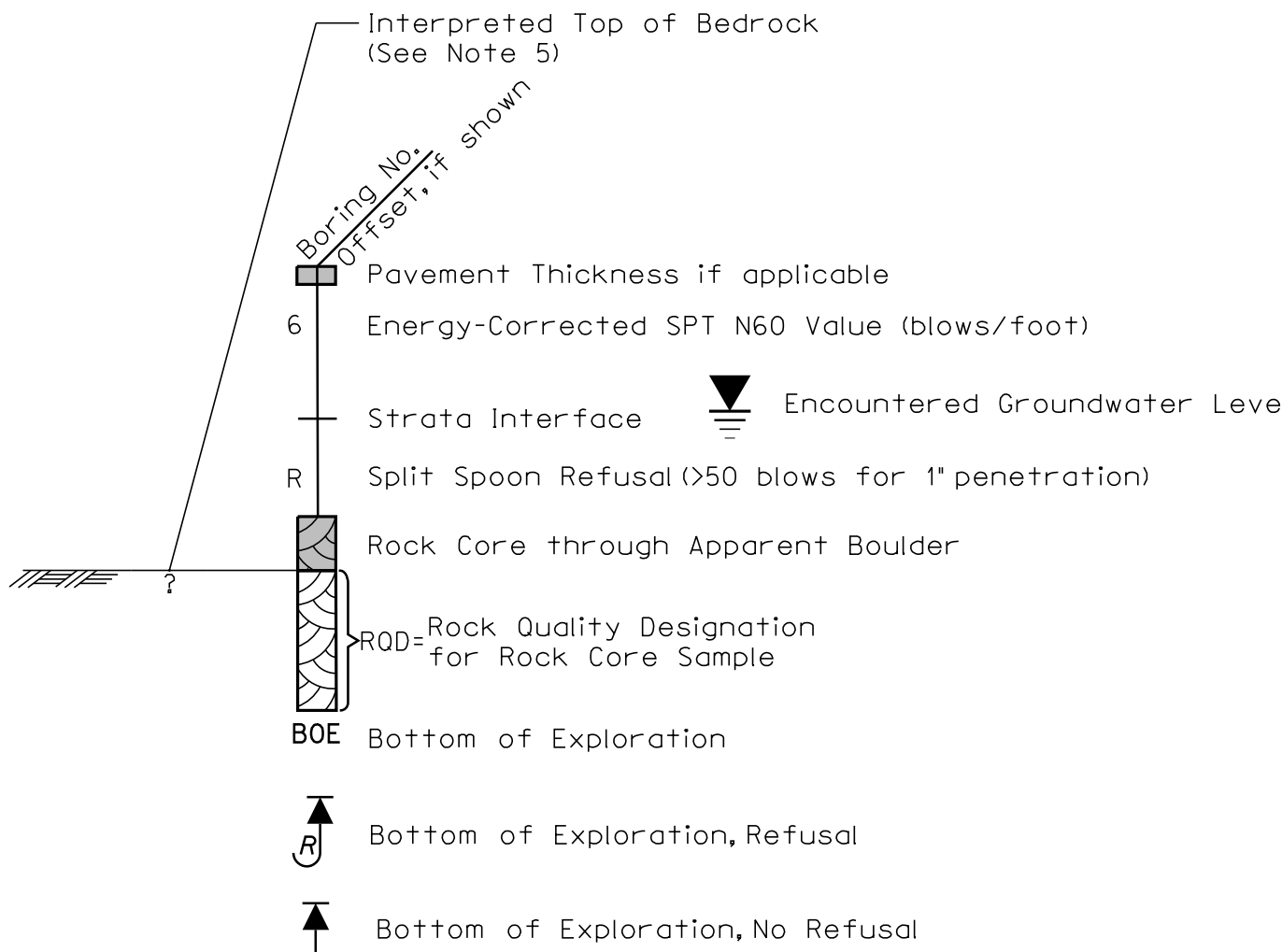
4) BB-SFB-100 series borings were performed by New England Boring Contractors and observed by GZA personnel between February 11 and February 14, 2019.

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

BORING LOCATION PLAN LEGEND

BB-SFB-107 Location and designation of cased wash borings and auger probes

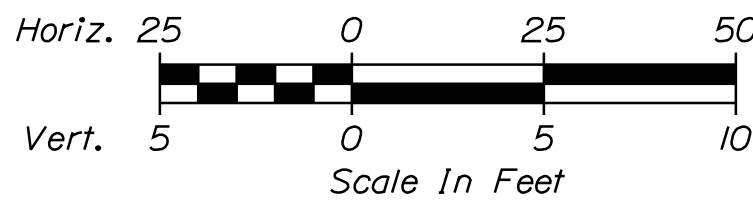
INTERPRETIVE SUBSURFACE PROFILE LEGEND



PLAN



PROFILE



PRELIMINARY
NOT FOR CONSTRUCTION

PREPARED BY:



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
22260.00
WIN 022260.00
BRIDGE NO. 2504
BRIDGE PLANS

DATE	BY	DATE	SIGNATURE	P.E. NUMBER	DATE
SEPT. 2022	MRJ	CLJ			
DESIGN-DETAILED	MRJ	CLJ			
CHECKED-REVIEWED	ARB				
DESIGN-DETAILED					
REVISIONS 1					
REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					

MAIN STREET BRIDGE	SOMERSET COUNTY
FALL BROOK	
SOLON	
BORING LOCATION PLAN & INTERPRETIVE SUBSURFACE PROFILE	

SHEET NUMBER

8

Main Department of Transportation						Project: Main Street Bridge #204 over Fall Brook Salem, Maine		Boring No.: BB-SF-102	
Soil/Brock Exploration Log US CUSTOMARY UNITS								WIN: 22260.01	
Driller: New England Boring Contractors						Elevation (ft.): 379.8		Auger: B/GD: 4.25x4.25"	
Operator: J. Maynard, Jr.						Datum: NAVD83		Sampler: Split Spoon	
Logged By: E. Friede						Rig Type: Mobile B-53		Hammer Wt./Fall: MD/30	
Date Start/Finish: 2/14/78-2/14/78						Driving Method: SPS/HSA		Core (Barrel) : --	
Boring Location: 205-39.7, R.U. L1						Casing B/GD: --		Water Level * : 12.5'	
Hammer Efficiency Factor: 0.937						Hammer Type: Automatic ☒ Hydraulic ☐		Pipe & Cathode ☐	
Notes:						☐ - Measured Free Vane Undrained Shear Strength Test ☐ - Lab Vane Undrained Shear Strength Test ☐ - Unconfined Compression Strength Test ☐ - Unconfined - One Cycle D/T Number Hammer Efficiency Factor * Rig Specific Annual Calibration Value Nsp = 30% Recommended Correction for Hammer Efficiency Nst = Hammer Efficiency Factor x Normalized ☐ - Plastic Limit ☐ - Liquid Limit ☐ - Plastic Index ☐ - Shrinkage Swell ☐ - Consolidation Test			
M = Unclassified Fine Grained Soil Sample Attempted U = Unclassified Too Wet Take Sample Attempted F = Field Vane Shear Tests, Air = Pocket Penetrometer M = Unclassified Fine Grained Soil Test Attempted P = Rock Core Sample SA = Solid Stem Auger HSA = Hollow Stem Auger BC = Blast Core WB = Weight of Hole, hammer method - Weight of Hole or Drilling WSP = Break at Base of Pipe									
Sample Information									
Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Length (ft)	Blow (in./lb.) Standard Penetration Test (ASTM D1586) or CPT (ASTM D1586)	Unclassified	Nsp	Nst	Gauging Station	Laboratory Testing Results/ ASD/O and Unified Class.
0	10	3/3	1.5 - 1.8	100/3"	R				-1.5
	20	3/3	3.0 - 3.3	100/3"	R				-6.0
5	34	24/5	4.0 - 6.0	33-14-B-11	22	34			-6.0
	40	24/8	6.0 - 8.0	4-11-B-11	22	34			-6.0
10	50	24/24	8.0 - 10.0	35-51-16-25	67	105		HSA	-6.0
15	60	24/20	10.0 - 12.0	16-30-28-26	58	91			-6.0
20	70	24/8	12.0 - 14.0	16-18-17-55	55	59			-6.0
25									-6.0
30									-6.0
35									-6.0
40									-6.0
45									-6.0
50									-6.0
55									-6.0
60									-6.0
65									-6.0
70									-6.0
75									-6.0
80									-6.0
85									-6.0
90									-6.0
95									-6.0
100									-6.0
105									-6.0
110									-6.0
115									-6.0
120									-6.0
125									-6.0
130									-6.0
135									-6.0
140									-6.0
145									-6.0
150									-6.0
155									-6.0
160									-6.0
165									-6.0
170									-6.0
175									-6.0
180									-6.0
185									-6.0
190									-6.0
195									-6.0
200									-6.0

Remarks...

1. Automatic hammer NEBC 48-24 Energy Transfer Ratio=0.937.
2. Heavy spher gritting from 7.0-14.1.
3. As drilled boring location was surveyed by MonDOT IN 772036.4, E 1117468.9.
4. Fine grained soil descriptions on this log are based on plasticity estimated using visual-manual techniques or laboratory Atterberg limits tests if available, rather than the MonDOT standard based on percentages passing specific grain sizes.

Classification lines represent approximate boundaries between soil types; variations may be graded.
* Water level readings have been made at times not under standard conditions. Underwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1

Boring No.: BB-SF-102

1. Grab samples taken from the auger flights at depths indicated.

2. Clay observed in auger cuttings at 7.0'.

3. As-shield boring location was determined by GZA using taped ties from known features and should be considered approximate (IN 727250, E 877300).

4. Fine grained sand descriptions on this log are based on plasticity estimated using visual-manual techniques or laboratory Atterberg limits if available, rather than the Unified Soil Classification System (USCS) standard based on percentages passing specific grain sizes.

Soilification tests represent approximate observations on soils types; transition may be gradual.

Water level readings have been made at times and under conditions noted. Underground water may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: BB-SFB-106

1. Grop samples taken from the auger flights at depths indicated.

2. Clay observed in auger cuttings at 8 ft.

3. As-needed boring location was surveyed by MainDOT (H 7272232.3, E 117325.0).

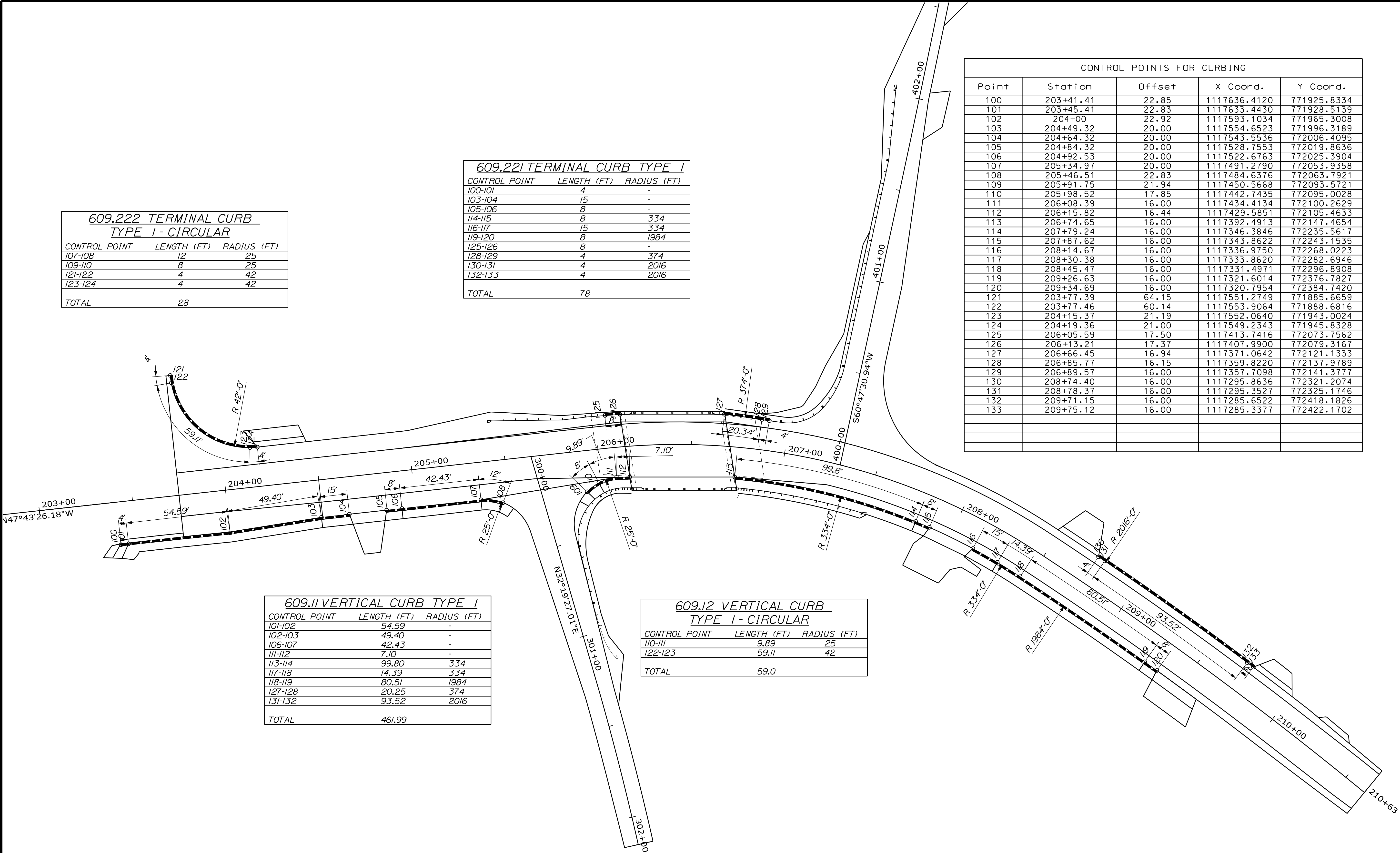
4. Five-gravel soil descriptions on this log are based on plasticity estimated using visual/manual techniques or laboratory Atterberg limits tests if available, rather than the MainDOT standard based on percentages passing specific grain sizes.

Signification flags represent approximate boundaries between soil types; transitions may be gradual.

Upper 10' of boring may be made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those presented at the time measurements were made.

Page 1 of 1
Boring No.: BB-SFB-107





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2189401

SHEET NUMBER
11
OF 66

MAIN STREET BRIDGE
FALL BROOK
SOMERSET COUNTY

CURB GEOMETRY PLAN

PROJ. MANAGER ANDREW LATHE
DESIGN-DETAILED G. KRALISS
CHECKED-REVIEWED RPM
DESIGN-DETAILED NLC
DESIGN-DETAILED
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY
B. NICHOLS
OKX
ACB

DATE
NOV 2022
NOV 2022
APR 2022

SIGNATURE
P.E. NUMBER
DATE

BRIDGE NO. 2504
022260.01
WIN
BRIDGE PLANS

Date:12/16/2022

Username:

Division: BRIDGE

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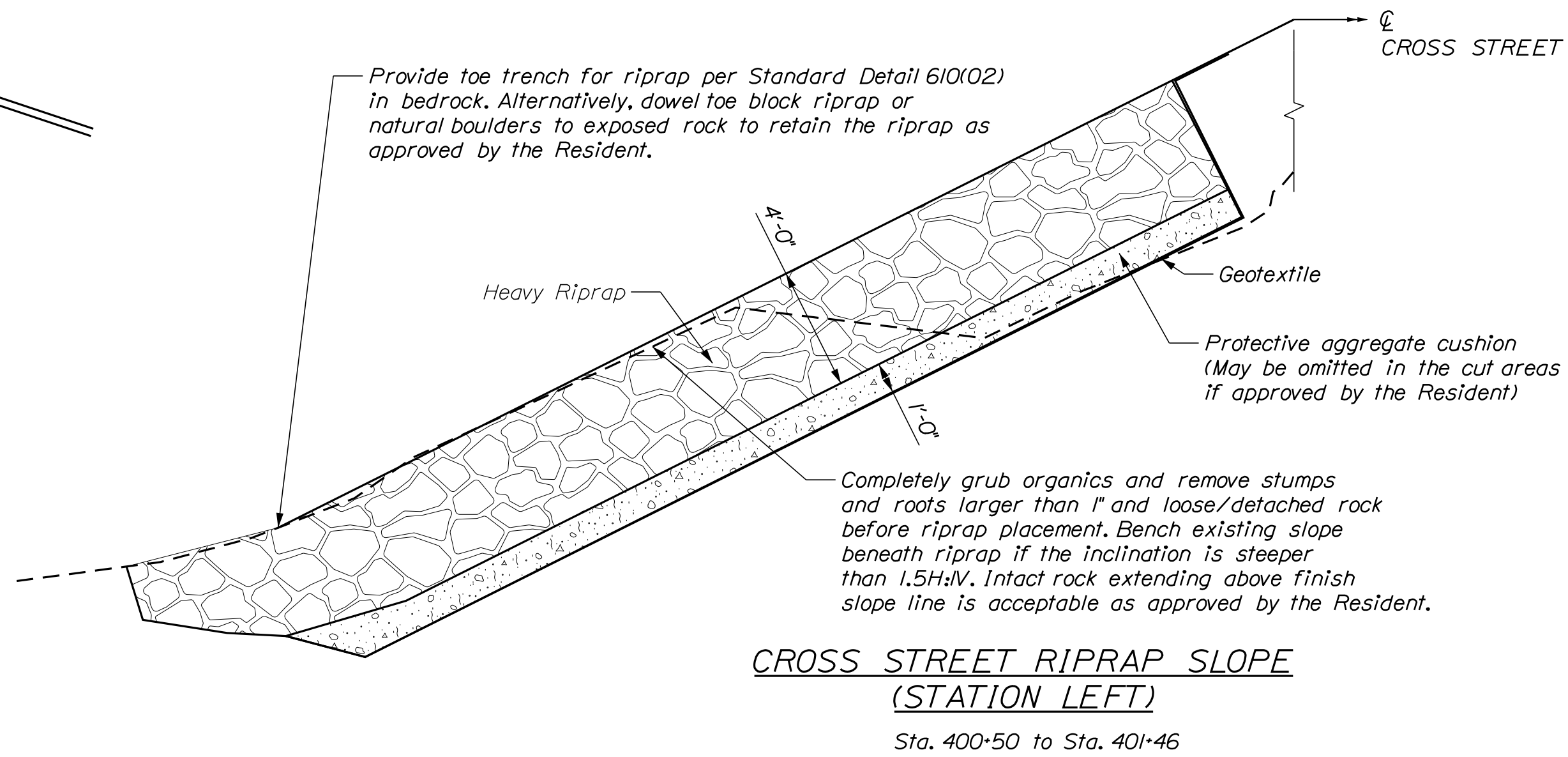
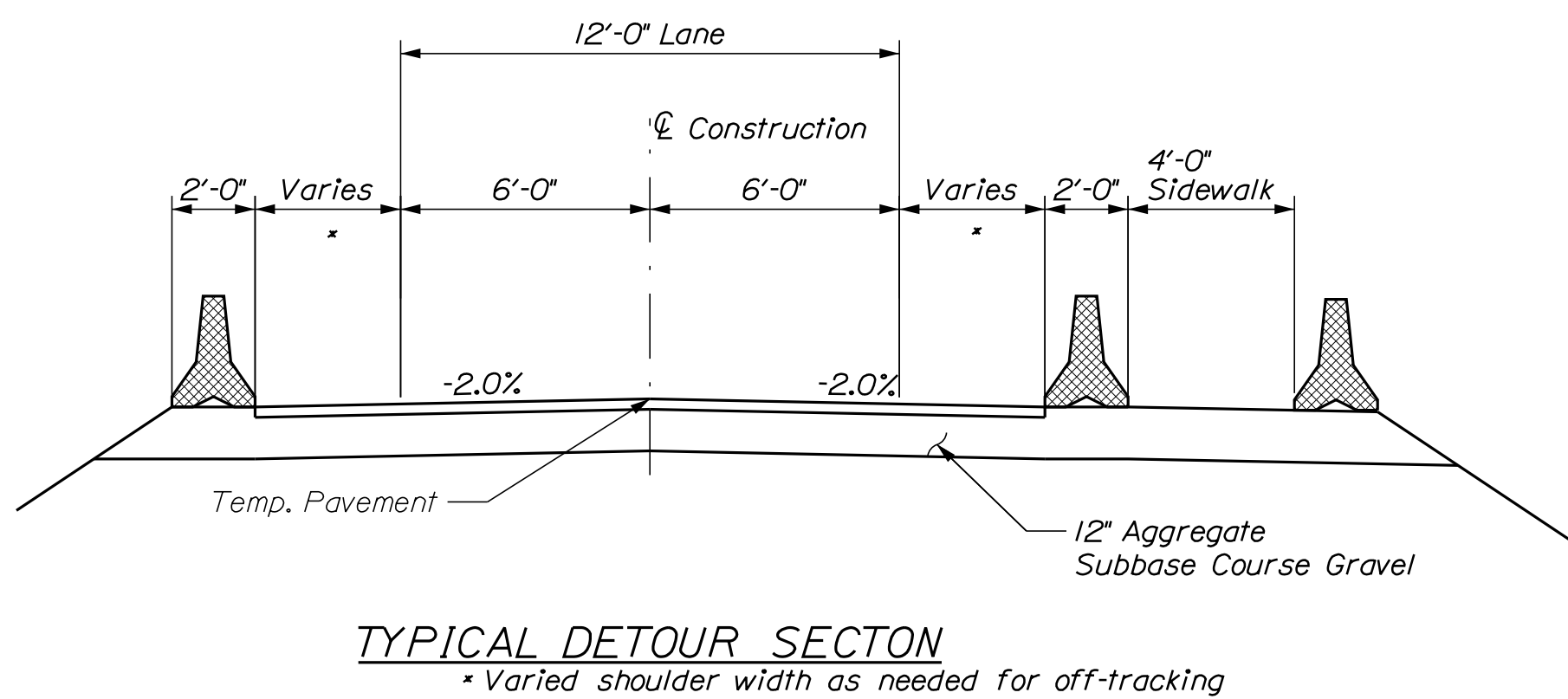
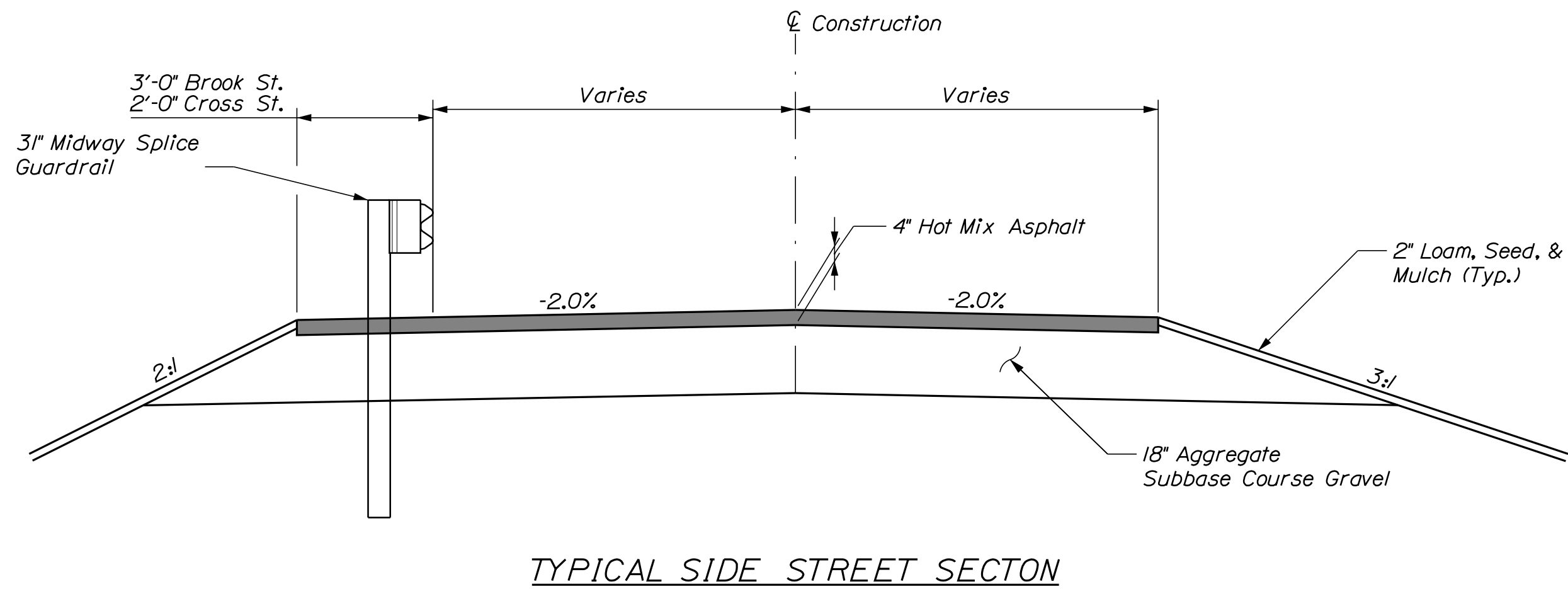
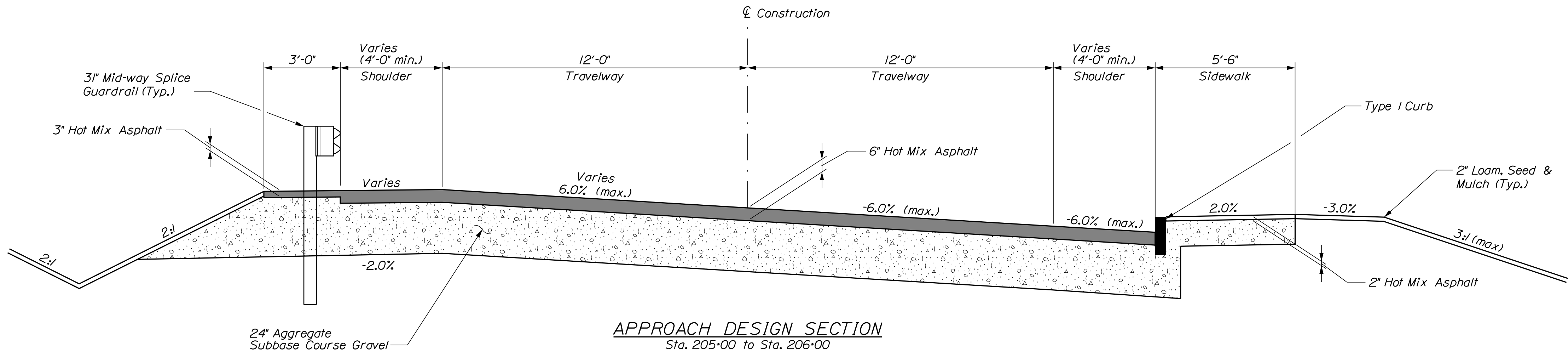
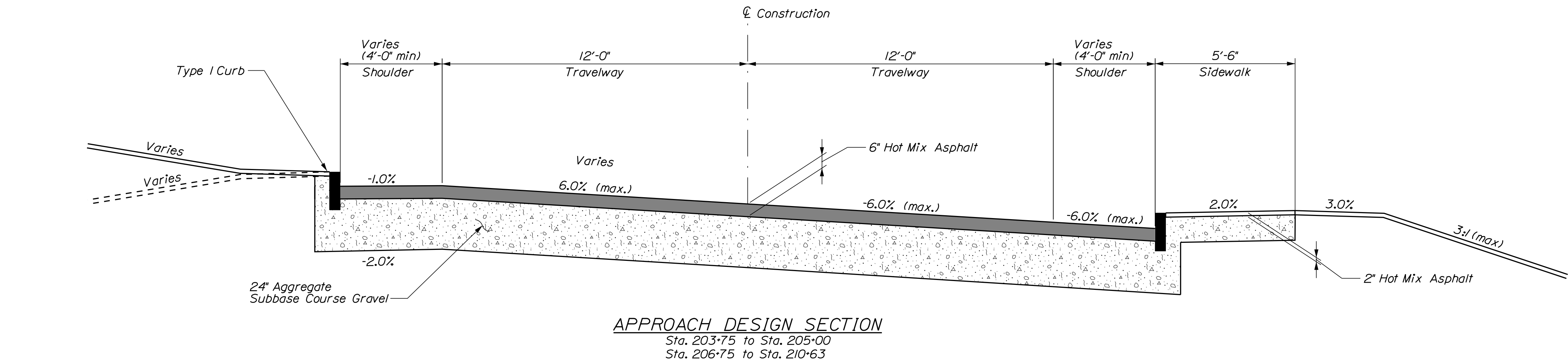


TABLE OF SUPERELEVATION					
LEFT		STATION	RIGHT		
SH.	T/W		T/W	SH.	
-8.00%	-4.90%	203+75	-0.20%	-0.20%	
		To			
-4.00%	-2.00%	204+50	-2.00%	-3.20%	
		To			
-4.00%	-0.86%	204+70	-2.00%	-4.00%	
		To			
-4.00%	0.00%	204+85	-2.00%	-4.00%	
		To			
-3.00%	2.00%	205+25	-2.00%	-4.00%	
		To			
-2.50%	3.00%	205+44	-3.00%	-4.00%	
		To			
-2.00%	4.00%	205+63	-4.00%	-4.00%	
		To			
-2.00%	6.00%	206+00	-6.00%	-6.00%	
		To			
-2.00%	6.00%	206+16	-6.00%	-6.00%	
		To			
-2.00%	6.00%	206+70	-6.00%	-6.00%	
		To			
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		To			
-2.00%	6.00%	208+25	-6.00%	-6.00%	
		To			
-2.00%	4.00%	208+67	-4.00%	-4.00%	
		To			
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		To			
-1.70%	2.00%	209+00	-2.00%	-4.00%	
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		To			
-1.00%	-2.00%	209+75	-2.00%	-4.00%	
		To			
-0.60%	-2.00%	210+15	-2.00%	-4.00%	
		To			
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		To			
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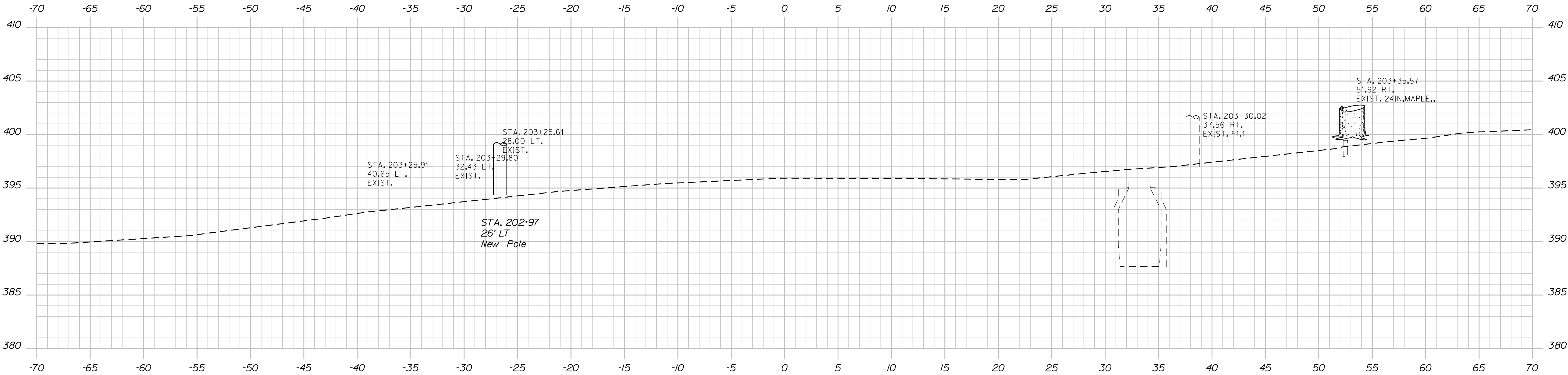
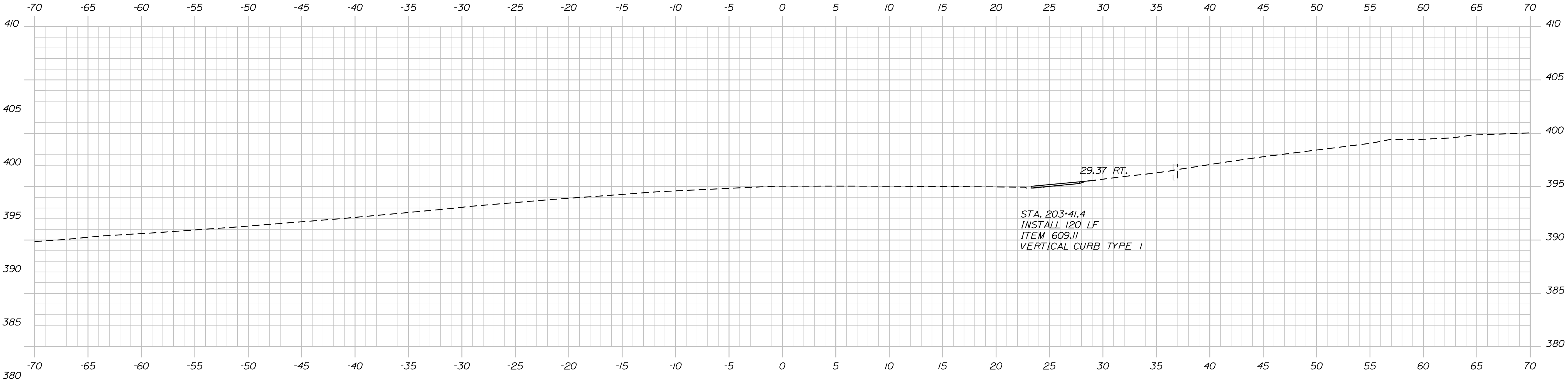
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DESIGN-DETAILED	O. KRALLISS	B. NICHOLS	NOV 2022
CHECKED-REVIEWED	RPM	OK	NOV 2022
DESIGN-DETAILED	NLC	ACB	APR 2022
DESIGN-DETAILED			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

Date:12/7/2022

Username:

Division: BRIDGE

Filename: ... \MSTAO13_XSECT_203+25_001.dgn



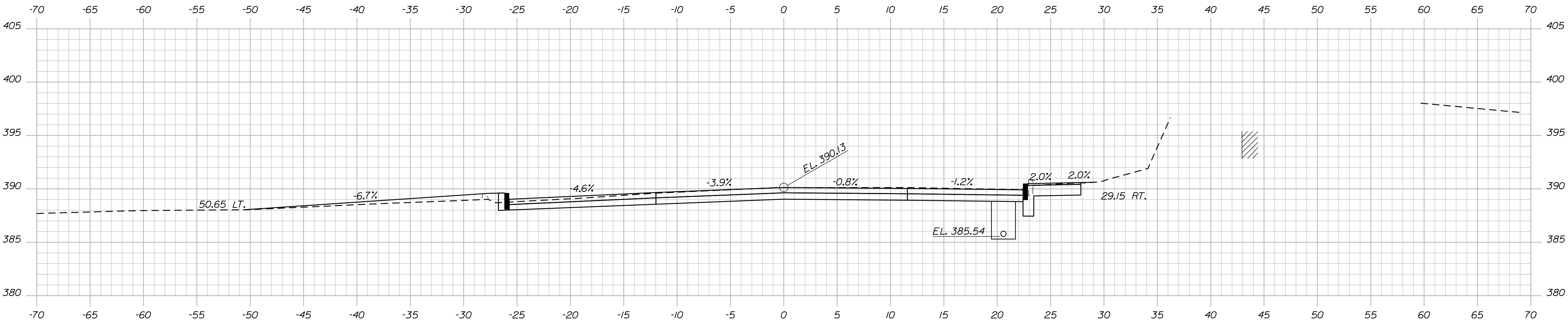
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NLC	NLC	AGB	APR 2022
DESIGN-DETAILED	CHECKED-REVIEWED	BY	DATE
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Date:12/7/2022

Username:

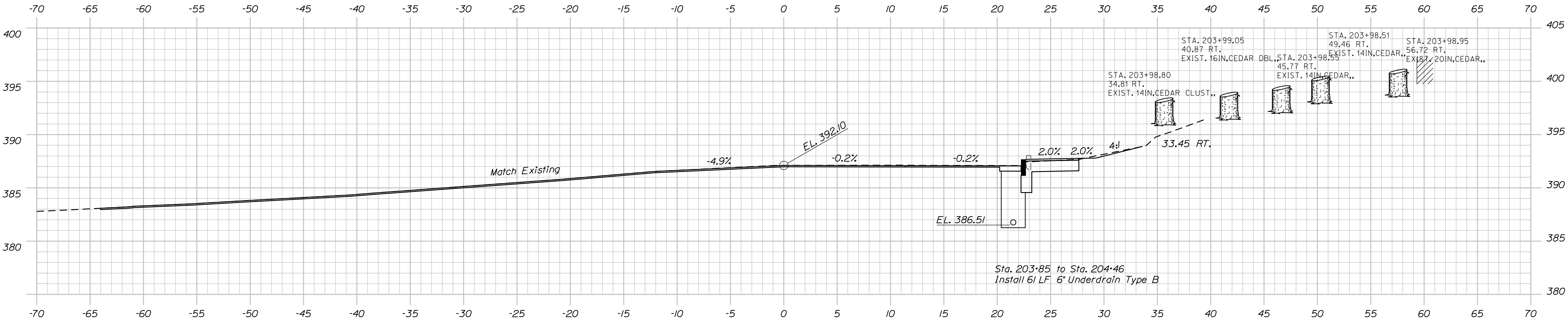
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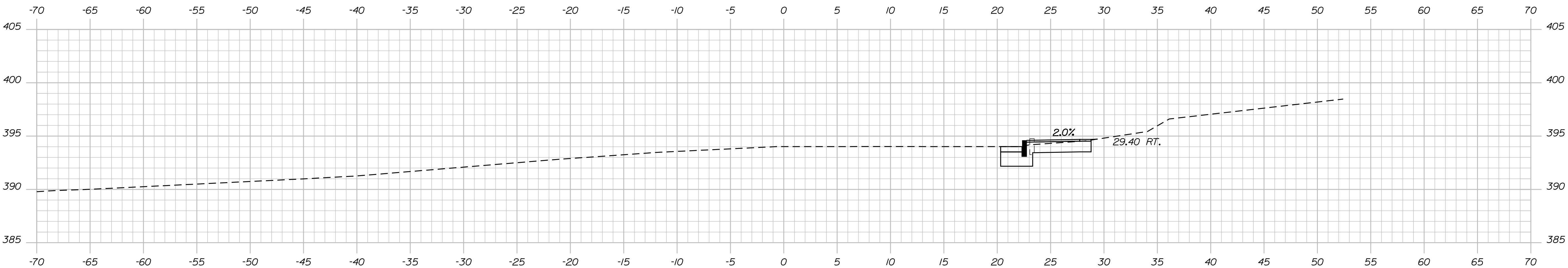
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203+85.00
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BEGIN FULL DEPTH TRANSITION



203+75.00

MATCH EXISTING
BEGIN PAVEMENT TRANSITION



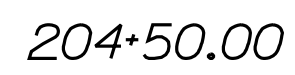
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STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
2189401	
WIN	022260.01
BRIDGE NO. 2504	
BRIDGE PLANS	

DATE	BY	PROJ. MANAGER	DESIGNED	CHECKED	REVIEWED	DATE
NOV 2022	B. NICHOLS	ANDREW LATHE	O. KRALISS	RPM	NLC	NOV 2022
NOV 2022	OK					NOV 2022
APR 2022	AGB					APR 2022
SIGNATURE		P.E. NUMBER		DATE		

MAIN STREET BRIDGE	
FALL BROOK	
SOMERSET COUNTY	
SOLON	
ROUTE 201	
CROSS SECTIONS	

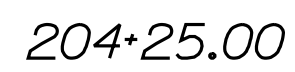
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OF 66	



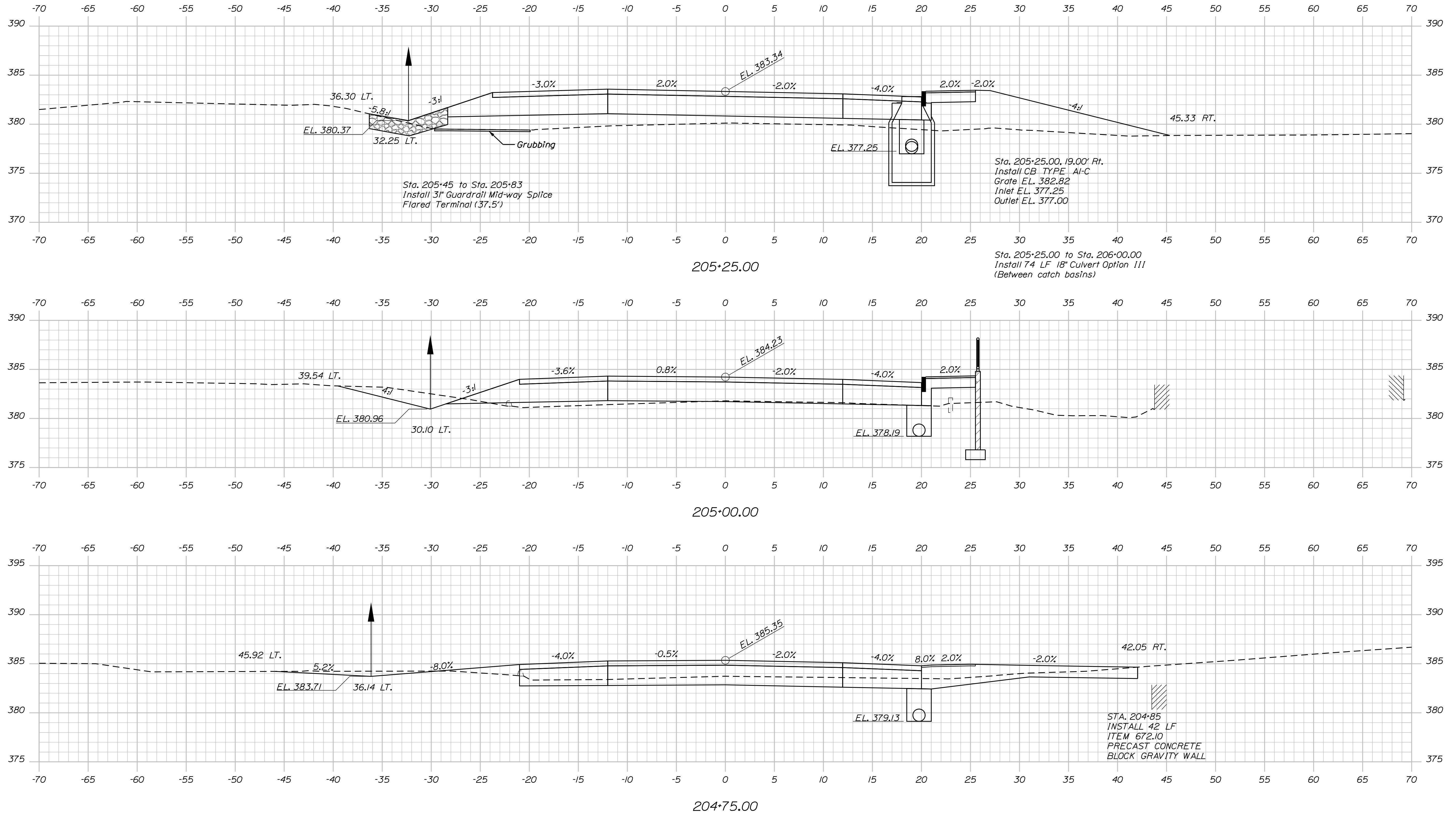
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Grate EL. 386.08
Inlet EL. 381.00
Outlet EL. 380.00

Sta. 204+46 to Sta. 205+25
Install 79 LF 15" Underdrain Type C



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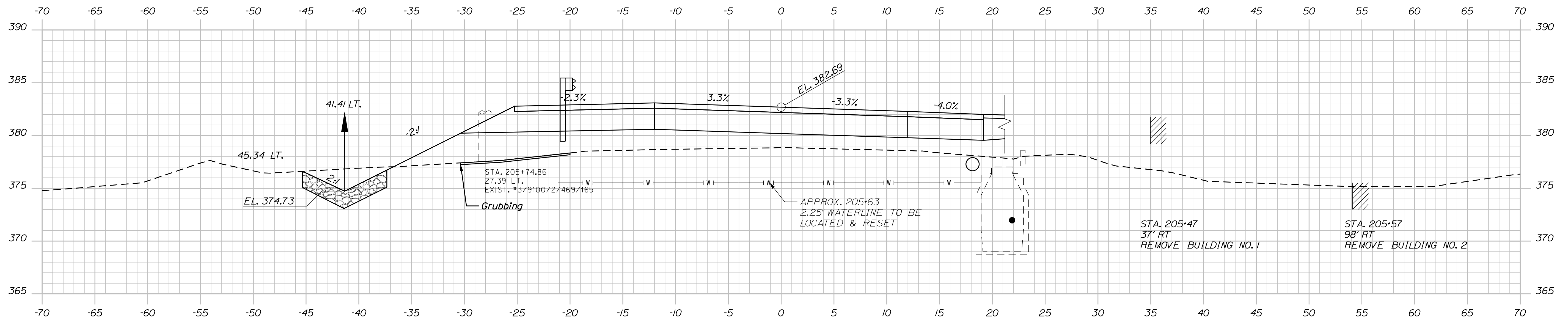


Sta. 204+75.00 to Sta. 205+25.00

PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	O. KRAUSS	B. NICHOLS	NOV 2022
CHECKED-REVIEWED	RPB	OGK	NOV 2022
DESIGN-DETAILED	NLC	AGB	APR 2022
DESIGNS-DETAILED 53			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
SIGNATURE			
P.E. NUMBER			
DATE			

SOLON
FALL BROOK
SOMERSET COUNTY

ROUTE 201
CROSS SECTIONS

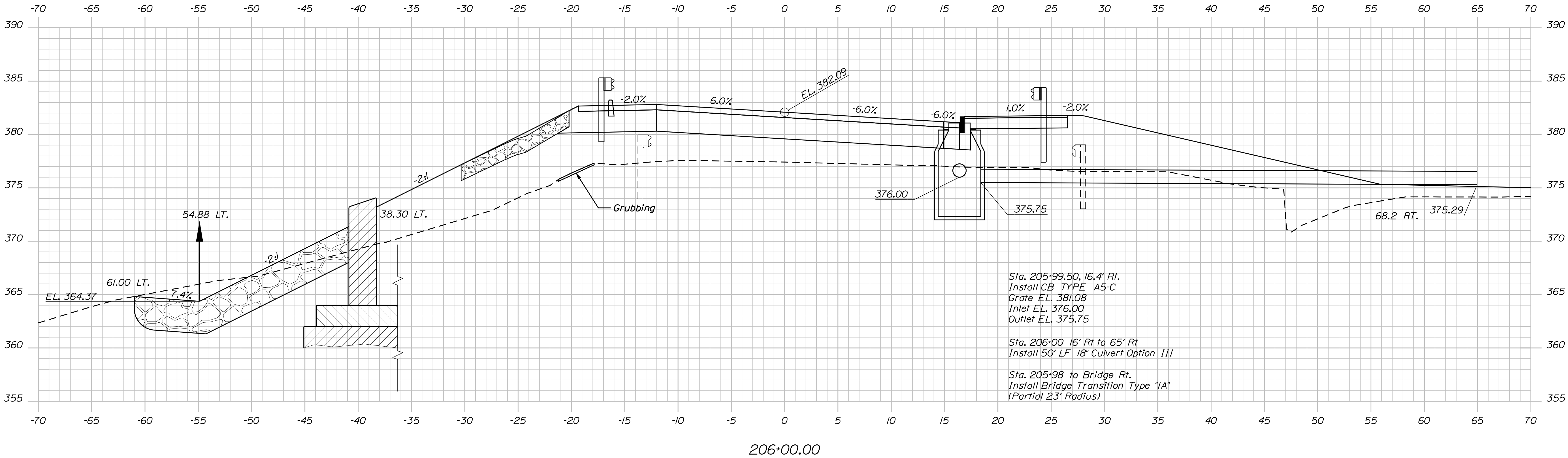
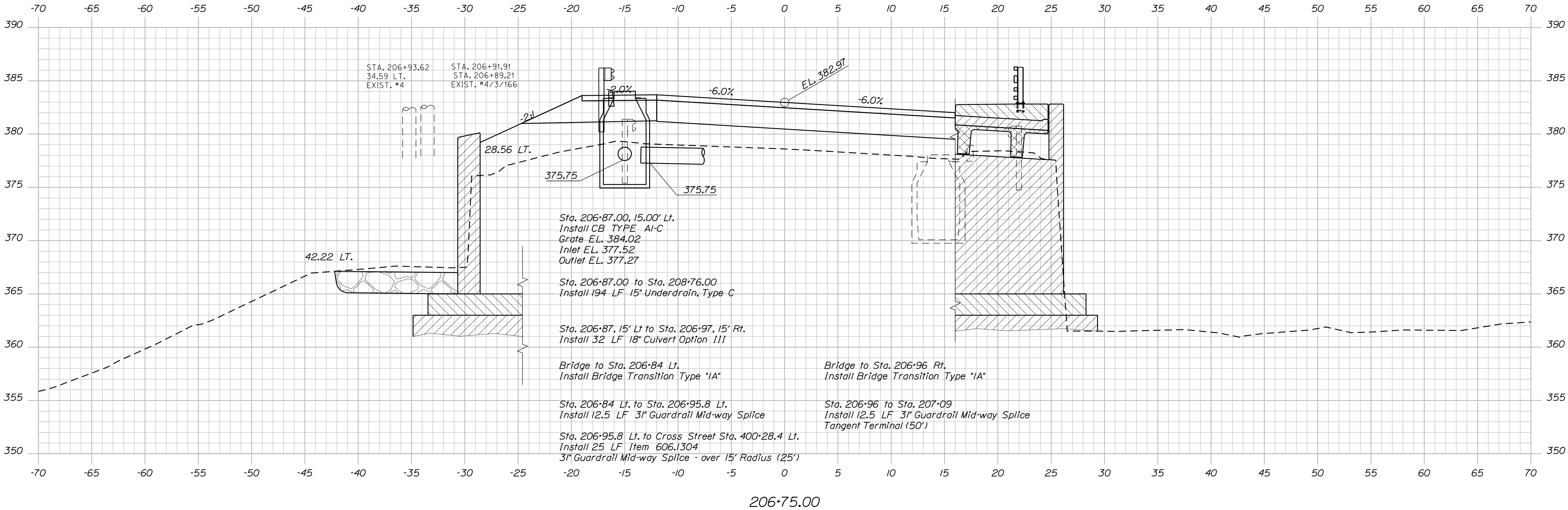


Date:12/7/2022

Username:

Division: BRIDGE

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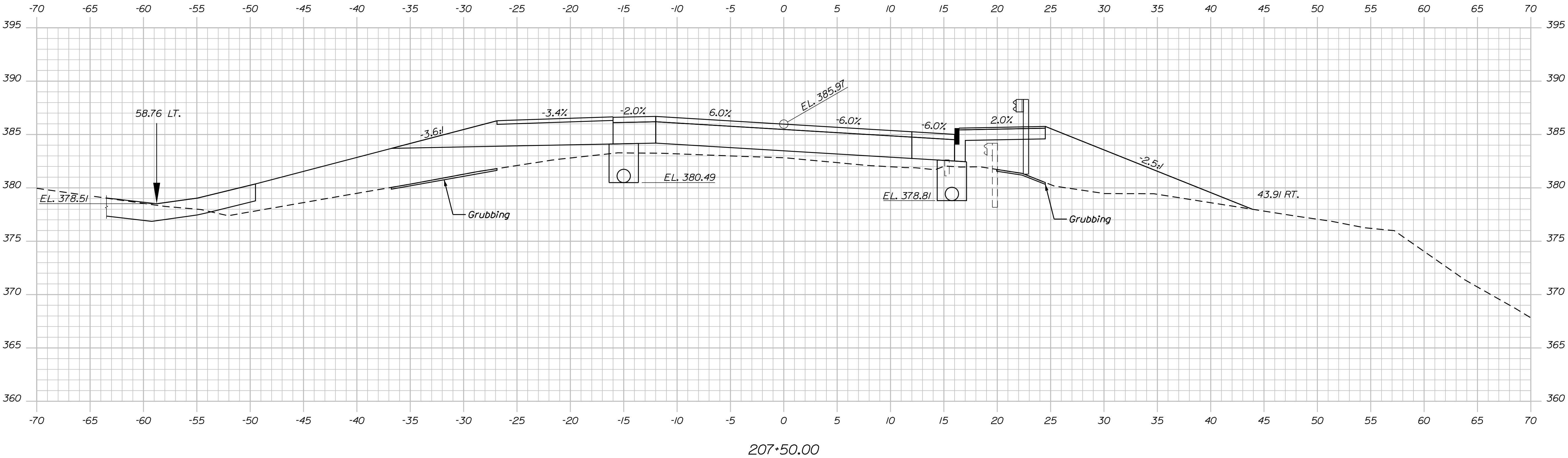
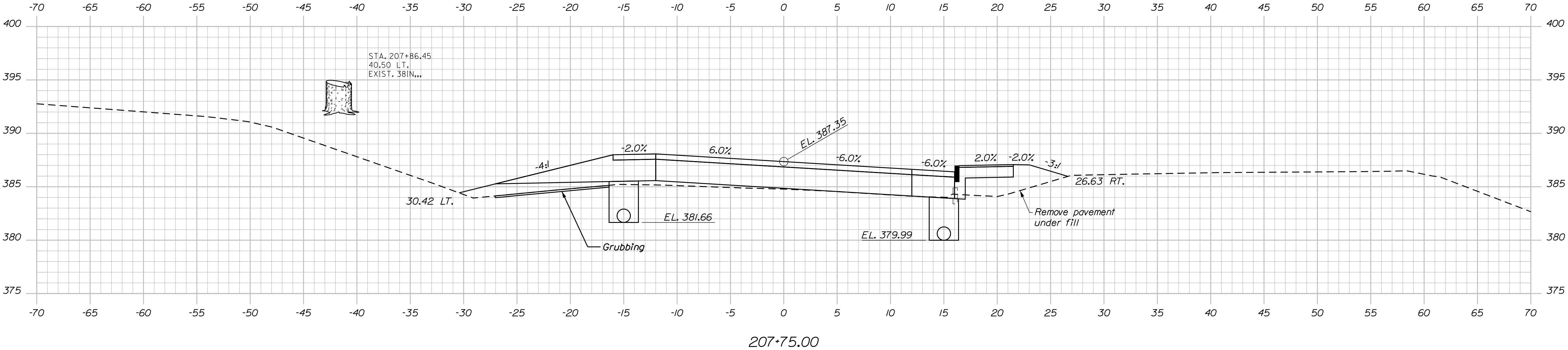
Sta. 206+00.00 to Sta. 206+75.00

PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	G. KRALLISS	B. NICHOLS	NOV 2022
CHECKED-REVIEWED	RPM	OK	NOV 2022
DESIGN-DETAILED	NLC	AGB	APR 2022
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REVISIONS 4			
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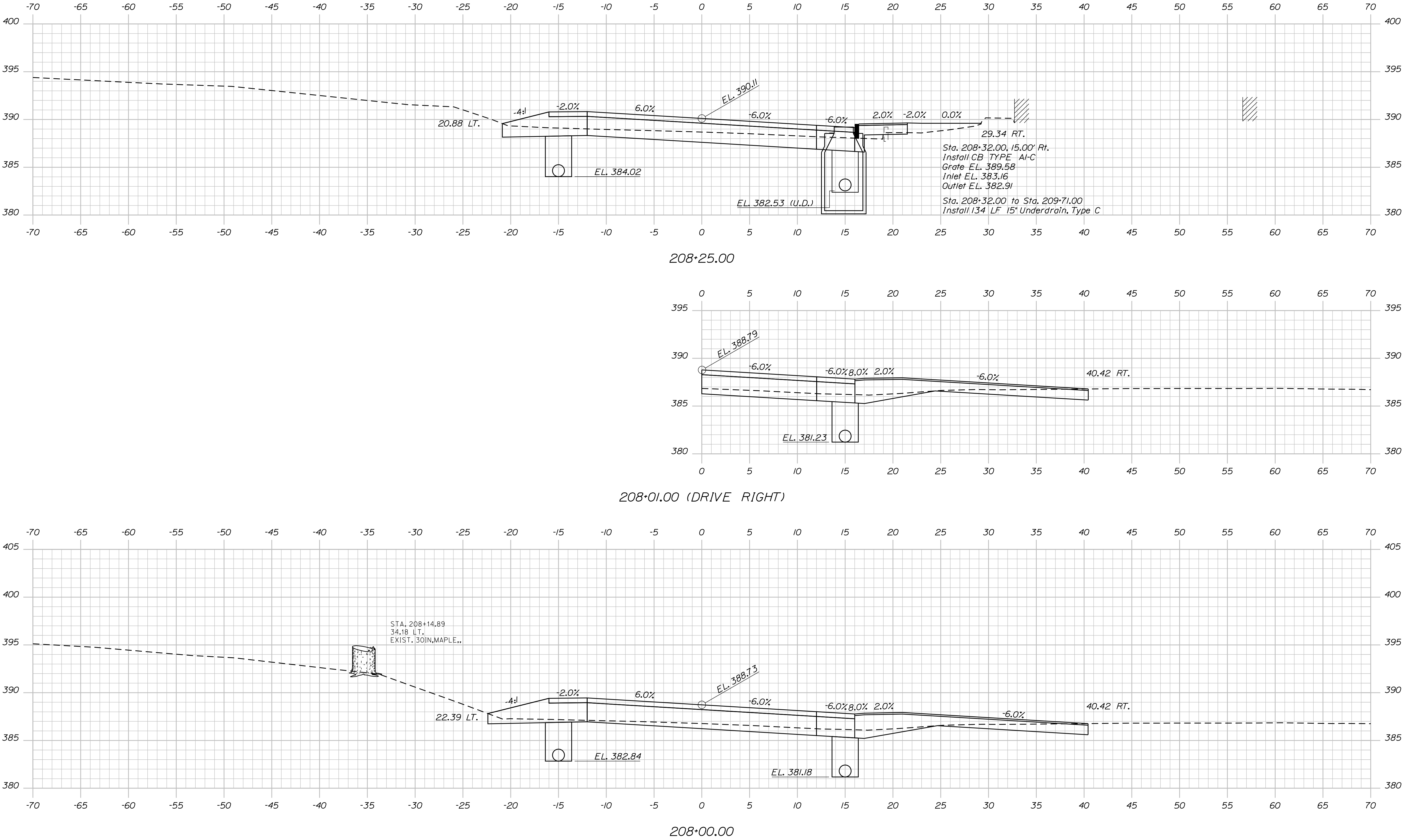
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PROJ. MANAGER	ANDREW LATHE	BY	DATE
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CHECKED-REVIEWED	RPM	OK	NOV 2022
DESIGN-DETAILED	NLC	AGB	APR 2022
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2189401

WIN
022260.01

BRIDGE NO. 2504

BRIDGE PLANS

MAIN STREET BRIDGE
FALL BROOK
SOMERSET COUNTY

SOLON

ROUTE 201
CROSS SECTIONS

PROJ. MANAGER ANDREW LATHE

CHECKED-REVIEWED O. KRALUSS

DESIGN-DETAILED B. NICHOLS

DESIGN-DETAILED RPM

DESIGN-DETAILED NLC

DESIGN-DETAILED AGB

REVISIONS 1

REVISIONS 2

REVISIONS 3

REVISIONS 4

FIELD CHANGES

DATE

NOV 2022

NOV 2022

NOV 2022

APR 2022

DATE

BY

OK

OK

OK

OK

DATE

SIGNATURE

P.E. NUMBER

DATE

SHEET NUMBER

21

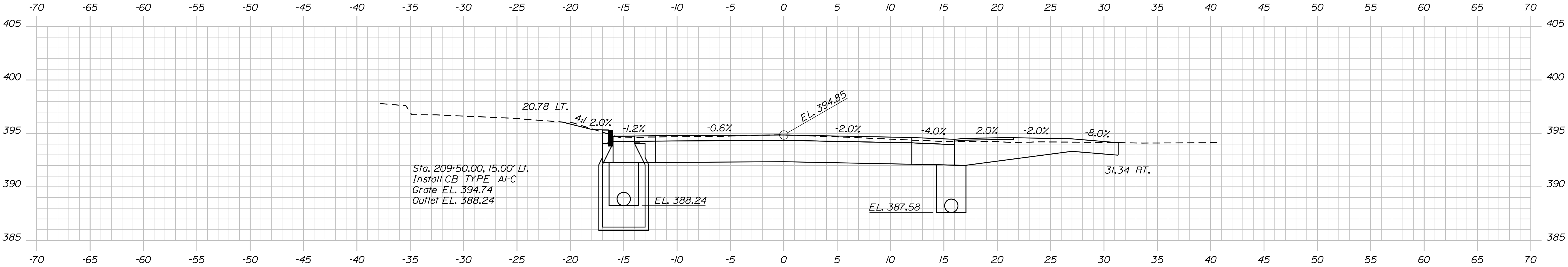
OF 66

Date:12/7/2022

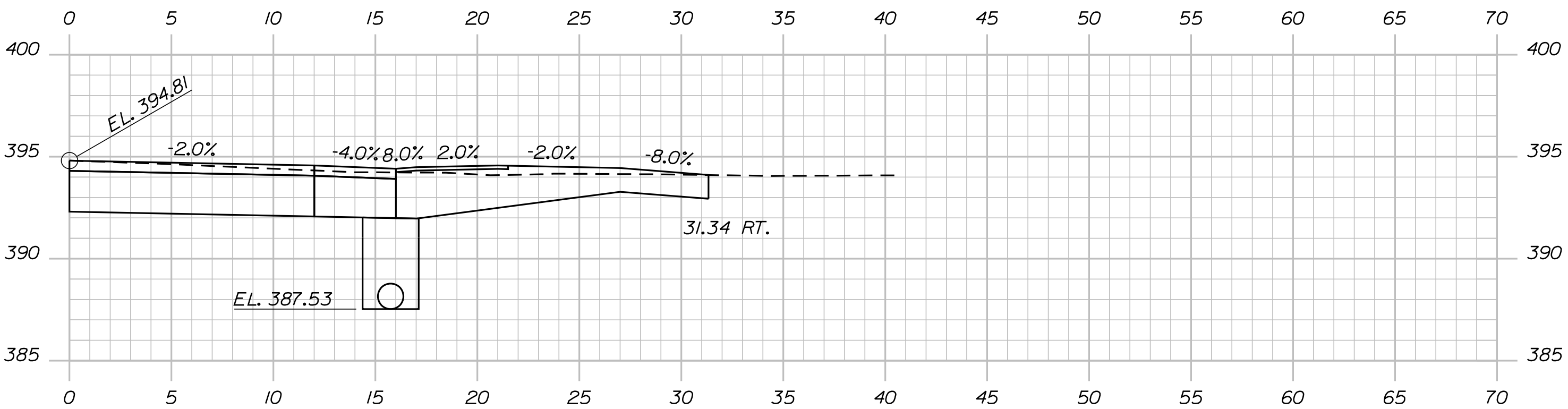
Username:

Division: BRIDGE

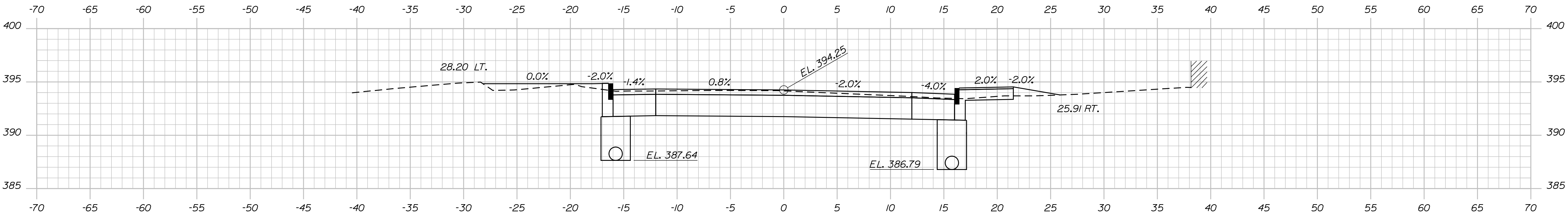
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209+50.00



209+48.00 (DRIVE RIGHT)



209+25.00

PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	G. KRALL	B. NICHOLS	NOV 2022
CHECKED-REVIEWED	RPM	OK	NOV 2022
DESIGN-DETAILED	NLC	AGB	APR 2022
REVISIONS 1			
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FIELD CHANGES			

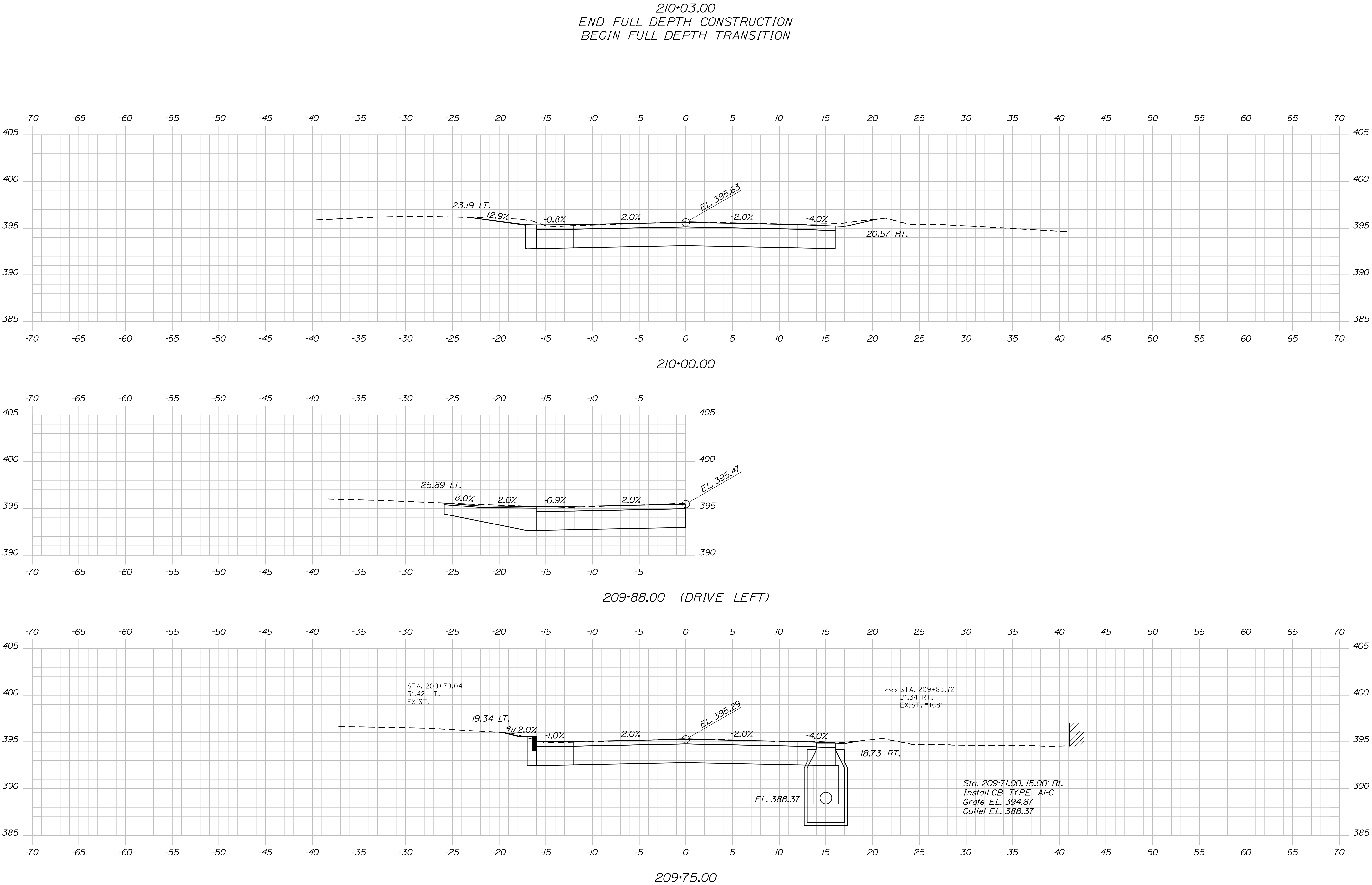
MAIN STREET BRIDGE	SOMERSET COUNTY
FALL BROOK	
SOLON	ROUTE 201
	CROSS SECTIONS

Date:12/7/2022

Username:

Division: BRIDGE

Filename: ... \MSTAN024_XSECT_209+75_012.dgn



STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
2189401		SIGNATURE	
WIN		P.E. NUMBER	
022260.01		DATE	
BRIDGE NO. 2504		FIELD CHANGES	

PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	G. KRALUSS	DESIGNED	NOV 2022
CHECKED-REVIEWED	RPM	OK	NOV 2022
DESIGN-DETAILED	NLC	AGB	APR 2022
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			

MAIN STREET BRIDGE		SOMERSET COUNTY	
FALL BROOK		ROUTE 201	
SOLON		CROSS SECTIONS	

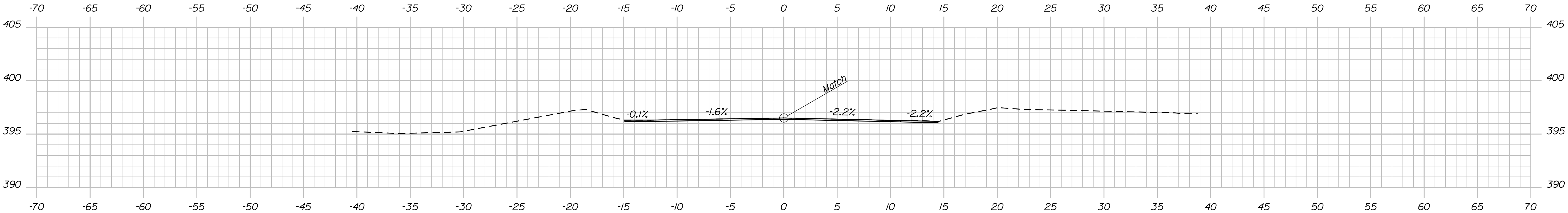
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24
OF 66

Date:12/7/2022

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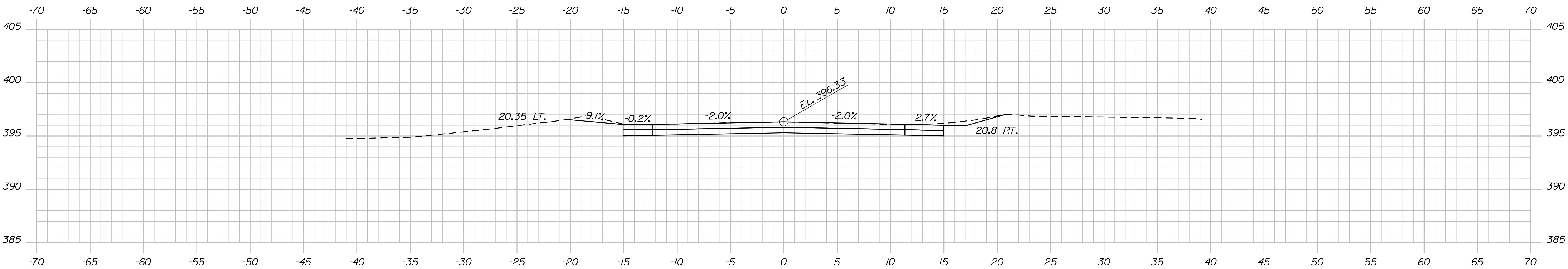
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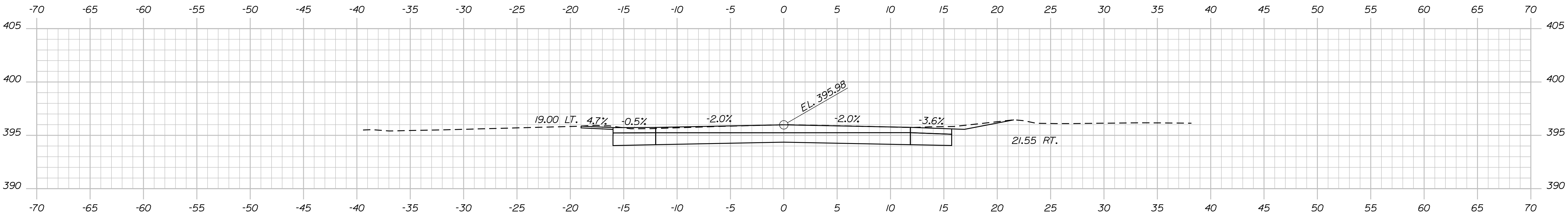


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MATCH EXISTING

210+53.00
END FULL DEPTH TRANSITION
BEGIN PAVEMENT TRANSITION



210+50.00



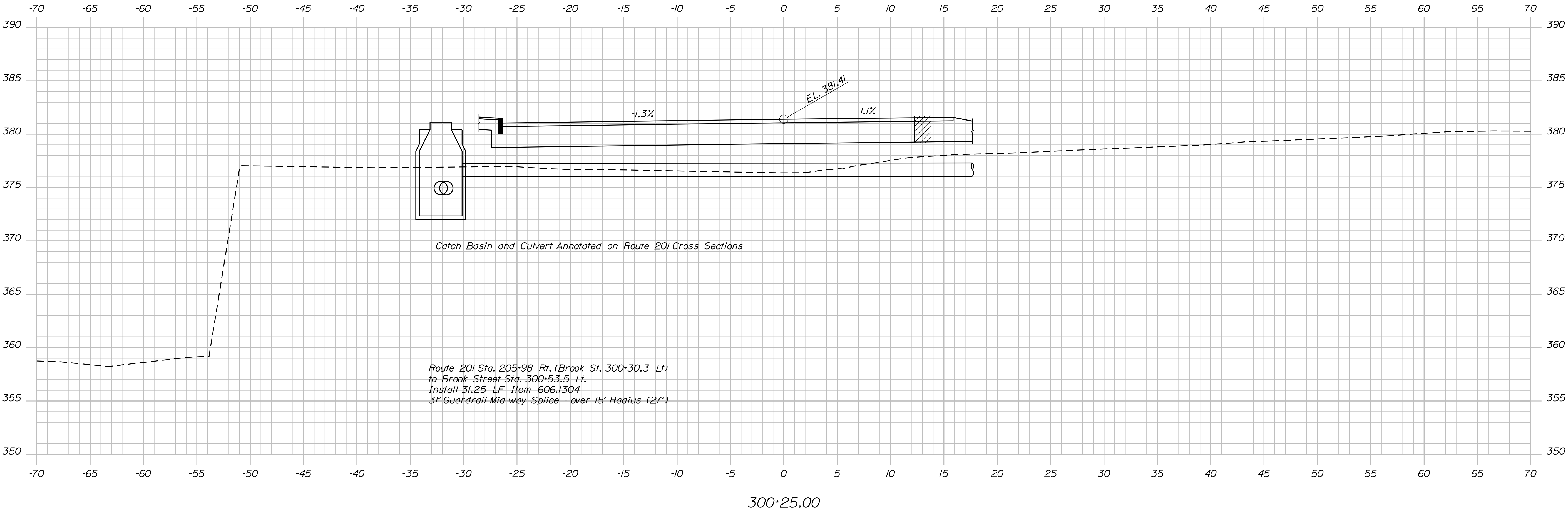
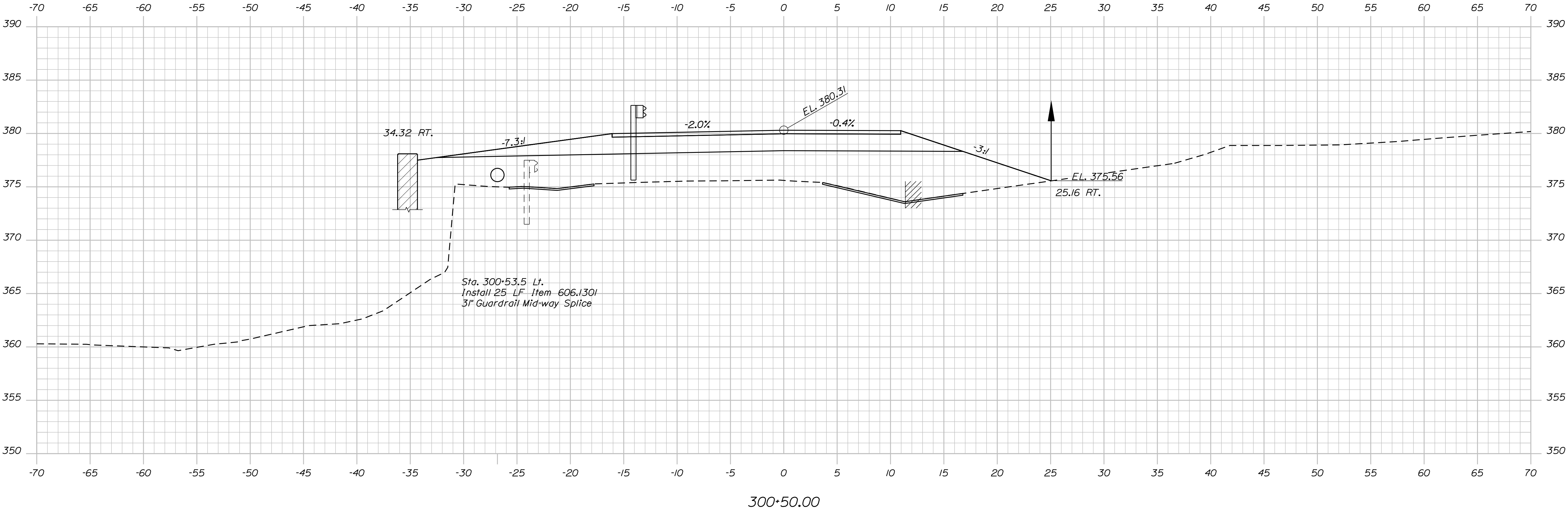
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STATE OF MAINE DEPARTMENT OF TRANSPORTATION	2189401		WIN	022260.01	BRIDGE NO. 2504	BRIDGE PLANS
	SIGNATURE		P.E. NUMBER		DATE	
	B. NICHOLS NOV 2022		AGB APR 2022			
MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY SOLON	PROJ. MANAGER	ANDREW LATHE	BY	DATE		
	DESIGN-DETAILED	O. KRALISS	BY	DATE		
	CHECKED-REVIEWED	RPM	OK	NOV 2022		
	DESIGN-DETAILED	NLC	AGB	APR 2022		
	REVISIONS 1					
SHEET NUMBER		25				
OF 66						

Date:12/7/2022

Username:

Filename: ... \MSTAN026_XSECT_300+25_014.dgn Division: BRIDGE



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2189401

WIN
022260.01

BRIDGE NO. 2504
BRIDGE PLANS

PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	G. KRALL	B. NICHOLS	NOV 2022
CHECKED-REVIEWED	RPM	OK	NOV 2022
DESIGN-DETAILED	NLC	AGB	APR 2022
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

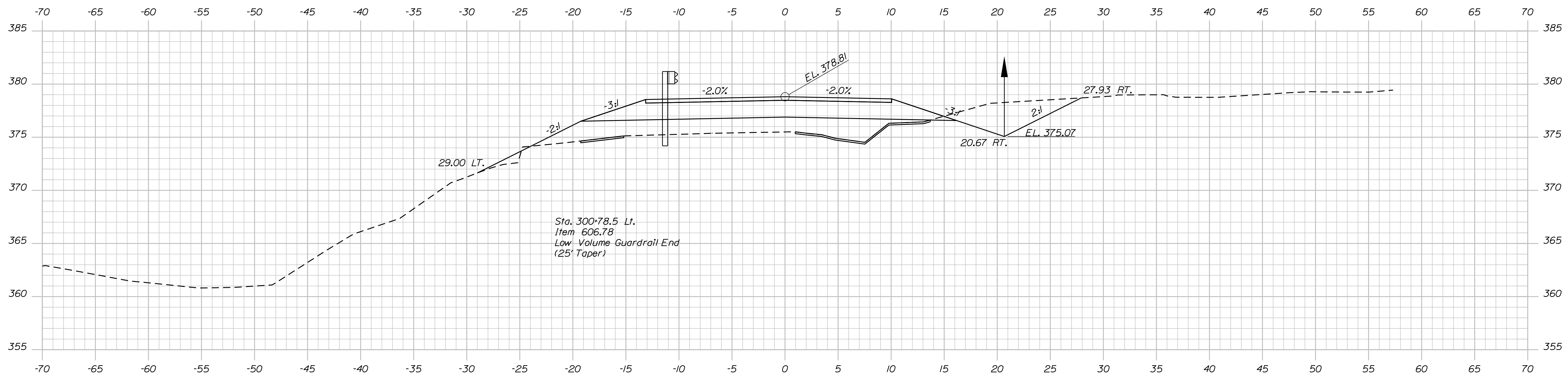
MAIN STREET BRIDGE
FALL BROOK
SOMERSET COUNTY

SOLON

BROOK STREET
CROSS SECTIONS

SHEET NUMBER
26
OF 66

Filename: ... \MSTA\027_XSECT_300+75_015.dgn Division: BRIDGE

 $300 + 75.00$

Sta. 300+75.00 to Sta. 301+00.00

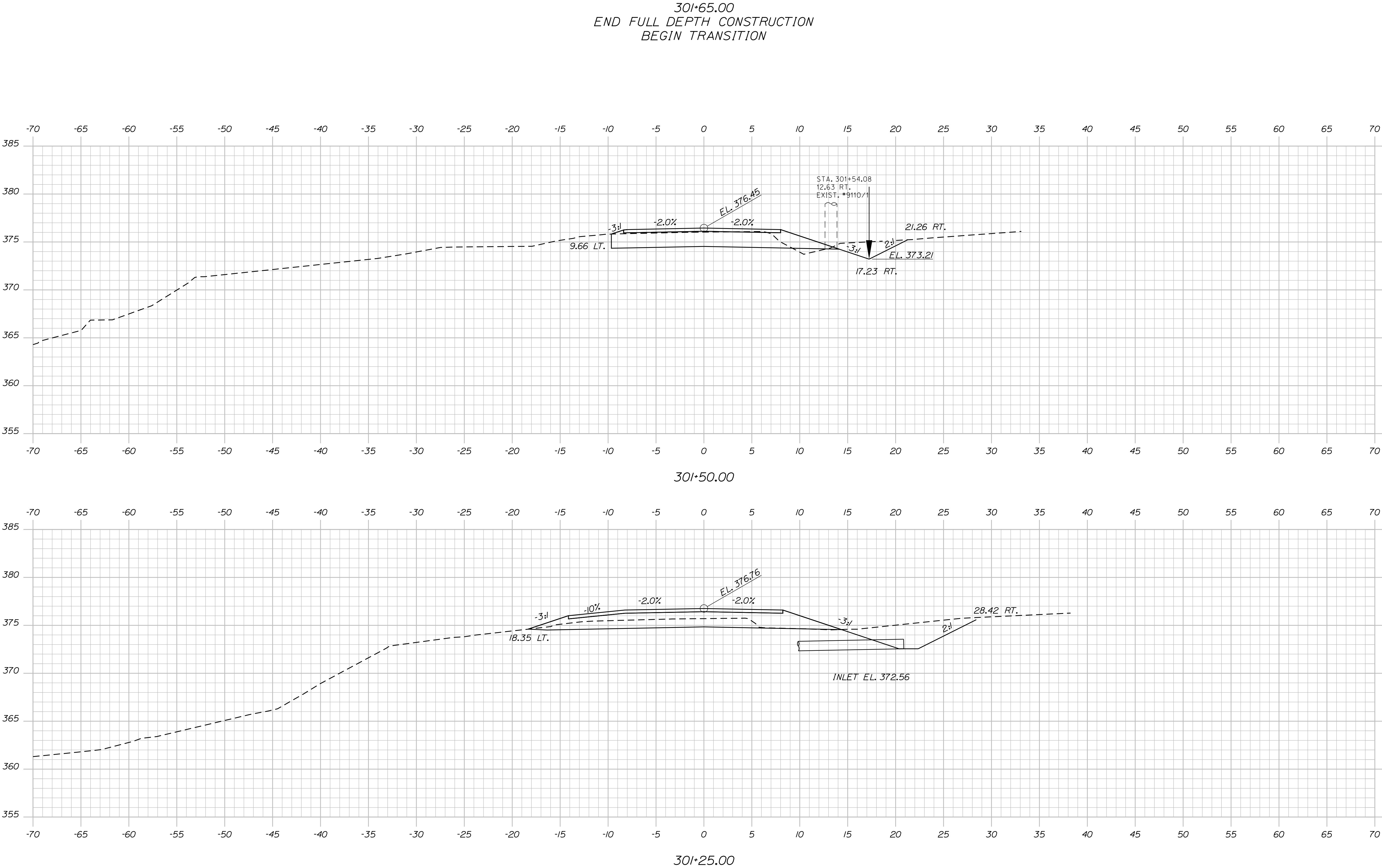
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PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	O. KRALLS	B. NICHOLS	NOV 2022
CHECKED-REVIEWED	RPM	OK	NOV 2022
DESIGN-DETAILED	NLC	AGB	APR 2022
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

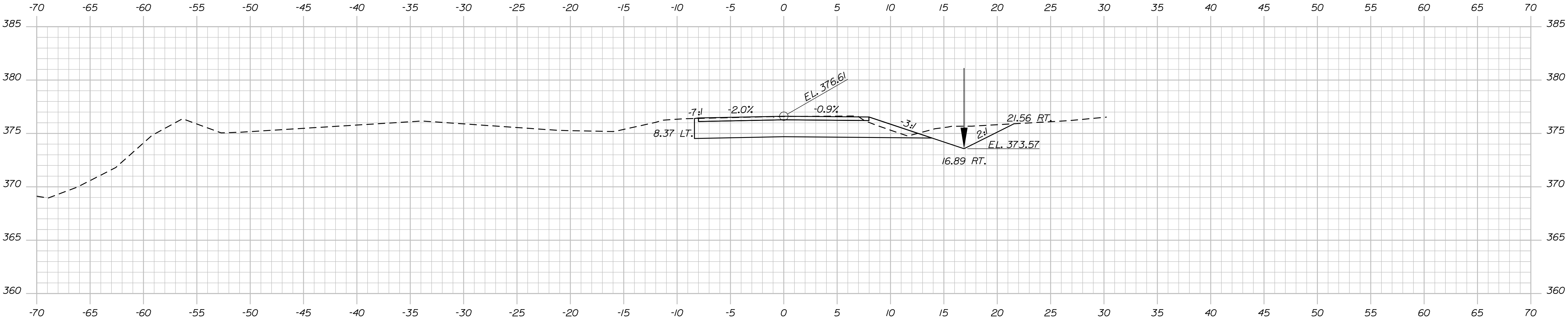
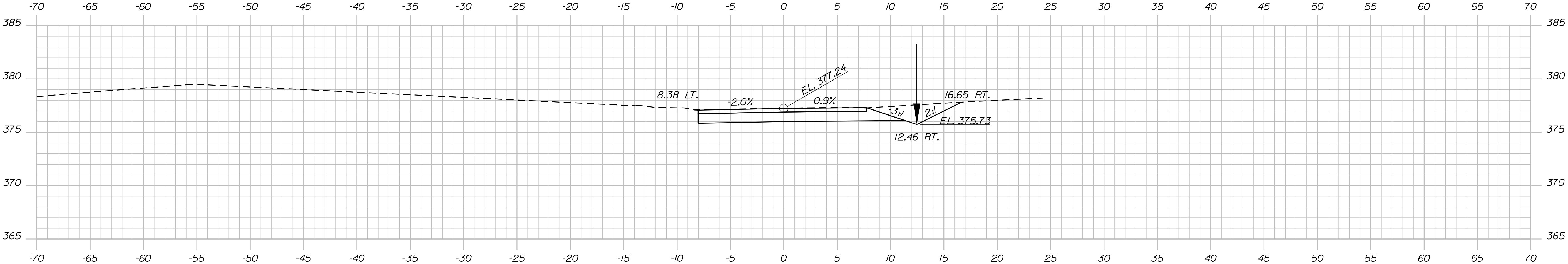
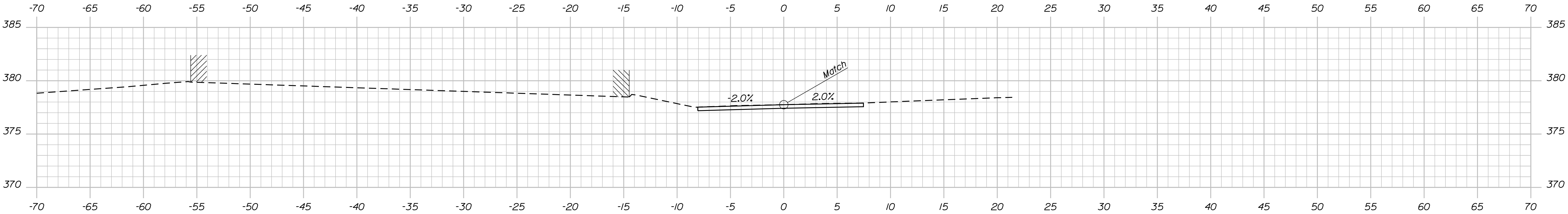
SIGNATURE	P.E. NUMBER	DATE

Date:12/7/2022

Username:

Division: BRIDGE

Filename: ... \MSTAO29_XSECT_301+75_017.dgn

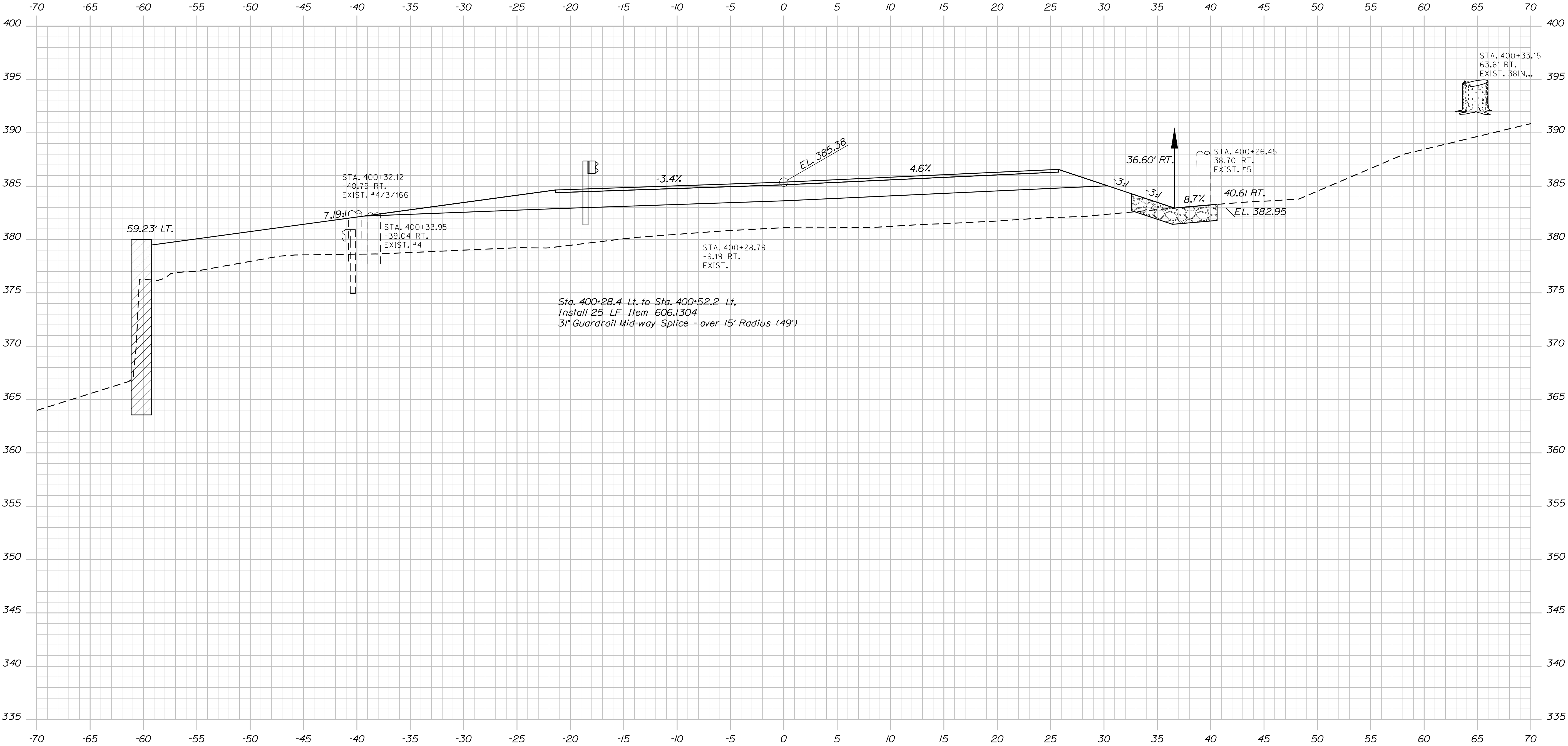


PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	G. KRALLS	B. NICHOLS	NOV 2022
CHECKED-REVIEWED	RPM	OK	NOV 2022
DESIGN-DETAILED	NLC	AGB	APR 2022
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

Date:12/7/2022

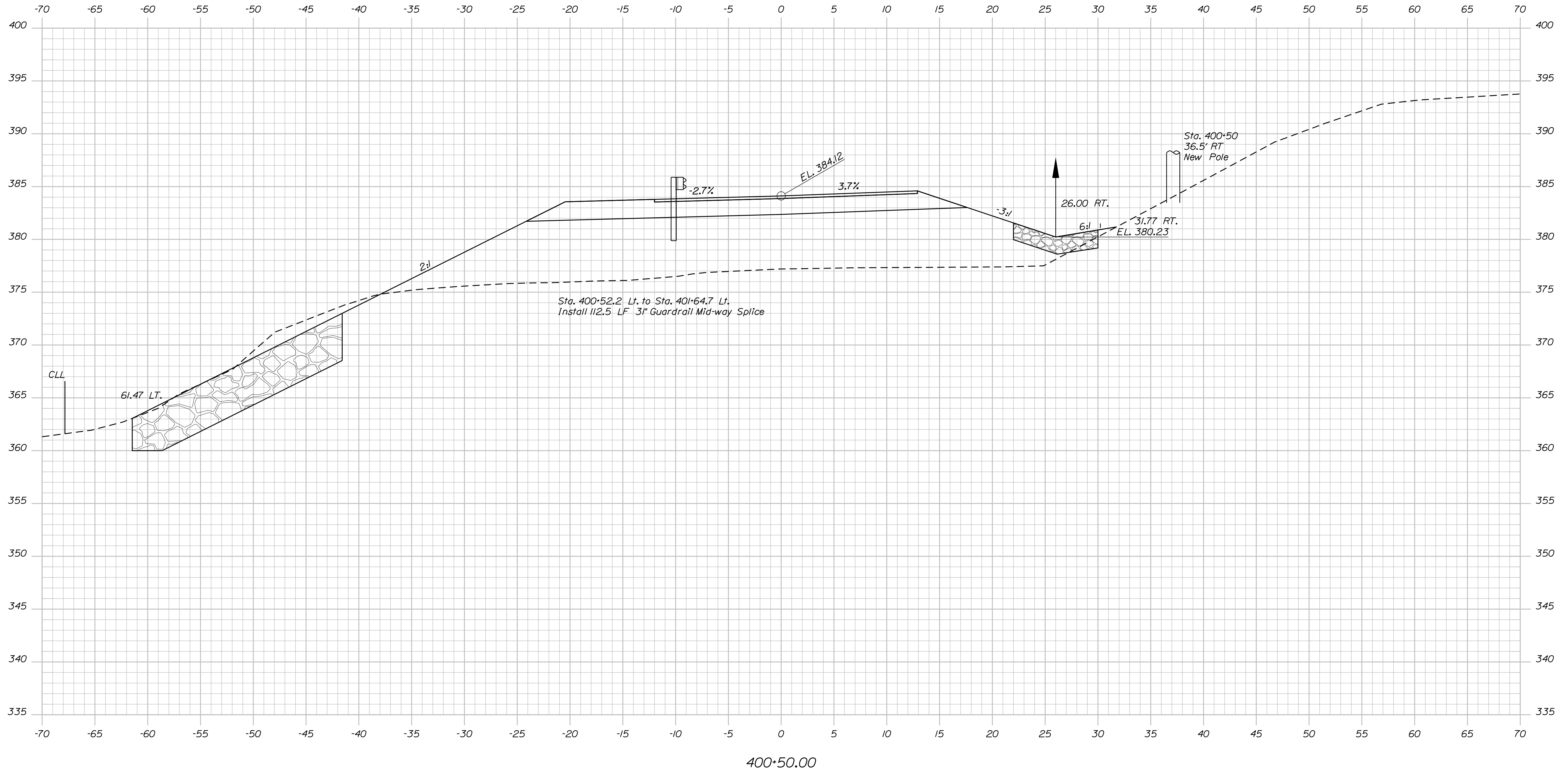
Username:

Filename: ... \MSTAO30_XSECT_400+25_018.dgn Division: BRIDGE



400+25.00

Sta. 400+25.00 to Sta. 400+25.00



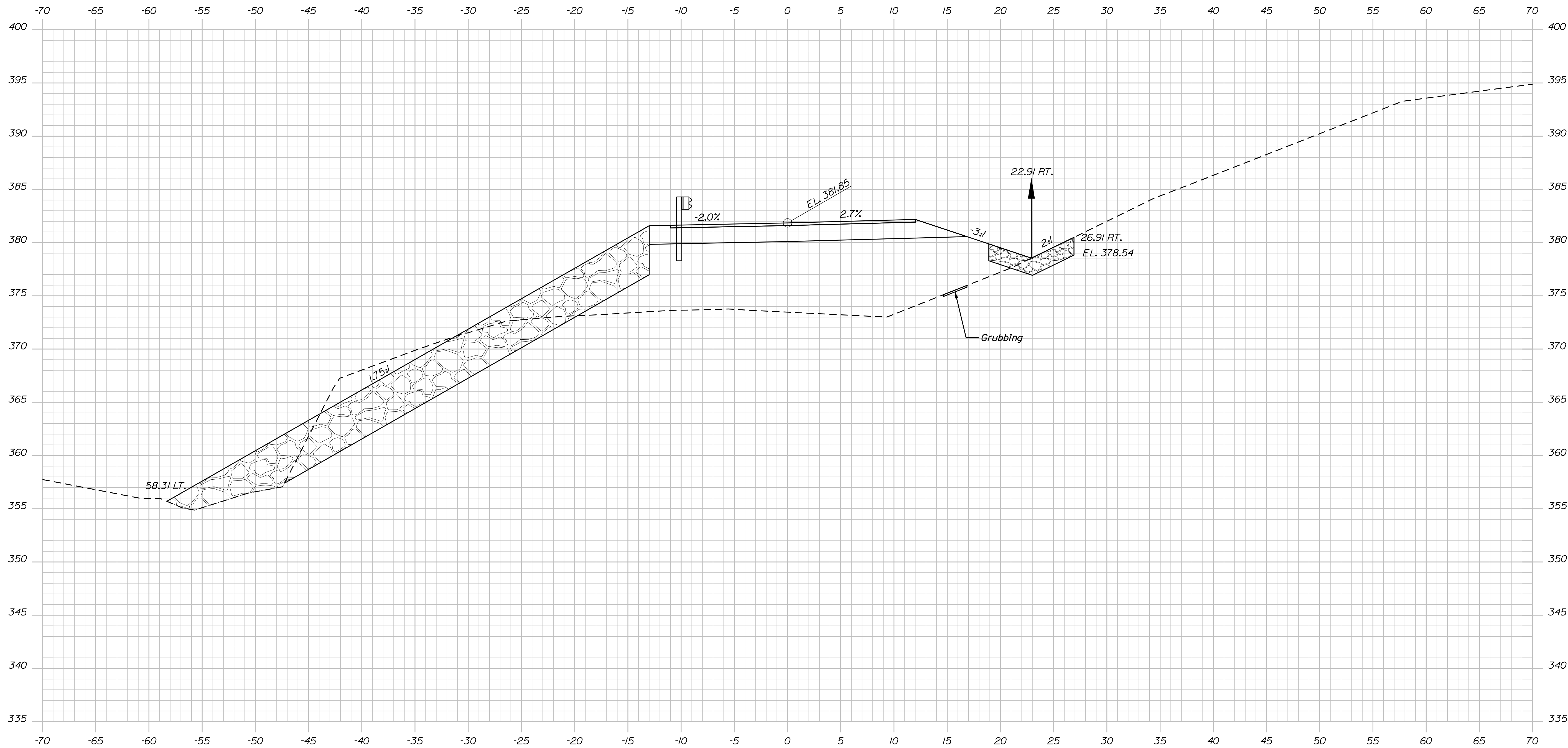
PROJ. MANAGER	ANDREW	LATHE	BY	DATE
DESIGN-DETAILED	O. KRAUSS	B. NICHOLS	NOV 2022	SIGNATURE
CHECKED-REVIEWED	RPM	OKK	NOV 2022	
DESIGNING-DETAILED	NLC	AGB	APR 2022	
DESIGNS-DET. ALED	D3			
REVISIONS 1				
REVISIONS 2				P.E. NUMBER
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				
				DATE

SOLON	MAIN STREET BRIDGE FALL BROOK	SOMERSET COUNTY
CROSS STREET CROSS SECTIONS		

SHEET NUMBER

31

OF 66



400+75.00

Sta. 400+75.00 to Sta. 400+75.00

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

2189401

WIN

BRIDGE NO. 2504

BRIDGE PLANS

MAIN STREET BRIDGE

FALL BROOK

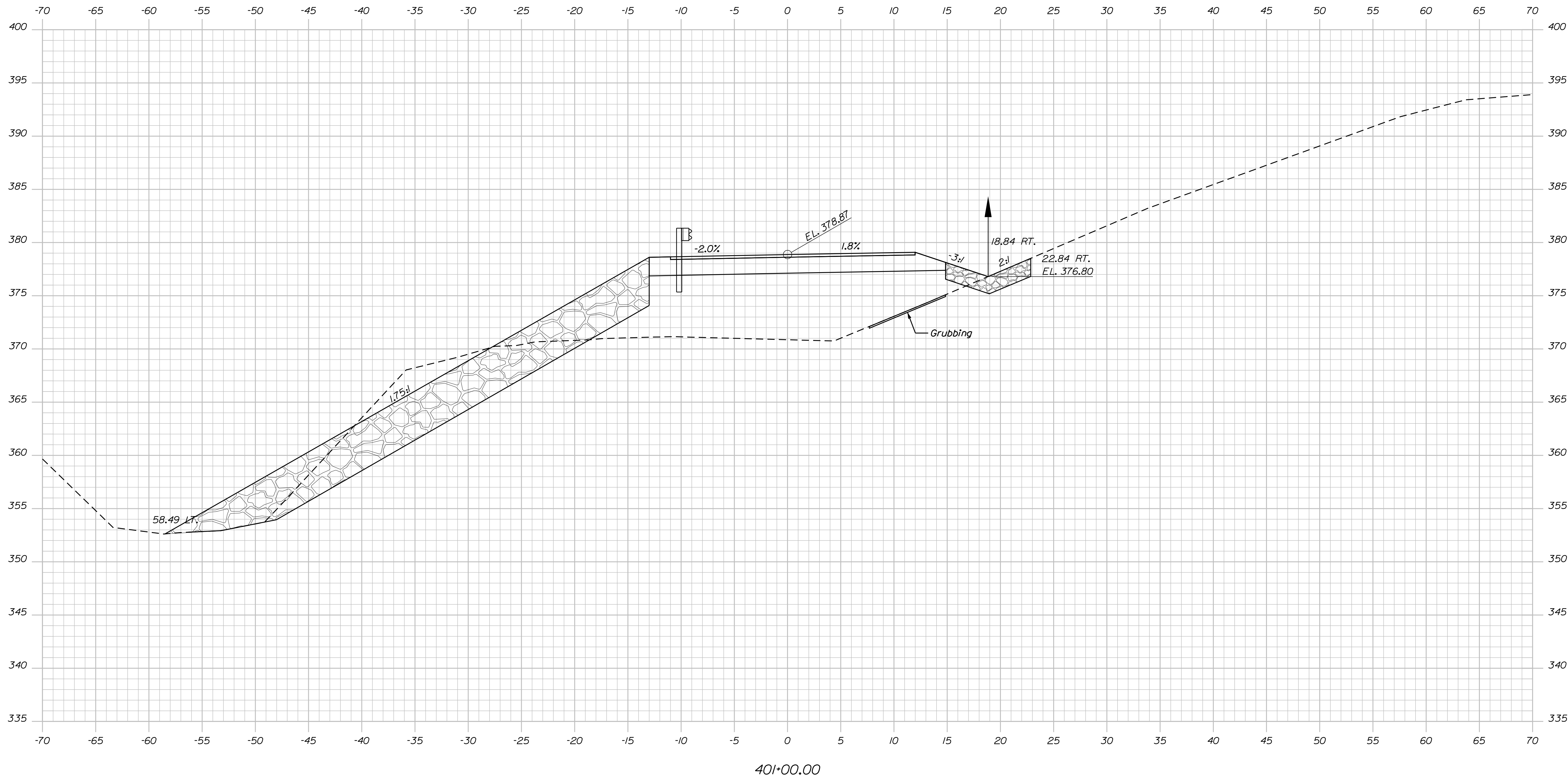
SOMERSET COUNTY

SOLON
SOMERSETCROSS STREET
CROSS STREET
CROSS STREET

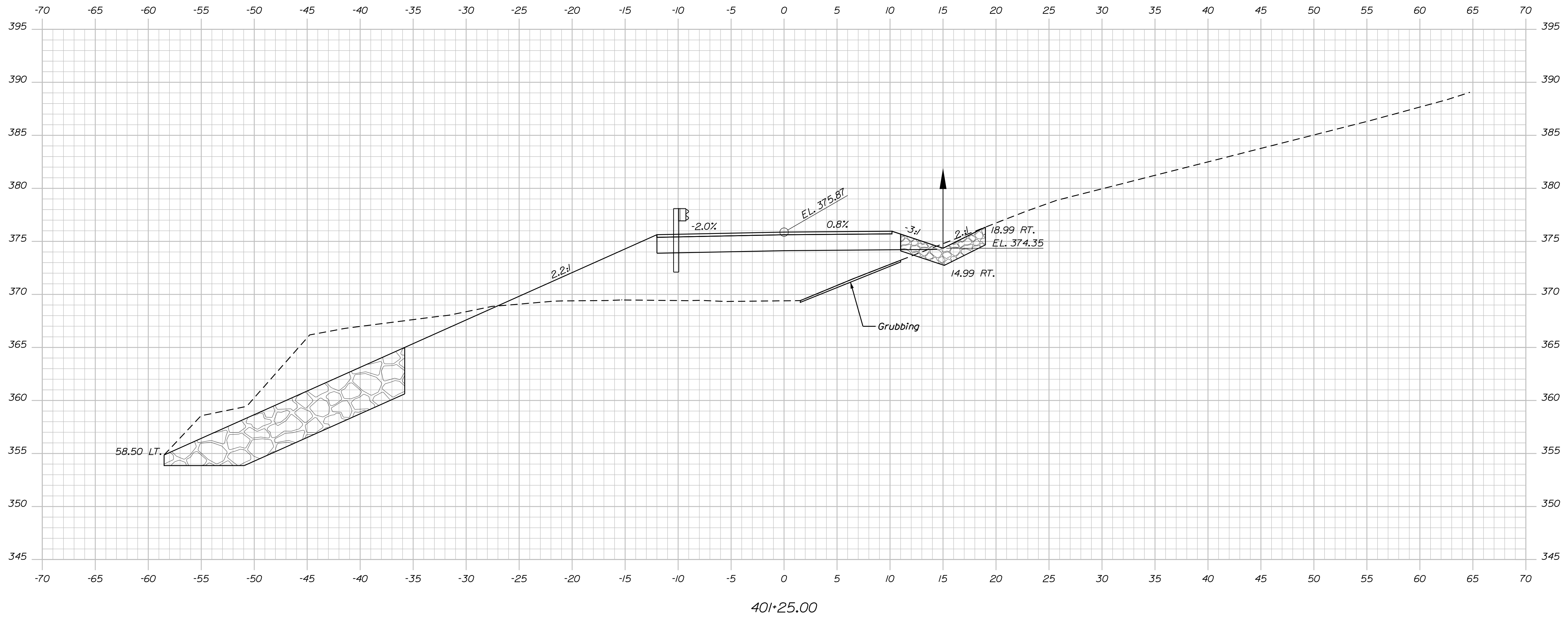
SHEET NUMBER

32

OF 66

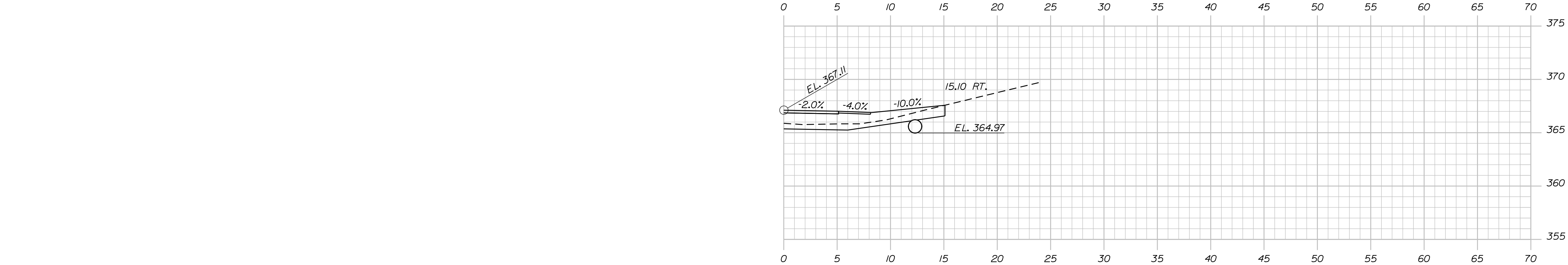


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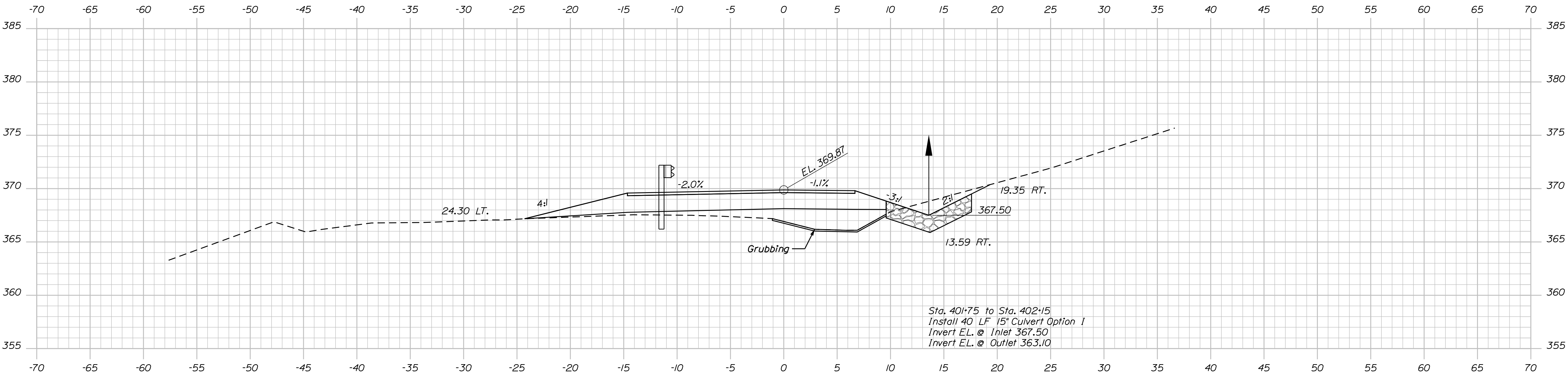


Sta. 401+25.00 to Sta. 401+50.00

34 OF 66		SHEET NUMBER		MAIN STREET BRIDGE FALL BROOK				STATE OF MAINE			
				SOLON				DEPARTMENT OF TRANSPORTATION			
		CROSS STREET CROSS SECTIONS				SOMERSET COUNTY				2189401	
						DESIGN DETAIL CD O. KRAUSS NOV. 2022					
						DESIGN REVIEWED RM CHK NOV. 2022					
						DESIGN DETAIL CD2 NIC AGB APR. 2022					
		CROSS STREET CROSS SECTIONS				REVISIONS 1				P. E. NUMBER	
						REVISIONS 2				DATE	
						REVISIONS 3				BRIDGE NO. 2504	
						REVISIONS 4				WIN	
FIELD CHANGES						022260.01					
				BRIDGE PLANS							



401+98.00 (Drive Right)



401+75.00

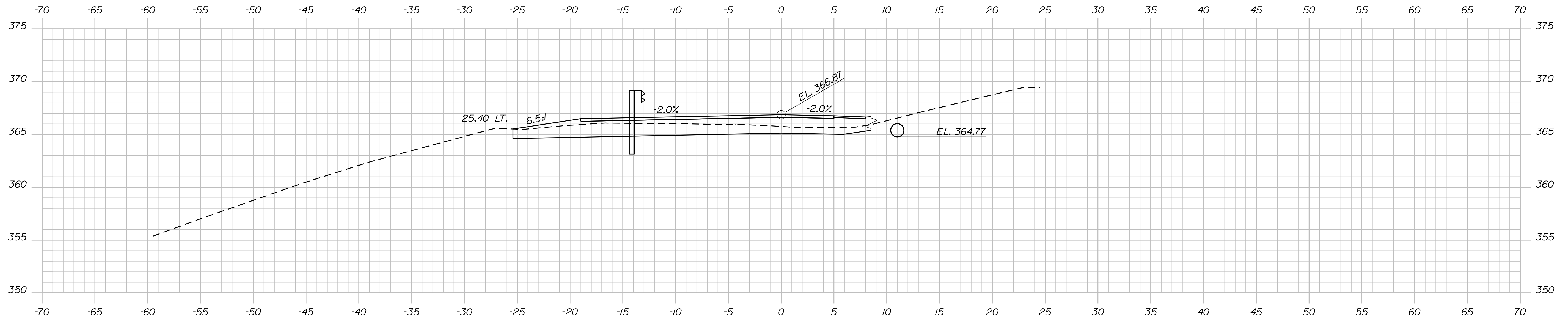
PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	O. KRALISS	B. NICHOLS	NOV. 2022
CHECKED-REVIEWED	RPM	OK	NOV. 2022
DESIGN-DETAILED	NLC	AGB	APR. 2022
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

Filename: ... \MSTA\036_XSECT_402+00_024.dgn Division: BRIDGE



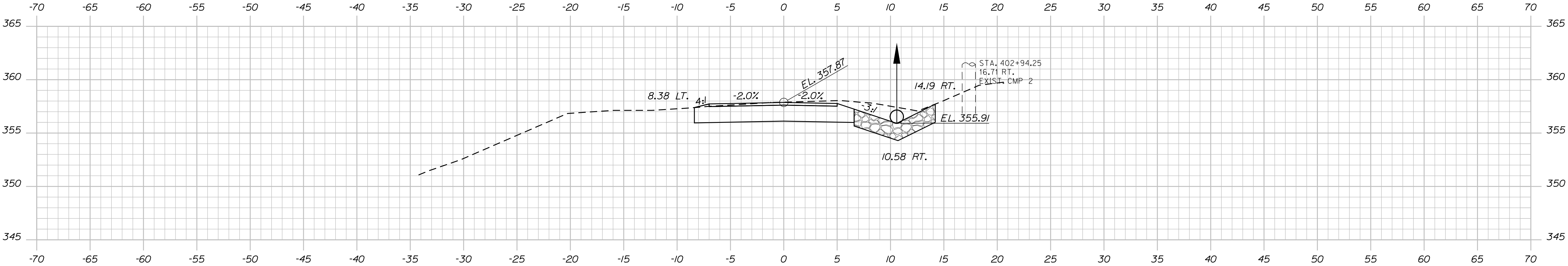
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36		SHEET NUMBER		MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY SOLON		PROJ. MANAGER ANDREW LATHÉ BY B. NICHOLS DATE NOV. 2022		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
CROSS STREET CROSS SECTIONS		DESIGN DETAIL D. KRAUSS CHECKED/REVIEWED RAW DESIGN DETAIL ED2 N.C. DESIGNS 3 DETAIL ED3		SIGNATURE 					

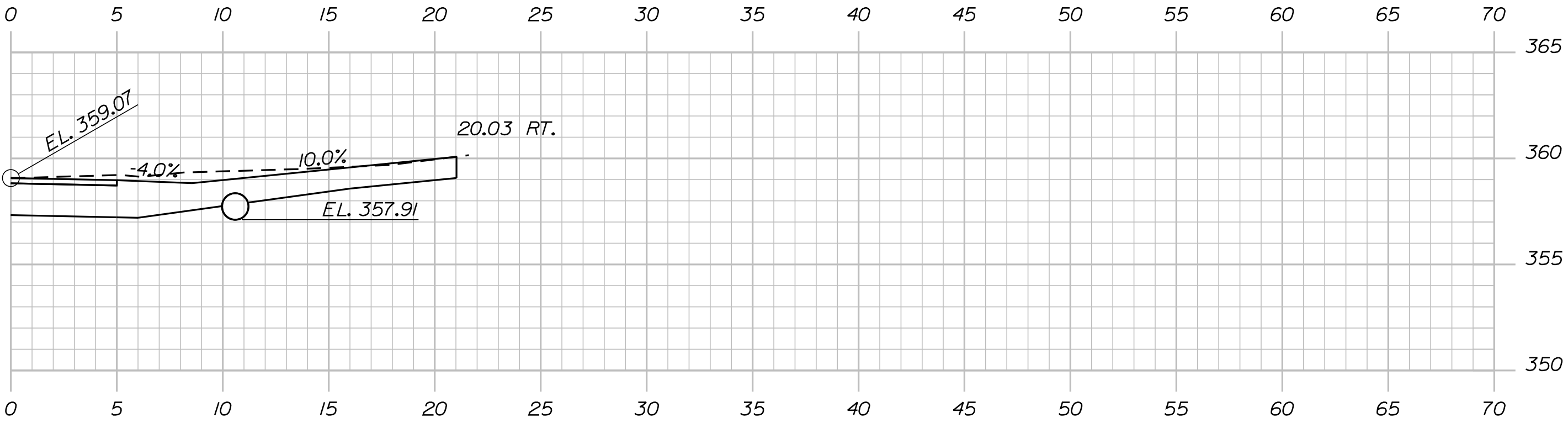
Date:12/7/2022

Username:

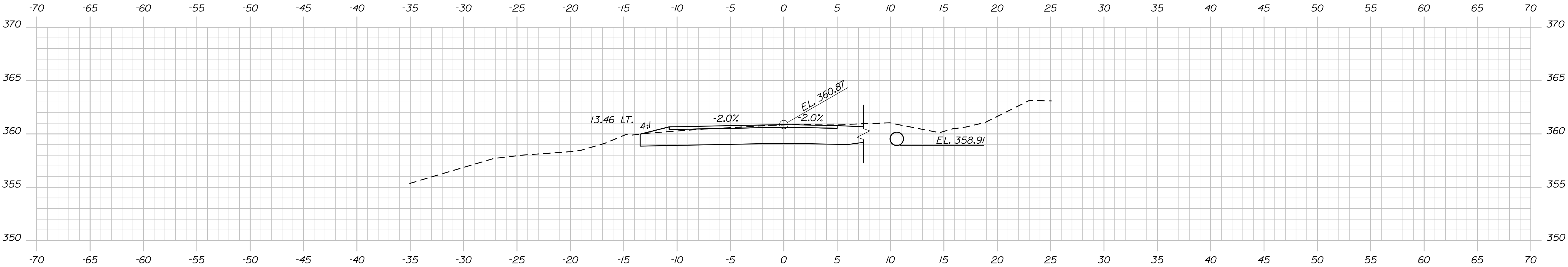
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402+75.00



402+65.00 (Drive Right)



402+50.00

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		
	2189401	
	WIN	022260.01
BRIDGE NO. 2504		BRIDGE PLANS

DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	O. KRALUSS RPM NLC	B. NICHOLS NOV 2022 OGB	NOV 2022 APR 2022	SIGNATURE P.E. NUMBER DATE

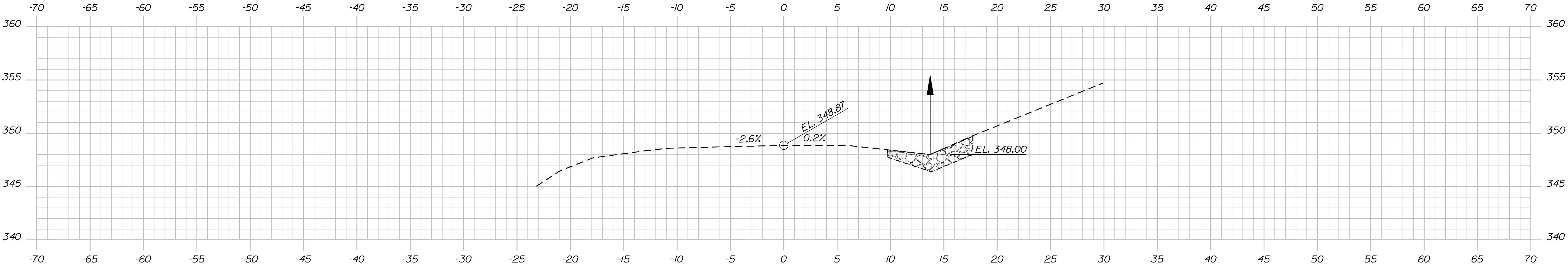
MAIN STREET BRIDGE FALL BROOK SOLON	SOMERSET COUNTY CROSS STREET CROSS SECTIONS

SHEET NUMBER	
37	
OF 66	

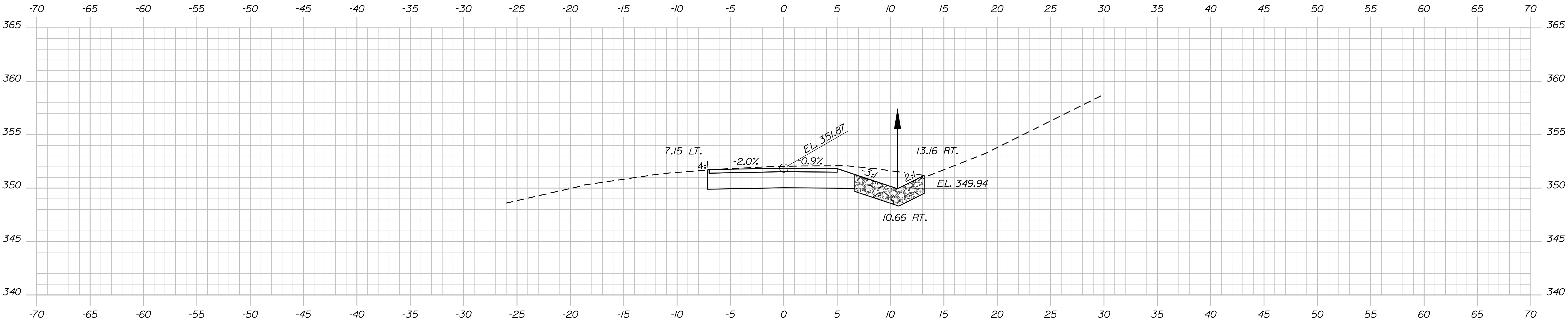
Date:12/7/2022

Username:

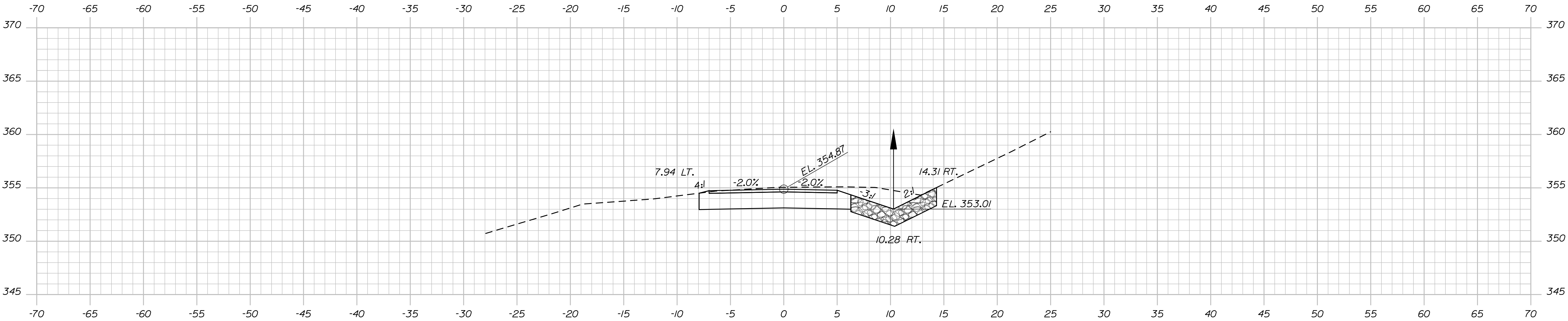
Filename: ... \MSTAO38_XSECT_403+00_026.dgn Division: BRIDGE



403+50.00



403+25.00



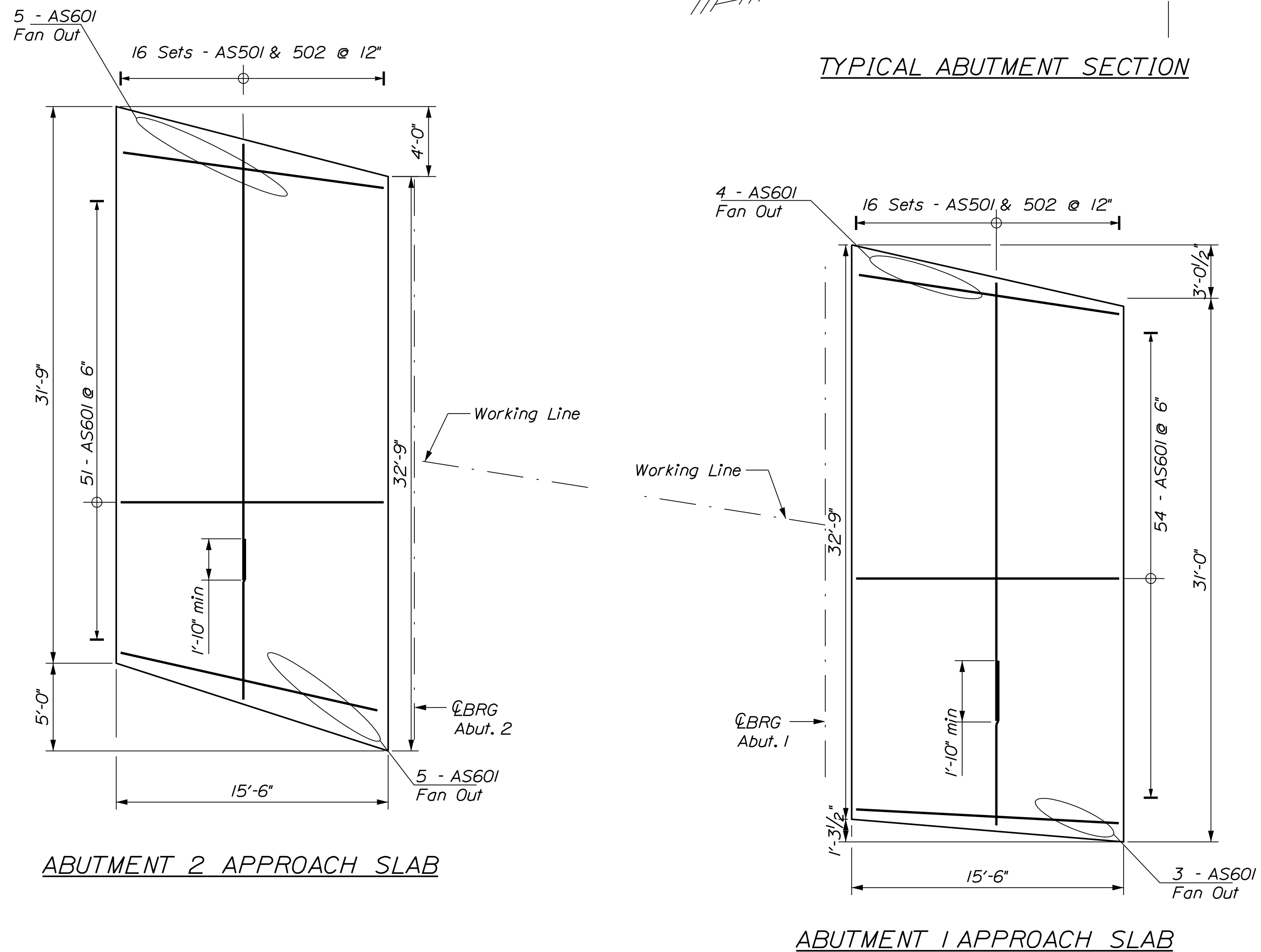
403+00.00

PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	O. KRALISS	B. NICHOLS	NOV 2022
CHECKED-REVIEWED	RPM	OK	NOV 2022
DESIGN-DETAILED	NLC	AGB	APR 2022
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

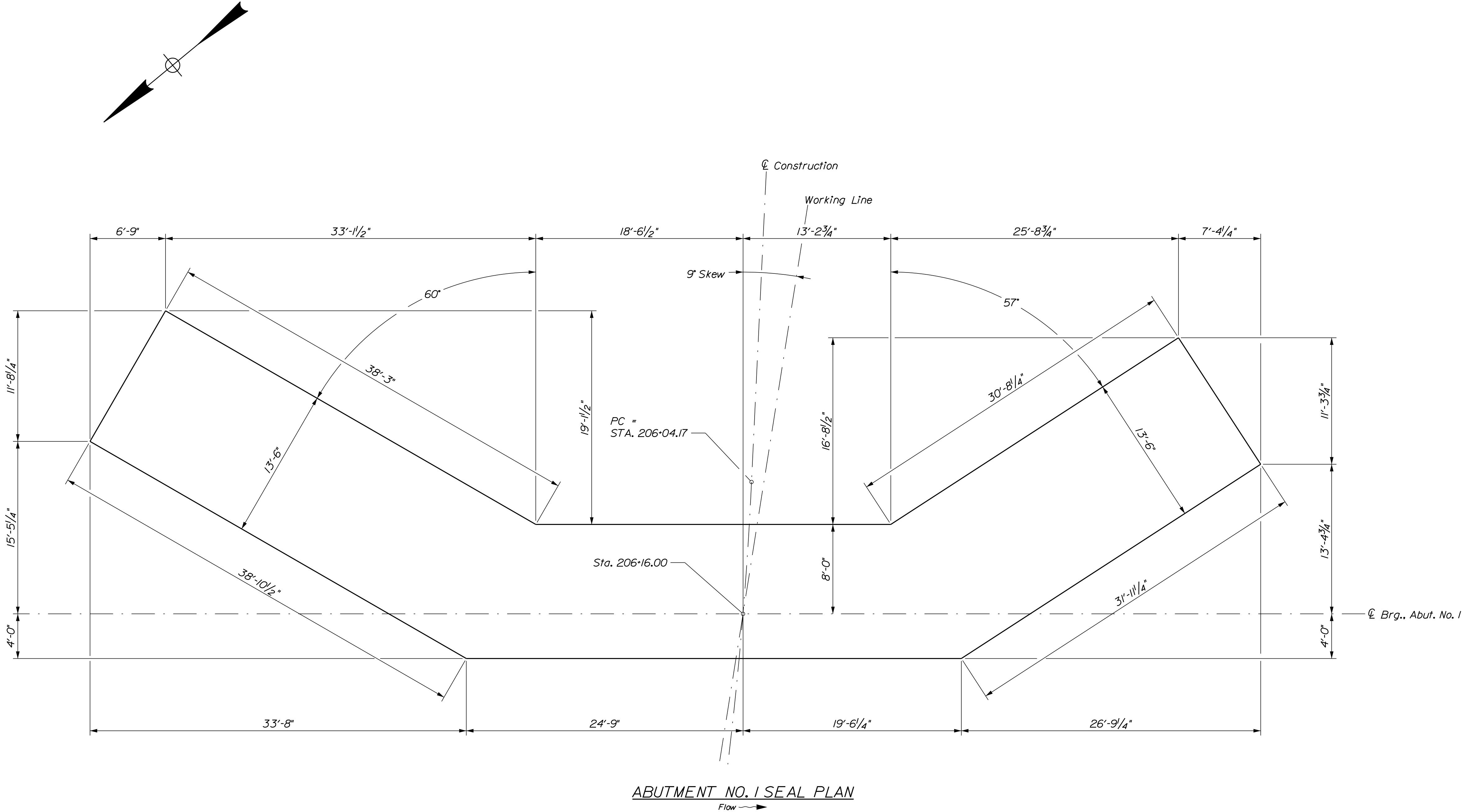
DATE



10. Payment for 4 inch mortar chamfer will be considered incidental to related Contract items.

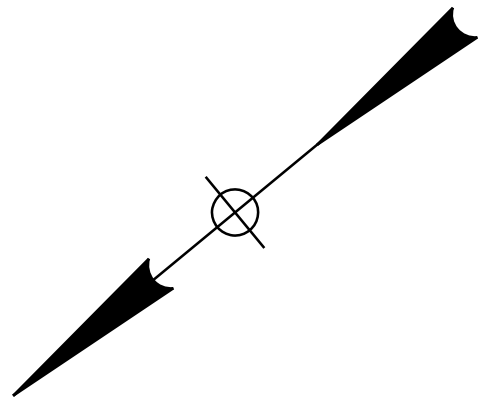
9. If the seal is placed in the wet, each stage of the seal shall be cored full depth in at least 4 locations to ensure that the seal is satisfactorily placed. Each core run shall sample the bedrock interface and a minimum of 1 foot of bedrock. Seal core locations will be approved by the Department. Seal concrete cores will be a minimum 3 inch outer diameter and be stored in boxes and labeled. In the event that voids, unsuitable interface materials such as soil, or other defects are indicated, the Contractor shall correct the defects in a manner approved by the Department. For each core that reveals a defect, 2 additional cores shall be taken in approximately the same area in locations approved by the Department. All core holes shall be filled using non-shrink grout selected from the MaineDOT Qualified Products List of Grout Materials. The cost of coring and repairs will be considered incidental to related pay items. If the rock subgrade is in a dry condition and can be visually inspected by the Resident, seal cores are not required.

[illegible]

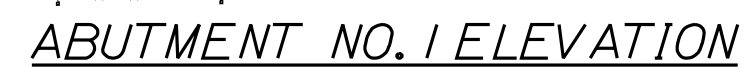


STATE OF MAINE DEPARTMENT OF TRANSPORTATION		SIGNATURE		DATE	
2189401		P.E. NUMBER		DATE	
WIN		022260.01		BRIDGE NO. 2504	
				BRIDGE PLANS	

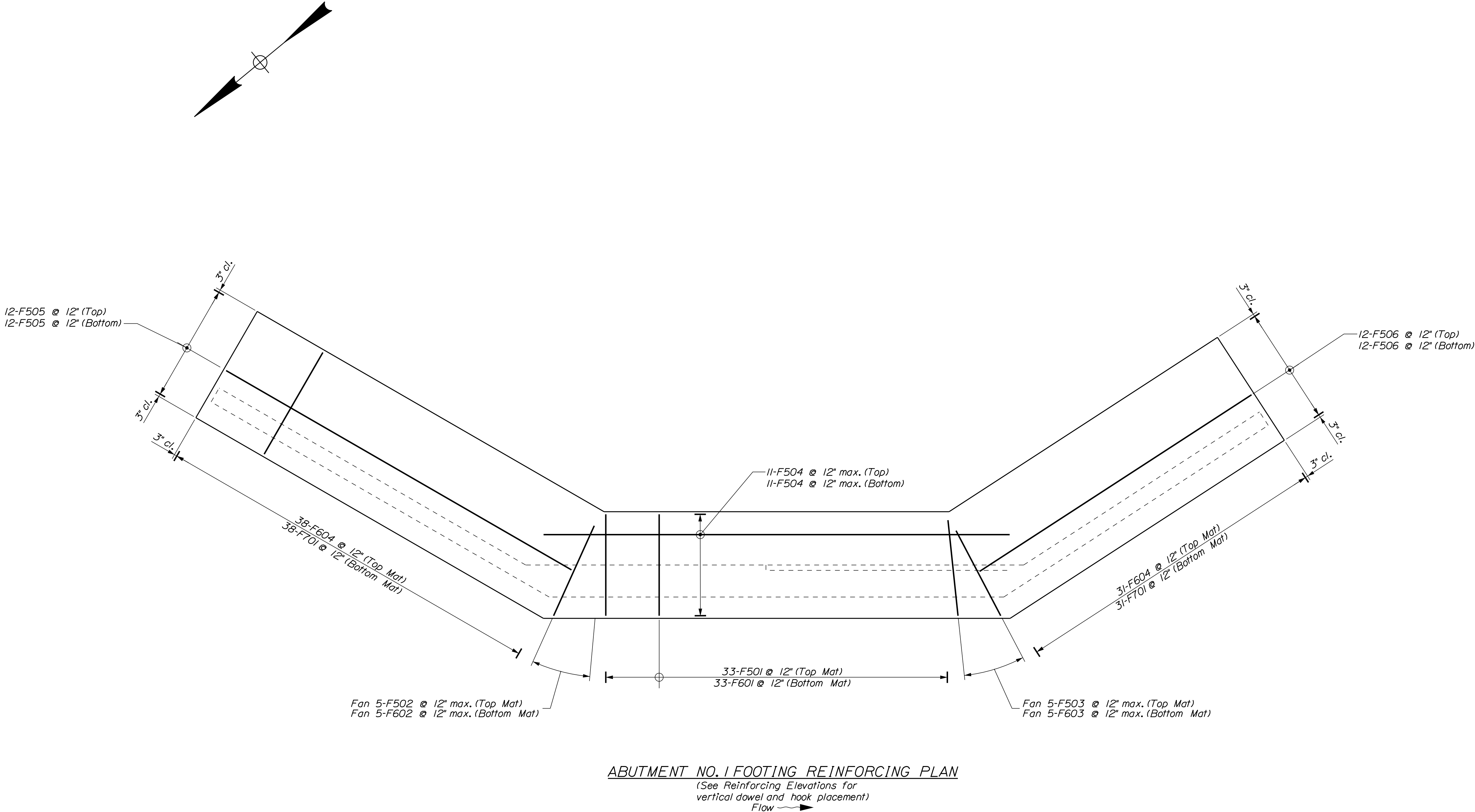
MAIN STREET BRIDGE
 FALL BROOK
 SOMERSET COUNTY
 SOLON
 ABUTMENT NO. 1
 SEAL PLAN



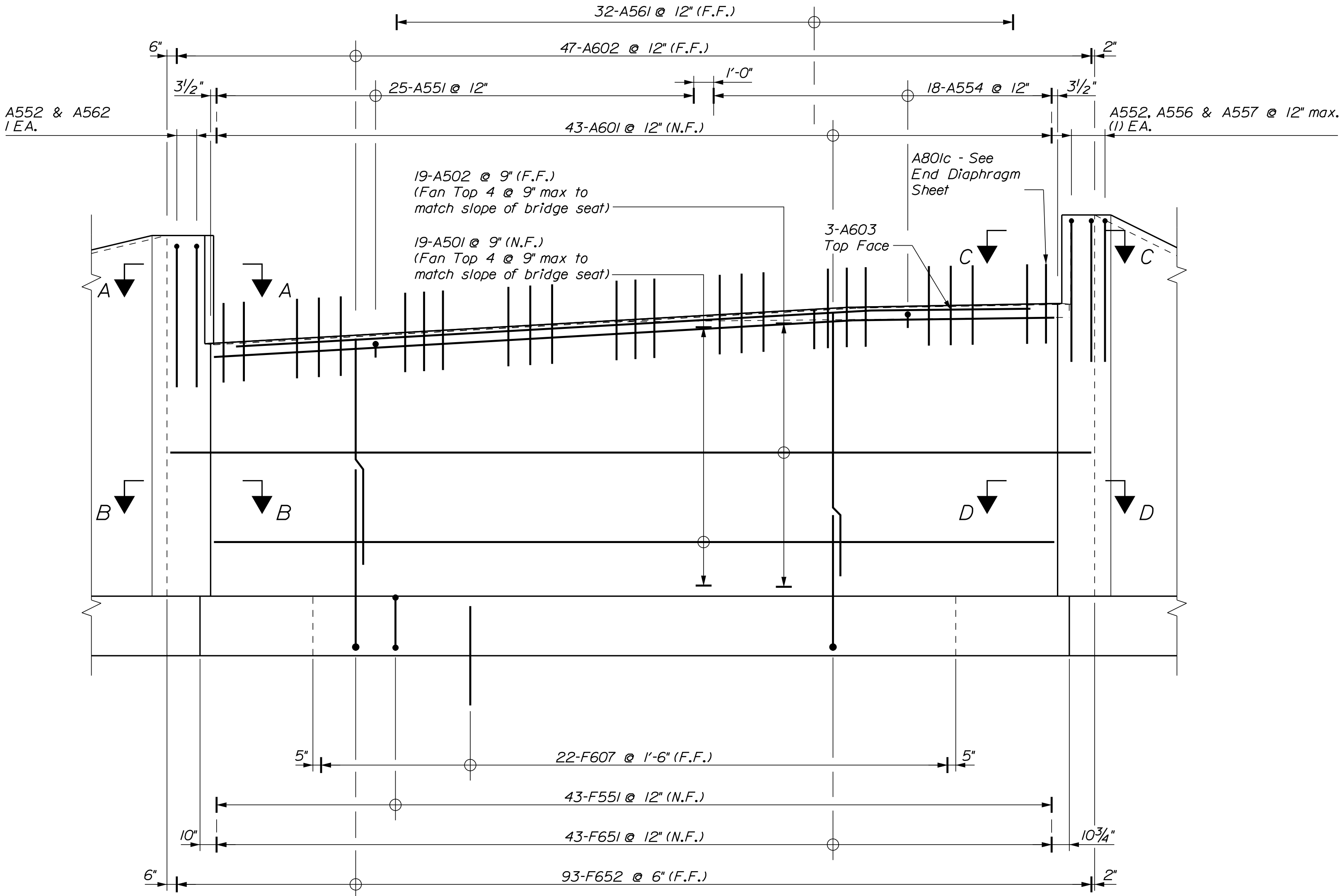
SHEET NUMBER 41 OF 66	MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY SOLON	PROJ. MANAGER	ANDREW	LATHE	BY	DATE
		DESIGN-DETAILED	O. KRAUSS		B. NICHOLS	NOV. 2022
		CHECKED-REVIEWED	RPM		LOCK	NOV. 2022
		DESIGN2-DETAILED2	NLC		ACB	APR. 2022
		DESIGN3-DETAILED3				
ABUTMENT NO. 1 FOOTING PLAN	REVISIONS 1					
	REVISIONS 2					
	REVISIONS 3					
	REVISIONS 4					
FIELD CHANGES						
STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2189401 BRIDGE NO. 2504 WIN 022260.01 BRIDGE PLANS						



42
OF 66



SOLON MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY	STATE OF MAINE DEPARTMENT OF TRANSPORTATION				2189401	
	DESIGN-DETAILED CHECKED-REVIEWED DESIGN-DETAILED REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES				SIGNATURE P.E. NUMBER DATE	BRIDGE NO. 2504 WIN 022260.01 BRIDGE PLANS
	SHEET NUMBER 43 OF 66					



ABUTMENT NO. 1 REINFORCING ELEVATION
 Flow →

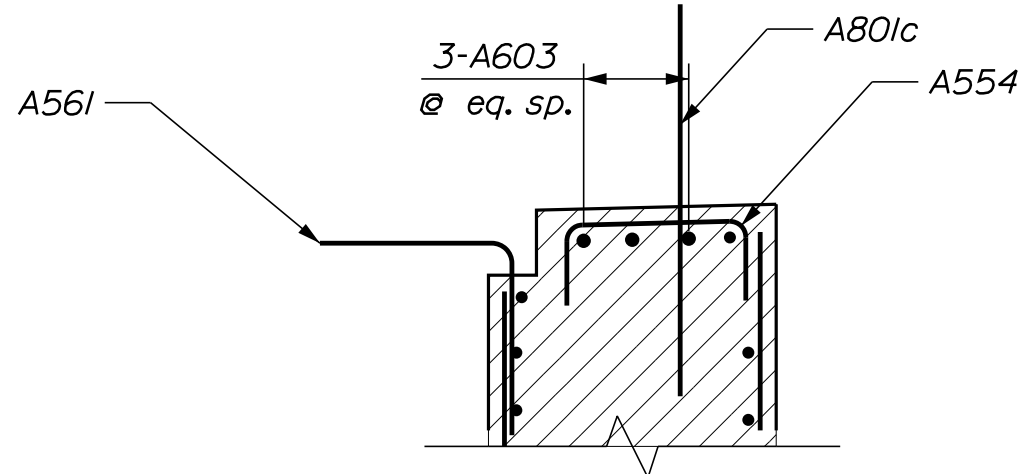
LEGEND
 N.F. = Near Face
 F.F. = Far Face
 E.F. = Each Face

SHEET NUMBER				STATE OF MAINE DEPARTMENT OF TRANSPORTATION			
MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY SOLON ABUTMENT NO. 1 REINFORCING ELEVATION				PROJ. MANAGER	ANDREW LATHE	BY	DATE
				DESIGN-DETAILED	O. KRAUSS	NOV 2022	SIGNATURE
				CHECKED-REVIEWED	RPM	OK	
				DESIGN2-DETAILED2	NLC	AGB	
				DESIGN3-DETAILED3			
				REVISIONS 1			
				REVISIONS 2			
				REVISIONS 3			
				REVISIONS 4			
				FIELD CHANGES			DATE

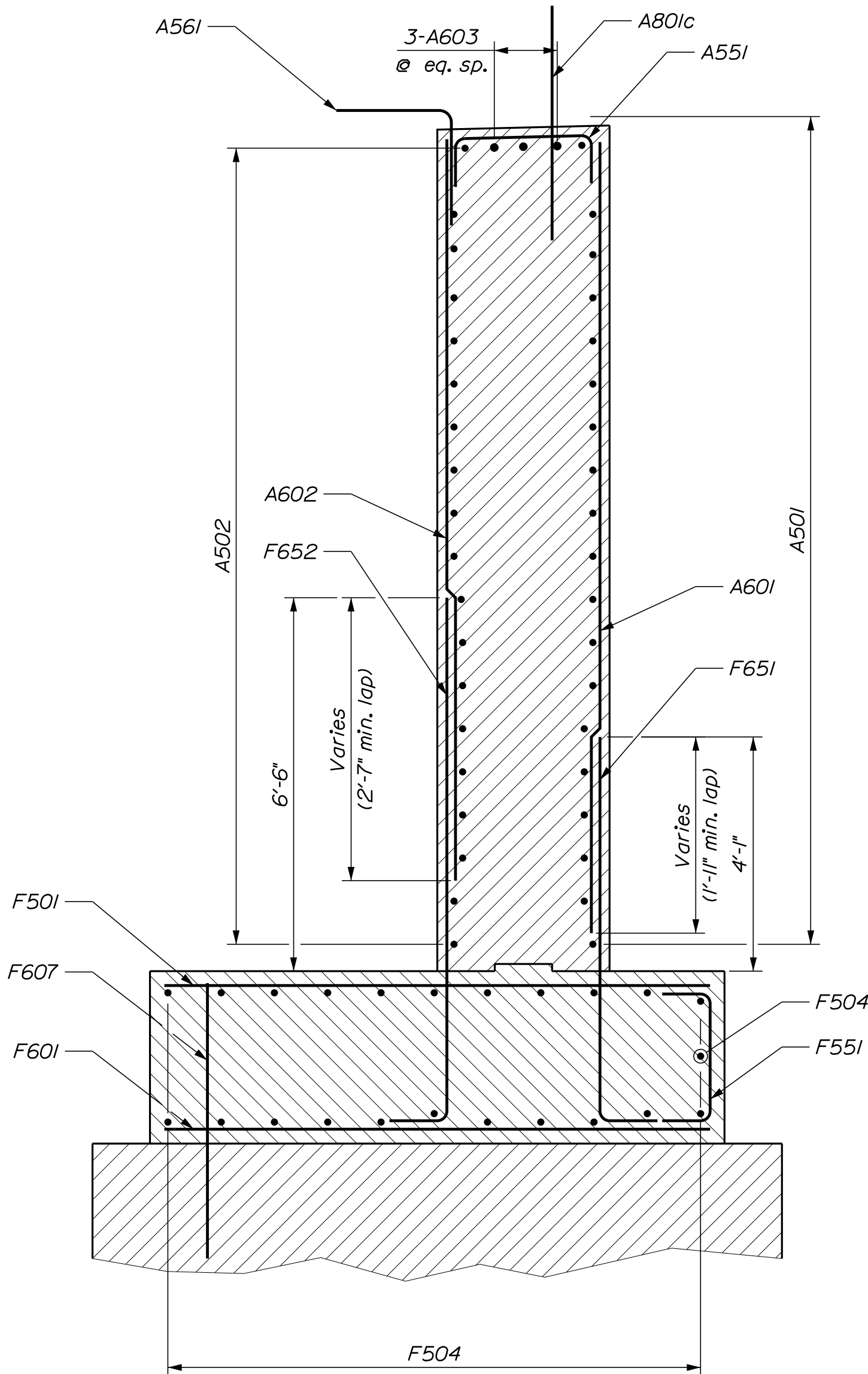


LEGEND
N.F. = Near Face
F.F. = Far Face
E.F. = Each Face

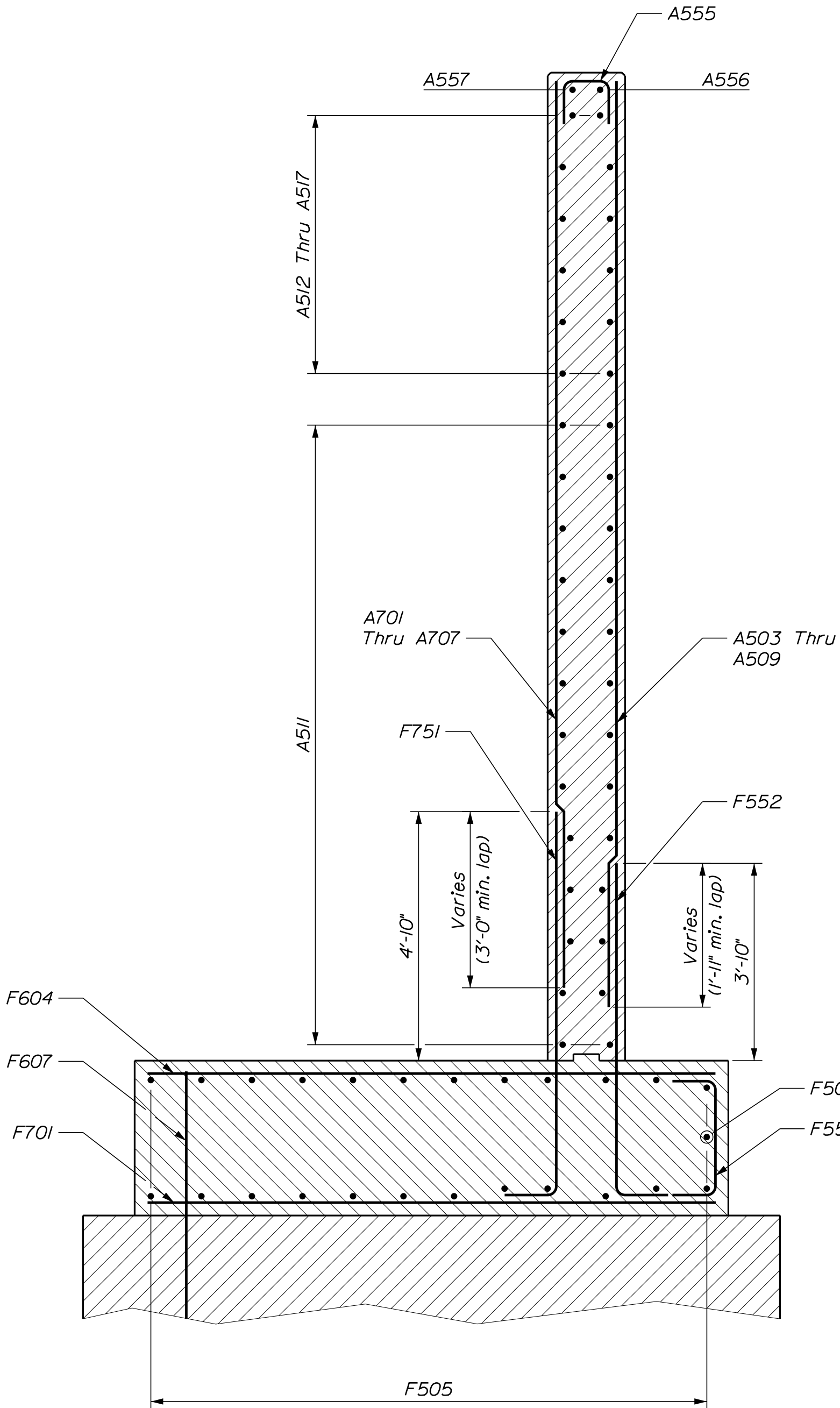
SHEET NUMBER 45 OF 66		MAIN STREET BRIDGE FALL BROOK SOLON				PROJ. MANAGER ANDREW LATHE				BY	DATE
		SOMERSET COUNTY ABUTMENT NO.1 WING REINFORCING ELEVATIONS				DESIGN-DETAILED	O. KRAUSS	B. NICHOLS	NOV. 2022		
						CHECKED-REVIEWED	RPM	CKK	NOV. 2022		
						DESIGN2-DETAILED2	NLC	AGB	APR. 2022		
						DESIGN3-DETAILED3					
				REVISIONS 1				P.E. NUMBER			
				REVISIONS 2							
				REVISIONS 3							
				REVISIONS 4				DATE			
				FIELD CHANGES							
STATE OF MAINE DEPARTMENT OF TRANSPORTATION 2189401 WIN 022260.01 BRIDGE NO. 2504 BRIDGE PLANS											



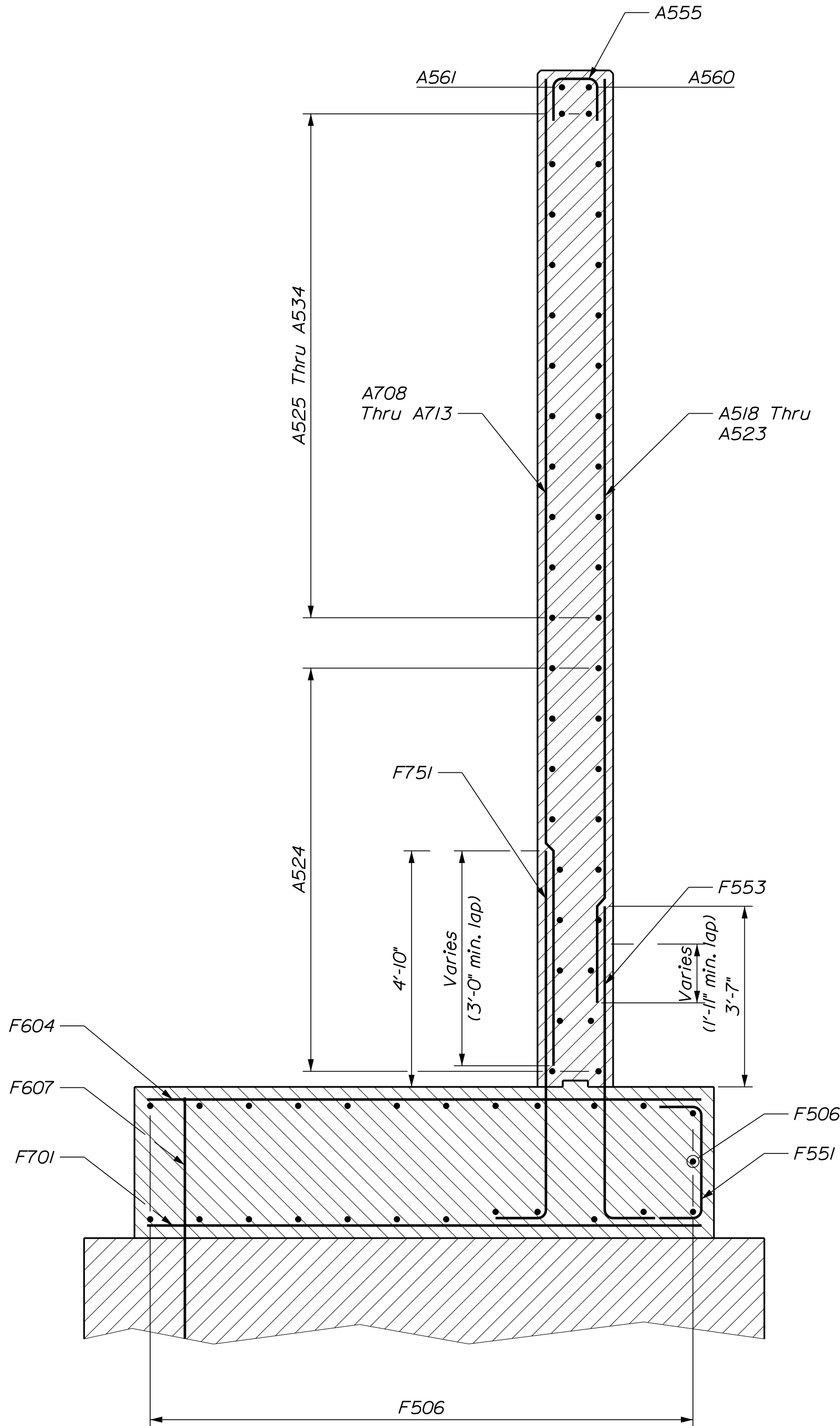
BRIDGE SEAT SECTION
AT RECESSED APPROACH SLAB SEAT



BREASTWALL SECTION



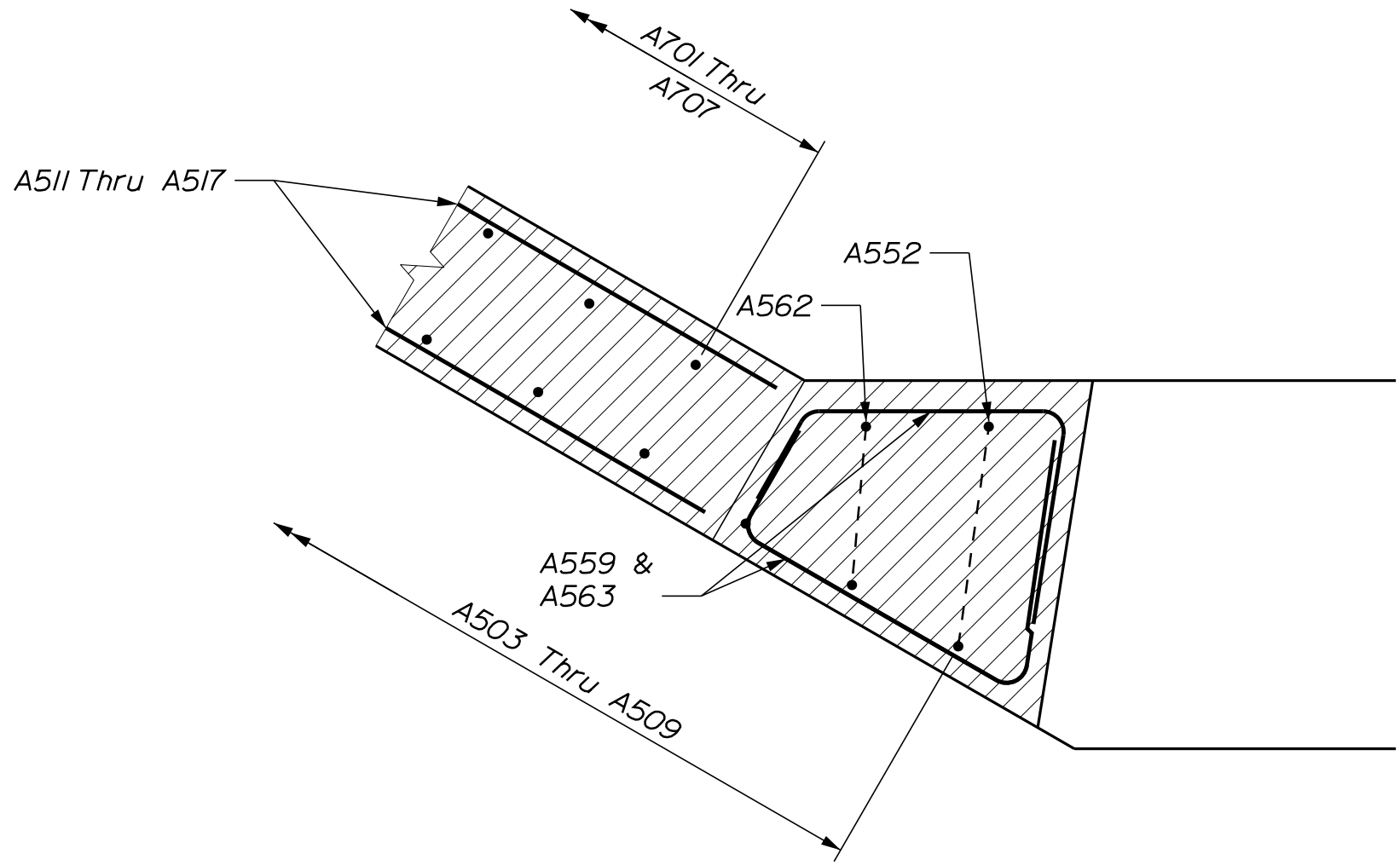
UPSTREAM WING SECTION



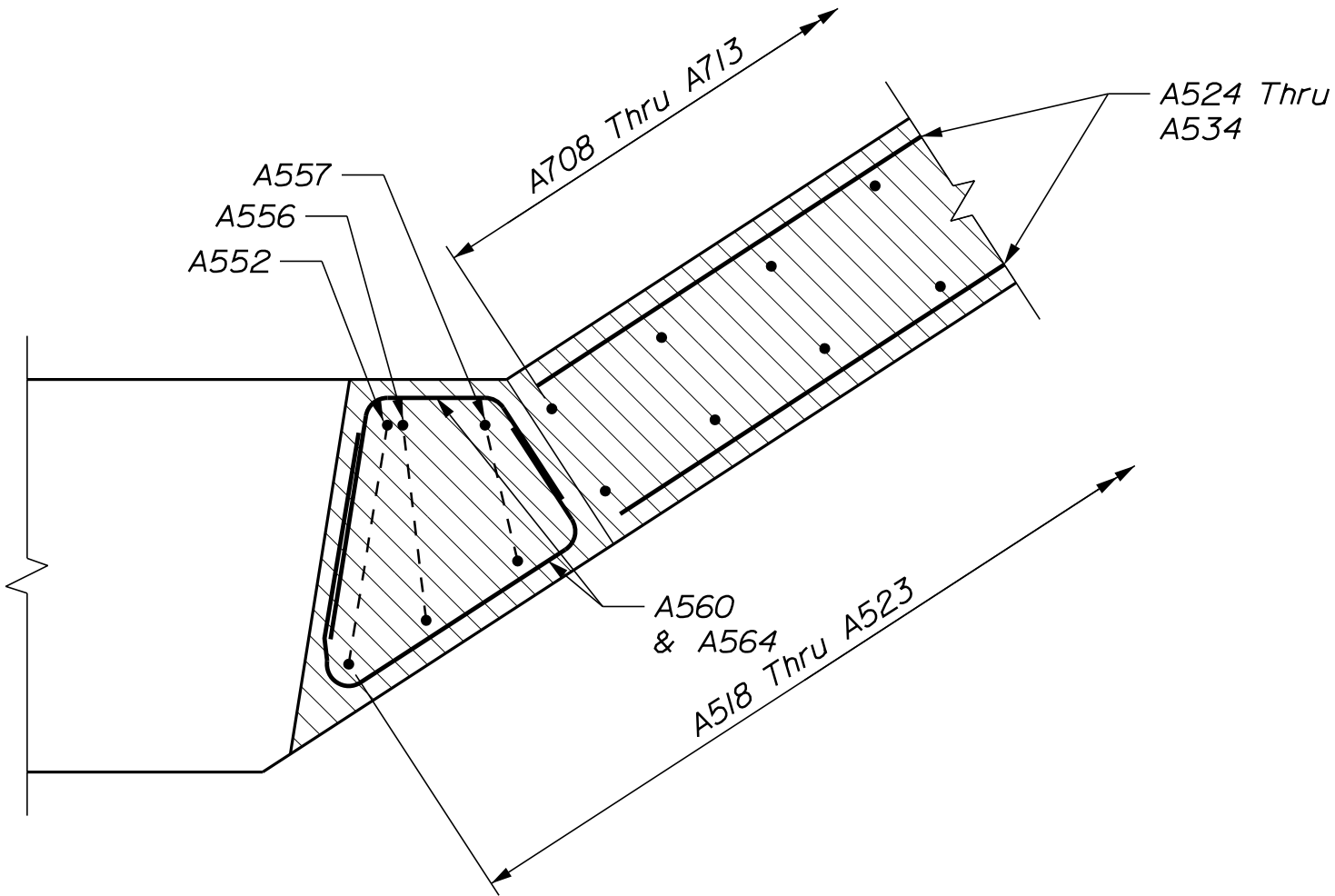
DOWNSTREAM WING SECTION

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

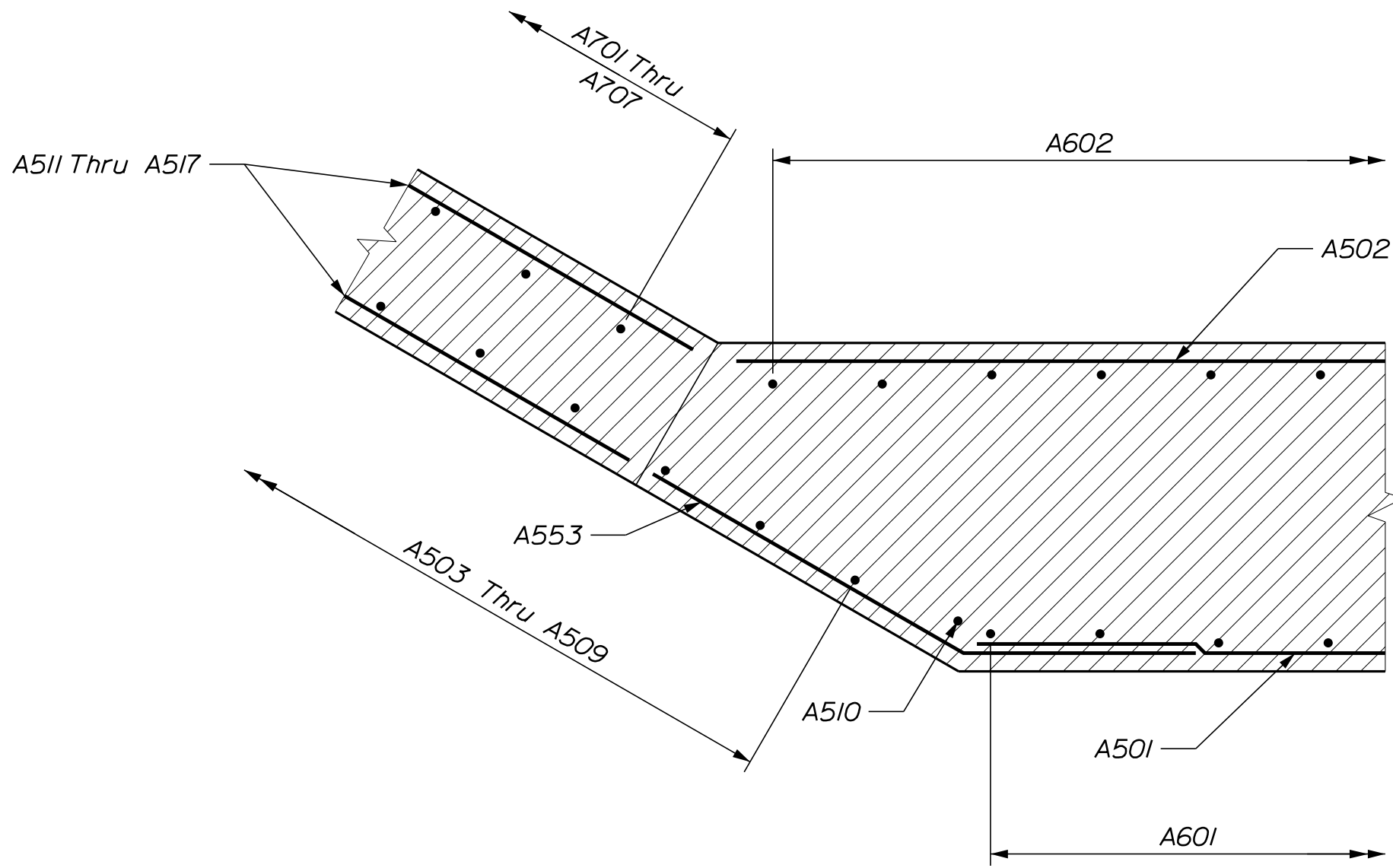
STATE OF MAINE										DEPARTMENT OF TRANSPORTATION										2189401										WIN										022260.01										BRIDGE NO. 2504										BRIDGE PLANS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
MAIN STREET BRIDGE										FALL BROOK										SOMERSET COUNTY										DESIGN-DETAILED										O. KRALISS										B. NICHOLS										NOV 2022										CHECKED-REVIEWED										RPM										OGB										NOV 2022										SIGNATURE										P.E. NUMBER										DATE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				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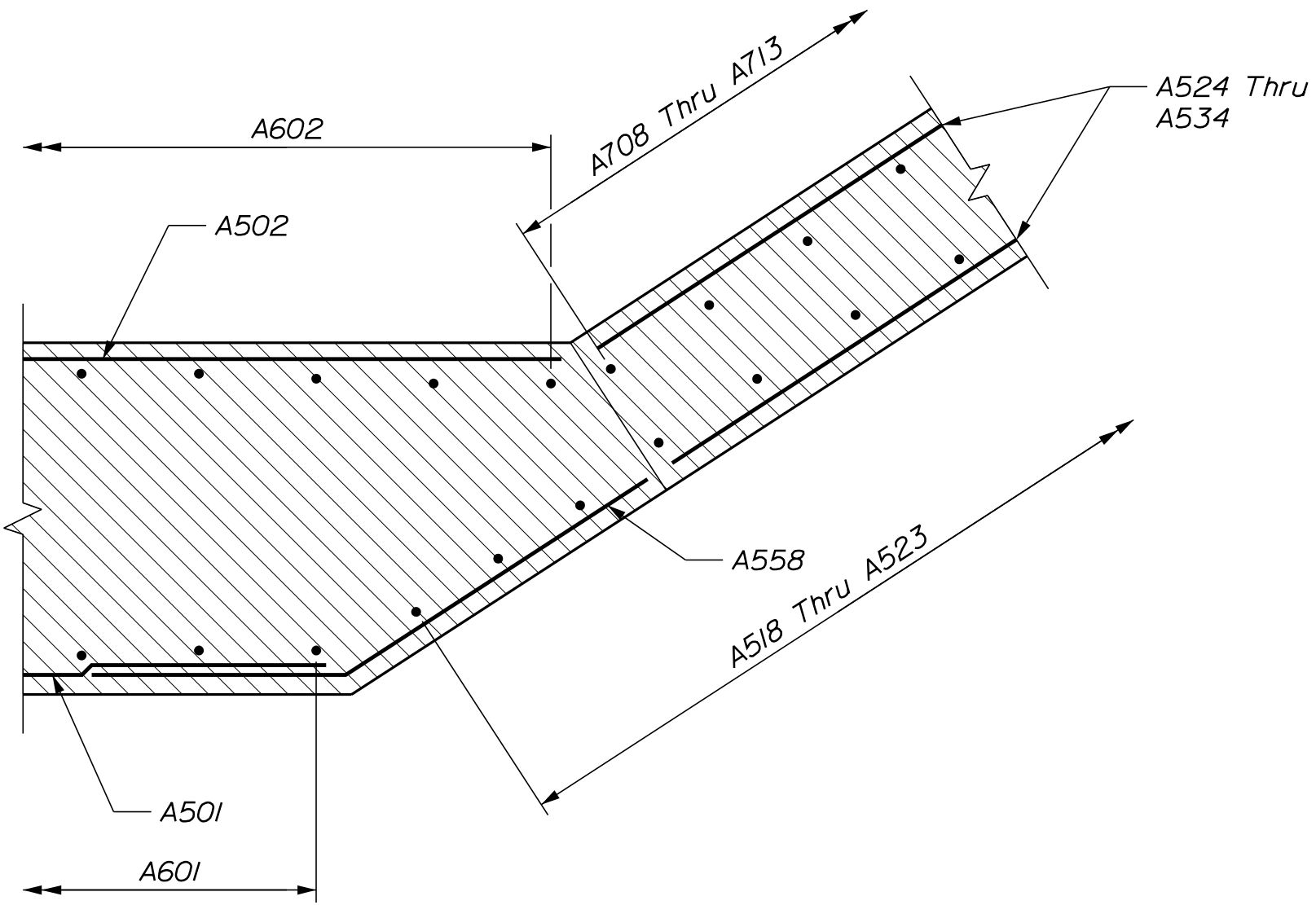
SECTION "A-A"



SECTION "C-C"



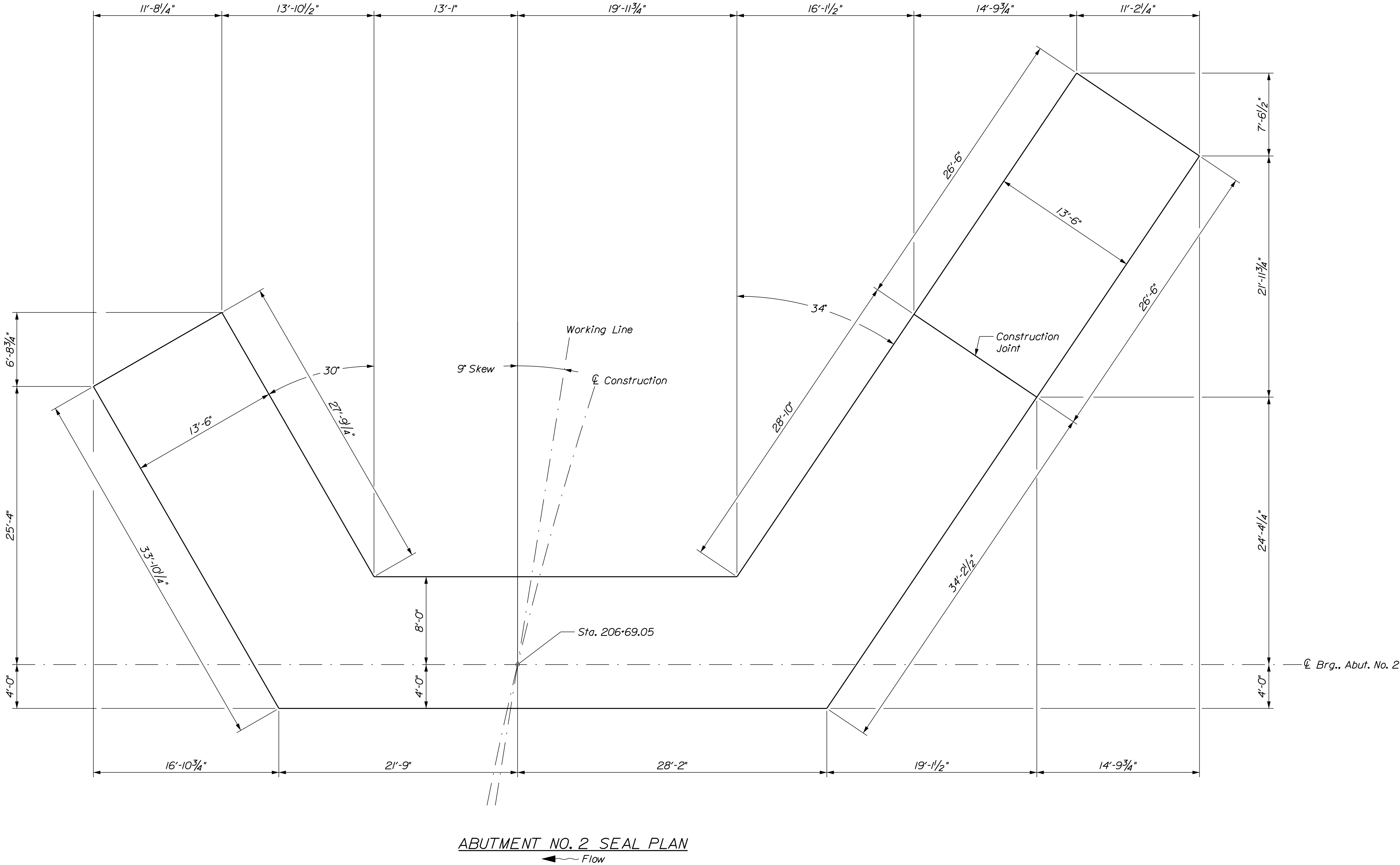
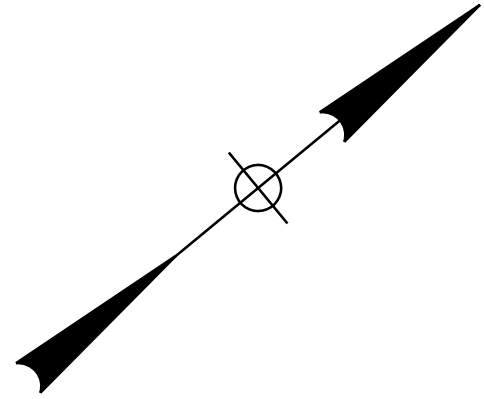
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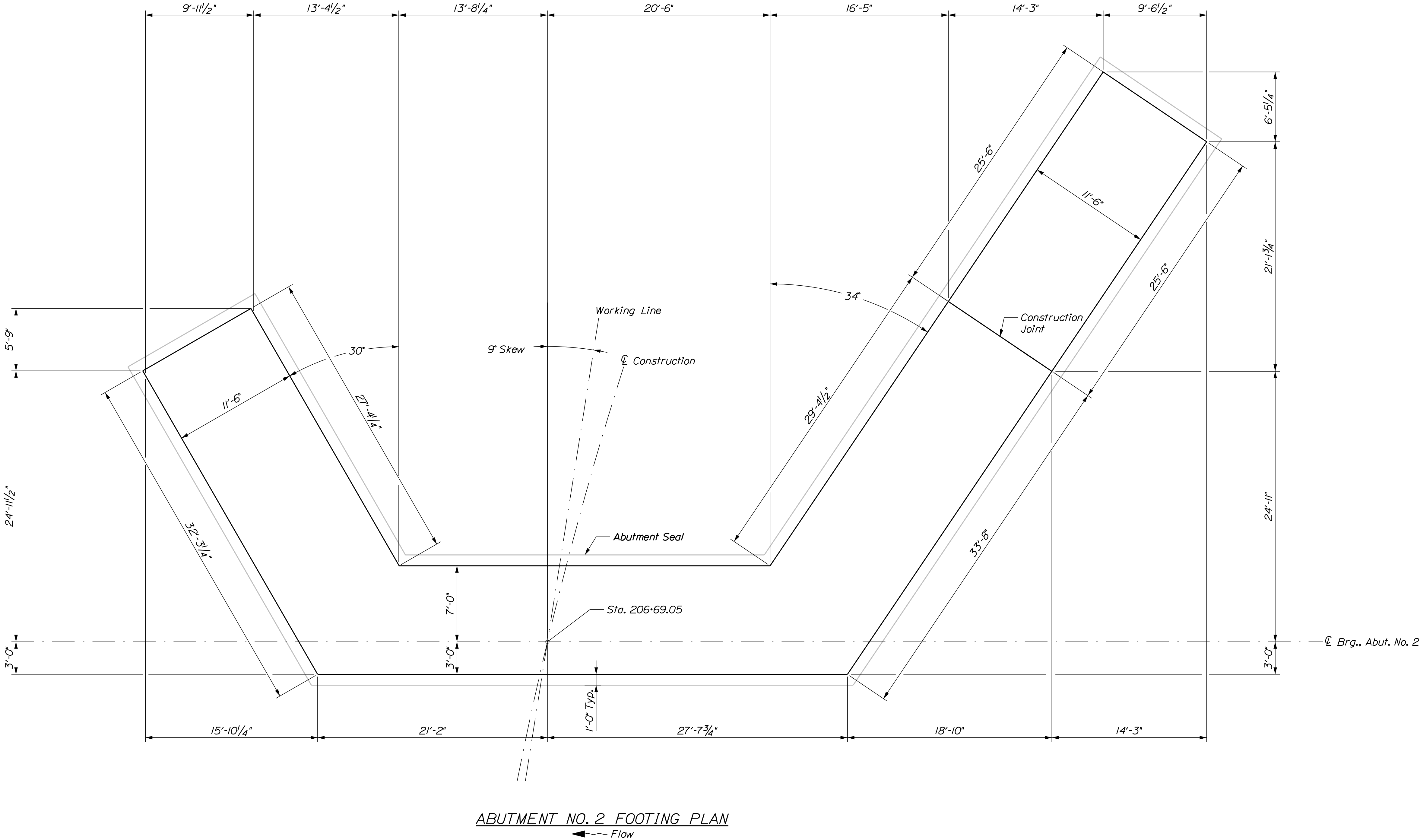
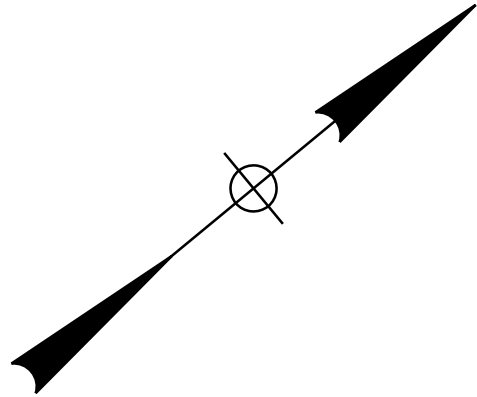
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LEGEND
N.F. = Near Face
F.F. = Far Face
E.F. = Each Face

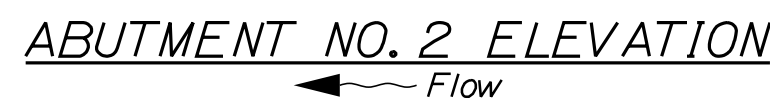
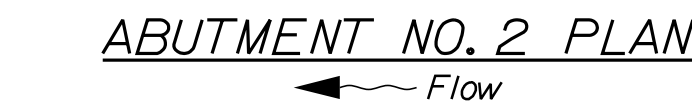
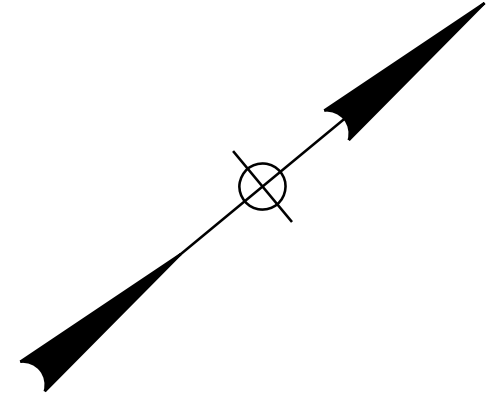
MAIN STREET BRIDGE					PROJ. MANAGER ANDREW LATHE		BY	DATE
FALL BROOK					DESIGN-DETAILED O. KRAUSS		B. NICHOLS	NOV. 2022
SOLON SOMERSET COUNTY					CHECKED-REVIEWED RPM		OK	NOV. 2022
					DESIGN2-DETAILED2 NLC		AGB	APR. 2022
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					REVISIONS 1			
					REVISIONS 2			
ABUTMENT NO. 1 DETAILS					REVISIONS 3			
					REVISIONS 4			
					FIELD CHANGES			
SHEET NUMBER								
47								
OF 66								
					STATE OF MAINE			
					DEPARTMENT OF TRANSPORTATION			
					2189401			
					BRIDGE NO. 2504		WIN	
					022260.01		BRIDGE PLANS	



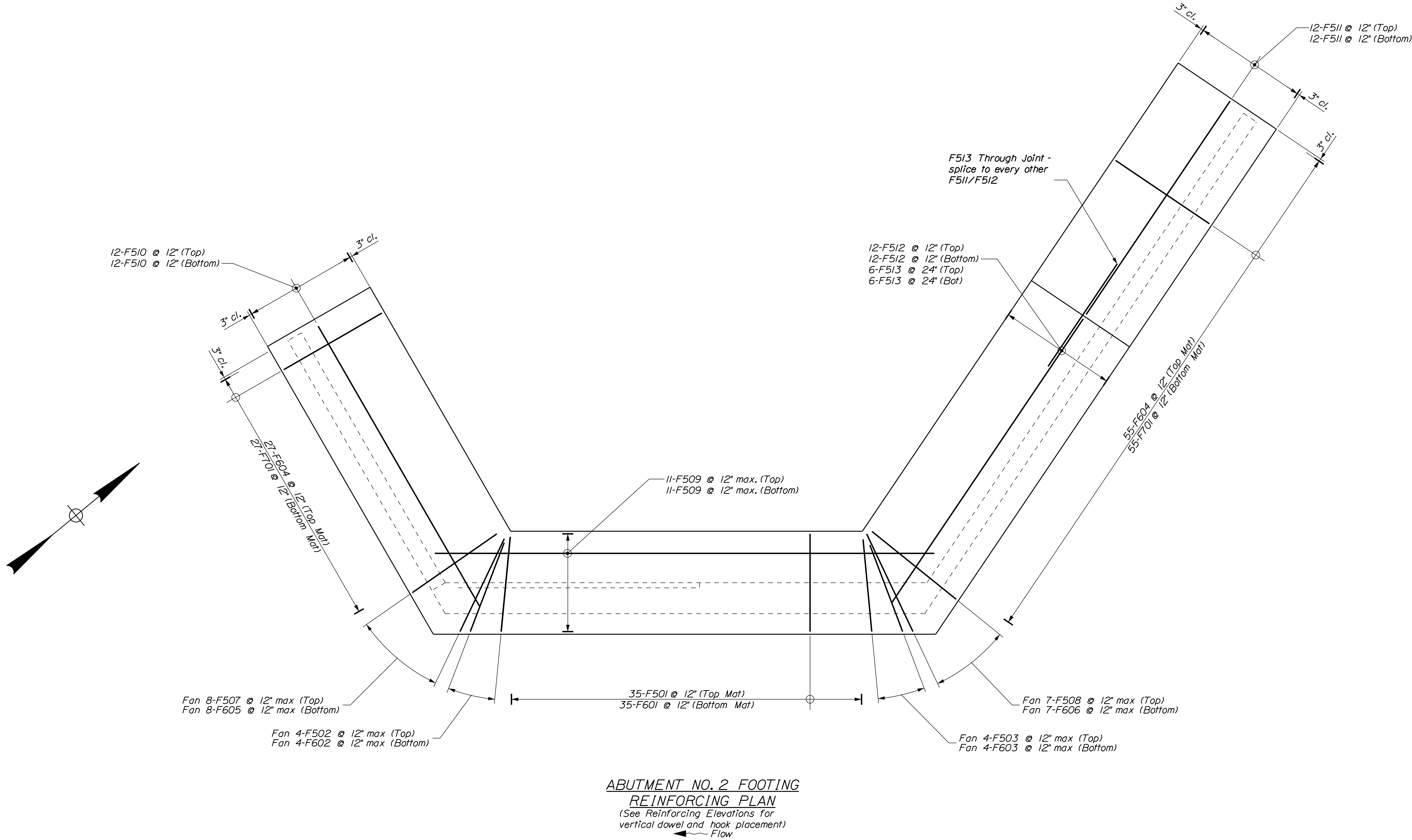
SHEET NUMBER		MAIN STREET BRIDGE FALL BROOK SOLON		SOMERSET COUNTY		PROJ. MANAGER		ANDREW LATHE		BY		DATE		STATE OF MAINE DEPARTMENT OF TRANSPORTATION					
						DESIGN-DETAILED		O. KRAUSS		B. NICHOLS		NOV 2022							
48		ABUTMENT NO. 2 SEAL PLAN		DESIGN2-DETAILED2		CHECKED-REVIEWED		RPM		OKK		NOV 2022		SIGNATURE					
						DESIGN3-DETAILED3		NLC		ACB		APR 2022							
						REVISONS 1										P.E. NUMBER			
						REVISONS 2													
						REVISONS 3													
OF 66						DESIGN4-DETAILED4								BRIDGE NO. 2504					
						REVISONS 4													
						FIELD CHANGES										DATE			
														WIN		022260.01		BRIDGE PLANS	



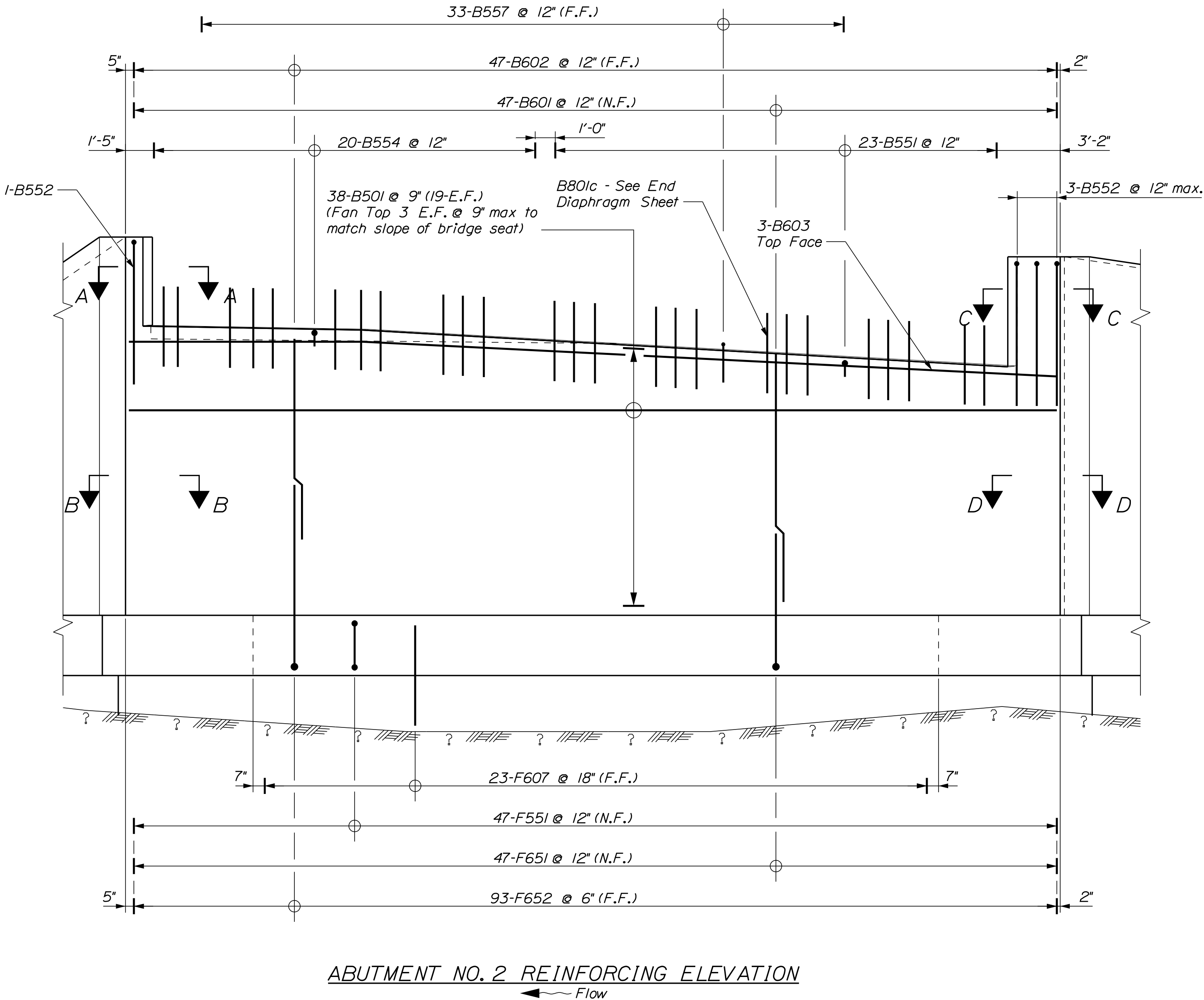
SHEET NUMBER		MAIN STREET BRIDGE FALL BROOK SOLON		SOMERSET COUNTY		PROJ. MANAGER		ANDREW LATHIE		BY		DATE		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
						DESIGN-DETAILED		O. KRALUSS		B. NICHOLS		NOV 2022			
49		OF 66		ABUTMENT NO. 2 FOOTING PLAN		CHECKED-REVIEWED		RPM		OK		NOV 2022		SIGNATURE	
						DESIGN2-DETAILED2		NLC		AGB		APR 2022			
						DESIGN3-DETAILED3								P.E. NUMBER	
						REVISIONS 1								DATE	
						REVISIONS 2									
						REVISIONS 3									
						REVISIONS 4									
						FIELD CHANGES								BRIDGE NO. 2504	
														WIN	
														022260.01	
														BRIDGE PLANS	



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

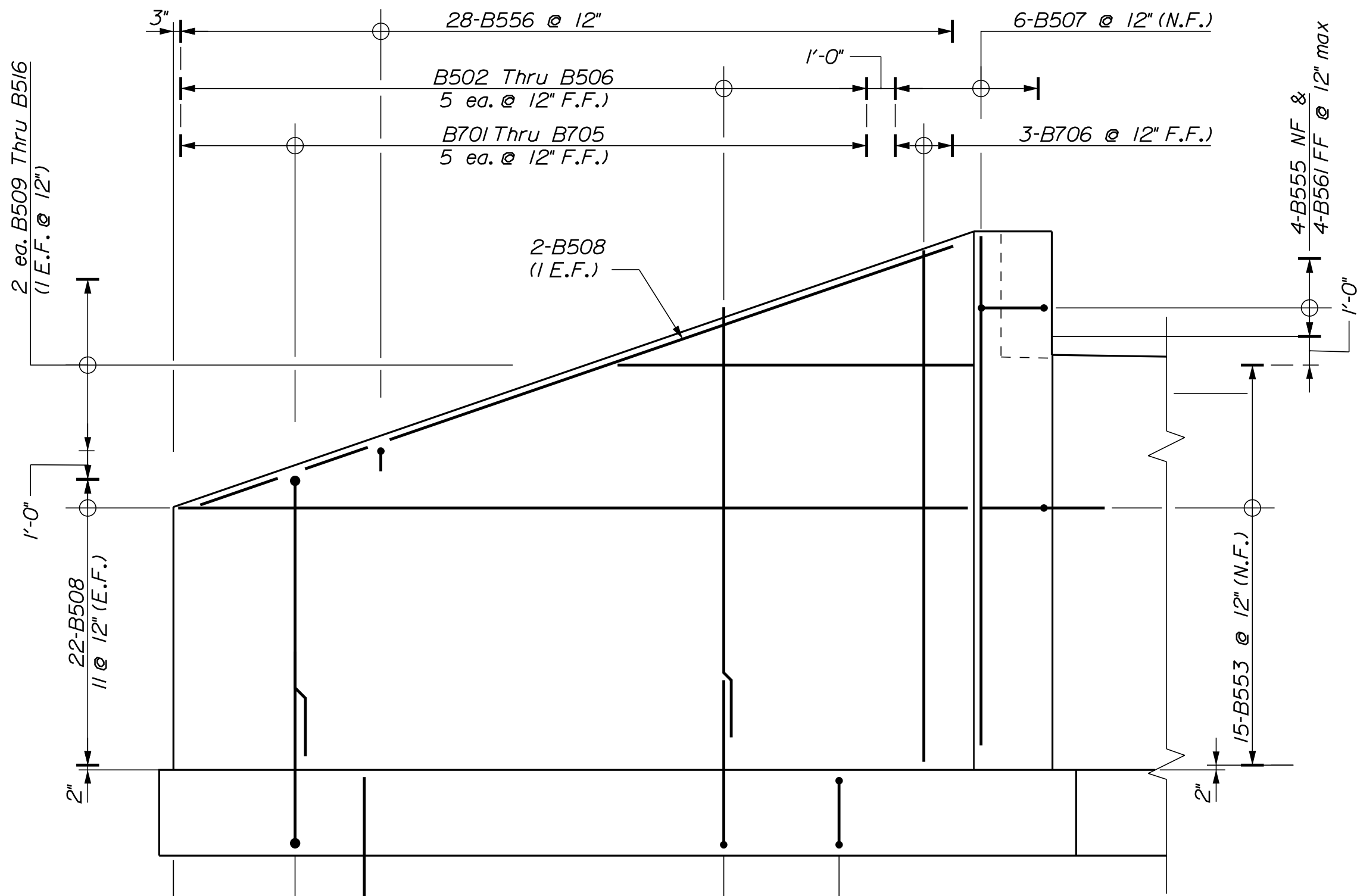


STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2189401		WIN 022260.01 BRIDGE NO. 2504 BRIDGE PLANS	
		SIGNATURE		P.E. NUMBER	
		DATE		DATE	
MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY SOLON		PROJ. MANAGER	ANDREW LATHE	BY	DATE
		CHECKED	REVIEWED	DESIGNED	DATE
		OK	OK	OK	NOV 2022
		OK	OK	OK	NOV 2022
		OK	OK	OK	APR 2022
ABUTMENT NO. 2 FOOTING REINFORCING PLAN		DESIGNED	DATE	BY	DATE
		OK	OK	OK	NOV 2022
		OK	OK	OK	NOV 2022
		OK	OK	OK	NOV 2022
		OK	OK	OK	NOV 2022
SHEET NUMBER 51 OF 66		FIELD CHANGES			

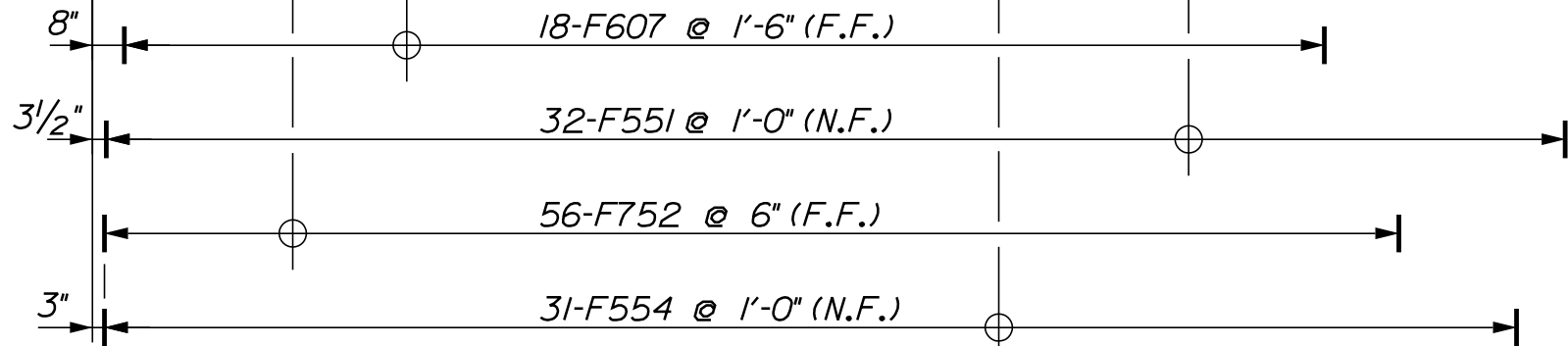


LEGEND
N.F. = Near Face
F.F. = Far Face
E.F. = Each Face

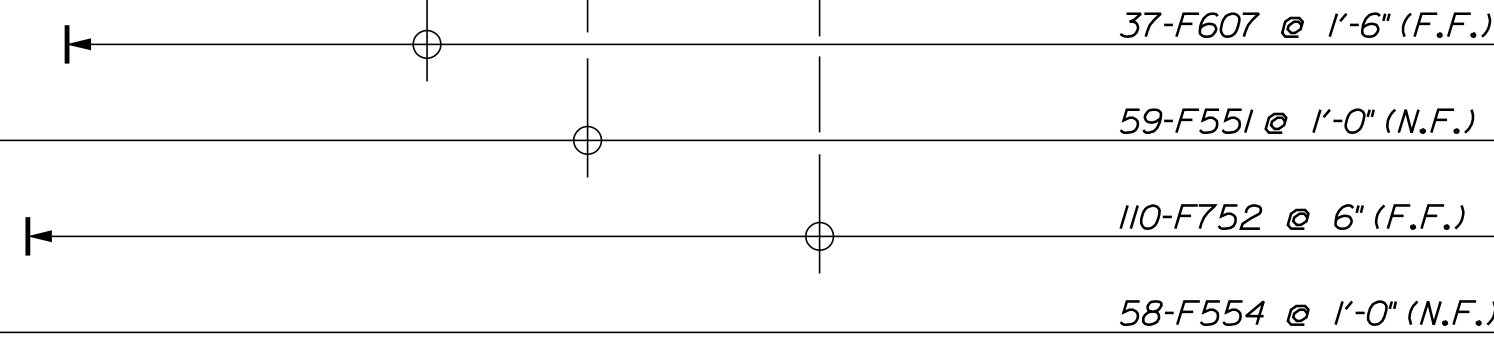
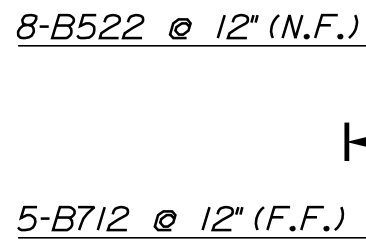
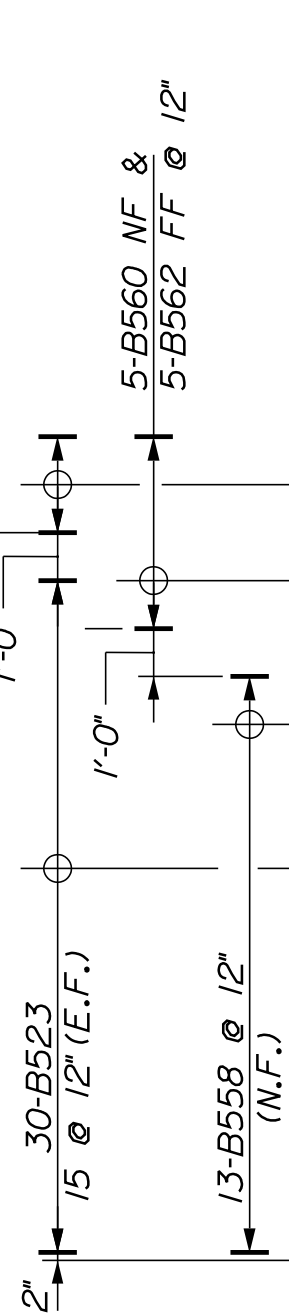
SHEET NUMBER			52			OF 66					
MAIN STREET BRIDGE FALL BROOK SOLON			SOMERSET COUNTY			PROJ. MANAGER ANDREW LATHE			BY DATE		
						DESIGN-DETAILED O. KRAUSS NOV. 2022			CHECKED-REVIEWED RPM OKK NOV. 2022		
						DESIGN2-DETAILED2 NILC AG8 APR. 2022			SIGNATURE		
ABUTMENT NO. 2 REINFORCING ELEVATION			DESIGN3-DETAILED3			P.E. NUMBER			BRIDGE NO. 2504 WIN 022260.01 BRIDGE PLANS		
			REVISIONS 1								
			REVISIONS 2								
			REVISIONS 3								
			REVISIONS 4			DATE					
			FIELD CHANGES								



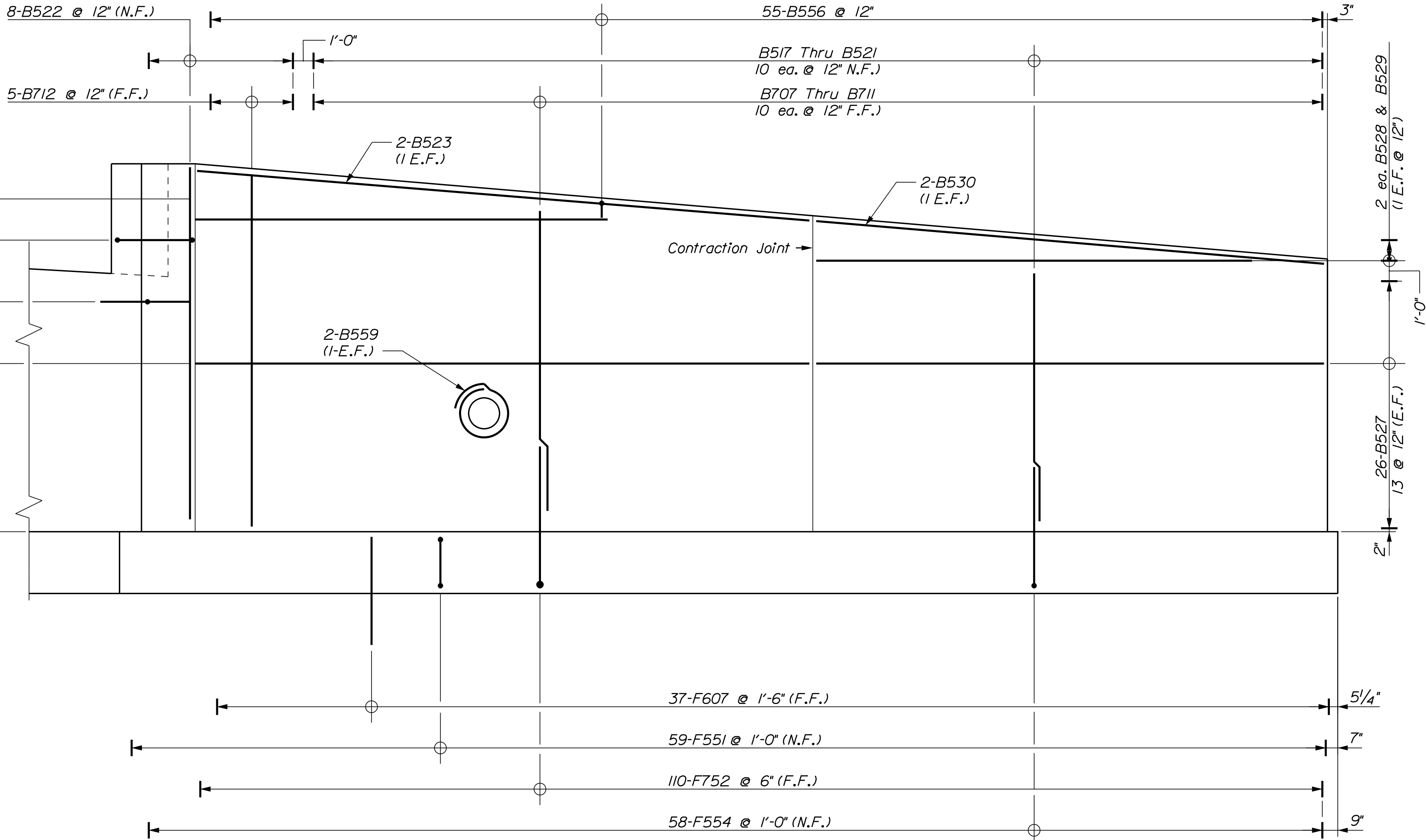
UPSTREAM WING REINFORCING ELEVATION



2 ea. B524 Thru B526
(1 E.F. @ 12")

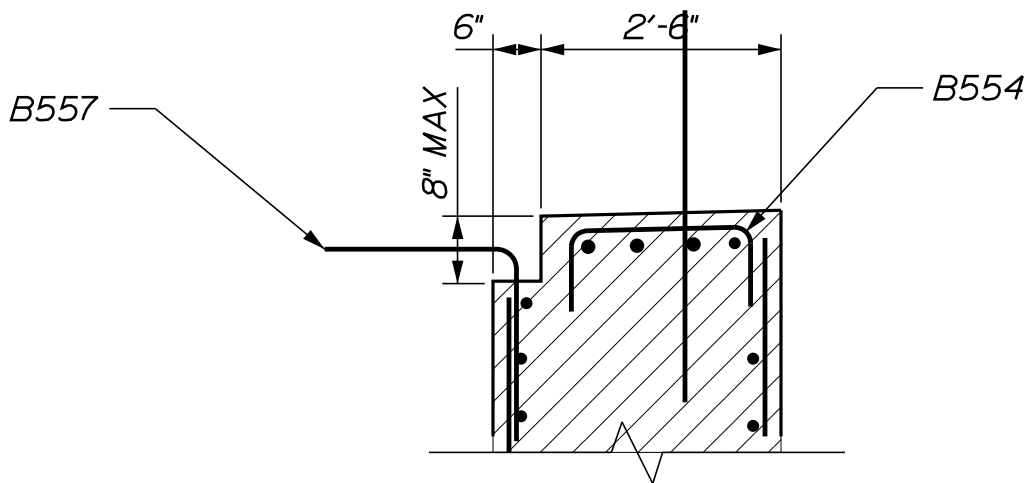


DOWNSTREAM WING REINFORCING ELEVATION

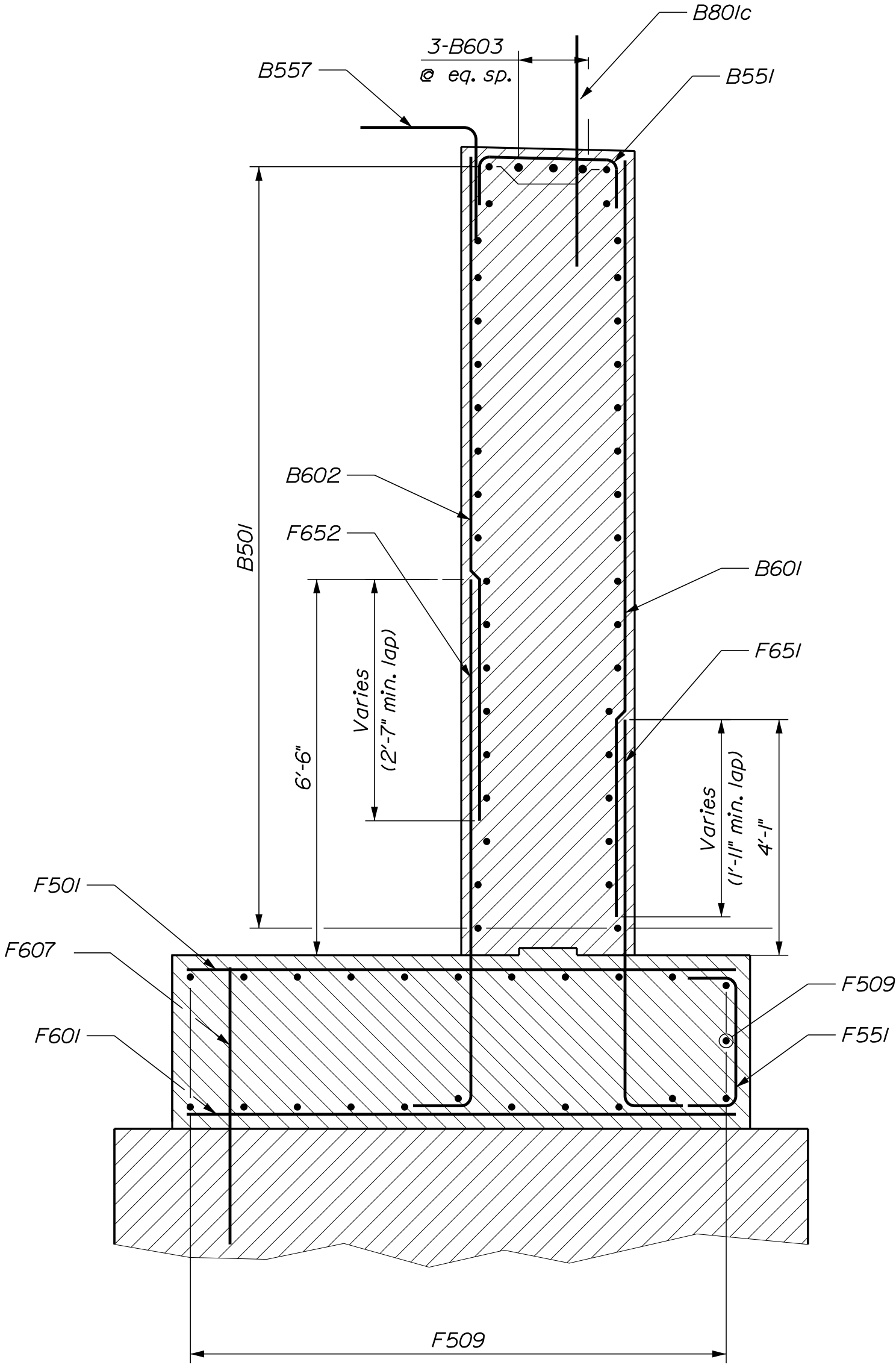


LEGEND
N.F. = Near Face
F.F. = Far Face
E.F. = Each Face

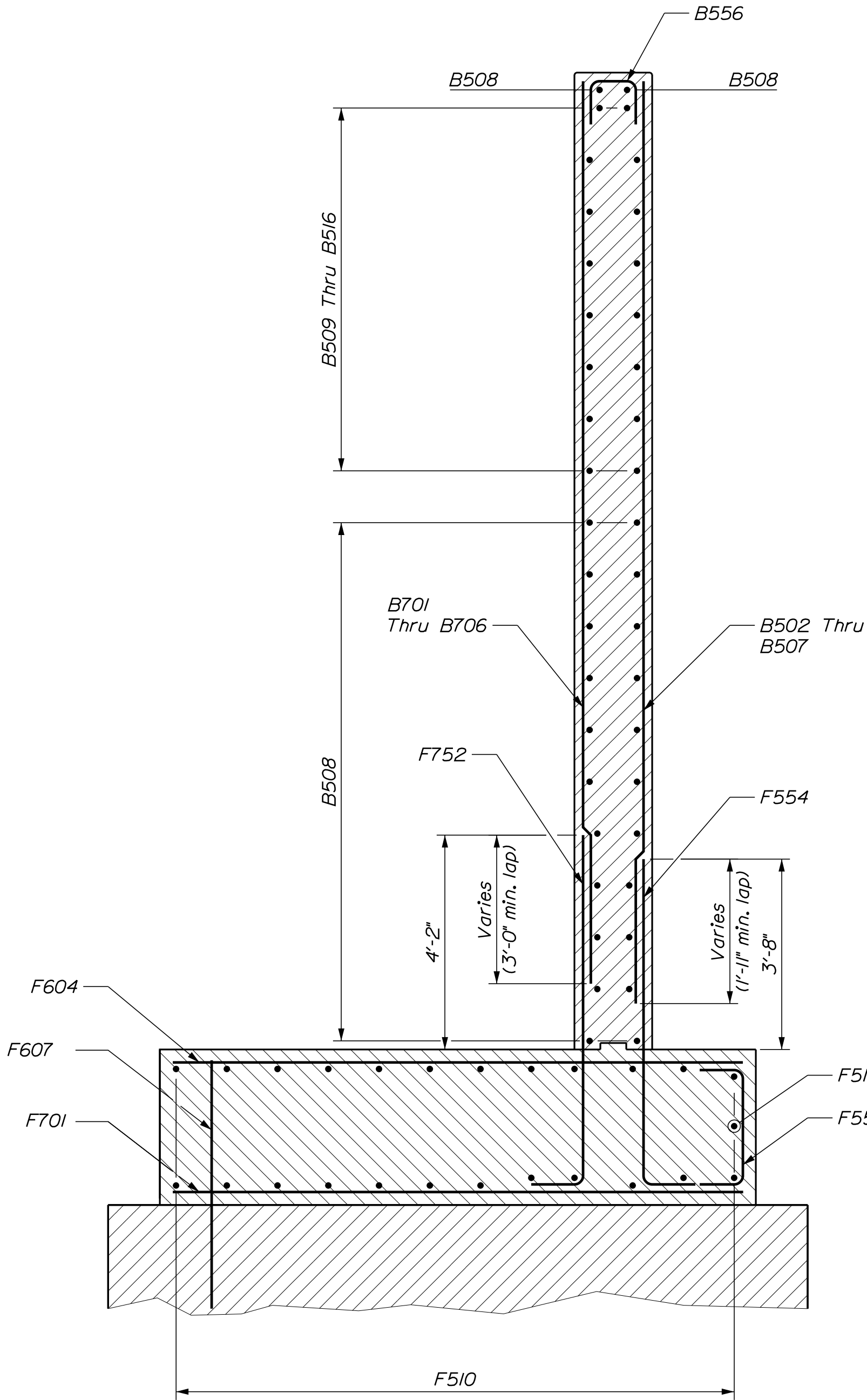
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
2189401		BRIDGE NO. 2504	
WIN		022260.01	
BRIDGE PLANS			
MAIN STREET BRIDGE		SOMERSET COUNTY	
FALL BROOK		ABUTMENT NO. 2 WING	
SOLON		REINFORCING ELEVATION	
SHEET NUMBER		53	
OF 66			
PROJ. MANAGER	ANDREW LATHE	BY	DATE
DESIGN-DETAILED	G. KRALLSS	B. NICHOLS	NOV. 2022
CHECKED-REVIEWED	R.M.	OCK	NOV. 2022
DESIGN-DETAILED	NLC	ACB	APR. 2022
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



BRIDGE SEAT SECTION
AT RECESSED APPROACH SLAB SEAT



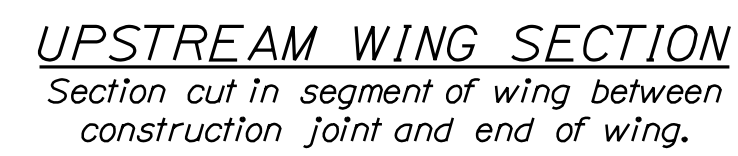
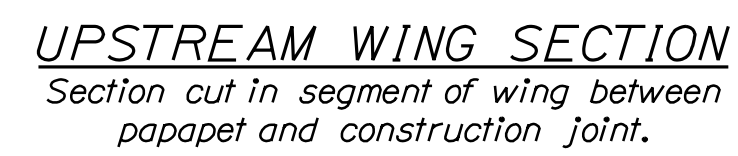
BREASTWALL SECTION



DOWNSTREAM WING SECTION

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

STATE OF MAINE DEPARTMENT OF TRANSPORTATION					DATE	BY	PROJ. MANAGER	ANDREW LATHE	DESIGNED-Detailed	G. KRALLISS	CHECKED-Reviewed	RPM	NOV 2022				
					SIGNATURE	OK	NOV 2022	NOV 2022	DESIGNED-Detailed	NLC	AGB	APR 2022	NOV 2022				
	2189401				P.E. NUMBER				REVISIONS 1		REVISIONS 2		REVISIONS 3				
BRIDGE NO. 2504	WIN	022260.01	DATE						REVISIONS 4		FIELD CHANGES						
MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY														SHEET NUMBER			
54																	
OF 66																	



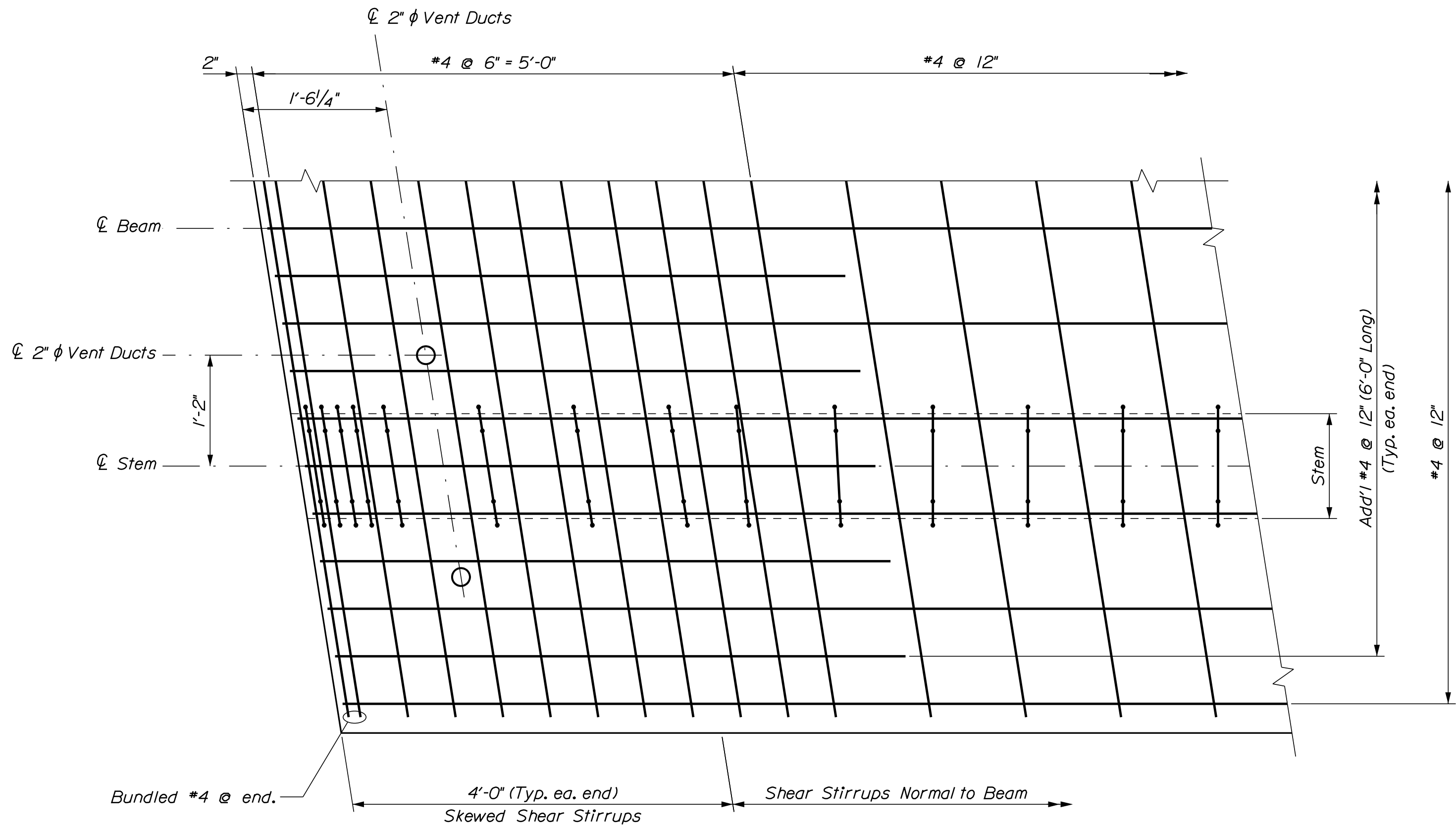
55
OF 66

55 OF 66	SHEET NUMBER	MAIN STREET BRIDGE FALL BROOK SOLON				PROJ. MANAGER	ANDREW LATHE	BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
		SOMERSET COUNTY				DESIGN-DETAILED	O. KRAUSS	B. NICHOLS	NOV. 2022	SIGNATURE	
						CHECKED-REVIEWED	RWI	CGK	NOV. 2022		
						DESIGN2-DETAILED	NLC	AGB	APR. 2022		
						DESIGN3-DETAILED					
		ABUTMENT NO. 2 SECTIONS				REVISIONS 1				P.E. NUMBER	
						REVISIONS 2					
						REVISIONS 3					
						REVISIONS 4					
						FIELD CHANGES				DATE	
								BRIDGE NO. 2504	WIN	BRIDGE PLANS	
								022260.01			

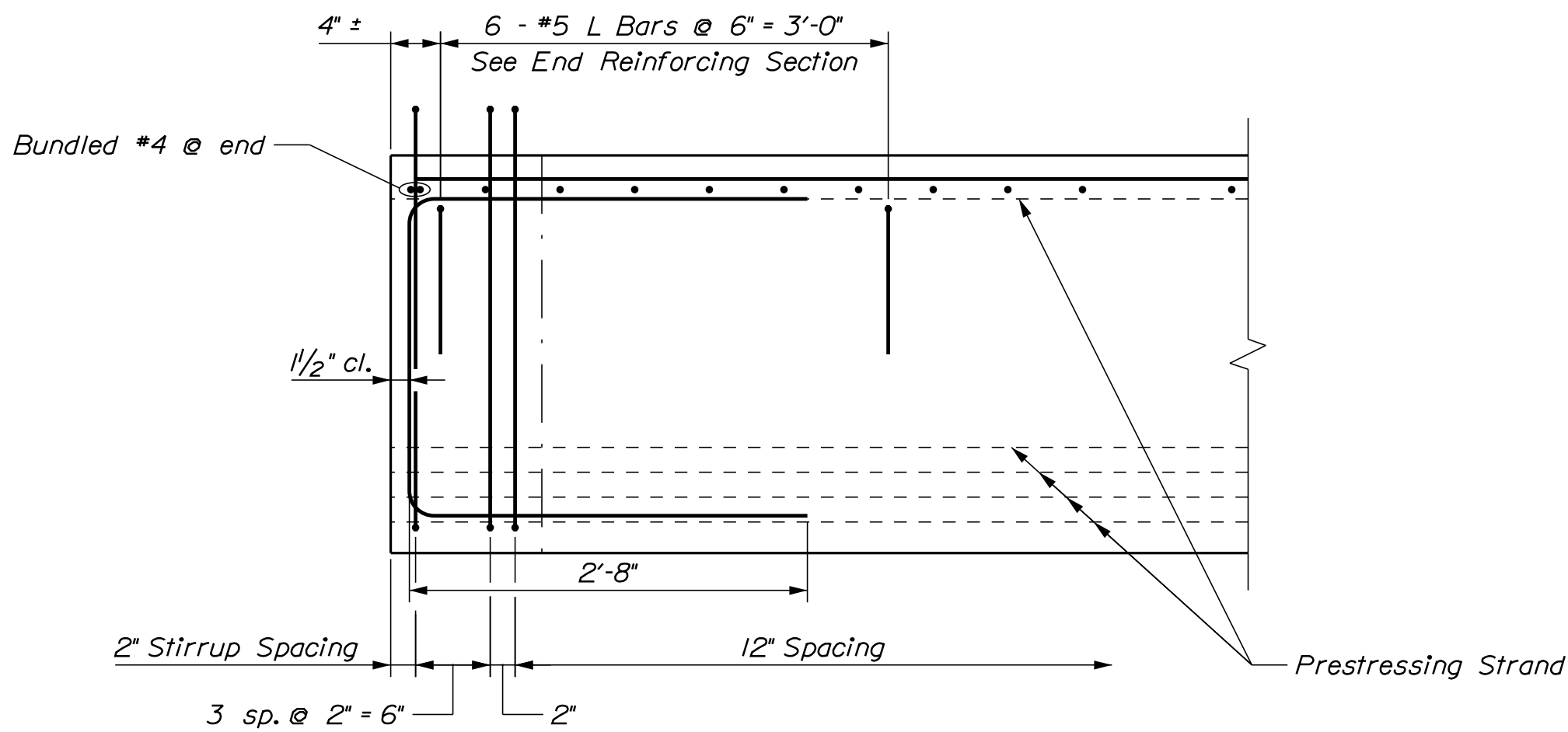


1. *Elastomeric Bearing Pads shall be 2'-6" x 11/4" tall x length of abutment seat.*
2. *The elastomer shall have a shear modulus of 113 psi.*
3. *Elastomeric Bearing Pads shall conform to the requirements of the latest edition of the AASHTO LRFD Bridge Construction Specifications, Section 18.2.*
4. *Elastomeric Bearing Pads will not be paid for directly but will be considered incidental to related Contract Items. No separate payment will be made.*

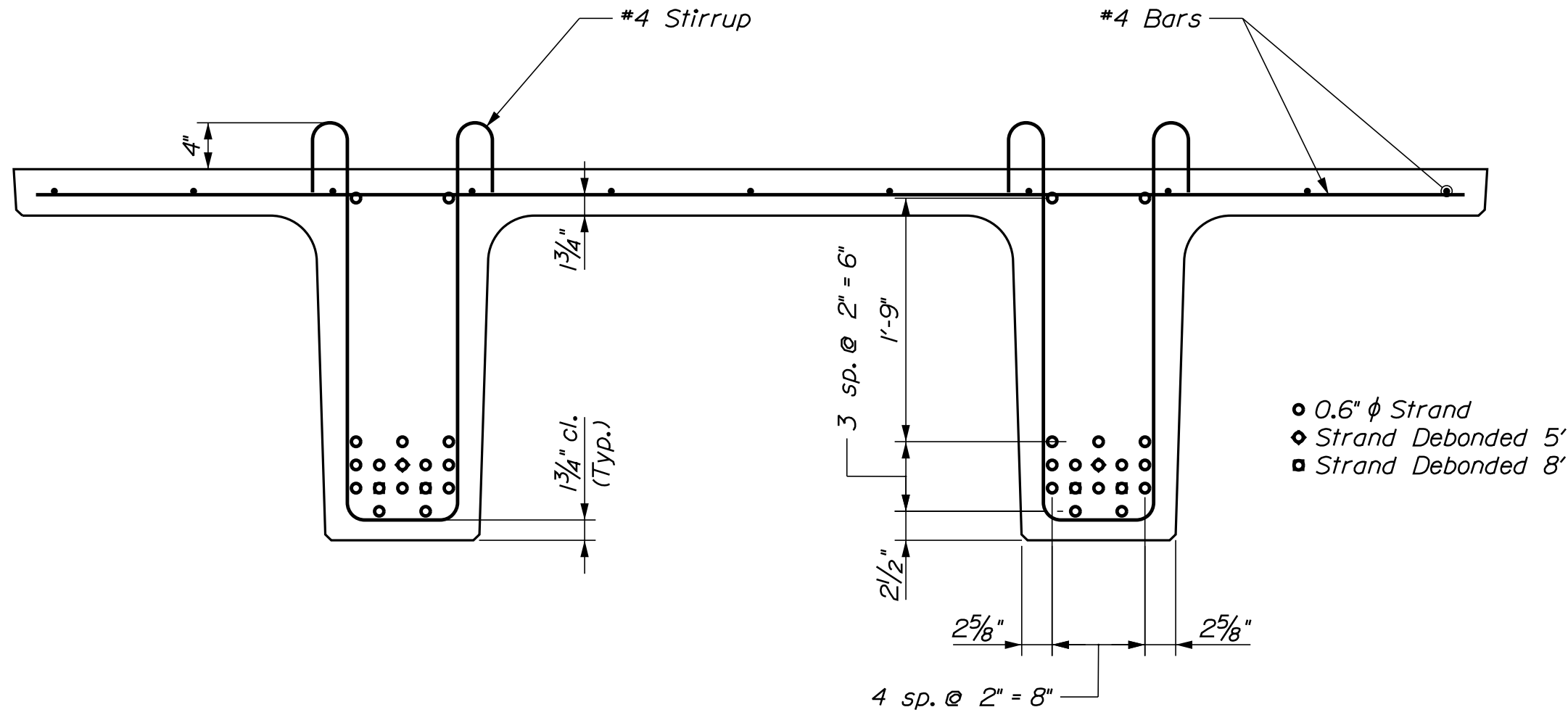
57 OF 66	SHEET NUMBER	MAIN STREET BRIDGE		PROJ. MANAGER	ANDREW LATHE	BY	DATE
		FALL BROOK		DESIGN-DETAILED	O. KRAUSS	B. NICHOLS	NOV. 2022
		SOMERSET COUNTY		CHECKED-REVIEWED	RWJ	CGK	NOV. 2022
		SOLON		DESIGN2-DETAILED2	NLC	AGB	APR. 2022
PRECAST NEXT BEAM		SIGNATURE		P.E. NUMBER		2189401	
FIELD CHANGES		DATE		BRIDGE NO. 2504		WIN	
						022260.01	
						BRIDGE PLANS	



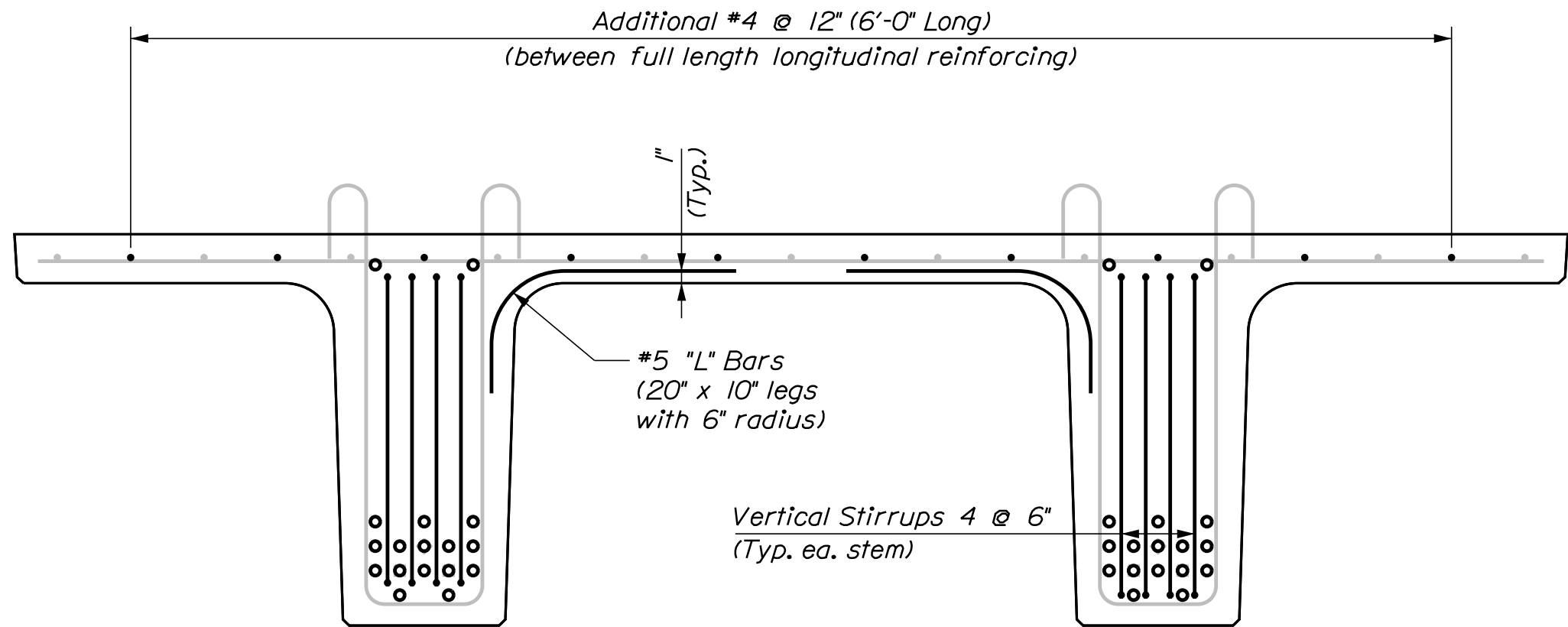
PARTIAL TOP FLANGE REINFORCING PLAN
(Vent duct position can vary 2" from dimensions shown to avoid reinforcing)



LONGITUDINAL SECTION THROUGH STEM

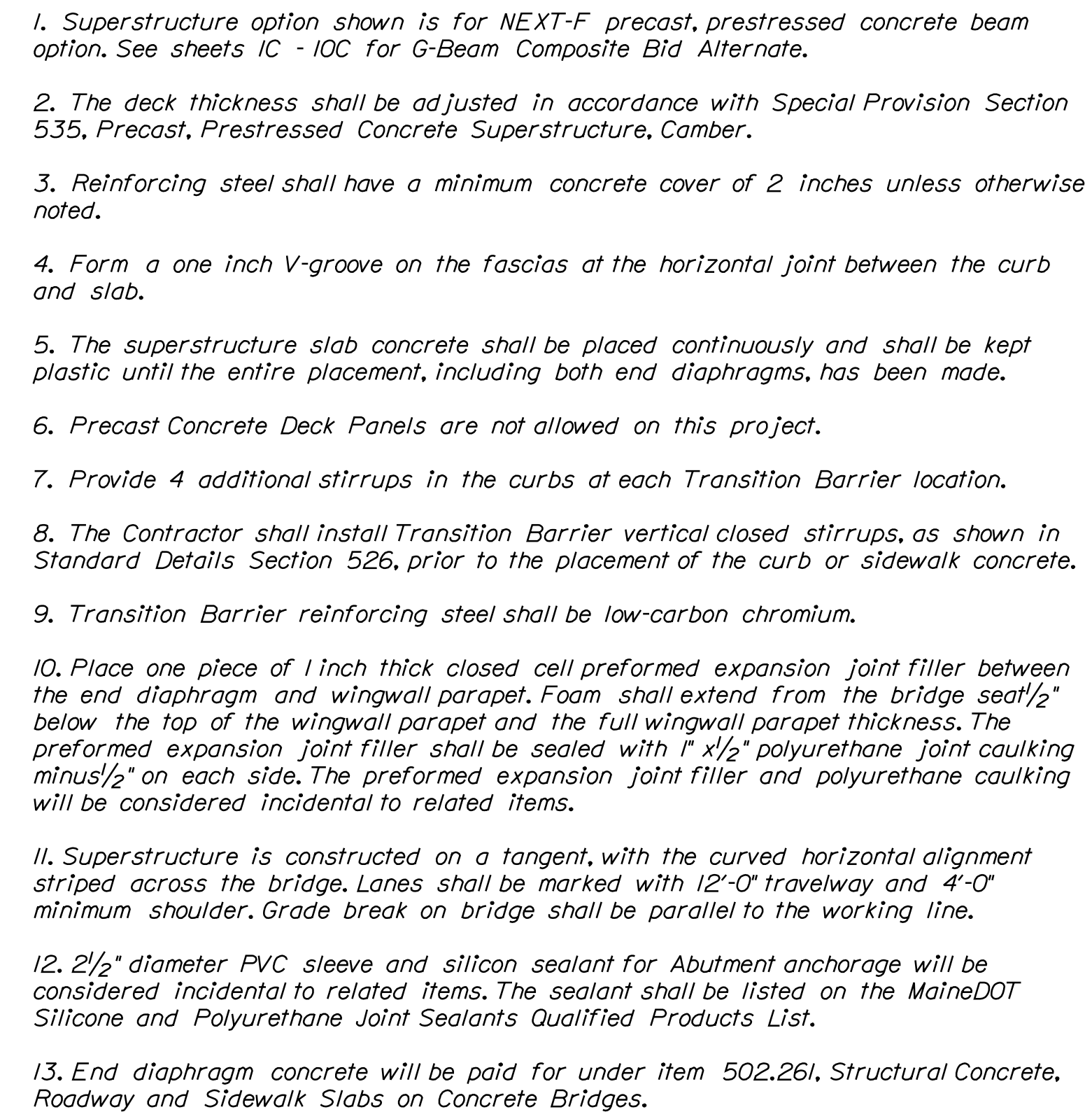


NEXT F BEAM TYPICAL REINFORCING SECTION
Top strands are fully tensioned

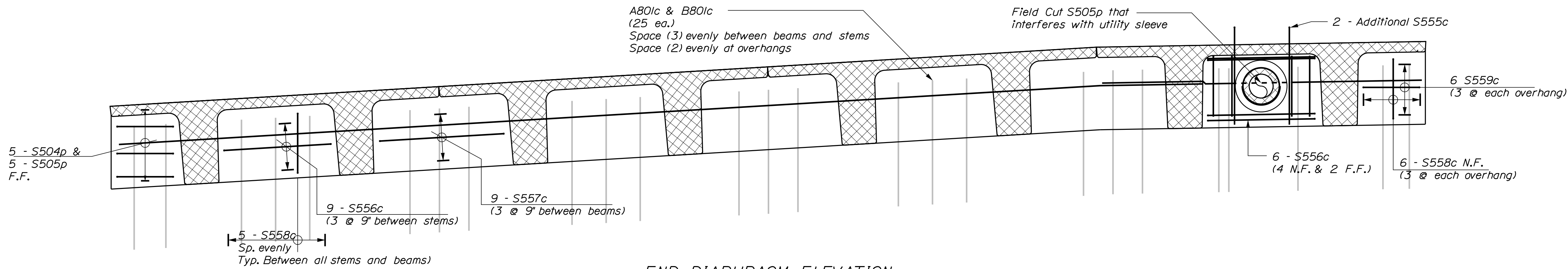


NEXT F BEAM END REINFORCING SECTION

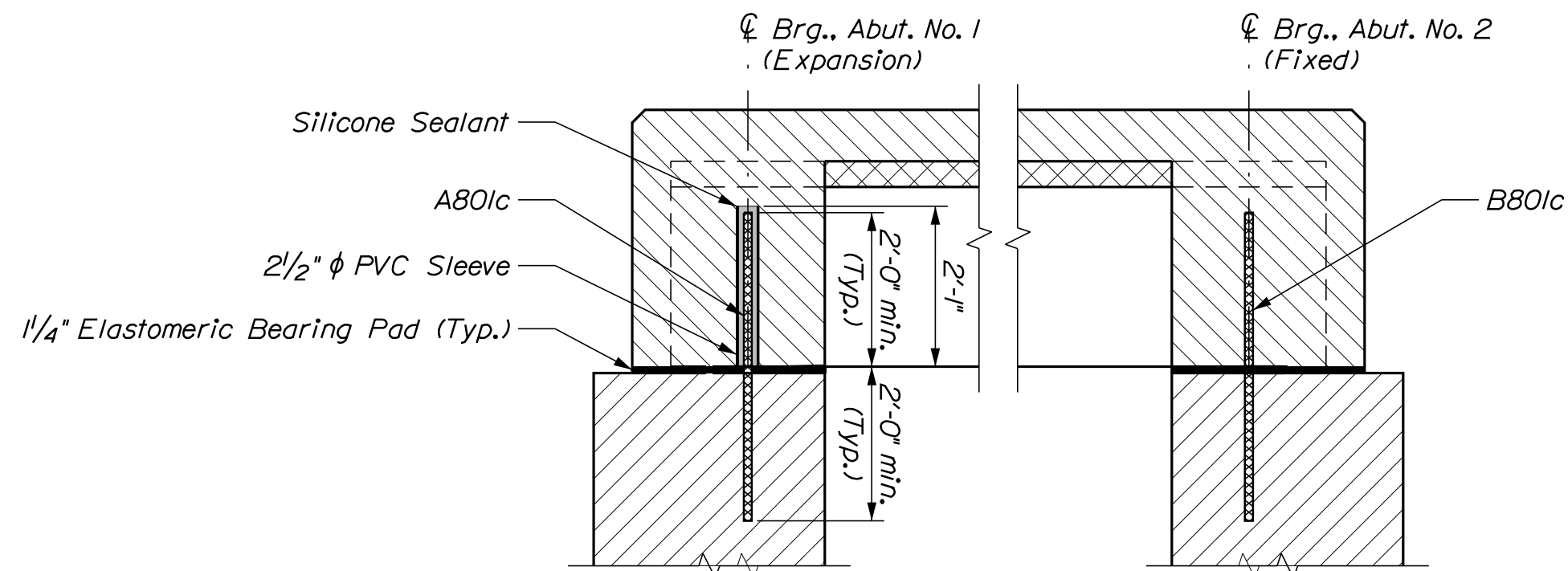
SHEET NUMBER		MAIN STREET BRIDGE FALL BROOK SOLON		SOMERSET COUNTY		PROJ. MANAGER		ANDREW LATHE	BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
						DESIGN-DETAILED	O. KRALUSS	B. NICHOLS	NOV 2022			
PRECAST NEXT BEAM		SOMERSET COUNTY		CHECKED-REVIEWED		RPM	OK	NOV 2022	SIGNATURE		2189401	
				DESIGN2-DETAILED2		NLC	AGB	APR 2022	P.E. NUMBER			
				DESIGN3-DETAILED3				DATE				
				REVISIONS 1								
				REVISIONS 2							BRIDGE NO. 2504 WIN 022260.01 BRIDGE PLANS	
				REVISIONS 3								
				REVISIONS 4								
				FIELD CHANGES								
58												
OF 66												



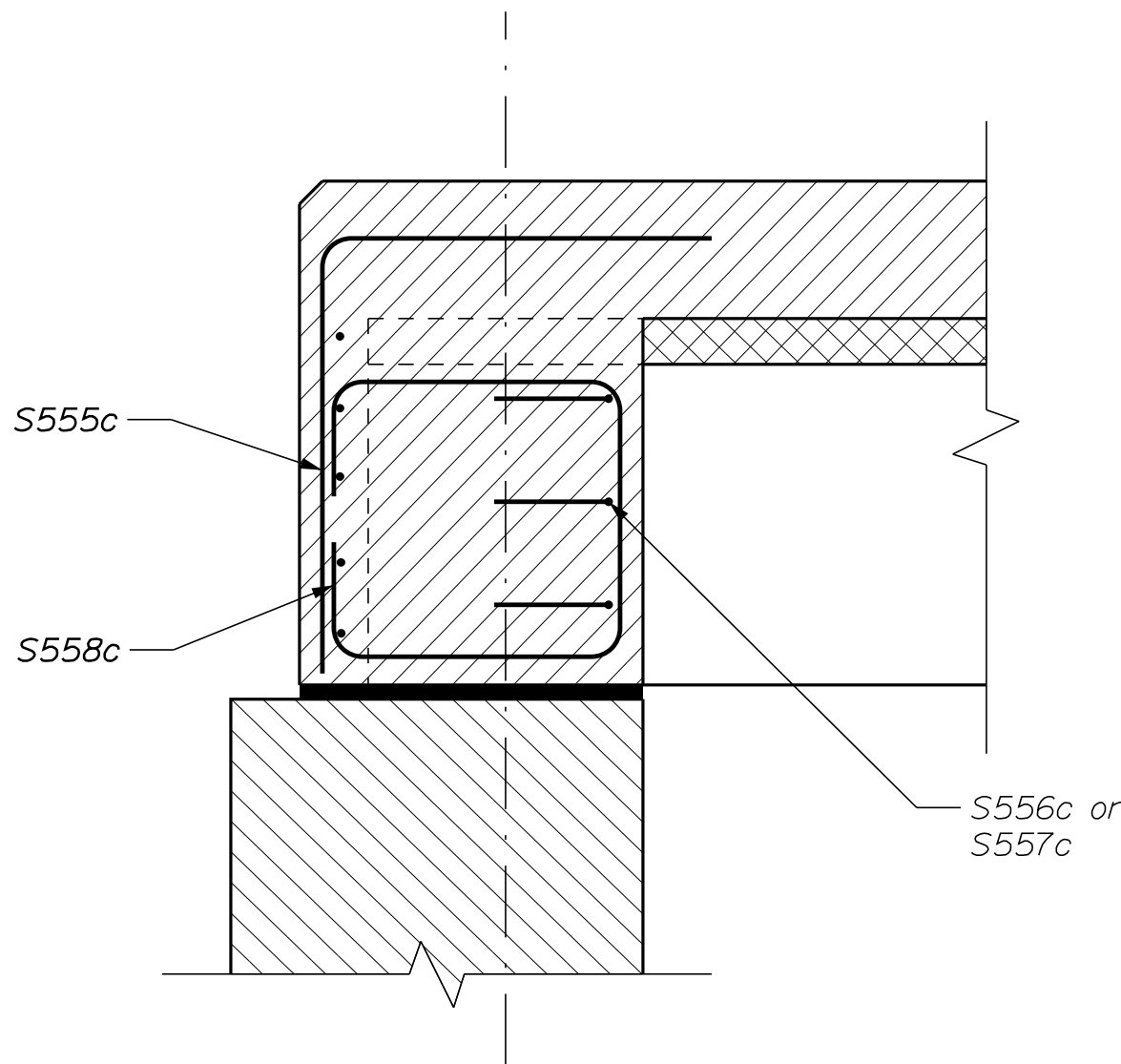
TYPICAL SUPERSTRUCTURE SECTION
NEXT-F Beam Bid Alternate



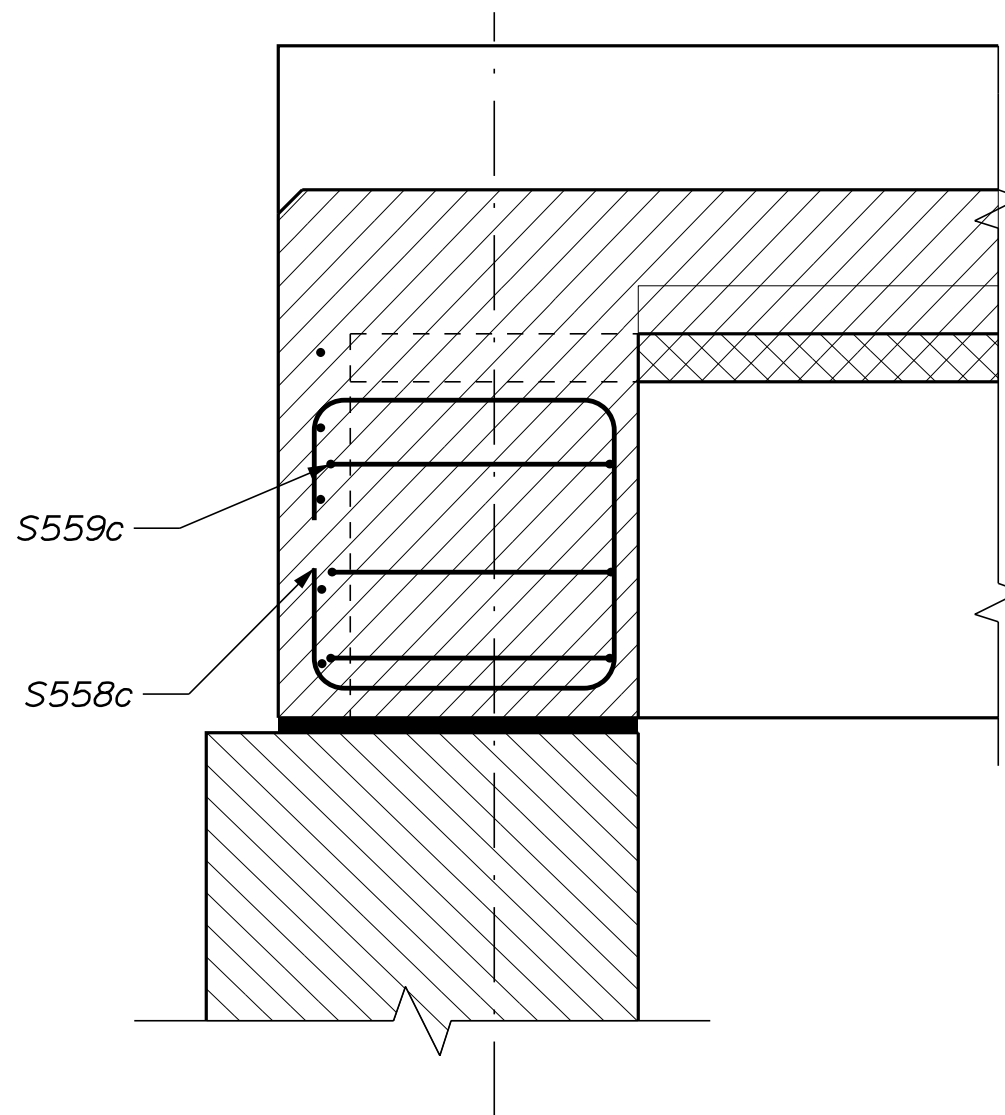
END DIAPHRAGM ELEVATION
Abut No. 1 Shown, Abutment No. 2 Opposite Hand



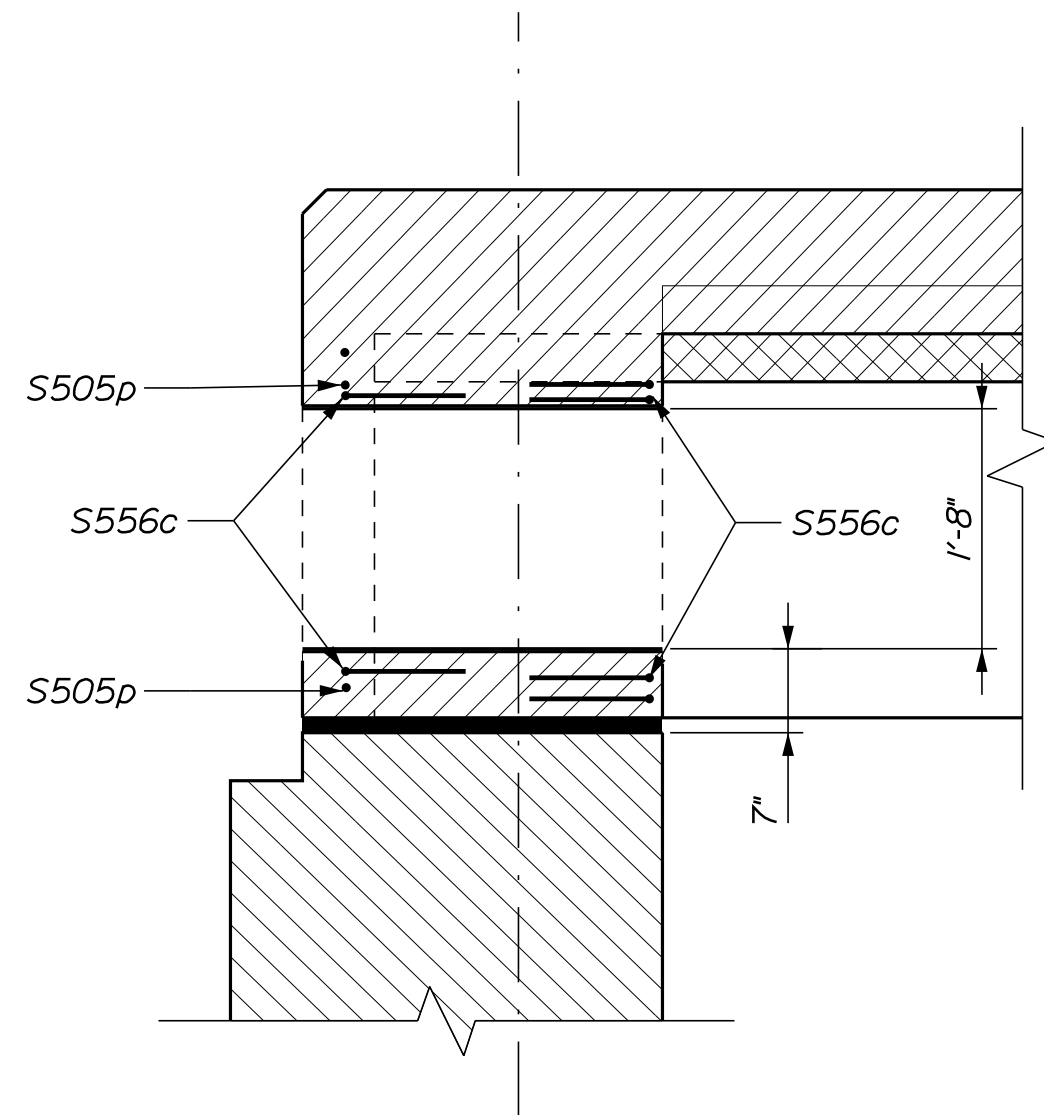
SUPERSTRUCTURE ANCHORAGE DETAIL



END DIAPHRAGM SECTION AT ROADWAY



END DIAPHRAGM SECTION
AT CURB/SIDEWALK

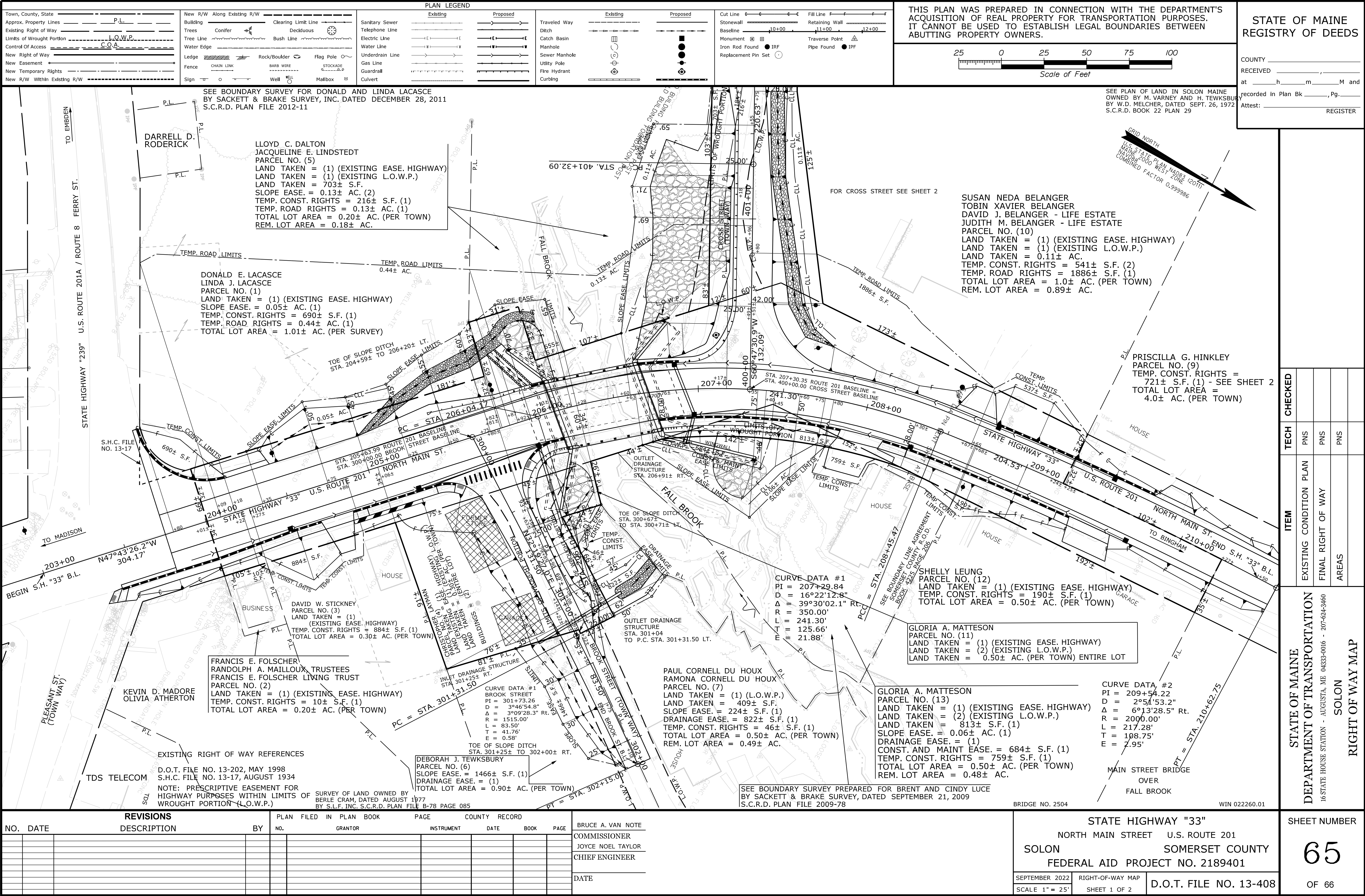


END DIAPHRAGM SECTION AT
WATER MAIN PENETRATION

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

STATE OF MAINE DEPARTMENT OF TRANSPORTATION		2189401		BRIDGE NO. 2504		WIN 022260.01		BRIDGE PLANS	
MAIN STREET BRIDGE FALL BROOK		SOMERSET COUNTY		SHEET NUMBER		61		OF 66	
SOLON		SUPERSTRUCTURE END DIAPHRAGM		DESIGNED BY B. NICHOLS		CHECKED BY O. KRALL		DATE NOV 2022	
				BY O. KRALL		DATE NOV 2022		SIGNATURE	
				BY AGB		DATE APR 2022		P.E. NUMBER	
				REVISIONS 1		REVISIONS 2		REVISIONS 3	
				REVISIONS 4		FIELD CHANGES		DATE	

Filename: ...\\00\\ROW\\MSTA001_RWP\\PLAN1.dgn Division: ROW Username: Perry, Silverman Date: 12/7/2022



Town, County, State
Approx. Property Lines
Existing Right of Way
Limits of Wrought Portion
Control Of Access
New Right of Way
New Easement
New Temporary Rights
New R/W Within Existing R/W

P.L.

L.O.W.P.
C.O.A.

New R/W Along Existing R/W
Building
Trees
Tree Line
Water Edge
Ledge
Fence
Sign

Along Existing R/W
Conifer
Deciduous
Bush Line
Rock/Boulder
Barb Wire
Stockade
Well

Clearing Limit Line
Flag Pole
Stoekade
Mailbox

Sanitary Sewer
Telephone Line
Electric Line
Water Line
Underdrain Line
Gas Line
Guardrail
Culvert

PLAN LEGEND
Existing
Proposed

Traveled Way
Ditch
Catch Basin
Manhole
Sewer Manhole
Utility Pole
Fire Hydrant
Curbing

Cut Line
Stonewall
Baseline
Monument
Iron Rod Found
Replacement Pin Set

Fill Line
Retaining Wall
Traverse Point
Pipe Found

Scale of Feet
25 0 25 50 75 100

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

COUNTY _____
RECEIVED _____,
at ____h ____m ____M and
recorded in Plan Bk _____,Pg._____
Attest: _____
REGISTER

EASE: HIGHWAY
L.O.W.P.)
INDA LACASSE
DECEMBER 28, 2011

LLOYD C. DALTON
JACQUELINE E. LINDSTEDT
PARCEL NO. (5)
LAND TAKEN = (1) (EXISTING EASE. HIGHWAY)
LAND TAKEN = (1) (EXISTING L.O.W.P.)
LAND TAKEN = 703± S.F.
SLOPE EASE. = 0.13± AC. (2)
TEMP. CONST. RIGHTS = 216± S.F. (1)
TEMP. ROAD RIGHTS = 0.13± AC. (1)
TOTAL LOT AREA = 0.20± AC. (PER TOWN)
REM. LOT AREA = 0.18± AC.

CURVE DATA #1
PI = 402+42.41
D = 0°34'22.6"
Δ = 1°15'50.8" Lt.
R = 10000.00'
L = 220.63'
T = 110.32'
E = 0.61'

DAVID J. BELANGER
JUDITH M. BELANGER (PER TAX RECORDS)
PARCEL NO. (8)
TEMP. CONST. RIGHTS = 159± S.F. (1)
TOTAL LOT AREA = 1.0± AC. (PER TOWN)

PRISCILLA G. HINKLEY
PARCEL NO. (9)
TEMP. CONST. RIGHTS = 721± S.F. (1)
TOTAL LOT AREA = 4.0± AC. (PER TOWN)

SUSAN NEDA BELANGER
TOBIN XAVIER BELANGER
DAVID J. BELANGER - LIFE ESTATE
JUDITH M. BELANGER - LIFE ESTATE
PARCEL NO. (10)
LAND TAKEN = (1) (EXISTING EASE. HIGHWAY)
LAND TAKEN = (1) (EXISTING L.O.W.P.)
LAND TAKEN = 0.11± AC.
TEMP. CONST. RIGHTS = 541± S.F. (2)
TEMP. ROAD RIGHTS = 1886± S.F. (1)
TOTAL LOT AREA = 1.0± AC. (PER TOWN)
REM. LOT AREA = 0.89± AC.

SEE PLAN OF LAND IN SOLON MAINE
OWNED BY M. VARNEY AND H. TEWKSBURY
BY W.D. MELCHER, DATED SEPT. 26, 1972
S.C.R.D. BOOK 22 PLAN 29

EXISTING RIGHT OF WAY REFERENCES
D.O.T. FILE NO. 13-202, MAY 1998
S.H.C. FILE NO. 13-17, AUGUST 1934

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

MAIN STREET BRIDGE
OVER
FALL BROOK

BRIDGE NO. 2504 WIN 022260.01

REVISIONS
NO. DATE DESCRIPTION BY

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

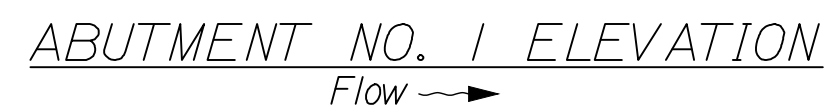
BRUCE A. VAN NOTE
COMMISSIONER
JOYCE NOEL TAYLOR
CHIEF ENGINEER
DATE

STATE HIGHWAY "33"
NORTH MAIN STREET U.S. ROUTE 201
SOLON SOMERSET COUNTY
FEDERAL AID PROJECT NO. 2189401

SEPTEMBER 2022 RIGHT-OF-WAY MAP
SCALE 1" = 25' SHEET 2 OF 2

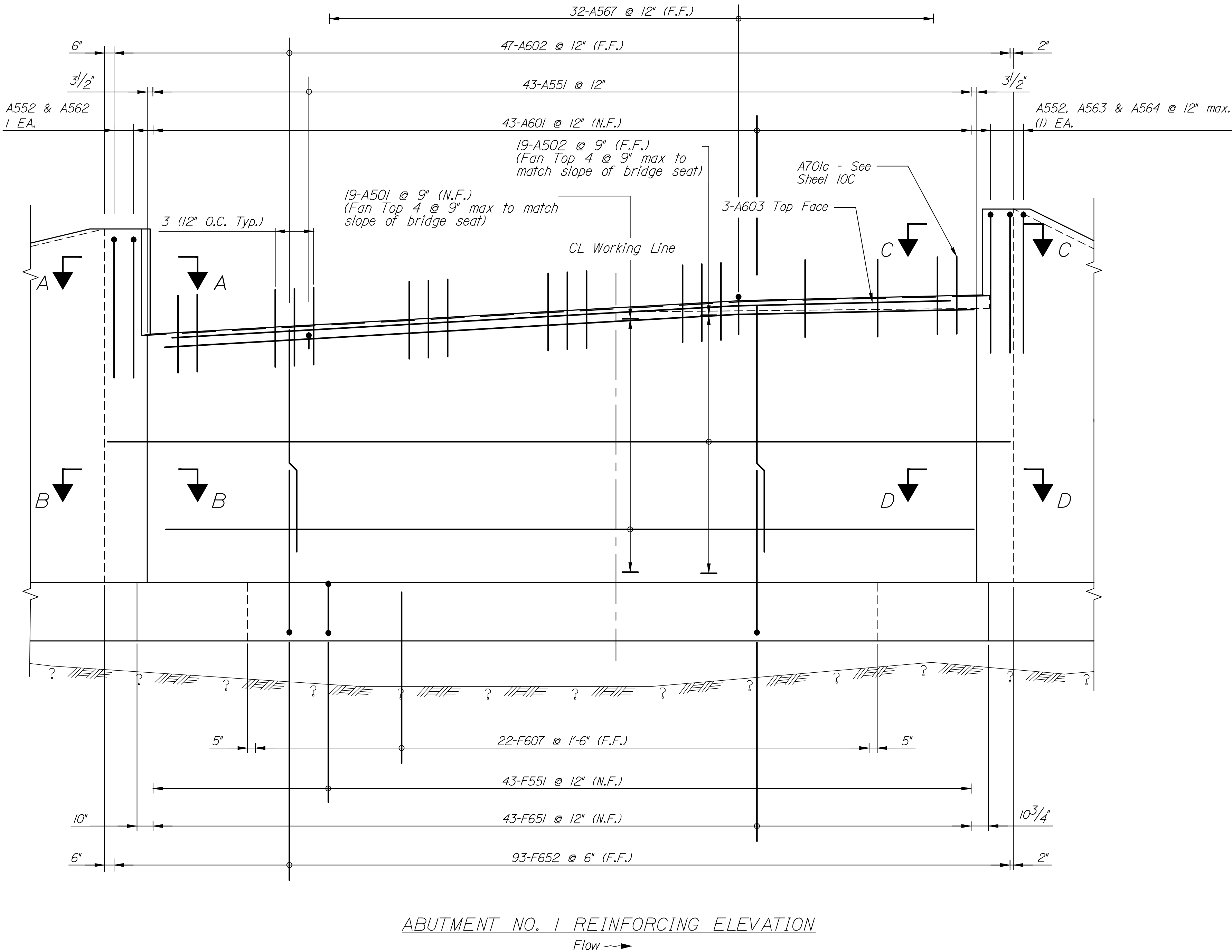
D.O.T. FILE NO. 13-408

SHEET NUMBER
66
OF 66



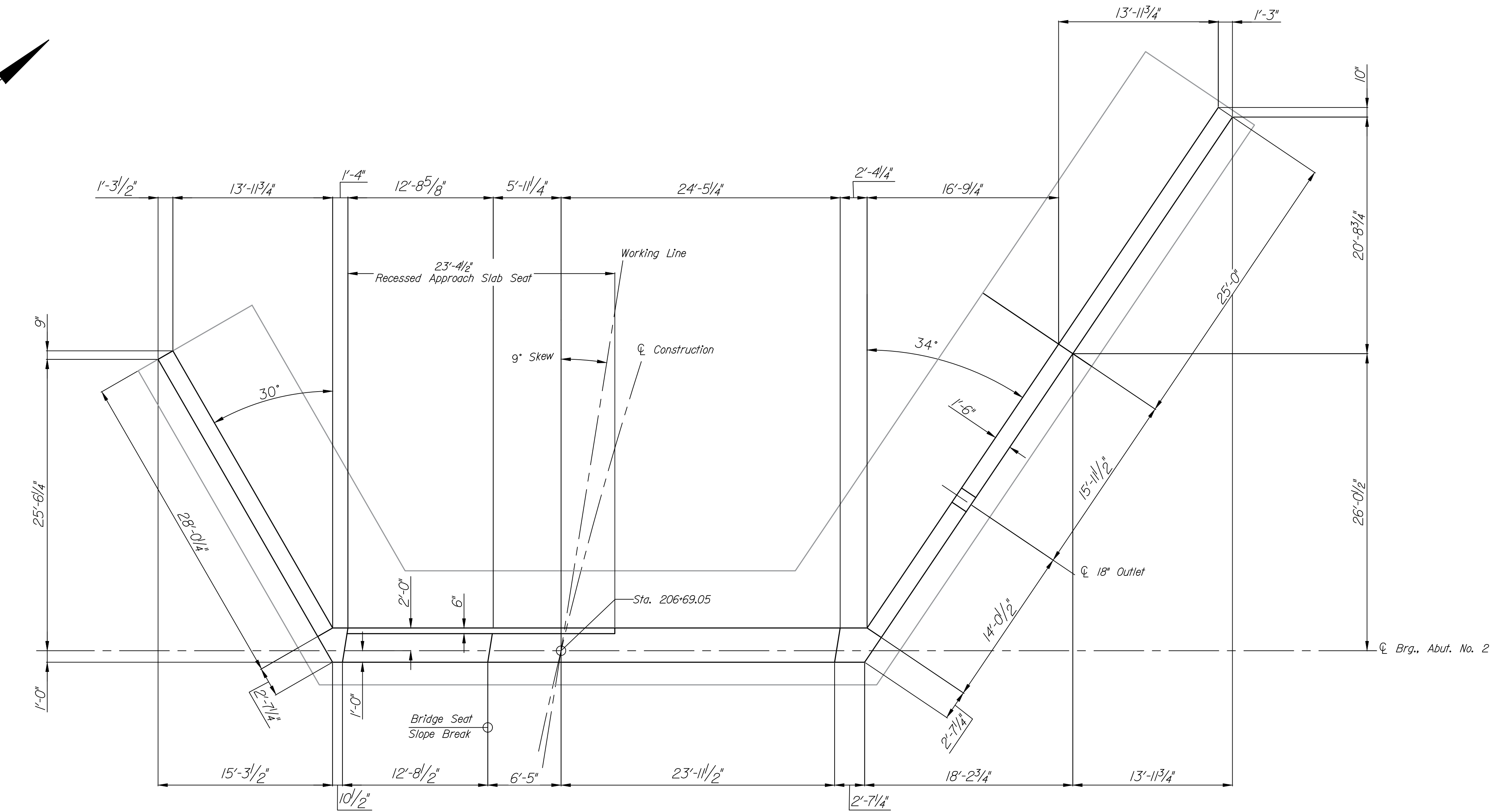
LEGEND
N.F. = Near Face
F.F. = Far Face
E.F. = Each Face

SHEET NUMBER 1C OF 10C		MAIN STREET BRIDGE				PROJ. MANAGER		ANDREW	LATHE	BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION							
		FALL BROOK				DESIGN-DETAILED		I. Kersington		C. Lee	10/14/22								
		SOMERSET COUNTY				CHECKED-REVIEWED		P. Chen		SIGNATURE									
						DESIGN2-DETAILED2													
						DESIGN3-DETAILED3				P.E. NUMBER									
						REVISIONS 1													
		ABUTMENT NO.1 PLAN & ELEVATION				REVISIONS 2								DATE					
						REVISIONS 3													
						REVISIONS 4													
						FIELD CHANGES													
												BRIDGE NO. 2504		WIN		022260.01		BRIDGE PLANS	

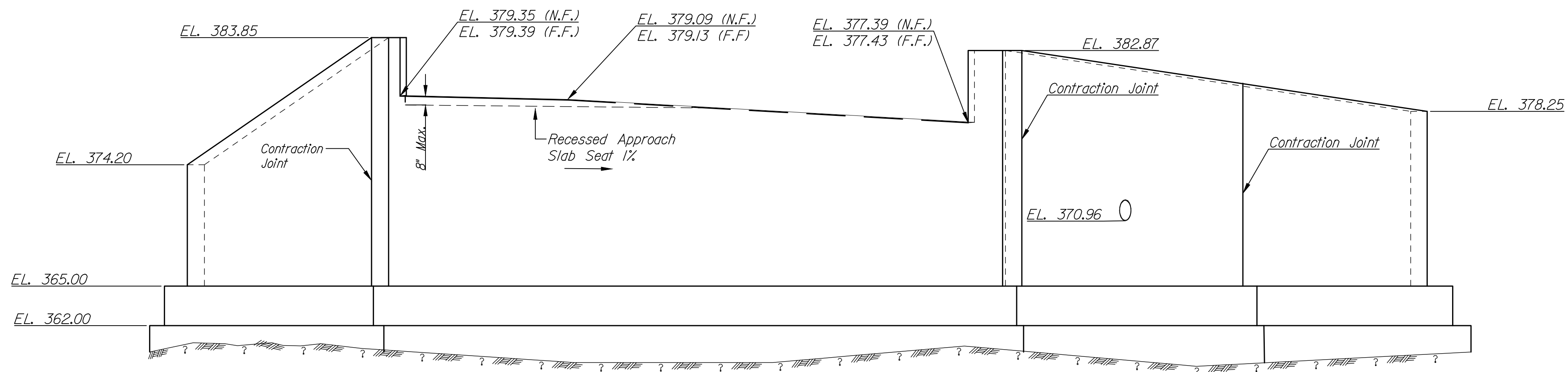


LEGEND
N.F. = Near Face
F.F. = Far Face
E.F. = Each Face

STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
SOLON		SOMERSET COUNTY	
MAIN STREET BRIDGE		FALL BROOK	
ABUTMENT NO. 1		REINFORCING ELEVATION	
SHEET NUMBER		2189401	
2C		WIN	
OF 10C		022260.01	
BRIDGE NO. 2504		BRIDGE PLANS	
PROJ. MANAGER	ANDREW LAYNE	BY	DATE
DESIGN-DETAILED	I. Kenerson	C. Lee	10/14/22
CHECKED-REVIEWED	P. Chen	K. Sweeney	11/09/22
DESIGN-DETAILED	DATE	SIGNATURE	DATE
REVISIONS 1	DATE	P.E. NUMBER	DATE
REVISIONS 2	DATE		
REVISIONS 3	DATE		
REVISIONS 4	DATE		
FIELD CHANGES	DATE		

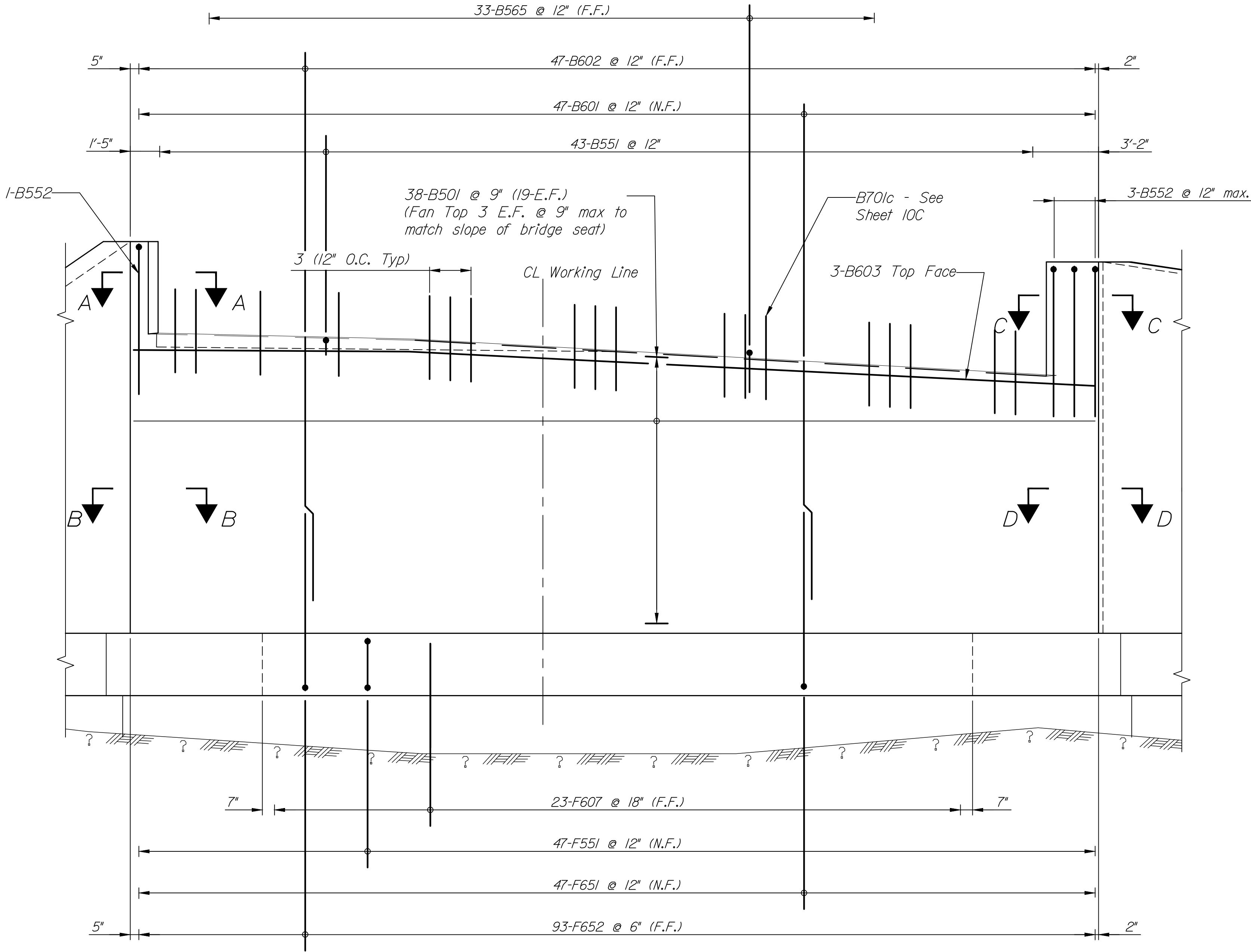


ABUTMENT NO. 2 PLAN
← Flow



ABUTMENT NO. 2 ELEVATION
← Flow

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



ABUTMENT NO. 2 REINFORCING ELEVATION
← Flow

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

STATE OF MAINE	
DEPARTMENT OF TRANSPORTATION	
2189401	
BRIDGE NO. 2504	WIN 022260.01
BRIDGE PLANS	

PROJ. MANAGER	ANDREW LAYNE	BY	DATE
DESIGN-DETAILED	I. Kenerson	C. Lee	10/14/22
CHECKED-REVIEWED	P. Chen	K. Sweeney	11/09/22
DESIGN-DETAILED2			SIGNATURE
DESIGN-DETAILED3			P.E. NUMBER
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

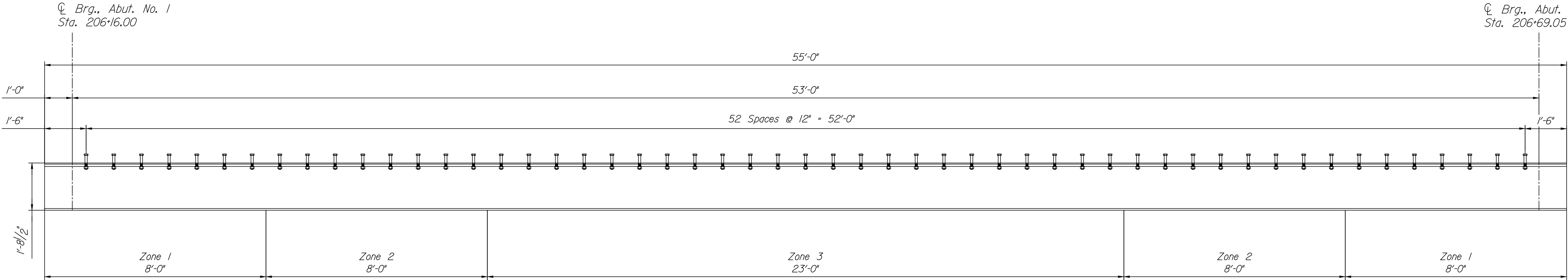
MAIN STREET BRIDGE	
FALL BROOK	
SOMERSET COUNTY	
SOLON	ABUTMENT NO. 2
REINFORCING ELEVATION	

SHEET NUMBER
4C
OF 10C

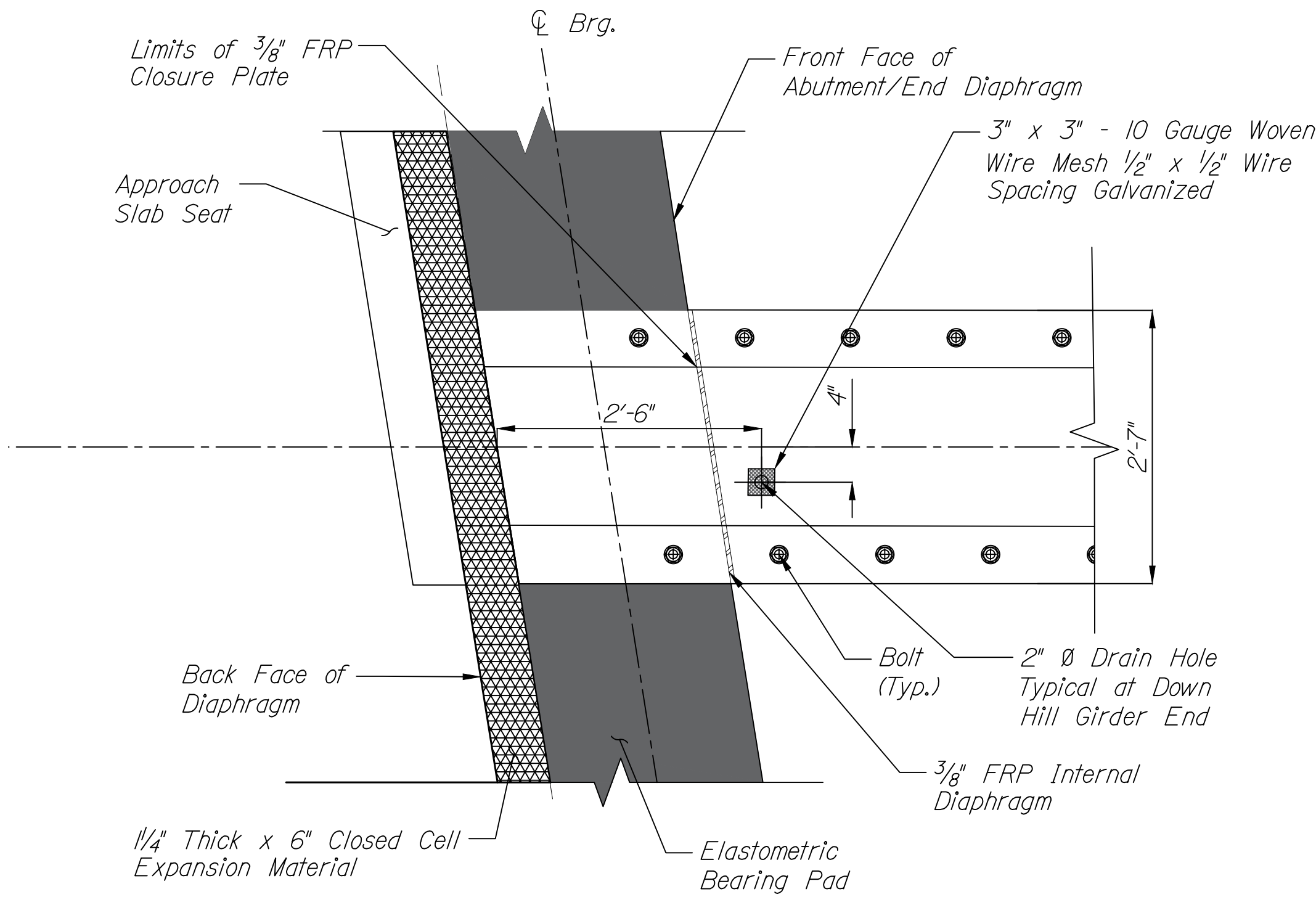
Date: 12/17/2022

Username:

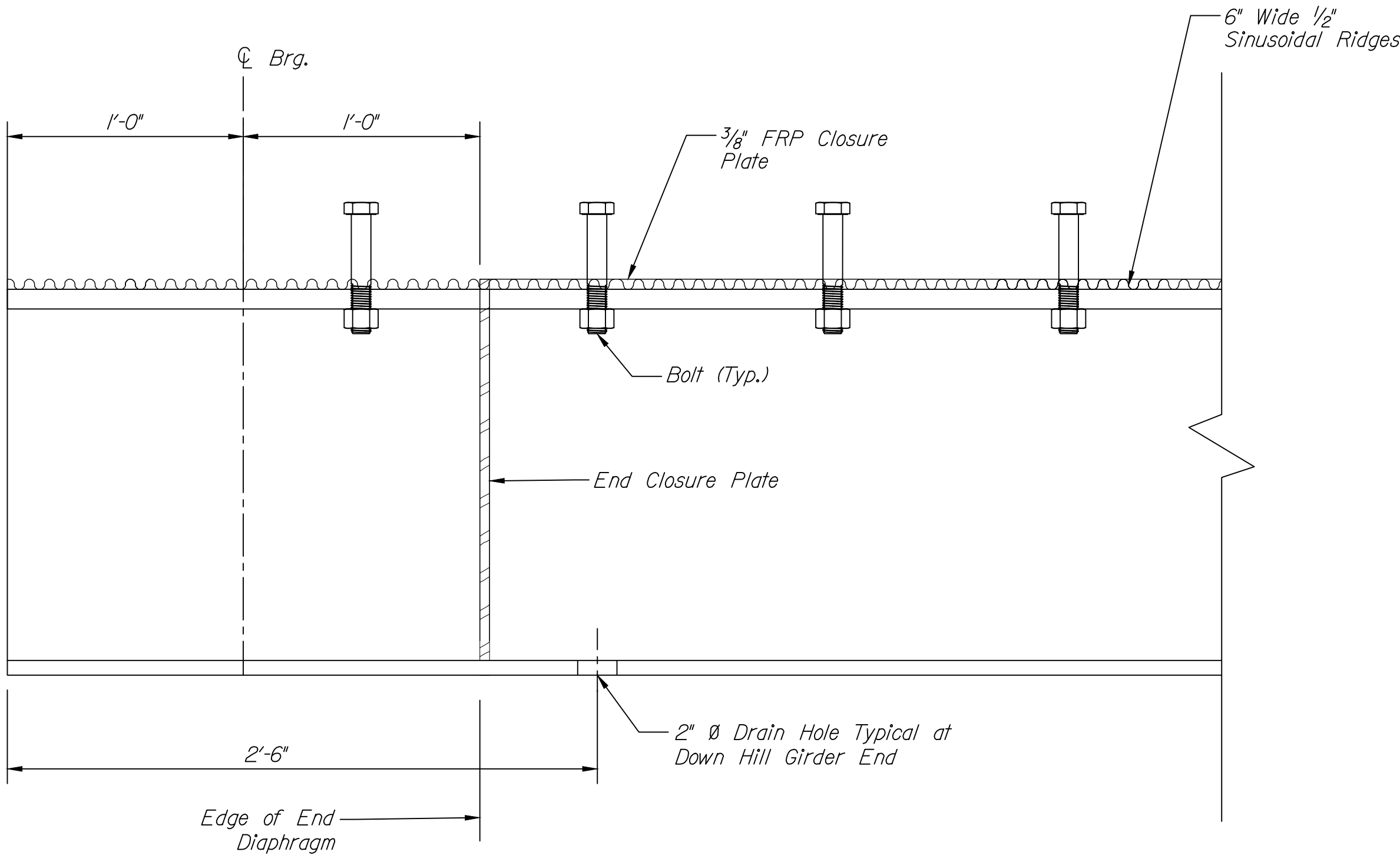
Filename:AIT Fall Brook Preliminary Drawings (9-28-2022).dwg Division: BRIDGE



GIRDER ELEVATION AND BOLT LAYOUT
(106 Bolts Per Beam, 636 Bolts Total)



PLAN - GIRDER END DETAIL



ELEVATION - GIRDER END DETAIL

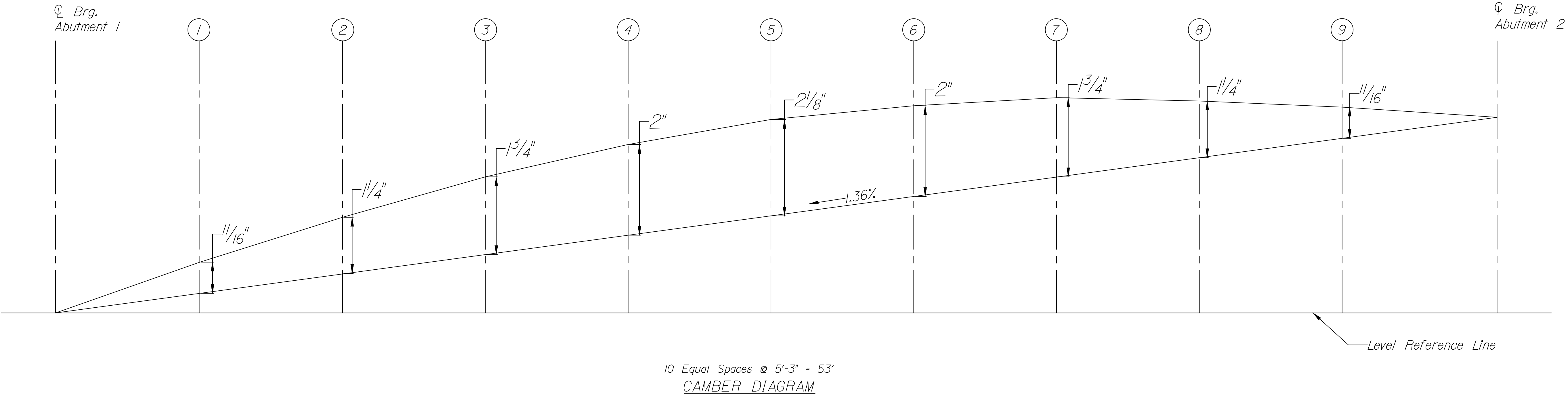
SHEET NUMBER 5C OF 10C			MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY			PROJ. MANAGER	ANDREW LATHE	BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION		
			SOLON			DESIGN-DETAILED	T. Kenerson	C. Lee	10/14/22			
CT GIRDER DETAILS						CHECKED-REVIEWED	P. Chen	K. Sweeney	11/09/22	SIGNATURE		
						DESIGN2-DETAILED2			----			----
						DESIGN3-DETAILED3			----			----
						REVISIONS 1			----			----
						REVISIONS 2			----			----
						REVISIONS 3	----	----	DATE			
						REVISIONS 4	----	----				
						FIELD CHANGES	----	----				
									2189401			
									WIN			
									022260.01			
									BRIDGE NO. 2504			
									BRIDGE PLANS			



FRAMING PLAN

Plan view of a bridge deck showing construction details for a closure pour. The deck is 42'-5" wide. Two 4'-0" wide closure pours are shown, separated by a 10'-2" gap. The top pour is labeled "Cast-in-Place Closure Pour" and "99° (to Working Line) (Typ.)". The bottom pour is also labeled "Cast-in-Place Closure Pour". The deck is divided into sections by horizontal lines labeled G1 through G6. Dimensions are given in feet and inches. A north arrow is in the top left corner. Stationing is given as Sta. 206+16.00 and Sta. 206+69.05.

SHEET NUMBER		6C				OF 10C	
MAIN STREET BRIDGE FALL BROOK SOLON SOMERSET COUNTY FRAMING PLAN		PROJ. MANAGER	ANDREW LATHÉ	BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
		DESIGN-DETAILED	I. Kengerson	C. Lee	10/14/22		
		CHECKED-REVIEWED	P. Chen	K. Sweeney	11/09/22		
		SIGNATURE					
		P.E. NUMBER		2189401			
		REVISIONS 1				BRIDGE NO. 2504 WIN 022260.01 BRIDGE PLANS	
		REVISIONS 2					
		REVISIONS 3					
		REVISIONS 4					
		FIELD CHANGES					
DATE							



DEAD LOAD DEFLECTION (INCHES)												
GIRDERS	Dead Load Component	℄ Brg. Abut. No.1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ Brg. Abut. No. 2
G1&G2	Module DC	0.00	0.45	0.84	1.14	1.32	1.39	1.32	1.14	0.84	0.45	0.00
	Fluid DC	0.00	0.06	0.11	0.15	0.18	0.19	0.18	0.15	0.11	0.06	0.00
G3&G4	Module DC	0.00	0.34	0.63	0.86	1.00	1.05	1.00	0.86	0.63	0.34	0.00
	Fluid DC	0.00	0.13	0.24	0.32	0.37	0.39	0.37	0.32	0.24	0.13	0.00
G5&G6	Module DC	0.00	0.39	0.72	0.98	1.14	1.19	1.14	0.98	0.72	0.39	0.00
	Fluid DC	0.00	0.06	0.11	0.15	0.18	0.19	0.18	0.15	0.11	0.06	0.00
G1-G6	Superimposed DC	0.00	0.15	0.28	0.38	0.44	0.46	0.44	0.38	0.28	0.15	0.00
	DW	0.00	0.10	0.18	0.24	0.28	0.30	0.28	0.24	0.18	0.10	0.00
	Vertical Ordinate	0.00	-0.04	-0.08	-0.10	-0.12	-0.12	-0.12	-0.10	-0.08	-0.04	0.00

TOP OF PRECAST ELEVATIONS											
GIRDER	℄ Brg. Abut. No.1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	℄ Brg. Abut. No. 2
G1	382.58	382.60	382.63	382.67	382.72	382.79	382.85	382.93	383.01	383.10	383.20
G2	382.32	382.34	382.38	382.42	382.48	382.54	382.61	382.69	382.78	382.88	382.99
G3	381.89	381.92	381.97	382.02	382.08	382.15	382.22	382.30	382.40	382.50	382.61
G4	381.47	381.50	381.55	381.60	381.66	381.74	381.82	381.91	382.00	382.11	382.23
G5	381.04	381.07	381.11	381.17	381.24	381.31	381.40	381.50	381.60	381.72	381.86
G6	380.62	380.65	380.69	380.75	380.82	380.91	381.00	381.10	381.22	381.34	381.48

NOTES

1. Camber ordinates are computed to compensate for all dead load deflections and for the curvature of the finished grade profile.
2. The top surface of the precast shall have a troweled surface finish in accordance with Standard Specification 534.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2189401

WIN
02260.01
BRIDGE NO. 2504
BRIDGE PLANS

MAIN STREET BRIDGE
FALL BROOK
SOLON

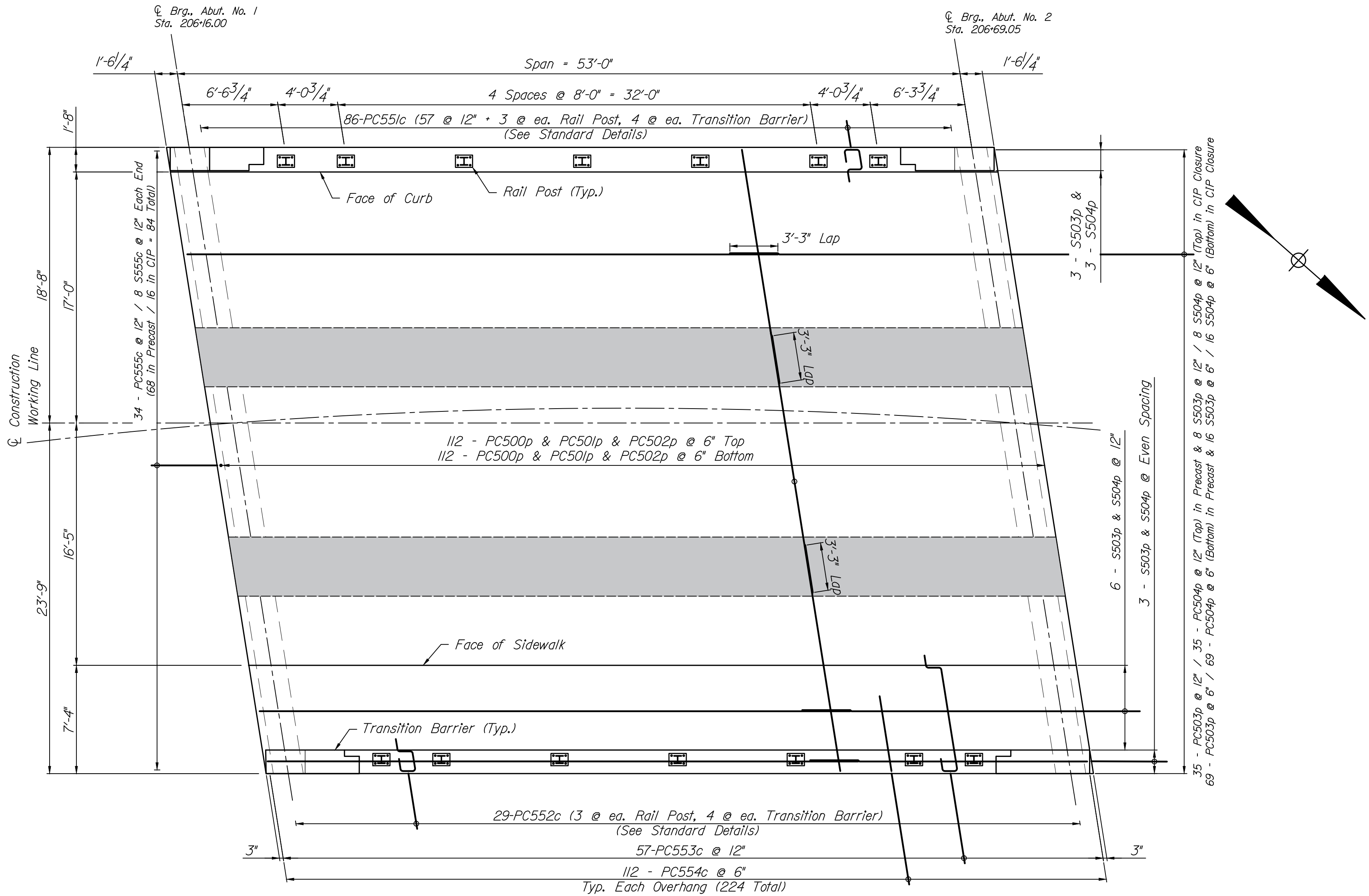
SOMERSET COUNTY

DEFLECTIONS &
CAMBER DIAGRAM

PROJ. MANAGER ANDREW LATHE
DESIGN-DETAILED I. Kenerson
CHECKED-REVIEWED P. Chen
DESIGN-DETAILED3
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

BY C. Lee
K. Sweeney
DATE 10/14/22
11/09/22
SIGNATURE
P.E. NUMBER
DATE

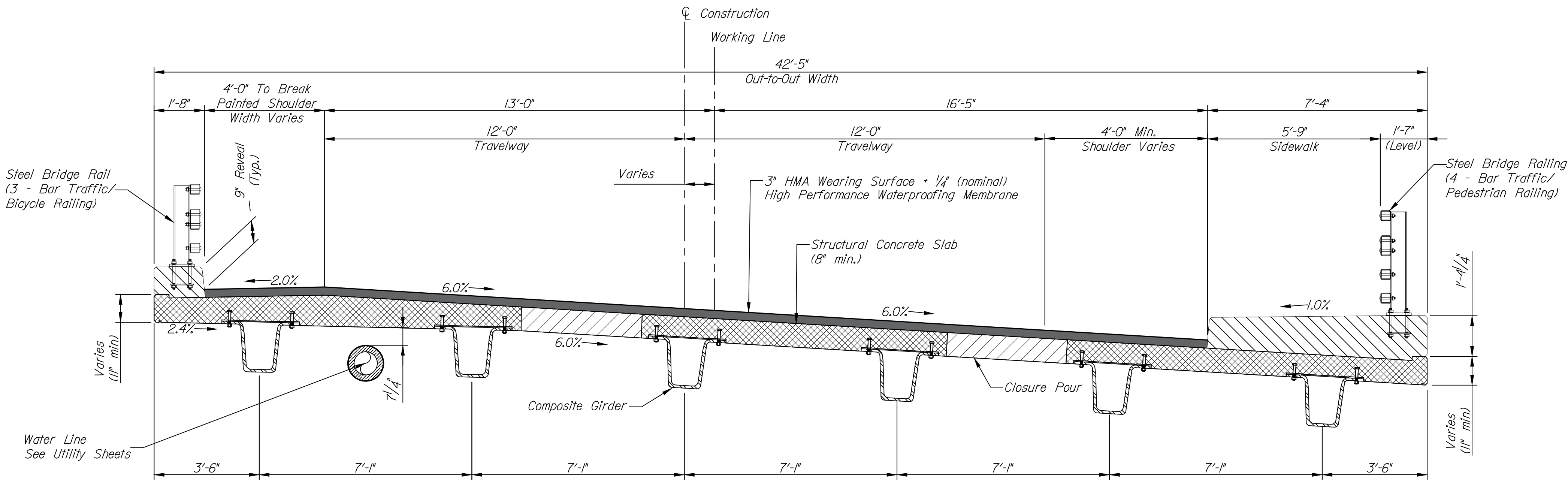
SHEET NUMBER
7C
OF 10C



SUPERSTRUCTURE PLAN

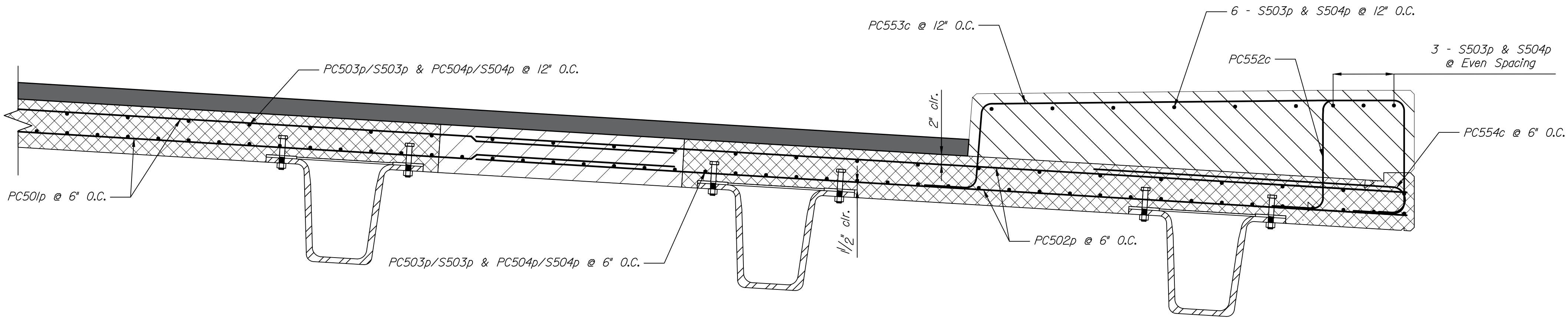
SUPERSTRUCTURE NOTES

1. Superstructure option shown is for G-Beam Composite Bid Alternate. See sheets 58-62 for NEXT-F precast, prestressed concrete beam option.
2. Reinforcing steel shall have a minimum concrete cover of 2 inches unless otherwise noted.
3. Form a one inch V-groove on the fascias at the horizontal joint between the curb and slab.
4. Provide 4 additional stirrups in the curbs at each Transition Barrier location.
5. The closure pour concrete (Class A) shall be placed continuously and shall be kept plastic until the entire placement, including both end diaphragm closures, has been made.
6. Transition Barrier reinforcing steel shall be low-carbon chromium.
7. Place one piece of 1 inch thick closed cell preformed expansion joint filler between the end diaphragm and wingwall parapet. Foam shall extend from the bridge seat $\frac{1}{2}$ " below the top of the wingwall parapet and the full wingwall parapet thickness. The preformed expansion joint filler shall be sealed with 1"x $\frac{1}{2}$ " silicone joint minus $\frac{1}{2}$ " on each side. The preformed expansion joint filler and silicone sealant will be considered incidental to related items.
8. The precaster shall install Transition Barrier vertical closed stirrups as shown in Standard Details Section 526.
9. 6" diameter PVC sleeve and silicon sealant for Abutment anchorage will be considered incidental to related items. The sealant shall be listed on the MaineDOT Silicone and Polyurethane Joint Sealants Qualified Products List.
10. Prefabricated Bridge Units (PBU's) shall consist of 2 CT Girders with attached full depth precast slab panel. PBU's shall be shipped to the site as a completely assembled unit. PBU's shall be protected from damage during shipping and erection. The Contractor shall submit an erection plan for approval prior to construction.
11. Superstructure is constructed on a tangent, with curved horizontal alignment striped across the bridge. Lanes shall be marked with 12'-0" travelway and 4'-0" minimum shoulder. Grade break on bridge shall be parallel to the working line.

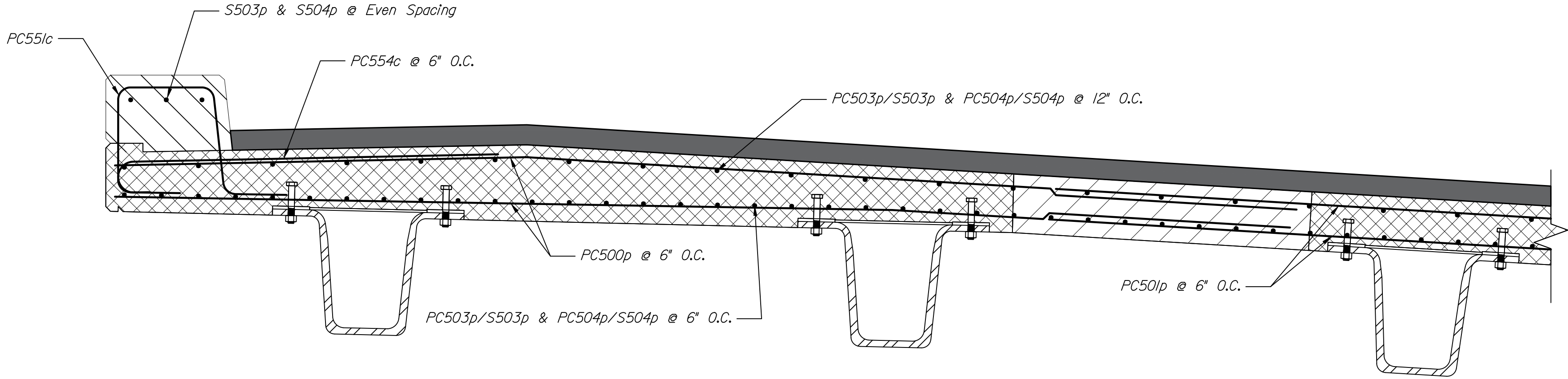


TYPICAL SUPERSTRUCTURE SECTION
Composite Girder Bid Alternate

SHEET NUMBER		8C		OF 10C		MAIN STREET BRIDGE		FALL BROOK		SOMERSET COUNTY		PROJ. MANAGER		ANDREW LATHE		BY		DATE		STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		2189401		WIN		BRIDGE NO. 2504		022260.01		BRIDGE PLANS	
SECTION & NOTES		SUPERSTRUCTURE		SECTION & NOTES		DESIGN-DETAILED		T. Kenerson		C. Lee		10/14/22		CHECKED-REVIEWED		P. Chen		K. Sweeney		11/09/22		SIGNATURE		P.E. NUMBER		DATE							
						DESIGN-DETAILED2		DESIGN-DETAILED3		REVISIONS 1		REVISIONS 2		REVISIONS 3		REVISIONS 4		FIELD CHANGES															

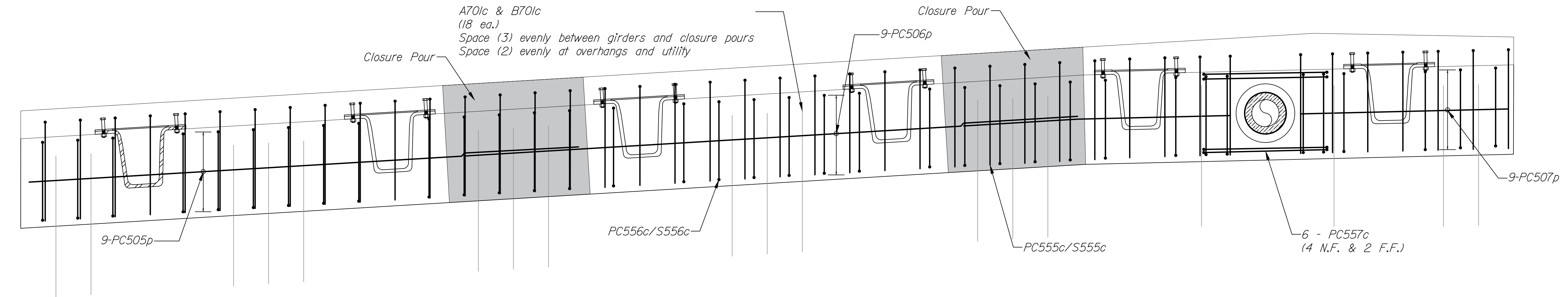


PARTIAL DECK REINFORCING SECTION - UPSTREAM

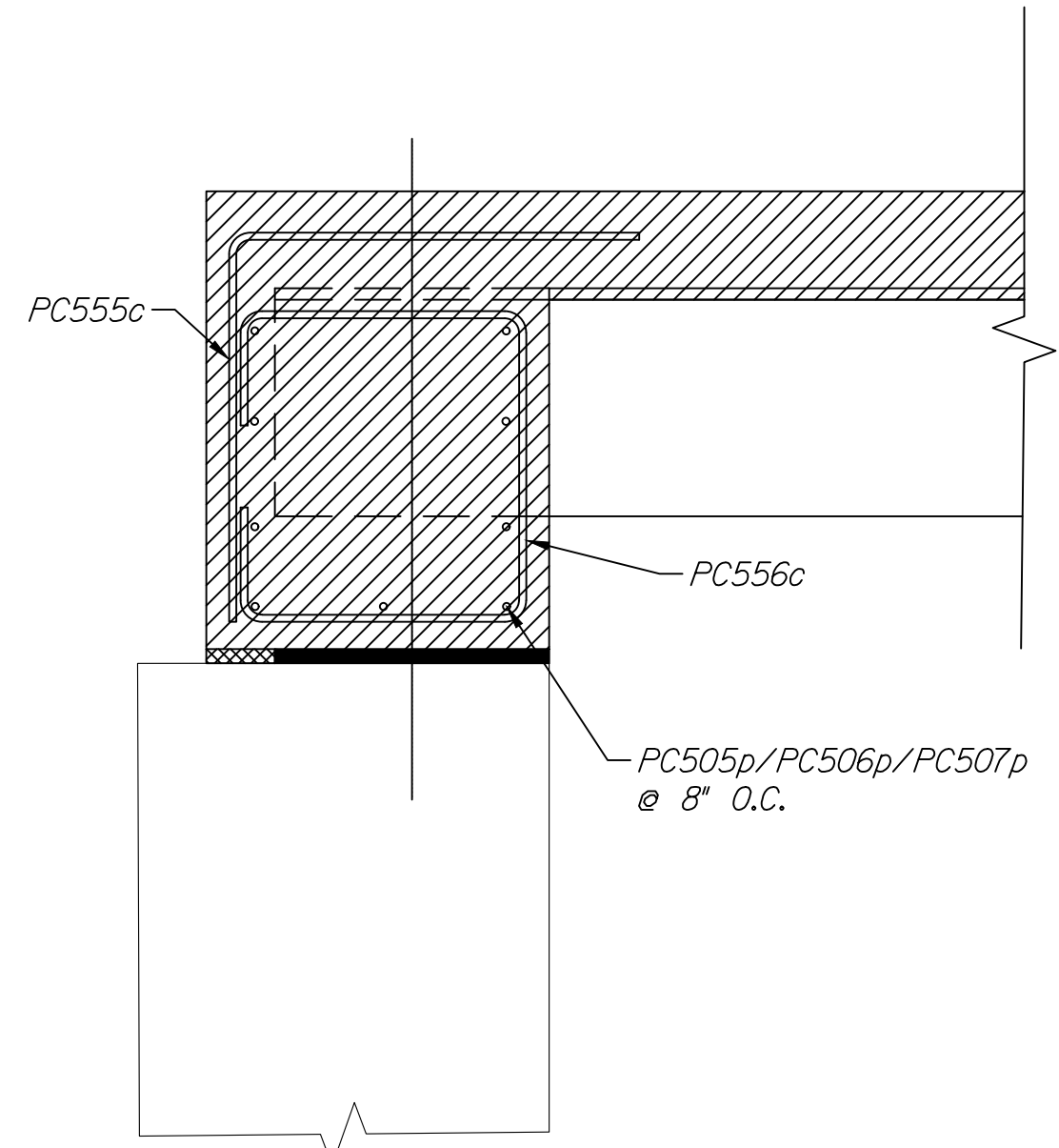


PARTIAL DECK REINFORCING SECTION - DOWNSTREAM

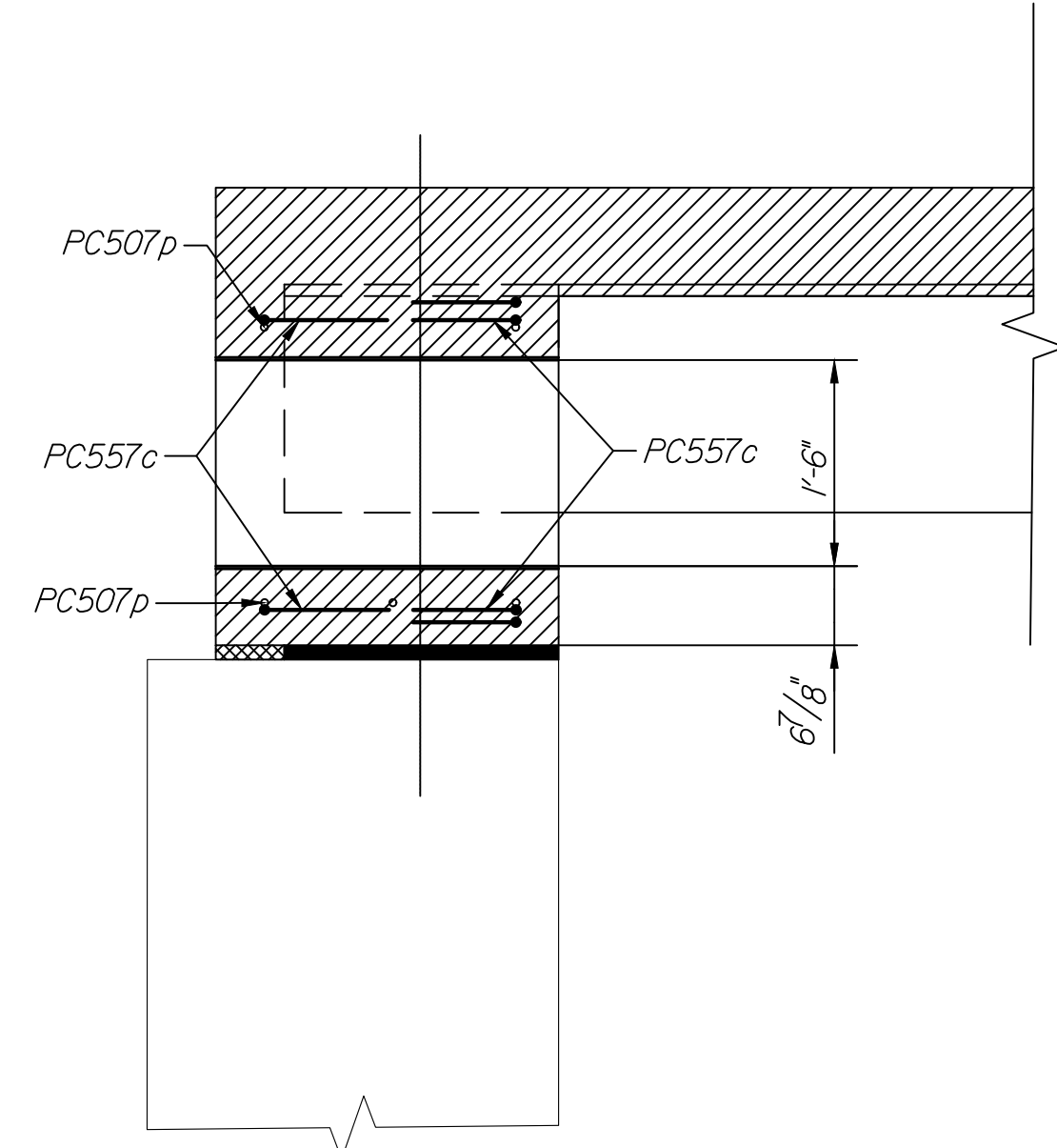
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION	
SOLON		2189401	
MAIN STREET BRIDGE		BRIDGE NO. 2504	
FALL BROOK		WIN	
SOMERSET COUNTY		022260.01	
DECK SECTION & REINFORCING		BRIDGE PLANS	
SHEET NUMBER		9C	
		OF 10C	
PROJ. MANAGER	ANDREW LAYNE	BY	DATE
DESIGN-DETAILED	I. Kenerson	C. Lee	10/14/22
CHECKED-REVIEWED	P. Chen	K. Sweeney	11/09/22
DESIGN-DETAILED2			SIGNATURE
DESIGN-DETAILED3			P.E. NUMBER
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			



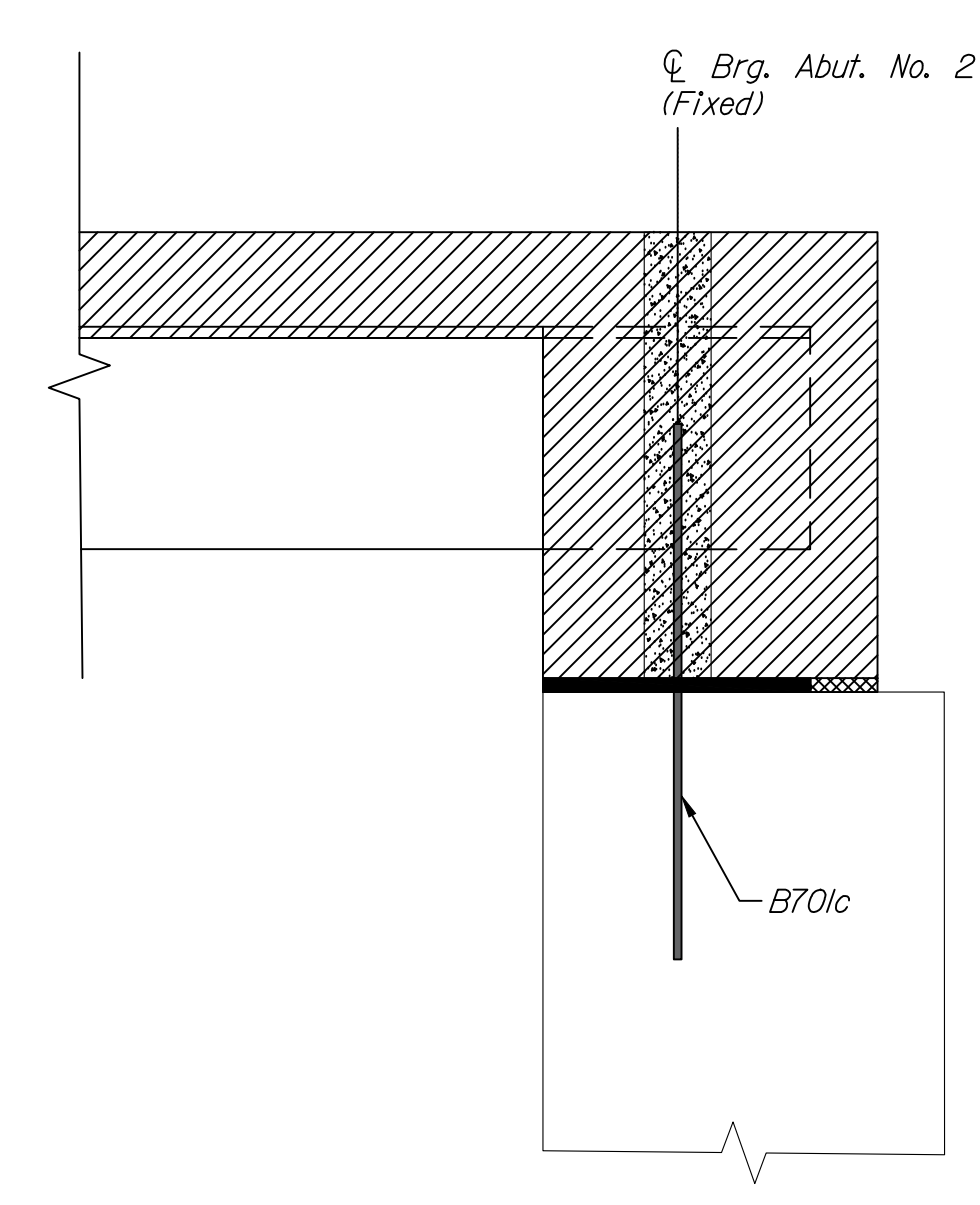
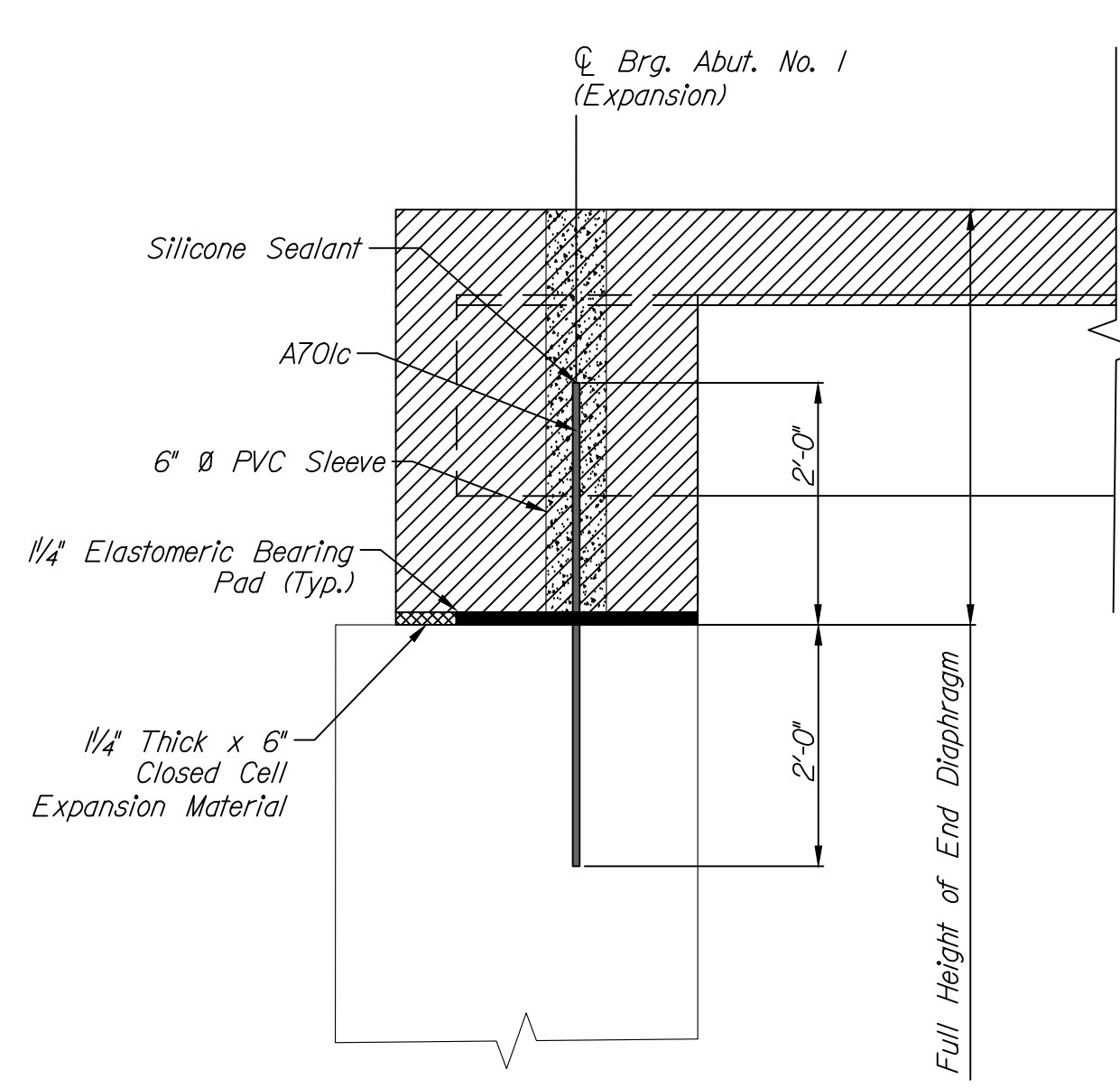
END DIAPHRAGM ELEVATION
Abut No. 1 Shown, Abutment No. 2 Opposite Hand



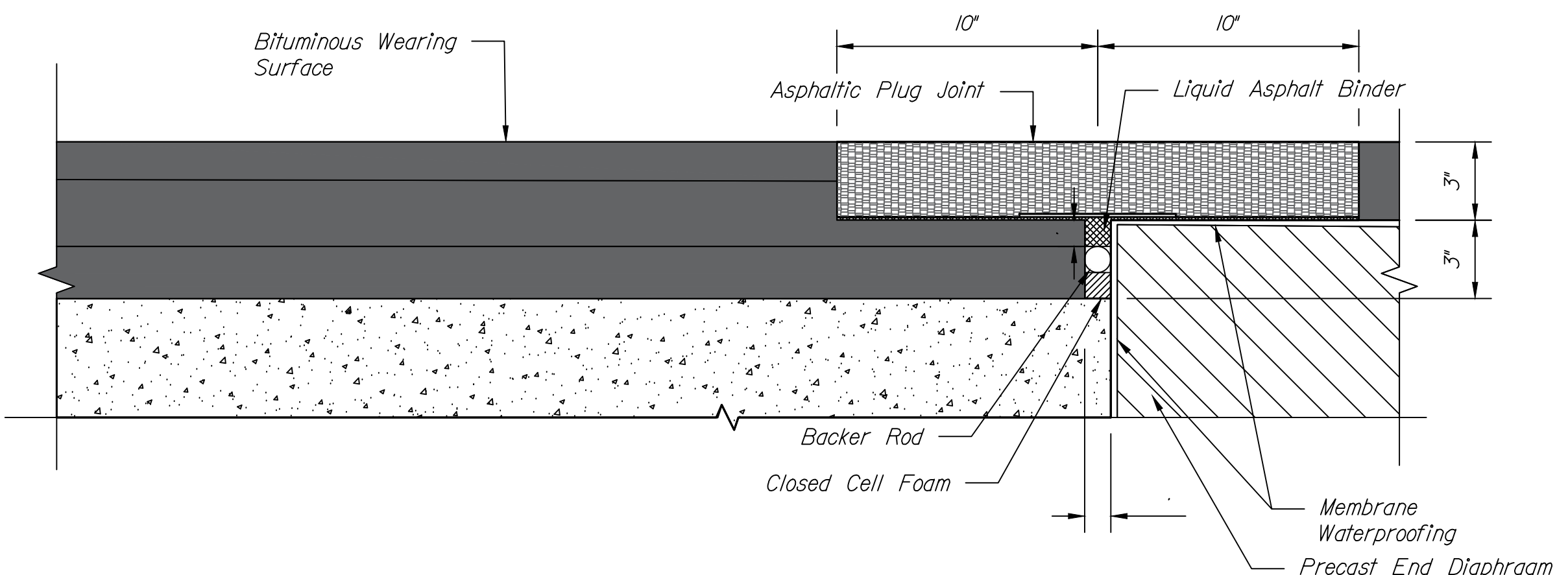
END DIAPHRAGM SECTION AT ROADWAY
AND CURB/SIDEWALK



END DIAPHRAGM SECTION AT
WATER MAIN PENETRATION



SUPERSTRUCTURE ANCHORAGE DETAIL



ASPHALTIC PLUG JOINT DETAIL

ELASTOMERIC BEARING NOTES

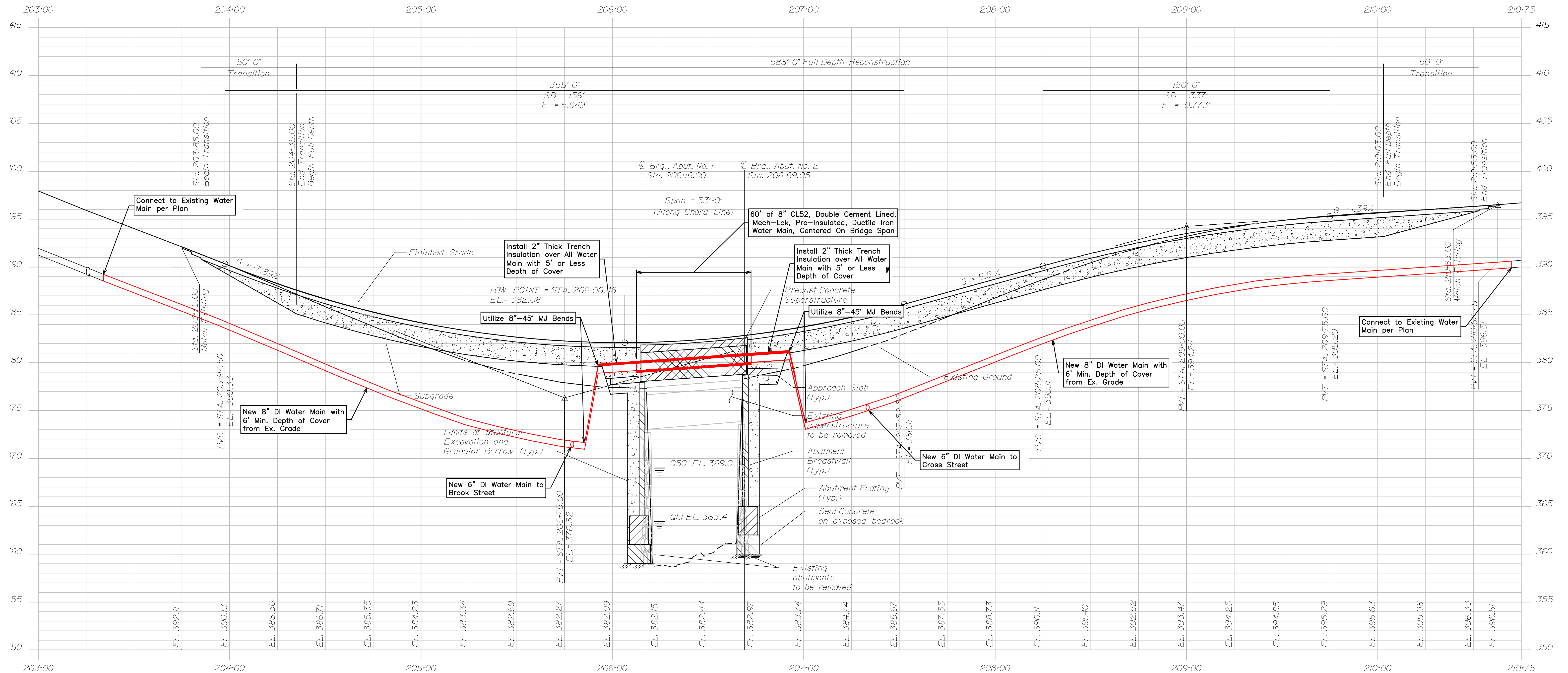
- 1. Elastomeric Bearing Pads shall be 2'-0" x 1/4" tall x length of abutment seat.
- 2. The elastomer shall have a shear modulus of 115 psi.
- 3. Elastomeric Bearing Pads shall conform to the requirement of the latest edition of the AASHTO LRFD Bridge Construction Specification Section 18.2.
- 4. Elastomeric Bearing Pads will not be paid for directly but will be considered incidental to related Contract Items. No separate payment will be made.

ASPHALTIC PLUG JOINT NOTES

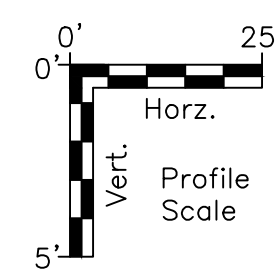
- 1. Asphaltic Plug Joints shall be provided at begin and end of bridge between curbs and sidewalks.
- 2. All cut or trimmed asphalt edges shall be cleaned and tacked/ prime coated prior to placing Asphaltic Plug Joints, in conformance with manufacturers instructions.

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

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	2189401		WIN	022260.01	BRIDGE PLANS
	BRIDGE NO. 2504				
MAIN STREET BRIDGE FALL BROOK SOMERSET COUNTY	PROJ. MANAGER	ANDREW LATHE	BY	DATE	
	DESIGN-DETAILED	I. Kerserson	C. Lee	10/14/22	SIGNATURE
	CHECKED-REVIEWED	P. Chen	K. Sweeney	11/09/22	P.E. NUMBER
	DESIGN-DETAILED				DATE
	REVISIONS				
SOLON	REVISIONS 1				
	REVISIONS 2				
	REVISIONS 3				
	REVISIONS 4				
	FIELD CHANGES				
SHEET NUMBER		10C			
		OF 10C			



PROFILE - MAIN STREET (ROUTE 201)



Note: On the Original Full-Scale Drawing, this dimension is 6"

REVISIONS			DATE	
NO.	DESCRIPTION	DATE		
1	VERT. DATUM NAVD88	11/17/22		
2	DRAWN BY: ASD			
3	CHECKED: RSP			
4	APPROVED: RSP			
5	FIELD BK: -			
6	FILE: FALL BROOK WATER MAIN REPLACEMENT			
7	PROJECT: #55801			

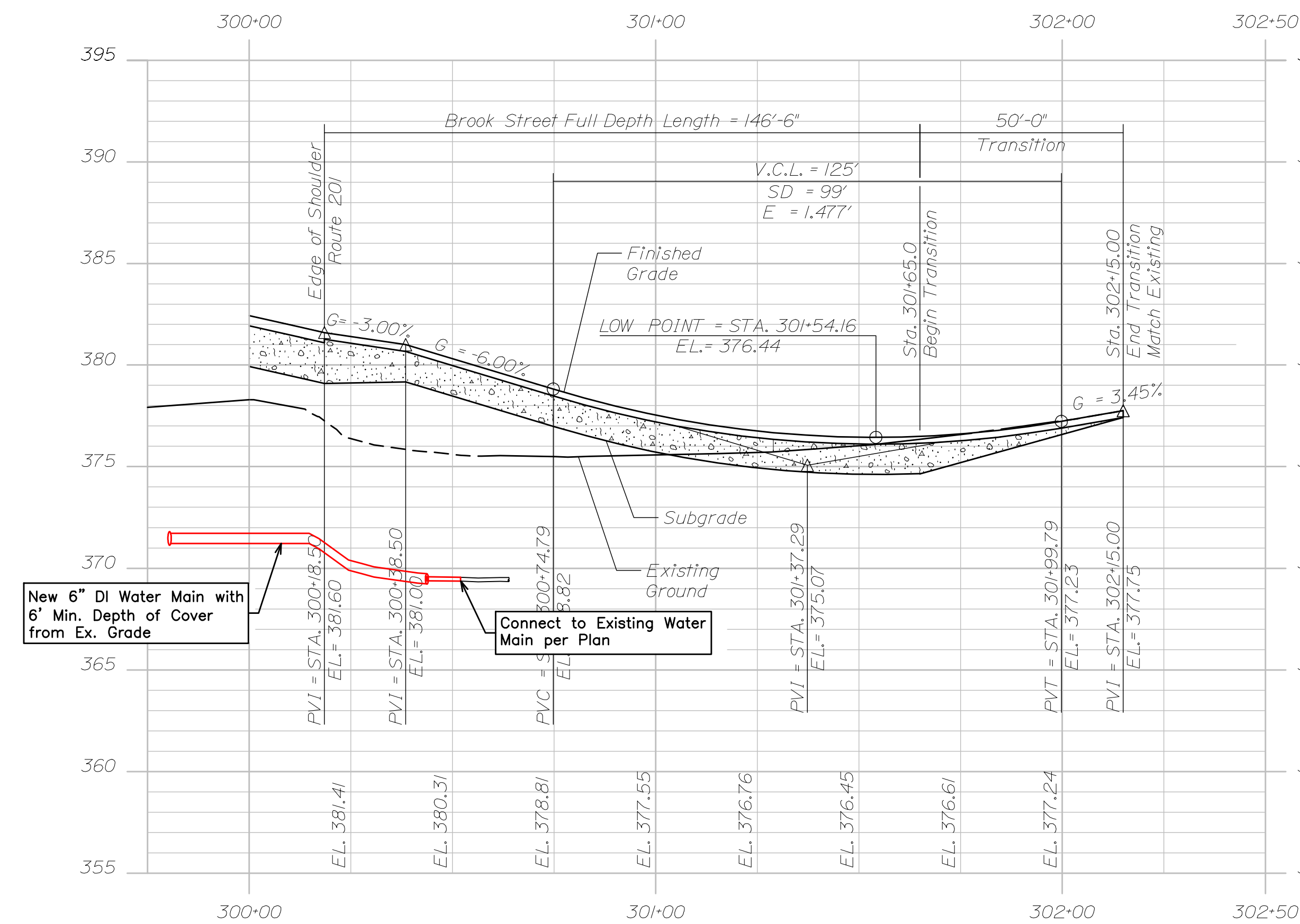
SOLON WATER DISTRICT
SOLON, MAINE

FALL BROOK WATER MAIN REPLACEMENT PROJECT

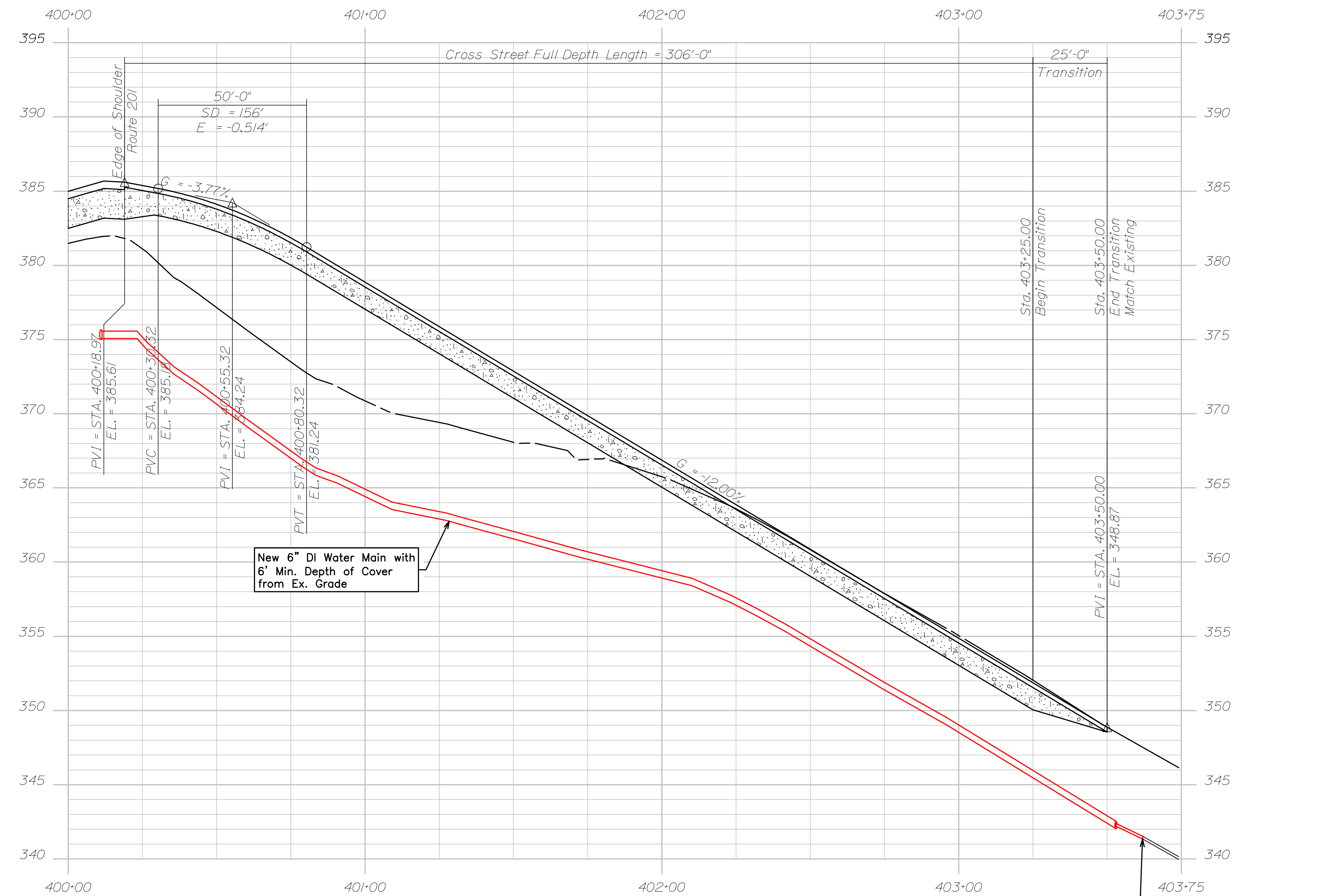
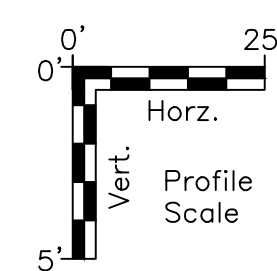
MAIN STREET PROFILE

DIRIGO ENGINEERING
2 DIRIGO DRIVE, FAIRFIELD, MAINE 04937 (207) 453-2401

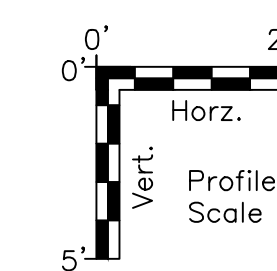
SHEET
2 OF 5



PROFILE - BROOK STREET



PROFILE - CROSS STREET



Note: On the Original Full-Scale Drawing, this dimension is 6"

REVISIONS			DATE	
NO.	DESCRIPTION	DATE		
1	VERT. DATUM	NAVD88		
2	DATE:	11/17/22		
3	DRAWN BY:	ASD		
4	CHECKED:	RSP		
5	APPROVED:	RSP		
6	FIELD BK:	-		
7	FILE:	FILE: BROOK STREET WATER MAIN REPLACEMENT		
8	PROJECT:	#55801		

SOLON WATER DISTRICT

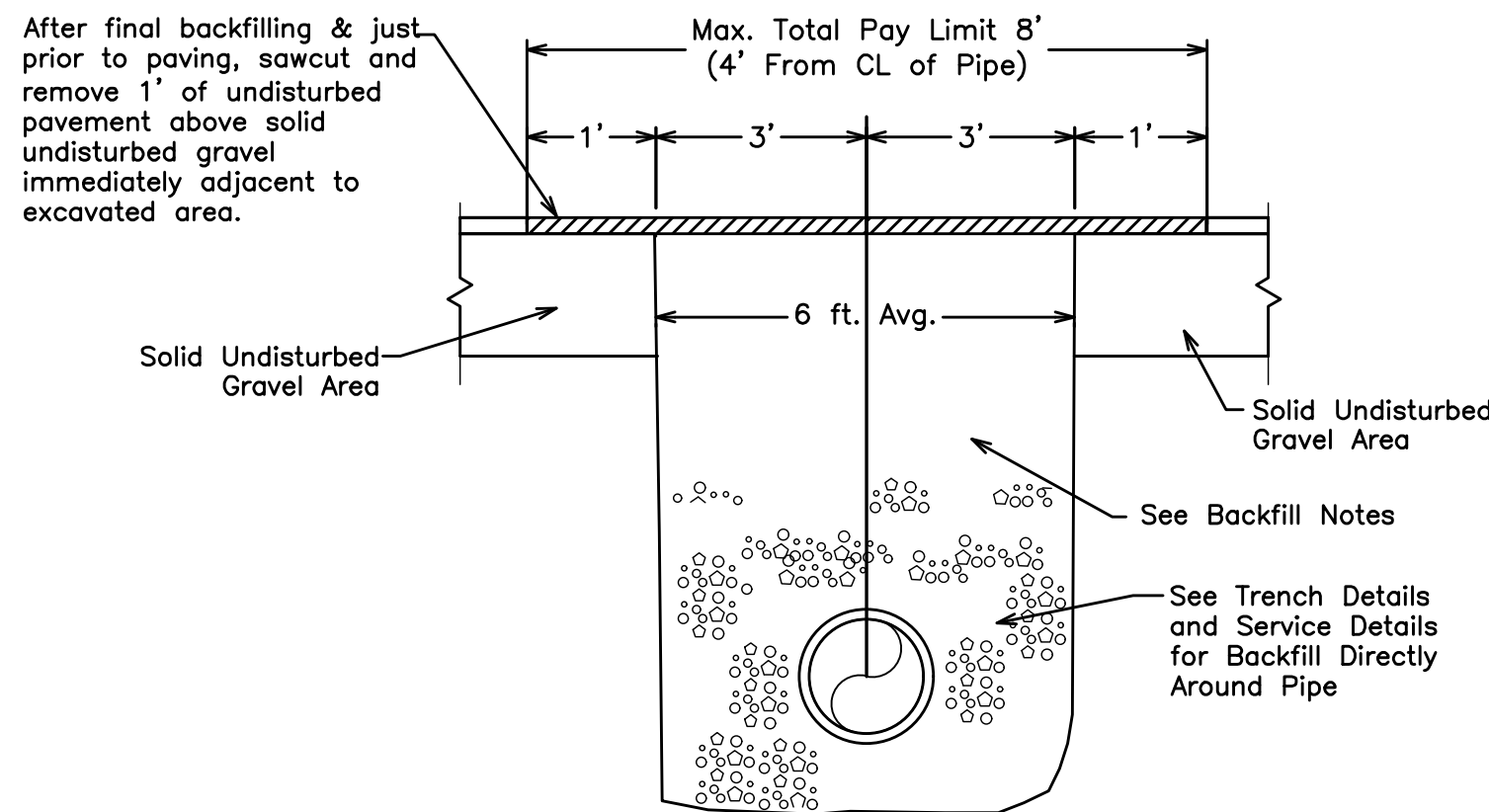
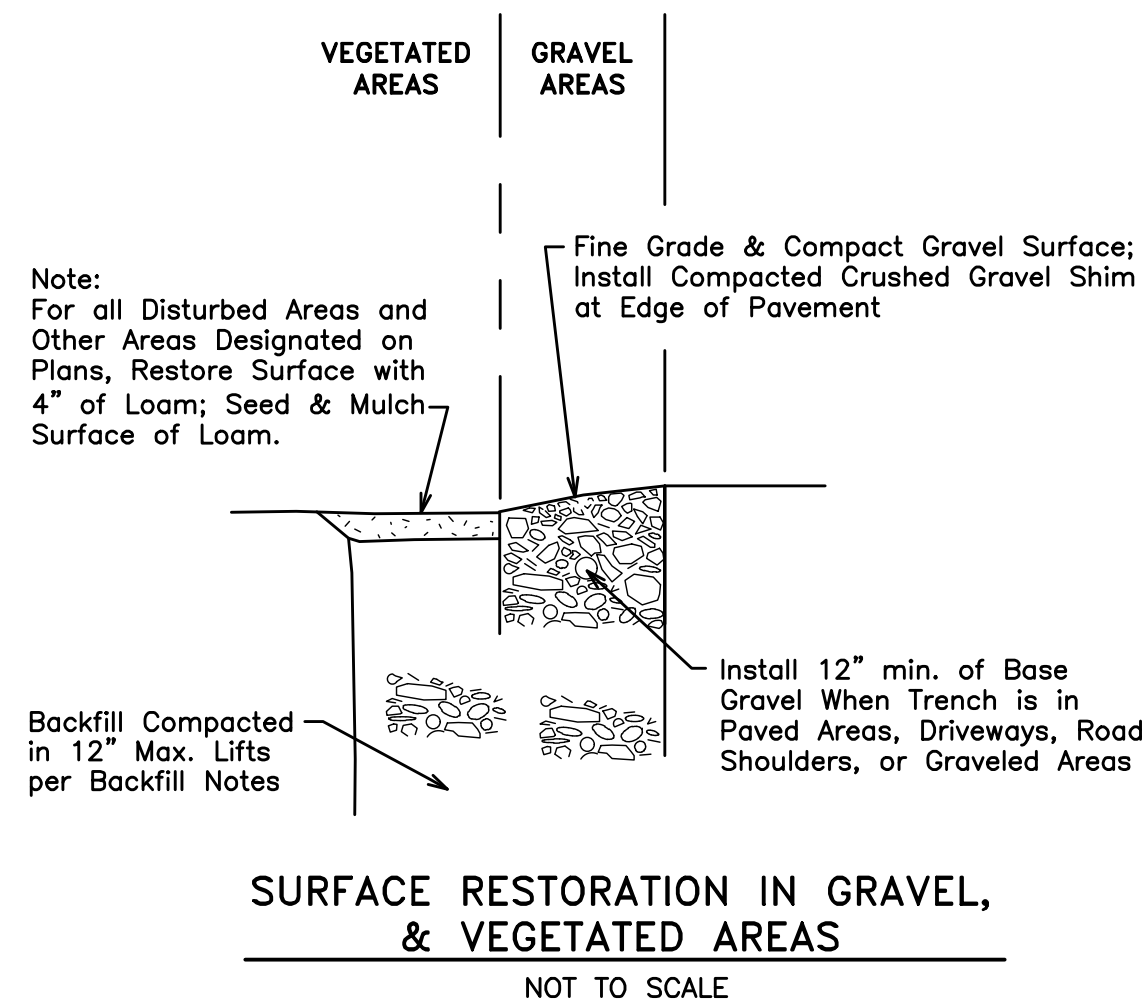
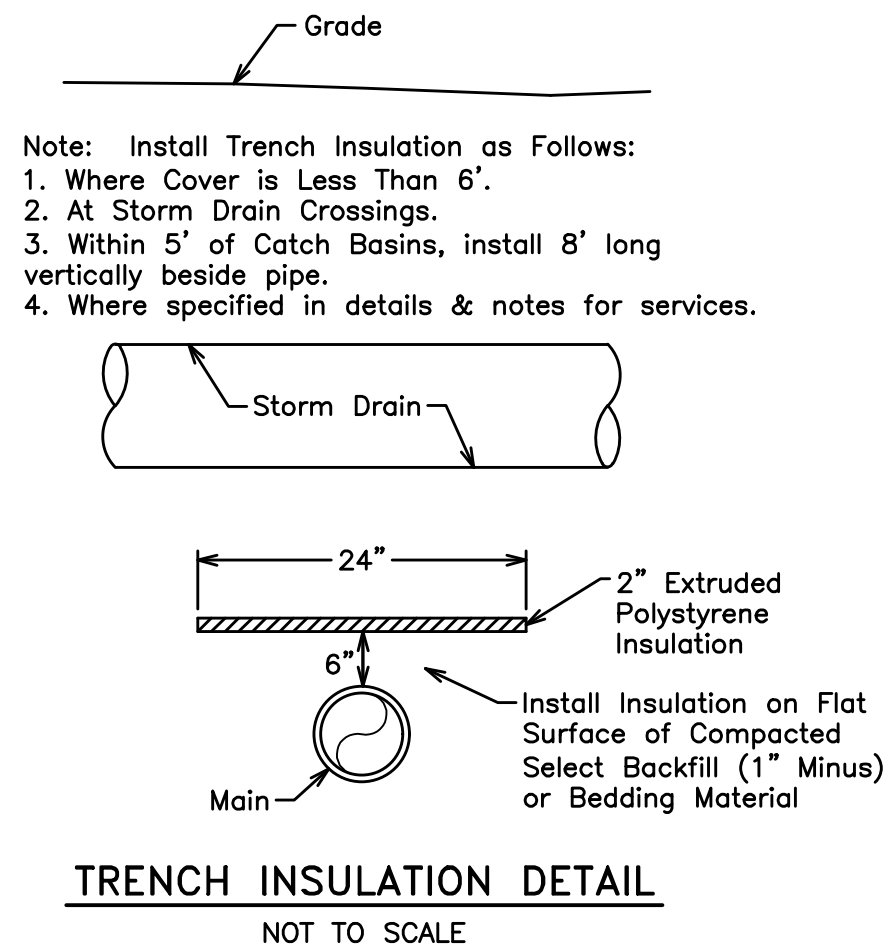
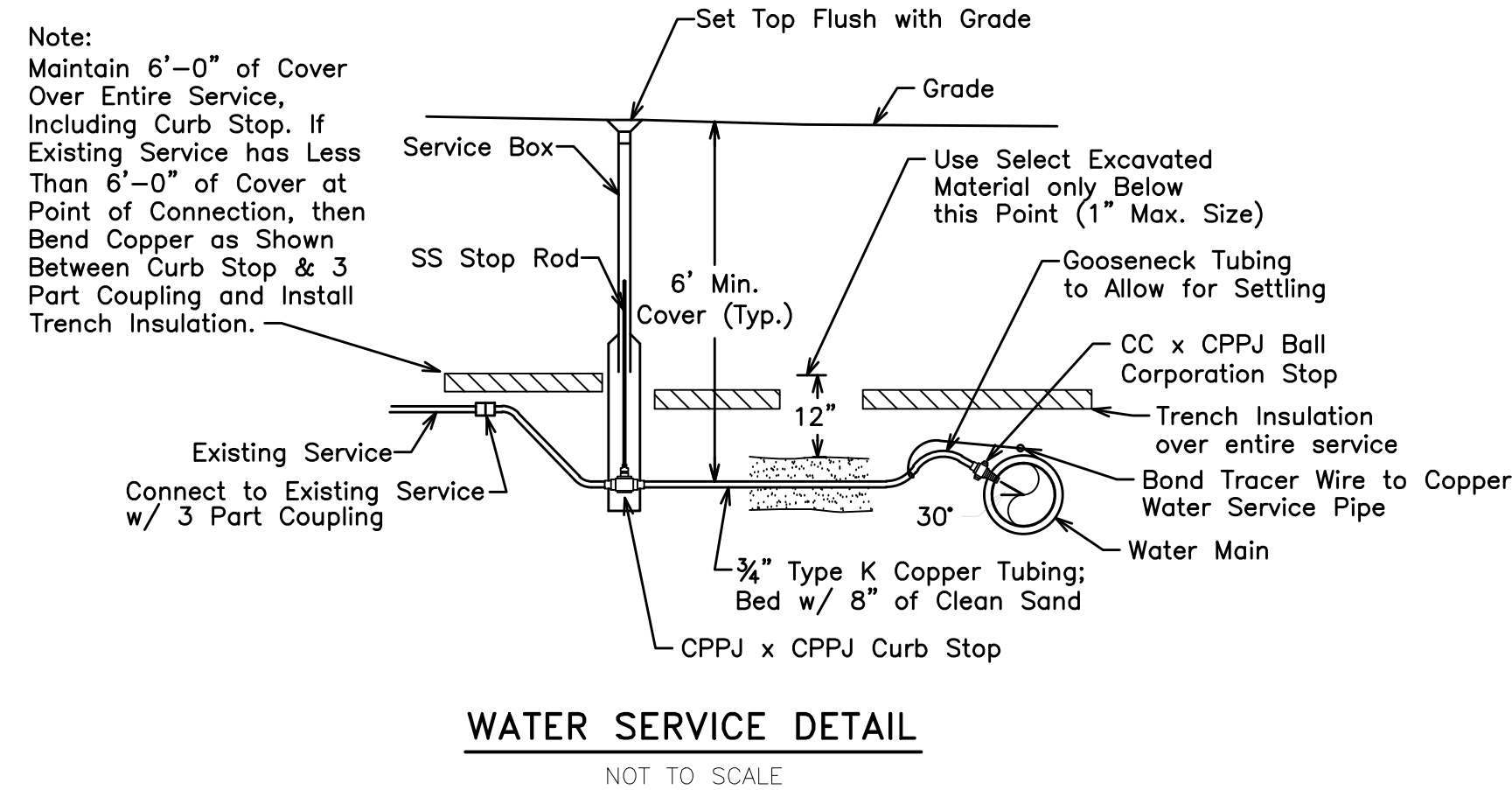
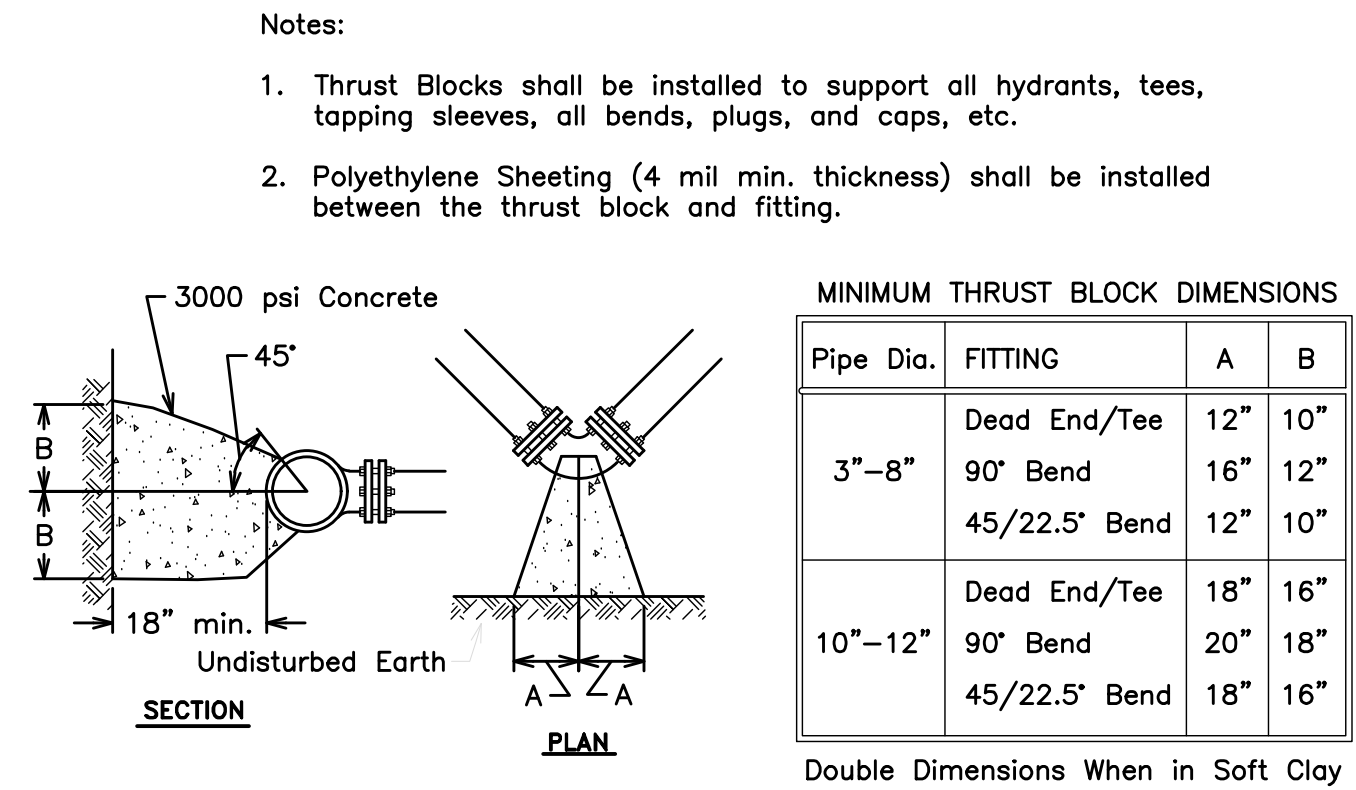
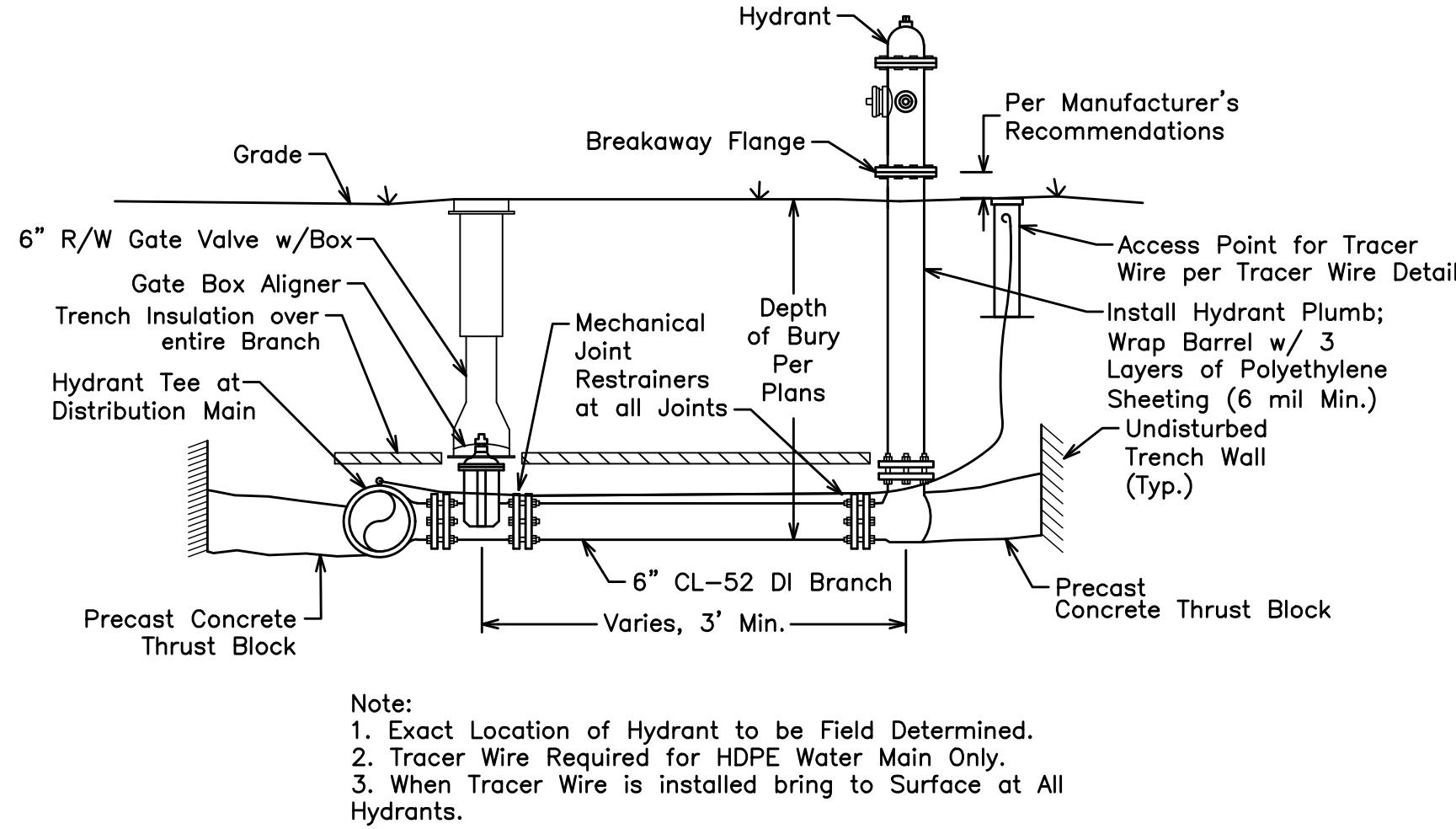
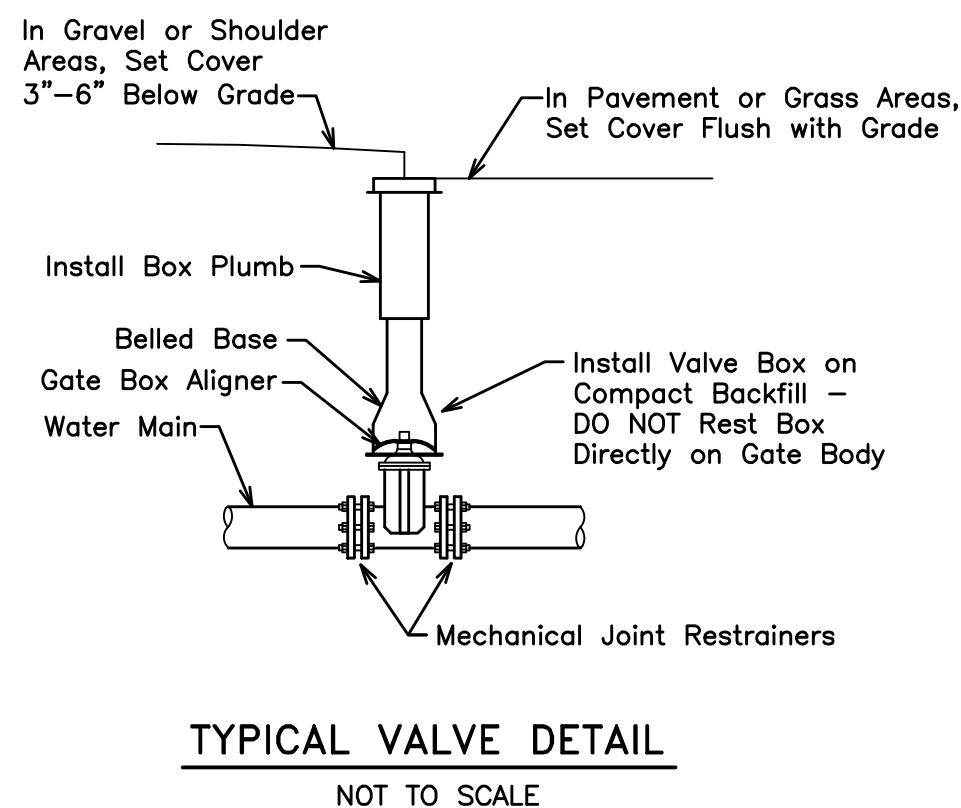
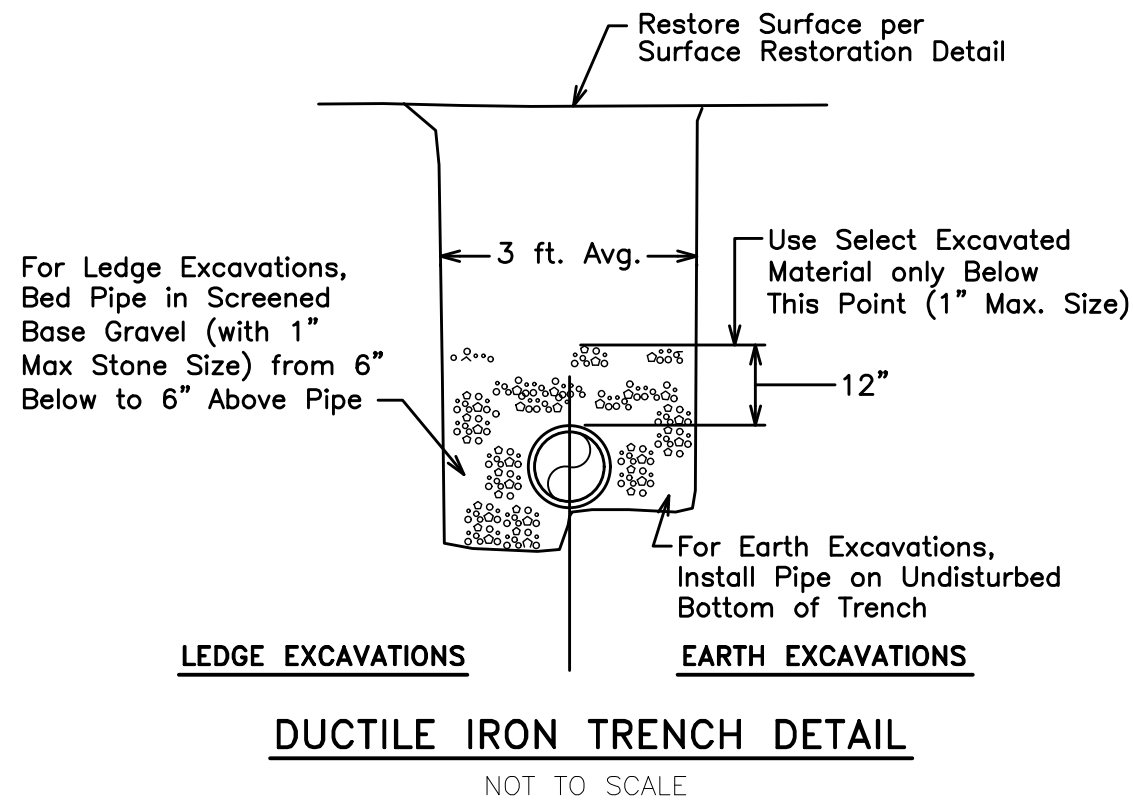
SOLON, MAINE

FALL BROOK WATER MAIN REPLACEMENT PROJECT

CROSS & BROOK STREET PROFILES

SHEET

3 OF 5



- BACKFILL NOTES:**
1. Backfill within the pipe bedding zone shall be per Contract Documents. Above the pipe bedding zone and below the road gravel zone, backfill material shall match surrounding soils and shall be placed and compacted in lifts not to exceed one foot.
 2. Excavated material with too much water content to compact effectively shall not be used for backfill.
 3. During excavation, separate the existing excavation layers. Reuse original excavated materials during backfilling, if compactable, in the order that they were removed.

- PAVEMENT NOTES:**
1. Pavement replacement shall be per the Minimum Pavement Thickness table.
 2. The final sawcutting of pavement shall be performed after backfilling and compaction to the top of the existing gravel base is complete. After sawcutting and removing the additional one foot of pavement, the entire exposed gravel layer shall be once again compacted, including the undisturbed gravel portion, prior to paving.
 3. The Pavement Pay Limit Shall be 3' Each Side of the Centerline of the Pipe plus the 1' Saw cut Area Beyond the Trench Limits for a Total Maximum Pavement Pay Limit of 4' Each Side of the Centerline of the Pipe. Any Pavement beyond the 3' Limit and the 1' Sawcut area shall be replaced at the Contractor's Expense.

Pavement Thickness Requirements			
MDOT Pavement Type	(MDOT) Main St. Travel Lane & Shoulders	(Town) Roads & Driveways	Sidewalks
9.5 or 12.5mm 19mm	2" Match Ex.	1½" Match Ex.	2" --

Note: Surface Pavement shall be machine placed.

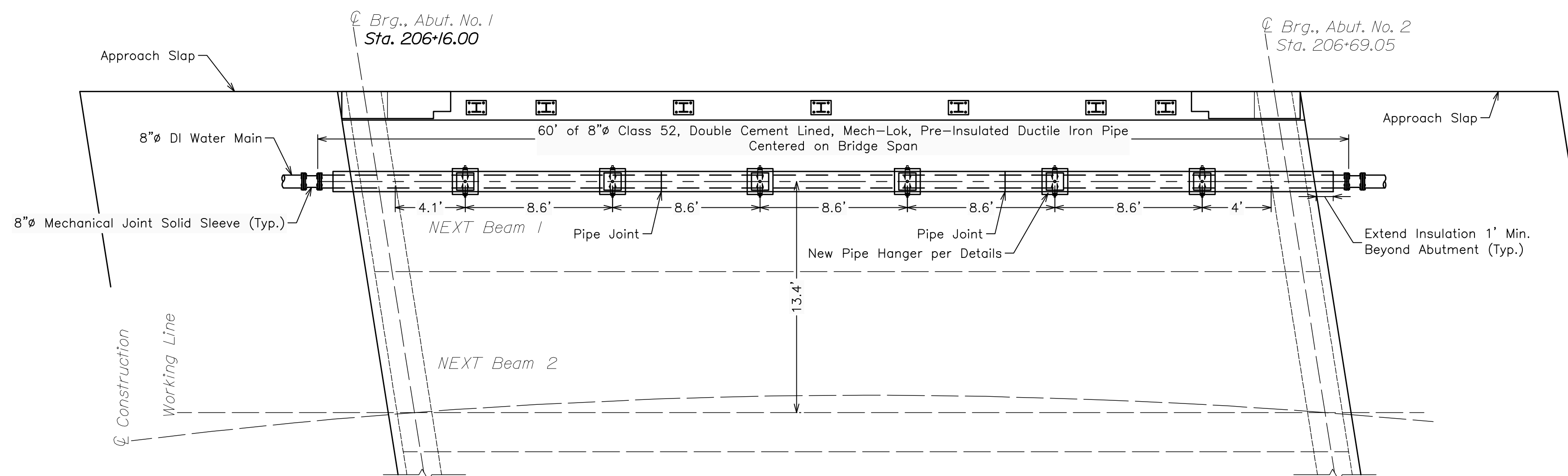
MINIMUM PAVEMENT THICKNESS TABLE
NOT TO SCALE

NO.			REVISIONS		DATE
			VERT. DATUM	NAVDB8	
			DATE:	11/17/22	
			DRAWN BY:	ASD	
			CHECKED:	RSP	
			APPROVED:	RSP	
			FIELD BK:	--	
			FILE:	FILE BOX DRUG WITH NEW RETAINER	
			PROJECT:	#55801	

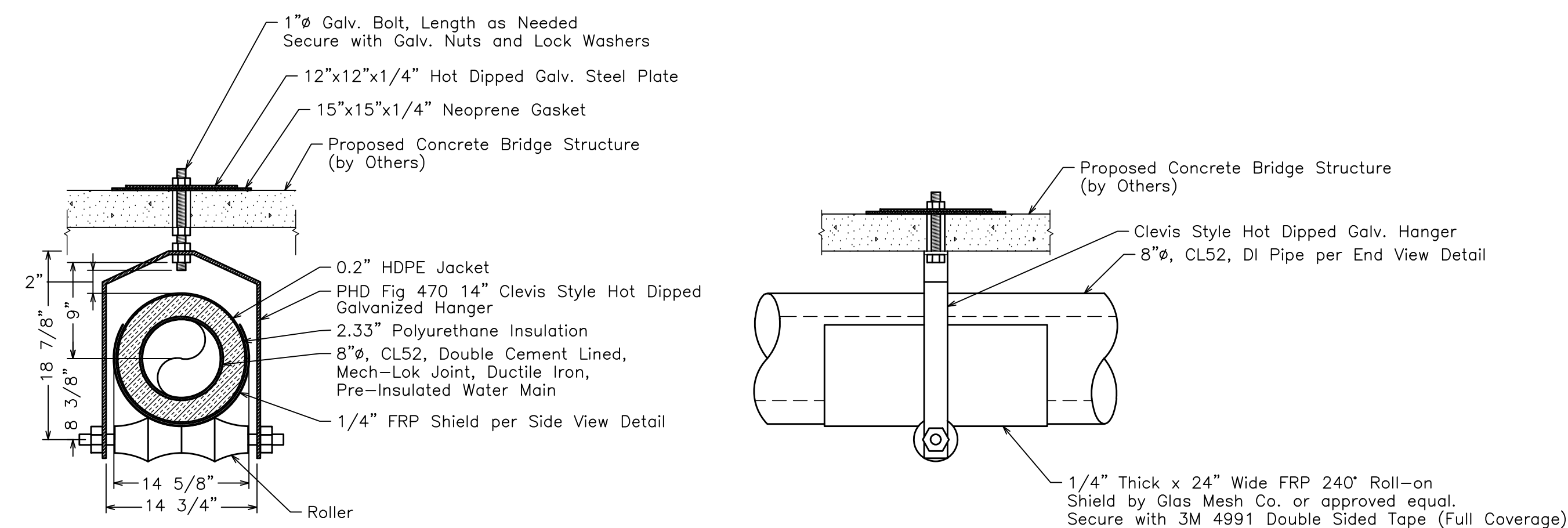
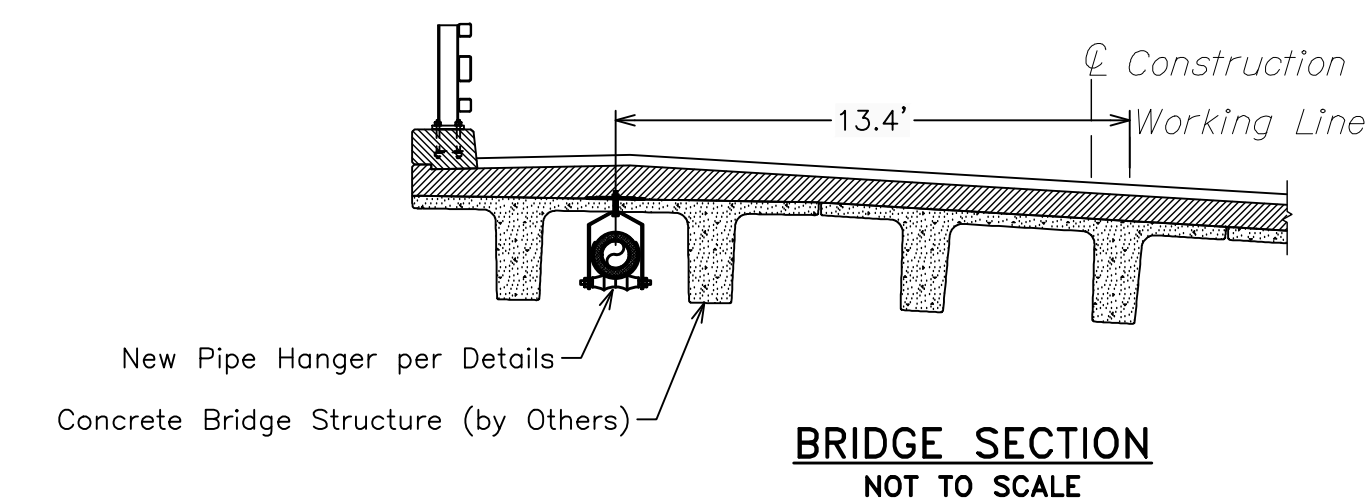
STATE OF MAINE RICKY S. BISHOP 9265 LICENSED PROFESSIONAL ENGINEER	
---	--

SOLON WATER DISTRICT SOLON, MAINE	
FALL BROOK WATER MAIN REPLACEMENT PROJECT	
MISCELLANEOUS WATER MAIN DETAILS	
DIRIGO ENGINEERING 2 DIRIGO DRIVE, FAIRFIELD, MAINE 04937 (207) 453-2401	SHEET 4 OF 5

← Note: On the Original Full-Scale Drawing, this dimension is 6" →



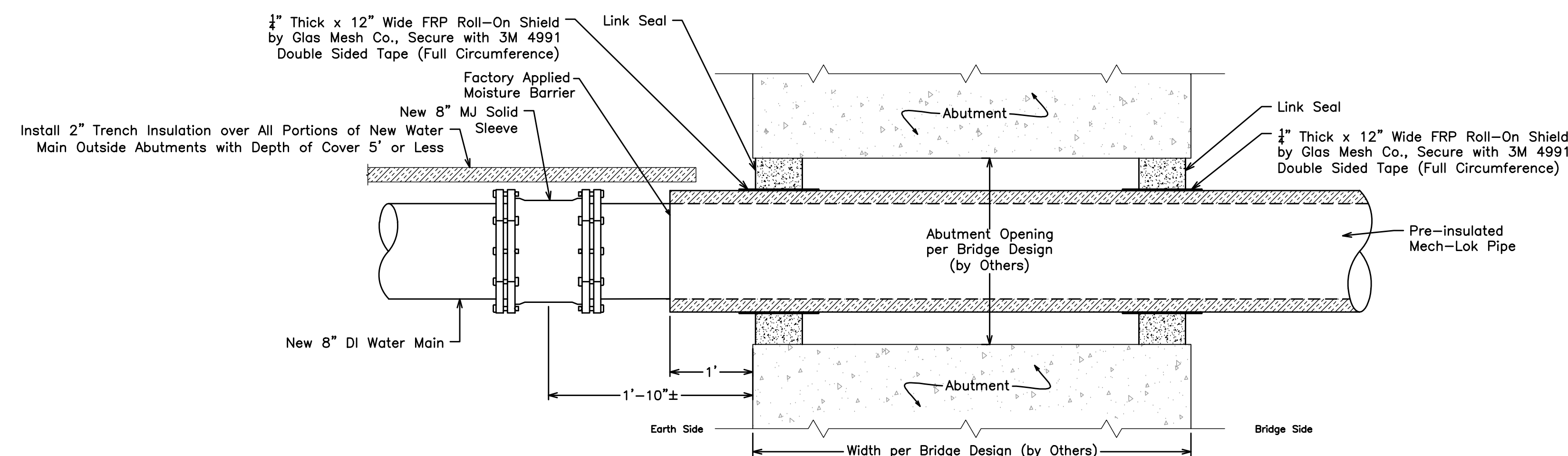
PIPE & HANGER LOCATION BRIDGE PLAN VIEW
NOT TO SCALE



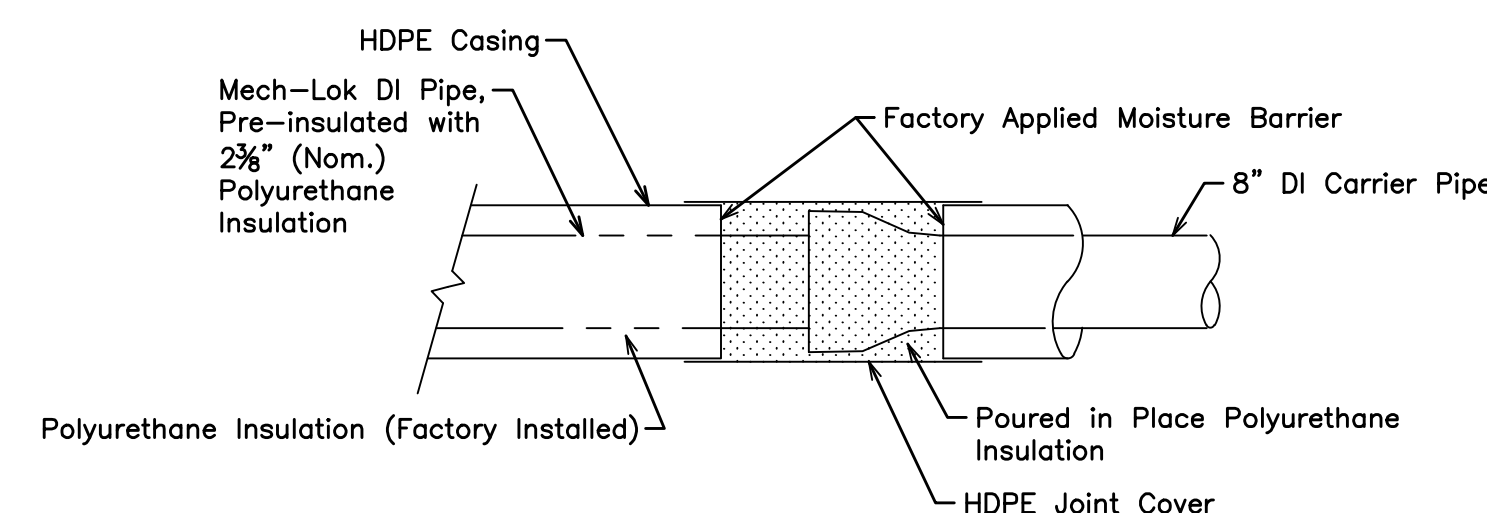
END VIEW

SIDE VIEW

PIPE HANGER DETAILS
NOT TO SCALE



TYPICAL ABUTMENT SECTION
NOT TO SCALE



PIPE INSULATION DETAIL
NOT TO SCALE

Note: On the Original Full-Scale Drawing, this dimension is 6"

				SOLON WATER DISTRICT SOLON, MAINE	
NO.	REVISIONS				
		VERT. DATUM	NAVDB88		
		DATE:	11/17/22		
		DRAWN BY:	ASD		
		CHECKED:	RSP		
		APPROVED:	RSP		
		FIELD BK:	-		
		FILE: FALL BROOK BRIDGE WATER MAIN REPLACEMENT			
		PROJECT NO:	#55801		
				BRIDGE CROSSING PIPE DETAILS	
				 2 DIRIGO DRIVE, FAIRFIELD, MAINE 04937 (207) 453-2401	
				SHEET 5 OF 5	