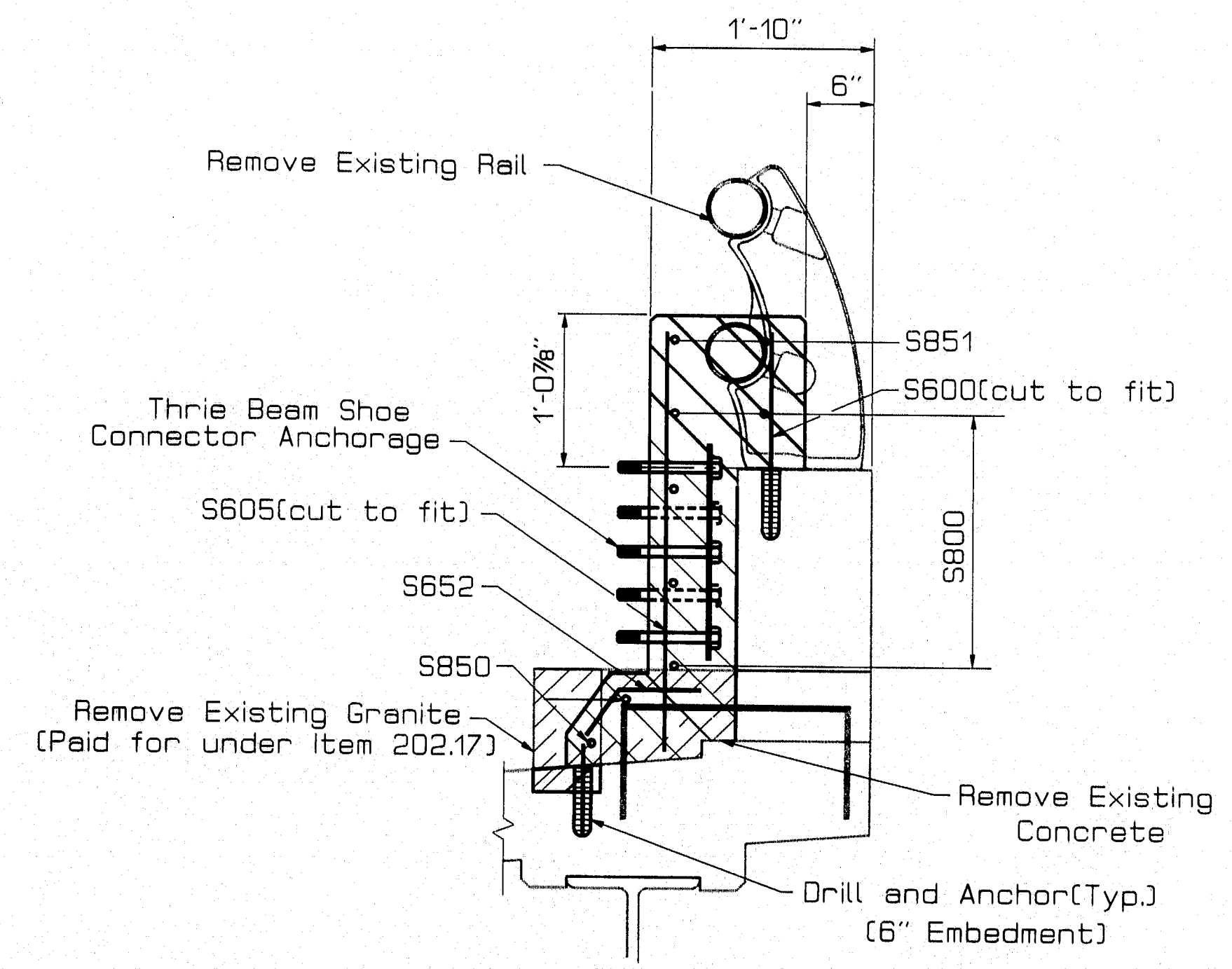
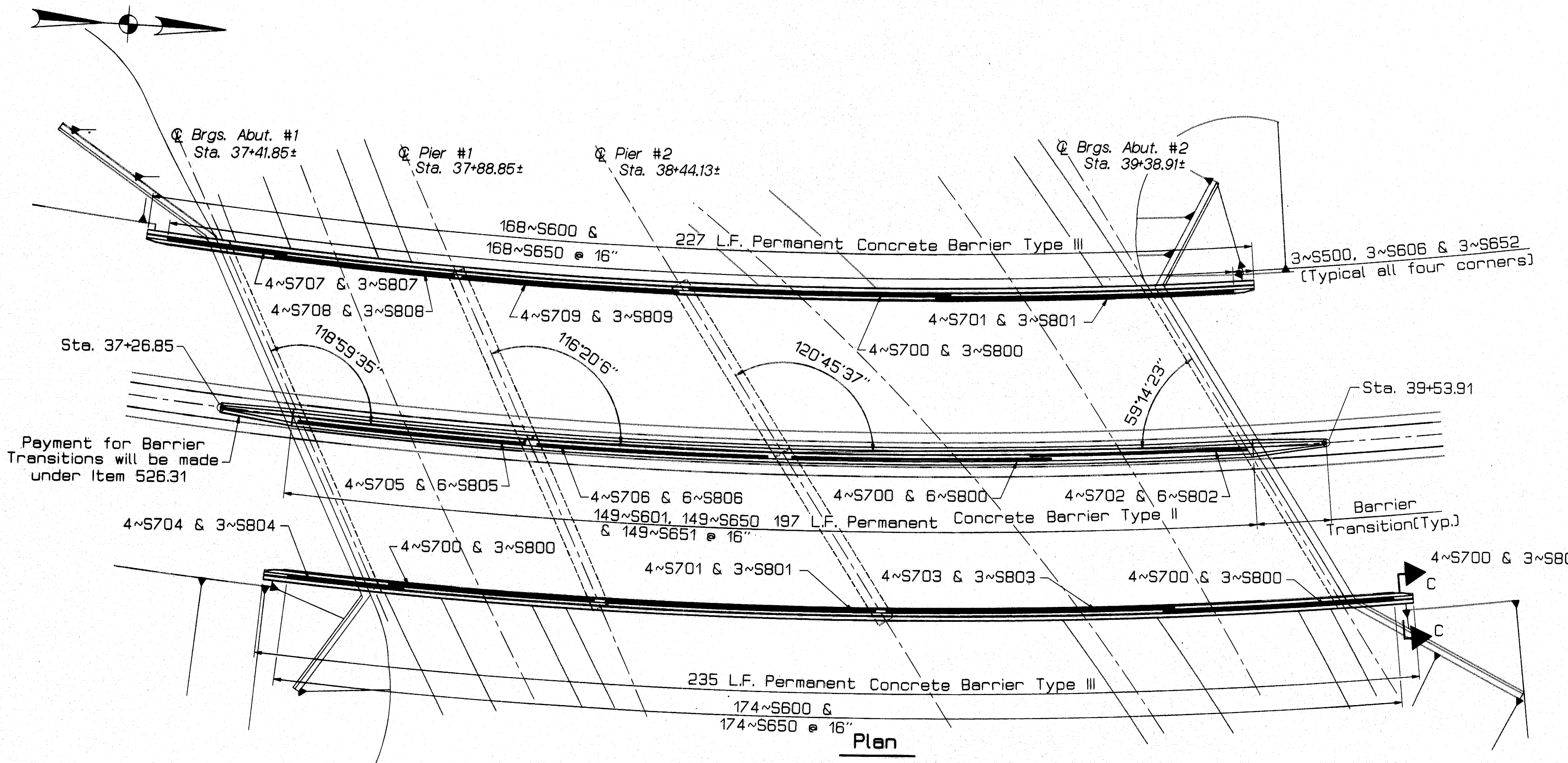
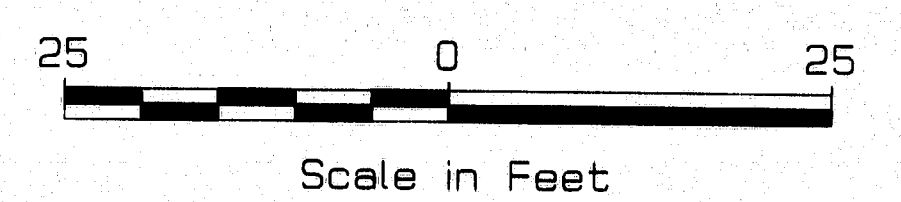


F.H.V.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
	MAINE	IR-295-3(114)	25	37
PORTLAND			PIN 4172.00	



**SECTION C~C**

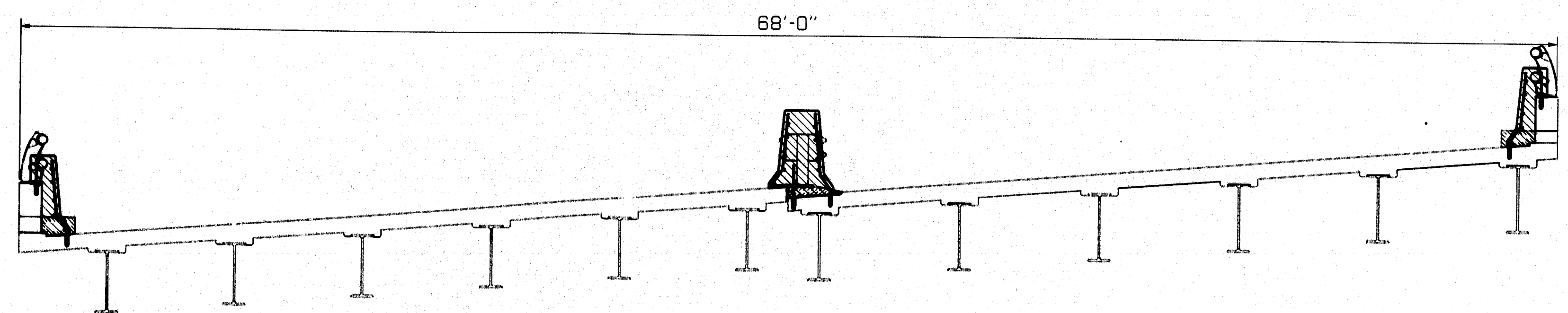
For Detail not shown see BD 462 - 94



Scale in Feet  
**SCALE**

**Scope of Work**

- Seal Superstructure Joints over Piers
- Remove and replace Bridge Railing



**Section**

**SPECIFICATION**

DESIGN: AASHTO Standard Specifications for Highway Bridges 1992  
 CONTRACT: State of Maine Department of Transportation, Standard Specifications Highways and Bridges, Revisions of October 1990.

**DESIGN LOADING**

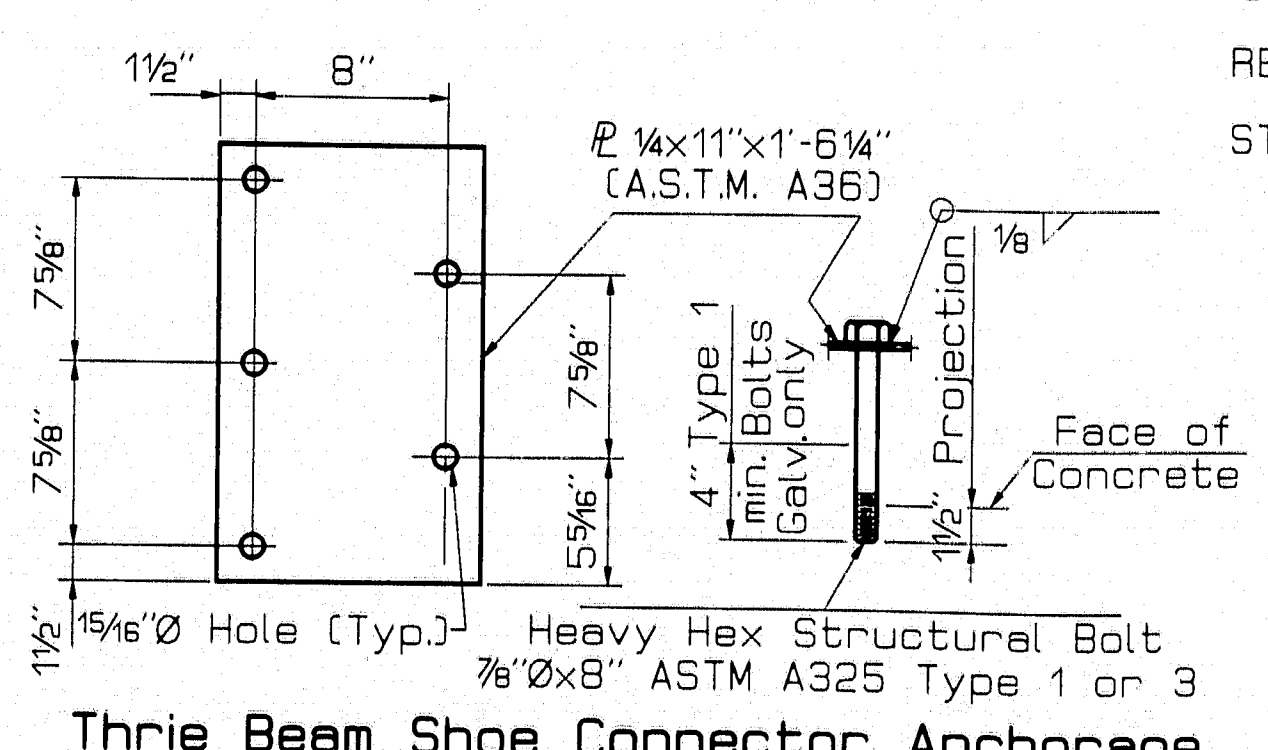
LIVE LOAD: HS20-44 modified(Existing)

**MATERIALS**

CONCRETE: ..... Class A  
 REINFORCING STEEL: ..... ASTM A615 Grade 60  
 STRUCTURAL STEEL: ..... ASTM A36

**BASIC ALLOWABLE STRESSES**

CONCRETE: ..... f'c=4,000psi  
 REINFORCING STEEL: ..... fy=60,000psi  
 STRUCTURAL STEEL: ..... fy=36,000psi



**Thrie Beam Shoe Connector Anchorage**

(4-Required)(Payment will be incidental to Item 526.32)

PROJECT DESIGN ENGINEER	DATE
DESIGN-DRAWN	6-84
CHECKED	
FIELD CHANGES	
<b>PLANS</b>	

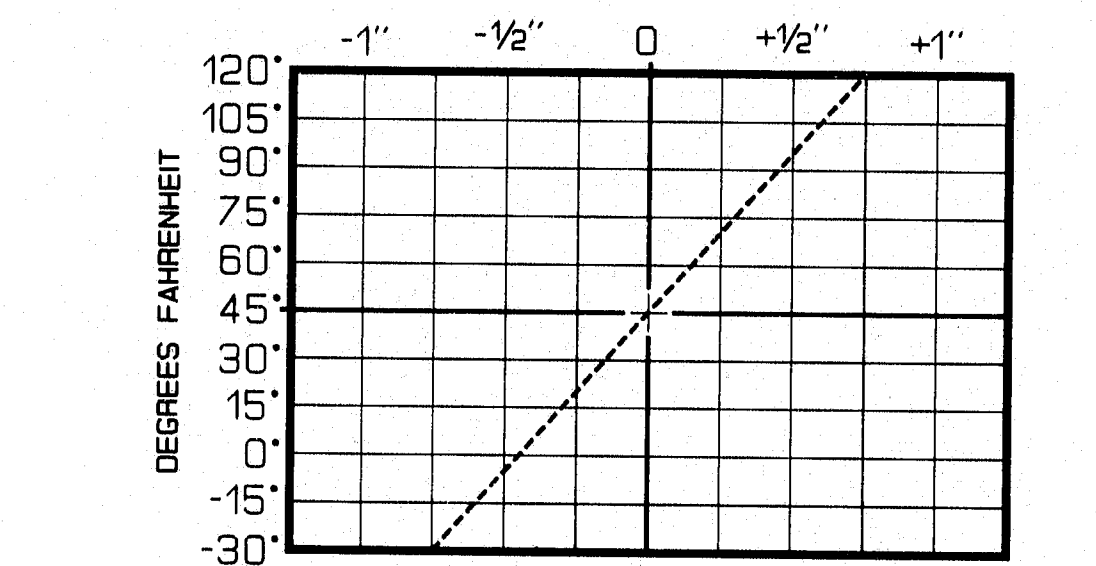
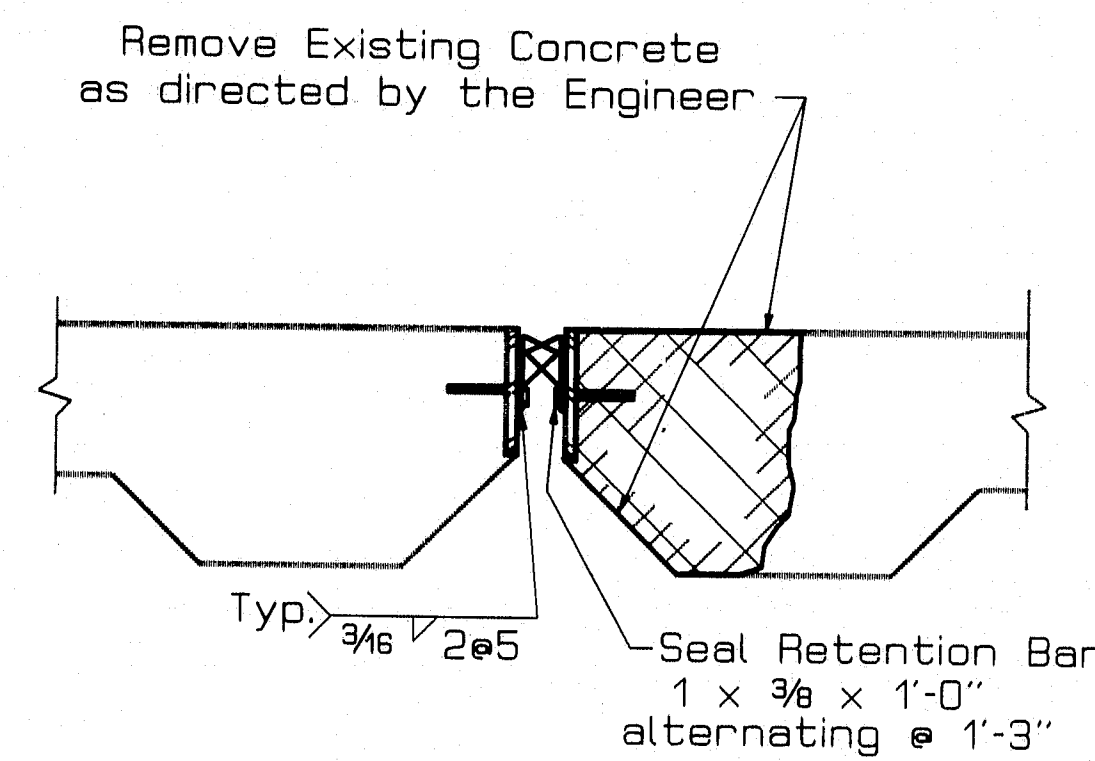
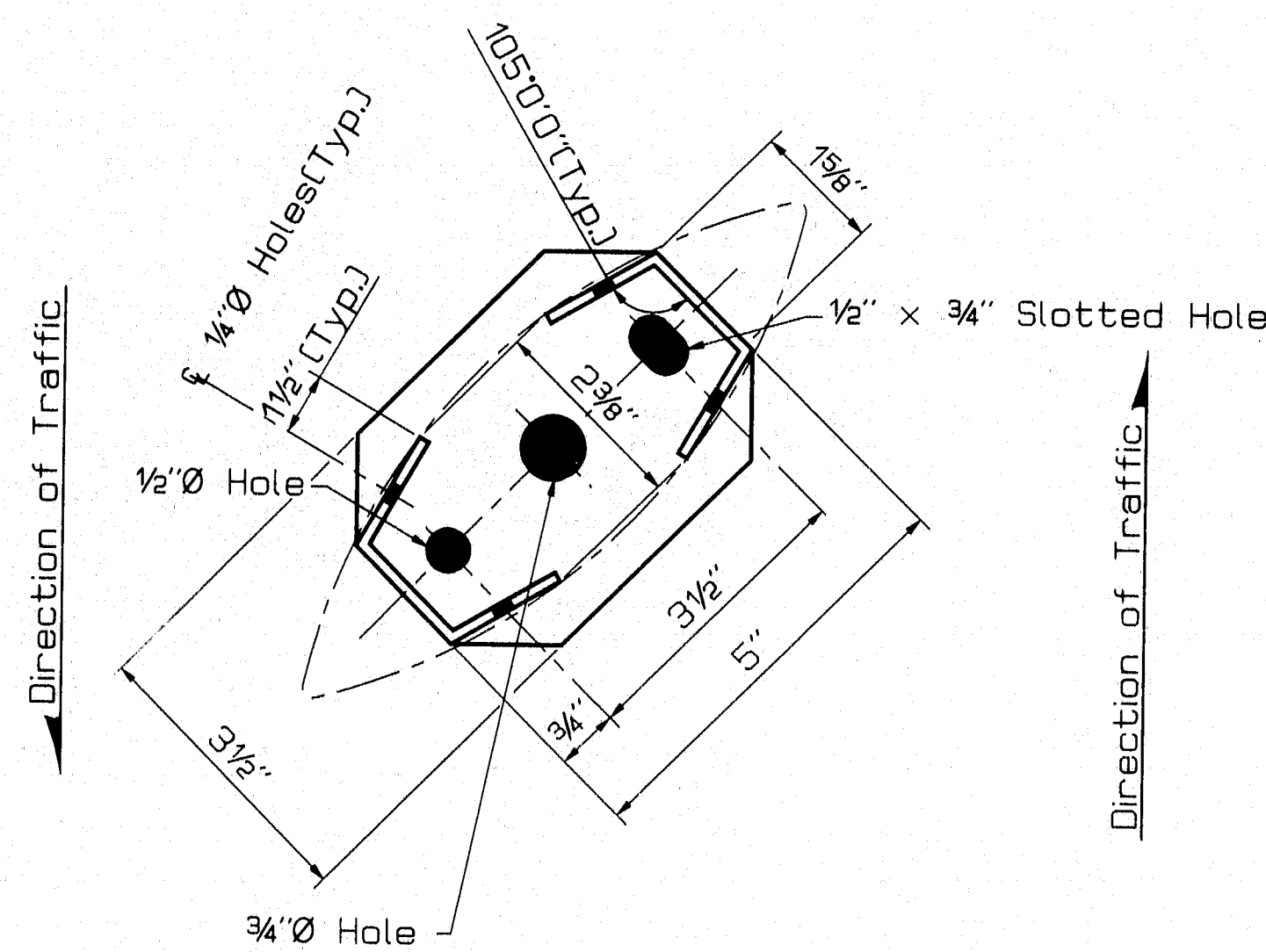
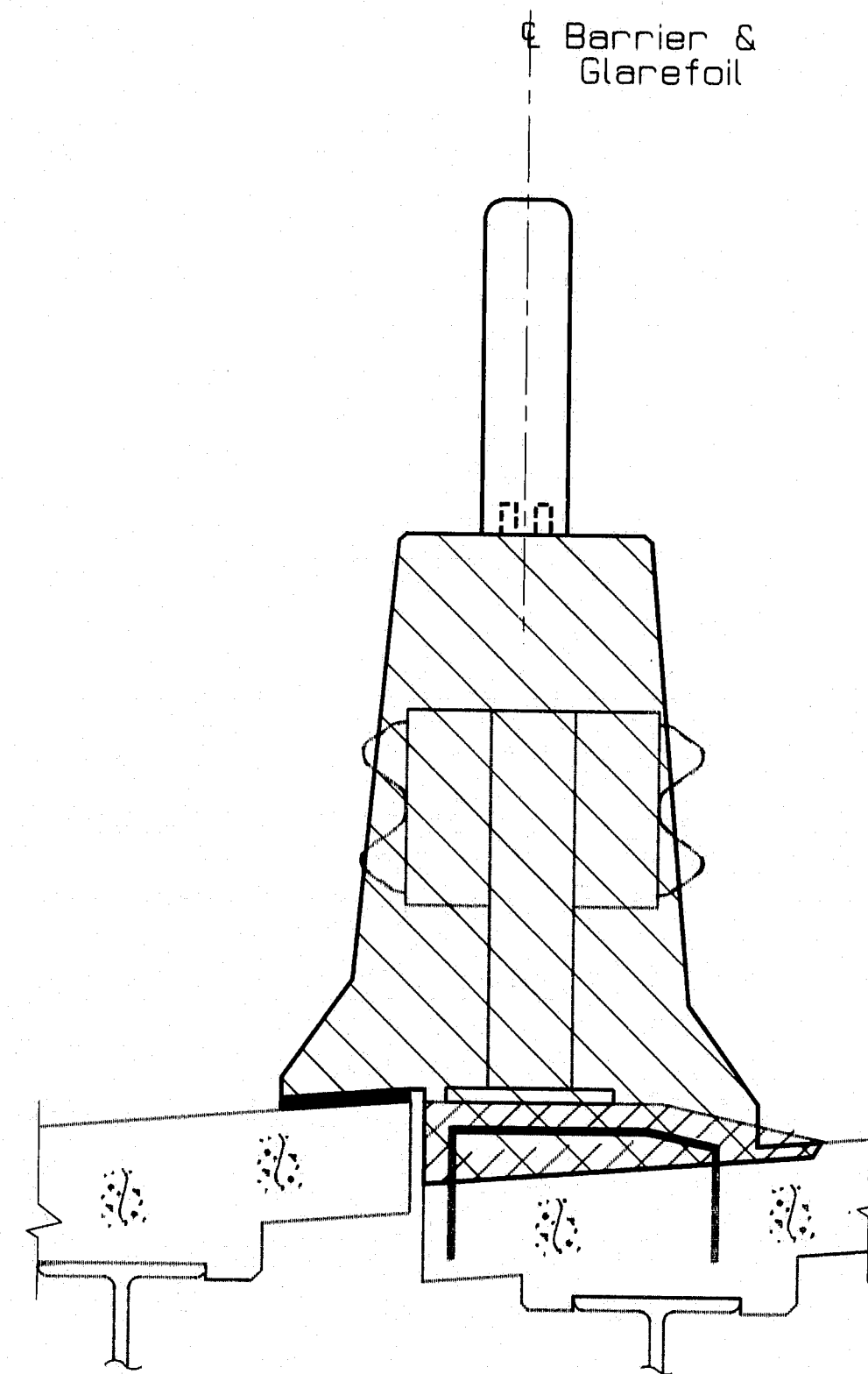
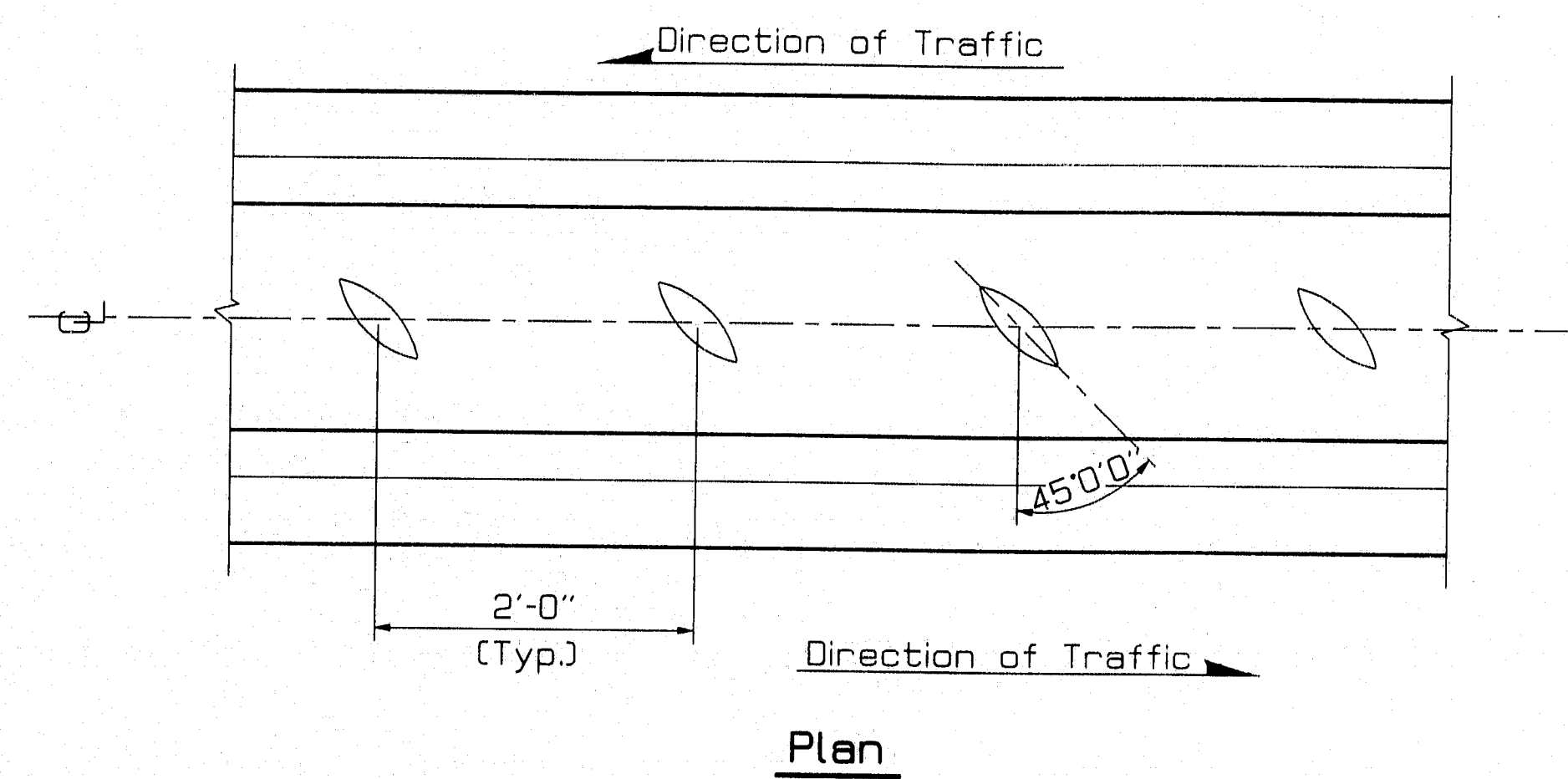
**NOTE:**  
 All work contemplated under this contract to be governed by and in conformity with the Standard Specifications (Revision of October 1990) and supplementals thereto, as modified on the plans and in the Special Provisions.

Plans of existing bridge are available for the Contractor's reference at the Bridge Design Office in Augusta. These are reproductions of original drawings as prepared for the construction of the bridge 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. A bridge deck evaluation is also available.

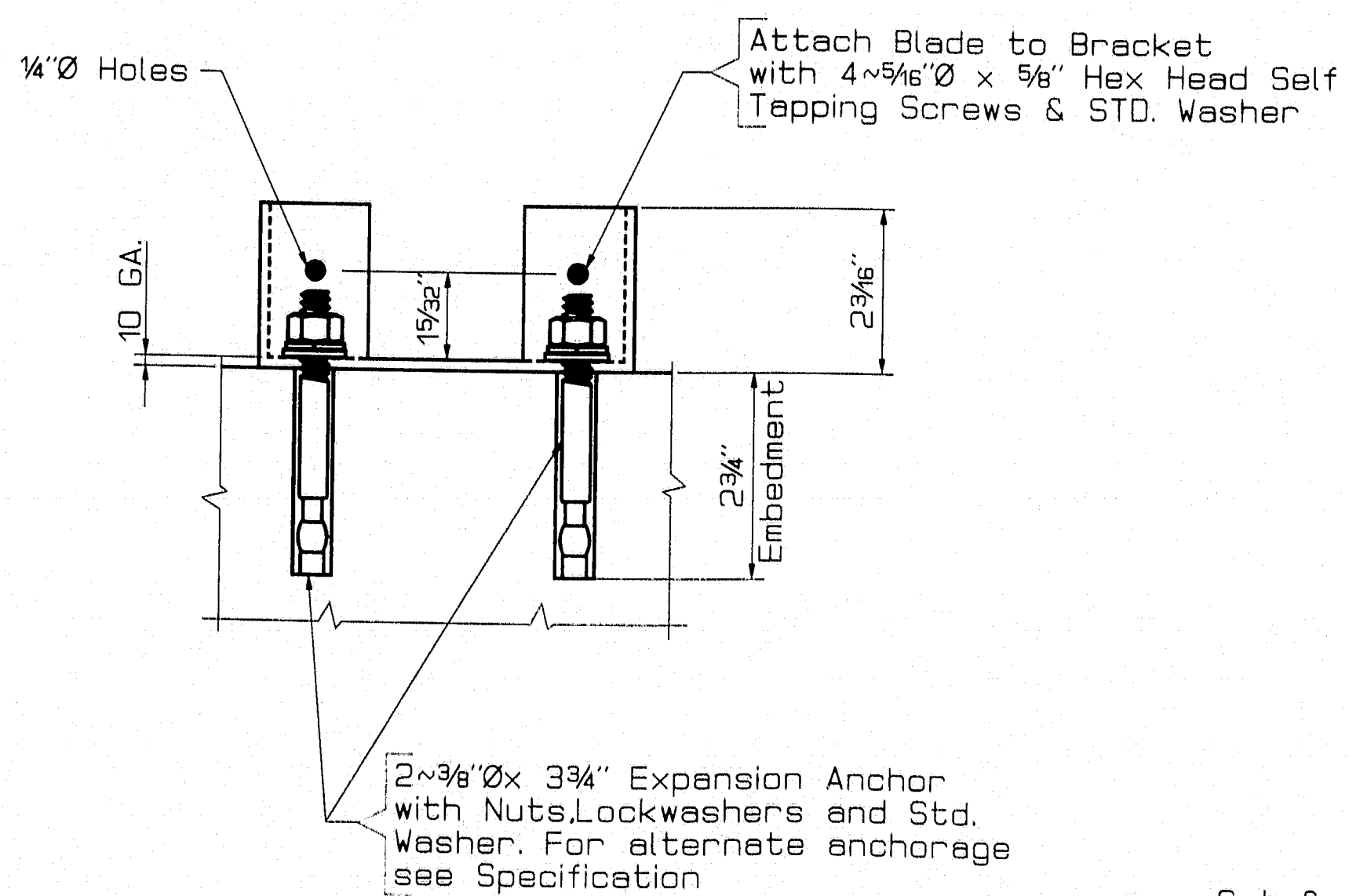
STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 I-295  
 OVER  
 VERANDA STREET  
 IN THE CITY OF  
 PORTLAND  
 CUMBERLAND COUNTY  
 GENERAL PLAN  
 SHEET OF AUGUSTA, MAINE May 1994

114-404

F.H.V.A. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
	MAINE	IR-295-3(114)	36	37
PORTLAND			PIN 4172.00	



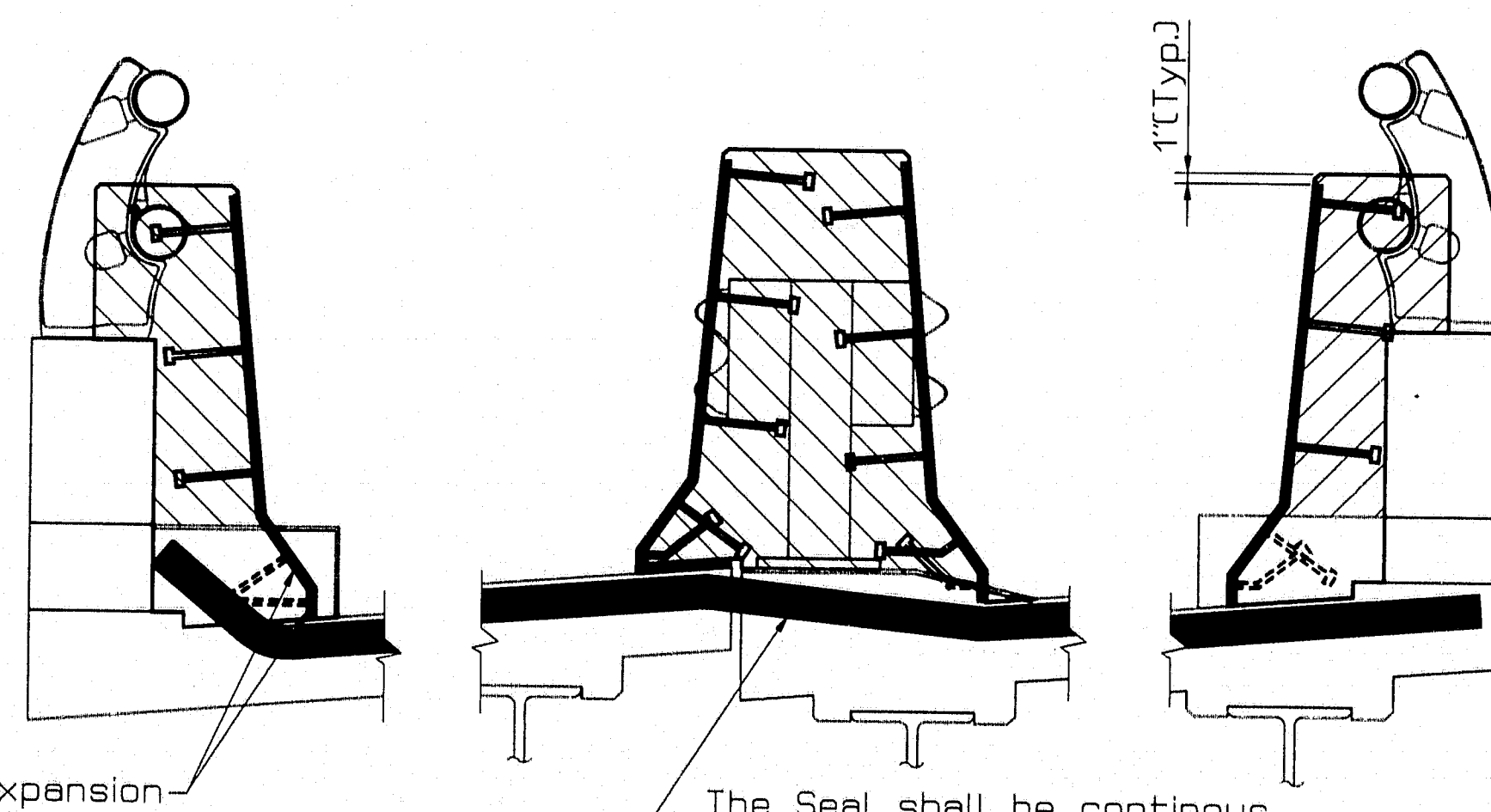
**COMPRESSION SEAL ADJUSTMENT CHART**



**Detail "A"**

Cut & grind smooth existing expansion dam 2's to this line. Payment to be incidental to Item 202.12, Removal of Existing Structural Concrete (Typ.)

**Seal Detail**  
An approved set accelerator add mixture shall be added to joint concrete. Payment shall be included in the Joint Modification Pay Item.



**Seal Detail at Fascias & Median**

For Expansion Dam details not shown see BD 301-93

**COMPRESSION SEAL NOTES**

- The seals to be furnished shall have a minimum Movement Rating of:  
Pier Number 1 = 1 1/2  
Pier Number 2 = 1 1/2
- The seal shall be approved by the Engineer prior to modification of the joint armor.
- The joint opening will vary depending on the dimensions of the seal selected by the Contractor. The joint opening shall be set according to the opening shown on the approved shop detail drawings.
- The Compression Seal adjustment chart shows the adjustment necessary to adjust the joint opening shown on the shop detail drawings for temperatures other than 45 degrees F. Adjustment is to be measured parallel to the centerline of construction.
- Existing joint armor shall be carefully removed as required to weld retention bars and reset as directed by the Engineer.

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	
CHECKED	
FIELD OFFICE	
FIELD SERVICES	
<b>PLANS</b>	

07 JUN 94 01:00:50

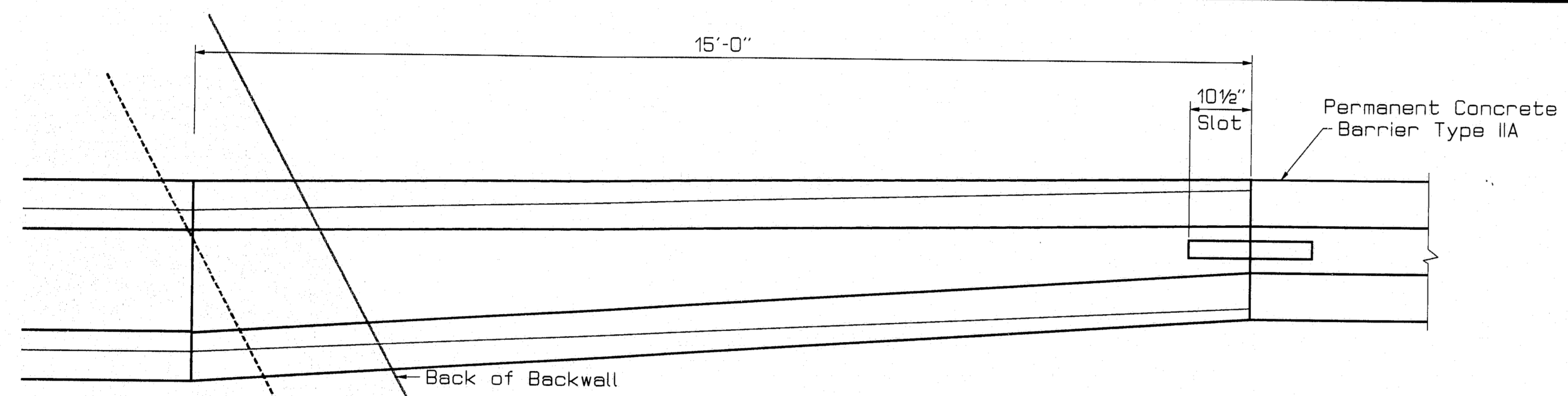
114-405

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

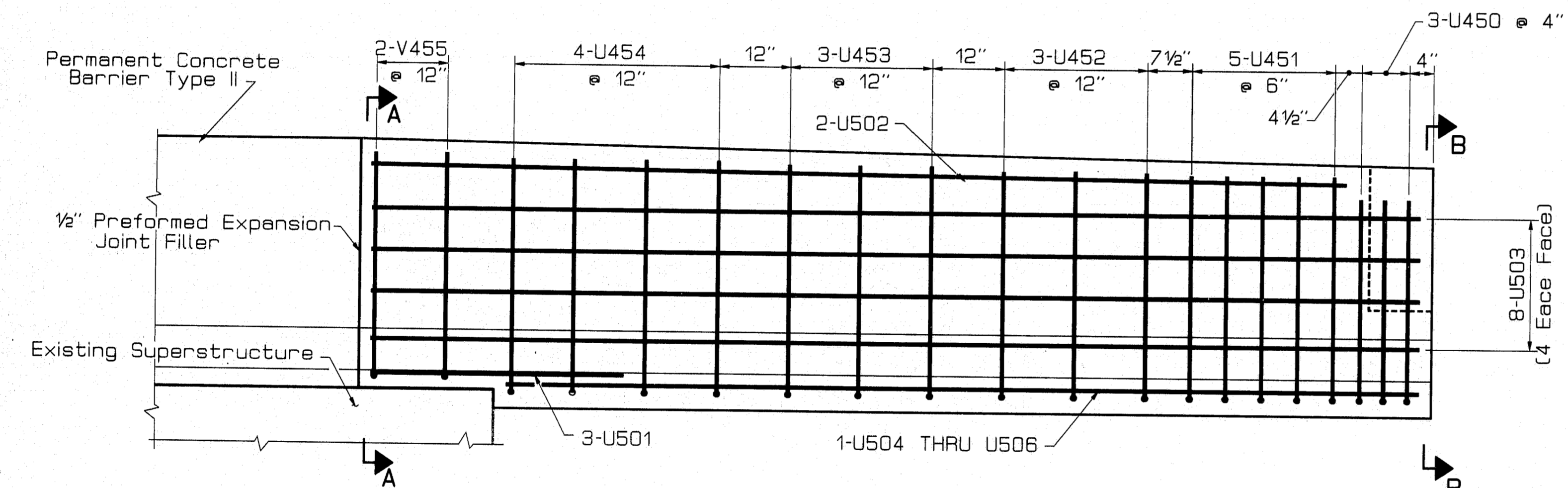
I-295  
OVER  
VERANDA STREET  
IN THE CITY OF  
PORTLAND  
CUMBERLAND COUNTY

GLARE FOIL & SEAL DETAILS

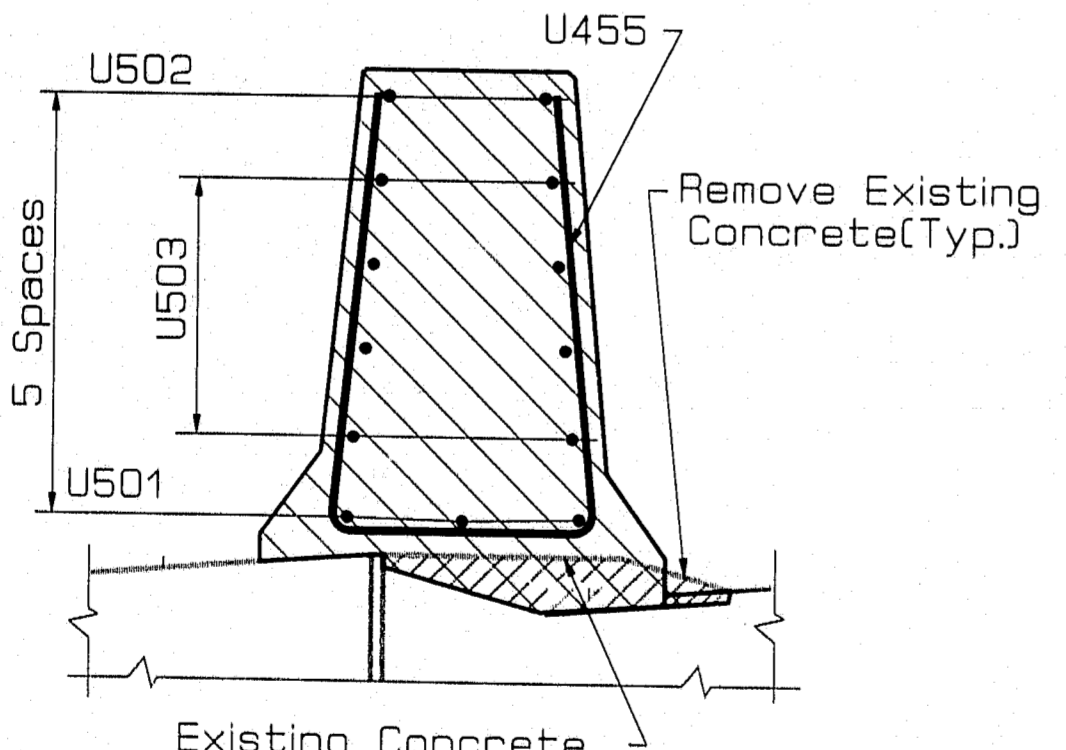
SHEET OF AUGUSTA, MAINE May 1994



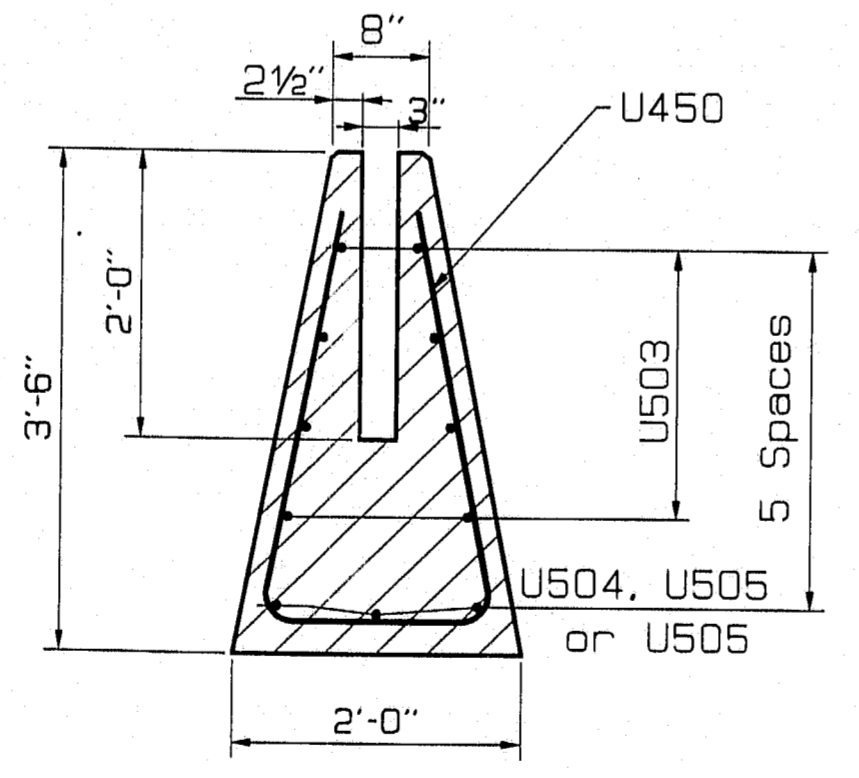
Concrete Barrier Transition Plan



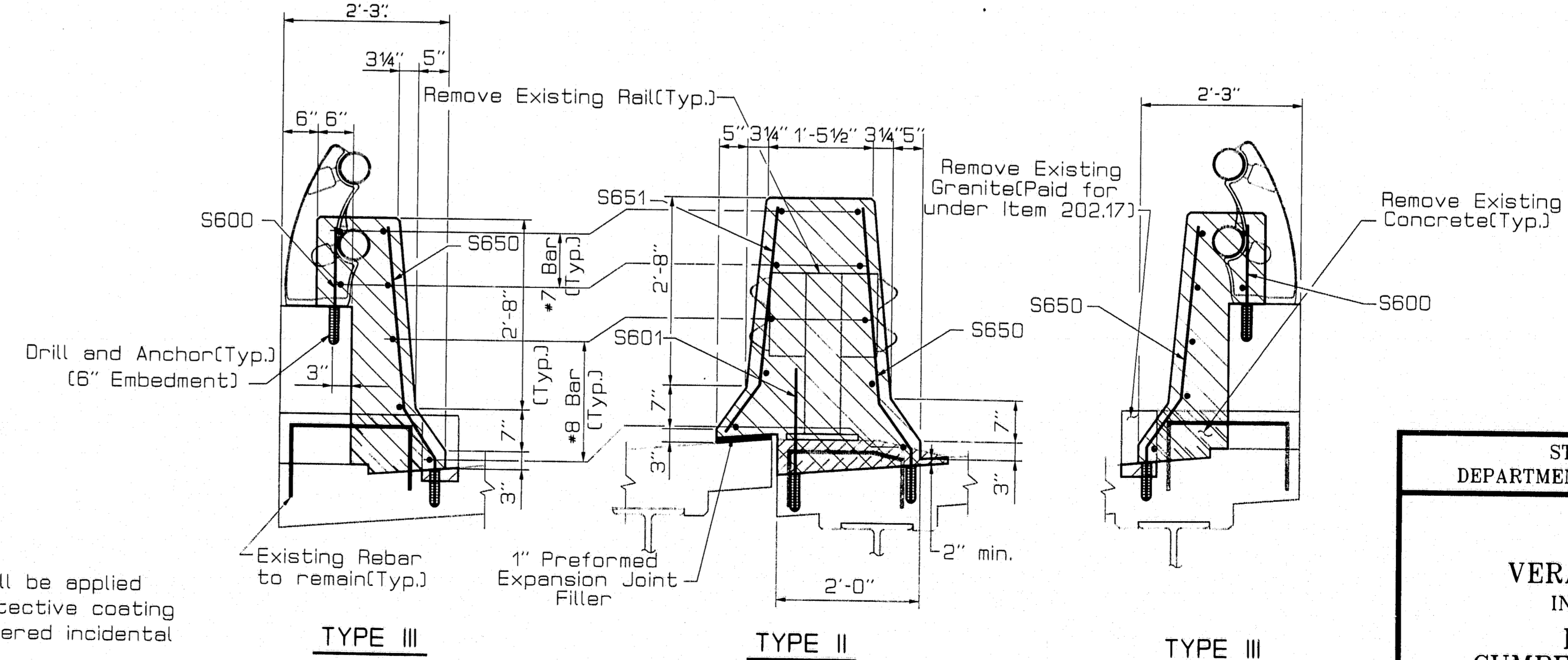
Concrete Barrier Transition Elevation



Section A-A  
For details not shown see Permanent Concrete Barrier Type II



Section B-B



Permanent Concrete Barrier  
For details not shown see sheet of

REINFORCING STEEL SCHEDULE														
STRAIGHT BARS				STRAIGHT BARS										
MARK	NO.	LENGTH	LOCATION	MARK	NO.	LENGTH	LOCATION							
S600	354	1'-7"	Barrier	S800	18	60'-0"	Barrier							
S601	149	2'-0"	Barrier	S801	6	58'-0"								
S605	12	3'-4"	Barrier	S802	9	40'-0"								
				S803	3	50'-0"								
S700	16	60'-0"	Barrier	S804	3	10'-0"								
S701	8	58'-0"		S805	6	46'-6"								
S702	8	40'-0"		S806	6	51'-9"								
S703	4	50'-0"		S808	3	20'-5"								
S704	4	10'-0"		S809	3	45'-10"	Barrier							
S705	4	46'-6"		U501	6	5'-9"	Barrier Transition							
S706	4	51'-9"		U502	4	13'-10"								
S708	4	20'-5"		U503	16	14'-8"								
S709	4	45'-10"	Barrier	U504	6	12'-3"	Barrier Transition							
BENT BARS														
MARK	NO.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
S650	456	4'-0"	Z		8"	10"	2'-6"			13/4"	53/4"			TYPE III BARRIER
S651	203	3'-4"	Z			10"	2'-6"			13/4"	53/4"			TYPE II BARRIER
S652	24	1'-6"	D	8"	3"	7"								TYPE III BAR ENDS
U450	6	7'-3"	T	2'-10"	1'-7"	2'-10"						5 1/2"		Barrier Transition
U451	10	8'-0"	T	3'-2"	1'-8"	3'-2"						6"		
U452	6	8'-4"	T	3'-3"	1'-10"	3'-3"						8"		
U453	6	8'-6"	T	3'-3"	2'-0"	3'-3"						10"		
U454	8	8'-10"	T	3'-4"	2'-2"	3'-4"						1'-0"		
U455	4	8'-7"	T	3'-1"	2'-5"	3'-1"						1'-2"		Barrier Transition

PROJECT DESIGN NUMBER: 18-JAN84-010100  
 DESIGN: DETAILED  
 REVISIONS: 2-31  
 FIELD CHANGES:

- Reinforcing Steel Notes**
- All dimensions are out to out of reinforcing bar
  - Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318
  - First digit(s) following the letter of the mark indicates size of the bar; Mark (A502) bar size-#5

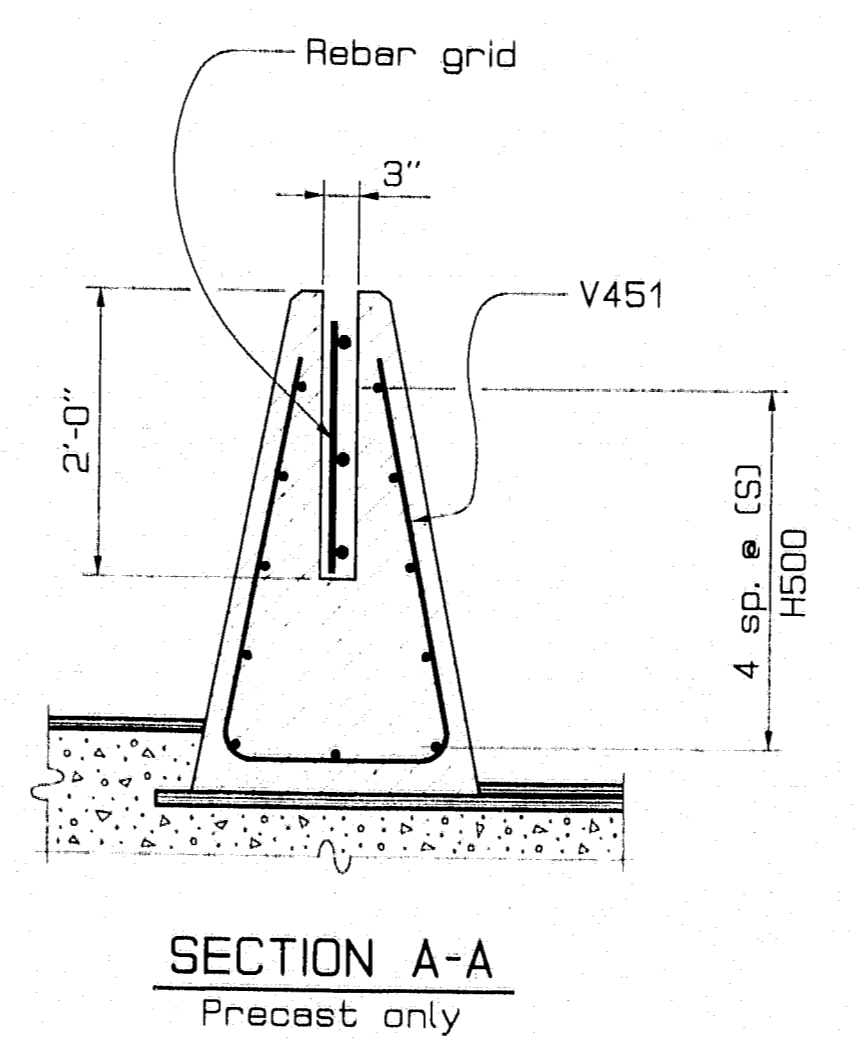
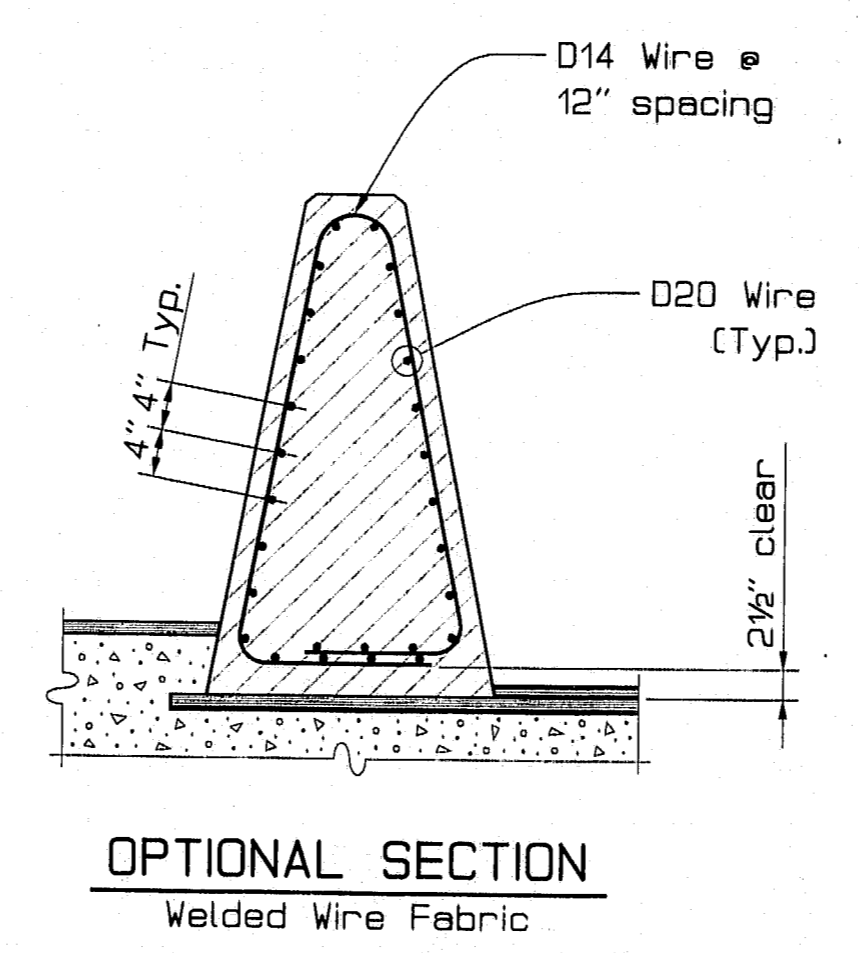
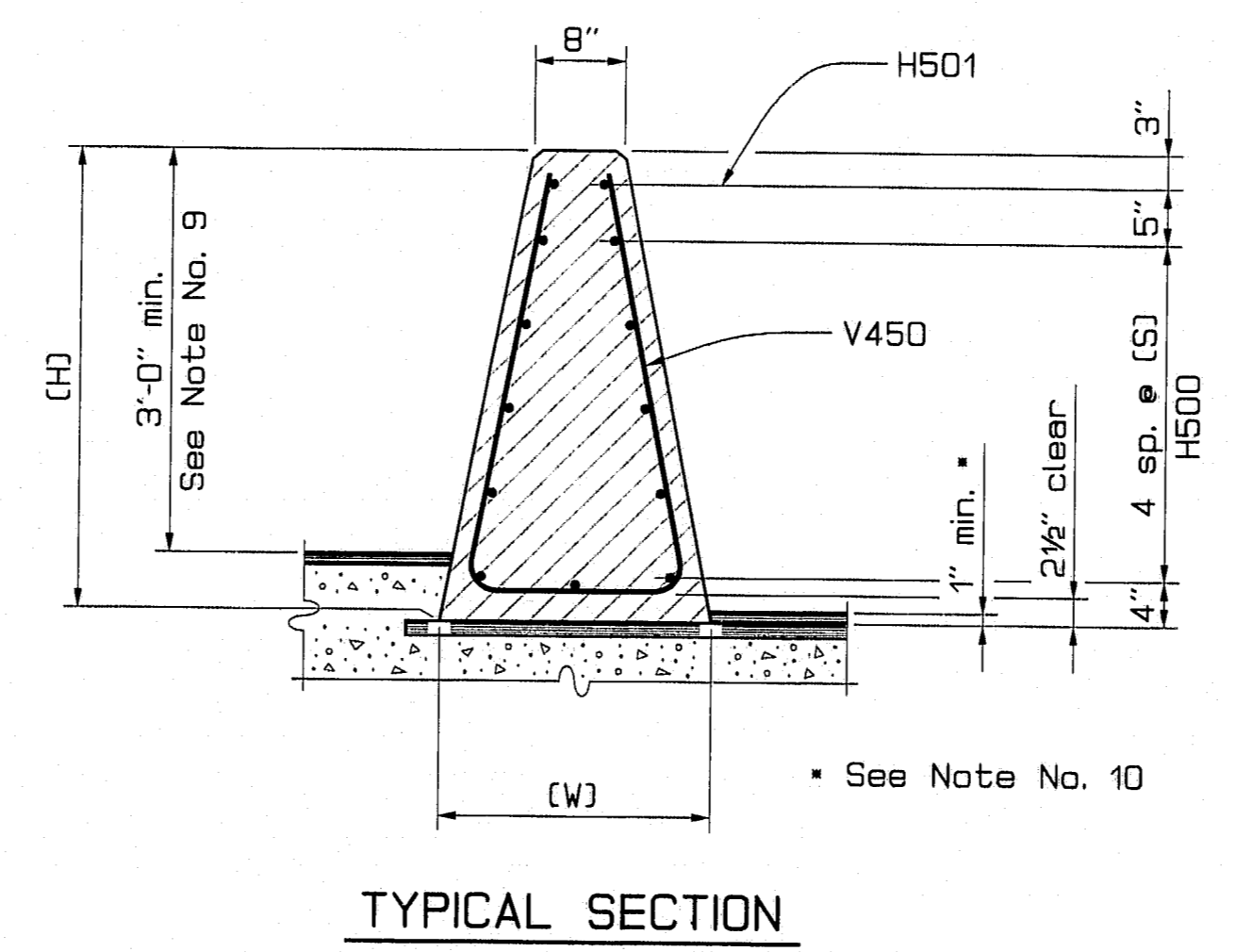
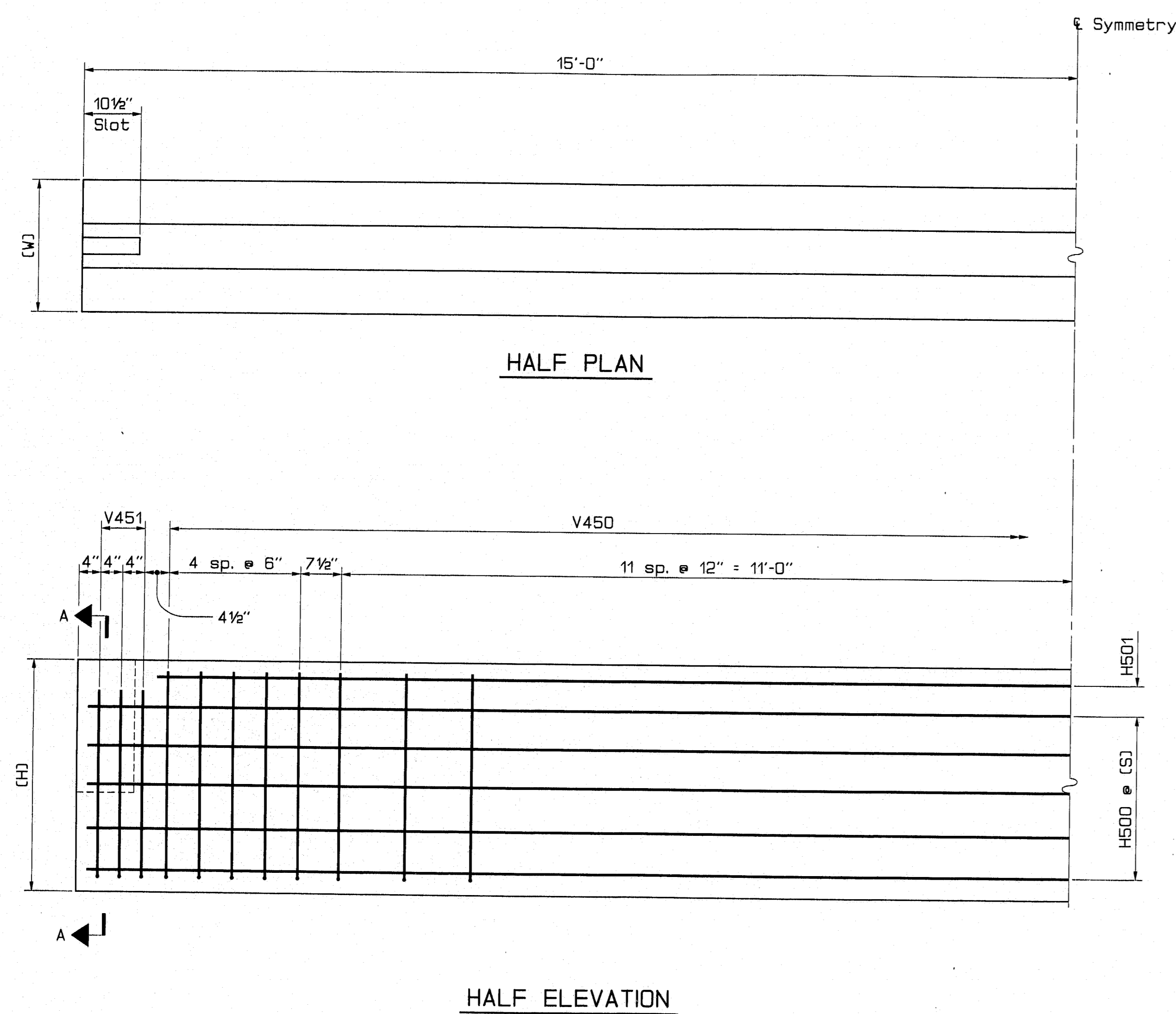
**Note:**  
 Protective Coating for Concrete Surfaces shall be applied to all exposed surfaces of new concrete. Protective coating will not be paid for directly, but will be considered incidental to Item 526.31 or 526.32.

114-406

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 I-295  
 OVER  
 VERANDA STREET  
 IN THE CITY OF  
 PORTLAND  
 CUMBERLAND COUNTY  
 CONCRETE BARRIER  
 BRIDGE DETAILS

SHEET OF AUGUSTA, MAINE May 1984

F.H.W.A. DIST. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-295-3(114)	32	37

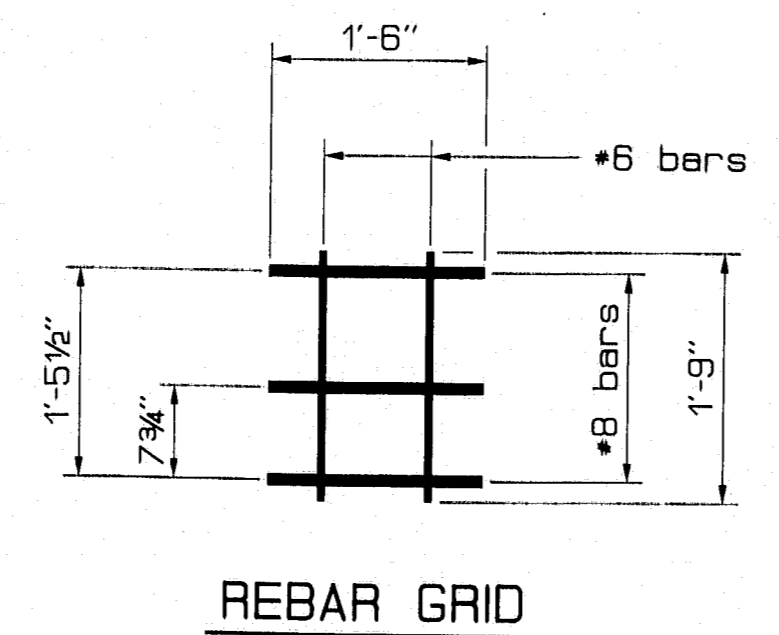


**NOTES**

- Concrete barrier may be precast or cast - in - place. Precast sections shall be 30 feet ( $\pm 3/4$  inch) long unless otherwise indicated on the design plans.
- Precast barrier sections shall be joined by installing a rebar grid into adjacent slots and filling the slots with a material included on the Department's list of prequalified grouts. Rebar grid and slots shall be omitted for cast - in - place construction and at the extreme ends of precast installations.
- Welded wire fabric may be substituted for conventional reinforcement at the option of the Contractor. Welded wire fabric shall be 4 x 12 - D20 x D14 and shall meet the provisions of ASTM A497. Conventional reinforcement will be required in the end two feet, plus a development length of 18 inches, of each section of concrete barrier.
- Installation of Concrete Barrier Type II A, B, or C will be as indicated on the design plans.
- Reinforcing steel shall have a minimum cover of 1 1/2 inches unless otherwise indicated.
- Form a 3/4 - inch chamfer on the top and end edges of concrete.
- Lap splices in longitudinal reinforcing steel and welded wire fabric shall be a minimum of 1'-9".
- The maximum transition in barrier height shall be two inches in thirty feet. Longitudinal reinforcing steel shall be spaced uniformly throughout the transition. Barrier height transitions shall be determined in the field by the Engineer.
- The minimum effective barrier height is thirty inches. Barrier design height (H) shall allow for differences in roadway elevation and for up to six inches in future pavement overlays.
- A minimum pavement thickness of one inch is required at the base of the barrier for lateral support.
- The Reinforcing Steel Schedule indicates the quantities and lengths of bars required for one 30 - foot precast section.

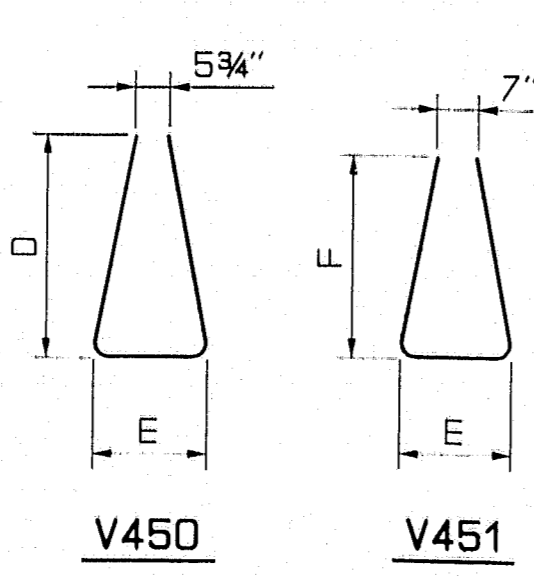
**TABLE OF DIMENSIONS**

Barrier Type	Height (H)	Width (W)	Spacing (S)
II A	3'-6"	2'-0"	0'-7 1/2"
II B	4'-0"	2'-2 1/4"	0'-9"
II C	4'-6"	2'-4 1/2"	0'-10 1/2"



**REINFORCING STEEL SCHEDULE**

Mark	Size	Qty.	Total Bar Length		
			II A	II B	II C
V450	#4	33	7'-9"	8'-11"	10'-2"
V451	#4	6	7'-2"	8'-4"	9'-7"
H500	#5	11	29'-8"		
H501	#5	2	27'-8"		



**BAR BENDS**

Dim.	Length		
	II A	II B	II C
D	3'-1 1/2"	3'-7 1/2"	4'-1 1/2"
E	1'-7"	1'-9 1/4"	1'-11 1/2"
F	2'-10"	3'-4"	3'-10"

PROJECT DESIGN ENGINEER: DATE: 10/23/93  
 BY: ID: Date: 10/23/93  
 LTH: JCK  
 DESIGN-DETAILED: CHECKED: REVISIONS: FIELD CHANGES:

PLANS  
 18JAN84-010100

**114-407**

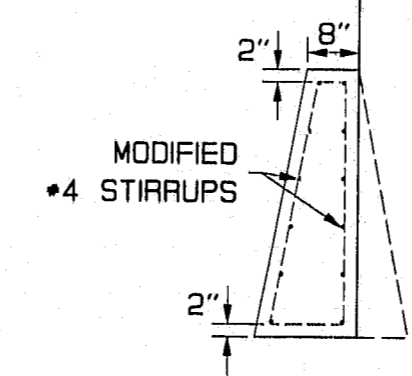
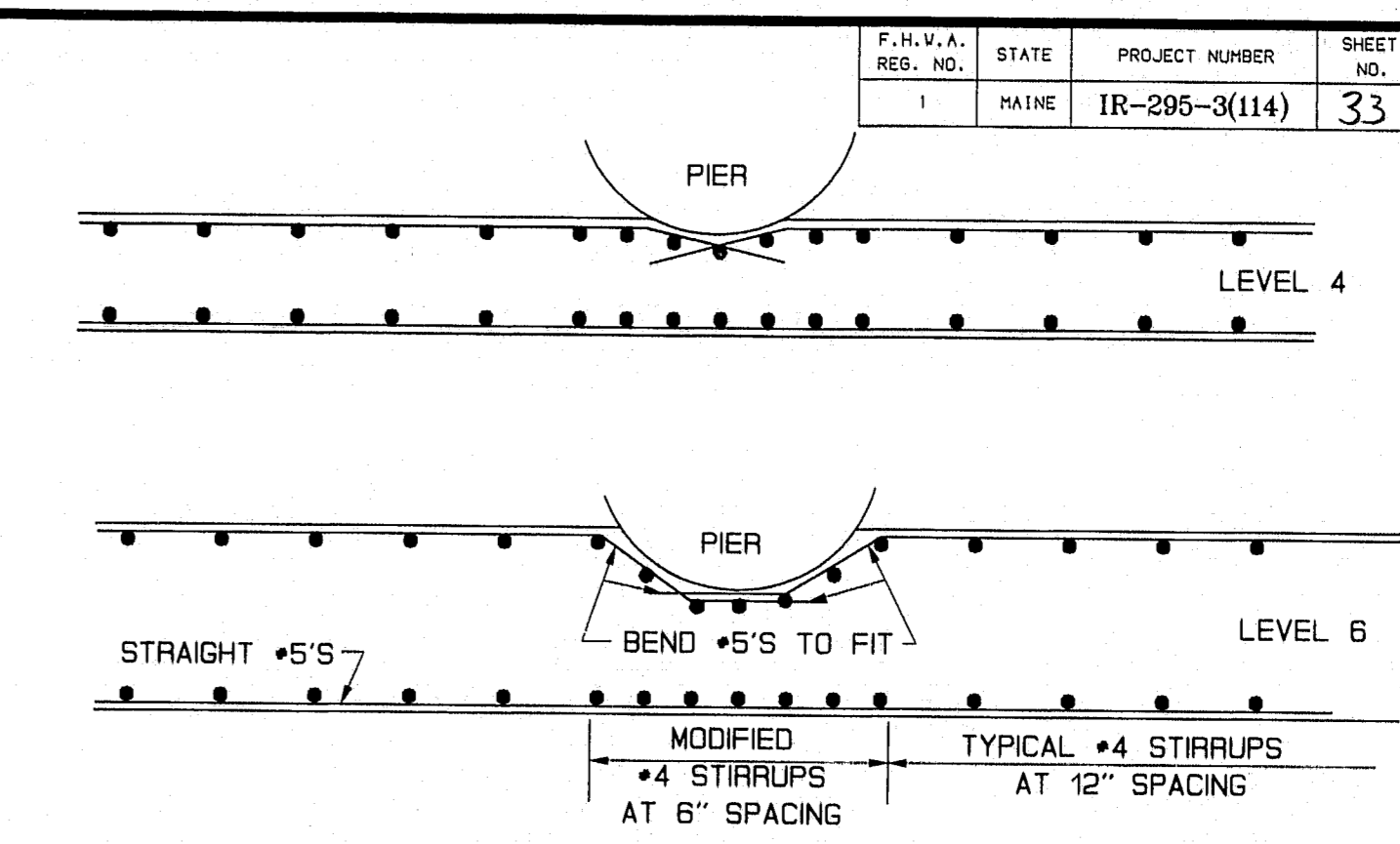
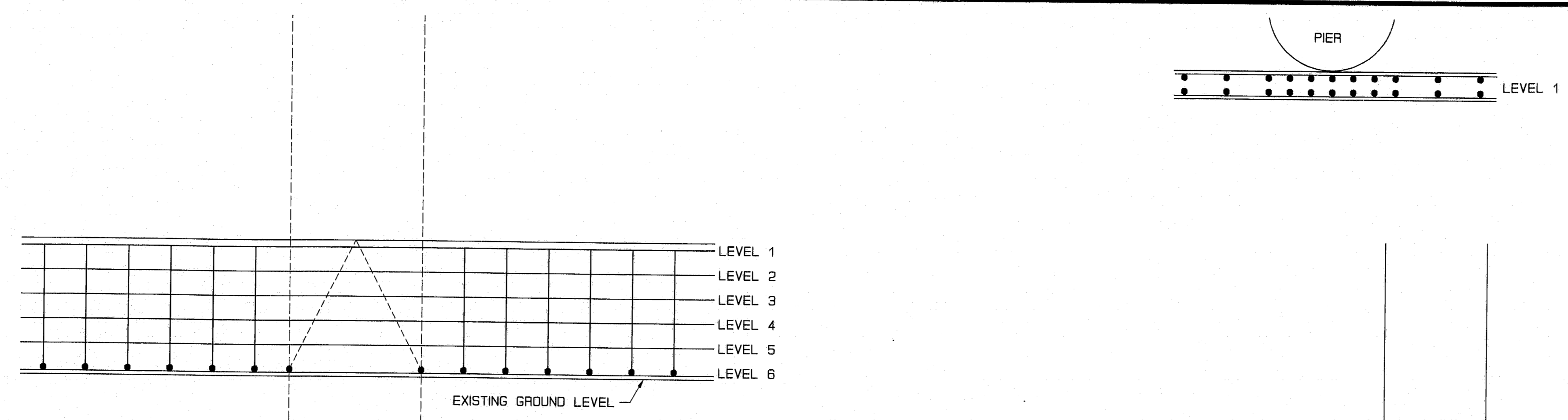
STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

**STANDARD DETAILS**

PERMANENT  
 CONCRETE BARRIER  
 TYPE II

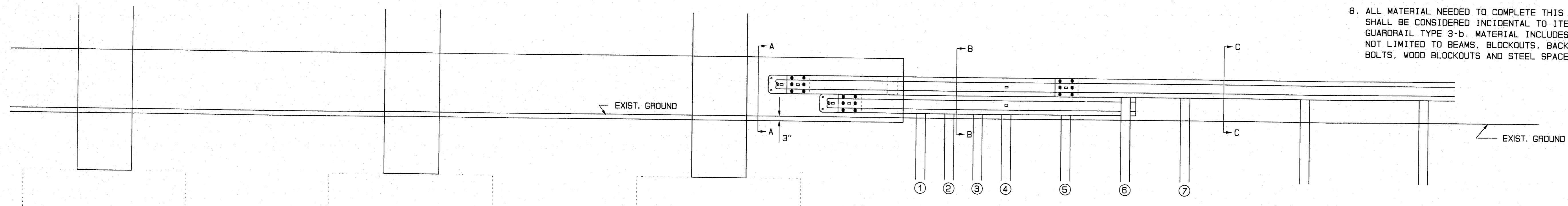
SHEET 1 OF 1 AUGUSTA, MAINE December 1993

F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-205-3(114)	33	37



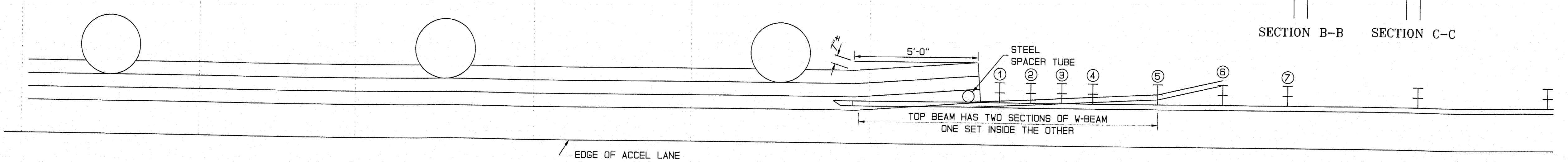
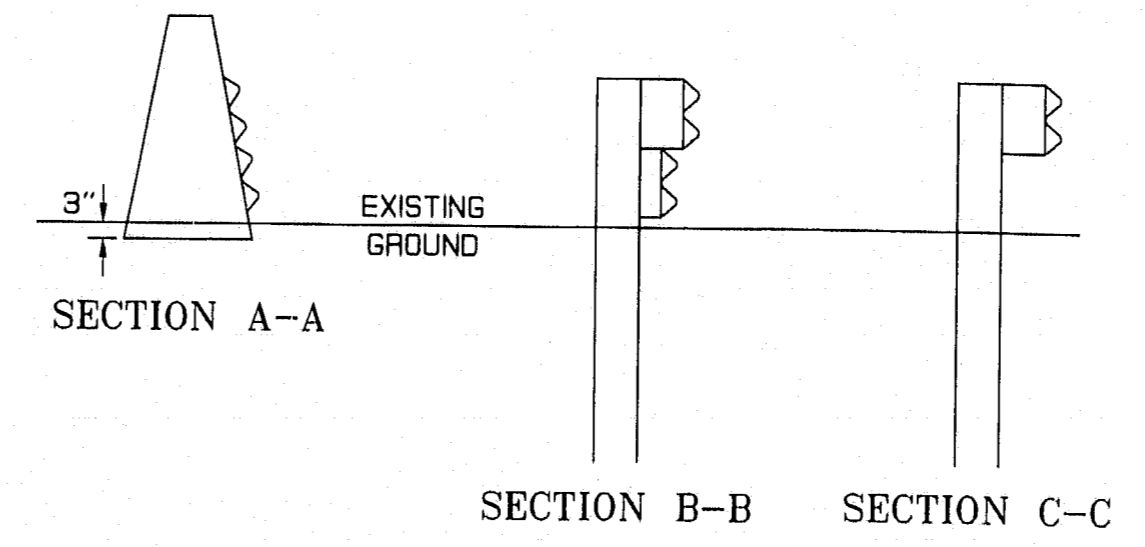
PIER SECTION

1. THIS GUARDRAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO A CONCRETE SAFETY SHAPE.
2. STANDARD BARRIER HARDWARE HAS BEEN USED TO DEVELOP THIS GUARDRAIL TRANSITION. DESIGNATIONS PROVIDED IN THE PARTS LIST RELATE TO STANDARD ELEMENTS DETAILED IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE" (1979 AASHTO-AGC-ARTBA JOINT COOPERATIVE COMMITTEE.)
3. POSTS 1-6 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKS OR LOWER BEAM. NO EXTRA PAYMENT WILL BE MADE FOR ADDING ADDITIONAL HOLES.
4. RUBRAIL WOOD BLOCKS LOCATED ON POSTS 1 THROUGH 4 ARE OFFSET DRILLED AND SECURED WITH 5/8" CARRIAGE BOLTS (F-9(CAS REQUIRED)-73) TO POSTS 2 AND 4; GUARDRAIL AND POSTS AT POST 1, 3 AND 5.
5. V-BEAM IS NOT BOLTED TO POSTS AT POSTS 2 THROUGH 4.
6. STEEL SPACER TUBE SCHEDULE 40 GALVANIZED PIPE 6"(I.D.)x9" AND ATTACHED BY A 5/8" CARRIAGE BOLT (F-9(CAS REQUIRED)-73) AND RECTANGULAR PLATE WASHER F12-12-73.
7. AT POST 7 BACK-UP PLATE BOLTED TO BLOCK ONLY.
8. ALL MATERIAL NEEDED TO COMPLETE THIS CONNECTION SHALL BE CONSIDERED INCIDENTAL TO ITEM 606.17 GUARDRAIL TYPE 3-b. MATERIAL INCLUDES, BUT IS NOT LIMITED TO BEAMS, BLOCKOUTS, BACKUP PLATES BOLTS, WOOD BLOCKOUTS AND STEEL SPACER TUBE.



PROFILE VIEW

POST	THICKNESS
①	5"
②	4"
③	3"
④	2"



PLAN VIEW

PROJECT DESIGN ENGINEER	DATE
DESIGN DETAILER	1/7/82
CHECKED	
REVISED	
FIELD CHANGES	

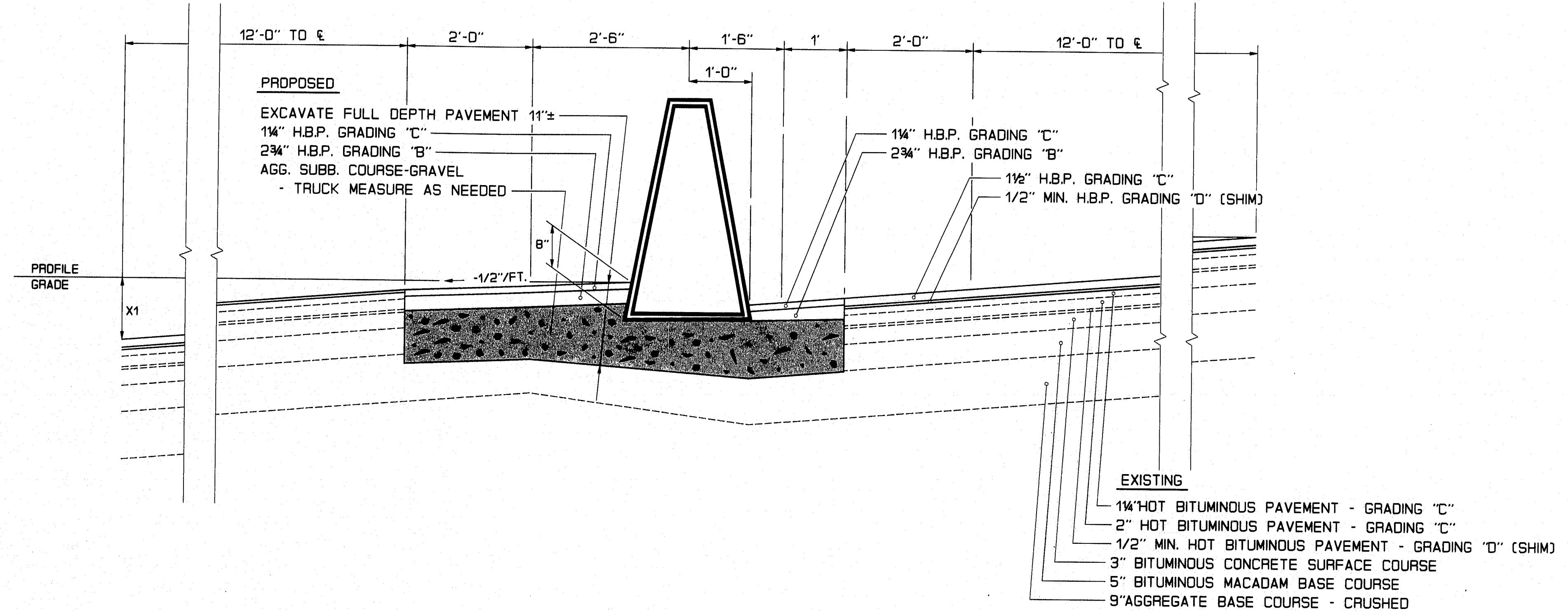
PLANS

114-408

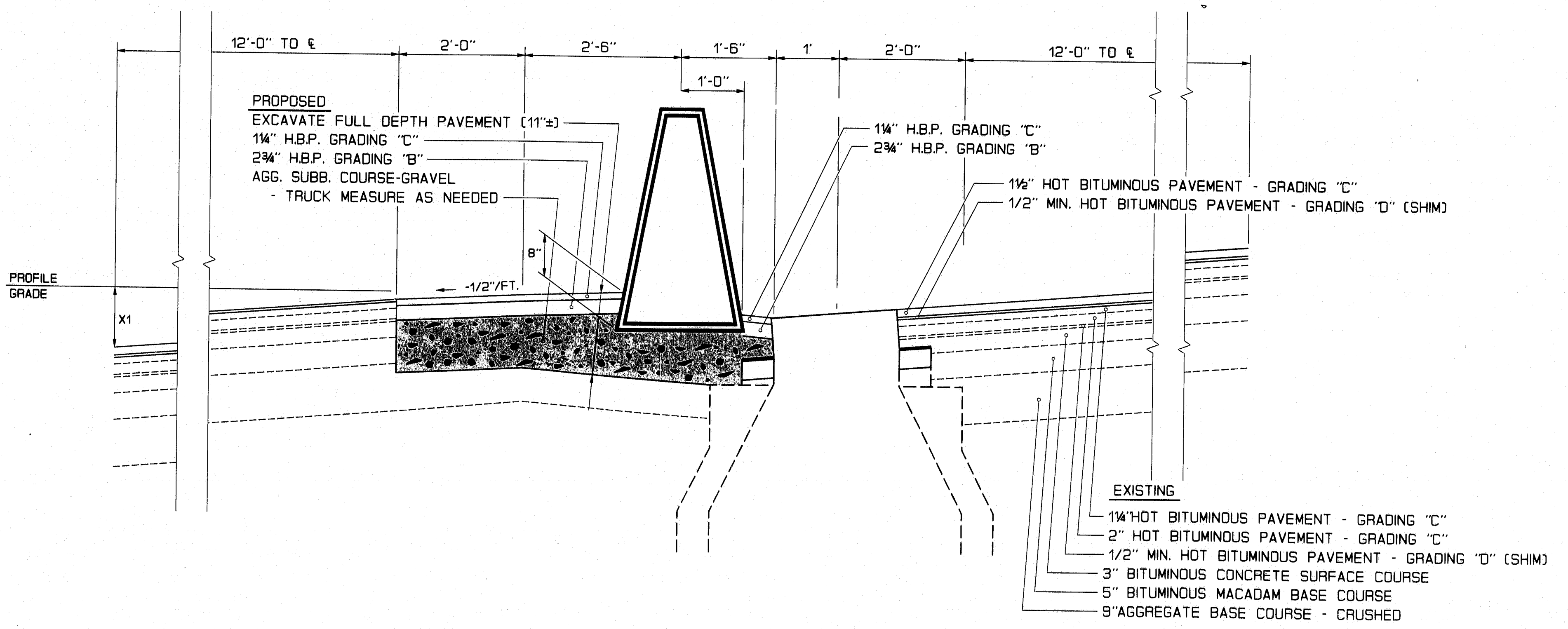
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

PERMANENT CONCRETE  
BARRIER TYPE II  
ON S.B. BUCKNAM RD.  
ACCEL LANE

F.D.S.V.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	IR-295-3(114)	34	37



PERMANENT CONCRETE BARRIER TYPE IIA



PERMANENT CONCRETE BARRIER TYPE IIA

- NOTES:
- HIGH SIDE MEDIAN SHOULDER SHALL BE EXCAVATED TO A DEPTH OF 11".
  - ALL PAVEMENT COURSES SHALL BE STRAIGHT.
  - PAVEMENT CROSS-SLOPE SHALL BE 1/2"/FT. ON THE HIGH SIDE MEDIAN.
  - THE LOW SIDE MEDIAN SHOULDER SHALL BE THE SAME CROSS-SLOPE AS THE TRAVELWAY.

PROJECT DESIGN BY	DOUG BRIGGS
DESIGN-DETAILED	
REVISIONS	
FIELD CHANGES	
DATE	5/99
BY	JMG
D.P.B.	
PLANS	

18JAN94-010100

114-409

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

PERMANENT CONCRETE  
BARRIER TYPE II  
& DRAINAGE DETAIL  
FOR B.C.T. WIDENING

SHEET 1 OF 1 AUGUSTA, MAINE