

F.R.N.A. SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0250(12)	1	18

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION



PLANS

CONVENTIONAL SIGNS	
COUNTY LINES	TRAVELLED WAY - PROPOSED
TOWN LINES	UNDERGROUND UTILITIES - EXISTING
PROPERTY LINES	UNDERGROUND UTILITIES - PROPOSED
R/W LINES - EXISTING	RAILROAD - SINGLE TRACK
R/W LINES - NEW - ACCESS CONTROL	RAILROAD - DOUBLE TRACK
R/W LINES - NEW - NO ACCESS CONTROL	UTILITY POLE - EXISTING
CULVERT - EXISTING	UTILITY POLE - JOINT OCCUPANCY
CULVERT - PROPOSED	PROPOSED UTILITY POLE - TEMPORARY
CURBING - EXISTING	PROPOSED UTILITY POLE - PERMANENT
CURBING - PROPOSED	TREES
TRAVELLED WAY - EXISTING	WOODS

INDEX OF SHEETS  
SHEET NO. DESCRIPTION

- 1 - - - - TITLE SHEET
- 2 - - - - ESTIMATED QUANTITIES
- 3 - - - - GENERAL PLAN
- 4 - - - - TRAFFIC PLAN & DETAILS
- 5 - - - - FLOORBEAM LAYOUT
- 6-7 - - - - ALTERNATE NO. 1
- 8-9 - - - - ALTERNATE NO. 2
- 10-13 - - - - BRIDGE JOINT DETAILS
- 14-15 - - - - STANDARD DETAILS
- 16-18 - - - - MAINTENANCE OF TRAFFIC

**SPECIFICATIONS**  
DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1983 and Interim Specifications 1984 and 1985.  
CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revisions of January 1984.

**DESIGN LOADING**  
LIVE LOAD: - - - - - HS-20

**MATERIALS**  
CONCRETE: - - - - - See Special Provisions  
REINFORCING STEEL: ASTM A615, Grade 60  
STRUCTURAL STEEL:  
Steel Grid - - - - - ASTM A 572  
High Strength Bolts - - - - - ASTM A 325  
All Other - - - - - ASTM A 36

**BASIC DESIGN STRESSES**  
CONCRETE: - - - - - See Special Provisions  
REINFORCING STEEL: - - - - -  $f_y = 60,000$  psi  
STRUCTURAL STEEL:  
ASTM A572 - - - - -  $F_y = 50,000$  psi  
ASTM A325 - - - - -  $F_v = 25,000$  psi  
ASTM A36 - - - - -  $F_y = 36,000$  psi

DECK REPLACEMENT  
OF THE  
DEER ISLE - SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
BETWEEN  
LITTLE DEER ISLE & SEDGWICK  
HANCOCK COUNTY  
MAINE FEDERAL AID PROJECT  
PROJECT NO. BH-0250(12)  
PROJECT LENGTH: 0.475 MILES

Plans of the existing bridge are available for the Contractor's reference at the Bridge Design Office in Augusta. The plans 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.

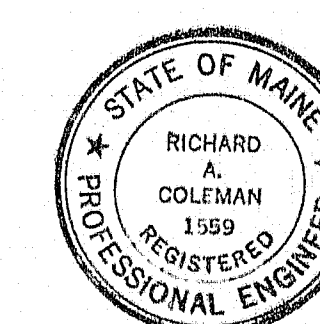
TRAFFIC DATA

A.D.T. 1986 1660  
A.D.T. 2006 2660  
D.H.V. 399  
T. (%) 8  
D. (%) 60  
V. 25

18 KIPS P2.5 62

NOTE

All work contemplated under this contract to be governed by and in conformity with the STANDARD SPECIFICATIONS (revision of January 1984) and supplementals thereto, except as modified on the plans and in the special provisions.



APPROVED: STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
COMMISSIONER  
7-25-86

Richard A. Coleman  
CHIEF ENGINEER  
7-25-86

100-311

As Built 1987

UNITED STATES  
DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
REGION 1

APPROVED:

DIVISION ADMINISTRATOR DATE



ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	REM EXIST SUPERSTRUCTURE - PROP OF CONTRACTOR	1	L.S.
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EA.
518.30	REHAB OF STR CONCRETE SLAB TO REINFORCING STEEL	270	S.F.
518.31	REHAB OF STR CONCRETE SLAB TO BELOW REINFORCING STEEL	135	S.F.
519.30	EPOXY WATERPROOFING OVERLAY	5550	S.Y.
520.24	BRIDGE JOINT MODIFICATIONS	6	EA.
526.301	TEMPORARY CONCRETE BARRIER, TYPE 1	11	L.S.
545.60	PREFABRICATED DECK UNITS	1	L.S.
627.61	4 INCH SOLID WHITE PAVEMENT MARKING LINE	5000	L.F.
627.63	4 INCH SOLID YELLOW PAVEMENT MARKING LINE	5000	L.F.
639.18	FIELD OFFICE TYPE A	1	EA.
643.72	TEMPORARY TRAFFIC SIGNAL	1	L.S.
652.31	TYPE 1 BARRICADE	10	EA.
652.33	DRUM	10	EA.
652.34	CONE	20	EA.
652.35	CONSTRUCTION SIGNS	300	S.F.
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	L.S.
652.37	WARNING LIGHTS	2	GR.
652.38	FLAGGER	1000	M.H.
652.50	TEMPORARY BRIDGE RAIL	1	L.S.
659.10	MOBILIZATION	1	L.S.

P.R.W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	84-0250(12)	2	18

# ESTIMATE LUMP SUM QUANTITIES

(ITEM 545.60)

ALTERNATE NO. 1

ALTERNATE NO. 2

- STEEL GRID FLOORING  
5,460 S.Y.
- CONCRETE FILL CLASS AA  
MODIFIED  
586 C.Y.
- CONCRETE OVERLAY  
CLASS AA MODIFIED  
50 C.Y.

- CONCRETE CLASS PC  
990 C.Y.
- EPOXY COATED REINFORCING  
STEEL  
362,000 LBS

- SHEAR CONNECTORS  
4,272 EA.
- PROTECTIVE COATING FOR  
CONCRETE SURFACES  
380 S.Y.

Alternate #1 - Concrete  
Filled Steel Grid

Alternate #2 Pre cast  
Concrete Slab

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
DEER ISLE SEDGWICK BRIDGE OVER EGGEMOGGIN REACH HANCOCK COUNTY ESTIMATED QUANTITIES
SHEET 2 OF 18 AUGUSTA, MAINE

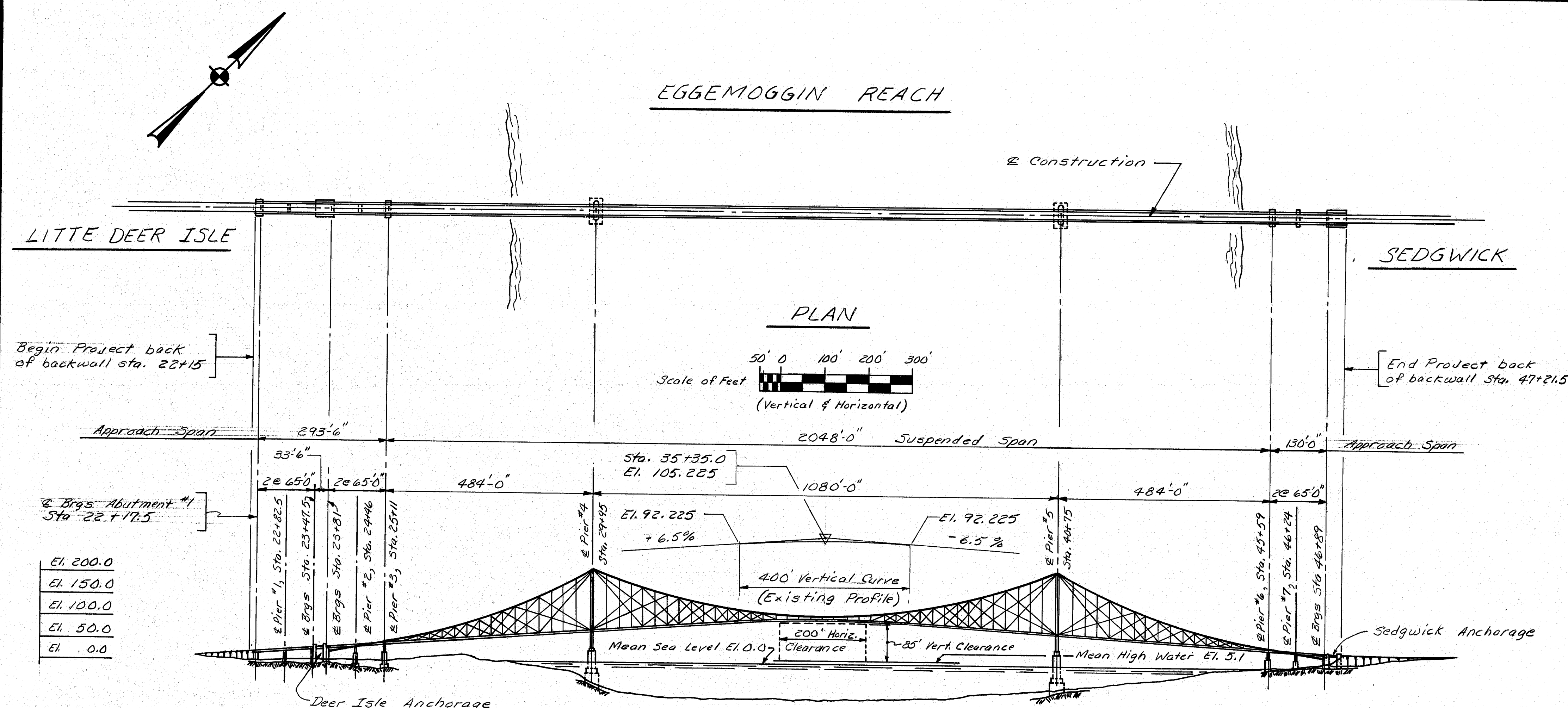
100-312

PROJECT DESIGN ENGINEER	DATE
CHECKED	7-26
REVISIONS	8-26
FIELD CHANGES	
PLANS	

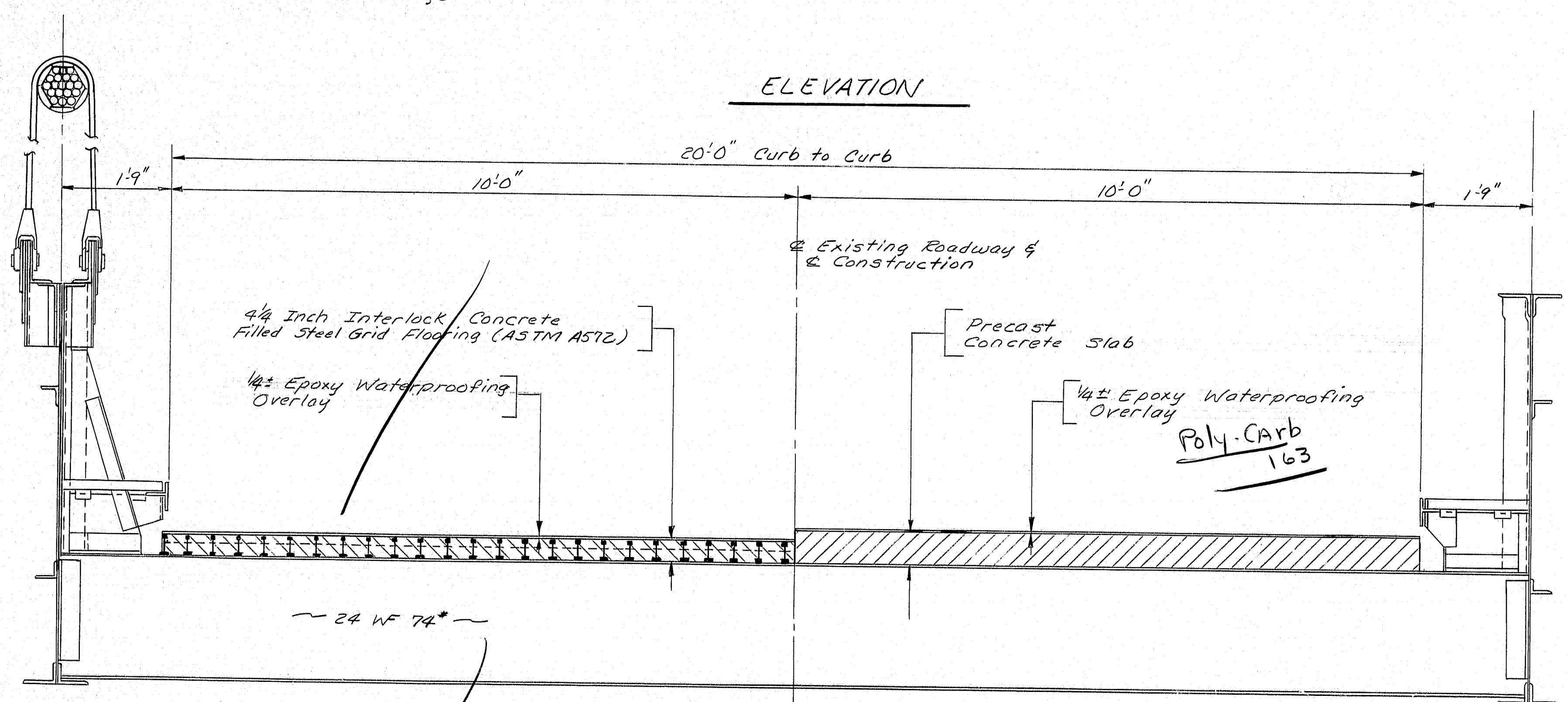
REVISION 44-122-45710-1



F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	SH-0250(12)	3	18



El. 200.0
El. 150.0
El. 100.0
El. 50.0
El. 0.0



ALTERNATE NO. 1  
HALF SECTION AT SUSPENDER CONNECTION  
CONCRETE FILLED STEEL GRID FLOORING SHOWN

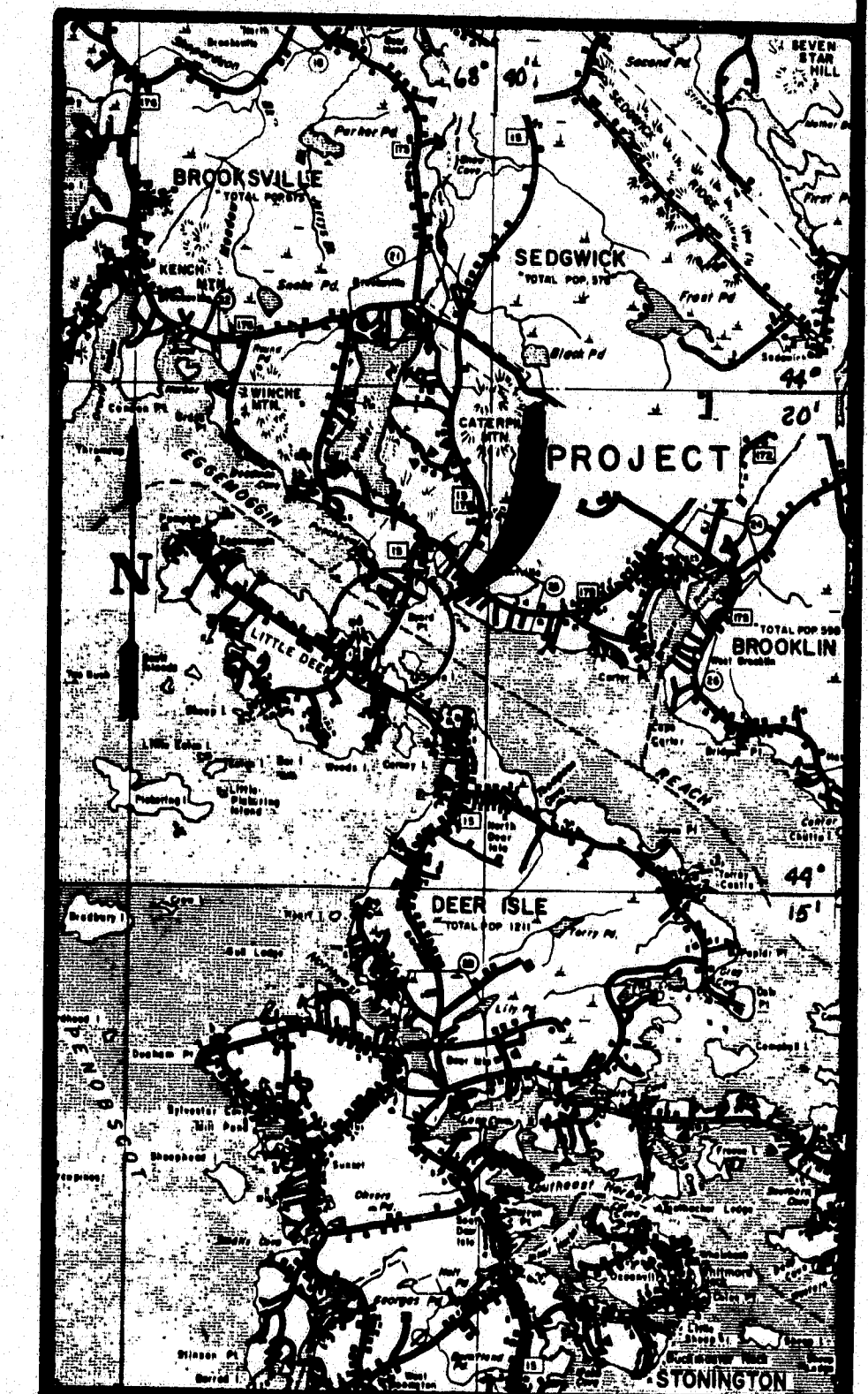
ALTERNATE NO. 2  
HALF SECTION AT FLOOR BEAM BETWEEN SUSPENDERS  
LIGHT WEIGHT PRECAST CONCRETE PANELS SHOWN

NOTE: The Department has wind and displacement monitoring devices attached to the girders of the Deer Isle-Sedgwick Bridge. The Contractor shall conduct his operations so as not to disturb any of the wiring or equipment. Any damage caused by the Contractor's operations shall be replaced or repaired, as approved by the Engineer, at the Contractor's expense.

As Built 1987  
ALT 2  
USED

100-313

BRIDGE No. 3257



LOCATION MAP

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
DEER ISLE SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
HANCOCK COUNTY  
GENERAL PLAN  
SHEET 3 OF 18 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	5-86
REVISIONS	7-86
FIELD CHANGES	

BURNING 44132-4570-1



F.R.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0250 (12)	4	18

## NOTES

1. Only one 200' Work Area will be permitted at any one time.
2. The temporary bridge rail may be substituted with an equal as approved by the Engineer. Payment will be made under Item 652.50, Temporary Bridge Rail.
3. The traffic lane in the work area shall be sufficiently lighted as approved by the Engineer.

4. Temporary ramps shall be provided at joints between existing and new deck when required to maintain a smooth riding surface for traffic. These temporary ramps are to be incidental to Item No. 652.50, Temporary Bridge Rail.
5. A minimum traffic lane of 9'-0" shall be maintained at all times with the following exception:

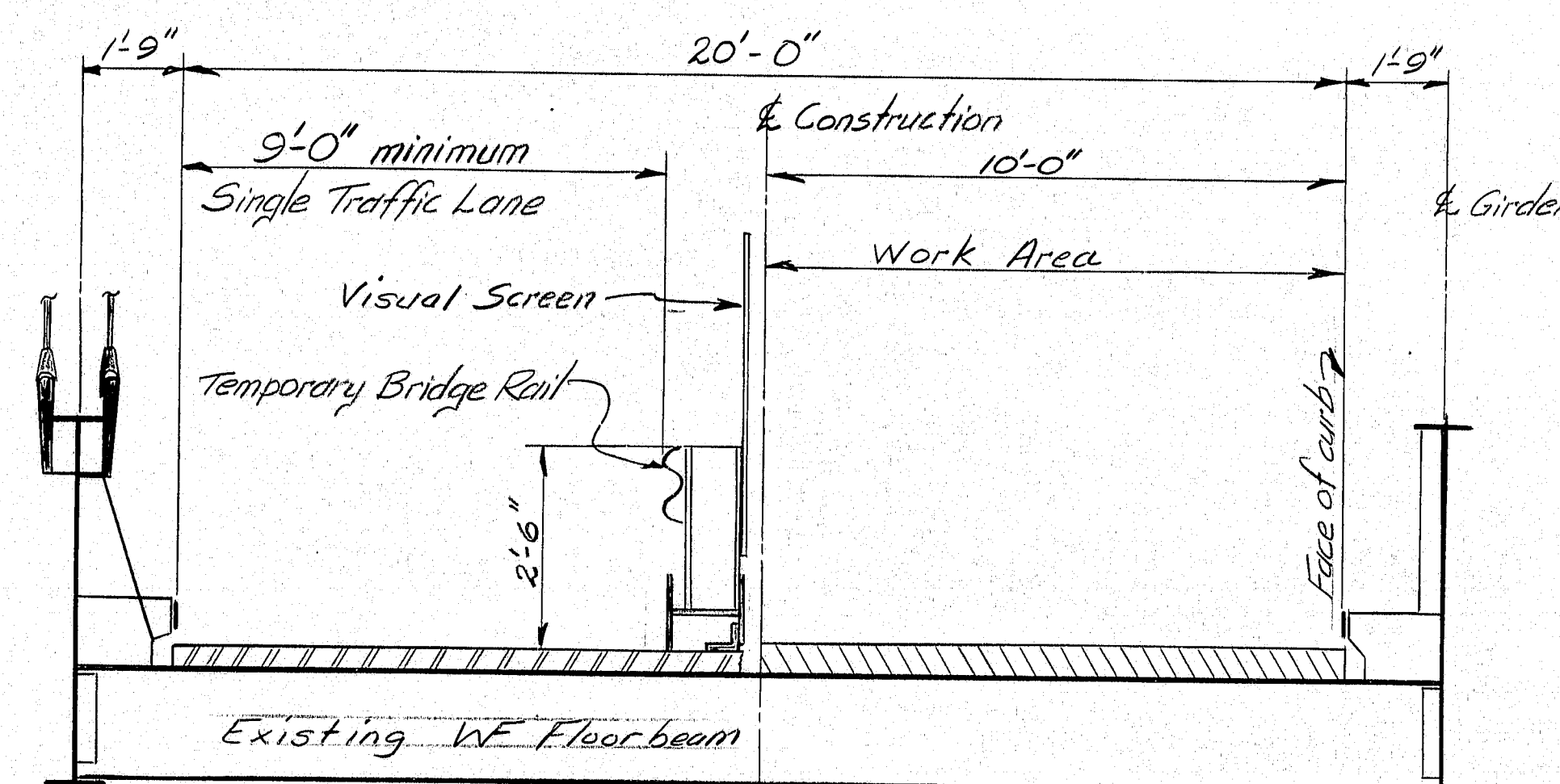
- Closures to traffic not to exceed 20 minutes. These closures will be to facilitate the removal of existing deck units and replacing with new deck units. The scheduling of closures shall be during low traffic periods, and as approved by the Engineer.
6. The Contractor is to keep the news media informed of bridge closures.

7. Splices will be allowed in the temporary bridge rail as approved by the Engineer.

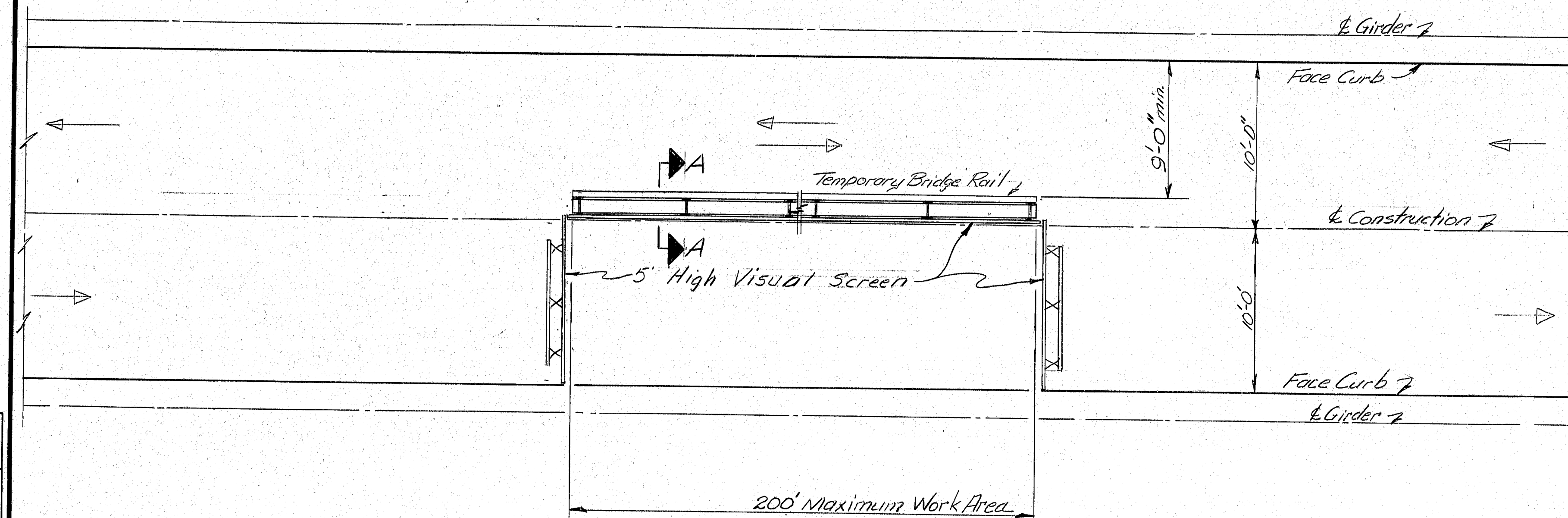
8. A cone or reflectorized traffic delineator as approved by the Engineer, shall be provided in areas other than the work area to keep traffic away from saw cuts in the existing slab. Payment for this will be made under Item 652.34, Cone.

9. A visual screen shall be attached to the temporary bridge rail and a visual screen erected at the ends of the work area. This is to prevent the traffic from seeing the area where the existing deck has been removed and to protect the traffic from welding flash. The visual screen shall be of a material approved by the Engineer. Payment for the visual screen shall be incidental to Pay Item 652.50, Temporary Bridge Rail.

10. During periods of nonwork, a safety net or approved device shall be appropriately hung below or on top of the open deck area. Payment to be considered incidental to related contract items.

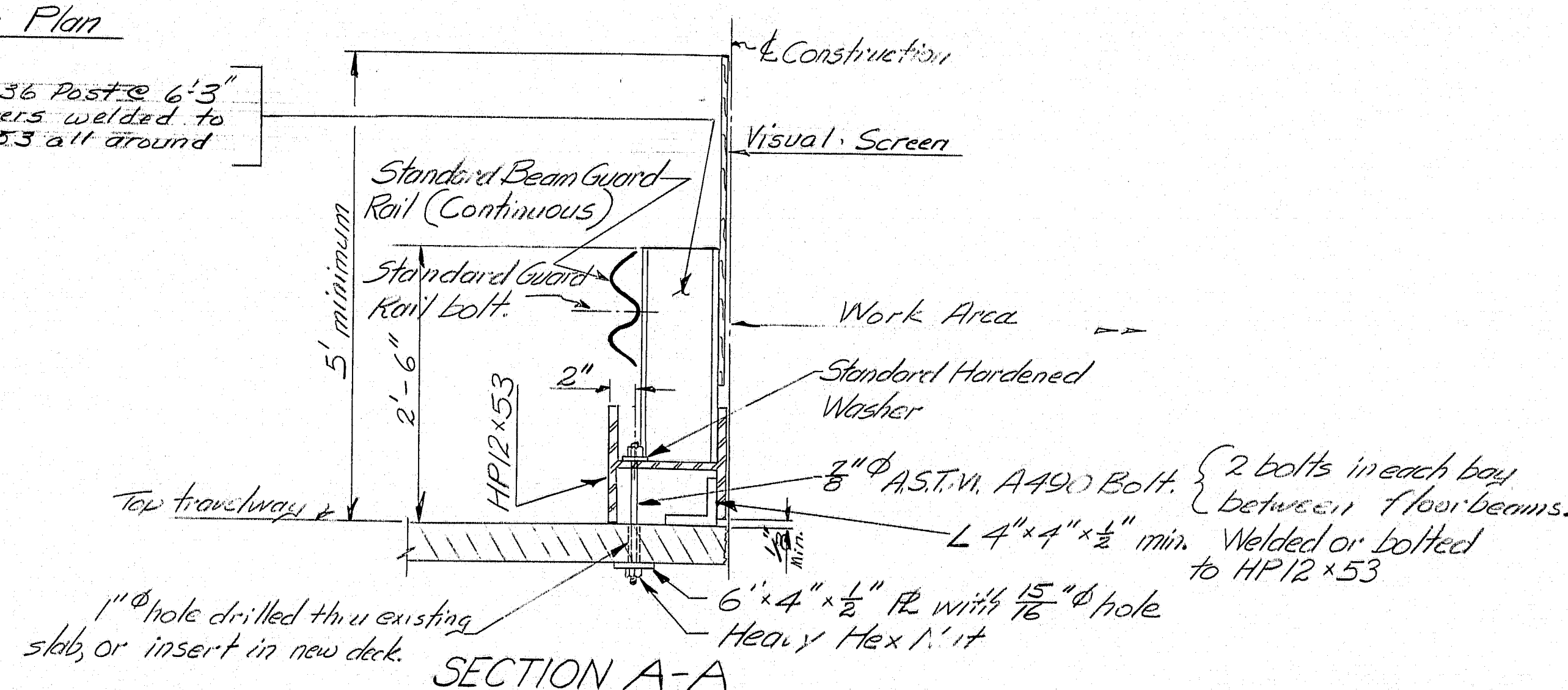


BRIDGE SECTION WITH TRAFFIC CONTROL



Maintenance of Traffic Plan

HP 8 x 36 Post @ 6'-3" on centers welded to HP 12 x 53 all around



SECTION A-A

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	6-86
CHECKED	WLB
REVISIONS	
FIELD CHANGES	
PLANS	

BRUNING 44132 4570-1

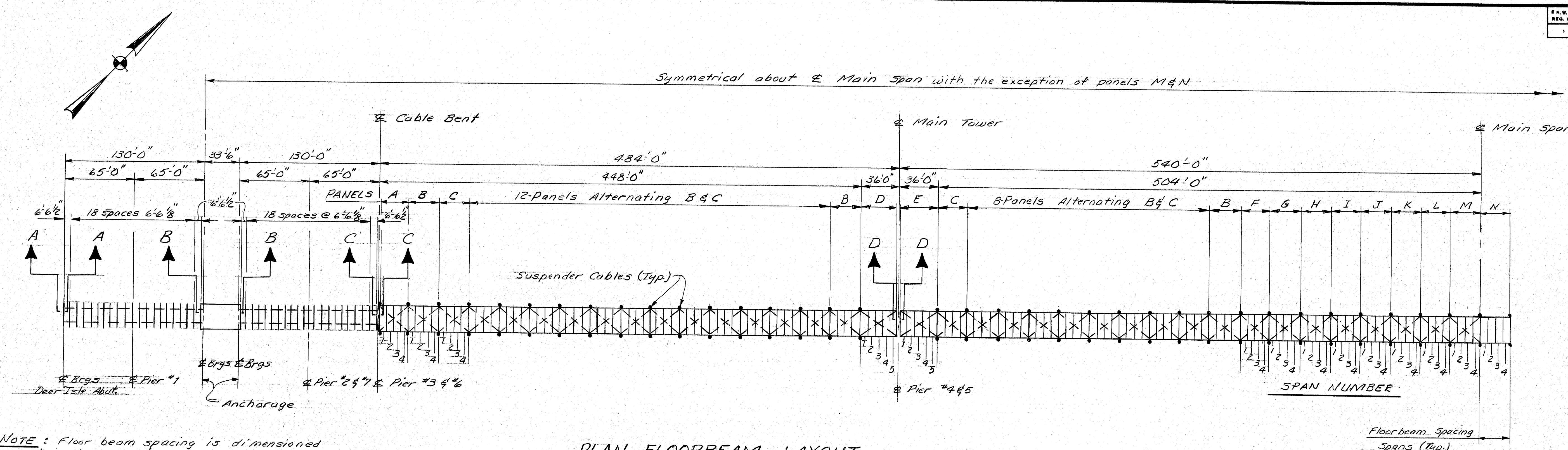
As Built 1987

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
DEER ISLE SEDGWICK BRIDGE OVER EGGEMOGGIN REACH HANCOCK COUNTY TRAFFIC PLAN & DETAILS SHEET 4 OF 18 AUGUSTA, MAINE

100-314



STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	SH-0250(12)	5	18



NOTE: Floor beam spacing is dimensioned along the grade line except as noted. Floor beams in panels marked with asterisk \* are spaced on the horizontal.

#### PLAN FLOORBEAM LAYOUT

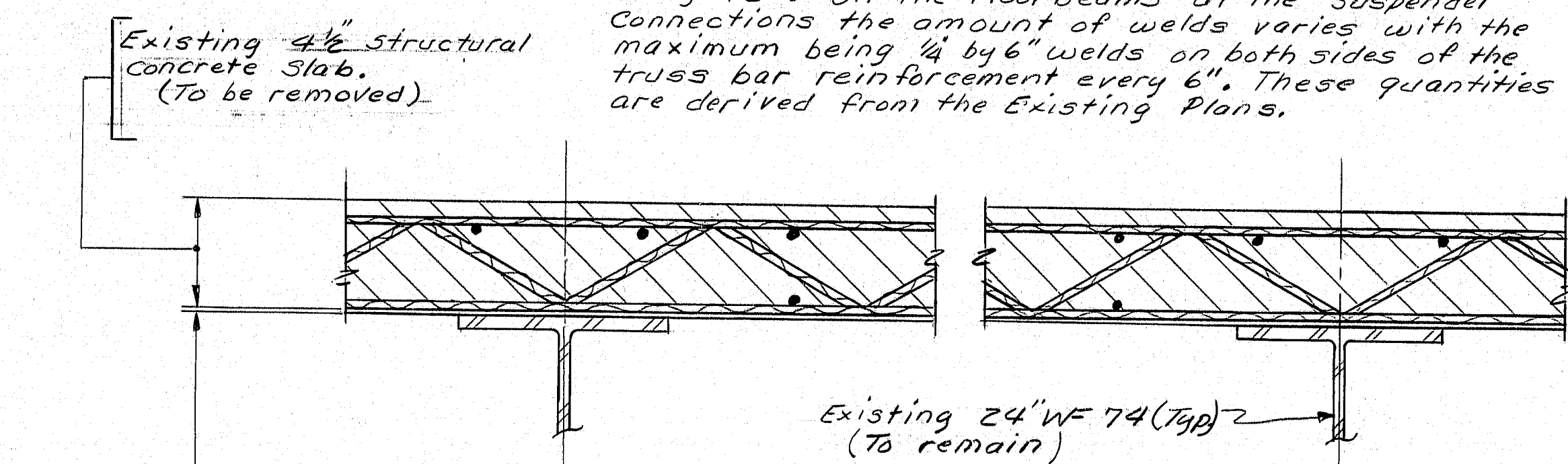
NOTE: Reinforcing steel is welded to the floorbeams in the Suspended Spans. On the floorbeams not at Suspender Connections there are  $\frac{1}{4}$ " x 2" welds every 12". On the floorbeams at the Suspender Connections the amount of welds varies with the maximum being  $\frac{1}{4}$  by 6" welds on both sides of the truss bar reinforcement every 6". These quantities are derived from the Existing Plans.

#### FLOORBEAM SPACING (C to C)

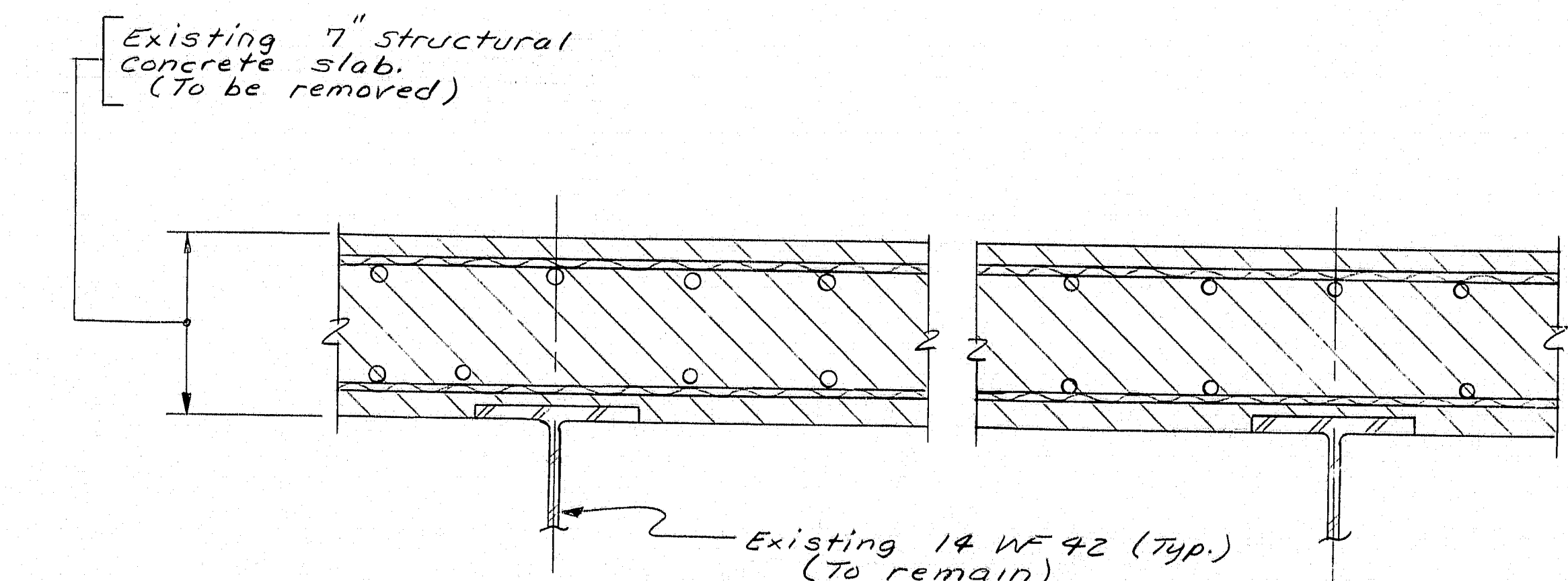
PANEL	SPAN 1	SPAN 2	SPAN 3	SPAN 4	SPAN 5
A	6'-8"	6'-8"	6'-8"	6'-8"	
B	7'-0 $\frac{1}{4}$ "	7'-0 $\frac{1}{8}$ "	7'-0 $\frac{1}{8}$ "	7'-0 $\frac{3}{8}$ "	
C	7'-0 $\frac{1}{8}$ "	7'-0 $\frac{1}{8}$ "	7'-0 $\frac{1}{8}$ "	7'-0 $\frac{1}{4}$ "	
D	6'-8 $\frac{3}{8}$ "	6'-8 $\frac{3}{8}$ "	6'-8 $\frac{3}{8}$ "	6'-8 $\frac{3}{8}$ "	6'-8 $\frac{1}{2}$ "
E	6'-10 $\frac{27}{32}$ "	6'-10 $\frac{1}{2}$ "	6'-10 $\frac{1}{2}$ "	6'-10 $\frac{1}{2}$ "	6'-10 $\frac{1}{2}$ "
F	7'-0"	7'-0"	7'-0"	7'-0 $\frac{3}{8}$ "	
G*	7'-0 $\frac{3}{32}$ "	7'-0 $\frac{1}{8}$ "	7'-0 $\frac{1}{8}$ "	7'-0 $\frac{1}{8}$ "	
H*	6'-11 $\frac{1}{16}$ "	7'-0 $\frac{1}{16}$ "	7'-0 $\frac{1}{16}$ "	7'-0 $\frac{1}{8}$ "	
I*	7'-0 $\frac{1}{16}$ "	7'-0 $\frac{1}{16}$ "	7'-0 $\frac{1}{16}$ "	7'-0 $\frac{1}{8}$ "	
J*	6'-10 $\frac{1}{16}$ "	7'-0"	7'-0"	7'-0"	
K*	7'-0"	7'-0"	7'-0"	7'-0 $\frac{3}{32}$ "	
L*	6'-10 $\frac{19}{32}$ "	7'-0"	7'-0"	7'-0"	
M*	7'-0"	7'-0"	7'-0"	7'-0"	
N*	6'-11 $\frac{1}{2}$ "	7'-0"	7'-0"	7'-0"	

#### NOTE:

All existing dimensions shown on the plans were obtained from available existing design plans and shop drawings. The Contractor is responsible for verifying all existing dimensions prior to construction and fabrication of components based upon existing dimensions. The fit of all components based upon existing dimensions shall be the Contractor's responsibility.



#### TYPICAL EXISTING SUSPENDED SPAN LONGITUDINAL SECTION



#### TYPICAL EXISTING APPROACH SPAN LONGITUDINAL SECTION

#### GENERAL NOTES

- The existing structural concrete slab shall be removed in sections within the limits of the work area. The existing slab shall be saw cut the full depth of the slab along the centerline of the bridge, except over the floorbeams where care shall be taken so as not to damage the steel flanges. Saw cutting of the slab shall not extend for more than 300 feet ahead of the work area. Care will be taken so as not to damage the structural integrity of the existing concrete slab remaining. Top flanges of the floorbeams shall be cleaned of all rust and debris to provide a clean surface finish in accordance with SSPC Specification No. 6 "Commercial Blast Cleaning". All weld material shall be removed by a means other than using heat before the placement of the new deck units. Payment for all labor, and equipment will be made under Item 202.10 Removing Existing Superstructure (Property of Contractor).
- The top flanges of the existing floorbeams that will be exposed due to the difference in width between the existing concrete deck and the new prefabricated deck units, and the edges of the top flanges of the floorbeams on the approach spans exposed when the existing concrete deck is removed shall be cleaned and painted in accordance with the standard Specifications Section 506 except that only two coats of paint shall be applied consisting of one coat each of the following: Third Coat - Tan or Gray, and Fourth Coat - Green. Payment will be incidental to Item 202.10, Removing Existing Superstructure (Property of Contractor).
- New deck units shall be 14' wide for alternate #1 and 16' wide for alternate #2, with the length of the unit to be determined by the Contractor to best suit his equipment, crew, and erection sequence. It is the Contractor's responsibility to choose a deck unit length that will allow him to safely transport it to the bridge site and erect it into place without damaging the bridge or the new deck units.

As Built 1987

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
DEER ISLE SEDGWICK BRIDGE OVER EGGEMOGGIN REACH HANCOCK COUNTY FLOORBEAM LAYOUT
SHEET 5 OF 18 AUGUSTA, MAINE

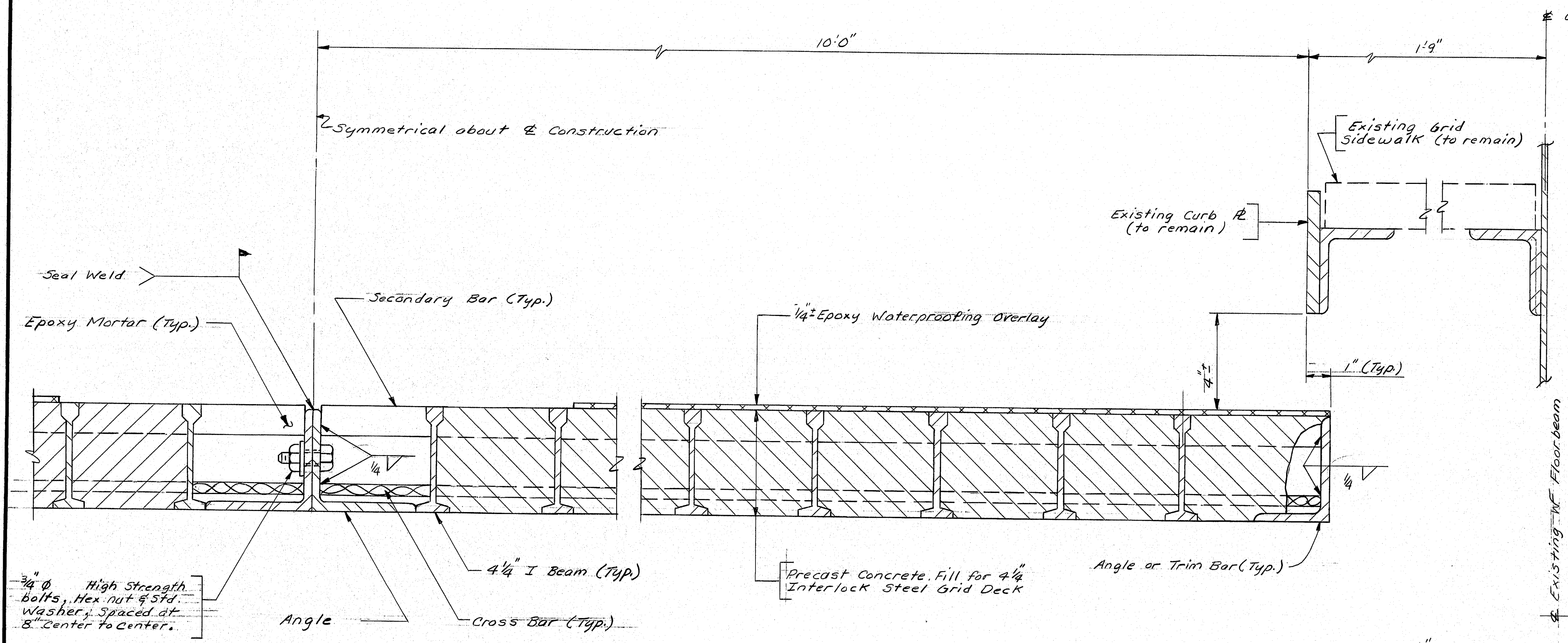
100-315

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	5-86
CHECKED	7-86
REVISIONS	
FIELD CHANGES	
PLANS	

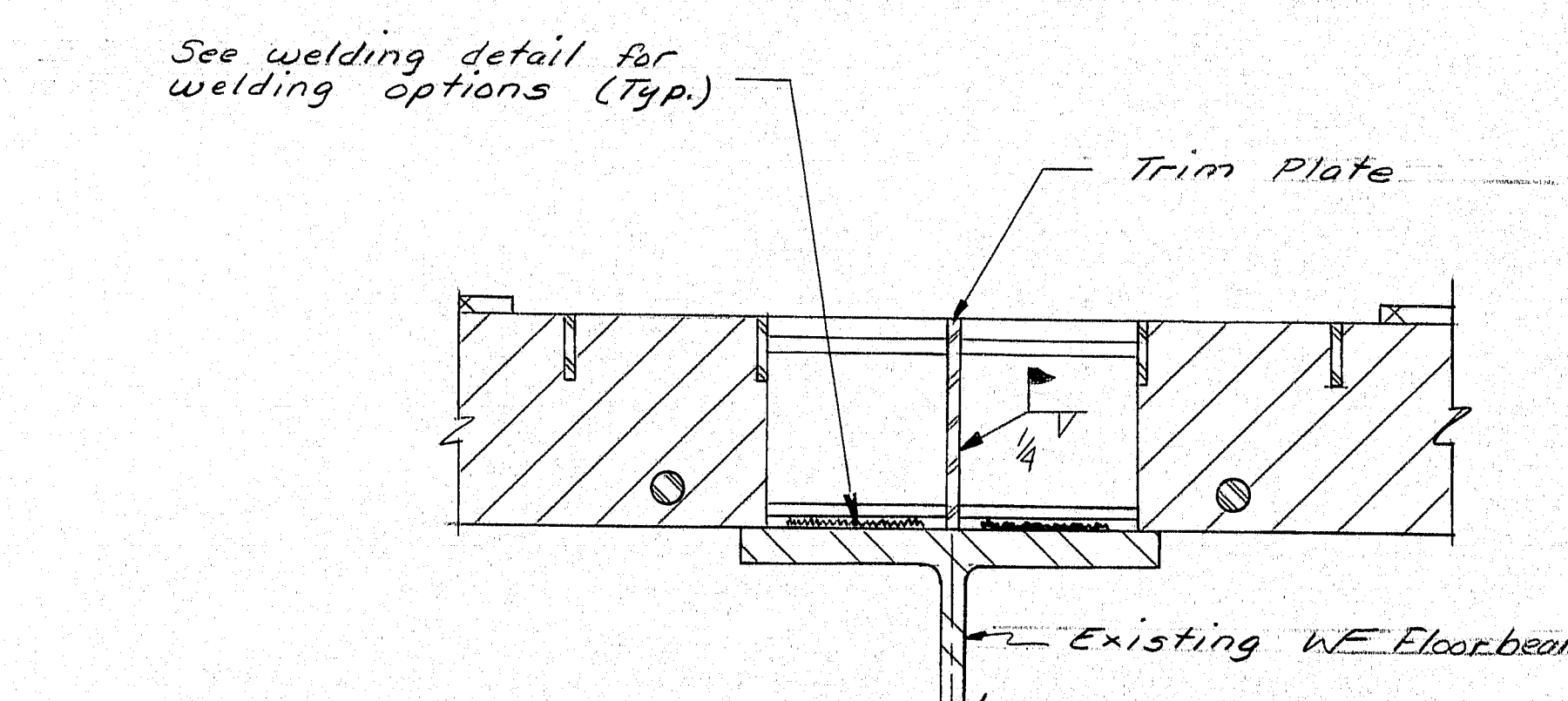
BRUNING 44-132-45710-1



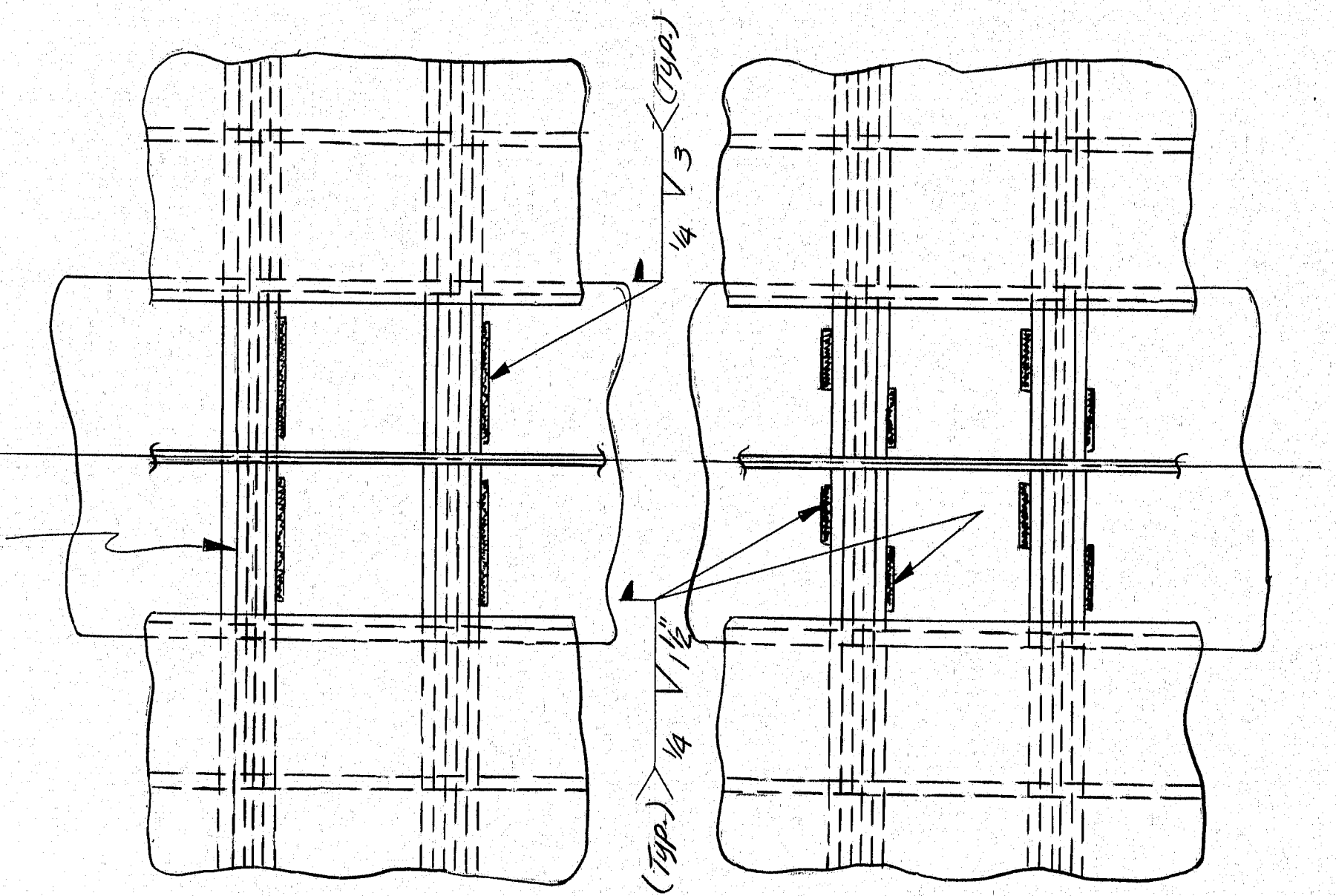
F.R.A. DES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0250(12)	6	18



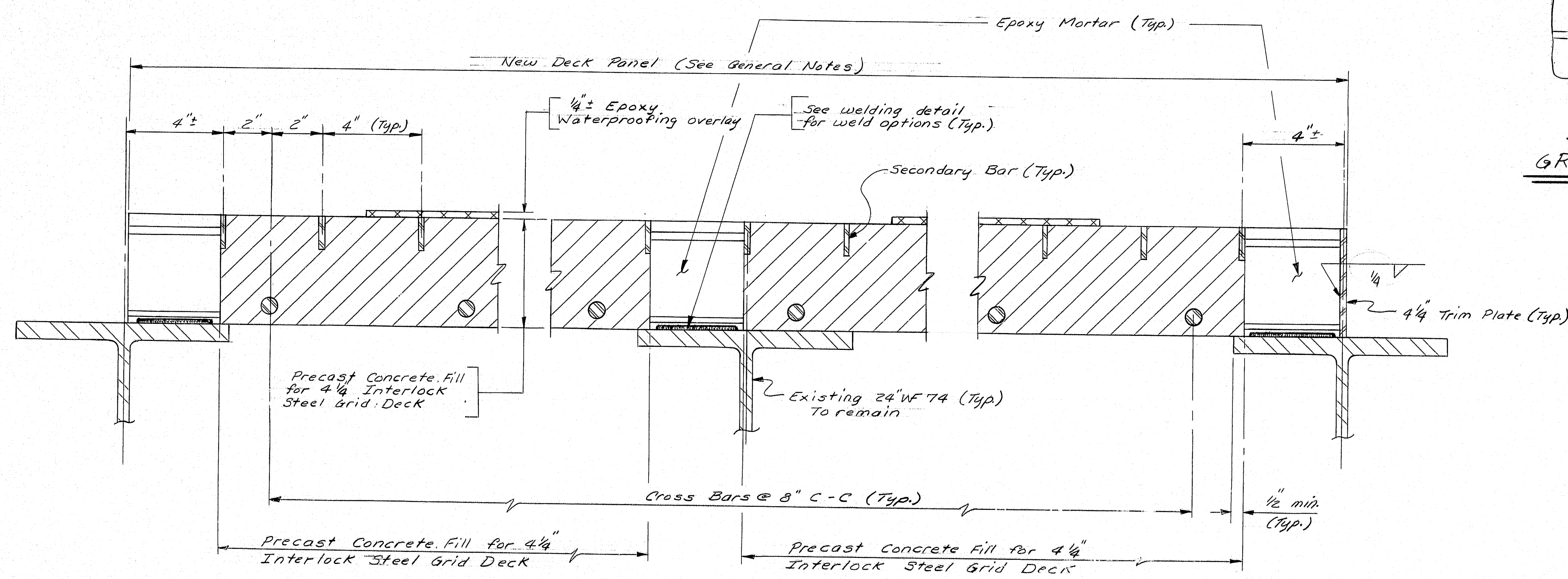
TYPICAL TRANSVERSE SECTION



END SPLICES BETWEEN PANELS



OPTION "A" OPTION "B"  
GRID FLOOR TO WF WELDING DETAIL



TYPICAL LONGITUDINAL SECTION

PROJECT DESIGN ENGINEER	DATE
BAAS	5-28-78
DESIGN DETAIL	BY
BAAS	BAAS
REVISIONS	FIELD CHANGES

BRUNING 44-132 45710-1

Not USED

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
DEER ISLE SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
HANCOCK COUNTY  
SUSPENDED SPANS  
ALTERNATE NO. 1  
SHEET 6 OF 18 AUGUSTA, MAINE

100-316



10'-0"

Symmetrical about C Construction

2" Concrete Overlay  
Payment to be incidental to  
Item 545.60 Prefabricated  
Deck Units.

Epoxy Mortar (Typ.)

Seal Weld

Secondary Bar (Typ.)

1/4" ± Epoxy Waterproofing Overlay

Existing Curb R  
(to remain)

Existing Grid  
Sidewalk  
(to remain)

R Railing &  
R Cable

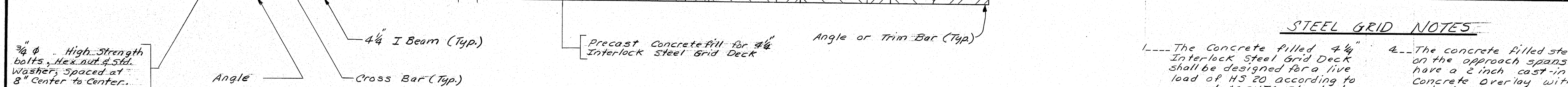
1" (Typ.)

See welding detail for  
welding options (Typ.)

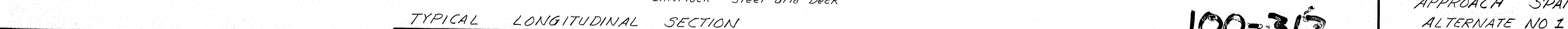
Trim Plate

Existing W

END SPLICES BETWEEN PANELS



TYPICAL TRANSVERSE SECTION



- 1---The Concrete filled 4 1/4" Interlock Steel Grid Deck shall be designed for a live load of H3 20 according to current AASHTO Standard specifications,
- 2---The Contractor shall provide blockouts in the steel grid during precasting to allow welding of all the main bars to the floorbeams at both ends of the panel sections and at all intermediate floorbeam locations. Blockouts shall also be provided in the steel grid adjacent to the centerline of construction to allow the deck units to be bolted together transversely. After the required connections within a blockout have been made the blockout shall be filled with epoxy mortar.
- 3---The steel grid deck units shall be connected to each other by using a 4 1/4" inch Trim plate shop welded on the end of one unit with the adjacent unit field welded to the trim plate when in place.
- 4---The concrete filled steel grid on the approach spans shall have a 2 inch cast-in-place Concrete Overlay with a 1/4 inch Epoxy Waterproofing overlay placed on the concrete overlay.
- 5---On the Suspended Spans the 1/4 inch Epoxy Waterproofing Overlay shall be placed on the concrete filled steel grid, before erection, to within 6 inches of any blockout area. The overlay shall be placed over the remaining areas after the blockouts have been filled and properly cured as directed.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
HANCOCK COUNTY  
APPROACH SPANS  
ALTERNATE NO 1

SHEET 7 OF 18 AUGUSTA, MAINE

100-317

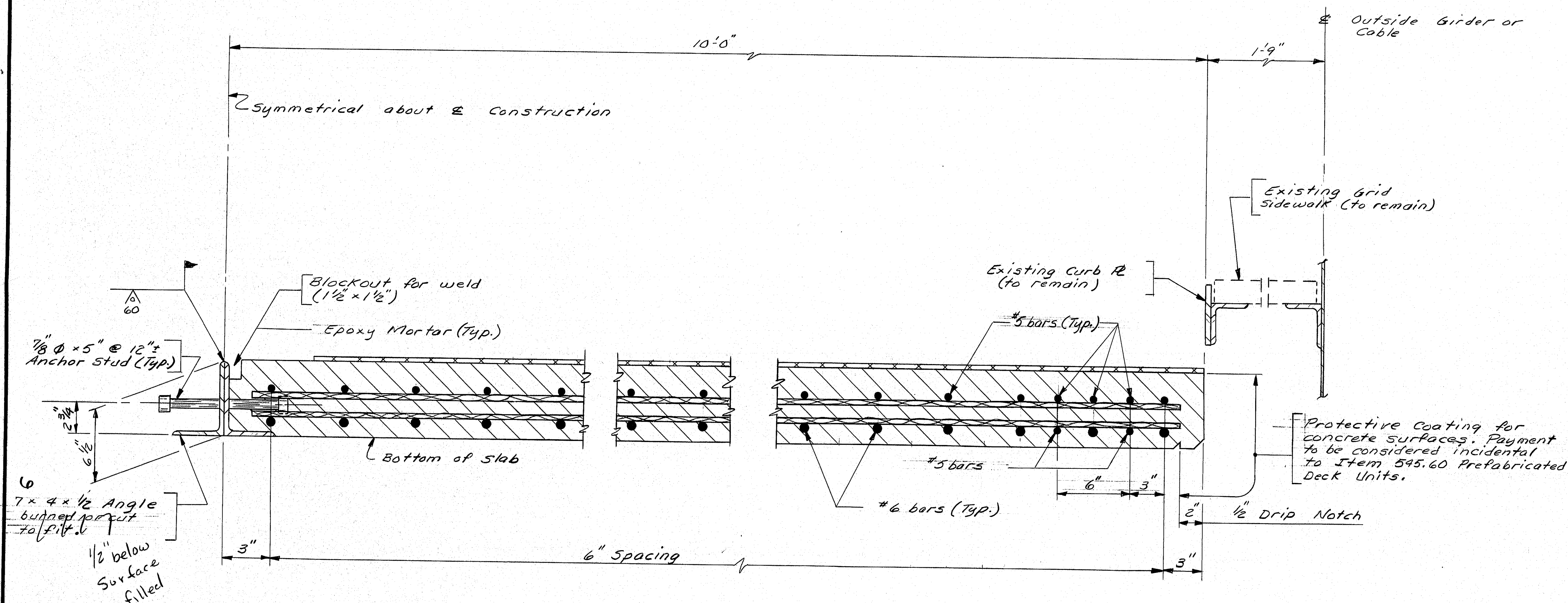
RUNING 44-132 45710-1



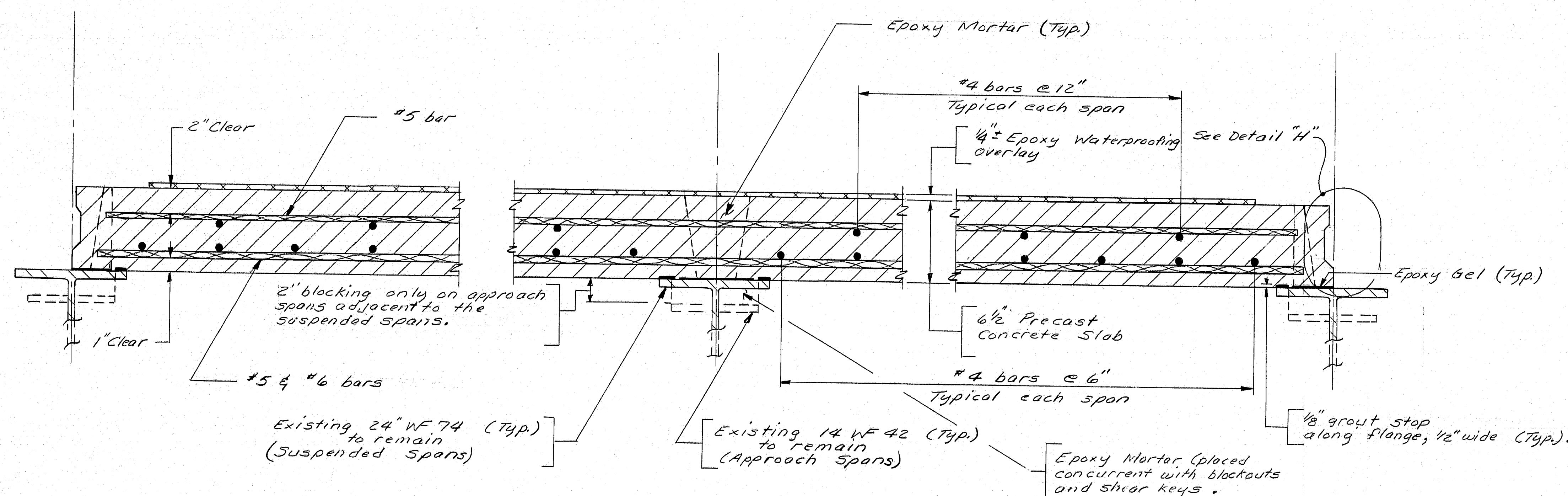
PROJECT NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0250(12)	8	18

### PRECAST CONCRETE SLAB NOTES

- All reinforcing steel shall be epoxy coated and shall have 2 inches cover unless otherwise indicated.
- The Epoxy Waterproofing Overlay shall be placed on the precast concrete deck panels prior to erection. The overlay shall cover the entire top surface to within 1/2 inches of any blockout or shear key. After the shear keys and blockouts have been filled, the epoxy waterproofing overlay shall be placed over these areas.
- The concrete used shall have a 28 day compressive strength of 4000 psi and shall have a maximum weight of 115 Lbs/ft<sup>3</sup>.
- After a precast deck unit is erected into its proper position, shear connector studs shall be welded to the top flanges of the floorbeams through the blockouts provided as shown. Payment to be considered incidental to Item 545.60 Prefabricated Deck Units.
- The Contractor shall support the precast slab units at the fabrication site, during transportation, and during lifting, in such a manner as to prevent any cracking or damage from occurring to the slab units.
- The minimum splices for reinforcing steel are as follows: #5 bars 2'-3" and #6 bars 2'-9".
- 1/8" grout stops shall be glued to the floorbeam flanges prior to application of the epoxy gel. The epoxy gel shall be placed on the top flange of the floorbeams immediately prior to the erection of a precast slab unit.
- Leveling screws and inserts or other methods as approved by the Engineer shall be utilized to control blocking on precast concrete slab units on approach spans.
- The Contractor shall not be required to test the shear connector welds by the bending test specified in Section 505 of the Standard Specifications.



TYPICAL TRANSVERSE SECTION



TYPICAL LONGITUDINAL SECTION

PROJECT DESIGN ENGINEER	DATE
BY BAS	6-28-88
CHECKED MCB	7-28-88
REVISIONS	
FIELD CHANGES	

REVISION 44 122 257101

As Built 1987

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

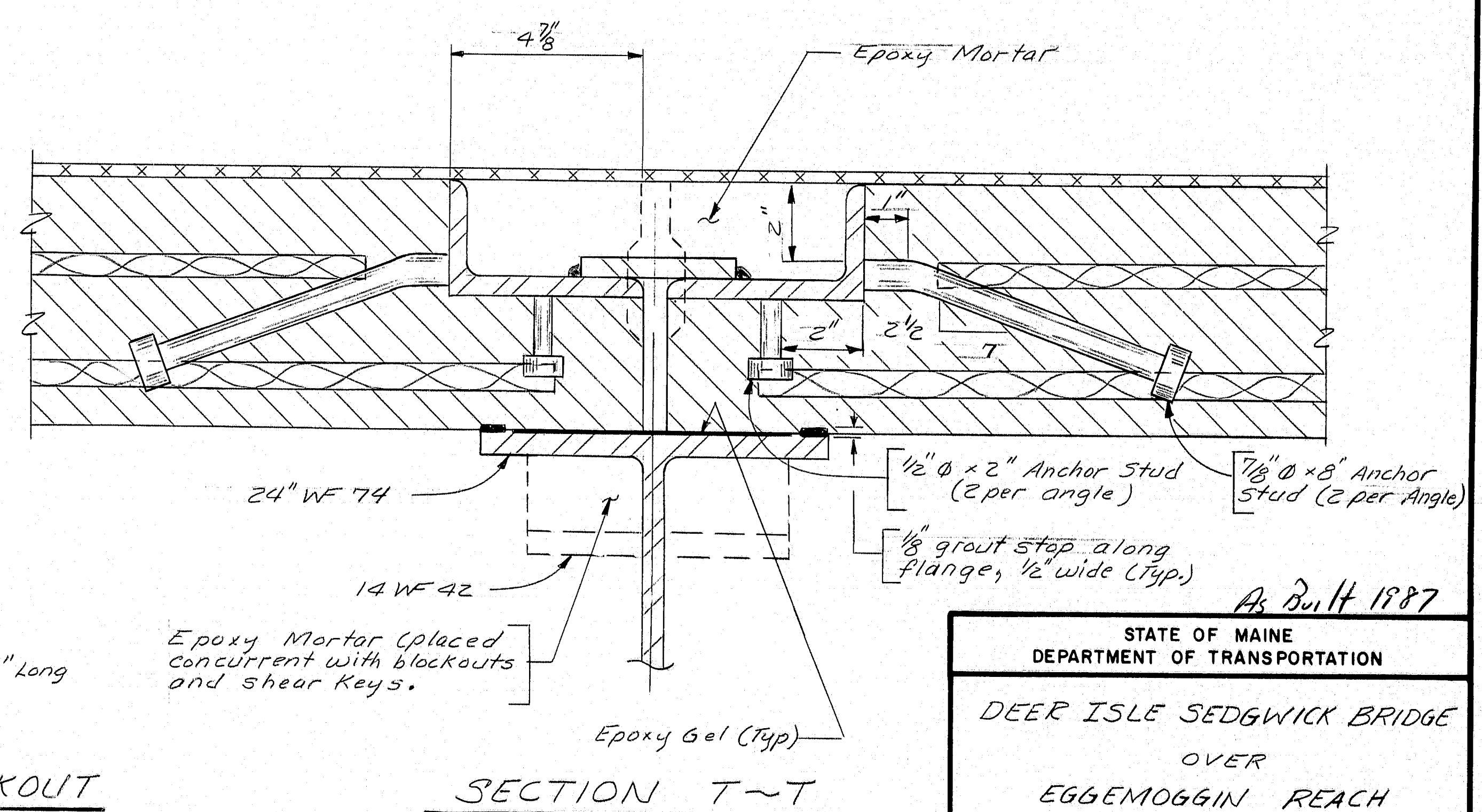
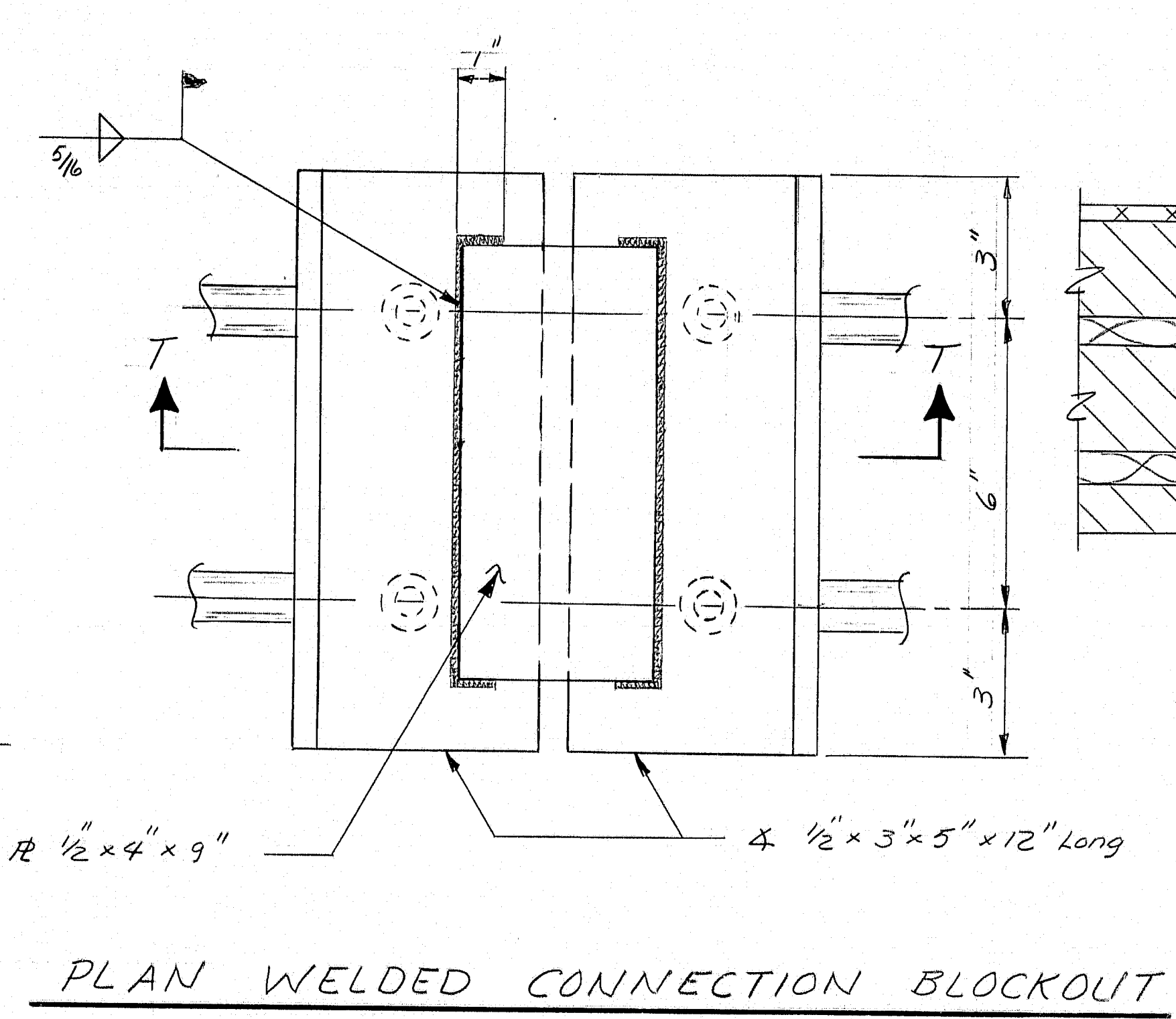
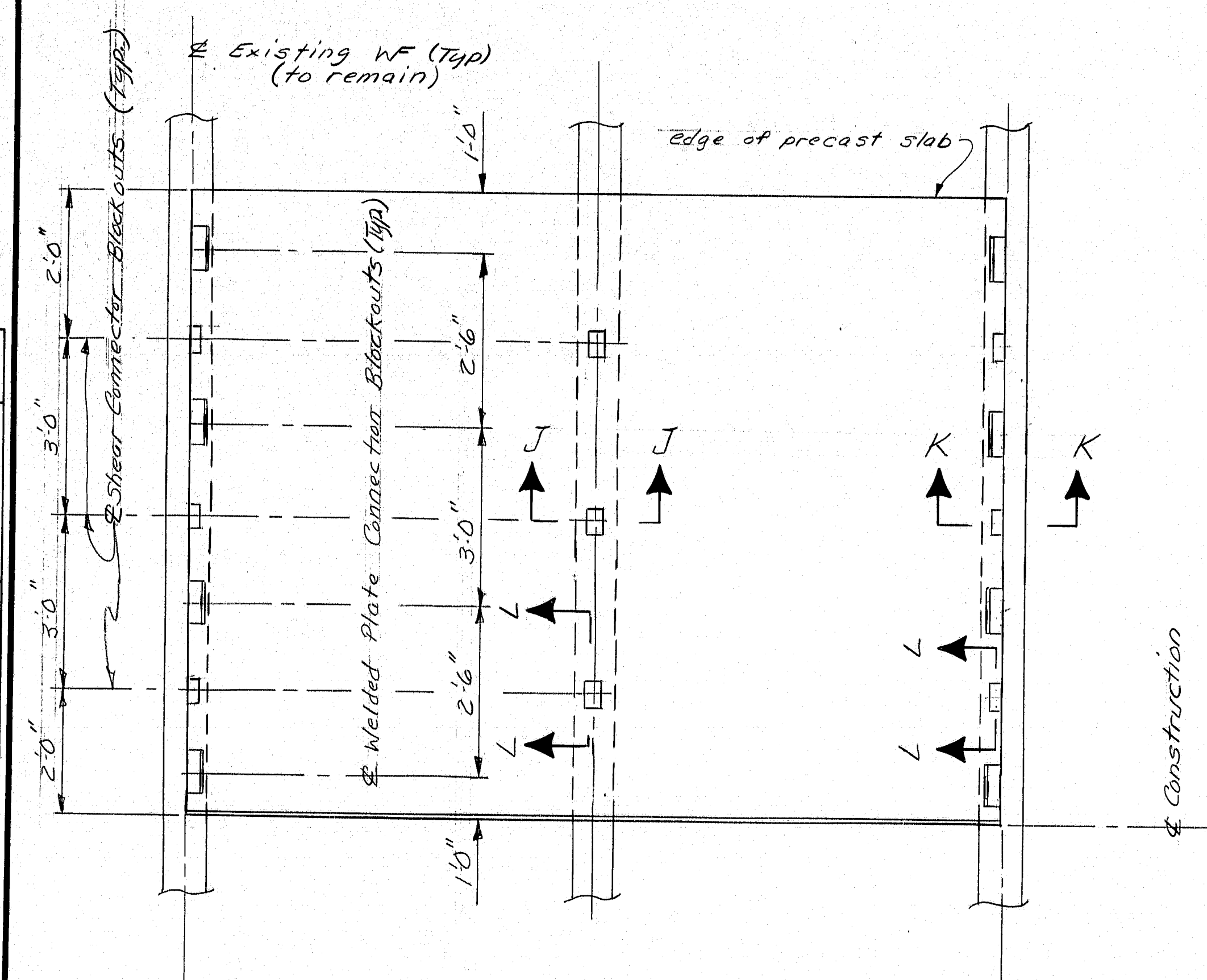
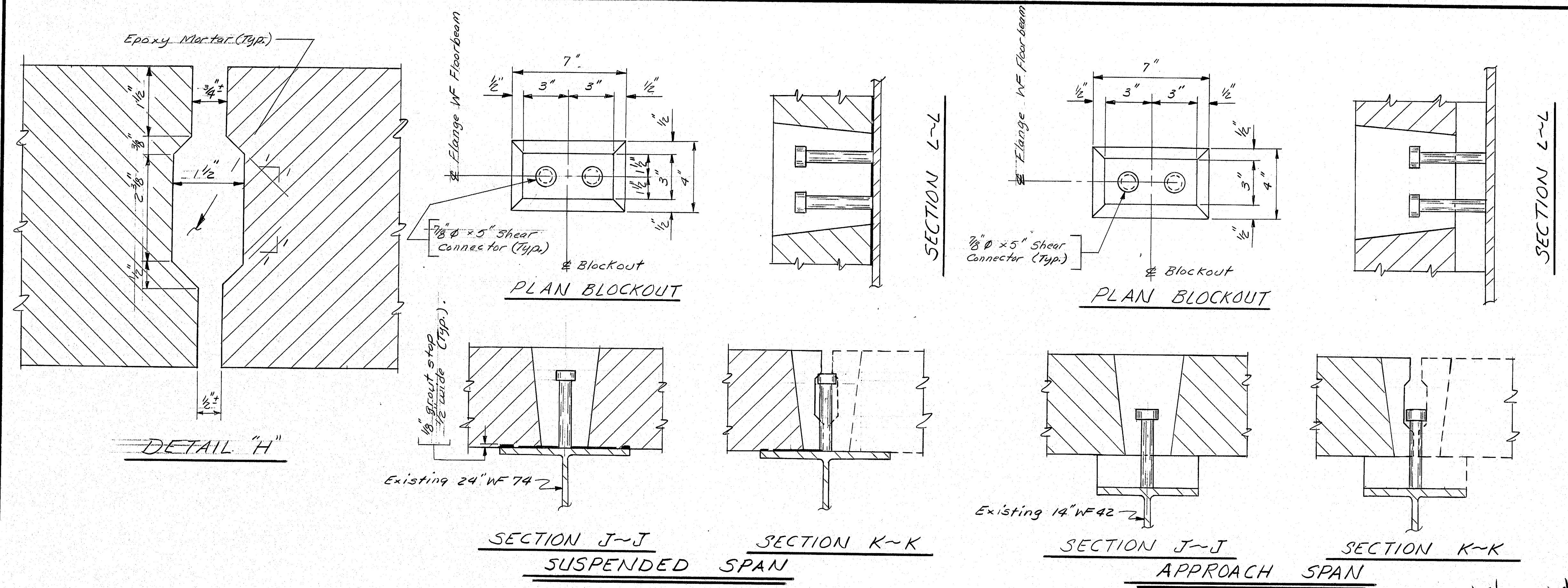
DEER ISLE SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
HANCOCK COUNTY  
APPROACH & SUSPENDED SPANS  
ALTERNATE NO. 2

SHEET 8 OF 18 AUGUSTA, MAINE

100-318



F.W.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	8H-0250(12)	9	18



PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED BAS JAC	7-86
CHECKED NLB	7-86
REVISIONS	
FIELD CHANGES	

BRUNING 44-132-4570-1

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
DEER ISLE SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
HANCOCK COUNTY  
DETAILS  
ALTERNATE NO. 2  
SHEET 9 OF 18 AUGUSTA, MAINE

100-319



FED. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	84-0250(12)	10	18

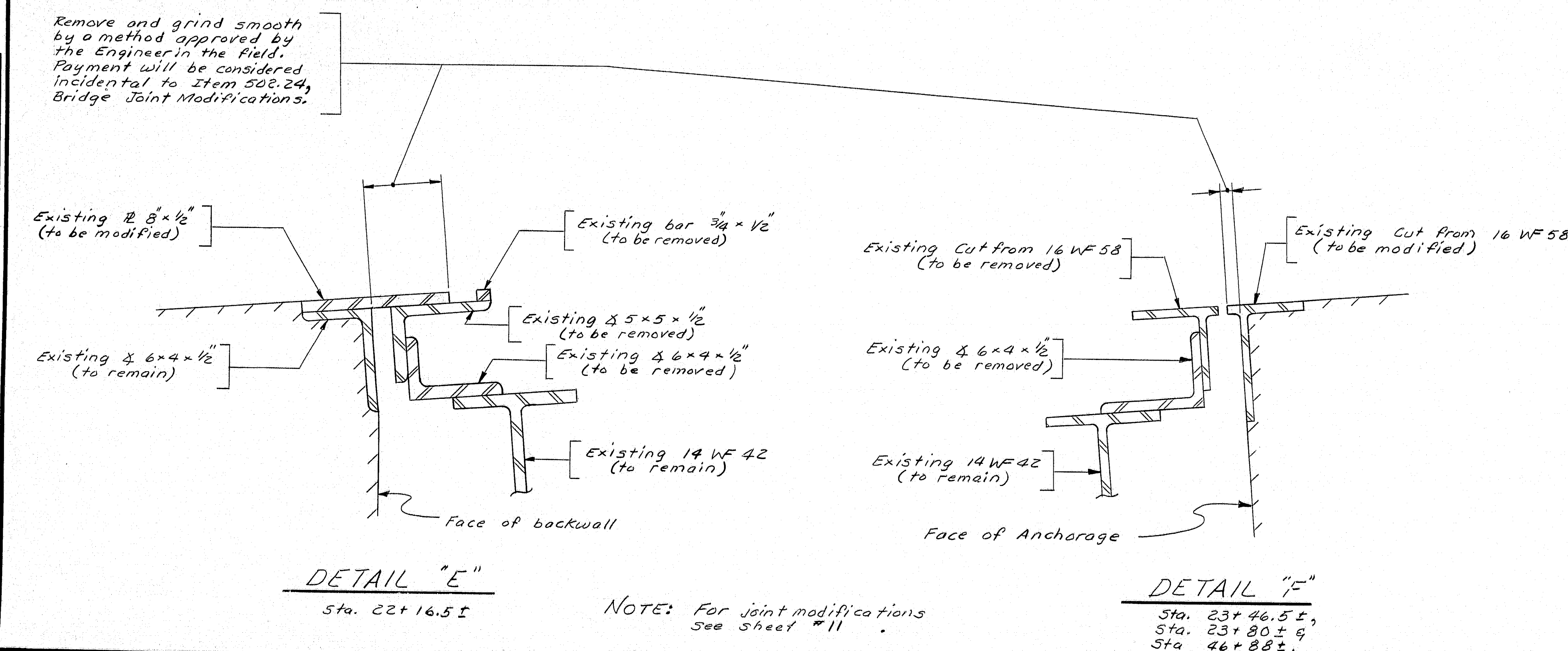
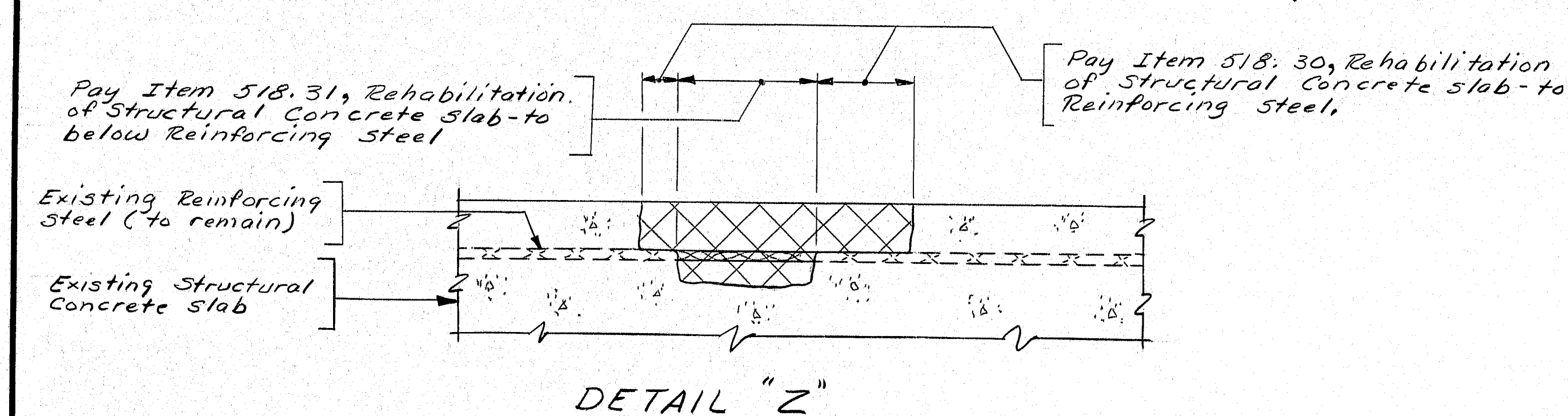
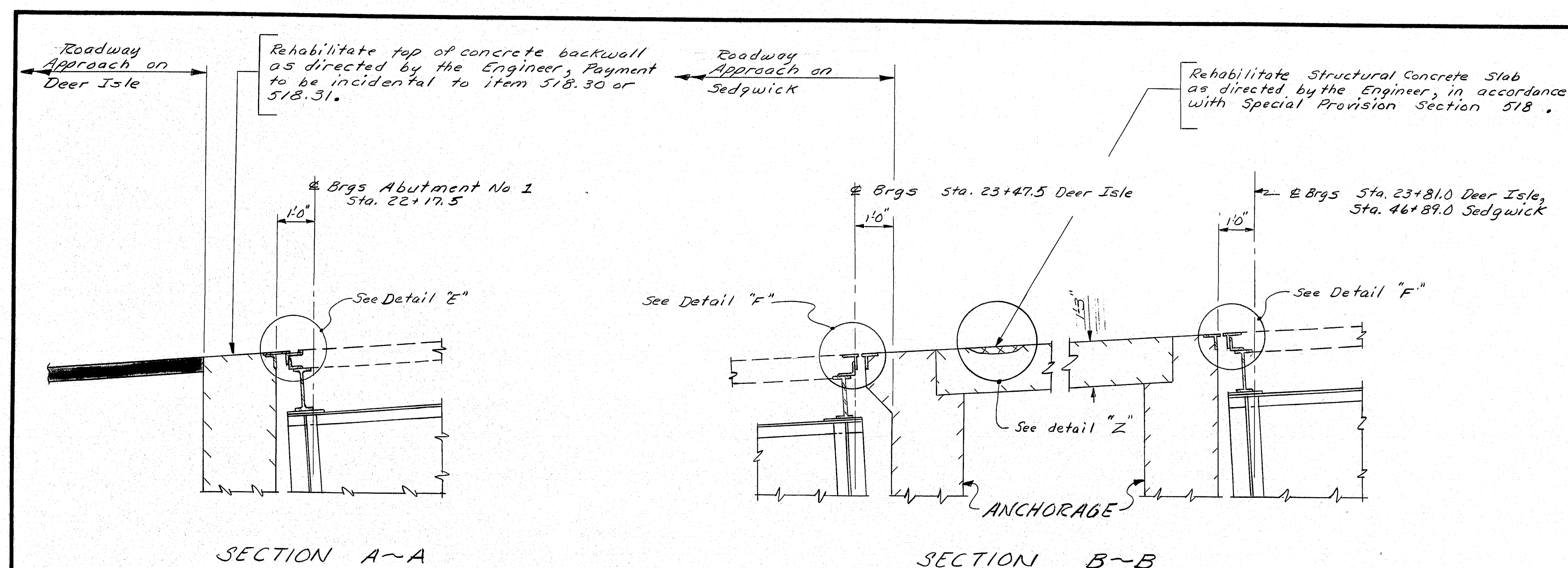
### MODIFIED JOINT NOTES

1---Care shall be taken when removing the existing concrete near the joints at the anchorages, abutment and at the main towers so as not to damage the existing joint steel that is to remain or be modified for use in the new deck. Any joint steel that is damaged shall be repaired or replaced as directed by the Engineer. Payment for all labor and materials will be incidental to Item 520.24, Bridge Joint Modifications.

2---The Expansion Grating at the main towers shall be left in place during redecking for Alternate #2. Alternate #2 will require steel spacers be placed at the three support points for each expansion grating as shown, to match the finished grade of the precast concrete deck units.

3---In the bridge joint modifications, all structural steel surfaces, new and existing, not in contact with concrete shall be painted in accordance with Section 506 of the Standard Specifications. Payment will be considered incidental to Item 520.24, Bridge Joint Modifications.

4 TRANSVERSE TRUSS BEAMS added AT TOWER JOINTS because of panel FAILURE



As Built 1987

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
DEER ISLE SEDGWICK BRIDGE OVER EGGEMOGGIN REACH HANCOCK COUNTY BRIDGE JOINT DETAILS
SHEET 10 OF 18 AUGUSTA, MAINE

100-320

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	6-26
REVISIONS	7-82
FIELD CHANGES	
PLANS	

BRUNING 44-132 45710-1



1. --- The seal to be furnished at the Dear Isle Abutment shall have a movement rating of  $\frac{3}{8}$  inches. The seals furnished at the anchorages shall have a movement rating of  $\frac{1}{2}$  inch.
2. --- The seals shall be approved by the Engineer prior to fabrication of the joint armor.
3. --- 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.
4. --- The anchorage and abutment backwall concrete will be in place before the final adjustments to the joints are made and no allowance for movement due to dead load deflections is needed.
5. --- The Compression Seal Adjustment Chart shows the adjustment required for the joint opening shown on the shop detail drawings for temperatures other than 45°F. Adjustment is to be measured parallel to the centerline of construction.

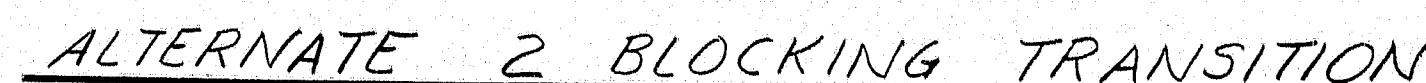


As Built  
1987

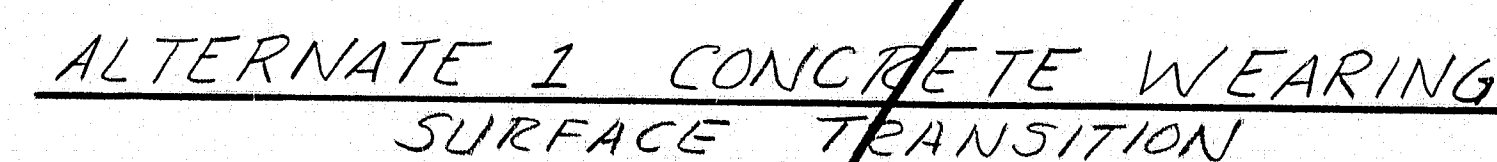
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
HANCOCK COUNTY  
BRIDGE JOINT DETAILS

SHEET 11 OF 18 AUGUSTA, MAINE



NOTE: Blocking over WF Floor beam shall vary from 0" to 2" in increments of 1/4" each WF Floor beam.



NOTE: Transition the Epoxy Waterproofing Overlay for the best possible match to the existing finished grade of the bituminous pavement at the back of the Deer Isle Abutment for Alternates 2 and the back of the Sedgwick Anchorage for both Alternates.

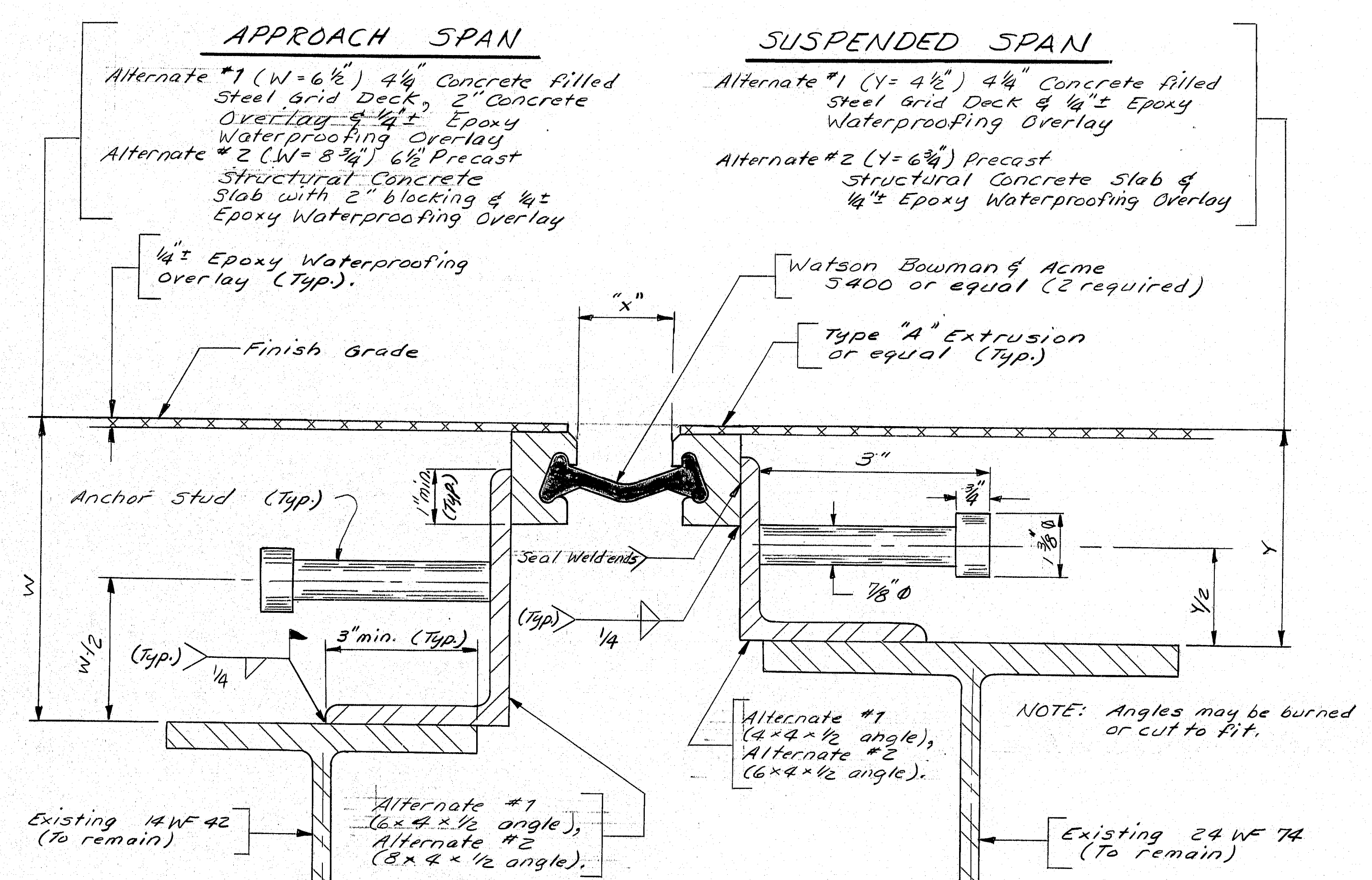
<b>PLANS</b>	<b>PROJECT DESIGN ENGINEER</b>	<b>BY</b>	<b>DATE</b>
	DESIGN - DETAILED	BAS / AN	6-86
	CHECKED	NLB	7-88
	REVISIONS		

TRAINING 11-193 FEB 10 1

100-321



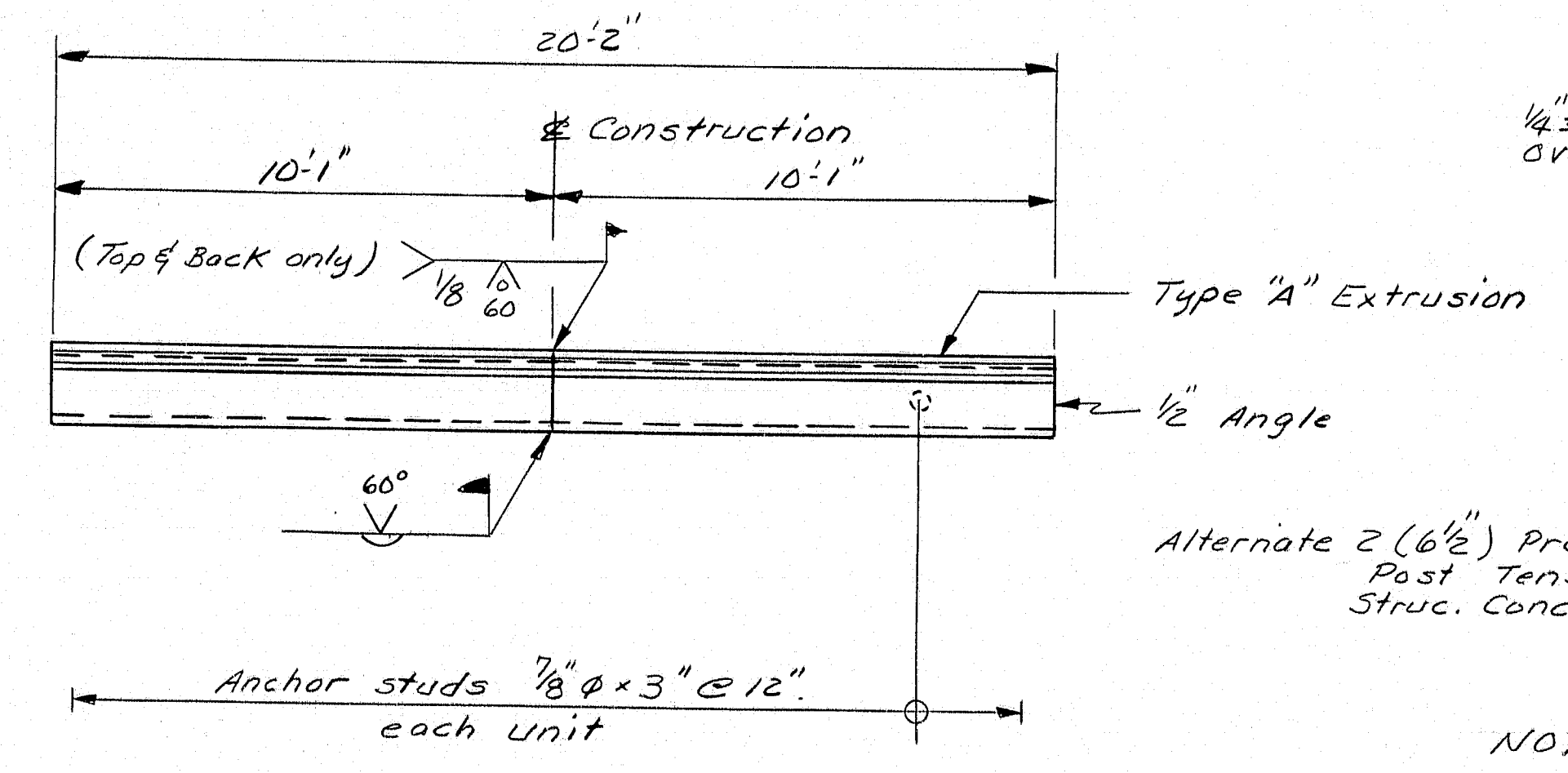
FED. AID	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0250(12)	12	18



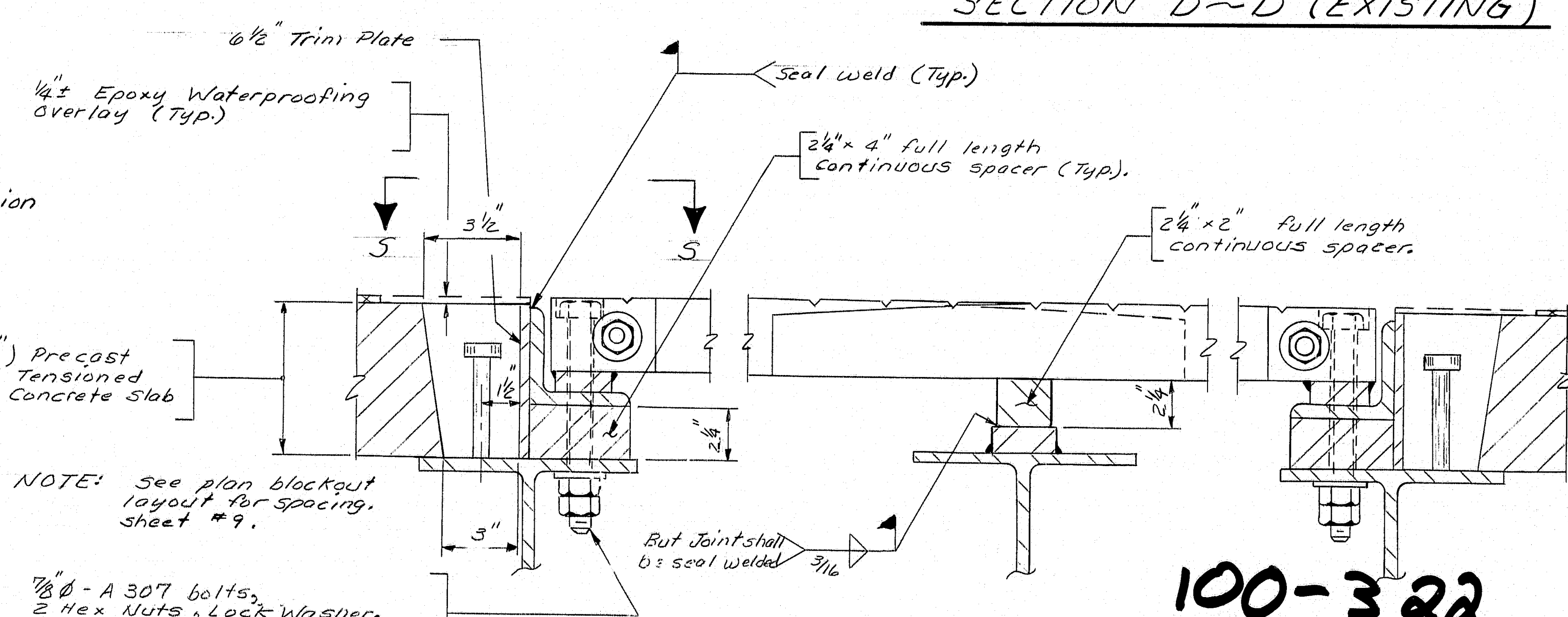
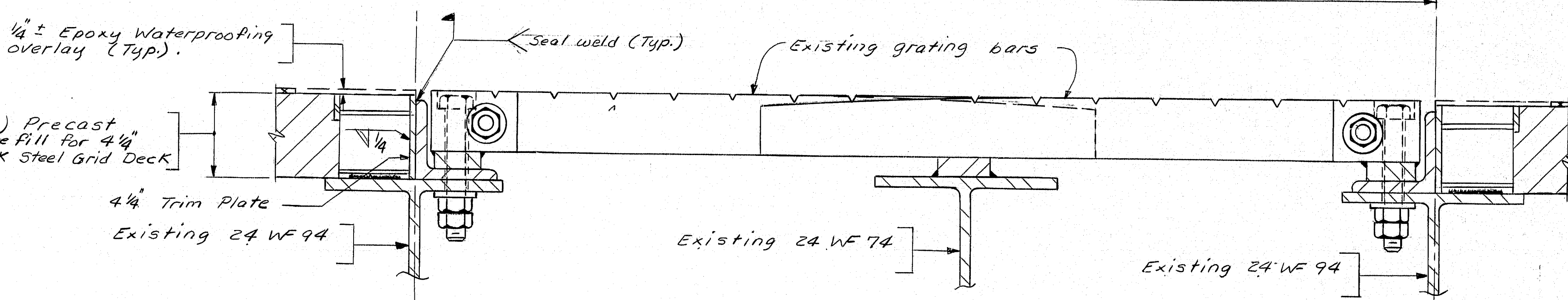
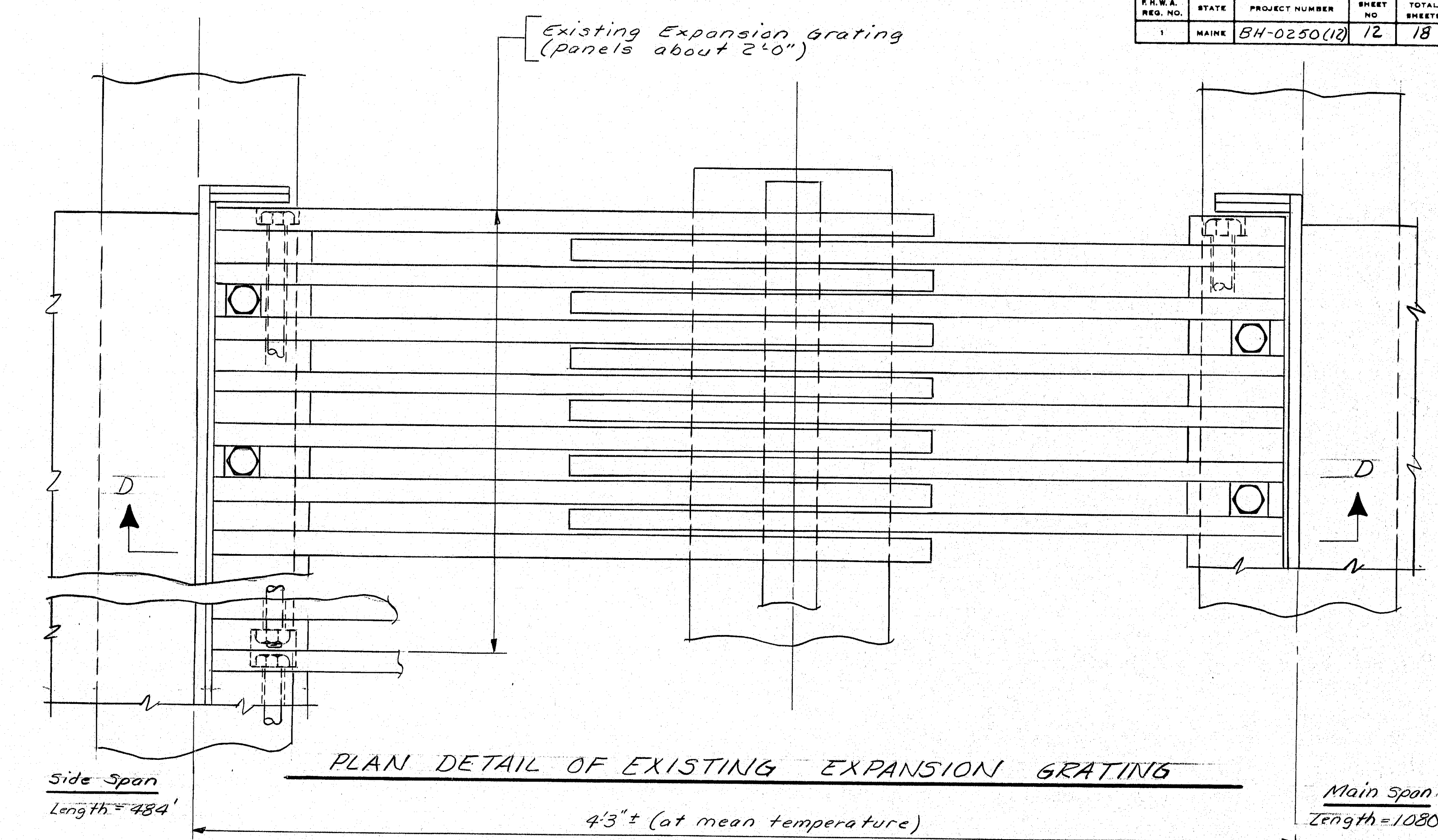
**SECTION C~C**  
(At Piers #3 and #6)  
to be determined in the field

TOTAL MOVEMENT REQUIRED	Dim "X" Measured Parallel to & of Roadway Temperature (°F)	120°	105°	90°	75°	60°	45°	30°	15°	0°	-15°	-30°
3"		1/2"	3/4"	1 1/8"	1 3/8"	1 3/4"	2"	2 1/4"	2 3/8"	2 7/8"	3 1/8"	3 1/2"

**GLAND SEAL SETTING TABLE**



**ELEVATION ARMOR ASSEMBLY**

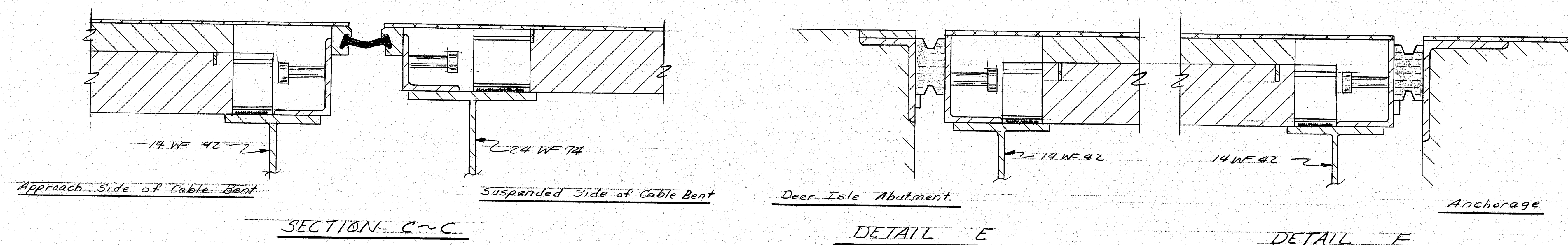


PROJECT DESIGN ENGINEER	DATE
DESIGNED - DETAIL	6-26
CHECKED	7-26
REVISIONS	
FIELD CHANGES	

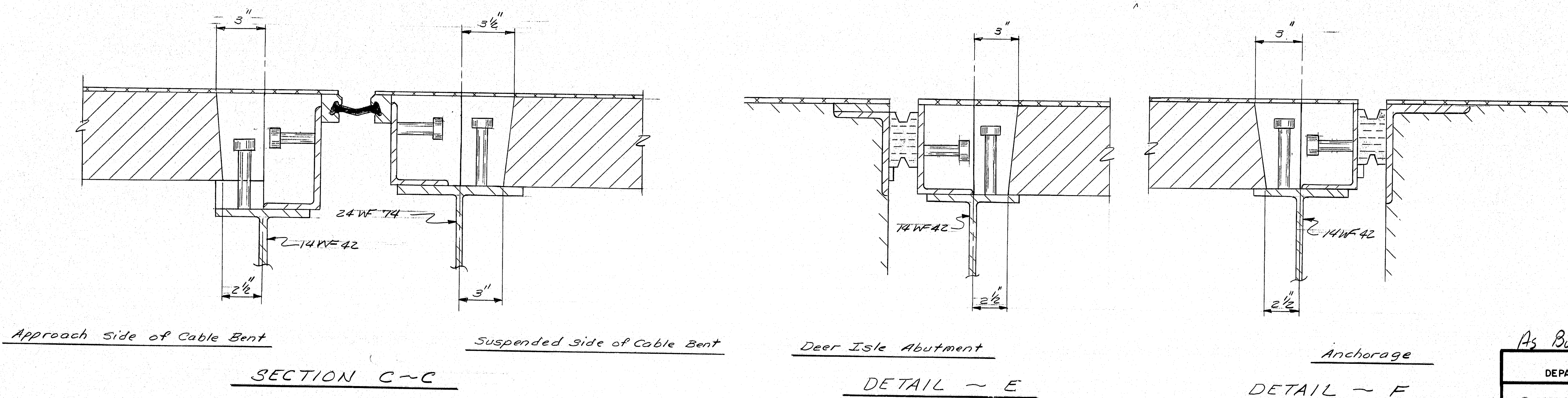
PROJW 44-132-257(1)



F.R.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-025013	13	18



### BLOCKOUT SECTIONS AT JOINTS - ALTERNATE #1



### BLOCKOUT SECTIONS AT JOINTS - ALTERNATE #2

(for spacing of blockouts see Plan Blockout Layout sheet #9)

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	7-86
CHECKED	7-86
REVISIONS	
FIELD CHANGES	

DRAWING 44-122-4570-1

As Built 1987
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
BRIDGE JOINT DETAILS
SHEET 13 OF 18 AUGUSTA, MAINE

100-323



F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	811-0250 (12)	A	D

2- Inside Face of Girder Web

23'-4 1/2" Face to Face of Web

6" 3'-4 3/4" 11'-8 1/4" 3'-10 3/4" 3'-10 3/4"

22 spaces @ 6"

2- 4x4 x 3/8 x 23'-4" (Typ.)

Top Chord

2- 4x3x3/8

FP1

bar 1 (5x3/8)

Working Lines

FP3 (Typ.)

bar 2 (5x3/8)

bar 4

bar 5

Bottom Chord

2- 4x4 x 3/8 x 23'-4"

11 spaces @ 12"

See Detail "A"

8" 8" 1/2"

5" 1/4" 2" 1 1/4" 1/2" 1/2" 7 1/4" 19 1/8" 6 3/8" 8" 1/2"

FP4

bar 3

FP2

bar 4

2- 4x5x3 1/2 x 1/2

DETAIL "A"

HALF ELEVATION TRUSS BEAM  
(4 Required)

4x4x4 x 3/8

bar 3

FP4

5x3 1/2 x 1/2

FP2

bar 4

4x5x3 1/2 x 1/2

4x4x4 x 3/8

SECTION B-B

4x4x4 x 3/8

Working Line

bar 3

bar 1 or bar 2

FP1 or FP3

bar 4

Working Line

4x4x4 x 3/8

TYPICAL SECTION

INSTALLED BY  
BRIDE MAINT. 1982

ESTIMATED TOTAL WEIGHT  
4-Truss Beam Alternate = 7,450 Lbs

All Holes 1"  $\phi$   
H.S. Bolts 7/8"  $\phi$   
Bridge No. 5257

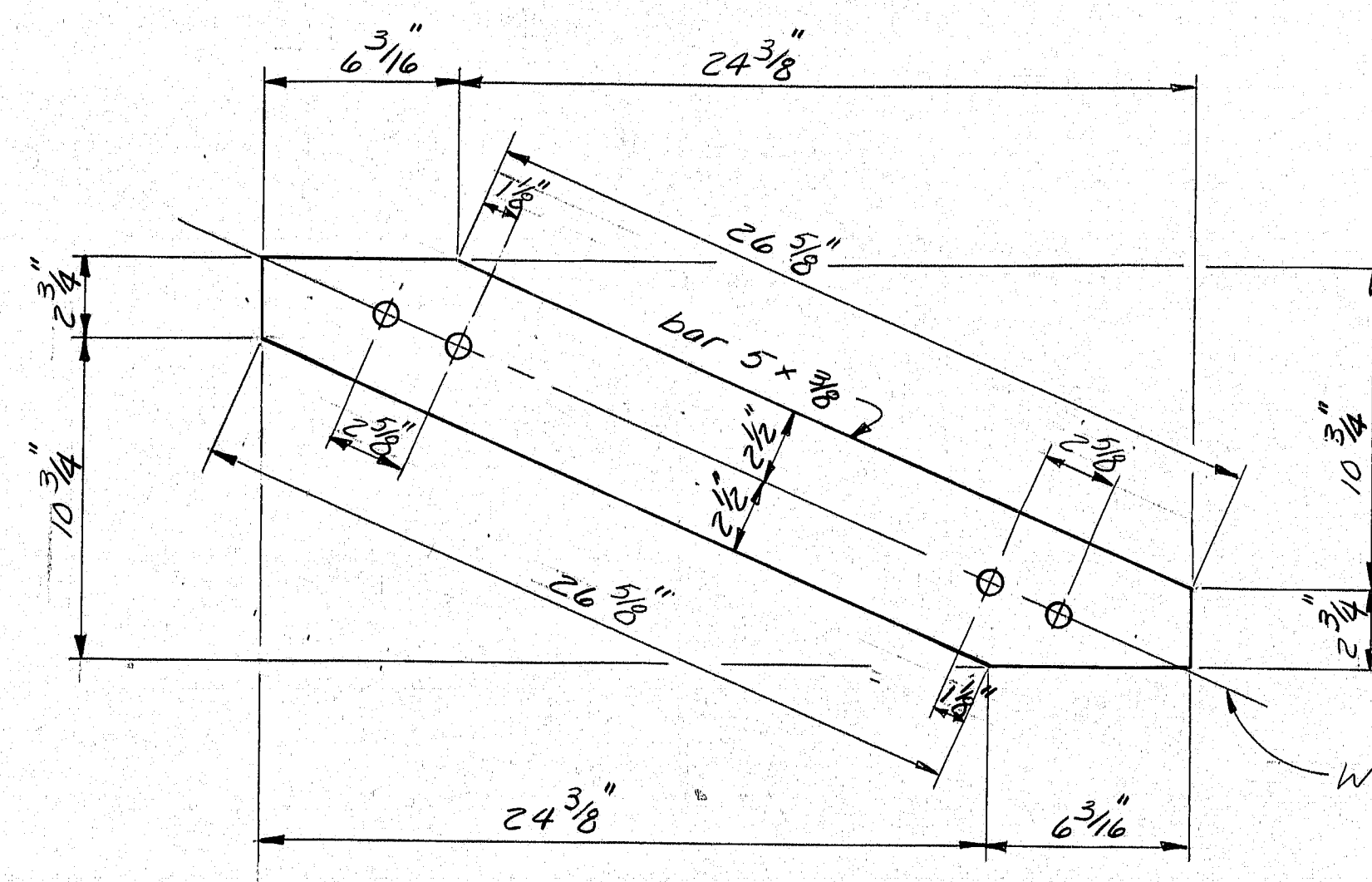
STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
HANCOCK COUNTY  
TRUSS BEAM ALTERNATE  
SHEET 1 OF 4 AUGUSTA, MAINE

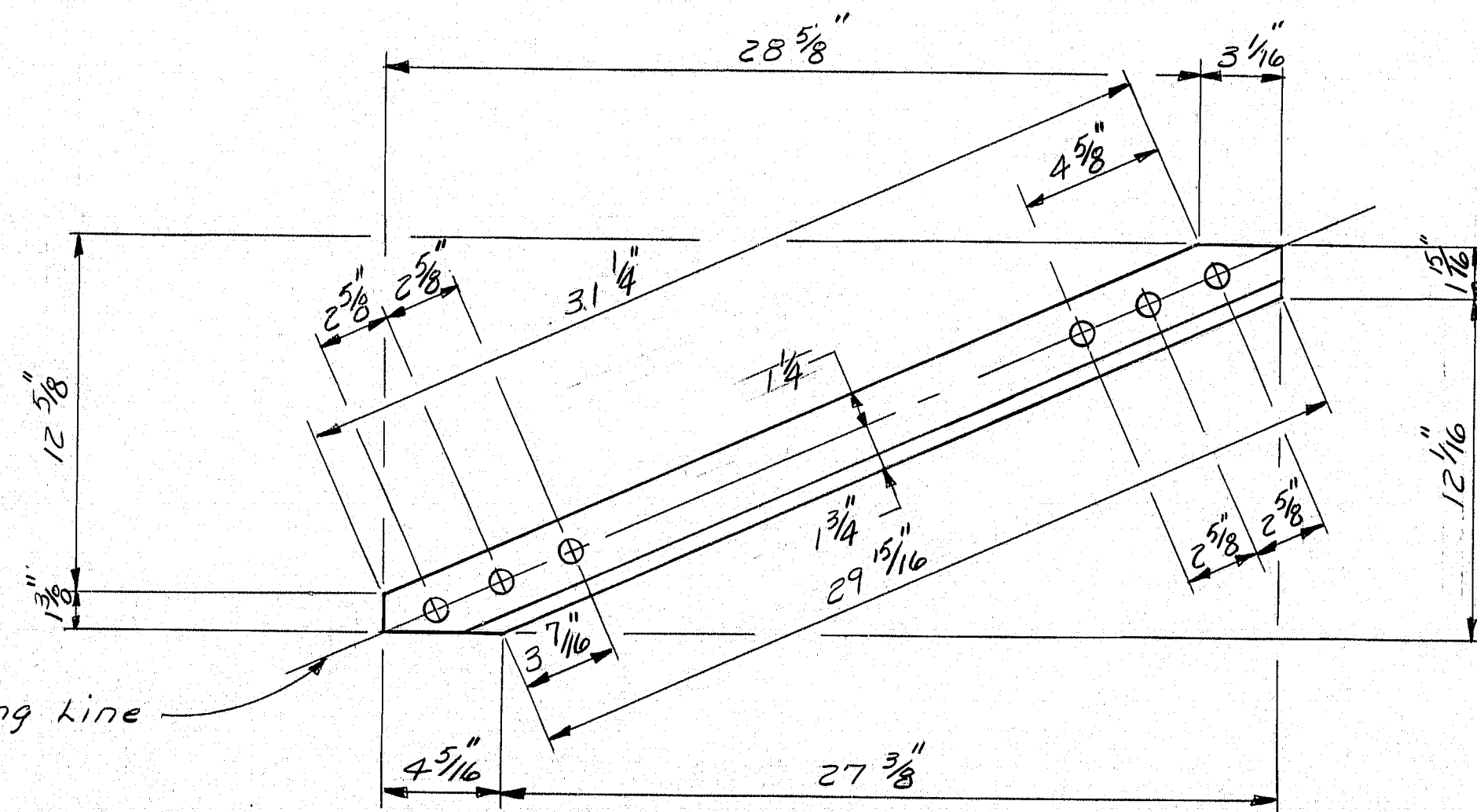
100-324



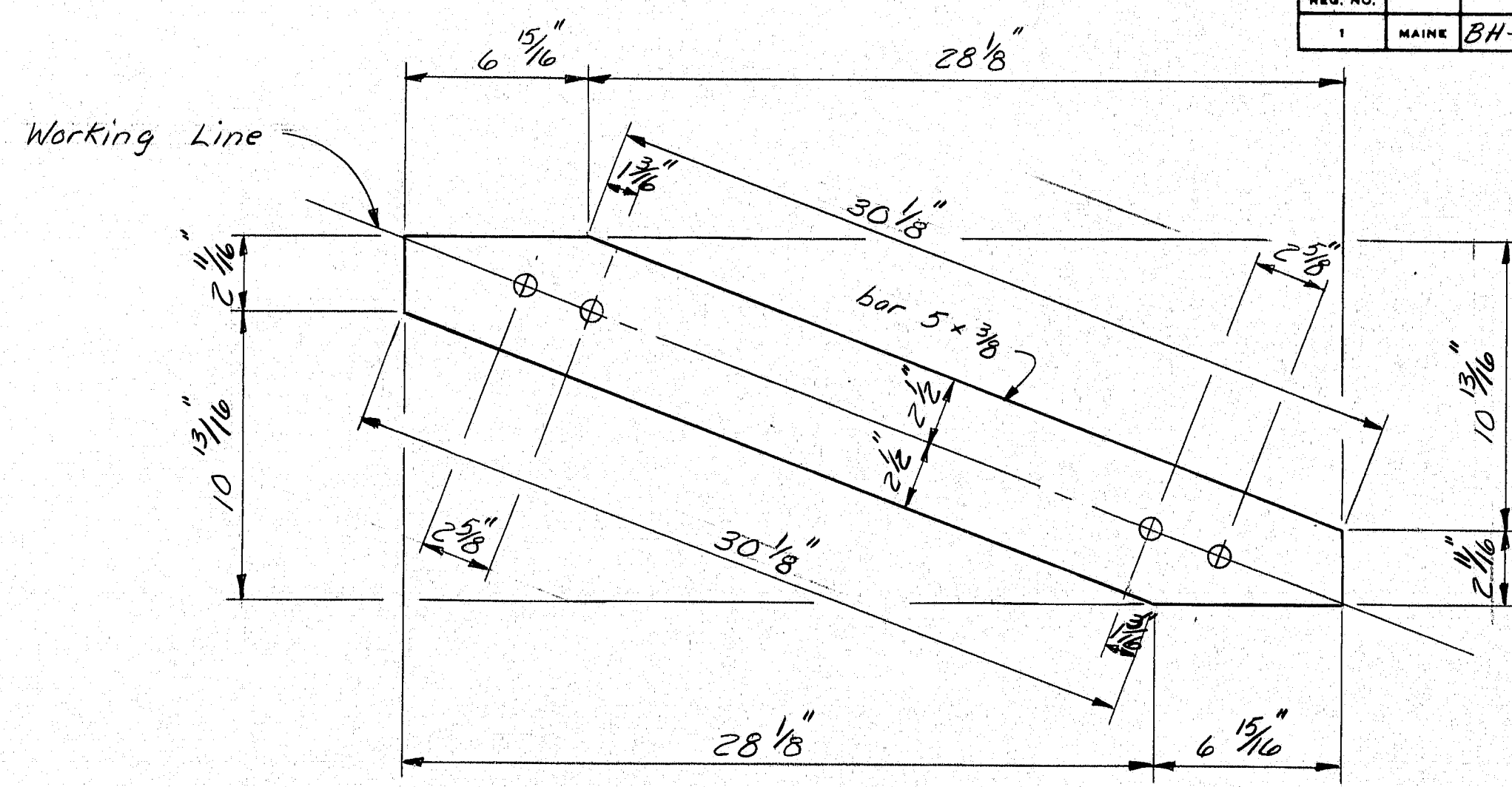
F.R.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0250(12)	B	D



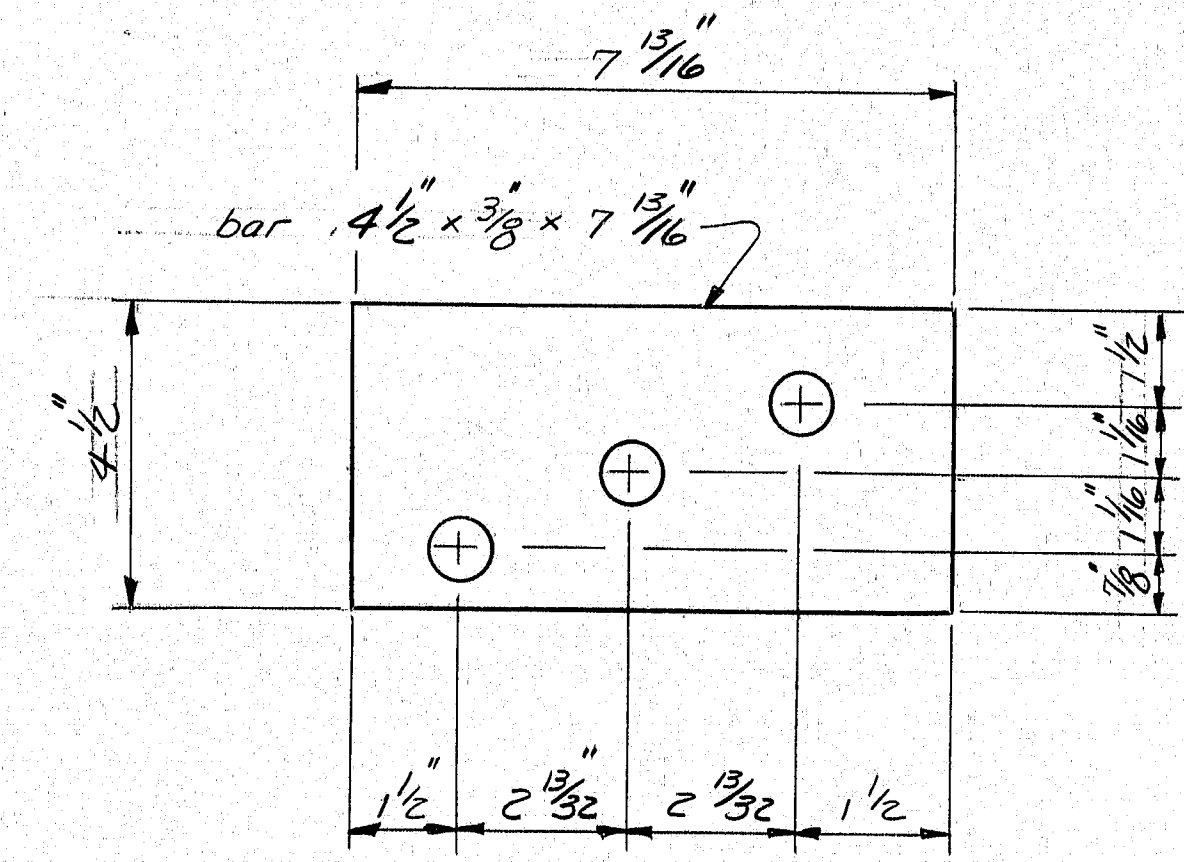
**BAR 1**  
8 Required



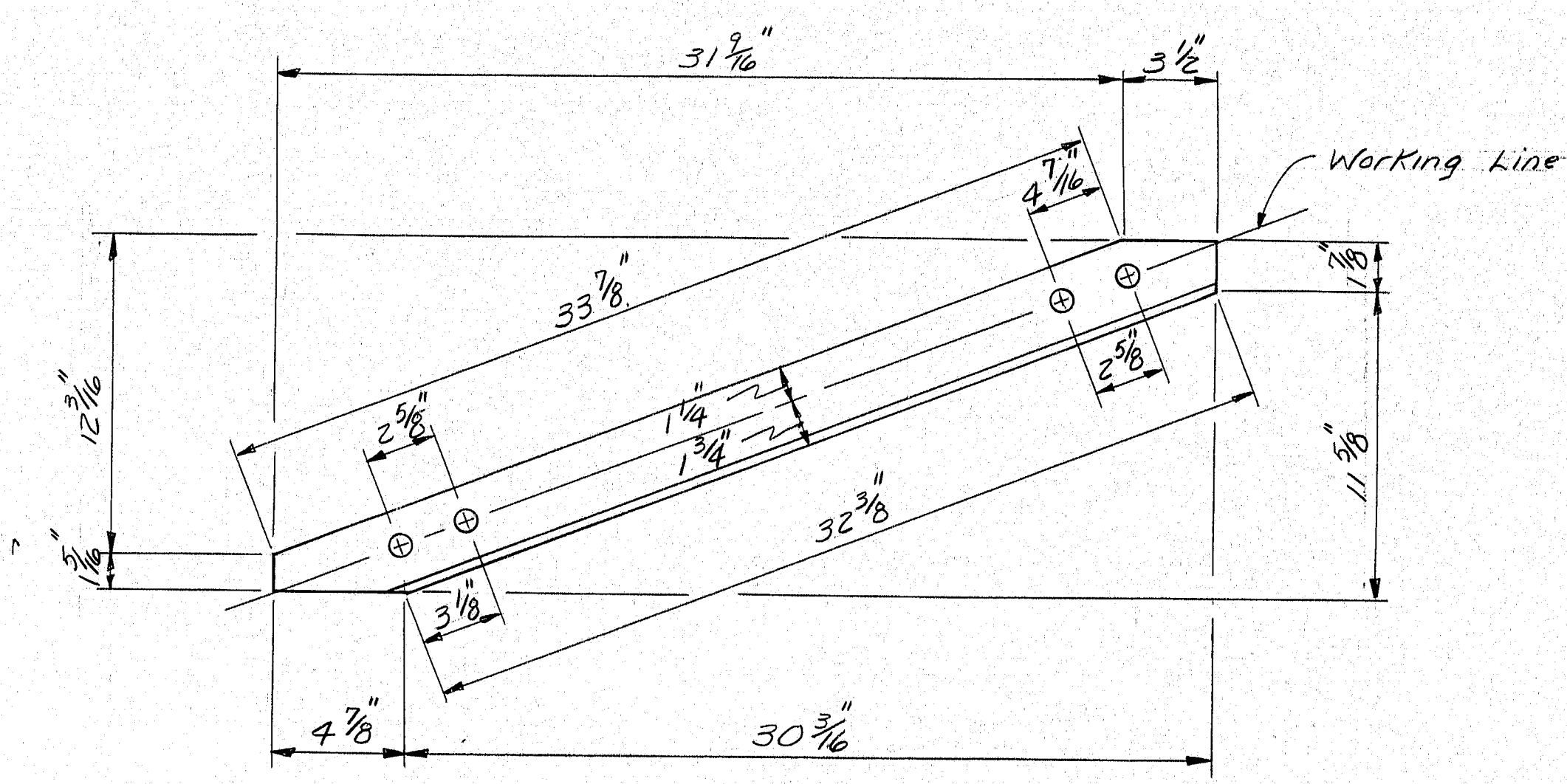
**BAR 2**  
16 Required  
(8 opposite hand)



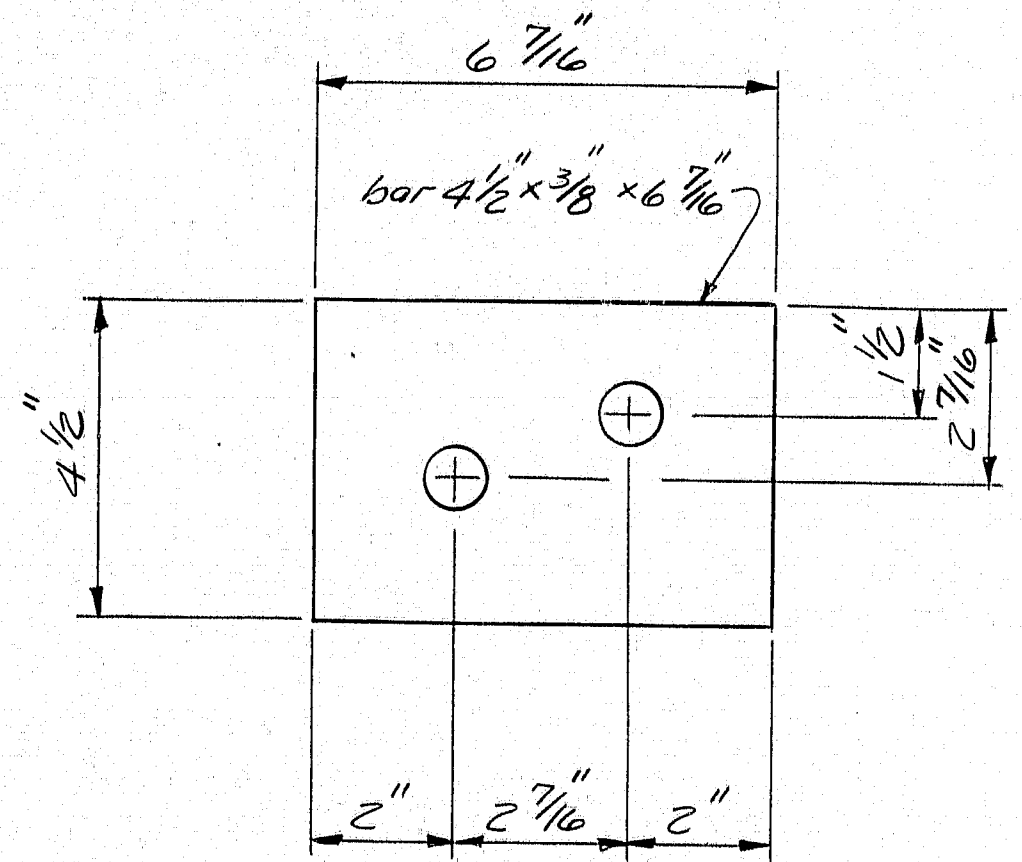
**BAR 2**  
16 Required



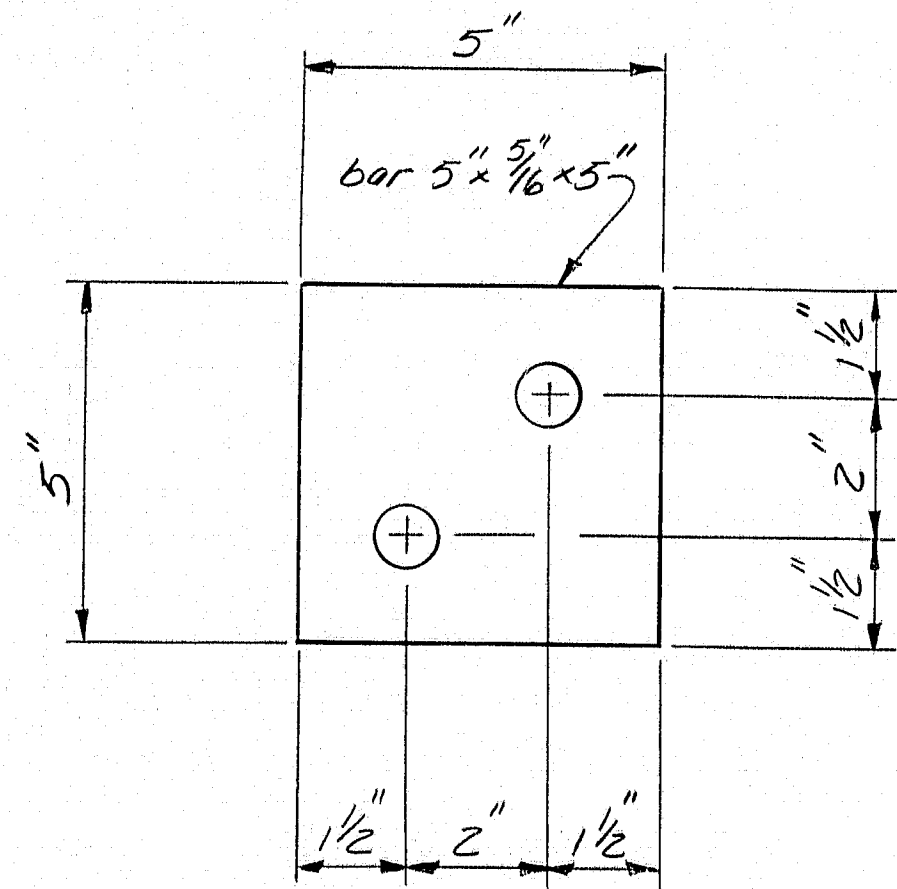
**FP 1**  
16 Required



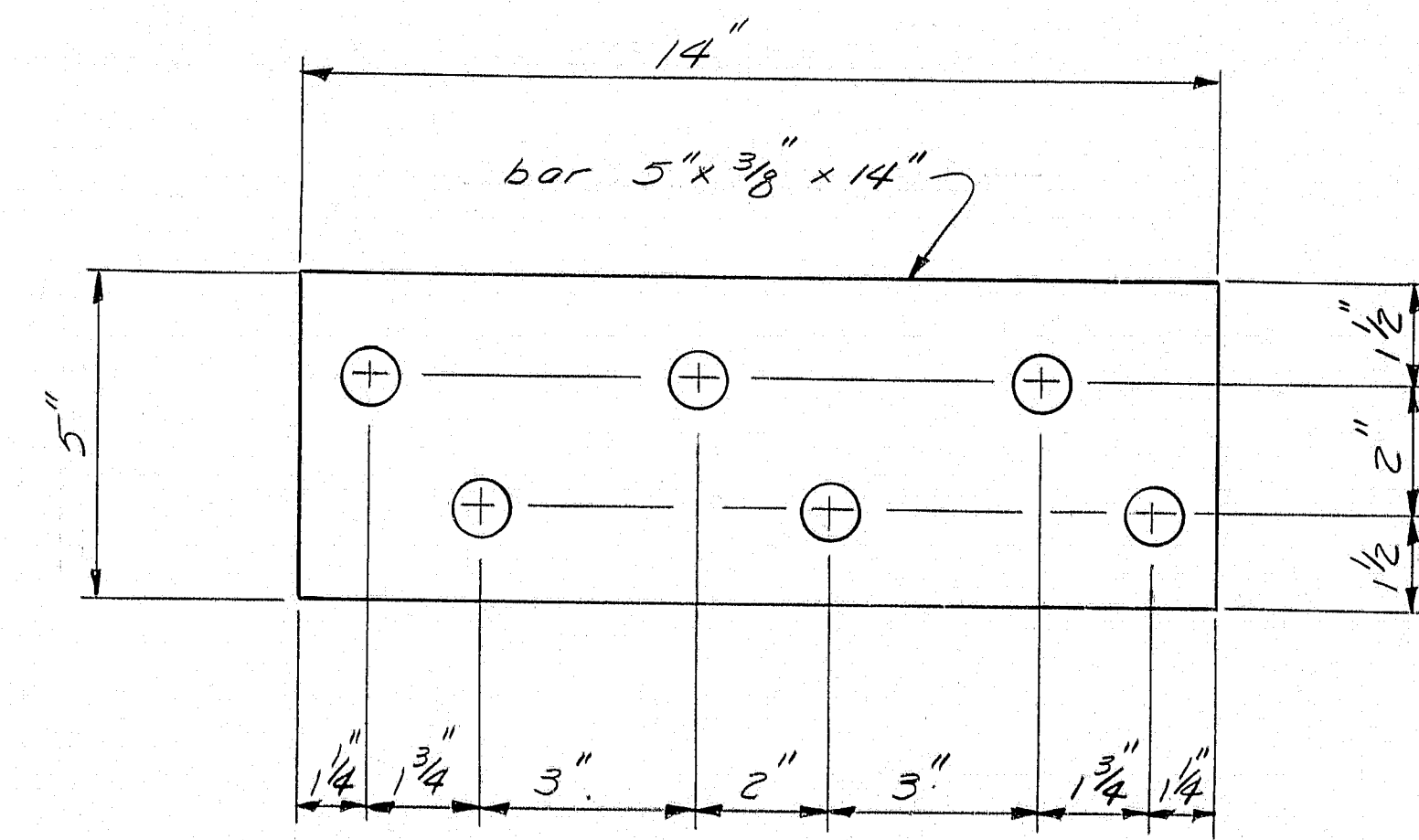
**BAR 2**  
32 Required  
(16 opposite hand)



**FP 3**  
32 Required



**FP 2**  
8 Required



**FP 4**  
16 Required

PROJECT DESIGN ENGINEER	DATE
BY: BAS	4-28-88
CHECKED: JAG	5-88
REVISIONS	
FIELD CHANGES	

BRUNING 44-122-45710-1

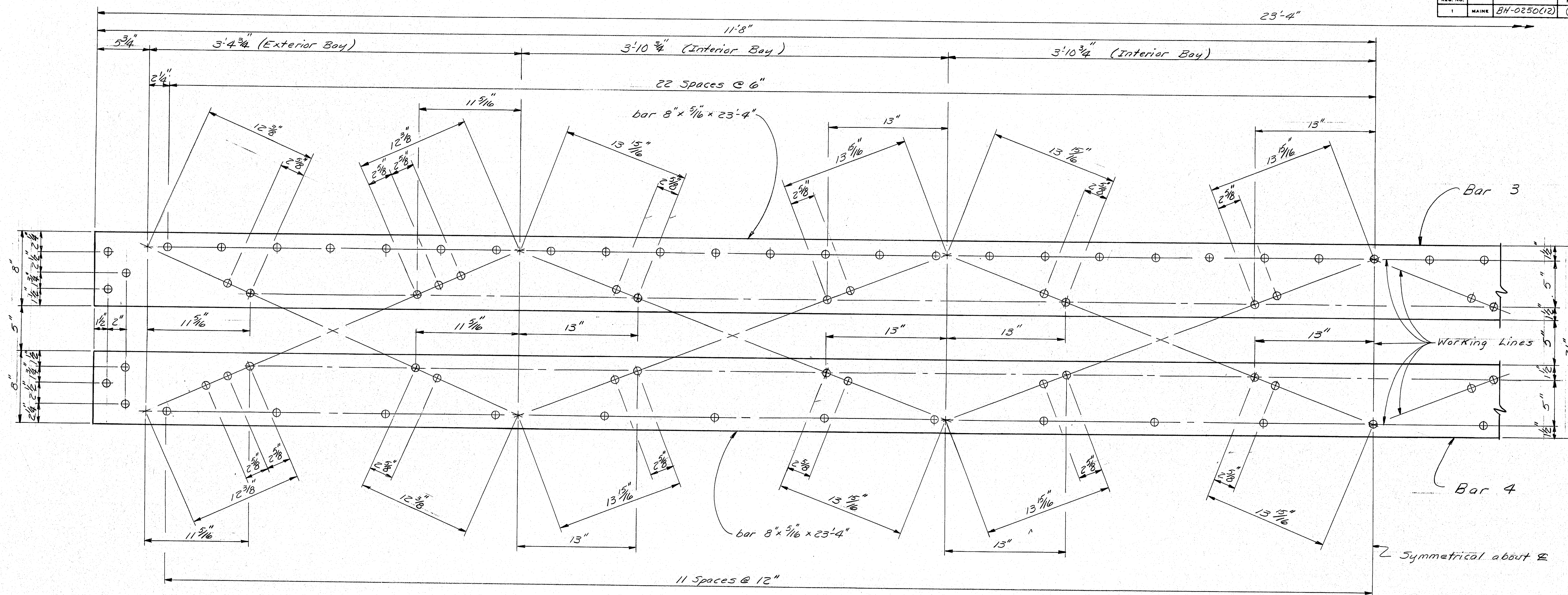
All Holes 1"  $\phi$

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
DEER ISLE SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
HANCOCK COUNTY  
TRUSS BEAM ALTERNATE  
SHEET 2 OF 4 AUGUSTA, MAINE

100-325



F.R.D. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-0250(12)	C	D



BAR 3  
4 Required

BAR 4  
4 Required

### LIST OF MATERIALS

Quantity	Description	Location
16	X 5 x 3 1/2 x 1/2 x 1'-7 1/8"	Web Connection X <sup>s</sup>
16	X 4 x 4 x 3/8 x 23'-4"	Top & Bottom Chord X <sup>s</sup>
16	X 3 1/2 x 3 x 3/8 x 2'-10 3/8"	Exterior Diagonal
32	X 3 x 3 x 3/8 x 3'-1 1/16"	Interior Diagonal
8	bar 1, bar 5 x 3/8 x 2'-9 7/16"	Exterior Diagonal
16	bar 2, bar 5 x 3/8 x 3'-1 1/16"	Interior Diagonal
4	bar 3, bar 8 x 7/16 x 23'-4"	Top Chord
4	bar 4, bar 8 x 7/16 x 23'-4"	Bottom Chord
16	FP1, bar 4 1/2 x 3/8 x 7 13/16"	Filler Plate Exterior Diagonal
8	FP2, bar 5 x 5/16 x 0'-5"	Filler Plate Ends
32	FP3, bar 4 1/2 x 3/8 x 0'-6 1/16"	Filler Plate Interior Diagonal
16	FP4, bar 5 x 3/8 x 1'-2"	Filler Plate Ends

Not used

All Holes 1" Ø

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
DEER ISLE SEDGWICK BRIDGE  
OVER  
EGGEMOGGIN REACH  
HANCOCK COUNTY  
TRUSS BEAM ALTERNATE  
SHEET 3 OF 4 AUGUSTA, MAINE

100-326

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	4-28
CHECKED	5-28
FIELD CHANGES	
PLANS	

BRUNING 44-132-45710-1



F.R.A. REQ. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	84-0250 (12)	D	D

### SPECIFICATIONS

DESIGN: Load Factor Design per  
AASHTO Standard Specifications  
for Highway Bridges 1983 and  
Interim Specifications 1984, 1985  
and 1986.

CONTRACT: State of Maine, Department  
of Transportation, Standard  
Specifications, Highway and  
Bridges, Revisions of January 1984.

### DESIGN LOADING

LIVE LOAD-----H5 20

### MATERIALS

STRUCTURAL STEEL:

All Filler Plates---ASTM A36

All other-----ASTM A572

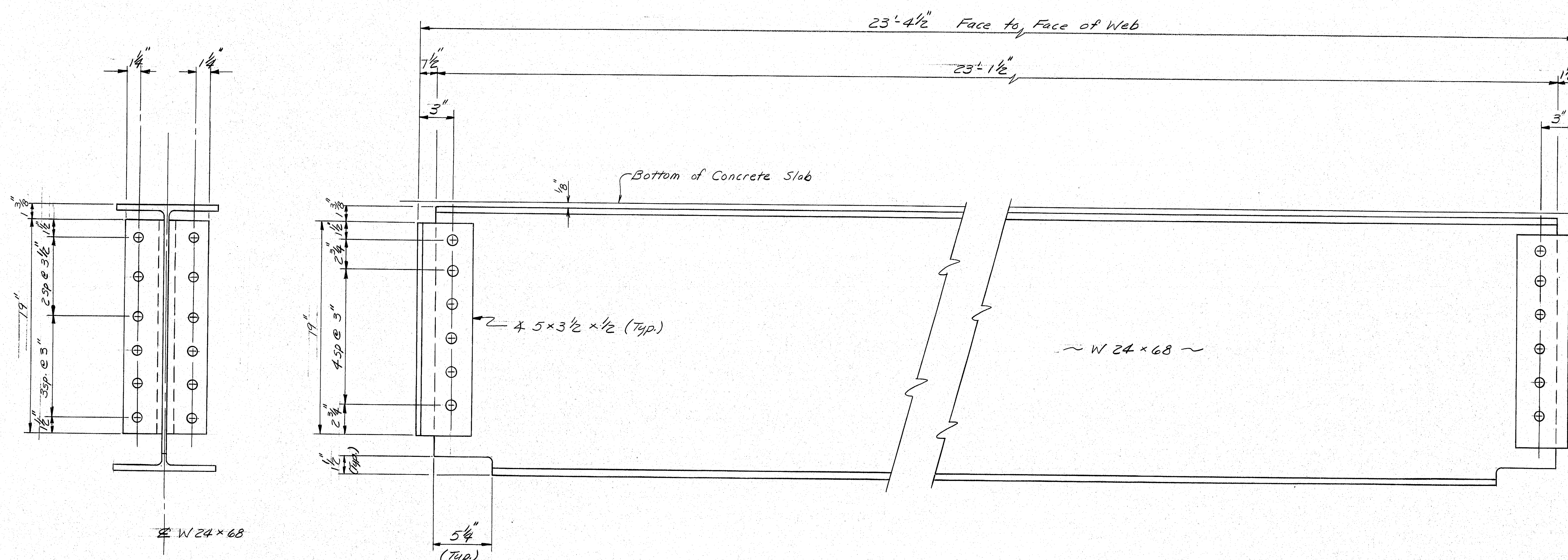
High Strength Bolts---ASTM A325  
Type 1

### BASIC DESIGN STRESSES

ASTM A36 ---  $F_y$  36,000 psi

ASTM A572 ---  $F_y$  50,000 psi

ASTM A325 ---  $F_v$  25,000 psi



END VIEW

ELEVATION W 24 x 68

(4 Required)

### FABRICATION NOTES

- 1-----All bolts shall be  $\frac{7}{8}$ "  $\phi$  High Strength Bolts. Hole sizes for bolts shall conform to section 504.23 of the Standard Specifications except that the holes in the truss alternate shall be  $\frac{1}{8}$  inch larger in diameter than the bolts used, and edge distances shall be  $1\frac{1}{2}$  inches minimum unless otherwise shown.
- 2-----Nuts shall conform to ASTM A563, Heavy Hex, Grade A.
- 3-----Washers shall be ANSI B27.2 Type A-W.
- 4-----An approved epoxy mortar or gel shall be used to fill the  $\frac{1}{8}$  inch void between the bottom of concrete slabs and the top flange of the steel floorbeams to provide full bearing of the concrete slab on the beams.
- 5-----All painting shall conform to the requirements of M.D.T. Standard Specifications (January 1984) Sections 504, 506, and 708.
- 6-----Beams shall be placed as close as possible to the existing 24 WF 94 Floorbeams located on both sides of the finger joints of piers #4 and #5.

### LIST OF MATERIALS

Quantity	Description	Location
16	4 5 x 3 1/2 x 1/2 x 1'-7"	Web Connection &
4	W 24 x 68 x 23'-1 1/2"	Beam

### ESTIMATED TOTAL WEIGHT

4- W 24 x 68 Alternate = 6,650 lbs

100-327

NOT USED

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE

OVER

EGGEMOGGIN REACH

HANCOCK COUNTY

W24 x 68 ALTERNATE

SHEET 4 OF 4 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	5-22
CHECKED	5-22
REVISIONS	
FIELD CHANGES	
PLANS	

BRIUNING 44-132-4570-1