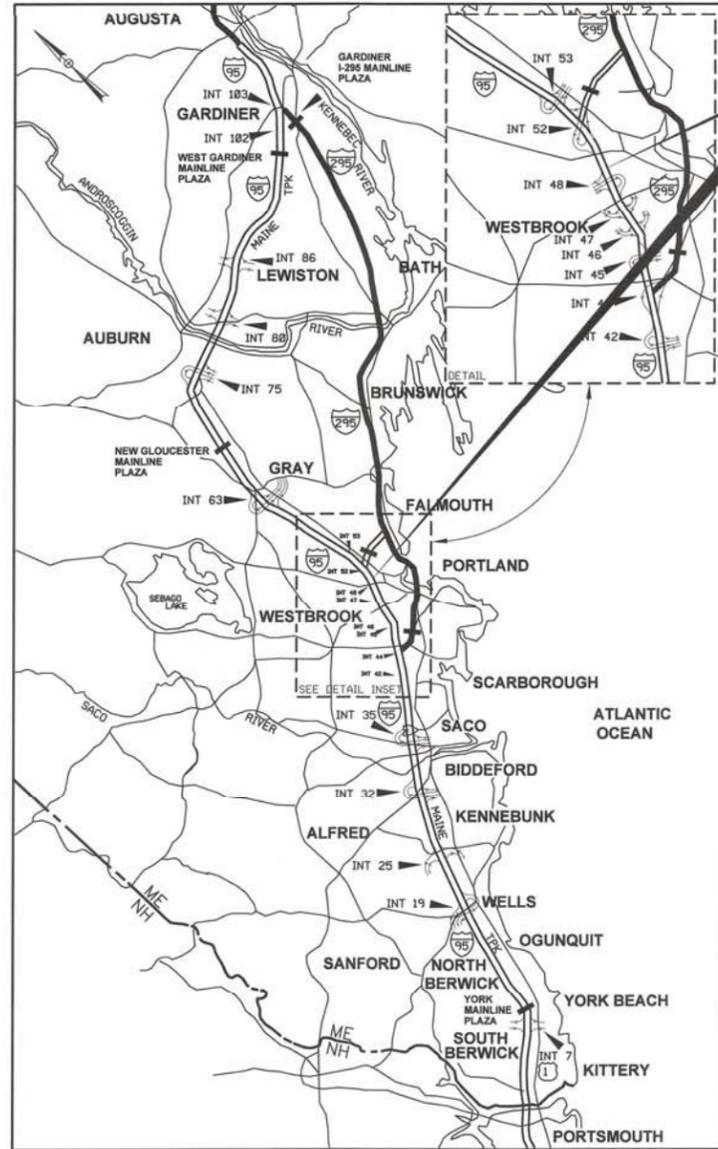


Date: 02/15/05



LOCATION MAP

CONTRACT 2014.14  
 BRIDGE REPAIRS  
 FOREST AVENUE BRIDGES  
 RIVERSIDE STREET BRIDGES



THE GOLD STAR  
 MEMORIAL HIGHWAY

# MAINE TURNPIKE AUTHORITY

DANIEL E. WATHEN, CHAIR  
 DIANE M. DOYLE, VICE CHAIR  
 GERARD P. CONLEY, SR., MEMBER  
 JAMES F. CLOUTIER, MEMBER  
 JOHN E. DORITY, MEMBER  
 ROBERT D. STONE, MEMBER  
 BRUCE A. VAN NOTE, MEMBER EX-OFFICIO

S. PETER MILLS, EXECUTIVE DIRECTOR

## CONTRACT 2014.14 BRIDGE REPAIRS FOREST AVENUE BRIDGES (MILE 50.0) RIVERSIDE STREET BRIDGES (MILE 51.2)

### INDEX OF SHEETS

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31	CONCRETE REPAIR DETAILS
32	GUARDRAIL AND SHOULDER MODIFICATIONS
33	LIMIT OF DISTURBANCE PLAN
34-40	AS-BUILTS

Filename: 001\_MTA>Title.dgn

APPROVED: MAINE TURNPIKE AUTHORITY

*Peter S. Herfeld*  
 PETER S. HERFELD, P.E. - CHIEF OPERATIONS OFFICER  
*Stephen R. Sartre*  
 STEPHEN R. SARTRE, P.E. - DIRECTOR OF ENGINEERING &  
 BUILDING MAINTENANCE

3/14/14  
 DATE  
 3/14/14  
 DATE



*Roland A. Lavallee*  
 ROLAND A. LAVALLEE P.E., PLS  
 VICE PRESIDENT  
 DIRECTOR OF OPERATIONS

3/21/14  
 DATE

# HNTB

Date: 3/19/2014

ITEM NO.	DESCRIPTION	Supplemental DESCRIPTION	UNIT	Forest Ave NB	Forest Ave SB	Riverside NB	Riverside SB	TOTALS
202.122	Removing Existing Concrete		CY	12.5	12.5	0	0	25
202.202	Removing Pavement Surface		SY	960	960	820	1035	3775
202.2021	Removing Pavement Surface - Bridge Deck		SY	35	35	600	760	1430
202.206	Removing Rumble Strips		LF	2840	2815	1665	1380	8700
205.51	Widening of Existing Shoulder - Plan Quantity		LF	580	570	350	0	1500
206.082	Structural Earth Excavation - Major Structures		CY	5	5	0	0	10
304.09	Aggregate Base Course - Crushed		CY	3	3	0	0	6
403.208	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size, Surface		Ton	106	106	90	116	418
403.2081	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size - Bridge Deck		Ton	55	55	90	110	310
403.211	Hot Mix Asphalt (Shimming)		Ton	15	15	15	15	60
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size, Base		Ton	80	80	50	0	210
409.15	Bituminous Tack Coat - Applied		GAL	115	110	90	105	420
409.151	Bituminous Tack Coat - Applied, Bridge		GAL	50	50	60	75	235
419.30	Sawing Bituminous Pavement		LF	660	485	700	375	2220
502.21	Structural Concrete, Abutments and Retaining Walls		CY	12.5	12.5	0	0	25
502.70	Bridge Drains		EA	1	1	0	0	2
502.701	Bridge Drain Grate Modification		EA	2	2	4	4	12
502.81	Installation of Plastic Deck Drains		EA	5	5	10	10	30
503.14	High Performance Membrane	1425 SY	LS	0.02	0.02	0.43	0.53	1
507.095	Aluminum Bridge Railing - Splice Modification		EA	9	9	8	8	34
511.091	Temporary Earth Support Systems		LS	0.5	0.5	0	0	1
514.06	Curing Box for Concrete Cylinders		EA	0.5	0.5	0.5	0.5	2
518.39	Granite Curb Joint Mortar and Bedding Mortar Repair		LF	20	20	90	90	220
518.80	Partial Depth Concrete Repairs		SF	90	90	325	410	915
518.81	Full Depth Concrete Repairs		SF	0	0	2	2	4
518.86	Bridge Joint Header Concrete Replacement		SF	0	0	225	285	510
520.21	Expansion Device - Gland Seal	91 LF	EA	1	1	0	0	2
520.2226	Riverside Street NB and SB - Install New Locking Compression Seals		LF	0	0	96	120	216
520.2227	Forest Avenue - Modify Existing Gland Seal Joint Armor		LF	42.5	42.5	0	0	85
520.2228	Compression Seal Metal Armor Repair		LF	0	0	10	5	15
520.2234	Riverside Street NB and SB - Modify Joint Armor		LF	0	0	180	226	406
520.23	Asphaltic Plug Joint		LF	42.5	42.5	0	0	85
526.306	Temporary Concrete Barrier, Type I - Supplied by Authority	2400 LF	LS	0.35	0.35	0.15	0.15	1
527.34	Work Zone Crash Cushions - TL-3		UNIT	1	1	1	1	4
606.178	Guardrail Beam		LF	50	50	25	0	125
606.352	ReflectORIZED Beam Guardrail Delineator		EA	115	115	55	50	335
606.3605	Guardrail - Remove, Modify, and Reset Single Rail		LF	580	570	350	0	1500
606.48	Single Galvanized Steel Post		EA	10	10	6	0	26
610.18	Plain Riprap		CY	50	50	25	0	125
613.319	Erosion Control Blanket		SY	715	700	435	0	1850
615.07	Loam		CY	60	60	35	0	155
618.14	Seeding Method Number 2		Unit	5	5	3	0	13
619.12	Mulch		Unit	5	5	3	0	13
619.1202	Temporary Mulch		LS	0.25	0.25	0.25	0.25	1
626.112	Aluminum Junction Box		EA	0	2	0	2	4
626.212	Metallic Conduit - 2 Inch Rigid Galvanized		LF	0	300	0	260	560
627.681	Temporary 6 Inch Painted Pavement Marking Line, Yellow or White		LF	7525	7500	10300	13900	39225
627.73	Temporary 6 Inch Pavement Marking Tape		LF	8550	8525	3425	3000	23500
627.731	Temporary 6 Inch Black Pavement Marking Tape		LF	3175	3140	1865	2050	10230
627.77	Removing Pavement Markings		SF	1470	1470	2615	4665	10220
627.812	Temporary Raised Pavement Markers		EA	1200	1200	900	1100	4400
629.05	Hand Labor		HR	20	60	20	20	120
631.10	Air Compressor (including operator)		HR	10	30	10	10	60
631.11	Air Tool (including operator)		HR	20	60	20	20	120
631.12	All Purpose Excavator (including operator)		HR	5	15	5	5	30
631.172	Truck - large (including operator)		HR	5	15	5	5	30
631.36	Foreman		HR	10	30	10	10	60
631.40	Welder (including operator)		HR	10	50	10	10	80
652.30	Flashing Arrow Board		EA	2	2	1	1	6
652.312	Type III Barricades		EA	2	2	2	2	8
652.33	Drum		EA	80	80	90	115	365
652.35	Construction Signs		SF	950	950	800	800	3500
652.361	Maintenance of Traffic Control Devices		LS	0.25	0.25	0.25	0.25	1
652.38	Flaggers		HR	0	25	0	25	50
652.41	Portable - Changeable Message Sign		EA	0.5	0.5	0.5	0.5	2
652.451	Truck Mounted Attenuator		CD	25	25	15	20	85
656.50	Baled Hay, in place		EA	5	5	5	0	15
656.60	Temporary Berms		LF	600	425	375	0	1400
656.62	Temporary Slope Drains		LF	20	20	10	0	50
656.632	30 inch Temporary Silt Fence		LF	825	650	500	175	2150
659.10	Mobilization		LS	0.25	0.25	0.25	0.25	1

**GENERAL NOTES**

1. THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO START OF WORK.

2. THE CONTRACTOR SHALL NOTIFY THE RESIDENT 10 DAYS PRIOR TO CONSTRUCTION SO THE RESIDENT CAN ARRANGE FOR MAINE TURNPIKE UNDERGROUND UTILITY LOCATION. ALL PROPOSED SIGN LOCATIONS AND EXCAVATION LOCATIONS SHALL BE MARKED AT THE NOTIFICATION TIME. EXCAVATING WILL NOT BE PERMITTED UNTIL THE AUTHORITY HAS LOCATED AND MARKED ITS' UNDERGROUND UTILITIES, OR NOTIFIED THE RESIDENT THERE ARE NO UNDERGROUND UTILITIES IN THE MARKED AREAS.

THE AUTHORITY HAS PROGRAMMED TWO FIELD VISITS FOR MAINE TURNPIKE UTILITY COORDINATION ON THIS PROJECT. SHOULD THE CONTRACTOR NEED ADDITIONAL SIGN LOCATIONS AND/OR ADDITIONAL EXCAVATION LOCATIONS MARKED, OR SHOULD THE CONTRACTOR FAIL TO MAINTAIN THE AUTHORITY'S PREVIOUSLY ESTABLISHED DIG SAFE MARKS, THE AUTHORITY SHALL DEDUCT THE ADDED MARKING COSTS FROM THE CONTRACTOR'S PAYMENTS.

3. EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH OSHA SUBPART P OF 29 CFR PART 1926.650-652 (CONSTRUCTION STANDARDS FOR EXCAVATIONS).

4. ALL DETAILS SHALL BE IN CONFORMANCE WITH MAINE DEPARTMENT OF TRANSPORTATION (MDOT) STANDARD DETAILS HIGHWAY AND BRIDGES LATEST REVISIONS AND MDOT BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL LATEST REVISION UNLESS OTHERWISE INCLUDED IN THESE PLANS.

5. REINFORCING STEEL SHALL HAVE A CLEAR COVER OF 2" UNLESS OTHERWISE NOTED.

6. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

7. WHERE DRILLING AND ANCHORING OF REINFORCING STEEL IS SPECIFIED THE CONTRACTOR SHALL USE A MATERIAL LISTED ON THE MAINE DOT PREQUALIFIED LIST OF CHEMICAL ANCHORING MATERIALS. THE DEPTH OF EMBEDMENT SHALL BE SUFFICIENT TO DEVELOP 125% OF THE YIELD STRENGTH OF THE BAR, BUT SHALL BE NO LESS THAN THE MINIMUM DEPTH OF EMBEDMENT WHEN SPECIFIED. WHERE MINIMUM EMBEDMENT DEPTHS HAVE NOT BEEN SPECIFIED BAR LENGTHS HAVE BEEN DEVELOPED BASED ON AN ASSUMED EMBEDMENT DEPTH OF 9" FOR #5 BARS AND 12" FOR #6 BARS. THE CONTRACTOR SHALL VERIFY THE REQUIRED DEPTH OF EMBEDMENT AND ADJUST THE REQUIRED BAR LENGTHS AS REQUIRED.

8. A PROTECTIVE SHIELD SHALL BE INSTALLED ON THE EXISTING BRIDGE RAILS, BETWEEN PIERS 1 AND 2 ON FOREST AVENUE AND RIVERSIDE STREET NB AND SB. THE SHIELD SHALL BE A MINIMUM OF 3 FEET HIGH TO KEEP CONSTRUCTION DEBRIS OFF THE LOCAL ROAD BELOW. THE SHIELDING SYSTEM SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION. THIS WORK SHALL BE INCIDENTAL TO ITEM 659.10 MOBILIZATION.

9. TTYPE III BARRICADES SHALL BE USED AS DIRECTED BY THE RESIDENT.

**DRAINAGE NOTES**

1. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT APPROVAL OF THE RESIDENT.

**EROSION CONTROL**

1. ADDITIONAL MEASURES MAY BE PROPOSED BY THE CONTRACTOR DUE TO SITE OR WEATHER CONDITIONS. THE RESIDENT MAY DIRECT THE CONTRACTOR TO IMPLEMENT ADDITIONAL MEASURES. ANY ADDITIONAL MEASURES APPROVED BY THE RESIDENT WILL BE MEASURED FOR PAYMENT.

2. ALL TEMPORARY EROSION CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION BEST MANAGEMENT PRACTICES.

**GUARDRAIL NOTES**

1. AT THE END OF THE WORK DAY, EVERYDAY, THE CONTRACTOR IS REQUIRED TO HAVE AN APPROVED CRASHWORTHY END TREATMENT ON ALL GUARDRAIL WITHIN ALL WORK AREAS THAT ARE ACCESSIBLE TO TRAFFIC.

2. CONNECTIONS FOR PROPOSED GUARDRAIL TO EXISTING GUARDRAIL SHALL BE INCIDENTAL TO THE PROPOSED GUARDRAIL ITEMS.

3. FOR ALL NEW GUARDRAIL TYPE 3d W-BEAM, OFFSET BLOCKS SHALL BE NON-WOOD CONFORMING TO NCHRP 350 TEST LEVEL

4. ALL PROPOSED GUARDRAIL AND RESET GUARDRAIL SHALL BE INSTALLED IN A MANNER TO AVOID DRAINAGE STRUCTURES AND UTILITIES.

**MATERIALS**

**CONCRETE**

SUBSTRUCTURE CONCRETE REPAIRS SHALL BE PER SP 518. ALL OTHER CONCRETE SHALL BE CLASS AAA.

**REINFORCING STEEL**

AASHTO M31, GRADE 60  
ALL REINFORCING SHALL BE EPOXY-COATED.

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

**LIST OF ABBREVIATIONS**

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

Filename: 002\_Quantities.dgn

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

CONSULTANT PROJECT MANAGER: Robert J. Driscoll	
By	Date
Designed	TMH 03/14
Checked	CAH 03/14
Drawn	JRD 03/14
In Charge of	RAL 03/14



**THE GOLD STAR  
MEMORIAL HIGHWAY**

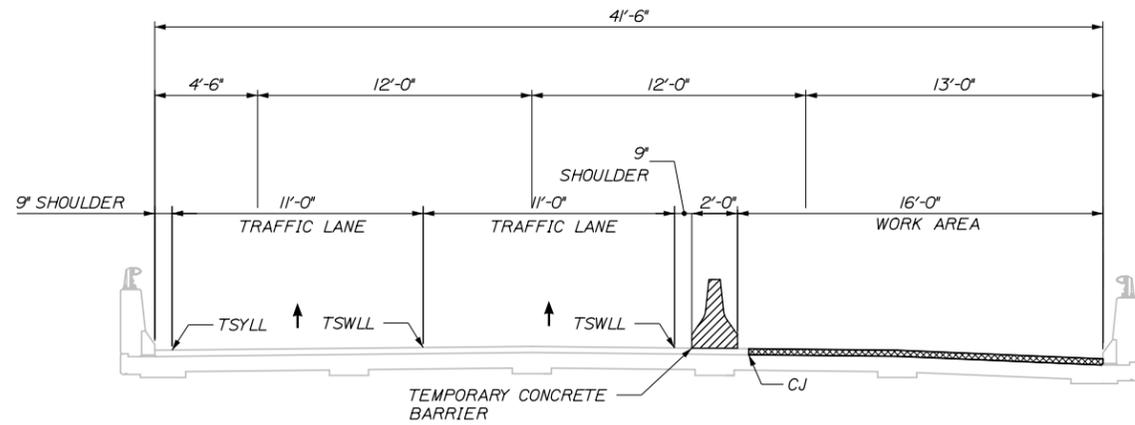
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS – FOREST  
AVENUE AND RIVERSIDE STREET

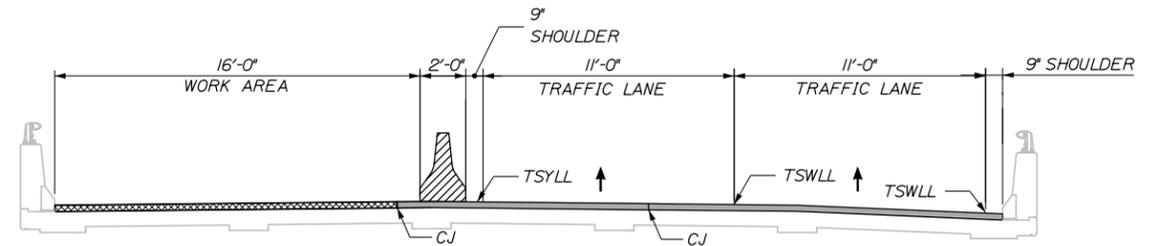
ESTIMATED QUANTITIES AND  
GENERAL NOTES

SHEET NUMBER: 2  
CONTRACT: 2014.14  
2 OF 40

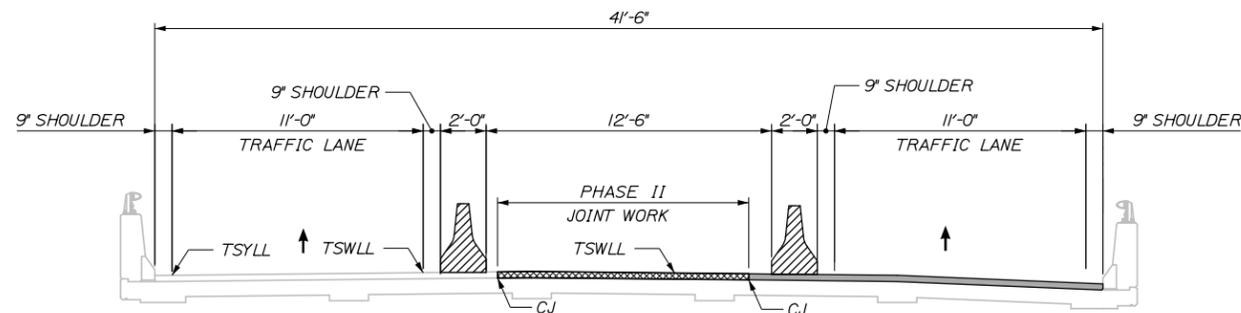
Date: 3/14/2014



**PHASE I - WORK ZONE**  
1/4" = 1'-0"



**PHASE III - WORK ZONE**  
1/4" = 1'-0"



**PHASE II - WORK ZONE**  
1/4" = 1'-0"

WIDE LOAD RESTRICTION

SEE SPECIFICATION 107.4.7 LIMITATIONS OF OPERATIONS FOR PHASE II ACCESS RESTRICTIONS.

JOINT UNDER CONSTRUCTION  
 JOINT COMPLETE  
 CJ = CONSTRUCTION JOINT  
 TSWLL = TEMPORARY SOLID WHITE LANE LINE  
 TSYLL = TEMPORARY SOLID YELLOW LANE LINE

NOTE:  
 FINAL LIFT OF DECK PAVEMENT AND APPROACH SHIMMING SHALL BE PLACED NIGHTS AFTER PHASE IV IS COMPLETE. PAVEMENT JOINTS SHALL MATCH AT 25' AND 37' RIGHT OF MTA CENTERLINE.

NOTES:  
 PRE-PHASE I:  
 THE CONTRACTOR SHALL DETERMINE THE FINAL LOCATION OF THE PROPOSED BRIDGE DRAINS AND CORE A 3 INCH DIAMETER HOLE THRU THE DECK IN THE APPROXIMATE CENTER OF THIS LOCATION TO PROVIDE DECK DRAINAGE PRIOR TO PHASE I. MEASURES SHALL BE TAKEN TO CONTROL DRAIN WATER EROSION OF THE EROSION CONTROL MIX BELOW. THE CONTRACTOR SHALL ALSO REMOVE ACCUMULATED SAND AND DEBRIS FROM THE END OF THE ADJACENT ENDPOST FOR A MINIMUM OF 25 FEET AND REGRADE TO ALLOW WATER RUNOFF. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 502.70 BRIDGE DRAINS.

Filename: 003\_PhasingTyp1.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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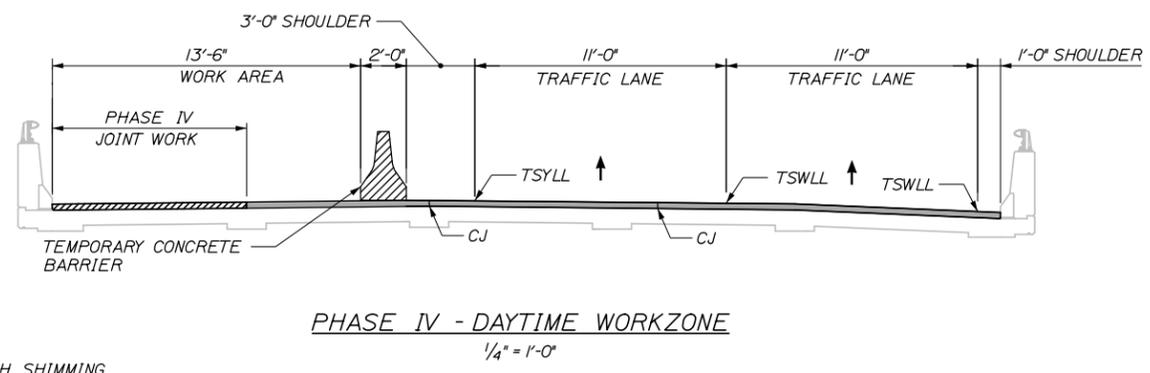
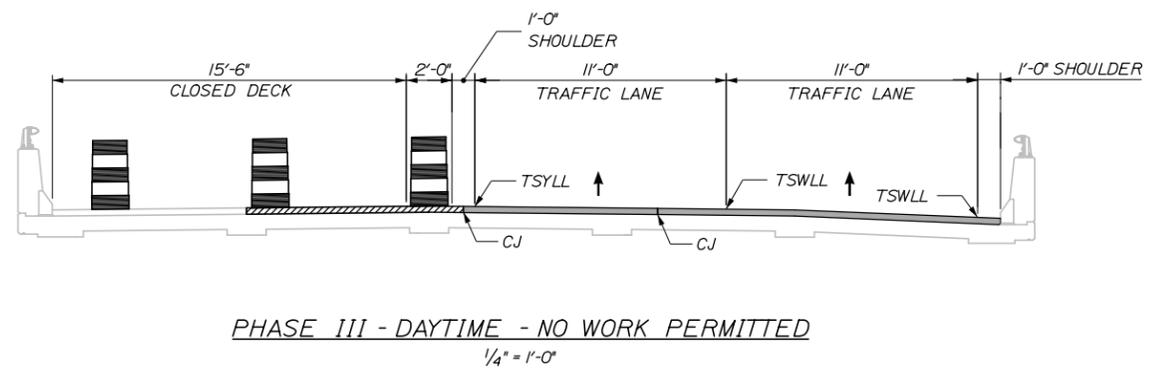
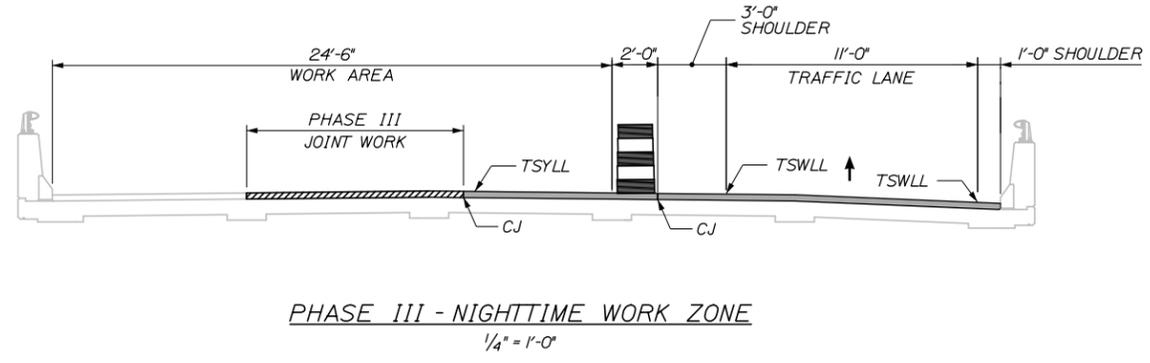
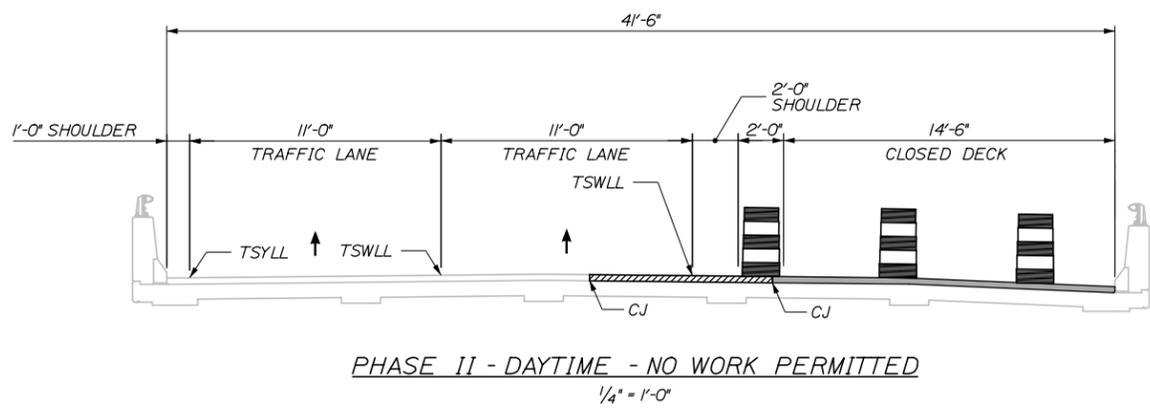
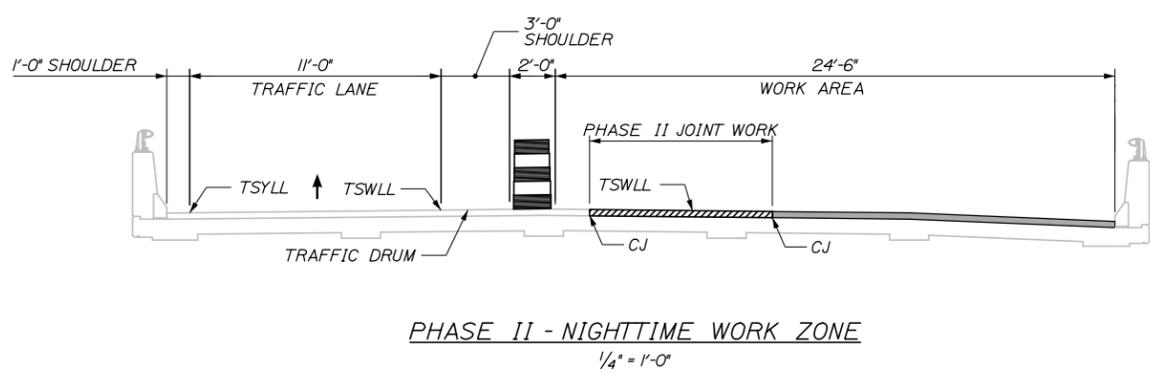
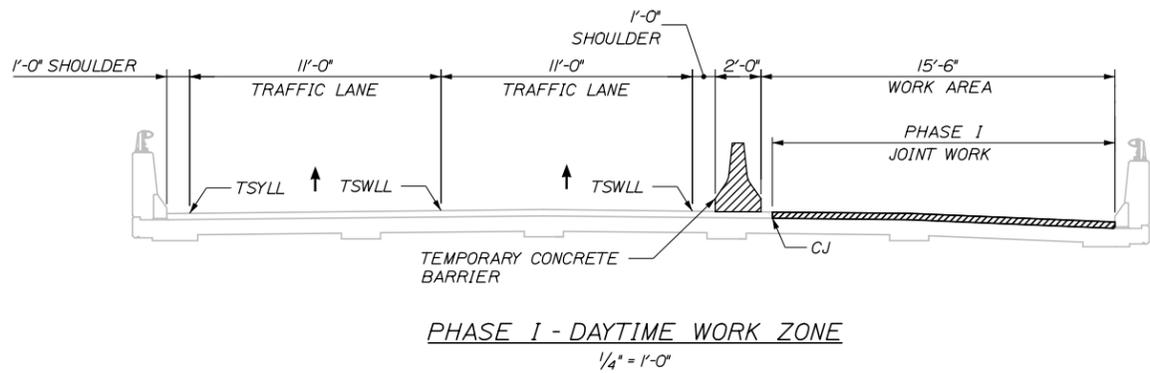
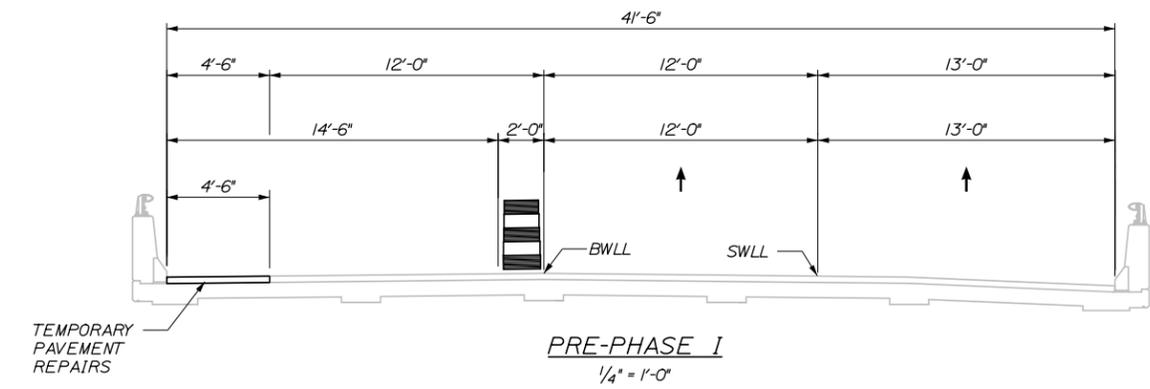
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND  
 RIVERSIDE STREET  
 FOREST AVENUE  
 NORTHBOUND AND SOUTHBOUND  
 SHEET NUMBER: 3

CONTRACT: 2014.14      3 OF 40

Date: 3/14/2014



JOINT UNDER CONSTRUCTION  
 JOINT COMPLETE  
 CJ = CONSTRUCTION JOINT  
 TSWLL = TEMPORARY SOLID WHITE LANE LINE  
 TSYLL = TEMPORARY SOLID YELLOW LANE LINE  
 NOTE:  
 FINAL LIFT OF DECK PAVEMENT AND APPROACH SHIMMING SHALL BE PLACED NIGHTS AFTER PHASE IV IS COMPLETE. PAVEMENT JOINTS SHALL MATCH AT 25' AND 37' RIGHT OF MTA CENTERLINE.

Filename: 004\_PhasingTyp2.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
	TMH	03/14	Checked	CAH	03/14
	Drawn	JRD	In Charge of	RAL	03/14

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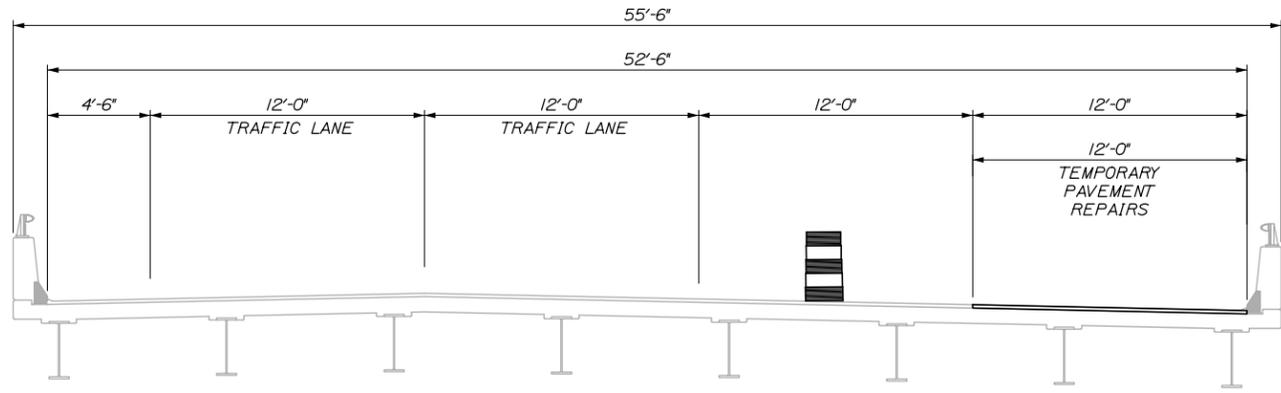
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

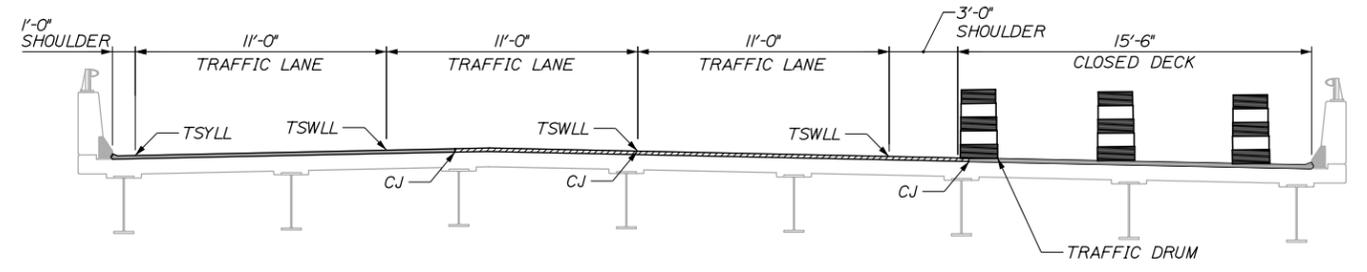
BRIDGE REPAIRS - FOREST AVENUE AND  
 RIVERSIDE STREET  
 RIVERSIDE NORTHBOUND PHASING

SHEET NUMBER: 4  
 CONTRACT: 2014.14  
 4 OF 40

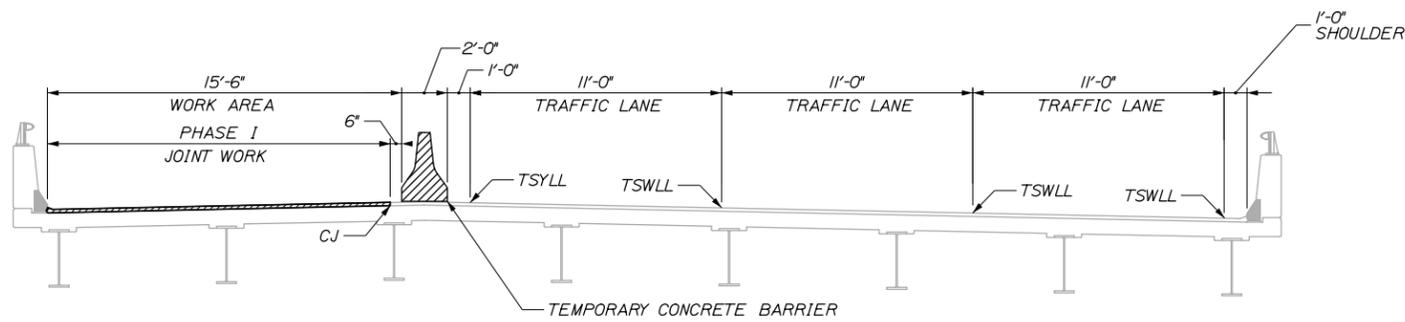
Date: 3/14/2014



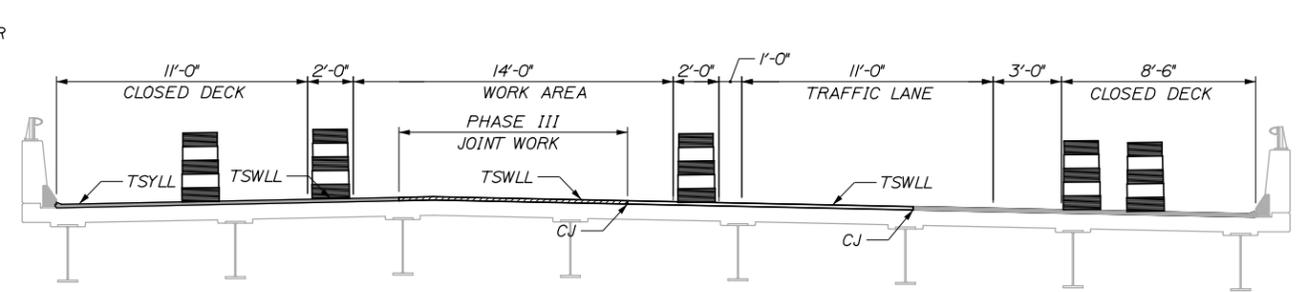
**PRE-PHASE I**  
1/4" = 1'-0"



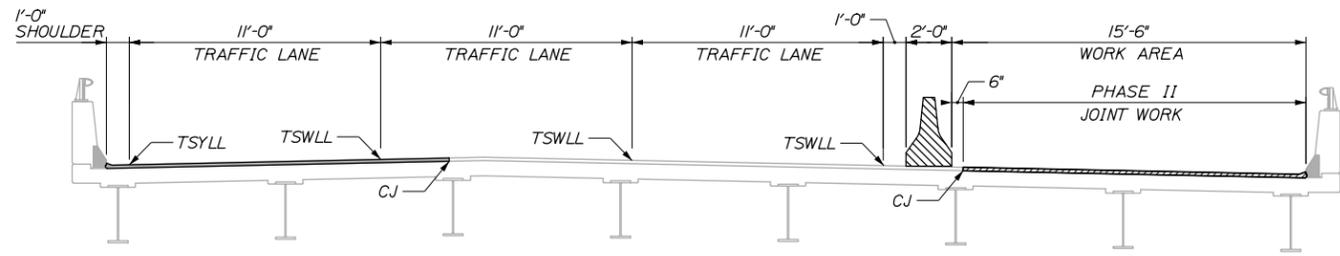
**PHASE III AND IV - DAYTIME WORKZONE**  
1/4" = 1'-0"  
NO WORK PERMITTED



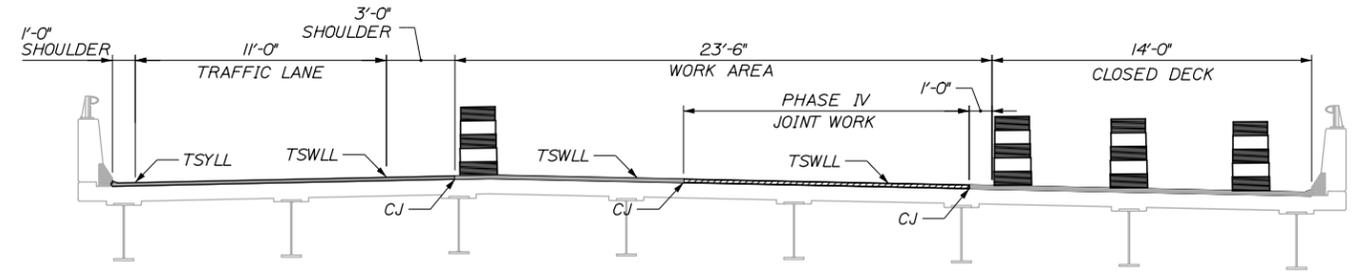
**PHASE I - DAYTIME WORKZONE**  
1/4" = 1'-0"



**PHASE III - NIGHTTIME WORKZONE**  
1/4" = 1'-0"



**PHASE II - DAYTIME WORKZONE**  
1/4" = 1'-0"



**PHASE IV - NIGHTTIME WORKZONE**  
1/4" = 1'-0"

**NOTE:**  
FINAL LIFT OF DECK PAVEMENT AND APPROACH SHIMMING SHALL BE PLACED NIGHTS AFTER PHASE III IS COMPLETE. PAVEMENT JOINTS SHALL MATCH AT 25', 37' AND 49' RIGHT OF MTA CENTERLINE.

JOINT UNDER CONSTRUCTION  
 JOINT COMPLETE  
 CJ = CONSTRUCTION JOINT  
 TSYLL = TEMPORARY SOLID YELLOW LANE LINE  
 TSWLL = TEMPORARY SOLID WHITE LANE LINE

Filename: 005\_PhasingTyp3.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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THE GOLD STAR  
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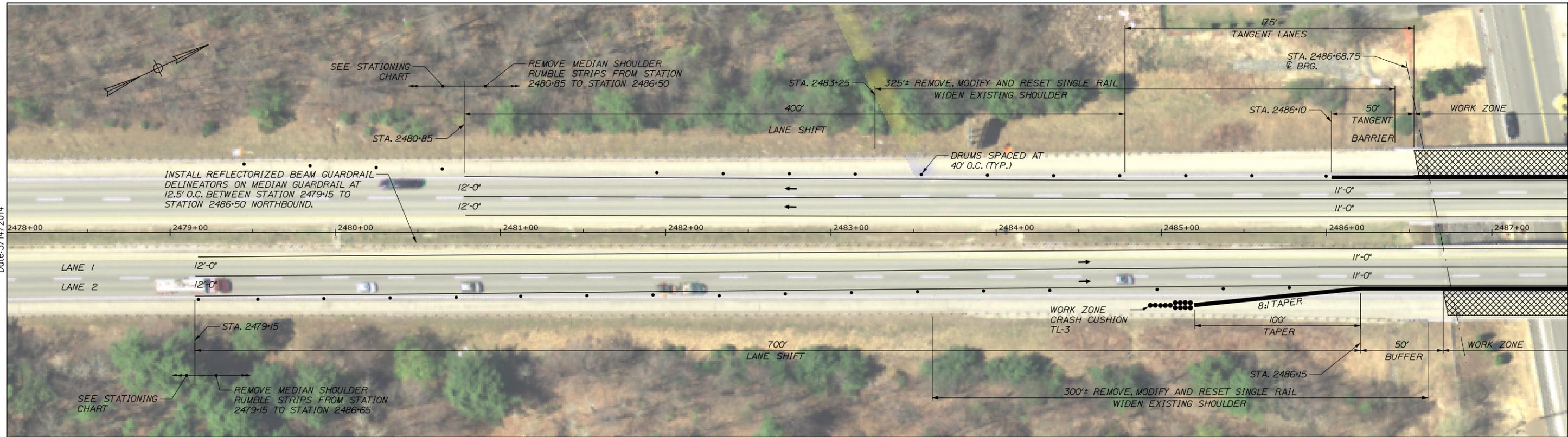
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND  
RIVERSIDE STREET

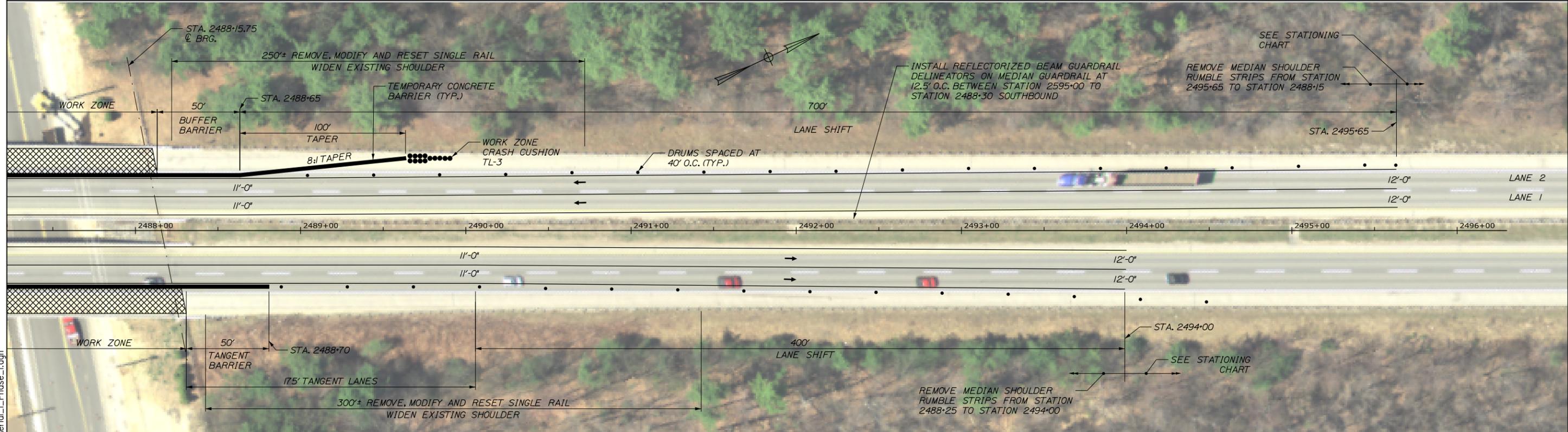
RIVERSIDE SOUTHBOUND PHASING

SHEET NUMBER: 5  
CONTRACT: 2014.14  
5 OF 40

Date: 3/14/2014



FOREST AVENUE - NORTHBOUND AND SOUTHBOUND PHASE I



Designed by:

**HNTB**

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND RIVERSIDE STREET  
FOREST AVENUE NB AND SB  
MAINTENANCE OF TRAFFIC I

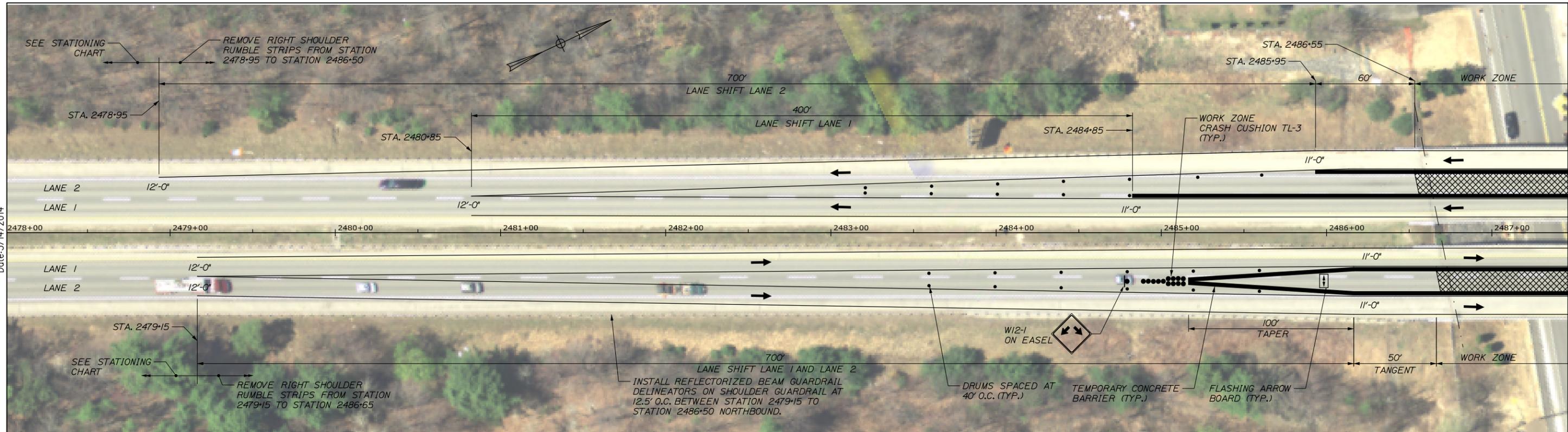
SHEET NUMBER: 6

CONTRACT: 2014.14

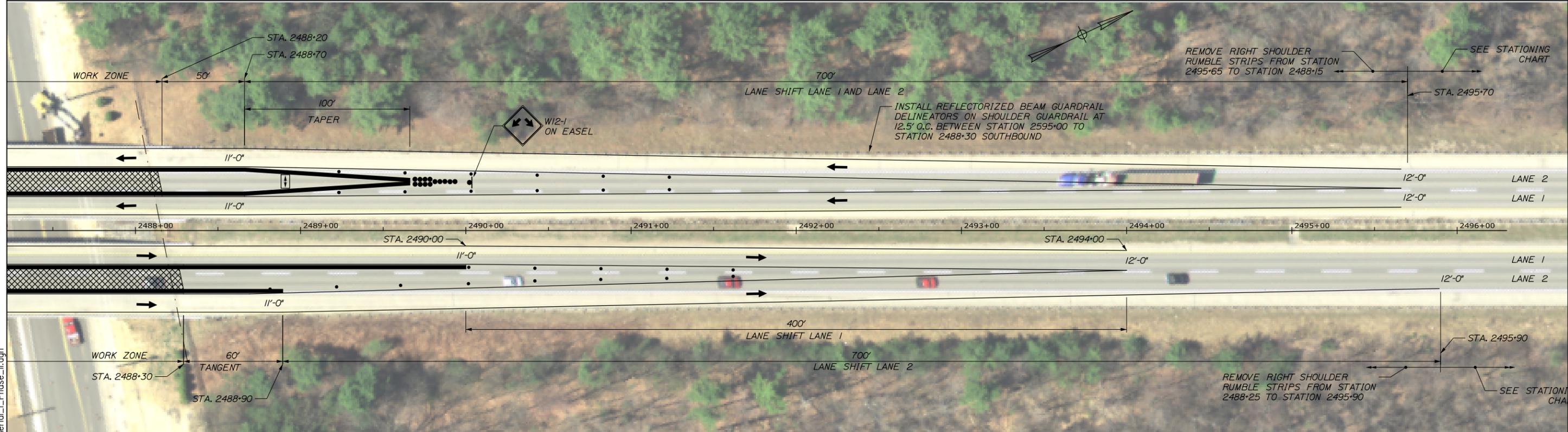
6 OF 40

Filename: 006\_MOT\_Forest\_Aerial\_L\_Phase\_I.dgn

Date: 3/14/2014



FOREST AVENUE - NORTHBOUND AND SOUTHBOUND PHASE II



Filename: 007\_MOT\_Forest\_Aerial\_L\_Phase\_II.dgn

Scale: 30 0 30 60  
Scale of Feet

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

	By	Date	Checked	By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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

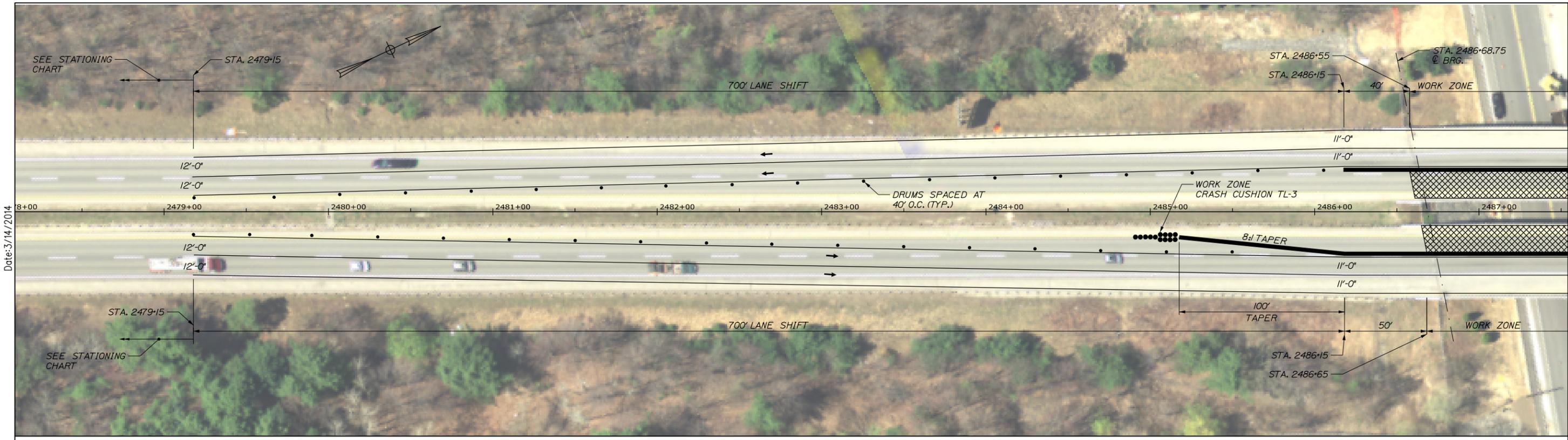
**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

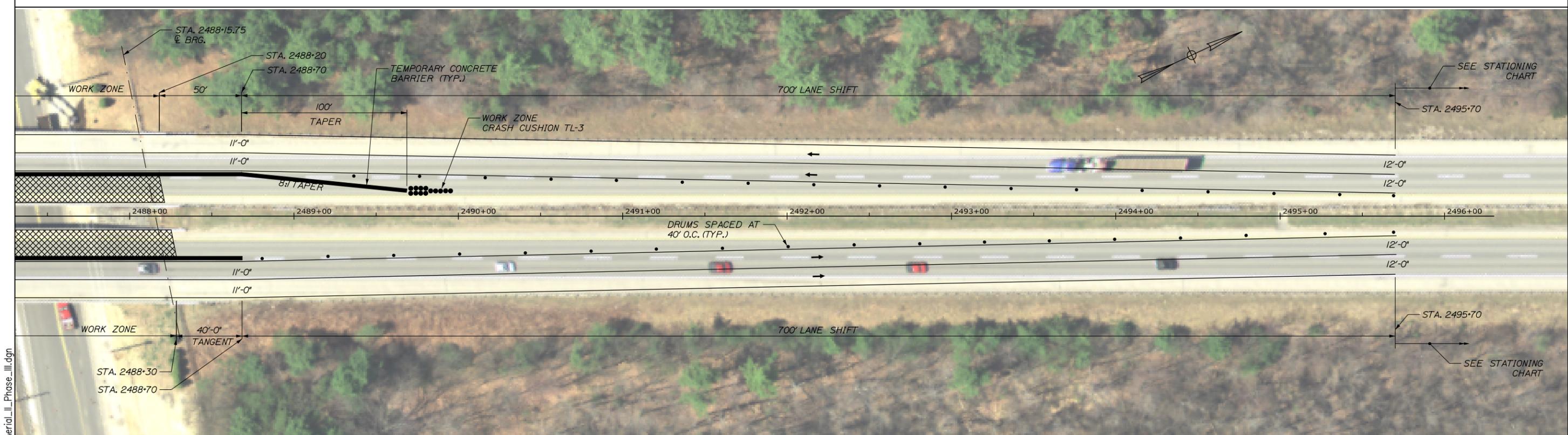
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND RIVERSIDE STREET  
FOREST AVENUE NB AND SB MAINTENANCE OF TRAFFIC II

SHEET NUMBER: 7  
CONTRACT: 2014.14  
7 OF 40



FOREST AVENUE - NORTHBOUND AND SOUTHBOUND PHASE III



Scale: 30 0 30 60  
Scale of Feet

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND RIVERSIDE STREET  
FOREST AVENUE NB AND SB MAINTENANCE OF TRAFFIC III

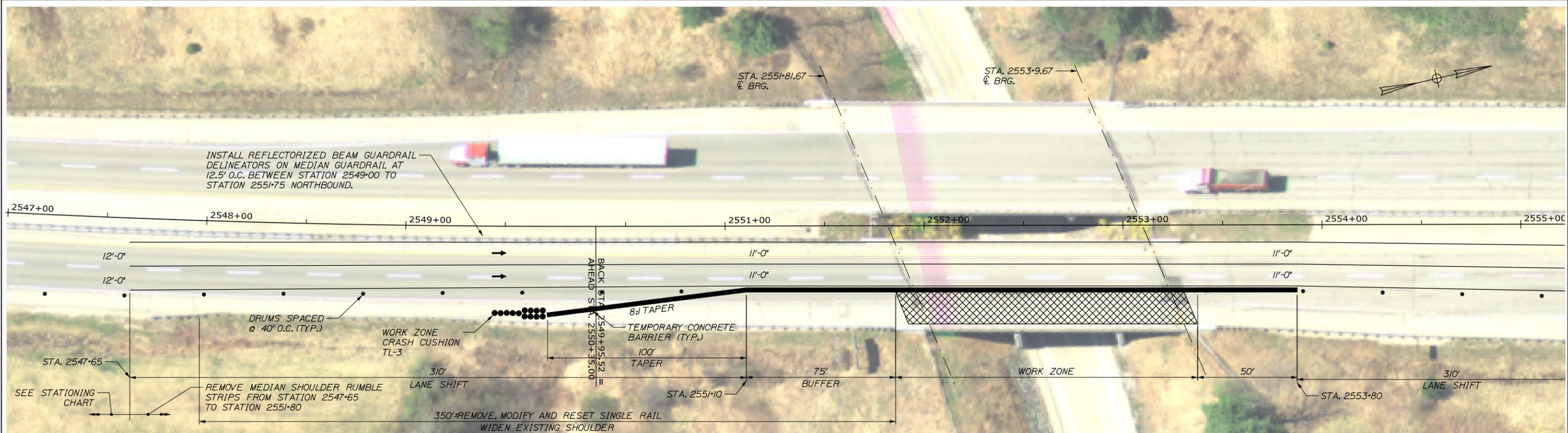
SHEET NUMBER: 8

CONTRACT: 2014.14

8 OF 40

Date: 3/14/2014  
Filename: 008\_MOT\_Forest\_Aerial\_III\_Phase\_III.dgn

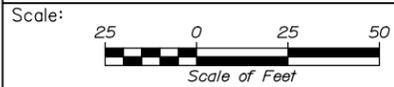
Date: 3/14/2014



**RIVERSIDE STREET - NORTHBOUND PHASE I**  
 PHASE II SIMILAR - NO BARRIER  
 WORK ZONE EXTENDS INTO LANE 2



Filename: 009\_MOT\_Riverside\_Phase\_I\_NB1.dgn



Designed by:

**HNTB**

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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 Westbrook, ME 04092  
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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

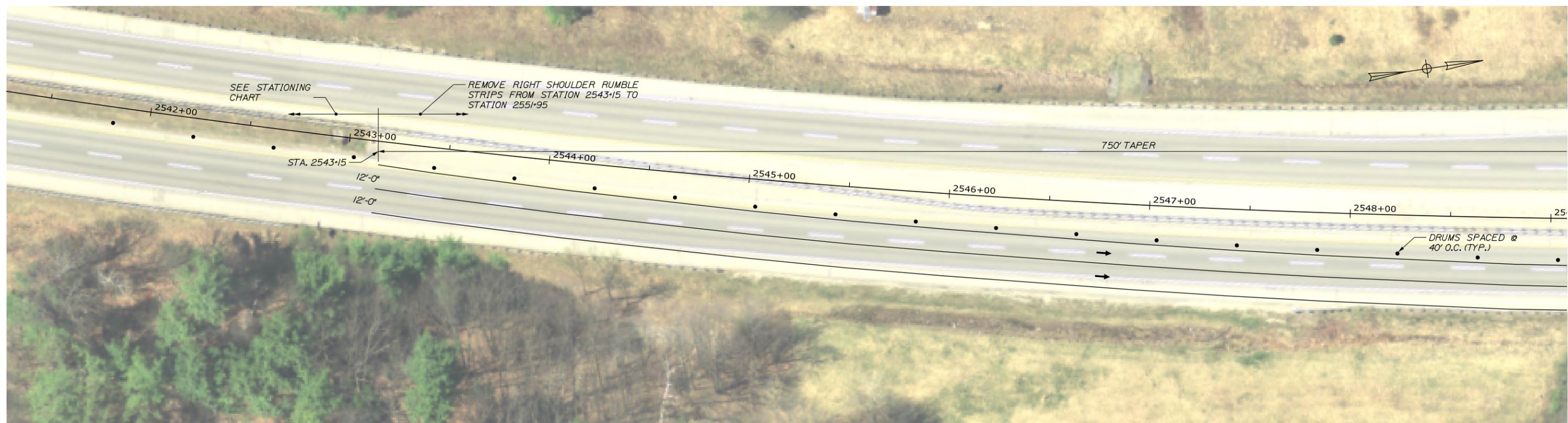
BRIDGE REPAIRS - FOREST AVENUE AND RIVERSIDE STREET  
 RIVERSIDE STREET NB  
 MAINTENANCE OF TRAFFIC IV

SHEET NUMBER: 9

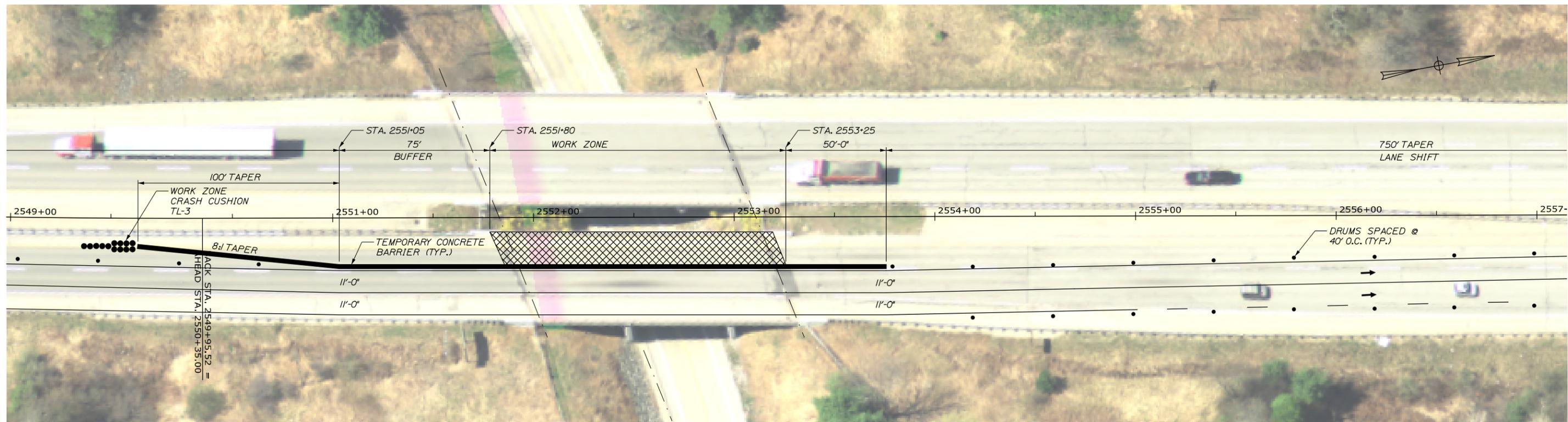
CONTRACT: 2014.14

9 OF 40

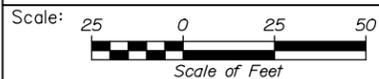
Date: 3/19/2014



RIVERSIDE STREET - NORTHBOUND PHASE III



Filename: 010\_MOT\_Riverside\_Phase\_III\_NB2.dgn



Designed by:



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Westbrook, ME 04092  
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FAX (207) 228-0909



THE GOLD STAR  
MEMORIAL HIGHWAY

FOREST AVENUE AND  
RIVERSIDE STREET BRIDGE REPAIRS  
RIVERSIDE STREET NB  
MAINTENANCE OF TRAFFIC V

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

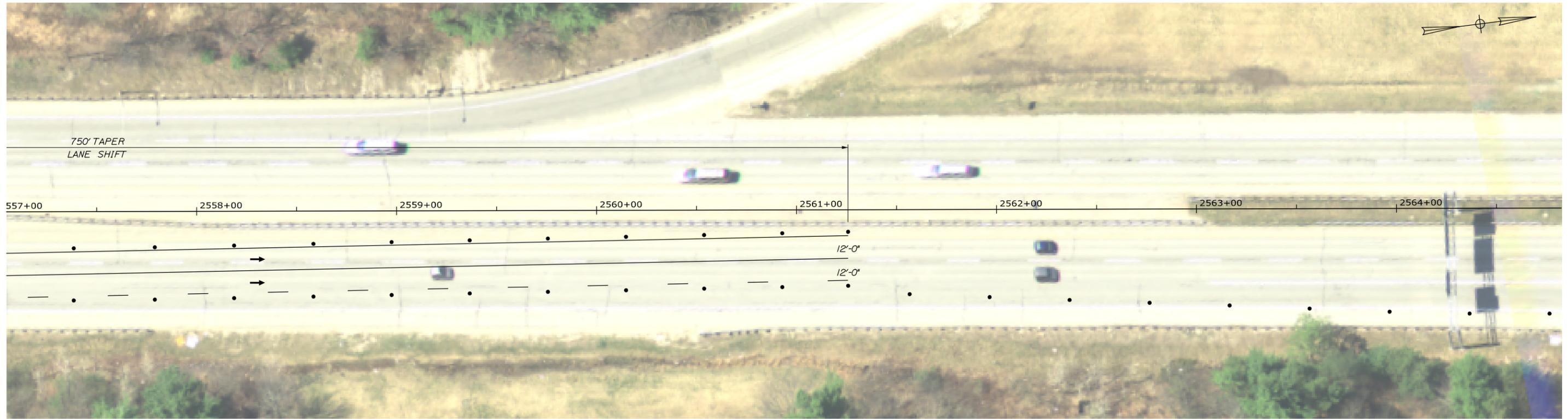
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

CONTRACT: 2014.14

SHEET NUMBER: 10

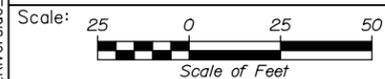
10 OF 40

Date: 3/19/2014



RIVERSIDE STREET - NORTHBOUND PHASE III

Filename: 011\_M01\_Riverside\_Phase\_III\_NB3.dgn



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**THE GOLD STAR  
MEMORIAL HIGHWAY**

FOREST AVENUE AND  
RIVERSIDE STREET BRIDGE REPAIRS  
RIVERSIDE STREET NB  
MAINTENANCE OF TRAFFIC VI

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

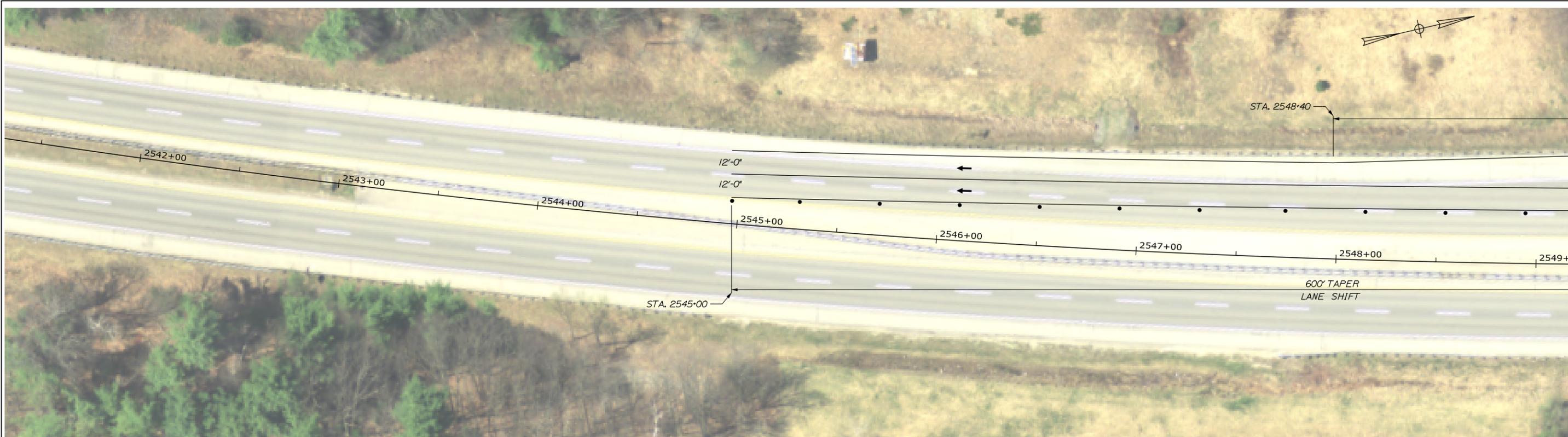
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

CONTRACT: 2014.14

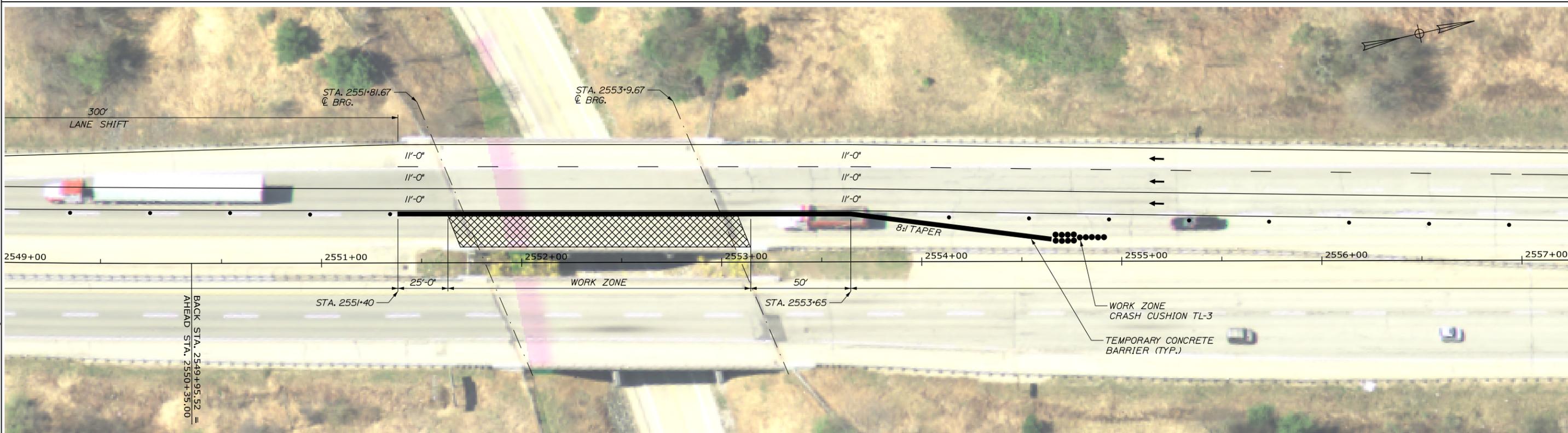
SHEET NUMBER: 11

11 OF 40

Date: 3/14/2014



RIVERSIDE STREET - SOUTHBOUND PHASE I



Filename: 012\_M0T\_Riverside\_Aerial\_L\_Phase\_I\_SB\_A.dgn



Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

No.	Revision	By	Date

	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND  
 RIVERSIDE STREET  
 RIVERSIDE STREET SB  
 MAINTENANCE OF TRAFFIC VII

SHEET NUMBER: 12  
 12 OF 40

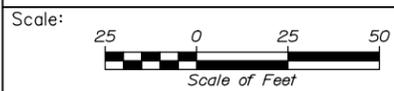
CONTRACT: 2014.14

Date: 3/14/2014



RIVERSIDE STREET - SOUTHBOUND PHASE I

Filename: 013\_M0T\_Riverside\_Aerial\_L\_Phase\_I\_SB\_B.dgn



No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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**THE GOLD STAR  
 MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND  
 RIVERSIDE STREET  
 RIVERSIDE STREET SB  
 MAINTENANCE OF TRAFFIC VIII

SHEET NUMBER: 13

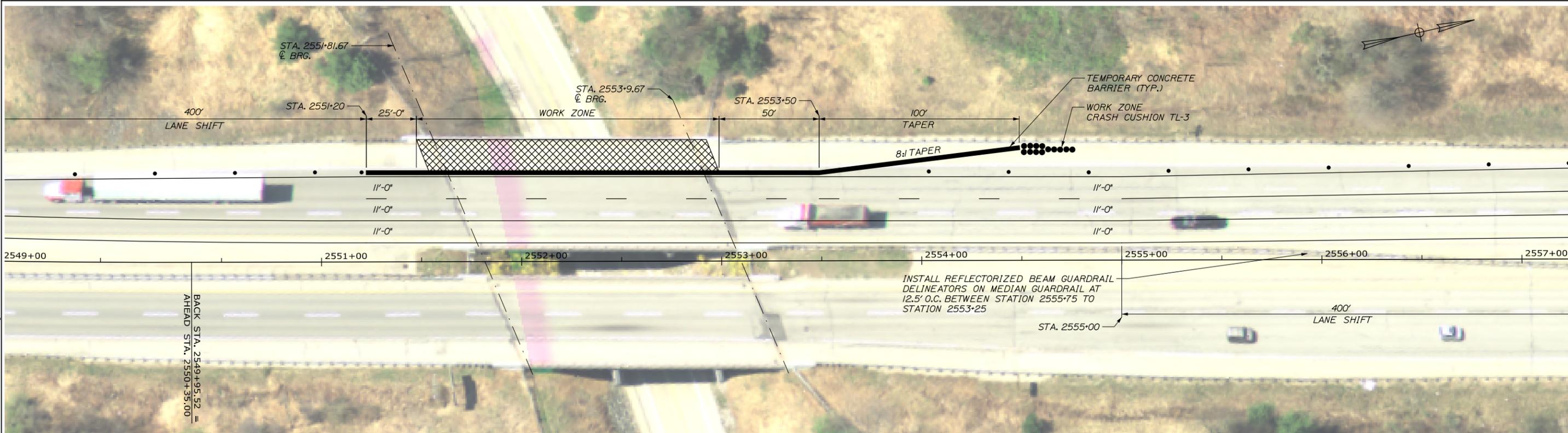
CONTRACT: 2014.14

13 OF 40

Date: 3/14/2014



RIVERSIDE STREET - SOUTHBOUND PHASE II



Filename: 014\_MOT\_Riverside\_Aerial\_IL\_Phase\_IL\_SB\_A.dgn



Designed by:



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THE GOLD STAR  
MEMORIAL HIGHWAY

BRIDGE REPAIRS - FOREST AVENUE AND  
RIVERSIDE STREET  
RIVERSIDE STREET SB  
MAINTENANCE OF TRAFFIC IX

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

CONTRACT: 2014.14

SHEET NUMBER: 14

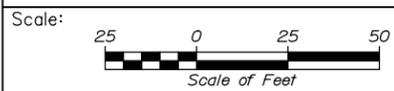
14 OF 40

Date: 3/14/2014



RIVERSIDE STREET - SOUTHBOUND PHASE II

Filename: 015\_M0T\_Riverside\_Aerial\_IL\_Phase\_IL\_SB\_B.dgn



Designed by:



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Westbrook, ME 04092  
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FAX (207) 228-0909



**THE GOLD STAR  
MEMORIAL HIGHWAY**

BRIDGE REPAIRS - FOREST AVENUE AND  
RIVERSIDE STREET  
RIVERSIDE STREET SB  
MAINTENANCE OF TRAFFIC X

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

CONTRACT: 2014.14

SHEET NUMBER: 15

15 OF 40

Date: 3/14/2014

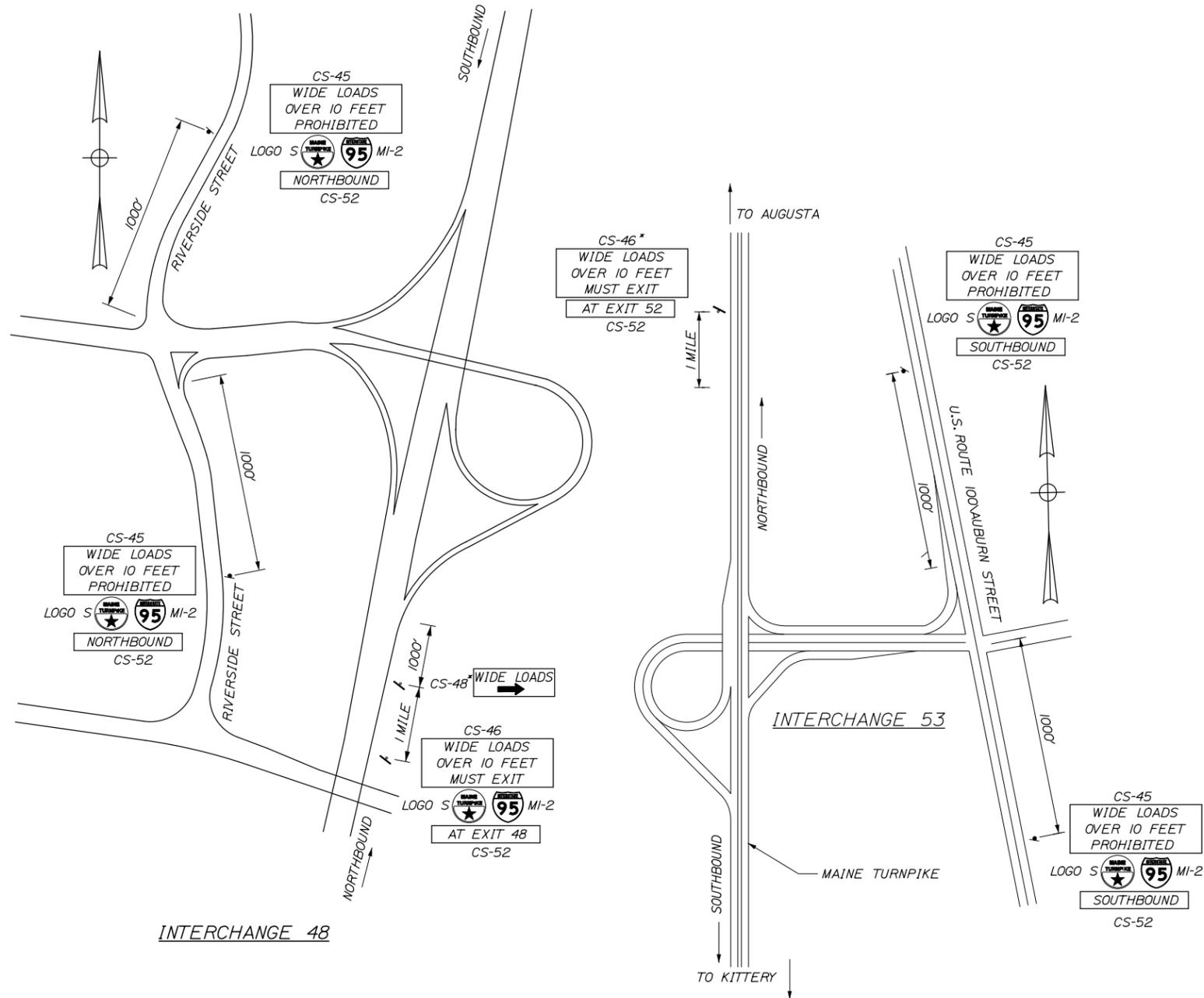
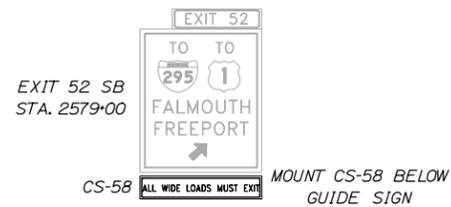


CS-45  
WIDE LOADS  
OVER 10 FEET  
PROHIBITED  
LOGO S  MI-2  
SOUTHBOUND  
CS-52

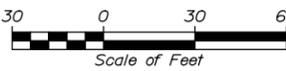
**WIDE LOAD SIGN PACKAGE**  
ONE SIGN PACKAGE SHALL  
BE INSTALLED AT ALL  
THREE NOTED LOCATIONS

WIDE LOAD SIGN PACKAGE LOCATIONS  
1" = 250'

NOTE: FINAL SIGN PACKAGE LOCATIONS TO BE DETERMINED BY THE RESIDENT AND COORDINATED WITH MAINE DOT.



Filename: 016\_WideLoad.dgn

Scale: 

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

	By	Date	Checked	By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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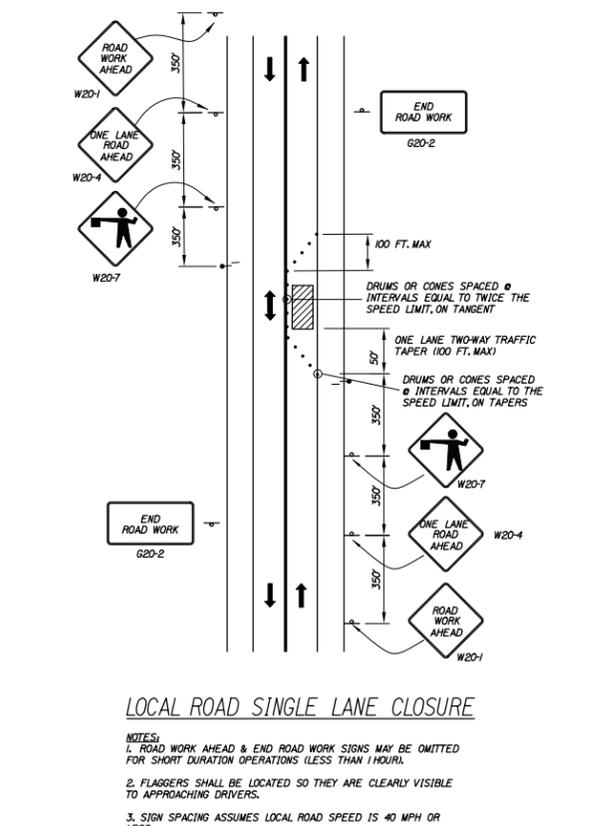
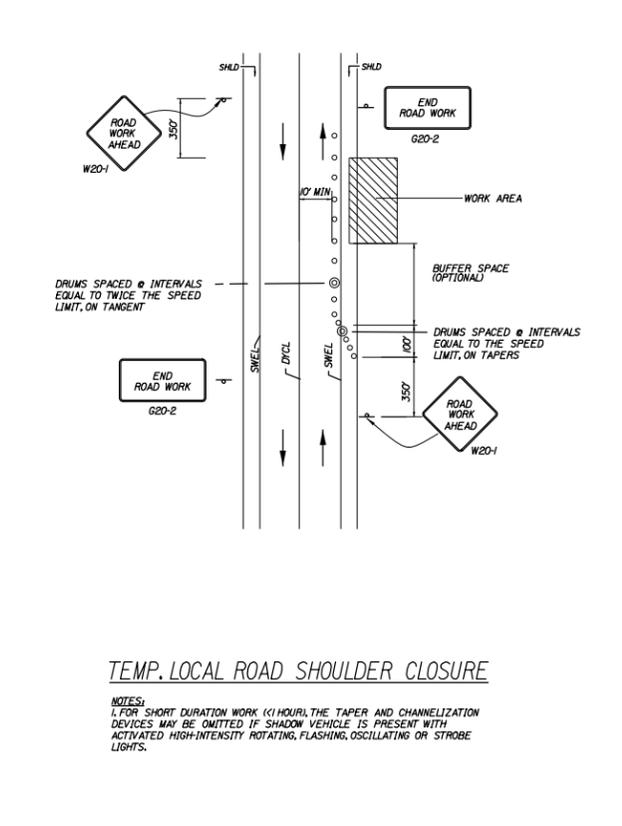
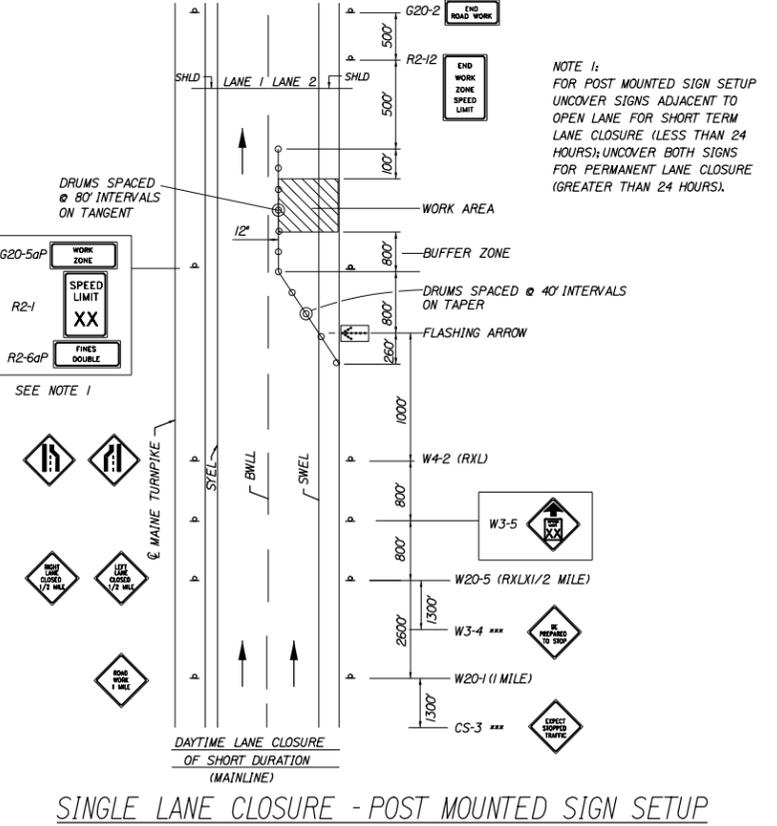
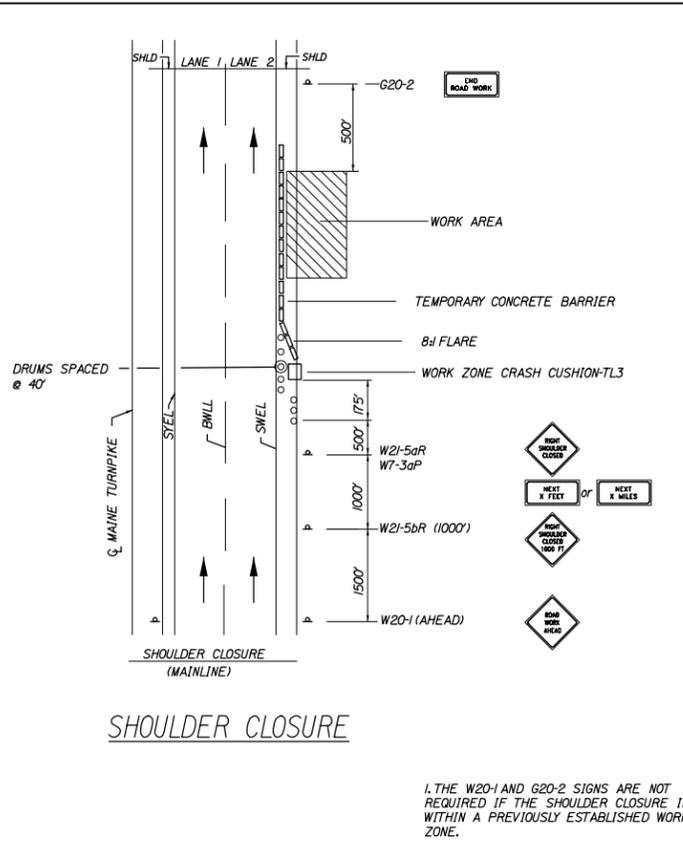
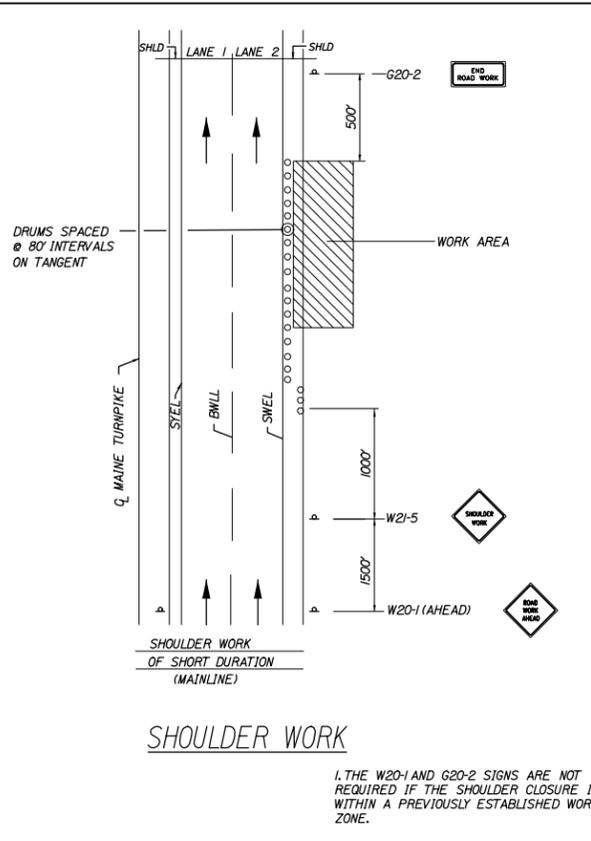
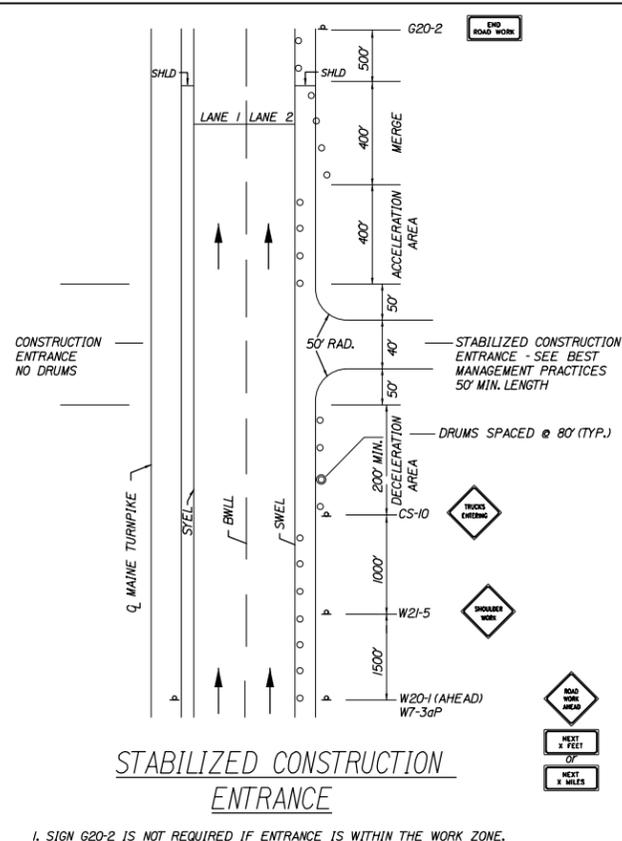
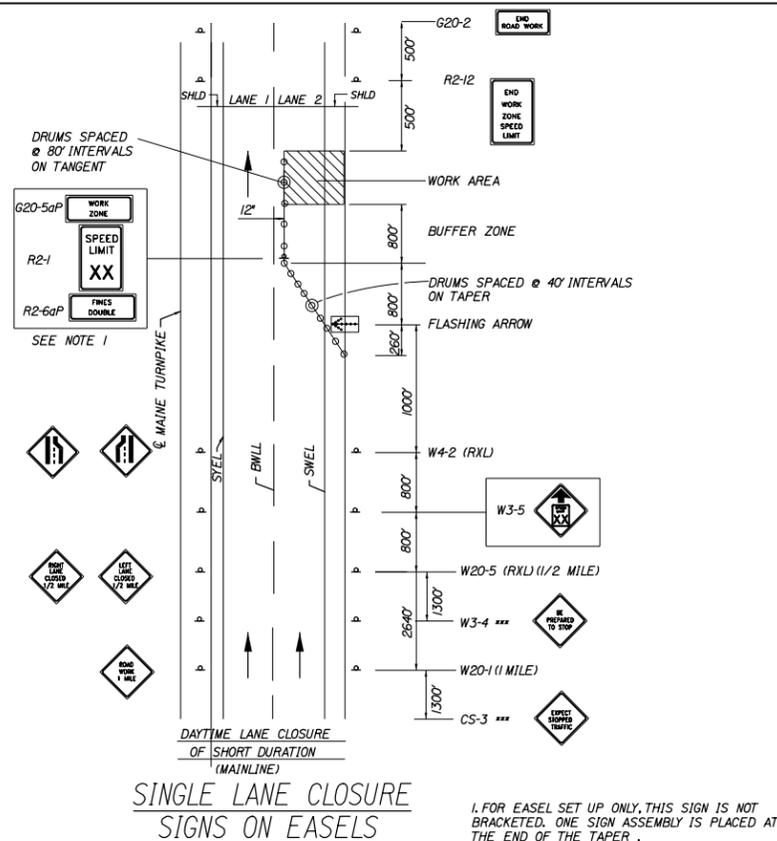
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND  
RIVERSIDE STREET  
MAINTENANCE OF TRAFFIC  
WIDE LOAD SIGNING

SHEET NUMBER: 16  
CONTRACT: 2014.14  
16 OF 40

Date: 3/14/2014



**GENERAL MAINTENANCE OF TRAFFIC NOTES:**

- 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.
- THESE PLANS SHOW THE GENERAL CONDITION FOR TURNPIPES MAINLINE TRAFFIC CONTROL 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.
- 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.
- 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.
- GEOMETRIC INFORMATION FOR TRAFFIC PHASES SHOWN ON THE PLANS WILL BE SUPPLIED TO THE CONTRACTOR AFTER AWARD.

**ABBREVIATIONS FOR ALL M.O.T. PLANS**  
 BWLL = BROKEN WHITE LANE LINE  
 SWLL = SOLID WHITE LANE LINE  
 SYLL = SOLID YELLOW LANE LINE  
 TBWLL = TEMPORARY BROKEN WHITE LANE LINE  
 TSWLL = TEMPORARY SOLID WHITE LANE LINE  
 TSYLL = TEMPORARY SOLID YELLOW LANE LINE

Scale: N.T.S.

No.	Revision	By	Date

Designed by: **HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND RIVERSIDE STREET

MAINTENANCE OF TRAFFIC DETAILS

SHEET NUMBER: 17

CONTRACT: 2014.14

17 OF 40

Date: 3/14/2014

Forest Ave Bridge - Advanced Signage Northbound				Median	Right	Ramp
Station	Distance	Sign(s)	Description	Shldr	Shldr	
2412+75		CS-3*	Expect Stopped Traffic	1	1	1
	1100					
2423+75		W20	Road Work - 1 Mile	1	1	
	1000					
2433+75		W3-4*	Be Prepared to Stop	1	1	
	1100					
2444+75		R20-5R (1/2 Mile)	Right Lane Closed - 1/2 Mile	1	1	
		R20-5L (1/2 Mile)	Left Lane Closed - 1/2 Mile			
	800					
5452+75		W3-5 (45)	45 MPH Speed Limit Ahead Icon	1	1	
	800					
2460+75		W4-2R	Right Lane Drop Icon			
		W4-2L	Left Lane Drop Icon	1	1	
	500					
2465+75		W24-1aL	Double Lane Shift Icon Left			
		W24-1aR	Double Lane Shift Icon Right			
	400					
2469+75		R4-9	Stay in Lane	1	1	
	100					
2470+75		Flashing Arrow Bd	Start 800' Temporary Lane Closure			
	400					
2474+75		W6-1 & CS-34	double arrow/island with lanes split plaque	1	1	
	425					
2479+00			End 800' Lane Closure/ Start Buffer			
		G20-5aP	Work Zone	1	1	
		R2-1 (45)	Speed Limit 45			
		R2-6aP	Fines Double			
2484+75		W12-1	Split arrow, installed center of the split			
			Work Zone			
2501+00		R2-12**	End Work Zone Speed Limit	1	1	
	500					
2506+00		G20-2**	End Road Work	1	1	

\* Signs erected for scheduled stopped traffic or anticipated backups only  
 \*\* Signs are in the same location for all traffic control setups

Forest Ave Bridge - Advanced Signage Southbound				Median	Right	Ramp
Station	Distance	Sign(s)	Description	Shldr	Shldr	
2563+00		CS-3*	Expect Stopped Traffic	1	1	1
	900					
2554+00		W20***	Road Work - 1 Mile	1	1	
	148					
2552+52			Riverside Street			
	902					
2541+00		W3-4*	Be Prepared to Stop	1	1	
	1100					
2530+00		R20-5R (1/2 Mile)	Right Lane Closed - 1/2 Mile	1	1	
		R20-5L (1/2 Mile)	Left Lane Closed - 1/2 Mile			
	800					
2522+00		W3-5 (45)	45 MPH Speed Limit Ahead Icon	1	1	
	800					
2514+00		W4-2R	Right Lane Drop Icon			
		W4-2L	Left Lane Drop Icon	1	1	
	500					
2509+00		W24-1aL	Double Lane Shift Icon Left	1	1	
		W24-1aR	Double Lane Shift Icon Right			
	400					
2505+00		R4-9	Stay in Lane	1	1	
	100					
2504+00		Flashing Arrow Bd	Start 800' Temporary Lane Closure	1		
	400					
2500+00		W6-1 & CS-34	double arrow/island with lanes split plaque	1	1	
	400					
2496+00			End 800' Lane Closure/ Start Buffer			
		G20-5aP	Work Zone	1	1	
		R2-1 (45)	Speed Limit 45			
		R2-6aP	Fines Double			
	600					
2490+00		W12-1	Split arrow, installed center of the split			
			Work Zone			
2474+00		R2-12**	End Work Zone Speed Limit	1	1	
	500					
2469+00		G20-2**	End Road Work	1	1	

\* Signs erected for scheduled stopped traffic or anticipated backups only  
 \*\* Signs are in the same location for all traffic control setups  
 \*\*\* Signs erected only if Riverside SB is not under construction

Riverside St Bridge - Advanced Signage Northbound				Median	Right
Station	Distance	Sign(s)	Description	Shldr	Shldr
2465+00		CS-3*	Expect Stopped Traffic	1	1
	1300				
2478+00		W20***	Road Work - 1 Mile	1	1
	950				
2487+50			Forest Ave		
	350				
2491+00		W3-4*	Be Prepared to Stop	1	1
	1300				
2504+00		R20-5R (1/2 Mile)	Right Lane Closed - 1/2 Mile	1	1
		R20-5L (1/2 Mile)	Left Lane Closed - 1/2 Mile		
	800				
2512+00		W3-5 (45)	45 MPH Speed Limit Ahead Icon	1	1
	800				
2520+00		W4-2R	Right Lane Drop Icon		
		W4-2L	Left Lane Drop Icon	1	1
	850				
2530+00		Flashing Arrow Bd	Start 800' Temporary Lane Closure	1	
	300				
2533+00		W24-1aL	Double Lane Shift Icon Left	1	1
		W24-1aR	Double Lane Shift Icon Right		
	500				
2538+00			End 800' Lane Closure/ Start Buffer	1	1
		G20-5aP	Work Zone		
		R2-1 (45)	Speed Limit 45		
		R2-6aP	Fines Double		
2565+00		R2-12**	End Work Zone Speed Limit	1	1
	500				
2570+00		G20-2**	End Road Work	1	1

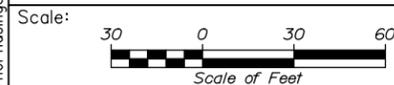
\* Signs erected for scheduled stopped traffic or anticipated backups only  
 \*\* Signs are in the same location for all traffic control setups  
 \*\*\* Signs erected only if Forest Ave NB is not under construction

Riverside St Bridge - Advanced Signage Southbound				Median	Right	Ramp
Station	Distance	Sign(s)	Description	Shldr	Shldr	
2639+00		CS-3*	Expect Stopped Traffic	1	1	1
	1000					
2629+00		W20-1	Road Work - 1 Mile	1	1	
	1000					
2619+00		W3-4*	Be Prepared to Stop	1	1	
	600					
2613+00			Exit 53 Underpass			
	400					
2609+00		R20-5R (1/2 Mile)	Right Lane Closed - 1/2 Mile	1	1	
		R20-5L (1/2 Mile)	Left Lane Closed - 1/2 Mile			
	700					
2602+00		W3-5 (45)	45 MPH Speed Limit Ahead Icon	1	1	1
	800					
2594+00		W4-2R	Right Lane Drop Icon	1	1	
		W4-2L	Left Lane Drop Icon			
	350					
2590+50			Blackstrap Road Underpass			
	650					
2584+00		Flashing Arrow Bd	Start 800' Temporary Lane Closure	1		
	100					
2583+00			Presumpscot River Bridge			
	700					
2576+00			End 800' Lane Closure	1	1	
		G20-5aP	Work Zone			
		R2-1 (45)	Speed Limit 45			
		R2-6aP	Fines Double			
	200					
2574+00			Exit 52 Underpass			
	800					
2566+00		W24-1aL	Double Lane Shift Icon Left	1	1	
		W24-1aR	Double Lane Shift Icon Right			
2540+00		R2-12**	End Work Zone Speed Limit	1	1	
	500					
2535+00		G20-2**	End Road Work	1	1	

\* Signs erected for scheduled stopped traffic or anticipated backups only  
 \*\* Signs are in the same location for all traffic control setups

NOTE:  
 SIGNS FOR ALL PHASES ARE INCLUDED AT EACH LOCATION.  
 CONFLICTING OR UNUSED SIGNS AT ANY GIVEN TIME SHALL  
 BE COVERED.

Filename: 018\_TrafficPhasingStations.dgn



Designed by:



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



THE GOLD STAR  
 MEMORIAL HIGHWAY

BRIDGE REPAIRS - FOREST AVENUE AND  
 RIVERSIDE STREET

TRAFFIC PHASING STATIONS

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
No.	Revision	By	Date	By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

CONTRACT: 2014.14

SHEET NUMBER: 18

18 OF 40

Date: 3/14/2014

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			
R1-1	48"	48"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			1	SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			16.00 (16)	
R1-2	60"x60"x60"						1				12.50 (12.5)	
R2-1 (45)	48"	60"					10				20.00 (200)	
R2-6aP	48"	24"					10				8.00 (80)	
R2-12	36"	54"					10				13.50 (135)	
R4-9	36"	48"					4				12.00 (48.00)	
G20-5aP	48"	24"					10				8.00 (80.00)	
E5-1	48"	36"					1				12.00 (12.00)	
E5-2	48"	36"					1				12.00 (12.00)	
W3-1	48"	48"					1				16.00 (16)	
W3-2	48"	48"					1				16.00 (16)	
W4-5P	24"	30"					1				5.00 (5)	
W8-1	48"	48"					8				16.00 (128.00)	

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			
W8-15	48"	48"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			8	SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			16.00 (128)	
W8-15P	30"	24"					8				5.00 (40)	
W20-1 (AHEAD) (1 MILE)	48"	48"					3 10				16.00 (48) 16.00 (160)	
W20-5L (AHEAD) (1/2 MILE)	48"	48"					2 10				16.00 (32) 16.00 (160)	
W20-5R (AHEAD) (1/2 MILE)	48"	48"					2 10				16.00 (32) 16.00 (160)	
W21-5aL	48"	48"					2				16.00 (32)	
W21-5aR	48"	48"					2				16.00 (32)	
W21-5bL (1000 FT)	48"	48"					2				16.00 (32)	

Filename: 019\_SignSummary1.dgn

Scale:

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll

	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS – FOREST AVENUE AND RIVERSIDE STREET  
 MAINTENANCE OF TRAFFIC SIGN SUMMARY I

SHEET NUMBER: 19  
 CONTRACT: 2014.14  
 19 OF 40

Date: 3/14/2014

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			
W21-5bR (1000 FT)	48"	48"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			2	SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			16.00 (32)	
G20-2	48"	24"					12				8.00 (96)	
W3-4	48"	48"					8				16.00 (128)	
W24-1aR	48"	48"					8				16.00 (128)	
W24-1aL	48"	48"					8				16.00 (128)	
W3-5 (45)	48"	48"					10				16.00 (160)	
W4-2L	48"	48"					10				16.00 (160)	
W4-2R	48"	48"					10				16.00 (160)	

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			
W4-3	48"	48"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			1	SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			16.00 (16)	
W6-1	48"	48"					4				16.00 (64.00)	
W12-1	48"	48"					2				16.00 (32.00)	
W20-4	48"	48"					2				16.00 (32)	
W20-7	48"	48"					2	ORANGE	BLACK		16.00 (32)	

Filename: 020\_SignSummary2.dgn

Scale:			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Robert J. Driscoll					
	By	Date		By	Date
	TMH	03/14	Checked	CAH	03/14
	Drawn	JRD	In Charge of	RAL	03/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

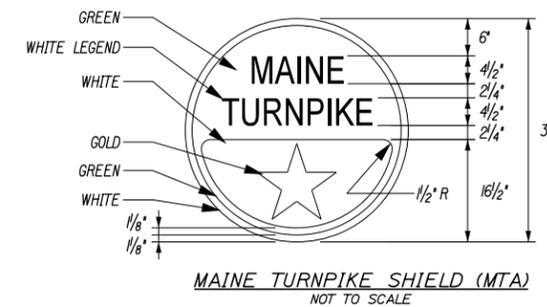
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS – FOREST AVENUE  
 AND RIVERSIDE STREET  
 MAINTENANCE OF TRAFFIC  
 SIGN SUMMARY II

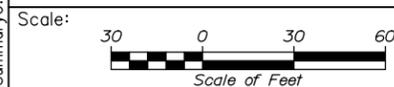
SHEET NUMBER: 20  
 CONTRACT: 2014.14  
 20 OF 40

Date: 3/14/2014

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"		8	ORANGE	BLACK		16.00 (128.00)	
CS-34	48"	36"		8" 8"	7" 6" 7"		4				12.00 (48.00)	
CS-45	96"	48"		8" 8" 8"	6" 6" 6"		7				32.00 (224)	
CS-46	96"	48"		8" 8" 8"	6" 6" 6"		2				32.00 (64)	
CS-48	60"	36"		8" D		9"x36" @ 0"	1				15.00 (15)	
CS-52	96"	18"		8" C	5" 5"		2 8 1 1				12.0 (96) (60) (12) (12)	
CS-58	156"	18"		8" C	5" 5"		1				19.50 (19.5)	
MI-2	24"	24"		TEXT DIMENSIONS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			7	SHALL CONFORM TO "STANDARD HIGHWAY SIGNS" - 2000			4.00 (28.00)	
LOGO S	24"	24"		SEE DETAILS			7	SEE DETAILS			4.00 (28.00)	



Filename: 021\_SignSummary3.dgn



No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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 **THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND RIVERSIDE STREET

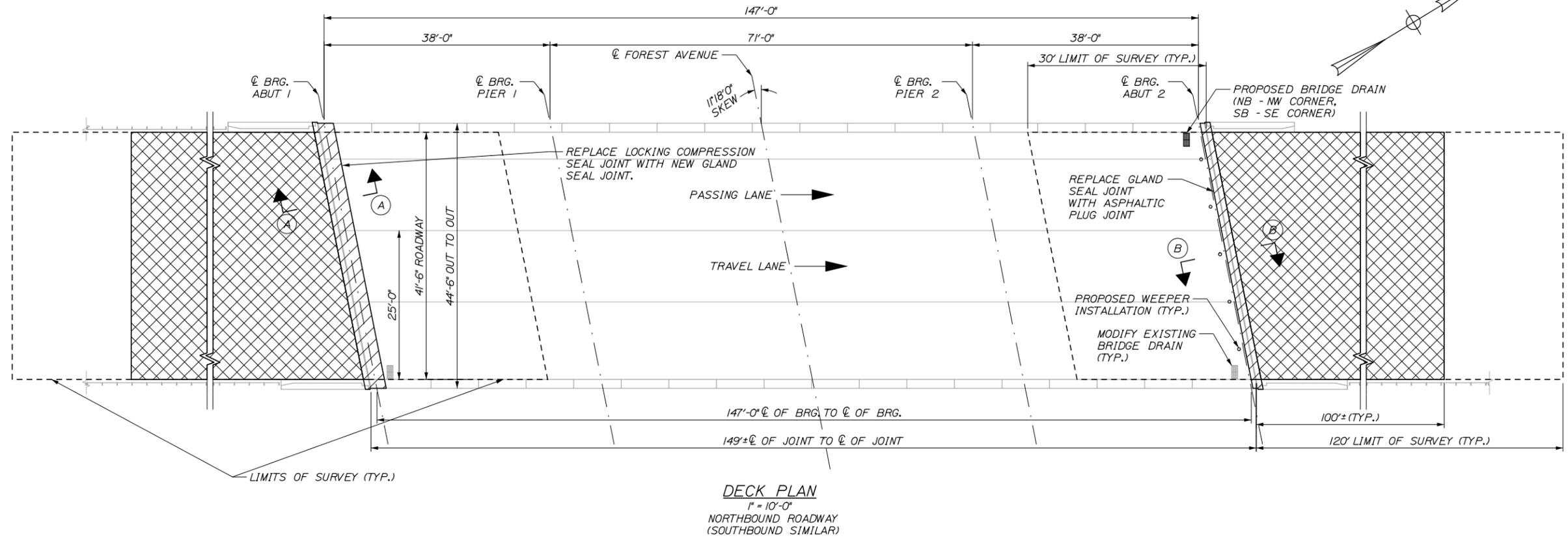
SIGN SUMMARY III

SHEET NUMBER: 21

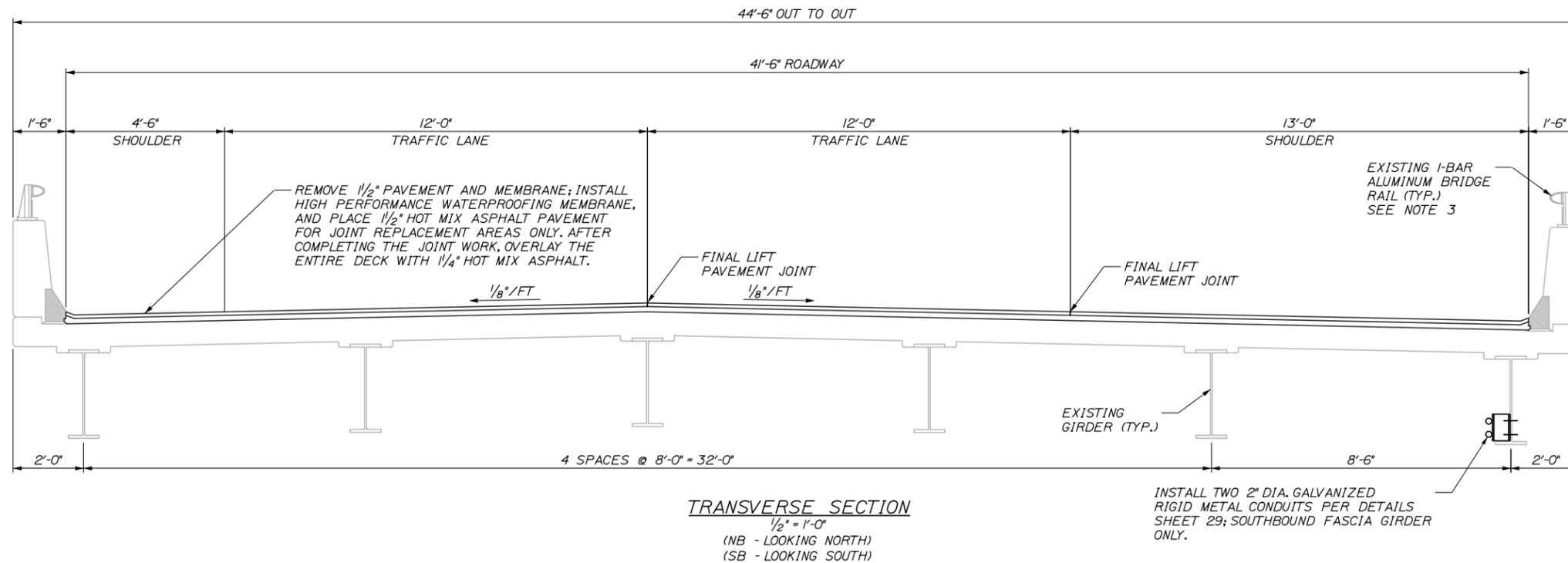
CONTRACT: 2014.14

21 OF 40

Date: 3/14/2014



**DECK PLAN**  
1" = 10'-0"  
NORTHBOUND ROADWAY  
(SOUTHBOUND SIMILAR)



**TRANSVERSE SECTION**  
1/2" = 1'-0"  
(NB - LOOKING NORTH)  
(SB - LOOKING SOUTH)

**LEGEND:**

- APPROXIMATE LIMITS OF JOINT REPLACEMENT
- APPROXIMATE LIMITS OF PERMANENT MILL, SHIM, AND PAVE

**NOTES:**

1. APPROACH AREAS REQUIRING SHIM PAVEMENT TO REACH FINAL PAVEMENT GRADE SHALL NOT BE MILLED.
2. SEAL DECK SHOULDERS WITH TWO APPLICATIONS OF EMULSIFIED BITUMINOUS SEALER PER MDOT STANDARD SPECIFICATION 403.03 e AFTER COMPLETING ALL DECK PAVING WORK.
3. RETROFIT ALL EXISTING ALUMINUM BRIDGE RAIL SPLICES NOT IN CONFORMANCE WITH THE ALUMINUM BRIDGE RAILING - SPLICE MODIFICATION DETAIL ON SHEET 29. PAYMENT TO BE MADE UNDER 507.095.
4. THE CONTRACTOR SHALL SURVEY DECK AND APPROACH/DEPARTURE ROADWAYS (CURB, SYLL, BWLL, SWLL, CURB) AT 10' O.C. WITHIN THE LIMITS SHOWN ON THE PLANS AND PROVIDE THE INFORMATION FOR THE RESIDENT TO DETERMINE APPROACH/DEPARTURE MILLING AND PAVING LIMITS (TYP. NORTHBOUND AND SOUTHBOUND DECKS).
5. SEE SHEETS 25 TO 27 FOR JOINT DETAILS.

Filename: 022\_Forest\_Northbound\_Plan\_Section.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

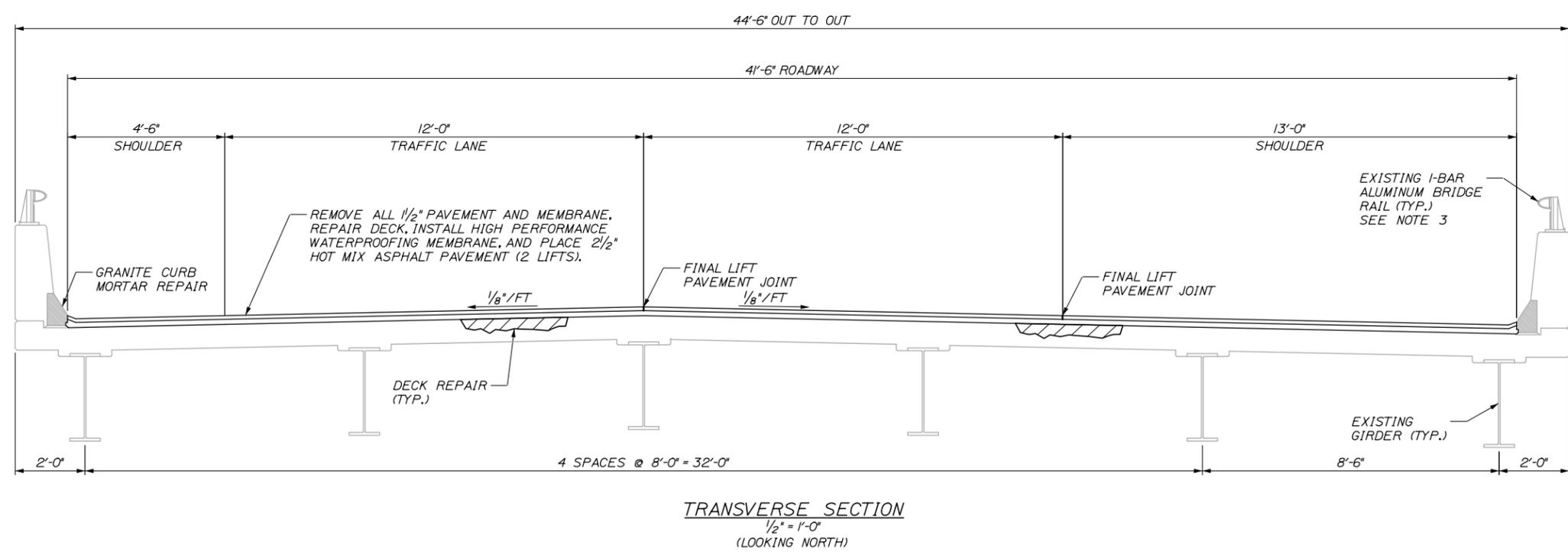
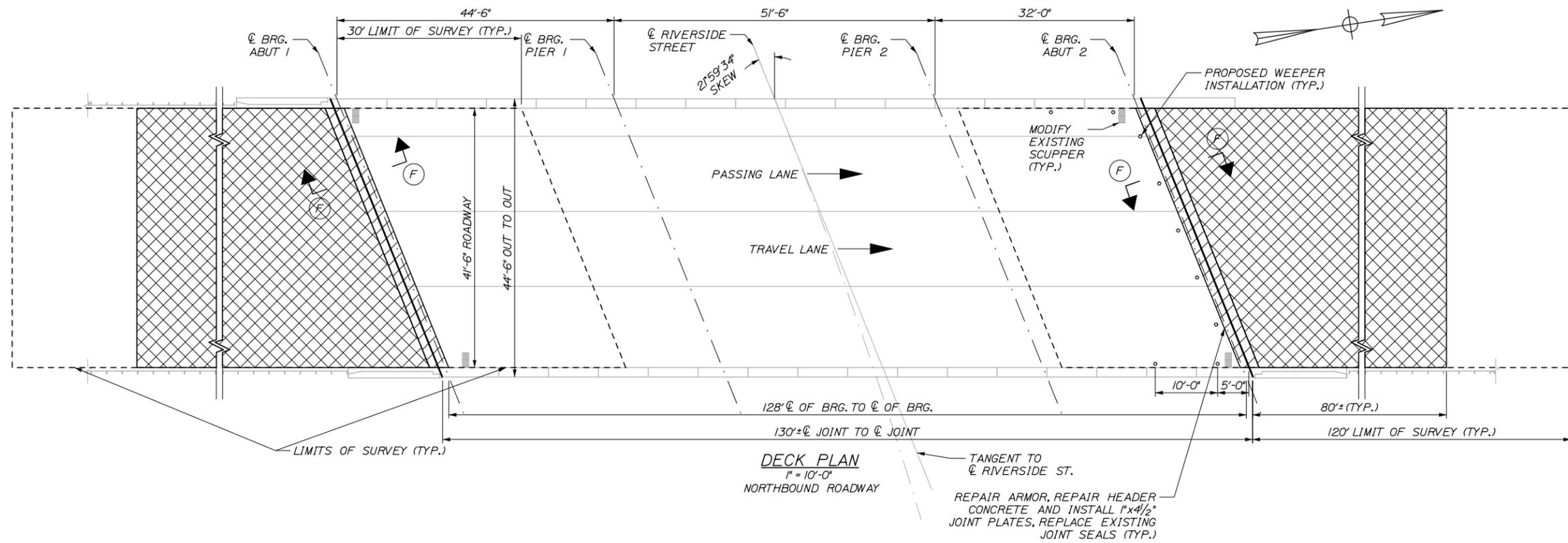
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE  
AND RIVERSIDE STREET

FOREST AVENUE NB AND SB  
DECK PLAN AND TYPICAL SECTION

SHEET NUMBER: 22  
CONTRACT: 2014.14  
22 OF 40

Date: 3/14/2014



- LEGEND:**
- [Hatched Box] APPROXIMATE LIMITS OF JOINT REPLACEMENT
  - [Cross-hatched Box] APPROXIMATE LIMITS OF PERMANENT MILL, SHIM, AND PAVE
- NOTES:**
- APPROACH AREAS REQUIRING SHIM PAVEMENT TO REACH FINAL PAVEMENT GRADE SHALL NOT BE MILLED.
  - SEAL DECK SHOULDERS WITH TWO APPLICATIONS OF EMULSIFIED BITUMINOUS SEALER PER MDOT STANDARD SPECIFICATION 403.03 *e* AFTER COMPLETING ALL DECK PAVING WORK.
  - RETROFIT ALL EXISTING ALUMINUM BRIDGE RAIL SPLICES NOT IN CONFORMANCE WITH THE ALUMINUM BRIDGE RAILING - SPLICE MODIFICATION DETAIL ON SHEET 29. PAYMENT TO BE MADE UNDER 507.095.
  - THE CONTRACTOR SHALL SURVEY DECK AND APPROACH/DEPARTURE ROADWAYS (CURB, SYLL, BWLL, SWLL, CURB) AT 10' O.C. WITHIN THE LIMITS SHOWN ON THE PLANS AND PROVIDE THE INFORMATION FOR THE RESIDENT TO DETERMINE APPROACH/DEPARTURE MILLING AND PAVING LIMITS (TYP. NORTHBOUND AND SOUTHBOUND DECKS).
  - SEE SHEET 28 JOINT DETAILS III FOR SECTION F-F.

Filename: 023\_Riverside\_Northbound\_Plan\_Section.dgn

Scale: AS NOTED			
No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

By	Date	By	Date
Designed	TMH 03/14	Checked	CAH 03/14
Drawn	JRD 03/14	In Charge of	RAL 03/14

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**MAINE TURNPIKE**

**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND RIVERSIDE STREET

RIVERSIDE STREET NORTHBOUND DECK PLAN AND TYPICAL SECTION

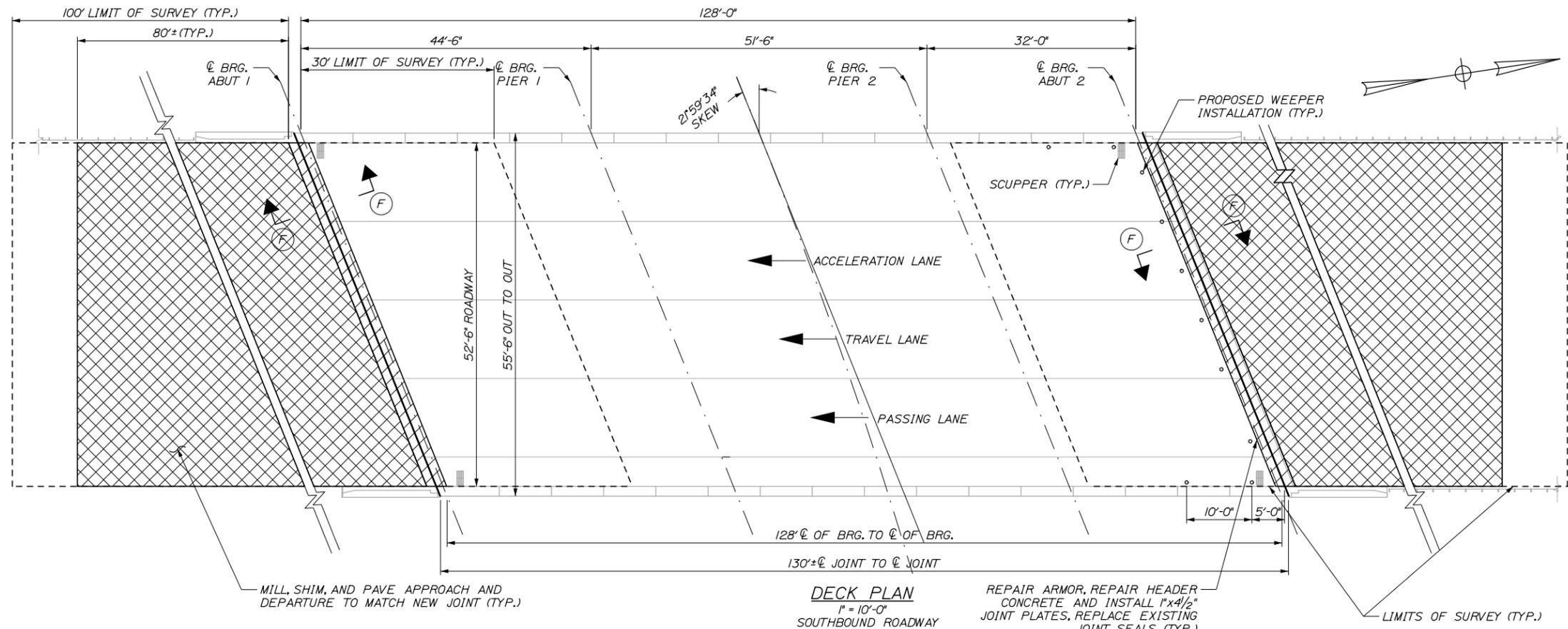
SHEET NUMBER: 23

CONTRACT: 2014.14

23 OF 40

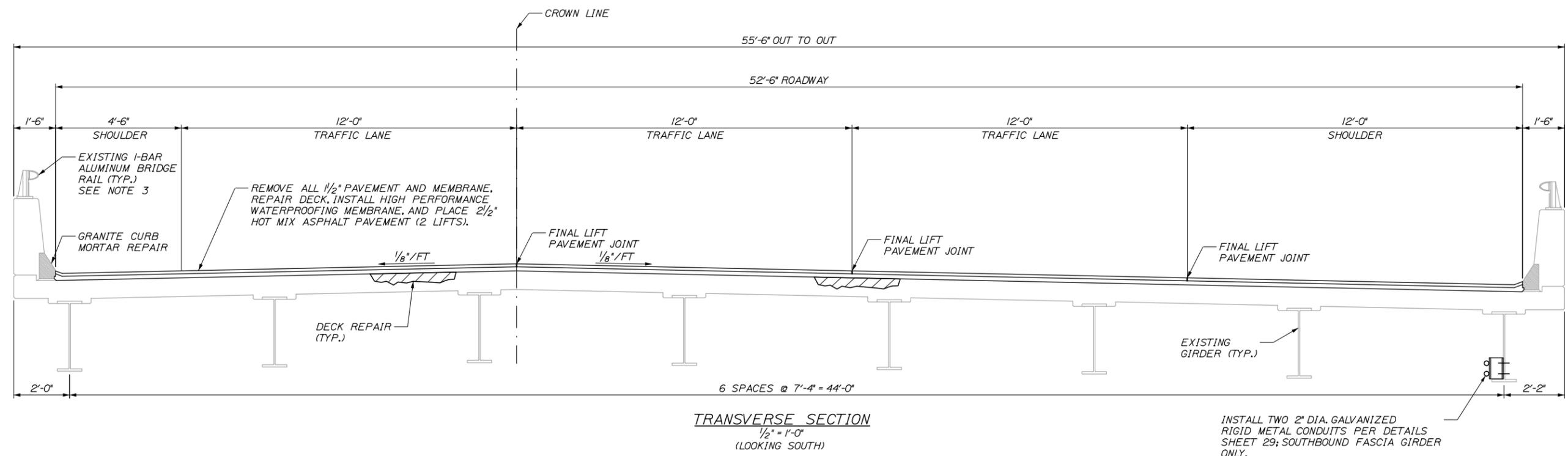
Date: 3/14/2014

Filename: 024\_Riverside\_Southbound\_Plan\_Section.dgn



- LEGEND:**
- APPROXIMATE LIMITS OF JOINT REPLACEMENT
  - APPROXIMATE LIMITS OF PERMANENT MILL, SHIM, AND PAVE

- NOTES:**
1. APPROACH AREAS REQUIRING SHIM PAVEMENT TO REACH FINAL PAVEMENT GRADE SHALL NOT BE MILLED.
  2. SEAL DECK SHOULDERS WITH TWO APPLICATIONS OF EMULSIFIED BITUMINOUS SEALER PER MDOT STANDARD SPECIFICATION 403.03 & AFTER COMPLETING ALL DECK PAVING WORK.
  3. RETROFIT ALL EXISTING ALUMINUM BRIDGE RAIL SPLICES NOT IN CONFORMANCE WITH THE ALUMINUM BRIDGE RAILING - SPLICE MODIFICATION DETAIL ON SHEET 29. PAYMENT TO BE MADE UNDER 507.095.
  4. THE CONTRACTOR SHALL SURVEY DECK AND APPROACH/DEPARTURE ROADWAYS (CURB, SYLL, BWLL, SWLL, CURB) AT 10' O.C. WITHIN THE LIMITS SHOWN ON THE PLANS AND PROVIDE THE INFORMATION FOR THE RESIDENT TO DETERMINE APPROACH/DEPARTURE MILLING AND PAVING LIMITS (TYP. NORTHBOUND AND SOUTHBOUND DECKS).
  5. SEE SHEET 28 JOINT DETAILS III FOR SECTION F-F.



INSTALL TWO 2" DIA. GALVANIZED RIGID METAL CONDUITS PER DETAILS SHEET 29; SOUTHBOUND FASCIA GIRDER ONLY.

Scale: AS NOTED

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.

	By	Date	Checked	By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

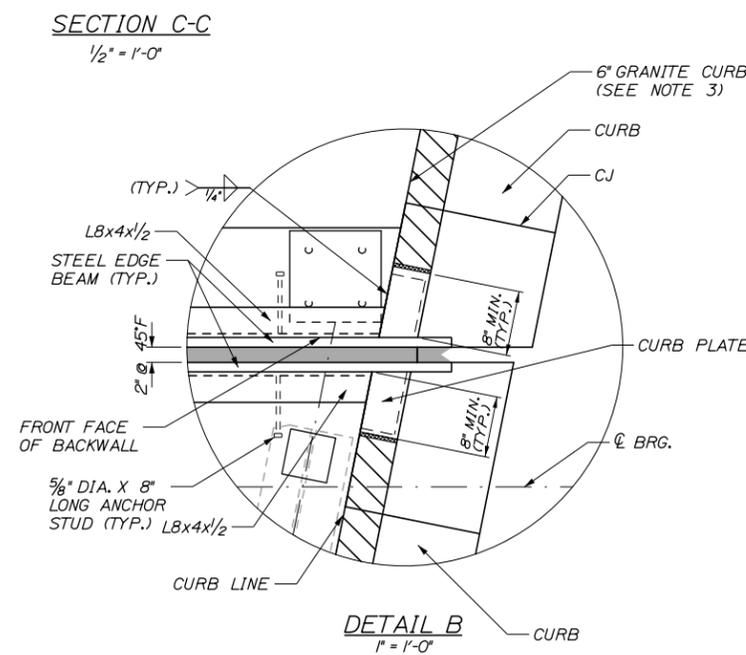
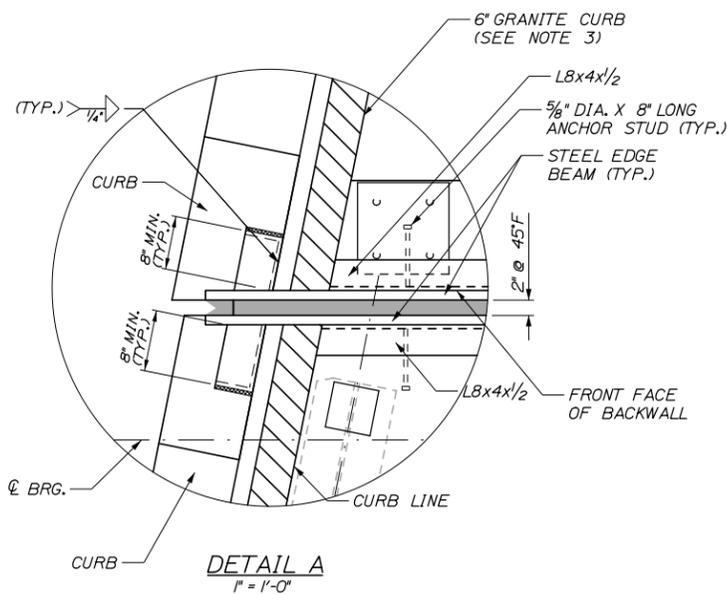
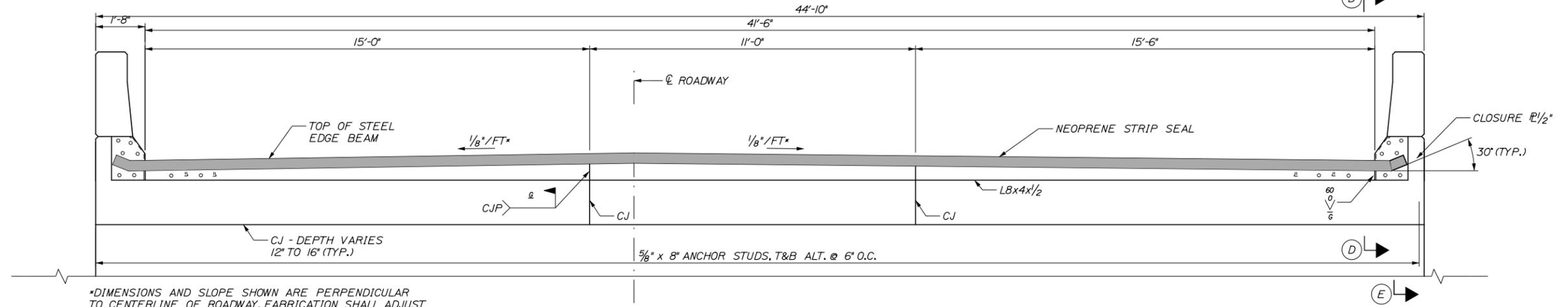
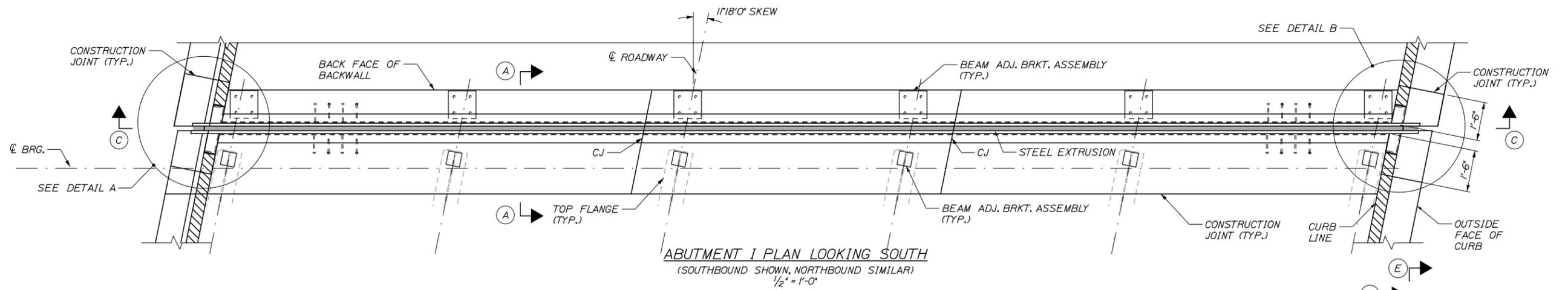
BRIDGE REPAIRS - FOREST AVENUE AND  
RIVERSIDE STREET

RIVERSIDE STREET SOUTHBOUND  
DECK PLAN AND TYPICAL SECTION

SHEET NUMBER: 24  
CONTRACT: 2014.14  
24 OF 40

Date: 3/14/2014

Filename: 025\_Forest\_Joints\_Plan\_Section.dgn



- NOTES:**
1. ABUTMENT I EXPANSION JOINT ASSEMBLY SHOWN.
  2. FOR NOTES AND DETAILS NOT SHOWN SEE SHEETS 26 AND 27.
  3. EXISTING GRANITE CURB TO BE SALVAGED. PAYMENT FOR REMOVING, STORING AND RESETTING THE GRANITE CURB SHALL BE INCIDENTAL TO PAY ITEM 520.2225.
  4. ALUMINUM BRIDGE RAIL NOT SHOWN FOR CLARITY.
  5. EXPANSION JOINT ASSEMBLIES SHALL BE FABRICATED AND HOT DIP GALVANIZED AS A UNIT; AND AFTER GALVANIZING FIELD SPLICES SHALL BE FABRICATED SHOP SAWN. ADEQUATE TEMPORARY ADJUSTMENT ANGLES SHALL BE INSTALLED ON THE EXPANSION JOINT ASSEMBLY DURING FABRICATION TO MAINTAIN THE JOINT GEOMETRY DURING GALVANIZING, SHOP SAWING, SHIPPING AND FIELD INSTALLATION.
  6. PROVIDE TEMPORARY SUPPORT BARS, RODS, ETC., TO HOLD JOINT ARMOR IN SET POSITION WHILE DECK AND BACKWALL CONCRETE IS CAST AND CURED.
  7. PROVIDE HOLES IN JOINT ARMOR TO VENT CONCRETE.

Scale: AS NOTED

No.	Revision	By	Date

Designed by:

**HNTB**

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
	TMH	03/14	Checked	CAH	03/14
	Drawn	JRD	In Charge of	RAL	03/14

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**MAINE TURNPIKE**

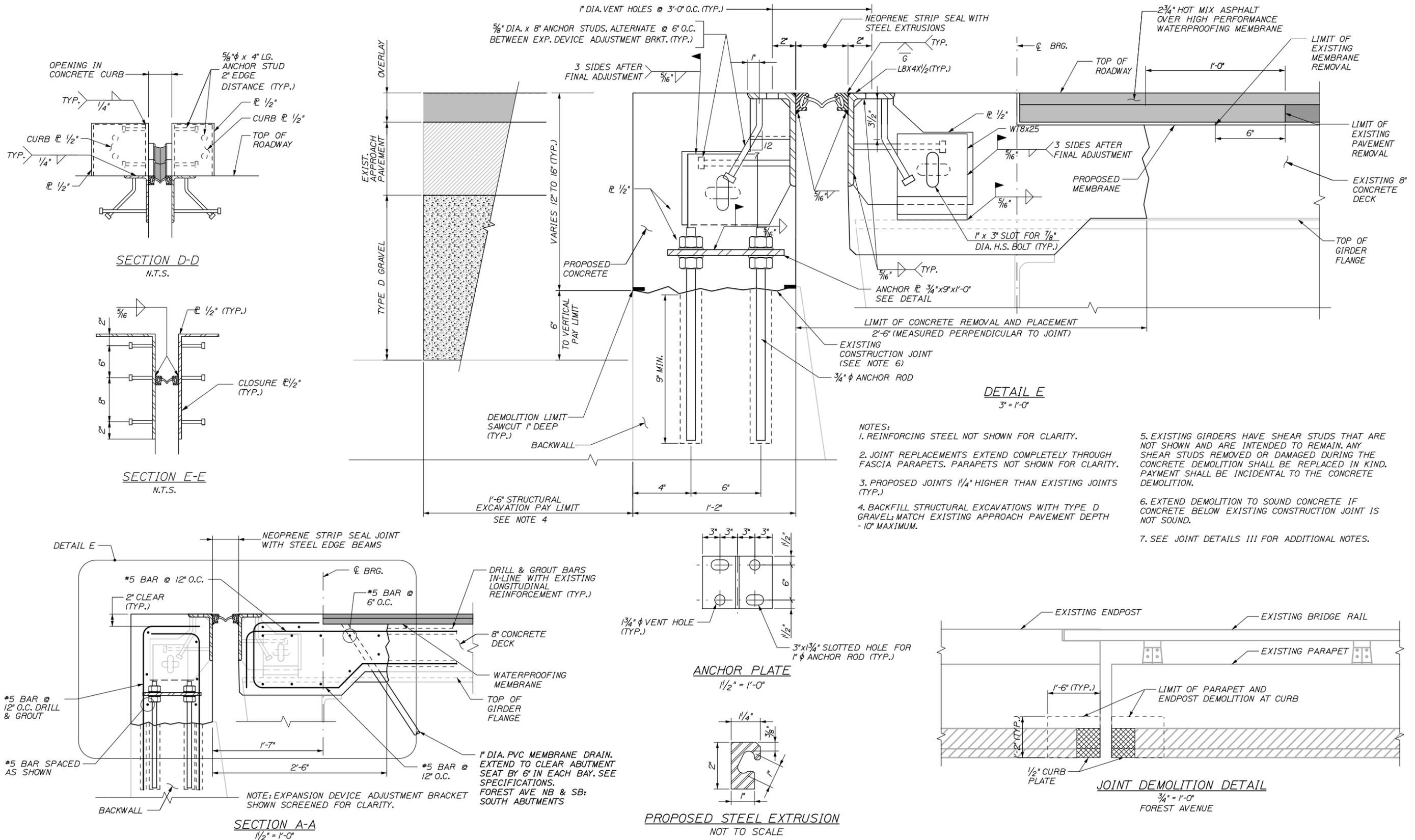
**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND RIVERSIDE STREET  
 FOREST AVENUE NB AND SB  
 JOINT DETAILS I

SHEET NUMBER: 25  
 CONTRACT: 2014.14  
 25 OF 40

Date: 3/14/2014



Filename: 026\_Joint\_Details2.dgn

Scale:			
AS NOTED			
No.	Revision	By	Date

Designed by:			
<b>HNTB</b>			
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.			
	By	Date	
	TMH	03/14	
	Checked	CAH	03/14
	By	Date	
	Drawn	JRD	03/14
	In Charge of	RAL	03/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND  
RIVERSIDE STREET  
FOREST AVENUE NB AND SB  
JOINT DETAILS II

SHEET NUMBER: 26  
CONTRACT: 2014.14  
26 OF 40

Date: 3/14/2014

**EXPANSION JOINT NOTES**

1. EXPANSION JOINT STEEL SHALL BE GALVANIZED AASHTO M270 GRADE 36 (ASTM A709 GRADE 36), EXCEPT AS OTHERWISE ALLOWED. THE ENTIRE ASSEMBLY, INCLUDING ELASTOMERIC SEAL, SHALL BE PAID AS ITEM 520.21, EXPANSION DEVICE GLAND SEAL.

2. THE CONTRACTOR SHALL "POTHOLE" AND SURVEY THE EXISTING TOP OF DECK ELEVATIONS AND ADJACENT DECK CURB ELEVATIONS, AND SUBMIT PROPOSED TOP OF JOINT ELEVATIONS PRIOR TO INSTALLING ANY ELASTOMERIC STRIP SEAL JOINT COMPONENTS. THE PROPOSED JOINTS ARE NOMINALLY 1/4" HIGHER THAN THE EXISTING EXPANSION JOINTS, AND SHALL BE SET AT THE ROADWAY PROFILE. "POTHOLES" SHALL BE PATCHED WITH BAGGED QPR MIX PRIOR TO OPENING THE ROADWAY TO TRAFFIC AFTER COMPLETION OF THE SURVEY.

3. SHOP DRAWINGS FOR THE NEOPRENE ELASTOMERIC STRIP SEAL JOINTS SHALL BE SUBMITTED TO THE RESIDENT FOR APPROVAL.

4. SPLICES FOR EXPANSION JOINT STEEL SHALL DEVELOP FULL STRENGTH. ALL WELDS ARE 5/16" INCH CONTINUOUS FILLETS, EXCEPT AS NOTED.

5. THE EXPANSION JOINT SHALL BE PRESET TO THE ANTICIPATED TEMPERATURE AT THE TIME OF INSTALLATION. FINAL SETTING IN THE FIELD SHALL BE DETERMINED BY THE RESIDENT (SEE TEMPERATURE ADJUSTMENT TABLE).

6. THE ELASTOMERIC STRIP SEAL SHALL BE INSTALLED IN THE FIELD AS ONE CONTINUOUS PIECE AFTER THE JOINT ARMOR IS INSTALLED, AND DECK PAVING IS COMPLETE.

7. JOINT SUPPORT PLATES SHALL BE SHOP WELDED TO THE EXPANSION JOINT STEEL AND SHALL BE VERTICAL AFTER THE JOINT ASSEMBLY HAS BEEN ADJUSTED FOR ROADWAY CROSS-SLOPE AND GRADE.

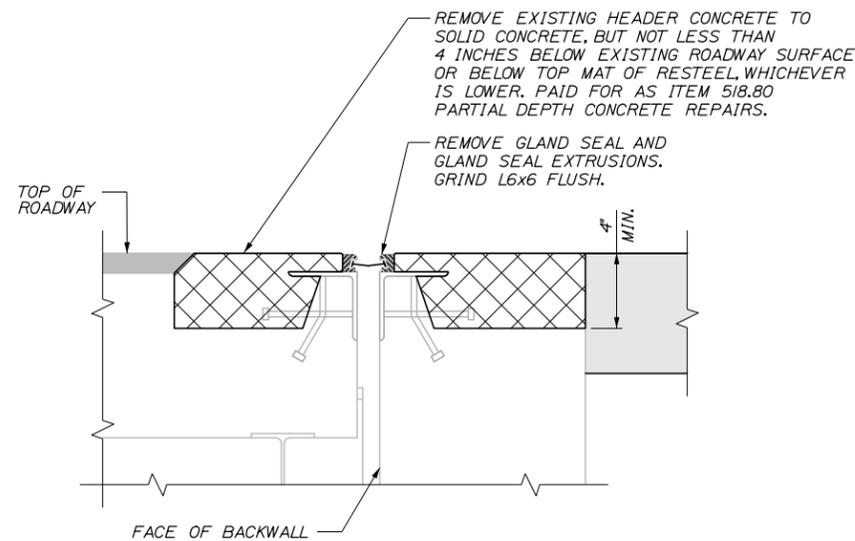
8. IMMEDIATELY AFTER THE JOINT HAS BEEN SECURED TO THE STRUCTURAL STEEL AND BACKWALL, REMOVE THE SHIPPING DEVICES AND GRIND SMOOTH ANY WELDS ON THE EXPOSED SURFACES. REPAIR ANY DAMAGE TO GALVANIZED SURFACES IN ACCORDANCE WITH ASTM A780.

9. PROTECT TOP OF EXPANSION JOINT DURING PLACEMENT OF CONCRETE AND BITUMINOUS PAVEMENT.

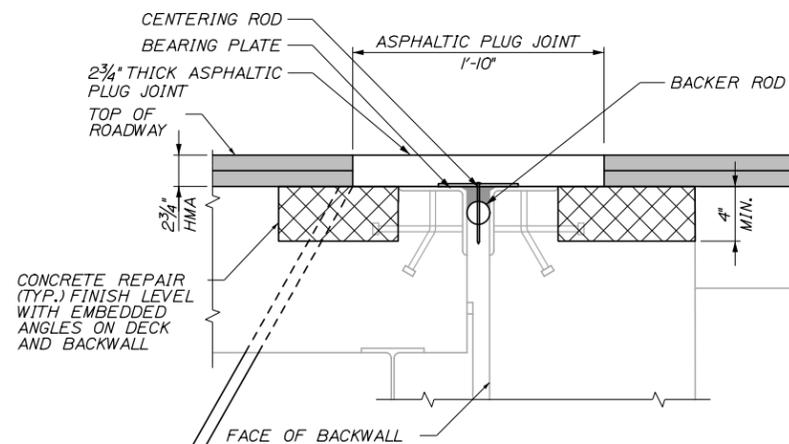
10. THE ELASTOMERIC STRIP SEAL SHALL HAVE A MOVEMENT RATING OF 4 INCHES. STRIP SEALS SHALL BE D.S. BROWN A2R-400 OR WATSON BOWMAN ACME SE-400. NO LOW PROFILE STEEL EXTRUSIONS SHALL BE ALLOWED.

11. JOINT SUPPORT PLATES SHALL BE PLACED AT ALL GIRDERS, AND ADJACENT BACKWALL. ADDITIONAL SUPPORTS SHALL BE FURNISHED AND FIELD INSTALLED BY THE CONTRACTOR TO ENSURE THE ARMOR REMAINS IN PLACE DURING THE CASTING AND CURING OF THE PHASED JOINT SECTIONS. ANY TEMPORARY SUPPORTS EXPOSED AFTER THE JOINT SECTIONS ARE CAST AND CURED SHALL BE REMOVED. EXPOSED WELDS SHALL BE GROUND SMOOTH, AND DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED IN ACCORDANCE WITH ASTM A780.

12. CONTRACTOR SHALL APPLY A BONDING AGENT SELECTED FROM THE MAINE DEPARTMENT OF TRANSPORTATION'S QUALIFIED PRODUCTS LIST OF CONCRETE BONDING AGENTS TO ALL VERTICAL SURFACES OF THE CASTING BEFORE THE CONCRETE IS PLACED.

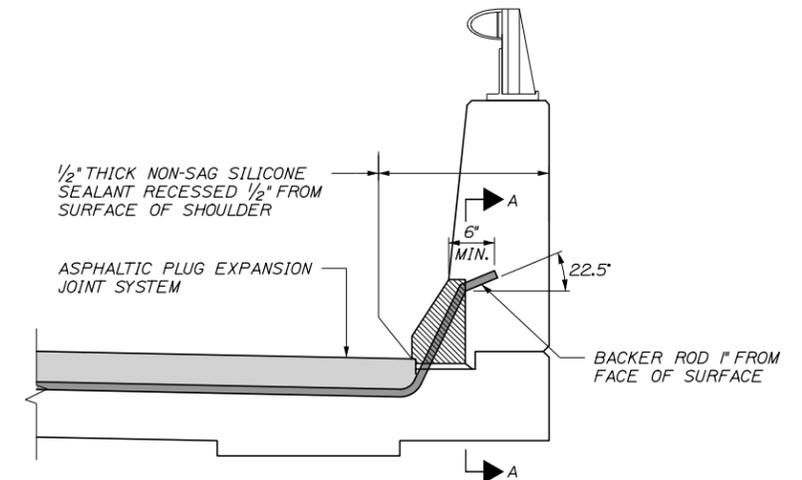


**SECTION B-B**  
**FOREST AVENUE BRIDGE NB & SB**  
**NORTH ABUTMENT DEMOLITION**  
 1/2" = 1'-0"

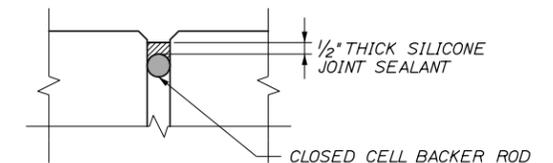


**SECTION B-B**  
**FOREST AVENUE BRIDGE NB & SB**  
**NORTH ABUTMENT PROPOSED WORK**  
 1/2" = 1'-0"

1" DIA. PVC MEMBRANE DRAIN. EXTEND TO CLEAR ABUTMENT SEAT BY 6" IN EACH BAY AS NEEDED. SEE SPECIFICATIONS.



**JOINT TREATMENT AT BRIDGE CURB**



**SECTION A-A**

**ASPHALTIC PLUG JOINT DETAILS - GENERAL NOTES**

1. DECK AND BACKWALL REINFORCING NOT SHOWN FOR CLARITY. NOTIFY RESIDENT IF THERE IS NO REINFORCEMENT IN THE BACKWALL AREA OF DEMOLITION.
2. THE DECK AND BACKWALL AREAS UNDER, AND ADJACENT TO, THE ASPHALTIC PLUG JOINT SHALL BE SOUNDED FOR AREAS OF DETERIORATION AND PATCHED, AS NEEDED. IF SIGNIFICANT AREAS OF DETERIORATION ARE FOUND THE RESIDENT SHALL APPROVE THE REPAIRS PRIOR TO BEGINNING THE WORK.
3. THE AREA UNDER THE ASPHALTIC PLUG JOINT SHALL BE SMOOTH AND PARALLEL TO THE PROPOSED ROADWAY SURFACE TO PERMIT THE ASPHALTIC PLUG JOINT TO BE INSTALLED AT A CONSISTENT THICKNESS. ADVISE THE RESIDENT IF THE EXISTING OR PATCHED DECK AND BACKWALL SURFACES ARE NOT SMOOTH AND PARALLEL TO THE PROPOSED ROADWAY SURFACE.
4. 16D GALVANIZED CENTERING NAILS SHALL BE SPACED AT 12" O.C. MAXIMUM AND PLACED 2" FROM JOINTS IN THE BEARING PLATE.
5. THE BEARING PLATE SHALL BE GALVANIZED STEEL 1/4" THICK AND 12" WIDE.
6. ASPHALTIC PLUG JOINT SHALL BE ONE OF THE ASPHALTIC PLUG JOINT SYSTEMS LISTED IN THE PROJECT SPECIFICATIONS AND SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. EQUIVALENT JOINT SYSTEMS MAY BE USED WITH APPROVAL OF THE ENGINEER.
7. BACKER ROD SHALL BE CLOSED CELL FOAM IN ACCORDANCE WITH THE PROJECT SPECIFICATION. BACKER ROD SHALL BE SIZED AS REQUIRED TO FILL OPENING.
8. FINISH THE SURFACE OF PARTIAL DEPTH CONCRETE REPAIRS ON THE BACK WALLS TO PROVIDE A SOLID "LEVEL" BASE FOR THE ASPHALTIC PLUG JOINT AND BITUMINOUS PAVEMENT AFTER REMOVAL OF THE DETERIORATED CONCRETE.
9. ADVISE RESIDENT IF L6x6 IS DETERIORATED OR IS NOT SECURE TO DECK AND BACKWALL.

Filename: 027\_Joint\_Details.3.dgn

Scale:				Designed by:			
AS NOTED							
No.	Revision	By	Date				
				CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.			
				By	Date	By	Date
				Designed	TMH 03/14	Checked	CAH 03/14
				Drawn	JRD 03/14	In Charge of	RAL 03/14

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.			
By	Date	By	Date
Designed	TMH 03/14	Checked	CAH 03/14
Drawn	JRD 03/14	In Charge of	RAL 03/14

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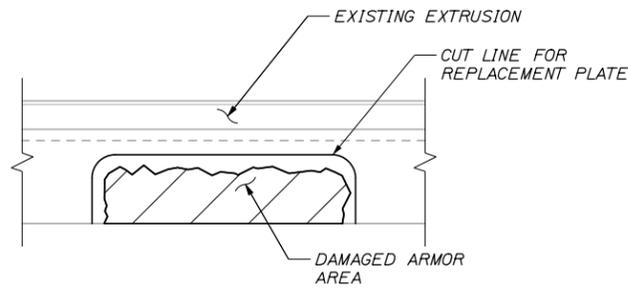
**THE GOLD STAR MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

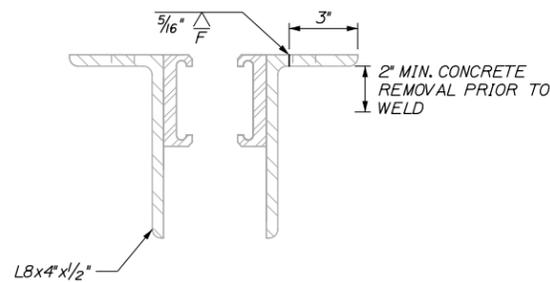
BRIDGE REPAIRS - FOREST AVENUE AND RIVERSIDE STREET  
 JOINT DETAILS III

SHEET NUMBER: 27  
 CONTRACT: 2014.14  
 27 OF 40

Date: 3/14/2014

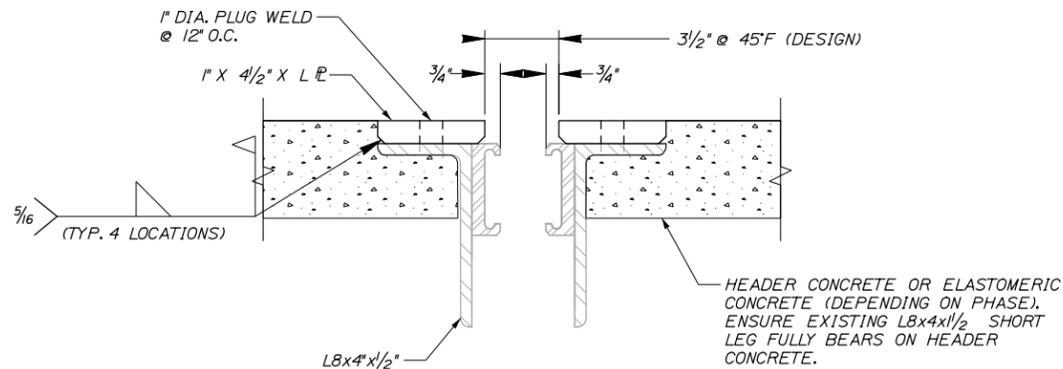


PLAN VIEW

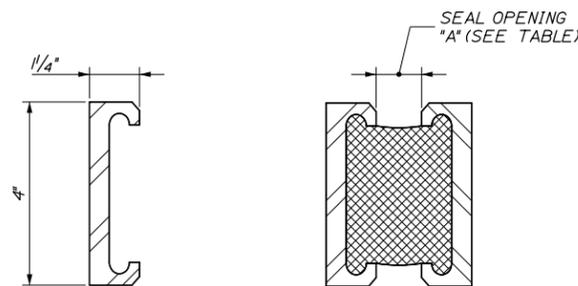


DETAIL E

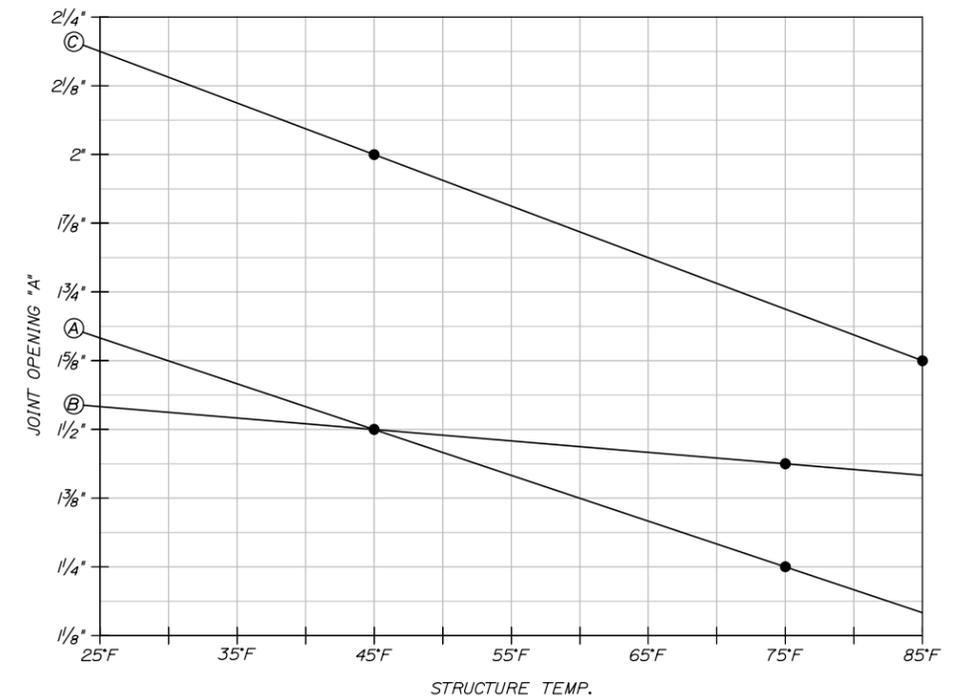
EXISTING ARMOR REPAIR  
N.T.S.



DETAIL C  
N.T.S.

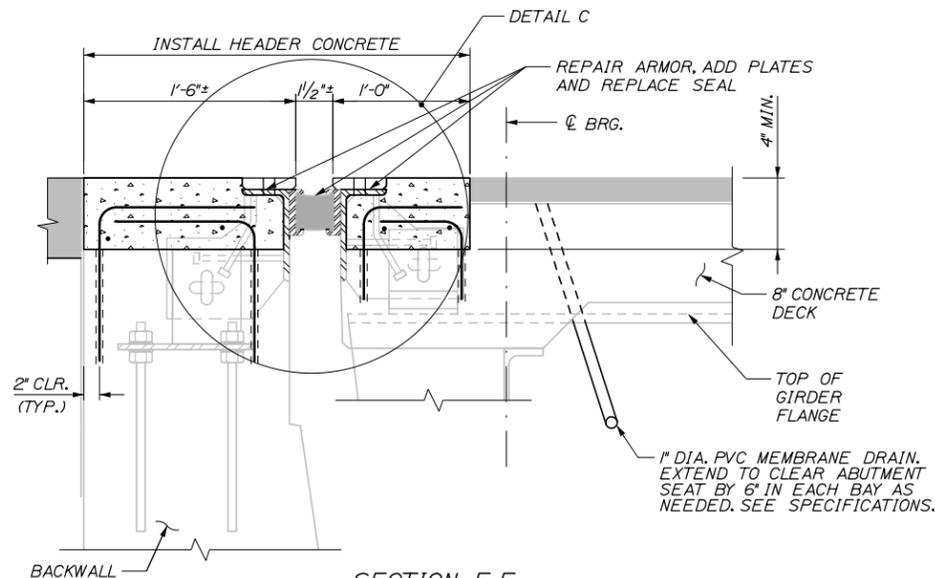


DETAIL D - NEOPRENE COMPRESSION SEAL WITH NEW OR EXISTING STEEL EDGE BEAMS  
N.T.S.



EXISTING SEAL OPENING TABLE

- (A) RIVERSIDE STREET SOUTH ABUTMENT
- (B) RIVERSIDE STREET NORTH ABUTMENT
- (C) FOREST AVENUE SOUTH ABUTMENTS



SECTION F-F

1/2" ± 1'-0"  
RIVERSIDE BRIDGE NB & SB  
NORTH AND SOUTH ABUTMENT

**LOCKING COMPRESSION SEAL JOINT DETAILS - GENERAL NOTES**

1. THE NEOPRENE LOCKING COMPRESSION SEALS SHALL BE "WABO D SERIES" AS MANUFACTURED BY WBACORP.
2. SHOP DRAWINGS FOR THE LOCKING COMPRESSION SEALS SHALL BE SUBMITTED TO THE RESIDENT FOR APPROVAL.
3. PER THE 1997 DESIGN DRAWINGS THE JOINT OPENINGS WERE SPECIFIED TO BE SET AT 1 1/2 INCHES @ 45°F. THE EXISTING SEAL OPENING TABLE SHOWS THE ANTICIPATED JOINT OPENING BASED ON THE STRUCTURE TEMPERATURE. THE ACTUAL OPENINGS MAY VARY.
4. THE SEAL SHALL BE INSTALLED IN THE FIELD AS ONE CONTINUOUS PIECE AFTER THE JOINT ARMOR REPAIRS AND MODIFICATIONS, AND DECK REPAVING IS COMPLETE.

Filename: 028\_Joint\_Details4.dgn

Scale:			
AS NOTED			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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**THE GOLD STAR  
MEMORIAL HIGHWAY**

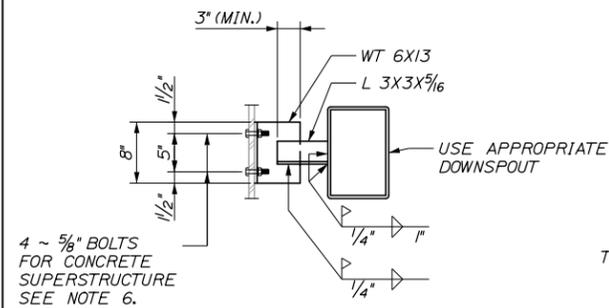
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE AND  
RIVERSIDE STREET

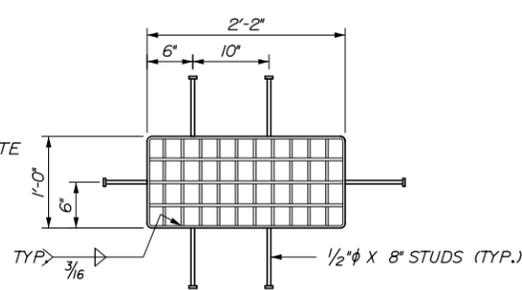
JOINT DETAILS IV

SHEET NUMBER: 28  
CONTRACT: 2014.14  
28 OF 40

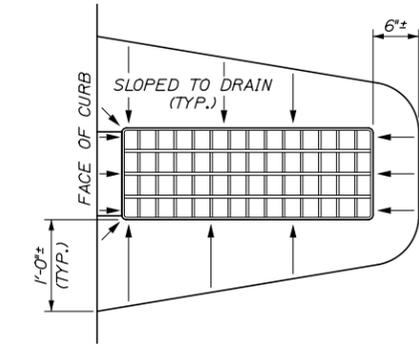
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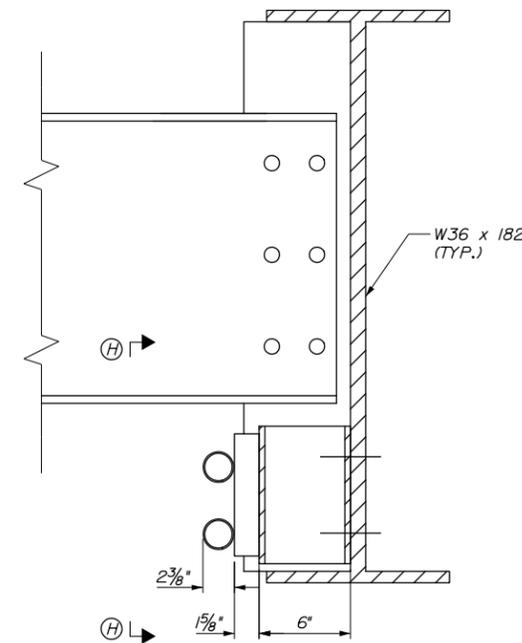
**SECTION J-J**  
1" = 1'-0"



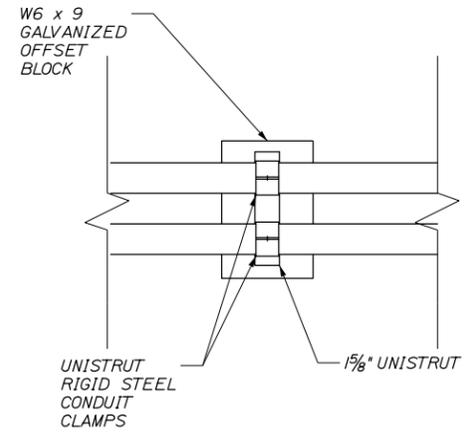
**PLAN**  
1" = 1'-0"



**PAVEMENT DEPRESSION AROUND BRIDGE DRAINS**  
1" = 1'-0"



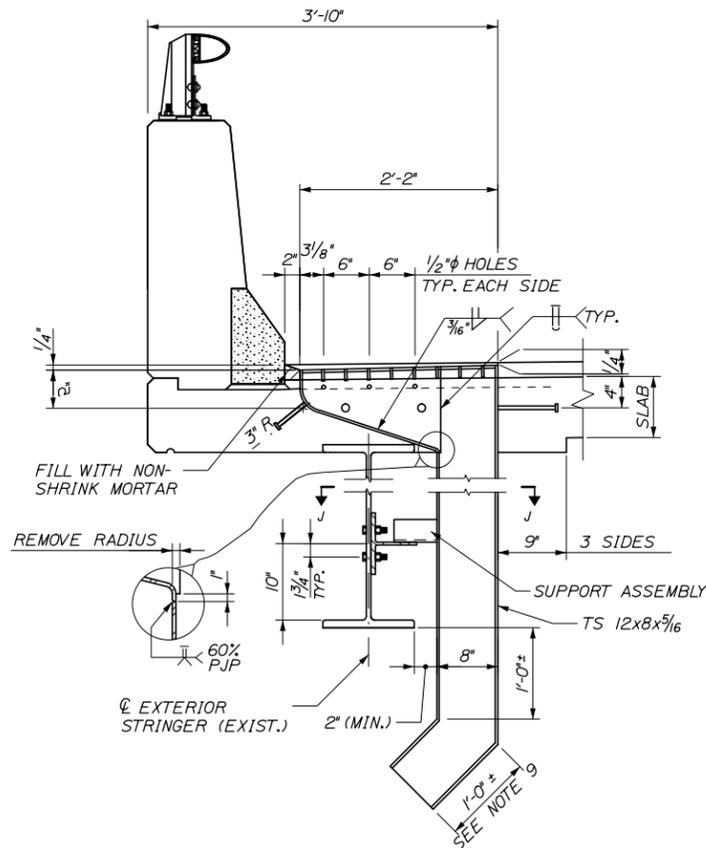
**CONDUIT ELEVATION**  
N.T.S.  
SOUTHBOUND WEST FASCIA GIRDER (LOOKING SOUTH)



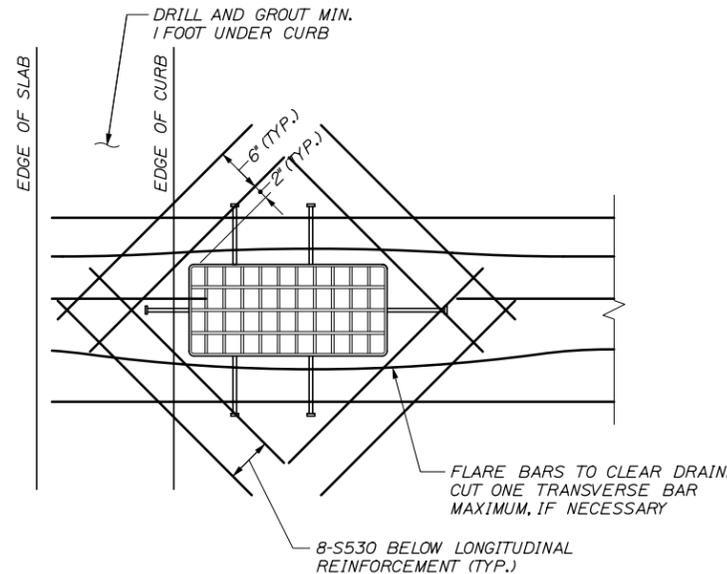
**SECTION H-H**  
N.T.S.

- CONDUIT NOTES:**
1. INSTALL CONDUIT SUPPORTS AT MAXIMUM 10'-0" O.C., THEY SHOULD BE PLACED A MINIMUM OF 6" FROM THE EDGE OF CONNECTION PLATES OR DIAPHRAGMS.
  2. USE 1/2" DIA. A-325 BOLTS TO ATTACH OFFSET BLOCKS TO BEAM WEB - 2 PER BLOCK.
  3. ALL COMPONENTS AND FASTENERS SHALL BE HOT DIP GALVANIZED.
  4. CONDUITS SHALL TERMINATE AT THE ABUTMENTS INTO A 10' x 12' x 5" JUNCTION BOX AT THE END OF THE BEAM BEYOND THE LAST STIFFENER, ALLOW CLEARANCE FOR BRIDGE EXPANSION.

4 ~ 5/8" BOLTS FOR CONCRETE SUPERSTRUCTURE SEE NOTE 6.



**BRIDGE DRAIN**  
1" = 1'-0"



**ADDITIONAL REINFORCING STEEL AROUND BRIDGE DRAINS**  
1" = 1'-0"

**BRIDGE DRAIN NOTES:**

1. ALL PLATES SHALL BE 5/16" THICK AND SHALL CONFORM TO ASTM A 36.
2. THE DOWNSPOUT SHALL CONFORM TO ASTM A500.
3. GRATING SHALL BE A COMMERCIAL HEAVY - DUTY GRATING WITH 1 1/2" x 5/16" BEARING BARS AND 3/8" φ CROSS BARS.
4. IF THE MINIMUM THICKNESS OF CONCRETE BELOW THE DRAIN IS 2" OR LESS, THE CONCRETE HAUNCH SHALL BE EXTENDED AS SHOWN.
5. SHEAR CONNECTORS WELDED TO TOP FLANGE OF BEAM MAY NEED TO BE BENT OUT OF THE WAY SHOULD AN INTERFERENCE WITH THE BRIDGE DRAIN OCCUR.
6. DRAINS AND SUPPORT ASSEMBLY SHALL BE BLAST CLEANED TO THE REQUIREMENTS OF SSPC-SP6/NACE 3 AND HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 123.
7. PAYMENT FOR BRIDGE DRAINS SHALL BE TO ITEM 502.70.
8. THE ADDITIONAL REINFORCING STEEL AROUND EACH BRIDGE DRAIN WILL NOT BE PAID FOR DIRECTLY. PAYMENT WILL BE CONSIDERED INCIDENTAL TO RELATED CONTRACT ITEMS.
9. PRIOR TO STARTING THE WORK THE CONTRACTOR SHALL FIELD MEASURE EACH DRAIN EXTENSION AND ANGLE FOR ACCURATE CONNECTION INTO THE EXISTING DRAINAGE SYSTEM ALONG THE ABUTMENT.
10. CONNECTION FROM THE NEW BRIDGE DRAIN INTO THE EXISTING DRAINAGE SYSTEM SHALL BE ACCOMPLISHED BY THE USE OF SADDLE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 502.70.

Filename: 029\_BridgeDrain.dgn

Scale:			
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<b>HNTB</b>						
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.						
	By	Date		By	Date	
	TMH	03/14		CAH	03/14	
	Drawn	JRD	03/14	In Charge of	RAL	03/14

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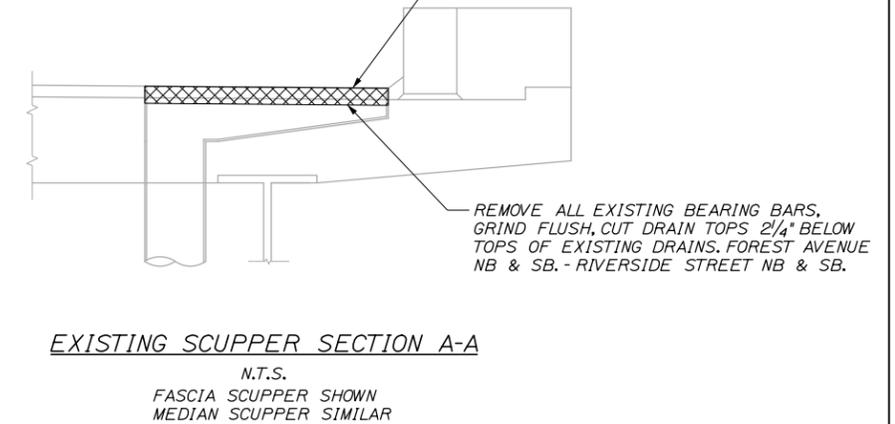
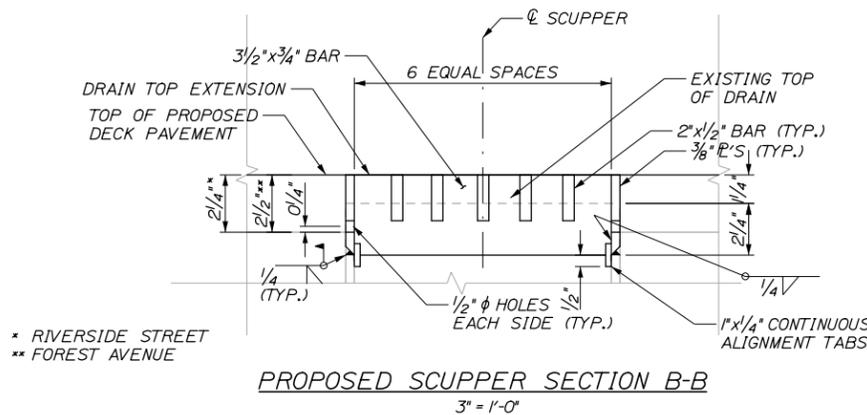
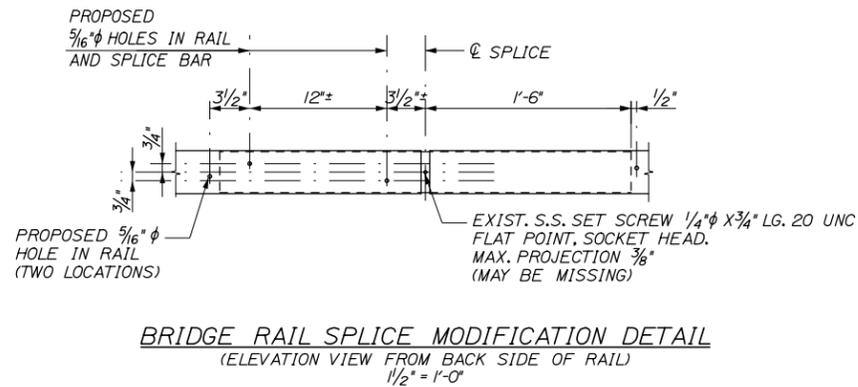
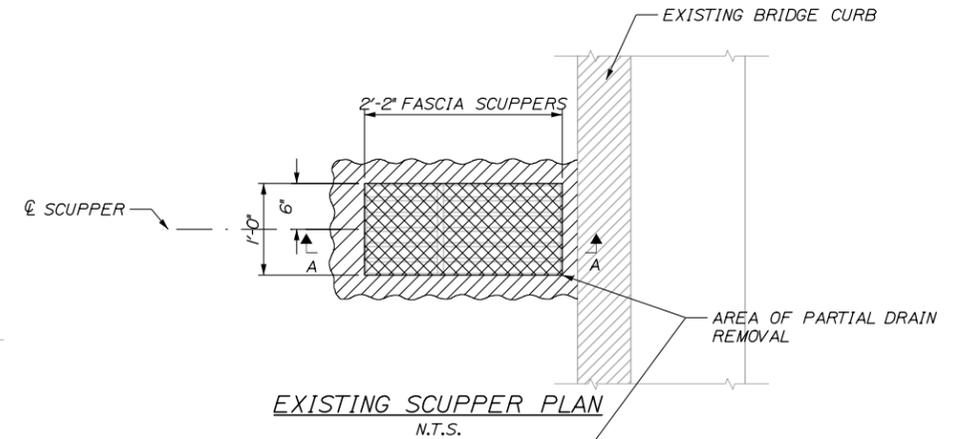
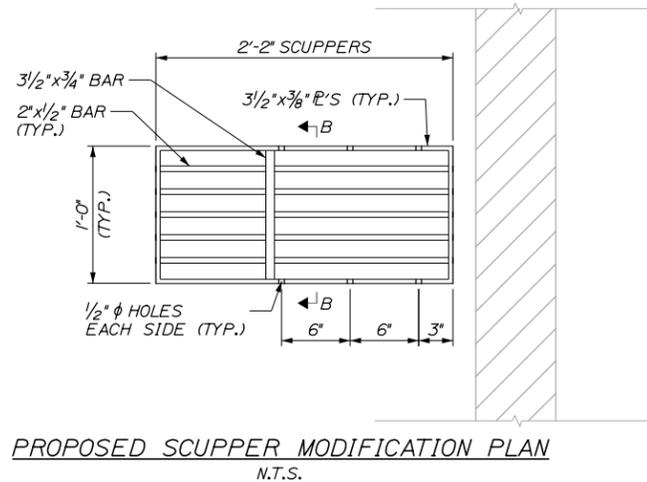
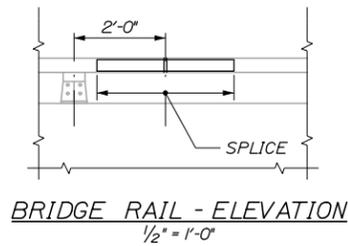
**THE GOLD STAR  
MEMORIAL HIGHWAY**

MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE  
AND RIVERSIDE STREET  
BRIDGE DRAIN AND CONDUIT  
DETAILS

SHEET NUMBER: 29  
CONTRACT: 2014.14  
29 OF 40

Date: 3/14/2014

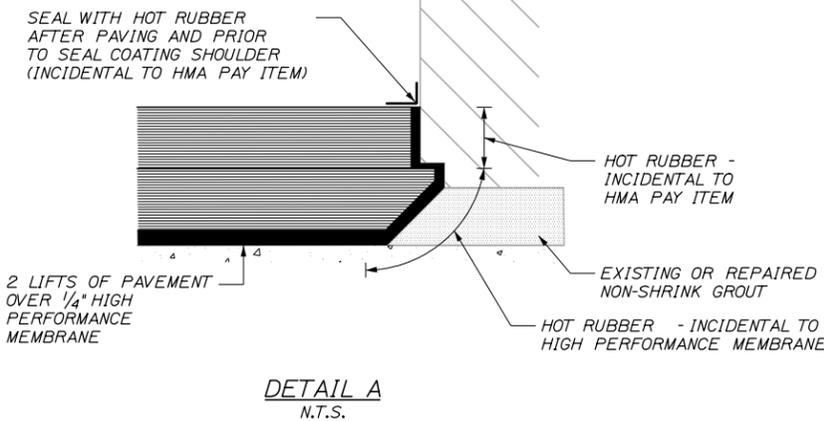
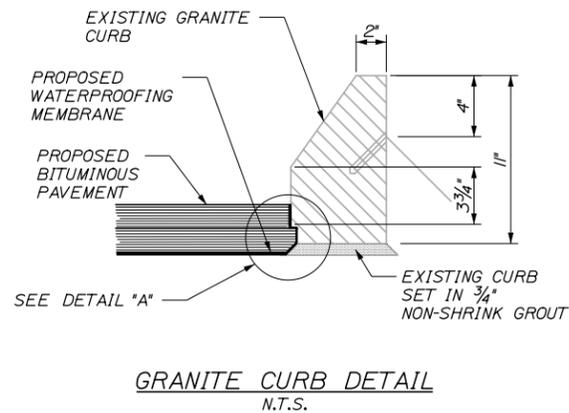


**NOTE:**  
RE-CENTER EXISTING SPLICE BAR AND DRILL TWO 5/16" diameter HOLES AND INSTALL TWO 3/8" x 1" TYPE F, HEX. WASHER HEAD TAPPING SCREWS (STAINLESS). DRILL TWO ADDITIONAL 5/16" diameter HOLES IN RAIL FOR SPLICE LOCATION VERIFICATION.

\* RIVERSIDE STREET  
\*\* FOREST AVENUE

**BRIDGE DRAIN GRATE MODIFICATION NOTES:**

1. PRIOR TO STARTING THE WORK THE CONTRACTOR SHALL FIELD MEASURE EACH DRAIN. THIS INFORMATION SHALL BE USED FOR THE FABRICATION OF THE DRAIN GRATE EXTENSIONS.
2. CONTRACTOR SHALL CLEANLY CUT BELOW EXISTING TOP OF DRAIN AS NOTED. THE DECK CONCRETE AROUND THE FULL PERIMETER OF THE DRAIN SHALL BE MECHANICALLY REMOVED TO A MINIMUM DEPTH OF 1/2" BY A MINIMUM WIDTH OF 3".
3. ALL PLATES SHALL CONFORM TO ASTM A 36. DRAIN GRATE EXTENSIONS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
4. ALIGNMENT TABS ARE OPTIONAL AFFIX AND GALVANIZE WITH DRAIN GRATE EXTENSIONS, IF USED. SET DRAIN TOP 1/4" BELOW PROPOSED PAVEMENT ELEVATION.
5. PREPARE EXISTING DRAIN BODY AND NEW DRAIN TOP GRATE EXTENSION FOR FIELD WELD. FIELD WELD THE EXTERIOR PERIMETER JOINT BETWEEN EXISTING DRAIN BODY AND NEW TOP OF DRAIN. AFTER WELDING, THE INTERIOR AND EXTERIOR OF THE NEW TOP OF DRAIN SHALL BE COATED WITH AN APPROVED COLD GALVANIZING COMPOUND.
6. AREAS OF CONCRETE REMOVAL SHALL BE PATCHED USING A SHALLOW CONCRETE PATCHING MATERIAL SELECTED FROM THE MTA APPROVED PRODUCTS LIST. CONCRETE PATCH SHALL BE PLACED, FINISHED AND CURED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
7. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS ASSOCIATED WITH THE BRIDGE DRAIN MODIFICATION WILL BE PAID FOR UNDER ITEM 502.701, BRIDGE DRAIN GRATE MODIFICATION. SEE SPECIAL PROVISION 502.



Filename: 030\_Misc\_Bridge\_Details.dgn

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**THE GOLD STAR  
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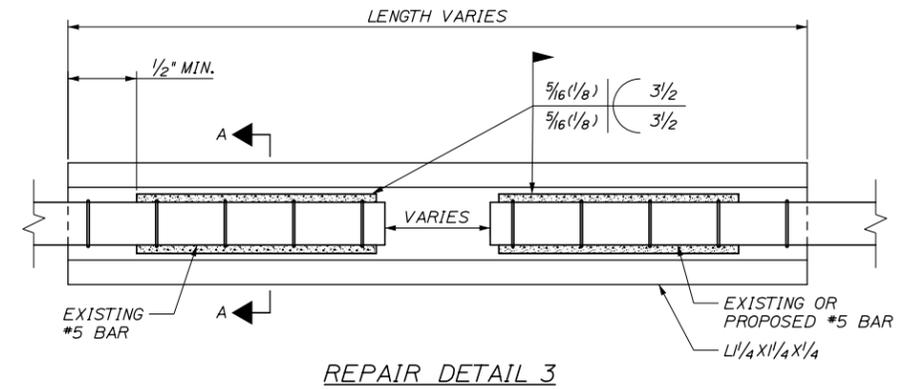
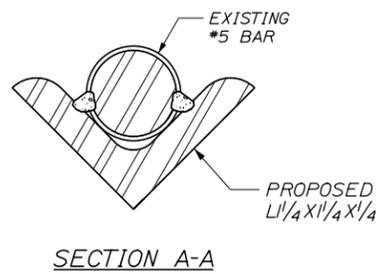
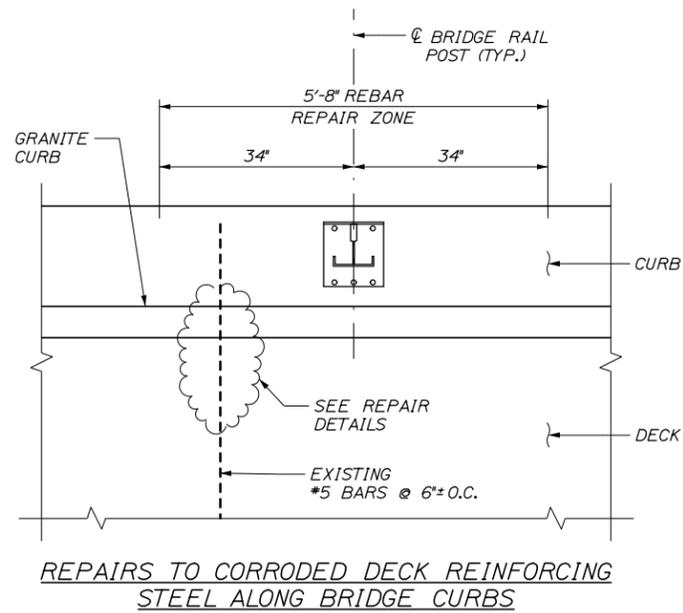
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE  
AND RIVERSIDE STREET

MISCELLANEOUS BRIDGE DETAILS I

SHEET NUMBER: 30  
CONTRACT: 2014.14  
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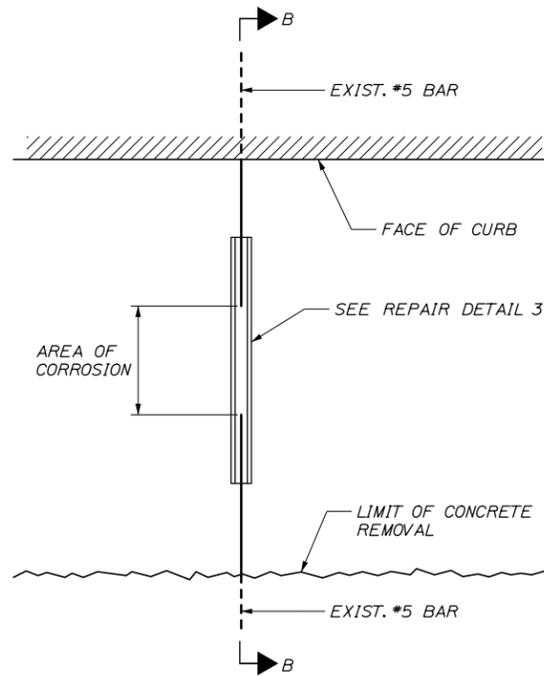
Date: 3/14/2014



REPAIRS TO CORRODED DECK REINFORCING STEEL ALONG BRIDGE CURBS

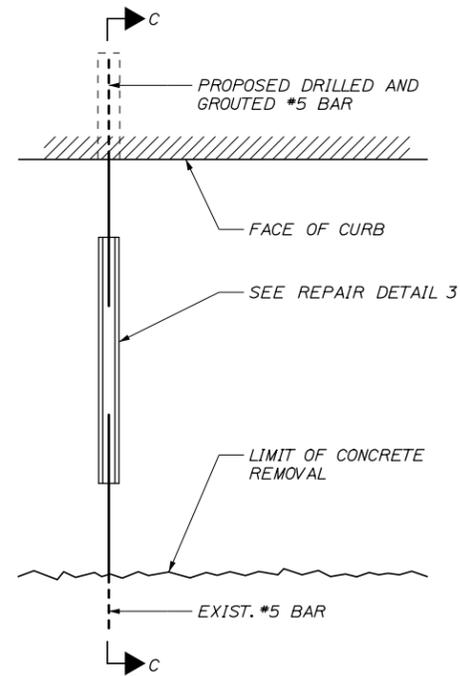
SECTION A-A

REPAIR DETAIL 3



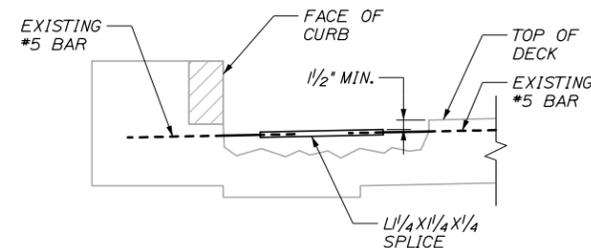
REPAIR DETAIL 1

(BAR UNDER BRIDGE CURB < 20% SECTION LOSS)

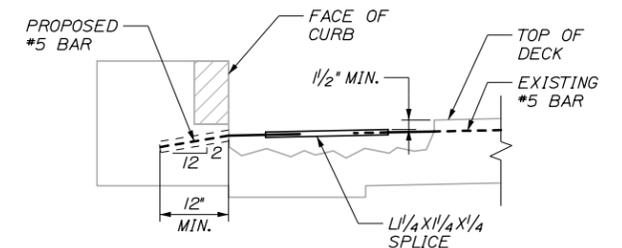


REPAIR DETAIL 2

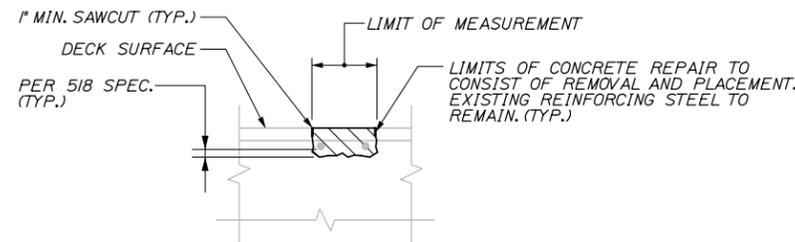
(BAR UNDER BRIDGE CURB > 20% SECTION LOSS)



SECTION B-B



SECTION C-C



PARTIAL DEPTH CONCRETE DECK REPAIR DETAIL

1" = 1'-0"

- NOTES:**
1. ALL REINFORCING BARS LOCATED WITHIN THE DESIGNATED REPAIR AREAS WHICH EXHIBIT MORE THAN 20% SECTION LOSS SHALL BE REPAIRED PER THE DETAILS THIS SHEET.
  2. ALL REINFORCING BARS RECEIVING WELD MATERIAL SHALL BE THOROUGHLY CLEANED OF DEBRIS, SLAG, AND CORROSION PRODUCTS BEFORE WELDING. CLEANING SHALL BE BY SANDBLASTING TO SSPC-SP10.
  3. THE ENDS OF EXISTING REINFORCING BARS TO BE WELDED WILL EXHIBIT NO MORE THAN 20% SECTION LOSS.
  4. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.4: STRUCTURAL WELDING CODE - REINFORCING STEEL.
  5. ANGLE IRON SPLICE PIECES SHALL BE L 1/4 x 1/4 x 1/4 (UNCOATED) CONFORMING TO ASTM A36. OTHER SIZES OF ANGLE IRON, HAVING A CROSS SECTIONAL AREA OF AT LEAST 0.56 SQUARE INCHES AND PROVIDING A MINIMUM CLEAR COVER TO THE DECK SURFACE OF AT LEAST 1.5", MAY BE SUBSTITUTED WITH APPROVAL OF THE RESIDENT.
  6. REPLACEMENT EPOXY GROUTED REINFORCING BARS SHALL BE EMBEDDED A MINIMUM OF 12" BEYOND THE FACE OF CURB. THE PROPOSED ANCHORING MATERIAL SHALL BE A PRODUCT LISTED ON THE MAINE DOT QUALIFIED PRODUCTS LIST.

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No.	Revision	By	Date
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.			
	By	Date	
	TMH	03/14	
	Checked	CAH	03/14
	By	Date	
	JRD	03/14	
	In Charge of	RAL	03/14

Designed by:			
<b>HNTB</b>			
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.			
	By	Date	
	TMH	03/14	
	Checked	CAH	03/14
	By	Date	
	JRD	03/14	
	In Charge of	RAL	03/14

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



**THE GOLD STAR  
MEMORIAL HIGHWAY**

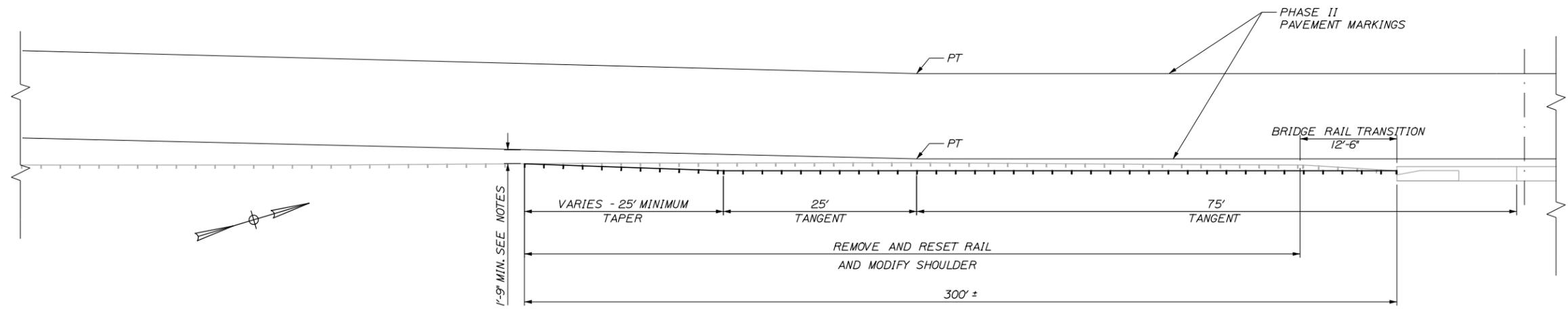
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE  
AND RIVERSIDE STREET

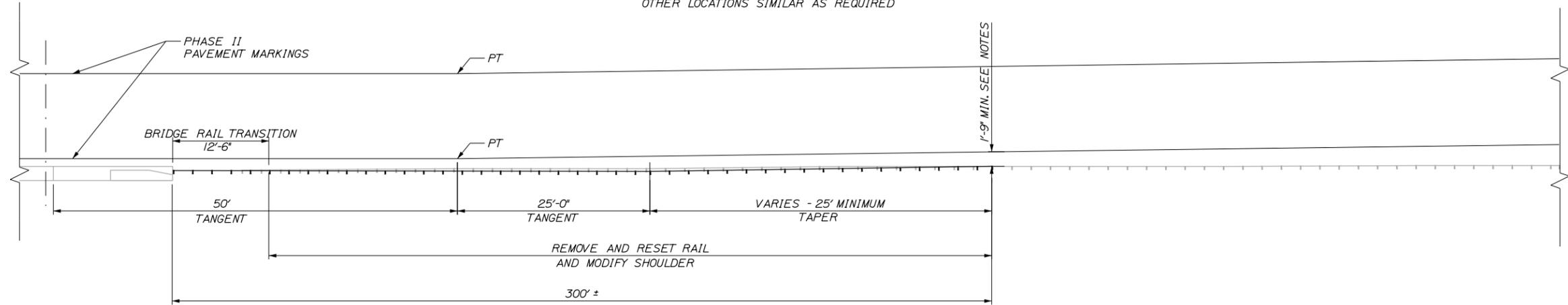
CONCRETE REPAIR DETAILS

SHEET NUMBER: 31  
CONTRACT: 2014.14  
31 OF 40

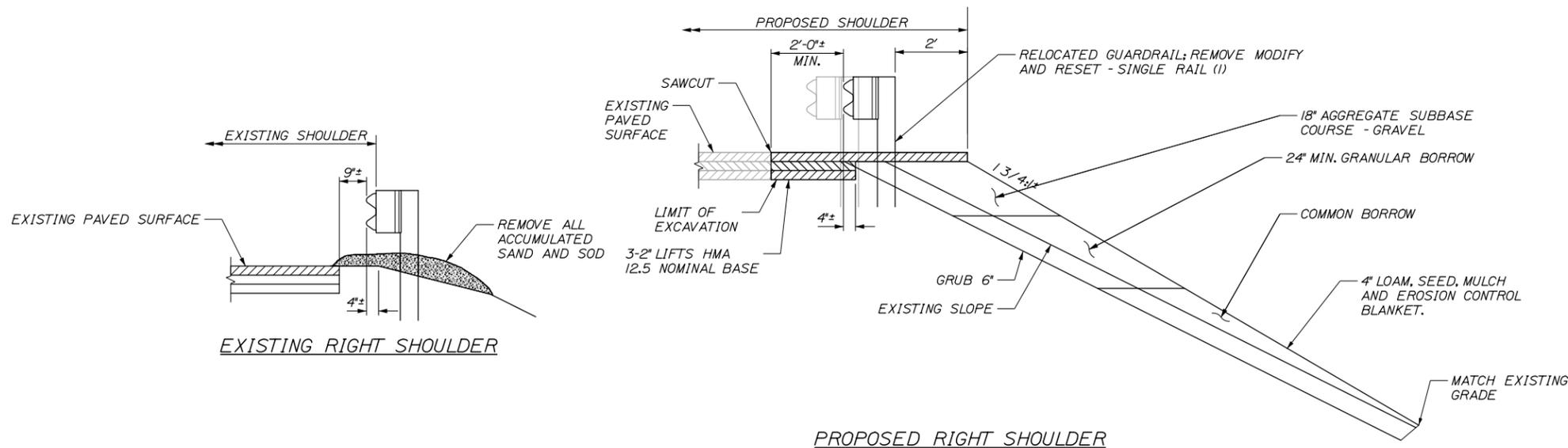
Date: 3/14/2014



**PLAN VIEW**  
FOREST AVENUE NB APPROACH SHOWN  
OTHER LOCATIONS SIMILAR AS REQUIRED



**PLAN VIEW**  
FOREST AVENUE NB DEPARTURE SHOWN  
OTHER LOCATIONS SIMILAR AS REQUIRED



**NOTES:**

1. THE ACTUAL LIMITS OF THE GUARDRAIL RESET AND SHOULDER MODIFICATIONS SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT. THIS WORK SHALL BE COMPLETED IN PHASE I WHILE TRAFFIC IS SHIFTED TOWARDS THE MEDIAN FOR FOREST AVENUE NB AND SB AND RIVERSIDE NB.
2. THE GUARDRAIL SHALL BE TANGENT TO THE BRIDGE CURB WHERE THE CONCRETE BARRIER IS PARALLEL TO AND 24 FEET OFF OF RIGHT SHOULDER BRIDGE CURB. THE 12.5' BRIDGE TRANSITION RAIL SHALL NOT BE REMOVED, MODIFIED AND RESET. MATERIAL REMOVAL, GRADING AND PAVEMENT SHALL BE UNDERTAKEN WITH THE BRIDGE TRANSITION RAIL IN PLACE.
3. THE RESIDENT SHALL LAYOUT THE TEMPORARY PHASE LINE WORK AND MARK WHERE THE FUTURE TEMPORARY LINE IS ONE FOOT INSIDE THE EDGE OF PAVEMENT ON BOTH ENDS OF THE BRIDGE. THIS IS THE LIMIT OF THE SHOULDER MODIFICATIONS. BEYOND THIS LIMIT THE EXISTING GUARDRAIL IS TO BE REMOVED, MODIFIED AND RESET TO TRANSITION BACK TO THE EXISTING GUARDRAIL RUN, IF NEEDED.
4. INSTALL TEMPORARY BERMS AND DOWNSPOUTS, AS REQUIRED, TO CONTROL ROADWAY DRAINAGE AND PREVENT WASHOUTS OF THE DISTURBED SHOULDER.
5. SEE LIMIT OF DISTURBANCE PLANS FOR INSTALLATION OF SILT FENCE.
6. REMOVAL OF ACCUMULATED SAND, SOD AND EXISTING PAVEMENT SHALL BE MEASURED AND PAID UNDER ITEM 205.51 WIDENING EXISTING SHOULDER.
7. SLOPES STEEPER THAN 1 3/4:1 TO MATCH EXISTING MAY REQUIRE RIPRAP AS DIRECTED BY THE RESIDENT.

Filename: 032\_Guardrail\_Shoulder\_Mods.dgn

Scale:			
NOT TO SCALE			
No.	Revision	By	Date

Designed by:					
<b>HNTB</b>					
CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

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

THE GOLD STAR  
MEMORIAL HIGHWAY

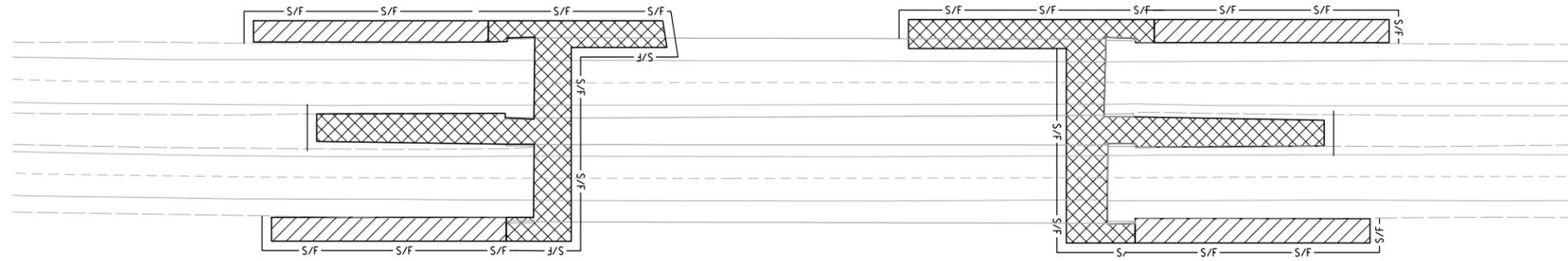
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

BRIDGE REPAIRS - FOREST AVENUE  
AND RIVERSIDE STREET

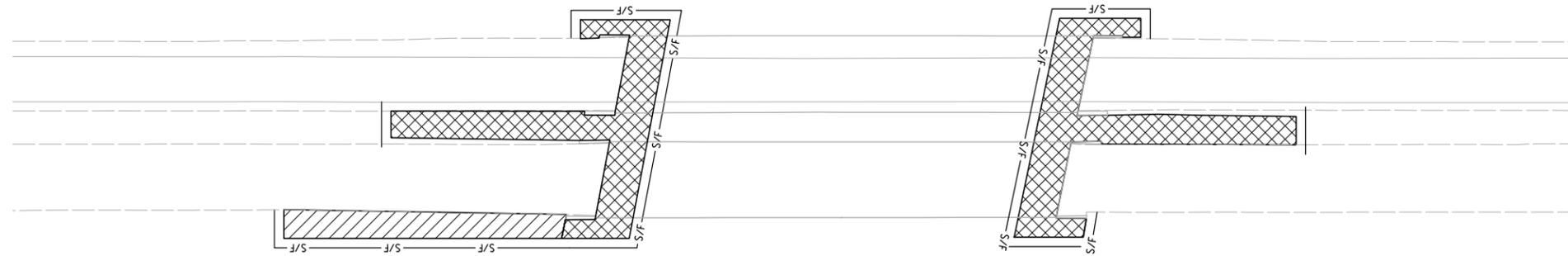
GUARDRAIL AND SHOULDER MODIFICATIONS

SHEET NUMBER: 32  
CONTRACT: 2014.14  
32 OF 40

Date: 3/14/2014



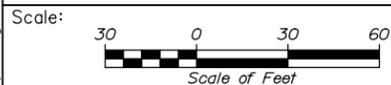
FOREST AVENUE BRIDGES  
NTS



RIVERSIDE STREET BRIDGES  
NTS

- NOTES:**
1. EROSION AND SEDIMENTATION CONTROL DEVICES REQUIRED FOR THE CONTRACTOR'S ACCESS TO 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 0.15 ACRES HAS BEEN ESTIMATED FOR CONTRACTOR ACCESS LOCATIONS AND STORAGE AREAS.
  4. TOTAL LIMIT OF DISTURBANCE FOR THIS PROJECT HAS BEEN ESTIMATED TO BE 0.98 ACRES.
  5. SEE SPECIFICATIONS FOR CONTRACTOR'S SUBMITTAL REQUIREMENTS IF ADDING ADDITIONAL LIMITS OF DISTURBANCE TO THE PROJECT ESTIMATED QUANTITIES.

- LEGEND**
-  CONTRACTOR'S LIMIT OF DISTURBANCE AREA FOR ACCESS AND STORAGE: 0.30 ACRES
  -  CONTRACT LIMIT OF DISTURBANCE: 0.50 ACRES



Designed by:



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



**THE GOLD STAR  
MEMORIAL HIGHWAY**

BRIDGE REPAIRS - FOREST AVENUE AND  
RIVERSIDE STREET

LIMIT OF DISTURBANCE PLANS

No.	Revision	By	Date

CONSULTANT PROJECT MANAGER: Robert J. Driscoll, P.E.					
	By	Date		By	Date
Designed	TMH	03/14	Checked	CAH	03/14
Drawn	JRD	03/14	In Charge of	RAL	03/14

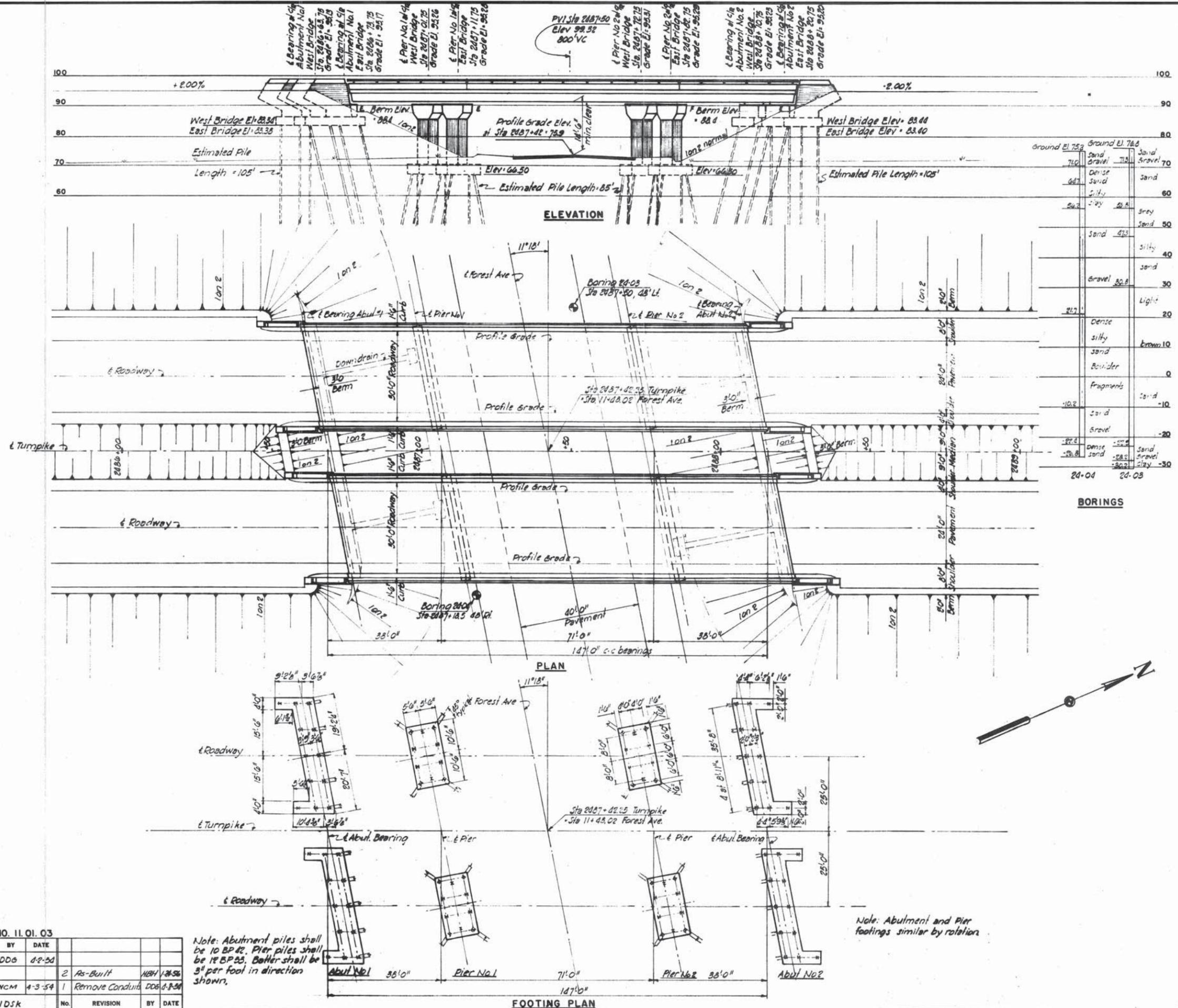
MTA PROJECT MANAGER: Ralph C. Norwood, IV, P.E., P.T.O.E.

CONTRACT: 2014.14

SHEET NUMBER: 33

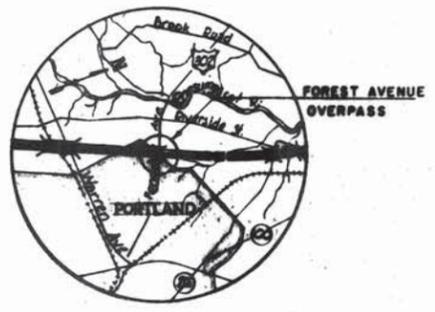
33 OF 40

Filename: 033\_LODplan.dgn



**GENERAL NOTES**  
 Design Specifications: AASHTO (1953)  
 with minor modifications.  
 Design Live Load H20-S16  
 Max. Pile Loads  
 Abutments 30.7 Tons  
 Piers 52.2 Tons

REFERENCES				
Drawing Number	Title	Superstructure		
		Substr. Concr.	Steel Pile	Steel Deck
SD-1A	Standard Abutment Details	✓	✓	✓
SD-2	Standard Pier Details	✓	✓	✓
SD-3	Abutment Drainage Details	✓	✓	✓
SD-4	Standard Pile Details	✓	✓	✓
SD-5	Standard Handrail, Bearing Devices and miscellaneous details	✓	✓	✓
SD-6	Standard Diaphragm Details	✓	✓	✓
SD-10	Standard Splices for 30" Beams	✓	✓	✓
SD-11A	Roadway Expansion Joint Type Y	✓	✓	✓
SD-12A	Roadway Expansion Joint Type Z	✓	✓	✓
SD-17	Standard Bridge Floor Cross Section 30' Roadway	✓	✓	✓



**VICINITY MAP**  
 Scale 1" = 1 mile

**DRAWING NO. 11.01.03**

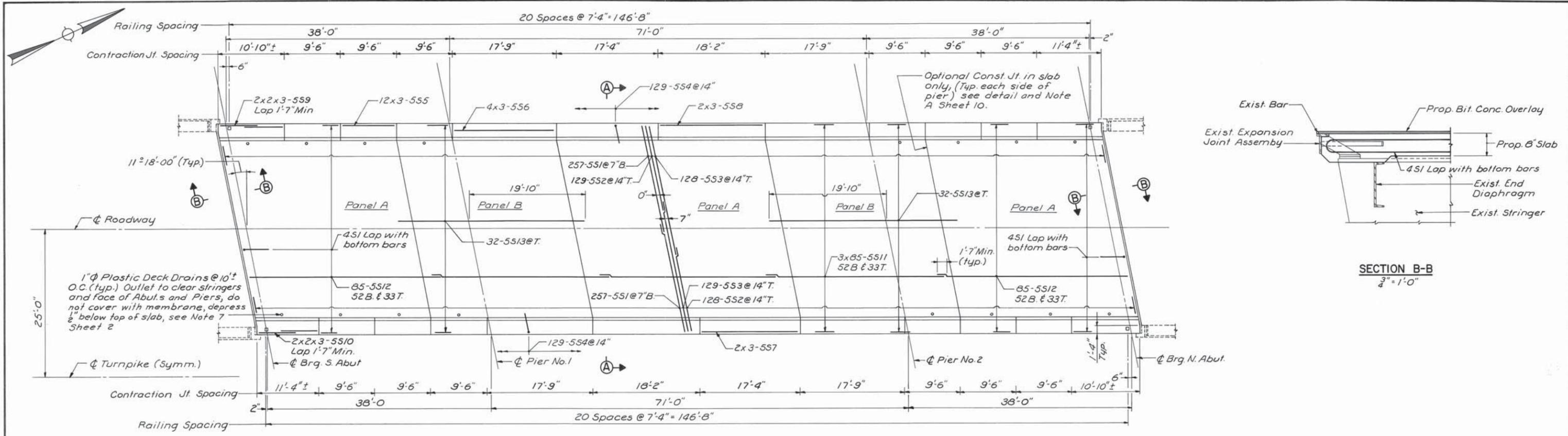
BY	DATE	REVISION	BY	DATE
DDG	4-2-53			
WCM	4-3-54	1		
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IN CHARGE OF **IDSK**

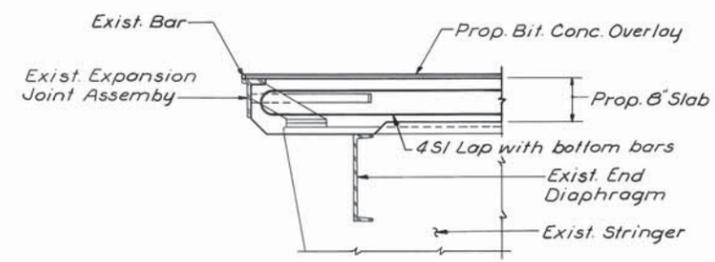
Note: Abutment piles shall be 10 BP42. Pier piles shall be 18 BP25. Batter shall be 3" per foot in direction shown.

Note: Abutment and Pier footings similar by rotation.

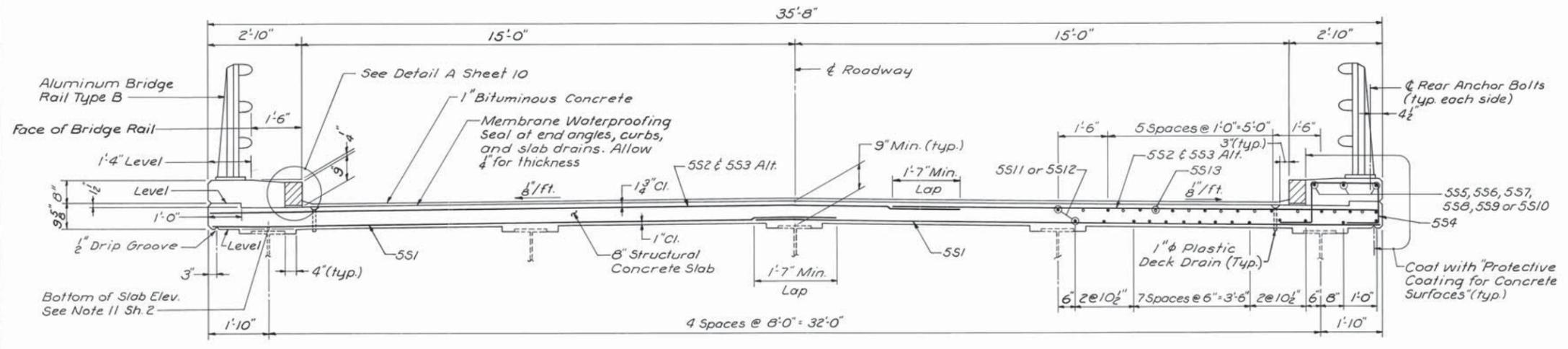
MAINE TURNPIKE AUTHORITY  
**MAINE TURNPIKE**  
 SECTION 2 — PORTLAND TO AUGUSTA  
 STRUCTURE NO. 11 TURNPIKE OVER  
 STATION FOREST AVENUE 2487+42.25  
**GENERAL PLAN AND ELEVATION**  
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS  
 NEW YORK KANSAS CITY  
 SCALE: 1/16" = 1'-0" except as noted  
 CONTRACT NO. 25 R042  
 SHEET NO. 22 OF 382



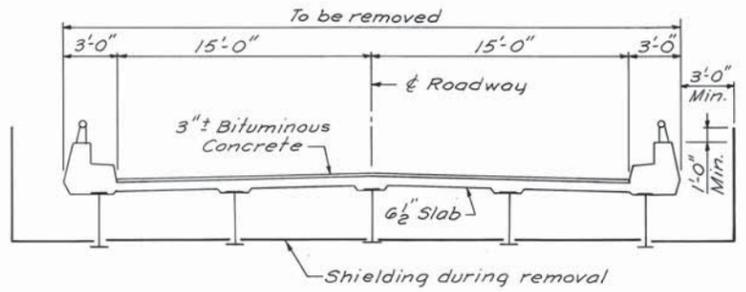
**DECK PLAN**  
3/8" = 1'-0"



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



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



**EXISTING DECK REMOVAL**  
3/16" = 1'-0"

- NOTES:**
1. For General Notes and Quantities, see Sheet 2.
  2. S.B. bridge shown, N.B. bridge similar.
  3. For shielding limits parallel to bridge, see Note 10 Sheet 2.
  4. For 1" V-Groove detail, see Sheet 10.
  5. For railing details, see Sheet 11.

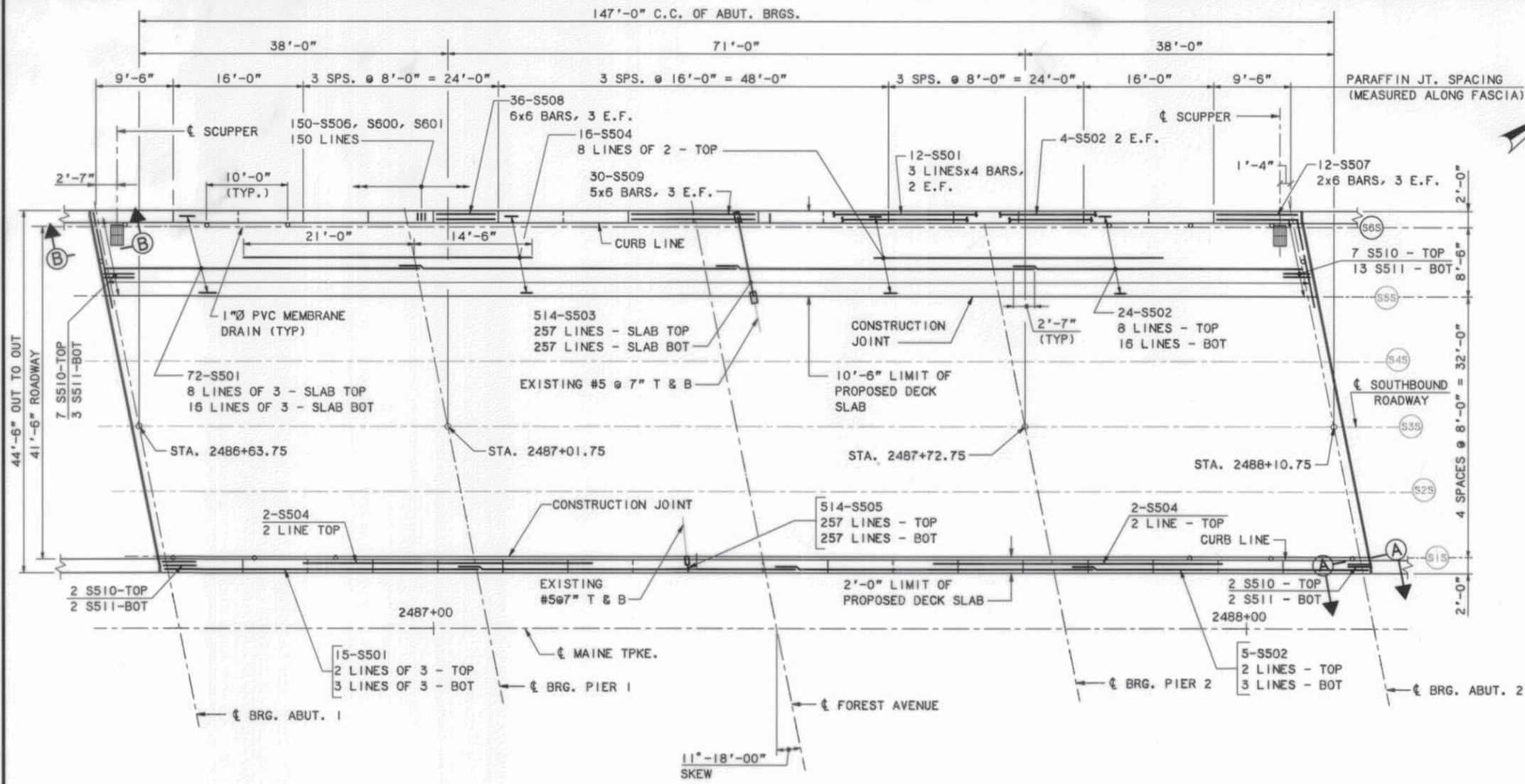
NO.	REVISION	BY	DATE	IN CHARGE OF
		MADE	R.D.F. 1-79	
		TRACED		
		CHECKED	I.S. 1-79	
				J.P.W.

MAINE TURNPIKE AUTHORITY  
**MAINE TURNPIKE**

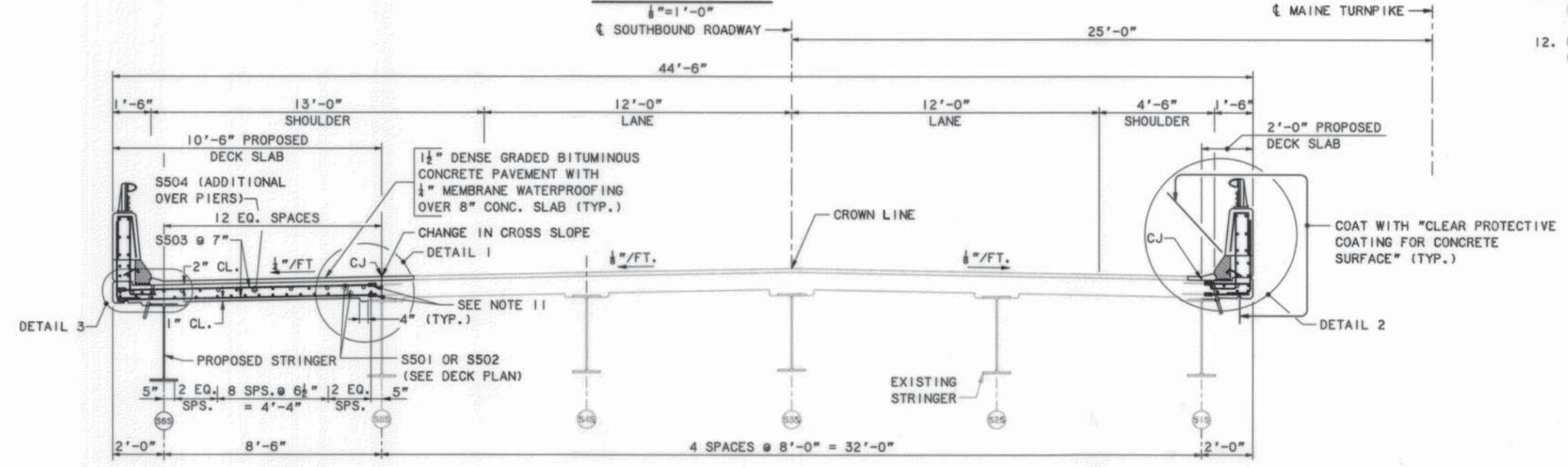
FOREST AVENUE  
DECK REPLACEMENT

HOWARD, NEEDLES, TAMMEN & BERGENDOFF  
CONSULTING ENGINEERS  
BOSTON

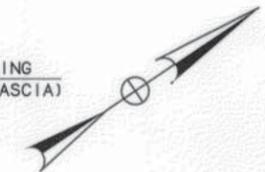
SCALE AS NOTED  
SHEET NO. 5 of 16



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



**TYPICAL SECTION - SB**  
(LOOKING UPSTATION)  
1/8" = 1'-0"



**PLACEMENT NOTES**

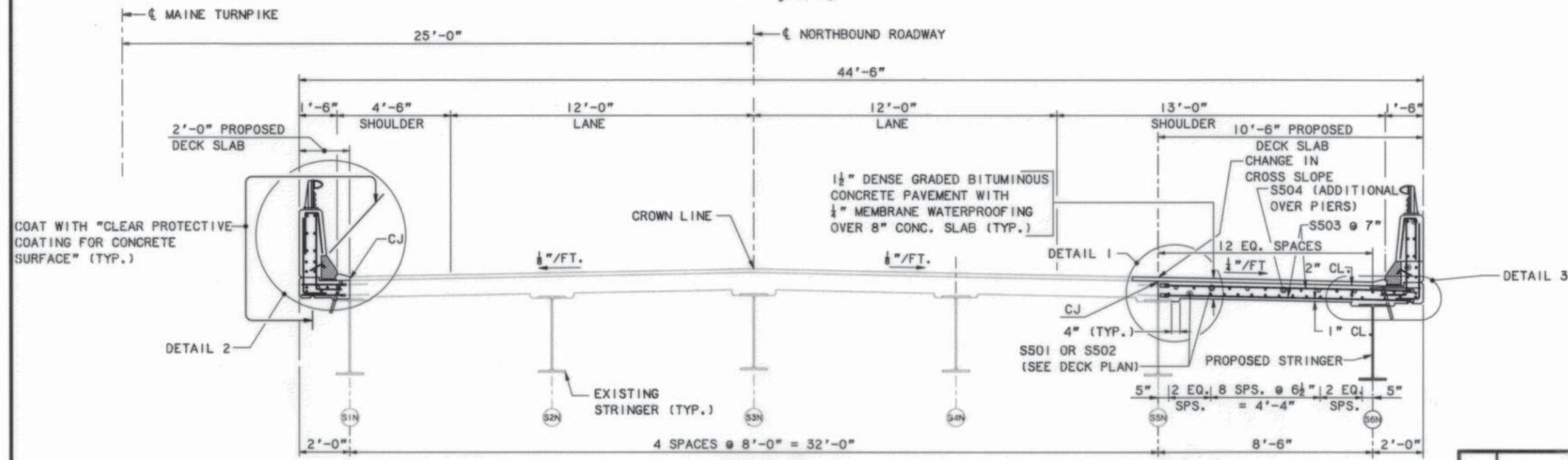
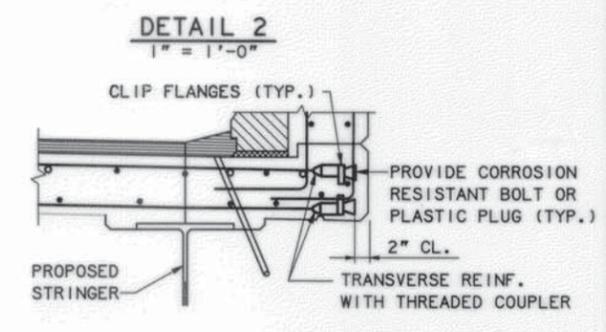
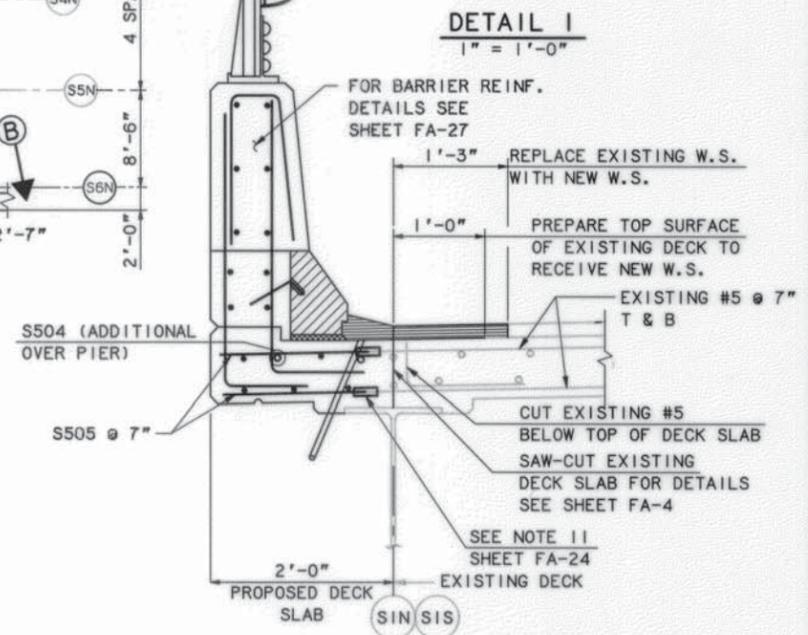
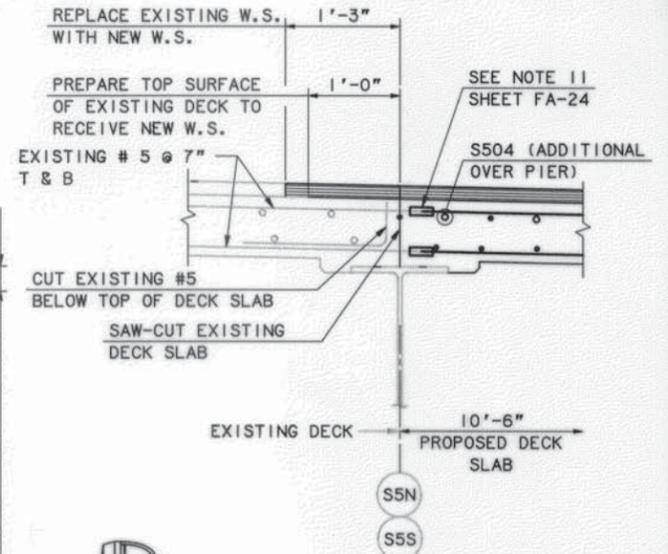
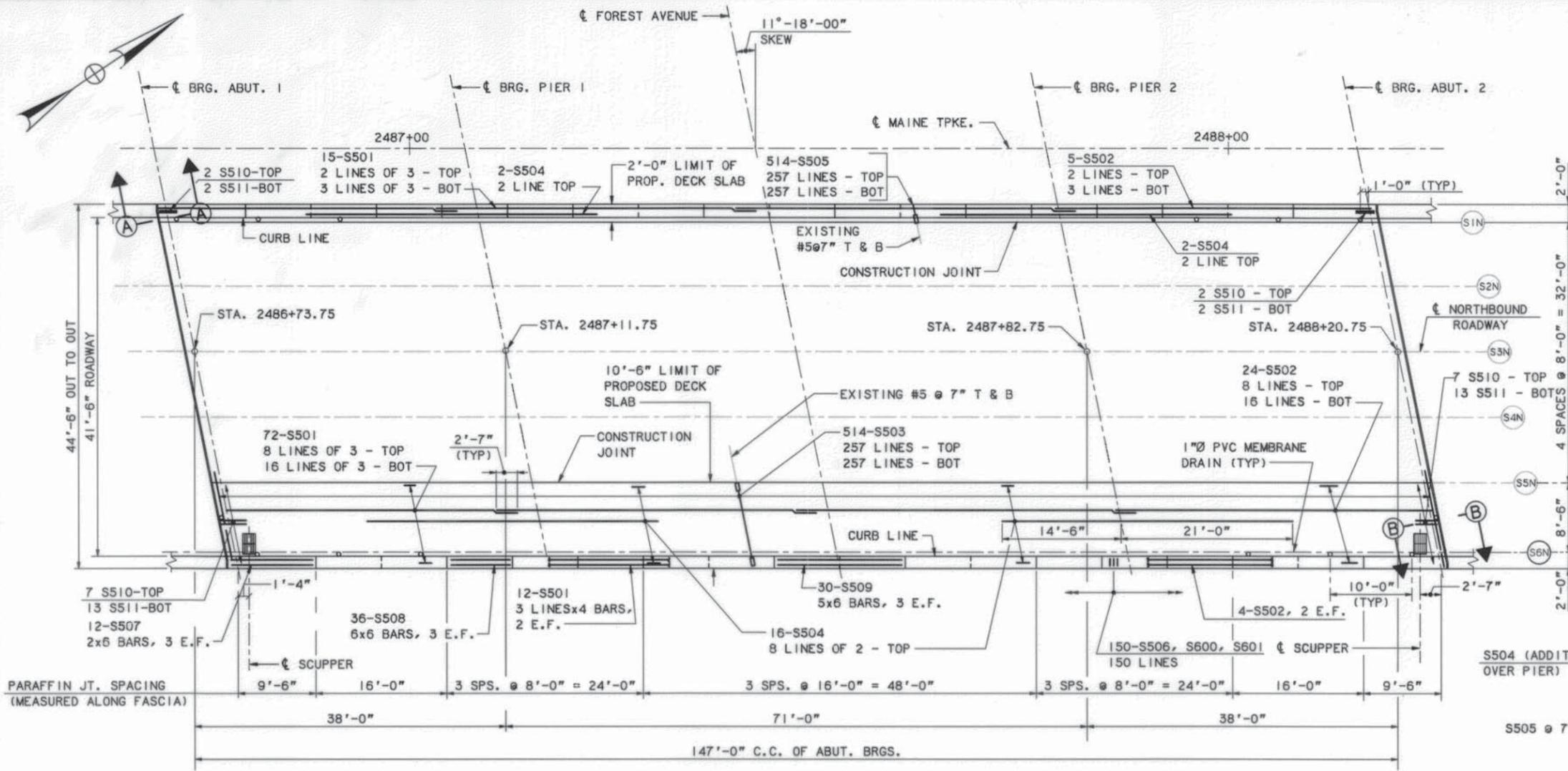
1. THE FORMWORK FOR THE CONSTRUCTION JOINTS SHALL REMAIN IN PLACE UNTIL A MINIMUM OF 48 HOURS HAS ELAPSED AFTER PLACEMENT OF THE SLAB. AFTER WHICH, REMOVAL OF FORMWORK MEETING THE REQUIREMENTS FOR FORM REMOVAL OF SECTION 502 (STRUCTURAL CONCRETE) OF THE STANDARD SPECIFICATIONS, MAY PROCEED.
2. STAY IN PLACE FORMS ARE NOT ALLOWED TO BE USED.
3. BEGIN PLACEMENT AT THE LOW END OF THE BLOCK.

**SUPERSTRUCTURE NOTES**

1. ADJUST REINFORCING STEEL TO FIT AROUND THE SCUPPERS IN A MANNER APPROVED BY THE ENGINEER. DO NOT CUT TRANSVERSE REINFORCING BARS. LONGITUDINAL BARS MAY BE CUT TO FIT.
2. FOR STEEL REINFORCING SCHEDULE, SEE SHEET NO. FA-36.
3. FOR SCUPPER AND DRAIN DETAILS, SEE SHEET NO. FA-26.
4. FOR 1-BAR ALUMINUM BRIDGE RAIL DETAILS, SEE SHEET NO. FA-30.
5. FOR SLAB DETAILS, SEE SHEET NOS. FA-26 AND FA-27.
6. FOR EXPANSION JOINT DETAILS, SEE SHEET NOS. FA-28 AND FA-29.
7. THE CONCRETE DECK SHALL BE GIVEN A SMOOTH BULL FLOAT OR WOOD FLOAT FINISH.
8. FOR SECTIONS A-A AND B-B SEE SHEET NO. FA-29.
9. FOR DETAILS 1, 2 AND 3 SEE SHEET NO. FA-25.
10. EXTERIOR PARAPET REINFORCING SHOWN, INTERIOR PARAPET SIMILAR.
11. EPOXY QUICK-WEDGE MECHANICAL LAP SPLICE MANUFACTURED BY ERICO PRODUCTS, INC., SOLON, OHIO.
12. DRAINS ARE INSTALLED SUCH THAT THEY DO NOT DRAIN ONTO A FLANGE OR BRIDGE SEAT.

Maine Turnpike Authority <b>Maine Turnpike</b>	
FOREST AVENUE OVERPASS	
DECK PLAN SB AND TYPICAL SECTION	
<b>HNTB</b> ARCHITECTS ENGINEERS PLANNERS	
Contract 97.8	Sheet No. FA-24 68 of 133

By:	Date:
Designed KJG	2/97
Drawn RJT	2/97
Checked HLR	2/97
In charge of: RAL	



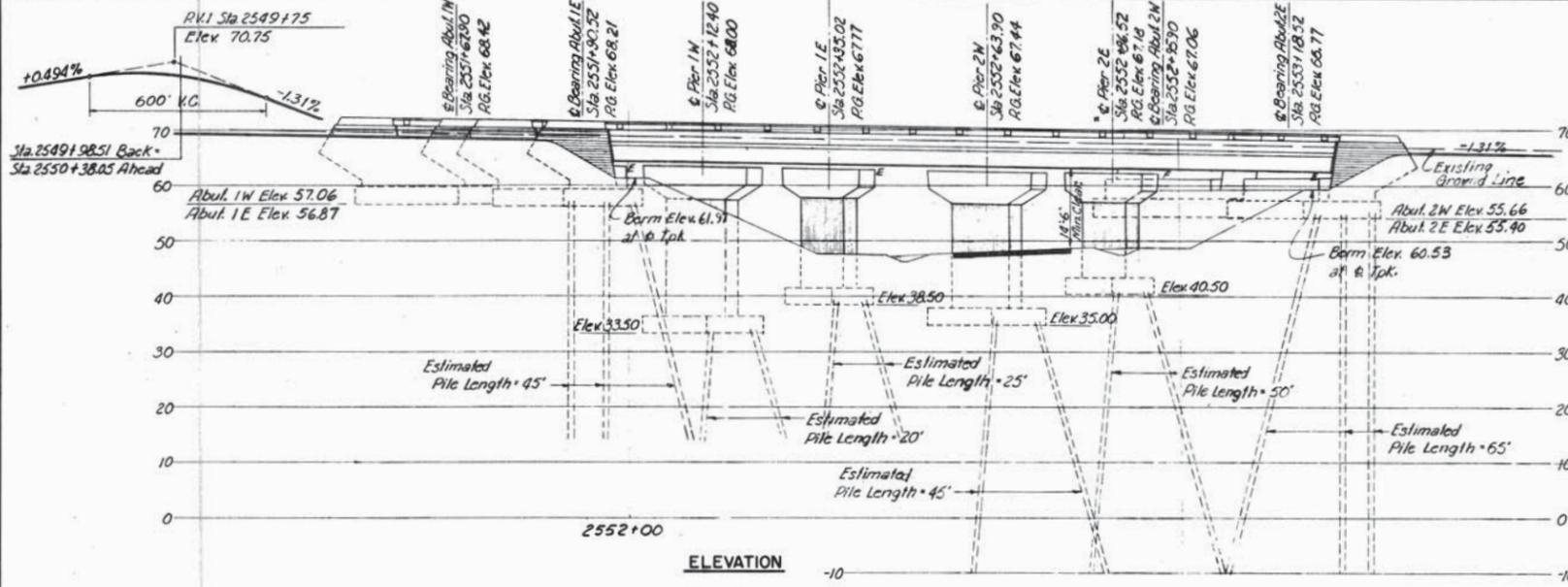
No.	Revision	By	Date	In charge of:
		Designed	KJG 2/97	
		Drawn	RJT 2/97	
		Checked	HLR 2/97	
				RAL

Maine Turnpike Authority  
**Maine Turnpike**  
 FOREST AVENUE OVERPASS  
 DECK PLAN NB AND TYPICAL SECTION

**Transpass**  
 ARCHITECTS ENGINEERS PLANNERS

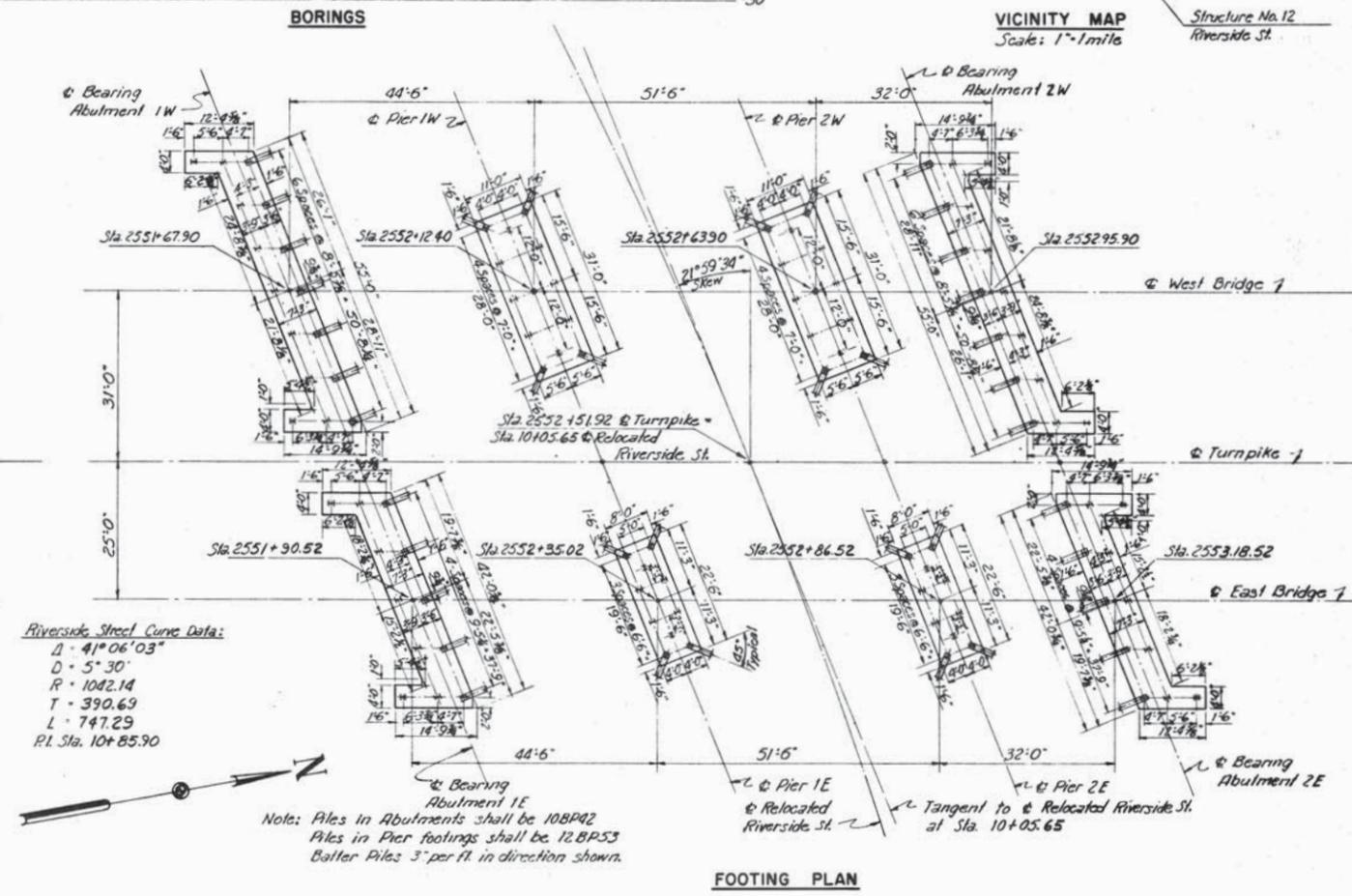
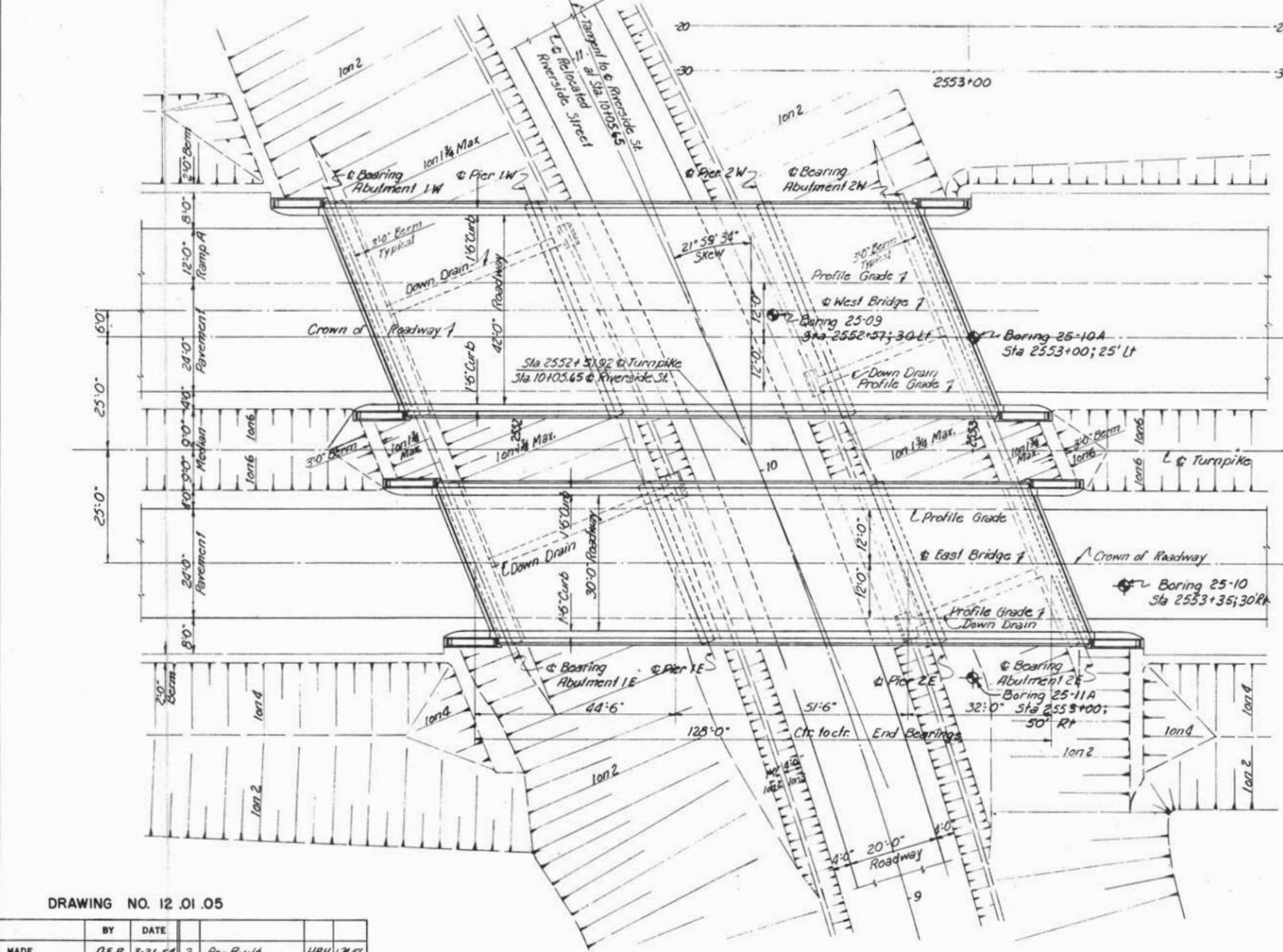
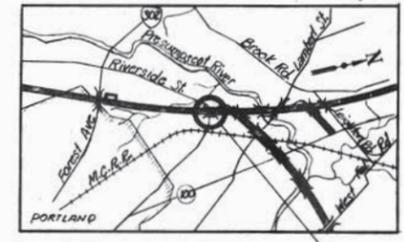
**HNTB**  
 ARCHITECTS ENGINEERS PLANNERS

Contract 97.8      Sheet No. FA-25  
 69 of 133



BORING	ELEVATION	SOIL DESCRIPTION			
		25-09	25-10A	25-11A	25-10
Elev 63.9	Ground	Ground	Ground	Ground	Ground
Elev 50.4	Brown dry soft sandy silt, Brown grey silty clay.	Grey-brown moist medium clayey silt.	Grey-brown moist medium clayey silt.	Grey dry loose sand, Lt brown dry stiff clay.	Blue moist soft clay, Very moist very soft clay.
Elev 38.0	Grey wet soft silty clay.	Grey wet soft silty clay.		Grey wet soft silty clay.	
Elev 26.4	Brown wet silty sand.			Dark grey wet soft silty clay.	
Elev 19.4	Grey wet clayey sand.			Grey brown wet sandy clay.	
Elev 14.9	Grey hard solid slate.			Brown wet dense silty sand.	
Elev 9.9				Grey moist dense silty sand.	
				Dark grey moist medium silty clay, Grey wet medium sandy clay, Dark grey moist stiff sandy clay.	
				Dark grey moist dense clayey sand.	

REFERENCES					
DRAWING NUMBER	TITLE	Subcontractor	SUPERSTRUCTURE		
			Steel Fabricator	Steel Erector	Floor Contractor
SD1A	Standard Abutment Details	✓	✓	✓	✓
SD2	Standard Pier Details	✓	✓	✓	✓
SD3	Standard Abut. Drainage Details	✓	✓	✓	✓
SD4	Standard Pile Details	✓	✓	✓	✓
SD5	Standard Handrail, Bearing Devices & Miscellaneous Details	✓	✓	✓	✓
SD6	Standard Diaphragm Details	✓	✓	✓	✓
SD8	Standard Splices for 30WF Beams	✓	✓	✓	✓
SD11A	Type "X" & "Y" Expansion Joints, Expanding Length To 100 Feet.	✓	✓	✓	✓
SD17	Standard Bridge Floor Cross Sections, 28'-0" & 30'-0" Roadways	✓	✓	✓	✓
SD23	Standard Utility Details	✓	✓	✓	✓



Riverside Street Curve Data:  
 Δ = 41° 06' 03"  
 D = 5° 30'  
 R = 1042.14  
 T = 390.69  
 L = 747.29  
 P.I. Sta. 10+85.90

Note: Piles in Abutments shall be 108PA2  
 Piles in Pier footings shall be 128P53  
 Batter Piles 3" per ft. in direction shown.

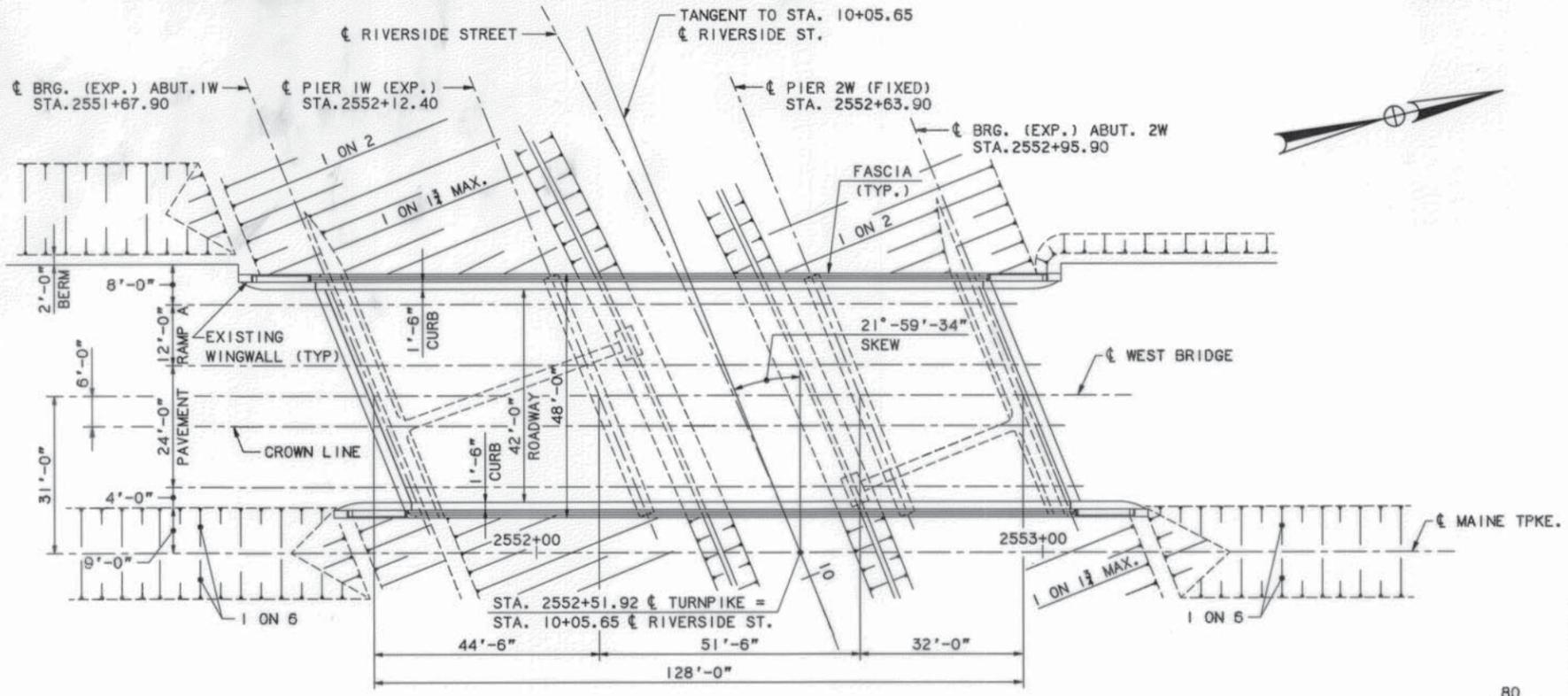
**GENERAL NOTES**

Design Specifications: AASHTO (1953) with minor modifications.  
 Design Live Load: H20-S16  
 Maximum Pile Loads: Abutments 1W & 2W = 33.8 Tons per Pile.  
 Abutments 1E & 2E = 35.7 Tons per Pile.  
 Piers 1W & 2W = 57.5 Tons per Pile.  
 Piers 1E & 2E = 56.6 Tons per Pile.

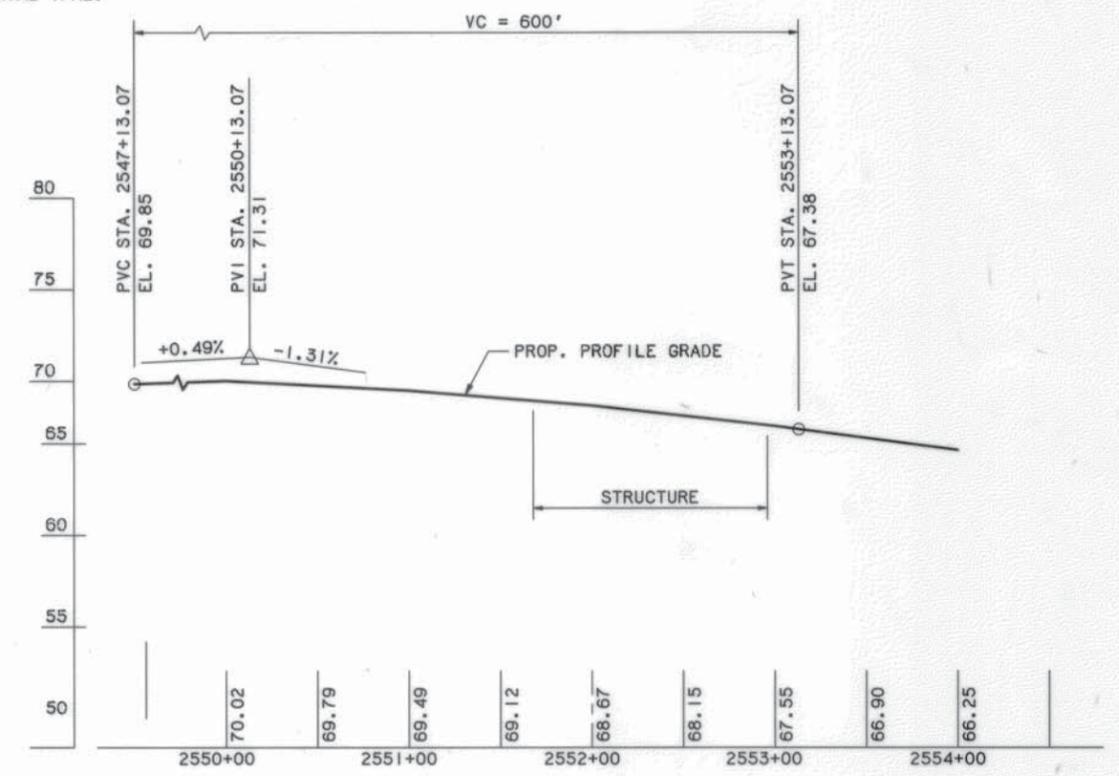
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MADE	BY	DATE	NO.	REVISION	BY	DATE
AS-BUILT	REB	3-31-50	3			
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GENERAL REVISION	RFs	4-6-54	1			

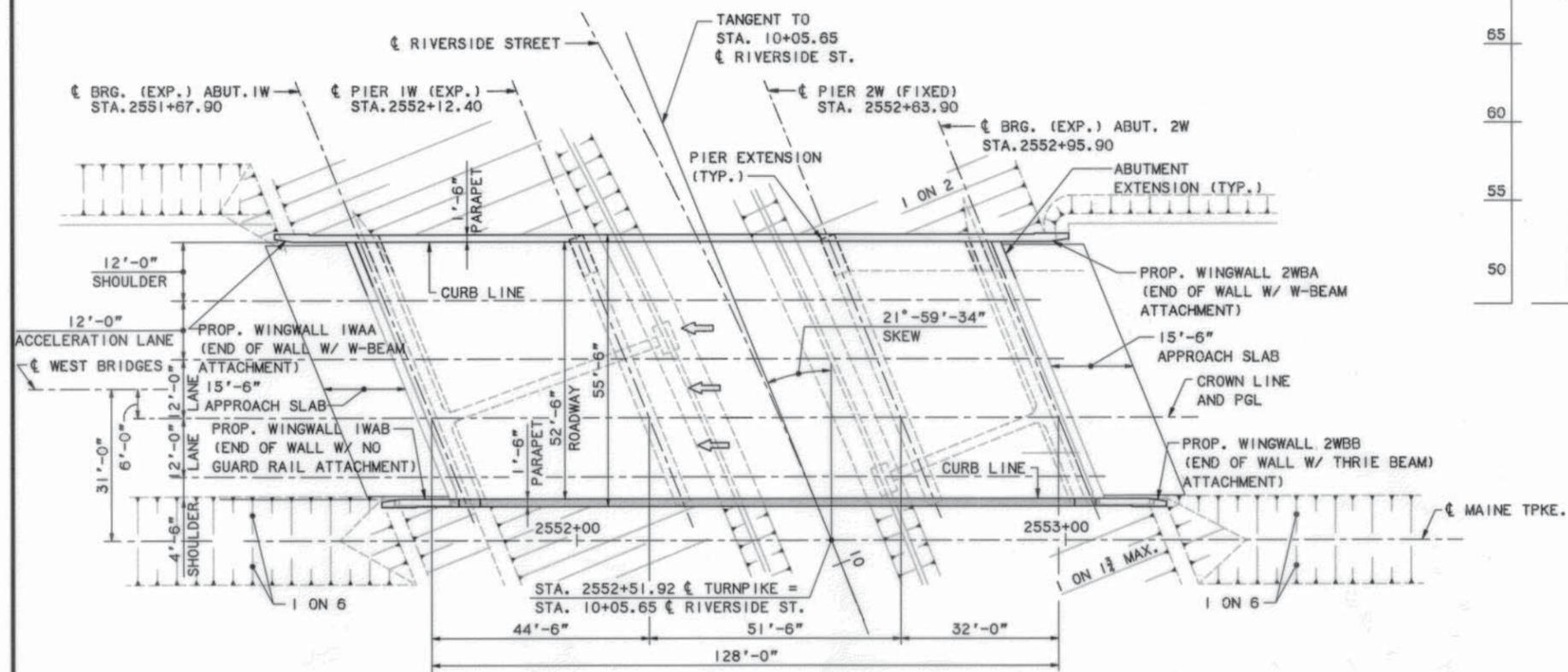
MAINE TURNPIKE AUTHORITY  
**MAINE TURNPIKE**  
 SECTION 2 — PORTLAND TO AUGUSTA  
 STRUCTURE NO 12 TURNPIKE OVER  
 RIVERSIDE STREET  
 STA. 2552+81.92  
**GENERAL PLAN AND ELEVATION**  
 HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS  
 NEW YORK KANSAS CITY  
 SCALE: 1/4" = 1'-0"  
 CONTRACT NO. \_\_\_\_\_  
 SHEET NO. 75 OF 282



**EXISTING PLAN - SB**  
1/8" = 1'-0"



**PROPOSED PROFILE**  
HORIZ. 1" = 50'  
VERT. 1" = 5'



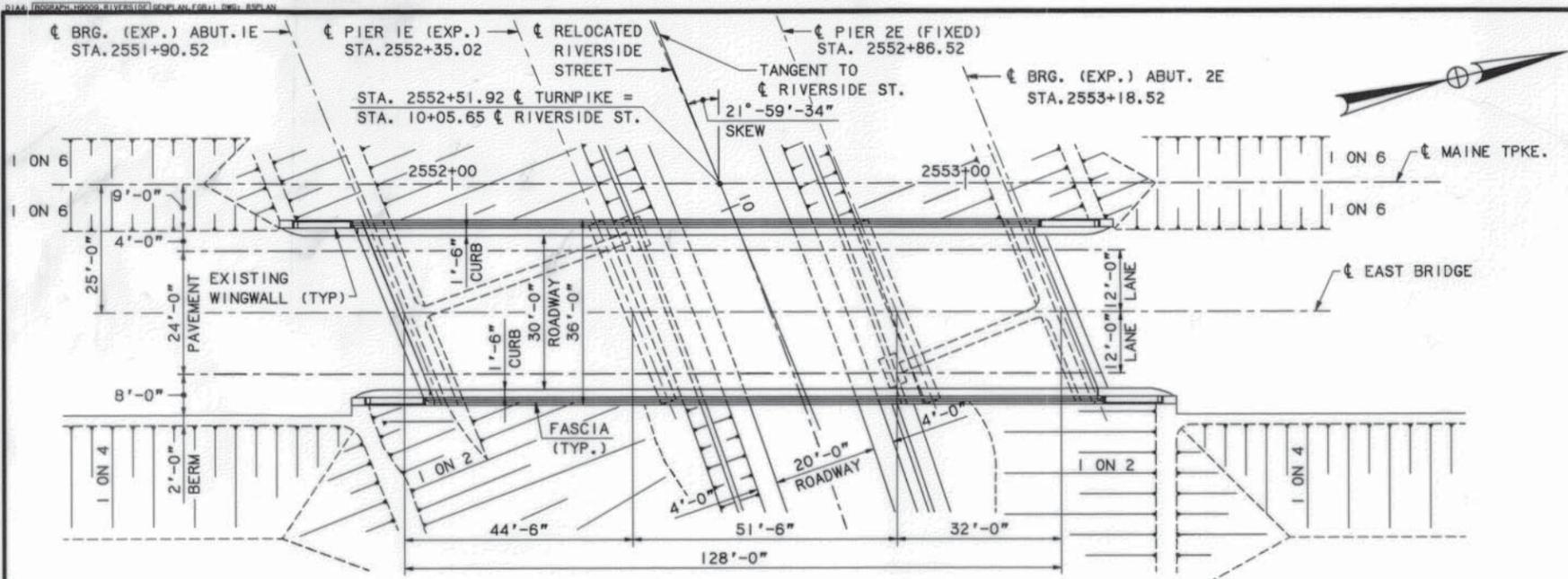
**PROPOSED PLAN - SB**  
1/8" = 1'-0"

Maine Turnpike Authority  
**Maine Turnpike**  
RIVERSIDE STREET OVERPASS  
GENERAL PLAN (SB)  
AND ELEVATION

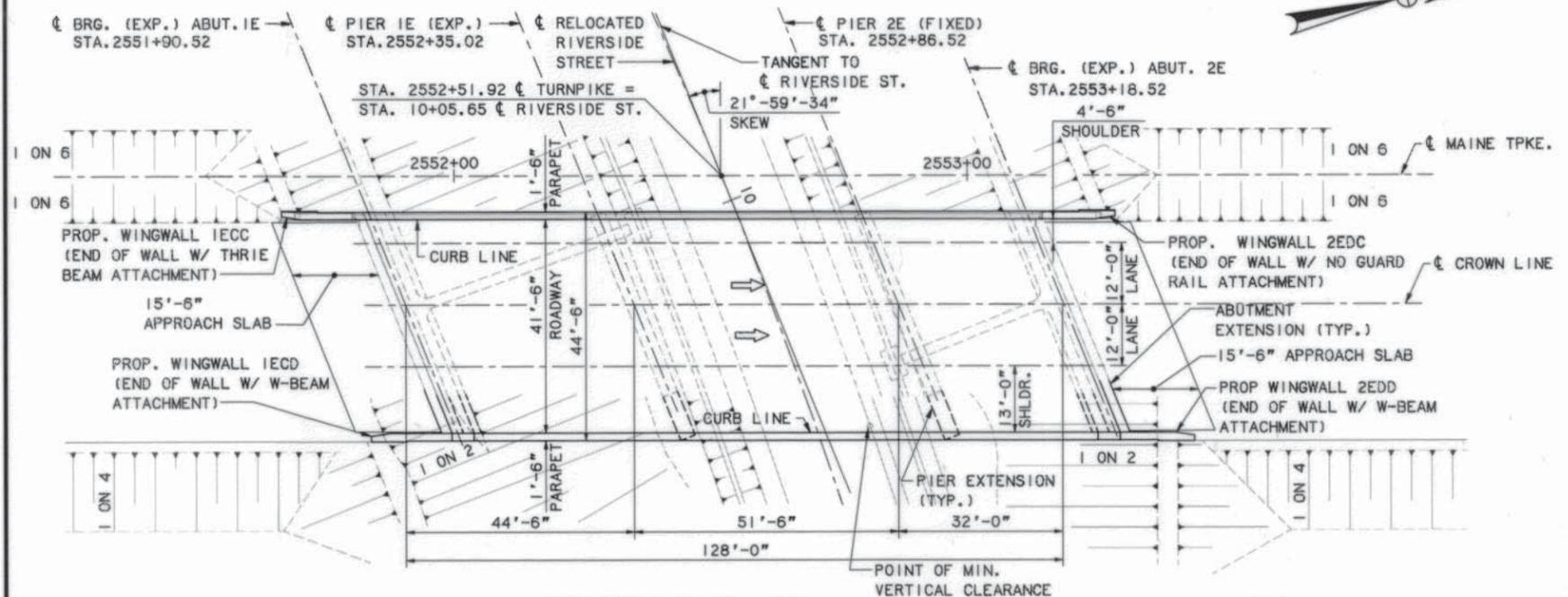


Contract 97.8 Sheet No. RS-2  
89 of 133

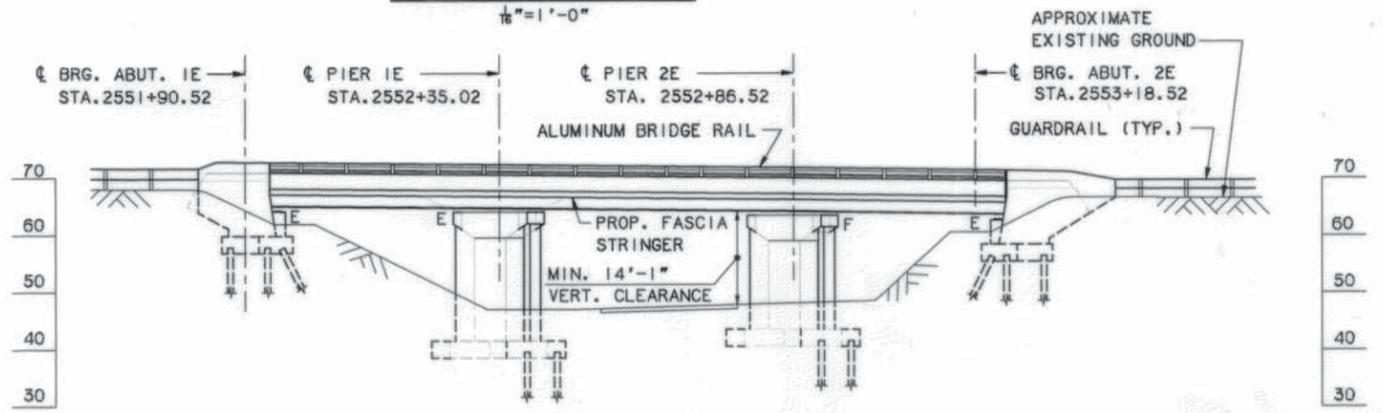
No.	Revision	By	Date	In charge of:	RAL
		Designed	HNL 2/97		
		Drawn	LS 2/97		
		Checked	AD 2/97		



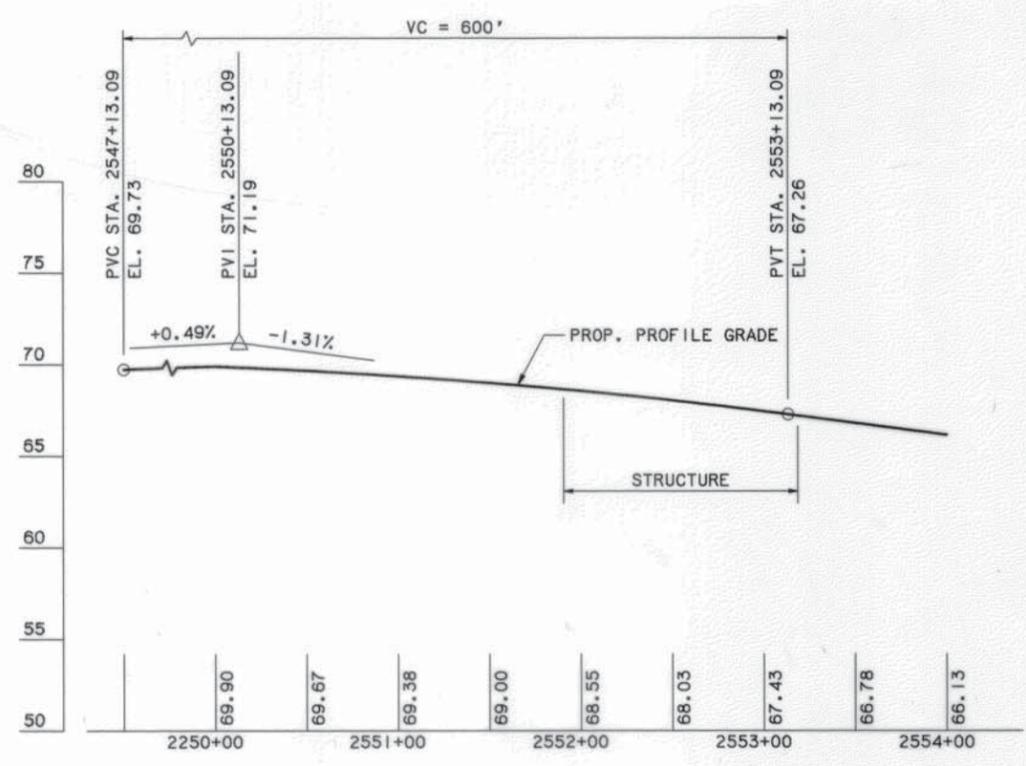
**EXISTING PLAN - NB**  
1/8" = 1'-0"



**PROPOSED PLAN - NB**  
1/8" = 1'-0"



**ELEVATION**  
1/8" = 1'-0"



**PROPOSED PROFILE**  
HORIZ. 1" = 50'  
VERT. 1" = 5'

No.	Revision	By	Date	In charge of	REL
		Designed	HNL 2/97		
		Drawn	LS 2/97		
		Checked	AD 2/97		

Maine Turnpike Authority  
**Maine Turnpike**

RIVERSIDE STREET  
GENERAL PLAN (NB)  
AND ELEVATION

**HNTB**  
ARCHITECTS ENGINEERS PLANNERS

Contract 97.8      Sheet No. RS-3  
90 of 133