Providence Bicycle and Pedestrian Advisory Commission
Jorge O. Elorza, Mayor

Staff Report: Dean Street Viaduct – Valley, Federal Hill – Wards 12 and 13 *(For Action)*
Presented at February 20, 2019 BPAC meeting

Project Background

The Rhode Island Department of Transportation is planning some work on the Dean Street Viaduct, which has been previously identified by the Commission as a priority for the city's bike network. This will be a conceptual level review of the project and will be the first of two reviews before the Commission.

In February 2015, BPAC held a public hearing to identify residents' priorities for bicycle and pedestrian infrastructure citywide, and the Dean St Viaduct emerged as one of the top four priorities at that time. In November 2017, BPAC had a conceptual discussion about how improved bicycle and pedestrian connections on the Dean St corridor between Atwells Avenue and Smith Street might be improved. In August 2018, BPAC reviewed resulting conceptual plans the City developed to integrate improved bicycle and pedestrian facilities onto the Dean St corridor between Atwells Avenue and Smith Street. Those plans squeezed in a minimum-width shared use path in the existing bridge footprint with the existing lane configuration by means of removing the median and connecting bridge structures. The Commission recommended vehicular travel lanes be removed to provide improved conditions for the safety and urban character of the street.

That same month of August 2018, the state's Bicycle Mobility Plan released a final draft, which identified the Dean Street Viaduct within the 5th most important bicycle connection in the entire state.

In November 2018, the City of Providence confirmed that the RI Department of Transportation was working on a project to repair the Dean Street Viaduct over US-6, the Amtrak corridor, and Harris Ave, between West Exchange Street and Kinsley Ave. The City sought to coordinate with DOT to efficiently achieve both jurisdictions' goals for the bridge. In January 2019, DOT proposed a major amendment to the State Transportation Improvement Program reducing funds for bicycle and pedestrian projects, claiming among other things that bridge and paving projects would integrate bicycle and pedestrian facilities. In February 2019, the RI Department of Transportation shared 30% plans for the bridge with the City of Providence.

Page 9, RI Bicycle Mobility Plan Final Draft

CHAPTER 1: INTRODUCTION

Statewide—Top 30 Priority Corridors

CORRIDOR ID (REFER TO APPENDIX MAPS)	LOCATION	SCORE	RANK
P17	Hartford Ave - Westminster St - Washington St from Atwood Ave to Benefit St	93	1
P23	Broad St - Prarie Ave - W Franklin St from Broadway to Montgomery Ave	93	2
P16	Manton Ave - Atwells Ave - Knight St from Westminster St to Woonasquatucket River Bikeway	90	3
P22	Hwy 1 - Elmwood Ave - Westminster St from Post Rd to Memorial Blvd	89	4
P26	Dean St - Broadway - Thomas St from Chalkstone Ave to Benefit St	89	5
P3	Butler Ave - Broad St - Blackstone Valley Bikeway from Old Bridge Path to Heritage Park Cumberland	87	6
P12	Admiral St - Douglas Ave - Orms St from Colonial Dr to Charles St	86	7

DEPARTMENT OF PLANNING AND DEVELOPMENT
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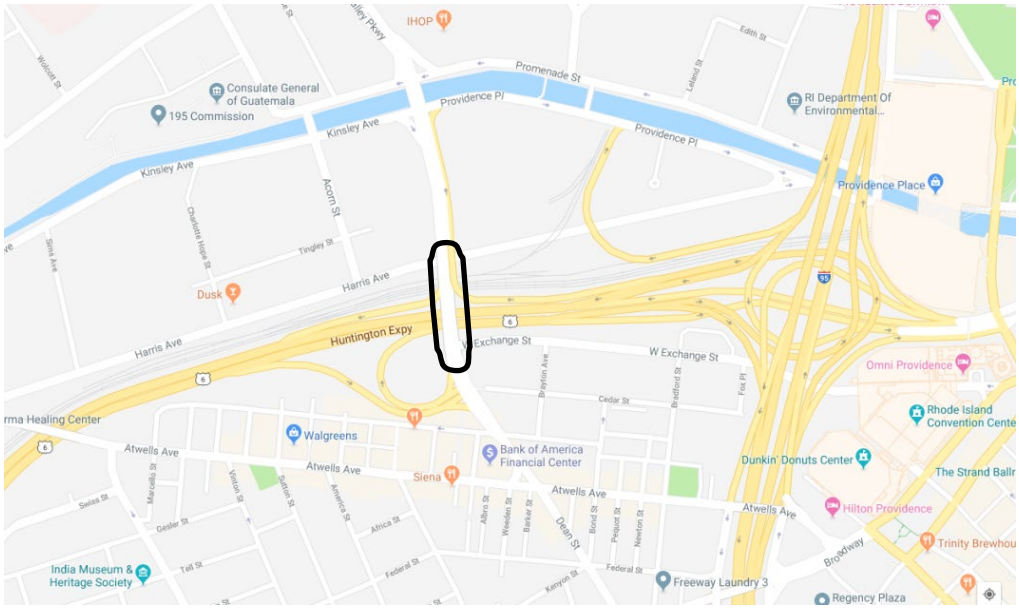
Project Map



Project Description

- The primary purpose of the DOT project is maintenance of the structural components on the underside of the bridge.
- The project would also make changes to the surface of the bridge, including repaving but most notably removing a portion of the median to create a left-turn lane for northbound vehicular traffic to turn onto US-6 westbound. A second entrance to this on-ramp would be built immediately south of the current entrance, perpendicular to Dean Street.
- There are no bicycle facilities and no improvements to pedestrian safety included in the DOT plans for the Viaduct.

Staff Recommendations

- At a minimum, the work on the bridge should incorporate the two-way shared use path and associated features presented for the bridge at the August 2018 meeting of BPAC, since it is planned to connect the two bridge structures as part of this work.
- The Department of Transportation should prioritize how to reduce vehicular travel speeds and number of vehicular travel lanes on the Viaduct, perhaps by conducting a 4-to-3 road diet to provide the desired turn lane.

Respectfully submitted by Alex Ellis.

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			1	

STATE OF RHODE ISLAND

DEPARTMENT OF TRANSPORTATION

PLAN, PROFILE AND SECTIONS OF PROPOSED

STATE HIGHWAY

DEAN STREET BRIDGE NO. 776
BRIDGE REHABILITATION

STA 10+96.25 TO 15+94.62

CITY OF PROVIDENCE
COUNTY OF PROVIDENCE

R.I. CONTRACT NO. F.A. PROJECT NO.

PAVEMENT STRUCTURE

2" CLASS 9.5 HMA SURFACE COURSE
3" CLASS 19.0 HMA BASE COURSE
12" GRAVEL BORROW SUBBASE COURSE

0.09 MILES

INDEX

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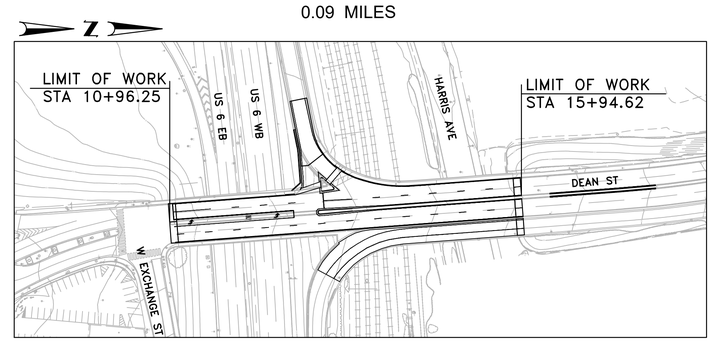
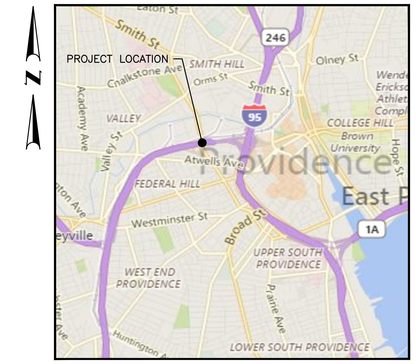
R.I. STANDARD SPECIFICATIONS AND STANDARD DETAILS

SPECIFICATIONS TO GOVERN THIS PROJECT ARE THE R.I. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AMENDED AUGUST 2013, WITH ALL REVISIONS AND THE STATE AND FEDERAL SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS. STANDARD DETAILS FOR THIS PROJECT ARE R.I. STANDARD DETAILS, 1998 EDITION, WITH ALL REVISIONS.



LAYOUT PLAN
1"=100'



LOCATION MAP
1"=3000'

DESIGN	DESIGNATION
AADT	XX V.P.D.
AADT	XX V.P.D.
D	XX/XX
K	XX%
T	XX%
DDHV	XX V.P.H.
DHV	XX V.P.H.
DESIGN SPEED	35 M.P.H.

30% SUBMISSION

SCALES OF DRAWINGS

Plans	1 inch = 20 feet
Profiles	1 inch = 20 feet Horizontal
Profiles	1 inch = 4 feet Vertical

BASE OF LEVELS
Providence Mean High Water

Rhode Island State Plane Coordinate System, NAD83

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FAX 401.732.7760
WWW.COLLINSENGR.COM

Contract Number _____
Number of Sheet 1
Total Sheets _____

R.I. DEPARTMENT OF TRANSPORTATION

APPROVED

DEPUTY CHIEF ENGINEER — DATE

APPROVED

CHIEF ENGINEER — DATE

APPROVED

DIRECTOR — DATE

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR — DATE

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	2	--

EXISTING		NEW
	EDGE OF PAVEMENT	
	BERM	
	CURB	
	GUARDRAIL	
MB	MAILBOX	
NO.	UTILITY POLE	NO.
	POLE GUY	GUY
	LUMINARE	
SIGN	SIGN	
(SIZE)SD	SUBDRAIN	N(SIZE)SD
(SIZE)D	STORMDRAIN	(Length Size)
(SIZE)S	SANITARY SEWER	(Length Size)
(SIZE)W	WATER MAIN	N(SIZE)W
(SIZE)G	GAS MAIN	N(SIZE)G
(SIZE)T	TELEPHONE DUCT	N-#(SIZE)T
(SIZE)E	ELECTRIC DUCT	N-#(SIZE)E
	PLUG AND CAP PIPE	
	ABANDONED UTILITY	
	FLARED END SECTION	
	HEADWALL	
WG OR GG	WATER OR GAS GATE	
CB	CATCH BASIN	
MH	MANHOLE	
HYD	HYDRANT	
1+00	BASELINE OR CENTERLINE	1+00
EXIST. S.H.L. PLAT NO. XX	STATE HIGHWAY LINE	NEW S.H.L. PLAT NO. XX
EXIST. S.F.L. PLAT NO. XX	STATE FREEWAY LINE	NEW S.F.L. PLAT NO. XX
EXIST. P.E.B.	PERMANENT EASEMENT LINE	NEW P.E.B.
EXIST. T.E.B.	TEMPORARY EASEMENT LINE	NEW T.E.B.
P	PROPERTY LINE	
CITY NAME TOWN NAME	CITY OR TOWN LINE	
PWW	PAVED WATERWAY	
ELEV.	CONTOUR LINE	ELEV.
	OPEN DITCH	
R.I.H.B.	R.I. HIGHWAY BOUND	
S.B.	STONE BOUND	
	RETAINING WALL	
	FIELD STONE WALL	
NO.	BORINGS	NO.
TYPE	FENCE	
	WOOD OR BRUSH LINE	
	TREES	
(NAME)	RIVER OR STREAM	
	WETLAND AREA	
NO. TYPE MATERIAL	BUILDING	
	FOUNDATION	
	BUILDING TO BE REMOVED	
	RAILROAD TRACKS	
	CUT AND MATCH	
	RIP-RAP	
	CUT SLOPE	ROADWAY, TOP OF SLOPE
	FILL SLOPE	ROADWAY, TOE OF SLOPE
	ROCK CUT	ROCK SHELF, ROCK, CUT
00x00	SPOT GRADE	00.00
	AREA GRADED TO DRAIN	ELEV.
BALED HAY RI STD 9.1.0	BALED HAY & SILT FENCE RI STD. 9.3.0	
123 124 125	EDGE OF WETLAND	
	WETLAND PERIMETER	
ASSF	AREA SUBJECT TO STORM FLOW	
100 YR. FLOOD BOUNDARY	100-YEAR FLOOD PLAIN	
	LIMIT OF DISTURBANCE	LIMIT OF DISTURBANCE
	LIMIT OF CLEARING	LIMIT OF CLEARING

1.1.0	UNDERDRAIN
1.3.0	CONCRETE CONNECTING COLLAR
2.1.0	CONCRETE HEADWALLS FOR PIPE CULVERTS
2.2.0	STANDARD HEADWALLS FOR MULTIPLE 3'-6" TO 7'-0" PIPE CULVERTS
2.3.0 (DIA.)	PRECAST CONCRETE FLARED END SECTION
3.2.0	BRICK/SOLID BLOCK 4'-0" ROUND MANHOLE
3.2.1 (DIA.)	BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND MANHOLE
3.3.0	BRICK/SOLID BLOCK TYPE "D" SQUARE CATCH BASIN
3.3.2	BRICK/SOLID BLOCK TYPE "F" SQUARE CATCH BASIN
3.3.3	SOLID BLOCK FLUSH SQUARE CATCH BASIN
3.4.0	BRICK/SOLID BLOCK TYPE "D" ROUND CATCH BASIN
3.4.1	BRICK/SOLID BLOCK ROUND CATCH BASIN WITH GUTTER INLET
3.4.2	BRICK/SOLID BLOCK TYPE "F" ROUND CATCH BASIN
3.4.3	BRICK/SOLID BLOCK TYPE "R" CATCH BASIN
3.4.4	SOLID BLOCK FLUSH ROUND CATCH BASIN
3.4.5 (DIA.)	BRICK/SOLID BLOCK 5'-0" OR 6'-0" ROUND CATCH BASIN
3.5.0	SOLID BLOCK SHALLOW TYPE "F" SQUARE CATCH BASIN
3.5.1 (SIZE)	SOLID BLOCK SHALLOW 5'-0" OR 6'-0" SQUARE CATCH BASIN
3.6.0	BRICK/SOLID BLOCK DROP INLET
3.7.0 (DIA.)	BRICK/SOLID BLOCK ROUND MANHOLE OR CATCH BASIN GREATER THAN 12'-0"
4.2.0	PRECAST 4'-0" ROUND MANHOLE
4.2.1	PRECAST 5'-0" ROUND MANHOLE
4.2.2	PRECAST 6'-0" ROUND MANHOLE
4.3.0 (SIZE)	PRECAST 4'-0" OR 6'-0" SQUARE MANHOLE OR CATCH BASIN
4.4.0 (DIA.)	PRECAST 4'-0", 5'-0", OR 6'-0" ROUND CATCH BASIN
4.5.0	PRECAST CONCRETE DROP INLET
4.5.1	PRECAST CONCRETE DROP INLET LATERAL OUTLET
4.5.2	PRECAST CONCRETE DROP INLET LONGITUDINAL OUTLET
5.3.0	CATCH BASIN AND MANHOLE STEP
5.4.0	CONCRETE COLLARS
6.1.0	LIGHT-DUTY SQUARE FRAME AND ROUND COVER
6.1.1	HEAVY DUTY SQUARE FRAME AND ROUND COVER
6.2.0	LIGHT-DUTY ROUND FRAME AND COVER
6.2.1	HEAVY-DUTY ROUND FRAME AND COVER
6.3.0	SQUARE FRAME AND GRATE
6.3.1	SQUARE FRAME AND GRATE
6.3.2	SQUARE FRAME AND GRATE (BICYCLE SAFE)
6.3.3	HIGH CAPACITY FRAME AND GRATE
6.3.4	HIGH CAPACITY FRAME AND GRATE (BICYCLE SAFE)
6.4.0	ROUND FRAME AND GRATE
7.1.0S	PRECAST CONCRETE CURB (STRAIGHT)
7.1.0C	PRECAST CONCRETE CURB (CIRCULAR)
7.1.1	3'-0" PRECAST CONCRETE TRANSITION CURB
7.1.2	6'-0" PRECAST CONCRETE TRANSITION CURB
7.1.4	PRECAST 2'-0" RADIUS CORNER
7.1.5	PRECAST CONCRETE INLET STONE (FOR SQUARE CATCH BASIN)
7.1.6	PRECAST CONCRETE INLET STONE (FOR ROUND CATCH BASIN)
7.1.7	PRECAST CONCRETE APRON STONE (FOR SQUARE CATCH BASIN)
7.1.8	PRECAST CONCRETE APRON STONE (FOR ROUND CATCH BASIN)
7.2.0S	PRECAST CONCRETE SLOPED FACE CURB (STRAIGHT)
7.2.0C	PRECAST CONCRETE SLOPED FACE CURB (CIRCULAR)
7.2.1	PRECAST CONCRETE SLOPED FACE TRANSITION CURB
7.2.2	PRECAST CONCRETE TRANSITION CURB (VERTICAL FACE TO SPLOPED FACE)
7.3.0S	GRANITE CURB (STRAIGHT)
7.3.0C	GRANITE CURB (CIRCULAR)
7.3.1	3'-0" GRANITE TRANSITION CURB
7.3.2	6'-0" GRANITE TRANSITION CURB
7.3.3	GRANITE WHEELCHAIR RAMP TRANSITION CURB
7.3.4	GRANITE 2'-0" RADIUS CORNER
7.3.5	GRANITE INLET STONE (FOR SQUARE CATCH BASIN)
7.3.6	GRANITE INLET STONE (FOR ROUND CATCH BASIN)
7.3.7	GRANITE APRON STONE (FOR SQUARE CATCH BASIN)
7.3.8	GRANITE APRON STONE (FOR ROUND CATCH BASIN)
7.4.0	GRANITE SLOPED FACE CURB
7.4.1	GRANITE SLOPED FACE TRANSITION CURB
7.4.2	GRANITE TRANSITION CURB (VERTICAL FACE TO SLOPE FACE)
7.5.0	BITUMINOUS CONCRETE LIP CURB
7.5.1A	BITUMINOUS BERM (CONSTRUCTION METHOD A)
7.5.1B	BITUMINOUS BERM (CONSTRUCTION METHOD B)
7.6.0	CURB SETTING DETAIL
8.2.0	BITUMINOUS CONCRETE DITCH
8.3.0	RIP-RAP DITCH
8.4.0	PAVED WATERWAY
9.1.0	BALED HAY EROSION CHECK
9.2.0	SILT FENCE DETAIL
9.3.0	BALED HAY DITCH EROSION CHECK AND SILT FENCE COMBINED
9.4.0	BALED HAY DITCH AND SWALE EROSION CHECK
9.5.0	LOG AND HAY CHECK DAM
9.7.0	DEWATERING BASIN
9.8.0	BALED HAY CATCH BASIN INLET PROTECTION
9.9.0	CONSTRUCTION ACCESS
10.1.0	WET STONE MASONRY RETAINING WALL
10.2.0	RUBBLE MASONRY WALL
10.3.0	CONCRETE RETAINING WALL
10.4.0	STONE MASONRY STEPS
14.1.0	CONCRETE HIGHWAY BOUND
15.1.0	POST AND MOUNTINGS FOR RURAL MAILBOX
15.2.0 (NO.)	POST AND MULTIPLE MOUNTINGS FOR RURAL MAILBOXES
18.2.0	PRECAST TYPE "A" HANDHOLE
18.2.2	HEAVY DUTY TYPE "H" HANDHOLE
18.3.0	ALUMINUM LIGHTING STANDARDS
20.2.0	BI-DIRECTIONAL CONTROL DEVICE
24.6.1	STREET SIGN MOUNTING DETAIL
26.2.0	POLYETHYLENE DRUM WITH MARKINGS
26.3.0	PVC PLASTIC PIPE TYPE III BARRICADE
31.1.0	CHAIN LINK FENCE 3'-0" TO 4'-0"
31.2.0	CHAIN LINK FENCE 5'-0" TO 6'-0"
31.2.1	CHAIN LINK FENCE 5'-0" TO 6'-0" INTERMEDIATE POST
31.3.0	WOVEN WIRE RIGHT-OF-WAY FENCE (STEEL POST)
34.1.0	TYPICAL GUARDRAIL INSTALLATION
34.2.0	STEEL BEAM GUARDRAIL
34.2.1	STEEL BEAM GUARDRAIL DETAILS
34.2.2	STEEL BEAM GUARDRAIL DOUBLE FACED ASSEMBLY
34.2.3	STEEL BEAM GUARDRAIL FIXTURES
34.2.5	STEEL BEAM GUARDRAIL REFLECTORIZED TRIANGULAR DELINEATOR
34.3.1	GUARDRAIL END SECTION
34.3.2	TERMINAL END SECTION (SINGLE FACE)
34.3.3	ANCHORAGE DETAILS APPROACH END SECTION
34.3.4	ANCHORAGE DETAILS TRAILING END SECTION
34.4.0	STEEL BACKED TIMBER GUARDRAIL
34.4.1	STEEL BACKED TIMBER GUARDRAIL TERMINAL SECTION-TYPE 1
40.1.0	DOUBLE-FACED PRECAST MEDIAN BARRIER
40.2.0	SINGLE-FACED PRECAST MEDIAN BARRIER
40.2.1	SINGLE-FACED PRECAST MEDIAN BARRIER
40.3.0	PRECAST MEDIAN BARRIER TRANSITION UNIT
40.5.0	PRECAST MEDIAN BARRIER FOR TEMPORARY TRAFFIC CONTROL
43.1.0	CEMENT CONCRETE SIDEWALK
43.2.0	BITUMINOUS CONCRETE SIDEWALK
43.3.0	WHEELCHAIR RAMP
43.3.1	WHEELCHAIR RAMP FOR LIMITED RIGHT-OF-WAY AREAS
43.4.0	DRIVEWAY DEVELOPMENT FOR 3'-0" TRANSITION CURB
43.4.1	DRIVEWAY DEVELOPMENT FOR 6'-0" TRANSITION CURB
43.5.0	CEMENT CONCRETE DRIVEWAYS
48.1.0	DETECTABLE WARNING SYSTEM
51.1.0	TREE PROTECTION DEVICE
51.1.1	DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES
51.2.0	SHRUB PROTECTION DEVICE
51.3.0	TREE WELL
51.4.0	TREE WALL

AB	ADJUST CATCH BASIN TO GRADE
ABM	ADJUST CATCH BASIN TO MANHOLE
AC	ADJUST CURB STOP TO GRADE
AD	ADJUST DRAINAGE MANHOLE TO GRADE
AE	ADJUST ELECTRIC MANHOLE TO GRADE
AFC	ADJUST FRAME AND COVER TO GRADE
AFG	ADJUST FRAME AND GRATE TO GRADE
AG	ADJUST GAS GATE BOX TO GRADE
AHH	ADJUST HANDHOLE TO GRADE
AS	ADJUST SANITARY SEWER MANHOLE TO GRADE
AT	ADJUST TELEPHONE MANHOLE TO GRADE
AW	ADJUST WATER GATE BOX TO GRADE
BCD	BITUMINOUS CONCRETE DRIVEWAY 3" BITUMINOUS CONCRETE TYPE 1-2 8" GRAVEL BORROW SUBBASE COURSE
BPS	BUILD NEW STRUCTURE OVER EXISTING PIPE
CCB	CLEAN CATCH BASIN
CCP	CUT AND CAP PIPE WITH RESTRAINT (ALL SIZES)
CFP	CLEAN AND FLUSH PIPE
CG	CLEARING AND GRUBBING
CMH	CLEAN MANHOLE
CP (DEPTH)	COLD PLANE
CPP	CUT AND PLUG PIPE (ALL TYPES, ALL SIZES)
DB	REMOVE AND DISPOSE BITUMINOUS CURB
DC	REMOVE AND DISPOSE CONCRETE CURB
DCB	REMOVE AND DISPOSE CATCH BASIN
DDI	REMOVE AND DISPOSE DROP INLET
DF	REMOVE AND DISPOSE FENCE
DFC	REMOVE AND DISPOSE FRAME AND COVER
DFE	REMOVE AND DISPOSE FLARED END SECTION
DFG	REMOVE AND DISPOSE FRAME AND GRATE
DFH	REMOVE AND DISPOSE FIRE HYDRANT
DFP	REMOVE AND DISPOSE FLEXIBLE PAVEMENT
DG	REMOVE AND DISPOSE GUARDRAIL
DH	REMOVE AND DISPOSE HEADWALL
DHB	REMOVE AND DISPOSE HIGHWAY BOUND
DHH	REMOVE AND DISPOSE HANDHOLE
DL	REMOVE AND DISPOSE LIGHT AND FOUNDATION
DMB	REMOVE AND DISPOSE MEDIAN BARRIER
DMH	REMOVE AND DISPOSE MANHOLE
DMM	REMOVE AND DISPOSE MEDIAN MARKER
DOW	REMOVE AND DISPOSE OBSERVATION WELL
DP	REMOVE AND DISPOSE PIPE
DPB	REMOVE AND DISPOSE PAVEMENT AND RIGID BASE
DRB	REMOVE AND DISPOSE RIGID BASE
DS	REMOVE AND DISPOSE SIGN
DSS	REMOVE AND DISPOSE TRAFFIC SIGNAL SYSTEM
DSW	REMOVE AND DISPOSE SIDEWALK
DTD	REMOVE AND DISPOSE TELEPHONE DUCT BANKS
DUP	REMOVE AND DISPOSE UTILITY POLE
DWW	REMOVE AND DISPOSE PAVED WATERWAY
FF	FILTER FABRIC RIPRAP FLARED END UNDERLAYMENT
GET	FLARED GUARDRAIL END TREATMENT
IA	IMPACT ATTENUATOR
IDL	IMPERVIOUS DITCH LINER
LOD	LIMIT OF DISTURBANCE
LOR	LIMIT OF REGRADING
LS	4" LOAM AND SEED

NFH	NEW FIRE HYDRANT WITH GATE VALVE
NIC	NOT IN THIS CONSTRUCTION CONTRACT
NWB	FURNISH AND INSTALL NEW WATER GATE VALVE BOX
NWVB	FURNISH AND INSTALL NEW WATER GATE VALVE AND BOX
NWCB	FURNISH AND INSTALL NEW WATER CURB STOP BOX
NWSB	FURNISH AND INSTALL NEW WATER CURB STOP AND BOX
PCD	PERMANENT CHECK DAM
PS	4" PLANTABLE SOIL AND SEED
RCB	RECONSTRUCT TYPE "D" CATCH BASIN, TO CATCH BASIN WITH GUTTER INLET
RCM	R.I.D.O.T. COMMUNICATIONS MANHOLE
RHH	REMOVE, HANDLE, HAUL, TRIM, RESET CURB EDGING, STRAIGHT, CIRCULAR (ALL TYPES)
RLP	RELOCATE LAMP POST
RMB	RELOCATE MAILBOX (BY OTHERS)
RPM	REMOVE PAVEMENT MARKINGS
RRP	RIP-RAP PAD (SEE DETAIL)
RRS	REMOVE AND RELOCATE SIGN
RUP	RELOCATE UTILITY POLE (BY OTHERS)
SB	STONE BAFFLE
SBAE	STEEL BEAM BRIDGE CONNECTION APPROACH END (W/O NESTED RAIL)
SBTE	STEEL BEAM BRIDGE CONNECTION TRAILING END (W/NESTED RAIL)
SD-	STRUCTURAL DISPOSITION - SEE CS PAGES OF SPECIFICATION
SF	REMOVE AND STOCKPILE FENCE
SGA	SPECIAL GRADED AGGREGATE
SGC	REMOVE AND STOCKPILE GRANITE CURB
SGR	REMOVE AND STOCKPILE GUARDRAIL
SH	REMOVE AND STOCKPILE HYDRANT
SS	REMOVE AND STOCKPILE SIGN
STS	REMOVE AND STOCKPILE TRAFFIC SIGNAL SYSTEM
TB	CONCRETE THRUST BLOCK
TEP	TIE EXISTING PIPE INTO NEW STRUCTURE
TNP	TIE NEW PIPE INTO EXISTING STRUCTURE
TBT	THRIE BEAM TRANSITION
TBBC	THRIE BEAM BRIDGE CONNECTION
TT	TREE TRIMMING
WCM	4" WOOD CHIP MULCH
4DY	4" EPOXY RESIN PAVEMENT MARKINGS - DOUBLE YELLOW
6W	6" EPOXY RESIN PAVEMENT MARKINGS - WHITE
12W	12" EPOXY RESIN PAVEMENT MARKINGS - WHITE
6WT	6" PREFORMED PATTERNED MARKING (HIGH PERFORMANCE TAPE)
4Y	4" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
6Y	6" EPOXY RESIN PAVEMENT MARKINGS - YELLOW
P.G.L.	PROFILE GRADE LINE

COLLINS ENGINEERS INC
2350 POST RD., SUITE 202
WARWICK, RI 02886
401.732.7714

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

STANDARD PLAN SYMBOLS & STANDARD LEGEND

CHECKED BY RAT DATE 07/27/18 SCALE NO SCALE

G:\10114 - RIDOT DEAN STREET\CAD\SHEET DRAWINGS\0163M_V1_02_STDSYM.DWG PER DPM 450.06

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	3	--

GENERAL NOTES:

1. ANY DAMAGE TO EXISTING PAVEMENT, BRIDGES, CONDUIT, SIDEWALK, FENCES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

2. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT AND MATERIAL AS FAR AWAY AS POSSIBLE FROM THE EDGE OF THE TRAVEL LANE SO AS NOT TO CAUSE A SAFETY HAZARD, IN ACCORDANCE WITH SECTION 106.06 OF THE R.I.D.O.T. STANDARD SPECIFICATION, LATEST EDITION.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE EXISTING CONDITIONS ARE NOT OBLITERATED BEFORE CONTROL POINTS ARE LOCATED AND CONSTRUCTION LAYOUT IS ESTABLISHED. THE CONSTRUCTION LAYOUT SHALL BE PROVIDED IN SUFFICIENT DETAIL, THEREBY ENABLING HIM TO CONSTRUCT THE PROJECT IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS. SURVEY WILL BE PROVIDED BY THE CONTRACTOR. THE RESIDENT ENGINEER WILL NOT AUTHORIZE CONSTRUCTION ACTIVITIES TO BEGIN UNTIL HE IS SATISFIED THAT ALL GROUND CONTROL HAS BEEN ESTABLISHED, TIED DOWN, AND DULY RECORDED IN STANDARD FIELD BOOKS.

4. ALL R.I. STD. 9.9.0 CONSTRUCTION ACCESS ROADS SHALL BE CONSTRUCTED PRIOR TO ANY ROADWAY ACCEPTING CONSTRUCTION TRAFFIC.

5. THE FREQUENCY AND APPLICATION RATES FOR THE DUST CONTROL ITEMS WILL BE AS DIRECTED BY THE ENGINEER.

6. ALL SIDEWALK AND DRIVEWAYS DESIGNATED FOR REPLACEMENT SHALL BE CUT AND MATCHED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

7. ASPHALT EMULSION TACK COAT SHALL BE PLACED PRIOR TO PAVEMENT PLACEMENT ON THE CONCRETE BASE OR COLD PLANED PAVEMENT, AND ON ANY NEW COURSE WHICH HAS BEEN OPEN TO TRAFFIC, OR ANY NEW COURSE WHICH HAS BEEN EXPOSED FOR MORE THAN 3 DAYS, AND/OR AS DIRECTED BY THE ENGINEER. IT SHALL ALSO BE APPLIED TO VERTICAL PAVEMENT FACES BETWEEN ADJOINING PAVEMENT SECTIONS. ALL APPLICATIONS ON BOTH HORIZONTAL AND VERTICAL SURFACES SHALL BE PAID FOR UNDER THE CONTRACT UNIT BID PRICE FOR CODE 403.0300 "ASPHALT EMULSION TACK COAT."

8. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS. IN ADDITION TO THOSE AREAS SPECIFICALLY DESIGNATED ON THE PLANS, THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND PLACING, AT HIS OWN EXPENSE, PLANTABLE SOIL AND SEED IN AREAS WHICH ARE OUTSIDE OF THE PROJECT'S AREAS OF DISTURBANCE AND WHICH ARE IMPACTED BY CONSTRUCTION OPERATIONS INCLUDING THOSE AREAS WHERE VEHICLES, EQUIPMENT AND MATERIALS ARE STORED WITH THE PERMISSION OF THE ENGINEER.

9. UNDER NO CIRCUMSTANCE WILL THE CONTRACTOR BE ALLOWED TO STOCKPILE REMOVED PAVEMENT MATERIALS WITHIN THE PROJECT LIMITS.

10. CLEANING AND SWEEPING OF PAVEMENT WILL INCLUDE REMOVAL OF ALL PAVEMENT DEBRIS PRIOR TO THE PLACEMENT OF EACH BITUMINOUS PAVEMENT LIFT. ALL CLEANING AND SWEEPING SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER.

11. PRIOR TO INSTALLATION, ALL SIGNS, MOUNTINGS AND LOCATIONS SHALL BE APPROVED OR MODIFIED BY THE ENGINEER.

12. THE COORDINATE SYSTEM, IF SHOWN, IS THE RHODE ISLAND STATE PLANE COORDINATE SYSTEM.

13. PAVEMENT OPERATIONS FOR CURBED SECTIONS: IN AREAS WHERE CURBING IS SET TO FINISH LINE AND GRADE, THE CONTRACTOR WILL NOT BE REQUIRED TO UTILIZE THE SENSOR AND SKY-TYPE DEVICE FOR AUTOMATIC GRADE CONTROL, BUT WILL BE ALLOWED TO MANUALLY ADJUST THE BITUMINOUS PAVER FOR CONTROLLING GRADE.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ROADWAYS FREE OF DEBRIS RESULTING FROM THEIR CONSTRUCTION OPERATIONS. ALL DEBRIS SHALL BE REMOVED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

15. NO FUEL STORAGE, VEHICLE REFUELING, OR EQUIPMENT STORAGE SHALL TAKE PLACE IN DESIGNATED WETLANDS, NOR WITHIN 100' OF ANY WATER BODY. THIS REQUIREMENT SHALL NOT SUPERSEDE ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION THAT APPLIES TO THE SAME, UNLESS THIS REQUIREMENT IS MORE STRINGENT THAN SAID LAW, ORDINANCE, RULE OR REGULATION.

16. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT AT THE END OF FINAL PAVING OPERATIONS, FLOW TO EXISTING DRAINAGE STRUCTURES HAS BEEN REESTABLISHED AND THAT NO ISOLATED DEPRESSIONS REMAIN. THERE SHALL BE NO SEPARATE PAYMENT FOR THIS PROVISION; IT SHALL BE CONSIDERED INCIDENTAL TO PAVING AND COLD PLANING OPERATIONS.

17. ALL EMBANKMENTS SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 12" (AFTER COMPACTION) AND SHALL BE COMPACTED AS SPECIFIED BEFORE THE NEXT LAYER IS PLACED. ALSO, EMBANKMENT CONSTRUCTION SHALL CONFORM TO SECTION 202.03.2 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.

18. IF THIS PROJECT IS ON A HURRICANE EVACUATION AND DIVERSIONARY ROUTE, AS DESIGNATED ON THE COVERSHEET, THE CONTRACTOR IS ADVISED THAT UPON 12 (TWELVE) HOURS NOTICE THE ROADWAY SHALL BE OPEN TO EVACUEES AND EMERGENCY PERSONNEL. ANY EXTRA WORK NECESSARY TO COMPLY WITH THIS REQUIREMENT WILL BE REIMBURSED UNDER FORCE ACCOUNT PROCEDURES.

19. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS STATED IN THE ENVIRONMENTAL APPROVALS ISSUED FOR THE PROJECT FROM THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (RIDEM). AND/OR THE ARMY CORPS OF ENGINEERS (ACOE). AND/OR THE COASTAL RESOURCES MANAGEMENT COUNCIL (CRMC). COPIES OF EACH OF THESE PERMITS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH THESE CONDITIONS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).

20. FOR ALL PROJECTS INVOLVING KNOWN SITE REMEDIATION ISSUES, THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE CONSTRUCTION RELATED PROVISIONS, CONDITIONS, AND STIPULATIONS OF ANY REMEDIAL PLANS DEVELOPED FOR THE PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH COMPLIANCE WITH THESE DOCUMENTS SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).

21. NO UNPROTECTED CONSTRUCTED FEATURE MAY PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. HEADWALL, DRAINAGE INLET, ETC.

22. THE REMAINING SECTION OR STUB OF A BREAKAWAY BASE MAY NOT PROJECT MORE THAN 4 INCHES ABOVE THE FINISHED GRADE OF A TRAVERSABLE SLOPE IN A CLEAR ZONE, e.g. SIGN POSTS, LIGHT POLES, FIRE HYDRANTS, ETC.

DRAINAGE AND EROSION CONTROL NOTES:

1. FOR ALL PROJECTS WITH AT LEAST ONE(1) ACRE OF SOIL DISTURBANCE. R.I.D.O.T. IS REQUIRED TO DEVELOP AND ENFORCE A SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IN ORDER TO REMAIN IN COMPLIANCE WITH THE RIPDES GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL READ, BECOME FAMILIAR WITH, AND ADHERE TO ALL OF THE PROVISIONS, CONDITIONS, AND STIPULATIONS OF THE GENERAL PERMIT AND THE SITE SPECIFIC SWPPP FOR THIS PROJECT. COPIES OF THESE DOCUMENTS ARE INCLUDED IN THE CS PAGES OF THE CONTRACT DOCUMENTS. ALL COSTS ASSOCIATED WITH ADHERENCE TO THE SWPPP SHALL BE CONSIDERED INCIDENTAL TO THE CONSTRUCTION AND INCLUDED WITH THE COST FOR THE ASSOCIATED BID ITEM(S).

2. NO UNDISTURBED AREAS SHALL BE CLEARED OF EXISTING VEGETATION AFTER OCTOBER 15 OF ANY CALENDAR YEAR OR DURING ANY PERIOD OF FULL OR LIMITED WINTER SHUTDOWN. ALL DISTURBED SOILS EXPOSED PRIOR TO OCTOBER 15 OF ANY CALENDAR YEAR SHALL BE SEEDED OR PROTECTED BY THAT DATE. ANY SUCH AREAS THAT DO NOT HAVE ADEQUATE VEGETATIVE STABILIZATION, AS DETERMINED BY THE RESIDENT ENGINEER OR ENVIRONMENTAL INSPECTOR, BY NOVEMBER 15 OF ANY CALENDAR YEAR, MUST BE STABILIZED THROUGH THE USE OF EROSION CONTROL MATTING OR HAY MULCH, IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE R.I. SOIL EROSION AND SEDIMENT CONTROL HANDBOOK. IF WORK CONTINUES WITHIN ANY OF THESE AREAS DURING THE PERIOD FROM OCTOBER 15 THROUGH APRIL 15, CARE MUST BE TAKEN TO ENSURE THAT ONLY THE AREA REQUIRED FOR THAT DAY'S WORK IS EXPOSED, AND ALL ERODIBLE SOIL MUST BE RESTABILIZED WITHIN 5 WORKING DAYS. ANY WORK TO CORRECT PROBLEMS RESULTING FROM FAILURE TO COMPLY WITH THIS PROVISION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THERE WILL BE NO SEPARATE PAYMENT FOR THIS PROVISION, IT SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION OPERATIONS. STABILIZATION OF ONE FORM OR ANOTHER AS DESCRIBED ABOVE SHALL BE ACHIEVED WITHIN 2 WEEKS OF FINAL GRADING.

3. STOCKPILES OF MATERIAL SHALL NOT BE LOCATED WITHIN REGULATED WETLANDS OR BUFFER ZONE AREAS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND STOCKPILES OF ERODABLE MATERIAL SHALL ALSO BE SEEDED AND RINGED WITH R.I. STD. 9.1.0 TO STABILIZE.

4. IF THE PLANS INCLUDE SPECIFIC AREAS FOR PLACEMENT OF CONSTRUCTION DEWATERING BASINS AND/OR EQUIPMENT AND MATERIALS STORAGE AND STOCKPILING, AND IF THE CONTRACTOR ELECTS TO UTILIZE ANY OTHER AREAS FOR THESE PURPOSES, THIS SHALL BE APPROVED BY THE ENGINEER ONLY AFTER OBTAINING ANY NECESSARY PERMITS AND/OR PERMIT MODIFICATIONS FROM THE APPROPRIATE REGULATORY AUTHORITY(IES). ANY PERMITTING REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE ACCOMPLISHED AT NO COST TO THE STATE. THE ENGINEER WILL COORDINATE SUBMISSION OF ANY REQUIRED PERMIT APPLICATION MATERIALS WITH THE R.I.D.O.T. OFFICE OF ENVIRONMENTAL PROGRAMS.

5. JUTE MESH SHALL BE USED TO STABILIZE PLANTABLE SOIL AND/OR LOAM IN ALL DITCHES, ON ALL SLOPES ADJACENT TO WETLANDS AND WETLAND PERIMETERS, AND ON ALL SLOPES WITHIN WATER QUALITY BASINS. JUTE MESH IN DITCHES SHALL EXTEND TO AN ELEVATION 2 FEET ABOVE THE BOTTOM OF THE DITCH.

6. SEEDING ON ALL SLOPES 3 TO 1 OR STEEPER SHALL CONSIST OF THE FOLLOWING APPLICATIONS UNLESS CHANGED IN THE CONTRACT.

   a. SEEDING TYPE I.

   b. ADHESIVE MULCH STABILIZER

7. UNVEGETATED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR PERIODS IN EXCESS OF 2 WEEKS OR THROUGH THE INACTIVE WINTER SEASON.

8. PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION (HORIZONTAL AND VERTICAL) OF ALL EXISTING PIPES AND/OR STRUCTURES WHICH ARE TO BE CONNECTED. ANY VARIATION FOUND FROM THE PLANS MUST BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO DRAINAGE AND UTILITY CONSTRUCTION. WORK CAN COMMENCE ONLY UPON THE ENGINEER'S AUTHORIZATION.

9. ALL DRAINAGE AND UTILITY STRUCTURES WITHIN THE PAVED ROADWAY SHALL BE ADJUSTED TO GRADE WITH THE SURROUNDING PAVEMENT PRIOR TO THE WINTER SHUTDOWN.

10. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DRAINAGE AND RUNOFF FLOW DURING STORMS AND PERIODS OF RAINFALL THROUGHOUT THE WORK AREA.

11. CATCH BASIN RIM GRADES NOTED ON PLANS ARE DEPRESSED 0.1' LOWER THAN THE GUTTER GRADE. RIM ELEVATIONS SHOWN ARE FINAL GRADES. THE CONTRACTOR SHALL PLACE FRAMES AND GRATES 0.1' BELOW THE GRADE CONSTRUCTED IN THIS CONTRACT OR AS DIRECTED BY THE ENGINEER.

12. PROVISIONS FOR CLEARING TO ACCESS OUTFALLS DURING THE CLEANING AND FLUSHING OF THE CLOSED DRAINAGE SYSTEM SHALL BE KEPT TO A MINIMUM.

   a. ANY VEGETATIVE CLEARING SHALL BE LIMITED TO BRUSH AND TREES LESS THAN 3" DIAMETER.

   b. NO HEAVY EQUIPMENT MAY ENCROACH UPON VEGETATED PERIMETER OR RIVERBANK WETLANDS AS WELL AS BIOLOGICAL WETLANDS.

13. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL DEVICES FOR OUTLET PROTECTION PRIOR TO CLEANING AND FLUSHING STORM WATER DRAINAGE. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL FLUSHED SEDIMENTS ARE REMOVED. AT ALL OUTFALL LOCATIONS WHERE PIPES ARE TO BE CLEANED AND FLUSHED, OUTLET PROTECTION (R.I. STD. 9.1.0 OR 9.3.0) SHALL BE INSTALLED TO TRAP SEDIMENTS. THESE SEDIMENTS SHALL THEN BE REMOVED AND DISPOSED OF LEGALLY BEFORE THE OUTLET PROTECTION DEVICES ARE REMOVED. IF OUTLET PROTECTION AT THE OUTFALL IS NOT FEASIBLE, THEN THE OUTLET PIPE OF THE LAST DRAINAGE STRUCTURE TO BE CLEANED SHALL BE PLUGGED TO CAPTURE ALL MATERIALS FLUSHED FROM PIPES. AFTER THE MATERIALS ARE REMOVED FROM THE DRAINAGE STRUCTURE, THE OUTLET SHALL BE UNPLUGGED TO RESUME NORMAL FUNCTIONING.

14. R.I. STD. 9.8.0 BALED HAY INLET PROTECTION SHALL BE INSTALLED AT ALL CATCH BASINS AND INLETS WHENEVER SUBBASE IS EXPOSED, AND SHALL REMAIN IN PLACE UNTIL THE ABUTTING GROUND SURFACES ARE STABILIZED.

15. WHERE BALED HAY INLET PROTECTION AND SILT FENCES ARE USED AT CATCH BASINS, THEY SHALL BE REMOVED AT THE END OF THE PROJECT OR AS DIRECTED BY THE ENGINEER IN ORDER TO PREVENT CLOGGING OF THE INLET.

DRAINAGE AND EROSION CONTROL NOTES (CONTINUED):

16. DETENTION AND RETENTION BASINS MAY BE ROUGH GRADED AND STABILIZED WITH VEGETATION AND/OR OTHER EROSION CONTROL MEASURES AS REQUIRED BY THE ENGINEER PRIOR TO USE AS TEMPORARY SEDIMENTATION BASINS DURING PROJECT CONSTRUCTION. FINAL BASIN CONSTRUCTION SHALL NOT COMMENCE UNTIL ALL SOURCES OF SEDIMENT HAVE BEEN ELIMINATED, FINAL ROADSIDE VEGETATION IS ESTABLISHED AND USE OF TEMPORARY BASINS IS NO LONGER REQUIRED AS DIRECTED BY THE ENGINEER. ANY ISSUES RELATING TO EROSION AND/OR SEDIMENT TRANSPORT INTO WETLAND AREAS RESULTING FROM SUCH USE OF SEDIMENTATION BASINS DURING CONSTRUCTION SHALL BE THE RESPONSIBILTY OF THE CONTRACTOR. ANY CORRECTIVE ACTION REQUIRED TO RESOLVE SUCH ISSUES SHALL BE COMPLETED BY THE CONTRACTOR.

17. THE TOE OF ANY FILL SLOPE IS TO REMAIN AT LEAST 1' INSIDE OF ALL EROSION CONTROLS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR COVER ANY PORTION OF THE EROSION CONTROL MEASURES WITH MATERIAL. ANY MATERIAL THAT IS PLACED ON ANY EROSION CONTROLS BY THE CONTRACTOR, OR ANY AGENT OF THE CONTRACTOR, SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR, AND ANY NECESSARY REPAIRS TO THE EROSION CONTROLS ACCOMPLISHED.

18. PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES, EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AT THOSE AREAS INDICATED ON THE PLANS. CLEARING MAY OCCUR PRIOR TO INSTALLATION OF SUCH CONTROLS, HOWEVER NO GRUBBING, GRADING, FILLING, OR OTHER SOIL DISTURBANCE SHALL OCCUR PRIOR TO INSTALLATION. THE LIMITS OF CLEARING AND SURFACE DISTURBANCE MUST BE STRICTLY ADHERED TO IN ALL AREAS.

19. ALL HAY BALES, SILT FENCE OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS IS ESTABLISHED. IF NEEDED, TEMPORARY SEEDING CAN HELP TO MINIMIZE EROSION. TEMPORARY SEED WILL CONFORM TO R.I.D.O.T. STANDARD TEMPORARY SEED MIX.

20. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN THE PERIOD OF ONE YEAR AND HE SHALL DO SO AT NO ADDITIONAL EXPENSE TO THE STATE.

21. THE NORMAL ACCEPTABLE SEASONAL SEEDING DATES ARE SPECIFIED IN SUBSECTION L.02.03 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.

22. ADDITIONAL EROSION CONTROLS, SHALL BE INSTALLED AS DIRECTED BY THE RESIDENT ENGINEER. THESE ADDITIONAL ITEMS WILL BE PAID AT THE UNIT PRICE FOR THAT BID ITEM.

UTILITY NOTES:

1. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. BUILDING SERVICE CONNECTIONS (ELECTRIC, GAS, TELEPHONE, WATER AND SANITARY) ARE NOT SHOWN. CONTRACTOR IS TO ASSUME SERVICES ARE PRESENT TO ALL BUILDINGS.

2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING DRAINAGE AND UTILITIES BOTH UNDERGROUND AND OVERHEAD BEFORE EXCAVATION BEGINS IN ACCORDANCE WITH CHAPTER 39-1.2 OF THE R.I. GENERAL LAWS ENTITLED "EXCAVATION NEAR UNDERGROUND UTILITY FACILITIES", WITH AMENDMENTS EFFECTIVE AS OF NOVEMBER 1, 2009 AND, WHEN NECESSARY, BY CONTACTING THE INDIVIDUAL UTILITY COMPANIES. EXCAVATION SHALL BE IN ACCORDANCE WITH ALL STATUTES, ORDINANCES, RULES AND REGULATIONS OF ANY APPLICABLE CITY, TOWN, STATE OR FEDERAL AGENCY. THE CONTRACTOR SHOULD UNDERSTAND THAT NOT ALL UTILITIES SUBSCRIBE TO THE DIG SAFE PROGRAM. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES AND ENSURE THAT ALL UTILITIES HAVE BEEN MARKED PRIOR TO COMMENCING THEIR WORK. ANY DAMAGE TO EXISTING UTILITIES MARKED IN THE FIELD, OR AS A RESULT OF FAILING TO CONTACT THE APPROPRIATE UTILITY COMPANY, SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE STATE.

3. ALL EXISTING UTILITIES TO BE ABANDONED SHALL BE CAPPED.

4. EXISTING WATER SERVICES SHALL BE RECONNECTED TO THE NEW WATER MAINS.

5. UTILITY SERVICE CONNECTIONS SHALL BE MAINTAINED TO ALL EXISTING FACILITIES TO REMAIN.

6. FIRE HYDRANTS SHALL NOT BE REMOVED FROM SERVICE WITHOUT WRITTEN AUTHORIZATION FROM THE FIRE DEPARTMENT OR THE WATER AUTHORITY.

7. ALL NEW WATER LINES SHALL BE DISINFECTED TO THE SATISFACTION OF THE WATER AUTHORITY IN ACCORDANCE WITH THE SPECIFICATIONS.

8. ALL UTILITY POLE RELATED WORK SHALL BE BY OTHERS.

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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

STANDARD NOTES-1

CHECKED BY RAT DATE 07/27/18 SCALE NO SCALE

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	4	--

LANDSCAPE NOTES:

1. ALL PLANT MATERIAL MUST BE TAGGED AT THE NURSERY (A RECOGNIZED GROWER OF PLANT MATERIAL) IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION. ALL PLANT MATERIAL MUST BE NURSERY GROWN; NO PLANTATION GROWN PLANT MATERIAL WILL BE ACCEPTED.
2. ALL PLANT SUBSTITUTIONS AND/OR CHANGES IN PLANT LOCATION MUST BE APPROVED IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. ALL PLANT MATERIAL IS TO BE FIELD LOCATED BY A REPRESENTATIVE FROM THE R.I.D.O.T. LANDSCAPE ARCHITECTURE UNIT.
4. A R.I.D.O.T. LANDSCAPE REPRESENTATIVE MUST BE ON SITE TO APPROVE ALL TRIMMING AND CLEARING NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS.
5. ANY TOPSOIL USED AS PLANTABLE SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS, AND SHALL CONFORM TO SECTION M.18 OF THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
6. ALL TREES AND SHRUBS SHALL BE MULCHED WITH PINE BARK MULCH IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
7. ALL TREES AND/OR SHRUBS THAT ARE PLANTED AS A BED SHALL BE MULCHED AS A BED.
8. PROVIDE A MINIMUM 6'-8" BRANCHING STANDARD ON ALL TREES INSTALLED ADJACENT TO SIDEWALKS AND/OR PEDESTRIAN ACCESS AREAS.

STRUCTURAL NOTES FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS:

GENERAL

1. ALL SUPPORT DESIGNS AND ASSOCIATED SHOP DRAWING REVIEWS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION, OF THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (THE "SPECIFICATIONS"), INCLUDING THE LATEST INTERIM SPECIFICATIONS, EXCEPT AS MODIFIED HEREIN.

CONSTRUCTION DRAWINGS AND DETAILS

1. THE FOLLOWING NOTES SHALL BE INCLUDED ON ALL PLANS AND/OR SHOP DRAWINGS IN REFERENCE TO ANCHOR BOLTS:

   "PRETENSIONING OF ALL ANCHOR NUTS IS REQUIRED, AND SHALL BE ACCOMPLISHED BY TIGHTENING TO 1/6TH TURN BEYOND THE SNUG-TIGHT POSITION."

   "THE MAXIMUM CLEARANCE BETWEEN THE BOTTOM OF THE LEVELING NUTS AND THE TOP OF THE CONCRETE IS CRITICAL AND SHALL NOT EXCEED THE AMOUNT SPECIFIED ON THIS DRAWING."

2. THE USE OF GROUT UNDER BASE PLATES SHALL GENERALLY NOT BE PERMITTED. IF SPECIFIC CONDITIONS WARRANT ITS USE, THE GROUT SHALL NOT BE CONSIDERED LOAD CARRYING; LOADS SHALL BE DIRECTLY SUPPORTED BY THE ANCHOR BOLTS. ADEQUATE DRAINAGE SHALL BE PROVIDED.
3. THE DAMPENING EFFECTS OF VIBRATION MITIGATION DEVICES SHALL NOT BE CONSIDERED IN THE DESIGN OF STRUCTURAL SUPPORTS FOR SIGNS AND TRAFFIC SIGNALS. IF THE CONTRACTOR CHOOSES TO USE THESE DEVICES FOR WARRANTY PURPOSES, THE TYPE OF DEVICES PROPOSED SHALL BE APPROVED BY THE DEPARTMENT PRIOR TO FABRICATION OF SUPPORTS.

TRAFFIC SIGNAL NOTES:

1. ALL SALVAGED TRAFFIC SIGNAL EQUIPMENT SHALL BE DELIVERED TO THE R.I.D.O.T. MAINTENANCE HEADQUARTERS, 360 LINCOLN AVENUE, WARWICK, RHODE ISLAND, 02888.
2. BACK PLATES SHALL BE INSTALLED ON ALL TRAFFIC SIGNAL HEADS.
3. THE CONTRACTOR SHALL SUPPLY AND INSTALL ON THE UPPER LEFT HAND CORNER OF THE BACK OF THE CONTROLLER CABINET DOOR A LAMINATED INTERSECTION GRAPHIC AND TABLE DEPICTING THE TRAFFIC DETECTOR RELAY CHANNEL ASSIGNMENTS. THE DIAGRAM SHALL BE A GRAPHIC OF THE INDIVIDUAL INTERSECTION ORIENTED SIMILAR TO THE PLANS SHOWING THE LOCATIONS OF EACH OF THE LOOP DETECTORS. THE DIAGRAM SHALL, AT A MINIMUM, INCLUDE DETECTOR NUMBERS, STREET NAME LABELS, NORTH ARROW, AND CONTROLLER CABINET LOCATION. THE ASSIGNMENT INFORMATION SHALL BE INCLUDED IN A TABLE WHICH SHALL INCLUDE, AT A MINIMUM, THE APPROACH NAME, DETECTOR NUMBER, TERMINAL NUMBER, DETECTOR RACK SLOT NUMBER, RELAY NUMBER, RELAY CHANNEL NUMBER, AND PHASE ASSOCIATED WITH EACH DETECTOR.
4. TRAFFIC CONTROLLER CABINETS, UNLESS OTHERWISE NOTED, SHALL BE NEMA TS2 TYPE 1 CABINET SIZE 6 ("P" TYPE) WITH NOMINAL DIMENSIONS OF 52"Hx44"Wx24"D.
5. ALL DELAY AND EXTENSION TIMES, AS CALLED FOR ON THE PLANS, FOR PROPOSED LOOP DETECTORS SHALL BE PROGRAMMED IN THE TRAFFIC SIGNAL CONTROLLER AND NOT THE DETECTOR RELAY.
6. A BARE GROUND WIRE SHALL BE PLACED IN ALL PVC CONDUITS AND SHALL BE BONDED TO GROUND RODS IN ACCORDANCE WITH SECTION T.03 OF THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
7. THE FINAL POSITION OF SIGNAL HEADS, PEDESTRIAN PUSHBUTTONS, DETECTORS, AND STOP LINE AND CROSSWALK PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD ACCORDING TO ACTUAL INTERSECTION CHARACTERISTICS.
8. A 2' MINIMUM BUFFER SHALL BE PROVIDED BETWEEN THE CURB AND ALL LATERAL OBSTRUCTIONS (INCLUDING ALL SIGNAL POLES AND TRAFFIC/PEDESTRIAN SIGNAL HEADS) TO PROVIDE ADEQUATE CLEARANCE FOR TURNING VEHICLES.
9. ALL FOUNDATIONS MUST HAVE CONES OR BARRELS BOLTED TO FOUNDATION BASES UNTIL ACTUAL POLE IS INSTALLED.
10. WHEN PLACING TRAFFIC SIGNAL HANDHOLES OR CONDUIT IN EXISTING PORTLAND CEMENT CONCRETE SIDEWALKS, THE ENTIRE SIDEWALK SQUARE OF CONCRETE SHALL BE REPLACED IN ACCORDANCE WITH R.I. STD. 43.1.0. NO PATCHES WILL BE ALLOWED.
11. ALL PEDESTRIAN PUSHBUTTONS SHALL BE COMPLIANT WITH "THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES" (ADAAG) AND SHALL INCLUDE A PRESSURE-ACTIVATED (NON-MOVING) BUTTON. SIGNS APPLICABLE TO PUSHBUTTON ACTUATION SHALL BE INSTALLED SUCH THAT THE CROSSING ASSIGNED TO EACH BUTTON IS CLEARLY INDICATED. IF SITE CONDITIONS DO NOT ALLOW PEDESTRIAN PUSHBUTTONS TO BE INSTALLED WHERE CALLED FOR ON THE PLANS, THE R.I.D.O.T. TRAFFIC ENGINEERING UNIT SHALL BE CONSULTED WITH THROUGH AN R.F.I. PRIOR TO INSTALLING THE PUSHBUTTONS. THE FINAL PLACEMENT OF ALL PEDESTRIAN PUSHBUTTONS SHALL BE IN ACCORDANCE WITH ADAAG AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
12. ALL LOOP DETECTORS SHALL BE CENTERED WITHIN EACH LANE AS DELINEATED, UNLESS OTHERWISE DIMENSIONED ON PLANS.
13. ALL LOOP DETECTORS SHALL BE CUT INTO THE FINAL PAVEMENT SURFACE COURSE.
14. TRAFFIC SIGNAL CONTROLLERS SHALL BE WIRED SO THAT ANY FIRE PRE-EMPTION SHALL OVERRIDE MANUAL (PUSH BUTTON) OPERATION.
15. THE CONTRACTOR SHALL WORK CONTINUOUSLY TO RESTORE TRAFFIC SIGNAL OPERATION TO ITS INTENDED PURPOSE WHEN REPLACING THE TRAFFIC SIGNAL EQUIPMENT. A POLICE DETAIL IS REQUIRED TO DIRECT TRAFFIC AT THE INTERSECTION AT ALL TIMES WHEN THE TRAFFIC SIGNAL IS INOPERATIVE. AT NO TIME SHALL THE CONTRACTOR LEAVE THE SITE BEFORE RESTORING FULL TRAFFIC OPERATIONS.

MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. ALL MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL SETUPS, SIGNS, CHANNELIZING DEVICES, ETC., SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
2. ALL SIGN MOUNTINGS FOR TEMPORARY AND CONSTRUCTION SIGNS SHALL BE IN ACCORDANCE WITH THE R.I.D.O.T. STANDARD SPECIFICATIONS, LATEST EDITION.
3. THE CONTRACTOR SHALL COVER ALL EXISTING AND/OR TEMPORARY SIGNS THAT ARE NOT RELEVANT TO THE TRAFFIC CONTROL REQUIRED DURING ANY PARTICULAR STAGE OF THE CONTRACT.
4. ADVANCE FLAGPERSON SIGNS (W20-7A) SHALL BE USED IN ADVANCE OF ANY POINT AT WHICH A FLAGPERSON OR A POLICE OFFICER HAS BEEN STATIONED TO CONTROL TRAFFIC. WHEN NEEDED, AN APPROPRIATE DISTANCE MESSAGE MAY BE DISPLAYED ON A SUPPLEMENTAL PLATE (24"x18") BELOW THE FLAGPERSON SYMBOL SIGN. THE SIGN SHALL BE PROMPTLY REMOVED OR COVERED WHENEVER THE FLAGPERSON IS NOT AT THE STATION.
5. POLICE OFFICERS (AND NOT FLAGPERSONS) SHALL BE UTILIZED WHEN WORK WILL IMPACT SIGNALIZED INTERSECTIONS AND LIMITED ACCESS HIGHWAYS.
6. POLYETHYLENE DRUMS SHALL BE UTILIZED AS A CHANNELIZING DEVICE WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN BEYOND WORKING HOURS WHEN NO WORKERS ARE PRESENT. CONES SHALL BE UTILIZED WHEN A TRAFFIC CONTROL SET-UP IS TO REMAIN ONLY DURING WORKING HOURS AND IS SUBSEQUENTLY BROKEN DOWN AT THE END OF THE WORKDAY.
7. ARROW PANELS SHALL BE SET IN THE FLASHING FOUR CORNERS CAUTION MODE UNLESS UTILIZED FOR A MERGING TAPER. ARROW PANELS SET IN THE FLASHING ARROW MODE SHALL NOT BE UTILIZED FOR LANE SHIFTS.
8. TEMPORARY CONSTRUCTION SIGNS AND OTHER WORKZONE TRAFFIC CONTROL DEVICES THAT ARE DAMAGED OR REQUIRE RELOCATION SHALL BE REPLACED AND / OR RELOCATED UNDER THE PAY ITEM FOR "MAINTENANCE AND MOVEMENT TRAFFIC PROTECTION."
9. THE PRIVATE VEHICLES OF CONSTRUCTION WORKERS SHALL NOT BE PARKED ON THE TRAVEL LANES OR SHOULDERS. THEY MAY BE PARKED WITHIN THE STATE RIGHT-OF-WAY ONLY IN AREAS 30' BEYOND THE OUTSIDE EDGE OF THE TRAVEL LANES AND/OR IN AREAS APPROVED BY THE ENGINEER.
10. TEMPORARY CONSTRUCTION SIGNS AND OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PRIOR TO THE START OF WORK IN ANY AREA OPEN TO TRAFFIC, AND SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER APPROPRIATE.
11. THE INTENDED VEHICLE PATHS THROUGH EACH WORK ZONE SHALL BE CLEARLY MARKED AT ALL TIMES. WATERBORNE PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE THE END OF THE WORK SHIFT ON ALL COLD-PLANED AND NEW ROADWAY SURFACES THAT WILL BE OPENED TO TRAFFIC AT THE END OF THE SHIFT.

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

STANDARD NOTES-2

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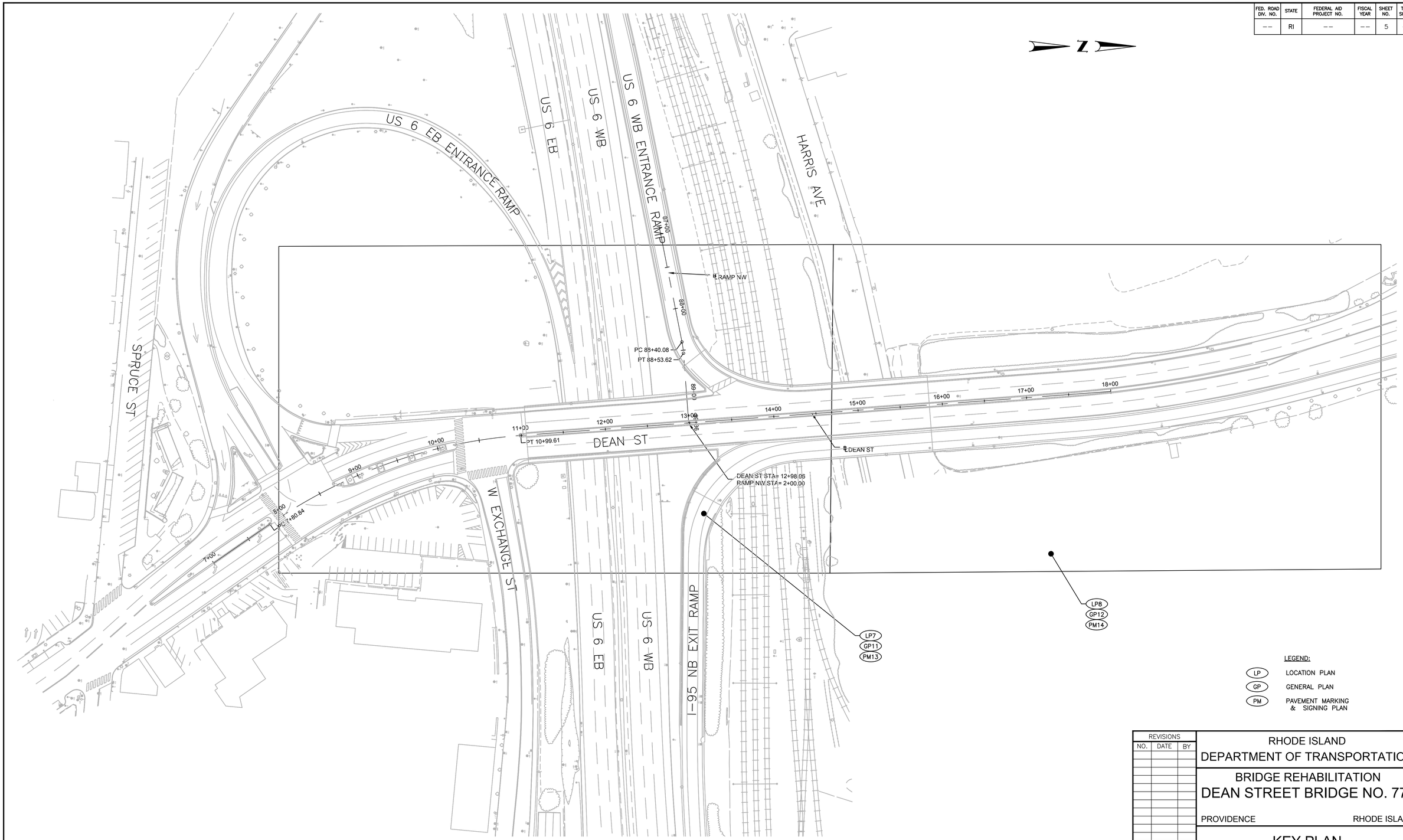
CHECKED BY RAT DATE 07/27/18 SCALE NO SCALE

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	5	--



LEGEND:

- LP — LOCATION PLAN
- GP — GENERAL PLAN
- PM — PAVEMENT MARKING & SIGNING PLAN

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE — RHODE ISLAND

KEY PLAN

(SHEET 1 OF 1)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 50'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	6	--

DEAN STREET ALIGNMENT DATA

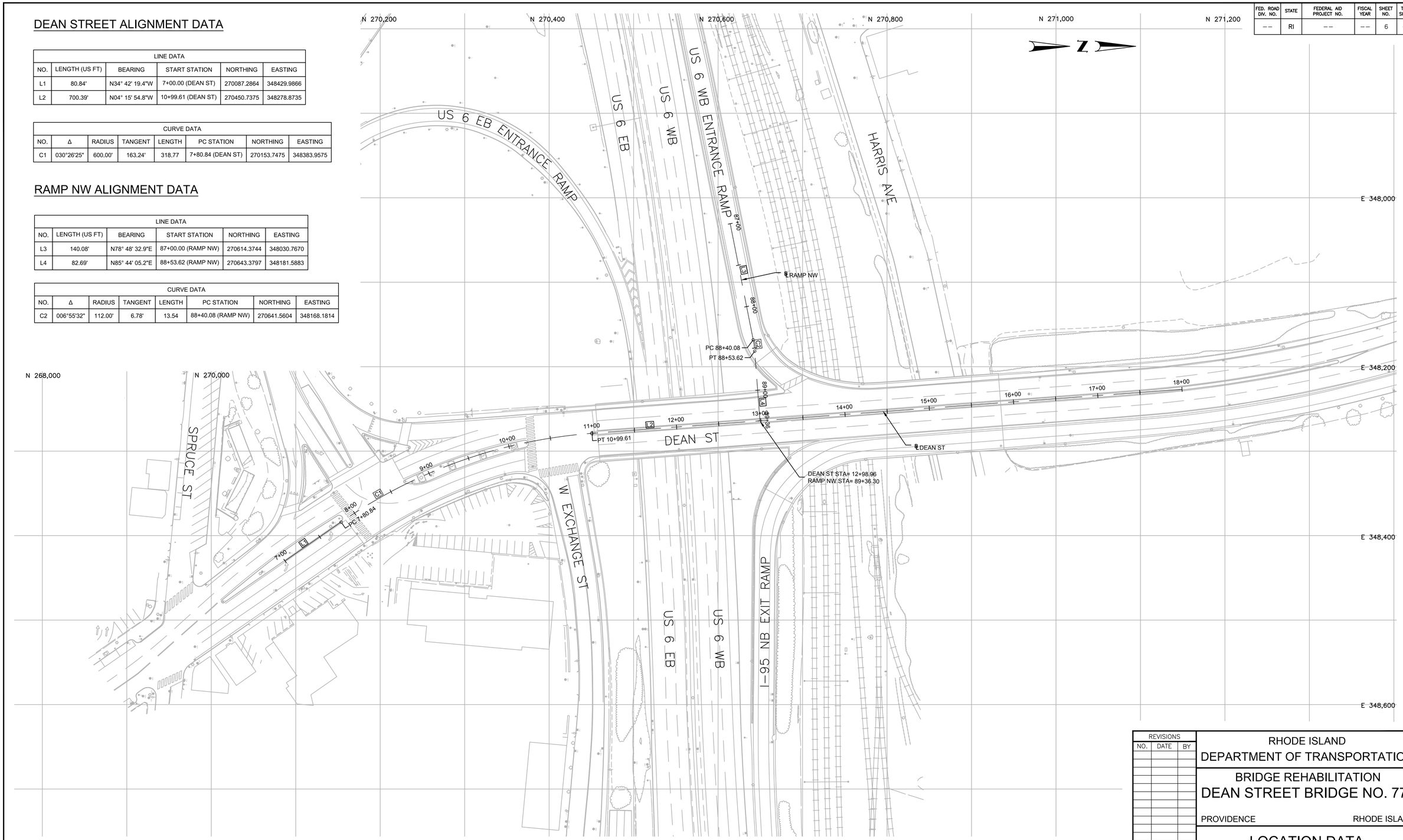
LINE DATA					
NO.	LENGTH (US FT)	BEARING	START STATION	NORTHING	EASTING
L1	80.84'	N34° 42' 19.4"W	7+00.00 (DEAN ST)	270087.2864	348429.9866
L2	700.39'	N04° 15' 54.8"W	10+99.61 (DEAN ST)	270450.7375	348278.8735

CURVE DATA							
NO.	Δ	RADIUS	TANGENT	LENGTH	PC STATION	NORTHING	EASTING
C1	030°26'25"	600.00'	163.24'	318.77	7+80.84 (DEAN ST)	270153.7475	348383.9575

RAMP NW ALIGNMENT DATA

LINE DATA					
NO.	LENGTH (US FT)	BEARING	START STATION	NORTHING	EASTING
L3	140.08'	N78° 48' 32.9"E	87+00.00 (RAMP NW)	270614.3744	348030.7670
L4	82.69'	N85° 44' 05.2"E	88+53.62 (RAMP NW)	270643.3797	348181.5883

CURVE DATA							
NO.	Δ	RADIUS	TANGENT	LENGTH	PC STATION	NORTHING	EASTING
C2	006°55'32"	112.00'	6.78'	13.54	88+40.08 (RAMP NW)	270641.5604	348168.1814



REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

LOCATION DATA

(SHEET 1 OF 1)

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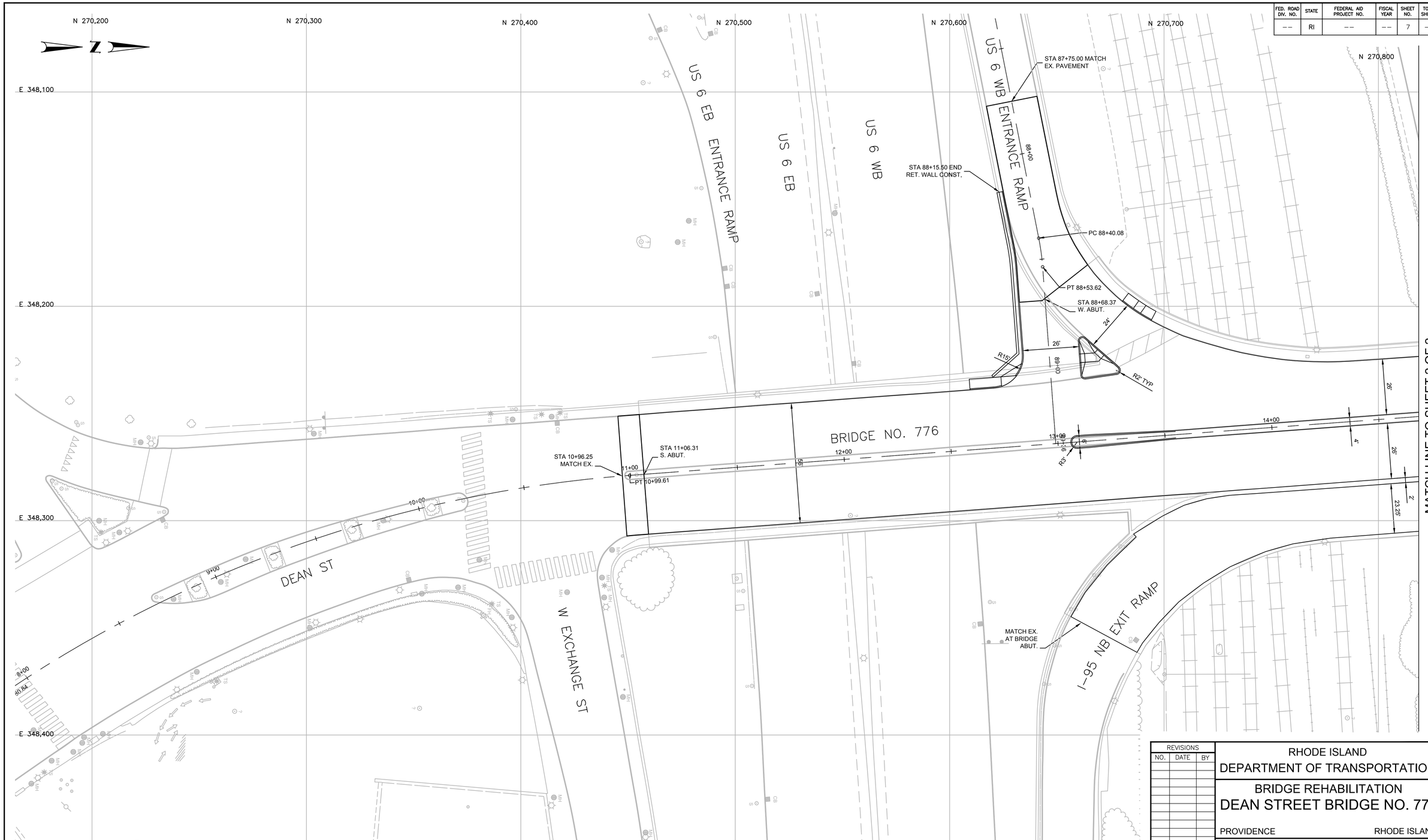

REVISIONS		
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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

LOCATION PLAN

(SHEET 1 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 20'

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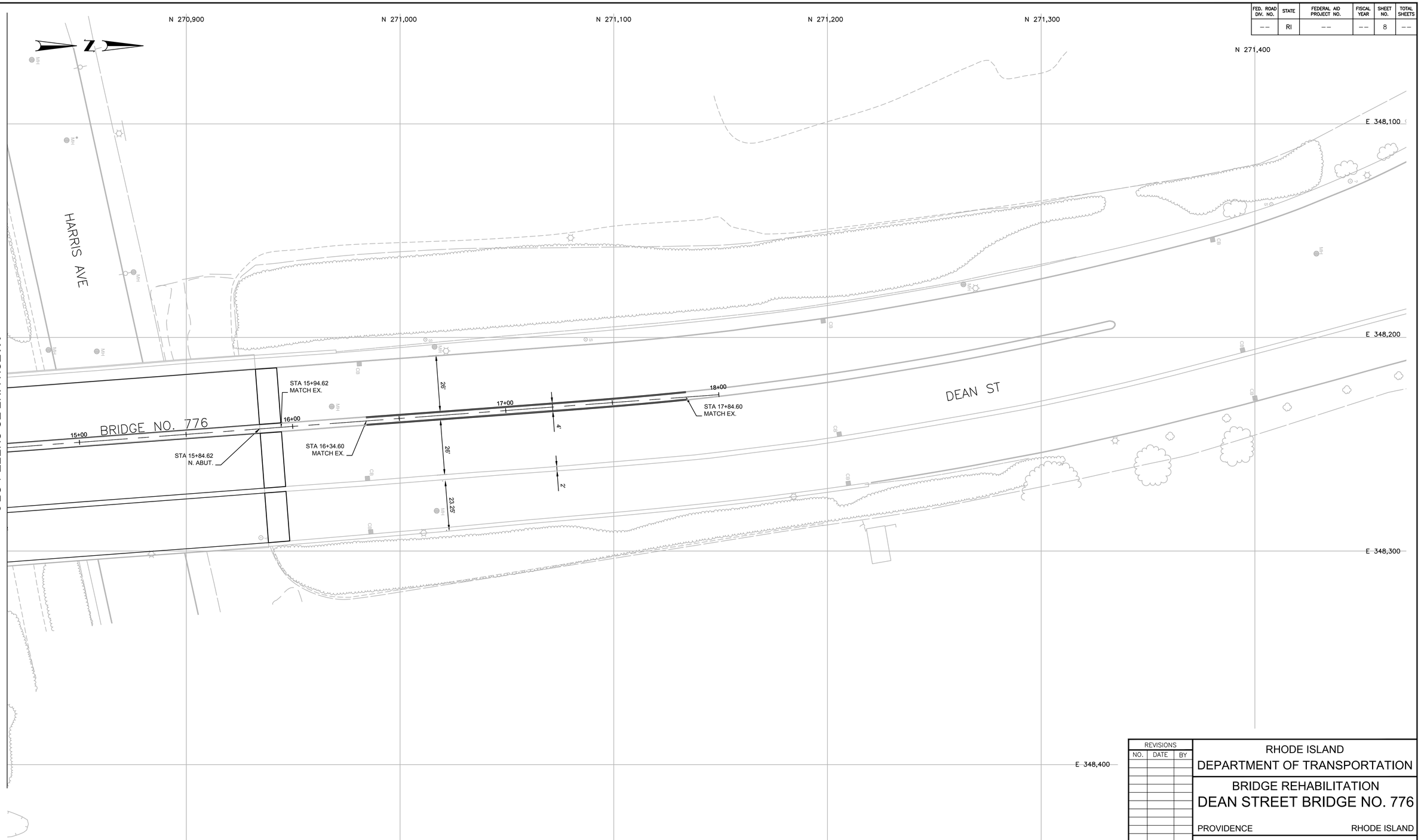

MATCH LINE TO SHEET 1 OF 2

REVISIONS		
NO.	DATE	BY

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

LOCATION PLAN

(SHEET 2 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 20'

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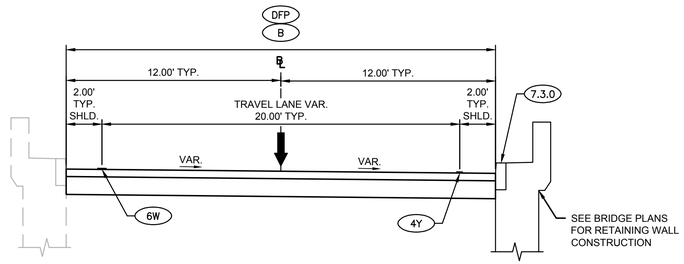
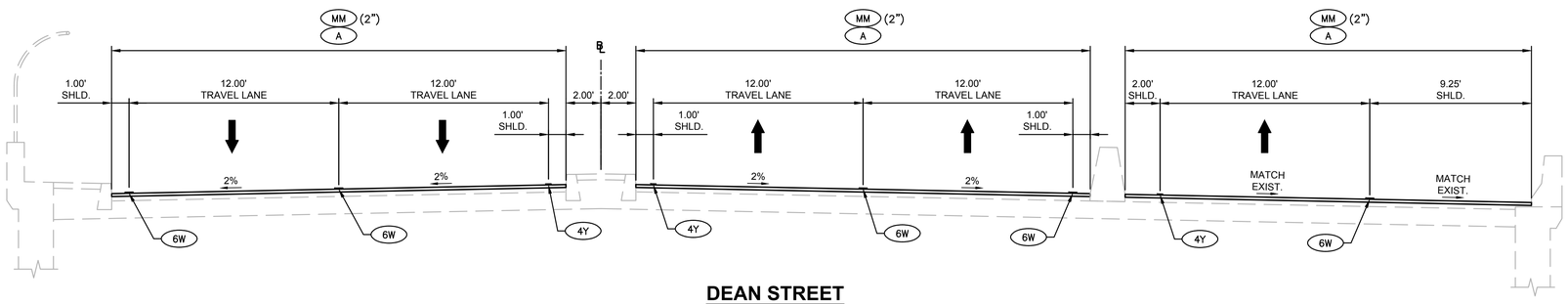
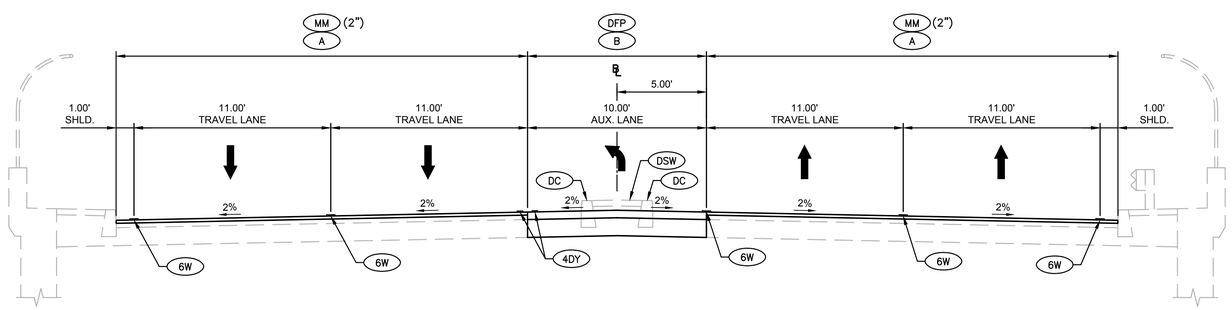


RAMP NW
STA 87+75.00 TO STA 88+69.29



DEAN STREET
STA 15+84.62 TO STA 15+94.62



DEAN STREET
STA 10+96.25 TO STA 11+06.31

PAVEMENT NOTES:

- (A) 2" CLASS 9.5 HMA
- (B) 2" CLASS 9.5 HMA
  3" CLASS 19.0 HMA
  12" GRAVEL BORROW SUBBASE COURSE
- (MM) MICRO MILLING (DEPTH)

GENERAL NOTES:

REFER TO BRIDGE PLAN FOR DETAILS OF CONSTRUCTION FROM STA 11+06.31 TO STA 15+84.62.

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

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TYPICAL SECTIONS

(SHEET 1 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 4'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	10	--

PAVEMENT NOTES:

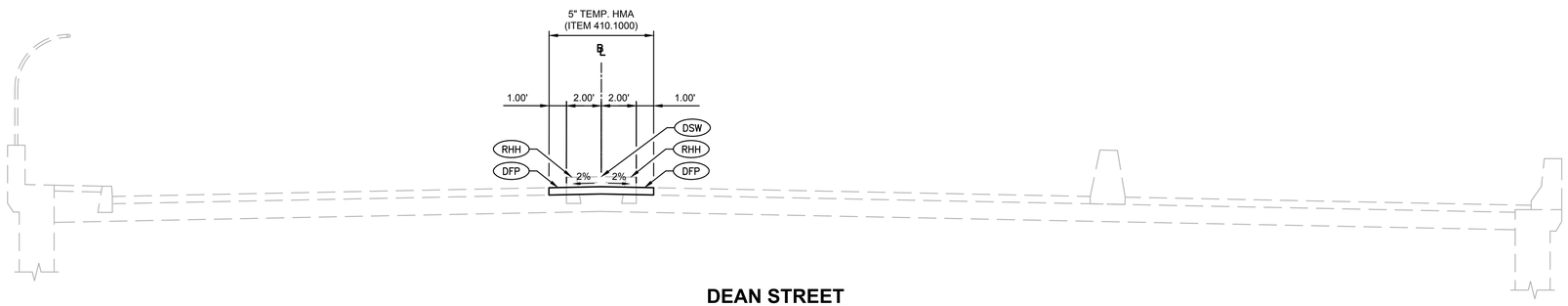
(A) 2" CLASS 9.5 HMA

(B) 2" CLASS 9.5 HMA
3" CLASS 19.0 HMA
12" GRAVEL BORROW SUBBASE COURSE

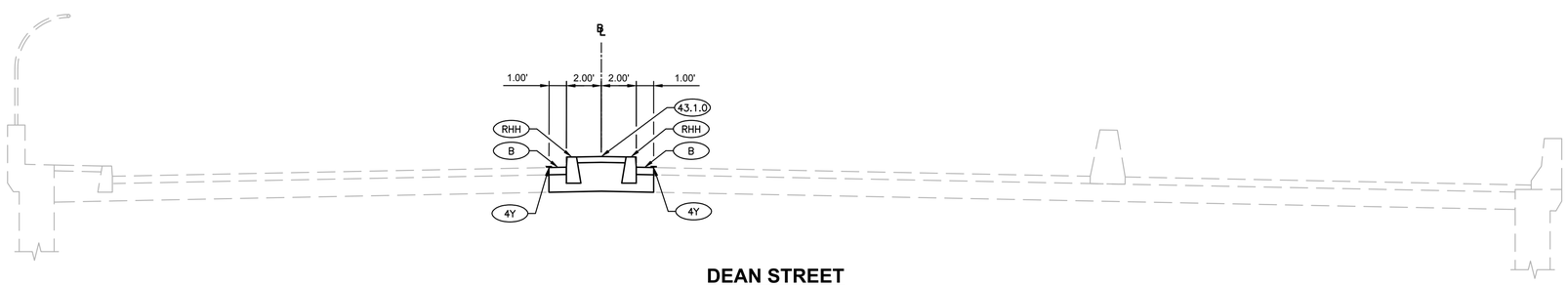
(MM) MICRO MILLING (DEPTH)

GENERAL NOTES:

REFER TO BRIDGE PLAN FOR DETAILS OF CONSTRUCTION FROM STA 11+06.31 TO STA 15+84.62.



DEAN STREET
STA 16+34.60 TO 17+84.60
TEMPORARY CROSSOVER CONSTRUCTION
(STAGE 1)



DEAN STREET
STA 16+34.60 TO 17+84.60
TEMPORARY CROSSOVER RESTORATION
(STAGE 4)

REVISIONS		
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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TYPICAL SECTIONS

(SHEET 2 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 4'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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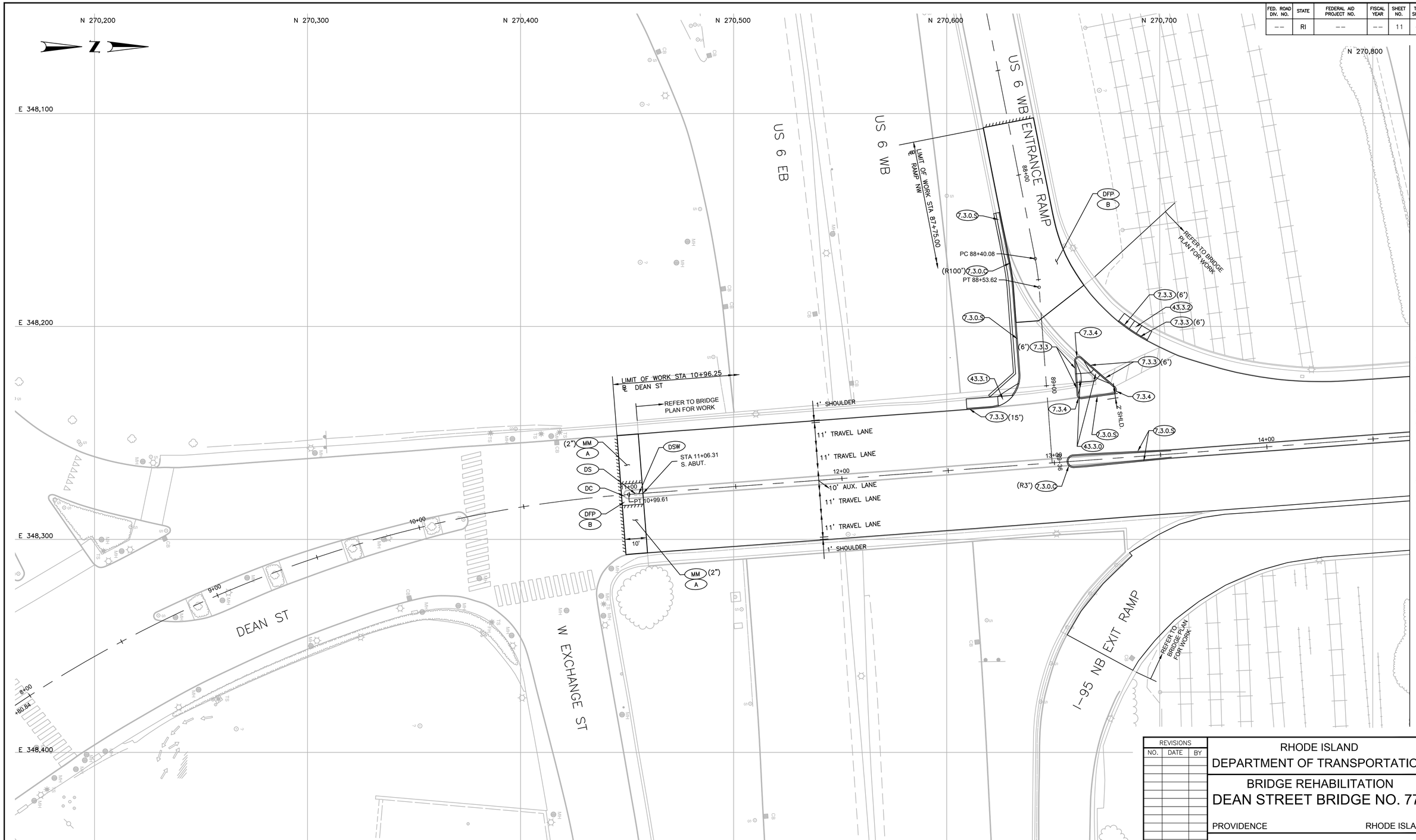

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

GENERAL PLAN

(SHEET 1 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 20'

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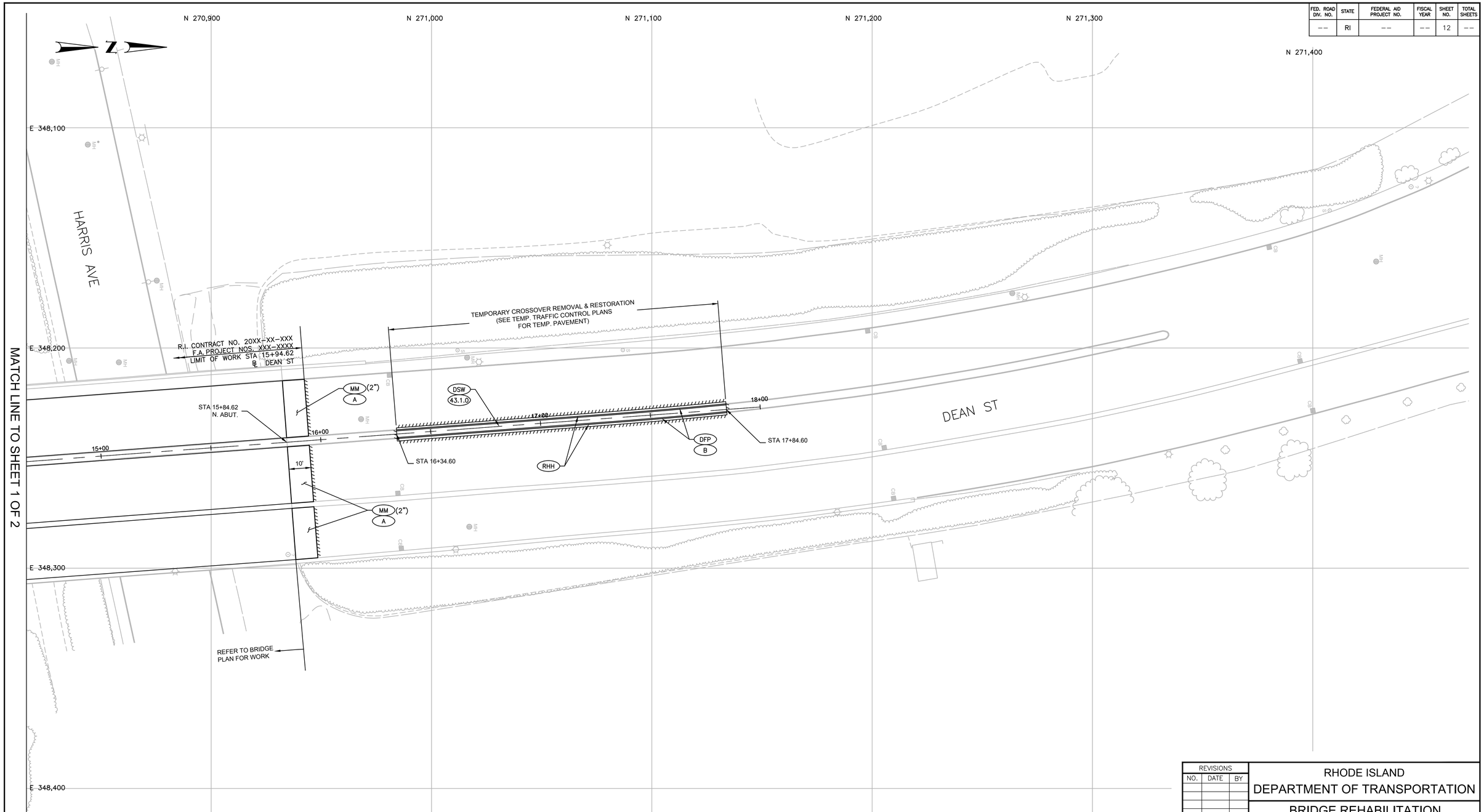

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

GENERAL PLAN

(SHEET 2 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 20'

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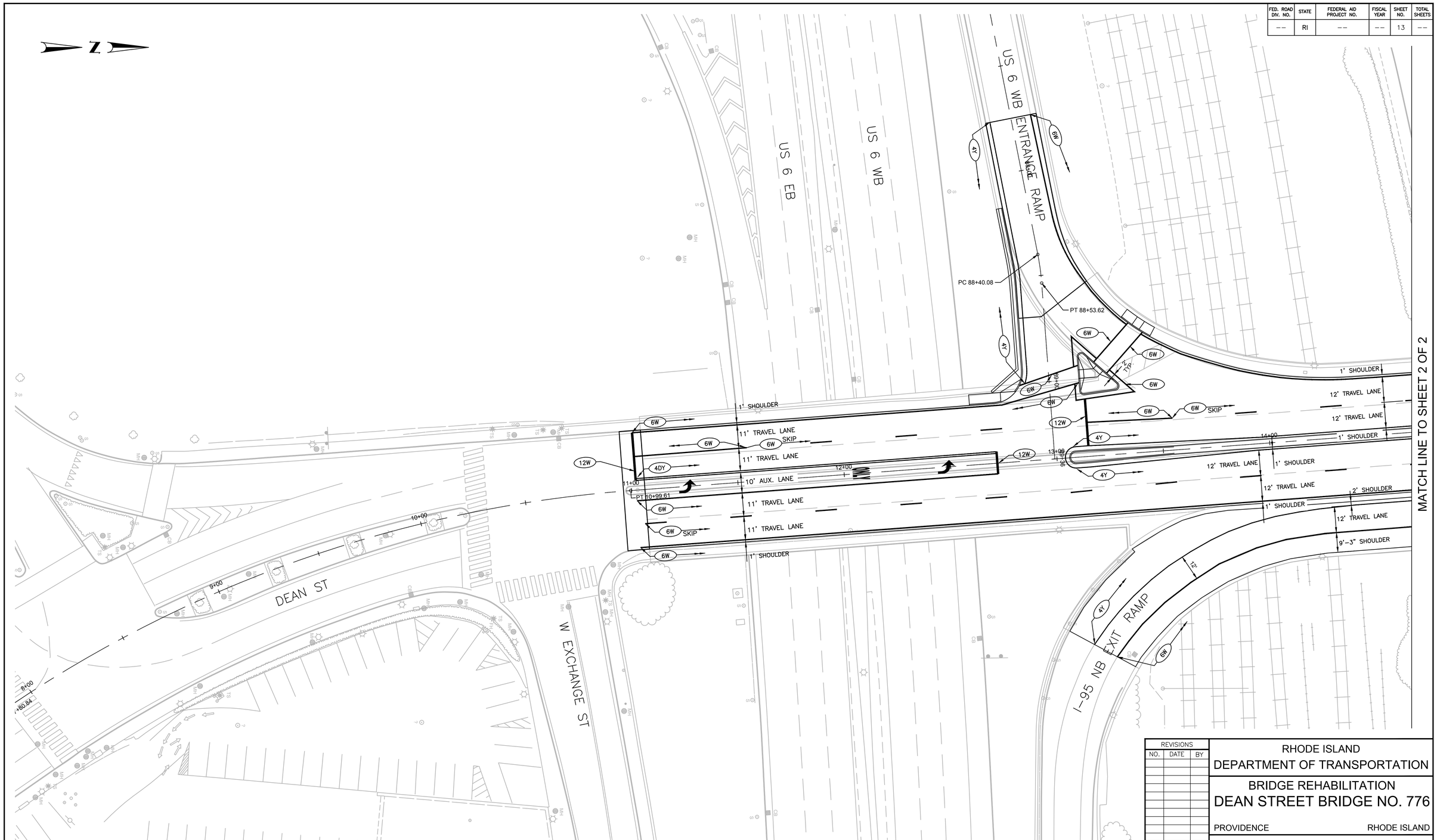

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

SIGNING & STRIPING PLAN

(SHEET 1 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 20'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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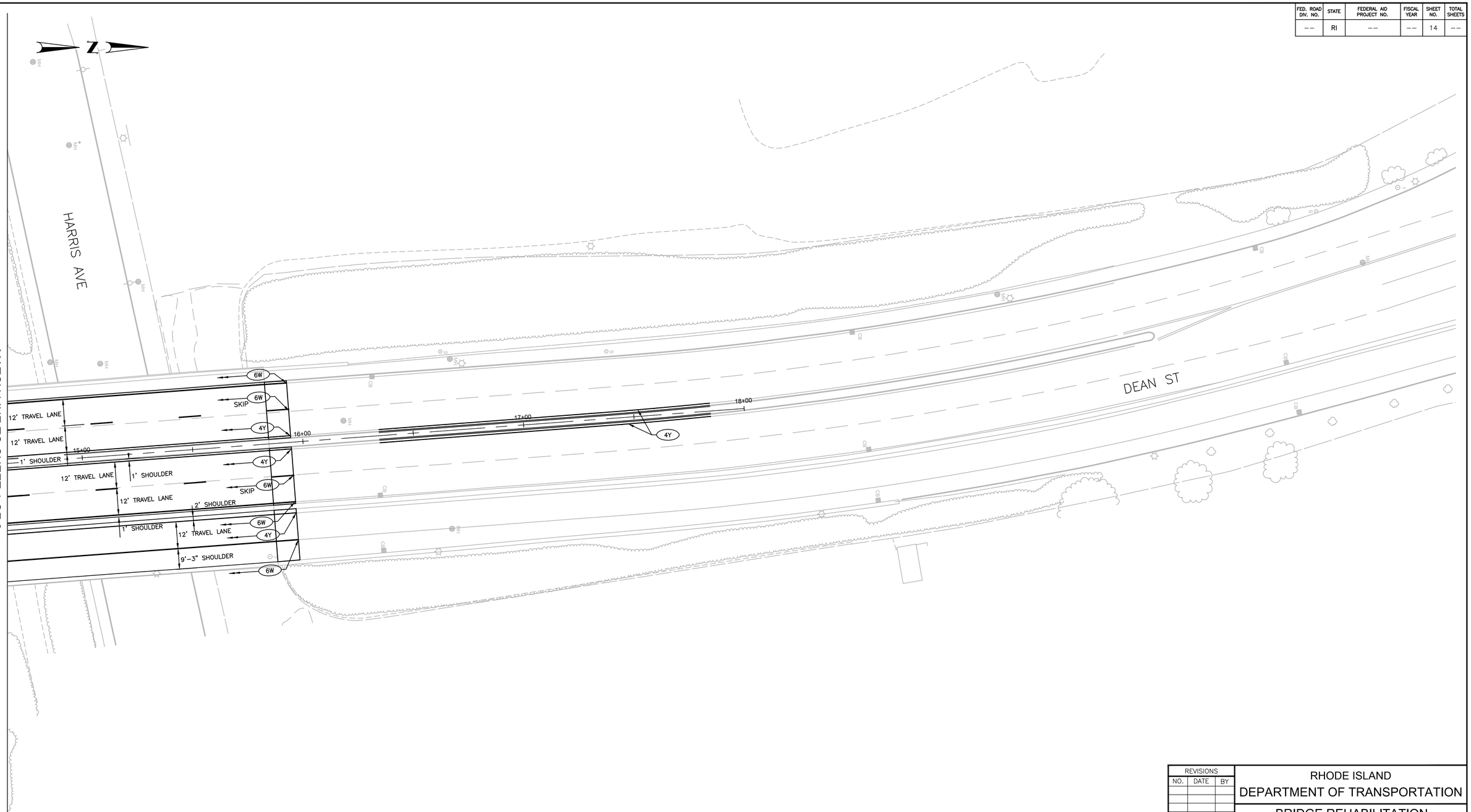

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

SIGNING & STRIPING PLAN

(SHEET 2 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 20'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	15	--

1 ROAD WORK AHEAD
W20-1A
EXPRESSWAY 48"X48"
STANDARD 36"X36"

2 WORK ZONE
TRAFFIC FINES DOUBLED
R.I. STD. 27.1.1
EXPRESSWAY 48"X72"
STANDARD 24"X36"

3 END ROAD WORK
G20-2A
EXPRESSWAY 48"X24"
STANDARD 36"X18"

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN
ADVANCE SIGNING

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 300'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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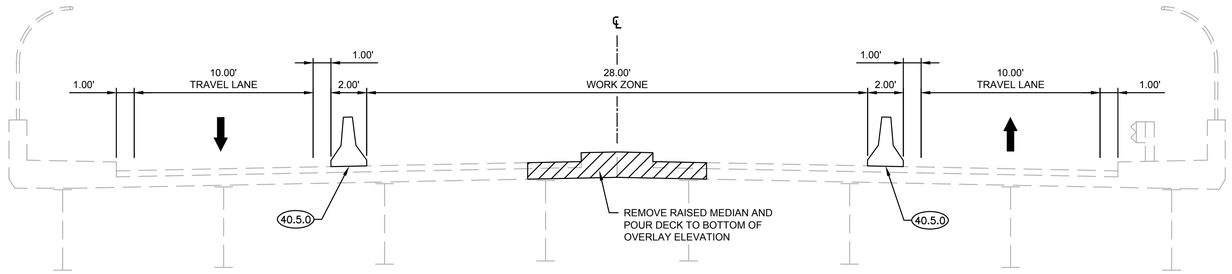
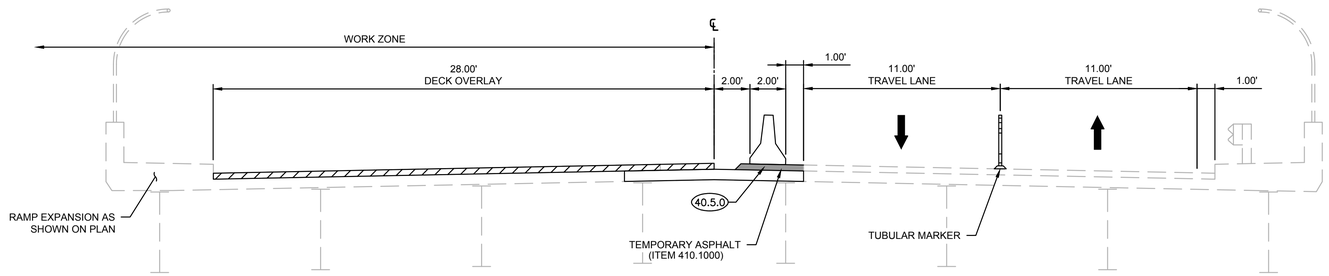
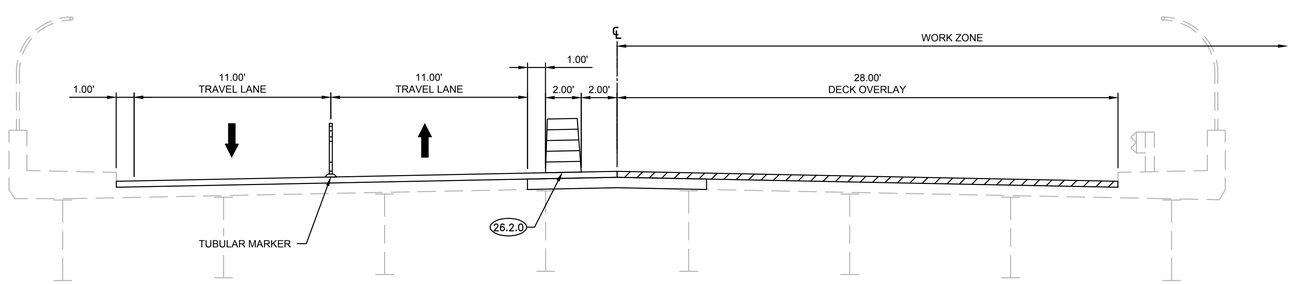


DEAN STREET
STAGE 1



DEAN STREET
STAGE 2



DEAN STREET
STAGE 3

TRAFFIC CONTROL STAGING NOTES:

STAGE 1:

CONSTRUCTION:

- REMOVE RAISED MEDIAN ON BRIDGE AND POUR NEW DECK SECTION
- CONSTRUCT TEMPORARY MEDIAN CROSSOVER ON DEAN STREET, NORTH OF BRIDGE
- INSTALL TEMPORARY TRAFFIC SIGNALS AT DEAN STREET & US 6 RAMPS AND AT DEAN STREET & WEST EXCHANGE STREET FOR STAGES 2 & 3
- COMPLETE GIRDER PAINTING ON SPAN 3 OVER AMTRAK (NIGHTTIME WORK)
- COMPLETE GIRDER PAINTING ON SPAN 4 OVER HARRIS AVENUE (DAYTIME WORK)

TRAFFIC:

- LONG-TERM CLOSURE OF INSIDE LANES ON DEAN STREET NB & SB
- DAILY ONE-LANE TWO-WAY FLAGGING OPERATION ON HARRIS AVENUE

STAGE 1A, 1B & 1C (NIGHTTIME WORK WITHIN STAGE 1):

CONSTRUCTION:

- INSTALL & STRIP FORMWORK ON UNDERSIDE FOR NEW MEDIAN DECK SECTION
- COMPLETE GIRDER PAINTING ON SPANS 1 & 2 OVER US 6

STAGE 1A TRAFFIC:

- CLOSE US 6 WB RIGHT LANE

STAGE 1B TRAFFIC:

- CLOSE US 6 WB TWO LEFT LANES
- CLOSE US 6 EB LEFT LANE
- CLOSE US 6 WB ENTRANCE RAMP FROM MEMORIAL BOULEVARD (POSTED DETOUR)

STAGE 1C TRAFFIC:

- CLOSE US 6 EB RIGHT LANE
- CLOSE US 6 EB ENTRANCE RAMP FROM DEAN STREET (NO POSTED DETOUR)

STAGE 2:

CONSTRUCTION:

- CONSTRUCT BRIDGE WIDENING AND RETAINING WALL EXPANSION FOR THE ADDITION OF US 6 WB ENTRANCE RAMP FROM DEAN STREET NB
- CONSTRUCT DECK OVERLAY ON WEST HALF OF BRIDGE

TRAFFIC:

- CROSS DEAN STREET TRAFFIC OVER ONTO NB LANES TO PROVIDE TWO-WAY TRAFFIC (ONE LANE IN EACH TRAVEL DIRECTION)
- CLOSE US 6 WB ENTRANCE RAMP FROM DEAN STREET SB (POSTED DETOUR)
- SHIFT US 6 WB LANES TOWARDS MEDIAN

STAGE 3:

CONSTRUCTION:

- CONSTRUCT DECK OVERLAY ON EAST HALF OF BRIDGE, INCLUDING EXIT RAMP FROM I-95 NB TO PROVIDENCE PLACE

TRAFFIC:

- CROSS DEAN STREET TRAFFIC OVER ONTO SB LANES TO PROVIDE TWO-WAY TRAFFIC (ONE LANE IN EACH TRAVEL DIRECTION)
- CLOSE I-95 NB EXIT RAMP TO PROVIDENCE PLACE FOR MINIMUM DURATION REQUIRED TO COMPLETE DECK OVERLAY (POSTED DETOUR)
- OPEN US 6 WB ENTRANCE RAMP FROM DEAN STREET SB
- SHIFT US 6 WB LANES BACK TO ORIGINAL POSITION

STAGE 4:

CONSTRUCTION:

- RESTORE DEAN STREET TEMPORARY MEDIAN CROSSOVER TO ORIGINAL CONDITION
- REMOVE TEMPORARY TRAFFIC SIGNALS

TRAFFIC:

- CONTINUOUS CLOSURE OF INSIDE LANES ON DEAN STREET NB & SB FOR MINIMUM DURATION REQUIRED TO COMPLETE MEDIAN RESTORATION
- OPEN NEW US 6 WB ENTRANCE RAMP FROM DEAN STREET NB

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

TYPICAL SECTIONS
(SHEET 1 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 4'

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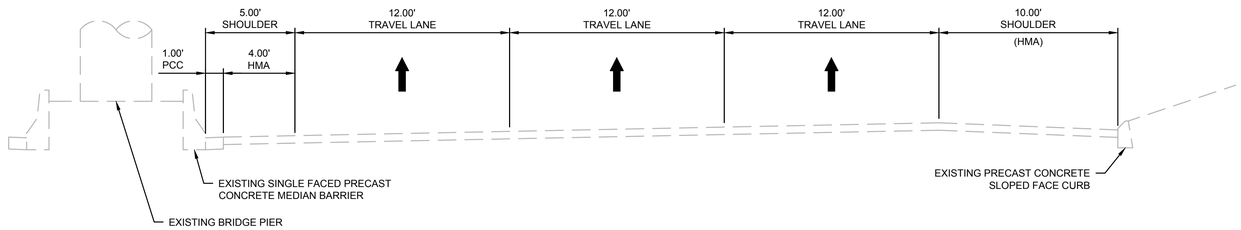
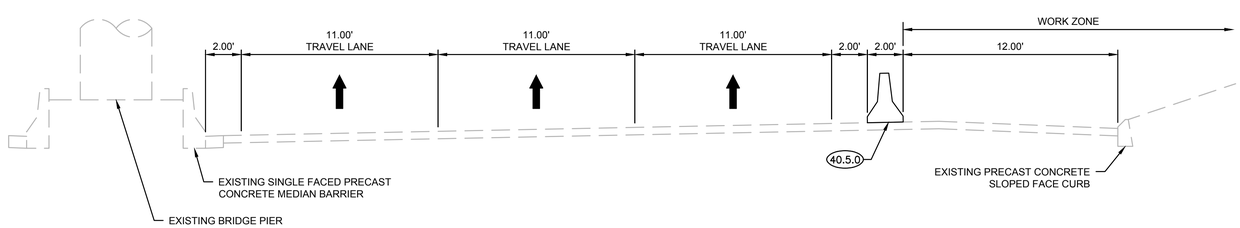
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	17	--



US 6 WESTBOUND
EXISTING



US 6 WESTBOUND
STAGE 2

TRAFFIC CONTROL STAGING NOTES:

STAGE 1:

CONSTRUCTION:

- REMOVE RAISED MEDIAN ON BRIDGE AND POUR NEW DECK SECTION
- CONSTRUCT TEMPORARY MEDIAN CROSSOVER ON DEAN STREET, NORTH OF BRIDGE
- INSTALL TEMPORARY TRAFFIC SIGNALS AT DEAN STREET & US 6 RAMPS AND AT DEAN STREET & WEST EXCHANGE STREET FOR STAGES 2 & 3
- COMPLETE GIRDER PAINTING ON SPAN 3 OVER AMTRAK (NIGHTTIME WORK)
- COMPLETE GIRDER PAINTING ON SPAN 4 OVER HARRIS AVENUE (DAYTIME WORK)

TRAFFIC:

- LONG-TERM CLOSURE OF INSIDE LANES ON DEAN STREET NB & SB
- DAILY ONE-LANE TWO-WAY FLAGGING OPERATION ON HARRIS AVENUE

STAGE 1A, 1B & 1C (NIGHTTIME WORK WITHIN STAGE 1):

CONSTRUCTION:

- INSTALL & STRIP FORMWORK ON UNDERSIDE FOR NEW MEDIAN DECK SECTION
- COMPLETE GIRDER PAINTING ON SPANS 1 & 2 OVER US 6

STAGE 1A TRAFFIC:

- CLOSE US 6 WB RIGHT LANE

STAGE 1B TRAFFIC:

- CLOSE US 6 WB TWO LEFT LANES
- CLOSE US 6 EB LEFT LANE
- CLOSE US 6 WB ENTRANCE RAMP FROM MEMORIAL BOULEVARD (POSTED DETOUR)

STAGE 1C TRAFFIC:

- CLOSE US 6 EB RIGHT LANE
- CLOSE US 6 EB ENTRANCE RAMP FROM DEAN STREET (NO POSTED DETOUR)

STAGE 2:

CONSTRUCTION:

- CONSTRUCT BRIDGE WIDENING AND RETAINING WALL EXPANSION FOR THE ADDITION OF US 6 WB ENTRANCE RAMP FROM DEAN STREET NB
- CONSTRUCT DECK OVERLAY ON WEST HALF OF BRIDGE

TRAFFIC:

- CROSS DEAN STREET TRAFFIC OVER ONTO NB LANES TO PROVIDE TWO-WAY TRAFFIC (ONE LANE IN EACH TRAVEL DIRECTION)
- CLOSE US 6 WB ENTRANCE RAMP FROM DEAN STREET SB (POSTED DETOUR)
- SHIFT US 6 WB LANES TOWARDS MEDIAN

STAGE 3:

CONSTRUCTION:

- CONSTRUCT DECK OVERLAY ON EAST HALF OF BRIDGE, INCLUDING EXIT RAMP FROM I-95 NB TO PROVIDENCE PLACE

TRAFFIC:

- CROSS DEAN STREET TRAFFIC OVER ONTO SB LANES TO PROVIDE TWO-WAY TRAFFIC (ONE LANE IN EACH TRAVEL DIRECTION)
- CLOSE I-95 NB EXIT RAMP TO PROVIDENCE PLACE FOR MINIMUM DURATION REQUIRED TO COMPLETE DECK OVERLAY (POSTED DETOUR)
- OPEN US 6 WB ENTRANCE RAMP FROM DEAN STREET SB
- SHIFT US 6 WB LANES BACK TO ORIGINAL POSITION

STAGE 4:

CONSTRUCTION:

- RESTORE DEAN STREET TEMPORARY MEDIAN CROSSOVER TO ORIGINAL CONDITION
- REMOVE TEMPORARY TRAFFIC SIGNALS

TRAFFIC:

- CONTINUOUS CLOSURE OF INSIDE LANES ON DEAN STREET NB & SB FOR MINIMUM DURATION REQUIRED TO COMPLETE MEDIAN RESTORATION
- OPEN NEW US 6 WB ENTRANCE RAMP FROM DEAN STREET NB

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

TYPICAL SECTIONS
(SHEET 2 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 4'

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G:\10114 - RIDOT DEAN STREET\CAD\SHEET DRAWINGS\0163M_V1_16-17_TCONTROL-TYPICAL.DWG PER DPM 450.06

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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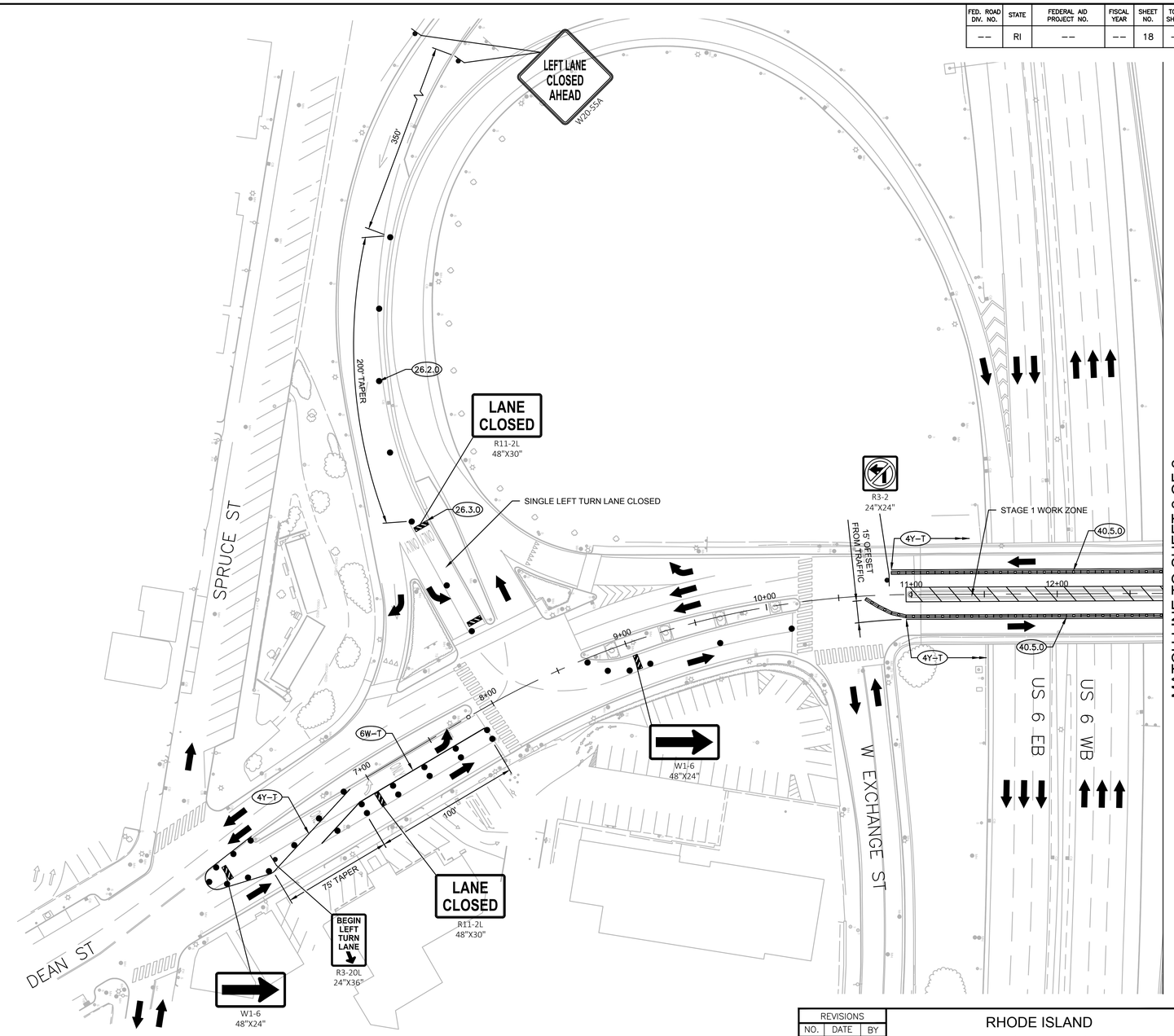

LEGEND:

- WORK ZONE
- DIRECTION OF TRAVEL
- (26.2.0) TRAFFIC CONTROL DRUM
- (TM) TUBULAR MARKER
- (26.3.0) TYPE III PLASTIC PIPE BARRICADE
- TEMPORARY TRAFFIC CONTROL SIGN (48"X48" UNLESS NOTED OTHERWISE)
- (FAB) FLASHING ARROW BOARD
- (40.5.0) PRECAST MEDIAN TEMPORARY BARRIER FOR TRAFFIC CONTROL (UNANCHORED)
- (IA) IMPACT ATTENUATOR
- WORK VEHICLE WITH TEMPORARY IMPACT ATTENUATOR
- (4Y-T) TEMPORARY PAVEMENT MARKING (TAPE) - 4 INCH YELLOW
- (4DY-T) TEMPORARY PAVEMENT MARKING (TAPE) - 4-INCH DOUBLE YELLOW
- (6W-T) TEMPORARY PAVEMENT MARKING (TAPE) - 6 INCH WHITE
- (12W-T) TEMPORARY PAVEMENT MARKING (TAPE) - 12-INCH WHITE

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 1
(SHEET 1 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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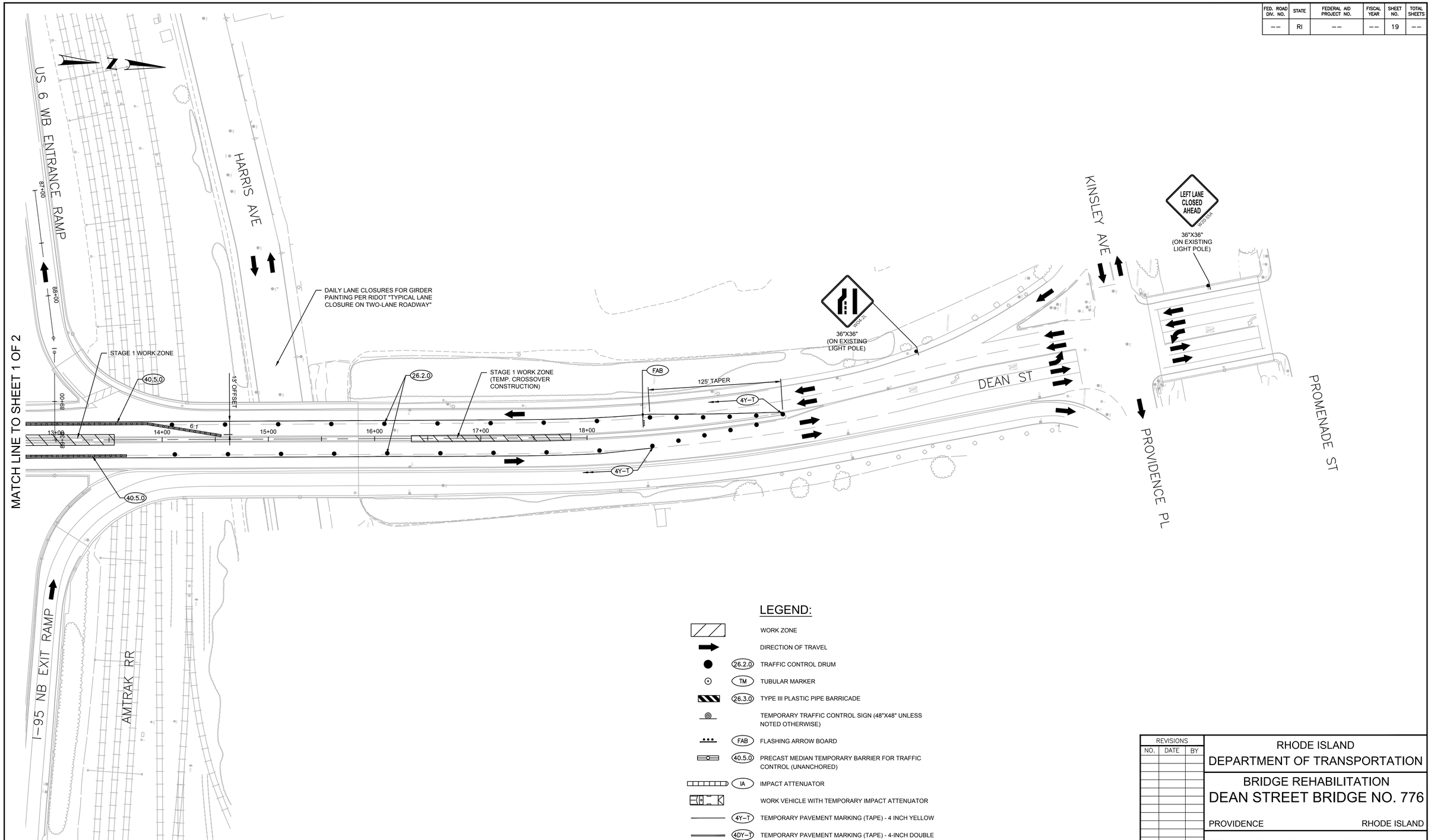

LEGEND:

	WORK ZONE
	DIRECTION OF TRAVEL
26.2.0	TRAFFIC CONTROL DRUM
TM	TUBULAR MARKER
26.3.0	TYPE III PLASTIC PIPE BARRICADE
	TEMPORARY TRAFFIC CONTROL SIGN (48"X48" UNLESS NOTED OTHERWISE)
FAB	FLASHING ARROW BOARD
40.5.0	PRECAST MEDIAN TEMPORARY BARRIER FOR TRAFFIC CONTROL (UNANCHORED)
IA	IMPACT ATTENUATOR
	WORK VEHICLE WITH TEMPORARY IMPACT ATTENUATOR
4Y-T	TEMPORARY PAVEMENT MARKING (TAPE) - 4 INCH YELLOW
4DY-T	TEMPORARY PAVEMENT MARKING (TAPE) - 4-INCH DOUBLE YELLOW
6W-T	TEMPORARY PAVEMENT MARKING (TAPE) - 6 INCH WHITE
12W-T	TEMPORARY PAVEMENT MARKING (TAPE) - 12-INCH WHITE

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 1
(SHEET 2 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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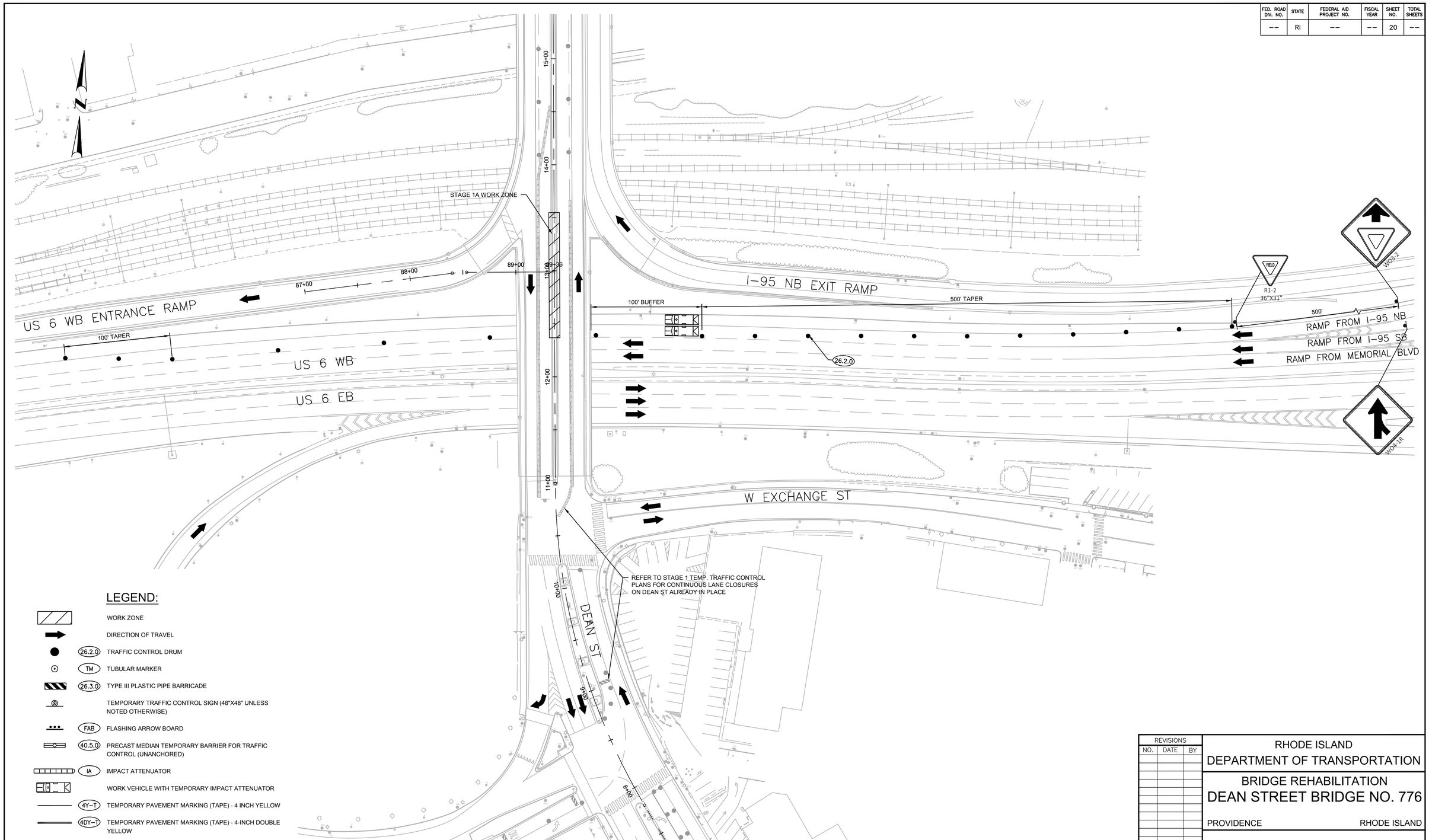

LEGEND:

- WORK ZONE
- DIRECTION OF TRAVEL
- 26.2.0 TRAFFIC CONTROL DRUM
- TM TUBULAR MARKER
- 26.3.0 TYPE III PLASTIC PIPE BARRICADE
- TEMPORARY TRAFFIC CONTROL SIGN (48"X48" UNLESS NOTED OTHERWISE)
- FAB FLASHING ARROW BOARD
- 40.5.0 PRECAST MEDIAN TEMPORARY BARRIER FOR TRAFFIC CONTROL (UNANCHORED)
- IA IMPACT ATTENUATOR
- WORK VEHICLE WITH TEMPORARY IMPACT ATTENUATOR
- 4Y-T TEMPORARY PAVEMENT MARKING (TAPE) - 4 INCH YELLOW
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DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 1A NIGHTTIME WORK
(SHEET 1 OF 1)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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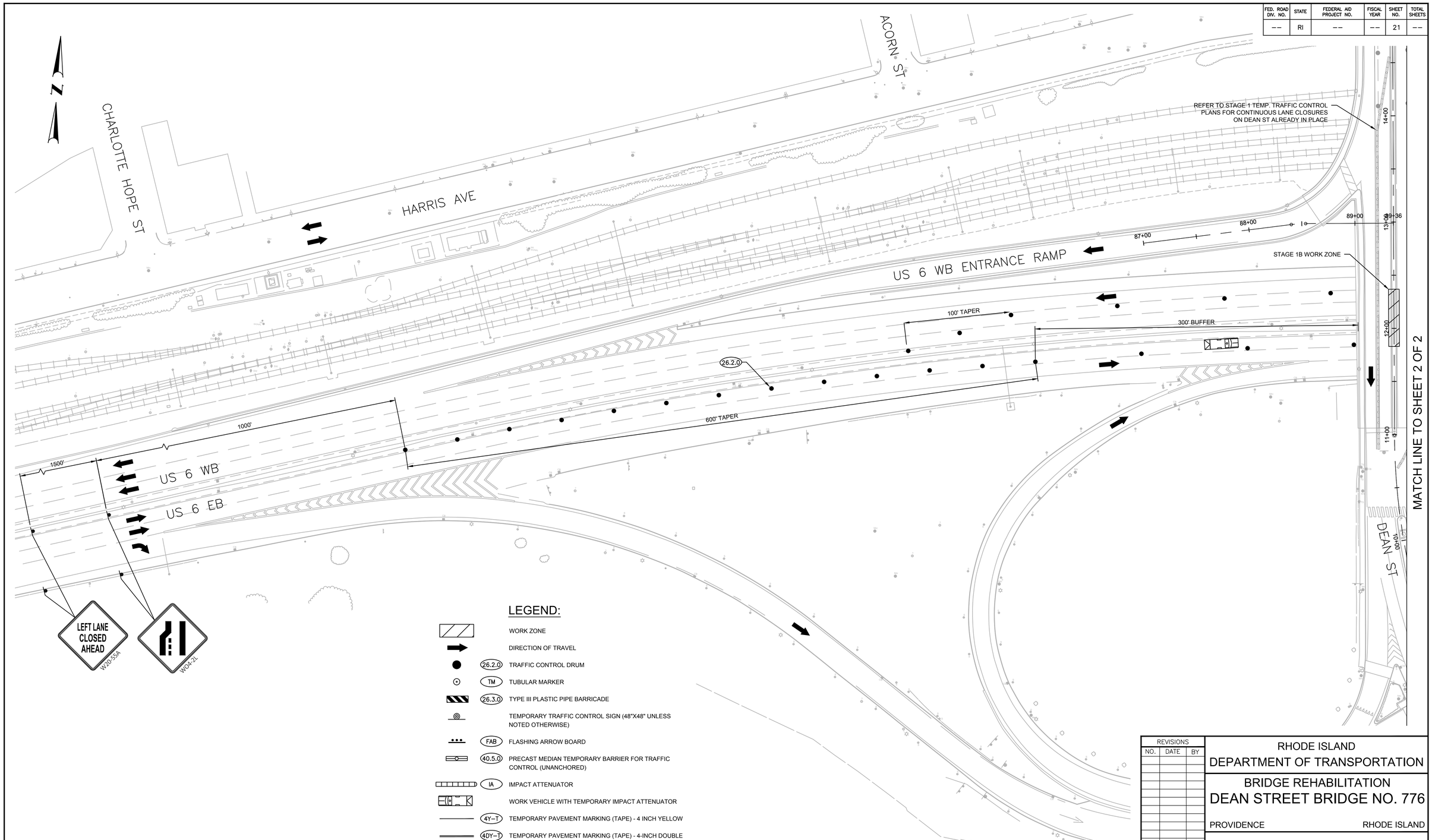

LEGEND:

- WORK ZONE
- DIRECTION OF TRAVEL
- (26.2.0) TRAFFIC CONTROL DRUM
- (TM) TUBULAR MARKER
- (26.3.0) TYPE III PLASTIC PIPE BARRICADE
- TEMPORARY TRAFFIC CONTROL SIGN (48"X48" UNLESS NOTED OTHERWISE)
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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 1B NIGHTTIME WORK
(SHEET 1 OF 3)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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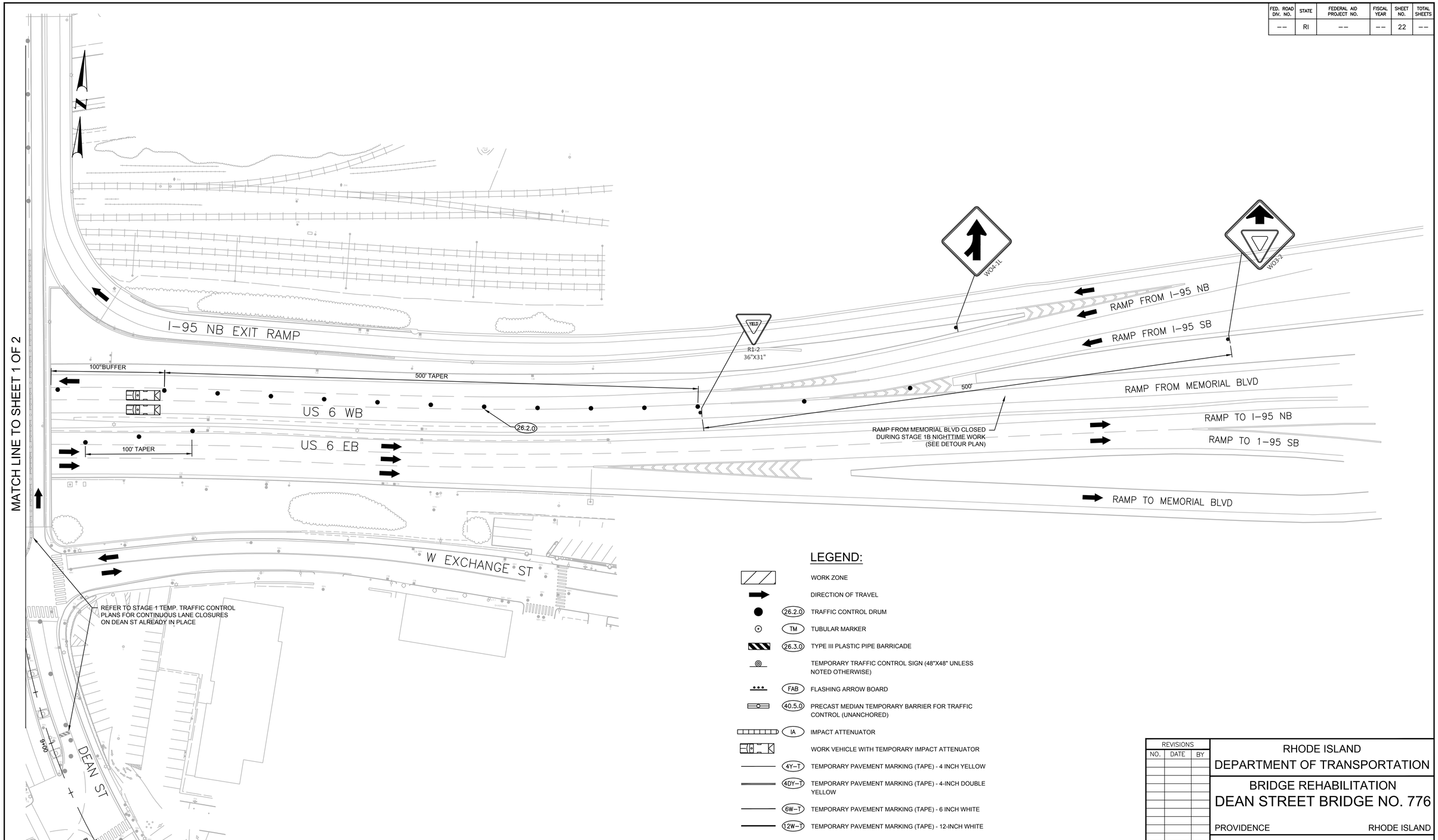

LEGEND:

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- (26.2.0) TRAFFIC CONTROL DRUM
- (TM) TUBULAR MARKER
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DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 1B NIGHTTIME WORK
(SHEET 2 OF 3)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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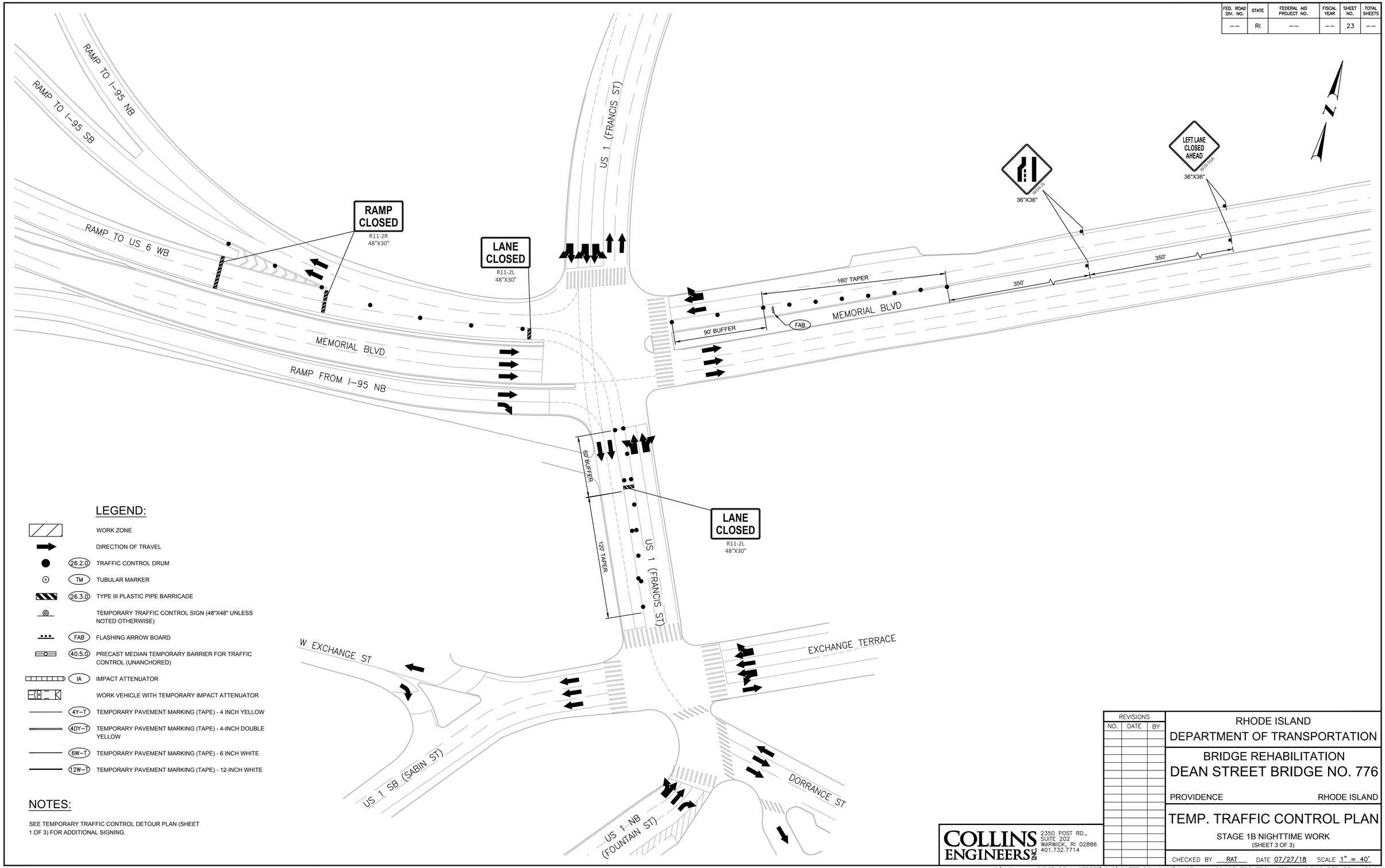

LEGEND:

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- DIRECTION OF TRAVEL
- (26.2.0) TRAFFIC CONTROL DRUM
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NOTES:

SEE TEMPORARY TRAFFIC CONTROL DETOUR PLAN (SHEET 1 OF 3) FOR ADDITIONAL SIGNING.

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 1B NIGHTTIME WORK
(SHEET 3 OF 3)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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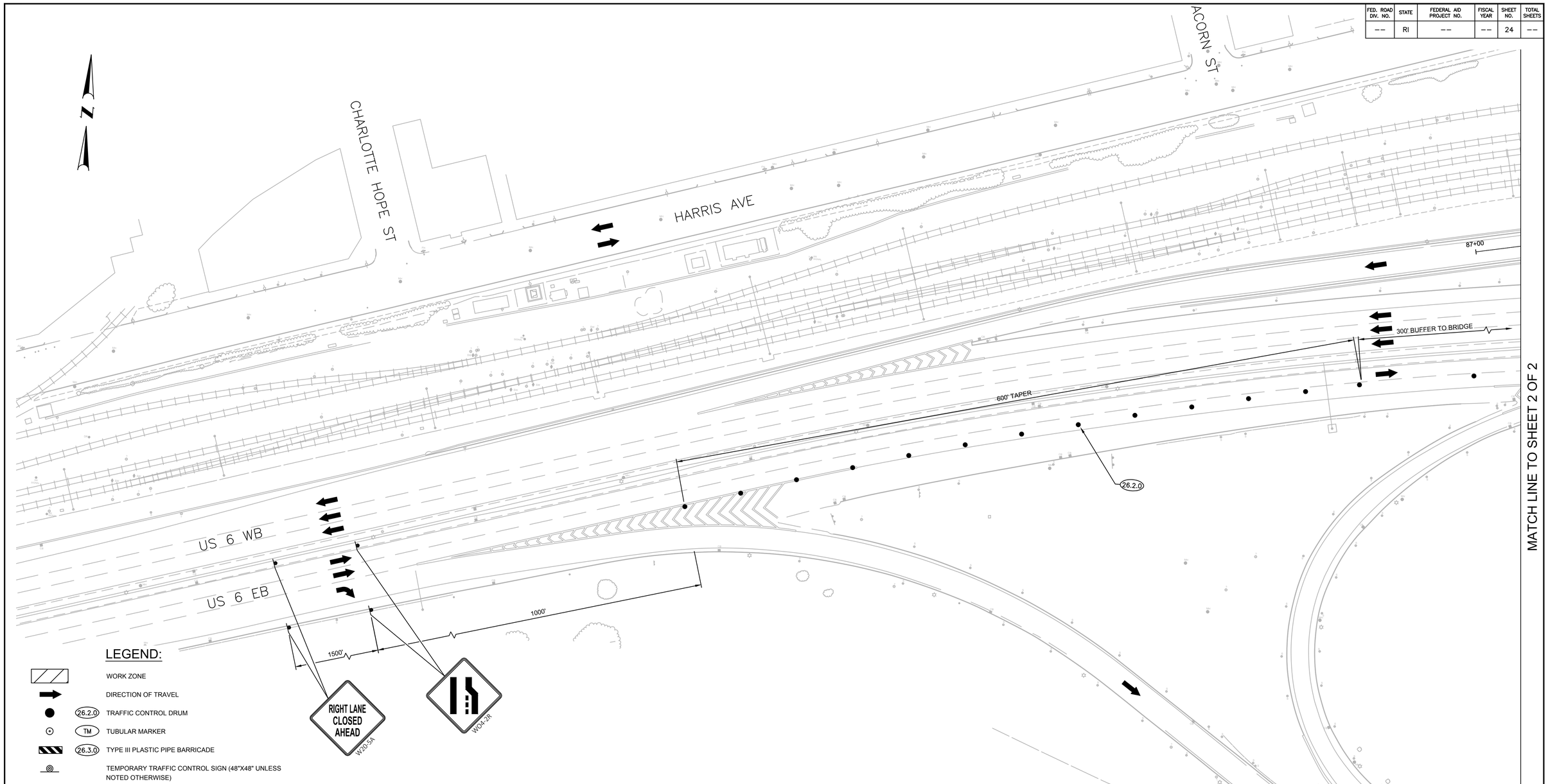

LEGEND:

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 1C NIGHTTIME WORK
(SHEET 1 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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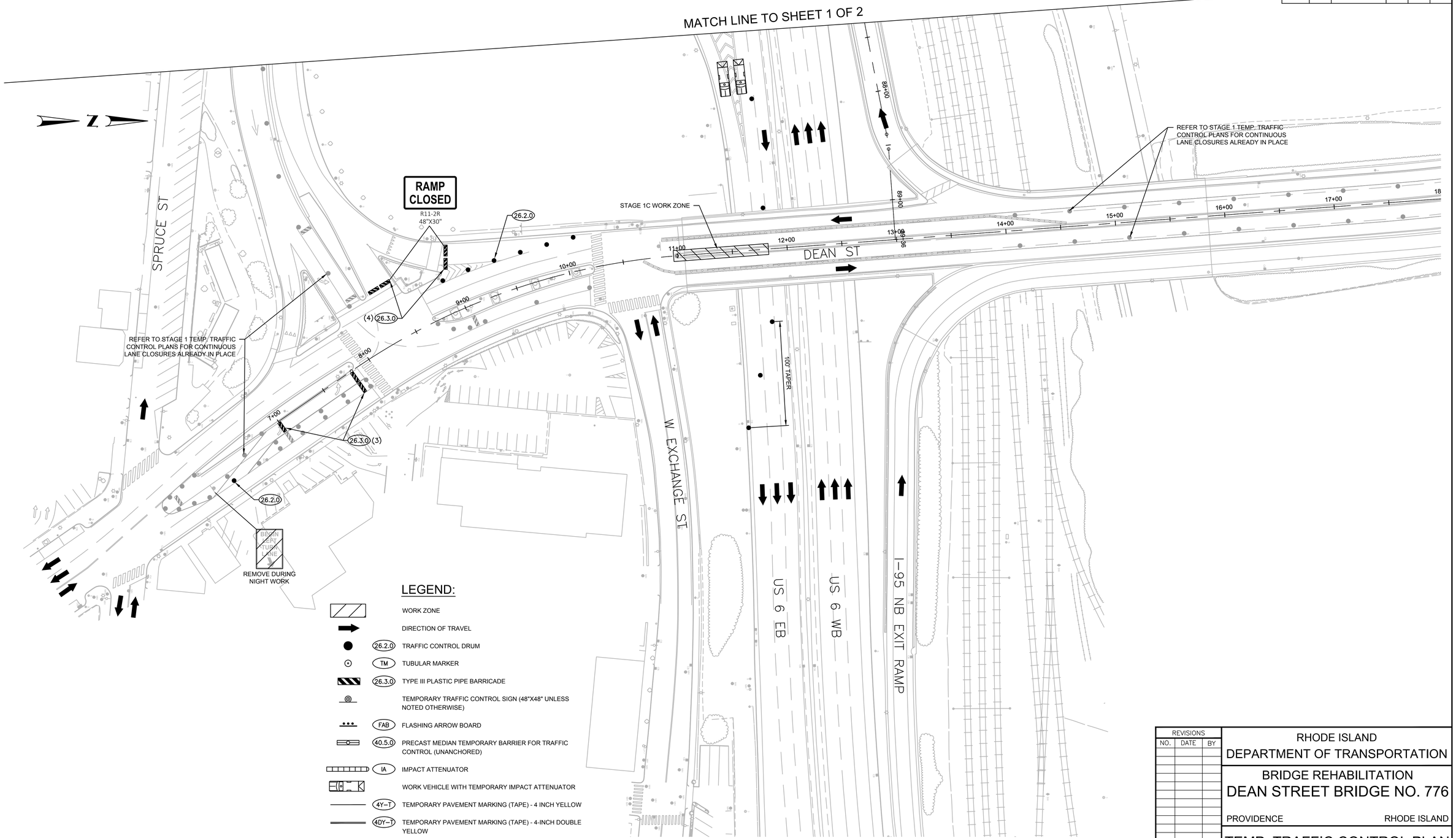

LEGEND:

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE — RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 1C NIGHTTIME WORK
(SHEET 2 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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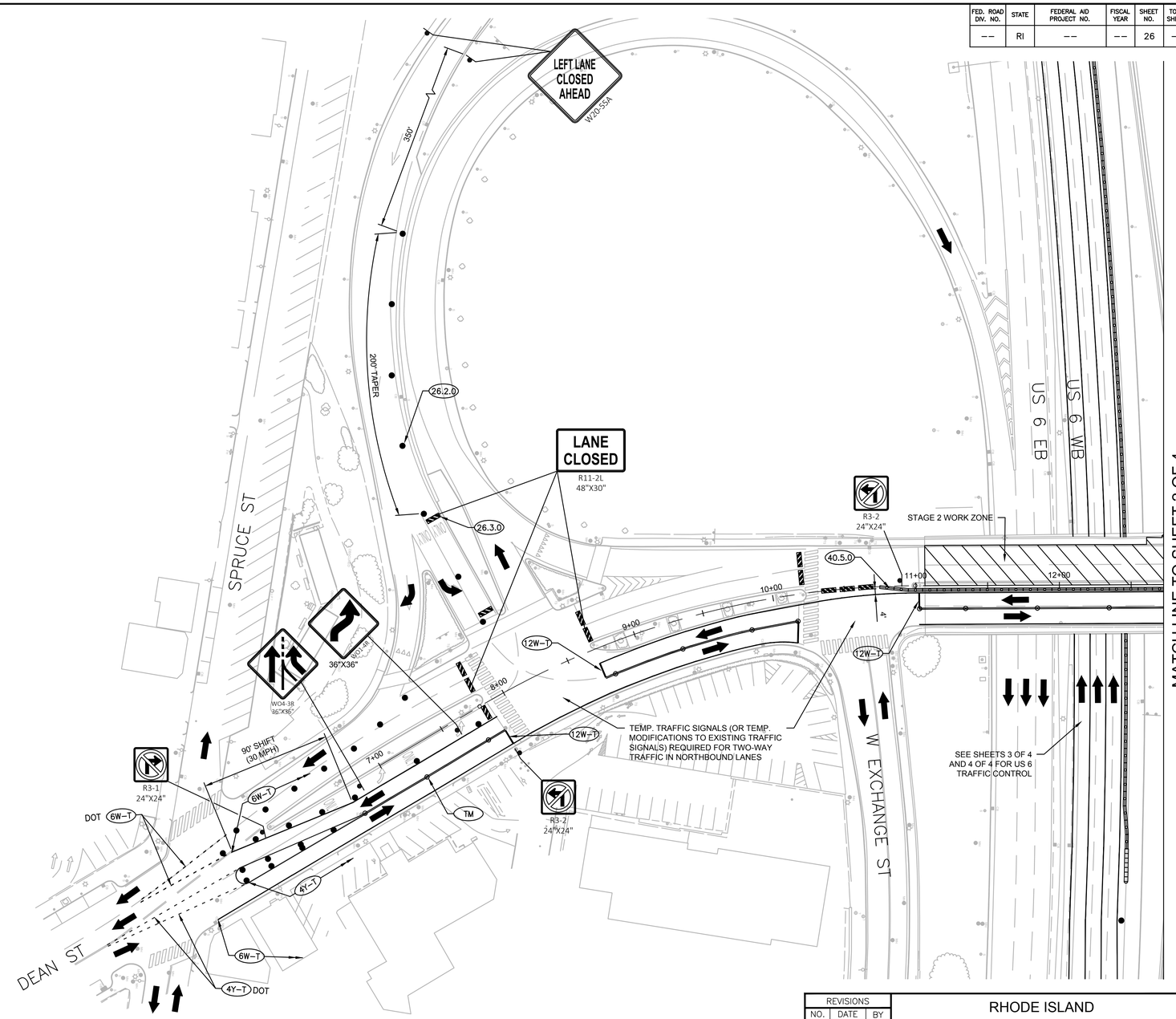

LEGEND:

- WORK ZONE
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- (12W-T) TEMPORARY PAVEMENT MARKING (TAPE) - 12-INCH WHITE

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 2
(SHEET 1 OF 4)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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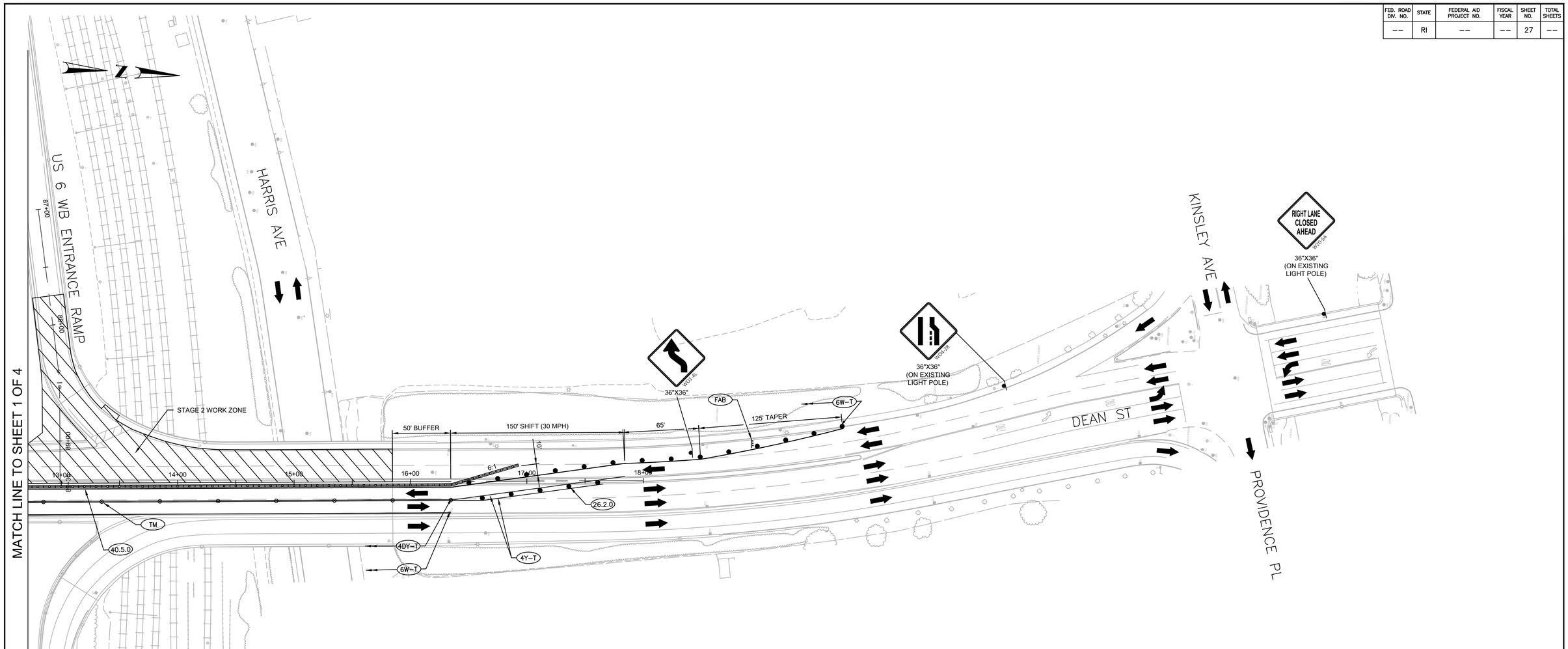

LEGEND:

		WORK ZONE
		DIRECTION OF TRAVEL
●	26.2.0	TRAFFIC CONTROL DRUM
⊙	TM	TUBULAR MARKER
	26.3.0	TYPE III PLASTIC PIPE BARRICADE
		TEMPORARY TRAFFIC CONTROL SIGN (48"X48" UNLESS NOTED OTHERWISE)
	FAB	FLASHING ARROW BOARD
	40.5.0	PRECAST MEDIAN TEMPORARY BARRIER FOR TRAFFIC CONTROL (UNANCHORED)
	IA	IMPACT ATTENUATOR
		WORK VEHICLE WITH TEMPORARY IMPACT ATTENUATOR
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	12W-T	TEMPORARY PAVEMENT MARKING (TAPE) - 12-INCH WHITE

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NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

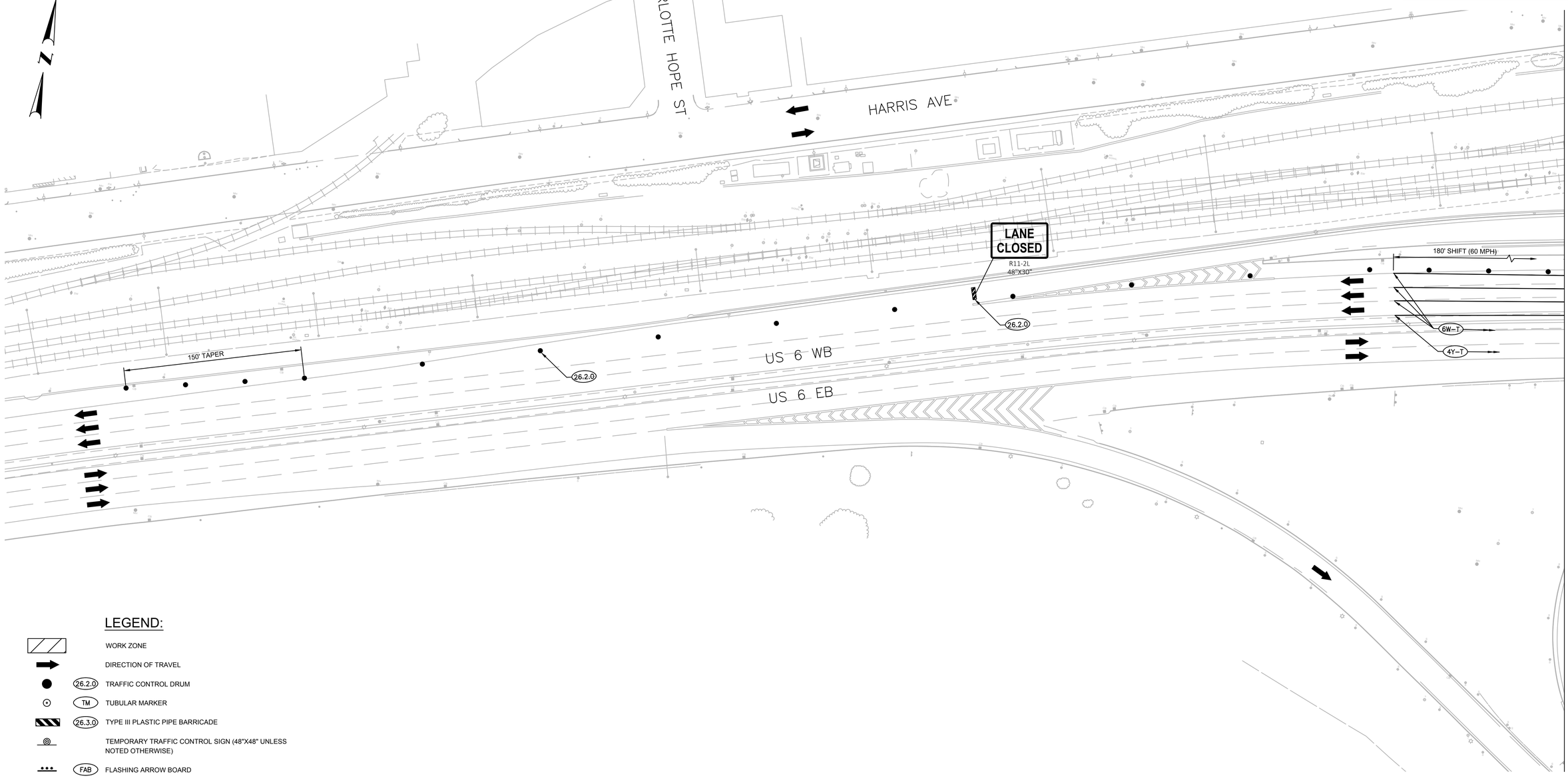
TEMP. TRAFFIC CONTROL PLAN

STAGE 2
(SHEET 2 OF 4)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

G:\10114 – RIDOT DEAN STREET\CAD\SHEET DRAWINGS\0163M_V1_26-29_TCONTROL-STG2.DWG PER DPM 450.06

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	28	--



LEGEND:

- WORK ZONE
- DIRECTION OF TRAVEL
- 26.2.0 TRAFFIC CONTROL DRUM
- TM TUBULAR MARKER
- 26.3.0 TYPE III PLASTIC PIPE BARRICADE
- TEMPORARY TRAFFIC CONTROL SIGN (48"X48" UNLESS NOTED OTHERWISE)
- FAB FLASHING ARROW BOARD
- 40.5.0 PRECAST MEDIAN TEMPORARY BARRIER FOR TRAFFIC CONTROL (UNANCHORED)
- IA IMPACT ATTENUATOR
- WORK VEHICLE WITH TEMPORARY IMPACT ATTENUATOR
- 4Y-T TEMPORARY PAVEMENT MARKING (TAPE) - 4 INCH YELLOW
- 4DY-T TEMPORARY PAVEMENT MARKING (TAPE) - 4-INCH DOUBLE YELLOW
- 6W-T TEMPORARY PAVEMENT MARKING (TAPE) - 6 INCH WHITE
- 12W-T TEMPORARY PAVEMENT MARKING (TAPE) - 12-INCH WHITE

REVISIONS		
NO.	DATE	BY

COLLINS ENGINEERS INC
2350 POST RD., SUITE 202
WARWICK, RI 02886
401.732.7714

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

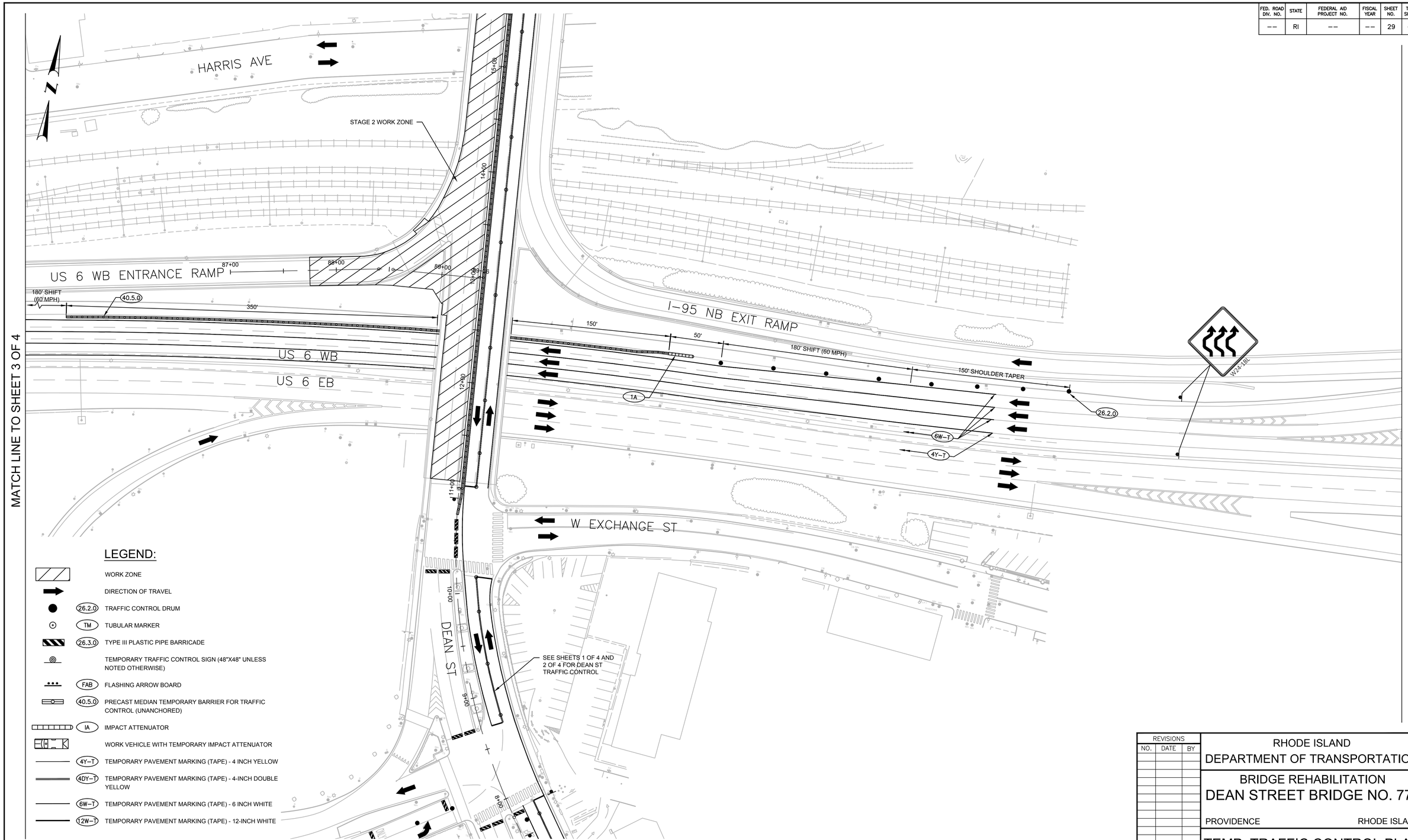
TEMP. TRAFFIC CONTROL PLAN

STAGE 2
(SHEET 3 OF 4)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

G:\10114 – RIDOT DEAN STREET\CAD\SHEET DRAWINGS\0163M_V1_26-29_TCONTROL-STG2.DWG PER DPM 450.06

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	29	--



LEGEND:

- WORK ZONE
- DIRECTION OF TRAVEL
- 26.2.0 TRAFFIC CONTROL DRUM
- TM TUBULAR MARKER
- 26.3.0 TYPE III PLASTIC PIPE BARRICADE
- TEMPORARY TRAFFIC CONTROL SIGN (48"X48" UNLESS NOTED OTHERWISE)
- FAB FLASHING ARROW BOARD
- 40.5.0 PRECAST MEDIAN TEMPORARY BARRIER FOR TRAFFIC CONTROL (UNANCHORED)
- IA IMPACT ATTENUATOR
- WORK VEHICLE WITH TEMPORARY IMPACT ATTENUATOR
- 4Y-T TEMPORARY PAVEMENT MARKING (TAPE) - 4 INCH YELLOW
- 4DY-T TEMPORARY PAVEMENT MARKING (TAPE) - 4-INCH DOUBLE YELLOW
- 6W-T TEMPORARY PAVEMENT MARKING (TAPE) - 6 INCH WHITE
- 12W-T TEMPORARY PAVEMENT MARKING (TAPE) - 12-INCH WHITE

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 2
(SHEET 4 OF 4)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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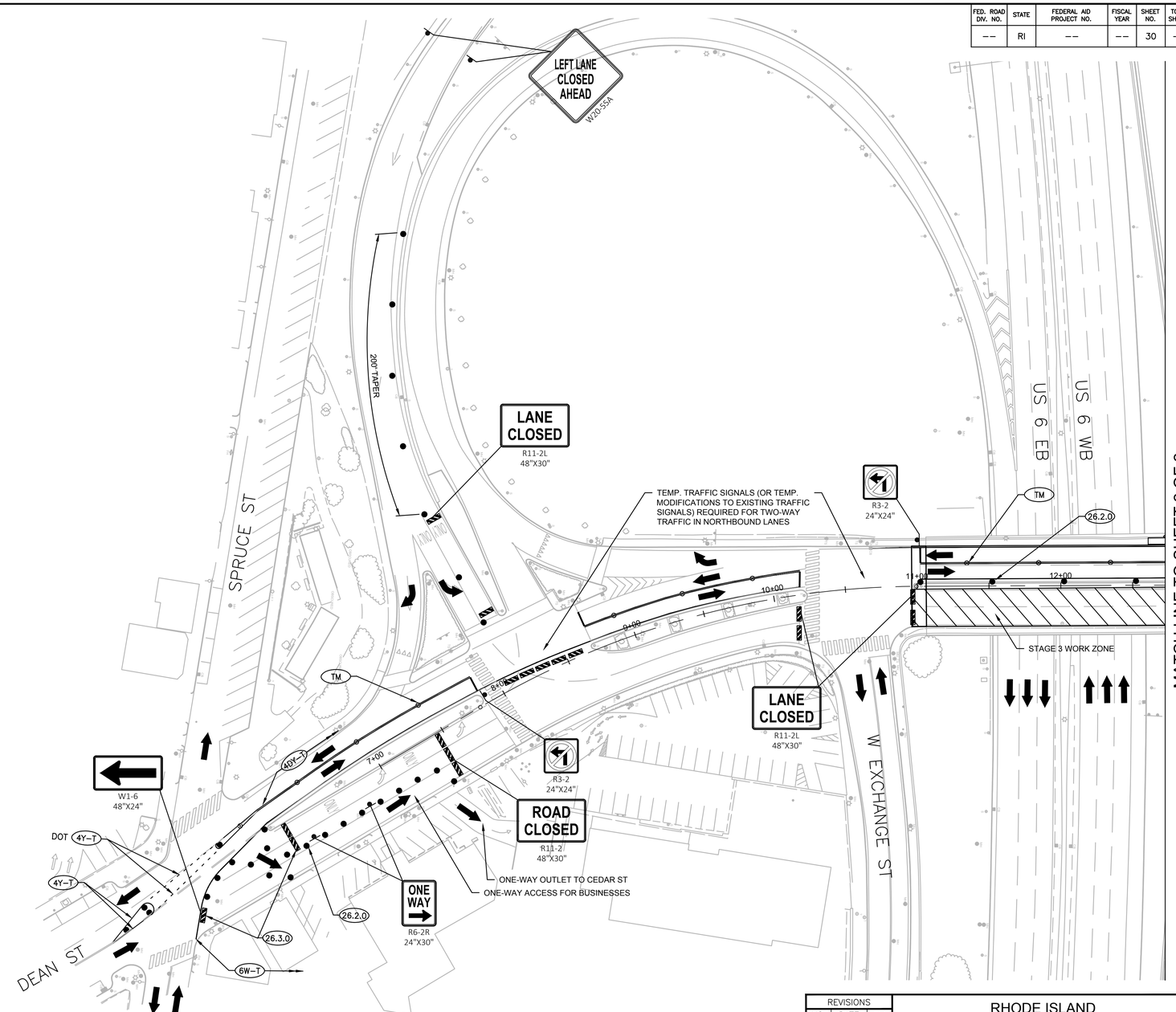
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	30	--



LEGEND:

- WORK ZONE
- DIRECTION OF TRAVEL
- 26.2.0 — TRAFFIC CONTROL DRUM
- TM — TUBULAR MARKER
- 26.3.0 — TYPE III PLASTIC PIPE BARRICADE
- TEMPORARY TRAFFIC CONTROL SIGN (48"X48" UNLESS NOTED OTHERWISE)
- FAB — FLASHING ARROW BOARD
- 40.5.0 — PRECAST MEDIAN TEMPORARY BARRIER FOR TRAFFIC CONTROL (UNANCHORED)
- IA — IMPACT ATTENUATOR
- WORK VEHICLE WITH TEMPORARY IMPACT ATTENUATOR
- 4Y-T — TEMPORARY PAVEMENT MARKING (TAPE) - 4 INCH YELLOW
- 4DY-T — TEMPORARY PAVEMENT MARKING (TAPE) - 4-INCH DOUBLE YELLOW
- 6W-T — TEMPORARY PAVEMENT MARKING (TAPE) - 6 INCH WHITE
- 12W-T — TEMPORARY PAVEMENT MARKING (TAPE) - 12-INCH WHITE

REVISIONS		
NO.	DATE	BY

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE — RHODE ISLAND

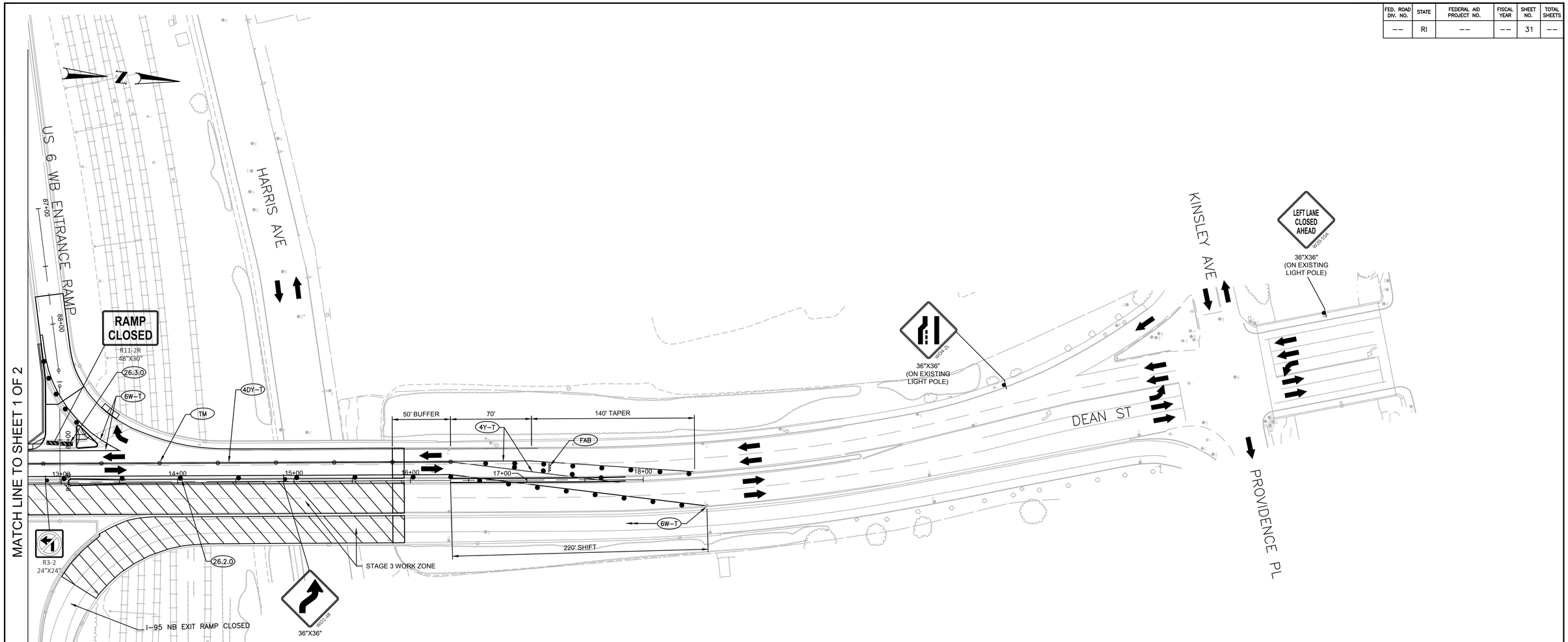
TEMP. TRAFFIC CONTROL PLAN

STAGE 3
(SHEET 1 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

G:\10114 – RIDOT DEAN STREET\CAD\SHEET DRAWINGS\0163M_V1_30-31_TCONTROL-STG3.DWG PER DPM 450.06

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	31	--



LEGEND:

	WORK ZONE
	DIRECTION OF TRAVEL
26.2.0	TRAFFIC CONTROL DRUM
TM	TUBULAR MARKER
26.3.0	TYPE III PLASTIC PIPE BARRICADE
	TEMPORARY TRAFFIC CONTROL SIGN (48"X48" UNLESS NOTED OTHERWISE)
FAB	FLASHING ARROW BOARD
40.5.0	PRECAST MEDIAN TEMPORARY BARRIER FOR TRAFFIC CONTROL (UNANCHORED)
IA	IMPACT ATTENUATOR
	WORK VEHICLE WITH TEMPORARY IMPACT ATTENUATOR
4Y-T	TEMPORARY PAVEMENT MARKING (TAPE) - 4 INCH YELLOW
4DY-T	TEMPORARY PAVEMENT MARKING (TAPE) - 4-INCH DOUBLE YELLOW
6W-T	TEMPORARY PAVEMENT MARKING (TAPE) - 6 INCH WHITE
12W-T	TEMPORARY PAVEMENT MARKING (TAPE) - 12-INCH WHITE

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NO.	DATE	BY

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

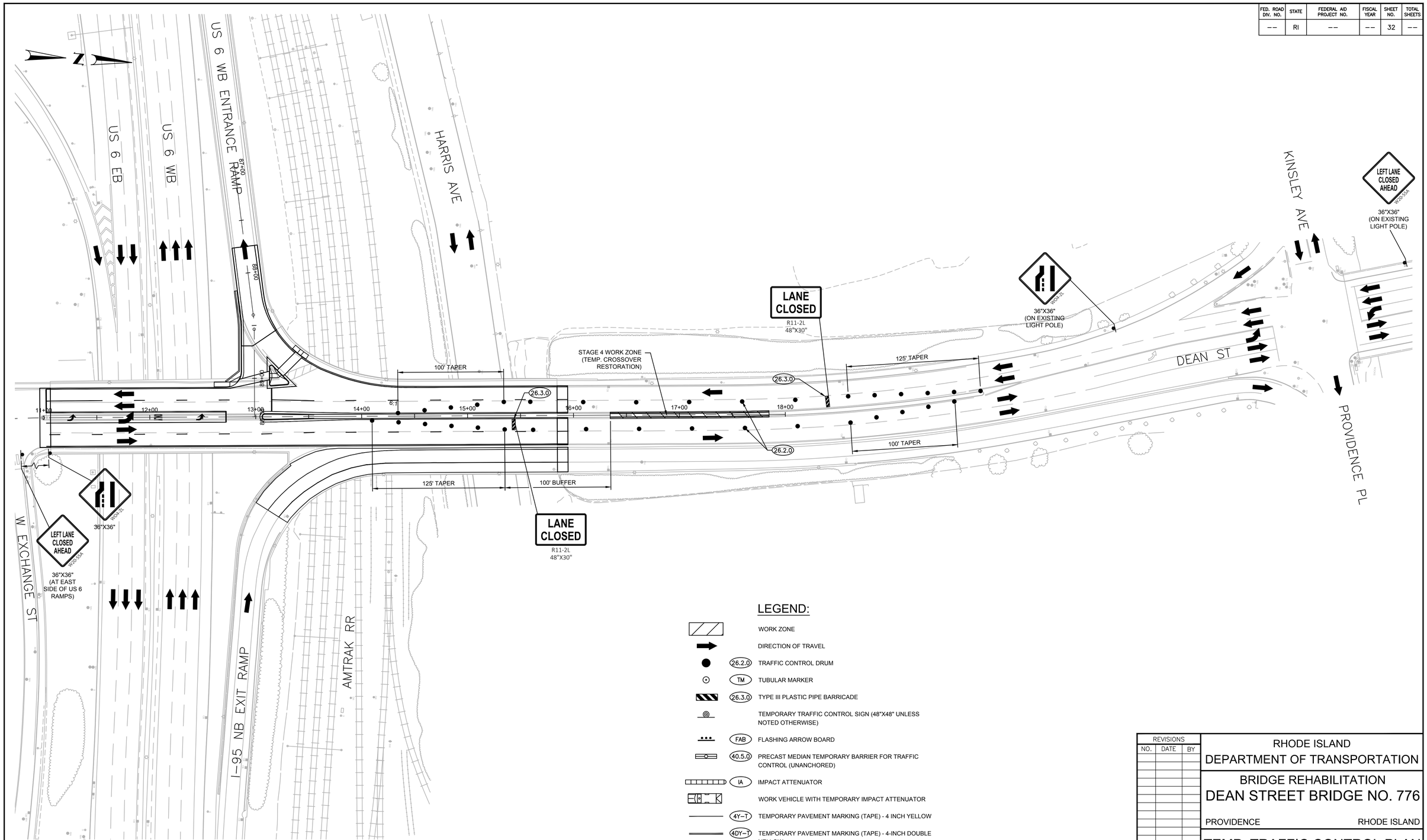
TEMP. TRAFFIC CONTROL PLAN

STAGE 3
(SHEET 2 OF 2)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

G:\10114 – RIDOT DEAN STREET\CAD\SHEET DRAWINGS\0163M_V1_30–31_TCONTROL–STG3.DWG PER DPM 450.06

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	32	--



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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

STAGE 4
(SHEET 1 OF 1)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 40'

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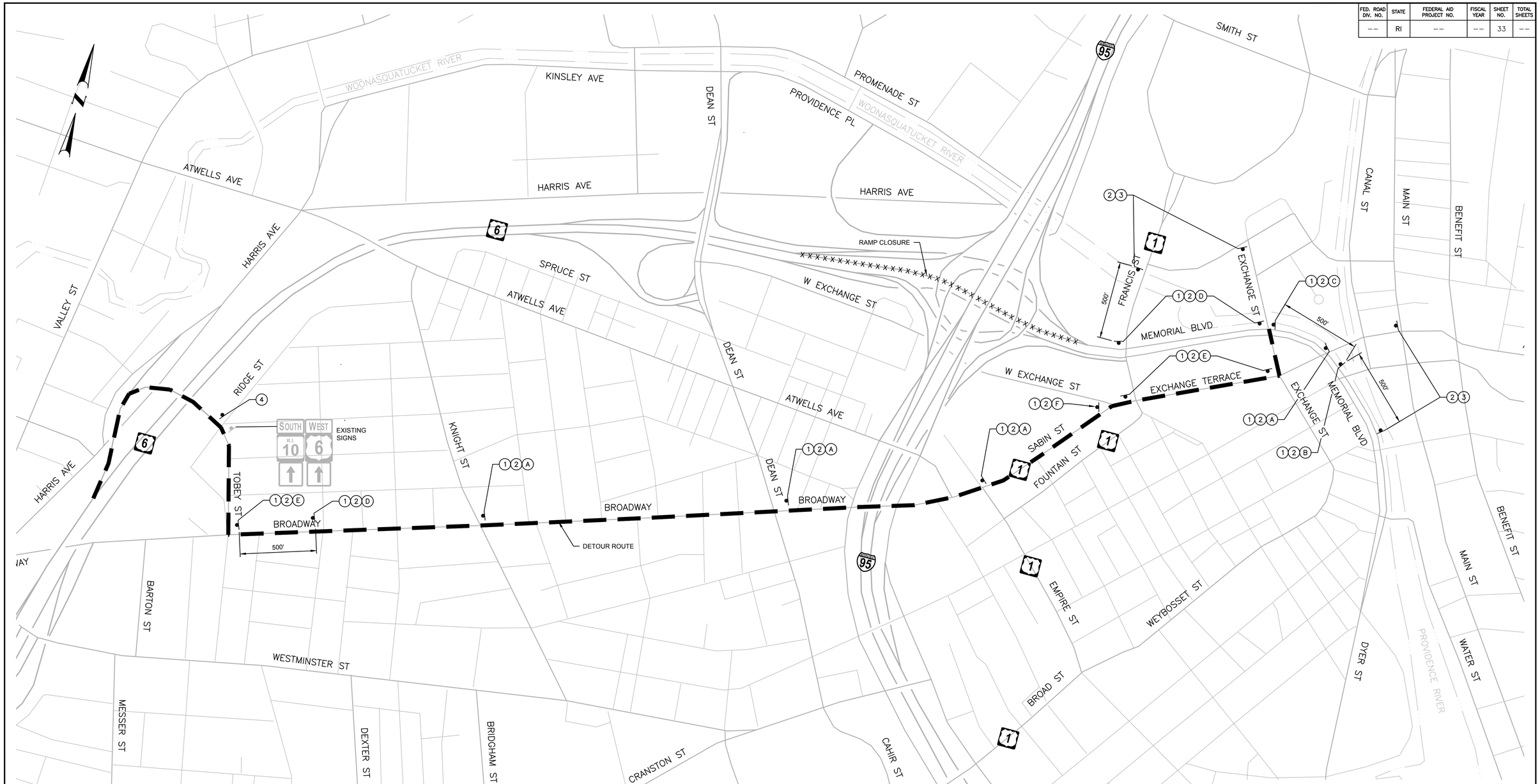
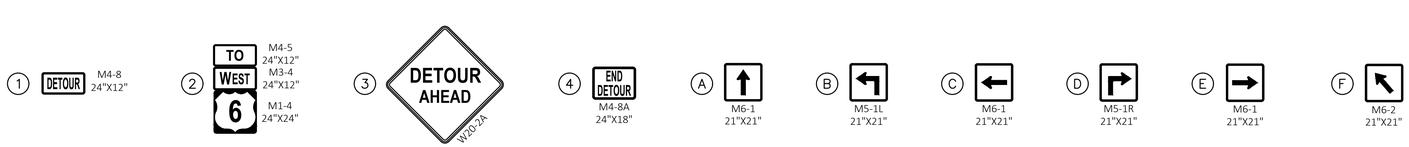
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	33	--



MEMORIAL BLVD ENTRANCE RAMP TO US 6 WB

IN PLACE DURING STAGE 1B NIGHTTIME WORK



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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE — RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

DETOUR PLAN
(SHEET 1 OF 3)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 300'

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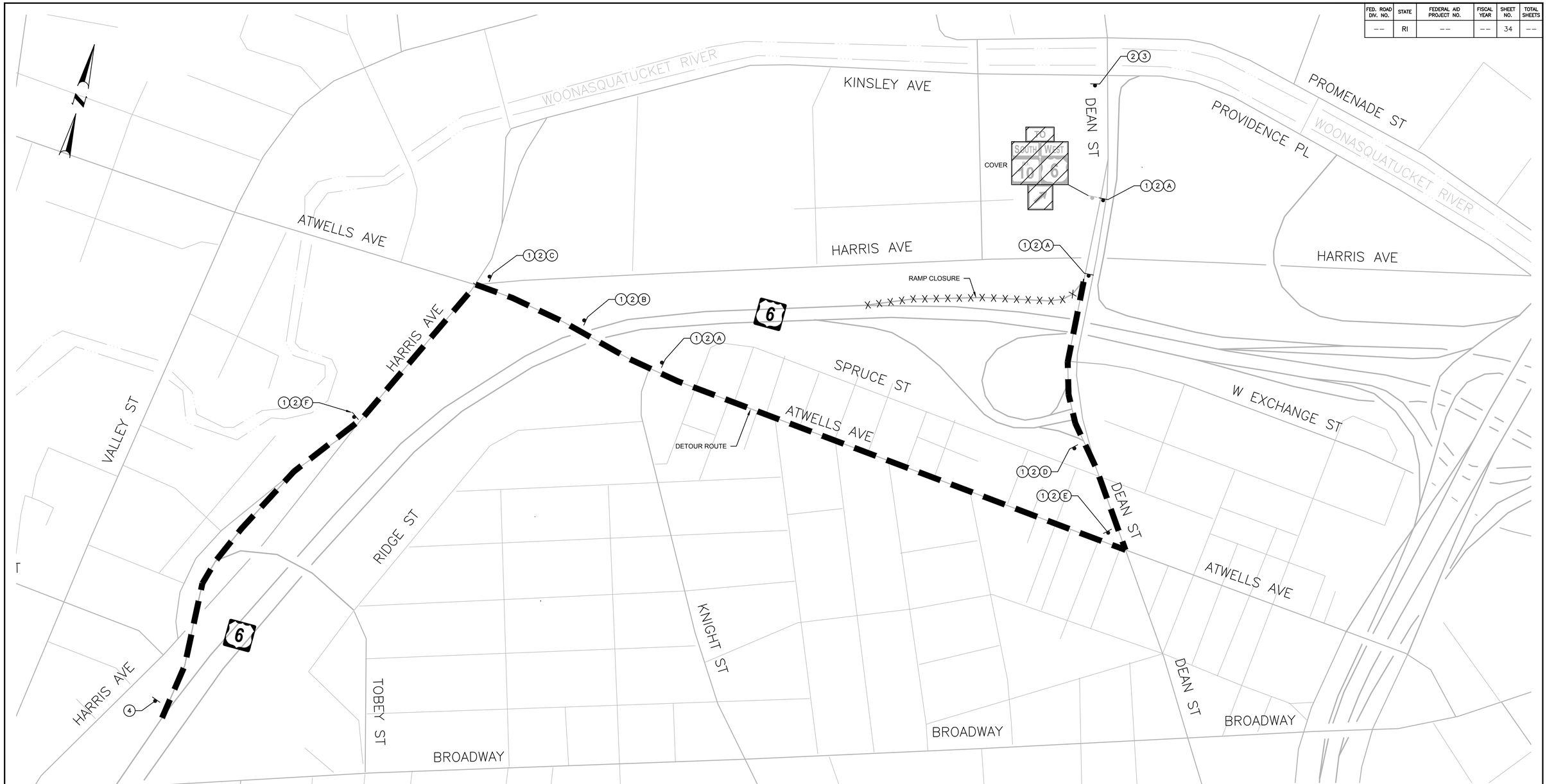
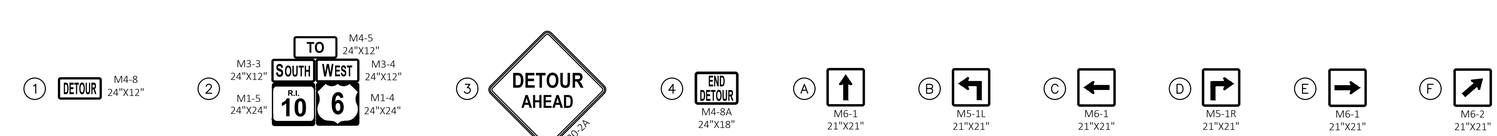
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	34	--



DEAN ST SB ENTRANCE RAMP TO US 6 WB

IN PLACE DURING STAGE 2



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NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

DETOUR PLAN
(SHEET 2 OF 3)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 200'

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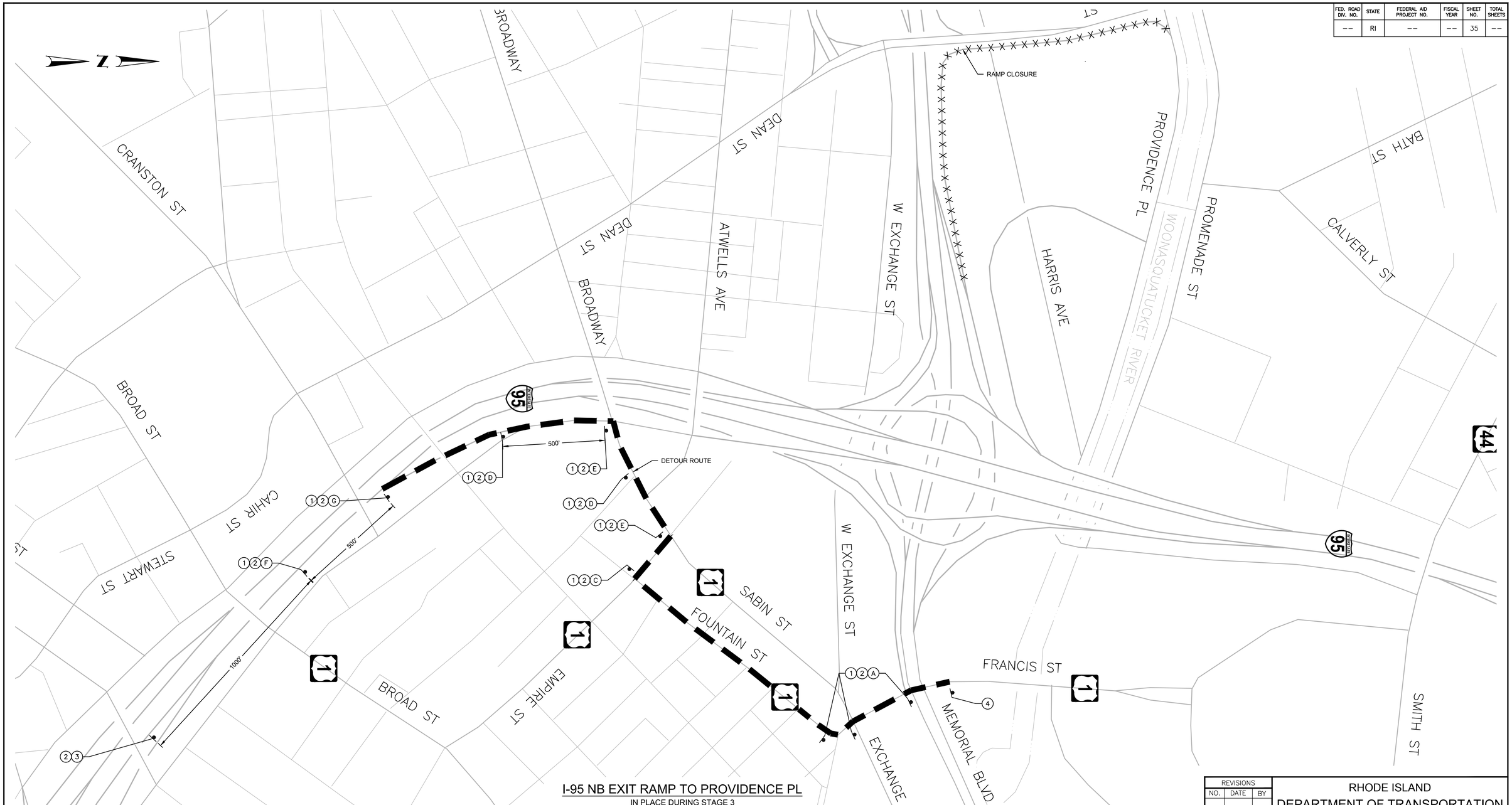
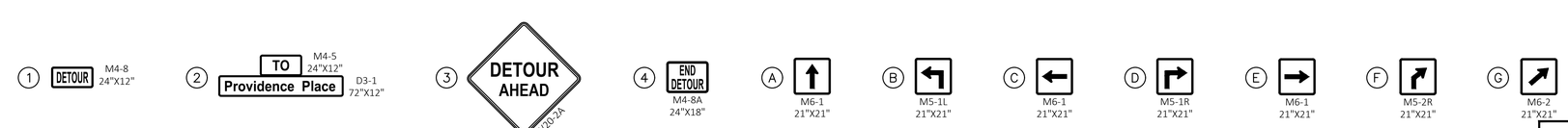
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
--	RI	--	--	35	--



I-95 NB EXIT RAMP TO PROVIDENCE PL

IN PLACE DURING STAGE 3



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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

TEMP. TRAFFIC CONTROL PLAN

DETOUR PLAN
(SHEET 3 OF 3)

CHECKED BY RAT DATE 07/27/18 SCALE 1" = 200'

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FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			36	

CONCRETE REHABILITATION NOTES

1. ALL CONCRETE REPAIR WORK SHALL BE IN ACCORDANCE WITH THE R.I. STANDARD SPECIFICATIONS SECTION 817, "REPAIRS TO STRUCTURE CONCRETE MASONRY" AND THE SPECIAL PROVISIONS CONTAINED IN THE CONTRACT SPECIFICATIONS.

2. ALL LOOSE AND DELAMINATED CONCRETE SHALL BE REMOVED TO THE LIMITS SHOWN ON THE DRAWINGS, OR TO A SOUND CONCRETE SURFACE AS APPROVED BY THE ENGINEER. THE ENGINEER SHALL BE THE SOLE JUDGE IN DETERMINING THE SOUNDNESS OF THE CONCRETE TO REMAIN.

3. IN AREAS WHERE REINFORCING STEEL IS FOUND TO BE SURROUNDED BY DETERIORATED CONCRETE OR WHERE AT LEAST ONE–HALF OF THE REBAR SURFACE AREA IS EXPOSED THE DEPTH OF CONCRETE REMOVAL SHALL BE SUCH AS TO INCLUDED ALL DETERIORATED CONCRETE BUT NOT LESS THAN THAT DEPTH NECESSARY TO ALLOW FOR ONE INCH MINIMUM ANNULAR CLEARANCE AROUND THE REINFORCING BAR.

4. AFTER REMOVAL HAS BEEN COMPLETED, ALL BOND INHIBITING MATERIALS SUCH AS LOOSELY BONDED AGGREGATES, DIRT, OR GREASE, SHALL BE REMOVED FROM THE SURFACE BY SANDBLASTING OR BY OTHER SUITABLE METHODS APPROVED BY THE ENGINEER.

5. IF THE CORRODED REINFORCING HAS LOST MORE THAN 25% OF ITS ORIGINAL DIAMETER, THE REINFORCING STEEL SHALL BE SUPPLEMENTED WITH NEW REINFORCING BY PLACING THE NEW BAR PARALLEL TO THE EXISTING REINFORCING. NEW BARS CONSIDERED MAIN REINFORCEMENT SHALL BE EXTENDED BEYOND THE AFFECTED AREA IN EACH DIRECTION BY THE REQUIRED LAP LENGTHS (30 BAR DIAMETERS). IF NECESSARY, ADDITIONAL CHIPPING WILL BE REQUIRED TO PROVIDE THIS LAP. THE SIZE OF THE SUPPLEMENTAL REINFORCING SHALL MATCH THE EXISTING REINFORCING.

6. ALL HEAVY OXIDES AND SCALES SHALL BE REMOVED FROM AFFECTED REINFORCING BY SANDBLASTING OR BY OTHER SUITABLE METHODS APPROVED BY THE ENGINEER IN ORDER TO PROMOTED MAXIMUM BOND OF THE NEW CONCRETE.

7. THE CONTRACTOR SHALL PROVIDE A FINISHED REPAIR SURFACE TO MATCH THE EXISTING ADJACENT CONCRETE FINISH.

8. PATCHING OF ALL PARTIAL DEPTH SUBSTRUCTURE REPAIRS SHALL BE COMPLETED WITHIN TWO WEEKS AFTER REMOVAL OF DETERIORATED CONCRETE.

9. ALL PARTIAL DEPTH STRUCTURAL CONCRETE REPAIRS TO BRIDGE DECK WILL BE PREFORMED USING FAST SETTING CONCRETE CONSISTENT WITH THE SEQUENCE OF CONSTRUCTION AND MP & T PLANS. THE PARTIAL DEPTH DECK REPAIR SHALL ATTAIN A 2,500 PSI COMPRESSIVE STRENGTH PRIOR TO PERMITTING TRAFFIC ON THE NEWLY PLACED CONCRETE REPAIR.

COLLINS ENGINEERS INC
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REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

GENERAL NOTES-1

CHECKED BY XXX DATE XXX SCALE NO SCALE

0163M_V1_036_GENNOTES01

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			37	

SHIELDING UNDERSIDE OF BRIDGE DECK NOTES

1. TEMPORARY PROTECTIVE SHIELDING ON THE UNDERSIDE OF THE BRIDGE DECK IS REQUIRED TO BE INSTALLED PRIOR TO COMMENCING THE FOLLOWING WORK ITEMS.

   A. R&D DECK EDGE AND JOINT REBUILDS AND SEISMIC BEARING RESTRAINT INSTALLATIONS. (TO PAY LIMITS SHOWN ON INDIVIDUAL BRIDGE PLANS).
   B. FULL DEPTH DECK CONCRETE REPAIRS.

2. THE TEMPORARY SHIELDING SHALL BE DESIGNED FOR THE GREATER OF 150 POUNDS PER SQUARE FOOT OR THE ACTUAL IMPOSED LOADINGS DUE TO THE CONSTRUCTION OPERATION. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER DETAILING THE TEMPORARY PROTECTIVE SHIELDING FOR REVIEW AND APPROVAL.

3. THE COST OF THE TEMPORARY PROTECTIVE SHIELDING SHALL BE PAID FOR UNDER ITEM CODE 803.9905 AND SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FABRICATION, ERECTION AND REMOVAL, AND INCIDENTS REQUIRED TO COMPLETE THE WORK.

UTILITIES

1. LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UTILITIES, SHOULD THEY AFFECT ANY CONSTRUCTION OPERATIONS. THE "DIG SAFE" POLICY SHALL ALSO BE FOLLOWED. ANY DAMAGE TO EXISTING UTILITIES SHOWN ON THE PLANS OR LOCATED BY DIG SAFE SHALL BE THE CONTRACTOR'S RESPONSIBILITY. COST OF DAMAGE TO THESE UTILITIES SHALL BE BORNE BY THE CONTRACTOR.

2. THE CONTRACTOR SHALL BE AWARE OF ELECTRICAL WIRING CAST WITHIN THE DECK IN PORTIONS OF EXISTING DECK BEING REMOVED AND/OR REPAIRED. PRIOR TO COMMENCEMENT OF ANY REMOVAL WORK, THE CONTRACTOR SHALL VERIFY ALL SUCH ELECTRICAL SERVICES ARE INACTIVE.

SITE RESTORATION

ALL PUBLIC OR PRIVATE PROPERTY (WITHIN OR ADJACENT TO THE PROJECT LIMITS DISTRIBUTED BY THE CONTRACTOR'S OPERATIONS), SHALL BE RESTORED TO ITS PRE-CONSTRUCTION CONDITION BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. ALL RESTORATION SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1997 EDITION. THE COST OF RESTORATIONS SHALL BE INCLUDED IN THE PRICES BID FOR OTHER SCHEDULED ITEMS OF WORK, AND NO SEPARATE PAYMENT SHALL BE MADE.

PAINTING OF EXISTING STRUCTURAL STEEL

1. THE EXISTING STRUCTURAL STEEL SHALL BE PAINTED IN ITS ENTIRETY IN ACCORDANCE WITH THE R.I. STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS CONTAINED IN THE CONTRACT DOCUMENTS.

2. THE EXISTING STRUCTURAL STEEL PAINTED SHALL INCLUDE, BUT NOT LIMITED TO, BEAMS, DIAPHRAGMS, CONNECTION PLATES, STIFFENERS, BEARINGS, AND FASTENERS.

3. THE WORK ASSOCIATED WITH THE SETUP OF THE CONTAINMENT SYSTEM FOR THE SURFACE PREPARATION AND THE PAINTING OF THE EXISTING STRUCTURAL STEEL MUST BE CONDUCTED IN ACCORDANCE WITH THE PROPOSED MAINTENANCE AND PROTECTION OF TRAFFIC PLANS AND THE TIME RESTRICTIONS SPECIFIED IN THE GS PAGES.

4. ALL EXISTING STRUCTURAL STEEL DESIGNATED TO BE PAINTED, TO THE LIMITS SHOWN ON THE PLANS, SHALL BE CLEANED BY THE USE OF ULTRA-HIGH PRESSURE WATER JETTING. SURFACE PREPARATION SHALL BE TO SSPC-SP12 STANDARDS TO MEET WJ-2 AND SC-2.

5. THE COST FOR PAINTING EXISTING STRUCTURAL STEEL SHALL BE PAID FOR UNDER ITEM CODE 825.9901, UNLESS OTHERWISE SPECIFIED.

TEMPORARY PROTECTION ADJACENT TO AND ABOVE THE ROADWAY

DURING WORK ABOVE ROADWAYS, THE CONTRACTOR SHALL ERECT AND MAINTAIN TEMPORARY PROTECTIVE SHIELDS AND/OR NETS TO INSURE THAT NO MATERIAL, DEBRIS, OR EQUIPMENT ARE PERMITTED TO FALL TO THE ROADWAY OR TRAFFIC BELOW THE STRUCTURE. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS STAMPED BY A REGISTERED PROFESSIONAL ENGINEER DETAILING THE TEMPORARY PROTECTIVE SHIELDING FOR REVIEW AND APPROVAL. THE MINIMUM DESIGN LOADING SHALL BE THE GREATER OF 150 POUNDS PER SQUARE FOOT OR THE ACTUAL IMPOSED LOADINGS DUE TO THE CONSTRUCTION OPERATION.

PAINTING OF NEW STRUCTURAL STEEL

1. THE NEW STRUCTURAL STEEL (i.e., STEEL BEARINGS AND SEISMIC BEARING RESTRAINT ANGLES) SHALL BE PAINTED TO THE LIMITS SPECIFIED IN THE R.I. STANDARD SPECIFICATIONS, THE CONTRACT SPECIAL PROVISIONS, OR TO THE LIMITS INDICATED ON THE PLANS.

2. THE COST FOR PAINTING NEW STRUCTURAL STEEL SHALL BE PAID FOR UNDER ITEM CODE 825.8045 UNLESS OTHERWISE SPECIFIED.

SEQUENCE OF CONSTRUCTION NOTES

1. THE FOLLOWING LIST PROVIDES A GENERAL OVERVIEW OF IMPACTS TO TRAFFIC DUE TO BRIDGE REHABILITATION WORK SHOWN IN THIS PLAN SET.

   TRAFFIC IMPACT TO U.S. 6

   TEMPORARY NON-BARRIERED LANE CLOSURES PER M&PT PLANS FOR ALL WORK BELOW BRIDGE

   TEMPORARY NON-BARRIERED LANE/SHOULDER CLOSURES PER M&PT PLANS

   TEMPORARY BARRIERED LANE (HIGH SPEED) SHIFT FOR PIER COLUMN AND/OR CAP REPLACEMENT.

   TEMPORARY NON-BARRIERED LANE CLOSURE PER M&PT PLANS FOR ALL OTHER WORK UNDER BRIDGE.

   ON RAMP TO BE CLOSED AND TRAFFIC DETOURED

   TRAFFIC IMPACT TO ROAD OVER U.S. 6

   NIGHT TIME OPERATION WITH NON-BARRIERED LANE SHIFTS.
   TEMPORARY STEEL PLATE REQUIRED FOR DECK JOINT REBUILDS WHEN OPEN TO TRAFFIC.

2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE MAINTENANCE AND PROTECTION OF TRAFFIC PLANS SHOWN IN THE CONTRACT DRAWINGS AND WITHIN THE RESTRICTIONS INDICATED IN THE CONTRACT GS PAGES.

3. INSTALLATION OF THE ASPHALT BRIDGE DECK JOINT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS UPON COMPLETION OF THE FINAL LAYER OF PAVEMENT.

4. BACKWALL AND JOINT RECONSTRUCTION WILL BE PREFORMED WITHIN THE PERMITTED TIME RESTRICTIONS NOTED IN THE CONTRACT GS PAGES. NO ADDITIONAL CONTRACTION JOINT WILL BE ALLOWED AT THE ABUTMENTS WITHOUT THE APPROVAL OF THE ENGINEER.

5. FOR BRIDGE WORK ON THE TOP SIDE OF THE BRIDGE, THE CONSTRUCTION SHALL BE SEQUENCED AS FOLLOWS:

   A. PERFORM DECK/JOINT REBUILDS, BACKWALL REBUILDS (WHERE APPLICABLE), AND SEISMIC RESTRAINT INSTALLATIONS. PAVEMENT REMOVAL LIMITED TO JOINT LOCATIONS ONLY.

   B. INSTALL TEMPORARY STEEL PLATES OVER DECK OPENINGS WHEN OPEN TO VEHICULAR TRAFFIC.

   C. UPON COMPLETION OF THE ABOVE WORK, THE ENTIRE REMAINING BITUMINOUS PAVEMENT WEARING SURFACE AND WATERPROOFING MEMBRANE WILL BE REMOVED FROM THE BRIDGE.

   D. THE TOP SIDE OF THE DICK WILL BE PREPARED WITH FAST SETTING PARTIAL DEPTH CONCRETE DECK REPAIRS.

   E. THE NEW WATERPROOFING MEMBRANE AND BITUMINOUS PAVEMENT WILL BE INSTALLED.

   F. EXPANSION AND FIXED JOINTS WILL BE INSTALLED IN THE DECK, CURB, SIDEWALK, AND PARAPET.

SEQUENCE OF PAVING BRIDGES

1. THE PAVEMENT ON THE STRUCTURE SHALL BE REMOVED IN ITS ENTIRETY UPON THE COMPLETION OF DECK/JOINT REBUILD AND SEISMIC RESTRAINT INSTALLATION. AFTER THE COMPLETION OF PARTIAL DEPTH DECK REPAIRS, THE PAVEMENT SHALL BE RESTORED BY INSTALLING THE WATERPROOFING MEMBRANE AND THE FIRST LAYER OF PAVEMENT. NO PAVEMENT TRANSITION IS PERMITTED PERPENDICULAR TO TRAFFIC.

2. THE FINAL LAYER OF PAVEMENT ON THE BRIDGE MUST BE PLACED OVER THE ENTIRE WIDTH OF THE DECK IN ONE CONTINUOUS OPERATION.

3. JOINT/DECK EDGE RECONSTRUCTION AND SEISMIC RESTRAINT INSTALLATION ON THE BRIDGE SHALL BE PREFORMED WITHIN THE PERMITTED TIME RESTRICTIONS NOTED IN THE CONTRACT GS PAGES. TEMPORARY TRAFFIC PLATES ARE TO BE INSTALLED TO OPEN THE BRIDGE TO TRAFFIC.

4. FOR THE INSTALLATION SEQUENCE OF THE ASPHALTIC BRIDGE DECK JOINTS, REFER TO SPECIAL PROVISIONS ITEM CODE 823.9901.

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

GENERAL NOTES-2

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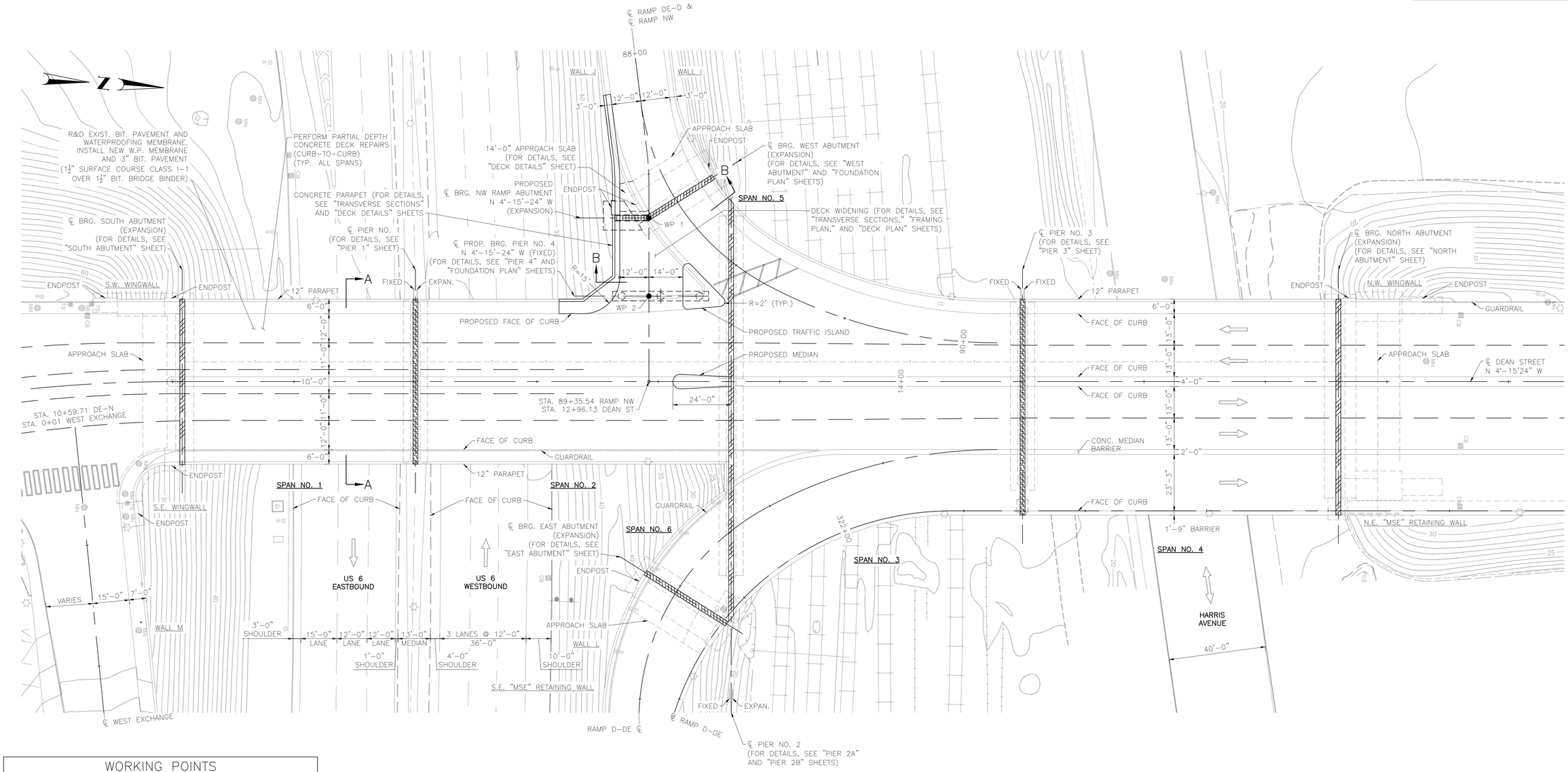
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			38	



GENERAL PLAN

SCALE: 1"=20'

WORKING POINTS			
W.P.	STATION	NORTH	EAST
1	88+68.10	270644.504	348197.146
2	89+00.29	270646.893	348229.251

GENERAL NOTES:

1. FOR SECTIONS A-A AND B-B, SEE TO "TRANSVERSE SECTIONS" SHEETS.
2. FOR DECK JOINTS SEE, TO "JOINT DETAILS" SHEET.
3. FOR GEOMETRY AND CURVE DATA, SEE "LOCATION PLAN" SHEET.
4. FOR DEMOLITION LIMITS, SEE "DEMOLITION PLAN" AND "DEMOLITION DETAILS' SHEETS.

DECK REPAIR NOTES:

1. THE EXISTING DECK AND PARAPET TO REMAIN SHALL BE REPAIRED WITH PARTIAL DEPTH DECK REPAIRS AS DETAILED ON THE "CONCRETE REPAIR DETAILS" SHEET.
2. THE ACTUAL LIMITS OF REMOVAL AND REPAIR SHALL BE DESIGNATED BY THE ENGINEER AND SHALL BE DETERMINED BY CHAIN DRAGGING, HAMMER SOUNDING, OR OTHER METHOD AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL PERFORM SUCH METHODS OF DECK EVALUATION, AS APPROVED BY THE ENGINEER, FOR DETERMINATION OF THE ACTUAL REMOVAL AND REPAIR AREAS. THE CONTRACTOR SHALL INSURE THAT THE DECK AREA IS FREE OF PAVEMENT, WATERPROOFING, DEBRIS, AND OTHER FOREIGN MATERIAL PRIOR TO COMMENCEMENT OF THE DECK EVALUATION OPERATIONS.
3. ALL COSTS ASSOCIATED WITH PERFORMING THE DECK EVALUTATION AND DETERMINING THE ACTUAL REMOVAL AND REPAIR AREAS, INCLUDING ALL LABOR, MATERIALS, TOOLS, AND ALL INCIDENTALS NECESSARY TO COMPLETE THIS WORK TO THE SATISFACTION OF THE ENGINEER, SHALL BE INCLUDED FOR PAYMENT UNDER THE APPROPRIATE DECK REPAIR ITEMS.

LEGEND:

- NEW ASPHALTIC JOINT
- NEW STRIP SEAL JOINT
- NEW LINK SLAB JOINT
- DESIGNATES TEST BORINGS

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DEAN STREET BRIDGE NO. 776
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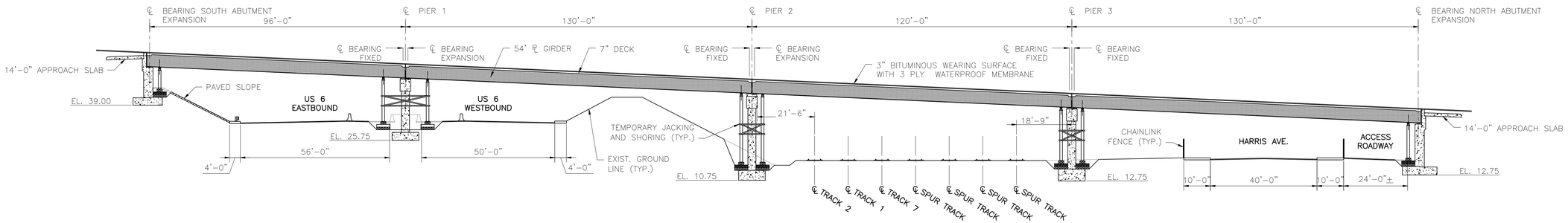
BRIDGE GENERAL PLAN

CHECKED BY XXX DATE XXX SCALE AS NOTED

0163M_V1_038_GENPLAN01

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			39	



LONGITUDINAL SECTION
(AT ℄ DEAN ST)
SCALE: 1"=20'

LEGEND:

DENOTES AREAS OF REPAINTING EXIST. STRUCTURAL STEEL

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DEAN STREET BRIDGE NO. 776
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LONGITUDINAL SECTION

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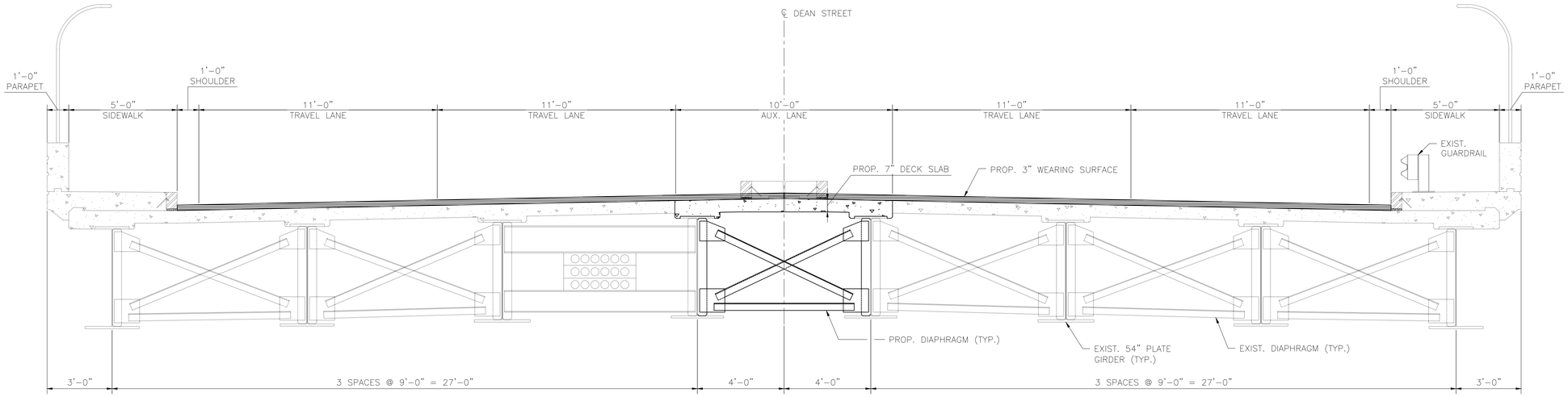
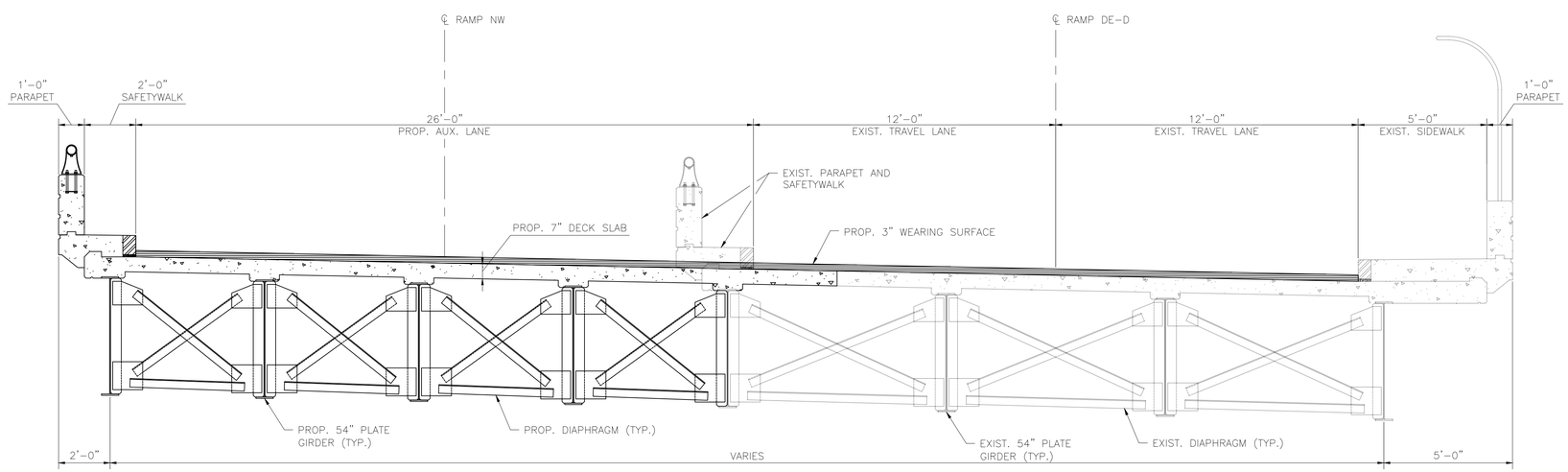
0163M_V1_039_LONGSECT

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			40	



SECTION A – SPAN NO. 1 & 2

SCALE: $\frac{3}{8}$"=1'



SECTION B – SPAN NO. 5

SCALE: NTS

NOTES:

1. ALL STRUCTURAL STEEL SHALL BE PAINTED IN ACCORDANCE WITH SECTION 825 OF THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION "PAINTING STRUCTURAL STEEL" AND PAID FOR UNDER CODE 825.XXX "PAINTING STRUCTURAL STEEL". THE COLOR OF THE TOP COAT SHALL CLOSELY MATCH COLOR OF EXISTING PAINT.
2. FOR ADDITIONAL DECK AND PARAPET DETAILS, SEE "DECK DETAILS" SHEETS.

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BRIDGE REHABILITATION
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TRANSVERSE SECTIONS

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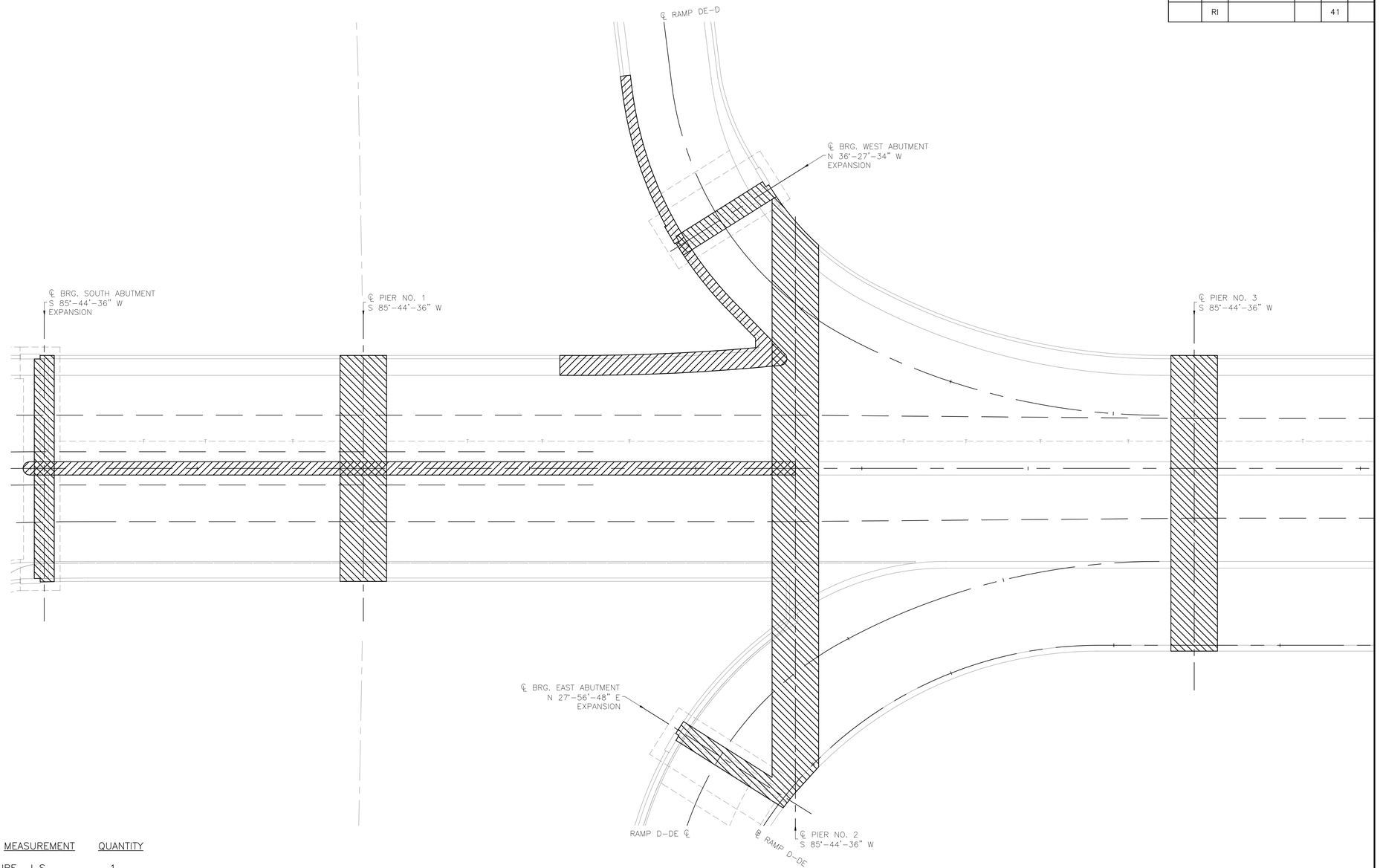
0163M_V1_040_TRANSECT

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			41	

NOTES:

1. ALL DEMOLITION SHALL BE IN ACCORDANCE WITH CODE 803.9901, "REMOVE AND DISPOSE PORTIONS OF EXISTING SUPERSTRUCTURE" OF THE SPECIAL PROVISIONS OF THE SPECIFICATIONS.
2. DETAILS HAVE BEEN DEVELOPED FROM ORIGINAL CONSTRUCTION DRAWINGS AND ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS TO VERIFY ALL DEMOLITION QUANTITIES SHOWN.
3. REMOVE AND DISPOSE OF BITUMINOUS CONCRETE PAVEMENT SHALL BE IN ACCORDANCE WITH ITEM CODE 803.9903, "REMOVE AND DISPOSE BRIDGE DECK BITUMINOUS CONCRETE PAVEMENT". THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS AGAINST CAUSING GOUGING OF THE EXISTING CONCRETE DECK WHEN REMOVING BITUMINOUS WEARING SURFACE AND WATERPROOFING MEMBRANE. ANY DAMAGE INFLICTED TO THE DECK SURFACE SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.
4. CONTRACTOR TO USE EXTREME CAUTION DURING DEMOLITION OPERATIONS, NOT TO DAMAGE EXISTING PLATE GIRDERS, SHEAR STUDS, STIFFENERS, DIAPHRAGMS, AND REINFORCING STEEL TO REMAIN.
5. ALL WORK SHALL BE COORDINATED SUCH THAT THERE IS NO INTERFERENCE WITH AMTRAK AND G&W RAILROAD.
6. THE CONTRACTOR SHALL EXERCISE EXTREME CARE SO AS TO AVOID DAMAGE TO EXISTING STRUCTURE DESIGNATED TO REMAIN. IF EXISTING STRUCTURE IS DAMAGED AS A RESULT OF THE CONTRACTORS OPERATIONS, IT SHALL BE REPAIRED WITH NO ADDITIONAL COST TO THE STATE.
7. IT IS THE CONTRACTOR RESPONSIBILITY TO AVOID ANY DAMAGE TO THE UTILITIES, DRAINAGE AND OTHER STRUCTURES.



DEMO PLAN
SCALE: $\frac{1}{16}$"=1'

LUMP SUM BREAKDOWN

CODE	DESCRIPTION	MEASUREMENT	QUANTITY
803.9901	REMOVE AND DISPOSE PORTIONS OF EXISTING SUPERSTRUCTURE	L.S.	1
	INCLUDED ITEMS ARE:		
	REMOVE AND DISPOSE CHAIN LINK FENCE	L.F.	XXX
	REMOVE AND DISPOSE GRANITE CURB	L.F.	XXX
	REMOVE AND DISPOSE CONCRETE (DECK, SIDEWALK, AND PARAPET)	C.Y.	XXX
	REMOVE AND DISPOSE PORTION OF DECK JOINT	L.F.	XXX
	REMOVE AND DISPOSE BRIDGE RAIL	L.F.	XXX
	REMOVE AND DISPOSE PROTECTIVE SCREEN	L.F.	XXX
	REMOVE AND DISPOSE LIGHT STANDARD	EA.	XXX
	REMOVE AND DISPOSE SCUPPER	EA.	XXX
803.9903	REMOVE AND DISPOSE PORTIONS OF EXISTING BRIDGE DECK BITUMINOUS CONCRETE PAVEMENT	C.Y.	XXX

NOTE:
** THESE QUANITITIES ARE APPROXIMATE ONLY AND THE STATE ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. NO ADDITIONAL PAYMENT WILL BE MADE FOR ITEMS NOT SHOWN OR FOR VARIATION ON THE QUANTITIES SHOWN.

LEGEND:

REMOVE AND DISPOSE

SPECIAL NOTICE TO CONTRACTOR:
IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL ELEVATIONS, DIMENSIONS, DETAILS, ANGLES, STRUCTURAL MEMBER SIZES AND LAYOUTS AS SHOWN ON THESE PLANS.

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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

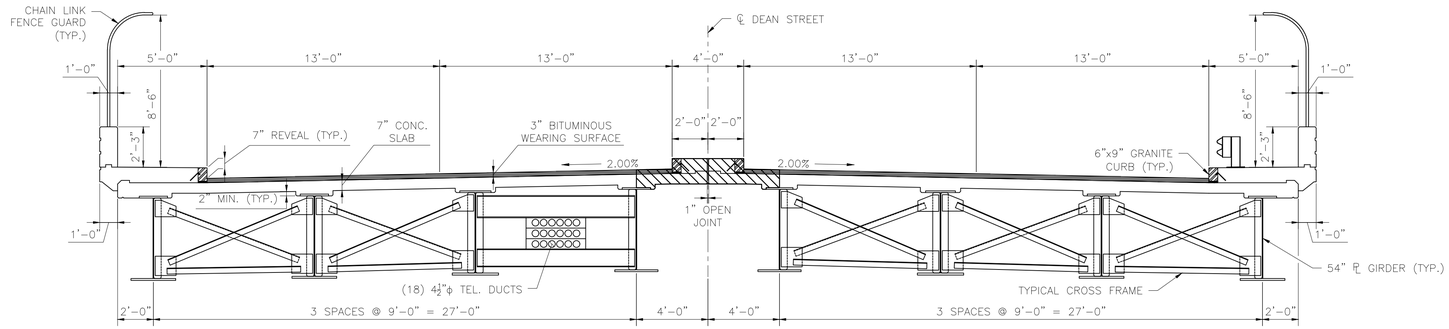
BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

DEMOLITION PLAN

CHECKED BY XXX DATE XXX SCALE NO SCALE

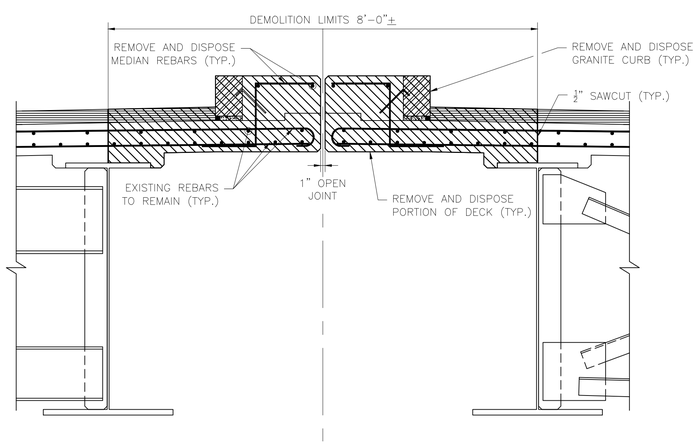
0163M_V1_041-042_DEMOP

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			42	



TRANSVERSE SECTION AT XX+00

SCALE: ¼"=1'



CONCRETE MEDIAN TRANSVERSE SECTION

SCALE: ¾"=1'

LEGEND:

REMOVE AND DISPOSE

SPECIAL NOTICE TO CONTRACTOR:

IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL ELEVATIONS, DIMENSIONS, DETAILS, ANGLES, STRUCTURAL MEMBER SIZES AND LAYOUTS AS SHOWN ON THESE PLANS.

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DEAN STREET BRIDGE NO. 776

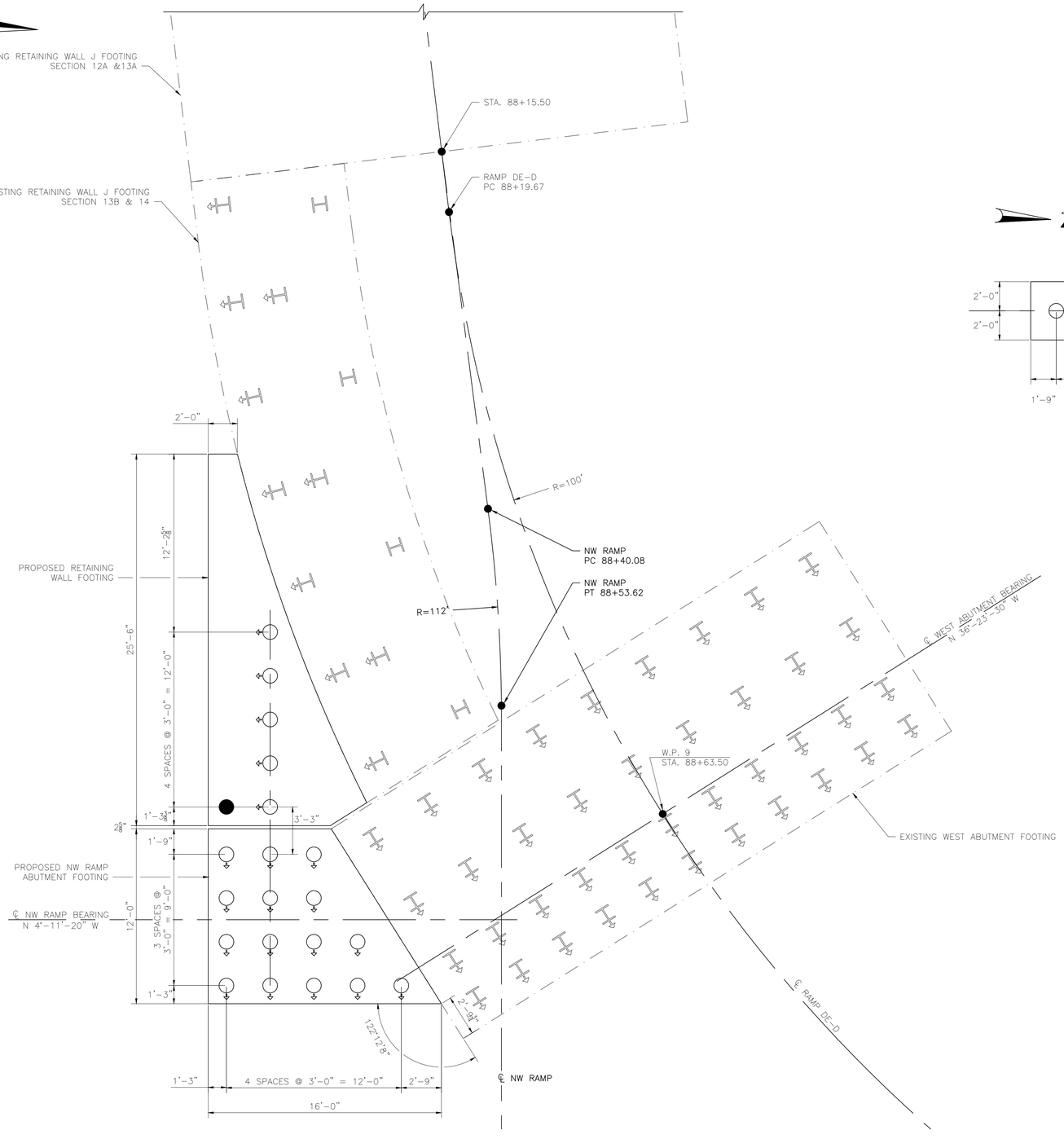
PROVIDENCE RHODE ISLAND

DEMOLITION DETAILS

CHECKED BY XXX DATE XXX SCALE AS NOTED

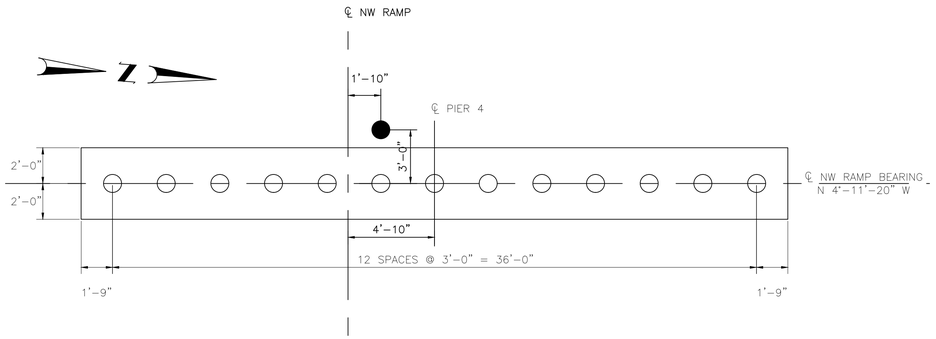
0163M_V1_041-042_DEMOP

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			45	



PROPOSED NW RAMP AND RETAINING WALL FOOTING PLAN

SCALE: $\frac{1}{4}$"=1'



PROPOSED PIER 4 FOOTING PLAN

SCALE: $\frac{1}{4}$"=1'

TEST PILE NOTES

THE CONTRACTOR SHALL PERFORM TWO (2) PILE LOAD TESTS, ONE (1) AT THE WEST ABUTMENT AND ONE (1) AT PIER 4, ON A POTENTIAL TEST PILE. ACTUAL PILE TESTED SHALL BE CHOSEN BY THE ENGINEER.

PILE LEGEND

○ = 12"ø MICROPILE INSTALLED VERTICAL

○ = 12"ø MICROPILE INSTALLED AT BATTER OF 2 HORIZONTAL TO 12 VERTICAL IN THE DIRECTION OF THE ARROW.

● = POTENTIAL TEST PILE (12"ø MICROPILE INSTALLED VERTICAL) (SEE NOTE)

I = EXISTING STEEL PILE VERTICAL

I = EXISTING STEEL PILE INSTALLED AT A BATTER OF APPROX. 2 HORIZONTAL TO 12 VERTICAL IN THE DIRECTION OF THE ARROW

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

FOUNDATION PLAN

CHECKED BY XXX DATE XXX SCALE AS NOTED

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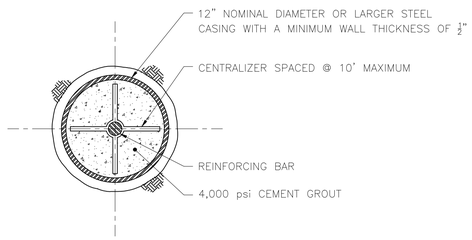
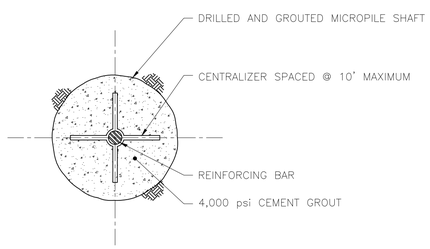
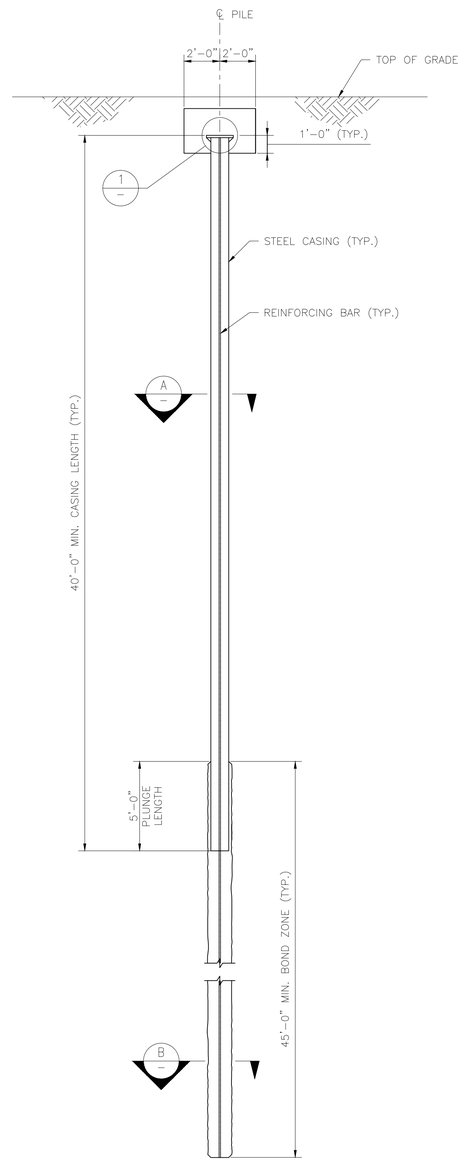
	RI			46	



SECTION A
SCALE: 1½"=1'



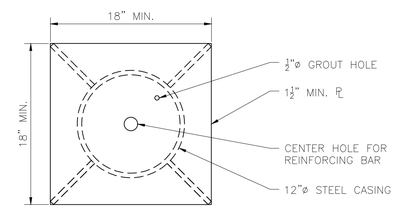
SECTION B
SCALE: 1½"=1'



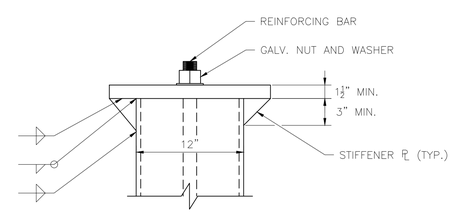
TYPICAL SECTION AT PIER 4
SCALE: ¼"=1'

MICROPILE DESIGN LOADS		
LIMIT STATE	AXIAL LOAD (KIP)	LATERAL LOAD (KIP)
SERVICE	96.5	5.6
STRENGTH (MAX. AXIAL)	128.6	3.6
STRENGTH (MAX. LATERAL)	85.2	11.8
EXTREME	95.6	7.6

NOTES:
1. THE CONTRACTOR'S MICROPILE STRUCTURAL DESIGN SHALL BE BASED UPON THE LOADS PROVIDED ABOVE; AXIAL LOAD RESISTANCE SHALL BE VERIFIED BY LOAD TESTING AS DESCRIBED IN THE ITEM CODE 804.9901.
2. LOADS GIVEN ARE FACTORED LOADS PER PILE AT THE BOTTOM OF THE FOOTING ELEVATION.



PLAN



ELEVATION

NOTE:
PILE TOP ATTACHMENT DETAIL SHOWN IS SCHEMATIC. CONTRACTOR IS RESPONSIBLE FOR THE FINAL DESIGN/DETAIL.

DETAIL 1
SCALE: 1½"=1'

MICROPILE NOTES

1. FOR THE REQUIREMENTS PERTAINING TO THE FURNISHING AND INSTALLATION OF THE MICROPILE, REFER TO THE SPECIAL PROVISIONS.
2. CEMENT GROUT SHALL BE A NEAT MIX OF PORTLAND CEMENT (TYPE I OR II) CONFORMING TO THE REQUIREMENTS OF AASHTO DESIGNATION M85 (ASTM DESIGNATION C150) WITH WATER CEMENT RATIO OF 0.45 AND A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI.
3. THE QUALITY OF GROUT SHALL BE MONITORED BY COLLECTING GROUT CUBES FOR LATER COMPRESSIVE TESTING AND BY MEASURING THE GROUT SPECIFIC GRAVITY FROM ONE BATCH PER DAY. COMPRESSION TESTING SHALL BE PREFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO DESIGNATION T106 (ASTM DESIGNATION C109)
4. REINFORCING BAR SHALL BE GALVANIZED AND CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M31 (ASTM DESIGNATION A615), GRADE 60 OR GRADE 75, OR AASHTO DESIGNATION 275 (ASTM DESIGNATION A722), GRADE 150.
5. PILE TOP PLATE STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M270 (ASTM DESIGNATION A709), GRADE 50.
6. STEEL CASING SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A252, GRADE 3 EXCEPT THE YIELD STRENGTH SHALL BE A MINIMUM OF 50,000 PSI.
7. ALL WELDING SHALL BE IN ACCORDANCE WITH THE LATEST ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE.
8. PAYMENT FOR GROUT, PILE TOP PLATE STEEL, THREADED REINFORCING BAR, STEEL CASING, CASING CUTOFF, AND ALL OF REQUIRED TESTING AND WELDING WILL BE INCLUDED IN THE COST OF THE MICROPILES.

MICROPILE INSTALLATION PROCEDURE

1. ADVANCE STEEL CASING TO FULL PILE DEPTH REQUIRED UTILIZING ROTARY DRILLING TECHNIQUES.
2. PLACE REINFORCING BAR WITH CENTRALIZERS IN CASING.
3. TREMIE CASING FULL DEPTH WITH NEAT CEMENT GROUT.
4. PRESSURE GROUT BOND LENGTH BY PUMPING NEAT CEMENT GROUT UNDER PRESSURE WHILE EXTRACTING CASING. MINIMUM GROUT PRESSURE OF 50 PSI.
5. UPON COMPLETION OF PRESSURE GROUTING, REINSERT CASING FIVE FEET INTO THE BOND LENGTH.
6. TRIM TOP OF CASING TO ITS PROPER ELEVATION AND WELD THE TOP BEARING PLATE WITH STIFFENER PLATES.
7. CONSISTENCY OF THE PILE INSTALLATION SHALL BE MONITORED AND RECORDED AS DESCRIBED IN THE SPECIAL PROVISIONS. MONITORED AND RECORDED DATA SHALL INCLUDE TOTAL PILE DEPTH, GROUT PRESSURES AND QUANTITIES, SOIL/ROCK ENCOUNTERED DURING INSTALLATION, AND ANY OBSTRUCTIONS OR IRREGULARITIES.

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

MICROPILE PILE DETAILS

CHECKED BY XXX DATE XXX SCALE AS NOTED

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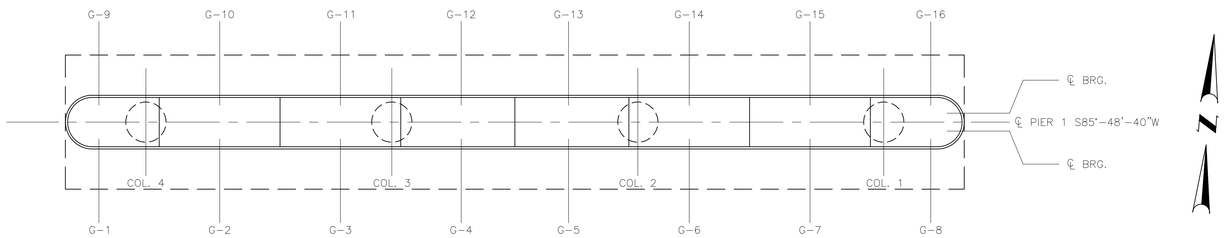
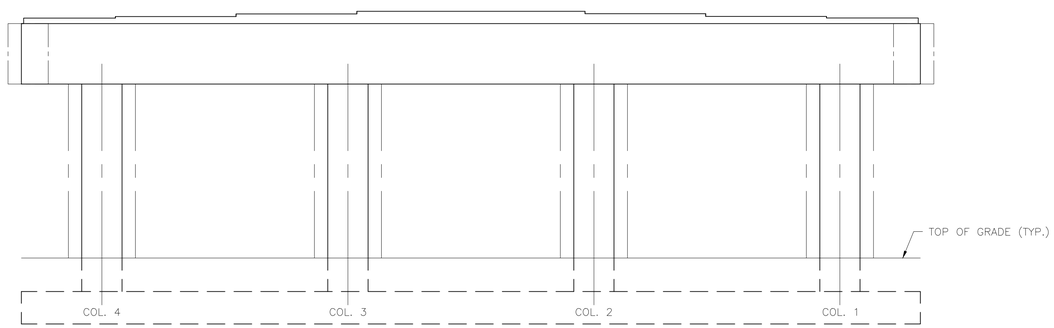
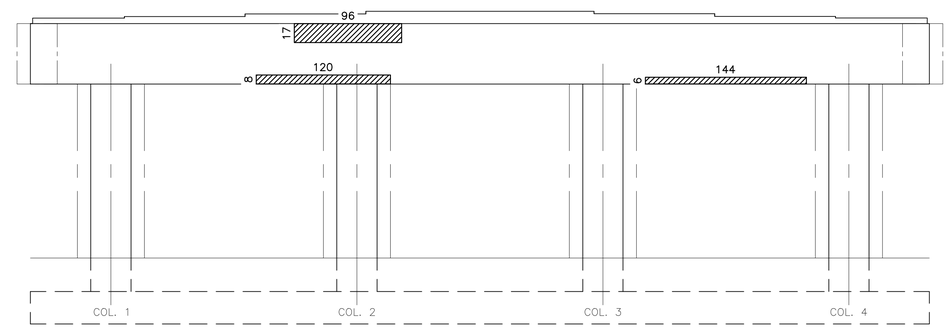
	RI			52	



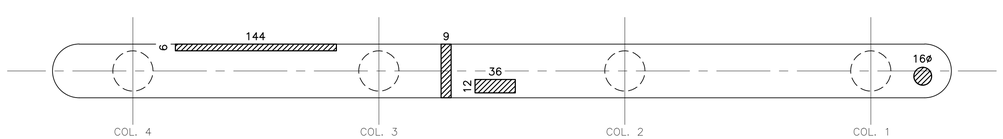
TOP OF PIER CAP
SCALE: $\frac{3}{16}$"=1'



NORTH ELEVATION
SCALE: $\frac{3}{16}$"=1'



SOUTH ELEVATION
SCALE: $\frac{3}{16}$"=1'



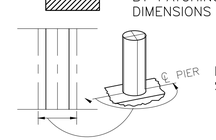
BOTTOM OF PIER CAP (Reflected Plan)
SCALE: $\frac{3}{16}$"=1'

NOTES:

1. THE CONTRACTOR SHALL PROVIDE A REPAIR SURFACE TO MEET AND MATCH EXISTING SURFACE.
2. REFER TO "GENERAL NOTES SHEET 1" FOR CONCRETE NOTES AND CONCRETE REHABILITATION NOTES.
3. REFER TO "CONCRETE REPAIR DETAILS" SHEET FOR STRUCTURAL CONCRETE REPAIR DETAILS.

LEGEND:

DENOTES AREAS OF CONCRETE TO BE REPAIRED BY PATCHING METHOD (CODE 817.2110). DIMENSIONS ARE SHOWN IN INCHES.



DENOTES HALF OF A COLUMN SHOWN AS A FLAT SURFACE.

* DENOTES REPAIR SURFACE CONTINUES

COLLINS ENGINEERS INC
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FAX 401.732.7760
WWW.COLLINSENGR.COM

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

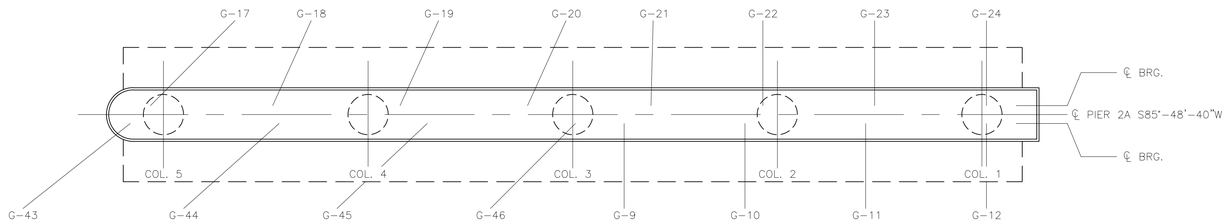
BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

PIER 1 REPAIR

CHECKED BY XXX DATE XXX SCALE AS NOTED

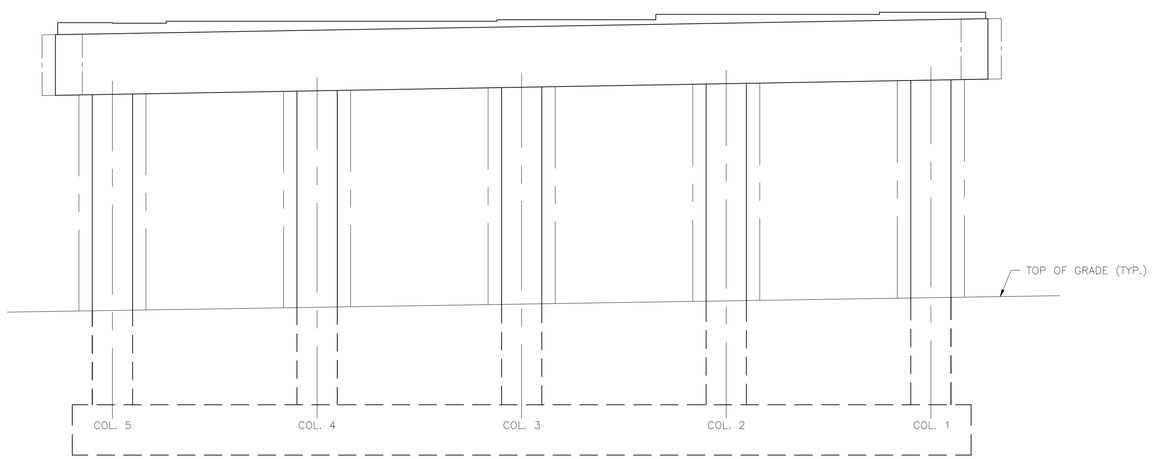
0163M_V1_052_PIERREPAIR01

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			53	



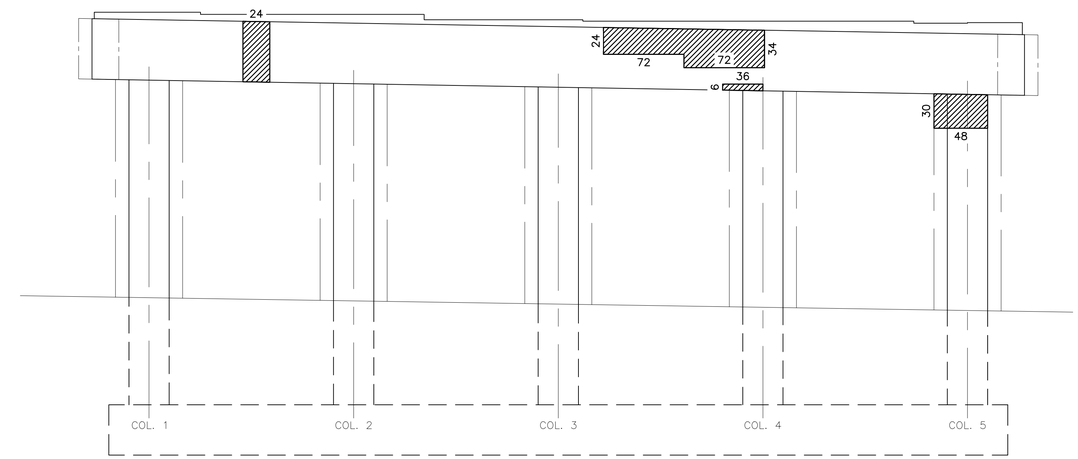
TOP OF PIER CAP

SCALE: $\frac{3}{16}$"=1'



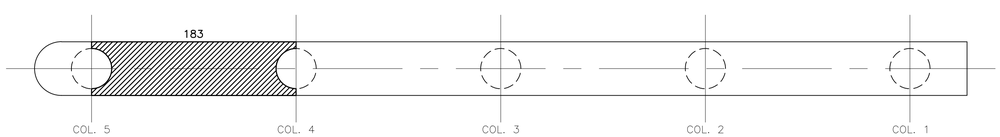
NORTH ELEVATION

SCALE: $\frac{3}{16}$"=1'



SOUTH ELEVATION

SCALE: $\frac{3}{16}$"=1'



BOTTOM OF PIER CAP (Reflected Plan)

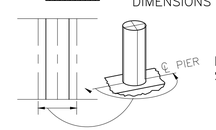
SCALE: $\frac{3}{16}$"=1'

NOTES:

1. THE CONTRACTOR SHALL PROVIDE A REPAIR SURFACE TO MEET AND MATCH EXISTING SURFACE.
2. REFER TO "GENERAL NOTES SHEET 1" FOR CONCRETE NOTES AND CONCRETE REHABILITATION NOTES.
3. REFER TO "CONCRETE REPAIR DETAILS" SHEET FOR STRUCTURAL CONCRETE REPAIR DETAILS.

LEGEND:

DENOTES AREAS OF CONCRETE TO BE REPAIRED BY PATCHING METHOD (CODE 817.2110). DIMENSIONS ARE SHOWN IN INCHES.



DENOTES HALF OF A COLUMN SHOWN AS A FLAT SURFACE.

* DENOTES REPAIR SURFACE CONTINUES

REVISIONS		
NO.	DATE	BY

RHODE ISLAND

DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION

DEAN STREET BRIDGE NO. 776

PROVIDENCE RHODE ISLAND

PIER 2A REPAIR

CHECKED BY XXX DATE XXX SCALE AS NOTED

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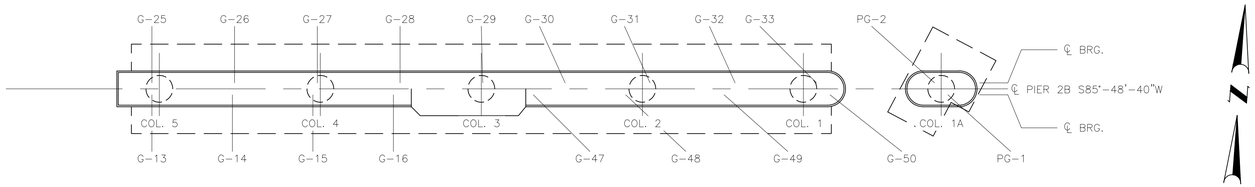
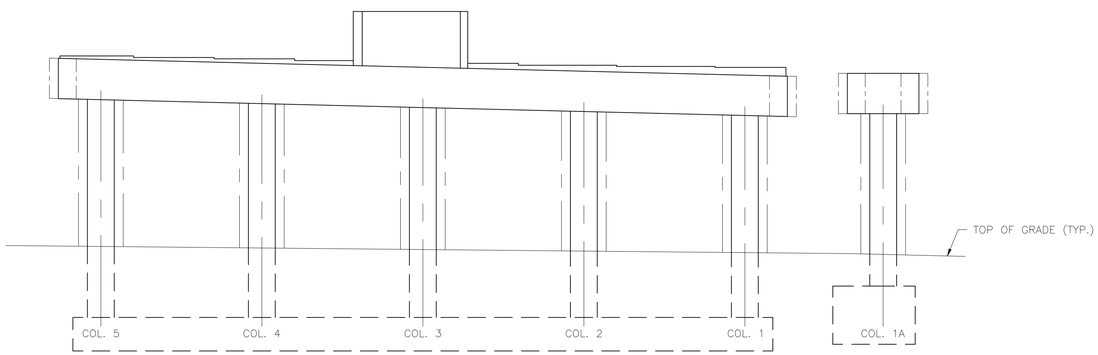
0163M_V1_053_PIERREPAIR02A

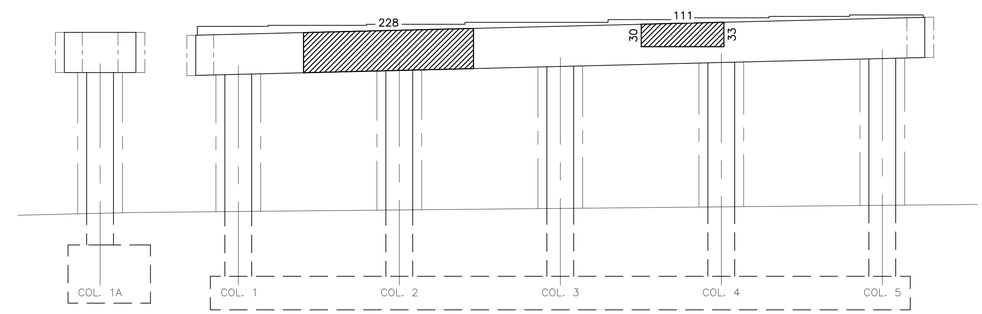
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			54	



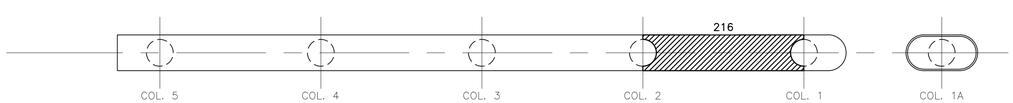
TOP OF PIER CAP
SCALE: $\frac{1}{8}$"=1'



NORTH ELEVATION
SCALE: $\frac{1}{8}$"=1'



SOUTH ELEVATION
SCALE: $\frac{1}{8}$"=1'



BOTTOM OF PIER CAP (Reflected Plan)
SCALE: $\frac{1}{8}$"=1'

NOTES:

1. THE CONTRACTOR SHALL PROVIDE A REPAIR SURFACE TO MEET AND MATCH EXISTING SURFACE.
2. REFER TO "GENERAL NOTES SHEET 1" FOR CONCRETE NOTES AND CONCRETE REHABILITATION NOTES.
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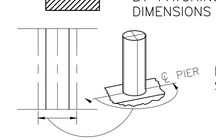
LEGEND:

DENOTES AREAS OF CONCRETE TO BE REPAIRED BY PATCHING METHOD (CODE 817.2110). DIMENSIONS ARE SHOWN IN INCHES.



DENOTES HALF OF A COLUMN SHOWN AS A FLAT SURFACE.

* DENOTES REPAIR SURFACE CONTINUES

REVISIONS		
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RHODE ISLAND
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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

PIER 2B REPAIR

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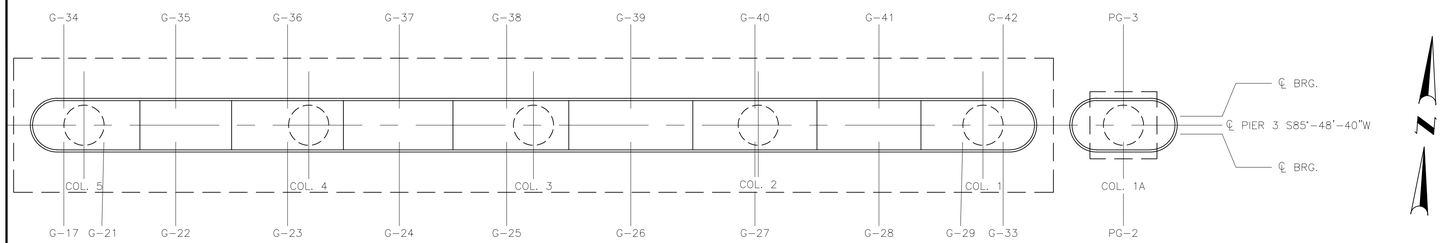
CHECKED BY XXX DATE XXX SCALE AS NOTED

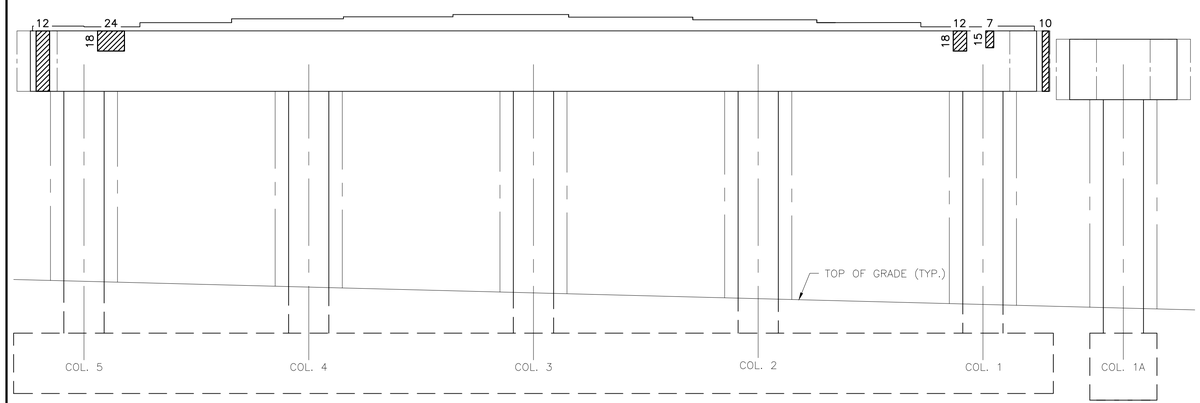
0163M_V1_054_PIERREPAIR02B

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			55	



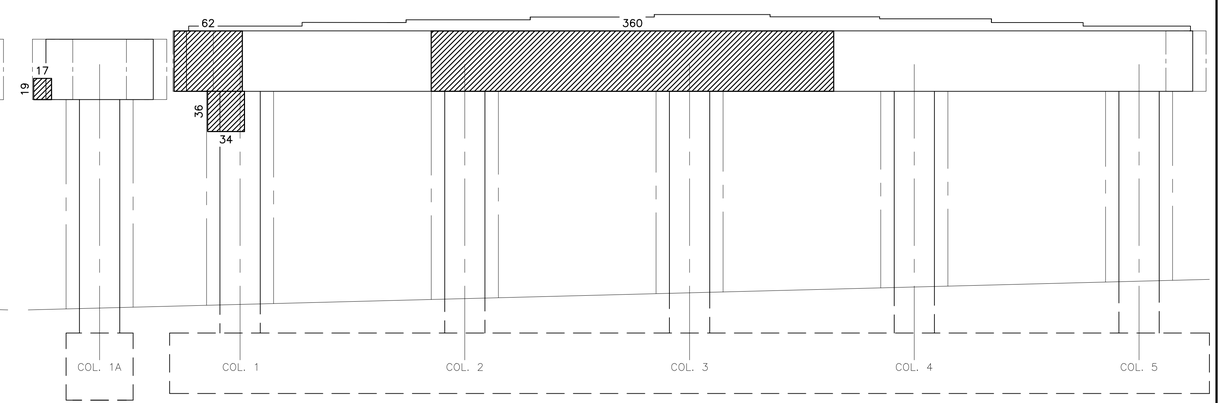
TOP OF PIER CAP

SCALE: $\frac{3}{16}$"=1'



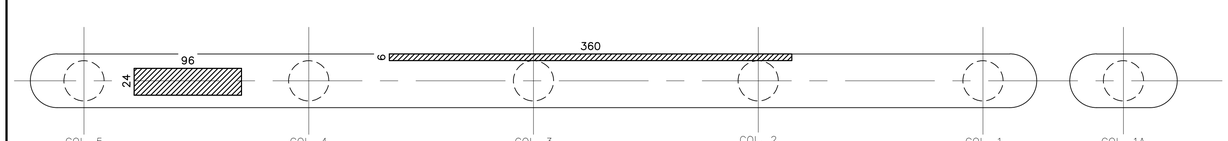
NORTH ELEVATION

SCALE: $\frac{3}{16}$"=1'



SOUTH ELEVATION

SCALE: $\frac{3}{16}$"=1'



BOTTOM OF PIER CAP (Reflected Plan)

SCALE: $\frac{3}{16}$"=1'

NOTES:

1. THE CONTRACTOR SHALL PROVIDE A REPAIR SURFACE TO MEET AND MATCH EXISTING SURFACE.
2. REFER TO "GENERAL NOTES SHEET 1" FOR CONCRETE NOTES AND CONCRETE REHABILITATION NOTES.
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LEGEND:

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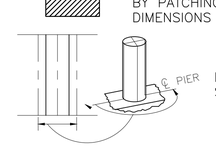

DENOTES HALF OF A COLUMN SHOWN AS A FLAT SURFACE.

* DENOTES REPAIR SURFACE CONTINUES

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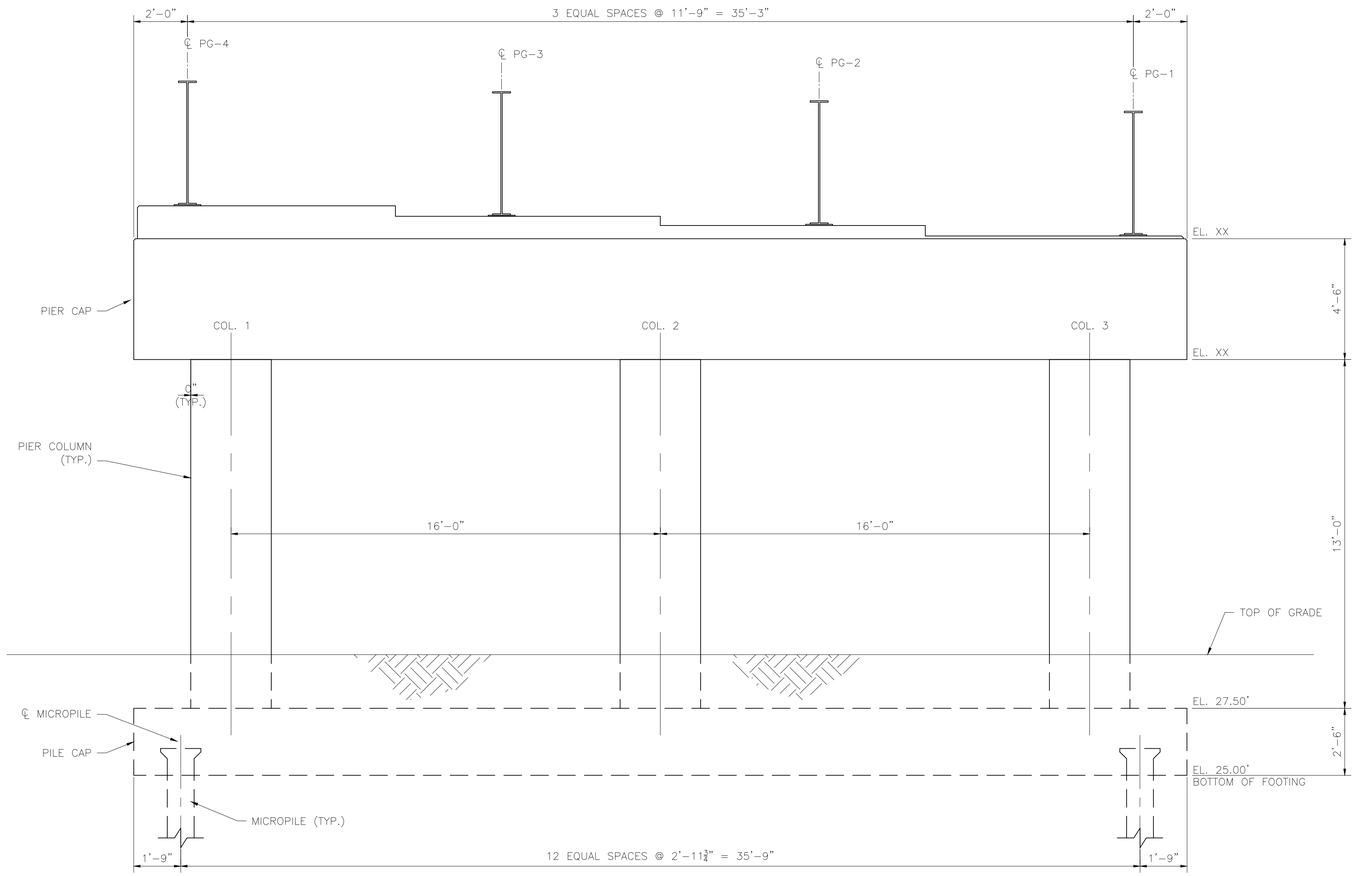
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

PIER 3 REPAIR

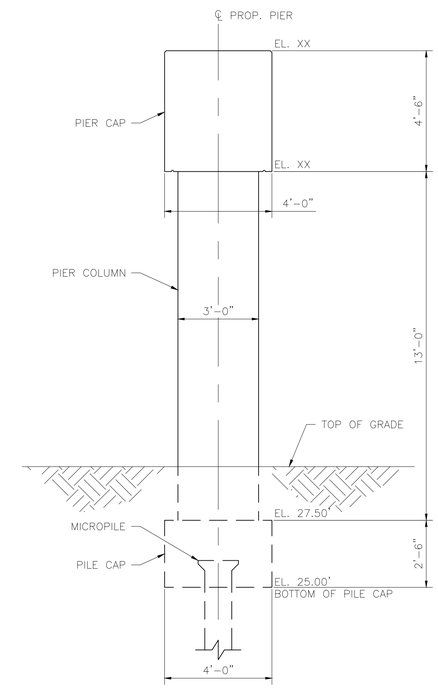
CHECKED BY XXX DATE XXX SCALE AS NOTED

0163M_V1_055_PIERREPAIR03

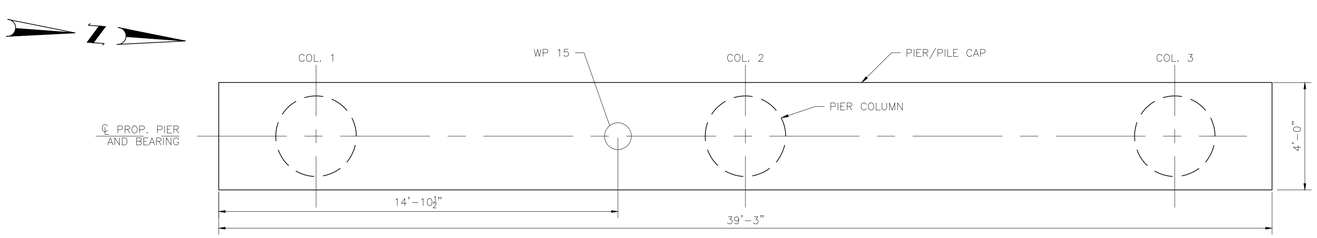
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			56	



WEST ELEVATION
SCALE: ⅜"=1'



PIER SECTION
SCALE: ⅜"=1'



PIER/PILE PLAN
SCALE: NTS

REVISIONS		
NO.	DATE	BY

RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

PIER 4 DETAILS

CHECKED BY XXX DATE XXX SCALE AS NOTED

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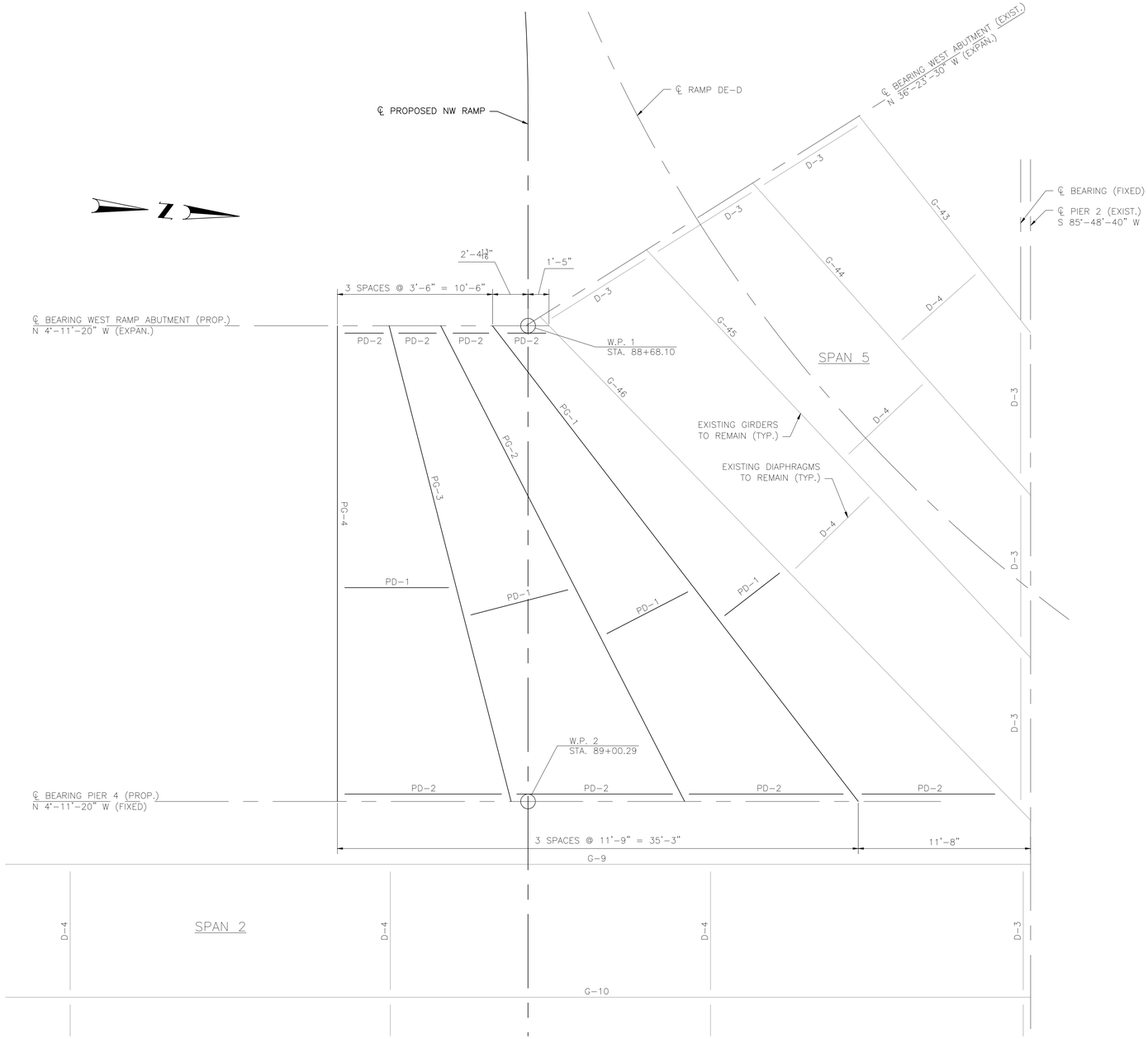
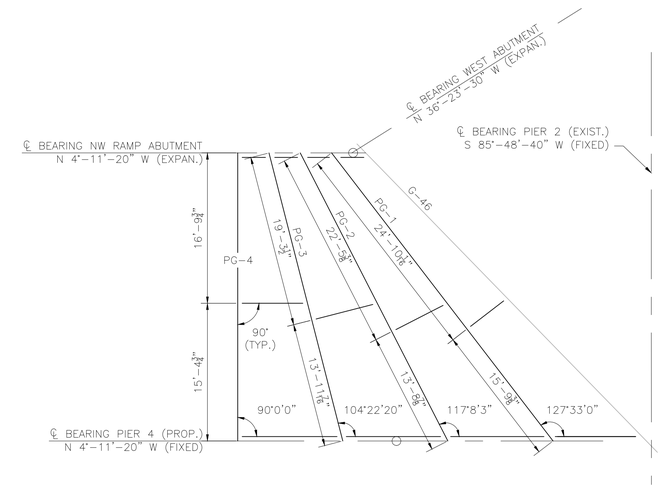
0163M_V1_056_PIER4DET

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			57	



FRAMING PLAN
SCALE: $\frac{1}{4}$"=1'



NW RAMP LAYOUT
SCALE: $\frac{1}{8}$"=1'

LEGEND:

PD-1 PROPOSED DIAPHRAGM (SEE "STEEL DETAILS" SHEET)

PG-1 PROPOSED GIRDER (SEE "GIRDER DETAILS" SHEET)

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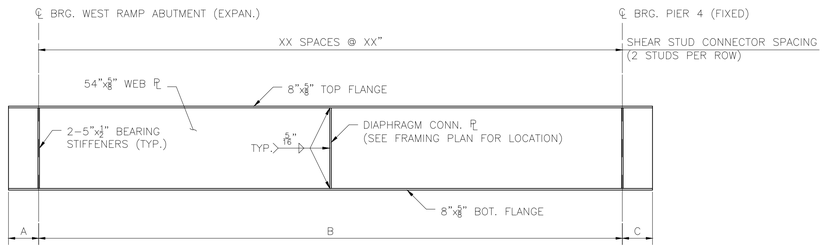
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

FRAMING PLAN

CHECKED BY XXX DATE XXX SCALE AS NOTED

0163M_V1_057_FRAMING PLAN

FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			58	



GIRDER ELEVATION

SCALE: NTS

GIRDER DIMENSIONS			
GIRDER	A	B	C
PG-1	1'-3 3/8"	40'-7 1/2"	3'-0 9/16"
PG-2	1'-1 1/2"	36'-2 1/4"	2'-8 9/16"
PG-3	1'-0 3/8"	33'-2 15/16"	2'-5 15/16"
PG-4	1'-0"	32'-2 1/2"	2'-5"

REVISIONS		
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RHODE ISLAND
DEPARTMENT OF TRANSPORTATION

BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

GIRDER DETAILS

CHECKED BY XXX DATE XXX SCALE AS NOTED

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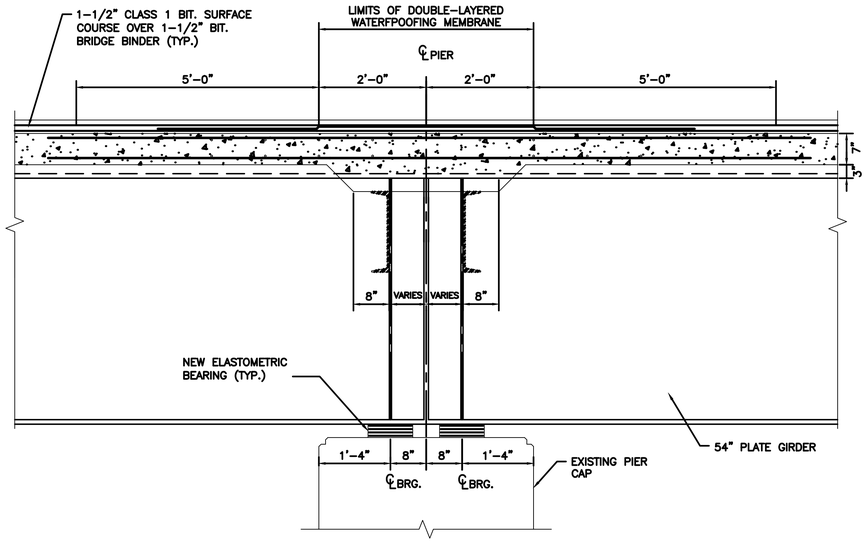
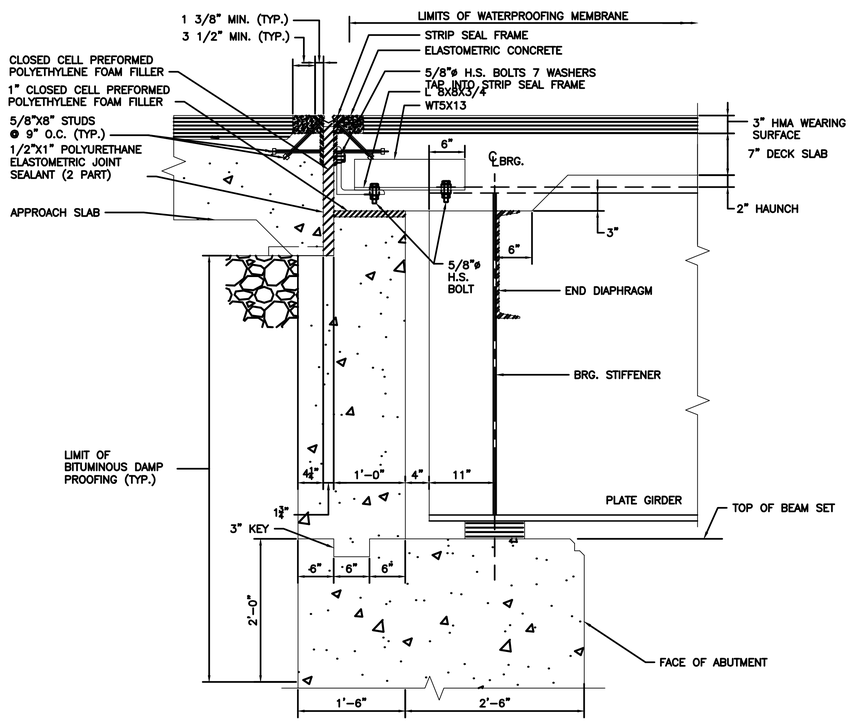
0163M_V1_058_GIRDERDET

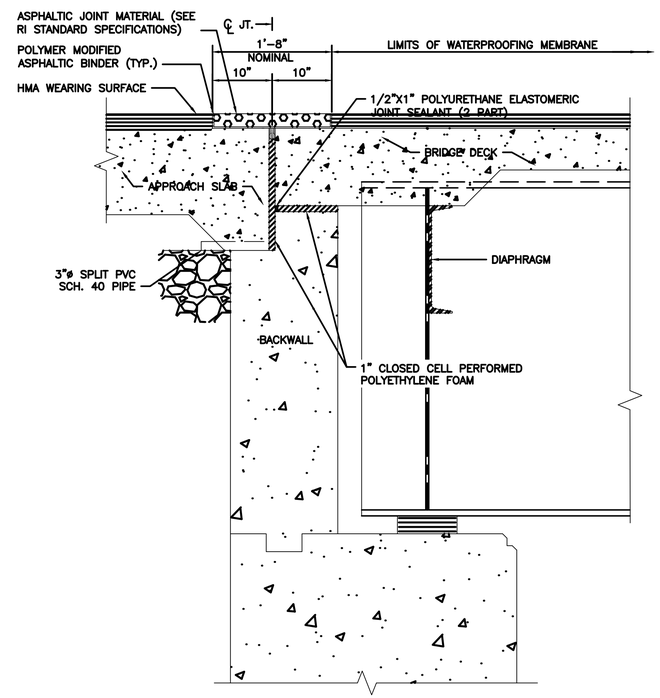
FED. ROAD DIV. NO.	STATE	FEDERAL AID PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	RI			64	



TYPICAL SECTION AT PIER
SCALE: 3/4"=1'



SECTION AT SOUTH AND NORTH ABUTMENT
SCALE: 1"=1'



SECTION AT WEST ABUTMENT
SCALE: 1"=1'

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NO.	DATE	BY

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BRIDGE REHABILITATION
DEAN STREET BRIDGE NO. 776
PROVIDENCE RHODE ISLAND

JOINT DETAILS-1

CHECKED BY XXX DATE XXX SCALE AS NOTED

0163M_V1_064_JOINTDET01