

F.R.A. REL. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	79-95-7-101	20	26

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SPECIFICATIONS

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1989.

CONTRACT: State of Maine, Department of Transportation Standard Specifications for Highways and Bridges, Revisions of Oct., 1990.

DESIGN LOADING

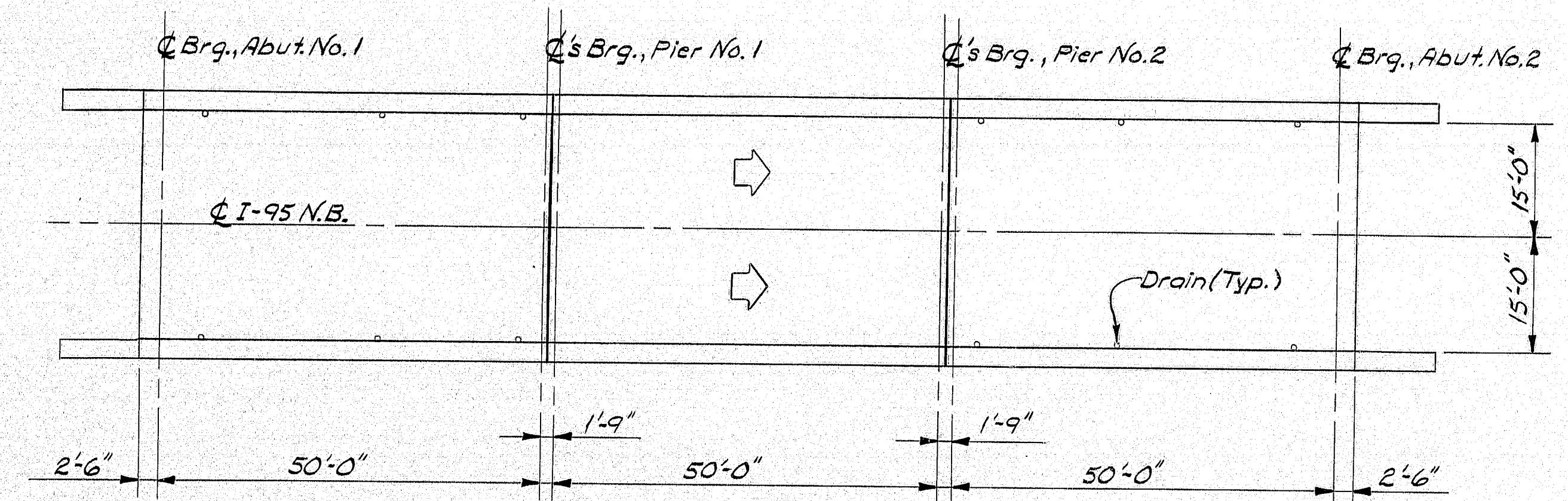
Live Load (Existing): H520

MAINTENANCE OF TRAFFIC

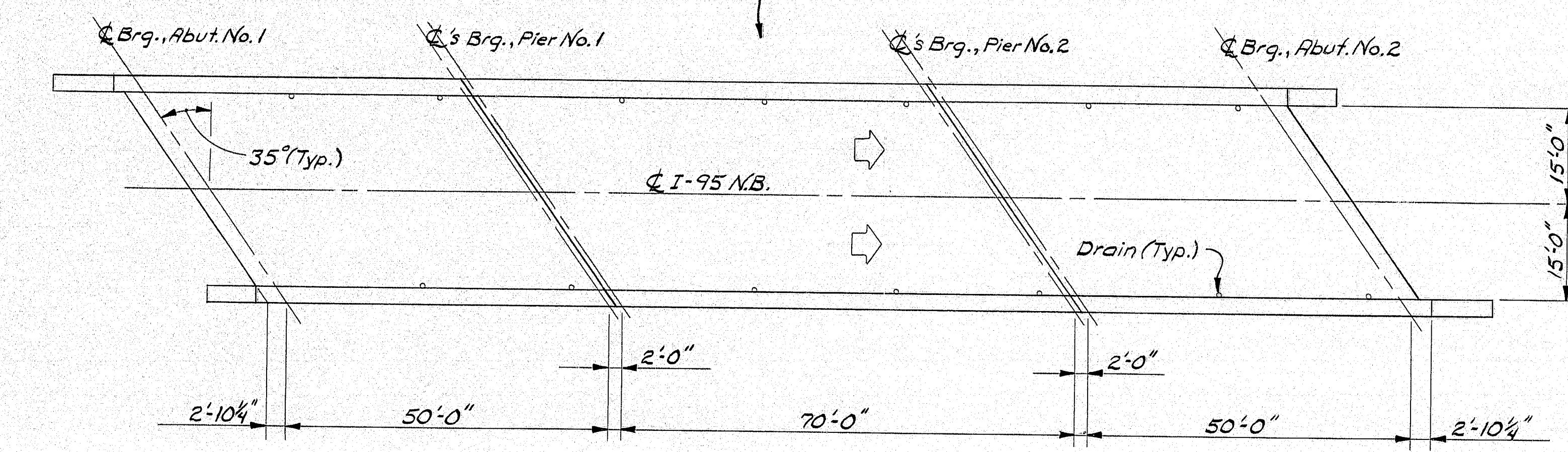
Maintain one 12' minimum lane of traffic during construction.

SCOPE OF WORK

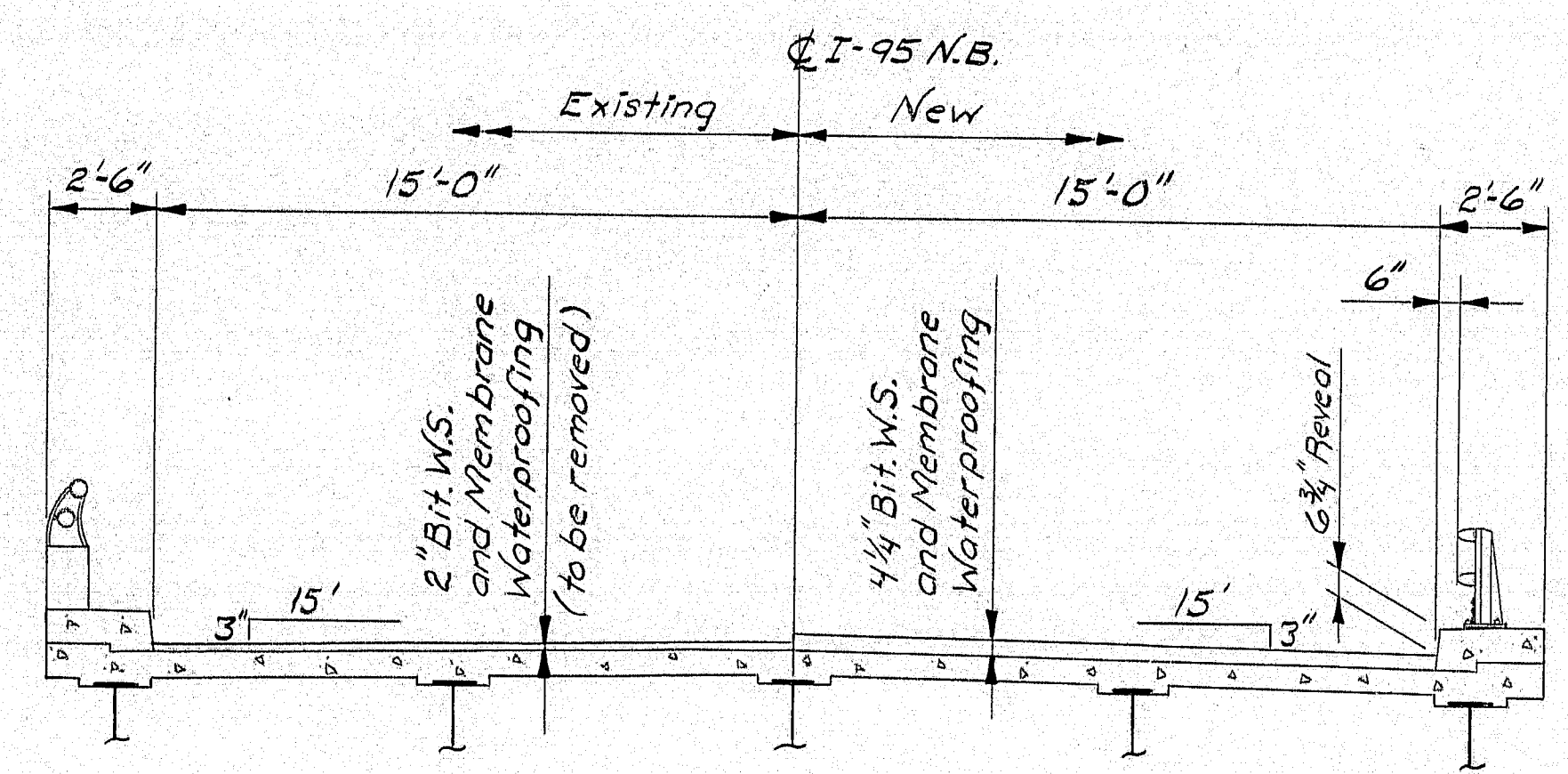
Remove existing bridge rail and repair curb concrete where needed. Place new 2-Bar Aluminum Bridge Rail on existing curbs at 6" from face of curb. Remove existing bituminous wearing surfaces and membrane waterproofing, modify and seal joints, and repair top of deck concrete where needed. Replace existing wearing surfaces with new 4 1/4" bituminous wearing surface on new membrane waterproofing. Construct new concrete end posts.



I-95 OVER MCRB

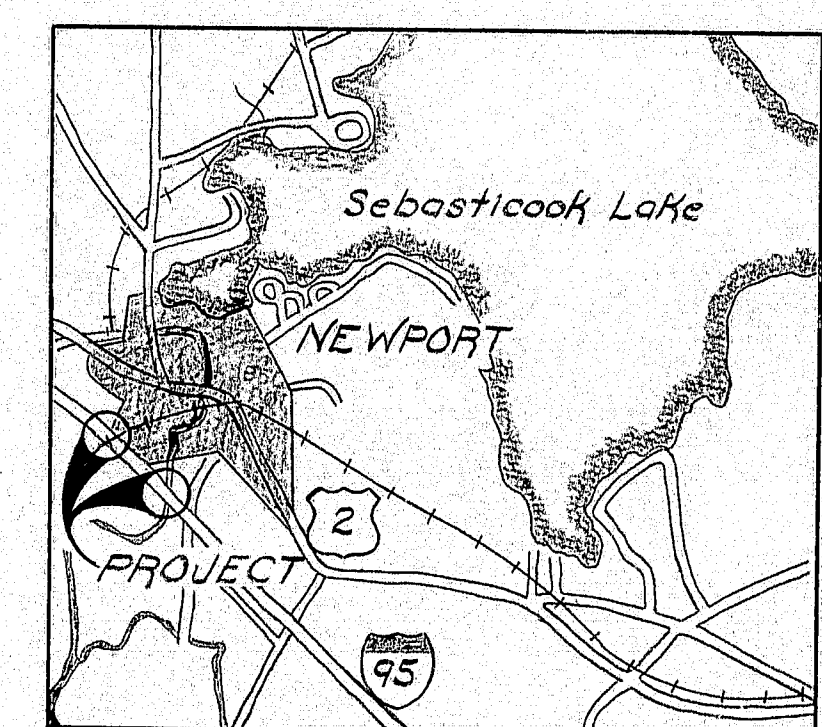


I-95 OVER E. BRANCH SEBASTICOOK



TYPICAL BRIDGE SECTION
(MCRB and River)

NOTE: Plans of the existing bridges are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans are reproductions of original drawings and 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.



LOCATION MAP

TRAFFIC DATA

(MCRB and River)

AADT 1991	6370
AADT 2001	8540
DHV	1110
T%	15
D%	100
18 Hip Eq. P2.5	808

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I-95 over MCRB, Br. No. 5948
I-95 over River, Br. No. 5947

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-95 N.B. OVER MCRB
I-95 N.B. OVER EAST BRANCH
SEBASTICOOK RIVER
NEWPORT
GENERAL PLAN

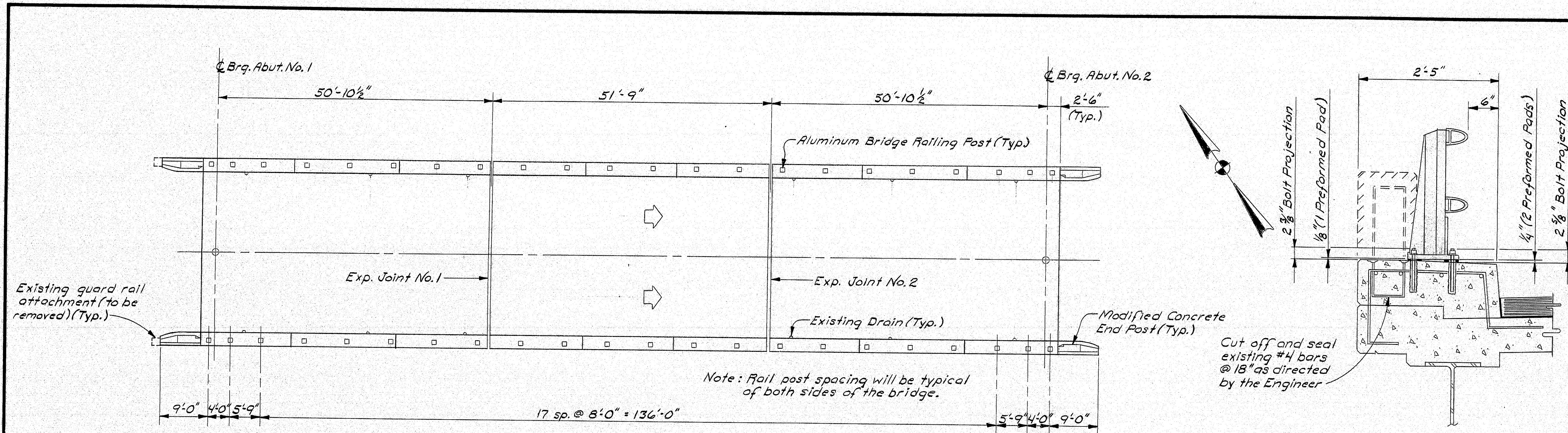
SHEET 1 OF 7 AUGUSTA, MAINE

PALMYRA-NEWPORT-PLYMOUTH-ETNA

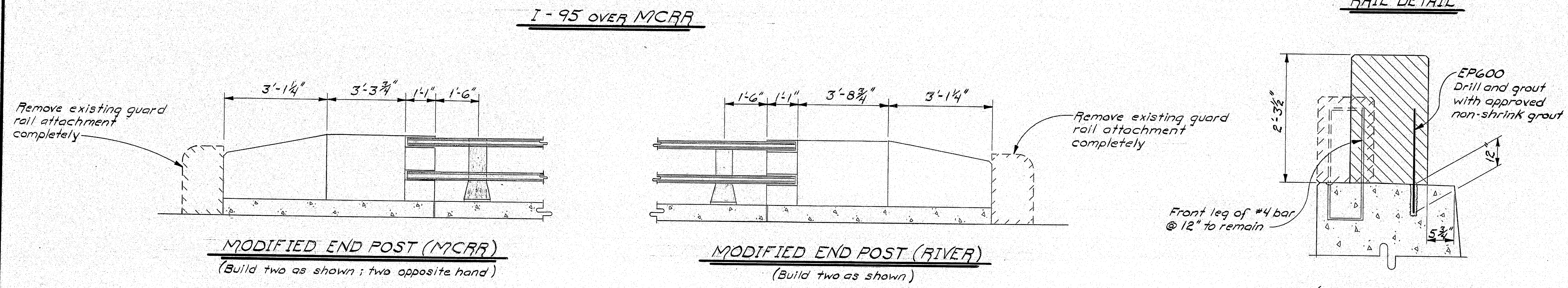
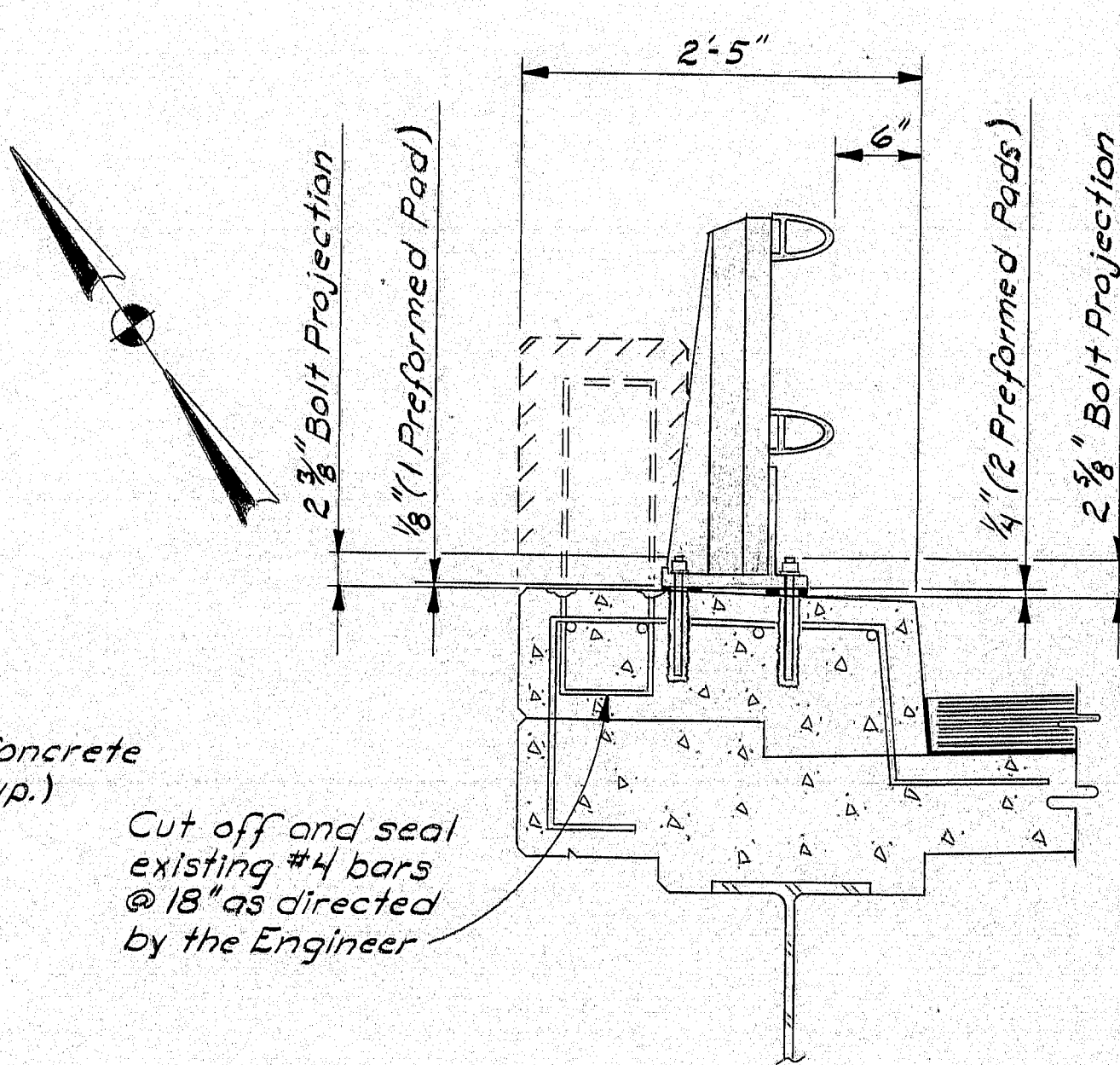
PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	8/90
CHECKED	
FIELD CHANGES	

BRUNING 42710-1

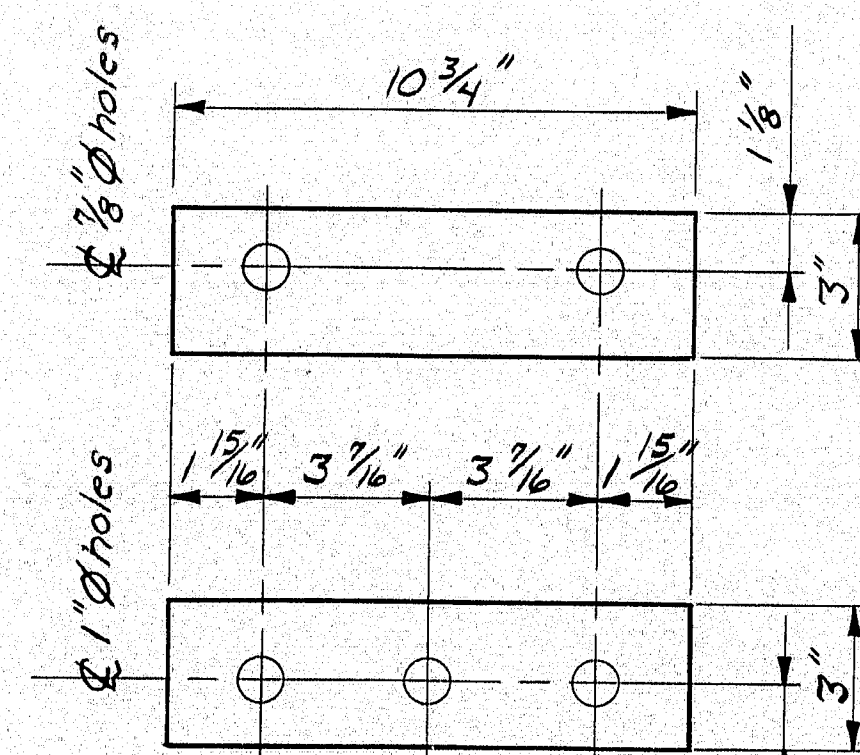
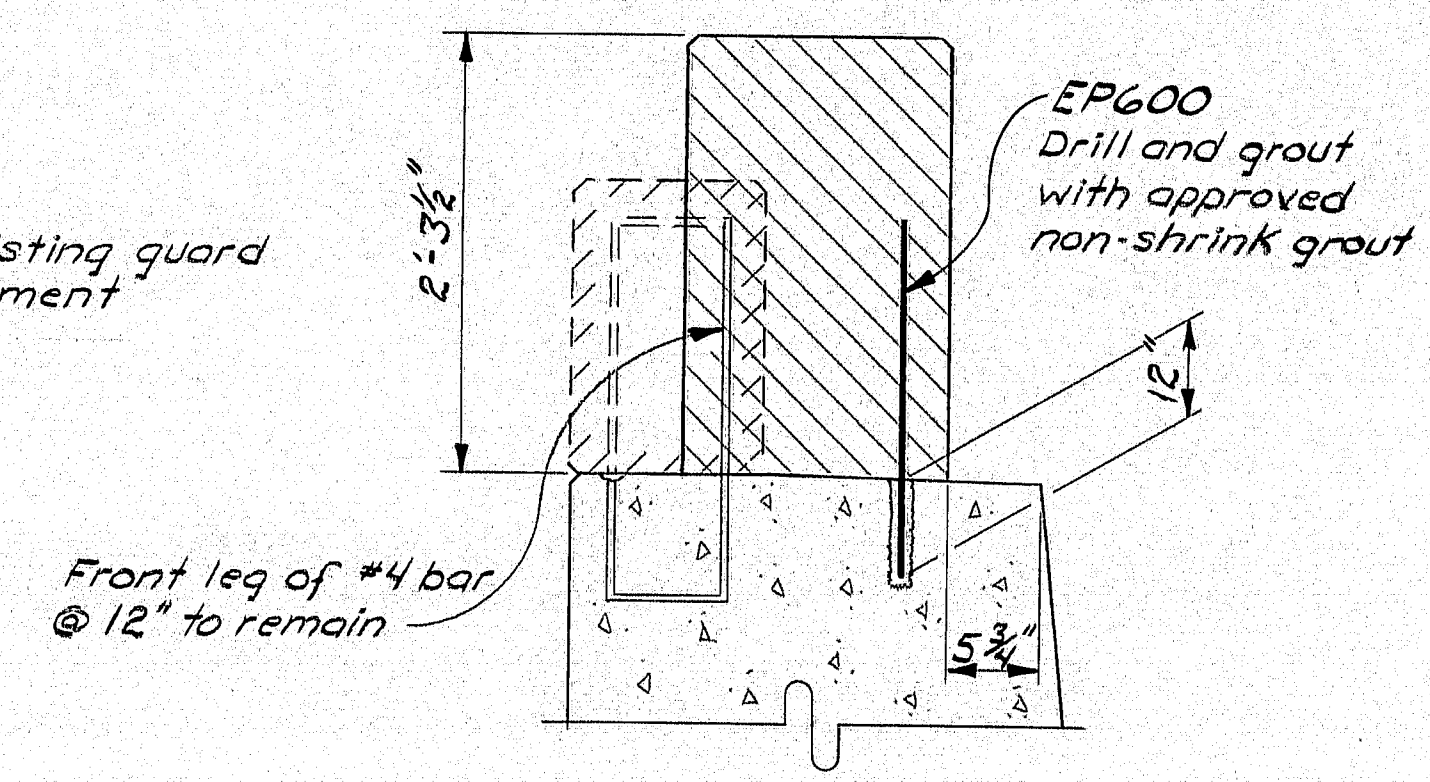
F.R.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	179-95-7(10)	21	26



RAIL DETAIL



END POST SECTION



PREFORMED PADS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

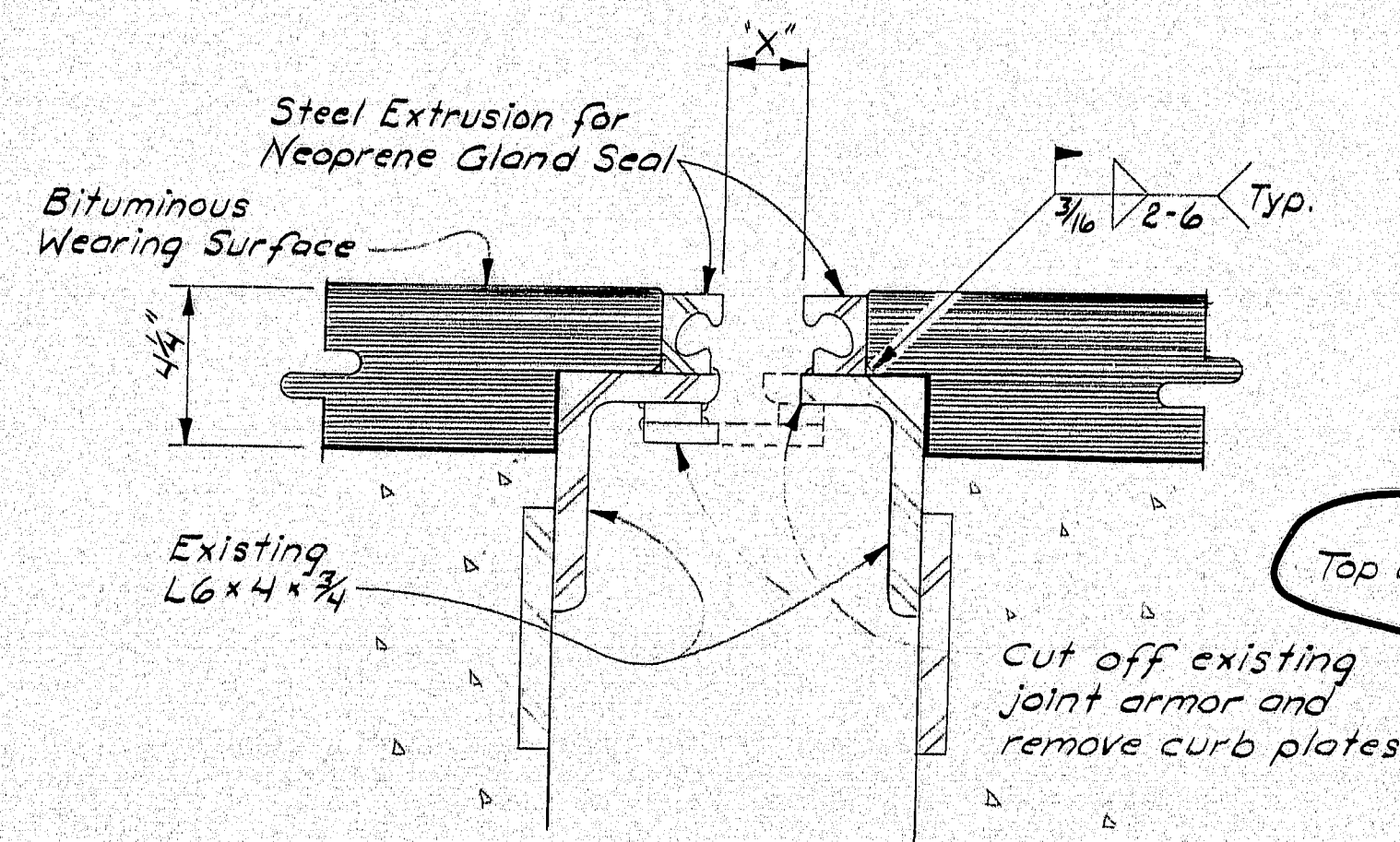
I-95 NB. over MCRR
I-95 NB. over EAST BRANCH
SEBASTICOOK RIVER
NEWPORT
RAIL REPLACEMENT DETAILS
SHEET 2 OF 7 AUGUSTA, MAINE

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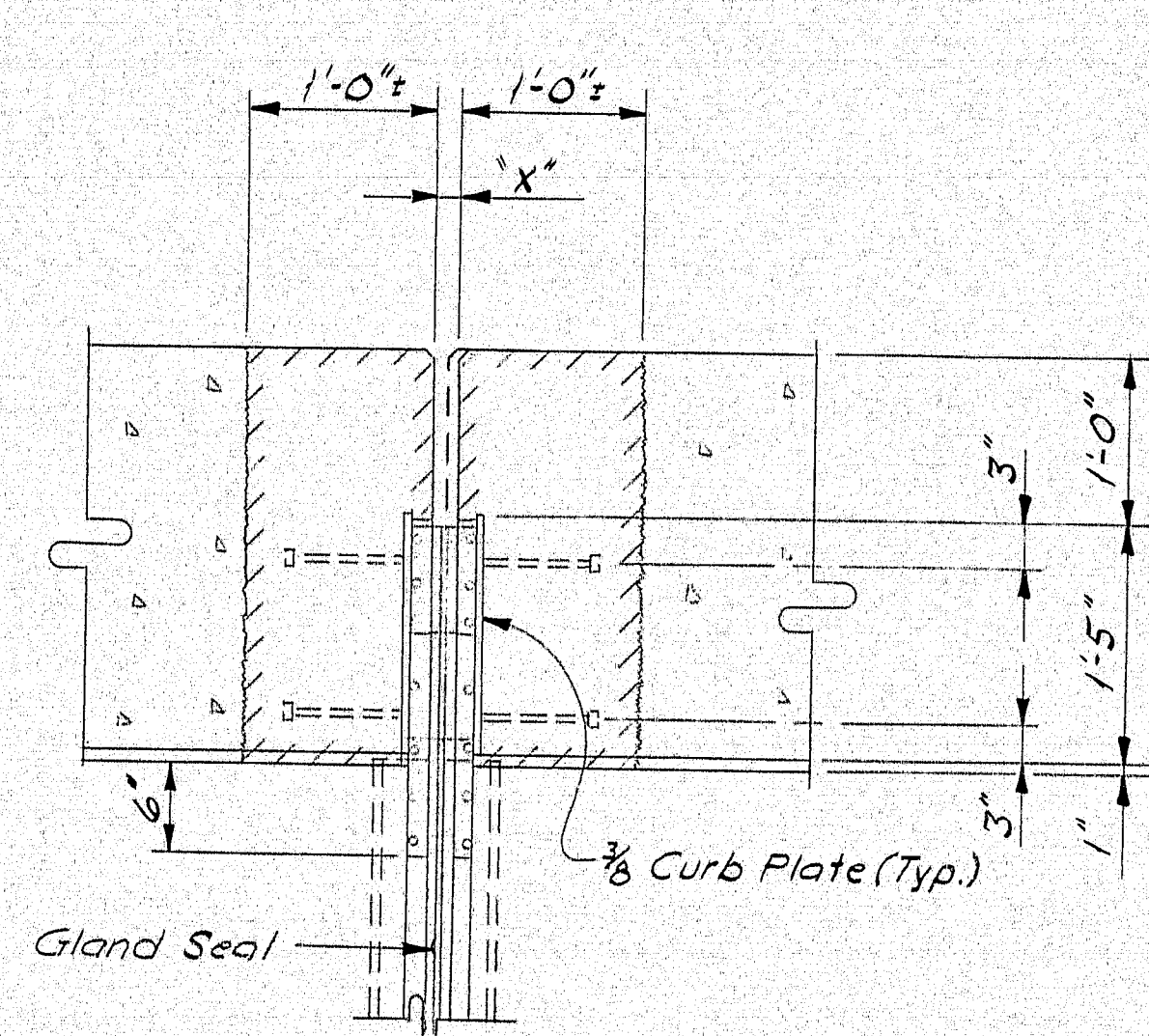
PALMYRA-NEWPORT-PLYMOUTH-ETNA

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	9/90
CHECKED	
REVISIONS	
FIELD CHANGES	

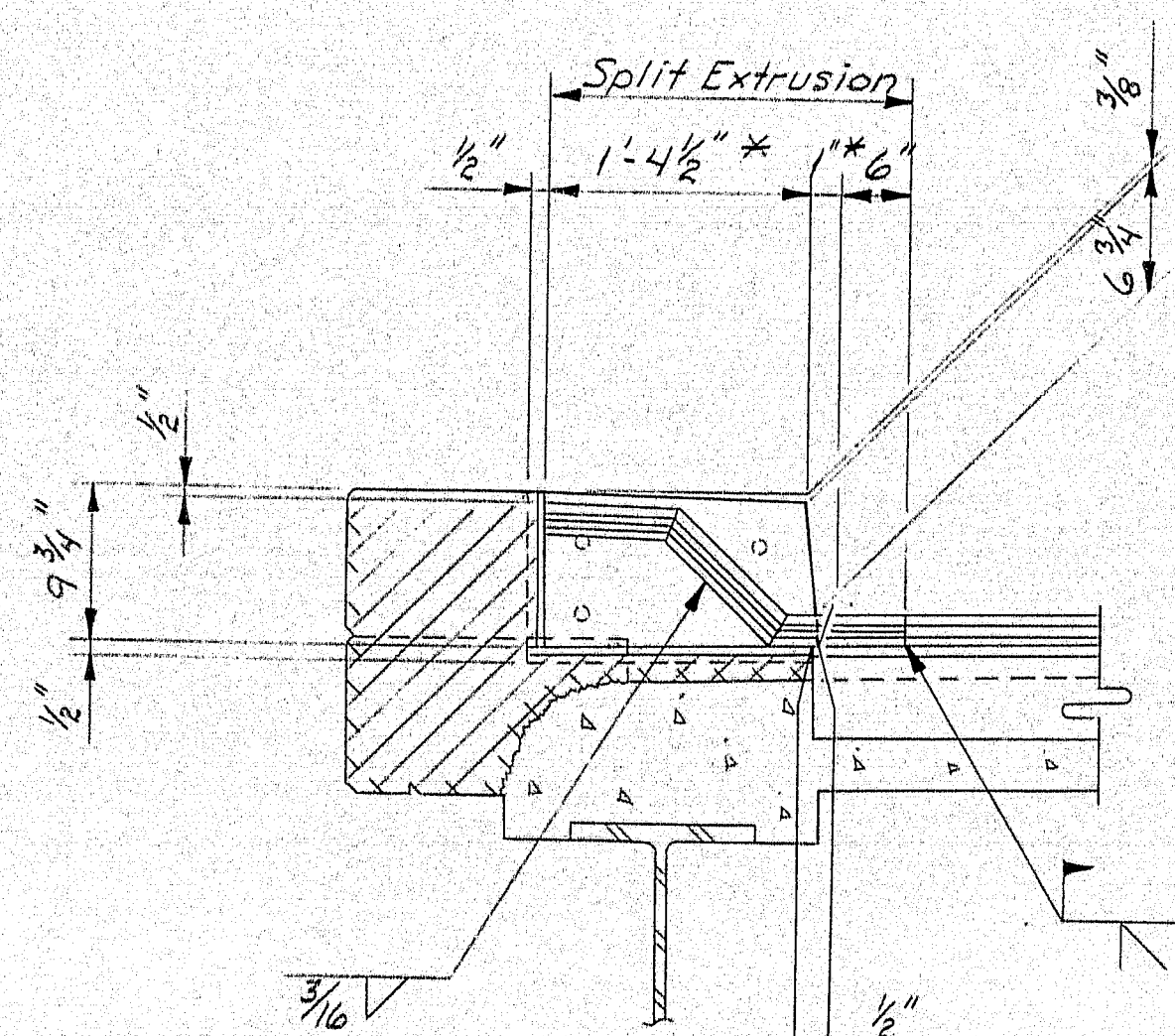
BRUNING 45710-1



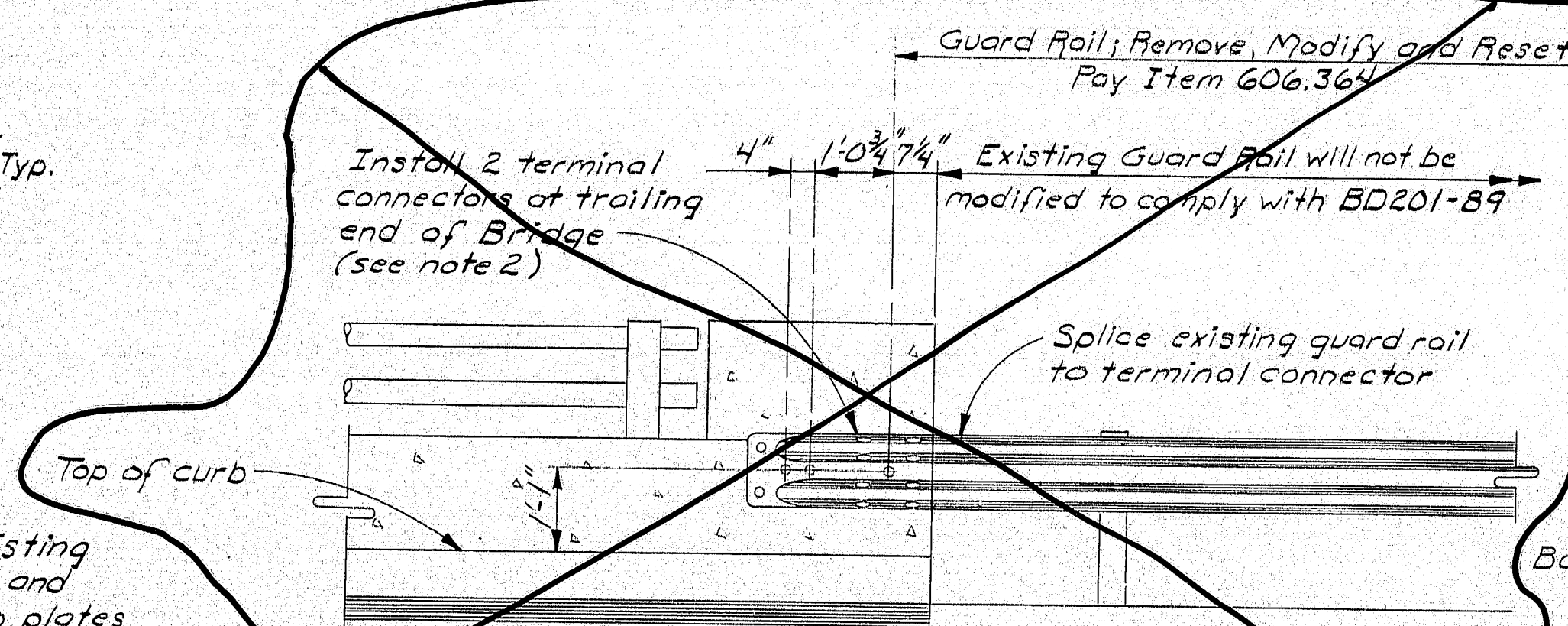
EXPANSION JOINT DETAIL
Dimension 'X' is parallel to ϕ of Structure



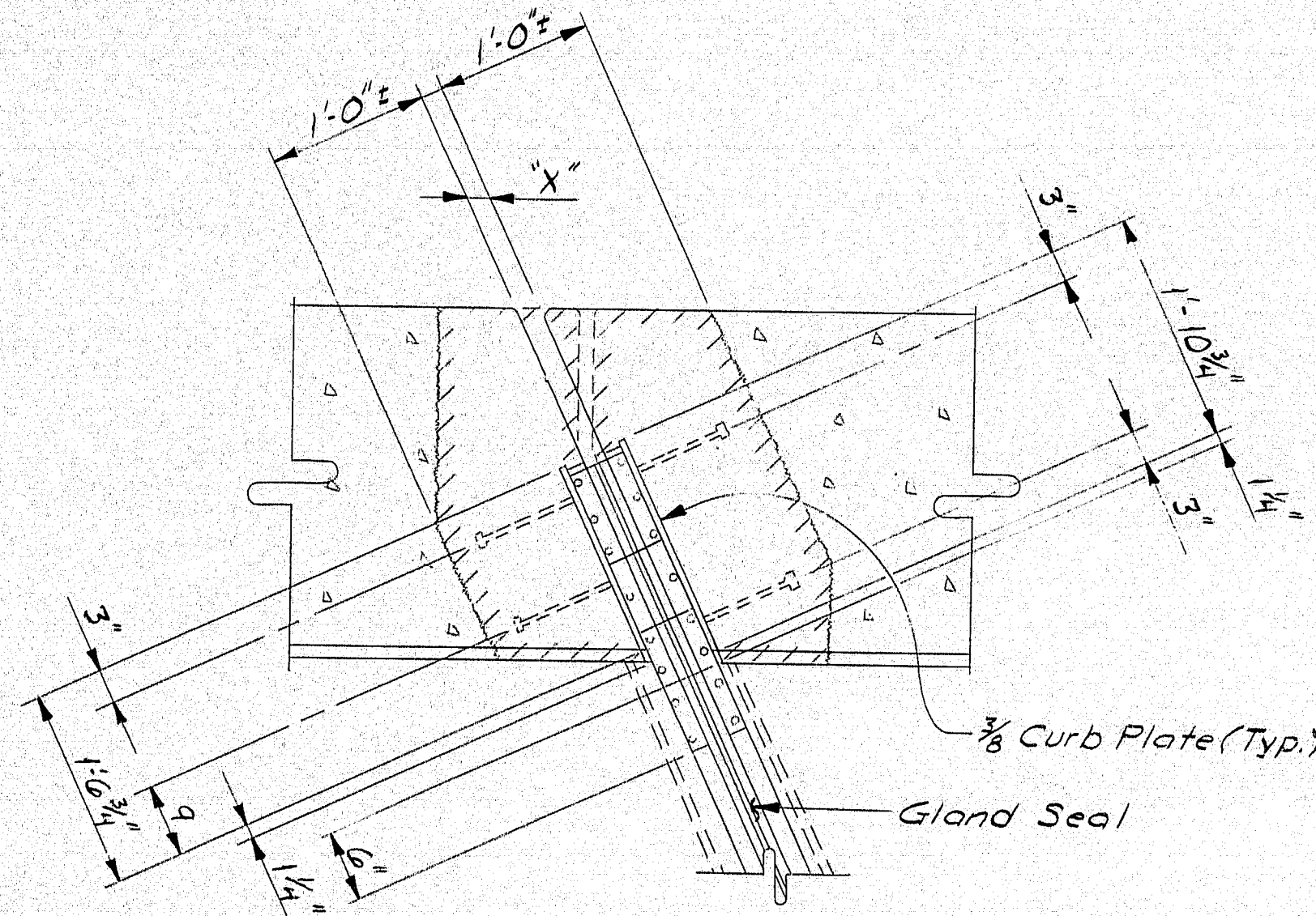
CURB PLAN (MCAR)



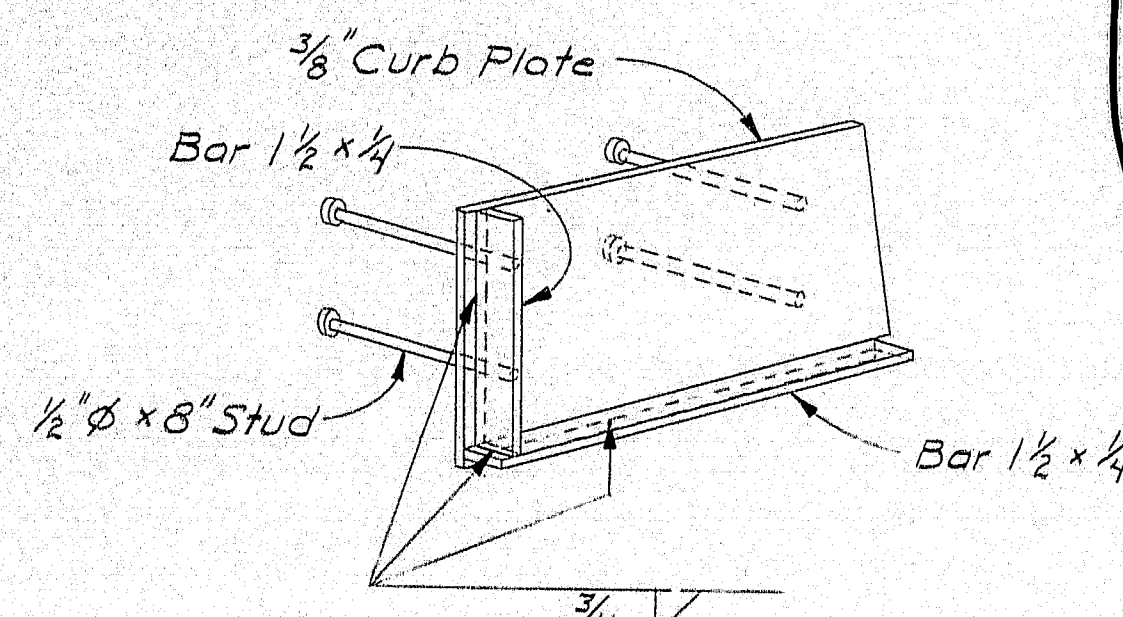
CURB DETAIL
* Measured perpendicular to face of curb



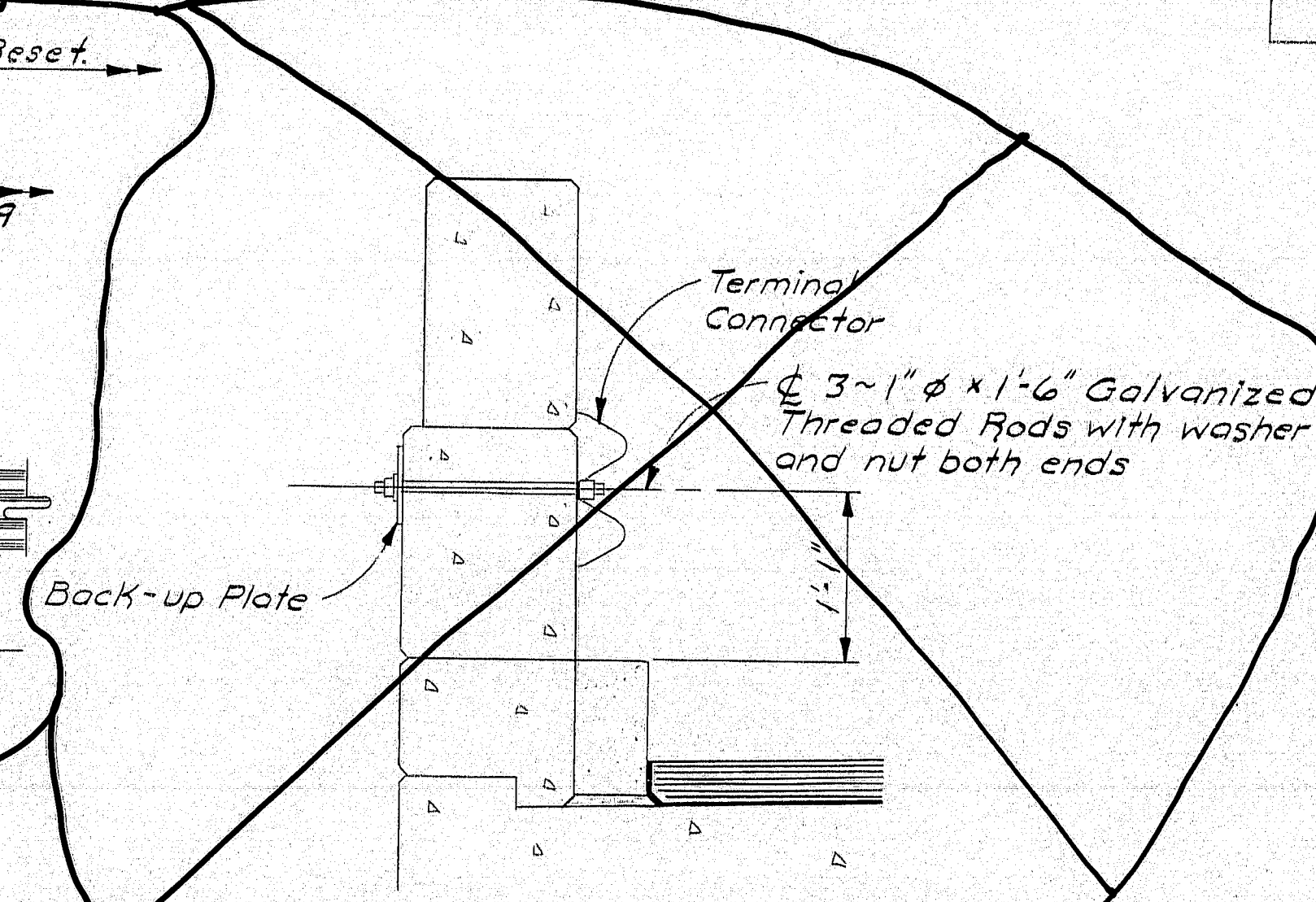
GUARD RAIL CONNECTION
(I-95 N.B. over Route 143)
(Abutment No. 2)



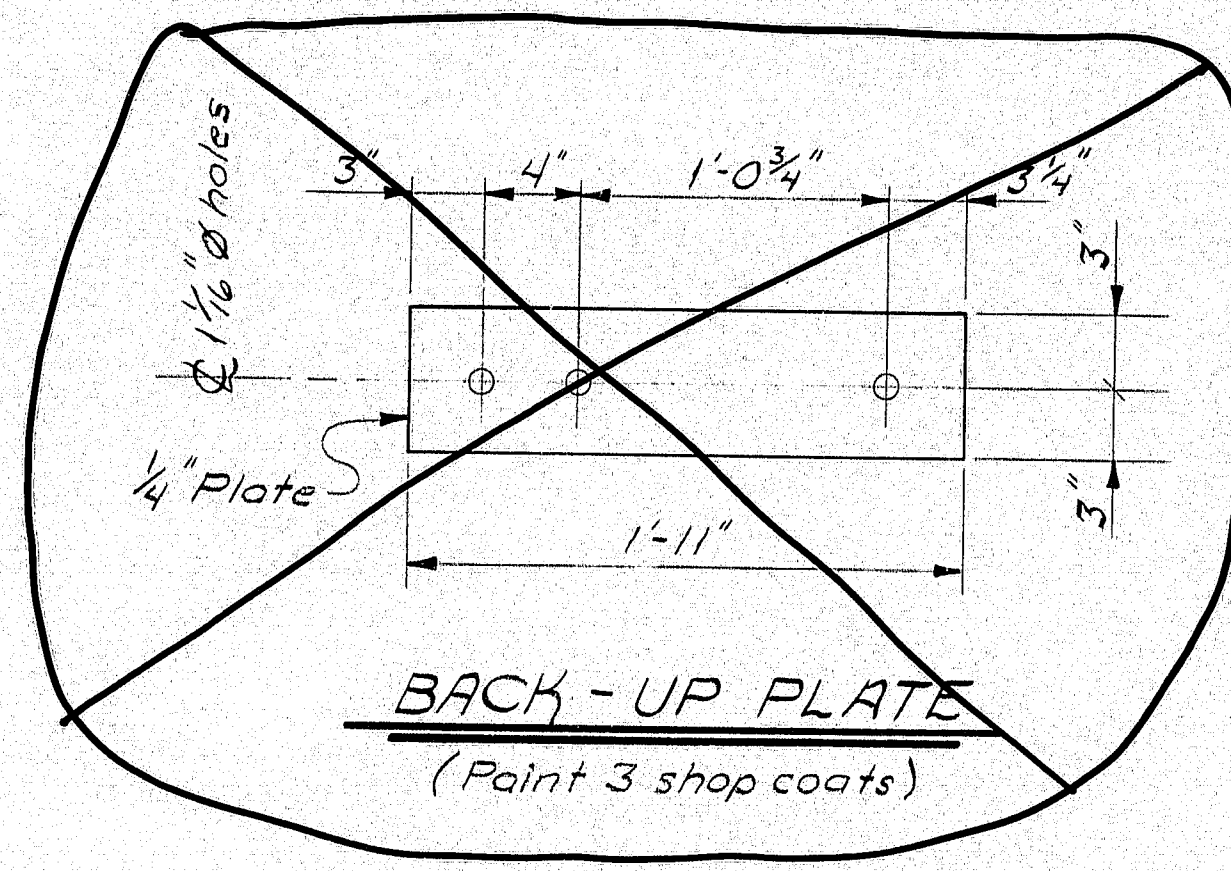
CURB PLAN (RIVER)



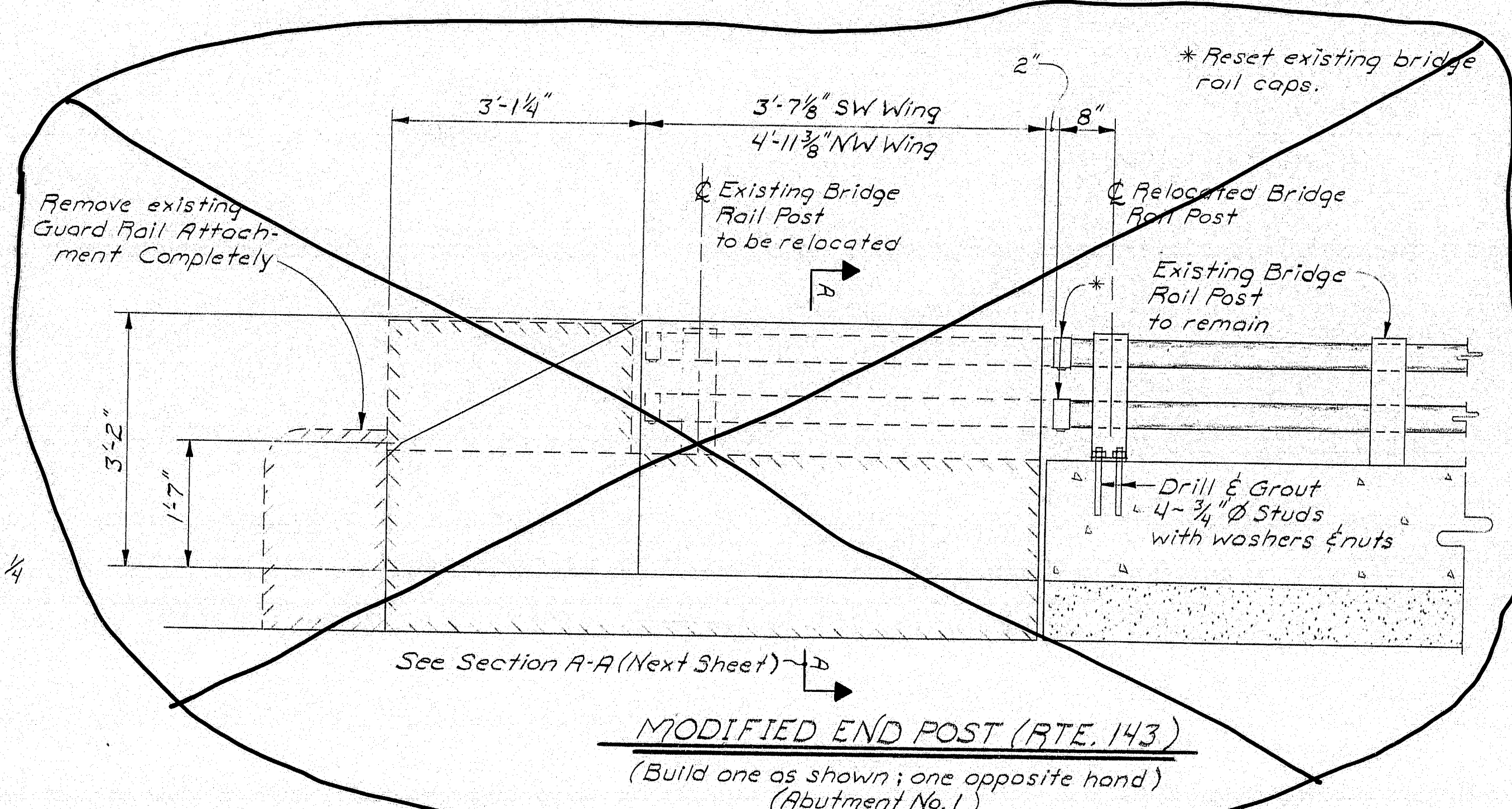
CURB PLATE ASSEMBLY



CONNECTION SECTION



BACK-UP PLATE
(Paint 3 shop coats)



MODIFIED END POST (RTE. 143)
(Build one as shown; one opposite hand)
(Abutment No. 1)

NEW	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
NEWPORT	MAINE	17-95-7(10)	22	26

CONSTRUCTION NOTES

- Any damage caused by drilling holes for the terminal connector anchorage shall be repaired at the contractor's expense.
- Payment for the Terminal Connectors, including installation, will be considered incidental to the Guard Rail Pay Items (at the trailing end only).
- Removal of the existing concrete wearing surface will be paid for under Item No. 202.17, Removing Existing Structural Concrete.
- Protective Coating for Concrete Surfaces shall be applied to the following areas:
 - All exposed surfaces of new concrete end posts.
 - Front face, top, and fascia down to drip notch of existing concrete curbs to remain.
 - All exposed surfaces of existing concrete end posts and parapets to remain.
- Resetting of the aluminum posts and rail end caps, including materials and labor to install new anchor studs will be considered incidental to Item 202.13.
- Anchor bolts for bridge railing shall be drilled and grouted in accordance with Special Provision Section 507.
- From BD201 substitute reinforcing bars EP502's for EP503's and substitute EP451's for EP452's.
- Removal of existing rail parapets and guard rail attachments will be paid for under Item No. 202.128. Cutting and sealing of exposed reinforcing steel will be considered incidental to this item.

GLAND SETTING TABLE				
	MCAR No.1	MCAR No.2	River No.1	River No.2
120	1 1/4"	1 3/8"	1 1/4"	1 1/4"
105	1 1/4"	1 1/2"	1 3/8"	1 3/4"
90	1 1/4"	1 3/8"	1 1/4"	1 1/4"
75	1 3/8"	1 1/4"	1 1/4"	1 3/8"
60	1 3/8"	1 3/8"	1 3/8"	1 3/8"
45	2"	2"	2"	2"
30	2 1/4"	2 1/8"	2 1/8"	2 1/8"
15	2 3/8"	2 1/4"	2 1/4"	2 3/8"
0	2 3/8"	2 3/8"	2 3/8"	2 3/8"
-15	2 3/8"	2 3/8"	2 3/8"	2 3/8"
-30	2 3/8"	2 3/8"	2 3/8"	2 3/8"

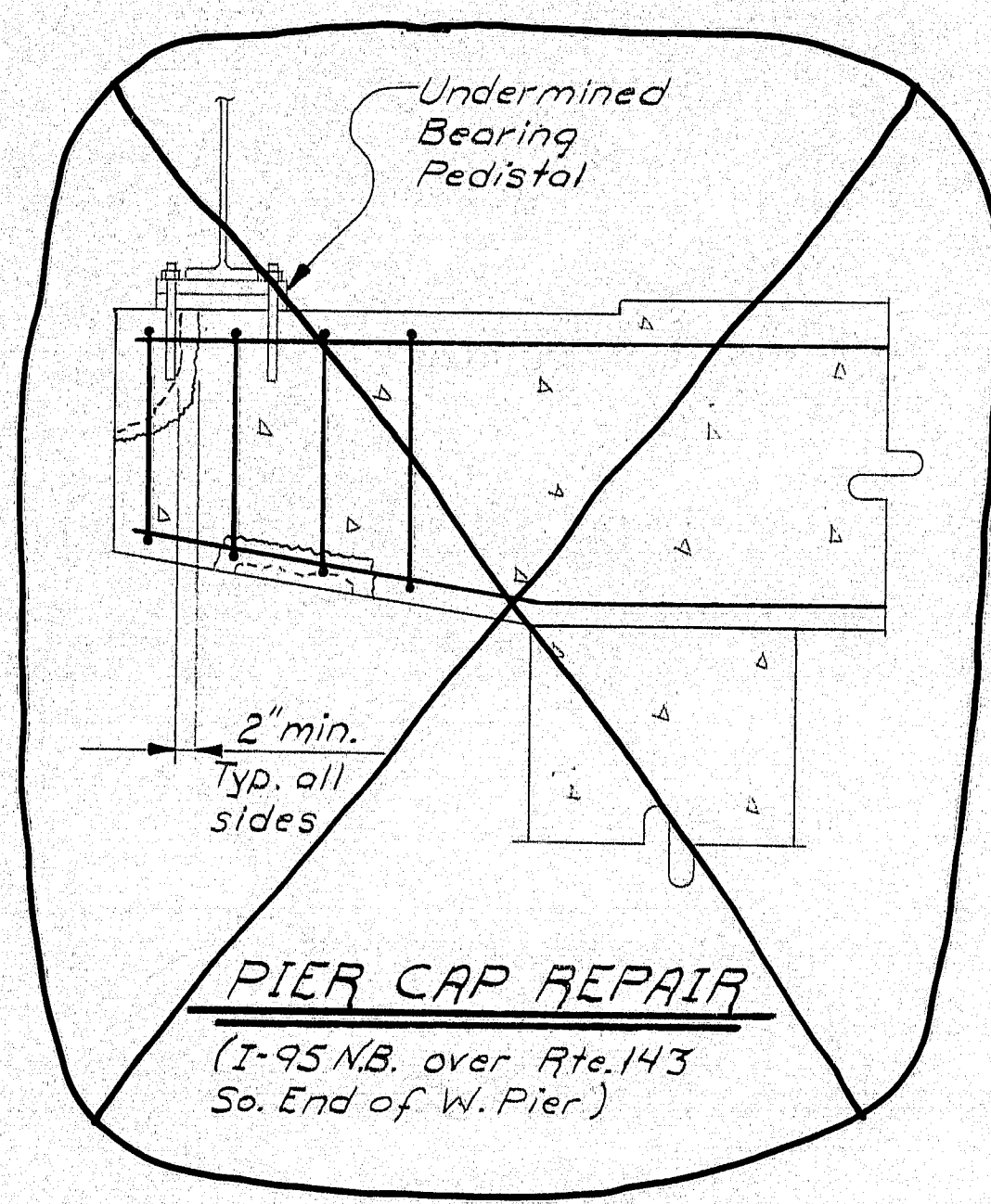
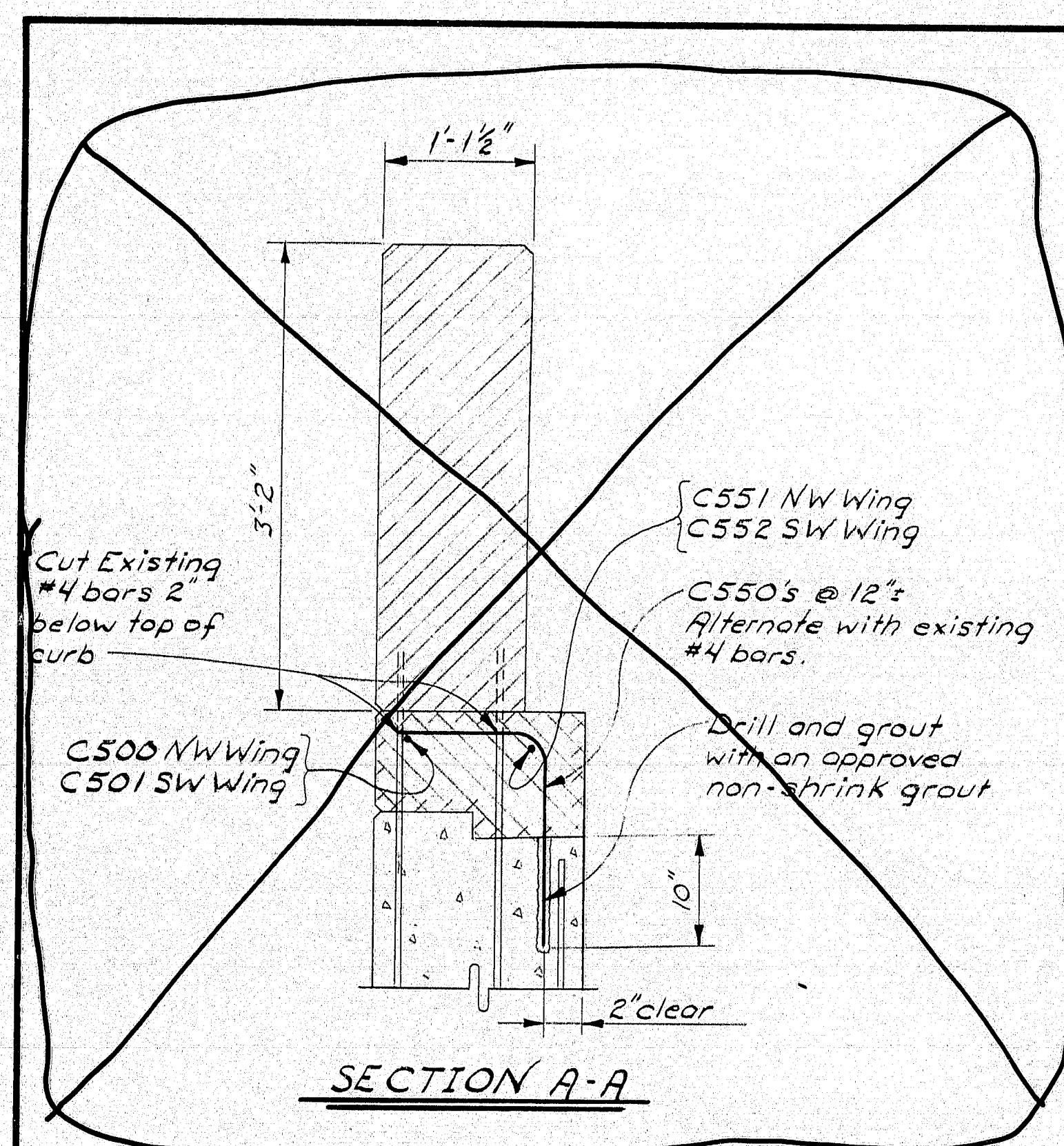
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 N.B. over MCAR
INTERSTATE 95 N.B. over
E. BRANCH SEBASTICOOK RIVER
NEWPORT
INTERSTATE 95 N.B. over RTE. 143
ETNA
BRIDGE DETAILS
SHEET 3 OF 5 AUGUSTA, MAINE

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PALMYRA-NEWPORT-PLYMOUTH-ETNA

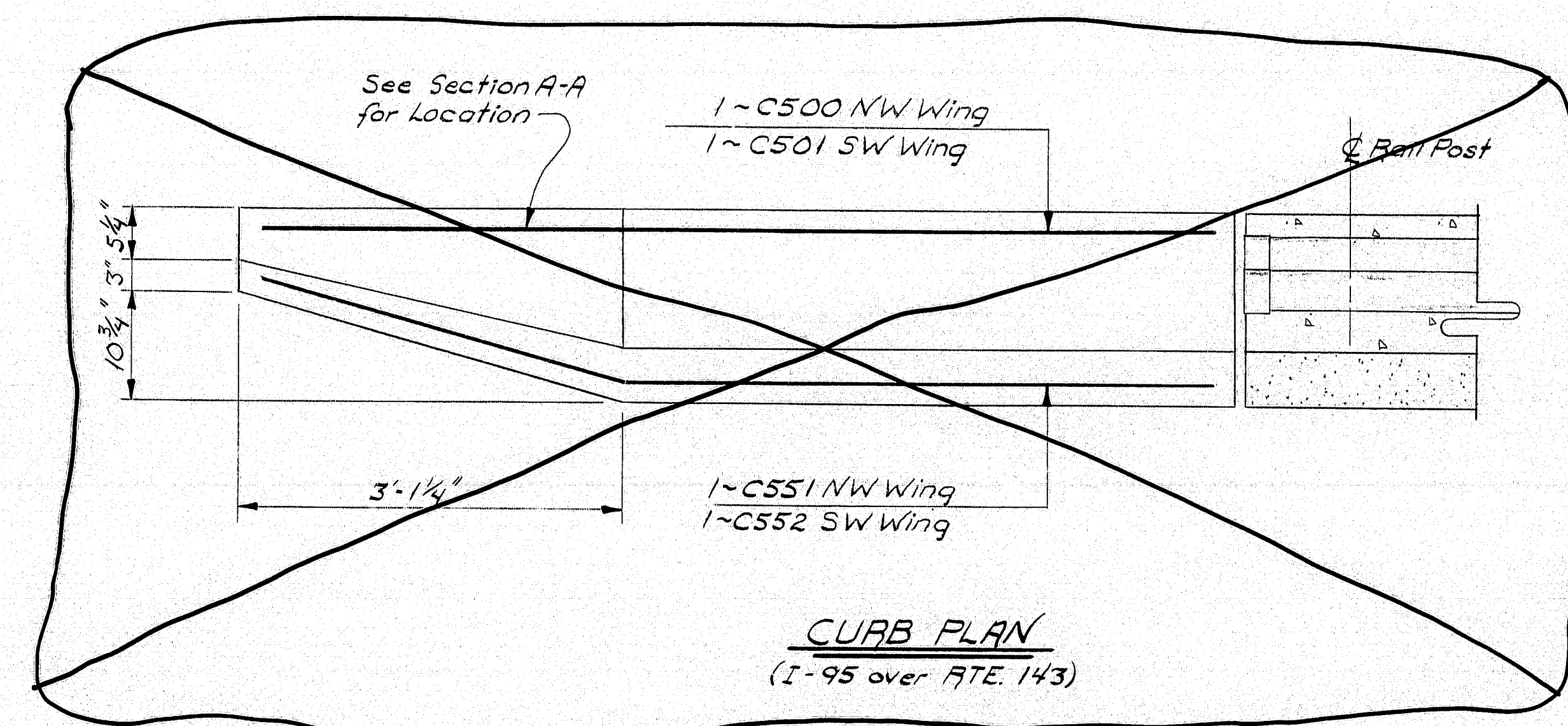
PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	11/90
CHECKED	11/90
REVISIONS	
FIELD CHANGES	
PLANS	

BRUNING 45710-1



CONSTRUCTION NOTES (cont.)

9. Payment for the construction of concrete end posts shall be made under Item 606.173, Bridge Connection. Anchorage systems, terminal connectors, attachment of terminal connectors, and cleaning of existing reinforcing steel to remain, will be considered incidental to this item. Reinforcing steel will be paid for under the appropriate Reinforcing Steel Items.
10. The superstructure shall be supported by a method approved by the Engineer before removing deteriorated concrete from the pier cap bearing area. The exact method of repair shall be as directed by the Engineer. Payment will be made under the provisions of Subsection 104.03, Extra Work.
11. The top surface of the existing concrete slabs shall be repaired as directed by the Engineer. Payment will be made under the appropriate Item No. 518.30 and 518.31.
12. Depress the Bituminous Wearing Surface around the existing bridge drains as directed by the Engineer.
13. Payment for drilling and grouting of reinforcing steel will be considered incidental to Item No. 503.13 Reinforcing Steel, Placing.
14. The embankment in the area of the removed guard rail attachment shall be backfilled with granular borrow, loamed, and seeded to match original slopes as directed by the Engineer. Materials and labor to complete the work shall be incidental to Item 202.128.
15. Reinforcing steel shall have two inches cover unless otherwise indicated.
16. All work shall be done behind temporary concrete barrier.
17. All curb concrete shall be Class A with a silica fume additive. Payment will be incidental to Item 606.173.
18. Modifications to guardrail for conformance with Standard Details on BD201-89, including materials and labor, will be considered incidental to Item 606.364.
19. From BD201-89 substitute reinforcing bars EP600's for EP405's, EP502's, and EP503's.



LEGEND

- Existing Concrete (to remain)
- Existing Concrete (to be removed)
- New Concrete (in section)
- Steel (in section)
- Granite

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
INTERSTATE 95 NB. over MCRP INTERSTATE 95 NB. over E. BRANCH SEBASTICOOK RIVER NEWPORT INTERSTATE 95 NB. over Rte. 143 ETNA MISCELLANEOUS DETAILS
SHEET 4 OF 5 AUGUSTA, MAINE

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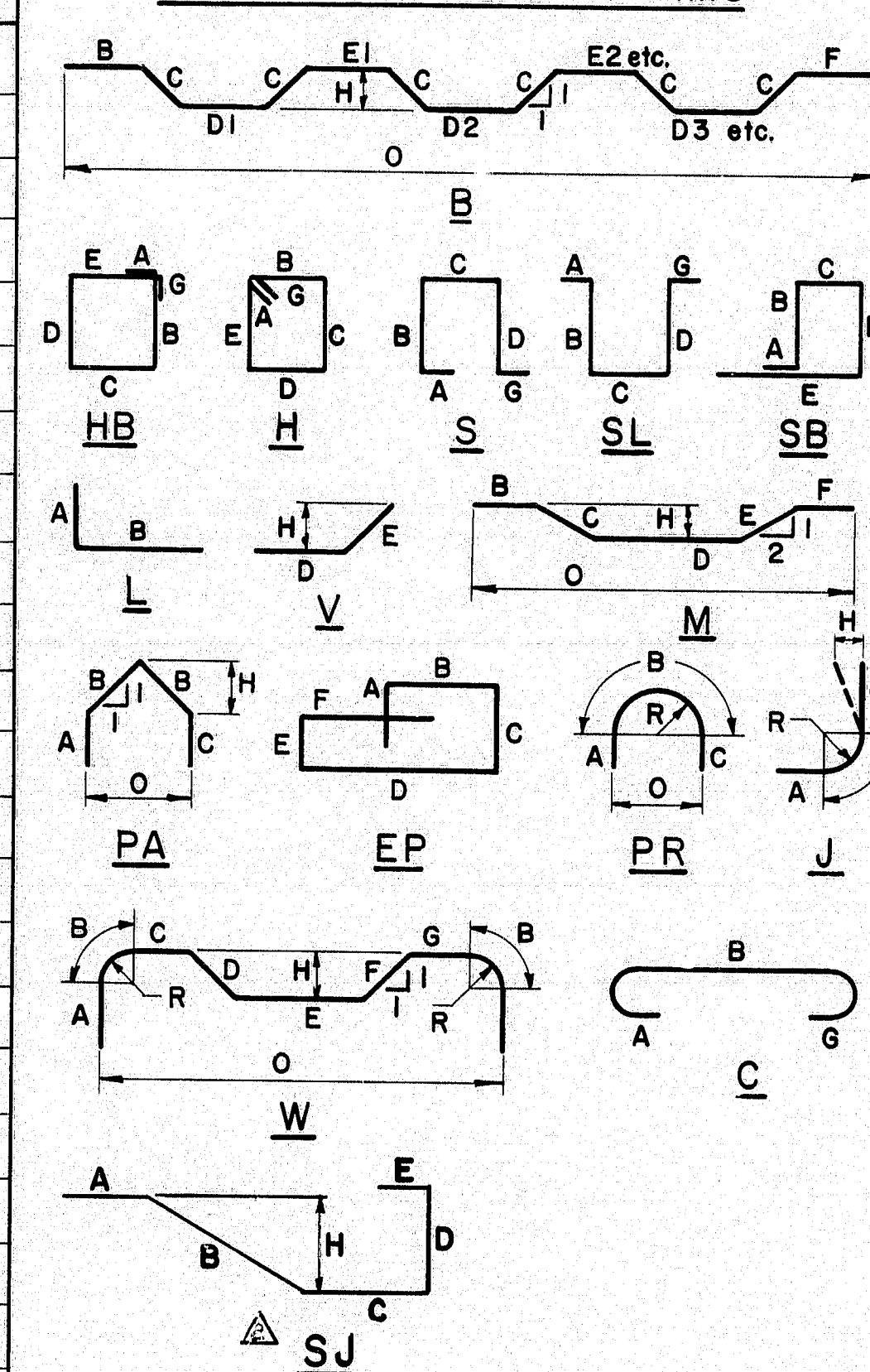
PALMYRA-NEWPORT-PLYMOUTH-ETNA

DATE	11/30
BY	SAH
DESIGN - DETAIL	SAH
REVISIONS	
FIELD CHANGES	
PLANS	

REINFORCING STEEL SCHEDULE																							
STRAIGHT BARS								BENT BARS															
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION	
I-95 N.B. over MCRB								I-95 N.B. over MCRB															
EP400	24	2'-0"	Vertical					EP401	16	4'-11"	S	0	2'-0"	0'-11"	2'-0"			0					Vertical
EP600	40	2'-4"	Dowels					EP402	8	4'-6"	S	0	2'-0"	0'-6"	2'-0"			0					"
								EP500	16	8'-4"	S	0	6'-0"	0'-7"	1'-9"			0					Horizontal
								EP501	16	7'-2"	SU	0	3'-1"	3'-1"	1'-0"	0			0'-8"				"
I-95 N.B. over RIVER (Modified End Post)								I-95 N.B. over RIVER (Modified End Post)															
EP400	12	2'-0"	Vertical					EP401	10	4'-11"	S	0	2'-0"	0'-11"	2'-0"			0					Vertical
EP600	22	2'-4"	Dowels					EP402	4	4'-6"	S	0	2'-0"	0'-6"	2'-0"			0					"
								EP500	8	8'-9"	S	0	6'-5"	0'-7"	1'-9"			0					Horizontal
								EP501	8	7'-7"	SU	0	3'-1"	3'-6"	1'-0"	0			0'-8"				"
(Standard End Post)								(Standard End Post)															
EP400	12	2'-0"	Vertical					EP401	8	4'-11"	S	0	2'-0"	0'-11"	2'-0"			0					Vertical
EP600	20	2'-4"	Dowels					EP402	4	4'-6"	S	0	2'-0"	0'-6"	2'-0"			0					"
								EP500	8	7'-10"	S	0	5'-6"	0'-7"	1'-9"			0					Horizontal
								EP501	8	6'-8"	SU	0	3'-1"	2'-7"	1'-0"	0			0'-8"				"

FWA	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	77-95-7(10)	24	26

TYPE-BENDING DIAGRAMS



All dimensions are out to out of reinf. bar
Bending details and hooks shall conform to
the recommendations of the current revision
of ACI Standard 318. Δ
Reinforcing Bar: ASTM A615 Grade 60

GENERAL NOTES

- First digit(s) following the letter of the Mark indicates size of reinf. bar.
Mark (A 502) bar size - #5
Mark (P 1001) bar size - #10
Mark (S 603) bar size - #6
- Each truss bar, Type B, may be replaced by two (2) straight bars (one top & one bottom) of the same bar size as the truss bar. Payment in either case shall be based on truss bars as scheduled on plans.

102-265

New Bent Bar Type SJ	5-12-83
Revised ACI Standard	5-12-83

REVISIONS	DATE
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

I-95 N.B. over MCRB
I-95 N.B. over EAST BRANCH
SEBASTICOOK RIVER
NEWPORT

REINFORCING STEEL SCHEDULE

SHEET 5 OF 7 AUGUSTA, MAINE