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

TRAFFIC DATA

Current (2019) AADT - EB/WB	13,710/10,020
Future (2039) AADT - EB/WB	15,080/11,020
DHV - % of AADT -EB/WB	9%/12%
Design Hour Volume - EB/WB	1,357/1,322
Heavy Trucks (% of AADT) - EB/WB	5%/4%
Heavy Trucks (% of DHV) - EB/WB	3%/2%
18 kip Equivalent P 2.0 - EB/WB	363/146
18 kip Equivalent P 2.5 - EB/WB	346/139
Design Speed (mph)	35 MPH

MATERIALS

Concrete:
- Medians, Sidewalks, Closure Pours, & Link Slab ..... Class "LP"
- Fill ..... "Fill"
- All Other ..... Class "A"

Reinforcing Steel:
- Plain ..... ASTM A 615/A 615M, Grade 60
- Low-Carbon Chromium Steel ..... ASTM A 1035, Type CS, Grade 100

Structural Steel:
- All Material (except as noted) ..... ASTM A 709, Grade 50 (Galvanized or Metalized)
- High Strength Bolts ..... ASTM F3125, Grade A325, Type 1 (Galvanized)

BASIC DESIGN STRESSES

Concrete:
- Class "A" ..... f 'c = 4,000 psi
- Fill ..... f 'c = 3,000 psi
- Class "LP" ..... f 'c = 5,000 psi

Reinforcing Steel:
- ASTM A615, Grade 60 ..... F y = 60,000 psi
- ASTM A 1035, Type CS, Grade 100 ..... F y = 100,000 psi

Structural Steel:
- ASTM A709, Grade 50 ..... F y = 50,000 psi
- ASTM A709, Grade 36 ..... F y = 36,000 psi
- ASTM F3125, Grade A325 ..... F u = 120,000 psi

UTILITIES

Central Maine Power	Maine Natural Gas
Consolidated Communications	Greater Augusta Utility District (Water & Sewer)
Charter Communications	Cenergy (Solar Array)
Firstlight	

(MaineDOT owns the traffic signals and street lighting except the cobra heads on the utility poles are City.)

AUGUSTA
KENNEBEC COUNTY
WESTERN AVENUE
OVER
INTERSTATE 95
WESTERN AVENUE
STATE PROJECT NO. 21672.00
PROJECT LENGTH 1.116 mi.
BRIDGE NO. 5808

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MAINTENANCE OF TRAFFIC

Maintain two-way traffic on temporary detour bridge, see plans and special provisions for details.

PROJECT LOCATION	Western Avenue / I-95 Bridge (#5808) over Interstate 95. Located 0.27 miles south of Old Winthrop Road. Lat./Long. 44°18'59" N 69°48'41" W
PROGRAM AREA	Bridge
OUTLINE OF WORK	Bridge replacement with 5193' of approach work including transitions.

WIN 21672.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE 7-11-23

COMMISSIONER: [signature]

CHIEF ENGINEER: Joyce Wood Taylor — 7-11-2023

STATE OF MAINE · KATHERINE L WIGHT · No. 16804 · LICENSED PROFESSIONAL ENGINEER

Kathrine Wight — SIGNATURE
16804 — P.E. NUMBER
June 21, 2023 — DATE

PROJECT INFORMATION

PROGRAM	BRIDGE PROGRAM	
PROJECT MANAGER	DEVAN EATON	
DESIGNER	KATHERINE WIGHT	
CONSULTANT	STANTEC	
PROJECT RESIDENT		
CONTRACTOR		
PROJECT COMPLETION DATE		

AUGUSTA
WESTERN AVENUE

TITLE SHEET

SHEET NUMBER
1
OF 192

Date:6/21/2023
Username: kwight
Division: BRIDGE
Filename:\00\BRIDGE\MSTA_Title.dgn

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.15	REMOVING EXISTING MANHOLE OR CATCH BASIN	9	EA
202.19	REMOVING EXISTING BRIDGE	1	LS
202.202	REMOVING PAVEMENT SURFACE	7900	SY
203.20	COMMON EXCAVATION	12000	CY
203.25	GRANULAR BORROW	1100	CY
203.37	REINFORCED BACKFILL	4150	CY
203.4340	ELASTIC INCLUSION	190	SY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES, PLAN QUANTITY	2500	CY
206.092	STRUCTURAL ROCK EXCAVATION - MAJOR STRUCTURES	85	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	8300	CY
403.209	HOT MIX ASPHALT - 9.5 MM (SIDEWALKS, DRIVES, & INCIDENTALS)	330	T
403.213	HOT MIX ASPHALT - 12.5 MM (BASE AND INTERMEDIATE COURSE)	1700	T
461.131	TEMPORARY PAVEMENT	710	T
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS (1152 CY)	1	LS
502.239	STRUCTURAL CONCRETE PIERS (201 CY)	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLAB (136 CY)	1	LS
502.342	STRUCTURAL CONCRETE, ROADWAY TRUCK APRON	16	CY
502.565	CONCRETE FILL	521	CY
502.2487	PRESSURE GROUTING - DRILLING	780	LF
502.2488	PRESSURE GROUTING	1900	LB
502.2489	PRESSURE GROUTING - MOBILIZATION	1	LS
503.12	REINFORCING STEEL, FABRICATED & DELIVERED	48900	LB
503.13	REINFORCING STEEL, PLACING	48900	LB
507.08161	STEEL APPROACH RAILING, 4 BAR	4	EA
507.0831	STEEL BRIDGE RAILING, 4 BAR (332 LF)	1	LS
510.12	SPECIAL DETOUR, 50 FOOT ROADWAY WIDTH VEHICULAR & PEDESTRIAN TRAFFIC SEPARATED	1	LS
519.60	EXPANSION DEVICE - ASPHALTIC PLUG JOINT	158	LF
520.233	EXPANSION DEVICE - SILICONE COATED PRECOMPRESSED FOAM	166	LF
524.301	TEMPORARY STRUCTURAL SUPPORT - ABUTMENT NO. 1	1	LS
524.301	TEMPORARY STRUCTURAL SUPPORT - ABUTMENT NO. 2	1	LS
524.301	TEMPORARY STRUCTURAL SUPPORT - PIER	1	LS
524.301	TEMPORARY STRUCTURAL SUPPORT - NORTHEAST WINGWALL	1	LS
524.301	TEMPORARY STRUCTURAL SUPPORT - NORTHWEST WINGWALL	1	LS
524.40	PROTECTIVE SHIELD	1	LS
526.301	PORTABLE CONCRETE BARRIER, TYPE 1 (1540 LF)	1	LS
527.33	TRUCK MOUNTED ATTENUATOR	2	EA
527.34	WORK ZONE CRASH CUSHIONS	5	UN
603.155	12 INCH REINFORCED CONCRETE PIPE, CLASS III	400	LF
603.159	12 INCH CULVERT PIPE OPTION III	27	LF
603.16	15 INCH CULVERT PIPE OPTION I	30	LF
603.169	15 INCH CULVERT PIPE OPTION III	30	LF
603.175	18 INCH REINFORCED CONCRETE PIPE, CLASS III	128	LF
603.179	18 INCH CULVERT PIPE OPTION III	43	LF
603.41	24 INCH REINFORCED CONCRETE PIPE, CLASS IV	56	LF
604.072	CATCH BASIN TYPE AI-C	9	EA
604.092	CATCH BASIN TYPE BI-C	4	EA
604.15	MANHOLE	2	EA
604.18	ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	12	EA
605.09	6 INCH UNDERDRAIN TYPE B	850	LF
605.11	12 INCH UNDERDRAIN TYPE C	46	LF
605.12	15 INCH UNDERDRAIN TYPE C	131	LF
605.15	24 INCH UNDERDRAIN TYPE C	108	LF
606.1301	31" W-BEAM GUARDRAIL - MID-WAY SPLICE - SINGLE FACED	1332	LF
606.1304	31" W-BEAM GUARDRAIL - MID-WAY SPLICE, OVER 15' RADUIS	50	LF
606.1305	31" W-BEAM GUARDRAIL - MID-WAY SPLICE FLARED TERMINAL	3	EA
606.1721	BRIDGE TRANSITION - TYPE 1	4	EA
606.259	ANCHORAGE ASSEMBLY	7	EA
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	3	EA
606.356	UNDERDRAIN DELINEATOR POST	19	EA
606.366	GUARDRAIL, REMOVED AND RESET TYPE 3C	25	LF
608.26	CURB RAMP DETECTABLE WARNING FIELD	312	SF
609.11	VERTICAL CURB TYPE 1	2118	LF
609.12	VERTICAL CURB TYPE 1- CIRCULAR	177	LF
609.221	TERMINAL CURB TYPE 1	175	LF
609.222	TERMINAL CURB TYPE 1 - CIRCULAR	80	LF
609.26	CURB TRANSITION SECTION B TYPE 1	2	EA
609.31	CURB TYPE 3	695	LF
609.34	CURB TYPE 5	1787	LF
609.341	CURB TYPE 5 - TRUCK APRON	119	LF
609.35	CURB TYPE 5 - CIRCULAR	53	LF
609.38	RESET CURB TYPE 1	86	LF
609.40	RESET CURB TYPE 5	868	LF
610.08	PLAIN RIPRAP	56	CY
610.18	STONE DITCH PROTECTION	24	CY
613.319	EROSION CONTROL BLANKET	1700	SY
615.07	LOAM	460	CY
618.13	SEEDING METHOD NUMBER 1	27	UN
618.14	SEEDING METHOD NUMBER 2	20	UN
619.12	MULCH	47	UN
619.14	EROSION CONTROL MIX	20	CY
620.58	EROSION CONTROL GEOTEXTILE	103	SY
620.62	GEOSYNTHETIC REINFORCEMENT	8900	SY
620.66	DRAINAGE GEOCOMPOSITE	762	SY
626.11	PRECAST CONCRETE JUNCTION BOX	13	EA
626.21	METALLIC CONDUIT	25	LF
626.22	NON-METALLIC CONDUIT	2250	LF

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
626.251	NON-METALLIC UNDER PAVEMENT CONDUIT (SCHEDULE 80 OR GREATER RATING)	1190	LF
626.35	CONTROLLER CABINET FOUNDATION	1	EA
626.36	REMOVE OR MODIFY CONCRETE FOUNDATION	14	EA
626.421	24-INCH DIAMETER FOUNDATION	280	LF
626.451	42-INCH DIAMETER FOUNDATION	12	LF
626.46	48-INCH DIAMETER FOUNDATION	12	LF
627.733	4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	13900	LF
627.744	6" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	9000	LF
627.75	WHITE OR YELLOW PAVEMENT & CURB MARKING	9200	SF
627.77	REMOVING EXISTING PAVEMENT MARKING	25200	SF
627.78	TEMPORARY 4" PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	24950	LF
627.781	TEMPORARY 6" PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	30000	LF
629.05	HAND LABOR, STRAIGHT TIME	100	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	50	HR
631.172	TRUCK-LARGE (INCLUDING OPERATOR)	50	HR
631.32	CULVERT CLEANER (INCLUDING OPERATORS)	10	HR
634.15	TEMPORARY HIGHWAY LIGHTING	1	LS
634.160	HIGHWAY LIGHTING	1	LS
634.210	CONVENTIONAL LIGHT STANDARD	8	EA
639.18	FIELD OFFICE, TYPE A	1	EA
643.62	RECTANGULAR RAPID FLASHING BEACON	5	EA
643.64	FLASHING SIGN ASSEMBLY	2	EA
643.71	TRAFFIC SIGNAL MODIFICATION: WHITTEN RD & WESTERN AVE.	1	LS
643.71	TRAFFIC SIGNAL MODIFICATION: WHITTEN RD & HANNAFORD DR.	1	LS
643.72	TEMPORARY TRAFFIC SIGNAL: WHITTEN RD. & WESTERN AVE.	1	LS
643.72	TEMPORARY TRAFFIC SIGNAL: EXIT 109 & WESTERN AVE.	1	LS
643.90	INTERCONNECT WIRE BETWEEN: WHITTEN RD & EXIT 109	1	LS
643.92	PEDESTAL POLE	6	EA
645.103	DEMOUNT GUIDE SIGN	7	EA
645.106	DEMOUNT REGULATORY, WARNING, CONFIRMATION & ROUTE MARKER ASSEMBLY SIGN	53	EA
645.108	DEMOUNT POLE	38	EA
645.113	REINSTALL GUIDE SIGN	8	EA
645.116	REINSTALL REGULATORY, WARNING, CONFIRMATION & ROUTE MARKER ASSEMBLY SIGN	53	EA
645.118	REINSTALL POLE	37	EA
645.122	REMOVE & RESET OVERHEAD LANE USE SIGN ASSEMBLY	1	EA
645.271	REGULATORY, WARNING, CONFIRMATION AND ROUTE ASSEMBLY SIGN, TYPE 1	27	SF
652.30	FLASHING ARROW	2	EA
652.312	TYPE III BARRICADES	12	EA
652.313	TEMPORARY PEDESTRIAN BARRICADE - ADA COMPLIANT	69	LF
652.33	DRUM	270	EA
652.34	CONE	100	EA
652.343	TEMPORARY MODULAR DELINEATOR CURB	340	LF
652.35	CONSTRUCTION SIGNS	2750	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGERS	1000	HR
652.381	TRAFFIC OFFICERS	100	HR
652.41	PORTABLE-CHANGEABLE MESSAGE SIGN	9	EA
654.3335	FIBER OPTIC MANHOLE	2	EA
656.75	TEMPORARY SOIL EROSION & WATER POLLUTION CONTROL	1	LS
659.10	MOBILIZATION	1	LS
660.21	ON-THE-JOB TRAINING (BID)	2000	HR
910.301	SPECIAL WORK - UTILITY CONDUIT AND HANGERS ON BRIDGE	1	LS

ESTIMATED QUANTITIES - ITEMS SPECIFIC TO THE PBU ALTERNATE 1

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
403.2081	HOT MIX ASPHALT - 12.5 MM (POLYMER MODIFIED)	1600	T
403.2131	HOT MIX ASPHALT - 12.5 MM (BASE AND INTERMEDIATE COURSE POLYMER MODIFIED)	1550	T
409.15	BITUMINOUS TACK COAT, APPLIED	1350	G
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (88 CY)	1	LS
503.19	LOW-CARBON CHROMIUM REINFORCEMENT, FABRICATED & DELIVERED	88300	LB
503.20	LOW-CARBON CHROMIUM REINFORCEMENT, PLACING	88300	LB
506.9104	THERMAL SPRAY COATING (SHOP APPLIED) (473500 LB)	1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (1269 SY)	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (1492 SY)	1	LS
523.52	BEARING INSTALLATION	72	EA
523.5401	LAMINATED ELASTOMERIC BEARINGS, FIXED	36	EA
523.5402	LAMINATED ELASTOMERIC BEARINGS, EXPANSION	36	EA
530.04	PREFABRICATED BRIDGE STRUCTURE AND ASSEMBLY	1	LS

ESTIMATED QUANTITIES - ITEMS SPECIFIC TO THE CURVED GIRDER ALTERNATE 2

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.1235	DIAMOND GRINDING CONCRETE PAVEMENT	1260	SY
403.2081	HOT MIX ASPHALT - 12.5 MM (POLYMER MODIFIED)	1500	T
403.2131	HOT MIX ASPHALT - 12.5 MM (BASE AND INTERMEDIATE COURSE POLYMER MODIFIED)	1450	T
409.15	BITUMINOUS TACK COAT, APPLIED	1150	G
502.26	STRUCTURAL CONCRETE ROADWAY & SIDEWALK SLAB ON STEEL BRIDGES (507 CY)	1	LS
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALKS (67 CY)	1	LS
503.19	LOW-CARBON CHROMIUM REINFORCEMENT, FABRICATED & DELIVERED	213300	LB
503.20	LOW-CARBON CHROMIUM REINFORCEMENT, PLACING	213300	LB
504.702	STRUCTURAL STEEL FABRICATED & DELIVERED, WELDED (485500 LB)	1	LS
504.71	STRUCTURAL STEEL ERECTION (485500 LB)	1	LS
505.08	SHEAR CONNECTORS (11841 EA)	1	LS
506.9104	THERMAL SPRAY COATING (SHOP APPLIED) (48550 LB)	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (2750 SY)	1	LS
523.52	BEARING INSTALLATION	39	EA
523.5401	LAMINATED ELASTOMERIC BEARINGS, FIXED	13	EA
523.5402	LAMINATED ELASTOMERIC BEARINGS, EXPANSION	26	EA

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

	BY	DATE
D. EATON		
PROJ. MANAGER		
DESIGN-DETAILED	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

ESTIMATED QUANTITIES

SHEET NUMBER
2
OF 190

Filename: ...\00\BRIDGE\MSTA_Quantities.dgn Division: BRIDGE Username: kwright Date:7/18/2023

GENERAL 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. Do not excavate for Aggregate Subbase Course where existing material is suitable as determined by the Resident.

5. 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.

6. Stones which cannot be rolled or compacted into the surface of the shoulder shall be removed by hand raking. Payment for hand raking will be considered incidental to Pay Item 304.10, Aggregate Subbase Course - Gravel.

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. 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.

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

11. 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.

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

    All exposed surfaces of concrete medians and sidewalks.
    Fascias down to the drip notch.
    Concrete wearing surfaces.
    All exposed areas of abutments, wingwalls, and piers to one foot below grade.

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

14. The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span. The datum adjustment used to convert 1958 existing plan elevations to the proposed plan datum is -0.7 feet.

15. The project geotechnical report titled: Geotechnical Design Report Western Avenue Bridge No. 5808 Over Interstate 95 MaineDOT WIN 21672.00. May 2023, 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.

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

Filename: ...\BRIDGE\MSTA_General_Notes.dgn Division: BRIDGE Username: kwight Date:7/18/2023

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

PROJ. MANAGER	D. EATON		DATE
DESIGN-DETAILED	KLW\PLP	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

GENERAL NOTES

SHEET NUMBER
3
OF 190

Stantec

Filename: ...\00\BRIDGE\MSTA_Plan1.dgn Division: BRIDGE Username: kwright Date:7/18/2023

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

Sta. 70+83.80 Limit of Work
Existing Utility Pole to Remain; Provide 4' Min. Clear Width
8.0
8.0
5.5
5.5
7.0
71+00
70+00
Sta. 69+80.41 Limit of Work

Existing Utility Pole to Remain; Provide 4' Min. Clear Width; Guys to be Reset (By Others)
Sta. 65+15.13 Limit of Work
PT = STA. 64+91.54
7.0'
7.0'
Sta. 64+93.15 Limit of Work
65+00

CURVE DATA #1
PI = 201+73.40
D = 17°37'46.1"
Δ = 27°34'46.8" Lt.
R = 325.00'
L = 156.44'
T = 79.77'
E = 9.65' (See Note 1)

CURVE DATA #2
PI = 20+93.67
D = 3°30'00.0"
Δ = 14°18'27.6" Rt.
R = 1637.02'
L = 408.79'
T = 205.46'
E = 12.84'

CURVE DATA #1
PI = 400+91.93
D = 52°05'13.5"
Δ = 55°36'34.2" Lt.
R = 110.00'
L = 106.76'
T = 58.01'
E = 14.36'

Match Line A-A
EXIT 109B SB OFF RAMP
MAINE INTERSTATE 95 SOUTHBOUND
MAINE INTERSTATE 95 NORTHBOUND
N19°59'17.45"W
561+00
561+13.00
562+00
563+00
564+00
565+00
566+00
567+00
568+00
569+00
570+00
571+00
572+00
573+00
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591+00
592+00
593+00
594+00
595+00
596+00
597+00
598+00
599+00
600+00
601+00

CURVE DATA #1
PI = 400+91.93
D = 52°05'13.5"
Δ = 55°36'34.2" Lt.
R = 110.00'
L = 106.76'
T = 58.01'
E = 14.36'

CURVE DATA #2
PI = 401+90.18
D = 28°56'14.1"
Δ = 28°04'24.3" Lt.
R = 198.00'
L = 97.01'
T = 49.50'
E = 6.09'

CURVE DATA #2
PI = 503+23.25
D = 28°38'52.4"
Δ = 49°14'54.3" Rt.
R = 200.00'
L = 171.91'
T = 91.67'
E = 20.01'

CURVE DATA #1
PI = 501+63.59
D = 32°31'33.8"
Δ = 47°04'07.3" Rt.
R = 176.15'
L = 144.71'
T = 76.72'
E = 15.98'

CURVE DATA #1
PI = 303+52.67
D = 22°55'05.9"
Δ = 28°39'02.0" Rt.
R = 250.00'
L = 125.01'
T = 63.84'
E = 8.02'

CURVE DATA #2
PI = 305+45.47
D = 10°44'58.8"
Δ = 27°44'39.0" Rt.
R = 533.00'
L = 258.09'
T = 131.63'
E = 16.01'

Sta. 18+33.92 Western Ave. 35.00' Rt. =
Sta. 400+33.92 Exit 109B NB Off Ramp

PT = STA. 402+37.70

Sta. 402+25.00
Limit of Work

3I" W-Beam Guardrail - Mid-Way Splice Flared Terminal

PCC = STA. 401+10.68

3I" W-Beam Guardrail - Mid-Way Splice, Over 15' Radius (R=70')

PC = STA. 400+33.92

12" RCP

CB-22

6" UD Type B

Remove Existing Culverts

Remove Catch Basin

Remove Existing Culverts

Remove Catch Basin

EXIT 109 NB & SB OFF RAMP

EXIT 109 NB & SB ON RAMP

PT = STA. 504+03.49

PCC = STA. 502+31.58

PC = STA. 500+86.87

Sta. 502+09.50
Limit of Work

Adjust CB to Grade

Sta. 14+86.87 Western Ave. 43.00 Rt. =
Sta. 500+86.87 Exit 109A NB On Ramp

Mill and Overlay with 3" Hot Mix Asphalt (Typ.)

Sta. 14+00.00
Limit of 3" Mill & Overlay Rt.

WESTERN AVENUE

℄ Construction

N84°13'17.06"W

Sta. 16+35.00 Western Ave. 43.00 Lt. =
Sta. 301+65.00 Exit 109 NB & SB On Ramp

CB-30

12" UD Type C

CB-31

25' OPT

Remove Catch Basin

6" UD Type B

15" Opt. 1

Anchorage Assembly

Steel Approach Railing, 4 Bar & Bridge Transition - Type I (Typ.)

Approximate Location of Existing Signal Interconnect Fiber

Junction Box to Intercept Existing Signal Interconnect Fiber. See MOT Phase 2 Plans and Phase 2 Signal Plans

3I" W-Beam Guardrail - Mid-Way Splice - Single Faced

Plain Riprap Downspout

Remove Existing Culvert

Remove Pavement; Loam and Seed (Typ.)

Solar Array Access

PC = STA. 302+88.83

PCC = STA. 304+13.84

18" RCP

EXIT 109 NB & SB ON RAMP

Sta. 13+00.00
Limit of 3" Mill & Overlay Lt.

Stone Ditch Protection

Sta. 306+75.00
Limit of Work

PCC = STA. 306+71.93

PLAN

25 0 25 50
Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

	BY	DATE
D. EATON		
PROJ. MANAGER		
DESIGN-DETAILED	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

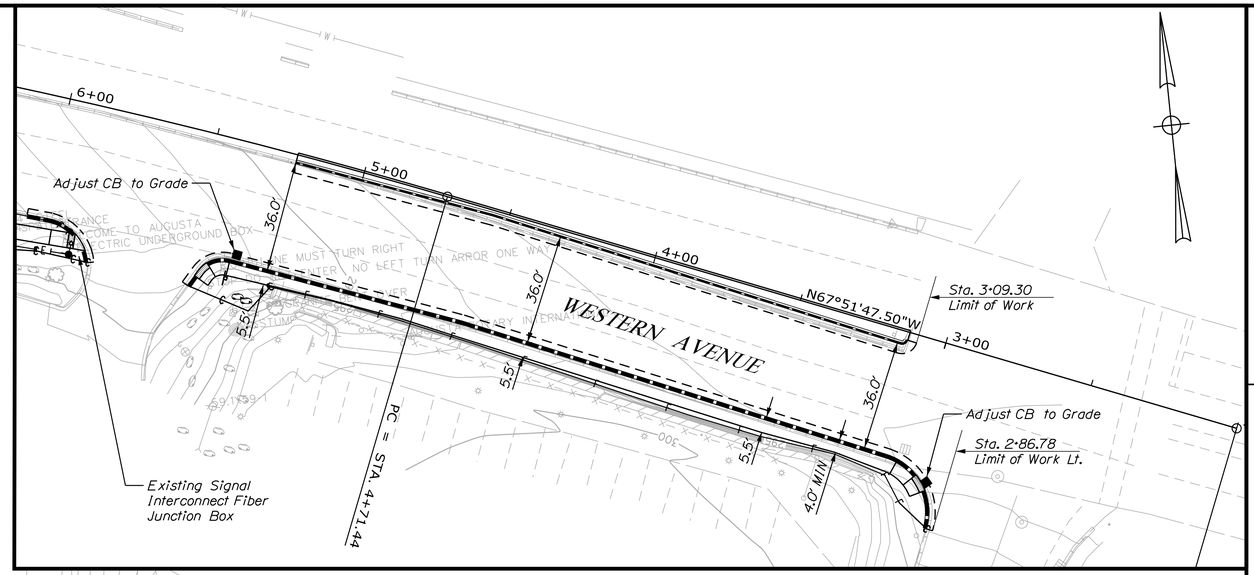
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

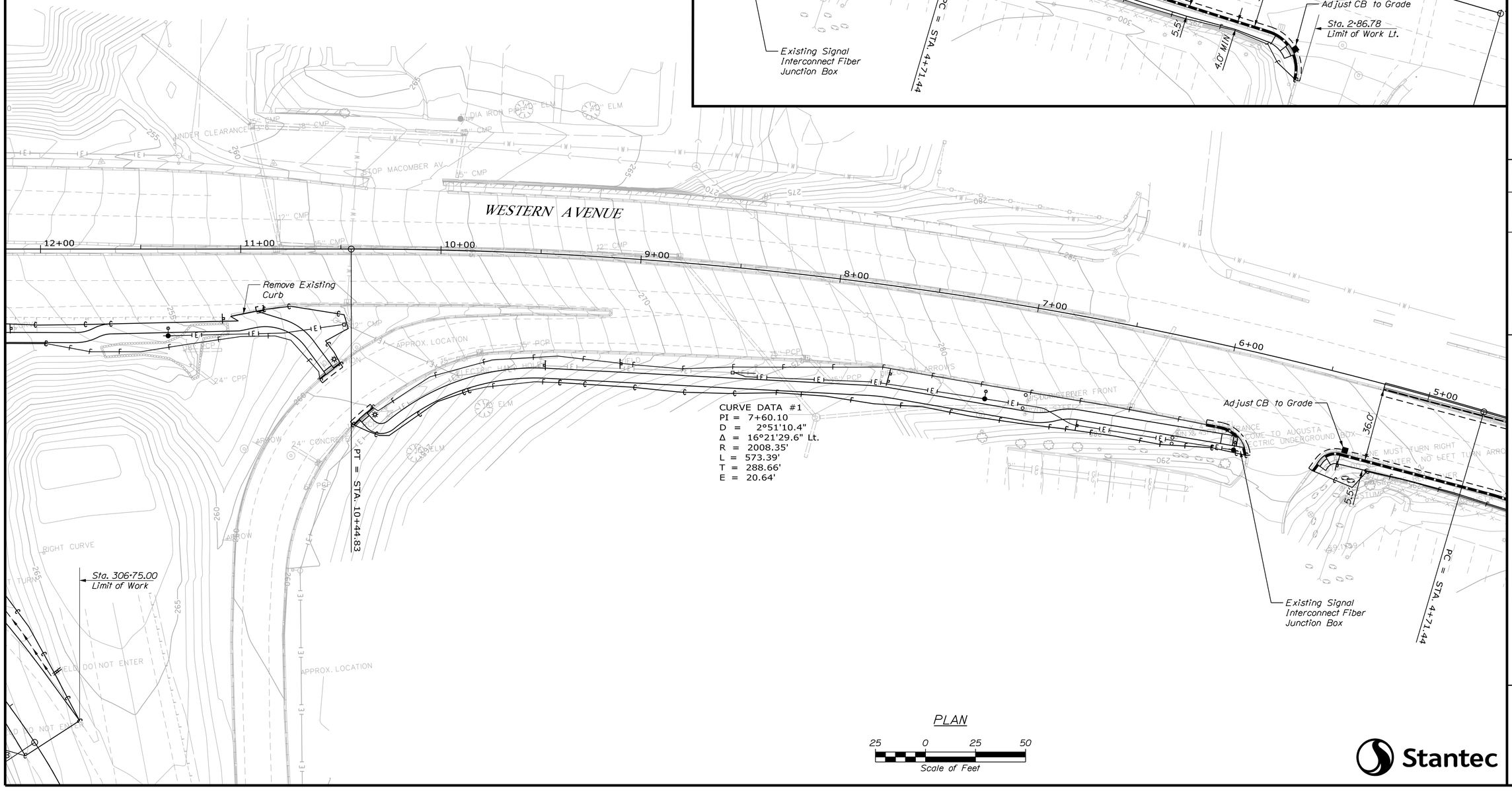
GENERAL PLAN
(2 OF 4)

SHEET NUMBER
5
OF 190

Filename: ...\00\BRIDGE\MSTA_Plan2.dgn Division: BRIDGE Username: kwright Date:7/18/2023

Filename: ...\00\BRIDGE\MSTA_Plan3.dgn Division: BRIDGE Username: kwight Date:7/18/2023





PLAN

25 0 25 50

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808 BRIDGE PLANS

	D. EATON	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	KLW/PLP	KLW/PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

GENERAL PLAN (3 OF 4)

SHEET NUMBER

6

OF 190

Filename: ...\00\BRIDGE\MSTA_Plan4.dgn Username: kwight Division: BRIDGE Date:7/18/2023

Anchorage Assembly

Steel Approach Railing, 4 Bar & Bridge Transition - Type 1 (Typ.)

31" W-Beam Guardrail - Mid-Way Splice - Flared Terminal

31" W-Beam Guardrail - Mid-Way Splice - Single Faced

Connect to Existing Guardrail

Sawcut Line (Typ.)

Anchorage Assembly

85'-9½"

157'-0"

71'-2½"

31" W-Beam Guardrail - Mid-Way Splice - Single Faced (15' Radius & Less)

Remove Manhole

Anchorage Assembly

Adjust CB to Grade

WHITTEN ROAD

S6°56'39.96"W

Adjust CB to Grade

Adjust CB to Grade

Sta. 105+18.57
Limit of Work Lt.

Sta. 105+00.00
Limit of Mill & Overlay

Sta. 105+02.68
Limit of Work Rt.

Maintenance of Traffic Temporary Disturbance Limits (See Note 1)

Adjust Manhole to Grade

ASCT Cabinet (To Remain)

Mill and Overlay with 3" Hot Mix Asphalt

STA. 104+19.18

STA. 105+64.56

STA. 5603+20.60

CURVE DATA #1
PI = 104+91.96
D = 4°46'28.7"
Δ = 6°56'28.8" Rt.
R = 1200.00'
L = 145.38'
T = 72.78'
E = 2.20'

PLAN

25 0 25 50

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808 BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW\PLP	JUNE 2023	
CHECKED-REVIEWED	LEM	JUNE 2023	SIGNATURE
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			P.E. NUMBER
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			DATE
REVISIONS 4			
FIELD CHANGES			

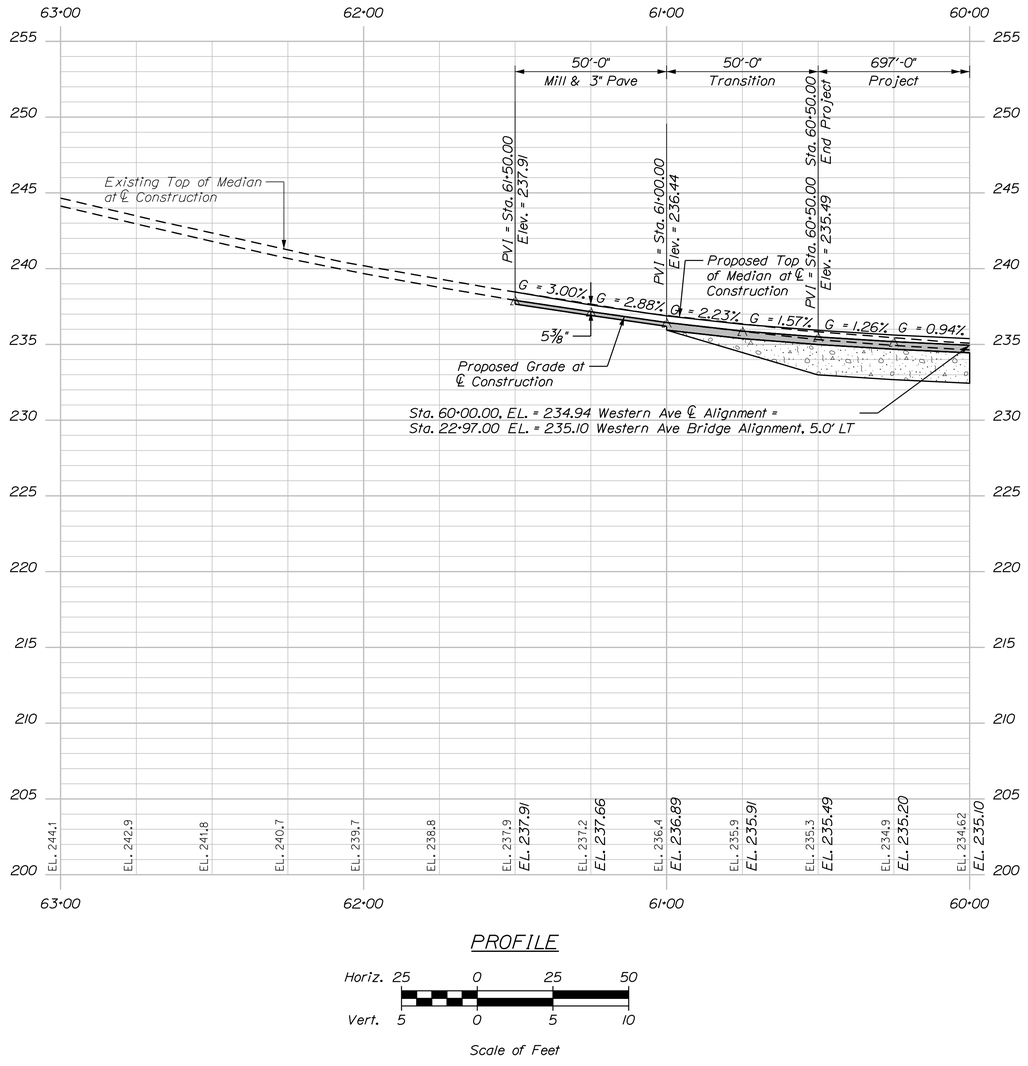
WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

GENERAL PLAN
(4 OF 4)

SHEET NUMBER

7

OF 190



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW\PLP	BY	DATE
CHECKED-REVIEWED	LEM	KLW\PLP	JUNE 2023
DESIGN2-DETAILED2		LEM	JUNE 2023
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

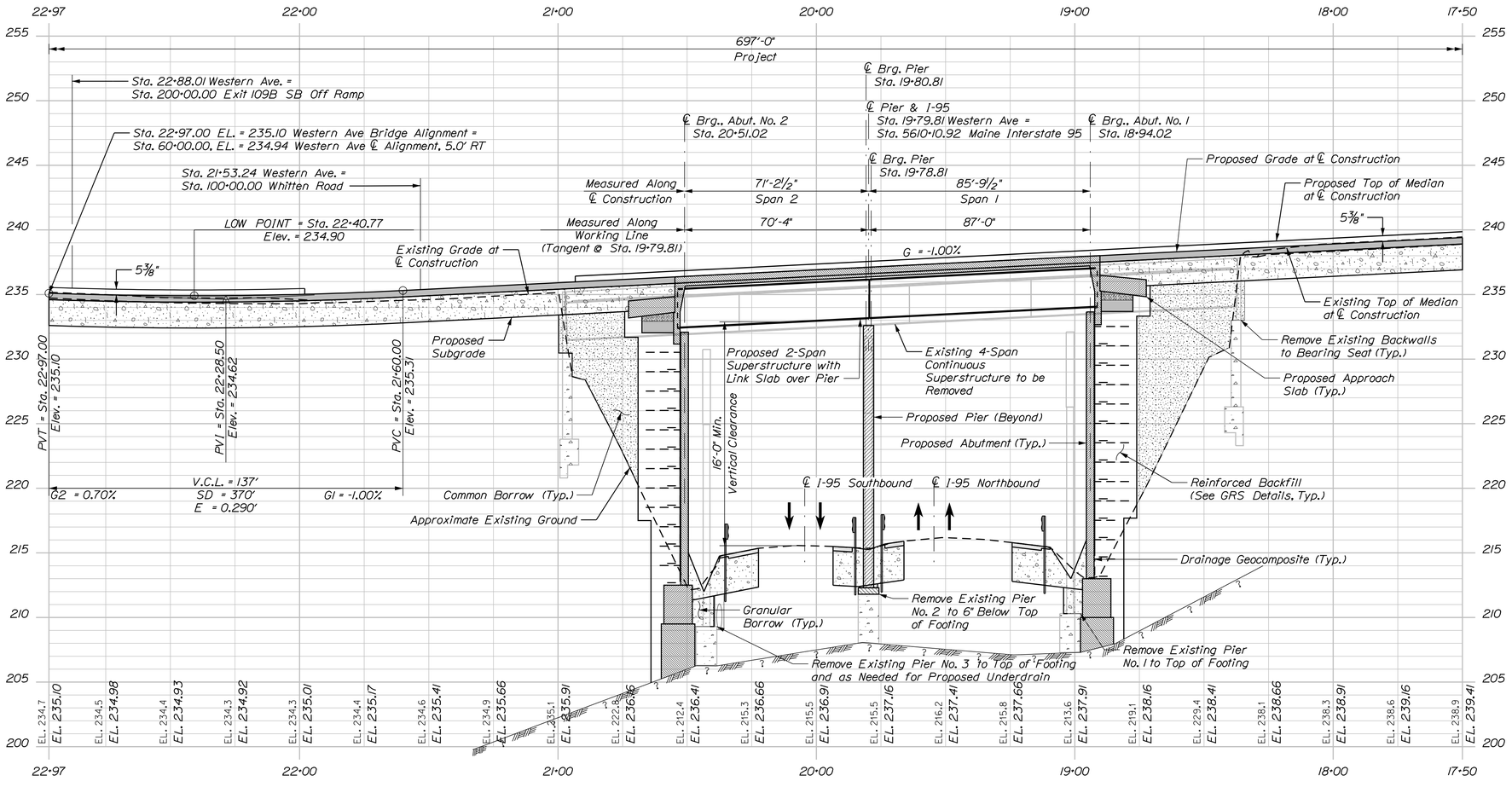
PROFILE (1 OF 6)

SHEET NUMBER

8

OF 190

Filename: ...\00\BRIDGE\MSTA_Profile1.dgn Division: BRIDGE Username: kwight Date:7/18/2023



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

NOTE

1. PBU superstructure bid alternate shown, see curved steel plate girder framing plan for other bid alternate span and bearing layout.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

P.E. NUMBER

DATE

SIGNATURE

	BY	DATE
D. EATON		
PROJ. MANAGER	KLW/PLP	JUNE 2023
DESIGN-DETAILED	KLW/PLP	JUNE 2023
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

PROFILE (2 OF 6)

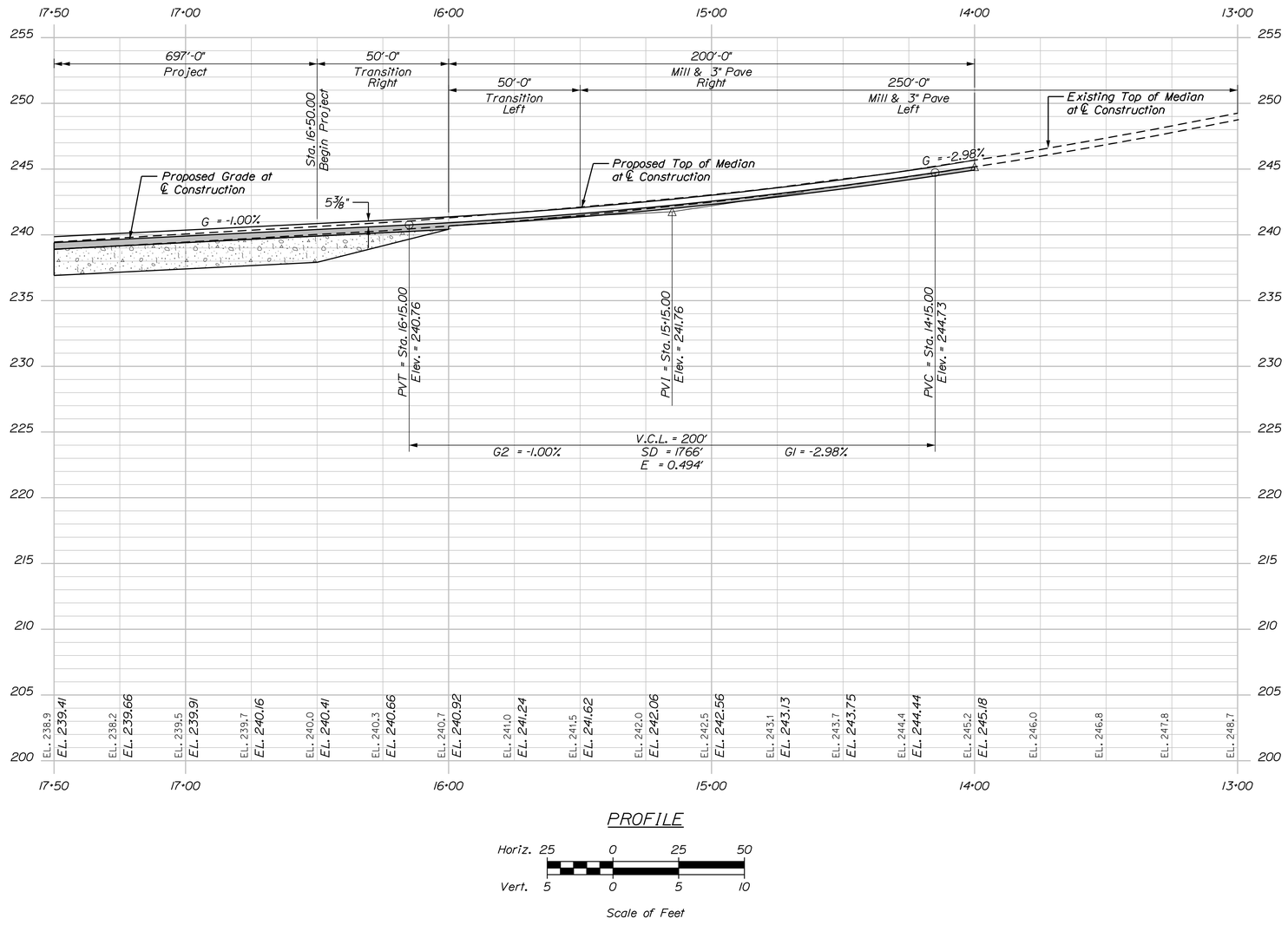
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OF 190

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Filename: ...\00\BRIDGE\MSTA_Profile3.dgn Division: BRIDGE Username: kwight Date:7/18/2023



PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808 BRIDGE PLANS

PROJ. MANAGER	D. EATON	BY	DATE
DESIGN-DETAILED	KLW\PLP	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

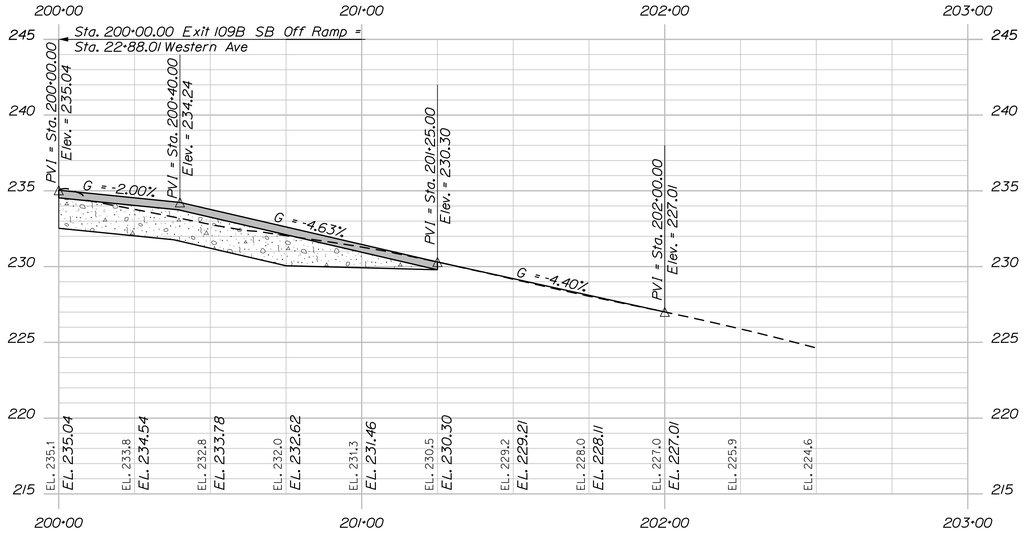
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

PROFILE (3 OF 6)

SHEET NUMBER

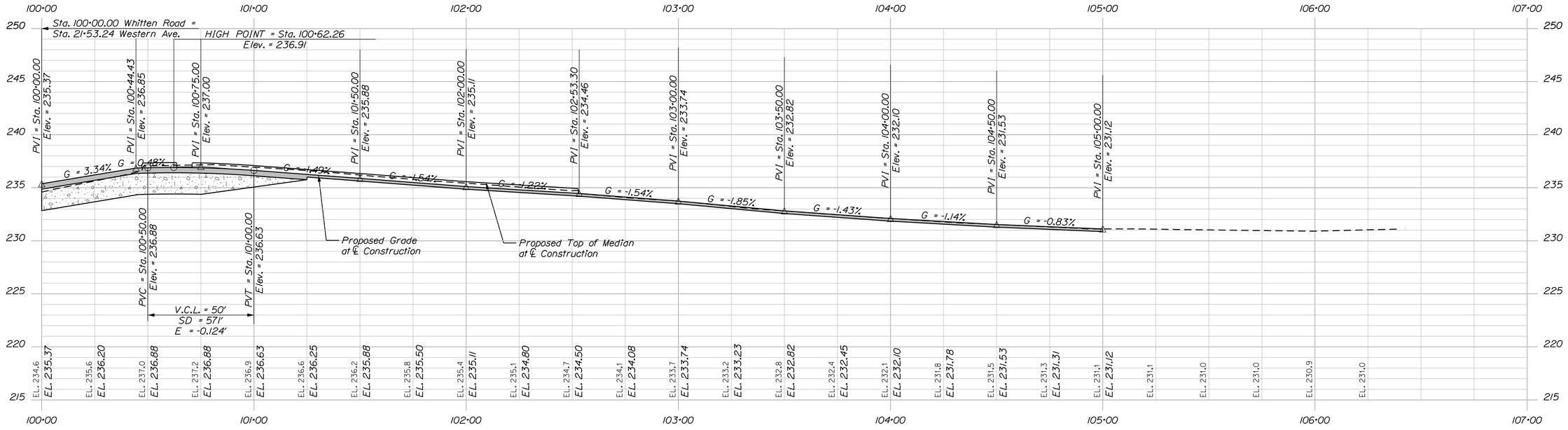
10

OF 190



EXIT 109B SB OFF RAMP PROFILE

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



WHITTEN ROAD PROFILE

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

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW\PLP	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

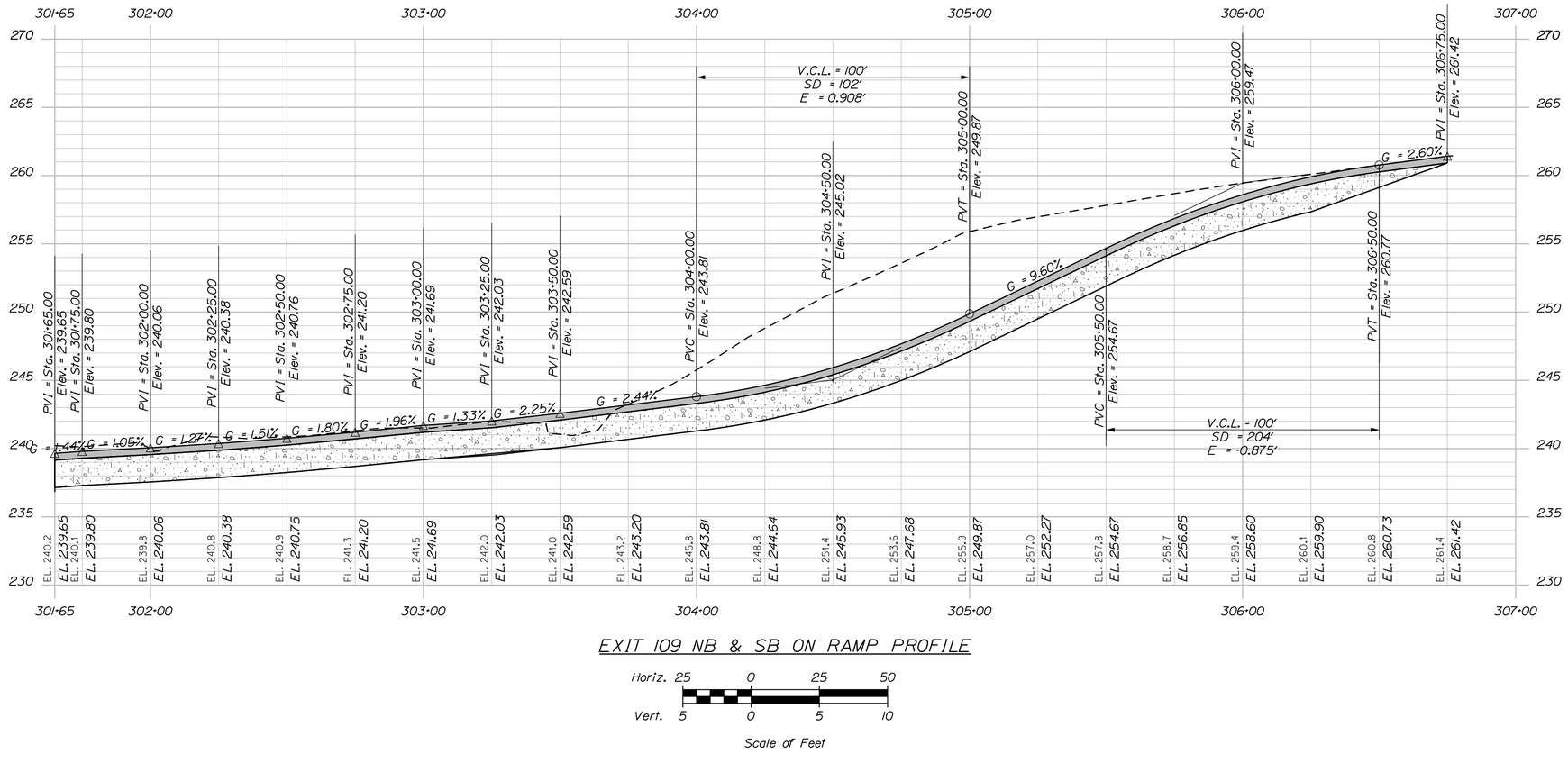
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

PROFILES (4 OF 6)

SHEET NUMBER
11
OF 190

Username: kwight Date:7/18/2023
Division: BRIDGE
Filename: ...\00\BRIDGE\MSTA_Profile4.dgn

Filename: ...\00\BRIDGE\MSTA_Profile5.dgn Division: BRIDGE Username: kwight Date:7/18/2023



EXIT 109 NB & SB ON RAMP PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5808

WIN
21672.00

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	KLW/PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

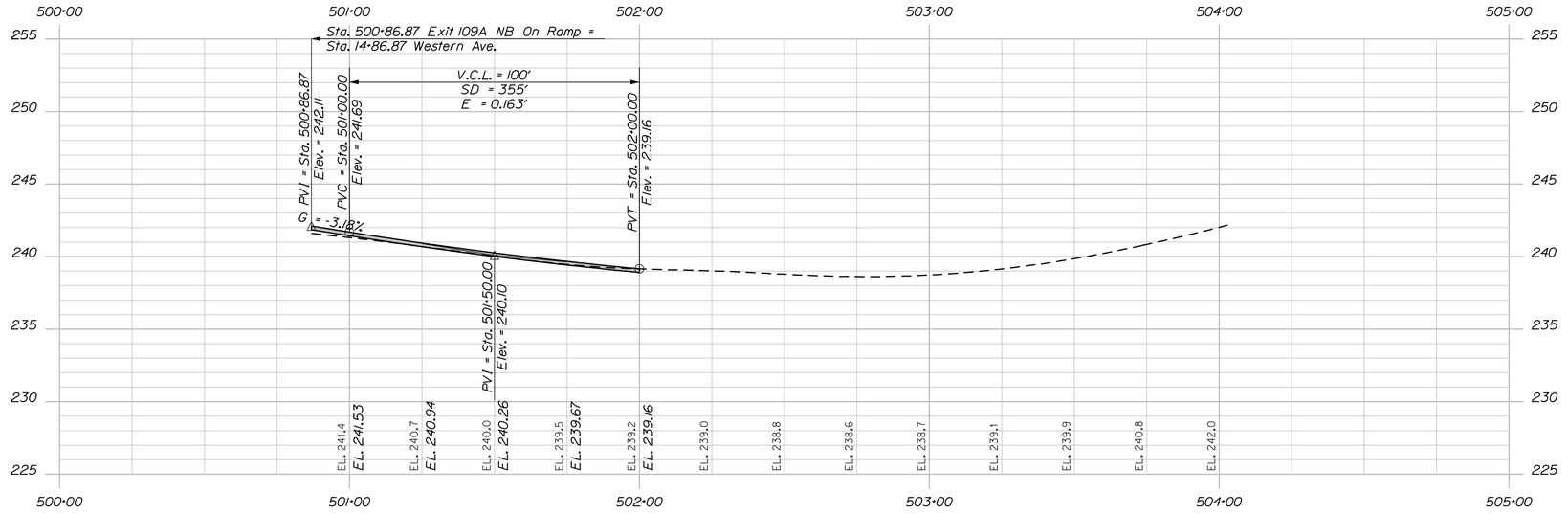
WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

PROFILE (5 OF 6)

SHEET NUMBER

12

OF 190

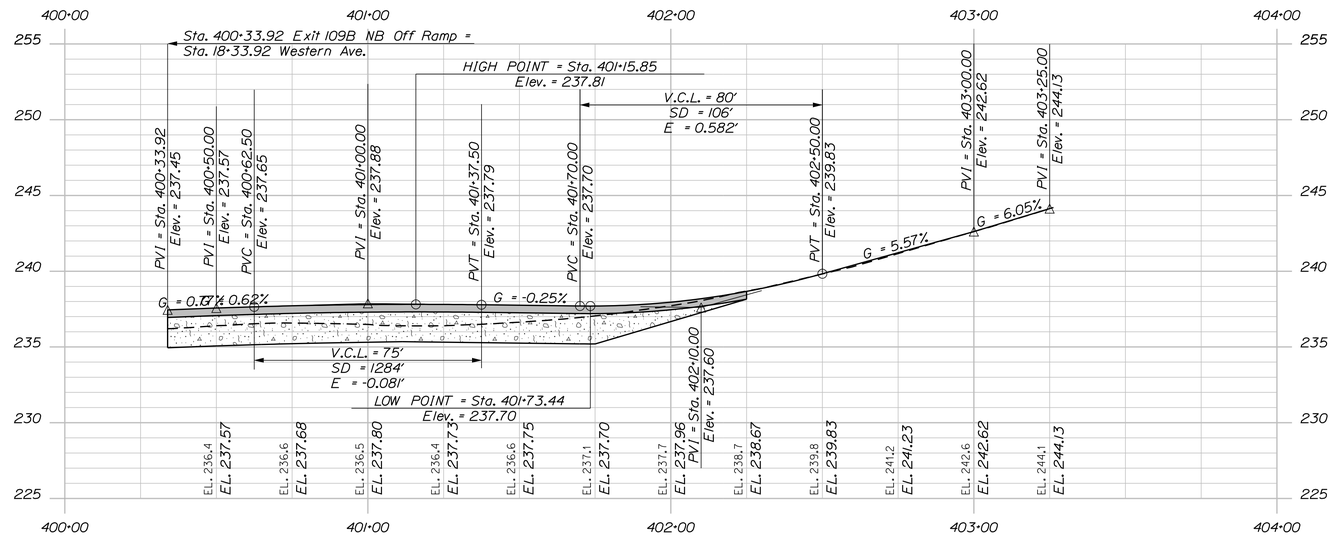


EXIT 109 NB & SB WEST ON RAMP

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet



EXIT 109 NB & SB OFF RAMP

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808 BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW\PLP	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

PROFILES (6 OF 6)

SHEET NUMBER

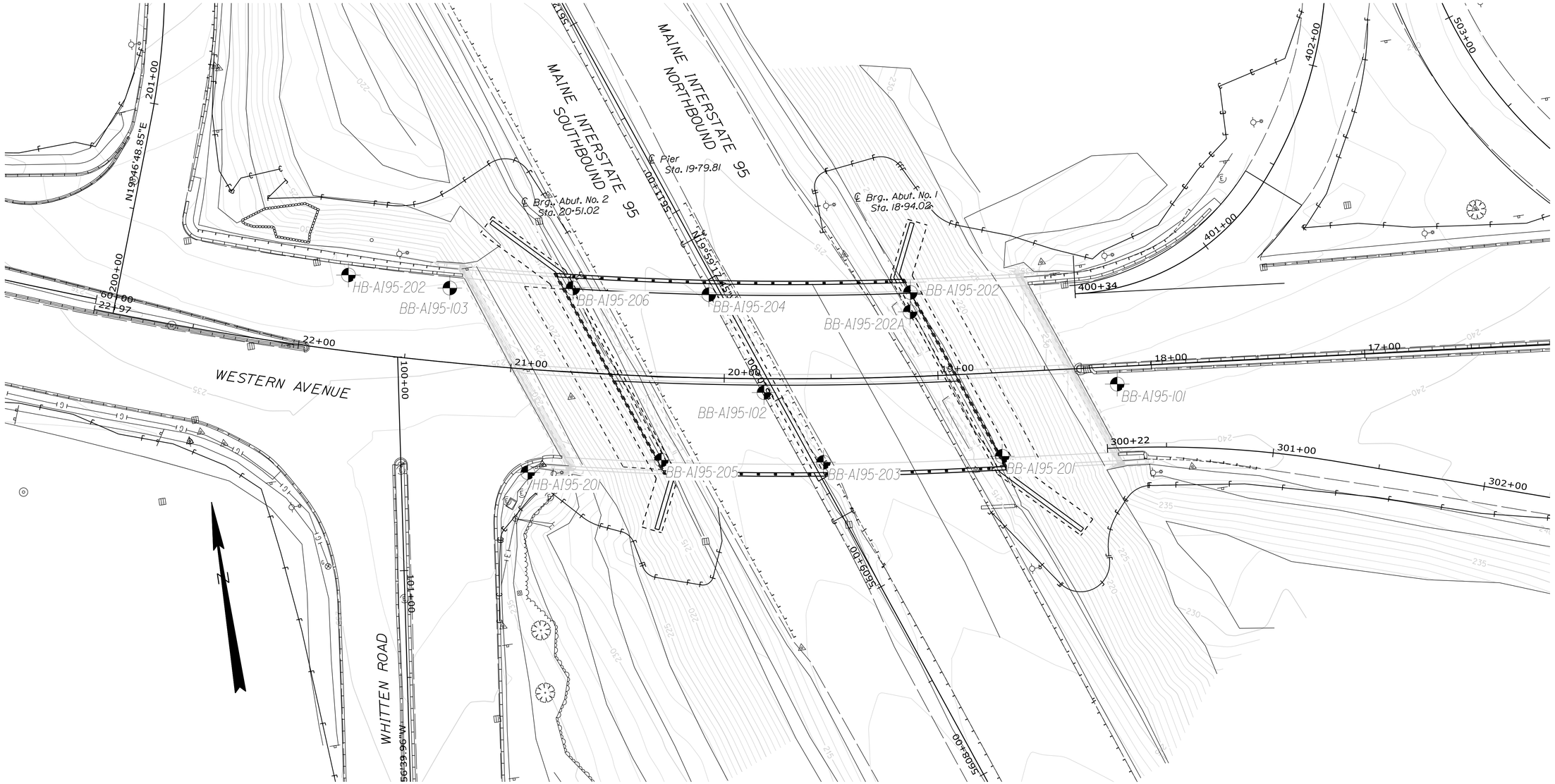
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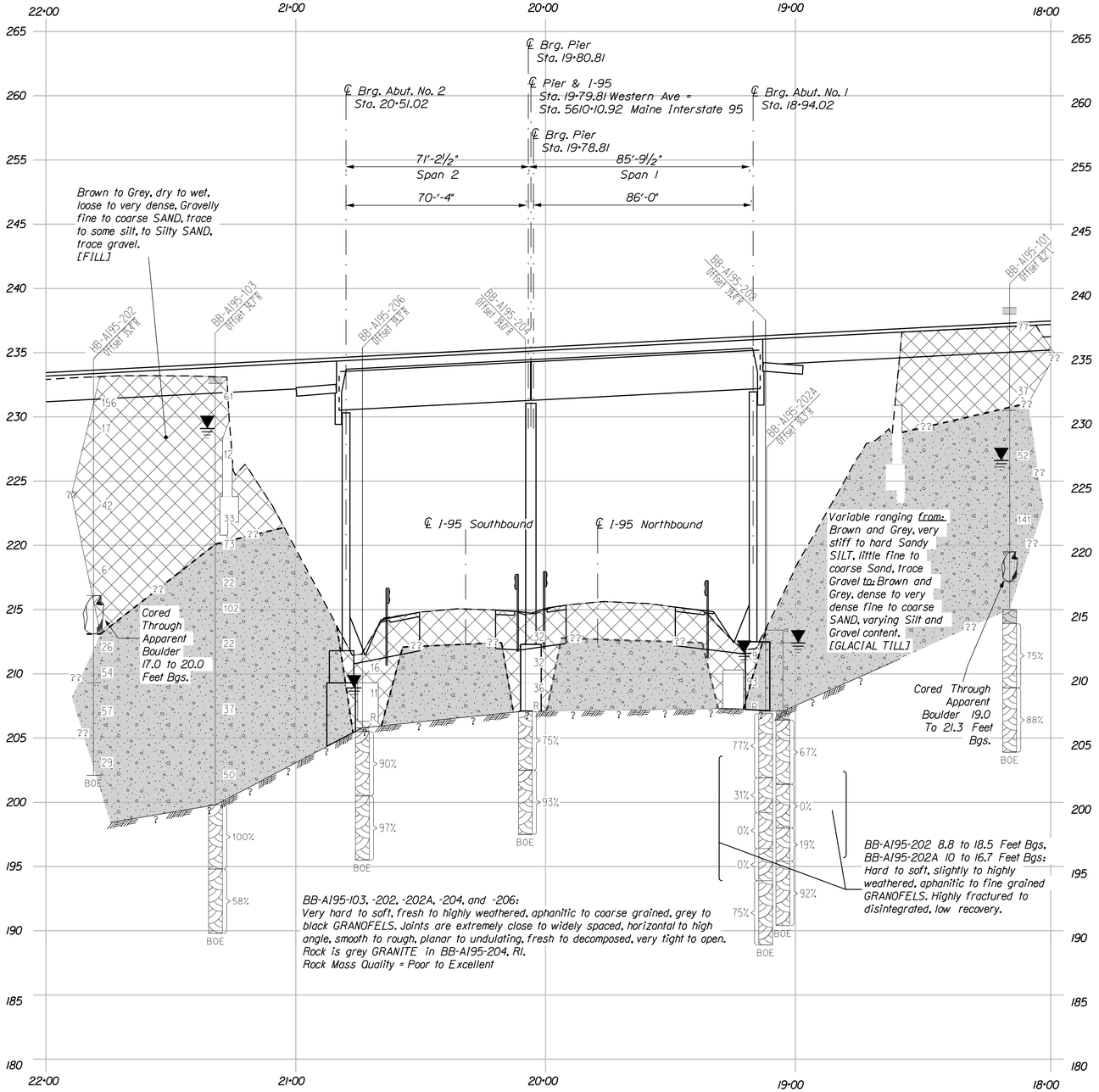
OF 190

Username: kwight Date:7/18/2023

Division: BRIDGE

Filename: ...\00\BRIDGE\MSTA_Profile6.dgn


MAINE INTERSTATE 95 SOUTHBOUND
MAINE INTERSTATE 95 NORTHBOUND
℄ Pier Sta. 19+79.81
℄ Brg., Abut. No. 2 Sta. 20+51.02
℄ Brg., Abut. No. 1 Sta. 18+94.02
N19°46'48.85"E
N19°46'48.85"E
HB-AI95-202
BB-AI95-103
BB-AI95-206
BB-AI95-204
BB-AI95-202
BB-AI95-202A
BB-AI95-101
BB-AI95-102
BB-AI95-205
BB-AI95-203
BB-AI95-201
HB-AI95-201
WESTERN AVENUE
WHITTEN ROAD
N
200+00
201+00
22+97
22+00
21+00
20+00
19+00
18+00
17+00
100+00
300+22
301+00
302+00
401+00
400+34
402+00
503+00
560+00
560+50
560+00
560+00
561+00
561+00
561



PROFILE

Along the North Bridge Fascia
(Approximately 45.6 feet Right of Centerline)

ELEVATION (FEET, NAVD 88)

NOTES

1) Base map developed from electronic files provided by Stantec on April 27, 2023 (File included Profile_geotech.dgn)

2) The as-drilled locations of the BB-A195-100 series test borings were determined by survey conducted by MaineDOT and supplied to GZA.

3) The as-drilled locations of the BB-A195-200 and HB-A195-200 series test borings were determined by survey conducted by MaineDOT and supplied to GZA.

4) The as-drilled location of BB-A195-202A was determined by field ties collected by GZA during the field exploration program. This data should be considered accurate only to the degree implied by the method used.

5) This generalized interpretive soil and rock 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.

PROFILE

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

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2167200

WIN 21672.00

BRIDGE PLANS

Bridge No. 5808

STATE OF MAINE
Andrew Bielsdell
10957
LICENSED PROFESSIONAL ENGINEER

SIGNATURE
10957
P.E. NUMBER
05/19/2023
DATE

BY	DATE
ALM/BMC	MAY 2023
CLS	MAY 2023

PROJ. MANAGER	D. EATON
DESIGN-DETAILED	ALM/BMC
CHECKED-REVIEWED	ARB
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

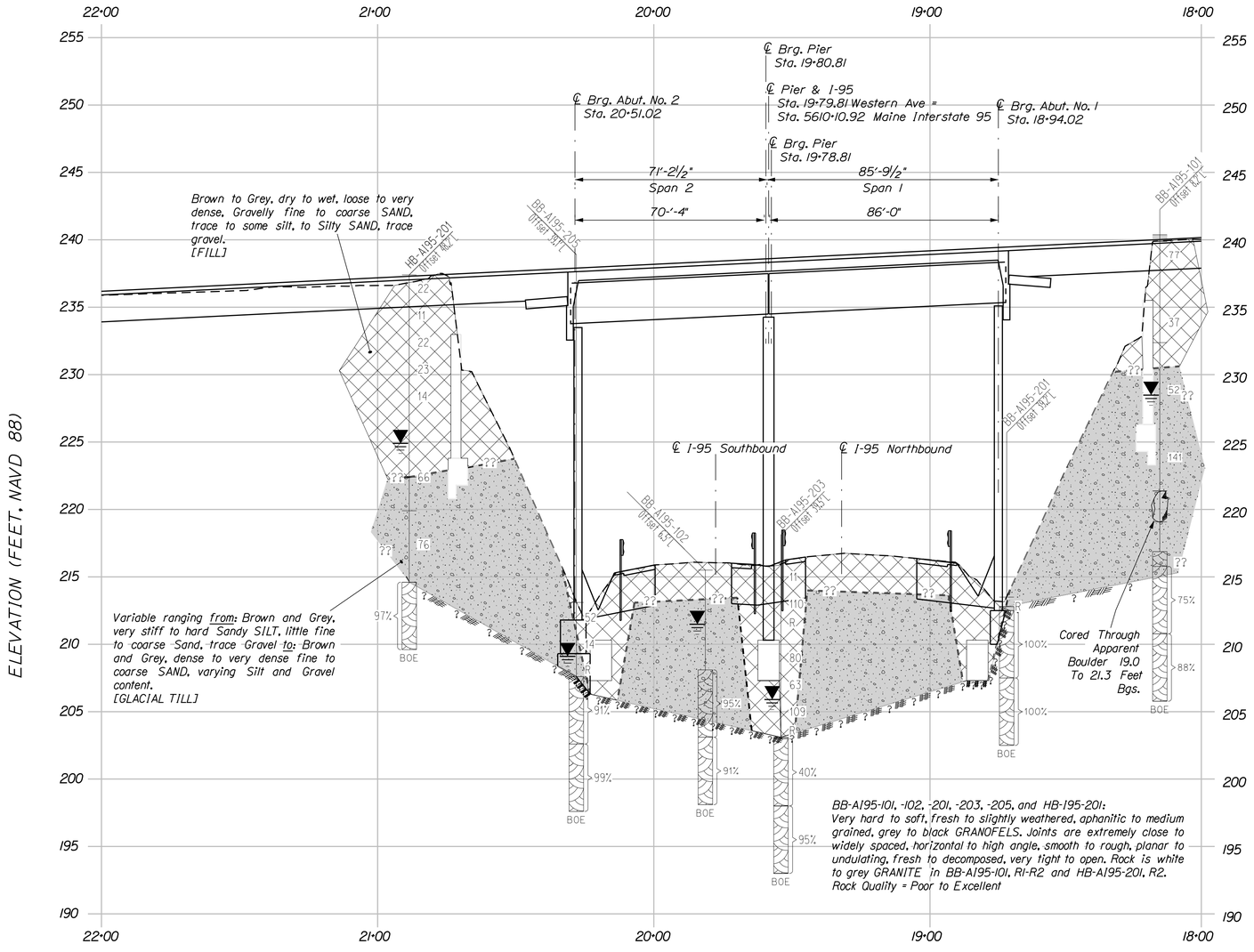
WESTERN AVENUE BRIDGE NO.5808
OVER INTERSTATE 95
AUGUSTA, ME KENNEBEC COUNTY

INTERPRETIVE SUBSURFACE PROFILE
NORTH FASCIA

SHEET NUMBER
15
of 190

PREPARED BY:
GZA

Division: Bridge
Filename: ...\00X ISP\00X_ISP_north.dgn
Date:5/18/2023
Username: BMC



PROFILE

Along the South Bridge Fascia
(Approximately 39.6 feet Left of Centerline)

NOTES

1) Base map developed from electronic files provided by Stantec on April 27, 2023 (File included Profile_geotech.dgn)

2) The as-drilled locations of the BB-A195-100 series test borings were determined by survey conducted by MaineDOT and supplied to GZA.

3) The as-drilled locations of the BB-A195-200 and HB-A195-200 series test borings were determined by survey conducted by MaineDOT and supplied to GZA.

4) This generalized interpretive soil and rock 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.

PROFILE

Horiz. 25 0 25 50

Vert. 5 0 5 10

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2167200

WIN 21672.00

BRIDGE PLANS

Bridge No. 5808

STATE OF MAINE
Andrew Blaisdell
10957
LICENSED PROFESSIONAL ENGINEER

SIGNATURE 10957
P.E. NUMBER
05/19/2023
DATE

BY	DATE
ALM/BMC	MAY 2023
CLS	MAY 2023

PROJ. MANAGER	D. EATON
DESIGN-DETAILED	ALM/BMC
CHECKED-REVIEWED	ARB
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

WESTERN AVENUE BRIDGE NO.5808
OVER INTERSTATE 95
AUGUSTA, ME KENNEBEC COUNTY

INTERPRETIVE SUBSURFACE PROFILE
SOUTH FASCIA

SHEET NUMBER
16
of 190

PREPARED BY:
GZA

Division: Bridge
Filename: ...\00X (SP\00X_ISP_south.dgn
Date:5/18/2023
Username: BMC

Maine Department of Transportation — BB-AI95-101

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808 — Location: Augusta, Maine — Boring No.: BB-AI95-101 — WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.): 238.5	Auger ID/OD: 4.25" OD
Operator:	Mike Porter	Datum: NAVD 88	Sampler: Standard Splitspoon
Logged By:	Blaine Cordell	Rig Type: Truck Rig	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	7/17/18-7/18/18	Drilling Method: Drive & Wash	Core Barrel: NX2
Boring Location:	Sta. 19+16.4, Offset 8.2' L	Casing ID/OD: 4"/4.5", 3"/3.5"	Water Level *: 11.9'
Hammer Efficiency Factor: 0.937		Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Rock Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0								238.0		0"-0.5": Asphalt.	
	10	24/17	0.5 - 2.5	27-24-25-25	49	77	SSA			Brown, dry, very dense, Gravelly fine to coarse SAND, little silt, (Fill).	0.5
5	20	24/10	4.0 - 6.0	14-14-10-6	24	37	22				
							44			Brown, dry, dense, fine to coarse SAND, little gravel, trace silt, (Fill).	
							18				
							37				
							22/2" 8/6	230.3			-8.2
							AHEAD	229.6		Boulder.	-8.9
10	30	24/10	10.0 - 12.0	17-16-17-15	33	52				Brown, wet, hard, Clayey SILT, some fine to coarse sand, trace gravel, (Glacial Till).	
15	40	24/13	15.0 - 17.0	34-66-24-26	90	141				Brown, wet, very dense, Gravelly fine to coarse SAND, some silt, (Glacial Till).	
								219.5			-19.0
										Increased roller bit resistance at 19.0' bgs. Advance roller bit to 19.6' and set up to core. Broke through boulder at 21.3' bgs. Roller cone encountered increased resistance at 23.5'. probable top of rock. Roll ahead to 24.6' bgs and set up to core.	NX2
20								217.2		Probable Glacial Till with cobbles to 23.5'.	-21.3
								215.0			-23.5
25	R1	60/50	24.6 - 29.6	RQD = 75%						R1: Very hard to hard, fresh, medium grained, white, GRANITE. Joints are very close to moderately spaced, low angle, rough, undulating, fresh, open. -HALLOWELL GRANITE INTRUSION- Recovery = 83% Rock Quality = Fair Core Times (minsec): 24.6-25.6' (4:05), 25.6-26.6' (2:30), 26.6-27.6' (2:10), 27.6-28.6' (2:00), 28.6-29.6' (2:10)	NX2 q_p=1745 ksf
30	R2	60/53	29.6 - 34.6	RQD = 88%				203.9		R2: Very hard to hard, fresh, medium grained, white, GRANITE. Joints are moderately spaced, moderately dipping to high angle, rough, undulating, partially open to open, fresh. -HALLOWELL GRANITE INTRUSION- Recovery = 88% Rock Quality = Good Rock Core Times (minsec): 29.6-30.6' (2:40), 30.6-31.6' (2:00), 31.6-32.6' (2:00), 32.6-33.6' (2:00), 33.6-34.6' (2:30)	
35										Bottom of Exploration at 34.6 feet below ground surface.	-34.6
40											

Remarks:
1. 300 lb hammer 30" drop for casing blows.
2. Automatic Hammer NEBC *B-24 (Truck 83), Energy Transfer Rate = 0.937.
3. Intermittent cobbles from 12.0'-23.5' bgs.
4. Water level was measured after 15 hrs. with casing in the ground.
5. 4" casing to 15.0' bgs, broke casing and removed spun 3" casing to 24.6' bgs.
6. Coordinates: N541081.4, E123867.6

Stratification lines represent approximate boundaries between soil types: transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-AI95-101

Maine Department of Transportation — BB-AI95-201

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808 — Location: Augusta, Maine — Boring No.: BB-AI95-201 — WIN: 21672.00

Driller:	MaineDOT	Elevation (ft.): 213.5	Auger ID/OD:
Operator:	B. Wilder	Datum: NAVD 88	Sampler: Standard Splitspoon
Logged By:	L. Navarrete	Rig Type: Trailer Rig	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	10/30/22-10/30/22	Drilling Method: Drive & Wash	Core Barrel: N2
Boring Location:	Sta. 19+17.9, Offset 39.2' L	Casing ID/OD: 3"/3.5"	Not Encountered
Hammer Efficiency Factor: 0.86		Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Rock Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0								213.2		Top 4": Black, wet, SILT, trace fine sand, with roots, (Topsoil).	
	10	8/8	0.0 - 0.7	50-40/3"	--		SPN	212.8			0.3
	R1	60/60	1.0 - 6.0	RQD = 100%			ND			Bottom 4": Grey, wet, GRAVEL, little fine to coarse sand, little silt, (Fill).	0.7
5										Splitspoon refusal at 0.7'; probable top of bedrock. Spun casing advanced roller bit to 1.0'. Dark grey rock in wash return. Set up to core at 1.0'. R1: Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS. One low angle joint. Joint is planar, rough, fresh, moderately wide. One high angle joint. Joint is planar, smooth, fresh, tight, with sand infilling. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Excellent Rock Core Times (minsec): 1.0-2.0' (3:15), 2.0-3.0' (2:18), 3.0-4.0' (2:37), 4.0-5.0' (2:36), 5.0-6.0' (2:38)	
	R2	60/60	6.0 - 11.0	RQD = 100%						R2: Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS. One horizontal joint. Joint is undulating, rough, fresh, partially open to open, with sand infilling. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Excellent Rock Core Times (minsec): 6.0-7.0' (3:15), 7.0-8.0' (2:18), 8.0-9.0' (2:37), 9.0-10.0' (2:36), 10.0-11.0' (2:38)	
10								202.5			
										Bottom of Exploration at 11.0 feet below ground surface.	-11.0
15											
20											
25											
30											
35											
40											

Remarks:
1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of casing.
4. Cored into pavement with 5" thin wall bit. Concrete deck 9" thick.
5. Coordinates: N541038.7, E123778.2

Stratification lines represent approximate boundaries between soil types: transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-AI95-201

Maine Department of Transportation — BB-AI95-202

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808 — Location: Augusta, Maine — Boring No.: BB-AI95-202 — WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.): 212.4	Auger ID/OD:
Operator:	B. Enos	Datum: NAVD 88	Sampler: Standard Splitspoon
Logged By:	L. Navarrete	Rig Type: B-53 Truck	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	10/31/22-10/31/22	Drilling Method: Drive & Wash	Core Barrel: N2
Boring Location:	Sta. 19+11.5, Offset 39.4' R	Casing ID/OD: 4"/4.5", 3"/3.5"	Water Level *: 0.8'
Hammer Efficiency Factor: 0.86		Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Rock Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/16	0.0 - 2.0	20-3-3-4	6	9	21	211.6		Top 7": Brown, wet, silty fine to coarse SAND, trace gravel, with roots, (Topsoil).	0.8
	20	24/10	2.0 - 4.0	9-14-51	65	93	3			Bottom 9": Brown, wet, loose, fine to coarse SAND, trace silt, (Fill).	
5	30	16/8	4.0 - 5.3	29-57-53/4"	--		99			Brown, wet, very dense, GRAVEL, some fine to coarse sand, little silt, (Fill).	5.3
							191				
	R1	60/60	5.5 - 10.5	RQD = 77%			58 ND	207.1		Splitspoon refusal at 5.3'; probable top of bedrock. Roller cone to 5.5'. Dark grey rock in wash return. Set up to core at 5.5'. R1: Very hard, fresh to slightly weathered, aphanitic to fine grained, grey, GRANOFELS. Primary joints are extremely close to moderately spaced, high angle, stepped to planar, smooth, fresh to discolored, tight to partially open, with some sand infilling. Secondary joints are very close to moderately spaced, horizontal, planar, rough to smooth, fresh to discolored, tight. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Good Rock Core Times (minsec): 5.4-6.4' (2:15), 6.4-7.4' (2:20), 7.4-8.4' (2:30), 8.4-9.4' (1:50), 9.4-10.4' (2:26)	
10	R2	32/16	10.5 - 13.2	RQD = 31%				200.9		R2: (10.5-13.2') Hard to soft, slightly weathered to highly weathered, aphanitic to fine grained, grey/brown, GRANOFELS. Highly fractured. Recovery consisted of gravel size pieces with silt. Pyrite visible on rock surface. - MAYFLOWER HILL FORMATION - Recovery = 48% Rock Quality = Poor Rock Core Times (minsec): 10.5-11.5' (1:55), 11.5-12.5' (1:58), 12.5-13.5' (1:58)	-10.7 ksf
15	R3	34/8	13.2 - 16.0	RQD = 0%				198.1		R3: Hard to soft, slightly weathered to highly weathered, aphanitic to fine grained, grey/brown, GRANOFELS. Highly fractured. Recovery consisted of gravel size pieces with silt. Pyrite visible on rock surface. - MAYFLOWER HILL FORMATION - Recovery = 24% Rock Quality = Very Poor Rock Core Times (minsec): 13.2-14.2' (1:22), 14.2-15.2' (1:51), 15.2-16.0' (1:19)	
	R4	30/17	16.0 - 18.5	RQD = 0%				195.5		R4: Hard to soft, fresh to highly weathered, aphanitic to fine grained, GRANOFELS. Primary joints are extremely close to close, horizontal to low angle, planar, smooth, fresh to decomposed, tight to moderately wide, with silt infilling. One high angle joint. Joint is planar, smooth, decomposed, tight, with silt infilling. - MAYFLOWER HILL FORMATION - Recovery = 57% Rock Quality = Very Poor Rock Core Times (minsec): 16.0-17.0' (1:18), 17.0-18.0' (1:14), 18.0-18.5' (2:13)	
20	R5	60/45	18.5 - 23.5	RQD = 75%				193.9		R5: Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS. One high angle joint is planar, smooth, discolored, tight. Second joint is horizontal, planar, smooth, fresh, very tight. - MAYFLOWER HILL FORMATION - Recovery = 75% Rock Quality = Fair Rock Core Times (minsec): 18.5-19.5' (2:10), 19.5-20.5' (1:30), 20.5-21.5' (1:19), 21.5-22.5' (1:50), 22.5-23.5' (2:10)	-18.5
25								188.9			-23.5
30										Bottom of Exploration at 23.5 feet below ground surface.	
35											
40											

Remarks:
1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of casing.
4. Cored into pavement with 5" thin wall bit. Concrete deck 9" thick. Ground level 22.5' below top of bridge deck.
5. Coordinates: N541128.6, E123778.2

Stratification lines represent approximate boundaries between soil types: transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-AI95-202

Maine Department of Transportation — BB-AI95-202A

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808 — Location: Augusta, Maine — Boring No.: BB-AI95-202A — WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.): 212.4 (est.)	Auger ID/OD:
Operator:	B. Enos	Datum: NAVD 88	Sampler: Standard Splitspoon
Logged By:	L. Navarrete	Rig Type: B-53 Truck	Hammer Wt./Fall: 140#/30"
Date Start/Finish:	11/1/22-11/1/22	Drilling Method: Drive & Wash	Core Barrel: N2
Boring Location:	Sta. 19+11.8, Offset 30.3' R	Casing ID/OD: 4"/4.5", 3"/3.5"	Water Level *: 0.0'
Hammer Efficiency Factor: 0.86		Hammer Type: Automatic ☒ Hydraulic ☐ Rope & Cathead ☐	

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Rock Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							56			See BB-AI95-202 for fill descriptions.	
5							48				
							38				
							53				
							54				
							56	207.1			5.3
	R1	60/52	6.0 - 11.0	RQD = 67%			ND			Advanced casing to refusal at 5.3'; top of probable bedrock. Roller cone to 6.0'. Dark grey rock in wash return. Set up to core at 6.0'. R1: (6.0'-9.7') Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS. Joints are close to moderately spaced, low angle to moderately dipping, planar to stepped, smooth to rough, fresh, tight to partially open, with some silt infilling.	
10								202.7			-9.7
	R2	41/10	11.0 - 14.4	RQD = 0%						R2: (9.7'-11.0') Medium hard to soft, moderately to highly weathered, grey/brown, GRANOFELS. Recovery consisted of gravel-size pieces some pieces are decomposed to soil. - MAYFLOWER HILL FORMATION - Recovery = 87% Rock Quality = Fair Rock Core Times (minsec): 11.0-12.0' (1:30), 12.0-13.0' (2:27), 13.0-14.0' (2:01), 14.0-14.4' (0:43)	
	R3	31/21	14.4 - 17.0	RQD = 19%						R3: (11.0'-16.0') Very hard to hard, fresh to moderately weathered, aphanitic to fine grained, brown/grey, GRANOFELS. Joints are close, horizontal, planar, smooth to rough, fresh to decomposed, tight to open. One high angle joint is planar, smooth, fresh. - MAYFLOWER HILL FORMATION - Recovery = 68% Rock Quality = Very Poor Rock Core Times (minsec): 14.4-15.4' (3:37), 15.4-16.4' (2:43), 16.4-17.0' (3:20)	
15	R4	60/60	17.0 - 22.0	RQD = 92%				190.4		R4: Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS. Primary joints are very close to moderately spaced, horizontal to low angle, planar, smooth, fresh, tight to open. Secondary joints are close to moderately spaced, high angle, dipping, planar, smooth, fresh, very tight to tight. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Excellent Rock Core Times (minsec): 17.0-17.0' (2:57), 18.0-19.0' (1:25), 19.0-20.0' (1:56), 20.0-21.0' (3:16), 21.0-22.0' (1:39)	
20										Bottom of Exploration at 22.0 feet below ground surface.	-22.0
25											
30											
35											
40											

Remarks:
1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of casing.
4. Cored into pavement with 5" thin wall bit. Concrete deck 9" thick. Ground level 23.0' below top of bridge deck.
5. Coordinates: N541129.6, E123778.1

Stratification lines represent approximate boundaries between soil types: transitions may be gradual. * Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-AI95-202A

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
2167200
WIN 21720.00
BRIDGE No. 5808
BORING LOGS

STATE OF MAINE — Andrew Bielsdell — 10957 — LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 10957
SIGNATURE
05/19/2023
DATE

	BY:	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	ALM/BMC	MAY 2023
CHECKED-REVIEWED	ARB	MAY 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

WESTERN AVENUE BRIDGE
OVER INTERSTATE 95
AUGUSTA, ME
KENNEBEC COUNTY

BORING LOGS 1

PREPARED BY: GZA

SHEET NUMBER 17 OF 190

Division: Bridge
Filename: ...\Boring Logs\Boring logs.dgn
Date:5/18/2023
Username: BMC

Maine Department of Transportation — BB-AI95-203

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808 | Boring No.: BB-AI95-203
Location: Augusta, Maine | WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.):	216.0
Operator:	B. Enos	Datum:	NAVD 88
Logged By:	L. Navarrete	Rig Type:	B-53 Truck
Date Start/Finish:	10/30/22-10/31/22	Drilling Method:	Drive & Wash
Boring Location:	Sta. 19+54, Offset 39.2' L	Casing ID/OD:	4"/4.5", 3"/3.5"
Hammer Efficiency Factor:	0.86	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐
Auger ID/OD:		Sampler:	Standard Splitspoon
Hammer Wt./Fall:	140#/30"	Core Barrel:	N2
Water Level *:	10.1'		

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/12	0.0 - 2.0	3-4-4-9	8	11	15	215.8		Top 2": Brown, wet, fine to coarse SAND, some silt, (Topsoil).	
							42			0.2	
	20	24/13	2.0 - 4.0	41-33-44-46	77	110	50			Bottom 10": Brown, moist, medium dense, fine to coarse SAND, little gravel, little silt, (F,Sl).	
							127			Brown, moist, very dense, fine to coarse SAND, some gravel, little silt, (F,Sl).	
5	30	10/7	4.0 - 4.8	109-68/4"	--	--	300			Grey, dry, very dense, fine to coarse SAND, little gravel, trace silt, (F,Sl).	
							51				
	40	24/10	6.0 - 8.0	43-36-20-20	56	80	198			Brown, moist, very dense, gravelly fine to coarse SAND, some silt, (F,Sl).	D* 22-S-4927 A-1-b, SM WC=10.4
							304				
	50	24/14	8.0 - 10.0	20-21-23-25	44	63	146			Brown, moist, very dense, silty fine to medium SAND, trace gravel, (F,Sl).	D* 22-S-49-28 A-4(0), SM WC=15
							203				
	60	24/14	10.0 - 12.0	27-33-43-38/4"	76	109	150			Brown, moist, very dense, fine SAND, trace silt, (F,Sl).	
							200				
	70	11/10	12.0 - 12.9	45-79/5"	--	--	205	203.1		12.9	
	R1	60/60	13.0 - 18.0	RQD = 40%			N/A			Splitspoon refusal at 12.9'; probable top of bedrock. Advanced roller cone to 13.0'. Dark grey rock in wash return. Set up to core at 13.0'. R1: Very hard to hard, fresh to slightly weathered, aphanitic to fine grained, grey, GRANOFELS. Primary joints are very close to moderately spaced, moderately dipping to high angle, planar, smooth, fresh to discolored, tight. Secondary joints are extremely close to moderately spaced, low angle, planar, smooth, fresh to decomposed, very tight to tight. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Poor Rock Core Times (min/sec): 13.0-14.0' (3:46), 14.0-15.0' (4:20), 15.0-16.0' (5:39), 16.0-17.0' (1:56), 17.0-18.0' (2:42).	
15	R2	60/60	18.0 - 23.0	RQD = 95%			N/A			R2: Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS. Primary joints are close to moderately spaced, low angle, planar, smooth to rough, very tight. Secondary joints are moderately spaced, moderately dipping, planar, smooth, very tight. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Excellent Rock Core Times (min/sec): 18.0-19.0' (2:07), 19.0-20.0' (1:58), 20.0-21.0' (2:08), 21.0-22.0' (2:42), 22.0-23.0' (2:32)	
20								193.0		23.0	
										Bottom of Exploration at 23.0 feet below ground surface.	

Remarks:
1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of drill rods.
4. Cored into pavement with 5" thin wall bit. Concrete deck 9" thick. Ground level 22.7' below top of bridge deck.
5. Coordinates: N343068.2, E1131684.8

Stratification lines represent approximate boundaries between soil types: transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-AI95-203

Maine Department of Transportation — BB-AI95-102

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808 | Boring No.: BB-AI95-102
Location: Augusta, Maine | WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.):	215.5
Operator:	Mike Porter	Datum:	NAVD 88
Logged By:	Blaine Cordell	Rig Type:	Truck Rig
Date Start/Finish:	7/18/18-7/18/18	Drilling Method:	Drive & Wash
Boring Location:	Sta. 19+81.4, Offset 6.5' L	Casing ID/OD:	4"/4.5", 3"/3.5"
Hammer Efficiency Factor:	0.937	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐
Auger ID/OD:	4.25" OD	Sampler:	Standard Splitspoon
Hammer Wt./Fall:	140#/30"	Core Barrel:	NX2
Water Level *:	4.0'		

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/12	0.0 - 2.0	1-3-6-7	9	14	17			Brown, dry, medium dense, fine to coarse SAND, little gravel, little silt, (F,Sl).	
							44				
	20	24/6	4.0 - 6.0	5-15-8-4	23	36	40			Brown, wet, dense, sandy GRAVEL, little silt, (F,Sl).	
							17				
5	30	24/9	6.0 - 7.0	6-7-18-16	25	36	27				C*3 A-1-b, GP-GM WC=6.6
							70				
							91				
	R1	60/59	7.7 - 12.7	RQD = 95%			23/7" N/A	207.8		7.7	
										Casing met refusal at 7.7' bgs. Roller bit to 7.7' bgs and set up to core. R1: Very hard to hard, fresh, medium grained, dark to light grey, GRANOFELS. Joints are close to widely spaced, low angle, rough, undulating, partially open to open, and fresh. - MAYFLOWER HILL FORMATION - Recovery = 98% Rock Quality = Excellent Rock Core Times (min/sec): 7.7-8.7' (1:45), 8.7-9.7' (1:55), 9.7-10.7' (1:55), 10.7-11.7' (1:30), 11.7-12.7' (1:50)	
10	R2	56/57	12.7 - 17.4	RQD = 91%			N/A			R2: Very hard to hard, grey, medium grained, GRANOFELS. Joints are very close to widely spaced, low angle, rough, undulating, fresh, open. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Excellent Rock Core Times (min/sec): 12.7-13.7' (2:40), 13.7-14.7' (2:10), 14.7-15.7' (1:35), 15.7-16.7' (1:55), 16.7-17.4' (1:00)	
15								198.1		17.4	
										Bottom of Exploration at 17.4 feet below ground surface.	
20											

Remarks:
1. 300 lb hammer 30" drop for casing blows.
2. Automatic Hammer NEBC #B-24 (Truck 83), Energy Transfer Rate = 0.937.
3. Boring was drilled through 9" of concrete bridge deck using a 4" spin shoe. 21.7' was measured from top of bridge deck to ground surface.
4. Water level was measured 15 minutes after drilling, with casing in the ground.
5. Coordinates: N343102.6, E1131153.4

Stratification lines represent approximate boundaries between soil types: transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-AI95-102

Maine Department of Transportation — BB-AI95-204

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808 | Boring No.: BB-AI95-204
Location: Augusta, Maine | WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.):	214.9
Operator:	B. Enos	Datum:	NAVD 88
Logged By:	L. Navarrete	Rig Type:	B-53 Truck
Date Start/Finish:	11/1/22-11/1/22	Drilling Method:	Drive & Wash
Boring Location:	Sta. 20+08.1, Offset 39.0' R	Casing ID/OD:	4"/4.5"
Hammer Efficiency Factor:	0.86	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐
Auger ID/OD:		Sampler:	Standard Splitspoon
Hammer Wt./Fall:	140#/30"	Core Barrel:	Not Measured
Water Level *:			

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							30	214.7		0-0.2': Asphalt.	
										0.2	
	10	24/13	1.0 - 3.0	16-11-11-12	22	32	42			Brown, dry, dense, fine to coarse SAND, little gravel, little silt, (F,Sl).	
							41			Brown, dry, dense, fine to coarse SAND, some gravel, little silt, (F,Sl).	
	20	24/4	3.0 - 5.0	13-11-11-8	22	32	68				
5							55				
	30	24/9	5.0 - 7.0	6-7-18-16	25	36	49			Brown, wet, very dense, gravelly fine to coarse SAND, trace silt, (F,Sl).	D* 22-S-4929 A-1-a, GM WC=5.5
							148				
	40 R1	10/8 55/52	7.0 - 7.8 7.8 - 12.4	14-50/4" RQD = 75%	--	--	300 N/A	207.1		Brown, wet, fine to coarse SAND, some gravel, trace silt, (F,Sl). 7.8	q_p=1196 ksf
										Splitspoon refusal at 7.8'; probable top of bedrock. Set up to core at 7.8'. R1: Very hard, fresh, aphanitic to very coarse grained, grey, GRANITE. Joints are extremely close to close, horizontal, planar to undulating, smooth to rough, fresh to discolored, very tight to open. - HALLOWELL GRANITE FORMATION - Recovery = 100% Rock Quality = Fair Rock Core Times (min/sec): 7.8-8.8' (2:45), 8.8-9.8' (2:37), 9.8-10.8' (2:50), 10.8-11.8' (3:19), 11.8-12.4' (1:53).	
10	R2	60/60	12.4 - 17.4	RQD = 93%			N/A			R2: Very hard, fresh, aphanitic to very coarse grained, grey, GRANOFELS. Joints are very close to moderately spaced, horizontal, planar to undulating, smooth to rough, fresh to discolored, tight to moderately wide. - HALLOWELL GRANITE FORMATION - Recovery = 100% Rock Quality = Excellent Rock Core Times (min/sec): 12.4-13.4' (3:24), 13.4-14.4' (2:42), 14.4-15.4' (5:36), 15.4-16.4' (3:06), 16.4-17.4' (4:00)	
15								197.5		17.4	
										Bottom of Exploration at 17.4 feet below ground surface.	
20											

Remarks:
1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of drill rods.
4. Cored into pavement with 5" thin wall bit. Concrete deck 9" thick. Ground level 19.3' below top of bridge deck.
5.Coordinates: N341513, E1131684.8

Stratification lines represent approximate boundaries between soil types: transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-AI95-204

Maine Department of Transportation — BB-AI95-205

Soil/Rock Exploration Log — US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808 | Boring No.: BB-AI95-205
Location: Augusta, Maine | WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.):	213.1
Operator:	B. Enos	Datum:	NAVD 88
Logged By:	L. Navarrete	Rig Type:	B-53 Truck
Date Start/Finish:	10/30/22-10/30/22	Drilling Method:	Drive & Wash
Boring Location:	Sta. 20+28.1, Offset 39.7' L	Casing ID/OD:	4"/4.5", 3"/3.5"
Hammer Efficiency Factor:	0.86	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐
Auger ID/OD:		Sampler:	Standard Splitspoon
Hammer Wt./Fall:	140#/30"	Core Barrel:	N2
Water Level *:	4.0'		

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

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (#/6 in.) Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/8	0.0 - 2.0	12-29-7-6	36	52	67	213.0		Top 7": Brown, wet, fine to coarse SAND, some silt, with roots, (Topsoil).	
							32			0.1	
	20	24/16	2.0 - 4.0	5-4-6-18	10	14	16			Bottom 7": Brown, dry, dense, fine to coarse SAND, little gravel, little silt, (F,Sl).	
							20			Top 6": Brown, moist, fine to coarse SAND, little silt, trace gravel, (F,Sl).	D* 22-S-4930 A-1-b, GP-GM WC=5.4
5	30	13/4	4.4 - 5.5	9-12-30/1"	--	--	35			Bottom 10": Grey, wet, medium dense, GRAVEL, some fine to coarse sand, trace silt, (F,Sl).	
	R1	60/58	5.5 - 10.5	RQD = 91%			52 N/A	207.6		Brown, wet, fine to coarse SAND, some silt, little gravel, (F,Sl).	
										5.5	q_p=2037 ksf
										Casing advancement refusal at 5.5'; probable top of bedrock. Set up to core at 5.5'. R1: Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS. Joints are extremely close to moderately spaced, moderately dipping, planar, rough, fresh, tight to partially open. - MAYFLOWER HILL FORMATION - Recovery = 97% Rock Quality = Excellent Rock Core Times (min/sec): 5.5-6.5' (1:49), 6.5-7.5' (3:08), 7.5-8.5' (2:23), 8.5-9.5' (17:24), 9.5-10.5' (2:45). R2: Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS, joints are close to moderately spaced, low angle, planar to undulating, rough, fresh, very tight to open. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Excellent Rock Core Times (min/sec): 10.5-11.5' (2:19), 11.5-12.5' (1:57), 12.5-13.5' (2:45), 13.5-14.5' (2:07), 14.5-15.5' (2:31)	
10	R2	60/60	10.5 - 15.5	RQD = 99%			N/A				
15								197.6		15.5	
										Bottom of Exploration at 15.5 feet below ground surface.	
20											

Remarks:
1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of drill rods. Casing in place.
4. Cored into pavement with 5" thin wall bit. Concrete deck 9" thick. Ground level 25.0' below top of bridge deck.
5.Coordinates: N340178.7, E1131651.2

Stratification lines represent approximate boundaries between soil types: transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1 — Boring No.: BB-AI95-205

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2167200
WIN 21672.00
BRIDGE No. 5808

BORING LOGS

STATE OF MAINE — Andrew Bielsdell — 10957 — LICENSED PROFESSIONAL ENGINEER

10957 — P.E. NUMBER
05/19/2023 — DATE
SIGNATURE

	DESIGNED	D. EATON	MAY 2023
PROJ. MANAGER	DRAWN	ALM/BMC	MAY 2023
DESIGN-DETAILED	CHECKED	ALM/BMC	CLS
CHECKED-REVIEWED	APPROVED	ARB	
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WESTERN AVENUE BRIDGE
OVER INTERSTATE 95
AUGUSTA, ME — KENNEBEC COUNTY

BORING LOGS 2

PREPARED BY: GZA

SHEET NUMBER
18
OF 190

Division: Bridge
Filename: ...\Boring Logs\Boring logs.dgn
Date:5/18/2023
Username: BMC

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808
Location: Augusta, Maine

Boring No.: BB-A195-206
WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.)	211.5
Operator:	B. Enos	Datum:	NAVD 88
Logged By:	L. Navarrete	Rig Type:	B-53 Truck
Date Start/Finish:	11/2/22-11/2/22	Drilling Method:	Drive & Wash
Boring Location:	Sta. 20+73.3, 37.3 Offset 39.3' R	Casing ID/OD:	4"/4.5", 3"/3.5"
Hammer Efficiency Factor:	0.86	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Auger ID/OD:			
Sampler:	Standard Splitspoon		
Hammer Wt./Fall:	140#/30"		
Core Barrel:	NQ		
Water Level *:	2.6'		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows (#) (ft.) Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/10	0.0 - 2.0	8-5-6-7	11	16	13	211.2		Top 4": Dark brown, wet, SILT, some fine to coarse sand, with roots, (Topsoil).	
							32			Bottom 6": Brown, moist, fine to coarse SAND, some gravel, little silt, (F.ill).	▪ 22-5-49.3 A-1-b, SM WC=14.4
	20	24/3	2.0 - 4.0	3-3-5-7	8	11	33			Brown, wet, very dense, GRAVEL, some fine to coarse sand, little silt, (F.ill).	
5	30	20/8	4.0 - 5.7	10-13-17-13/2"			35				
							36				
							52	205.8		Splitspoon refusal at 5.7'± probable top of bedrock. Roller cone to 6.0'. Dark grey rock in wash return. Set up to core at 6.0'.	
	R1	60/60	6.0 - 11.0	RQD = 90%			ND			R1: Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS. Joints are very close to moderately spaced, horizontal, planar to undulating, smooth to rough, fresh, very tight to open. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Good Rock Core Times (min/sec): 6.0-7.0' (2:26), 7.0-8.0' (2:50), 8.0-9.0' (2:30), 9.0-10.0' (1:56), 10.0-11.0' (3:25)	
10	R2	60/60	11.0 - 16.0	RQD = 97%			ND			R2: Very hard, fresh, aphanitic to fine grained, grey, GRANOFELS. Joints are close to moderately spaced, horizontal, planar, smooth to rough, fresh, very tight to partialy open. - MAYFLOWER HILL FORMATION - Recovery = 100% Rock Quality = Excellent Rock Core Times (min/sec): 11.0-12.0' (1:16), 12.0-13.0' (2:33), 13.0-14.0' (1:53), 14.0-15.0' (2:36), 15.0-16.0' (2:28)	
								195.5		Bottom of Exploration at 16.0 feet below ground surface.	
15											
20											
25											
30											
35											
40											
45											
50											

Remarks:
1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of drill rods. Casing in place.
4. Cored into pavement with 5" thin wall bit. Concrete deck 9" thick. Ground level 216' below top of bridge deck.
5. Coordinates: N241164.5, E1036222.4

Stratification lines represent approximate boundaries between soil types: transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: BB-A195-206

Maine Department of Transportation

Soil/Rock Exploration Log
US CUSTOMARY UNITS

Project: Western Avenue Bridge *5808
Location: Augusta, Maine

Boring No.: BB-A195-103
WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.)	233.1
Operator:	Mike Porter	Datum:	NAVD 88
Logged By:	Blaine Cordell	Rig Type:	Truck Rig
Date Start/Finish:	7/16/18-7/16/18	Drilling Method:	Drive & Wash
Boring Location:	Sta. 21+32.1, Offset 34.7' R	Casing ID/OD:	4"/4.5", 3"/3.5"
Hammer Efficiency Factor:	0.937	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Auger ID/OD:	4.25" OD		
Sampler:	Standard Splitspoon		
Hammer Wt./Fall:	140#/30"		
Core Barrel:	NX		
Water Level *:	4.0'		

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

Depth (ft.)	Sample No.	Rec./Rec. (in.)	Sample Depth (ft.)	Blows (#) (ft.) Strength or RQD (%)	N-uncorrected	N_{60}	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/11	0.5 - 2.5	15-21-18-23	39	61	SSA	232.6		0'-0.5': Asphalt.	
										Brown, dry, very dense, gravelly fine to coarse SAND, little silt, (F.ill).	C=4 A-1-b, SM WC=2.3
5	20	24/12	5.0 - 7.0	8-4-4-4	8	12	16			Brown, dry, medium dense, fine to coarse SAND, some gravel, little silt, (F.ill).	C=5 A-1-b, SM WC=4.0
							24				
							21				
							16				
10							16				
	30	24/4	10.0 - 12.0	5-10-11-10	21	33	5			Brown, wet, dense, fine to coarse SAND, some gravel, little silt, (F.ill).	
							4				
	40	24/15	12.0 - 14.0	14-37-10-5	47	73	45	220.1		Top 12": Brown, wet, very dense, fine to coarse SAND, some gravel, little silt, (F.ill).	C=8 A-1-b, SM WC=9.7
							59			Bottom 3": Brown/tan, wet, dense, sandy SILT, (Glacial Till).	
15							41				
	50	24/10	15.0 - 17.0	14-7-7-5	14	22	4			Grey, wet, very stiff, Clayey SILT, trace fine to medium sand, trace gravel, (Glacial Till).	C=6 A-4, ML WC=37.3
							40				
	60	24/14	17.0 - 19.0	63-41-24-16	65	102	161			Grey, wet, very dense, silty fine to coarse SAND, some gravel, (Glacial Till).	
							74				
20							51				
	70	24/14	20.0 - 22.0	9-7-7-4	14	22	WASH AHEAD			Grey, wet, very stiff, Clayey SILT, little fine to coarse sand, trace gravel, (Glacial Till).	C=7 A-4, ML WC=18.1
25	80	24/10	25.0 - 27.0	16-12-12-11	24	37	33			Grey, wet, dense, silty fine to medium SAND, little gravel, (Glacial Till).	
							47				
							37				
							37				
30							38				
	90	24/12	30.0 - 32.0	10-15-17-28	32	50	29			Grey, wet, dense, fine to medium SAND, some gravel, little silt, (Glacial Till).	
							67				
							146				
	R1	60/60	33.3 - 38.3	RQD = 100%			78/42 "ND"	199.9		Casing met refusal at 33.2' bgs/ probable top of bedrock. Roller bit to 33.3' bgs and set up to core. R1: Hard, fresh, medium grained, black, GRANOFELS. One high angle joint, rough, undulating, discolored, with fines. - MAYFLOWER HILL FORMATION- Rock Quality = Excellent Recovery= 100% Rock Core Times (min/sec): 33.3-34.3' (2:00), 34.3-35.3' (1:30), 35.3-36.3' (1:10), 36.3-37.3' (1:10), 37.3-38.3' (1:20)	q_p=1869 ksf
35											
	R2	60/52	38.3 - 43.3	RQD = 58%						R2: Hard, fresh, medium grained, dark grey, GRANOFELS. Joints are low angle, very close to moderately spaced, rough, planar to undulating, fresh to discolored, tight to open, with fines infilling highly fractured areas. - MAYFLOWER HILL FORMATION- Rock Quality = Fair Recovery = 87% Rock Core Times (min/sec): 38.3-39.3' (1:30), 39.3-40.3' (1:30), 40.3-41.3' (1:05), 41.3-42.3' (1:25), 42.3-43.3' (2:20)	
40								189.8			
										Bottom of Exploration at 43.3 feet below ground surface.	
45											
50											

Remarks:
1. 300 lb hammer 30" drop for casing blows.
2. Automatic Hammer NEBC-19 (Truck 83), Energy Transfer Rate = 0.937.
3. Could not retrieve an 8" piece of the bottom of R2.
4. Water level was measured 30 minutes after completion of drilling, without casing in the ground.
5. Coordinates: N241113.2, E1039565.4

Stratification lines represent approximate boundaries between soil types: transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of 1
Boring No.: BB-A195-103

Division: Bridge
Filename: ...\Boring Logs\Boring logs.dgn
Date:5/18/2023
Username: BMC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2167200

WIN 21672.00
BRIDGE No. 5808

BORING LOGS

STATE OF MAINE
Andrew Bielsdell
10957
LICENSED PROFESSIONAL ENGINEER

10957
P.E. NUMBER
05/19/2023
DATE

SIGNATURE

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	ALM/BMC	MAY 2023
CHECKED-REVIEWED	ARB	MAY 2023
DESIGN2-DETAILED2	CLS	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

WESTERN AVENUE BRIDGE
OVER INTERSTATE 95
AUGUSTA, ME KENNEBEC COUNTY

BORING LOGS 3

PREPARED BY:
GZA

SHEET NUMBER
19
OF 190

Filename: ...\MSTA_Signing&Striping1.dgn Division: BRIDGE Username: kwright Date:7/18/2023

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW/PLP	JUNE 2023	
CHECKED-REVIEWED	LEM	JUNE 2023	
DESIGN2-DETAILED2	LED2		
DESIGN3-DETAILED3	LED3		
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BY | DATE | SIGNATURE

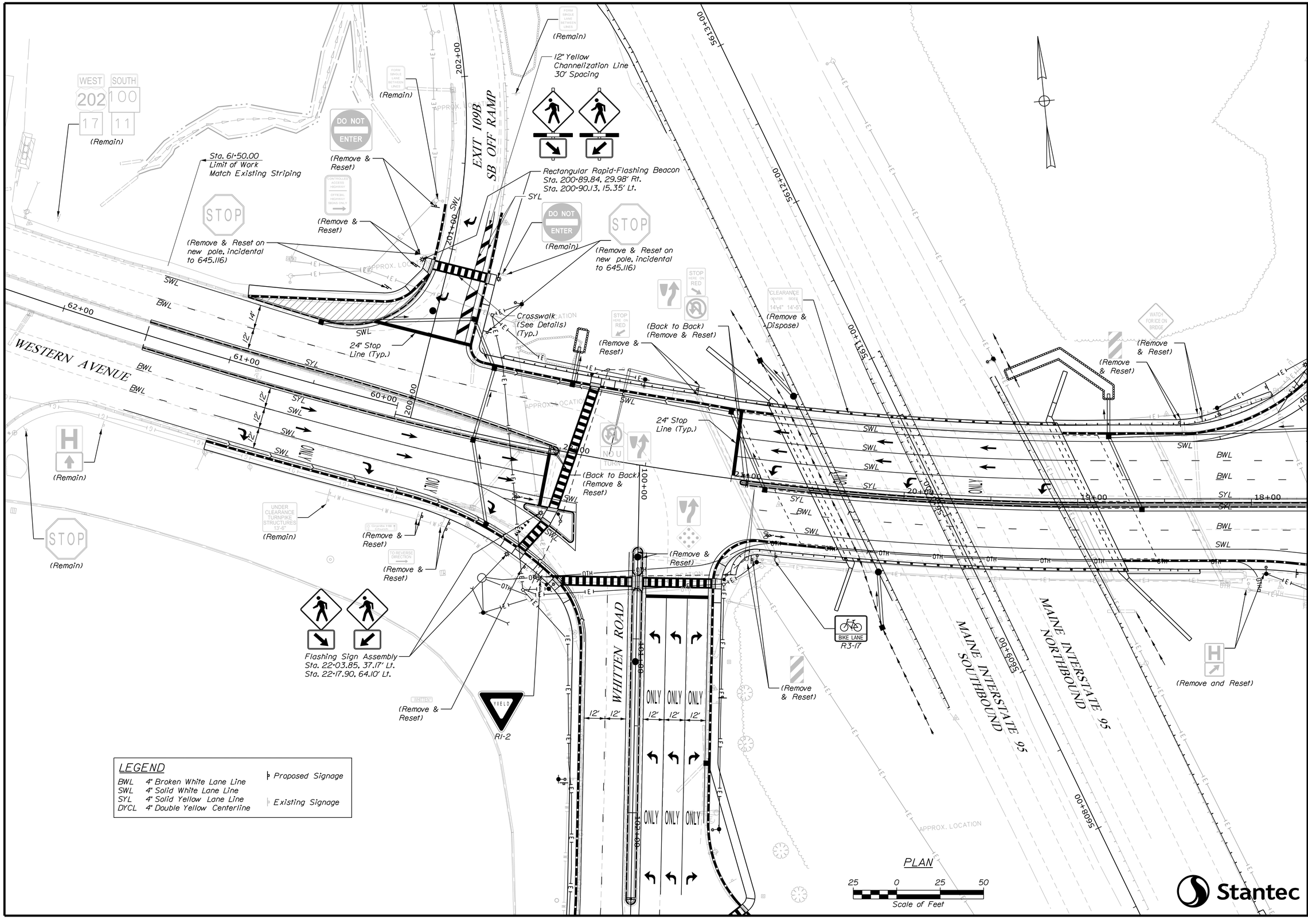
P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

SIGNING AND STRIPING PLAN
(1 OF 4)

SHEET NUMBER
20
OF 190


WESTERN AVENUE
EXIT 109B SB OFF RAMP
WHITTEN ROAD
MAINE INTERSTATE 95 SOUTHBOUND
MAINE INTERSTATE 95 NORTHBOUND
(Remain)
(Remove & Reset)
(Remove & Reset on new pole, incidental to 645.116)
Sta. 61+50.00 Limit of Work Match Existing Striping
Rectangular Rapid-Flashing Beacon Sta. 200+89.84, 29.98' Rt. Sta. 200+90.13, 15.35' Lt.
12" Yellow Channelization Line 30' Spacing
Crosswalk (See Details) (Typ.)
24" Stop Line (Typ.)
(Back to Back) (Remove & Reset)
(Remove & Dispose)
(Remove and Reset)
(Remove & Reset)
(Remain)
(Remain)
(Remain

Filename: ...\MSTA_Signing&Striping2.dgn Division: BRIDGE Username: kwright Date:7/18/2023

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

P.E. NUMBER

SIGNATURE

DATE

	D. EATON	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	KLW/PLP	KLW/PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

SIGNING AND STRIPING PLAN (2 OF 4)

SHEET NUMBER
21
OF 190

WESTERN AVENUE

EXIT 109 NB & SB OFF RAMP

EXIT 109 NB & SB ON RAMP

APPROX. LOCATION

Rectangular Rapid-Flashing Beacon
Sta. 401+27.02, 24.75' Rt.
Sta. 401+19.56, 17.52' Lt.

Sta. 402+25.00
Limit of Work
Match Existing Striping

(Remove & Reset)

(Remove & Reset on new pole, incidental to 645.116)

Crosswalk (See Details) (Typ.)

(Remain)

Sta. 502+09.50
Limit of Work
Match Existing Striping

Rectangular Rapid-Flashing Beacon
Sta. 502+11.16, 12.18' Rt.
Sta. 502+10.89, 22.96' Lt.

(Remove & Reset)

Sta. 14+00.00
Limit of Work
Match Existing Striping

Waterville 21
Portland 54
Bangor 74

(Remain)

(Remain)

(Remain)

Sta. 13+00.00
Limit of Work
Match Existing Striping

Crosswalk (See Details) (Typ.)

Rectangular Rapid-Flashing Beacon
Sta. 304+13.74, 26.60' Lt.
Sta. 304+17.71, 13.34' Rt.

(Remove & Reset)

(Remove & Reset)

(Remove & Reset)

(Back to Back)
(Remove & Reset)

Sta. 306+75.00
Limit of Work
Match Existing Striping

(Back to Back)
(Remove & Reset)

BEGIN RIGHT TURN LANE
YIELD TO BIKES
R4-4

Portland
Bangor

(Remain)

(Remove & Reset)

(Remove & Reset)

(Remain)

(Remain)

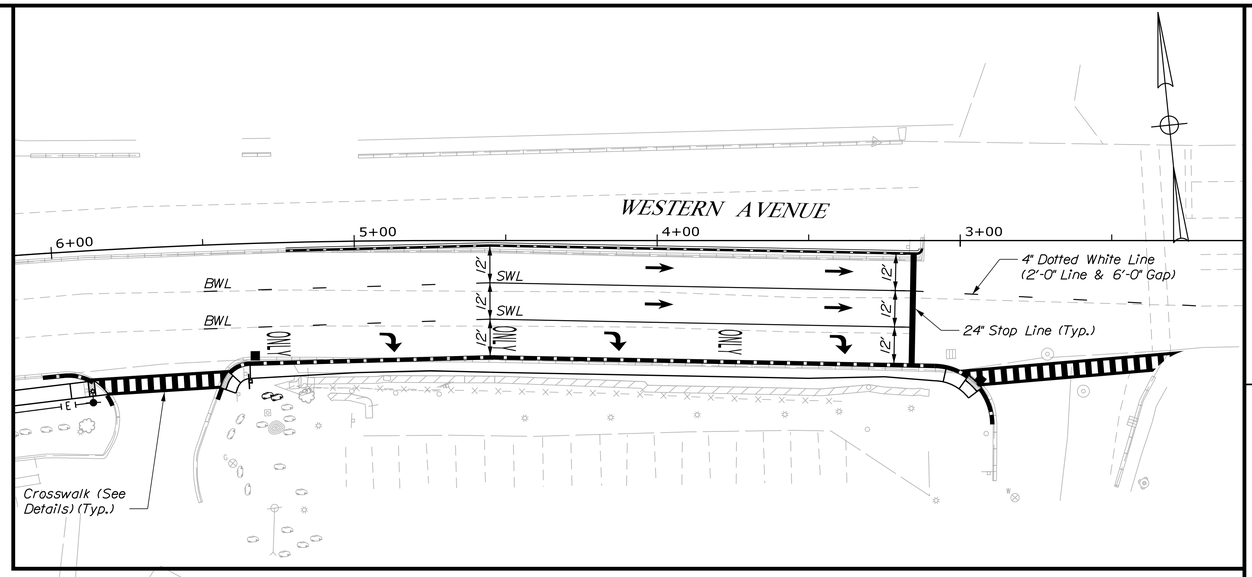
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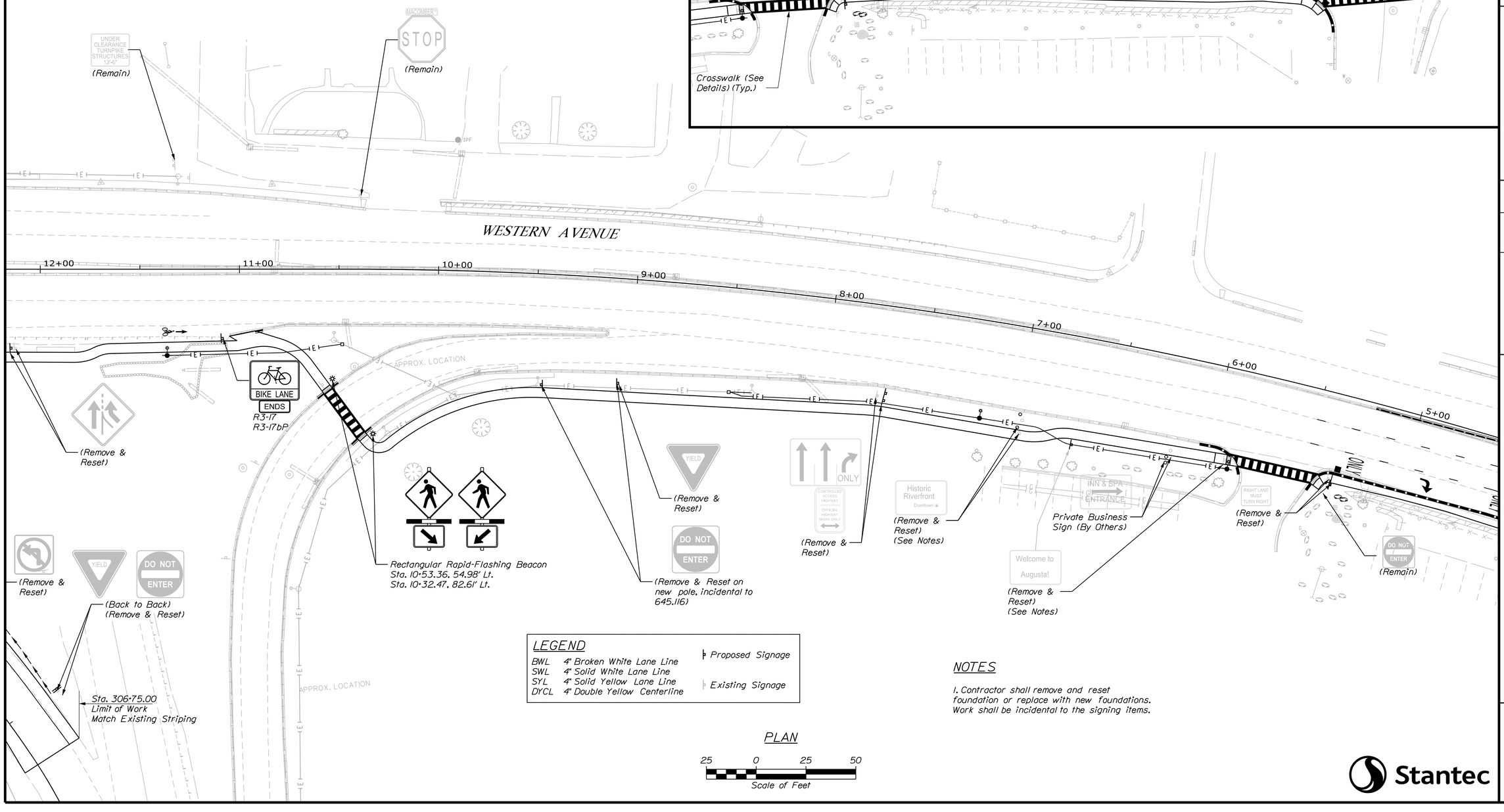
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Filename: ...\MSTA_Signing&Striping3.dgn Username: kwight Division: BRIDGE Date:7/18/2023





LEGEND

BWL	4" Broken White Lane Line		Proposed Signage
SWL	4" Solid White Lane Line		
SYL	4" Solid Yellow Lane Line		Existing Signage
DYCL	4" Double Yellow Centerline		

NOTES

1. Contractor shall remove and reset foundation or replace with new foundations. Work shall be incidental to the signing items.

PLAN

25 0 25 50

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

SIGNING AND STRIPING PLAN (3 OF 4)

SHEET NUMBER

22

OF 190

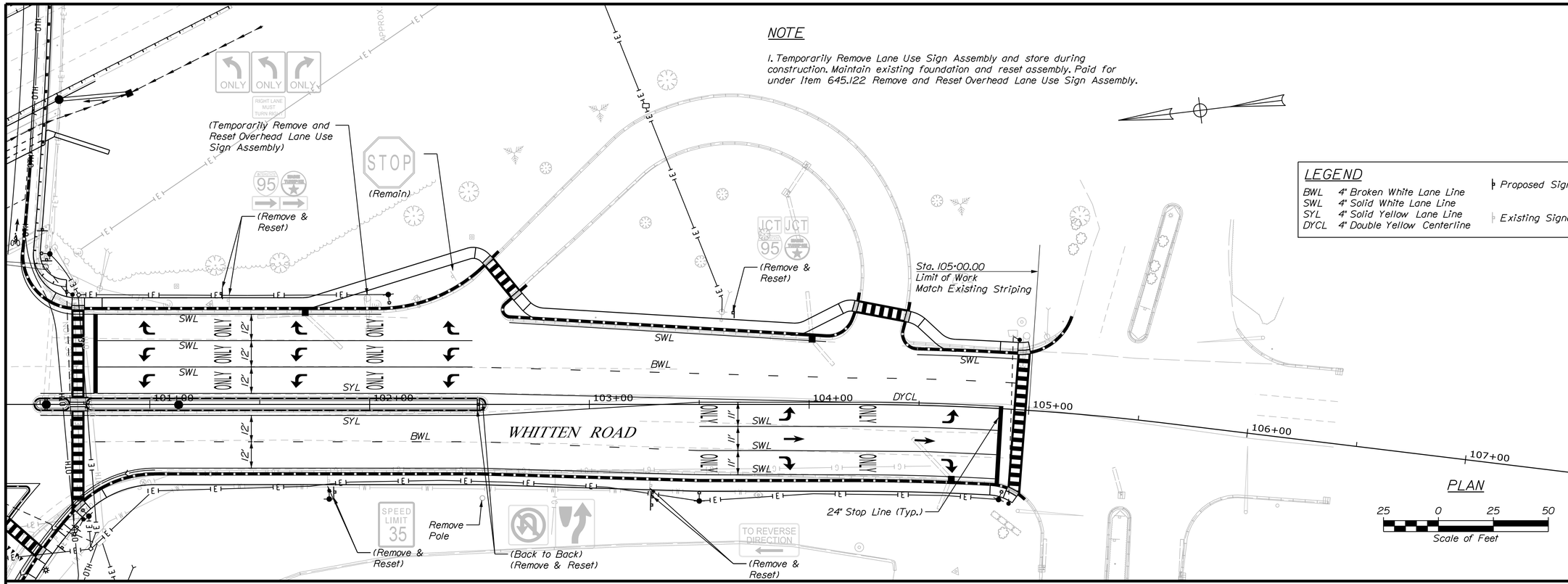
Filename: ...\MSTA_Signing&Striping4.dgn Division: BRIDGE Username: kwright Date:7/18/2023

NOTE

1. Temporarily Remove Lane Use Sign Assembly and store during construction. Maintain existing foundation and reset assembly. Paid for under Item 645.122 Remove and Reset Overhead Lane Use Sign Assembly.

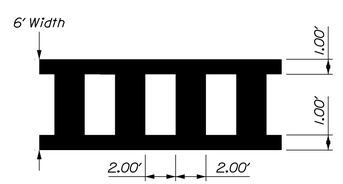
LEGEND

BWL	4" Broken White Lane Line	Proposed Signage
SWL	4" Solid White Lane Line	
SYL	4" Solid Yellow Lane Line	Existing Signage
DYCL	4" Double Yellow Centerline	



PLAN

25 0 25 50
Scale of Feet

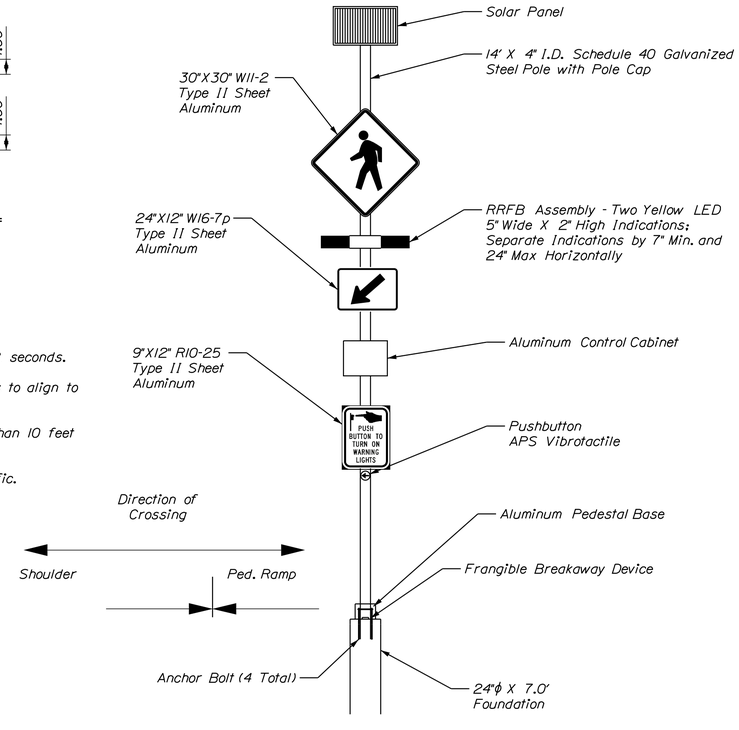


CROSSWALK STRIPING DETAIL

Not to Scale

NOTES

1. Flash duration for crossings shall be 12 seconds.
2. Install R10-25 signage and pushbuttons to align to direction of crossing.
3. Pushbuttons must be located no more than 10 feet from edge of accessible surface.
4. Align W11-2 and W16-7p to face of traffic.

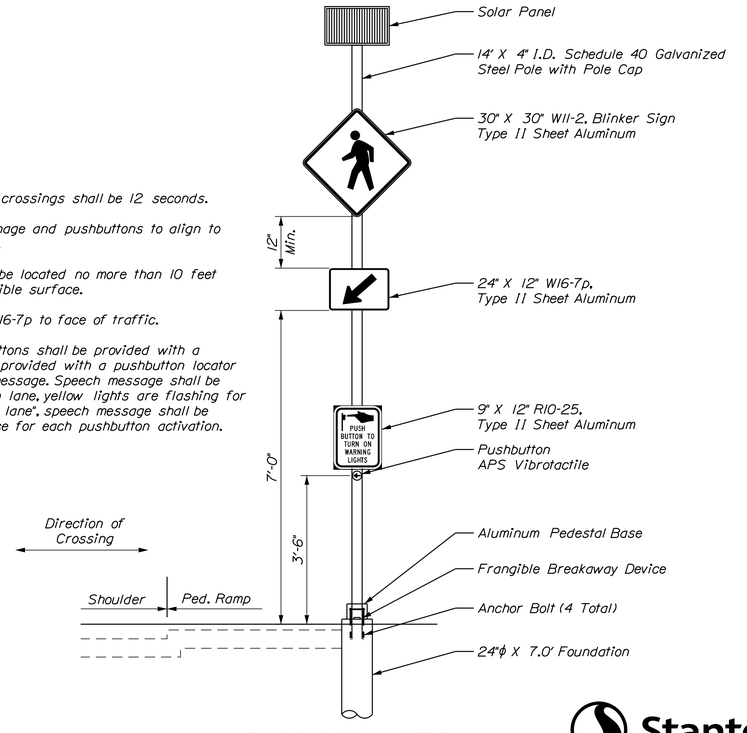


RECTANGULAR RAPID FLASHING BEACON

Not to Scale

NOTES

1. Flash duration for crossings shall be 12 seconds.
2. Install R10-25 signage and pushbuttons to align to direction of crossing.
3. Pushbuttons must be located no more than 10 feet from edge of accessible surface.
4. Align W11-2 and W16-7p to face of traffic.
5. Accessible pushbuttons shall be provided with a pushbuttons shall be provided with a pushbutton locator tone and a speech message. Speech message shall be "Western Avenue turn lane, yellow lights are flashing for Western Avenue turn lane", speech message shall be repeated at least twice for each pushbutton activation.



FLASHING SIGN ASSEMBLY

Not to Scale

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

PROJ. MANAGER	D. EATON
DESIGN-DETAILED	KLW/PLP
CHECKED-REVIEWED	LEM
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	KLW/PLP	JUNE 2023
REVISIONS 2	LEM	JUNE 2023
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

SIGNING AND STRIPING PLAN (4 OF 4)

SHEET NUMBER
23
OF 190

CONTROL POINTS FOR WESTERN AVENUE				
POINT	STATION	OFFSET	X COORD.	Y COORD.
100	69+88.41	36.50 RT	1130541.5111	541676.3321
101	69+80.41	36.50 RT	1130548.4678	541672.3819
102	61+50.00	8.00 RT	1131264.7361	541255.4326
103	60+50.00	8.00 RT	1131357.1870	541218.0433
104	22+02.47	1.97 RT	1131489.6438	541160.3138
105	22+02.87	3.00 LT	1131487.8238	541155.6743
106	22+97.00	3.00 LT	1131398.3774	541185.4968
107	61+49.98	8.00 LT	1131258.5061	541240.6959
108	61+00.00	37.63 RT	1131321.9132	541263.8177
109	200+60.62	31.30 LT	1131398.9197	541252.8890
110	200+69.69	16.69 LT	1131415.7366	541256.4747
111	200+82.51	8.91 LT	1131427.3956	541265.9122
112	200+91.68	8.01 LT	1131431.3511	541274.2353
113	200+95.74	8.00 LT	1131432.7041	541277.9995
114	201+25.07	8.00 LT	1131440.9816	541305.3760
115	200+42.03	59.88 LT	1131365.7320	541245.0622
116	200+44.51	107.31 LT	1131321.9419	541263.4543
117	201+25.07	23.58 RT	1131471.5878	541297.6132
118	201+17.60	23.00 RT	1131468.9737	541290.0237
119	200+95.55	23.00 RT	1131461.8756	541267.5085
120	200+91.68	23.00 RT	1131460.5276	541263.7424

CONTROL POINTS FOR WESTERN AVENUE				
POINT	STATION	OFFSET	X COORD.	Y COORD.
121	200+85.68	23.00 RT	1131458.4971	541258.0965
122	200+73.68	23.00 RT	1131454.4362	541246.8045
123	200+66.00	23.00 RT	1131451.8359	541239.5740
124	200+62.00	23.00 RT	1131450.4822	541235.8100
125	200+50.25	23.00 RT	1131446.5042	541224.7488
126	22+53.96	40.00 RT	1131452.7603	541211.9826
127	22+49.05	40.00 RT	1131457.3052	541210.4625
128	22+44.95	40.00 RT	1131461.1021	541209.2041
129	22+02.05	40.00 RT	1131501.0135	541196.6095
130	21+97.95	40.00 RT	1131504.8458	541195.4604
131	21+89.75	40.00 RT	1131512.5173	541193.1915
132	21+83.60	40.00 RT	1131518.2783	541191.5150
133	21+75.40	40.00 RT	1131525.9694	541189.3135
134	21+27.79	40.00 RT	1131570.8320	541177.2950
135	21+05.22	40.77 RT	1131592.3900	541172.8000
136	21+01.13	40.57 RT	1131596.2300	541171.6900
137	20+80.13	39.00 RT	1131615.8538	541165.6000
138	19+09.24	39.00 RT	1131780.3085	541138.0640
139	18+82.07	40.31 RT	1131806.9600	541136.5500
140	18+78.07	40.30 RT	1131810.9400	541136.1400
141	400+33.92	4.00 LT	1131854.7365	541130.3994
200	61+00.00	48.02 LT	1131289.7999	541184.4125
201	60+92.13	48.00 LT	1131297.2285	541181.4433
202	22+86.17	43.02 LT	1131395.0842	541144.1325
203	22+34.85	50.23 LT	1131442.7233	541120.2857
204	22+31.13	51.40 LT	1131446.0074	541118.0016
205	22+20.38	55.33 LT	1131455.4040	541110.9005
206	22+13.25	58.41 LT	1131461.5399	541105.7680

CONTROL POINTS FOR WESTERN AVENUE				
POINT	STATION	OFFSET	X COORD.	Y COORD.
207	22+07.99	60.93 LT	1131466.0048	541101.7603
208	21+99.45	65.53 LT	1131473.1717	541094.7879
209	21+96.10	67.50 LT	1131475.9395	541091.9002
210	21+89.56	71.68 LT	1131481.2991	541085.9617
211	21+84.92	75.21 LT	1131484.9643	541081.2156
212	21+78.24	82.33 LT	1131489.7300	541072.4432
213	22+12.91	36.86 LT	1131468.2237	541126.2559
214	22+12.19	33.00 LT	1131470.0674	541129.7246
215	22+04.31	33.00 LT	1131477.7493	541127.3789
216	22+00.39	33.00 LT	1131481.5791	541126.2245
217	21+94.49	33.00 LT	1131487.3448	541124.5055
218	21+90.57	33.00 LT	1131491.1814	541123.3742
219	21+86.98	33.00 LT	1131494.7034	541122.3444
220	21+85.04	34.68 LT	1131496.1296	541120.1823
221	21+82.85	48.56 LT	1131494.4290	541106.2199
222	21+85.76	50.6 LT	1131490.9818	541105.0969
223	21+94.39	45.62 LT	1131483.8634	541112.3757
224	21+97.85	43.79 LT	1131480.9759	541115.1440
225	22+03.12	41.18 LT	1131476.5508	541119.1980
226	22+06.68	39.53 LT	1131473.5403	541121.8317
227	100+60.73	3.00 RT	1131526.0972	541085.0127
228	100+50.17	3.00 RT	1131527.3733	541095.4901
229	100+50.17	3.00 LT	1131533.3293	541094.7647
230	100+60.72	3.00 LT	1131532.0535	541084.2898
231	100+78.27	43.00 LT	1131569.6384	541062.0343
232	100+70.27	43.00 LT	1131570.6056	541069.9756
233	100+64.27	43.10 LT	1131571.4312	541075.9162
234	100+54.76	45.94 LT	1131575.4020	541085.0215
235	20+79.13	33.00 LT	1131601.2698	541095.0854

CONTROL POINTS FOR WESTERN AVENUE				
POINT	STATION	OFFSET	X COORD.	Y COORD.
236	20+35.58	33.00 LT	1131644.7795	541086.0760
237	20+93.32	0.00 RT	1131594.5532	541130.4287
238	20+93.33	3.00 LT	1131593.8708	541127.5073
239	20+53.36	0.00 RT	1131633.5944	541121.9462
240	20+51.53	3.00 LT	1131634.7973	541118.6391
241	18+88.21	0.00 RT	1131796.7943	541097.0639
242	18+88.21	3.00 LT	1131796.4922	541094.0792
243	18+37.33	0.00 RT	1131847.4096	541091.9416
244	18+37.32	3.00 LT	1131847.1175	541088.9560

Item 609.11 Curb Type 1

POINT	LENGTH (FT)
108 TO 109*	77.78
113 TO 114	28.61
117 TO 118*	8.03
118 TO 119*	23.61
122 TO 123	7.68
124 TO 125	11.75
126 TO 127	4.79
128 TO 129	41.85
133 TO 134	46.45
134 TO 135	20.08
136 TO 137	22.45
138 TO 139	24.53
140 TO 141	46.29
200 TO 201	8.00
201 TO 202	104.73
202 TO 203	53.43
204 TO 205	11.78
208 TO 209	4.00
235 TO 236	44.43

Item 609.12 Curb Type 1 - Circular

POINT	RADIUS (FT)	LENGTH (FT)
109 TO 110*	25.00	17.55
125 TO 126	9.95	15.84
234 TO 235	25.00	29.43

Item 609.221 Terminal Curb Type 1

POINT	LENGTH (FT)
100 TO 101	8.00
110 TO 111	15.00
112 TO 113	4.00
119 TO 120	4.00
121 TO 122	12.00
130 TO 131	8.00
132 TO 133	8.00
205 TO 206	8.00
207 TO 208	10.00
209 TO 210	8.00
231 TO 232	8.00

Item 609.222 Terminal Curb Type 1 - Circular

POINT	RADIUS (FT)	LENGTH (FT)
211 TO 212	50.00	10.00
233 TO 234	25.00	10.00

Item 609.34 Curb Type 5

POINT	LENGTH (FT)
102 TO 103*	99.73
103 TO 104*	144.54
105 TO 106*	94.30
106 TO 107*	150.39
214 TO 215	8.03
215 TO 216	4.00
217 TO 218	4.00
218 TO 219	3.67
220 TO 221	14.07
222 TO 223	10.18
223 TO 224	4.00
225 TO 226	4.00
226 TO 213	6.92
227 TO 228	10.55
229 TO 230	10.55
237 TO 239	39.96
238 TO 240	41.88
239 TO 241	161.57
240 TO 242	163.62
241 TO 243	50.87
242 TO 244	50.88

Item 609.35 Curb Type 5 - Circular

POINT	RADIUS (FT)	LENGTH (FT)
104 TO 105*	2.50	7.45
213 TO 214	2.00	5.52
219 TO 220	2.00	2.82
221 TO 222	2.00	4.54
227 TO 230	3.00	9.43
228 TO 229	3.00	9.43
237 TO 238	1.50	4.73

Item 609.341 Curb - Tyep 5 - Truck Apron

POINT	LENGTH (FT)
111 TO 115*	70.88
115 TO 116*	47.50

PLAN

* = Curb will be removed and reset

25 0 25 50
Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	D. EATON	JUNE 2023
PROJ. MANAGER		
DESIGN-DETAILED	KLW/PLP	JUNE 2023
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

BY | DATE

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CURBING PLAN
(1 OF 4)

SHEET NUMBER

24

OF 190

Filename: ...\BRIDGE\MSTA_Curbing_Plan1.dgn Division: BRIDGE Username: kwright Date:7/18/2023

CONTROL POINTS FOR WESTERN AVENUE				
POINT	STATION	OFFSET	X COORD.	Y COORD.
142	401+07.04	9.38 LT	1131919.1863	541150.8155
143	401+15.79	9.66 LT	1131925.6079	541155.5838
144	401+20.14	22.00 RT	1131948.7138	541133.4678
145	401+16.81	22.00 RT	1131945.5732	541130.9908
146	17+41.53	43.80 RT	1131947.1341	541125.8744
147	17+37.54	43.96 RT	1131951.1267	541125.6326
148	16+05.10	49.31 RT	1132083.4305	541117.6214
149	15+96.58	49.69 RT	1132091.9486	541117.1377
150	501+88.76	22.13 LT	1132093.5960	541120.4262
151	502+00.48	20.07 LT	1132085.0185	541130.5587
152	502+04.05	19.62 LT	1132082.4341	541133.6116
153	502+03.11	8.64 RT	1132102.6726	541153.3629
154	501+92.71	7.45 RT	1132109.2675	541145.8458
155	501+88.59	6.81 RT	1132111.9055	541142.8390
156	501+78.96	4.92 RT	1132118.1727	541135.6955
157	501+70.75	4.47 RT	1132124.5040	541130.8052

CONTROL POINTS FOR WESTERN AVENUE				
POINT	STATION	OFFSET	X COORD.	Y COORD.
245	15+65.00	0.00 RT	1132118.3618	541064.5217
246	15+00.00	6.00 RT	1132183.6356	541063.9467
247	14+08.00	6.00 RT	1132275.1681	541054.6837
248	14+00.00	5.94 RT	1132283.1211	541053.8156
249	14+50.00	3.00 LT	1132232.4754	541049.9582
250	14+08.00	2.35 LT	1132274.3279	541046.3780
251	14+00.00	2.22 LT	1132282.2988	541045.6962
252	18+73.92	33.00 LT	1131807.6873	541062.7930
253	18+02.38	33.01 LT	1131878.8633	541055.5825
254	17+77.22	34.28 LT	1131903.7643	541051.7872
255	17+01.99	42.11 LT	1131977.8293	541036.4221
256	16+98.01	42.52 LT	1131981.7459	541035.6096
257	16+55.94	46.90 LT	1132023.1643	541027.0172
258	16+51.95	47.27 LT	1132027.0887	541026.2429
259	16+47.96	47.57 LT	1132031.0273	541025.5454
260	301+65.01	5.00 RT	1132043.8915	541023.8128
261	302+86.74	5.00 RT	1132165.0073	541011.5560
262	303+28.49	5.34 RT	1132205.1953	541004.0609
263	303+36.66	5.41 RT	1132212.8739	541001.8176
264	303+63.25	5.62 RT	1132237.2537	540992.8180
265	303+71.43	5.69 RT	1132244.5482	540989.5341
266	304+06.41	5.95 RT	1132274.3527	540972.8997
267	304+14.59	6.00 RT	1132280.9848	540968.4261

Item 609.11 Curb Type 1

POINT	LENGTH (FT)
141 TO 142	68.61
147 TO 148	132.55
148 TO 149	8.53
150 TO 151	13.28
155 TO 156	9.50
156 TO 157	8.00
252 TO 253	71.54
253 TO 254	25.20
254 TO 255	75.64
256 TO 257	42.30
257 TO 258	4.00
259 TO 260	13.26
260 TO 261	121.73
261 TO 262	40.93
265 TO 266	34.16

Item 609.12 Curb Type 1 - Circular

POINT	RADIUS (FT)	LENGTH (FT)
145 TO 146	2.85	6.93
149 TO 150	2.00	4.66

Item 609.221 Terminal Curb Type 1

POINT	LENGTH (FT)
142 TO 143	8.00
144 TO 145	4.00
151 TO 152	4.00
153 TO 154	10.00
262 TO 263	8.00
264 TO 265	8.00
266 TO 267	8.00

Item 609.34 Curb Type 5

POINT	LENGTH (FT)
243 TO 245	272.34
244 TO 249	387.33
245 TO 246	65.28
246 TO 247	92.00
249 TO 250	42.00

PLAN

25 0 25 50

Scale of Feet

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW/PLP	KLW/PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

P.E. NUMBER

SIGNATURE

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

CURBING PLAN
(2 OF 4)

SHEET NUMBER

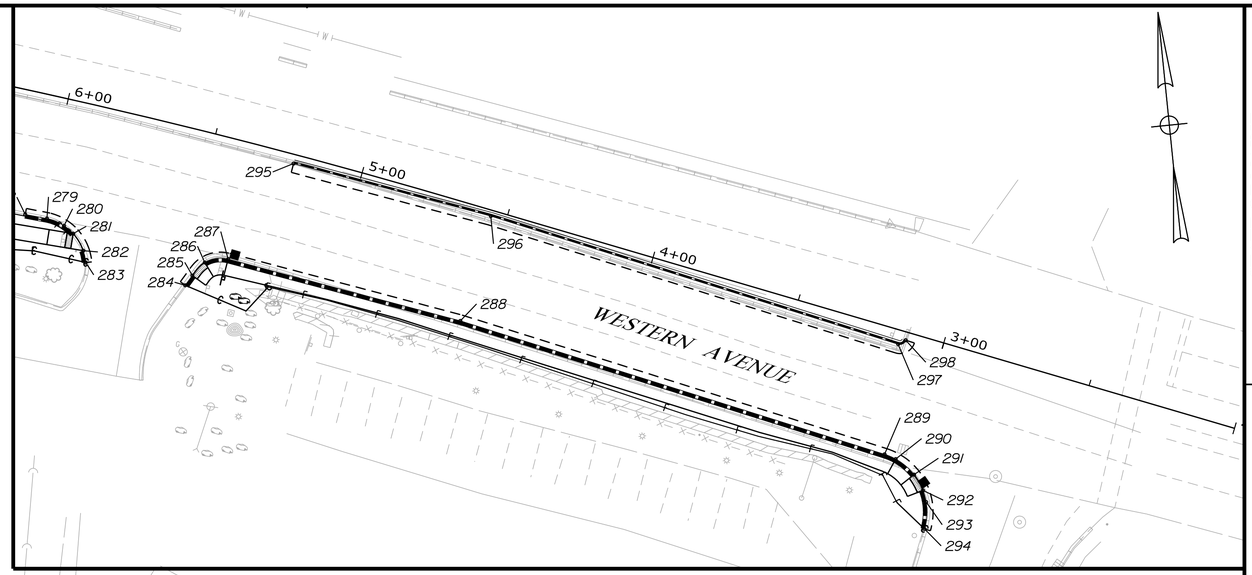
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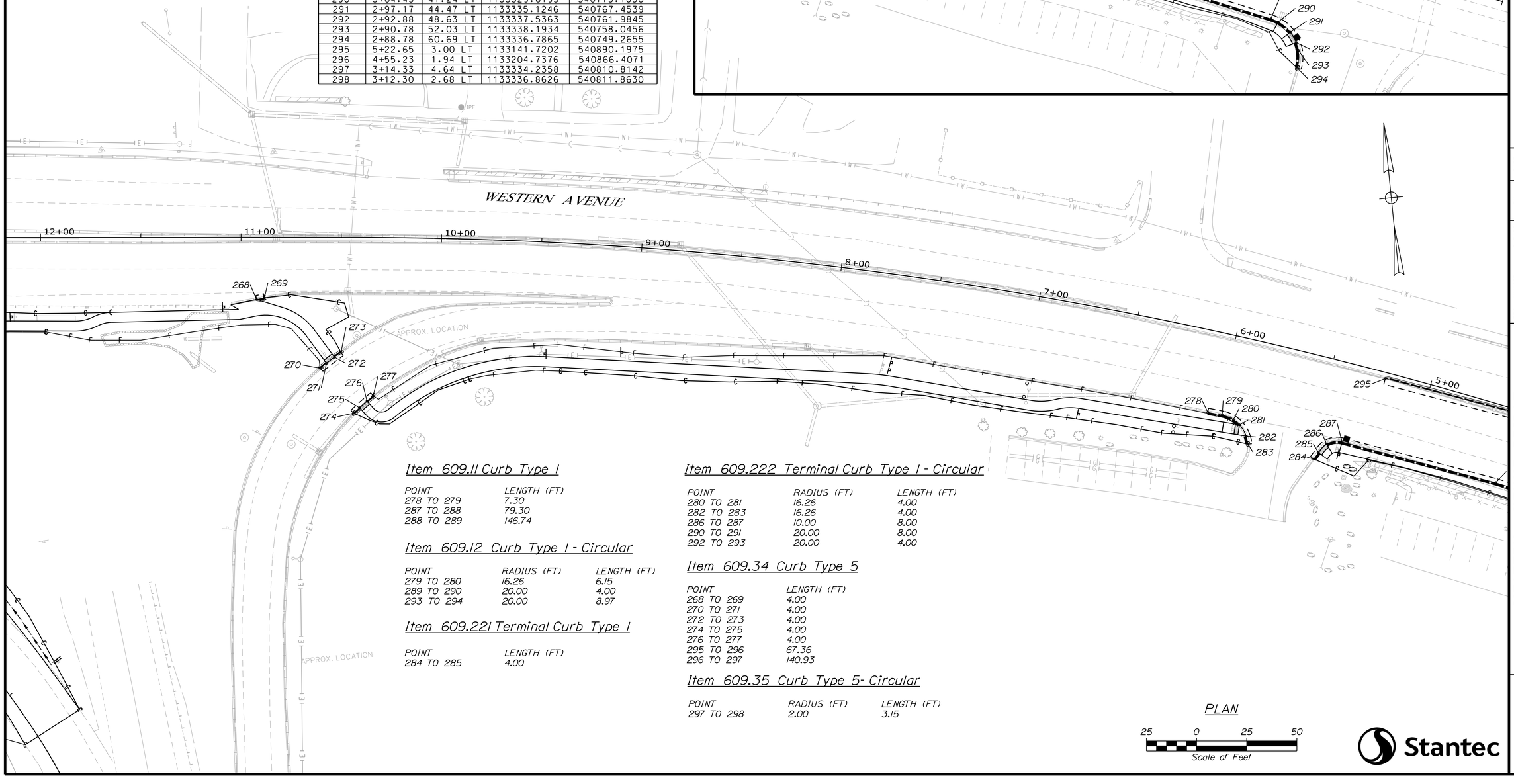
OF 190

Stantec

Filename: ...\BRIDGE\MSTA_Curbing_Plan2.dgn Division: BRIDGE Username: kwight Date:7/18/2023

CONTROL POINTS FOR WESTERN AVENUE				
POINT	STATION	OFFSET	X COORD.	Y COORD.
268	10+92.24	30.97 LT	1132585.6039	540986.1048
269	10+88.32	30.16 LT	1132589.5825	540986.5180
270	10+60.46	65.28 LT	1132613.7636	540948.7733
271	10+57.36	62.75 LT	1132617.0992	540950.9807
272	10+53.41	59.68 LT	1132621.3395	540953.6325
273	10+50.19	57.31 LT	1132624.7843	540955.6656
274	10+43.79	87.67 LT	1132628.0521	540924.8205
275	10+40.76	84.91 LT	1132631.2145	540927.2695
276	10+36.86	81.59 LT	1132635.2757	540930.1867
277	10+33.66	79.04 LT	1132638.6062	540932.4018
278	6+05.61	40.30 LT	1133051.9186	540882.4217
279	5+98.17	40.05 LT	1133058.9180	540880.3529
280	5+92.02	41.12 LT	1133064.2871	540877.4194
281	5+88.42	42.98 LT	1133067.0315	540874.5232
282	5+83.80	47.71 LT	1133069.7738	540868.5946
283	5+82.06	51.32 LT	1133070.2039	540864.6280
284	5+47.52	50.86 LT	1133102.0974	540853.8399
285	5+45.99	47.15 LT	1133104.7701	540856.8159
286	5+45.99	47.15 LT	1133104.7701	540856.8159
287	5+35.65	39.00 LT	1133117.0738	540860.9794
288	4+55.11	37.95 LT	1133191.2811	540833.0068
289	3+08.40	40.76 LT	1133326.1256	540775.1187
290	3+04.43	41.24 LT	1133329.6195	540773.1850
291	2+97.17	44.47 LT	1133335.1246	540767.4539
292	2+92.88	48.63 LT	1133337.5363	540761.9845
293	2+90.78	52.03 LT	1133338.1934	540758.0456
294	2+88.78	60.69 LT	1133336.7865	540749.2655
295	5+22.65	3.00 LT	1133141.7202	540890.1975
296	4+55.23	1.94 LT	1133204.7376	540866.4071
297	3+14.33	4.64 LT	1133334.2358	540810.8142
298	3+12.30	2.68 LT	1133336.8626	540811.8630





Item 609.11 Curb Type 1

POINT	LENGTH (FT)
278 TO 279	7.30
287 TO 288	79.30
288 TO 289	146.74

Item 609.12 Curb Type 1 - Circular

POINT	RADIUS (FT)	LENGTH (FT)
279 TO 280	16.26	6.15
289 TO 290	20.00	4.00
293 TO 294	20.00	8.97

Item 609.221 Terminal Curb Type 1

POINT	LENGTH (FT)
284 TO 285	4.00

Item 609.222 Terminal Curb Type 1 - Circular

POINT	RADIUS (FT)	LENGTH (FT)
280 TO 281	16.26	4.00
282 TO 283	16.26	4.00
286 TO 287	10.00	8.00
290 TO 291	20.00	8.00
292 TO 293	20.00	4.00

Item 609.34 Curb Type 5

POINT	LENGTH (FT)
268 TO 269	4.00
270 TO 271	4.00
272 TO 273	4.00
274 TO 275	4.00
276 TO 277	4.00
295 TO 296	67.36
296 TO 297	140.93

Item 609.35 Curb Type 5- Circular

POINT	RADIUS (FT)	LENGTH (FT)
297 TO 298	2.00	3.15

PLAN

25 0 25 50

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW/PLP		
CHECKED-REVIEWED	LEM		
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

BY	DATE
KLW/PLP	JUNE 2023
LEM	JUNE 2023

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

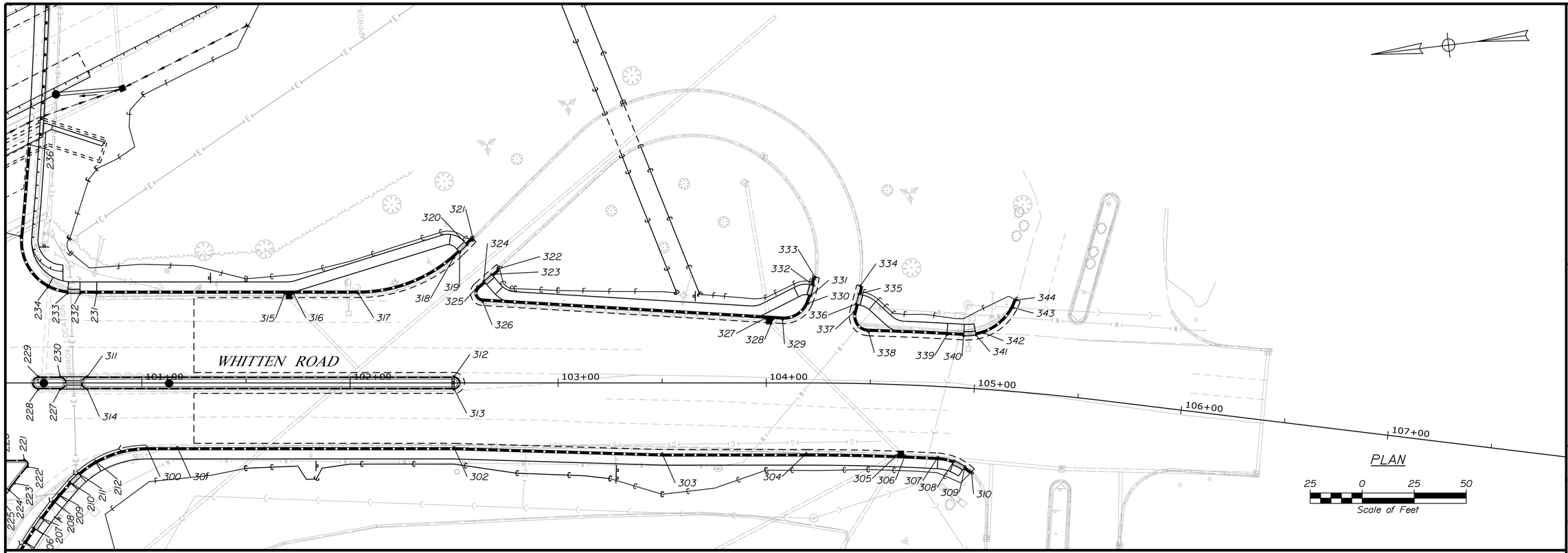
CURBING PLAN
(3 OF 4)

SHEET NUMBER

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Filename: ...\BRIDGE\MSTA_Curbing_Plan3.dgn Division: BRIDGE Username: kwight Date:7/18/2023



Item 609.11 Curb Type 1

POINT	LENGTH (FT)
231 TO 315	90.47
300 TO 301	14.60
301 TO 302	133.00
302 TO 303	100.08
303 TO 304	69.18
304 TO 305	43.51
306 TO 307	15.83
316 TO 317	31.17
317 TO 318	50.05
326 TO 327	135.97
328 TO 329	4.44
338 TO 339	37.69

Item 609.221 Terminal Curb Type 1

POINT	LENGTH (FT)
318 TO 319	4.00
320 TO 321	4.00
322 TO 323	4.00
324 TO 325	4.00
336 TO 337	4.00
339 TO 340	8.00

Item 609.12 Curb Type 1 - Circular

POINT	RADIUS (FT)	LENGTH (FT)
212 TO 300	50.00	25.94
325 TO 326	4.00	9.46
329 TO 330	12.50	15.50
337 TO 338	7.47	13.47
342 TO 343	25.00	18.93

Item 609.222 Terminal Curb Type 1 - Circular

POINT	RADIUS (FT)	LENGTH (FT)
307 TO 308	25.00	8.00
309 TO 310	25.00	4.00
330 TO 331	50.00	4.00
332 TO 333	50.00	4.00
334 TO 335	30.00	4.00
341 TO 342	25.00	4.00
343 TO 344	25.00	4.00

Item 609.34 Curb Type 5

POINT	LENGTH (FT)
311 TO 312 *	176.23
313 TO 314 *	176.23

Item 609.35 Curb Type 5 - Circular

POINT	RADIUS (FT)	LENGTH (FT)
311 TO 314 *	3.00	9.43
312 TO 313 *	3.00	9.43

* = Curb will be removed and reset

CONTROL POINTS FOR WHITTEN ROAD

POINT	STATION	OFFSET	X COORD.	Y COORD.
300	101+02.39	31.00 RT	1131493.2646	541047.0350
301	101+17.00	31.00 RT	1131491.4986	541032.5365
302	102+49.97	31.00 RT	1131475.4224	540900.5455
303	103+50.00	34.00 RT	1131460.3494	540801.6086
304	104+19.18	34.00 RT	1131451.9846	540732.9321
305	104+63.97	34.00 RT	1131445.9189	540689.8465
306	104+68.08	34.00 RT	1131445.2806	540685.8971
307	104+84.37	34.00 RT	1131442.6223	540670.2929
308	104+92.48	35.24 RT	1131439.9994	540662.7712
309	104+98.09	37.74 RT	1131436.5433	540657.8841
310	105+01.43	40.09 RT	1131433.6341	540655.1451
311	100+73.77	3.00 LT	1131530.4759	541071.3376
312	102+50.00	3.00 LT	1131509.1686	540896.4014
313	102+50.00	3.00 RT	1131503.2126	540897.1269
314	100+73.77	3.00 RT	1131524.5199	541072.0630
315	101+68.74	43.00 LT	1131558.6996	540972.2256
316	101+72.74	43.00 LT	1131558.2160	540968.2550
317	102+03.92	43.00 LT	1131554.4470	540937.3107
318	102+49.81	60.14 LT	1131565.9141	540889.6841
319	102+52.75	62.85 LT	1131568.2455	540886.4344
320	102+56.31	66.37 LT	1131571.3068	540882.4807
321	102+59.15	69.18 LT	1131573.7557	540879.3180
322	102+71.07	54.75 LT	1131557.9954	540869.2269

CONTROL POINTS FOR WHITTEN ROAD

POINT	STATION	OFFSET	X COORD.	Y COORD.
323	102+68.06	52.12 LT	1131555.7490	540872.5365
324	102+64.29	48.84 LT	1131552.9409	540876.6735
325	102+61.28	46.21 LT	1131550.6944	540879.9831
326	102+63.67	39.20 LT	1131543.4503	540878.4572
327	103+99.40	31.06 LT	1131518.9554	540744.7070
328	104+03.39	30.82 LT	1131518.2349	540740.7725
329	104+07.82	30.55 LT	1131517.4355	540736.4077
330	104+20.10	38.27 LT	1131523.6057	540723.2595
331	104+21.42	42.02 LT	1131527.1669	540721.4410
332	104+22.65	46.85 LT	1131531.8044	540719.5773
333	104+23.30	50.80 LT	1131535.6339	540718.4257
334	104+44.22	46.90 LT	1131528.8783	540697.3625
335	104+43.57	42.96 LT	1131525.0735	540698.5869
336	104+42.43	38.10 LT	1131520.4265	540700.4324
337	104+41.52	34.21 LT	1131516.7089	540701.9087
338	104+48.59	25.00 LT	1131506.5577	540696.0488
339	104+85.51	25.00 LT	1131500.5127	540658.8483
340	104+93.35	25.00 LT	1131499.0825	540650.9772
341	104+99.16	25.73 LT	1131498.7056	540645.0034
342	105+02.87	27.01 LT	1131499.2513	540641.0451
343	105+15.50	40.17 LT	1131509.6228	540625.7438
344	105+16.69	43.97 LT	1131513.0975	540623.7708

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

	BY	DATE
D. EATON	KLW/PLP	JUNE 2023
KLW/PLP	LEM	JUNE 2023
LEM		

SIGNATURE

P.E. NUMBER

DATE

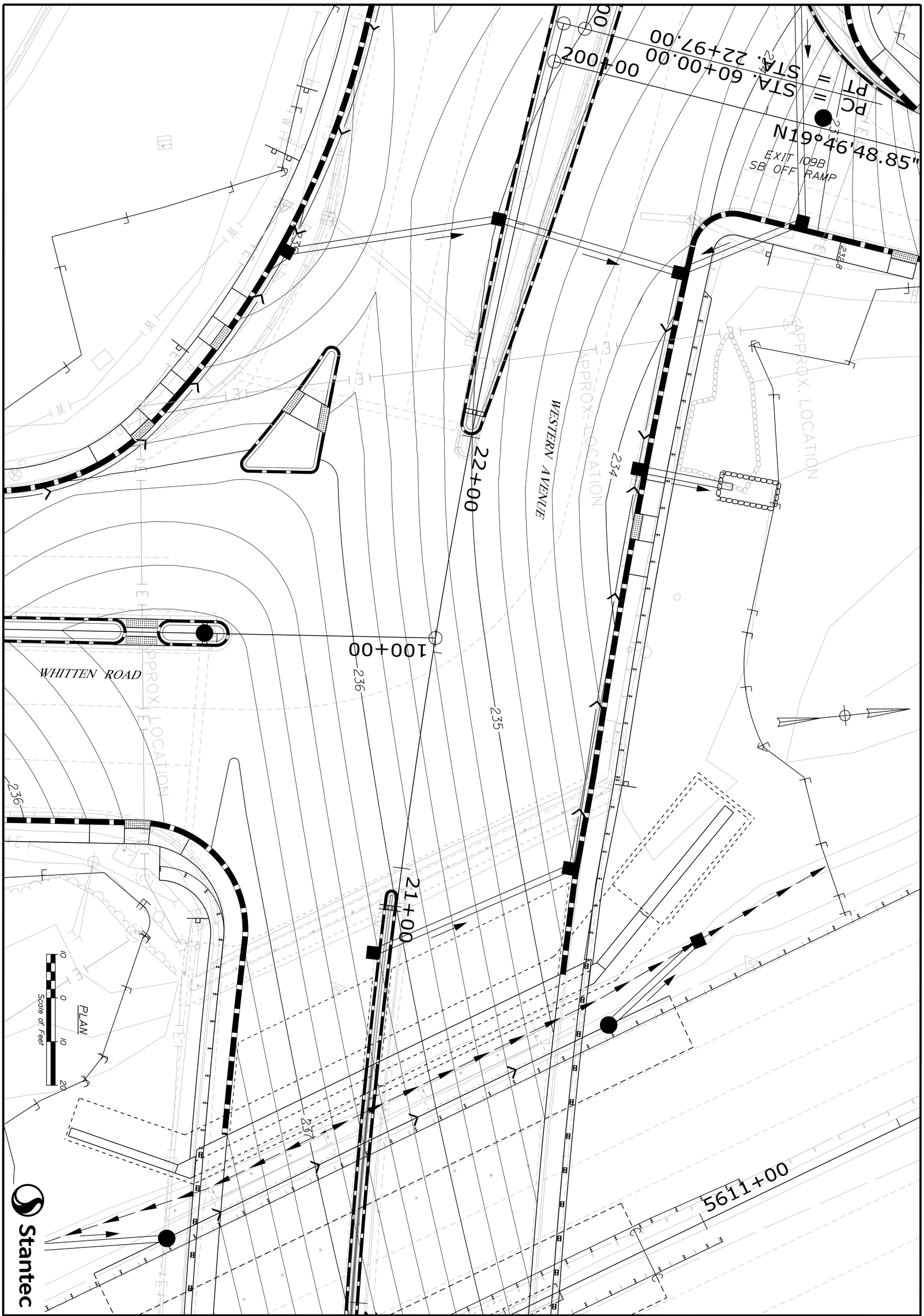
PROJ. MANAGER	
DESIGN-DETAILED	KLW/PLP
CHECKED-REVIEWED	LEM
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

CURBING PLAN
(4 OF 4)

SHEET NUMBER
27
OF 190

Filename: ...\BRIDGE\MSTA_Curbing_Plan4.dgn Division: BRIDGE Username: kwright Date:7/18/2023



Stantec

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

GRADING PLAN

	PROJ. MANAGER	D. EATON	BY	DATE
	DESIGN-DETAILED	KLW\PLP	KLW\PLP	JUNE 2023
	CHECKED-REVIEWED	LEM	LEM	JUNE 2023
	DESIGN2-DETAILED2			
	DESIGN3-DETAILED3			
	REVISIONS 1			
	REVISIONS 2			
	REVISIONS 3			
	REVISIONS 4			
	FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5808 PIN 21672.00 BRIDGE PLANS

SHEET NUMBER 28 OF 190

Filename: ...\MSTA_Lighting_Plan1.dgn Division: BRIDGE Username: kwright Date:7/18/2023

Existing ES-2 Service

Intercept Existing Conduit and Conductors

Remove and Reset Existing Light Standard to Temporary Location During Construction and Reset Back to Existing Location

Intercept Existing Conduit and Extend to New Junction Box JB9AA

Temporarily Remove Light Standard and Store During Construction; Provide Junction Box and Reconnect Existing Circuit; Reset Back to Existing Location.

Maintain Existing Circuit to Adjacent Fixture

Relocate Utility Pole #74/74 (By Others)

Power Source for Signal

Remove and Reset Light Standard to Temporary Location During Construction; Reset to Final Location Behind Sidewalk Ramp

Relocate Utility Pole 501.5/1.5/18 & Cobra Head Light (By Others)

Temporarily Remove Light Standard and Store During Construction; Reset to New Location

Remove Utility Pole (By Others)

Light Standard (Typ.)

EXIT 109B SB OFF RAMP

MAINE INTERSTATE 95 SOUTHBOUND

MAINE INTERSTATE 95 NORTHBOUND

WESTERN AVENUE

WHITTEN ROAD

SEARS MALL

SL-27 SL-28 SL-29 SL-30 SL-31 SL-32 SL-39 SL-40 SL-49 SL-50 SL-50A SL-16

JB7 JB9 JB9AA JB9B

PLAN

25 0 25 50

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

	D. EATON	DATE
PROJ. MANAGER		
DESIGN-DETAILED	KLW/PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

LIGHTING PLAN
(1 OF 4)

SHEET NUMBER

29

OF 190

Filename: ...\MSTA_Lighting_Plan2.dgn Username: kwight Division: BRIDGE Date:7/18/2023

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808 BRIDGE PLANS

PROJ. MANAGER	D. EATON
DESIGN-DETAILED	KLW/PLP
CHECKED-REVIEWED	LEM
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	KLW/PLP	JUNE 2023
REVISIONS 2	LEM	JUNE 2023
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

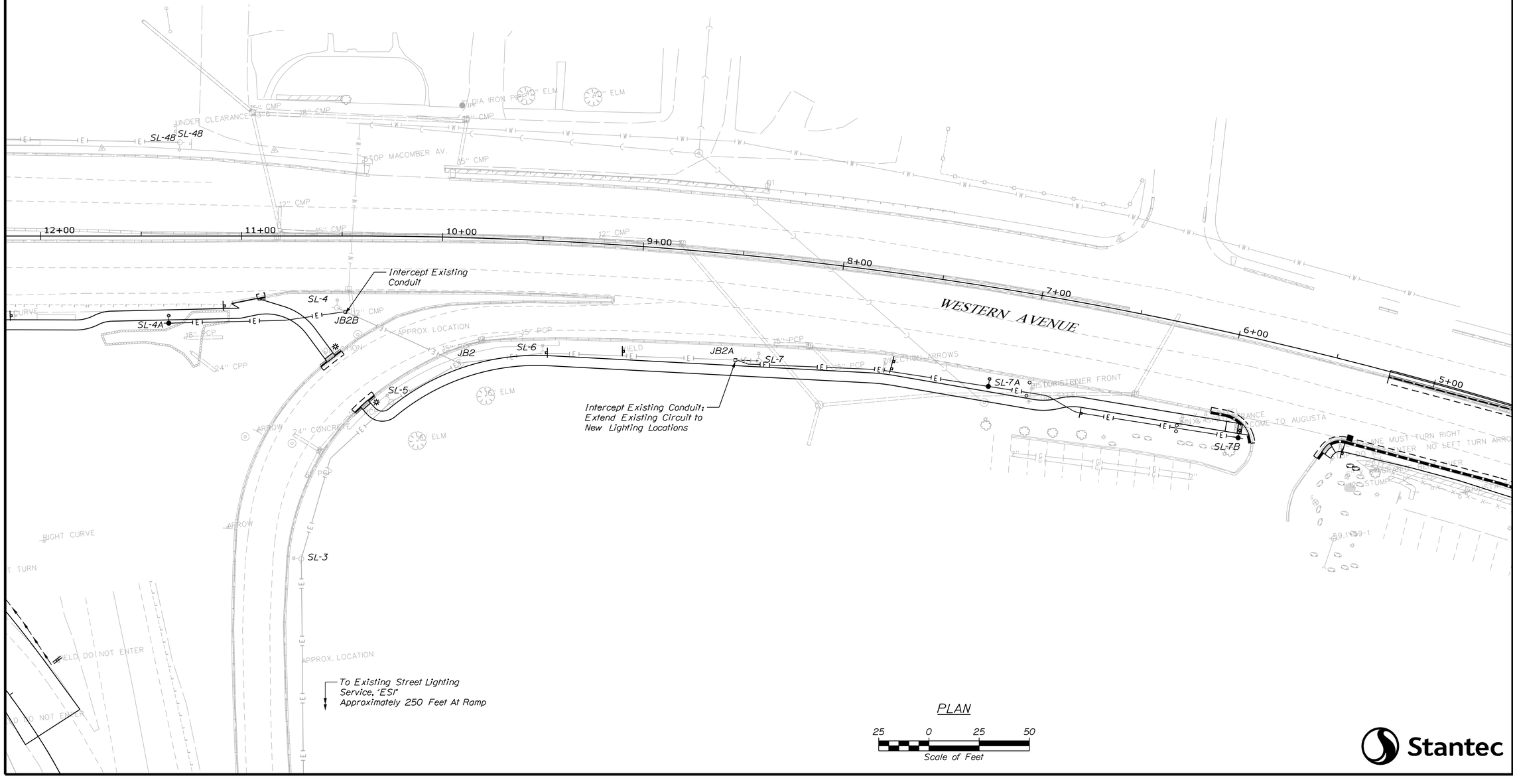
LIGHTING PLAN
(2 OF 4)

SHEET NUMBER
30
OF 190

PLAN
Scale of Feet
25 0 25 50

Stantec

Filename: ...\MSTA_Lighting_Plan3.dgn Username: kwight Division: BRIDGE Date:7/18/2023



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808 BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

LIGHTING PLAN (3 OF 4)

SHEET NUMBER
31
OF 190

Stantec

Filename: ...\MSTA_Lighting_Plan4.dgn Division: BRIDGE Username: kwight Date:7/18/2023

MAINE INTERSTATE 95 NORTHBOUND

MAINE INTERSTATE 95 SOUTHBOUND

WHITTEN ROAD

JB13

Existing Conduit for Southbound Lighting Locations to be Reused. Approximately 800ft From JB13 to Light Standard SL-51

JB13A

Intercept Existing Conduit and Refeed Southbound Lighting Locations

Existing Feeder for Southbound Lighting Fixtures to be Abandoned

New Electric Service ES3. Coordinate with Utility to Provide New Service from Pole #2/502-19.

Cabinet Pad

JB9B

SL-50A

SL-49

SL-49B

SL-49C

Relocate Utility Pole 501.5/1.5/18 & Cobra Head Light (By Others)

APPROX. LOCATION

PLAN

25 0 25 50

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808 BRIDGE PLANS

PROJ. MANAGER	D. EATON	BY	DATE
DESIGN-DETAILED	KLW\PLP	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

LIGHTING PLAN (4 OF 4)

SHEET NUMBER

32

OF 190

LIGHTING GENERAL NOTES

1. Drawings are diagrammatic and indicate the general arrangement of work. basic design concepts indicated are to be either followed or bettered. Work is intended to include items necessary for proper operation and completion. Field verify all locations, elevations, and dimensions.

2. Existing conduit information shown on the drawing has been obtained from PIN 15983.00 base plan and field notes.

3. The new power service, control cabinets, and meter disconnects and enclosures shall be paid for under Item 634.160. The service cabinet, disconnect enclosure and other enclosures for electrical components shall be marked with Arc Flash Hazard labels, indication type 1, 2, 3, or 4 and the appropriate PPE required.

4. Align fixtures along all continuous straight roadway / sidewalk sections. Fixtures shall be set at a nominal distance of 3 ft. from back of guardrail, or 6ft from edge pavement to center of lighting foundation.

5. Existing light standards to be removed and reset shall be paid for under Item 634.160. The new foundations shall meet or exceed the existing foundation size. Payment shall be made under Item 626.4211 24-Inch Diameter Foundation.

6. The Department's existing light fixtures and poles shall be utilized at temporary lighting locations or stored for final alignment locations. Lighting to be stored shall be transported to a storage site, and protected from damage. Storage and transportation shall be incidental to Item 634.160.

7. Removal and disposal of all electrical equipment, wiring, concrete bases and related equipment shall be incidental to Item 634.160.

8. All light base foundations shall have a ground rod, located in or immediately adjacent to the foundation, that is bonded to the pole grounding conductor. Payment for the ground rod shall be included in Item 634.160 Highway Lighting.

9. Electrical Contractor shall coordinate with Central Maine Power and MaineDOT for location of new electrical service and make arrangements for providing new 120/240V (voltage change to be confirmed with MaineDOT LED replacement work) electrical service ES-3.

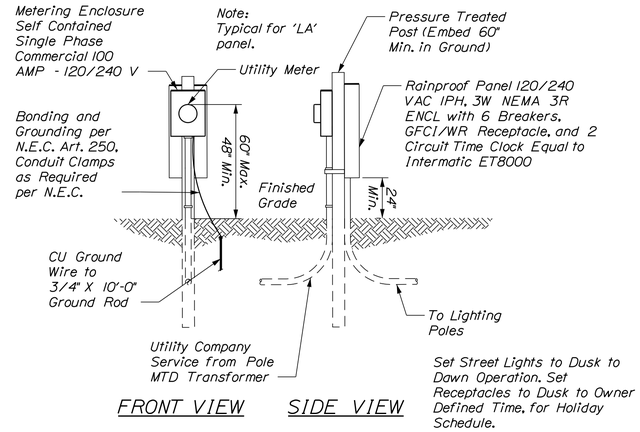
10. Operation of lighting to be by photocell located at electrical service control cabinet.

11. Snug-tight condition of anchor bolts shall be defined as between 20 and 30 percent of the verification torque value determined by the formula in FHWA publication NHI 05-036. Additional tightening beyond snug-tight condition shall be done in accordance with section 643.05 of the Standard Specifications.

12. New power service conduit required between the power source and the meter shall be rigid metal conduit.

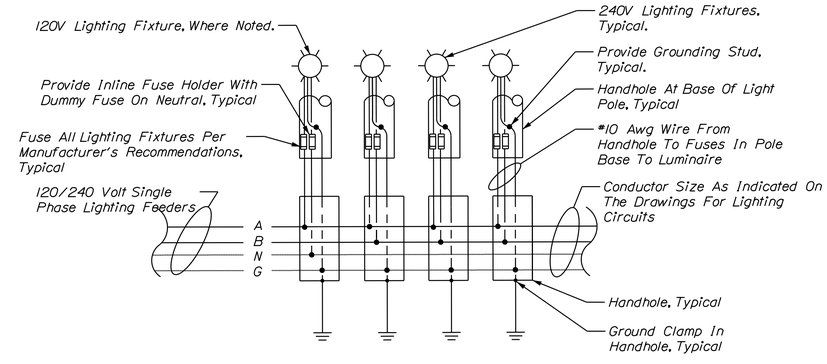
13. All exposed rigid conduit fittings and hardware shall be galvanized, except non-conductive bushings for connection of regid metal conduit to aluminum cabinets.

14. Secondary circuit wiring shall be stranded copper XHHW-2. All wiring shall be No. 8 AWG or larger wire size.



FRONT VIEW SIDE VIEW

SERVICE PANEL AND METER "ES3" DETAIL



120/240 VOLT - 1PH CIRCUITING ONE LINE DIAGRAM

NOT TO SCALE

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

	BY	DATE
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WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

LIGHTING DETAILS (1 OF 3)

SHEET NUMBER
33
OF 190

Filename: ...\BRIDGE\MSTA_Typ_Lighting.dgn Division: BRIDGE Username: kwight Date:7/18/2023

STREET LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NUMBER	BRACKET ARM	DESCRIPTION OR SIZE	COLOR	LIGHT SOURCE				VOLTAGE	INPUT WATTS	REMARKS
						TYPE	Lumens	IES DIST	CCT(K)			
A	American Electrical Lighting	ATB0-P204-MVOLT-R3-NL-NR	Direct on Tenon	New Street Lighting Standard	Grey	LED	12176	III	4000K	240	88	Match Existing New LED Luminaires
A Pole	Valmont	TBP	With Bracket	New 40' Pole	Grey	Pole	-	-	-	-	-	Mount to 24" foundation
B	American Electrical Lighting	ATB0-P452-MVOLT-R3-NL-NR	Direct on Tenon	New Street Lighting Standard	Grey	LED	19469	III	4000K	240	125	
B Pole	Valmont	TBP	With Bracket	New 40' Pole	Grey	Pole	-	-	-	-	-	Mount to 24" foundation
E	Holophane\American Electrical Lighting	Existing		Existing Street Lighting	Grey	HID/LED	Existing	III	4000K	480/240	250/88	Owner Project Replaced HPS HID Luminiares with LED
E Pole	Existing	Existing		40' Existing Pole	Grey	Pole	-	-	-	-		

CONDUIT & CONDUCTOR SCHEDULE

KEY	CONDUIT SIZE	FOR FIXTURES	CONDUCTORS FOR SERVICE	FOR GROUND
A	3"	2#6		1#6G
A2	3"	4#6		1#6G
B	3"	2#4		1#4G
CX	EXISTING	2#6		1#6G
D	3"	2#2		1#2G
DX	EXISTING	2#2		1#2G
E	3"	500# Pullcord		1#8G
F	3"		3#2	1#8G
#X	2"	Existing #4/#6		Existing

GENERAL NOTES

1. Maximum of 270° in total bends permitted in single run of conduit.

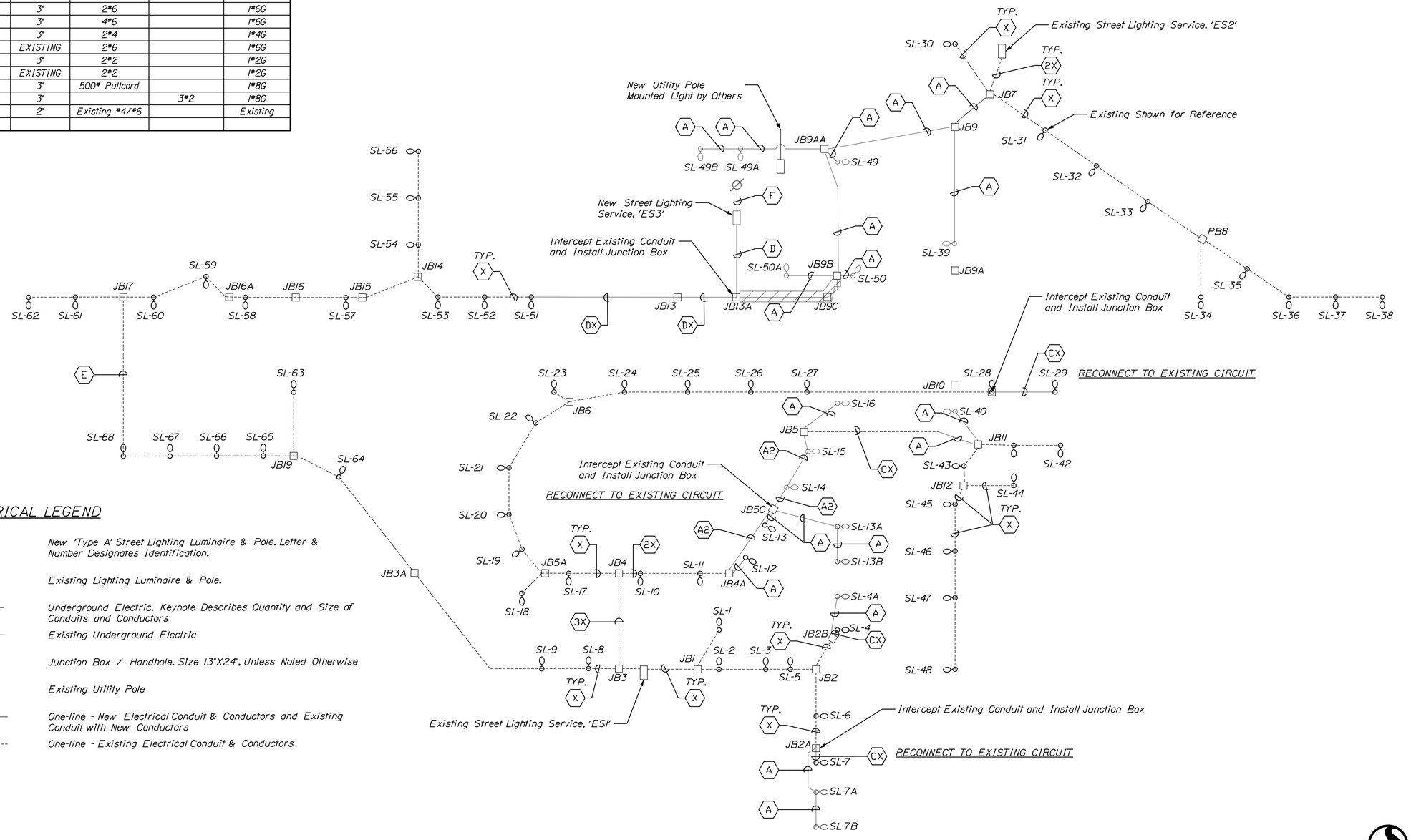
2. Lights shall be fused at base with Y-type fuse kit. (equal to homac [flood seal]) fyc-8 and 10 amp fuse.

3. Circuit conductors including neutral conductor shall be clearly identified by corrosion resistant tags indicating circuit number and panel sources at every pole base and handhole.

4. Utilize approved dual-rated parallel tap connector equal to ilsco gta series with insulated cover for taps at pole base.

5. Utilize approved dual-rated parallel tap connector equal to ilsco ped series with watertight connector, suitable for direct burial in junction boxes, handholes and manholes.

6. For existing type x wiring # denotes number of circuits in conduit.



ELECTRICAL LEGEND

SL-#	New 'Type A' Street Lighting Luminaire & Pole. Letter & Number Designates Identification.
	Existing Lighting Luminaire & Pole.
— E —	Underground Electric. Keynote Describes Quantity and Size of Conduits and Conductors
- - EE - -	Existing Underground Electric
	Junction Box / Handhole. Size 13"X24". Unless Noted Otherwise
	Existing Utility Pole
	One-line - New Electrical Conduit & Conductors and Existing Conduit with New Conductors
	One-line - Existing Electrical Conduit & Conductors

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

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DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

LIGHTING DETAILS
(2 OF 3)

SHEET NUMBER
34
OF 190

Filename: ...\BRIDGE\MSTA_Typ_Lighting.dgn Division: BRIDGE Username: kwright Date:7/18/2023

STREET LIGHTING SCHEDULE - SERVICE ES-1

SITE LIGHT NO.	DESCRIPTION	FIXTURE TYPE	LUMINAIRE & ARM QUANTITY	LENGTH OF POLE ARM	PANEL CIRCUIT	BREAKAWAY	MOUNTING HEIGHT	BASE TYPE	FOUNDATION SIZE	REMARKS
SL-4	Existing Street Light Standard	E	1	Direct	ES1-1	BA - Existing	Existing	Bolt Cover	24"	Extend Existing Circuit to New Street Lights
SL-4A	New Location, Relocated Fixture	A	1	Direct	ES1-1	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Extend Existing Circuit to New Street Lights
SL-7	Existing Street Light Standard	E	1	Direct	ES1-1	BA - Existing	Existing	Bolt Cover	Existing	Extend Existing Circuit to New Street Lights
SL-7A	New Street Light	A	1	Direct	ES1-1	BRK AWY -YES	40'	Bolt Cover	24"	Extend Existing Circuit to New Street Lights
SL-7B	New Street Light	A	1	Direct	ES1-1	BRK AWY -YES	40'	Bolt Cover	24"	Extend Existing Circuit to New Street Lights
SL-11	Existing Street Light Standard	E	1	Direct	ES1-3	BA - Existing	Existing	Bolt Cover	Existing	No Modifications Required During Construction
SL-12	Relocate Existing Street Light	E	1	Direct	ES1-3	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Remove & Install in Final Location
SL-13	Relocate Existing Street Light	E	1	Direct	ES1-3	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Remove & Install in Final Location
SL-13A	New Location, Relocated Fixture	A	1	Direct	ES1-3	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Extend Existing Circuit to New Street Lights
SL-13B	New Location, Relocated Fixture	A	1	Direct	ES1-3	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Extend Existing Circuit to New Street Lights
SL-14	Relocate Existing Street Light	E	1	Direct	ES1-3	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Remove & Install in Final Location
SL-15	Relocate Existing Street Light	E	1	Direct	ES1-3	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Remove & Install in Final Location
SL-16	Relocate Existing Street Light	E	1	Direct	ES1-3	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Remove & Install in Final Location
SL-27	Existing Street Light Standard	E	1	Direct	ES1-4	BA - Existing	Existing	Bolt Cover	Existing	No Modifications Required During Construction
SL-28	Reinstall Existing Street Light	E	1	Direct	ES1-4	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Remove & Store during Temp Construction, Reinstall at Existing Location
SL-29	Existing Street Light Standard	E	1	Direct	ES1-4	BA - Existing	Existing	Bolt Cover	Existing	Reconnect to Maintain Service Throughout Contruction
SL-40	Relocate Existing Street Light	E	1	Direct	ES1-5	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Remove & Store for Final Lighting Location
SL-41	Reinstall Existing Street Light	E	1	Direct	ES1-5	BRK AWY -YES	Existing 40'	Bolt Cover	24"	Remove & Store for Temp Construction, Existing Location to Remain

STREET LIGHTING SCHEDULE - SERVICE ES-2

SITE LIGHT NO.	DESCRIPTION	FIXTURE TYPE	LUMINAIRE & ARM QUANTITY	LENGTH OF POLE ARM	PANEL CIRCUIT	BREAKAWAY	MOUNTING HEIGHT	BASE TYPE	FOUNDATION SIZE	REMARKS
SL-30	Existing Street Light Standard	E	1	Direct	ES2-1	BA - Existing	Existing	Bolt Cover	Existing	No Modifications Required During Construction
SL-31	Existing Street Light Standard	E	1	Direct	ES2-1	BA - Existing	Existing	Bolt Cover	Existing	Maintain Service Throughout Contruction
SL-32	Existing Street Light Standard	E	1	Direct	ES2-1	BA - Existing	Existing	Bolt Cover	Existing	No Modifications Required During Construction
SL-39	Relocate Existing Street Light	B	1	Direct	ES2-2	BRK AWY -YES	40'	Bolt Cover	24"	Relocate Existing To SL-4A, Provide New Type B
SL-49	Relocate Existing Street Light	B	1	Direct	ES2-2	BRK AWY -YES	40'	Bolt Cover	24"	Relocate Existing To SL-13B, Provide New Type B
SL-49A	New Street Light	A	1	Direct	ES2-2	BRK AWY -YES	40'	Bolt Cover	24"	Extend Existing Circuit to New Street Lights
SL-49B	New Street Light	A	1	Direct	ES2-2	BRK AWY -YES	40'	Bolt Cover	24"	Extend Existing Circuit to New Street Lights
SL-50	Relocate Existing Street Light	B	1	Direct	ES2-2	BRK AWY -YES	40'	Bolt Cover	24"	Relocate Existing To SL-13A, Provide New Type B
SL-50A	New Street Light	A	1	Direct	ES2-2	BRK AWY -YES	40'	Bolt Cover	24"	Extend Existing Circuit to New Street Lights

STREET LIGHTING SCHEDULE - SERVICE ES-3

SITE LIGHT NO.	DESCRIPTION	FIXTURE TYPE	LUMINAIRE & ARM QUANTITY	LENGTH OF POLE ARM	PANEL CIRCUIT	BREAKAWAY	MOUNTING HEIGHT	BASE TYPE	FOUNDATION SIZE	REMARKS
SL-51	Existing Street Light Standard	E	1	Direct	ES3-1	BA - Existing	Existing	Bolt Cover	Existing	Maintain Service Throughout Contruction
SL-52	Existing Street Light Standard	E	1	Direct	ES3-1	BA - Existing	Existing	Bolt Cover	Existing	No Modifications Required During Construction

PANEL - ES1

100A, 240/480V, 1 PHASE, 3 WIRE, 10 KAIC RATED PANEL (MOD - 120/240V)

CKT #	BREAKER	POLE	DESCRIPTION	LOAD
1	20A	2	Streetlights - Exit 109 NB Off Ramp to EB	880
			Western Ave.	
2	20A	2	Streetlights - I-95 NB to Exit 109 NB Off	704
			Ramp	
3	20A	2	Streetlights - Western Ave EB to Exit 109	880
			NB & SB On Ramp	
4	20A	2	Streetlights - Exit 109 NB On Ramp & I-95	1144
			NB	
5	20A	2	Streetlights - WB Western Ave to Exit 109	792
			NB & SB On & Off Ramp Loop	
			TOTAL CONNECTED LOAD	4400
			AMPERES	18
Existing Custom Panel			MAIN BREAKER	60A, 2P

PANEL - ES2

100A, 240/480V, 1 PHASE, 3 WIRE, 10 KAIC RATED PANEL (MOD - 120/240V)

CKT #	BREAKER	POLE	DESCRIPTION	LOAD
1	20A	2	Streetlights - Exit 109B SB Off Ramp	792
2	20A	2	Streetlights - Intersection of Western Ave. &	264
			Whitten Rd.	
			TOTAL CONNECTED LOAD	1056
			AMPERES	4
Existing Custom Panel			MAIN BREAKER	60A, 2P

PANEL - ES3

100A, 120/240V, 1 PHASE, 3 WIRE, 10 KAIC RATED PANEL

CKT #	BREAKER	POLE	DESCRIPTION	LOAD
1	20A	2	Streetlights - I-95 SB	1056
2	20A	2	Spare / Temp Circuits	
3	20A	1	Cabinet Receptacle	180
			TOTAL CONNECTED LOAD	1236
			AMPERES	5
New Panelboard			MAIN BREAKER	60A, 2P

NOTES

1. See one-line for feeder size.

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WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

PROJ. MANAGER	D. EATON		
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WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

LIGHTING DETAILS
(3 OF 3)

SHEET NUMBER
35
OF 190

Filename: ...\BRIDGE\MSTA_Typ_Lighting.dgn Division: BRIDGE Username: kwright Date:7/18/2023

LIST OF MAJOR ITEMS

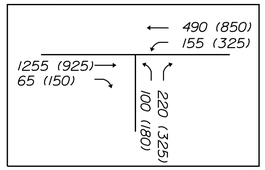
Equipment and Work Paid for Under Related Contract Items	Quantity
Remove and Reset existing one-way 3-section, 12-inch signal heads mounted on signal mast arms with astro-brackets.	5
Remove and Reset existing one-way 4-section, 12-inch signal heads mounted on signal mast arms with astro-brackets.	1
Furnish and Install one-way 3-section, 12-inch signal heads, with LED modules, tunnel visors, and 5-inch louvered back plate with 3-inch retroreflectivity mounted on mast arms with astro-brackets.	2
Furnish and Install one-way 16x18 inch LED top of post mounted countdown pedestrian signal head.	4
Furnish and Install ADA compliant accessible pedestrian signal (APS) button with 9"x15" R10-3e informational sign.	4
Remove and Reset Traffic Signal Mast Arm A pole with 40-foot mast arm and concrete foundation.	1
Remove and Reset Dual Purpose Traffic Signal Mast Arm B-C pole with 45-foot and 50-foot mast arms and new concrete foundation.	1
Furnish and Install 8-foot pedestal pole and foundation.	4
Remove and Reset Existing Optical Preemption System including 4-Channel preemption phase selector, preemption receivers, and confirmation strobe.	1
Remove and Reset exisitng video detection system. New cabling compatible with existing video detection equipment shall be provided for final, permanent installation.	1
Reestablish fiber optic interfaces between patch panel and proposed 12-strand single mode fiber optic cable.	1
Reestablish all traffic signal equipment, cabling, and wiring and communications with City of Augusta and MaineDOT traffic signal management server.	1
Furnish and install new signal cable.	294 LF
Implement local and system signal timings.	-

The Listed Quantities are approximate and are furnished for information only

STRUCTURE LIST

Structure	Description	Foundation
A	Mast Arm A	STA. 20+85.73, 44.62' LT.
B-C	Mast Arm B-C	STA. 21+68.44, 53.08' RT.

SYSTEM DESIGN VOLUMES AM (PM)



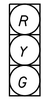
Note: System Design Volumes AM (PM) sourced from MaineDOT WIN 024301 (Statewide BUILD) for informational purposes only.

PROPOSED INDICATIONS



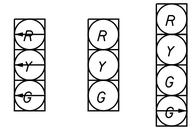
16"x18" LED PEDESTRIAN SIGNAL WITH VISOR

P1-P4



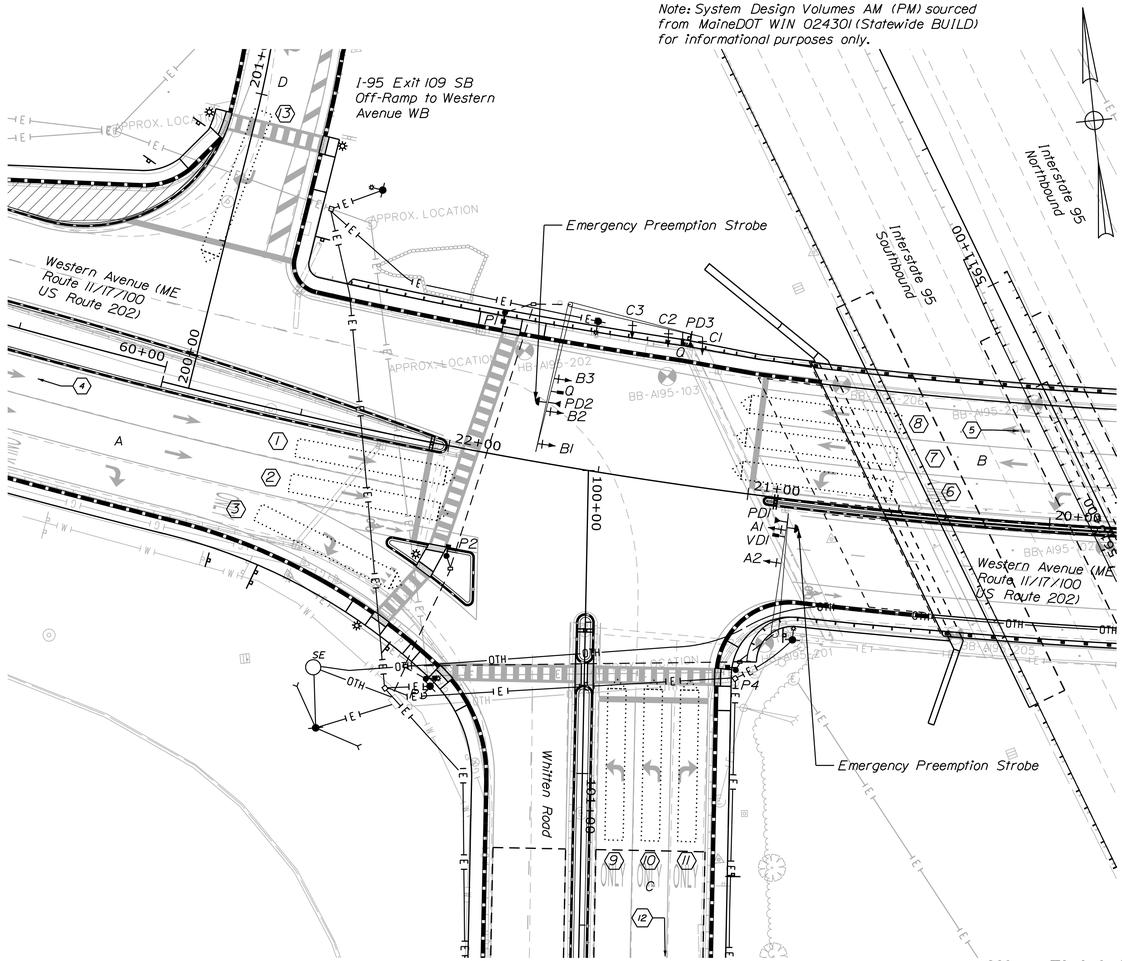
A2, C3

EXISTING INDICATIONS



B1 | A1, B2, B3, C2 | C1

Note:
All indications shall be 12" Light Emitting Diodes (LED's) with 5" louvered retroreflective backplates.



LEGEND

- Cabinet with Signal Equipment
- Mast Arm and Pole
- Vehicular Signal Head
- Pedestrian Pole
- Pedestrian Signal Head
- Pedestrian Push Button
- Sign
- Queue Detection Camera
- Vehicle Detection Camera
- Emergency Preemption Receiver
- Preemption Confirmation Strobe
- Ethernet Radio and Antenna
- Junction Box
- Lighting Conduit
- Video Detection Zone
- Light Standard
- 12-Strand Signel Mode Fiber Optic Cable
- 30-Inch Manhole with Fiber Optic Splice Enclosure
- Signal Conduit

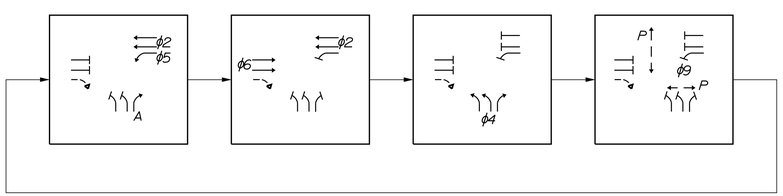
Detector Zone No.	Location	ϕ Called	ϕ Ext.	Mode A = Advance B = Stopline C = Count	Delay Time	Ext. Time
1	Western Ave. EB Through	6	6	B	-	-
2	Western Ave. EB Through	6	6	B	-	-
3	Western Ave. EB Right	N/A	N/A	C	-	-
4*	Western Ave. EB Advance	6	6	A	-	-
5*	Western Ave. WB Advance	2	2	A	-	-
6	Western Ave. WB Left	5	5	B	-	-
7	Western Ave. WB Through	2	2	B	-	-
8	Western Ave. WB Through	2	2	B	-	-
9	Whitten Rd. NB Left	4	4	B	-	-
10	Whitten Rd. NB Left	4	4	B	-	-
11	Whitten Rd. NB Right	4	4	B	5	-
12*	Whitten Rd. NB Advance	4	4	A	-	-
13	I-95 Exit 109 SB Off-Ramp Right	N/A	N/A	C	-	-

Note: Location and Quantity of vehicle detection zones are derived from the proposed MaineDOT WIN 024301 (Statewide BUILD) design for this intersection. Final location and quantity of additional vehicle detection zones were determined after the implementation of the Econolite Centracs Edaptive Signal Control. Contractor shall reestablish additional as-built vehicle detection zones in addition to the zones indicated on these plans.

PREFERENTIAL PHASE SEQUENCE

Nema Ring and Barrier Diagram

2 4 9
5 6



Overlap Phasing
OVL A = 4-5

SIGNAL TIMING SCHEDULE

Item/Phase	ϕ 1	ϕ 2	ϕ 3	ϕ 4	ϕ 5	ϕ 6	ϕ 7	ϕ 8	ϕ 9
Movement	-	Western Ave WB	-	Whitten Rd NB	Western Ave WB (LT)	Western Ave EB	-	-	Ped Phase
Minimum Initial	-	10	-	5	10	10	-	-	-
Passage Time	-	3.5	-	2.5	3.5	3.5	-	-	-
Maximum I	-	35	-	20	35	35	-	-	-
Maximum II	-	85	-	25	50	45	-	-	-
Yellow	-	4.0	-	3.5	3.0	4.0	-	-	3
All Red	-	2.0	-	2.5	3.0	2.0	-	-	0
PED Walk	-	-	-	-	-	-	-	-	5
PED Clear	-	-	-	-	-	-	-	-	22
DYN Max Limit	-	-	-	-	-	-	-	-	-
DYN Max Step	-	-	-	-	-	-	-	-	-
Recall	-	SOFT	-	OFF	OFF	SOFT	-	-	OFF
Detector	-	PR	-	PR	PR	PR	-	-	-
Preemption priority	-	4	-	6	4	3	-	-	-
Flash	-	Y	-	R	R	Y	-	-	DARK
Dual Entry	-	ON	-	OFF	OFF	ON	-	-	-

PLAN

25 0 25 50
Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE PLANS
BRIDGE NO. 5808

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	EGD	KBJ JUNE 2023
CHECKED-REVIEWED	EGD	LEM JUNE 2023
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DESIGN3-DETAILED3		
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SIGNAL PLAN (1 OF 3)

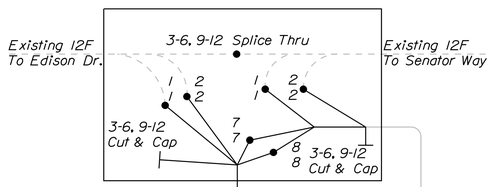
SHEET NUMBER
36
OF 190

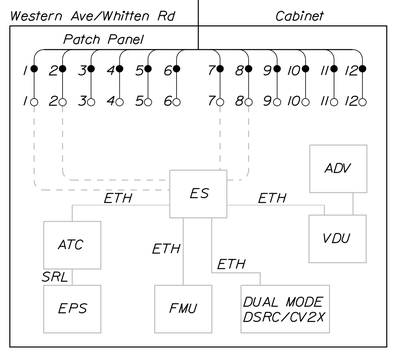
Filename: ...\00\BRIDGE\MSTA_Signal_02.dgn Username: kwright
Division: BRIDGE
Date: 7/18/2023
Date:7/18/2023

Filename: ...\00\BRIDGE\MSTA_Signal_03.dgn Username: kwight Division: BRIDGE Date:7/18/2023

Western Ave/Whitten Rd

Proposed Splice Enclosure





LEGEND

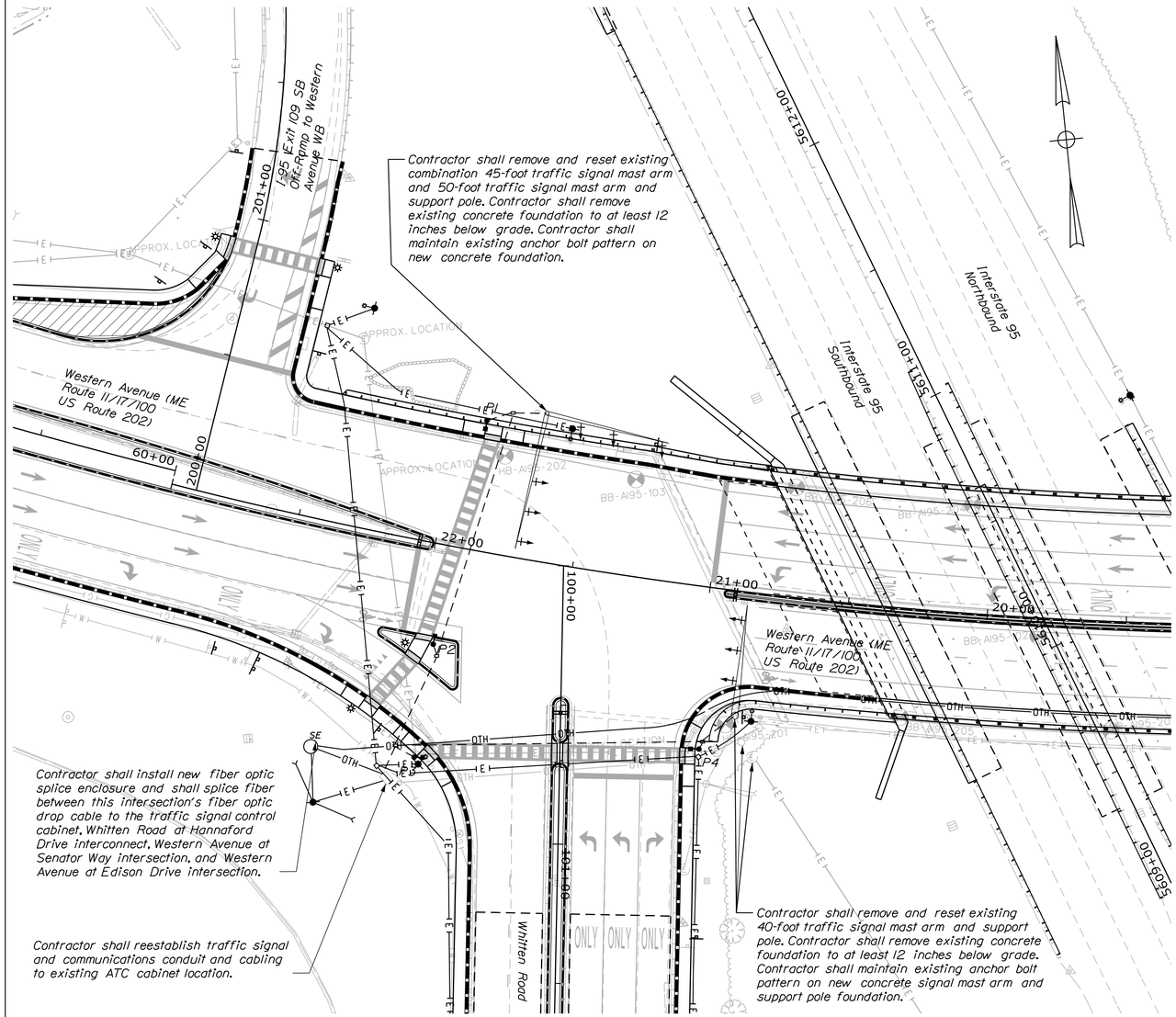
●—○	Fiber Optic Pigtail
●—●	Fiber Optic Splice
ADV -	Advance Vehicle Detection
ATC -	Advanced Transportation Controller
DSRC -	Dedicated Short Range Communications
ES -	Fiber Ethernet Switch
ETH -	Ethernet Cable
SRL -	Serial Twisted Pair Connection
EPS -	Emergency Preemption System
FMU -	Field Monitoring Unit
RU -	Radio Unit
VDU -	Non-invasive Video Detection Unit
□	Existing Equipment
———	Existing Fiber
-------	Proposed Fiber
●	Proposed Splice
○	Existing Splice/Pigtail

FIBER OPTIC CABLE CONSTRUCTION NOTES

1. Manufactured pigtails shall be terminated on patch panels.

2. Fiber optic cable bends shall not exceed the minimum bending radius for the cable at all times during installation, modification, repair, splicing, or in the permanent condition.

3. Fiber optic cable shall not be spliced except as shown on the plans. Fiber not terminated in a splice enclosure or shown as through fibers shall not be cut.



EMERGENCY VEHICLE PREEMPTION OPERATION

ID	Preempt Assignment	Receiver Priority	Active Phase
	1	Not Used/Reserved	
	2	Not Used/Reserved	
R1	3	1	ϕ6
R2	4	2	ϕ2&ϕ5
R3	5	3	ϕ4
	6	Not Used	

PRE-EMPTION NOTES

1. Emergency vehicle pre-emption signals shall be transmitted by optical emitters (typically existing, but where applicable provided by others) and/or by a dual mode DSRC/C-V2X on-board unit (OBU) mounted in emergency vehicles communicating with the proposed dual mode DSRC/C-V2X roadside unit (RSU) and/or received by optical detectors located at the intersection.

2. Pre-emption signals shall be serviced on a priority basis with receivers assigned descending priorities (1 = highest, 3 = lowest).

3. In response to a pre-emption signal received at an intersection by an optical detector and/or RSU, the controller shall hold or advance to and hold the emergency active phase green for a minimum of 10 seconds or until the pre-emption signal ceases. The controller shall then time pre-emption phase clearance (4.0 seconds yellow and 2.5 seconds all red) and service subsequent emergency active phases as necessary. At the completion of the pre-emption cycle, the controller shall time the pre-emption clearance and resume normal signal operation.

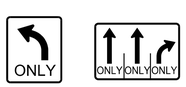
4. Minimum green and normal vehicle clearance shall be provided on phases that are to be terminated by pre-emption demand.

5. Confirmation strobes shall be illuminated whenever any preemption green is on.

PLAN LEGEND

- Cabinet with Signal Equipment
- Mast Arm and Pole
- Vehicular Signal Head
- Pedestrian Pole
- Pedestrian Signal Head
- Pedestrian Push Button
- Sign
- Queue Detection Camera
- Vehicle Detection Camera
- Emergency Preemption Receiver
- Preemption Confirmation Strobe
- Ethernet Radio and Antenna
- Junction Box
- Lighting Conduit
- Video Detection Zone
- Light Standard
- 12-Strand Signel Mode Fiber Optic Cable
- 30-Inch Manhole with Fiber Optic Splice Enclosure
- Signal Conduit

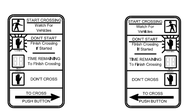
EXISTING SIGNS



R3-5L 30"x36" Retained

R3-8 48"x30" Retained

PROPOSED SIGNS



R10-3eR 9" x 15" 1 - Proposed

R10-3eL 9" x 15" 3 - Proposed

LIST OF MAJOR ITEMS

Equipment and Work Paid for Under Related Contract Items	Quantity
Furnish and Install non-metallic conduit (Item 626.22)	2250 LF
Furnish and Install 3-inch non-metallic under pavement conduit (Item 626.251)	850 LF
Furnish and Install appproximately 700 linear feet of 12-strand single mode (Item 643.90)	1 LS
Furnish and Install fiber optic splice enclosure (Item 643.3335)	2 EA

The Listed Quantities are approximate and are furnished for information only

PLAN

25 0 25 50

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	EGD	KBJ	JUNE 2023
CHECKED-REVIEWED	EGD	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

D. EATON

P.E. NUMBER

DATE

SIGNATURE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

SIGNAL PLAN (2 OF 3)

SHEET NUMBER

37

OF 190

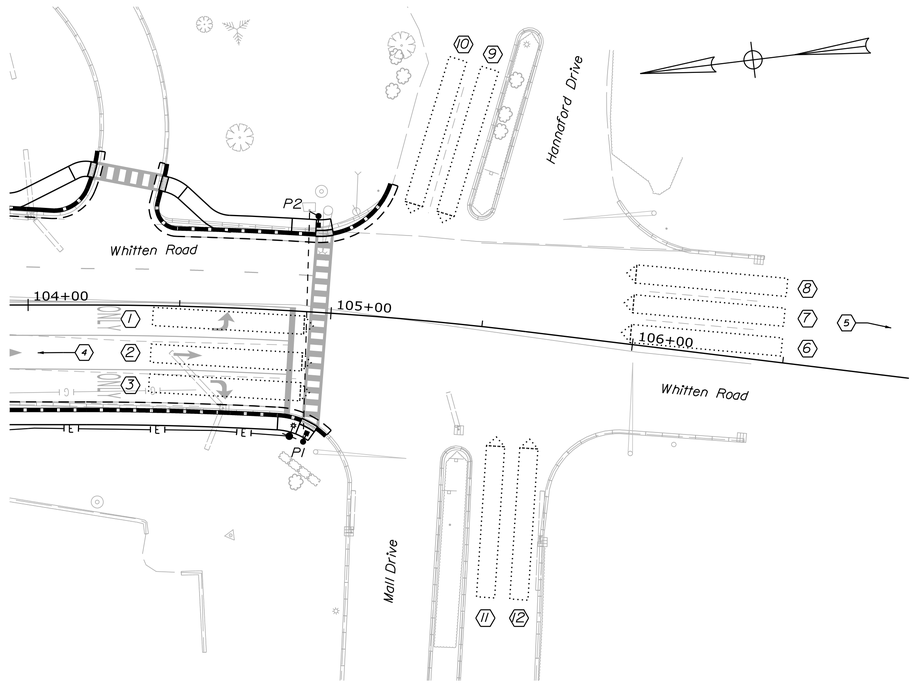
LIST OF MAJOR ITEMS

Equipment and Work Paid for Under Related Contract Items	Quantity
Furnish and Install one-way 16x18 inch LED top of post mounted countdown pedestrian signal head.	2
Furnish and Install ADA compliant accessible pedestrian signal (APS) button with 9"x15" R10-3e informational sign.	2
Furnish and Install 8-foot pedestal pole and foundation.	2
Furnish and install 3-inch non-metallic conduit (Item 626.22)	5 LF
Furnish and install 3-inch non-metallic under pavement conduit (Item 626.251)	100 LF
Furnish and Install New Signal Cable.	110 LF

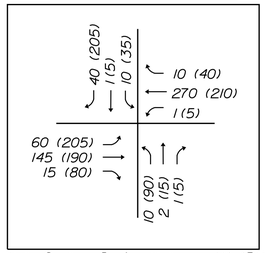
The Listed Quantities are approximate and are furnished for information only

LEGEND

- Cabinet with Signal Equipment
- Mast Arm and Pole
- Vehicular Signal Head
- Pedestrian Pole
- Pedestrian Signal Head
- Pedestrian Push Button
- Sign
- Queue Detection Camera
- Vehicle Detection Camera
- Emergency Preemption Receiver
- Preemption Confirmation Strobe
- Ethernet Radio and Antenna
- Junction Box
- Lighting Conduit
- Video Detection Zone
- Light Standard
- 12-Strand Signel Mode Fiber Optic Cable
- 30-Inch Manhole with Fiber Optic Splice Enclosure
- Signal Conduit



SYSTEM DESIGN VOLUMES AM (PM)



Note: System Design Volumes AM (PM) sourced from MaineDOT WIN 024301 (Statewide BUILD) for informational purposes only.

PROPOSED INDICATIONS



16"x18" LED PEDESTRIAN SIGNAL WITH VISOR

P1-P2

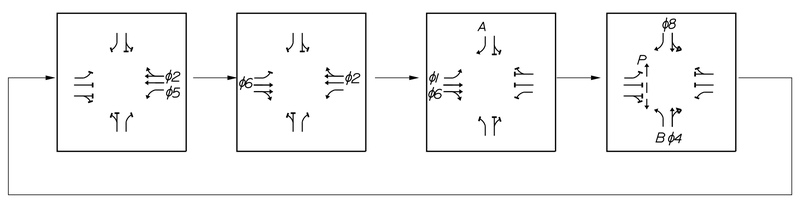
Detector Zone No.	Location	ϕ Called	ϕ Ext.	Mode A = Advance B = Stopline C = Count	Delay Time	Ext. Time
1	Whitten RD SB Left	1	1	B	-	-
2	Whitten RD SB Through	6	6	B	-	-
3	Whitten RD SB Thru-Right	6	6	B	-	-
4*	Whitten RD SB Advance	6	6	A	-	-
5*	Whitten RD NB Advance	2	2	A	-	-
6	Whitten RD NB Left	5	5	B	-	-
7	Whitten RD NB Through	2	2	B	-	-
8	Whitten RD NB Thru-Right	2	2	B	-	-
9	Hannaford Dr WB Left-Thru	8	8	B	-	-
10	Hannaford Dr WB Right	8	8	B	5	-
11	Mall Dr EB Left	4	4	B	-	-
12	Mall Dr EB Thru-Right	4	4	B	5	-

Note: Location and Quantity of vehicle detection zones are derived from the proposed MaineDOT WIN 024301 (Statewide BUILD) design for this intersection. Final location and quantity of additional vehicle detection zones were determined after the implementation of the Econolite Centracs Edaptive Signal Control. Contractor shall reestablish additional as-built vehicle detection zones in addition to the zones indicated on these plans.

Preferential Phase Sequence

Nema Ring and Barrier Diagram

2 1 | 4
5 6 | 8



Overlap Phasing
OVL A = 1-8
OVL B = 4

Phasing Notes:

1. Green arrow indication for overlap A is disabled when the phase 4 is active.
2. Overlap B shall be programmed for flashing yellow arrow.

SIGNAL TIMING SCHEDULE

Item/Phase	ϕ 1	ϕ 2	ϕ 3	ϕ 4	ϕ 5	ϕ 6	ϕ 7	ϕ 8
Movement	Whitten Rd SB (LT)	Whitten Rd NB	-	Mall Dr EB	Whitten Rd NB (LT)	Whitten Rd SB	-	Hannaford Dr
Minimum Initial	10	10	-	7	5	10	-	7
Passage Time	3.0	3.0	-	3.0	3.0	3.0	-	3.0
Maximum I	20	25	-	20	8	25	-	15
Maximum II	35	35	-	30	8	45	-	15
Yellow	3.5	3.5	-	4.0	3.5	3.5	-	4.0
All Red	2.5	2.5	-	2.0	2.5	2.5	-	2.0
PED Walk	-	-	-	5	-	-	-	5
PED Clear	-	-	-	15	-	-	-	15
DYN Max Limit	-	-	-	-	-	-	-	-
DYN Max Step	-	-	-	-	-	-	-	-
Recall	OFF	SOFT	-	OFF	OFF	SOFT	-	OFF
Detector	PR	PR	-	PR	PR	PR	-	PR
Preemption priority	3	4	-	-	4	3	-	-
Flash	R	Y	-	R	R	Y	-	R
Dual Entry	OFF	ON	-	ON	OFF	ON	-	ON

PLAN

25 0 25 50

Scale of Feet

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	EGD	KBJ JUNE 2023
CHECKED-REVIEWED	EGD	LEM JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
P.E. NUMBER
DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

SIGNAL PLAN (3 OF 3)

SHEET NUMBER
38
OF 190

Filename: ...\00\BRIDGE\MSTA_Signal_01.dgn Username: kwight Date:7/18/2023
Division: BRIDGE
Date: 7/18/2023

Filename: ...\BRIDGE\MSTA_Signal_Notes.dgn Division: BRIDGE Username: kwight Date:7/18/2023

GENERAL TRAFFIC SIGNAL NOTES

1. The Contractor shall notify utility companies at least 48 hours before any operations are conducted that could potentially conflict with aerial utilities.

2. The Contractor will be responsible for the removal and/or relocation of existing electrical meters and pedestals, if required. This work will be incidental to Item 643.71 or 643.72 as applicable to the location of the work.

3. Where noted on the plans, all new vehicular signal heads, either proposed permanent or proposed temporary, shall be equipped with new led lenses 12 inches in diameter and equipped with new 5-inch louvered backplates, including 3-inch retroreflective border.

4. All signal heads shall be fix mounted to mast arms with astro brackets, or mounted to mast arm poles with bracket arms, or tethered to span wire, as indicated on plans.

5. The bottom of the housing of new signal heads, both permanent and temporary, shall be at least 17 feet but not more than 19 feet above the pavement grade at the center of the roadway. For side of pole mounted signal heads, the bottom of the housing shall be mounted at least 8 feet but not more than 19 feet above the sidewalk, or if there is no sidewalk, above the pavement grade at the high point of the roadway.

6. Traffic signal work shall be completed in a manner and order that will cause minimum disruption to traffic and require the least amount of downtime to the traffic signal operations.

7. The Contractor shall provide the Resident with a schedule of work for constructing the traffic improvements at least two weeks prior to the commencement of work.

8. Two copies of as-built plans, wiring diagrams, box prints, and equipment manuals shall be placed in each of the Controller Cabinets.

9. All material schedules shown on the plans are for general information only. The Contractor shall prepare his own material schedules based upon his plan review. All schedules shall be verified in the field by the contractor prior to ordering materials or performing work. Preparation of the schedule shall be incidental to the respective signal items.

10. The non-invasive vehicle detection zones shown in the plans are for illustrative purposes only. Final detection zones shall be located in the field and approved by the Resident.

11. The location of the detection equipment shown on the plans are conceptual for optimal approach coverage assuming one type (advance, if applicable, and/or stop line) device per approach. The actual number of detection devices and mounting locations shall be per manufacturers recommendations.

12. The Resident reserves the right to direct the Contractor to adjust the video detector mounting height for local conditions identified during or after installation. No additional cost will be allowed for field adjusting the pipe extensions or rewiring as necessary. This work will be incidental to Item 643.71 and/or 643.72.

13. The Contractor shall be responsible to replace any vehicle detection that is not functioning at any signalized intersection in the project prior to system start-up and loading. The Contractor shall also re-inspect each signalized intersection during the acceptance testing period and certify detectors are functioning properly before final acceptance is granted.

14. A uniformed traffic officer with a blue light shall be present during all lane closures, when the signal is in flash operation, and when the signal is dark.

15. Switch over to installed signal system shall not occur during peak traffic periods. Uniformed traffic officers shall control traffic during the switch over.

FIBER OPTIC CABLE NOTES

1. Manufactured conduit bend radius shall exceed the minimum bending radius for fiber optic cable. Field bending conduit shall not be permitted.

2. Fiber optic cable shall exceed the minimum bending radius for the cable at all times during installation, modification, repair, splicing, or in permanent condition. Minimum bending radius shall be the greater of the manufacturer's recommended radius or 15x the outside diameter of the cable.

3. Contractor shall use only manufacturer-recommended gripping and pulling devices for pulling cables through the conduit system.

4. For underground installations, fiber optic splice enclosures shall be installed in fiber optic manholes. For aerial attachments. Fiber optic splice enclosures shall be attached to the messenger wire.

5. A minimum of 50 feet of spare cable shall be proivided on each side of any splice enclosure in each fiber optic manhole. A minimum of 75 feet of spare cable shall be provided on each side of any aerial splice enclosure. An additional 10 feet on each side of the splice enclosure shall be provided for every 10 lateral feet from the splice enclosure location to a vehicle-accessible location.

6. Underground fiber optic cable shall be installed in raceways in accordance with NEC. Direct burial of fiber optic cable shall not be permitted.

7. At aerial fiber optic cable installations, the fiber optic cable shall be tagged at the attachment location on each pole to which the cable is attached. The tag shall indicate the cable owner (MaineDOT), contact telephone number, and number of fibers in the cable.

8. In the event the material manufacturer's installation requirements recommend more stringent installation procedures, the more stringent recommendations and procedures shall apply unless otherwise approved by the Resident.

9. Fibers indicated as through fibers shall not be cut.

10. Splice enclosures shall have 12-splice capacity minimum. At locations requiring more than 12 splices, the splice enclosure shall have a capacity sufficient to hold all of the required splices, in a multiple of 12.

11. Contractor shall make all required connections for all ancillary traffic signal equipment interfacing with the traffic signal controller.

12. Manufactured pigtails shall be terminated on patch panels. Patch cords shall be used to connect to ethernet fiber switches.

13. Contractor shall maintain the integrity of existing fibers not indicated for use at a project site. Contractor shall avoid interrupting existing fiber optic communications when splicing fiber optic cable for new connections. If interruption of existing communications is necessary, contractor shall contact the Resident at least 3 days prior to interruption.

INTERCONNECT AND COMMUNICATIONS NOTES

1. The Contractor shall verify that the existing fibers identified for cutting and splicing are not lit prior to cutting fibers. The Contractor shall verify that temporary wireless interconnects and connections to the cloud-based central management system are operational before cutting the existing fiber splices.

2. The Contractor shall establish temporary new wireless connections to the affected signalized intersections prior to disconnecting fiber interconnects.

3. After construction of the new Western Avenue bridge and reconstruction of the permanent Western Avenue and Whitten Road intersection, the Contractor shall reestablish all fiber optic connections required to resume existing fiber interconnect communications between the traffic signals along the Western Avenue corridor, backhaul redundancy through the field monitoring unit, and the intranet connections to the MaineDOT cloud-based central management system.

FIBER OPTIC MANHOLE NOTES

1. Conduit bends that are greater than the minimum bending radius of the cable shall be used to enter the manhole.

2. Conduit shall extend into the manhole a maximum of 12".

3. Slack cable should be suspended from galvanized brackets as approved by the cable manufacturer so as not to exceed the minimum bending radius of the cable.

4. The cover shall be cast iron with a non-slip surface. The surface shall have a minimum coefficient of friction of 0.50.

5. Fiber optic manholes shall be excavated to a depth of 12 inches below the structure's bottom. The contractor shall install 12 inches of granular fill material at the base of the excavation before installing the manhole.

6. Fiber optic manholes shall not be installed in existing or proposed roadway pavement.

7. Fiber optic manholes shall be mounted flush to grade.

8. Fiber optic manholes shall not be installed on steep slopes where the cover cannot be leveled within a tolerance of 1 inch per 1 foot of grade.

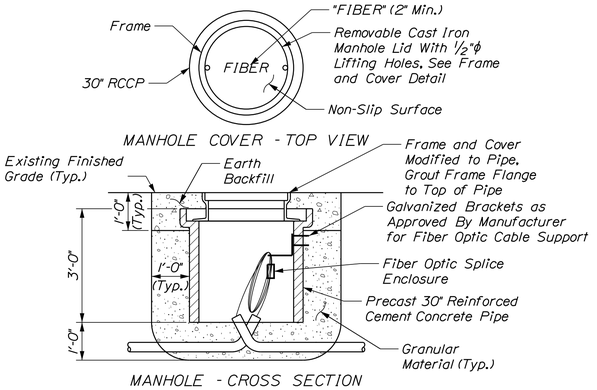
9. The maximum opening size for fiber optic manholes shall exceed 1.5 times the minimum bending radius of the fiber optic cable to be installed.

TEMPORARY TRAFFIC SIGNAL NOTES

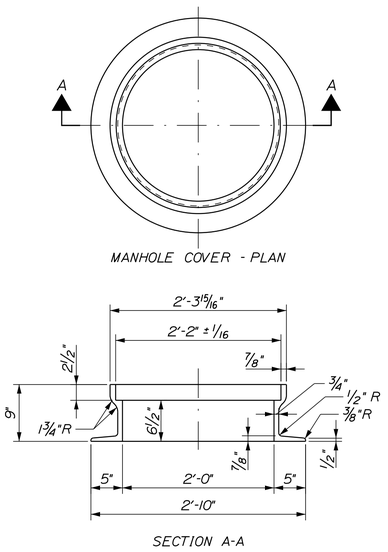
1. Work for this project also includes the installation of two temporary span wire traffic signals during two separate phases of construction for the project:

- Phase 1 Western Avenue at Exit 109 NB to WB off-ramp (construction of detour bridge) span wire system
- Phase 2 Western Avenue at Whitten Road during Phase 2 (detour bridge) span wire system.

For construction Phase 2, the Contractor shall use the existing ATC controller, existing ground mounted ATC cabinet, and existing, removed traffic signal equipment and cabling, as applicable and as possible, to provide fully functional signal operations of the temporary Western Avenue at Whitten Road intersection the Contractor shall provide a temporary span wire signal system utilizing the existing traffic signal system equipment at this intersection. All necessary span wire support poles, all necessary risers, attachment tethering, bracketing, cabling, and wiring required for connections for this temporary traffic signal installation will be incidental to Item 643.72 for this location.



ITEM 654.3335
FIBER OPTIC MANHOLE



FRAME AND COVER DETAIL
FIBER OPTIC MANHOLE

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5808 WIN 21672.00 BRIDGE PLANS

	D. EATON	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	KLW/PLP	KLW/PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

SIGNAL GENERAL NOTES

SHEET NUMBER
39
OF 190

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Western Avenue Bridge #5808

Location: Augusta, Maine

Boring No.: HB-AI95-201

WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.)	237.4
Operator:	B. Enos	Datum:	NAVD 88
Logged By:	L. Navarrete	Rig Type:	B-53 Truck
Date Start/Finish:	11/3/22-11/3/22	Drilling Method:	Drive & Wash
Boring Location:	Sta. 20+88.6, Offset 48.2' L	Casing ID/OD:	4.0/5.0"
Hammer Efficiency Factor:	0.86	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Auger ID/OD:	4.25"		
Sampler:	Standard Splitspoon		
Hammer Wt./Fall:	140#/30"		
Core Barrel:	NQ		
Water Level *:	12.5'		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
W = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt

R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person

S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(Lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (tsf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60(N-uncorrected

T_v = Pocket Torvane Shear Strength (psf)
MC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Recovery Strength (tsf) or RQD (%)	N-uncorrected	%Q	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0	10	24/3	0.0 - 2.0	1-4-11-5	15	22	5SA			Brown, dry, medium dense, fine to coarse SAND, some silt, little gravel, with roots, (Fill).	
	20	24/5	2.0 - 4.0	5-3-5-6	8	11				Brown, dry, medium dense, fine to coarse SAND, some silt, little gravel, (Fill).	
5	30	24/8	4.0 - 6.0	3-9-6-2	15	22				Brown, dry, medium dense, fine to coarse SAND, some silt, little gravel, (Fill).	Gª 22-S-4932 A-1-a(0), SM WC=7.8
	40	24/7	6.0 - 8.0	4-6-10-8	16	23				Brown, dry, medium dense, fine to coarse SAND, some gravel, some silt, (Fill).	
	50	24/6	8.0 - 10.0	7-6-4-4	10	14				Brown, dry, medium dense, sandy GRAVEL, little silt, (Fill).	Gª 22-S-4933 A-1-a, GM WC=4
10							34				
							39				
							91				
							143				
							132				
	60	24/12	14.0 - 16.0	7-16-30-10	46	66	18	222.4		Top 6": Brown, moist, fine SAND, trace silt, (Fill). — 15.0 — Bottom 6": Black, wet, SILT, little gravel, trace fine sand, (Glacial Till).	
15							76				
							300				
							158				
	70	24/14	19.0 - 21.0	24-25-28-23	53	76	8C			Brown, dry, very dense, fine to coarse SAND, some gravel, little silt, (Glacial Till).	
20											
	R1	60/60	22.8 - 27.8	RQD = 97%				214.7		Casing advancement refusal at 22.7'; probable top of bedrock. Roller cone to 22.8'. Dark grey rock in wash return. Set up to core at 22.8'. — 22.7 — R1 (22.8'-23.2'): Hard, fresh, aphanitic, grey, GRANOFELS.	
25											

Remarks:

1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of drill rods. Casing in place.
4. Coordinates: N541082.4, E1131588.5

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 1 of ††

Boring No.: HB-AI95-201

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Western Avenue Bridge #5808

Location: Augusta, Maine

Boring No.: HB-AI95-201

WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.)	237.4
Operator:	B. Enos	Datum:	NAVD 88
Logged By:	L. Navarrete	Rig Type:	B-53 Truck
Date Start/Finish:	11/3/22-11/3/22	Drilling Method:	Drive & Wash
Boring Location:	Sta. 20+88.6, Offset 48.2' L	Casing ID/OD:	4.0/5.0"
Hammer Efficiency Factor:	0.86	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Auger ID/OD:	4.25"		
Sampler:	Standard Splitspoon		
Hammer Wt./Fall:	140#/30"		
Core Barrel:	NQ		
Water Level *:	12.5'		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
W = Unsuccessful Thin Wall Tube Sample Attempt
V = Field Vane Shear Test, PP = Pocket Penetrometer
WV = Unsuccessful Field Vane Shear Test Attempt

R = Rock Core Sample
SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person

S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(Lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (tsf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60(N-uncorrected

T_v = Pocket Torvane Shear Strength (psf)
MC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Recovery Strength (tsf) or RQD (%)	N-uncorrected	%Q	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
25								209.8		(25.2'-27.8'): Very hard, fresh, aphanitic to medium grained, grey, GRANITE. Joints are moderately spaced, horizontal, planar, smooth, fresh, tight. One moderately dipping joint. Joint is planar, smooth, fresh, tight to partially open. – HALLOWELL GRANITE INTRUSION – Recovery = 100% Rock Quality = Excellent Rock Core Times (min:sec): 22.8-23.8' (3:04), 23.8-24.8' (2:30), 24.8-25.8' (3:16), 25.8-26.8' (3:54), 26.8-27.8' (4:05) — 27.8 — Bottom of Exploration at 27.8 feet below ground surface.	
30											
35											
40											
45											
50											

Remarks:

1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of drill rods. Casing in place.
4. Coordinates: N541082.4, E1131588.5

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.
* Water level readings have been made at times and under conditions stated. Groundwater fluctuations may occur due to conditions other than those present at the time measurements were made.

Page 2 of ††

Boring No.: HB-AI95-201

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Western Avenue Bridge #5808

Location: Augusta, Maine

Boring No.: HB-AI95-202

WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.)	233.1
Operator:	B. Enos	Datum:	NAVD 88
Logged By:	L. Navarrete	Rig Type:	B-53 Truck
Date Start/Finish:	11/2/22-11/2/22	Drilling Method:	Drive & Wash
Boring Location:	Sta. 21+81, Offset 35.4' R	Casing ID/OD:	4.0/5.0"
Hammer Efficiency Factor:	0.86	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Auger ID/OD:	4.25"		
Sampler:	Standard Splitspoon		
Hammer Wt./Fall:	140#/30"		
Core Barrel:	NQ		
Water Level *:	Dry		

Definitions:
D = Split Spoon Sample
MD = Unsuccessful Split Spoon Sample Attempt
U = Thin Wall Tube Sample
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V = Field Vane Shear Test, PP = Pocket Penetrometer
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SSA = Solid Stem Auger
HSA = Hollow Stem Auger
RC = Roller Cone
WOH = Weight of 140lb. Hammer
WOR/C = Weight of Rods or Casing
WOP = Weight of One Person

S_u = Peak/Remolded Field Vane Undrained Shear Strength (psf)
$S_{u(Lab)}$ = Lab Vane Undrained Shear Strength (psf)
q_u = Unconfined Compressive Strength (tsf)
N-uncorrected = Raw Field SPT N-value
Hammer Efficiency Factor = Rig Specific Annual Calibration Value
N_{60} = SPT N-uncorrected Corrected for Hammer Efficiency
N_{60} = Hammer Efficiency Factor/60(N-uncorrected

T_v = Pocket Torvane Shear Strength (psf)
MC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Recovery Strength (tsf) or RQD (%)	N-uncorrected	%Q	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
0							5SA	232.9		0'-0.2': Asphalt. — 0.2 — Brown, dry, very dense, fine to coarse SAND, some gravel, little silt, (Fill).	
	10	24/16	1.0 - 3.0	32-78-31-26	109	156					Gª22-S-4934 A-1-b, SM WC=4.5
	20	24/8	3.0 - 5.0	13-9-3-58	12	17				Brown, dry, medium dense, fine to coarse SAND, little silt, trace gravel, (Fill). Auger spoils consist of brown, dry, fine to coarse SAND, some gravel, little silt, (Fill).	
5											
	30	24/18	9.0 - 11.0	6-11-18-14	29	42	180			Brown, moist, dense, fine to coarse SAND, some silt, trace asphalt pieces, (Fill).	
10							200				
							83			Observed casing driving resistance change at 12.2'.	
							106				
							88				
	40	24/2	14.0 - 16.0	4-3-1-1	4	6	64			Brown, wet, very loose, GRAVEL, (Fill).	
15							91				
							63/4"				
	R1	36/22	17.0 - 20.0				ND	216.1		Casing refusal at 17.0'. Set up to core at 17.0'. — 17.0 — R1: Very hard, fresh, aphanitic to medium grained, grey, GRANITE BOULDER, 3"-8" long pieces recovered.	
20											
	50	24/15	20.0 - 22.0	3-6-12-16	18	26	8C	213.1		Black, wet, very stiff, SILT, trace fine sand, (Glacial Till). — 20.0 — Top 12": Grey, wet, hard, SILT & CLAY, little gravel, little fine to coarse sand.	
	60	24/14	22.0 - 24.0	8-18-20-54	38	54				Bottom 2": Grey, wet, fine to coarse SAND, some gravel, some silt, (Glacial Till).	Gª 22-S-4935 A-4(5), CL LL=25 PL=17 PI=8 WC=18.6
25											

Remarks:

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2. Automatic Hammer NEBC-23, Energy Transfer Rate = 0.86.
3. Water level measured immediately after removal of drill rods. Casing in place.
4. Coordinates: N541186.4, E1131519.5

Stratification lines represent approximate boundaries between soil types; transitions may be gradual.
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Page 1 of ††

Boring No.: HB-AI95-202

Maine Department of Transportation

Soil/Rock Exploration Log

US CUSTOMARY UNITS

Project: Western Avenue Bridge #5808

Location: Augusta, Maine

Boring No.: HB-AI95-202

WIN: 21672.00

Driller:	New England Boring Contractors	Elevation (ft.)	233.1
Operator:	B. Enos	Datum:	NAVD 88
Logged By:	L. Navarrete	Rig Type:	B-53 Truck
Date Start/Finish:	11/2/22-11/2/22	Drilling Method:	Drive & Wash
Boring Location:	Sta. 21+81, Offset 35.4' R	Casing ID/OD:	4.0/5.0"
Hammer Efficiency Factor:	0.86	Hammer Type:	Automatic ☒ Hydraulic ☐ Rope & Cathead ☐

Auger ID/OD:	4.25"		
Sampler:	Standard Splitspoon		
Hammer Wt./Fall:	140#/30"		
Core Barrel:	NQ		
Water Level *:	Dry		

Definitions:
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T_v = Pocket Torvane Shear Strength (psf)
MC = Water Content, percent
LL = Liquid Limit
PL = Plastic Limit
PI = Plasticity Index
G = Grain Size Analysis
C = Consolidation Test

Depth (ft.)	Sample No.	Pen./Rec. (in.)	Sample Depth (ft.)	Blows (/6 in.) Recovery Strength (tsf) or RQD (%)	N-uncorrected	%Q	Casing Blows	Elevation (ft.)	Graphic Log	Visual Description and Remarks	Laboratory Testing Results/ AASHTO and Unified Class.
25	70	24/5	25.0 - 27.0	29-20-20-28	40	57				Grey, wet, dense, silty GRAVEL, some fine to coarse sand, (Glacial Till).	
	80	24/6	29.0 - 31.0	14-10-10-7	20	29				Grey, wet, medium dense, sandy GRAVEL, little silt, (Glacial Till).	Gª 22-S-4936 A-1-b, GM WC=7.4
30								202.1		Bottom of Exploration at 31.0 feet below ground surface. — 31.0 —	
35											
40											
45											
50											

Remarks:

1. Fine Grained Soil Descriptions on this log are based on plasticity estimated using visual manual classification techniques or laboratory Atterberg Limit Tests if available, rather than the MaineDOT Standard based percentages passing specific grain sizes.
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4. Coordinates: N541186.4, E1131519.5

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Page 2 of ††

Boring No.: HB-AI95-202

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

STATE OF MAINE
Andrew C. Blaisdell
10957
LICENSED PROFESSIONAL ENGINEER

P.E. NUMBER 10957

SIGNATURE

05/19/2023

DATE

PROJ. MANAGER	D. EATON	DATE
DESIGN-DETAILED	GZA	JUNE 2023
CHECKED-REVIEWED	GZA	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

TRAFFIC SIGNAL FOUNDATION
BORING LOGS

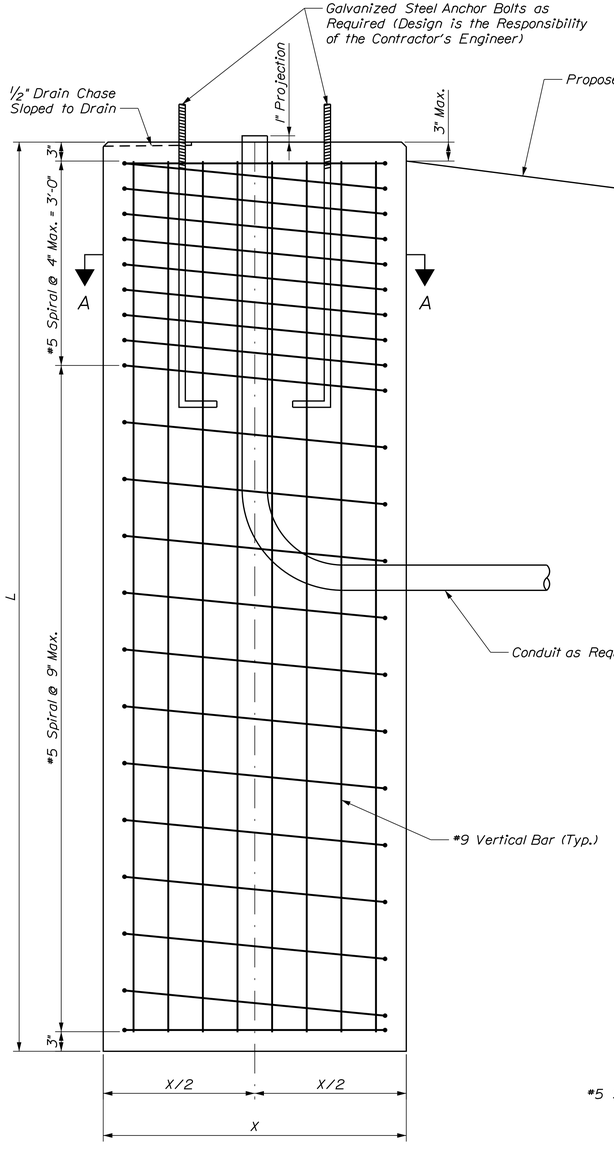
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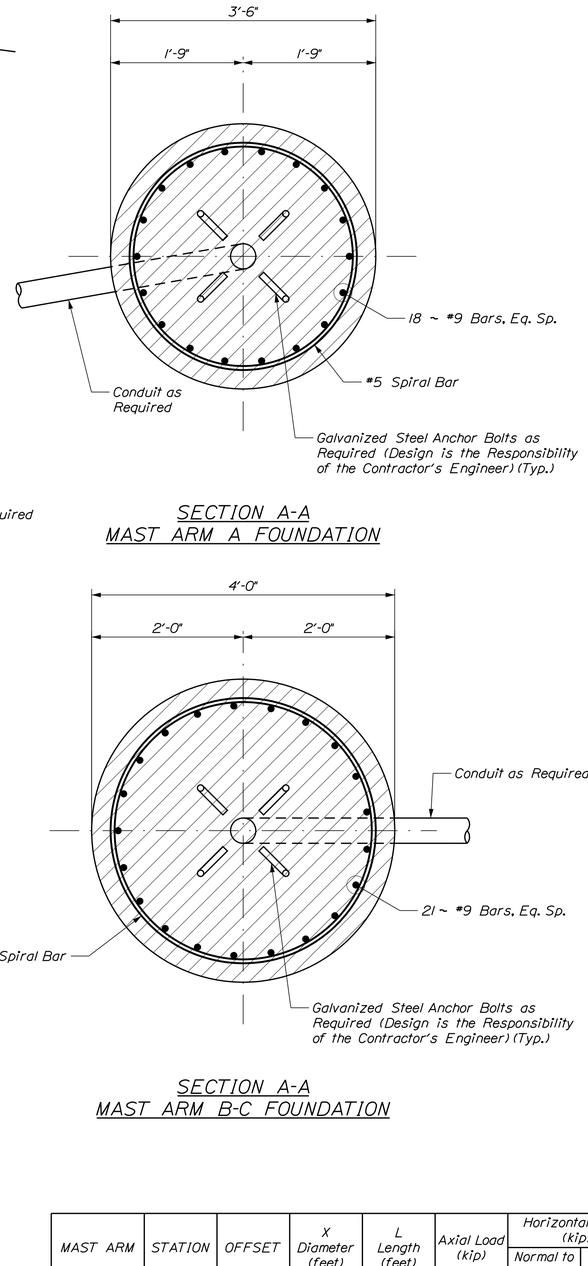
OF 190

GZA

Filename: ..._Traffic_Signal_Boring_Logs.dgn Division: BRIDGE Username: kwight Date:7/18/2023



DRILLED SHAFT ELEVATION
Not to Scale
(See Table for Drilled Shaft & Reinforcement Information)



SECTION A-A
MAST ARM A FOUNDATION

SECTION A-A
MAST ARM B-C FOUNDATION

MAST ARM	STATION	OFFSET	X Diameter (feet)	L Length (feet)	Axial Load (kip)	Horizontal Force (kip)		Overturning Moment (kip-ft)		Torsion (kip-ft)
						Normal to Mast Arm	Trans. to Mast Arm	Normal to Mast Arm	Trans. to Mast Arm	
A	20+85.73	44.62 LT.	3'-6"	12'-0"	2.81	4.02	0.00	68.85	42.55	78.29
B-C	21+68.44	53.08 RT.	4'-0"	12'-0"	4.90	4.47	1.24	75.96	66.82	182.79

Note: All shafts are governed by the Extreme Event Limit State. All shafts meet a top of shaft deflection limit of less than 1/2" at the Service Limit State.

MAST ARM FOUNDATION NOTES

1. All reinforcing steel is to be ASTM A615 Grade 60.

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

3. Should there be a discrepancy between these Details and actual observed field conditions, report it to the Resident immediately. Work shall not proceed with dependent work until any such discrepancy is resolved to the satisfaction of the Resident.

4. New traffic signal control cabinet, mast arm pole, strain pole, or pedestal pole foundation shall be constructed in locations shown on the plans. The proposed foundations as shown are to be within the right-of-way or proposed easements to avoid underground conflicts based on available information provided during design. However, the contractor may upon consultation and approval from the Resident, relocate the traffic signal pole foundation as needed to avoid unanticipated conflicts as long as the final location meets the guidelines of section 4E.08 of the manual of uniform traffic control devices (MUTCD), does not violate ADA guidelines, and the structure is installed completely within the available right of way or available easements.

5. When new conduit is extended or installed into new foundations, the contractor shall break into the nearest existing pull box, conduit, or foundation to expose the existing conduit. New conduit shall be attached to existing conduit.

6. Each foundation shall provide sufficient conduit sweeps to service the signalized intersection while meeting the national electrical code (NEC) Chapter 9, Table 1 requirements for conduit fill.

7. Removal of mast arm foundations called for in the plans shall be paid for under Item 626.36.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW\PLP	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

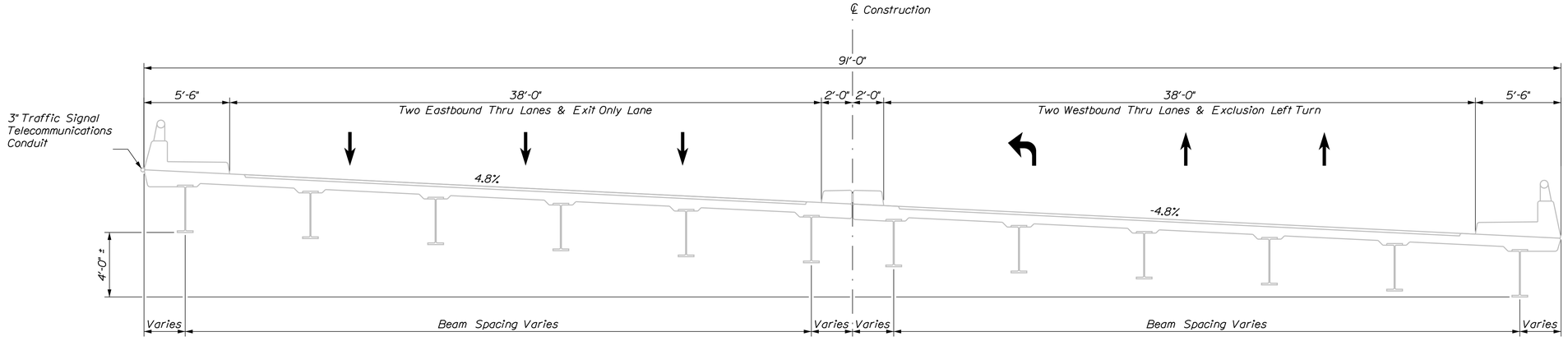
WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

TRAFFIC SIGNAL MAST ARM FOUNDATION DETAILS

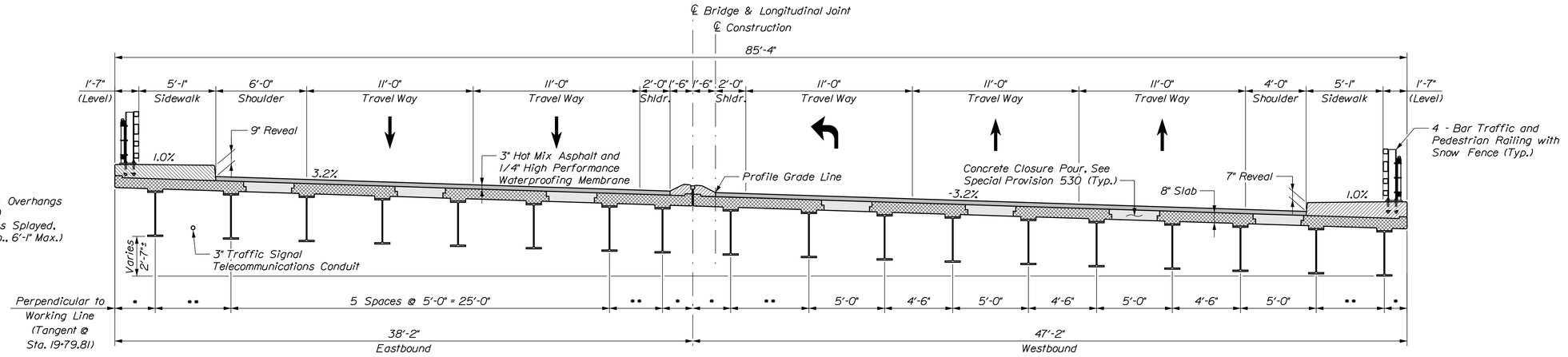
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OF 190

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EXISTING TRANSVERSE SECTION

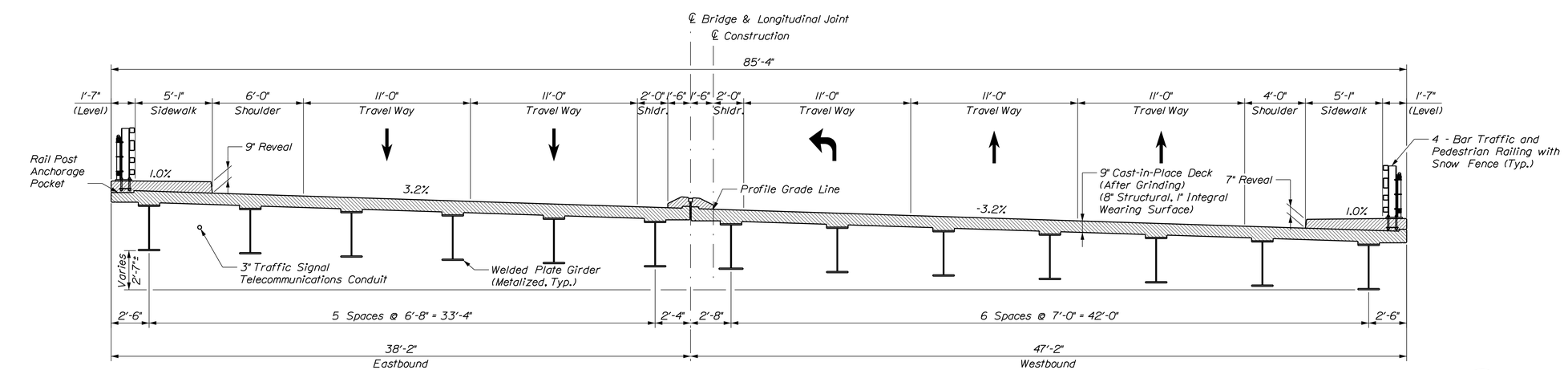


* Fascia and Median Beam Overhangs Vary (1'-6" Min., 3'-0" Max.)

** Fascia and Median Beams Splayed, Spacing Varies (2'-10" Min., 6'-1" Max.)

PBU BID ALTERNATE TRANSVERSE SECTION

(All dimensions radial, unless noted otherwise)



CURVED GIRDER BID ALTERNATE TRANSVERSE SECTION

(All dimensions radial)

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	KLW/PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

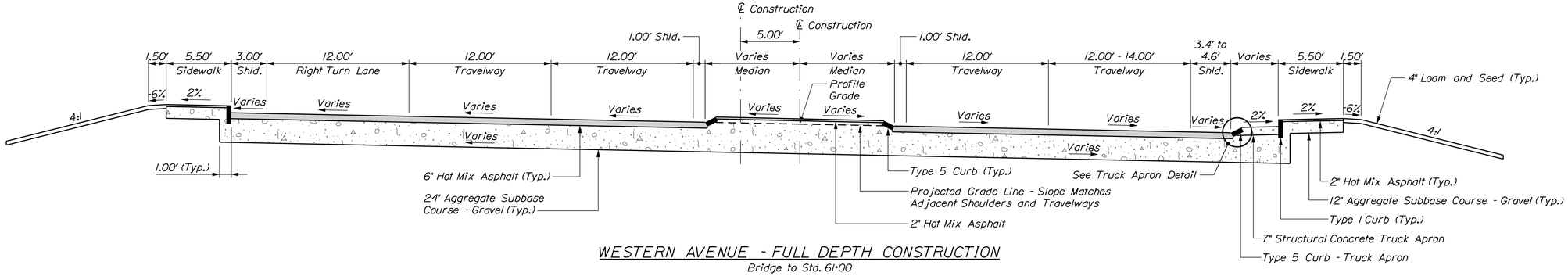
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TYPICAL SECTIONS

SHEET NUMBER

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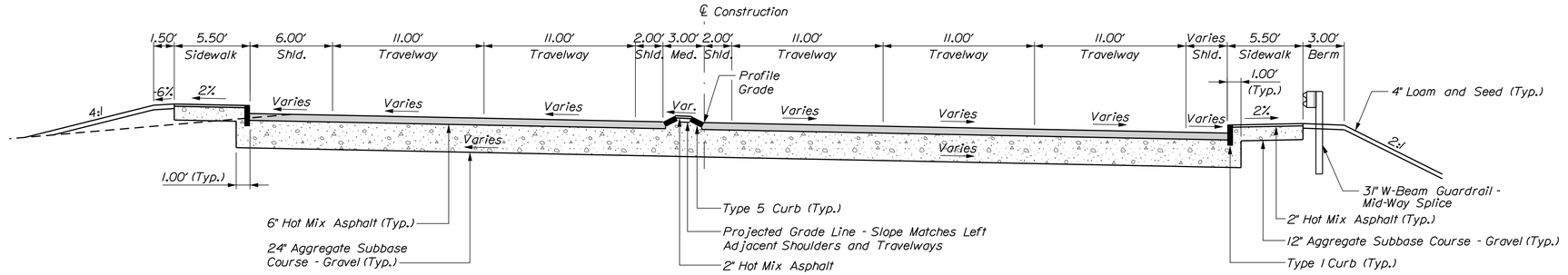
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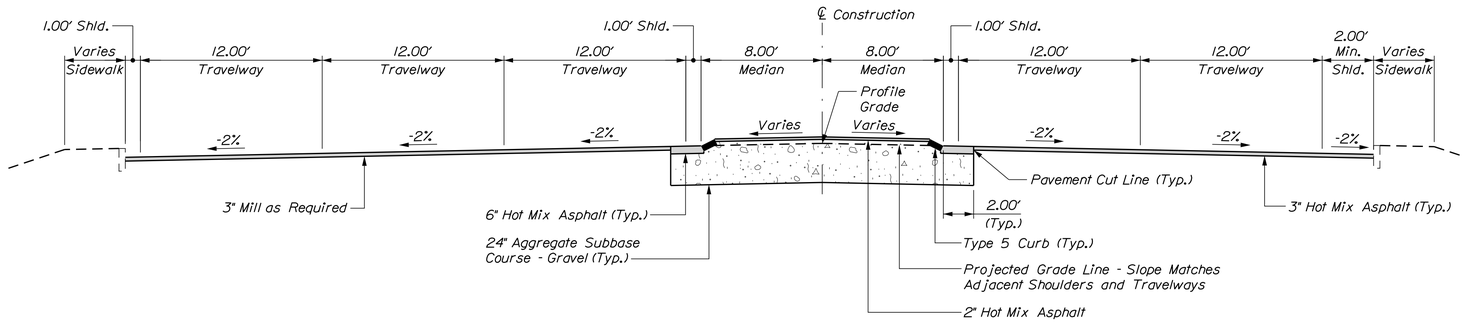
WESTERN AVENUE - FULL DEPTH CONSTRUCTION

Bridge to Sta. 61+00



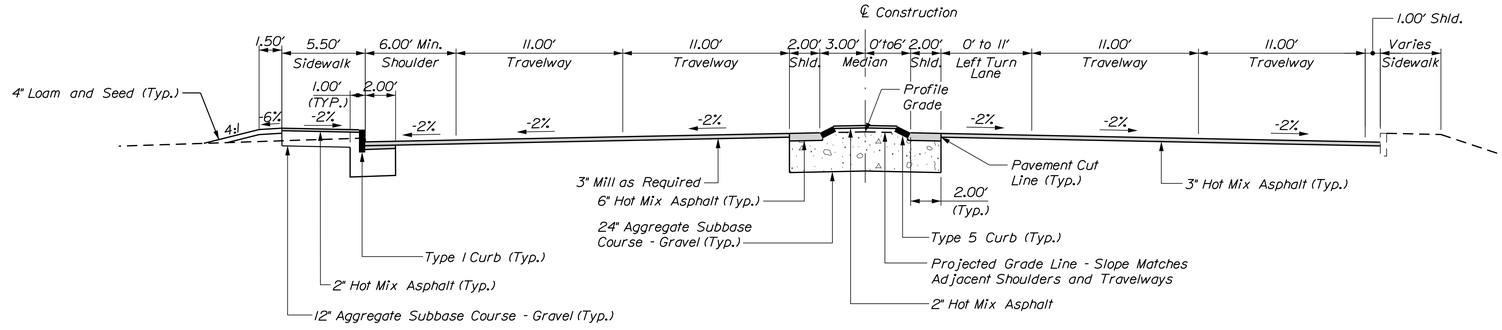
WESTERN AVENUE - FULL DEPTH CONSTRUCTION

Sta. 16+00 to Bridge Right
Sta. 15+50 to Bridge Left



WESTERN AVENUE - MILL AND OVERLAY

Sta. 61+00 to Sta. 61+50



WESTERN AVENUE - MILL AND OVERLAY

Sta. 13+00 to Sta. 15+50 Left
Sta. 14+00 to Sta. 16+00 Right

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

	BY	DATE
D. EATON		
PROJ. MANAGER	KLW\PLP	JUNE 2023
DESIGN-DETAILED	KLW\PLP	JUNE 2023
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2	LEM	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

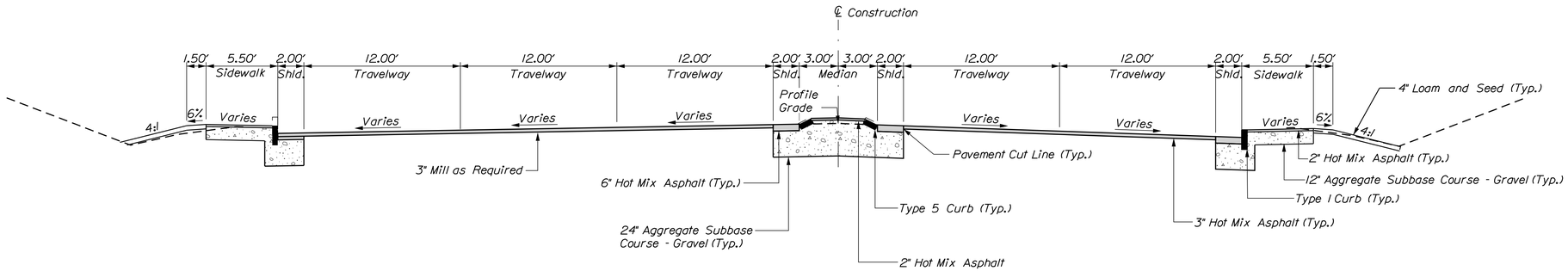
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WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

APPROACH
TYPICAL SECTIONS

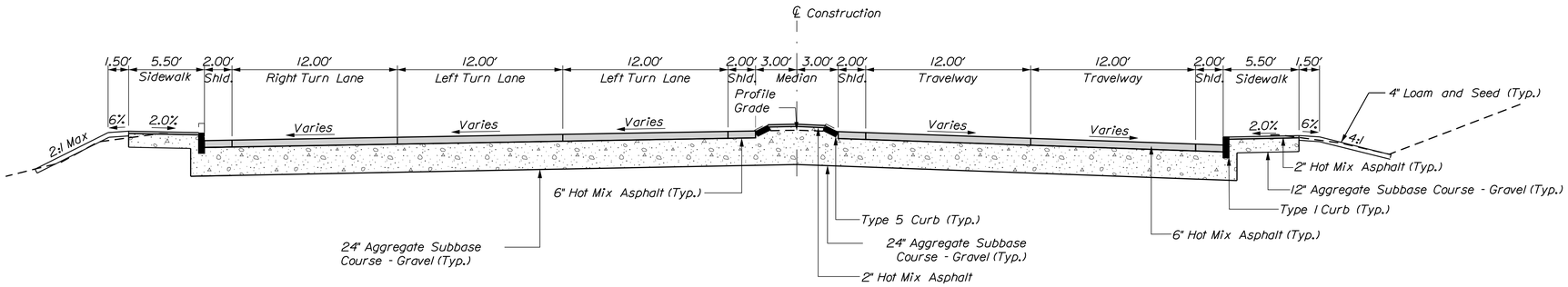
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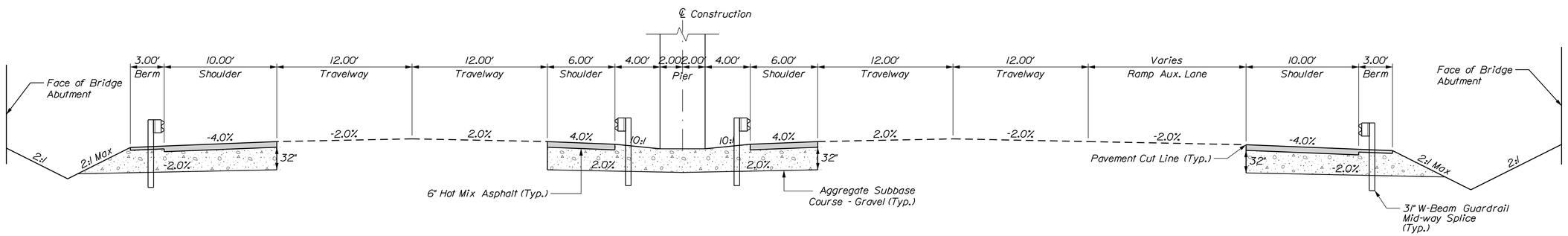
WHITTEN ROAD - MILL AND OVERLAY

Sta. 101+25 to Sta. 105+18



WHITTEN ROAD - FULL DEPTH CONSTRUCTION

Sta. 100+75 to Sta. 101+25



INTERSTATE 95 - SHOULDER RECONSTRUCTION

Sta. 5609+69 to Sta. 5611+15, LT.

INTERSTATE 95 - MEDIAN RECONSTRUCTION

Sta. 5609+37 to Sta. 5610+85

INTERSTATE 95 - SHOULDER RECONSTRUCTION

Sta. 5609+06 to Sta. 5610+60, RT.

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW/PLP	JUNE 2023	SIGNATURE
CHECKED-REVIEWED	LEM	JUNE 2023	
DESIGN2-DETAILED2			P.E. NUMBER
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

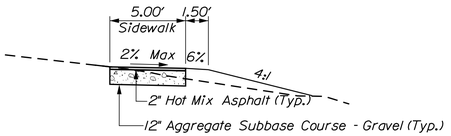
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TYPICAL SECTIONS

SHEET NUMBER

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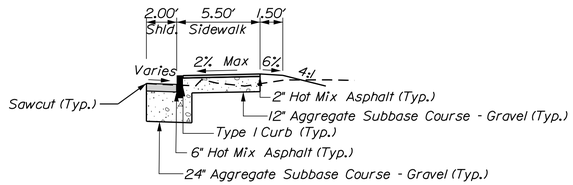
OF 190

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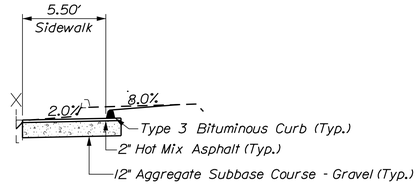
OFF-ROAD SIDEWALK DETAIL

Sta. 5+88 to Sta. 10+41
Sta. 10+53 to Sta. 13+79



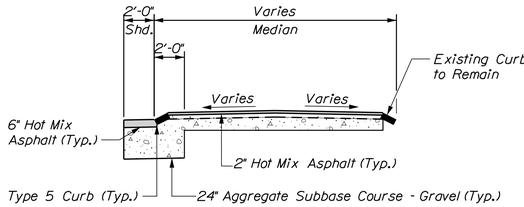
ON-ROAD SIDEWALK DETAIL

Sta. 304+21 to Sta. 306+75



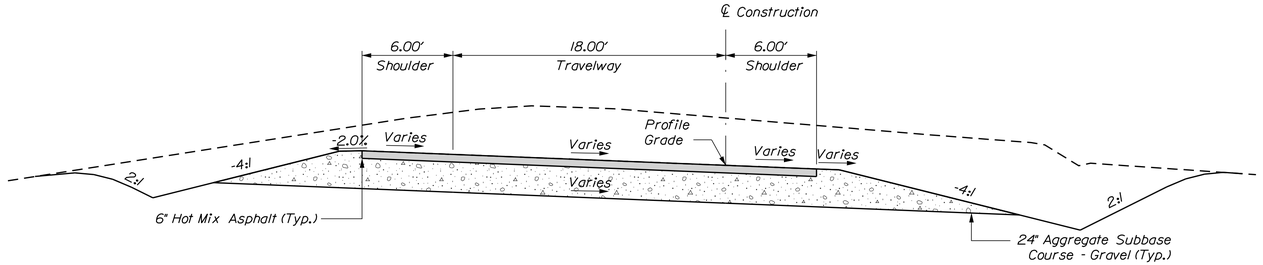
SIDEWALK W/ BITUMINOUS CURB DETAIL

Sta. 2+93 to Sta. 5+46
Sta. 101+25 to Sta. 104+99
Sta. 501+71 to Sta. 501+90



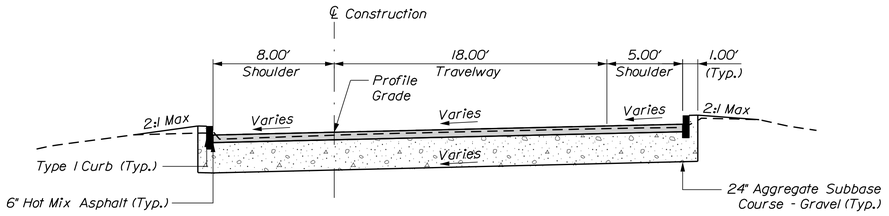
MEDIAN ISLAND DETAIL

Sta. 3+09 to Sta. 5+23



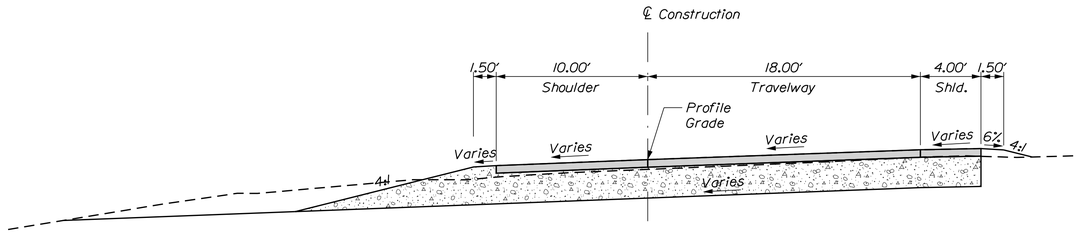
EXIT 109 NB & SB ON RAMP PROFILE

Sta. 304+21 to Sta. 306+75



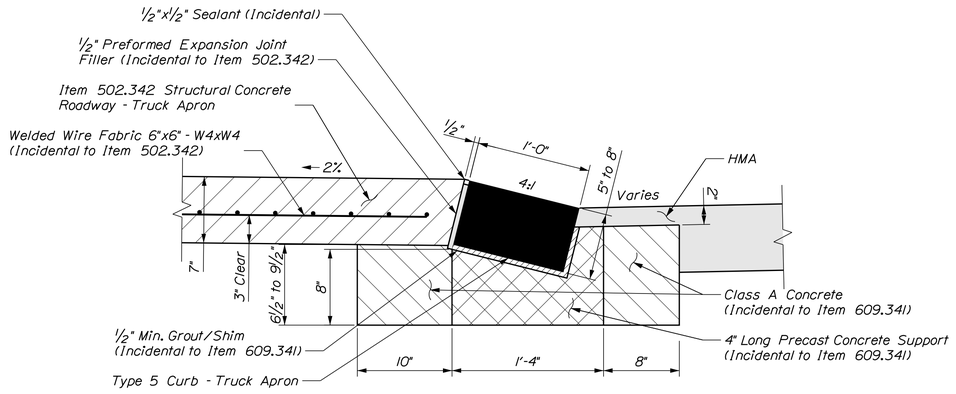
EXIT 109B SB OFF RAMP PROFILE

Sta. 200+92 to Sta. 201+25



EXIT 109 NB & SB OFF RAMP

Sta. 401+22 to Sta. 402+25



TRUCK APRON DETAIL

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS
WIN 21672.00
BRIDGE NO. 5808

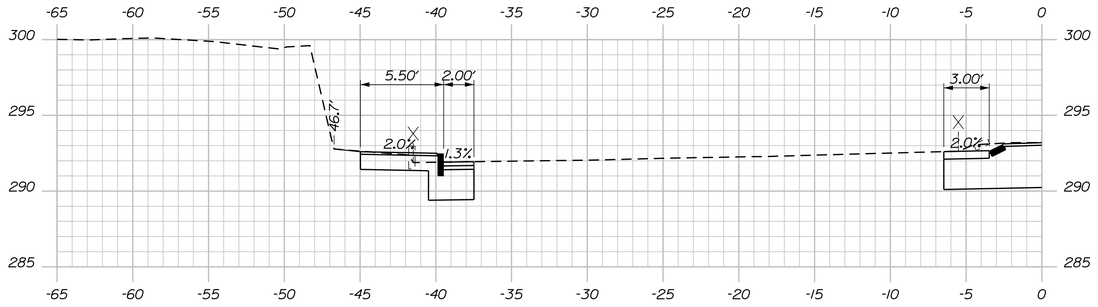
PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	KLW\PLP	JUNE 2023	SIGNATURE
CHECKED-REVIEWED	LEM	JUNE 2023	
DESIGN2-DETAILED2			P.E. NUMBER
DESIGN3-DETAILED3			
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

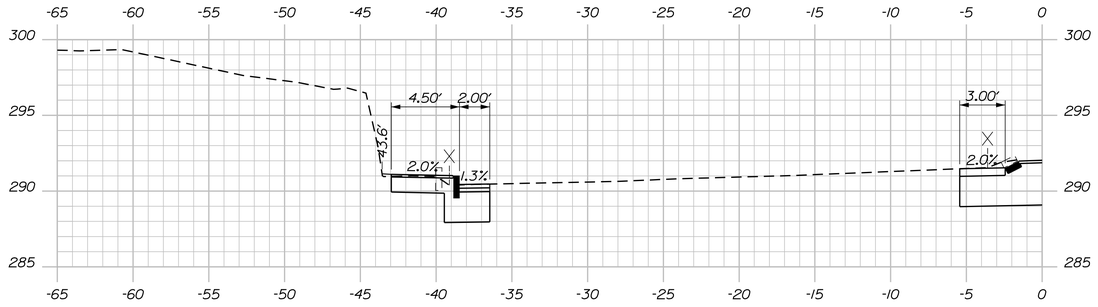
APPROACH
TYPICAL SECTIONS

SHEET NUMBER
45
OF 190

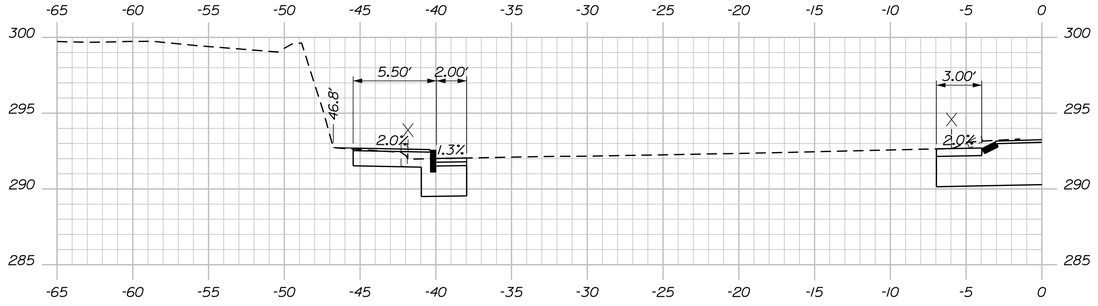
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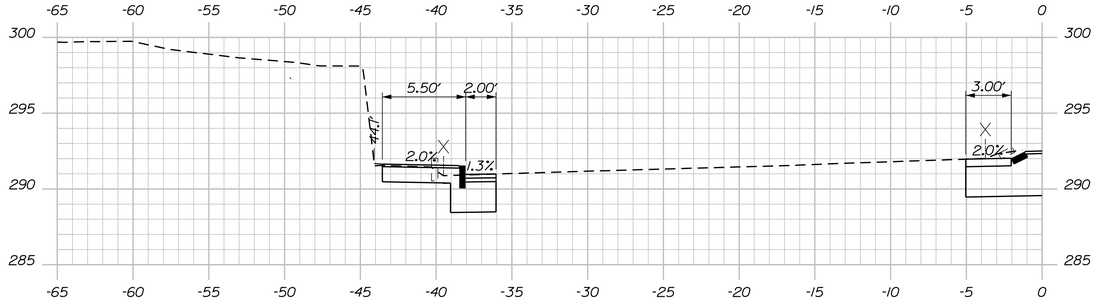
3+75.00



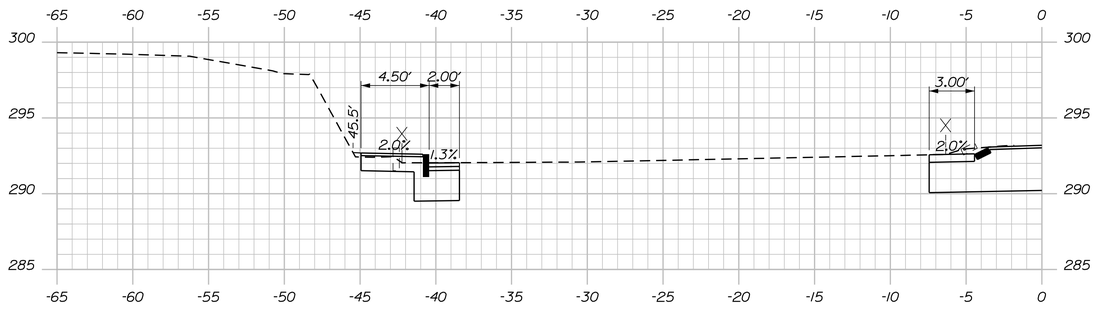
4+75.00



3+50.00

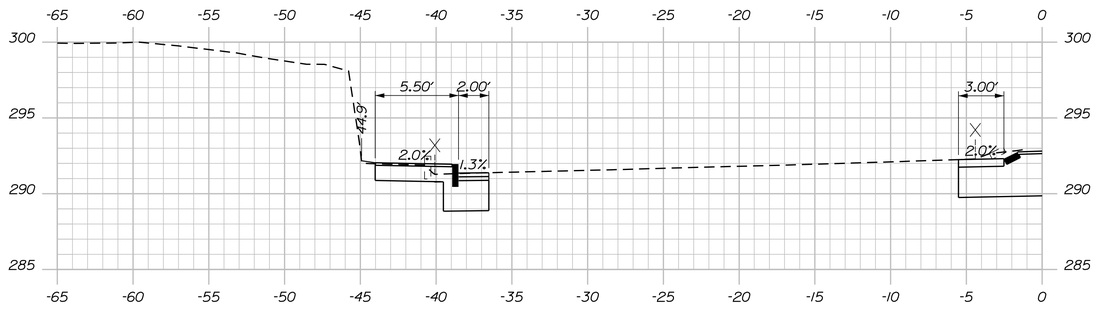


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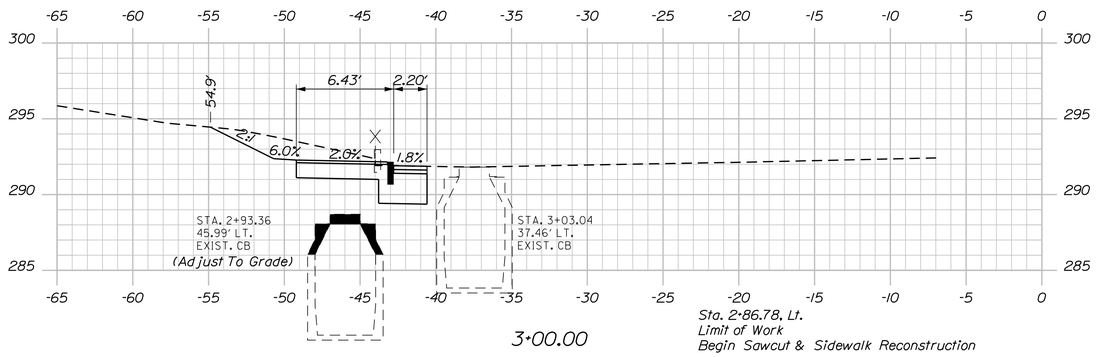


3+25.00

Sta. 3+09.30, Lt.
Limit of Work
Begin Sawcut & Median Reconstruction

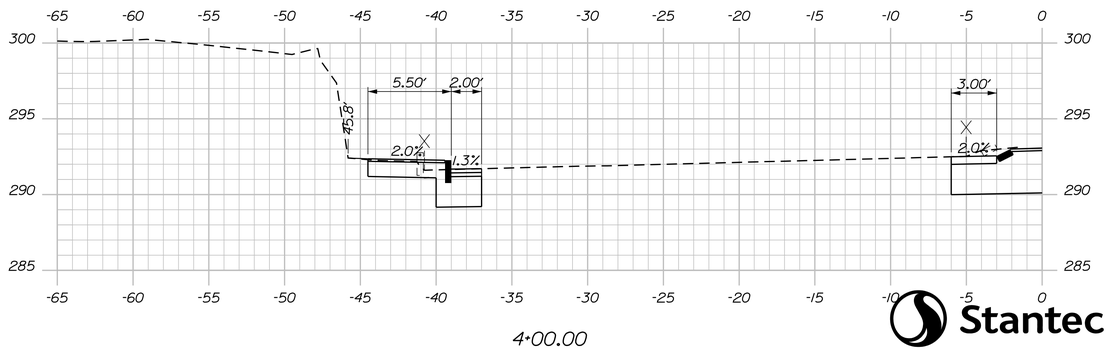


4+25.00



3+00.00

Sta. 2+86.78, Lt.
Limit of Work
Begin Sawcut & Sidewalk Reconstruction



4+00.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE PLANS

BRIDGE NO. 5808

	BY	DATE
D. EATON	KBJ	JUNE 2023
PROJ. MANAGER	PLP	
DESIGN-DETAILED	LEM	JUNE 2023
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

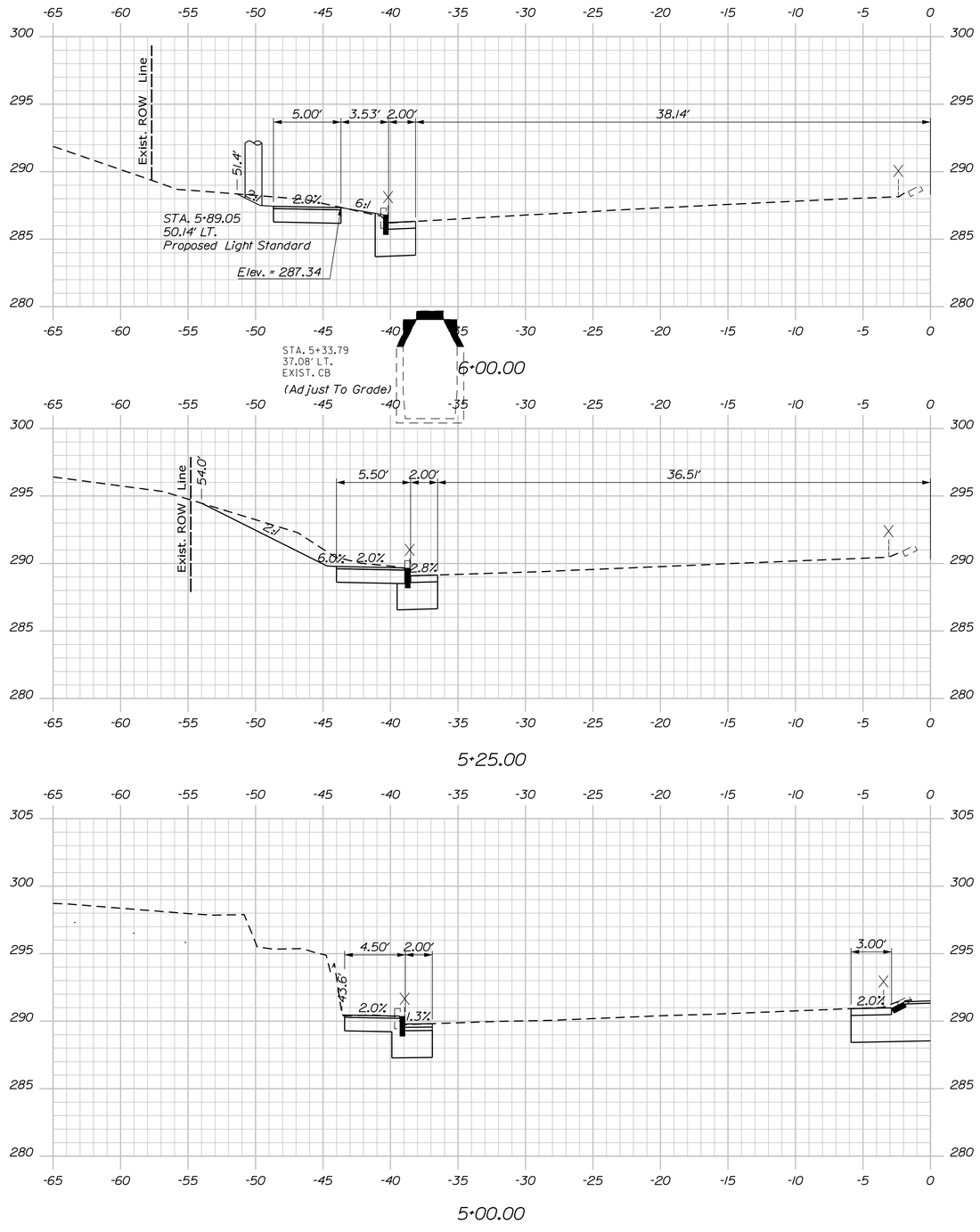
SHEET NUMBER

46

OF 190

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023

Western Avenue Sta. 3+00.00 to Sta. 4+75.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5808 — WIN 21672.00 — BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	KBJ	JUNE 2023
CHECKED-REVIEWED	PLP	JUNE 2023
DESIGN2-DETAILED2	LEM	
DESIGN3-DETAILED3	LEM	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

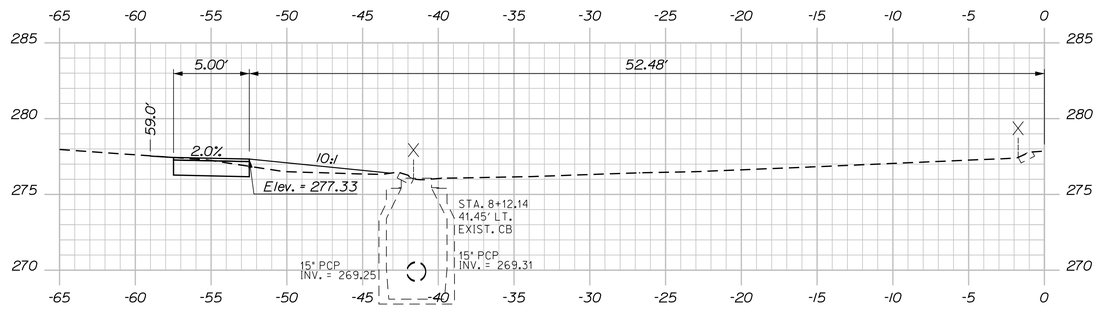
CROSS SECTIONS

SHEET NUMBER
47
OF 190

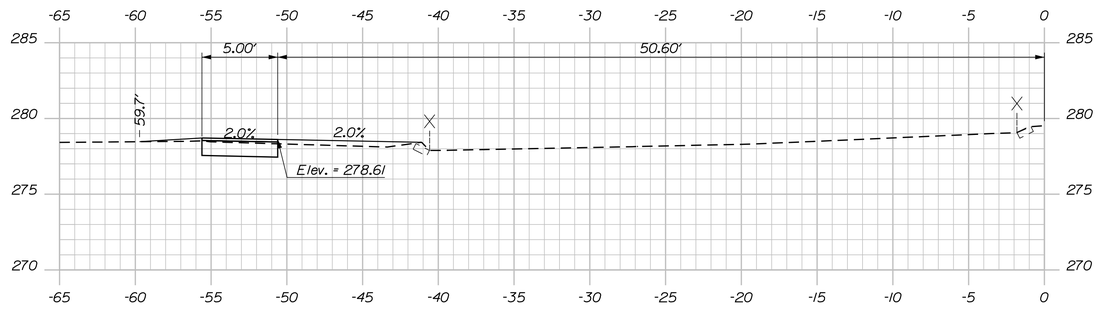
Stantec

Western Avenue Sta. 5+00.00 to Sta. 7+00.00

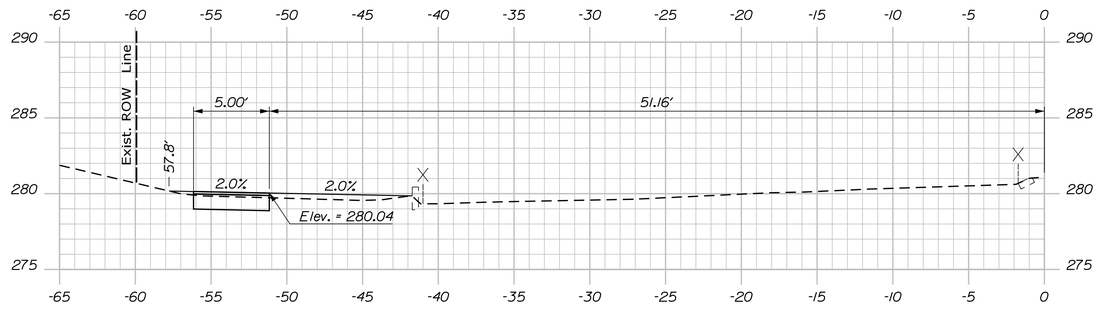
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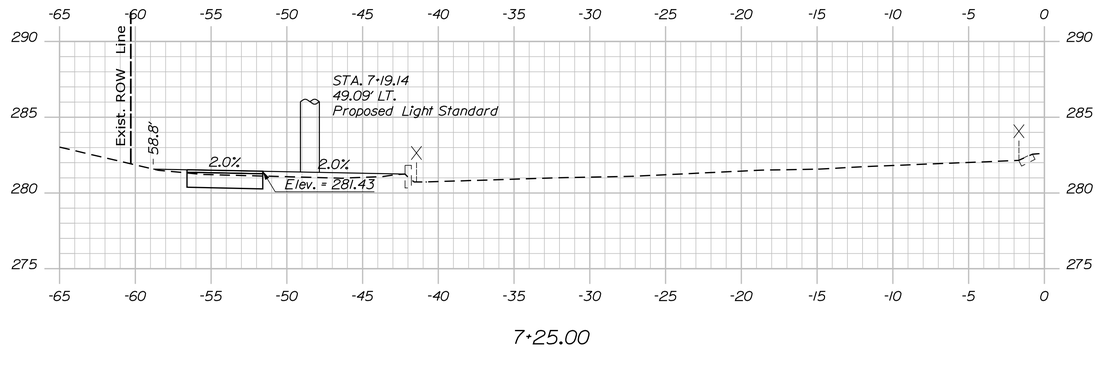
8+00.00



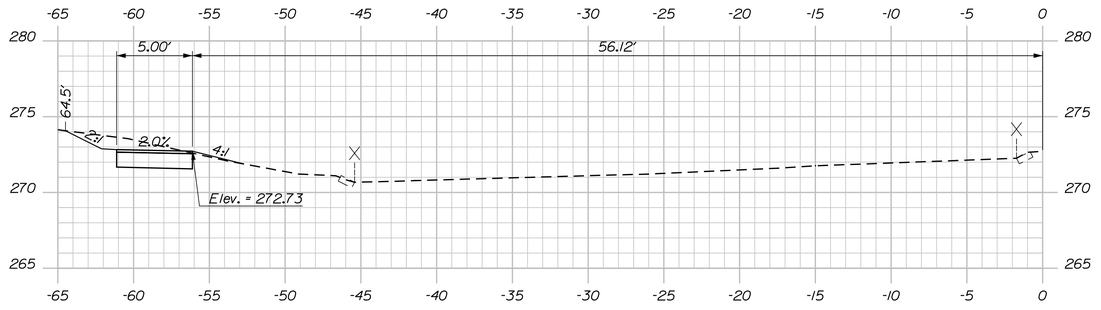
7+75.00



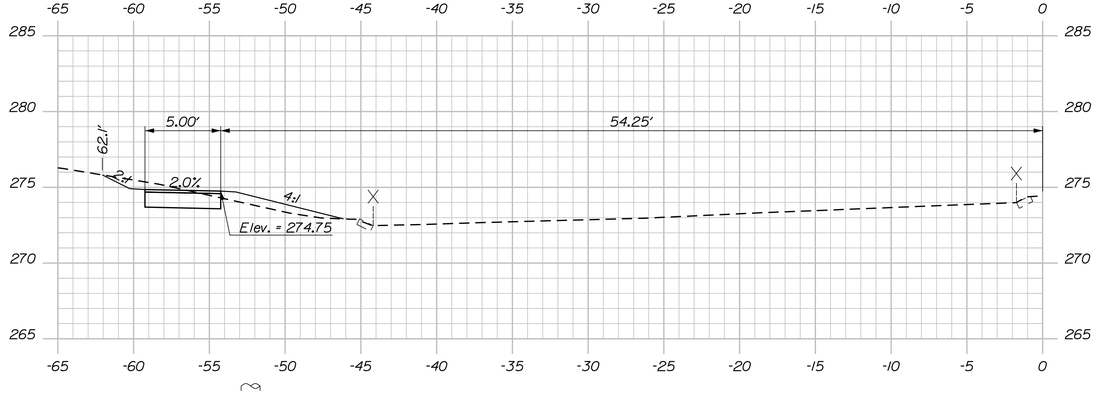
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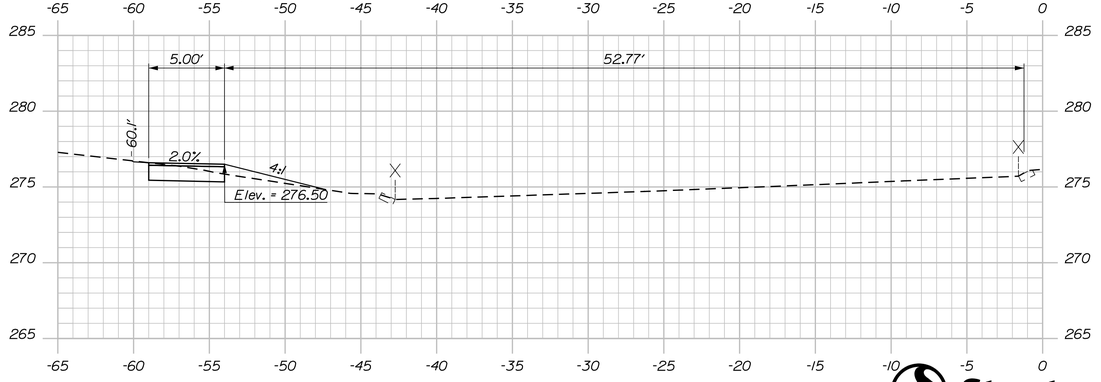
7+25.00



8+75.00



8+50.00



8+25.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

BRIDGE NO. 5808

WIN
21672.00

	BY	DATE
D. EATON	KBJ	JUNE 2023
PROJ. MANAGER	PLP	
DESIGN-DETAILED	LEM	JUNE 2023
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

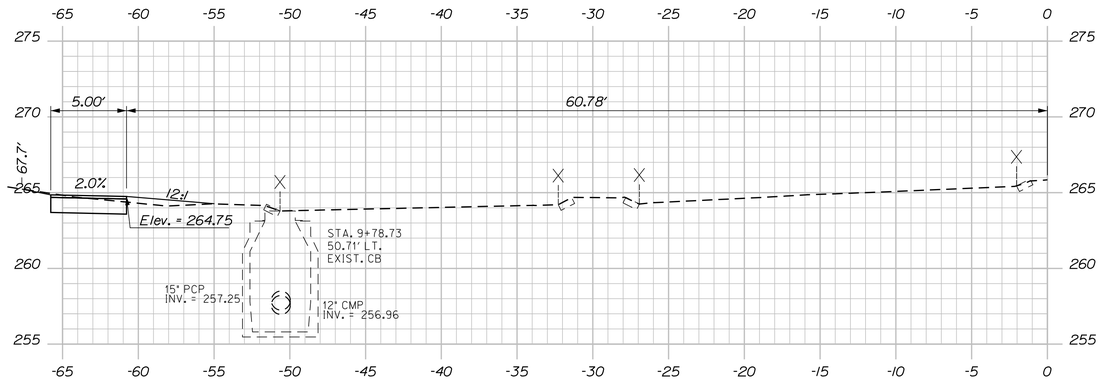
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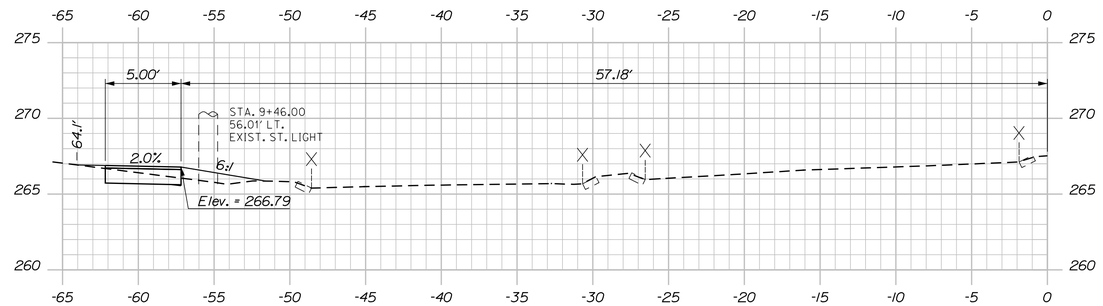
OF 190

Western Avenue Sta. 7+25.00 to Sta. 8+75.00

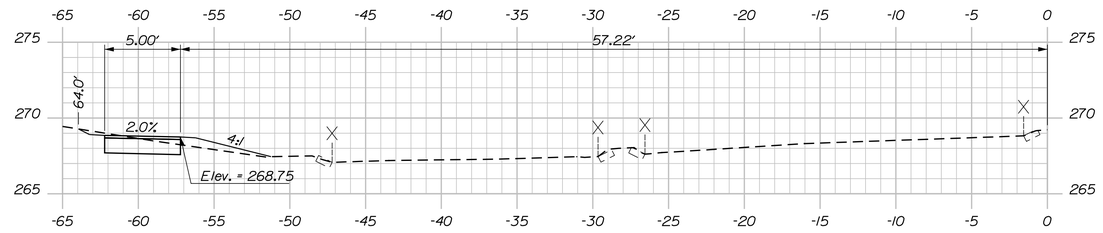
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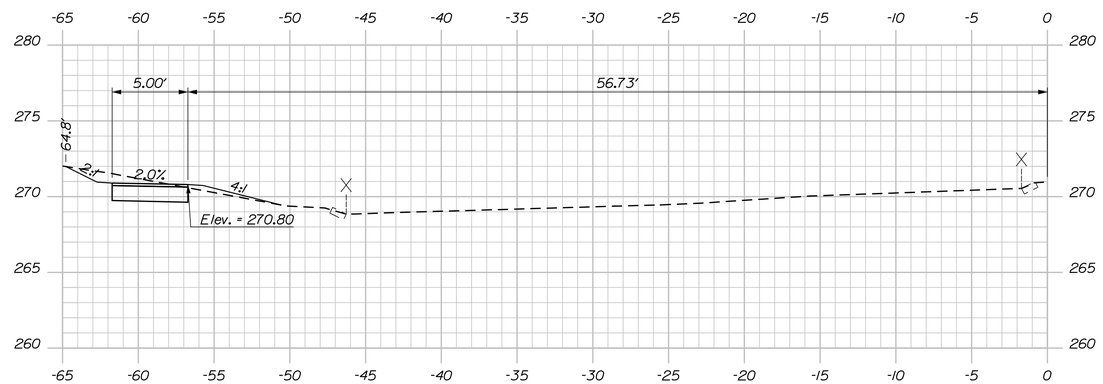
9+75.00



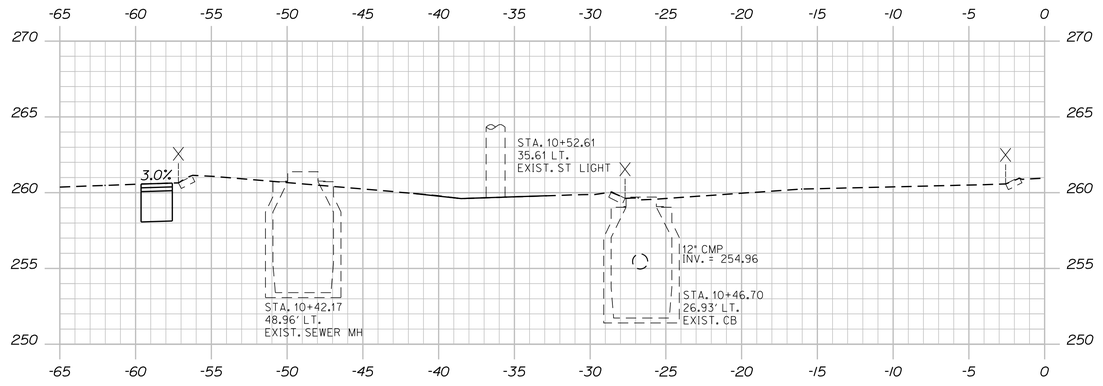
9+50.00



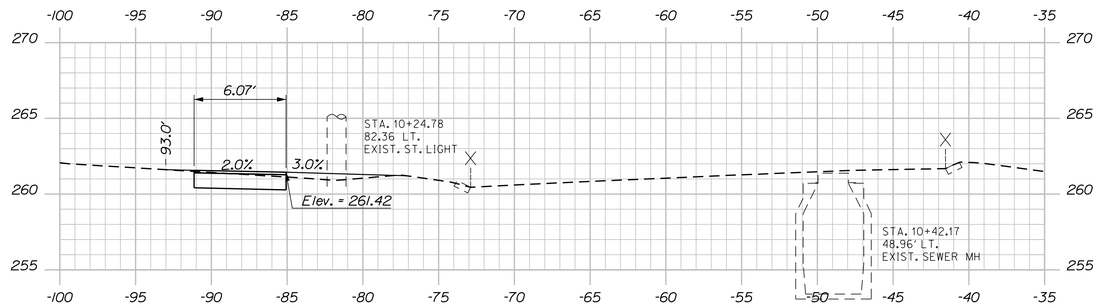
9+25.00



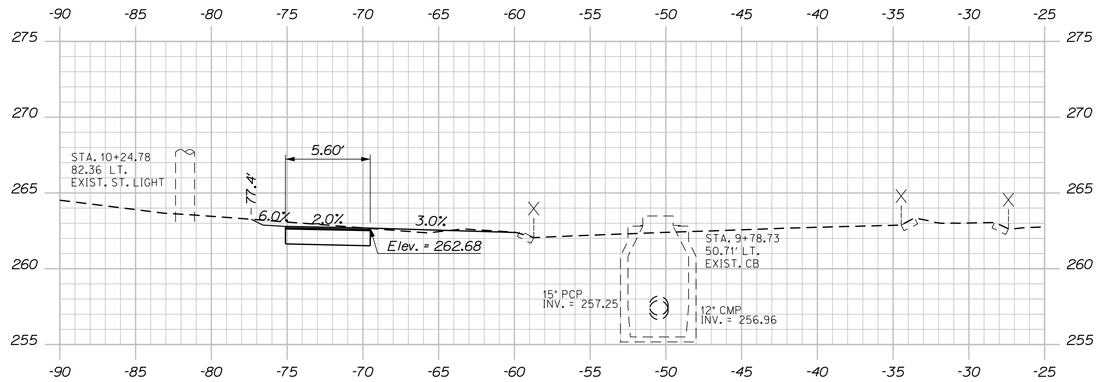
9+00.00



10+50.00



10+25.00



10+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

49

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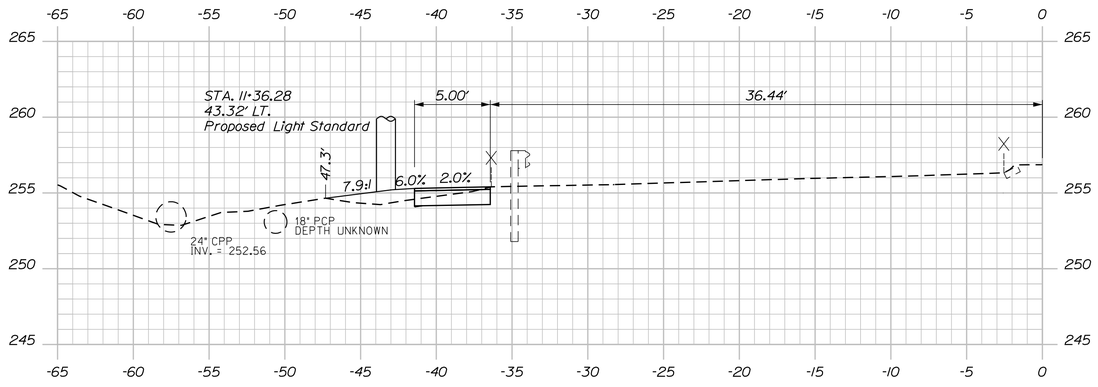
Stantec

Western Avenue Sta. 9+00.00 to Sta. 10+50.00

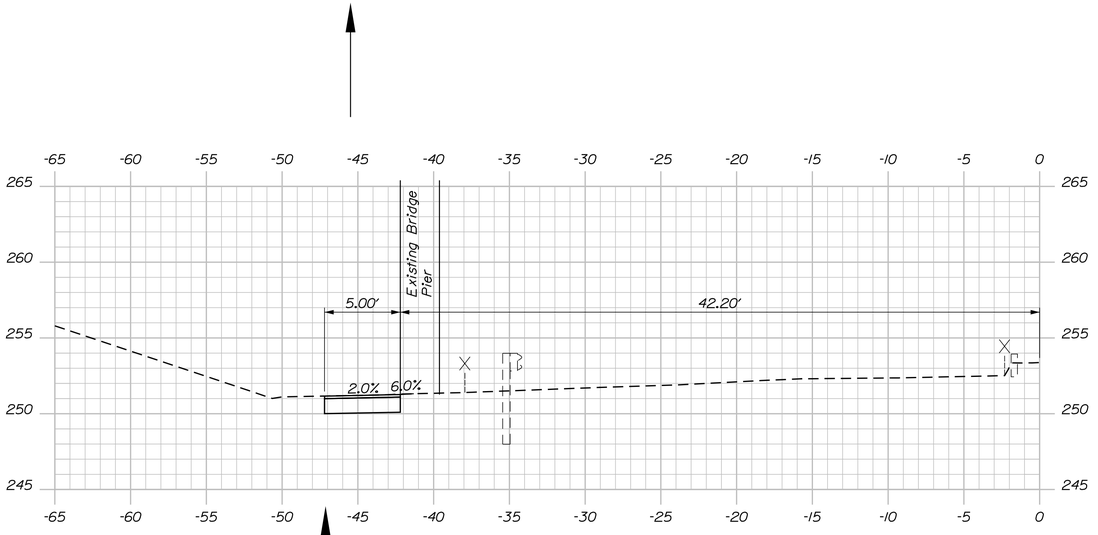
Username: kwight Date:7/18/2023

Division: BRIDGE

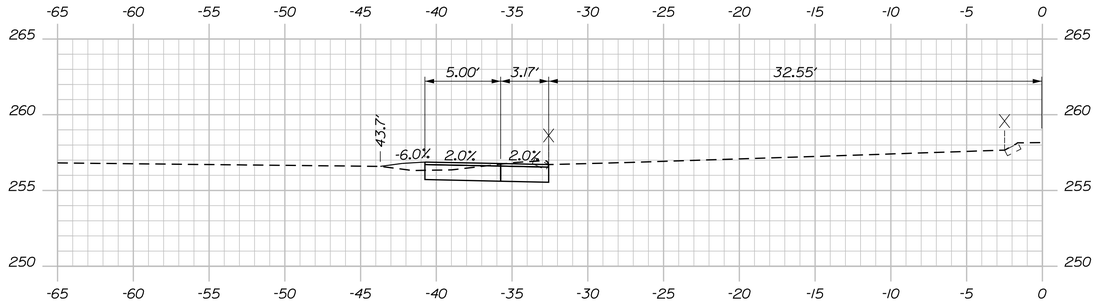
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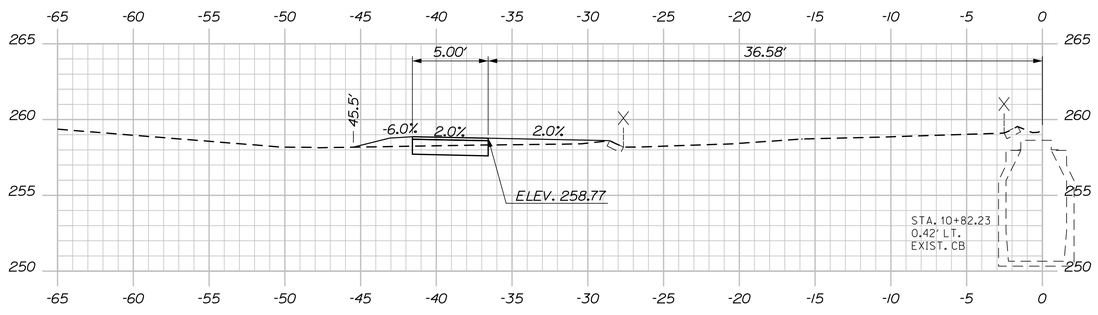
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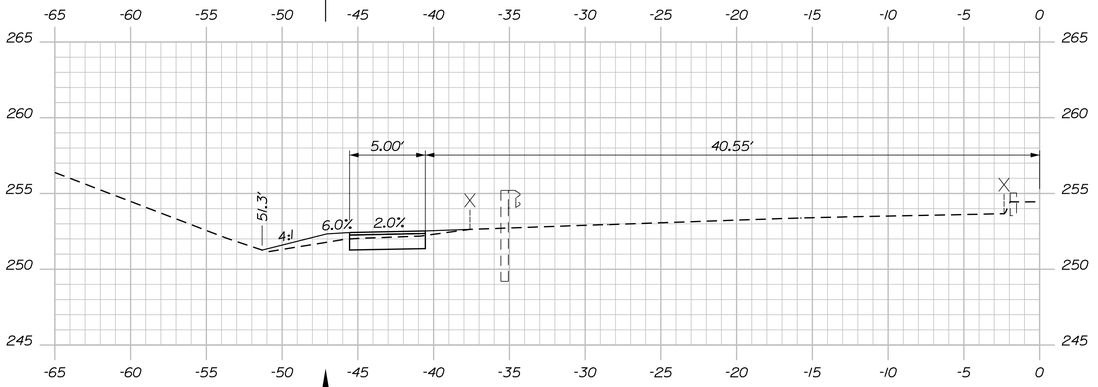
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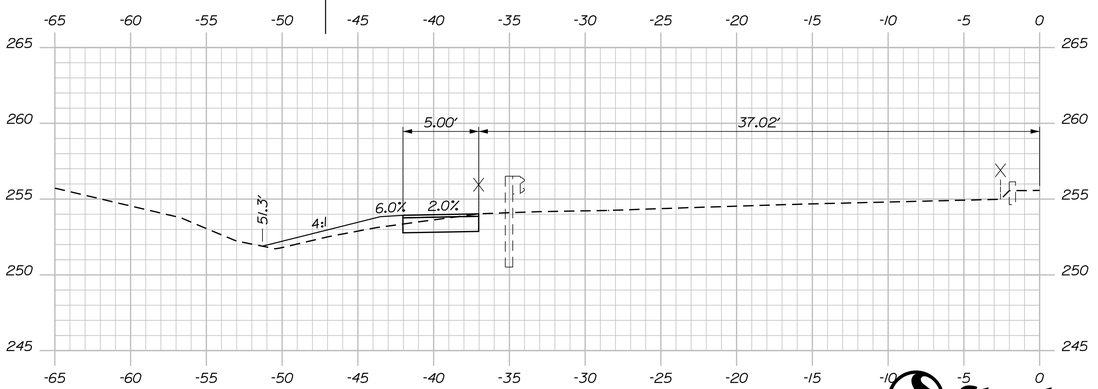
11+00.00



10+75.00



11+75.00



11+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

	BY	DATE
D. EATON		
PROJ. MANAGER	KBJ	JUNE 2023
DESIGN-DETAILED	PLP	
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
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REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

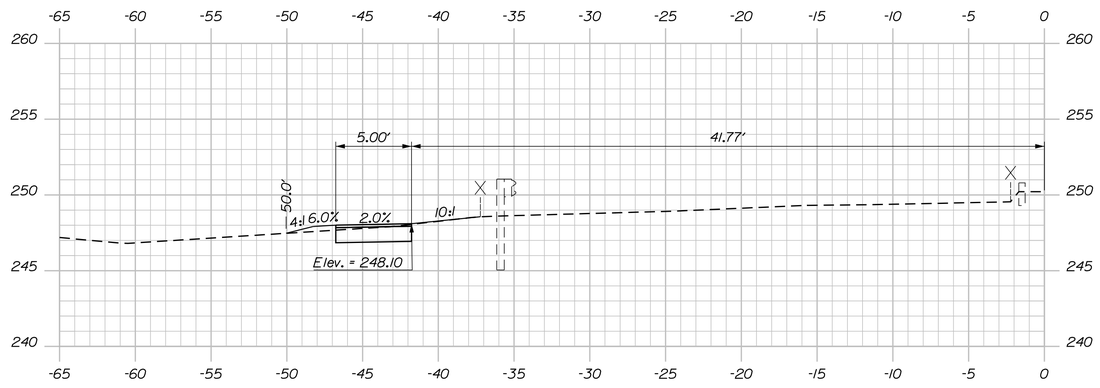
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OF 190

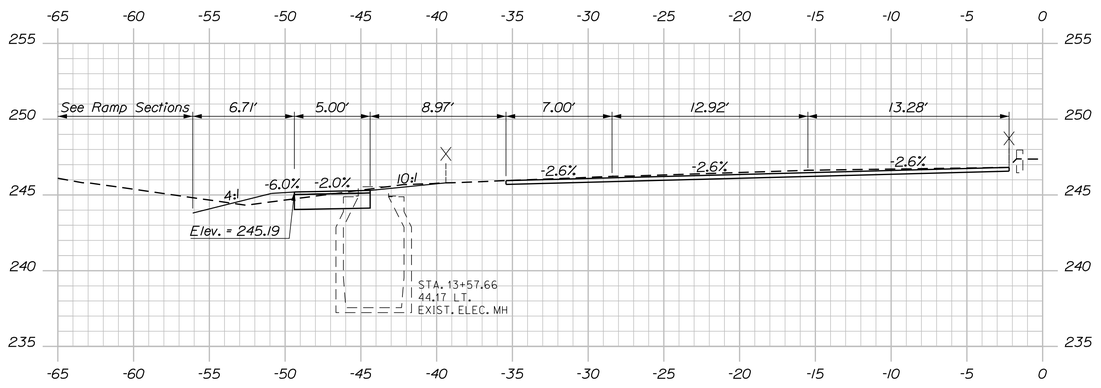
Stantec

Western Avenue Sta. 10+75.00 to Sta. 12+00.00

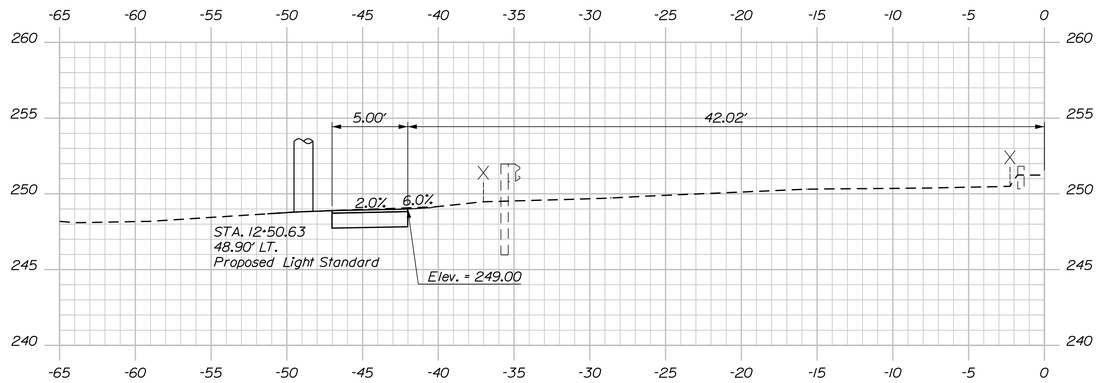
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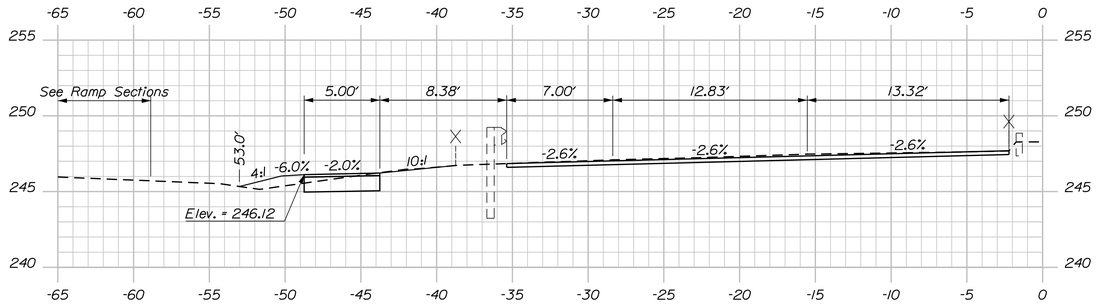
12+75.00



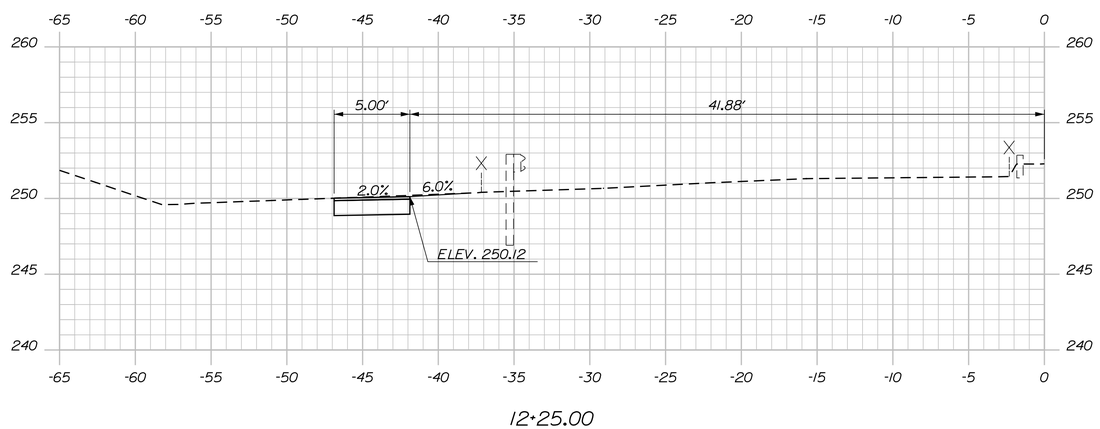
13+50.00



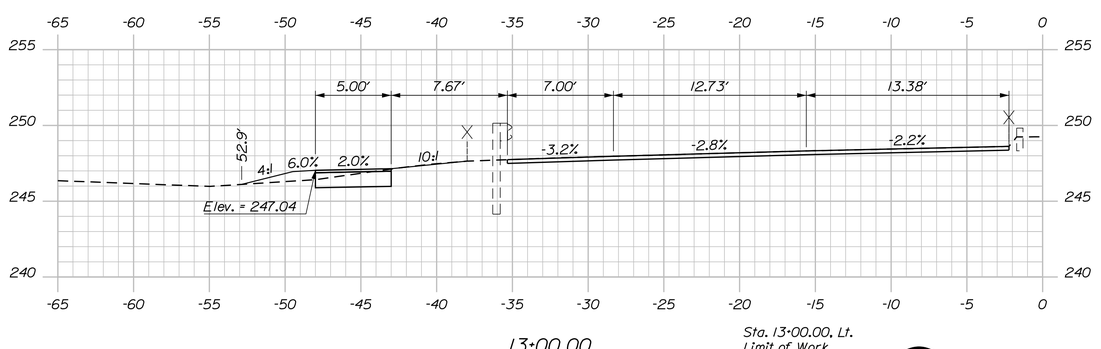
12+50.00



13+25.00



12+25.00



13+00.00

Sta. 13+00.00, Lt.
Limit of Work
Begin Mill & 3" Pave

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
DESIGN-DETAILED	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

D. EATON
PROJ. MANAGER
PLP

SIGNATURE

P.E. NUMBER

DATE

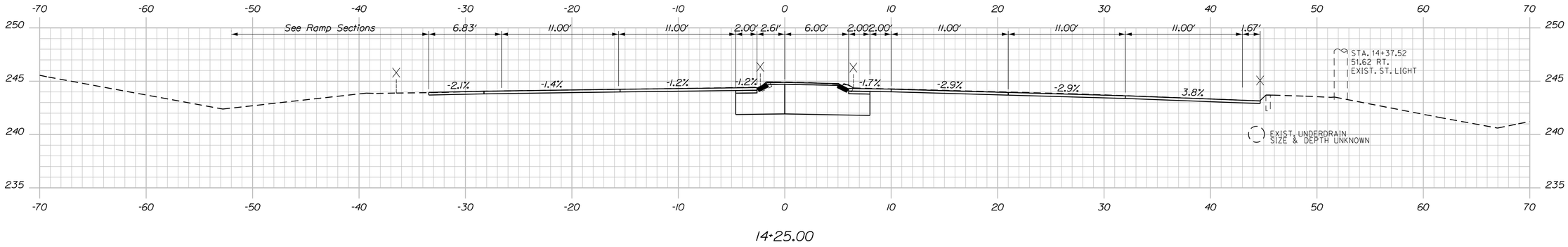
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

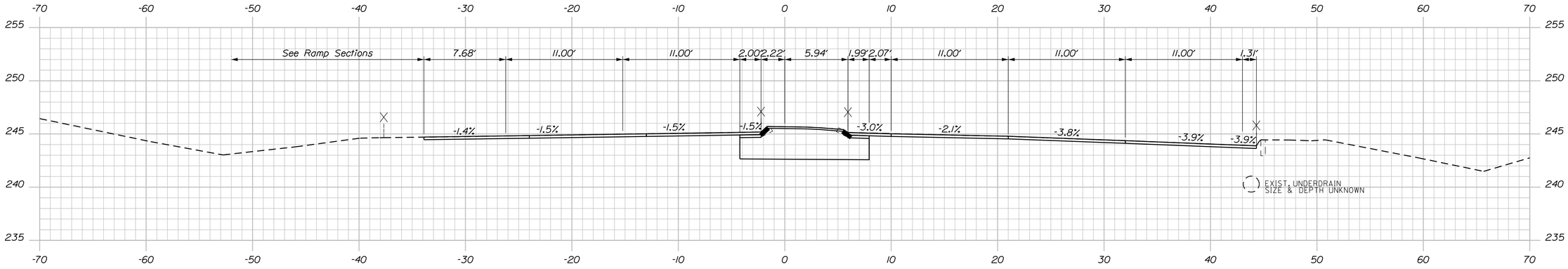
SHEET NUMBER
51
OF 190

Western Avenue Sta. 12+25.00 to Sta. 13+50.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023

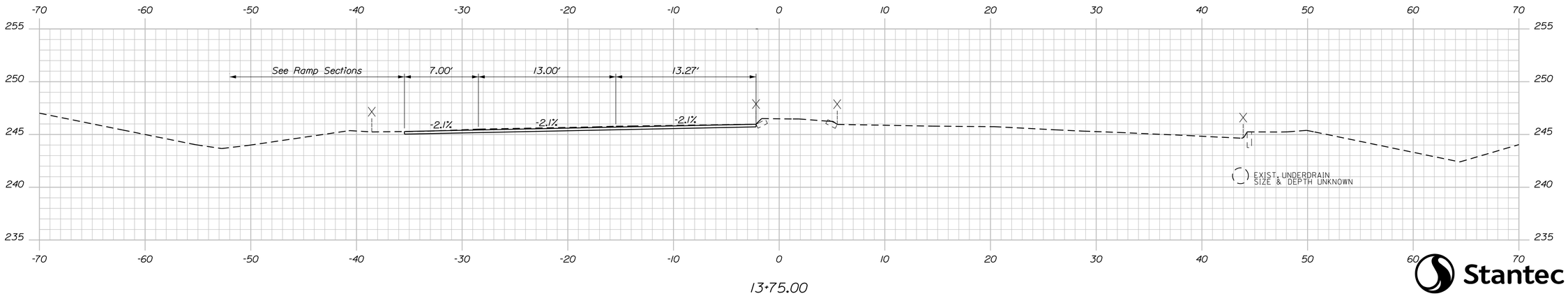


14+25.00



14+00.00

Sta. 14+00.00, Rt.
Limit of Work
Begin Mill & 3" Pave and Median Reconstruction



13+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

	BY	DATE
D. EATON		
PROJ. MANAGER	KBJ	JUNE 2023
DESIGN-DETAILED	PLP	
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

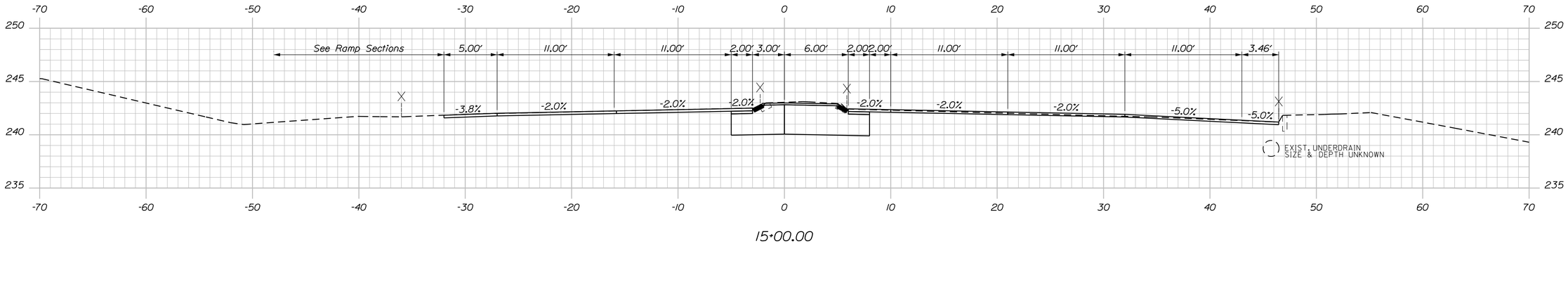
52

OF 190

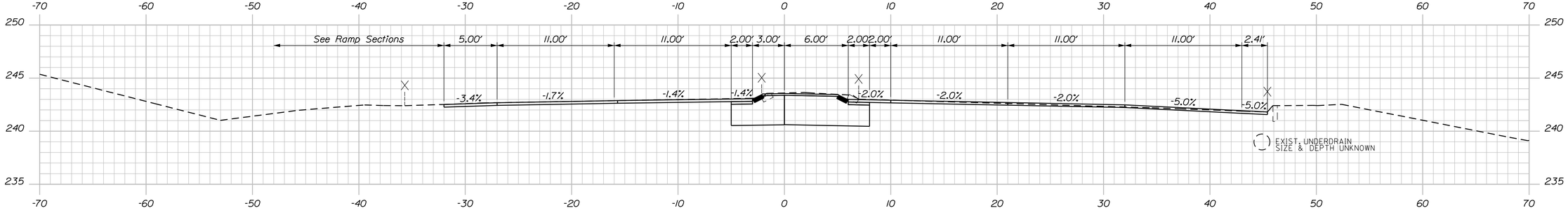
Stantec

Western Avenue Sta. 13+75.00 to Sta. 14+25.00

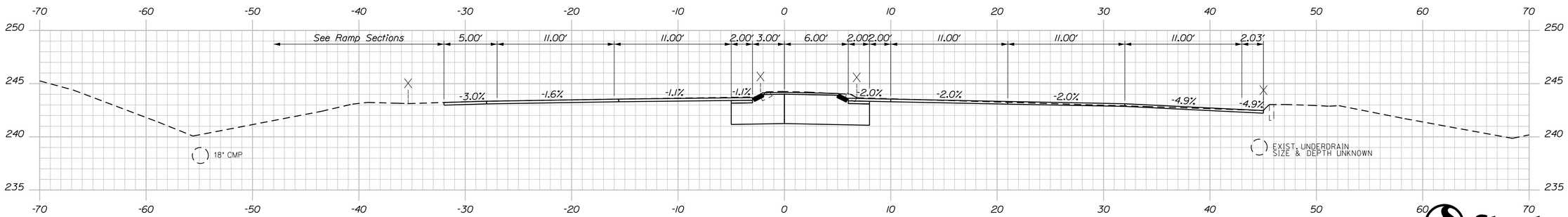
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwright Date:7/18/2023



15+00.00



14+75.00



14+50.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

P.E. NUMBER
DATE
SIGNATURE

	BY	DATE
D. EATON		
PROJ. MANAGER	KBJ	JUNE 2023
DESIGN-DETAILED	PLP	
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

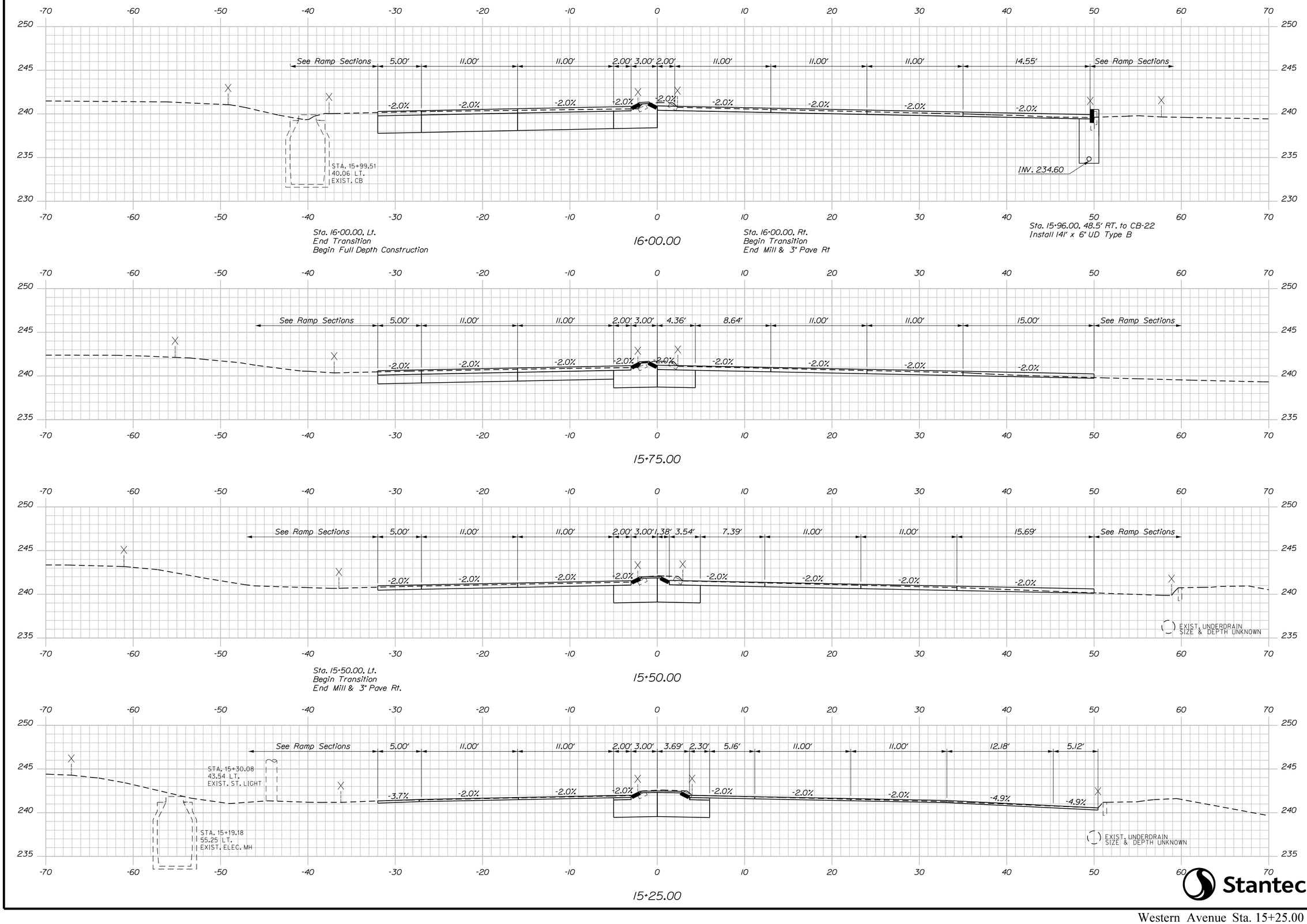
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER
53
OF 190

Western Avenue Sta. 14+50.00 to Sta. 15+00.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight
Division: BRIDGE
Date:7/18/2023



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	D. EATON	DATE
PROJ. MANAGER		
DESIGN-DETAILED	PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
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REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

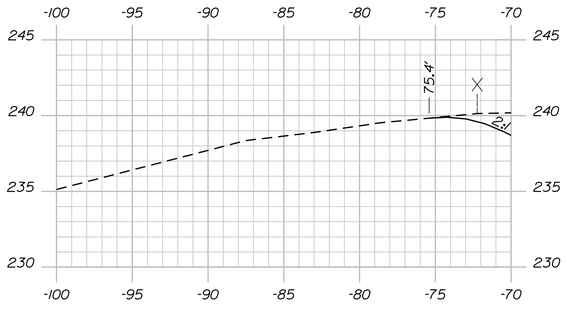
54

OF 190

Stantec

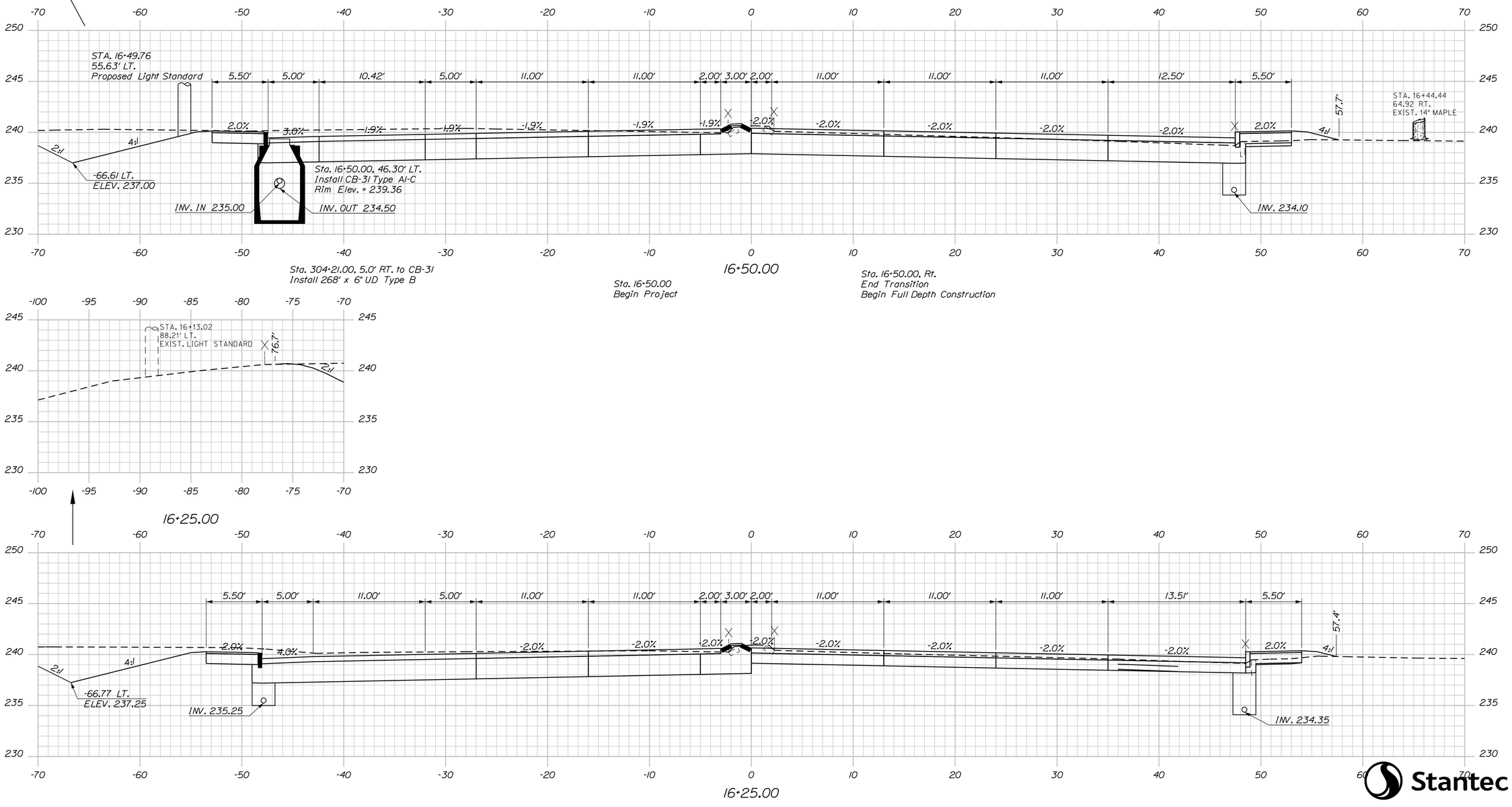
Western Avenue Sta. 15+25.00 to Sta. 16+00.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023



16+50.00

CB-31 to CB-30
Install 46' x 12" UD Type C



Sta. 304+21.00, 5.0' RT. to CB-31
Install 268' x 6" UD Type B

Sta. 16+50.00
Begin Project

16+50.00

Sta. 16+50.00, Rt.
End Transition
Begin Full Depth Construction

16+25.00

16+25.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

P.E. NUMBER
DATE
SIGNATURE

	D. EATON	DATE
PROJ. MANAGER		
DESIGN-DETAILED	PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

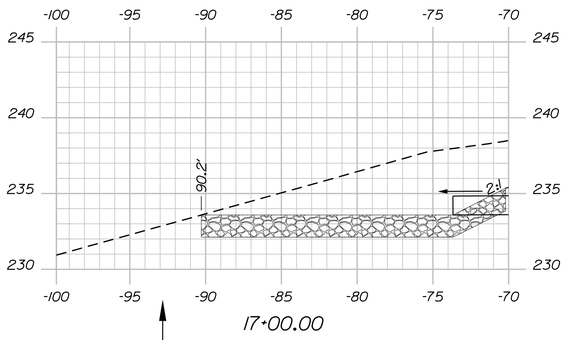
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

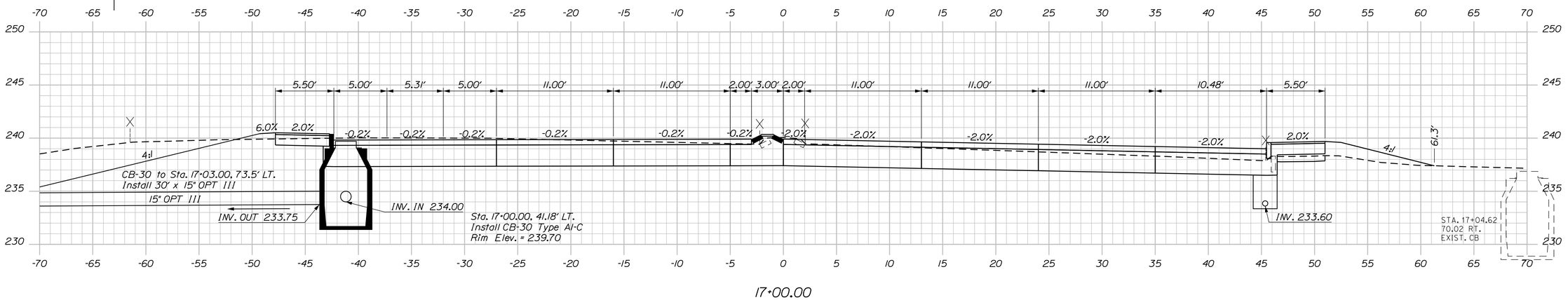
CROSS SECTIONS

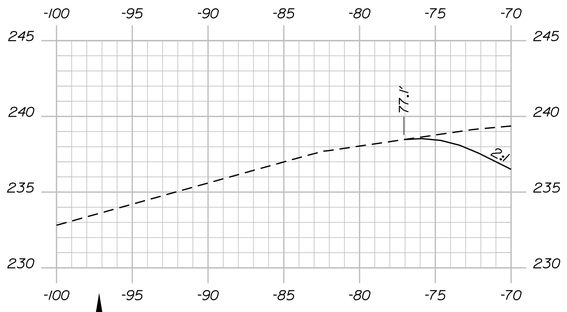
SHEET NUMBER
55
OF 190

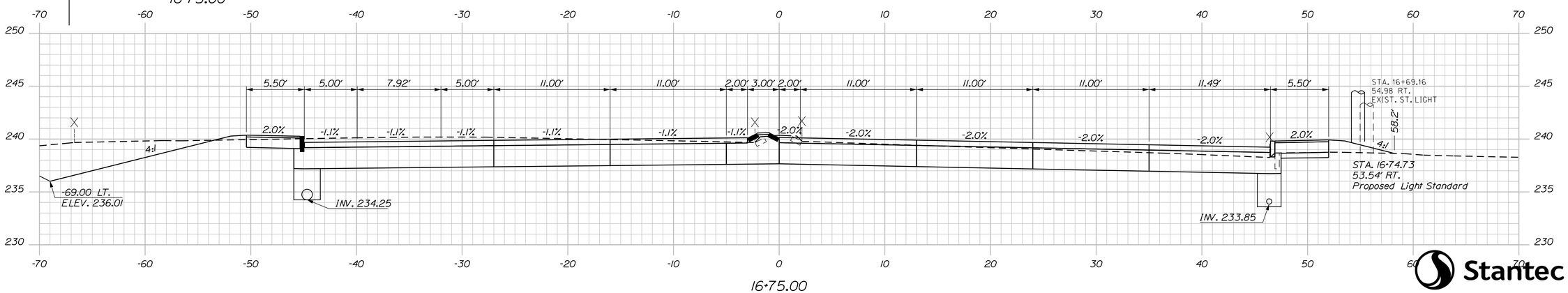
Western Avenue Sta. 16+25.00 to Sta. 16+50.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023









STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

BRIDGE NO. 5808

WIN
21672.00

	D. EATON	DATE
PROJ. MANAGER	PLP	
DESIGN-DETAILED	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
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REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

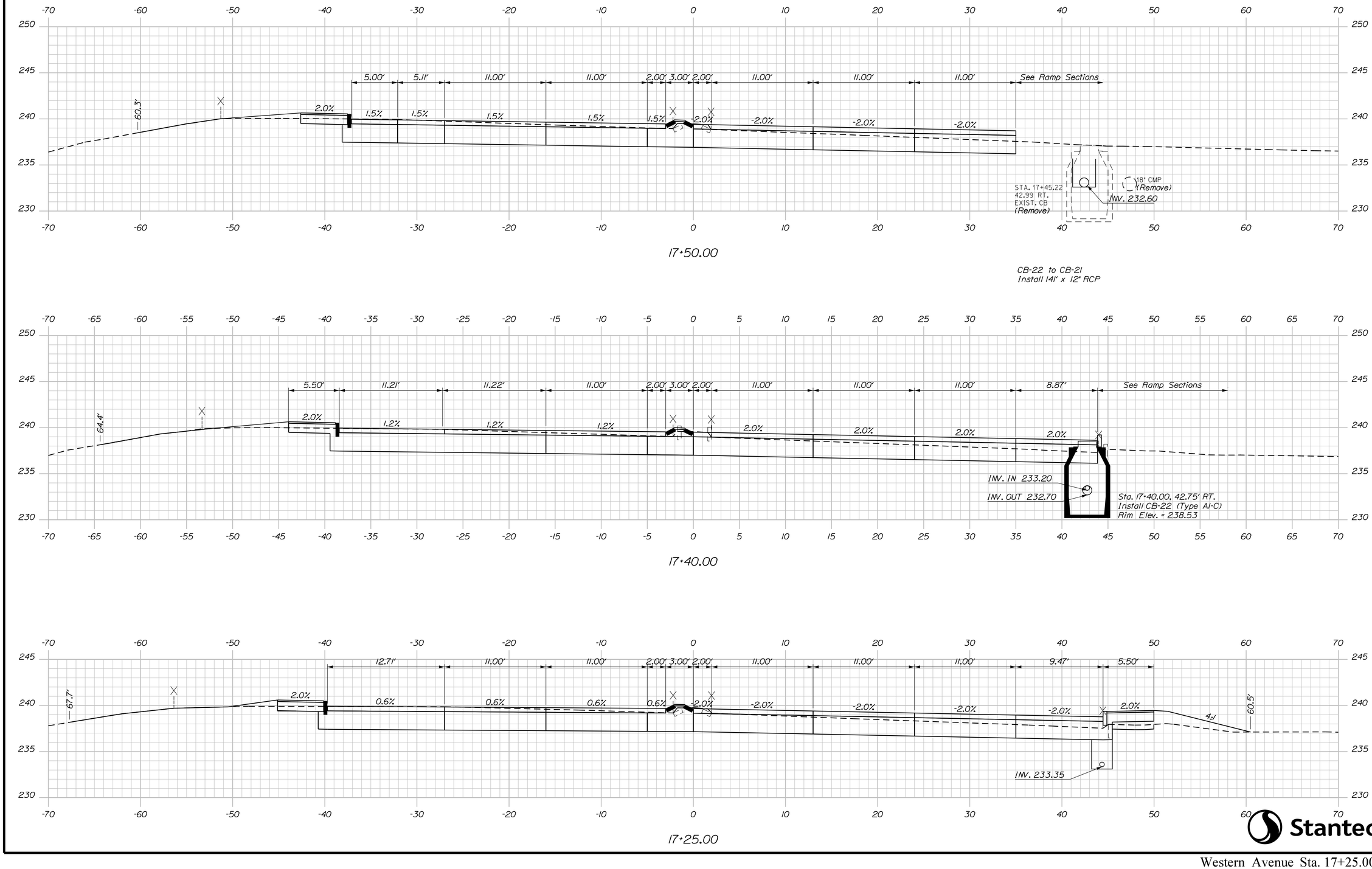
56

OF 190

Stantec

Western Avenue Sta. 16+75.00 to Sta. 17+00.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
D. EATON		
PROJ. MANAGER	KBJ	JUNE 2023
DESIGN-DETAILED	PLP	
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

57

OF 190

Stantec

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwright Date:7/18/2023

Western Avenue Sta. 17+25.00 to Sta. 17+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	PLP	JUNE 2023
CHECKED-REVIEWED	KBJ	JUNE 2023
DESIGN2-DETAILED2	LEM	
DESIGN3-DETAILED3	LEM	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

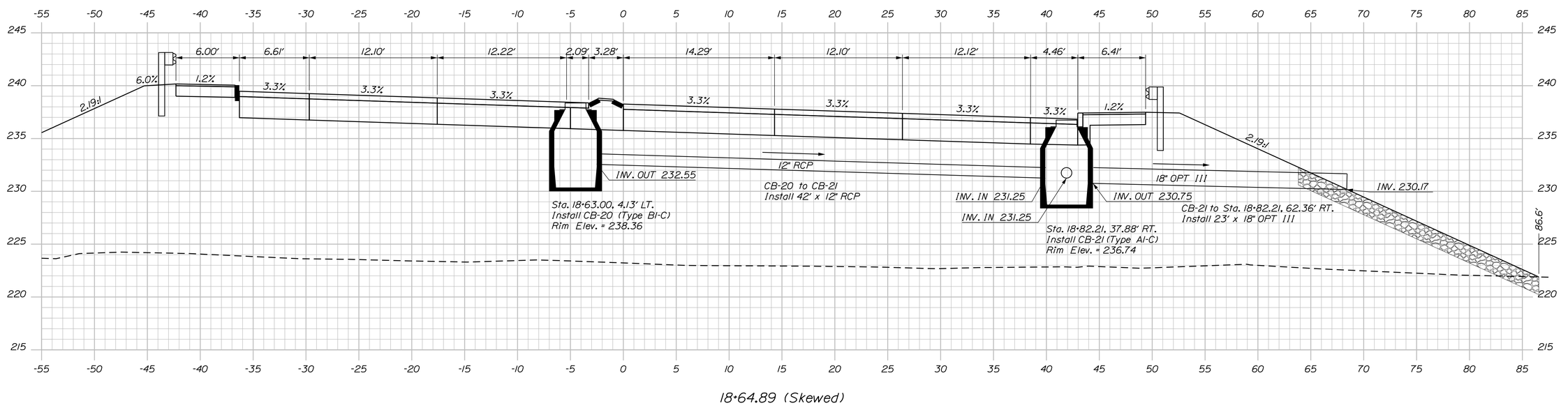
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER
58
OF 190

Stantec

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight Date:7/18/2023 Division: BRIDGE



Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

P.E. NUMBER

DATE

SIGNATURE

	BY	DATE
D. EATON	KBJ	JUNE 2023
PROJ. MANAGER	LEM	JUNE 2023
DESIGN-DETAILED	PLP	
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
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REVISIONS 4		
FIELD CHANGES		

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

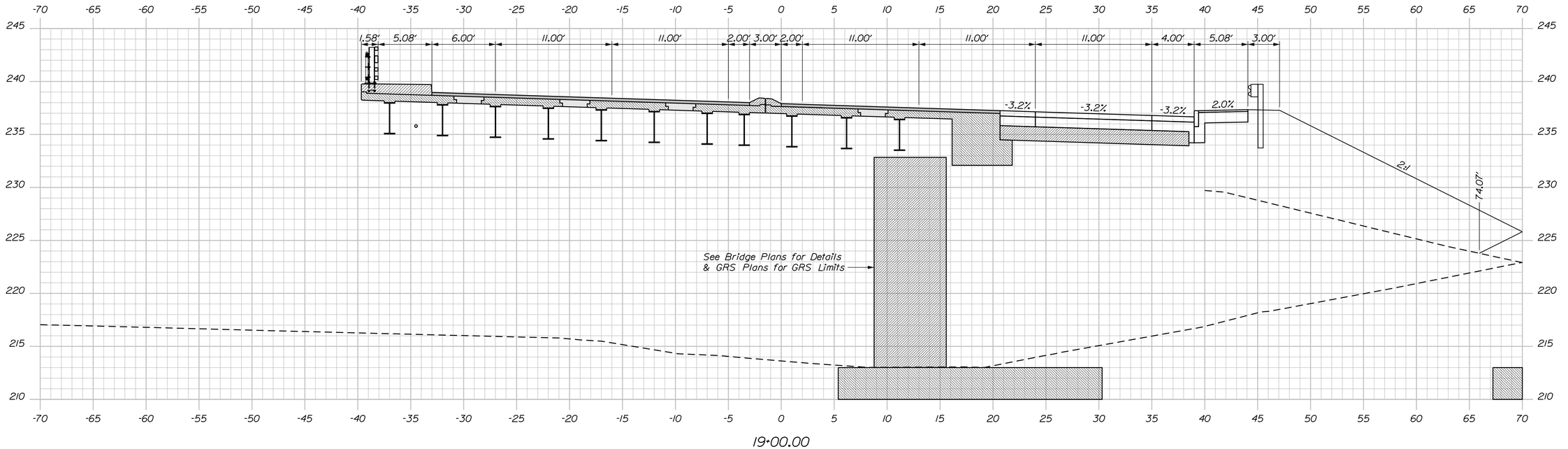
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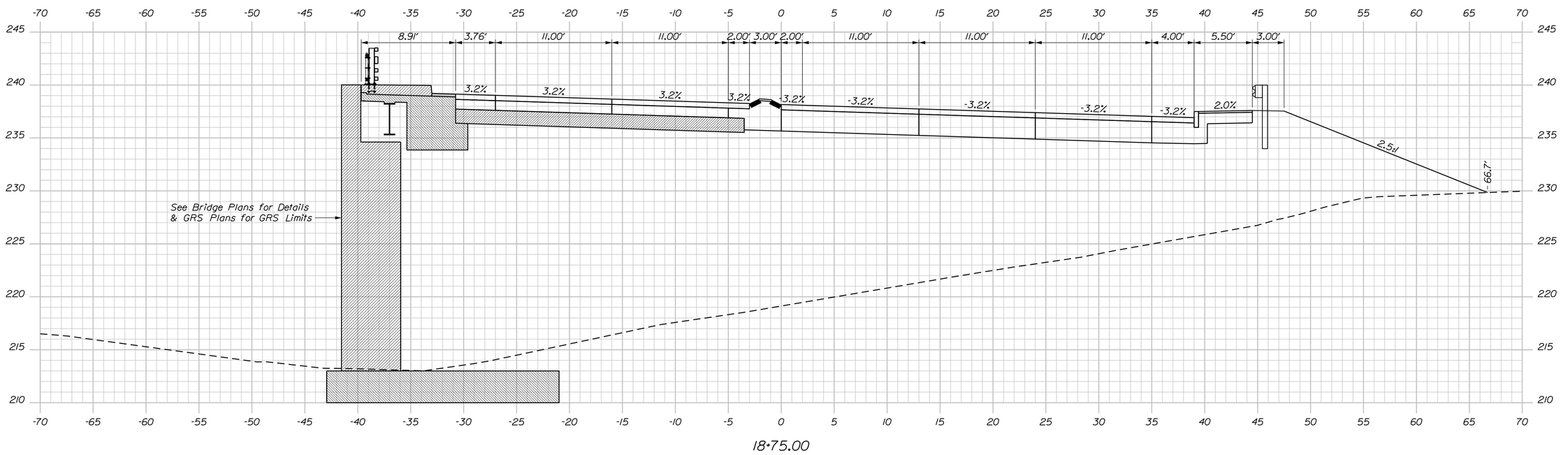
59

OF 190

Western Avenue Sta. 18+50.00 to Sta. 18+64.89

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023





Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

P.E. NUMBER

DATE

SIGNATURE

	BY	DATE
DESIGNED	D. EATON	JUNE 2023
DETAILED	PLP	JUNE 2023
CHECKED	KBJ	
REVIEWED	LEM	
PROJ. MANAGER	LEM	
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

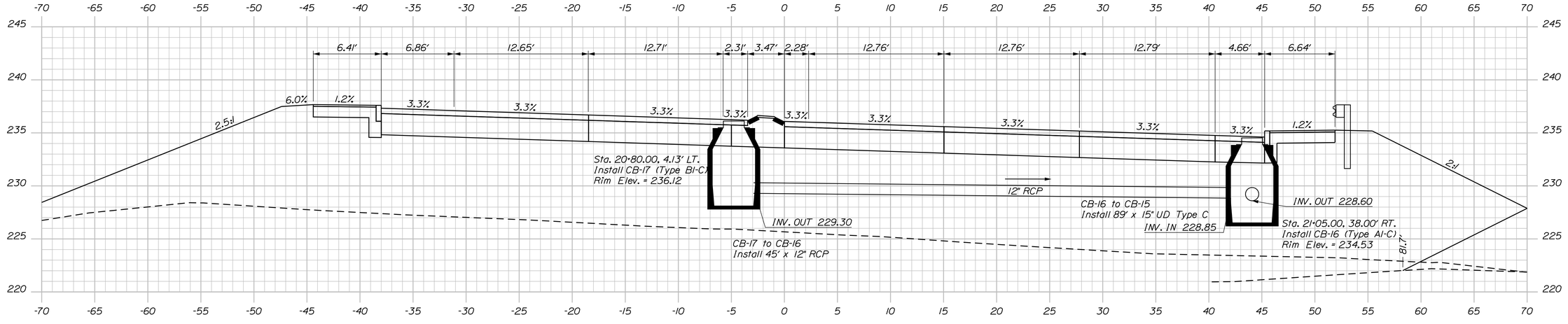
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

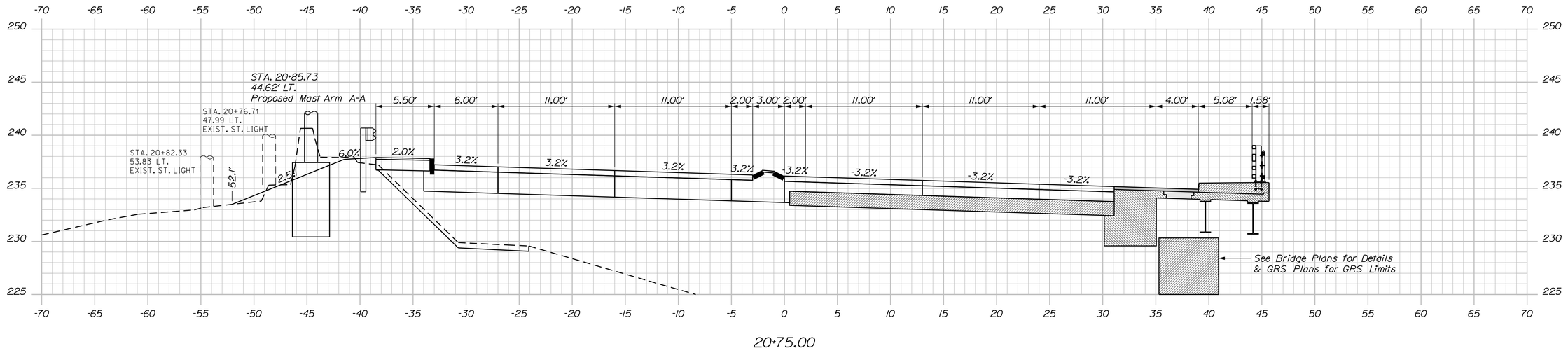
SHEET NUMBER
60
OF 190

Western Avenue Sta. 18+75.00 to Sta. 19+00.00

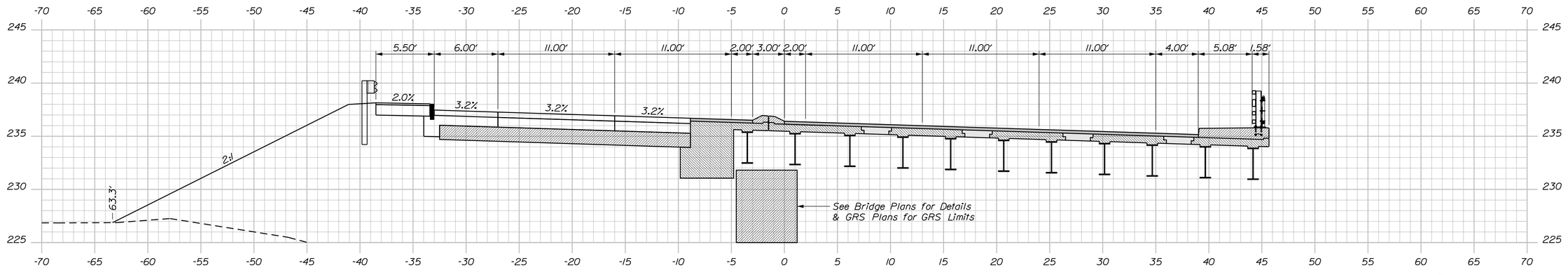
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023



20+82.38 (Skewed)



20+75.00



20+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	KBJ	JUNE 2023
CHECKED-REVIEWED	PLP	JUNE 2023
DESIGN2-DETAILED2	LEM	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

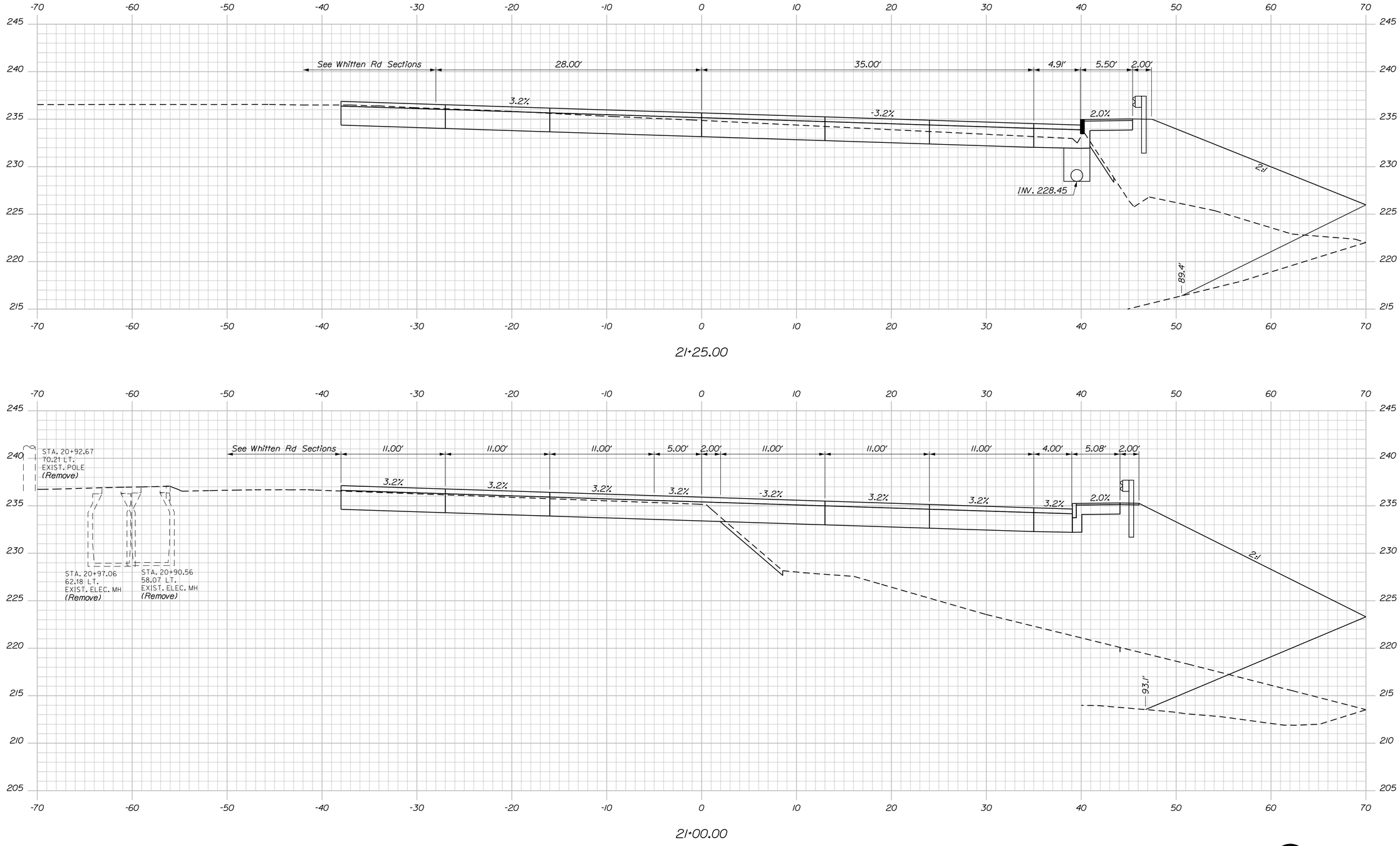
61

OF 190

Stantec

Western Avenue Sta. 20+50.00 to Sta. 20+82.38

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

62

OF 190

Stantec

Western Avenue Sta. 21+00.00 to Sta. 21+25.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

		SIGNATURE	
		P.E. NUMBER	
		DATE	

PROJ. MANAGER	D. EATON								
DESIGN-DETAILED	PLP								
CHECKED-REVIEWED	LEM								
DESIGN2-DETAILED2									
DESIGN3-DETAILED3									
REVISIONS 1									
REVISIONS 2									
REVISIONS 3									
REVISIONS 4									
FIELD CHANGES									
		BY	KBJ	LEM					
		DATE	JUNE 2023	JUNE 2023					

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

63

OF 190

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
D. EATON	KBJ	JUNE 2023
	LEM	JUNE 2023
PROJ. MANAGER	PLP	
DESIGN-DETAILED	LEM	
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
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FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

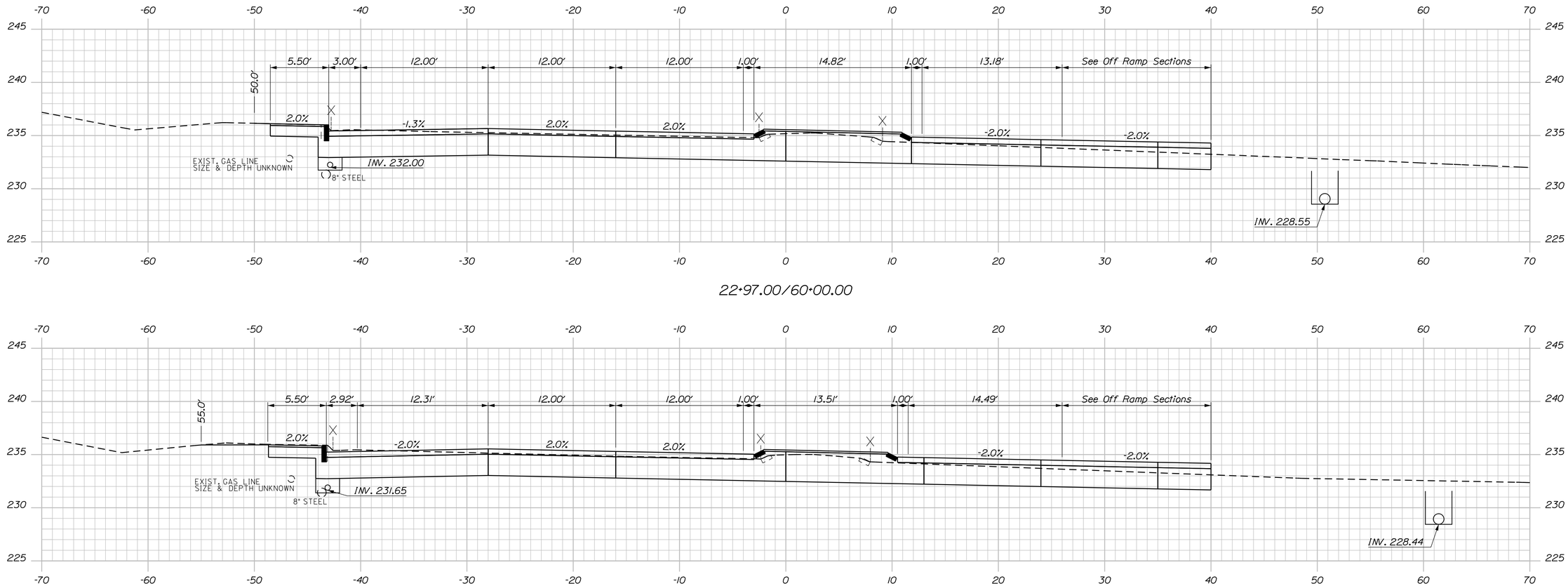
SHEET NUMBER

64

OF 190

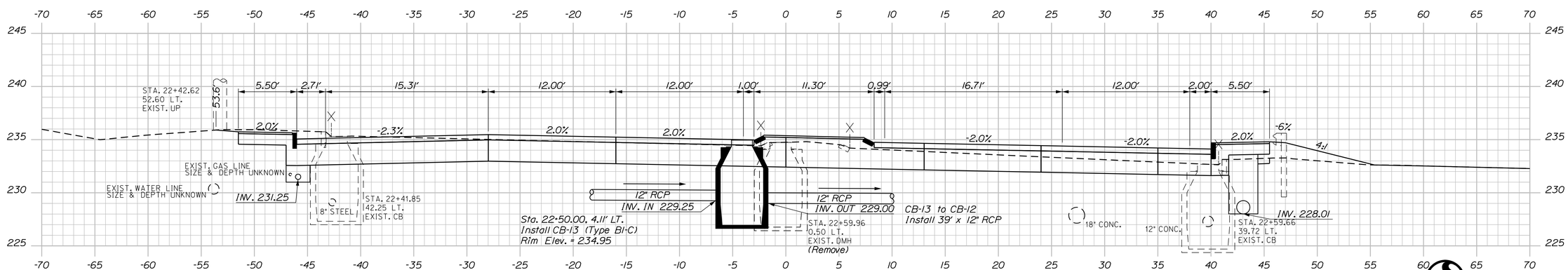
Stantec

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023



22+97.00/60+00.00

22+75.00



22+50.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

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WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

CROSS SECTIONS

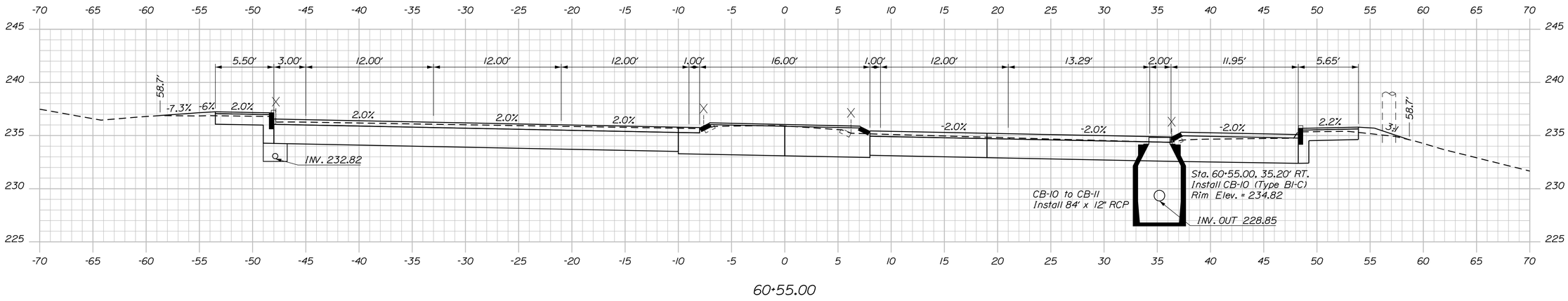
SHEET NUMBER

65

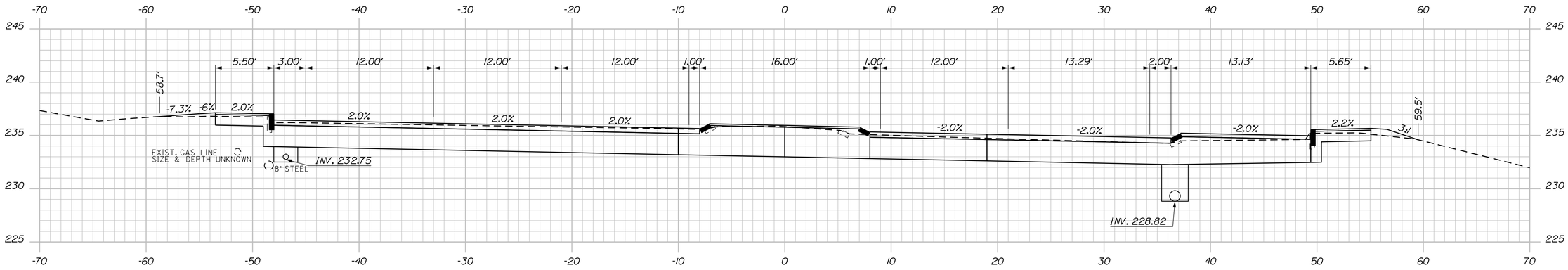
OF 190

Western Avenue Sta. 22+50.00 to Sta. 22+97.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023

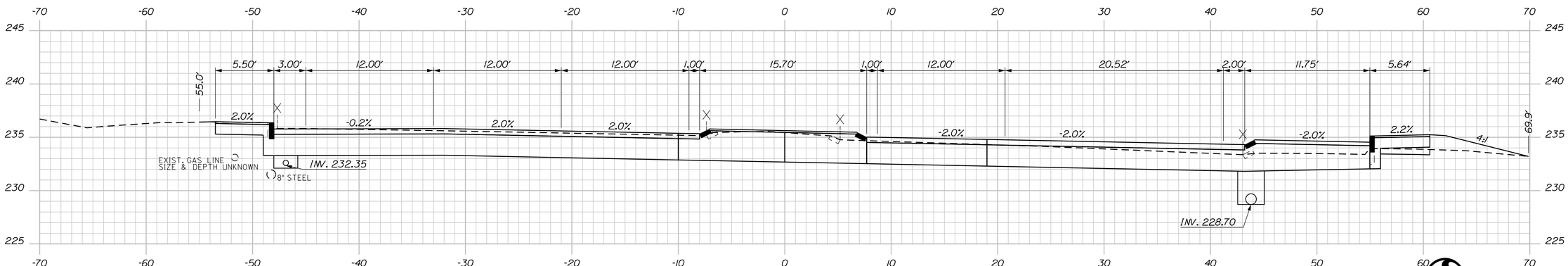


60+55.00



60+50.00

Sta. 60+50.00
End Project
Begin Transition
End Full Depth Construction



60+25.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5808 WIN 21672.00 BRIDGE PLANS

	BY	DATE
D. EATON	KBJ	JUNE 2023
PROJ. MANAGER	PLP	
DESIGN-DETAILED	LEM	JUNE 2023
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

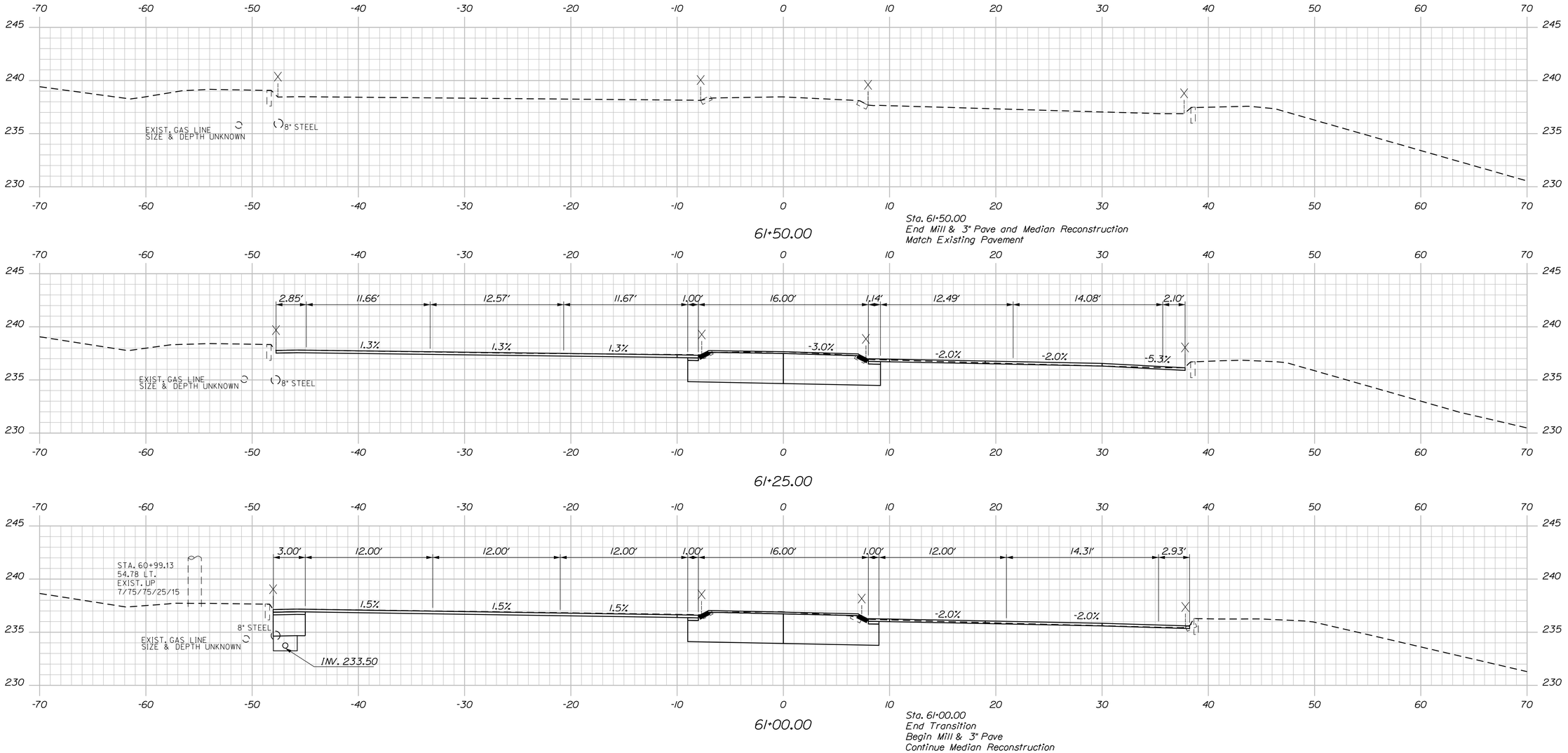
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER
66
OF 190

Western Avenue Sta. 60+25.00 to Sta. 60+55.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
DESIGN-DETAILED	PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER: D. EATON

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

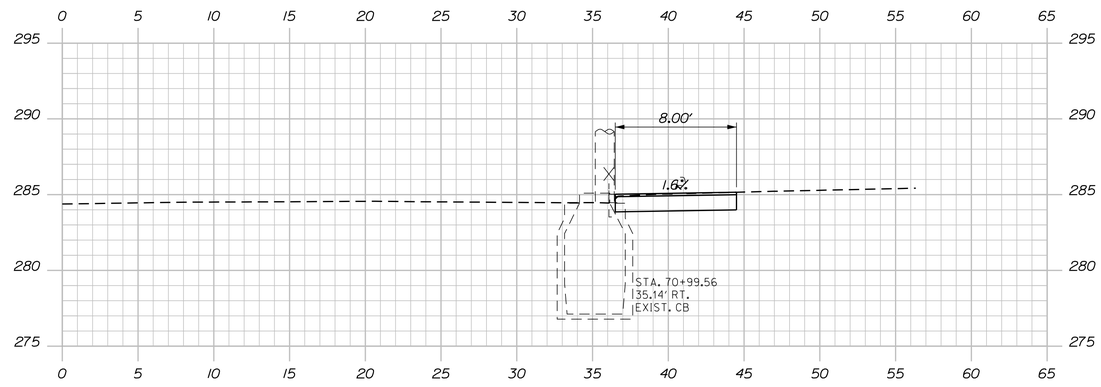
CROSS SECTIONS

SHEET NUMBER
67
OF 190

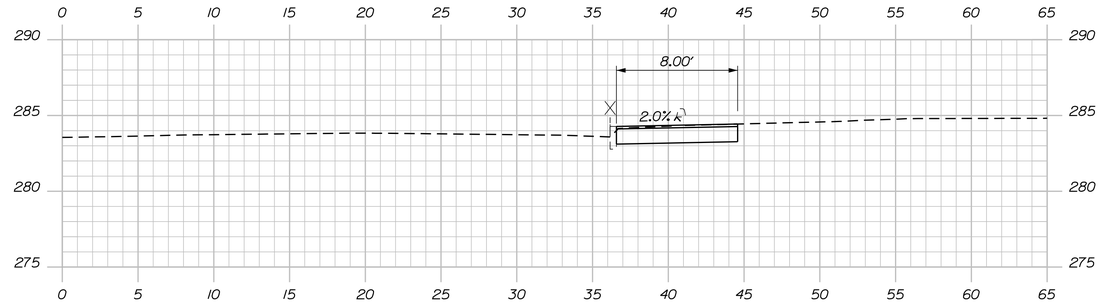
Stantec

Western Avenue Sta. 60+75.00 to Sta. 61+50.00

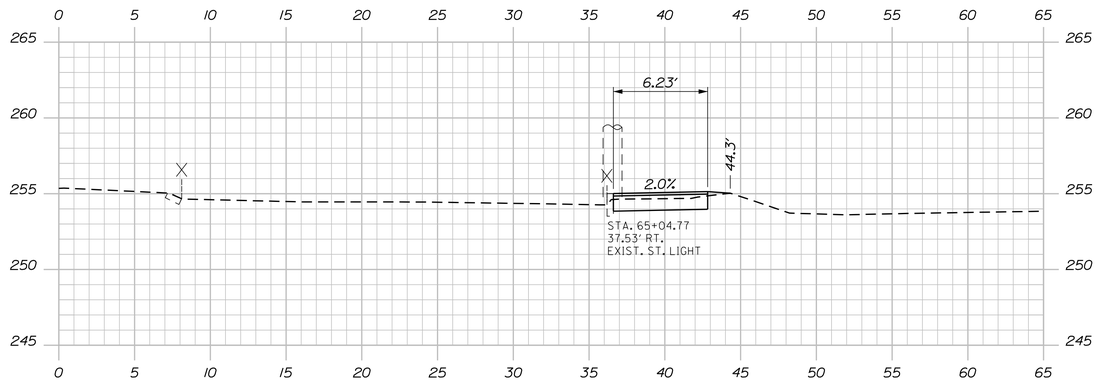
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight Division: BRIDGE Date:7/18/2023



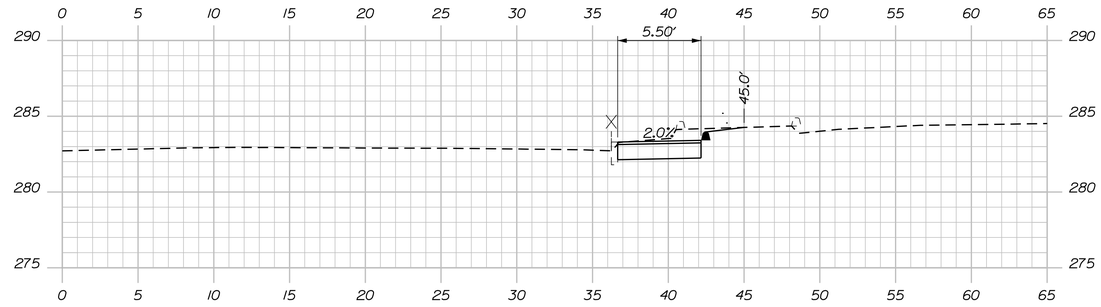
70+75.00



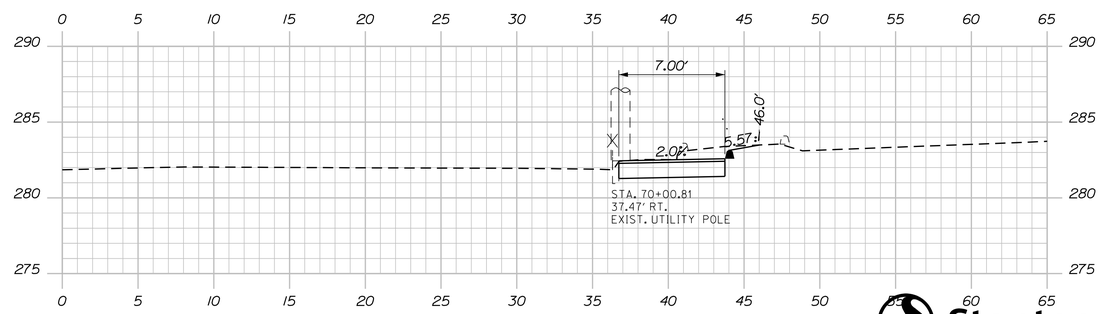
70+50.00



65+00.00



70+25.00



70+00.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

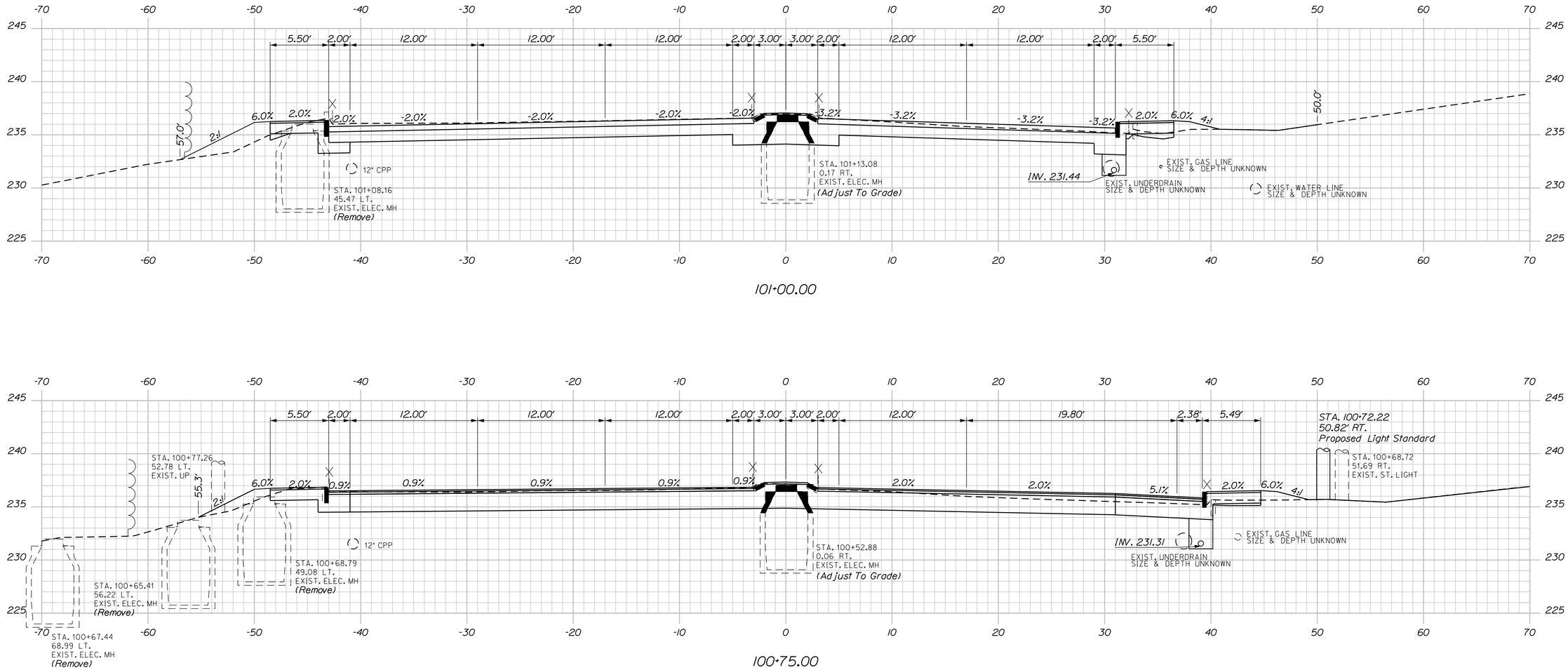
SHEET NUMBER

68

OF 190

Western Avenue Sta. 65+00.00 to Sta. 70+75.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

	BY	DATE
D. EATON		
PROJ. MANAGER	KBJ	JUNE 2023
DESIGN-DETAILED	PLP	JUNE 2023
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

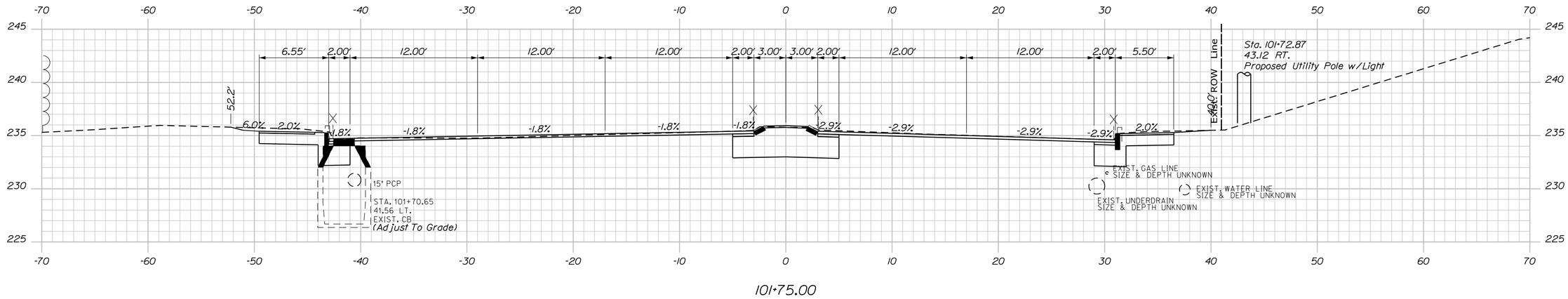
CROSS SECTIONS

SHEET NUMBER
69
OF 190

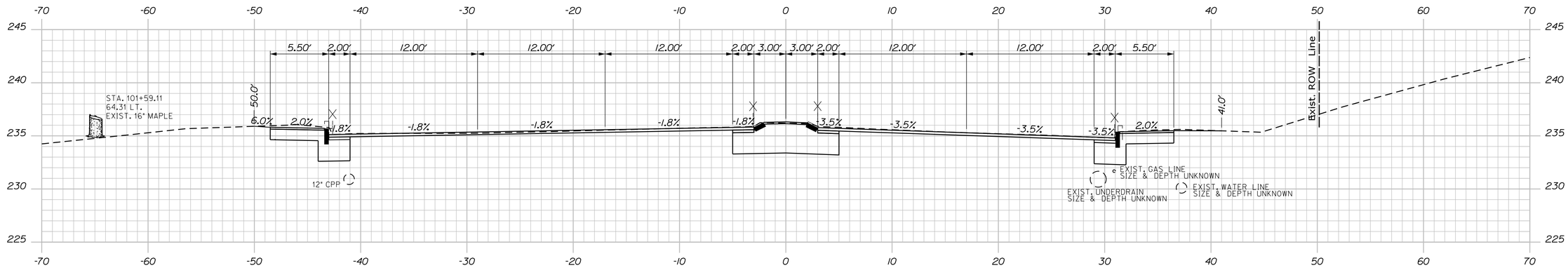
Stantec

Whitten Road Sta. 100+75.00 to Sta. 101+00.00

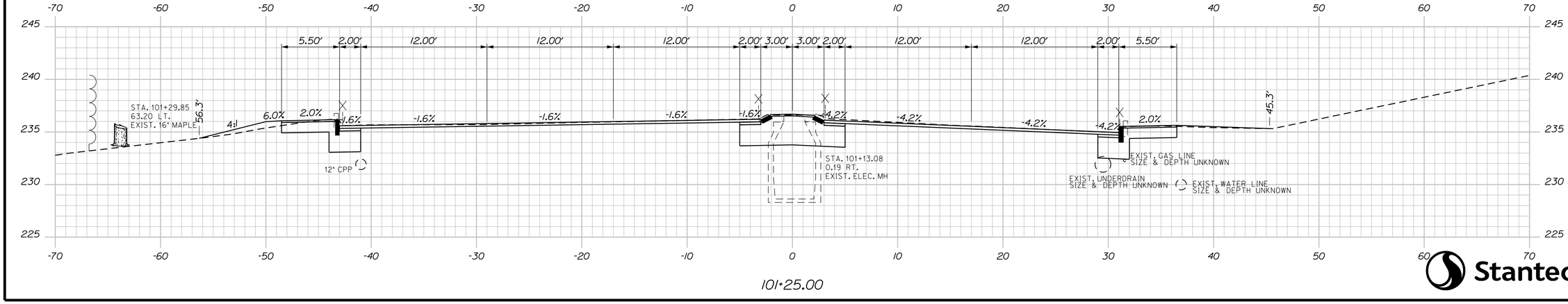
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight Division: BRIDGE Date:7/18/2023



101+75.00



101+50.00



101+25.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

70

OF 190

Whitten Road Sta. 101+25.00 to Sta. 101+75.00

Username: kwight Date:7/18/2023

Division: BRIDGE

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

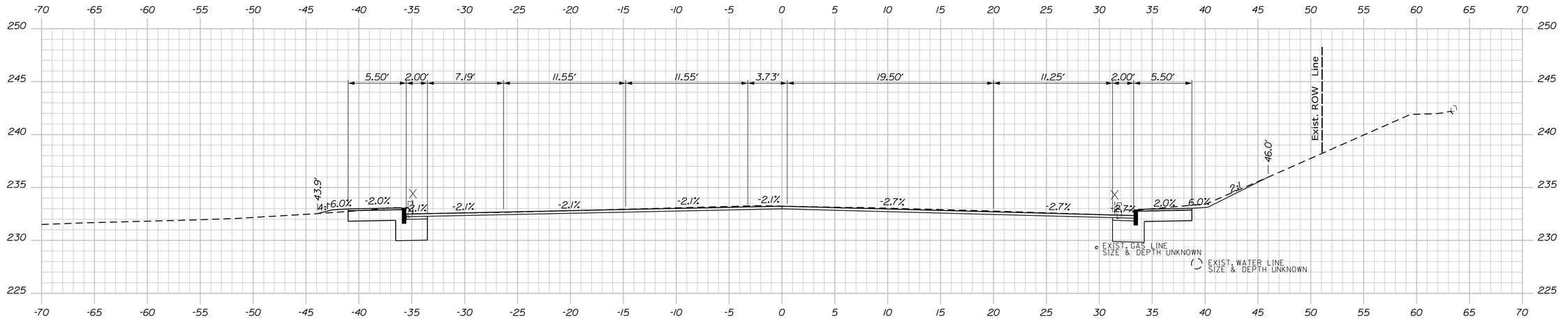
CROSS SECTIONS

SHEET NUMBER
71
OF 190

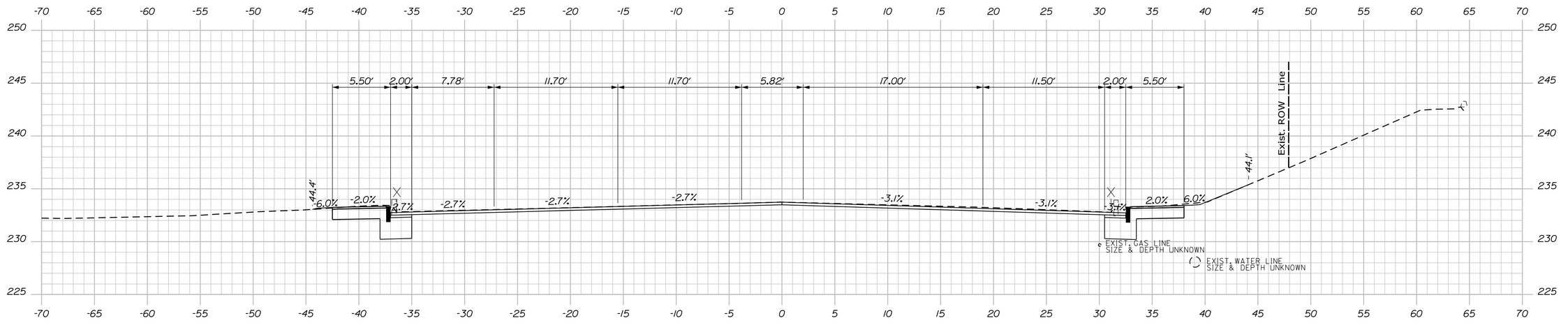
Stantec

Whitten Road Sta. 102+00.00 to Sta. 102+50.00

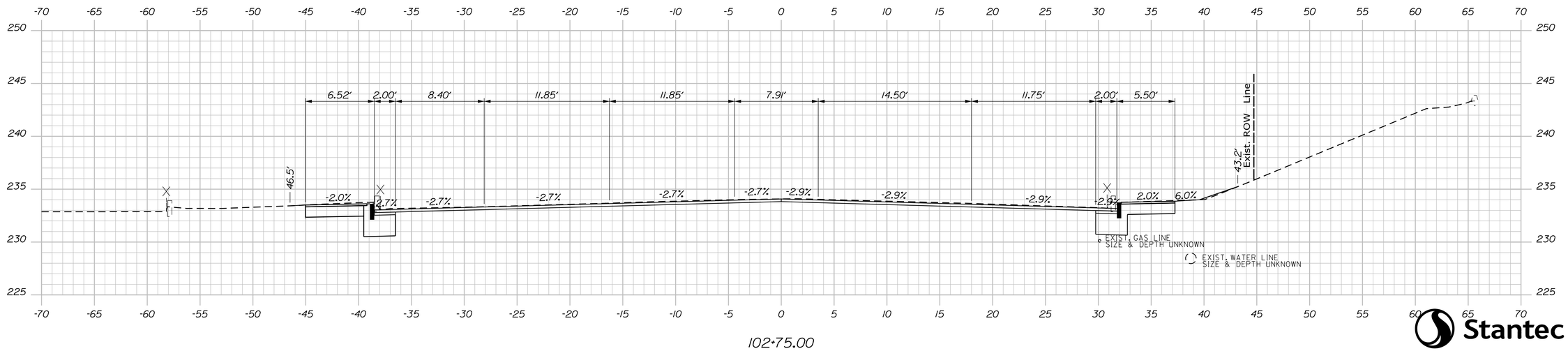
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103+25.00



103+00.00



102+75.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

D. EATON	BY	DATE	SIGNATURE
PROJ. MANAGER			
DESIGN-DETAILED	PLP	KBJ	JUNE 2023	
CHECKED-REVIEWED	LEM	LEM	JUNE 2023	
DESIGN2-DETAILED2			P.E. NUMBER
DESIGN3-DETAILED3			DATE
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

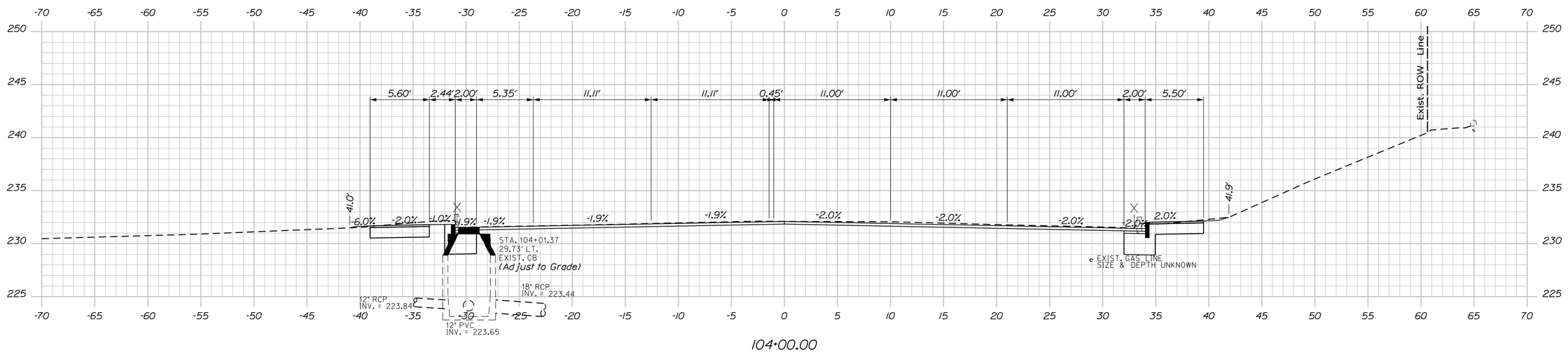
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

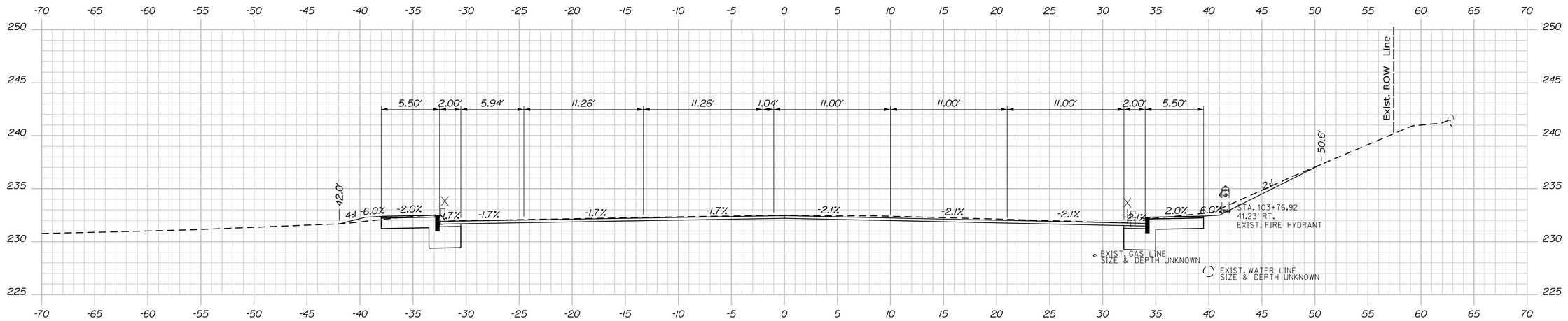
SHEET NUMBER
72
OF 190

Whitten Road Sta. 102+75.00 to Sta. 103+25.00

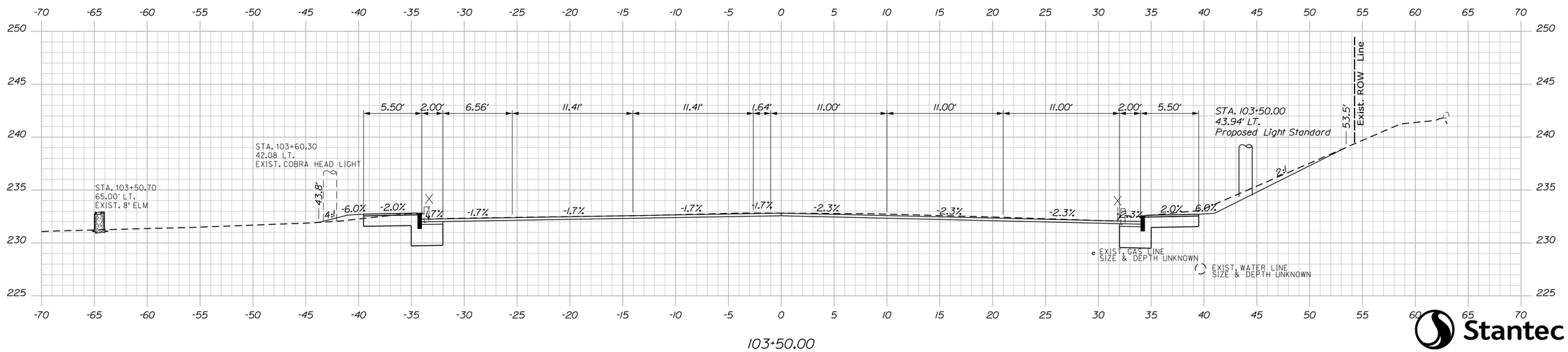
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104+00.00



103+75.00



103+50.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
D. EATON		
PROJ. MANAGER	PLP	JUNE 2023
DESIGN-DETAILED	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

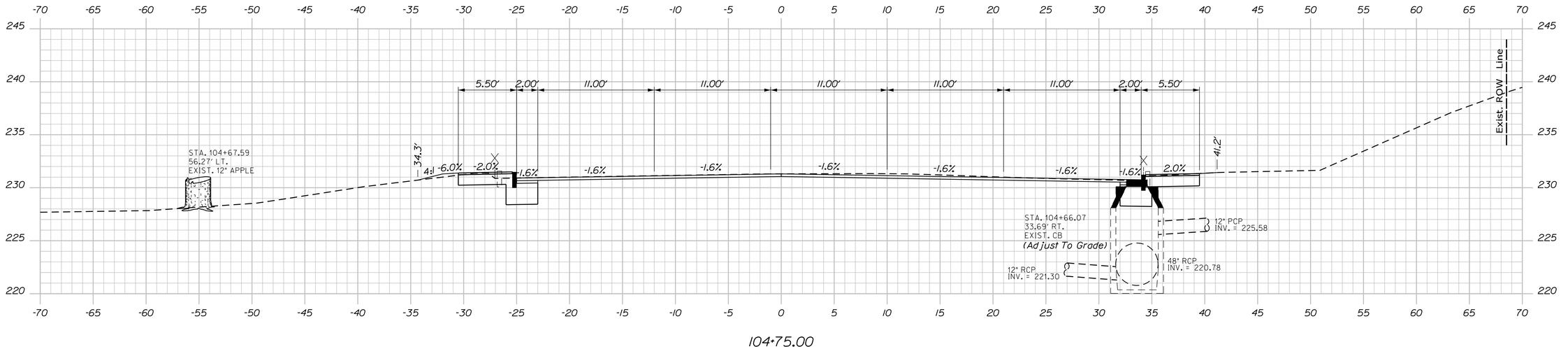
SHEET NUMBER

73

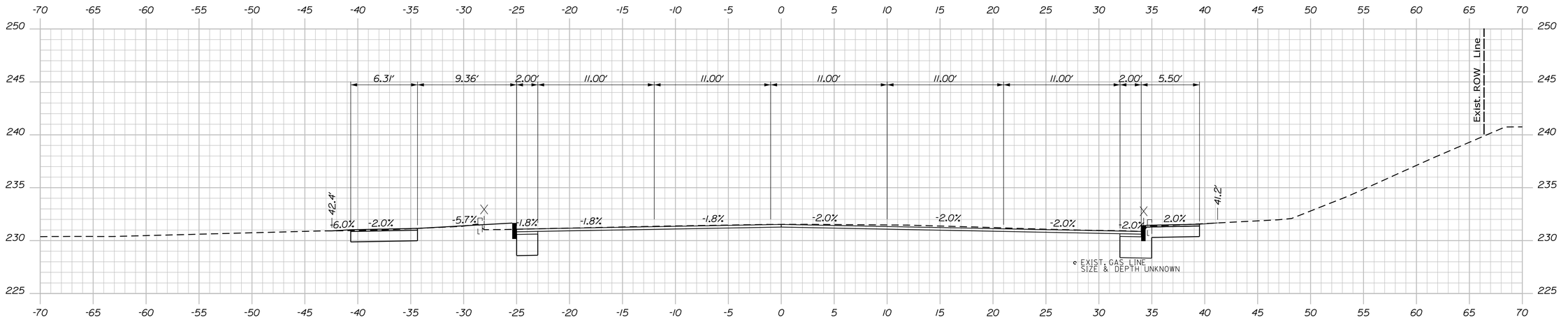
OF 190

Whitten Road Sta. 103+50.00 to Sta. 104+00.00

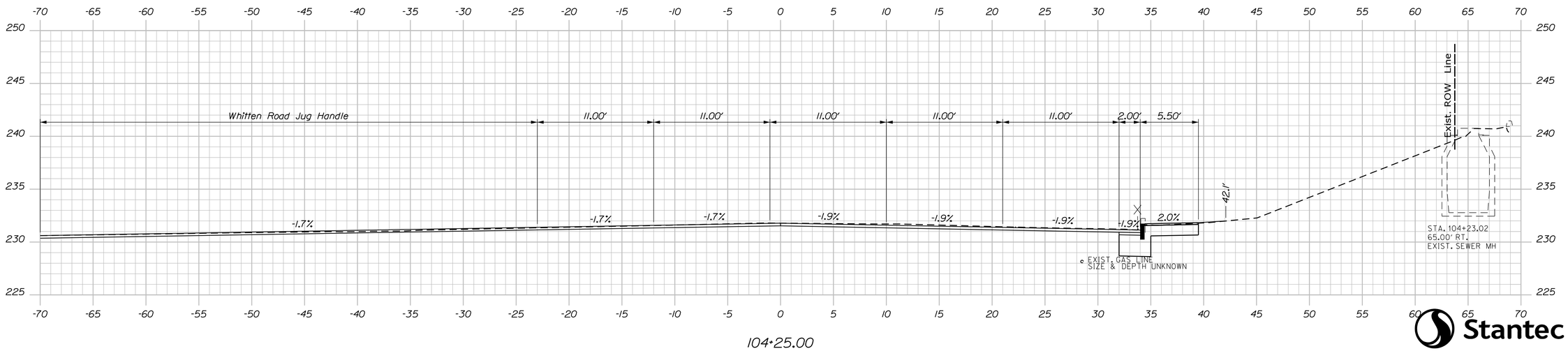
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023



104+75.00



104+50.00



104+25.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
D. EATON		
PROJ. MANAGER	KBJ	JUNE 2023
DESIGN-DETAILED	PLP	
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

74

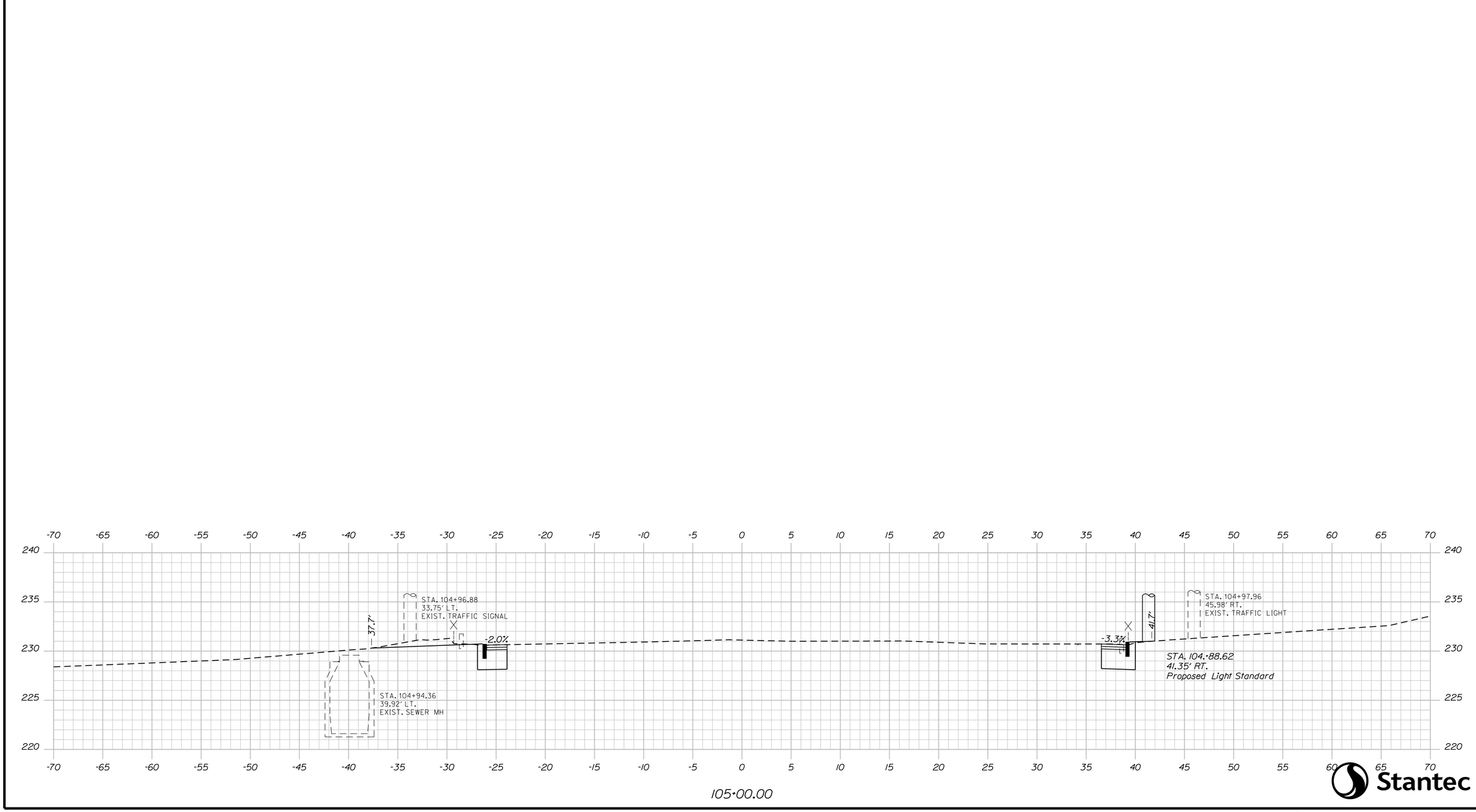
OF 190

Whitten Road Sta. 104+25.00 to Sta. 104+75.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight Division: BRIDGE Date:7/18/2023

Username: kwight Date:7/18/2023

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE



PROJ. MANAGER	D. EATON	BY	DATE
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SIGNATURE

P.E. NUMBER

DATE

WIN **21672.00**

BRIDGE NO. 5808 BRIDGE PLANS

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

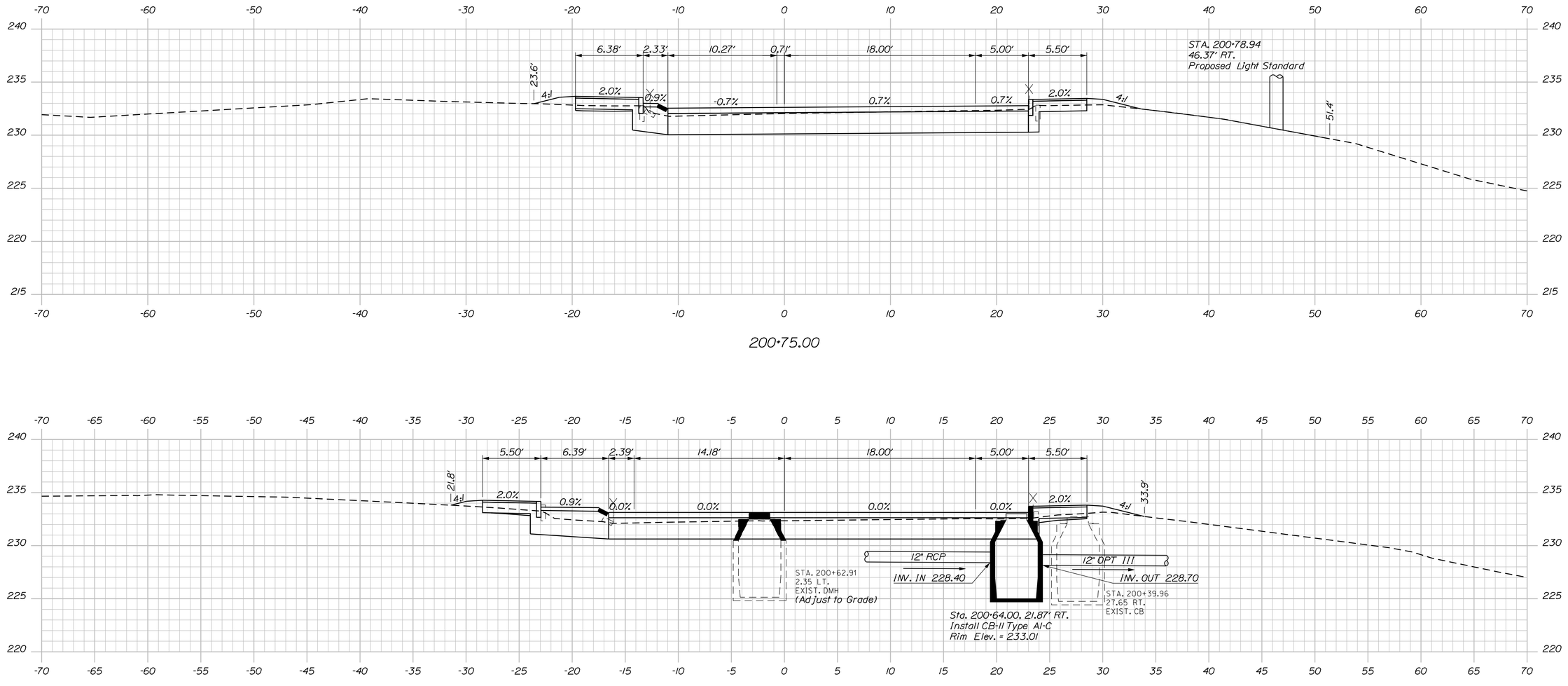
SHEET NUMBER

75

OF 190

Stantec

Whitten Road Sta. 105+00.00 to Sta. 105+00.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

	BY	DATE
D. EATON		
PROJ. MANAGER	KBJ	JUNE 2023
DESIGN-DETAILED	PLP	
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

76

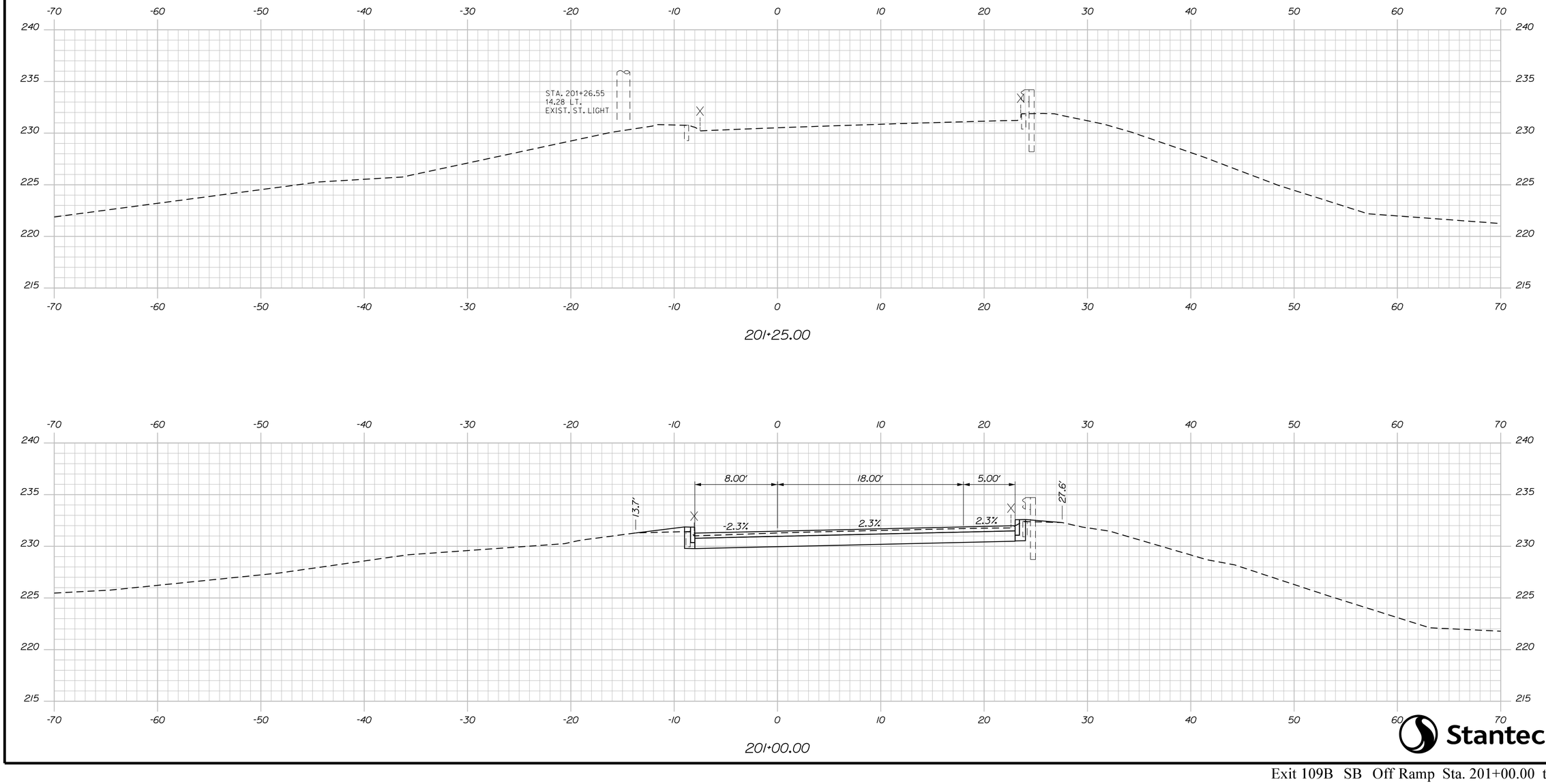
OF 190

Stantec

Exit 109B SB Off Ramp Sta. 200+50.00 to Sta. 200+75.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight
Division: BRIDGE
Date:7/18/2023

Username: kwright
Date:7/18/2023
Division: BRIDGE
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn



Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

PROJ. MANAGER	D. EATON	BY	DATE
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2	LEM		
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REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

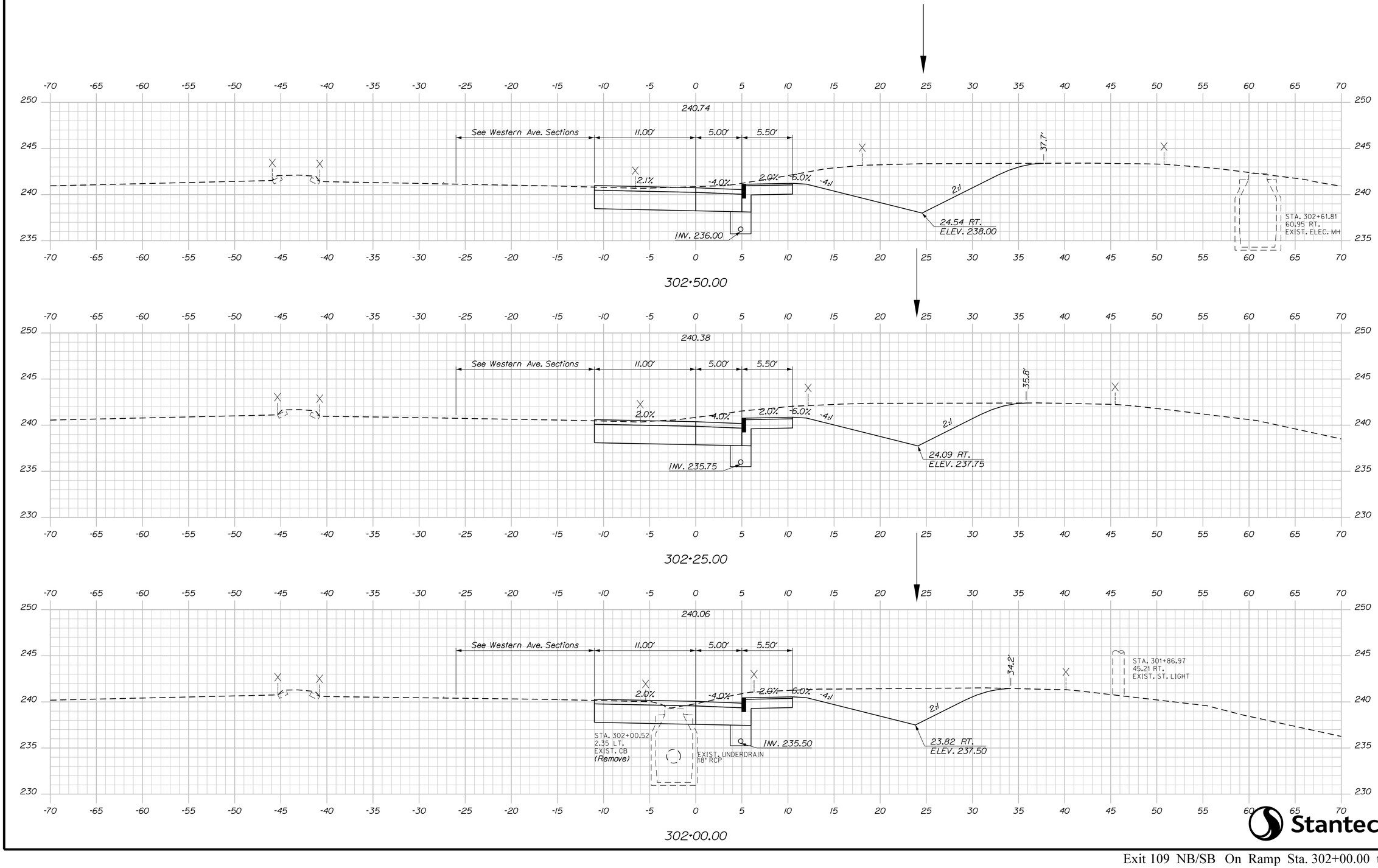
DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

CROSS SECTIONS

SHEET NUMBER
77
OF 190

Exit 109B SB Off Ramp Sta. 201+00.00 to Sta. 201+25.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
D. EATON	KBJ	JUNE 2023
PROJ. MANAGER	LEM	JUNE 2023
DESIGN-DETAILED		
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

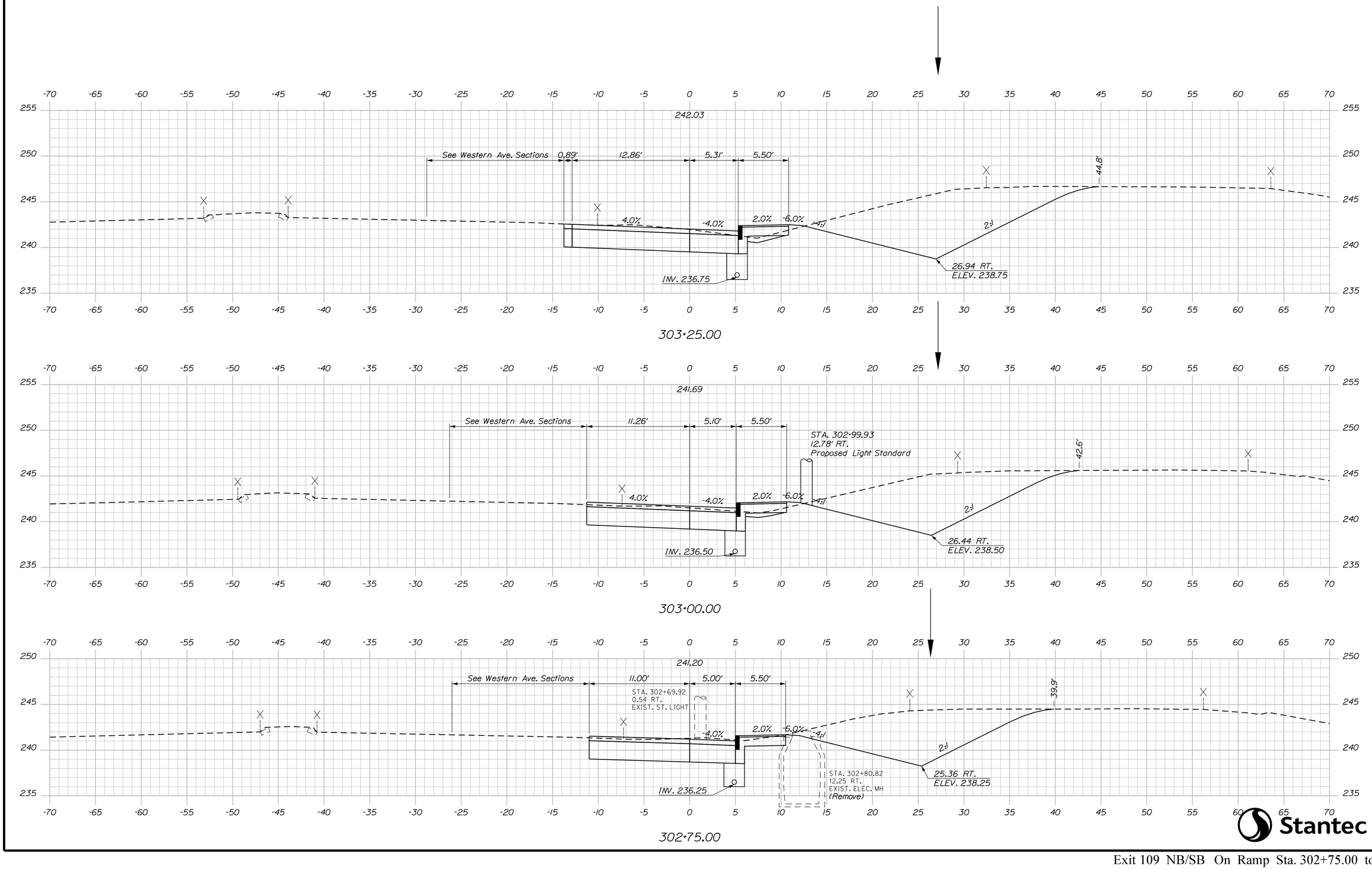
SHEET NUMBER
78
OF 190

Stantec

Exit 109 NB/SB On Ramp Sta. 302+00.00 to Sta. 302+50.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023

Date:7/18/2023
Username: kwight
Division: BRIDGE
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5808
WIN 21672.00
BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

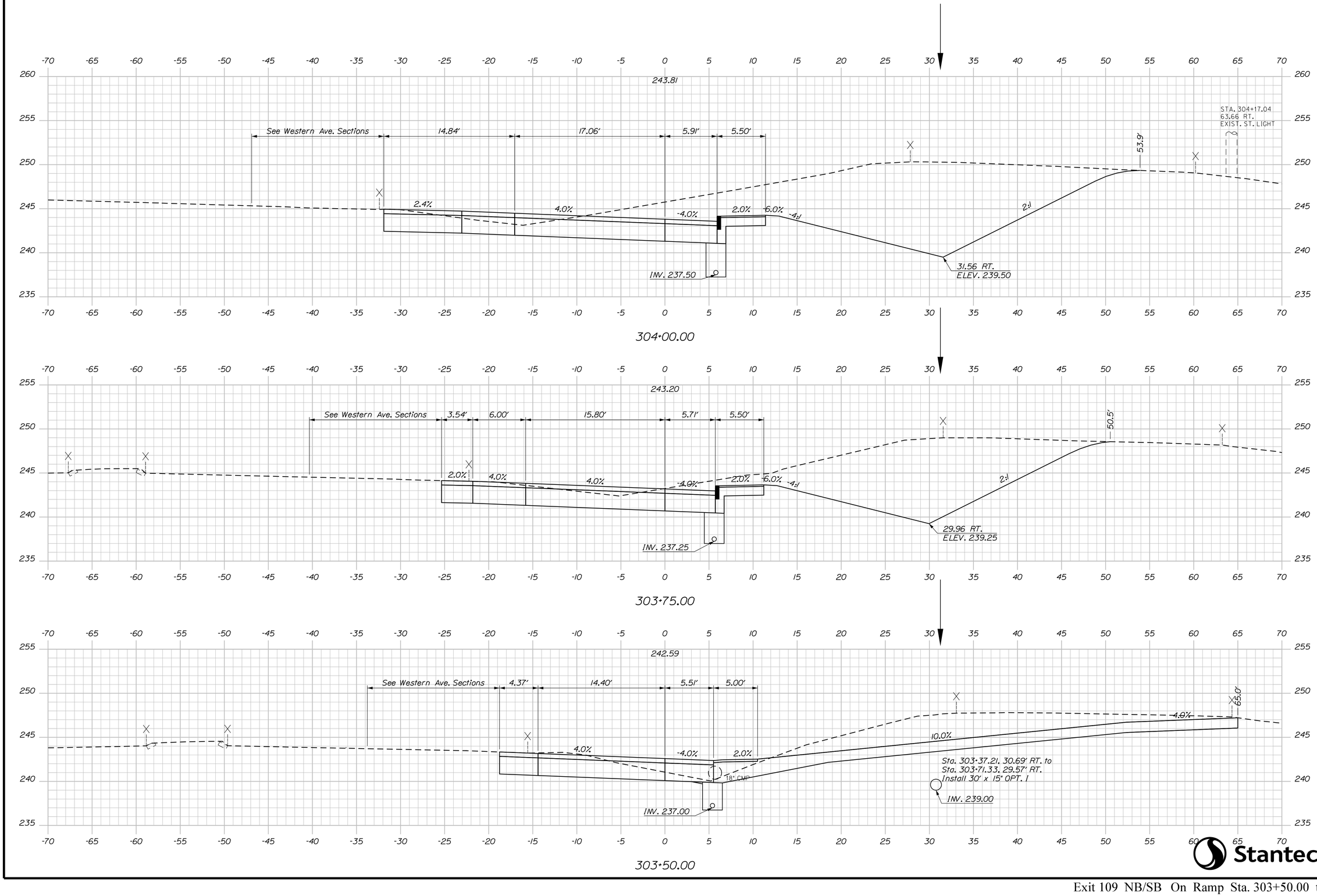
WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER
79
OF 190

Stantec

Exit 109 NB/SB On Ramp Sta. 302+75.00 to Sta. 303+25.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

P.E. NUMBER

DATE

SIGNATURE

	BY	DATE
D. EATON	KBJ	JUNE 2023
PROJ. MANAGER	PLP	
DESIGN-DETAILED	LEM	JUNE 2023
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
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FIELD CHANGES		

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

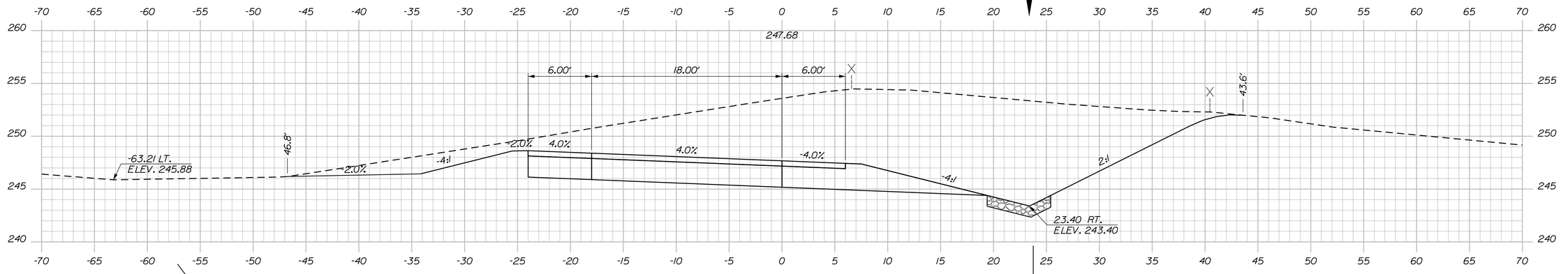
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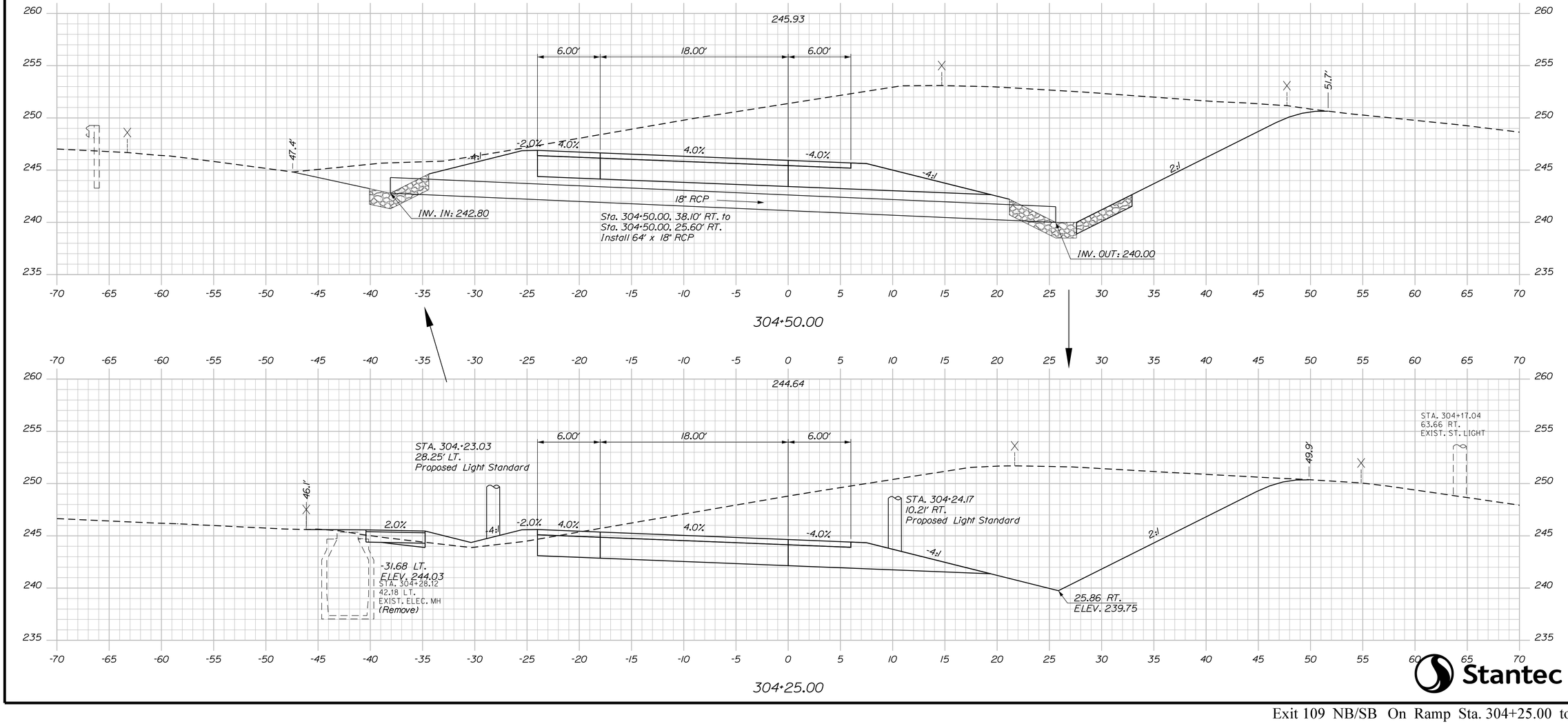
OF 190

Stantec

Exit 109 NB/SB On Ramp Sta. 303+50.00 to Sta. 304+00.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023





Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
PROJ. MANAGER	D. EATON	
DESIGN-DETAILED	PLP	JUNE 2023
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

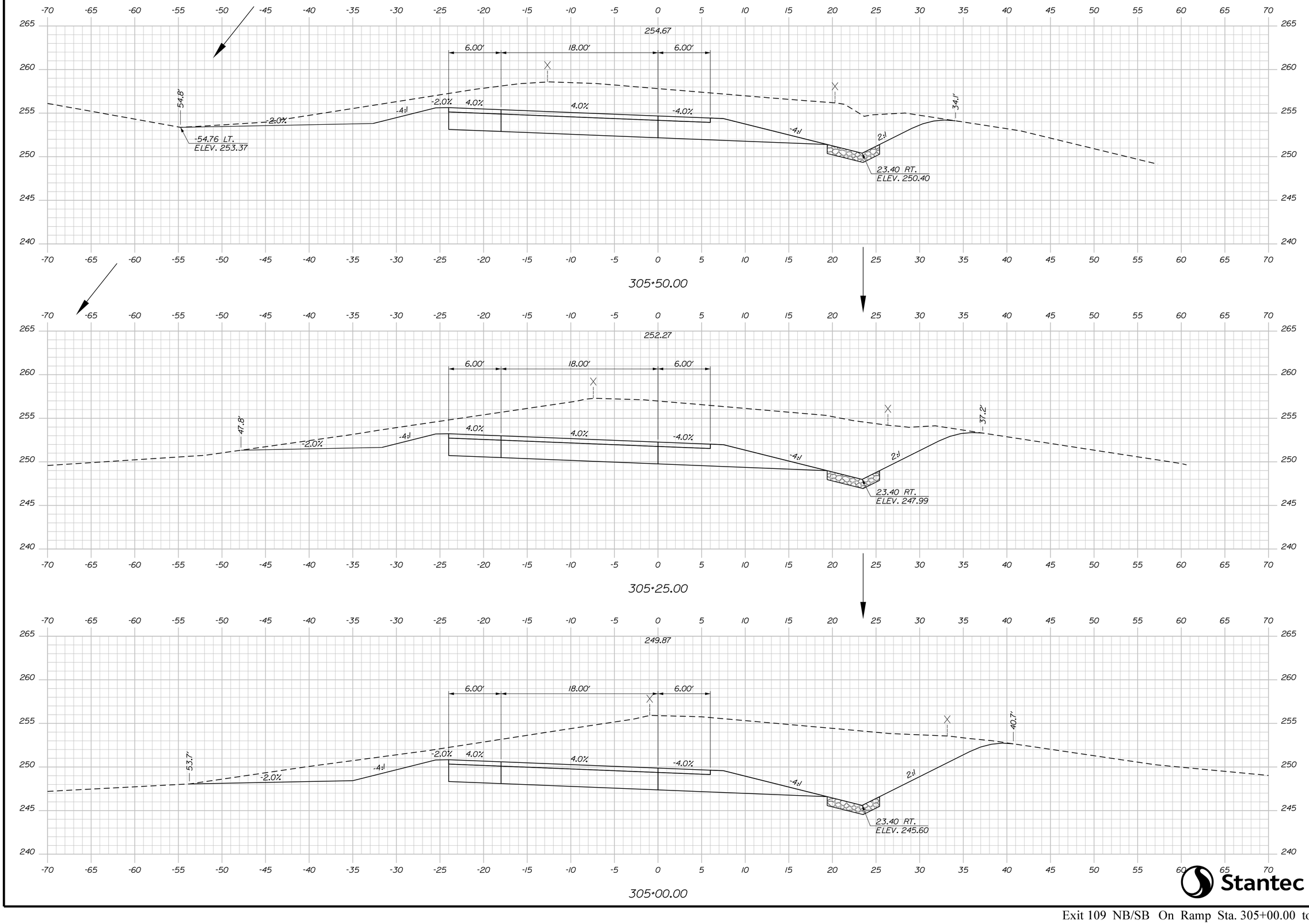
SHEET NUMBER

81

OF 190

Exit 109 NB/SB On Ramp Sta. 304+25.00 to Sta. 304+75.00

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight Division: BRIDGE Date:7/18/2023



Exit 109 NB/SB On Ramp Sta. 305+00.00 to Sta. 305+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

82

OF 190

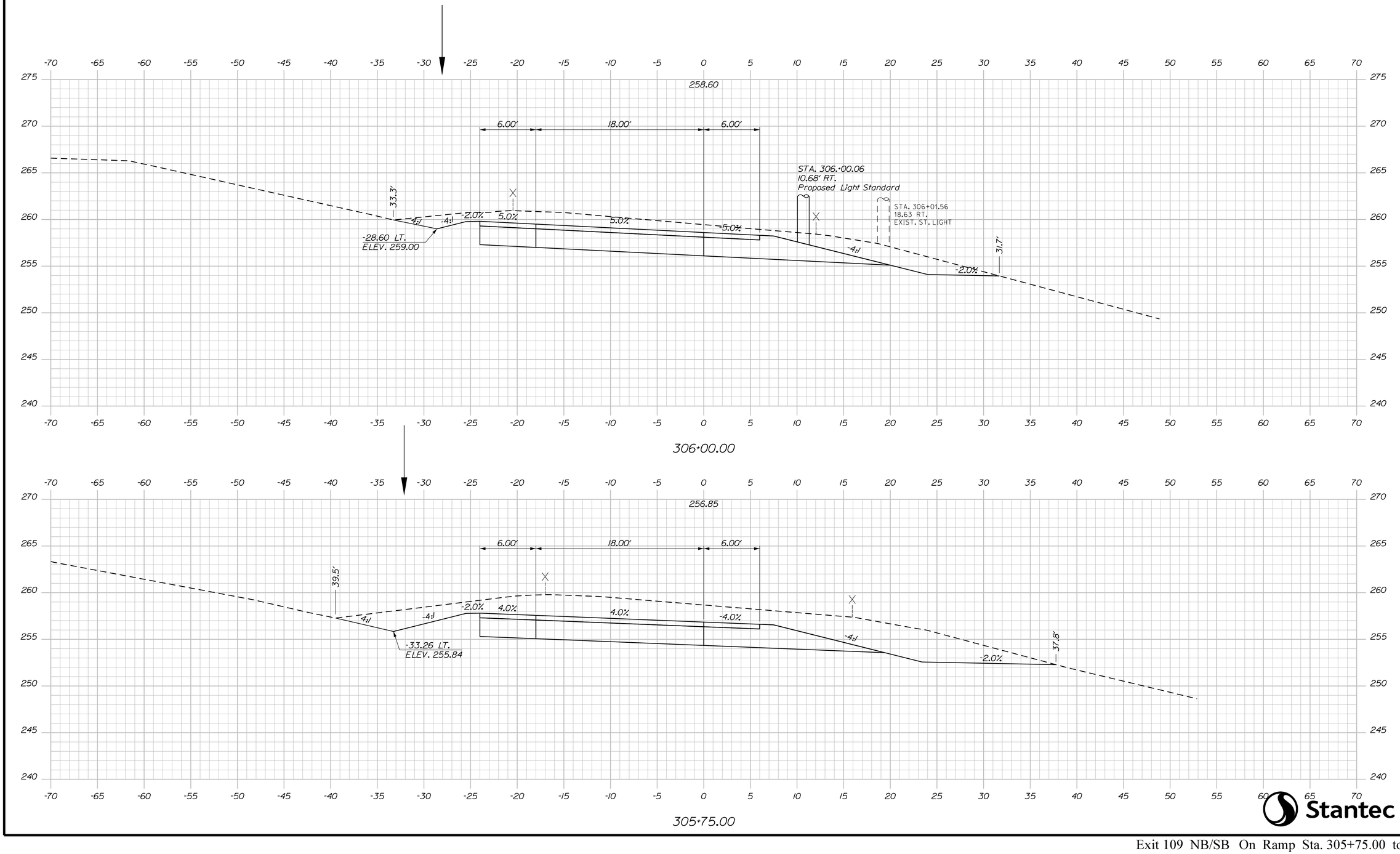
Stantec

Username: kwight Date:7/18/2023

Division: BRIDGE

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn

Date:7/18/2023
Username: kwight
Division: BRIDGE
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

CROSS SECTIONS

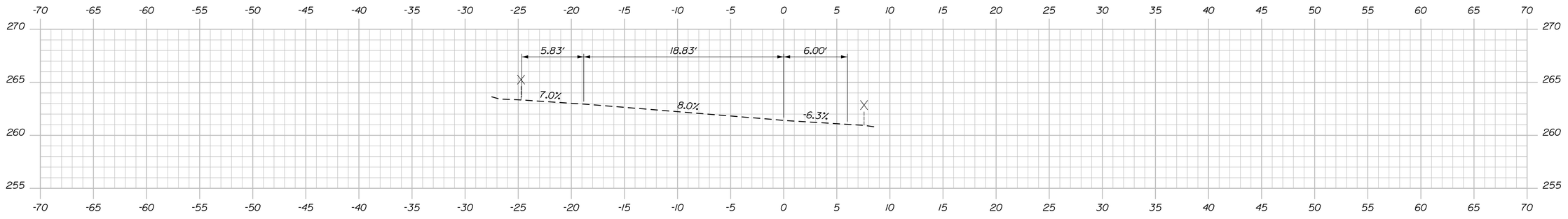
SHEET NUMBER

83

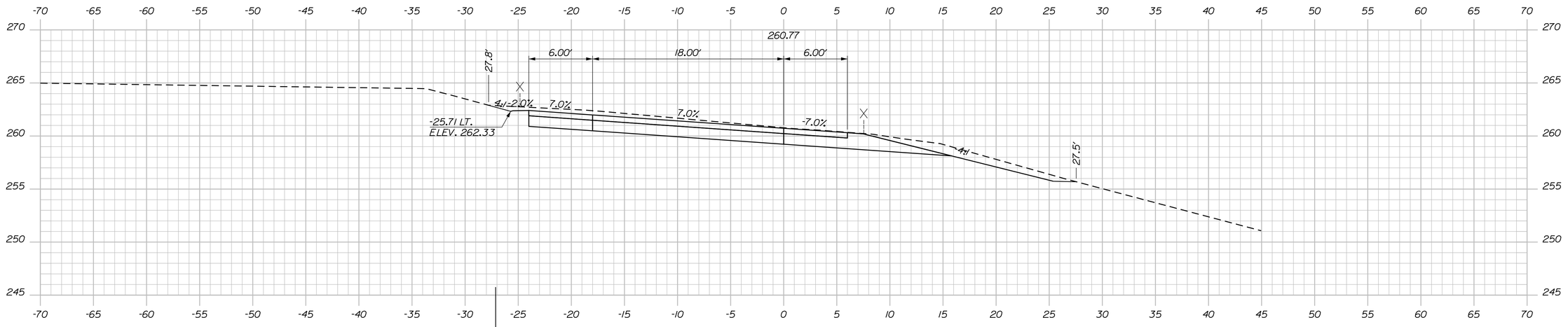
OF 190

Stantec

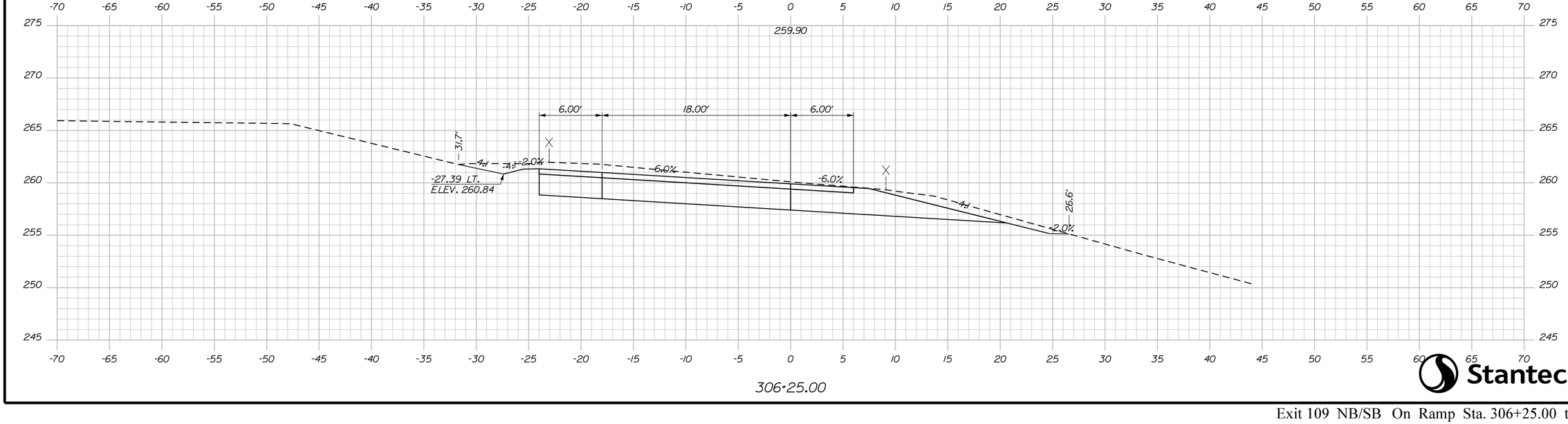
Exit 109 NB/SB On Ramp Sta. 305+75.00 to Sta. 306+00.00



306+75.00



306+50.00



306+25.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

CROSS SECTIONS

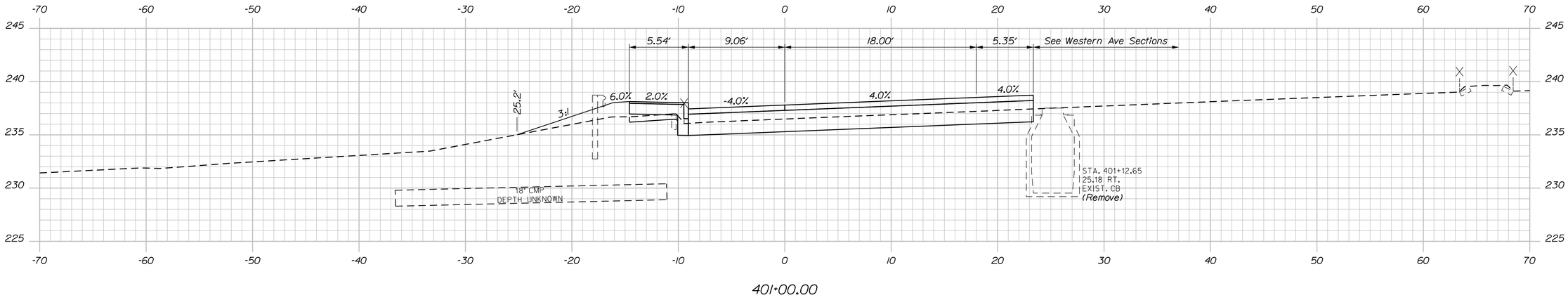
SHEET NUMBER

84

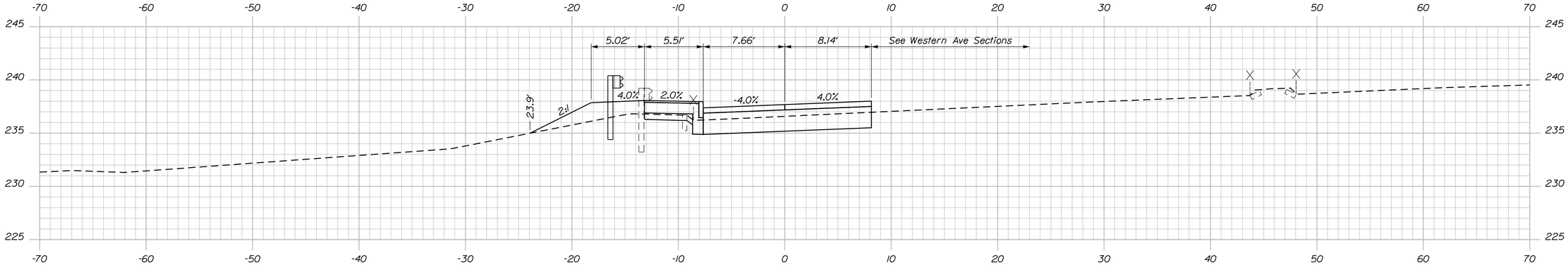
OF 190

Exit 109 NB/SB On Ramp Sta. 306+25.00 to Sta. 306+75.00

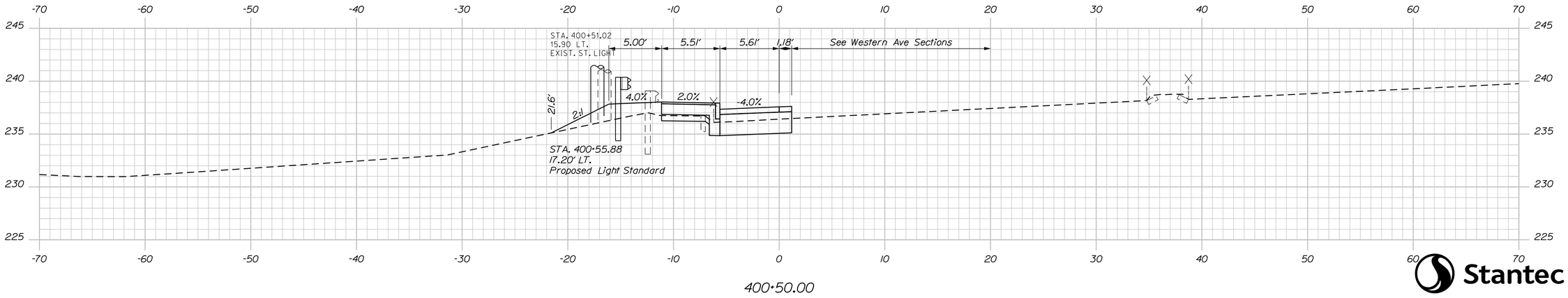
Username: kwight
Date:7/18/2023
Division: BRIDGE
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn



401+00.00



400+75.00



400+50.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

	BY	DATE
D. EATON		
PROJ. MANAGER	KBJ	JUNE 2023
DESIGN-DETAILED	PLP	
CHECKED-REVIEWED	LEM	JUNE 2023
DESIGN2-DETAILED2	LEM	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

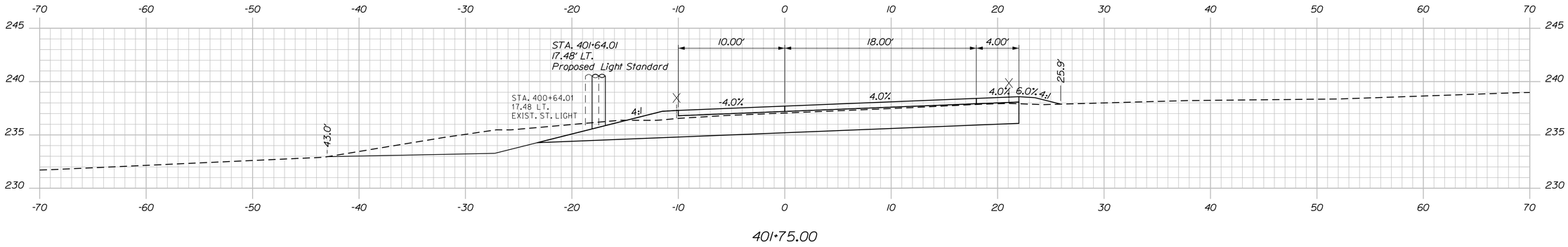
SHEET NUMBER

85

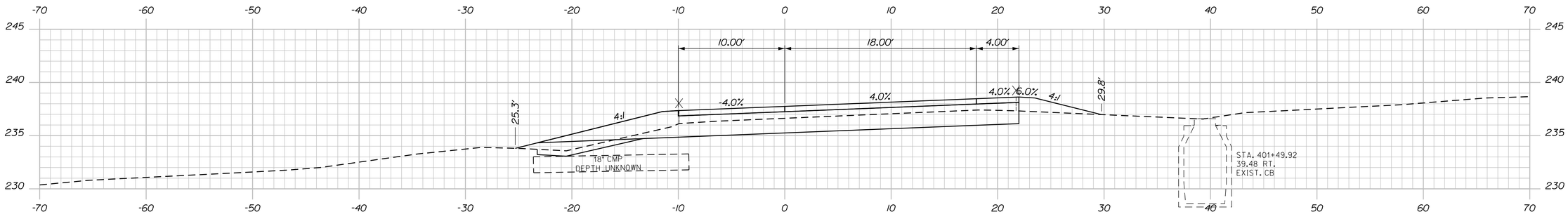
OF 190

Exit 109 NB Off Ramp Sta. 400+50.00 to Sta. 401+00.00

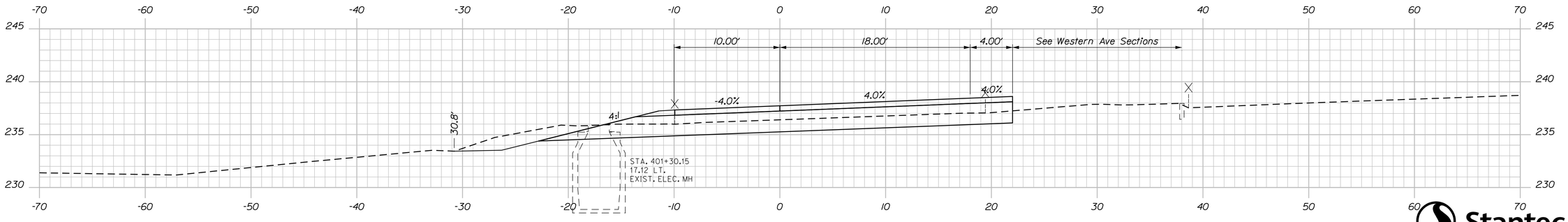
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023



401+75.00



401+50.00



401+25.00

Stantec

Exit 109 NB Off Ramp Sta. 401+25.00 to Sta. 401+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

P.E. NUMBER

DATE

PROJ. MANAGER	D. EATON
DESIGN-DETAILED	PLP
CHECKED-REVIEWED	LEM
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	KBJ	JUNE 2023
REVISIONS 2	LEM	JUNE 2023
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

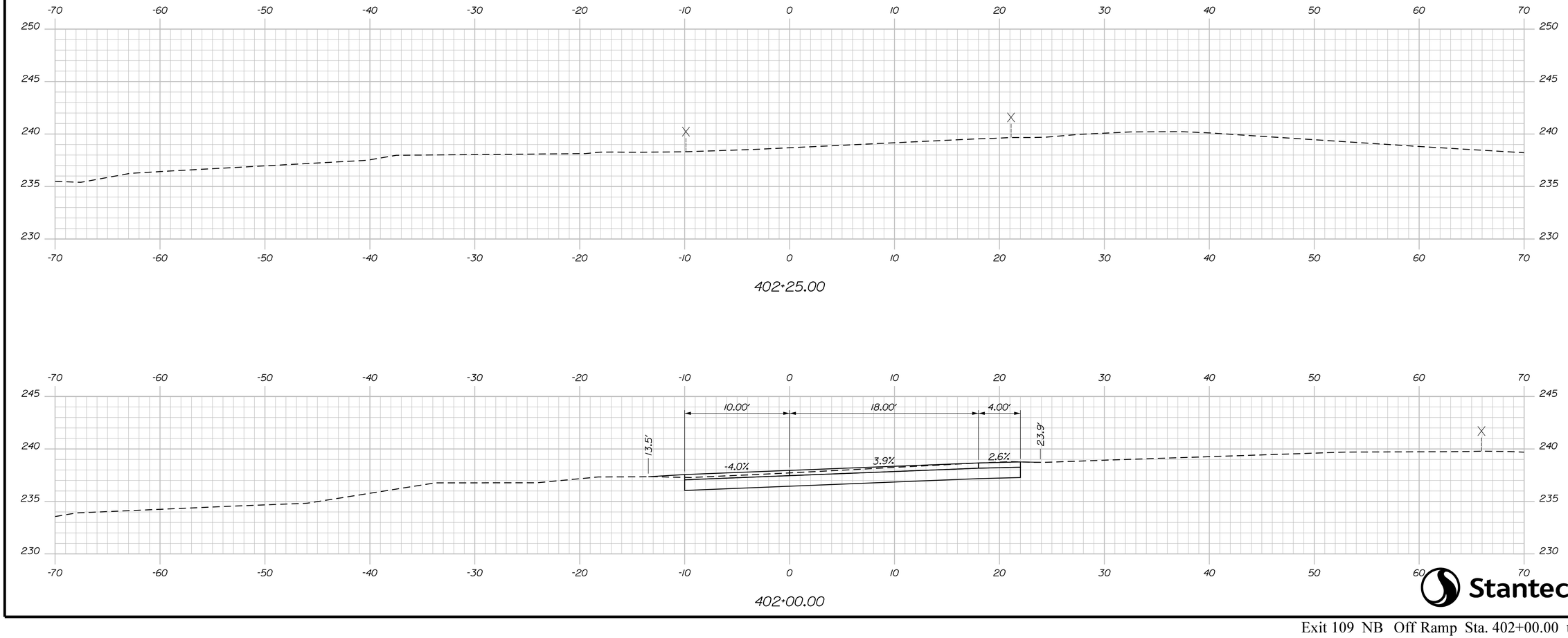
SHEET NUMBER

86

OF 190

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023

Username: kwight Date:7/18/2023
Division: BRIDGE
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn



Stantec

PROJ. MANAGER	D. EATON	BY	DATE
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

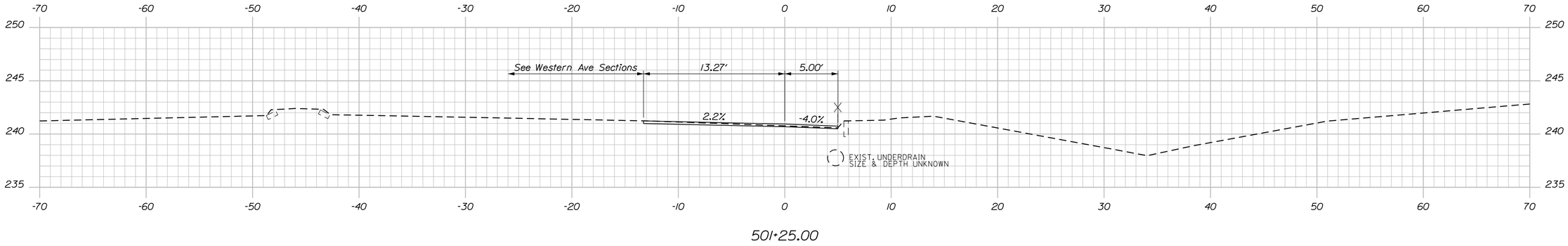
BRIDGE NO. 5808 BRIDGE PLANS

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

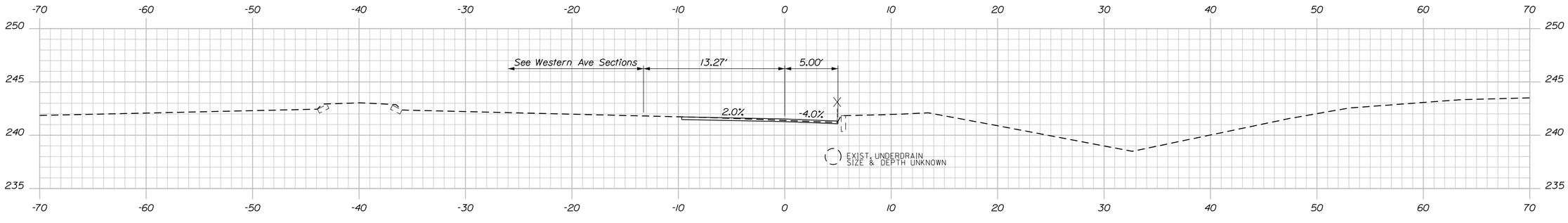
CROSS SECTIONS

SHEET NUMBER
87
OF 190

Exit 109 NB Off Ramp Sta. 402+00.00 to Sta. 402+25.00



501+25.00



501+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

BRIDGE NO. 5808

WIN
21672.00

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	PLP	KBJ	JUNE 2023
CHECKED-REVIEWED	LEM	LEM	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

CROSS SECTIONS

SHEET NUMBER

88

OF 190

Stantec

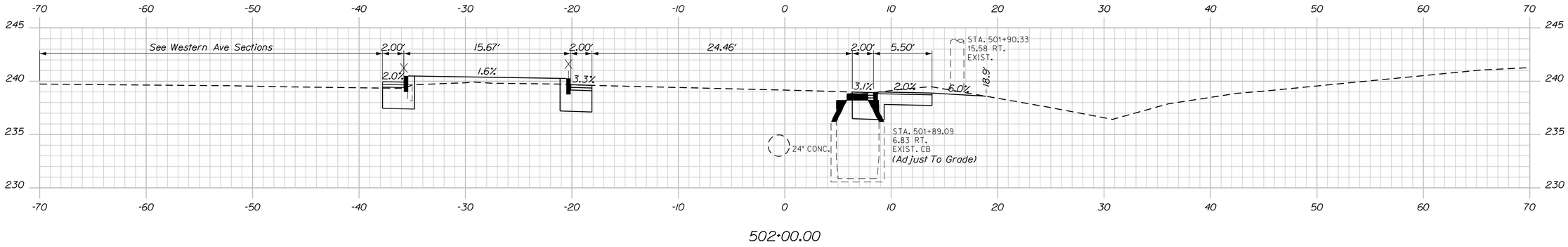
Exit 109B NB/SB On Ramp Sta. 501+00.00 to Sta. 501+25.00

Username: kwight

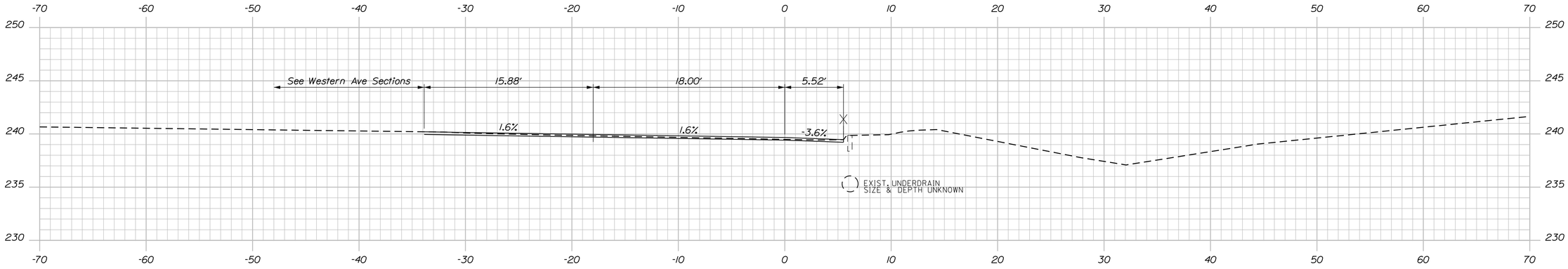
Date:7/18/2023

Division: BRIDGE

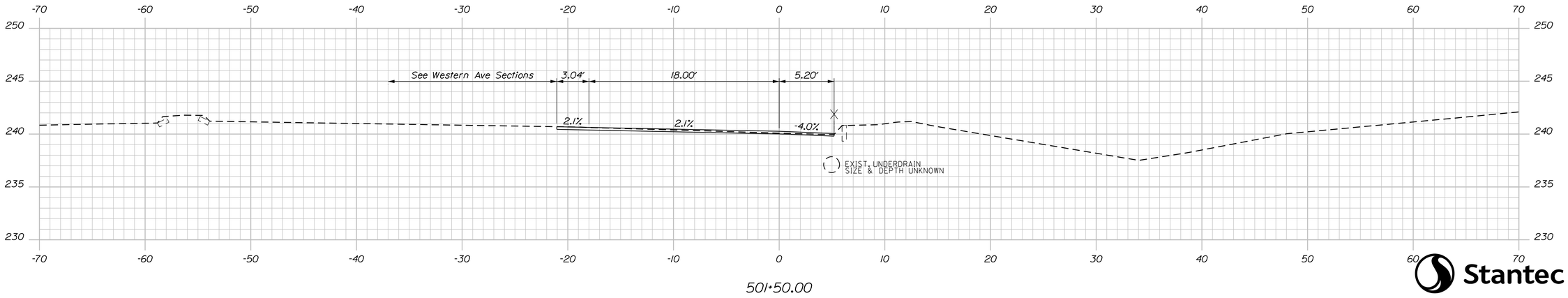
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502+00.00



501+75.00



501+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
D. EATON	KBJ	JUNE 2023
PLP	LEM	JUNE 2023

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

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

89

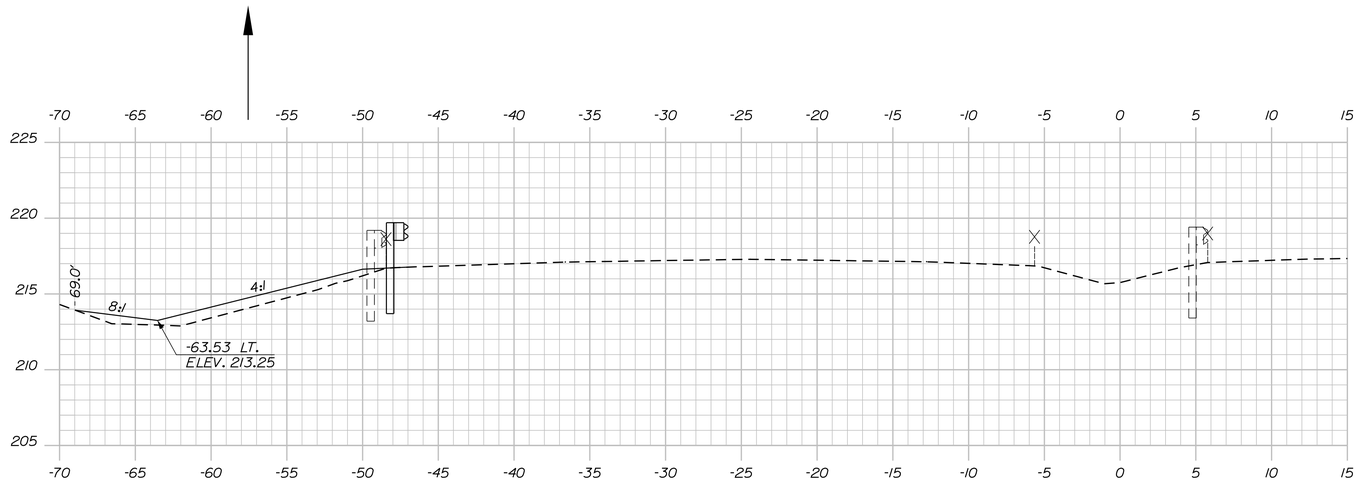
OF 190

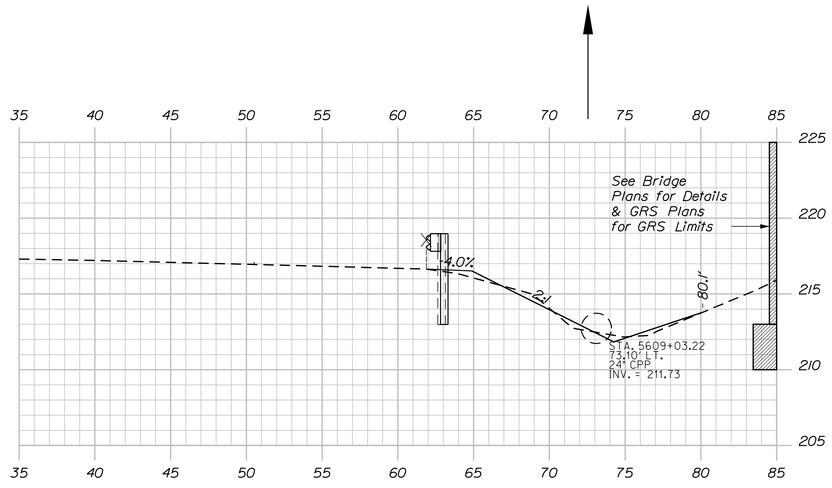
Stantec

Exit 109B NB/SB On Ramp Sta. 501+50.00 to Sta. 502+00.00

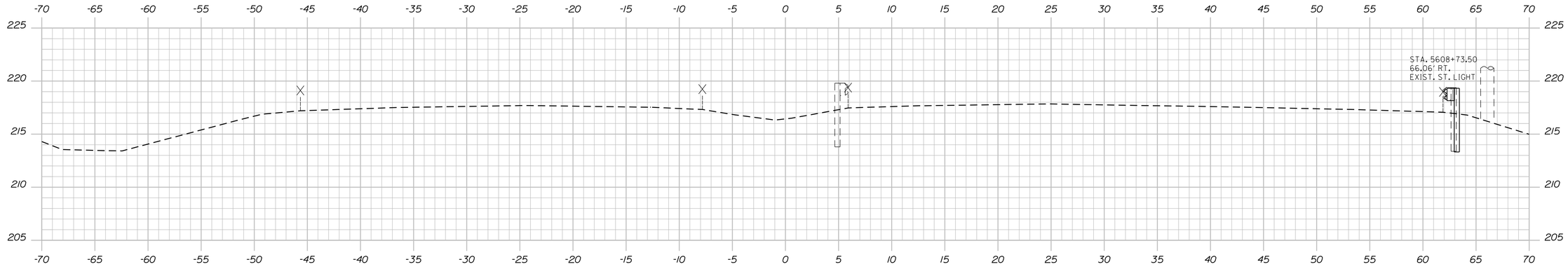
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight Division: BRIDGE Date:7/18/2023

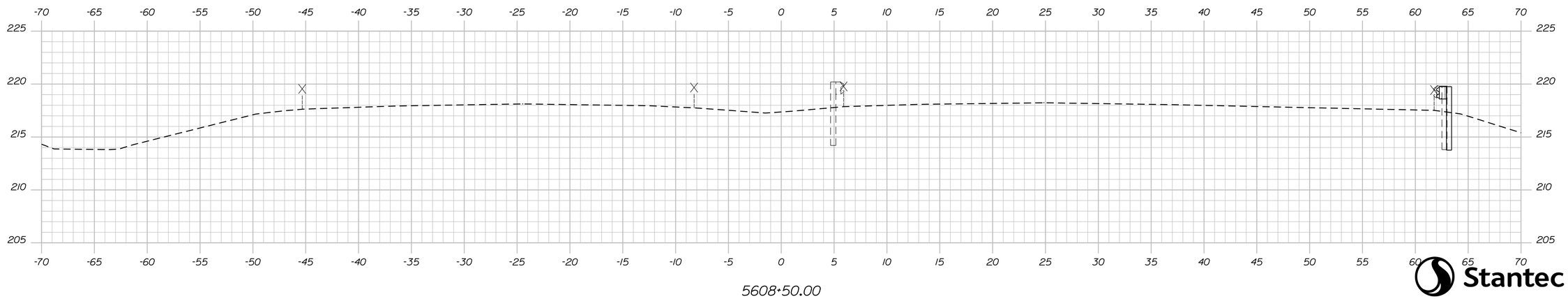




5609+00.00



5608+75.00



5608+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5808 | WIN 21672.00 | BRIDGE PLANS

P.E. NUMBER

DATE

SIGNATURE

	BY	DATE
D. EATON	KBJ	JUNE 2023
PROJ. MANAGER	PLP	
DESIGN-DETAILED	LEM	JUNE 2023
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

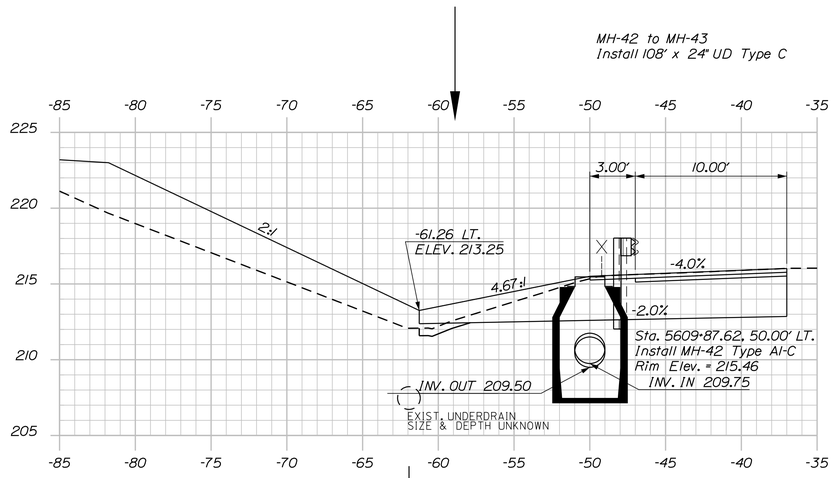
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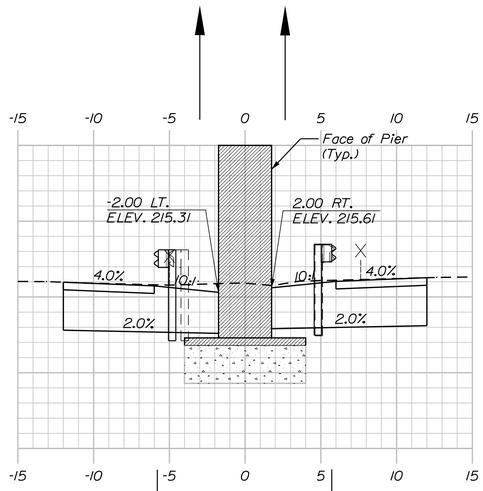
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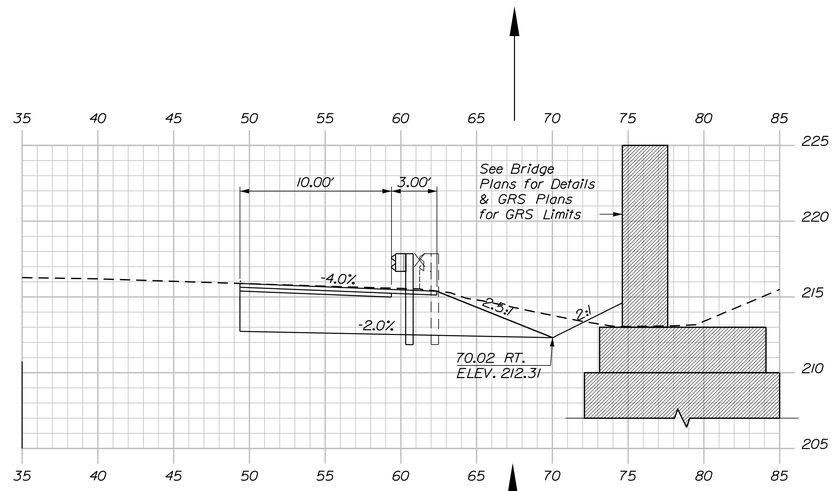
OF 190

Stantec

Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight Date:7/18/2023
Division: BRIDGE







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

	BY	DATE
D. EATON	KBJ	JUNE 2023
PLP	LEM	JUNE 2023

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

SIGNATURE

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DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

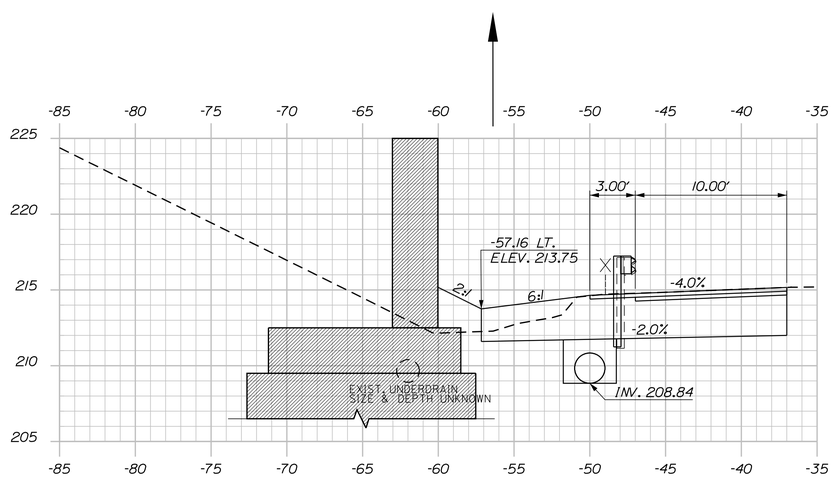
SHEET NUMBER

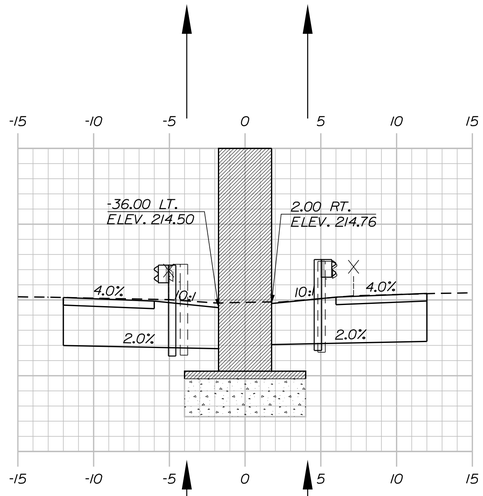
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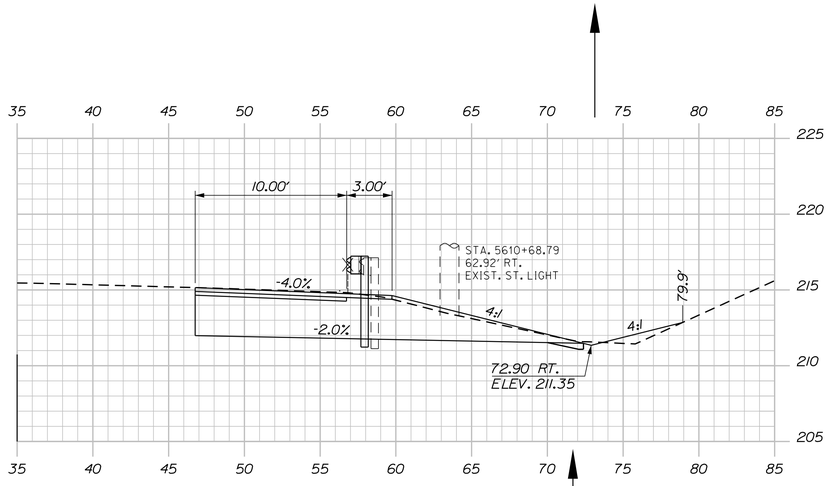
OF 190

Stantec

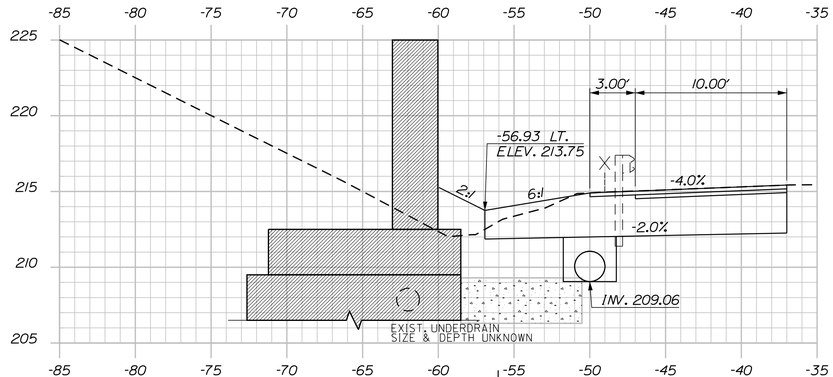
Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Division: BRIDGE Username: kwight Date:7/18/2023

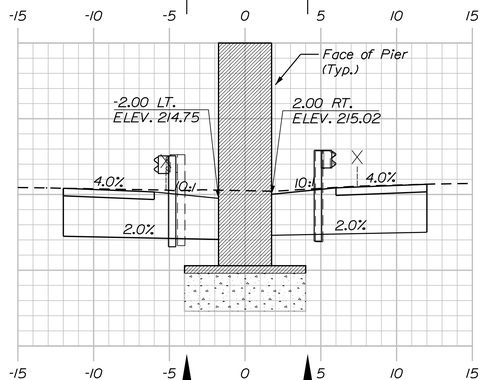


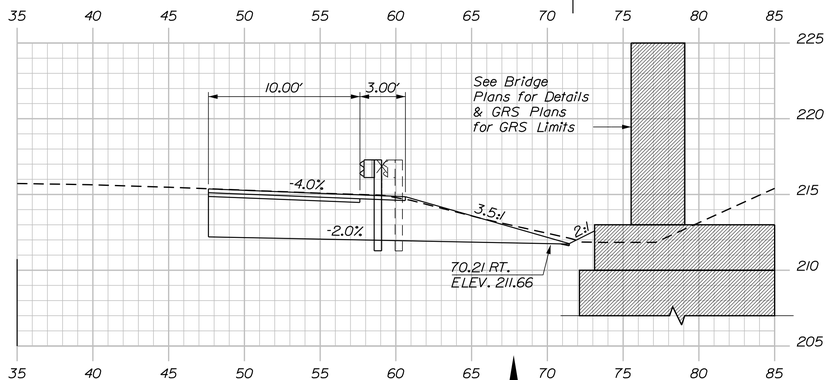




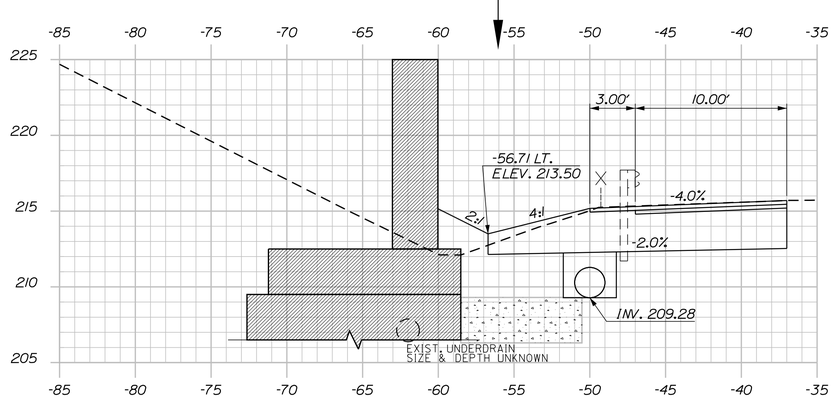
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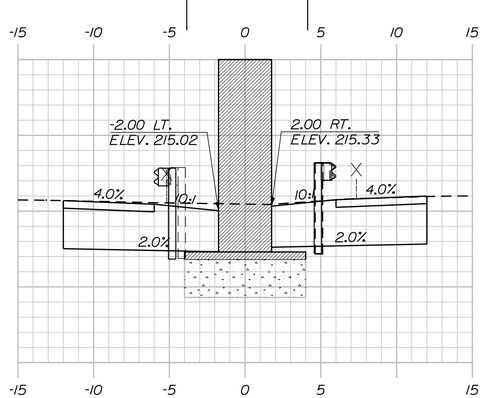


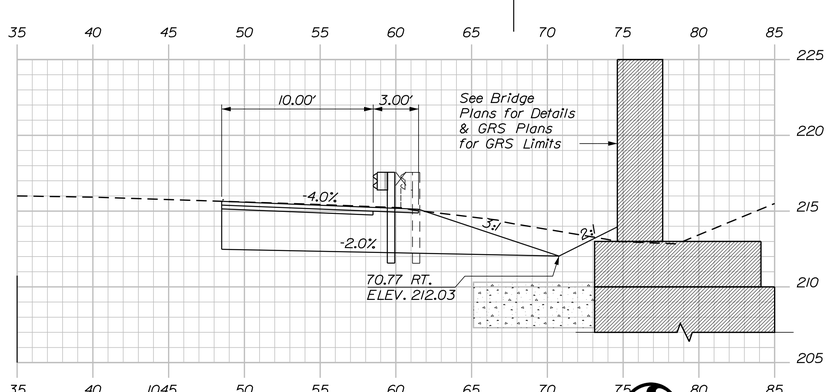




5610+25.00







5610+00.00

Stantec

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00

BRIDGE NO. 5808 BRIDGE PLANS

	BY	DATE
D. EATON		
PROJ. MANAGER	KBJ	JUNE 2023
DESIGN-DETAILED	PLP	JUNE 2023
CHECKED-REVIEWED	LEM	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

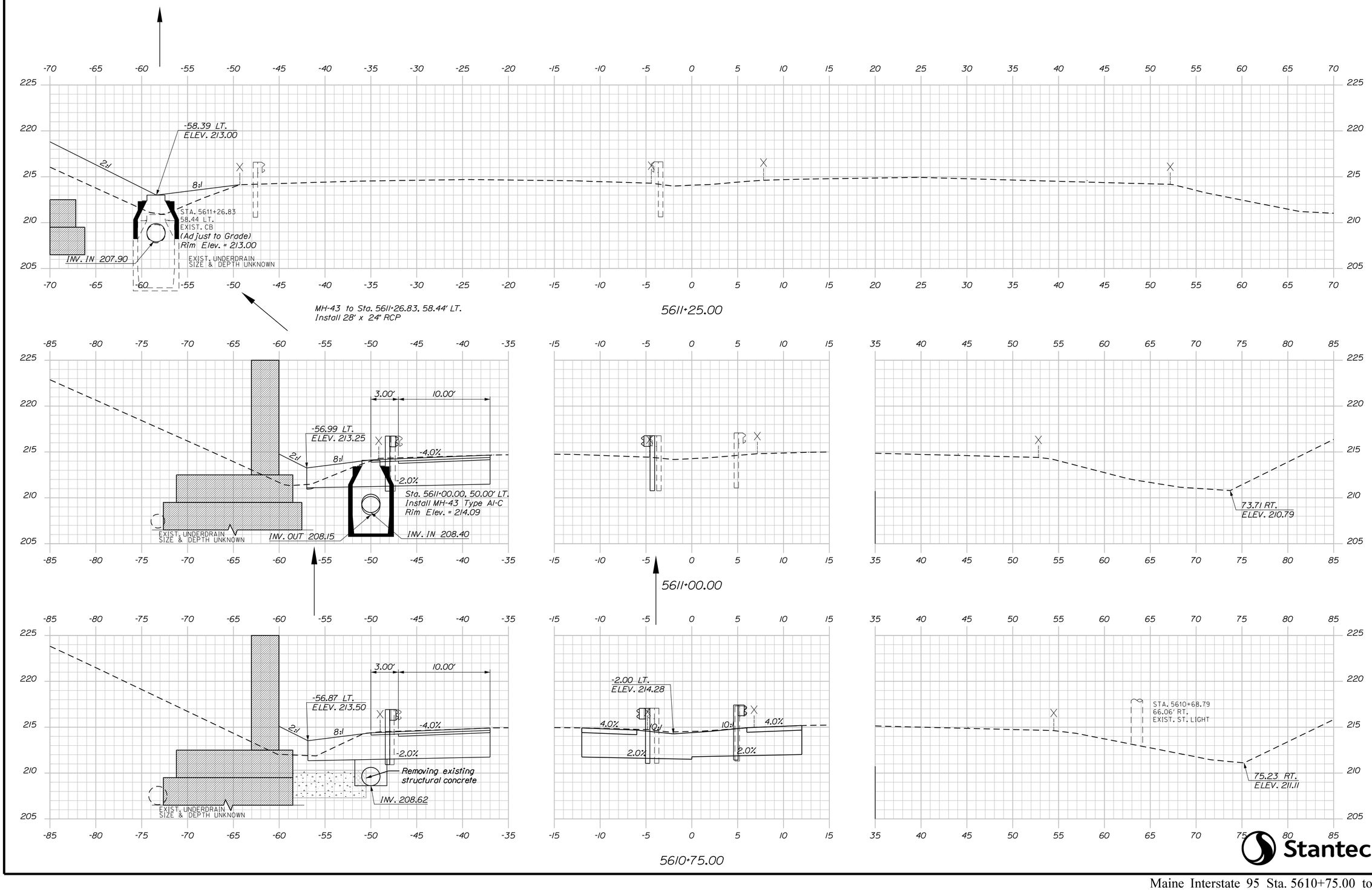
CROSS SECTIONS

SHEET NUMBER

92

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Filename: ...\00\HIGHWAY\MSTA\xsect.dgn Username: kwight Division: BRIDGE Date:7/18/2023



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

BRIDGE NO. 5808

WIN
21672.00

P.E. NUMBER

DATE

SIGNATURE

	BY	DATE
D. EATON	KBJ	JUNE 2023
PROJ. MANAGER	PLP	
DESIGN-DETAILED	LEM	JUNE 2023
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

CROSS SECTIONS

SHEET NUMBER

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ABUTMENT NOTES

1. The maximum factored applied footing pressure is 20.4 ksf at the Strength Limit State.

2. Reinforcing steel shall have a minimum concrete cover of 2 inches in the walls and 3 inches in the footings unless otherwise noted.

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

4. Cover joints where waterstops are not required in accordance with Standard Details Section 502.

5. Install Drainage Geocomposite behind the abutments and wingwalls up to the approach slab seat elevation in accordance with Special Provision Section 620. Drainage Geocomposite.

6. When bedrock protrudes above the bottom of footing, the footing may be raised and the vertical reinforcing may be cut in the field with the approval of the Resident. The minimum footing elevations are shown on the Plans and shall not be lowered without prior approval of the Engineer of Record. Payment for adjusting the footing elevations and reinforcing steel will be considered incidental to the related Contract Items. No separate payment will be made.

7. At the option of the Resident, bedrock which protrudes above a horizontal plane 12 inches below the proposed bottom of footing elevation may be removed. Payment for bedrock removal shall be made under Item No. 206.092 Structural Rock Excavation Major Structures.

8. Abutment concrete shall be placed on bedrock cleaned of all weathered rock, loose fractured rock and soil. The bedrock subgrade shall be confirmed to be relatively level. Where the bedrock slope exceeds 4H:1V, the bedrock surface shall be benched to create level steps or made completely level. The Resident shall approve the bedrock subgrade prior to the placement of the subfooting or footing concrete.

9. Prior to placing abutment concrete, the bedrock subgrade shall be washed with high-pressure water and air.

10. The lower portions of the abutments and wingwalls are intended to be constructed behind the existing end piers in the bridge pre-closure period. Refer to GRS Details for excavation limitations to maintain stability of existing abutment foundations. The upper portions of the abutment stem and wingwalls (above the construction joint) are intended to be installed subsequent to the removal of the existing bridge superstructure. Construction of the north wingwalls is anticipated to be subsequent to removal of the temporary detour bridge. The contractor may propose alternate joint locations to suit the phasing. No separate payment will be made.

11. See Pier Sections for Recess Detail.

12. Chamfer all acute corners 2"x2". Unless noted otherwise.

13. See GRS Limits and Grouting Plan for grouting layout.

SUBFOOTING NOTES

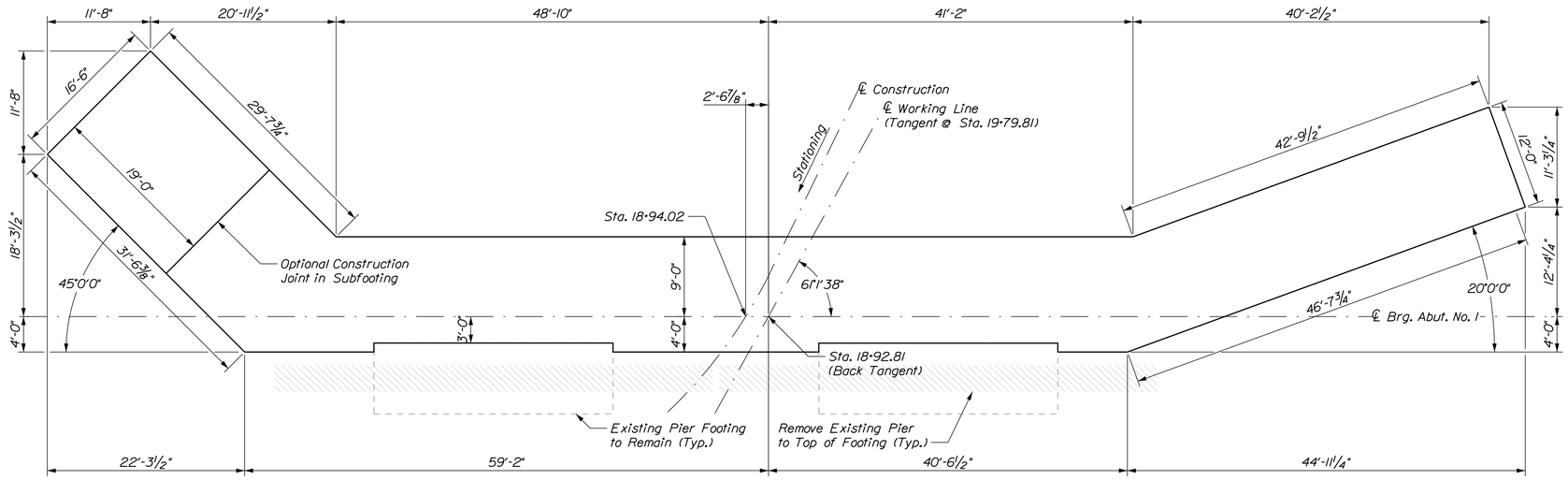
1. When sheet piling is used for subfooting temporary structural support, appropriate rolled corners shall be used, and the inside face of the sheet piling shall be at or outside of the subfooting concrete dimensions shown.

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

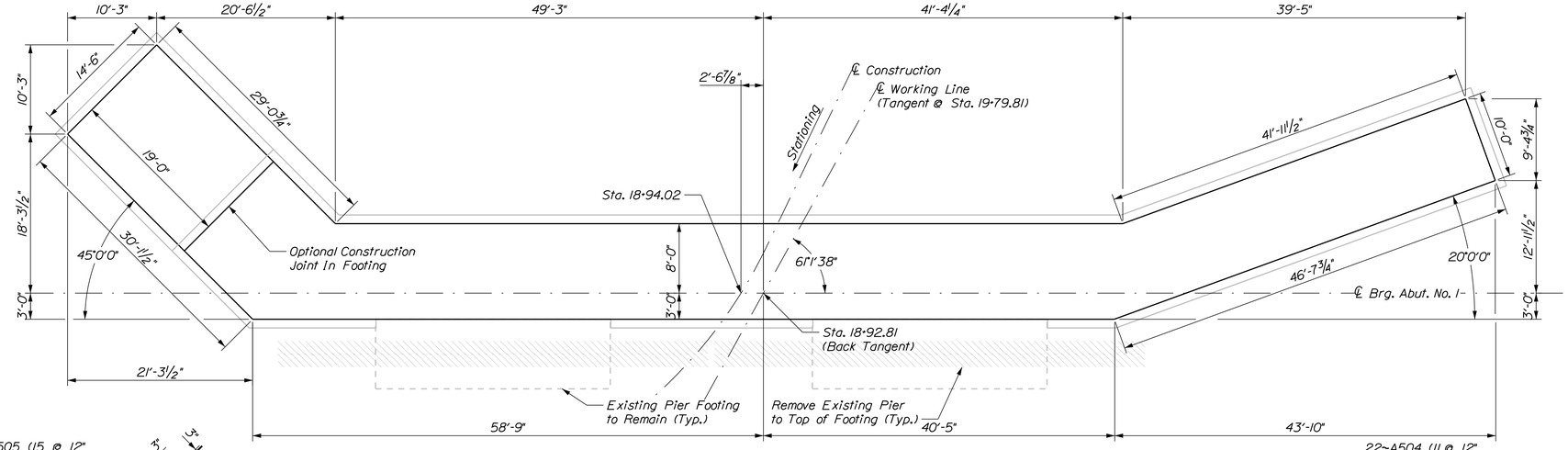
3. The horizontal pay limit for the subfooting concrete will be to the dimensions shown on the plans. No additional payment will be made for concrete placed outside these limits.

4. Subfootings shall be Concrete Fill.

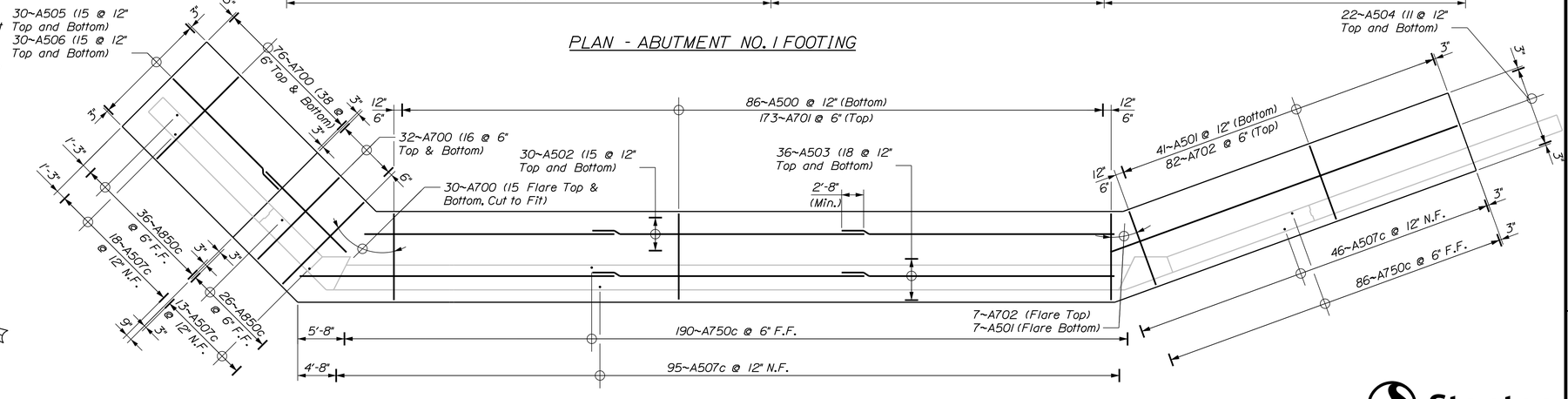
5. The subfooting concrete shall be placed in the dry by controlling/removing water from minor seeps or surface water inflow.



PLAN - ABUTMENT NO. 1 SUBFOOTING



PLAN - ABUTMENT NO. 1 FOOTING



PLAN ~ ABUTMENT NO. 1 FOOTING REINFORCING

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

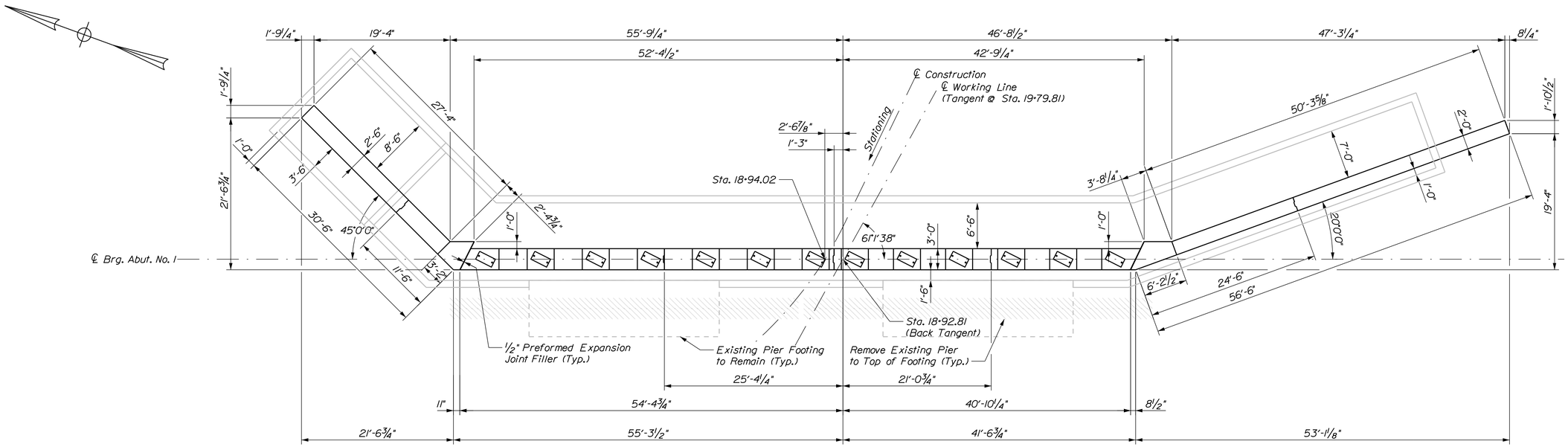
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CHECKED-REVIEWED	TEK	BY	SW / TEK
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DESIGN3-DETAILED3		SIGNATURE	
REVISIONS 1		P.E. NUMBER	
REVISIONS 2			
REVISIONS 3		DATE	
REVISIONS 4			
FIELD CHANGES			

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

ABUTMENT NO. 1 FOOTING & SUBFOOTING PLAN & REINF.

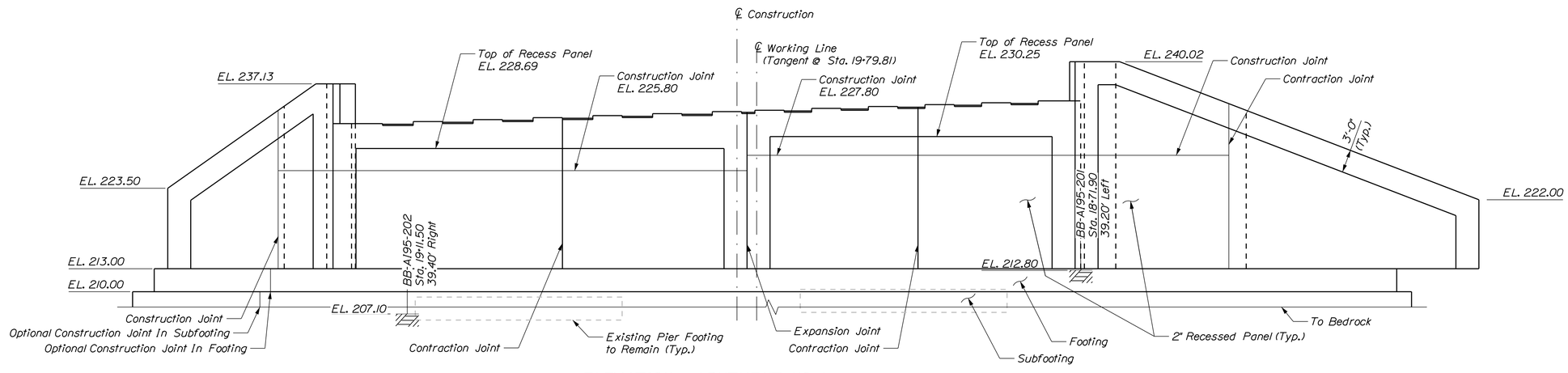
SHEET NUMBER
94
OF 190

Filename: ...\MSTA_Abut_No1_Footing.dgn Username: kwight Division: BRIDGE Date:7/18/2023



PLAN - ABUTMENT NO. 1

Curved Girder Alternate Bearing Seat Shown.
See Beam Seat Details for More Information



ELEVATION - ABUTMENT NO. 1

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

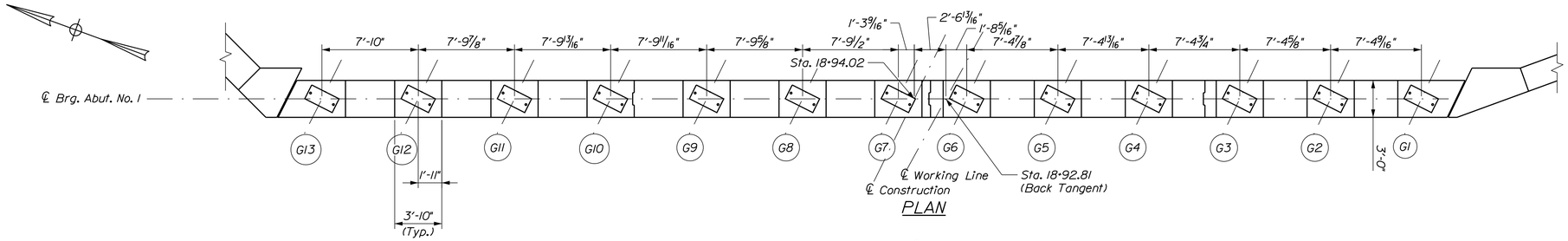
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DESIGN3-DETAILED3			P.E. NUMBER
REVISIONS 1			
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

ABUTMENT NO. 1
PLAN AND ELEVATION

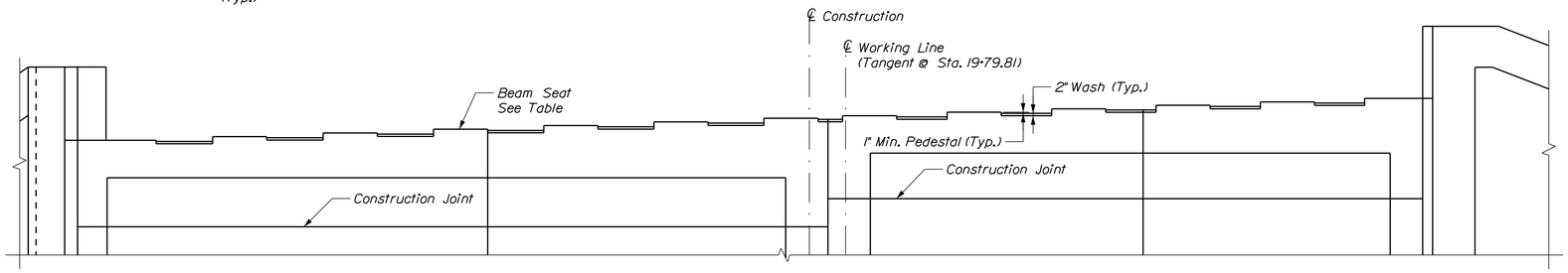
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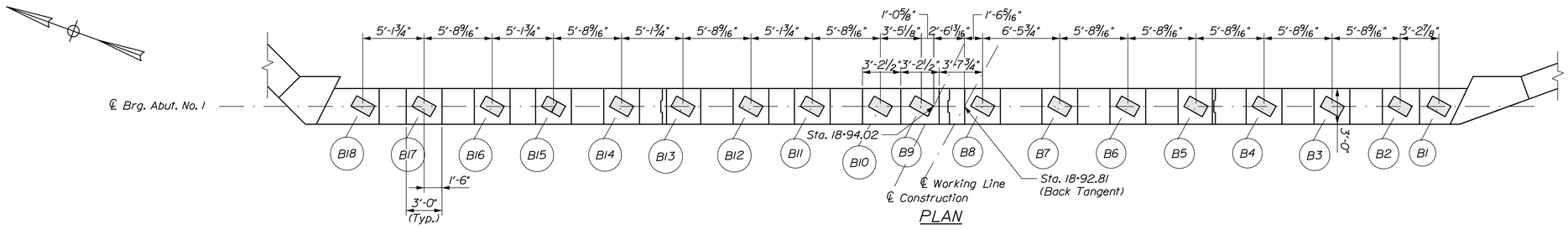
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G1	234.91
G2	234.66
G3	234.42
G4	234.17
G5	233.93
G6	233.68
G7	233.50
G8	233.24
G9	232.98
G10	232.72
G11	232.46
G12	232.20
G13	231.94



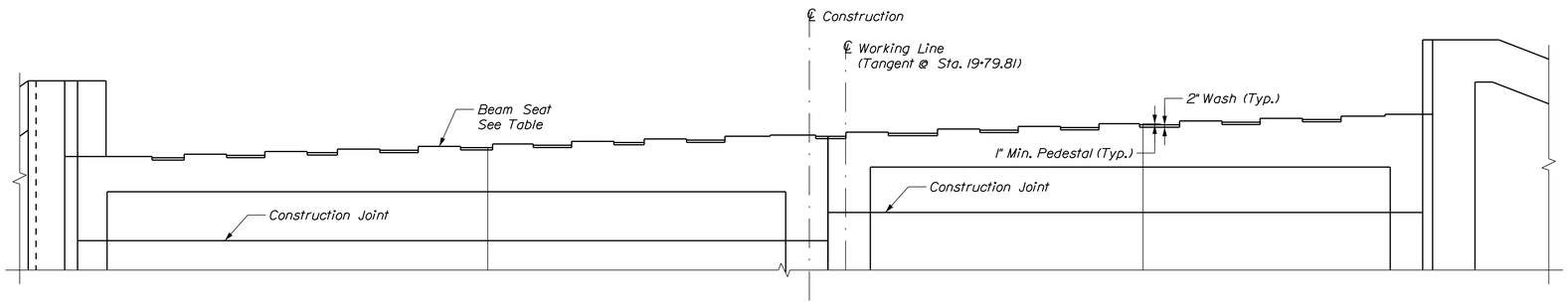
ELEVATION

ABUTMENT 1 - BEAM SEAT DETAILS - CURVED GIRDER ALTERNATE



PLAN

BEAM SEAT ELEVATIONS	
B1	234.75
B2	234.64
B3	234.46
B4	234.27
B5	234.08
B6	233.89
B7	233.70
B8	233.48
B9	233.28
B10	233.20
B11	233.01
B12	232.84
B13	232.65
B14	232.48
B15	232.29
B16	232.12
B17	231.93
B18	231.76



ELEVATION

ABUTMENT 1 - BEAM SEAT DETAILS - PBU ALTERNATE

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WIN 21672.00

BRIDGE NO. 5808

BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	SW	SW	JUNE 2023
CHECKED-REVIEWED	TEK	TEK	JUNE 2023
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

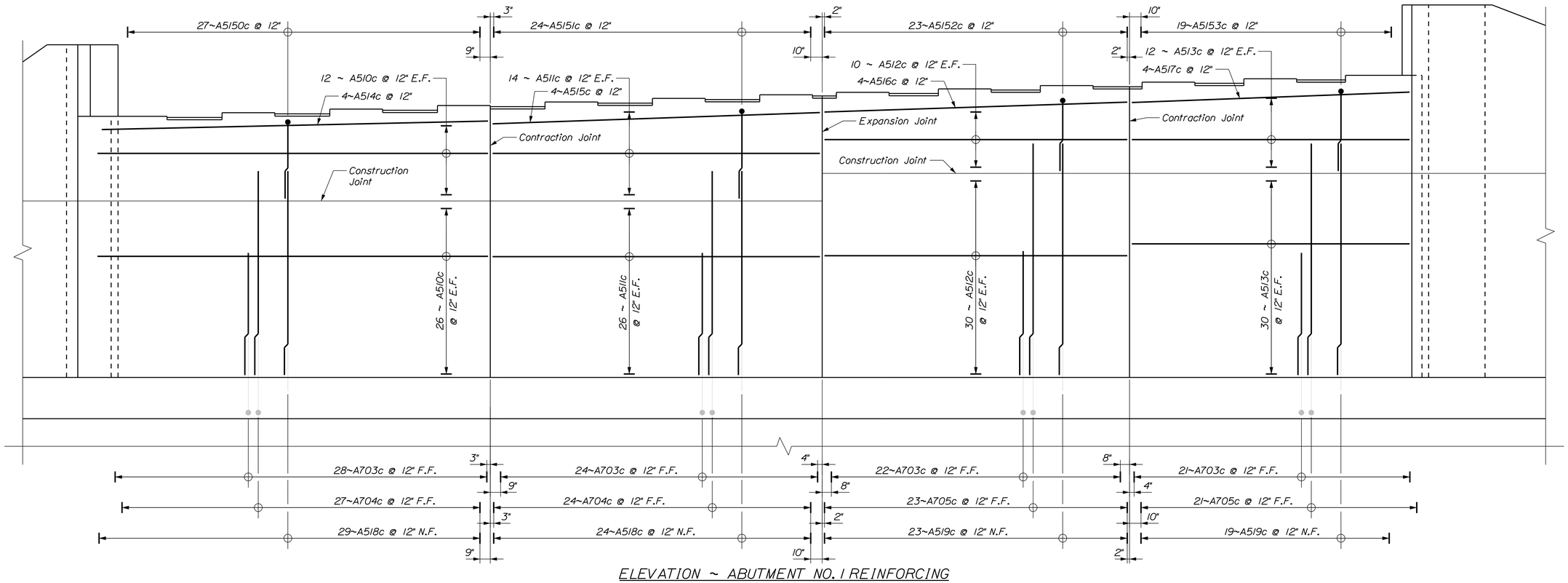
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BEAM SEAT DETAILS

SHEET NUMBER

96

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ELEVATION ~ ABUTMENT NO.1 REINFORCING

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STATE OF MAINE
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WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

P.E. NUMBER
DATE
SIGNATURE

	BY	DATE
D. EATON		
DESIGN-DETAILED	SW	JUNE 2023
CHECKED-REVIEWED	TEK	JUNE 2023
DESIGN2-DETAILED2		
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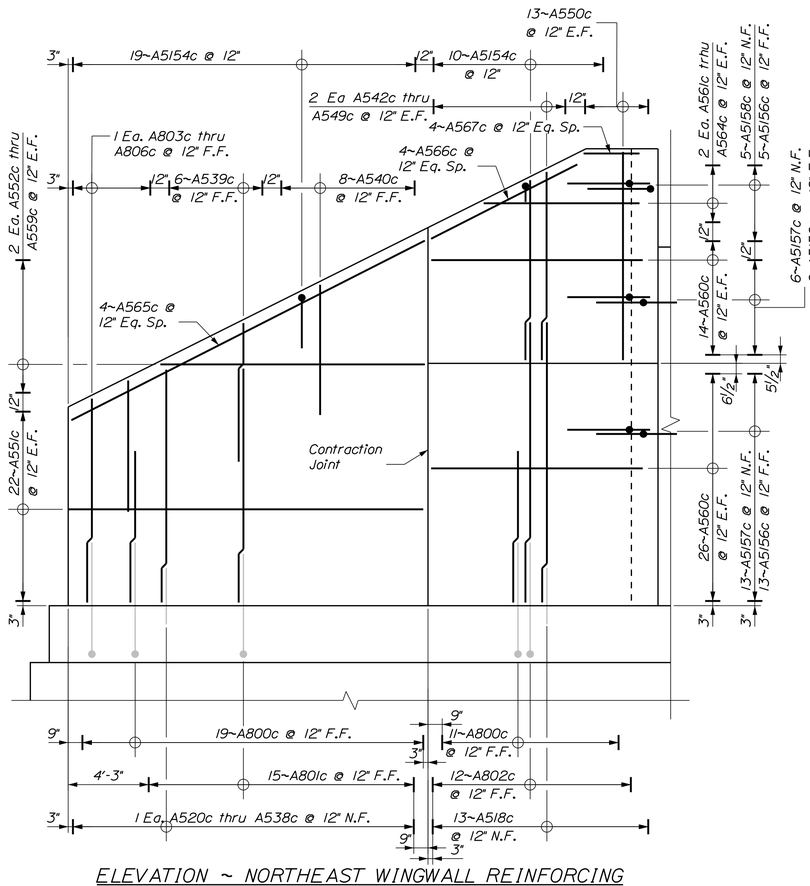
WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

ABUTMENT NO.1 REINFORCING

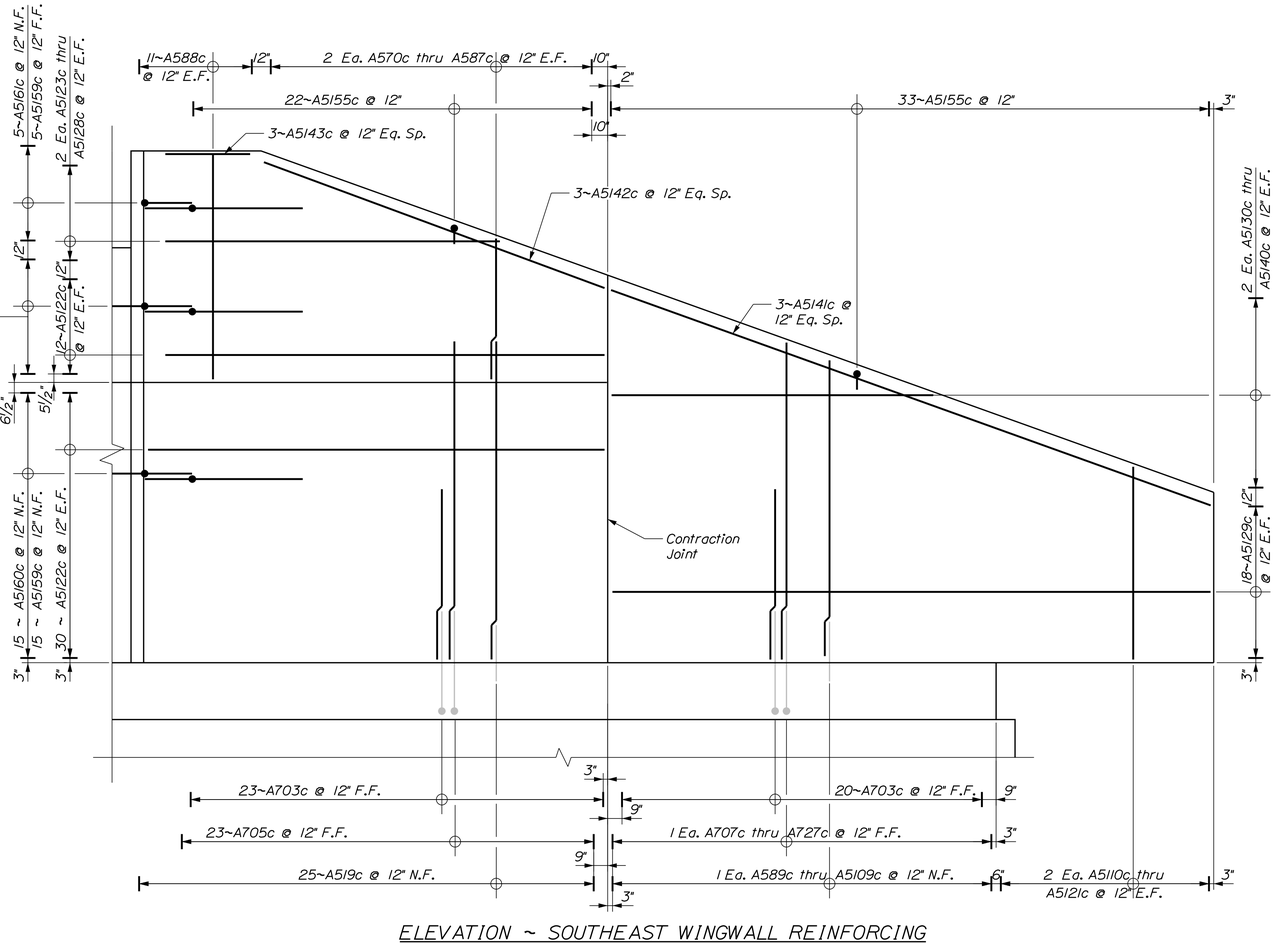
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ELEVATION ~ NORTHEAST WINGWALL REINFORCING



ELEVATION ~ SOUTHEAST WINGWALL REINFORCING

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE NO. 5808 **WIN 21672.00** BRIDGE PLANS

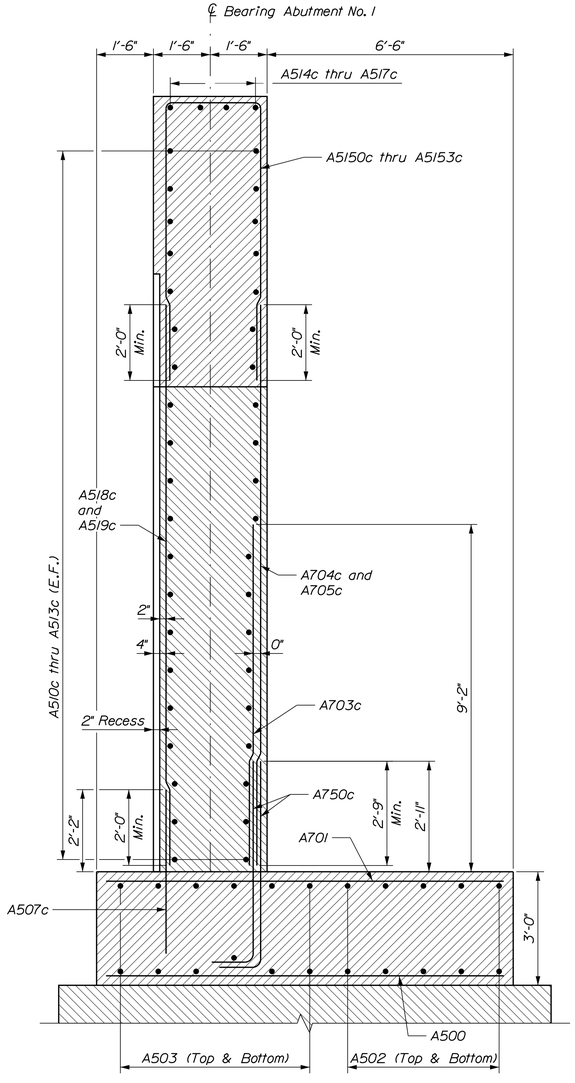
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DESIGN3-DETAILED3			
REVISIONS 1			DATE
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FIELD CHANGES			

WESTERN AVENUE BRIDGE
INTERSTATE 95
AUGUSTA KENNEBEC COUNTY

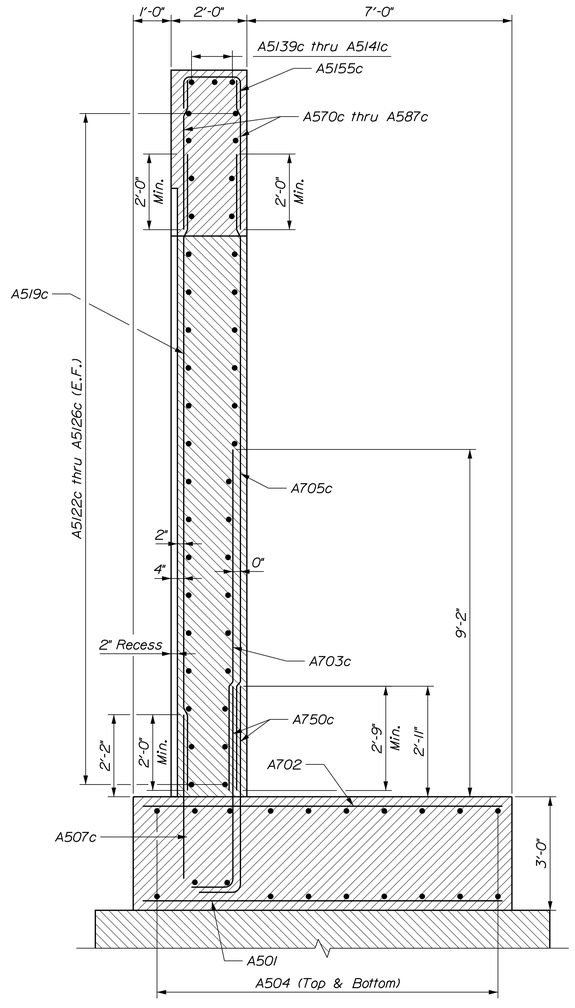
ABUTMENT NO.1 WINGWALL REINFORCING

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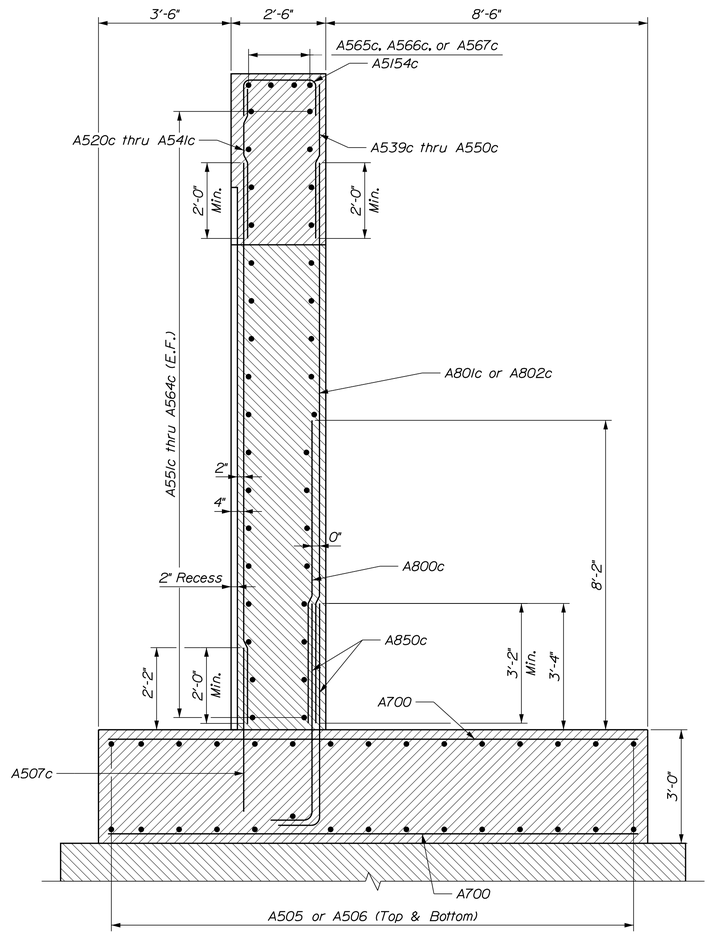
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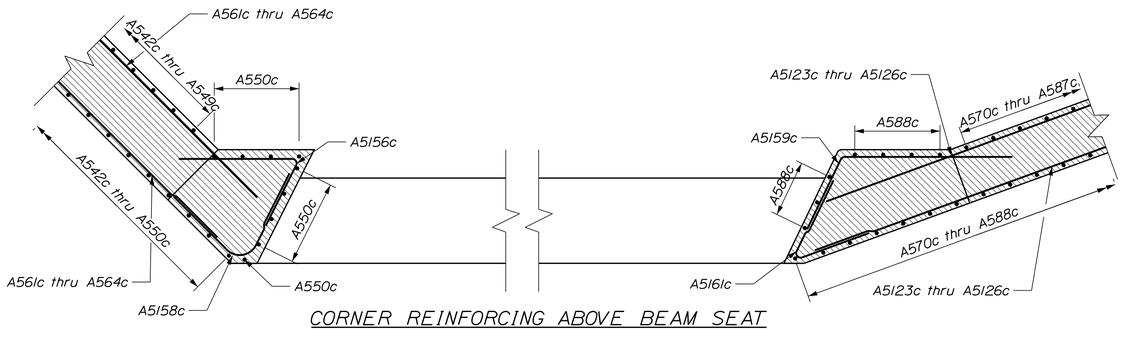
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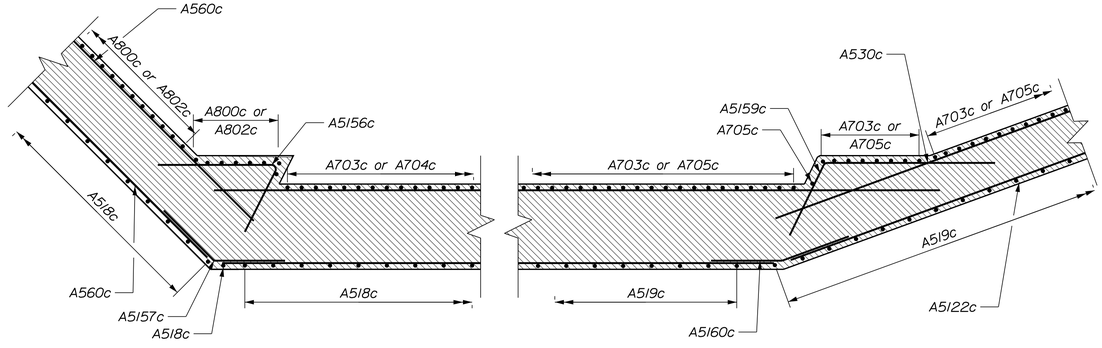
SOUTHEAST WINGWALL SECTION



NORTHEAST WINGWALL SECTION



CORNER REINFORCING ABOVE BEAM SEAT



CORNER REINFORCING BELOW BEAM SEAT

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 21672.00
BRIDGE NO. 5808
BRIDGE PLANS

PROJ. MANAGER	D. EATON		
DESIGN-DETAILED	SW	JUNE 2023	SIGNATURE
CHECKED-REVIEWED	TEK	JUNE 2023	
DESIGN2-DETAILED2			P.E. NUMBER
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WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

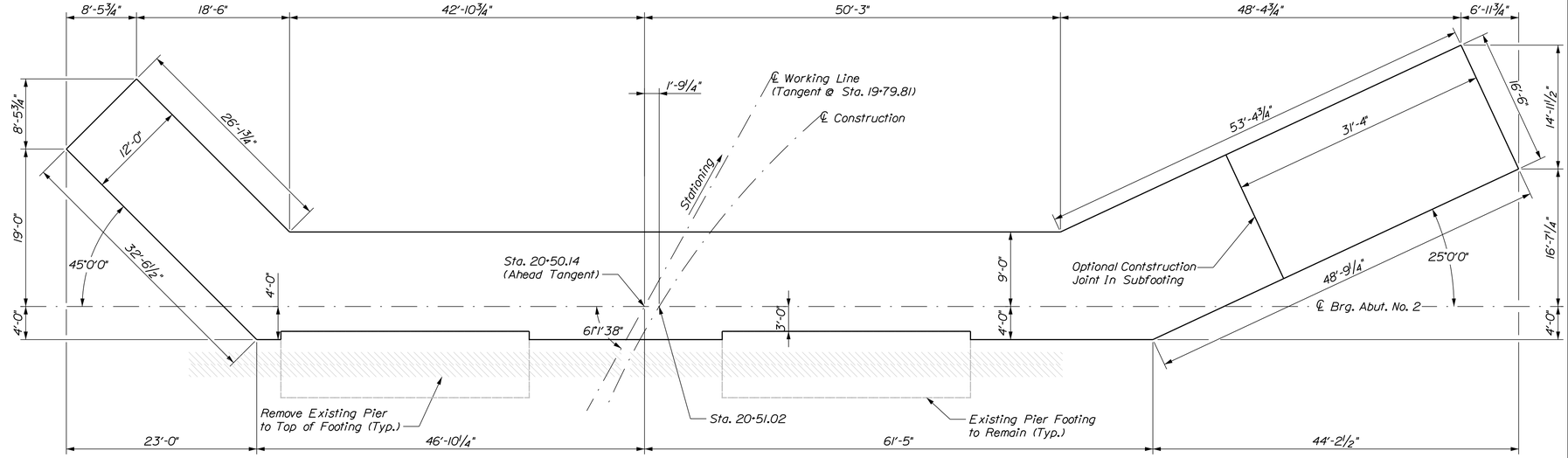
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OF 190

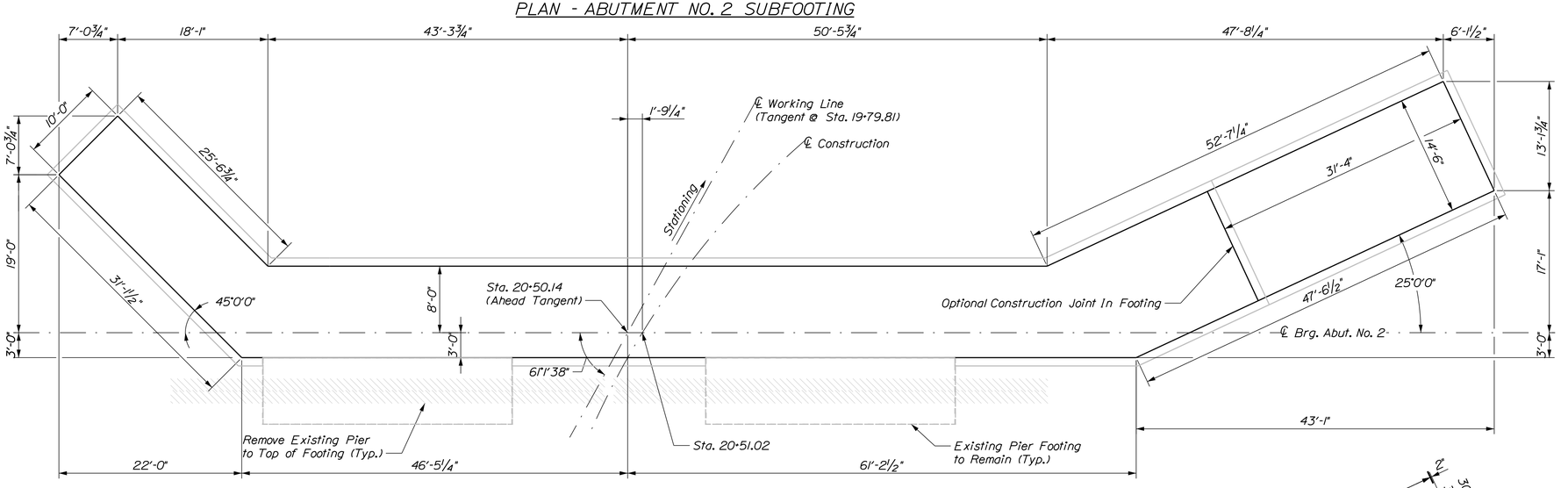
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ABUTMENT NOTES

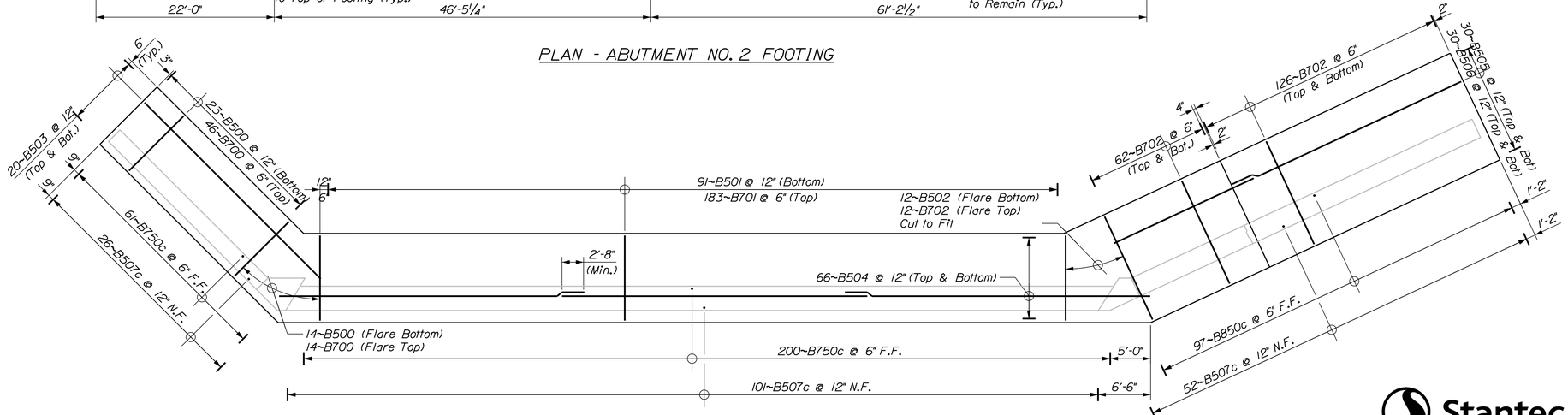
1. See Abutment No. 1 Footing & Subfooting Plan & Reinf. for abutment and subfooting notes.



PLAN - ABUTMENT NO. 2 SUBFOOTING



PLAN - ABUTMENT NO. 2 FOOTING



PLAN ~ ABUTMENT NO. 2 FOOTING REINFORCING

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

WIN 21672.00

BRIDGE NO. 5808

PROJ. MANAGER	D. EATON
DESIGN-DETAILED	SW
CHECKED-REVIEWED	TEK
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	SW	JUNE 2023
REVISIONS 2	TEK	JUNE 2023
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

WESTERN AVENUE BRIDGE
INTERSTATE 95
KENNEBEC COUNTY
AUGUSTA

ABUTMENT NO. 2 FOOTING & SUBFOOTING PLAN & REINF.

SHEET NUMBER

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Filename: ...\MSTA_Abut_No2_Footing.dgn Division: BRIDGE Username: kwight Date:7/18/2023