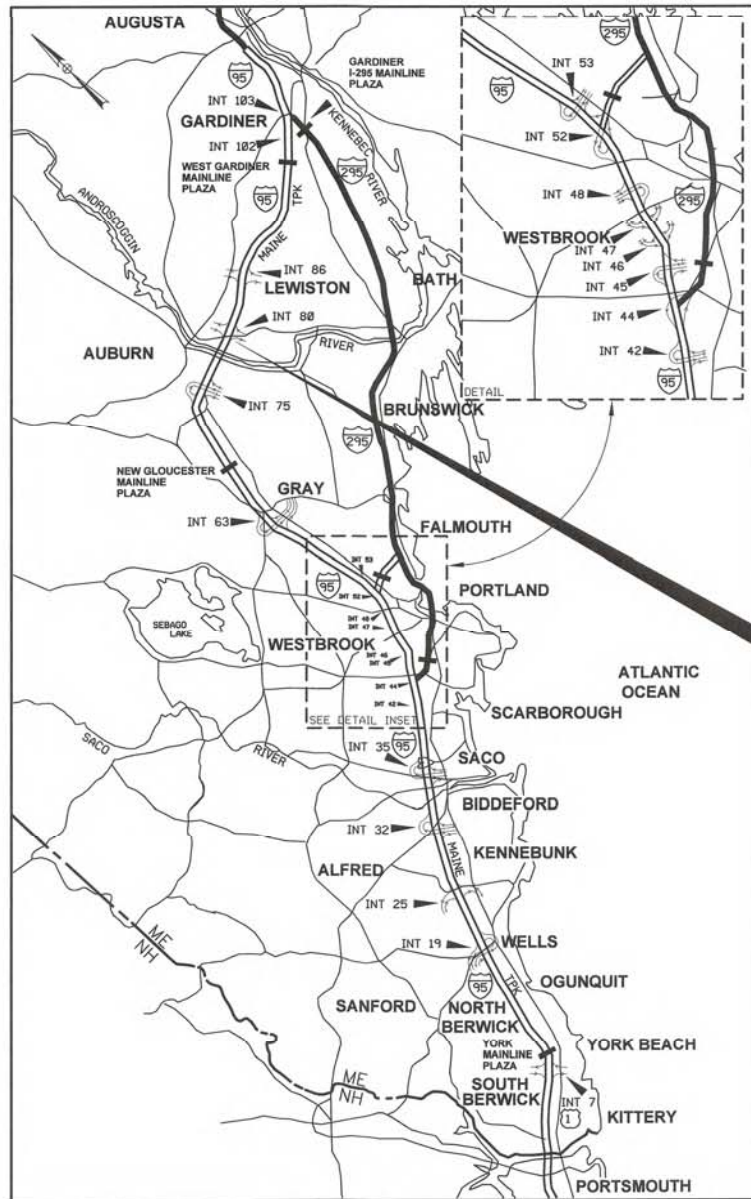


Date: 02/15/05



LOCATION MAP



THE GOLD STAR MEMORIAL HIGHWAY

# MAINE TURNPIKE AUTHORITY

DANIEL E. WATHEN, CHAIR  
 JAMES F. CLOUTIER, VICE CHAIR  
 GERARD P. CONLEY, SR., MEMBER  
 JOHN E. DORITY, MEMBER  
 ROBERT D. STONE, MEMBER  
 FREEMAN R. GOODRICH, MEMBER  
 KAREN DOYLE, MEMBER EX-OFFICIO

S. PETER MILLS, EXECUTIVE DIRECTOR

## CONTRACT 2014.10 INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80) PHASE 2 (BRIDGE AND MAINLINE) MILE 80.3

CONTRACT 2014.10  
 INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES
3	EARTHWORK SUMMARY
4	GENERAL NOTES
5-6	TYPICAL SECTIONS
7	PAVEMENT DETAILS
8-16	MAINTENANCE OF TRAFFIC
17-24	MISCELLANEOUS DETAILS
25-27	GRADING PLANS
28	WEATHERING, LIGHTING, & SIGNAL CONDUIT PLAN
29	LIGHTING & SIGNAL CONDUIT DETAIL
30-32	SIGNING AND PAVEMENT MARKING PLANS
33-34	TRAFFIC SIGNAL PLANS
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37	INDEX OF SHEETS FOR HIGHWAY PLANS
38-48	HIGHWAY PLANS
49	LIMIT OF DISTURBANCE PLANS
50-55	PROFILES
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96-155	STRUCTURAL PLANS

CONTRACT 2014.10



GEOTECHNICAL DESIGN  
 GZA ENVIRONMENTAL, INC.  
 SHEETS S-03 TO S-10



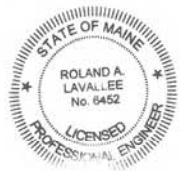
ELECTRICAL AND LIGHTING DESIGN  
 BENNETT ENGINEERING  
 SHEETS EL-01 AND EL-02



APPROVED: MAINE TURNPIKE AUTHORITY

*Peter's Merfeld*  
 PETER'S MERFELD, P.E. - CHIEF OPERATIONS OFFICER  
 DATE: 10/09/14

*Stephen R. Martre*  
 STEPHEN R. MARTRE, P.E. - DIRECTOR OF ENGINEERING & BUILDING MAINTENANCE  
 DATE: 10/10/14



*Roland A. Lavallee*  
 ROLAND A. LAVALLEE, P.E., PLS  
 VICE PRESIDENT  
 DIRECTOR OF OPERATIONS  
 DATE: 10/9/14



*Andrew R. Blaisdell*  
 ANDREW R. BLAISDELL, P.E., G.E.  
 DATE: 10/10/2014



WILL BENNETT, P.E.  
 DATE



Filename: 001\_MTA>Title.dgn



Date:10/10/2014

COMMON EXCAVATION FOR ESTIMATE	RAMP A	RAMP B	RAMP C	RAMP D	MAINLINE S/O BRIDGE	MAINLINE N/O BRIDGE	PROJECT SUMMARY
COMMON EXCAVATION (FROM CROSS SECTIONS)	5,081	4,587	5,734	2,585	2,152	3,206	23,345
COMMON EXCAVATION (PAVEMENT REMOVAL FROM RAMPS)	68	83	108	77	0	0	336
GRUBBING IN FILL	214	116	128	327	383	516	1,685
TOTAL COMMON EXCAVATION	5,363	4,786	5,970	2,989	2,535	3,722	25,366
<b>ITEM 203.20 COMMON EXCAVATION</b>	<b>SAY 5,400 cy</b>	<b>4,800 cy</b>	<b>6,000 cy</b>	<b>3,000 cy</b>	<b>2,550 cy</b>	<b>3,750 cy</b>	<b>25,500 cy</b>
<b>FILL FOR BORROW CALCULATIONS</b>							
COMMON FILL (FROM CROSS SECTIONS)	846	275	726	850	3,163	5,535	11,396
GRUBBING IN FILL	214	116	128	327	383	516	1,685
TOTAL FILL	1,060	391	854	1,177	3,546	6,051	13,081
<b>ROCK EXCAVATION FOR ESTIMATE</b>							
ROCK EXCAVATION (42" RCP RELOCATION)	50	0	0	0	0	0	50
ROCK EXCAVATION (NORTH ABUTMENT)	0	50	0	0	0	0	50
TOTAL ROCK EXCAVATION	50	50	0	0	0	0	100
<b>ITEM 203.21 ROCK EXCAVATION</b>	<b>SAY 50 cy</b>	<b>50 cy</b>	<b>0 cy</b>	<b>0 cy</b>	<b>0 cy</b>	<b>0 cy</b>	<b>100 cy</b>
<b>AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS</b>							
(1) TOTAL COMMON EXCAVATION	5,363	4,786	5,970	2,989	2,535	3,722	25,366
DEDUCTIONS:							
GRUBBING IN CUT	346	202	434	280	207	328	1,797
GRUBBING IN FILL	214	116	128	327	383	516	1,685
PAVEMENT SALVAGE: RAMPS (PLAN AREA), MAINLINE (X-SECTIONS)	68	83	108	77	1,900	1,510	3,747
(2) TOTAL DEDUCTIONS	628	401	670	684	2,490	2,354	7,229
TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2)	4,735	4,385	5,300	2,305	45	1,368	18,137
TOTAL AVAILABLE NON-ROCK EXCAVATION	4,735 cy	4,385 cy	5,300 cy	2,305 cy	45 cy	1,368 cy	18,138 cy
<b>COMPUTATION OF GRANULAR BORROW FOR ESTIMATE</b>							
GRANULAR BORROW FOR ROADWAY TEMPLATE	0	0	0	0	2,890	2,602	5,493
GRANULAR BORROW =	0 x 1.15 = 0	0 x 1.15 = 0	0 x 1.15 = 0	0 x 1.15 = 0	2,890 x 1.15 = 3,324	2,602 x 1.15 = 2,993	5,493 x 1.15 = 6,317
<b>ITEM 203.25 GRANULAR BORROW</b>	<b>SAY 0 cy</b>	<b>0 cy</b>	<b>0 cy</b>	<b>0 cy</b>	<b>3,350 cy</b>	<b>3,000 cy</b>	<b>6,350 cy</b>
<b>COMPUTATION FOR COMMON BORROW FOR ESTIMATE</b>							
(3) TOTAL FILL	1,060	391	854	1,177	3,546	6,051	13,081
TOTAL AVAIL. NON-ROCK EXCAV.	4,735 x 0.85 = 4,025	4,385 x 0.85 = 3,727	5,300 x 0.85 = 4,505	2,305 x 0.85 = 1,959	45 x 0.85 = 38	1,368 x 0.85 = 1,163	18,138 x 0.85 = 15,417
TOTAL AVAIL. ROCK EXCAV.	50 x 1.33 = 67	50 x 1.33 = 67	0 x 1.33 = 0	0 x 1.33 = 0	0 x 1.33 = 0	0 x 1.33 = 0	100 x 1.33 = 133
(4) TOTAL AVAILABLE EXCAVATION	= 4,092 cy	= 3,794 cy	= 4,505 cy	= 1,959 cy	= 38 cy	= 1,163 cy	= 15,550 cy
BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION, (3) MINUS (4)					3,508 cy	4,888 cy	BORROW NEEDED 8,396 cy
IF NO BORROW NEEDED, SURPLUS MATERIAL =							
(5) TOTAL AVAILABLE EXCAVATION MINUS TOTAL FILL (4) MINUS (3)	3,032 cy	3,403 cy	3,651 cy	782 cy			SURPLUS: 10,868 cy
<b>TOTAL PROJECT SURPLUS (NO BORROW NEEDED)</b>							
(5) + (2)	3,660 cy	3,804 cy	4,321 cy	1,466 cy	TOTAL DEDUCTIONS (2) 2,490 cy	TOTAL DEDUCTIONS (2) 2,354 cy	18,097 cy

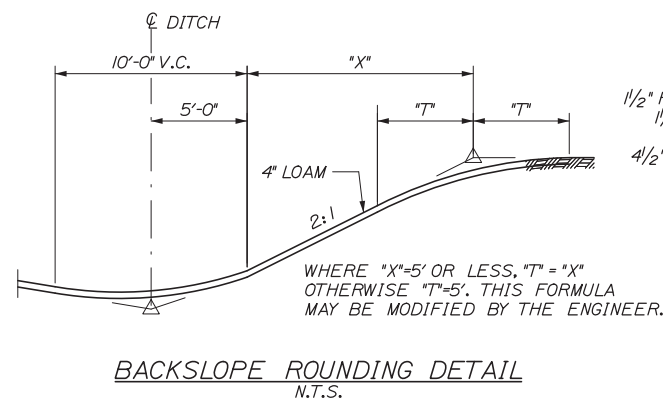
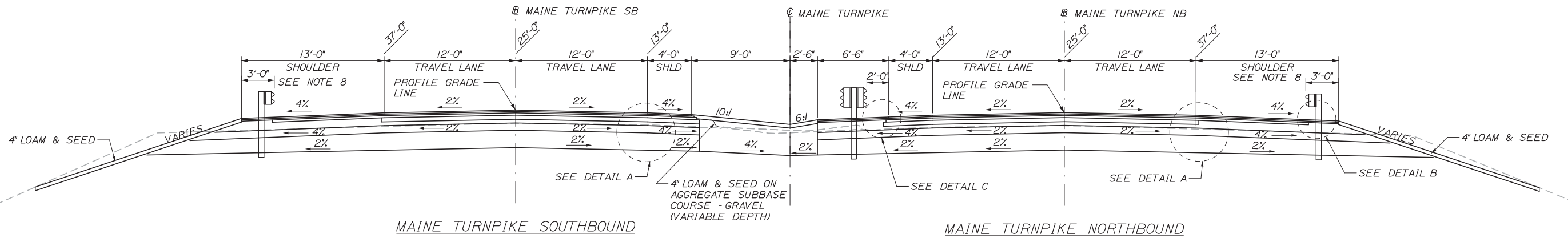
NOTE:  
EXCAVATIONS FOR THE MSE WALL ARE NOT CARRIED IN THE EARTHWORK SUMMARY. APPROXIMATELY 5500 CY OF EXCAVATIONS ARE ESTIMATED.

Scale: <table border="1"> <tr> <th>No.</th> <th>Revision</th> <th>By</th> <th>Date</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	No.	Revision	By	Date					Designed by: 	HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909		<b>THE GOLD STAR MEMORIAL HIGHWAY</b>	INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80) EARTHWORK SUMMARY
	No.	Revision	By	Date									
	CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.		MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.	CONTRACT: 2014.10									
Designed: HME 10/14 Checked: LZD 10/14	In Charge of: RAL 10/14	SHEET NUMBER: ES-01 3 OF 155											
Drawn: MPC 10/14	In Charge of: RAL 10/14												

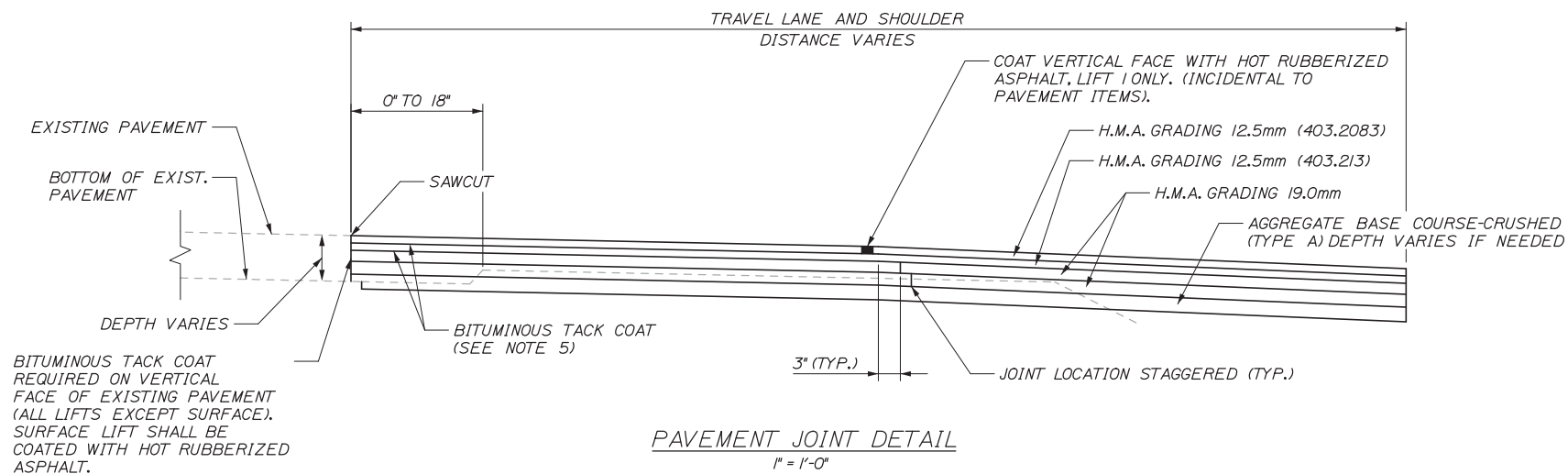
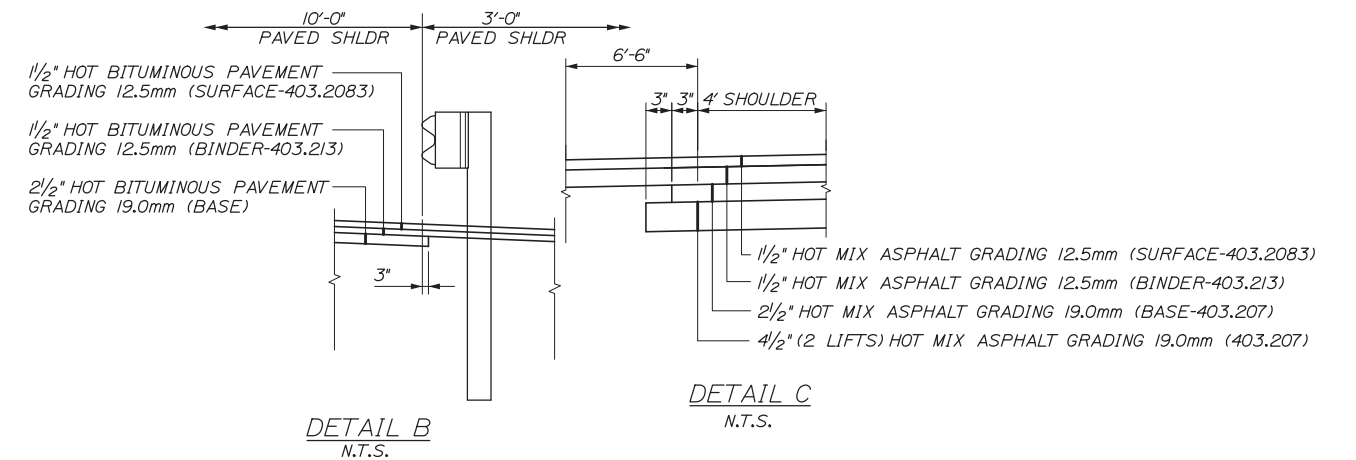
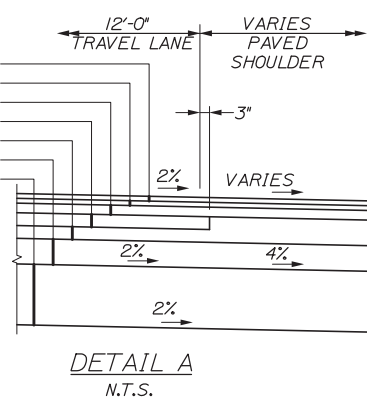
Filename: 003\_Earthwork.dgn



Date: 10/10/2014



- 1 1/2" HOT MIX ASPHALT GRADING 12.5mm (SURFACE-403.2083)
- 1 1/2" HOT MIX ASPHALT GRADING 12.5mm (BINDER-403.213)
- 2 1/2" HOT MIX ASPHALT GRADING 19.0mm (BASE-403.207)
- 4 1/2" (2 LIFTS) HOT MIX ASPHALT GRADING 19.0mm (403.207)
- 4" AGGREGATE BASE COURSE-CRUSHED (TYPE A)
- 8" AGGREGATE SUBBASE COURSE-GRAVEL
- 19" GRANULAR BORROW



**GENERAL NOTES**

1. THE PAVEMENT, BASE AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. CROWNS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
3. ALL NECESSARY PAVEMENT CUTTING SHALL BE SAWCUT AND DONE IN SUCH A MANNER AS TO LEAVE A CLEAN, VERTICAL FACE.
4. THE GRAVEL WITHIN 2' OF THE SAWCUT LINE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR.
5. BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF PAVEMENT, OR AS DIRECTED BY RESIDENT. BITUMINOUS TACK COAT IS REQUIRED ON ALL EXISTING PAVED OR MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.
6. A COATING OF HOT RUBBERIZED ASPHALT SHALL BE APPLIED TO SURFACE LAYER OF ALL SAWCUT AND PAVEMENT JOINTS PRIOR TO PAVING. REMAINDER OF SAWCUT TO BE BITUMINOUS TACK COAT. PAYMENT SHALL BE INCIDENTAL TO THE PAVEMENT ITEMS.
7. THE CONTRACTOR WILL NOT BE PERMITTED TO GRIND OUT OR PLACE TEMPORARY PAINTED PAVEMENT MARKINGS ON FINAL SURFACE LIFT OF PAVEMENT. THE SURFACE LIFT SHALL BE PLACED AS THE FINAL CONSTRUCTION PHASE ONCE CONCRETE BARRIER HAS BEEN REMOVED.
8. IN AREAS OF NO GUARDRAIL, THE SHOULDER IS 10' WIDE AND THE FORESLOPE GRADING IS VARIABLE TO MATCH INTO GRADING ESTABLISHED AS PART OF CONTRACT 2013.07 RAMPS.

Scale:		Designed by:	
No.	Revision	By	Date
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
	By	Date	
	RWH	08/14	
	Checked	DAM	08/14
	By	Date	
	MPC	08/14	
	In Charge of	RAL	08/14

**HNTB**

HNTB CORPORATION  
340 County Road, Suite 6-C  
Westbrook, ME 04092  
TEL (207) 774-5155  
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80)**

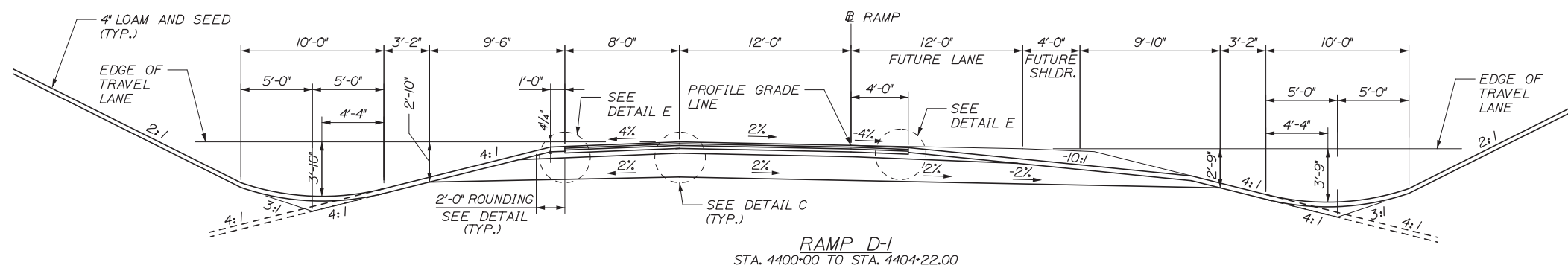
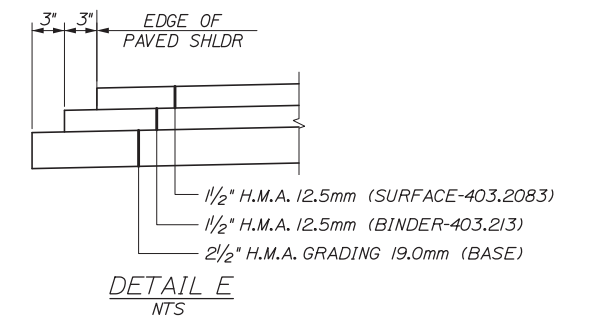
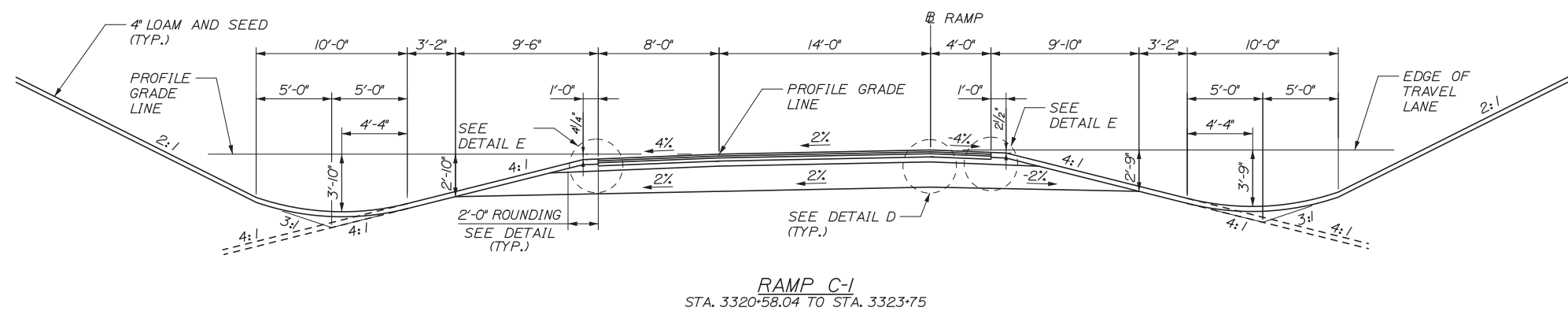
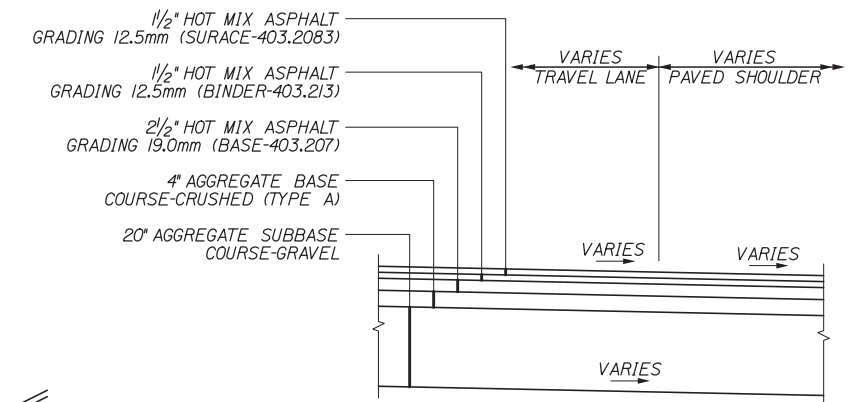
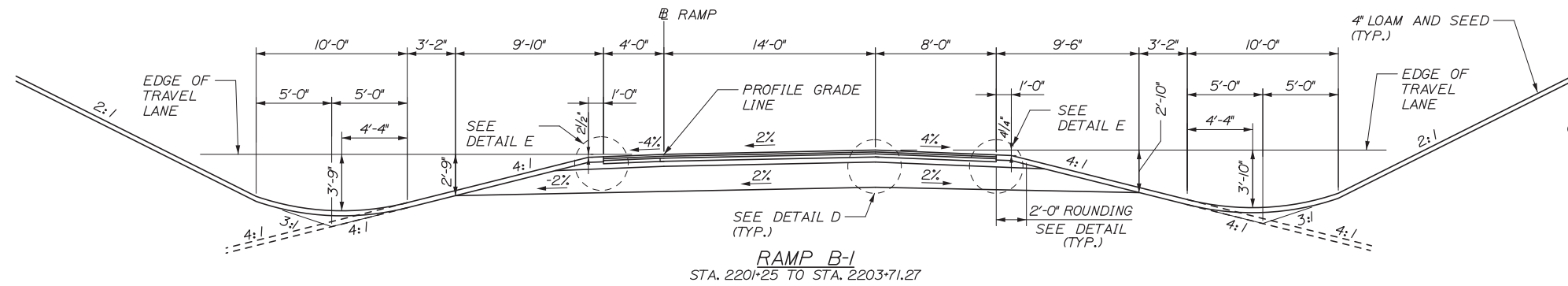
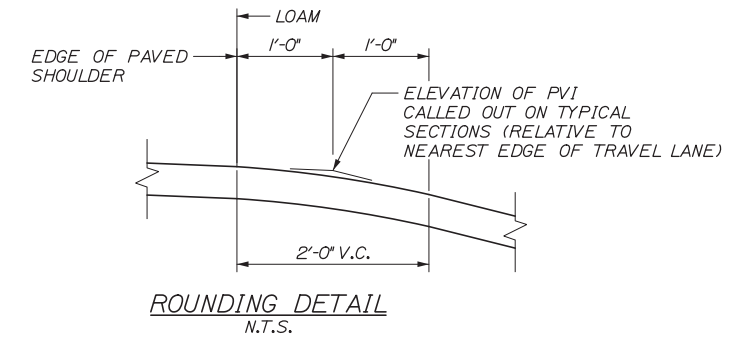
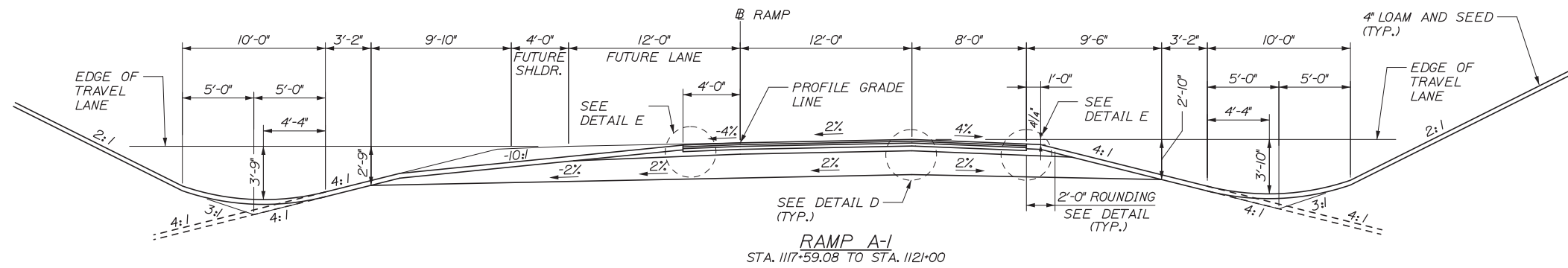
**TYPICAL SECTIONS 1**

SHEET NUMBER: TS-01

5 OF 155

CONTRACT: 2014.10

Date: 10/10/2014



Scale:

No.	Revision	By	Date

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**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

HNTB CORPORATION  
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**MAINE TURNPIKE**

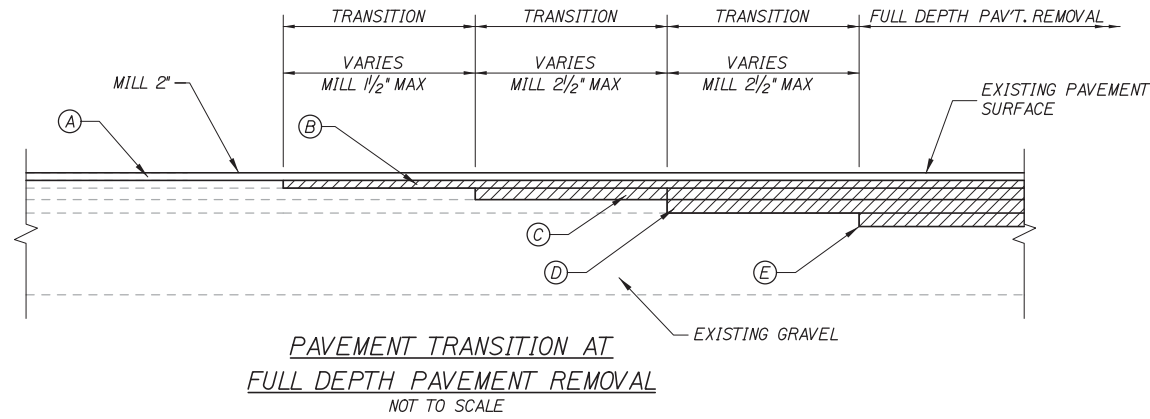
**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
TYPICAL SECTIONS 2

SHEET NUMBER: TS-02  
CONTRACT: 2014.10  
6 OF 155

Date: 10/10/2014

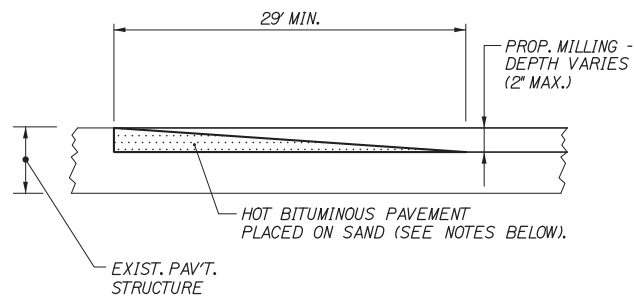
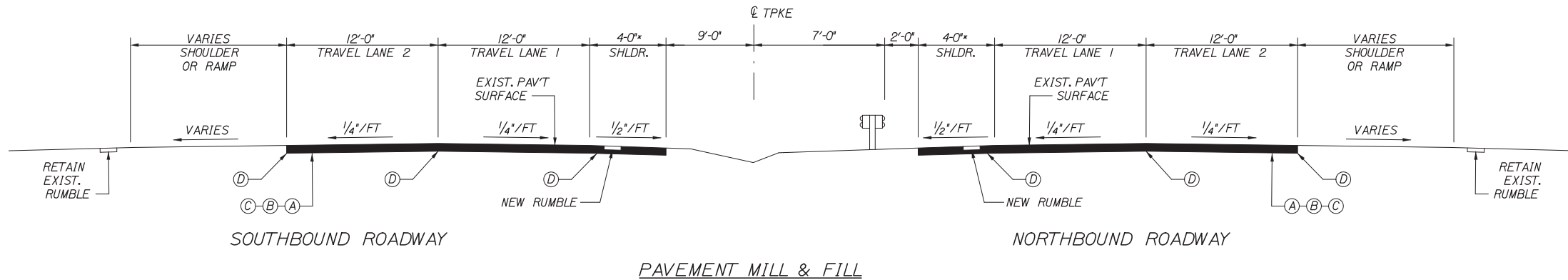


**LEGEND**

- (A) - 1/2" HOT MIX ASPHALT GRADING 12.5mm (POLYMER MODIFIED) ITEM 403.2083
- (B) - 1/2" HOT MIX ASPHALT GRADING 12.5mm ITEM 403.213
- (C) - 2 1/2" HOT MIX ASPHALT GRADING 19.0mm ITEM 403.207
- (D) & (E) - 4 1/2" (2 LIFTS) HOT MIX ASPHALT GRADING 19.0mm ITEM 403.207

**NOTES:**

1. FULL DEPTH PAVEMENT REMOVAL SHALL BE PAID FOR AS COMMON EXCAVATION. EXISTING PAVEMENT THICKNESS HAS BEEN ESTIMATED TO BE A MINIMUM OF 10'.
2. BITUMINOUS TACK COAT IS REQUIRED BETWEEN ALL LIFTS OF PAVEMENT, OR AS DIRECTED BY RESIDENT. BITUMINOUS TACK COAT IS REQUIRED ON ALL EXISTING PAVED OR MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.
3. A COATING OF HOT RUBBERIZED ASPHALT SHALL BE APPLIED TO SURFACE LAYER OF ALL SAWCUT AND PAVEMENT JOINTS PRIOR TO PAVING. REMAINDER OF SAWCUT TO BE BITUMINOUS TACK COAT. PAYMENT SHALL BE INCIDENTAL TO THE PAVEMENT ITEMS.
4. SHOULDER PAVEMENT TRANSITIONS SHALL ALIGN WITH MAINLINE TRANSITIONS.



**TEMPORARY BITUMINOUS RAMP**

**NOTES:**

1. HOT MIX ASPHALT FOR TEMPORARY RAMP(S) SHALL BE MEASURED FOR PAYMENT UNDER ITEM 403.213.
2. REMOVAL OF TEMP. RAMP(S) WILL NOT BE MEASURED SEPARATELY FOR PAYMENT, BUT SHALL BE INCIDENTAL TO ITEM 403.213.

**PAVEMENT LEGEND**

- (A) = 1/2" HOT MIX ASPHALT, 12.5 mm (POLYMER MODIFIED) ITEM 403.2083
- (B) = 1/2" HOT MIX ASPHALT SHIMMING, 4.75 MM ITEM 403.211
- (C) = MILLING DEPTH VARIES CONTROLLED BY CROSS SLOPE (2" MAX)
- (D) = HOT RUBBERIZED ASPHALT JOINT

**NOTES:**

1. A COATING OF HOT RUBBERIZED ASPHALT SHALL BE APPLIED TO ALL TRANSVERSE BUTT JOINTS AND LONGITUDINAL JOINTS. HOT RUBBER SHALL BE INCIDENTAL TO PAVING ITEMS.
2. BITUMINOUS TACK COAT IS REQUIRED ON ALL EXISTING PAVED AND MILLED SURFACES PRIOR TO PLACING PROPOSED PAVEMENT.
3. SEE SHEET MD-04 FOR RUMBLE STRIP DETAILS.

Filename: 007\_PavementDets.dgn

Scale:		Designed by:	
No.	Revision	By	Date
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
Designed	RWH	08/14	Checked DAM 08/14
Drawn	MPC	08/14	In Charge of RAL 08/14

**HNTB**

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
PAVEMENT DETAILS

SHEET NUMBER: TS-03  
7 OF 155

CONTRACT: 2014.10

**NOTES:**

1. PHASE I MOT (SIGNS, DRUMS, PAVEMENT MARKINGS, ARROW BOARDS, ETC.) HAS BEEN INSTALLED BY OTHERS. CONTRACTOR WILL BE REQUIRED TO INSTALL PHASE 2 FROM THE PHASE I LAYOUT AT COMPLETION OF PHASE I WORK.

2. THESE PHASE I PLANS SHOW DRAINAGE/CONSTRUCTION NOTES THAT THE 2014.10 CONTRACTOR IS RESPONSIBLE FOR WHILE THE TRAFFIC IS IN THE PHASE I SETUP.

**LEGEND**

- TSSW TEMPORARY SINGLE SOLID WHITE LINE
- TSBW TEMPORARY SINGLE BROKEN WHITE LINE
- TSSY TEMPORARY SINGLE SOLID YELLOW LINE
- DRUM
- PAVED MEDIAN

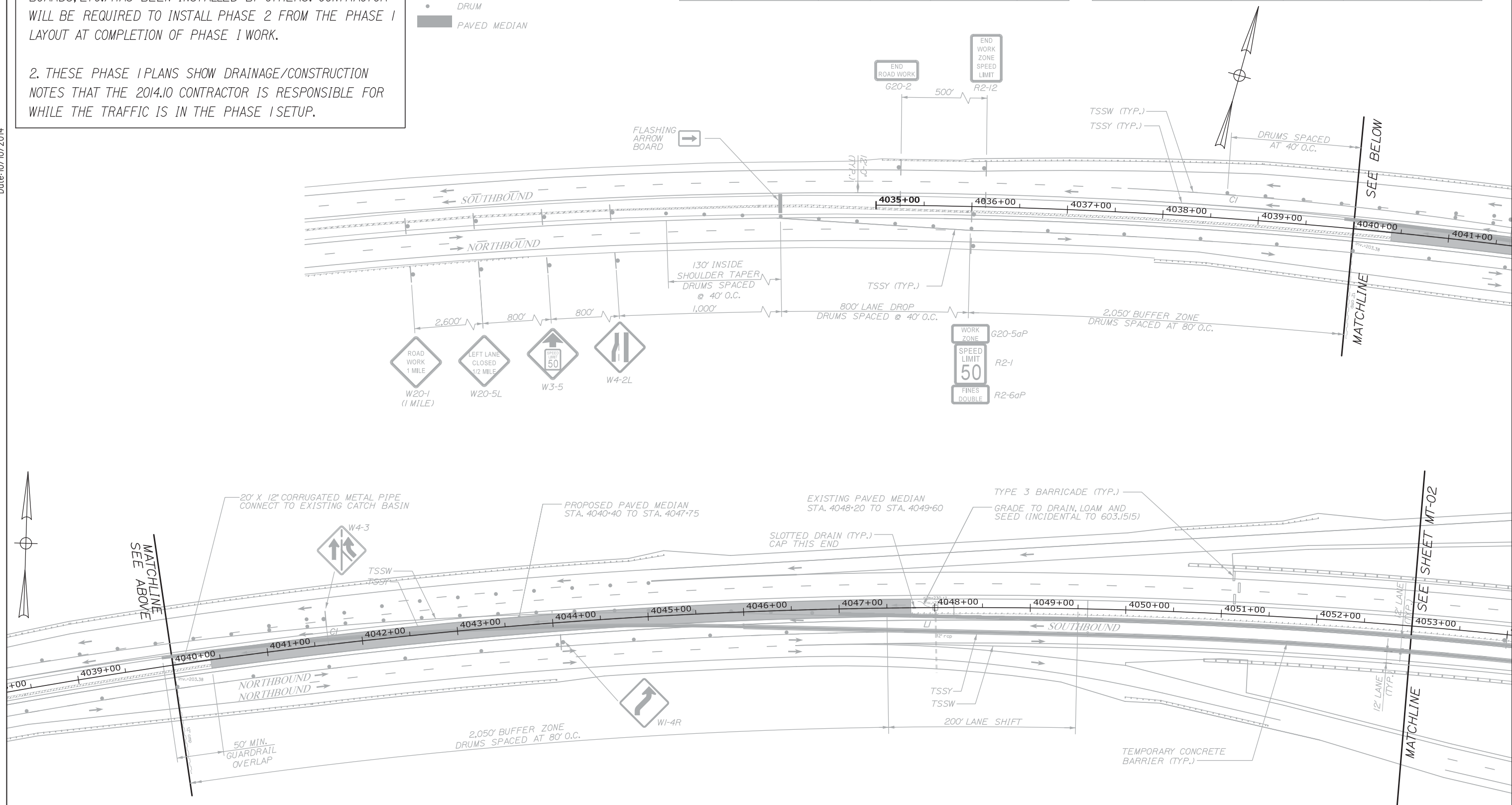
**LINE DATA**

LINE #	START STATION	OFFSET	LENGTH	END STATION	OFFSET
L1	PT 4046+00.24	1.61' RT	360.08'	PC 4049+60.66	13.00' RT

**CURVE DATA**

CURVE #	START STATION	OFFSET	RADIUS	END STATION	OFFSET
CI	PC 4037+62.02	25.00' LT	4000.00'	PT 4046+00.24	1.61' RT

Date: 10/10/2014



Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	LZD	08/14	Checked	DAM	08/14
Drawn	DB	08/14	In Charge of	RAL	08/14

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MAINE TURNPIKE

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 PHASE I - TRAFFIC CONTROL PLAN - 1

SHEET NUMBER: MT-01  
 8 OF 155

CONTRACT: 2014.10



**PHASE I CONSTRUCTION NOTES:**  
 CONTRACTOR TO INSTALL THE FOLLOWING DRAINAGE ITEMS BEFORE COMMENCING TO PHASE 2 WHICH WILL ALLOW FOR TEMPORARY DRAINAGE DURING CONSTRUCTION OF PHASE 1.

STA. 4057+00, LT.: STORMDRAIN PIPE AND RIPRAP DOWNSPOUT.

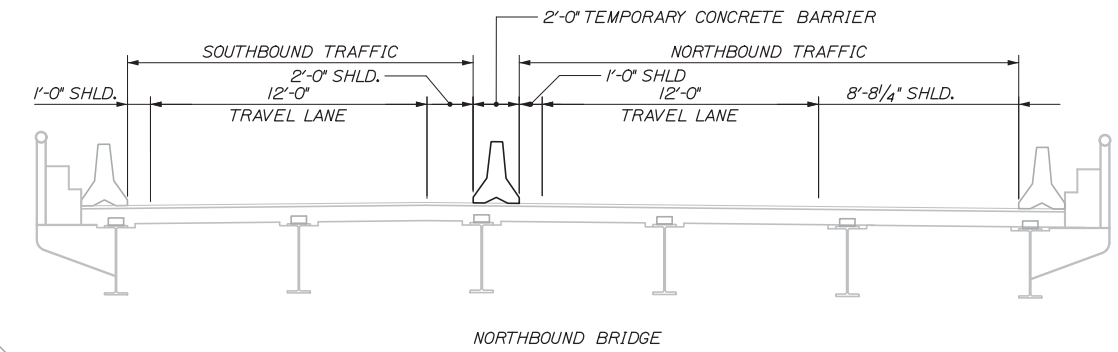
STA. 4058+00: COMPLETELY REMOVE CB AND STORM DRAIN PIPE.

STA. 4058+30: PARTIAL CONSTRUCTION OF 42" DIA. RCP (NOT SHOWN) TO CENTERLINE (SEE SPECIAL PROVISIONS 107.4.7 - LIMITATIONS OF OPERATIONS).

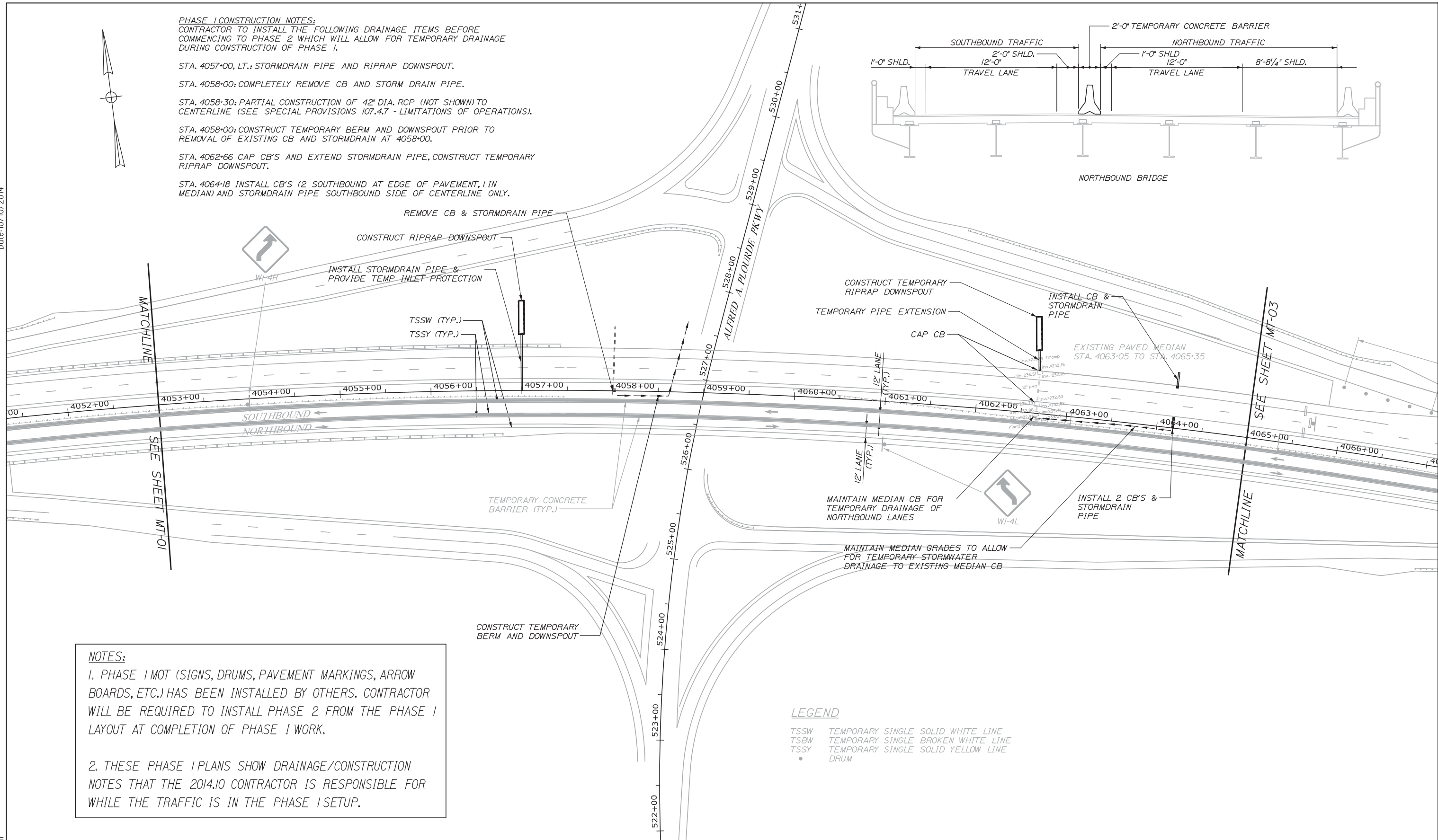
STA. 4058+00: CONSTRUCT TEMPORARY BERM AND DOWNSPOUT PRIOR TO REMOVAL OF EXISTING CB AND STORMDRAIN AT 4058+00.

STA. 4062+66 CAP CB'S AND EXTEND STORMDRAIN PIPE, CONSTRUCT TEMPORARY RIPRAP DOWNSPOUT.

STA. 4064+18 INSTALL CB'S (2 SOUTHBOUND AT EDGE OF PAVEMENT, 1 IN MEDIAN) AND STORMDRAIN PIPE SOUTHBOUND SIDE OF CENTERLINE ONLY.



Date: 10/10/2014



**NOTES:**

- PHASE I MOT (SIGNS, DRUMS, PAVEMENT MARKINGS, ARROW BOARDS, ETC.) HAS BEEN INSTALLED BY OTHERS. CONTRACTOR WILL BE REQUIRED TO INSTALL PHASE 2 FROM THE PHASE 1 LAYOUT AT COMPLETION OF PHASE 1 WORK.
- THESE PHASE I PLANS SHOW DRAINAGE/CONSTRUCTION NOTES THAT THE 2014.10 CONTRACTOR IS RESPONSIBLE FOR WHILE THE TRAFFIC IS IN THE PHASE 1 SETUP.

**LEGEND**

TSSW TEMPORARY SINGLE SOLID WHITE LINE  
 TSBW TEMPORARY SINGLE BROKEN WHITE LINE  
 TSSY TEMPORARY SINGLE SOLID YELLOW LINE  
 DRUM

Scale: Scale of Feet

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	LZD	08/14	Checked	DAM	08/14
Drawn	DB	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

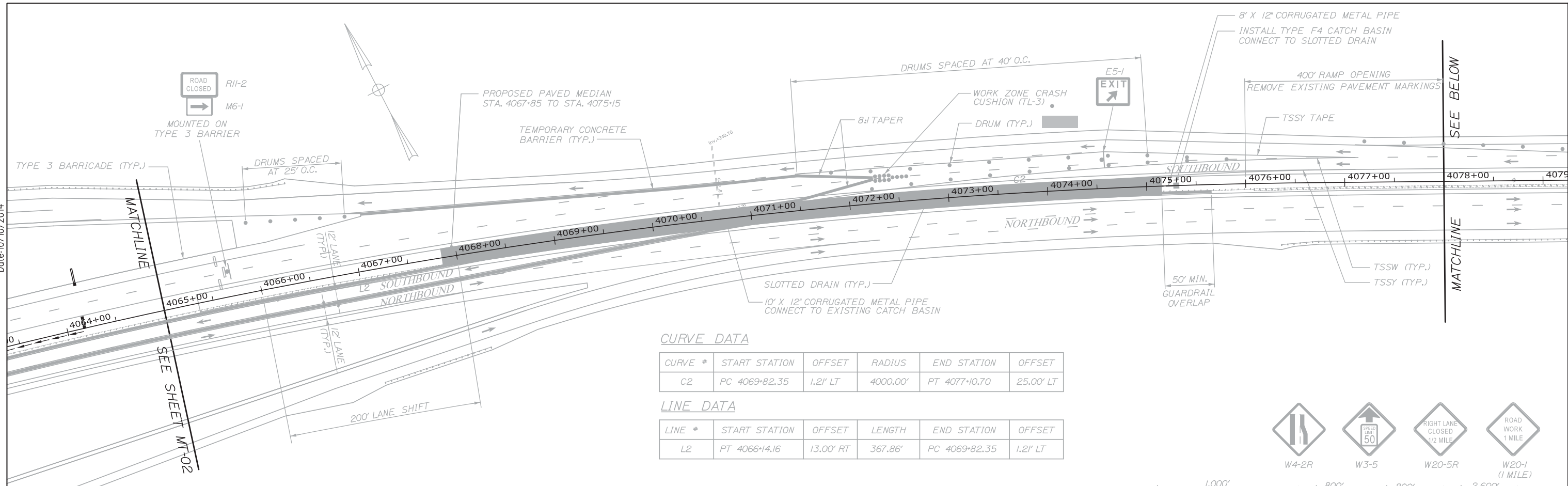
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 PHASE I - TRAFFIC CONTROL PLAN - 2

SHEET NUMBER: MT-02  
 CONTRACT: 2014.10  
 9 OF 155

Filename: 009\_HDPlan\_P11.dgn

Date: 10/10/2014



**CURVE DATA**

CURVE #	START STATION	OFFSET	RADIUS	END STATION	OFFSET
C2	PC 4069+82.35	1.21' LT	4000.00'	PT 4077+10.70	25.00' LT

**LINE DATA**

LINE #	START STATION	OFFSET	LENGTH	END STATION	OFFSET
L2	PT 4066+14.16	13.00' RT	367.86'	PC 4069+82.35	1.21' LT

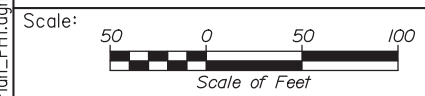
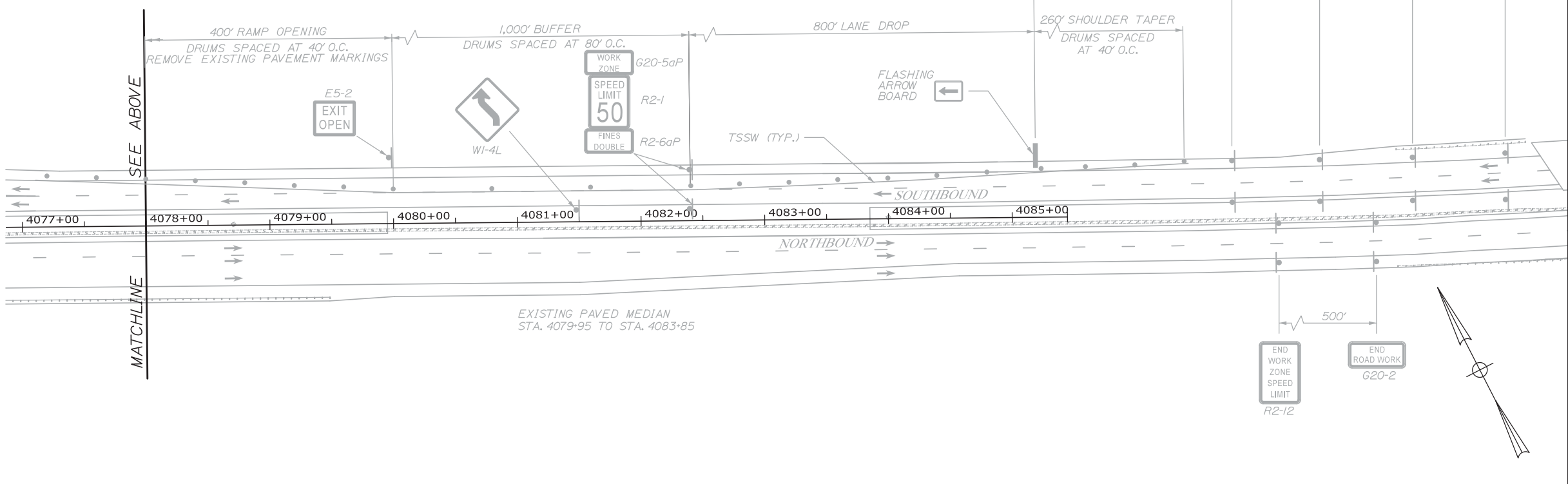


**LEGEND**

- TSSW TEMPORARY SINGLE SOLID WHITE LINE
- TBSW TEMPORARY SINGLE BROKEN WHITE LINE
- TSSY TEMPORARY SINGLE SOLID YELLOW LINE
- DRUM
- PAVED MEDIAN

**NOTES:**

- PHASE I MOT (SIGNS, DRUMS, PAVEMENT MARKINGS, ARROW BOARDS, ETC.) HAS BEEN INSTALLED BY OTHERS. CONTRACTOR WILL BE REQUIRED TO INSTALL PHASE 2 FROM THE PHASE I LAYOUT AT COMPLETION OF PHASE I WORK.
- THESE PHASE I PLANS SHOW DRAINAGE/CONSTRUCTION NOTES THAT THE 2014.10 CONTRACTOR IS RESPONSIBLE FOR WHILE THE TRAFFIC IS IN THE PHASE I SETUP.



Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

No.	Revision	By	Date

	By	Date		By	Date
Designed	LZD	10/14	Checked	DAM	10/14
Drawn	DB	10/14	In Charge of	RAL	10/14

HNTB CORPORATION  
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 Westbrook, ME 04092  
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 FAX (207) 228-0909

**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 PHASE I - TRAFFIC CONTROL PLAN - 3

SHEET NUMBER: MT-03  
 10 OF 155

CONTRACT: 2014.10

Filename: 010\_HDP1an\_P1H1.dgn

**PHASE 2 QUANTITIES**

ITEM 526.306 TEMPORARY CONCRETE BARRIER - SUPPLIED BY AUTHORITY STA 4042+00 RT. TO STA 4048+00 RT. (600 CF)	L.S.	
ITEM 526.40 RESETTING TEMPORARY CONCRETE BARRIER - TYPE 1 STA 4039+90 RT. TO 4075+65 RT. STA 4042+00 RT. TO 4072+50 RT.	L.F.	3590 3060
ITEM 627.681 TEMPORARY 6 INCH PAINTED PAVEMENT LINE, YELLOW OR WHITE STA 4019+00 TO 4039+00 STA 4038+00 TO 4050+00 STA 4038+00 TO 4077+00 STA 4038+50 TO 4077+00 STA 4065+00 TO 4098+25 STA 4065+00 TO 4047+30 STA 4047+30 TO 4069+10	L.F.	200 1190 3900 3860 3325 1790 2200
ITEM 644.10 GLARE SCREEN STA 4046+00 RT. TO 4049+00 RT. STA 4066+00 RT. TO 4070+50 RT.	L.F.	300 450

**LEGEND**

- TSSW TEMPORARY SINGLE SOLID WHITE LINE
- TSBW TEMPORARY SINGLE BROKEN WHITE LINE
- TSSY TEMPORARY SINGLE SOLID YELLOW LINE
- DRUM

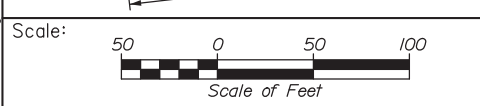
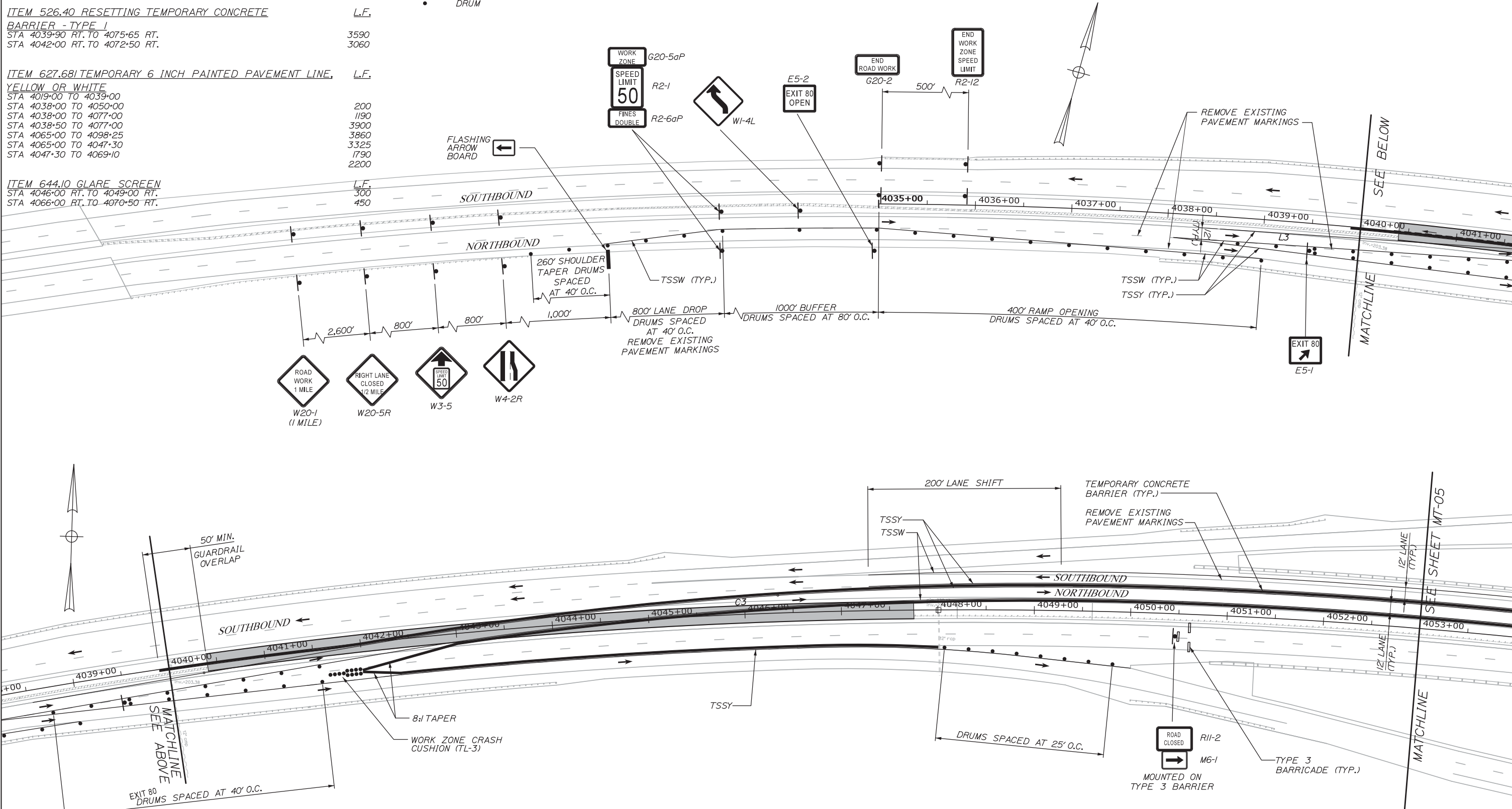
**LINE DATA**

LINE #	START STATION	OFFSET	LENGTH	END STATION	OFFSET
L3	PT 4038+54.90	13.00' RT	360.08'	PC 4042+15.32	1.61' RT

**CURVE DATA**

CURVE #	START STATION	OFFSET	RADIUS	END STATION	OFFSET
C3	PC 4042+15.32	1.61' RT	4000.00'	PCC 4050+53.53	25.00' LT

Date: 10/10/2014



Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

No.	Revision	By	Date

	By	Date		By	Date
Designed	LZD	08/14	Checked	DAM	08/14
Drawn	DB	08/14	In Charge of	RAL	08/14

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FAX (207) 228-0909



**THE GOLD STAR  
MEMORIAL HIGHWAY**

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
PHASE 2 - TRAFFIC CONTROL PLAN - 1

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

SHEET NUMBER: MT-04  
11 OF 155

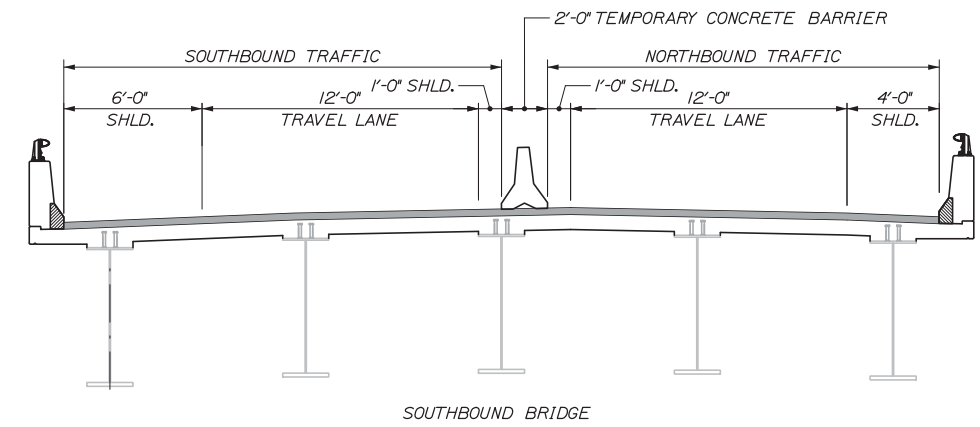
**PHASE 2 CONSTRUCTION NOTES:**  
 CONTRACTOR TO INSTALL THE FOLLOWING DRAINAGE ITEMS ONLY AFTER COMMENCING TO PHASE 2.

STA. 4057+00: INSTALL CB IN MEDIAN ON STORMDRAIN INSTALLED IN PHASE I.

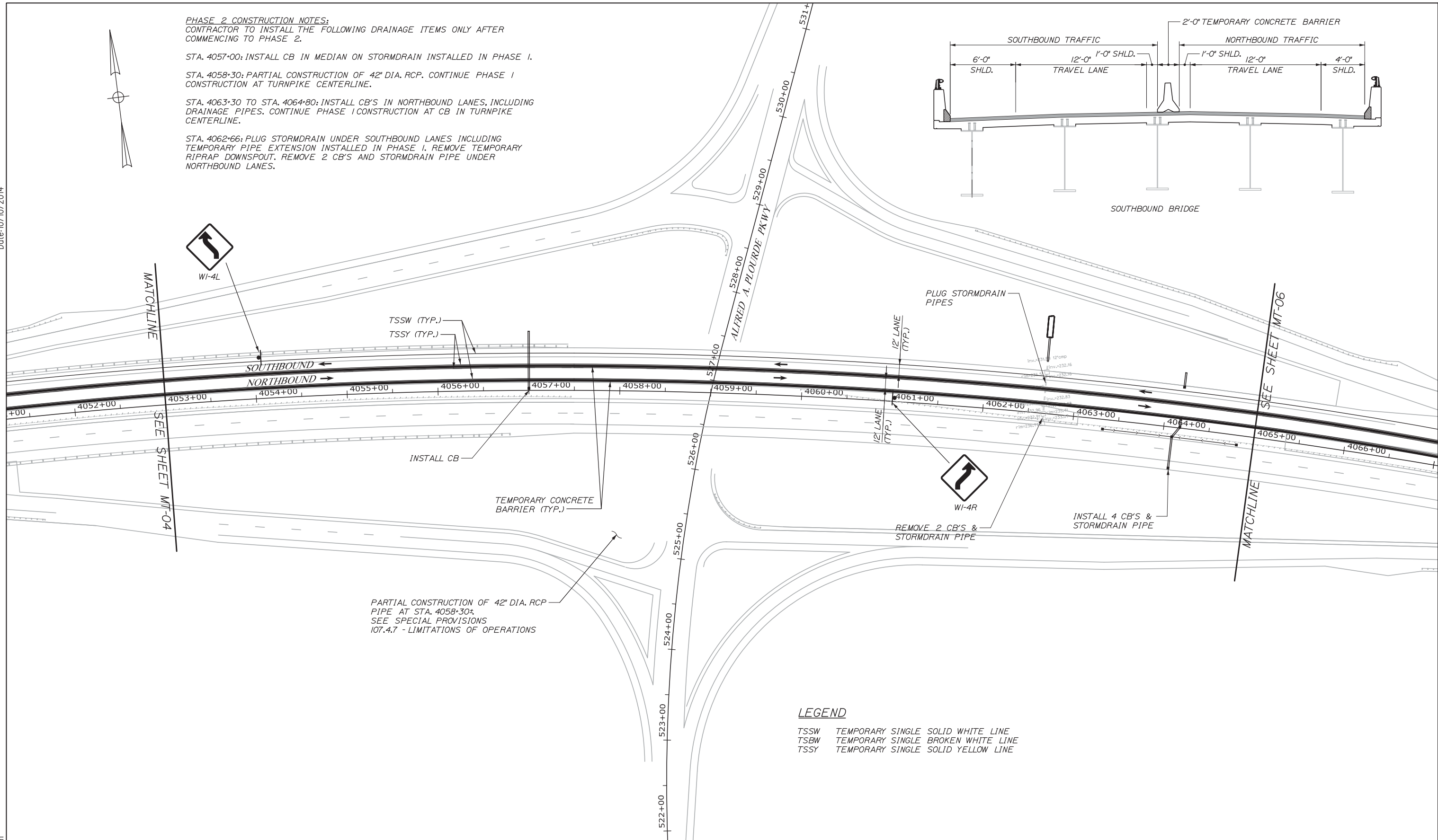
STA. 4058+30: PARTIAL CONSTRUCTION OF 42" DIA. RCP. CONTINUE PHASE I CONSTRUCTION AT TURNPIKE CENTERLINE.

STA. 4063+30 TO STA. 4064+80: INSTALL CB'S IN NORTHBOUND LANES, INCLUDING DRAINAGE PIPES. CONTINUE PHASE I CONSTRUCTION AT CB IN TURNPIKE CENTERLINE.

STA. 4062+66: PLUG STORMDRAIN UNDER SOUTHBOUND LANES INCLUDING TEMPORARY PIPE EXTENSION INSTALLED IN PHASE I. REMOVE TEMPORARY RIPRAP DOWNSPOUT. REMOVE 2 CB'S AND STORMDRAIN PIPE UNDER NORTHBOUND LANES.



Date: 10/10/2014



**LEGEND**  
 TSSW TEMPORARY SINGLE SOLID WHITE LINE  
 TSBW TEMPORARY SINGLE BROKEN WHITE LINE  
 TSSY TEMPORARY SINGLE SOLID YELLOW LINE

Scale: 50 0 50 100  
 Scale of Feet

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	LZD	08/14		DAM	08/14
Drawn	DB	08/14	In Charge of	RAL	08/14

HNTB CORPORATION  
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

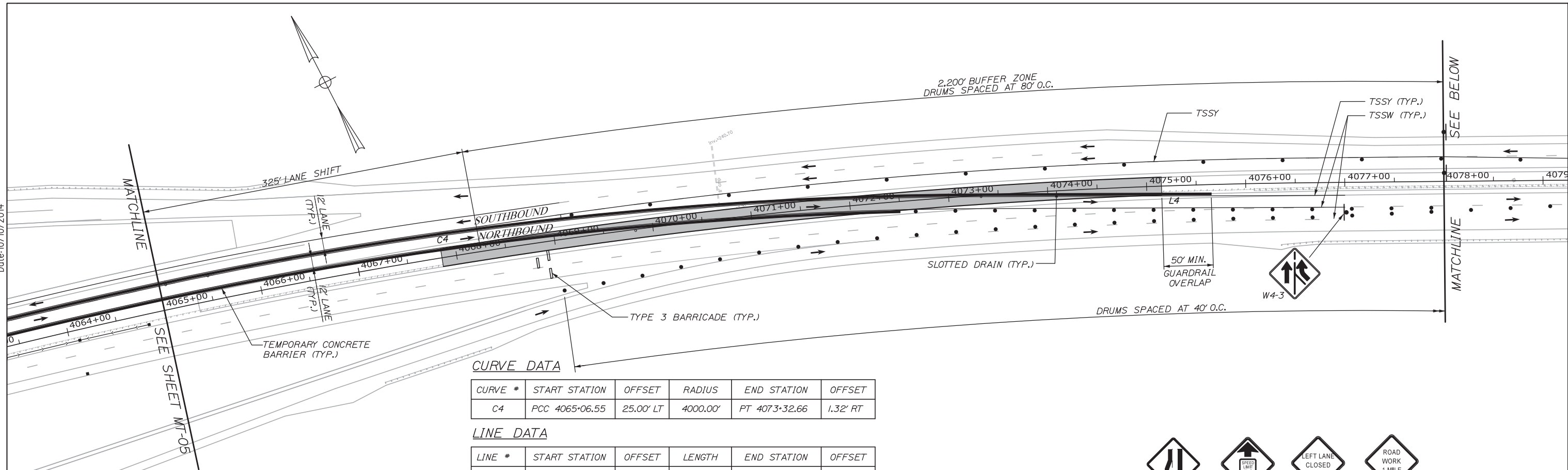
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 PHASE 2 - TRAFFIC CONTROL PLAN - 2

SHEET NUMBER: MT-05  
 12 OF 155

CONTRACT: 2014.10

Date: 10/10/2014



**CURVE DATA**

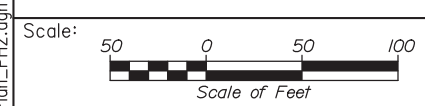
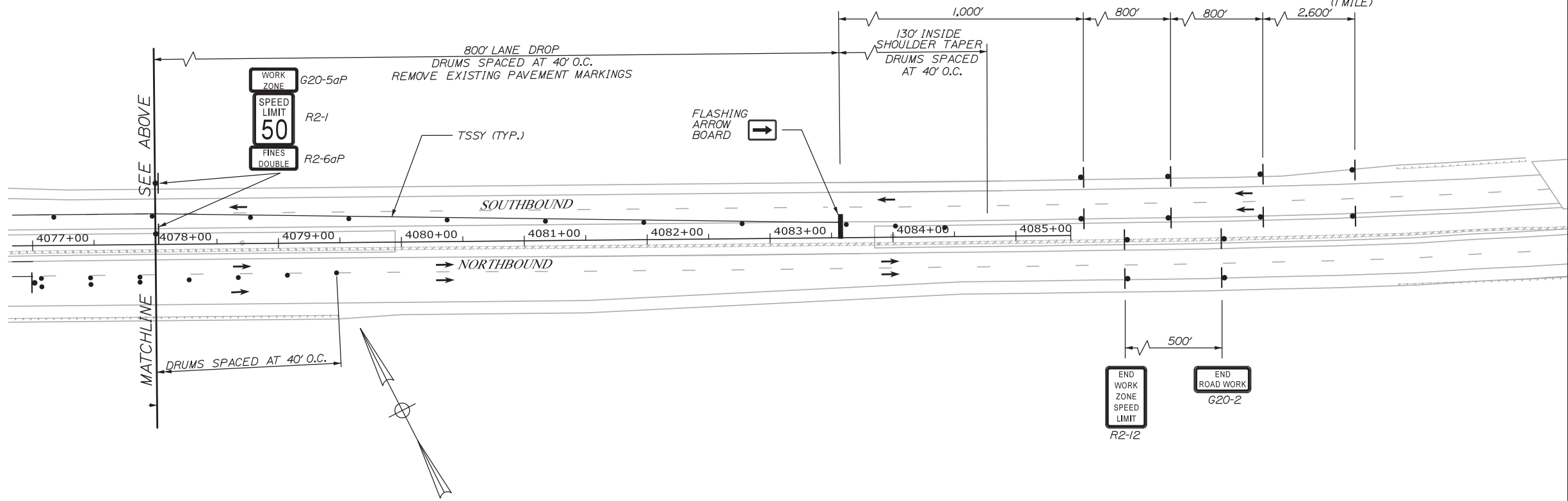
CURVE #	START STATION	OFFSET	RADIUS	END STATION	OFFSET
C4	PCC 4065+06.55	25.00' LT	4000.00'	PT 4073+32.66	1.32' RT

**LINE DATA**

LINE #	START STATION	OFFSET	LENGTH	END STATION	OFFSET
L4	PT 4073+32.66	1.32' RT	367.09'	PT 4077+00.00	13.00' RT

**LEGEND**

- TSSW TEMPORARY SINGLE SOLID WHITE LINE
- TSBW TEMPORARY SINGLE BROKEN WHITE LINE
- TSSY TEMPORARY SINGLE SOLID YELLOW LINE
- DRUM



Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	By	Date	
Designed	LZD	08/14	Checked	DAM	08/14
Drawn	DB	08/14	In Charge of	RAL	08/14

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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 PHASE 2 - TRAFFIC CONTROL PLAN - 3

Filename: 013\_HDP1an\_P142.dgn

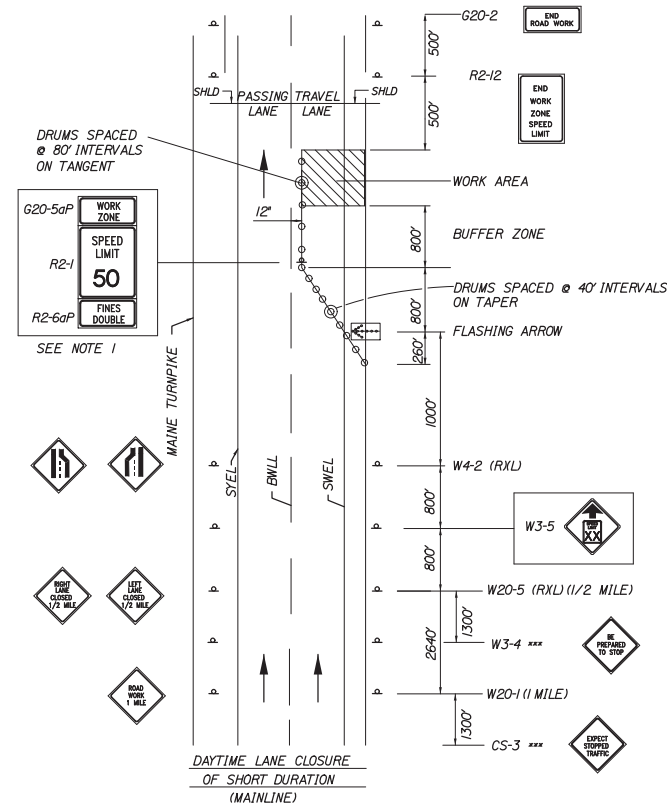
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

SHEET NUMBER: MT-06

13 OF 155

Date: 10/10/2014

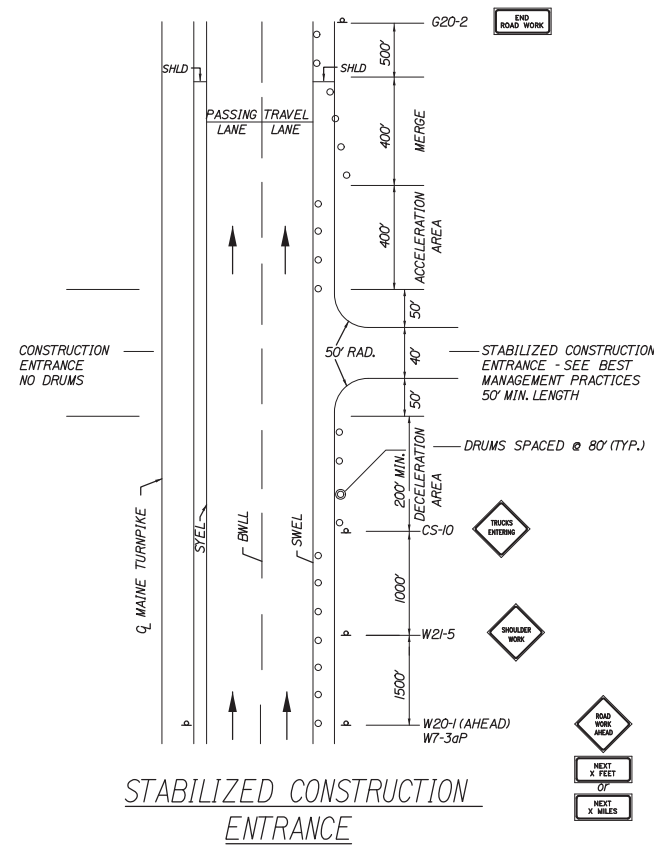


**SINGLE LANE CLOSURE - SIGNS ON EASELS**

1. FOR EASEL SET UP ONLY, THIS SIGN IS NOT BRACKETED. ONE SIGN ASSEMBLY IS PLACED AT THE END OF THE TAPER.
2. SIGNS DESIGNATED WITH \*\*\* SHALL BE USED DURING STOPPAGES OF TRAFFIC.
3. TWO ADDITIONAL LANE CLOSURE PACKAGES ARE INCLUDED IN QUANTITIES FOR SETUP AND REMOVAL OF CENTER BARRIER.

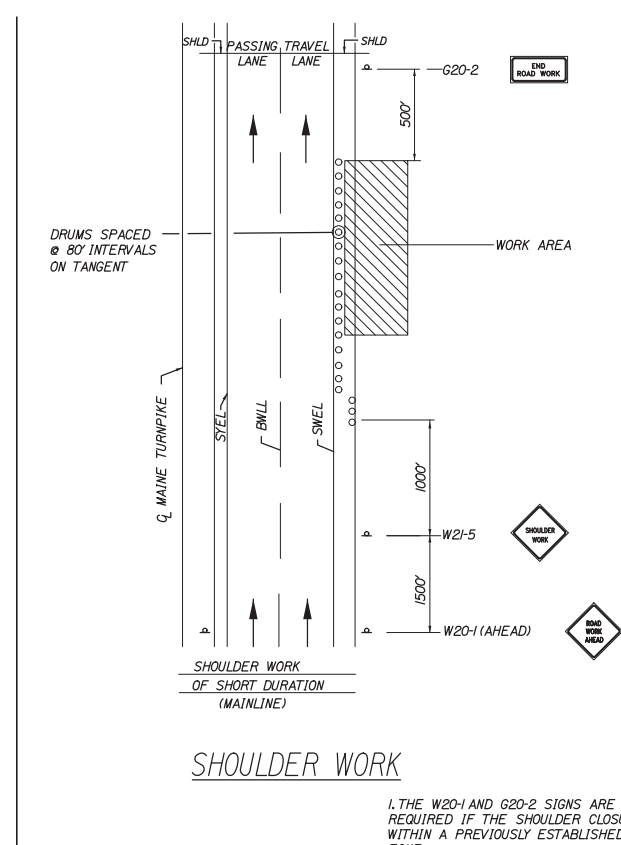
**ABBREVIATIONS FOR ALL M.O.T. PLANS**

BWLL = BROKEN WHITE LANE LINE  
 SWEL = SOLID WHITE EDGE LINE  
 SYEL = SOLID YELLOW EDGE LINE  
 TBWLL = TEMPORARY BROKEN WHITE LANE LINE  
 TSWEL = TEMPORARY SOLID WHITE EDGE LINE  
 TSYEL = TEMPORARY SOLID YELLOW EDGE LINE



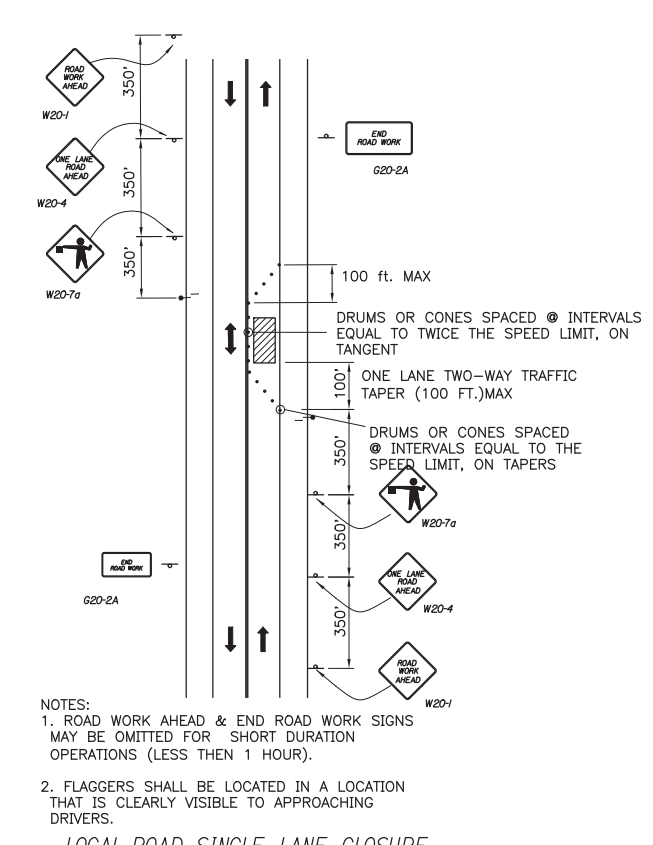
**STABILIZED CONSTRUCTION ENTRANCE**

1. SIGN G20-2 IS NOT REQUIRED IF ENTRANCE IS WITHIN THE WORK ZONE.

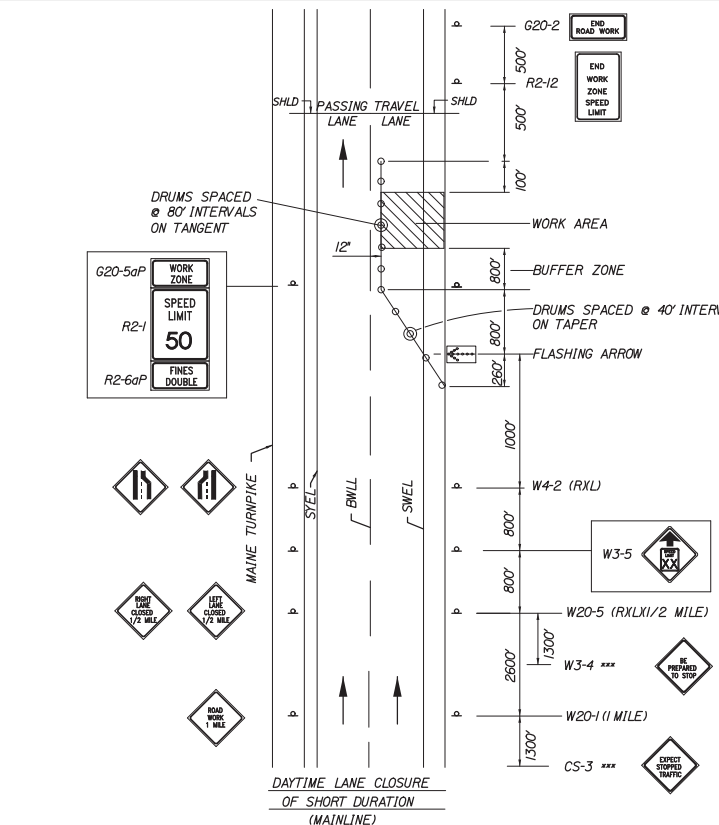


**SHOULDER WORK**

1. THE W20-1 AND G20-2 SIGNS ARE NOT REQUIRED IF THE SHOULDER CLOSURE IS WITHIN A PREVIOUSLY ESTABLISHED WORK ZONE.



- NOTES:
1. ROAD WORK AHEAD & END ROAD WORK SIGNS MAY BE OMITTED FOR SHORT DURATION OPERATIONS (LESS THAN 1 HOUR).
  2. FLAGGERS SHALL BE LOCATED IN A LOCATION THAT IS CLEARLY VISIBLE TO APPROACHING DRIVERS.



**SINGLE LANE CLOSURE - POST MOUNTED SIGN SETUP**

**GENERAL MAINTENANCE OF TRAFFIC NOTES:**

1. ALL WORK TO CONFORM TO MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES, 2002, EXCEPT AS MODIFIED BY THE MAINE TURNPIKE AUTHORITY'S GENERAL AND SPECIAL PROVISIONS.
2. ALL PAVEMENT STRIPING & SIGNING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T., F.H.W.A., LATEST EDITION. NOTE THERE IS A 2009 EDITION OF MUTCD.
3. THESE PLANS SHOW THE GENERAL CONDITION FOR TURNPIKE MAINLINE TRAFFIC CONTROL AND DEVICES. DURING CONSTRUCTION, SLIGHT MODIFICATIONS IN CONSTRUCTION PROCEDURE MAY OCCUR AND MAY REQUIRE SOME MINOR ADJUSTMENTS TO BE MADE IN THE FIELD, ALL PROCEDURES MUST BE APPROVED BY THE RESIDENT.
4. THE CONTRACTOR SHALL REMOVE ALL PAVEMENT MARKINGS THAT CONFLICT WITH PROPOSED PAVEMENT MARKINGS IN ACCORDANCE WITH THE SPECIFICATIONS AND MUTCD. PAYMENT SHALL BE MADE UNDER ITEM 627.77 - REMOVING PAVEMENT MARKINGS.
5. TEMPORARY PAVEMENT MARKINGS SHALL BE PAINTED, UNLESS OTHERWISE NOTED. PAYMENT FOR MARKINGS SHALL BE UNDER ITEM 627.681 - TEMPORARY 6 INCH PAINTED PAVEMENT MARKING LINE, YELLOW OR WHITE.
6. PAINTED PAVEMENT MARKINGS SHALL NOT BE INSTALLED ON NEW PAVEMENT, TEMPORARY PAVEMENT MARKING TAPE SHALL BE USED.
7. EXPOSED BARRIER ENDS SHALL BE PROTECTED BY A WORK ZONE CRASH CUSHION. PAYMENT WILL BE UNDER ITEM 527.341 - WORK ZONE CRASH CUSHION - TL-3.
8. REMOVAL OF TEMPORARY PAVEMENT MARKINGS ON FINAL PAVEMENT SURFACE SHALL BE DONE IN SUCH A MANNER TO REMOVE AS LITTLE PAVEMENT AS POSSIBLE.
9. FOR SIGN DETAILS, SEE MAINTENANCE OF TRAFFIC SIGN SUMMARY SHEETS.
10. "TRUCKS ENTERING" SIGN SHALL ALSO BE USED AT LOCATIONS WHERE TRUCKS ENTER THE WORK ZONE FROM THE TRAVEL LANE.
11. TRUCK MOUNTED ATTENUATOR SHALL NOT BE LOCATED WITHIN THE BUFFER ZONE.
12. THESE PLANS SHOW THE GENERAL LAYOUT OF CONSTRUCTION ZONE SIGNING; ALL LOCATIONS REQUIRING SIGNS MAY NOT BE SHOWN. FINAL CONTENT AND LAYOUT OF SIGNS MUST BE SUBMITTED TO AND APPROVED BY THE RESIDENT.

Scale:		Designed by:	
No.	Revision	By	Date
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
	By	Date	By
	LZD	08/14	Checked
	MPC	08/14	In Charge of

**HNTB**

HNTB CORPORATION  
 340 County Road, Suite 6-C  
 Westbrook, ME 04092  
 TEL (207) 774-5155  
 FAX (207) 228-0909

**MAINE TURNPIKE**

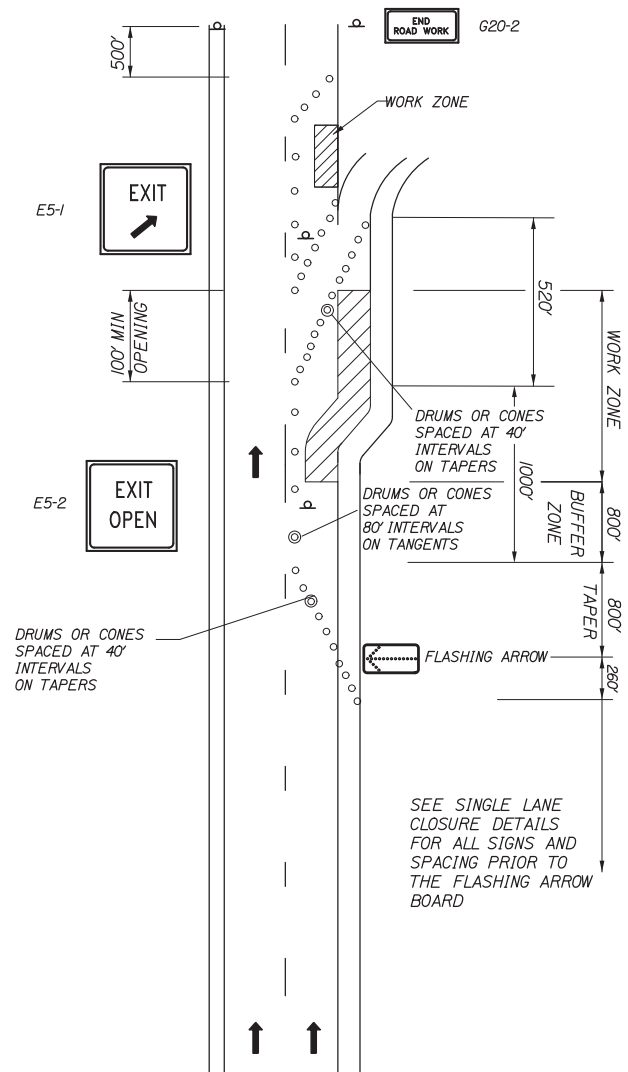
THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

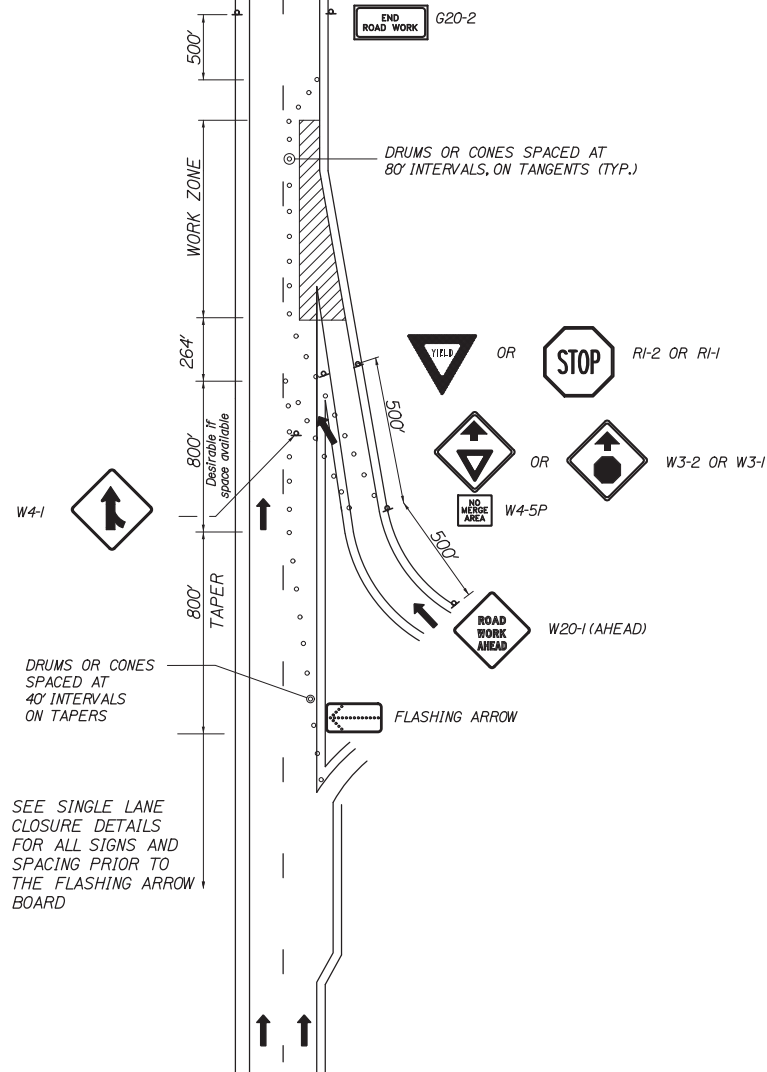
INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINTENANCE OF TRAFFIC  
 DETAILS AND GENERAL NOTES

SHEET NUMBER: MT-07  
 CONTRACT: 2014.10  
 14 OF 155

Filename: 014\_motDetails.dgn

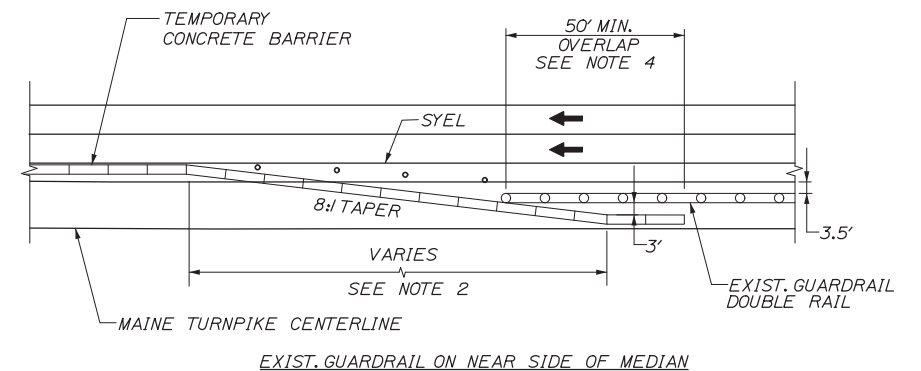
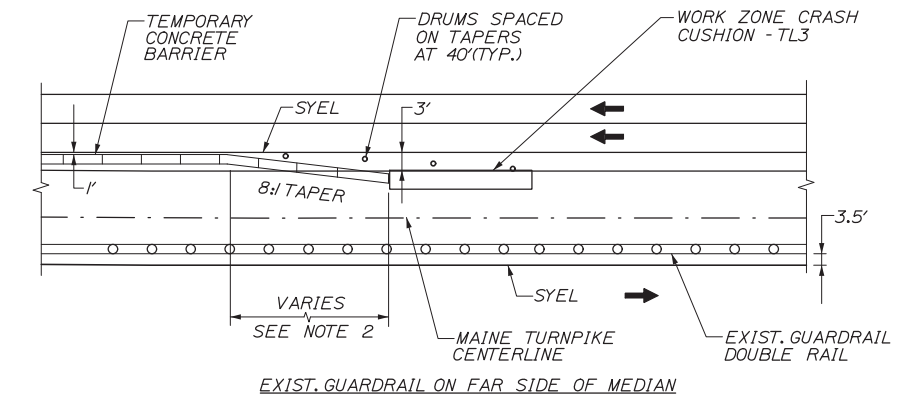


TRAVEL LANE CLOSURE AT AN EXIT RAMP



TRAVEL LANE CLOSURE AT AN ENTRANCE RAMP

DAYTIME LANE CLOSURES OF SHORT DURATION AT RAMPS  
(MAINLINE)



CONCRETE BARRIER / GUARDRAIL OVERLAP DETAIL  
NOT TO SCALE

NOTES

1. BARRIER ENDS SHALL BE PROTECTED BY A WORK ZONE CRASH CUSHION (TL-3), OR LAPPED BEHIND GUARDRAIL. SEE DETAILS THIS SHEET.
2. 8:1 MINIMUM TAPERED BARRIER LENGTH DEPENDENT ON LOCATION OF BARRIER RELATIVE TO MAINE TURNPIKE SHOULDERS OR LANES.
3. IF A WORK ZONE CRASH CUSHION - TL3 IS USED FOR A MEDIAN SHOULDER CLOSURE, THE CRASH CUSHION SYSTEM MUST BE FOUNDED ON A LEVEL SURFACE. ANY WORK NECESSARY TO PROVIDE A LEVEL SURFACE WILL BE INCIDENTAL TO THE CRASH CUSHION ITEM.
4. IF THE 50' MIN. LENGTH OF OVERLAP CANNOT BE MET, THEN THE EXISTING GUARDRAIL END MUST BE ANCHORED IN ACCORDANCE WITH DRAWING SEW02a IN THE AASHTO-AGC-ARBTA JOINT COMMITTEE TASK FORCE 13 REPORT, DRAFTED MAY 1995.

Scale:			
No.	Revision	By	Date

Designed by:						
<b>HNTB</b>						
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.						
	By	Date		By	Date	
	LZD	08/14		DAM	08/14	
	Drawn	MPC	08/14	In Charge of	RAL	08/14

HNTB CORPORATION  
340 County Road, Suite 6-C  
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.





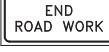









**INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINTENANCE OF TRAFFIC  
RAMP DETAILS**







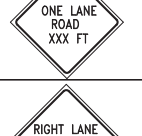
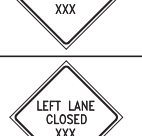

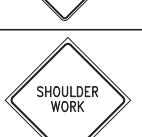

SHEET NUMBER: MT-08

CONTRACT: 2014.10

15 OF 155

Date: 10/10/2014

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	NOTES
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER			
CS-3	48"	48"		6" 6" 6"	4" 4"		4	ORANGE	BLACK		16.00 (64.00)	
CS-10	48"	48"		7" 7"	6"		1	ORANGE	BLACK		16.00 (16.00)	
E5-1	48"	36"		TEXT DIMENSIONS SHALL CONFORM TO *2004 EDITION - STANDARD HIGHWAY SIGNS - 2012 SUPPLEMENT*			1	COLORS SHALL CONFORM TO *2004 EDITION - STANDARD HIGHWAY SIGNS - 2012 SUPPLEMENT*			12.00 (12.00)	
E5-2	48"	36"					1				12.00 (12.00)	
G20-2	48"	24"					8				8.00 (64.00)	4 PH 1
G20-5aP	48"	24"					6				8.00 (48.00)	4 PH 1
M6-1	2"	15"					1				2.19 (2.19)	1 PH 1
R2-1	48"	60"					6				20.00 (120.00)	4 PH 1
R2-6aP	48"	24"					6				8.00 (48.00)	4 PH 1
R2-12	36"	54"					6				13.50 (81.00)	4 PH 1
R11-2	48"	30"					1				10.00 (10.00)	1 PH 1
W1-4L	48"	48"					2				16.00 (32.00)	2 PH 1
W1-4R	48"	48"					1				16.00 (16.00)	2 PH 1
W3-4	48"	48"					4				16.00 (64.00)	

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	NOTES
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER			
W3-5	48"	48"		TEXT DIMENSIONS SHALL CONFORM TO *2004 EDITION - STANDARD HIGHWAY SIGNS - 2012 SUPPLEMENT*			8	COLORS SHALL CONFORM TO *2004 EDITION - STANDARD HIGHWAY SIGNS - 2012 SUPPLEMENT*			16.00 (128.00)	4 PH 1
W4-2 (R)	48"	48"					6				16.00 (96.00)	2 PH 1
W4-2 (L)	48"	48"					6				16.00 (96.00)	2 PH 1
W4-3	48"	48"					1				16.00 (16.00)	1 PH 1
W7-3aP (X FEET)	24"	18"					2				6.00 (12.00)	
W20-1 (AHEAD) (1 MILE)	48"	48"					6 8				16.00 (96.00) 16.00 (128.00)	4 PH 1
W20-4 (1000 FT)	48"	48"					2				16.00 (32.00)	
W20-5 (R) (1/2 MILE)	48"	48"					6				16.00 (96.00)	2 PH 1
W20-5 (L) (1/2 MILE)	48"	48"					6				16.00 (96.00)	2 PH 1
W20-7	48"	48"					2				16.00 (32.00)	
W21-5	48"	48"					2				16.00 (32.00)	

NOTES:  
 1. TWO ADDITIONAL SINGLE LANE CLOSURE SIGN PACKAGES ON EASELS INCLUDED (EXCLUDES SIGNS R2-12 AND G20-2).  
 2. NUMBER OF SIGNS INDICATED IN NOTES COLUMN ARE WHERE PREVIOUSLY INSTALLED BY OTHERS IN THE EXISTING PHASE 1 SETUP.

Filename: 016\_SignSummary1.dgn

Scale:			
No.	Revision	By	Date

Designed by:			
<b>HNTB</b>			
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
By	Date	By	Date
Designed	LZD 08/14	Checked	DAM 08/14
Drawn	MPC 08/14	In Charge of	RAL 08/14

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## THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

### INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80) MAINTENANCE OF TRAFFIC SIGN SUMMARY I

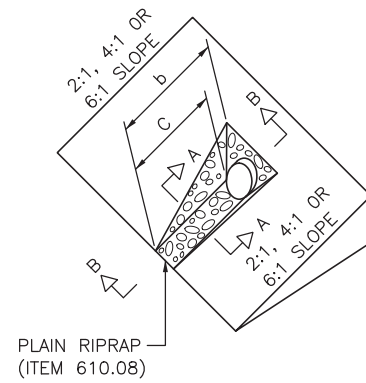
SHEET NUMBER: MT-09  
CONTRACT: 2014.10  
16 OF 155



Date:10/10/2014

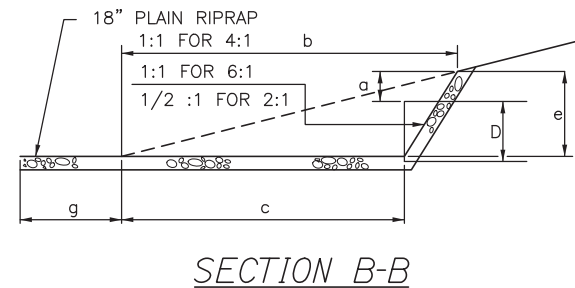
**DIMENSIONS FOR SLOPE OF 2:1**

D	a (FT)	b (FT)	c (FT)	e (FT)	f (FT)	g (FT)	STONE DEPTH (FT)	STONE (CY)
12"	1.00	4.00	3.00	2.00	6.00	1.00	1.50	1.30
15"	1.00	4.50	3.37	2.25	6.75	1.63	1.50	1.70
18"	1.00	5.00	3.75	2.50	7.50	2.25	1.50	2.09
21"	1.00	5.50	4.13	2.75	8.25	2.88	1.50	2.58
24"	1.00	6.00	4.50	3.00	9.00	3.50	1.50	3.12
30"	1.00	7.00	5.25	3.50	10.50	4.75	1.50	4.33
36"	1.00	8.00	6.00	4.00	12.00	6.00	1.50	5.75
42"	1.00	9.00	6.75	4.50	13.50	7.25	1.50	7.37
48"	1.00	10.00	7.50	5.00	15.00	8.50	1.50	9.18
54"	1.00	11.00	8.25	5.50	16.50	9.75	1.50	11.19
60"	1.00	12.00	9.00	6.00	18.00	11.00	1.50	13.40
66"	1.00	13.00	9.75	6.50	19.50	12.25	1.50	15.81
72"	1.00	14.00	10.50	7.00	21.00	13.50	1.50	18.41
84"	1.00	16.00	12.00	8.00	24.00	16.00	1.50	24.22



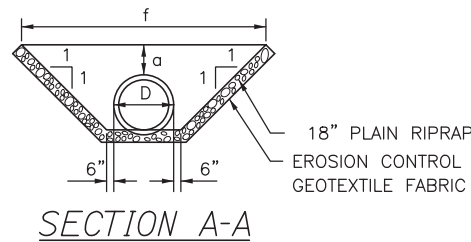
**DIMENSIONS FOR SLOPE OF 4:1**

D	a (FT)	b (FT)	c (FT)	e (FT)	f (FT)	g (FT)	STONE DEPTH (FT)	STONE (CY)
12"	1.00	8.00	6.00	2.00	6.00	0.00	1.50	2.20
15"	1.00	9.00	6.75	2.25	6.75	0.00	1.50	2.80
18"	1.00	10.00	7.50	2.50	7.50	0.00	1.50	3.40
21"	1.00	11.00	8.25	2.75	8.25	0.00	1.50	4.10
24"	1.00	12.00	9.00	3.00	9.00	0.00	1.50	4.86
30"	1.00	14.00	10.50	3.50	10.50	0.00	1.50	6.58
36"	1.00	16.00	12.00	4.00	12.00	0.00	1.50	8.56
42"	1.00	18.00	13.50	4.50	13.50	0.50	1.50	10.92
48"	1.00	20.00	15.00	5.00	15.00	1.00	1.50	13.57
54"	1.00	22.00	16.50	5.50	16.50	1.50	1.50	16.50
60"	1.00	24.00	18.00	6.00	18.00	2.00	1.50	19.72
66"	1.00	26.00	19.50	6.50	19.50	2.50	1.50	23.22
72"	1.00	28.00	21.00	7.00	21.00	3.00	1.50	27.01
84"	1.00	32.00	24.00	8.00	24.00	4.00	1.50	35.45



**DIMENSIONS FOR SLOPE OF 6:1**

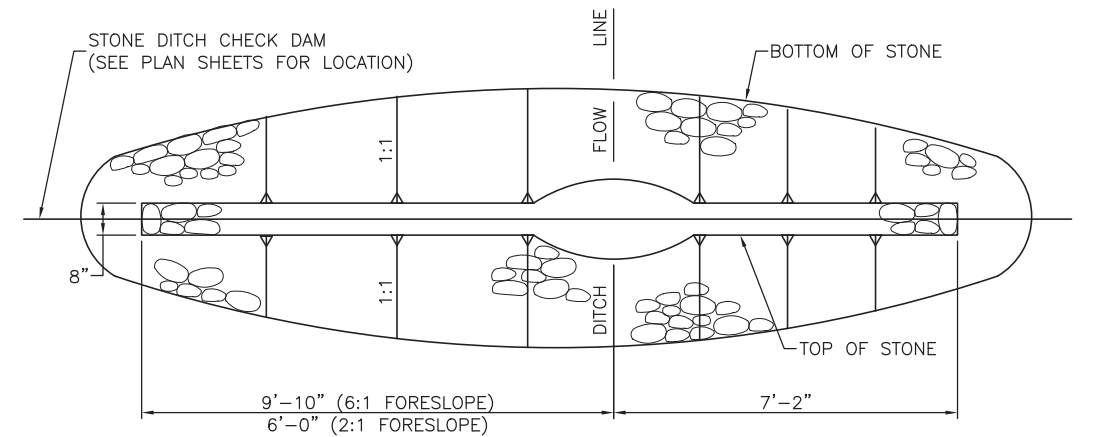
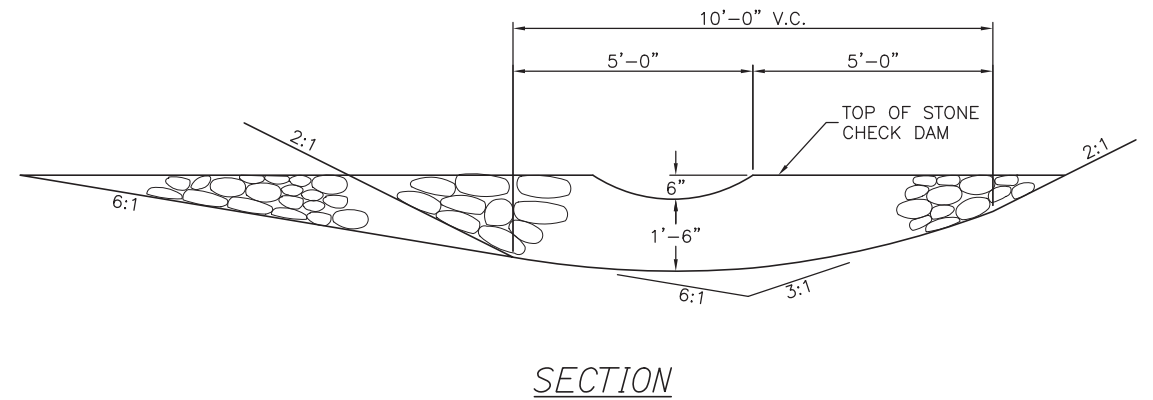
D	a (FT)	b (FT)	c (FT)	e (FT)	f (FT)	g (FT)	STONE DEPTH (FT)	STONE (CY)
12"	0.50	9.00	7.50	1.50	4.50	0.00	1.50	2.30
15"	0.50	10.50	8.75	1.75	5.50	0.00	1.50	2.93
18"	0.50	12.00	10.00	2.00	6.50	0.00	1.50	3.57
21"	0.50	13.50	11.25	2.25	7.25	0.00	1.50	4.46
24"	0.50	15.00	12.50	2.50	8.00	0.00	1.50	5.44
30"	0.50	18.00	15.00	3.00	9.50	0.00	1.50	7.71
36"	0.50	21.00	17.50	3.50	11.00	0.00	1.50	10.37
42"	0.50	24.00	20.00	4.00	12.50	0.00	1.50	13.42
48"	0.50	27.00	22.50	4.50	14.00	0.00	1.50	16.87
54"	0.50	30.00	25.00	5.00	15.50	0.00	1.50	20.70
60"	0.50	33.00	27.50	5.50	17.00	0.00	1.50	24.93
66"	0.50	36.00	30.00	6.00	18.50	0.00	1.50	29.55
72"	0.50	39.00	32.50	6.50	20.00	0.00	1.50	34.56
84"	0.50	45.00	37.50	7.50	23.00	0.00	1.50	45.76



**ROADWAY CULVERT END SLOPE TREATMENT**

**NOTES:**

1. THE DIMENSIONS SHOWN ARE APPROXIMATE AND MAY BE MODIFIED BY THE RESIDENT.
2. STONE QUANTITIES ARE FOR ONE END OF THE PIPE.



**STONE CHECK DAM**  
1" = 2'-0"

FORESLOPE	BACKSLOPE	QUANTITY C.Y. STONE
6:1	3:1	2.5
2:1	3:1	2.0

**NOTES:**

1. STONE FOR TEMPORARY AND PERMANENT STONE CHECK DAMS SHALL MEET THE REQUIREMENTS OF MDOT SPECIFICATION 703.29, STONE DITCH PROTECTION.
2. TEMPORARY STONE CHECK DAMS WILL BE PAID FOR UNDER ITEM 610.181.

Filename: 017\_Erosion\_Con\_Det1.dgn

No.	Revision	By	Date

Scale: \_\_\_\_\_ Designed by: \_\_\_\_\_

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

HNTB CORPORATION  
340 County Road, Suite 6-C  
Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 228-0909

**MAINE TURNPIKE**

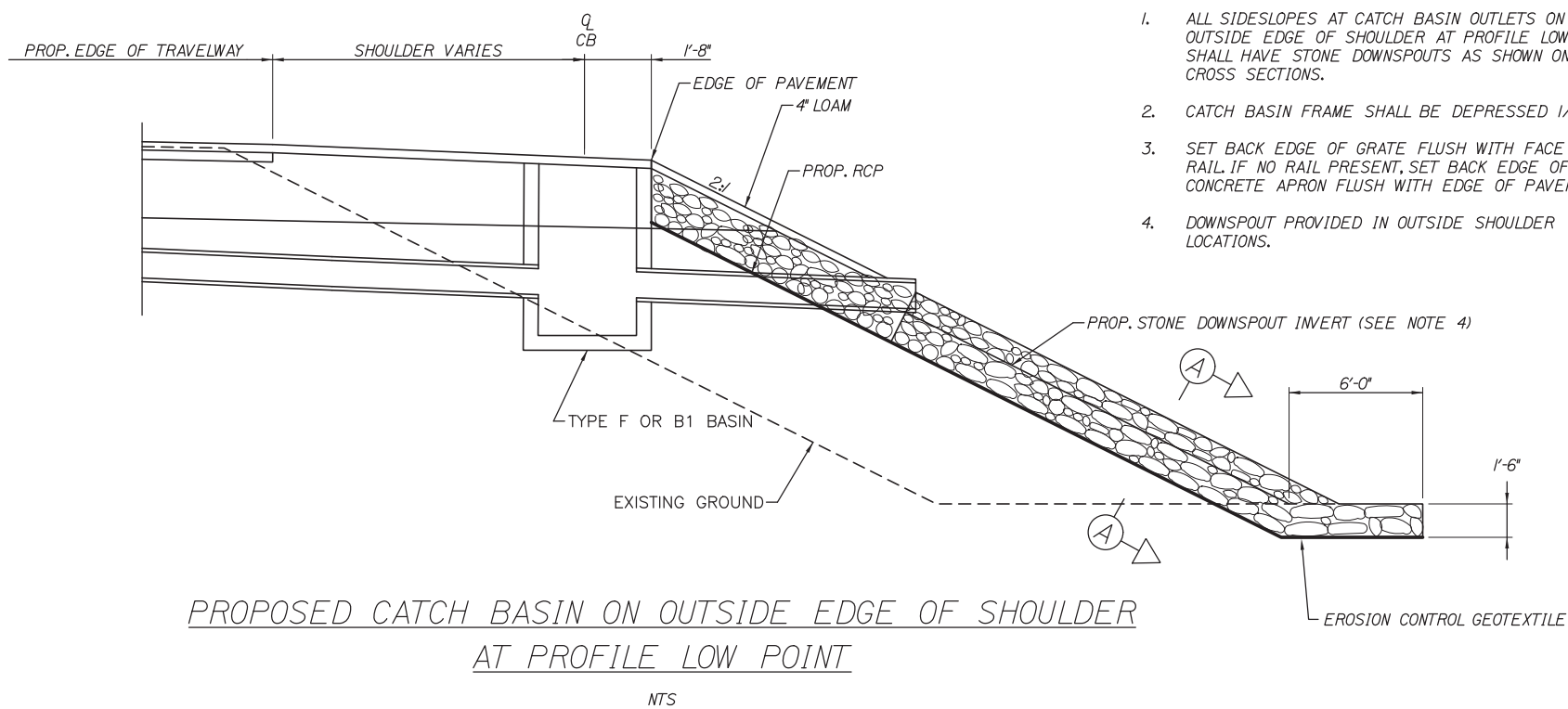
**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

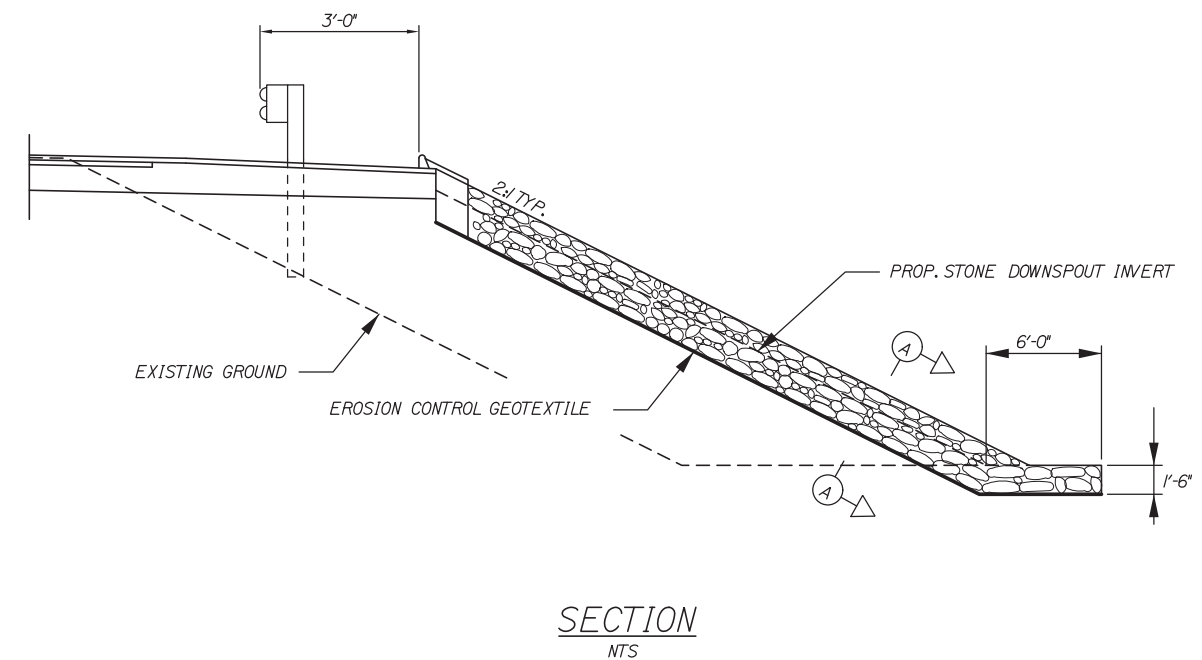
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
EROSION CONTROL DETAILS I

SHEET NUMBER: MD-01  
CONTRACT:2014.10  
17 OF 155

Date: 10/10/2014

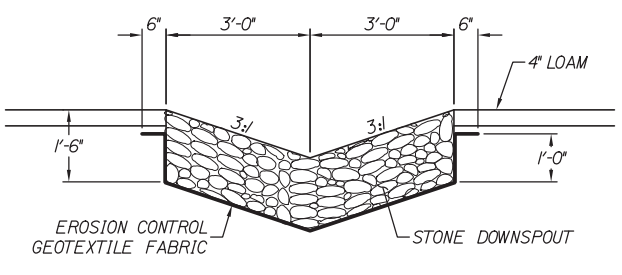
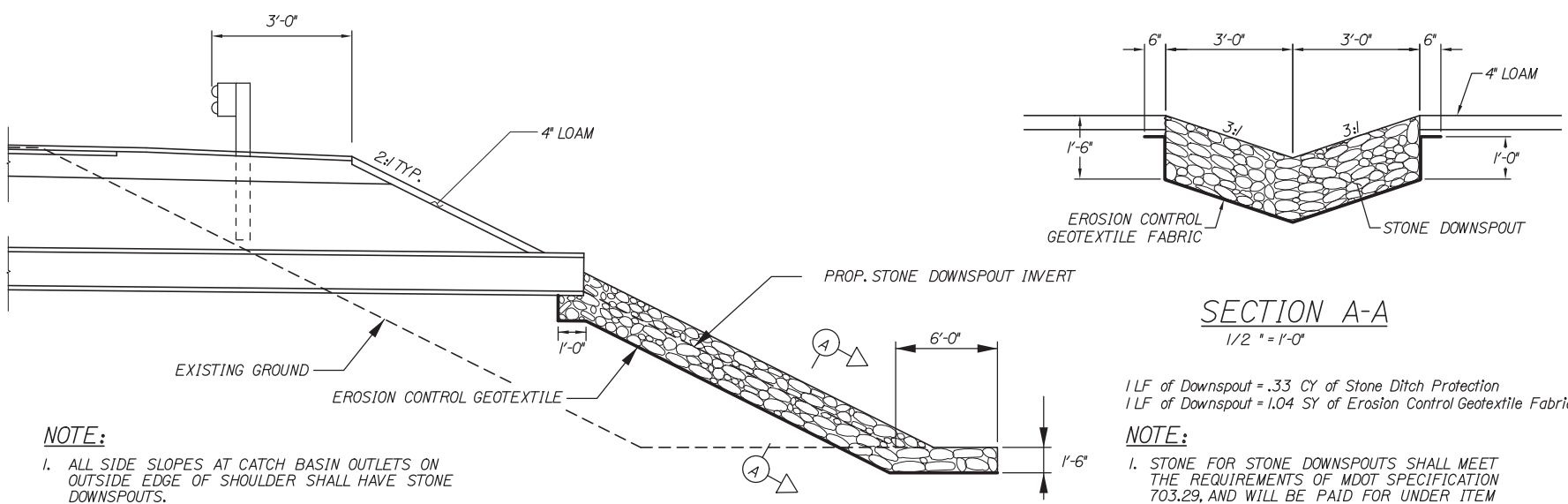


- NOTES:**
1. ALL SIDESLOPES AT CATCH BASIN OUTLETS ON OUTSIDE EDGE OF SHOULDER AT PROFILE LOWPOINT SHALL HAVE STONE DOWNSPOUTS AS SHOWN ON THE CROSS SECTIONS.
  2. CATCH BASIN FRAME SHALL BE DEPRESSED 1/4\".
  3. SET BACK EDGE OF GRATE FLUSH WITH FACE OF RAIL IF NO RAIL PRESENT, SET BACK EDGE OF CONCRETE APRON FLUSH WITH EDGE OF PAVEMENT.
  4. DOWNSPOUT PROVIDED IN OUTSIDE SHOULDER LOCATIONS.



**PROPOSED CATCH BASIN ON OUTSIDE EDGE OF SHOULDER AT PROFILE LOW POINT**  
NTS

**SECTION NTS**

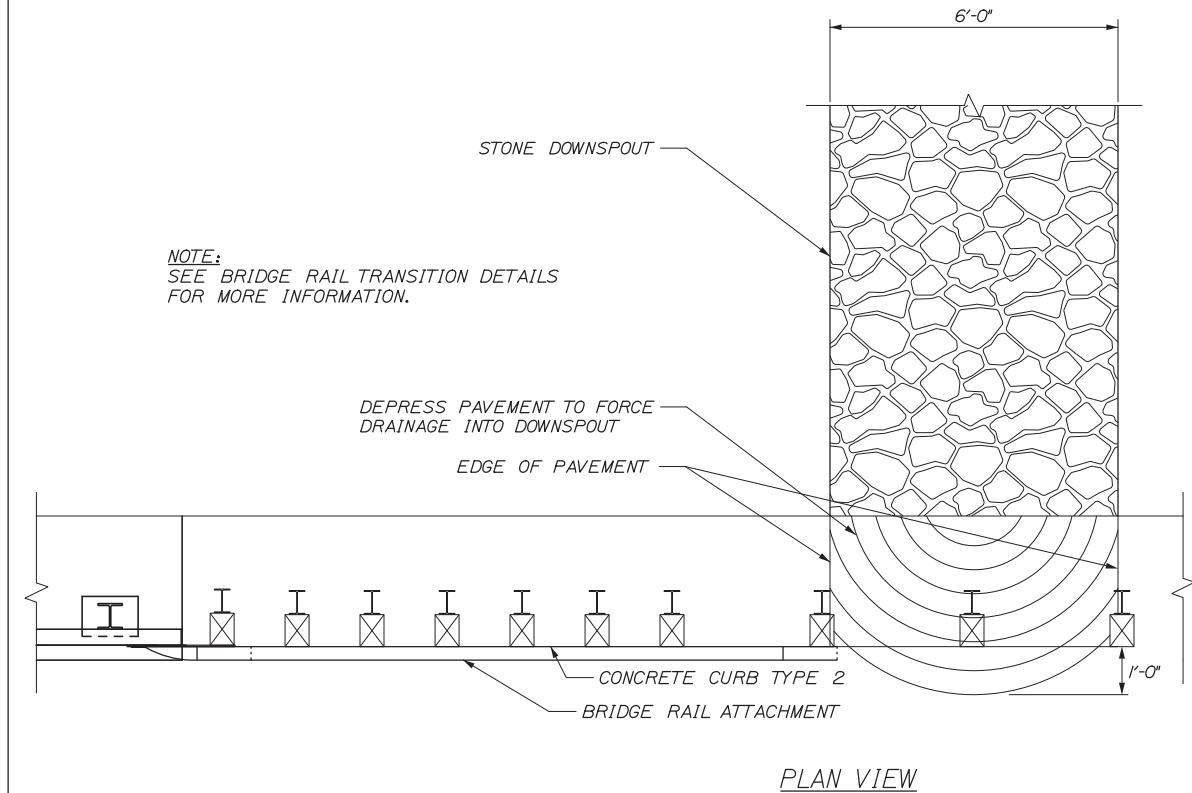


**SECTION A-A**  
1/2" = 1'-0"

- 1 LF of Downspout = .33 CY of Stone Ditch Protection  
1 LF of Downspout = 1.04 SY of Erosion Control Geotextile Fabric
- NOTE:**
1. STONE FOR STONE DOWNSPOUTS SHALL MEET THE REQUIREMENTS OF MDOT SPECIFICATION 703.29, AND WILL BE PAID FOR UNDER ITEM 610.18, STONE DITCH PROTECTION.

- NOTE:**
1. ALL SIDE SLOPES AT CATCH BASIN OUTLETS ON OUTSIDE EDGE OF SHOULDER SHALL HAVE STONE DOWNSPOUTS.

**CATCH BASIN OUTLET ON OUTSIDE EDGE OF SHOULDER**  
NTS



**NOTE:**  
SEE BRIDGE RAIL TRANSITION DETAILS FOR MORE INFORMATION.

DEPRESS PAVEMENT TO FORCE DRAINAGE INTO DOWNSPOUT  
EDGE OF PAVEMENT

**PLAN VIEW**

Filename: 018\_Erosion\_Con\_Det2.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
	Designed	RWH 08/14		Checked	DAM 08/14
	Drawn	MPC 08/14		In Charge of	RAL 08/14

HNTB CORPORATION  
340 County Road, Suite 6-C  
Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 228-0909



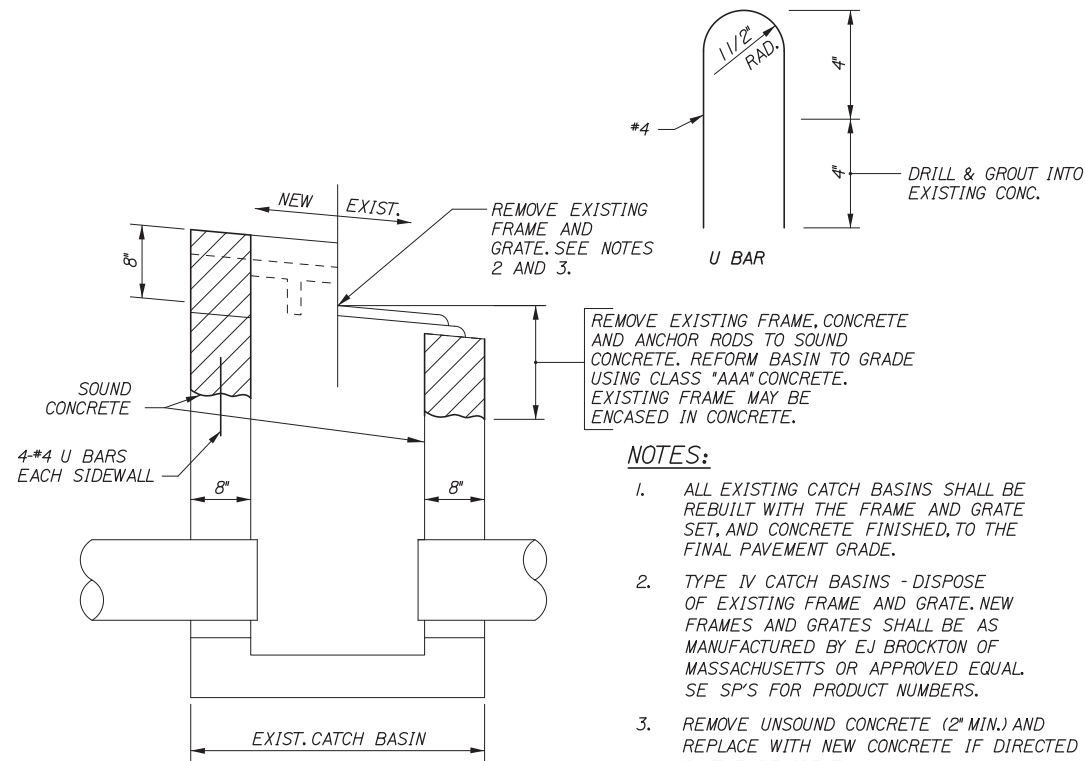
**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
EROSION CONTROL DETAILS 2

SHEET NUMBER: MD-02  
CONTRACT: 2014.10  
18 OF 155

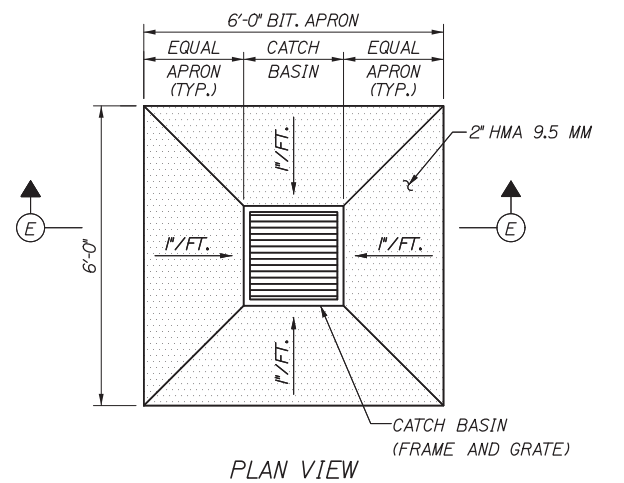
Date: 10/10/2014



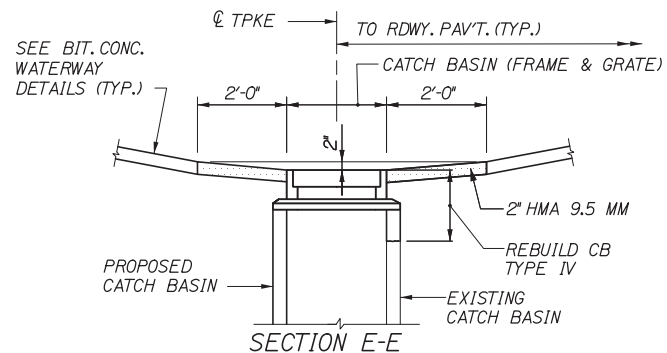
REBUILD CATCH BASIN TO GRADE - TYPE IV (NON-TRAFFIC)

NOTES:

1. ALL EXISTING CATCH BASINS SHALL BE REBUILT WITH THE FRAME AND GRATE SET, AND CONCRETE FINISHED, TO THE FINAL PAVEMENT GRADE.
2. TYPE IV CATCH BASINS - DISPOSE OF EXISTING FRAME AND GRATE. NEW FRAMES AND GRATES SHALL BE AS MANUFACTURED BY EJ BROCKTON OF MASSACHUSETTS OR APPROVED EQUAL SE SP'S FOR PRODUCT NUMBERS.
3. REMOVE UNSOUND CONCRETE (2" MIN.) AND REPLACE WITH NEW CONCRETE IF DIRECTED BY THE RESIDENT.

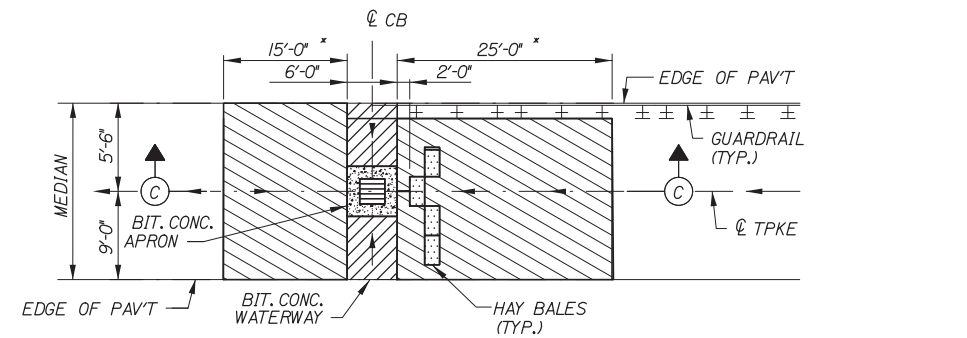


PLAN VIEW

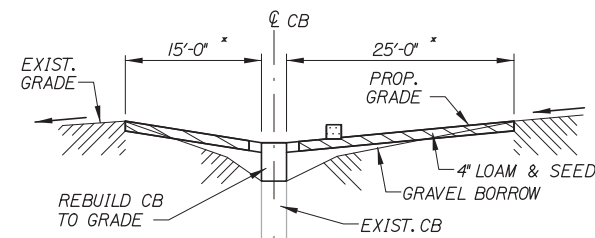


SECTION E-E

CATCH BASIN IN MEDIAN NOT TO SCALE



PLAN VIEW

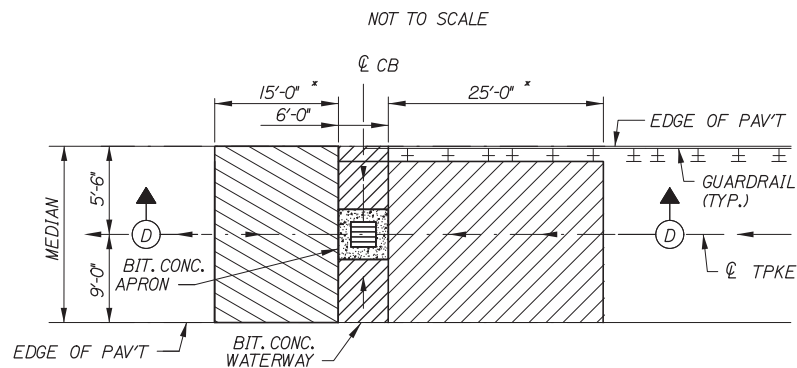


SECTION C-C

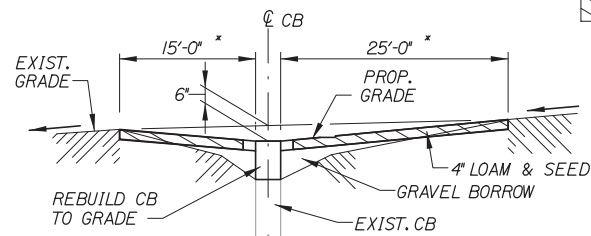
NOTES:

1. INSTALL MINIMUM OF 10 HAY BALES (5 EACH SIDE OF CATCH BASIN) AT LOW POINTS.
2. INSTALL MINIMUM OF 5 HAY BALES UP STREAM OF CATCH BASIN ON GRADE.
3. THE EXACT LOCATION AND NUMBER OF BALES SHALL BE AS DIRECTED BY THE RESIDENT.
4. LOAM AND SEEDING METHOD NUMBER 2 WILL NOT BE MEASURED SEPARATELY FOR PAYMENT, BUT SHALL BE CONSIDERED INCIDENTAL TO ITEMS 459.06 OR 459.061

PROPOSED EROSION CONTROL AT MEDIAN NOT TO SCALE

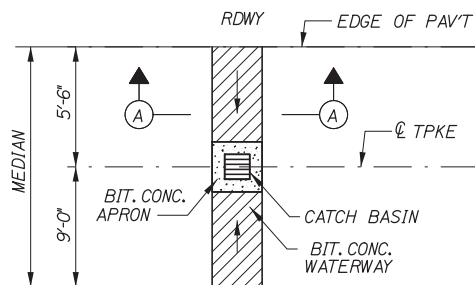


PLAN VIEW

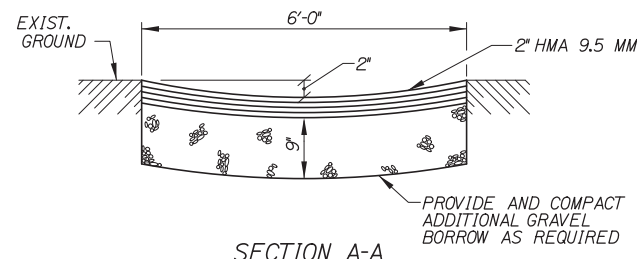


SECTION D-D

RIM ELEVATION FOR TYPE IV CATCH BASIN

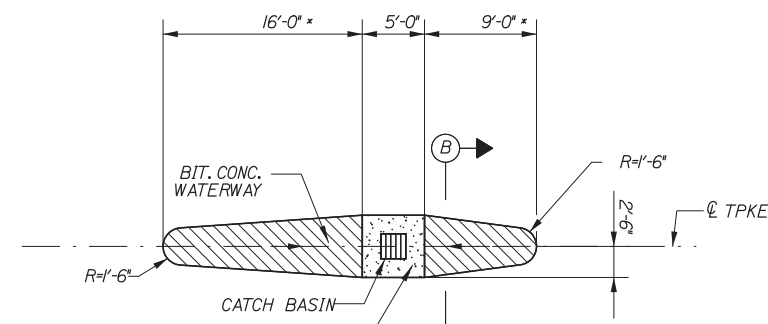


PLAN VIEW

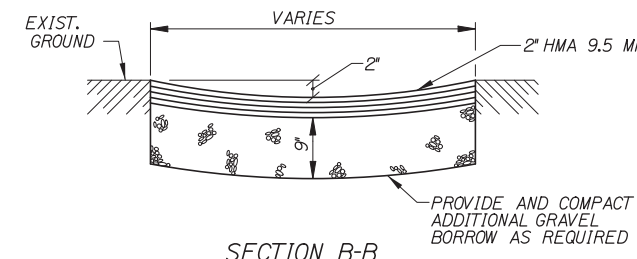


SECTION A-A

BITUMINOUS CONCRETE WATERWAY, TYPE I, AT ROADWAY LOW POINTS NOT TO SCALE



PLAN VIEW



SECTION B-B

BITUMINOUS CONCRETE WATERWAY, TYPE II NOT TO SCALE

Scale: NOT TO SCALE			
No.	Revision	By	Date

Designed by:			
<b>HNTB</b>			
By	Date	By	Date
Designed	HME 10/14	Checked	DAM 10/14
Drawn	MHP 10/14	In Charge of	RAL 10/14

MAINE TURNPIKE AUTHORITY  
 2360 Congress Street  
 Portland, ME 04102  
 TEL (207) 871-7771  
 FAX (207) 879-5567



**THE GOLD STAR MEMORIAL HIGHWAY**

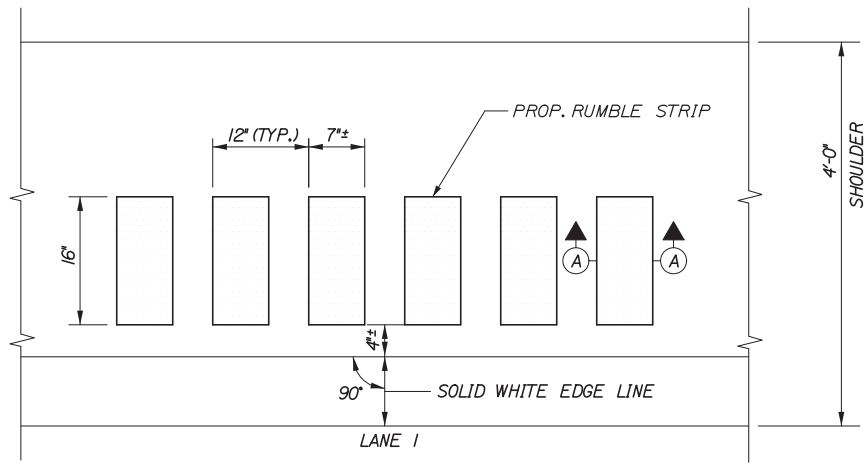
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON EXIT 80  
 DRAINAGE DETAILS

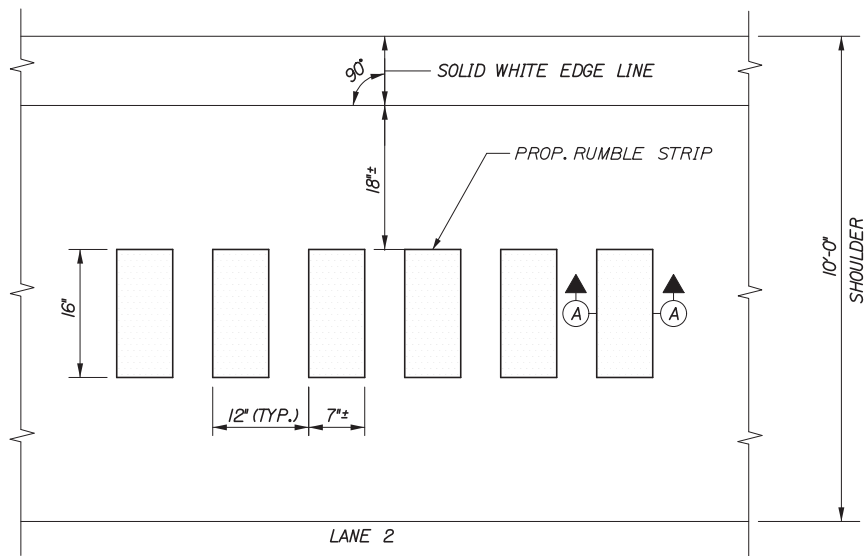
SHEET NUMBER: MD-03  
 19 OF 155

Filename: 019\_DrainDets.dgn

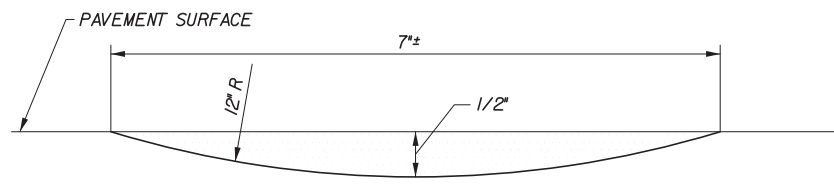
Date:10/10/2014



PLAN VIEW - LANE 1



PLAN VIEW - LANE 2

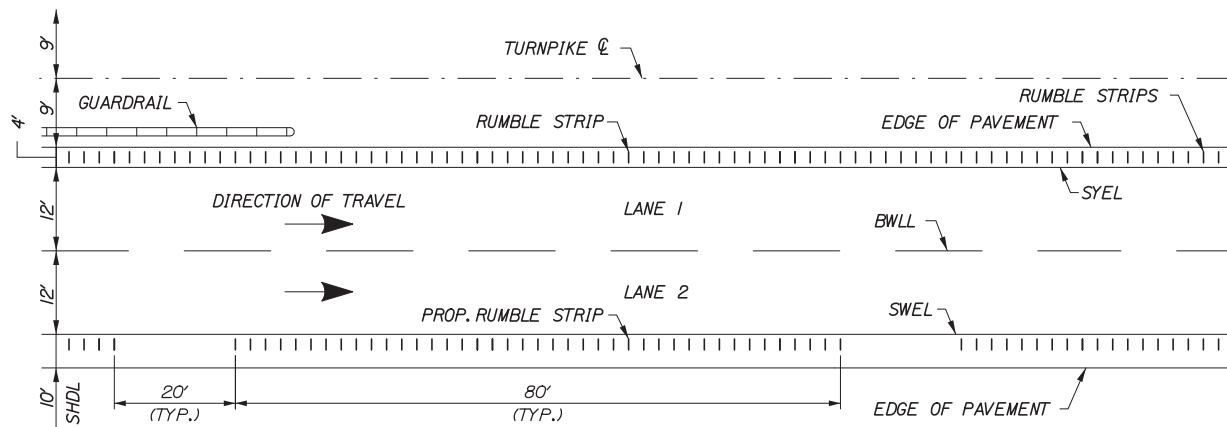


SECTION A-A  
NOT TO SCALE

RUMBLE STRIPS DETAILS

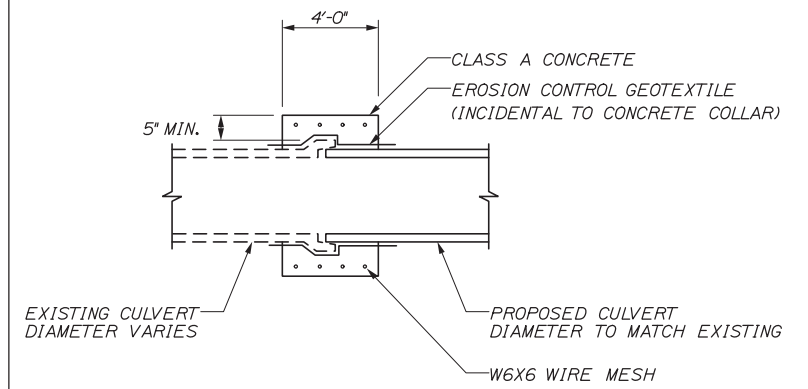
NOT TO SCALE

NOTE:  
1. INSTALL LANE 2 RUMBLE STRIPS WITH A 20' GAP EVERY 100'.  
(I.E. 80' OF RUMBLE STRIP AND 20' OF NO RUMBLE STRIP; REPEAT...)

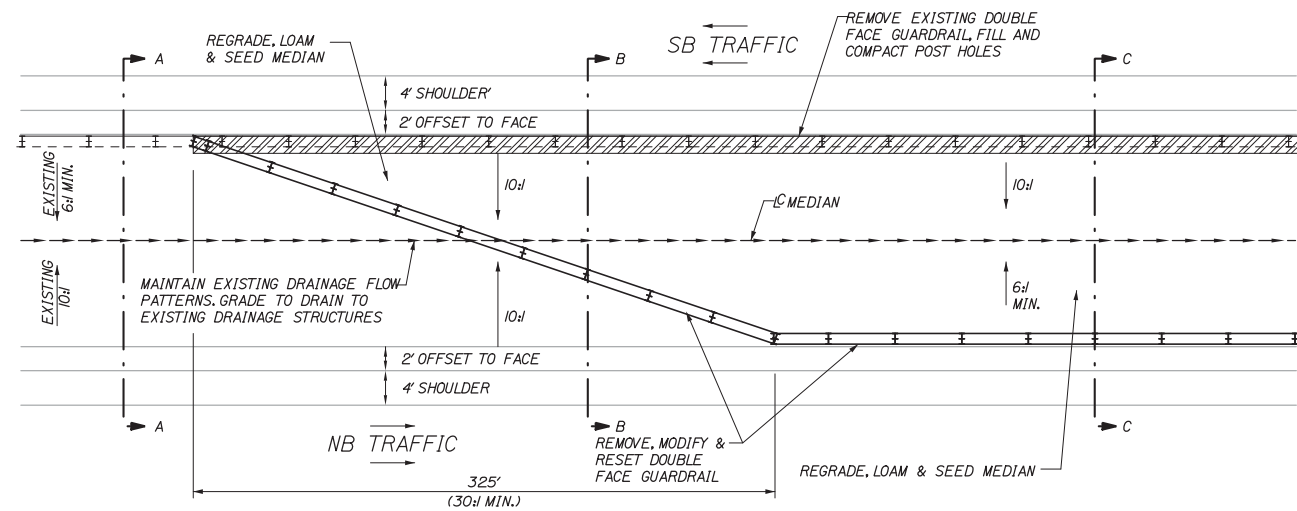


LOCATION OF RUMBLE STRIPS

NOT TO SCALE

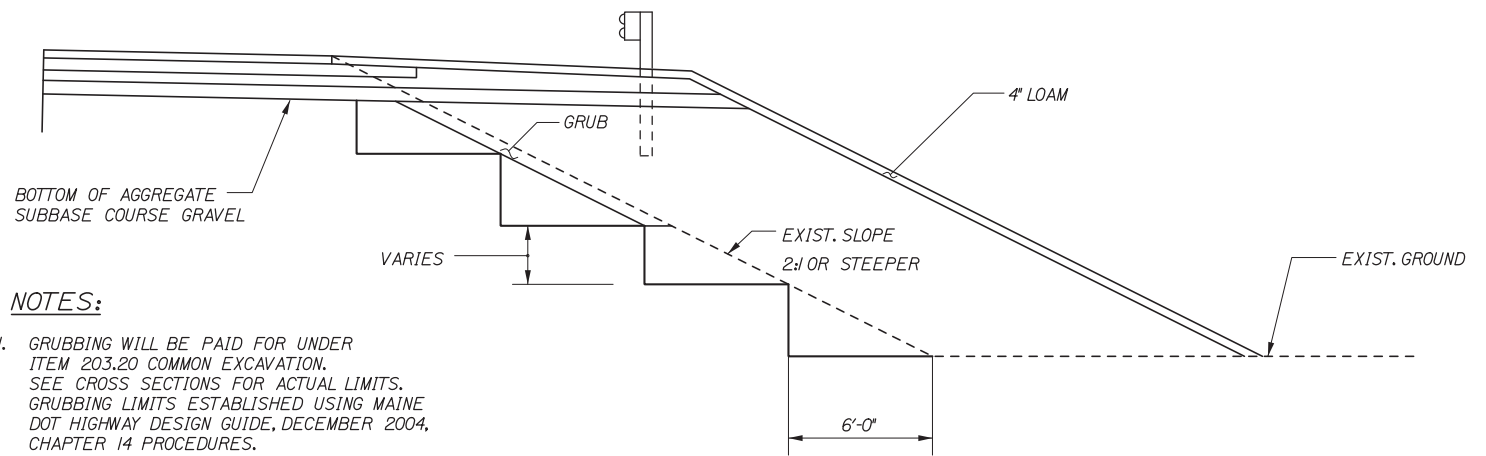


CONCRETE COLLAR FOR  
REINFORCED CONCRETE PIPES



GUARDRAIL TAPER DETAIL

NTS



BENCH DETAIL

1" = 4'-0"

NOTES:

- GRUBBING WILL BE PAID FOR UNDER ITEM 203.20 COMMON EXCAVATION. SEE CROSS SECTIONS FOR ACTUAL LIMITS. GRUBBING LIMITS ESTABLISHED USING MAINE DOT HIGHWAY DESIGN GUIDE, DECEMBER 2004, CHAPTER 14 PROCEDURES.
- EXCAVATION FOR BENCHING TO RECEIVE EMBANKMENTS IS INCIDENTAL TO ITEM 203.20 COMMON EXCAVATION.
- BENCHING IS REQUIRED WHERE FILL IS TO BE PLACED ON EXISTING EMBANKMENTS WITH SLOPES 2:1 OR STEEPER.

Filename: 020\_MiscDetails1.dgn

Scale:		Designed by:	
No.	Revision	By	Date

<b>HNTB</b>			
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
Designed	RWH	08/14	Checked DAM 08/14
Drawn	MPC	08/14	In Charge of RAL 08/14

HNTB CORPORATION  
340 County Road, Suite 6-C  
Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 228-0909



**THE GOLD STAR  
MEMORIAL HIGHWAY**

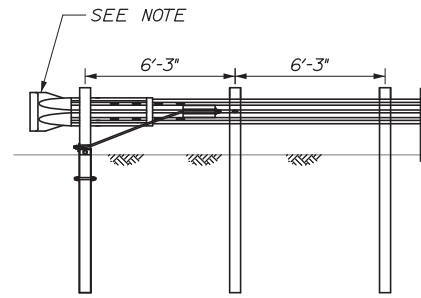
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)**

MISCELLANEOUS DETAILS

SHEET NUMBER: MD-04  
CONTRACT: 2014.10  
20 OF 155

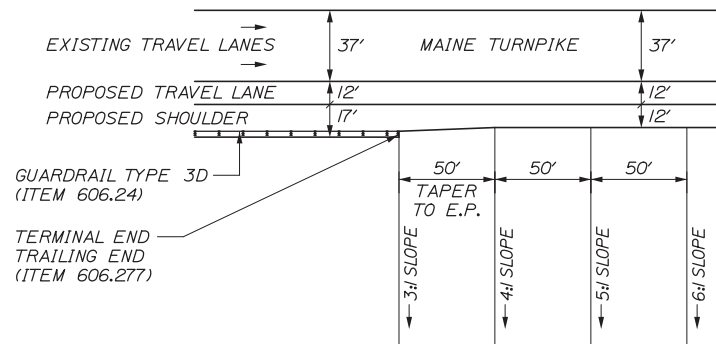
Date:10/10/2014



**TERMINAL END - TRAILING END**  
(ITEM 606.277)

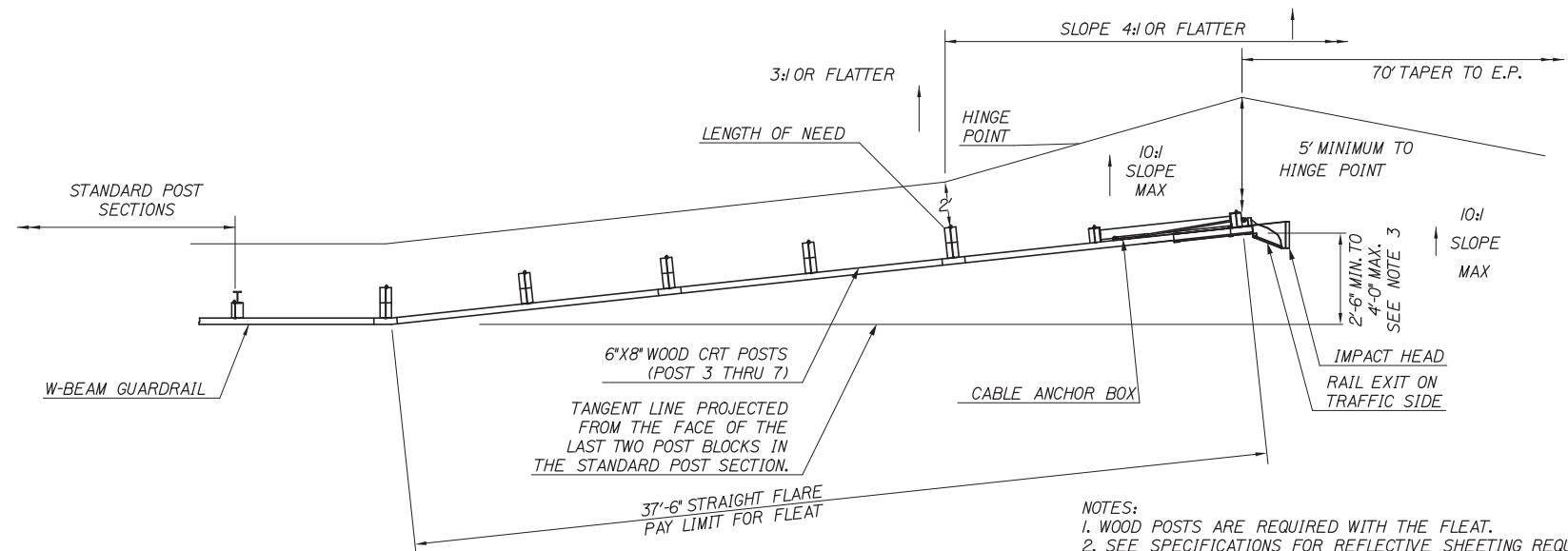
1" = 4'-0"

NOTE:  
FOR DOUBLE FACE TERMINAL END TRAILING END,  
INSTALL RWE06a IN PLACE OF RWE03a.



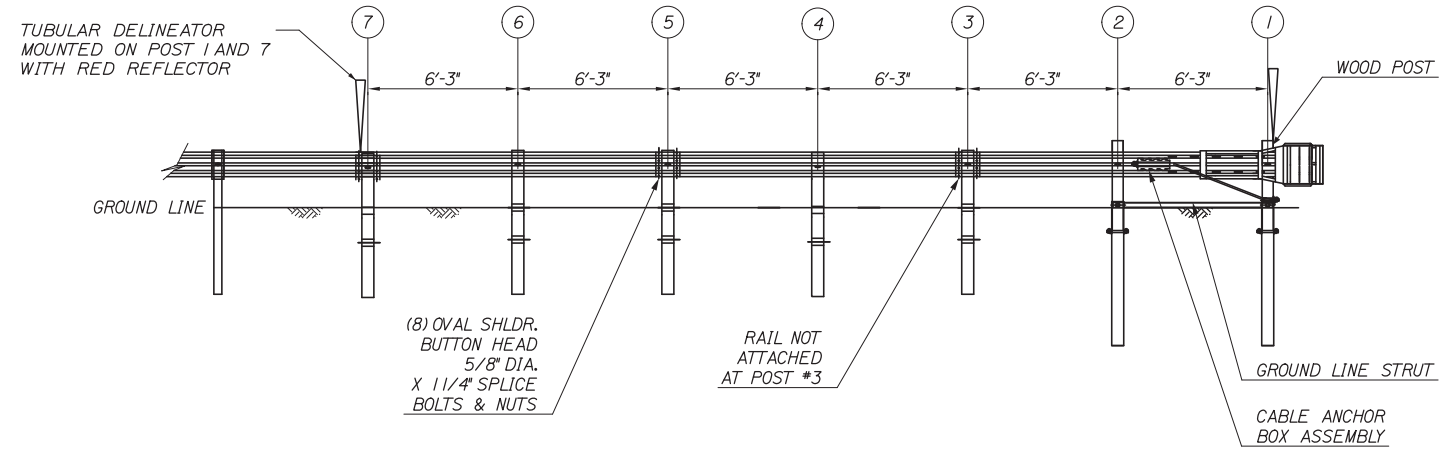
**TERMINAL END - TRAILING END**  
**PAVEMENT TRANSITION DETAIL**

1" = 50'-0"



**PLAN**

NOTES:  
1. WOOD POSTS ARE REQUIRED WITH THE FLEAT.  
2. SEE SPECIFICATIONS FOR REFLECTIVE SHEETING REQUIREMENTS.  
3. FOR THIS CONTRACT, IMPACT HEAD SHALL BE INSTALLED AT THE 4'-0" MAX. OFFSET.  
4. EXISTING OR PROPOSED TYPE 3d GUARDRAIL SHALL TAPER FROM 30' TO TOP OF RAIL TO THE MANUFACTURER'S RECOMMENDED HEIGHT AT THE FLEAT, OVER A DISTANCE OF 50'.



**ELEVATION**

**GUARDRAIL 350 FLEAT TERMINAL**

N.T.S.

Filename: 021\_MiscellaneousDetails.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

HNTB CORPORATION  
340 County Road, Suite 6-C  
Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 228-0909

**THE GOLD STAR**  
**MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

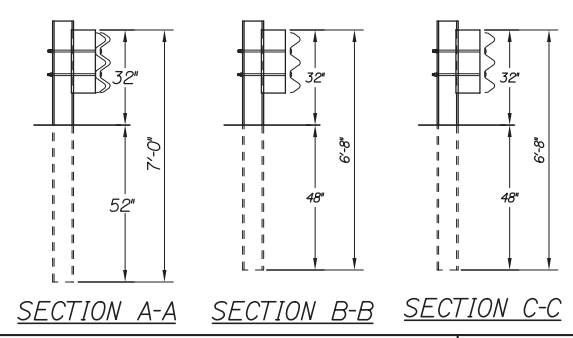
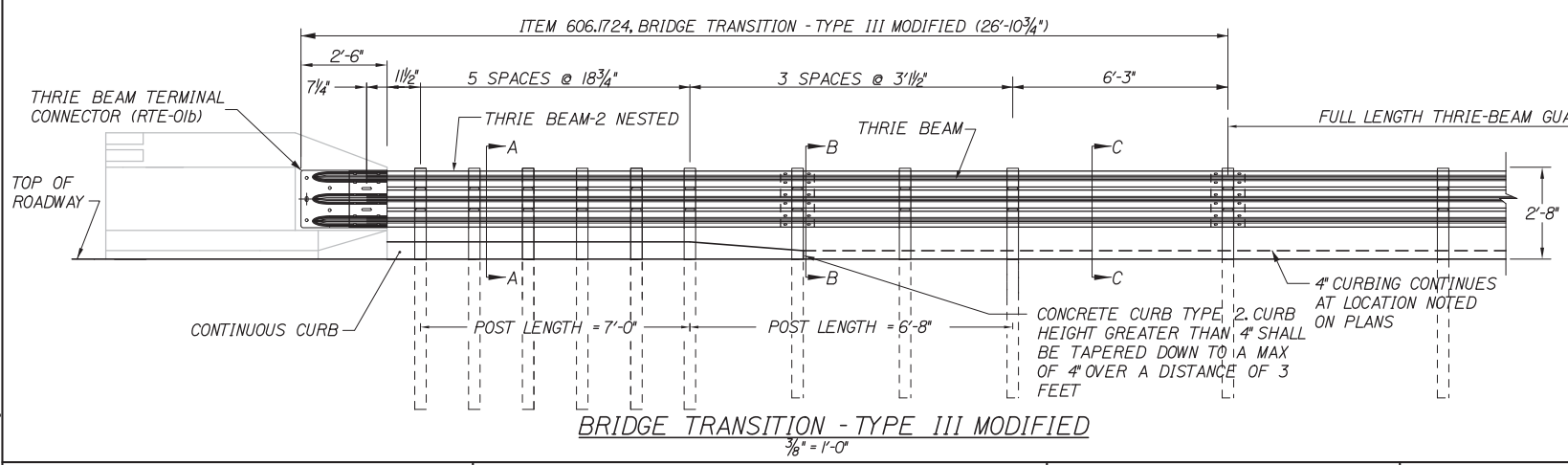
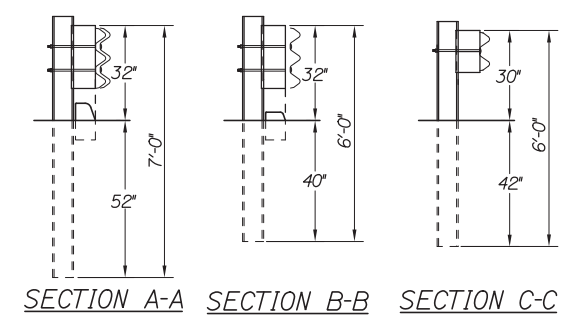
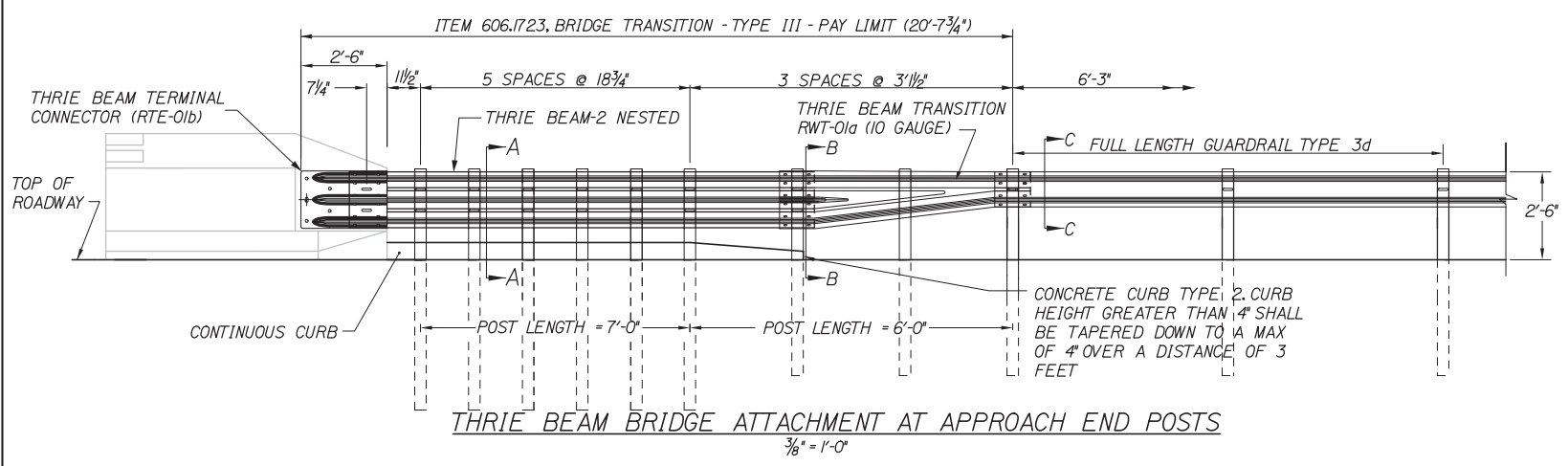
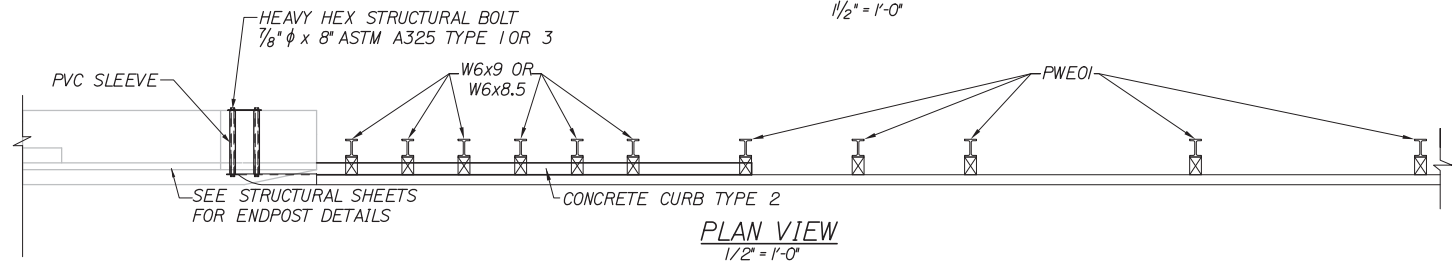
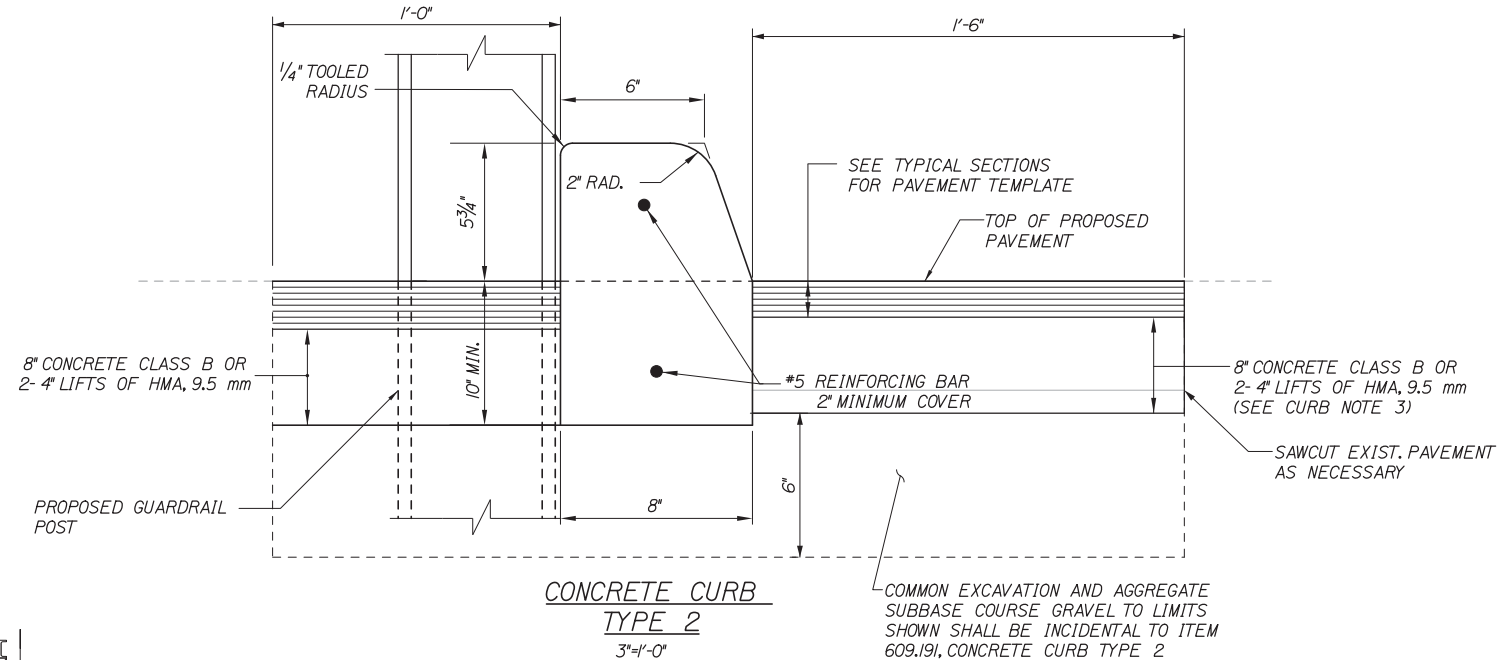
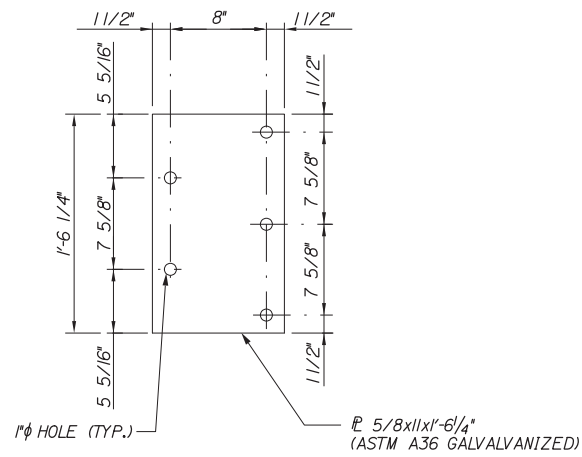
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

GUARDRAIL DETAILS

SHEET NUMBER: MD-05  
21 OF 155

CONTRACT: 2014.10

Date: 10/10/2014



**CURB NOTES:**

- CURBING SHALL BE EITHER PRECAST CONCRETE, CAST-IN-PLACE CONCRETE OR GRANITE TO MEET DIMENSIONS SHOWN ON THE PLANS. CURBING SHALL BE PAID UNDER ITEM 609.191 CONCRETE CURB TYPE 2.
- CONCRETE CURBS USED IN CONJUNCTION WITH THRIE-BEAM BRIDGE ATTACHMENT SHALL BE TYPE 2. SEE DETAILS THIS SHEET. CONCRETE CURBS SHALL BE CONTINUOUS WITHOUT DRAINAGE CUTS.
- CURB TRANSITION SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 609.191 CONCRETE CURB TYPE 2.
- SAWCUTTING EXISTING PAVEMENT, CONCRETE FILL, AND PAVEMENT TO LIMITS SHOWN SHALL BE INCIDENTAL TO ITEM 609.191

**GENERAL NOTES:**

- ADDITIONAL HOLES MAY BE MADE IN THE THRIE-BEAM PANELS BY DRILLING, PUNCHING, OR OTHER MEANS THAT PRODUCE A NEAT, CLEAN HOLE. BURNING HOLES WILL NOT BE ALLOWED.
- THRIE BEAM SHALL BE PLACED WITH THE COMPOSITE BLOCKOUT FACE IN FRONT OF OR DIRECTLY ABOVE THE CURB FACE.
- RAIL ELEMENT SHALL MEET ALL REQUIREMENTS OF AASHTO M-180 EXCEPT AS MODIFIED ON THE PLANS. THE THRIE BEAM TRANSITION TO W-BEAM SHALL BE OF THE SAME MATERIAL, BUT SHALL NOT BE LESS THAN 10 GAUGE.
- AFTER INSTALLATION IS COMPLETE, UPSET THE THREAD ON THE ANCHOR BOLTS IN THREE PLACES AROUND EACH BOLT, AT THE JUNCTION OF THE NUT AND THE EXPOSED THREAD, WITH A CENTER PUNCH OR SIMILAR TOOL.
- STANDARD BARRIER HARDWARE HAS BEEN USED TO DEVELOP THESE GUARDRAIL ATTACHMENTS. DESIGNATIONS PROVIDED IN PARENTHESES RELATE TO STANDARD ELEMENTS DETAILED IN "A GUIDE TO STANDARDIZED BARRIER RAIL HARDWARE," 1979. AASHTO-AGC-ARTBA JOINT COOPERATE COMMITTEE.
- 1" HOLE IN CONCRETE SHALL BE FORMED BY A METHOD APPROVED BY THE ENGINEER
- FOR ITEM 606.1736, SECTION C-C GUARDRAIL TYPE 3d EXISTING OR PROPOSED SHALL TAPER FROM 30" TO TOP OF POST AT TRANSITION TO 27" OVER 50' MIN.

Filename: 022\_BridgeTrans3\_V2.dgn

Scale: NOT TO SCALE			
No.	Revision	By	Date

Designed by:			
By	Date	By	Date
Designed	RWH 08/14	Checked	DAM 08/14
Drawn	MPC 08/14	In Charge of	RAL 08/14

MAINE TURNPIKE AUTHORITY  
 2360 Congress Street  
 Portland, ME 04102  
 TEL (207) 871-7771  
 FAX (207) 879-5567

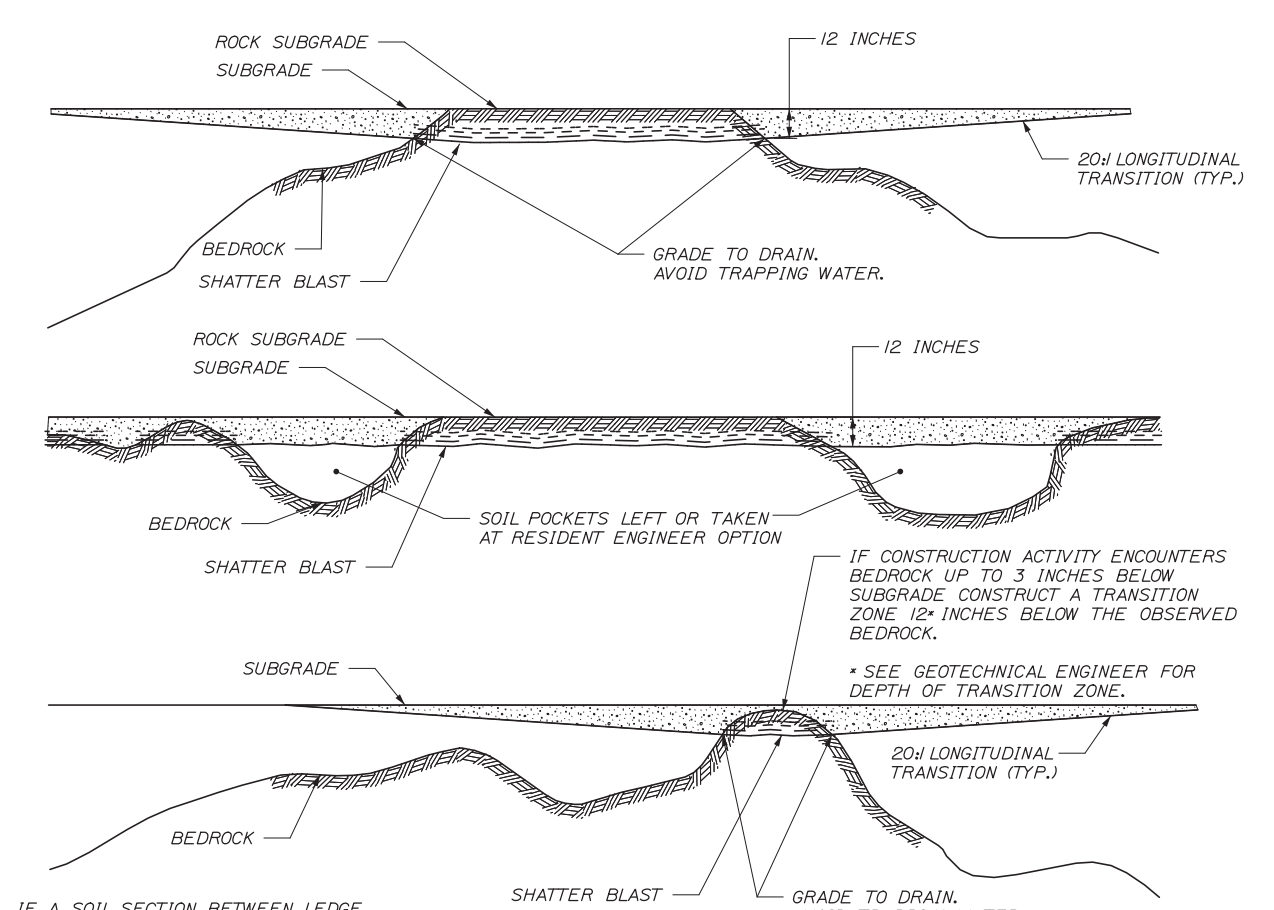
## THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

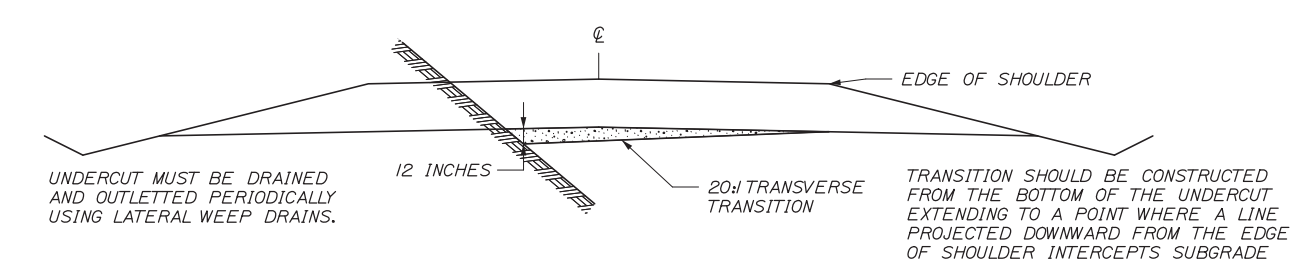
**INTERCHANGE IMPROVEMENTS**  
**LEWISTON (EXIT 80)**  
**GUARDRAIL DETAILS**  
**BRIDGE TRANSITION - TYPE III**  
 SHEET NUMBER: MD-06  
 CONTRACT: 2014.10  
 22 OF 155

Date: 10/10/2014

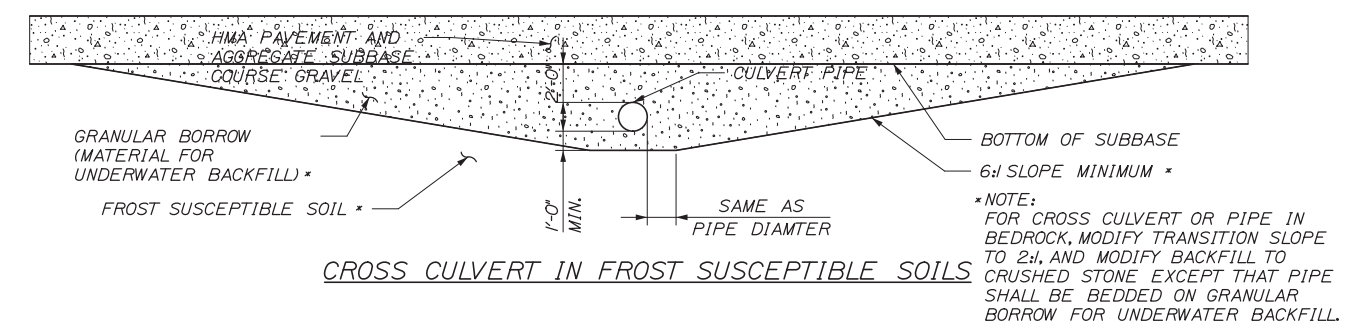
Filename: 023\_Undercut-for-Ledge.dgn



**PROFILE OF UNDERCUT OF FROST SUSCEPTIBLE SOILS OVER LEDGE**



**TRANSVERSE UNDERCUT OF FROST SUSCEPTIBLE SOILS OVER LEDGE**

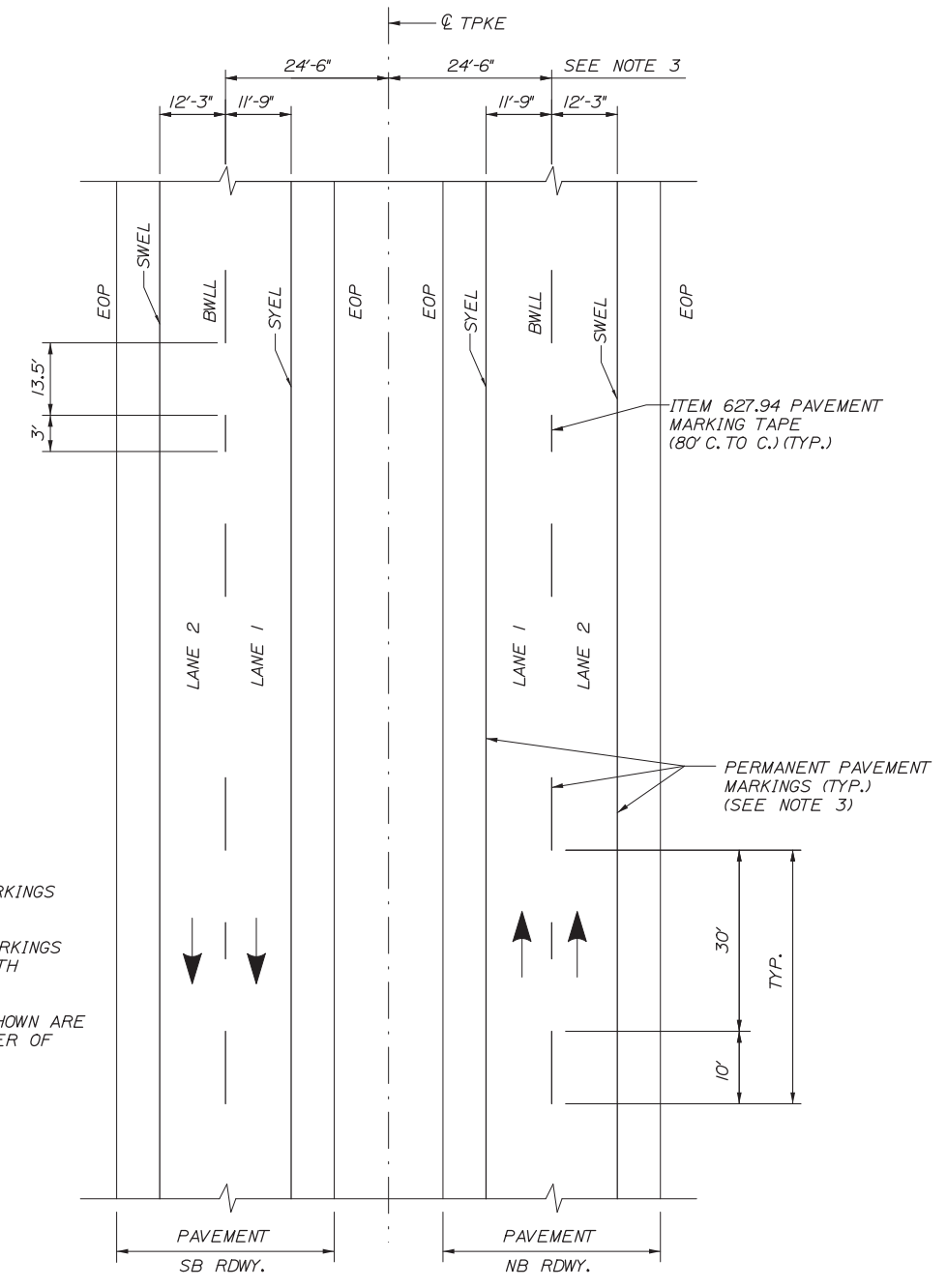


**CROSS CULVERT IN FROST SUSCEPTIBLE SOILS**

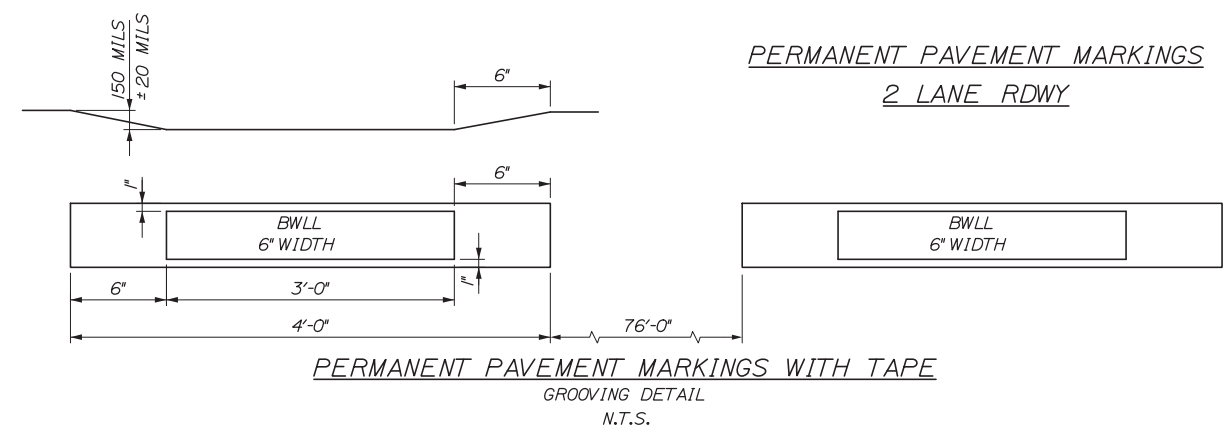
- LEGEND**
- SOLID BEDROCK
  - FROST SUSCEPTIBLE SOIL TO BE UNDERCUT AND REPLACED WITH NON FROST SUSCEPTIBLE MATERIAL
  - FROST SUSCEPTIBLE SOIL
  - SHATTER BLAST

- NOTES:**
1. EXCAVATION OF THE TRANSITION ZONES SHALL BE PAID FOR AS COMMON EXCAVATION. THE CONTRACTOR SHALL REPLACE THE FROST SUSCEPTIBLE SOILS WITH GRAVEL BORROW AND SHALL BE PAID FOR UNDER THE GRANULAR BORROW PAY ITEM.
  2. FOR POTENTIAL BEDROCK LOCATIONS, REFER TO THE SUBSURFACE EXPLORATION SUMMARY SHEETS AND CROSS SECTIONS. ACTUAL BEDROCK LOCATIONS WILL VARY.
  3. REFER TO SOILS REPORT - FOR ADDITIONAL TRANSITION ZONE DETAILS.
  4. APPROXIMATE ANTICIPATED AREAS OF LEDGE ARE SHOWN ON CROSS SECTIONS. ADDITIONAL AREAS OF LEDGE MAY BE ENCOUNTERED AND THE NEED FOR UNDERCUT AND TRANSITIONS SHOULD BE VERIFIED BY THE RESIDENT.
  5. SHATTERBLAST DEPTH SHALL BE 12 INCHES BELOW ROCK SUBGRADE IN ALL AREAS WHERE BLASTING IS REQUIRED TO CREATE SUBGRADE.

- NOTES:**
1. PERMANENT PAVEMENT MARKINGS SHALL BE 6" WIDE LINES.
  2. PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED ON BOTH ROADWAYS.
  3. THE OFFSET DISTANCE SHOWN ARE MEASURED FROM THE CENTER OF THE 6" PAINT LINES.



**PERMANENT PAVEMENT MARKINGS 2 LANE RDWY**



Scale:

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	RWH	08/14	Checked	DAM	08/14
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HNTB CORPORATION  
340 County Road, Suite 6-C  
Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 228-0909

**MAINE TURNPIKE**

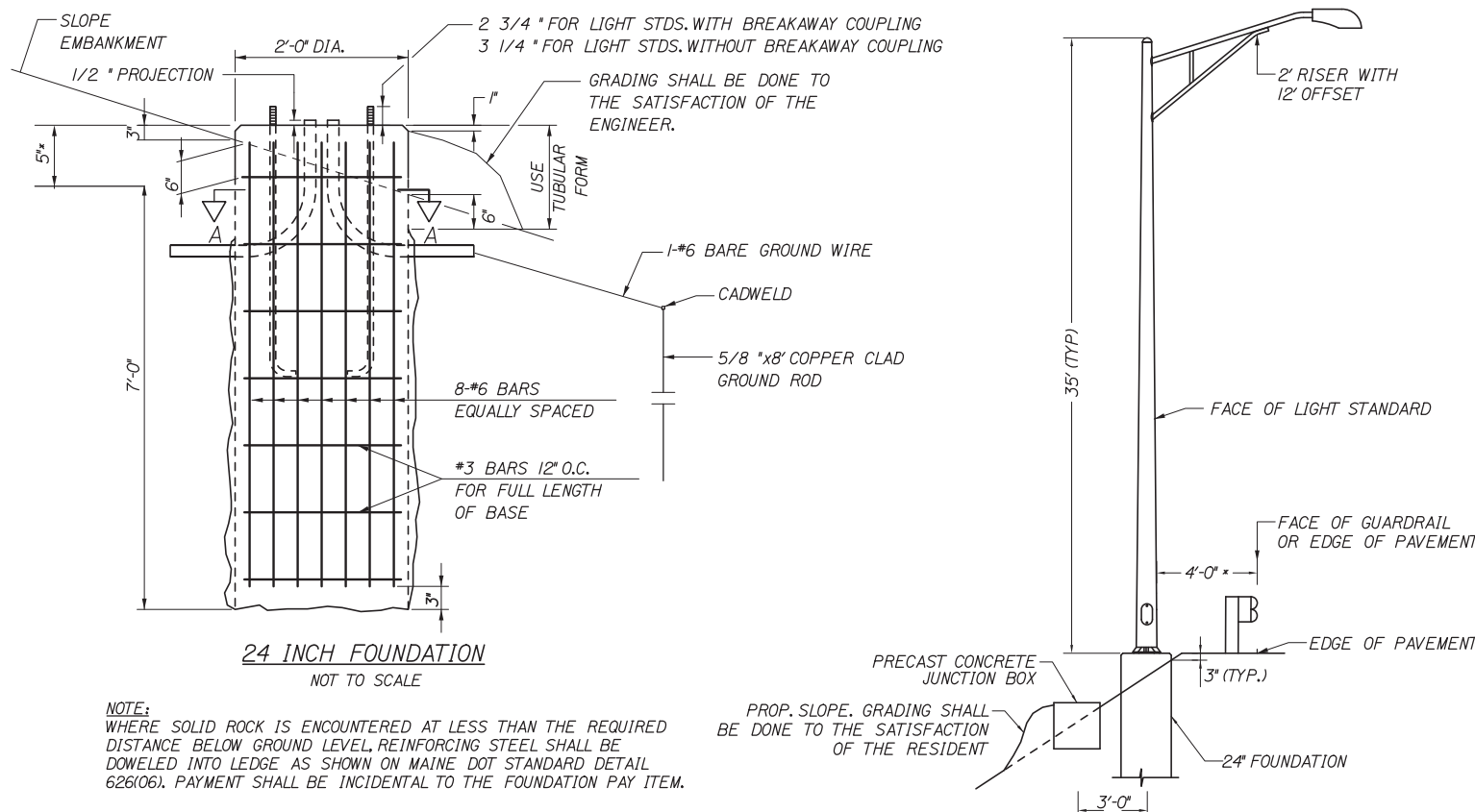
**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

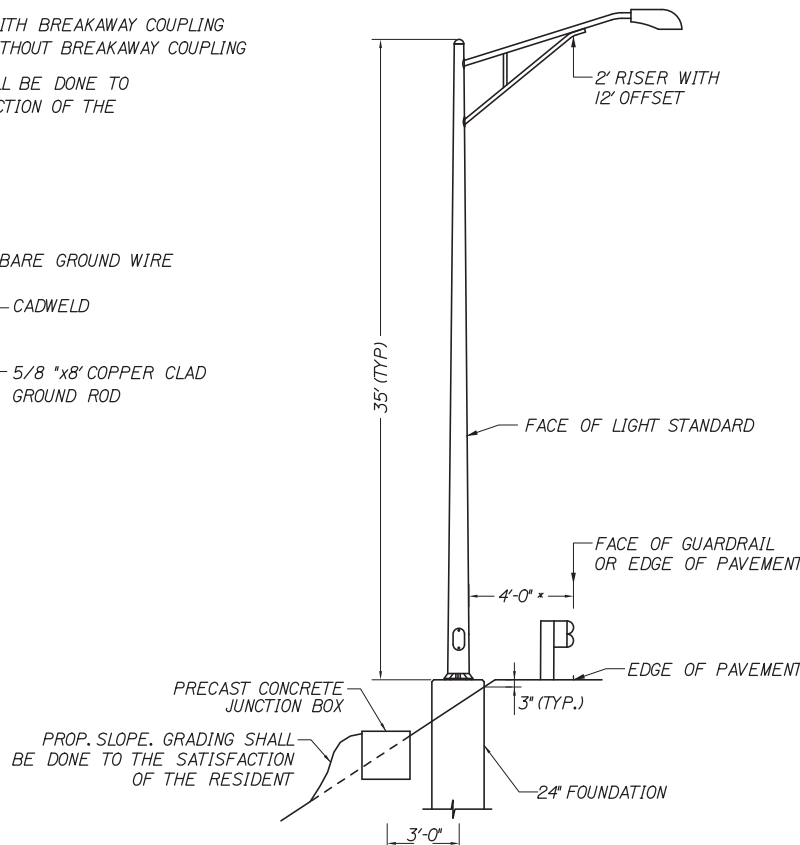
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
SPECIAL DETAILS

SHEET NUMBER: MD-07  
CONTRACT: 2014.10  
23 OF 155

Date:10/10/2014

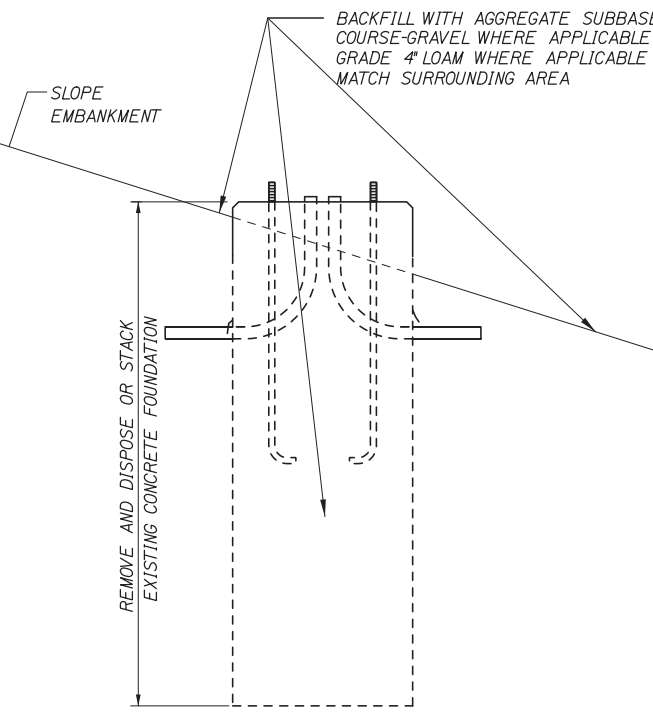


NOTE: WHERE SOLID ROCK IS ENCOUNTERED AT LESS THAN THE REQUIRED DISTANCE BELOW GROUND LEVEL, REINFORCING STEEL SHALL BE DOWELED INTO LEDGE AS SHOWN ON MAINE DOT STANDARD DETAIL 626(06). PAYMENT SHALL BE INCIDENTAL TO THE FOUNDATION PAY ITEM.

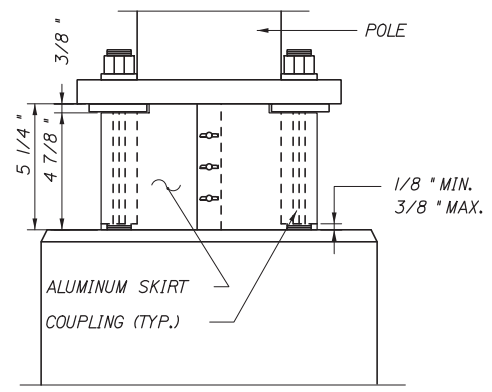


PRECAST CONCRETE JUNCTION BOX  
NO SCALE

\* 4 FEET TO FACE OF GUARDRAIL ON LOCAL ROADS  
5' TO FACE OF GUARDRAIL ON MAINLINE.

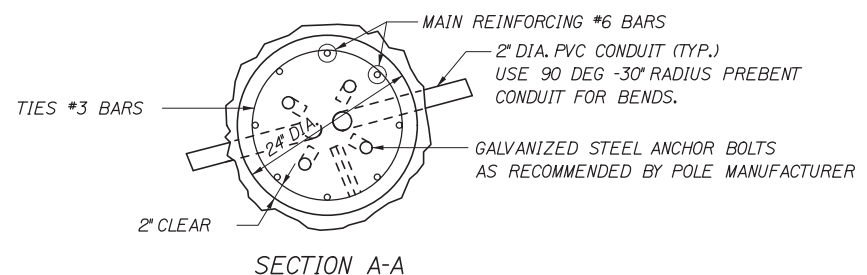


REMOVAL OF CONCRETE FOUNDATION  
NOT TO SCALE

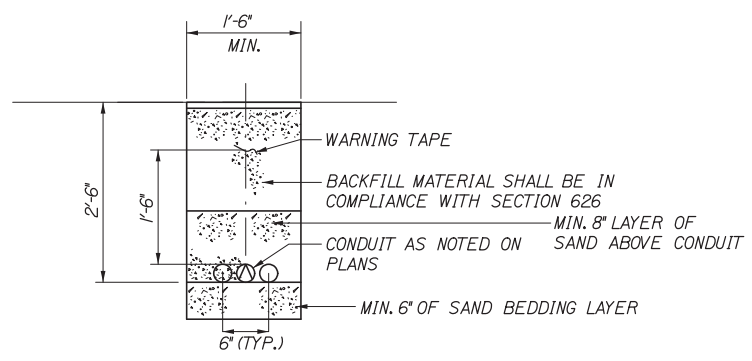


BREAKAWAY COUPLINGS  
AND SKIRT DETAIL \*  
NOT TO SCALE

\* BREAKAWAY COUPLINGS SHALL BE REQUIRED ON ALL NEW LIGHT STANDARDS

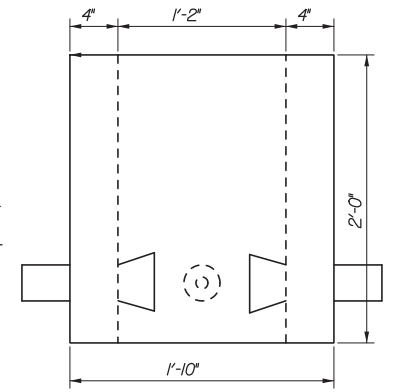


SECTION A-A

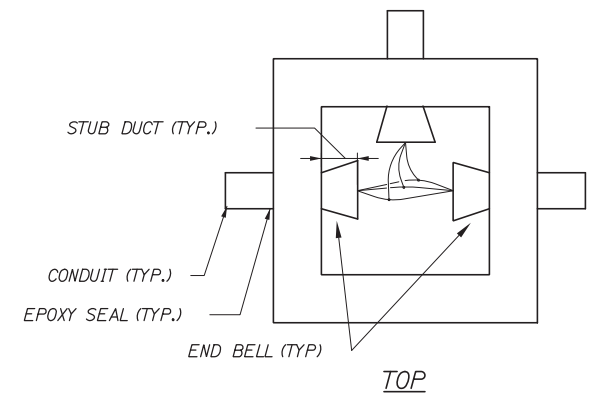


TRENCH CROSS SECTION  
NOT TO SCALE

NOTE: SPLICES IN BOX SHALL BE MADE WITH ILSCO USPA-350-SS-DB SAFETYSUB WATER TIGHT DIRECT BURY SPlice WIRE RANGE 350CM-10-STR. ONLY. PROVIDE ENOUGH SLACK IN THE WIRE TO ALLOW REMOVAL OF SPLICES AND NEATLY ARRANGE WIRE IN BOX.



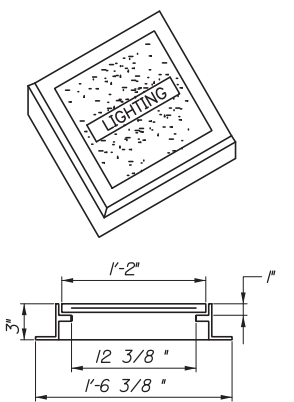
ELEVATION



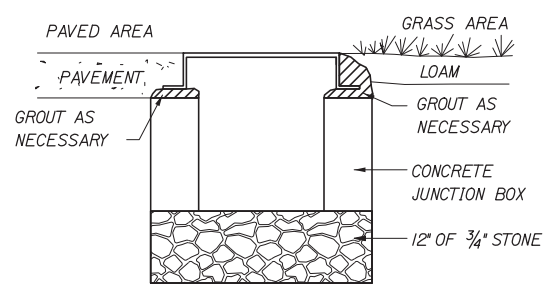
TOP

PRECAST CONCRETE JUNCTION BOX

NOT TO SCALE

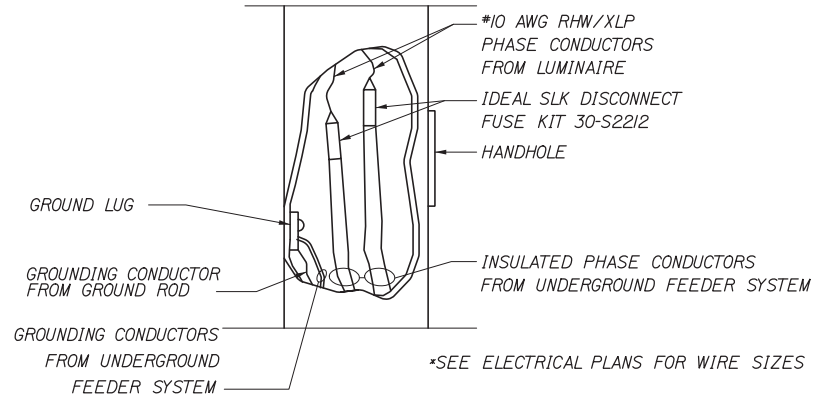


ELECTRICAL PULL BOX COVER



JUNCTION BOX COVER & FRAME

NOTE: INSTALL JUNCTION BOXES ON GRADE, GROUT AS NECESSARY AS SHOWN ABOVE.



TYPICAL POLE WIRING DETAIL

NOT TO SCALE

\*SEE ELECTRICAL PLANS FOR WIRE SIZES

Scale:				
No.	Revision	By	Date	

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date	By	Date	
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 228-0909



**THE GOLD STAR  
MEMORIAL HIGHWAY**

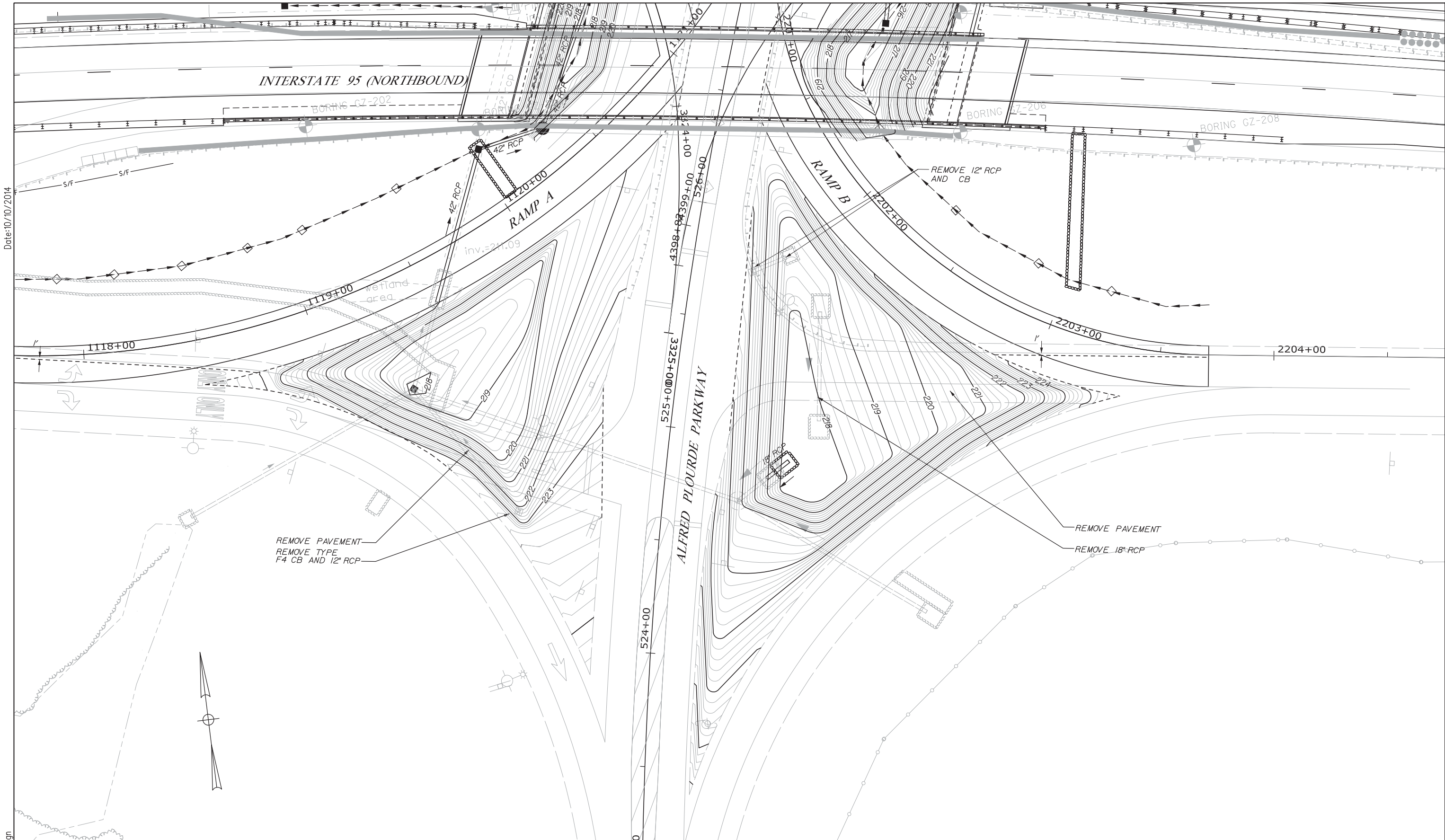
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
LIGHTING DETAILS

SHEET NUMBER: MD-08  
CONTRACT:2014.10  
24 OF 155

Filename: 024\_LightingDets.dgn





Date: 10/10/2014

Filename: 025\_Grading\_PH2.dgn



No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	HME	08/14	Checked	LZD	08/14
Drawn	DB	08/14	In Charge of	RAL	08/14

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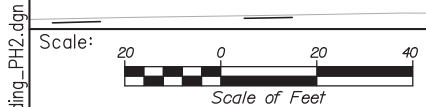
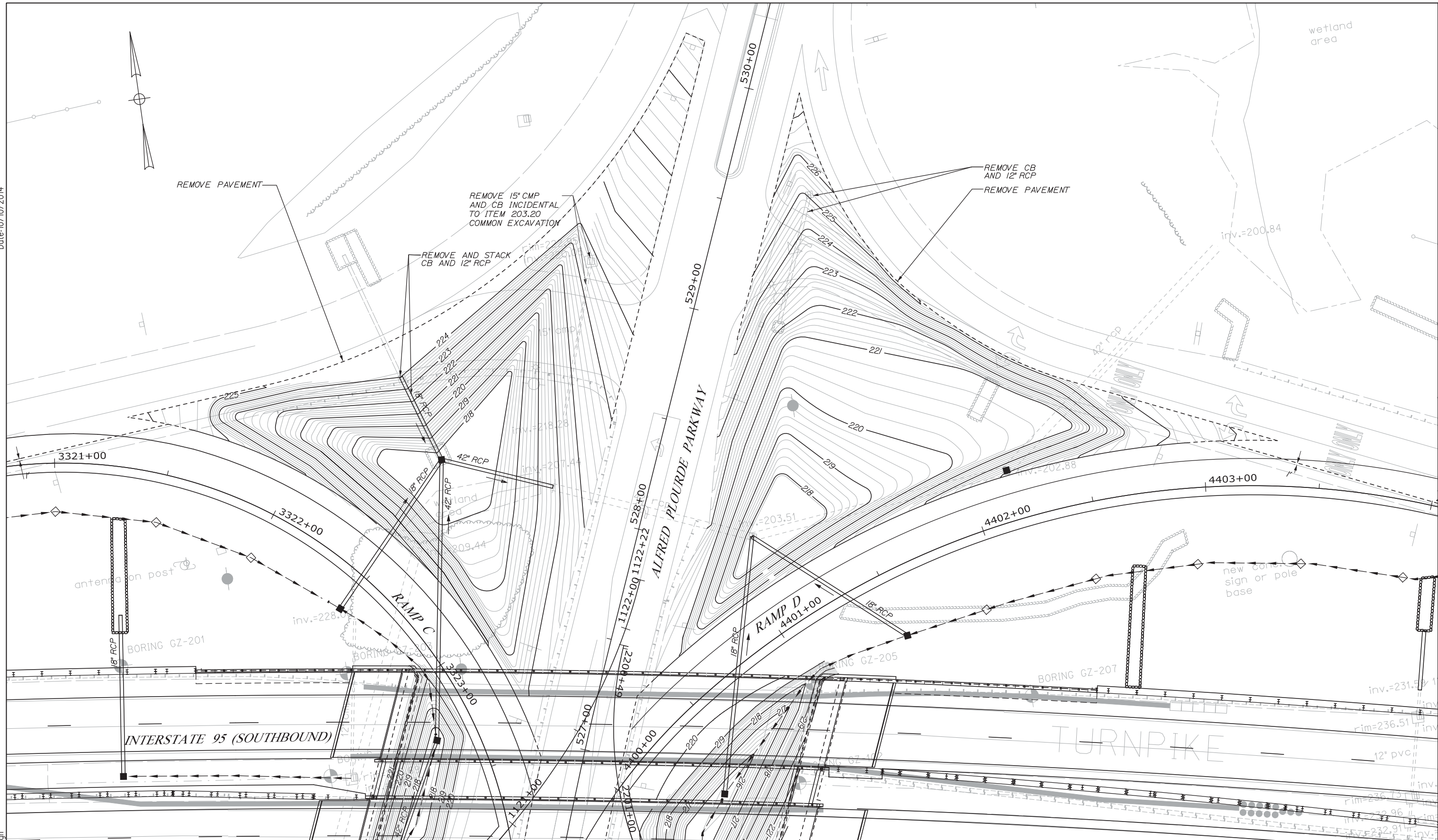
THE GOLD STAR  
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 RAMP A AND RAMP B  
 INFIELD GRADING PLAN

SHEET NUMBER: MD-09  
 CONTRACT: 2014.10  
 25 OF 155

Date:10/10/2014



No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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Designed	HME	08/14	Checked	LZD	08/14
Drawn	DB	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

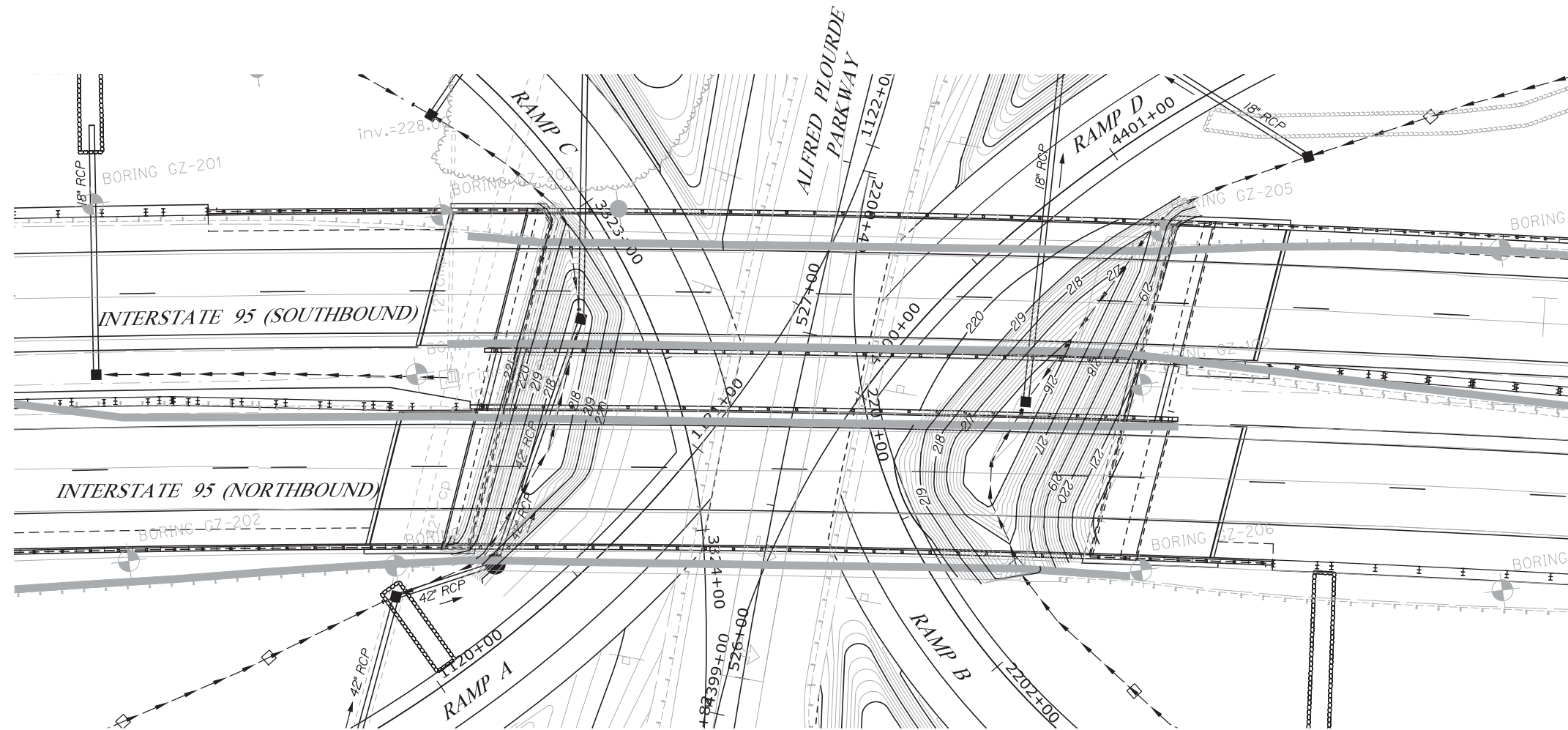
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 RAMP C AND RAMP D  
 INFIELD GRADING PLAN

SHEET NUMBER: MD-10  
 CONTRACT:2014.10  
 26 OF 155

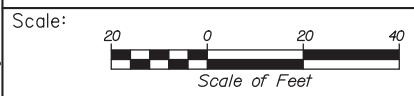
Filename: 026\_Grading\_PH2.dgn

Date: 10/10/2014



NOTE:  
SEE STRUCTURAL SHEET S-51 FOR  
LIMITS OF STONE SLOPE PROTECTION.

Filename: 027\_Grading\_PH2.dgn



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	By	Date	Checked	By	Date
Designed	HME	08/14		LZD	08/14
Drawn	DB	08/14	In Charge of	RAL	08/14

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Westbrook, ME 04092  
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

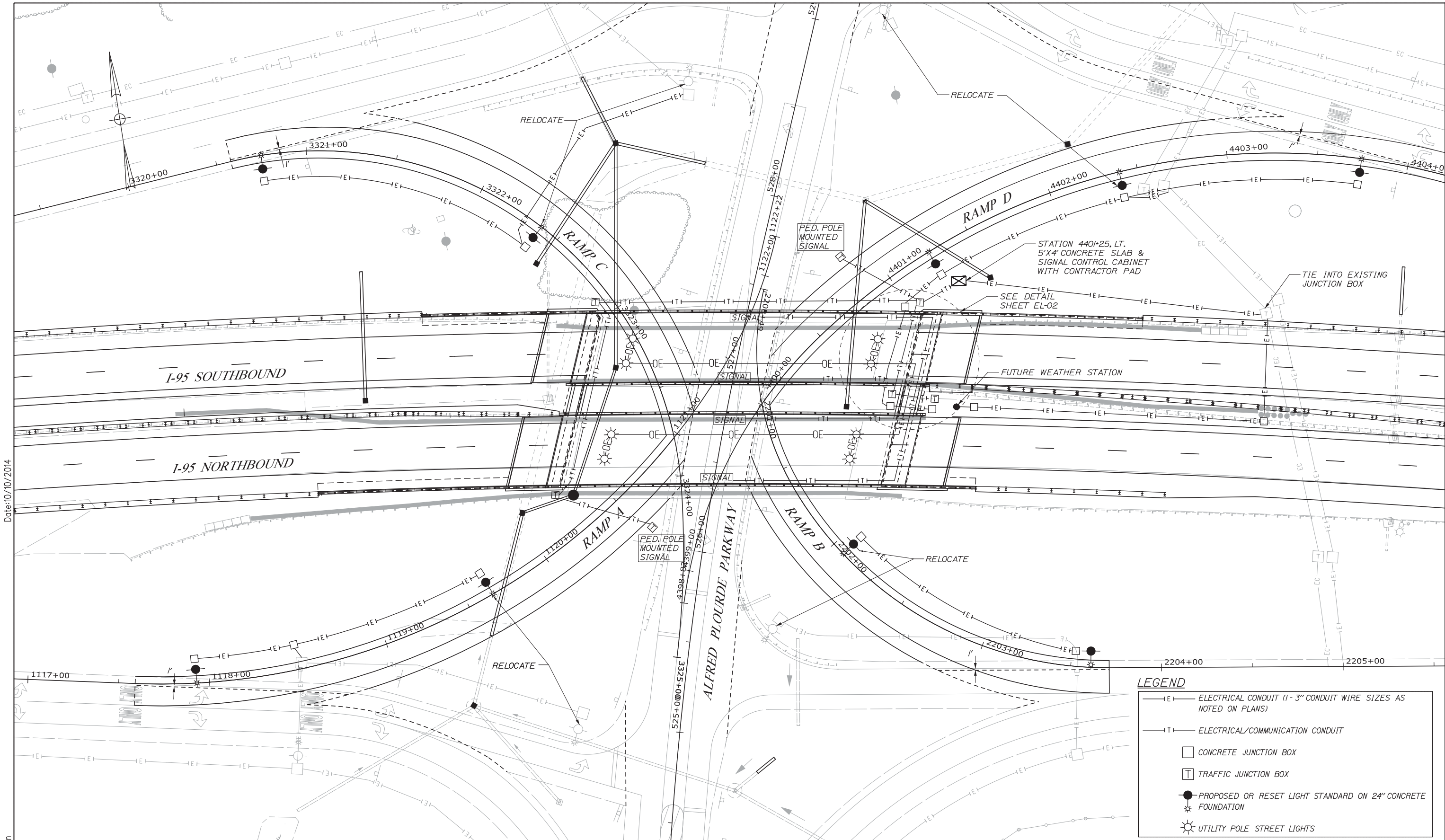
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
ABUTMENTS  
INFIELD GRADING PLAN

SHEET NUMBER: MD-11

CONTRACT: 2014.10

27 OF 155

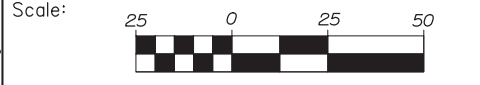


Date: 10/10/2014

Filename: 028\_LightingPlan.dgn

**LEGEND**

	ELECTRICAL CONDUIT (1 - 3" CONDUIT WIRE SIZES AS NOTED ON PLANS)
	ELECTRICAL/COMMUNICATION CONDUIT
	CONCRETE JUNCTION BOX
	TRAFFIC JUNCTION BOX
	PROPOSED OR RESET LIGHT STANDARD ON 24" CONCRETE FOUNDATION
	UTILITY POLE STREET LIGHTS



Designed by:

HNTB

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell

	By	Date	Checked	By	Date
Designed	BMH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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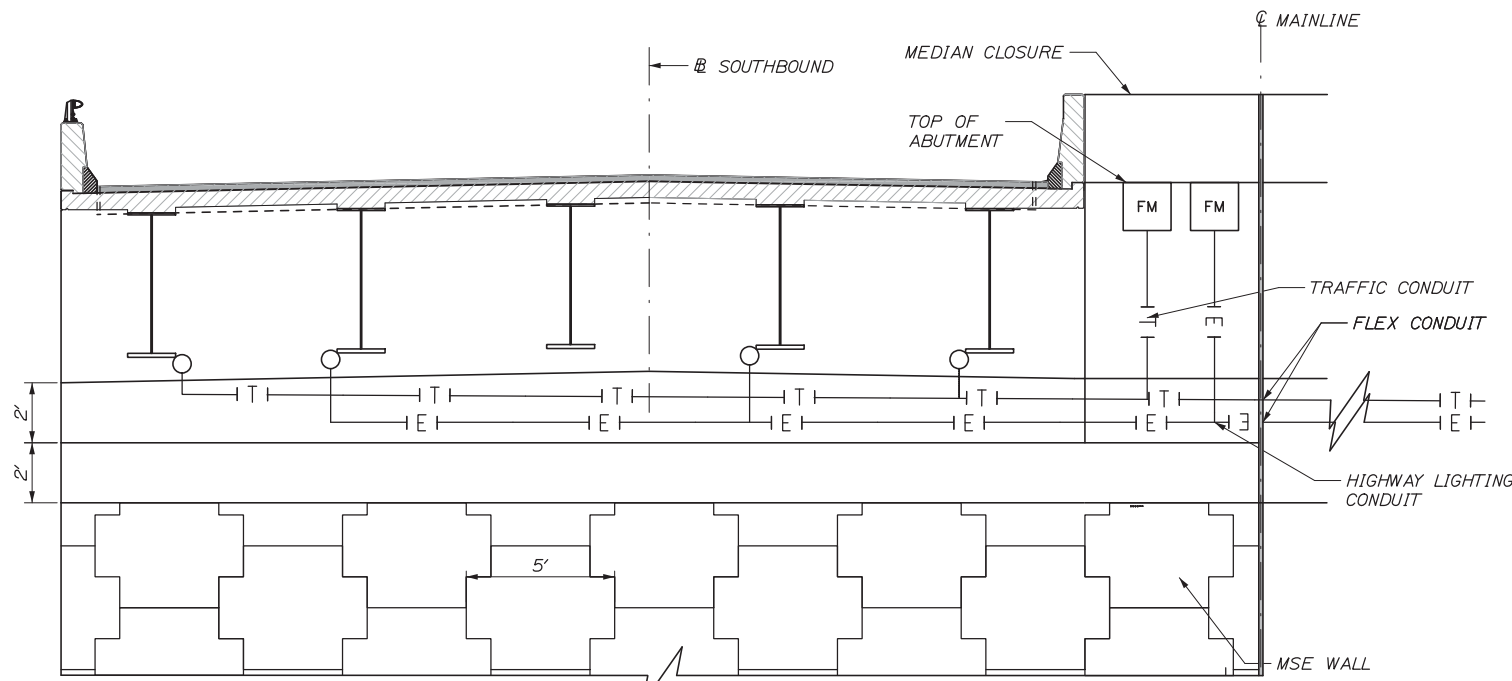
THE GOLD STAR  
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

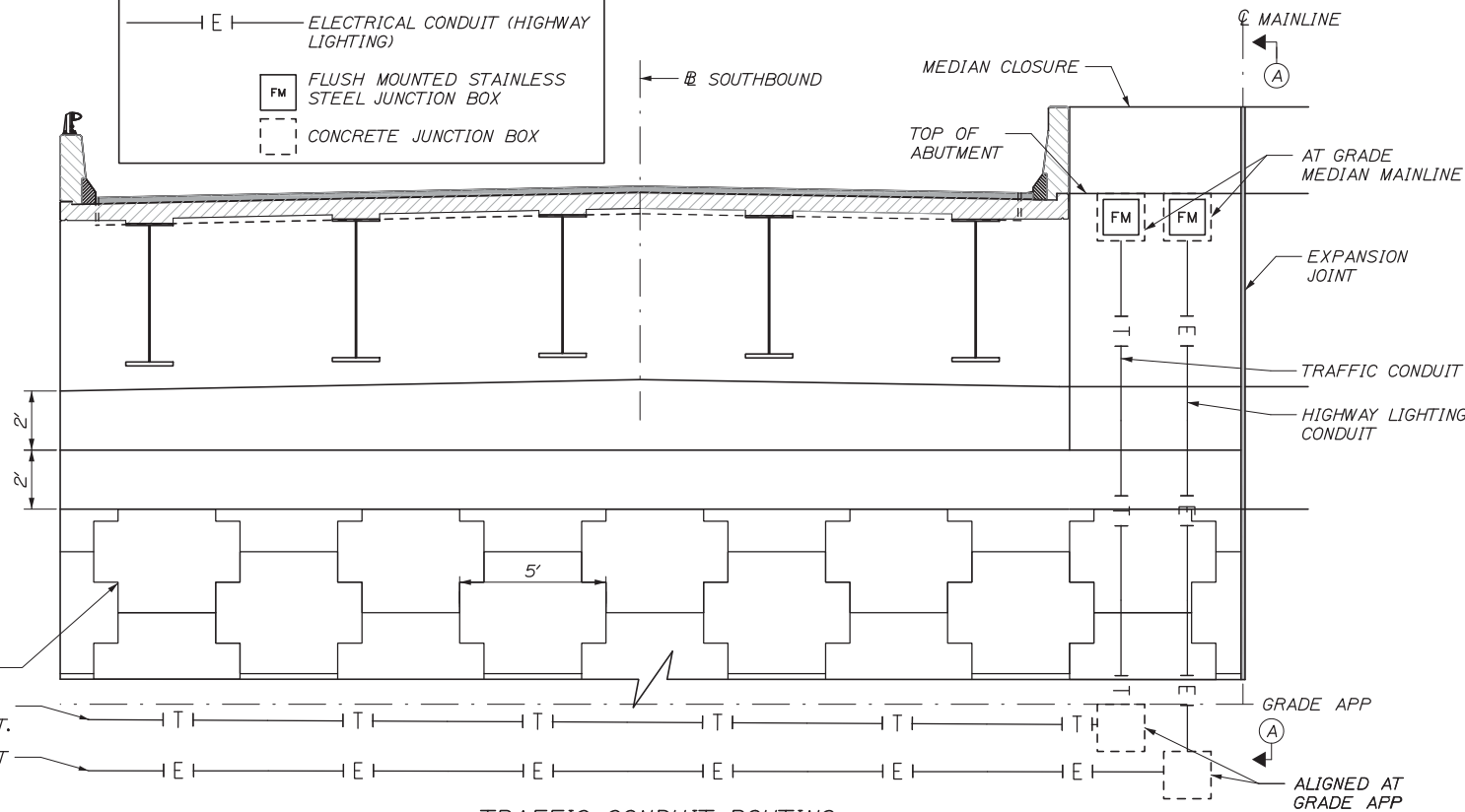
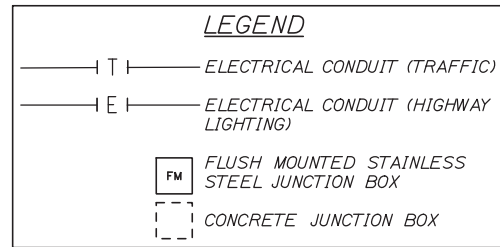
INTERCHANGE IMPROVEMENT  
LEWISTON (EXIT 80)  
WEATHER STATION, LIGHTING,  
& SIGNAL CONDUIT PLAN

SHEET NUMBER: EL-01  
CONTRACT: 2014.10  
28 OF 155

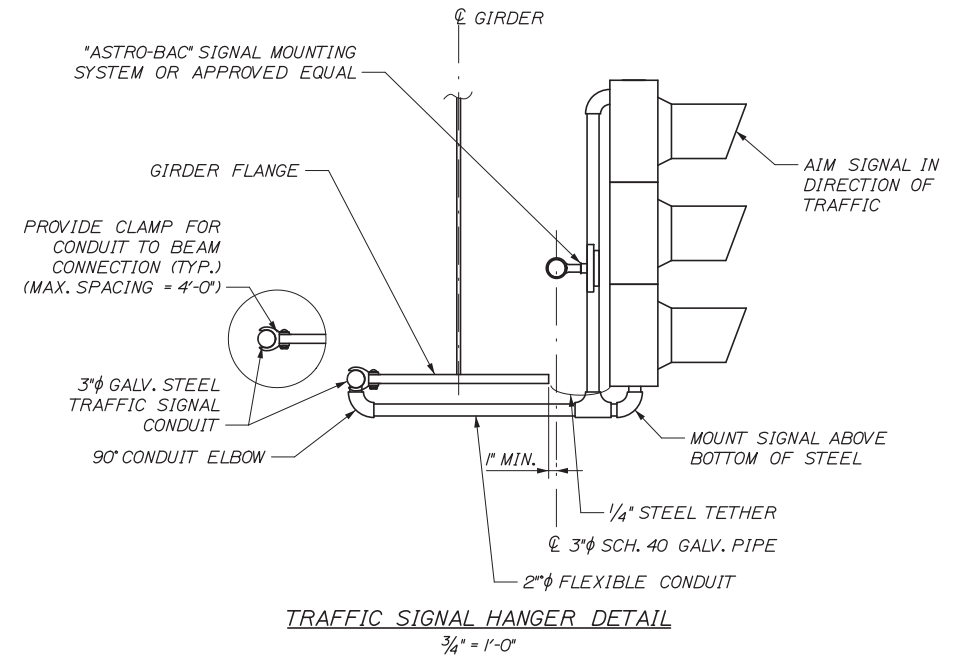
Date: 10/10/2014



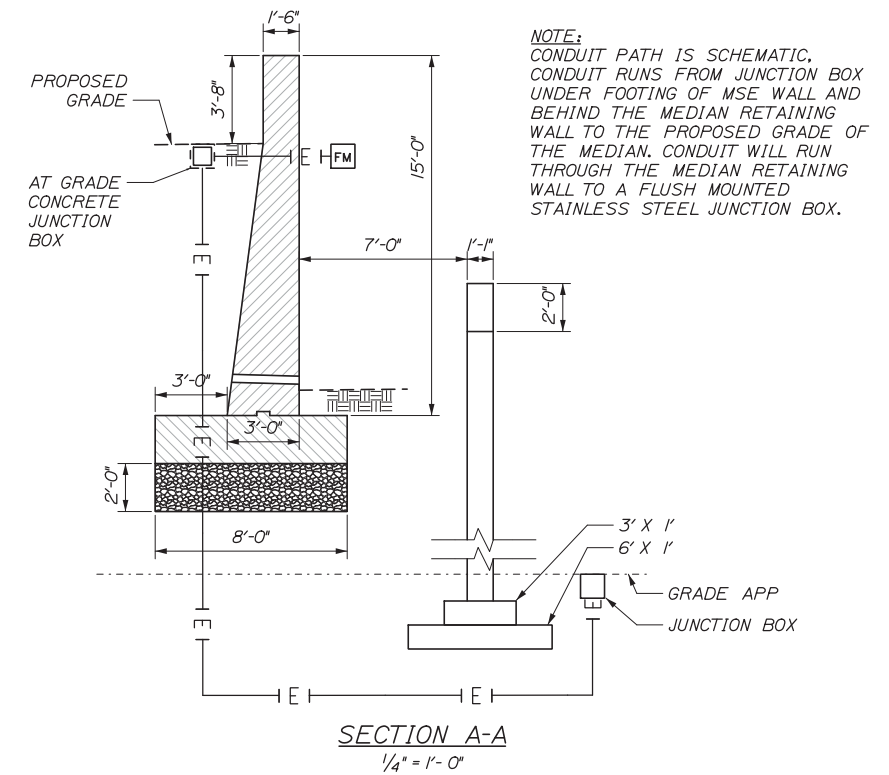
HIGHWAY LIGHTING CONDUIT ROUTING



TRAFFIC CONDUIT ROUTING



TRAFFIC SIGNAL HANGER DETAIL



SECTION A-A

Scale:				
No.	Revision	By	Date	

Designed by:					
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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
	Designed	RWH 08/14		Checked	DAM 08/14
	Drawn	MPC 08/14		In Charge of	RAL 08/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)**

LIGHTING & SIGNAL CONDUIT DETAIL

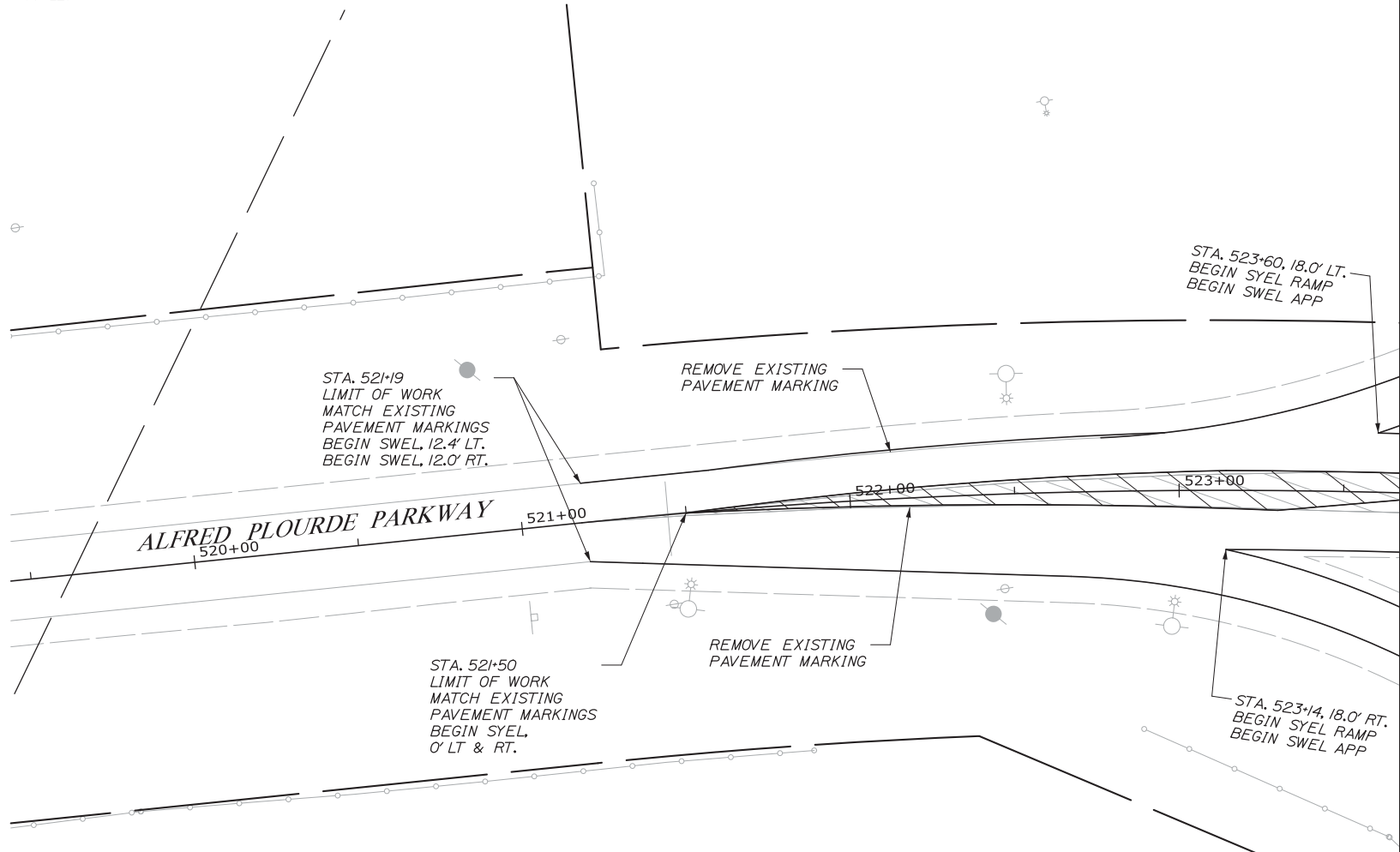
SHEET NUMBER: EL-02  
29 OF 155

CONTRACT: 2014.10

Filename: 029-Signal Conduit Det.dgn

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	POST
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER			
DH-1	60"	30"	← AUGUSTA PORTLAND →	TEXT DIMENSIONS SHALL CONFORM TO "2004 EDITION - STANDARD HIGHWAY SIGNS - 2012 SUPPLEMENT"			1	COLORS SHALL CONFORM TO "2004 EDITION - STANDARD HIGHWAY SIGNS - 2012 SUPPLEMENT"			12.50 (12.50)	MOUNT EXISTING ASSEMBLY
LOGO	24"	24"					2				4.00 (8.00)	MOUNT WITH MS-1 AND M3-3
M1-2	24"	24"					2				4.00 (8.00)	MOUNT WITH M3-1 AND M3-3
M3-1	24"	12"	NORTH				1				2.00 (2.00)	6x6 WOOD POST
M3-3	24"	12"	SOUTH				1				2.00 (2.00)	6x6 WOOD POST
M6-1	21"	15"	←				1				2.19 (2.19)	MOUNT W/DI-1
M6-2	21"	15"	↖				2				2.19 (4.38)	6x5 WOOD POST
W12-1	48"	48"					2				16.00 (32.00)	1-6X6 WOOD POST
W3-3	48"	48"					2				16.00 (32.00)	6X6 WOOD POST
R3-5	30"	36"					2				7.50 (15.00)	FRONT SIDE OF PEDESTAL POLE
R5-1A	36"	24"	WRONG WAY				4				6.00 (24.00)	6X6 WOOD POST
R4-8b	30"	36"	KEEP LEFT				2				7.50 (15.00)	BACK SIDE OF PEDESTAL POLE

**NOTES:**  
1. SIGNS SHOWN ON THIS SUMMARY WILL BE FABRICATED BY THE AUTHORITY. CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE SIGNS AT LOCATIONS SHOWN ON THE PLANS. SEE SPECIAL PROVISION 645 FOR MORE INFORMATION.  
2. SIGN TEXT SHALL CONFORM TO MUTCD.  
3. SIGN TYPE AND LOCATION SHALL BE IN ACCORDANCE WITH MUTCD.  
4. SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD. SIGN SPACING IS NOT TO SCALE.



**NOTES**  
1. DOTTED WHITE LINE IS A 3 FOOT SEGMENT WITH A 9 FOOT GAP. CONTRACTOR WILL BE RESPONSIBLE FOR THE MILLING NECESSARY TO RECESS THE DOTTED WHITE LINE AT THE MAINLINE GORES. PAYMENT SHALL BE INCIDENTAL TO THE PAVEMENT MARKING TAPE.  
2. PAVEMENT MARKINGS ON ALFRED PLOURDE PARKWAY SHALL BE 4" AND IN ACCORDANCE WITH MUTCD.  
3. PAVEMENT MARKINGS ON THE MAINLINE AND RAMPS SHALL BE 6" AND IN ACCORDANCE WITH MUTCD.  
4. FINAL PAINTED PAVEMENT MARKINGS ON RAMPS AND MAINLINE WILL BE INSTALLED BY MTA. CONTRACTOR WILL INSTALL FINAL PAINTED PAVEMENT MARKINGS ON ALFRED PLOURDE PARKWAY AND PAVEMENT MARKING TAPE ON MAINLINE GORES. CONTRACTOR WILL BE RESPONSIBLE FOR THE LAYOUT AND TRAFFIC CONTROL FOR ALL PAVEMENT MARKINGS. PAVEMENT MARKING LAYOUT AND UNITS SHALL BE COORDINATED WITH THE RESIDENT.  
5. CONTRACTOR WILL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS AND MARKING REMOVAL.

**LEGEND**  
BWL = BROKEN WHITE LANE LINE  
DWL = DOTTED WHITE LANE LINE  
DYCL = DOUBLE YELLOW CENTERLINE  
SWEL = SOLID WHITE EDGE LINE  
SWLL = SOLID WHITE LANE LINE  
SYCH = SOLID YELLOW CHEVRON  
SYEL = SOLID YELLOW EDGE LINE  
SYLL = SOLID YELLOW LANE LINE  
12"SL = 12" STOP LINE

Date: 10/10/2014

Scale:

No.	Revision	By	Date

Designed by:

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	RBM	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

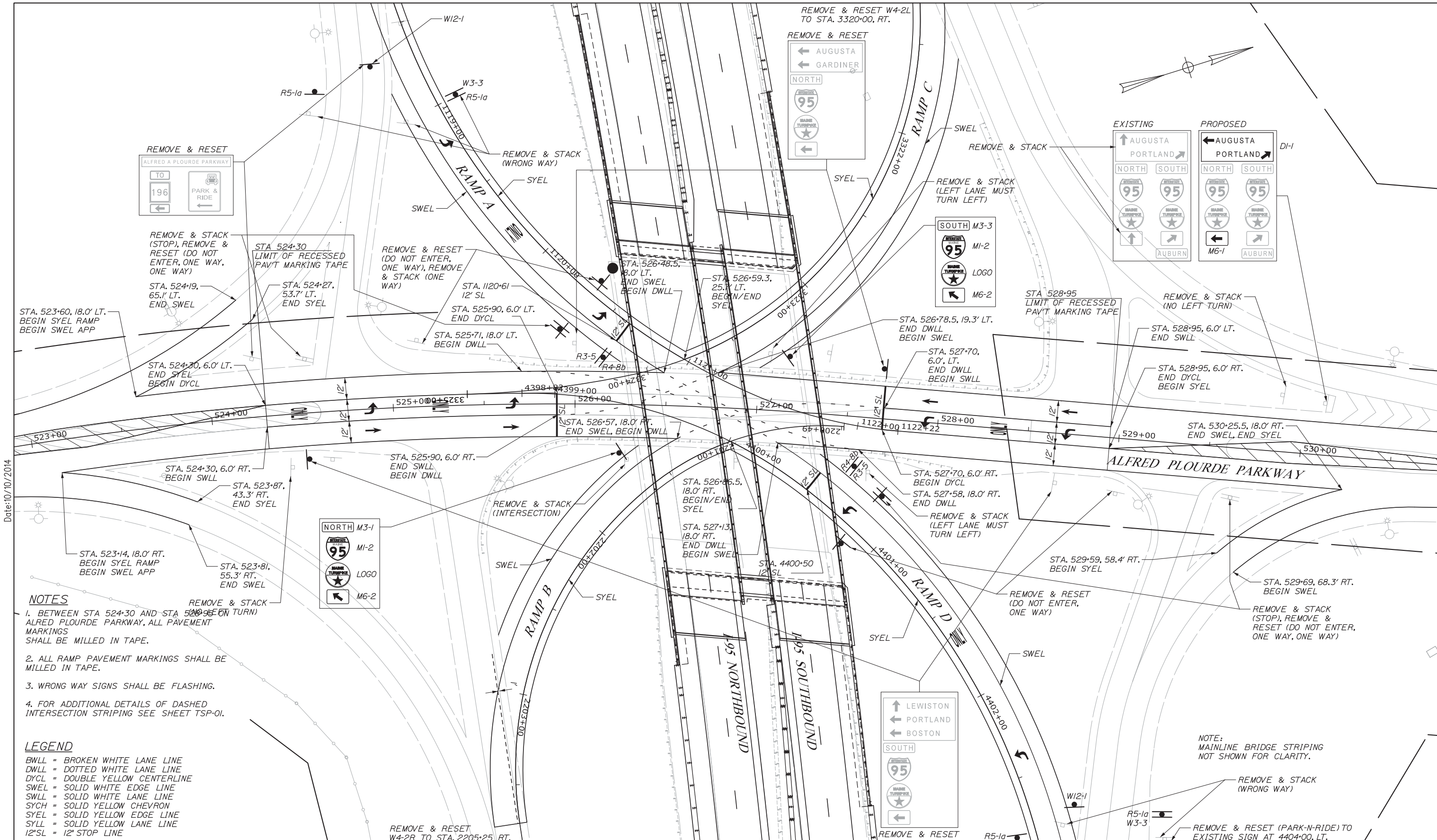
HNTB CORPORATION  
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**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
LEWISTON (EXIT 80)  
SIGNING AND PAVEMENT MARKING  
PLAN - 1

SHEET NUMBER: SP-01  
CONTRACT: 2014.10  
30 OF 155

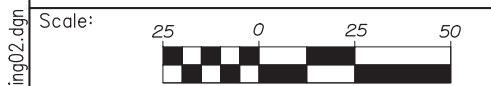


Date: 10/10/2014

- NOTES**
- BETWEEN STA 524+30 AND STA 529+00 (ON TURN) ALFRED PLOURDE PARKWAY, ALL PAVEMENT MARKINGS SHALL BE MILLED IN TAPE.
  - ALL RAMP PAVEMENT MARKINGS SHALL BE MILLED IN TAPE.
  - WRONG WAY SIGNS SHALL BE FLASHING.
  - FOR ADDITIONAL DETAILS OF DASHED INTERSECTION STRIPING SEE SHEET TSP-01.

**LEGEND**

- BWLL = BROKEN WHITE LANE LINE
- DWLL = DOTTED WHITE LANE LINE
- DYCL = DOUBLE YELLOW CENTERLINE
- SWEL = SOLID WHITE EDGE LINE
- SWLL = SOLID WHITE LANE LINE
- SYCH = SOLID YELLOW CHEVRON
- SYEL = SOLID YELLOW EDGE LINE
- SYLL = SOLID YELLOW LANE LINE
- 12'SL = 12' STOP LINE



Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

No.	Revision	By	Date

	By	Date		By	Date
Designed	RBM	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

HNTB CORPORATION  
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

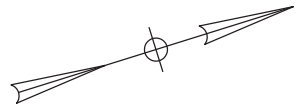
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 SIGNING AND PAVEMENT MARKING  
 PLAN - 2

SHEET NUMBER: SP-02  
 31 OF 155

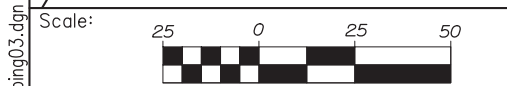
CONTRACT: 2014.10

Filename: 031\_Striping02.dgn



- LEGEND**
- BWLL = BROKEN WHITE LANE LINE
  - DWLL = DOTTED WHITE LANE LINE
  - DYCL = DOUBLE YELLOW CENTERLINE
  - SWEL = SOLID WHITE EDGE LINE
  - SWLL = SOLID WHITE LANE LINE
  - SYCH = SOLID YELLOW CHEVRON
  - SYEL = SOLID YELLOW EDGE LINE
  - SYLL = SOLID YELLOW LANE LINE
  - 12"SL = 12" STOP LINE

Date: 10/10/2014



Designed by:

**HNTB**

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	RBM	08/14	Checked	DAM	08/14
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

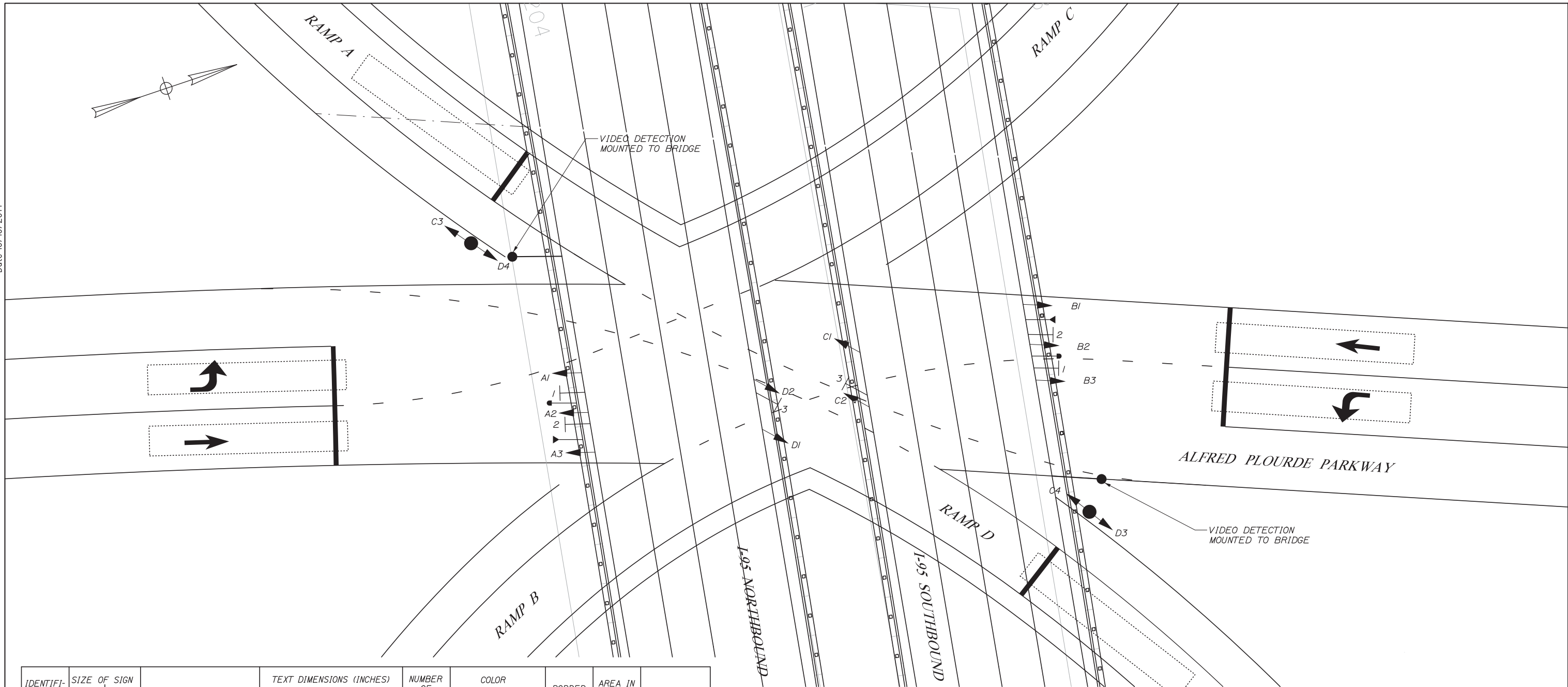
INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 SIGNING AND PAVEMENT MARKING  
 PLAN - 3

SHEET NUMBER: SP-03  
 CONTRACT: 2014.10  
 32 OF 155

Filename: 032-Striping03.dgn



Date: 10/10/2014

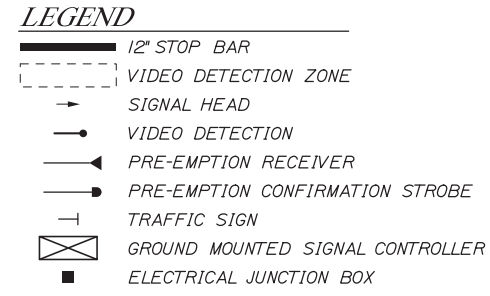
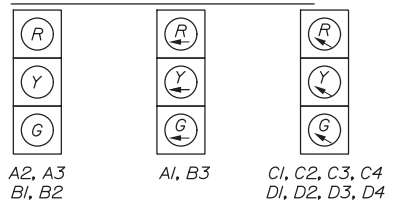


IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		BORDER RADIUS	AREA IN SQUARE FEET	POST
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK-GROUND	LEGEND BORDER			
R3-5 (1)	30"	36"		TEXT DIMENSIONS SHALL CONFORM TO '2004 EDITION - STANDARD HIGHWAY SIGNS - 2012 SUPPLEMENT'			2	COLORS SHALL CONFORM TO '2004 EDITION - STANDARD HIGHWAY SIGNS - 2012 SUPPLEMENT'			7.50 (15.00)	BRIDGE MOUNTED
R3-5a (2)	30"	36"					2				7.50 (15.00)	BRIDGE MOUNTED
R4-9 (3)	30"	36"					2				7.50 (15.00)	BRIDGE MOUNTED

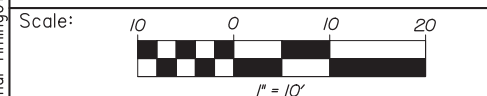
**NOTES:**  
 1. SIGNS SHOWN ON THIS SUMMARY WILL BE FABRICATED BY THE AUTHORITY. CONTRACTOR IS RESPONSIBLE FOR INSTALLING THE SIGNS AT LOCATIONS SHOWN ON THE PLANS. SEE SPECIAL PROVISION 645 FOR MORE INFORMATION.  
 2. SIGN TEXT SHALL CONFORM TO MUTCD.  
 3. SIGN TYPE AND LOCATION SHALL BE IN ACCORDANCE WITH MUTCD.

**NOTES:**  
 1. GROUND MOUNTED SIGNAL CONTROLLER CABINET (SIZE P-44 WITH 12" EXTENSION BASE) LOCATED AT STATION 440+25 RT. ON A 5' X 4' CONCRETE SLAB. SEE SP 643 FOR DETAILS.  
 2. SEE SHEET EL-01 FOR CONDUIT LAYOUT DETAIL.  
 3. SEE SHEET S-40 FOR CONNECTION DETAILS FOR SIGNAL HEADS, SIGNS, VIDEO DETECTION AND PRE-EMPTION.  
 4. BRIDGE MOUNTED SIGNS SHALL INCLUDE AN ASTRO BRACE SIGN MOUNTING BRACKET, INCIDENTAL TO THE INDIVIDUAL SIGNS.

**SIGNAL INDICATIONS**



Filename: 0.33\_Signal-Timing01.dgn



Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

No.	Revision	By	Date

	By	Date		By	Date
Designed	RBM	10/14	Checked	ERB	10/14
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 TRAFFIC SIGNAL PLAN

SHEET NUMBER: TSP-01  
 CONTRACT: 2014.10  
 33 OF 155

Date:10/10/2014

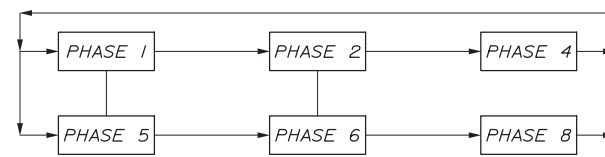
**AM SIGNAL TIMING (CYCLE LENGTH 77.0 SECONDS)**

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9
MIN GREEN	6	6	-	6	6	6	-	6	-
EXTENSION	3	3	-	3	3	3	-	3	-
MAX GREEN	10	17	-	29	10	17	-	29	-
YELLOW	4	4	-	4	4	4	-	4	-
ALL RED	2	4	-	3	2	4	-	3	-
RECALL MODE	-	SOFT	-	-	-	SOFT	-	-	-
WALK	-	-	-	-	-	-	-	-	-
PED CLEAR	-	-	-	-	-	-	-	-	-

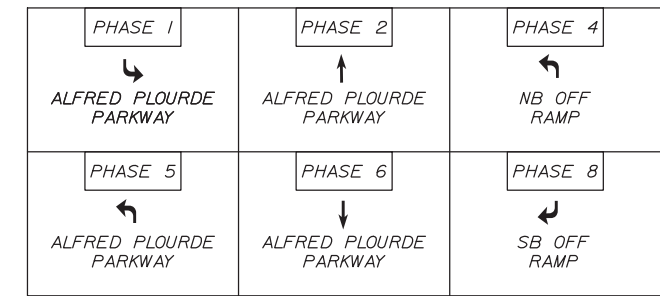
**PM SIGNAL TIMING (CYCLE LENGTH 77.0 SECONDS)**

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6	PHASE 7	PHASE 8	PHASE 9
MIN GREEN	6	6	-	6	6	6	-	6	-
EXTENSION	3	3	-	3	3	3	-	3	-
MAX GREEN	10	17	-	29	10	17	-	29	-
YELLOW	4	4	-	4	4	4	-	4	-
ALL RED	2	4	-	3	2	4	-	3	-
RECALL MODE	-	SOFT	-	-	-	SOFT	-	-	-
WALK	-	-	-	-	-	-	-	-	-
PED CLEAR	-	-	-	-	-	-	-	-	-

**PREFERRED PHASING SEQUENCE**



**PHASING**



**GENERAL**

1. CONTRACTOR TO REMOVE ALL CONFLICTING SIGNS AND MARKINGS.
2. CONTRACTOR TO VERIFY THE LOCATION, DEPTH AND MATERIAL OF ALL SUBSURFACE UTILITIES.
3. TRAFFIC SIGNAL WORK SHALL BE COMPLETED IN A MANNER THAT WILL CAUSE MINIMUM DISRUPTION TO TRAFFIC.

**SIGNS AND PAVEMENT MARKINGS**

1. ALL SIGNS AND MARKINGS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE MUTCD.
2. ALL ALFRED PLOURDE PARKWAY PAVEMENT MARKING LINES SHALL BE 4" WIDE. ALL RAMP MARKINGS SHALL BE 6" WIDE.
3. SOLID WHITE STOP LINES SHALL BE 12" WIDE.

**VIDEO DETECTION**

1. A VIDEO BASED 360 DEGREE VIDEO DETECTION DEVICE SHALL BE USED.
2. VIDEO DETECTION SHALL BE INSTALLED AT THE OPTIMAL HEIGHT AND LOCATION BY THE CONTRACTOR AND APPROVED BY THE ENGINEER TO ENSURE OPTIMAL PERFORMANCE.

**SIGNAL**

1. TRAFFIC SIGNAL EQUIPMENT SHALL MEET THE REQUIREMENTS AND SPECIFICATIONS OF THE MTA SPECIAL PROVISIONS
2. ALL SIGNAL EQUIPMENT SHALL BE RETURNED TO MTA CUMBERLAND MAINTENANCE FACILITY.

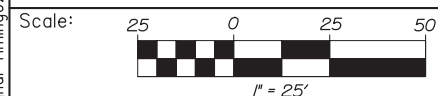
**SIGNAL HEADS**

1. VEHICLE SIGNAL HEAD HOUSING SHALL BE A 12" ALUMINUM OR POLYCARBONATE HOUSING
2. ALL SIGNAL HEADS SHALL BE 12" DIAMETER LED.
3. ALL SIGNAL HEADS SHALL HAVE 5" LOUVERED BACKPLATES.
4. ALL SIGNAL HEADS SHALL BE EQUIPPED WITH TUNNEL VISORS.

**SIGNAL HEAD MOUNTING**

1. THE BOTTOM OF ALL SIGNAL HEAD HOUSINGS SHALL BE A MINIMUM OF 16' BUT NOT MORE THAN 16.5' ABOVE THE PAVEMENT.
2. THE BOTTOM OF THE AUXILIARY SIGNAL HEAD SHALL BE MOUNTED A MINIMUM OF 8' BUT NOT MORE THAN 12' ABOVE THE PAVEMENT.

Filename: 034\_Signal-Timing02.dgn



No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	By	Date
Designed	RBM	10/14	Checked	ERB 10/14
Drawn	DB	10/14	In Charge of	RAL 10/14

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THE GOLD STAR  
MEMORIAL HIGHWAY

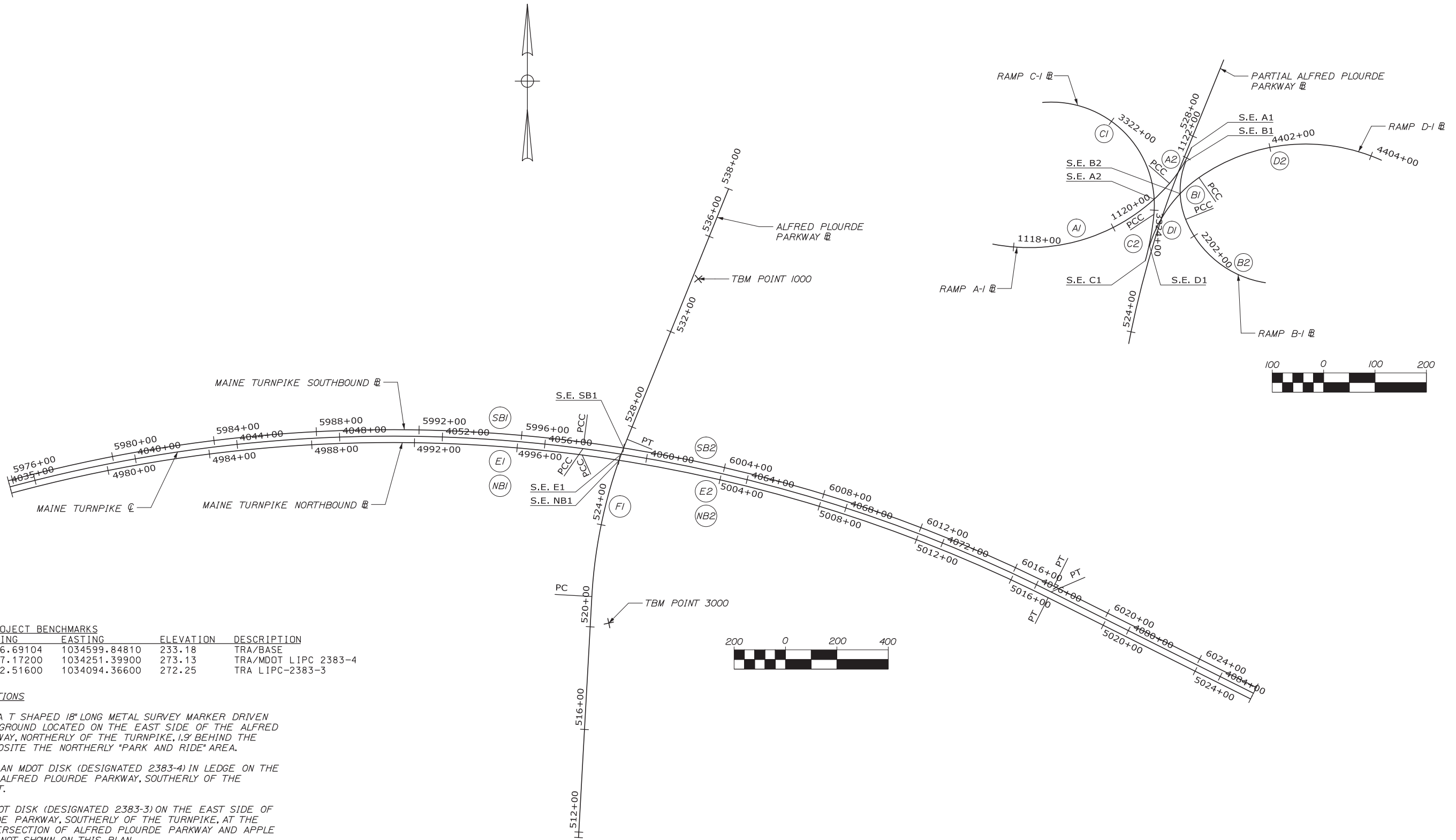
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

TRAFFIC SIGNAL PLAN

SHEET NUMBER: TSP-02  
CONTRACT: 2014.10  
34 OF 155

Date: 10/10/2014



TEMPORARY PROJECT BENCHMARKS				
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1000	452296.69104	1034599.84810	233.18	TRA/BASE
3000	450957.17200	1034251.39900	273.13	TRA/MDOT LIPC 2383-4
6002	449502.51600	1034094.36600	272.25	TRA LIPC-2383-3

**POINT DESCRIPTIONS**

POINT 1000 IS A T SHAPED 18" LONG METAL SURVEY MARKER DRIVEN FLUSH IN THE GROUND LOCATED ON THE EAST SIDE OF THE ALFRED PLOURDE PARKWAY, NORTHERLY OF THE TURNPIKE, 15' BEHIND THE GUARDRAIL OPPOSITE THE NORTHERLY "PARK AND RIDE" AREA.

POINT 3000 IS AN MDOT DISK (DESIGNATED 2383-4) IN LEDGE ON THE EAST SIDE OF ALFRED PLOURDE PARKWAY, SOUTHERLY OF THE TURNPIKE POINT.

6002 IS AN MDOT DISK (DESIGNATED 2383-3) ON THE EAST SIDE OF ALFRED PLOURDE PARKWAY, SOUTHERLY OF THE TURNPIKE, AT THE NORTHERLY INTERSECTION OF ALFRED PLOURDE PARKWAY AND APPLE ROAD. 6002 IS NOT SHOWN ON THIS PLAN.

Scale:				
Designed by:				
<b>HNTB</b>				
No.	Revision	By	Date	
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.				
	By	Date	By	Date
	Designed	RWH 08/14	Checked	DAM 08/14
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

**INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)**

**GEOMETRIC PLAN**

SHEET NUMBER: GP-01	
CONTRACT: 2014.10	35 OF 155

Filename: 0.35\_Geometric01.dgn

**MAINE TURNPIKE**

POINT	STATION	DELTA	Dc	R	T	L	EXT.	N	E	BEARING
PC	4034+99.51							451487.3753	1031920.6754	
PI	4046+39.35	22°37'00.3" RT.	1°00'18.7"	5700.00	1139.84	2250.00	112.85	451784.9288	1033020.9913	
PCC	4057+49.51							451636.4564	1034151.1193	
PI	4067+15.54	19°05'19.8" RT.	0°59'50.1"	5745.39	966.03	1914.15	80.65	451510.6243	1035108.9166	
PT	4076+63.66							451078.4793	1035972.8959	S 63°25'36.1" E

**ALFRED PLOURDE PARKWAY**

POINT	STATION	DELTA	Dc	R	T	L	EXT.	N	E	BEARING
PI	511+78.54							450122.5875	1034133.5769	N 3°10'16.0" E
PC	521+18.24							451060.8484	1034185.5591	
PI	524+36.14	18°53'57.1" RT.	2°59'59.2"	1910.00	317.90	630.02	26.27	451378.2592	1034203.1445	
PT	527+48.26							451672.8623	1034322.5926	N 22°04'13.1" E

- [S.E. E1]** STA. 4059+00.12 MAINE TURNPIKE C = STA. 526+86.10 ALFRED PLOURDE PARKWAY E
- [S.E. NB1]** STA. 5000+00.00 MAINE TURNPIKE NORTHBOUND E = STA. 526+60.64 ALFRED PLOURDE PARKWAY E
- [S.E. SB1]** STA. 5999+99.96 MAINE TURNPIKE SOUTHBOUND E = STA. 527+11.62 ALFRED PLOURDE PARKWAY E
- [S.E. A1]** STA. 1122+22.37 RAMP A-1 E = STA. 527+78.49 ALFRED PLOURDE PARKWAY E, 6.00' RT.
- [S.E. A2]** STA. 1120+97.32 RAMP A-1 E = STA. 3323+78.61 RAMP C-1 E
- [S.E. B1]** STA. 2200+48.78 RAMP B-1 E = STA. 527+48.71 ALFRED PLOURDE PARKWAY E, 6.00' RT.
- [S.E. B2]** STA. 2201+12.31 RAMP B-1 E = STA. 4400+00.75 RAMP D-1 E
- [S.E. C1]** STA. 3325+00.10 RAMP C-1 E = STA. 525+40.83 ALFRED PLOURDE PARKWAY E, 6.00' LT.
- [S.E. D1]** STA. 4398+81.89 RAMP D-1 E = STA. 525+70.85 ALFRED PLOURDE PARKWAY E, 6.00' LT.

**MAINE TURNPIKE NORTHBOUND**

POINT	STATION	DELTA	Dc	R	T	L	EXT.	N	E	BEARING
PC	4976+14.70							451463.2421	1031927.2016	
PI	4987+49.54	22°37'00.3" RT.	1°00'34.6"	5675.00	1134.84	2240.13	112.36	451759.4906	1033022.6916	
PCC	4998+54.83							451611.6694	1034147.8628	S 82°30'55.9" E
PI	5008+16.65	19°05'19.8" RT.	1°00'05.8"	5720.39	961.82	1905.82	80.30	451486.3848	1035101.4925	
PT	5017+50.65							451056.1202	1035961.7124	S 63°25'36.1" E
PI	5026+41.66							450662.0074	1036749.6546	

**MAINE TURNPIKE SOUTHBOUND**

POINT	STATION	DELTA	Dc	R	T	L	EXT.	N	E	BEARING
PC	5975+83.69							451511.5084	1031914.1492	
PI	5987+28.52	22°37'00.3" RT.	1°00'02.9"	5725.00	1144.84	2259.87	113.35	451810.3670	1033019.2910	
PCC	5998+43.55							451661.2434	1034154.3757	S 82°30'55.9" E
PI	6008+13.79	19°05'19.8" RT.	0°59'34.5"	5770.39	970.23	1922.48	81.00	451534.8638	1035116.3408	
PT	6017+56.03							451100.8384	1035984.0795	S 63°25'36.1" E
PI	6026+47.04							450706.7256	1036772.0217	

**RAMP A-1**

POINT	STATION	DELTA	Dc	R	T	L	EXT.	N	E	BEARING
PC	1117+59.08							451510.8237	1033952.7063	
PI	1119+59.42	60°19'01.9" LT.	15°49'39.2"	362.00	210.34	381.09	56.67	451469.8725	1034159.0203	
PCC	1121+40.17							451628.8351	1034296.7642	N 40°54'34.2" E
PI	1121+81.64	18°50'21.1" LT.	22°55'05.9"	250.00	41.48	82.20	3.42	451660.1797	1034323.9248	
PT	1122+22.37							451698.6156	1034339.5088	N 22°04'13.1" E

**RAMP B-1**

POINT	STATION	DELTA	Dc	R	T	L	EXT.	N	E	BEARING
PC	2200+48.78							451671.0197	1034328.3200	
PI	2201+09.30	43°56'43.9" LT.	38°11'49.9"	150.00	60.52	115.05	11.75	451614.9335	1034305.5796	
PCC	2201+63.83							451558.7701	1034328.1289	S 21°52'30.8" E
PI	2202+77.97	59°25'40.6" LT.	28°38'52.4"	200.00	114.14	207.44	30.28	451452.8461	1034370.6568	
PT	2203+71.27							451435.5870	1034483.4871	S 81°18'11.4" E

**RAMP C-1**


POINT	STATION	DELTA	Dc	R	T	L	EXT.	N	E	BEARING
PC	3320+58.04							451786.3162	1034049.6733	
PI	3322+97.87	100°20'52.2" RT.	28°38'52.4"	200.00	239.83	350.28	112.28	451807.2919	1034288.5796	
PCC	3324+08.32							451568.5037	1034266.3010	S 5°19'48.6" W
PI	3324+54.34	10°31'02.7" RT.	11°27'33.0"	500.00	46.02	91.78	2.11	451522.6824	1034262.0260	
PT	3325+00.10							451478.4114	1034249.4588	S 15°50'51.3" W


**RAMP D-1**

POINT	STATION	DELTA	Dc	R	T	L	EXT.	N	E	BEARING
PC	4398+81.89							451507.3186	1034257.9107	
PI	4399+58.61	38°15'45.8" Right	22°55'05.9"	250.00	86.72	166.95	14.61	451590.3634	1034282.9015	
PCC	4400+48.84							451640.0924	1034353.9508	N 55°00'39.4" E
PI	4402+53.91	59°03'42.0" Right	15°49'39.2"	362.00	205.07	373.16	54.05	451757.6818	1034521.9543	
PT	4404+22.00							451674.0362	1034709.1865	S 65°55'38.6" E

Date:10/10/2014

Filename: 036\_Geometric02.dgn

Scale:				Designed by:																							
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

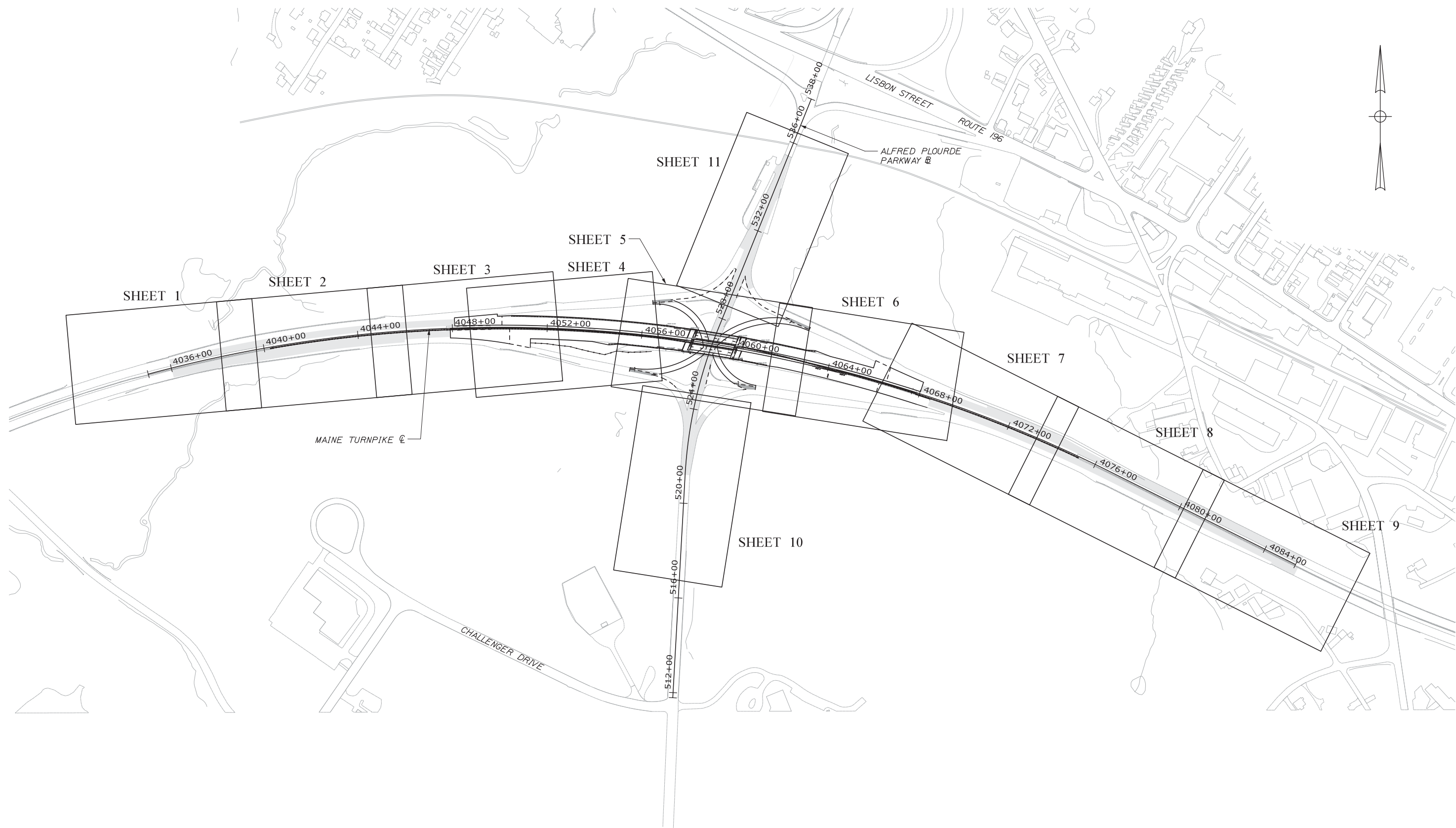
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

GEOMETRIC DATA

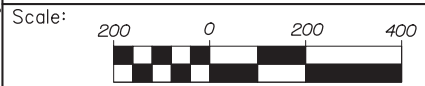
SHEET NUMBER: GP-02

CONTRACT: 2014.10 36 OF 155

Date:10/10/2014



Filename: 037\_Layout-25.dgn



No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
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THE GOLD STAR  
MEMORIAL HIGHWAY

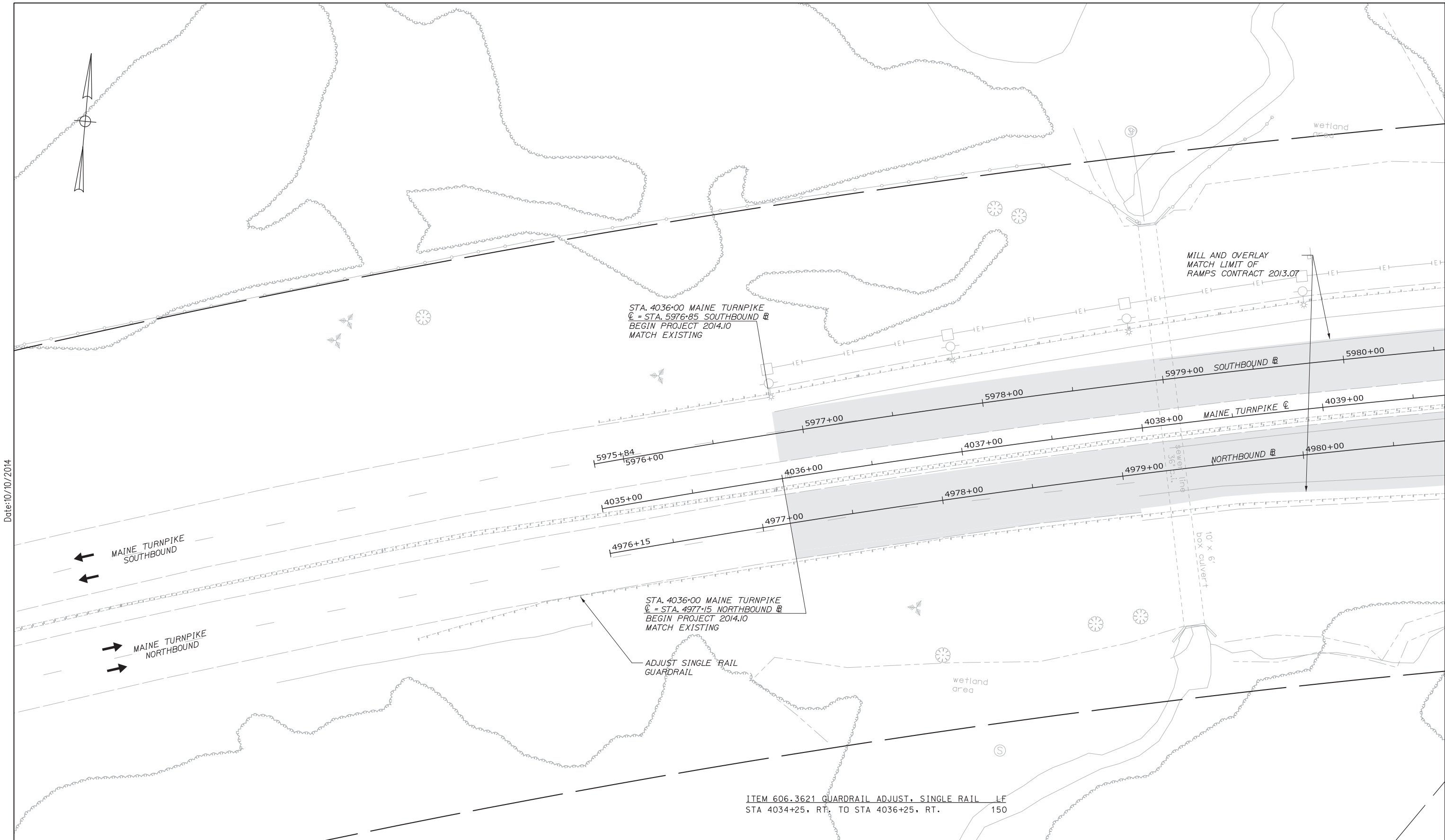
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

SHEET INDEX FOR  
HIGHWAY PLANS

SHEET NUMBER: SI-01  
CONTRACT:2014.10  
37 OF 155

Date: 10/10/2014



Scale: 1" = 50'

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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Designed	RWH	08/14	Checked	DAM	08/14
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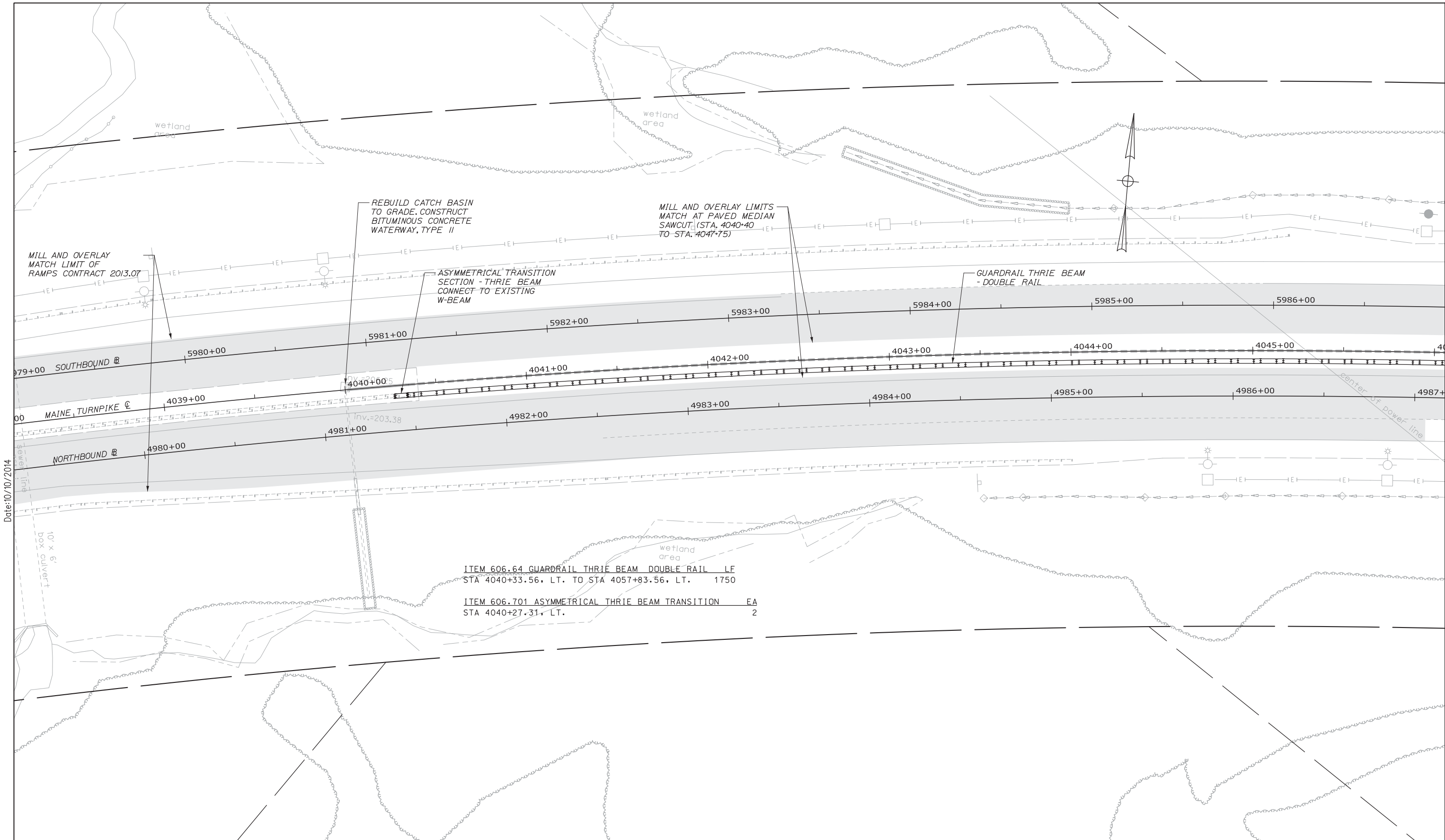
HNTB CORPORATION  
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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 HIGHWAY PLAN 1

SHEET NUMBER: HP-01  
 CONTRACT: 2014.10  
 38 OF 155



Date: 10/10/2014

Scale:

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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 Westbrook, ME 04092  
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 FAX (207) 228-0909

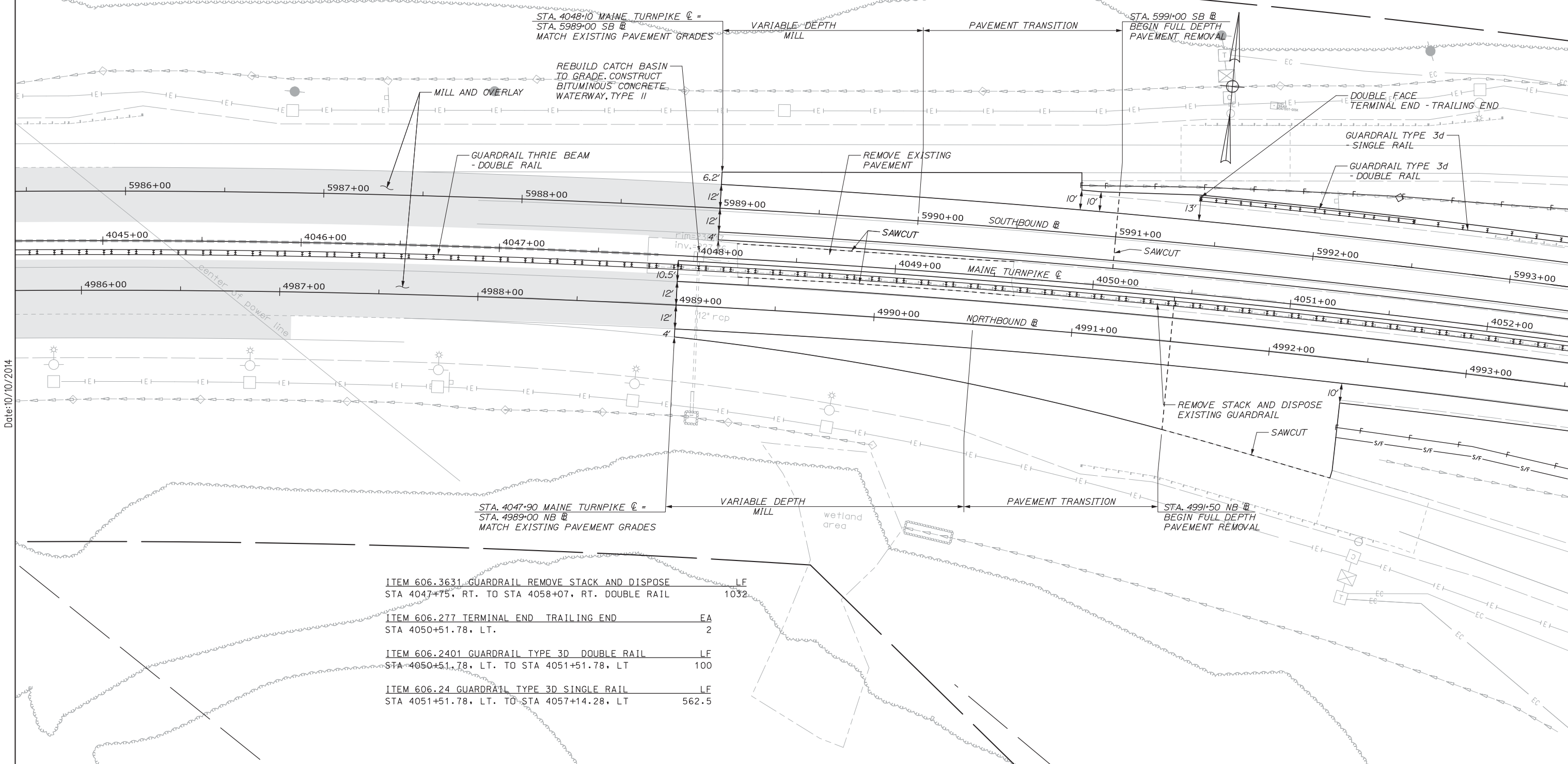
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 HIGHWAY PLAN 2

SHEET NUMBER: HP-02  
 CONTRACT: 2014.10  
 39 OF 155

MAINE TURNPIKE AUTHORITY



- ITEM 606.3631 GUARDRAIL REMOVE STACK AND DISPOSE LF  
STA 4047+75, RT. TO STA 4058+07, RT. DOUBLE RAIL 1032
- ITEM 606.277 TERMINAL END TRAILING END EA  
STA 4050+51.78, LT. 2
- ITEM 606.2401 GUARDRAIL TYPE 3D DOUBLE RAIL LF  
STA 4050+51.78, LT. TO STA 4051+51.78, LT 100
- ITEM 606.24 GUARDRAIL TYPE 3D SINGLE RAIL LF  
STA 4051+51.78, LT. TO STA 4057+14.28, LT 562.5

Date: 10/10/2014

Scale:

No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
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## THE GOLD STAR MEMORIAL HIGHWAY

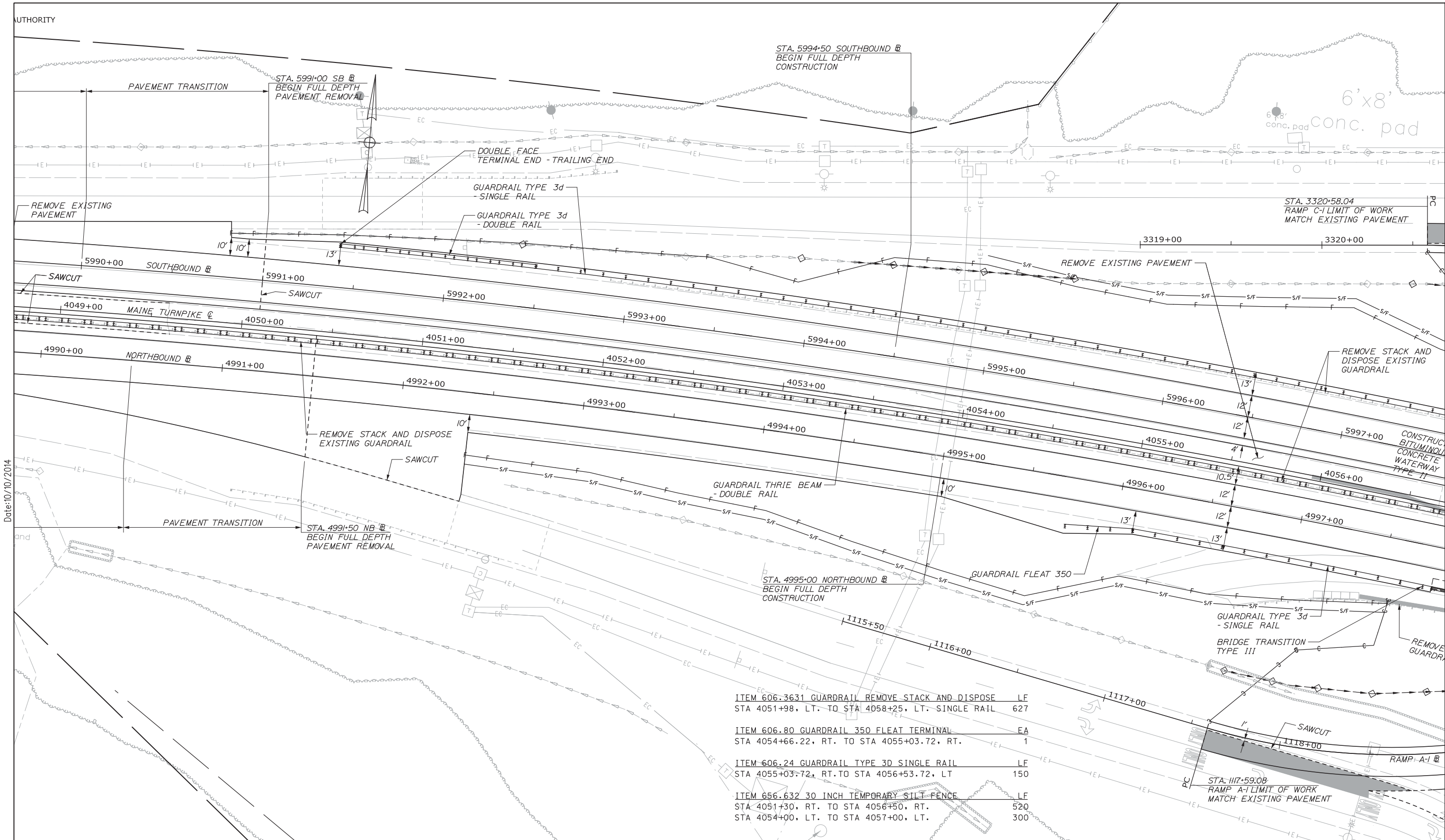
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
LEWISTON (EXIT 80)  
HIGHWAY PLAN 3

SHEET NUMBER: HP-03  
40 OF 155

CONTRACT: 2014.10





Date: 10/10/2014

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 HIGHWAY PLAN 4

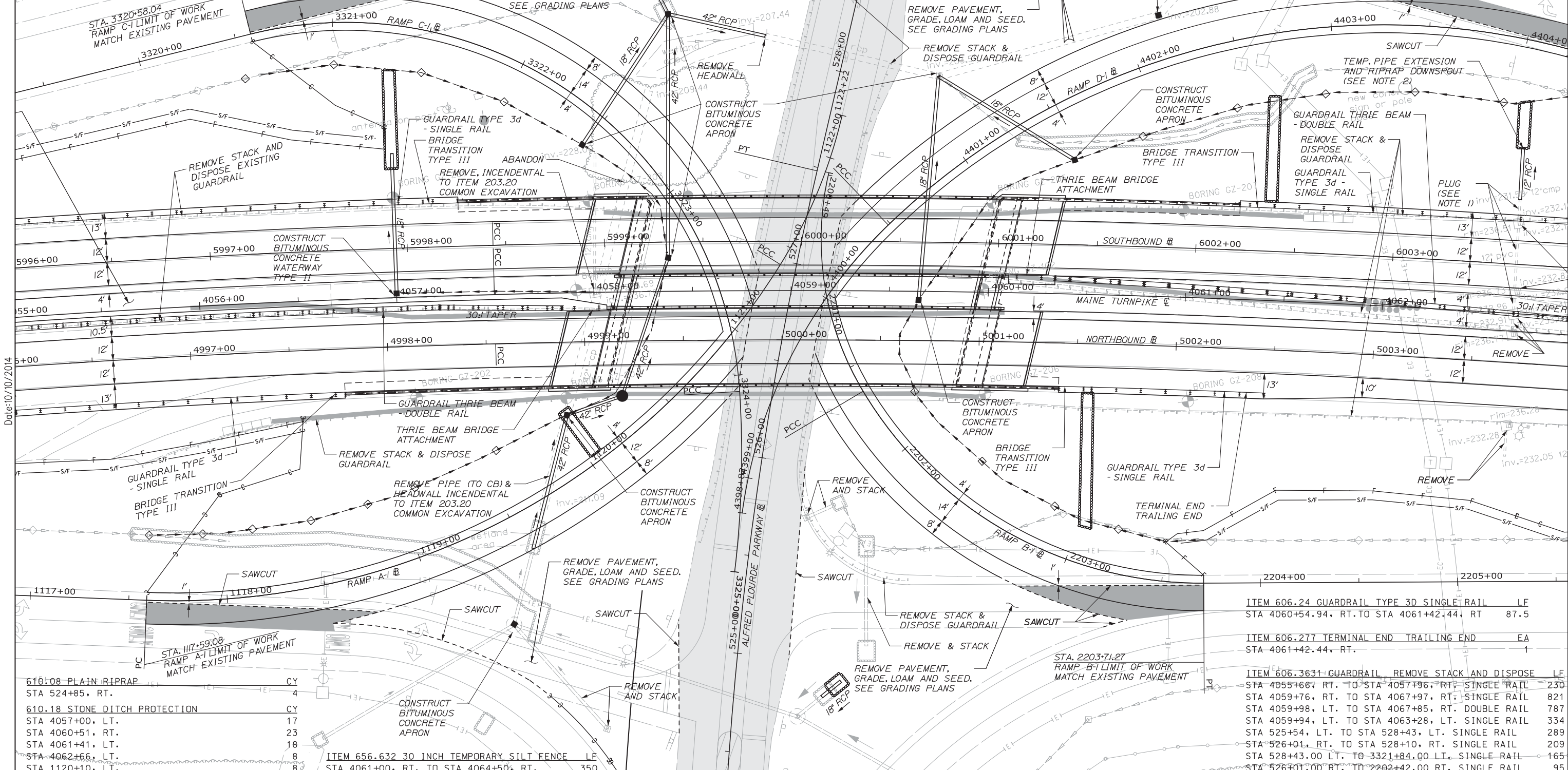
SHEET NUMBER: HP-04  
 41 OF 155

CONTRACT: 2014.10

ITEM 606.3631 GUARDRAIL REMOVE STACK AND DISPOSE	LF
STA 4051+98, LT. TO STA 4058+25, LT. SINGLE RAIL	627
ITEM 606.80 GUARDRAIL 350 FLEAT TERMINAL	EA
STA 4054+66.22, RT. TO STA 4055+03.72, RT.	1
ITEM 606.24 GUARDRAIL TYPE 3D SINGLE RAIL	LF
STA 4055+03.72, RT. TO STA 4056+53.72, LT	150
ITEM 656.632 30 INCH TEMPORARY SILT FENCE	LF
STA 4051+30, RT. TO STA 4056+50, RT.	520
STA 4054+00, LT. TO STA 4057+00, LT.	300

ITEM 606.1724 BRIDGE TRANSITION TYPE III, MODIFIED EA  
 STA 4057+83.56, RT. TO STA 4058+10.46, RT. 1  
 STA 4060+06.77, LT. TO STA 4060+33.67, LT. 1

ITEM 606.1723 BRIDGE TRANSITION - TYPE III EA  
 STA 4057+14.28, LT. TO STA 4057+34.93, LT. 1  
 STA 4056+53.72, RT. TO STA 4056+74.37, RT. 1  
 STA 4060+34.29, RT. TO STA 4060+54.94, RT. 1  
 STA 4061+23.45, LT. TO STA 4061+44.10, LT. 1

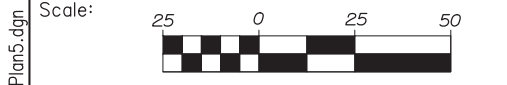


Date: 10/10/2014

610:08 PLAIN RIPRAP	CY	4
STA 524+85, RT.		
610:18 STONE DITCH PROTECTION	CY	17
STA 4057+00, LT.		
STA 4060+51, RT.		23
STA 4061+41, LT.		18
STA 4062+66, LT.		8
STA 1120+10, LT.		8

ITEM 656.632 30 INCH TEMPORARY SILT FENCE LF  
 STA 4061+00, RT. TO STA 4064+50, RT. 350

ITEM 606.24 GUARDRAIL TYPE 3D SINGLE RAIL	LF	87.5
STA 4060+54.94, RT. TO STA 4061+42.44, RT.		
ITEM 606.277 TERMINAL END TRAILING END	EA	1
STA 4061+42.44, RT.		
ITEM 606.3631 GUARDRAIL REMOVE STACK AND DISPOSE	LF	230
STA 4055+66, RT. TO STA 4057+96, RT. SINGLE RAIL		
STA 4059+76, RT. TO STA 4067+97, RT. SINGLE RAIL		821
STA 4059+98, LT. TO STA 4067+85, RT. DOUBLE RAIL		787
STA 4059+94, LT. TO STA 4063+28, LT. SINGLE RAIL		334
STA 525+54, LT. TO STA 528+43, LT. SINGLE RAIL		289
STA 526+01, RT. TO STA 528+10, RT. SINGLE RAIL		209
STA 528+43.00 LT. TO 3321+84.00 LT. SINGLE RAIL		165
STA 526+01.00 RT. TO 2202+42.00 RT. SINGLE RAIL		95



Designed by:



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# THE GOLD STAR MEMORIAL HIGHWAY

## INTERCHANGE IMPROVEMENT LEWISTON (EXIT 80) HIGHWAY PLAN 5

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date	By	Date	
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

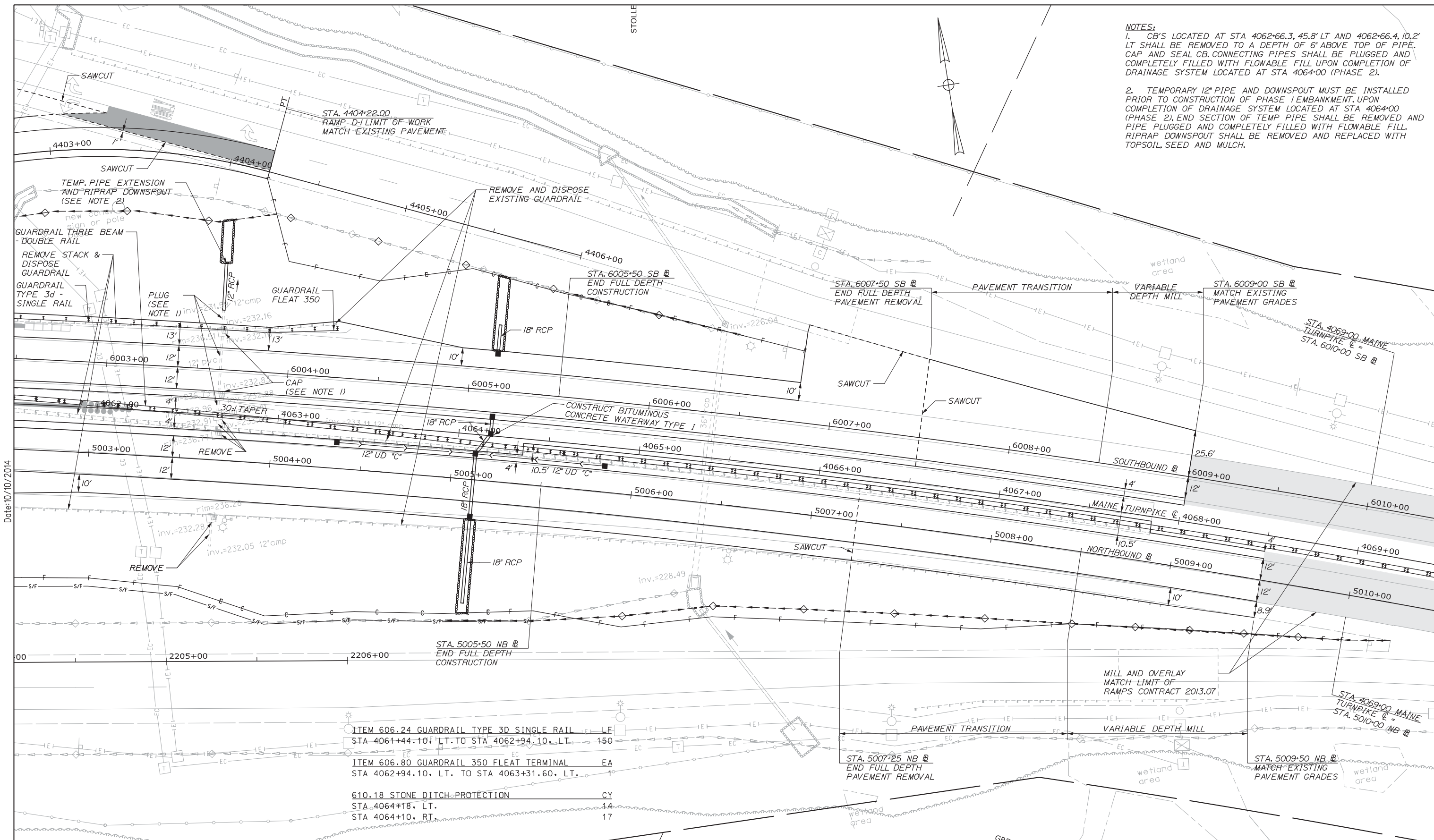
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

SHEET NUMBER: HP-05  
 42 OF 155

Filename: 042\_HDPlan5.dgn

NOTES:  
 1. CB'S LOCATED AT STA 4062+66.3, 45.8' LT AND 4062+66.4, 10.2' LT SHALL BE REMOVED TO A DEPTH OF 6' ABOVE TOP OF PIPE. CAP AND SEAL CB. CONNECTING PIPES SHALL BE PLUGGED AND COMPLETELY FILLED WITH FLOWABLE FILL UPON COMPLETION OF DRAINAGE SYSTEM LOCATED AT STA 4064+00 (PHASE 2).  
 2. TEMPORARY 12" PIPE AND DOWNSPOUT MUST BE INSTALLED PRIOR TO CONSTRUCTION OF PHASE 1 EMBANKMENT. UPON COMPLETION OF DRAINAGE SYSTEM LOCATED AT STA 4064+00 (PHASE 2), END SECTION OF TEMP PIPE SHALL BE REMOVED AND PIPE PLUGGED AND COMPLETELY FILLED WITH FLOWABLE FILL. RIPRAP DOWNSPOUT SHALL BE REMOVED AND REPLACED WITH TOPSOIL, SEED AND MULCH.



Date: 10/10/2014

- ITEM 606.24 GUARDRAIL TYPE 3D SINGLE RAIL LF STA 4061+44.10, LT. TO STA 4062+94.10, LT. 150
- ITEM 606.80 GUARDRAIL 350 FLEAT TERMINAL EA STA 4062+94.10, LT. TO STA 4063+31.60, LT. 1
- 610.18 STONE DITCH PROTECTION CY STA 4064+18, LT. 14  
STA 4064+10, RT. 17

Scale:

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
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Drawn	MPC	10/14	In Charge of	RAL	10/14

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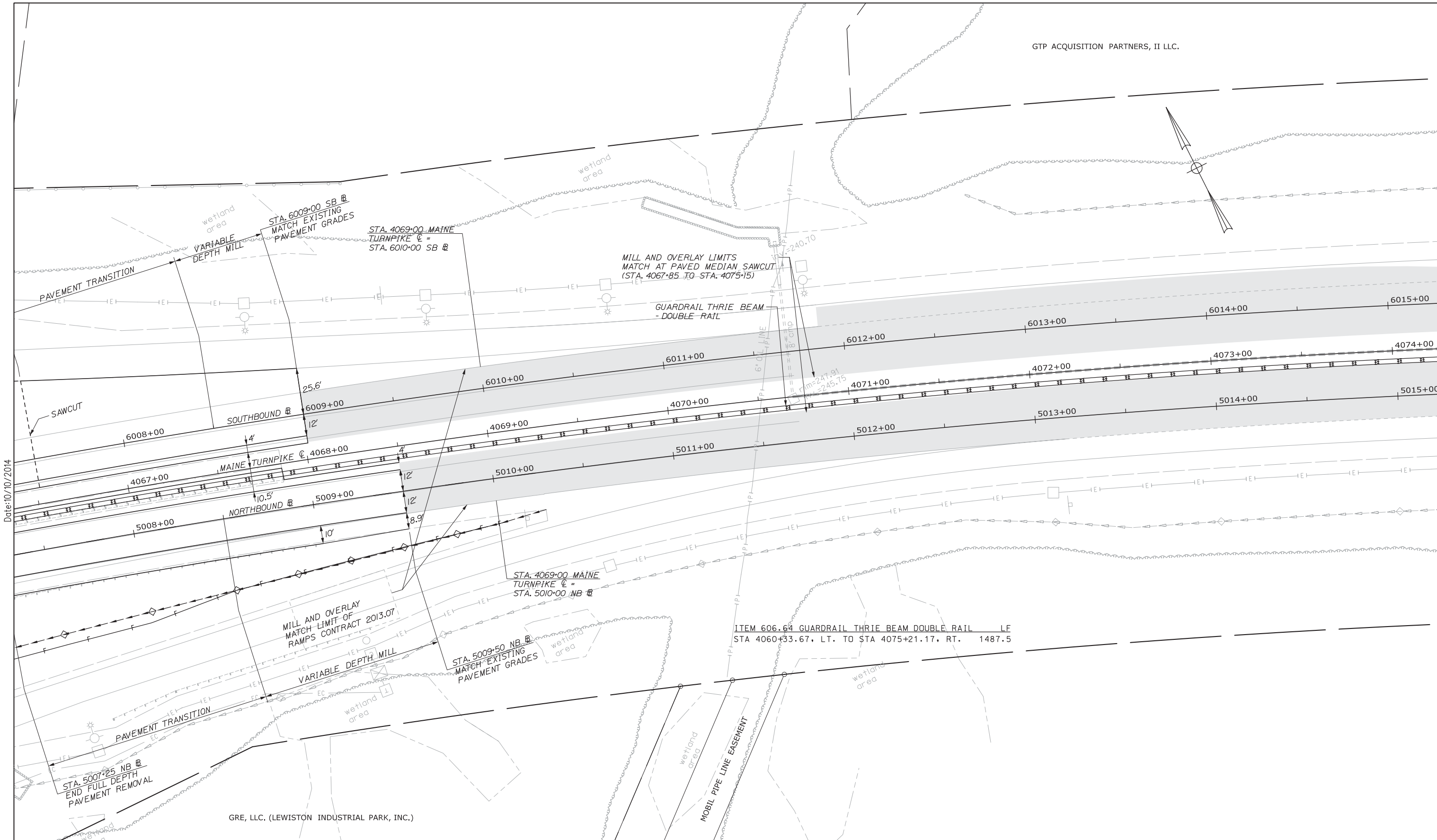
THE GOLD STAR  
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
LEWISTON (EXIT 80)  
HIGHWAY PLAN 6

SHEET NUMBER: HP-06  
43 OF 155

CONTRACT: 2014.10



Date: 10/10/2014

GRE, LLC. (LEWISTON INDUSTRIAL PARK, INC.)

Scale:

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 HIGHWAY PLAN 7

SHEET NUMBER: HP-07  
 CONTRACT: 2014.10  
 44 OF 155

GTP ACQUISITION PARTNERS, II LLC.

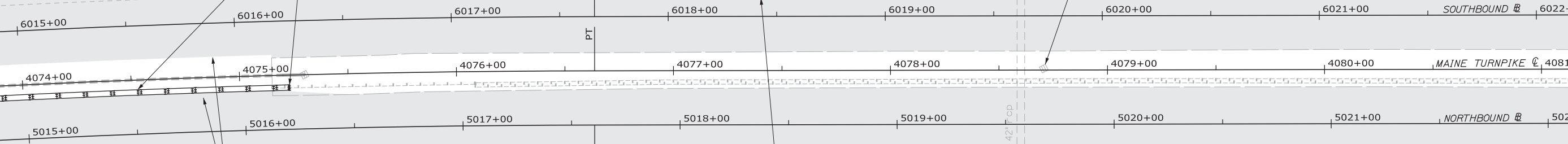
MON/H-MON

Wetland area  
inv. = 255.67

REBUILD CATCH BASIN TO GRADE.  
CONSTRUCT BITUMINOUS CONCRETE  
WATERWAY, TYPE II

GUARDRAIL THRIE BEAM  
- DOUBLE RAIL

ASYMMETRICAL TRANSITION SECTION  
- THRIE BEAM



MILL AND OVERLAY LIMITS  
MATCH AT CROSSOVER SAWCUT

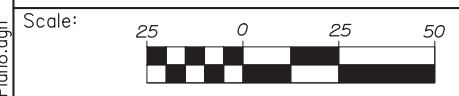
MILL AND OVERLAY  
MATCH LIMITS OF  
RAMPS CONTRACT 2013.07

ITEM 606.701 ASYMMETRICAL THRIE BEAM TRANSITION EA  
STA 4075+21.17, RT. 2

MON/H-MON

Date: 10/10/2014

Filename: 045\_HDPlan8.dgn



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**THE GOLD STAR  
MEMORIAL HIGHWAY**

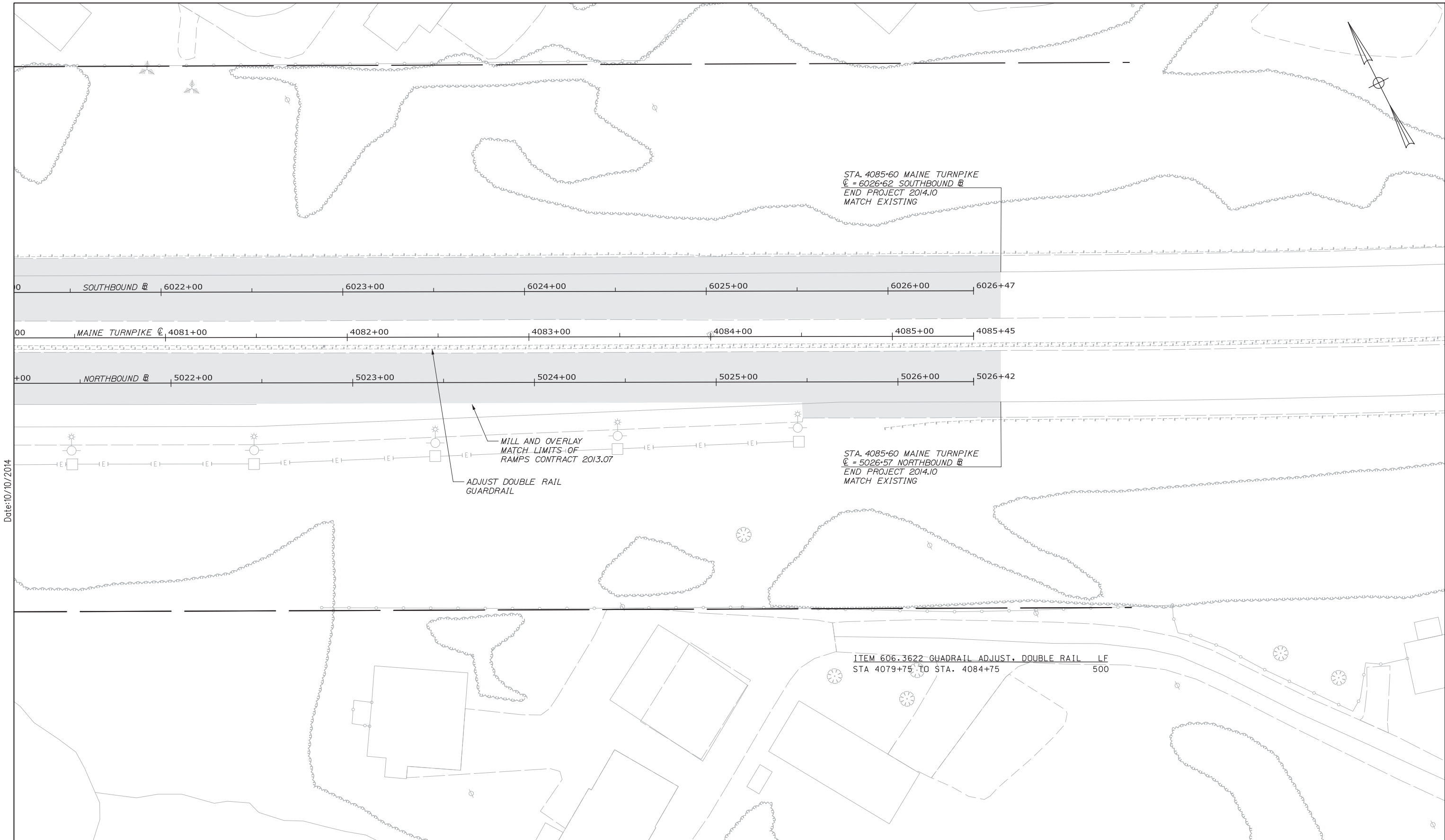
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
LEWISTON (EXIT 80)  
HIGHWAY PLAN 8

CONTRACT: 2014.10

SHEET NUMBER: HP-08

45 OF 155



Date: 10/10/2014

Scale:

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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Designed	RWH	08/14	DAM	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

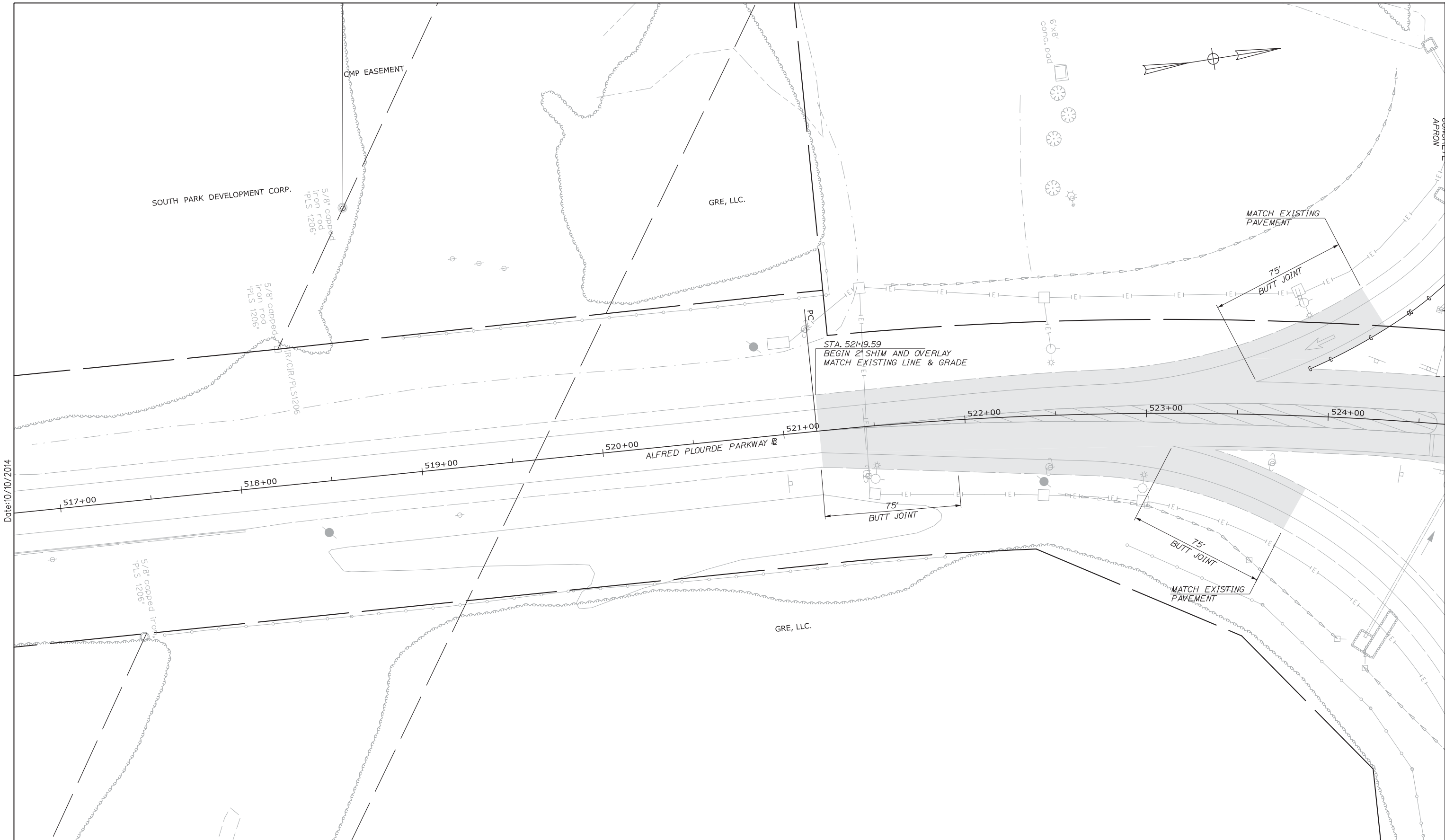
INTERCHANGE IMPROVEMENT  
LEWISTON (EXIT 80)  
HIGHWAY PLAN 9

SHEET NUMBER: HP-09  
CONTRACT: 2014.10  
46 OF 155

STA. 4085+60 MAINE TURNPIKE  
 CL = 6026+62 SOUTHBOUND R  
 END PROJECT 2014.10  
 MATCH EXISTING

STA. 4085+60 MAINE TURNPIKE  
 CL = 5026+57 NORTHBOUND R  
 END PROJECT 2014.10  
 MATCH EXISTING

ITEM 606.3622 GUADRAIL ADJUST. DOUBLE RAIL LF  
 STA 4079+75 TO STA. 4084+75 500



Date: 10/10/2014

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Drawn	MPC	08/14	In Charge of	RAL	08/14

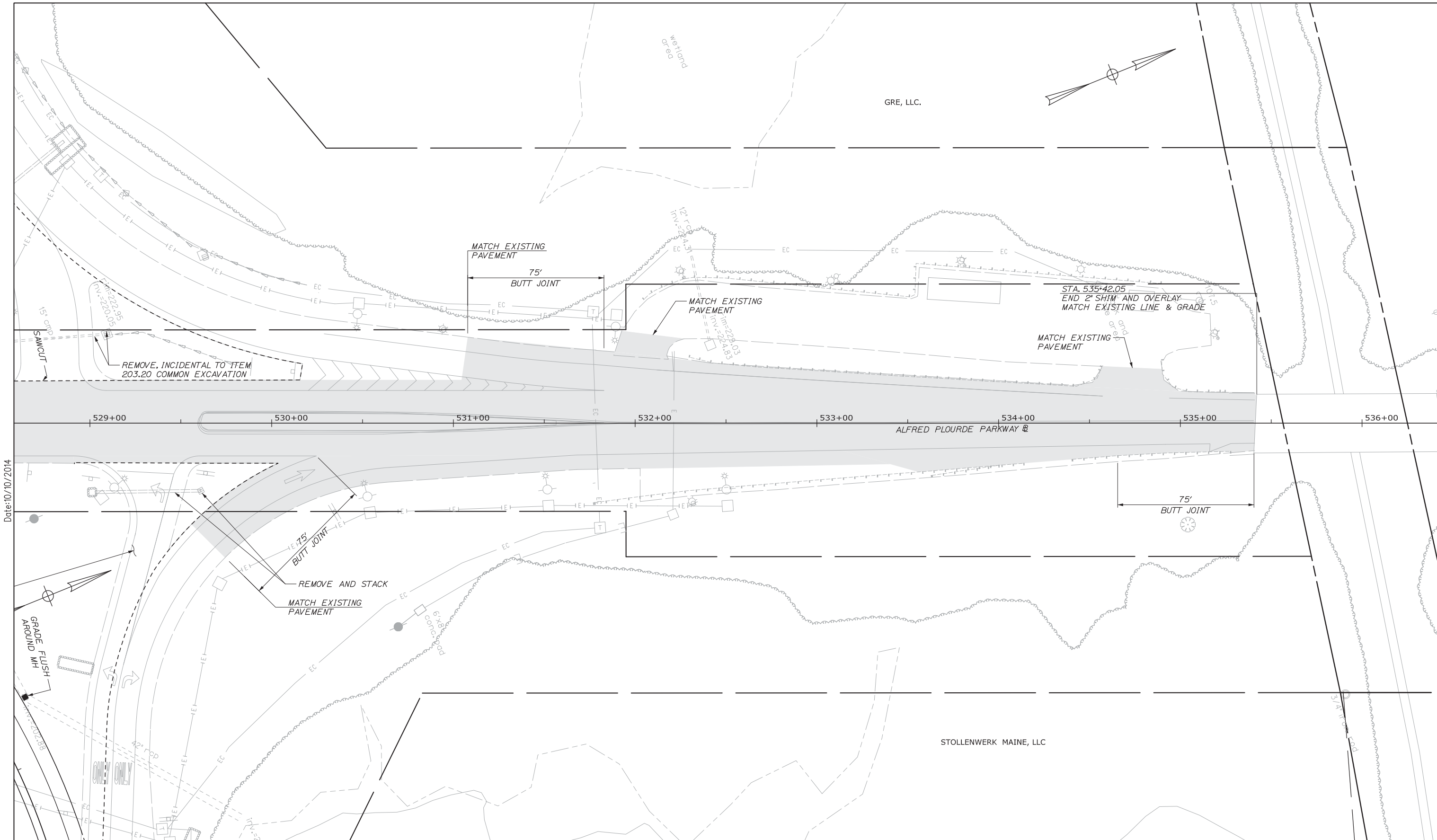
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 HIGHWAY PLAN 10

SHEET NUMBER: HP-10  
 CONTRACT: 2014.10  
 47 OF 155



Date: 10/10/2014

Scale: 25 0 25 50

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 HIGHWAY PLAN 11


SHEET NUMBER: HP-11  
 CONTRACT: 2014.10  
 48 OF 155




Date:10/10/2014



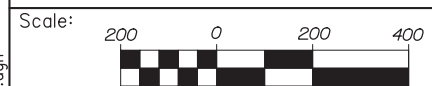
**LEGEND**

 THIS CONTRACT LIMIT OF DISTURBANCE  
(10.6 ACRES)

 CONTRACTORS LIMIT OF DISTURBANCE  
AREA FOR ACCESS AND STORAGE, THIS CONTRACT  
(0.35 ACRES). SEE NOTE 5.

**NOTES:**

1. EROSION AND SEDIMENTATION CONTROL DEVICES REQUIRED FOR THE CONTRACTOR'S ACCESS LOCATIONS AND STORAGE AREAS WILL NOT BE MEASURED FOR PAYMENT.
2. SEE SPECIFICATIONS FOR CONTRACTOR'S SUBMITTAL REQUIREMENTS IF ADDING ADDITIONAL LIMITS OF DISTURBANCE TO THE PROJECT ESTIMATED QUANTITIES.
3. AN ADDITIONAL TWO ACRES HAS BEEN ESTIMATED FOR CONTRACTOR ACCESS LOCATIONS AND STORAGE AREAS.
4. LIMIT OF DISTURBANCE SHOWN IS FOR (THIS) PHASE 2 PORTION OF THE LEWISTON INTERCHANGE RECONSTRUCTION. LOD SHOWN IS A PORTION OF AND MODIFICATION TO THE LOD PLAN ORIGINALLY SUBMITTED TO THE MAINE DEP.
5. USE OF EXISTING PARK AND RIDE LOT TO BE APPROVED BY RESIDENT.



Designed by:



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**THE GOLD STAR  
MEMORIAL HIGHWAY**

**INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)**

**LIMIT OF DISTURBANCE PLAN**

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	RWH	08/14	Checked	DAM	08/14
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MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

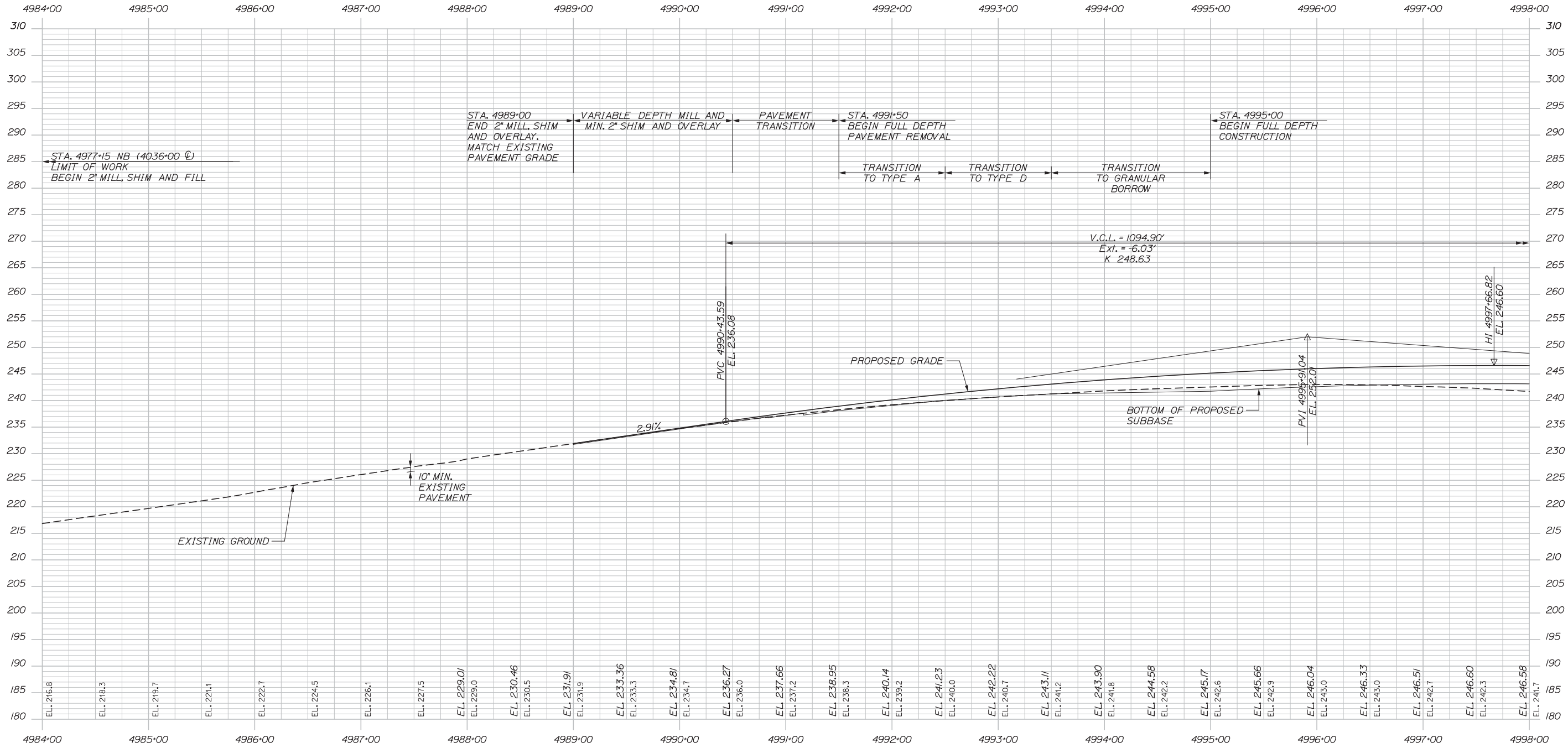
CONTRACT:2014.10

SHEET NUMBER: LOD-01

49 OF 155

Filename: 049\_LOD.dgn

Date: 10/10/2014



MAINE TURNPIKE NORTHBOUND PROFILE

Scale: HORIZ: 50 0 50 100  
 VERT: 10 0 10 20

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	RWH	08/14	Checked	DAM	08/14
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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 PROFILE  
 MAINE TURNPIKE NORTHBOUND

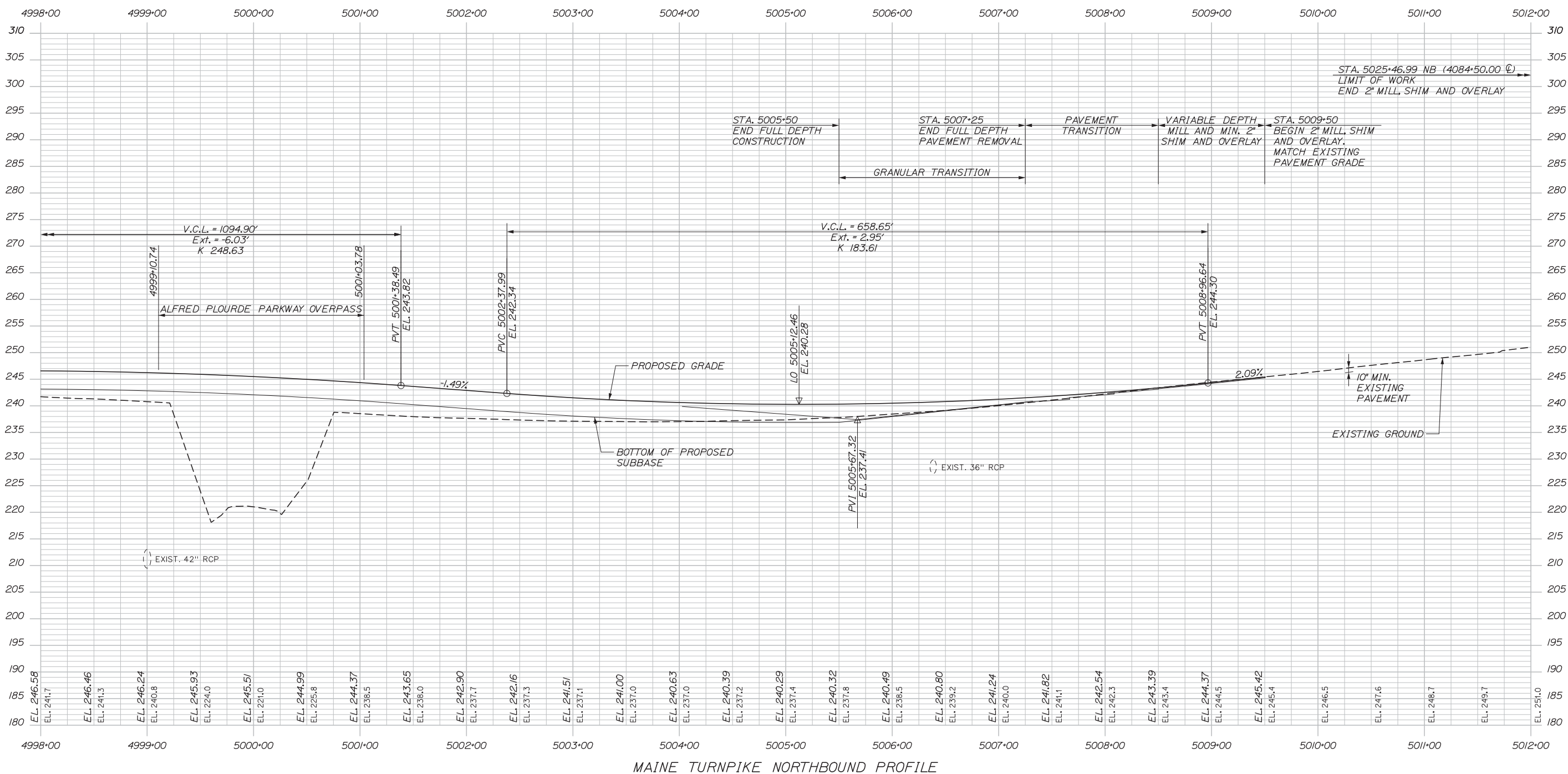
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

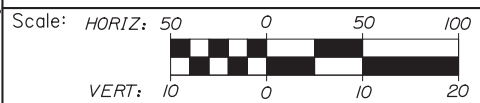
SHEET NUMBER: PR-01

50 OF 155

Date: 10/10/2014



Filename: 051\_Profile-NB2.dgn



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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 PROFILE  
 MAINE TURNPIKE NORTHBOUND

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
	By	Date	
	RWH	10/14	Checked
	MPC	10/14	In Charge of
			DAM
			RAL
			10/14

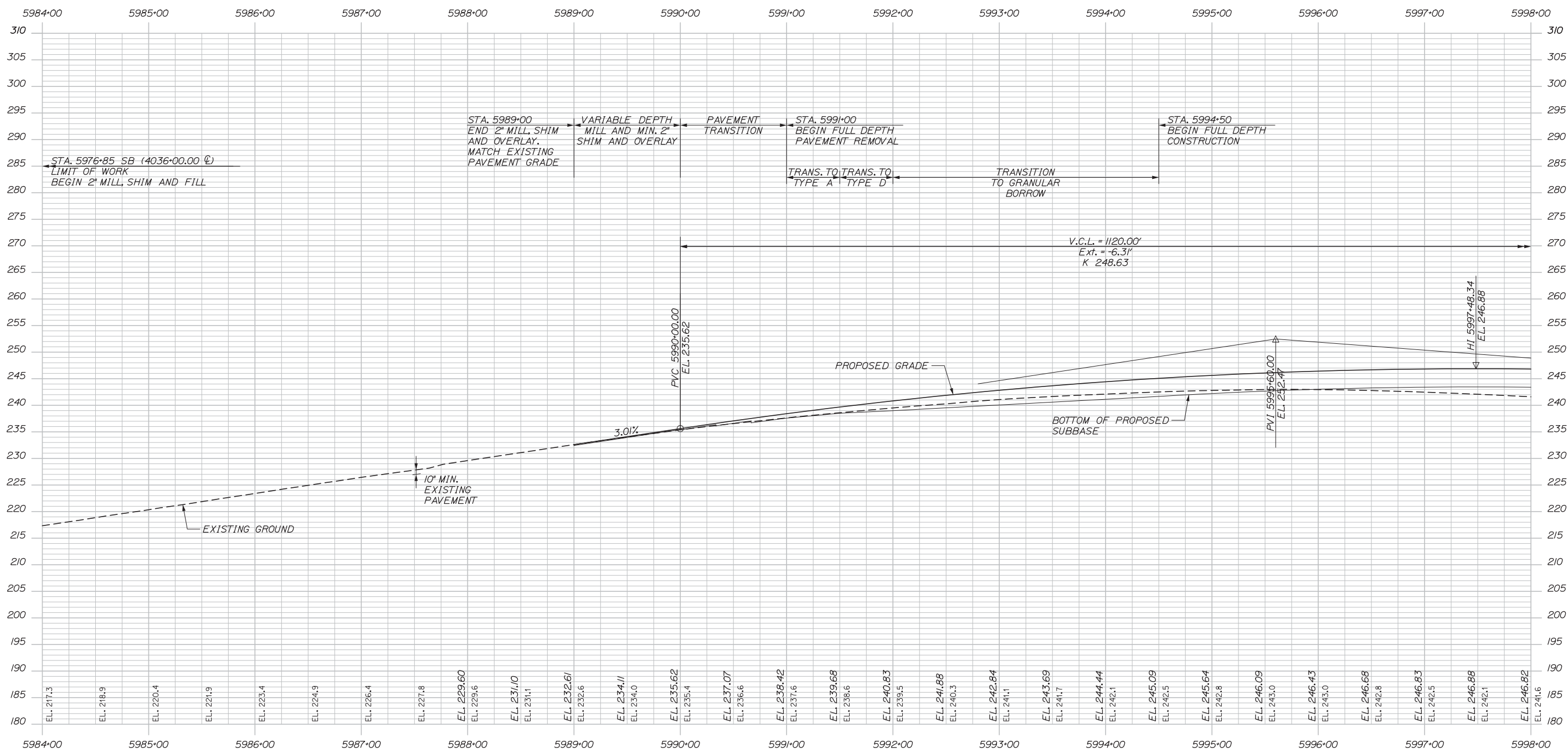
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

SHEET NUMBER: PR-02

51 OF 155

Date: 10/10/2014



MAINE TURNPIKE SOUTHBOUND PROFILE

Scale: HORIZ: 50 0 50 100  
VERT: 10 0 10 20

No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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**MAINE TURNPIKE**

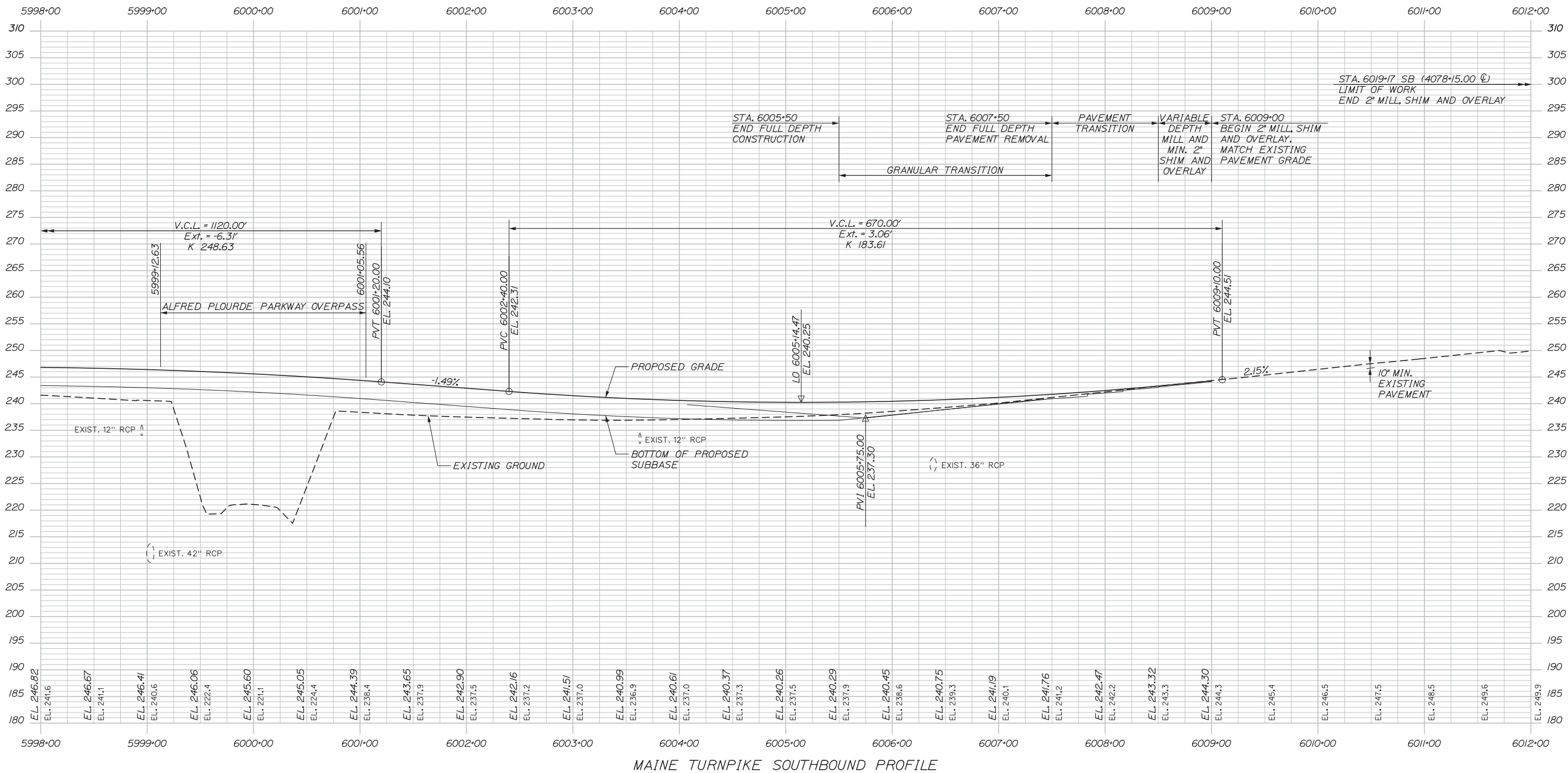
**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

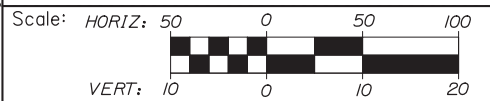
INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 PROFILE  
 MAINE TURNPIKE SOUTHBOUND

SHEET NUMBER: PR-03  
 CONTRACT: 2014.10  
 52 OF 155

Date: 10/10/2014



Filename: 053\_Profile-SB2.dgn



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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 PROFILE  
 MAINE TURNPIKE SOUTHBOUND

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.						
	By	Date		By	Date	
	Designed	RWH	08/14	Checked	DAM	08/14
	Drawn	MPC	08/14	In Charge of	RAL	08/14

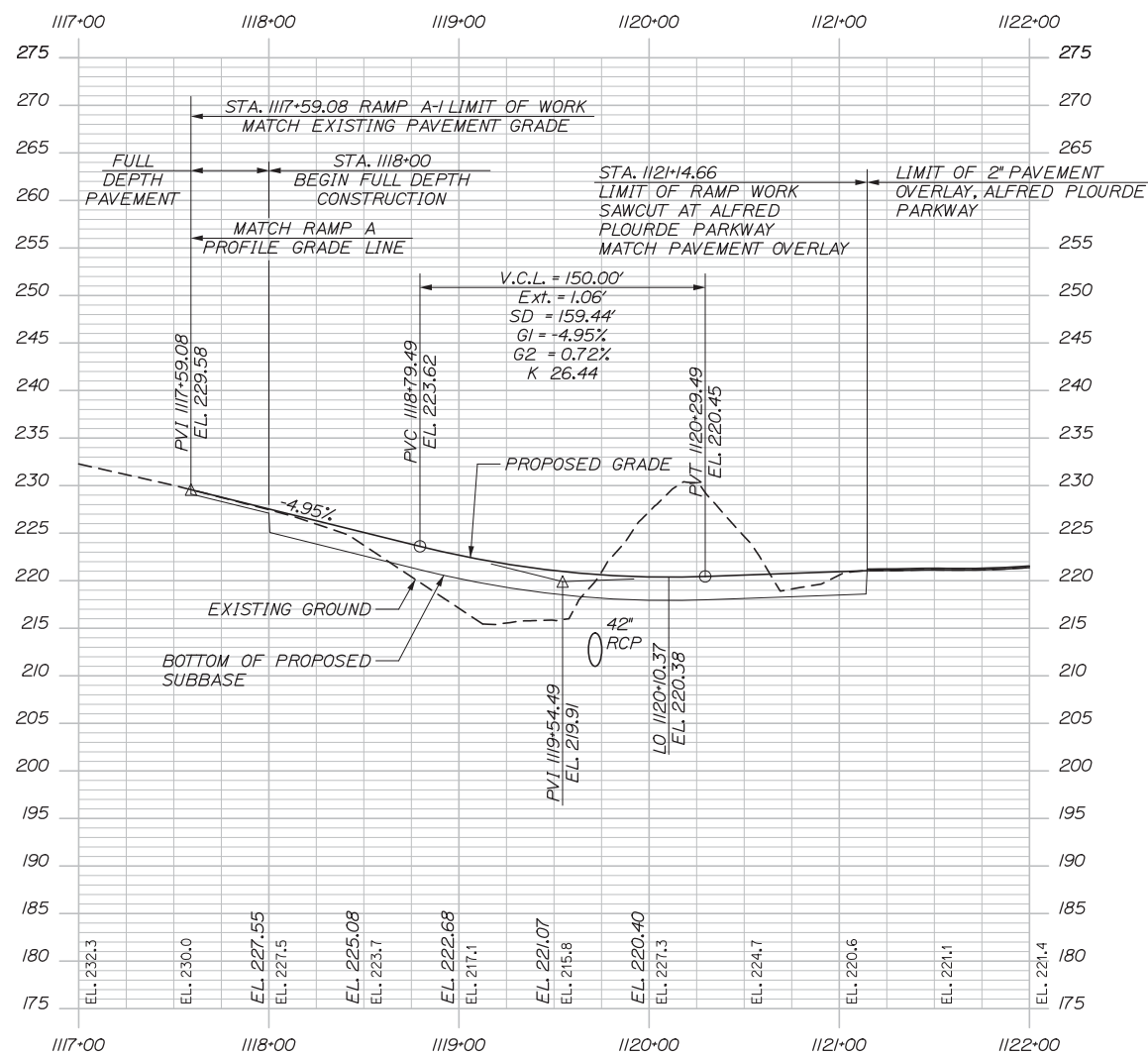
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

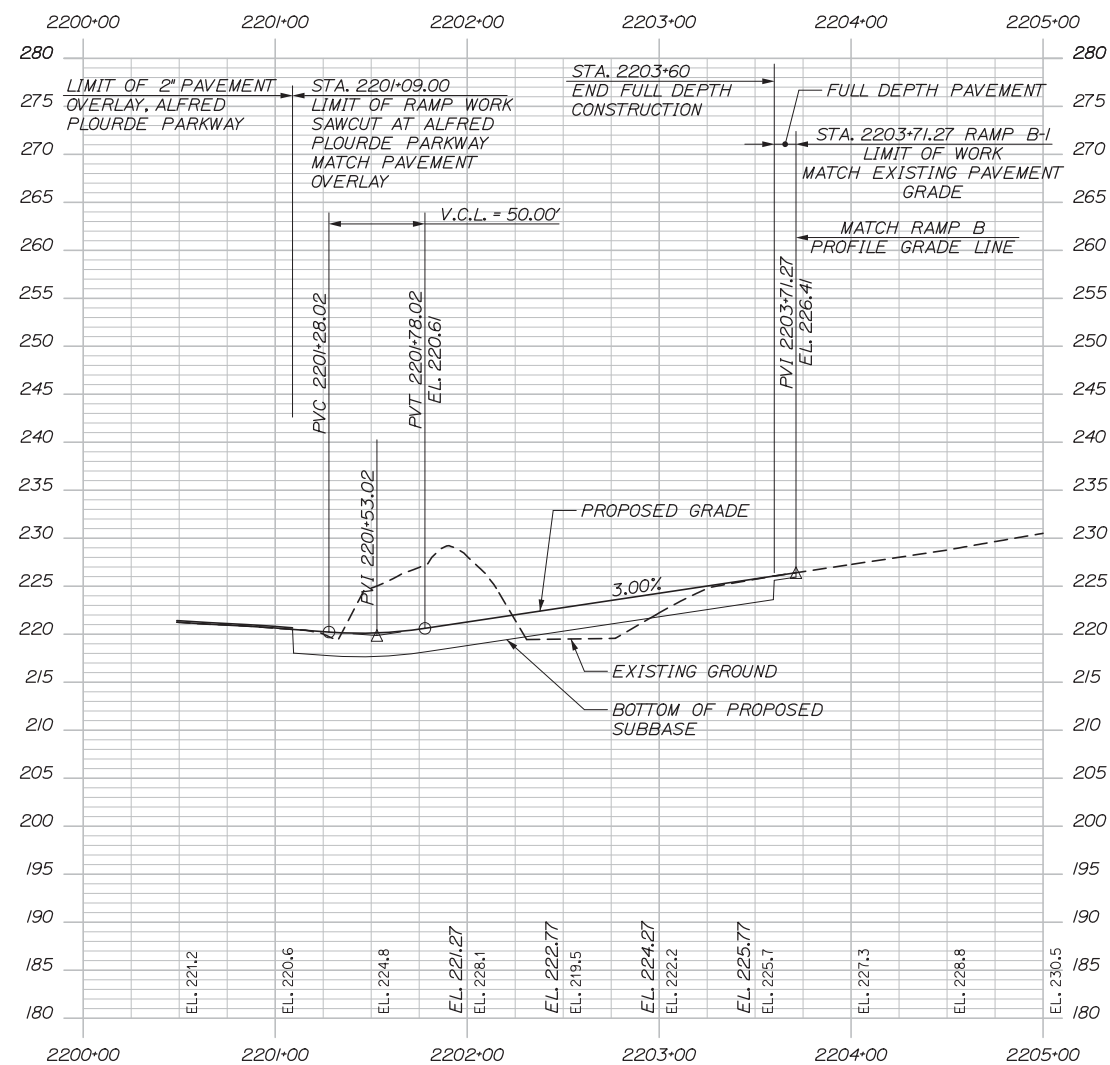
SHEET NUMBER: PR-04

53 OF 155

Date: 10/10/2014

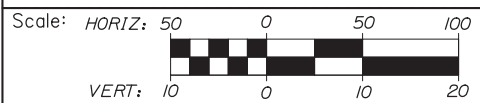


RAMP A-I PROFILE



RAMP B-I PROFILE

Filename: 054\_Profile-A1-B1.dgn



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THE GOLD STAR  
 MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 PROFILE  
 RAMP A-1 AND RAMP B-1

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
By	Date	Checked	Date
RWH	08/14	DAM	08/14
Drawn	MPC	In Charge of	RAL
	08/14		08/14

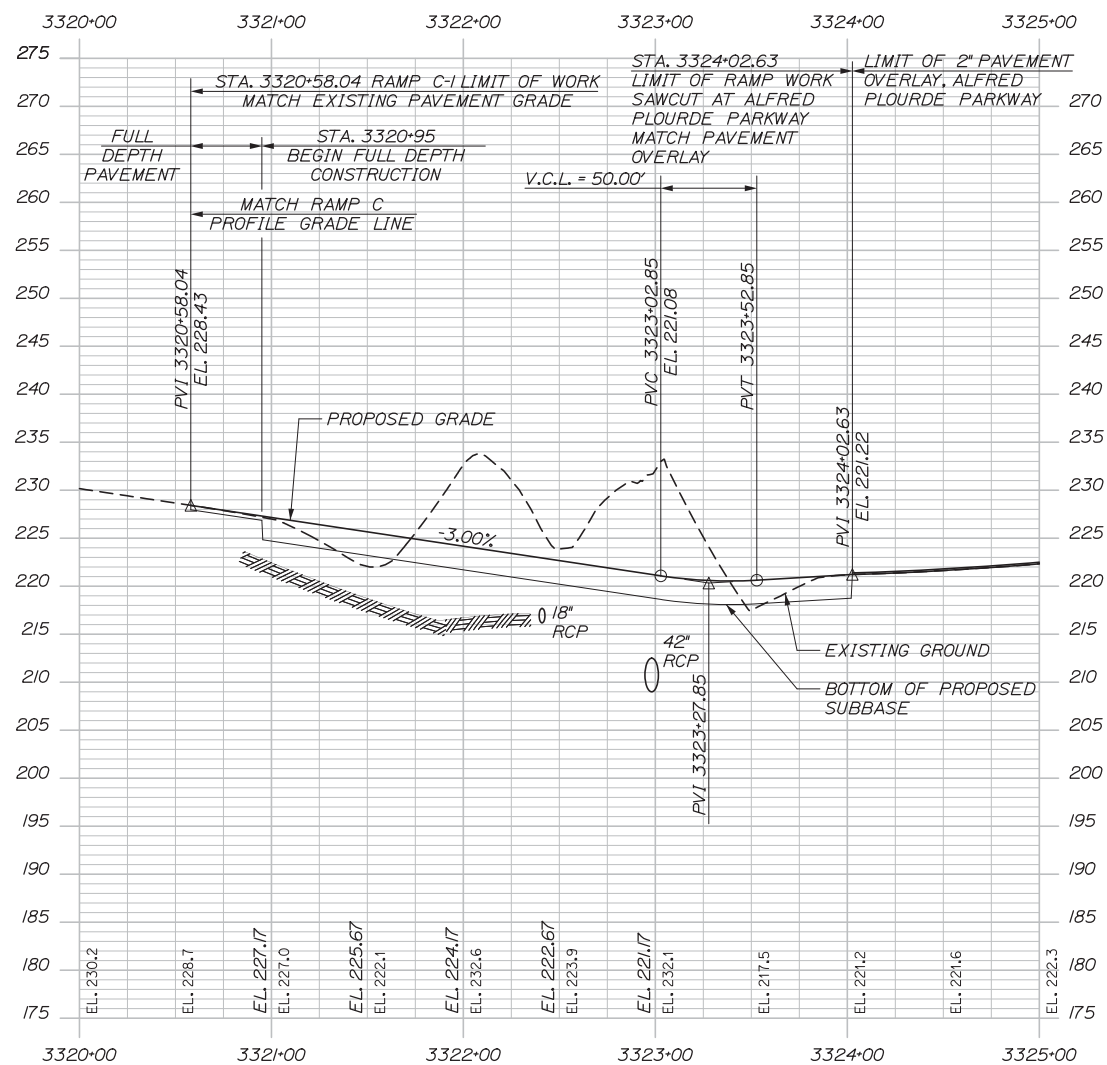
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

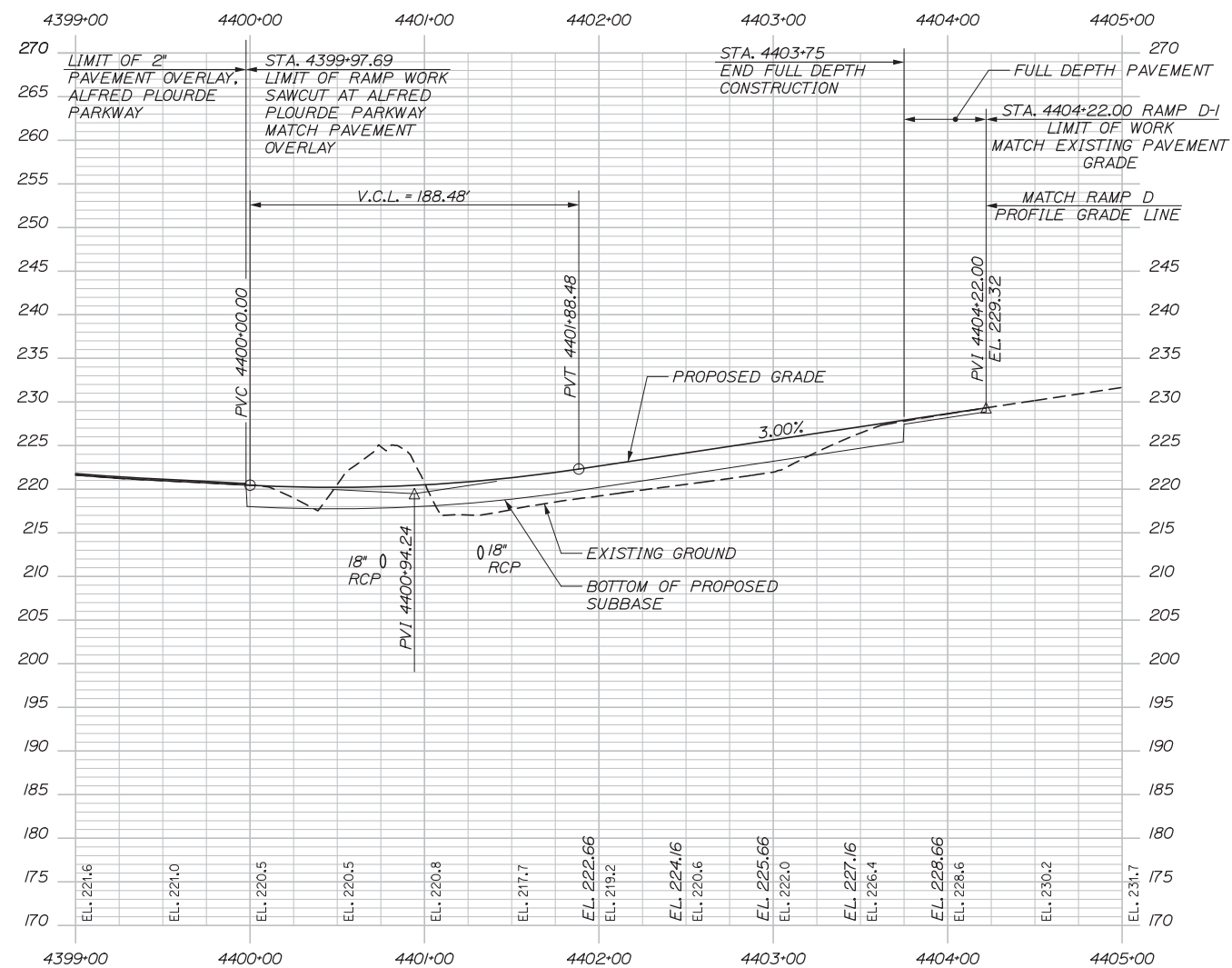
SHEET NUMBER: PR-05

54 OF 155

Date: 10/10/2014

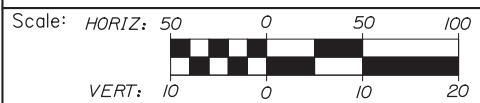


RAMP C-1 PROFILE



RAMP D-1 PROFILE

Filename: 055\_Profile-C1-D1.dgn



Designed by:



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THE GOLD STAR  
MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENT  
LEWISTON (EXIT 80)  
PROFILE  
RAMP C-1 AND RAMP D-1

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.						
	By	Date		By	Date	
	Designed	RWH	08/14	Checked	DAM	08/14
	Drawn	MPC	08/14	In Charge of	RAL	08/14

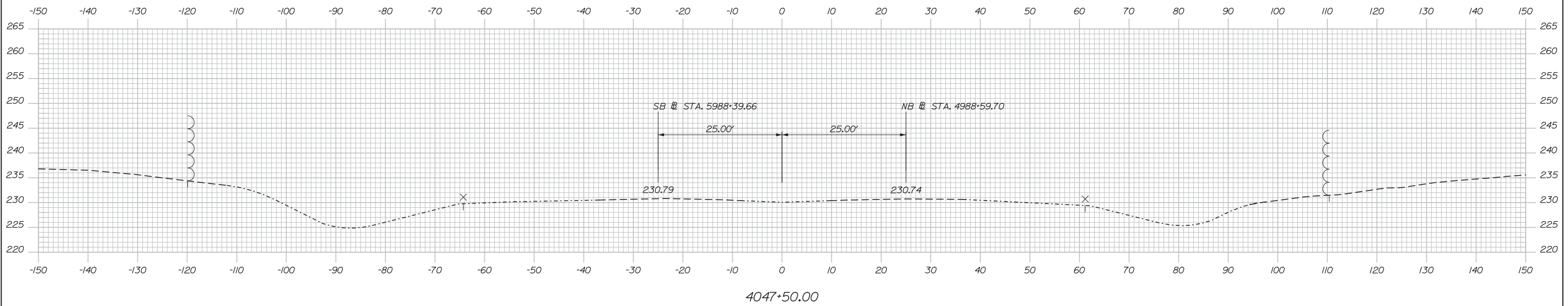
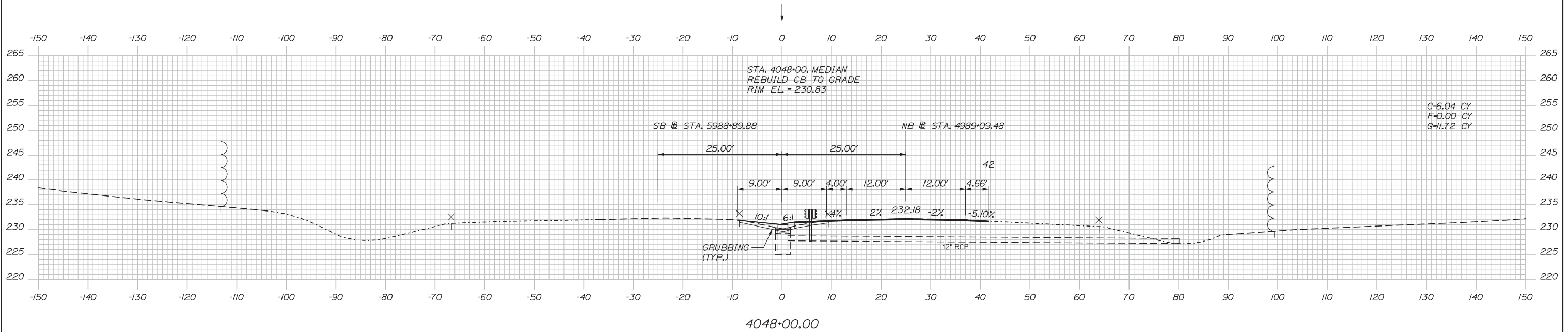
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

SHEET NUMBER: PR-06

55 OF 155

Date: 10/10/2014



Scale:

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Drawn	MPC	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

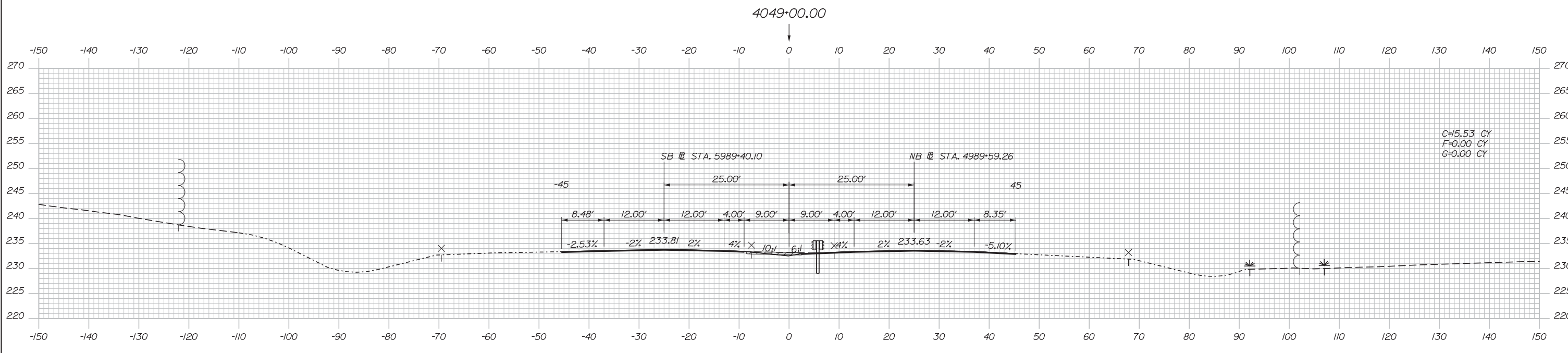
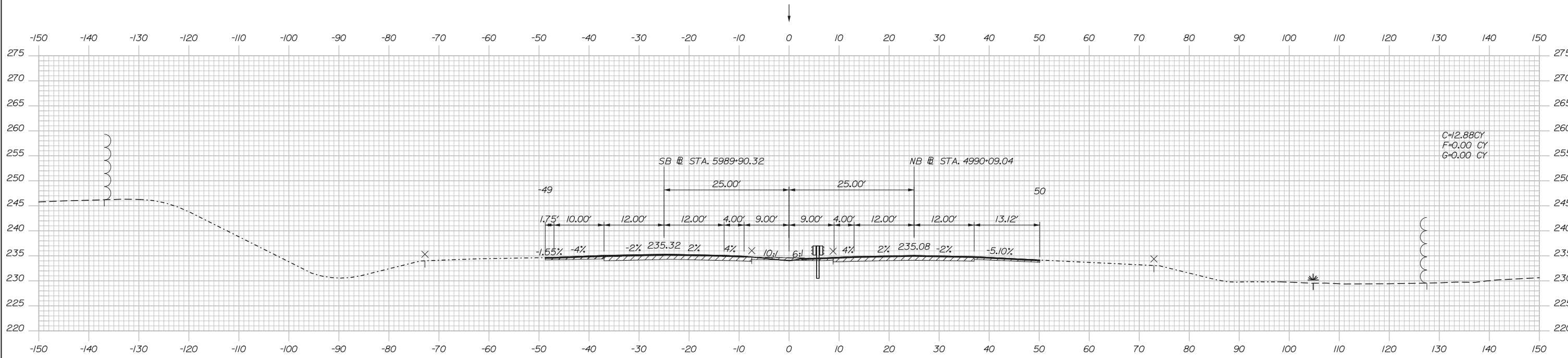
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4047+50 TO STA. 4048+00

SHEET NUMBER: XS-02  
CONTRACT: 2014.10  
56 OF 155

Filename: Xsect.dgn



Date: 10/10/2014



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No.	Revision	By	Date

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Drawn	MPC	08/14	In Charge of	RAL	08/14

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MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

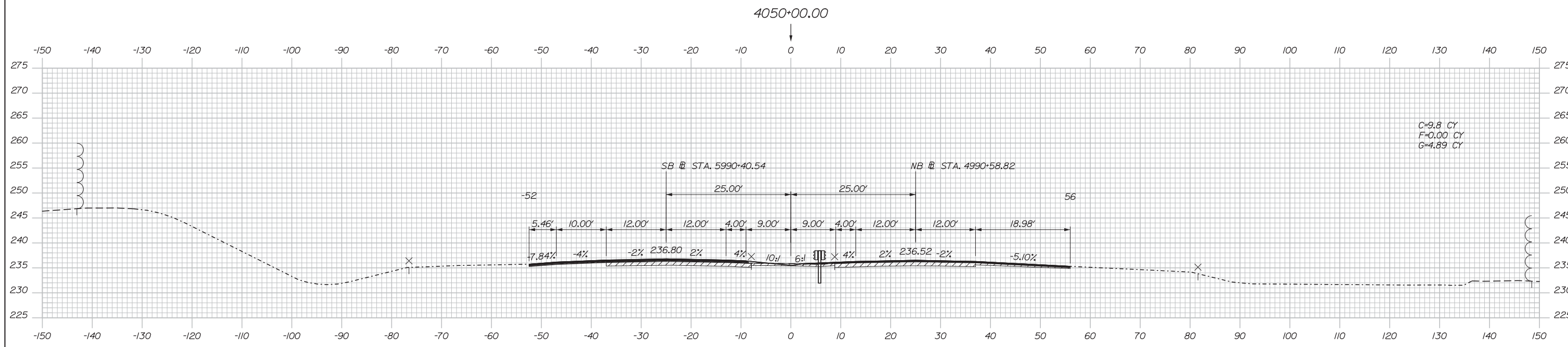
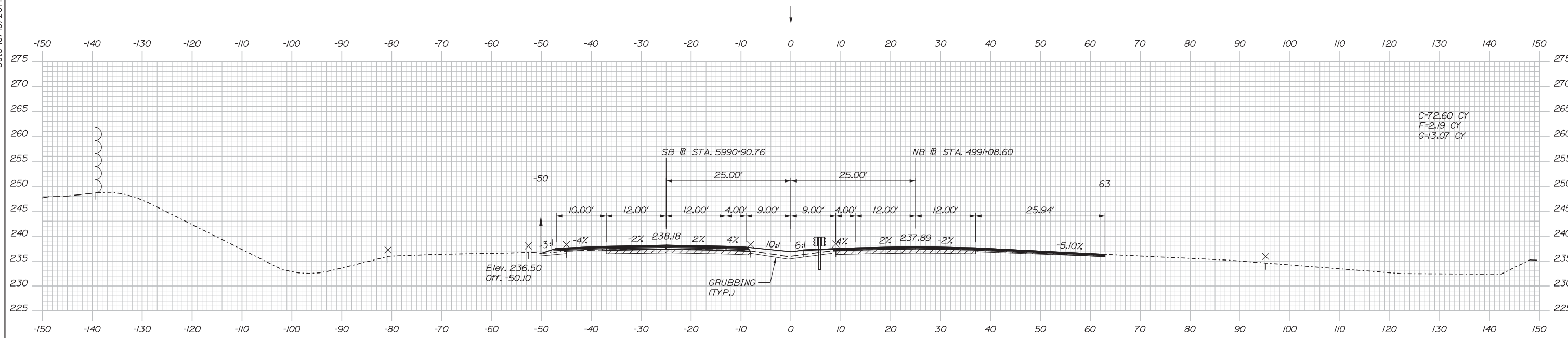
INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4048+50 TO STA. 4049+00

SHEET NUMBER: XS-03  
 57 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



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No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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Drawn	MPC	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

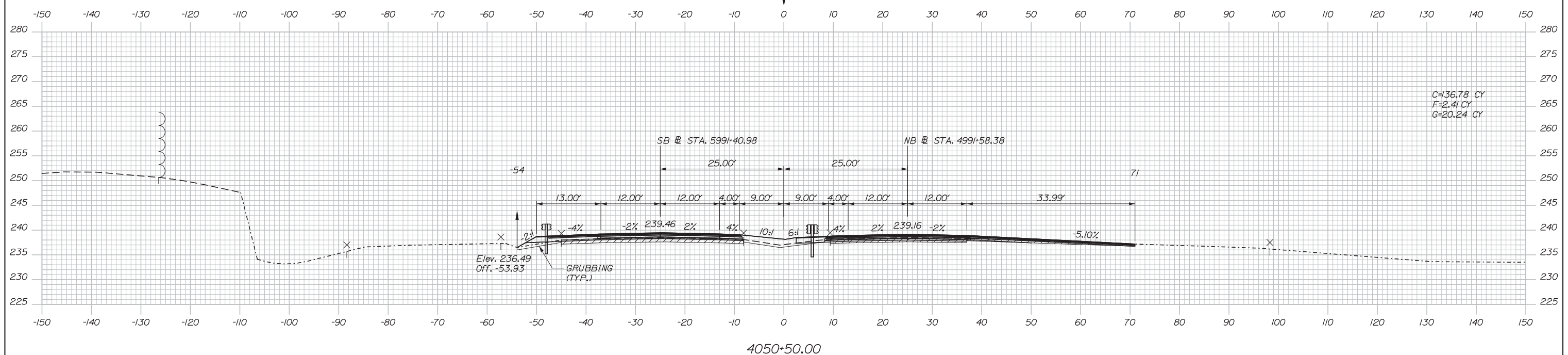
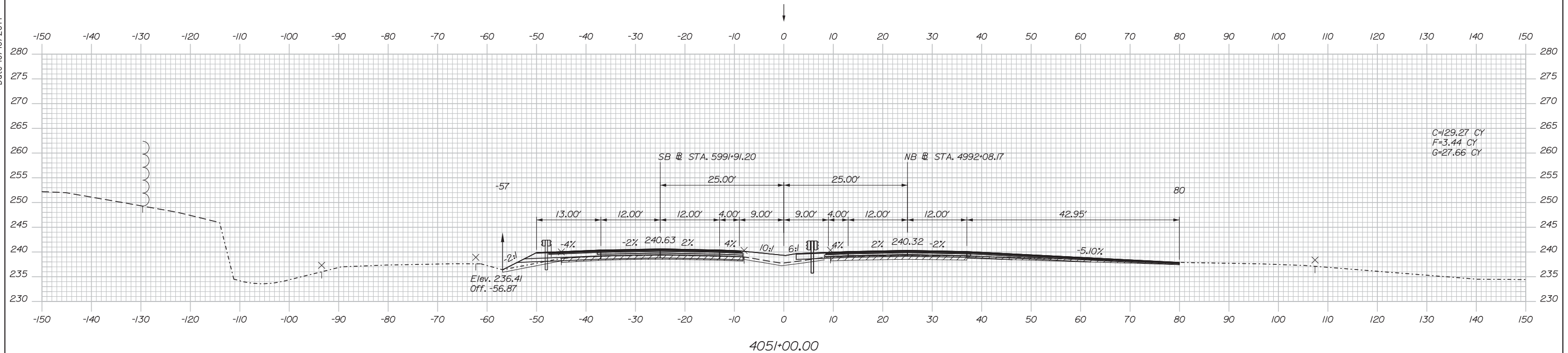
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4049+50 TO STA. 4050+00

SHEET NUMBER: XS-04  
CONTRACT: 2014.10  
8 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



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Drawn	MPC	08/14	In Charge of	RAL	08/14

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MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

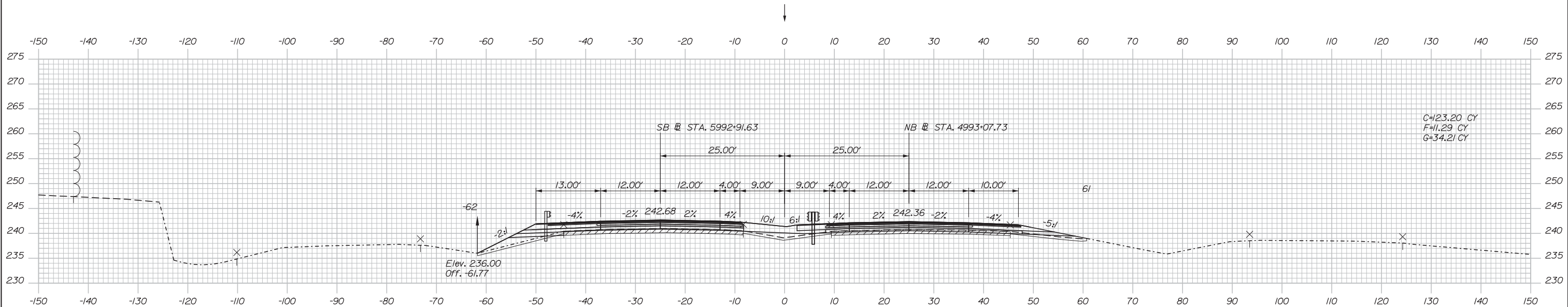
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LEWISTON (EXIT 80)**

MAINE TURNPIKE CROSS SECTIONS  
STA. 4050+50 TO STA. 4051+00

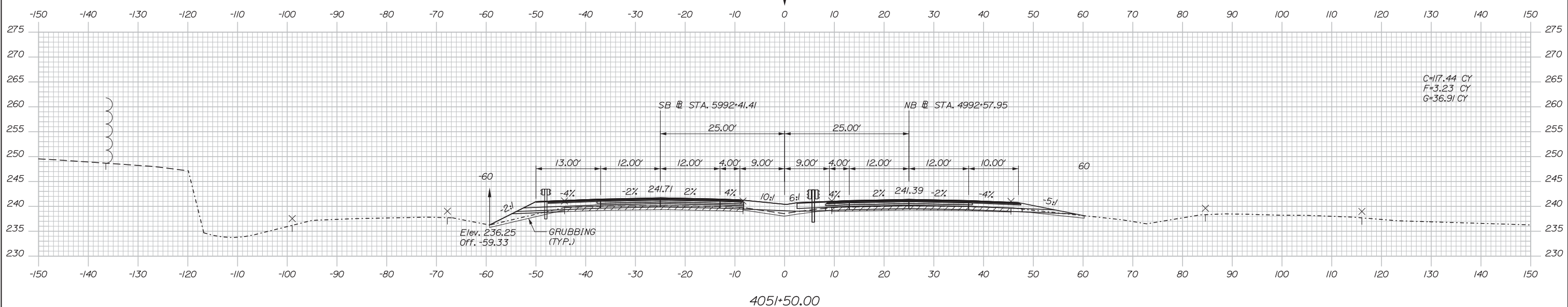
SHEET NUMBER: XS-05  
CONTRACT: 2014.10  
59 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



4052+00.00



4051+50.00

Scale:

No.	Revision	By	Date

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Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

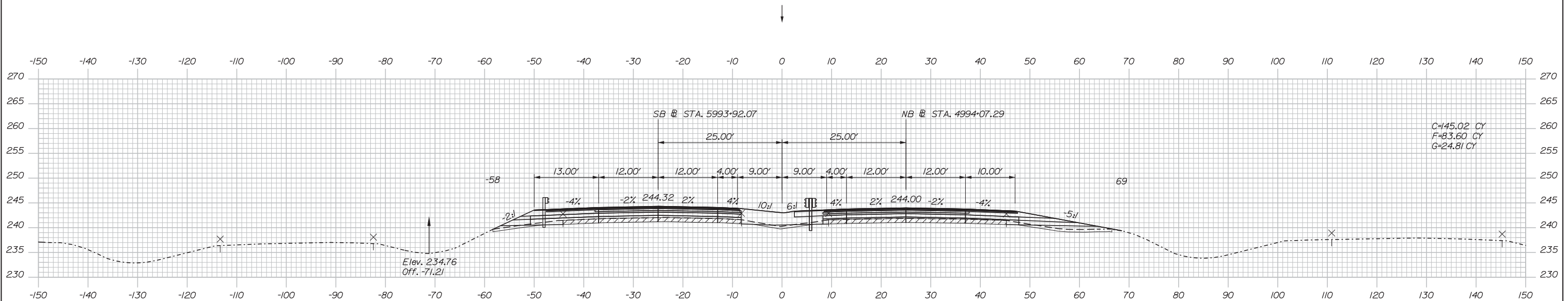
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4051+50 TO STA. 4052+00

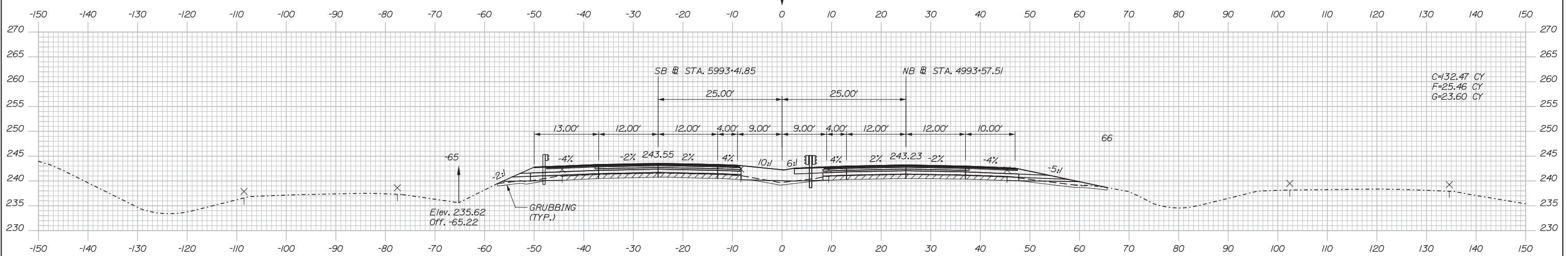
SHEET NUMBER: XS-06  
CONTRACT: 2014.10  
60 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



4053+00.00



4052+50.00

Scale:

No.	Revision	By	Date

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Drawn	MPC	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

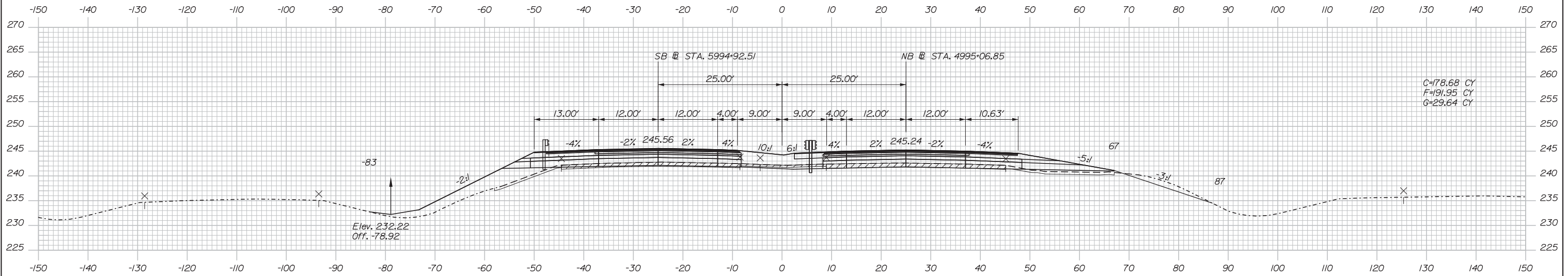
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4052+50 TO STA. 4053+00

SHEET NUMBER: XS-07  
61 OF 155

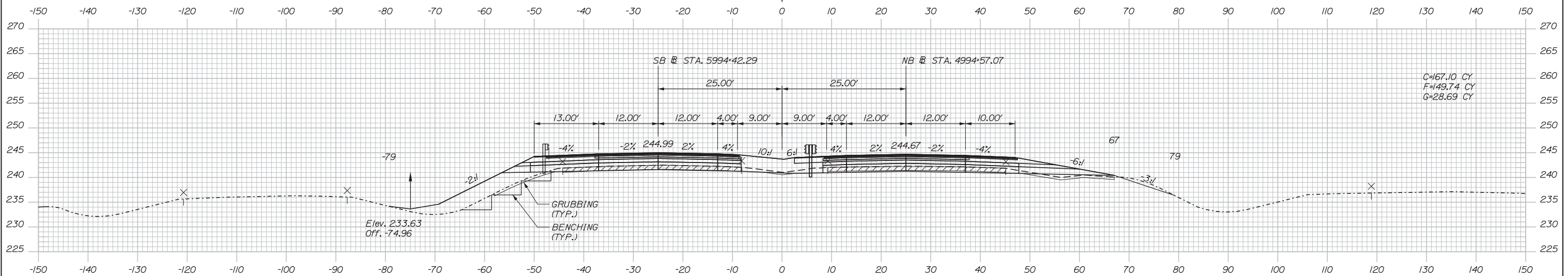
CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



4054+00.00



4053+50.00

Scale:

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INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4053+50 TO STA. 4054+00

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
	By	Date	
Designed	RWH	08/14	Checked DAM 08/14
Drawn	MPC	08/14	In Charge of RAL 08/14

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

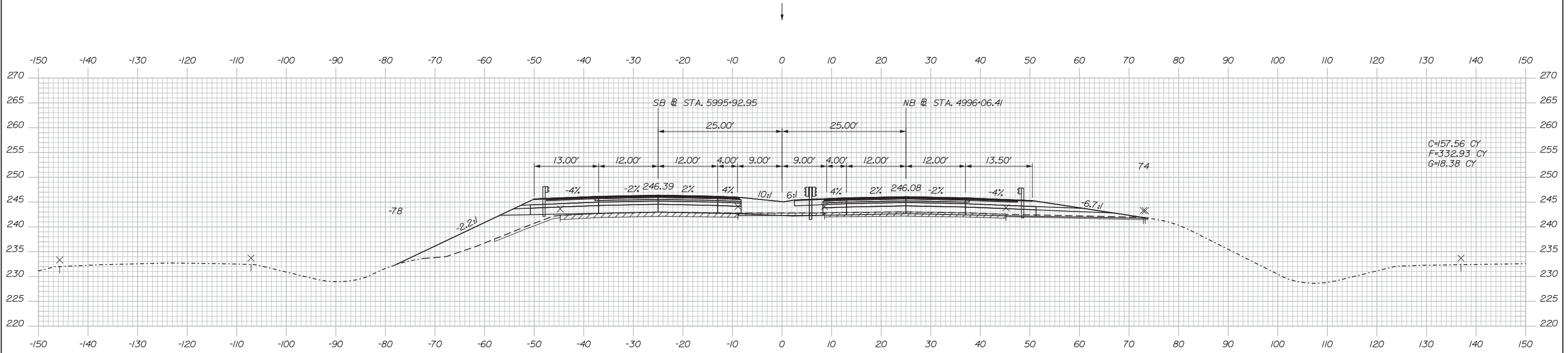
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SHEET NUMBER: XS-08

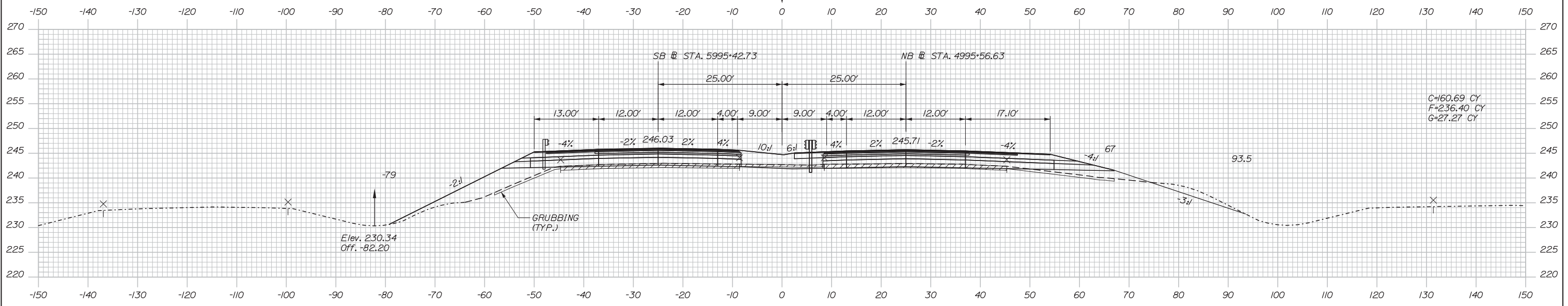
62 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



4055+00.00



4054+50.00

Scale:

No.	Revision	By	Date

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	By	Date	Checked	By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

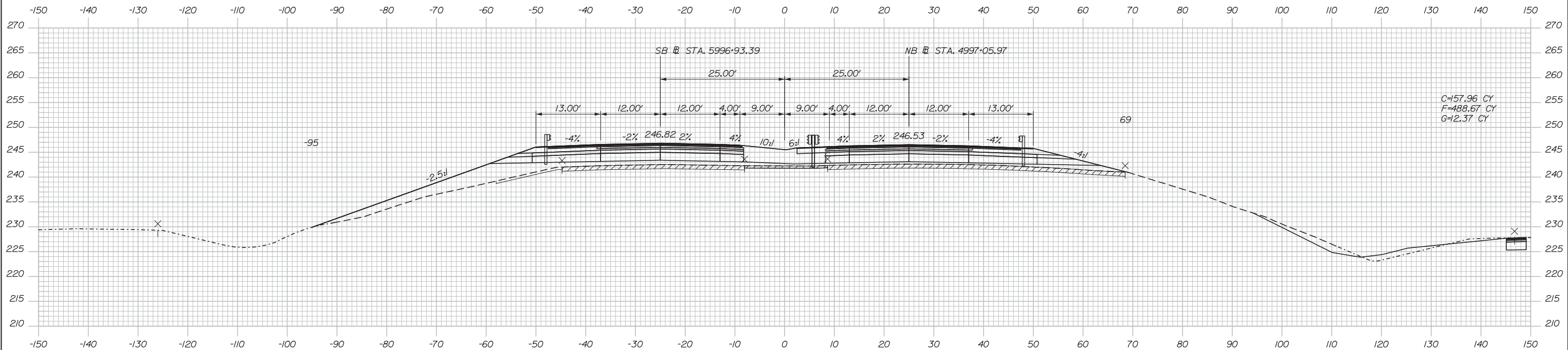
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4054+50 TO STA. 4055+00

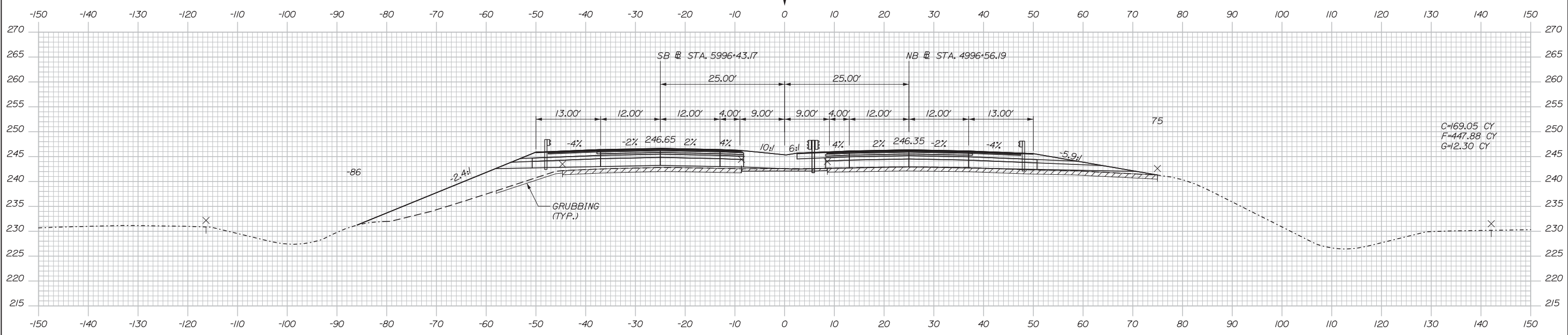
SHEET NUMBER: XS-09  
 CONTRACT: 2014.10  
 63 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



4056+00.00



4055+50.00

Scale:

No.	Revision	By	Date

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	By	Date	Checked	By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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**THE GOLD STAR  
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MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

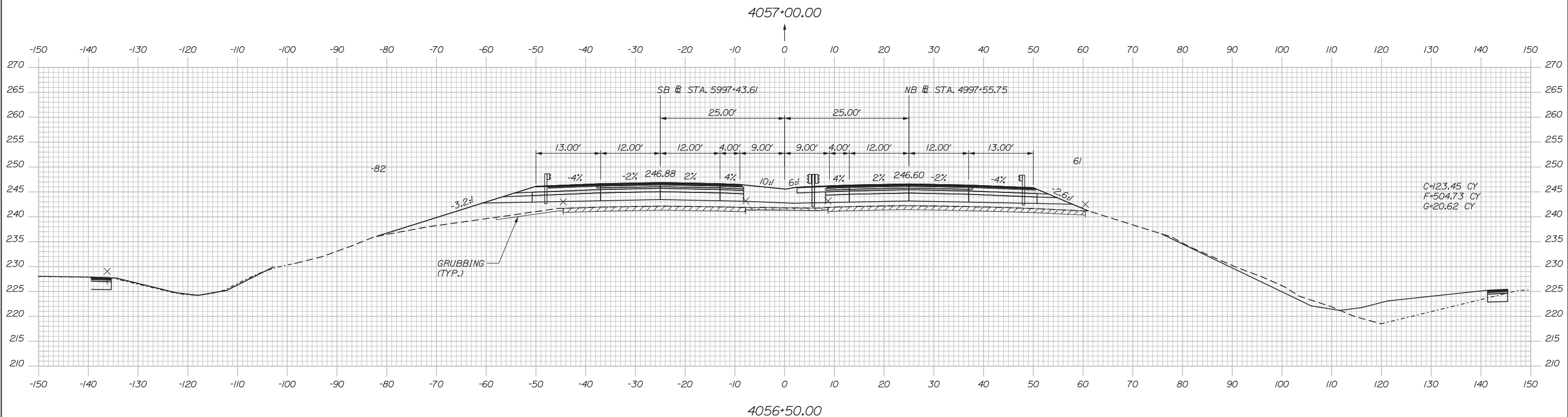
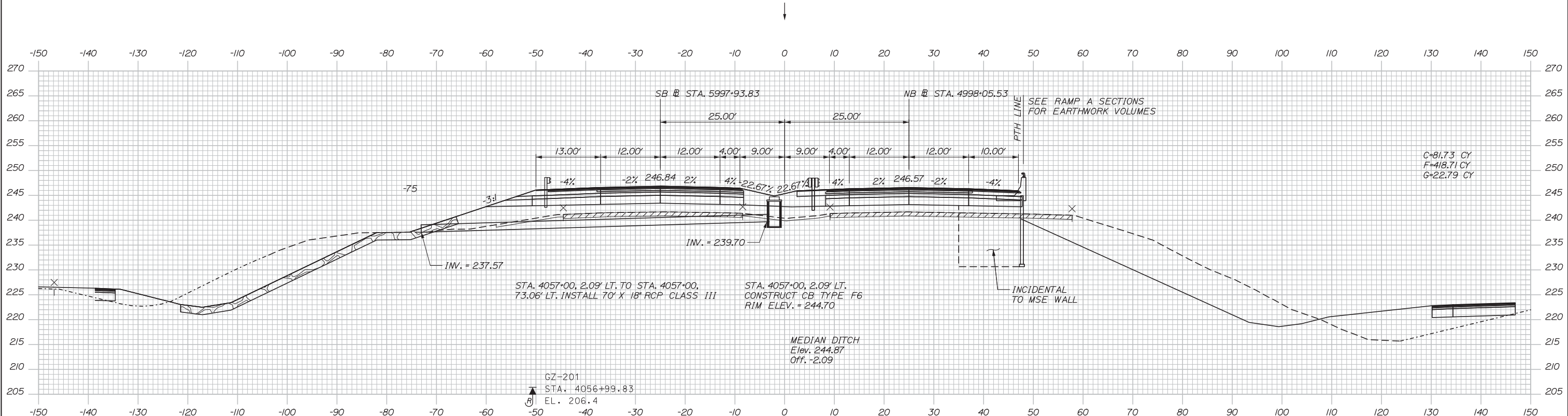
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4055+50 TO STA. 4056+00

SHEET NUMBER: XS-10  
CONTRACT: 2014.10  
64 OF 155

Filename: Xsect.dgn



Date: 10/10/2014



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No.	Revision	By	Date

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	By	Date	Checked	By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4056+50 TO STA. 4057+00

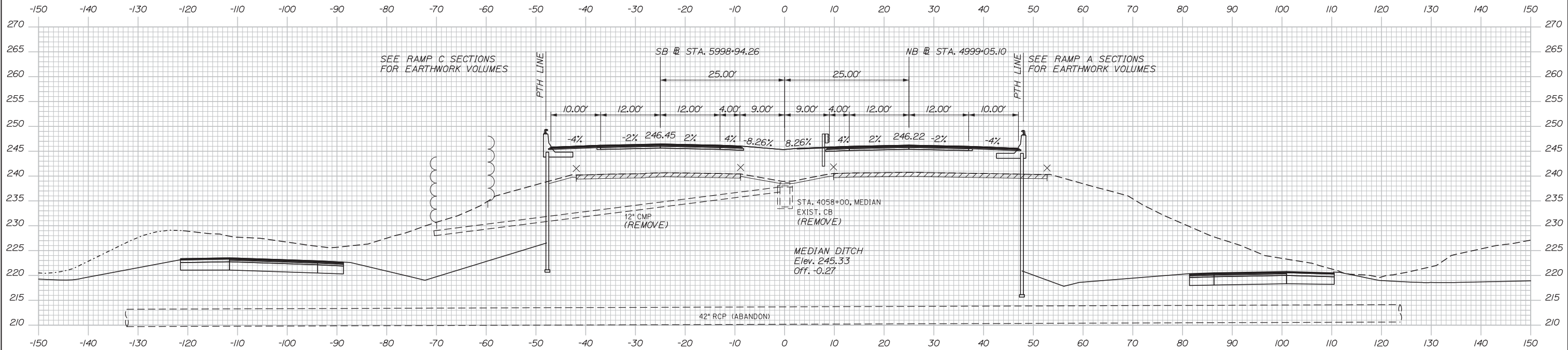
SHEET NUMBER: XS-11

CONTRACT: 2014.10

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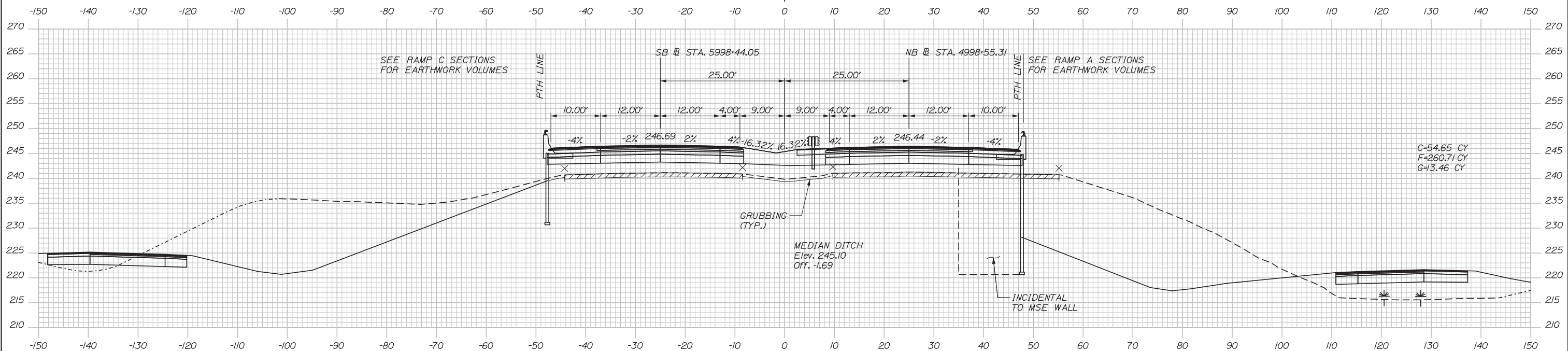
Filename: Xsect.dgn

Date: 10/10/2014



4058+00.00 EARTHWORK IN THIS SECTION INCIDENTAL TO MSE WALL

GZ-204  
 STA. 4057+84.97  
 EL. 201.5



4057+50.00

Scale:

No.	Revision	By	Date

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Designed	RWH	08/14	Checked	DAM	08/14
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

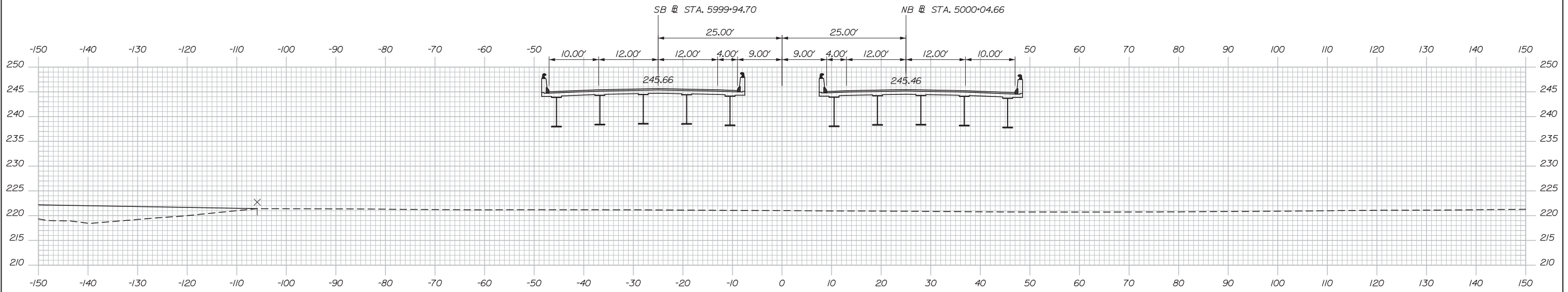
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4057+50 TO STA. 4058+00

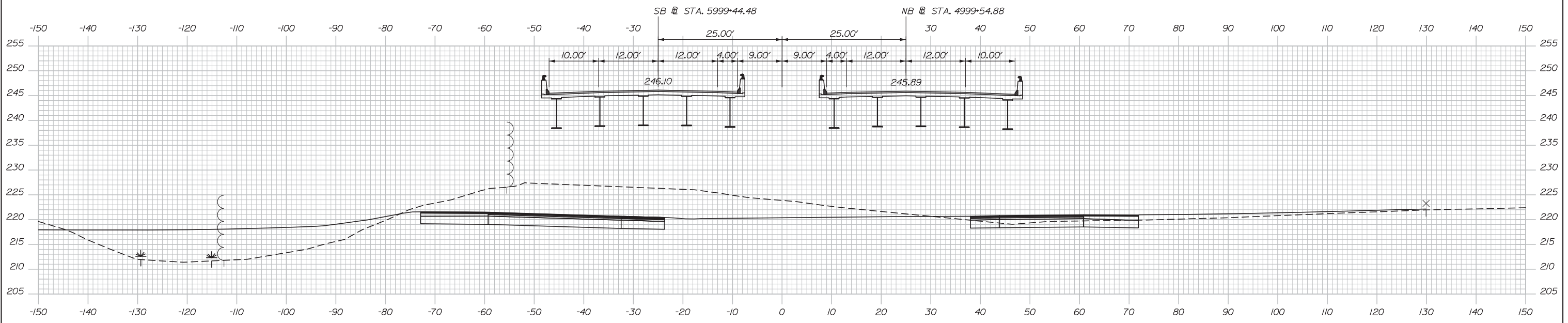
SHEET NUMBER: XS-12  
 CONTRACT: 2014.10  
 66 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



4059+00.00



4058+50.00

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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THE GOLD STAR  
MEMORIAL HIGHWAY

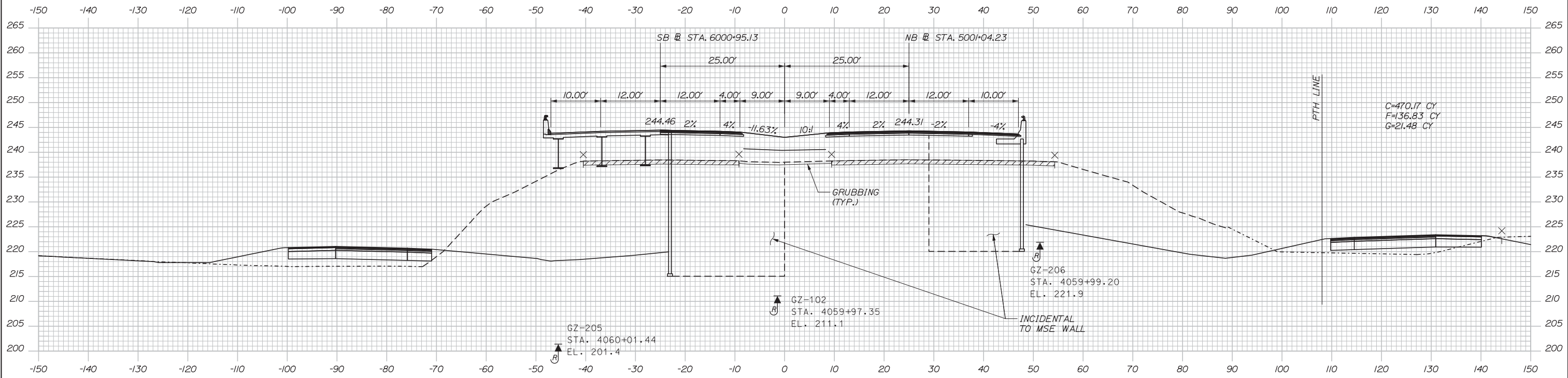
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4058+50 TO STA. 4059+00

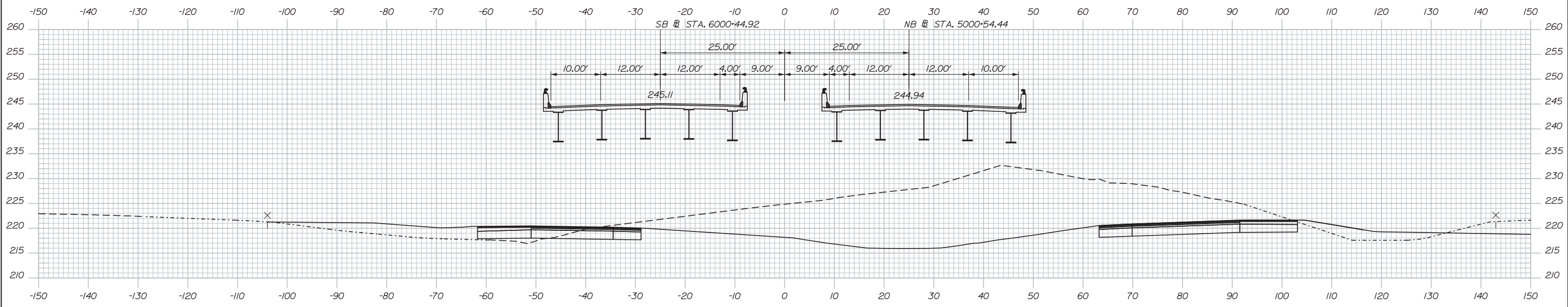
SHEET NUMBER: XS-13  
 CONTRACT: 2014.10  
 67 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



4060+00.00



4059+50.00

Scale:

No.	Revision	By	Date

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	By	Date	Checked	By	Date
Designed	RWH	08/14	Checked	DAM	08/14
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

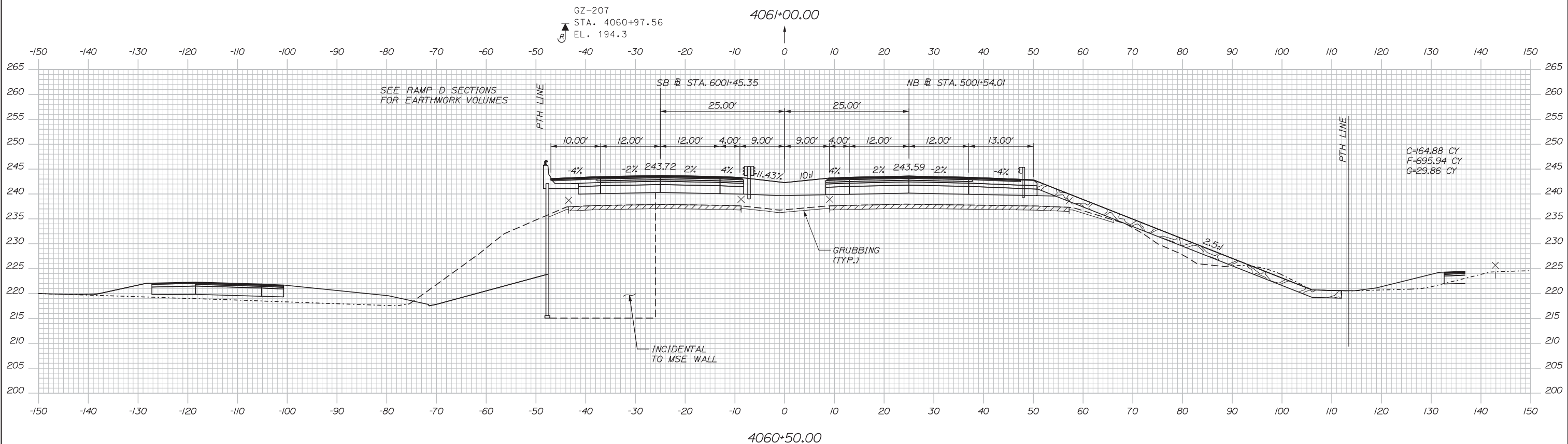
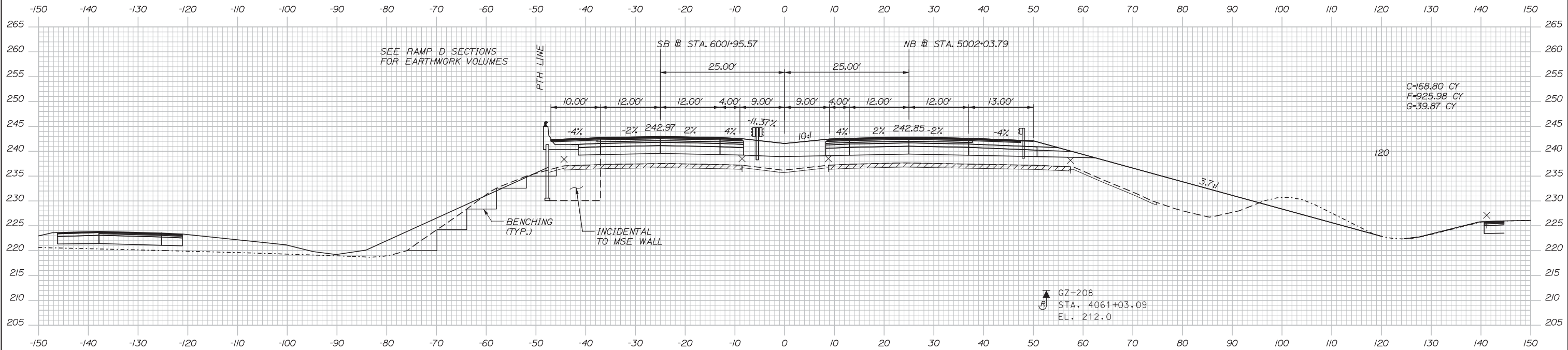
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4059+50 TO STA. 4060+00

SHEET NUMBER: XS-14  
CONTRACT: 2014.10  
8 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



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No.	Revision	By	Date

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**MAINE TURNPIKE**

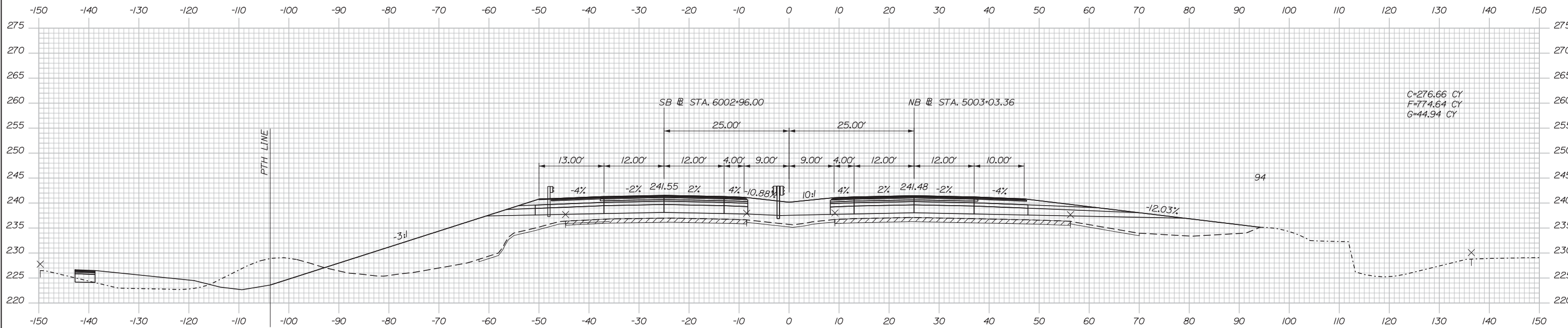
**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

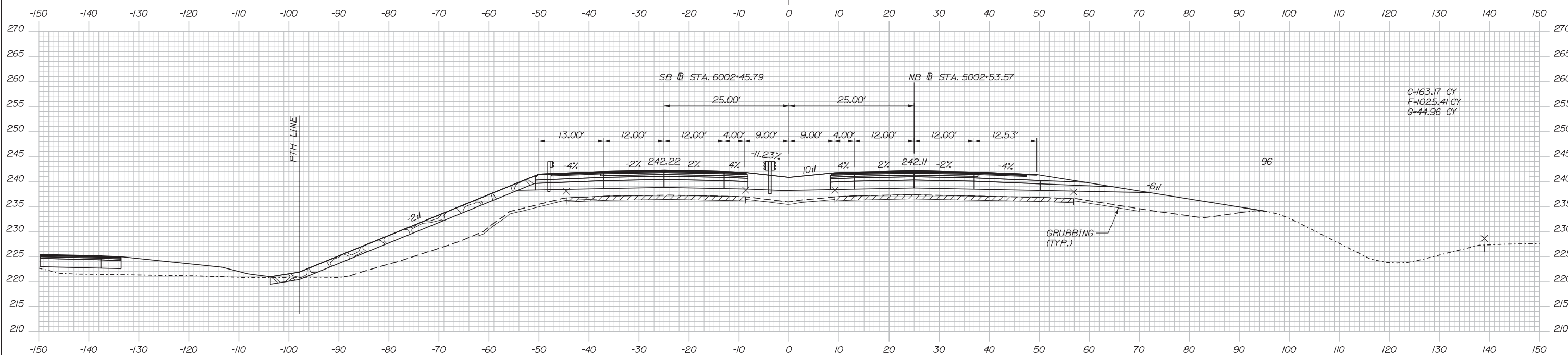
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4060+50 TO STA. 4061+00

SHEET NUMBER: XS-15  
CONTRACT: 2014.10  
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4062+00.00



4061+50.00

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Designed	RWH 08/14	Checked	DAM	08/14
Drawn	MPC 08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

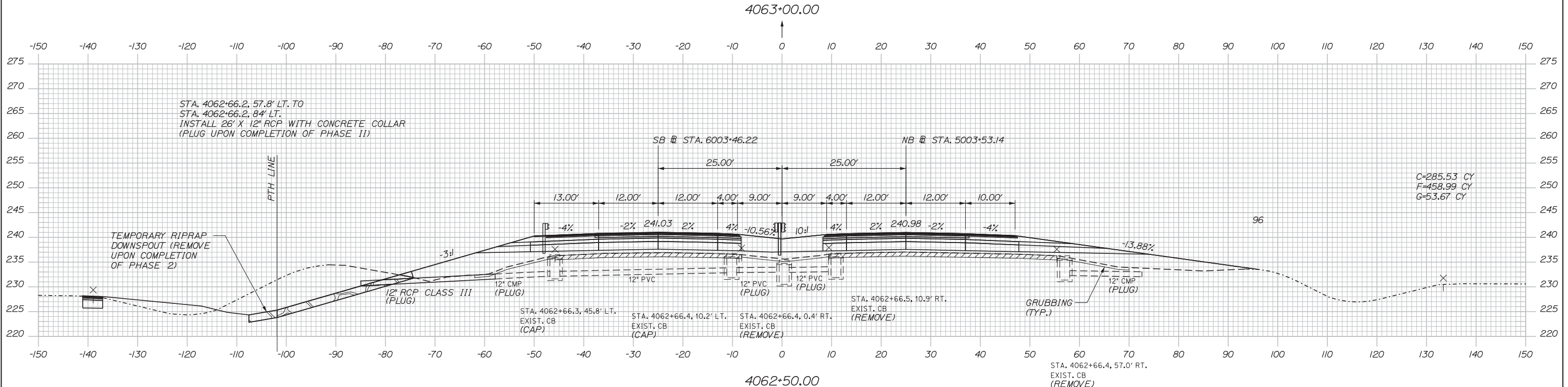
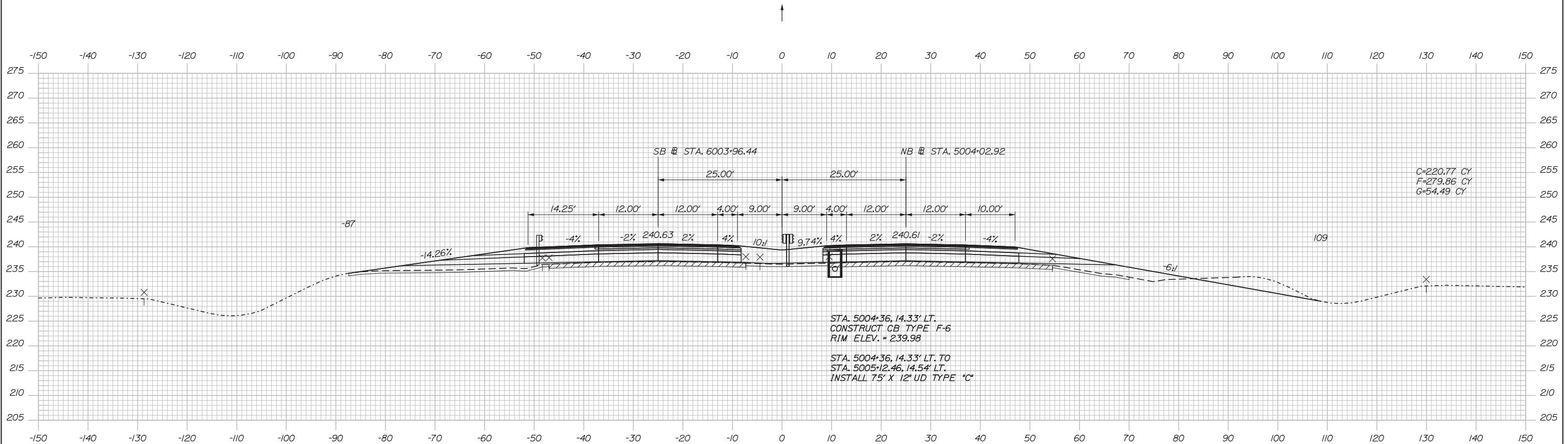
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4061+50 TO STA. 4062+00

SHEET NUMBER: XS-16  
 CONTRACT: 2014.10  
 70 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



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Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

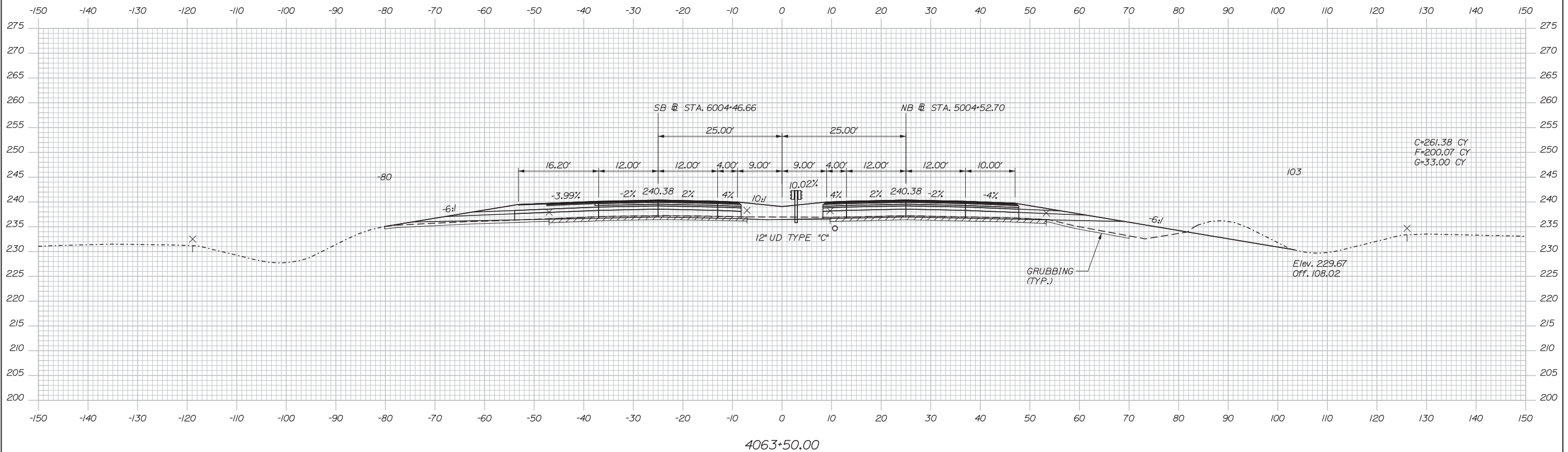
INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4062+50 TO STA. 4063+00

SHEET NUMBER: XS-17  
 71 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



4063+50.00

Scale:

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THE GOLD STAR  
 MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4063+50 TO STA. 4063+50

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

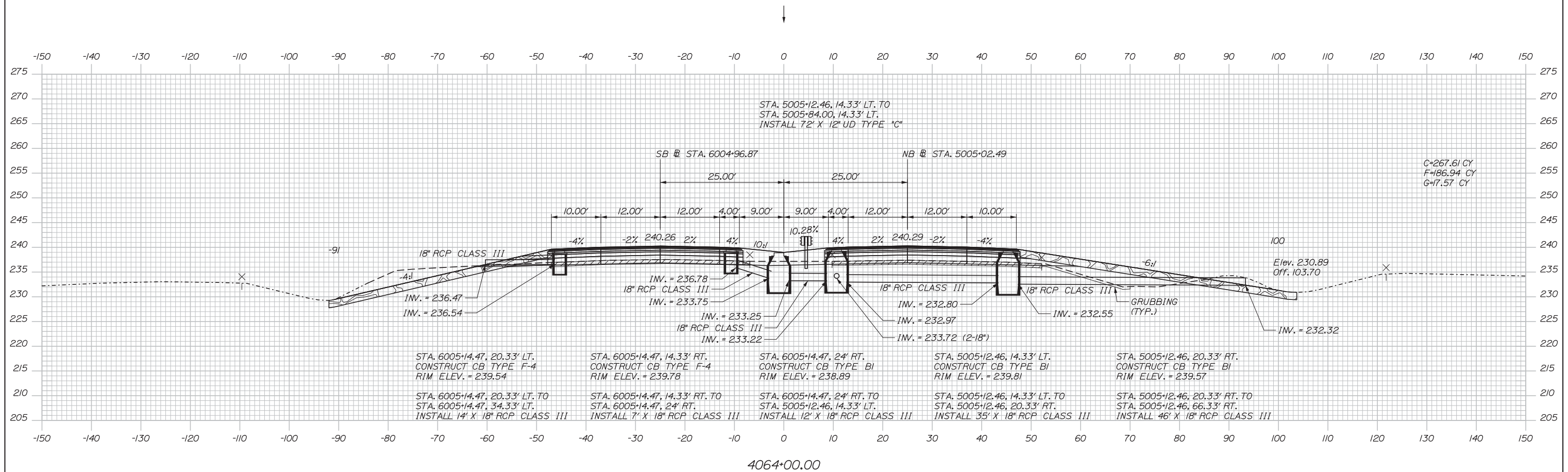
SHEET NUMBER: XS-18

72 OF 155

Filename: Xsect.dgn



Date: 10/10/2014



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No.	Revision	By	Date

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

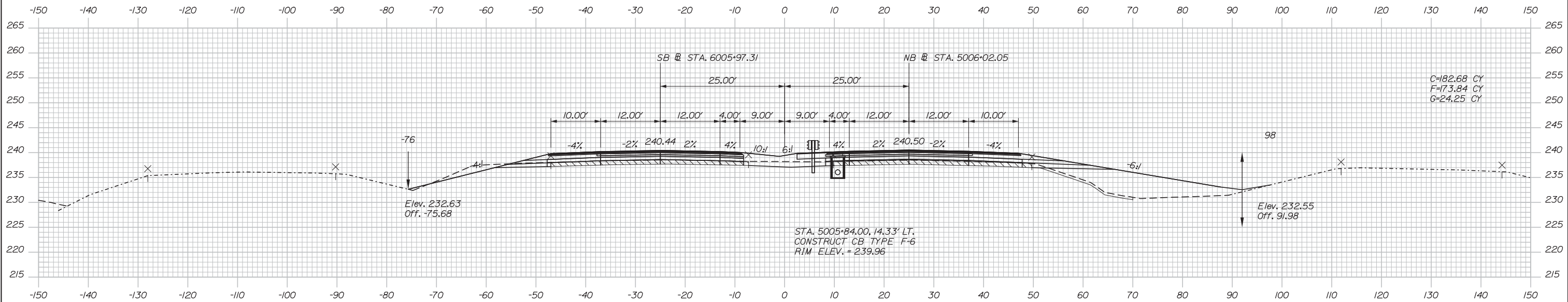
**INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)**  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4064+00 TO STA. 4064+00

SHEET NUMBER: XS-19  
 73 OF 155

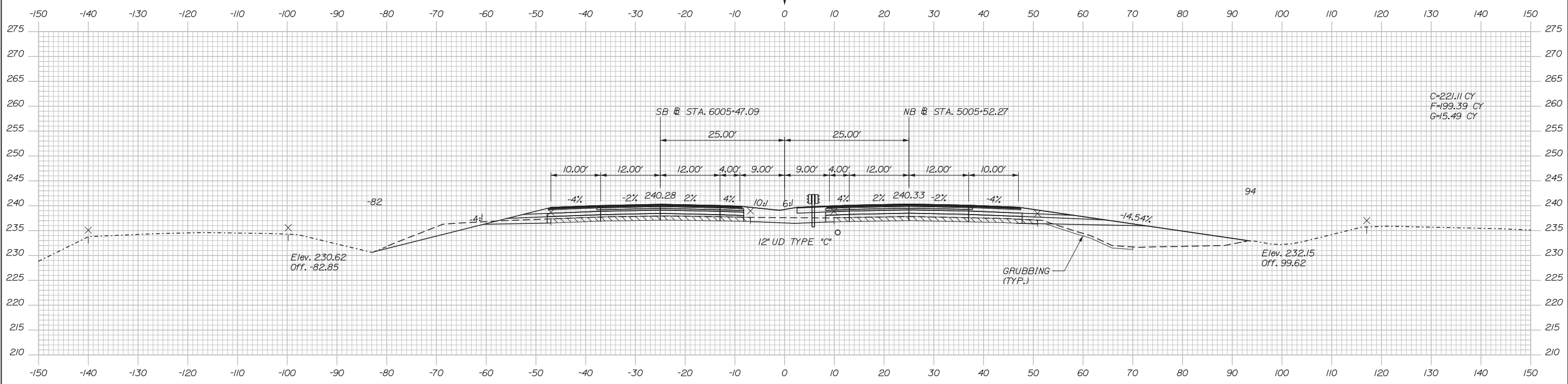
CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



4065+00.00



4064+50.00

Scale:

No.	Revision	By	Date

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MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

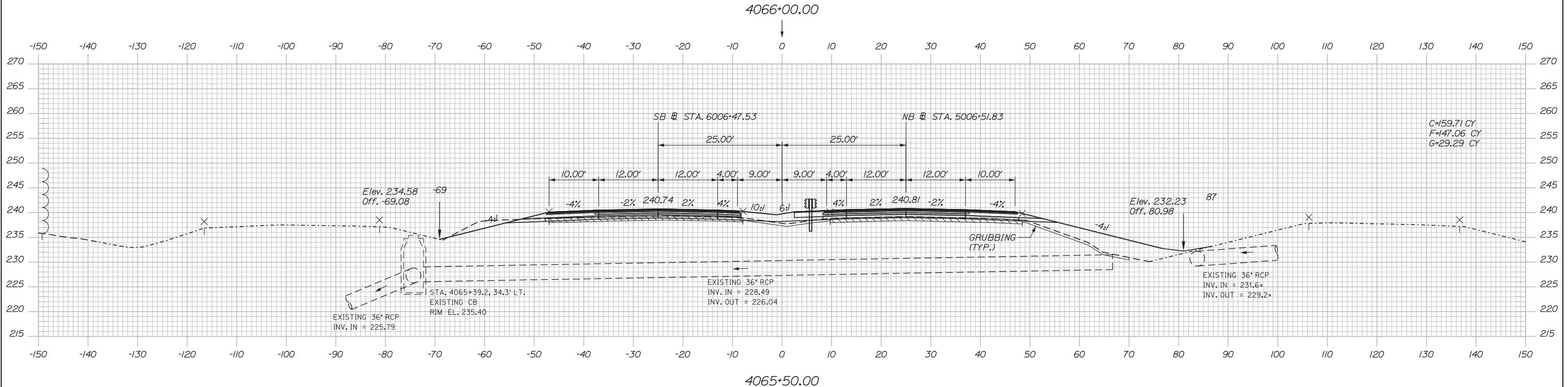
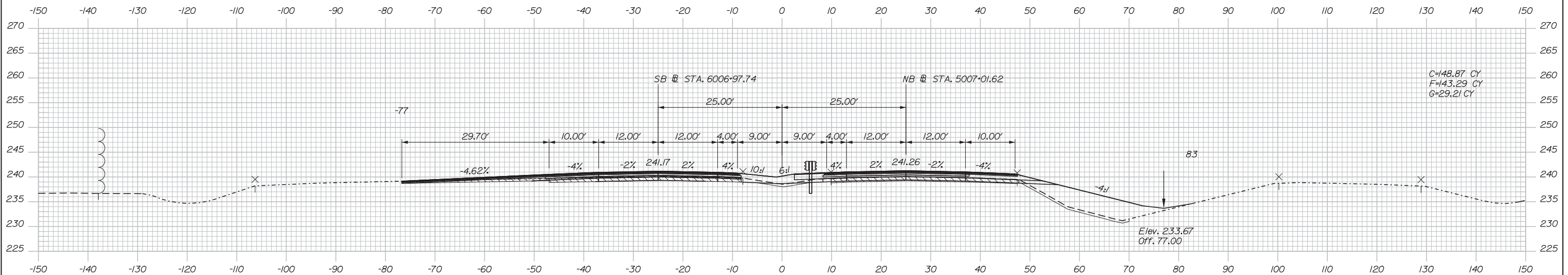
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
MAINE TURNPIKE CROSS SECTIONS  
STA. 4064+50 TO STA. 4065+00

SHEET NUMBER: XS-20  
74 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



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No.	Revision	By	Date

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

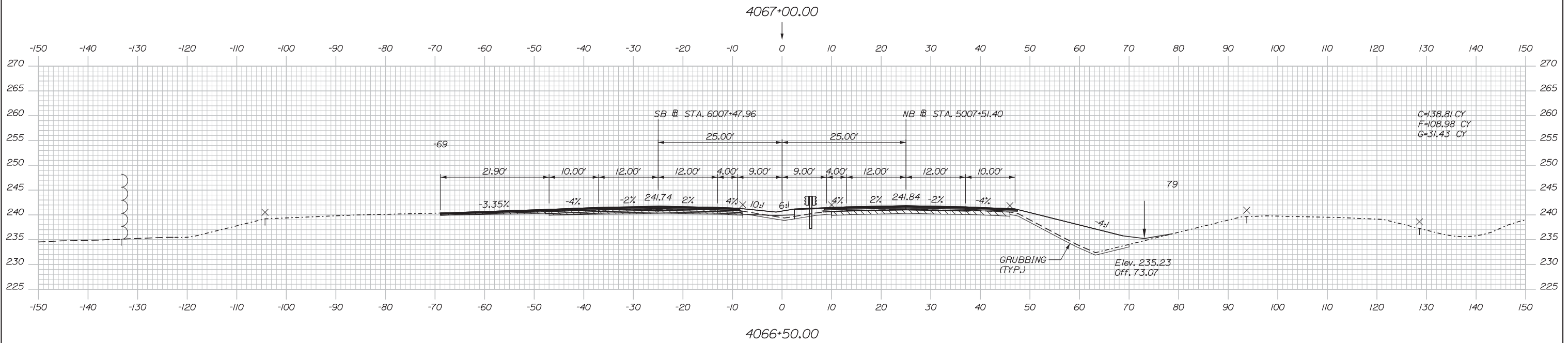
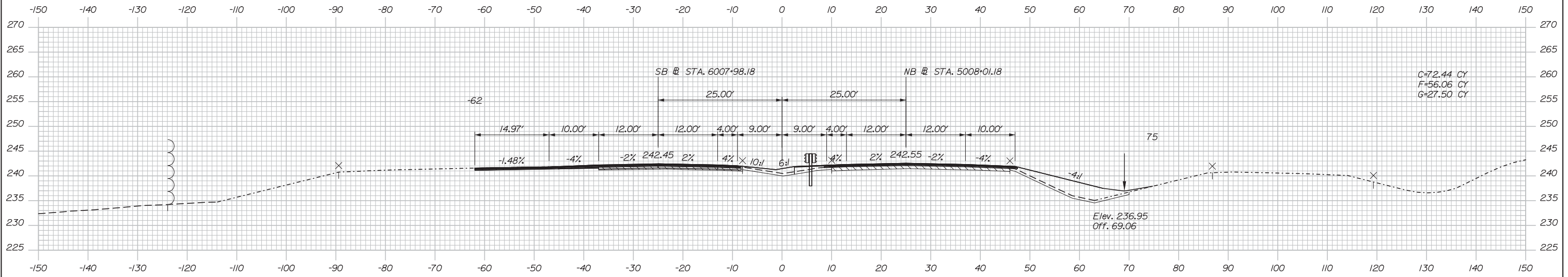
INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4065+50 TO STA. 4066+00

SHEET NUMBER: XS-21  
 75 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



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No.	Revision	By	Date

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

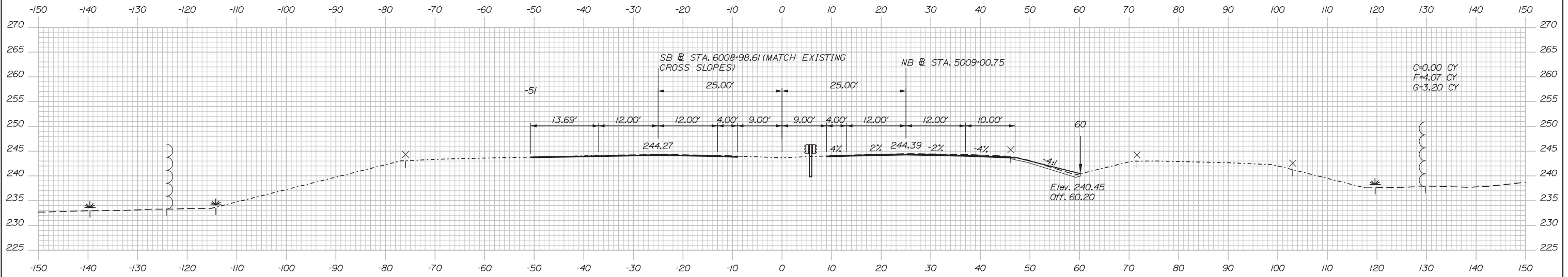
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4066+50 TO STA. 4067+00

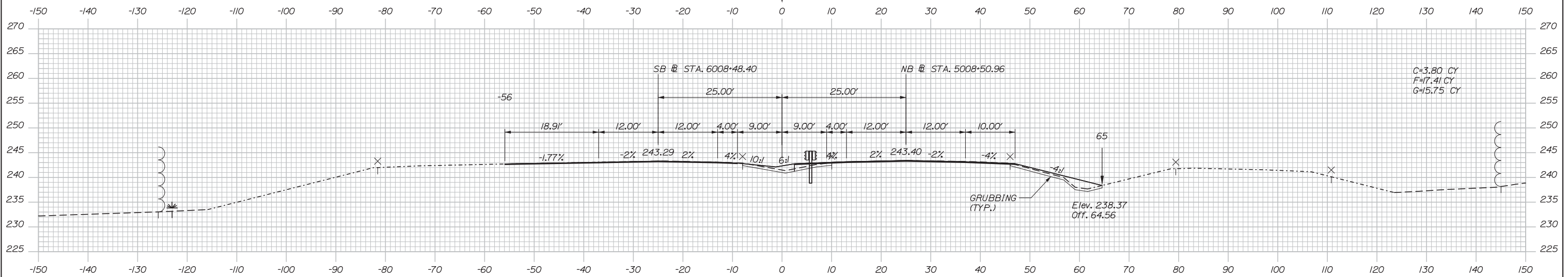
SHEET NUMBER: XS-22  
 CONTRACT: 2014.10  
 76 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



4068+00.00



4067+50.00

Scale:

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MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)**

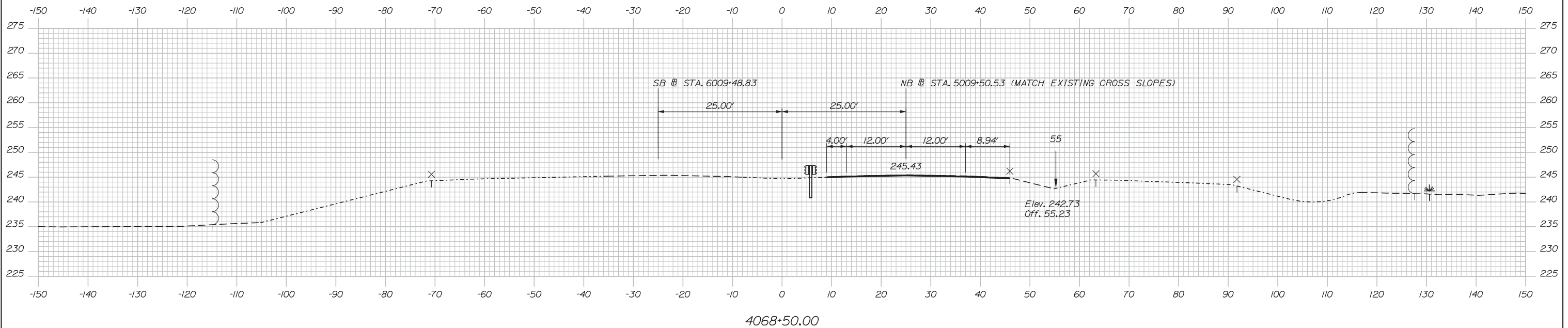
MAINE TURNPIKE CROSS SECTIONS  
STA. 4067+50 TO STA. 4068+00

SHEET NUMBER: XS-23  
77 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

Date:10/10/2014



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THE GOLD STAR  
MEMORIAL HIGHWAY

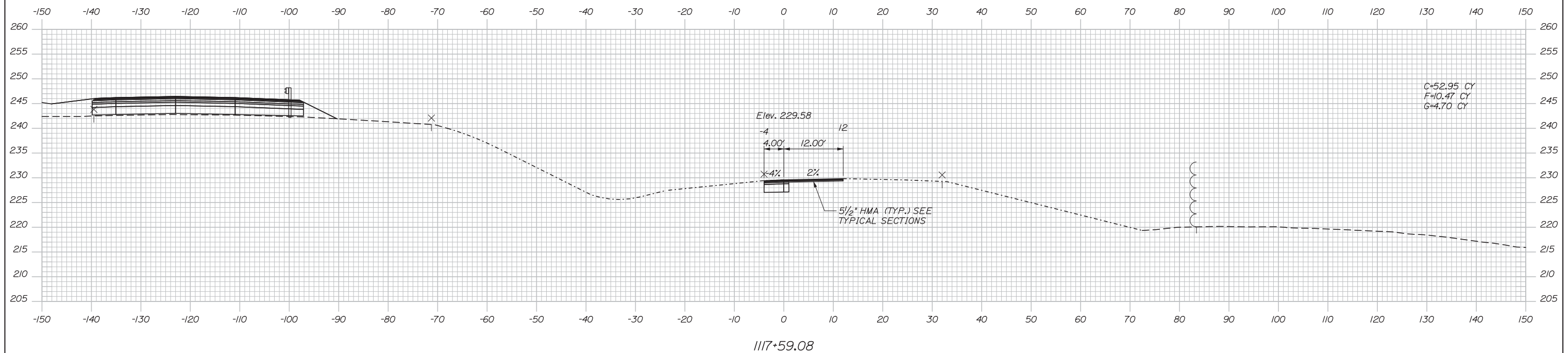
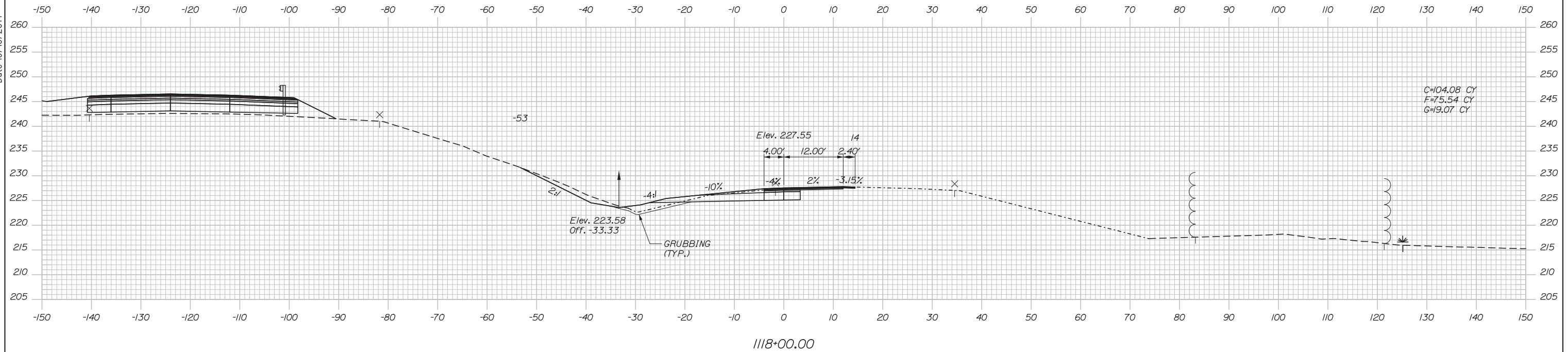
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 MAINE TURNPIKE CROSS SECTIONS  
 STA. 4068+50 TO STA.4069+00

SHEET NUMBER: XS-24  
 78 OF 155

CONTRACT:2014.10

Date: 10/10/2014



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	By	Date	Checked	By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

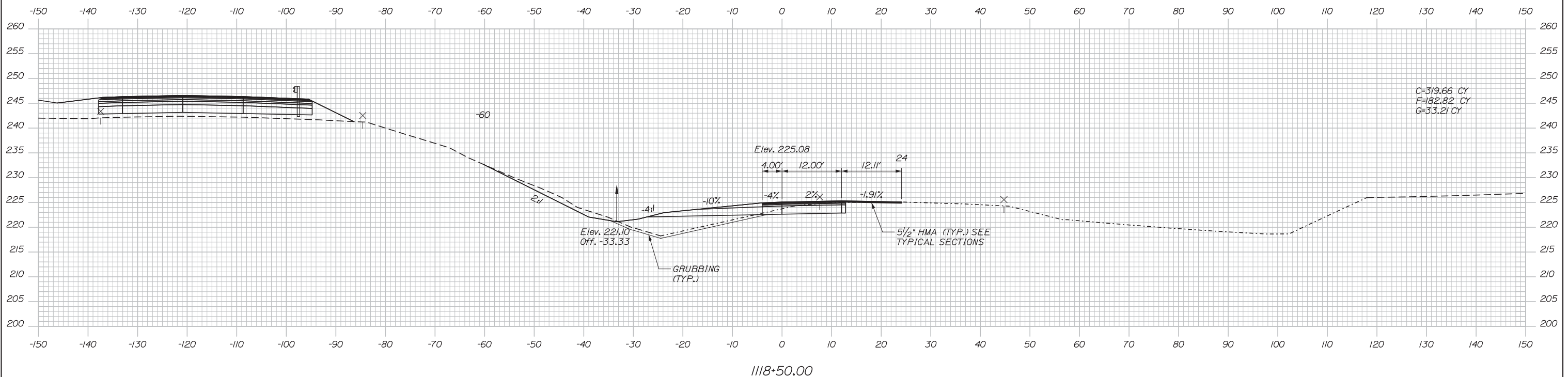
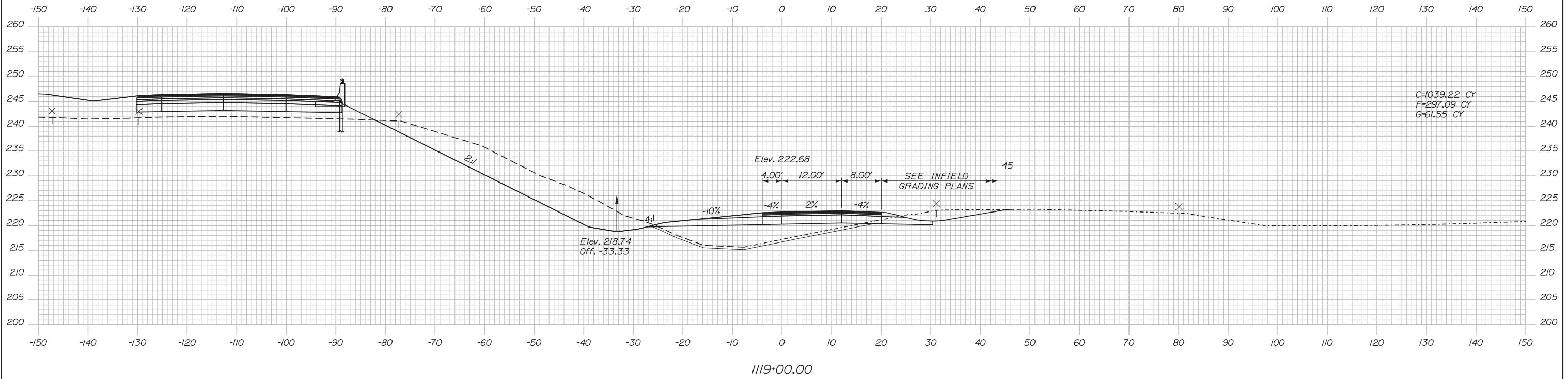
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 RAMP A-1 CROSS SECTIONS  
 STA. 1117+59 TO STA. 1118+00

SHEET NUMBER: XS-26  
 CONTRACT: 2014.10  
 79 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



Scale:

No.	Revision	By	Date

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

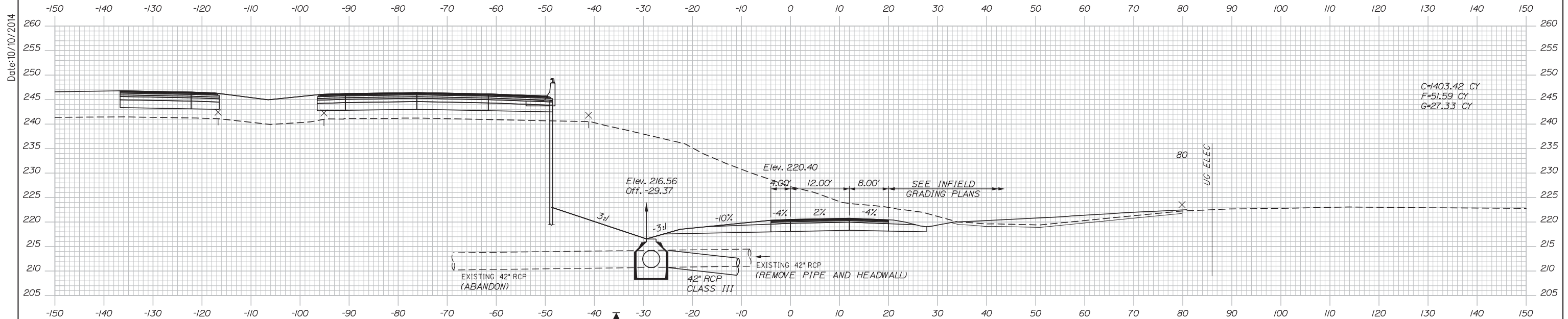
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
RAMP A-1 CROSS SECTIONS  
STA. 1118+50 TO STA. 1119+00

SHEET NUMBER: XS-27  
CONTRACT: 2014.10  
80 OF 155

Filename: Xsect.dgn



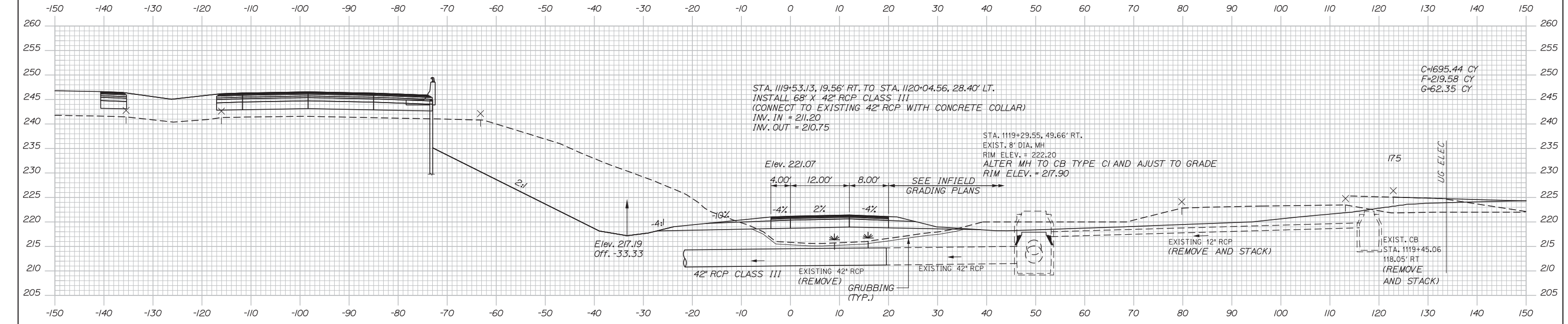
STA. 1120+04.56, 28.40' LT. TO  
 STA. 1120+34.45, 18.27' LT.  
 INSTALL 28" X 42" RCP CLASS III  
 INV. IN = 210.71  
 INV. OUT = 210.58



GZ-204  
 STA. 1120+12.12  
 EL. 201.5

STA. 1120+04.56, 28.40' LT.  
 CONSTRUCT CB TYPE CI  
 (6' DIA.)  
 RIM ELEV. = 216.54

1120+00.00



STA. 1119+53.13, 19.56' RT. TO STA. 1120+04.56, 28.40' LT.  
 INSTALL 68" X 42" RCP CLASS III  
 (CONNECT TO EXISTING 42" RCP WITH CONCRETE COLLAR)  
 INV. IN = 211.20  
 INV. OUT = 210.75

STA. 1119+29.55, 49.66' RT.  
 EXIST. 8" DIA. MH  
 RIM ELEV. = 222.20  
 ALTER MH TO CB TYPE CI AND ADJUST TO GRADE  
 RIM ELEV. = 217.90

1119+50.00

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THE GOLD STAR  
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INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)

RAMP A-1 CROSS SECTIONS  
 STA. 1119+50 TO STA. 1120+00

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	RWH	08/14	Checked	DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT: 2014.10

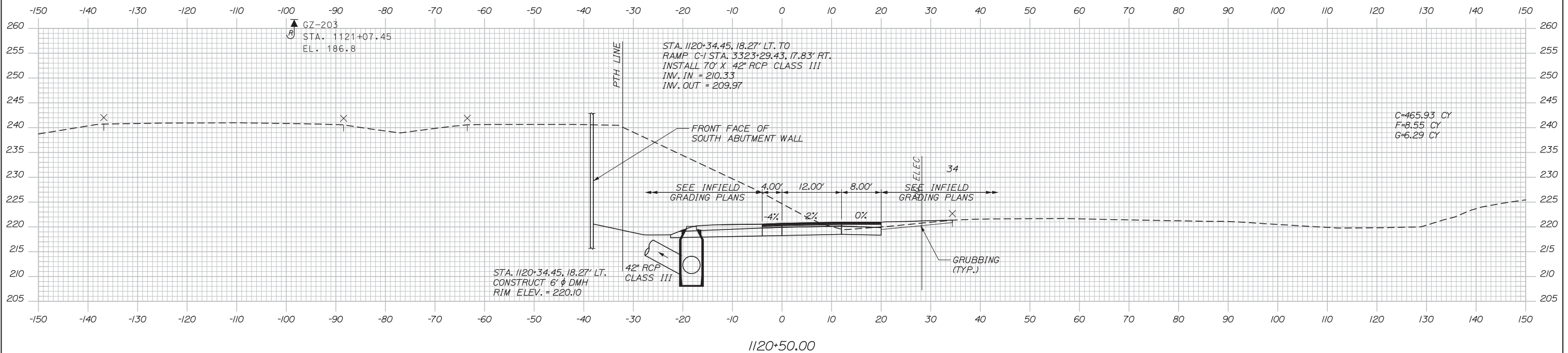
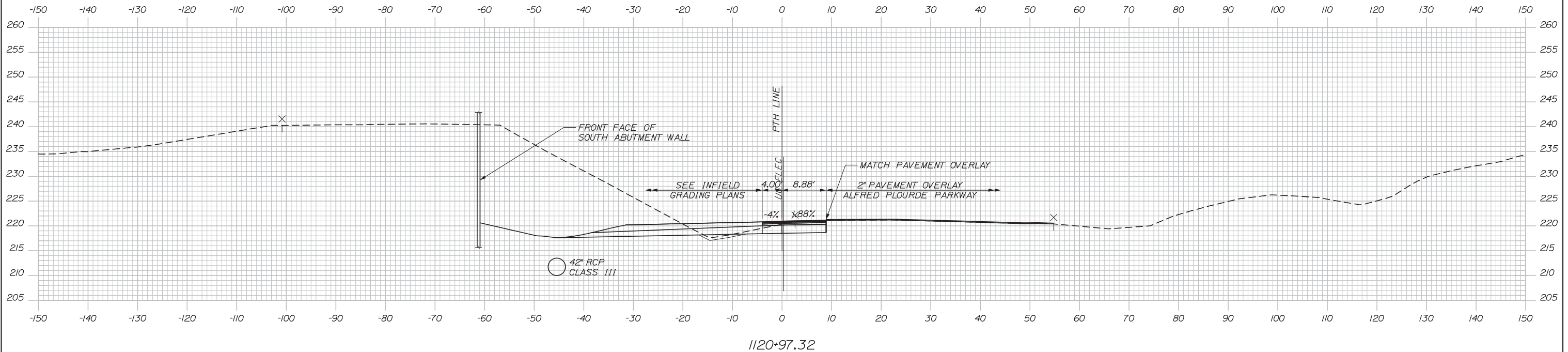
SHEET NUMBER: XS-28

81 OF 155

Filename: Xsect.dgn

Date: 10/10/2014

Date: 10/10/2014



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No.	Revision	By	Date

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

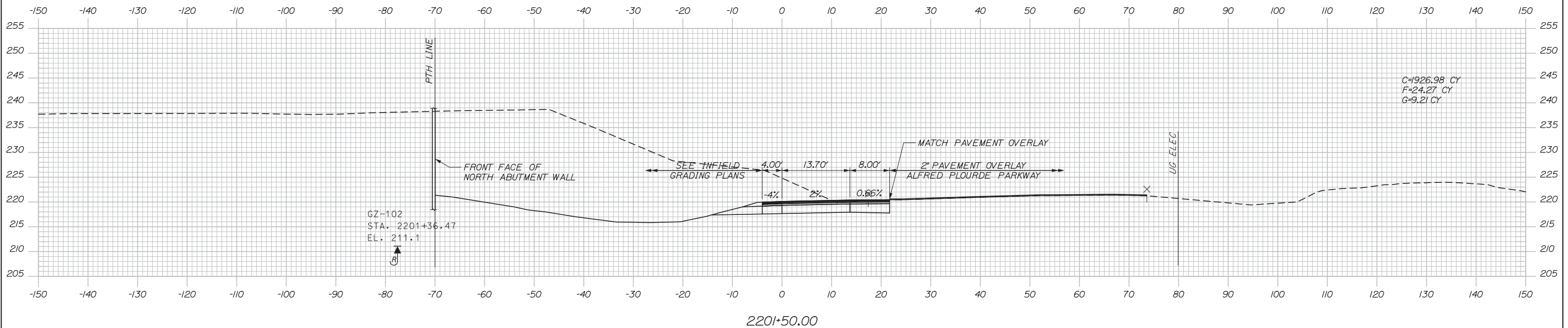
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 RAMP A-1 CROSS SECTIONS  
 STA. 1120+50 TO STA. 1120+97

SHEET NUMBER: XS-29  
 CONTRACT: 2014.10  
 82 OF 155

Filename: Xsect.dgn

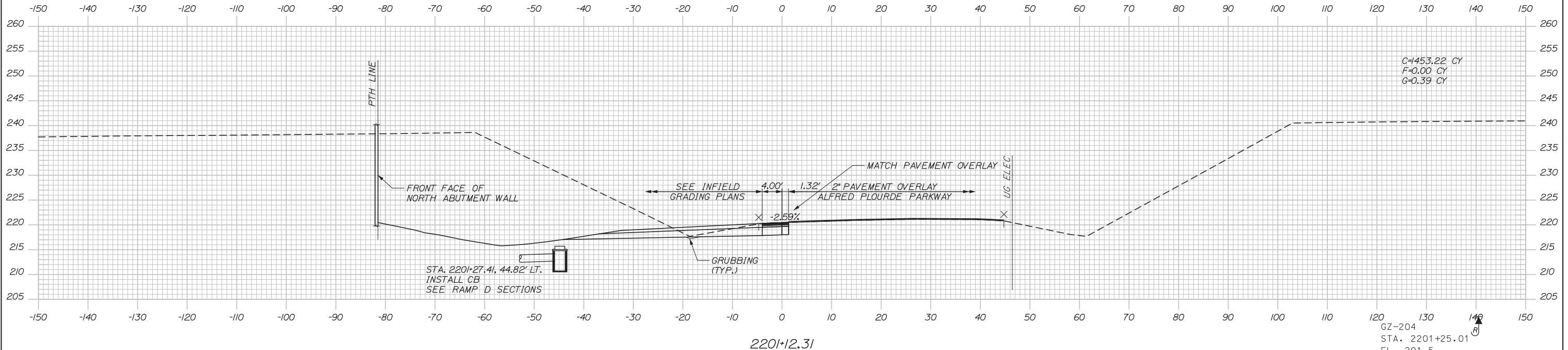
Date: 10/10/2014



C=1926.98 CY  
F=24.27 CY  
G=9.21 CY

GZ-102  
STA. 2201+36.47  
EL. 211.1

220+50.00



C=1453.22 CY  
F=0.00 CY  
G=0.39 CY

STA. 2201+27.41, 44.82' LT.  
INSTALL CB  
SEE RAMP D SECTIONS

GRUBBING (TYP.)

220+12.31

GZ-204  
STA. 2201+25.01  
EL. 201.5

Scale:

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MAINE  
TURNPIKE

THE GOLD STAR  
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

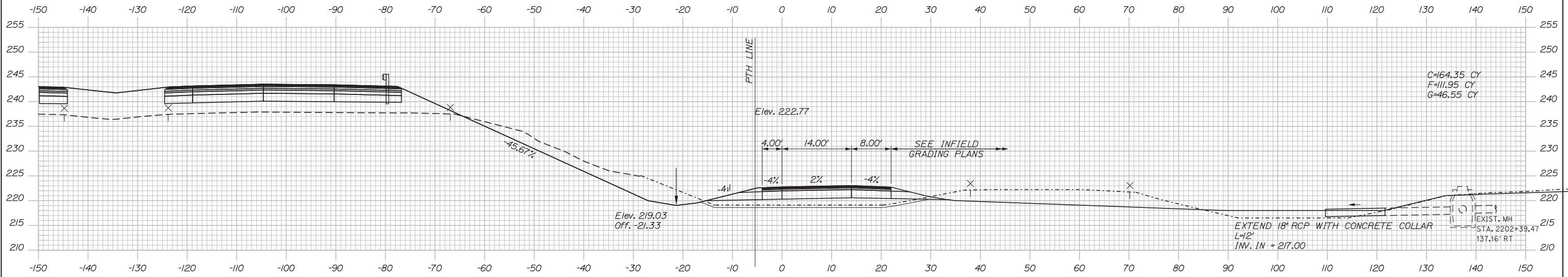
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
RAMP B-1 CROSS SECTIONS  
STA. 2201+12 TO STA. 2201+50

SHEET NUMBER: XS-30  
83 OF 155

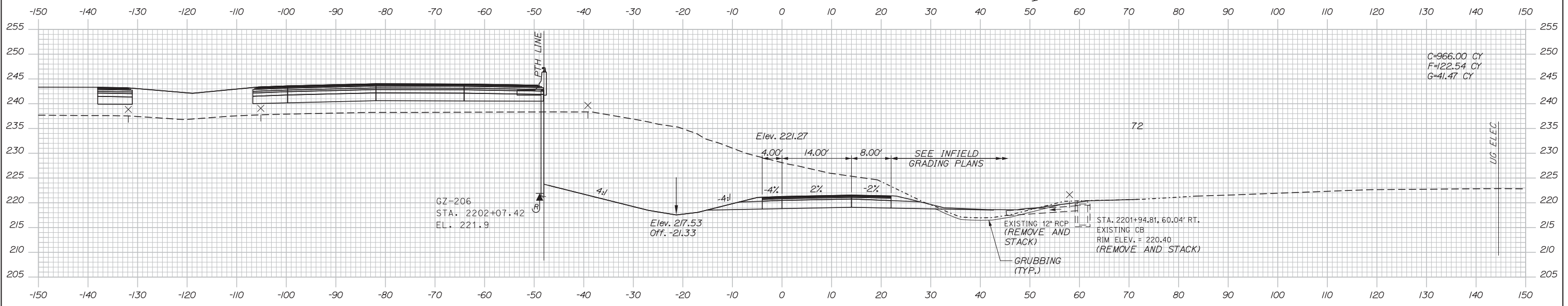
CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



2202+50.00



2202+00.00

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)**

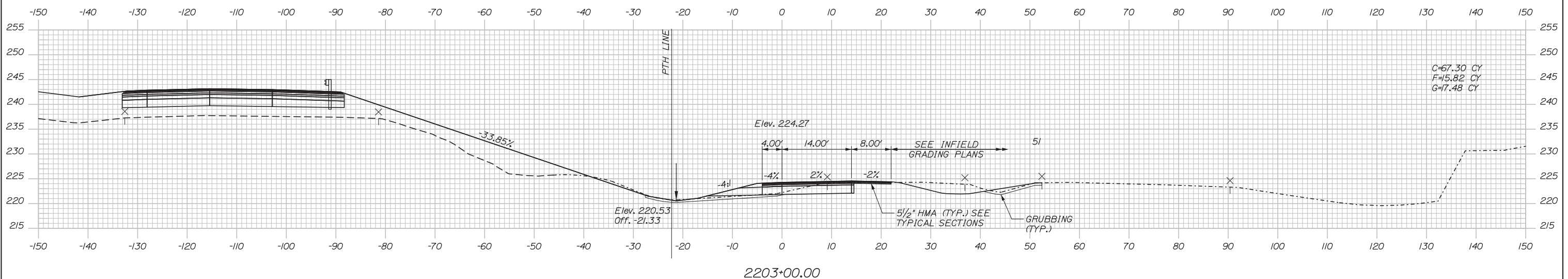
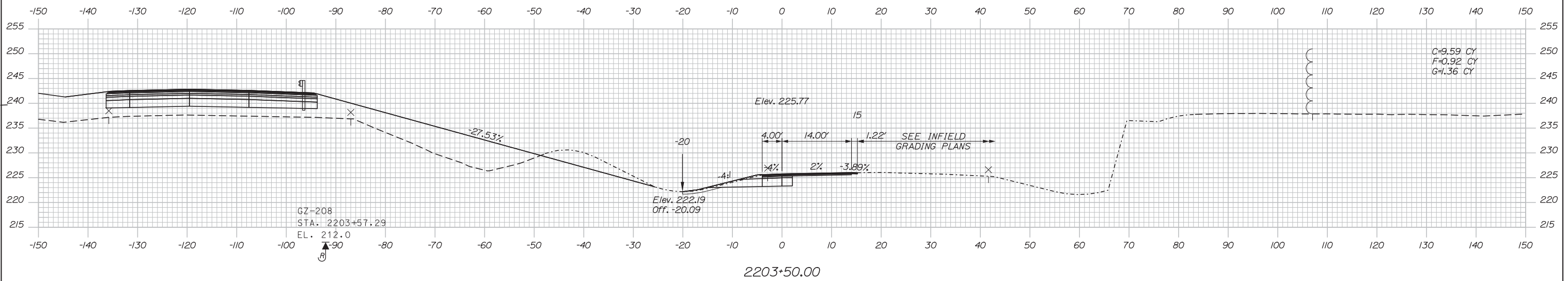
RAMP B-1 CROSS SECTIONS  
STA. 2202+00 TO STA. 2202+50

SHEET NUMBER: XS-31  
84 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

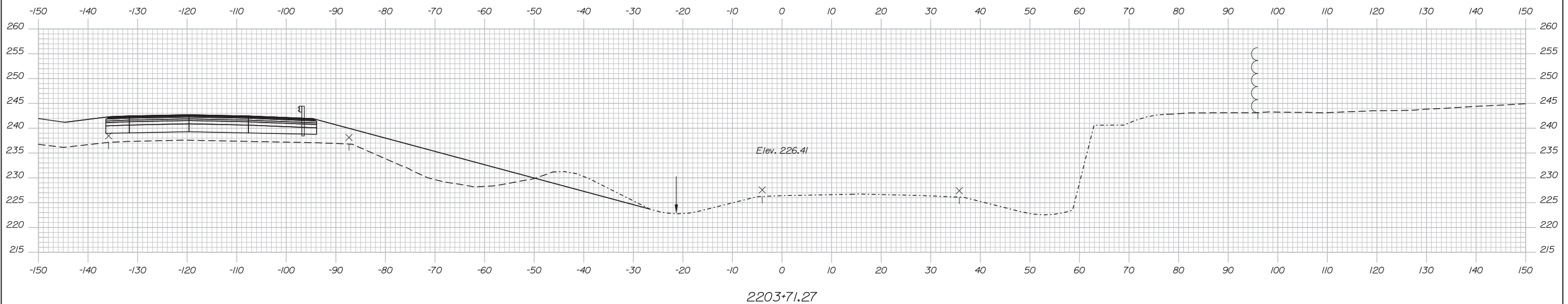
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)**  
 RAMP B-1 CROSS SECTIONS  
 STA. 2203+00 TO STA. 2203+50  
 SHEET NUMBER: XS-32  
 85 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

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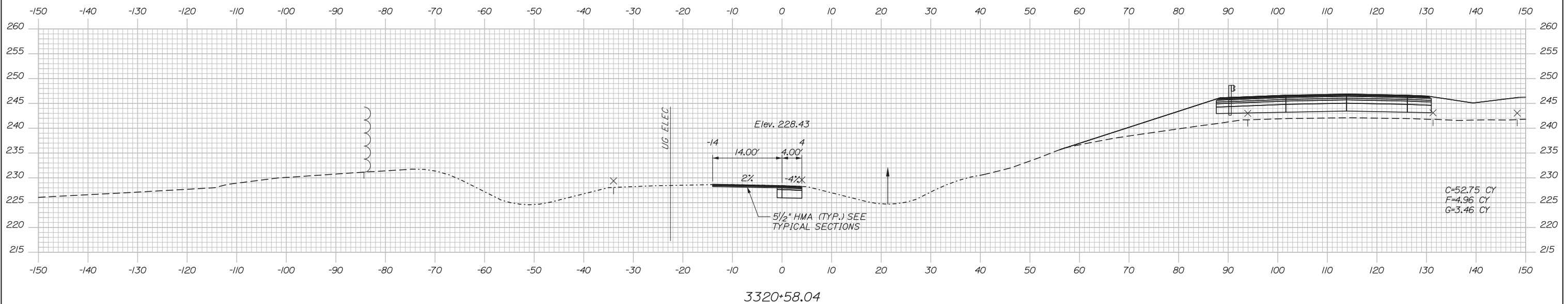
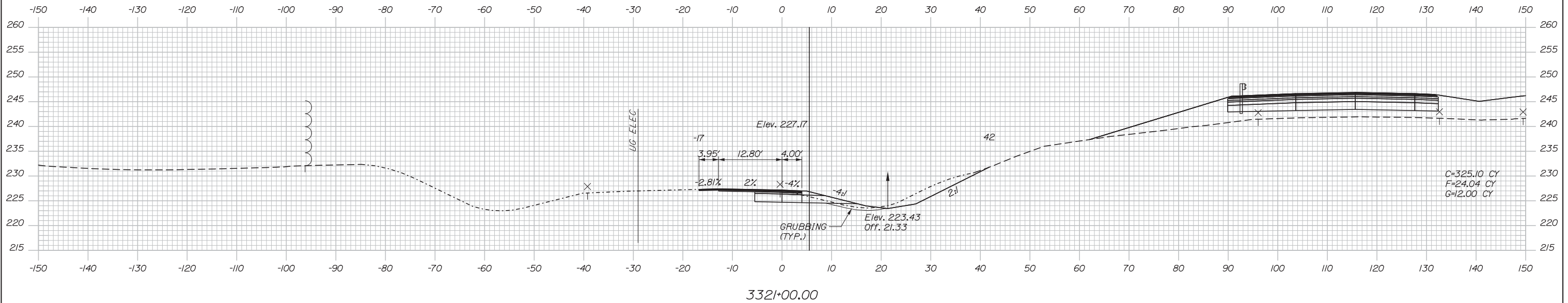
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 RAMP B-1 CROSS SECTIONS  
 STA. 2203+71 TO STA.2203+71

SHEET NUMBER: XS-33  
 CONTRACT:2014.10  
 86 OF 155

Filename: Xsect.dgn

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

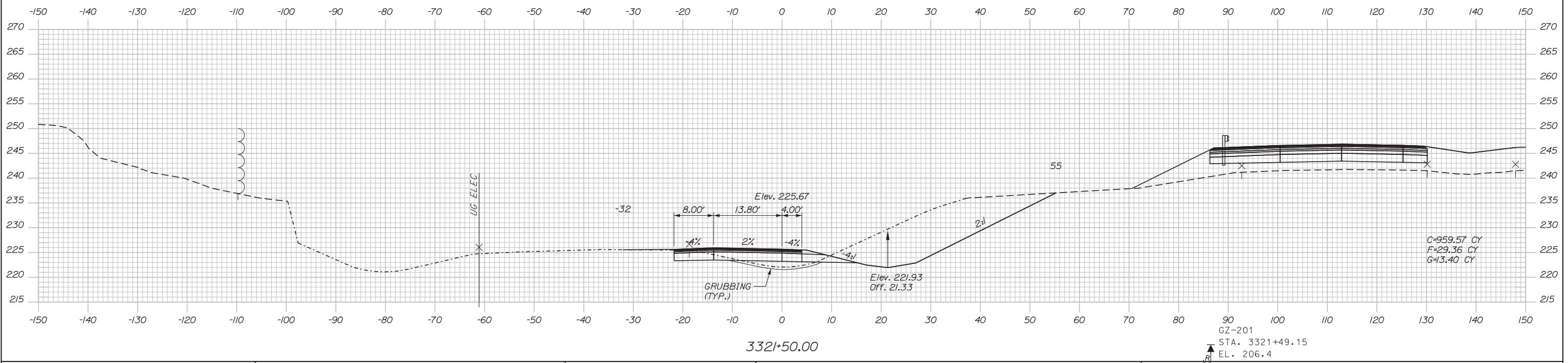
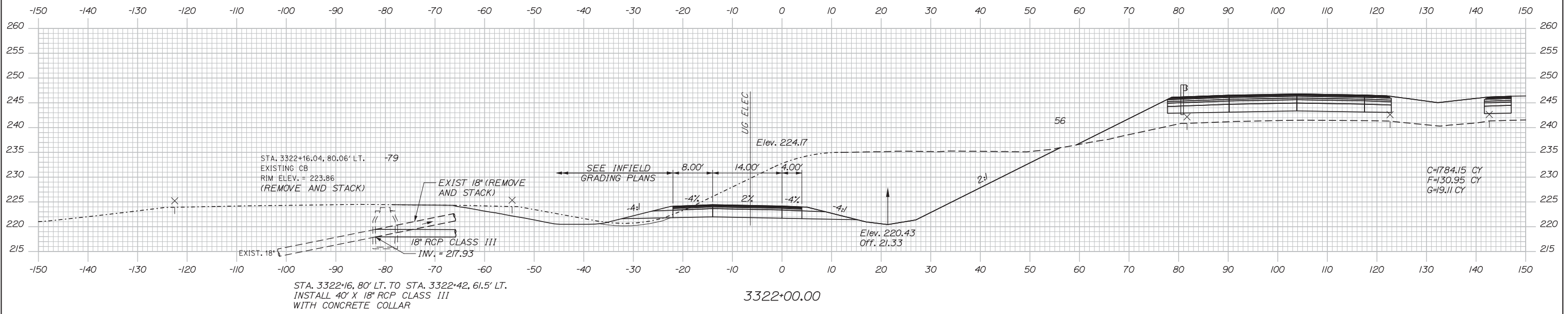
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 RAMP C-1 CROSS SECTIONS  
 STA. 3320+58 TO STA. 3321+00

SHEET NUMBER: XS-34  
 CONTRACT: 2014.10  
 87 OF 155

Filename: Xsect.dgn

Date: 10/10/2014



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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 RAMP C-1 CROSS SECTIONS  
 STA. 3321+50 TO STA. 3322+00

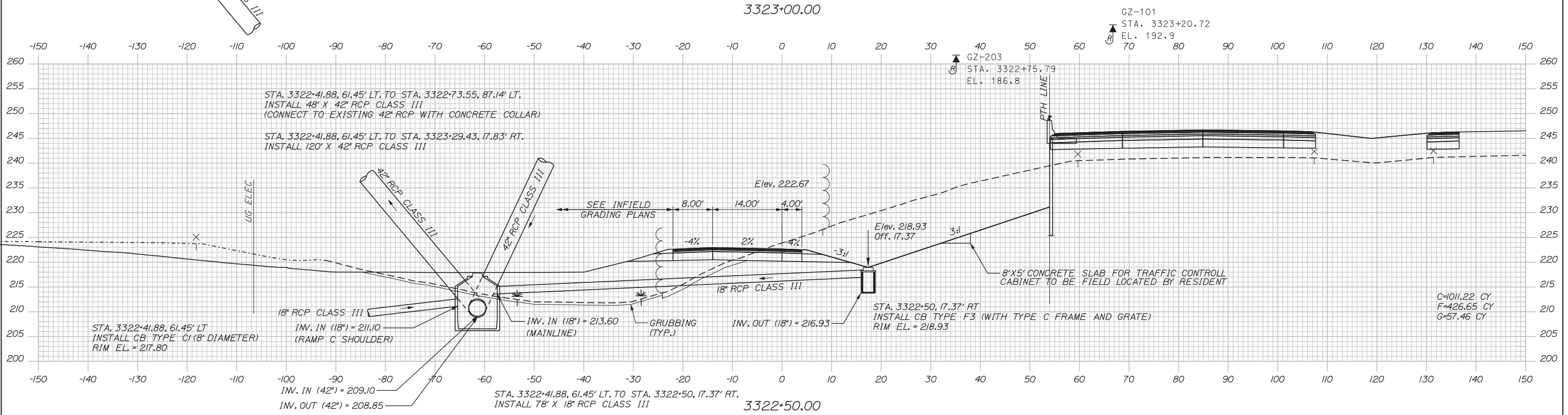
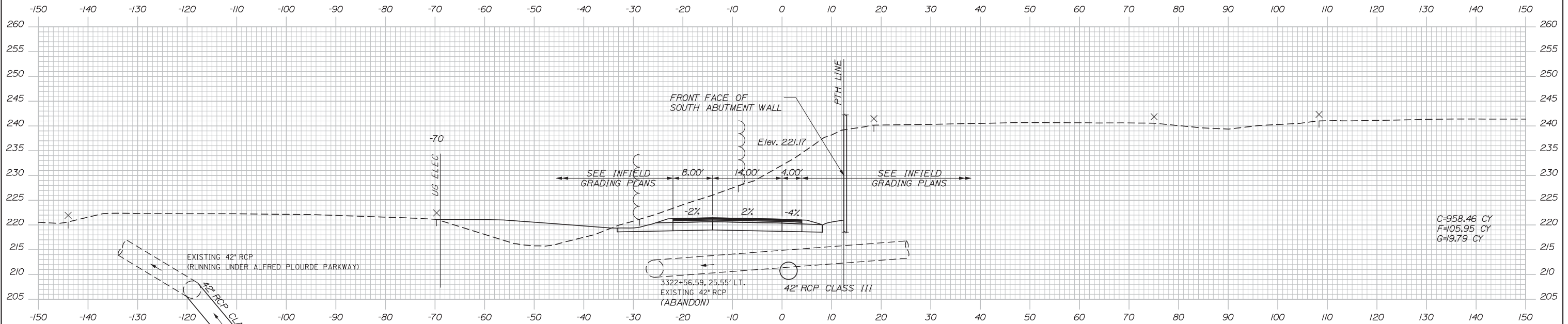
SHEET NUMBER: XS-35  
 88 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn



Date: 10/10/2014



Scale:

No.	Revision	By	Date


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	By	Date	Checked	By	Date
Designed	RWH	08/14		DAM	08/14
Drawn	MPC	08/14	In Charge of	RAL	08/14

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 FAX (207) 228-0909



**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

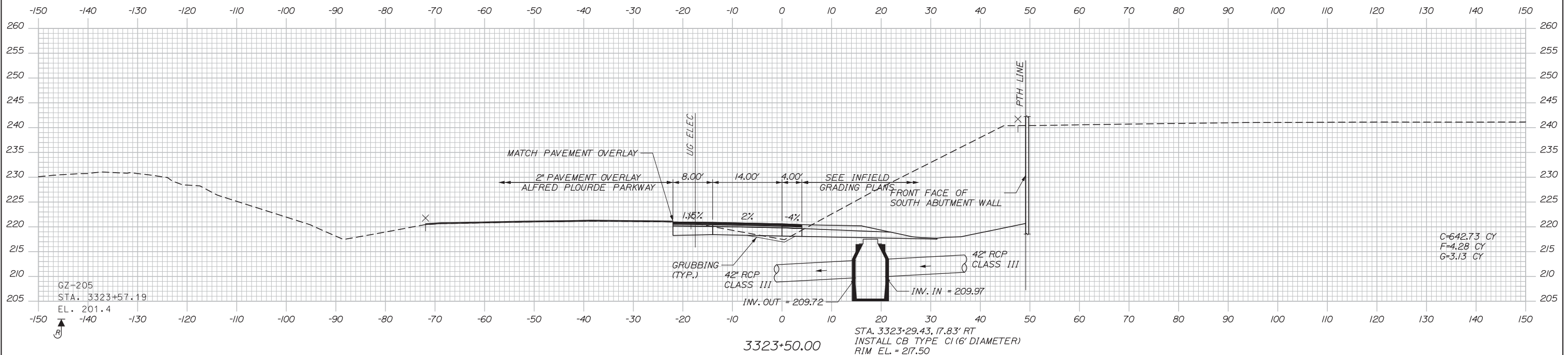
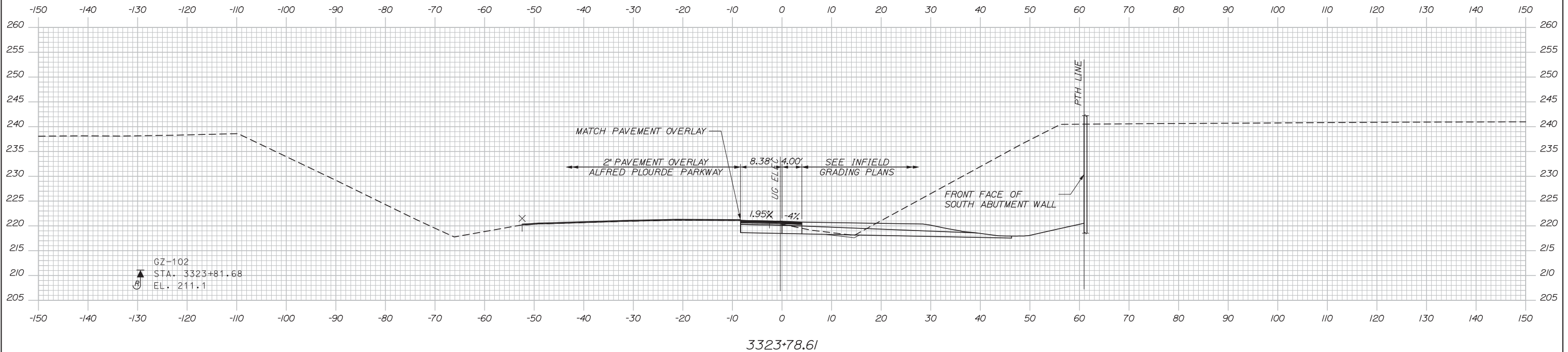
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SHEET NUMBER: XS-36  
 89 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



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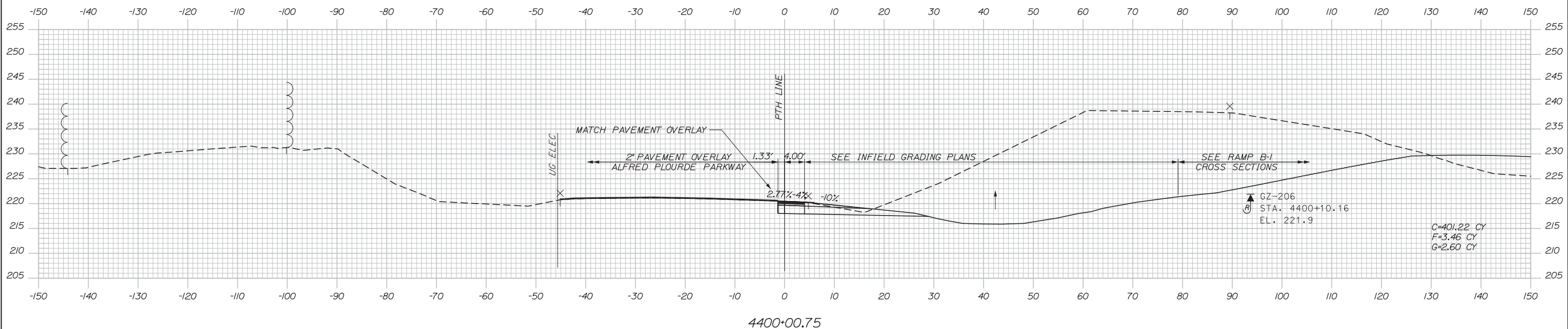
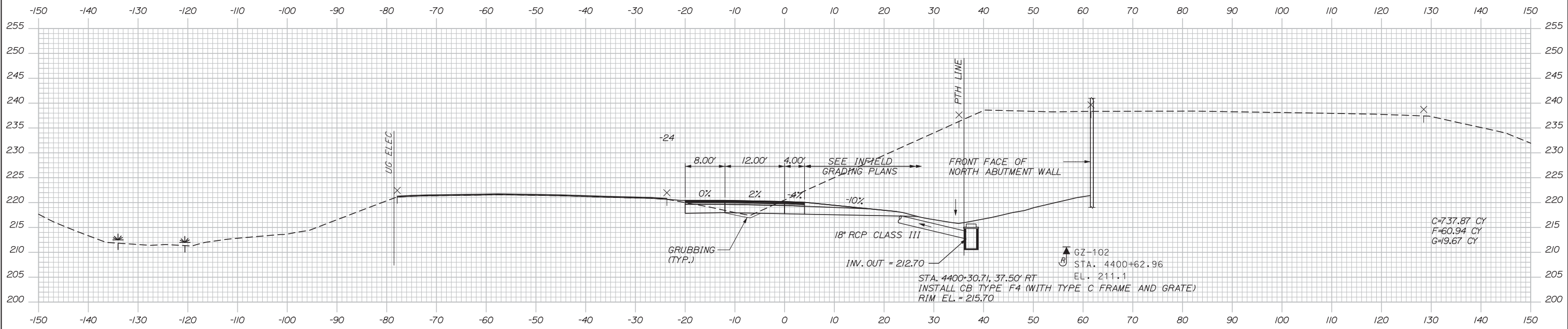
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STA. 3323+50 TO STA. 3323+79

SHEET NUMBER: XS-37  
90 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)**

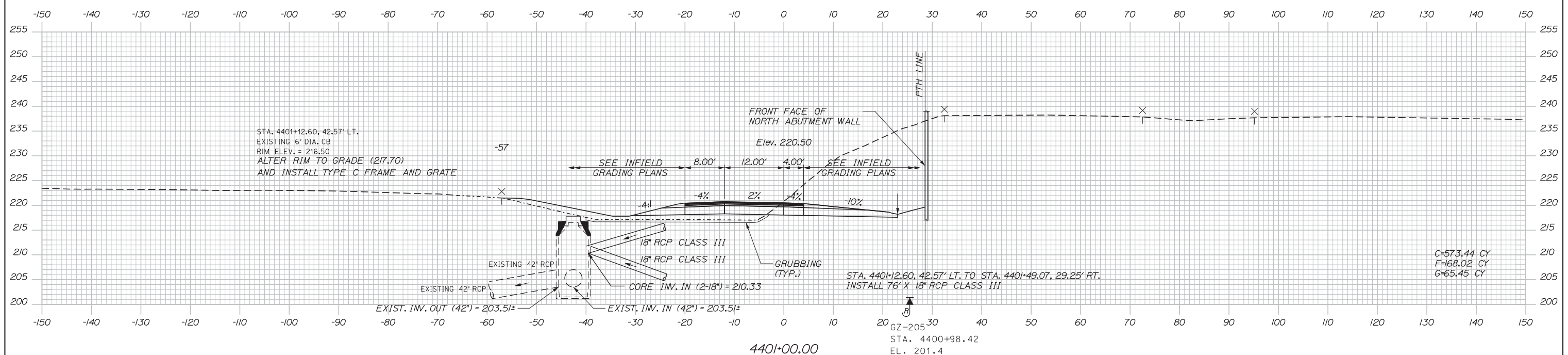
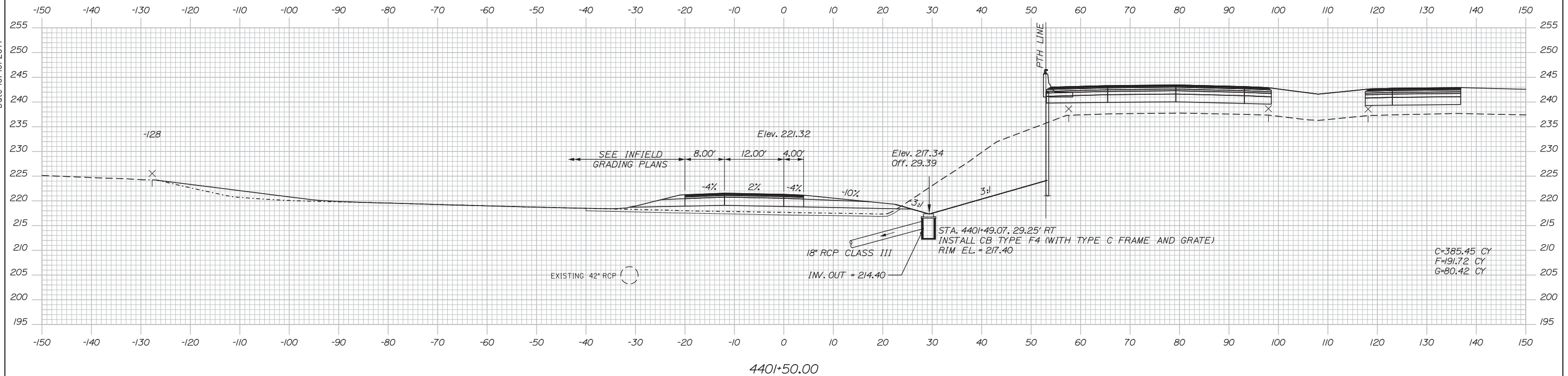
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SHEET NUMBER: XS-38  
 91 OF 155

CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

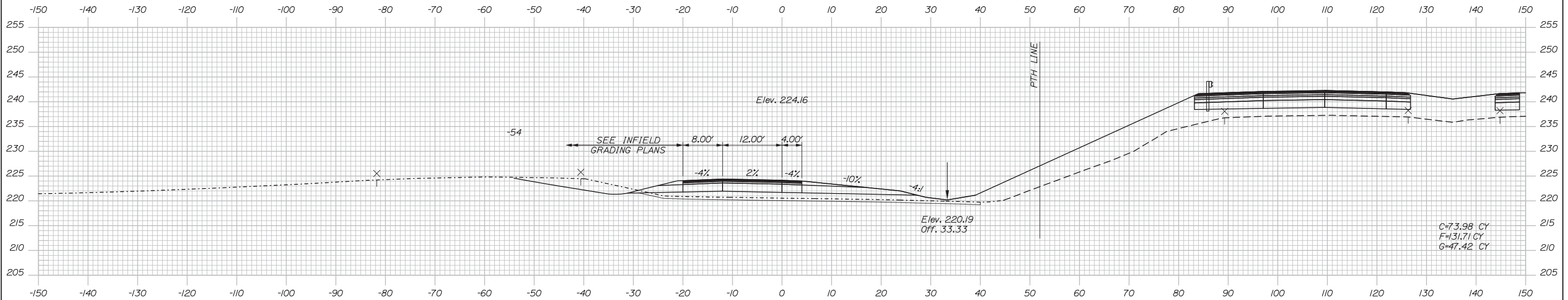
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SHEET NUMBER: XS-39  
 92 OF 155

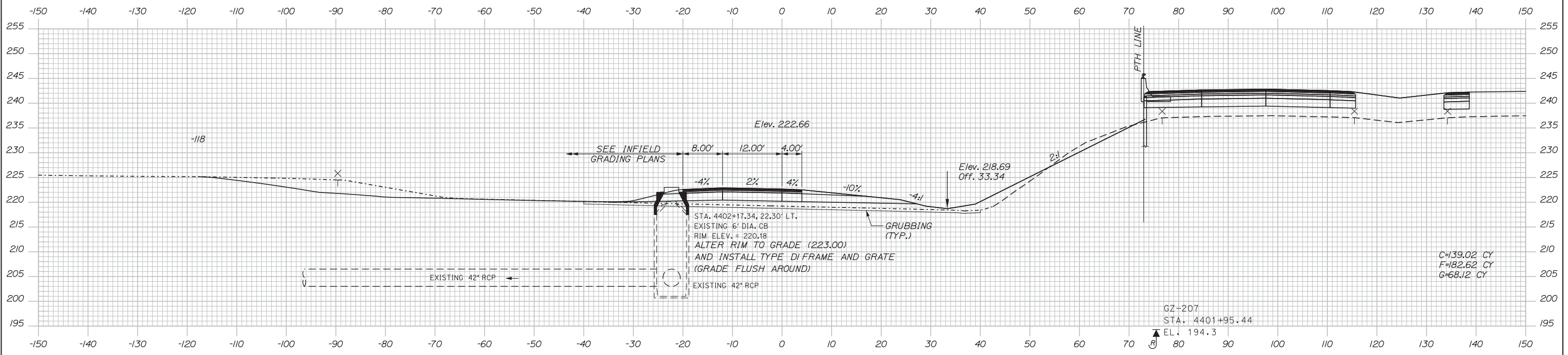
CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



4402+50.00



4402+00.00

Scale:

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

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 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

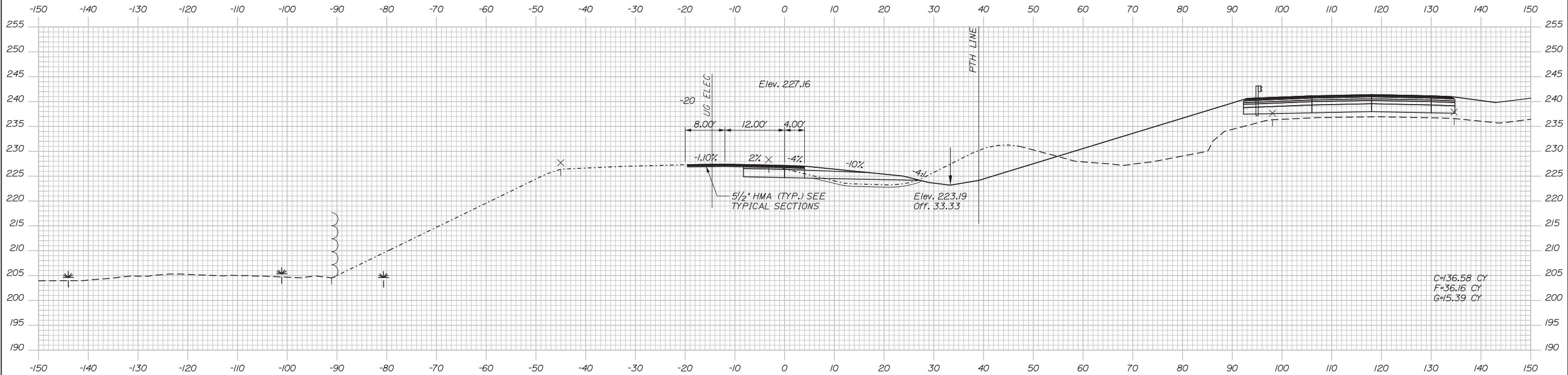
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 RAMP D-1 CROSS SECTIONS  
 STA. 4402+00 TO STA. 4402+50

SHEET NUMBER: XS-40  
 93 OF 155

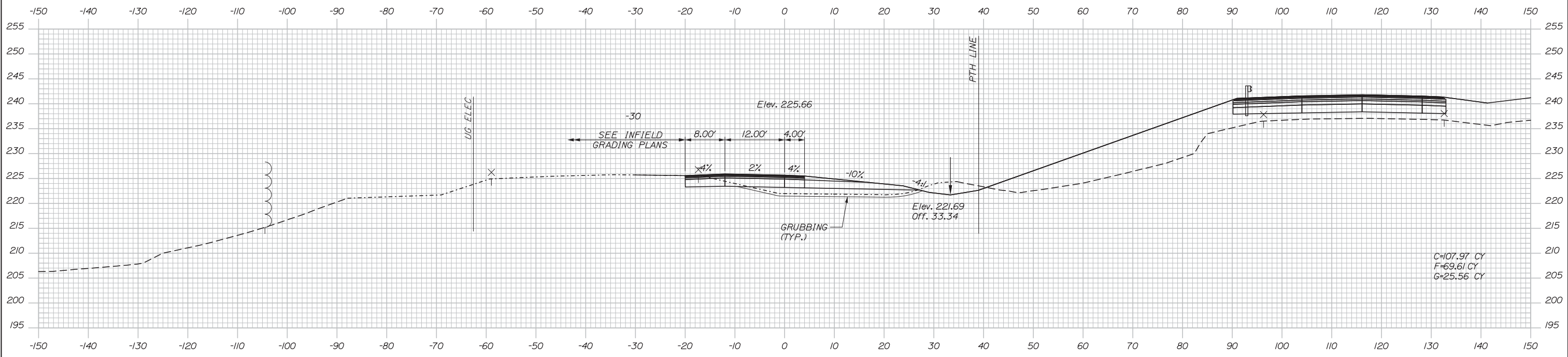
CONTRACT: 2014.10

Filename: Xsect.dgn

Date: 10/10/2014



4403+50.00



4403+00.00

Scale:

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
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Drawn	MPC	08/14	In Charge of	RAL	08/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

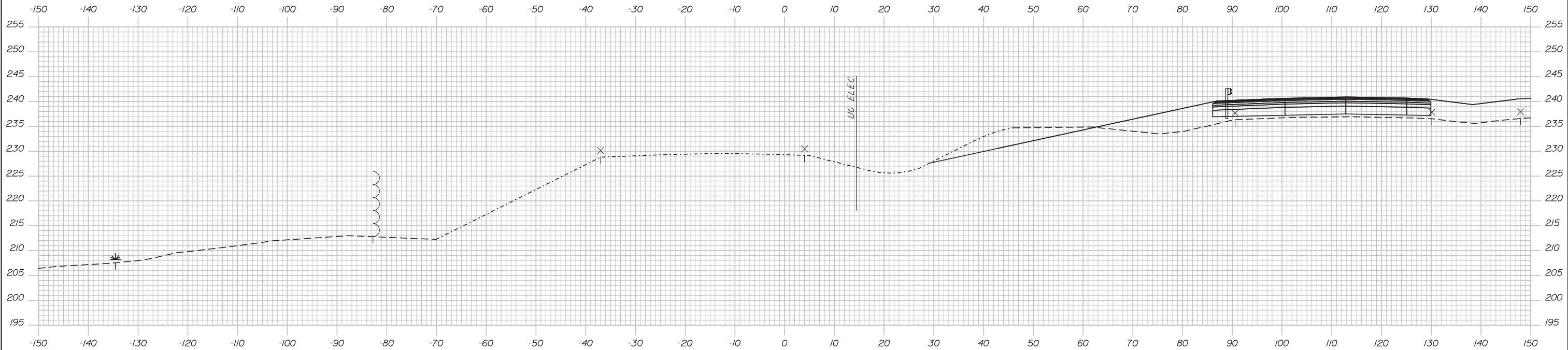
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
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 STA. 4403+00 TO STA. 4403+50

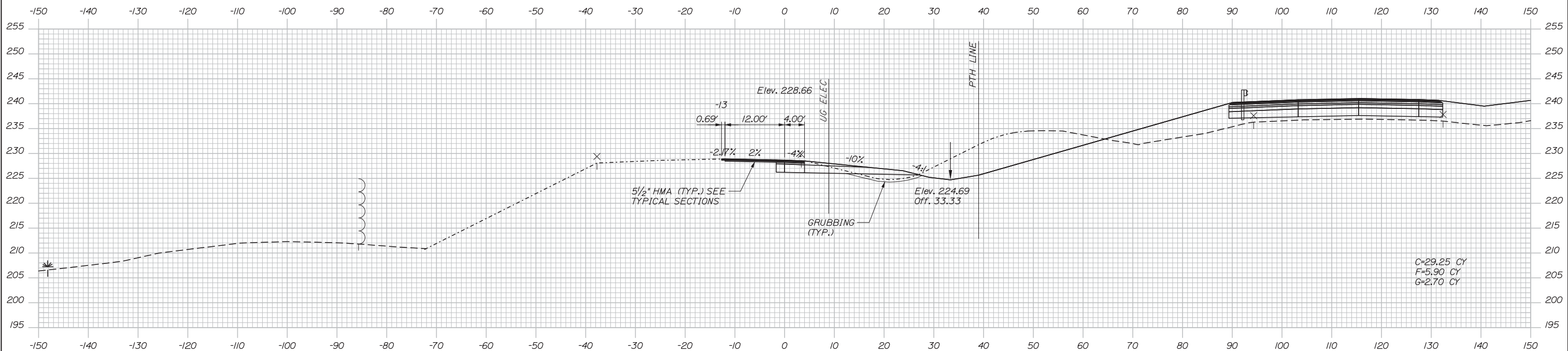
SHEET NUMBER: XS-41  
 94 OF 155

CONTRACT: 2014.10

Date: 10/10/2014



4404+22.00



4404+00.00

C=29.25 CY  
F=5.90 CY  
G=2.70 CY

Scale:

No.	Revision	By	Date

Designed by:

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	By	Date	Checked	By	Date
Designed	RWH	08/14	Checked	DAM	08/14
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
RAMP D-1 CROSS SECTIONS  
STA. 4404+00 TO STA. 4404+22

SHEET NUMBER: XS-42  
CONTRACT: 2014.10  
95 OF 155

Filename: Xsect.dgn

**SPECIFICATIONS**

**DESIGN**

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 6TH EDITION, WITH 2013 INTERIM REVISIONS.

**CONSTRUCTION**

STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES, REVISION OF DECEMBER 2002.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD DETAILS FOR HIGHWAYS AND BRIDGES, DECEMBER 2002 WITH LATEST REVISIONS.

AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, THIRD EDITION WITH 2014 INTERIMS.

**DESIGN LOADING**

**LIVE LOAD** - HL-93 MODIFIED FOR STRENGTH I LIMIT STATE

**MATERIALS**

**CONCRETE**

DECK CONCRETE - CLASS AAA - DECK

ALL OTHER CONCRETE SHALL BE CLASS AAA. CONCRETE FOR MSE WALL PANELS AND SINGLE SLOPE BARRIER SHALL INCLUDE DCI AT 3.0 GAL/CY

**REINFORCING STEEL**

EPOXY COATED BARS: ASTM A615, GRADE 60 EPOXY COATED

ZBAR: ASTM A1055, GRADE 60

ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554, GRADE 55 AND SHALL BE SWEDGED OR THREADED ON THE EMBEDDED PORTION OF THE ROD.

**STRUCTURAL STEEL**

WELDED GIRDERS: FLANGES, WEBS, SPLICE PLATES, FILLER PLATES, DIAPHRAGMS, AND BEARING STIFFENERS SHALL BE AASHTO M270, GRADE 50W.

STEEL H-PILES INCLUDING PILE TIPS SHALL BE ASTM A709, GRADE 50.

ALL OTHER STRUCTURAL STEEL SHALL BE AASHTO M270, GRADE 36, OR APPROVED EQUAL.

HIGH STRENGTH BOLTS SHALL BE AASHTO M164 (ASTM A325), BOLTS IN CONTACT WITH WEATHERING STEEL SHALL BE TYPE 3. ALL OTHER BOLTS SHALL BE HOT DIPPED GALVANIZED TYPE I.

**PROTECTIVE COATING**

ALL STRUCTURAL STEEL SHALL BE WEATHERING STEEL. GIRDER ENDS SHALL BE COATED TO A DISTANCE OF 15 FEET ALONG THE LENGTH OF GIRDER FROM THE CENTERLINE OF BEARING AT THE ABUTMENTS IN ACCORDANCE WITH SPECIAL PROVISION, SECTION 506. PAINTING STRUCTURAL STEEL DIAPHRAGMS WITHIN THE PAINTED ZONE DO NOT NEED TO BE COATED.

**BASIC DESIGN STRESSES**

CONCRETE - CLASS AAA,  $f'c = 4,500$  P.S.I.      **PRESTRESSING STRANDS** -  $F_u = 270,000$  P.S.I.

- CLASS AAA, DECK  $f'c = 4,500$  P.S.I.

REINFORCING STEEL -  $f_y = 60,000$  P.S.I.

PRECAST CONCRETE       $f'c = 6,000$  P.S.I.

$f'ci = 4,000$  P.S.I.

STRUCTURAL STEEL AASHTO M270 (ASTM A709) GRADE 36,  $F_y = 36,000$  P.S.I.

AASHTO M270 (ASTM A709) GRADE 50W,  $F_y = 50,000$  P.S.I.

**GENERAL NOTES**

- THE PROPOSED ELEVATIONS ARE BASED ON THE NAVD 88 DATUM. THE AS-BUILT PLANS ARE BASED ON NGVD 29 DATUM.
- FOR ADDITIONAL DETAILS REFERENCED OR NOT SHOWN IN THESE DRAWINGS, SEE THE STATE OF MAINE, DEPARTMENT OF TRANSPORTATION STANDARD DETAILS, HIGHWAYS AND BRIDGES, DECEMBER 2002 WITH UPDATES.
- COPIES OF THE AS-BUILT PLANS ARE ON FILE AT THE MAINE TURNPIKE AUTHORITY. A PORTION OF THESE PLANS ARE INCLUDED IN THIS CONTRACT FOR THE CONTRACTOR'S CONVENIENCE. THE COMPLETENESS AND ACCURACY OF THESE PLANS IS NOT GUARANTEED.
- REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2", UNLESS OTHERWISE NOTED.
- CHAMFER ALL EXPOSED CONCRETE EDGES  $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.
- ALL BRIDGE PARAPET, BARRIER, WINGWALL AND ENDPOST CONCRETE, INSIDE FACE AND TOP FACE, SHALL HAVE A RUBBED FINISH PRIOR TO THE APPLICATION OF THE PROTECTIVE COATING FOR CONCRETE SURFACE.
- THE CONTRACTOR SHALL PROFILE THE TOPS OF GIRDERS BEFORE THE DECK FORMWORK IS STARTED AND SHALL SUBMIT TO THE RESIDENT THE FINAL BLOCKING DISTANCES FOR REVIEW. FIVE (5) WORKING DAYS SHALL BE ALLOWED FOR THE BLOCKING POINT TURN AROUND TIME.
- THE CONTRACTOR SHALL SUBMIT A BRIDGE DEMOLITION PLAN TO THE RESIDENT AT LEAST 10 BUSINESS DAYS PRIOR TO THE START OF DEMOLITION WORK. THE PLAN SHALL OUTLINE THE METHODS AND EQUIPMENT TO BE USED TO REMOVE AND DISPOSE OF ALL MATERIALS INCLUDED IN THE EXISTING BRIDGE. NO WORK RELATED TO THE REMOVAL OF THE BRIDGE SHALL BE UNDERTAKEN BY THE CONTRACTOR UNTIL THE RESIDENT HAS REVIEWED THE BRIDGE DEMOLITION PLAN FOR APPROPRIATENESS AND COMPLETENESS. PAYMENT FOR ALL THE WORK NECESSARY FOR DEVELOPING, SUBMITTING AND FINALIZING THE DEMOLITION PLAN WILL BE CONSIDERED INCIDENTAL TO THE BRIDGE REMOVAL PAY ITEMS.
- THE STEEL PORTIONS OF THE EXISTING BRIDGE ARE 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 MAINE DOT'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 ITEMS.
- CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO THE FOLLOWING AREAS:
  - EXPOSED SURFACES OF THE PARAPETS, AND ENDPOSTS;
  - VERTICAL FACES OF THE DECK FASCIA EXTENDING BENEATH THE DECK TO THE GIRDER TOP FLANGE;
  - EXPOSED SURFACES OF THE PROPOSED ABUTMENTS, WINGWALLS, AND CAST-IN-PLACE RETAINING WALLS;
  - MSE WALL COPING.
- ANTI-GRAFFITI COATING SHALL BE APPLIED TO ALL EXPOSED SURFACES OF THE MSE WALL PANELS AND SINGLE SLOPE BARRIER.
- EXISTING STEEL ROCKER BEARINGS IN SATISFACTORY CONDITION SHALL BE SALVAGED AS DESCRIBED IN SPECIAL PROVISION 202. BEARINGS NOT SALVAGED SHALL BE INCIDENTAL TO ITEM 202.19, REMOVING EXISTING STRUCTURE. FOR ESTIMATING PURPOSES IT IS ASSUMED THE BEARINGS UNDER INTERIOR BEAMS WILL BE SALVAGED AND THOSE UNDER FASCIA BEAMS WILL NOT.
- UNLESS NOTED OTHERWISE PREFORMED JOINT FILLER SHALL CONFORM TO ASTM DESIGNATION D1752, TYPE 1 OR ASTM D5249, TYPE 2. PREFORMED JOINT FILLER SHALL BE A NON-STAINING, NON-BLEEDING TYPE. PRODUCTS SUCH AS  $\frac{1}{8}$ " CEREMAR<sup>®</sup> 32 MANUFACTURED BY W.R. MEADOWS, OR AN APPROVED EQUAL WILL BE ACCEPTABLE. CORK AND ASPHALT IMPREGNATED BOARD ARE NOT ACCEPTABLE JOINT FILLERS. PREFORMED JOINT FILLER SHALL BE SECURELY FASTENED OR GLUED TO THE SUBSTRATE DURING INSTALLATION.
- WHERE ELASTOMERIC SEALANT IS SPECIFIED THE SELECTED MATERIAL SHALL CONFORM TO SUBSECTION 714.04 OF THE SPECIFICATIONS AND SHALL BE INCIDENTAL TO THE RELATED CONTRACT ITEMS.

ITEM NO.	ITEM DESCRIPTION	UNIT	BRIDGE QUANTITY
202.191	Removing Existing Bridge - Exit 80 Southbound	LS	1
202.192	Removing Existing Bridge - Exit 80 Northbound	LS	1
203.20	Common Excavation	CY	200
203.21	Rock Excavation	CY	50
203.25	Granular Borrow	CY	200
203.26	Gravel Borrow	CY	50
203.35	Crushed Stone	CY	150
403.2083	Hot Mix Asphalt, 12.5 mm (Polymer Modified), Surface	TON	320
403.209	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size (sidewalks, drives, islands & incidentals)	TON	15
409.15	Bituminous Tack Coat, Applied	Gal	100
501.231	Dynamic Loading Test	EA	3
501.542	Steel H-Beam Piles 117 lb/ft, delivered	LF	690
501.543	Steel H-Beam Piles 117 lb/ft, in place	LF	690
501.903	Pile Tips - Rock Injector Point	EA	18
501.911	Pile Splices	EA	5
501.92	Pile Driving Equipment Mobilization	LS	1
502.219	Structural Concrete, Abutments and Retaining Walls (335 CY)	LS	1
502.26	Structural Concrete Roadway and Sidewalk Slab on Steel Bridges (420 CY)	LS	1
502.264	Structural Concrete Parapets (120 CY)	LS	1
502.265	Structural Concrete Overturning Slab (93 CY)	LS	1
502.266	Structural Concrete Single Slope Barrier (45 CY)	LS	1
502.31	Structural Concrete Approach Slab (177 CY)	LS	1
503.14	Epoxy-Coated Reinforcing Steel, Fabricated and Delivered	LB	201,400
503.15	Epoxy-Coated Reinforcing Steel, Placing	LB	201,400
503.18	ZBar Reinforcing Steel, Fabricated and Delivered	LB	46,300
503.19	ZBar Reinforcing Steel, Placing	LB	46,300
504.703	Structural Steel Fabricated and Delivered, Welded (1,079,500 LB)	LS	1
504.71	Structural Steel Erection (1,079,500 LB)	LS	1
505.09	Stud Welded Shear Connectors (4,395 EA)	LS	1
506.9102	Zinc-Rich Coating System (Shop Applied)	LS	1
506.9103	Zinc-Rich Coating System (Field Touch-Up)	LS	1
507.091	Aluminum Bridge Railing, 1 Bar (1,098 LF)	LS	1
508.141	High Performance Waterproofing Membrane (2,200 SY)	LS	1
511.091	Temporary Earth Support Systems	LS	1
513.221	Crushed Stone Slope Protection	CY	340
515.202	Clear Protective Coating for Concrete Surfaces	SY	1,500
515.23	Anti-Graffiti Coating	SY	760
518.64	THOROC 10-60 - Rapid Set Mortar (50 lb. Bag)	EA	10
520.221	Expansion Device - Compression Seal	EA	3
523.52	Bearing Installation	EA	5
523.5401	Laminated Elastomeric Bearings, Fixed	EA	5
524.40	Protective Shielding - Steel Girders	SY	1,150
609.15	Sloped Curb Type 1	LF	1160
620.58	Erosion Control Geotextile	SY	950
636.40	Mechanically Stabilized Earth Retaining Wall	SF	11500
643.95	Signal and Sign Support Assembly	LS	1

**LIST OF ABBREVIATIONS**

ABUT. - ABUTMENT	EXIST. - EXISTING	PL - PLATE
ADDL. - ADDITIONAL	EXP. - EXPANSION	PROP. - PROPOSED
ALT. - ALTERNATE	F.F. - FAR FACE	P.S.I. - POUNDS per SQUARE INCH
APPROX. - APPROXIMATELY	JT. - JOINT	PROP. - PROPOSED
BOT. - BOTTOM	H.M.A. - HOT MIX ASPHALT	RDWY. - ROADWAY
BRG. - BEARING	MAX. - MAXIMUM	SHLDR. - SHOULDER
CL. - CLEAR	MDOT - MAINE DEPARTMENT OF TRANSPORTATION	SB - SOUTHBOUND
CL - CENTERLINE	MIN. - MINIMUM	SP. - SPACES
CONC. - CONCRETE	MTA - MAINE TURNPIKE AUTHORITY	STA. - STATION
CONSTR. - CONSTRUCTION	NB - NORTHBOUND	T.&B. - TOP & BOTTOM
DEMO. - DEMOLITION	N.F. - NEAR FACE	TPKE. - TURNPIKE
DIA. - DIAMETER	N.T.S. - NOT TO SCALE	TYP. - TYPICAL
EA. - EACH	O.C. - ON CENTER	U.O.M. - UNLESS OTHERWISE NOTED
EB - EASTBOUND	O.H.W. - OBSERVED HIGH WATER	VERT. - VERTICAL
E.F. - EACH FACE	PED. - PEDESTAL	WB - WESTBOUND
EL. - ELEVATION	PGL - PROFILE GRADE LINE	W.P. - WORKING POINT
EQ. - EQUAL		



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100	S-05	INTERPRETIVE SUBSURFACE PROFILE I
101	S-06	INTERPRETIVE SUBSURFACE PROFILE 2
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137	S-42	DECK PLAN I
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145	S-50	MISCELLANEOUS DETAILS
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147	S-52	ALUMINUM BRIDGE RAILING I-BAR
148	S-53	REINFORCING SCHEDULE I

**ORIGINAL CONSTRUCTION PLANS**

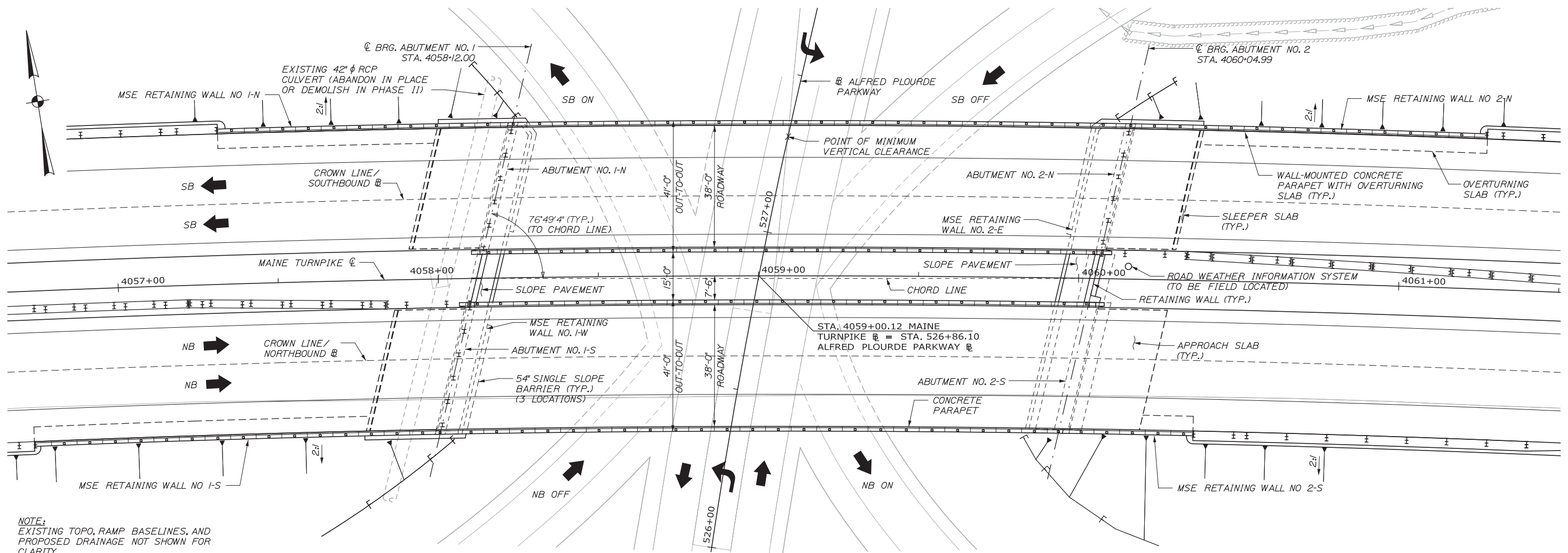
SHEET NO.	TITLE
149 OF 155	GENERAL PLAN AND ELEVATION
150 OF 155	ABUTMENTS
151 OF 155	PIERS
152 OF 155	SUPERSTRUCTURE - NORTH BRIDGE
153 OF 155	SUPERSTRUCTURE - SOUTH BRIDGE
154 OF 155	DECK REPLACEMENT NORTHBOUND
155 OF 155	DECK REPLACEMENT SOUTHBOUND

Date: 10/10/2014

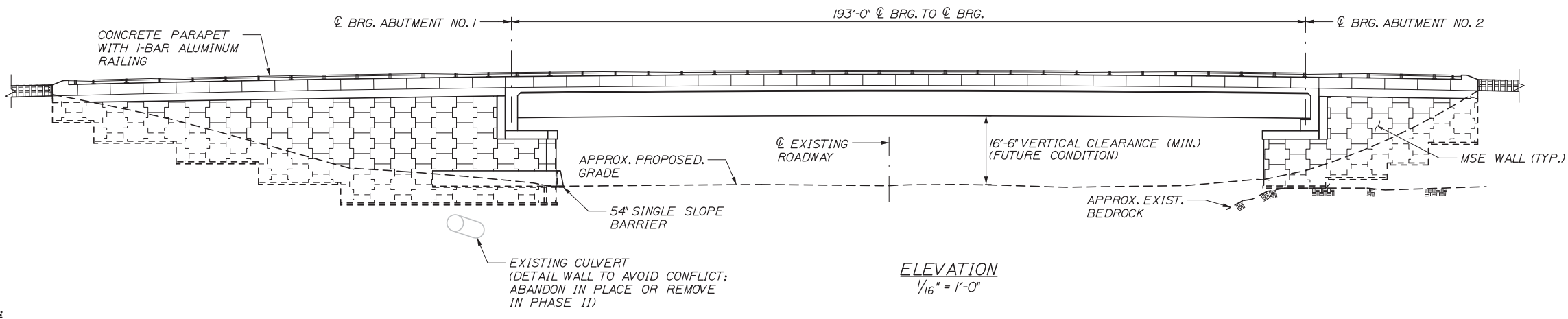
Filename: 096\_Index.dgn

Scale:		Designed by:				HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909			<b>THE GOLD STAR MEMORIAL HIGHWAY</b>	INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80)  GENERAL NOTES, INDEX AND QUANTITIES															
<table border="1"> <thead> <tr> <th>No.</th> <th>Revision</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>		No.	Revision									By	Date												
No.	Revision	By	Date																						
<table border="1"> <thead> <tr> <th>By</th> <th>Date</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Designed</td> <td>AET 10/14</td> <td>Checked</td> <td>TRC 10/14</td> </tr> <tr> <td>Drawn</td> <td>PTA 10/14</td> <td>In Charge of</td> <td>RAL 10/14</td> </tr> </tbody> </table>		By	Date	By	Date	Designed	AET 10/14	Checked	TRC 10/14	Drawn	PTA 10/14	In Charge of	RAL 10/14	MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.		CONTRACT: 2014.10		96 OF 155							
By	Date	By	Date																						
Designed	AET 10/14	Checked	TRC 10/14																						
Drawn	PTA 10/14	In Charge of	RAL 10/14																						





PLAN  
1/16" = 1'-0"



ELEVATION  
1/16" = 1'-0"

NOTE:  
EXISTING TOPO, RAMP BASELINES, AND  
PROPOSED DRAINAGE NOT SHOWN FOR  
CLARITY.

NOTE:  
EXISTING BRIDGES NOT SHOWN.

Date: 10/10/2014

No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell					
	By	Date		By	Date
Designed	AET	10/14	Checked	TRC	10/14
Drawn	AET	10/14	In Charge of	RAL	10/14

HNTB CORPORATION  
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FAX (207) 228-0909

## THE GOLD STAR MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

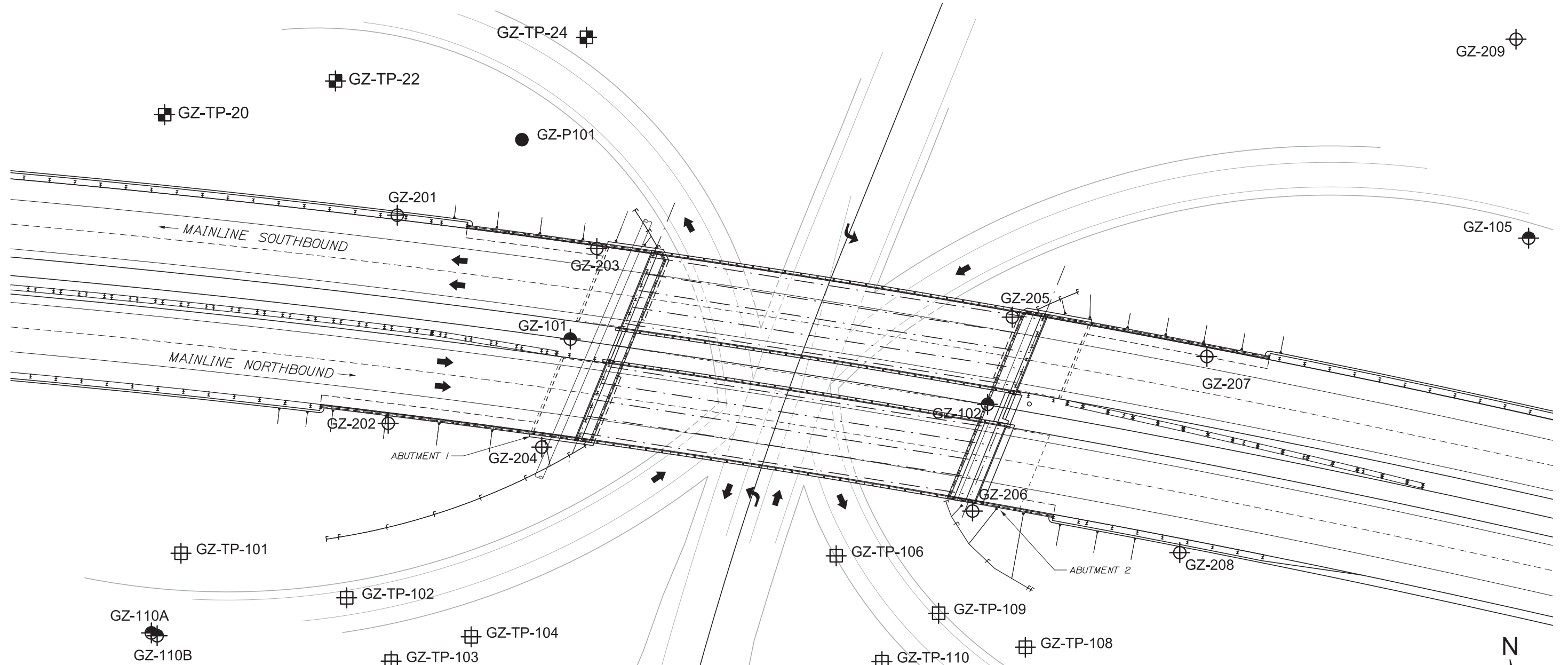
### INTERCHANGE IMPROVEMENT LEWISTON (EXIT 80)

#### GENERAL PLAN AND ELEVATION

SHEET NUMBER: S-02  
CONTRACT: 2014.10  
97 OF 155

Date:10/10/2014

Filename: 098\_Boring\_Log\_Location\_Map.dgn



**LEGEND:**

- DESIGNATION AND LOCATION OF PHASE 2 TEST BORING DRILLED BY MAINE TEST BORING, OBSERVED BY GZA.
- DESIGNATION AND LOCATION OF PHASE 2 TEST PIT EXCAVATED BY ENVIRONMENTAL PROJECTS INC, OBSERVED BY GZA.
- DESIGNATION AND LOCATION OF TEST PROBE DRILLED BY MAINE TEST BORING, OBSERVED BY GZA.
- DESIGNATION AND LOCATION OF PHASE 1 TEST BORING DRILLED BY MAINE TEST BORINGS, OBSERVED BY GZA. (BG) INDICATES BOREHOLE GEOPHYSICAL TESTING CONDUCTED BY NORTHEAST GEOPHYSICAL SERVICES.
- DESIGNATION AND LOCATION OF PHASE 1 TEST PIT EXCAVATED BY ENVIRONMENTAL PROJECTS INC, OBSERVED BY GZA.

**NOTES:**

1. BASE MAP DEVELOPED FROM THE Z\_BRIDGE LAYOUT W BARRIER REV2.DGN ELECTRONIC DRAWING FILE PROVIDED BY HNTB CORPORATION ON JUNE 27, 2014.
2. THE EXPLORATIONS WERE LOCATED ON THE PLAN USING COORDINATES PROVIDED BY HNTB, BASED ON AS-BUILT SURVEY BY TITCOMB ASSOCIATES.
3. GZ-100 SERIES TEST BORINGS WERE PERFORMED BY MAINE TEST BORING OF BREWER, MAINE BETWEEN DECEMBER 8, 2010 AND JANUARY 26, 2011.
4. GZ-TP SERIES TEST PITS WERE PERFORMED BY ENVIRONMENTAL PROJECTS, INC OF AUBURN, MAINE BETWEEN DECEMBER 8, 2010 AND DECEMBER 17, 2010.
5. GZ-200 SERIES TEST BORINGS WERE PERFORMED BY MAINE TEST BORING OF HERMAN, MAINE BETWEEN DECEMBER 4, 2012 AND JANUARY 10, 2013.
6. GZ-TP-100 SERIES TEST PITS WERE PERFORMED BY ENVIRONMENTAL PROJECTS, INC OF AUBURN, MAINE BETWEEN DECEMBER 20, 2012 AND JANUARY 7, 2013.



Scale:

Designed by:



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 Westbrook, ME 04092  
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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

**INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)**

**BORING LOG LOCATION MAP**

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Andrew R. Blaisdell, P.E., G.E.			
	By	Date	
Designed	GZA	10/14	Checked GZA 10/14
Drawn	GZA	10/14	In Charge of GZA 10/14

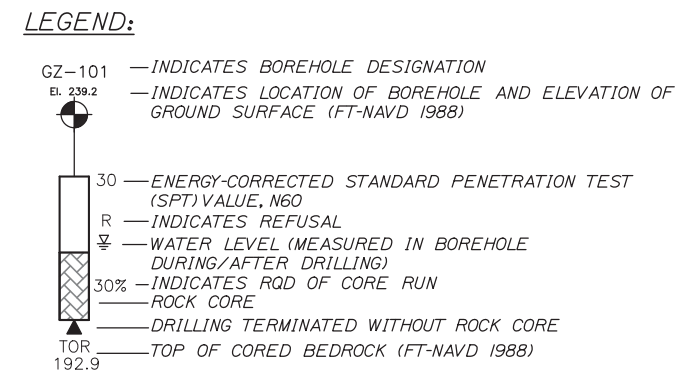
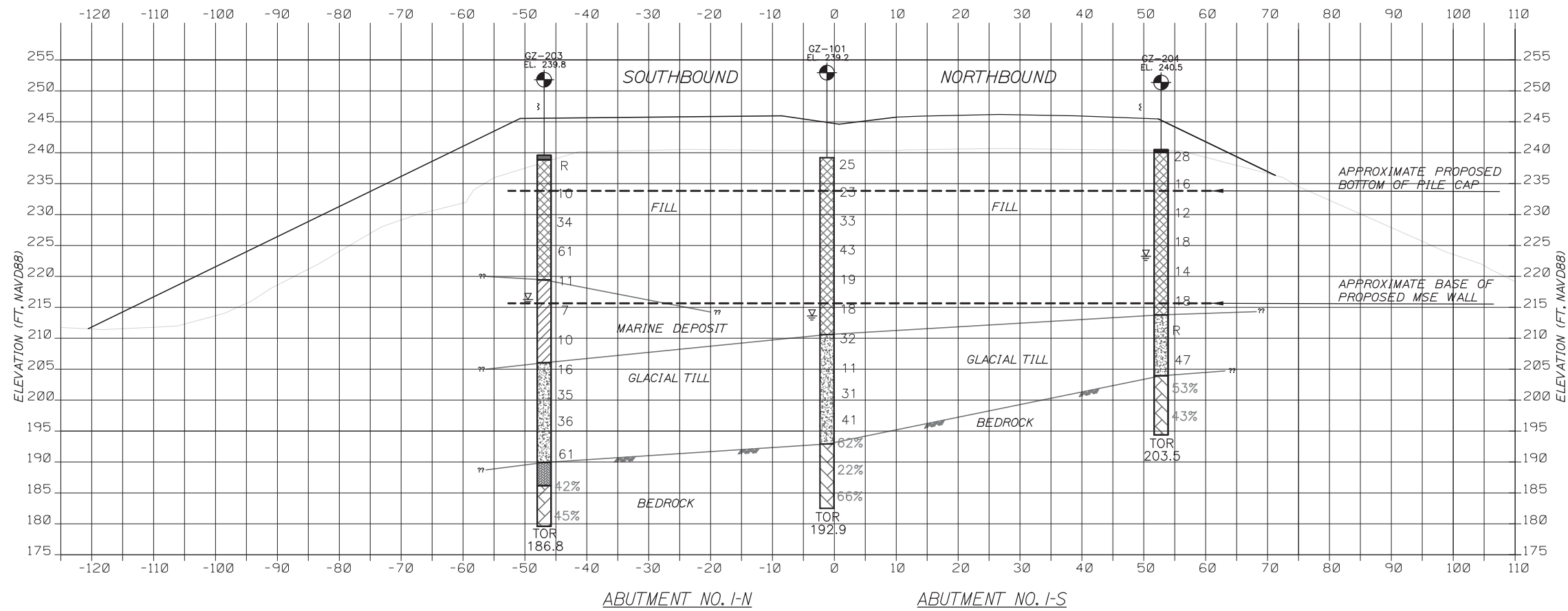
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

CONTRACT:2014.10

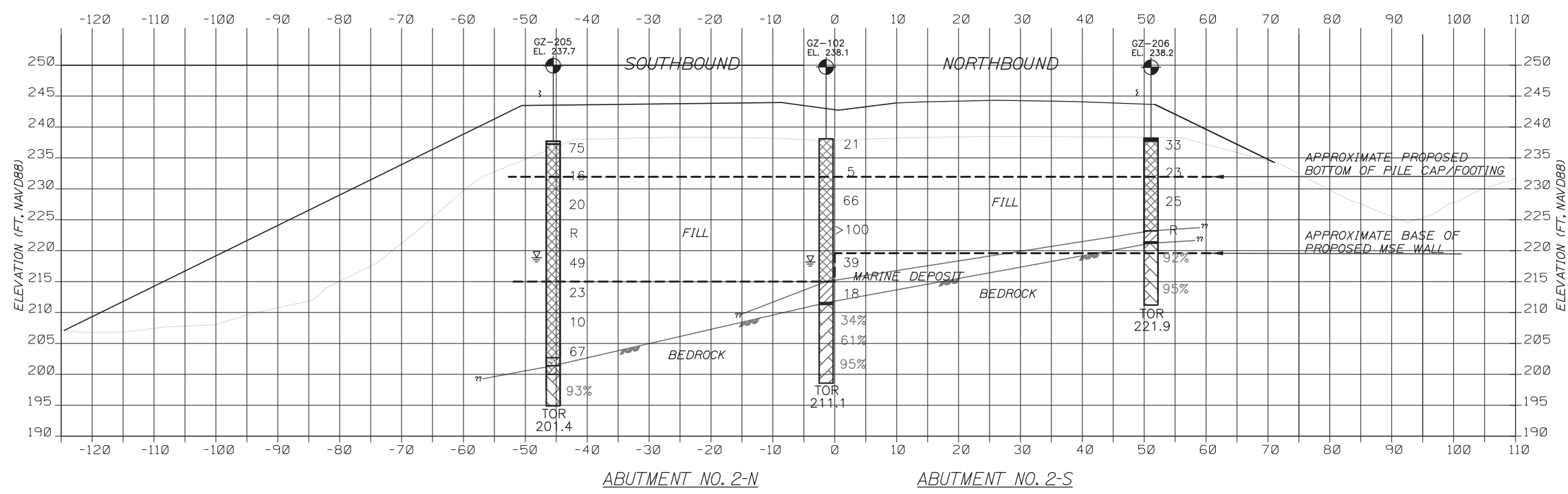
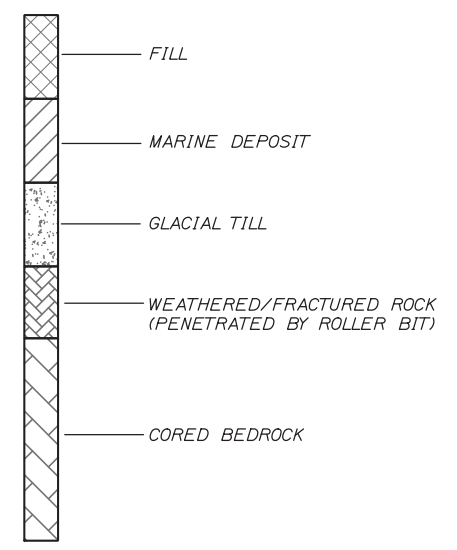
SHEET NUMBER: S-03

98 OF 155

Date: 10/10/2014



**BORING STICK HATCH LEGEND:**




- NOTES:**
- EXISTING AND PROPOSED GROUND SURFACE SECTIONS DEVELOPED FROM ELECTRONIC FILE DATED JANUARY 7, 2014 PROVIDED BY HNTB ENTITLED WORKING-ABUTMENTCL-CROSSSECTIONS.DGN.
  - THIS GENERALIZED INTERPRETIVE SUBSURFACE PROFILE IS INTENDED TO CONVEY TRENDS IN SUBSURFACE CONDITIONS. THE BOUNDARIES BETWEEN STRATA ARE APPROXIMATE AND IDEALIZED, AND HAVE BEEN DEVELOPED BY INTERPRETATIONS OF WIDELY SPACED EXPLORATIONS AND SAMPLES. ACTUAL SOIL AND BEDROCK TRANSITIONS MAY VARY AND ARE PROBABLY MORE ERRATIC. FOR MORE SPECIFIC INFORMATION REFER TO THE EXPLORATION LOGS.

Filename: 099\_Subsurface Profile X-Sec.dgn

Scale:

No.	Revision	By	Date

Designed by:



CONSULTANT PROJECT MANAGER: Andrew R. Blaisdell, P.E., G.E.

	By	Date	Checked	By	Date
Designed	GZA	10/14		GZA	10/14
Drawn	GZA	10/14	In Charge of	GZA	10/14

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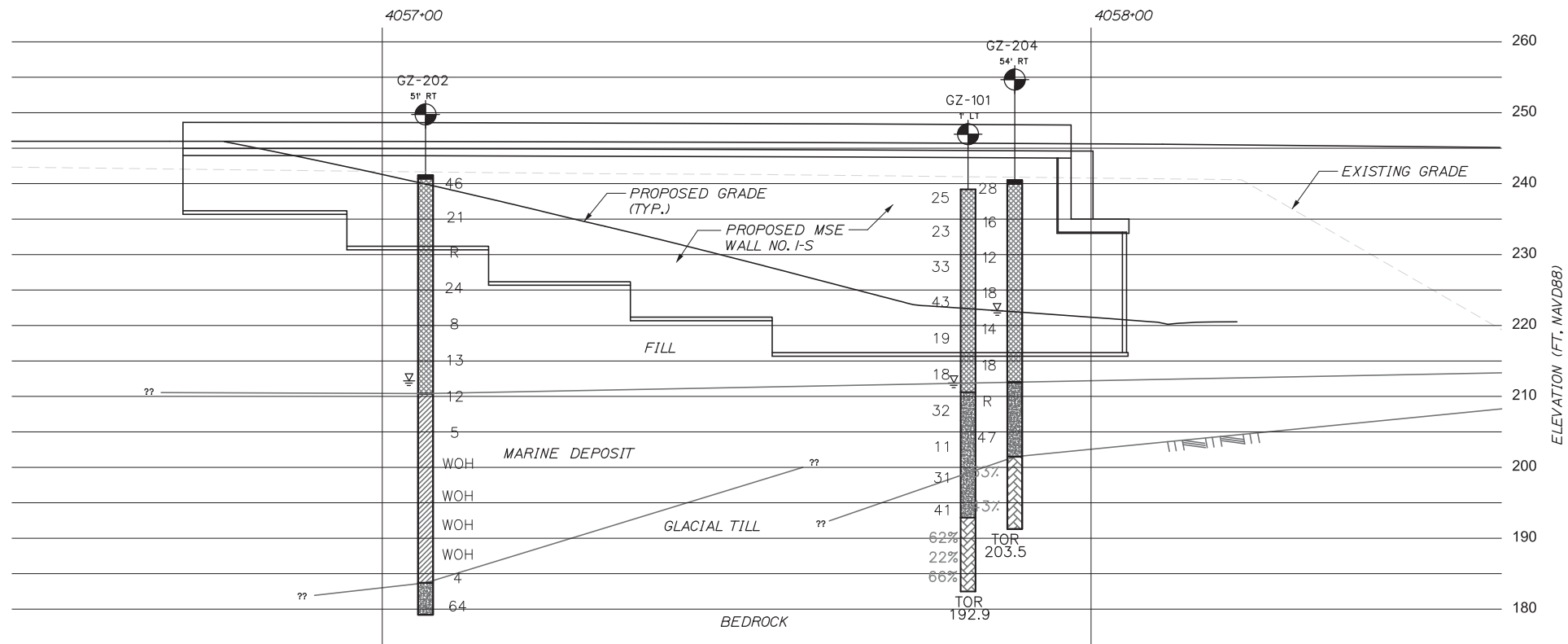
**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 INTERPRETIVE SUBSURFACE PROFILE  
 CROSS SECTIONS

SHEET NUMBER: S-04  
 CONTRACT: 2014.10  
 99 OF 155

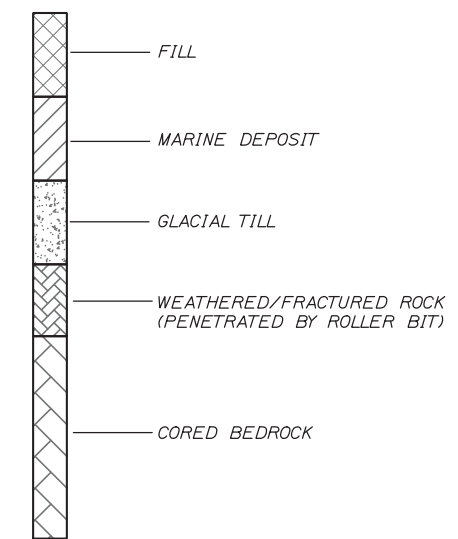
Date: 10/10/2014



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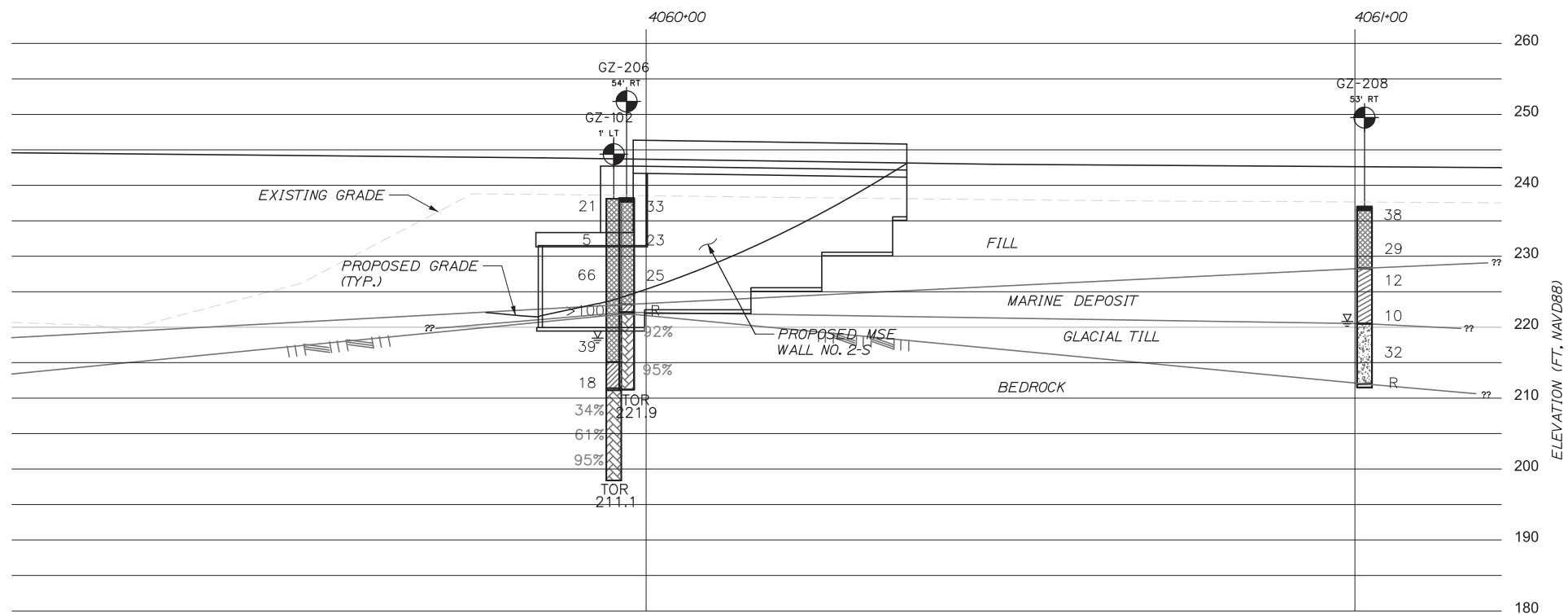
- GZ-101 — INDICATES BOREHOLE DESIGNATION
- El. 239.2 — INDICATES LOCATION OF BOREHOLE AND ELEVATION OF GROUND SURFACE (FT-NAVD 1988)
- 30 — ENERGY-CORRECTED STANDARD PENETRATION TEST (SPT) VALUE, N60
- R — INDICATES REFUSAL
- ∇ — WATER LEVEL (MEASURED IN BOREHOLE DURING/AFTER DRILLING)
- 30% — INDICATES RQD OF CORE RUN
- ROCK CORE
- DRILLING TERMINATED WITHOUT ROCK CORE
- TOR — TOP OF CORED BEDROCK (FT-NAVD 1988)

**BORING STICK HATCH LEGEND:**



**NOTES:**

1. EXISTING GROUND SURFACE AND PROPOSED MSE WALL PROFILES DEVELOPED FROM ELECTRONIC DRAWING FILE DATED APRIL 27, 2014 PROVIDED BY HNTB ENTITLED Z\_WALLS.DGN
2. THE SUBSURFACE PROFILES ARE OFFSET FROM THE BASELINE TO SHOW IDEALIZED CONDITIONS BENEATH MSE RETURN WALLS. SEE "INTERPRETIVE SUBSURFACE CROSS SECTIONS, BRIDGE ABUTMENTS" FOR IDEALIZED CONDITIONS BENEATH ABUTMENTS.
3. THIS GENERALIZED INTERPRETIVE SUBSURFACE PROFILE IS INTENDED TO CONVEY TRENDS IN SUBSURFACE CONDITIONS. THE BOUNDARIES BETWEEN STRATA ARE APPROXIMATE AND IDEALIZED, AND HAVE BEEN DEVELOPED BY INTERPRETATIONS OF WIDELY SPACED EXPLORATIONS AND SAMPLES. ACTUAL SOIL AND BEDROCK TRANSITIONS MAY VARY AND ARE PROBABLY MORE ERRATIC. FOR MORE SPECIFIC INFORMATION REFER TO THE EXPLORATION LOGS.



RETAINING WALL NO. 1-S / 2-S PROFILE

No.	Revision	By	Date

Designed by:

**GZA**

CONSULTANT PROJECT MANAGER: Andrew R. Blaisdell, P.E., G.E.

	By	Date		By	Date
Designed	GZA	10/14	Checked	GZA	10/14
Drawn	GZA	10/14	In Charge of	GZA	10/14

HNTB CORPORATION  
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)

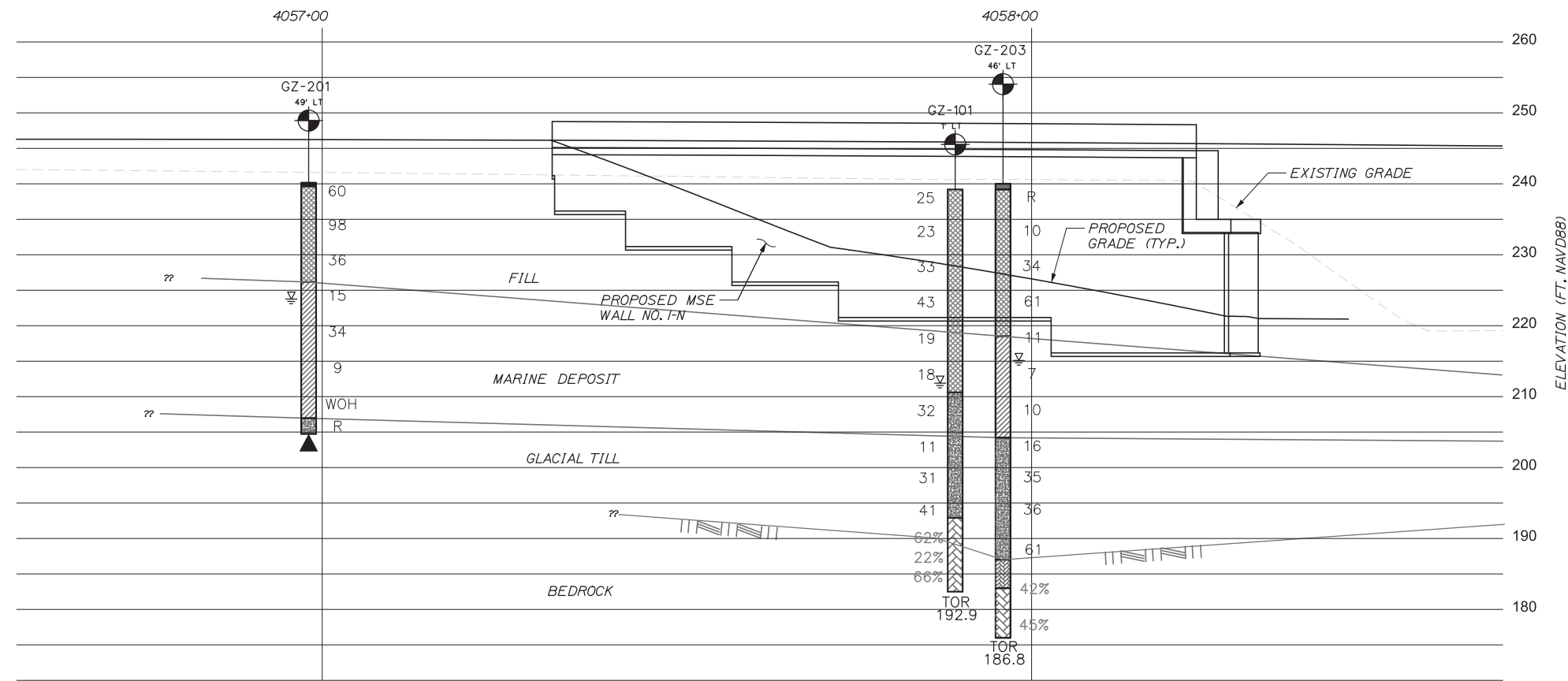
INTERPRETIVE SUBSURFACE PROFILE I

SHEET NUMBER: S-05  
 100 OF 155

CONTRACT: 2014.10

Filename: 100\_Subsurface Profile 1.dgn

Date:10/10/2014



**LEGEND:**

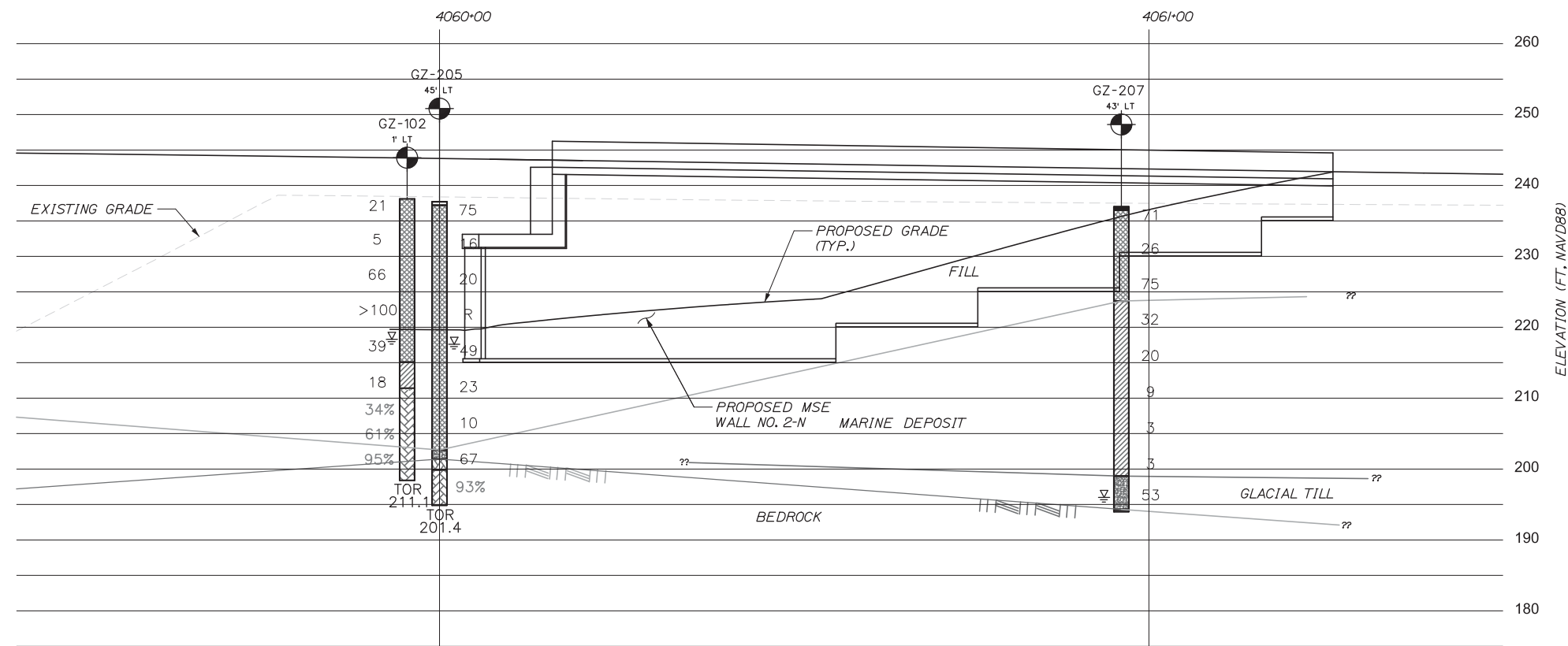
- GZ-101 — INDICATES BOREHOLE DESIGNATION
- El. 239.2 — INDICATES LOCATION OF BOREHOLE AND ELEVATION OF GROUND SURFACE (FT-NAVD 1988)
- 30 — ENERGY-CORRECTED STANDARD PENETRATION TEST (SPT) VALUE, N60
- R — INDICATES REFUSAL
- ∇ — WATER LEVEL (MEASURED IN BOREHOLE DURING/AFTER DRILLING)
- 30% — INDICATES RQD OF CORE RUN
- ROCK CORE
- DRILLING TERMINATED WITHOUT ROCK CORE
- ▲ — TOP OF CORED BEDROCK (FT-NAVD 1988)

**BORING STICK HATCH LEGEND:**

- FILL
- MARINE DEPOSIT
- GLACIAL TILL
- WEATHERED/FRACTURED ROCK (PENETRATED BY ROLLER BIT)
- CORED BEDROCK

**NOTES:**

1. EXISTING GROUND SURFACE AND PROPOSED MSE WALL PROFILES DEVELOPED FROM ELECTRONIC DRAWING FILE DATED APRIL 27, 2014 PROVIDED BY HNTB ENTITLED Z\_WALLS.DGN
2. THE SUBSURFACE PROFILES ARE OFFSET FROM THE BASELINE TO SHOW IDEALIZED CONDITIONS BENEATH MSE RETURN WALLS. SEE "INTERPRETIVE SUBSURFACE CROSS SECTIONS, BRIDGE ABUTMENTS" FOR IDEALIZED CONDITIONS BENEATH ABUTMENTS.
3. THIS GENERALIZED INTERPRETIVE SUBSURFACE PROFILE IS INTENDED TO CONVEY TRENDS IN SUBSURFACE CONDITIONS. THE BOUNDARIES BETWEEN STRATA ARE APPROXIMATE AND IDEALIZED, AND HAVE BEEN DEVELOPED BY INTERPRETATIONS OF WIDELY SPACED EXPLORATIONS AND SAMPLES. ACTUAL SOIL AND BEDROCK TRANSITIONS MAY VARY AND ARE PROBABLY MORE ERRATIC. FOR MORE SPECIFIC INFORMATION REFER TO THE EXPLORATION LOGS.



RETAINING WALL NO. 1-N / 2-N PROFILE

Scale:

No.	Revision	By	Date

Designed by:

**GZA**

CONSULTANT PROJECT MANAGER: Andrew R. Blaisdell, P.E., G.E.			
	By	Date	
Designed	GZA	10/14	Checked GZA 10/14
Drawn	GZA	10/14	In Charge of GZA 10/14

HNTB CORPORATION  
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 Westbrook, ME 04092  
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 FAX (207) 228-0909

**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)

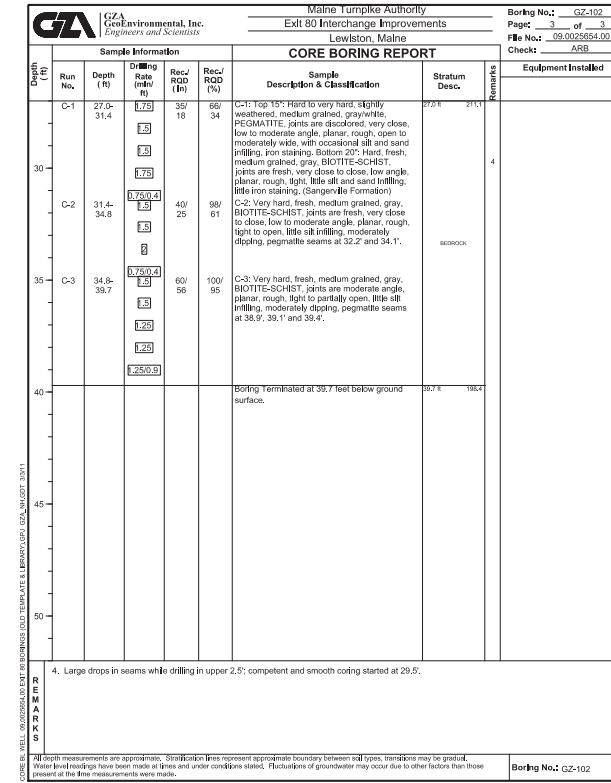
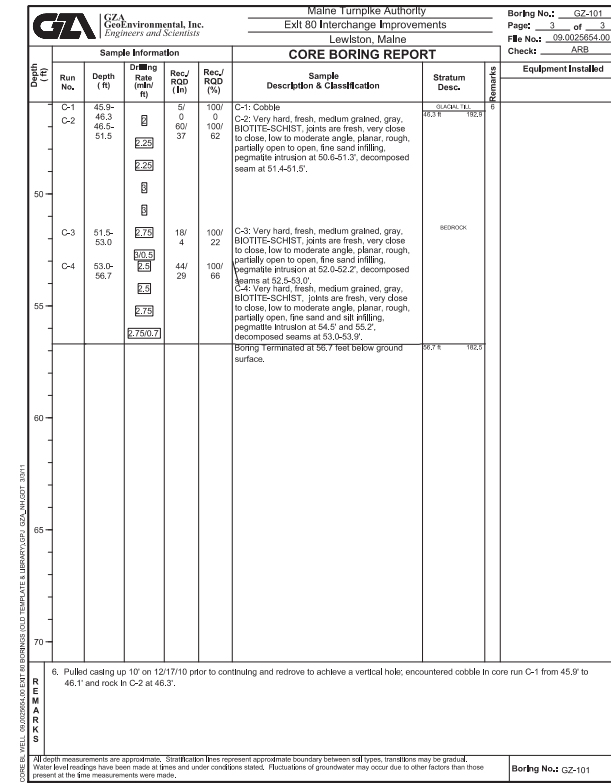
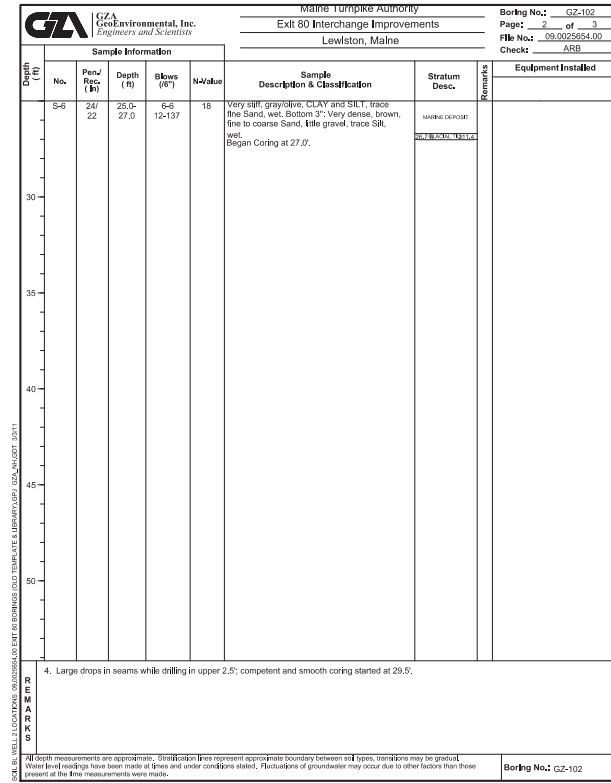
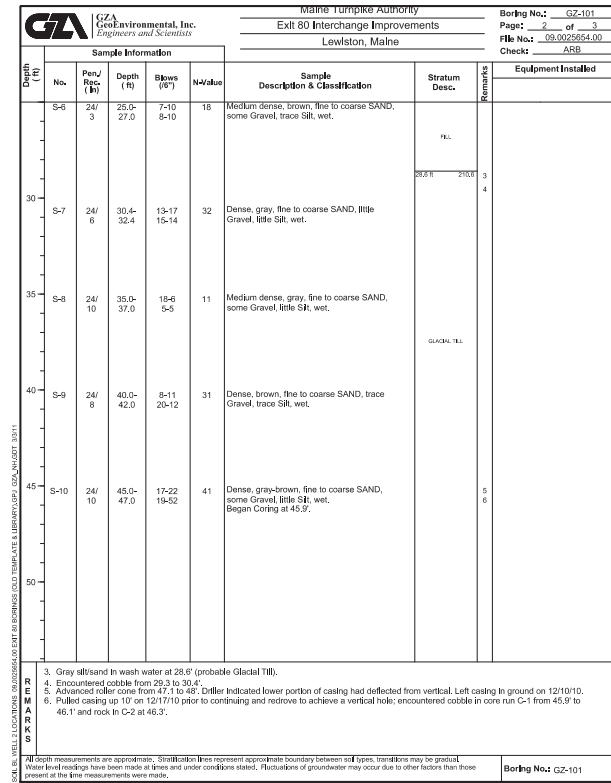
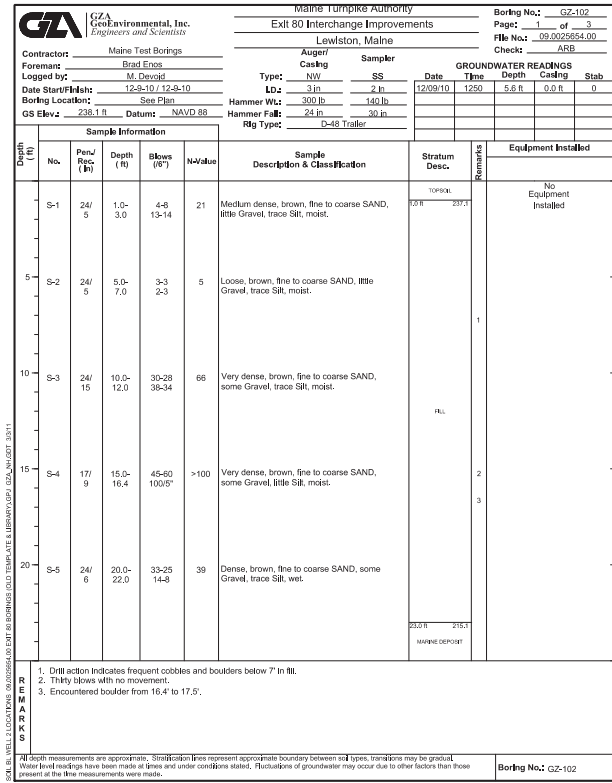
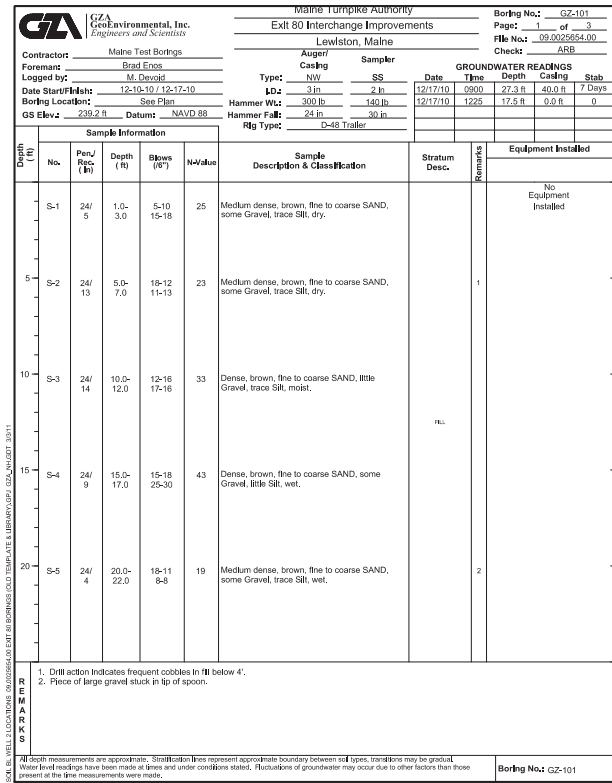
INTERPRETIVE SUBSURFACE PROFILE 2

SHEET NUMBER: S-06

CONTRACT:2014.10

101 OF 155


Date: 10/10/2014



Scale:

No.	Revision	By	Date

Designed by:



CONSULTANT PROJECT MANAGER: Andrew R. Blaisdell, P.E., G.E.			
Designed	GZA	10/14	Checked
Drawn	GZA	10/14	In Charge of

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 Westbrook, ME 04092  
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**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 BORING LOG I

SHEET NUMBER: S-07  
 CONTRACT: 2014.10  
 102 OF 155

Date: 10/10/2014

**GA** GeoEnvironmental, Inc. **MAINE TURNPIKE AUTHORITY** **Boring No. GZ-105**  
 Exit 80 Interchange Improvements **Page 1 of 2**  
 Lewiston, Maine **File No. 09.002954.00**  
 Check: ARB

Contractor: Maine Test Borings  
 Foreman: Brad Egan  
 Logged by: M. Devoti  
 Date Start/Finish: 12-17-10 / 1-26-11  
 Boring Location: See Plan  
 GS Elev.: 232.2 ft Datum: NAVD88

Auger: Type SS Date 01/28/11  
 Casing: 3 in. 2 in.  
 Sampler: Hammer Wt.: 300 lb. 140 lb.  
 Hammer Fall: 24 in. 30 in.  
 Rig Type: D-48 Trailer

Depth (ft)	Sample Information					Stratum Desc.	Remarks	Equipment Installed
	No.	Pen/Rec. (ft)	Depth (ft)	Blows (F)	N-Value			
3-3	24/12	25.0-27.0	9-8	6-6	11	Silt, gray, CLAY and SILT, some fine SAND, trace Gravel, wet.	MAINE DEPOSIT	
30	S-4	24/4	30.0-32.0	16-22	20-14	Dense, gray, fine to coarse SAND, some SILT, little Gravel, wet.	GLACIAL TILL	
35	S-5	24/4	33.0-35.0	16-12	15-16	Medium dense, gray, fine to coarse SAND, some Gravel, trace SIL, wet.	GLACIAL TILL	
15	S-1	2/1	15.0-15.2	50/0.2		Piece of decomposed rock.		
20	S-2	24/12	18.0-20.0	22-74	46-39	Brown, fine to coarse SAND, some Gravel, trace SIL.		

REMARKS:  
 1. Soil description based on drill cuttings.  
 2. Split spoon refusal, drill through boulder from 15.2' to 18.0'.  
 3. Test boring drilled in two stages due to time constraints and weather. 0-20' drilled on 12/17/10 and 20-35' from 1/24/11 to 1/26/11.

REMARKS:  
 1. All depth measurements are approximate. Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at three and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No. GZ-105

**GA** GeoEnvironmental, Inc. **MAINE TURNPIKE AUTHORITY** **Boring No. GZ-105**  
 Exit 80 Interchange Improvements **Page 2 of 2**  
 Lewiston, Maine **File No. 09.002954.00**  
 Check: ARB

Depth (ft)	Sample Information					Stratum Desc.	Remarks	Equipment Installed
	No.	Pen/Rec. (ft)	Depth (ft)	Blows (F)	N-Value			
30	S-4	24/4	30.0-32.0	16-22	20-14	Dense, gray, fine to coarse SAND, some SILT, little Gravel, wet.	GLACIAL TILL	
35	S-5	24/4	33.0-35.0	16-12	15-16	Medium dense, gray, fine to coarse SAND, some Gravel, trace SIL, wet.	GLACIAL TILL	

REMARKS:  
 4. No refusal.

REMARKS:  
 1. All depth measurements are approximate. Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at three and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No. GZ-105

**GA** GeoEnvironmental, Inc. **MAINE TURNPIKE AUTHORITY** **Boring No. GZ-110A**  
 Exit 80 Interchange Improvements **Page 1 of 2**  
 Lewiston, Maine **File No. 09.002954.00**  
 Check: ARB

Contractor: Maine Test Borings  
 Foreman: Rich Leonard  
 Logged by: M. Devoti  
 Date Start/Finish: 1-2-11 / 1-7-11  
 Boring Location: See Plan  
 GS Elev.: 217.0 ft Datum: NAVD88

Auger: Type SS Date 01/07/11  
 Casing: 4.25 in. 2 in.  
 Sampler: Hammer Wt.: 140 lb.  
 Hammer Fall: 30 in.  
 Rig Type: D-48 Trailer

Depth (ft)	Sample Information					Stratum Desc.	Remarks	Equipment Installed
	No.	Pen/Rec. (ft)	Depth (ft)	Blows (F)	N-Value			
5	S-1	24/18	2.0-4.0	1-1	4-8	Medium stiff, olive/gray, Clayey SILT, trace fine to coarse Sand, wet.		
5	S-2	24/24	5.0-7.0	3-3	5-5	Medium stiff, olive, Clayey SILT, little fine to medium Sand, wet, fine sand lenses spaced 1-2".		
10	S-3	24/22	10.0-12.0	1-1/12"	2	Medium stiff, gray, Silty CLAY, trace fine to medium Sand, wet.	WOOD CORNER	
15	S-4	24/24	15.0-17.0	1-1	2-2	Medium stiff, gray, Silty CLAY, trace fine to medium Sand, wet.	GLACIAL TILL	
50	S-5	24/3	20.0-22.0	5-9	12-4	Medium dense, gray, fine to coarse SAND and Silty CLAY, piece of gravel stuck in tip of spoon, wet.	GLACIAL TILL	

REMARKS:  
 1. Ground surface elevation was estimated to the nearest foot based on field measurements and interpolation between contour data.  
 2. Soil description based on drill cuttings.  
 3. Sand heaved approximately 5 to 6' into augers at 25'. Terminated in running sand with no refusal. Moved approximately 5' and drilled boring GZ-110-B using casing.

REMARKS:  
 1. All depth measurements are approximate. Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at three and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No. GZ-110A

**GA** GeoEnvironmental, Inc. **MAINE TURNPIKE AUTHORITY** **Boring No. GZ-110A**  
 Exit 80 Interchange Improvements **Page 2 of 2**  
 Lewiston, Maine **File No. 09.002954.00**  
 Check: ARB

Depth (ft)	Sample Information					Stratum Desc.	Remarks	Equipment Installed
	No.	Pen/Rec. (ft)	Depth (ft)	Blows (F)	N-Value			
25.15								

REMARKS:  
 1. All depth measurements are approximate. Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at three and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No. GZ-110A

**GA** GeoEnvironmental, Inc. **MAINE TURNPIKE AUTHORITY** **Boring No. GZ-110B**  
 Exit 80 Interchange Improvements **Page 1 of 2**  
 Lewiston, Maine **File No. 09.002954.00**  
 Check: ARB

Contractor: Maine Test Borings  
 Foreman: Rich Leonard  
 Logged by: M. Devoti  
 Date Start/Finish: 1-7-11 / 1-7-11  
 Boring Location: See Plan  
 GS Elev.: 217.0 ft Datum: NAVD88

Auger: Type Drive & Wash SS Date 01/07/11  
 Casing: 3 in. 2 in.  
 Sampler: Hammer Wt.: 300 lb. 140 lb.  
 Hammer Fall: 24 in. 30 in.  
 Rig Type: D-48 Trailer

Depth (ft)	Sample Information					Stratum Desc.	Remarks	Equipment Installed
	No.	Pen/Rec. (ft)	Depth (ft)	Blows (F)	N-Value			
30	S-2	15/15	25.0-26.5	16-31	75-500/1.1	Very dense, gray, fine to coarse SAND, little Gravel, trace SIL, mica and quartz pieces.	GLACIAL TILL	
10	V-1	7/7	10.0-10.8			Field Vane V-1, T <sub>u</sub> = 280/125 p-b (Sun=65/295 psf)	MAINE DEPOSIT	
10	V-2	7/7	11.0-11.6			Field Vane V-2, T <sub>u</sub> = 275/80 p-b (Sun=65/190 psf)	MAINE DEPOSIT	
18	V-3	7/7	18.0-18.6			Field Vane V-3, T <sub>u</sub> = 80/60 p-b (Sun=100/45 psf)	MAINE DEPOSIT	
18	V-4	24/18	18.0-19.6			Top: Gray, Silty CLAY, trace fine Sand. Bottom: Gray, fine to medium SAND and Silty CLAY. Field Vane V-4, T <sub>u</sub> = 570/100 p-b (Sun=1300/240 psf)	GLACIAL TILL	

REMARKS:  
 1. Ground surface elevation was estimated to the nearest foot based on field measurements and interpolation between contour data.  
 2. Tapered vane with 2.5" diameter, 4.5" height and 45 degree taper was used for field vane tests. T<sub>u</sub> = measured Torque, Sun=Correlated undrained shear strength.  
 3. Split spoon refusal at 26.5' below ground surface.

REMARKS:  
 1. All depth measurements are approximate. Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at three and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No. GZ-110B

**GA** GeoEnvironmental, Inc. **MAINE TURNPIKE AUTHORITY** **Boring No. GZ-110B**  
 Exit 80 Interchange Improvements **Page 2 of 2**  
 Lewiston, Maine **File No. 09.002954.00**  
 Check: ARB

Depth (ft)	Sample Information					Stratum Desc.	Remarks	Equipment Installed
	No.	Pen/Rec. (ft)	Depth (ft)	Blows (F)	N-Value			
30	S-2	15/15	25.0-26.5	16-31	75-500/1.1	Very dense, gray, fine to coarse SAND, little Gravel, trace SIL, mica and quartz pieces.	GLACIAL TILL	

REMARKS:  
 1. All depth measurements are approximate. Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at three and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Boring No. GZ-110B

**GA** GeoEnvironmental, Inc. **MAINE TURNPIKE AUTHORITY** **Boring No. GZ-201**  
 Exit 80 Interchange Improvement **Page 1 of 2**  
 Lewiston, Maine **File No. 09.002954.00**  
 Check: ARB

Contractor: Maine Test Borings  
 Foreman: E. Lonsain  
 Logged by: M. Devoti  
 Date Start/Finish: 12/20/12 - 12/20/12

Auger: Type SSA & Drive & Wash Date 12/20/12  
 Casing: 4.5" Date 12/20/12  
 Sampler: Hammer Wt.: 140 lb. Hammer Fall: 24 in. Rig Type: D-48 Trailer

Depth (ft)	Sample Information					Stratum Desc.	Remarks	Equipment Installed
	No.	Pen/Rec. (ft)	Depth (ft)	Blows (F)	N-Value			
5	S1	0.5-2.5	24	8	18 31	S1: Very dense, brown, fine to coarse SAND and GRAVEL, trace SIL, dry, (SP)		
5	S2	5.0-7.0	24	15	23 48	S2: Very dense, brown, fine to coarse SAND, some Gravel, trace SIL, dry, (SP)		
10	S3	10.0-12.0	24	13	20 21	S3: Top 11": Dense, brown, fine to coarse SAND and GRAVEL, little SIL, moist, (SP) Bottom 2": Silt, olive, Clayey SILT and fine to coarse Sand.		
15	S4	15.0-17.0	24	9	4 6	S4: Silt to very stiff, olive, Silty CLAY, trace Sand, iron staining, wet, (CL)		
20	S5	20.0-22.0	24	10	9 13	S5: Hard, olive, Silty CLAY, mottled, moist, (CL)		
25	S6	25.0-27.0	24	3	3 4	S6: Silt, olive, Silty CLAY, wet, with fine Sand partings, (CL)		

REMARKS:  
 1 - Pavement thickness = 4"  
 2 - Auger difficulty 12-13.5', possible cobbles/boulders.  
 3 - Switched to drive & wash with 3" casing at approximately 17' bgs.  
 4 - Stopped advancing casing, continued open hole.

REMARKS:  
 1. All depth measurements are approximate. Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at three and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Exploration No. GZ-201

**GA** GeoEnvironmental, Inc. **MAINE TURNPIKE AUTHORITY** **Boring No. GZ-201**  
 Exit 80 Interchange Improvement **Page 2 of 2**  
 Lewiston, Maine **File No. 09.002954.00**  
 Check: ARB

Depth (ft)	Sample Information					Stratum Desc.	Remarks	Equipment Installed
	No.	Pen/Rec. (ft)	Depth (ft)	Blows (F)	N-Value			
30	S7	30.0-32.0	24	24	WOR 2	S7: Silt to medium stiff, gray, silty CLAY, wet, (CL)		
35	S8	34.2-35.4	0	0	300'	S8: Split spoon refusal. End of exploration at 35.4 feet.		

REMARKS:  
 5 - Increased auger resistance at 33.2', became more difficult at 34.2'; possible TILL or Weathered Rock.  
 6 - Advanced augers to refusal at 35.4'; probable bedrock.

REMARKS:  
 1. All depth measurements are approximate. Stratification lines represent approximate boundary between soil types, transitions may be gradual. Water level readings have been made at three and under conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time measurements were made.

Exploration No. GZ-201

Filename: 103\_Boring Log II.dgn

Scale:

No.	Revision	By	Date

Designed by:

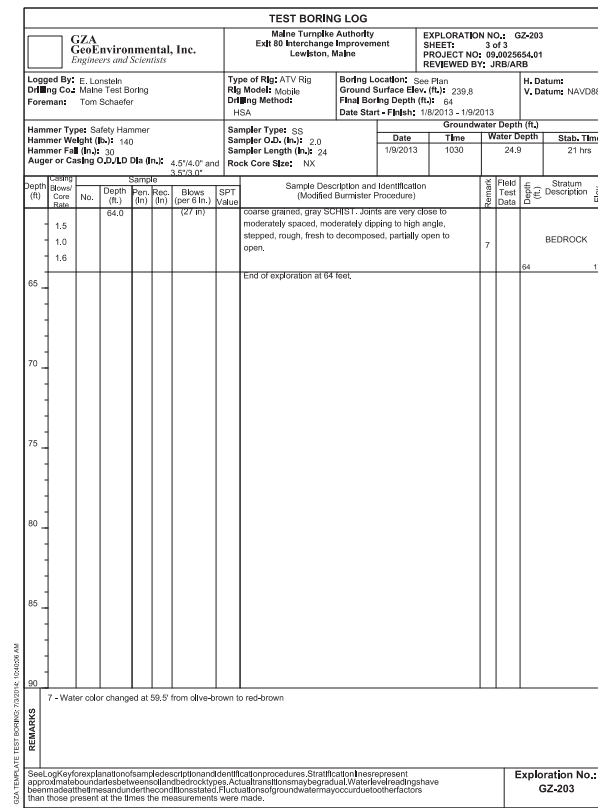
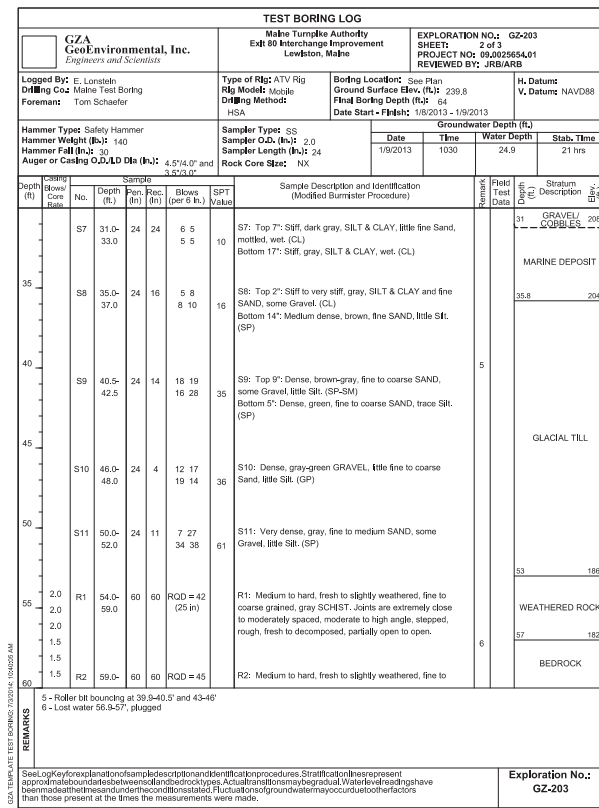
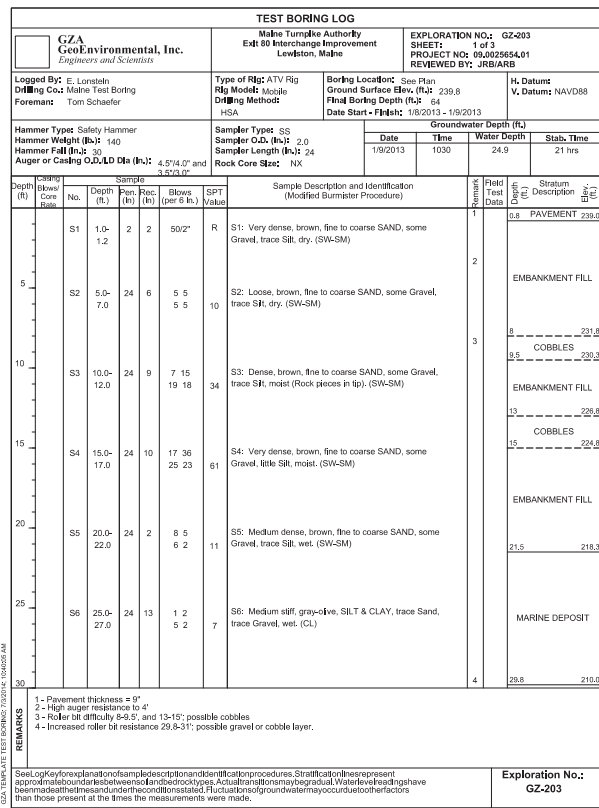
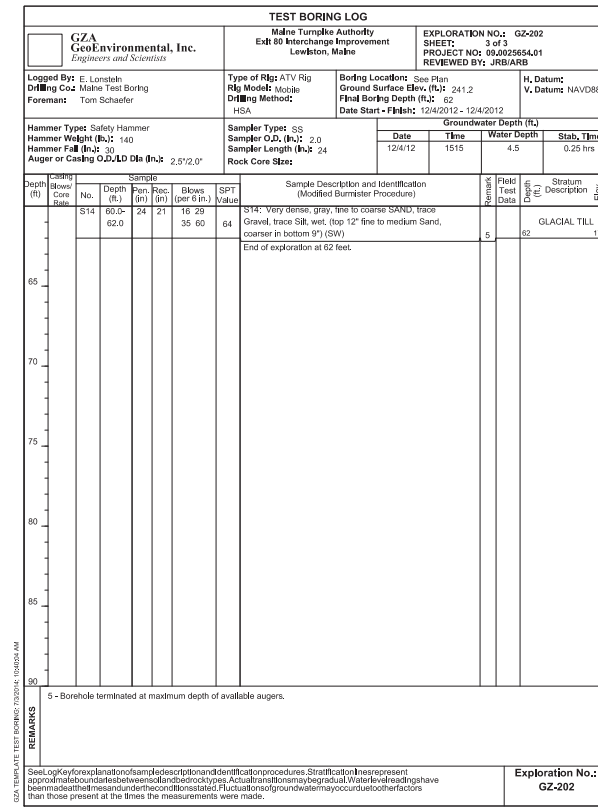
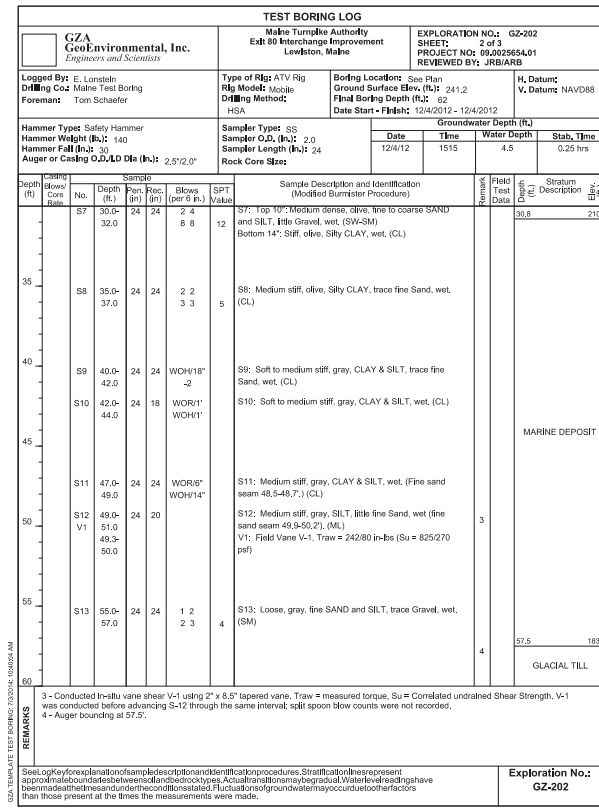
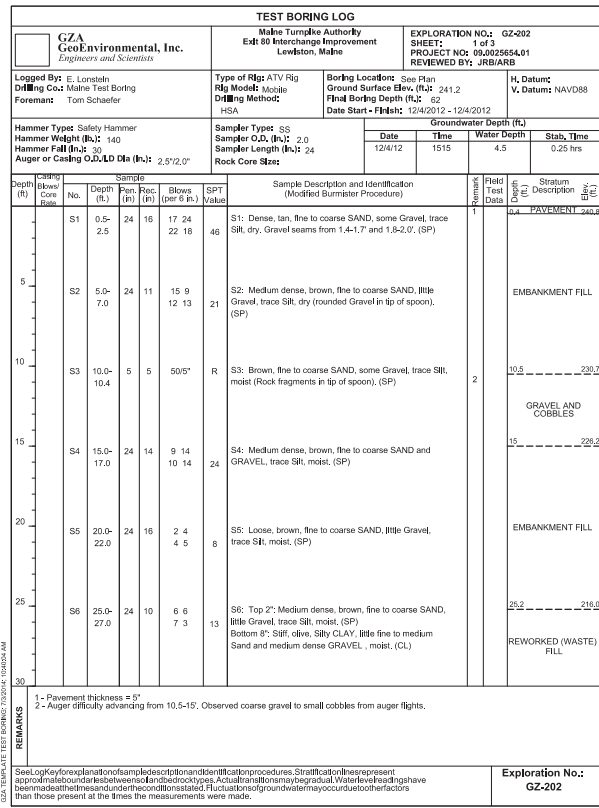
CONSULTANT PROJECT MANAGER:	Andrew R. Blaisdell, P.E., G.E.
Designed	GZA 10/14
Checked	GZA 10/14
Drawn	GZA 10/14

HNTB CORPORATION  
 340 County Road, Suite 6-C  
 Westbrook, ME 04092  
 TEL (207) 774-5155  
 FAX (207) 228-0909

**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

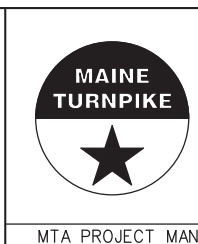
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.



Scale: Table with columns for No., Revision, By, Date. Includes a revision history table.

Designed by: GZA logo and signature block for Andrew R. Blaisdell, P.E., G.E. Includes a signature table with columns for By, Date, Checked, and Drawn.

HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909



THE GOLD STAR MEMORIAL HIGHWAY

INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80) BORING LOG III SHEET NUMBER: S-09 CONTRACT: 2014.10 104 OF 155



TEST BORING LOG		Maine Turnpike Authority Exit 80 Interchange Improvement Lewiston, Maine		EXPLORATION NO.: GZ-204 SHEET: 1 of 2 PROJECT NO: 09.022554.01 REVIEWED BY: JRB/ARB																	
Logged By: E. Lonsbath Drilling Co: Maine Test Boring Foreman: Tom Schaefer		Type of Rig: ATV Rig Rig Model: Mobile Drilling Method: HSA		Boring Location: See Plan Ground Surface Elev. (ft.): 240.5 Final Boring Depth (ft.): 49.2 Date Start - Finish: 12/02/12 - 12/02/12																	
Hammer Type: Safety Hammer Hammer Weight (lb.): 140 Hammer Fall (ft.): 30 Auger or Casing O.D. Dia. (in.): 4.574, 0"		Sampler Type: SS Sampler O.D. (in.): 2.0 Sampler Length (in.): 24 Rock Core Size: NK		H. Datum: NAVD88 V. Datum: NAVD88 Groundwater Depth (ft.) <table border="1"> <tr><th>Date</th><th>Time</th><th>Water Depth</th><th>Stab. Time</th></tr> <tr><td>12/02/12</td><td>1430</td><td>24.2</td><td>0.5 hrs</td></tr> <tr><td>12/02/12</td><td>0910</td><td>20.5</td><td>17.5 hrs</td></tr> <tr><td>12/02/12</td><td>1300</td><td>18.4</td><td>1.1 hr</td></tr> </table>		Date	Time	Water Depth	Stab. Time	12/02/12	1430	24.2	0.5 hrs	12/02/12	0910	20.5	17.5 hrs	12/02/12	1300	18.4	1.1 hr
Date	Time	Water Depth	Stab. Time																		
12/02/12	1430	24.2	0.5 hrs																		
12/02/12	0910	20.5	17.5 hrs																		
12/02/12	1300	18.4	1.1 hr																		
Depth (ft.)	Blow Count (per 6 ft.)	Sample Description and Identification (Modified Burner Procedure)		Stratum Description (per 6 ft.)	Stratum Elevation (ft.)																
0	S1	17	S1: Medium dense, brown, fine to coarse SAND, some Gravel, trace Silt, moist.	PAVEMENT	232.2																
5	S2	8	S2: Medium dense, brown, fine to coarse SAND, some Gravel, trace Silt, moist. (SP)	EMBANKMENT FILL	201.4																
10	S3	5	S3: No Recovery (piece of gravel in tip of spoon)	EMBANKMENT FILL	211.7																
15	S4	8	S4: Medium dense, brown, fine to coarse SAND, little Gravel, trace Silt, moist. (SW-SM)	EMBANKMENT FILL	211.7																
20	S5	8	S5: No Recovery	EMBANKMENT FILL	211.7																
25	S6	6	S6: Medium dense, brown to gray, fine to coarse SAND, little Gravel, trace Silt, wet. (SW-SM)	EMBANKMENT FILL	211.7																
30				GLACIAL TILL	211.7																
REMARKS: 1 - Pavement thickness = 4" 2 - Increased auger resistance from 28.8-30"																					
See Log Key for explanation of sample descriptions and identification procedures. Stratification in this report is approximate and based on field observations. Actual stratification may be different. Water level readings have been made at the time and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time the measurements were made.																					
				Exploration No.: GZ-204																	

TEST BORING LOG		Maine Turnpike Authority Exit 80 Interchange Improvement Lewiston, Maine		EXPLORATION NO.: GZ-204 SHEET: 2 of 2 PROJECT NO: 09.022554.01 REVIEWED BY: JRB/ARB																	
Logged By: E. Lonsbath Drilling Co: Maine Test Boring Foreman: Tom Schaefer		Type of Rig: ATV Rig Rig Model: Mobile Drilling Method: HSA		Boring Location: See Plan Ground Surface Elev. (ft.): 240.5 Final Boring Depth (ft.): 49.2 Date Start - Finish: 12/02/12 - 12/02/12																	
Hammer Type: Safety Hammer Hammer Weight (lb.): 140 Hammer Fall (ft.): 30 Auger or Casing O.D. Dia. (in.): 4.574, 0"		Sampler Type: SS Sampler O.D. (in.): 2.0 Sampler Length (in.): 24 Rock Core Size: NK		H. Datum: NAVD88 V. Datum: NAVD88 Groundwater Depth (ft.) <table border="1"> <tr><th>Date</th><th>Time</th><th>Water Depth</th><th>Stab. Time</th></tr> <tr><td>12/02/12</td><td>1430</td><td>24.2</td><td>0.5 hrs</td></tr> <tr><td>12/02/12</td><td>0910</td><td>20.5</td><td>17.5 hrs</td></tr> <tr><td>12/02/12</td><td>1300</td><td>18.4</td><td>1.1 hr</td></tr> </table>		Date	Time	Water Depth	Stab. Time	12/02/12	1430	24.2	0.5 hrs	12/02/12	0910	20.5	17.5 hrs	12/02/12	1300	18.4	1.1 hr
Date	Time	Water Depth	Stab. Time																		
12/02/12	1430	24.2	0.5 hrs																		
12/02/12	0910	20.5	17.5 hrs																		
12/02/12	1300	18.4	1.1 hr																		
Depth (ft.)	Blow Count (per 6 ft.)	Sample Description and Identification (Modified Burner Procedure)		Stratum Description (per 6 ft.)	Stratum Elevation (ft.)																
0	S7	9	S7: Brown to gray, fine to coarse SAND, little Gravel, little Silt, moist. (SP-SM)	GLACIAL TILL	200.9																
3	S8	14	S8: Dense, brown, fine to coarse SAND, some Gravel, little Silt, wet. (SW-SM)	GLACIAL TILL	200.9																
39	R1	60	R1: Very hard, fresh, coarse grained, orange-green-black PEGMATITIC GRANITE. Joints are dense to moderately spaced, moderately dipping, undulating, fresh to discolorated, rough, open, with sand infilling.	ROCK	201.4																
40	R2	62	R2: Top 17": Very hard, fresh, coarse grained, orange-green-black PEGMATITIC GRANITE. Joints are dense to moderately spaced, moderately dipping, undulating, fresh to discolorated, rough, open, with sand infilling. Bottom 43": Very hard, fine to coarse grained, gray GRANITE. Joints are extremely dense to moderately spaced, low to moderately dipping, undulating, rough, fresh to discolorated, open, with sand infilling. Highly fractured zones at 44-44.4', 46.8-47.1', and 47.5-48.1'. End of exploration at 49.2 feet.	BEDROCK	191.3																
REMARKS: 3 - From 28.8-32.5', roller bit bouncing, can't advance spoon or casing. Likely cobbles and boulders. 4 - Core barrel plugged at 47' and 49.2'.																					
See Log Key for explanation of sample descriptions and identification procedures. Stratification in this report is approximate and based on field observations. Actual stratification may be different. Water level readings have been made at the time and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time the measurements were made.																					
				Exploration No.: GZ-204																	

TEST BORING LOG		Maine Turnpike Authority Exit 80 Interchange Improvement Lewiston, Maine		EXPLORATION NO.: GZ-205 SHEET: 1 of 2 PROJECT NO: 09.022554.01 REVIEWED BY: JRB/ARB									
Logged By: E. Lonsbath Drilling Co: Maine Test Boring Foreman: Tom Schaefer		Type of Rig: ATV Rig Rig Model: Mobile Drilling Method: HSA		Boring Location: See Plan Ground Surface Elev. (ft.): 237.7 Final Boring Depth (ft.): 42.8 Date Start - Finish: 12/10/12 - 12/14/2012									
Hammer Type: Safety Hammer Hammer Weight (lb.): 140 Hammer Fall (ft.): 30 Auger or Casing O.D. Dia. (in.): 4.574, 0" and 4.573, 0"		Sampler Type: SS Sampler O.D. (in.): 2.0 Sampler Length (in.): 24 Rock Core Size: NK		H. Datum: NAVD88 V. Datum: NAVD88 Groundwater Depth (ft.) <table border="1"> <tr><th>Date</th><th>Time</th><th>Water Depth</th><th>Stab. Time</th></tr> <tr><td>12/14/2012</td><td>0845</td><td>20.1</td><td>19 hrs</td></tr> </table>		Date	Time	Water Depth	Stab. Time	12/14/2012	0845	20.1	19 hrs
Date	Time	Water Depth	Stab. Time										
12/14/2012	0845	20.1	19 hrs										
Depth (ft.)	Blow Count (per 6 ft.)	Sample Description and Identification (Modified Burner Procedure)		Stratum Description (per 6 ft.)	Stratum Elevation (ft.)								
0	S1	18	S1: Very dense, brown, fine to coarse SAND, some Gravel, trace Silt, dry. (SP)	PAVEMENT	232.2								
5	S2	15	S2: Medium dense, brown, fine to coarse SAND, some Gravel, trace Silt, dry. (SP)	EMBANKMENT FILL	201.4								
10	S3	12	S3: Medium dense, brown, fine to coarse SAND, some Gravel, trace Silt, dry. (SP)	EMBANKMENT FILL	201.4								
15	S4	4	S4: Dense, brown, fine to coarse SAND, some Gravel, trace Silt, moist. (large Gravel and Rock pieces in tip). (SP)	EMBANKMENT FILL	201.4								
17	R1	36	R1: One 4" long core through boulder and smaller, rounded Rock pieces.	COBBLES AND BOULDERS	219.2								
20	S5	18	S5: Dense, brown, fine to coarse SAND, some Gravel, little Silt, moist. (SP-SM)	EMBANKMENT FILL	219.2								
25	S6	9	S6: Medium dense, brown, fine to coarse SAND, some Gravel, little Silt, moist. (SP-SM)	EMBANKMENT FILL	219.2								
30				COBBLES AND BOULDERS	210.0								
REMARKS: 1 - Pavement thickness = 6" 2 - Installed casing at 10'. 3 - 4" casing was advanced past 15.8'. 3" casing advanced to 16.5'. 4 - 4" casing stopped at 27.7'. Roller Bit to 28".													
See Log Key for explanation of sample descriptions and identification procedures. Stratification in this report is approximate and based on field observations. Actual stratification may be different. Water level readings have been made at the time and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time the measurements were made.													
				Exploration No.: GZ-205									

TEST BORING LOG		Maine Turnpike Authority Exit 80 Interchange Improvement Lewiston, Maine		EXPLORATION NO.: GZ-205 SHEET: 2 of 2 PROJECT NO: 09.022554.01 REVIEWED BY: JRB/ARB									
Logged By: E. Lonsbath Drilling Co: Maine Test Boring Foreman: Tom Schaefer		Type of Rig: ATV Rig Rig Model: Mobile Drilling Method: HSA		Boring Location: See Plan Ground Surface Elev. (ft.): 237.7 Final Boring Depth (ft.): 42.8 Date Start - Finish: 12/10/2012 - 12/14/2012									
Hammer Type: Safety Hammer Hammer Weight (lb.): 140 Hammer Fall (ft.): 30 Auger or Casing O.D. Dia. (in.): 4.574, 0" and 4.573, 0"		Sampler Type: SS Sampler O.D. (in.): 2.0 Sampler Length (in.): 24 Rock Core Size: NK		H. Datum: NAVD88 V. Datum: NAVD88 Groundwater Depth (ft.) <table border="1"> <tr><th>Date</th><th>Time</th><th>Water Depth</th><th>Stab. Time</th></tr> <tr><td>12/14/2012</td><td>0845</td><td>20.1</td><td>19 hrs</td></tr> </table>		Date	Time	Water Depth	Stab. Time	12/14/2012	0845	20.1	19 hrs
Date	Time	Water Depth	Stab. Time										
12/14/2012	0845	20.1	19 hrs										
Depth (ft.)	Blow Count (per 6 ft.)	Sample Description and Identification (Modified Burner Procedure)		Stratum Description (per 6 ft.)	Stratum Elevation (ft.)								
0	S7	4	S7: Silt, olive-gray, SILT & CLAY, some Gravel, little fine to coarse sand, pieces of wood, moist. (CL)	REWORKED (WASTE) FILL	201.4								
5	S8	9	S8: Top 5": Very dense, gray, fine to medium SAND, little Gravel, little Silt, (SP-SM) Bottom 4": Gray, fine SAND and Weathered Rock, Rock pieces in tip. (SP)	GLACIAL TILL	201.4								
3.5	R2	56	R2: Very hard, fresh, medium to coarse grained, gray-green-purple PEGMATITIC GRANITE. Joints are moderately to widely spaced, moderately dipping, stepped, rough, fresh, tight to partially open.	WEATHERED ROCK	201.4								
40				BEDROCK	194.8								
REMARKS: 5 - Losing water 41-41.4'.													
See Log Key for explanation of sample descriptions and identification procedures. Stratification in this report is approximate and based on field observations. Actual stratification may be different. Water level readings have been made at the time and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time the measurements were made.													
				Exploration No.: GZ-205									


TEST BORING LOG		Maine Turnpike Authority Exit 80 Interchange Improvement Lewiston, Maine		EXPLORATION NO.: GZ-206 SHEET: 1 of 1 PROJECT NO: 09.022554.01 REVIEWED BY: JRB/ARB									
Logged By: E. Lonsbath Drilling Co: Maine Test Boring Foreman: Tom Schaefer		Type of Rig: ATV Rig Rig Model: Mobile Drilling Method: HSA		Boring Location: See Plan Ground Surface Elev. (ft.): 238.2 Final Boring Depth (ft.): 27 Date Start - Finish: 12/11/2012 - 12/11/2012									
Hammer Type: Safety Hammer Hammer Weight (lb.): 140 Hammer Fall (ft.): 30 Auger or Casing O.D. Dia. (in.): 4.574, 0" and 4.573, 0"		Sampler Type: SS Sampler O.D. (in.): 2.0 Sampler Length (in.): 24 Rock Core Size: NK		H. Datum: NAVD88 V. Datum: NAVD88 Groundwater Depth (ft.) <table border="1"> <tr><th>Date</th><th>Time</th><th>Water Depth</th><th>Stab. Time</th></tr> <tr><td>12/11/2012</td><td>1440</td><td>4.3</td><td>0.5 hrs</td></tr> </table>		Date	Time	Water Depth	Stab. Time	12/11/2012	1440	4.3	0.5 hrs
Date	Time	Water Depth	Stab. Time										
12/11/2012	1440	4.3	0.5 hrs										
Depth (ft.)	Blow Count (per 6 ft.)	Sample Description and Identification (Modified Burner Procedure)		Stratum Description (per 6 ft.)	Stratum Elevation (ft.)								
0	S1	13	S1: Dense, brown, fine to coarse SAND, some Gravel, trace Silt, dry. (SW-SM)	PAVEMENT	232.2								
5	S2	16	S2: Medium dense, brown, fine to coarse SAND, some Gravel, trace Silt, dry. (SW-SM)	EMBANKMENT FILL	229.2								
10	S3	5	S3: Medium dense, brown, fine to coarse SAND, some Gravel, trace Silt, moist. (SW-SM)	EMBANKMENT FILL	229.2								
15	S4	11	S4: Top 9": Olive, Clayey SILT, moist. (ML) Bottom 2": Clayey SILT and fine to coarse SAND (Rock pieces in tip of spoon). Moist. (ML)	MARINE DEPOSIT	229.2								
2.5	R1	65	R1: Very hard, fresh, medium to coarse grained, gray-green PEGMATITIC GRANITE. Joints are moderately spaced, moderately dipping, stepped, rough, discolorated (red-brown), partially open to open.	WEATHERED ROCK	229.2								
3.0	R2	61	R2: Very hard, fresh, medium to coarse grained, gray PEGMATITIC GRANITE. Joints are moderately spaced, moderately dipping, stepped, rough, discolorated (red-brown), partially open to open.	BEDROCK	191.3								
27				PROBABLE BEDROCK	191.3								
REMARKS: 1 - Pavement thickness = 6" 2 - Roller bit grinding from 9-10.7'. 3 - Initial pieces returned during drilling from 9-10.7', moved hole 4" north, drilled to 10' and retrieved sample S-3.													
See Log Key for explanation of sample descriptions and identification procedures. Stratification in this report is approximate and based on field observations. Actual stratification may be different. Water level readings have been made at the time and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time the measurements were made.													
				Exploration No.: GZ-206									

TEST BORING LOG		Maine Turnpike Authority Exit 80 Interchange Improvement Lewiston, Maine		EXPLORATION NO.: GZ-207 SHEET: 1 of 2 PROJECT NO: 09.022554.01 REVIEWED BY: JRB/ARB													
Logged By: E. Lonsbath Drilling Co: Maine Test Boring Foreman: Tom Schaefer		Type of Rig: ATV Rig Rig Model: Mobile Drilling Method: HSA		Boring Location: See Plan Ground Surface Elev. (ft.): 237 Final Boring Depth (ft.): 43 Date Start - Finish: 12/12/2012 - 12/12/2012													
Hammer Type: Safety Hammer Hammer Weight (lb.): 140 Hammer Fall (ft.): 30 Auger or Casing O.D. Dia. (in.): 2.572, 0"		Sampler Type: SS Sampler O.D. (in.): 2.0 Sampler Length (in.): 24 Rock Core Size: NK		H. Datum: NAVD88 V. Datum: NAVD88 Groundwater Depth (ft.) <table border="1"> <tr><th>Date</th><th>Time</th><th>Water Depth</th><th>Stab. Time</th></tr> <tr><td>12/12/2012</td><td>1145</td><td>4.1</td><td>1.0 hrs</td></tr> <tr><td>12/12/2012</td><td>1230</td><td>1.0</td><td>1.0 hrs</td></tr> </table>		Date	Time	Water Depth	Stab. Time	12/12/2012	1145	4.1	1.0 hrs	12/12/2012	1230	1.0	1.0 hrs
Date	Time	Water Depth	Stab. Time														
12/12/2012	1145	4.1	1.0 hrs														
12/12/2012	1230	1.0	1.0 hrs														
Depth (ft.)	Blow Count (per 6 ft.)	Sample Description and Identification (Modified Burner Procedure)		Stratum Description (per 6 ft.)	Stratum Elevation (ft.)												
0	S1	17	S1: Very dense, tan, fine to coarse SAND, some Gravel, trace Silt, dry. (SW-SM)	PAVEMENT	236.4												
5	S2	20	S2: Medium dense, brown, fine to coarse SAND, some Gravel, trace Silt, dry. (SW-SM)	EMBANKMENT FILL	229.2												
10	S3	13	S3: Very dense, brown, fine to coarse SAND, some Gravel, trace Silt (Gravel piece in tip of spoon), dry. (SW-SM)	EMBANKMENT FILL	229.2												
15	S4	21	S4: Hard, olive-gray, CLAY & SILT, trace fine Sand (some fibers and rocks), moist. (CL)	EMBANKMENT FILL	229.2												
20	S5	24	S5: Very stiff, olive, CLAY & SILT, trace fine Sand, moist. (CL)	MARINE DEPOSIT	229.2												
25	S6	4	S6: Silt, olive, CLAY & SILT, moist. (CL)	MARINE DEPOSIT	229.2												
REMARKS: 1 - Pavement thickness = 7" 2 - Auger difficulty 8.5-9.5'.																	
See Log Key for explanation of sample descriptions and identification procedures. Stratification in this report is approximate and based on field observations. Actual stratification may be different. Water level readings have been made at the time and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time the measurements were made.																	
				Exploration No.: GZ-207													

TEST BORING LOG		Maine Turnpike Authority Exit 80 Interchange Improvement Lewiston, Maine		EXPLORATION NO.: GZ-207 SHEET: 2 of 2 PROJECT NO: 09.022554.01 REVIEWED BY: JRB/ARB													
Logged By: E. Lonsbath Drilling Co: Maine Test Boring Foreman: Tom Schaefer		Type of Rig: ATV Rig Rig Model: Mobile Drilling Method: HSA		Boring Location: See Plan Ground Surface Elev. (ft.): 237 Final Boring Depth (ft.): 43 Date Start - Finish: 12/12/2012 - 12/12/2012													
Hammer Type: Safety Hammer Hammer Weight (lb.): 140 Hammer Fall (ft.): 30 Auger or Casing O.D. Dia. (in.): 2.572, 0"		Sampler Type: SS Sampler O.D. (in.): 2.0 Sampler Length (in.): 24 Rock Core Size: NK		H. Datum: NAVD88 V. Datum: NAVD88 Groundwater Depth (ft.) <table border="1"> <tr><th>Date</th><th>Time</th><th>Water Depth</th><th>Stab. Time</th></tr> <tr><td>12/12/2012</td><td>1145</td><td>4.1</td><td>1.0 hrs</td></tr> <tr><td>12/12/2012</td><td>1230</td><td>1.0</td><td>1.0 hrs</td></tr> </table>		Date	Time	Water Depth	Stab. Time	12/12/2012	1145	4.1	1.0 hrs	12/12/2012	1230	1.0	1.0 hrs
Date	Time	Water Depth	Stab. Time														
12/12/2012	1145	4.1	1.0 hrs														
12/12/2012	1230	1.0	1.0 hrs														
Depth (ft.)	Blow Count (per 6 ft.)	Sample Description and Identification (Modified Burner Procedure)		Stratum Description (per 6 ft.)	Stratum Elevation (ft.)												
0	S7	24	S7: Medium stiff, gray, CLAY & SILT, trace sand, wet. (CL)	MARINE DEPOSIT	232.2												
5	S8	24	S8: Soft to medium stiff, gray, CLAY & SILT, wet. (CL)	MARINE DEPOSIT	191.3												
10	S9	19	S9: Very dense, gray to brown, fine to coarse SAND, some Silt, some Gravel, wet. Iron staining in bottom 5". (SM)	GLACIAL TILL	191.3												
43				PROBABLE BEDROCK	191.3												
REMARKS: 3 - Increased auger resistance at 38'. 4 - Auger refusal at 43', probable rock.																	
See Log Key for explanation of sample descriptions and identification procedures. Stratification in this report is approximate and based on field observations. Actual stratification may be different. Water level readings have been made at the time and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time the measurements were made.																	
				Exploration No.: GZ-207													

TEST BORING LOG		Maine Turnpike Authority Exit 80 Interchange Improvement Lewiston, Maine		EXPLORATION NO.: GZ-208 SHEET: 1 of 1 PROJECT NO: 09.022554.01 REVIEWED BY: JRB/ARB													
Logged By: E. Lonsbath Drilling Co: Maine Test Boring Foreman: Tom Schaefer		Type of Rig: ATV Rig Rig Model: Mobile Drilling Method: HSA		Boring Location: See Plan Ground Surface Elev. (ft.): 255.2 Final Boring Depth (ft.): 25.5 Date Start - Finish: 12/17/2012 - 12/17/2012													
Hammer Type: Safety Hammer Hammer Weight (lb.): 140 Hammer Fall (ft.): 30 Auger or Casing O.D. Dia. (in.): 2.572, 0"		Sampler Type: SS Sampler O.D. (in.): 2.0 Sampler Length (in.): 24 Rock Core Size: NK		H. Datum: NAVD88 V. Datum: NAVD88 Groundwater Depth (ft.) <table border="1"> <tr><th>Date</th><th>Time</th><th>Water Depth</th><th>Stab. Time</th></tr> <tr><td>12/17/2012</td><td>0955</td><td>21.6</td><td>0</td></tr> <tr><td>12/17/2012</td><td>1040</td><td>16.2</td><td>0.5 hrs</td></tr> </table>		Date	Time	Water Depth	Stab. Time	12/17/2012	0955	21.6	0	12/17/2012	1040	16.2	0.5 hrs
Date	Time	Water Depth	Stab. Time														
12/17/2012	0955	21.6	0														
12/17/2012	1040	16.2	0.5 hrs														
Depth (ft.)	Blow Count (per 6 ft.)	Sample Description and Identification (Modified Burner Procedure)		Stratum Description (per 6 ft.)	Stratum Elevation (ft.)												
0	S1	16	S1: Dense, tan, fine to coarse SAND, some Gravel, trace Silt, dry. (SP)	PAVEMENT	236.4												
5	S2	5	S2: Medium dense, brown, fine to medium SAND, some Gravel, trace Silt, moist. (SP)	EMBANKMENT FILL	228.5												
10	S3	4	S3: Silt, olive, CLAY & SILT, with brown Sand partings, moist, wet. (CL)	MARINE DEPOSIT	228.5												
15	S4	4	S4: Silt, olive, CLAY & SILT, with brown Sand partings, moist, wet. (CL)	MARINE DEPOSIT	228.5												
20	S5	11	S5: Top 8": Dense, brown, fine to coarse SAND, some Silt, little Gravel, iron staining, wet. (SP) Middle 6": Hard, olive, Clayey SILT and fine to coarse SAND, wet. (ML) Bottom 6": Dense, brown, fine to coarse SAND, some Silt, little Gravel, iron staining, wet. (SM)	GLACIAL TILL	210.0												
25	S6	2	S6: No Recovery.	PROBABLE BEDROCK	210.0												
REMARKS: 1 - Pavement thickness = 6" 2 - Increased drilling resistance at 16.5', possible TILL. 3 - Increased drilling resistance at 25', auger refusal at 25.5'.																	
See Log Key for explanation of sample descriptions and identification procedures. Stratification in this report is approximate and based on field observations. Actual stratification may be different. Water level readings have been made at the time and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the time the measurements were made.																	
				Exploration No.: GZ-208													

Scale:	Designed by:
No. _____	By _____ Date _____
Revision _____	By _____ Date _____
By _____ Date _____	Checked _____ Date _____
Drawn _____	In Charge of _____ Date _____



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CONSULTANT PROJECT MANAGER: Andrew R. Blaisdell, P.E., G.E.			
By	Date	By	Date
GZA	10/14	GZA	10/14
Drawn	GZA	In Charge of	GZA



**THE GOLD STAR  
MEMORIAL HIGHWAY**

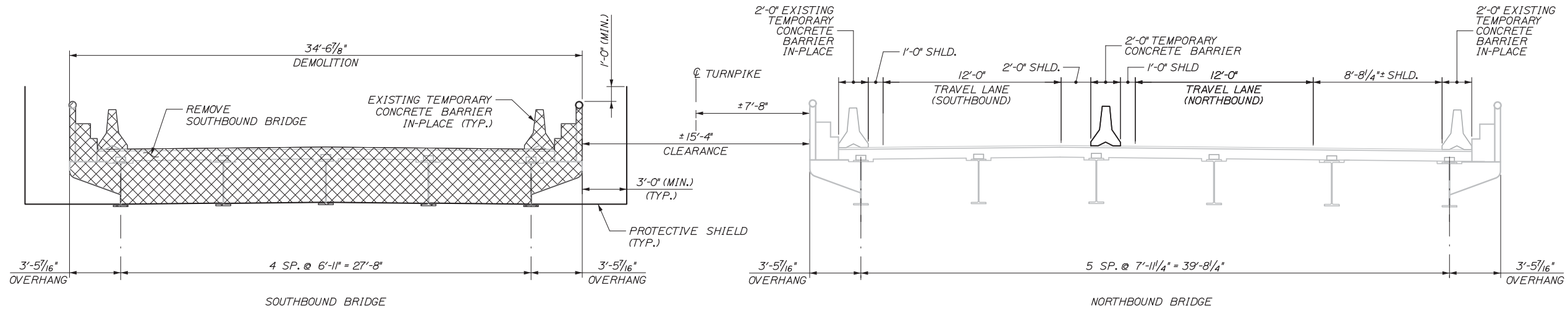
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

**INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)**

BORING LOG IV

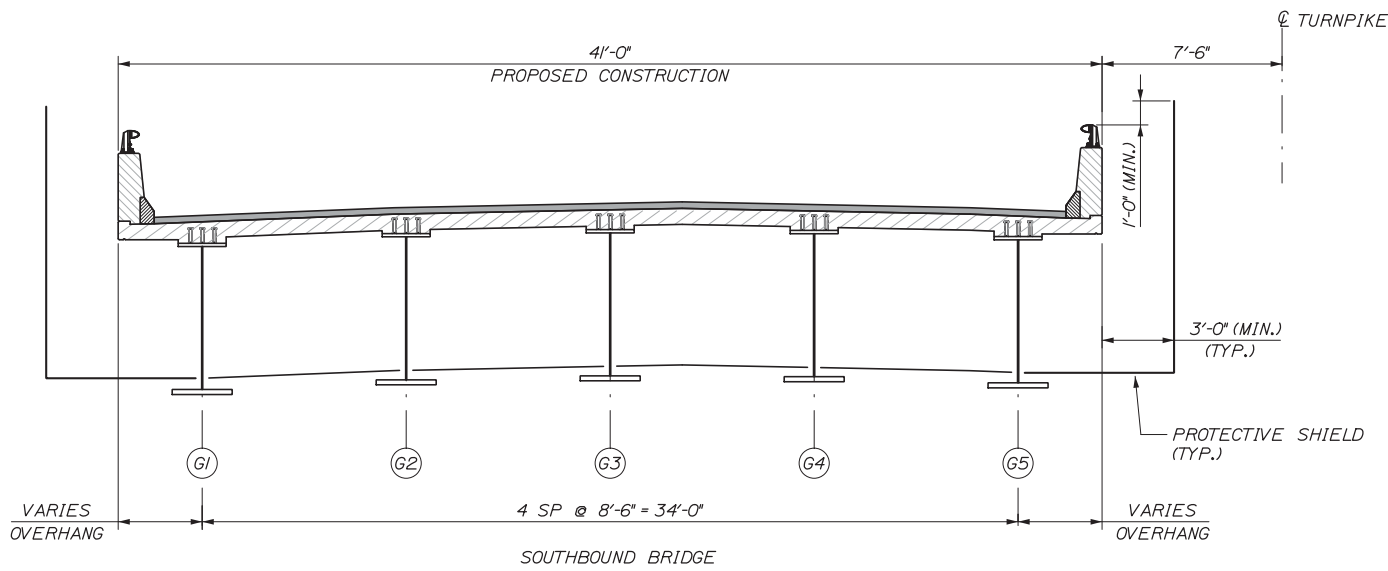
SHEET NUMBER: S-10  
CONTRACT: 2014.10  
105 OF 155

Date: 10/10/2014

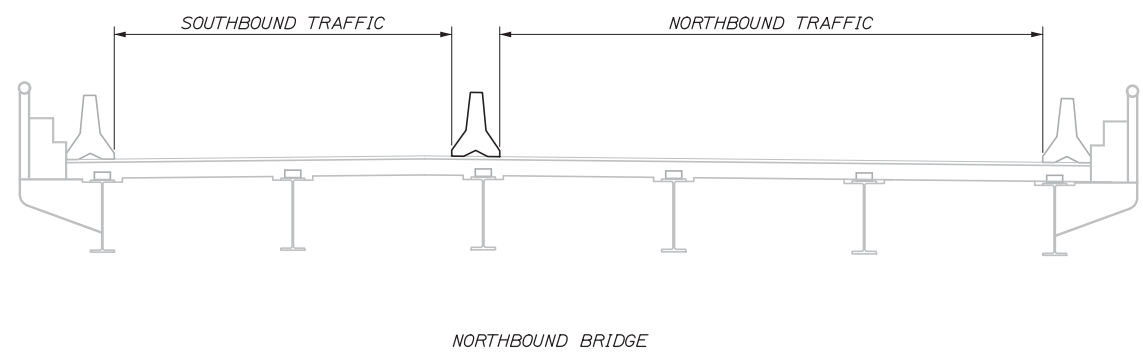


☒ PHASE I DEMOLITION

**PHASE I - DEMOLITION**  
1/4" = 1'-0"



**PHASE I - CONSTRUCTION**  
1/4" = 1'-0"



	PHASE 1		PHASE 2	
	DEMOLITION	CONSTRUCTION	DEMOLITION	CONSTRUCTION
APPROX. WIDTH OF NEW SHIELDING INSTALLED (FT)	41	47	53	47
APPROX. AREA OF SHIELDING INSTALLED (SY)	251	287	324	287

\* SEE NOTE 4

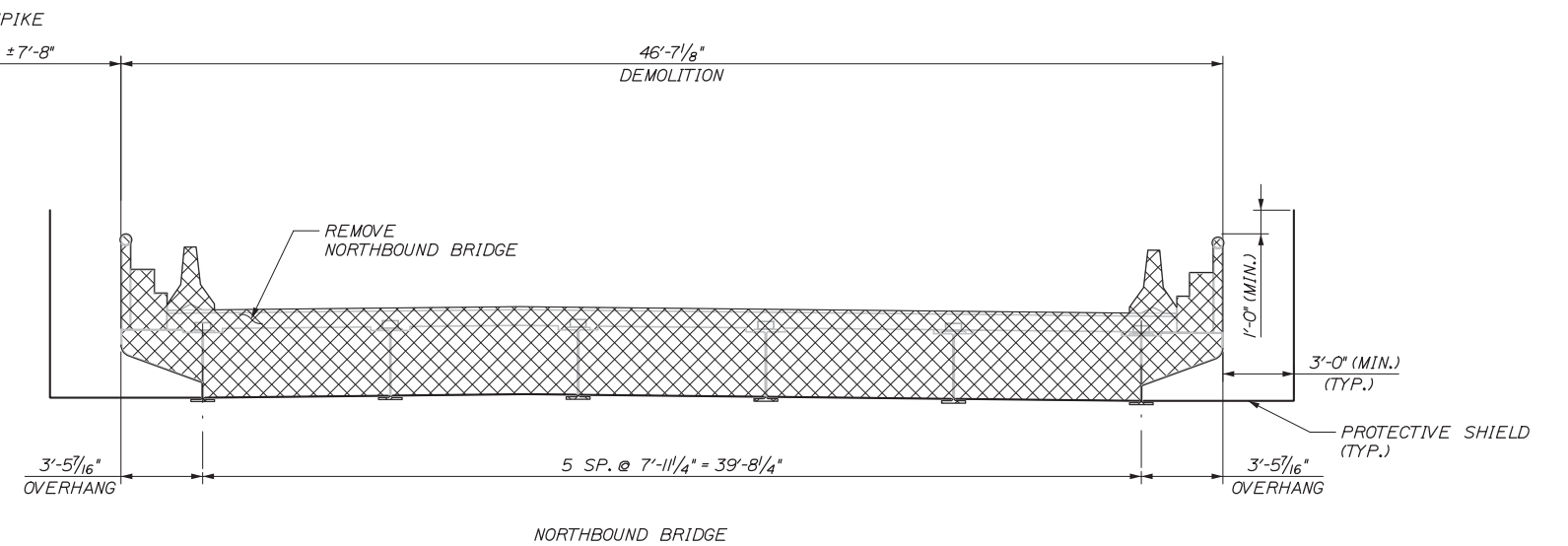
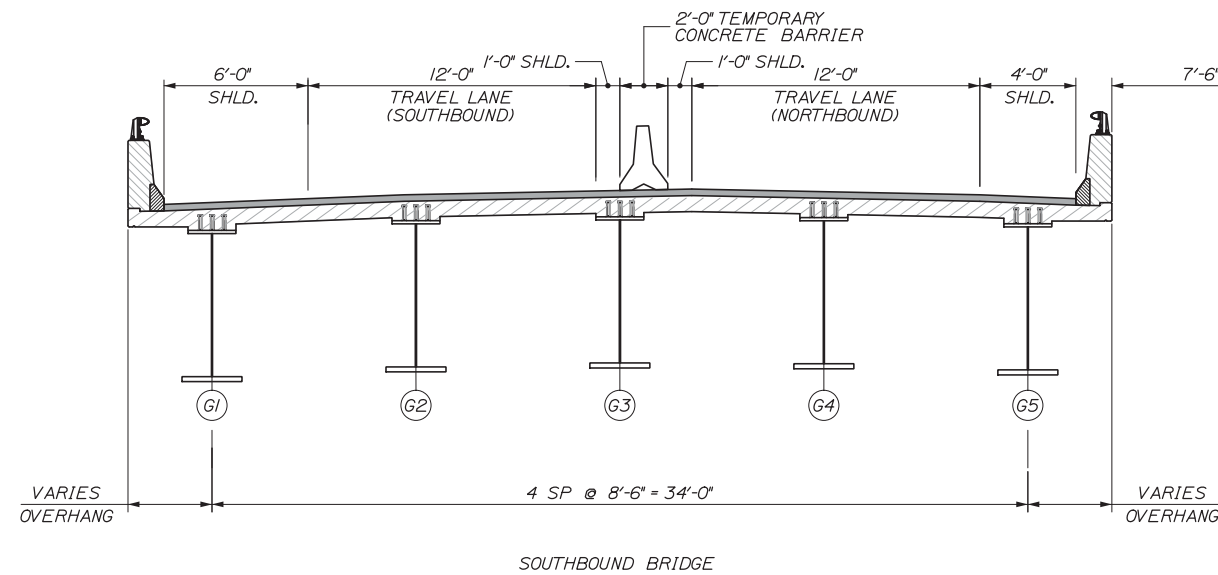
**NOTES:**

- COORDINATE CONSTRUCTION SEQUENCE SHEETS WITH THE ROADWAY MAINTENANCE OF TRAFFIC PLANS. CONSTRUCTION SEQUENCE PLANS AND NOTES PERTAIN TO BRIDGE-RELATED ITEMS OF WORK ONLY. THE PURPOSE OF THE CONSTRUCTION SEQUENCE SHEETS IS NOT TO SERVE AS A COMPREHENSIVE SUMMARY OF ALL REQUIRED CONSTRUCTION ACTIVITIES AND SEQUENCES, OR TO DICTATE CONTRACTOR MEANS AND METHODS. RATHER, THEY ARE INTENDED TO PROVIDE THE CONTRACTOR WITH A GENERAL OVERVIEW OF THE ANTICIPATED WORK AND SEQUENCE OF CONSTRUCTION.
- PROTECTIVE SHIELDING SHALL EXTEND LONGITUDINALLY OVER THE ROADWAY FROM FACE OF PIER TO FACE OF PIER. THE WIDTH OF THIS SHIELDING SHALL BE EQUAL TO THE TOTAL WIDTH OF THE NEW OR EXISTING STRUCTURE PLUS THREE FEET BEYOND THE FASCIA LINES ON EACH SIDE OF THE STRUCTURE.
- TEMPORARY CONCRETE BRIDGE BARRIER IS NOT REQUIRED TO BE ANCHORED TO THE BRIDGE DECK.
- THE APPROXIMATE SHIELDING QUANTITIES REPRESENT THE TOTAL QUANTITY OF SHIELDING REQUIRED TO COMPLETE THE WORK, INCLUDING INITIAL INSTALLATION AND RESETTling OF SHIELDING.
- EXISTING TEMPORARY CONCRETE BARRIER ALREADY IN PLACE SHALL BE RETURNED TO THE MAINE TURNPIKE AUTHORITY BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT.

Filename: 106\_Constr\_Seq\_1.dgn

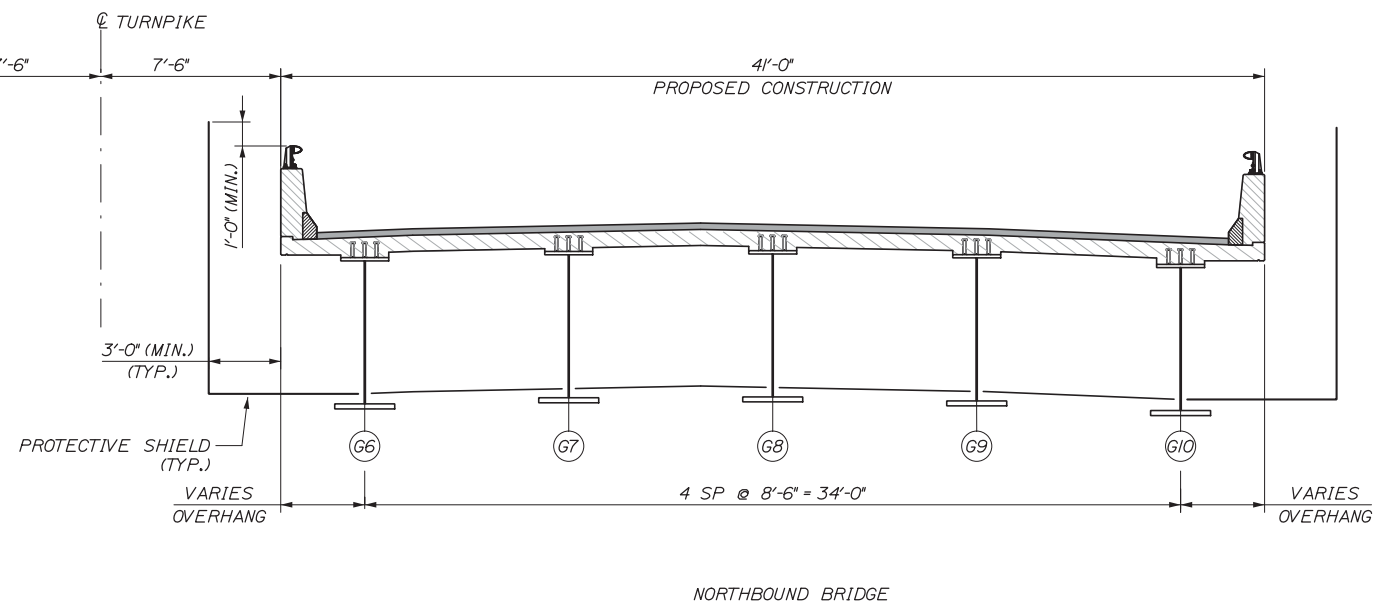
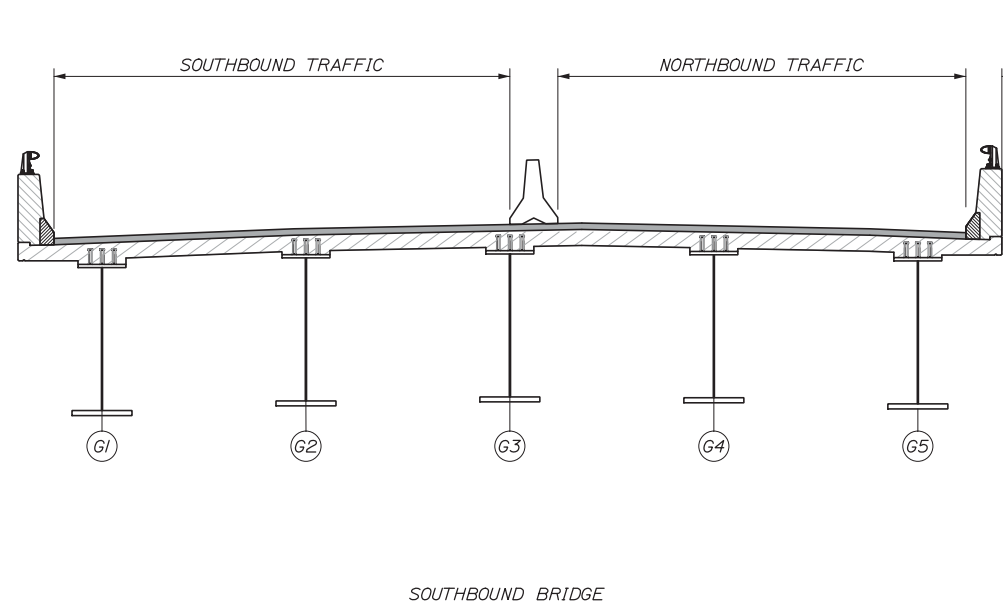
Scale:	Designed by:  <div style="text-align: center; font-size: 24pt; font-weight: bold;">HNTB</div>	HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909	 <div style="font-weight: bold; font-size: 18pt;">THE GOLD STAR MEMORIAL HIGHWAY</div>	<div style="font-weight: bold; font-size: 18pt;">INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80)</div> <div style="font-weight: bold; font-size: 18pt;">CONSTRUCTION SEQUENCE I</div>																																							
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>No.</th> <th>Revision</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	No.	Revision	By	Date													<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="6">CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.</th> </tr> <tr> <th> </th> <th>By</th> <th>Date</th> <th> </th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Designed</td> <td>AET</td> <td>10/14</td> <td>Checked</td> <td>TRC</td> <td>10/14</td> </tr> <tr> <td>Drawn</td> <td>PTA</td> <td>10/14</td> <td>In Charge of</td> <td>RAL</td> <td>10/14</td> </tr> </tbody> </table>	CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.							By	Date		By	Date	Designed	AET	10/14	Checked	TRC	10/14	Drawn	PTA	10/14	In Charge of	RAL	10/14	MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.	INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80) CONSTRUCTION SEQUENCE I SHEET NUMBER: S-11 CONTRACT: 2014.10 106 OF 155
No.	Revision	By	Date																																								
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.																																											
	By	Date		By	Date																																						
Designed	AET	10/14	Checked	TRC	10/14																																						
Drawn	PTA	10/14	In Charge of	RAL	10/14																																						

Date: 10/10/2014



**PHASE II - DEMOLITION**  
1/4" = 1'-0"

PHASE II DEMOLITION



**PHASE II - CONSTRUCTION**  
1/4" = 1'-0"

Filename: 107\_Constr\_Seq 2.dgn

No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
	AET	10/14	Checked	TRC	10/14
	PTA	10/14	In Charge of	RAL	10/14

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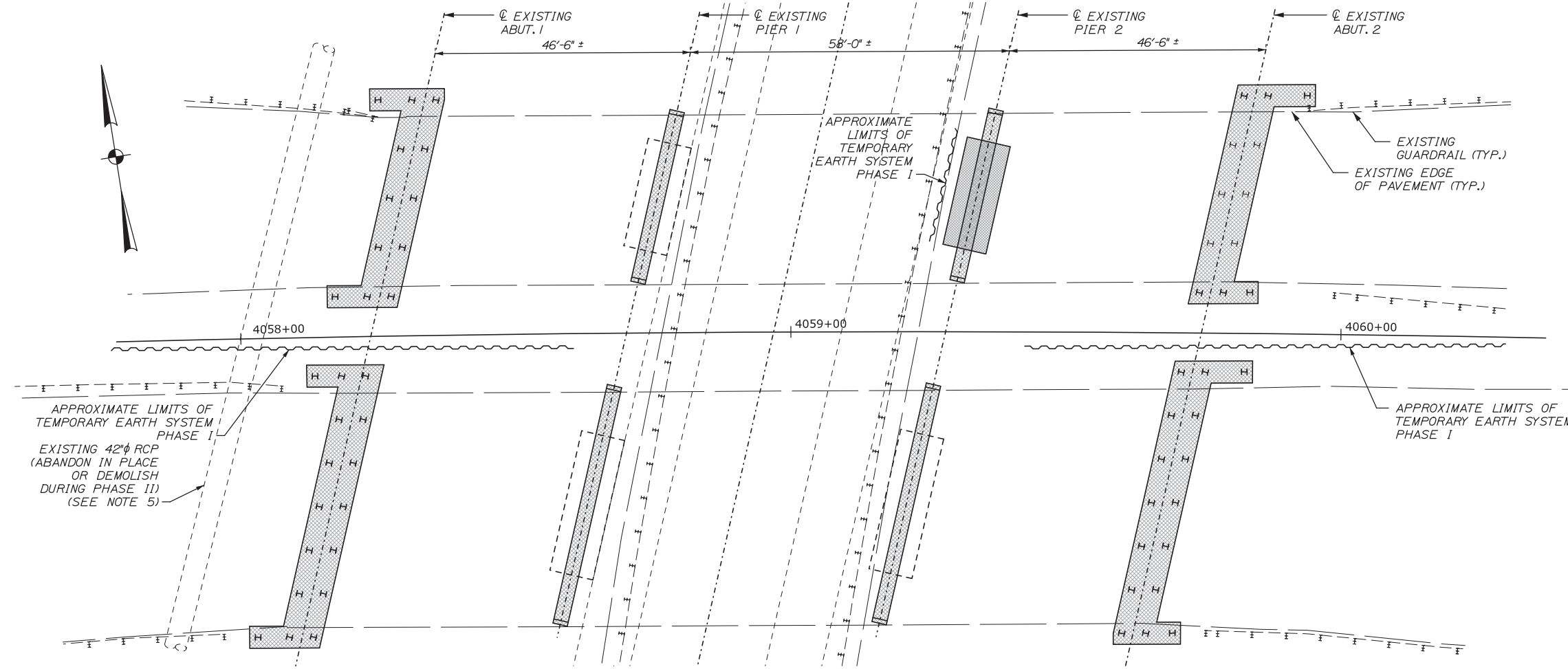
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
CONSTRUCTION SEQUENCE II

SHEET NUMBER: S-12  
CONTRACT: 2014.10  
107 OF 155

Date: 10/10/2014



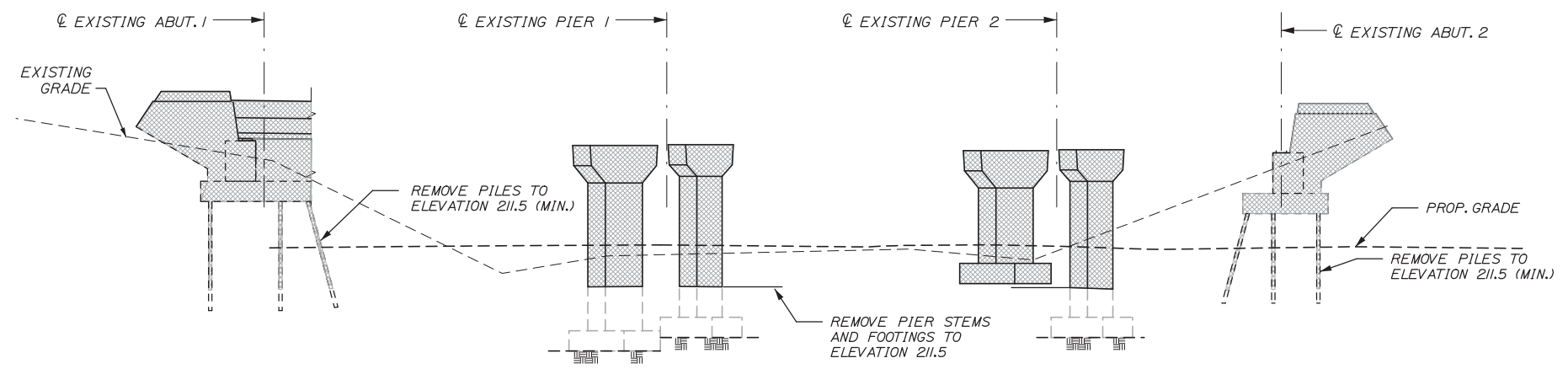
PLAN  
1" = 12'-0"

**LEGEND:**

DEMOLITION LIMITS

**NOTES:**

1. SUPERSTRUCTURE NOT SHOWN FOR CLARITY.
2. ALL EXISTING ABUTMENTS AND PIERS SHALL BE REMOVED TO THE LIMITS SHOWN ON THE PLANS. ALL FOUNDATION PILES SHALL EITHER BE REMOVED COMPLETELY OR TO THE LIMITS SHOWN ON THE PLANS. THE RESULTING DEPRESSIONS SHALL BE BACKFILLED WITH GRAVEL BORROW AND COMPACTED TO 95% OF MAXIMUM DENSITY. EXCAVATION AND REMOVAL OF EXISTING FOUNDATIONS, AS WELL AS THE COST OF FURNISHING, PLACING AND COMPACTING GRAVEL BORROW, SHALL BE INCIDENTAL TO THE BRIDGE REMOVAL PAY ITEMS.
3. WHERE REQUIRED TEMPORARY EARTH SUPPORT STRUCTURES SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH SPECIAL PROVISION SECTION 511. PAYMENT FOR TEMPORARY EARTH SUPPORT STRUCTURES SHALL BE MADE UNDER ITEM 511.091 - "TEMPORARY EARTH SUPPORT SYSTEMS".
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING, DESIGNING, DETAILING AND CONSTRUCTING TEMPORARY EARTH SUPPORT SYSTEMS AS REQUIRED TO COMPLETE THE WORK. THESE CONTRACT PLANS HAVE BEEN DEVELOPED ASSUMING A SHEET PILE WALL SYSTEM WILL BE CONSTRUCTED BETWEEN THE NORTHBOUND AND SOUTHBOUND ROADWAYS DURING PHASE ONE OF THE PROJECT. CONSTRUCTION OF A TEMPORARY WIRE-FACE MSE WALL IS ALSO ASSUMED TO BE CONSTRUCTED PARALLEL TO THE SHEET PILE WALL DURING THE FIRST PHASE OF CONSTRUCTION. THIS TEMPORARY MSE WALL WILL SUPPORT THE SOUTHBOUND BRIDGE AND EMBANKMENT DURING THE SECOND PHASE OF CONSTRUCTION.
5. THE CONTRACTOR'S TEMPORARY EARTH SUPPORT SYSTEMS SHALL BE DESIGNED AND DETAILED TO AVOID DAMAGING OR DISTURBING THE EXISTING 42" DIAMETER RCP CULVERT LOCATED AT STATION 4058+05. THIS CULVERT IS REQUIRED TO REMAIN IN SERVICE THROUGH THE COMPLETION OF PHASE ONE. SEE SHEET GN-01, DRAINAGE NOTE 12 FOR ADDITIONAL INFORMATION.



ELEVATION  
1" = 12'-0"

Filename: 108\_Substruct Demo Plan.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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THE GOLD STAR  
MEMORIAL HIGHWAY

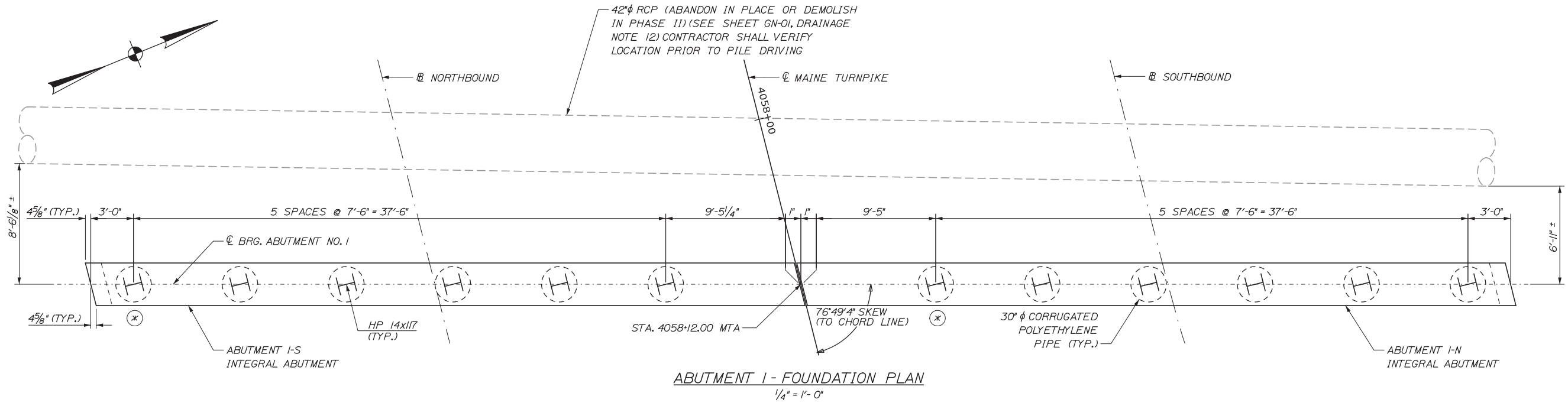
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

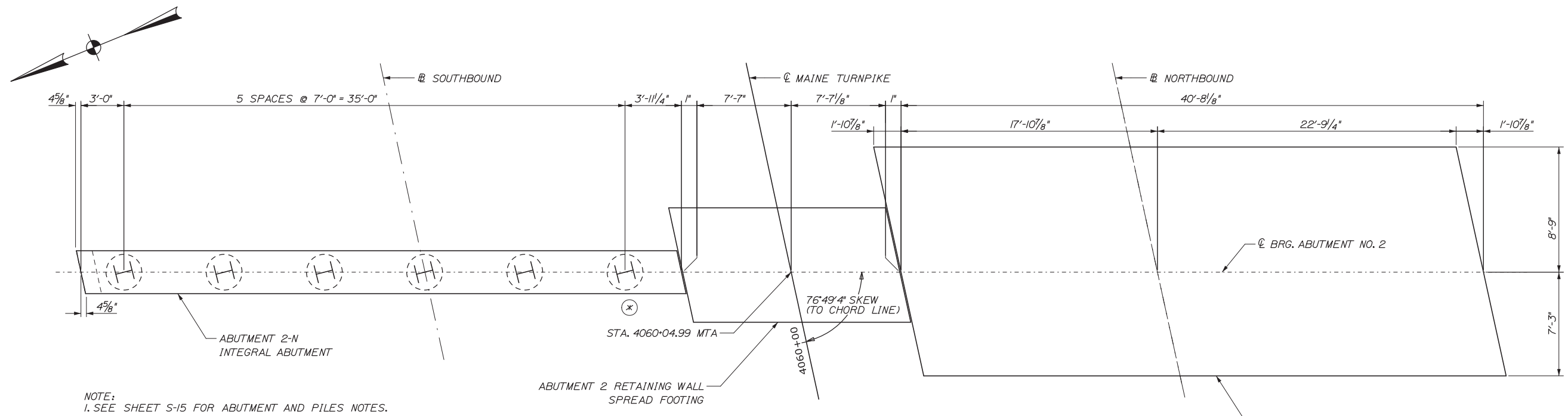
SUBSTRUCTURE DEMOLITION LIMITS

SHEET NUMBER: S-13  
CONTRACT: 2014.10  
108 OF 155

Date: 10/10/2014



ABUTMENT 1 - FOUNDATION PLAN  
1/4" = 1'-0"



ABUTMENT 2 - FOUNDATION PLAN  
1/4" = 1'-0"

- NOTE:
1. SEE SHEET S-15 FOR ABUTMENT AND PILES NOTES.
  2. PROPOSED CULVERT LOCATED AT ABUTMENT 1 NOT SHOWN.
  3. FOR ADDITIONAL ABUTMENT 2 FOOTING DIMENSIONS SEE SHEET S-19 AND S-24.

LEGEND

⊗ INDICATES LOCATION OF PILE DYNAMIC LOAD TEST.

Filename: 109\_Foundation Plan.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

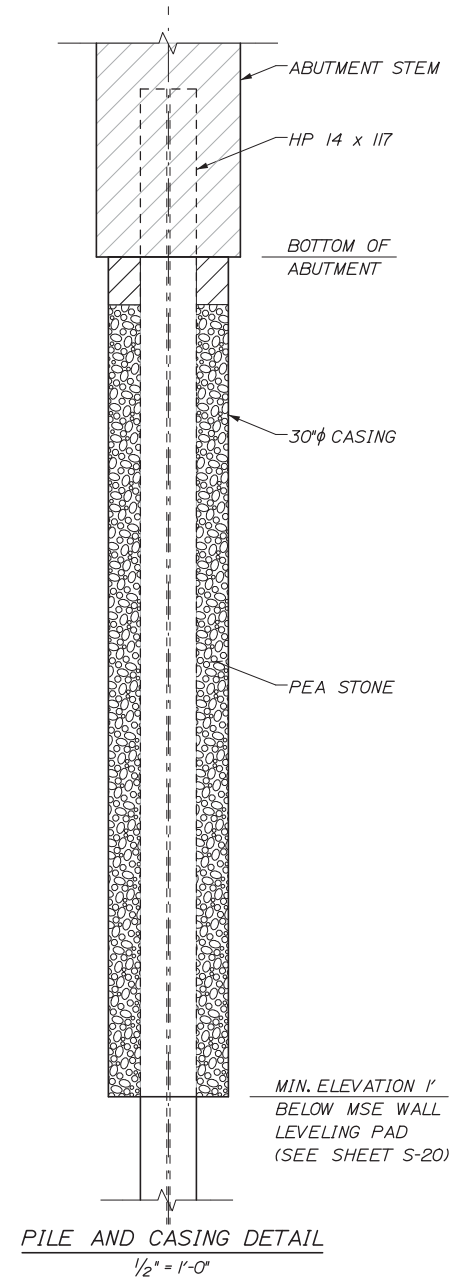
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
FOUNDATION PLAN

SHEET NUMBER: S-14  
CONTRACT: 2014.10  
109 OF 155

Date:10/10/2014

**ABUTMENT NOTES:**

1. REINFORCING STEEL SHALL HAVE A MINIMUM CONCRETE COVER OF 2 INCHES IN THE WALLS AND 3 INCHES COVER TO THE BOTTOM OF FOOTINGS UNLESS OTHERWISE NOTED.
2. COVER JOINTS WHERE WATERSTOPS ARE NOT REQUIRED IN ACCORDANCE WITH STANDARD DETAIL 502(O).
3. PLACE 4 INCH DIAMETER DRAINS IN ABUTMENT 2-S BREASTWALL AND MEDIAN RETAINING WALL AT 8 FEET MAXIMUM SPACING. THE EXACT LOCATION TO BE DETERMINED BY THE RESIDENT.
4. CONSTRUCT FRENCH DRAINS BEHIND THE ABUTMENTS IN ACCORDANCE WITH STANDARD SPECIFICATION SECTION 512, FRENCH DRAINS.
5. ABUTMENTS AND THEIR FOOTINGS WILL BE BACKFILLED WITH GRANULAR BORROW. PAY LIMITS WILL THE BOTTOM OF FOOTING OR ABUTMENT AND A VERTICAL PLANE LOCATED 10 FEET BEHIND THE WALLS IN THE FILL AREAS.
6. THE MAXIMUM FACTORED APPLIED BEARING PRESSURE IS 5.71 KSF FOR THE ABUTMENT 2-S FOOTING AND 2.79 KSF FOR THE MEDIAN RETAINING WALL FOOTING.



**PILE AND CASING DETAIL**

1/2" = 1'-0"

**PILE NOTES:**

1. THE MAXIMUM FACTORED PILE LOAD IS 567 Kips.
2. H-PILE MATERIAL SHALL BE ASTM A 572, GRADE 50.
3. ESTIMATE OF PILES REQUIRED:  
 ABUTMENT 1-N: 6 - HP 14x117 @ 45 FEET  
 ABUTMENT 1-S: 6 - HP 14x117 @ 38 FEET  
 ABUTMENT 2-N: 6 - HP 14x117 @ 29 FEET
4. PILES SHALL BE DRIVEN TO BEDROCK.
5. PILES SHALL NOT BE OUT OF POSITION SHOWN BY MORE THAN 2 INCHES IN ANY DIRECTION.
6. THE CONTRACTOR SHALL PERFORM AND SUBMIT WAVE EQUATION ANALYSIS FOR REVIEW AND ACCEPTANCE BY THE RESIDENT (ONE PER EACH HAMMER-PILE SYSTEM). THE CONTRACTOR SHALL DETERMINE A STOPPING CRITERIA BASED ON THE WAVE EQUATION ANALYSIS. THE STOPPING CRITERIA SHALL INCLUDE THE BLOWS PER INCH AND THE NUMBER OF ONE INCH INTERVALS AT WHICH PILE INSTALLATION MAY BE TERMINATED. PILES SHALL NOT BE INSTALLED PRIOR TO REVIEW OF THE CRITERIA BY THE RESIDENT. THE COST OF PERFORMING THE WAVE EQUATION ANALYSIS IS INCIDENTAL TO PAY ITEM 501.92, PILE DRIVING EQUIPMENT MOBILIZATION. DRIVING CRITERIA PROPOSED BY THE CONTRACTOR WILL BE VERIFIED OR MODIFIED BASED ON THE RESULTS OF DYNAMIC PILE LOAD TESTING.
7. THE CONTRACTOR SHALL PERFORM THREE (3) DYNAMIC PILE LOAD TESTS TO EVALUATE THE PERFORMANCE OF THE HAMMER-PILE SYSTEM(S). CALCULATE STRESSES IN THE PILE DURING DRIVING, ASSESS THE STRUCTURAL INTEGRITY OF THE PILE AND EVALUATE/VERIFY PILE CAPACITY/PILE DRIVING CRITERIA. THE DYNAMIC TESTS SHALL BE PERFORMED ON THE PILE INDICATED AT EACH ABUTMENT. UNDER NO CIRCUMSTANCES SHALL PRODUCTION PILES BE DRIVEN WITHOUT FIRST COMPLETING THE PILE DYNAMIC LOAD TEST.
8. ALL PILES SHALL BE EQUIPPED WITH A ROCK INJECTOR PILE TIP IN ACCORDANCE WITH SPECIAL PROVISION SECTION 501.10, PREFABRICATED PILE TIPS.
9. PILES SHALL BE DRIVEN IN VERTICAL SLEEVES. PILE SLEEVES SHALL BE 30" DIAMETER CORRUGATED POLYETHYLENE PIPE MEETING THE REQUIREMENTS OF AASHTO M294, TYPE D. PAYMENT FOR PIPE SLEEVES SHALL BE INCIDENTAL TO PAY ITEM 636.40, MECHANICALLY STABILIZED EARTH RETAINING WALL.
10. SLEEVED H-PILE FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SPECIAL PROVISION 501 OF THE CONTRACT DOCUMENTS.
11. THE ANNULAR SPACE WITHIN THE PIPE SLEEVES SHALL BE FILLED WITH 3/8" PEA STONE FOLLOWING PLACEMENT OF THE PILES BUT BEFORE FINAL PILE DRIVING. PAYMENT FOR PEA STONE SHALL BE INCIDENTAL TO THE RELATED CONTRACT ITEMS.

**PILE INSTALLATION SEQUENCE:**

SEE SPECIAL PROVISION 501 FOR ADDITIONAL REQUIREMENTS:

1. EXCAVATE TO MSE WALL BEARING LEVEL.
2. PLACE CORRUGATED PIPE AND BRACE AS NEEDED.
3. CONSTRUCT MSE WALL UP TO APPROXIMATELY THE BOTTOM OF PILE CAP LEVEL.
4. SET PILE IN CASING. AT THE CONTRACTOR'S OPTION PILE MAY BE LIGHTLY DRIVEN PRIOR TO FILLING THE ANNULAR SPACE BETWEEN THE PILE AND CASING.
5. PLACE PEA STONE IN CORRUGATED PIPE.
6. CONDUCT FINAL PILE DRIVING TO ACHIEVE DESIGN CAPACITY.

Filename: 110\_Foundation Dets.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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 TEL (207) 774-5155  
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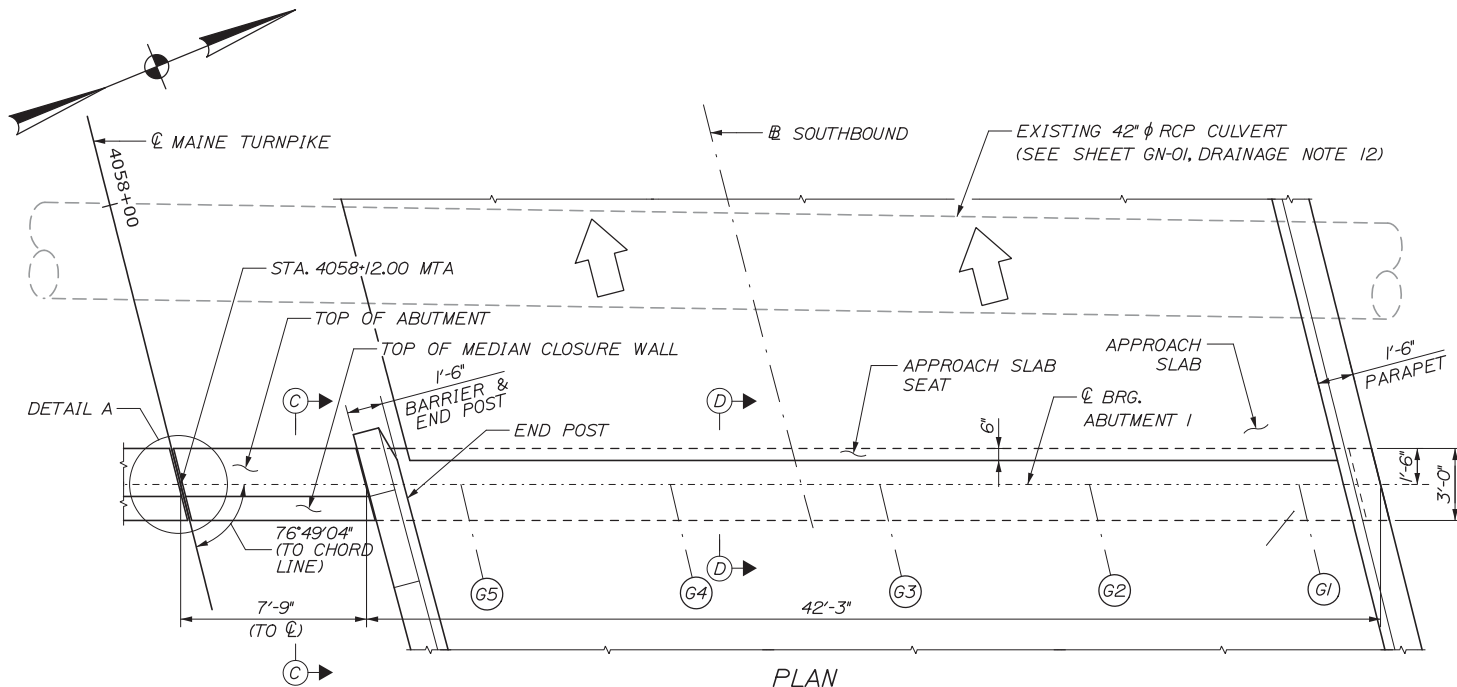
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

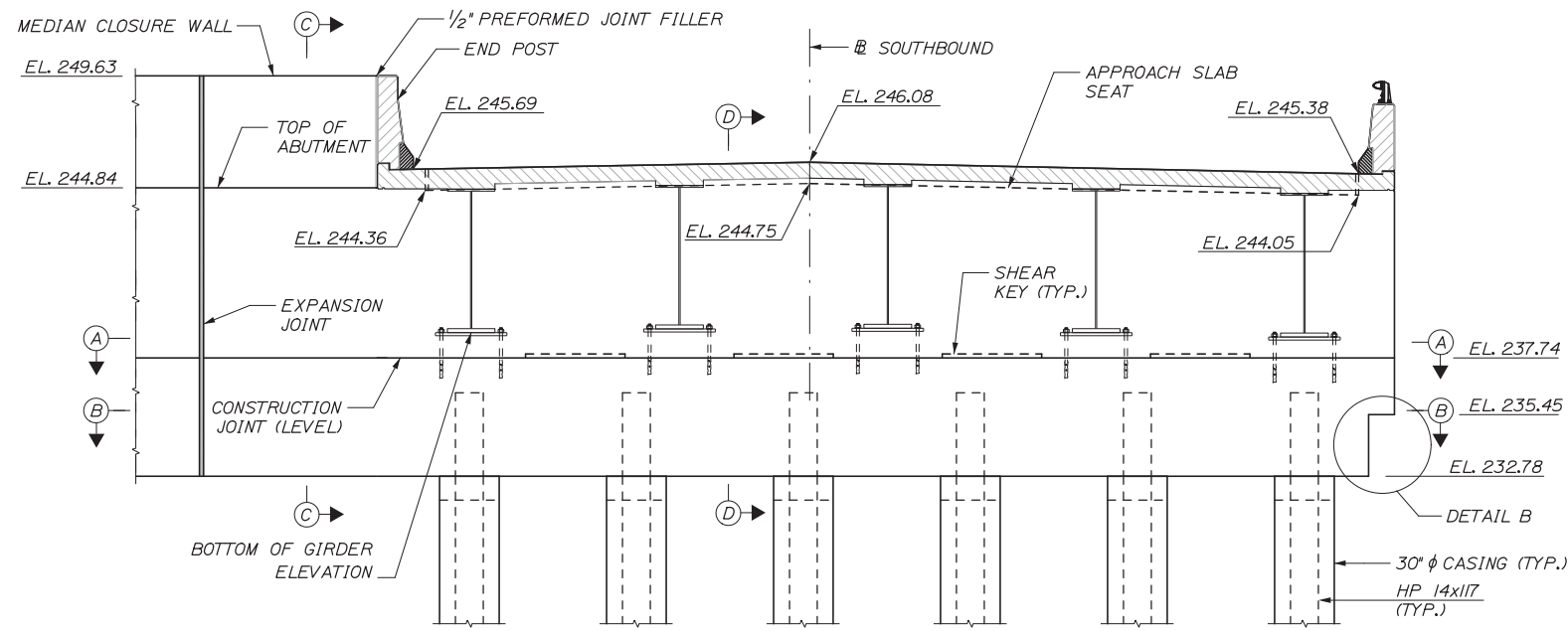
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
FOUNDATION DETAILS

SHEET NUMBER: S-15  
CONTRACT: 2014.10  
110 OF 155

Date: 10/10/2014



PLAN  
1/4" = 1'-0"

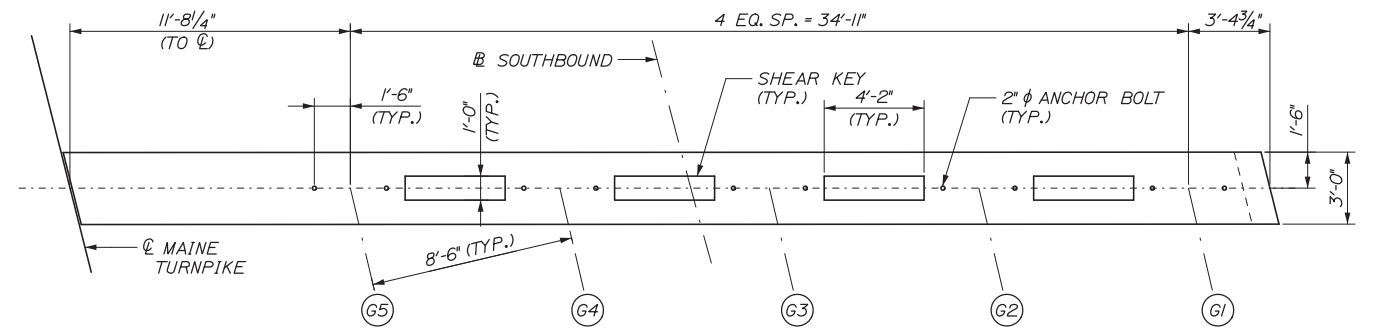


ELEVATION  
1/4" = 1'-0"

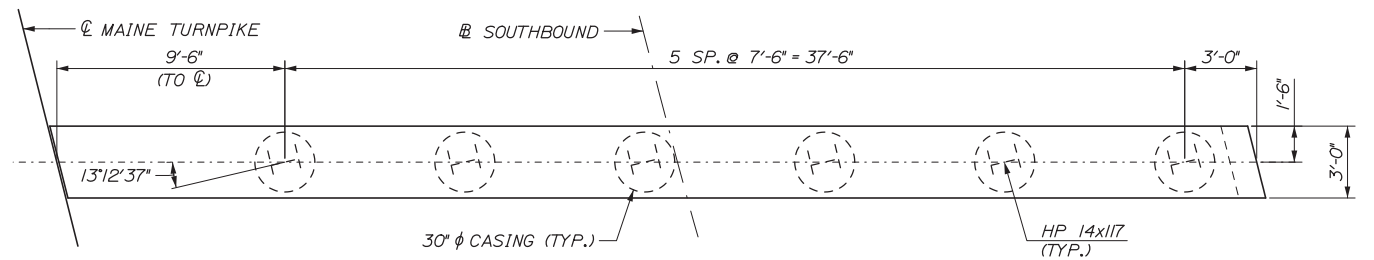
ABUTMENT I-N

BOTTOM OF GIRDER ELEVATIONS					PILE CUT-OFF ELEVATION
G1	G2	G3	G4	G5	ALL PILES
238.37	238.73	238.92	238.89	238.69	236.28

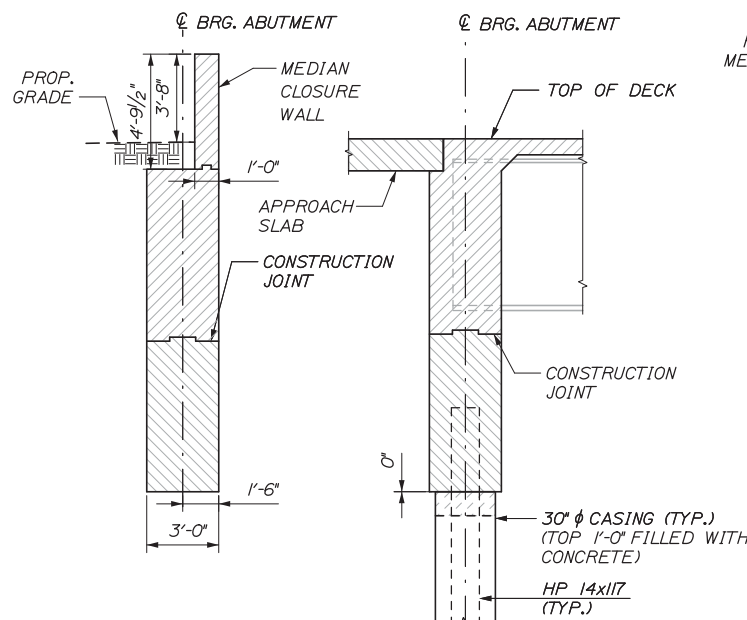
- NOTES:  
 1. ALL ABUTMENT ELEVATIONS APPLY AT CENTERLINE OF BEARING EXCEPT TOP OF APPROACH SLAB SEAT WHICH IS PROVIDED AT FAR FACE OF ABUTMENT.  
 2. SEE SHEET S-15 FOR ABUTMENT AND PILE NOTES, SEE SHEET S-17 FOR DETAIL B AND CONSTRUCTION JOINT DETAIL.



SECTION A-A  
1/4" = 1'-0"

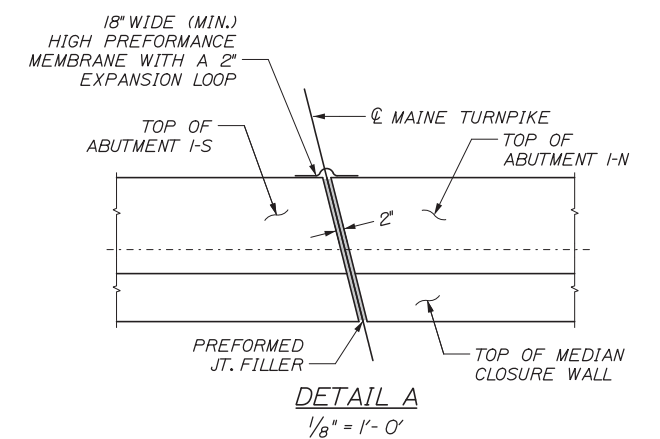


SECTION B-B  
1/4" = 1'-0"



SECTION C-C  
1/4" = 1'-0"

SECTION D-D  
1/4" = 1'-0"



DETAIL A  
1/8" = 1'-0"

Filename: 111\_Abutment Plan-Elev 1.dgn

Scale:		Designed by:	
No.	Revision	By	Date

<b>HNTB</b>			
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
Designed	AET	10/14	Checked
Drawn	PTA	10/14	In Charge of

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

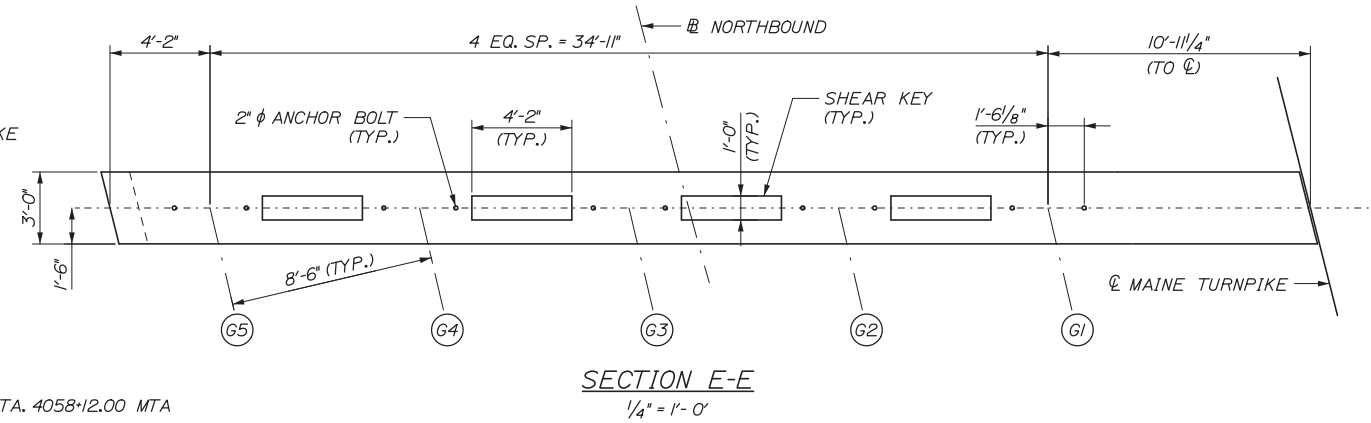
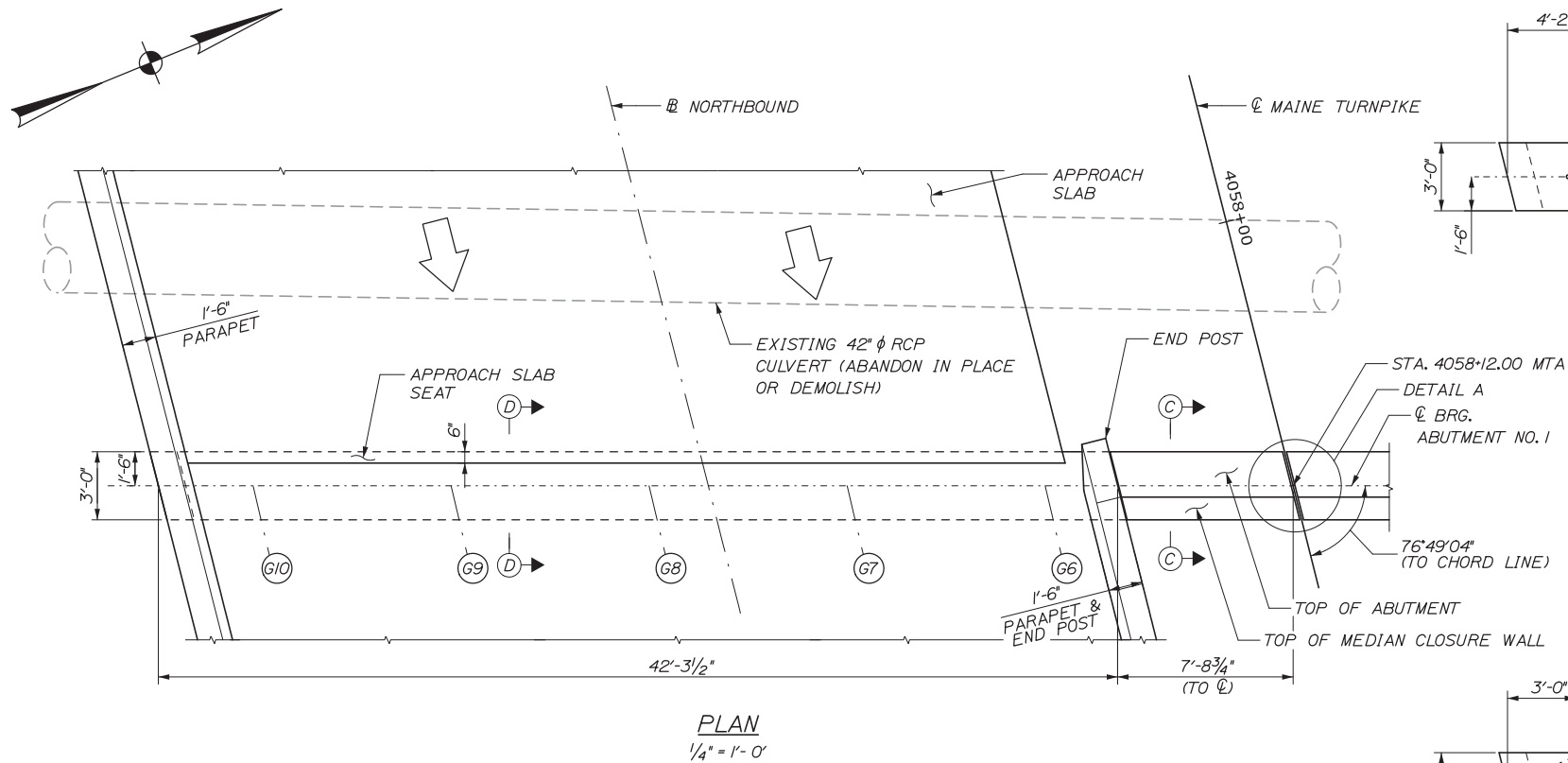
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 ABUTMENT PLAN & ELEVATION I  
 ABUTMENT I-N

SHEET NUMBER: S-16  
 CONTRACT: 2014.10  
 111 OF 155

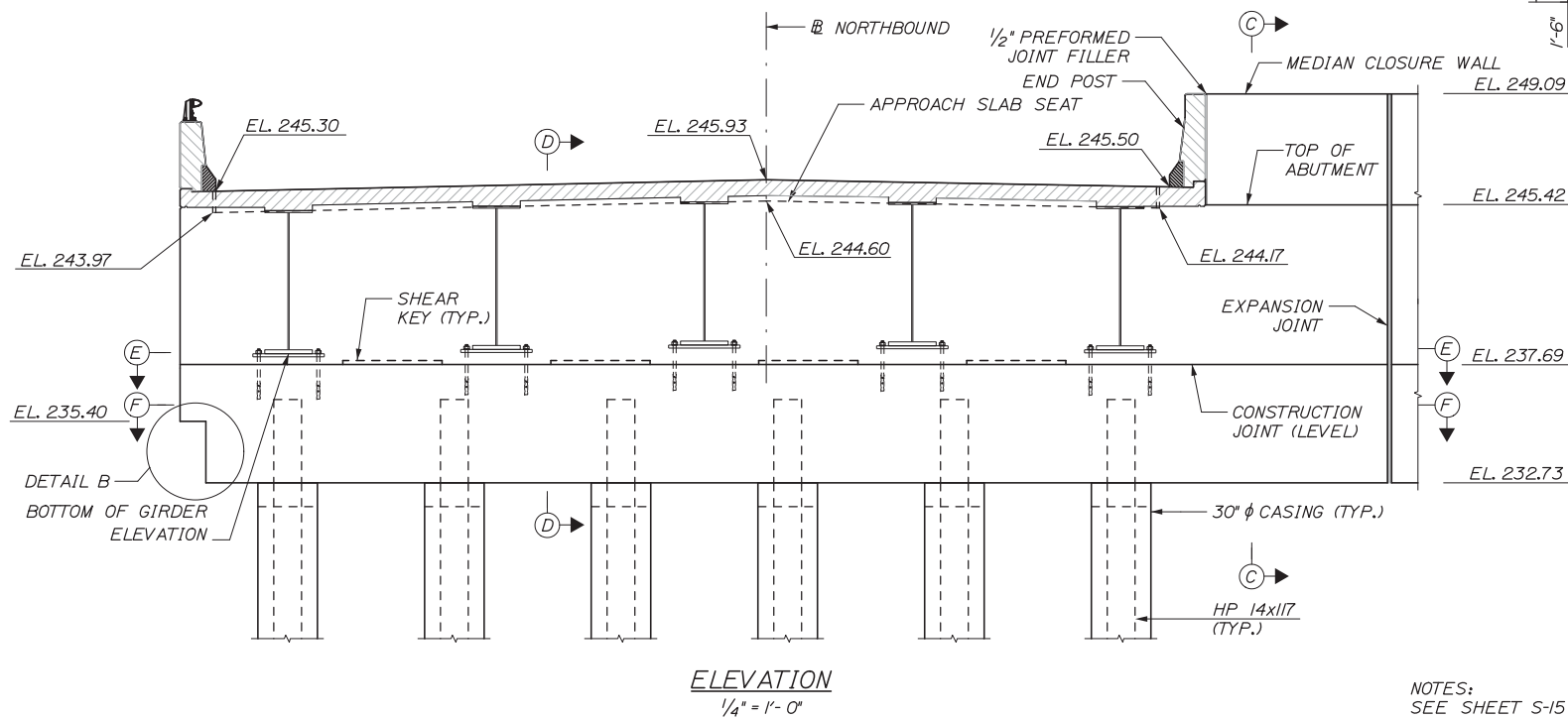
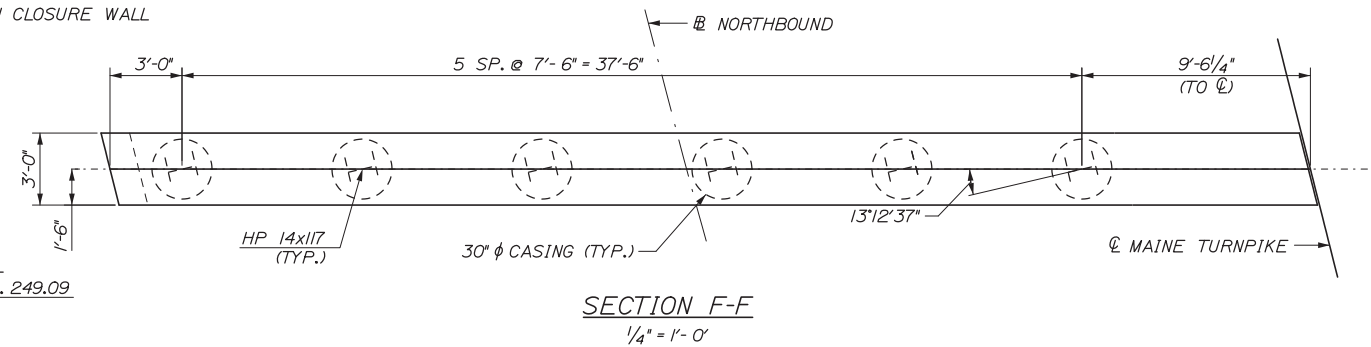
Date: 10/10/2014

Filename: 112\_Abument Plan-Elev 2.dgn

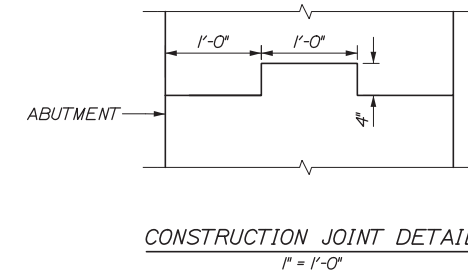
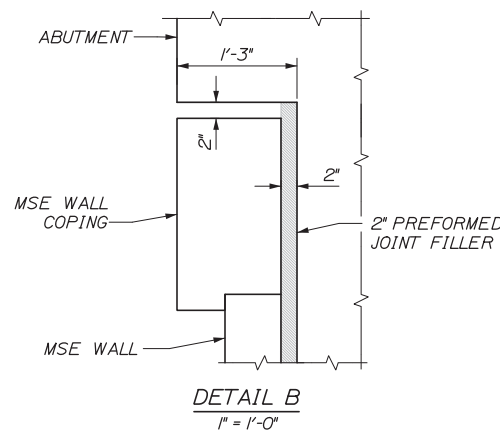


ABUTMENT I-S

BOTTOM OF GIRDER ELEVATIONS					PILE CUT-OFF ELEVATION
G6	G7	G8	G9	G10	ALL PILES
238.48	238.72	238.80	238.64	238.31	236.23



NOTES:  
 SEE SHEET S-15 FOR ABUTMENT AND PILE NOTES. SEE SHEET S-16 FOR SECTION C-C, SECTION D-D AND DETAIL A. FOR MSE WALL COPING DETAIL SEE SHEET S-31.



Scale:

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 ABUTMENT PLAN & ELEVATION II  
 ABUTMENT I-S

SHEET NUMBER: S-17  
 CONTRACT: 2014.10  
 112 OF 155

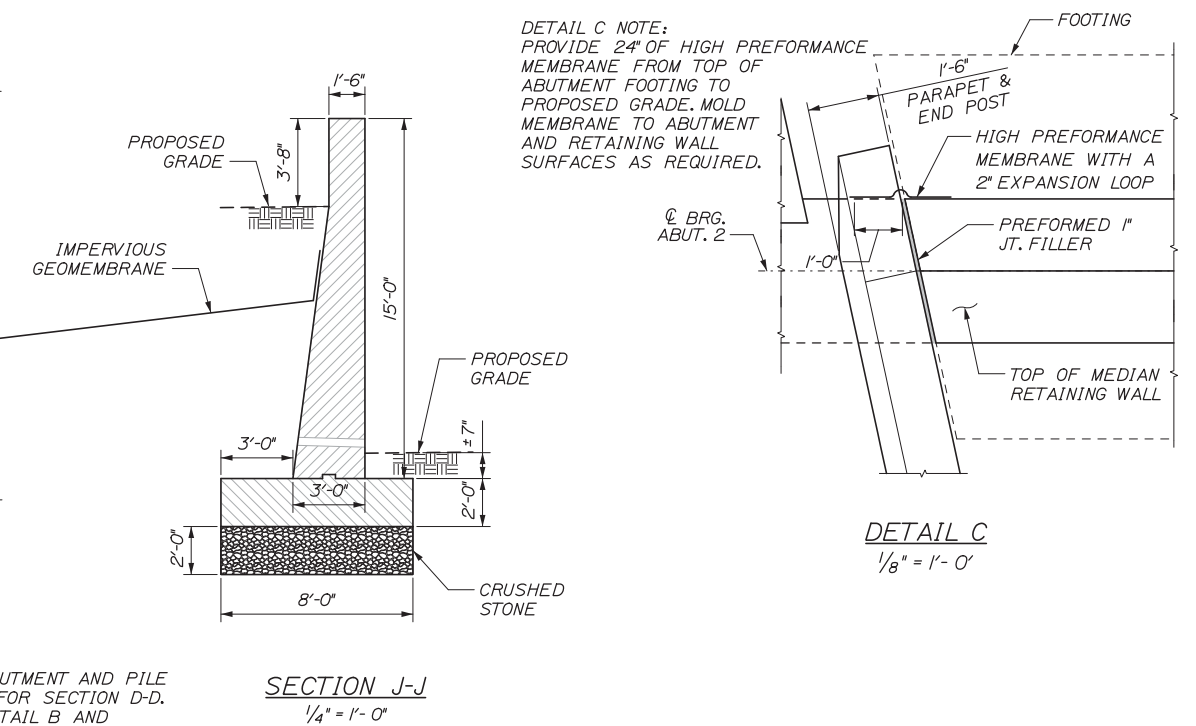
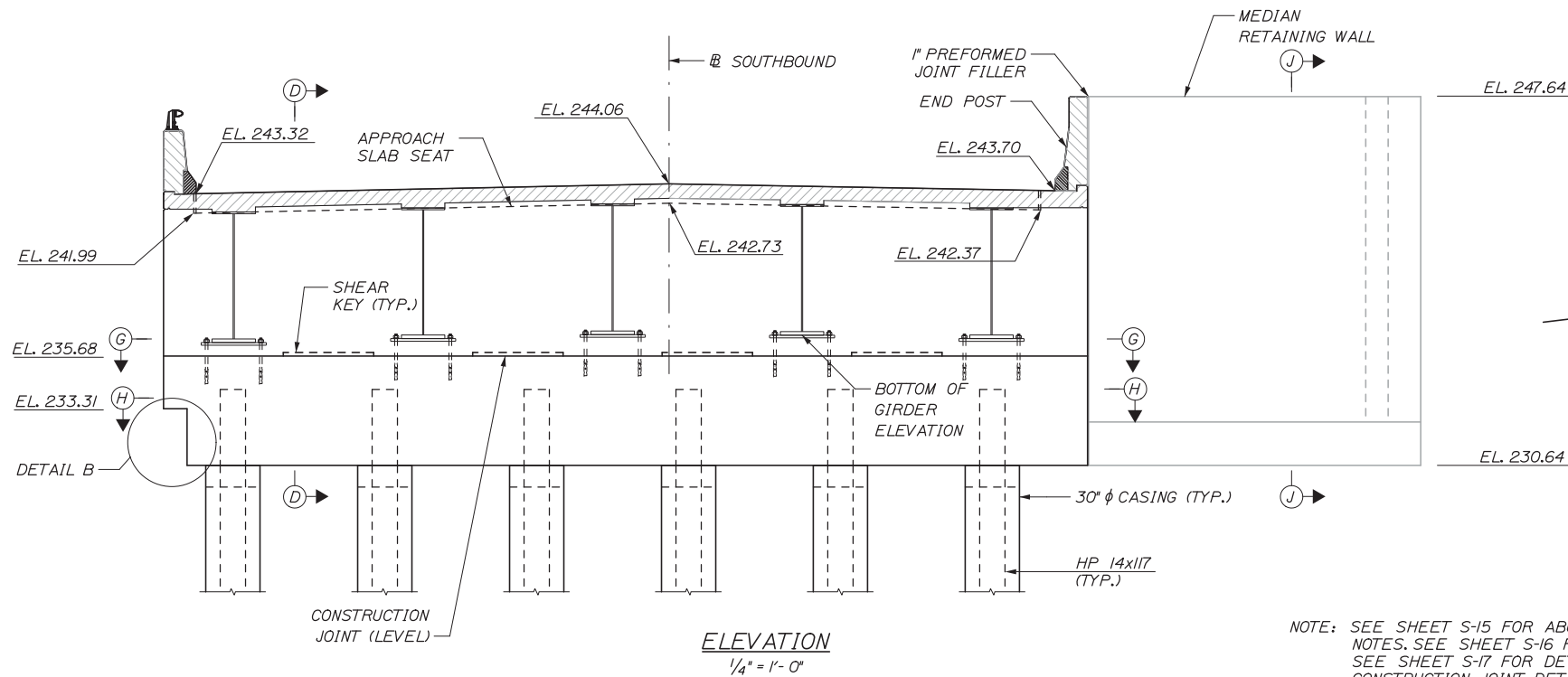
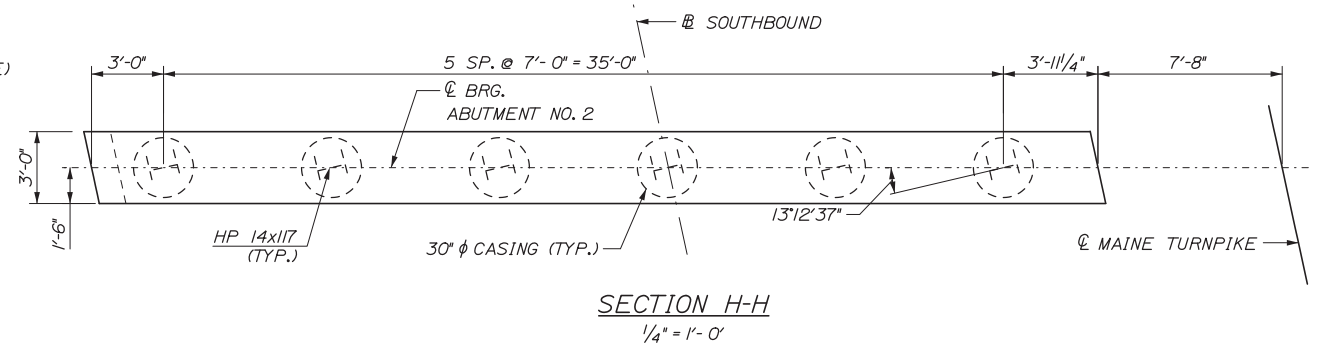
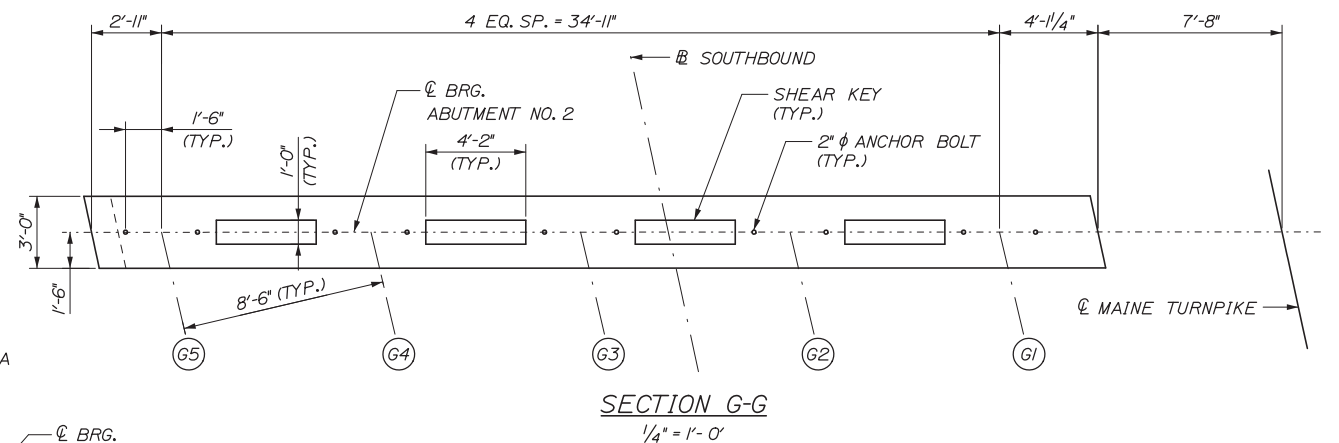
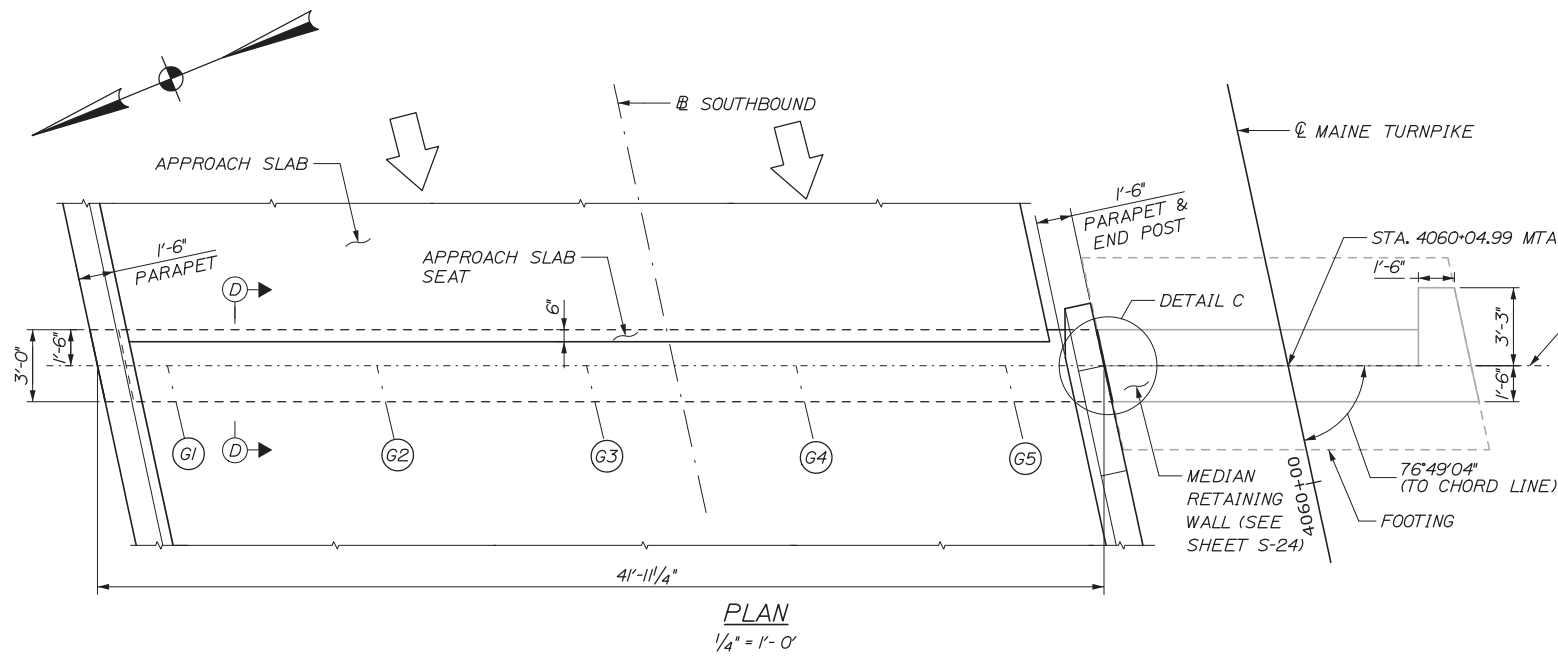


Date: 10/10/2014

Filename: 113\_Abument Plan-Elev 3.dgn

**ABUTMENT 2-N**

BOTTOM OF GIRDER ELEVATIONS					PILE CUT-OFF ELEVATION
G1	G2	G3	G4	G5	ALL PILES
236.30	236.69	236.89	236.89	236.71	234.14



NOTE: SEE SHEET S-15 FOR ABUTMENT AND PILE NOTES. SEE SHEET S-16 FOR SECTION D-D. SEE SHEET S-17 FOR DETAIL B AND CONSTRUCTION JOINT DETAIL.

Scale:

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

By	Date	By	Date
Designed	AET 10/14	Checked	AJF 10/14
Drawn	PTA 10/14	In Charge of	RAL 10/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

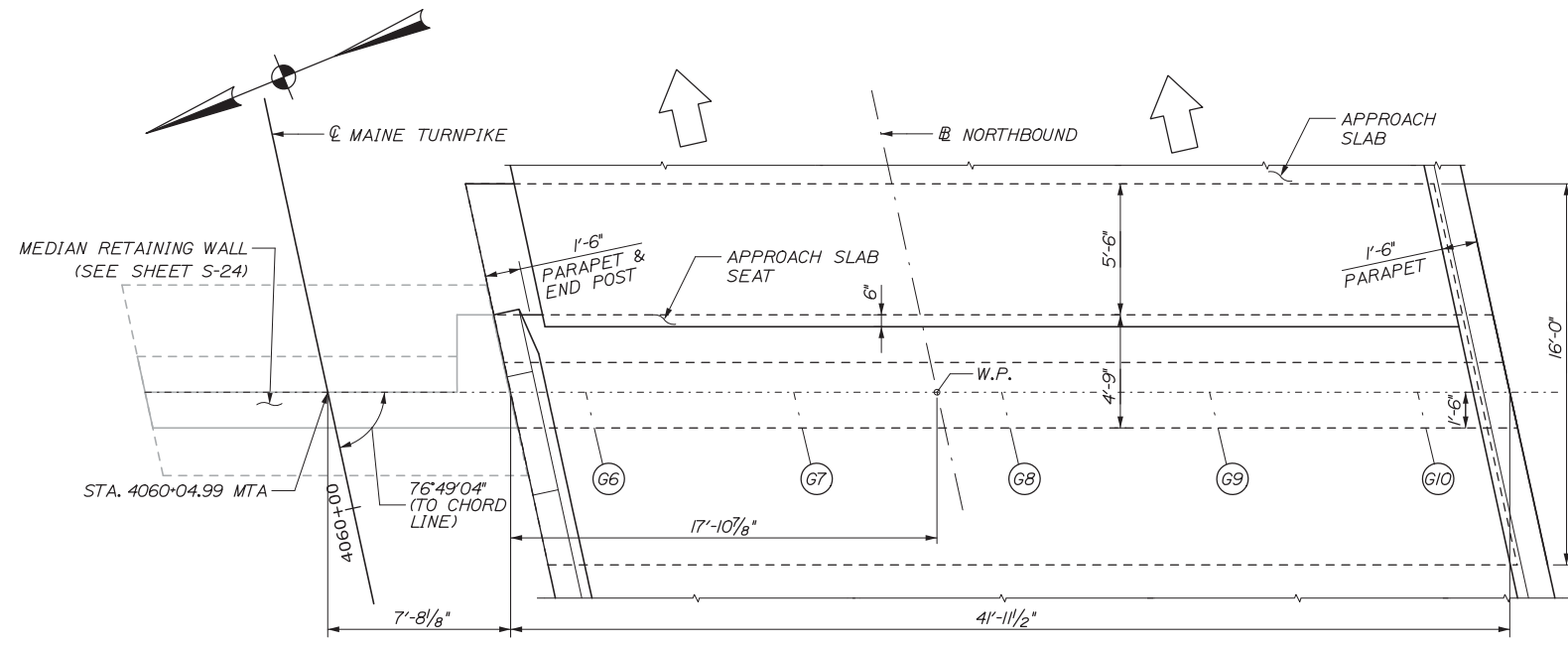
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
ABUTMENT PLAN & ELEVATION III  
ABUTMENT 2-N

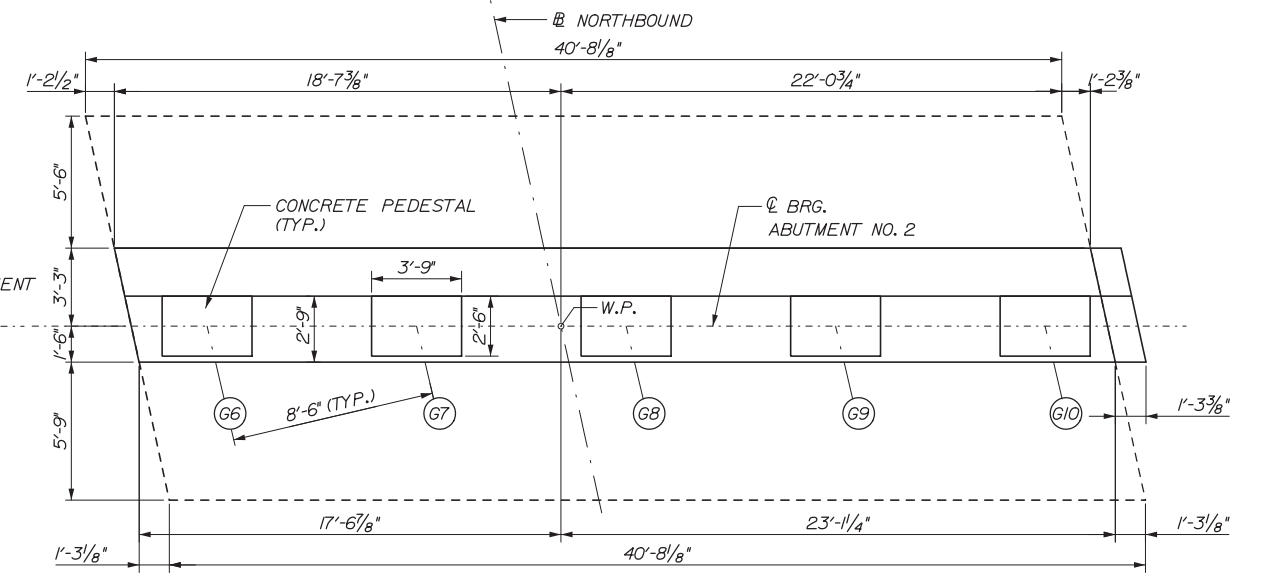
SHEET NUMBER: S-18  
CONTRACT: 2014.10  
113 OF 155

Date: 10/10/2014

Filename: 114-Abutment Plan-Elev 4.dgn

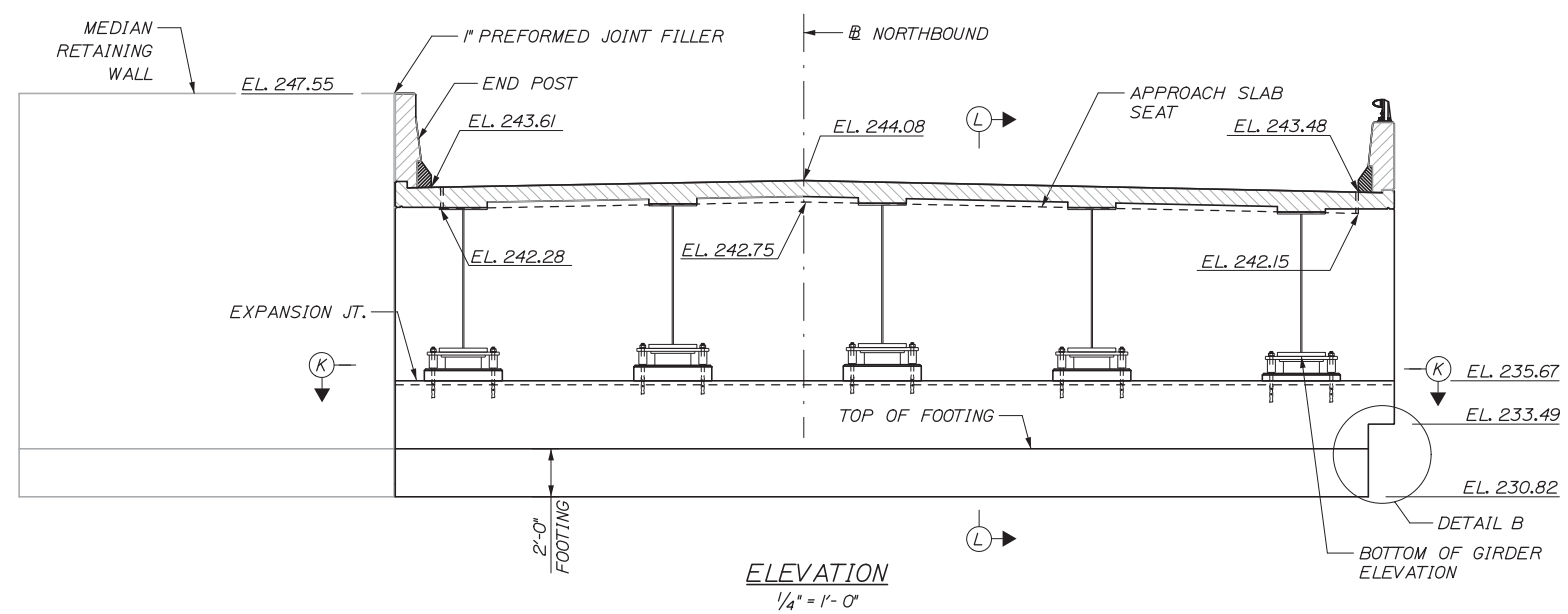


PLAN  
1/4" = 1'-0"

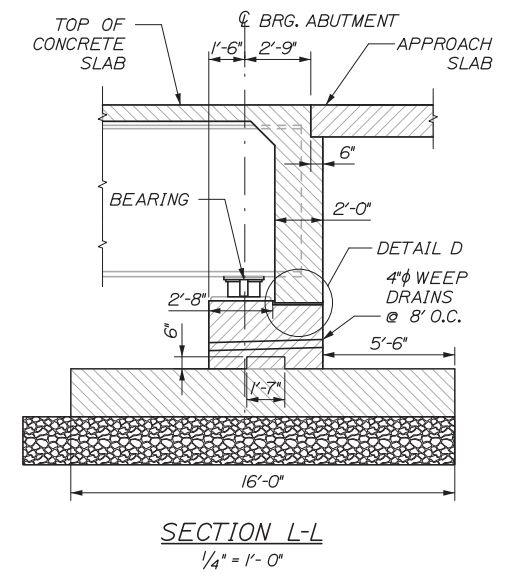


SECTION K-K  
1/4" = 1'-0"

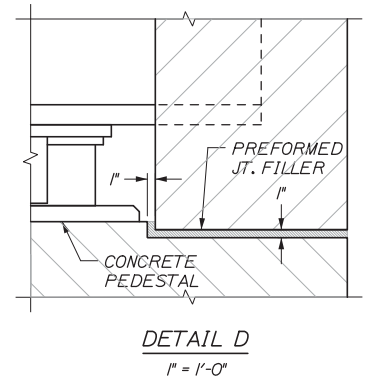
ABUTMENT 2-S					ABUTMENT 2-S				
BOTTOM OF GIRDER ELEVATIONS					TOP OF PEDESTAL ELEVATIONS				
G6	G7	G8	G9	G10	G6	G7	G8	G9	G10
236.60	236.85	236.95	236.80	236.49	236.60	236.85	236.95	236.80	236.49



ELEVATION  
1/4" = 1'-0"



SECTION L-L  
1/4" = 1'-0"



DETAIL D  
1" = 1'-0"

NOTE:  
SEE SHEET S-15 FOR ABUTMENT NOTES.  
SEE SHEET S-17 FOR DETAIL B.

No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

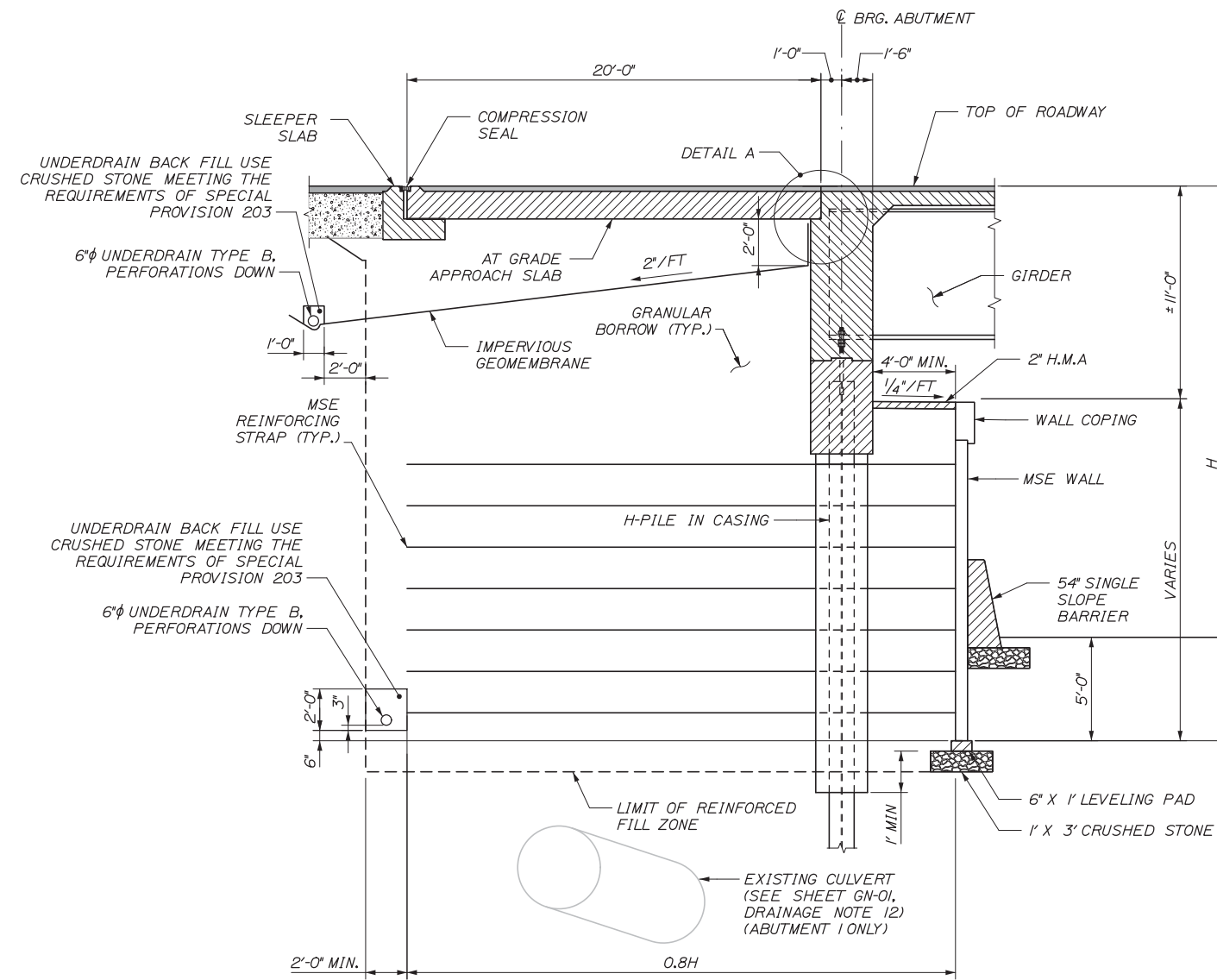
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
ABUTMENT PLAN & ELEVATION IV  
ABUTMENT 2-S

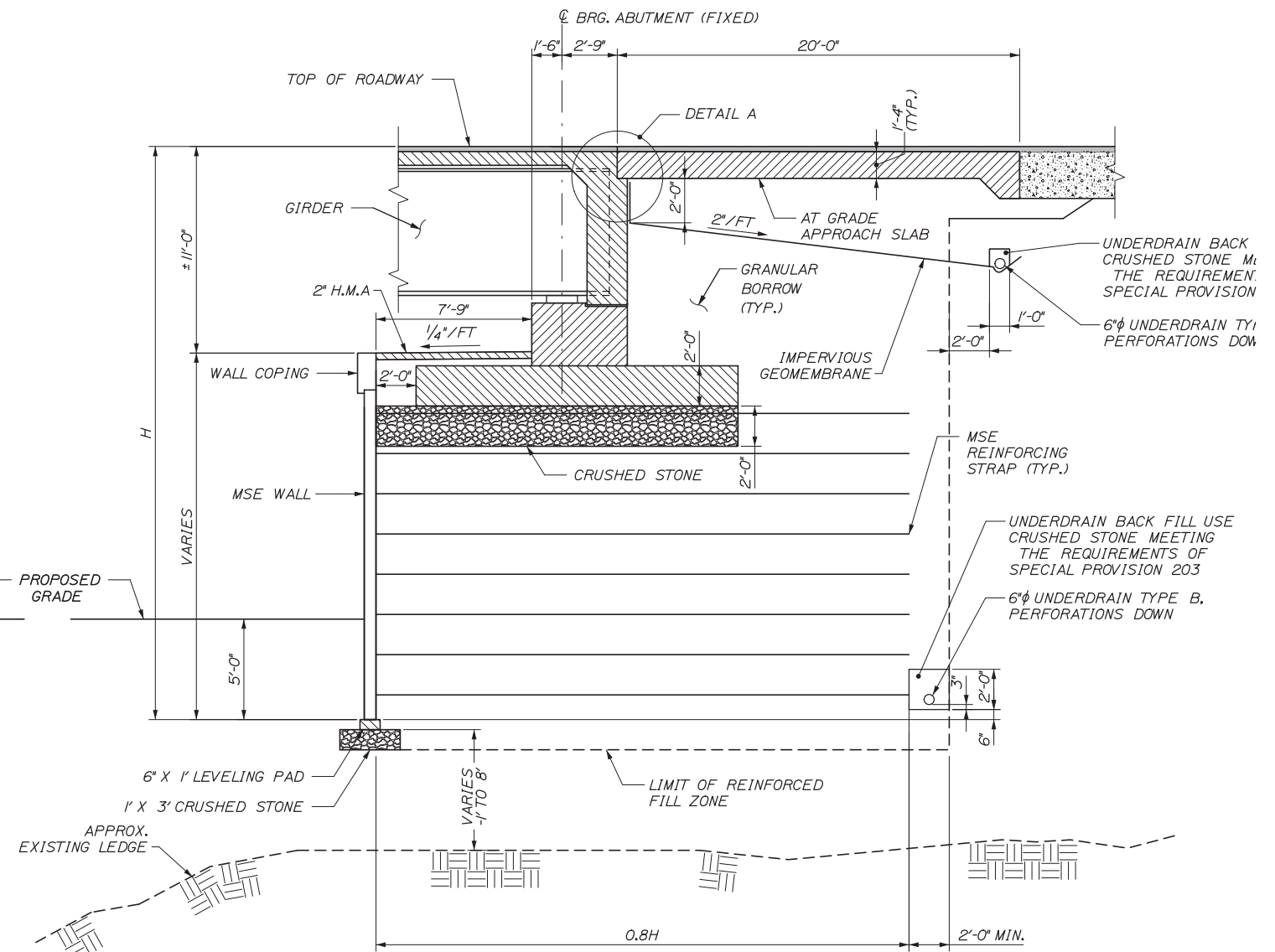
SHEET NUMBER: S-19  
CONTRACT: 2014.10  
114 OF 155

Date:10/10/2014

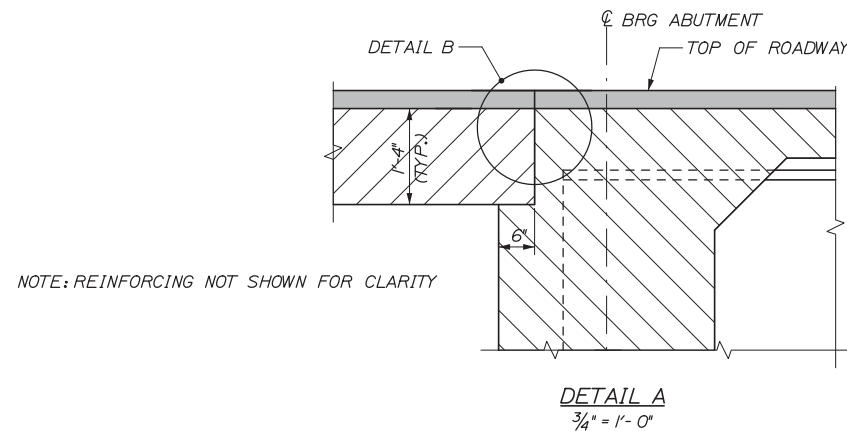
Filename: 115\_Abument Det.1.dgn



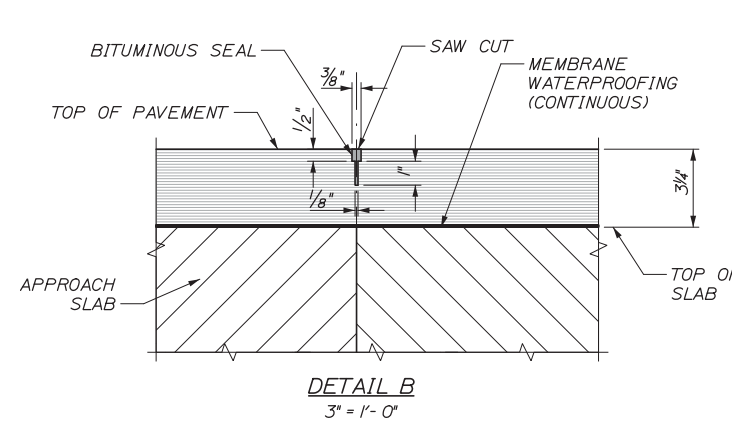
**ABUTMENT I-N SECTION**  
 (ABUTMENT I-S SIMILAR)  
 (ABUTMENT 2-N SIMILAR BUT OPPOSITE HAND)  
 1/4" = 1'-0"



**ABUTMENT 2-S SECTION**  
 1/4" = 1'-0"



NOTE: REINFORCING NOT SHOWN FOR CLARITY



- NOTES:
1. FOR MSE WALL NOTES SEE SHEET S-31.
  2. IMPERVIOUS GEOMEMBRANE SHALL CONFORM TO SPECIAL PROVISION 636.
  3. FOR SLOPE PROTECTION DETAILS SEE SHEET S-51.
  4. FOR SINGLE SLOPE BARRIER DETAILS AND LIMITS SEE SHEET S-50.

Scale:				
Designed by:				
No.	Revision	By	Date	
CONSULTANT PROJECT MANAGER: Dale A. Mitchell				
	By	Date	By	Date
	Designed	AET 10/14	Checked	AJF 10/14
	Drawn	AET 10/14	In Charge of	RAL 10/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

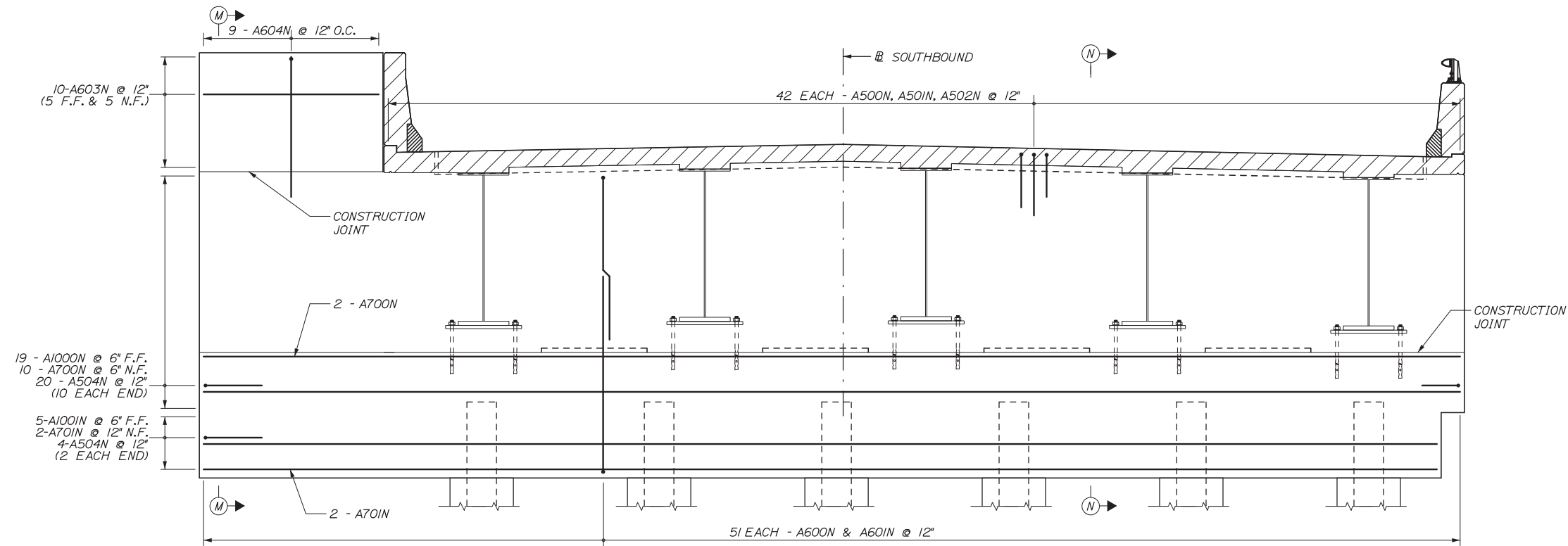
INTERCHANGE IMPROVEMENT  
 LEWISTON (EXIT 80)  
 ABUTMENT DETAILS I

SHEET NUMBER: S-20

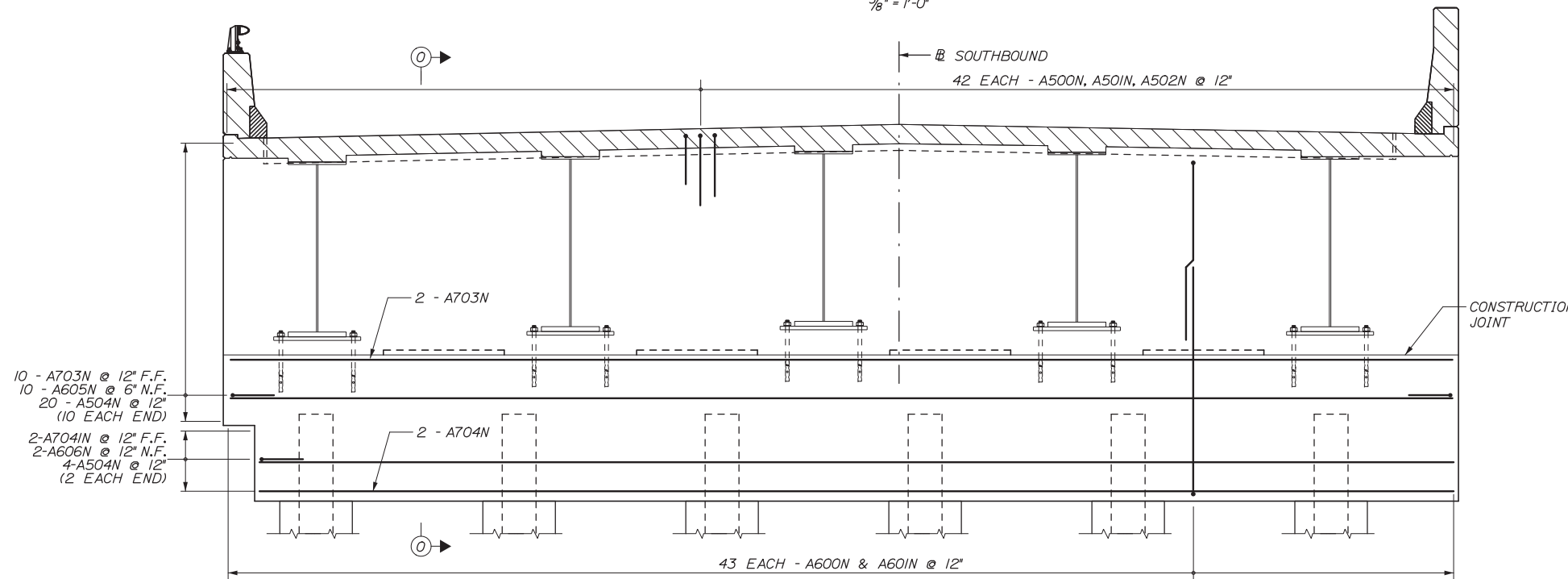
CONTRACT:2014.10

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Date: 10/10/2014



**ABUTMENT 1-N REINFORCING**  
 (ABUTMENT 1-S SIMILAR BUT OPPOSITE HAND)  
 $\frac{3}{8}'' = 1'-0''$



**ABUTMENT 2-N REINFORCING**  
 $\frac{3}{8}'' = 1'-0''$

NOTE: FOR SECTIONS M-M, N-N AND O-O SEE SHEET S-23.

Filename: 116\_Abutment Det 2.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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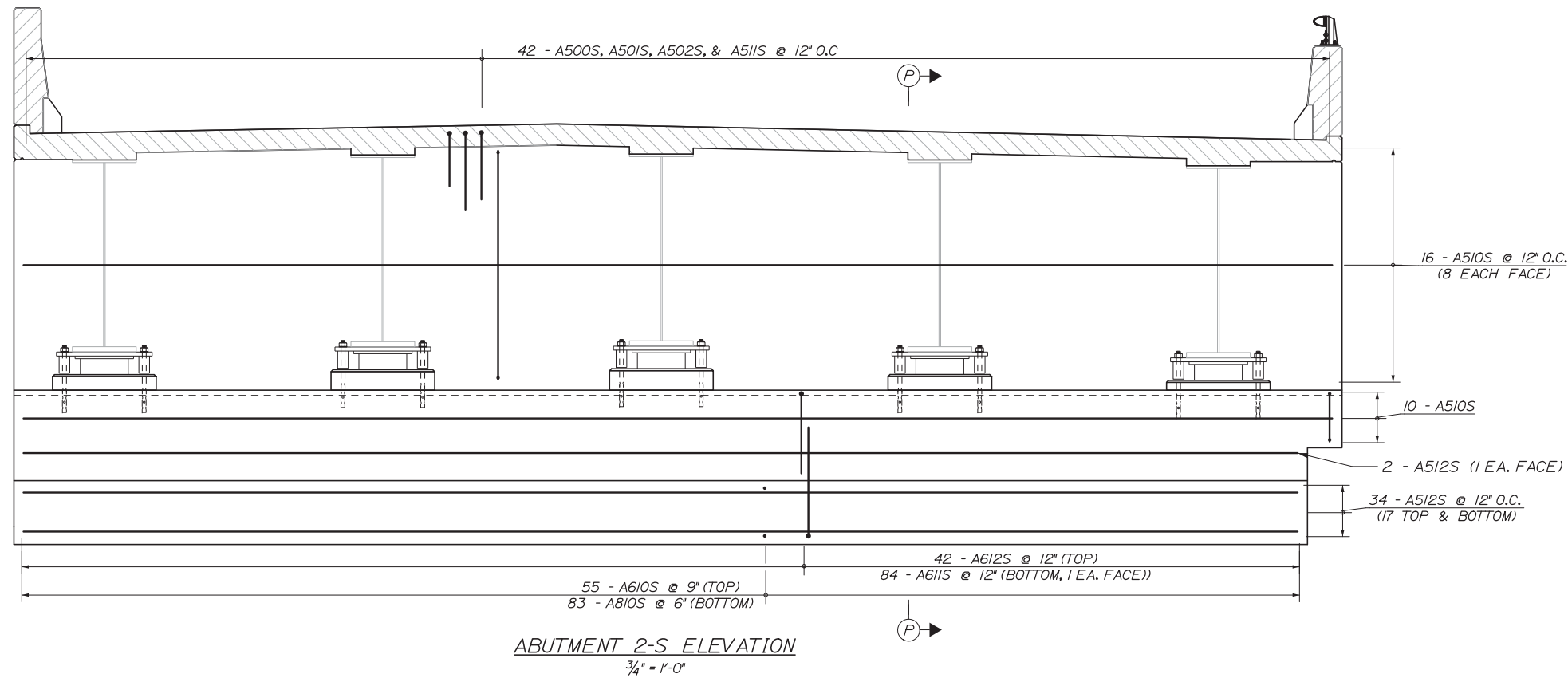
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

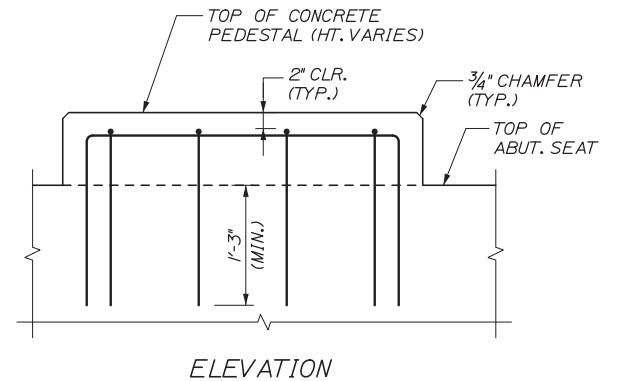
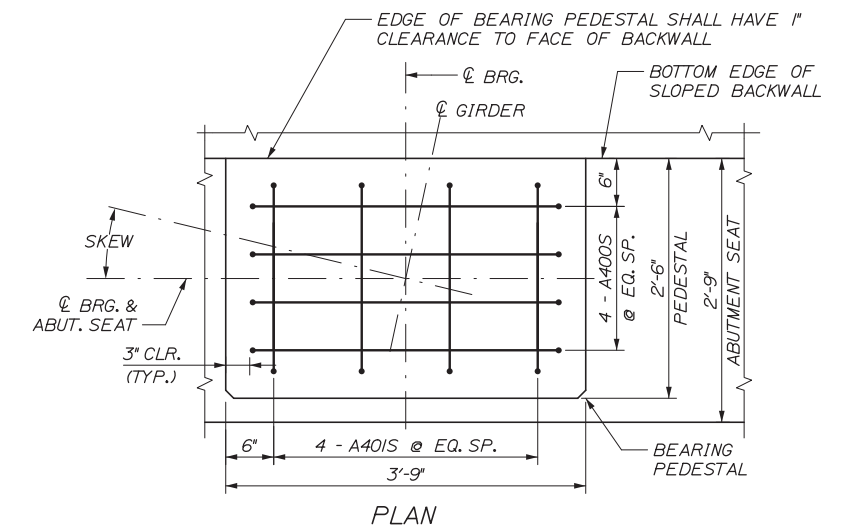
INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 ABUTMENT DETAILS II

SHEET NUMBER: S-21  
 CONTRACT: 2014.10  
 116 OF 155

Date: 10/10/2014



ABUTMENT 2-S ELEVATION  
3/4" = 1'-0"



BEARING PEDESTAL DETAILS  
1" = 1'-0"

- NOTES:
- GIRDER COMPONENTS SHOWN SCREENED FOR CLARITY.
  - FOR SECTION P-P SEE SHEET S-23

Filename: 117\_Abument Det\_3.dgn

Scale:			
No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	AJF	10/14	Checked	AET	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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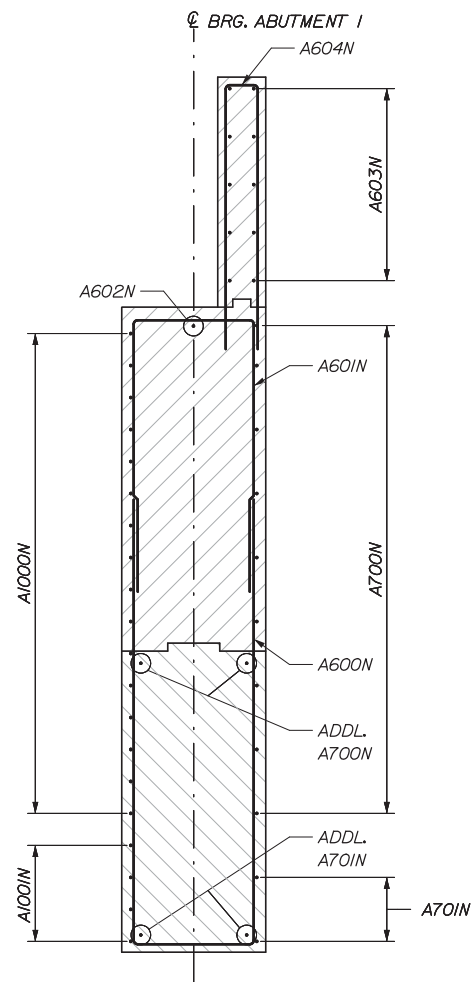
THE GOLD STAR  
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

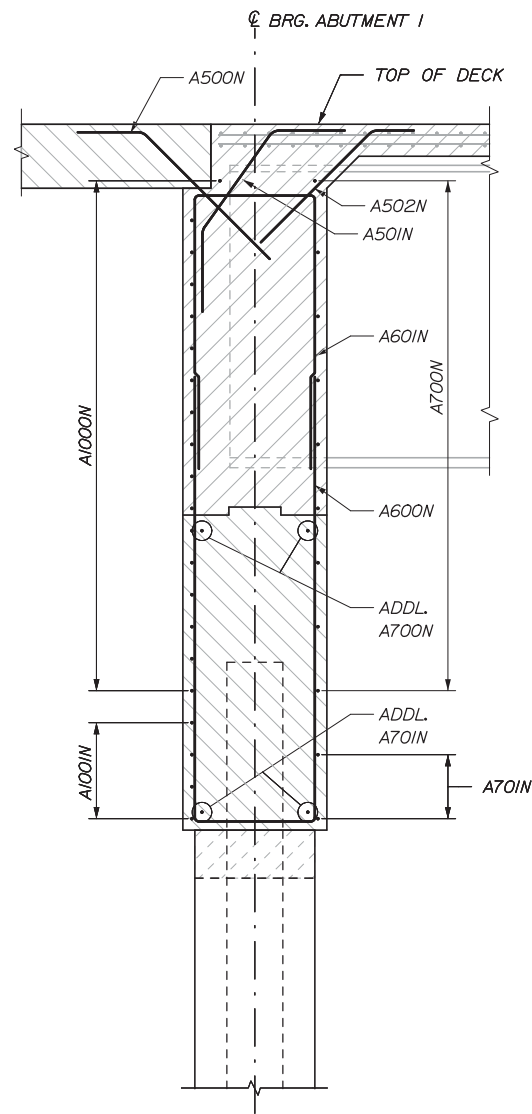
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
ABUTMENT DETAILS III

SHEET NUMBER: S-22  
CONTRACT: 2014.10  
117 OF 155

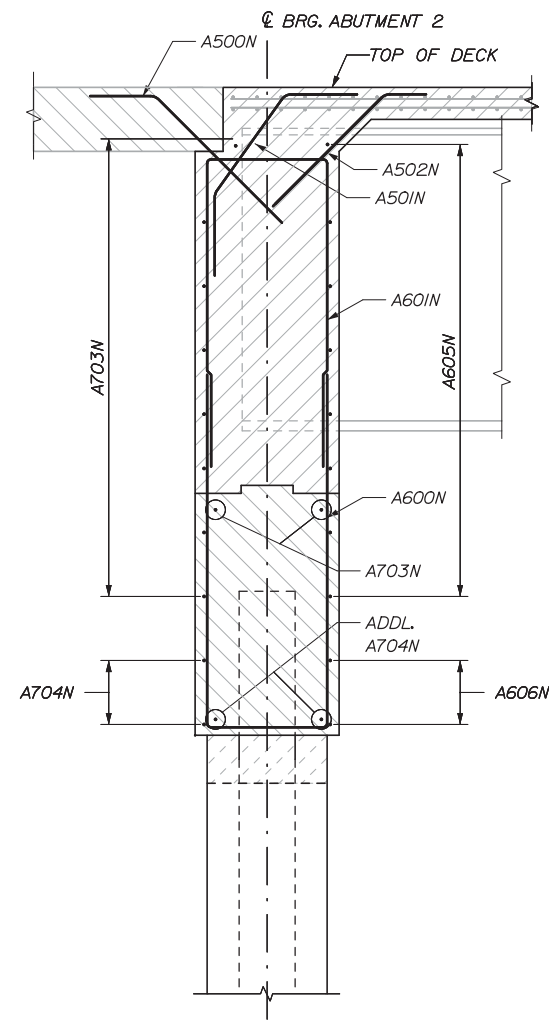
Date: 10/10/2014



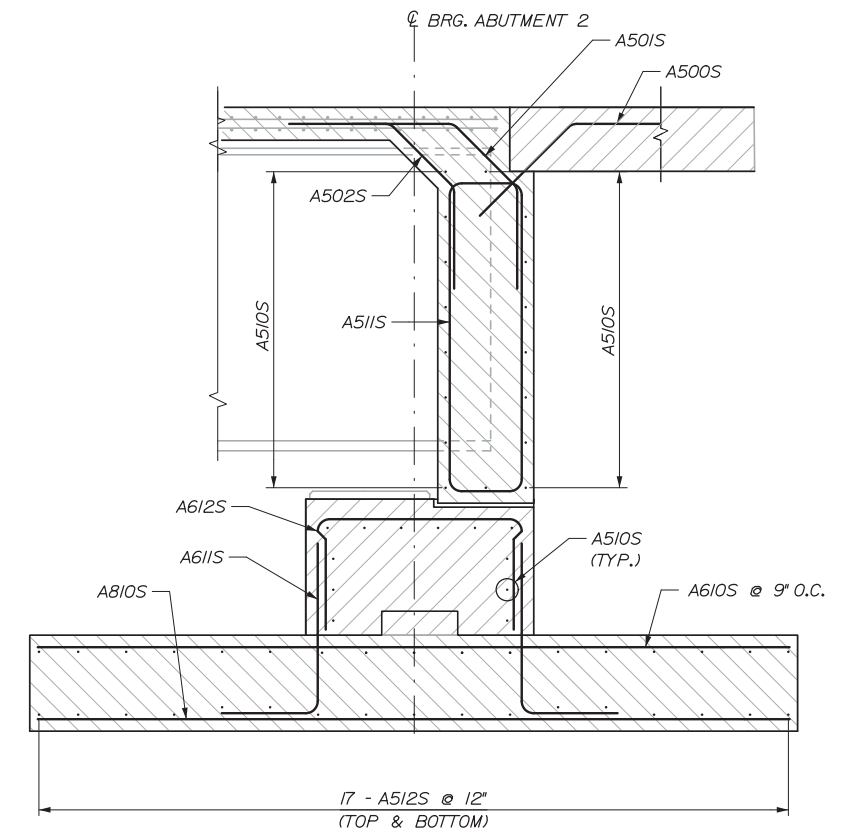
**SECTION M-M**  
1/2" = 1'-0"



**SECTION N-N**  
1/2" = 1'-0"



**SECTION O-O**  
1/2" = 1'-0"



**SECTION P-P**  
1/2" = 1'-0"

NOTES:  
1. DECK REINFORCING SHOWN SCREENED FOR CLARITY.

Filename: 118\_Abutment Det. 4.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
	AET	10/14	Checked	AJF	10/14
	Drawn	PTA	In Charge of	RAL	10/14

HNTB CORPORATION  
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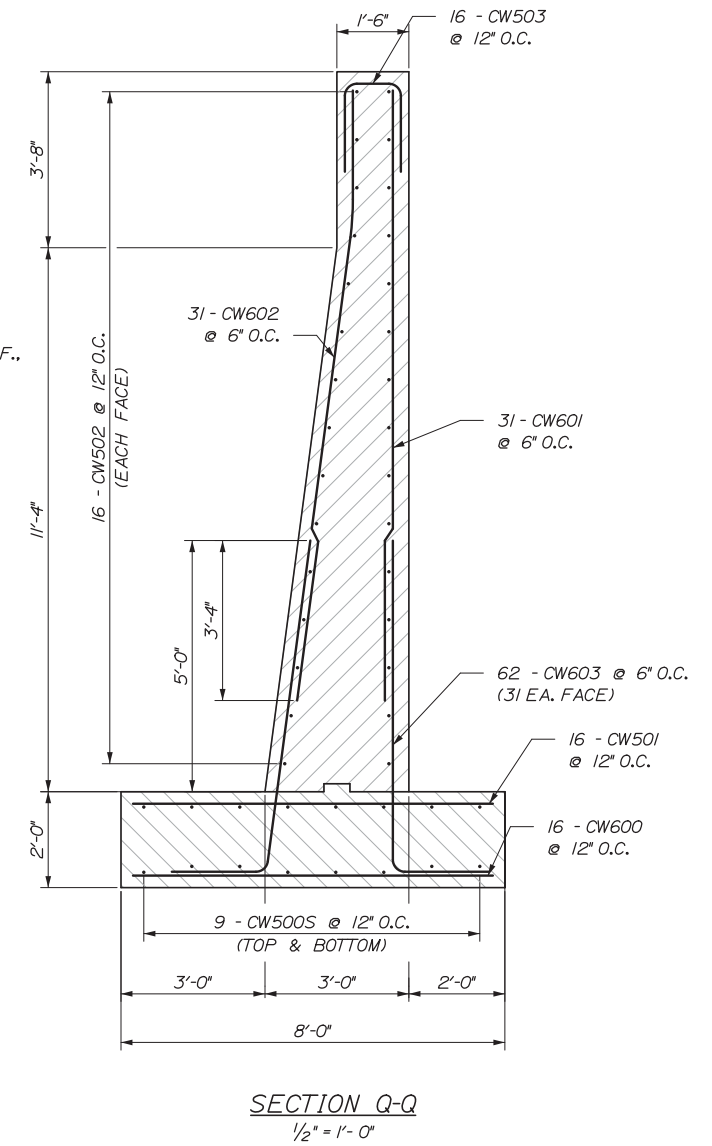
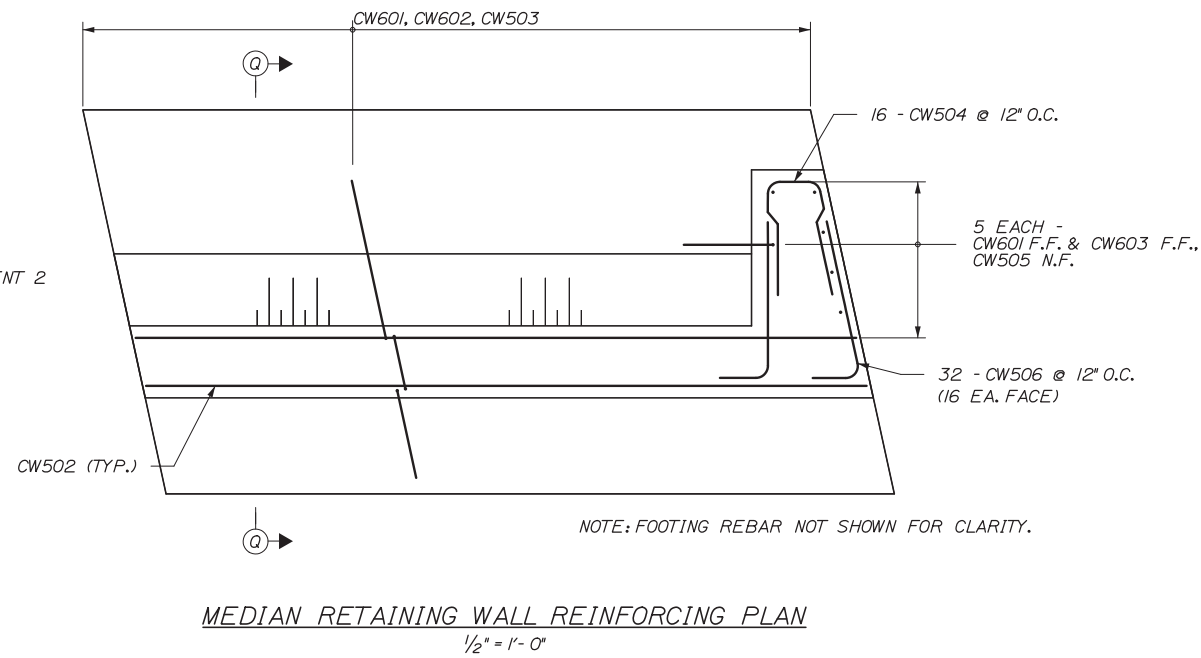
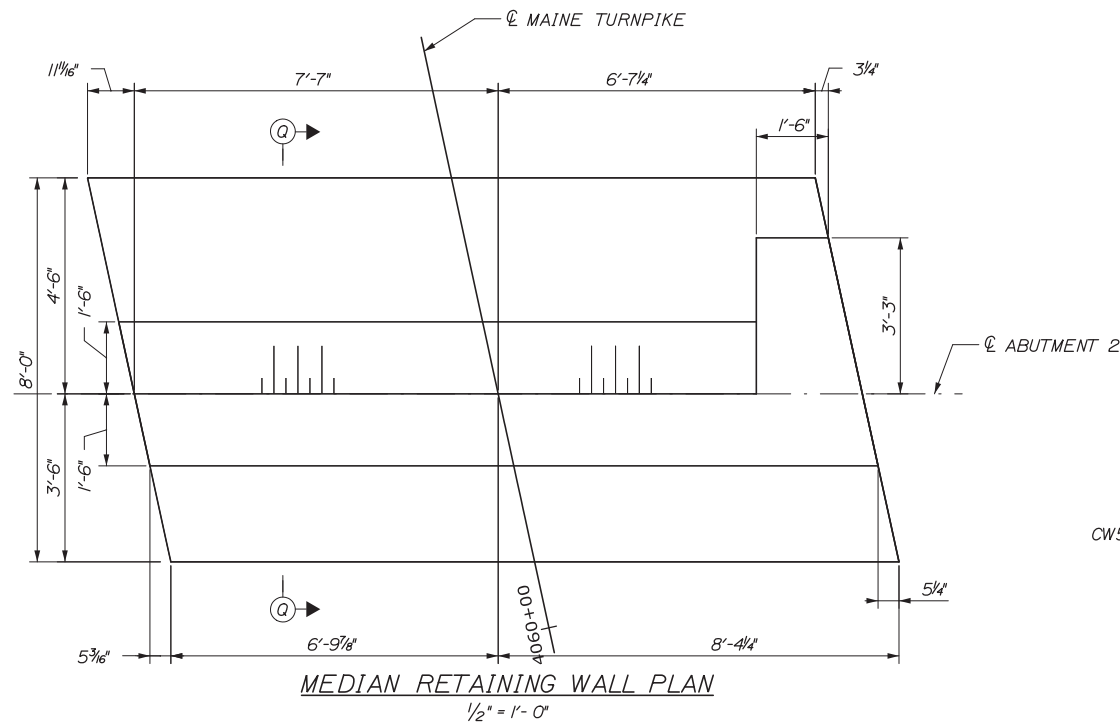
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
ABUTMENT DETAILS IV

SHEET NUMBER: S-23  
CONTRACT: 2014.10  
118 OF 155

Date:10/10/2014



Filename: 119\_Abument Det 5.dgn

No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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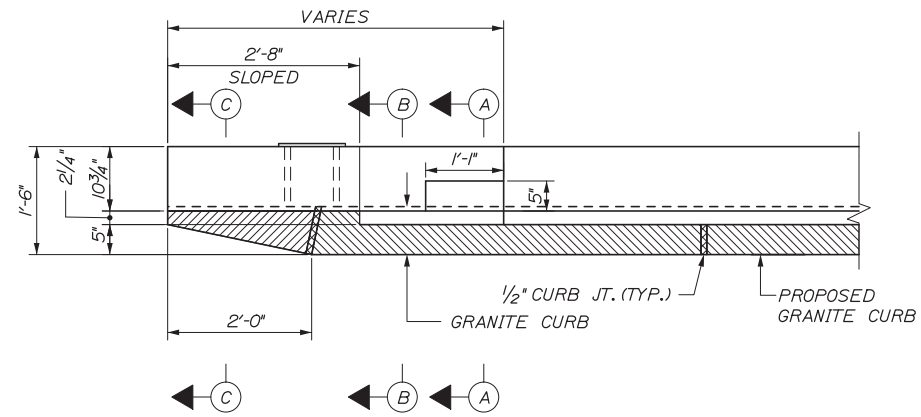
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

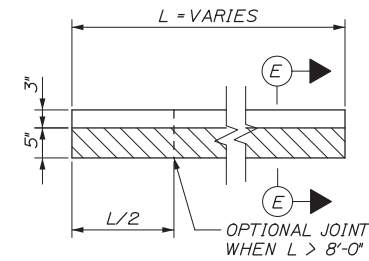
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
ABUTMENT DETAILS V

SHEET NUMBER: S-24  
CONTRACT: 2014.10  
119 OF 155

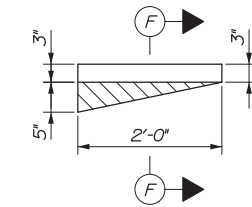
Date: 10/10/2014



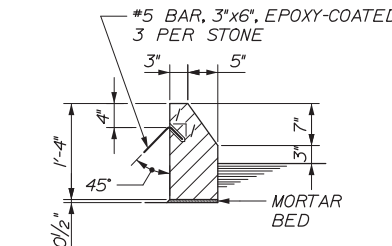
**PLAN**  
(ABUT. IS SHOWN,  
ALL OTHERS SIMILAR)  
3/4" = 1'-0"



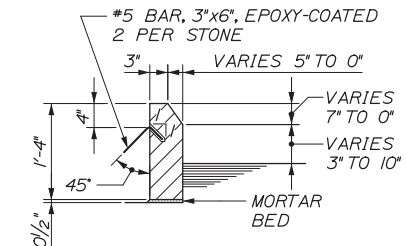
**PLAN**



**PLAN AT END OF ENDPST**  
(FOUR AS SHOWN,  
FOUR OPPOSITE HAND)



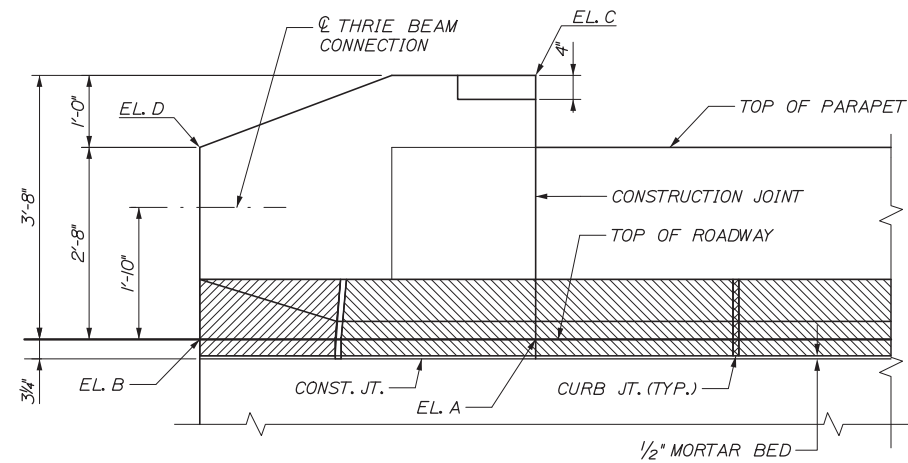
**SECTION E-E**



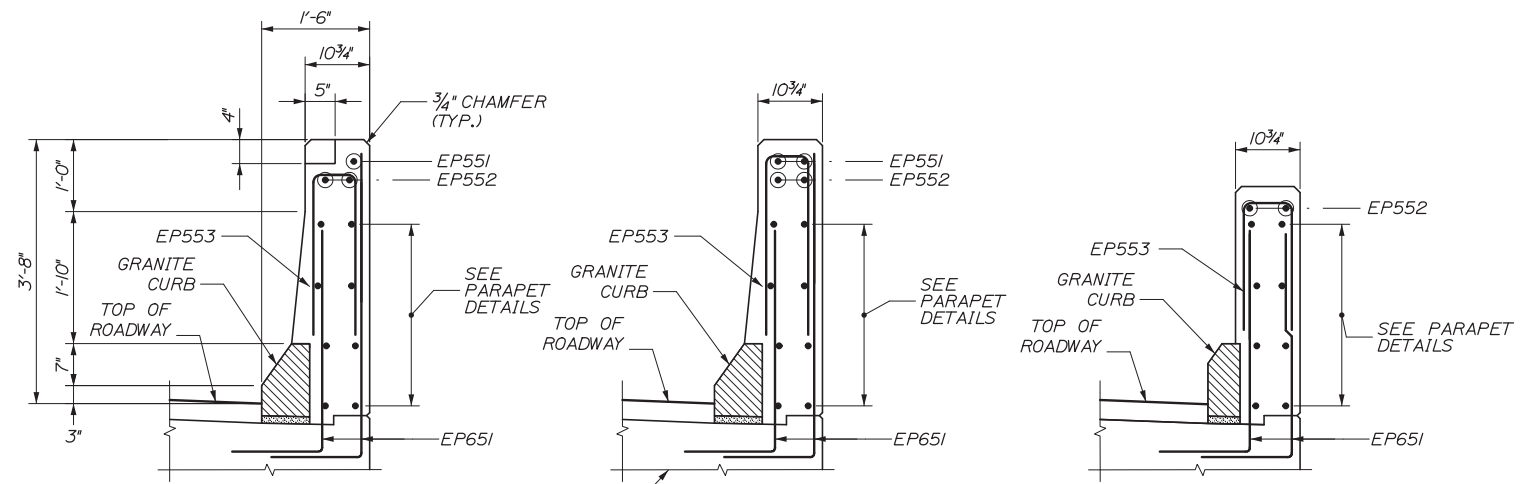
**SECTION F-F**

**ENDPOST GRANITE CURB DETAILS**

3/4" = 1'-0"



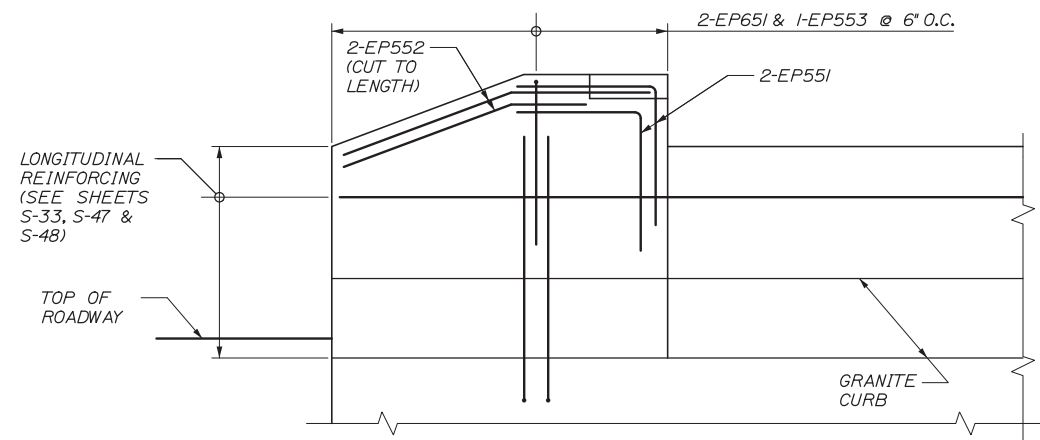
**ELEVATION**  
3/4" = 1'-0"



**SECTION A-A**  
3/4" = 1'-0"

**SECTION B-B**  
3/4" = 1'-0"

**SECTION C-C**  
3/4" = 1'-0"



**ELEVATION - REINFORCING**  
3/4" = 1'-0"

NOTE: THRIE RAIL CONNECTION PLATE SHALL BE SLEEVED THROUGH THE END POST.

LOCATION	ELEV. A	ELEV. B	ELEV. C	ELEV. D
ABUT. IN	245.93	245.97	249.60	248.64
ABUT. IS	245.74	245.78	249.41	248.45
ABUT. 2N	244.04	243.94	247.71	246.61
ABUT. 2S	243.95	243.85	247.62	246.52
WALL IN	246.06	246.10	249.73	248.77
WALL IS	245.94	245.94	249.61	248.61
WALL 2N	241.95	241.74	245.41	244.41
WALL 2S	243.34	243.21	247.01	245.88

Filename: 120\_End Post\_Details.dgn

No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

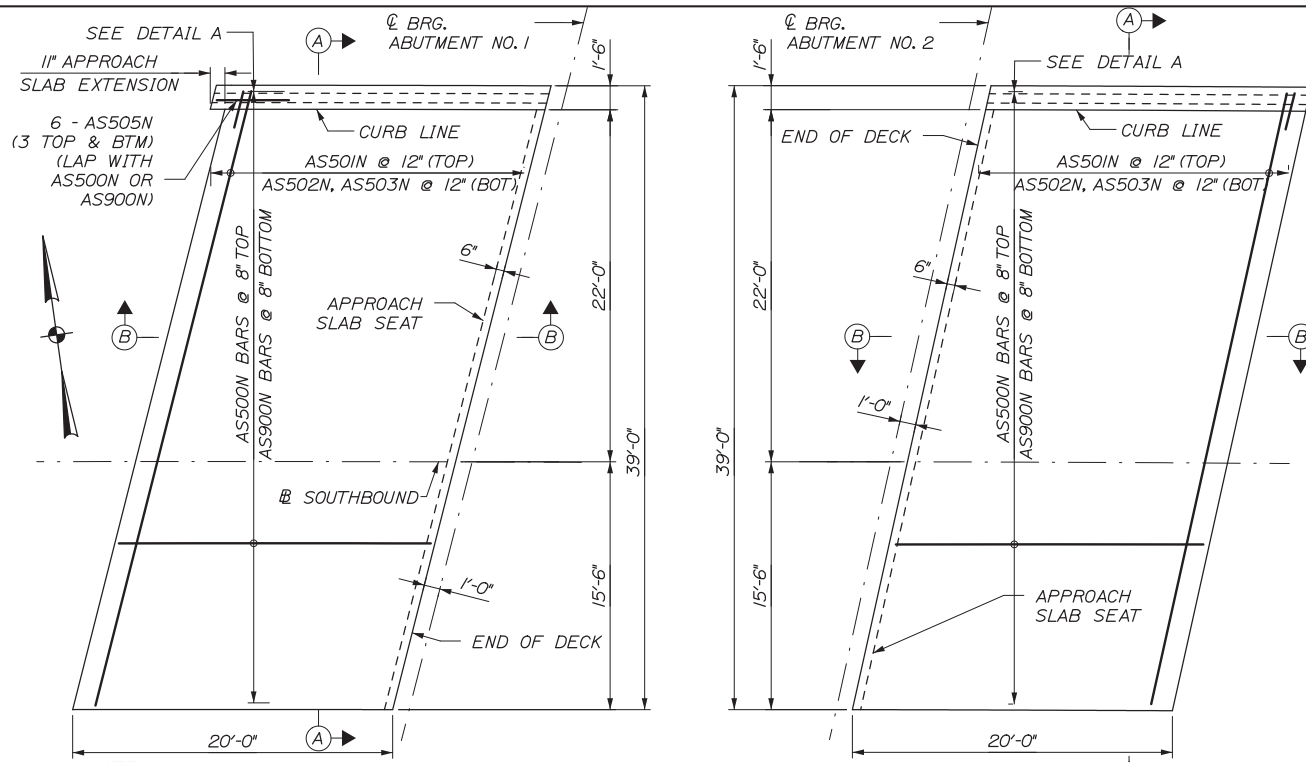
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
ENDPOST DETAILS

SHEET NUMBER: S-25  
CONTRACT: 2014.10  
120 OF 155

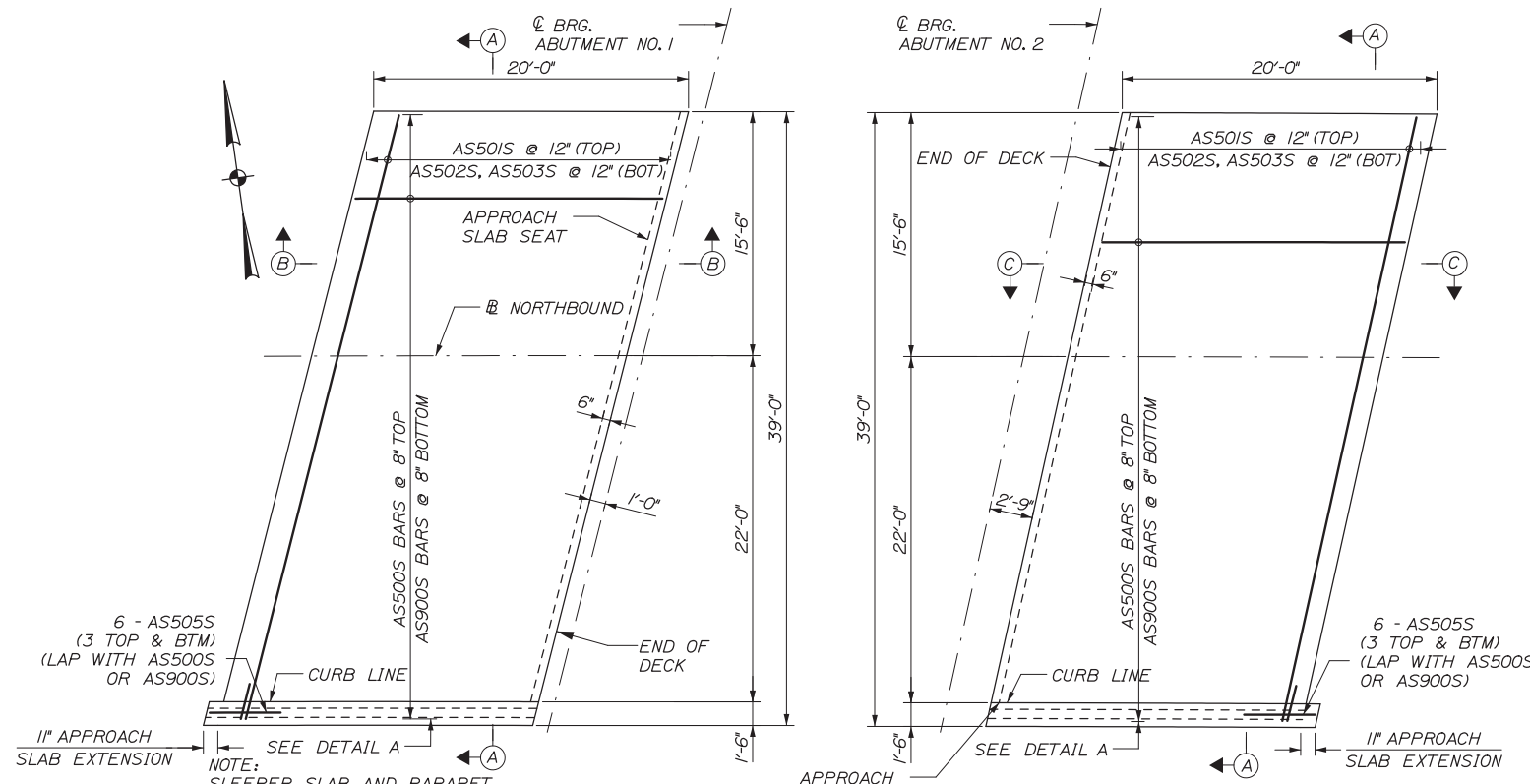


Date: 10/10/2014



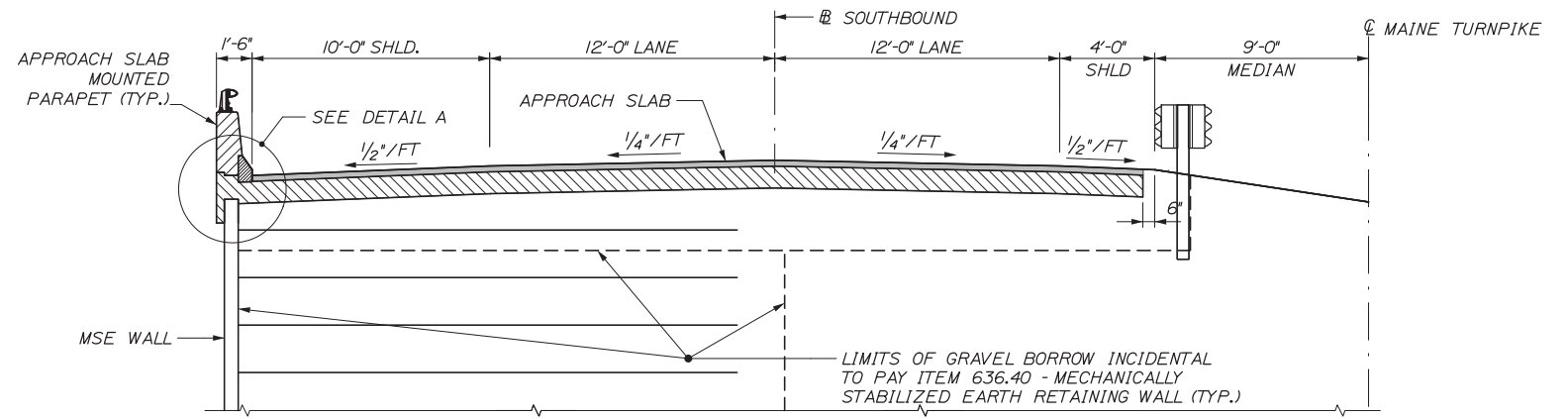
NOTE:  
SLEEPER SLAB AND PARAPET  
REINFORCEMENT NOT SHOWN FOR CLARITY.

APPROACH SLAB PLAN - SOUTHBOUND  
1" = 6'-0"

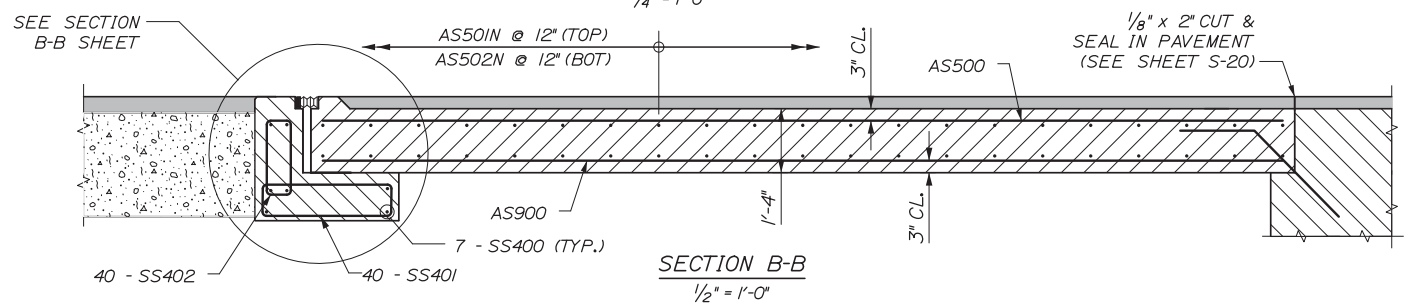


NOTE:  
SLEEPER SLAB AND PARAPET  
REINFORCEMENT NOT SHOWN FOR CLARITY.

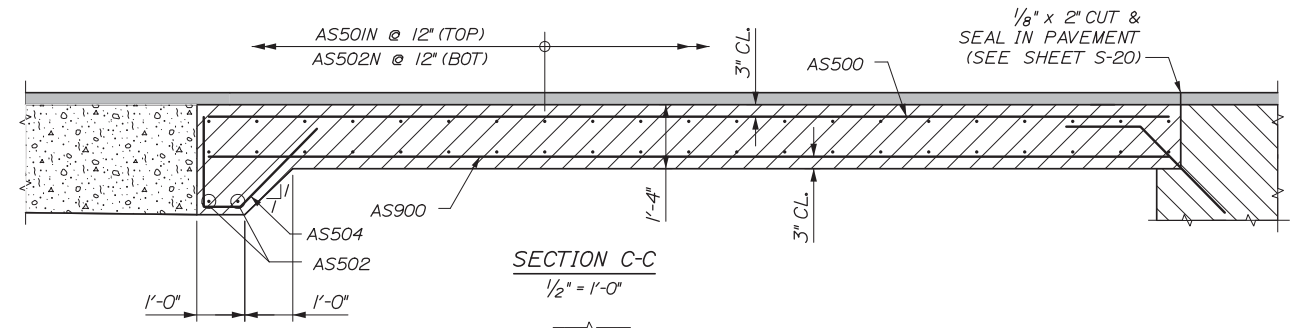
APPROACH SLAB PLAN - NORTHBOUND  
1" = 6'-0"



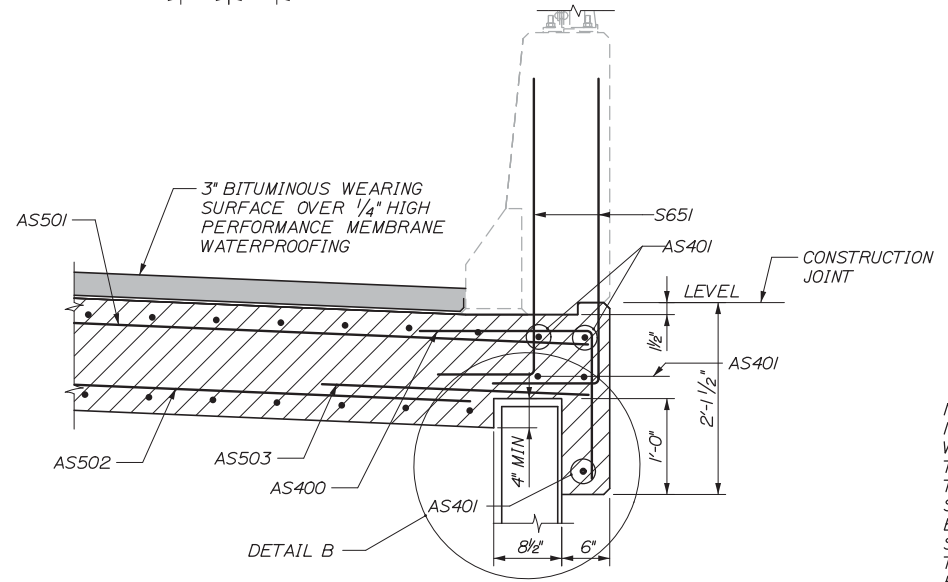
SECTION A-A  
1/4" = 1'-0"



SECTION B-B  
1/2" = 1'-0"



SECTION C-C  
1/2" = 1'-0"



NOTE: FOR DETAIL B SEE SHEET S-31.

DETAIL A  
1" = 1'-0"

NOTES:  
1. SLEEPER SLABS SHALL BE CAST FLUSH WITH THE BACK FACE OF MSE WALLS. AT THE MEDIAN-SIDE OF THE SLEEPER SLAB THE VERTICAL OPENING BETWEEN THE SLEEPER SLAB AND APPROACH SLAB SHALL BE COVERED OVER WITH AN 18 INCH WIDE STRIP OF HIGH PERFORMANCE MEMBRANE. A TWO INCH EXPANSION LOOP SHALL BE PROVIDED TO ALLOW FOR EXPANSION AND CONTRACTION.

Filename: 121\_Approach Slab Details.dgn

No.	Revision	By	Date

Designed by:			
<b>HNTB</b>			
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
Designed	AET	10/14	Checked
Drawn	PTA	10/14	In Charge of

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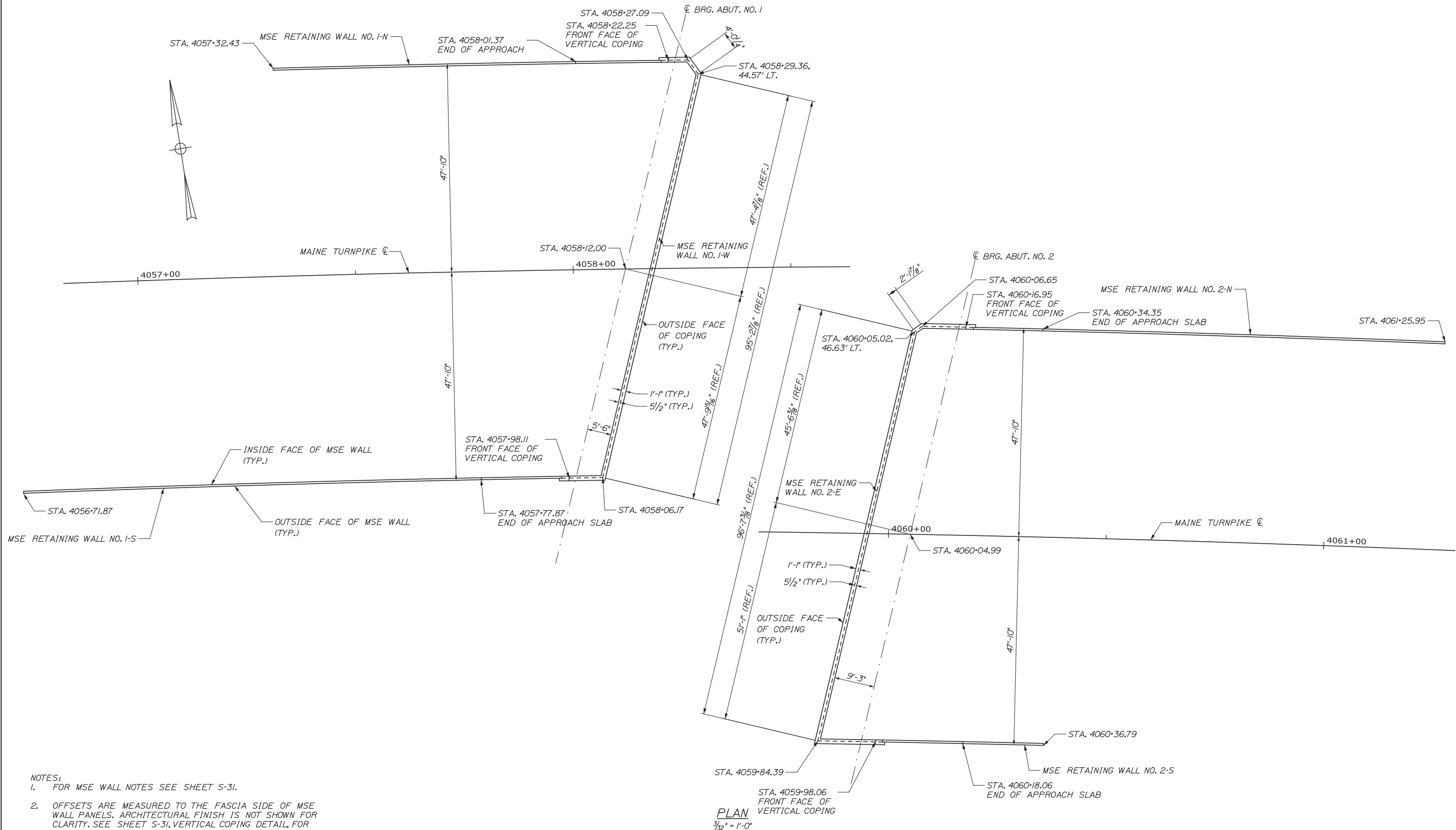
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
APPROACH SLAB DETAILS

SHEET NUMBER: S-26  
CONTRACT: 2014.10  
121 OF 155

Date: 10/10/2014



- NOTES:
- FOR MSE WALL NOTES SEE SHEET S-31.
  - OFFSETS ARE MEASURED TO THE FASCIA SIDE OF MSE WALL PANELS. ARCHITECTURAL FINISH IS NOT SHOWN FOR CLARITY. SEE SHEET S-31, VERTICAL COPING DETAIL, FOR ADDITIONAL INFORMATION.

PLAN  
3/32" = 1'-0"

Scale:

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date	Checked	By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	MPC	10/14	In Charge of	RAL	10/14

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THE GOLD STAR  
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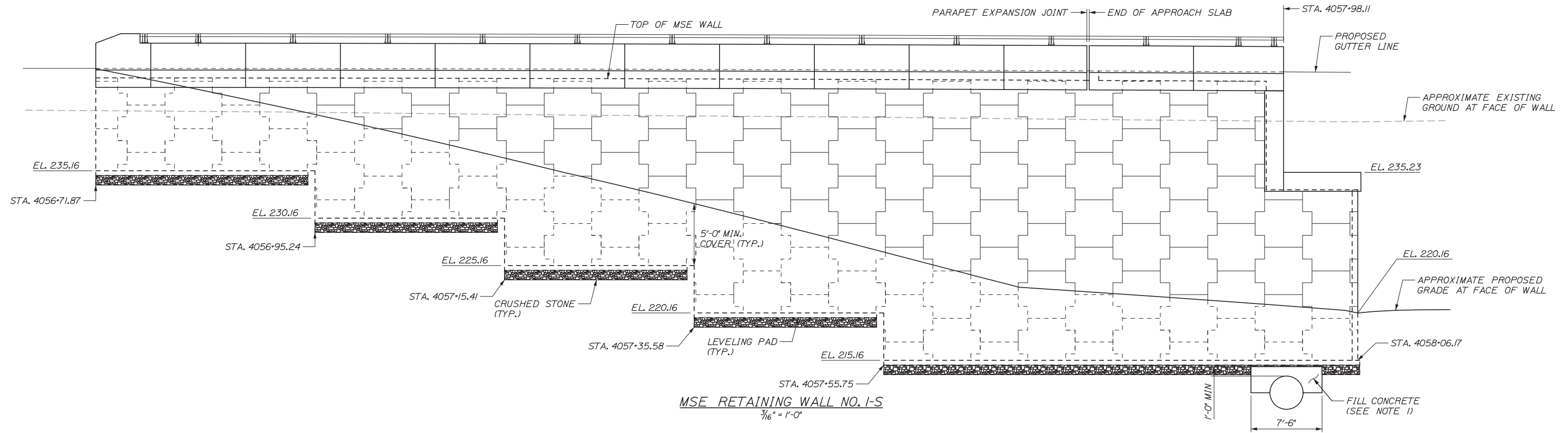
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
RETAINING WALL PLAN  
ABUTMENTS NO. 1 AND NO. 2

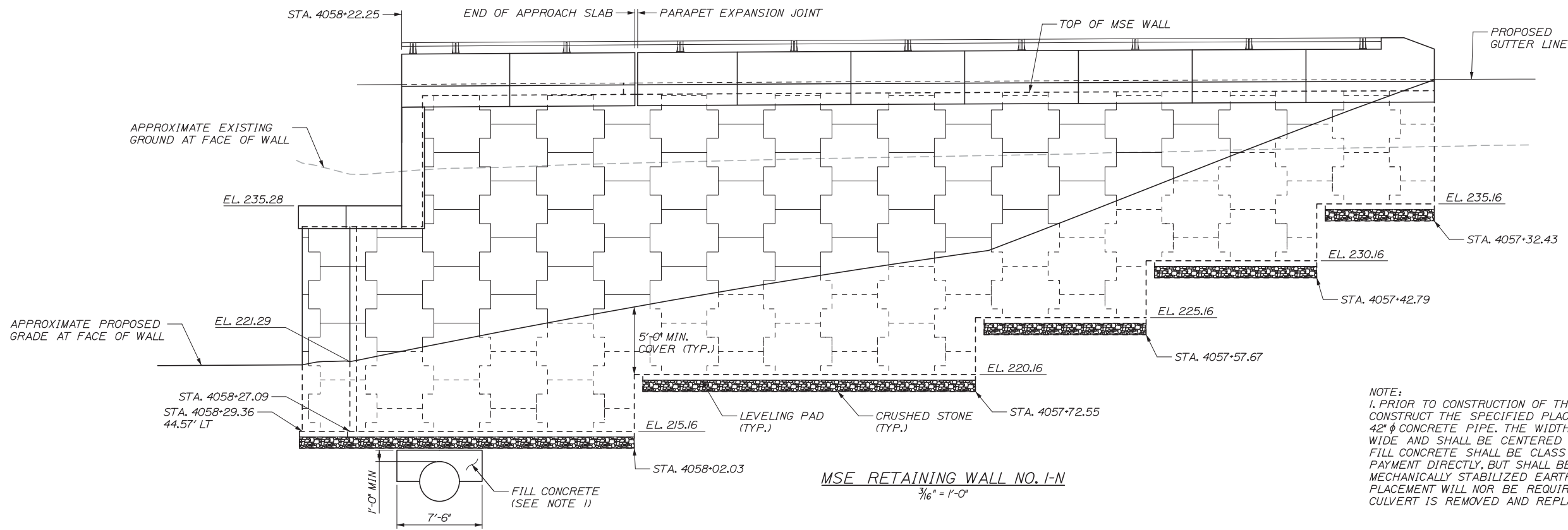
SHEET NUMBER: S-27  
CONTRACT: 2014.10  
122 OF 155

Filename: 122\_RetWallPlan1.dgn

Date: 10/10/2014



MSE RETAINING WALL NO. I-S  
3/16" = 1'-0"



MSE RETAINING WALL NO. I-N  
3/16" = 1'-0"

NOTE:  
1. PRIOR TO CONSTRUCTION OF THE RETAINING WALLS THE CONTRACTOR SHALL CONSTRUCT THE SPECIFIED PLACEMENT OF FILL CONCRETE AROUND THE EXISTING 42" Ø CONCRETE PIPE. THE WIDTH OF THE FILL CONCRETE SHALL BE AT LEAST 4' WIDE AND SHALL BE CENTERED BENEATH THE PROPOSED LEVELING SLAB. ALL FILL CONCRETE SHALL BE CLASS AAA. THIS WORK WILL NOT BE MEASURED FOR PAYMENT DIRECTLY, BUT SHALL BE CONSIDERED INCIDENTAL TO PAY ITEM 636.40, MECHANICALLY STABILIZED EARTH RETAINING WALL. THE PROPOSED FILL CONCRETE PLACEMENT WILL NOT BE REQUIRED FOR RETAINING WALL I-S PROVIDED THE CULVERT IS REMOVED AND REPLACED WITH COMPACTED GRAVEL.

Scale:

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

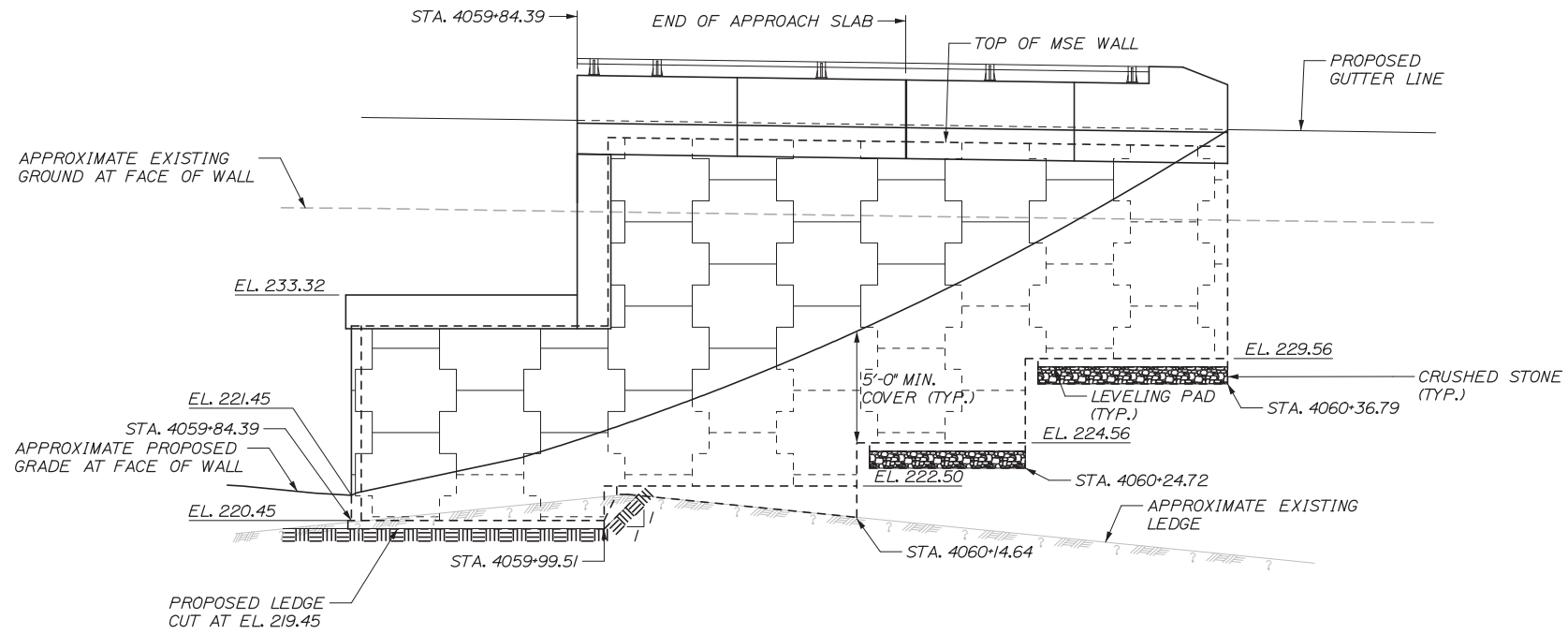
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
RETAINING WALL ELEVATIONS I

SHEET NUMBER: S-28  
123 OF 155

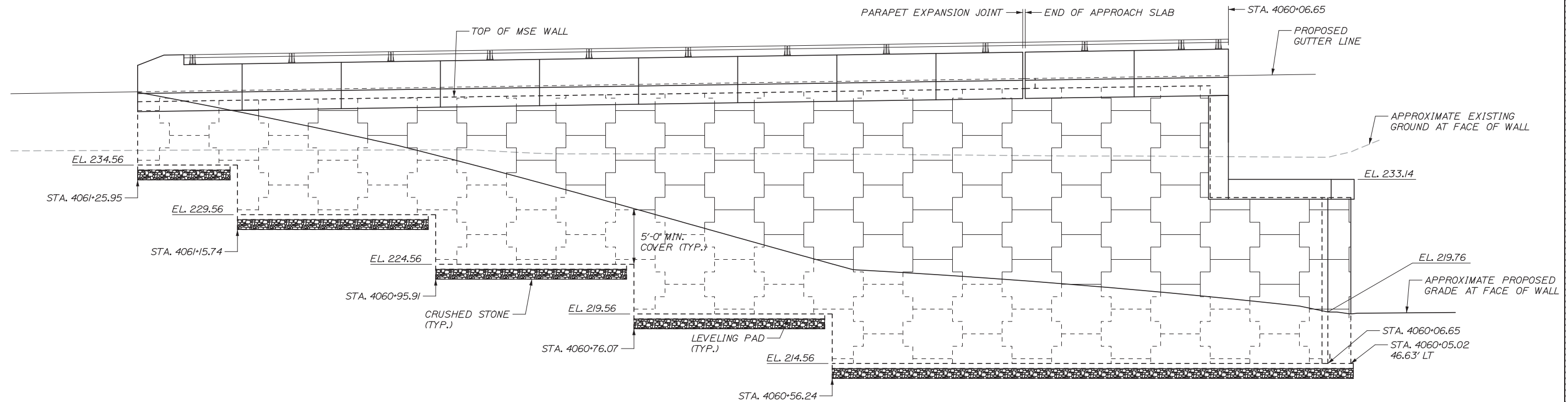
CONTRACT: 2014.10

Filename: 123\_RetWallElev1.dgn

Date: 10/10/2014



MSE RETAINING WALL NO. 2-S  
3/16" = 1'-0"



MSE RETAINING WALL NO. 2-N  
3/16" = 1'-0"

Scale:

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

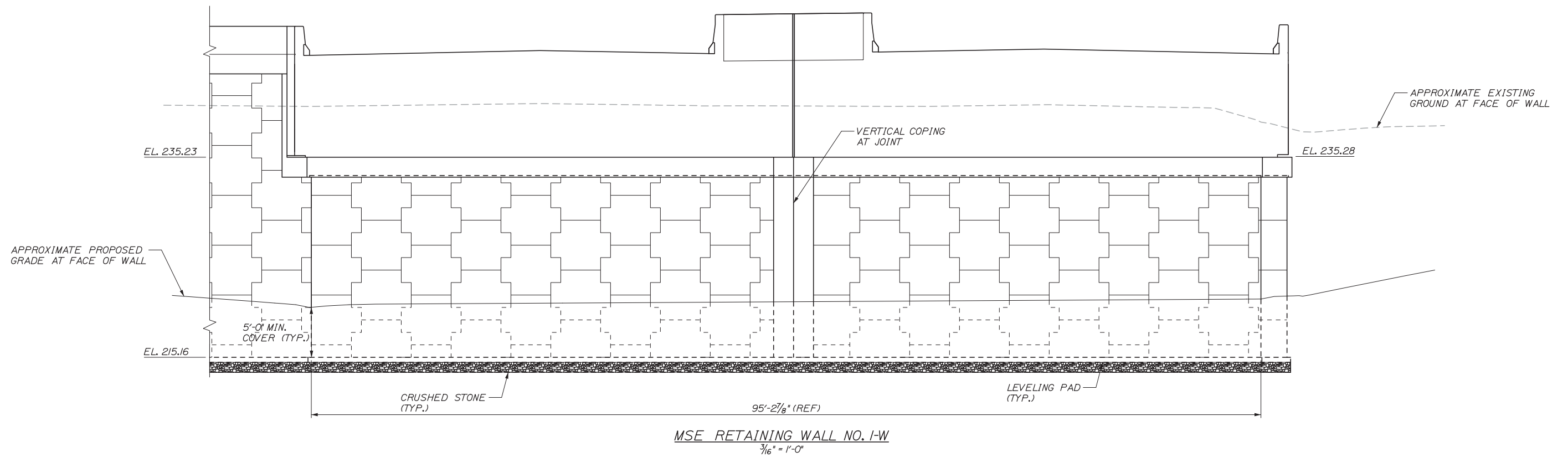
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
RETAINING WALL ELEVATIONS II

SHEET NUMBER: S-29  
124 OF 155

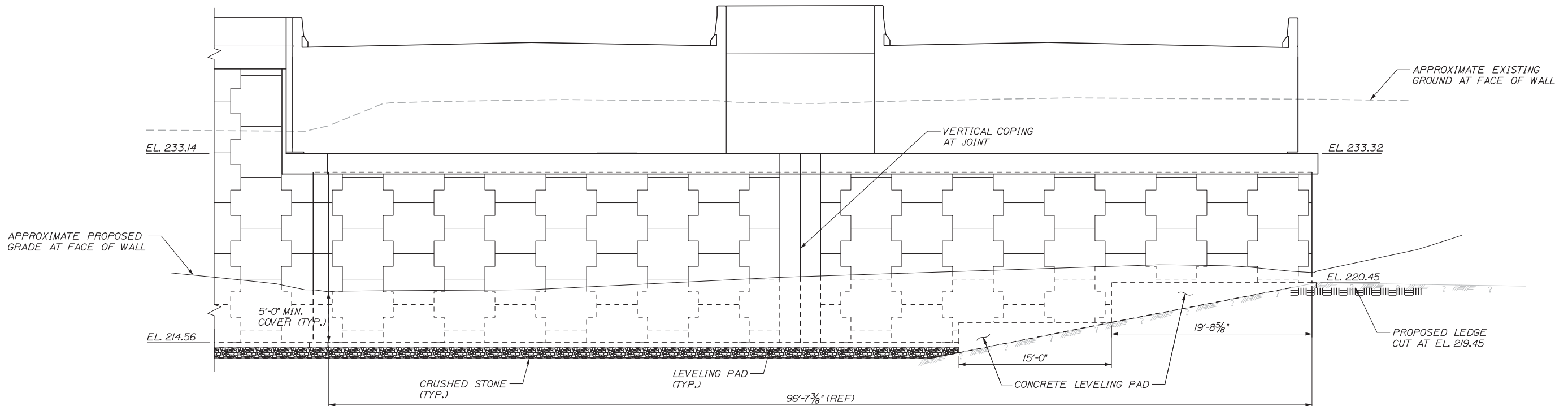
CONTRACT: 2014.10

Filename: 124\_RetWallElev2.dgn

Date: 10/10/2014



**MSE RETAINING WALL NO. 1-W**  
 $\frac{3}{16}'' = 1'-0''$



**MSE RETAINING WALL NO. 2-E**  
 $\frac{3}{16}'' = 1'-0''$

Filename: 125\_RetWallElev.3.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
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Drawn	MPC	10/14	In Charge of	RAL	10/14

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**THE GOLD STAR  
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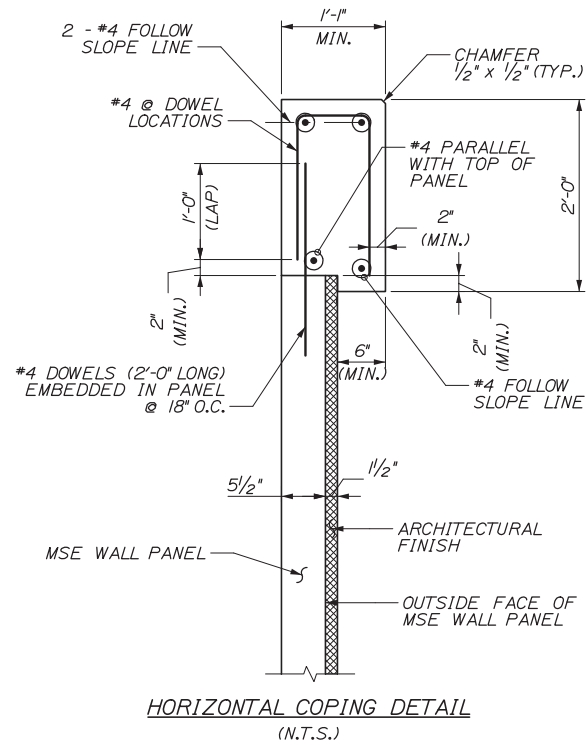
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 RETAINING WALL ELEVATIONS III

SHEET NUMBER: S-30  
 125 OF 155

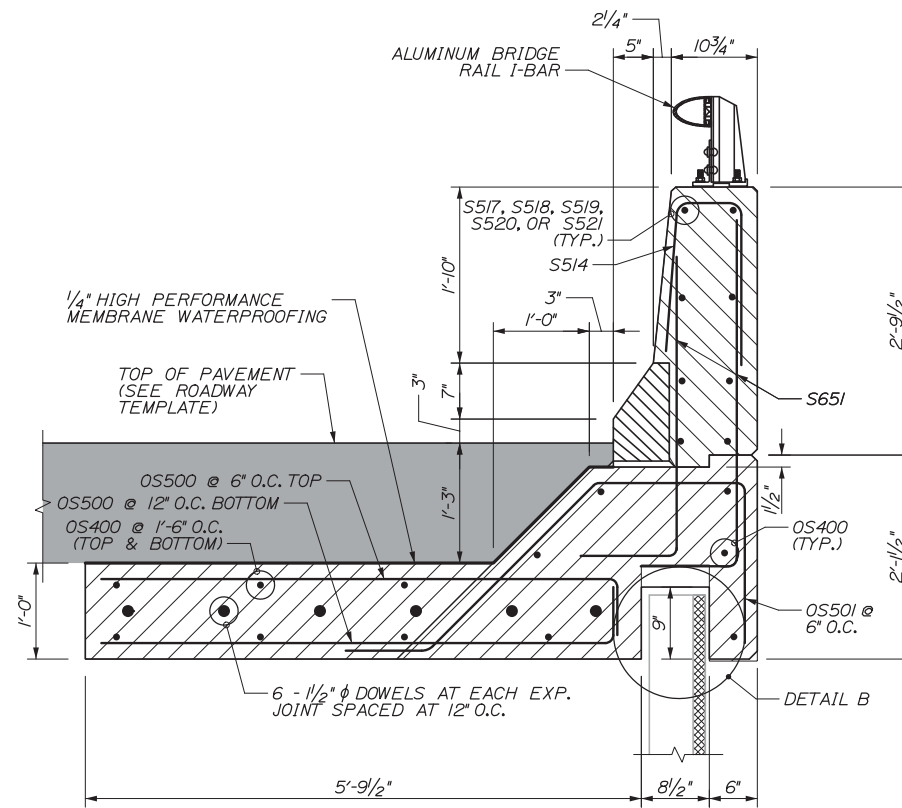
CONTRACT: 2014.10

Date:10/10/2014

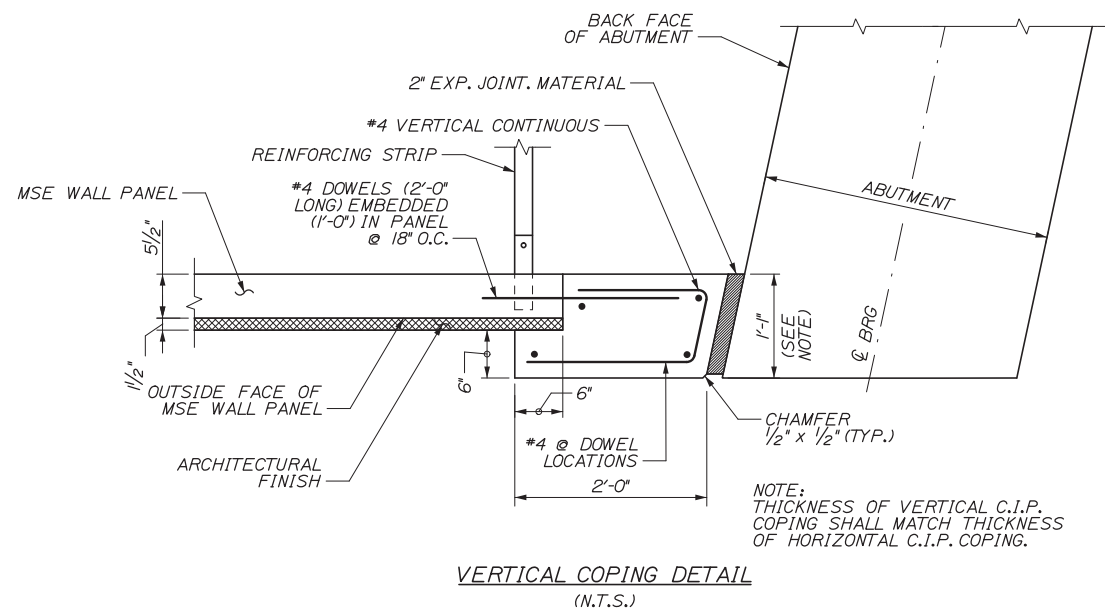


**HORIZONTAL COPING DETAIL**  
(N.T.S.)

NOTE: FOR THIS PROJECT, THE OUTSIDE FACE OF THE MSE WALL PANEL WAS USED AS THE HORIZONTAL CONTROL LINE.

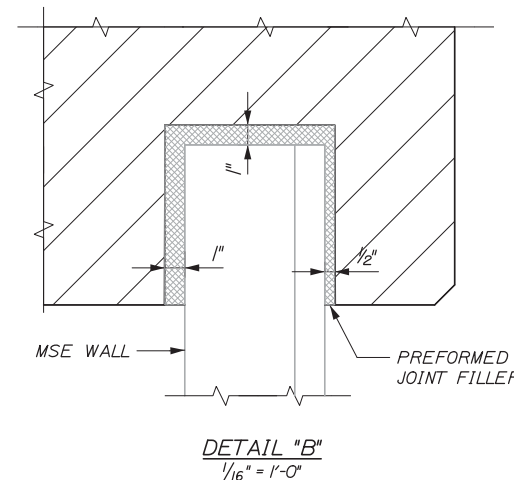


**PARAPET AND OVERTURNING SLAB DETAIL**  
(N.T.S.)



**VERTICAL COPING DETAIL**  
(N.T.S.)

NOTE: THICKNESS OF VERTICAL C.I.P. COPING SHALL MATCH THICKNESS OF HORIZONTAL C.I.P. COPING.



**DETAIL "B"**  
1/16" = 1'-0"

**MSE WALL NOTES:**

- THE CONTRACTOR SHALL PROVIDE A MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL IN ACCORDANCE WITH SPECIAL PROVISION 636, MECHANICALLY STABILIZED EARTH RETAINING WALL. THE MSE RETAINING WALL SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 11.10 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 6TH EDITION, 2012 WITH INTERIMS AND THE WALL MANUFACTURER'S RECOMMENDATIONS. ALL DESIGN COMPUTATIONS AND SHOP DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MAINE AND SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW. PLAN DETAILS ARE SHOWN FOR ESTIMATING PURPOSES ONLY.
- FOR MSE WALL ELEVATIONS, SEE SHEET S-28, S-29 AND S-30.
- THE BEARING RESISTANCE FOR THE REINFORCED SOIL VOLUME AND LEVELING PADS FOUNDED ON NATIVE SOILS OF THIS SITE SHALL BE EVALUATED FOR THE STRENGTH AND SERVICE LIMIT STATES USING FACTORED LOADS. THE FACTORED BEARING RESISTANCES FOR USE IN THE MSE WALL DESIGN ARE PROVIDED IN THE PROJECT GEOTECHNICAL REPORT.  
  
SERVICE I = 3.979 KSF  
STRENGTH I = 5.708 KSF
- THE MSE RETAINING WALL SHALL BE DESIGNED FOR THE ADDITIONAL LOADS IMPOSED BY THE FOOTING PRESSURE AT ABUTMENT 2-S. MAXIMUM CALCULATED FACTORED FOOTING PRESSURES FOR ALL APPLICABLE LOADS AND COMBINATIONS ARE:  
  
SERVICE I = 3.979 KSF  
STRENGTH I = 5.708 KSF
- PROVIDE IMPERVIOUS WATERPROOFING MEMBRANE OVER THE REINFORCED SOIL ZONE IN ACCORDANCE WITH SPECIAL PROVISION 636 AND AS SHOWN ON THE PLANS. PAYMENT SHALL BE INCIDENTAL TO PAY ITEM 636.40, MECHANICALLY STABILIZED EARTH.
- TOPSOIL, GRANULAR FILL, AND ORGANIC SOILS SHALL BE REMOVED ENTIRELY WITHIN THE REINFORCED SOIL ZONE AS SHOWN ON SHEET S-20.
- UNSUITABLE FOUNDATION MATERIALS ENCOUNTERED BELOW THE BOTTOM OF THE REINFORCED FILL ZONE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AND REPLACED WITH GRAVEL BORROW MEETING THE REQUIREMENTS OF SUBSECTION 703.20, GRAVEL BORROW. EXCAVATION OF UNSUITABLE FOUNDATION MATERIAL WILL BE MEASURED FOR PAYMENT UNDER PAY ITEM 203.20 COMMON EXCAVATION. PLACEMENT OF GRAVEL BORROW SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 203.26, GRAVEL BORROW.
- ALL EMBANKMENT MATERIAL, EXCEPT AS OTHERWISE SHOWN, PLACED BELOW THE BOTTOM PAY LIMIT ELEVATION OF THE MSE WALL SHALL BE GRANULAR BORROW MEETING THE REQUIREMENTS OF SUBSECTION 703.19, MATERIAL FOR UNDERWATER BACKFILL.
- SIX INCH DIAMETER UNDERDRAIN TYPE B SHALL BE CONSTRUCTED WITHIN THE REINFORCED FILL ZONE AND AT THE END OF THE IMPERVIOUS GEOMEMBRANE AS SHOWN ON SHEET S-20. THE UNDERDRAIN SHALL EXTEND ALONG THE FULL LENGTH OF THE MSE WALLS AND OUTLET IN A LOCATION APPROVED BY THE RESIDENT. PAYMENT FOR THE UNDERDRAIN, OUTLETS AND CRUSHED STONE MATERIAL SHALL BE CONSIDERED INCIDENTAL TO PAY ITEM 636.40, MECHANICALLY STABILIZED EARTH RETAINING WALL.
- CONCRETE FACING PANEL FINISH SHALL BE CRUCIFORM ASHLAR STONE SIMILAR TO THAT MANUFACTURED BY REINFORCED EARTH COMPANY OF NORTH READING, MA OR EQUAL. THE CONTRACTOR SHALL SUBMIT SAMPLES OF THE PANEL SHAPE AND FINISH TO THE RESIDENT FOR APPROVAL PRIOR TO CASTING.
- THE CONTRACTOR MAY USE PRECAST OR CAST-IN-PLACE CONCRETE COPING. SEE SPECIAL PROVISION 636, MECHANICALLY STABILIZED EARTH RETAINING WALL, FOR SPECIFIC REQUIREMENTS REGARDING CAST-IN-PLACE CONCRETE COPING. THE SHOP DRAWINGS FOR THE MSE WALLS SHALL CONVEY WHAT TYPE OF COPING WILL BE USED, WHERE IT WILL BE USED, AND THE LOCATION OF ANY PROPOSED JOINTS.
- ALL LEVELING PADS SHALL BE CONSTRUCTED FROM CLASS A CONCRETE.

Filename: 126\_Retaining WallDetails 1.dgn

Scale:			
No.	Revision	By	Date

Designed by:						
<b>HNTB</b>						
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.						
	By	Date		By	Date	
	Designed	AET	10/14	Checked	AJF	10/14
	Drawn	PTA	10/14	In Charge of	RAL	10/14

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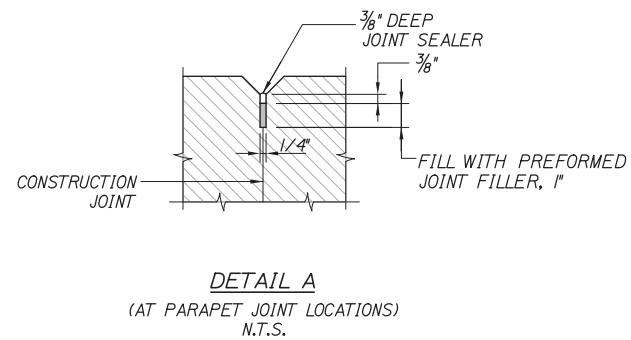
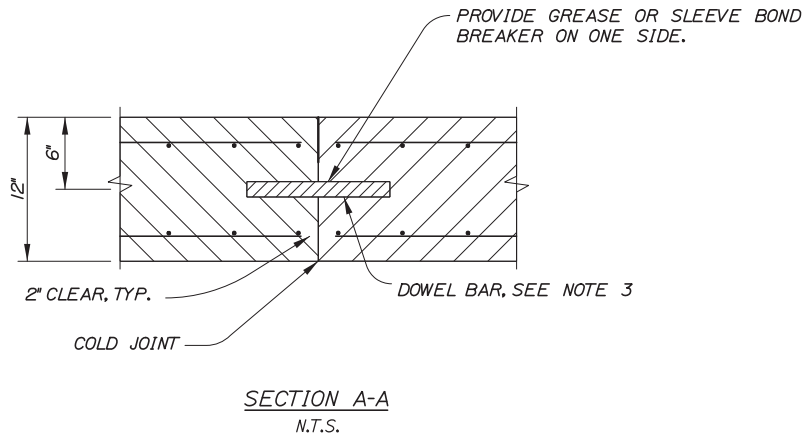
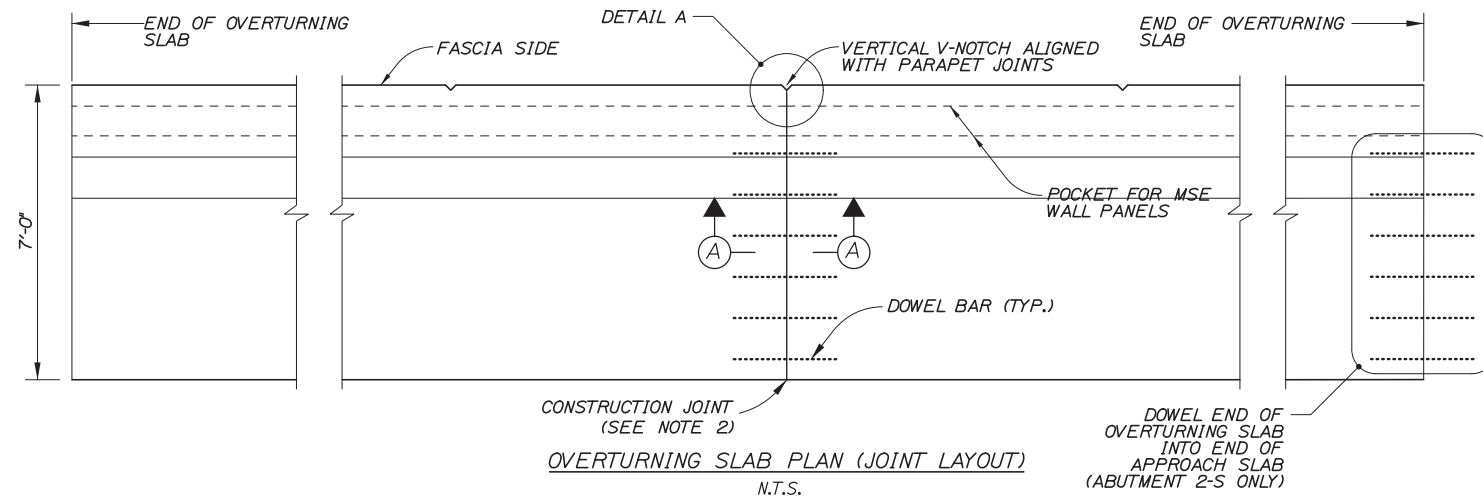
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

RETAINING WALL DETAILS I

SHEET NUMBER: S-31  
CONTRACT: 2014.10  
126 OF 155

Date:10/10/2014



**NOTES:**

1. VERTICAL V-NOTCHES SHALL BE CONSTRUCTED ON THE FASCIA SIDE OF THE OVERTURNING SLAB AND SHALL BE ALIGNED WITH THE PROPOSED PARAPET JOINTS.
2. CONSTRUCTION JOINTS SHALL BE LOCATED AT V-NOTCH LOCATIONS AND SHALL BE SPACED AS SHOWN ON SHEETS S-33 AND S-47.
3. DOWEL BARS SHALL BE 11#2" DIAMETER GALVANIZED OR EPOXY-COATED SMOOTH BARS CONFORMING TO ASTM A36. DOWELS SHALL BE LOCATED AT MID-HEIGHT OF THE SLAB AND ALIGNED PARALLEL TO THE CENTERLINE OF THE ROADWAY. PREFABRICATED DOWEL CHAIRS SHALL BE USED TO POSITION DOWEL BARS.
4. FOR ADDITIONAL OVERTURNING SLAB DETAILS AND REINFORCING LAYOUT SEE SHEET S-31.
5. PREFORMED JOINT FILLER SHALL CONFORM TO ASTM DESIGNATION D1752, TYPE 1 OR ASTM D5249, TYPE 2. PREFORMED JOINT FILLER SHALL BE A NON-STAINING, NON-BLEEDING TYPE. PRODUCTS SUCH AS "CERAMAR" MANUFACTURED BY W.R. MEADOWS, OR AN APPROVED EQUAL, ARE ACCEPTABLE. CORK AND ASPHALT IMPREGNATED BOARDS ARE NOT AN ACCEPTABLE JOINT FILLER MATERIAL.
6. JOINT SEALER SHALL BE IN CONFORMANCE WITH SUBSECTION 714.04 OF THE SPECIFICATIONS.

Filename: 127\_Retaining Wall Details 2.dgn

Scale:				Designed by:																			
<table border="1"> <thead> <tr> <th>No.</th> <th>Revision</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				No.	Revision	By	Date																
				No.	Revision	By	Date																
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.				<table border="1"> <thead> <tr> <th>By</th> <th>Date</th> <th>By</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Designed</td> <td>AET 10/14</td> <td>Checked</td> <td>AJF 10/14</td> </tr> <tr> <td>Drawn</td> <td>PTA 10/14</td> <td>In Charge of</td> <td>RAL 10/14</td> </tr> </tbody> </table>				By	Date	By	Date	Designed	AET 10/14	Checked	AJF 10/14	Drawn	PTA 10/14	In Charge of	RAL 10/14				
By	Date	By	Date																				
Designed	AET 10/14	Checked	AJF 10/14																				
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THE GOLD STAR  
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

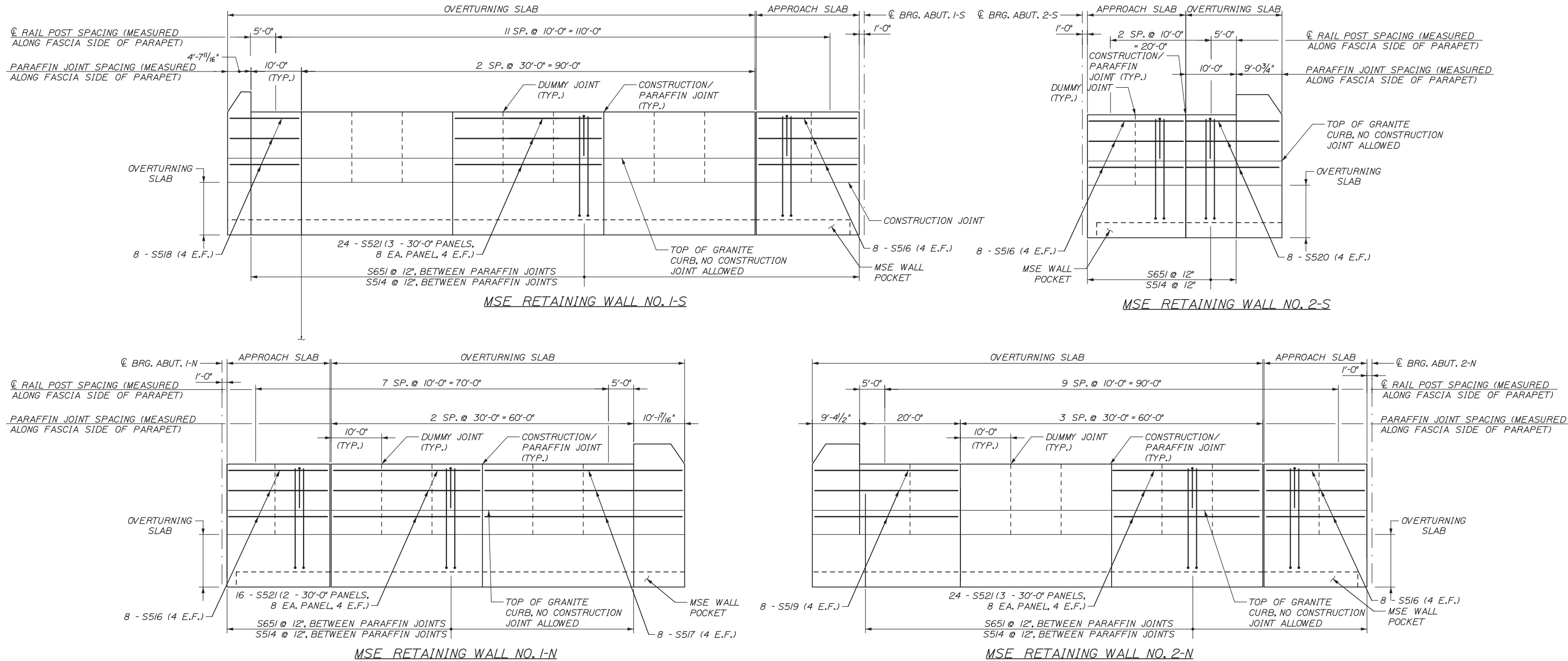
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

RETAINING WALL DETAILS II

SHEET NUMBER: S-32  
CONTRACT:2014.10  
127 OF 155

Date: 10/10/2014

Filename: 128\_Retaining Wall Details 3.dgn



PARAPET & OVERTURNING SLAB ELEVATIONS  
 HORIZ. 1" = 10'  
 VERT. 1/2" = 1'-0"

**NOTES:**

- OVERTURNING SLAB REINFORCING NOT SHOWN. FOR OVERTURNING SLAB DETAILS AND REINFORCING SEE SHEET S-26.
- FOR ADDITIONAL ENDPPOST REINFORCING DETAILS SEE SHEET S-25.
- PARAPET PARRAFIN JOINTS SHALL BE ALIGNED WITH OVERTURNING SLAB CONSTRUCTION JOINTS.

Scale:		Designed by:	
No.	Revision	By	Date
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
	By	Date	By
	AET	10/14	Checked
	PTA	10/14	In Charge of

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

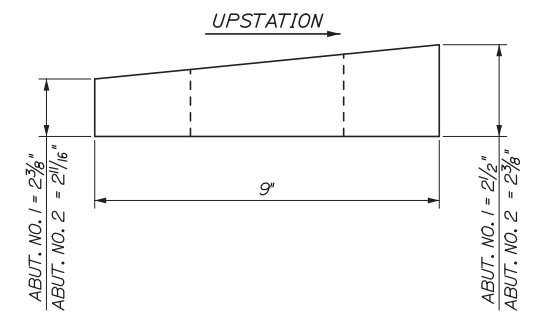
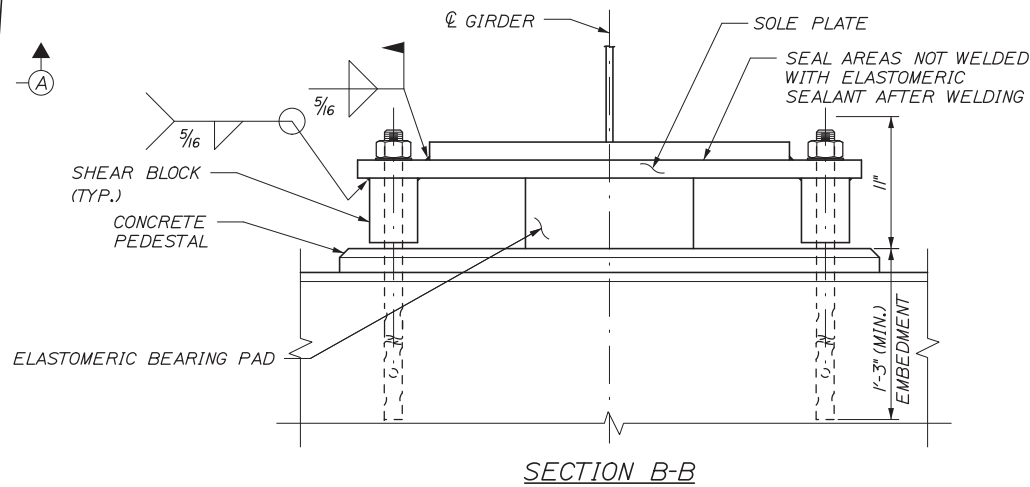
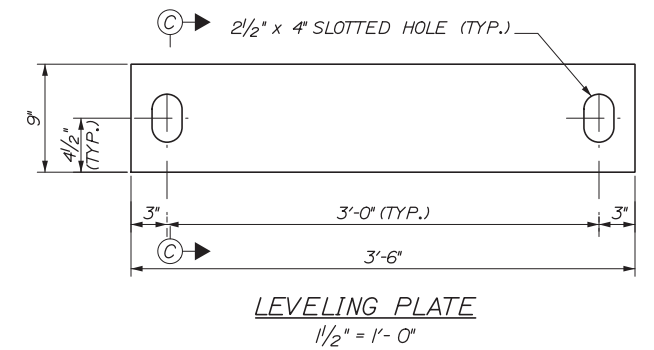
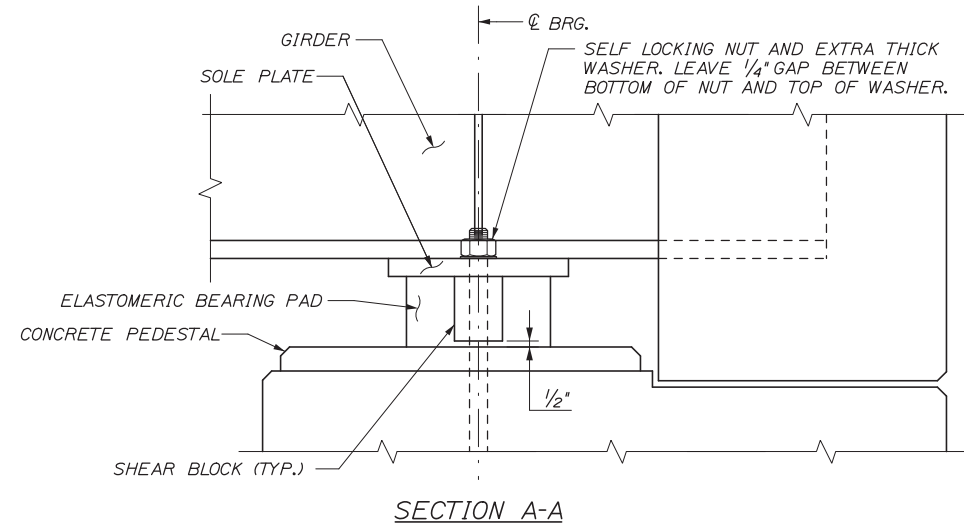
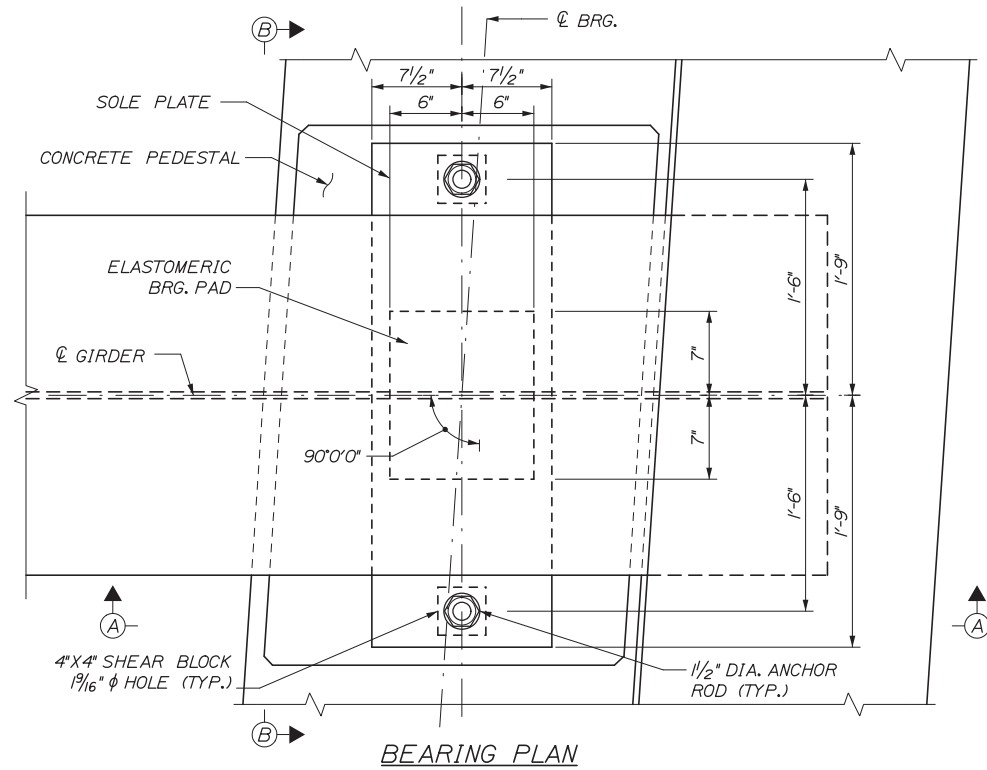
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 RETAINING WALL DETAILS III

SHEET NUMBER: S-33  
 CONTRACT: 2014.10  
 128 OF 155



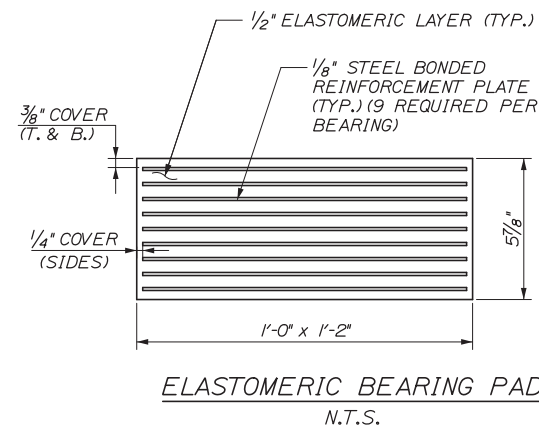
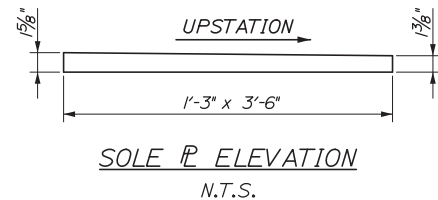
Date: 10/10/2014



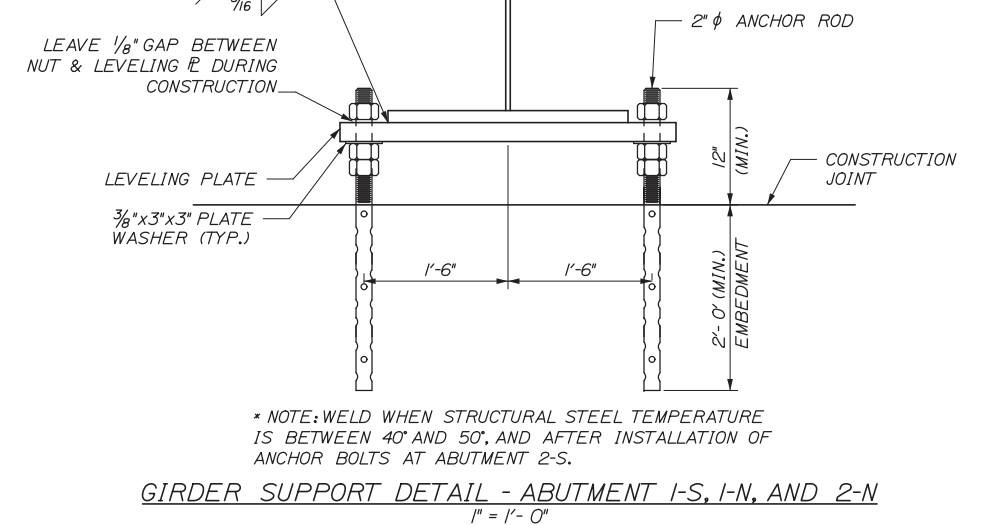
**BEARING NOTES:**

- ELASTOMER SHALL BE 100% POLYCHLOROPRENE (NEOPRENE) GRADE 3, MEETING THE REQUIREMENTS OF AASHTO M251. THE SHEAR MODULUS OF THE ELASTOMER SHALL BE BETWEEN 130 AND 175 PSI.
- VULCANIZING OF THE ELASTOMER TO THE STEEL PLATES SHALL BE COMPLETED DURING THE PRIMARY MOLD PROCESS.
- SOLE PLATES SHALL MEET THE REQUIREMENTS OF ASTM A 709, GRADE 50 OR 50W.
- BEARINGS SHALL BE COVERED DURING TRANSIT.
- ALL EXPOSED STEEL COMPONENTS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 AND ASTM A153 AS APPLICABLE.
- ALL BEARINGS SHALL BE MARKED WITH THE BEARING LOCATION PRIOR TO SHIPPING.
- WELDING PROCEDURES SHALL BE ESTABLISHED BY THE CONTRACTOR TO RESTRICT THE MAXIMUM TEMPERATURE OF STEEL ADJACENT TO THE ELASTOMER TO 200°F THROUGH USE OF TEMPERATURE INDICATING CRAYONS OR OTHER SUITABLE MEANS.
- CONTRACTOR SHALL RE-FINISH GALVANIZING IN ACCORDANCE WITH ASTM A780 AFTER FIELD WELDING.
- ELASTOMERIC BEARING PADS WERE DESIGNED USING "METHOD B" FROM THE AASHTO LRFD SPECIFICATION AND SHALL BE SUBSEQUENTLY TESTED IN ACCORDANCE WITH THE SPECIFICATION.
- ALL STEEL REINFORCEMENT PLATES SHALL MEET THE REQUIREMENTS OF ASTM A36 OR APPROVED EQUAL.
- ANCHOR RODS SHALL MEET THE REQUIREMENTS OF ASTM F1554, GRADE 55, AND SHALL BE SWEDGED OR THREADED ON THE EMBEDDED PORTION OF THE ROD.

PROPOSED BEARING ASSEMBLY - ABUTMENT 2-S  
(5 REQUIRED)  
1 1/2" = 1'-0"



ELASTOMERIC BEARING DESIGN CRITERIA	
CRITERIA	ABUTMENT 2-S BEARING
UNFACTORED DEAD LOAD	198.2 KIPS
UNFACTORED LIVE LOAD	127.4 KIPS
MAX. LONGITUDINAL DISPL.	0.0 INCH
CONSTRUCTION TOLERANCE ROTATION	0.005 RAD
MAX. LIVE LOAD ROTATION	0.0030 RAD
MAX. DEAD LOAD ROTATION	0.0034 RAD



Filename: 129\_Bearing Dets.dgn

Scale:		Designed by:	
No.	Revision	By	Date

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

By	Date	By	Date
Designed	AET 10/14	Checked	AJF 10/14
Drawn	PTA 10/14	In Charge of	RAL 10/14

HNTB CORPORATION  
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

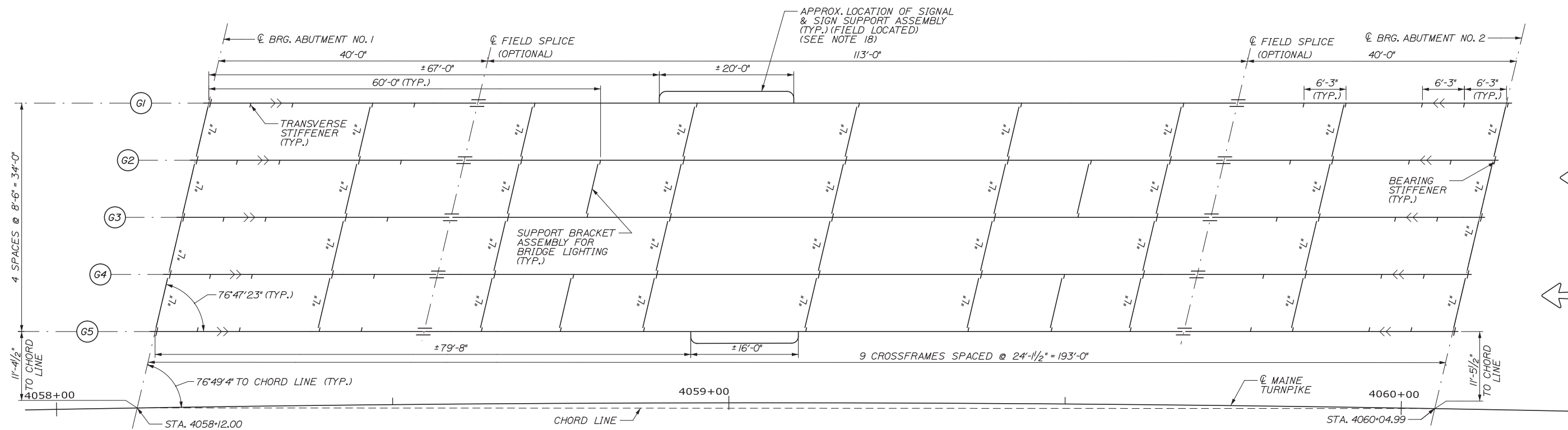
BEARING DETAILS

SHEET NUMBER: S-34

CONTRACT: 2014.10

129 OF 155

Date: 10/10/2014



FRAMING PLAN  
1/8" = 1'-0"

STRUCTURAL STEEL NOTES

- CAMBER ORDINATES ARE COMPUTED TO COMPENSATE FOR ALL DEAD LOAD DEFLECTIONS AND FINISHED VERTICAL PROFILE.
- NO TRANSVERSE BUTT-WELD SPLICES WILL BE ALLOWED IN THE FLANGE PLATES OR WEB PLATES WITHIN 10 FEET OR 10% OF THE SPAN LENGTH. BUTT-WELD SPLICES IN FLANGES SHALL BE NOT LESS THAN 1 FOOT FROM TRANSVERSE BUTT-WELDS IN THE WEB PLATES AND NO TRANSVERSE WEB OR FLANGE BUTT-WELDS SHALL BE LOCATED WITHIN 6 INCHES OF OTHER TRANSVERSE WELDS (E.G. CONNECTION PLATES TO WEB WELDS) ON EITHER FLANGE OR WEB.
- SECTIONS OF FLANGE PLATES OR WEB PLATES BETWEEN TRANSVERSE SHOP SPLICES OR BETWEEN A TRANSVERSE SHOP SPlice AND A FIELD SPlice SHALL BE NOT LESS THAN 20 FEET IN LENGTH UNLESS OTHERWISE SHOWN ON THE PLANS.
- BEARING STIFFENERS SHALL BE PLUMB AFTER ERECTION AND DEAD LOADING OF THE STRUCTURE. INTERMEDIATE WEB STIFFENERS MAY BE EITHER PLUMB OR NORMAL TO THE TOP FLANGE.
- CROSSFRAME CONNECTION PLATES MAY BE EITHER PLUMB OR NORMAL TO THE TOP FLANGE.
- FOR CROSSFRAME TYPE L SEE M.D.O.T. STANDARD DETAILS, CROSSFRAMES, TYPE L, PAGE 504(19). FOR BRIDGE LIGHTING SUPPORT BRACKET ASSEMBLY SEE SHEET S-40.
- BUTT WELDS AT WEB SPLICES AND FLANGE SPLICES SHALL BE GROUND FLUSH IN LONGITUDINAL DIRECTION OF GIRDER.
- PRIOR TO ERECTION OF STRUCTURAL STEEL THE CONTRACTOR SHALL SUBMIT A DETAILED ERECTION PLAN FOR APPROVAL.
- BEARING STIFFENERS SHALL BE MILL-TO-BEAR ON THE BOTTOM FLANGE AND TIGHT FIT TO THE TOP FLANGE. BEARING STIFFENERS USED AS CONNECTION PLATES SHALL BE DETAILED AS CONNECTION PLATES.
- CONNECTION PLATES SHALL BE FULL WEB DEPTH AND WELDED TO THE WEB AND FLANGES ON BOTH SIDES OF THE PLATES. WELDS SHALL TERMINATE 5/8" ± 1/8" FROM THE ENDS OF THE PLATES.
- GIRDER ENDS SHALL BE PAINTED TO A DISTANCE OF 15 FEET FROM CENTERLINE OF BEARING AT ABUTMENTS IN ACCORDANCE WITH SPECIAL PROVISIONS SECTION 506, PROTECTIVE COATING STEEL (ZINC RICH COATING SYSTEM).
- ALL FAYING SURFACES, WITH THE EXCEPTION OF FIELD SPLICES, SHALL BE PAINTED OR SEALED IN ACCORDANCE WITH FHWA TECHNICAL ADVISORY T5140.22, SECTION 4.c.2.c. TO PREVENT THE FORMATION OF PACK RUST.
- ALL PORTIONS OF THE STRUCTURAL STEEL THAT WILL REMAIN UNPAINTED SHALL BE BLAST-CLEANED TO SSPC SP-6/NACE NO. 3 AFTER FABRICATION AND PRIOR TO DELIVERY IN ORDER TO PRESENT A UNIFORM APPEARANCE FREE OF DIRT, OIL, OR OTHER FOREIGN MATERIALS.
- CHANGES IN FILLER PLATE THICKNESS TO COMPENSATE FOR FABRICATION TOLERANCES SHALL BE APPROVED BY THE ENGINEER.
- ALL CONNECTION PLATES AND STIFFENERS SHALL BE WELDED TO THE TOP AND BOTTOM FLANGES USING 5/16" φ FILLET WELDS.
- OPTIONAL BOLTED FIELD SPlice CONNECTIONS SHALL BE MADE USING 7/8" φ ASTM A325 BOLTS. HOLE SIZE SHALL BE 9/16" φ. BOLTS SHALL BE INSTALLED WITH HEADS DOWN AT ALL BOTTOM FLANGE CONNECTIONS AND HEADS UP AT ALL TOP FLANGE CONNECTIONS. BOLT THREADS SHALL BE EXCLUDED FROM THE SHEAR PLANE OF THE FIELD SPlice CONNECTION.
- IF PRECAST CONCRETE DECK PANELS ARE USED TO CONSTRUCT THE SUPERSTRUCTURE SLAB, THE HEADS OF THE SHEAR CONNECTORS SHALL EXTEND A MINIMUM OF 1 INCH ABOVE THE TOP OF THE PANELS.
- TRAFFIC SIGNALS, SIGNS, AND HIGHWAY LIGHTING LOCATIONS NOTED ON FRAMING PLANS ARE APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED IN THE FIELD BY THE RESIDENT. SEE SHEET S-40 FOR DETAILS.

Filename: 130\_Framing Plan 1.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
	AET	10/14		JDW	10/14
	Drawn	PTA	10/14	In Charge of	RAL
					10/14

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THE GOLD STAR  
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

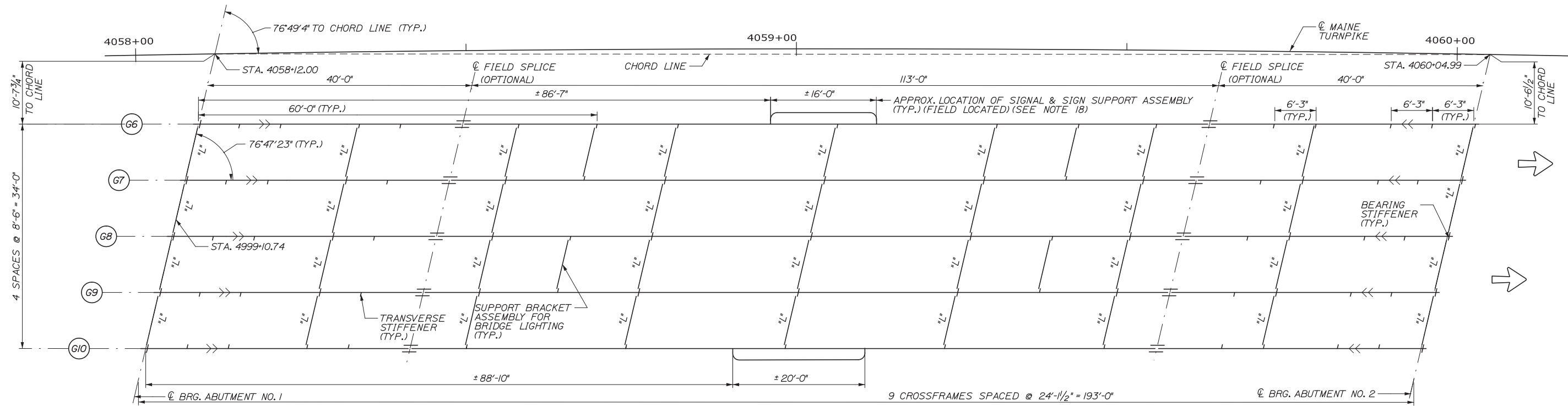
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

FRAMING PLAN I  
SOUTHBOUND

CONTRACT: 2014.10

SHEET NUMBER: S-35  
130 OF 155

Date: 10/10/2014



FRAMING PLAN  
1/8" = 1'-0"

NOTES:  
1. FOR STRUCTURAL STEEL NOTES SEE SHEET S-35.

Filename: 131\_Framing Plan 2.dgn

Scale:		Designed by:	
No.	Revision	By	Date

<b>HNTB</b>			
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
Designed	AET	10/14	Checked JDW 10/14
Drawn	PTA	10/14	In Charge of RAL 10/14

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THE GOLD STAR  
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

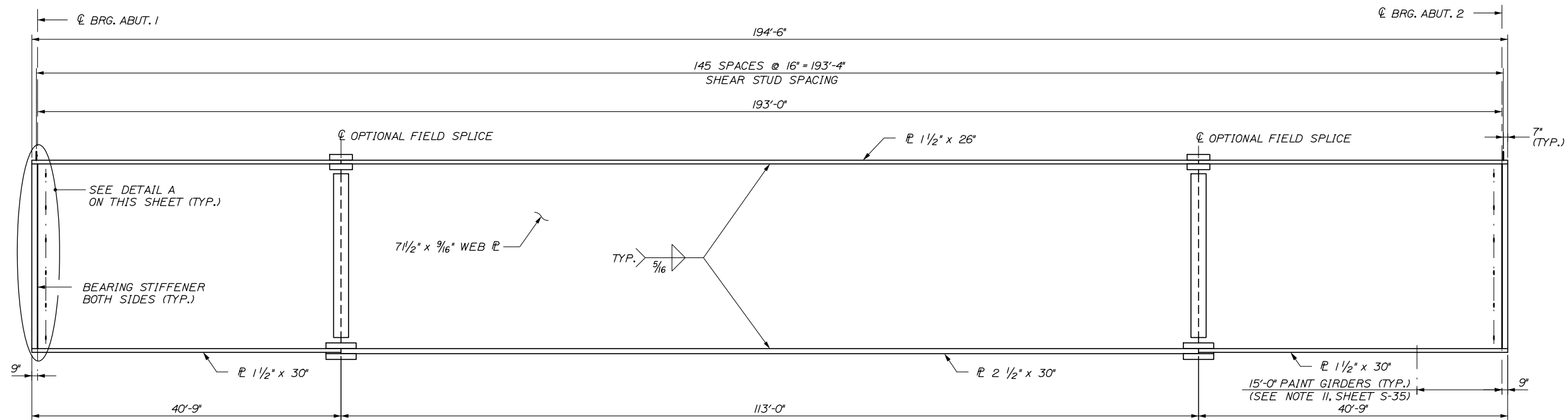
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
FRAMING PLAN II  
NORTHBOUND

SHEET NUMBER: S-36

CONTRACT: 2014.10

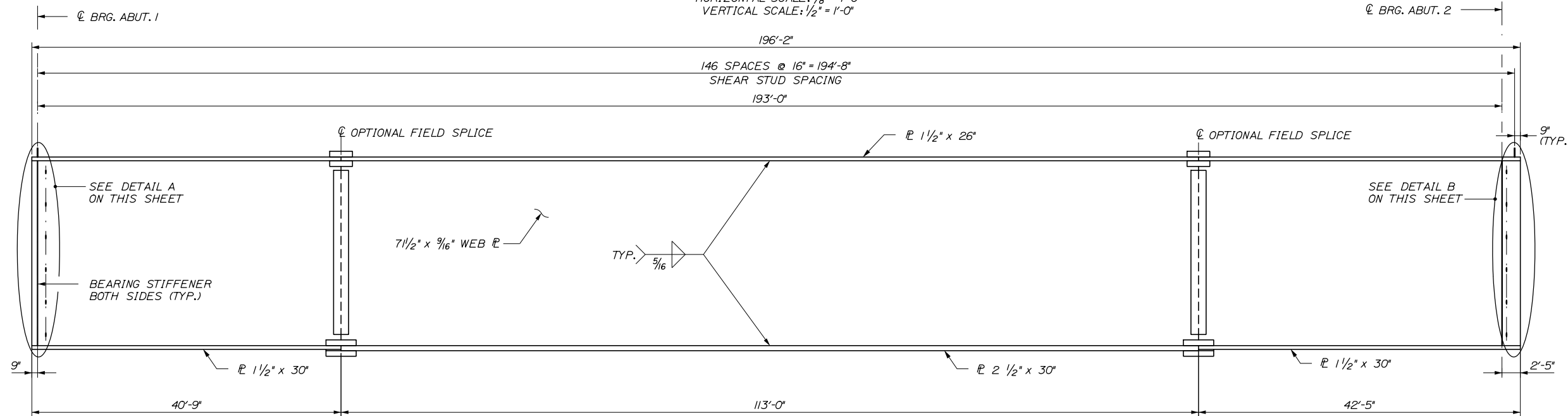
131 OF 155

Date: 10/10/2014



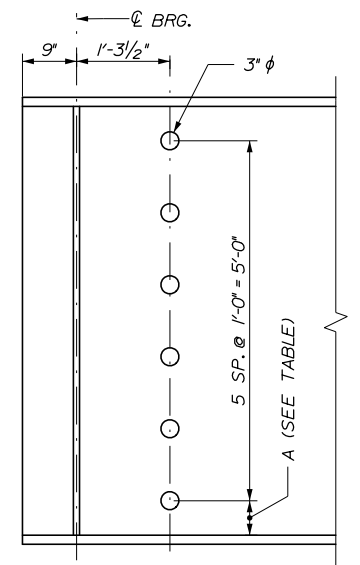
**SOUTHBOUND GIRDER ELEVATION AND STUD LAYOUT**

438 STUDS PER GIRDER  
HORIZONTAL SCALE: 1/8" = 1'-0"  
VERTICAL SCALE: 1/2" = 1'-0"

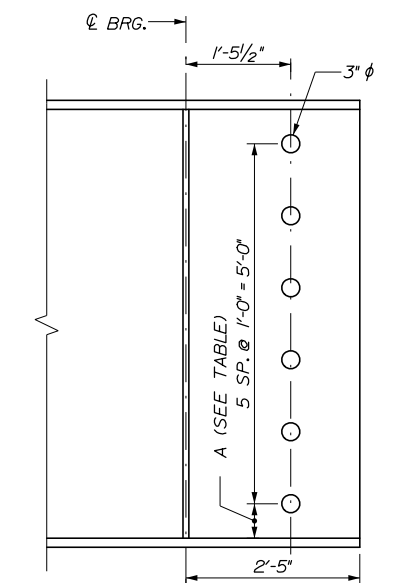


**NORTHBOUND GIRDER ELEVATION AND STUD LAYOUT**

441 STUDS PER GIRDER  
HORIZONTAL SCALE: 1/8" = 1'-0"  
VERTICAL SCALE: 1/2" = 1'-0"

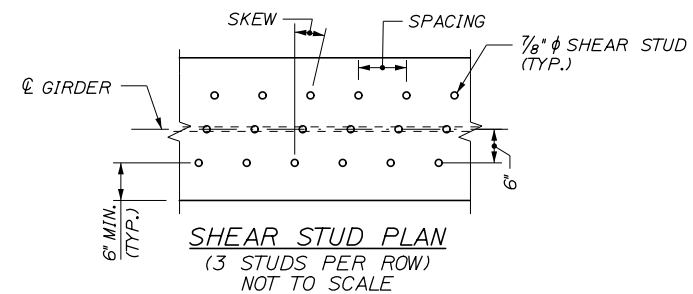


**DETAIL A**  
3/4" x 1'-0"



**DETAIL B**  
3/4" x 1'-0"

DIMENSION "A"		
GIRDER	ABUT. 1	ABUT. 2
1	8 1/2	9
2	4 1/4	4 1/2
3	2	2
4	2 1/4	2
5	4 3/4	4 1/4
6	5 3/4	9
7	3	4 1/2
8	2	2
9	4	2
10	8	4 1/4



NOTES:  
1. FOR STRUCTURAL STEEL NOTES SEE SHEET S-35.

Filename: 132\_Girder Elevation.dgn

No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	JDW	10/14
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**THE GOLD STAR  
MEMORIAL HIGHWAY**

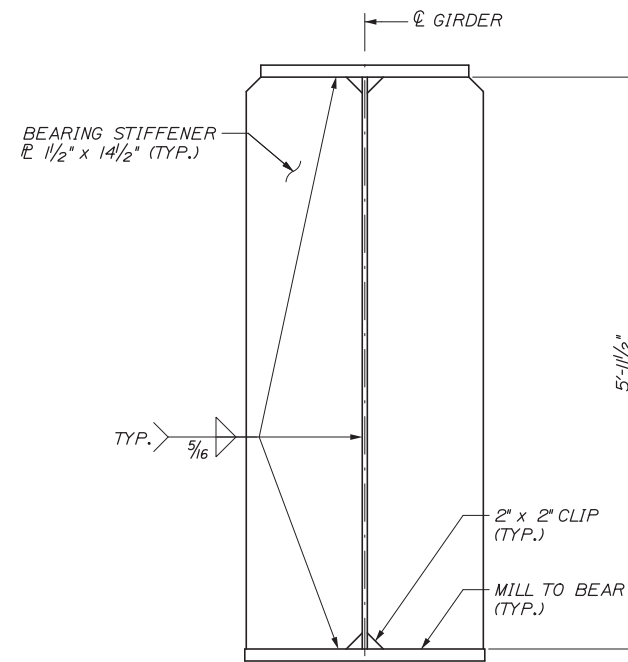
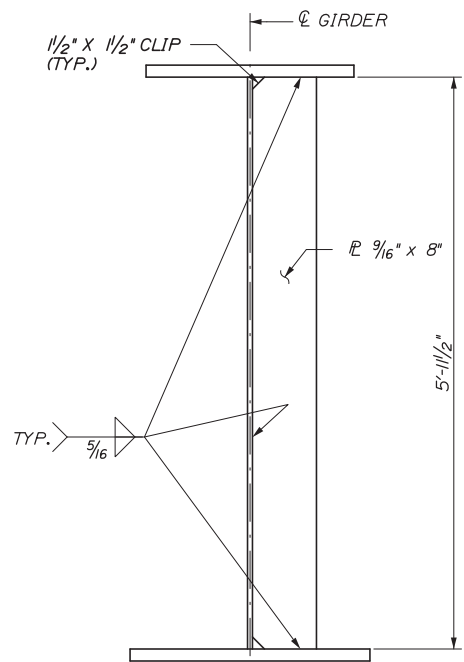
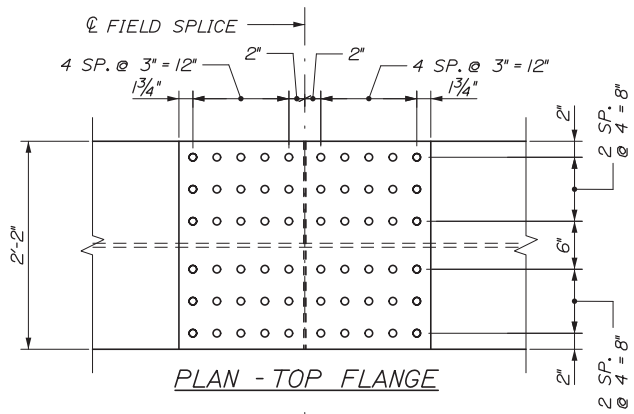
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
GIRDER ELEVATION

SHEET NUMBER: S-37  
CONTRACT: 2014.10  
132 OF 155

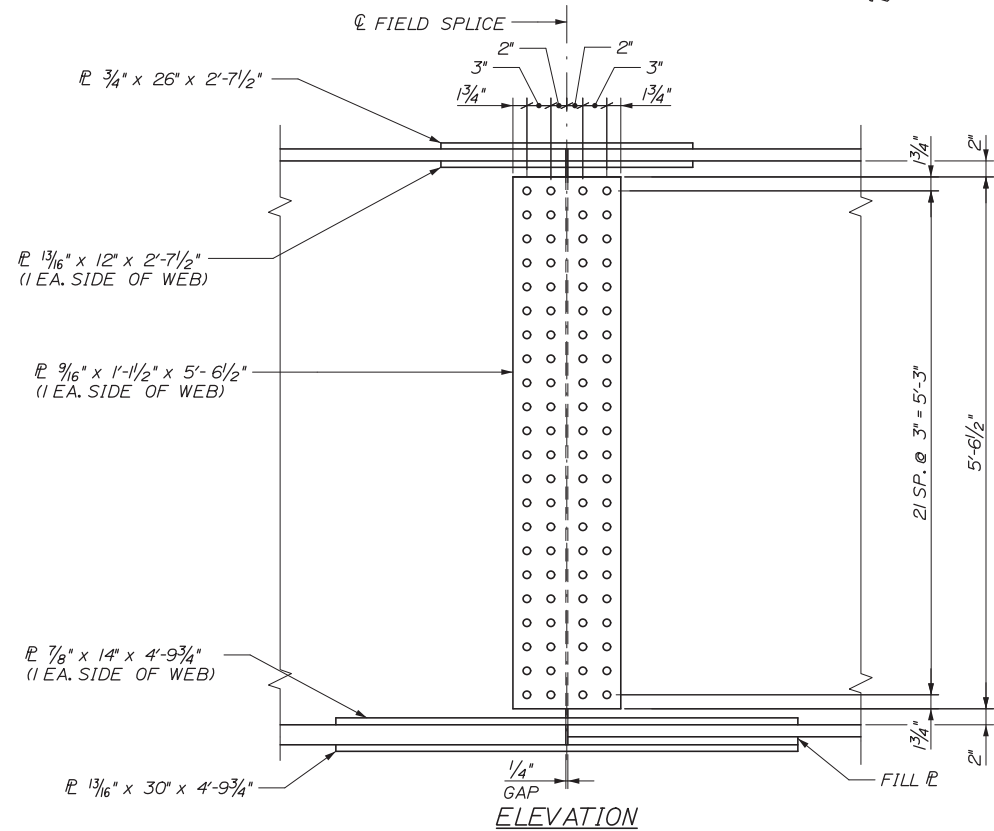
Date:10/10/2014

Filename: 133\_Struct SteelDtls 1.dgn

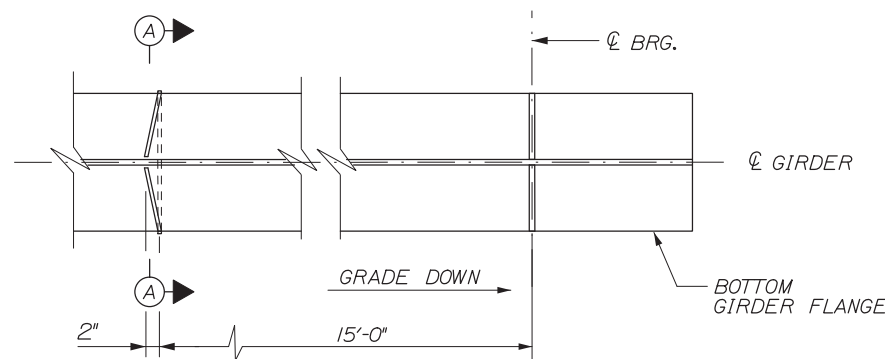


CONNECTION PLATE AND TRANSVERSE STIFFENER DETAIL  
1" = 1'-0"

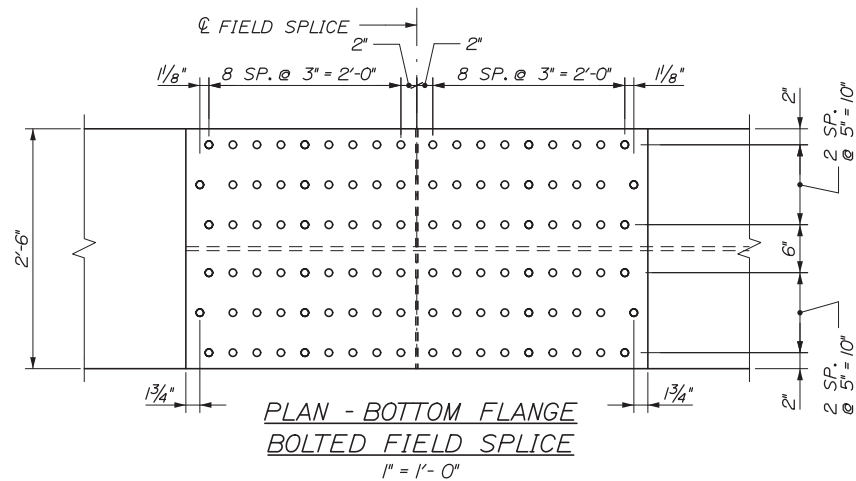
BEARING STIFFENER DETAIL  
1" = 1'-0"



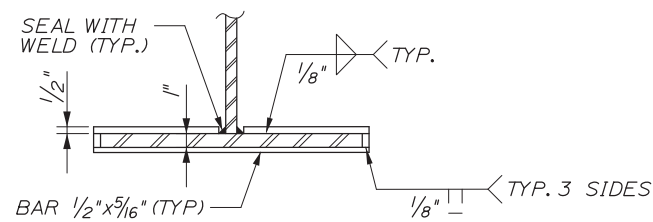
ELEVATION



FLANGE DRIP BAR DETAIL  
NOT TO SCALE



PLAN - BOTTOM FLANGE BOLTED FIELD SPLICE  
1" = 1'-0"



SECTION A-A  
NOT TO SCALE

Scale:			
No.	Revision	By	Date

Designed by:			
<b>HNTB</b>			
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
	By	Date	
Designed	AET	10/14	Checked
			AJF
			10/14
Drawn	PTA	10/14	In Charge of
			RAL
			10/14

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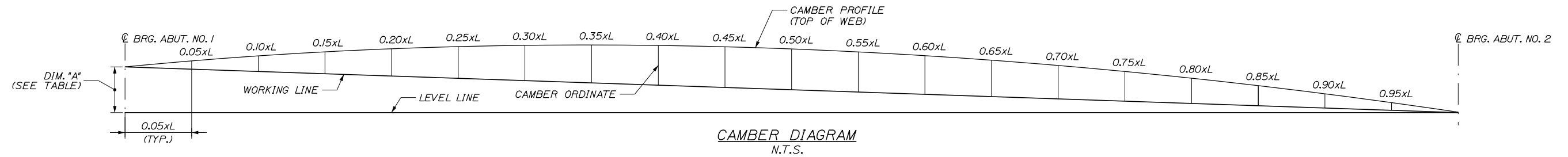


**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
STRUCTURAL STEEL DETAILS I

SHEET NUMBER: S-38  
CONTRACT:2014.10  
133 OF 155



GIRDER NO.	CL BRG. ABUT. 1	TABLE OF CAMBER ORDINATES (FEET)																			CL BRG. ABUT. 2
		SPAN FRACTION																			
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	
GIRDER 1	0.00	0.22	0.43	0.63	0.81	0.96	1.09	1.19	1.26	1.31	1.32	1.30	1.26	1.19	1.08	0.96	0.81	0.63	0.43	0.22	0.00
GIRDER 2	0.00	0.22	0.42	0.61	0.78	0.93	1.05	1.15	1.23	1.27	1.28	1.27	1.23	1.16	1.06	0.93	0.78	0.61	0.42	0.22	0.00
GIRDER 3	0.00	0.22	0.42	0.61	0.79	0.93	1.06	1.16	1.23	1.27	1.29	1.27	1.23	1.16	1.06	0.93	0.78	0.61	0.42	0.22	0.00
GIRDER 4	0.00	0.21	0.41	0.59	0.76	0.91	1.03	1.12	1.19	1.24	1.25	1.24	1.19	1.12	1.03	0.90	0.76	0.60	0.41	0.21	0.00
GIRDER 5	0.00	0.21	0.40	0.59	0.75	0.89	1.01	1.11	1.18	1.22	1.23	1.22	1.18	1.11	1.01	0.89	0.75	0.59	0.40	0.21	0.00

GIRDER NO.	CL BRG. ABUT. 1	TABLE OF CAMBER ORDINATES (FEET)																			CL BRG. ABUT. 2
		SPAN FRACTION																			
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	
GIRDER 6	0.00	0.22	0.43	0.63	0.81	0.96	1.09	1.19	1.26	1.31	1.32	1.31	1.26	1.19	1.09	0.96	0.81	0.63	0.43	0.22	0.00
GIRDER 7	0.00	0.22	0.42	0.61	0.78	0.93	1.05	1.15	1.23	1.27	1.28	1.27	1.23	1.15	1.05	0.93	0.78	0.61	0.42	0.22	0.00
GIRDER 8	0.00	0.21	0.41	0.60	0.76	0.91	1.03	1.13	1.20	1.24	1.25	1.24	1.20	1.13	1.03	0.91	0.76	0.60	0.41	0.21	0.00
GIRDER 9	0.00	0.21	0.41	0.60	0.76	0.91	1.03	1.12	1.19	1.24	1.25	1.24	1.19	1.12	1.03	0.90	0.76	0.59	0.41	0.21	0.00
GIRDER 10	0.00	0.21	0.40	0.59	0.75	0.89	1.01	1.11	1.18	1.22	1.23	1.22	1.18	1.11	1.01	0.89	0.75	0.59	0.40	0.21	0.00

DIM "A" (ft)	
GIRDER	DIM.
1	2.07
2	2.05
3	2.03
4	2.00
5	1.98
6	1.88
7	1.87
8	1.86
9	1.84
10	1.83

GIRDER NO.		CL BRG. ABUT. 1	TABLE OF DEAD LOAD DEFLECTIONS (FEET)																			CL BRG. ABUT. 2
			SPAN FRACTION																			
			0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	
G1	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.28	0.30	0.31	0.32	0.31	0.30	0.28	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.27	0.35	0.41	0.47	0.51	0.55	0.57	0.57	0.57	0.55	0.51	0.47	0.41	0.35	0.27	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.04	0.07	0.10	0.13	0.15	0.18	0.19	0.20	0.21	0.21	0.21	0.20	0.19	0.18	0.15	0.13	0.10	0.07	0.04	0.00
G2	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.29	0.31	0.32	0.32	0.32	0.31	0.29	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.26	0.33	0.40	0.45	0.50	0.53	0.55	0.55	0.55	0.53	0.50	0.45	0.40	0.33	0.26	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.03	0.07	0.10	0.13	0.15	0.17	0.19	0.20	0.20	0.21	0.20	0.20	0.19	0.17	0.15	0.13	0.10	0.07	0.03	0.00
G3	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.29	0.31	0.32	0.32	0.32	0.31	0.29	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.26	0.33	0.40	0.45	0.50	0.53	0.55	0.55	0.55	0.53	0.50	0.45	0.40	0.33	0.26	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.04	0.07	0.10	0.13	0.15	0.17	0.19	0.20	0.21	0.21	0.21	0.20	0.19	0.17	0.15	0.13	0.10	0.07	0.04	0.00
G4	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.29	0.31	0.32	0.32	0.32	0.31	0.29	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.26	0.33	0.40	0.45	0.50	0.53	0.55	0.55	0.55	0.53	0.50	0.45	0.40	0.33	0.26	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.03	0.07	0.10	0.13	0.15	0.17	0.19	0.20	0.20	0.21	0.20	0.20	0.19	0.17	0.15	0.13	0.10	0.07	0.03	0.00
G5	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.28	0.30	0.31	0.32	0.31	0.30	0.28	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.26	0.33	0.39	0.45	0.49	0.52	0.54	0.55	0.54	0.52	0.49	0.45	0.39	0.33	0.26	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.04	0.07	0.10	0.13	0.16	0.18	0.20	0.21	0.22	0.22	0.22	0.21	0.20	0.18	0.16	0.13	0.10	0.07	0.04	0.00
G6	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.28	0.30	0.31	0.32	0.31	0.30	0.28	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.26	0.35	0.41	0.47	0.51	0.55	0.57	0.57	0.57	0.55	0.51	0.47	0.41	0.35	0.27	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.04	0.07	0.10	0.13	0.15	0.18	0.19	0.20	0.21	0.21	0.21	0.20	0.19	0.18	0.15	0.13	0.10	0.07	0.04	0.00
G7	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.29	0.31	0.32	0.32	0.32	0.31	0.29	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.26	0.33	0.40	0.45	0.50	0.53	0.55	0.55	0.55	0.53	0.50	0.45	0.40	0.33	0.26	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.03	0.07	0.10	0.13	0.15	0.17	0.19	0.20	0.20	0.21	0.20	0.20	0.19	0.17	0.15	0.13	0.10	0.07	0.03	0.00
G8	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.29	0.31	0.32	0.32	0.32	0.31	0.29	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.26	0.33	0.40	0.45	0.50	0.53	0.55	0.55	0.55	0.53	0.50	0.45	0.40	0.33	0.26	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.04	0.07	0.10	0.13	0.15	0.17	0.19	0.20	0.21	0.21	0.21	0.20	0.19	0.17	0.15	0.13	0.10	0.07	0.04	0.00
G9	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.29	0.31	0.32	0.32	0.32	0.31	0.29	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.26	0.33	0.40	0.45	0.50	0.53	0.55	0.55	0.55	0.53	0.50	0.45	0.40	0.33	0.26	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.03	0.07	0.10	0.13	0.15	0.17	0.19	0.20	0.20	0.21	0.20	0.20	0.19	0.17	0.15	0.13	0.10	0.07	0.03	0.00
G10	Steel Dead Load	0.00	0.05	0.10	0.15	0.19	0.23	0.26	0.28	0.30	0.31	0.32	0.31	0.30	0.28	0.26	0.23	0.19	0.15	0.10	0.05	0.00
	Concrete Dead Load	0.00	0.09	0.18	0.26	0.33	0.39	0.45	0.49	0.52	0.54	0.55	0.54	0.52	0.49	0.45	0.39	0.33	0.26	0.18	0.09	0.00
	Superimposed Dead Load	0.00	0.04	0.07	0.10	0.13	0.16	0.18	0.20	0.21	0.22	0.22	0.22	0.21	0.20	0.18	0.16	0.13	0.10	0.07	0.04	0.00

Date:10/10/2014

Filename: i34\_Struct\_SteelDtlis 2.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
	AET	10/14	Checked	AJF	10/14
	Drawn	PTA	In Charge of	RAL	10/14

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Westbrook, ME 04092  
TEL (207) 774-5155  
FAX (207) 228-0909



**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

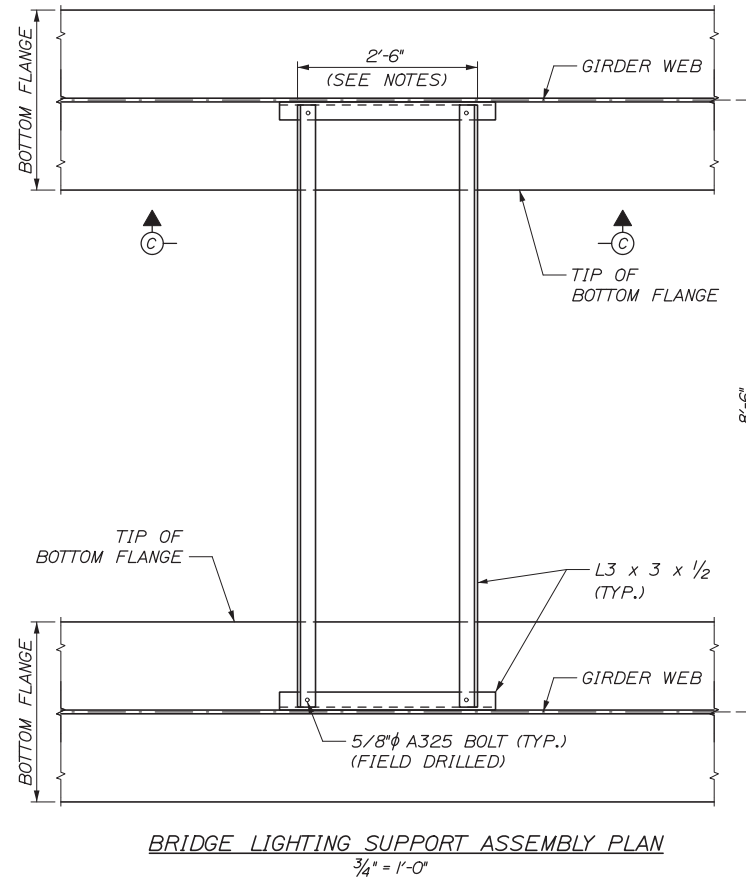
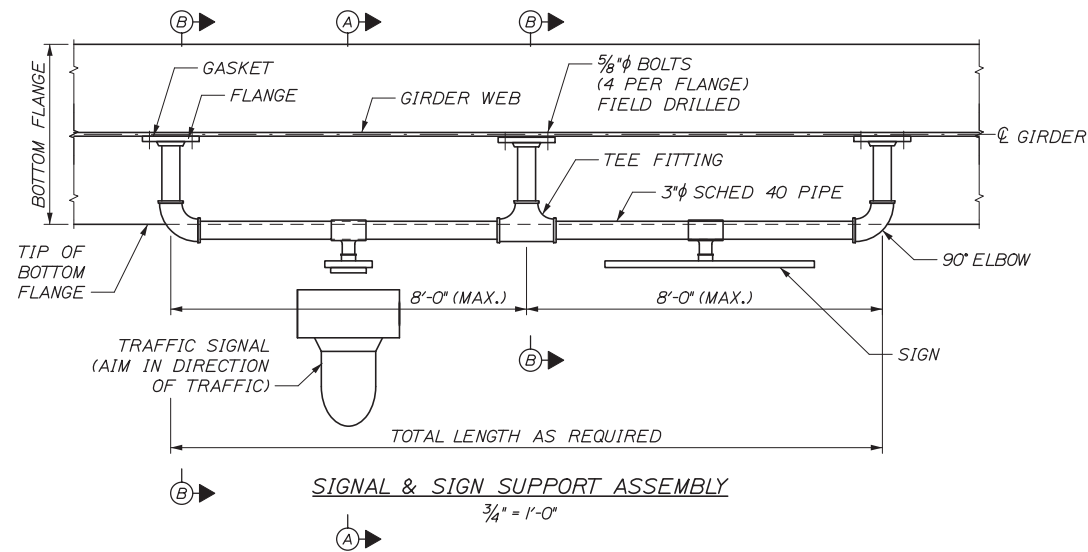
STRUCTURAL STEEL DETAILS II

SHEET NUMBER: S-39

CONTRACT:2014.10

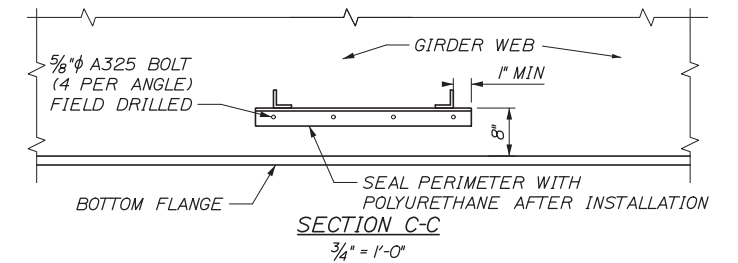
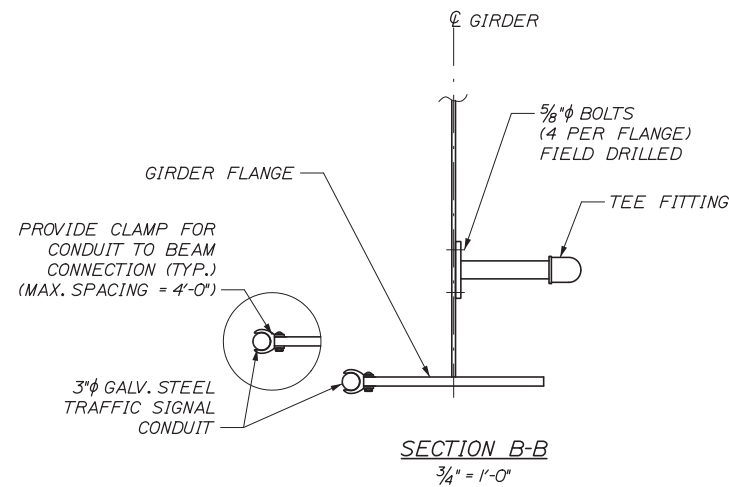
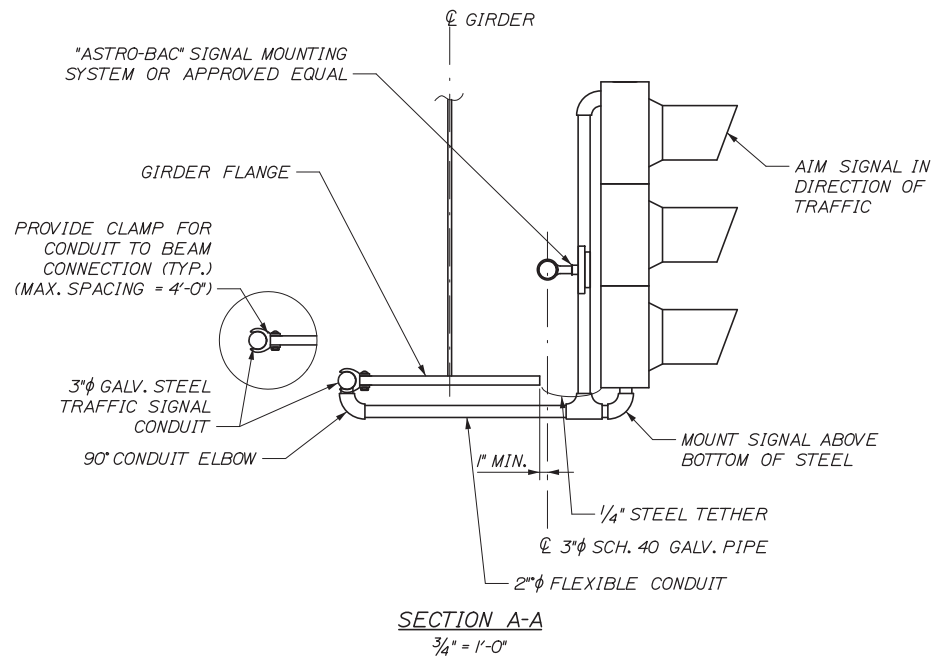
134 OF 155

Date: 10/10/2014



**NOTES**

1. ALL STEEL PIPE FOR SIGNAL AND SIGN SUPPORTS SHALL BE SCHEDULE 40 GALVANIZED CONFORMING TO ASTM A53, GR. B.
2. QUANTITY AND LOCATION OF SIGNS AND SIGNALS ON EACH SUPPORT VARIES. FOR ADDITIONAL INFORMATION AND DETAILS SEE SIGNAL AND HIGHWAY PLANS.
3. FLANGE GASKETS SHALL BE FULL FACE GASKETS FABRICATED FROM RESILIENT RUBBER MEETING THE REQUIREMENTS OF ASTM D2000.
4. SIGNAL SUPPORT ASSEMBLY FABRICATION AND INSTALLATION SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 643.95, SIGNAL AND SIGN SUPPORT ASSEMBLY.
5. ALL RIGID METAL CONDUIT AND RELATED HARDWARE SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEM 665.42, 2" RIGID METAL CONDUIT.
6. SPACING OF L3x3 BRIDGE LIGHTING SUPPORT BRACKETS SHALL BE BASED ON REQUIREMENTS OF THE PROPOSED LIGHTING ASSEMBLY AND ATTACHMENT METHODS.
7. FABRICATION AND INSTALLATION OF BRIDGE LIGHTING SUPPORT ASSEMBLY SHALL BE MEASURED FOR PAYMENT UNDER PAY ITEMS 504.703 AND 504.71 RESPECTIVELY.
8. ALL BRIDGE LIGHTING AND SUPPORT ASSEMBLY BOLT HOLES SHALL BE FIELD DRILLED.
9. CONDUIT SHALL BE ATTACHED TO GIRDER FLANGES USING APPROVED PARALLEL MOUNT I-BEAM CLAMPS. CLAMP SPACING SHALL NOT EXCEED 4' ON CENTER.



Filename: 135\_Struct SteelDtl3 3.dgn

Scale:			
No.	Revision	By	Date

Designed by:						
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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.						
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	Designed	AET	10/14	Checked	TRC	10/14
	Drawn	PTA	10/14	In Charge of	RAL	10/14

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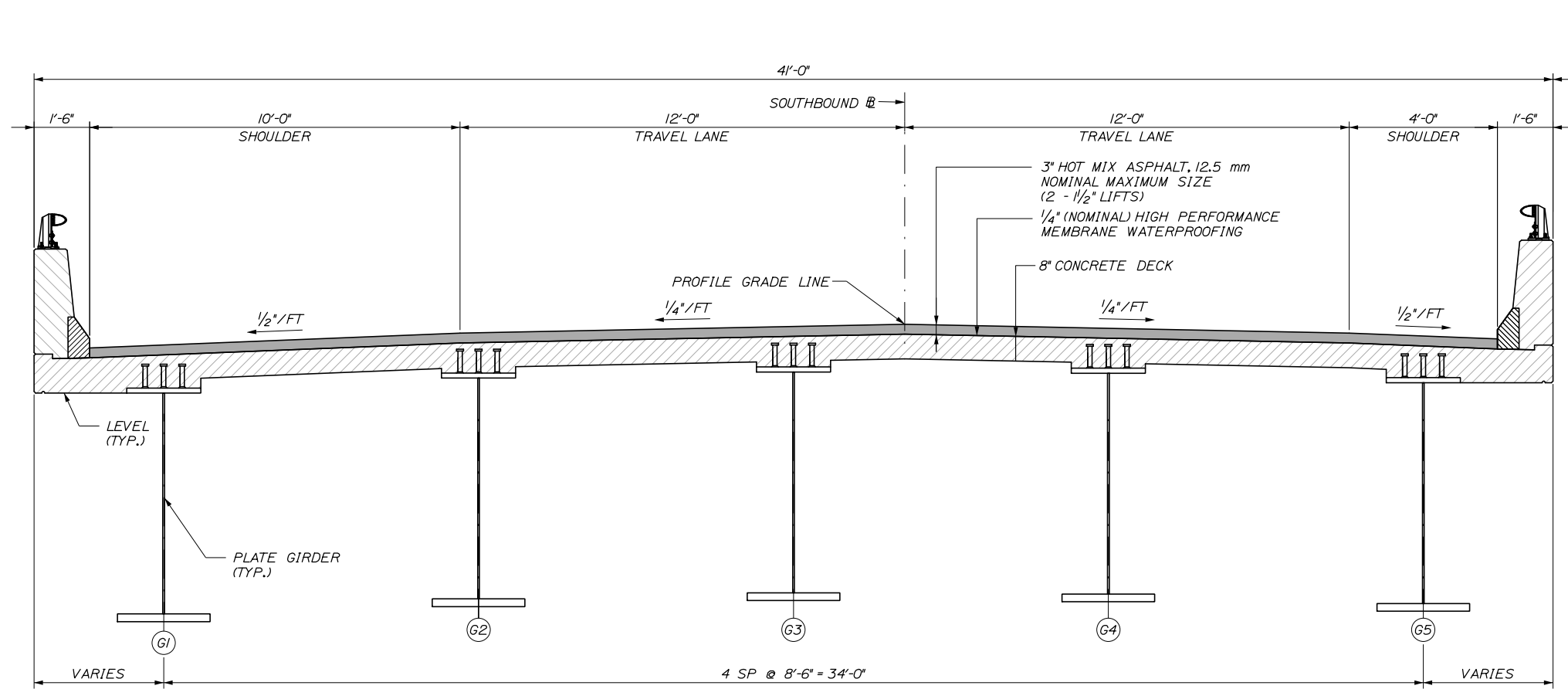
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

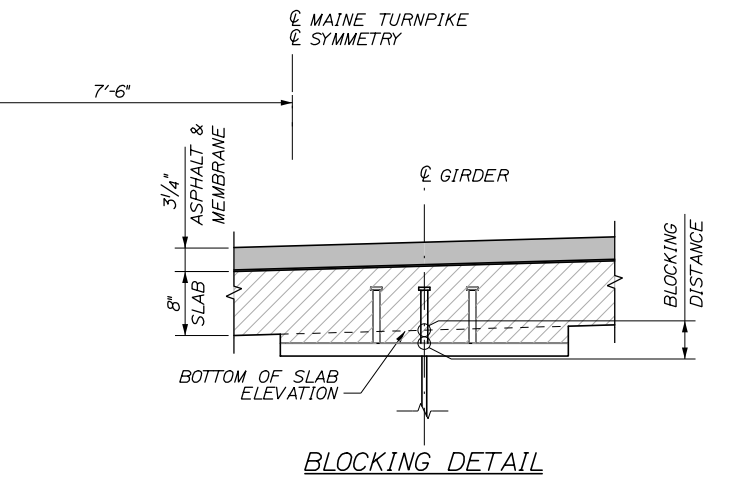
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
STRUCTURAL STEEL DETAILS III

SHEET NUMBER: S-40  
CONTRACT: 2014.10  
135 OF 155

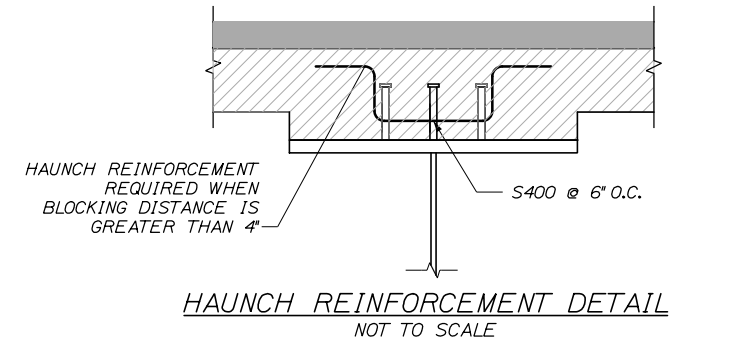
Date: 10/10/2014



TYPICAL SECTION  
(SB SHOWN, NB SIMILAR)  
1/2" = 1'-0"



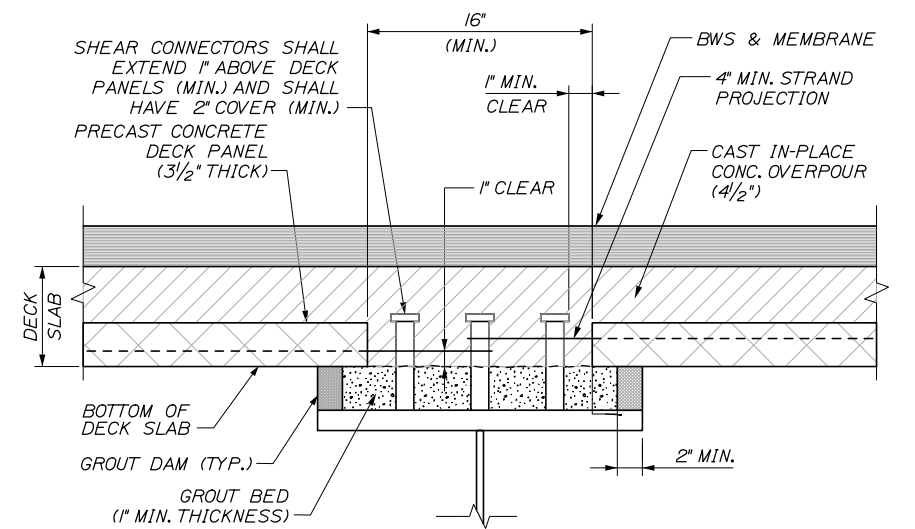
BLOCKING DETAIL



HAUNCH REINFORCEMENT DETAIL  
NOT TO SCALE

GIRDER NO.	CL BRG. ABUT. 1	SPAN FRACTION																		CL BRG. ABUT. 2	
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		0.95
GIRDER 1	244.79	244.85	244.91	244.96	244.99	245.00	245.00	244.97	244.92	244.85	244.76	244.64	244.51	244.35	244.17	243.97	243.75	243.51	243.26	242.99	242.72
GIRDER 2	245.15	245.21	245.26	245.30	245.33	245.34	245.33	245.30	245.25	245.18	245.09	244.98	244.84	244.69	244.51	244.31	244.10	243.87	243.63	243.37	243.10
GIRDER 3	245.34	245.40	245.46	245.50	245.52	245.53	245.53	245.50	245.45	245.38	245.29	245.18	245.04	244.89	244.71	244.52	244.31	244.08	243.83	243.58	243.31
GIRDER 4	245.31	245.37	245.42	245.46	245.48	245.48	245.47	245.45	245.40	245.33	245.24	245.13	245.00	244.84	244.67	244.48	244.28	244.05	243.81	243.56	243.31
GIRDER 5	245.12	245.17	245.22	245.26	245.28	245.28	245.27	245.24	245.19	245.13	245.04	244.93	244.80	244.65	244.48	244.29	244.08	243.86	243.62	243.38	243.12


GIRDER NO.	CL BRG. ABUT. 1	SPAN FRACTION																		CL BRG. ABUT. 2	
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90		0.95
GIRDER 6	244.89	244.97	245.04	245.09	245.13	245.16	245.16	245.14	245.10	245.04	244.96	244.85	244.73	244.58	244.40	244.21	244.00	243.78	243.53	243.28	243.01
GIRDER 7	245.13	245.20	245.26	245.31	245.35	245.36	245.36	245.34	245.30	245.24	245.16	245.06	244.93	244.78	244.62	244.43	244.23	244.01	243.77	243.52	243.26
GIRDER 8	245.22	245.28	245.34	245.38	245.41	245.43	245.42	245.40	245.36	245.30	245.22	245.12	244.99	244.85	244.68	244.50	244.30	244.08	243.85	243.61	243.36
GIRDER 9	245.05	245.12	245.17	245.22	245.25	245.26	245.26	245.24	245.20	245.14	245.06	244.95	244.83	244.69	244.52	244.34	244.14	243.93	243.70	243.45	243.20
GIRDER 10	244.73	244.80	244.85	244.89	244.92	244.94	244.93	244.91	244.87	244.81	244.73	244.63	244.50	244.36	244.20	244.02	243.82	243.61	243.37	243.14	242.89



PRECAST PANEL HAUNCH DETAIL  
(USE OF PRECAST PANELS IS OPTIONAL)  
1/2" = 1'-0"

Filename: 136\_TypicalSection.dgn

Scale:		Designed by:	
No.	Revision	By	Date

  
 HNTB CORPORATION  
 340 County Road, Suite 6-C  
 Westbrook, ME 04092  
 TEL (207) 774-5155  
 FAX (207) 228-0909  
 CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.  
 Designed: AET 10/14  
 Checked: AJF 10/14  
 Drawn: PTA 10/14  
 In Charge of: RAL 10/14

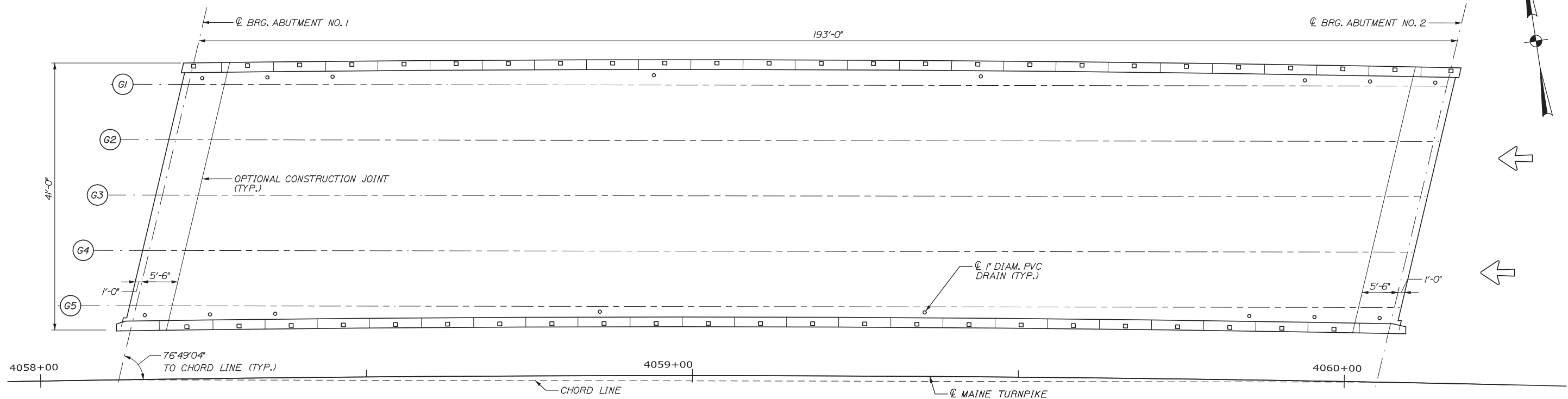
  
 THE GOLD STAR  
 MEMORIAL HIGHWAY  
 MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 TYPICAL SECTION  
 SHEET NUMBER: S-41  
 CONTRACT: 2014.10

136 OF 155



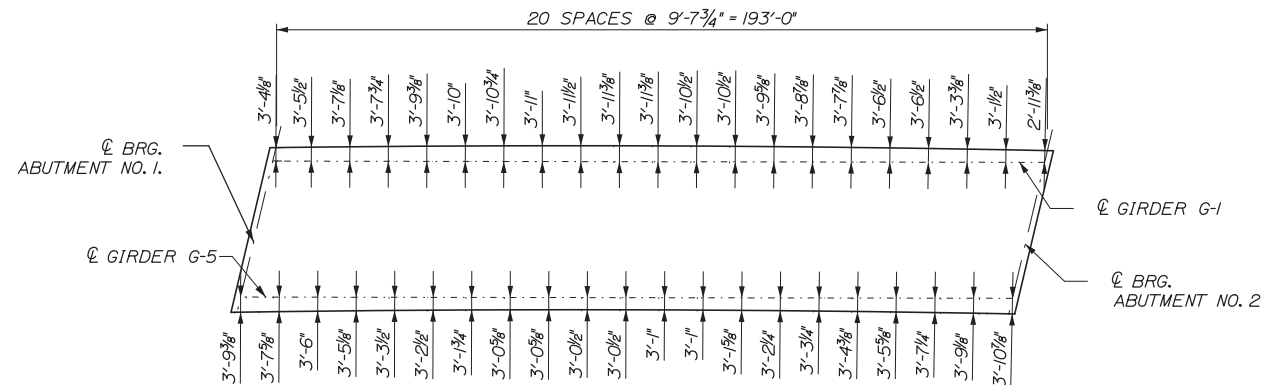
Date: 10/10/2014



DECK PLAN  
1/8" = 1'-0"

**SUPERSTRUCTURE NOTES:**

1. CONTRACTOR SHALL HAVE THE OPTION OF USING PRECAST, PRESTRESSED CONCRETE DECK PANELS AS AN ALTERNATIVE TO THE CONCRETE SLAB DETAILS SHOWN ON THE CONTRACT PLANS. THE REQUIREMENTS SHOWN ON PAGES 502(07)-502(12) OF THE MAINEDOT STANDARD DETAILS SHALL APPLY, UNLESS OTHERWISE NOTED.
2. CLEAR PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO THE FOLLOWING AREAS: PARAPET SURFACES, FASCIA AND OVERHANG TO GIRDER FLANGE.
3. THE CONCRETE DECK SHALL BE GIVEN A SMOOTH BULL FLOAT OR WOOD FLOAT FINISH.
4. PARAPET JOINTS SHALL BE STAGGERED WITH RAILING POSTS. CURB JOINTS SHALL ALIGN WITH PARAPET JOINTS.
5. SCREED RAILS REQUIRED FOR DECK PLACEMENT SHALL BE LOCATED WITHIN 3" OF THE BEAM CENTERLINE.
6. SHOP DRAWINGS FOR BAR CHAIRS USED WITH REINFORCING STEEL IN THE SLAB SHALL BE SUBMITTED WITH REQUIRED SPACING TO THE ENGINEER FOR APPROVAL. BAR CHAIRS SHALL BE EPOXY-COATED OR PLASTIC PROTECTED.
7. DO NOT COVER PVC DRAINS WITH WATERPROOFING MEMBRANE. DEPRESS DRAINS 1/2" BELOW TOP OF SLAB. PROVIDE 23 GAUGE GALVANIZED SCREENS (1/4" MESH) OVER DRAINS.
8. MINIMUM REBAR LAP SPLICES SHALL BE 2'-7" FOR #5 BARS AND 3'-1" FOR #6 BARS.
9. FORM A V-GROOVE ON THE FASCIAS AT THE HORIZONTAL JOINT BETWEEN THE PARAPET AND SLAB.
10. MORTAR FOR BEDDING AND FOR JOINTS IN THE GRANITE CURB SHALL CONTAIN AN APPROVED NON-SHRINK ADDITIVE.
11. ALL JOINTS ALONG CURBS AND BRIDGE JOINTS SHALL BE SEALED WITH ONE OF THE TWO APPROVED PRODUCTS LISTED IN SPECIAL PROVISION 508, MEMBRANE WATERPROOFING.



FASCIA OFFSET PLAN

Filename: 137\_Deck Plan 1.dgn

Scale:		Designed by:	
No.	Revision	By	Date

<b>HNTB</b>			
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.			
	By	Date	
Designed	AET	10/14	Checked AJF 10/14
Drawn	PTA	10/14	In Charge of RAL 10/14

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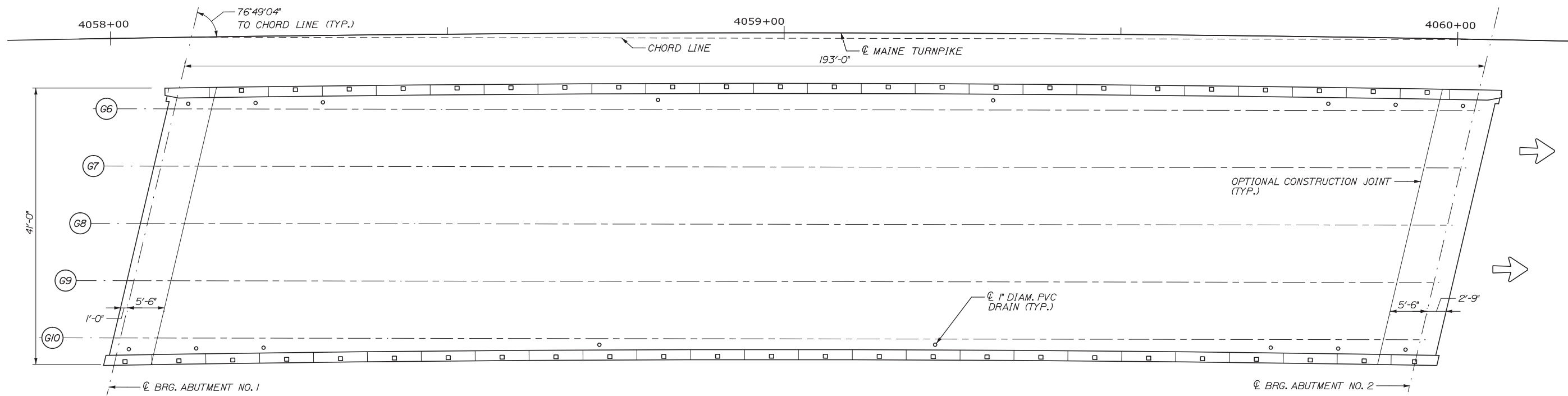
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

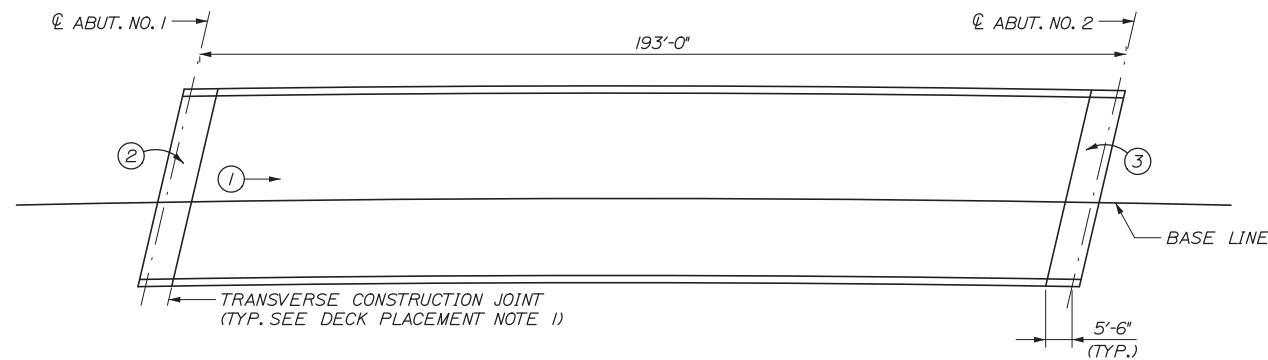
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
DECK PLAN I  
SOUTHBOUND

SHEET NUMBER: S-42  
CONTRACT: 2014.10  
137 OF 155

Date: 10/10/2014



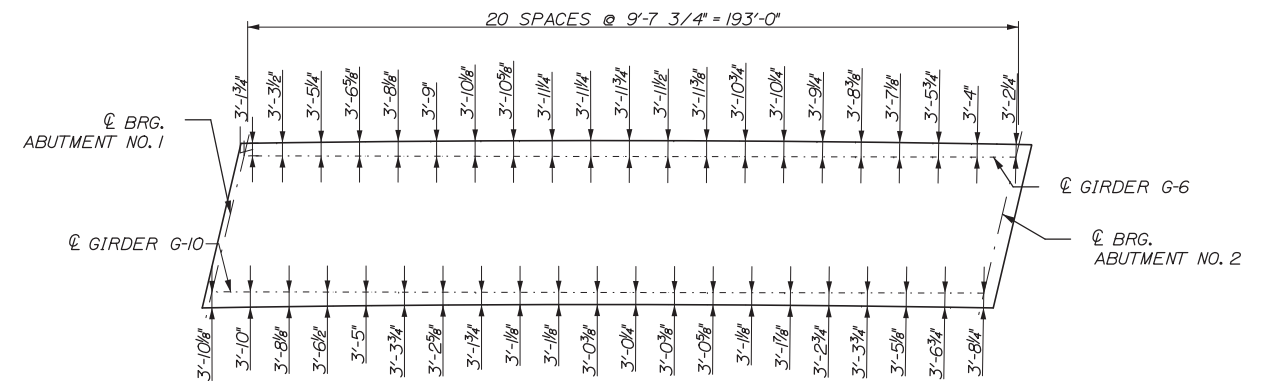
DECK PLAN  
1/8" = 1'-0"



DECK PLACEMENT SEQUENCE  
1" = 20'

**DECK PLACEMENT SEQUENCE NOTES:**

1. UNLESS THE ENTIRE DECK SLAB WILL BE PLACED AT ONE TIME, THE MID SPAN PLACEMENT SHALL BE MADE BEFORE THE ABUTMENT PLACEMENTS.
2. ONCE THE PLACEMENT OF A SLAB SECTION HAS BEEN STARTED, IT SHALL BE COMPLETED WITHOUT INTERRUPTION AND THE CONCRETE SHALL REMAIN PLASTIC THROUGHOUT THE PLACEMENT.
3. NO SUPERIMPOSED DEAD LOADS OR CONSTRUCTION LOADS MAY BE PLACED ON THE DECK UNTIL ALL DECK PLACEMENTS ARE COMPLETE.
4. AN ALTERNATE DECK PLACEMENT SEQUENCE MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO THE DECK PLACEMENT.



FASCIA OFFSET PLAN

Filename: 138\_Deck Plan 2.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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340 County Road, Suite 6-C  
Westbrook, ME 04092  
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FAX (207) 228-0909

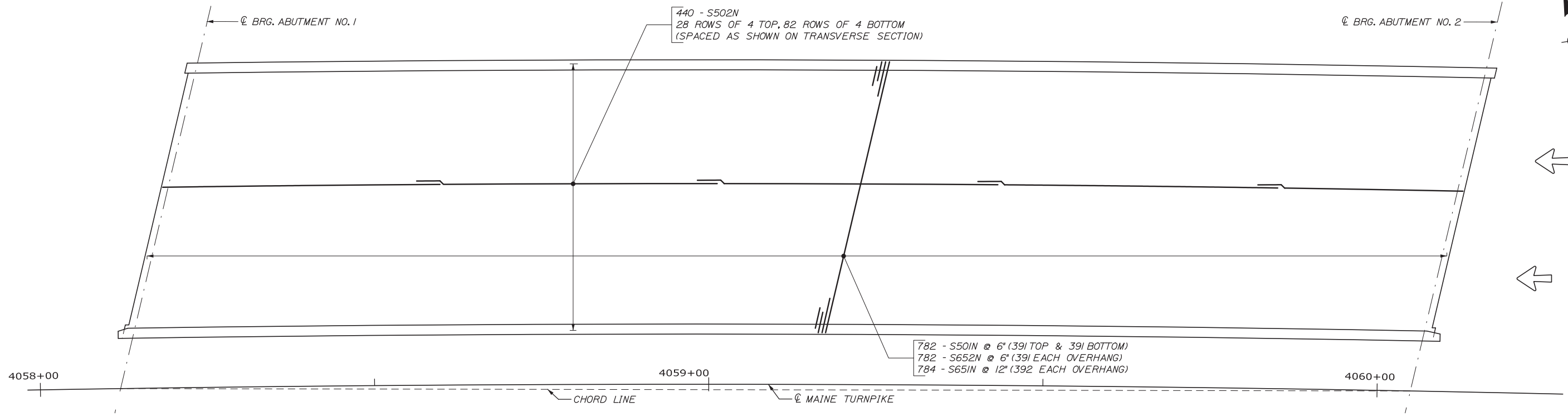
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

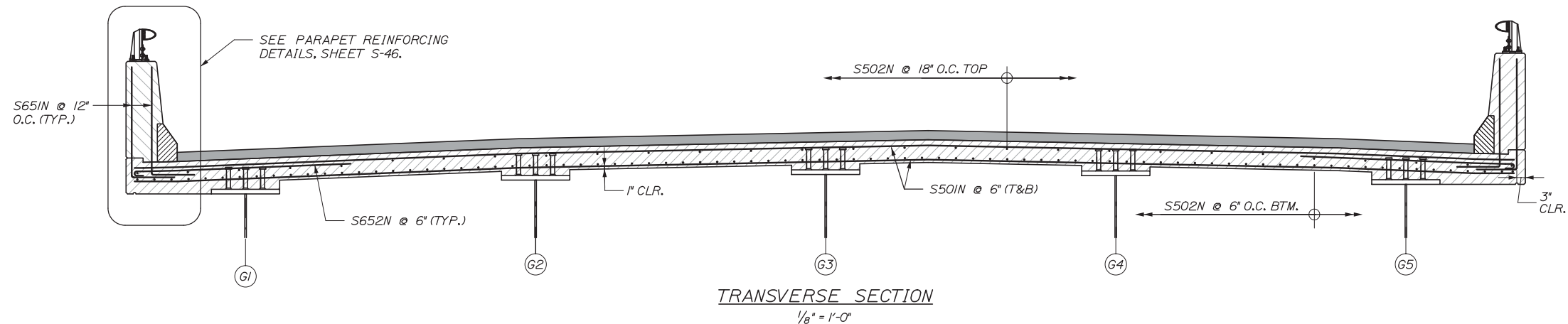
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
DECK PLAN II  
NORTHBOUND

SHEET NUMBER: S-43  
CONTRACT: 2014.10  
138 OF 155

Date: 10/10/2014



REINFORCING PLAN  
1/8" = 1'-0"



TRANSVERSE SECTION  
1/8" = 1'-0"

Filename: 139\_Deck\_Reinf\_Plan\_1.dgn

No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
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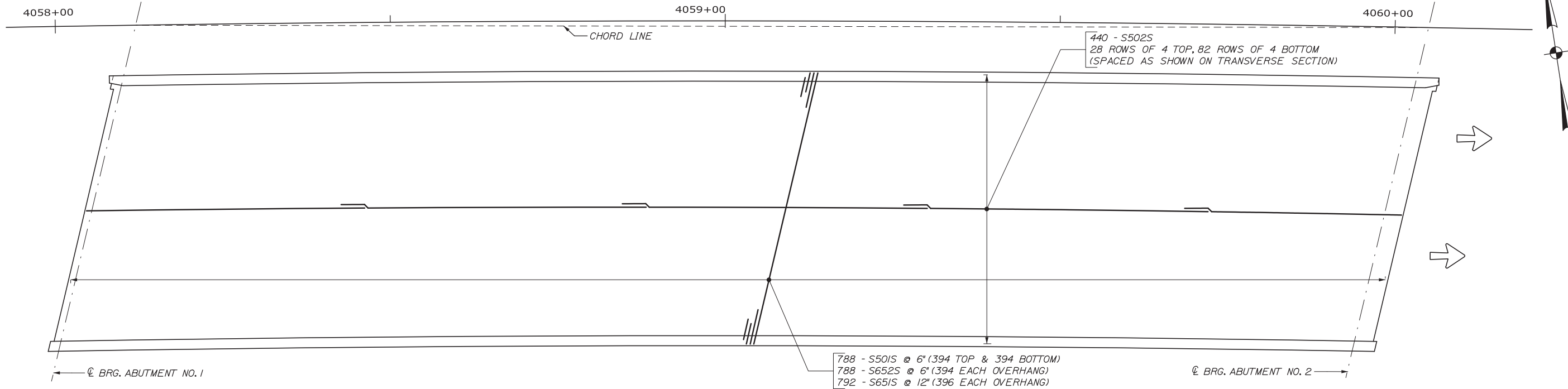
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

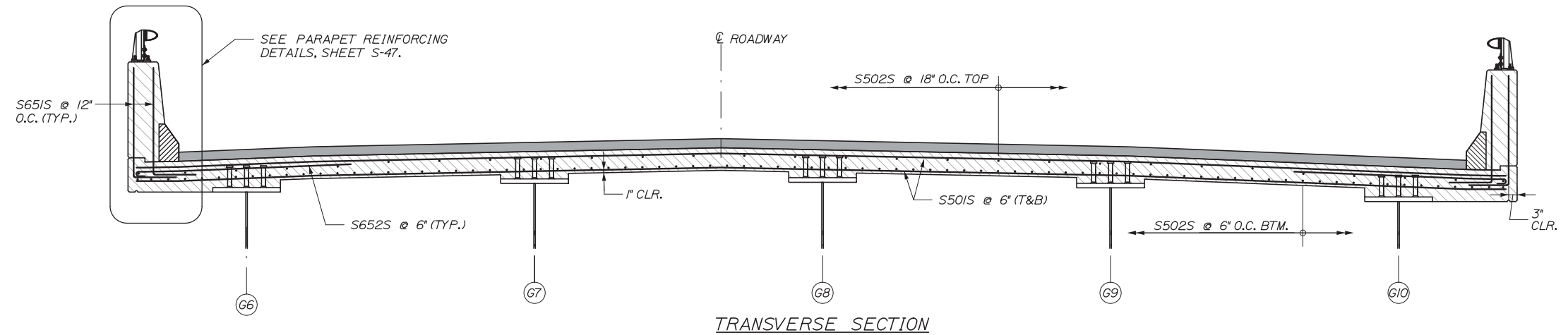
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
DECK REINFORCING PLAN I  
SOUTHBOUND

SHEET NUMBER: S-44  
CONTRACT: 2014.10  
139 OF 155

Date: 10/10/2014



**REINFORCING PLAN**  
1/8" = 1'-0"



**TRANSVERSE SECTION**

Filename: 140\_Deck Reinf Plan 2.dgn

Scale:			
No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

Designed	By	Date	Checked	By	Date
	AET	10/14		AJF	10/14
Drawn	By	Date	In Charge of	By	Date
	PTA	10/14		RAL	10/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

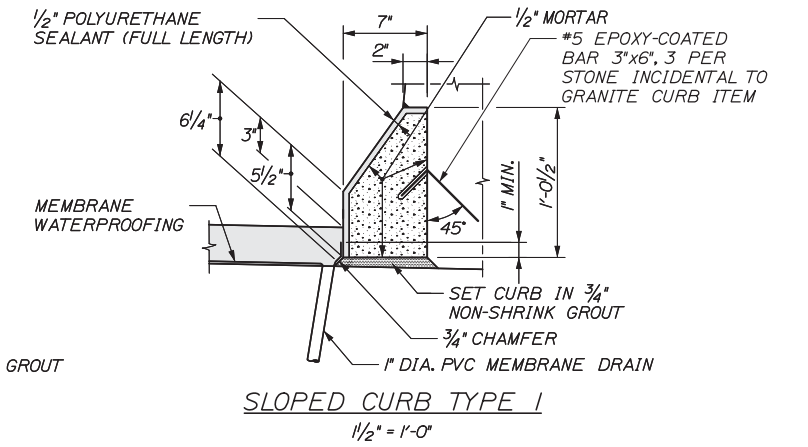
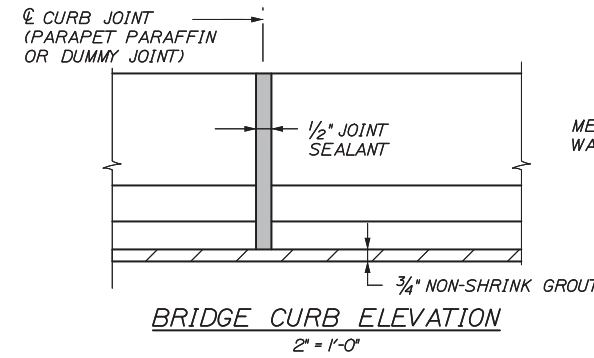
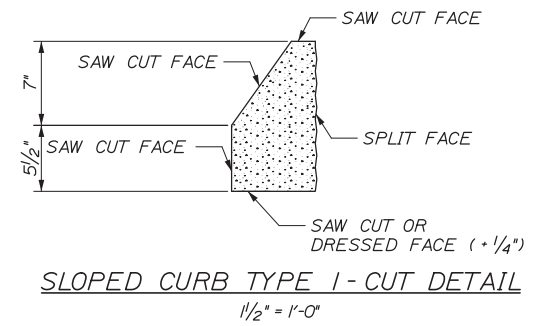
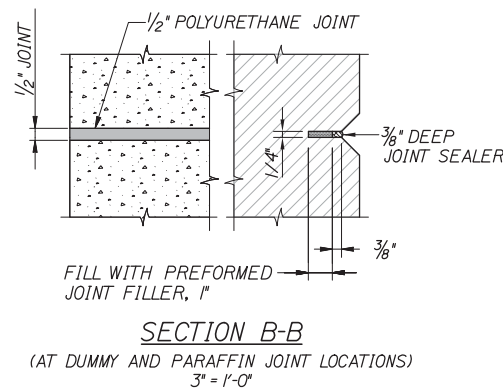
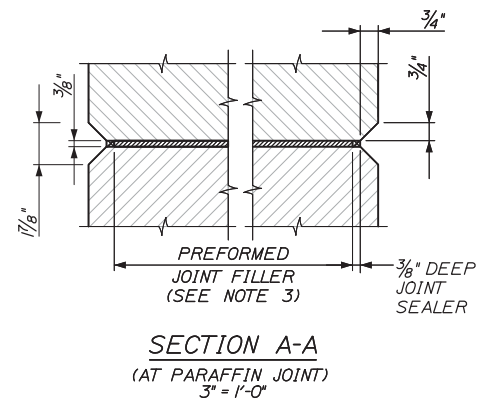
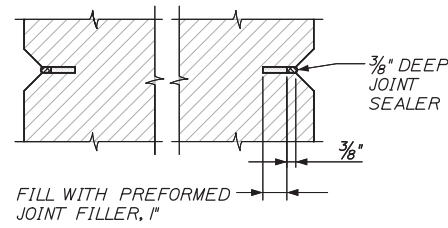
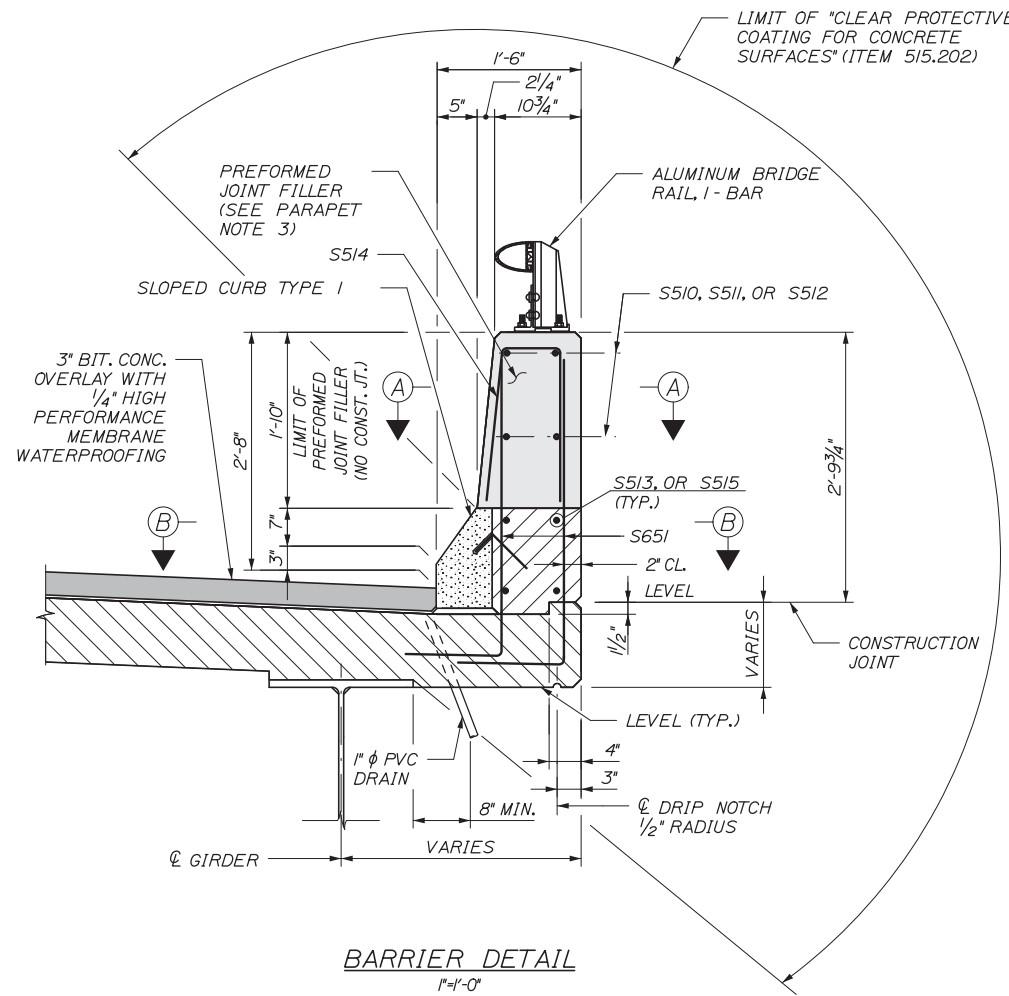
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
DECK REINFORCING PLAN II  
NORTHBOUND

SHEET NUMBER: S-45

CONTRACT: 2014.10

140 OF 155

Date: 10/10/2014



**PARAPET NOTES**

1. CONSTRUCTION OF PARAFFIN AND DUMMY JOINTS, INCLUDING JOINT FILLER, SHALL BE INCIDENTAL TO RELATED STRUCTURAL CONCRETE PAY ITEM.
2. CONCRETE SHALL BE PLACED SIMULTANEOUSLY ON BOTH SIDES OF THE JOINT. THE JOINTS SHALL REMAIN PLUMB AND STRAIGHT. A THIN STEEL PLATE MAY BE USED TO SUPPORT THE JOINT DURING CONCRETE PLACEMENT. THE PLATE SHALL BE CAREFULLY REMOVED WHILE THE CONCRETE IS PLASTIC.
3. PREFORMED JOINT FILLER SHALL CONFORM TO ASTM DESIGNATION D1752, TYPE 1 OR ASTM D5249, TYPE 2. PREFORMED JOINT FILLER SHALL BE A NON STAINING, NON BLEEDING TYPE. PRODUCTS SUCH AS "CERAMAR", MANUFACTURED BY W. R. MEADOWS, OR AN APPROVED EQUAL WILL BE ACCEPTABLE. CORK IS NOT AN ACCEPTABLE JOINT FILLER MATERIAL.
4. JOINT SEALER SHALL CONFORM WITH SUBSECTION 714.04 OF THE SPECIFICATIONS AND SHALL BE INCIDENTAL TO RELATED CONTRACT PAY ITEMS.

Filename: 141\_SuperStr Dets 1.dgn

No.	Revision	By	Date

Scale:

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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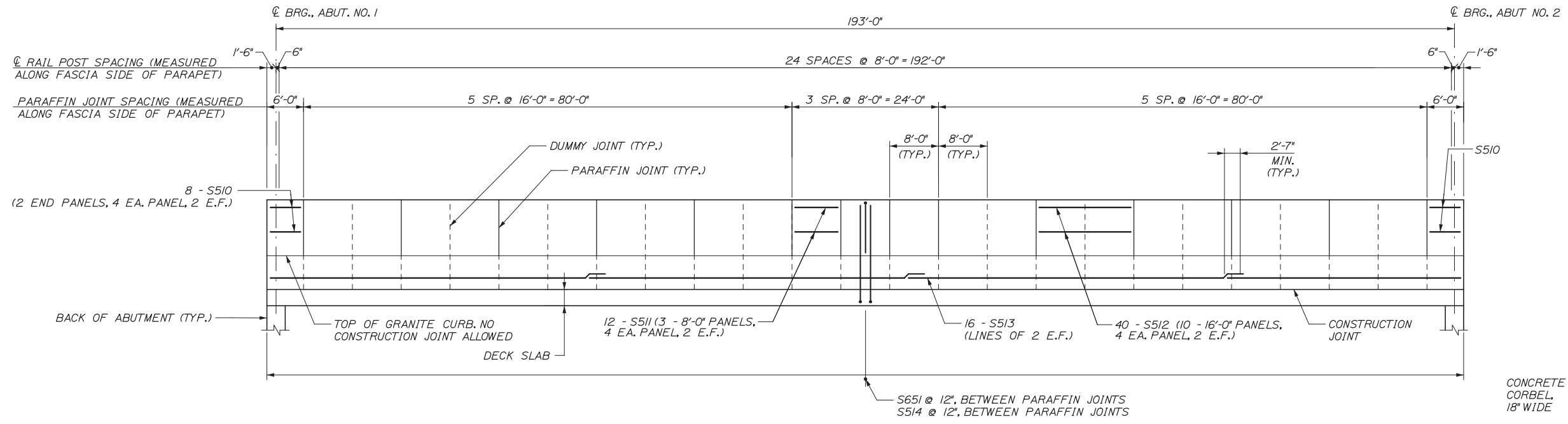
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

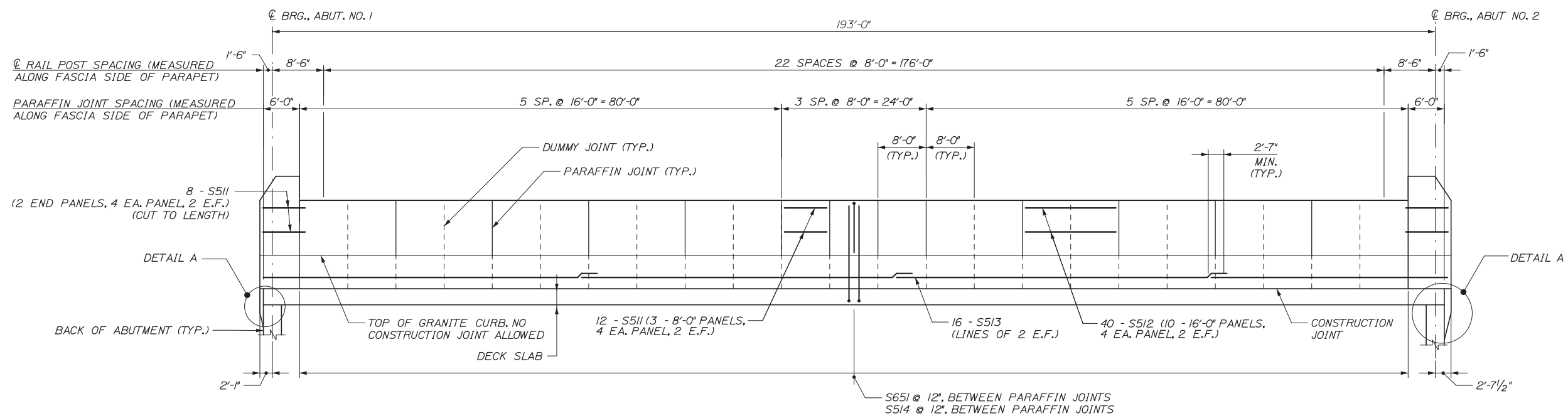
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
SUPERSTRUCTURE DETAILS I

SHEET NUMBER: S-46  
CONTRACT: 2014.10  
141 OF 155

Date: 10/10/2014



**PARAPET ELEVATION - SOUTHBOUND, NORTH PARAPET**  
 HORIZ. 1" = 10'  
 VERT. 1/2" = 1'-0"



**PARAPET ELEVATION - SOUTHBOUND, SOUTH PARAPET**  
 HORIZ. 1" = 10'  
 VERT. 1/2" = 1'-0"

**NOTE:**  
 FOR ADDITIONAL ENDPPOST REINFORCING DETAILS SEE SHEET S-25.

Filename: 142\_SuperStr Dets 2.dgn

Scale:				
No.	Revision	By	Date	

Designed by:				
<b>HNTB</b>				
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.				
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**THE GOLD STAR  
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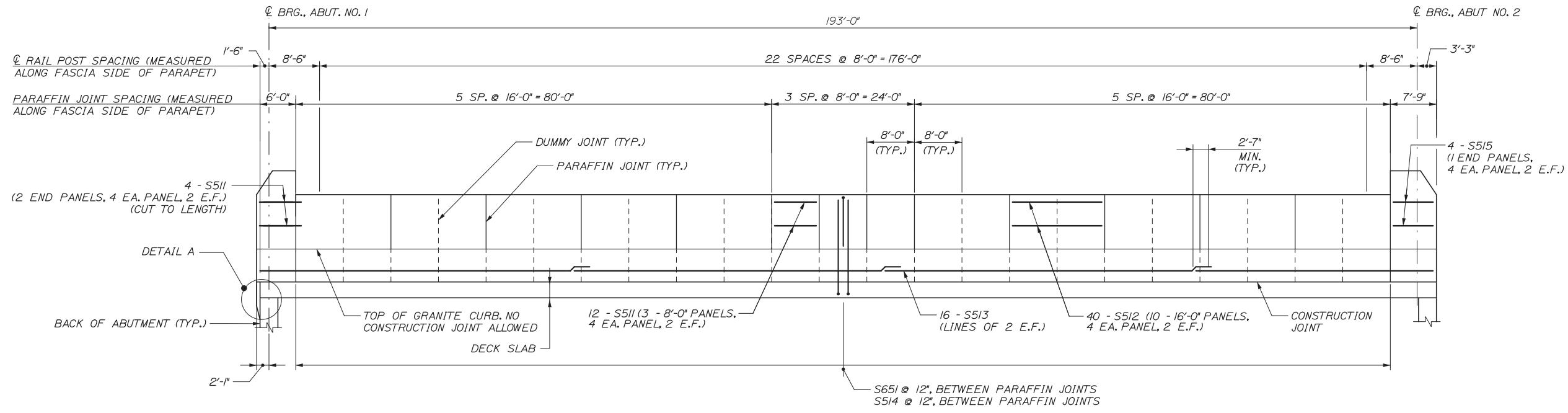
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 SUPERSTRUCTURE DETAILS II

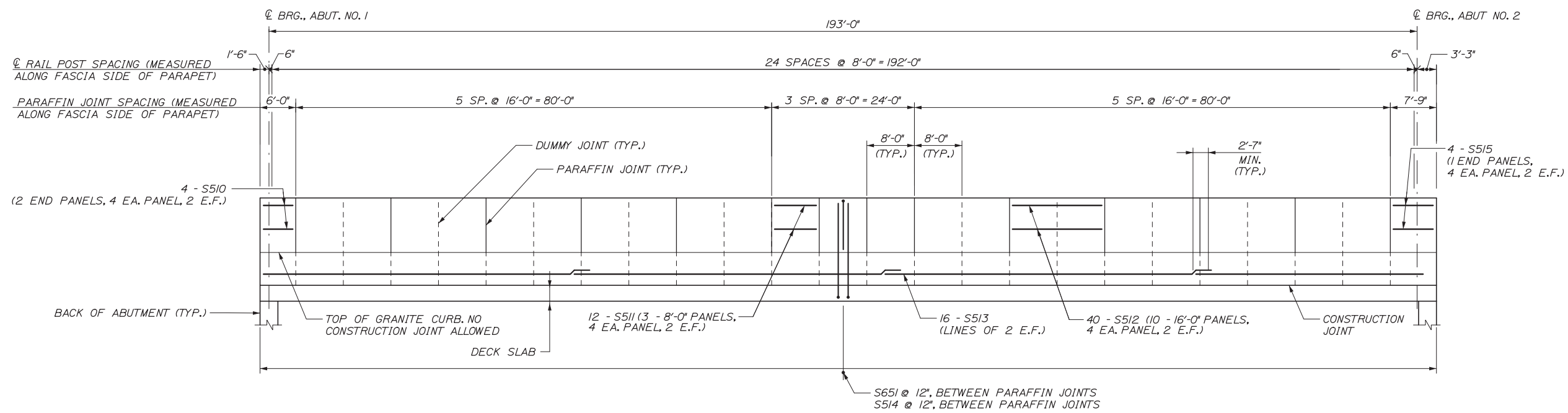
SHEET NUMBER: S-47  
 142 OF 155

CONTRACT: 2014.10

Date: 10/10/2014



PARAPET ELEVATION - NORTHBOUND, NORTH PARAPET  
 HORIZ. 1" = 10'  
 VERT. 1/2" = 1'-0"



PARAPET ELEVATION - NORTHBOUND, SOUTH PARAPET  
 HORIZ. 1" = 10'  
 VERT. 1/2" = 1'-0"

NOTE:  
 1. FOR ADDITIONAL ENDPOST REINFORCING DETAILS SEE SHEET S-25.

Scale:			
No.	Revision	By	Date

Designed by:

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CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

By	Date	By	Date
Designed	AET 10/14	Checked	AJF 10/14
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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

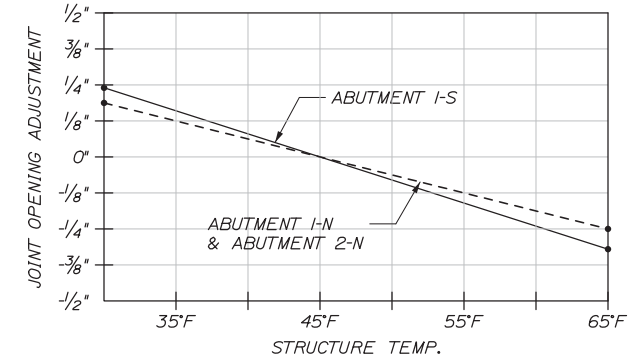
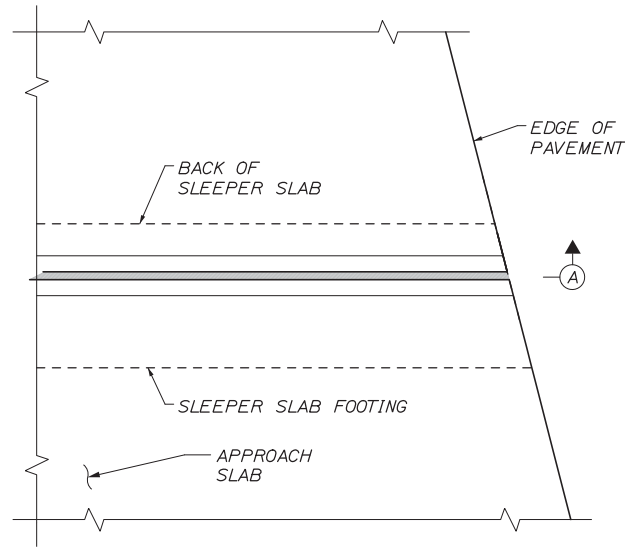
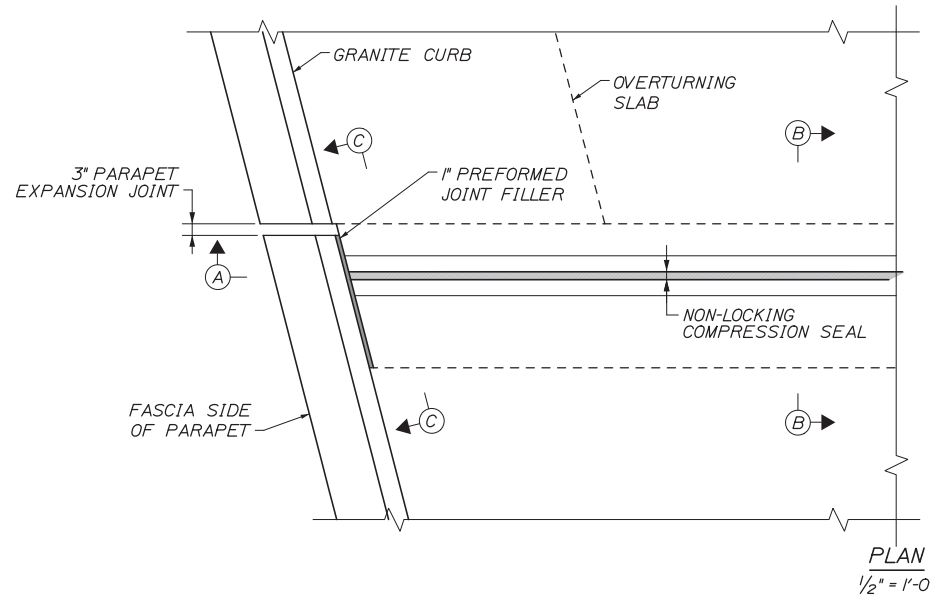
INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 SUPERSTRUCTURE DETAILS III

SHEET NUMBER: S-48  
 CONTRACT: 2014.10  
 143 OF 155

Filename: 143\_SuperStr Dets 3.dgn

Date:10/10/2014

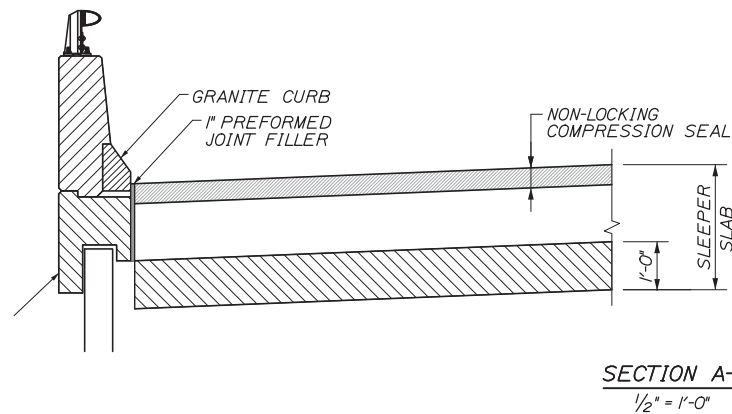
Filename: 144\_Expansion Joint Details.dgn



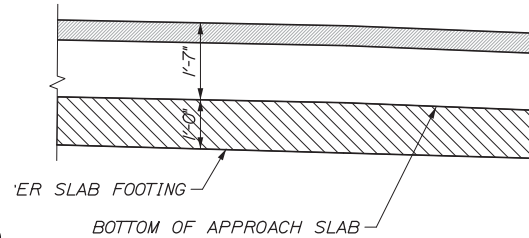
COMPRESSION SEAL ADJUSTMENT CHART

EXPANSION JOINT NOTES:

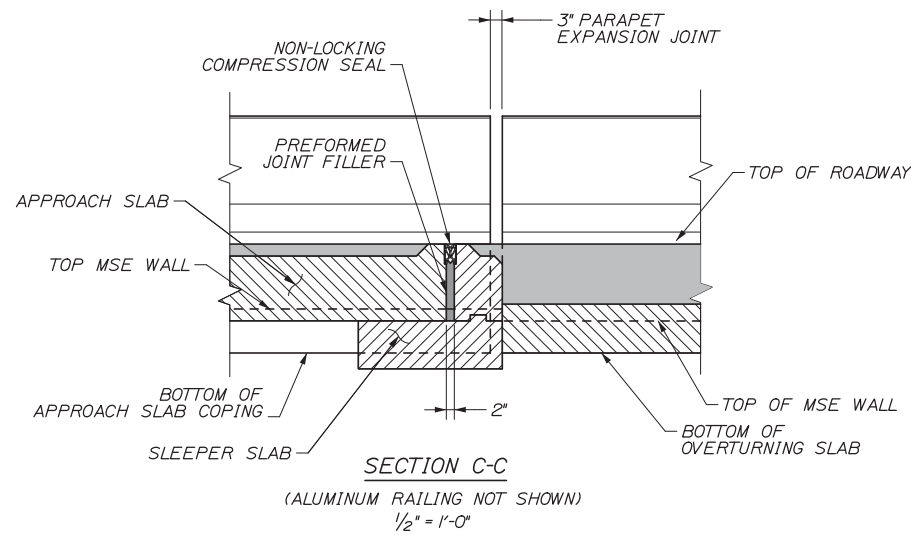
- CONSTRUCTION OF SLEEPER SLABS SHALL BE INCIDENTAL TO PAY ITEM NO. 502.31, STRUCTURAL CONCRETE, APPROACH SLABS.
- SAW CUT IN PAVEMENT SHALL BE SEALED WITH EMULSIFIED ASPHALT SEALING COMPOUND CONFORMING TO SPECIFICATION 702.12.
- THE EXPANSION DEVICE SHALL BE FABRICATED TO BE INSTALLED NORMAL TO GRADE.
- COMPRESSION SEAL SHALL ACCOMODATE 2.25" OF MOVEMENT RATING (MR) FOR JOINTS I-S AND 1.70" FOR JOINT I-N AND 2-N. JOINT OPENING DIMENSION "A" SHALL BE DETERMINED AS FOLLOWS:  
 $0.85 \times \text{NOMINAL SEAL WIDTH} - 1/2 \text{MR}$
- FINAL ADJUSTMENT FOR TEMPERATURE SHALL BE MADE IN THE FIELD ACCORDING TO THE "COMPRESSION SEAL ADJUSTMENT CHART" SHOWN ON THE DESIGN DRAWINGS. THE ADJUSTMENT SHALL BE MEASURED PARALLEL TO THE CENTERLINE OF CONSTRUCTION.
- THE APPROACH SLAB AND SLEEPER SLAB CONCRETE SHALL BE IN PLACE BEFORE THE EXPANSION DEVICE IS FIXED IN POSITION. NO ALLOWANCE FOR MOVEMENT DUE TO DEAD LOAD DEFLECTION IS NECESSARY.
- THE CONCRETE IN THE BLOCK-OUT MAY BE PLACED WITH THE CURB / SIDEWALK CONCRETE. AN EPOXY BONDING AGENT SHALL BE APPLIED TO ALL VERTICAL SURFACES OF THE BLOCK-OUT BEFORE MAKING THE FINAL CONCRETE PLACEMENT.
- CONTRACTOR SHALL APPLY A BONDING AGENT SELECTED FROM THE MAINE DEPARTMENT OF TRANSPORTATION'S LIST OF PREQUALIFIED CONCRETE BONDING AGENTS, TO ALL VERTICAL SURFACES OF THE BLOCK-OUT BEFORE CONCRETE IS PLACED.
- COMPRESSION SEAL SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- NO REINFORCING STEEL, UNLESS OTHERWISE NOTED, SHALL BE CUT TO CLEAR THE EXPANSION DEVICE WITHOUT PRIOR APPROVAL OF THE RESIDENT



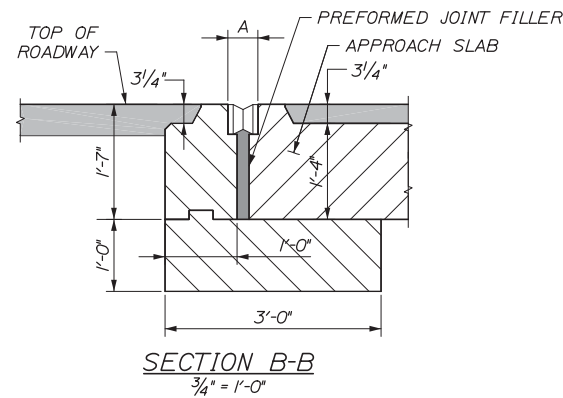
SECTION A-A  
1/2" = 1'-0"



SECTION B-B  
3/4" = 1'-0"



SECTION C-C  
(ALUMINUM RAILING NOT SHOWN)  
1/2" = 1'-0"



SECTION B-B  
3/4" = 1'-0"

No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
Designed	AET	10/14	Checked	AJF	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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THE GOLD STAR  
MEMORIAL HIGHWAY

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

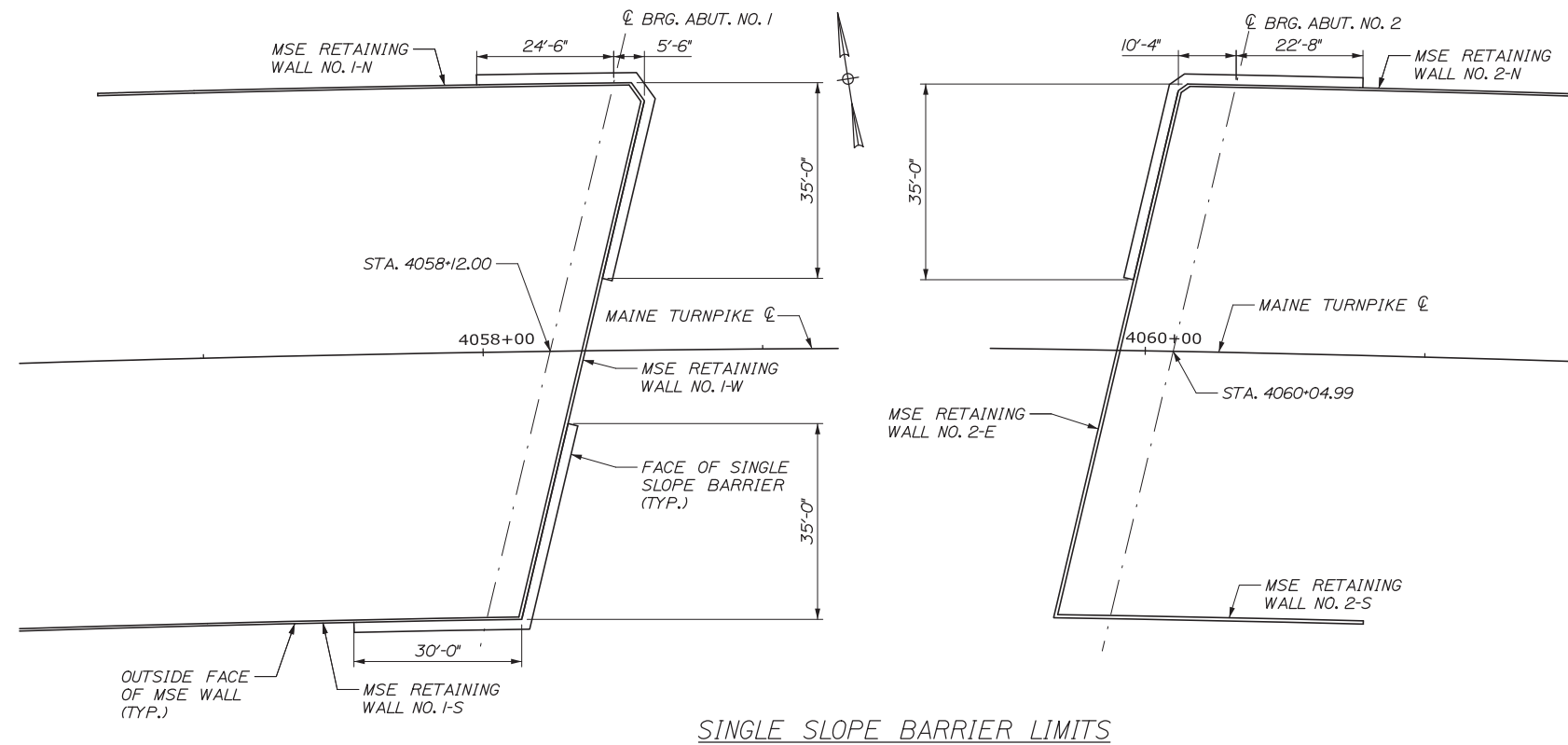
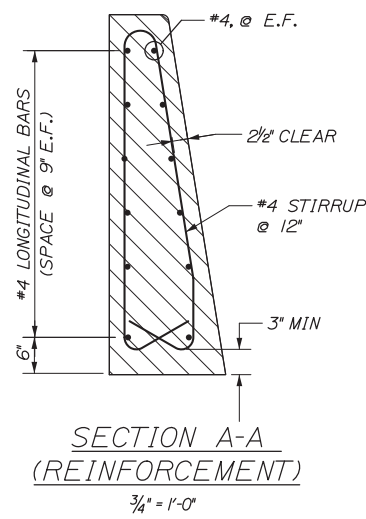
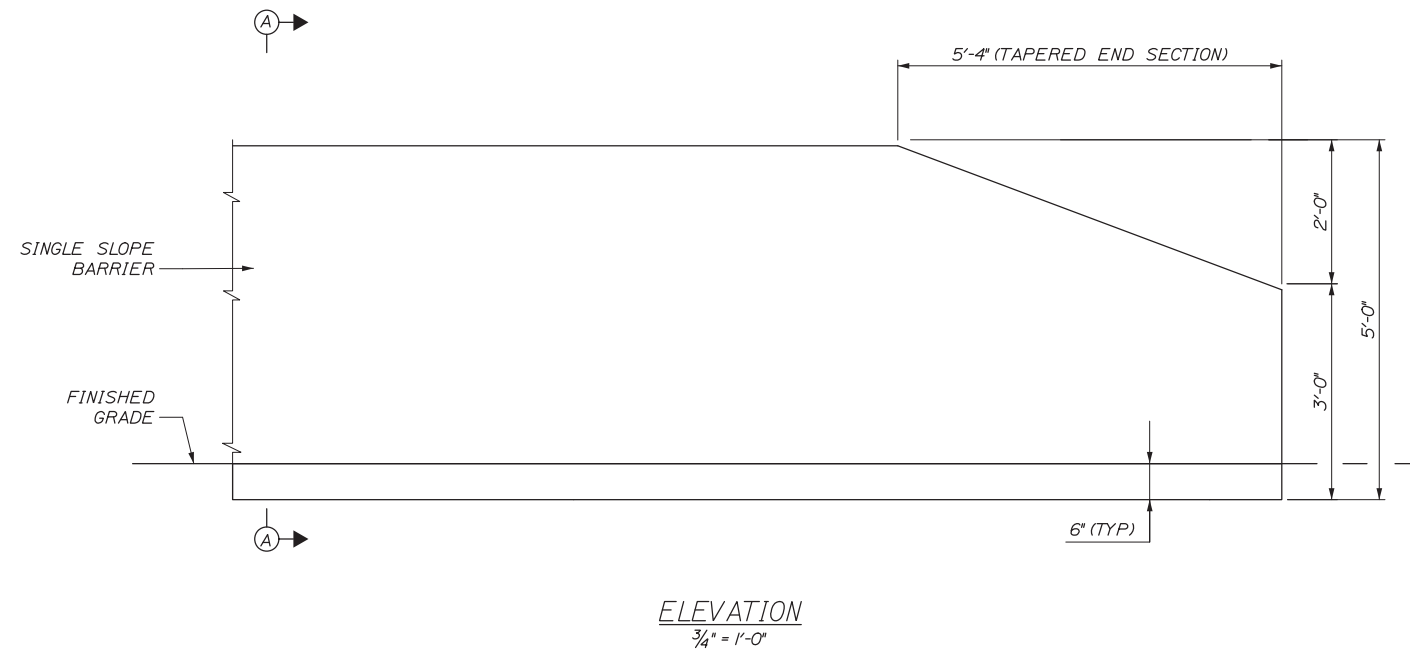
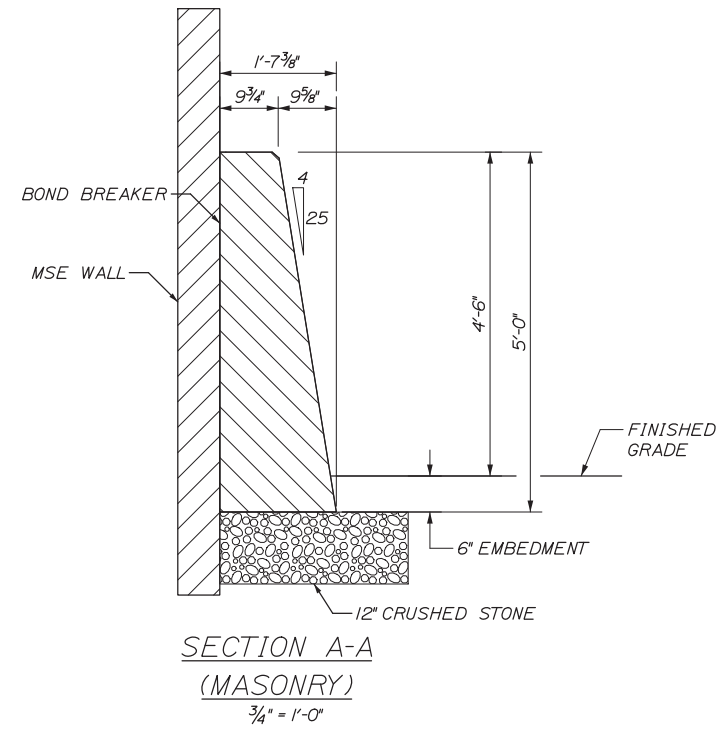
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

EXPANSION JOINT DETAILS

SHEET NUMBER: S-49  
CONTRACT:2014.10  
144 OF 155



Date: 10/10/2014



Filename: 145\_Misc\_Details.rvt

Scale:			
No.	Revision	By	Date

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<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.					
	By	Date		By	Date
	AET	10/14	Checked	TRC	10/14
	Drawn	PTA	In Charge of	RAL	10/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)

MISCELLANEOUS DETAILS

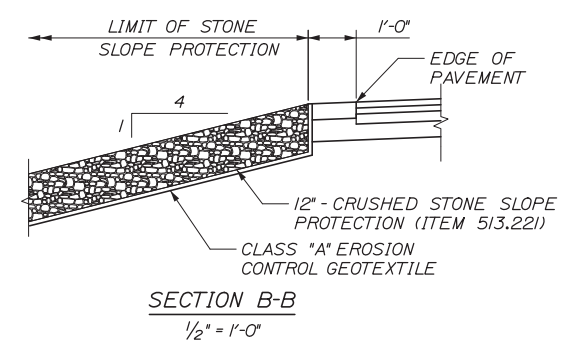
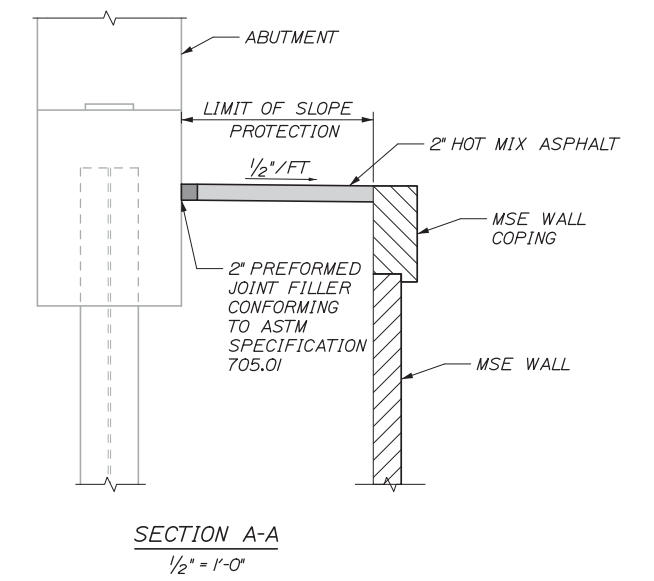
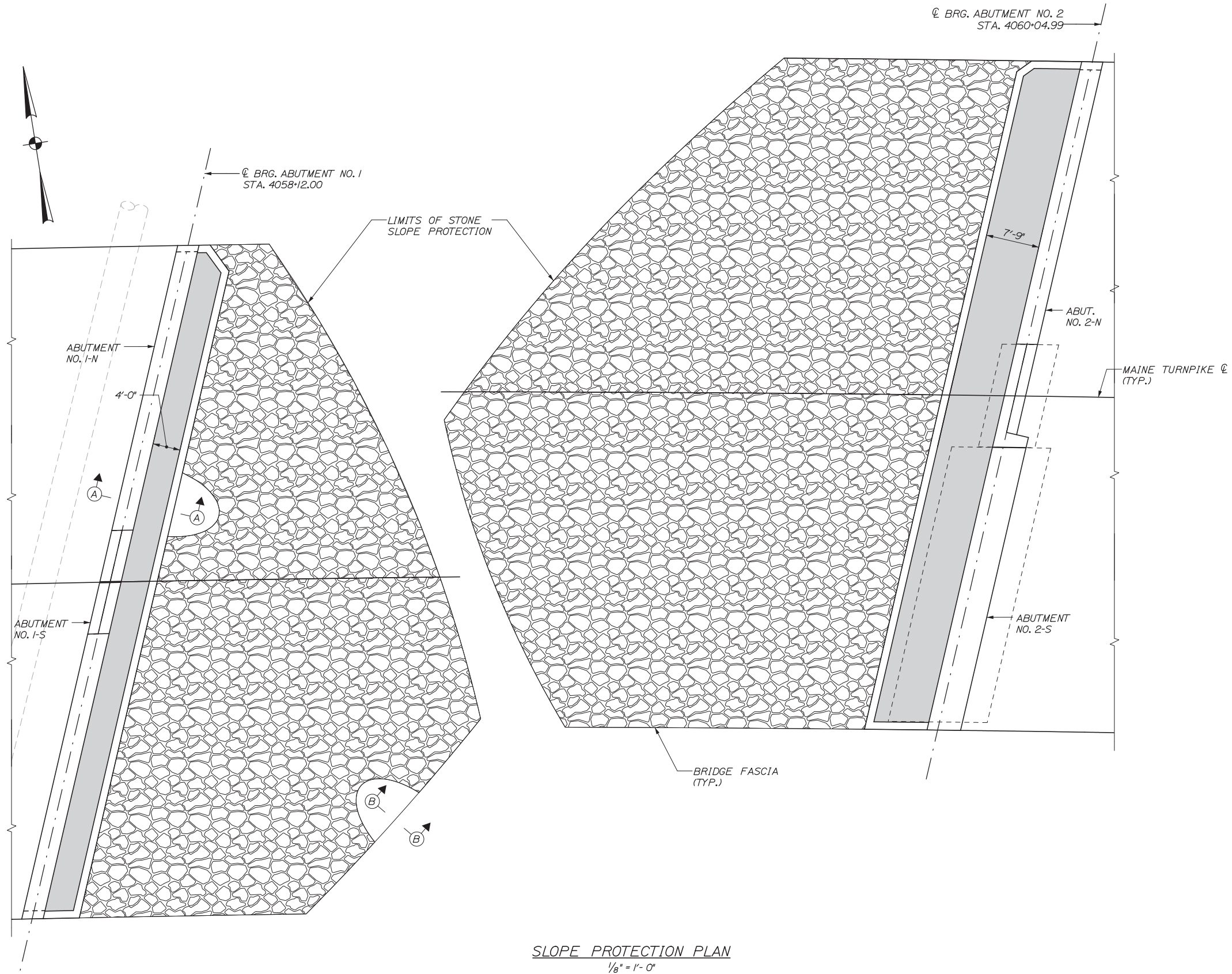
SHEET NUMBER: S-50

CONTRACT: 2014.10

145 OF 155

Date: 10/10/2014

Filename: 146\_Slope Protection Plan.dgn



Scale:

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.

	By	Date		By	Date
Designed	AET	10/14	Checked	TRC	10/14
Drawn	PTA	10/14	In Charge of	RAL	10/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

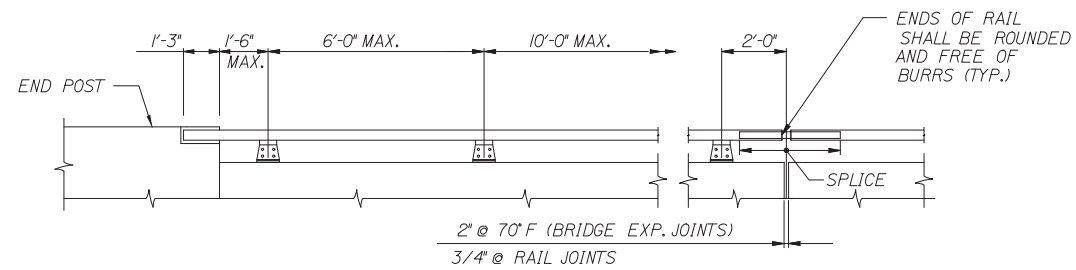
MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

INTERCHANGE IMPROVEMENTS  
 LEWISTON (EXIT 80)  
 SLOPE PROTECTION PLAN

SHEET NUMBER: S-51  
 CONTRACT: 2014.10  
 146 OF 155

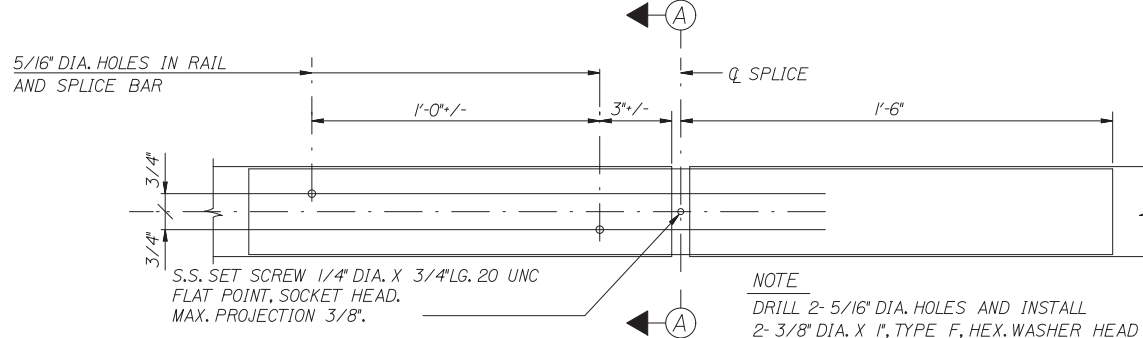
Date:10/10/2014

Filename: 147\_1-Bar Aluminum Rail.dgn



RAILING - ELEVATION  
3/8"=1'-0"

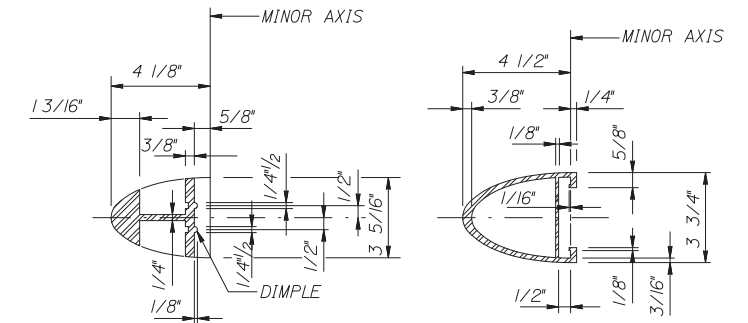
NOTE  
LENGTHS OF RAIL SHALL BE ATTACHED TO A MIN. OF FOUR (4) RAIL POSTS WHENEVER POSSIBLE AND, IN ANY CASE, NEVER LESS THAN TWO (2). RAIL POSTS ARE TO BE SET NORMAL TO GRADE, UNLESS OTHERWISE SHOWN ON THE BRIDGE PLANS.



SPlice DETAIL  
3"=1'-0"

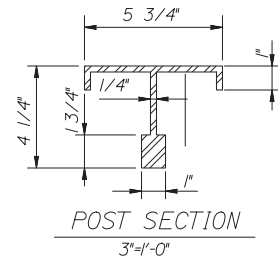
S.S. SET SCREW 1/4" DIA. X 3/4" LG. 20 UNC FLAT POINT, SOCKET HEAD. MAX. PROJECTION 3/8".

NOTE  
DRILL 2- 5/16" DIA. HOLES AND INSTALL 2- 3/8" DIA. X 1", TYPE F, HEX. WASHER HEAD TAPPING SCREWS (STAINLESS).



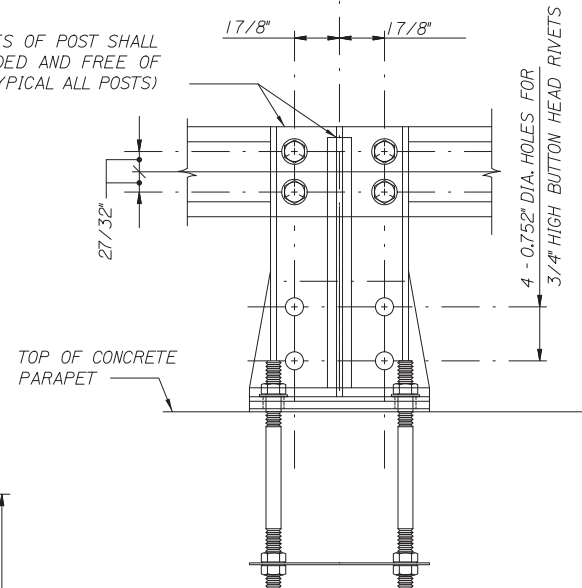
SECTION A-A  
3"=1'-0"

RAIL MEMBER  
3"=1'-0"

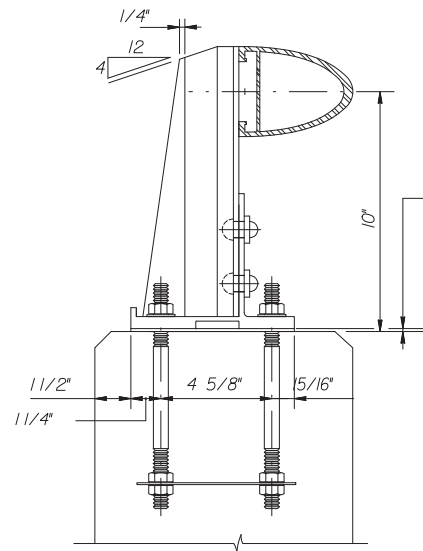


POST SECTION  
3"=1'-0"

TOP EDGES OF POST SHALL BE ROUNDED AND FREE OF BURRS (TYPICAL ALL POSTS)

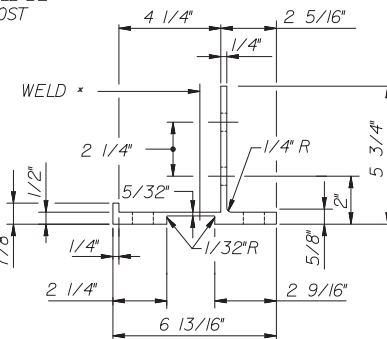


OUTSIDE ELEVATION OF POST  
3"=1'-0"

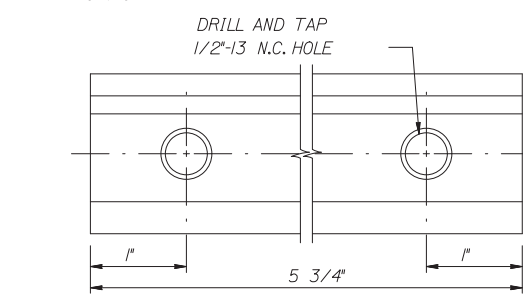


BRIDGE RAILING ASSEMBLY  
3"=1'-0"

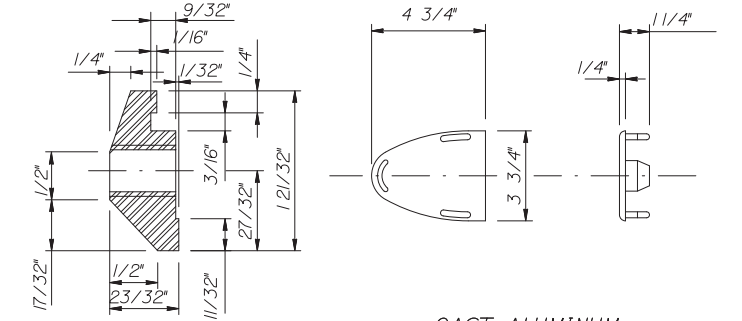
PREFORMED PAD 1/8" DIA. THICK AFTER COMPRESSION (TYP.) AT LEAST ONE PAD SHALL BE PLACED UNDER EACH POST



POST BASE SECTION  
3"=1'-0"



CLAMP BAR DETAILS  
FULL SIZE

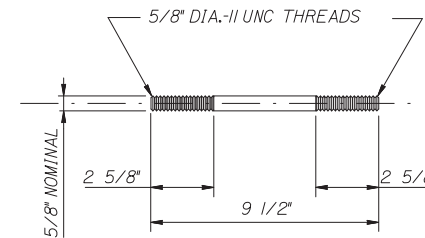


CAST ALUMINUM  
DRIVE FIT RAIL CAP  
3"=1'-0"

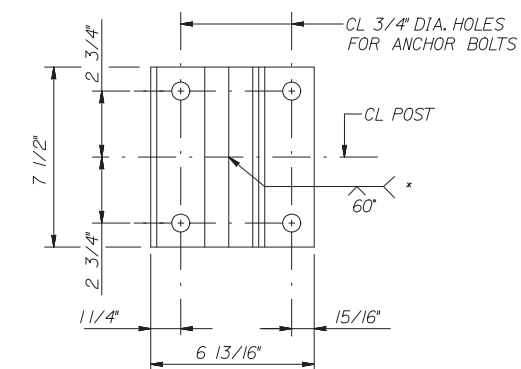
NOTE  
ONE-PIECE BASE PLATE MAY BE SUBSTITUTED, PROVIDED THAT THE REQUIRED LENGTH IS CUT FROM A ONE-PIECE EXTRUSION AND HAS THE GEOMETRIC SHAPE OF THE TWO-PIECE BASE PLATE

NOTE  
IF CUT THREADS ARE USED, BODY DIAMETER SHALL BE NOT LESS THAN NOMINAL DIAMETER. IF ROLLED THREADS ARE USED, BODY DIAMETER SHALL BE NOT LESS THAN PITCH DIAMETER OF THE THREADS.

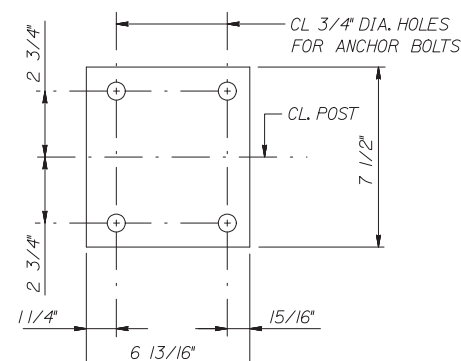
NOTE  
FOUR(4) BOLT, NUT AND WASHER SETS ARE REQUIRED PER ASSEMBLY, ALL HARDWARE SHALL BE GALVANIZED.



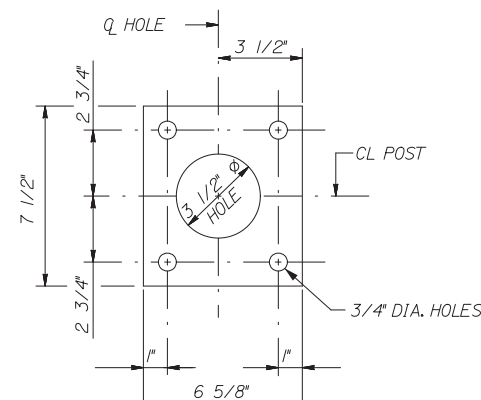
ANCHOR BOLT  
3"=1'-0"



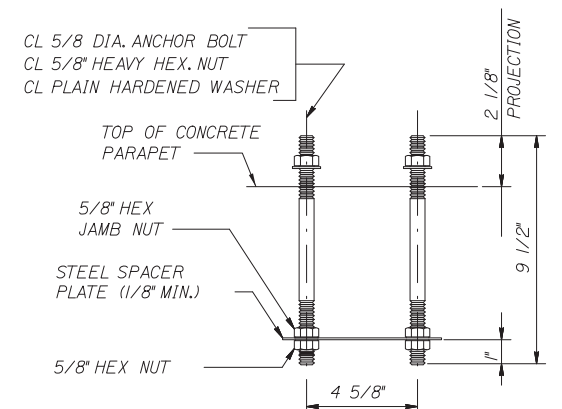
POST BASE  
(BOTTOM VIEW)  
3"=1'-0"



PREFORMED PAD  
3"=1'-0"



STEEL SPACER PLATE  
(FOR ANCHORAGE)  
3"=1'-0"



RAIL POST ANCHORAGE  
(ASSEMBLY)  
3"=1'-0"

Scale:				Designed by:			
No.	Revision	By	Date	<p align="center"><b>HNTB</b></p> <p>HNTB CORPORATION 340 County Road, Suite 6-C Westbrook, ME 04092 TEL (207) 774-5155 FAX (207) 228-0909</p> <p align="center">MAINE TURNPIKE</p> <p align="center"><b>THE GOLD STAR MEMORIAL HIGHWAY</b></p>			
CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.				<p align="center">INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80) ALUMINUM BRIDGE RAILING (1 BAR)</p>			
Designed	AET	10/14	Checked	AJF	10/14	SHEET NUMBER: S-52	
Drawn	PTA	10/14	In Charge of	RAL	10/14	CONTRACT:2014.10	

CONSULTANT PROJECT MANAGER: Dale A. Mitchell, P.E.				<p align="center">INTERCHANGE IMPROVEMENTS LEWISTON (EXIT 80) ALUMINUM BRIDGE RAILING (1 BAR)</p>			
Designed	AET	10/14	Checked	AJF	10/14	SHEET NUMBER: S-52	
Drawn	PTA	10/14	In Charge of	RAL	10/14	CONTRACT:2014.10	

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MAINE  
TURNPIKE

**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Kristi Van Ooyen, P.E.

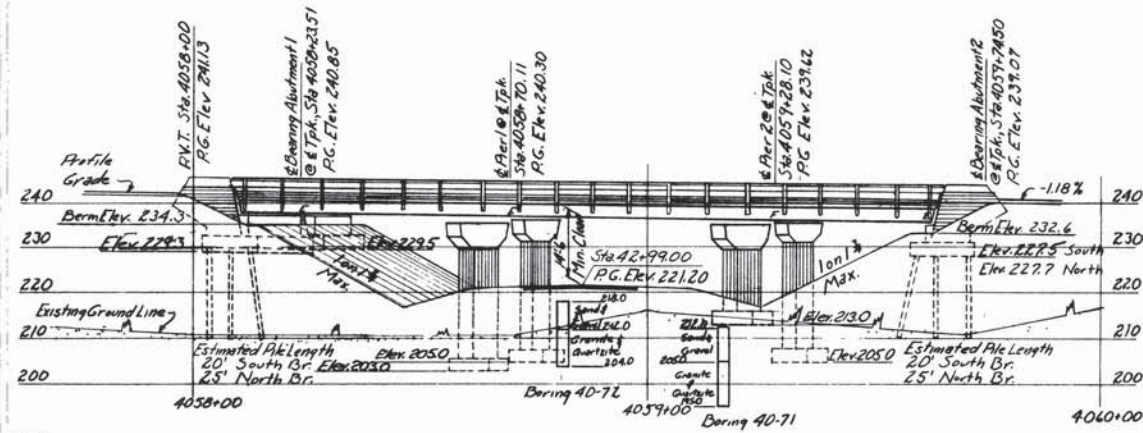
INTERCHANGE IMPROVEMENTS  
LEWISTON (EXIT 80)  
ALUMINUM BRIDGE RAILING (1 BAR)

SHEET NUMBER: S-52  
CONTRACT:2014.10  
147 OF 155

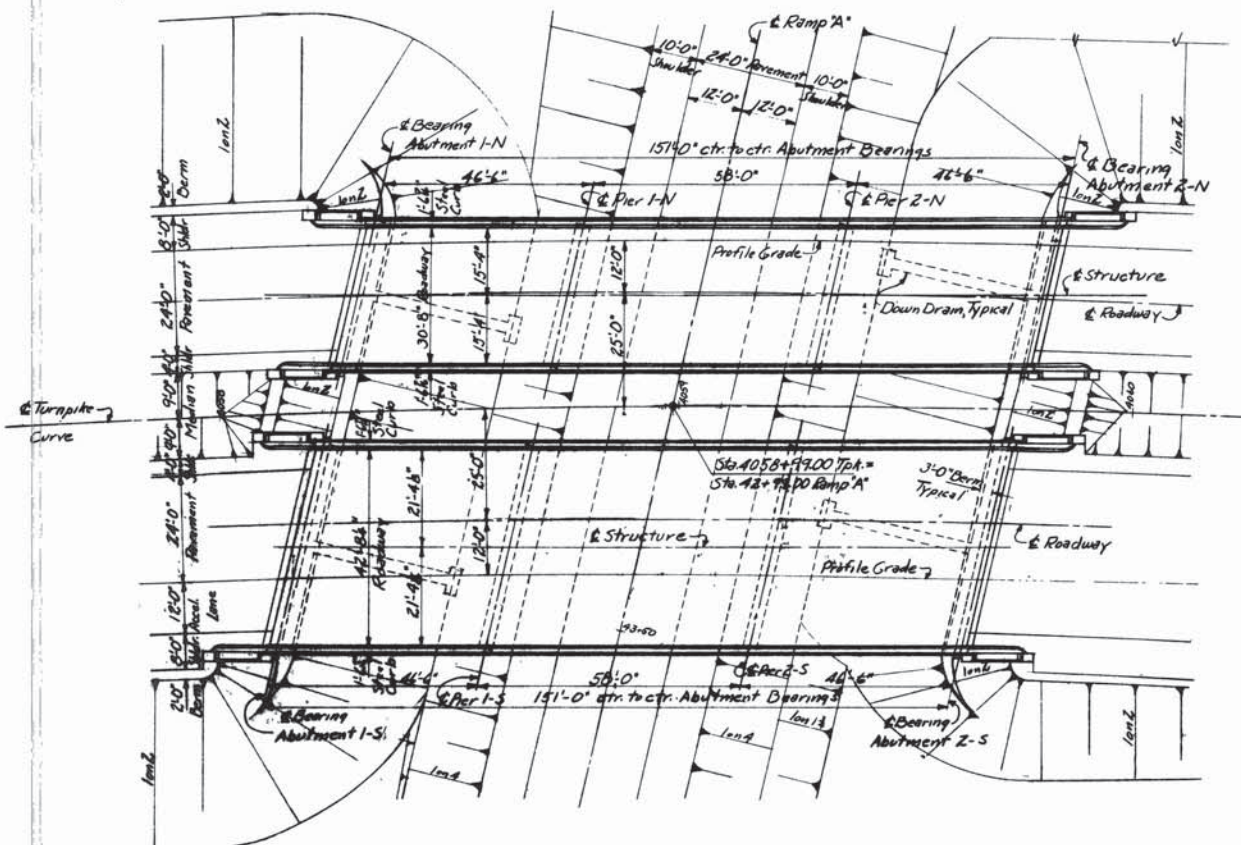
Date: 10/10/2014

LEWISTON INTERCHANGE SB													
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	INCR.	REMARKS
<b>INTEGRAL ABUTMENTS</b>													
A500N	5	84	4'-11"	103	1'-10"	3'-1"	2'-2"						APPROACH SLAB CONNECTION
A501N	5	84	6'-8"	105	1'-10"	3'-0"	2'-2 1/2"	1'-10"					SLAB BAR
A502N	5	84	6'-3"	105	1'-10"	4'-5"	2'-10"						SLAB BAR
A504N	5	48	7'-0"	106	1'-10"	2'-5"	2'-8"	2'-9"					ABUTMENT END
A600N	6	94	19'-8"	129	2'-8"	6'-0"							BOTTOM VERT. STIRRUP
A601N	6	94	14'-8"	129	2'-8"	6'-0"							TOP VERT. STIRRUP
A602N	6	1	7'-0"	STR									MEDIAN
A603N	6	10	7'-4"	STR									MEDIAN HORIZONTAL
A604N	6	9	14'-0"	129	0'-8"	6'-8"							MEDIAN VERTICAL
A605N	6	10	41'-7 1/2"	STR									HORIZONTAL
A606N	6	2	40'-2 1/2"	STR									HORIZONTAL
A700N	7	12	49'-8"	STR									HORIZONTAL
A701N	7	4	48'-3"	STR									HORIZONTAL
A703N	7	12	41'-7 1/2"	STR									HORIZONTAL
A704N	7	4	40'-2 1/2"	STR									HORIZONTAL
A1000N	10	19	49'-8"	STR									HORIZONTAL
A1001N	10	5	48'-3"	STR									HORIZONTAL
<b>APPROACH SLAB</b>													
AS400N	4	40	5'-6 1/2"	118	4'-0"	1'-6 1/2"							APPROACH SLAB COPING
AS401N	4	4	19'-8"	STR									APPROACH SLAB COPING
AS500N	5	122	19'-8"	STR									TOP APPROACH SLAB
AS501N	5	42	40'-1 1/2"	STR									TOP APPROACH SLAB
AS502N	5	42	38'-7 1/4"	STR									BOT. APPROACH SLAB
AS503N	5	42	6'-0"	STR									
AS505N	5	12	5'-0"	STR									
AS900N	9	118	19'-8"	STR									BOTTOM APPROACH SLAB
S514N	5	42	3'-6"	118	0'-6"	1'-5"	1'-5"						PARAPET TOP TRANS
S516N	5	16	20'-1"	STR									PARAPET LONG
S651N	6	84	4'-2"	118	3'-2"	1'-0"							Parapet ANGLES TO PARAPET
<b>SLEEPER SLAB</b>													
SS400N	4	16	38'-6 1/4"	STR									LONGITUDINAL
SS401N	4	80	7'-3"	100	2'-8"	0'-7"	0'-4 1/2"						TRANSVERSE BOTTOM
SS402N	4	80	4'-11"	100	0'-8"	1'-5"	0'-4 1/2"						TRANSVERSE TOP
<b>OVERTURNING SLAB</b>													
OS400N	4	72	29'-8"	STR									
OS500N	5	494	6'-1 1/2"	118	5'-5 1/2"	0'-8"							
OS501N	5	328	6'-10 1/2"	131	0	1'-8"	1'-5"	2'-5"	1'-8 1/2"	1'-4"	1'-8 1/2"		
S514N	5	145	3'-6"	118	0'-6"	1'-5"	1'-5"						PARAPET TOP TRANS
S517N	5	8	39'-9 1/2"	STR									PARAPET LONG
S519N	5	8	29'-0 1/2"	STR									PARAPET LONG
S521N	5	24	29'-8"	STR									PARAPET LONG
S651N	6	290	4'-2"	118	3'-2"	1'-0"							ANGLES TO PARAPET
EP551	5	4	5'-0"	118	2'-6"	2'-6"							ENDPOST
EP552	5	4	9'-10"	103	7'-4"	2'-6"	1'-0"						ENDPOST
EP553	5	43	5'-6 3/4"	129	0'-6 3/4"	2'-6"							ENDPOST
EP651	6	86	4'-2"	118	3'-2"	1'-0"							ANGLES TO ENDPOST
<b>DECK SLAB AND BRIDGE PARAPET</b>													
SS01N	5	782	41'-7 1/4"	STR									Top & Bot. Transverse
SS02N	5	440	51'-0 1/2"	STR									Top & Bot. Longitudinal
SS10N	5	8	5'-8"	STR									PARAPET ENDS
SS11N	5	32	7'-8"	STR									PARAPET 8'
SS12N	5	80	15'-8"	STR									PARAPET 16'
SS13N	5	32	50'-10 1/4"	STR									PARAPET BOT
SS14N	5	408	3'-6"	118	0'-6"	1'-5"	1'-5"						PARAPET TOP TRANS
S651N	6	816	4'-2"	118	3'-2"	1'-0"							ANGLES TO PARAPET
S652N	6	782	7'-6"	108	6'-10"	0'-8"							DECK HOOK
EP551	5	4	5'-0"	118	2'-6"	2'-6"							ENDPOST
EP552	5	4	9'-10"	103	7'-4"	2'-6"	1'-0"						ENDPOST
EP553	5	26	5'-6 3/4"	129	0'-6 3/4"	2'-6"							ENDPOST
EP651	6	52	4'-2"	118	3'-2"	1'-0"							ANGLES TO ENDPOST

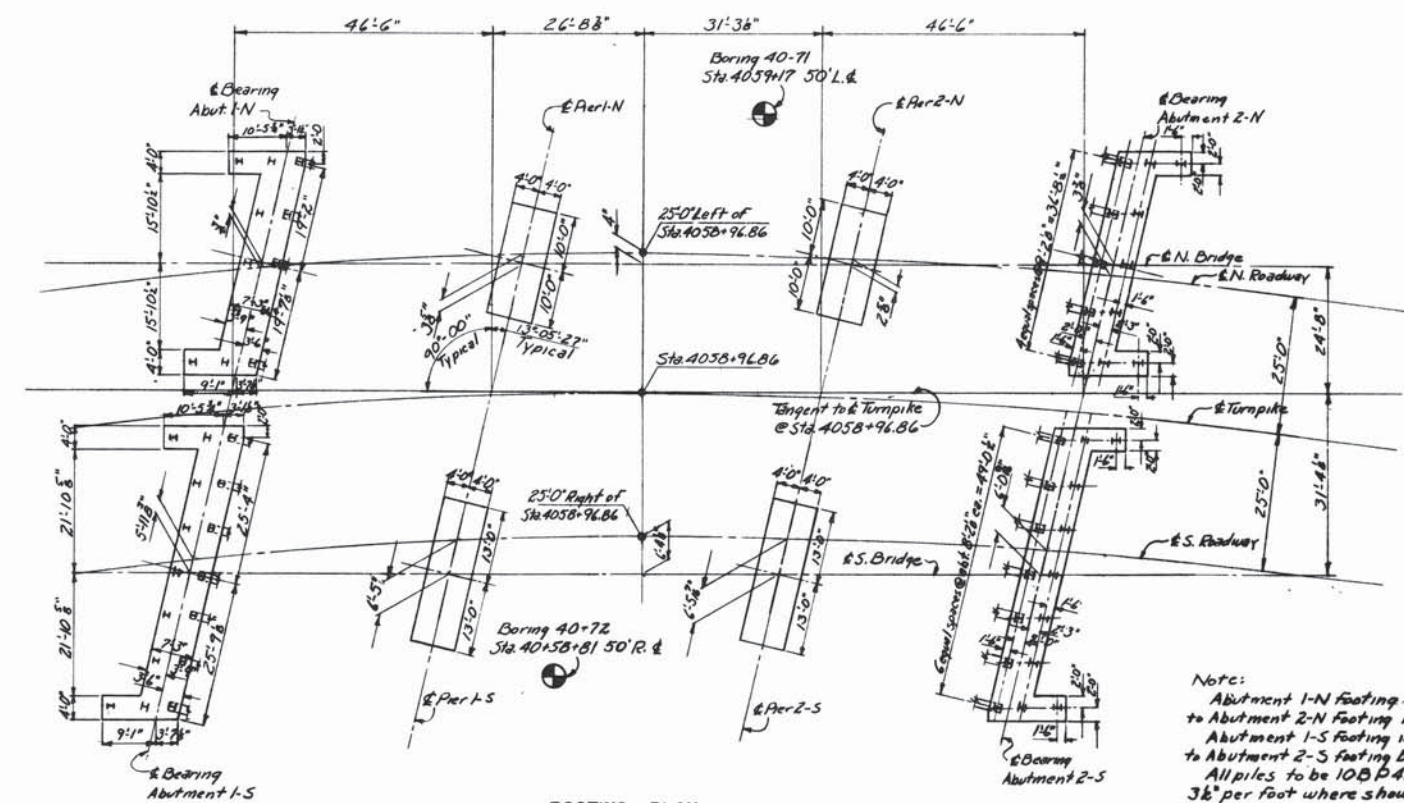
LEWISTON INTERCHANGE NB													
MARK	SIZE	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	INCR.	REMARKS
<b>INTEGRAL ABUTMENTS AND BACKWALL OF 2-S</b>													
A500S	5	84	4'-11"	103	1'-10"	3'-1"	2'-2"						APPROACH SLAB CONNECTION
A501S	5	84	6'-8"	105	1'-10"	3'-0"	2'-2 1/2"	1'-10"					SLAB BAR
A502S	5	84	6'-3"	105	1'-10"	4'-5"	2'-10"						SLAB BAR
A504S	5	24	7'-0"	106	1'-10"	2'-5"	2'-8"	2'-9"					ABUTMENT END
A600S	6	51	19'-8"	129	2'-8"	6'-0"							BOTTOM VERT. STIRRUP
A601S	6	51	14'-8"	129	2'-8"	6'-0"							TOP VERT. STIRRUP
A602S	6	1	7'-0"	STR									MEDIAN
A603S	6	10	7'-4"	STR									MEDIAN HORIZONTAL
A604S	6	9	14'-0"	129	0'-8"	6'-8"							MEDIAN VERTICAL
A700S	7	12	49'-8"	STR									HORIZONTAL
A701S	7	4	48'-3"	STR									HORIZONTAL
A1000S	10	19	49'-8"	STR									HORIZONTAL
A1001S	10	5	48'-3"	STR									HORIZONTAL
A510S	5	17	41'-7 1/2"	STR									BACKWALL
A511S	5	42	17'-0"	100	1'-8"	6'-2"	0'-8"	0'-4 1/2"					BACKWALL
<b>FOOTING AND STEM</b>													
A400S	4	20	8'-3"	129	3'-5"	2'-5"							BEARING PAD
A401S	4	20	7'-0"	129	2'-2"	2'-5"							BEARING PAD
A510S	5	10	41'-7 1/2"	STR									TRANSVERSE
A512S	5	36	40'-2 1/2"	STR									FOOTING TRANSVERSE
A610S	6	55	15'-8"	STR									FOOTING TOP
A611S	6	84	6'-0"	118	4'-2"	1'-10"							STEM CONNECTION
A612S	6	42	9'-5"	129	4'-5"	2'-6"							STEM
A810S	8	83	15'-8"	STR									FOOTING BOTTOM
<b>CLOSURE WALL</b>													
CW500	5	18	15'-0"	STR									FCOTING
CW501	5	16	7'-8"	STR									FCOTING
CW502	5	32	15'-0"	STR									STEM
CW503	5	16	4'-10"	129	1'-2"	1'-10"							
CW504	5	16	4'-2"	127	1'-2"	1'-10"	1'-10"						
CW505	5	5	15'-0"	STR									
CW506	5	32	5'-5"	118	4'-5"	1'-0"							
CW600	6	16	7'-8"	STR									FCOTING
CW601	6	38	13'-0"	STR									STEM
CW602	6	31	13'-0"	103	3'-6"	9'-6"	1'-0"						STEM
CW603	6	67	10'-0"	118	2'-0"	8'-0"							FCOTING
<b>APPROACH SLAB</b>													
AS400S	4	40	5'-6 1/2"	118	4'-0"	1'-6 1/2"							APPROACH SLAB COPING
AS401S	4	10	19'-8"	STR									APPROACH SLAB COPING
AS402S	4	40	4'-8 1/2"	109	0'-8"	1'-11"	1'-6"	2'-1 1/2"	1'-6"				TRANSVERSE TOP
AS500S	5	122	19'-8"	STR									TOP APPROACH SLAB
AS501S	5	42	40'-1 1/2"	STR									TOP APPROACH SLAB
AS502S	5	44	38'-7 1/4"	STR									BOT. APPROACH SLAB
AS503S	5	44	6'-0"	STR									
AS504S	5	42	4'-2"	115		2'-0"	0'-8"	1'-6"					
AS505S	5	6	5'-0"	STR									
AS900S	9	118	19'-8"	STR									BOTTOM APPROACH SLAB
S514S	5	42	3'-6"	118	0'-6"	1'-5"	1'-5"						PARAPET TOP TRANS
S516S	5	16	20'-1"	STR									PARAPET LONG
S651S	6	84	4'-2"	118	3'-2"	1'-0"							ANGLES TO PARAPET
<b>SLEEPER SLAB</b>													
SS400S	4	8	38'-6 1/4"	STR									LONGITUDINAL
SS401S	4	40	7'-3"	100	2'-8"	0'-7"	0'-4 1/2"						TRANSVERSE BOTTOM
SS402S	4	40	4'-11"	100	0'-8"	1'-5"	0'-4 1/2"						TRANSVERSE TOP
<b>OVERTURNING SLAB</b>													
OS400S	4	60	29'-8"	STR									
OS500S	5	382	6'-1 1/2"	118	5'-5 1/2"	0'-8"							
OS501S	5	254	6'-10 1/2"	131	0	1'-8"	1'-5"	2'-5"	1'-8 1/2"	1'-4"	1'-8 1/2"		
S514S	5	115	3'-6"	118	0'-6"	1'-5"	1'-5"						PARAPET TOP TRANS
S518S													



Turnpike Curve Data  
 P.I. @ Sta. 4044+91.08  
 Δ = 77° 59' RT  
 D = 1° 00'  
 R = 5729.58'  
 T = 4638.34'  
 L = 7798.33'  
 E = 1642.14'

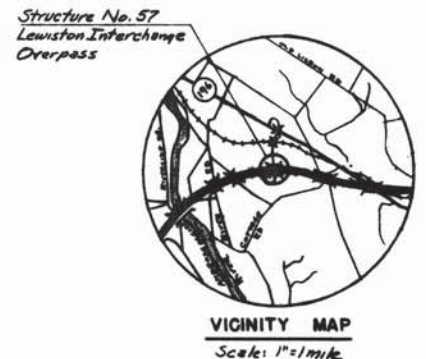


**GENERAL NOTES**  
 Design Specifications: AASHTO (1953) with minor modifications.  
 Design Live Loading: H20-S16  
 Maximum Pile Loads: Abutments 1/2 North - 33.5 tons/pile  
 Abutments 1/2 South - 32.5 tons/pile  
 Maximum Base Pressures: Piers 1/2 North - 5.2 tons/sq. ft.  
 Piers 1/2 South - 3.6 tons/sq. ft.



Note:  
 Abutment 1-N footing is similar to Abutment 2-N footing by rotation.  
 Abutment 1-S footing is similar to Abutment 2-S footing by rotation.  
 All piles to be 10B P42, battered 3/8" per foot where shown.  
 Pier footings to be lowered as necessary to provide a minimum of 6" penetration into solid, undisturbed rock.

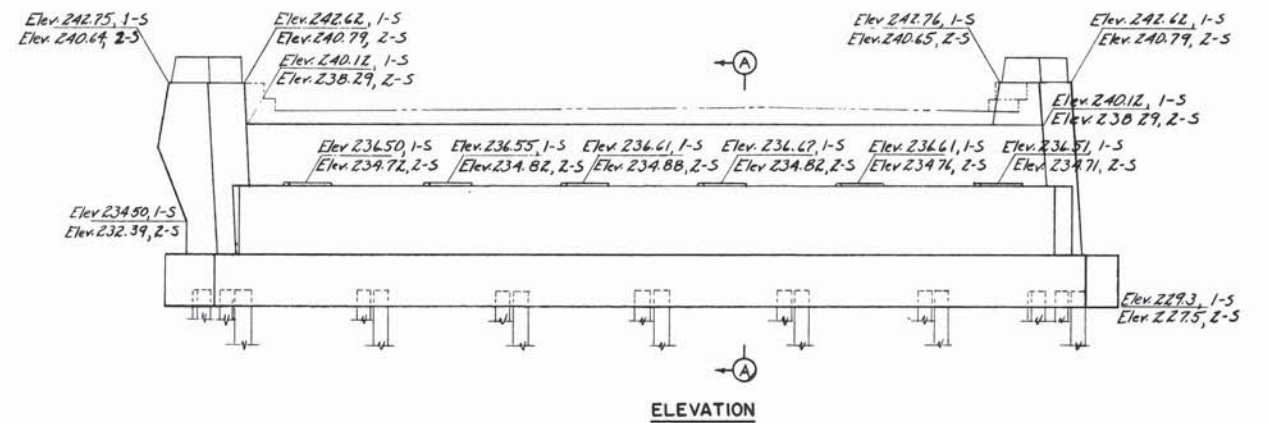
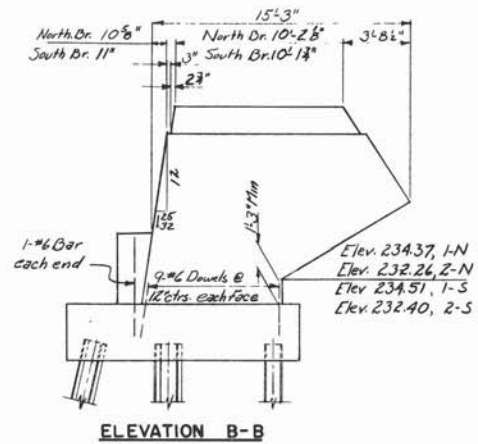
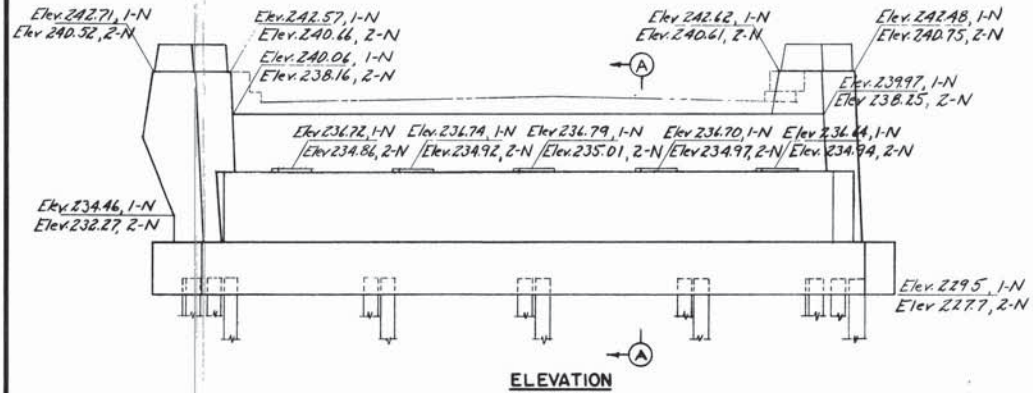
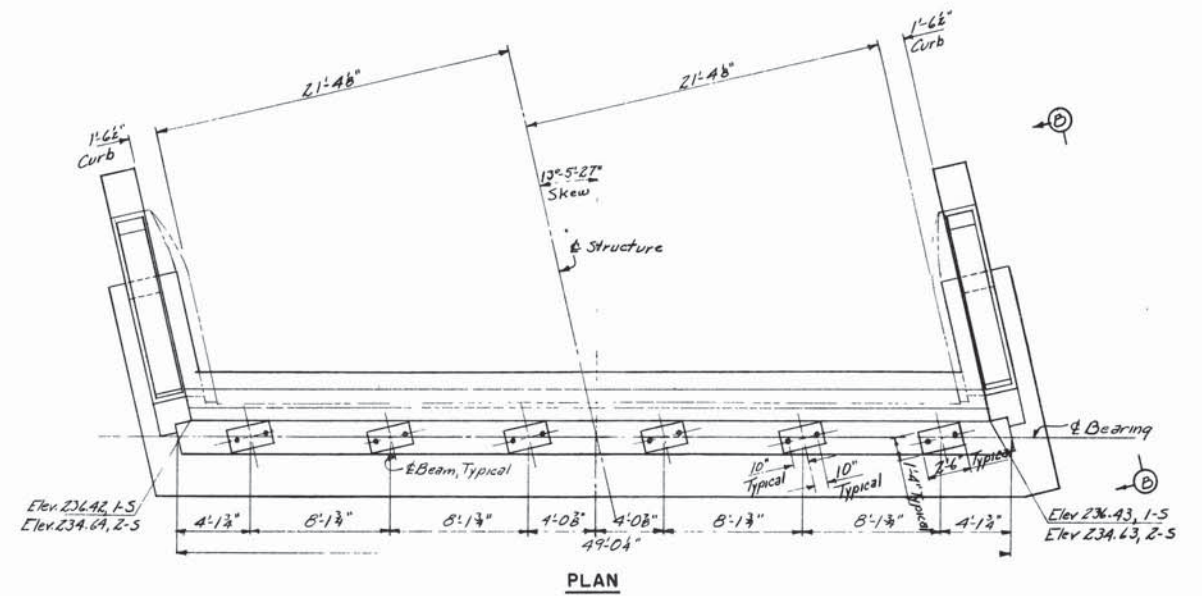
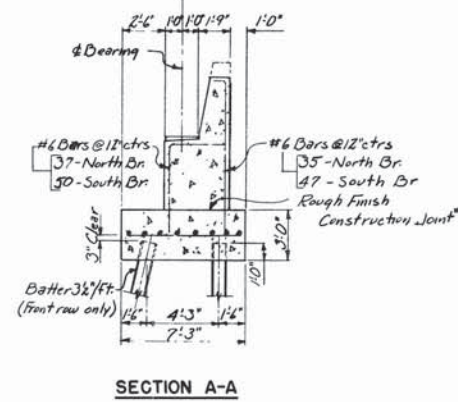
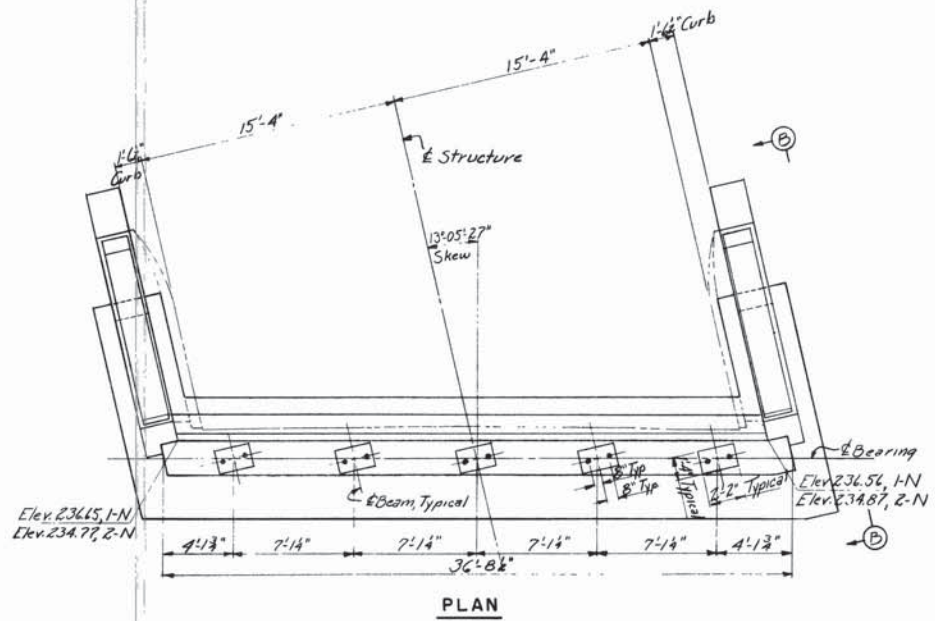
REFERENCES		Superstructure			
Dwg. No.	TITLE	Substructure	Steel Abutment	Steel Pier	Floor Deck
SD1A	Standard Abutment Details	✓	✓	✓	✓
SD2	Standard Pier Details	✓	✓	✓	✓
SD3	Standard Abutment Drainage Details	✓	✓	✓	✓
SD4	Standard Pile Details	✓	✓	✓	✓
SD5	Standard Handrail, Bearing Devices and Miscellaneous Details	✓	✓	✓	✓
SD6	Standard Diaphragm Details	✓	✓	✓	✓
SD8	Standard Type "A" Splices for 30W Beams	✓	✓	✓	✓
SD11A	Type "X" and "Y" Expansion Joint, Expanding Length to 100'	✓	✓	✓	✓
SD12A	Type "Z" Expansion Joint, Expanding Length Over 100'	✓	✓	✓	✓
SD20	Standard Bridge Floor Cross Section, Steel Curb, Handrail, and Diaphragms, 30'-0" Roadway	✓	✓	✓	✓
SD9	Standard Type "A" Splices for 33W Beams	✓	✓	✓	✓



DRAWING 57.01.05

BY	DATE	REVISION	BY	DATE
MADE	R.S.G. 5-11-54			
TRACED		2 As-Built	MBH	8/25/56
CHECKED	H.L.G. 6-10-58	1 Pier Footings Elev.	CYA	7/6/55
IN CHARGE OF	I.D.S.K.			

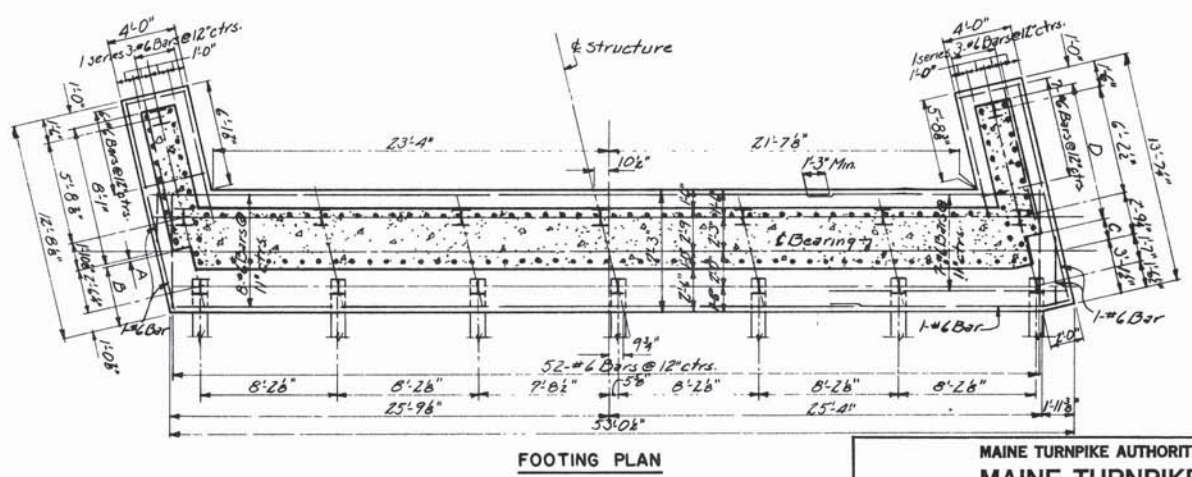
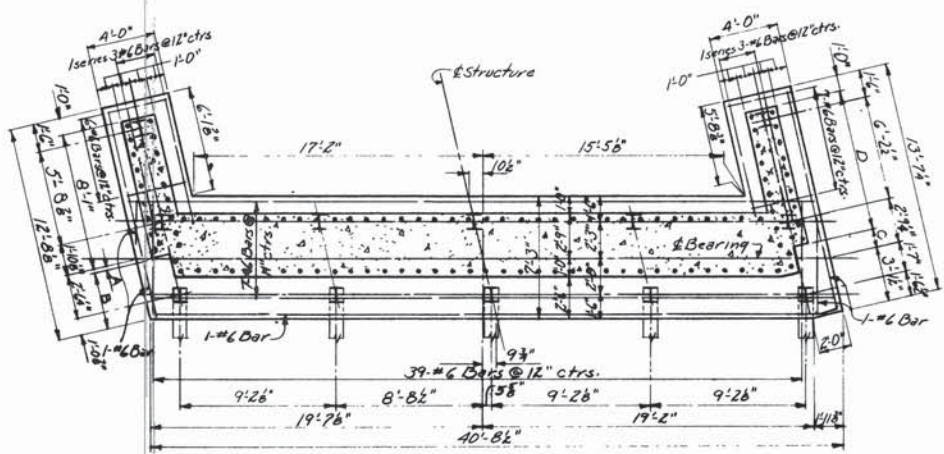
MAINE TURNPIKE AUTHORITY  
**MAINE TURNPIKE**  
 SECTION 2 - PORTLAND TO AUGUSTA  
 STRUCTURE NO. 57 TURNPIKE OVER  
**LEWISTON INTERCHANGE RAMP "A"**  
 STA. 4088+99.08  
**GENERAL PLAN AND ELEVATION**  
 HOWARD, NEEDLES, TAMMEN & BERGENDORFF ENGINEERS  
 CONSULTING ENGINEERS  
 NEW YORK KANSAS CITY  
 CONTRACT NO. \_\_\_\_\_  
 SHEET NO. 252 OF 302



DIMENSIONS

	Abut 1-N	Abut 2-N	Abut 1-S	Abut 2-S
A	3 1/2"	3 3/8"	3 3/8"	3 1/2"
B	3'-3 3/8"	3'-3 3/8"	3'-3 3/8"	3'-3 3/8"
C	1'-1 3/8"	1'-1 1/4"	1'-1 1/4"	1'-1 3/8"
D	8'-4 3/8"	8'-4 1/2"	8'-4 1/2"	8'-4 1/2"

Notes:  
 All piles to be 10B PAZ, battered 3/8" per foot where shown.  
 Marks 1-N, 2-N, 1-S and 2-S after elevations refer to Abutments 1-North, 2-North, 1-South and 2-South respectively.



DRAWING 57.02.05

MADE	BY	DATE	TRACED	CHECKED	IN CHARGE OF
	R.S.G.	5-20-54		H.L.G.	I.D.S.K.

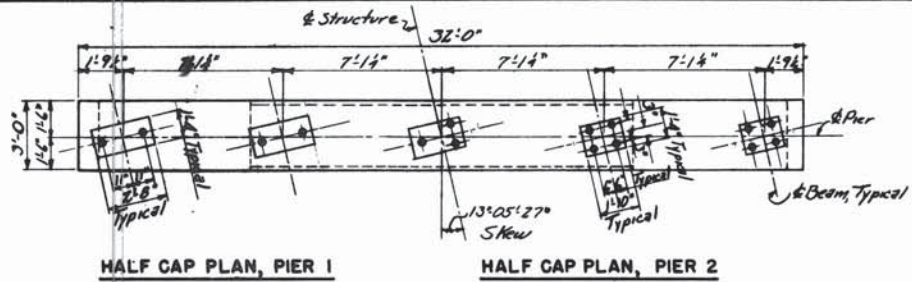
NORTH BRIDGE

SOUTH BRIDGE

MAINE TURNPIKE AUTHORITY  
**MAINE TURNPIKE**  
 SECTION 2 - PORTLAND TO AUGUSTA  
 STRUCTURE NO. 57 TURNPIKE OVER  
 LEWISTON INTERCHANGE, RAMP "A"  
 STA. 4058 + 99.00  
 ABUTMENTS

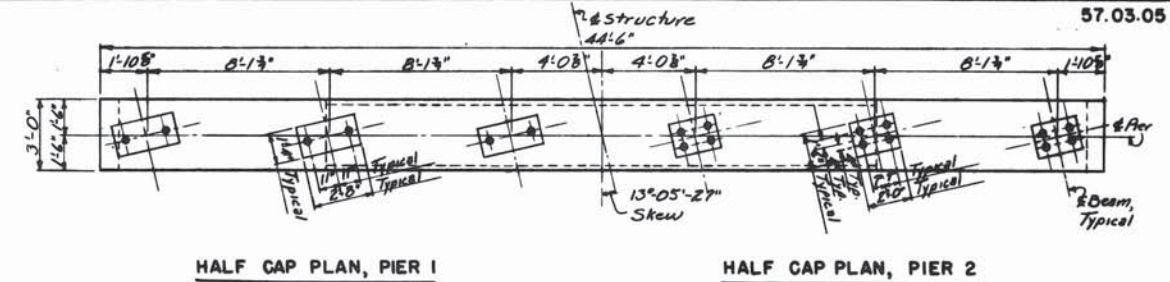
HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
 CONSULTING ENGINEERS  
 NEW YORK KANSAS CITY

SCALE: 1/4" = 1'-0"  
 CONTRACT NO. \_\_\_\_\_  
 SHEET NO. 252 OF 382



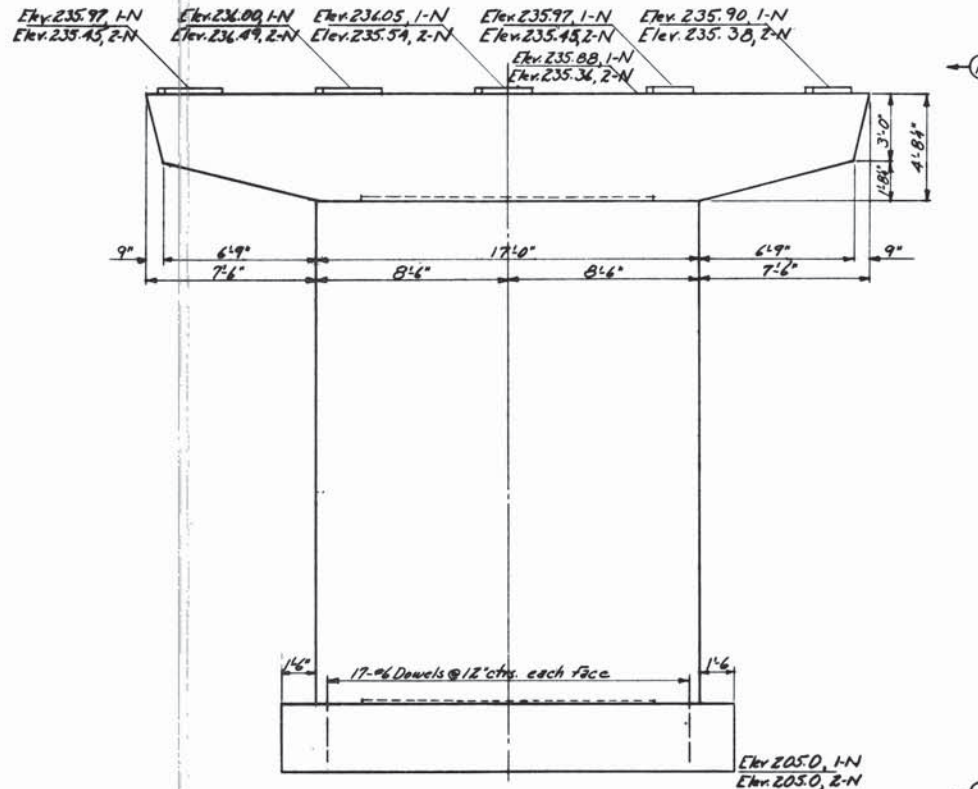
HALF GAP PLAN, PIER 1

HALF GAP PLAN, PIER 2

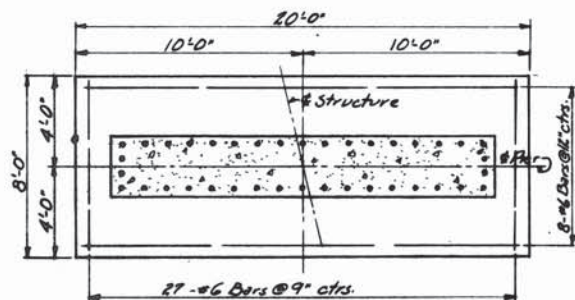


HALF GAP PLAN, PIER 1

HALF GAP PLAN, PIER 2

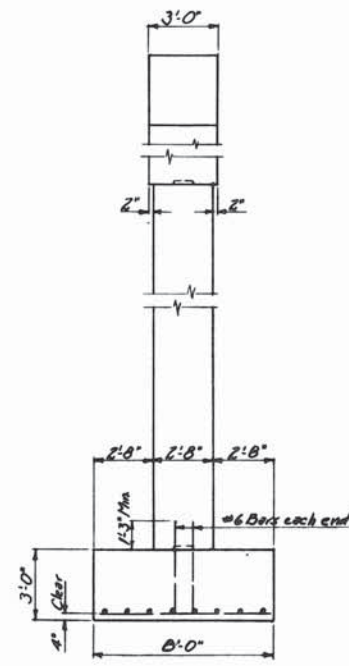


ELEVATION



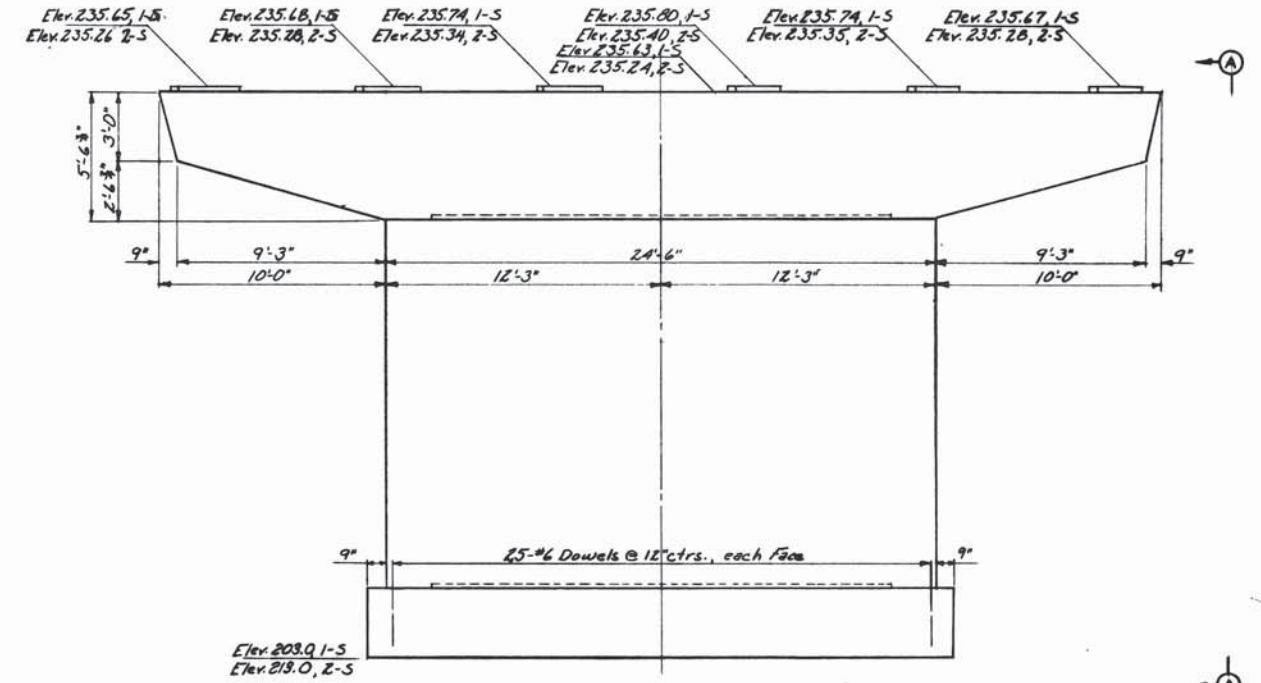
FOOTING PLAN

NORTH BRIDGE

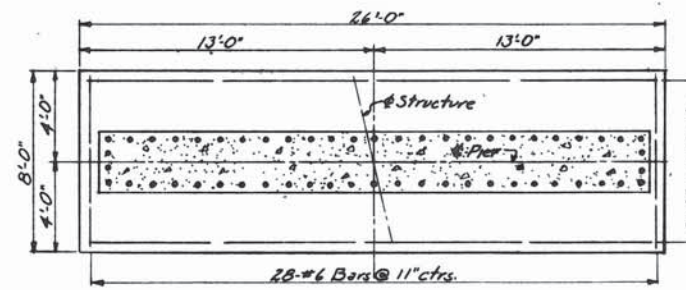


ELEVATION A-A

Note:  
Footings shall be lowered as necessary to provide a minimum of 6" penetration into solid, undisturbed rock.  
Marks 1-N, 2-N, 1-S and 2-S after elevations refer to piers 1-North, 2-North, 1-South and 2-South respectively



ELEVATION



FOOTING PLAN

SOUTH BRIDGE

DRAWING 57.03.05

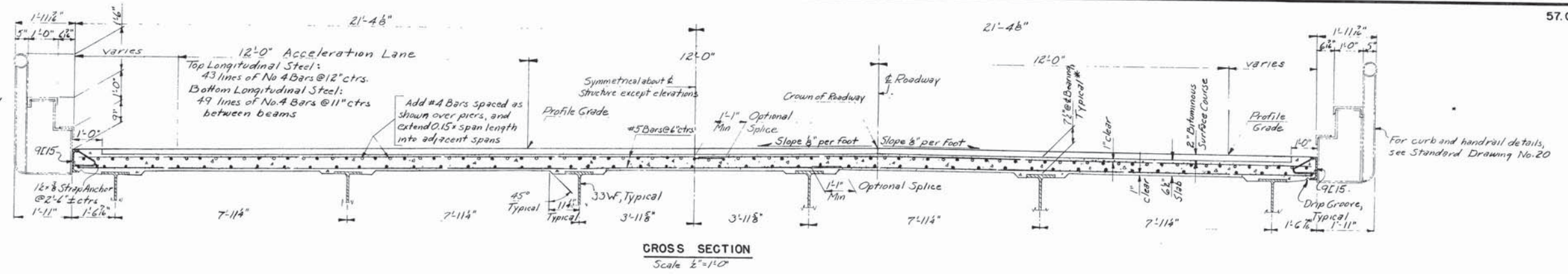
BY	DATE	REVISION	BY	DATE
MADE	RSG	5-24-68		
TRACED			2 As-Built	HEB 8-25-68
CHECKED	H.A.S.	6-18-68	1 Pier Footings Elev	DA 7-1-68
IN CHARGE OF	L.D.S.K.			

MAINE TURNPIKE AUTHORITY  
**MAINE TURNPIKE**  
 SECTION 2 - PORTLAND TO AUGUSTA  
 STRUCTURE NO. 57 LEWISTON EXCHANGE, RAMP "A"  
 STA. 4088+98.00  
 PIERS  
 HOWARD, NEEDLES, TAMMEN & BERENSON  
 CONSULTING ENGINEERS  
 NEW YORK BARRIS CITY  
 SCALE: 3/4"=1'-0"  
 CONTRACT NO. \_\_\_\_\_  
 SHEET NO. 202 OF 205

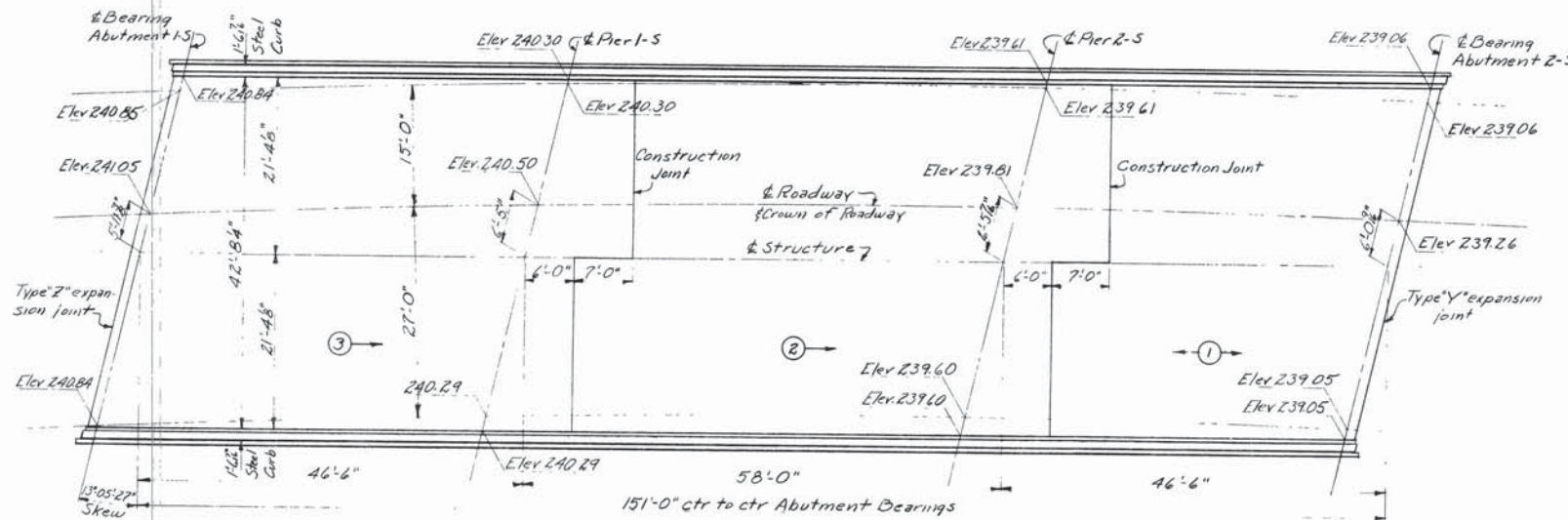




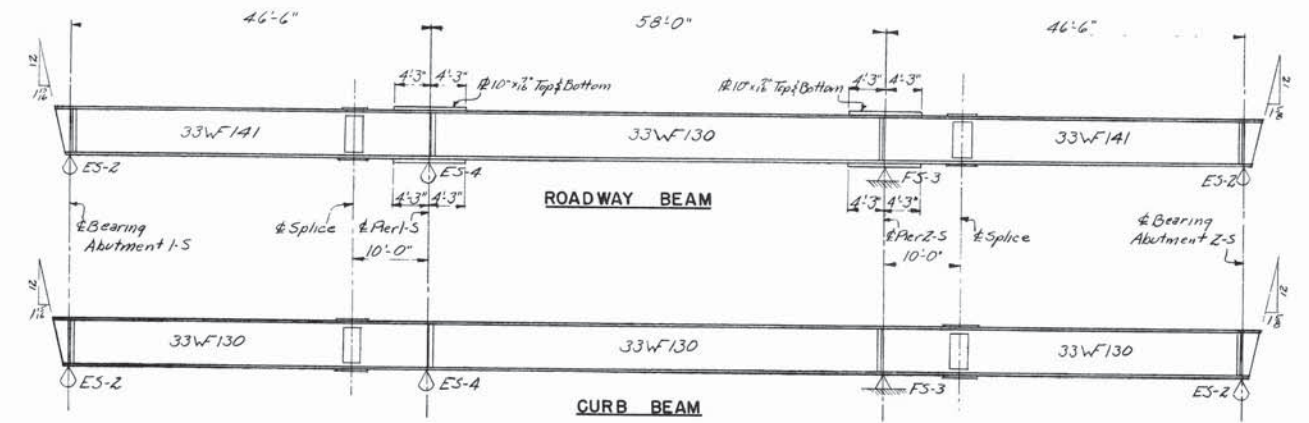
\* The depth of concrete over beams shall be varied as necessary to insure uniform floor thickness between haunches and conformity of final floor surfaces with required elevations under full dead load.



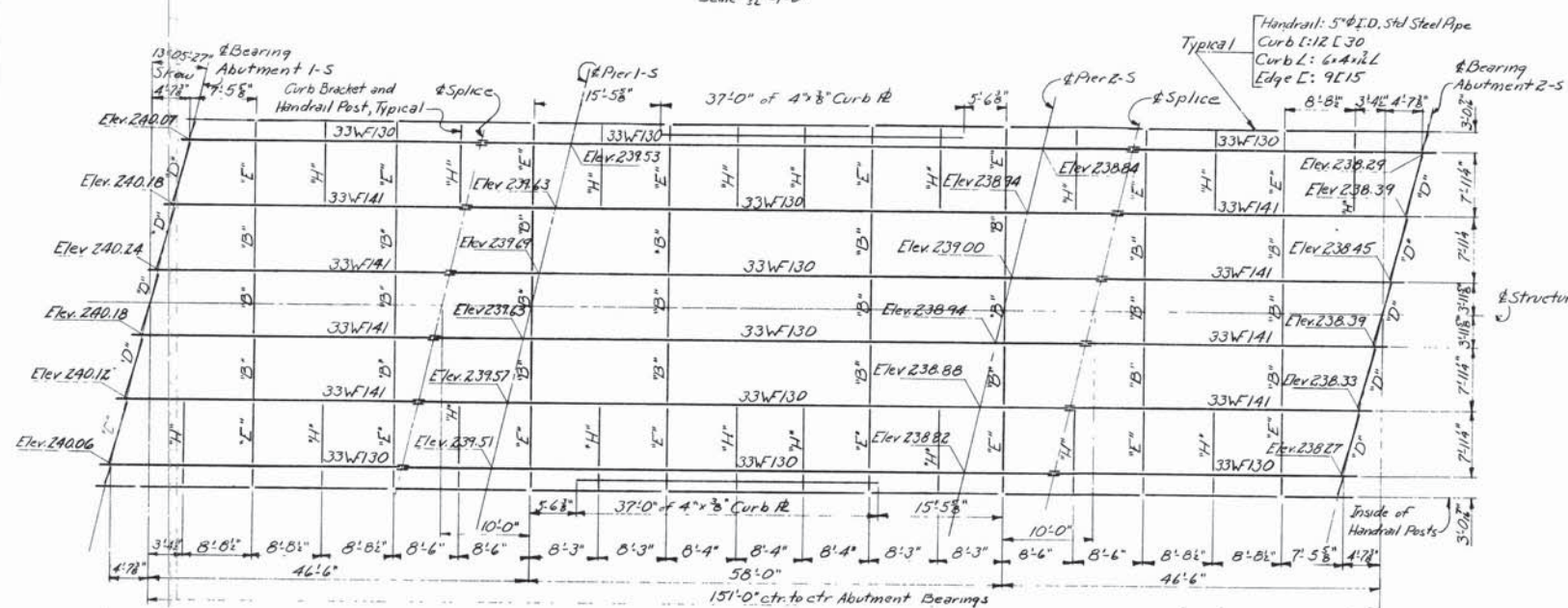
CROSS SECTION  
Scale 1/2" = 1'-0"



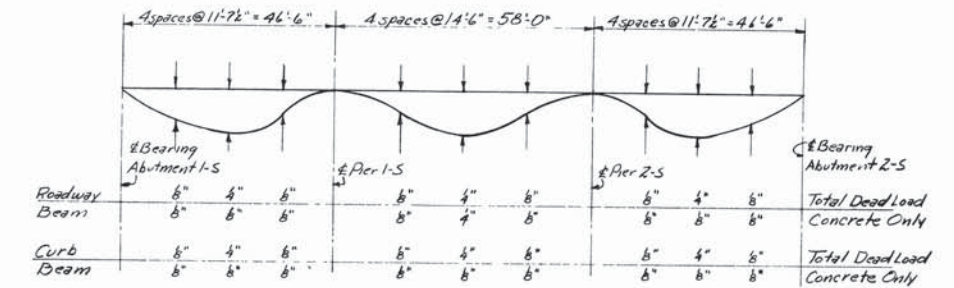
PLAN  
Scale 1/2" = 1'-0"



BEAM ELEVATIONS  
No Scale



FRAMING PLAN  
Scale 1/32" = 1'-0"



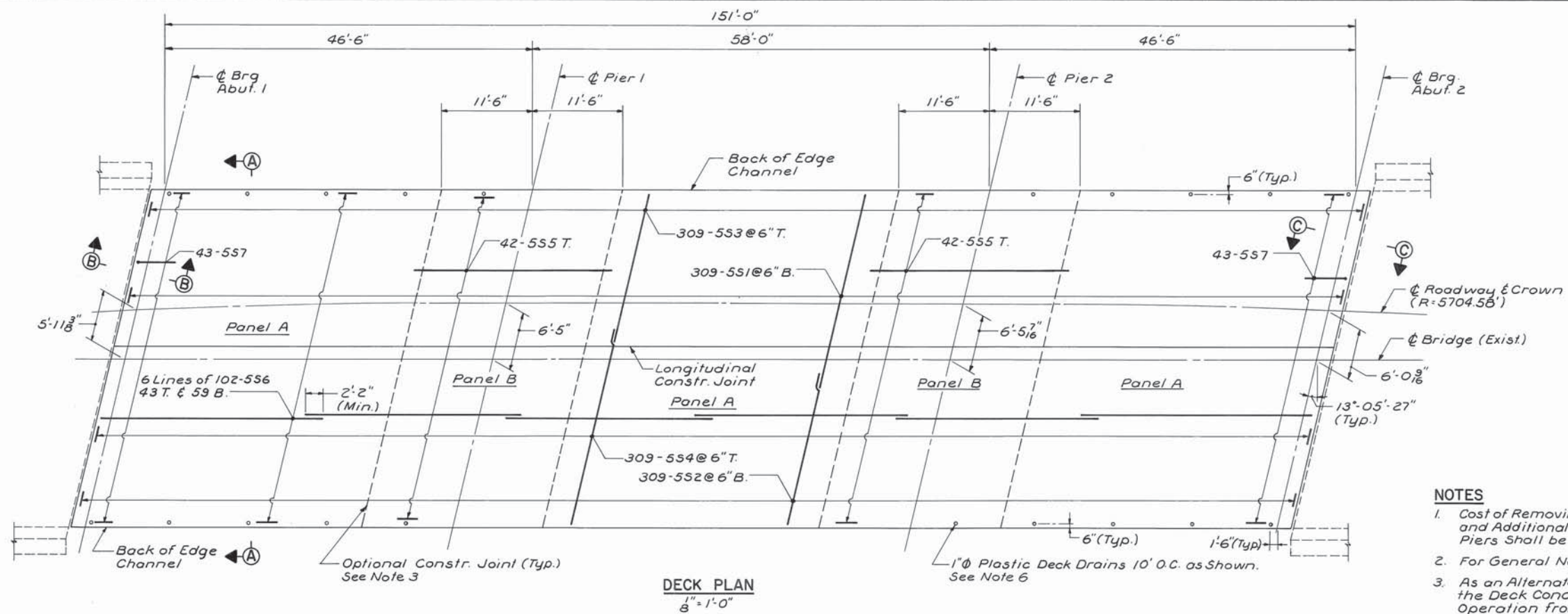
DEAD LOAD DEFLECTION DIAGRAM  
No Scale

Notes:  
Elevations shown on plan are to top of finished roadway.  
Elevations shown on framing plan are to top of beam flanges in place.  
Sequence and direction of placing concrete noted thus: (1) →  
Marks 'B', 'D', and 'E' on framing plan refer to Standard Diaphragms shown on Standard Drawing No. 20  
Curb Bracket Struts (3E x 3E x 1/2 L) are noted thus: 'H' (See Standard Drawing No. 20)  
Bearing Stiffeners at points of support are 2 L 6 x 4 x 8.  
Bevels shown at beam ends are with respect to beam axis.  
For bridge floor construction joint detail see Sheet No. 57.04.05.

DRAWING 57.05.05

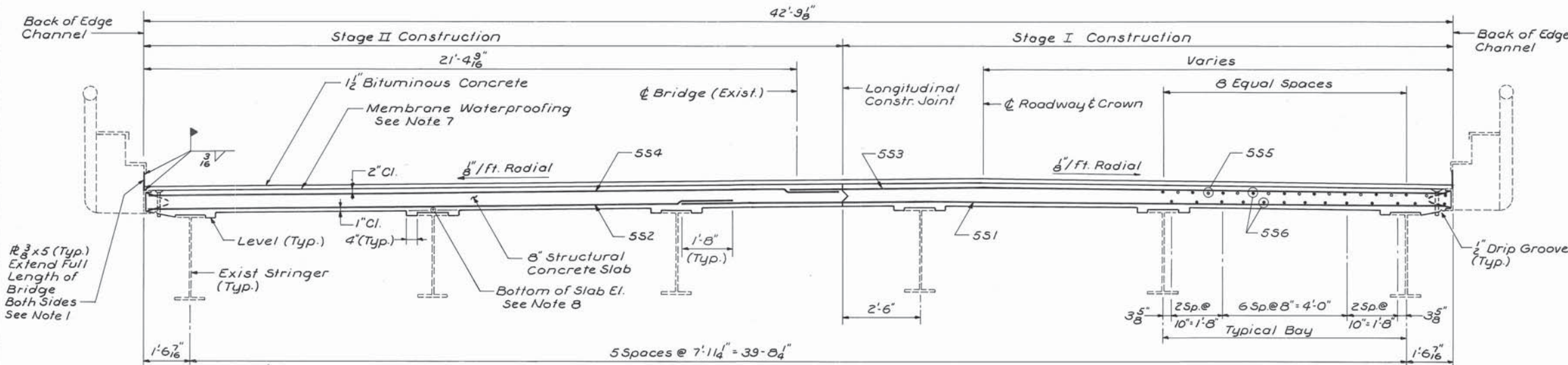
BY	DATE			
MADE	R.S.G.	5-15-54		
TRACED				
CHECKED	H.J.G.	6-10-54	1	As-Built
IN CHARGE OF	I.D.S.K.			ABN 2756
	No	REVISION	BY	DATE

MAINE TURNPIKE AUTHORITY  
MAINE TURNPIKE  
SECTION 2 - PORTLAND TO AUGUSTA  
STRUCTURE NO. 57 TURNPIKE OVER  
LEWISTON INTERCHANGE, RAMP "A"  
STA. 4058+99.00  
SUPERSTRUCTURE - SOUTH BRIDGE  
HOWARD, NEEDLES, TAMMEN & BERGENDORFF CONSULTING ENGINEERS  
NEW YORK KANSAS CITY  
SCALE: As Shown  
CONTRACT NO. \_\_\_\_\_  
SHEET NO. 262 OF 382

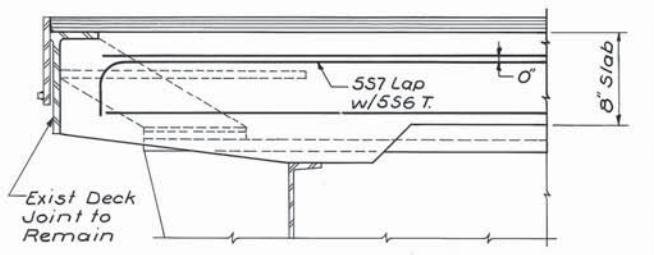


**DECK PLAN**  
1/8" = 1'-0"

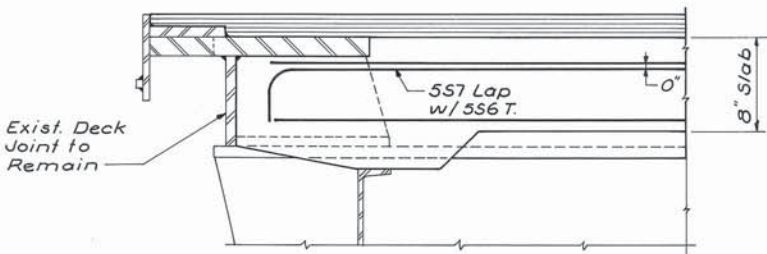
- NOTES**
1. Cost of Removing Exist. Steel Gutter R<sub>2</sub> x 4 Between Piers and Additional Gutter R<sub>2</sub> x 1 1/2 Between Abutments and Piers Shall be Incidental to Contract Items.
  2. For General Notes & Quantities, See Sh. 2.
  3. As an Alternate and at the Contractors Option, the Deck Concrete May be Placed in One Continuous Operation from Panel A to Panel A thus Eliminating Slab Construction Joints at the Piers. Continuous Placing of Concrete in the Deck Shall be Made with the Use of an Acceptable Set-Retarder.
  4. For Steel Reinforcing Schedule, See Sh. 6.
  5. All Steel Reinforcing in Deck Slab Shall be Epoxy Coated.
  6. Do Not Cover Deck Drains with Membrane. Depress Drains 1/2" Below Top of Slab. Provide 23 Gauge Galv. Screens (3/8" Mesh) Over Drains.
  7. Seal at Deck Joints, Along Curb, and all Deck Drains. Allow 4" for Thickness.
  8. The Authoritys Personnel Will Profile the Tops of all Stringers Before the Form Work is Started and Supply the Contractor with Final Bottom of Slab Elevations.



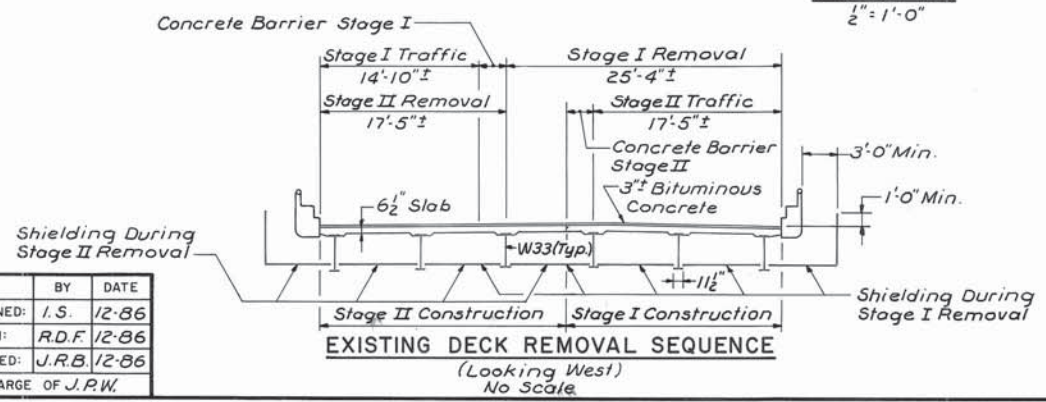
**SECTION A-A**  
1/2" = 1'-0"



**SECTION C-C**  
No Scale



**SECTION B-B**  
No Scale



**EXISTING DECK REMOVAL SEQUENCE**  
(Looking West)  
No Scale

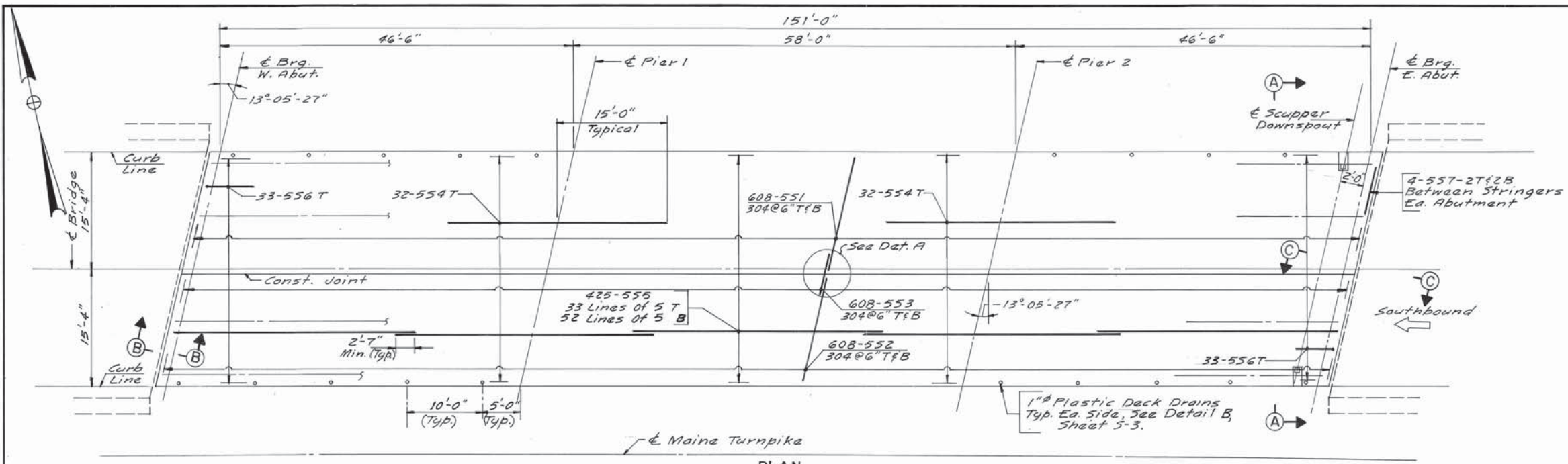
NO.	REVISION	BY	DATE	IN CHARGE OF J.R.W.
		DESIGNED: I.S.	12-86	
		DRAWN: R.D.F.	12-86	
		CHECKED: J.R.B.	12-86	

MAINE TURNPIKE AUTHORITY  
**MAINE TURNPIKE**

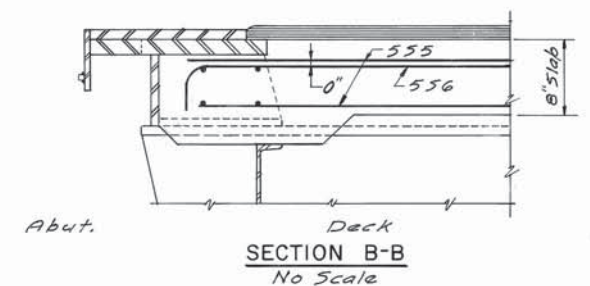
LEWISTON INTERCHANGE, RAMP A  
DECK REINFORCING - N.B. BRIDGE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
ARCHITECTS ENGINEERS PLANNERS  
BOSTON

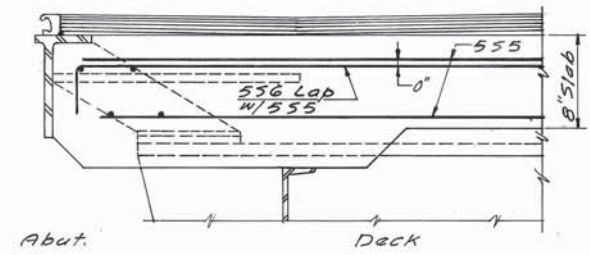
SCALE: AS NOTED  
SHEET NO. 3 OF 13



PLAN  
1/8"=1'-0"



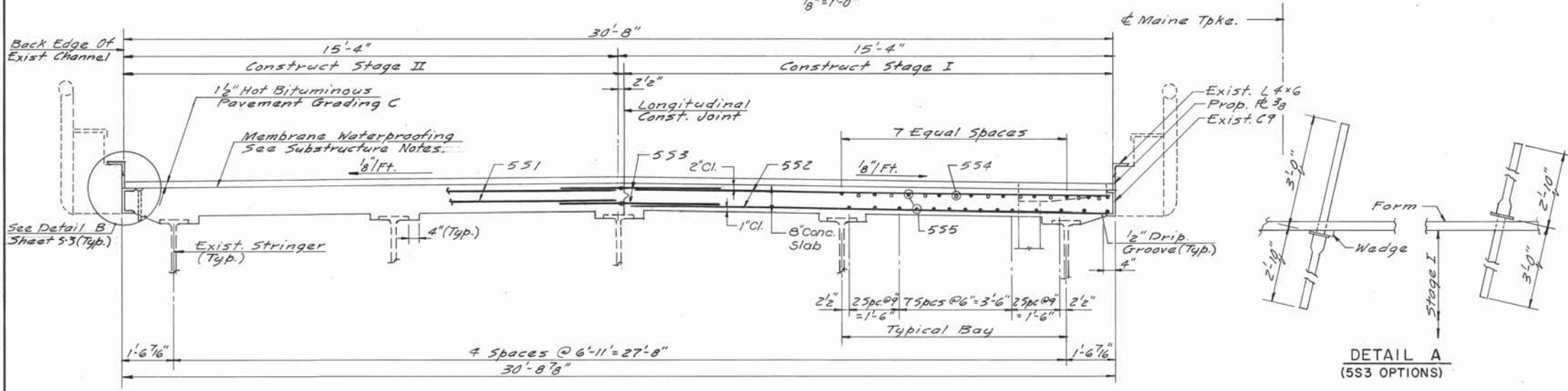
SECTION B-B  
No Scale



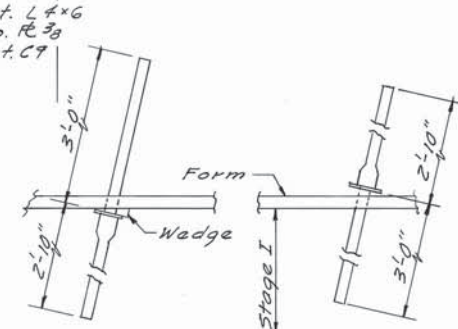
SECTION C-C  
No Scale

NOTES

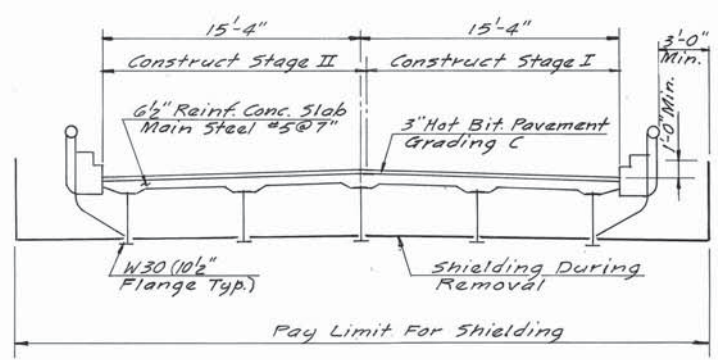
1. For Superstructure Notes, See Sheet 5-1.
2. The Removal Of The Existing Bituminous Pavement And Existing Membrane Waterproofing Will Not Be Paid For Separately But Shall Be Considered Incidental To Item 202.10.
3. The Existing Concrete Deck Shall Be Saw Cut 5" Deep. Saw Type Shall Be Approved By The Engineer. Saw Cutting Will Not Be Paid For Separately, But Shall Be Considered Incidental To Item 202.10.



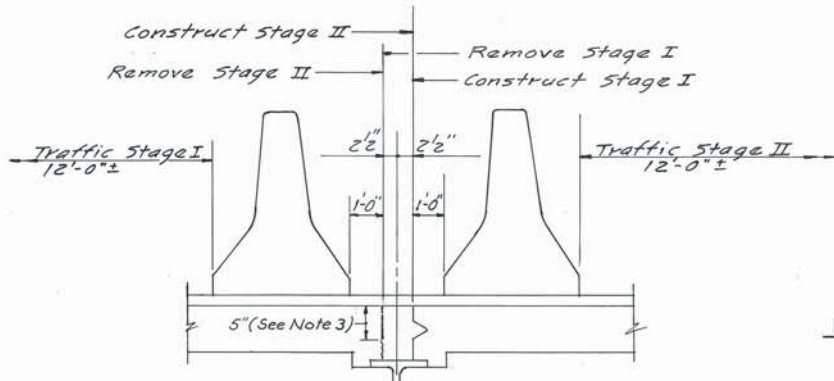
SECTION A-A  
1/2"=1'-0"



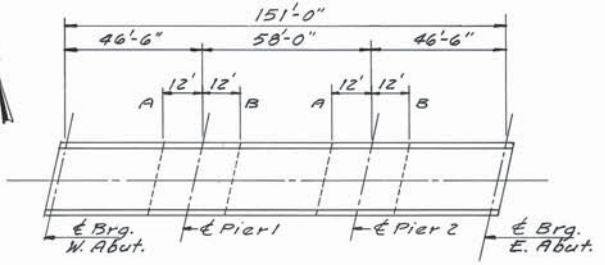
DETAIL A  
(553 OPTIONS)



EXISTING DECK REMOVAL  
No Scale



SEQUENCE OF CONSTRUCTION  
No Scale



DECK PLACEMENT DETAILS  
No Scale

NOTES

- A= Termination Points When Placement Starts At West Abut.
- B= Termination Points When Placement Starts At East Abut.

By:	Date:
Designed	1.5.1-92
Drawn	C.F.L. 1-92
Checked	R.A.L. 1-92
In charge of:	R.A.L.

Maine Turnpike Authority  
**Maine Turnpike**

**LEWISTON INTERCHANGE SOUTHBOUND DECK REINFORCING**

**HNTB** HOWARD NEEDLES TAMMEN & BERGENDOFF ARCHITECTS ENGINEERS PLANNERS

Contract 92.11

Sheet No. **S-2**  
3 of 6