STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MATERIALS

Concrete (Unless noted otherwise)	Class "A"
Concrete (Curbs & Transition Barriers)	Class "LP"
Precast Concrete	Class "P"
Reinforcing Steel	ASTM A 615/A 615M, Grade 60
Structural Steel: All Material	ASTM A 36/A 36M
Galvinzed Steel Threaded Studs	ASTM A 325
Post Tensioning Bars	ASTM A722, Type II

BASIC DESIGN STRESSES

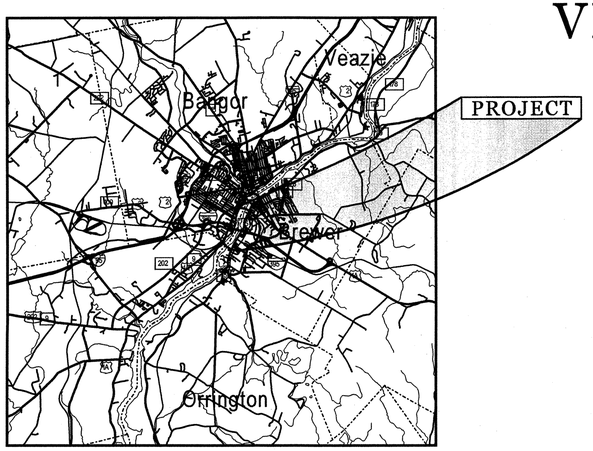
Concrete	f'c = 4,350 psi
Precast Concrete	f.'c = 5000 psi
Reinforcing Steel	fy = 60,000 psi
Structural Steel	Fy = 36,000 psi
Galvinized Steel Threaded Studs	Fy = 92,000 psi
Post Tensioning Bars	Fy = 150,000 psi

MAINTENANCE OF TRAFFIC

Maintain 2 ~ 12' lanes of traffic in both directions at all times when possible.

BANGOR - BREWER
PENOBSCOT COUNTY
MAIN STREET BRIDGE
OVER
MAIN STREET
I-395
PROJECT NUMBER IM-1709(900)E
PROJECT LENGTH 0.036 mi.
BRIDGE REHABILITATION
BRIDGE NO. 5799

VETERANS REMEMBRANCE BRIDGE
OVER
PENOBSCOT RIVER
I-395
PROJECT NUMBER IM-1710(000)E
PROJECT LENGTH 0.310 mi.
BRIDGE REHABILITATION
BRIDGE NO. 1558



LOCATION MAP

2 0 2 4
Scale of Miles

SCOPE OF WORK

Main Street Bridge replace both compression seals, 3 transition barriers, 2 median barrier transitions, bituminous wearing surface and 40' of approach pavement on both ends. Veterans Rememberance Bridge replace backwalls for both abutments and the abutment 1 northerly wing wall down to the bridge seat, replace approach slabs, one compression seal and 2 finger joints, install 3 new P.C.M.G. retaining walls, 3 transition barriers, 2 median barrier transitions and 40' of approach pavement on both ends.

LIST OF DRAWINGS

MAIN STREET BRIDGE

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Raised Median Details	6
Concrete Median Barrier	7
Concrete Transition Barrier	8
Temporary Traffic Signal	9

VETERANS REMEMBERANCE BRIDGE

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Abutment No. 1 Compression Seal	16
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TRAFFIC DATA MAIN STREET BRIDGE

	WESTBOUND	EASTBOUND
Current (2010) AADT	15210	18740
Future (2030) AADT	19770	24360
DHV - % of AADT	11%	11%
Design Hour Volume	2175	2680
Heavy Trucks (% of AADT)	17%	14%
Heavy Trucks (% of DHV)	15%	12%
Directional Distribution (% of DHV)	100%	100%
18 kip Equivalent P 2.0	2467	2467
18 kip Equivalent P 2.5	2362	2362
Design Speed (mph)	65	65

TRAFFIC DATA VETERANS REMEMBERANCE BRIDGE

	WESTBOUND	EASTBOUND
Current (2010) AADT	15900	15510
Future (2030) AADT	20670	20160
DHV - % of AADT	11%	11%
Design Hour Volume	2274	2218
Heavy Trucks (% of AADT)	16%	17%
Heavy Trucks (% of DHV)	14%	15%
Directional Distribution (% of DHV)	100%	100%
18 kip Equivalent P 2.0	2467	2467
18 kip Equivalent P 2.5	2362	2362
Design Speed (mph)	65	65

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: — DATE 6/4/10
CHIEF ENGINEER: — DATE 6/2/10

STATE OF MAINE — Robert S. Bulger — 4410 — REGISTERED PROFESSIONAL ENGINEER

Robert S. Bulger
SIGNATURE
4410
P.E. NUMBER
June 1, 2010
DATE

PROJECT INFORMATION

PROGRAM	BRIDGE
PROJECT MANAGER	STEVE BODGE
DESIGNER	R. BULGER
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

BANGOR - BREWER
MAIN STREET BRIDGE
VETERANS REMEMBERANCE BRIDGE

TITLE SHEET

IM-1709(900)E & IM-1710(000)E PIN 17099.00 & 17100.00

SHEET NUMBER 1 OF 28

Filename:\00\BRIDGE\MSTA\001_Title.dgn Division: BRIDGE Date:6/1/2010 Username: richard.nimon

Filename: ...\002_Estimate_Quantities.dgn Division: BRIDGE Username: coy.williams Date:6/4/2010

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY 17099.00	QUANTITY 17100.00	QUANTITY TOTAL	UNIT
202.12	REMOVING EXISTING STRUCTURAL CONCRETE	6	292	298	CY
202.18	REMOVE EXISTING BITUMINOUS PAVEMENT (INCLUDING MEMBRANE)	2850	1300	1	LS
203.25	GRANULAR BORROW	0	325	325	CY
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	25	280	305	CY
304.09	AGGREGATE BASE COURSE - CRUSHED	15	365	380	CY
403.207	HOT MIX ASPHALT 19.0 MM HMA	200	200	400	T
403.2081	12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	250	150	400	T
403.2131	12.5 MM POLYMER MODIFIED HMA BASE	340	210	550	T
409.15	BITUMINOUS TACK COAT - APPLIED	300	150	450	G
502.219	STRUCTURAL CONCRETE, ABUTMENTS AND RET. WALLS	-	240	1	LS
502.31	STRUCTURAL CONCRETE APPROACH SLABS	-	110	1	LS
502.341	STRUCTURAL CONCRETE ROADWAY MEDIAN	3	3	6	CY
502.3412	STRUCTURAL CONCRETE, RAISED ISLAND	1	-	1	CY
502.49	STRUCTURAL CONCRETE CURBS AND SIDEWALK	1	3	1	LS
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	1100	17400	18500	LB
503.13	REINFORCING STEEL, PLACING	1100	17400	18500	LB
507.10	ALUMINUM BRIDGE RAIL, REMOVE & RESET	0	20	20	LF
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE	1560	-	1	LS
510.301	EXPRESSWAY MEDIAN CROSSOVER	-	-	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES	40	280	1	LS
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES - ACRYLIC ANTI-CARBONATION COATING	-	385	1	LS
518.50	REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 7.9 IN.	70	-	70	SF
520.245	BRIDGE JOINT MODIFICATION TYPE 5	2	1	3	EA
521.23	EXPANSION DEVICE FINGER JOINT - TYPE "C"	0	1	1	EA
521.23	EXPANSION DEVICE FINGER JOINT - TYPE "E"	0	1	1	EA
521.32	FABRIC TROUGH FOR FINGER JOINT (2100 LF)	0	2	2	EA
526.301	TEMPORARY CONCRETE BARRIER TYPE 1	-	1800	1	LS
526.3401	PERMANENT CONCRETE TRANSITION BARRIER - MODIFIED	3	3	6	EA
527.34	WORK ZONE CRASH CUSHIONS	5	5	10	EA
606.1721	BRIDGE TRANSITION - TYPE 1	7	7	14	EA
606.178	GUARDRAIL BEAM	250	750	1000	LF
606.24	GUARDRAIL TYPE 3D - SINGLE RAIL	25	50	75	LF
606.3581	GUARDRAIL, MODIFY EXISTING TO TYPE 3D	2400	7100	9500	LF
606.369	GUARDRAIL REMOVED AND STACKED	250	750	1000	LF
609.38	RESET CURB TYPE 1	20	0	20	LF
610.18	STONE DITCH PROTECTION	0	20	20	CY
619.1401	EROSION CONTROL MIX	0	40	40	CY
620.58	EROSION CONTROL GEOTEXTILE	0	40	40	SY
620.6012	HDPE GEOMEMBRANE	0	110	110	SY
627.733	4 INCH WHITE OR YELLOW PAINTED PAVE MRK LINE	2000	16500	18500	LF
627.76	TEMPORARY PVMT. MARK LINE, WHITE OR YELLOW	-	-	1	LS
629.05	HAND LABOR, STRAIGHT TIME	40	40	80	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	20	20	40	HR
631.15	ROLLER, EARTH AND BASE COURSE (INCLUDING OPERATOR)	20	20	40	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	20	20	40	HR
635.14	PREFABRICATED CONCRETE MODULAR GRAVITY WALL	0	1700	1700	SF
639.18	FIELD OFFICE TYPE A	0.5	0.5	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	0	1	LS
652.30	FLASHING ARROW BOARD	1	1	2	EA
652.312	TYPE III BARRICADE	20	40	60	EA
652.33	DRUM	40	50	90	EA
652.34	CONE	40	50	90	EA
652.35	CONSTRUCTION SIGNS	300	300	600	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	90	90	1	LS
652.38	FLAGGER	200	200	400	HR
652.381	TRAFFIC OFFICERS	50	50	100	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	1	1	2	EA
656.75	TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	-	-	1	LS
659.10	MOBILIZATION	-	-	1	LS

GENERAL CONSTRUCTION NOTES

1. The existing bridge plans may be accessed at the MaineDOT web address. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.

2. All dimensions based on or relating to the existing bridges shall be verified in the field by the Contractor, i.e., existing joint opening, joint length and backwall width.

3. The Contractor shall use care not to damage the existing reinforcing steel which is to remain. Any damaged reinforcing steel shall be replaced as directed by the Resident at no expense to the Department.

4. Reinforcing Steel Schedules will be the responsibility of the Contractor. Refer to Subsection 503.03 of the Standard Specifications for more information. Payment for all work associated with developing reinforcing steel schedules will be considered incidental to related Contract items.

5. The reinforcing steel for drilled and anchored bars shall be paid for under items 503.12 and 503.13. No separate payment will be made for drilling and anchoring.

6. Reinforcing steel shall have 2 inches cover unless otherwise noted.

7. Protective Coating for Concrete Surfaces shall be applied to the following areas of new concrete:

   All exposed surfaces of concrete curbs.
   Fascias down to the drip notch.
   Raised Median.
   All exposed surfaces of Concrete Transition Barriers & Median Barrier.
   12 inches below the top of backwalls and wings on the back side.
   Exposed concrete surfaces at expansion devices.

8. Embeddment depth for each bar size shall be in comformance to pre-approved anchoring product manufacture's recommendations.

9. Payment for all work and materials used in the removal of each modular joint and the adjacent existing bridge materials to the lines shown on the plans shall be considered incidental to the respective finger joint pay item, Pay Item 521.23 Expansion Device - Finger Joint, Type E, and Pay Item 521.23 Expansion Device - Finger Joint, Type C.

10. The "Expansion Device - Finger Joint, Type E" consists of two superstructure elements with expansion dams as required. The "Expansion Device - Finger Joint, Type C" consists of one superstructure element and one substructure element with expansion dams as required.

11. For Veterans Remembrance Bridge the expansion/contraction lengths to be used for calculating the temperature-adjusted opening settings are: 867 feet for the Type E finger joint at Pier #2; and 571 feet for the Type C finger joint at Abutment #2.

12. Payment for any pavement used for the crossover is considered incidental to Pay Item No. 510.301 Expressway Median Crossover. Payment for all pavement used for other maintenance of traffic efforts, such as temporary pavement over bridge drains for lane shifts, is considered incidental to the contract, in accordance with the Special Provisions Section 652. Pay limits for the pavement pay items are the lines shown on the "Approach Longitudinal Pavement Section" on Sheets #4 and #13, and to the Main Street Bridge surface.

13. All abutment concrete placed above the expansion device construction joints, as shown in Sections A-A through E-E on Sheet #15 and as shown on the "Abutment No. 2 Expansion Joint" on Sheet #17, shall be Class LP concrete at no additional cost to the State.

14. All aluminum bridge rail, rail posts, and associated hardware which are to be removed shall be carefully salvaged by the Contractor and will remain the property of the Department. Payment will be considered incidental to related Contract items.

15. Wooden offset blocks should be used for the Bridge Transition Type 1 in the median barrier areas. Cutting of the wooden blocks will be necessary to minimize bending and warping of the thrie-beam transitions. Payment for field fitting the wooden offset blocks will be considered incidental to related contract items.

16. The glare screens in the area of reconstructing the median barriers for the bridge joint modifications and end treatments shall be removed. All associated hardware shall be carefully salvaged by the Contractor and will remain the property of the Department. Payment will be considered incidental to related Contract items.

17. The existing memorial plaques embedded within the concrete end posts on Veterans Rememberance Bridge shall be carefully removed and remounted into the new transition barriers. Payment shall be considered incidental to Item 526.3401, Permanent Concrete Transition Barrier - Modified.

18. The work at Veterans Remembrance Bridge requires sufficient earth excavation to remove and replace all approach slabs and the abutment backwalls down to the bridge seats, and sufficient earth excavation for the replacement of the Abutment No. 1 left wingwall, the post-tensioned wingwall at the Northwest corner. At Main Street Bridge, sufficient earth excavation behind both abutment backwalls is required for the Bridge Joint Modifications. All of this earth excavation will be paid for under Pay Item No. 206.082, Structural Earth Excavation - Major Structures. Earth excavation at the other three Veterans Remembrance Bridge wingwalls is considered paid under Pay Item No. 635.14, Prefabricated Concrete Modular Gravity Wall.

19. The quantity of approach roadway pavement removal as shown in the plans shall be included for pavement with the Main Street Bridge pavement removal under Pay Item No. 202.18, Remove Existing Pavement (Including Membrane).

20. Minimum splice lengths shall be 21 inches for #5 reinforcing bars and 25 inches for #6 reinforcing bars. Minimum embedment lengths shall be 15 inches for #5 reinforcing bars and 18 inches for #6 reinforcing bars, unless a drill and grout anchoring system with shorter bar lengths is approved by the Resident.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1709(900)E

PIN 17099.00

BRIDGE PLANS

BRIDGE NO. 5799

PROJ. MANAGER		S. BODGE	
DESIGN-DETAILED		R.BULGER	
CHECKED-REVIEWED		R.NIMON	05/2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES		BY	DATE

SIGNATURE

P.E. NUMBER

DATE

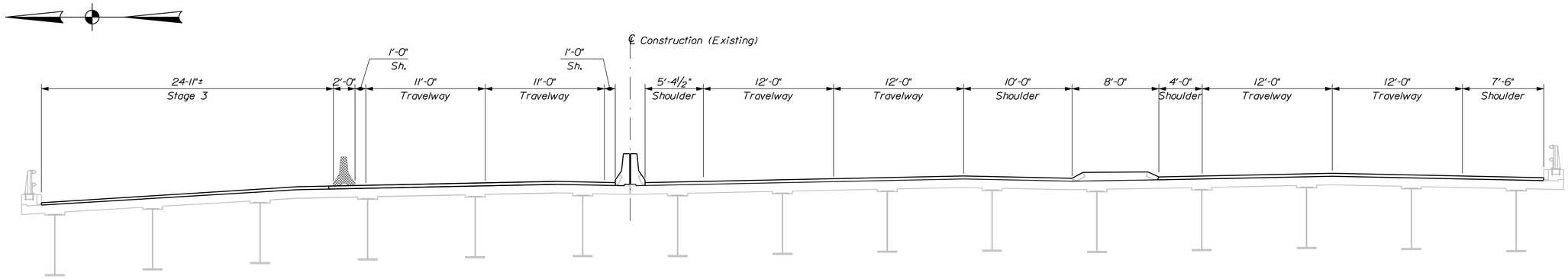
MAIN STREET BRIDGE
MAIN STREET
BANGOR PENOBSCOT COUNTY

ESTIMATED QUANTITIES

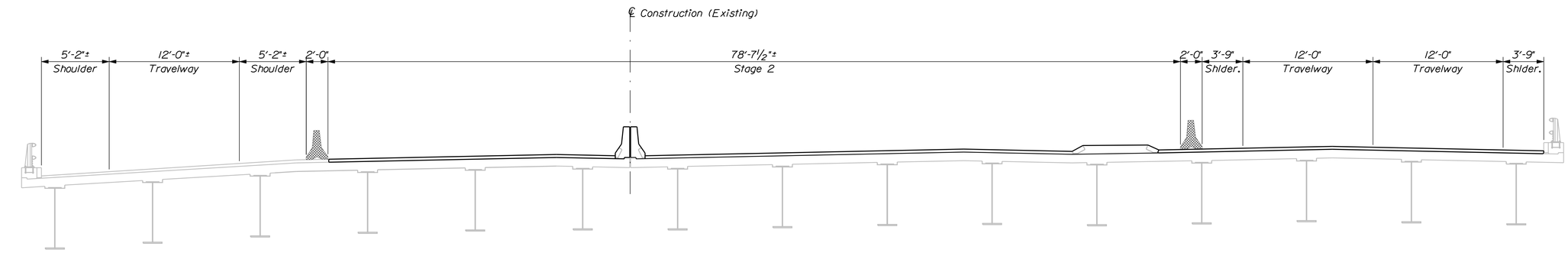
SHEET NUMBER

2

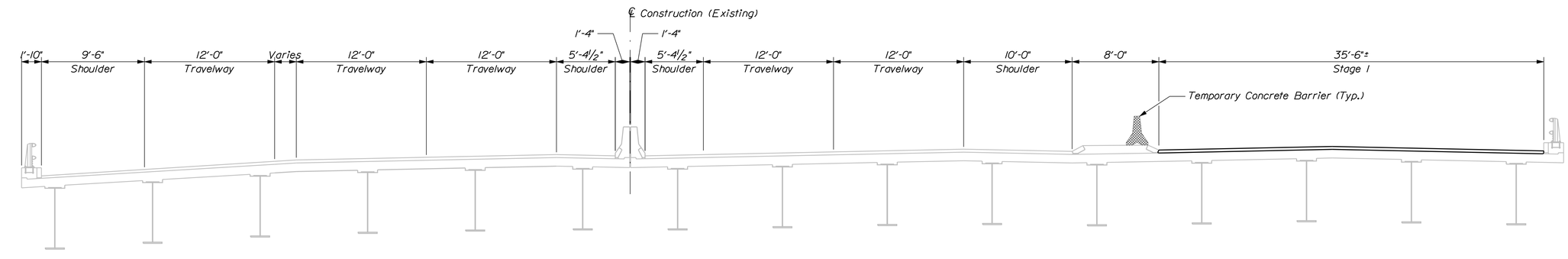
OF 28



STAGE 3



STAGE 2



STAGE 1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1709(900)E

PIN 17099.00

BRIDGE NO. 5799

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MAIN STREET BRIDGE
MAIN STREET
BANGOR PENOBSCOT COUNTY

STAGE CONSTRUCTION

SHEET NUMBER

3

OF 28

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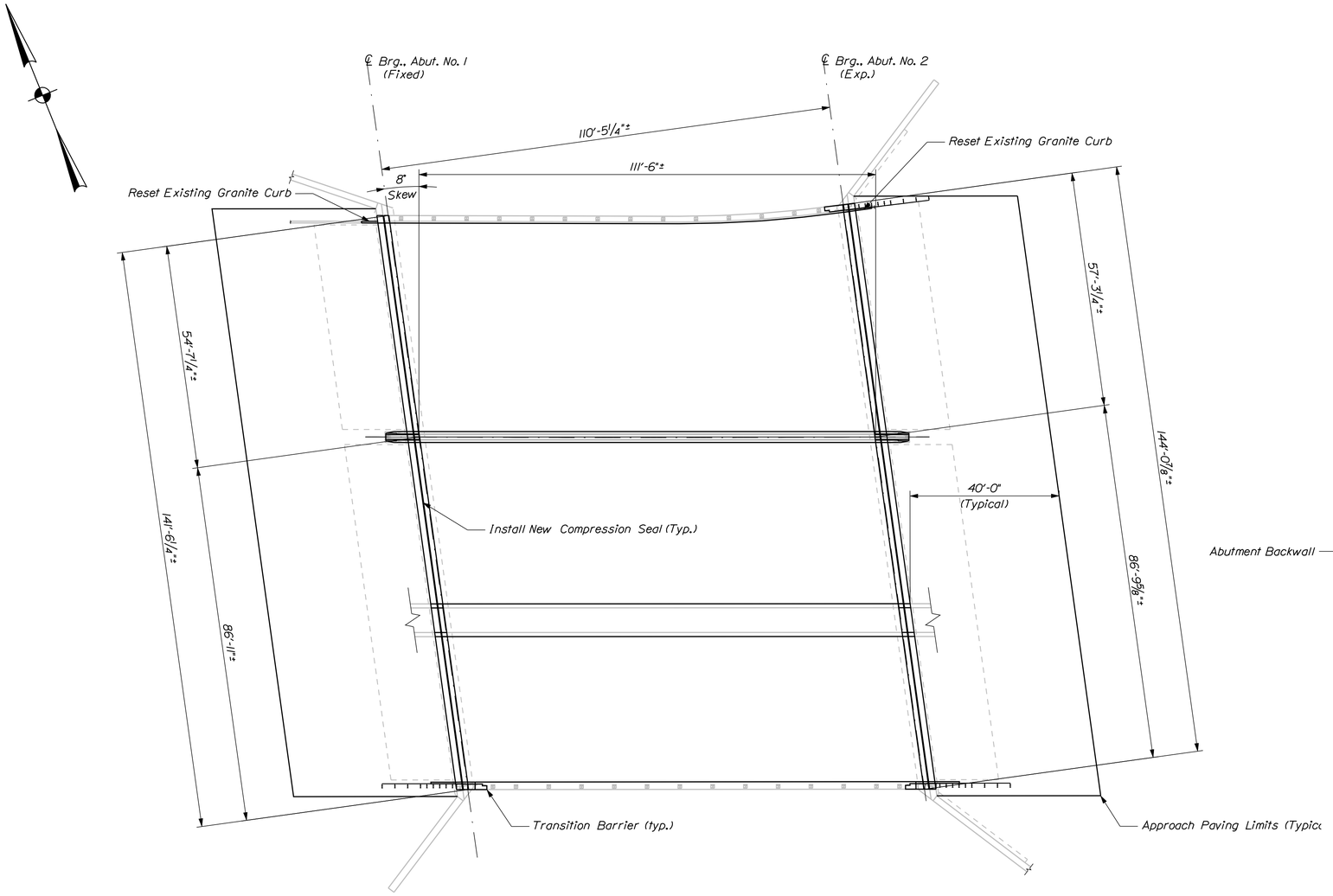
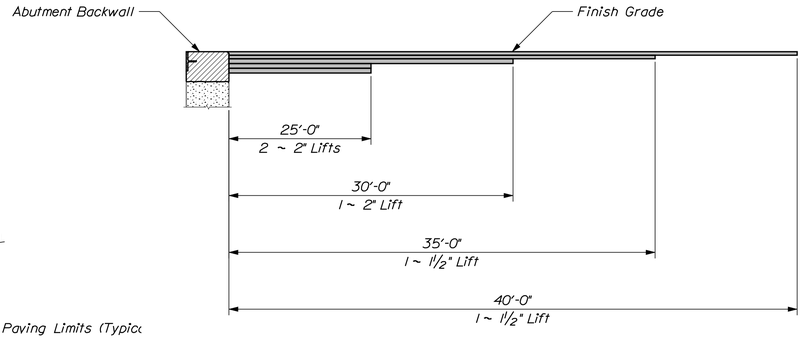
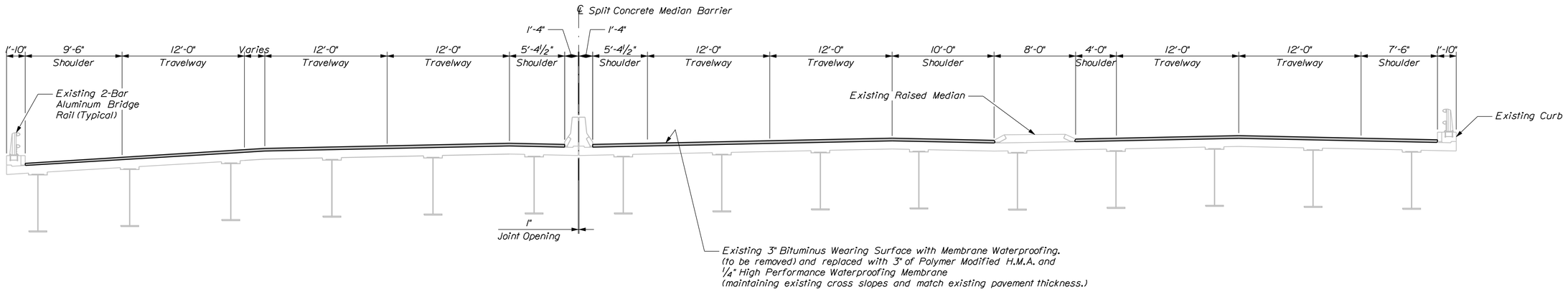


PLAN



APPROACH LONGITUDINAL PAVEMENT SECTON



TRANSVERSE SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1709(900)E

PIN 17099.00

BRIDGE NO. 5799

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

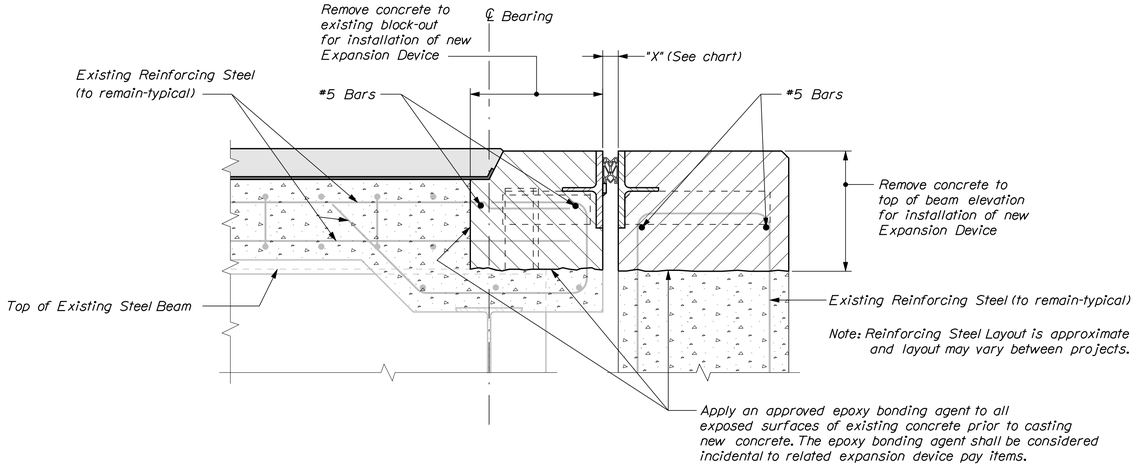
MAIN STREET BRIDGE
MAIN STREET
PENOBSCOT COUNTY
BANGOR

BRIDGE PLAN

SHEET NUMBER

4

OF 28



EXPANSION DEVICE - COMPRESSION SEAL SECTION

(See Standard Details, Section 520 Expansion Device - Compression Seal)

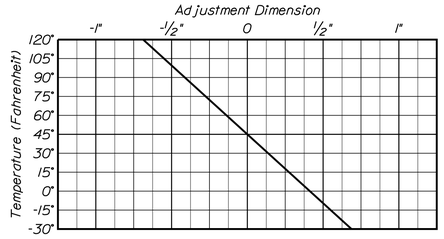
BRIDGE JOINT NOTES

1. Refer to Standard Details Sections 520 for details and information not shown.

2. The compression seal to be furnished shall have a minimum movement rating of:
   Abutment Number 1 = 1/2"
   Abutment Number 2 = 1 3/8"

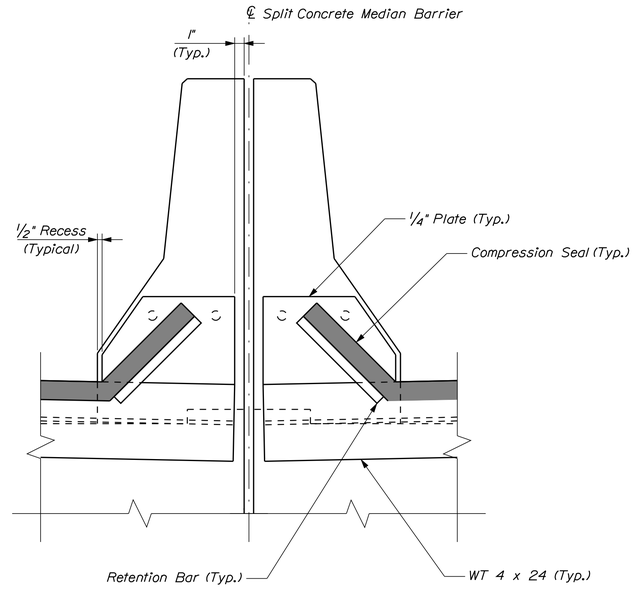
3. All new steel supplied for the bridge joint modification shall be galvanized steel.

4. The seal shall be approved by the Resident prior to fabrication of the joint armor.

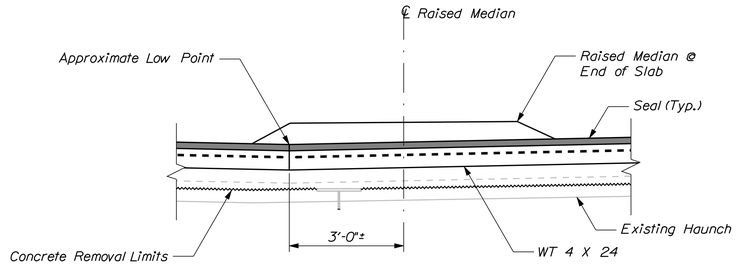


COMPRESSION SEAL ADJUSTMENT CHART

Abutment No. 2 only



SEAL DETAIL @ CONCRETE MEDIAN BARRIER



SEAL DETAIL @ RAISED MEDIAN

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1709(900)E

PIN 17099.00

BRIDGE NO. 5799

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	BY	R.NIMON
CHECKED-REVIEWED		DATE	05/2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MAIN STREET BRIDGE
MAIN STREET
BANGOR PENOBSCOT COUNTY

BRIDGE JOINT DETAILS

SHEET NUMBER

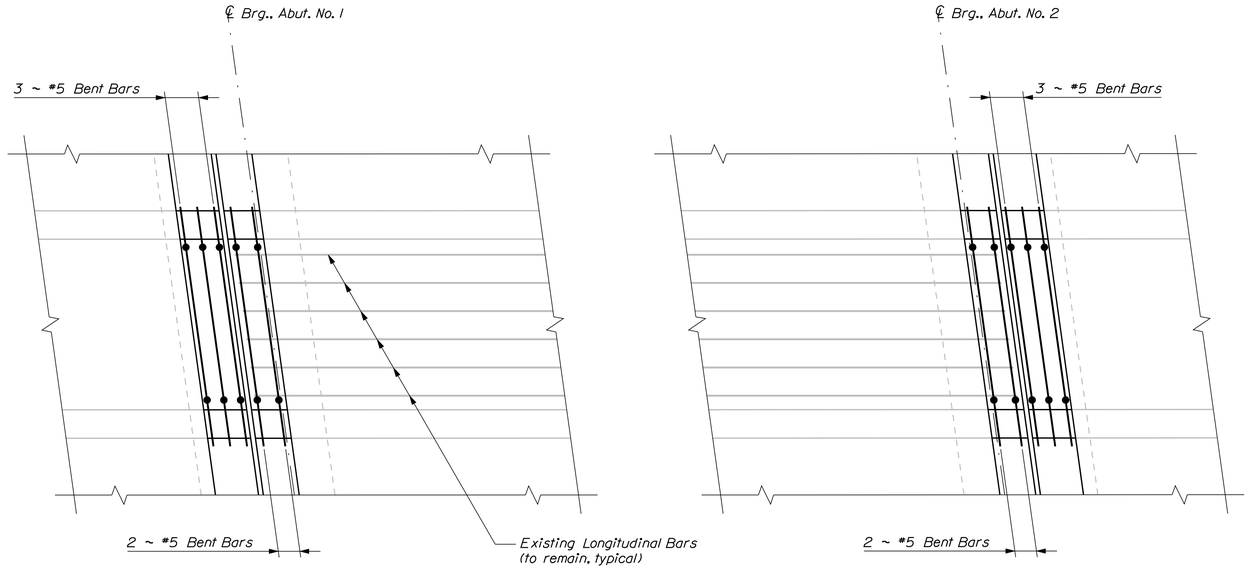
5

OF 28

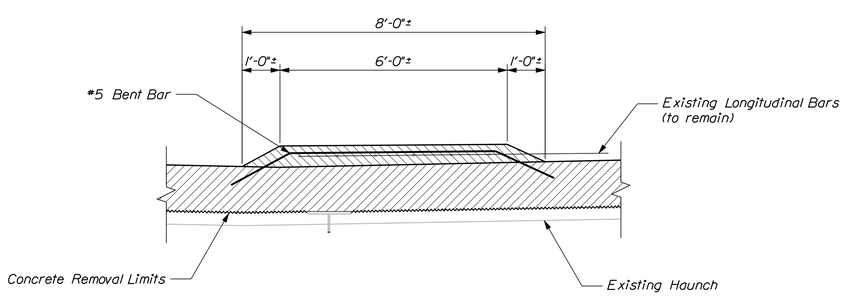
Username: richard.nimon Date:6/1/2010

Division: BRIDGE

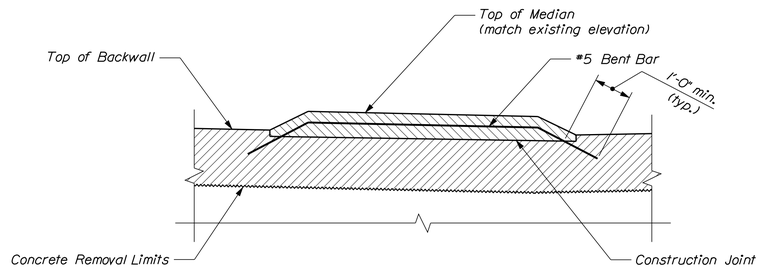
Filename: ...\005_Bridge_Joint_Details.dgn



PLAN RAISED MEDIAN



RAISED MEDIAN SECTION @ SUPERSTRUCTURE



RAISED MEDIAN SECTION @ ABUTMENT BACKWALL

Username: richard.nimon Date:6/1/2010
Division: BRIDGE
Filename: ...\MSTA\006_Raised_Median.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1709(900)E

PIN 17099.00

BRIDGE NO. 5799

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	BY	DATE
CHECKED-REVIEWED		R.NIMON	05/2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

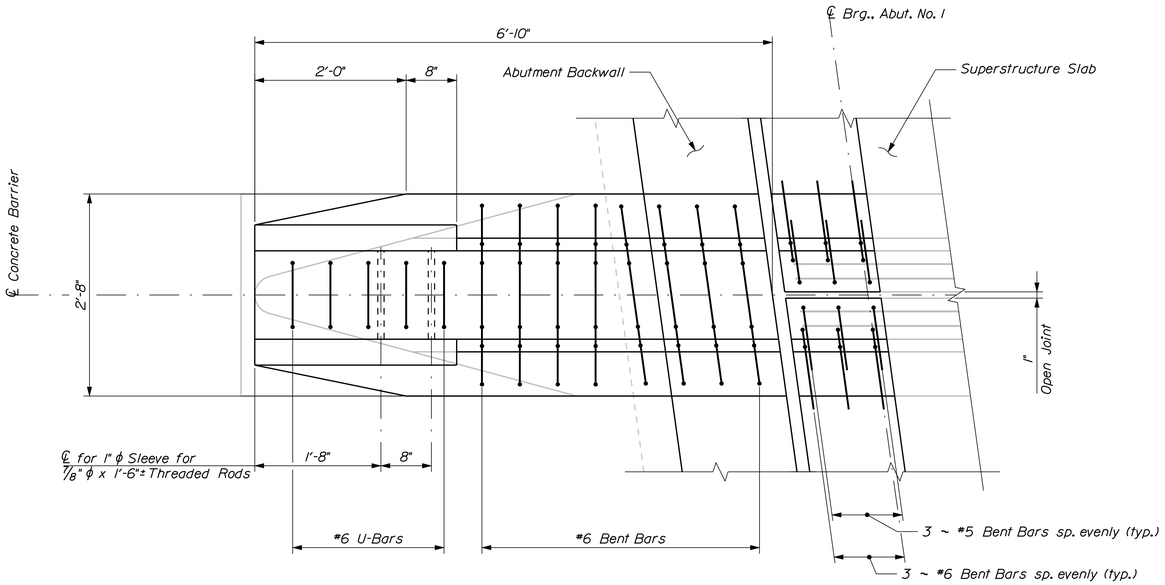
MAIN STREET BRIDGE
MAIN STREET
BANGOR PENOBSCOT COUNTY

RAISED MEDIAN DETAILS

SHEET NUMBER

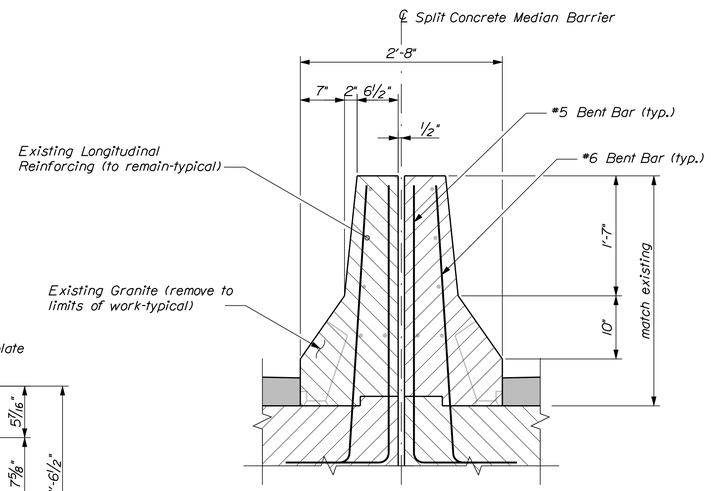
6

OF 28

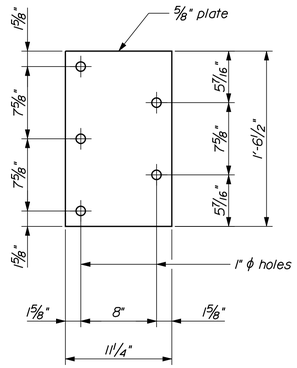


CONCRETE BARRIER PLAN

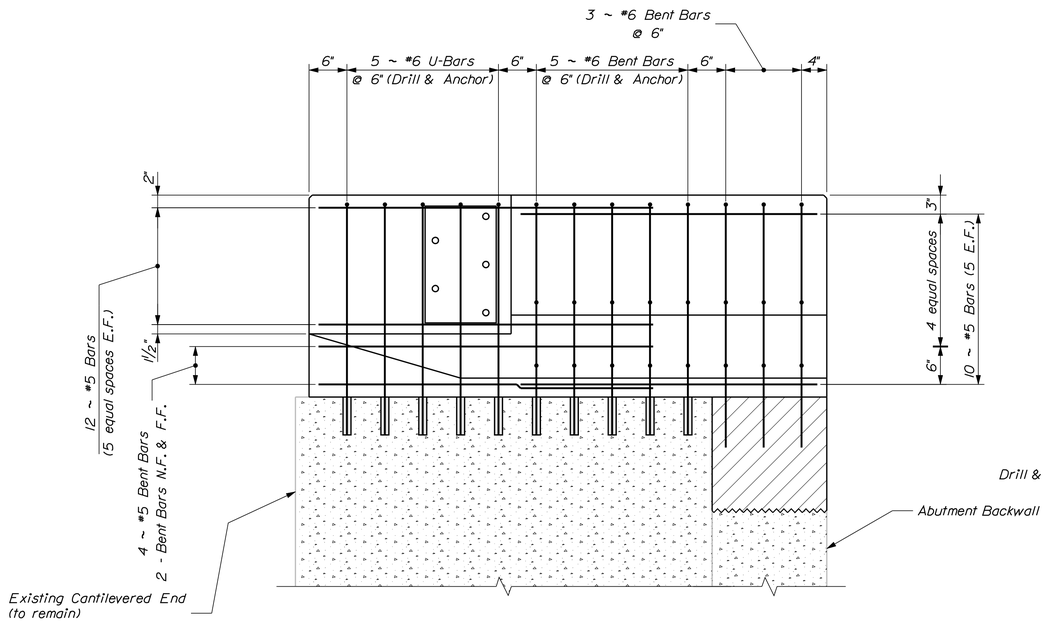
Abutment #2 Similar



CONCRETE BARRIER SECTION @ SUPERSTRUCTURE

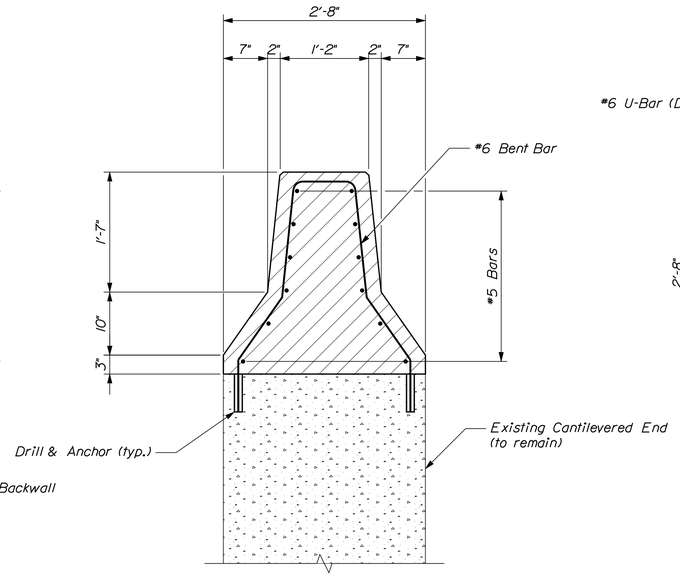


ANCHOR PLATE

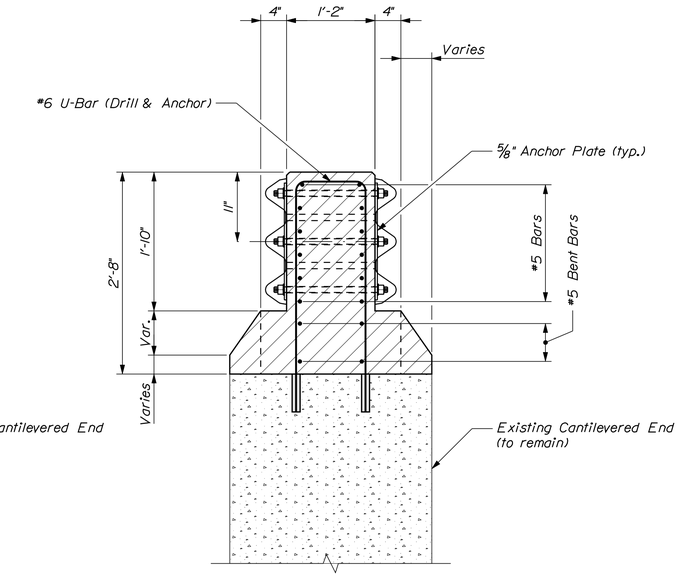


CONCRETE BARRIER ELEVATION

(Barrier on superstructure not shown for clarity)



CONCRETE BARRIER SECTION



CONCRETE BARRIER RECESS SECTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1709(900)E

PIN 17099.00

BRIDGE NO. 5799

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	BY	DATE
CHECKED-REVIEWED	R.NIMON		05/2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MAIN STREET BRIDGE
MAIN STREET
BANGOR PENOBSCOT COUNTY

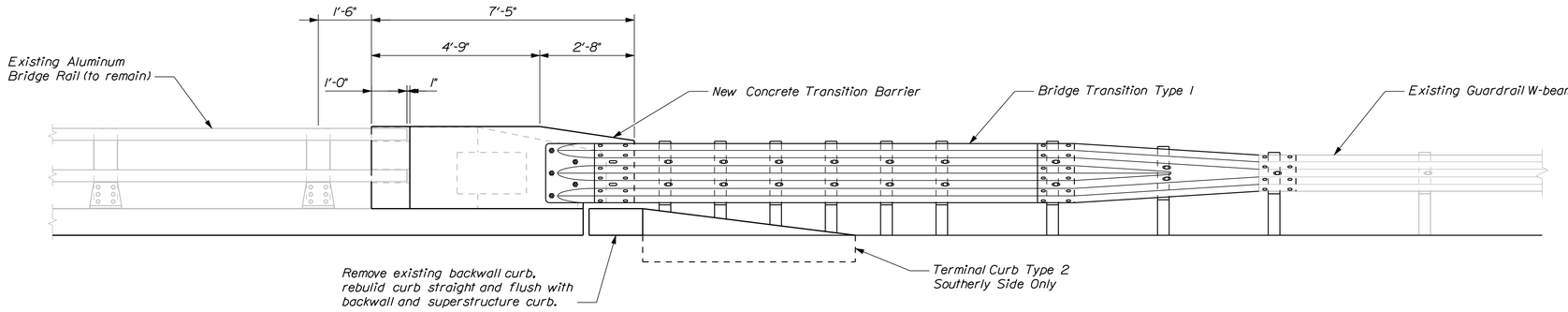
CONCRETE MEDIAN BARRIER

SHEET NUMBER

7

OF 28

Filename: ...\MSTA\007_Median_Barrier.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010



BRIDGE CONNECTION NOTES

1. Refer to Standard Details Section 526 - Concrete Transition Barrier for details and information not shown.

2. Reinforcing steel for the Transition Barriers is based on details shown in the Standard Details. Reinforcing steel shall be modified to fit the details and conditions shown on the plans. Payment for modifying reinforcing steel and for drilling and anchoring bars as shown will be considered incidental to Item No. 526.3401. Permanent Concrete Transition Barrier - Modified.

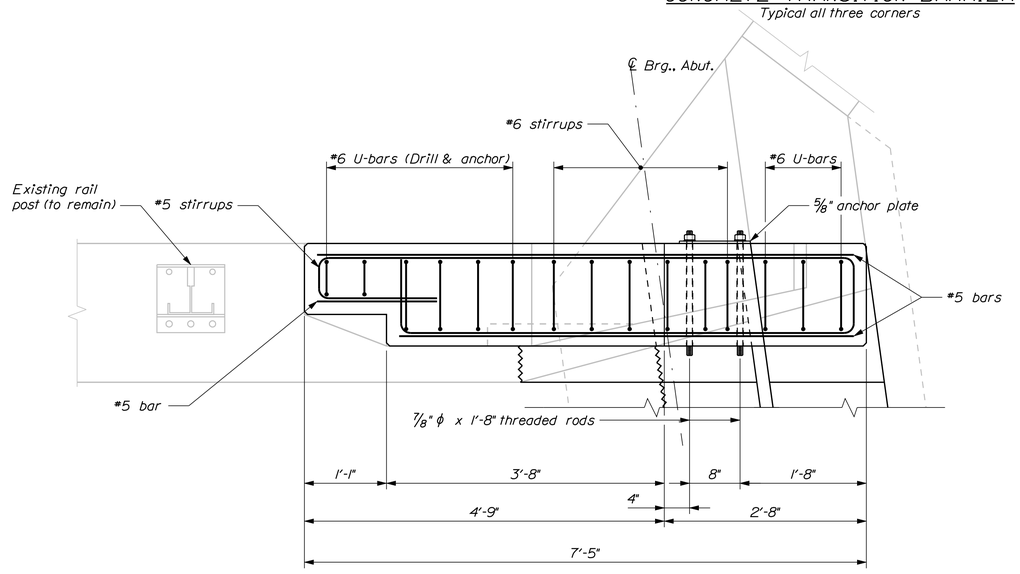
3. Anchor plates and threaded rods shall be galvanized in accordance with the Standard Specifications and the Standard Details.

4. The contractor shall locate existing curb reinforcing steel and adjust dowel locations to avoid cutting existing bars. Any adjustments from plan dimensions shall be approved by the Resident.

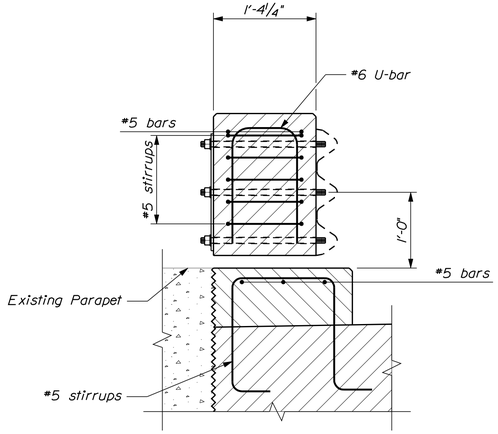
5. Modify the existing guardrail beam as necessary to connect to the end of the Bridge Transition Type 1. Payment for modifications will be considered incidental to Item 606.1721 Bridge Transition - Type 1.

CONCRETE TRANSITION BARRIER

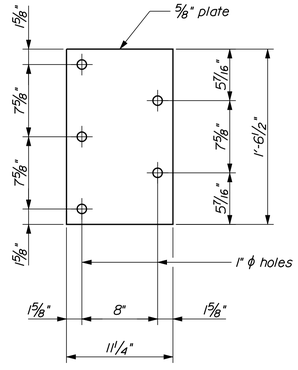
Typical all three corners



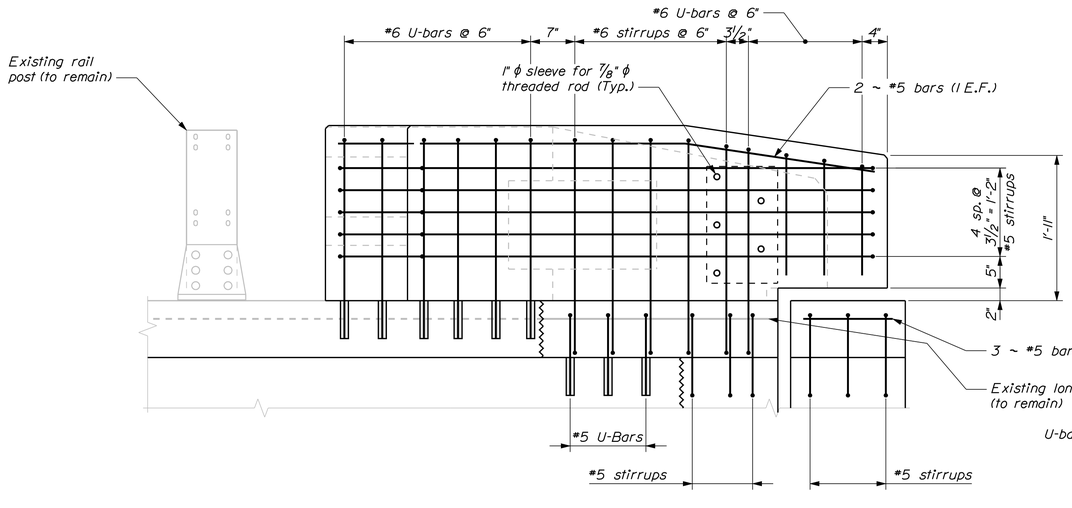
TRANSITION BARRIER PLAN



SECTION THROUGH NOSE

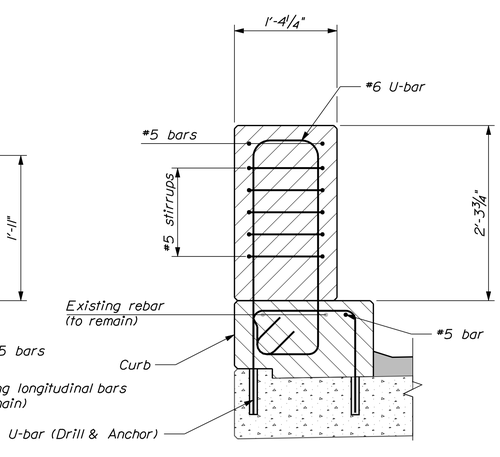


ANCHOR PLATE

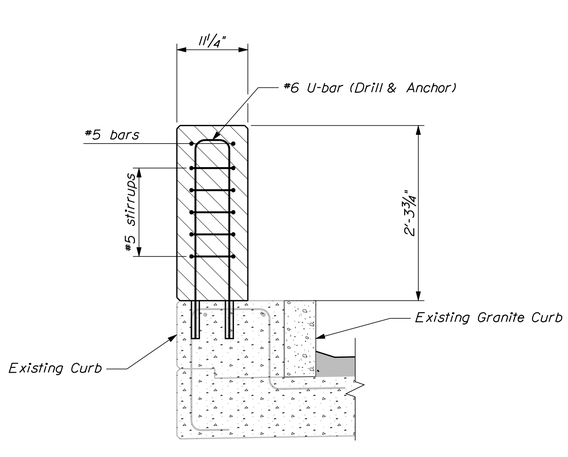


TRANSITION BARRIER ELEVATION

(Bridge rail not shown for clarity)



SECTION THROUGH STEM



SECTION THROUGH RECESS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-1709(900)E

PIN 17099.00

BRIDGE NO. 5799

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

MAIN STREET BRIDGE
MAIN STREET
BANGOR PENOBSCOT COUNTY

CONCRETE TRANSITION BARRIER

SHEET NUMBER

8

OF 28

Username: richard.nimon Date:6/2/2010

Division: BRIDGE

Filename: ...\008_Transition_Barrier.dgn

Filename: ...\MSTA\001_Plan_TRAFFIC.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010

GENERAL NOTES

1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A TEMPORARY TRAFFIC SIGNAL FOR THE DURATION OF THE PROJECT. AT THE COMPLETION OF THE PROJECT THE CONTRACTOR SHALL REMOVE ALL SIGNAL EQUIPMENT INCLUDING DETECTORS AND SIGNS.

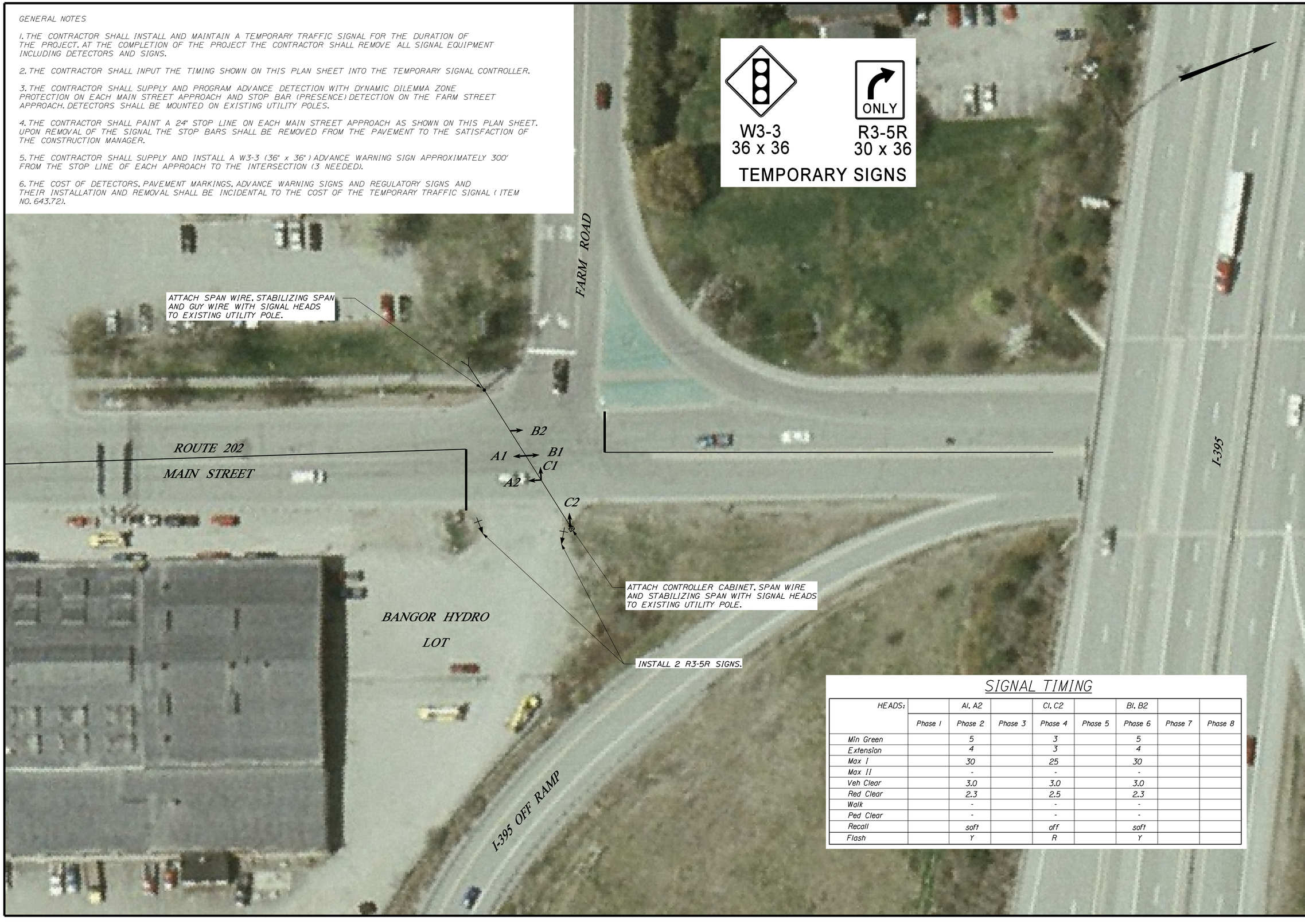
2. THE CONTRACTOR SHALL INPUT THE TIMING SHOWN ON THIS PLAN SHEET INTO THE TEMPORARY SIGNAL CONTROLLER.

3. THE CONTRACTOR SHALL SUPPLY AND PROGRAM ADVANCE DETECTION WITH DYNAMIC DILEMMA ZONE PROTECTION ON EACH MAIN STREET APPROACH AND STOP BAR (PRESENCE) DETECTION ON THE FARM STREET APPROACH. DETECTORS SHALL BE MOUNTED ON EXISTING UTILITY POLES.

4. THE CONTRACTOR SHALL PAINT A 24" STOP LINE ON EACH MAIN STREET APPROACH AS SHOWN ON THIS PLAN SHEET. UPON REMOVAL OF THE SIGNAL THE STOP BARS SHALL BE REMOVED FROM THE PAVEMENT TO THE SATISFACTION OF THE CONSTRUCTION MANAGER.

5. THE CONTRACTOR SHALL SUPPLY AND INSTALL A W3-3 (36" x 36") ADVANCE WARNING SIGN APPROXIMATELY 300' FROM THE STOP LINE OF EACH APPROACH TO THE INTERSECTION (3 NEEDED).

6. THE COST OF DETECTORS, PAVEMENT MARKINGS, ADVANCE WARNING SIGNS AND REGULATORY SIGNS AND THEIR INSTALLATION AND REMOVAL SHALL BE INCIDENTAL TO THE COST OF THE TEMPORARY TRAFFIC SIGNAL (ITEM NO. 643.72).



SIGNAL TIMING

HEADS:		A1, A2		C1, C2		B1, B2		
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Min Green		5		3		5		
Extension		4		3		4		
Max I		30		25		30		
Max II		-		-		-		
Veh Clear		3.0		3.0		3.0		
Red Clear		2.3		2.5		2.3		
Walk		-		-		-		
Ped Clear		-		-		-		
Recall		soft		off		soft		
Flash		Y		R		Y		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

PIN
17099.00

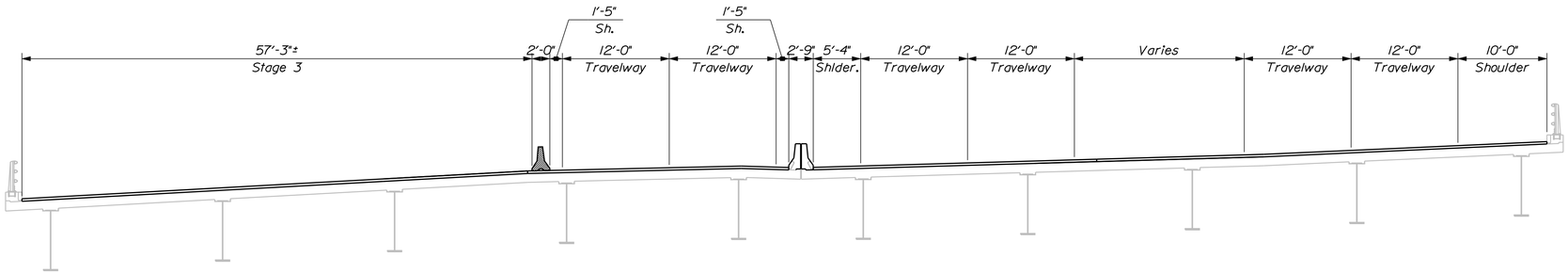
TRAFFIC PLANS

PROJ. MANAGER	S. BODGE	BY	DATE
DESIGN-DETAILED	R.BULGER	R.NIMON	
CHECKED-REVIEWED	-----	-----	-----
DESIGN2-DETAILED2	M. DELOIS	M. DELOIS	SIGNATURE
DESIGN3-DETAILED3	-----	-----	-----
REVISIONS 1	-----	-----	P.E. NUMBER
REVISIONS 2	-----	-----	-----
REVISIONS 3	-----	-----	DATE
REVISIONS 4	-----	-----	-----
FIELD CHANGES	-----	-----	-----

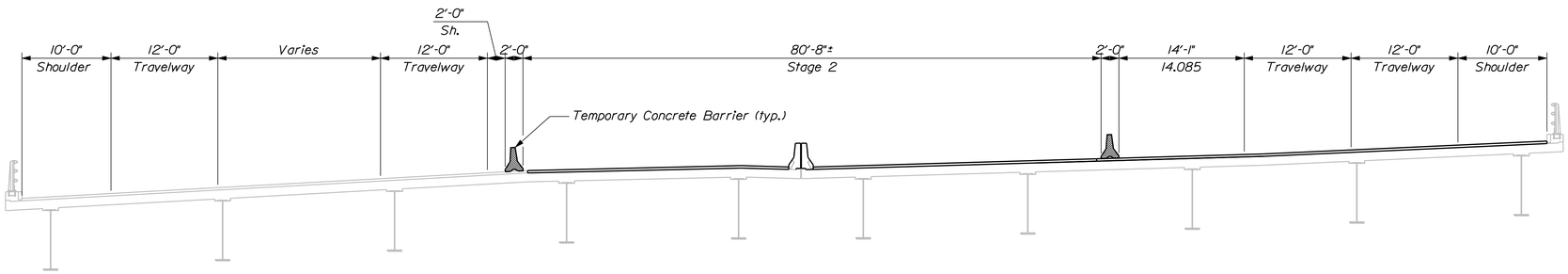
BANGOR
MAIN ST & FARM RD

TEMPORARY TRAFFIC SIGNAL

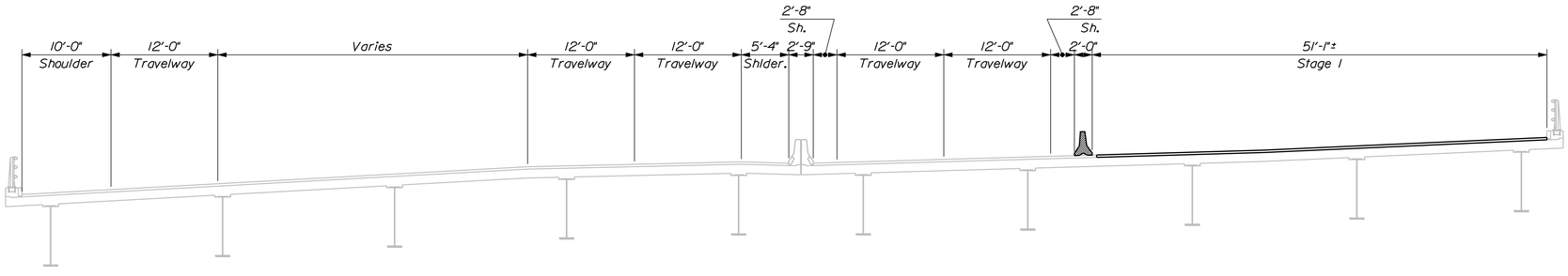
SHEET NUMBER
9
OF 28



STAGE 3 @ ABUTMENT 1



STAGE 2 @ ABUTMENT 1



STAGE 1 @ ABUTMENT 1

Username: richard.nimon Date:6/1/2010

Division: BRIDGE

Filename: ...\MSTA\010_StogeConstr1.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

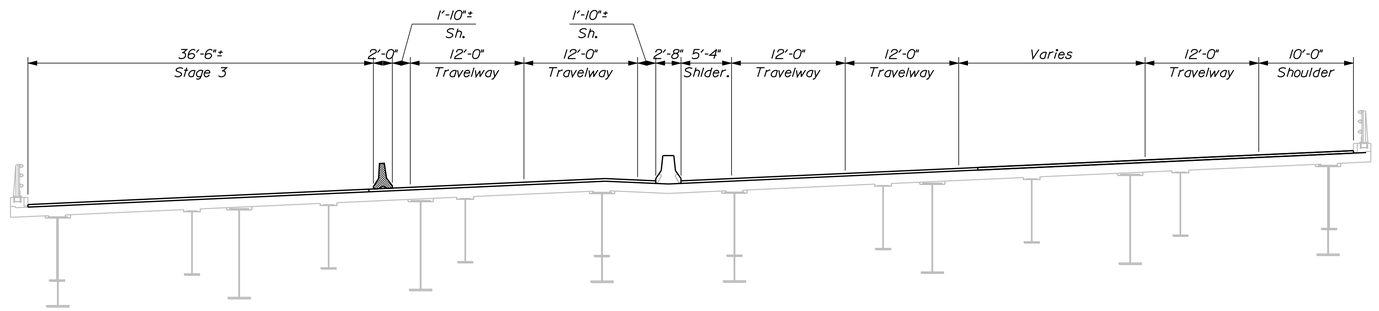
VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

STAGE CONSTRUCTION
ABUTMENT NO. 1

SHEET NUMBER

10

OF 28



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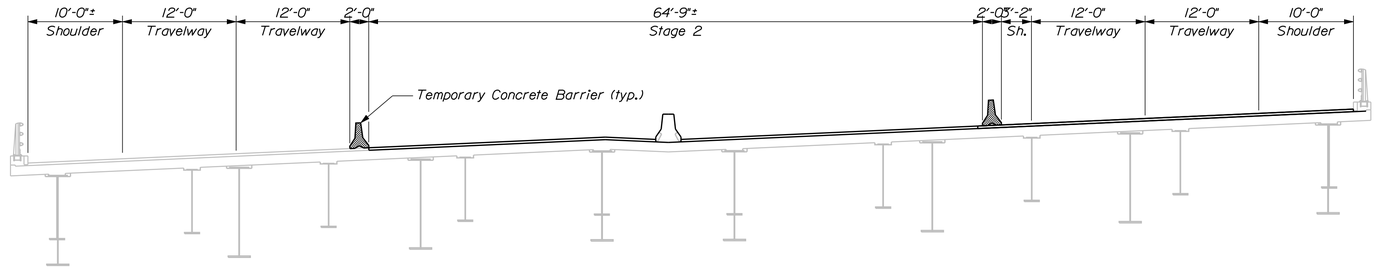

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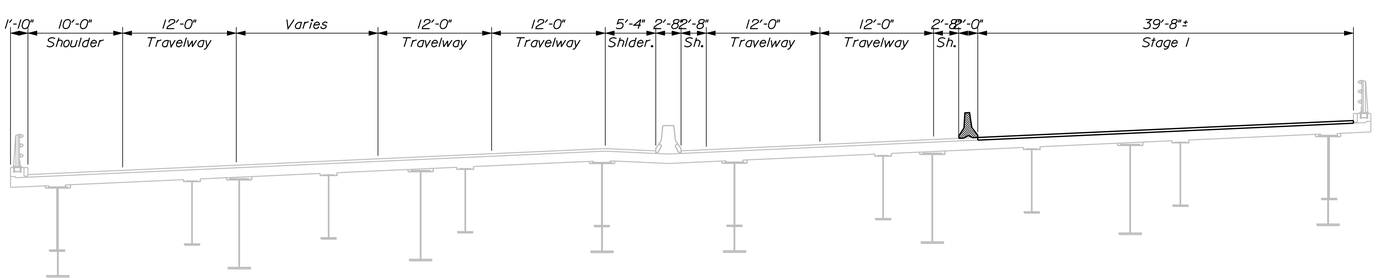


STAGE 1 @ ℄ PIER 2

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	S. BODGE	
DESIGN-DETAILED	R.BULGER	05/2010
CHECKED-REVIEWED	R.NIMON	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

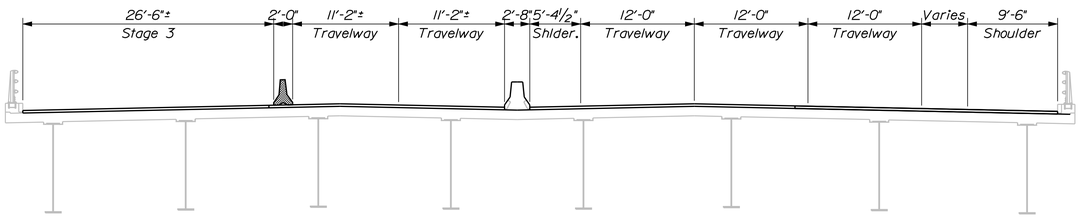
STAGE CONSTRUCTION
PIER NO. 2

SHEET NUMBER

11

OF 28

Filename: ...\MSTA\011_StageConstr2.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010



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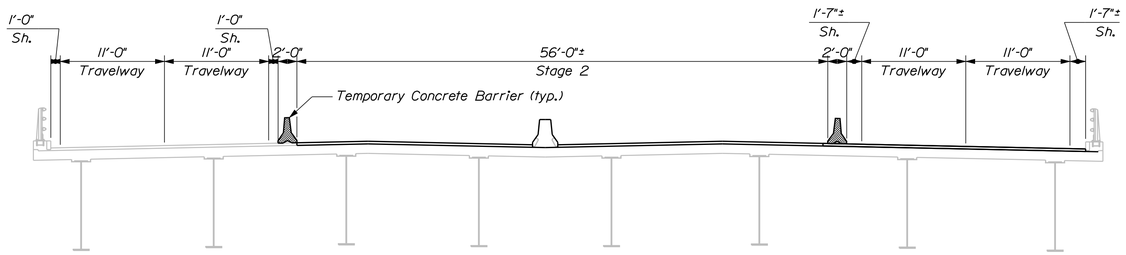

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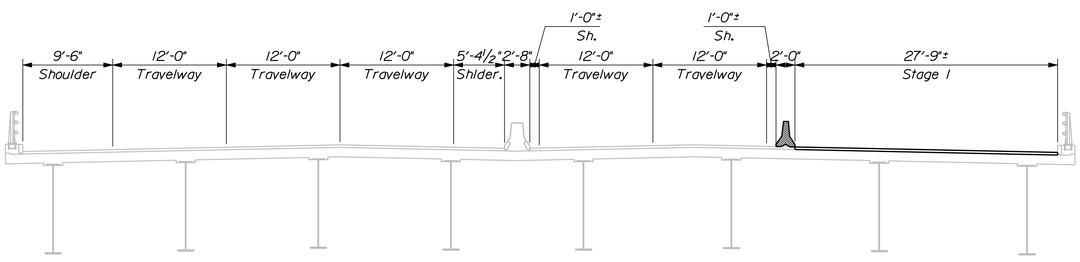


STAGE 1 @ ABUTMENT 2

Username: richard.nimon Date:6/1/2010

Division: BRIDGE

Filename: ...\MSTA\012_StageConstr3.dgn

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

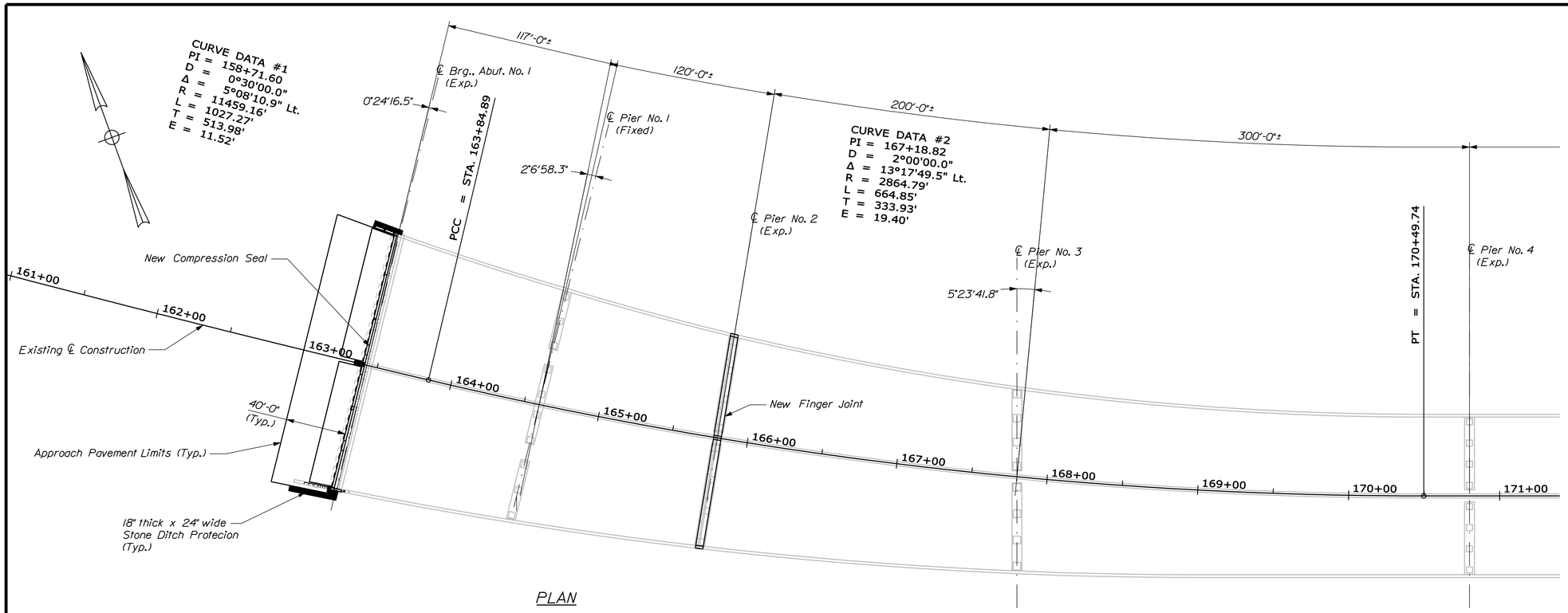
VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

STAGE CONSTRUCTION
ABUTMENT NO. 2

SHEET NUMBER

12

OF 28



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BODGE	
DESIGN-DETAILED	R.BULGER	
CHECKED-REVIEWED	R.BULGER	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1	R.NMON	05/2010
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

BRIDGE PLAN

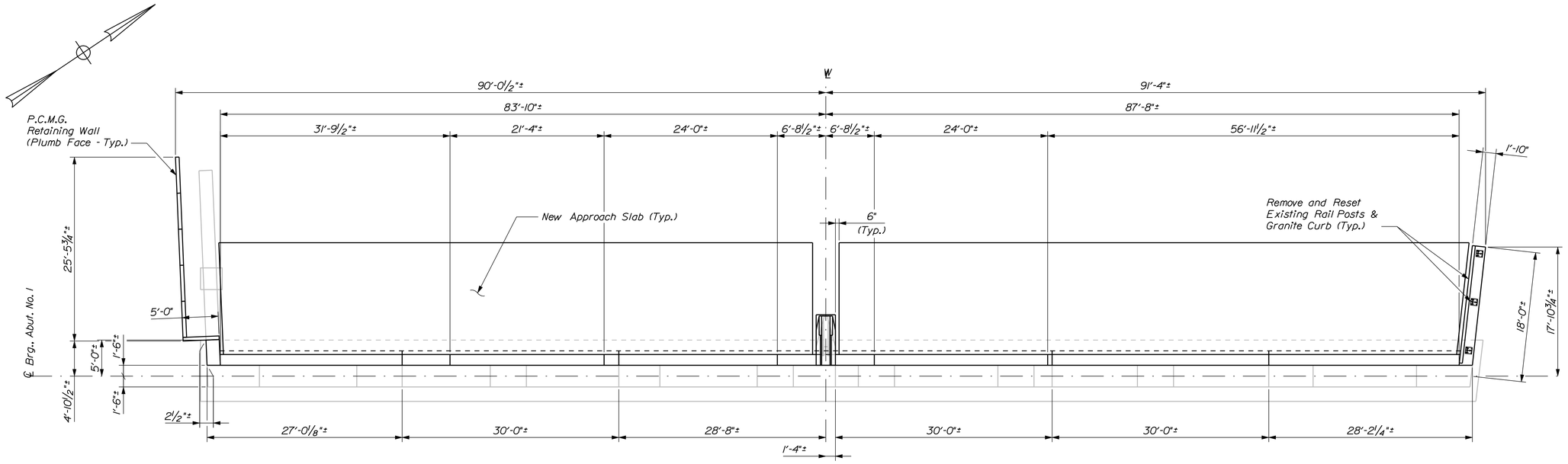
SHEET NUMBER

13

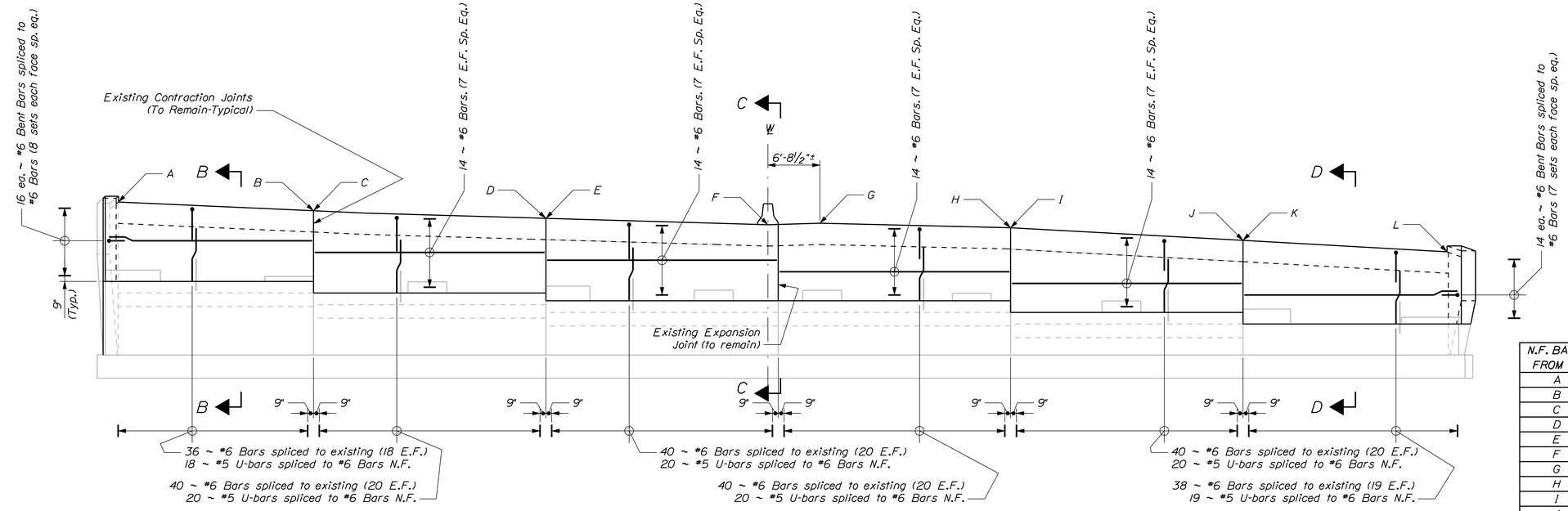
OF 28

Filename: ...\MSTA\013_Bridge_Plan.dgn Username: richard.nimon Division: BRIDGE Date:6/1/2010

Username: richard.nimon Date:6/1/2010
Division: BRIDGE
Filename: ...\BRIDGE\MSTA\014_Abutment1.dgn



ABUTMENT NO. 1 PLAN



ABUTMENT NO. 1 ELEVATION

N.F. BACKWALL HEIGHT FROM BRIDGE SEAT	
A	10'-3"±
B	9'-1 1/2"±
C	10'-7 1/2"±
D	9'-7 3/4"±
E	10'-7 3/4"±
F	9'-9 1/8"±
G	10'-0 1/4"±
H	9'-5 1/8"±
I	10'-11 1/8"±
J	9'-3 3/4"±
K	10'-9 3/4"±
L	9'-4"±

NOTE:
Far face backwall heights should be adjusted to match existing profile grades.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

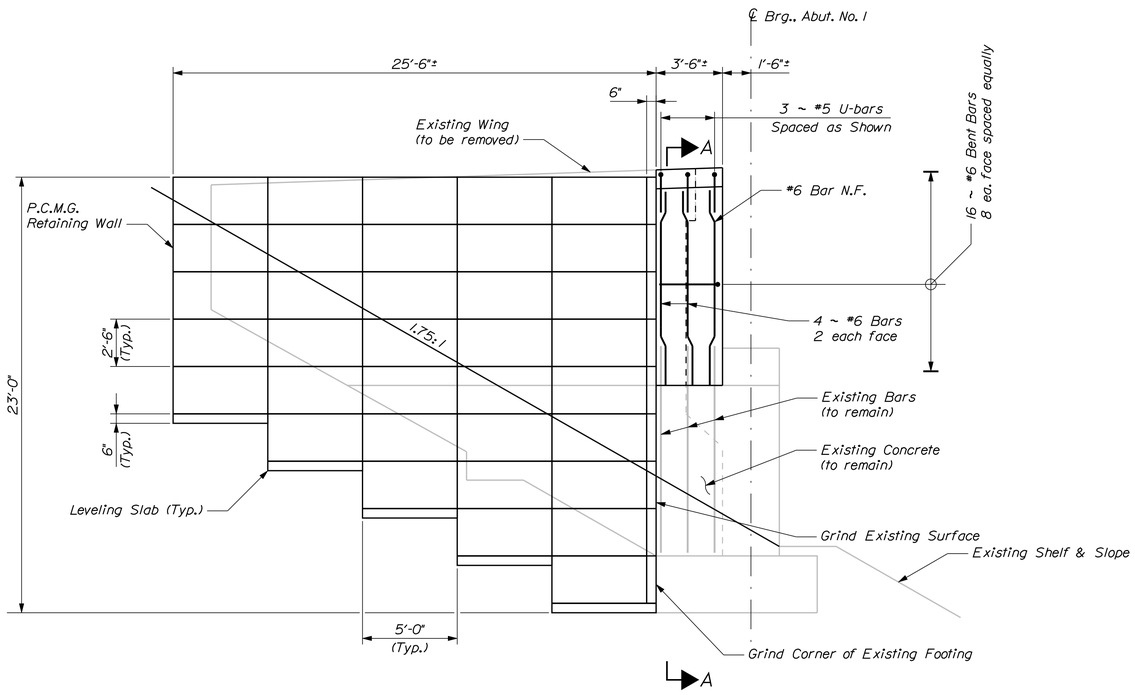
ABUTMENT NO. 1

SHEET NUMBER

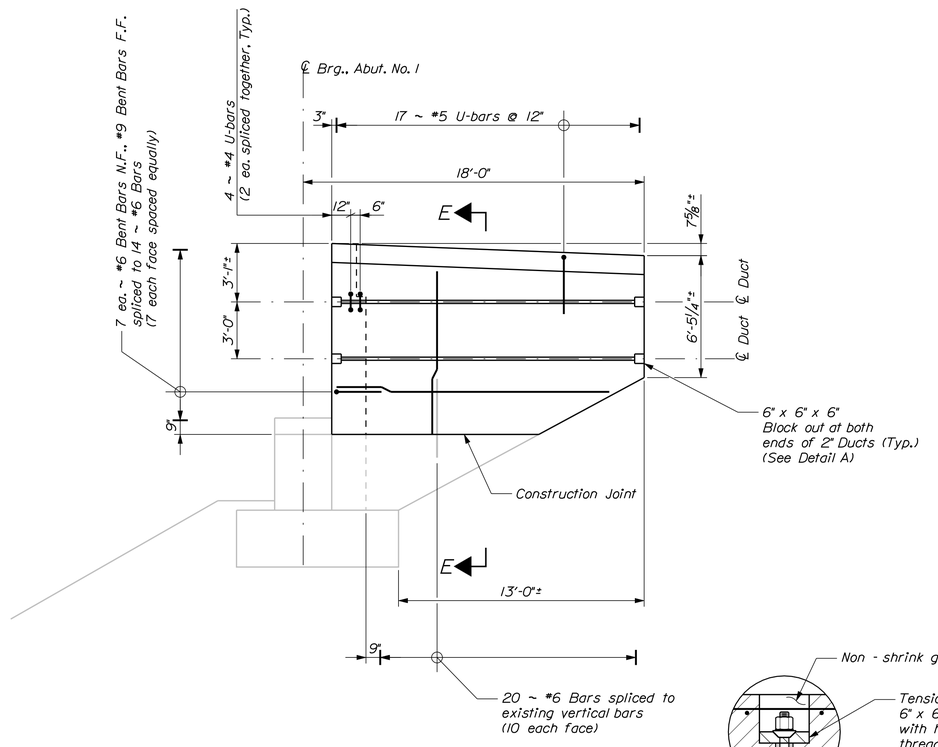
14

OF 28

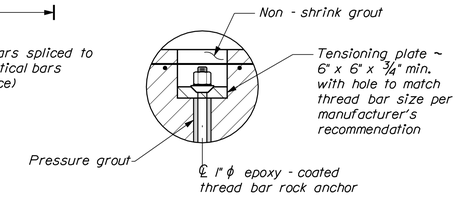
Filename: ...\MSTA\015_Abutment1_Details.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010



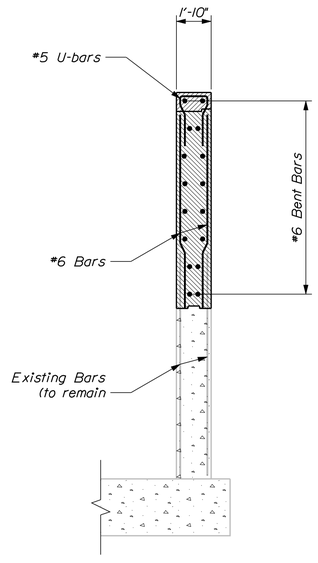
SOUTH WING



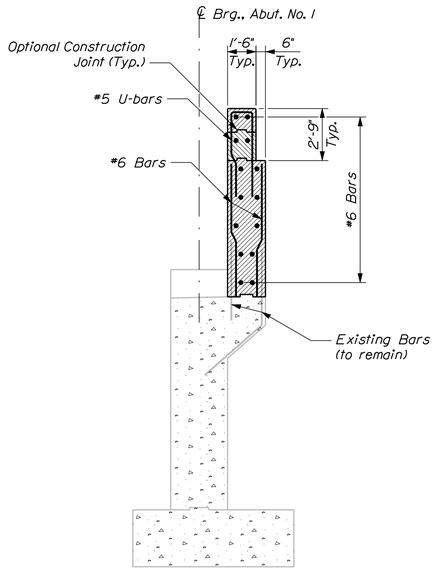
NORTH WING



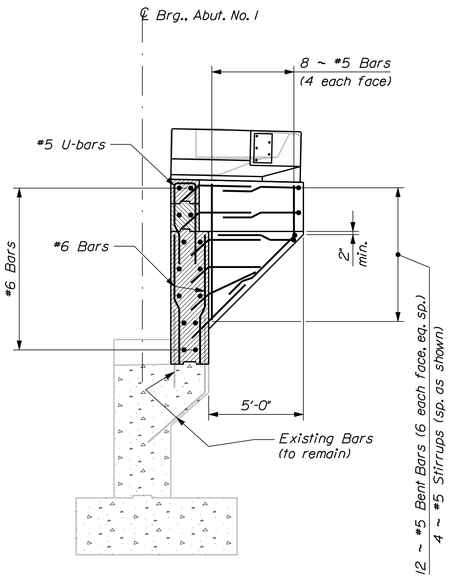
DETAIL A



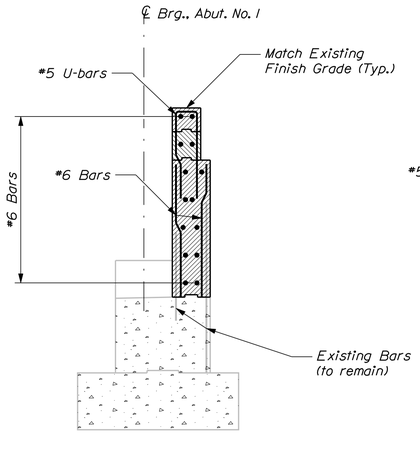
SECTION A-A



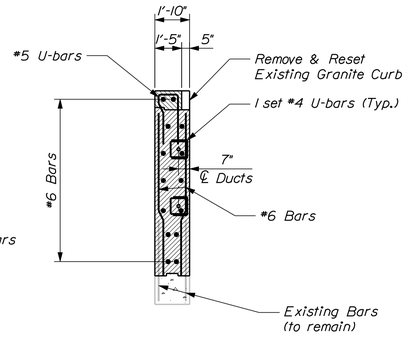
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	S. BRIDGE		
CHECKED-REVIEWED	R.BULGER	R.NIMON	05/2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

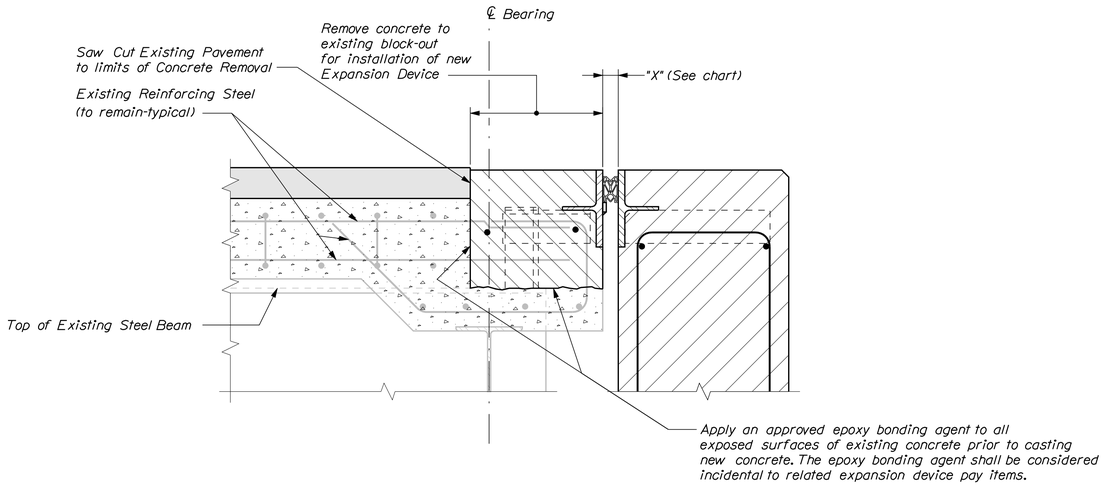
VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

ABUTMENT NO. 1 DETAILS

SHEET NUMBER

15

OF 28



EXPANSION DEVICE - COMPRESSION SEAL SECTION

(See Standard Details, Section 520 Expansion Device - Compression Seal)

BRIDGE JOINT NOTES

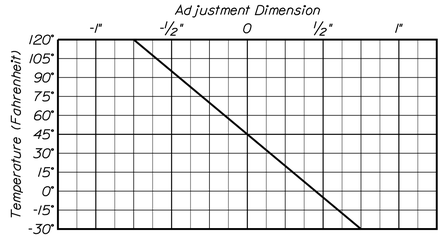
1. Refer to Standard Details Sections 520 for details and information not shown.

2. The compression seal to be furnished shall have a minimum movement rating of 1½" at Abutment No. 1.

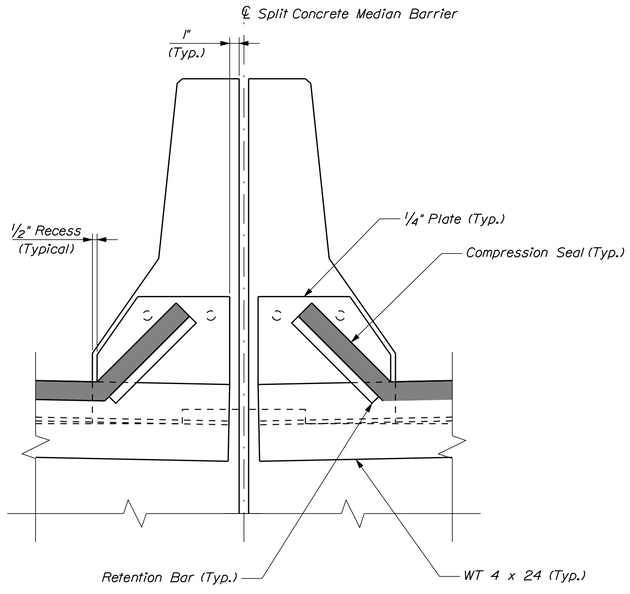
3. All new steel supplied for the bridge joint modification shall be galvanized steel.

4. The seal shall be approved by the Resident prior to fabrication of the joint armor.

5. Saw cut the existing pavement to the limits of concrete removal to place the new concrete for the joint armor. Payment will be considered incidental to related contract items.



COMPRESSION SEAL ADJUSTMENT CHART



SEAL DETAIL @ CONCRETE MEDIAN BARRIER

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	BY	DATE
CHECKED-REVIEWED	R.BULGER	R.NIMON	05/2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

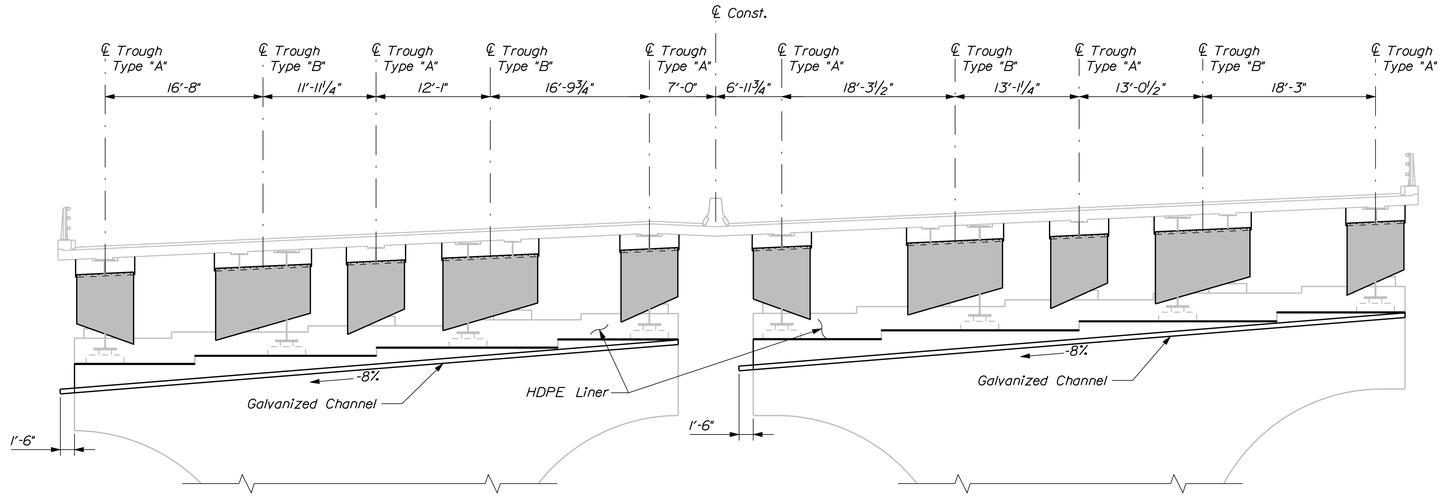
ABUTMENT NO. 1
COMPRESSION SEAL

SHEET NUMBER

16

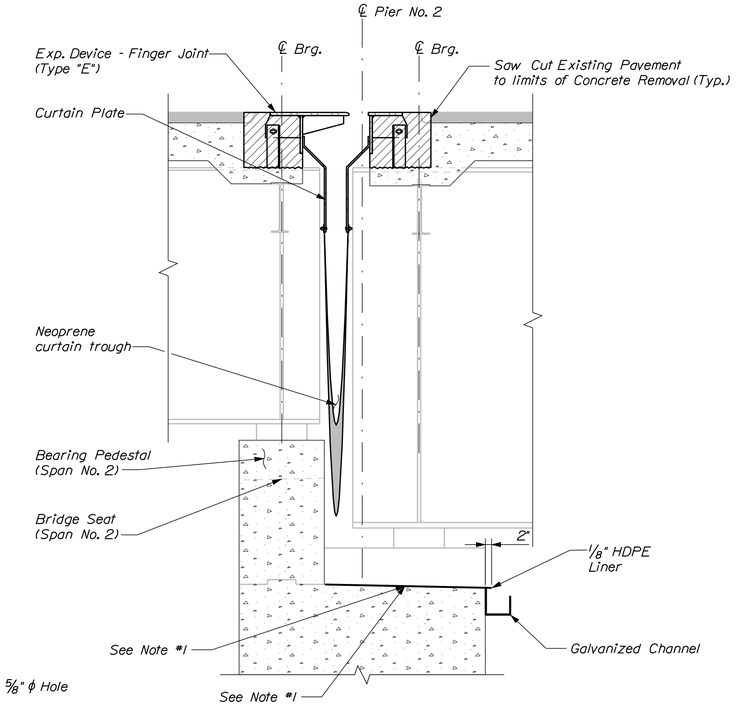
OF 28

Filename: ...\016_Abutment1_Compression_Seal.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010

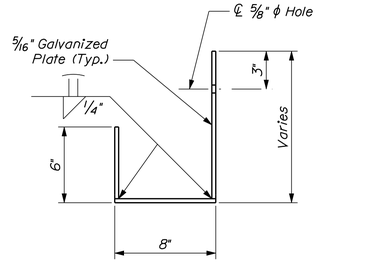


PIER NO. 2 CURTAIN TROUGH ELEVATION

Flow

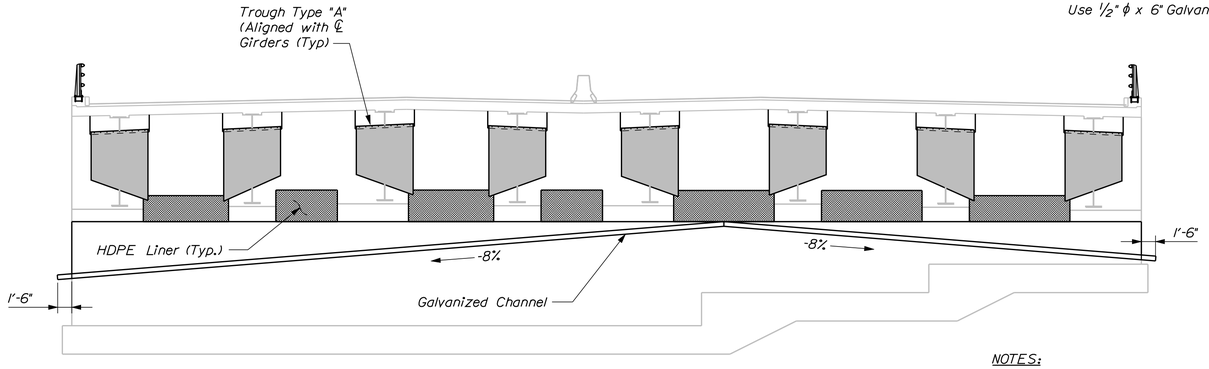


PIER NO. 2 EXPANSION JOINT



GALVANIZED CHANNEL SECTION

Use ½" ϕ x 6" Galvanized Anchor Bolt at 2'-0" on Center.



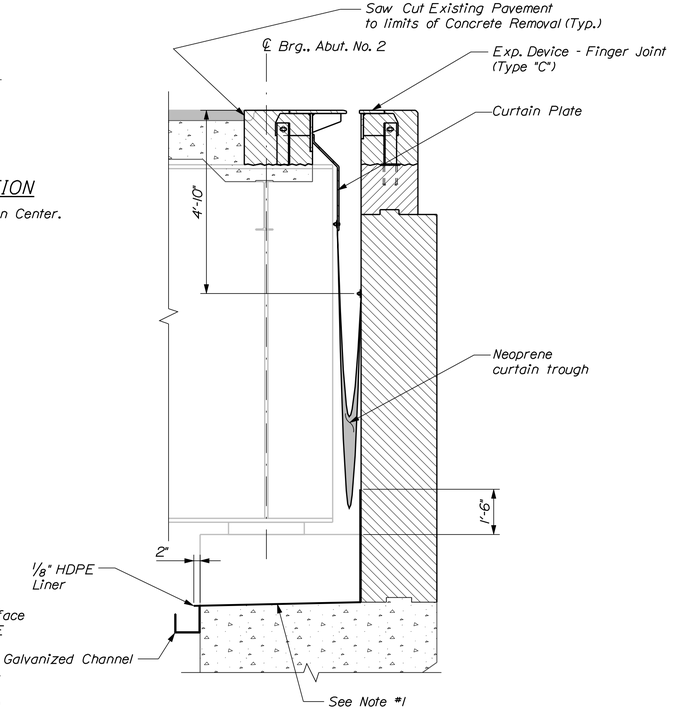
ABUTMENT NO. 2 CURTAIN TROUGH ELEVATION

Flow

NOTES:

1. Roughen existing surface ½" and apply a ½" thick grout to the prepared surface maintaining ¼" per foot existing cross slope to drain. Preparation of existing surface shall be considered incidental to Pay Item, 620.6012 HDPE Geomembrane.

2. Protective Coating for Concrete Surfaces - Acrylic Anti-Carbonation Coating shall be applied to the inside vertical face of the pier cap adjacent to the troughs at Pier No. 2 and all vertical faces of the lower bearing pedestals for Pier No. 2 and the pedestals at Abutment No. 2.



ABUTMENT NO. 2 EXPANSION JOINT

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

	SIGNATURE	P.E. NUMBER	DATE
PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	R.BULGER		
CHECKED-REVIEWED	R.NIMON		
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
DATE	05/2010		
BY	R.NIMON		

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

EXPANSION JOINT & CURTAIN TROUGH DETAILS

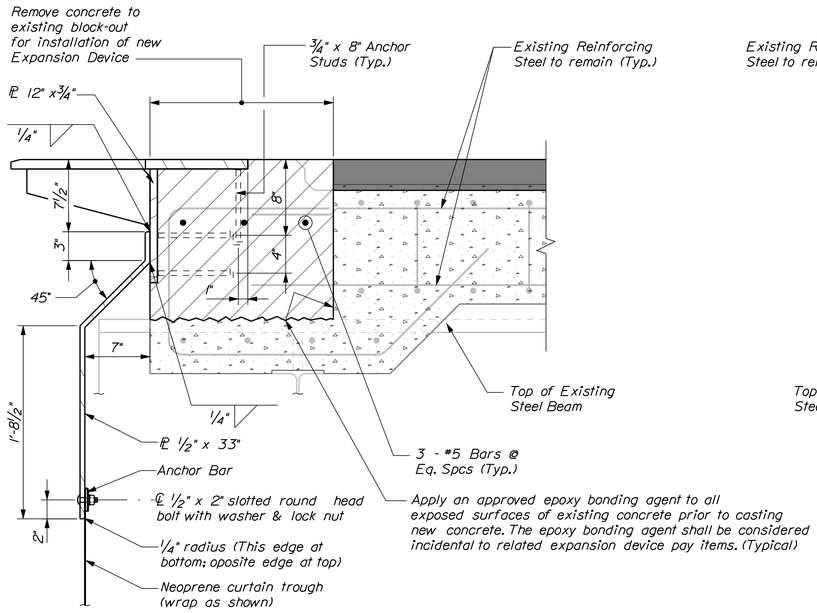
SHEET NUMBER

17

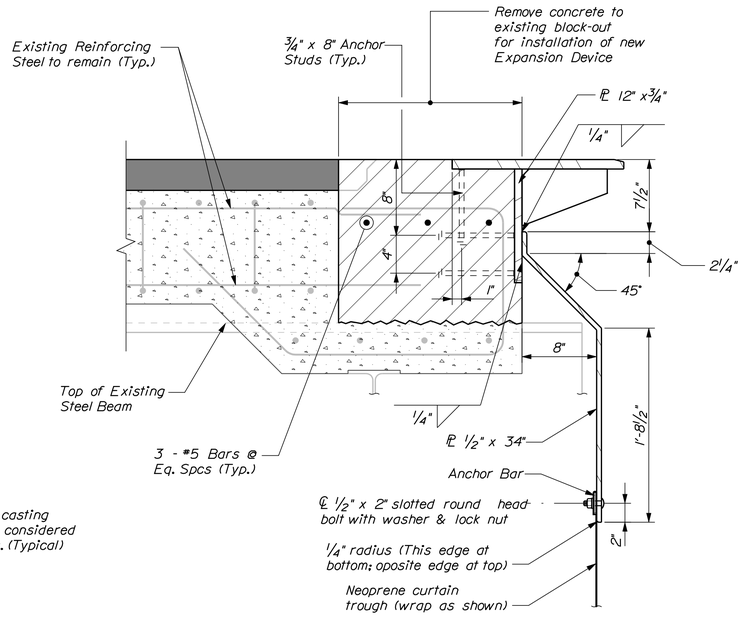
OF 28

Filename: ...\017_Pier2_finger-joint1.dgn Username: richard.nimon Division: BRIDGE Date:6/1/2010

Filename: ...\018_Pier2_finger - joint2.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010



PIER NO. 2 CURTAIN PLATE DETAIL



ABUTMENT NO. 2 CURTAIN PLATE DETAIL

EXPANSION DEVICE AND CURTAIN TROUGH NOTES

1. Provide one Expansion Device - Finger Joint (Type "E") at Pier No. 2. and one Expansion Device - Finger Joint (Type "C") at Abutment No. 2. Construct Finger Joints in accordance with Standard Details Section 521.

2. Curb Expansion Dams shall be constructed in accordance with the Standard Details. Additional Expansion Dams will required for the Median Barrier at each Pier No. 2 and Abutment No. 2. Median Barrier Expansion Dams shall be constructed in accordance with design drawings. For details not shown, refer to Standard Details.

3. Fabrication and materials for the curtain trough, including galvanization of steel components, shall be in accordance with the provisions of Section 521 of the Standard Specification.

4. Payment for curtain plates shall be considered incidental to the respective Expansion Device - Finger Joint pay item.

5. Payment for one set of curtain troughs for each joint (one set of ten(10) for Pier No. 2 & one set of eight (8) for Abutment No. 2), including anchor bars and hardware, will be made under Item No. 521.32, Fabric Trough for Finger Joint.

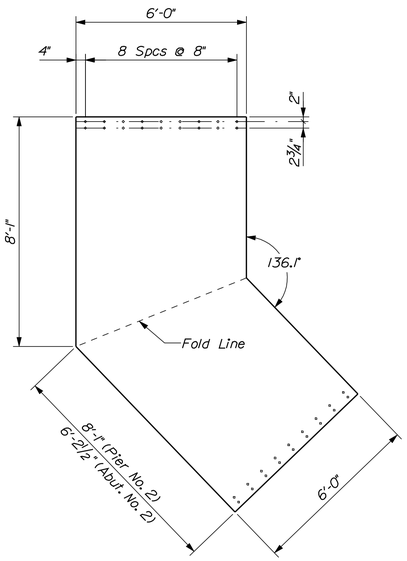
6. HDPE Liner shall be installed in the locations shown on the design drawings and securely fastened in accordance with Section 620 Special Provision. Payment for the HDPE liners will be made under Item, 620.6012 HDPE Geomembrane.

7. The Contractor shall take care in the installation of the HDPE membrane that the extruded anchors are completely undamaged and installed in the cementitious substrate in accordance with the manufacturer's recommendations. Payment for all work and materials needed to install the HDPE membrane and where required the grout bedding shall be considered paid for under Pay Item No. 620.6012, HDPE Geomembrane.

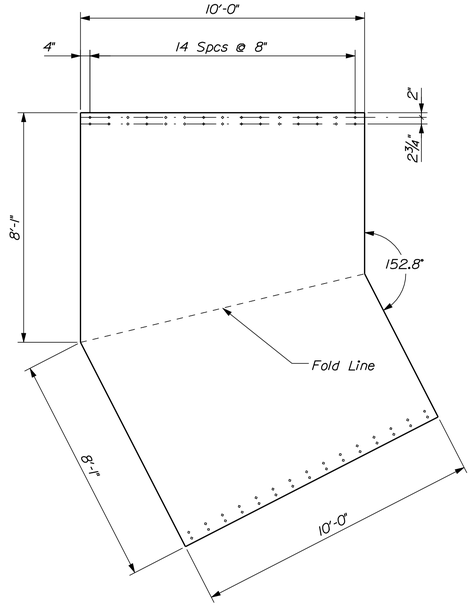
8. Joints at the top corners of the Median Barrier Expansion Dams shall be welded in accordance with the Standard Details. Any other corners of the Median Barrier profile may be fabricated from single bent plates or multiple welded plates at the Contractors option.

9. Payement for all work and materials required to provide the galvanized channels as shown on the plans shall be considered incidental to Pay Item, 521.32 Fabric Trough for Finger Joint.

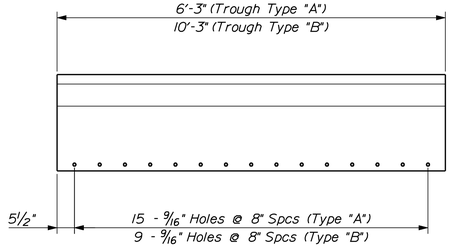
10. Refer to Standard Details Sections 521 for details and information not shown.



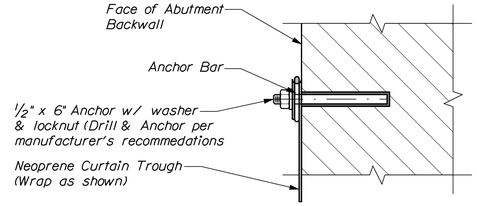
NEOPRENE SHEET
Trough "A"



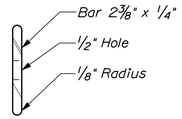
NEOPRENE SHEET
Trough "B"



TROUGH PLATE



ABUTMENT NO. 2 CURTAIN ANCHOR DETAIL



ANCHOR BAR
Match length and hole spacing to corresponding trough plate

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	S. BRIDGE	BY	DATE
CHECKED-REVIEWED	R.BULGER	R.NIMON	05/2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

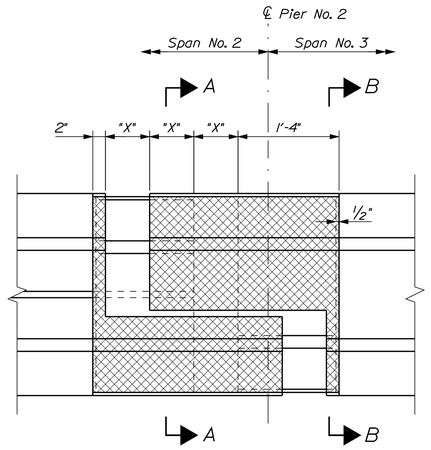
VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

EXPANSION JOINT & CURTAIN TROUGH DETAILS

SHEET NUMBER

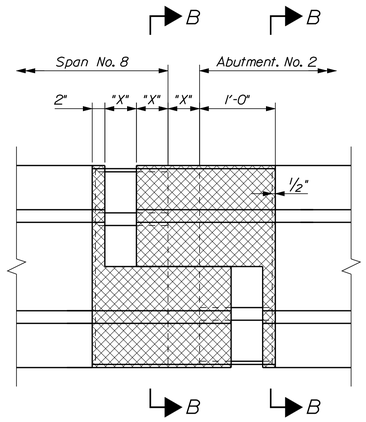
18

OF 28



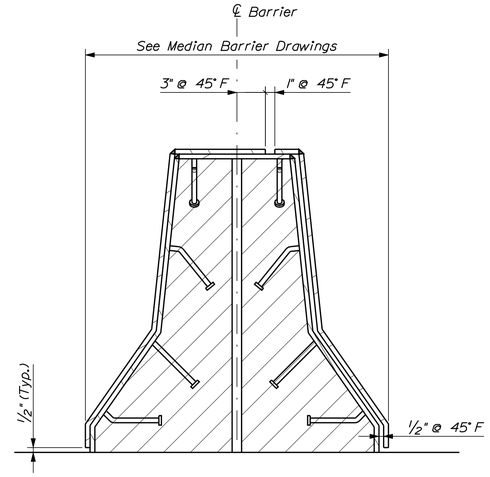
PIER NO. 2 EXPANSION DAM PLAN

"X" = 7" @ 45° F



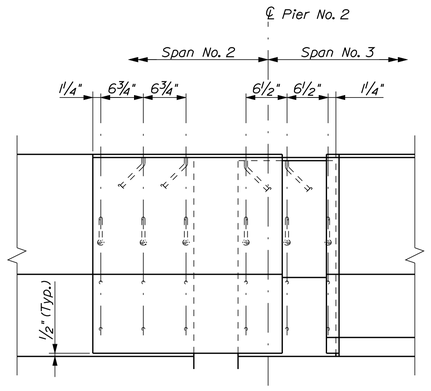
ABUTMENT NO. 2 EXPANSION DAM PLAN

"X" = 5" @ 45° F

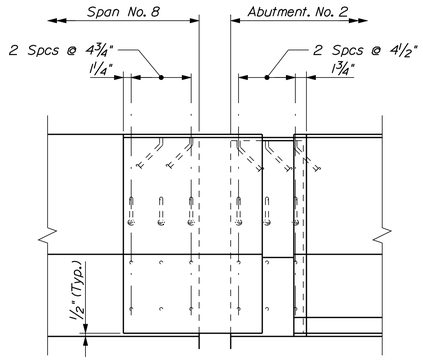


SECTION "A-A"

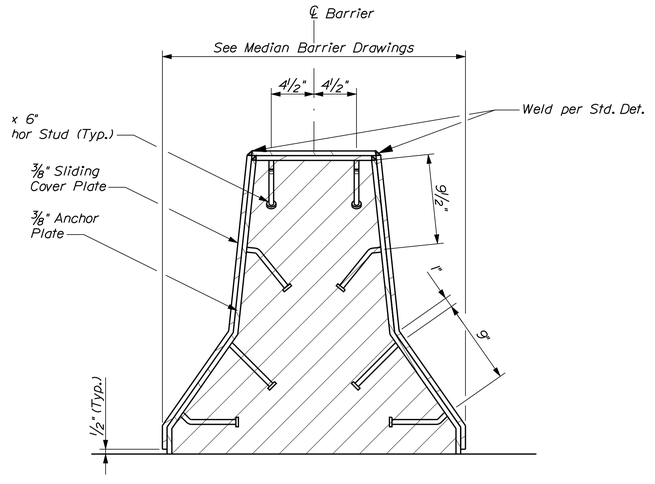
See Section "B-B" for plate sizes and anchor stud layout



PIER NO. 2 EXPANSION DAM ELEVATION



ABUTMENT NO. 2 EXPANSION DAM ELEVATION



SECTION "B-B"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

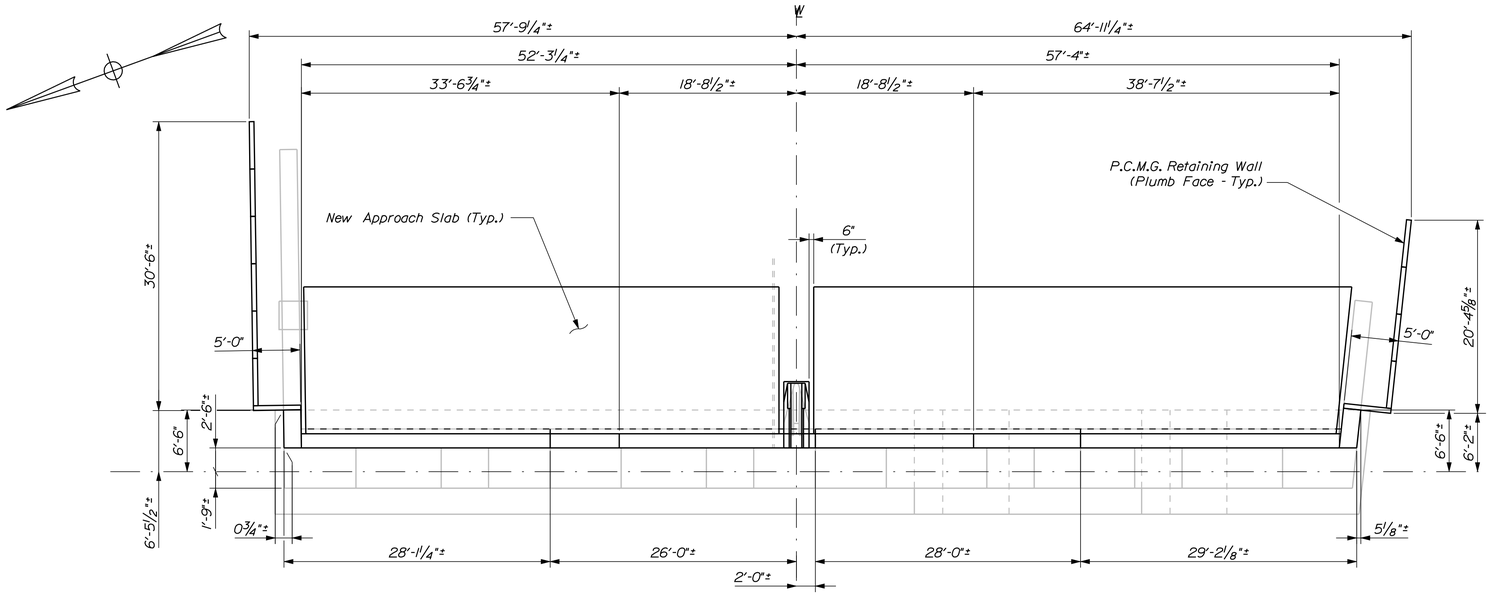
EXPANION DAM DETAILS

SHEET NUMBER

19

OF 28

Filename: ...\019_Pier2_finger - joint3.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010



ABUTMENT NO. 2 PLAN

PREFABRICATED CONCRETE MODULAR GRAVITY WALL NOTES

1. The Contractor shall provide a Prefabricated Concrete Modular Gravity (PCMG) Wall in accordance with Special Provision Section 635. The PCMG Wall shall be designed and stamped by a Registered Professional Engineer and the design shall be submitted to the Resident for review. Plan details are shown for estimating purposes only.

2. The precast units shall be one of the following, or equal:

   "T-Wall" as manufactured by a licensed manufacturer of Neel Company

   "DoubleWal" as manufactured by a licensed manufacturer of DoubleWal Corp., Plainville, Connecticut.

3. The factored bearing pressure for PCMG Walls shall not exceed the factored bearing resistance of 6.0 ksf for the strength limit state. The factored bearing pressure for the service limit state shall not exceed the factored bearing resistance of 6.0 ksf.

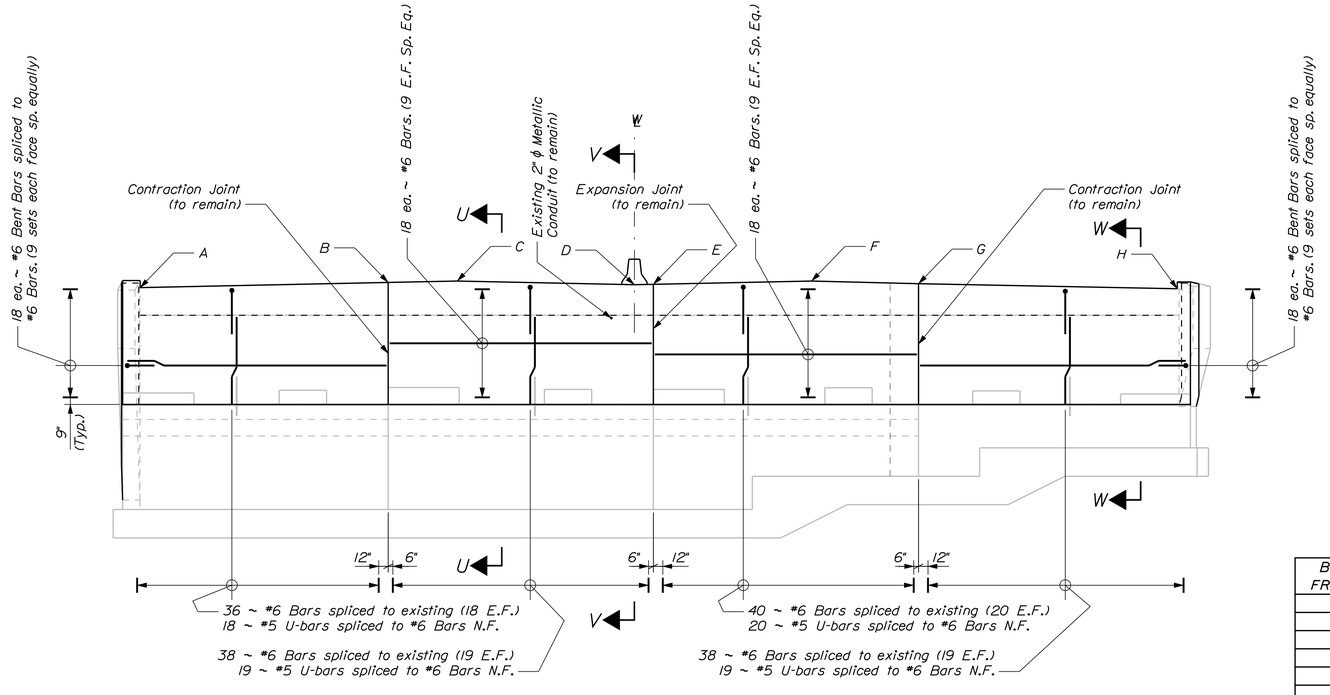
4. The PCMG Wall shall use corrosion resistant reinforcing steel. The maximum concrete permeability shall be 2,000 coulombs.

5. Compact the PCMG Wall area subgrade to 95% of the AASHTO T-180 maximum dry density before constructing any part of the wall.

6. The Contractor shall survey the existing sideslopes in front of and adjacent to the wingwalls and design the shapes of the fill slopes to be placed in front of the newly constructed wingwalls. The finished ground designs in front of rebuilt wingwalls must meet the approval of the Resident. To initiate the design by the PCMG designer/supplier, the Contractor must provide approved finish ground elevations including slopes and elevations both perpendicular to the wall faces and along the wall faces of each new PCMG wall.

ABUTMENT NOTES

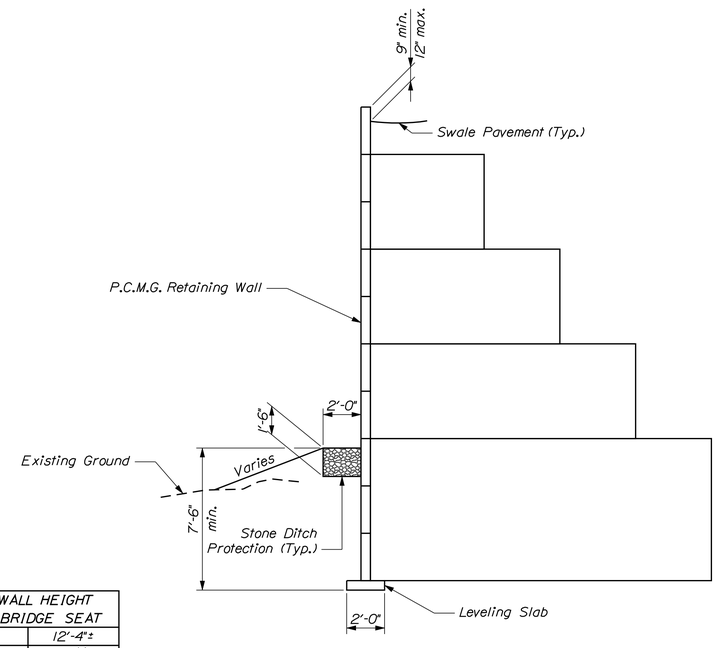
1. The Contractor is hereby alerted to the two-inch diameter metal conduit carrying power through the Veterans Remembrance Bridge Abutment No. 2 backwall, as shown on the "Abutment No. 2 Elevation" detail. The Contractor shall work carefully so as to prevent any loss of power or damage to the conduit or power line during all phases of construction. No separate payment shall be made.



ABUTMENT NO. 2 ELEVATION

BACKWALL HEIGHT FROM BRIDGE SEAT	
A	12'-4"±
B	12-10 1/2"±
C	13'-0 3/8"±
D	12'-7 5/8"±
E	12'-8 1/8"±
F	13'-0 3/8"±
G	12'-9"±
H	12'-2 5/8"±

NOTE:
Far face backwall heights should be adjusted to match existing profile grades.



TYPICAL P.C.M.G. WALL SECTION
Slope survey provided by Contractor

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

	BY	DATE
PROJ. MANAGER	S. BODGE	
DESIGN-DETAILED	R.BULGER	05/2010
CHECKED-REVIEWED	R.NIMON	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

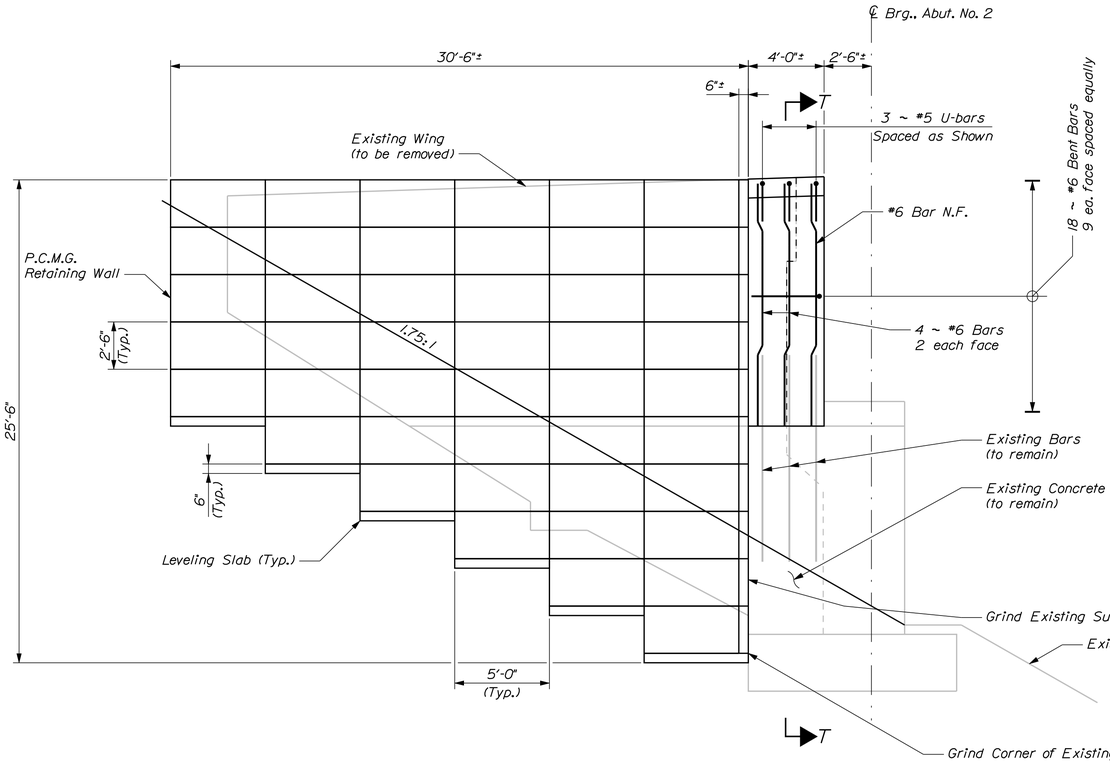
ABUTMENT NO. 2

SHEET NUMBER

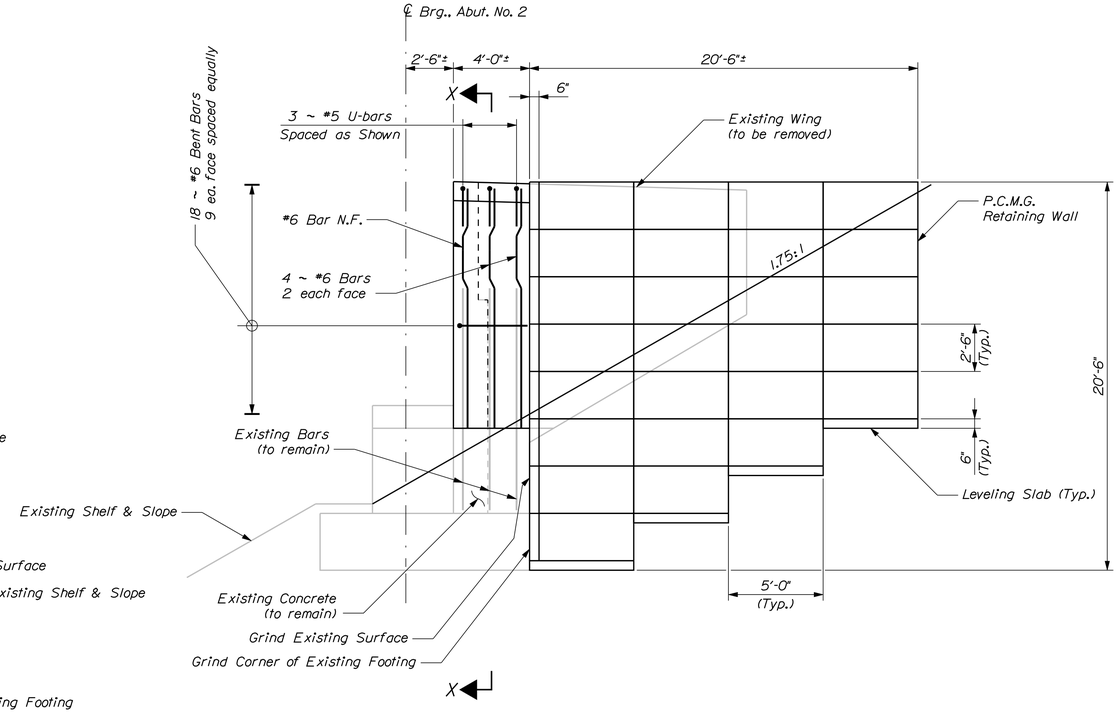
20

OF 28

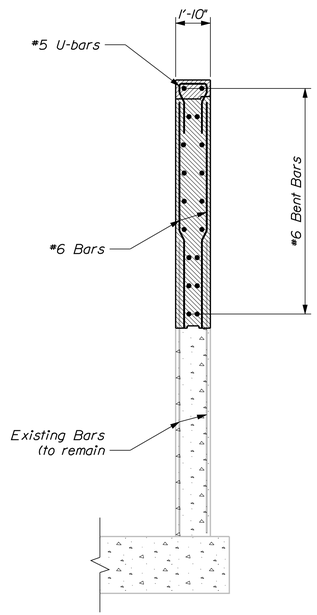
Filename: ...\BRIDGE\MSTA\020_Abutment2.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010



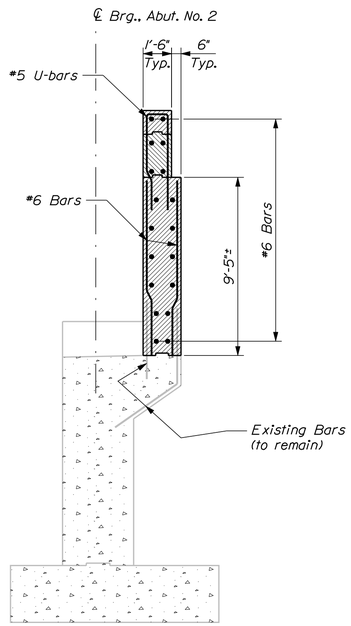
NORTH WING



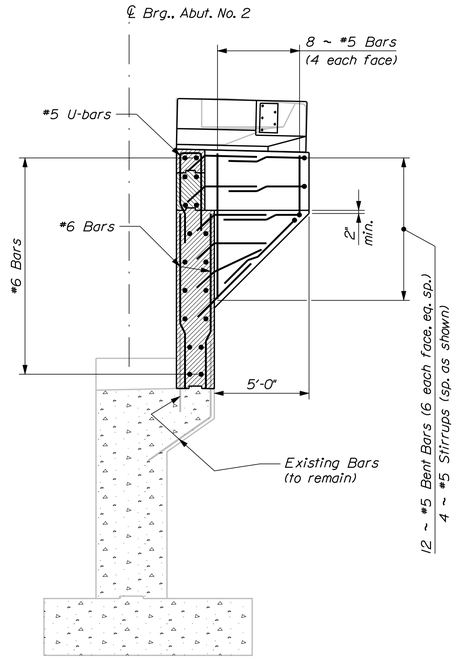
SOUTH WING



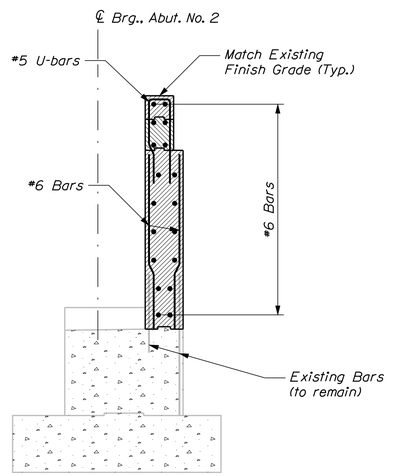
SECTION T-T



SECTION U-U



SECTION V-V



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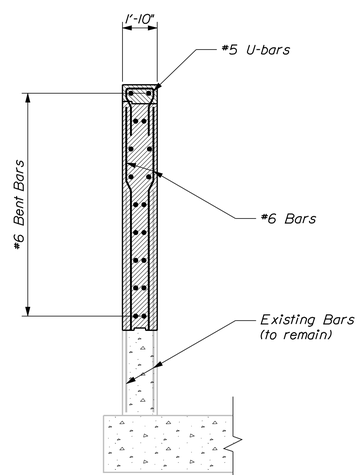


SECTION X-X

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	BY	R.NIMON
CHECKED-REVIEWED		DATE	05/2010
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

ABUTMENT NO. 2 DETAILS

SHEET NUMBER

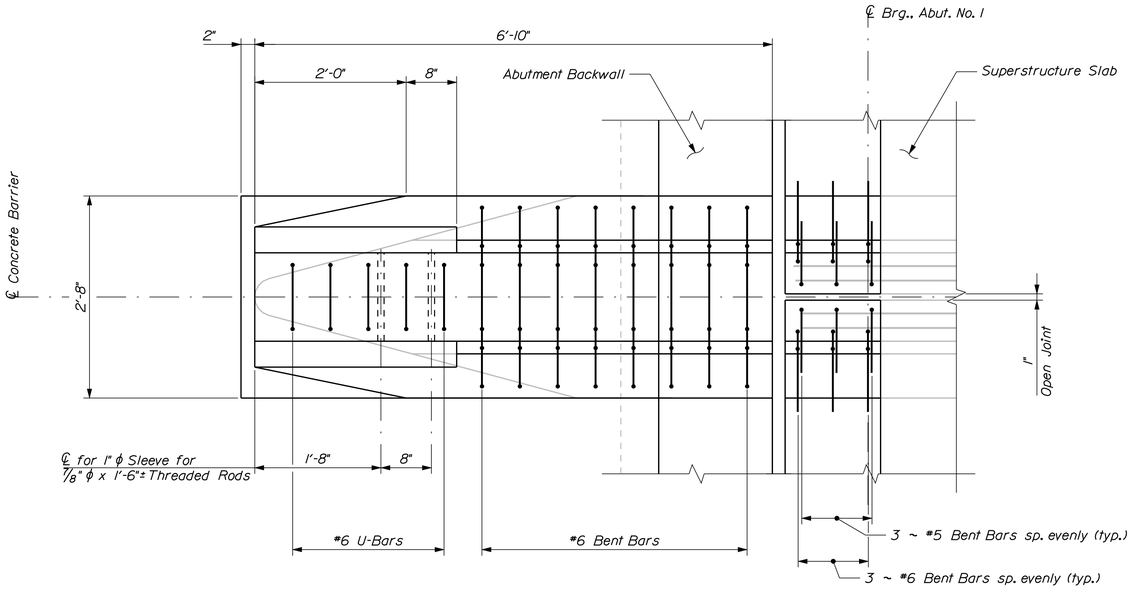
21

OF 28

Username: richard.nimon Date:6/1/2010

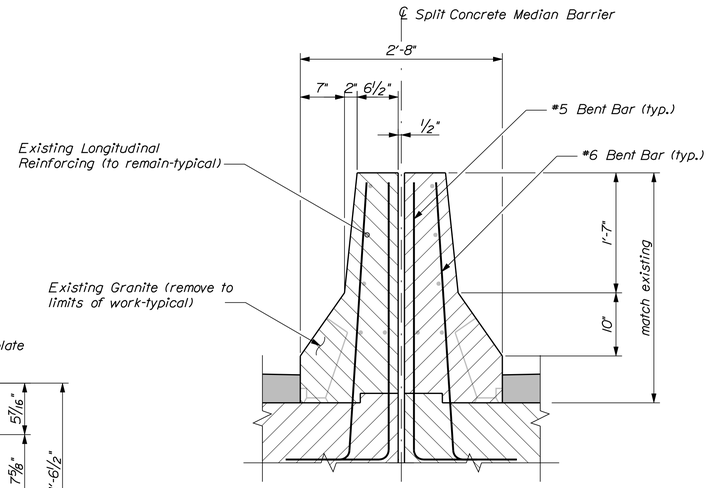
Division: BRIDGE

Filename: ...\MSTA\021_Abutment2_Details.dgn

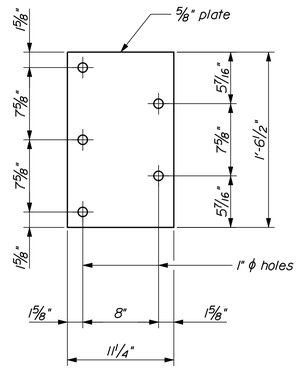


CONCRETE BARRIER PLAN

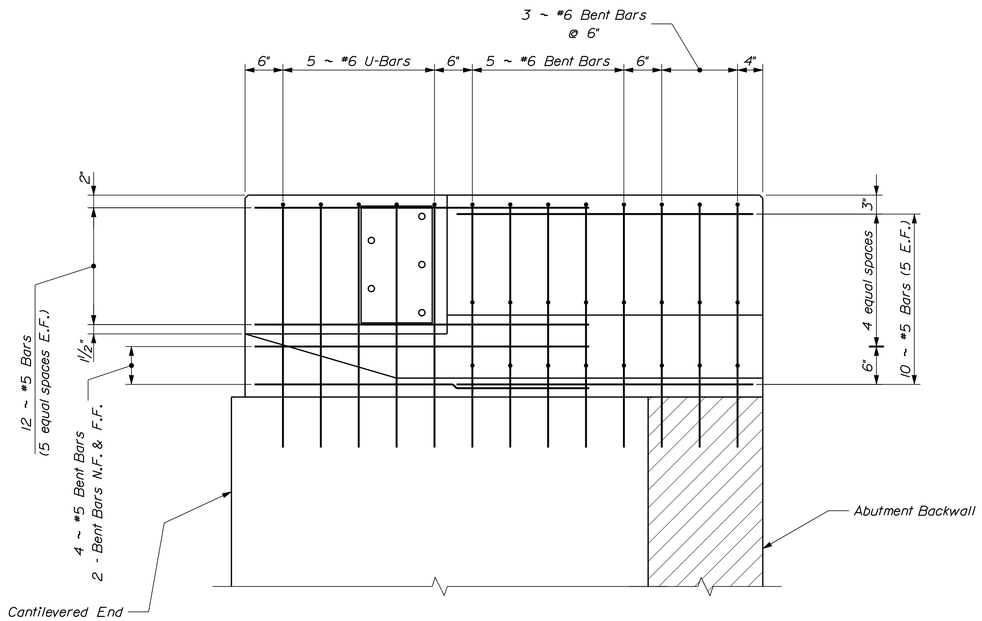
Abutment #2 Similar



CONCRETE BARRIER SECTION @ SUPERSTRUCTURE

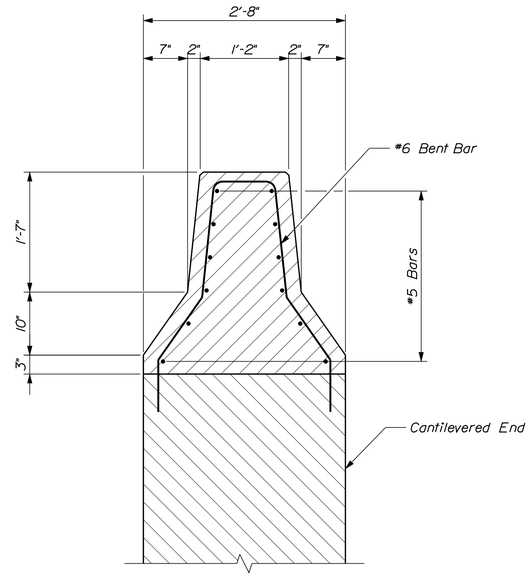


ANCHOR PLATE



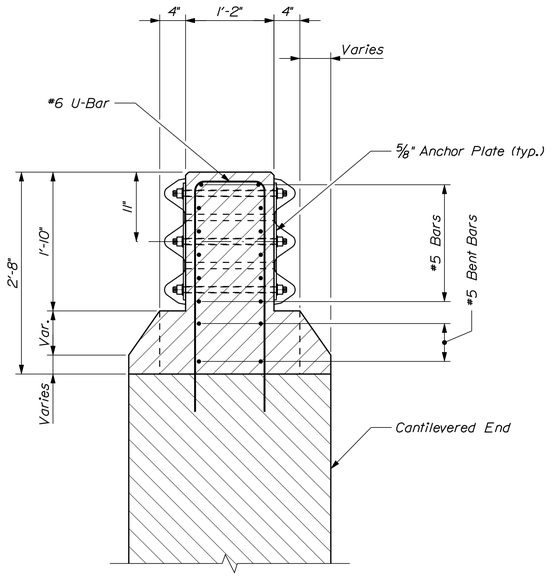
CONCRETE BARRIER ELEVATION

(Median barrier on superstructure not shown for clarity)



CONCRETE BARRIER SECTION

(Reinforcing in cantilever not shown for clarity)



CONCRETE BARRIER RECESS SECTION

(Reinforcing in cantilever not shown for clarity)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER			
DESIGN-DETAILED	S. BRIDGE		
CHECKED-REVIEWED	R.BULGER		
DESIGN2-DETAILED2	R.NIMON	05/2010	
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

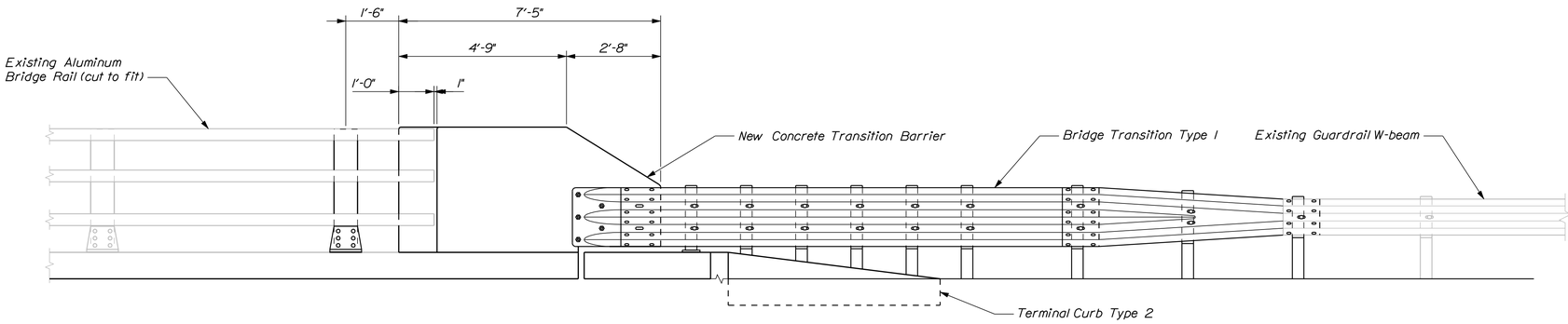
CONCRETE MEDIAN BARRIER

SHEET NUMBER

22

OF 28

Filename: ...\MSTA\022_Median_Barrier.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010



BRIDGE CONNECTION NOTES

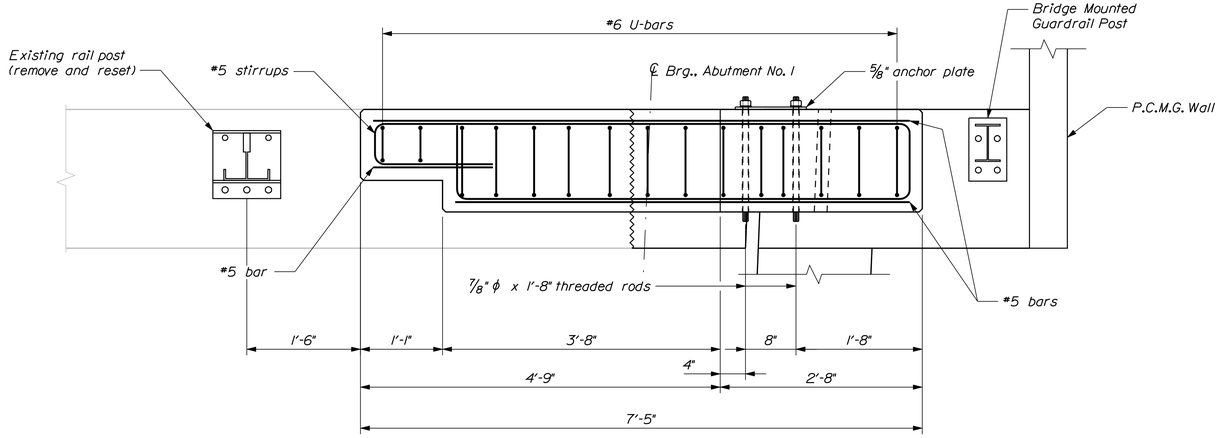
1. Refer to Standard Details Section 526 - Concrete Transition Barrier for details and information not shown.

2. Reinforcing steel for the Transition Barriers is based on details shown in the Standard Details. Reinforcing steel shall be modified to fit the details and conditions shown on the plans. Payment for modifying reinforcing steel and for drilling and anchoring bars as shown will be considered incidental to Item No. 526.3401, Permanent Concrete Transition Barrier - Modified.

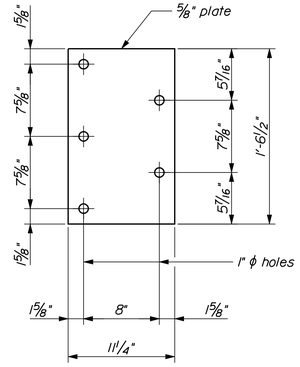
3. Anchor plates and threaded rods shall be galvanized in accordance with the Standard Specifications and the Standard Details.

4. The contractor shall locate existing curb reinforcing steel and adjust dowel locations to avoid cutting existing bars. Any adjustments from plan dimensions shall be approved by the Resident.

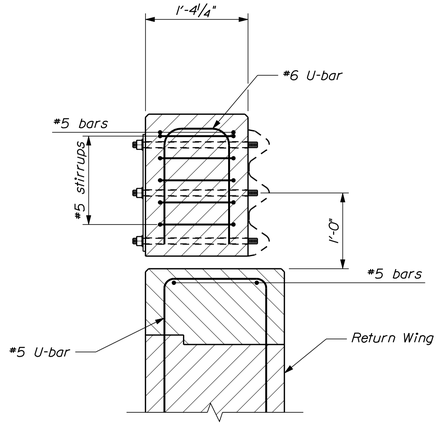
CONCRETE TRANSITION BARRIER



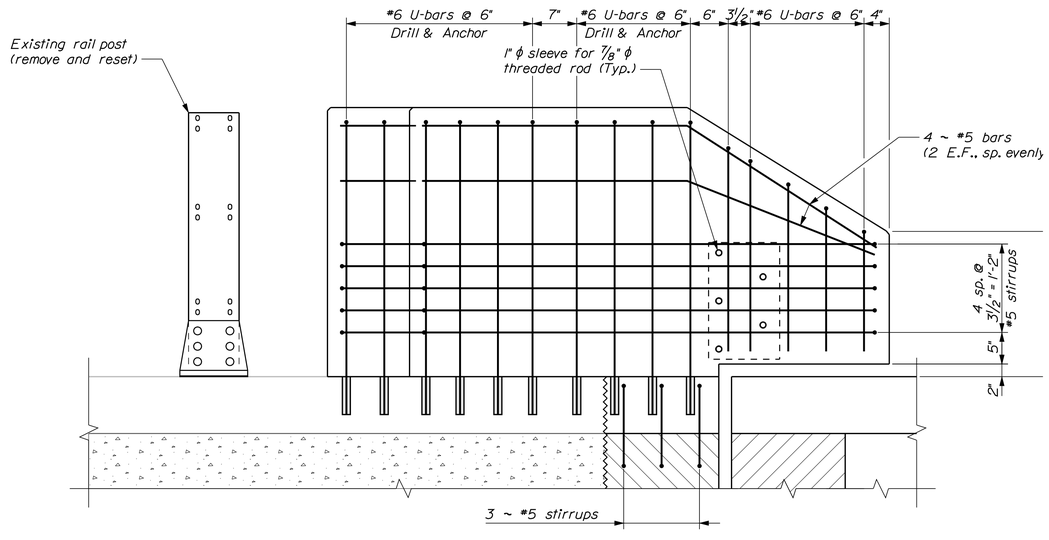
TRANSITION BARRIER PLAN



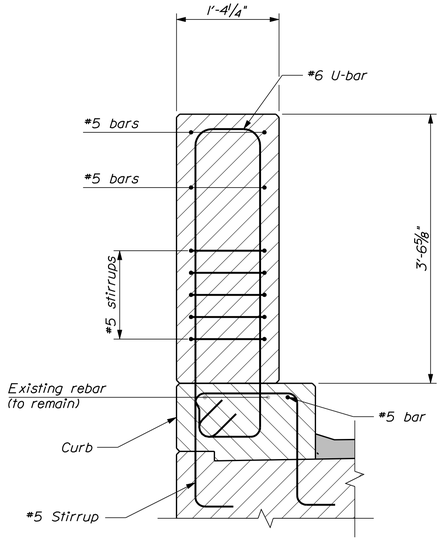
ANCHOR PLATE



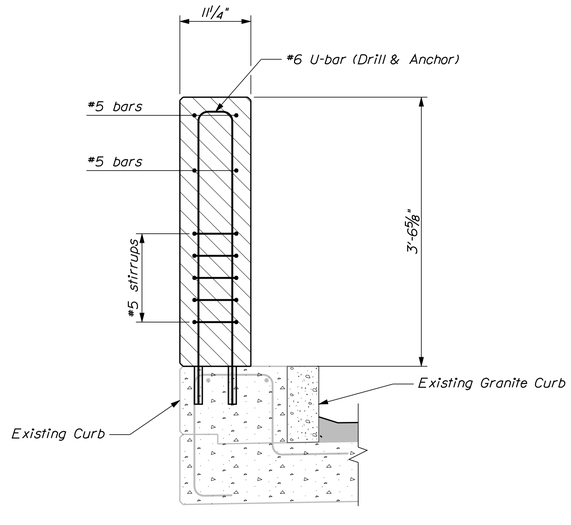
SECTION THROUGH NOSE



TRANSITION BARRIER ELEVATION
(Bridge rail not shown for clarity)



SECTION THROUGH STEM



SECTION THROUGH RECESS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	05/2010	DATE
CHECKED-REVIEWED	R.NIMON		BY
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

CONCRETE TRANSITION BARRIER
ABUTMENT NO. 1

SHEET NUMBER

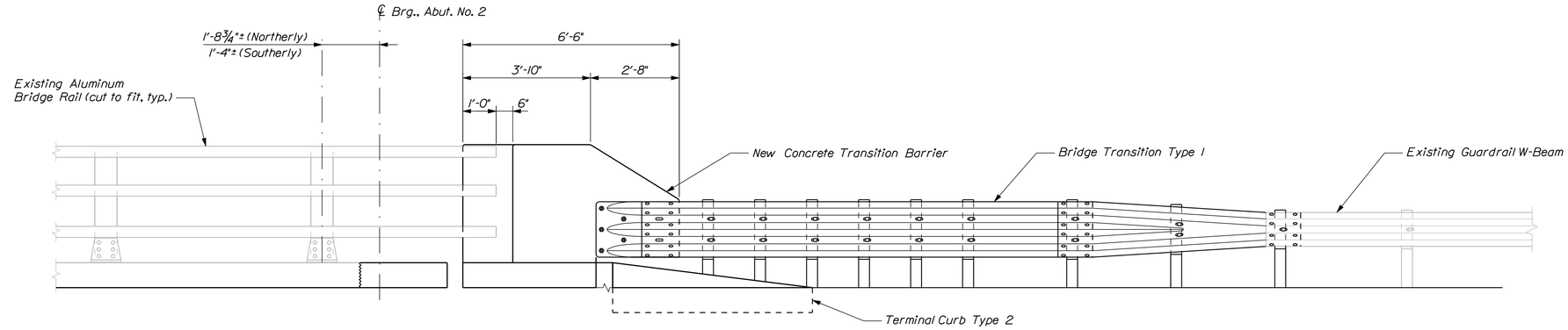
23

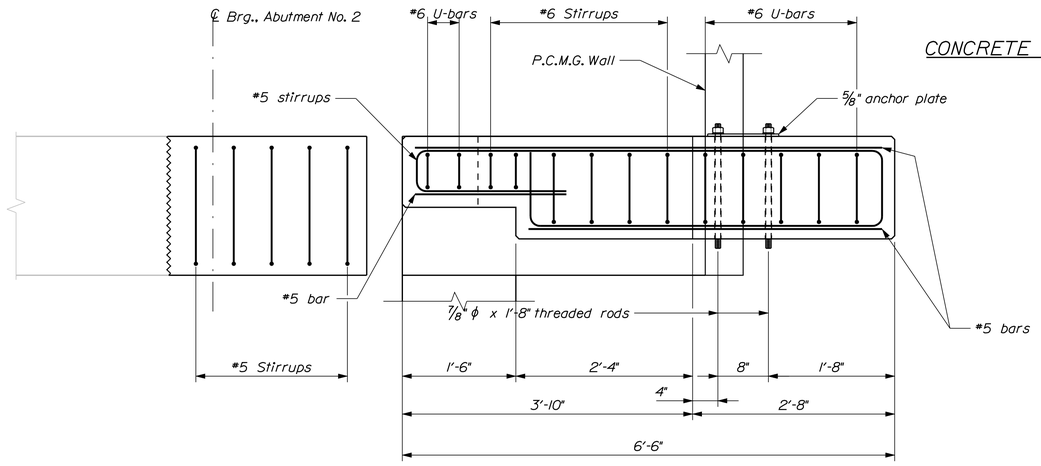
OF 28

Username: richard.nimon Date:6/2/2010

Division: BRIDGE

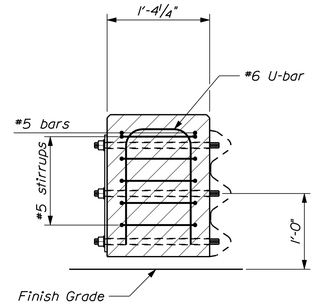
Filename: ...\023_Transition_Barrier_Abut1.dgn



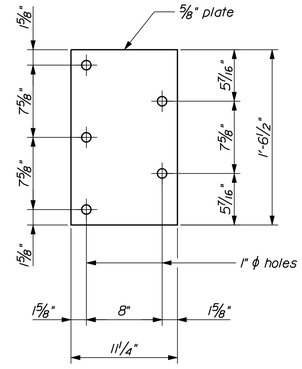


CONCRETE TRANSITION BARRIER

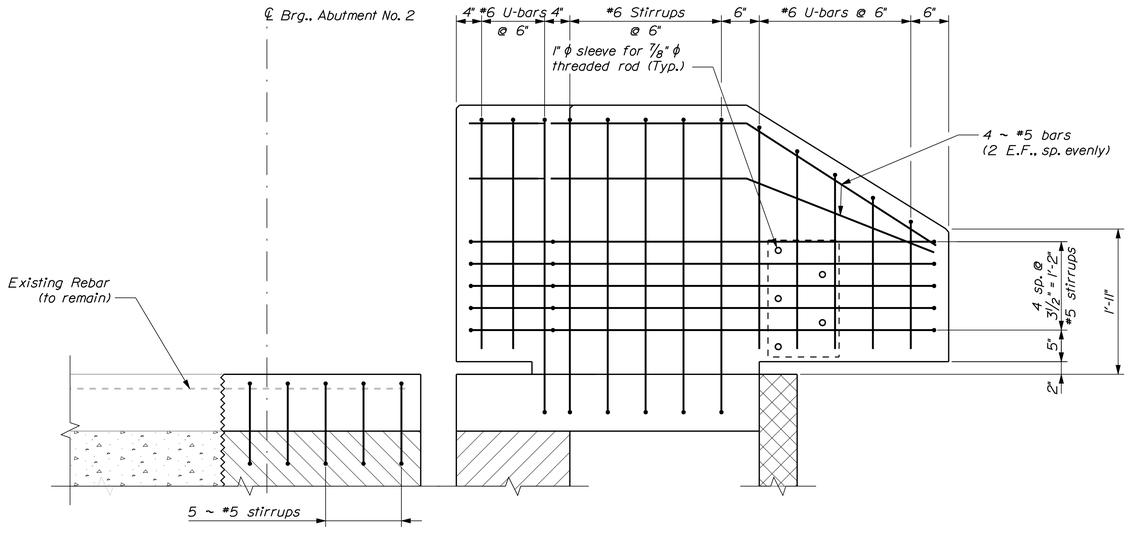
TRANSITION BARRIER PLAN



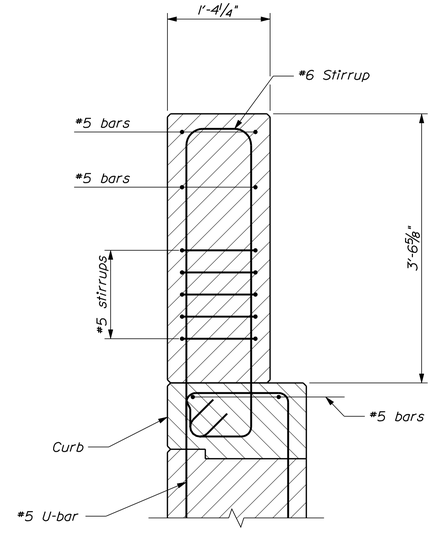
SECTION THROUGH NOSE



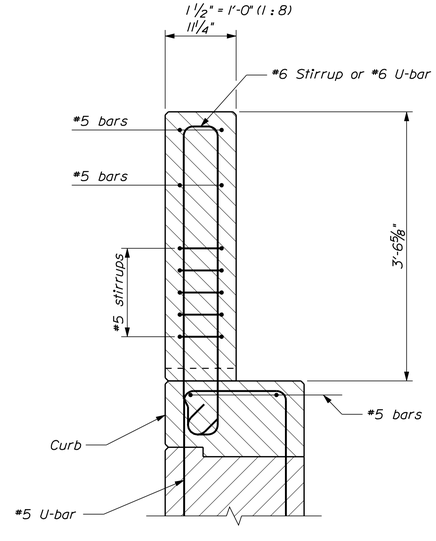
ANCHOR PLATE



TRANSITION BARRIER ELEVATION



SECTION THROUGH STEM



SECTION THROUGH RECESS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	S. BODGE	
DESIGN-DETAILED	R.BULGER	05/2010
CHECKED-REVIEWED		
DESIGN2-DETAILED2	WED	
DESIGN3-DETAILED3	ED2	
REVISIONS 1	ED3	
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

CONCRETE TRANSITION BARRIER
ABUTMENT NO. 2

SHEET NUMBER

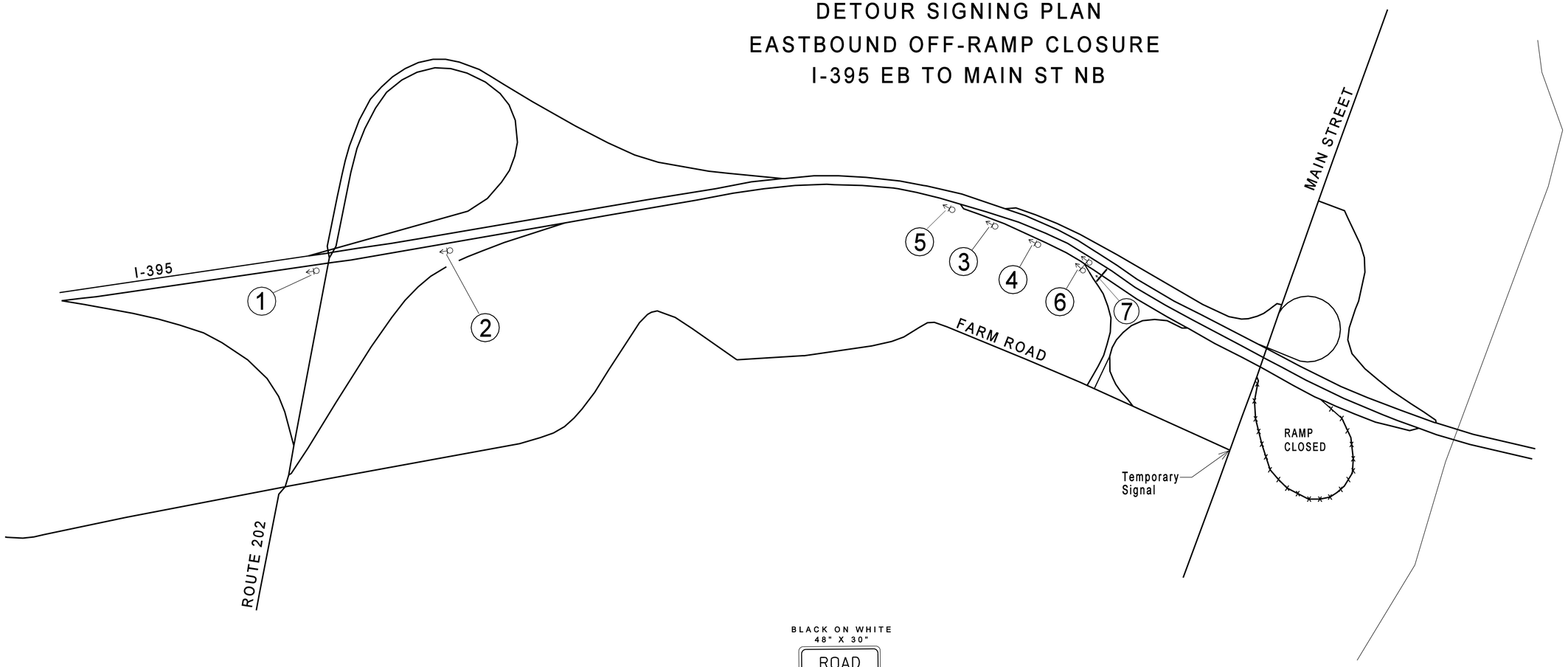
24

OF 28

Filename: ...\024_Transition_Barrier_Abut2.dgn Division: BRIDGE Username: richard.nimon Date:6/1/2010

STAGE 1

DETOUR SIGNING PLAN
EASTBOUND OFF-RAMP CLOSURE
I-395 EB TO MAIN ST NB



BLACK ON WHITE
48" X 30"

ROAD CLOSED

7

Beal College
EXIT 3A
U S S Maine Monument
EXIT 3B
A

INSTALL BLACK/ORANGE PANEL OVER EXISTING 10 INCH "B" PANEL

1

Bass Park
Bangor Auditorium
EXIT 3B
A

INSTALL BLACK/ORANGE PANEL OVER EXISTING 12 INCH "B" PANEL

2

BLACK ON ORANGE
48" X 48"

EXIT 3B
CLOSED AHEAD

3

BLACK ON ORANGE
60" X 48"

ALL TRAFFIC
MUST USE
EXIT 3A

4

BLACK ON ORANGE
48" X 48"

EXIT ONLY

5

BLACK ON ORANGE
96" X 32" with 20" Letters

EXIT CLOSED

INSTALL DIAGONALLY OVER EXISTING OVERHEAD SIGN

EXIT 3B

EAST 1A | EAST 202 | EAST 9

Downtown Bangor

EXIT 1/4 MILE

EXIT 3A

WEST 1A | WEST 9

Farm Rd.
Hampden

6

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

DETOUR PLAN

SHEET NUMBER

25

OF 28

Username: D.M.Hanks Date: April 2010

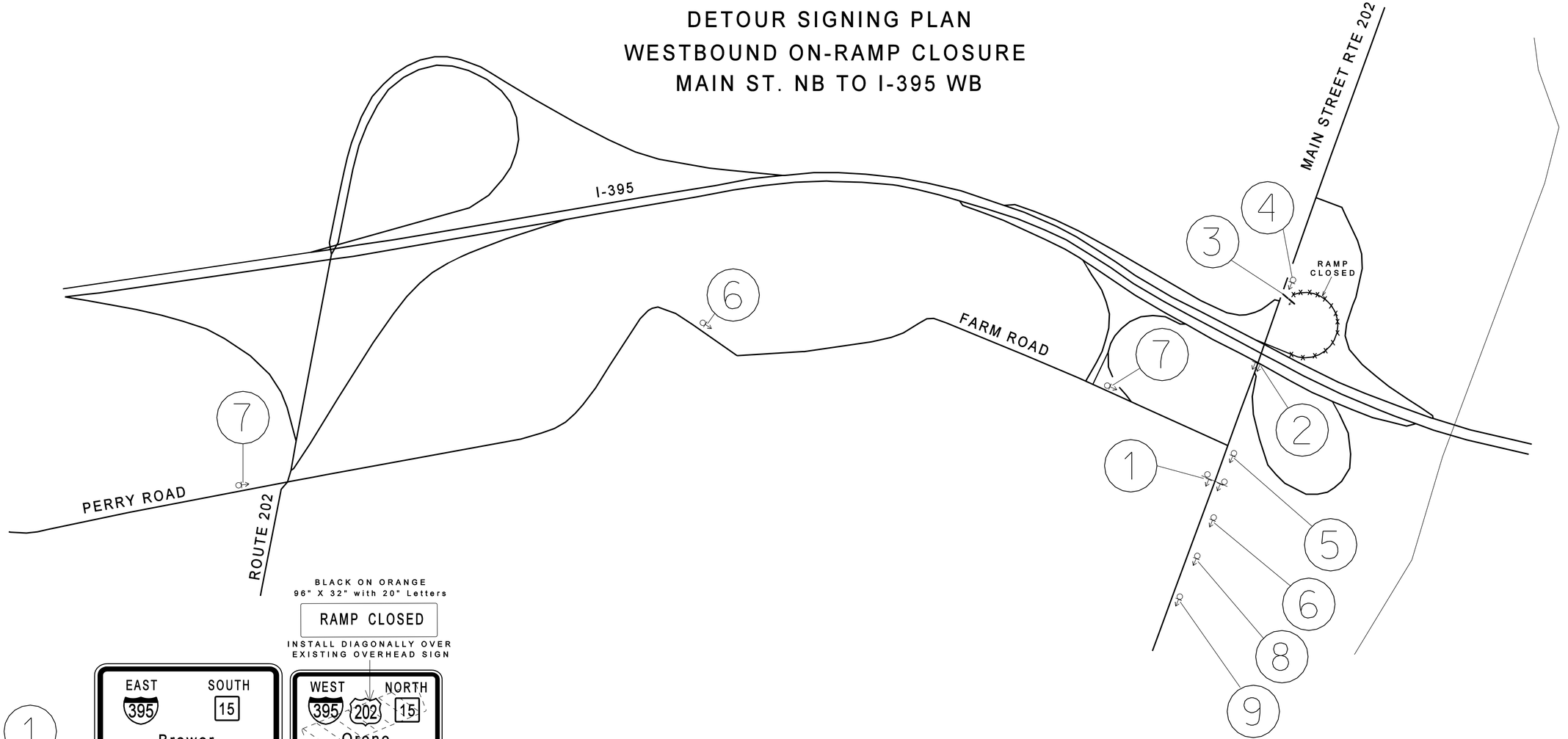
REGION 4

Filename:

NOT TO SCALE

STAGES 2 & 3 - BANGOR

DETOUR SIGNING PLAN
WESTBOUND ON-RAMP CLOSURE
MAIN ST. NB TO I-395 WB

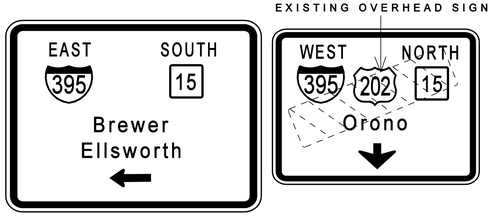


1

BLACK ON ORANGE
96" X 32" with 20" Letters

RAMP CLOSED

INSTALL DIAGONALLY OVER EXISTING OVERHEAD SIGN



2

BLACK ON ORANGE
96" X 32" with 20" Letters

RAMP CLOSED

INSTALL DIAGONALLY OVER EXISTING OVERHEAD SIGN

3

BLACK ON WHITE
48" X 30"

4

BLACK ON ORANGE
60" X 24" with 16" Letters

RAMP CLOSED

INSTALL DIAGONALLY OVER EXISTING SIGN

5

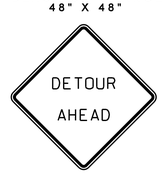
6

7

24" X 12" B/O
24" X 12" B/W
24" X 12" B/W
24" X 24" R/W/BLUE
21" X 15" B/W

8

BLACK ON ORANGE
48" X 48"



9

BLACK ON ORANGE
36" X 72"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE	BY	DATE
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

DETOUR PLAN

SHEET NUMBER

26

OF 28

Username: D.M.Hanks Date: October 2008

REGION 4

Filename:

STAGE 3

DETOUR SIGNING PLAN IN BREWER
WESTBOUND OFF-RAMP CLOSURE
I-395 WB TO MAIN ST BANGOR

BLACK ON ORANGE
48" X 48"

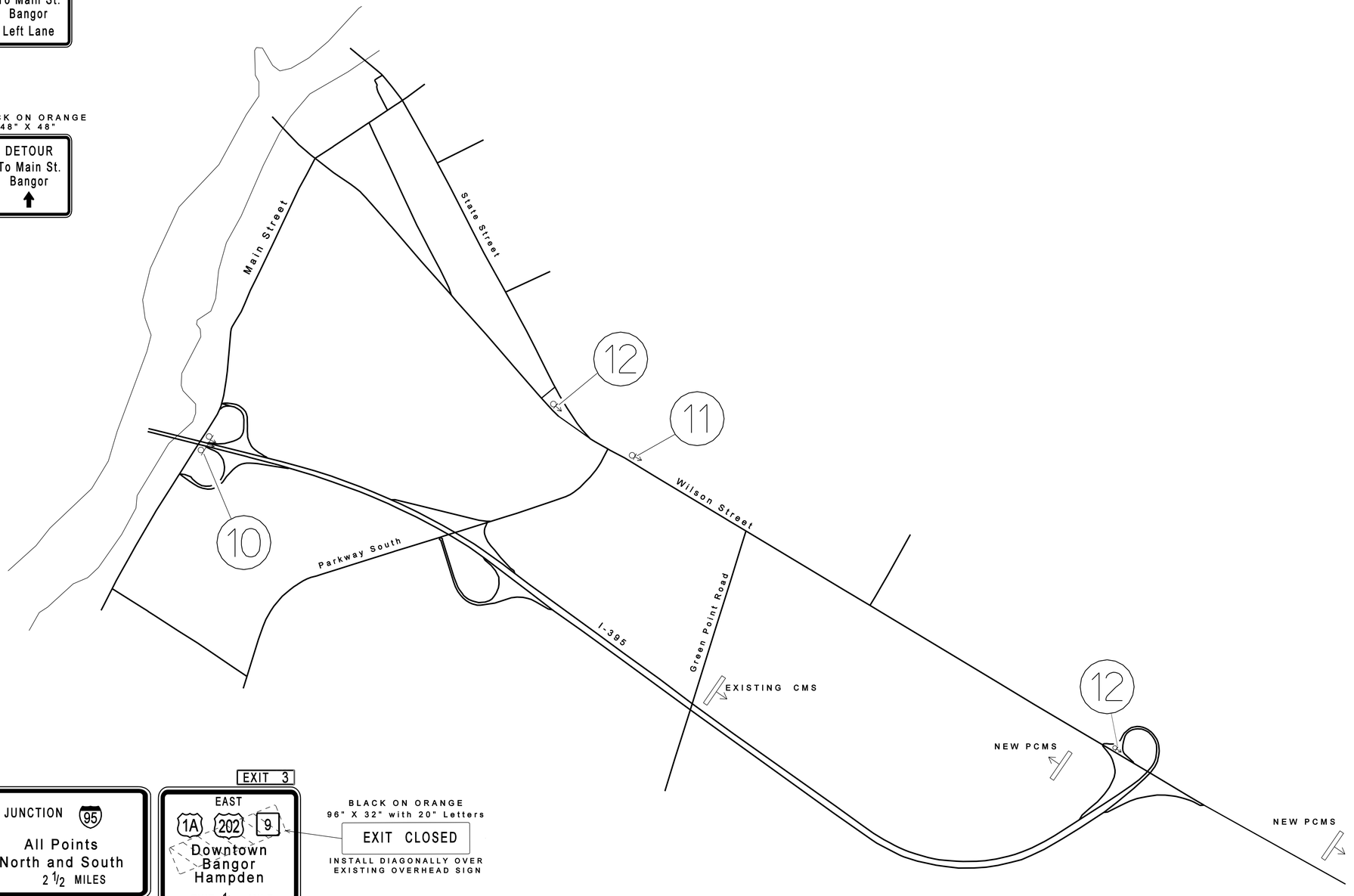
11

DETOUR
To Main St.
Bangor
Left Lane

BLACK ON ORANGE
48" X 48"

12

DETOUR
To Main St.
Bangor
⬆



10

JUNCTION 95
All Points
North and South
2 1/2 MILES

EXIT 3
EAST
1A 202 9
Downtown
Bangor
Hampden
EXIT 1/2 MILE

BLACK ON ORANGE
96" X 32" with 20" Letters
EXIT CLOSED
INSTALL DIAGONALLY OVER
EXISTING OVERHEAD SIGN

NOT TO SCALE

Filename: REGION 4 Username: D.M.Hanks Date: April 2010

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BODGE		
DESIGN-DETAILED	R.BULGER	DATE	05/2010
CHECKED-REVIEWED		BY	R.NIMON
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

DETOUR PLAN

SHEET NUMBER
27
OF 28

STAGE 3

DETOUR SIGNING PLAN IN BANGOR
WESTBOUND OFF-RAMP CLOSURE
I-395 WB TO MAIN ST BANGOR

1 — DETOUR / EXIT 3 — 36" X 18" B/O; EXIT 3 — 36" X 36" B/O; 24" X 18" B/O

2 — DETOUR / EXIT 3

3 — DETOUR / EXIT 3

4 — DETOUR / EXIT 3

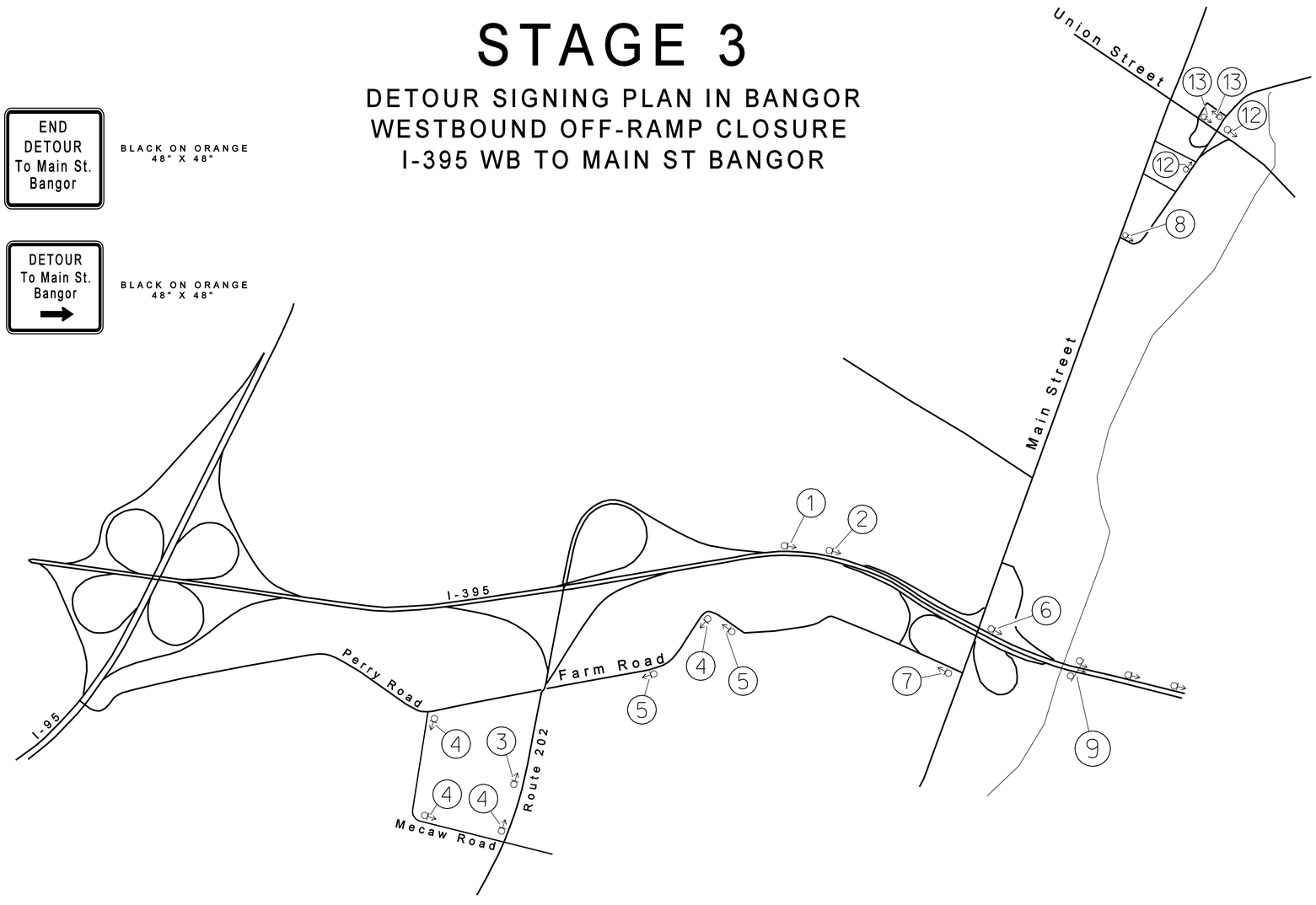
5 — DETOUR / EXIT 3

6 — DETOUR / EXIT 3

7 — END DETOUR / EXIT 3 — 36" X 24" B/O

8 — END DETOUR To Main St. Bangor — BLACK ON ORANGE 48" X 48"

13 — DETOUR To Main St. Bangor — BLACK ON ORANGE 48" X 48"



9 — EXIT 3

JUNCTION 95 — 2 MILES

EAST — 1A 202 9 — Main St. Bangor Hampden — EXIT ONLY

BLACK ON ORANGE
96" X 32" with 20" Letters

EXIT CLOSED

INSTALL DIAGONALLY OVER EXISTING OVERHEAD SIGN

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

IM-A710(000)E

PIN 17100.00

BRIDGE NO. 1558

BRIDGE PLANS

PROJ. MANAGER	S. BRIDGE		
DESIGN-DETAILED	R.BULGER	R.NIMON	05/2010
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

VETERANS REMEMBRANCE BRIDGE
PENOBSCOT RIVER
BANGOR-BREWER PENOBSCOT COUNTY

DETOUR PLAN

SHEET NUMBER

28

OF 28

Username: D.M.Hanks Date: April 2010

REGION 4

Filename: