

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



BANGOR
PENOBSCOT COUNTY
INTERSTATE 95
OVER
MCRR AND PERRY ROAD,
INDUSTRIAL SPUR,
KENDUSKEAG AVENUE,
BROADWAY AND
STILLWATER AVENUE
AND
JOSHUA CHAMBERLAIN BRIDGE
OVER
PENOBSCOT RIVER

PROJECT NO. IM-1292(600)E AND IM-1294(200)E
BRIDGE RESURFACING, JOINT REPAIR
AND CONCRETE REHABILITATION
BRIDGE NOS. 5972, 1429, 5795, 1428, 5800,
1427, 5312, 5798 AND 5789

SPECIFICATIONS

Design: AASHTO LRFD Bridge Design Specifications, Third Edition
2004 and Interim Specifications through 2006.

DESIGN LOADING

Live Load HL - 93 Modified

MATERIALS

Concrete (Unless noted otherwise).....Class "A"
Concrete (Curbs, Sidewalks & Transition Barriers).....Class "LP"
Reinforcing Steel.....ASTM A615/A615M, Grade 60
Structural Steel:
All Material (except as noted).....ASTM A709/A709M, Grade 50W
High Strength Bolts.....ASTM A325, Type 3

BASIC DESIGN STRESSES

Concrete.....f 'c = 4,350 psi
Reinforcing Steel.....f y = 60,000 psi
Structural Steel:
ASTM A 709/A 709M, Grade 50W.....F y = 50,000 psi
ASTM A 709/A 709M, Grade 36.....F y = 36,000 psi
ASTM A 325.....F μ = 120,000 psi

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SCOPE OF WORK

MCRR and Perry Road - Replace wearing surface with Rosphalt,
replace joints and repair deck

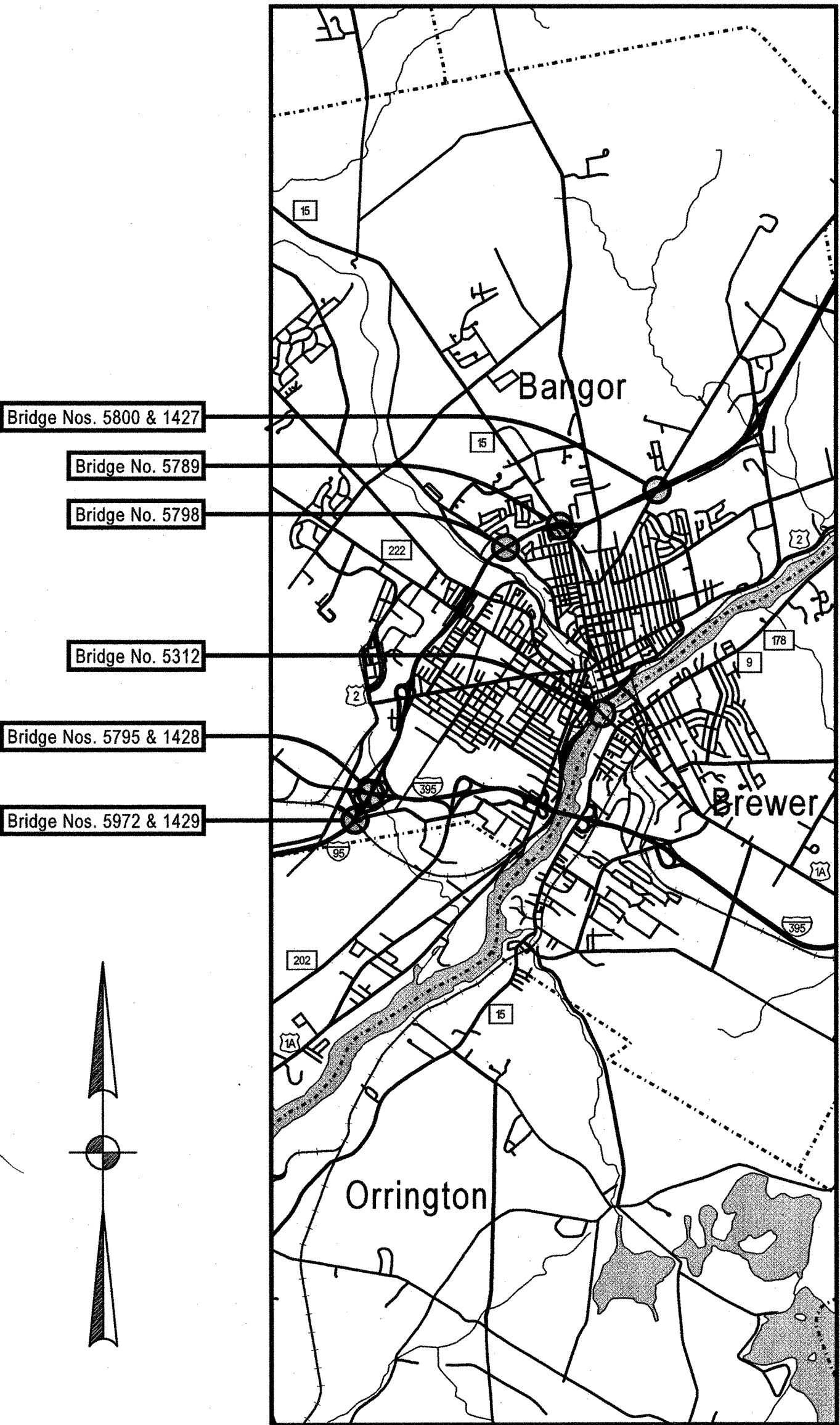
Industrial Spur - Replace wearing surface with Rosphalt, replace
joints and repair deck

Kenduskeag Avenue - Pier rehabilitation

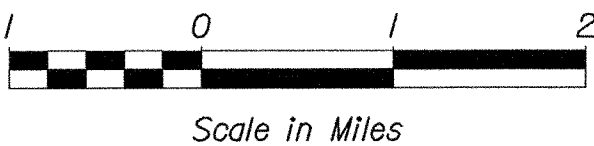
Broadway - Replace wearing surface with Rosphalt, replace joints,
repair deck, and repair backwall and breastwall on
abutments

Stillwater Avenue - Replace wearing surface with Rosphalt and
repair deck

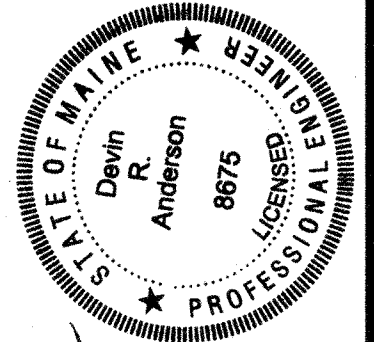
Joshua Chamberlain Bridge - Replace wearing surface with Rosphalt
and repair deck



LOCATION MAP



STATE OF MAINE DEPARTMENT OF TRANSPORTATION	APPROVED	DATE
COMMISSIONER:	<i>[Signature]</i>	7/23/07
CHIEF ENGINEER:	<i>[Signature]</i>	07/24/07



<i>[Signature]</i>	SIGNATURE	DATE
8/6/07	P.E. NUMBER	7/23/07

PROJECT INFORMATION	BRIDGE
PROGRAM	D. ANDERSON
PROJECT MANAGER	M. A. UGAL / D. SHAW
DESIGNER	J. KETCHUM
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

BANGOR INTERSTATE 95 AND J. CHAMBERLAIN BRIDGE	TITLE SHEET
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SHEET NUMBER
1
OF 9

Date: 7/19/2007

Username: david.shaw

Division: BRIDGE

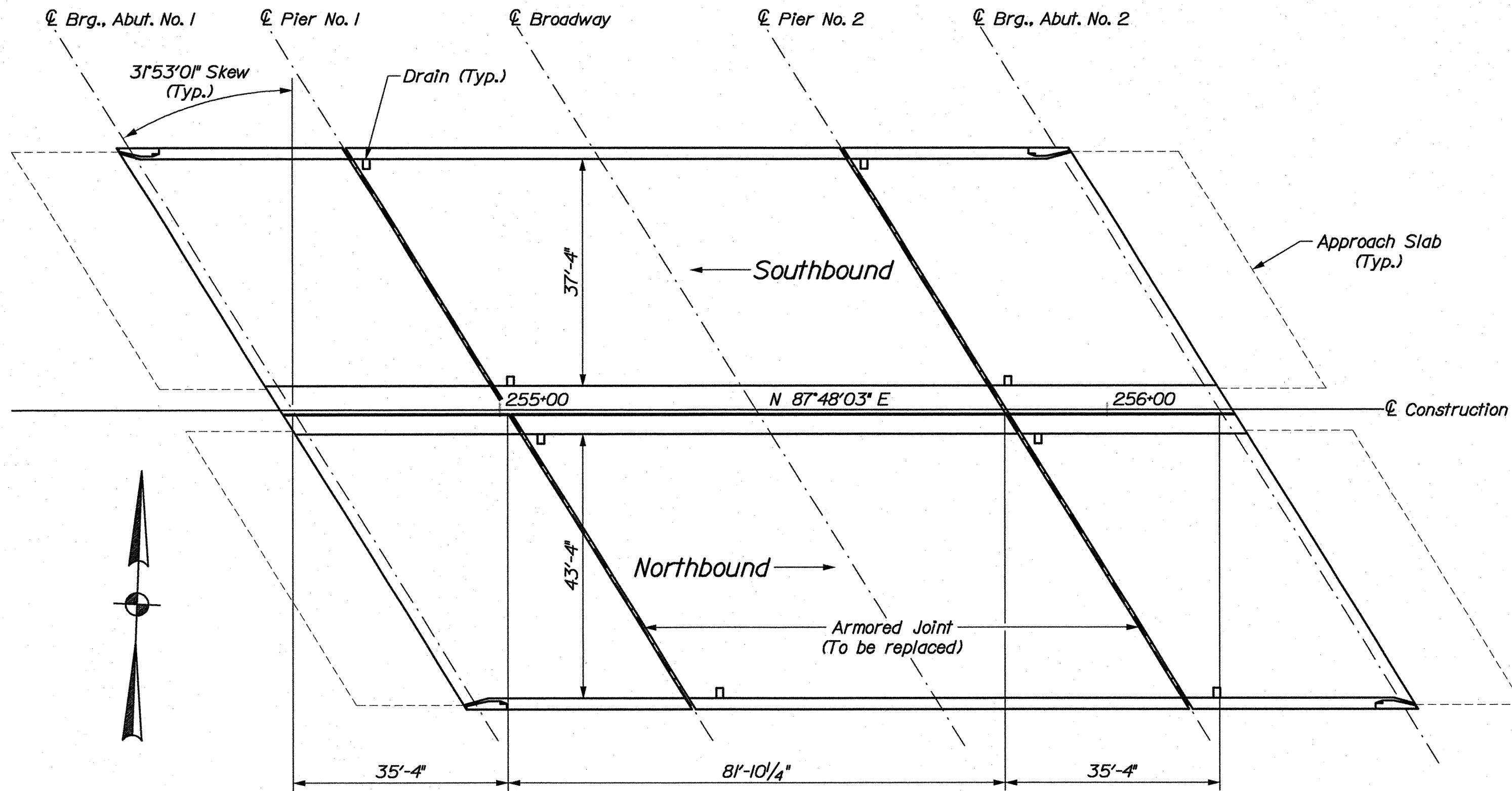
Filename: ...\\00\BRIDGE\MSTA\001_Title.dgn

13. Kenduskeag Avenue Pier Rehabilitation - The concrete barriers with privacy screen shall run parallel to Interstate 95 to allow rehabilitation of the pier. The privacy screen on top of the temporary concrete barrier shall be installed 100 feet approaching the pier, around the pier and 100 feet trailing the pier. The concrete barriers with privacy screen will run along the Northbound and Southbound shoulder closest to the pier. The privacy screen shall block driver's view of the construction area and shall block a minimum of 90% of the light from vehicle headlights. The gap in the privacy screen at the joints between the temporary concrete barriers shall be kept to a minimum. The privacy screen shall have adequate strength and a solid connection to the temporary concrete barrier.

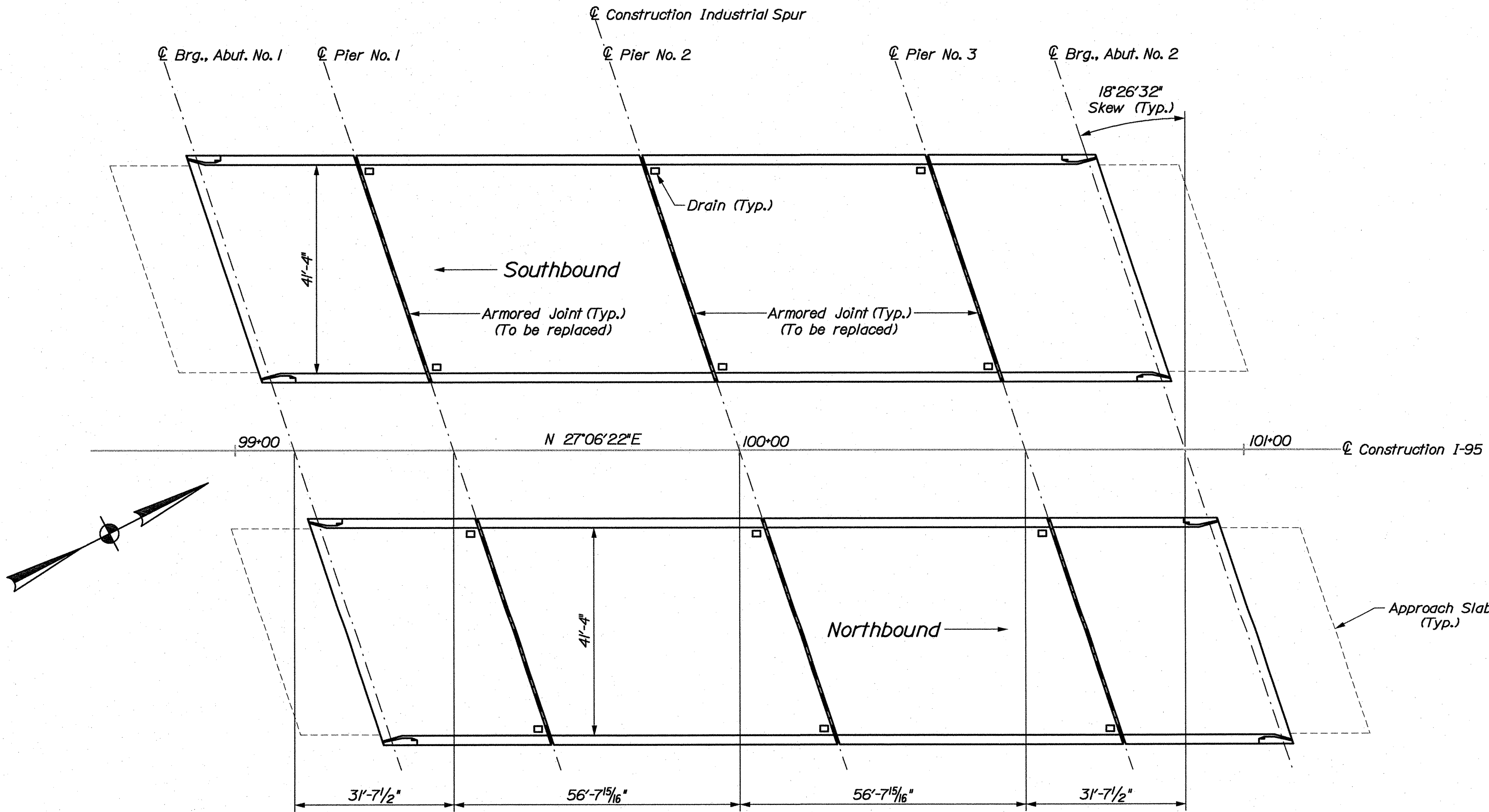
#6 Bars 115 kN, 275 mm



PROJ. MANAGER	D. Anderson	BY	DATE
DESIGN-DET/ALD	M. A. Iqbal	D. Shaw	Jan. 2007
CHECKED-REVISED			
DESIGN-DET/ALD2			
DESIGN-DET/ALD3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			
			SIGNATURE
			P.E. NUMBER
			DATE

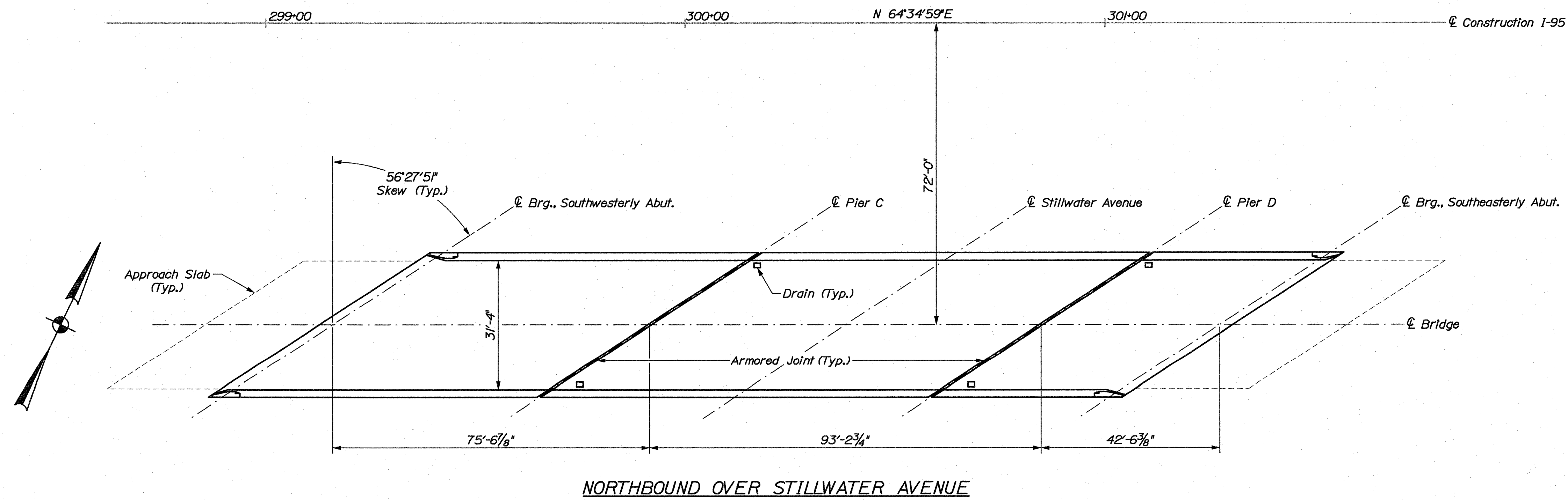
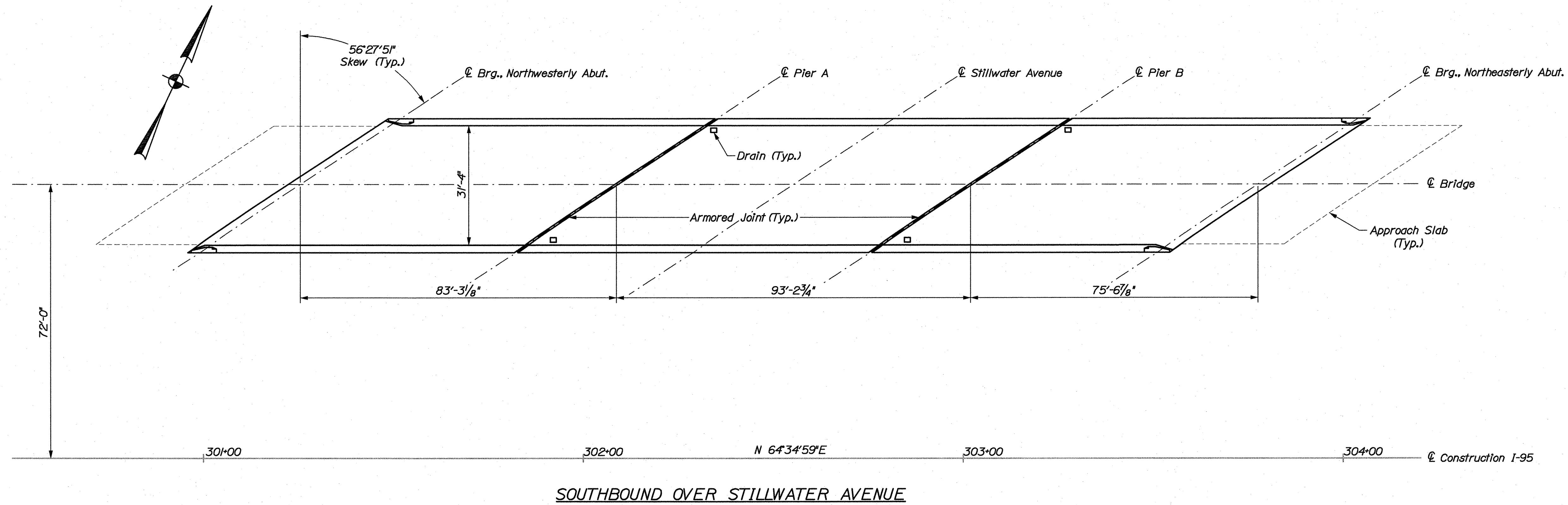


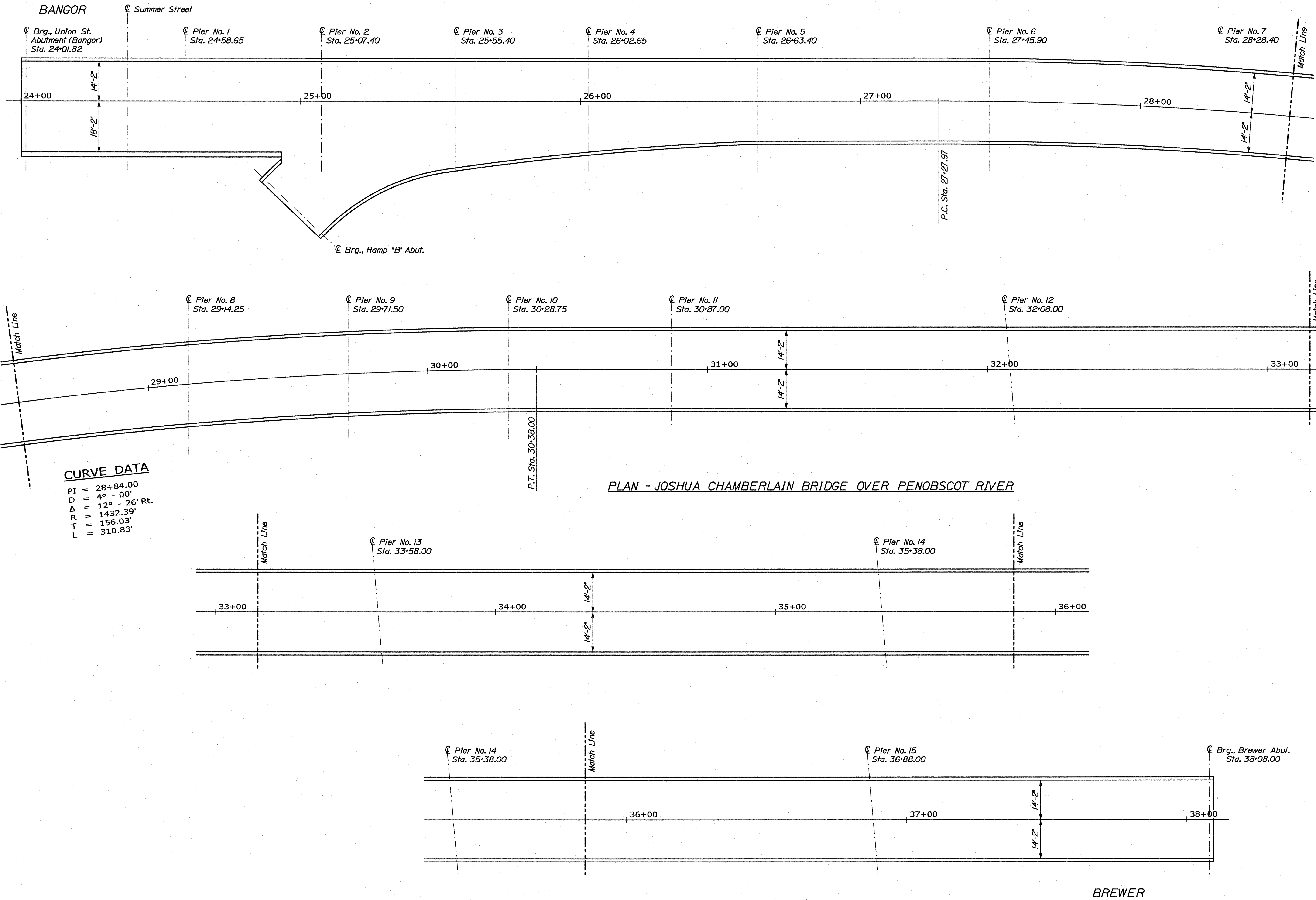
I-95 NORTHBOUND AND SOUTHBOUND OVER BROADWAY



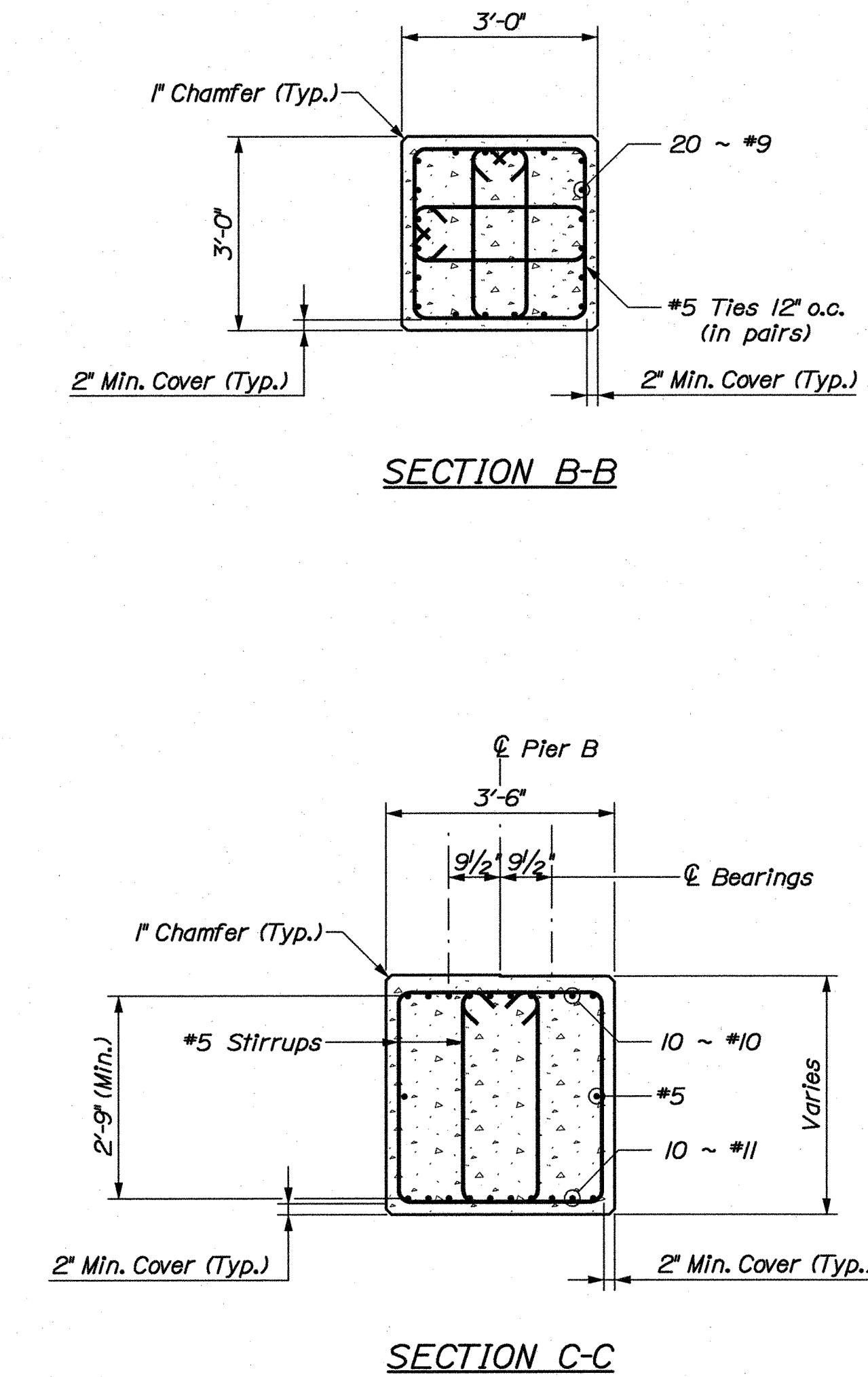
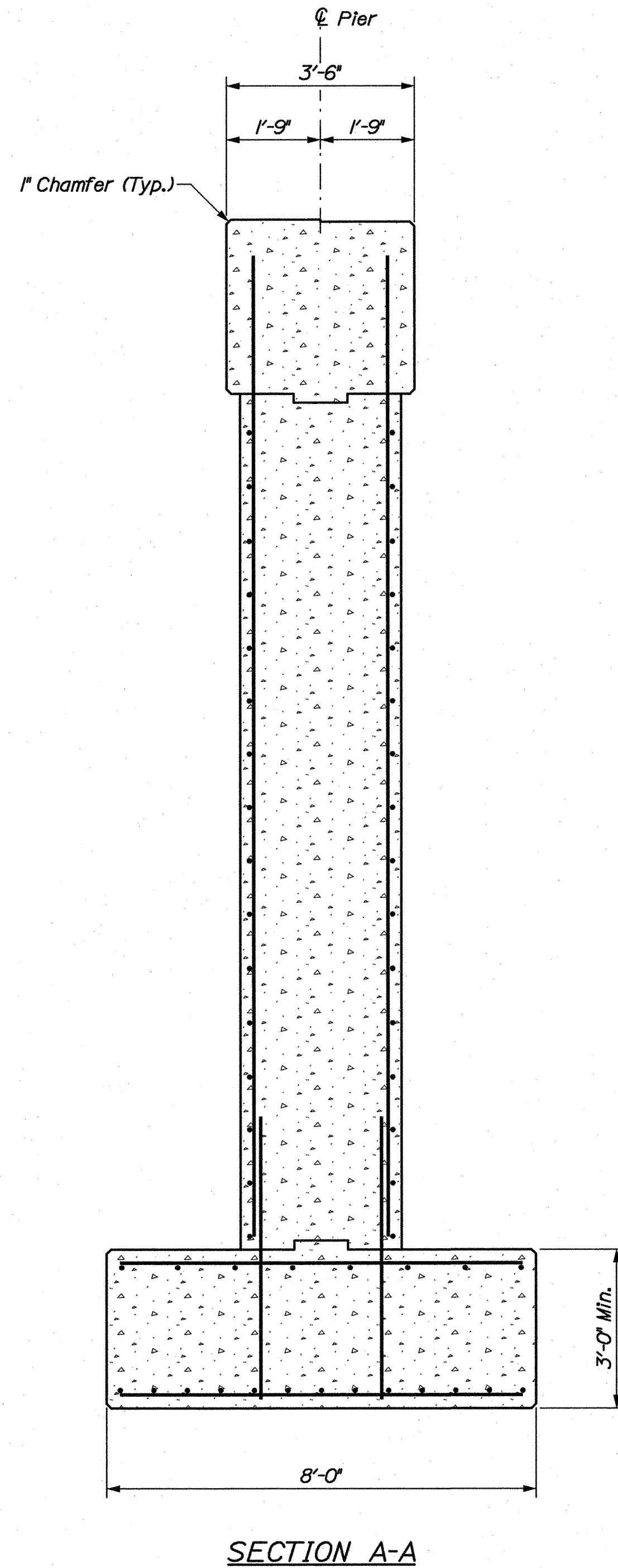
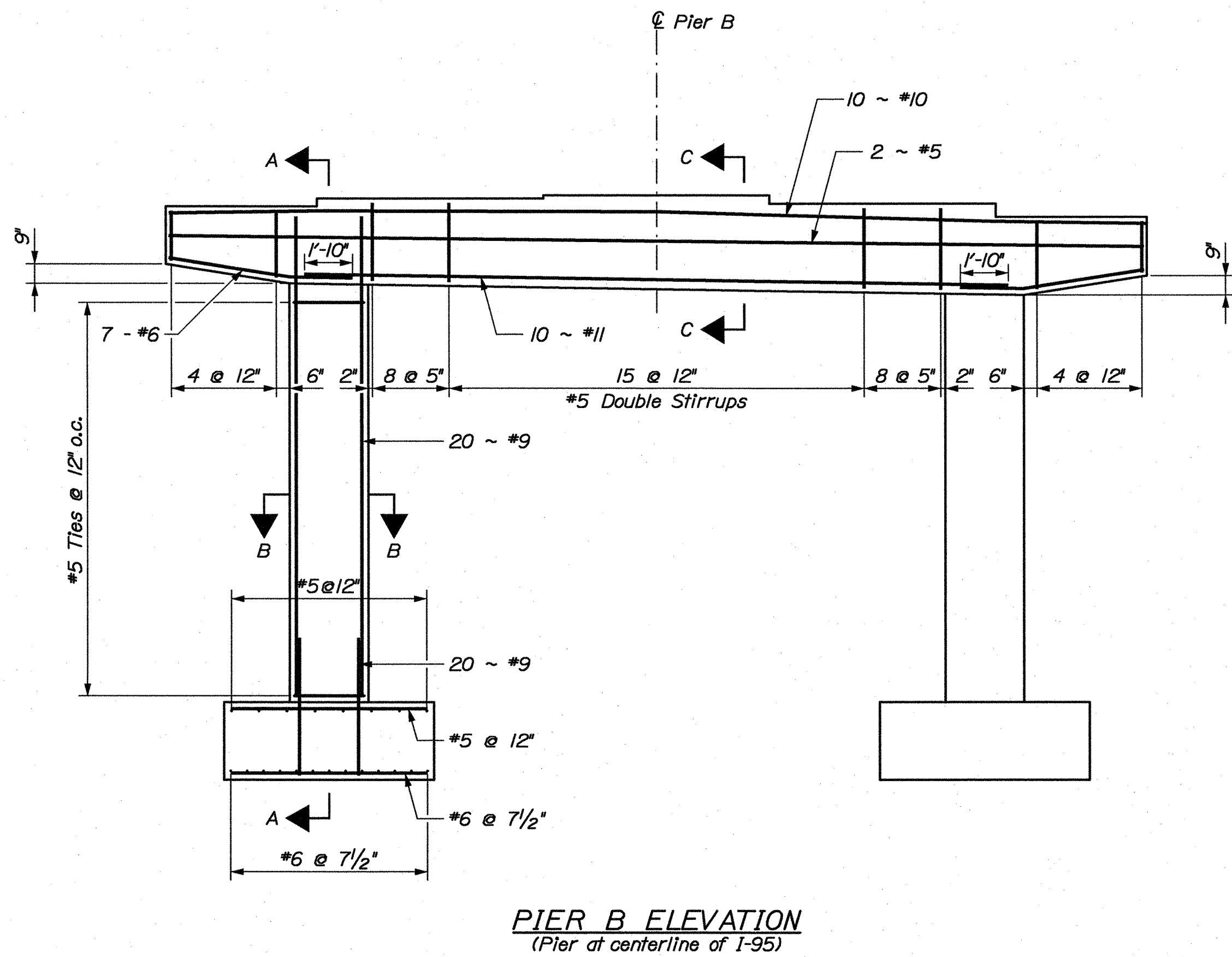
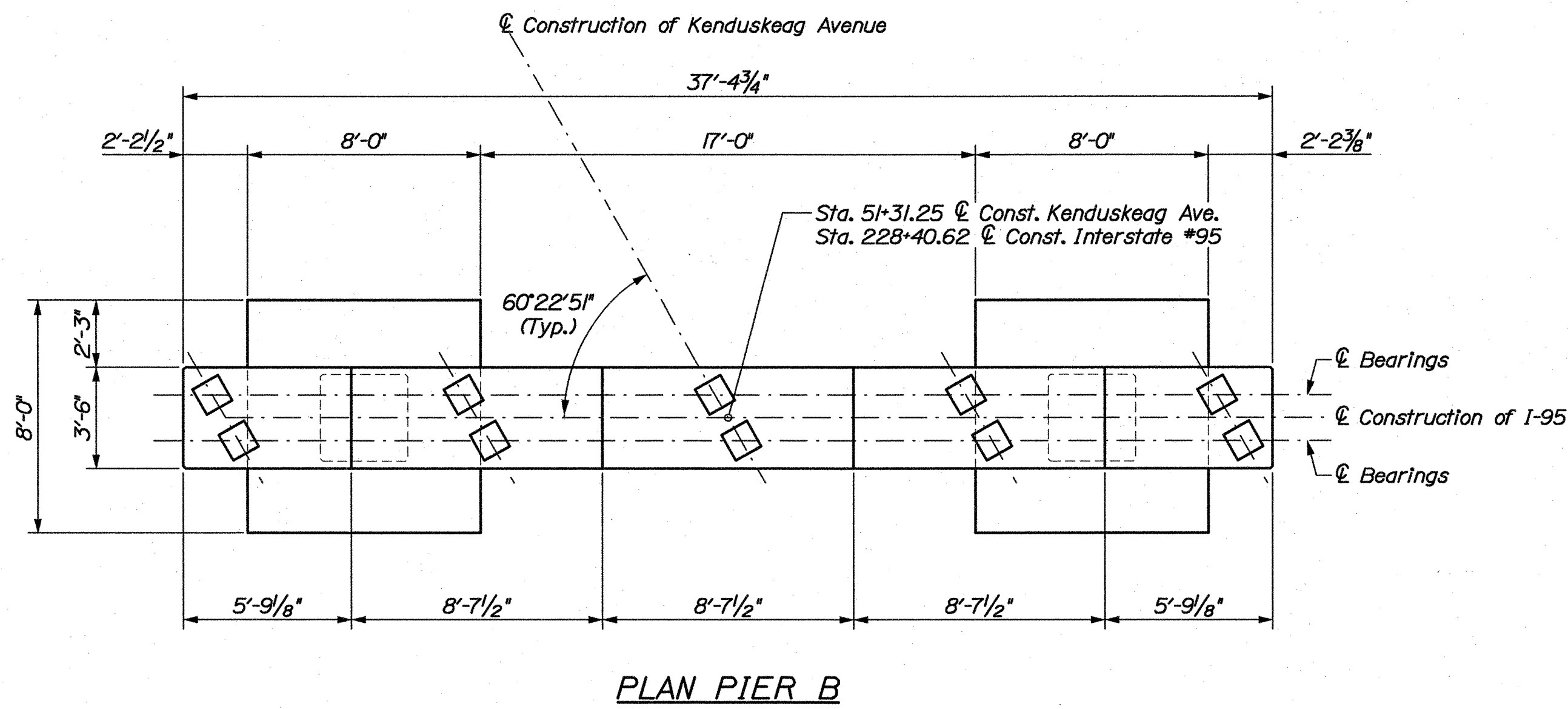
I-95 NORTHBOUND AND SOUTHBOUND OVER INDUSTRIAL SPUR

STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1292(600)E & IM-1294(200)E BRIDGE NO. 5789 BRIDGE NO. 1428 BRIDGE NO. 5795		PIN 12926.00 & 12942.00		BRIDGE PLANS	
INTERSTATE 95 NORTH AND SOUTHBOUND OVER INDUSTRIAL SPUR AND BROADWAY BANGOR PENOBSCOT COUNTY		SHEET NUMBER 4 OF 9		GENERAL PLANS	
PROJ. MANAGER D. Anderson	DESIGN-DETAILED M. A. Igo	CHECKED-REVIEWED D. Shaw	DATE Jan. 2007	SIGNATURE	P.E. NUMBER
DESIGN-DETAILED2	DESIGN-DETAILED3	REVISIONS 1	REVISIONS 2	REVISIONS 3	REVISIONS 4
FIELD CHANGES					





STATE OF MAINE DEPARTMENT OF TRANSPORTATION IM-1294(200)E BRIDGE NO. 5312 PIN 12942.00 BRIDGE PLANS	JOSHUA CHAMBERLAIN BRIDGE OVER PENOBSCOT RIVER BANGOR PENOBSCOT COUNTY GENERAL PLAN	PROJ. MANAGER D. Anderson	BY D. Shaw	DATE Jan. 2007
		DESIGN-DETAILED M. A. Ibbot	CHECKED-REVIEWED M. A. Ibbot	SIGNATURE
		DESIGN-DETAILED2 DESIGN-DETAILED3	REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	P.E. NUMBER DATE
SHEET NUMBER 6 OF 9				



PIER NOTES

1. Remove a minimum of 2 inches behind rebar and all unsound concrete on all faces, except pier footings. Assume a minimum of 8" of concrete, behind the rebar need to be removed on all faces of the cantilevered ends of the pier cap.

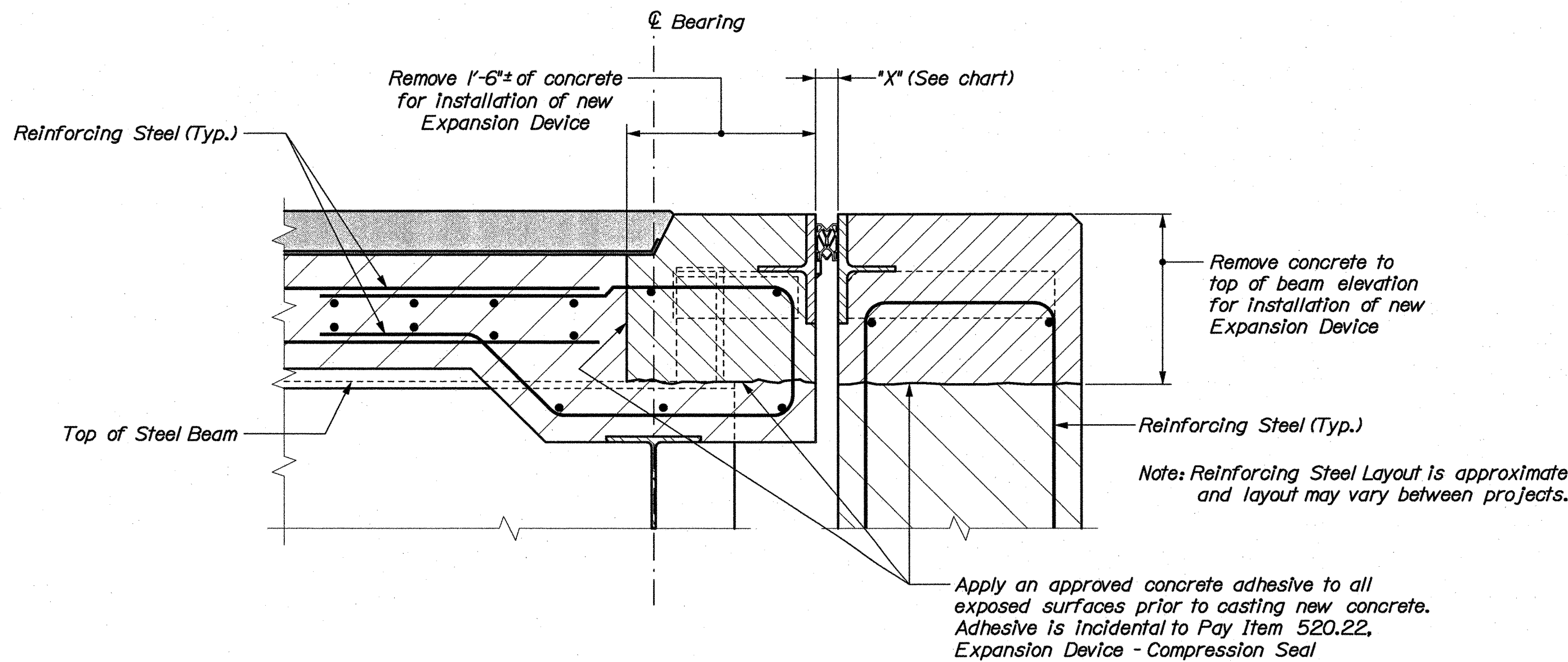
2. If rebar is found to be substantially degraded at some spots, dowel #5 and then vertical and horizontal #5 bars at 1 foot on center and as directed by the Resident. This applies to both column and pier cap. This work shall be incidental to Item No. 518.61, Repair of Vertical Surfaces > 7.9 Inches.

3. Both dead and live load on the pier should be removed by jacking from both sides of the pier using a frame system that is designed by the Contractor and approved by the DOT. All work associated with the jacking system and frame shall be paid for under Item No. 524.30, Temporary Structural Support.

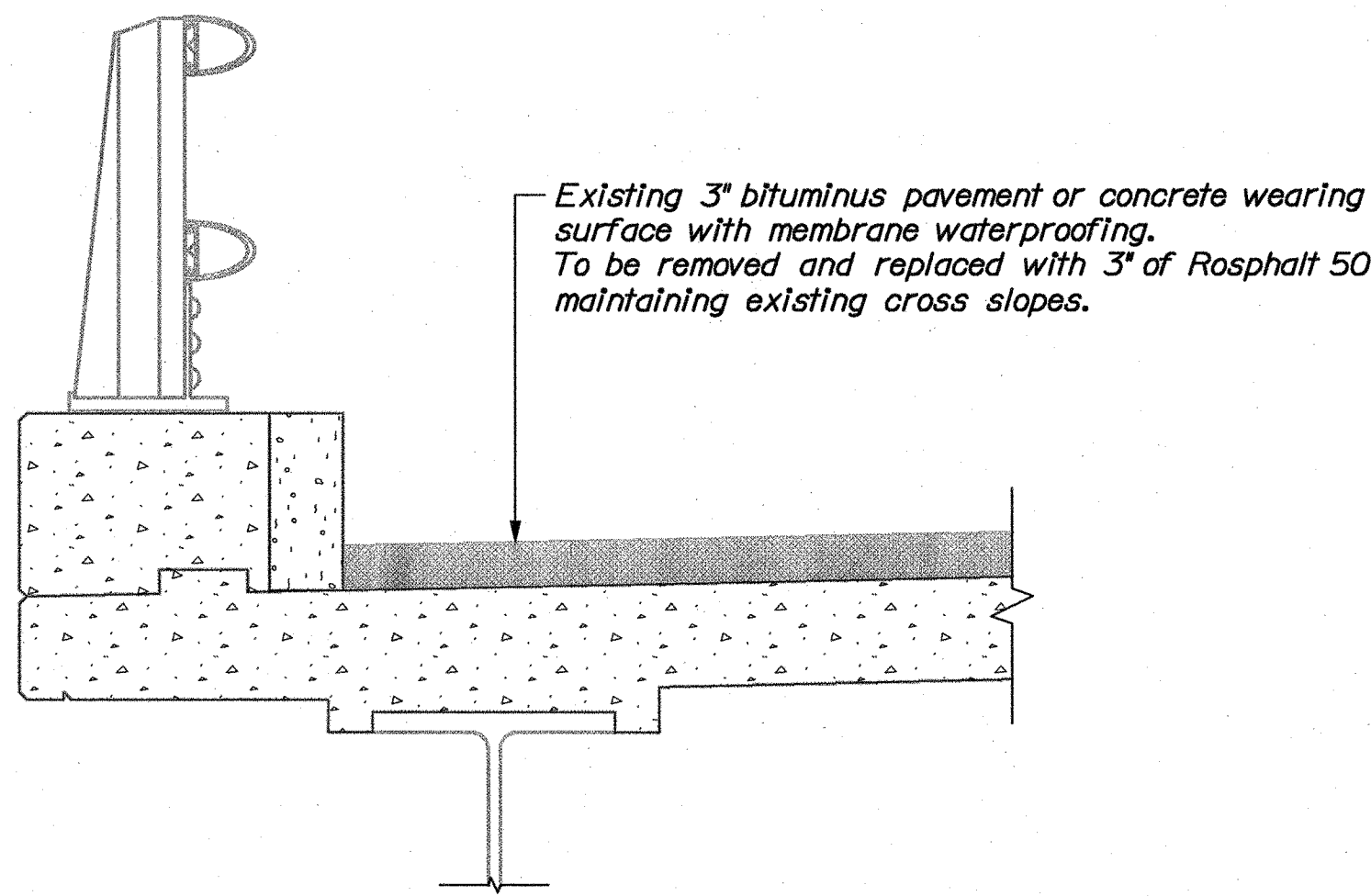
STATE OF MAINE		DEPARTMENT OF TRANSPORTATION		IM-1292(600)E		PIN 12926.00		BRIDGE NO. 5798		BRIDGE PLANS	
INTERSTATE 95 NORTH AND SOUTHBOUND		UNDER KENDUSKEAG AVENUE		BANGOR		PENOBSCOT COUNTY		PIER B REHABILITATION		SHEET NUMBER	
DATE		BY		PROJ. MANAGER		DESIGN-DETAILED		CHECKED-REVIEWED		DESIGN-DETAILED	
Jun. 2007		D. Shaw		M. A. Gidd		DESIGN-DETAILED2		DESIGN-REVIEWED2		DESIGN-DETAILED3	
SIGNATURE		P.E. NUMBER		DATE		REVISIONS 1		REVISIONS 2		REVISIONS 3	
						REVISIONS 4		FIELD CHANGES			

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EXPANSION DEVICE - COMPRESSION SEAL SECTION
 (See Standard Details, Section 520 Expansion Device - Compression Seal)



CURB SECTION

		Movement Rating (Rounded)	Seal	Opening			
				@ 30° F	@ 45° F	@ 60° F	@ 75° F
Broadway	Pier No. 1 Pier No. 2	1/2" 1 1/2"	1 5/8" 3"	1 1/8" 2"	1 1/8" 1 3/4"	1 1/8" 1 5/8"	1" 1 1/2"
Industrial Spur (NB and SB same)	Pier No. 1	1 1/8"	2 1/2"	1 5/8"	1 1/2"	1 1/2"	1 3/8"
	Pier No. 2	1 1/2"	1 5/8"	1 1/8"	1 1/8"	1 1/8"	1"
	Pier No. 3	1 1/8"	2 1/2"	1 5/8"	1 1/2"	1 1/2"	1 5/8"
MCRR and Perry Road	Pier No. 1	5/8"	1 3/4"	1 1/4"	1 1/8"	1 1/8"	1"
	Pier No. 2	1 1/8"	4"	2 5/8"	2 1/2"	2 1/4"	2 1/8"
	Pier No. 3	5/8"	1 3/4"	1 1/4"	1 1/8"	1 1/8"	1"

NOTES

1. The expansion devices extend into the curbs per Standard Details, Section 520. The concrete in the curb around the joints and all necessary steel hardware shall be removed and replaced as directed by the Resident. All costs associated with the work described above shall be incidental to Item No. 520.22, Expansion Device - Compression Seal.

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

IM-1292(600)E & IM-1294(200)E

BRIDGE NOS. 5872,
 1429, 5795, 1428,
 5800, 1427, 5312,
 5788 & 5789

PIN

12926.00 & 12942.00

BRIDGE PLANS

INTERSTATE 95

NORTHBOUND AND SOUTHBOUND BRIDGES

BANGOR

PENOBSCOT COUNTY

BRIDGE DETAILS

SHEET NUMBER

9

OF 9

PROJ. MANAGER	D. Anderson	BY	D. Shaw	DATE	Jan. 2007
DESIGN-DETAILED	M. A. Libal			SIGNATURE	
CHECKED-REVIEWED				P.E. NUMBER	
DESIGN-DETAILED				DATE	
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REVISIONS 2					
REVISIONS 3					
REVISIONS 4					
FIELD CHANGES					