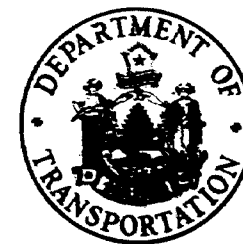


182-112-146 # 3208  
Pencoo Hancock Kite

182-147-16A  
Deer Isle - Seabird Kites  
# 3257

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

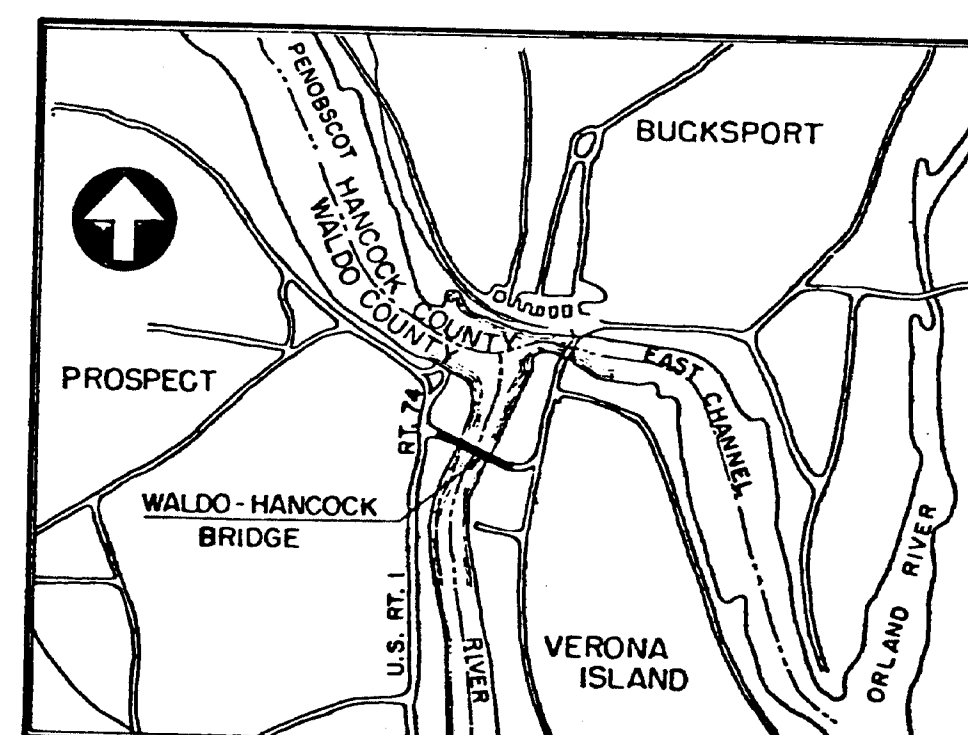


BUREAU OF HIGHWAYS  
PROSPECT IN WALDO COUNTY  
VERONA IN HANCOCK COUNTY

REHABILITATION  
WALDO - HANCOCK BRIDGE  
OVER  
PENOBSCOT RIVER

MAINE FEDERAL AID PROJECT  
PROJECT NO. BH-042-1(31)

1985



LOCATION MAP  
SCALE 0 1 2 MILES

TRAFFIC DATA

A.D.T. 19 \_\_\_\_\_  
A.D.T. 19 \_\_\_\_\_  
D.H.V. \_\_\_\_\_  
T. (%) \_\_\_\_\_  
D. (%) \_\_\_\_\_  
V. \_\_\_\_\_  
P.S.D. (%) \_\_\_\_\_  
18 KIPS \_\_\_\_\_

F.H.A. DIST. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH 042-1(31)	1	55

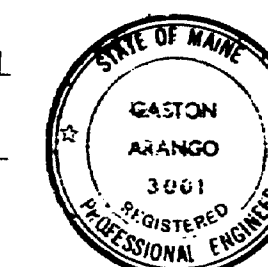
INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES
3	GENERAL NOTES
4	GENERAL PLAN AND ELEVATION - CROSS SECTION
5	TOWER
6	BEARINGS AND WIND BRACKETS ON CABLE BENTS
7	NEW CENTER CABLE TIE
8	CABLE DETAILS
9	TEMPORARY SUPPORTS AT SUSPENDERS
10	EXPANSION JOINTS AT TOWERS
11	DETAILS OF EXPANSION JOINTS AT TOWERS
12	PEDESTAL REPAIRS
13	REPAIRS TO EAST MAIN PIER NO. 7
14	REPAIRS TO WEST MAIN PIER NO. 8
15	WEST ANCHORAGE SHELTERS
16	EAST ANCHORAGE SHELTERS
17	REPLACE DOORS AND REPAIR ABUTMENTS
18	PLAN AND ELEVATION OF WEST APPROACH
19	EXISTING DECK - SUSPENDED SPANS
20	EXISTING DECK - EAST & WEST VIADUCTS
21	EXISTING DECK - WEST VIADUCT
22	DECK REHABILITATION - SUSPENDED SPANS
23	DECK REHABILITATION - EAST VIADUCT
24	DECK REHABILITATION - WEST VIADUCT (PIER 10 TO WEST ABUTMENT)
25	DECK REHABILITATION - WEST VIADUCT (PIER 9 TO PIER 10)
26	DECK REHABILITATION - EAST & WEST ABUTMENTS
27	REHABILITATION OF DECK AND PAINTING OF BRIDGE
28-30	LIGHTING SYSTEM
31	MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONE
32	MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONE
33	MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONE
34	AUGUST 1969 ⑪ BARRICADES, WARNING SIGNS, MONUMENTS, PROJECT MARKERS, REV. 3-22-77
35	AUGUST 1969 ⑫ FIELD OFFICES, ETC. REV. 3-16-73

HIGHWAY  
STANDARD  
DETAILS

NOTE: ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL BE GOVERNED BY AND IN CONFORMITY WITH THE STANDARD SPECIFICATIONS (REVISION OF 1968) AND SUPPLEMENTS THERETO, EXCEPT AS MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS.

SUBMITTED:  
STEINMAN BOYNTON GRONQUIST & BIRDSALL  
*Gaston Arango*  
GASTON ARANGO, MAINE P.E. No. 5001



APPROVED:

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
*Richard C. Cannon*  
BUREAU DIRECTOR AND CHIEF ENGINEER

DATE  
3-30-82  
3-30-82

UNITED STATES  
DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
REGION 1  
APPROVED: \_\_\_\_\_  
DIVISION ADMINISTRATOR DATE

182-112

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

### ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.16	Scarifying Concrete Deck - Top $\frac{1}{2}$ inch	1	L.S.
202.18	Removal of Exist. Bituminous Pavement - (including Membrane)	1	L.S.
202.122	Removal of Exist. Structural Conc. Slab - Additional $\frac{1}{2}$ inch	1	L.S.
202.123	Removal of Exist. Structural Conc. Slab - Below Reinforcing Steel	1,400	S.Y.
202.124	Removal of Exist. Structural Conc. Slab - Full Depth	300	S.Y.
202.203	Removal of Existing Concrete - Sidewalk Type 1 and Type 2 Repairs	2,550	L.F.
202.204	Removal of Existing Concrete - Sidewalk Type 3 Repairs	500	S.F.
502.29	Structural Concrete - Wearing Surface on Bridges	1	L.S.
502.610	Structural Concrete - Abutment Repairs	1	L.S.
502.611	Structural Concrete - Pedestal Repairs	1	L.S.
502.612	Structural Concrete - Pier Repairs, Piers 7 and 8	1	L.S.
502.613	Structural Concrete - Underwater Repairs, Pier 8	1	L.S.
502.614	Structural Concrete - Anchorage Shelters	1	L.S.
502.615	Structural Concrete - Sidewalk Repairs, Type 1	850	L.F.
502.616	Structural Concrete - Sidewalk Repairs, Type 2	1,700	L.F.
502.617	Structural Concrete - Sidewalk Repairs, Type 3	500	S.F.
502.619	Structural Concrete - Sidewalk and Abutment Roadway Repairs for Joint Seals	575	L.F.
503.12	Reinforcing Steel - Fabricated and Delivered	51,700	Lbs.
503.13	Reinforcing Steel, Placing	51,700	Lbs.
504.610	Structural Steel - Center Ties and Cable Bands, Fabricated and Delivered	1	L.S.
504.611	Structural Steel - Center Ties and Cable Bands, Erection	1	L.S.
504.612	Structural Steel - Bearings at Cable Bents, Fabricated and Delivered	1	L.S.
504.613	Structural Steel - Bearings at Cable Bents Erection	1	L.S.
504.614	Structural Steel - Wind Brackets at Cable Bents, Fabricated and Delivered	1	L.S.
504.615	Structural Steel - Wind Brackets at Cable Bents, Erection	1	L.S.
504.616	Structural Steel - Doors in Abutments, Fabricated and Delivered	1	L.S.
504.617	Structural Steel - Doors in Abutments, Erection	1	L.S.
504.618	Structural Steel - Louvers and Shields in Anchorage Shelters, Fabricated and Delivered	1	L.S.
504.619	Structural Steel - Louvers and Shields in Anchorage Shelters, Erection	1	L.S.
504.620	Structural Steel - Expansion Joints at Towers, Fabricated and Delivered	1	L.S.

### ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
504.621	Structural Steel - Expansion Joints at Towers, Erection	1	L.S.
504.622	Structural Steel - Armored Joints, West Approach, Fabricated and Delivered	1	L.S.
504.623	Structural Steel - Armored Joints, West Approach, Erection	1	L.S.
506.142	Field Painting, Existing Structural Steel	1	L.S.
506.170	Surface Preparation of Existing Structural Steel	1	L.S.
515.20	Protective Coating for Concrete Structures	6,930	S.Y.
602.01	$\frac{1}{4}$ inch diameter suspenders with Sockets, Fabricated, Primed and Delivered	6	Each
602.02	$\frac{1}{4}$ inch diameter suspenders with Sockets, Erection	6	Each
602.03	Installation of New Wrapping Wire at Center Ties and Cable Bands	1	L.S.
609.431	Timber Curb - Temporary	650	L.F.
609.432	Resetting Timber Curb - Temporary	1	L.S.
626.21	Metallic Conduit	1200	L.F.
629.05	Hand Labor, Straight Time	30	M.H.
630.0406	Traffic Officers	20	M.H.
631.10	Air Compressor (Inc. Operator)	20	Hr.
631.11	Air Tool (Inc. Operator)	20	Hr.
631.171	Truck - small (Inc. Operator)	20	Hr.
631.22	Front End Loader (Inc. Operator)	20	Hr.
632.08	Warning Lights	2	Grp.
634.160	Highway Lighting	1	L.S.
639.09	Field Office, Type B	1	Each
643.72	Temp. Traffic Signals	1	L.S.
652.31	Type I Barricades	10	Each
652.35	Construction Signs	300	S.F.
652.36	Maintenance of Traffic Control Devices	280	C.D.
652.38	Flaggers	270	M.H.
659.10	Mobilization	170	L.S.

#### NOTE:

The Estimated Quantity of Item 502.29, Structural Concrete - Wearing Surface on Bridges is 350 C.Y.

See sheet 27 for Estimated Quantities of Structural Steel.

The Estimated Quantity of Item 202.16, Scarifying Concrete Deck - Top  $\frac{1}{2}$  inch is 5,555 S.Y.

The Estimated Quantity of Item 202.18, Removal of Exist. Bituminous Pavement (including membrane) is 5,555 S.Y.

The Estimated Quantity of Item 202.122, Removal of Exist. Structural Concrete Slab - Additional  $\frac{1}{2}$  inch is 1,915 S.Y.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS

WALDO HANCOCK BRIDGE

OVER  
PENOBSCOT RIVER

REHABILITATION OF BRIDGE

ESTIMATED QUANTITIES

STEINMAN, BOYNTON, GRONQUIST & BIRDSALL  
CONSULTING ENGINEERS  
NEW YORK, N.Y.

SCALE: NONE  
DATE: 1-26-82  
SHEET: 2

182-113

F.R.E.A. SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	8H-042-1(3)	3	58

# SPECIFICATIONS

## DESIGN - FABRICATION AND ERECTION

A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1977 AND SUBSEQUENT INTERIM SPECIFICATIONS  
A.S.T.M. AMERICAN SOCIETY FOR TESTING MATERIALS SPECIFICATIONS  
A.A.S.H.T.O. MANUAL FOR MAINTENANCE INSPECTION OF BRIDGES, 1978 AND SUBSEQUENT AMENDMENTS

LOADS - LIVE LOAD - HS20-44

## DESIGN DATA FOR EACH CENTER TIE

LONGITUDINAL - TOTAL LOAD = 180,000 LBS.  
TRANSVERSE - TOTAL LOAD = 8,500 LBS.  
VERTICAL - TOTAL LOAD = 80,000 LBS.

## MATERIALS

STEEL PLATES AND SHAPES - EXISTING: OPEN HEARTH STEEL, Fy = 36,000 PSI  
NEW: A.S.T.M. A-709, GRADE 36, EXCEPT AS NOTED.

STRUCTURAL BOLTS - A.S.T.M. A325 EXCEPT AS NOTED.

CABLE BAND BOLTS - 1 3/4" DIAMETER, CONFORMING TO A.S.T.M. - A354 SPECIFICATIONS, GRADE BC

REINFORCING BARS - A.S.T.M. - A615, GRADE 60

CONCRETE: WEARING SURFACE - CLASS AA, MODIFIED. ALL OTHERS - CLASS A.

WELDING: SUPPLEMENTAL SPECIFICATIONS, SECTION 504 - STRUCTURAL STEEL (WELDING)

PAINTING: SHOP AND FIELD PAINTING IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

STRUCTURAL GALVANIZED BRIDGE ROPE, 1 1/4" DIAMETER TO BE USED FOR THE NEW SUSPENDERS SHALL CONFORM TO A.S.T.M. - A603, CLASS A ZINC COATING.

THE BRIDGE ROPE SHALL BE FURNISHED WITH WIRE ROPE SOCKETS OF STRENGTH EQUAL TO OR GREATER THAN THE ROPE ITSELF.

ZINC USED FOR FITTINGS SHALL BE TO THE GRADE DESIGNATED AS "HIGH GRADE" IN A.S.T.M. - B6 SPECIFICATION FOR SLAB ZINC OR EQUAL.

CAST STEEL USED FOR BEARINGS ON CABLE BENTS SHALL CONFORM TO A.S.T.M. - A27, GRADE 70-36. IT SHALL BE STRESS RELIEVED.

## ERECTION

ERECTION PROCEDURES AND SEQUENCES OF FIELD WORK FOR THE REPLACEMENT OF SUSPENDER ROPES AND INSTALLATION OF CENTER TIES SHALL BE PREPARED BY THE CONTRACTOR FOR THE ENGINEER'S REVIEW BEFORE ANY FIELD WORK CAN COMMENCE.

PROCEDURE FOR TIGHTENING THE HIGH STRENGTH AND CABLE BAND BOLTS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER FOR REVIEW.

CLEAN AND PAINT ALL NEW AND EFFECTED EXISTING PARTS OF THE STRUCTURE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

## DATUM

REFERENCE ELEVATION SHALL BE TOP OF SUPPORT BRACKET FOR EXPANSION BEARINGS AT TOWER, THIS ELEVATION SHALL BE 136.1'. SEE SHEET NO. 11

## GENERAL NOTES

- ALL DIMENSIONS OF THE EXISTING STRUCTURE AFFECTING FABRICATION AND CONSTRUCTION ARE TO BE VERIFIED BY THE CONTRACTOR IN THE FIELD.
- EXISTING PARTS OF THE STRUCTURE WHICH ARE TO BE REPAIRED ARE TO BE CLEANED TO BARE METAL PRIOR TO INSTALLATION OF NEW MATERIAL.
- WHEN USING BOTH HIGH STRENGTH (H.S.) BOLTS AND WELDS, IT IS REQUIRED THAT H.S. BOLTS BE FULLY TIGHTENED PRIOR TO WELDING UNLESS OTHERWISE NOTED.
- SHOP DRAWINGS OF MOST OF THE EXISTING STRUCTURE ARE AVAILABLE TO THE CONTRACTOR UPON REQUEST.
- AT LEAST ONE LANE OF TRAFFIC MUST BE MAINTAINED AT ALL TIMES EXCEPT FOR SHORT PERIODS OF TIME WHEN CERTAIN FIELD OPERATIONS REQUIRE CLOSING OF BOTH LANES AS REQUIRED BY THE PROJECT SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER.
- H.S. BOLTS INSTALLED IN EXISTING RIVET HOLES SHALL HAVE THE SAME DIAMETER AS THE RIVET.
- RIVETS SHALL BE REMOVED PREFERABLY BY MECHANICAL MEANS. THE CONTRACTOR MAY PRESENT THE ENGINEER WITH A WRITTEN REQUEST FOR REMOVING RIVETS BY BURNING THEIR HEADS. ANY REPAIR OF DAMAGE CAUSED BY REMOVING THE RIVETS SHALL BE PAID FOR BY THE CONTRACTOR.
- ALL OPEN BOLT OR RIVET HOLES REMAINING AFTER PRESENT OR PREVIOUS CONSTRUCTION SHALL BE FILLED WITH H.S. BOLTS.
- PROVIDE ALL NEW H.S. BOLTS WITH HARDENED STEEL WASHERS UNDER HEAD AND NUT.
- PROVIDE ALL CABLE BAND BOLTS WITH HARDENED WASHERS UNDER HEAD AND NUT.
- THE NAVIGATION LIGHTS AT PANEL POINT 62 HAVE TO BE TEMPORARILY RELOCATED TO AN ADJACENT PANEL POINT WHEN THE NEW CENTER TIES ARE INSTALLED. THE COST OF THIS WORK SHALL BE INCIDENTAL TO PAY ITEM 504.611.
- All dimensions indicated for concrete repairs are approximate. Actual dimensions of repair shall be determined in the field by the Engineer.
- Field painting of new structural steel shall be as called for in the Special Provisions and as indicated in the plans. Payment shall be considered as being incidental to Item 506.1421, Field Painting Existing Structural Steel.

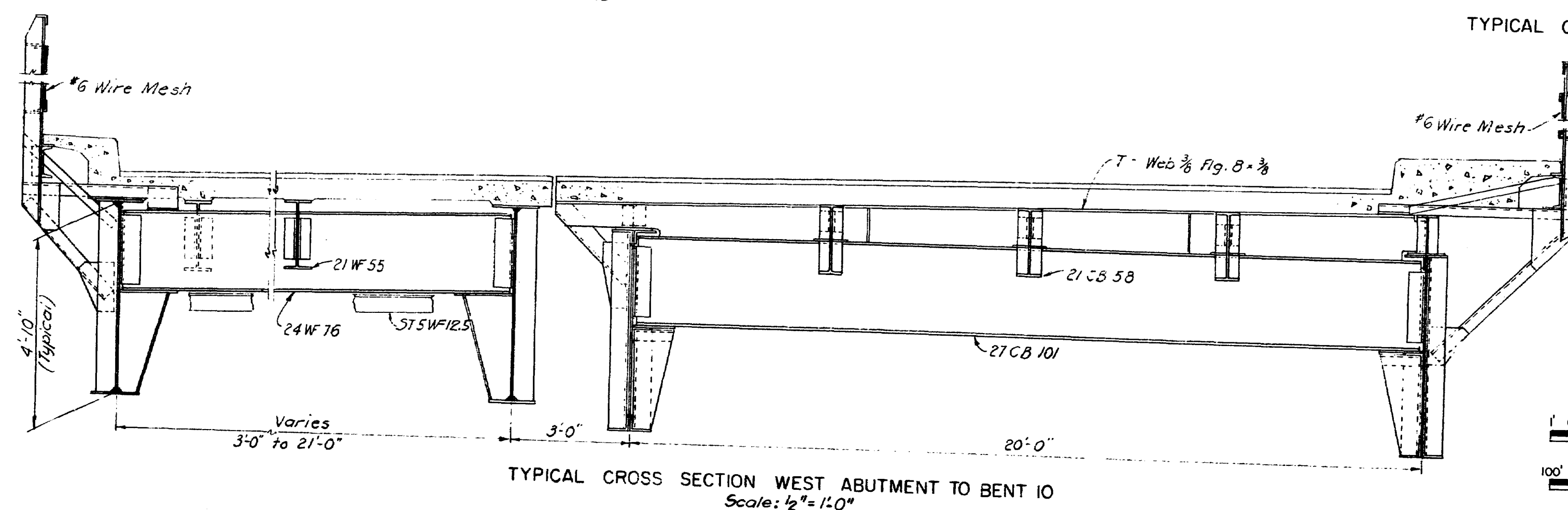
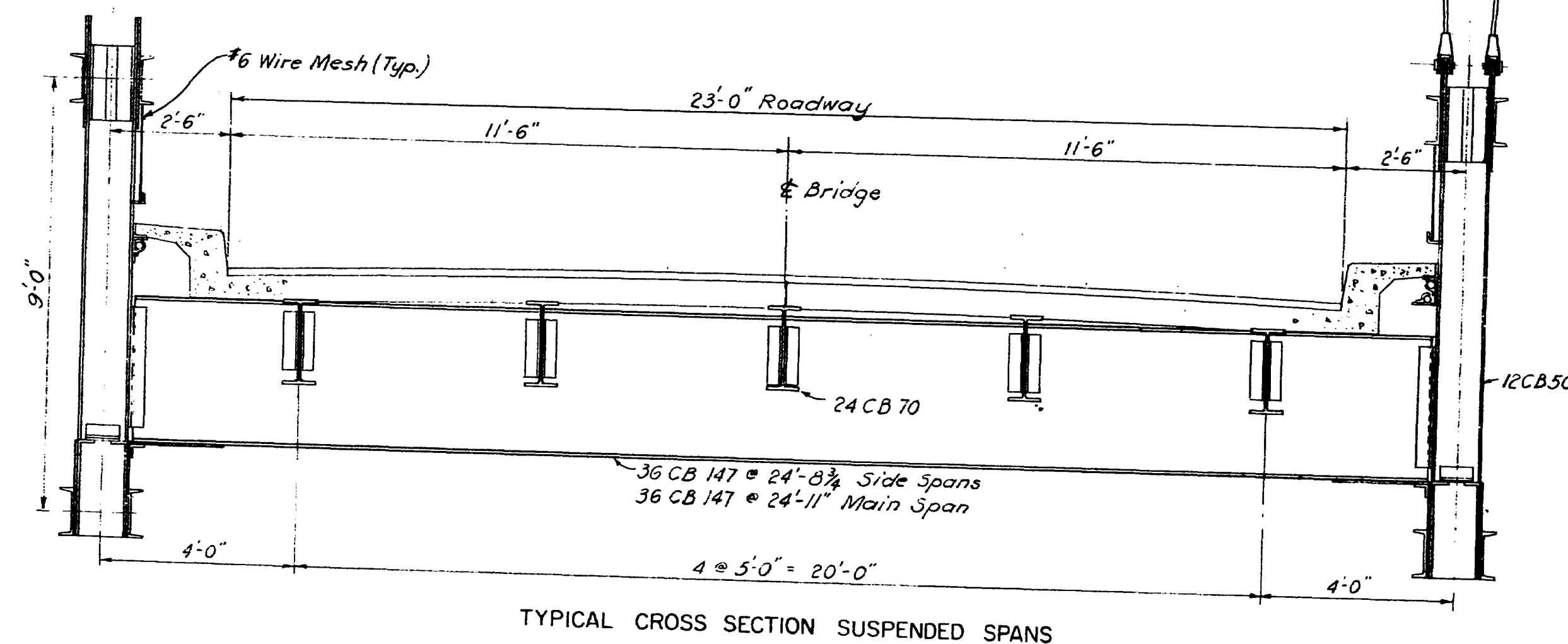
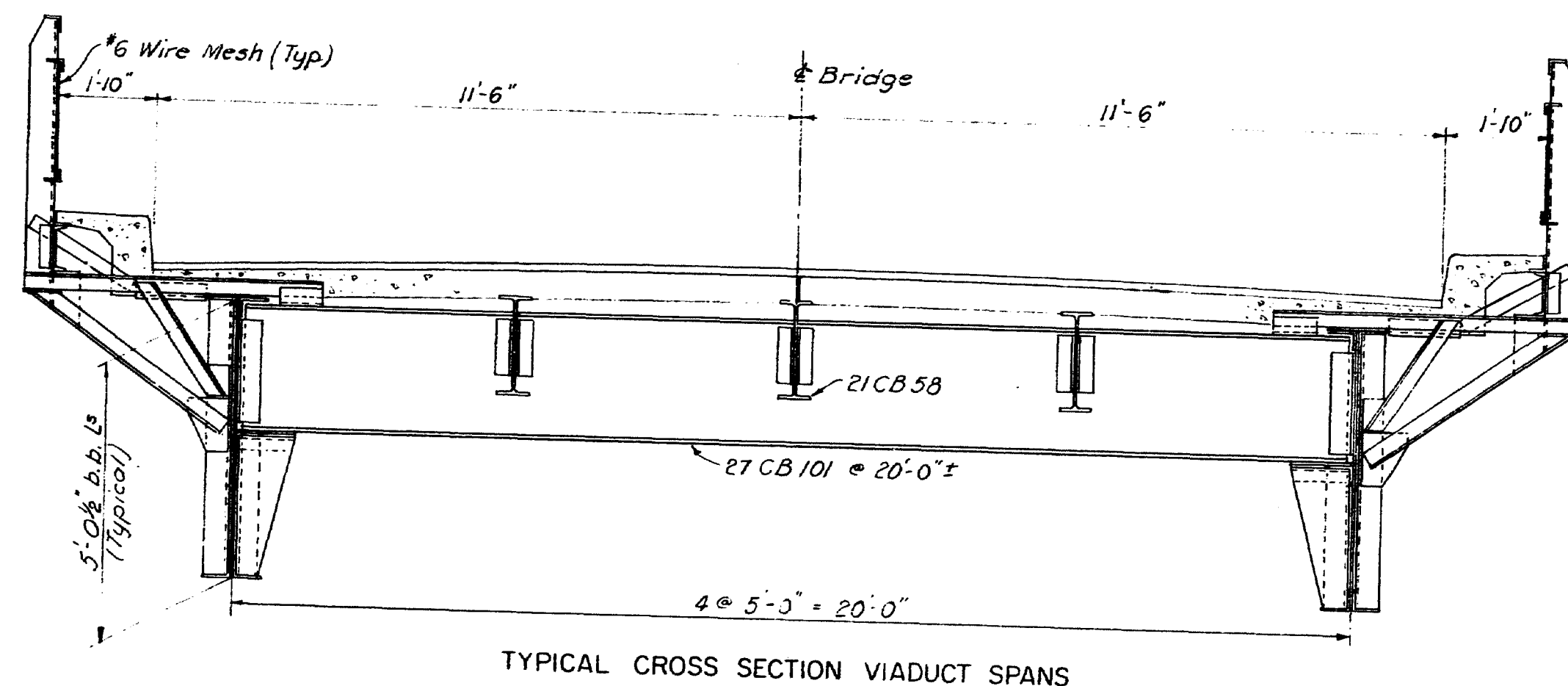
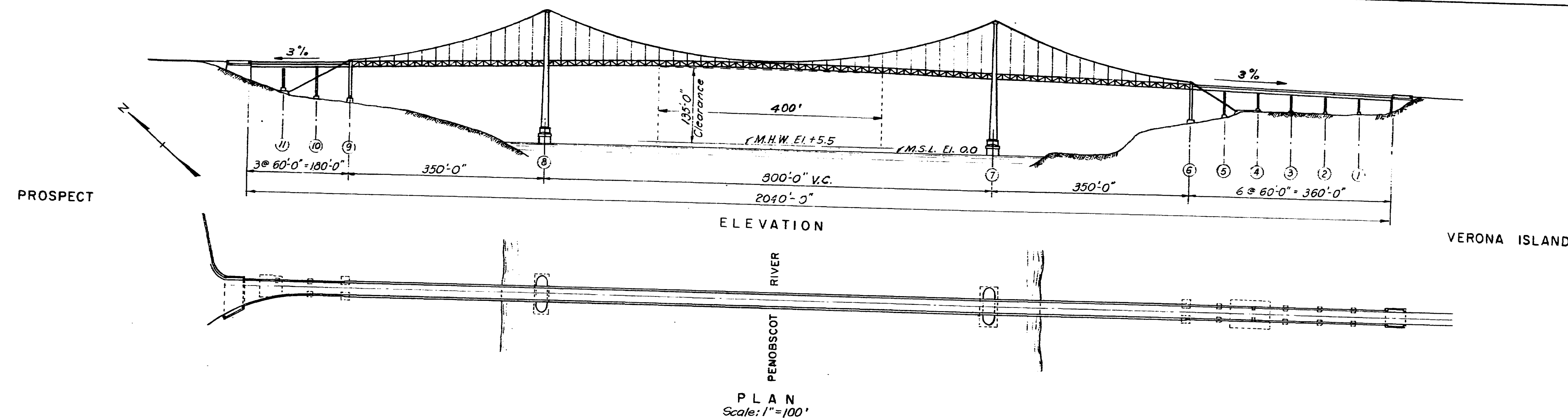
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Drawn: *[Signature]*  
Engineer in Charge

182-114

STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
GENERAL NOTES
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: NONE DATE: 1-26-82 SHEET: 3



STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	BH-042-1(31)	4	58

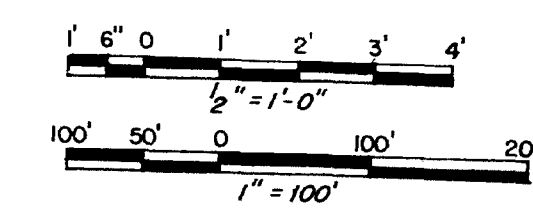


#### NOTES:

1. For General Notes see Sheet no. 3
2. Entire bridge to be painted under Pay Items 506.142 and 506.17

STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
GENERAL PLAN AND ELEVATION-CROSS SECTIONS
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: AS SHOWN DATE: 1-26-82 SHEET: 4

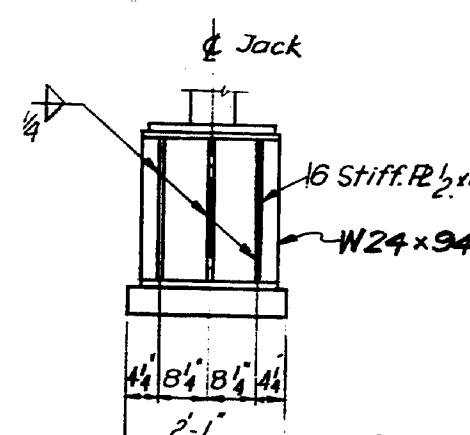
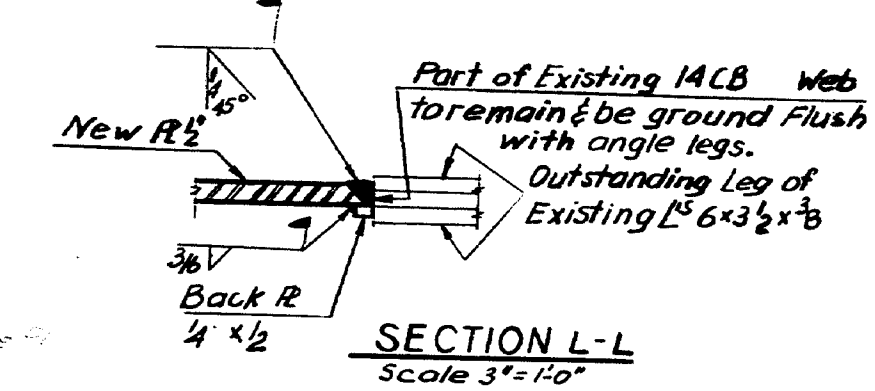
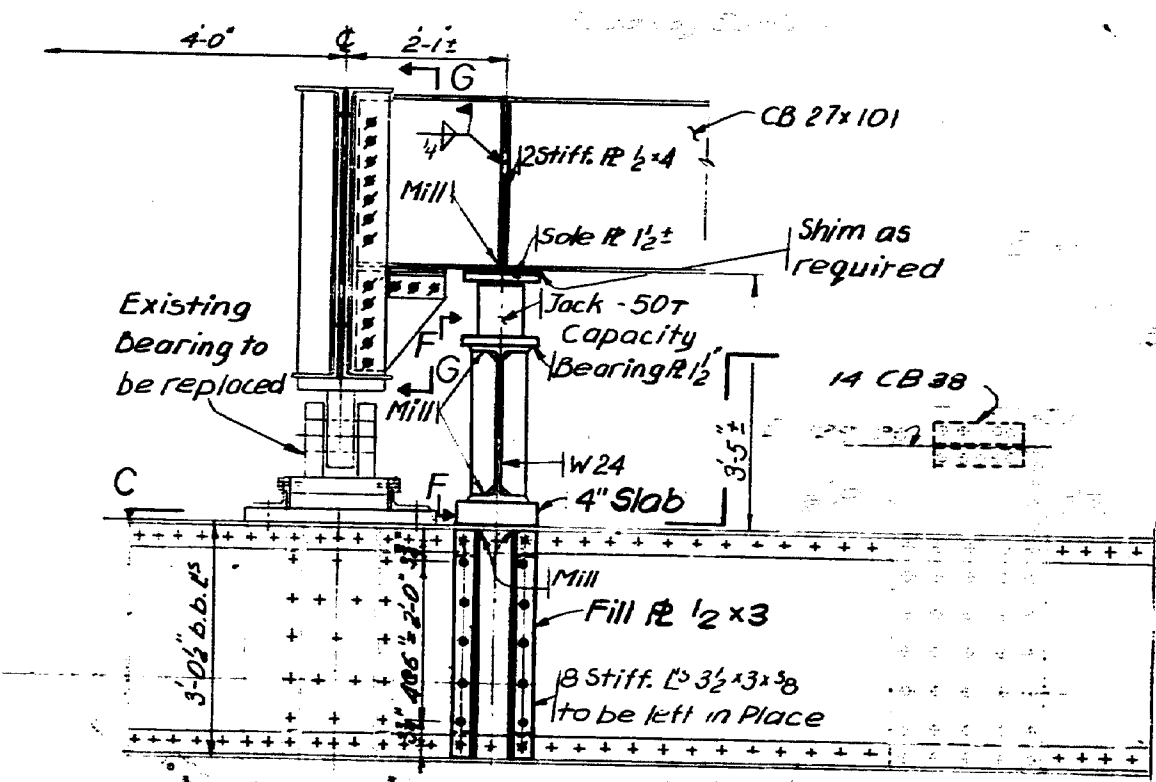
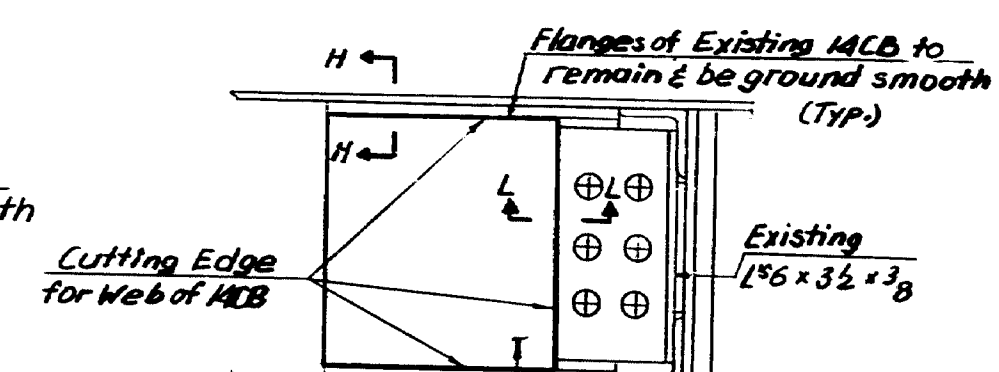
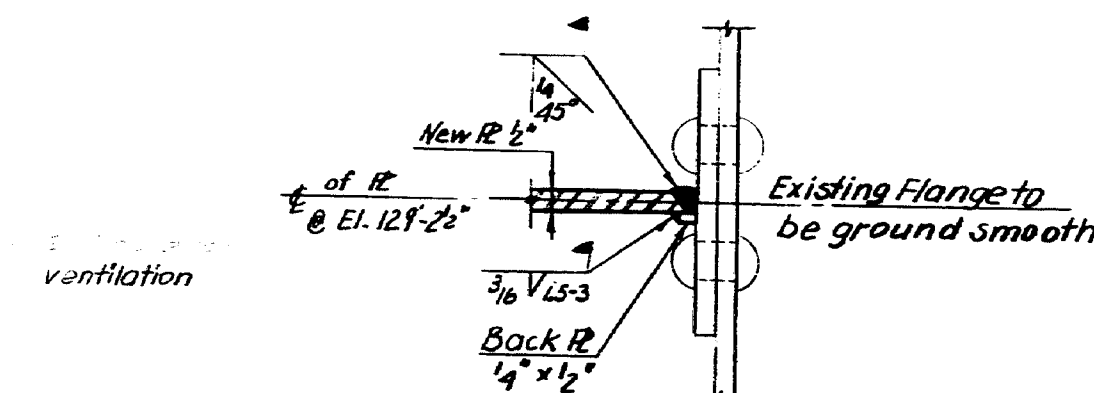
Design: C.V.  
Drawn: L.T.D.  
Engineer in Charge: M.W.G.



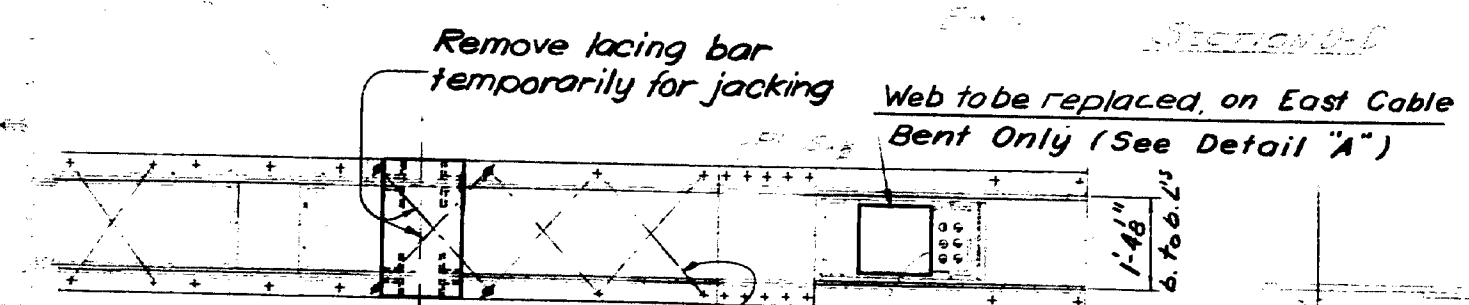
182-115



STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	BH-C42-1(3D)	6	58

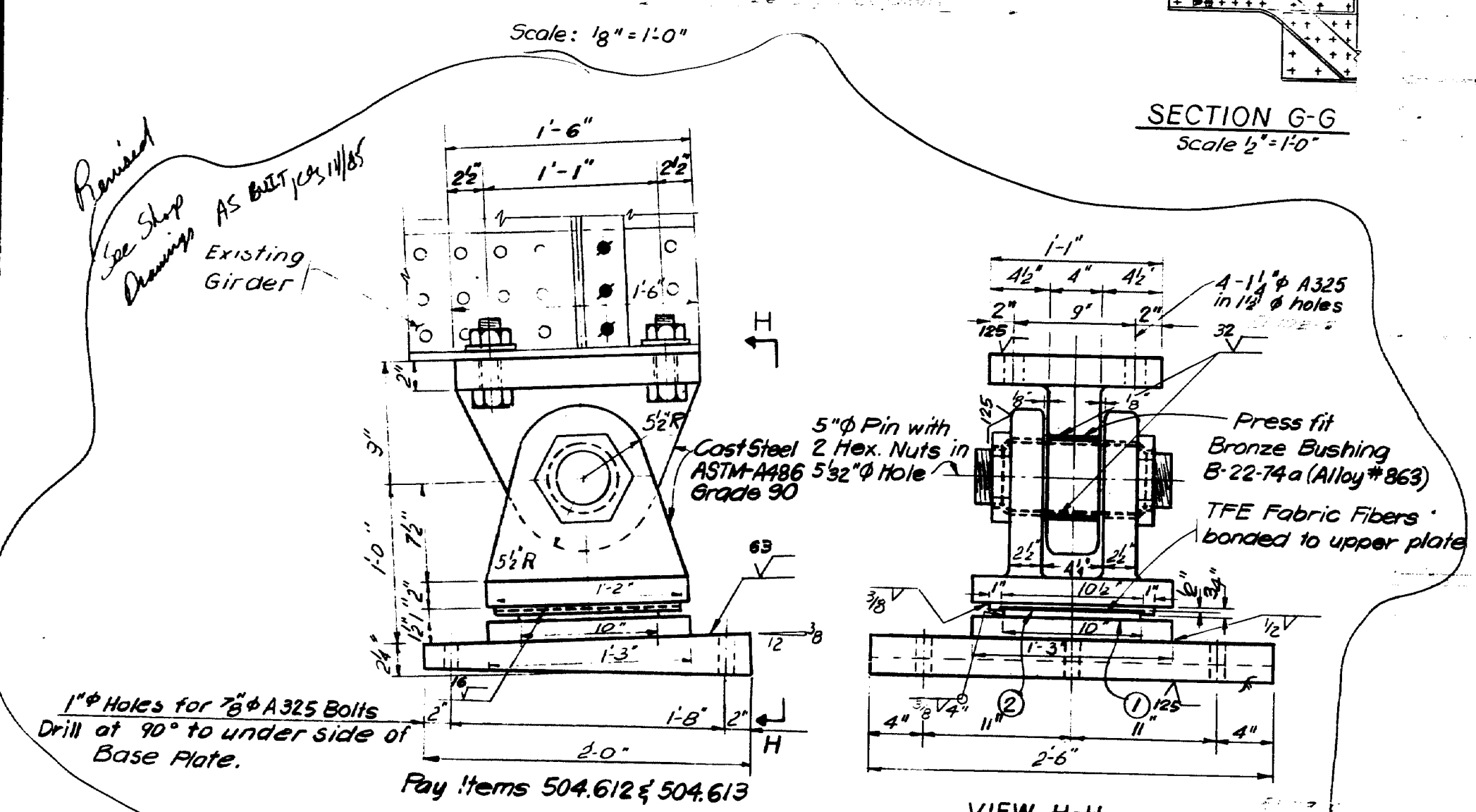


ELEVATION F-F  
Scale 1/2"=1'-0"  
Items 504.612 & 504.613



NOTE: VIEW G-C  
Use washer under head and Nut when High-Strength Bolts are used to replace rivets

NOTE:  
Cable Bent to be painted all over except the inside.  
Pay Items 506.142 and 506.17



VIEW H-H

NEW EXPANSION BEARING (4 REQUIRED)  
Scale 1/2"=1'-0"

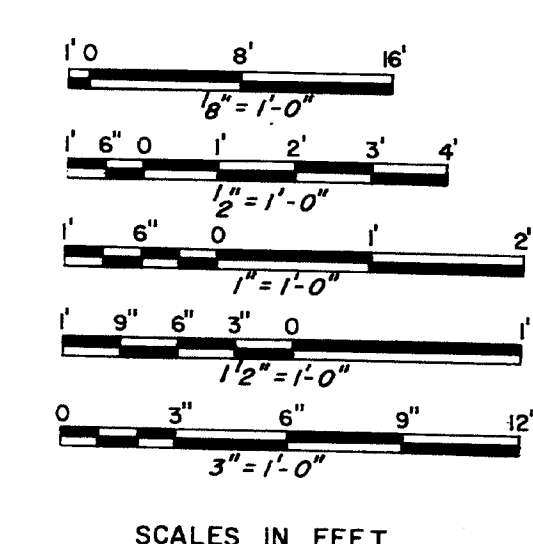
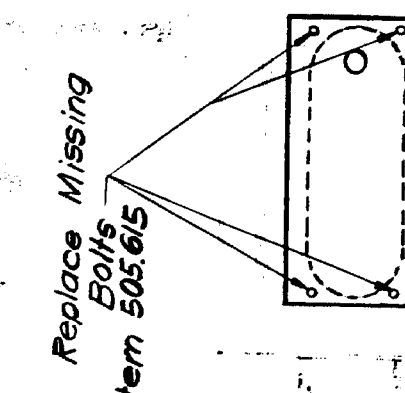
- 1/2" stainless steel R ASTM-A167
- The TFE sliding surface shall conform to ASTM D3293, Type I, Class A

LEGEND

- \* - Remove Existing Rivets. Use Existing Holes for bolting new Material.
- \* - Drill new Holes in Existing Material for bolting new Material.
- \* Replace rivets with H.S. Bolts before Jacking

NOTES

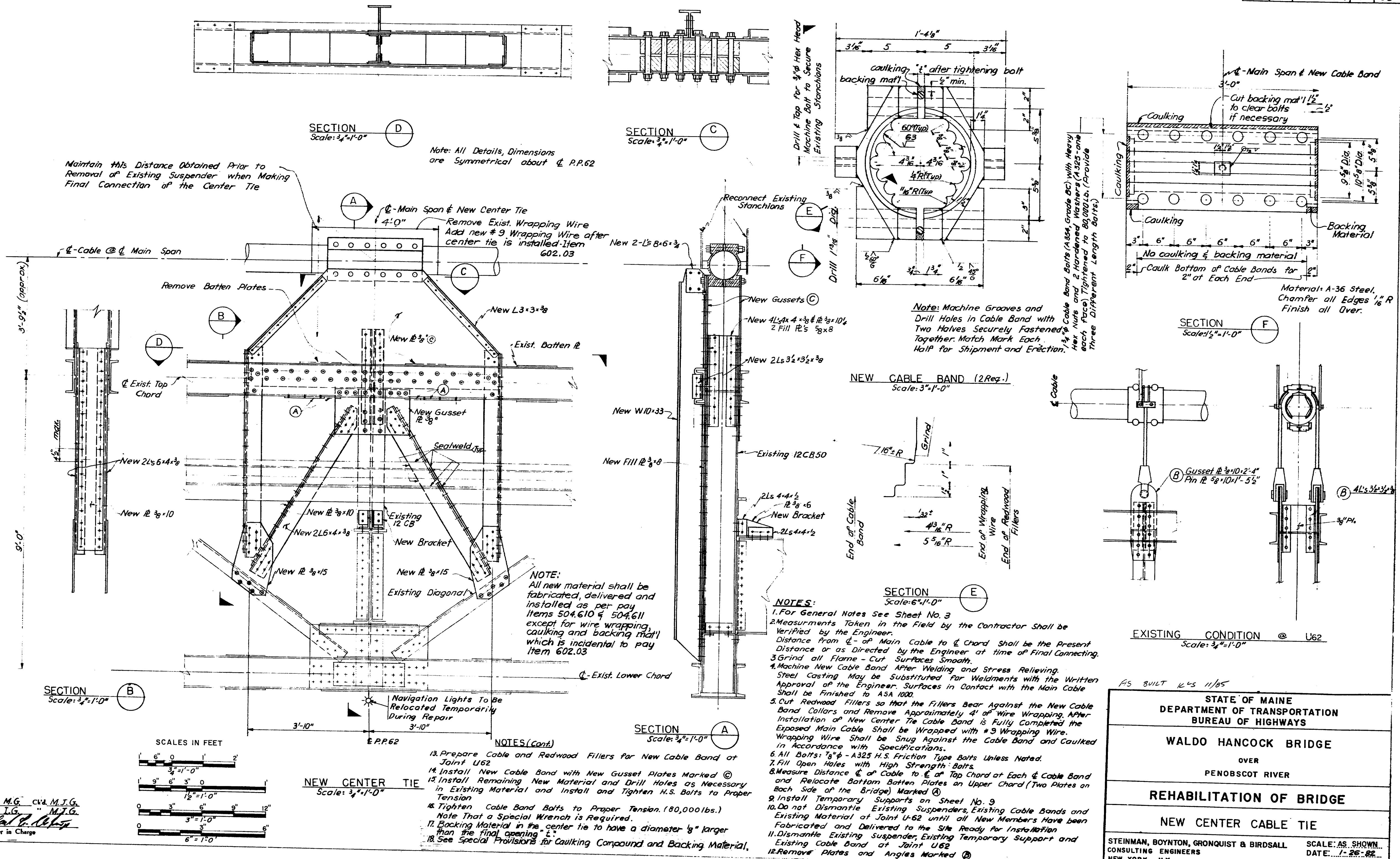
1. For General Notes, see Sheet No. 3.
2. The bridge may be closed to traffic, or replacement of Bearings, as provided in Special Provision Section 2.62.
3. 3/8" A325 Bolts unless noted
4. Castings and Pins shipped with Pins in Place.
5. Weldment may be used instead of Cast Steel for New Expansion Bearing.
6. All necessary dimensions to be verified in the field
7. All materials req'd for jacking shall be included in Item 504.613



STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
BEARINGS & WIND BRACKETS ON CABLE BENTS
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: As Shown DATE: 1-26-82 SHEET: 6



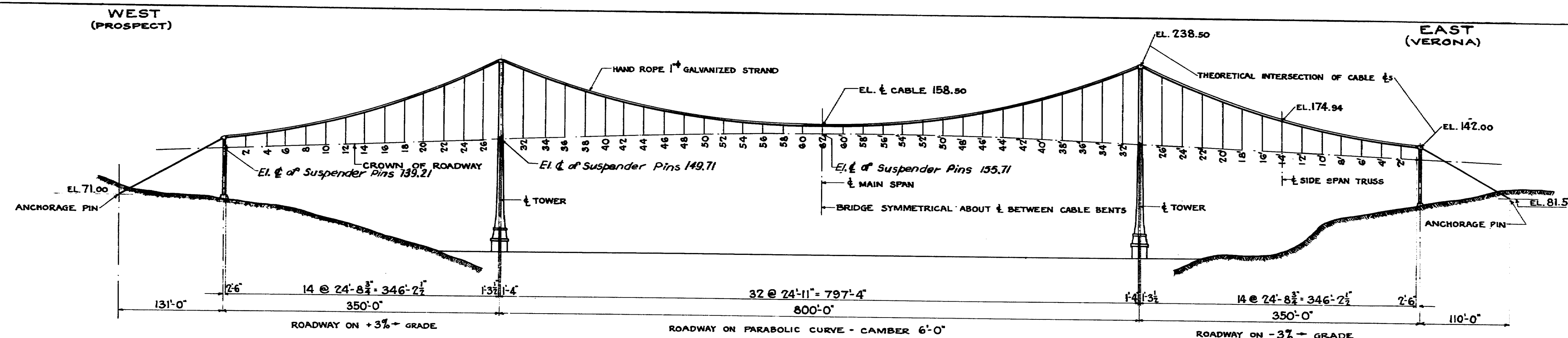
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1	MAINE	BH-042-1(31)	7	58



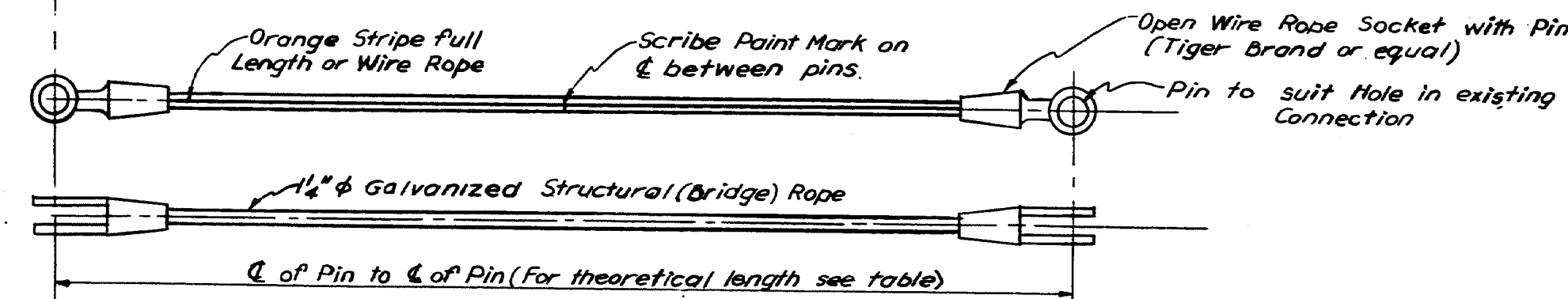
STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS	
WALDO HANCOCK BRIDGE	
OVER PENOBSCOT RIVER	
REHABILITATION OF BRIDGE	
NEW CENTER CABLE TIE	
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.	SCALE: AS SHOWN DATE: 1-26-62 SHEET: 7

182-118



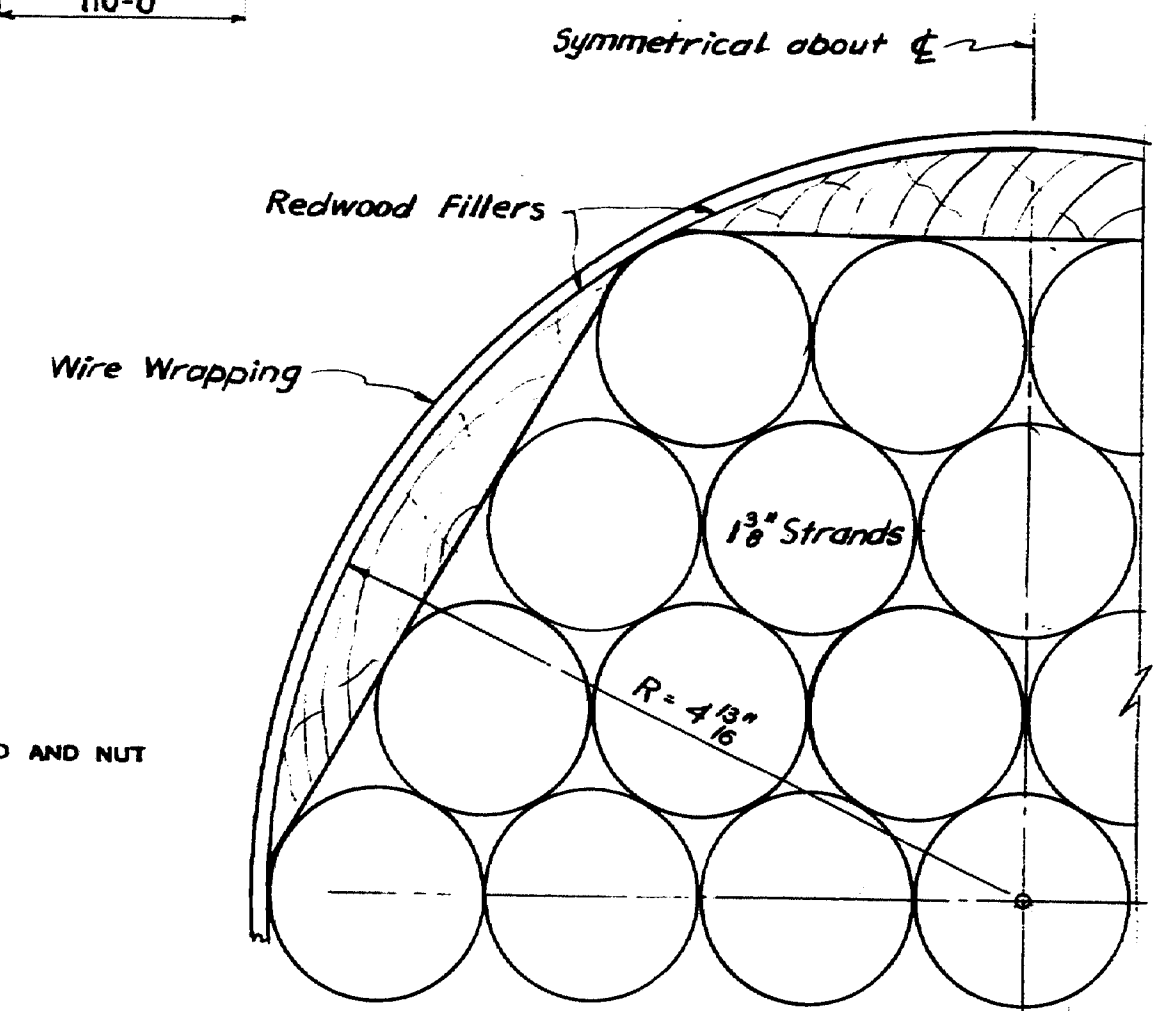


STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	34-042-1 (31)	8	58

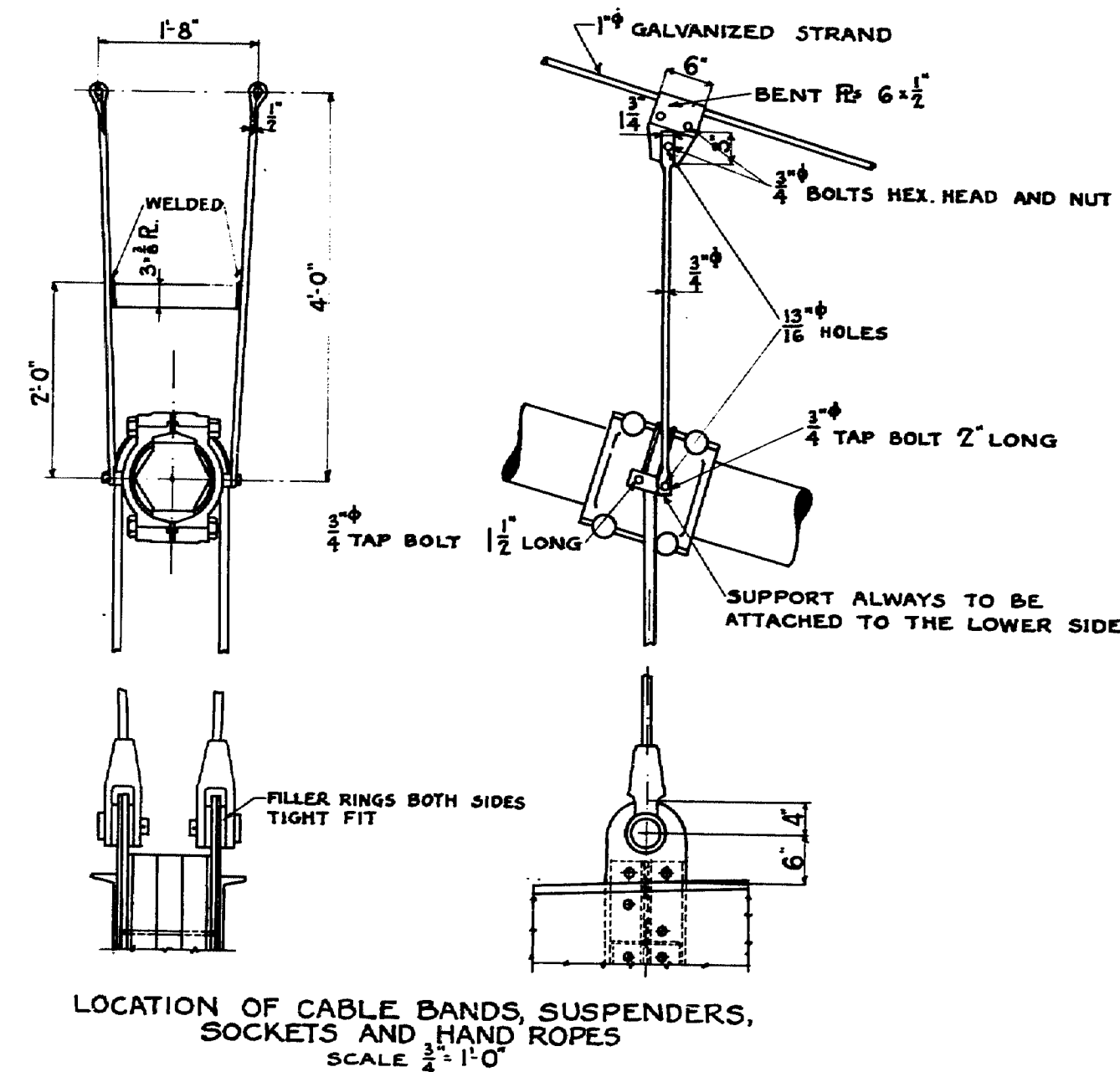
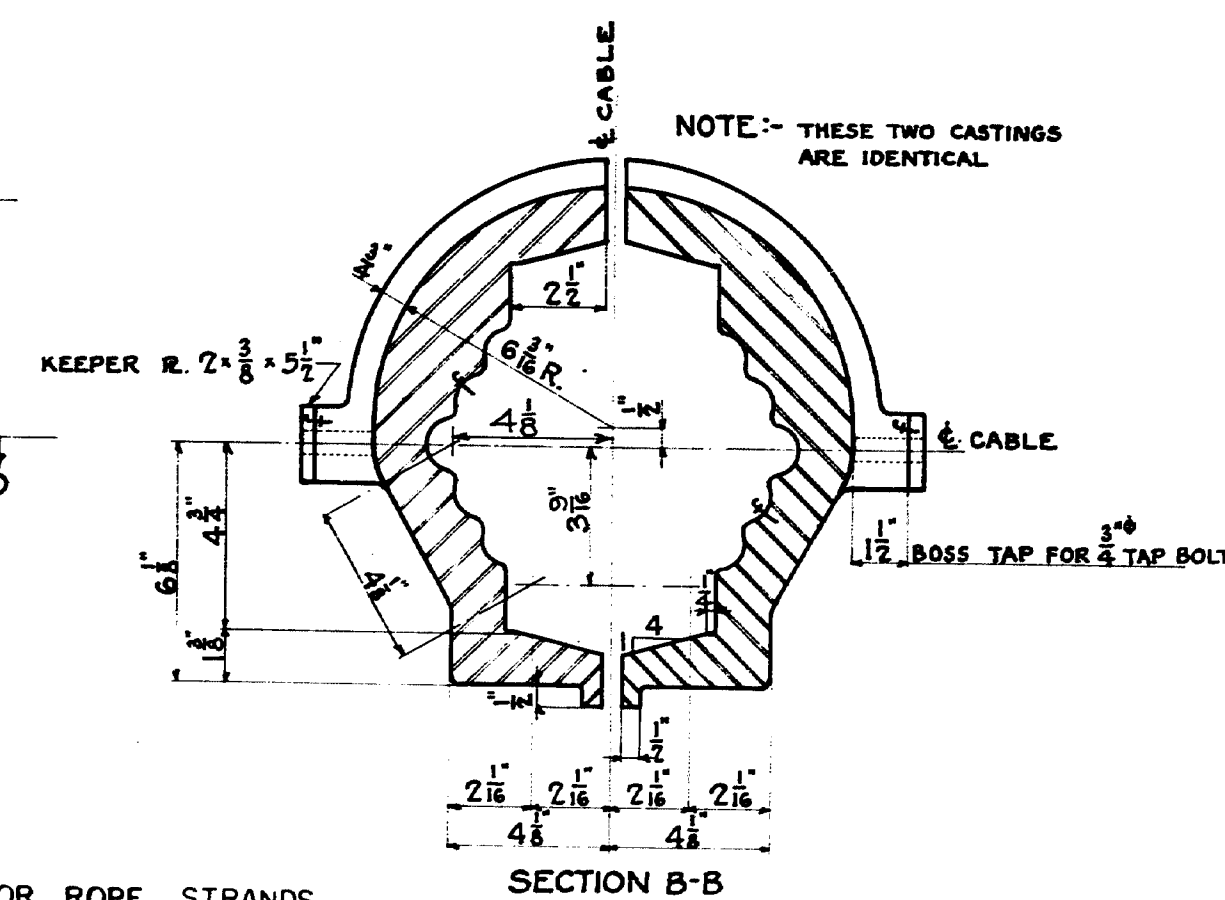
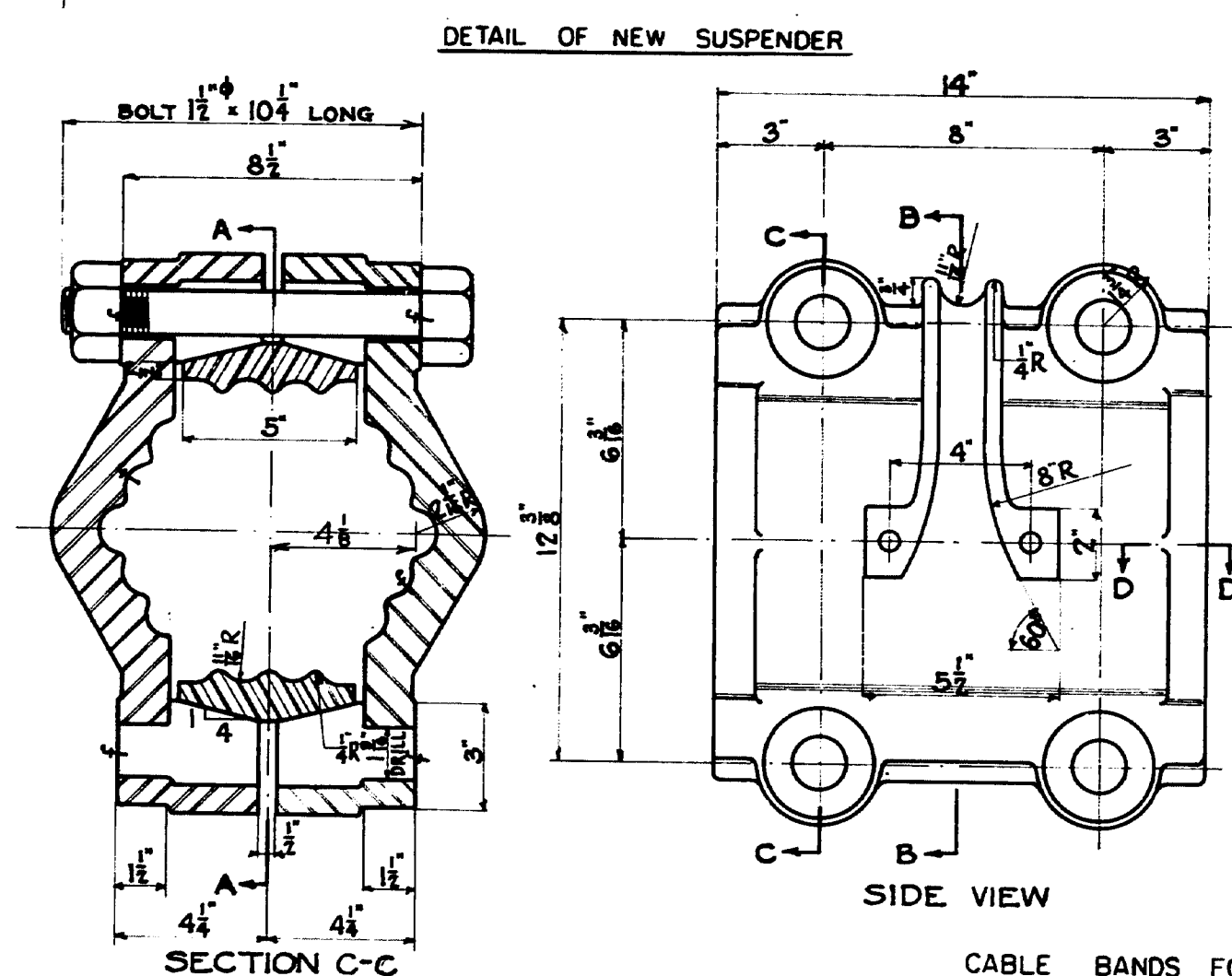
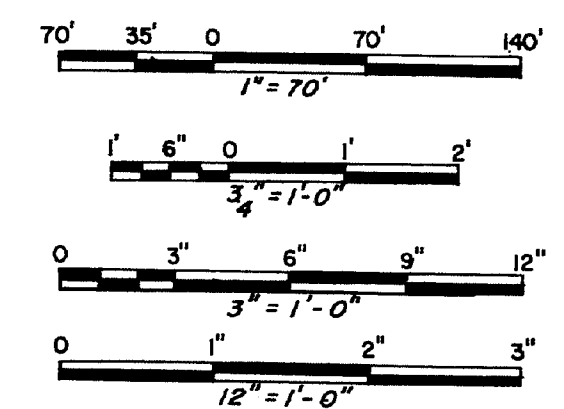


\* Fabricate to the length of Existing Suspenders Measured in Field by the contractor and verified by the Engineer. Fabrication Tolerance  $\pm 0"$ ,  $\pm 1/8"$  after prestressing and after Sockets are set.

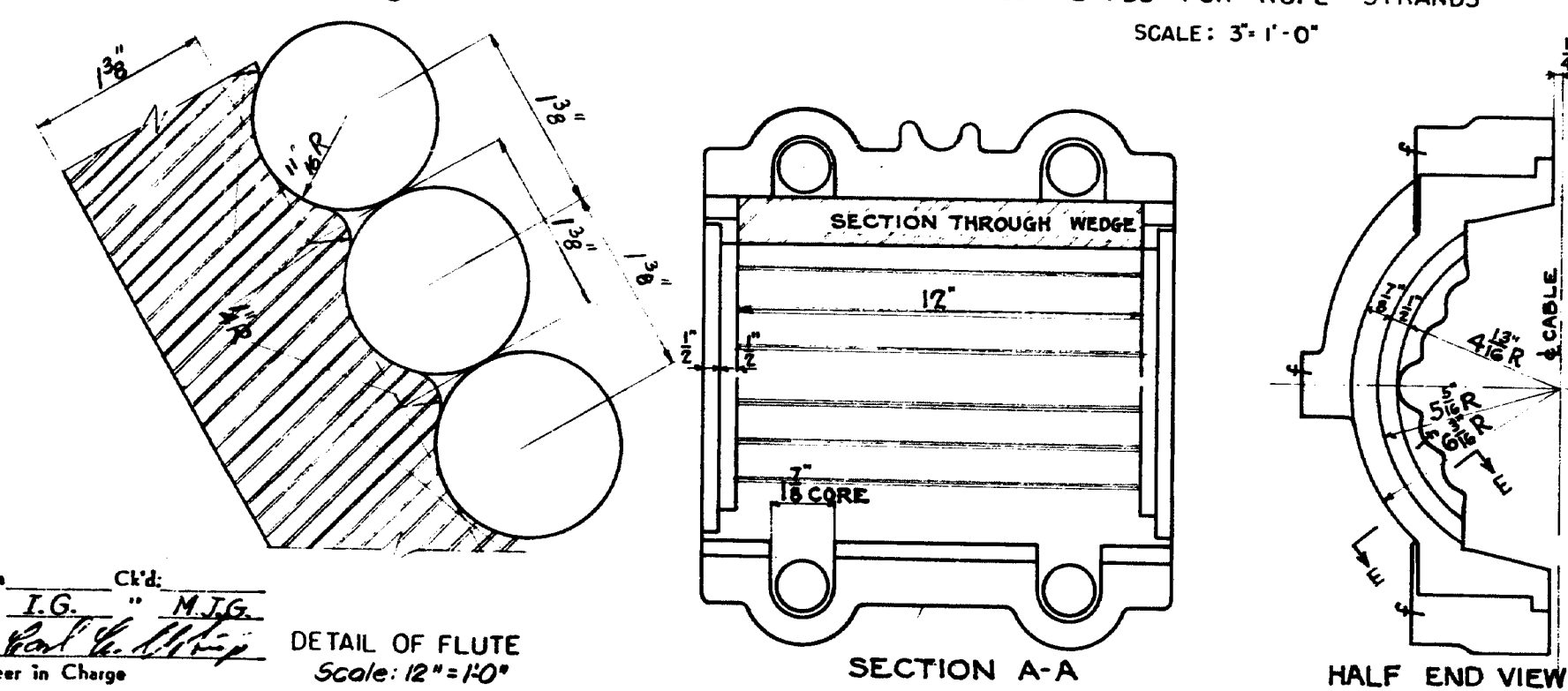
PANEL POINTS	LENGTH OF SUSPENDER THEORETICAL
58 S	10' - 1 1/16" *
60 N 8 S	8' - 1 3/8" *
60 N 8 S	8' - 1 3/8" *
58 S	10' - 1 1/16" *



SECTION THROUGH CABLE BETWEEN CABLE BENTS  
Scale: 1/2" = 1'-0"



- NOTES:
- For General Notes see Sheet No. 3
  - The Elevations of Cable and Suspenders Pins given above are for a Condition of original full Dead Load and a normal Temperature of 50°F.
  - Fabrication and delivery of new 1/4"  $\phi$  suspenders are covered by Pay Item 602.01. Installation by Item 602.02



195 BUILT 1965 11/85

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS

WALDO HANCOCK BRIDGE

OVER  
PENOBSCOT RIVER

REHABILITATION OF BRIDGE

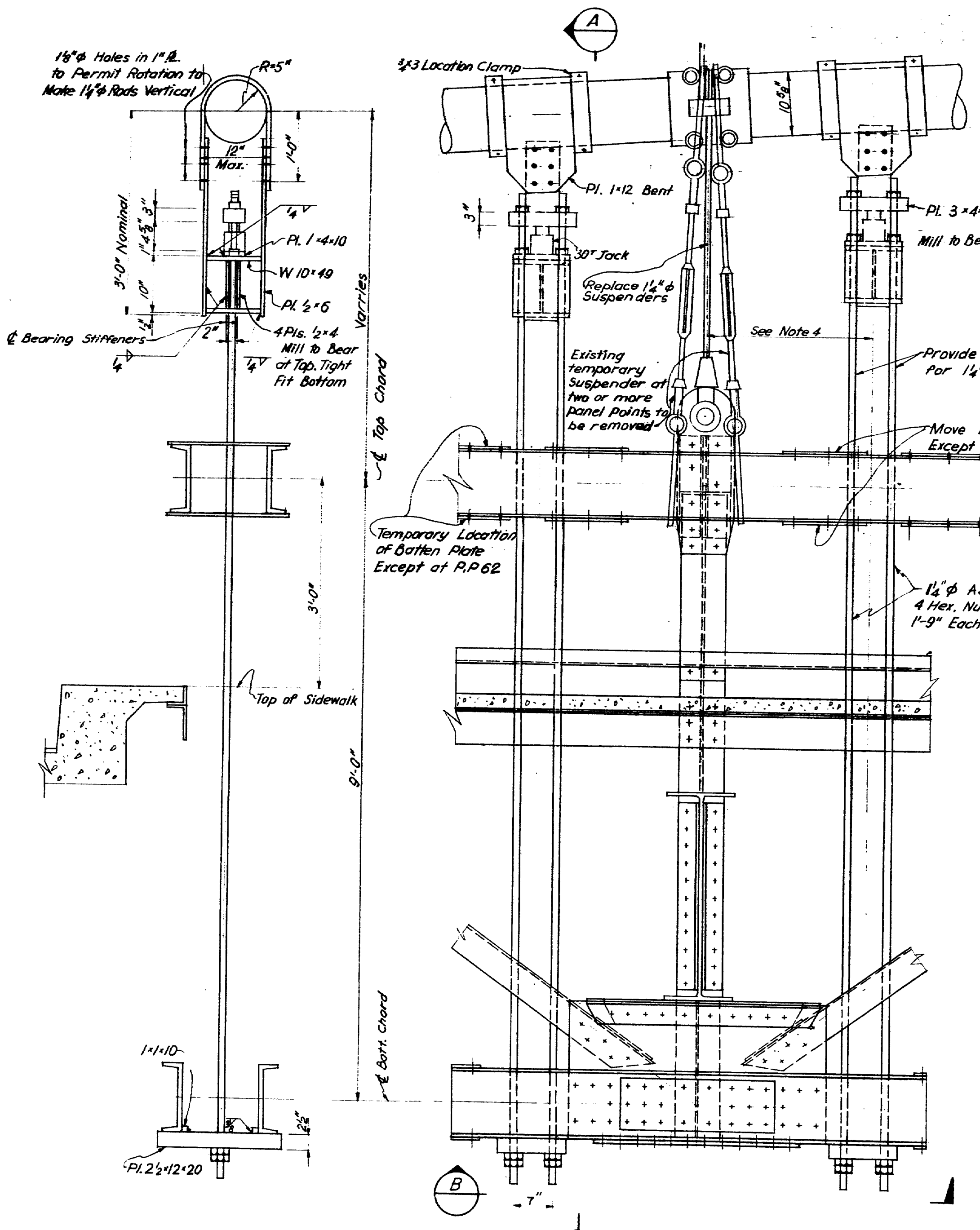
CABLE DETAILS

STEINMAN, BOYNTON, GRONQUIST & BIRDSALL  
CONSULTING ENGINEERS  
NEW YORK, N.Y.

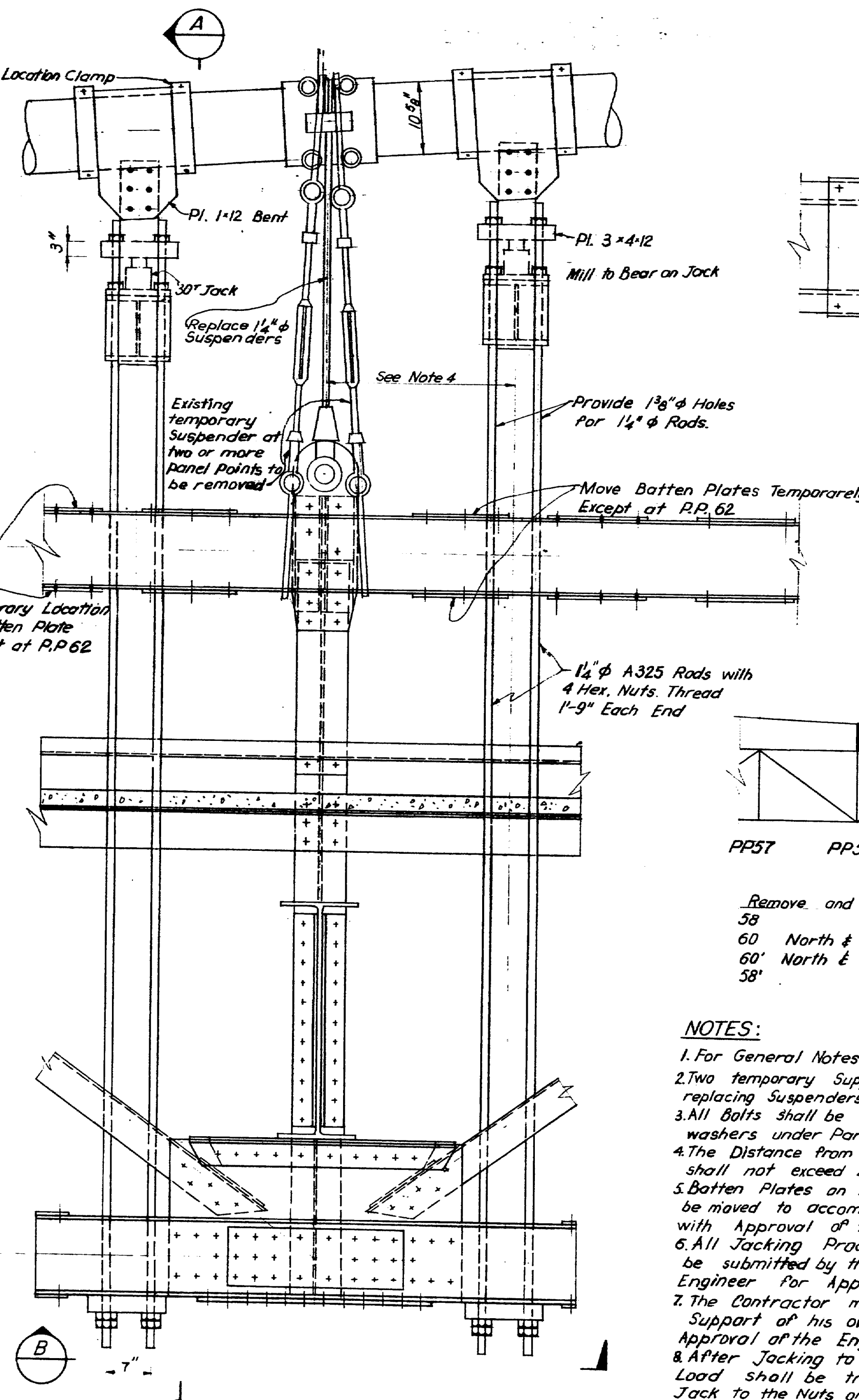
SCALE: AS SHOWN  
DATE: 1-26-82  
SHEET 8

182-119

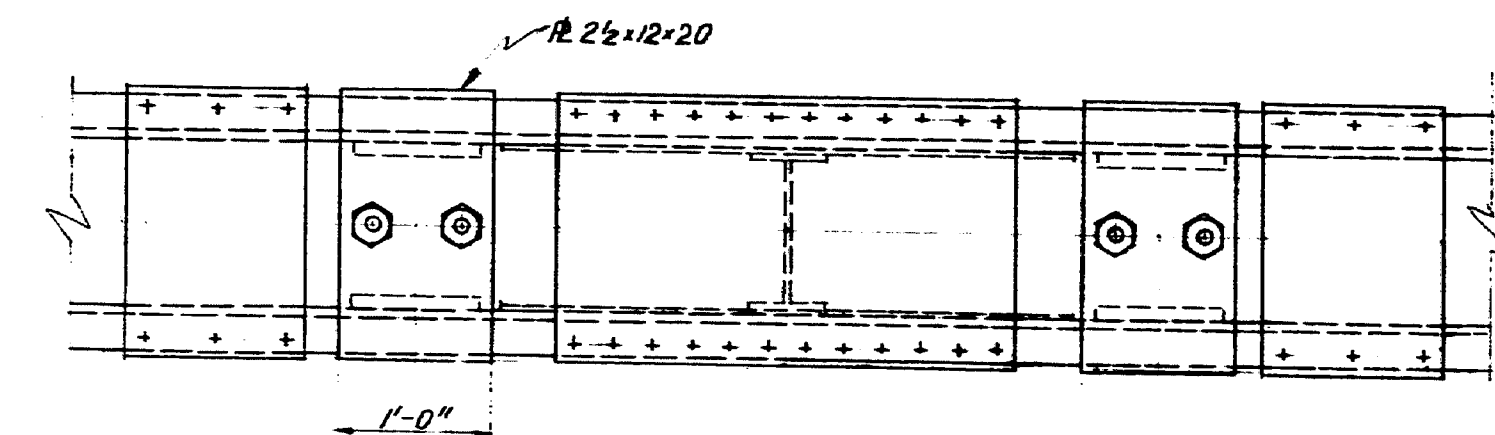
F.R.D.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	MAINE	BH-042-1(31)	9	58



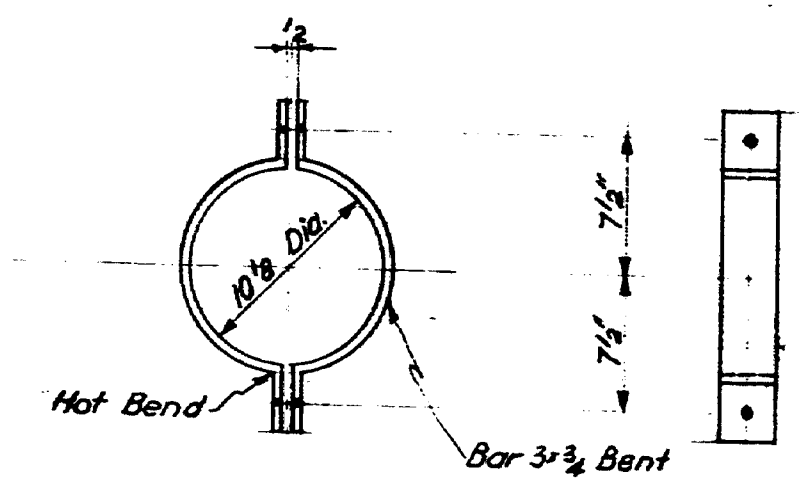
SECTION A  
Scale: 1"=1'-0"



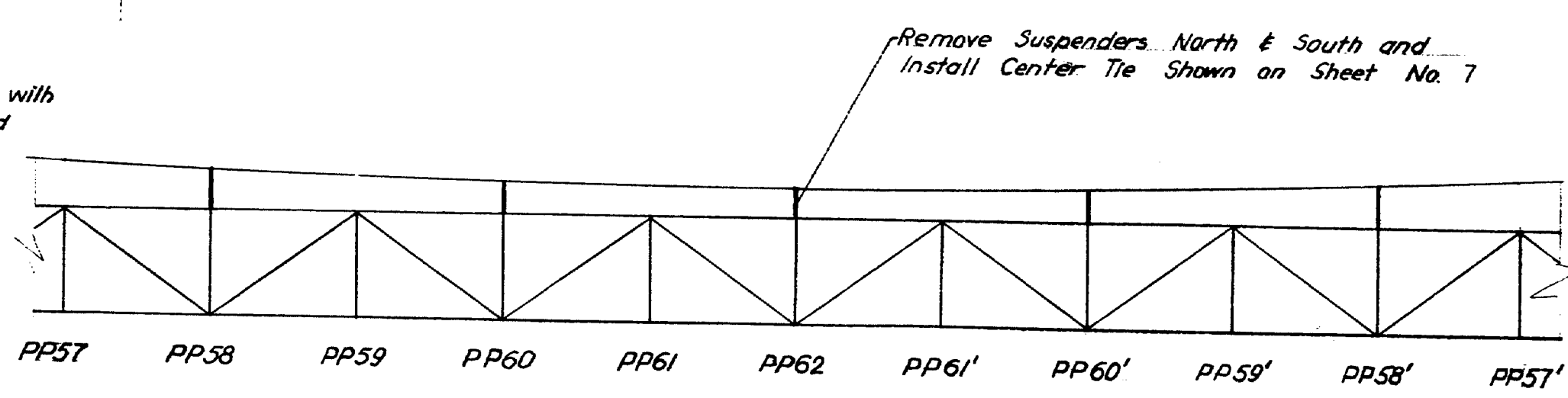
SUGGESTED TEMPORARY SUPPORTS  
Scale: 1"=1'-0"



SECTION B  
Scale: 1"=1'-0"



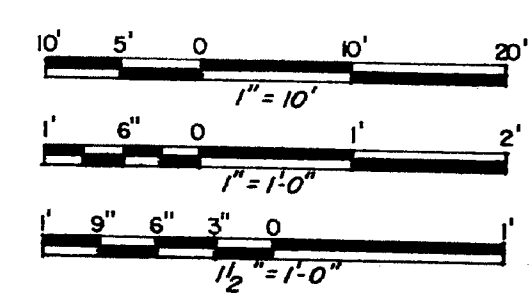
DETAIL OF LOCATION CLAMP (4 REQ'D)  
Scale: 1 1/2"=1'



Remove and Replace the Following Suspenders:  
58 South  
60 North & South  
60' North & South  
58' South

LOCATION OF SUSPENDER WORK  
Scale: 1"=10'

- NOTES:**
- For General Notes see Sheet No. 3
  - Two temporary Supports shall be used when replacing Suspenders or installing Center Tie
  - All Bolts shall be 7/8" φ A325 H.S. with hardened washers under Part that turns.
  - The Distance from Cable Band to Jack shall not exceed 2'-6"
  - Batten Plates on Diagonals and Chords may be moved to accommodate Temporary Supports with Approval of the Engineer.
  - All Jacking Procedure and design shall be submitted by the Contractor to the Engineer for Approval.
  - The Contractor may use Temporary Support of his own Design after written Approval of the Engineer.
  - After Jacking to the desired height the Load shall be transferred from the Jack to the Nuts on the 1 1/2" φ Rods.
  - All open Holes shall be Filled with A-325 Bolts.
  - The removal of existing suspenders and erection of new 1 1/2" φ suspenders are covered by Pay Item 602.02. The fabrication and delivery of new suspenders are covered by Pay Item 602.01.
  - The Contractor shall keep the Temporary Supports Secured at all times until all permanent Work at each Panel Point has been completed. If temporary Support is not secured Vibration of the Structure from Wind and Live Load may cause the Temporary Support to move. The Jacks Must be secured for the Same Reason.
  - All materials for temporary support, including jacks are incidental to Pay Item 602.02.



SCALES IN FEET

STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
TEMPORARY SUPPORTS AT SUSPENDERS
STEINMAN, BOYNTON, GRONQVIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: 1"=10' DATE: 1-26-62 SHEET: 9

Design M.J.G. C.V.E. J.A.P.  
Drawn L.G. M.J.G.  
Engineer in Charge

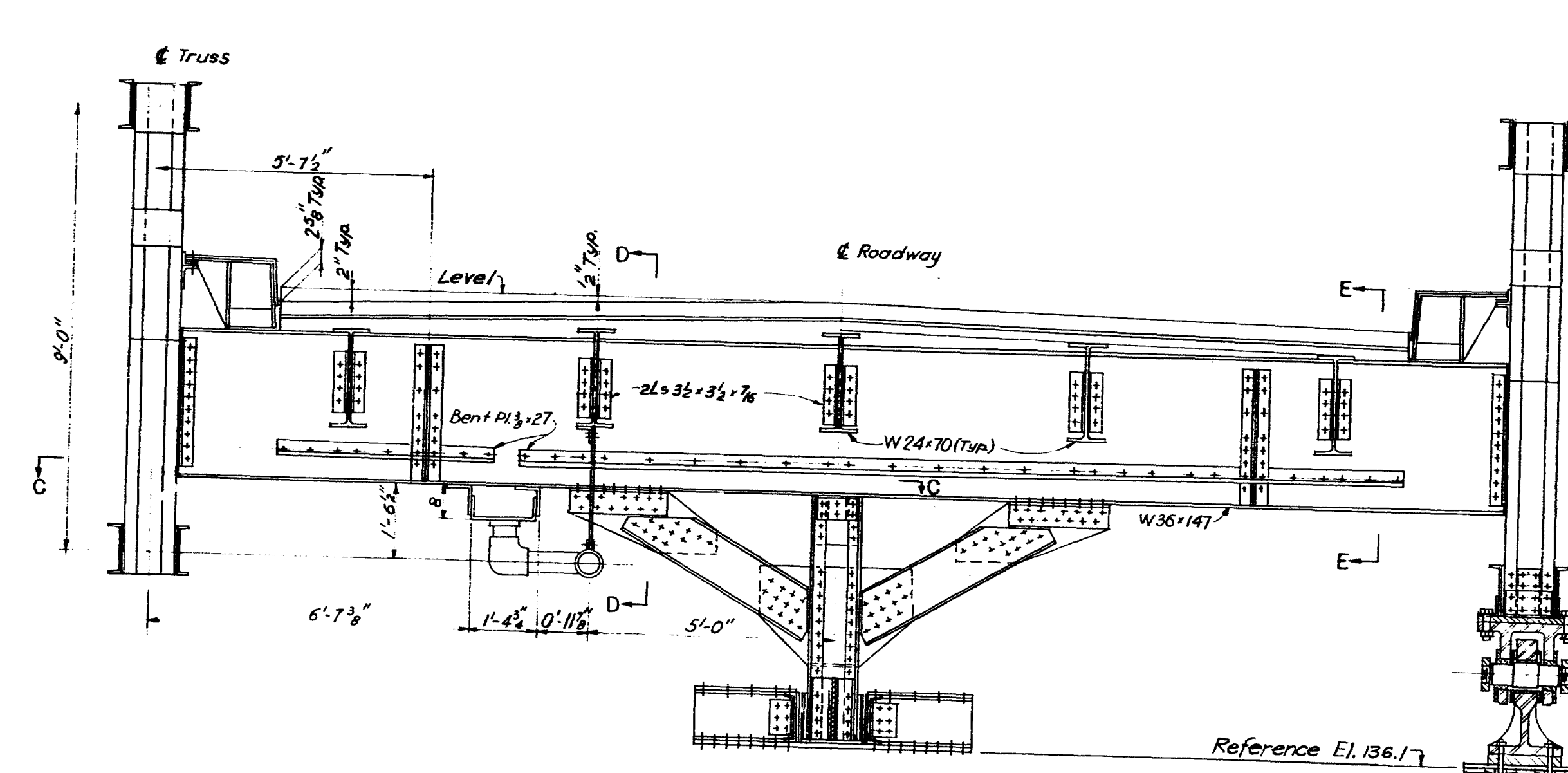
182-120



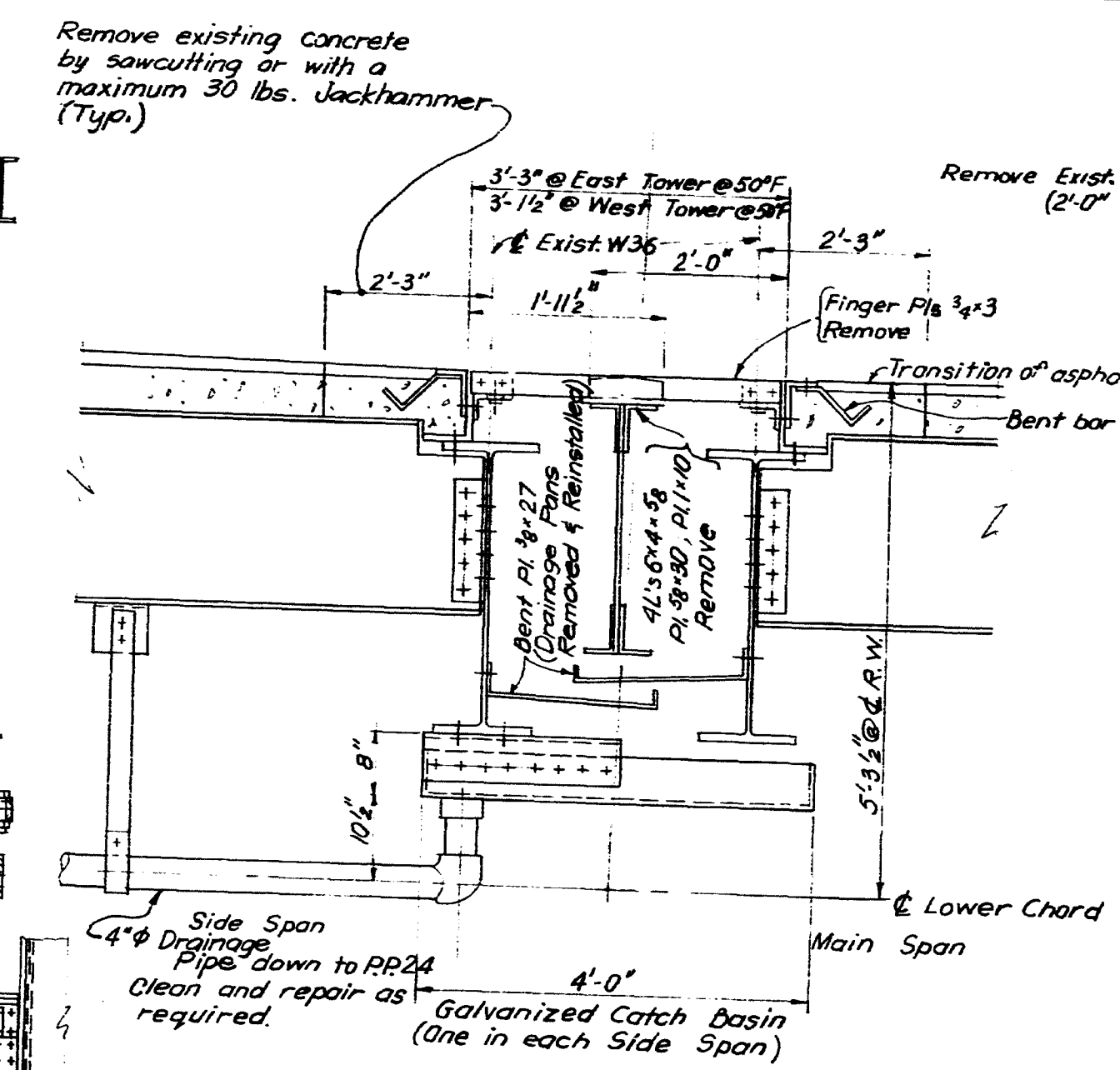




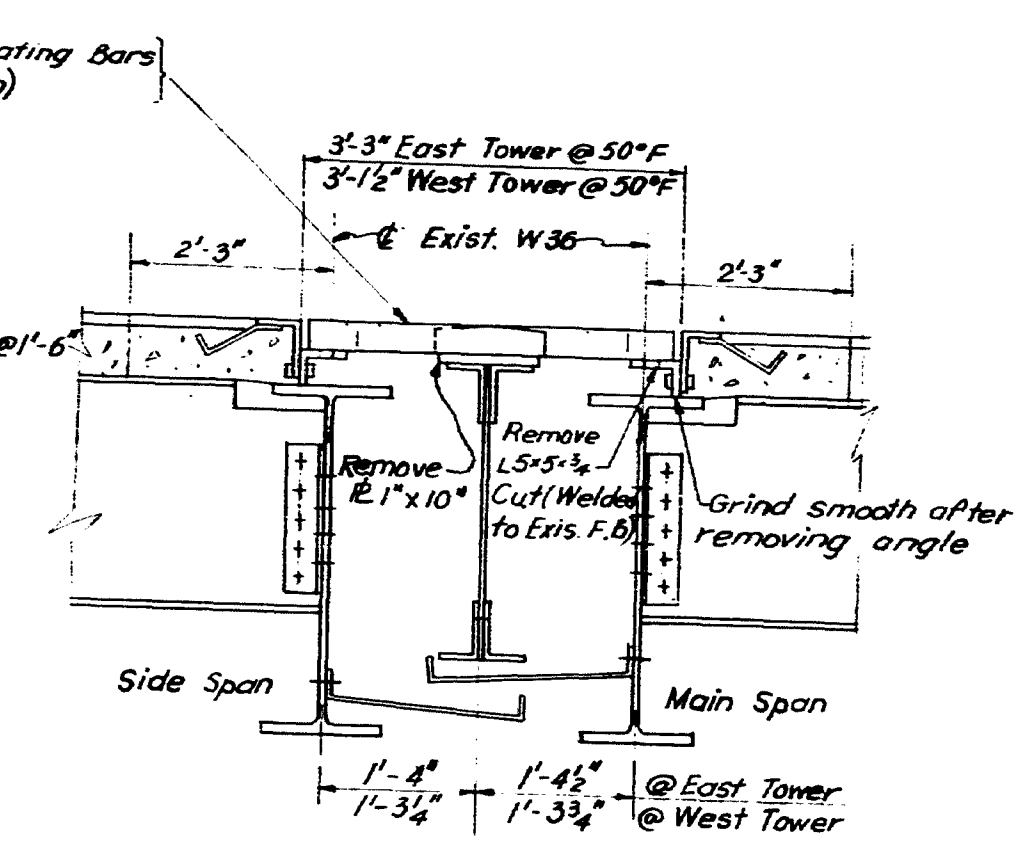
STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	BH-042-1(3)	11	58



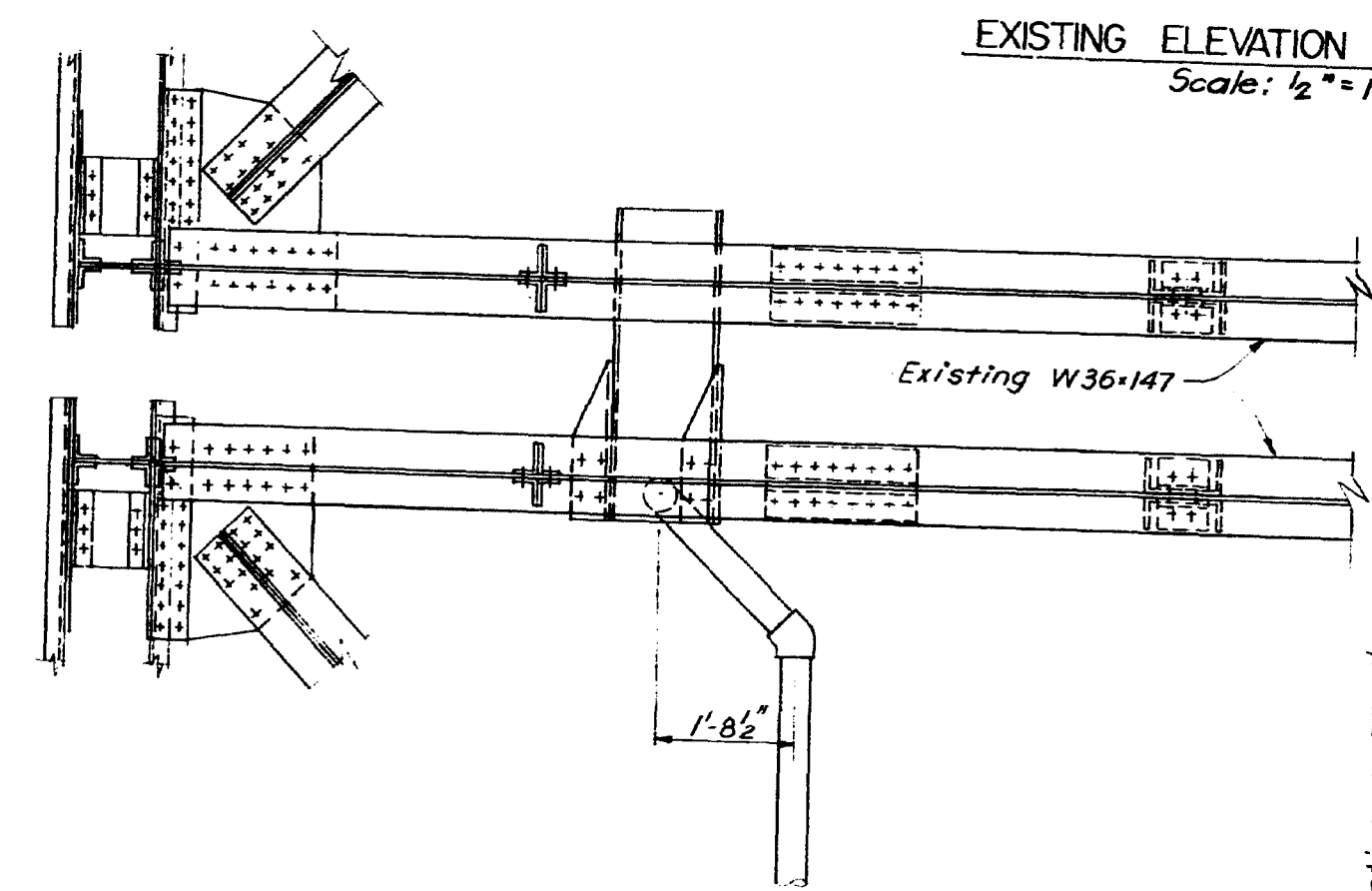
EXISTING ELEVATION AT TOWER  
Scale: 1/2" = 1'-0"



SECTION D-D (EXISTING)  
Scale: 3/4" = 1'-0"

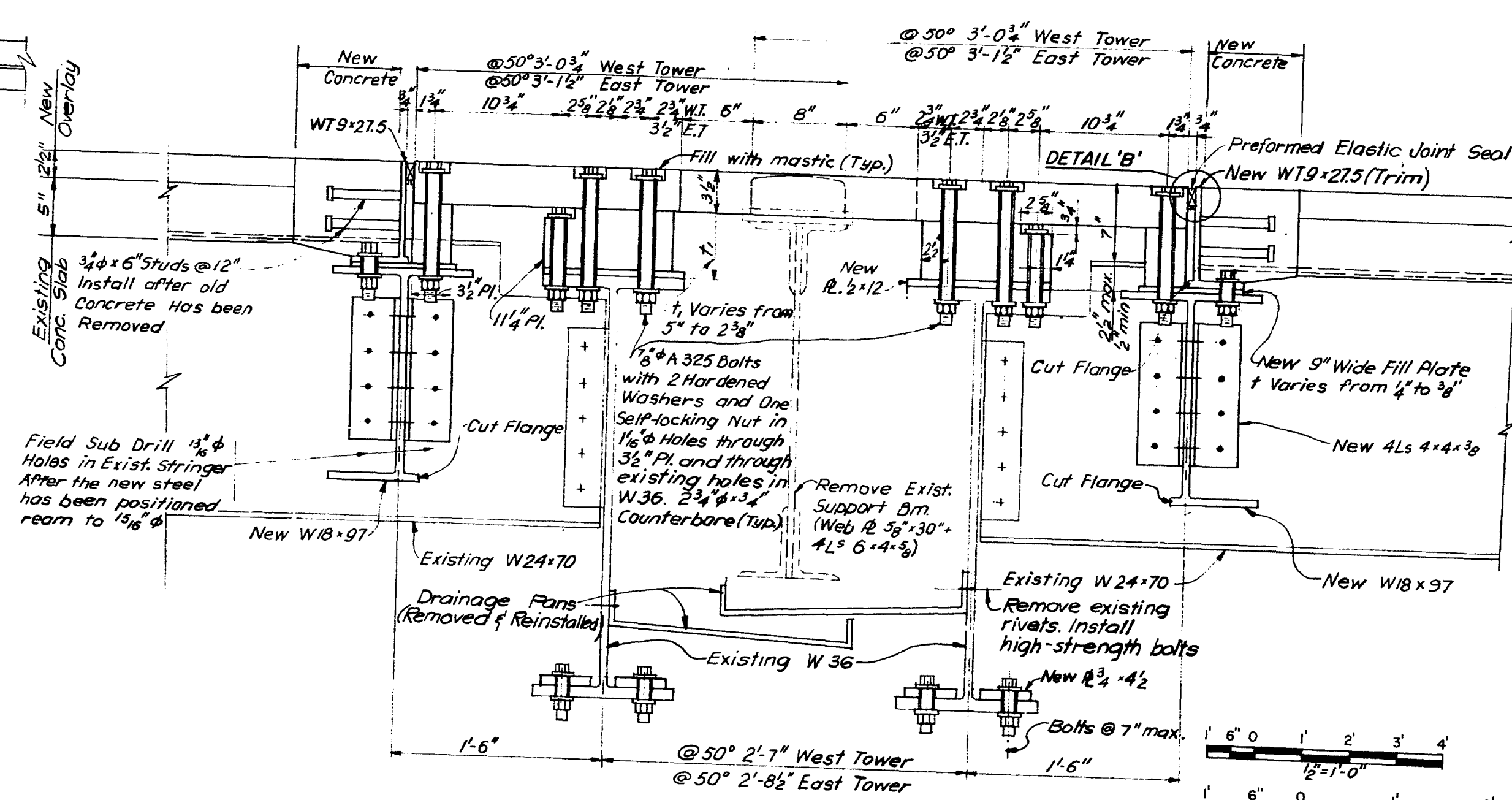


SECTION E-E (EXISTING)  
Scale: 3/4" = 1'-0"



SECTION C-C  
Scale: 1/2" = 1'-0"

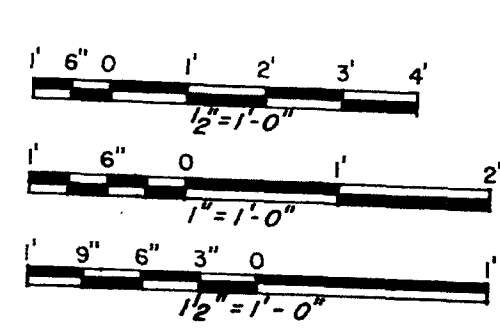
NOTE:  
The cost of removing existing expansion joints and support beams, removing and reinstalling drainage pans, cleaning and repairing 4"φ drainage pipes and fabrication, delivery and installation of new expansion joint shall be incidental to Pay Items 504.620 & 504.621



SECTION B-B  
Scale: 1 1/2" = 1'-0"

- NOTES:
1. For General Notes see Sheet No. 3
  2. For Location of Section B-B, see Sheet No. 10
  3. The matching Pieces of Expansion Joints shall be flame-cut from a single Plate by use of Template guided torch and and match marked. The Edges of the Fingers shall be true to shape and smooth on the cut face. Any irregularities in the matching Faces and any burrs left by cutting shall be removed. The Space between Fingers shall be adjusted to allow a 3/8 inch Diameter wire to pass between all the Fingers in the closed Position.
  4. After removal of Portion of existing expansion Joint the 1x10 cover Plate on Center Support may be removed. The Traffic may be maintained by using a 2" steel Plate to Span the open Joint.
  5. One Lane of Traffic is to be maintained during Construction.
  6. Material - ASTM A-36 Steel except as noted.
  7. Bolts to be 7/8 inch Diameter ASTM A-325.
  8. Holes are 1 1/8 inch Diameter unless noted.
  9. Use Washer under Head and Nut at oversize Holes.
  10. For Detail "B" see Sheet No. 10.
  11. Material designated to be removed from the Bridge shall become the property of the Contractor for his disposal.
  12. Use washer under Head and Nut when High-Strength Bolts are used to replace rivets.

Design: R.B. CLY. M.J.G.  
Drawn: J.G. M.J.G.  
Engineer in Charge: R.B. CLY.



Revised - See new Drawing E-5 11/85

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS

WALDO HANCOCK BRIDGE  
OVER  
PENOBSCOT RIVER

REHABILITATION OF BRIDGE

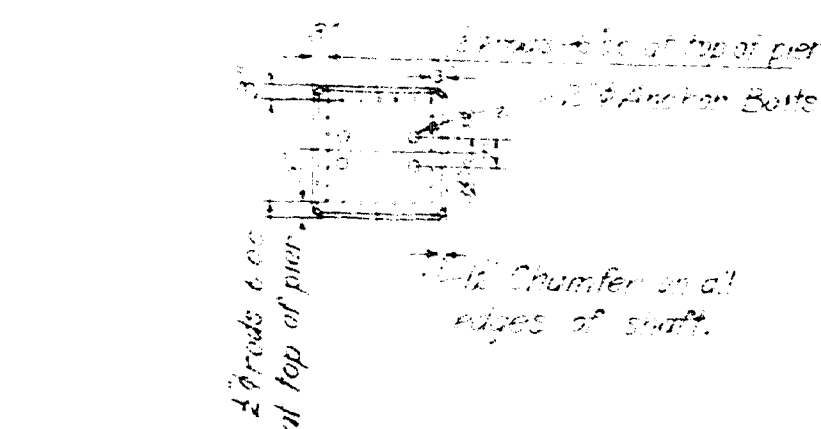
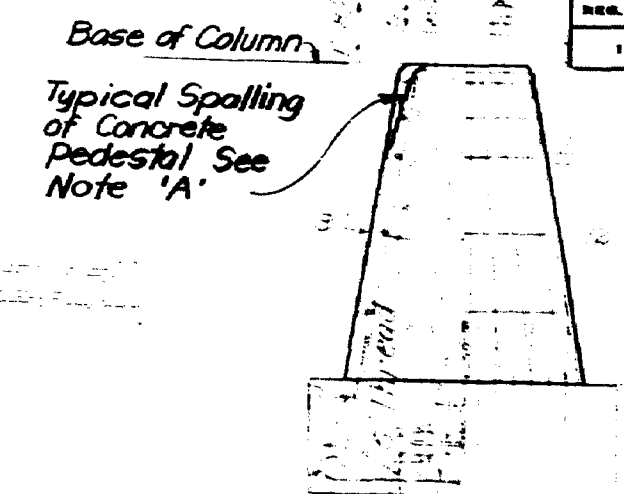
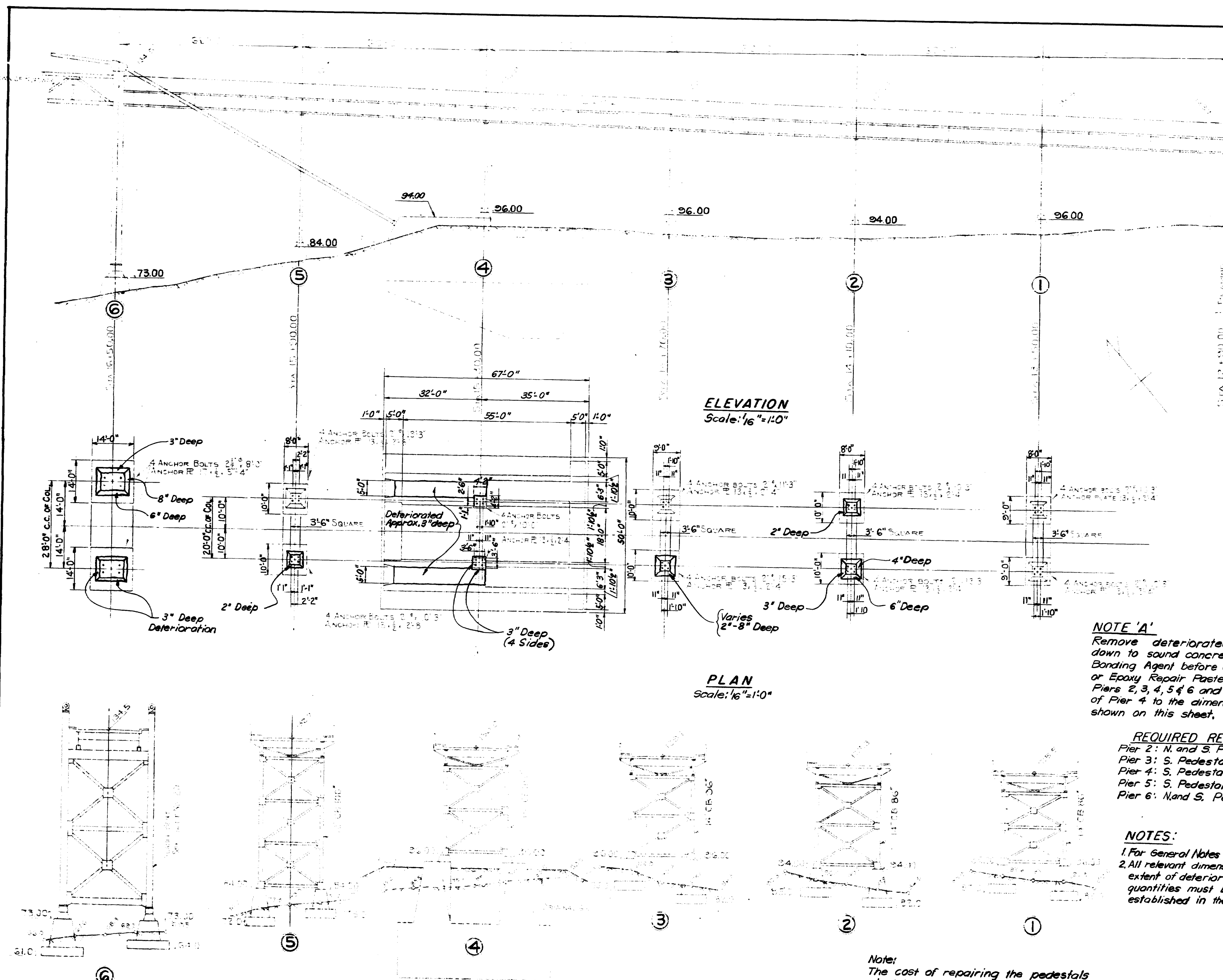
DETAILS OF EXPANSION JOINTS AT TOWERS

STEINMAN, BOYNTON, GRONQUIST & BIRDSALL  
CONSULTING ENGINEERS  
NEW YORK, N.Y.

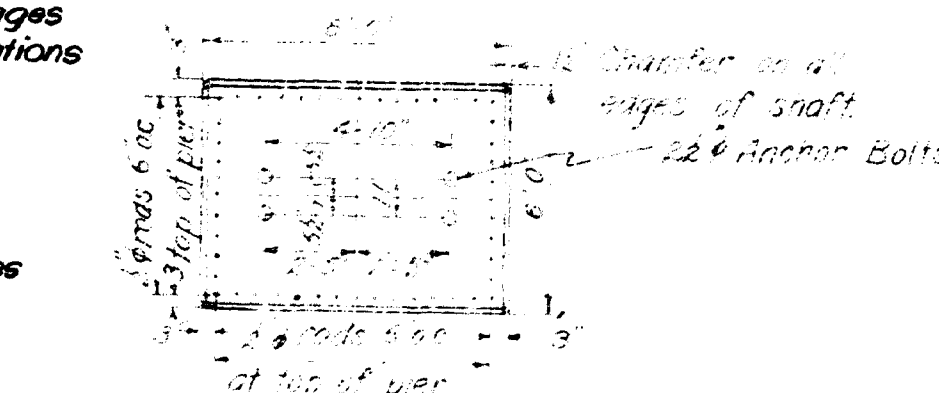
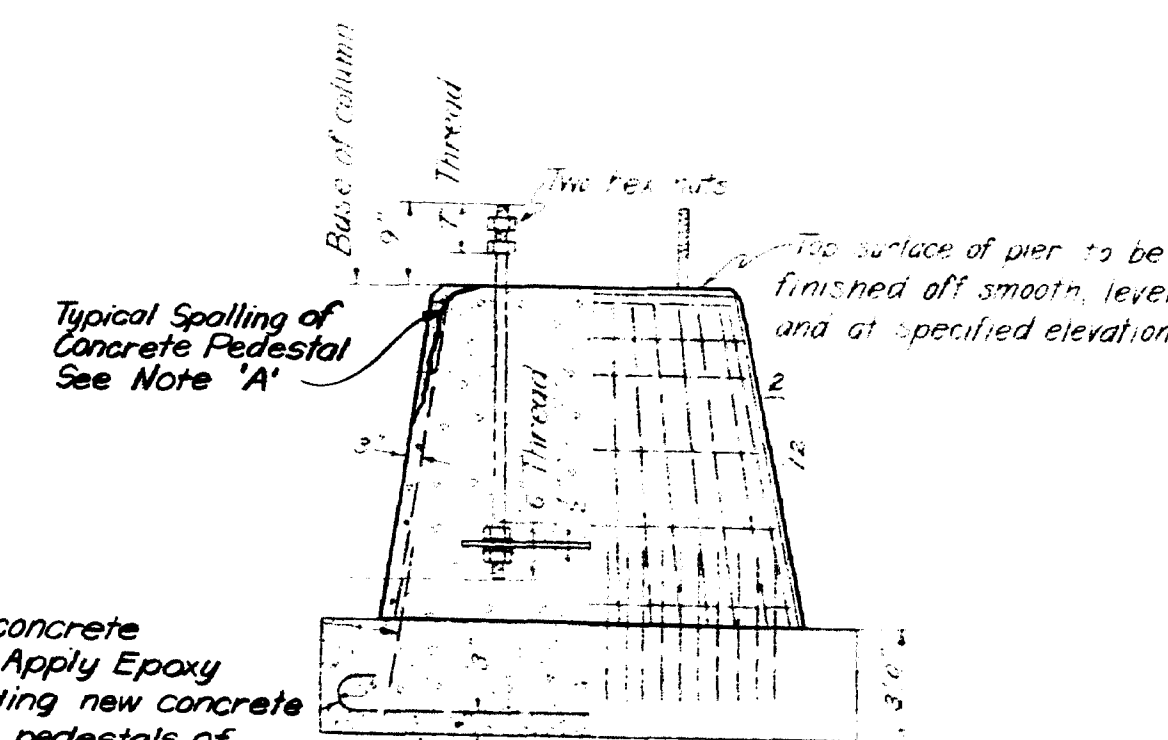
SCALE: AS SHOWN  
DATE: 1-26-77  
SHEET: 11

182-122

F.R.W.A.	STATE	PROJECT NUMBER	SHEET	TOTAL SHEETS
1	MAINE	BH-042-1(30)	12	58



TYPICAL PIER FOR BENTS 1, 2, 3, 4, 5  
NOT TO SCALE



TYPICAL PIER FOR BENT 6  
NOT TO SCALE

**NOTE 'A'**  
Remove deteriorated concrete down to sound concrete. Apply Epoxy Bonding Agent before adding new concrete or Epoxy Repair Paste to pedestals of Piers 2, 3, 4, 5 & 6 and tops of anchorages of Pier 4 to the dimensions and elevations shown on this sheet.

**REQUIRED REPAIRS**  
Pier 2: N. and S. Pedestals  
Pier 3: S. Pedestal  
Pier 4: S. Pedestal; N. & S. Anchorages  
Pier 5: S. Pedestal  
Pier 6: N. and S. Pedestals

**NOTES:**  
1. For General Notes see Sheet No. 3  
2. All relevant dimensions, elevations, extent of deterioration and quantities must be verified or established in the field.

**Note:**  
The cost of repairing the pedestals shall be as per Pay Item 502.611

1" = 10'  
1/8" = 1'-0"

SCALE IN FEET

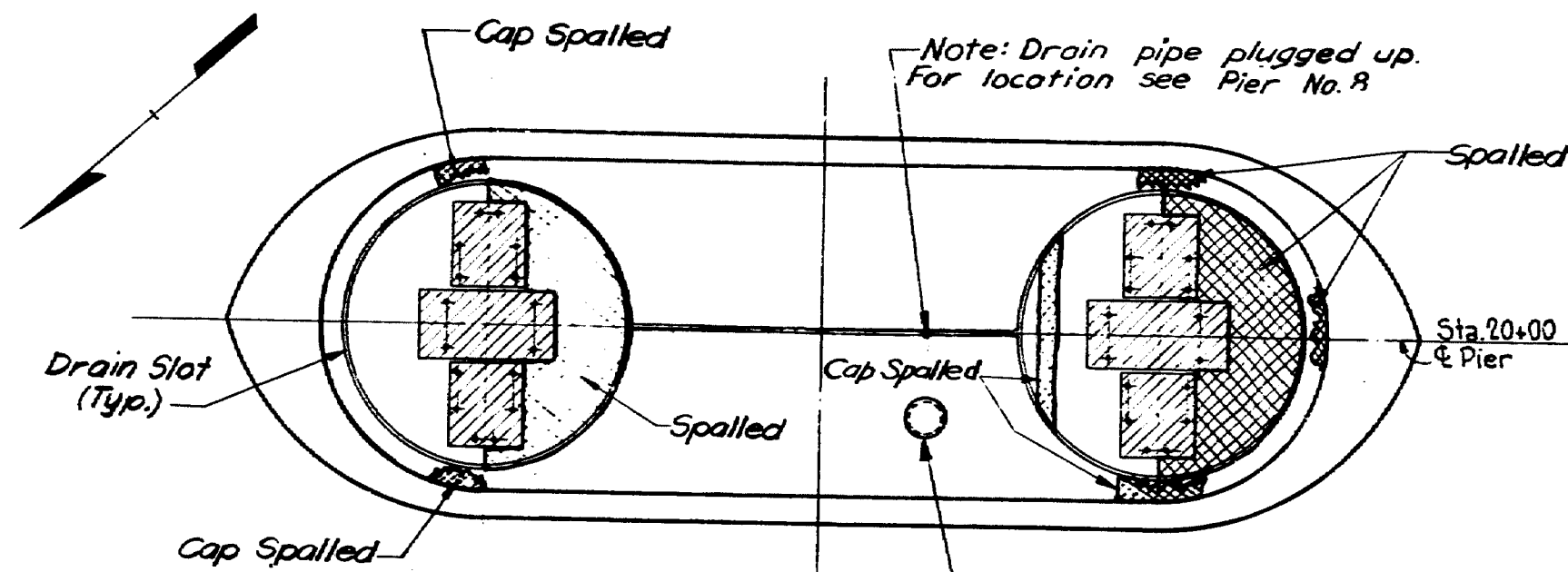
182-123

Design MJS CVL  
Draw LTD MJS  
Engineer in Charge

**NOTE:**  
All Bents to be painted under Pay Item 506.142 and 506.17

STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
PEDESTAL REPAIRS
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: AS SHOWN DATE: 1-26-82 SHEET: 12

F.R.D.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-042-1(31)	13	58



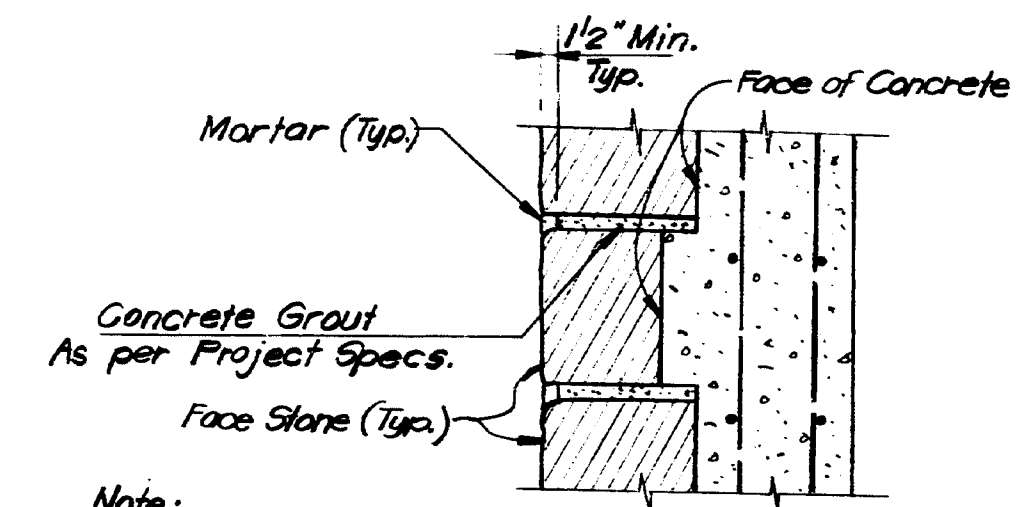
**TOP PLAN**  
Scale: 1/8" = 1'-0"

Replace Manhole Base and Manhole Cover

Apply Concrete Seal to the entire top of Pier Pay Item 502.612

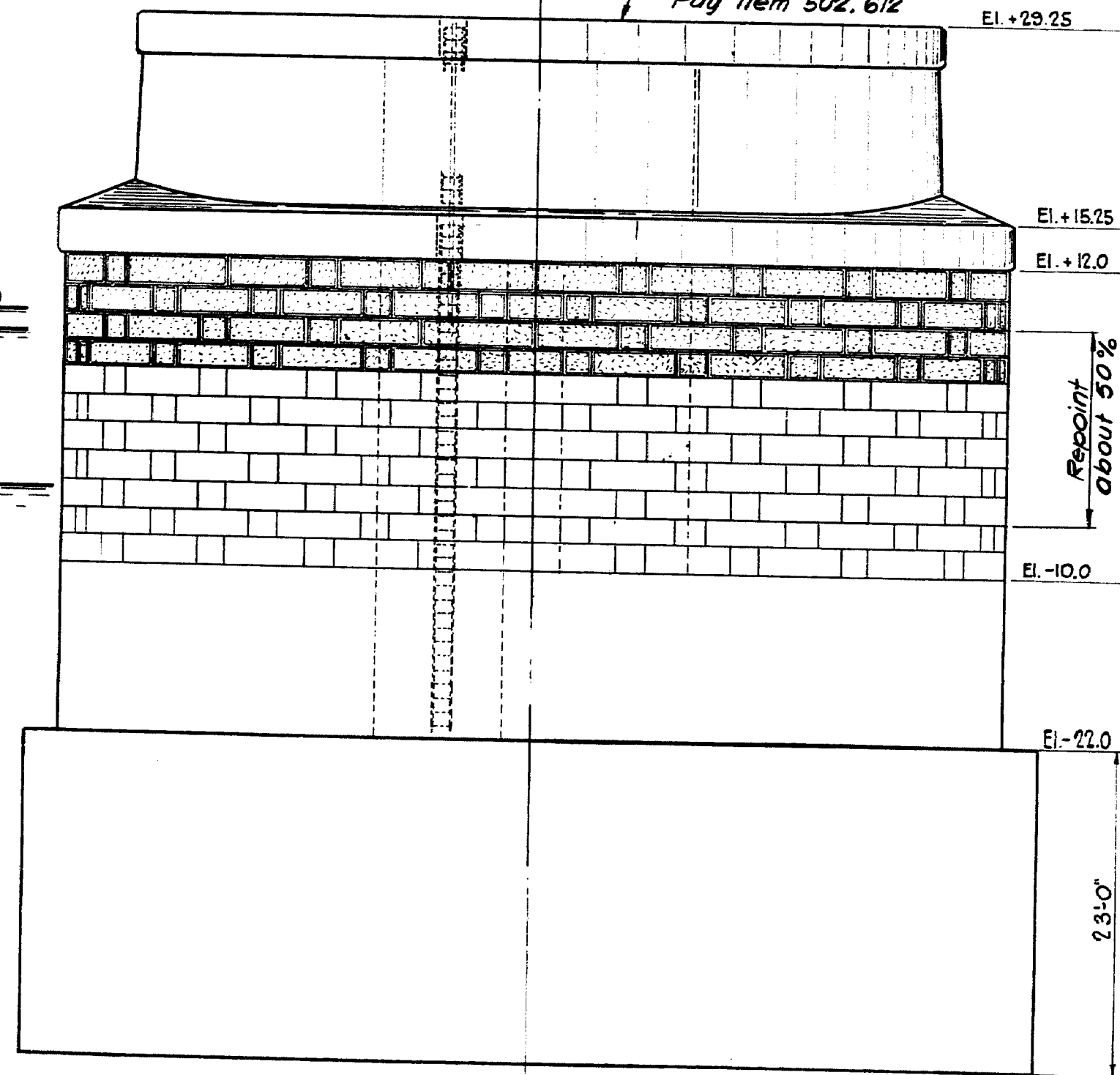
\* Depth of Deterioration Varies Approximately 3" to 6"

Remove down to sound concrete \* Finish with new concrete up to El. 23.25 slope towards drain. See Sheet No. 14.



**REPOINTING DETAIL**  
NOT TO SCALE

Spring H.W. +7.0  
M.L.W. +5.5  
M.S.L. El. 0.0  
M.L.W. El. -5.5

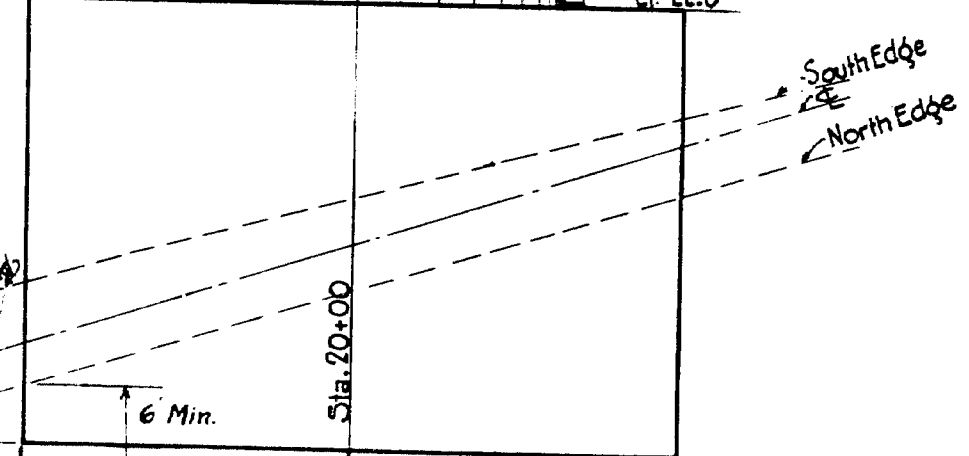


**FRONT ELEVATION SHOWING PART REINFORCING**  
Scale: 1/8" = 1'-0"

**NOTE:**  
The cost of repairing Pier No. 7 including new Manhole base and cover and cleaning drain pipe as per Pay Item 502.612

Portion Of Pier Above El. -10.0 To Be Same As For Pier No. 8 See Sheet No. 13

Repoint about 50%

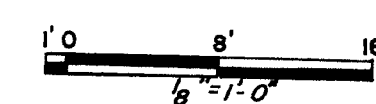


**END ELEVATION**  
Scale: 1/8" = 1'-0"

**NOTES:**

1. For General Notes see Sheet No. 3
2. All relevant dimensions, elevations, extent of deterioration and quantities must be verified or established in the field.
3. For Notes and Details not shown on this sheet see sheet no. 14
4. For details not shown see Pier No. 8 on sheet No. 14
5. Pointing shall be done to a depth of 1 1/2" and shall be done with a mortar with the following consistency: One (1) part Portland Cement and one (1) part sand as dry as can be properly worked. This mix shall be driven with a caulking tool and the surface of the joint struck with an approved round tool. All pointing shall be sprinkled and kept wet at the surface until eight (8) days after it is finished. No pointing shall be done when there is a chance of freezing. Mortar shall contain an approved non-shrink additive.

Design MUG CLK  
Drawn LTD " JAR  
Engineer in Charge



SCALE IN FEET

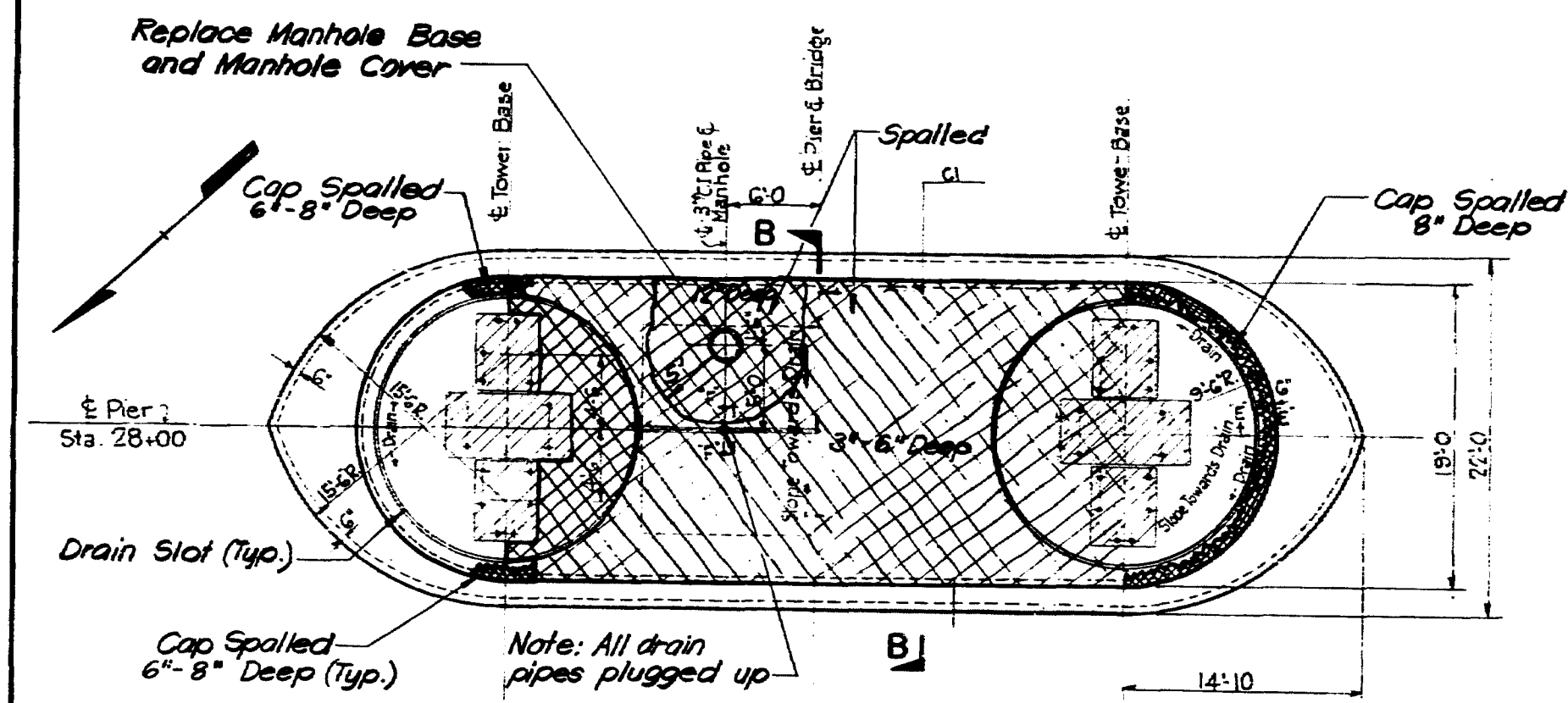
182-124

AS BUILT K-15 11/85

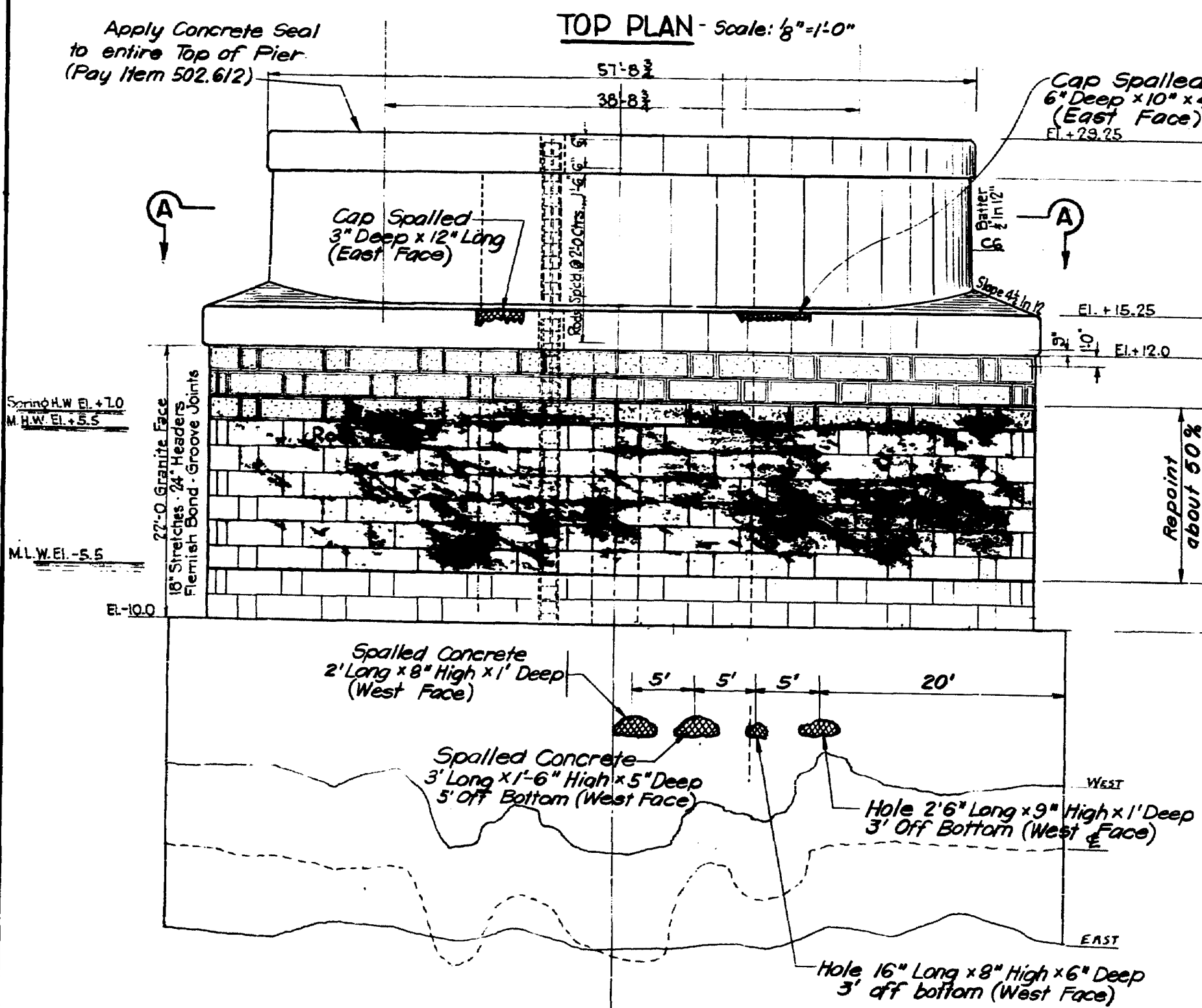
STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
REPAIRS TO EAST MAIN PIER NO. 7
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: AS SHOWN DATE: 1-26-82 SHEET: 13



F.N.E.A. REV. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-042-1(30)	14	58

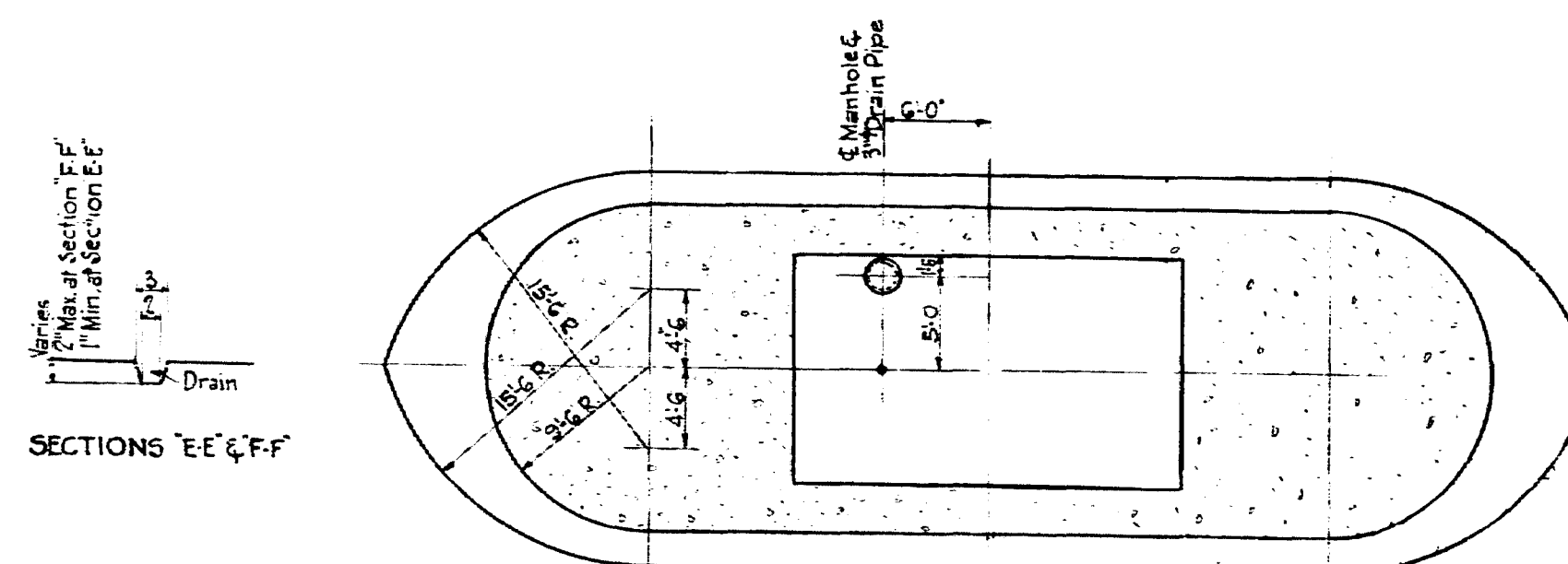


TOP PLAN - Scale:  $\frac{1}{8}'' = 1'-0''$

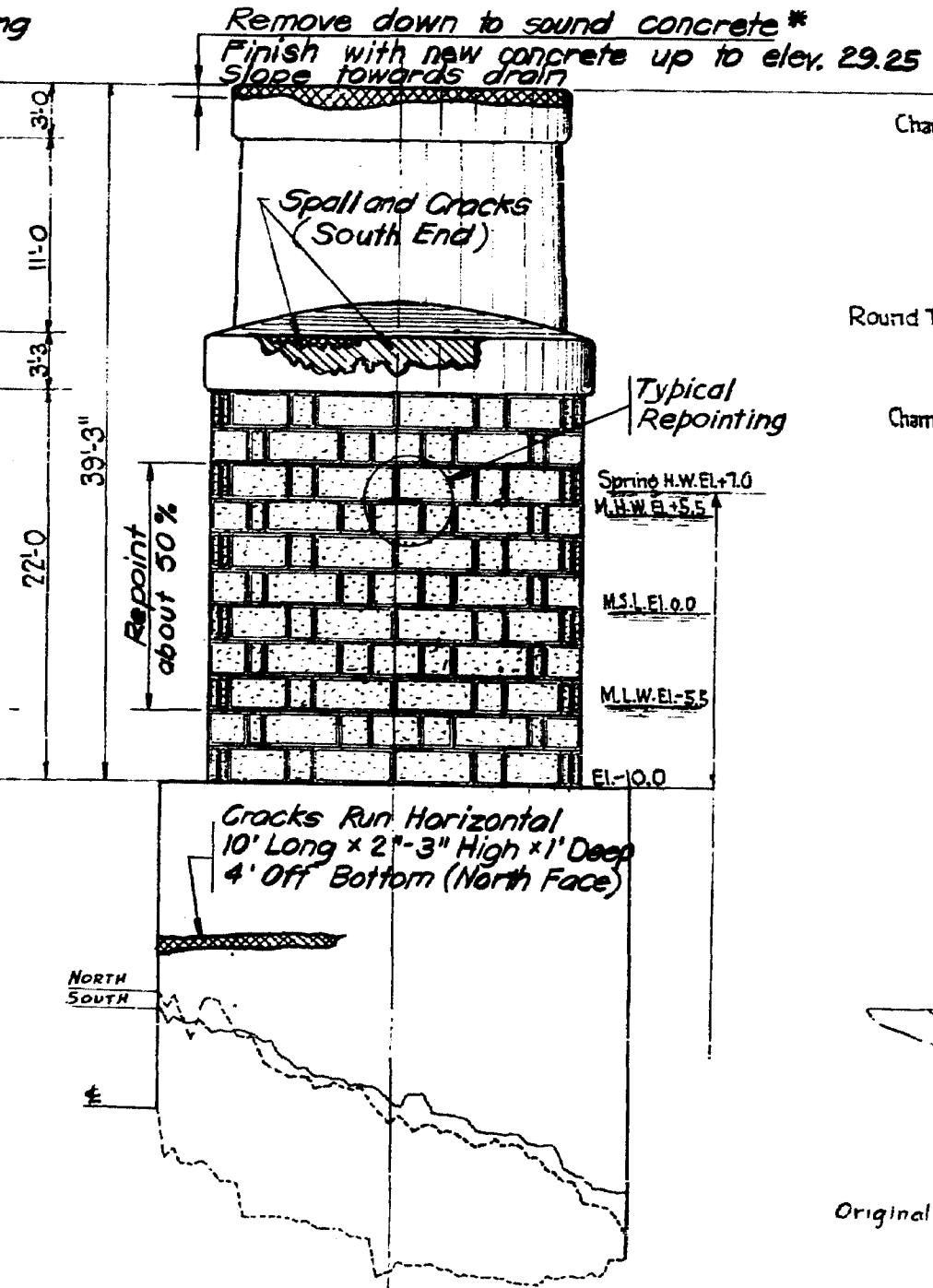


HALF FRONT ELEVATION - GRANITE FACING HALF FRONT ELEVATION - REINFORCING  
Scale:  $\frac{1}{8}'' = 1'-0''$

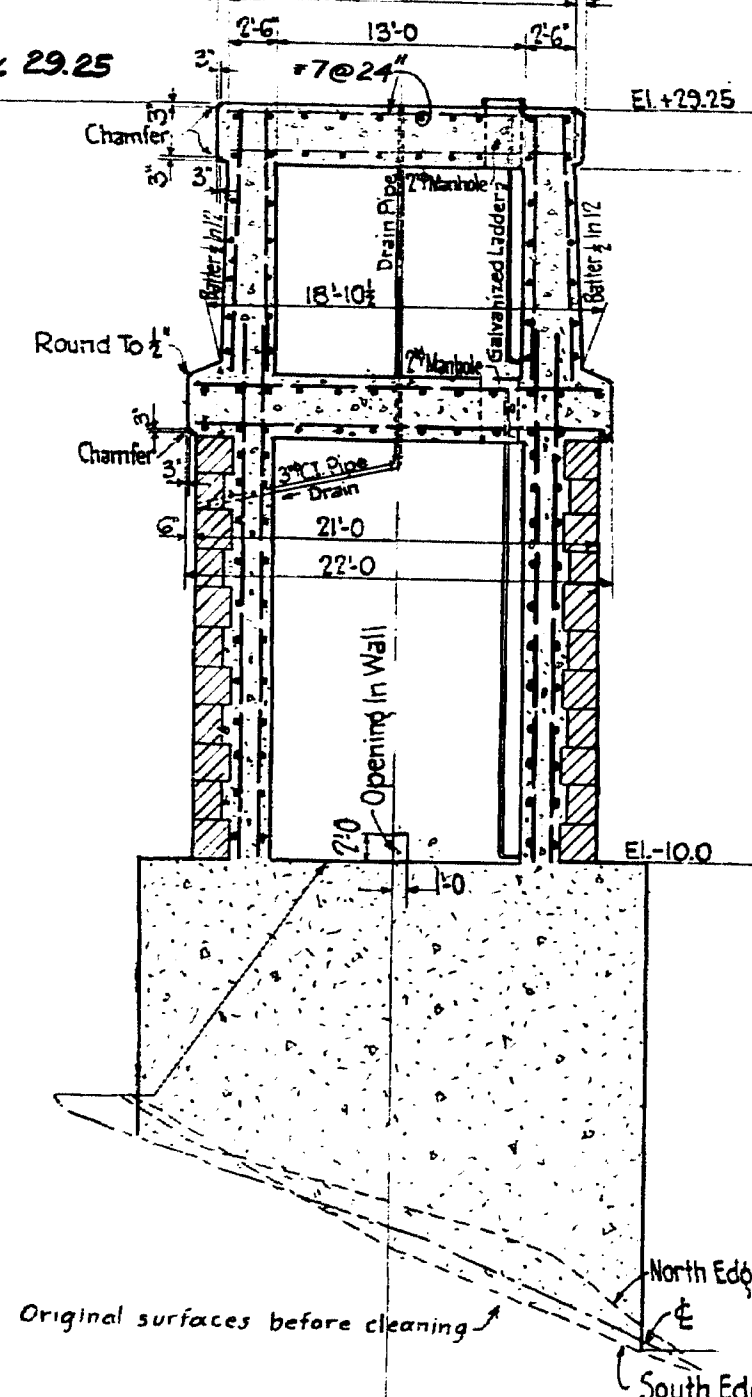
- NOTE:
- The cost of repairing pier No. 8 including new Manhole base and cover and cleaning drain pipe as per Pay Item 502.612
  - Underwater repair as per Item 502.613



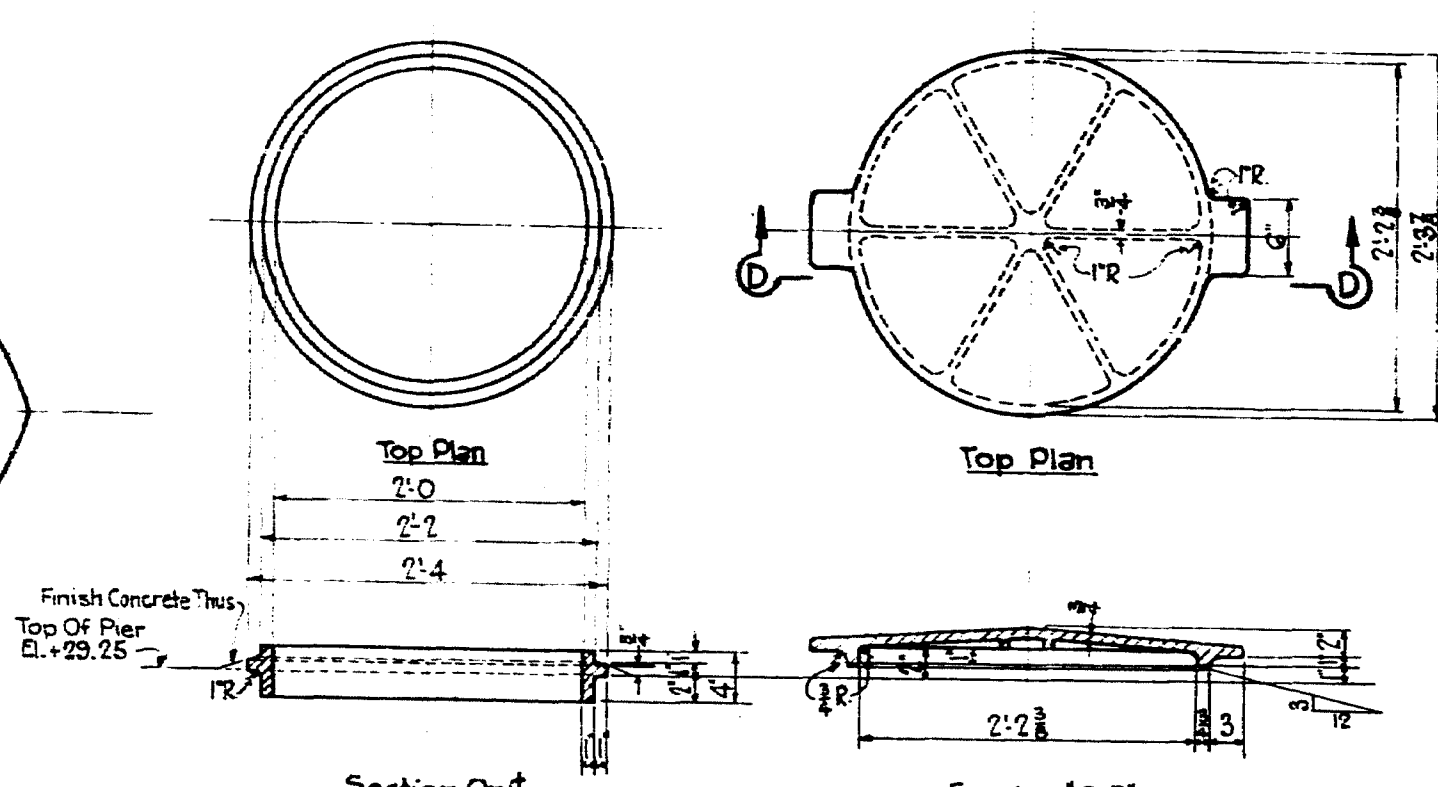
SECTION A-A - Scale:  $\frac{1}{8}'' = 1'-0''$



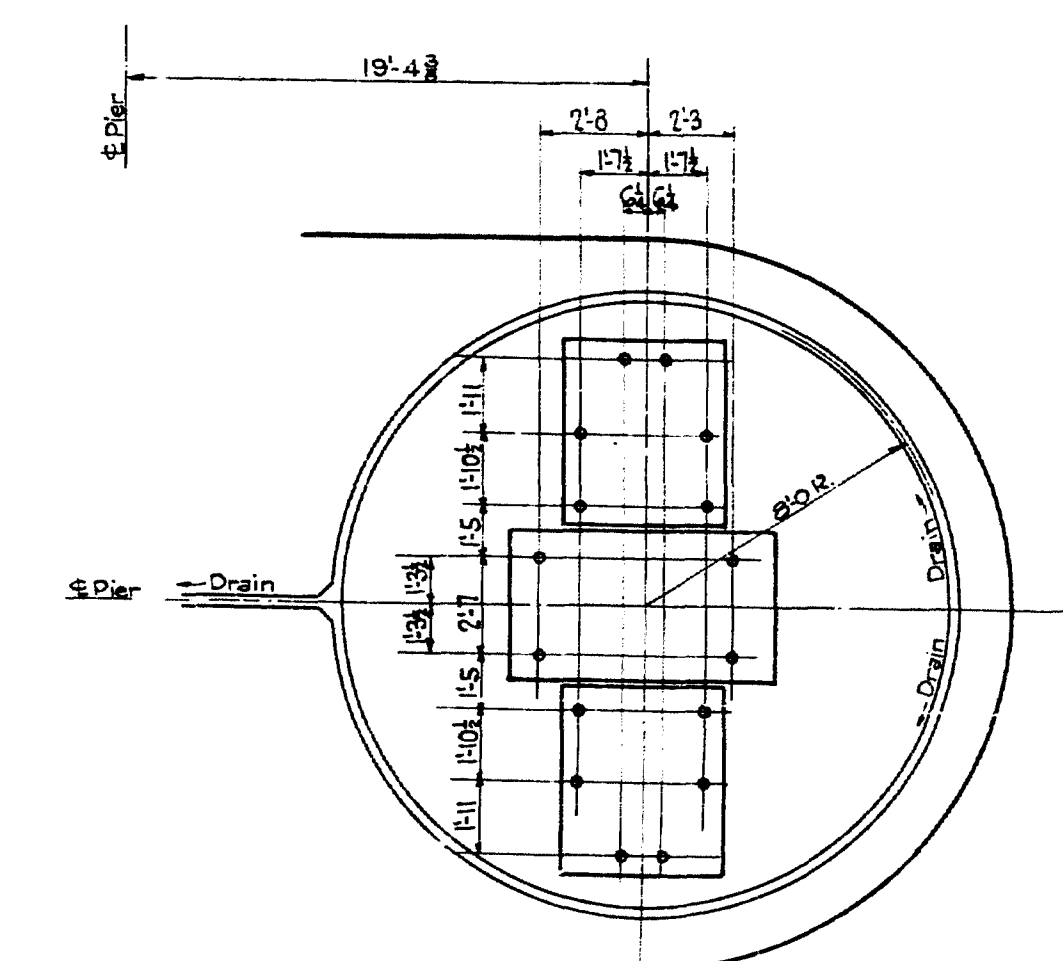
END ELEVATION - Scale:  $\frac{1}{8}'' = 1'-0''$



SECTION B-B - Scale:  $\frac{1}{8}'' = 1'-0''$

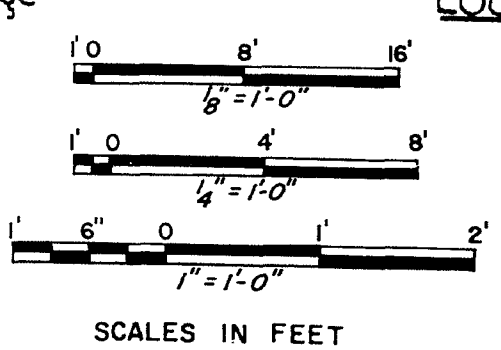


MANHOLE BASE - C.I. Or Approved Equal 2 REQUIRED  
MANHOLE COVER - C.I. Or Approved Equal 2 REQUIRED  
Scale:  $\frac{1}{4}'' = 1'-0''$



ENLARGED PART VIEW OF CAP SHOWING LOCATION OF ANCHOR BOLTS  
Scale:  $\frac{1}{4}'' = 1'-0''$

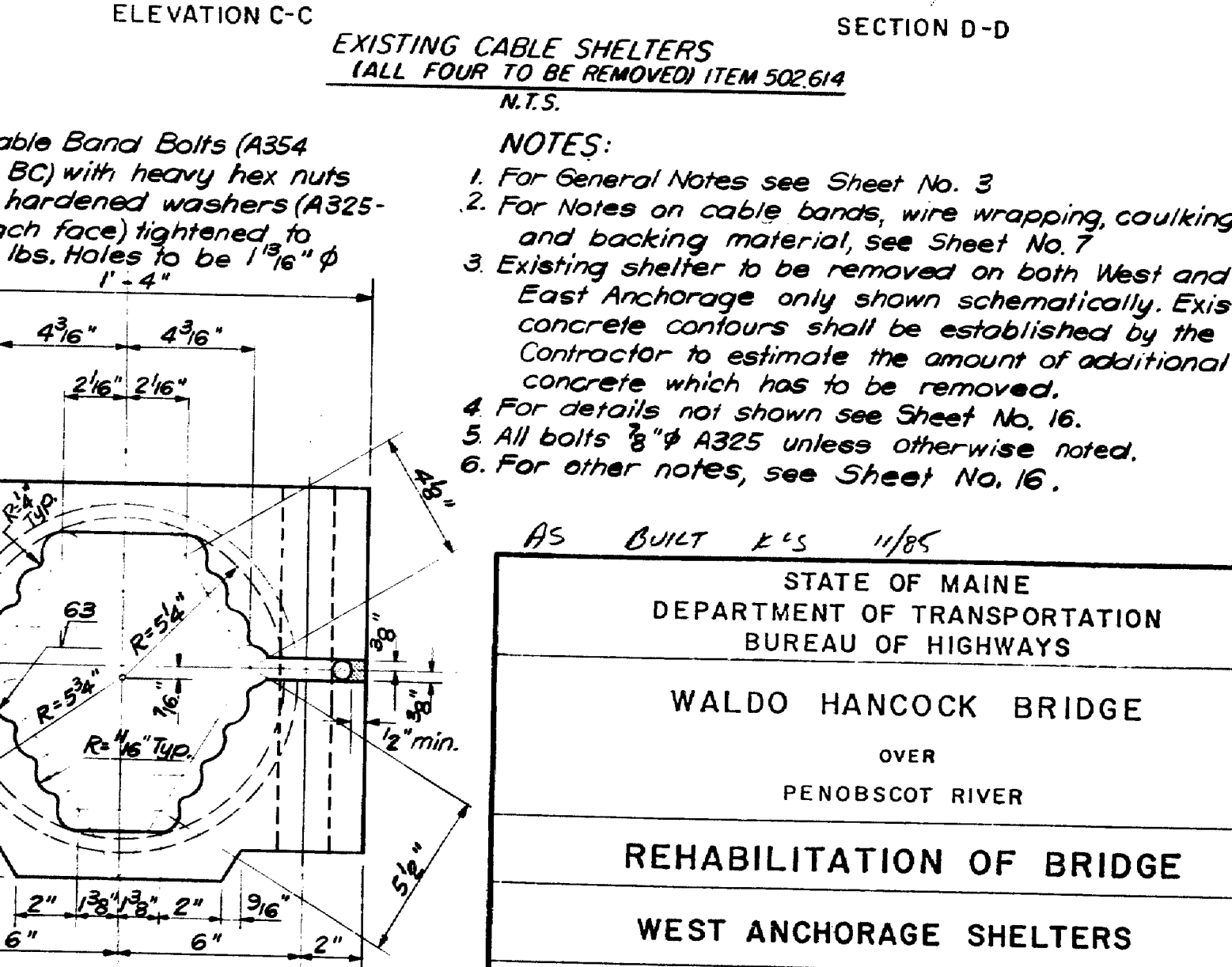
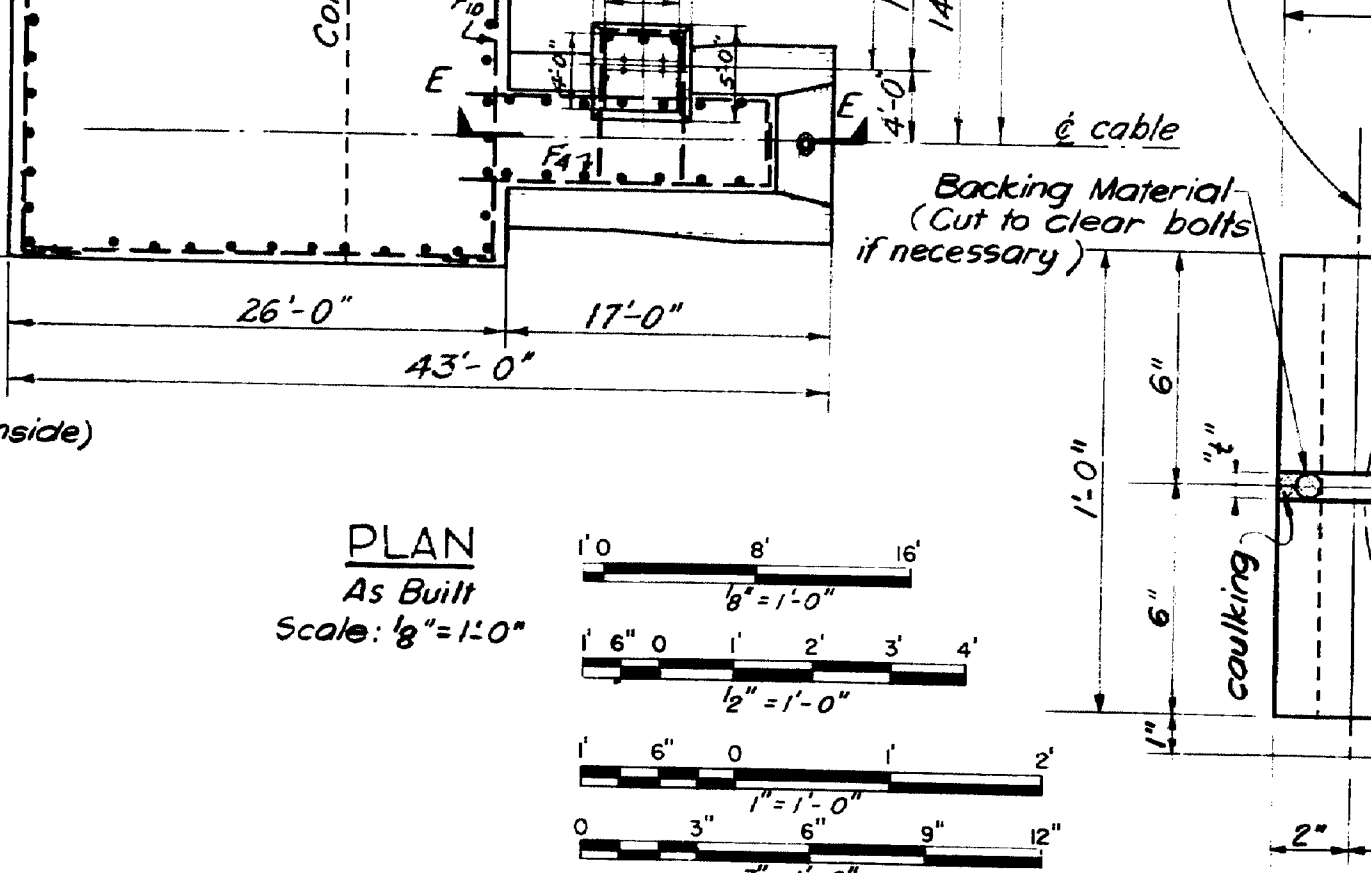
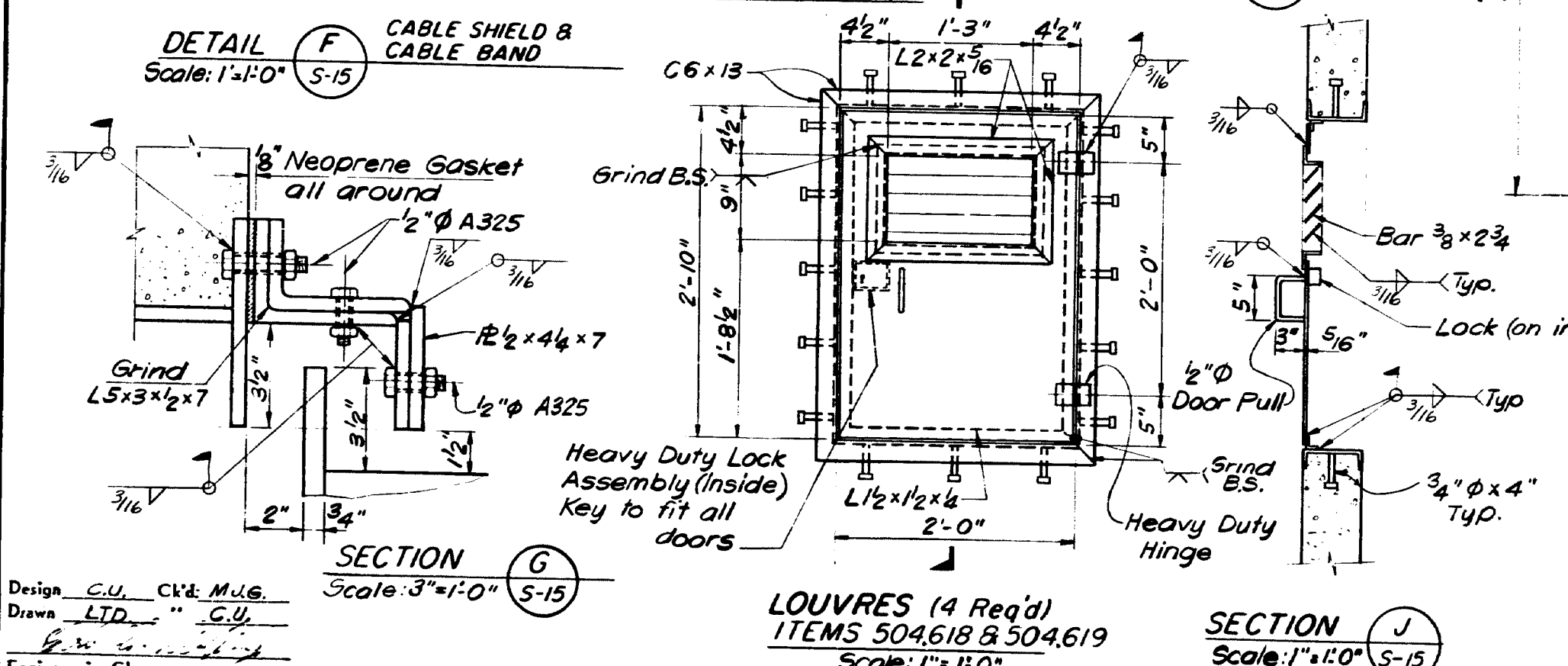
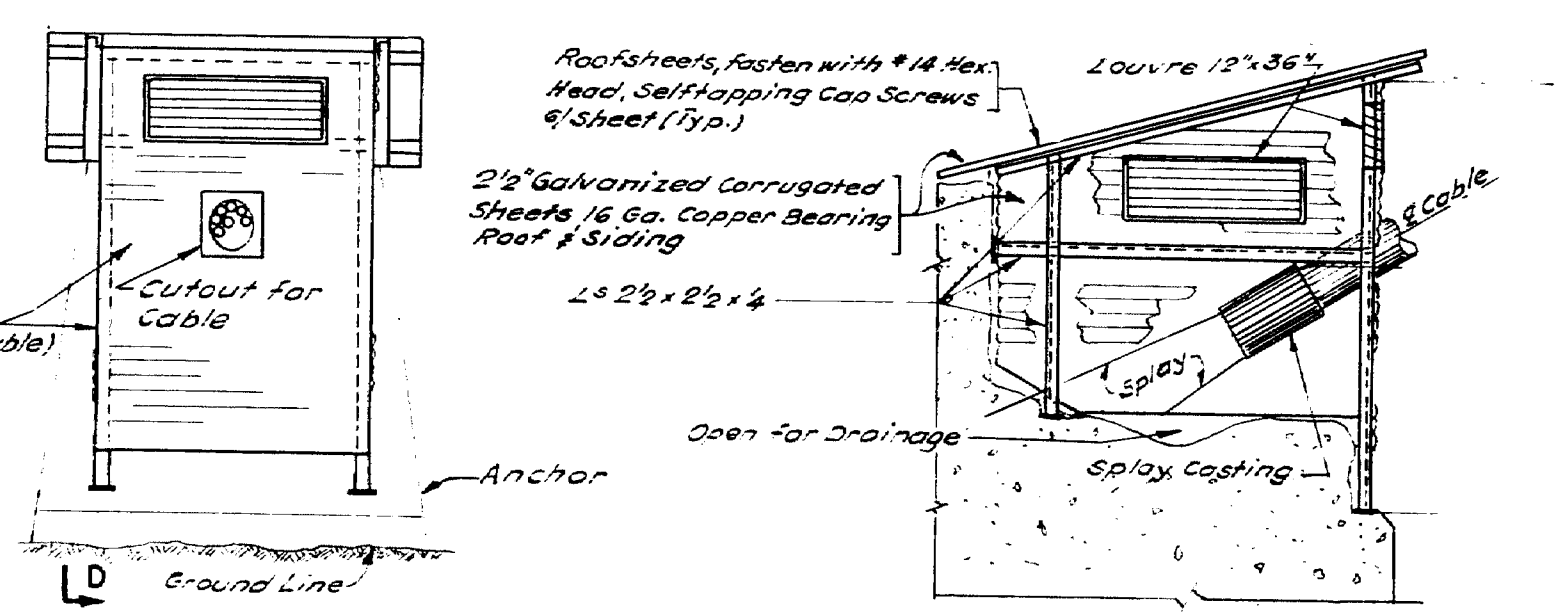
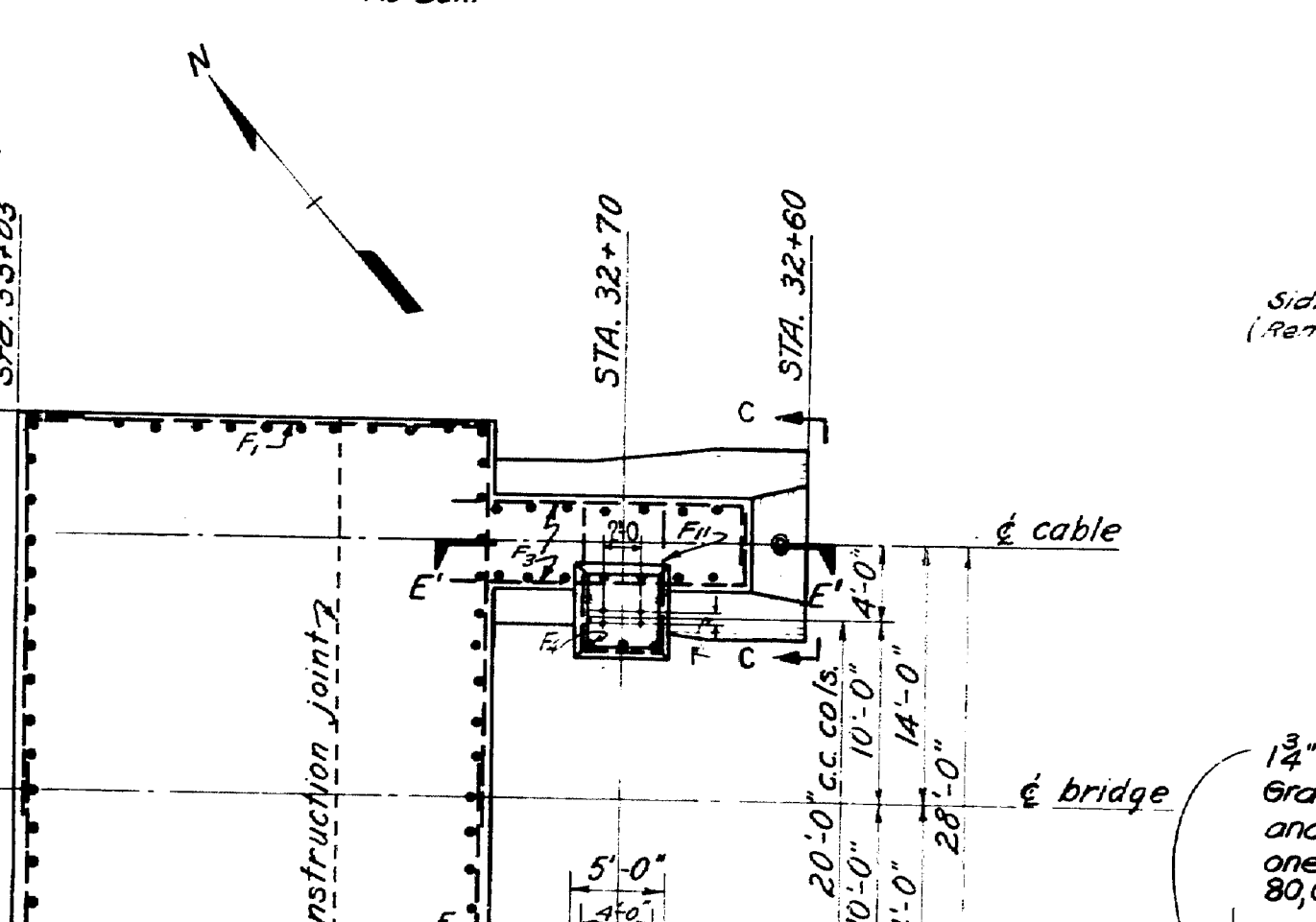
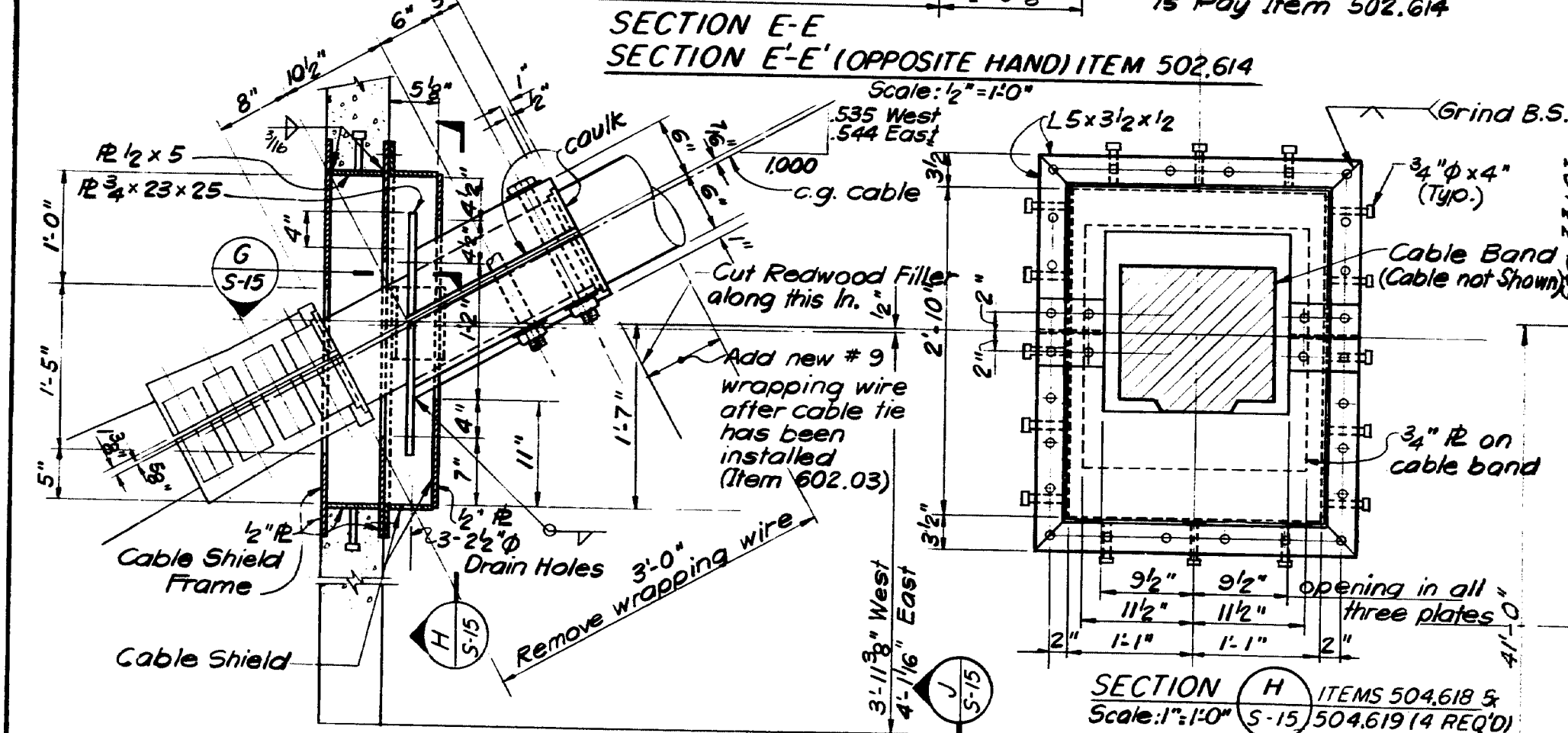
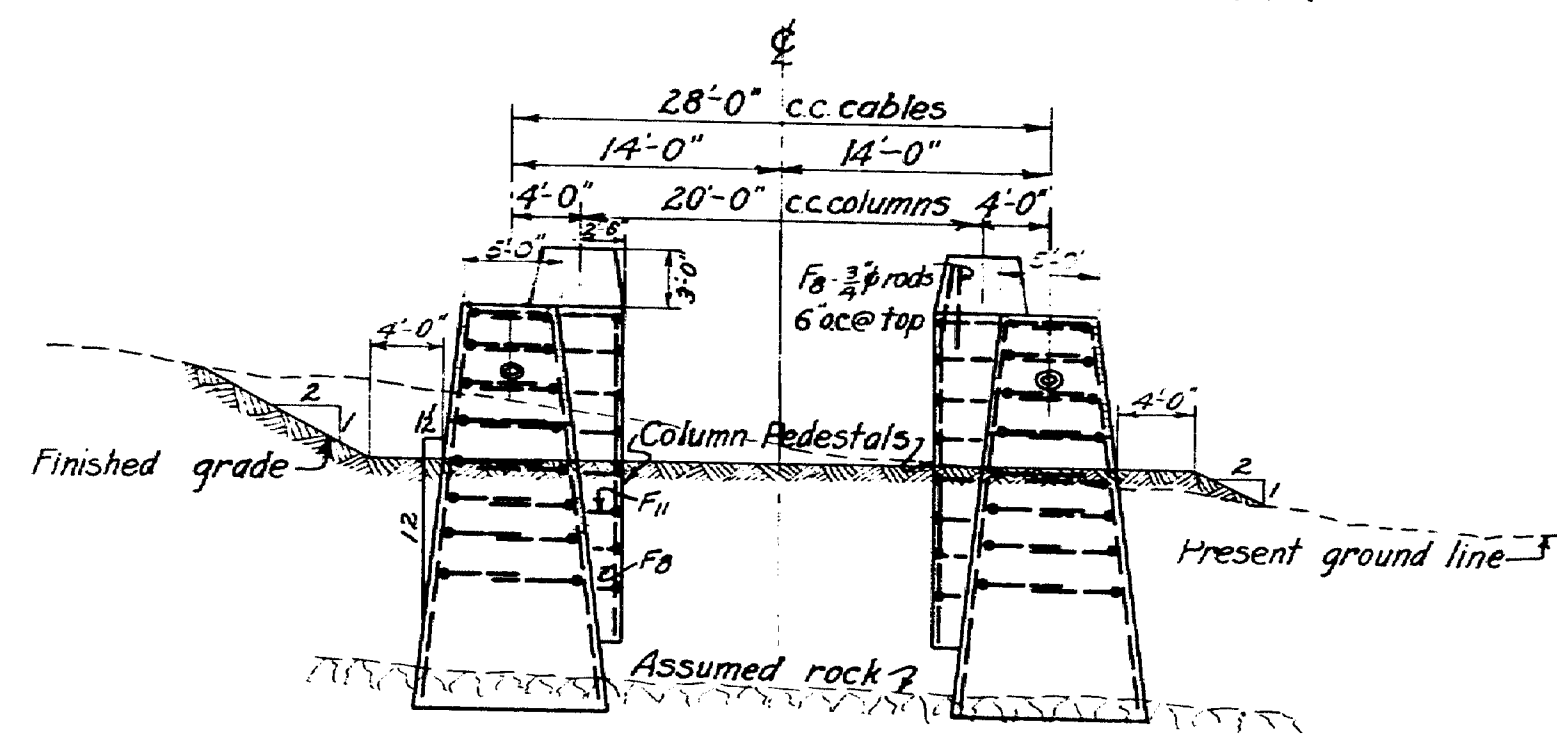
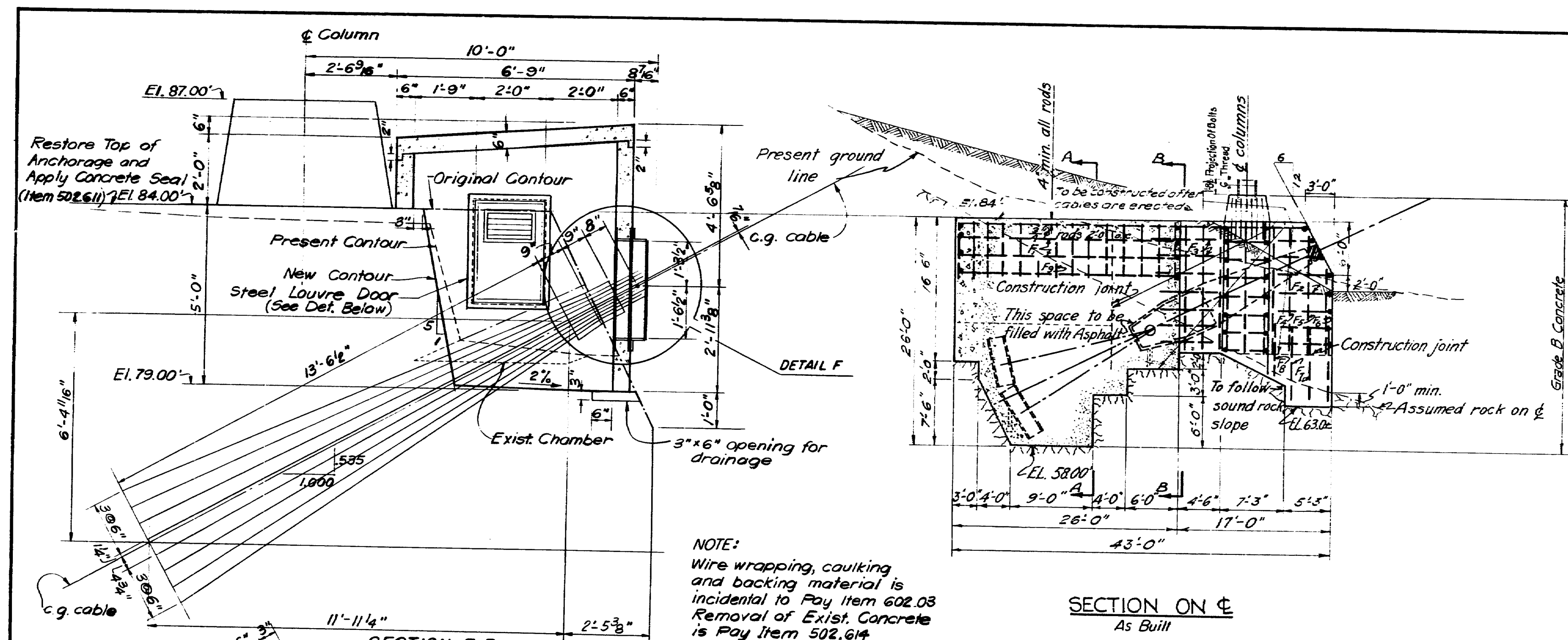
- NOTES:
- For General Notes see Sheet No. 3
  - All relevant dimensions, elevations, extent of deterioration and quantities must be verified or established in the field.
  - All drainage at cap level to be restored as shown.
  - All drain pipes to be cleaned and restored to functioning condition.
  - For Repointing Detail see Sheet No. 13
  - For under water repairs, see Project Specifications.



STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
REPAIRS TO WEST MAIN PIER NO. 8
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: AS SHOWN DATE: 1-26-82 SHEET 14

102-125

F.R.W.A. SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-042-1(31)	15	55



- EXISTING CABLE SHELTERS**  
(ALL FOUR TO BE REMOVED) ITEM 502.614  
N.T.S.
- NOTES:**
1. For General Notes see Sheet No. 3
  2. For Notes on cable bands, wire wrapping, caulking and backing material, see Sheet No. 7
  3. Existing shelter to be removed on both West and East Anchorage only shown schematically. Existing concrete contours shall be established by the Contractor to estimate the amount of additional concrete which has to be removed.
  4. For details not shown see Sheet No. 16.
  5. All bolts  $\frac{3}{4}$ " A325 unless otherwise noted.
  6. For other notes, see Sheet No. 16.

STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
WEST ANCHORAGE SHELTERS
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: AS SHOWN DATE: 1-26-52 SHEET: 15





Scale:  $\frac{3}{8}'' = 1'-0''$

LONGITUDINAL SECTION ON  $\phi$



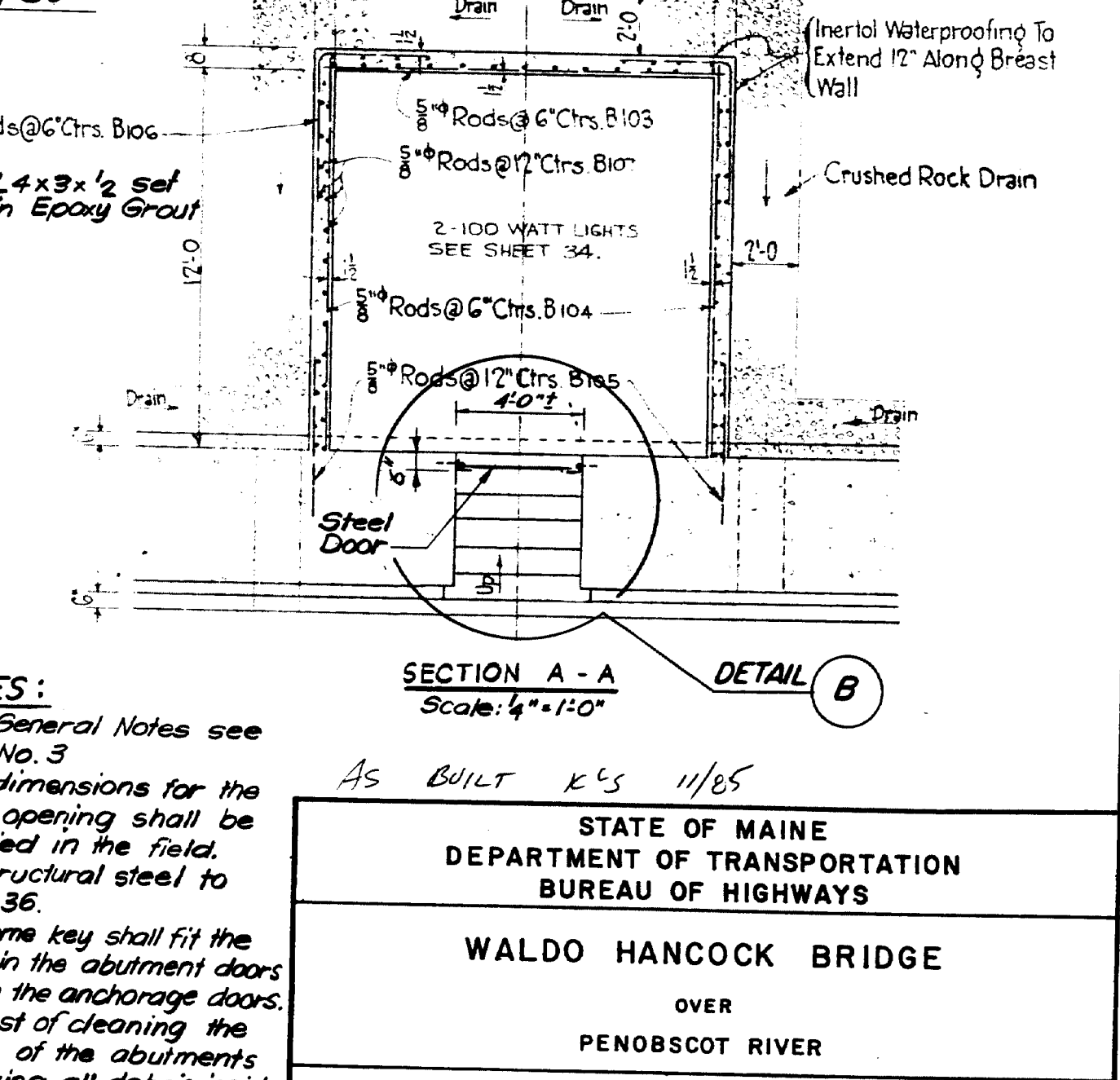
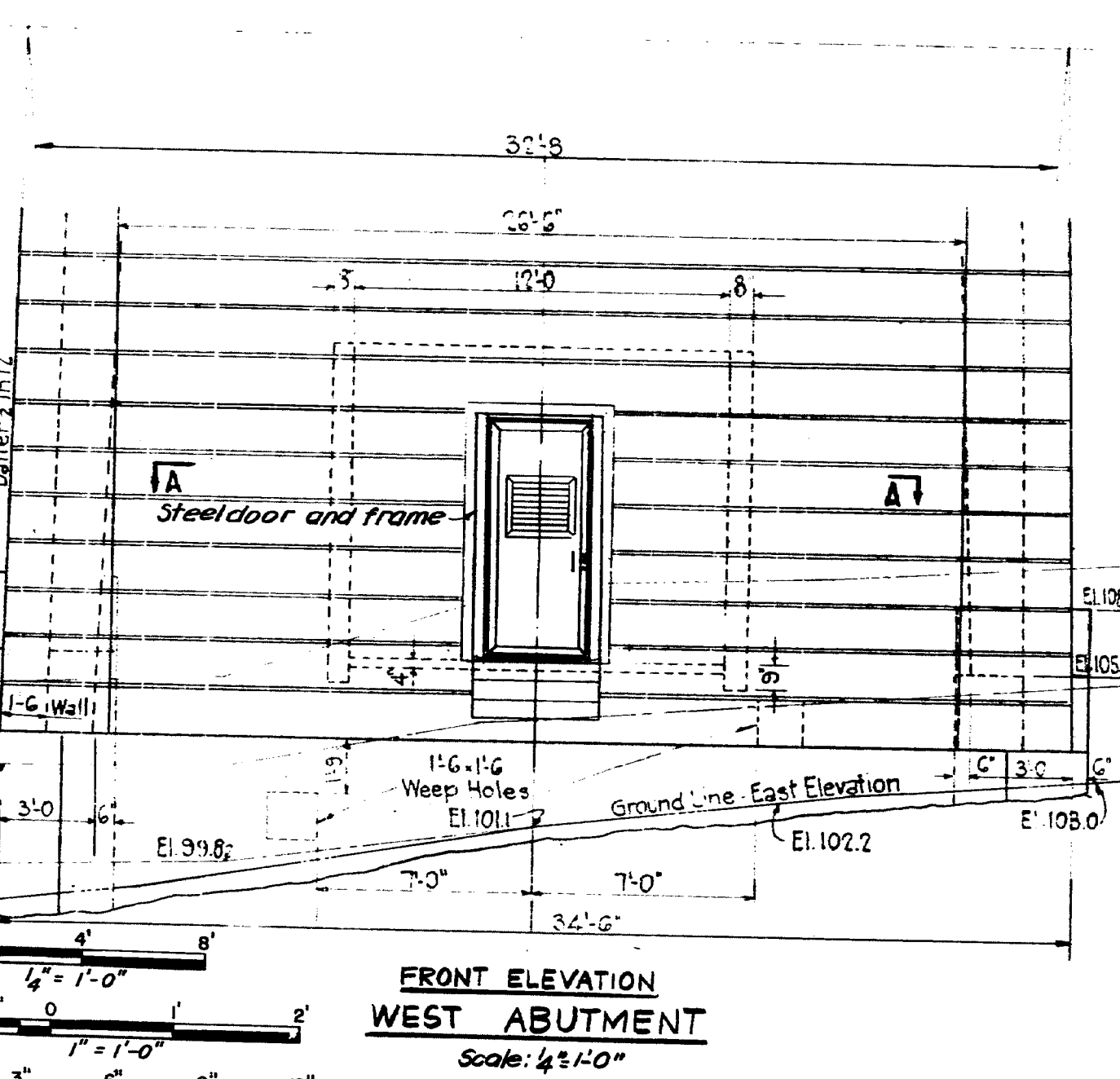
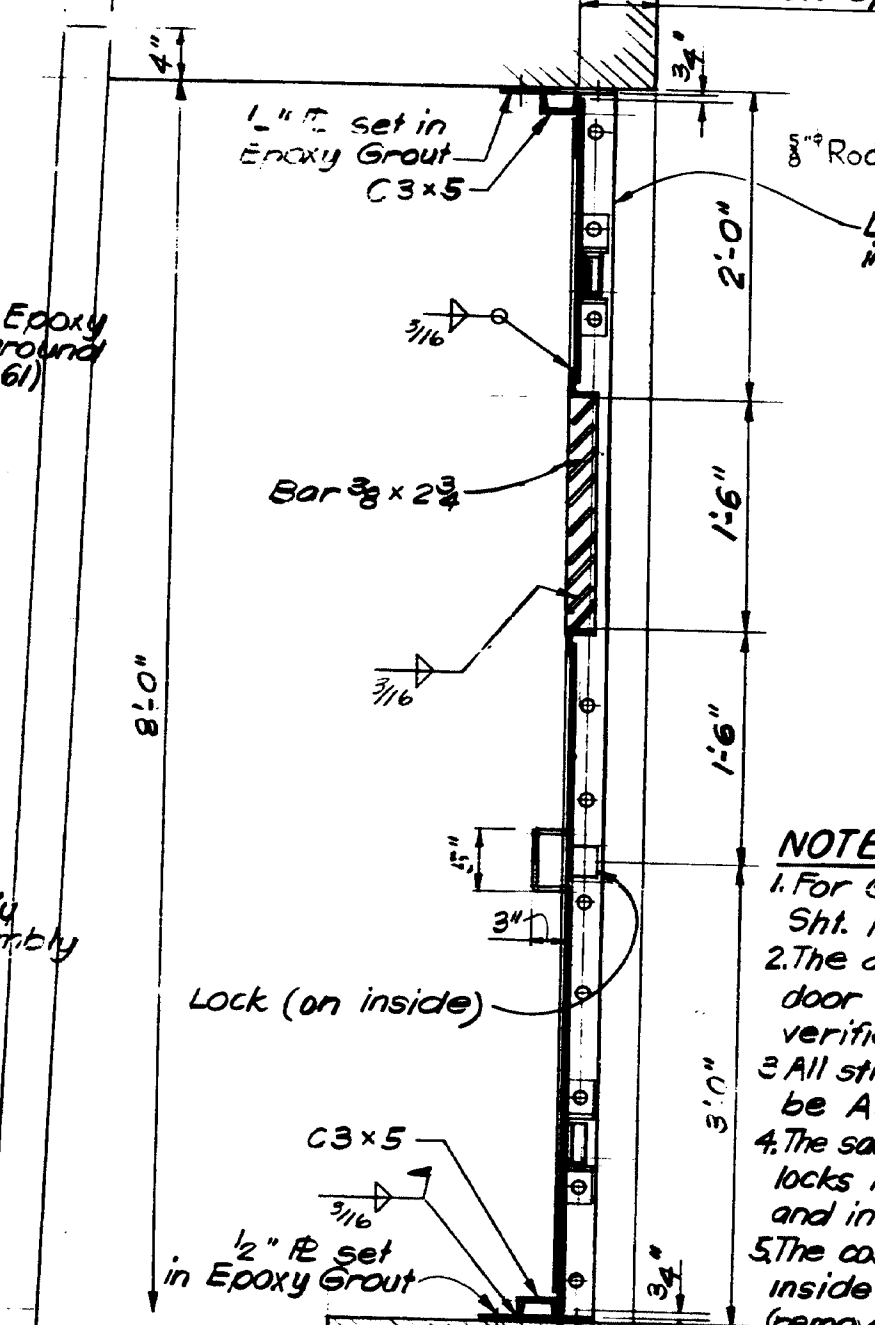
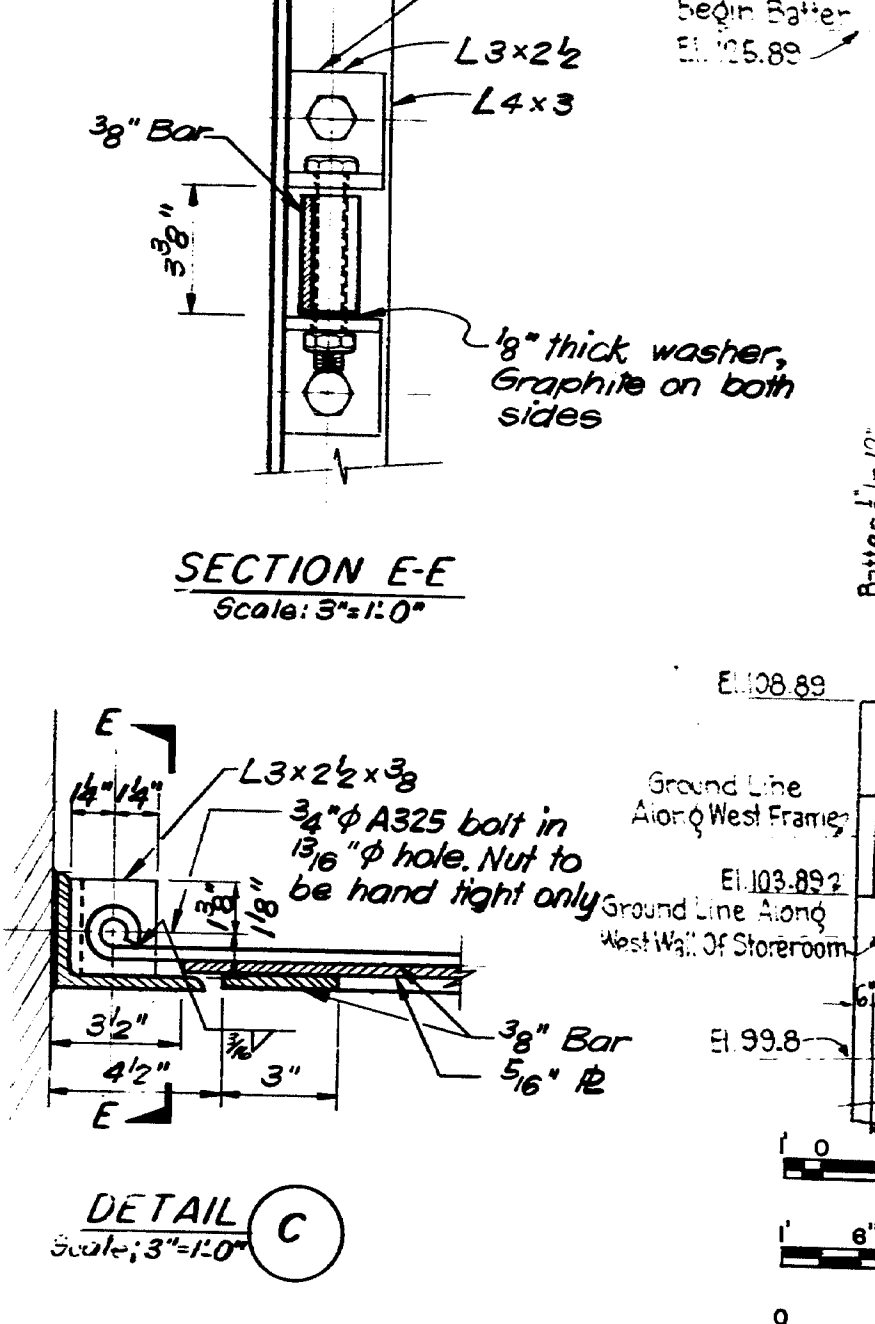
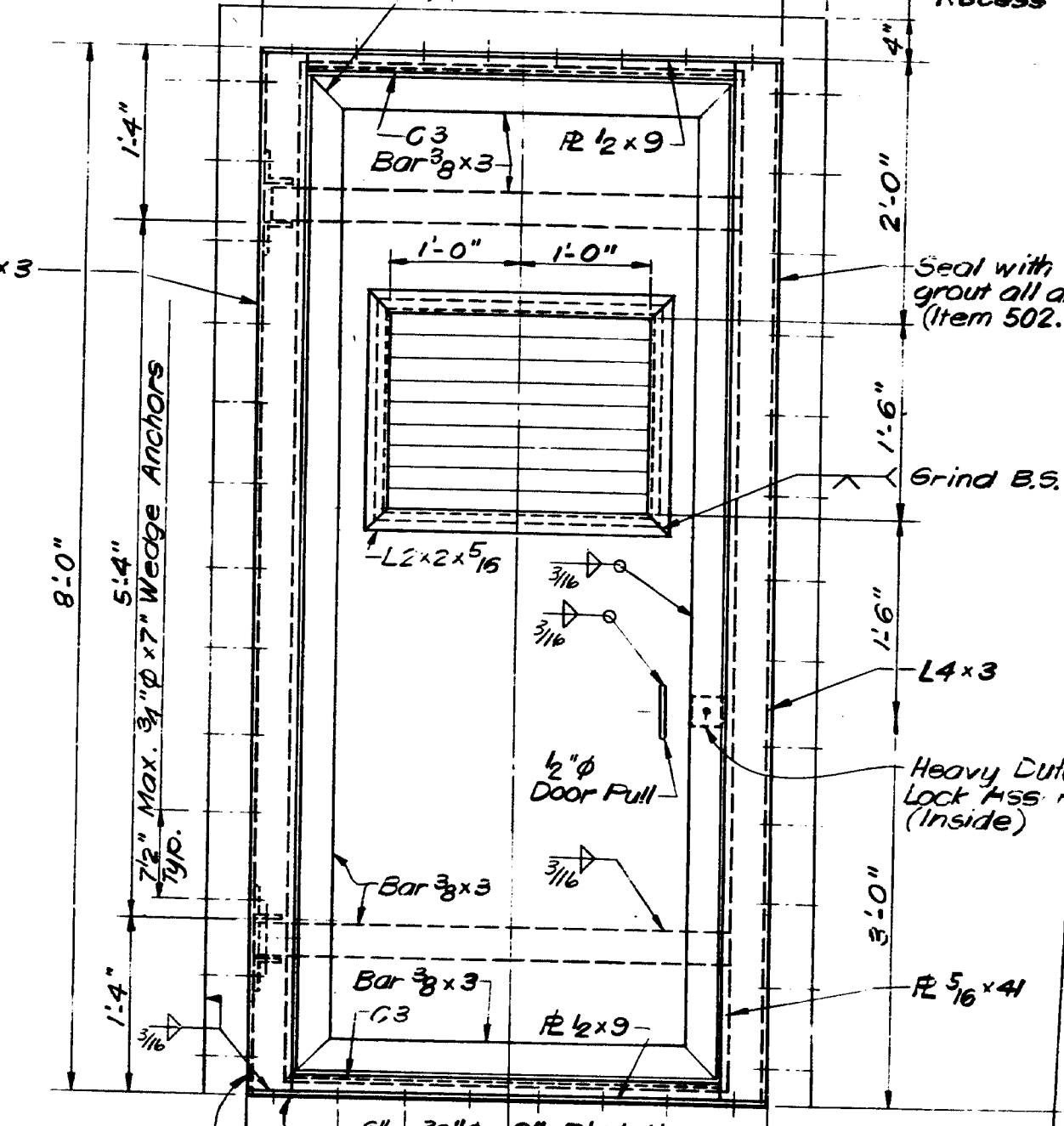
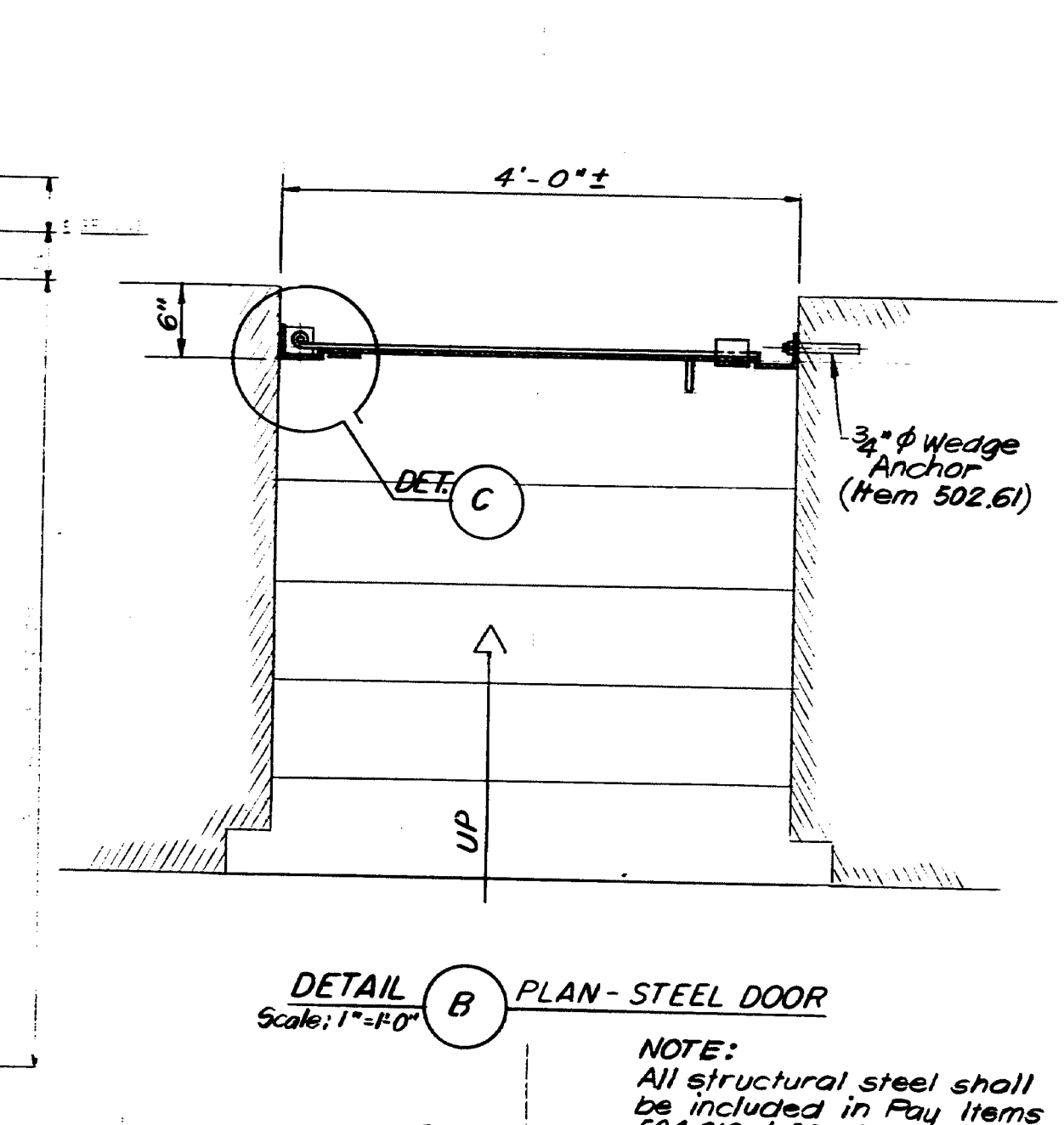
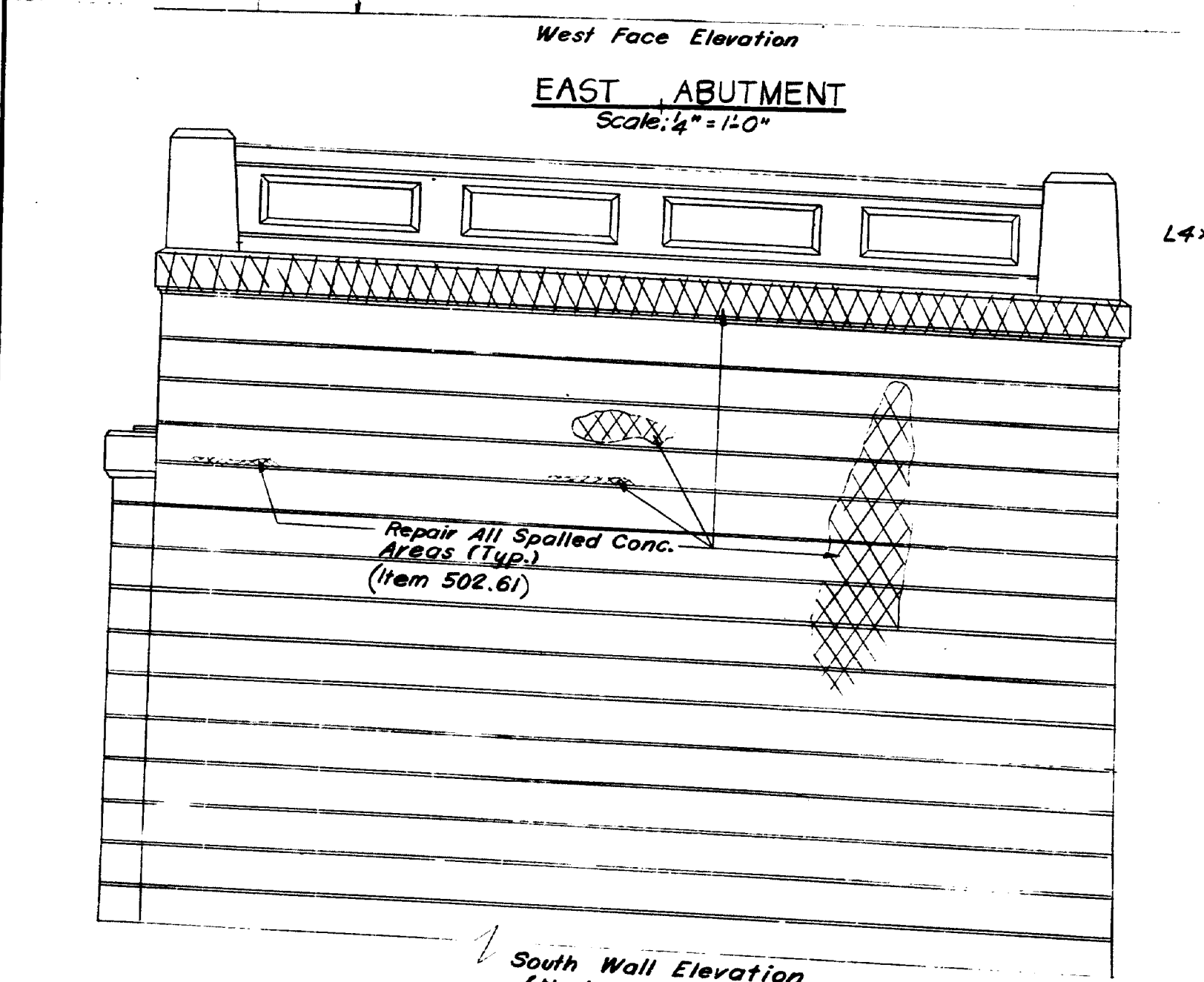
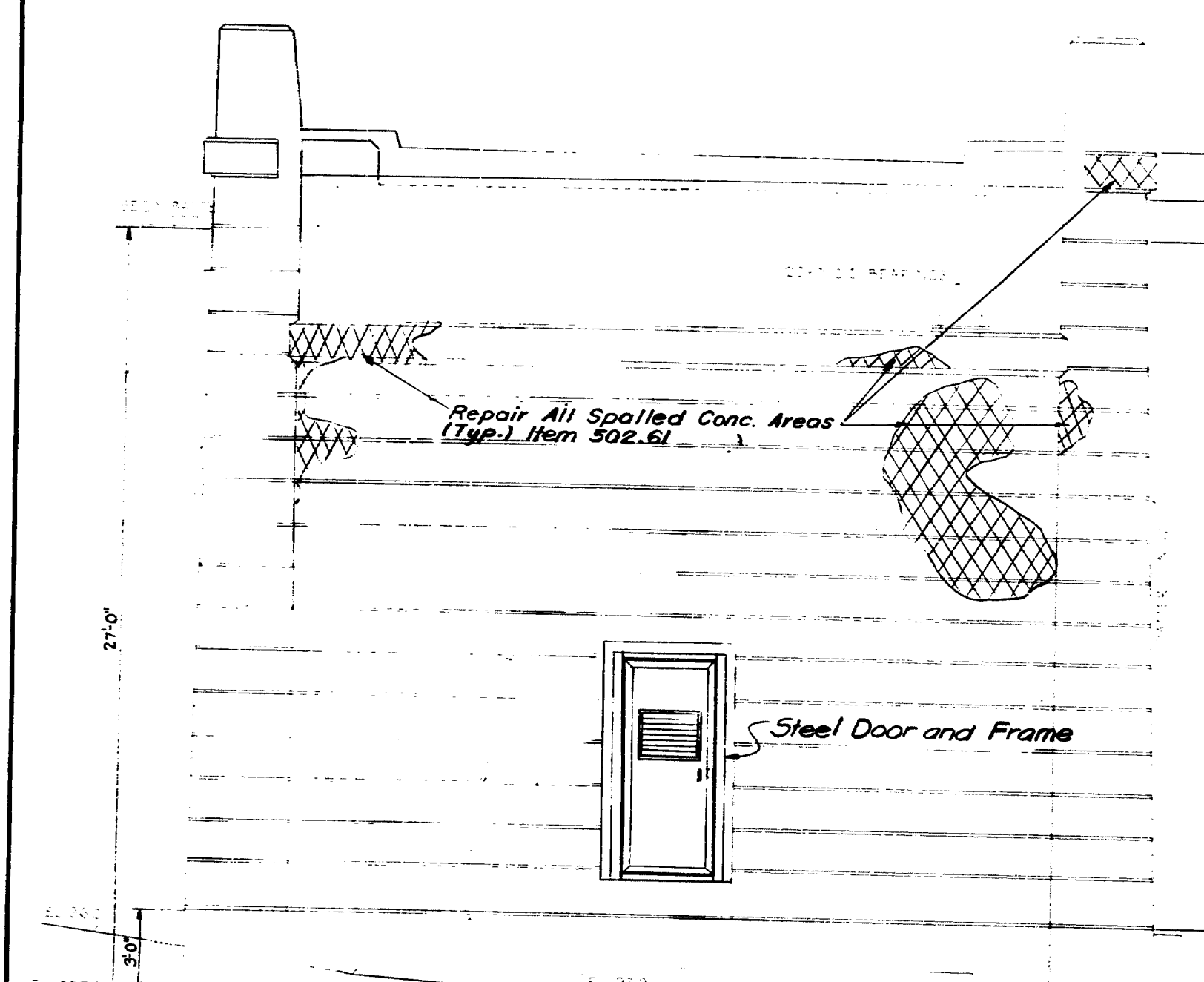
SECTION K-K  
SECTION K'-K' (OPPOSITE HAND) ITEM 502.6142



A/S BUILT XCS 11/85  
 STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION  
 BUREAU OF HIGHWAYS  
 WALDO HANCOCK BRIDGE  
 OVER  
 PENOBSCOT RIVER  
 REHABILITATION OF BRIDGE  
 EAST ANCHORAGE SHELTER  
 STEINMAN, BRYNANTON, GRONQUIST & BIRSDALL  
 CONSULTING ENGINEERS  
 NEW YORK, N.Y.  
 SCALE: AS SHOWN  
 DATE: 1-28-82  
 SHEET: 16



F.R.A. SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-042-1(31)	17	58



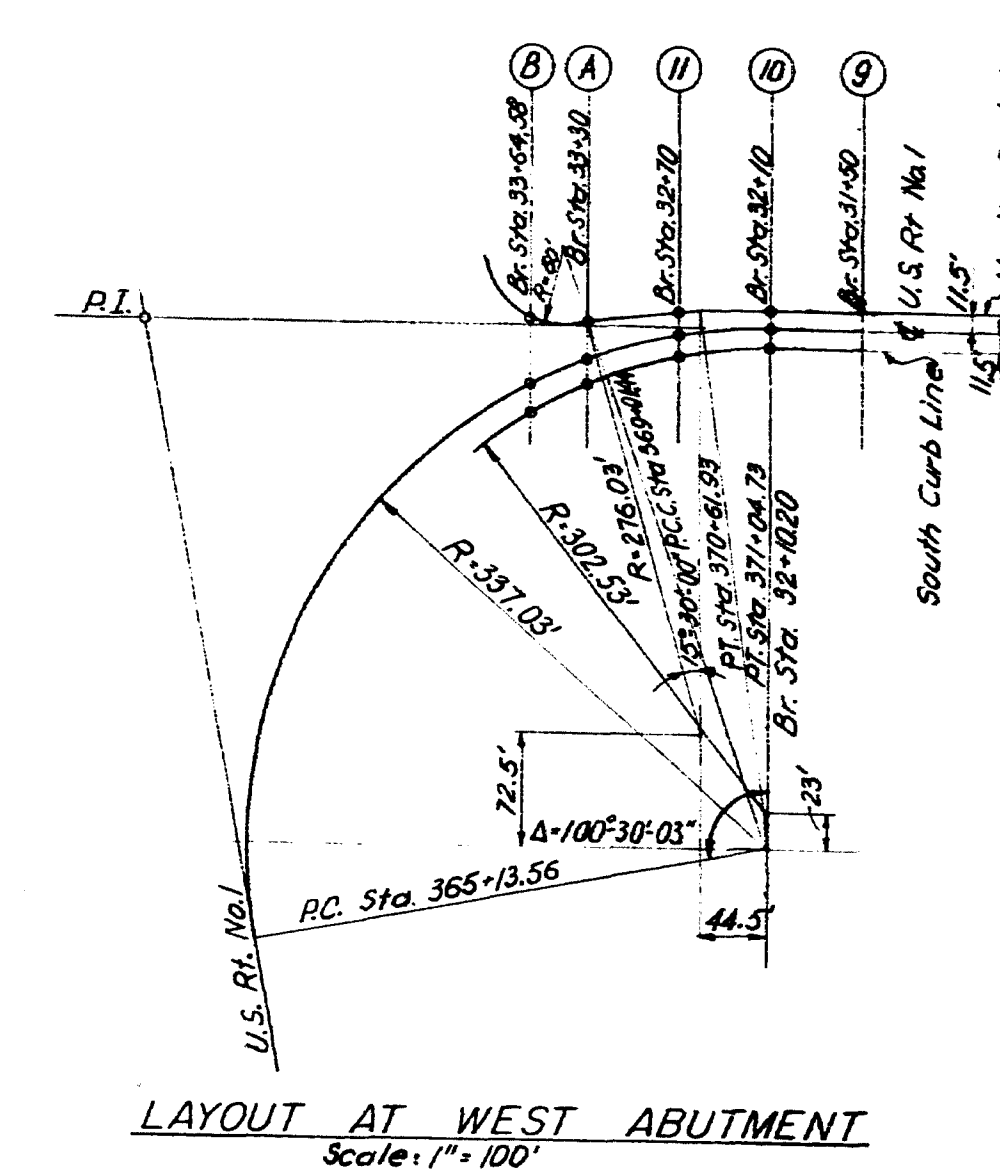
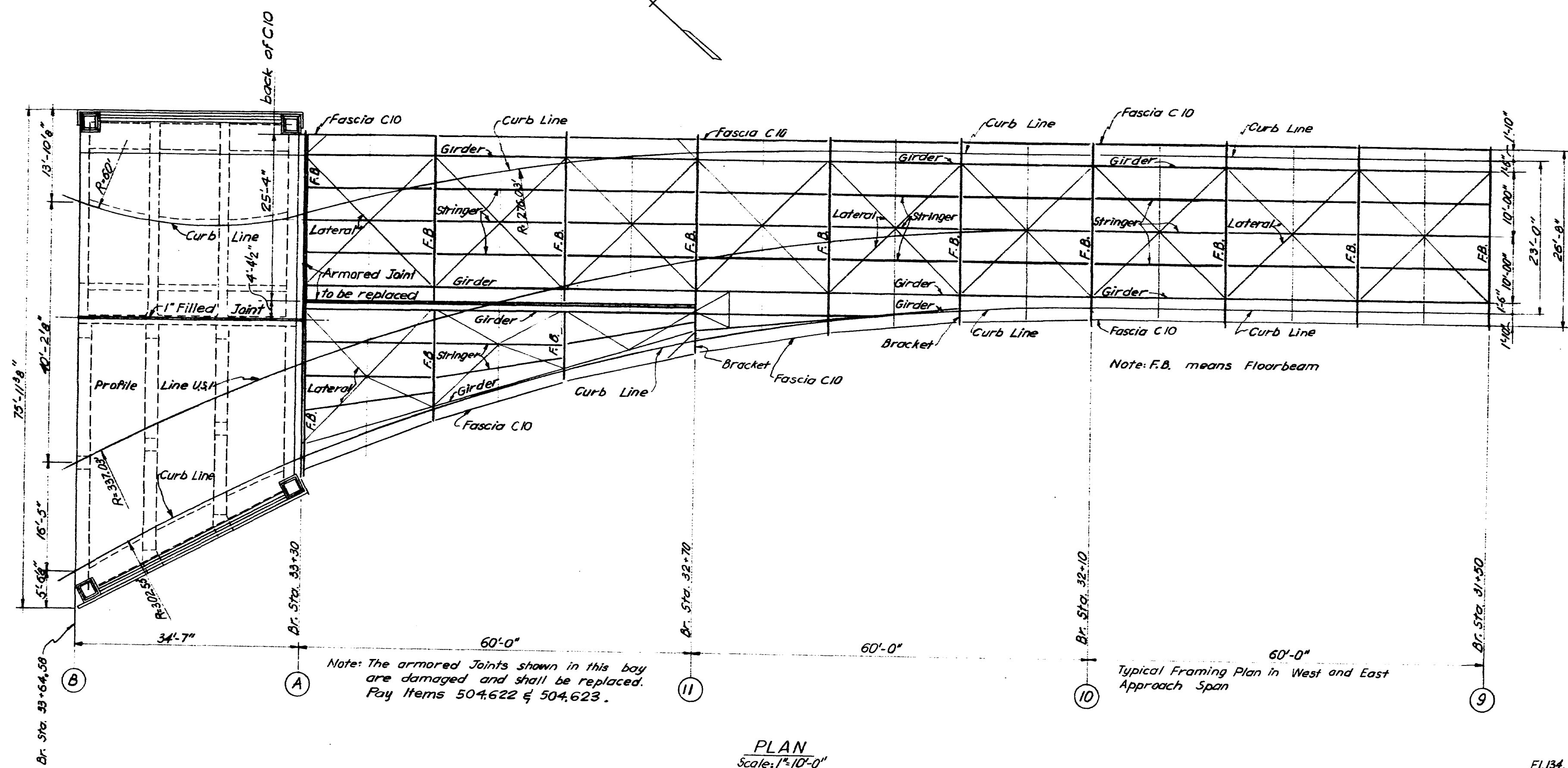
NOTE:  
All structural steel shall be included in Pay Items 504.616 & 504.617 except for items included in 502.61

- NOTES:
1. For General Notes see Sht. No. 3
  2. The dimensions for the door opening shall be verified in the field.
  3. All structural steel to be A36.
  4. The same key shall fit the locks in the abutment doors and in the anchorage doors.
  5. The cost of cleaning the inside of the abutments (removing all debris inside the door openings) and the installation of the new door frames shall be included in Item 502.61.

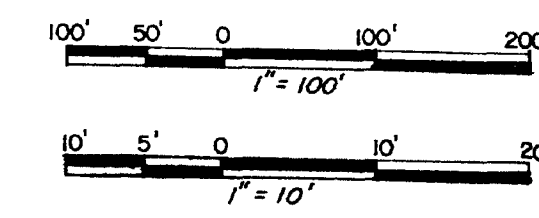
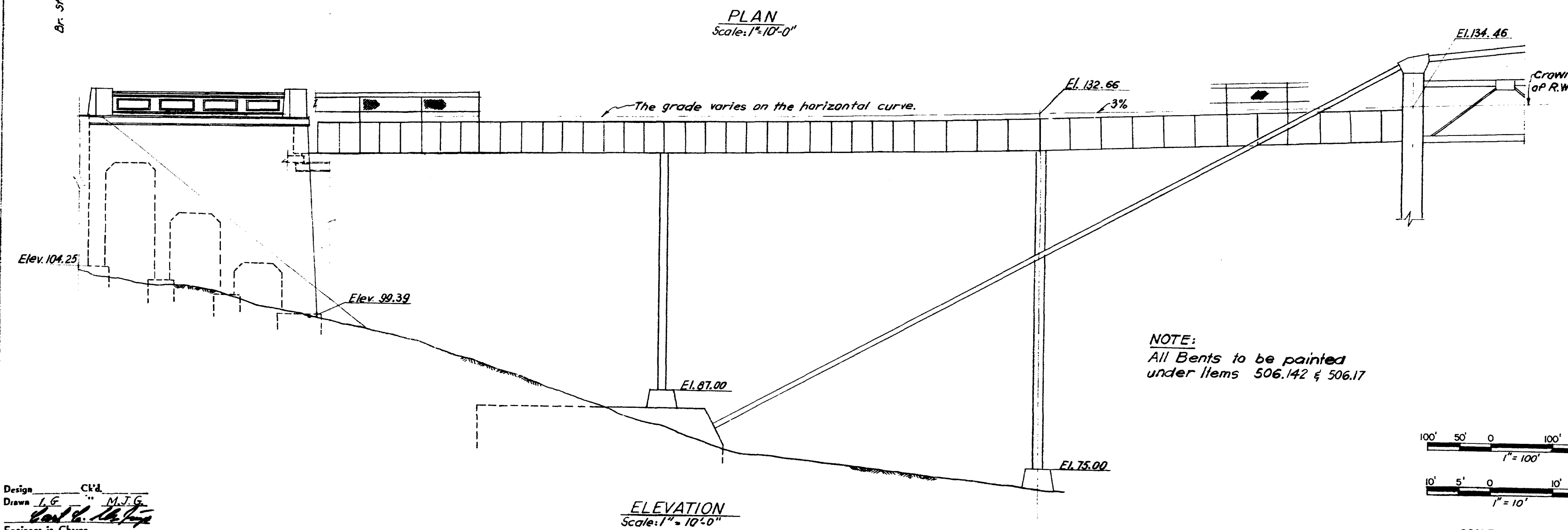
STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE REPLACE DOORS & REPAIR ABUTMENTS
STEINMAN, BOYNTON, GRONQVIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.

182-128

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	BH-042-1(31)	18	58



NOTES:  
1. For General Notes see Sheet No. 3

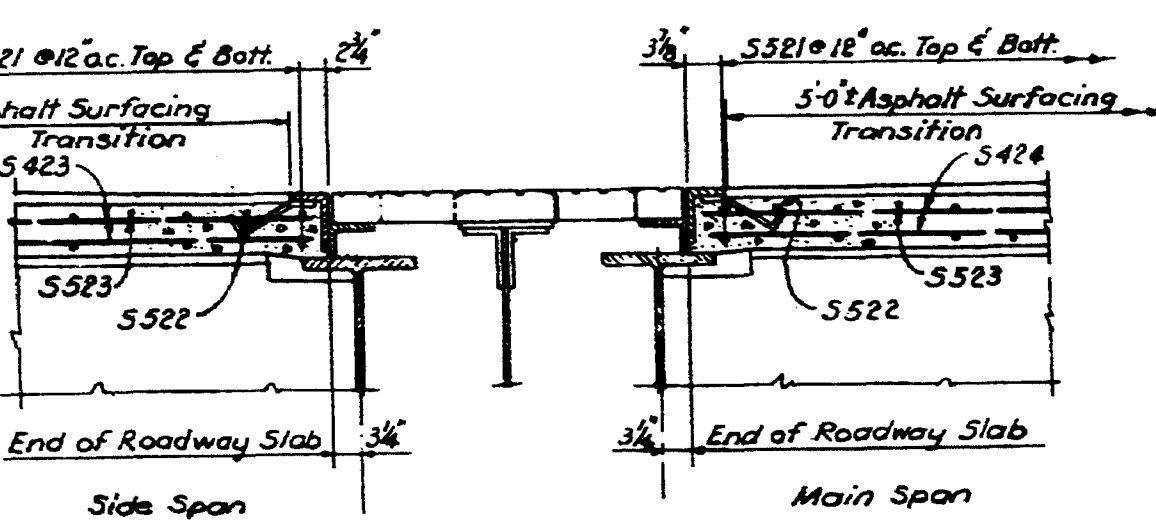
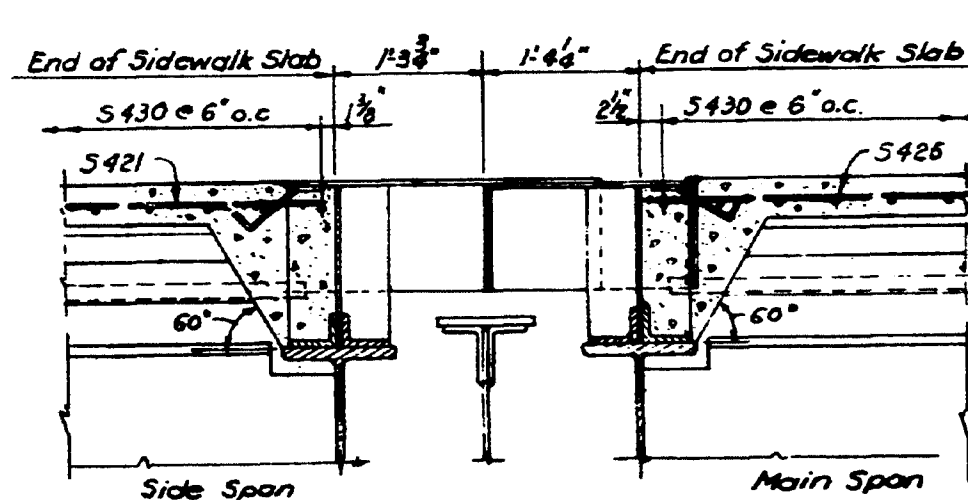
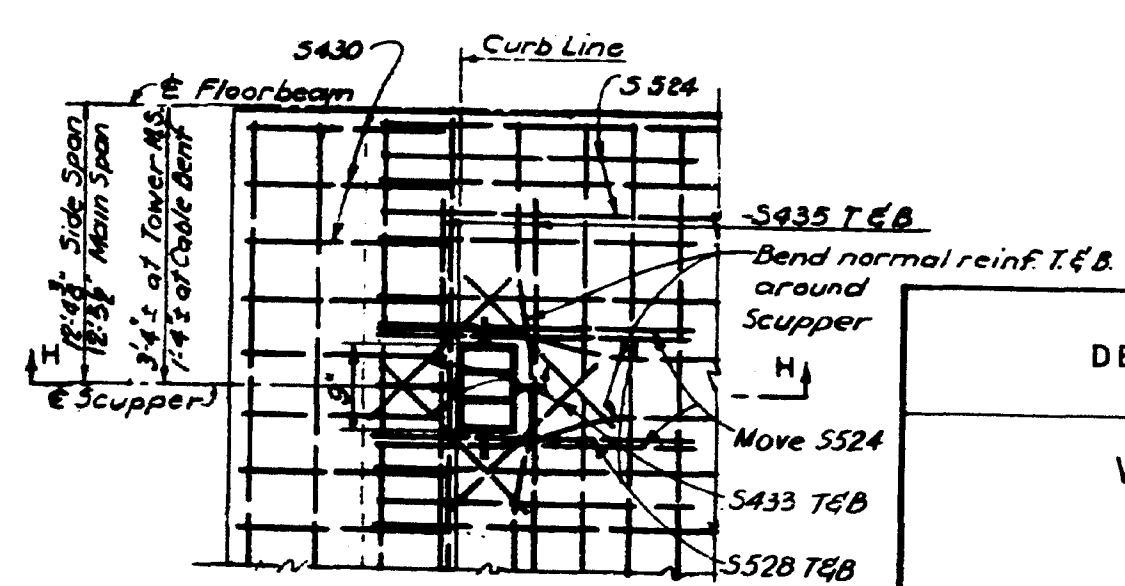
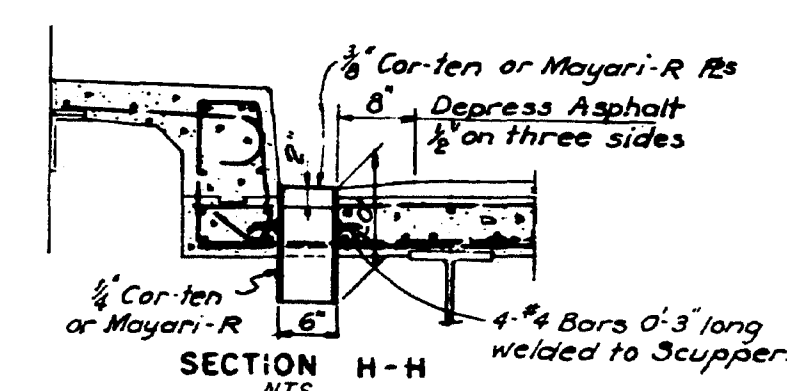
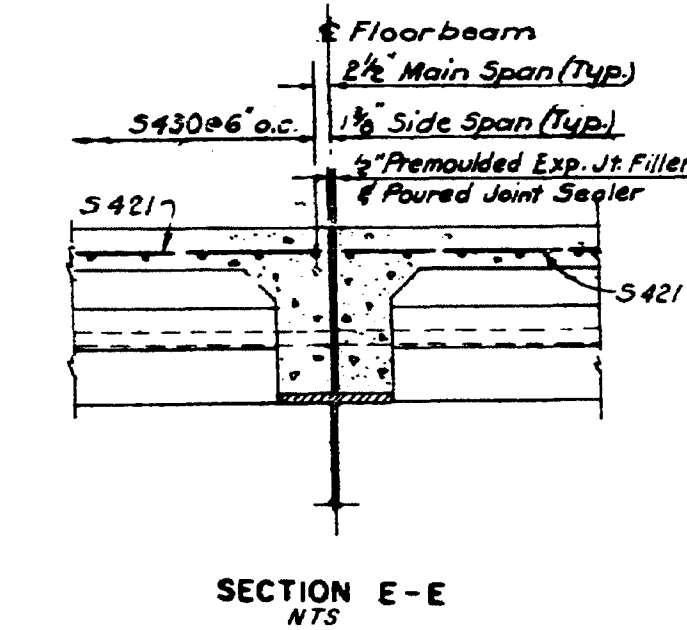
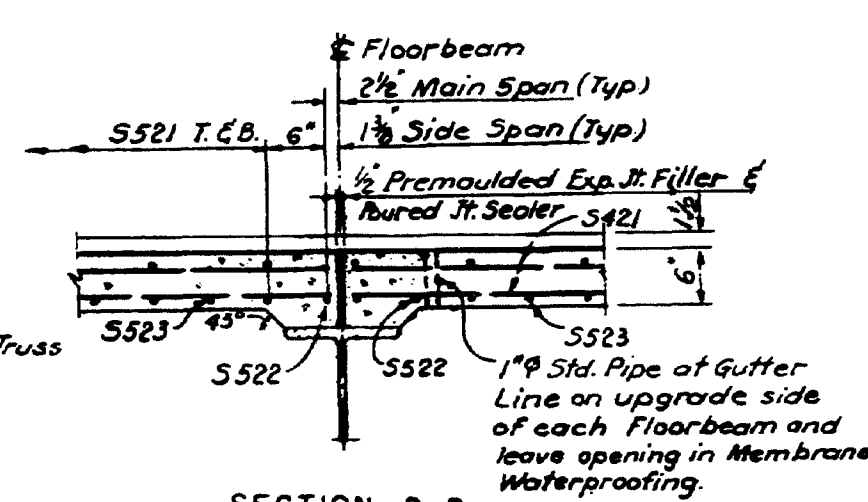
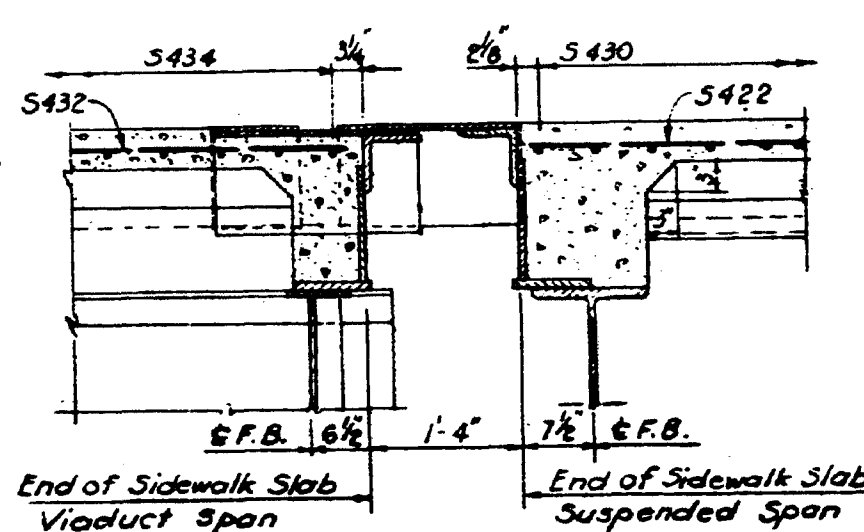
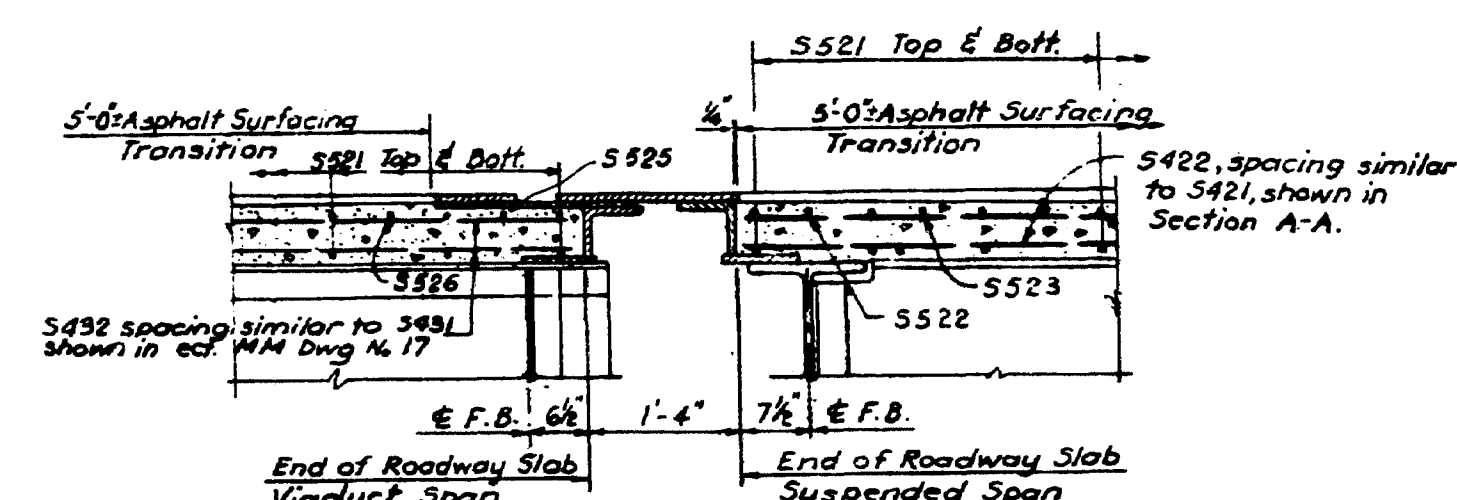
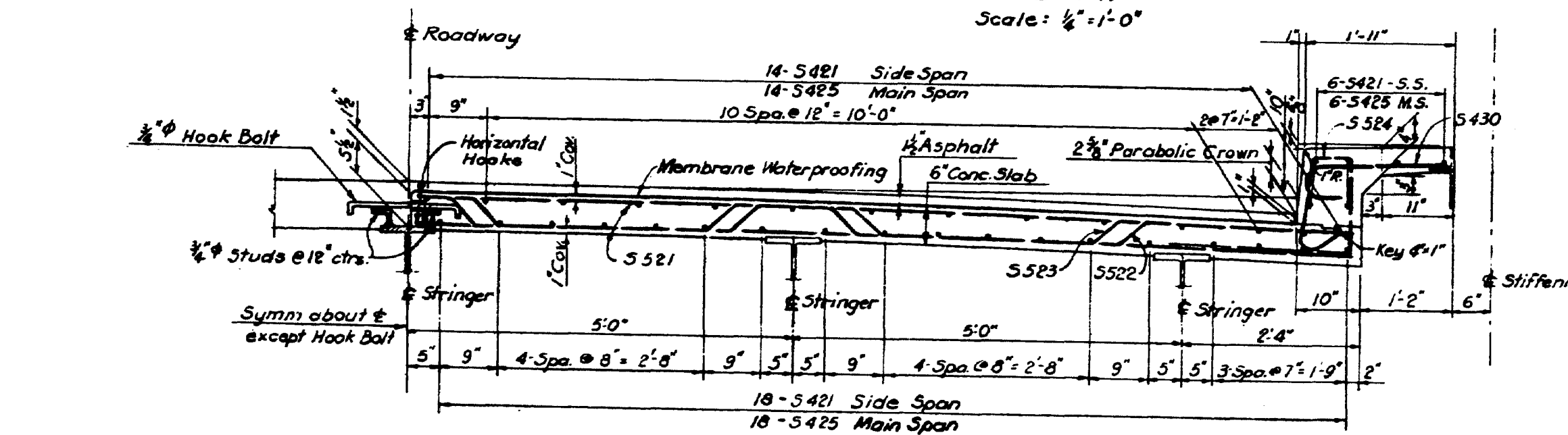
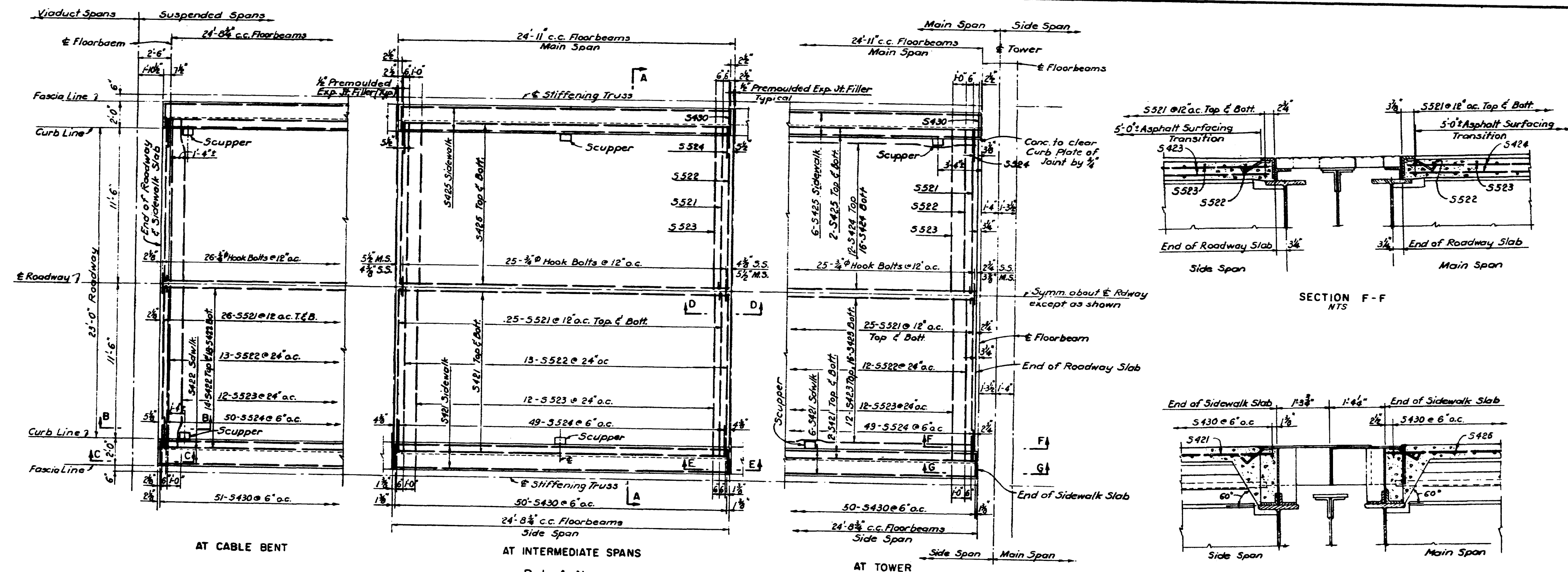


SCALE IN FEET

STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
PLAN AND ELEVATION OF WEST APPROACH
STEINMAN, BOYNTON, GRONQVIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: AS SHOWN DATE: 7-26-68 SHEET: 18

Design: C.V.  
Drawn: M.J.G.  
Engineer in Charge: Carl B. [Signature]

182-129



NOTE:  
For General Notes See Sheet No. 3

S.S. - Side Span  
M.S. - Main Span

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS

WALDO HANCOCK BRIDGE

OVER  
PENOBSCOT RIVER

## REHABILITATION OF BRIDGE

EXISTING DECK - SUSPENDED SPANS

STEINMAN, BOYNTON, GRONQUIST & BIRDSALL  
CONSULTING ENGINEERS  
NEW YORK, N.Y.

SCALE: AS SHOWN  
DATE: 1-26-82  
SHEET: 19

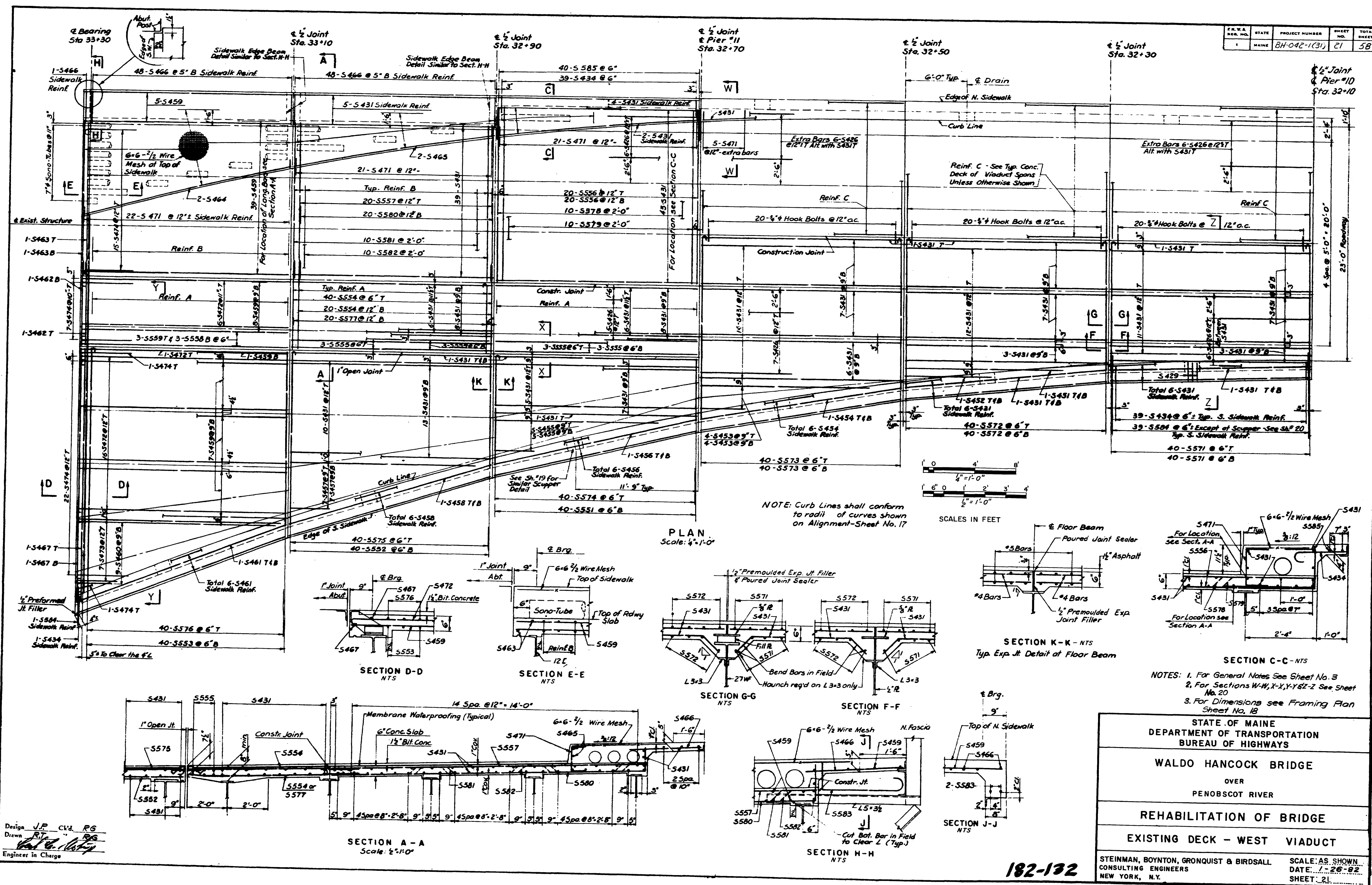
SCALE: AS SHOWN  
DATE: 1-26-82  
SHEET: 19

**182-130**





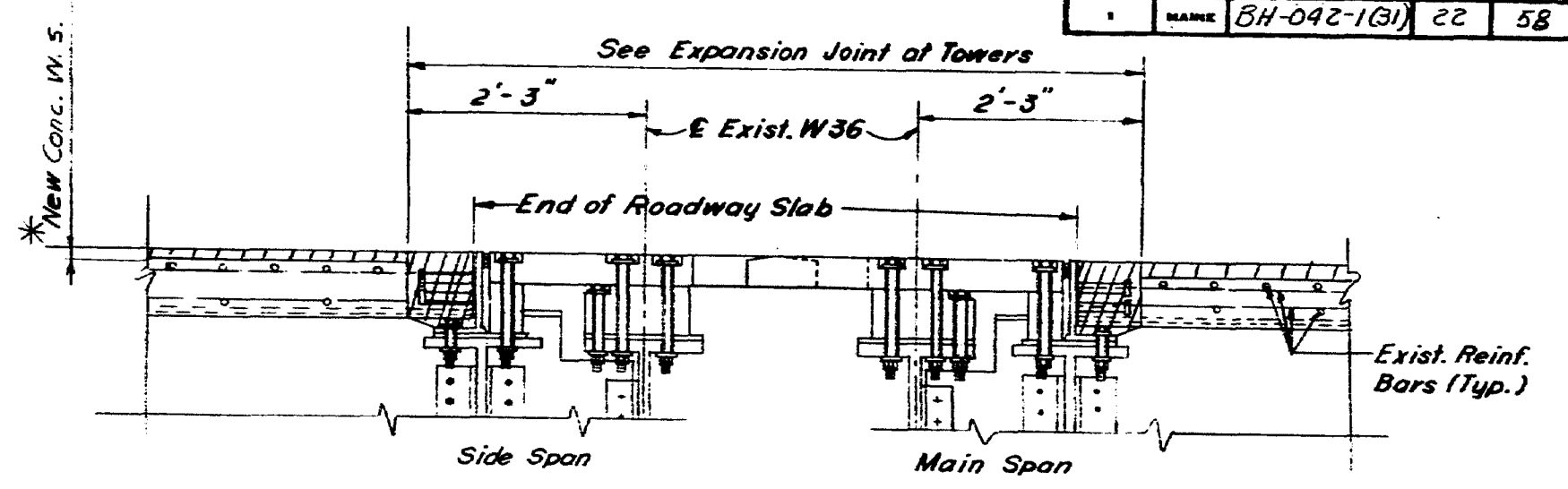
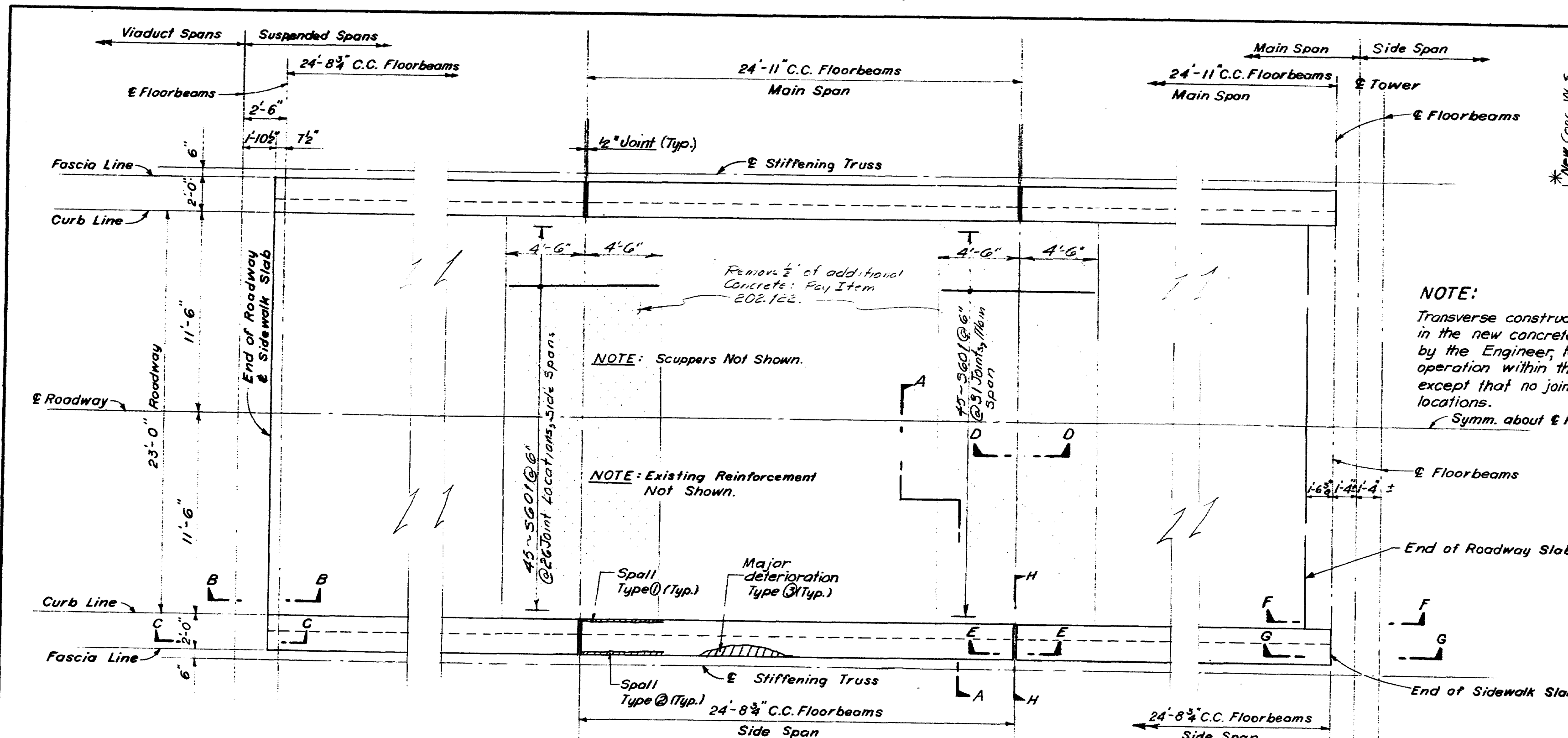
F.R.W.A. Dist. No.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-042-1(31)	21	58



182-132

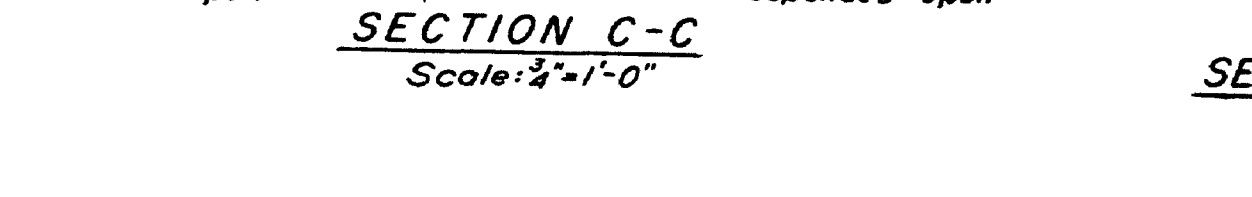
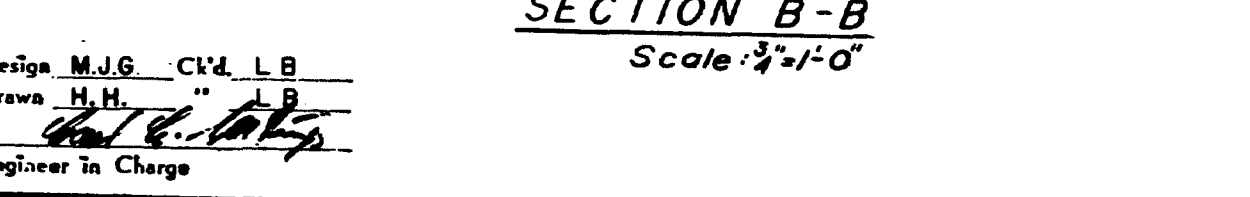
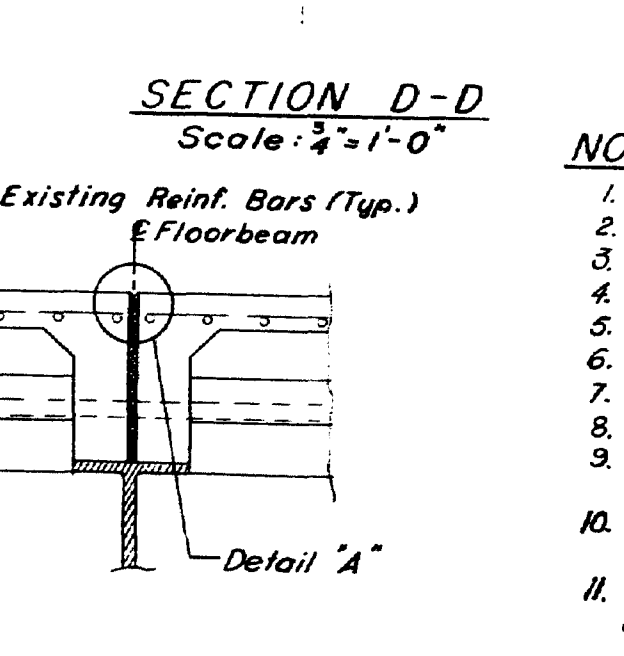
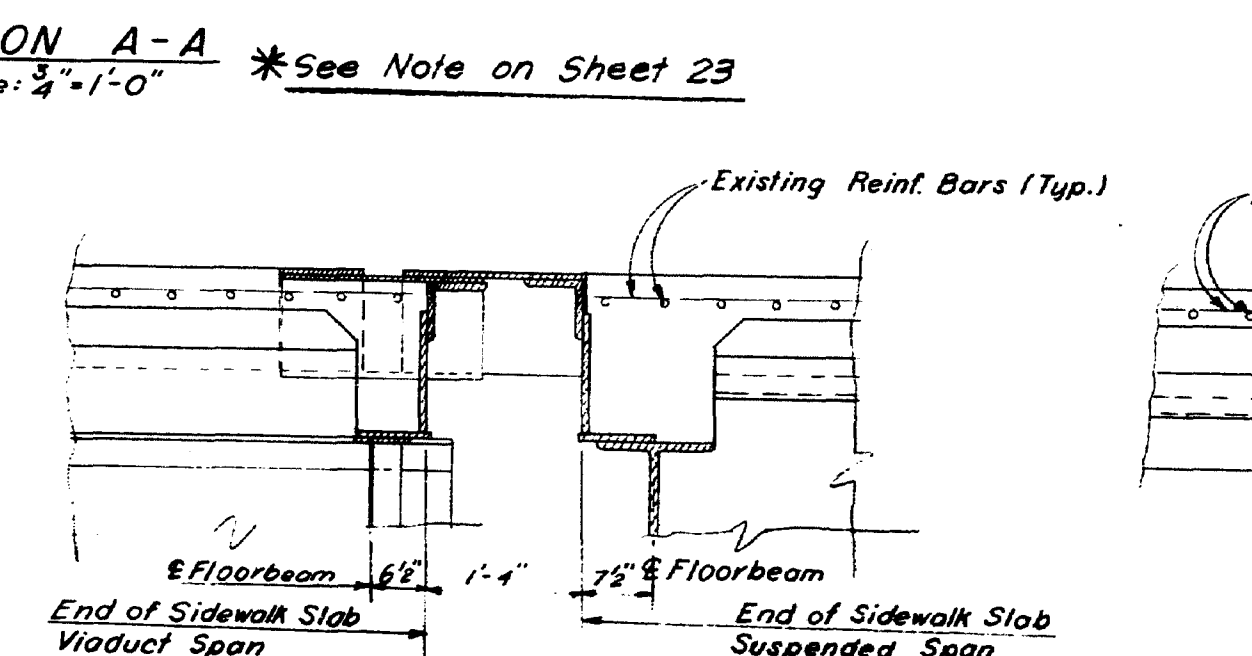
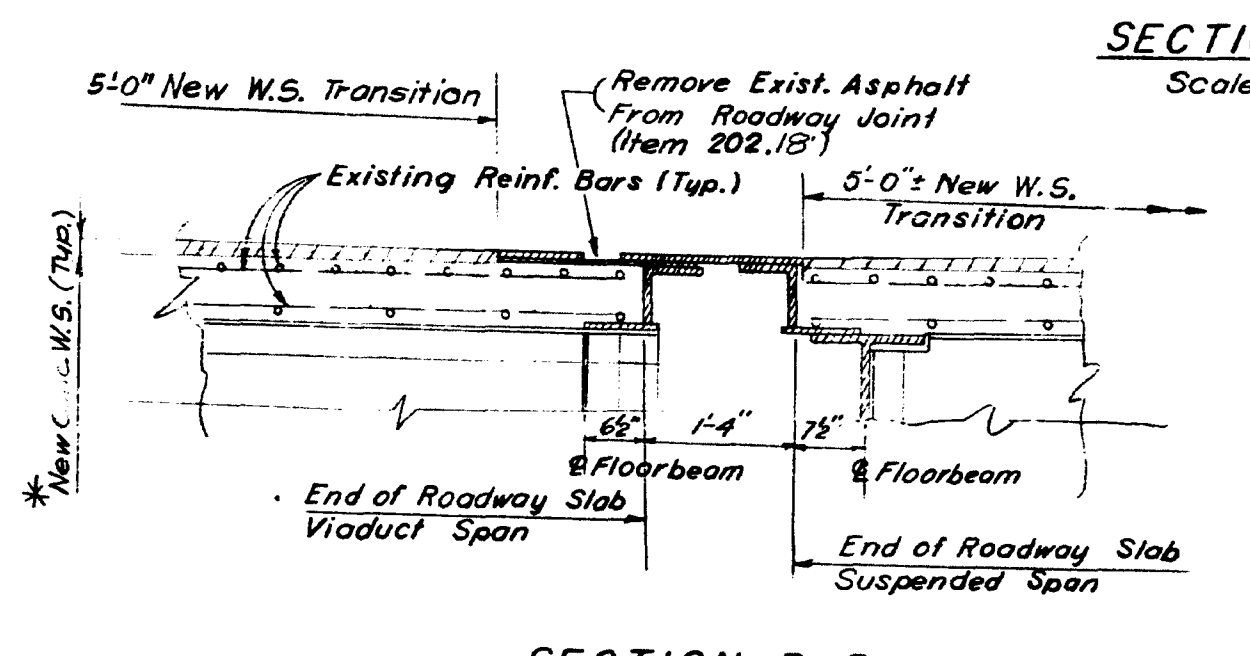
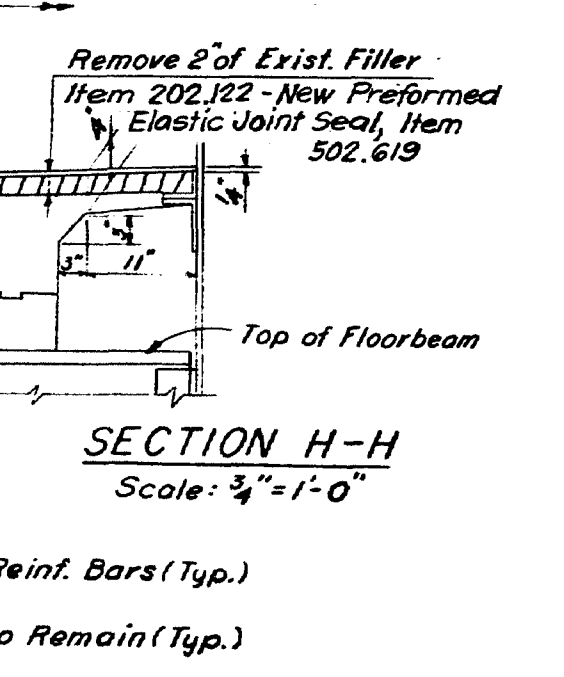
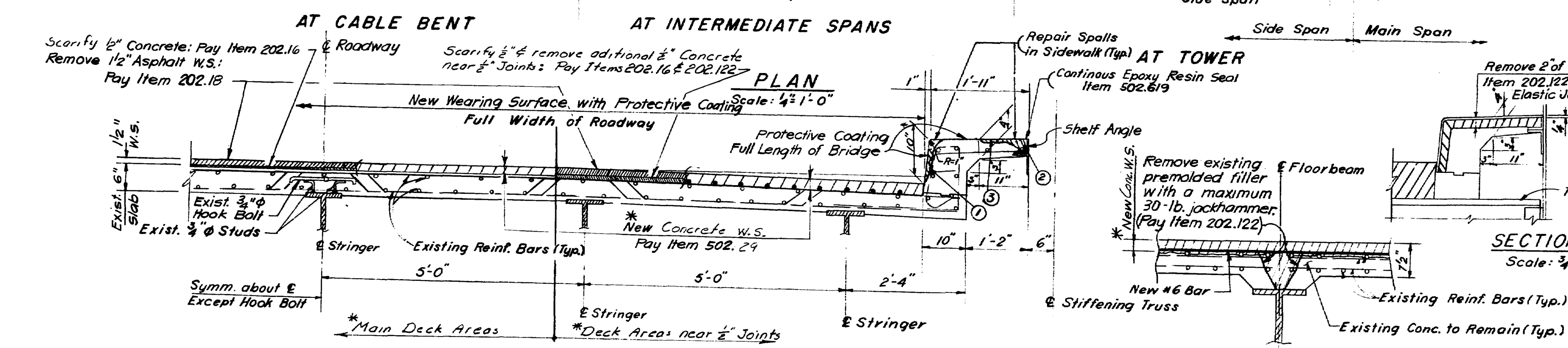
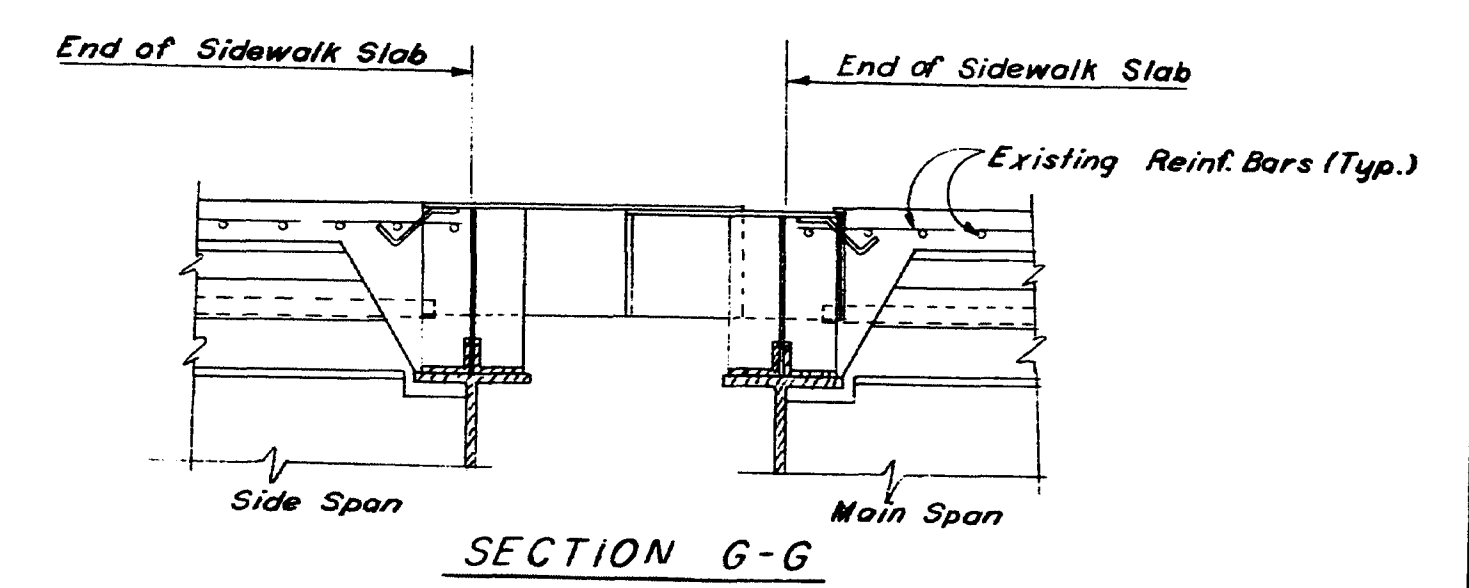


STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	8H-042-1(31)	22	58

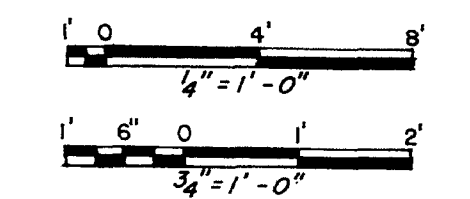


**NOTE:**  
Transverse construction joints will be allowed in the new concrete wearing surface, as approved by the Engineer, to facilitate the Contractor's operation within the allowed working area, except that no joints will be allowed over floorbeam locations.  
Symm. about & Rdwy.

**SECTION F-F**  
Scale:  $\frac{3}{4}$ " = 1'-0"



- NOTES:**
- For General Notes See Sheet No. 3
  - For Existing Deck Reinforcement See Sh. 19, 20 & 21
  - For Scupper Locations And Details See Sh. 19
  - For Bar List See Sh. 25
  - For Expansion Joint at Towers See Sh. 10 & 11
  - For Detail 'A' See Sh. 23
  - For Additional Notes See Sh. 27
  - Type 1 S.W. repair may require form work
  - Type 2 S.W. repair is minor spalling along shelf angle
  - Type 3 S.W. repair is major deterioration that may require form work
  - The joint between sidewalk concrete and the shelf angle shall be sealed with Epoxy Resin the entire length of the bridge. This work shall be incidental to Pay Item 502.619.
  - Apply a protective coating to the new wearing surface and the top and side of the sidewalks full length of the bridge. Pay Item 515.20.
  - Work this drawing with Sheet No. 23.



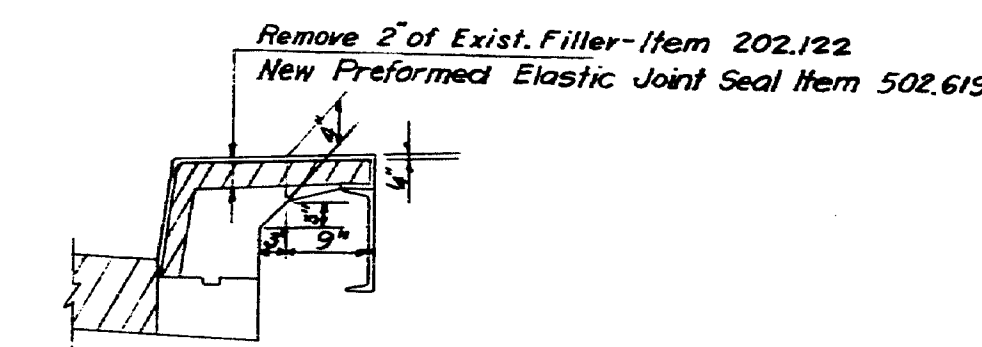
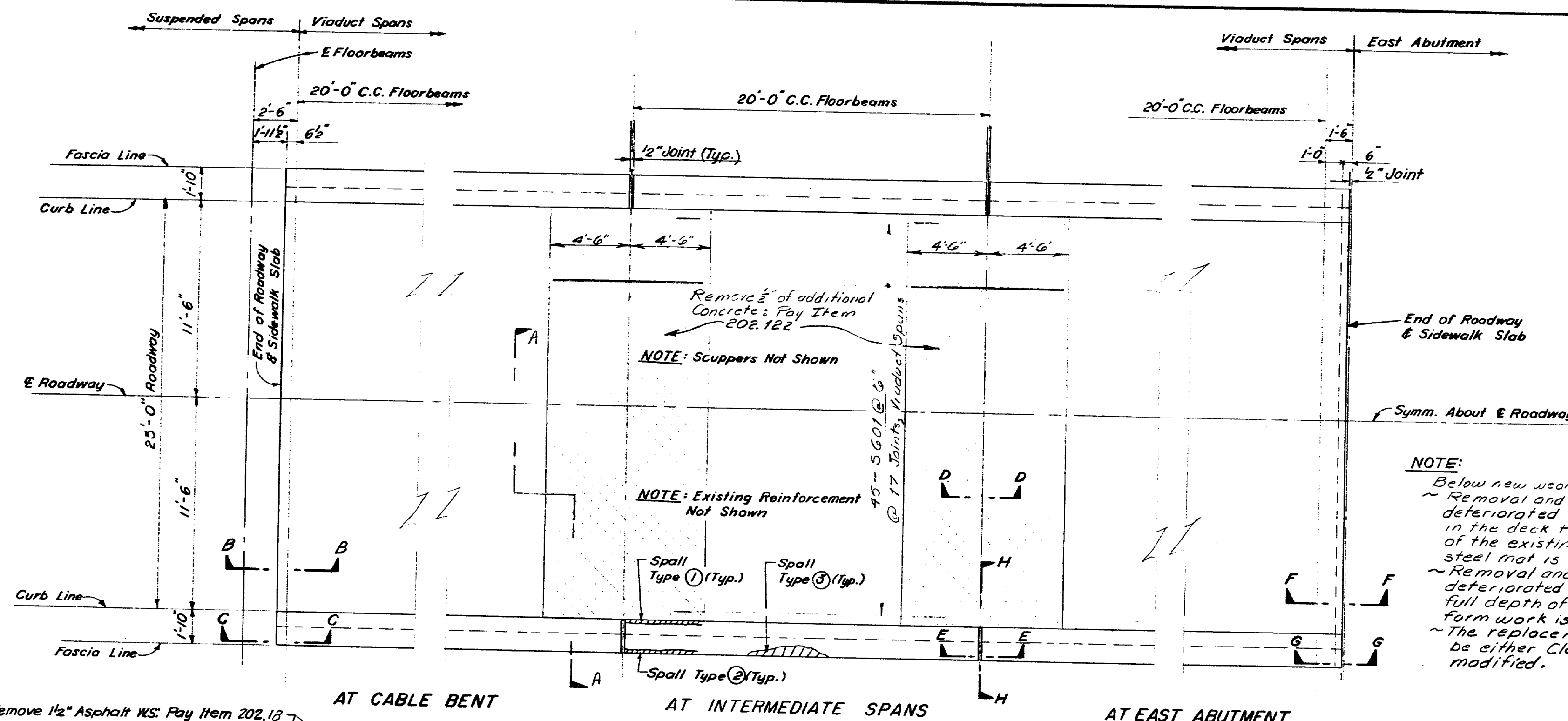
MAINE BUILT 11/85
STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE
DECK REHABILITATION - SUSPENDED SPANS
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: AS SHOWN DATE: 11-22-85 SHEET: 22

Design: M.L.G. C.V.D. L.B.  
Drawn: H.H.  
Engineer in Charge: *[Signature]*

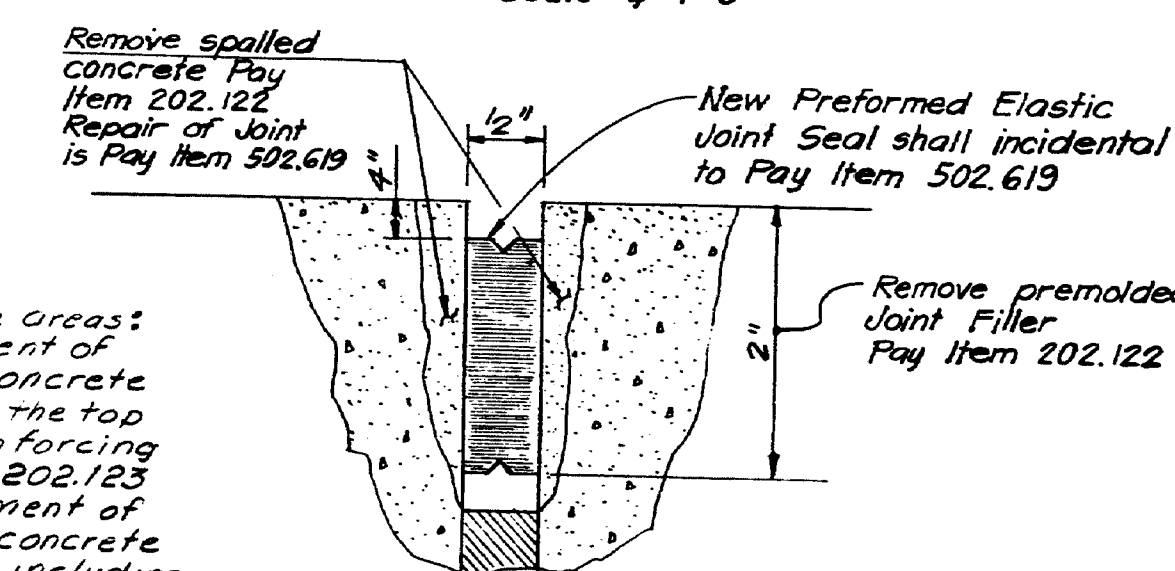
182-133



C.R.W.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	84-042-1(31)	23	58



SECTION H-H  
Scale: 3/4" = 1'-0"



DETAIL "A"  
Scale: 12" = 1'-0"

NOTE:  
Below new wearing surface areas:  
~ Removal and replacement of deteriorated existing concrete in the deck to 2" below the top of the existing top reinforcing steel mat is Pay Item 202.123  
~ Removal and replacement of deteriorated existing concrete full depth of the deck including form work is Pay Item 202.124  
~ The replacement concrete shall be either Class A or Class AA modified.

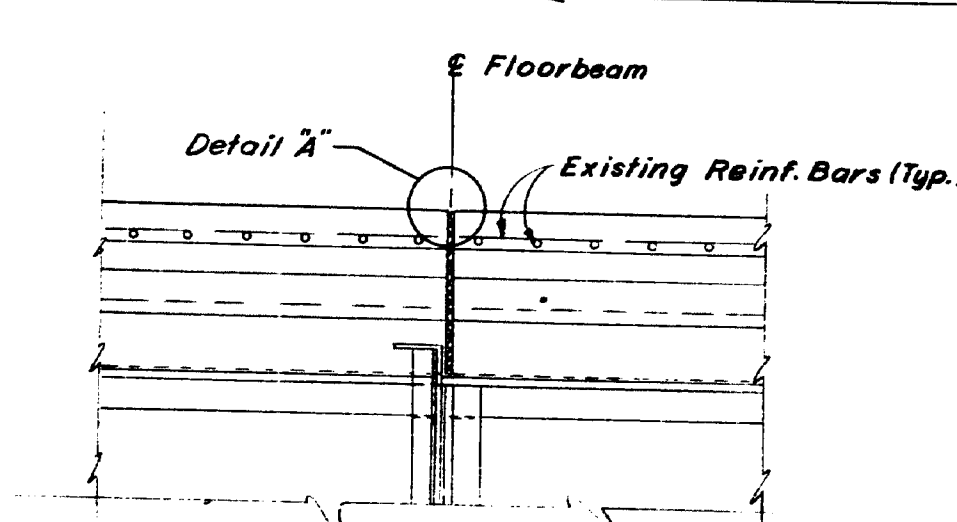
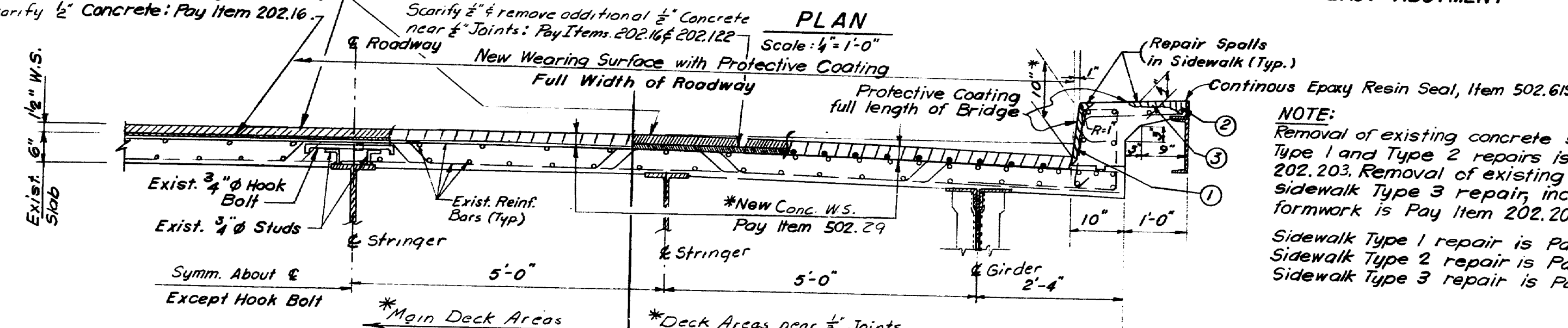
- a) The seal to be furnished shall have a minimum Movement Rating of  $\pm 3/16"$   
b) The seal shall be approved by the Engineer

Remove 1/2" Asphalt W.S. Pay Item 202.18  
Scarify 1/2" Concrete: Pay Item 202.16

AT CABLE BENT

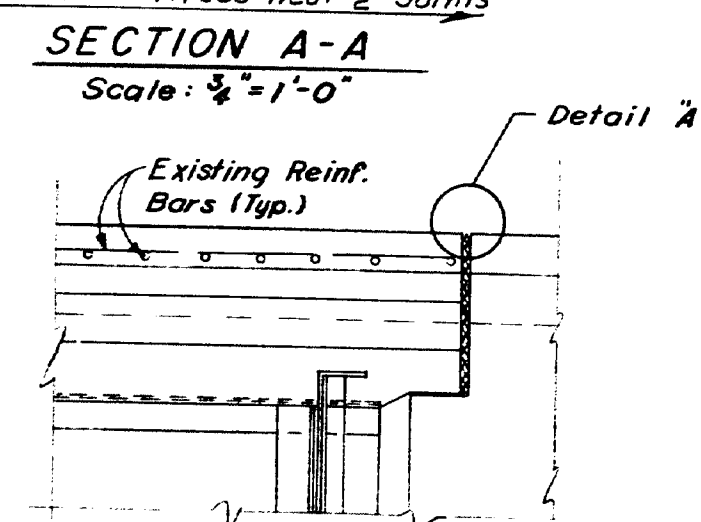
AT INTERMEDIATE SPANS

AT EAST ABUTMENT

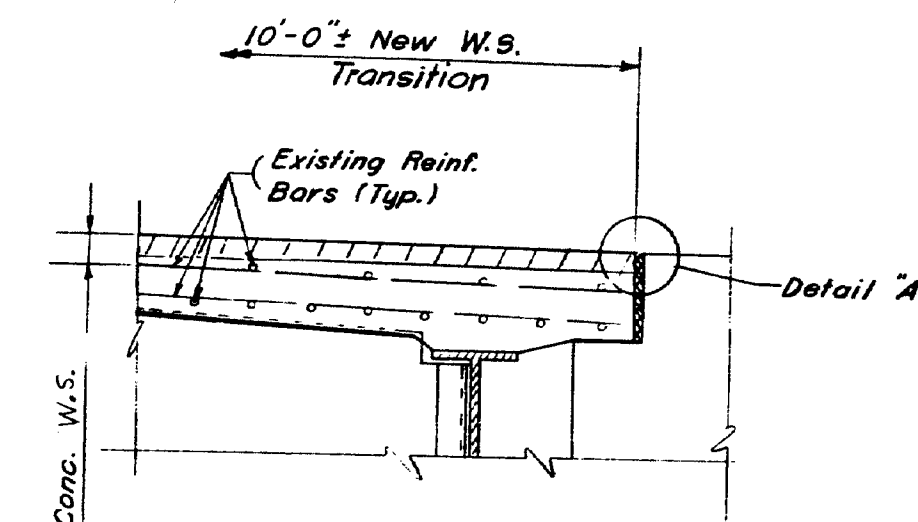


SECTION E-E  
Scale: 3/4" = 1'-0"

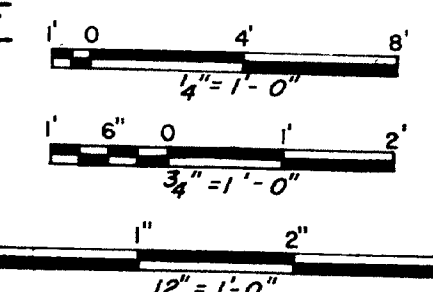
\* NOTE: The existing deck has a parabolic crown with a 2 3/8" rise from curb to 1/2" of deck. At the Contractor's option, the new wearing surface may be installed using either of the following procedures:  
1) Provide a constant 1/2" thick wearing surface, 2 3/8" near 1/2" joints, by returning the deck to its original parabolic cross-section.  
or 2) Provide a variable thickness wearing surface



SECTION G-G  
Scale: 3/4" = 1'-0"



SECTION F-F  
Scale: 3/4" = 1'-0"



SCALES IN FEET

- NOTES:
- For General Notes See Sh. 3
  - For Existing Deck Reinforcement See Sh. 20
  - For Scupper Locations And Details See Sh. 20
  - For Sections B-B, C-C & D-D See Sh. 22
  - For Bar List See Sh. 25
  - For Deck Repairs at East and West Abutments, see Sh. 26
  - For Additional Notes, see Sh. 27
  - Work this drawing with Sheet No. 22
  - The 1/2" W.S. and 1/2" of concrete may be removed the entire width of the bridge. The removal of additional concrete including transverse roadway preplaced fillers shall only take place in protected working areas where there is no traffic.
  - New longitudinal reinforcing bars shall be tied down by mechanical means at 4' intervals.
  - Use maximum 30-lb. jackhammer for any concrete removal.
  - The new wearing surface shall be Concrete Class AA, modified.

182-134

AS BUILT 10/85

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS

WALDO HANCOCK BRIDGE

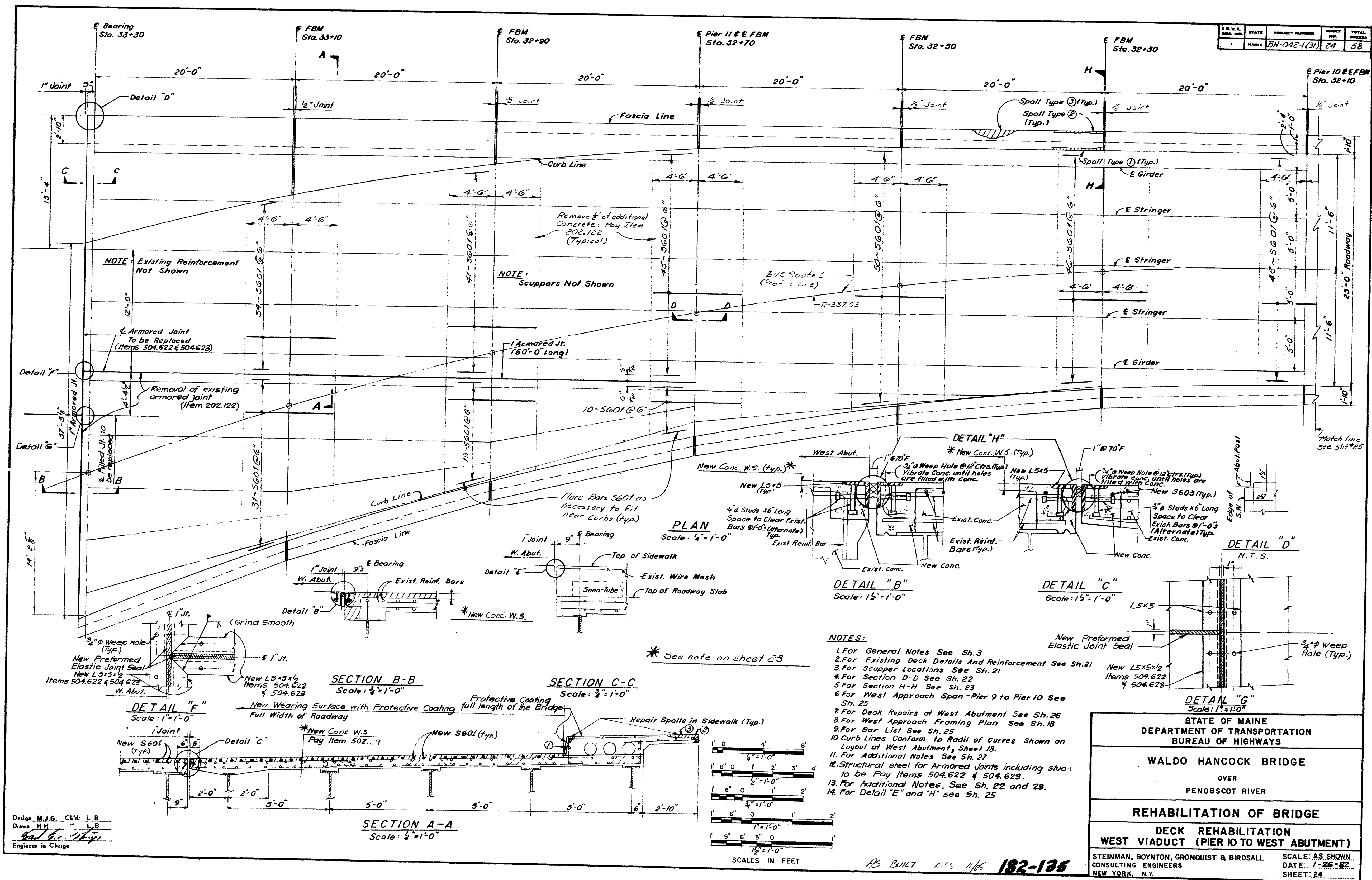
OVER  
PENOBSCOT RIVER

REHABILITATION OF BRIDGE

DECK REHABILITATION - EAST VIADUCT

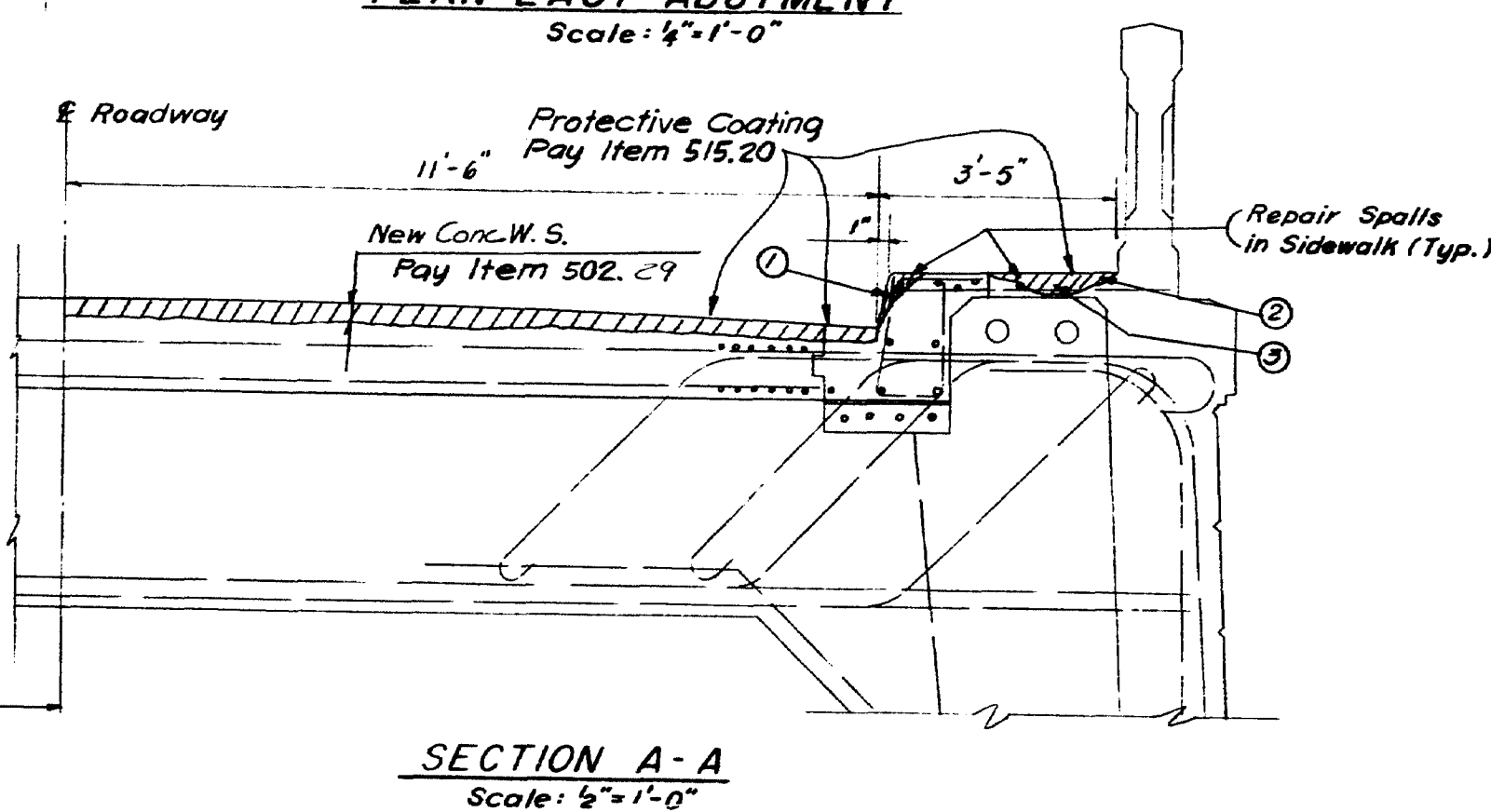
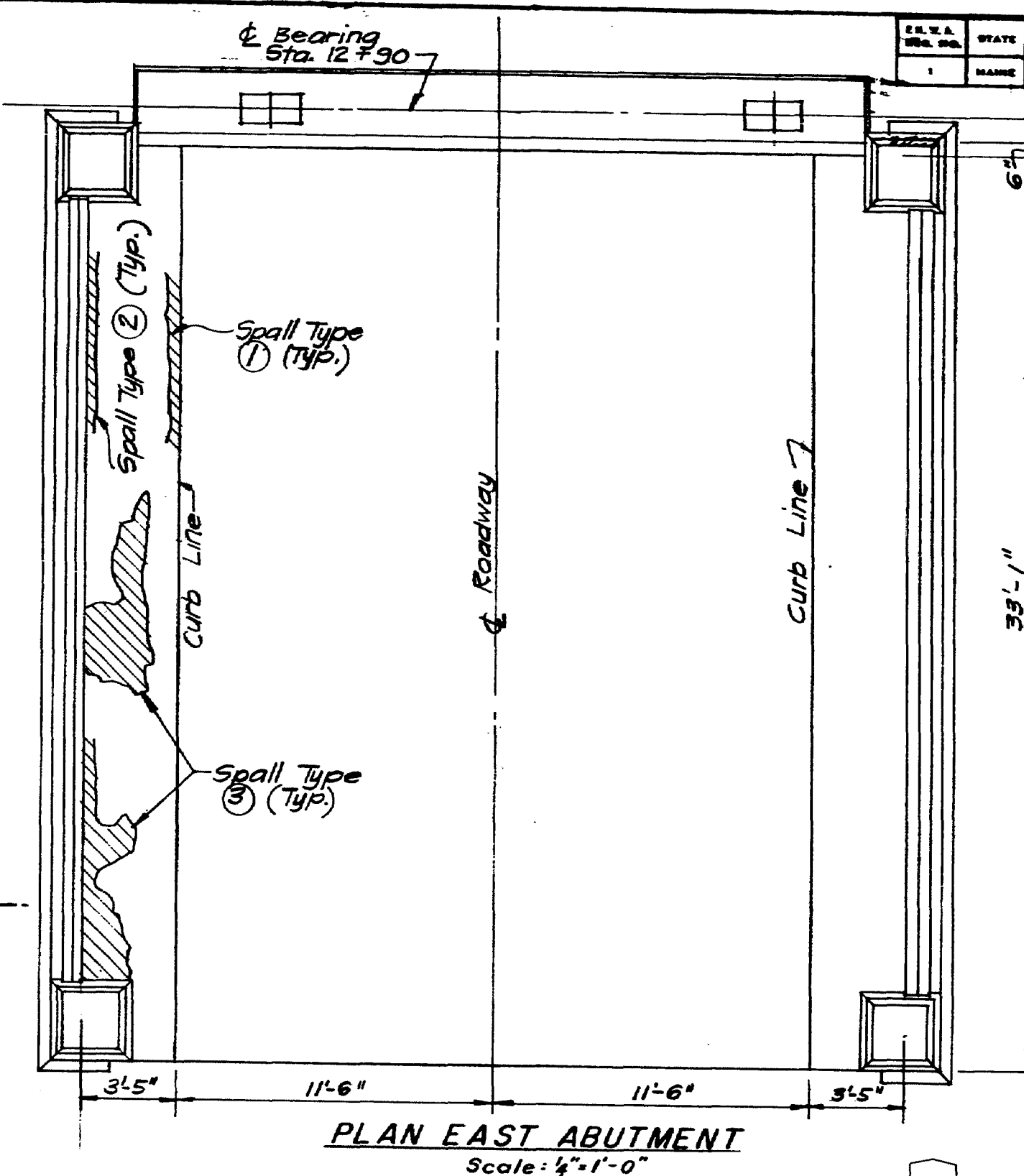
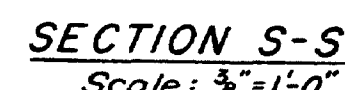
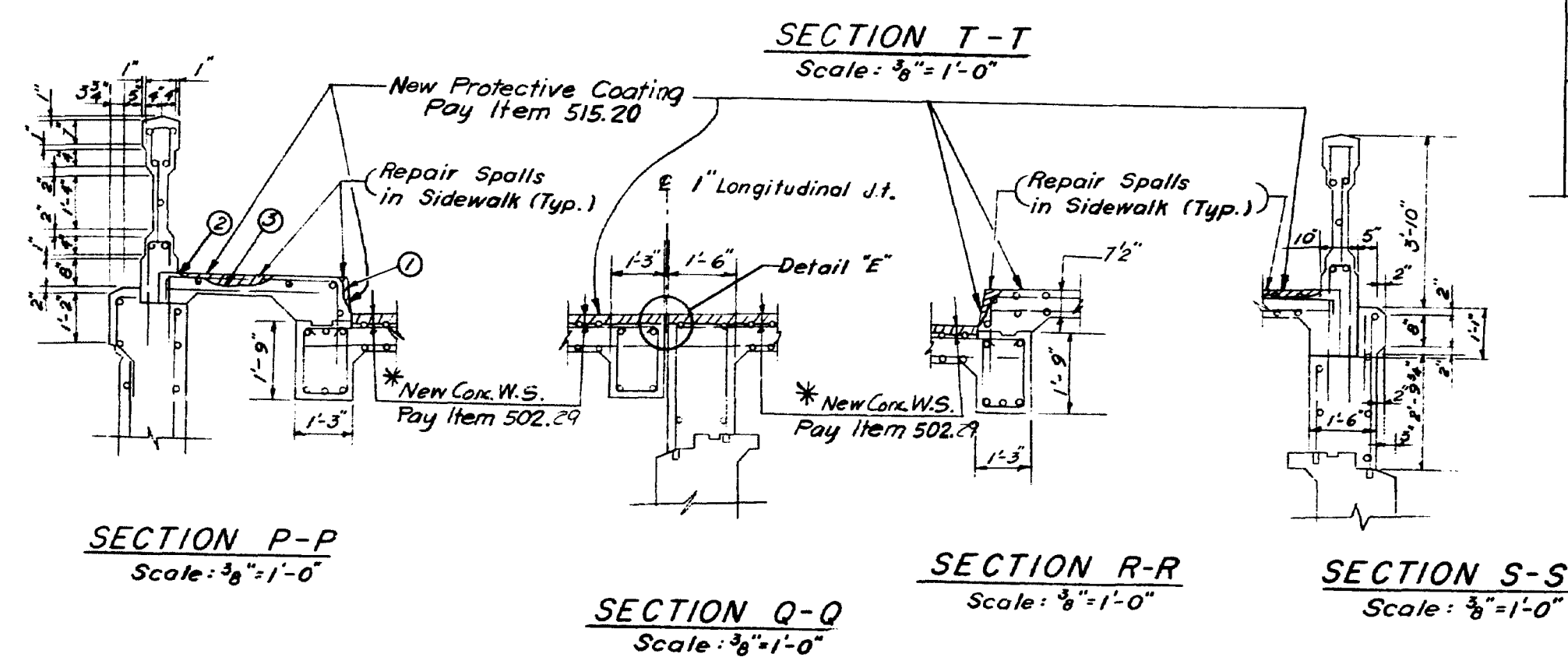
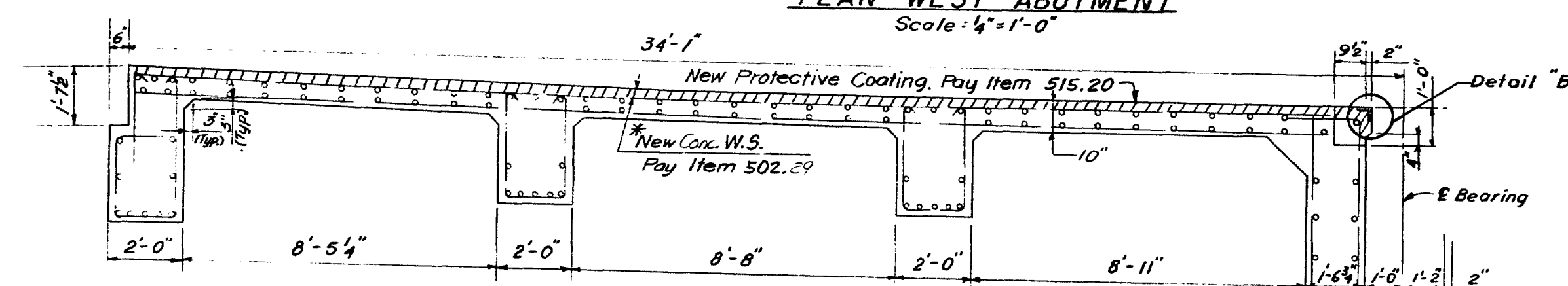
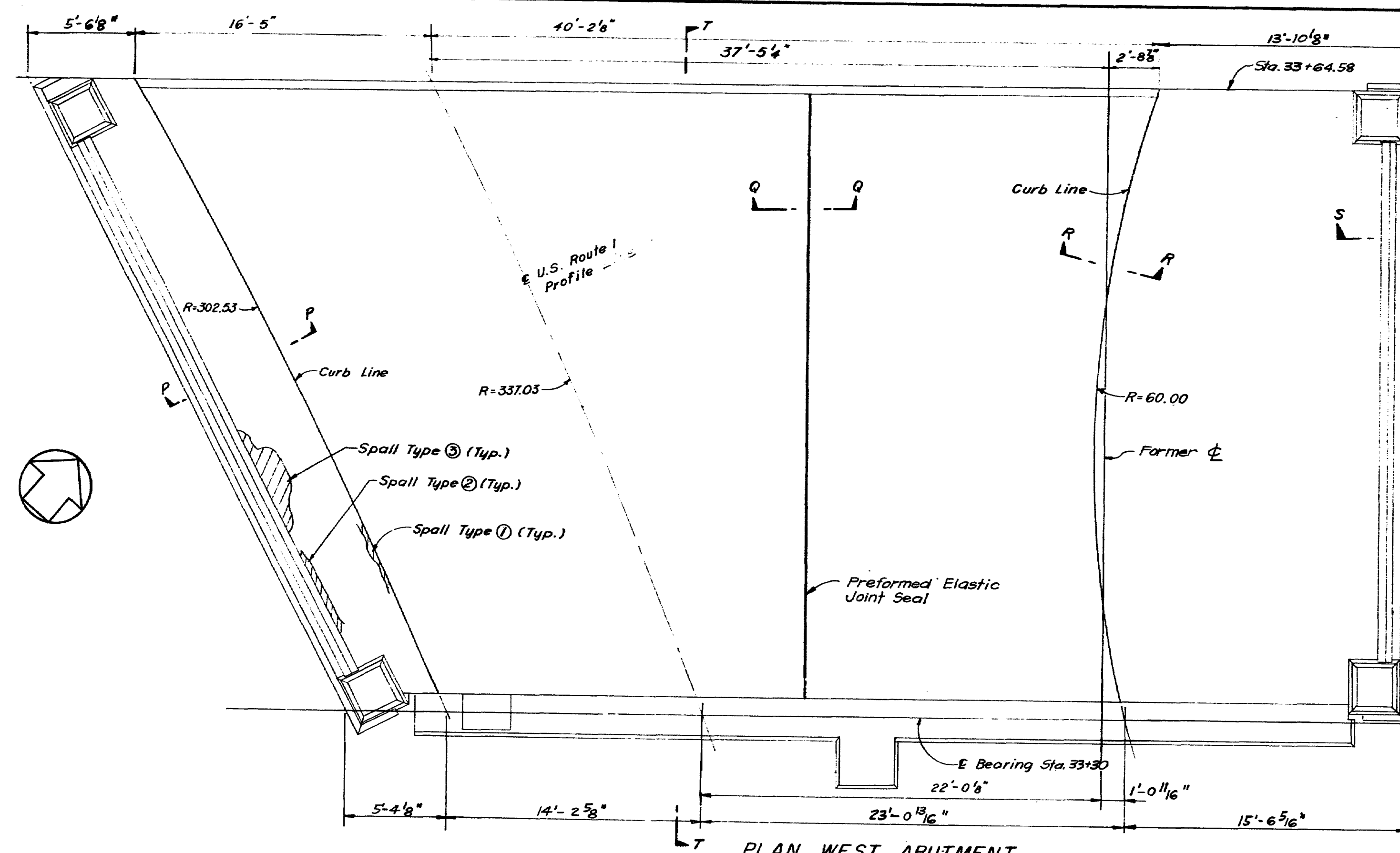
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL  
CONSULTING ENGINEERS  
NEW YORK, N.Y.

SCALE: AS SHOWN  
DATE: 11-22-82  
SHEET 23



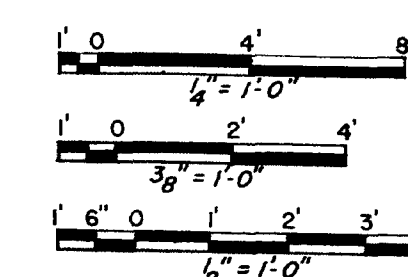






- NOTES:**
1. For General Notes See Sh. 3
  2. For Detail "E" See Sh. 25
  3. For Detail "B" See Sh. 24
  4. All Reinforcing Bars Shown on This Sheet are Existing.
  5. For Additional Notes See Sh. nos. 22, 23 and 27.

\* See note on sheet 23



SCALES IN FEET

AS BUILT KLS 11/85

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF HIGHWAYS

WALDO HANCOCK BRIDGE

OVER  
PENOBSCOT RIVER

REHABILITATION OF BRIDGE

DECK REHABILITATION-EAST & WEST ABUTMENTS

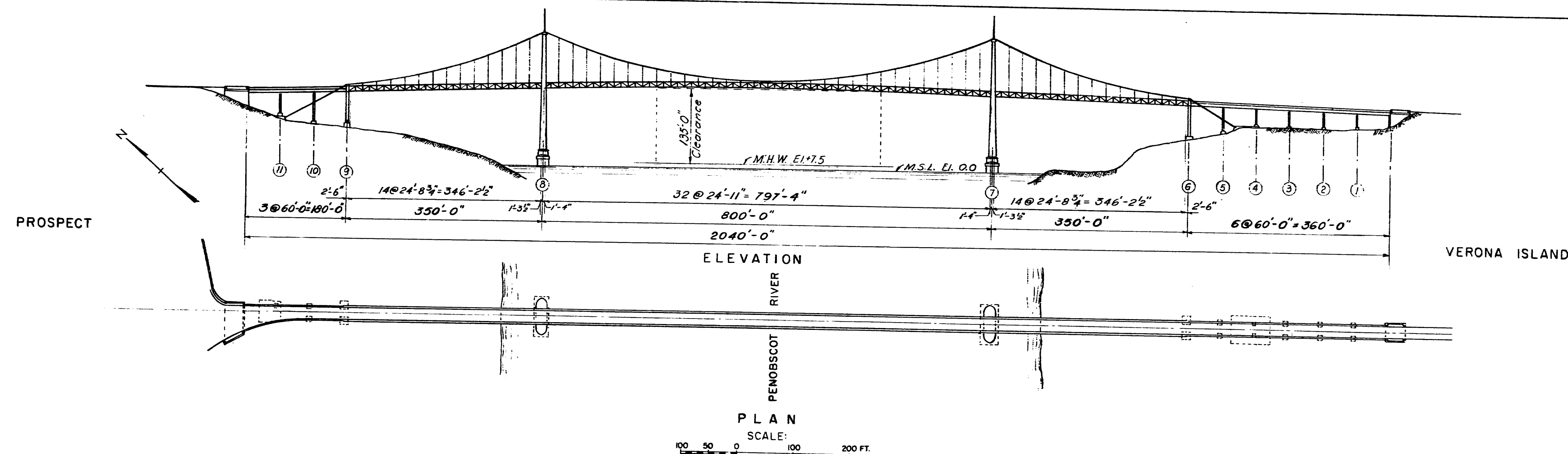
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL  
CONSULTING ENGINEERS  
NEW YORK, N.Y.

SCALE: AS SHOWN  
DATE: 1-26-82  
SHEET: 26

DATE.....  
SHEET: 20

DATE.....  
SHEET: 20

F.R.D.A. SHEET NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-042-1(31)	27	58



#### Painting

The entire bridge shall be painted from abutment to abutment. This includes the superstructure and bearings, the towers both inside and outside, the cable bents on the outside only, the steel bents, the cables, suspenders and handropes with supports.

All surfaces shall be prepared to receive the new paint as specified in Section 506 of "Supplemental Specifications" and amended by "Special Provisions", Section 506.

The existing structural steel having paint surfaces in good condition shall receive only the fourth paint coat-green. Where bare metal is exposed after cleaning, four field coats shall be applied as per "Special Provisions", Section 506.

New structural steel, including center ties, cable bands, cable shields and louvers at anchorages and doors in abutments, expansion joints at towers and bearings at cable bents shall be painted as per "Supplemental Specifications", Subsection 506.05.

Cables, suspenders and handropes shall be painted as specified in "Special Provisions", Section 506.

For estimating purposes the following approximate quantities of steel are listed:

Existing Items	Unit	Quantity
Structural Steel	Tons	1,880
Cables	L.F.	3,600
Suspenders	L.F.	7,800
Handropes	L.F.	6,200

New Items	Unit	Quantity
Structural Steel	Tons	45
Suspenders	L.F.	53

#### NOTE:

For General Notes See Sheet No. 3

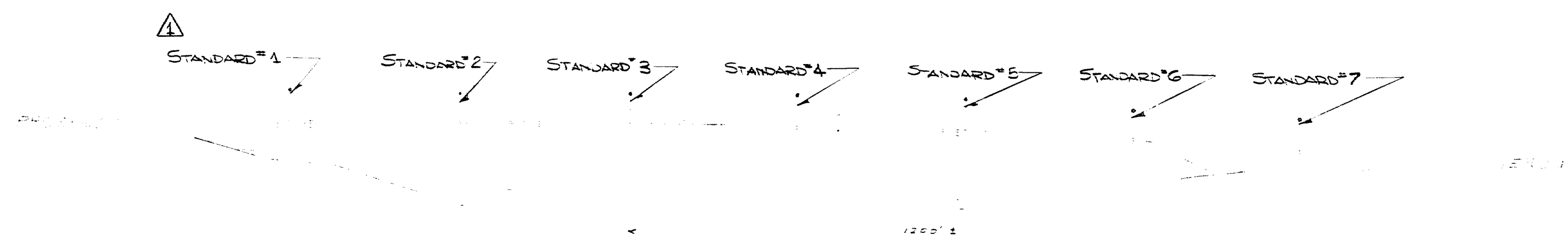
AS BUILT K'S 11/85

STATE OF MAINE DEPARTMENT OF TRANSPORTATION BUREAU OF HIGHWAYS
WALDO HANCOCK BRIDGE OVER PENOBSCOT RIVER
REHABILITATION OF BRIDGE REHABILITATION OF DECK AND PAINTING OF BRIDGE
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL CONSULTING ENGINEERS NEW YORK, N.Y.
SCALE: DATE: 1-26-82 SHEET 27

Design: C.M.  
Drawn: H.H. M.J.G.  
Engineer in Charge: *[Signature]*

182-138

NOTES:  
LIGHT STANDARDS 1, 2, 3 ARE EXISTING.



— ELEVA A 7222 —

... *... ..*

11/16/2011 10:03:00 AM

1. Install brackets as shown on the bracket detail sheet. There are different details for each pole location.
2. Extend 2" conduit from the existing terminated conduit to the remaining light pole brackets. Install conduit at brackets and junction boxes or expansion joints as shown on the lighting system detail sheet. Provide pull wires as necessary.
3. Install light standards 4 thru 7 similar to existing 1 thru 3 locations. Light standards 4 thru 7 will be provided by the Traffic Engineering Section. The light standards will be stored at Searsport Maintenance Lot. To get access to the poles the Resident shall make all arrangements with Division 5 Office in Rockland.
4. Install 3 conductors number 2 AWG copper into the conduit system and provide extra wire at pole locations. Make all the necessary connections in junction boxes and at the light standard base. Install 3/4" ID AWG THHN in poles and bracket arms to the light fixture and make all necessary connections at the base using connector kits.
5. Install 150 Watt High Pressure Sodium Type M-C-II distribution. Ballast voltage shall be 240V. Make all necessary electrical connections.
6. The existing navigational lighting system shall be installed as shown on the details. The navigational lights shall be energized from the lighting circuit.
7. The power source for the lighting system shall be from the existing system. The cabinet and controls are on the Rockport end of the bridge. During the installation the Contractor shall provide his own padlock. When the project is completed the Contractor shall remove his padlock and reinstall the MDOT padlock provided in the cabinet.

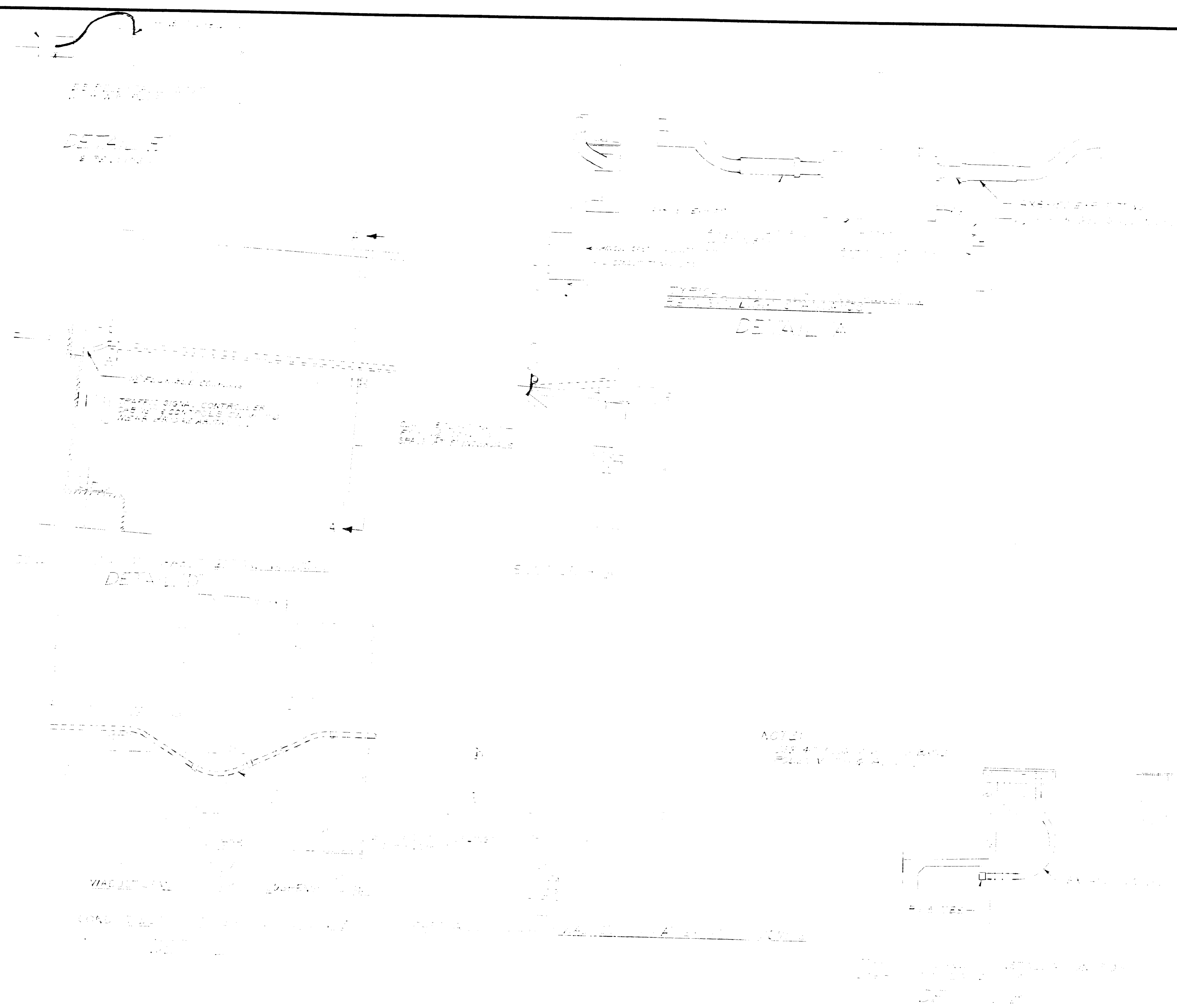
**182-139**

**SHEET 28 OF AUGUSTA, MAINE**



F.H.A. PLAN NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	84-0421(31)	29	38

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	SA/M/L	11-7-74
CHECKED		
REVISIONS		
FIELD CHANGES	AS NOTED	
<b>PLANS</b>		



182-140

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

BRIDGE - HANCOCK  
BRIDGE SYSTEM  
DETAILS

SHEET 29 OF  
AUGUSTA, MAINE

F.H.E.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOT SHE
1	MAINE	BH-042-1(31)	30	58

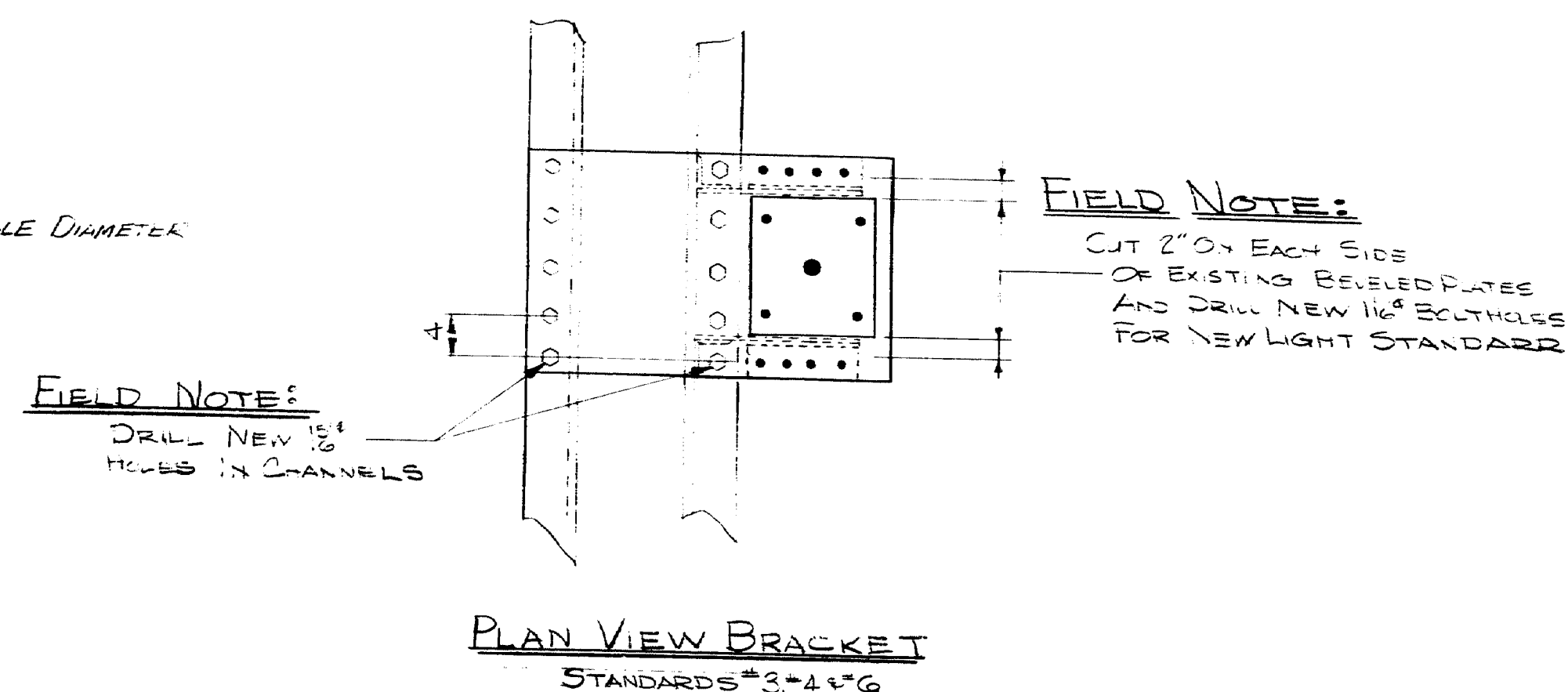
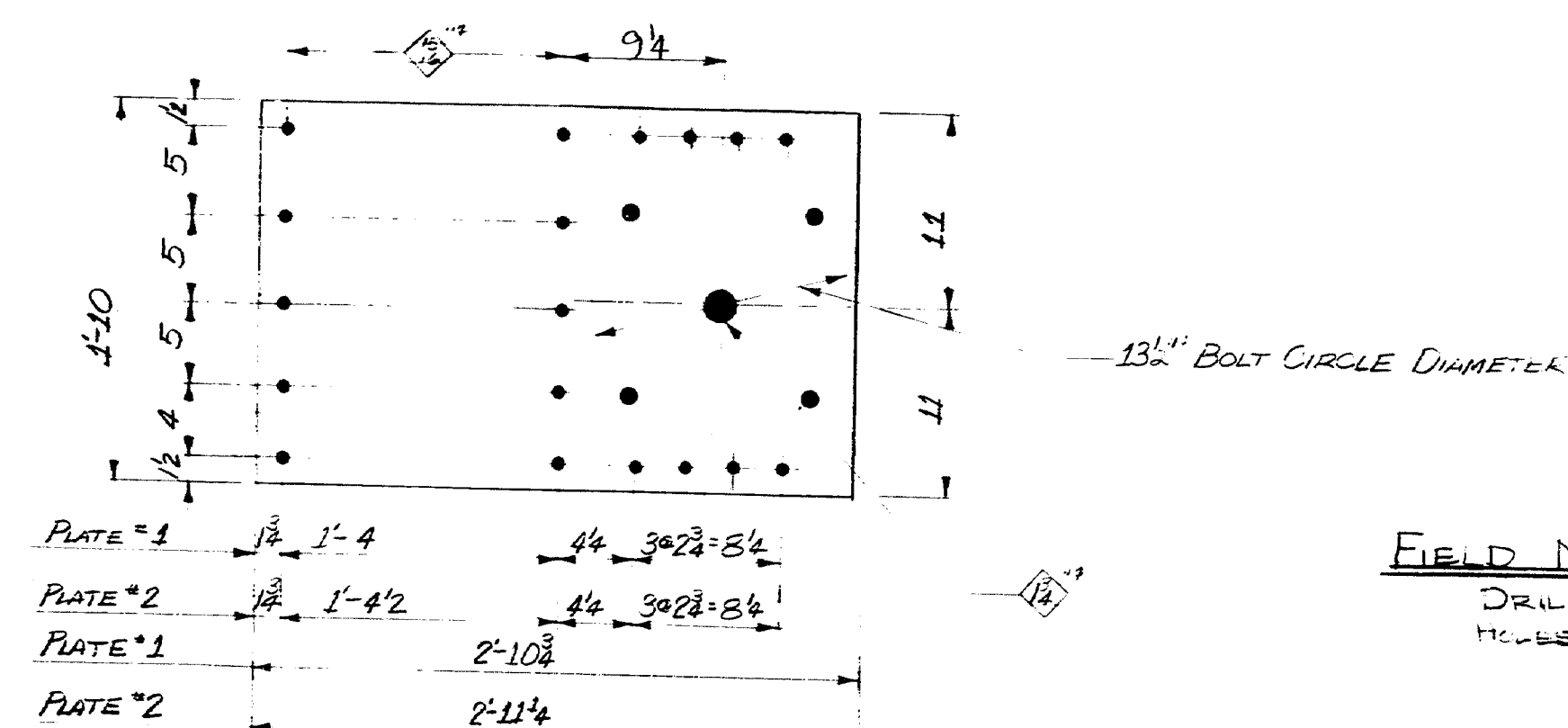


PLATE #1 - R1'x22x2'-10<sup>3</sup> - ONE REQ'D (STANDARD #6)  
PLATE #2 - R1'x22x2'-14<sup>4</sup> - 4 REQ'D (STANDARD #2, 3, 4 & 5)

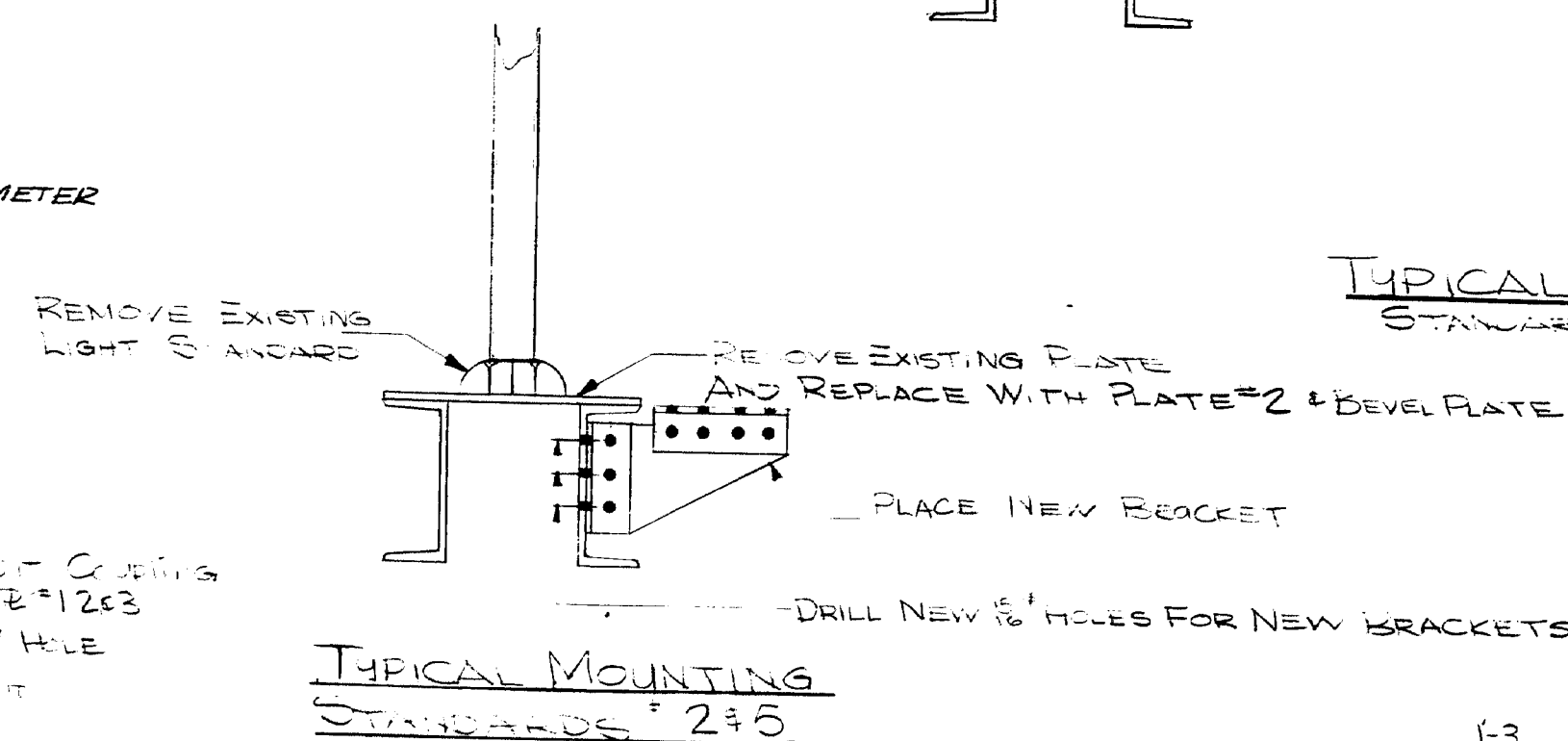
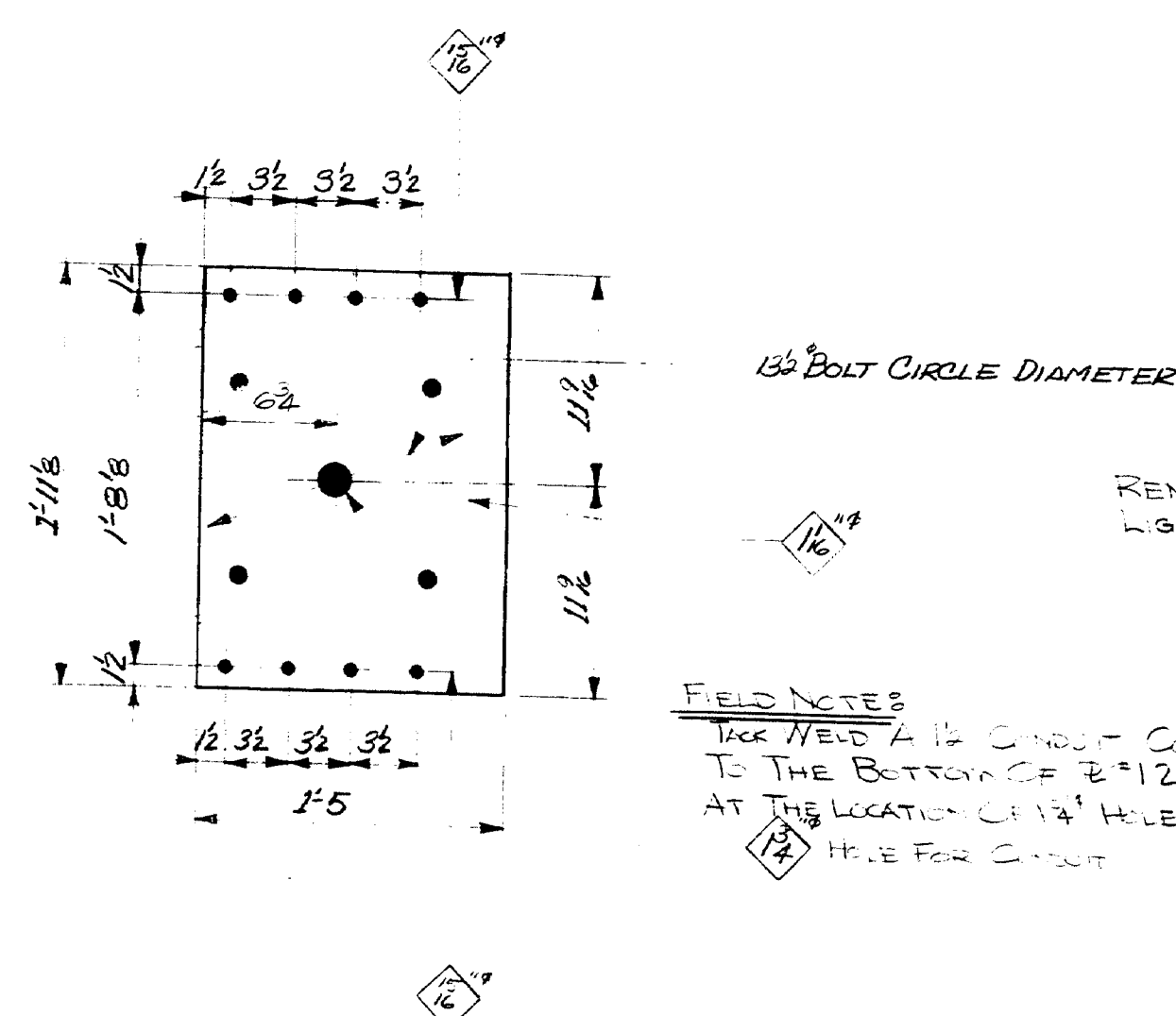
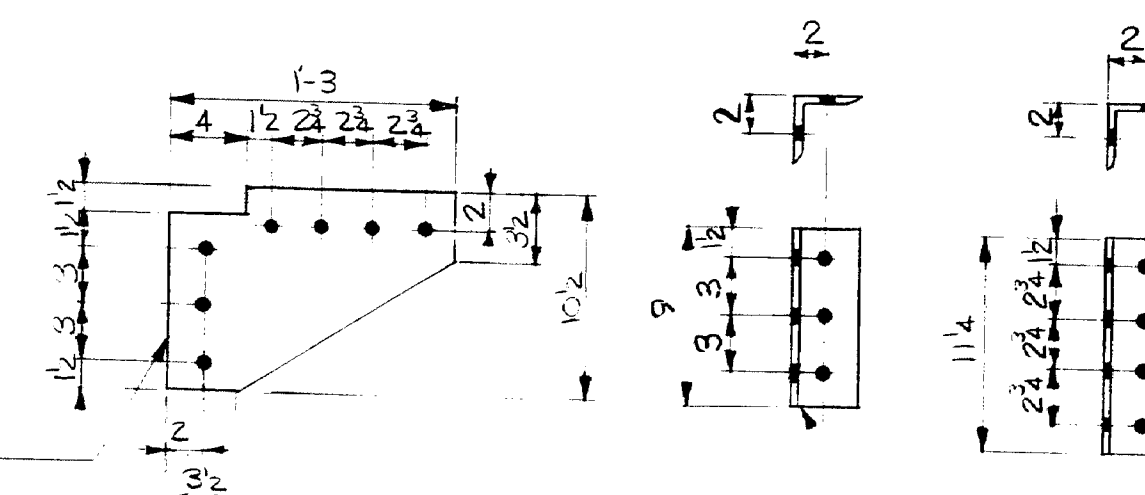
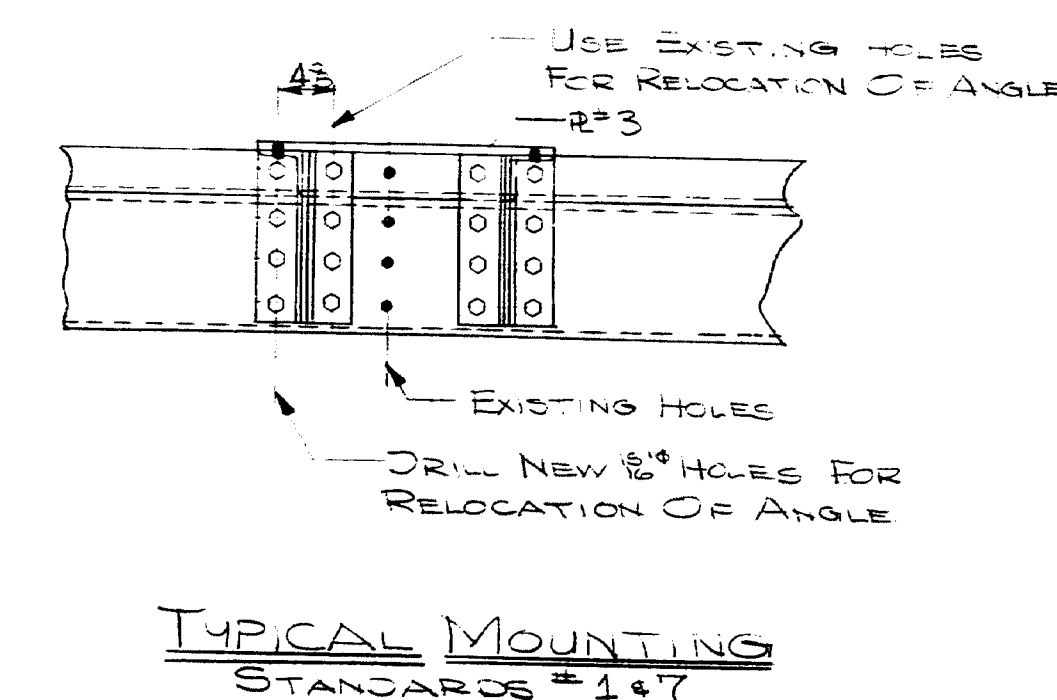
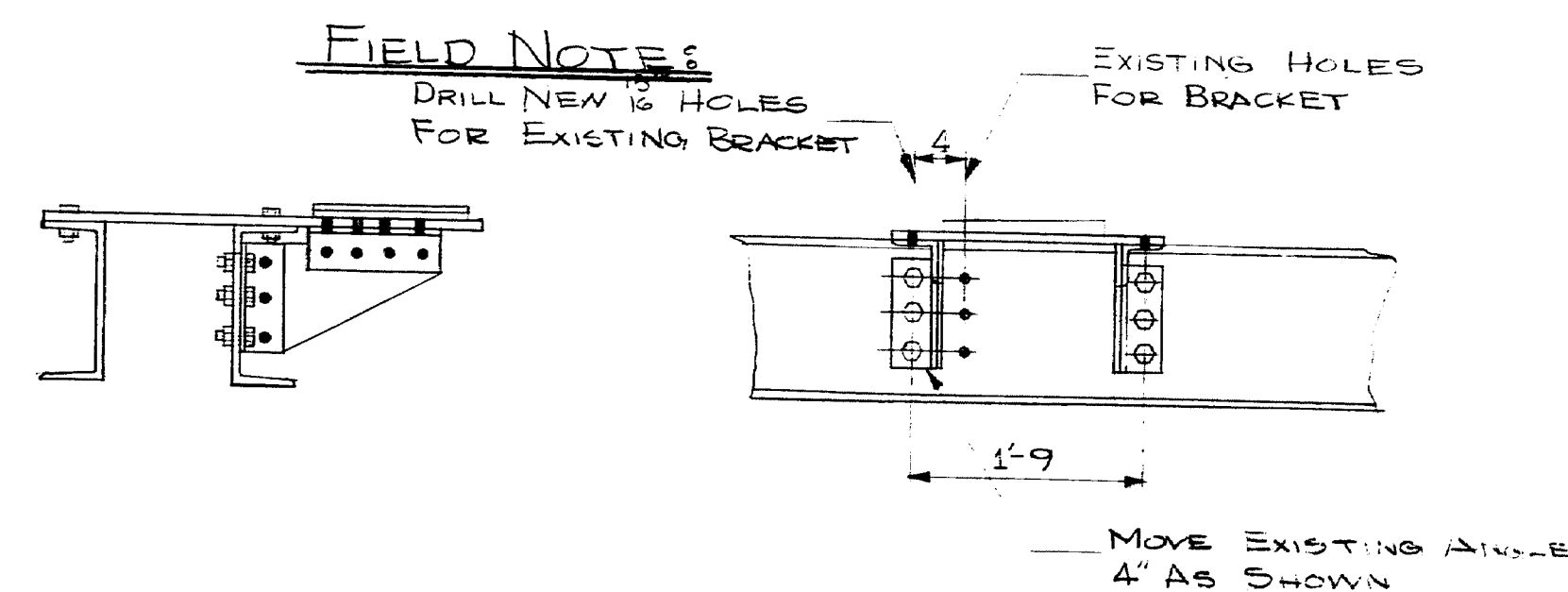


PLATE #3- R1\*17\*1-11/8-2 REQ.D (STANDARDS# 17)



FIELD NOTE:  
USE TO MAKE BRACKETS  
FOR STANDARDS # 2 & 5

PLATE = 4 - 4 REQ'D  
ANGLE = 1 - 4 REQ'D  
ANGLE = 2 - 4 REQ'D

ALL STEEL TO BE A-36  
NOTE:  
ALL BOLTS TO BE  $\frac{7}{8}$ " A-325 + S.

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

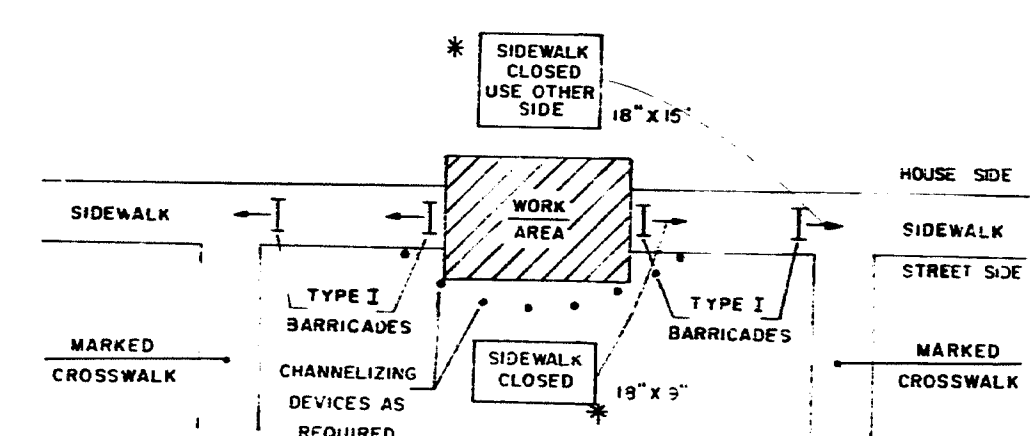
**WALDO-HANCOCK BRIDGE**  
**OVER**  
**PENOBSCOT RIVER**  
**BETWEEN THE TOWNS OF**  
**PROSPECT & VERONA**

### BRACKET DETAILS

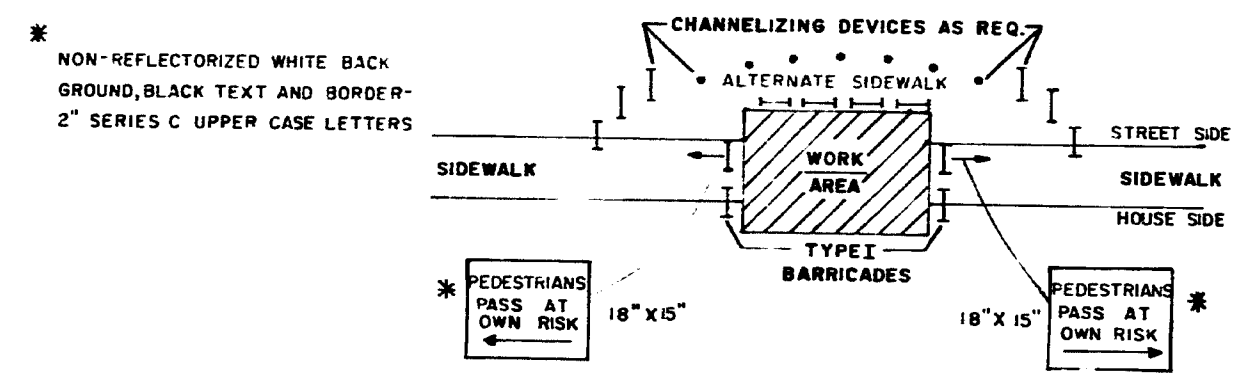
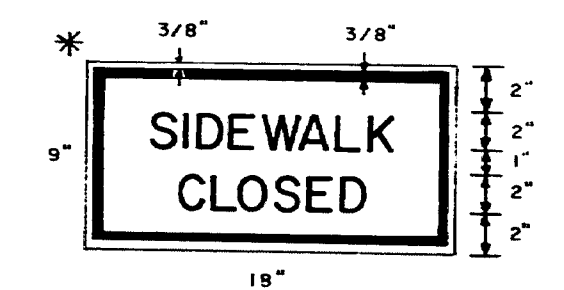
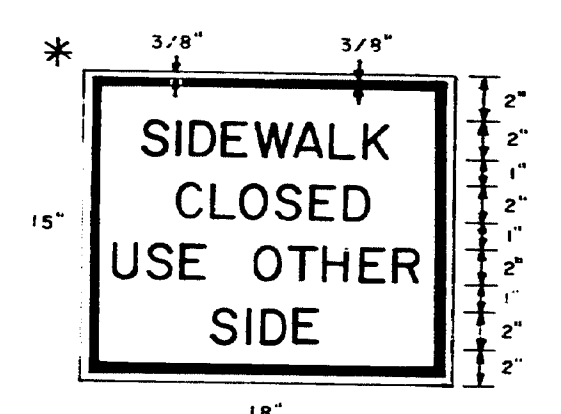
SHEET 30 OF AUGUSTA, MAINE OCT. 19, 1977

F.R.E.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	8H-042-1(31)	31	58

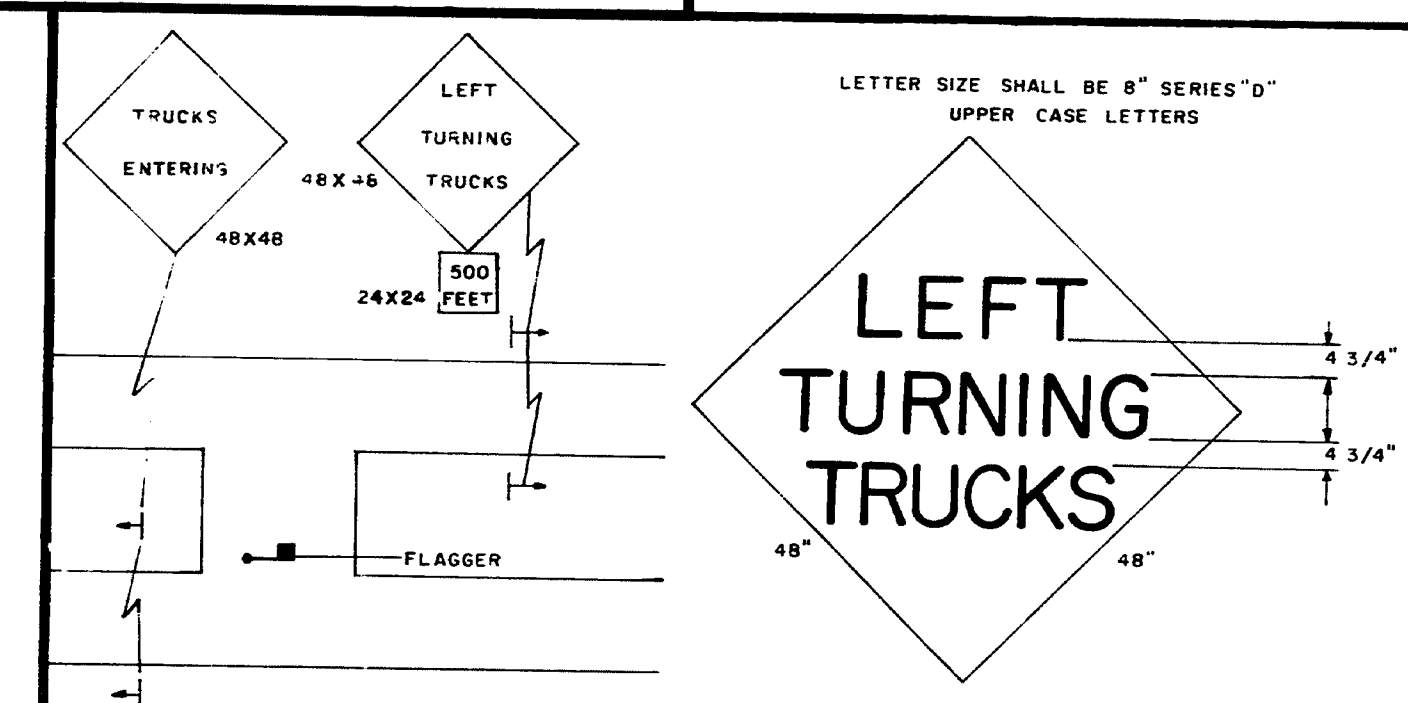
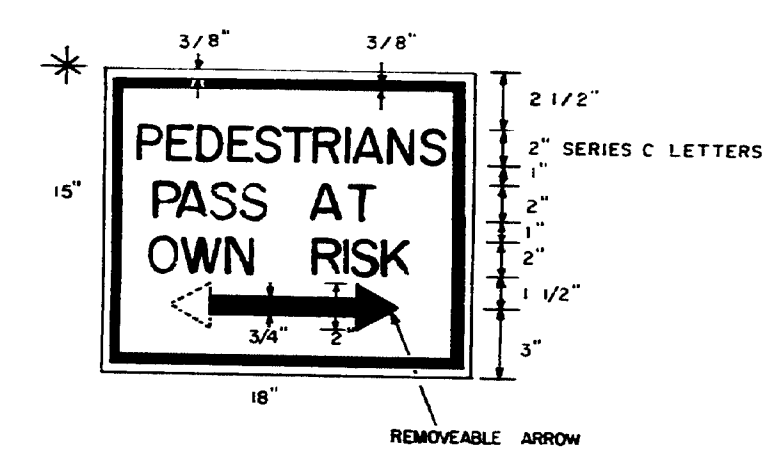
\* NON-REFLECTORIZED WHITE BACKGROUND, BLACK TEXT  
AND BORDER 2" SERIES C UPPER CASE LETTERS



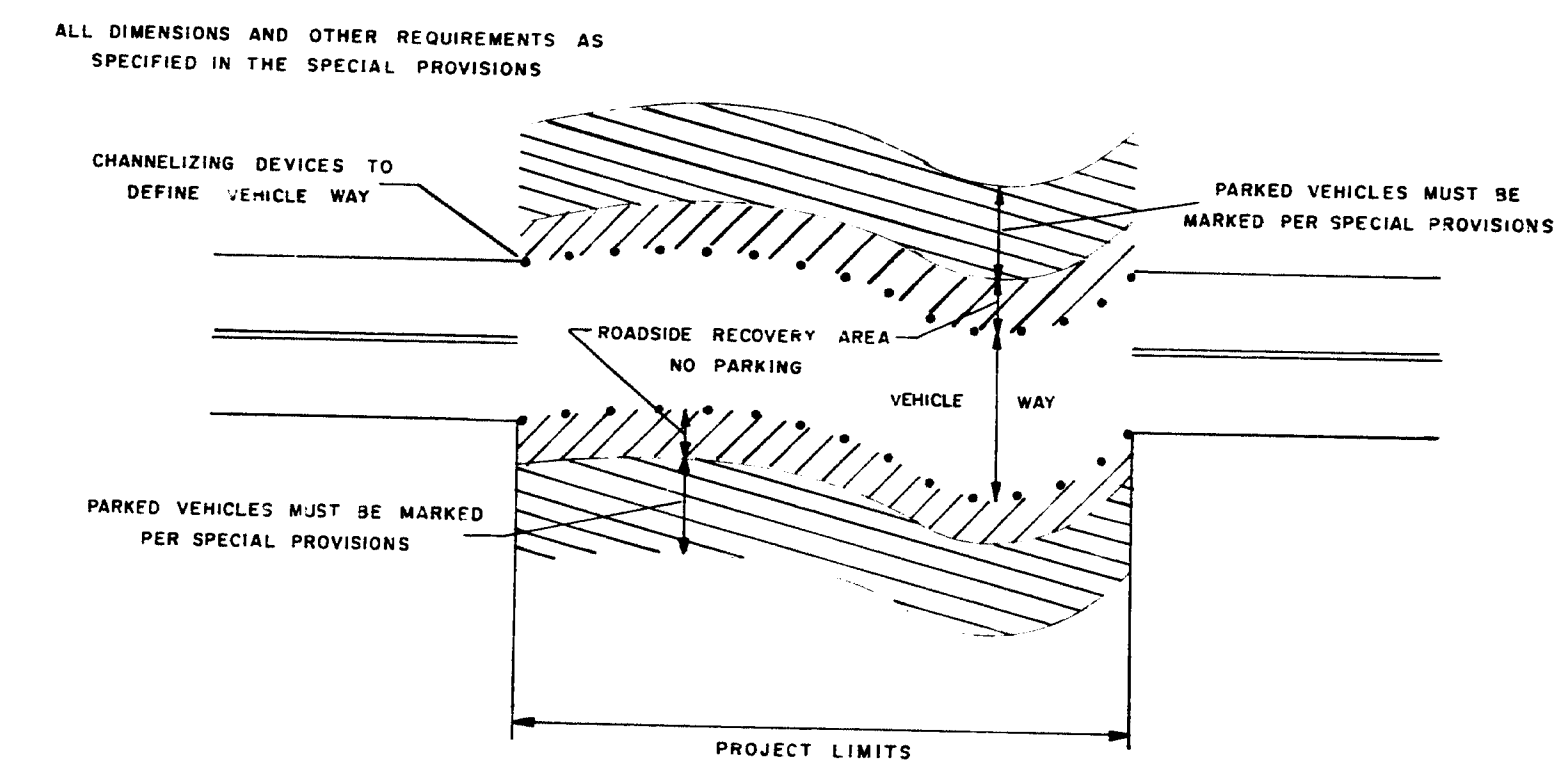
**SIDEWALK CLOSURE  
WITHOUT ALTERNATE SIDEWALK**



**SIDEWALK CLOSURE  
WITH ALTERNATE SIDEWALK**

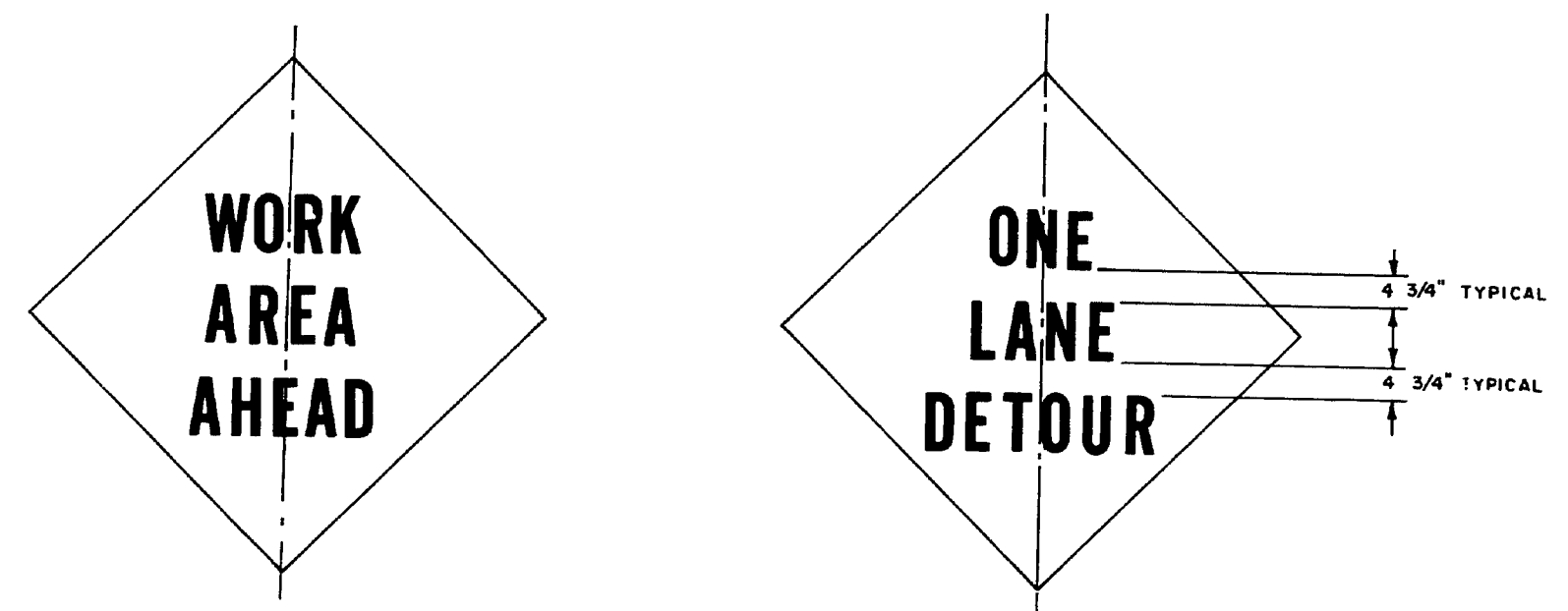


**MEDIAN CROSSOVER**



**ROADSIDE RECOVERY AREA**

**CONSTRUCTION WARNING SIGN DETAIL**



1. Letter size shall be 3" Series 'D'.
2. Border dimensions and legend design shall conform to "Standard Highway Signs".

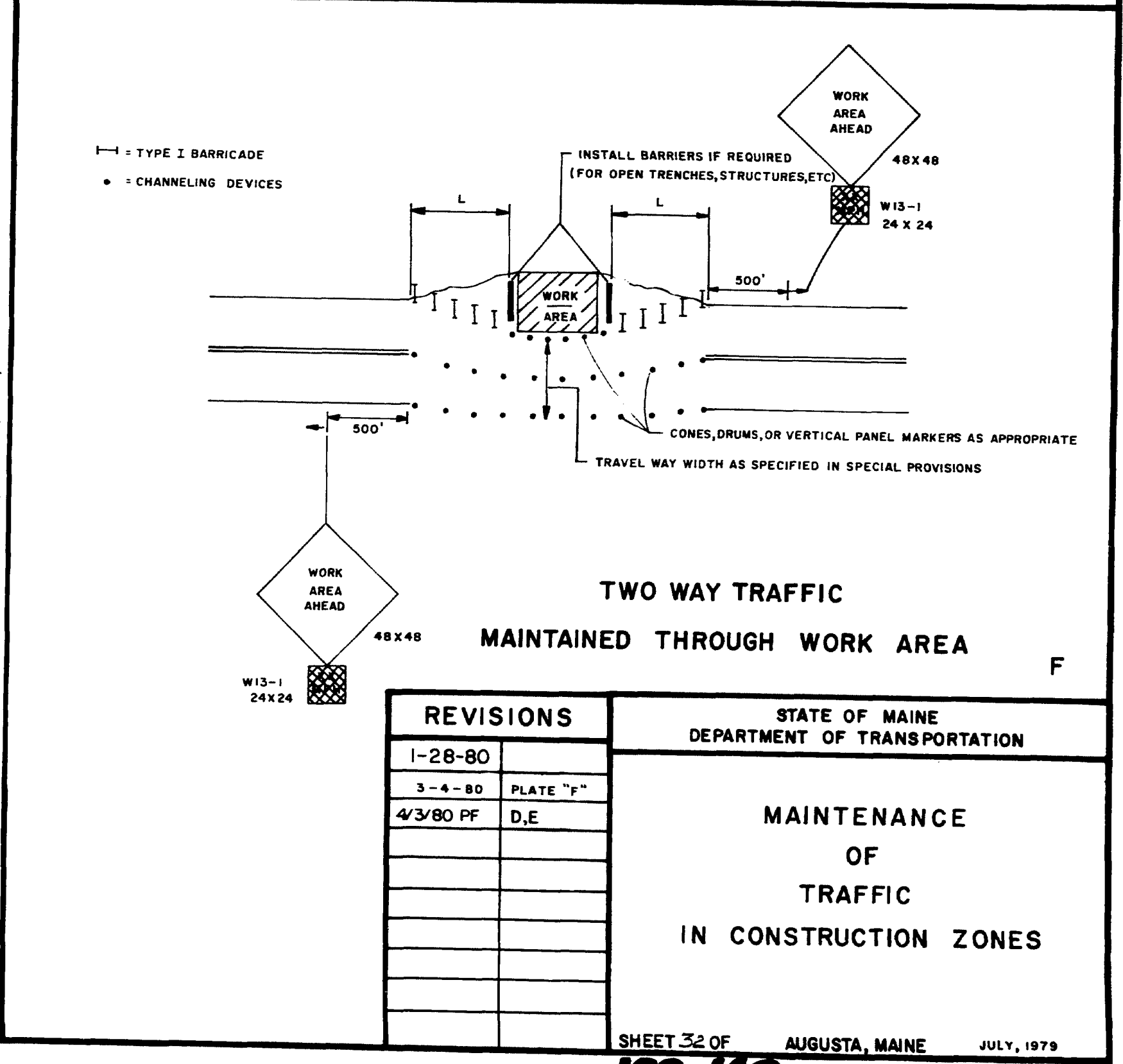
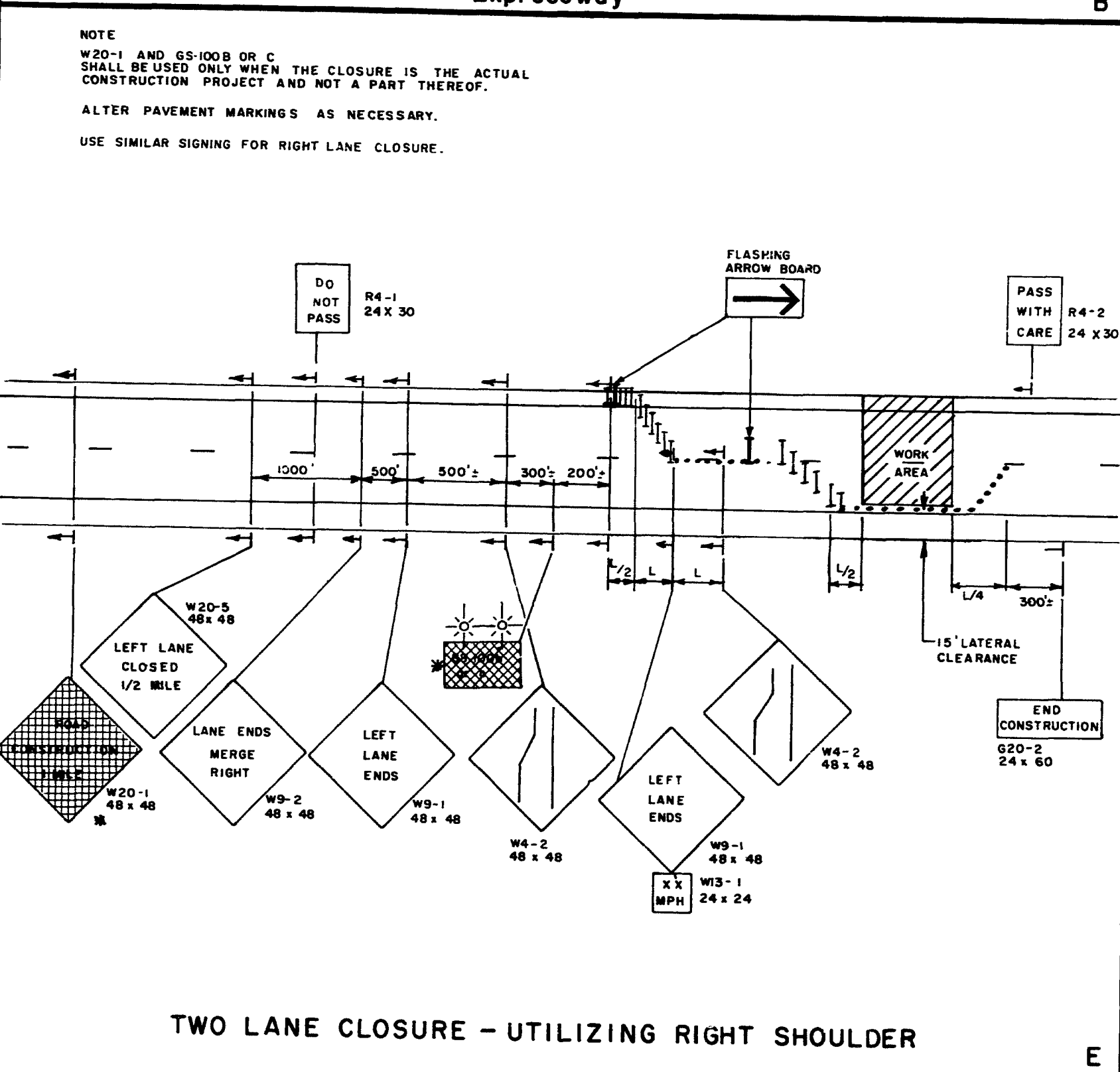
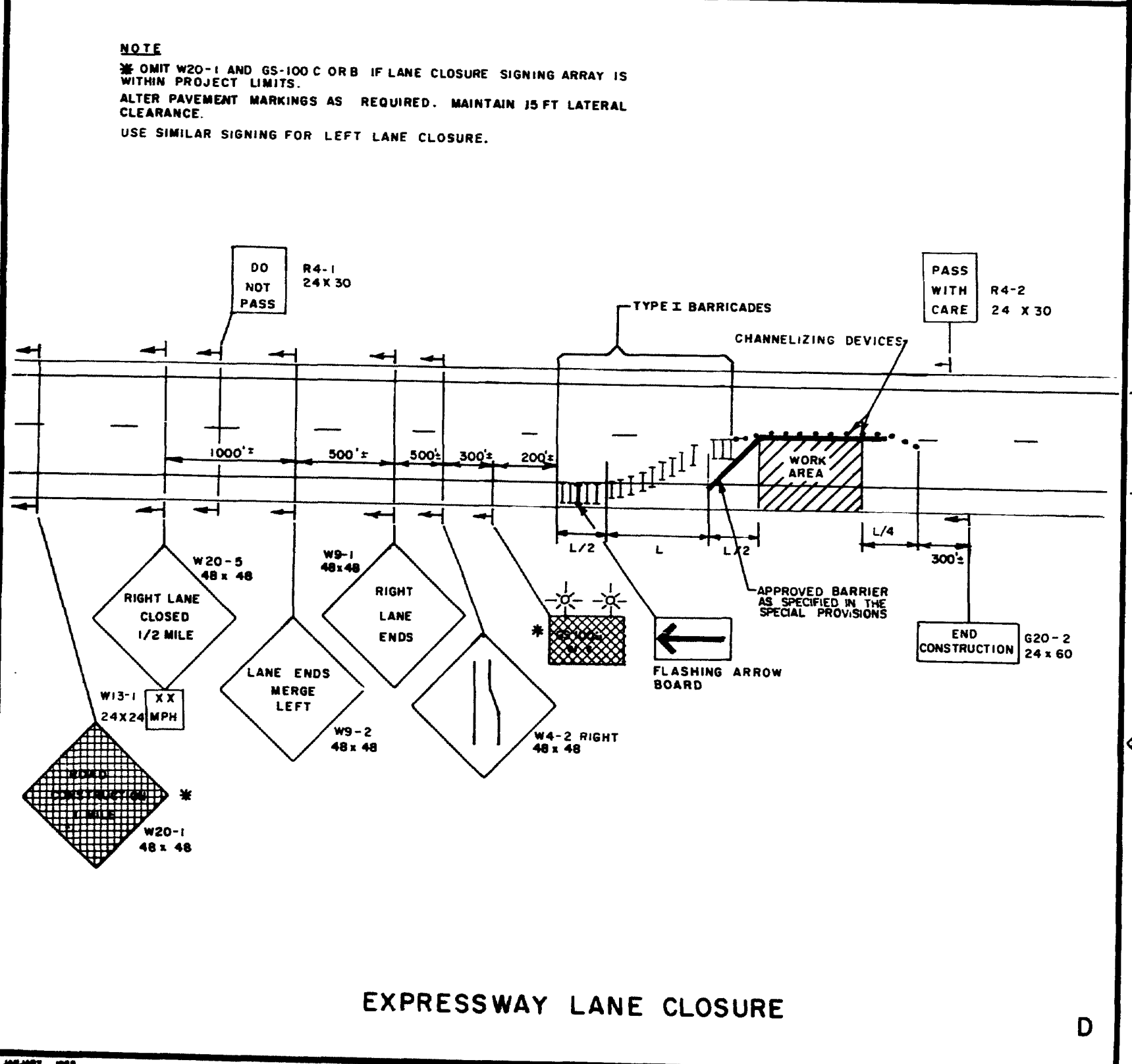
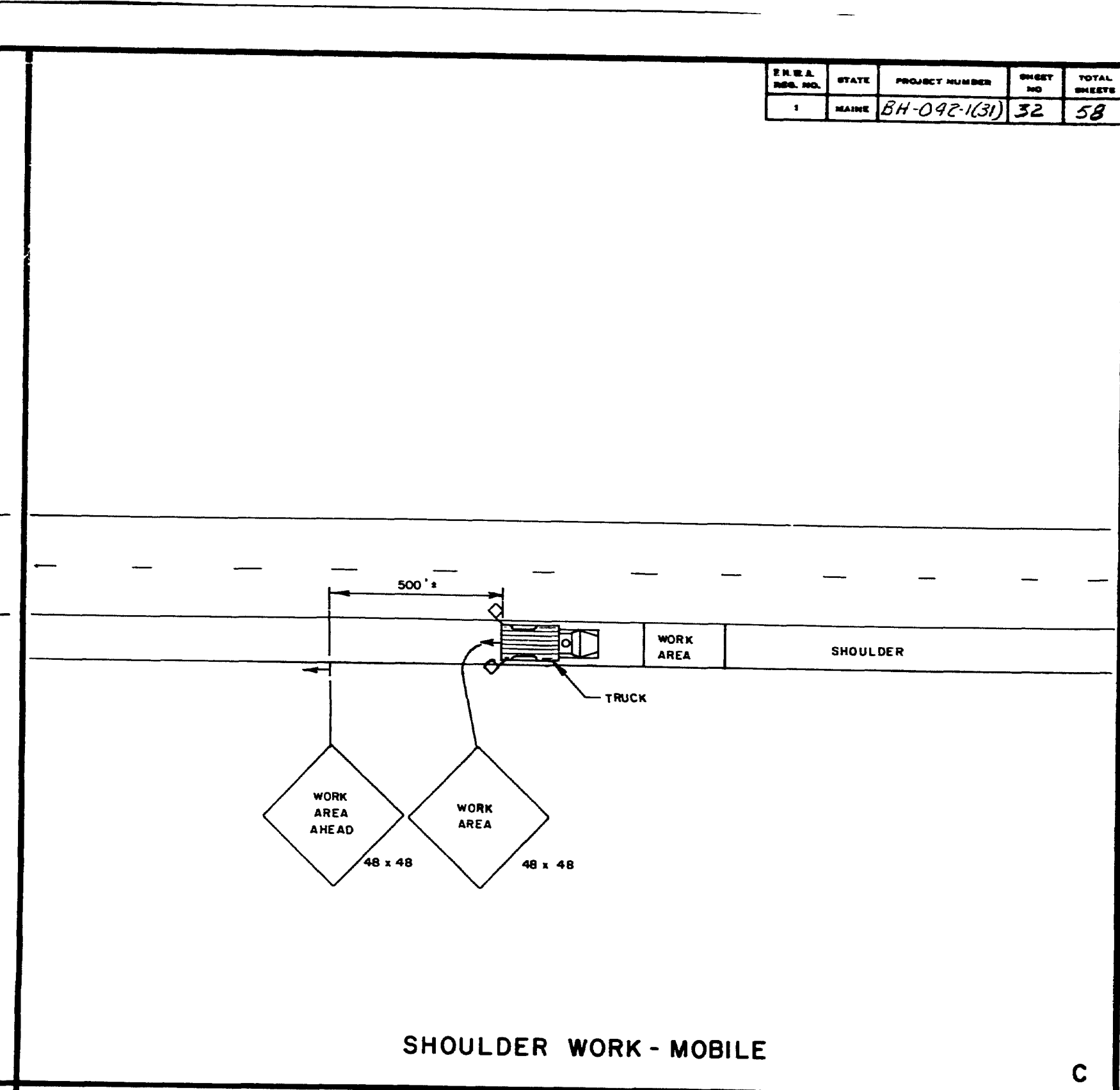
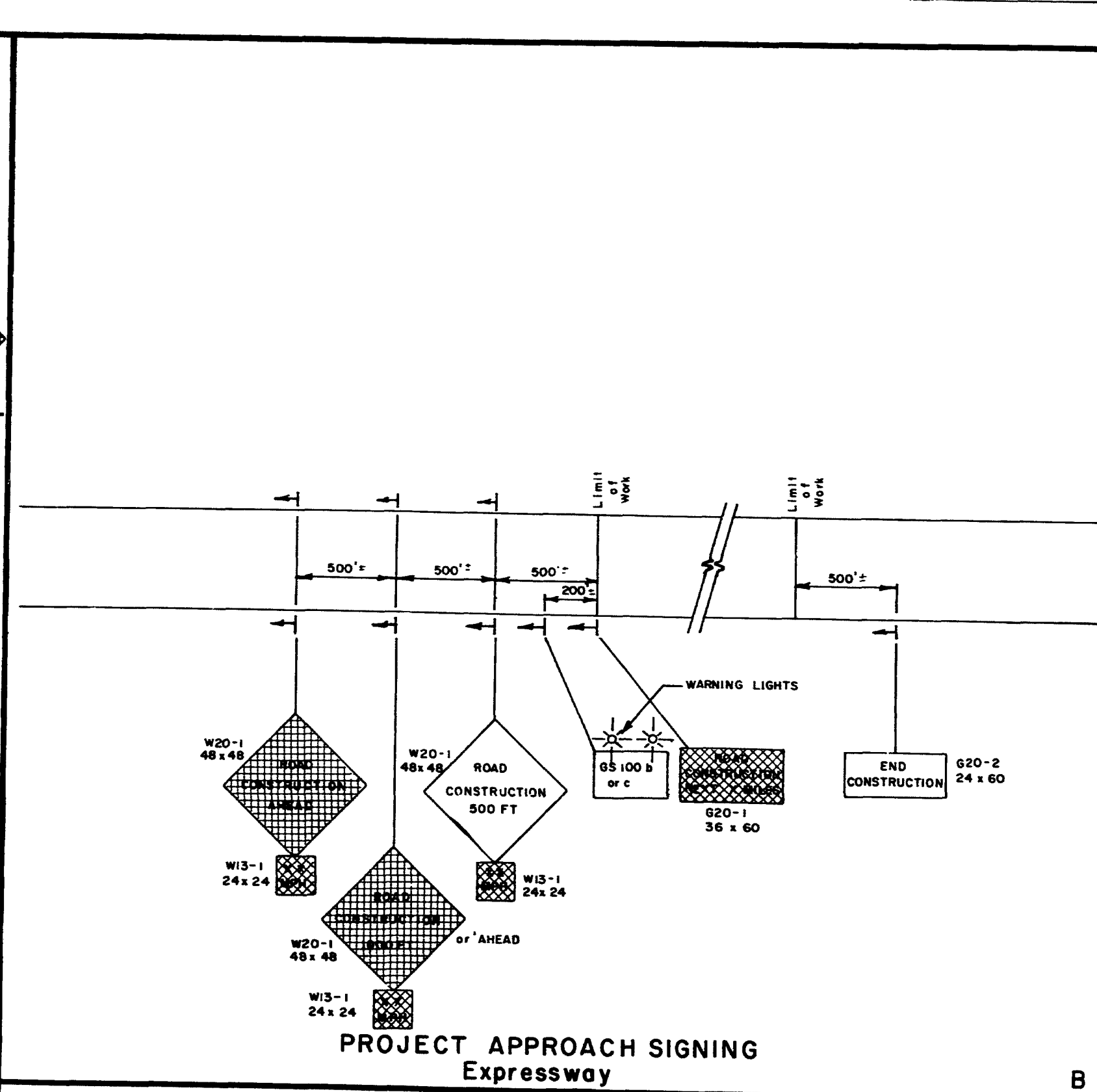
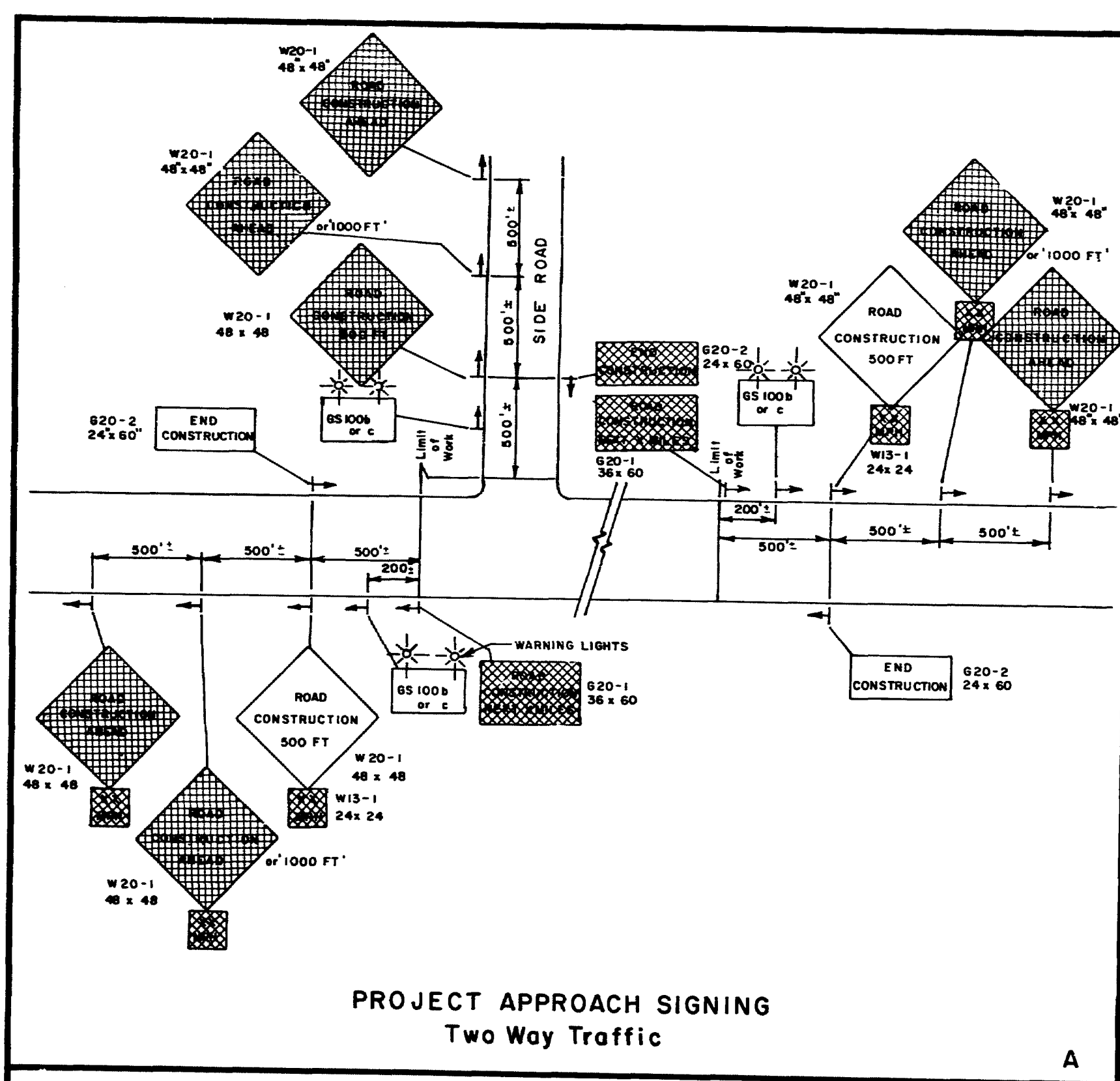
**GENERAL NOTES**

1. Distances shown for sign placement are nominal; exact locations shall be determined by the Engineer.
2. Grades on temporary roadways through the construction zone used by the public shall not exceed 10 percent.
3. Advisory speed constant with prevailing conditions shall be as determined by the Engineer.
4. Use shaded signs when specified in the Special Provisions.
5. The length of tapers shall be determined from the following formulae:  
If S is equal to or less than 40 MPH  
 $L = (W \times S \times S) / 60$   
If S is equal to or greater than 45 MPH  
 $L = WS$   
Where:  
L = taper length in feet  
S = operating speed in MPH  
W = width of roadway to be closed in feet  
Taper lengths shall be rounded to the nearest five feet.  
It may be required to extend lane closure tapers to provide a smooth transition where geometric alignment reduces sight distance.
6. The maximum longitudinal spacing of channelizing devices shall conform to the following:  
(a) 50 feet through work areas  
(b) A distance in tapers equal to the numerical value of the operating speed, i.e., 45 MPH = 45 feet  
(c) In all areas not covered above maximum spacing shall be as follows:  
Radius of curve Spacing  
50' to 300' 25'  
300' to 700' 50'  
700' to 1000' 75'  
over 1000' 5 times the operating speed  
The maximum transverse spacing in tapers shall be determined from the following formula:  
 $D = (W \times S) / L$   
Where:  
D = transverse spacing in feet  
W = width of roadway to be closed in feet  
L = taper length in feet  
S = operating speed in MPH
7. BORDER DIMENSIONS AND LEGEND DESIGN SHALL CONFORM TO THE STANDARD HIGHWAY SIGNS BOOKLET.

3-4-80		GENERAL NOTES		REVISIONS		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
4/3/80	PF	A,B,C,3N				<b>MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES</b>	
SHEET 31 OF				AUGUSTA, MAINE			



F.R.S.A.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-092-1(31)	32	58



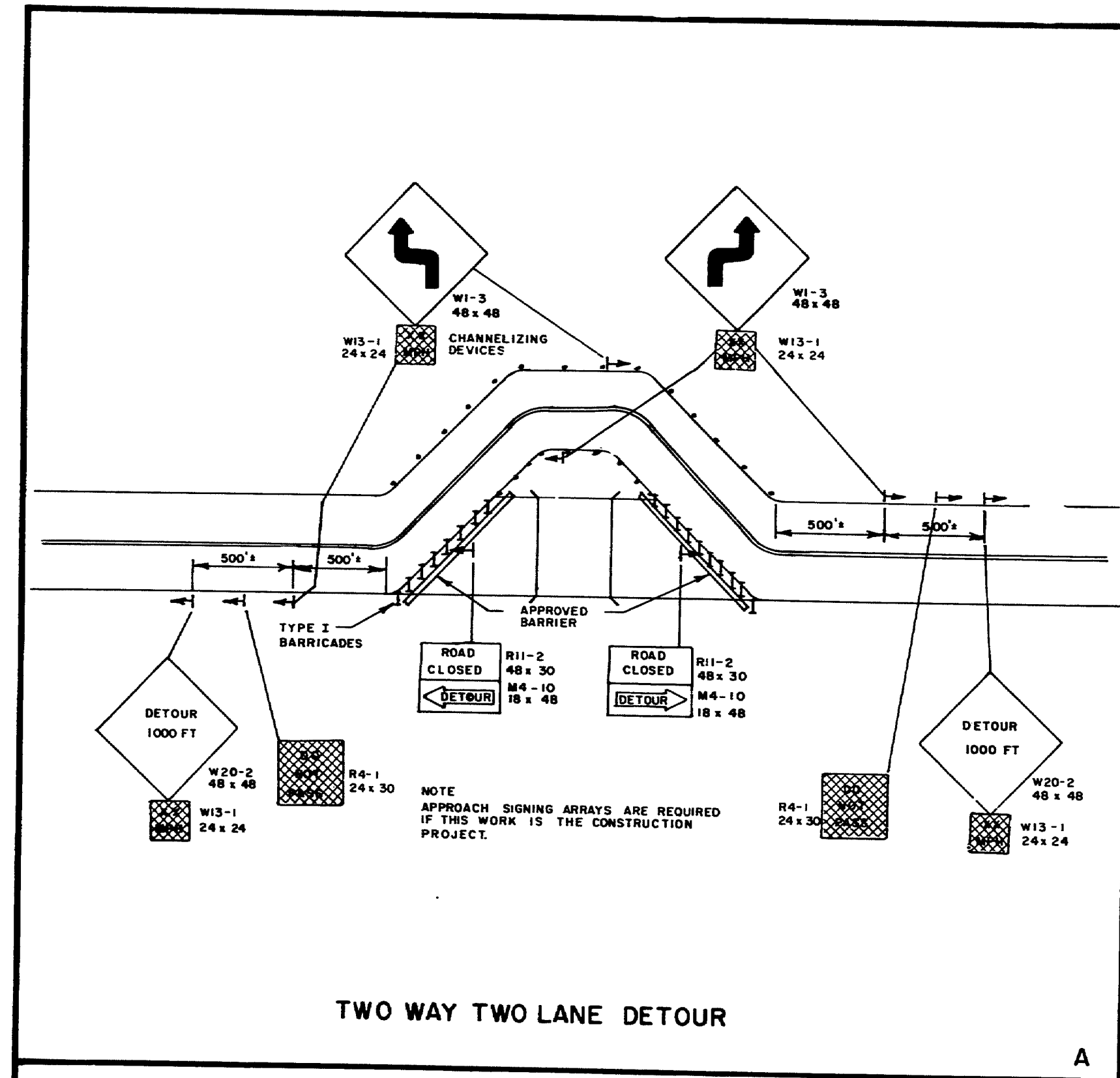
PROJECT ENGINEER	DATE
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

REVISIONS
1-28-80
3-4-80 PLATE "F"
4/3/80 PF D,E

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES
SHEET 32 OF AUGUSTA, MAINE JULY, 1979

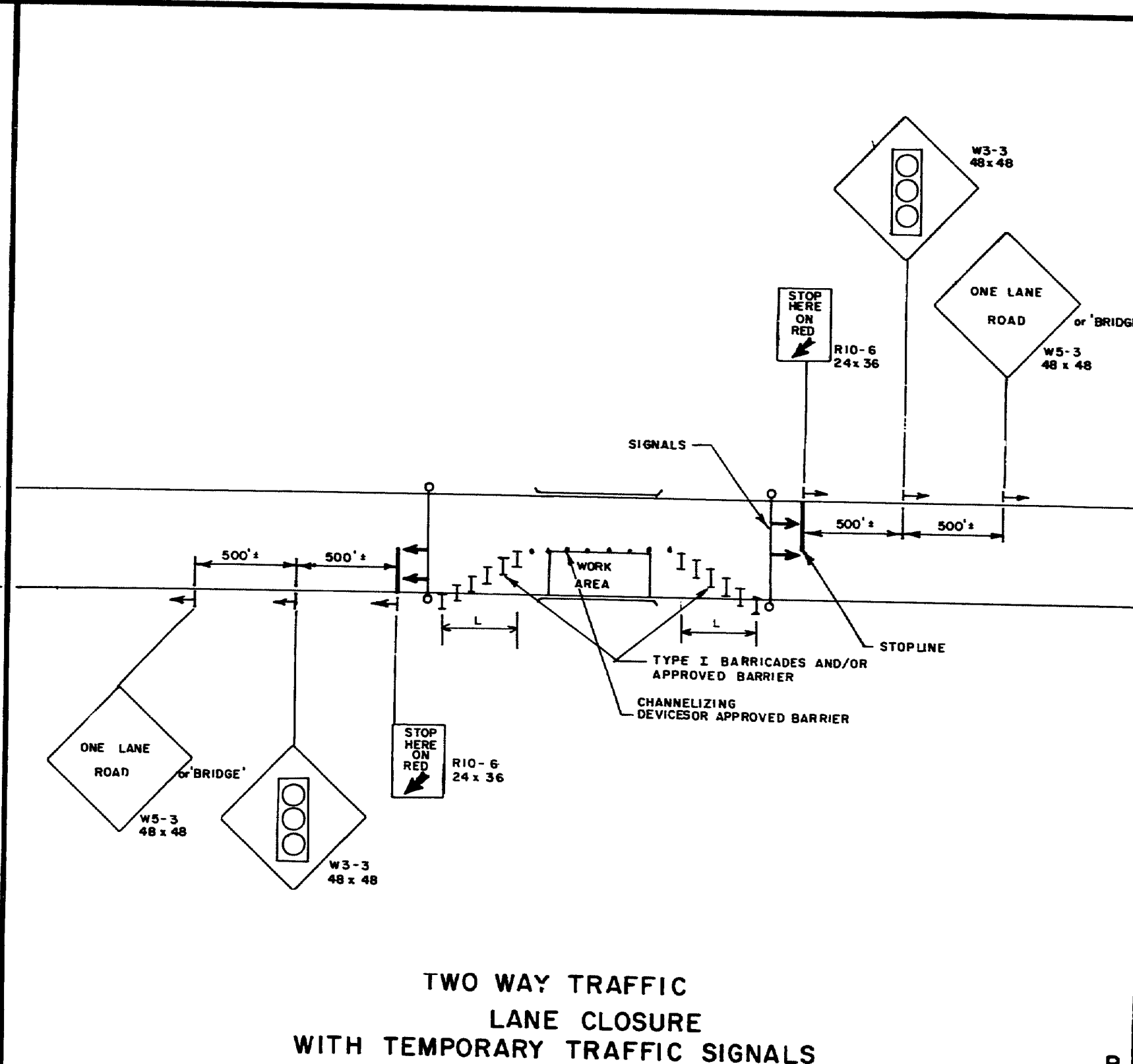
162-143

F.S.E.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BH-042-1(31)	33	58



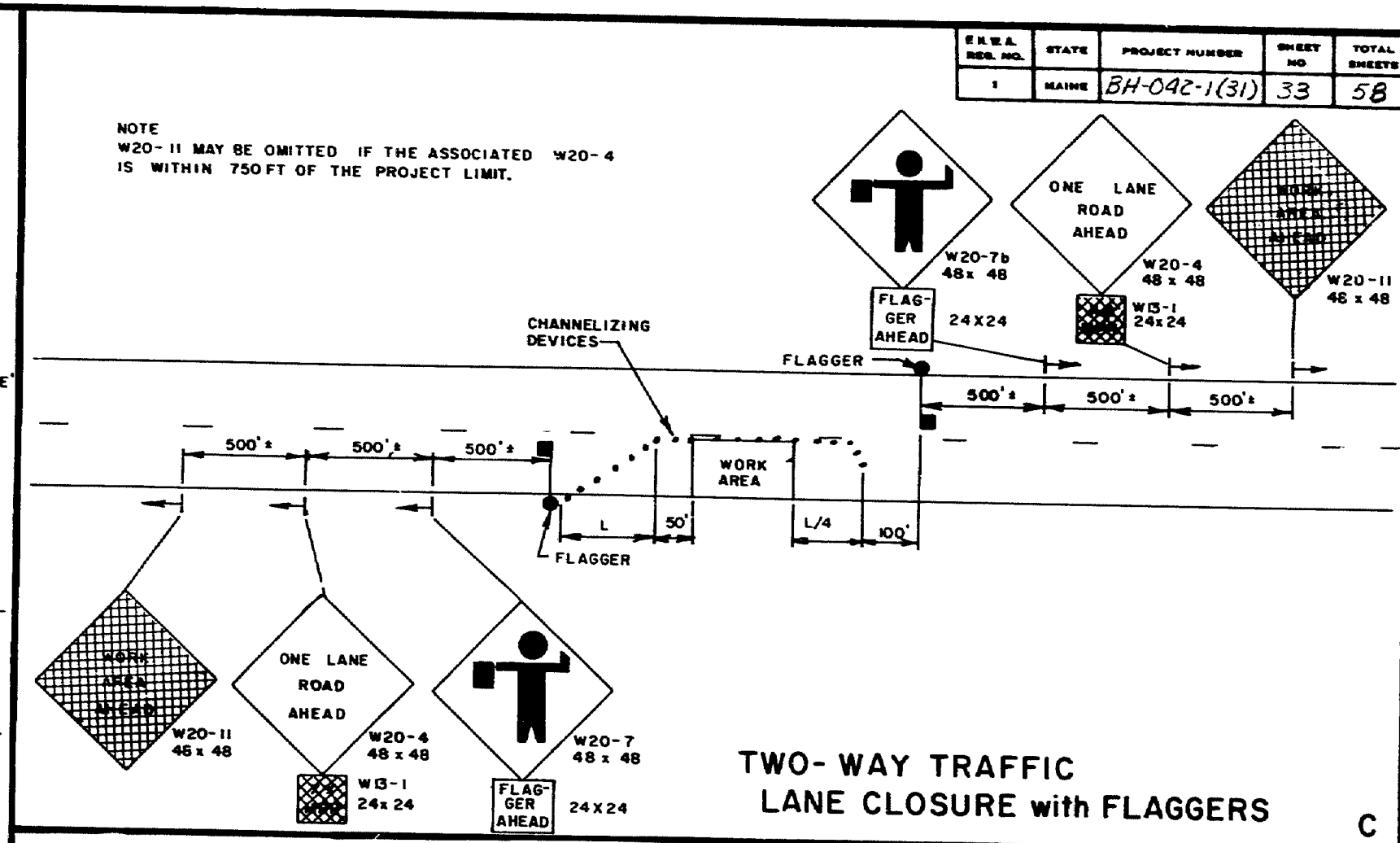
TWO WAY TWO LANE DETOUR

A



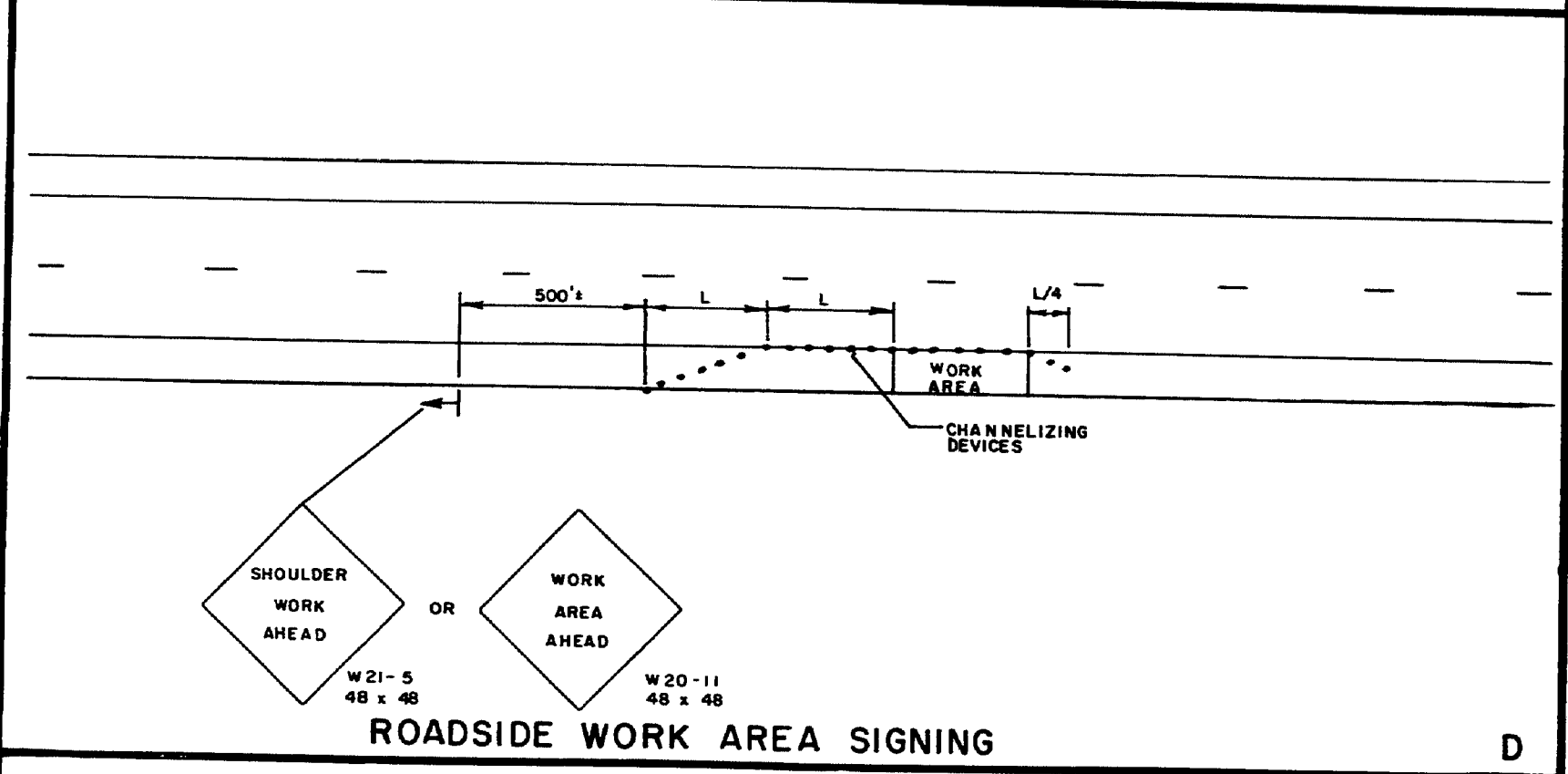
TWO WAY TRAFFIC LANE CLOSURE WITH TEMPORARY TRAFFIC SIGNALS

B



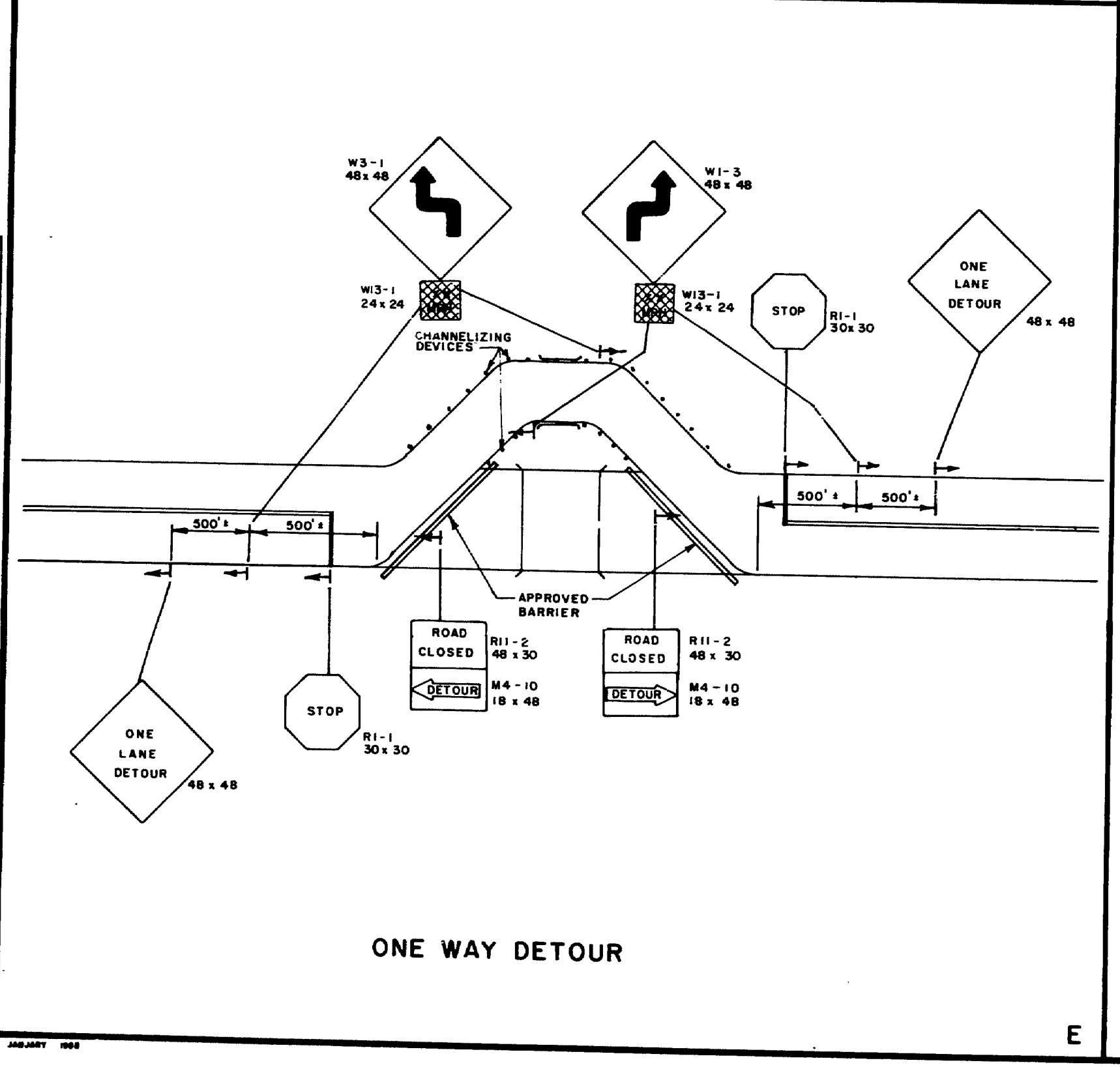
TWO-WAY TRAFFIC LANE CLOSURE with FLAGGERS

C



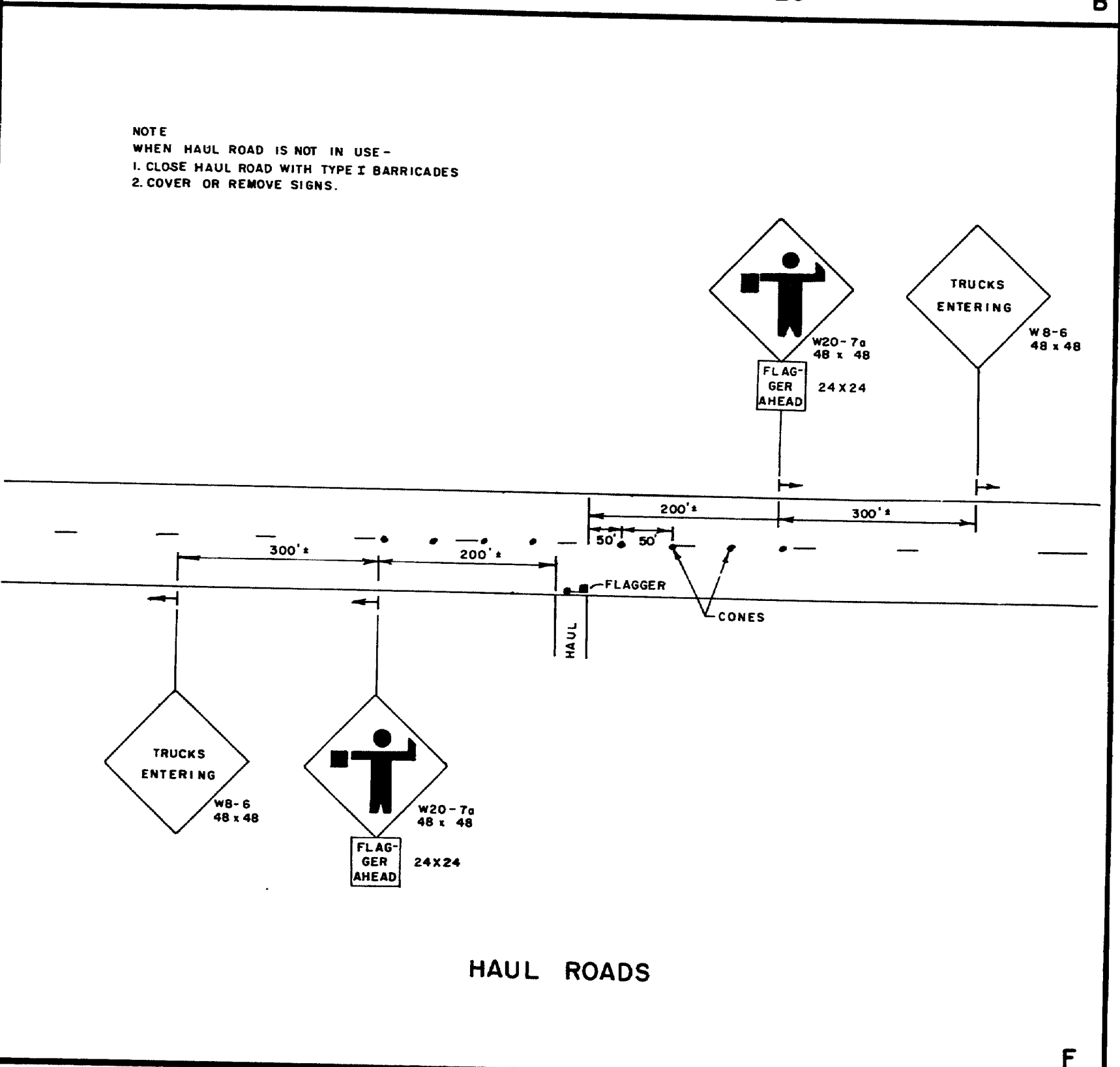
ROADSIDE WORK AREA SIGNING

D



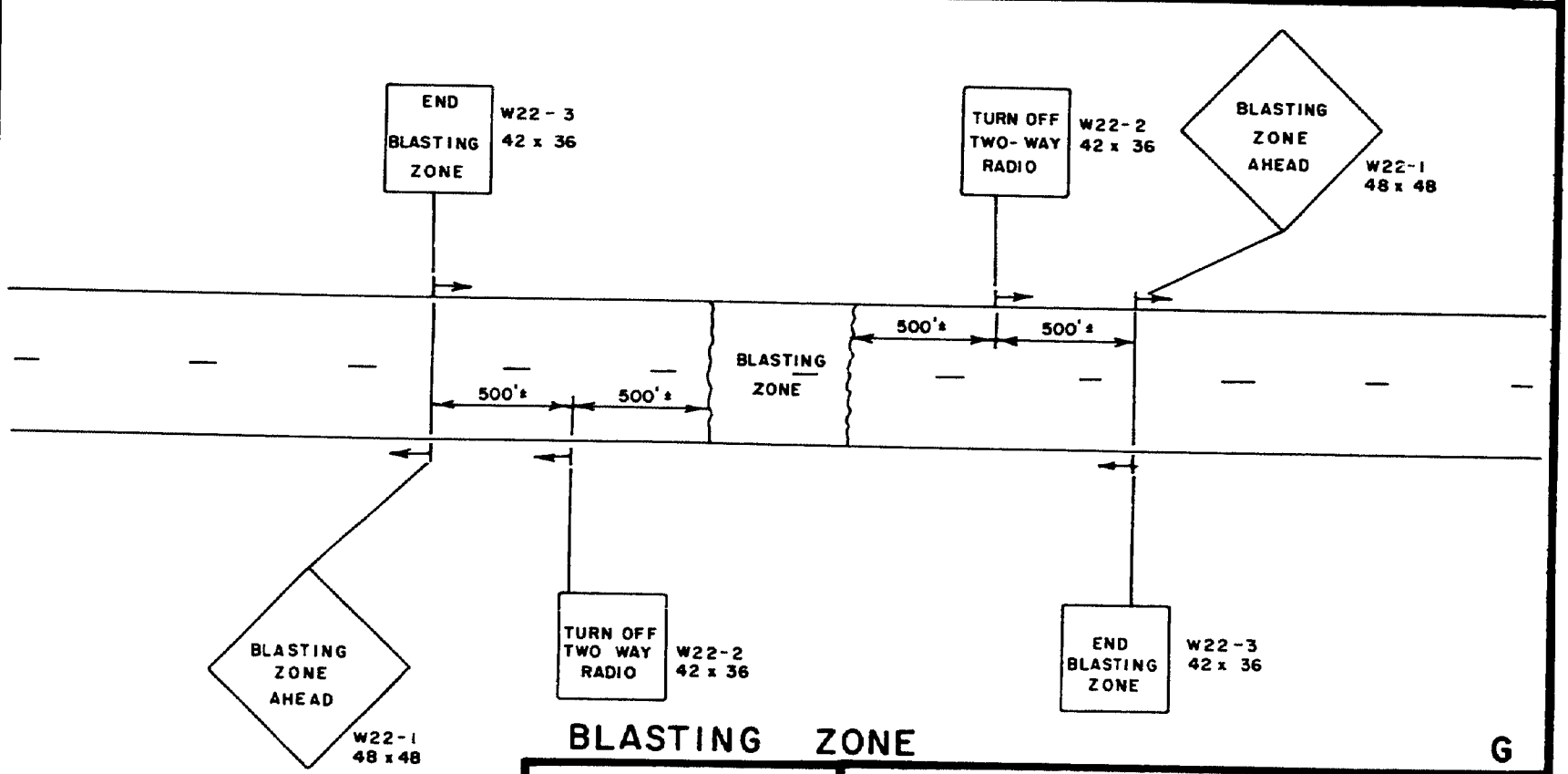
ONE WAY DETOUR

E



HAUL ROADS

F

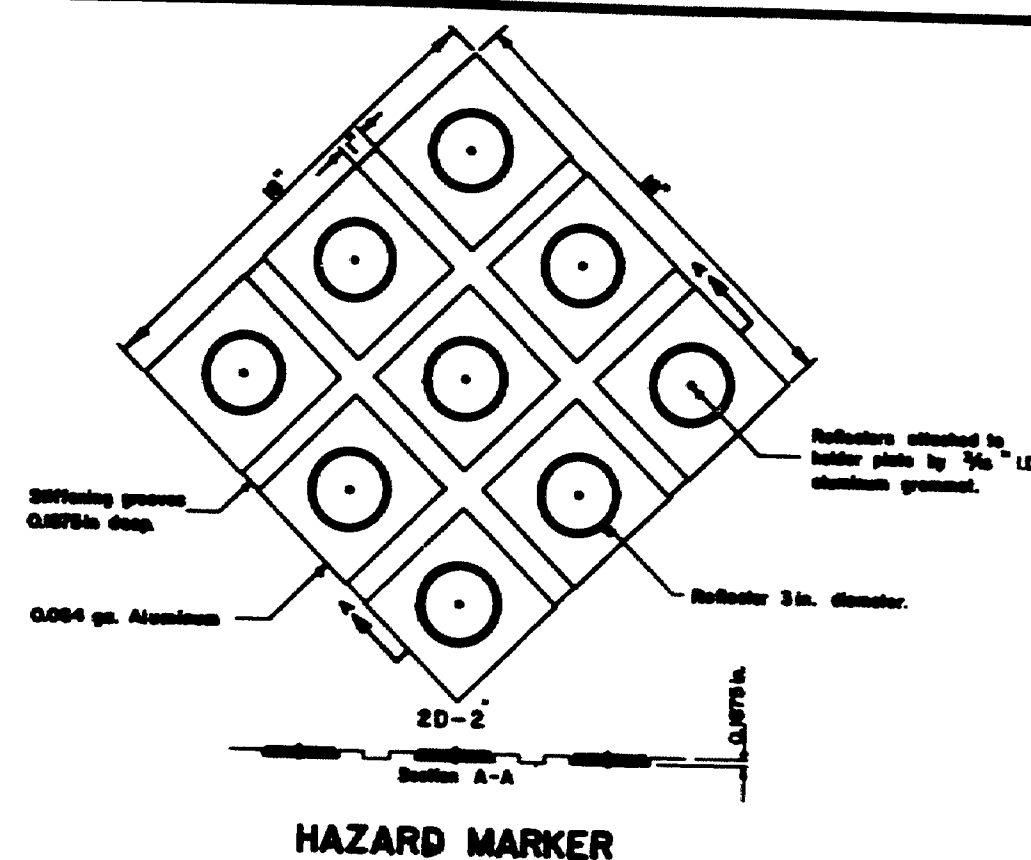


BLASTING ZONE

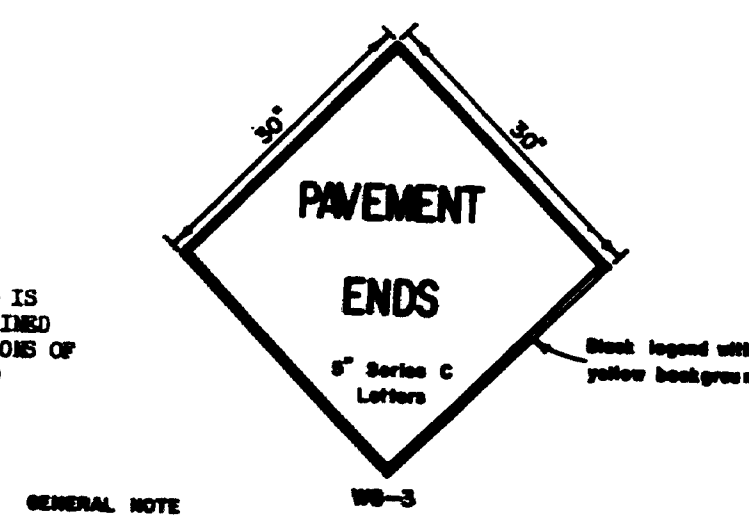
G

PROJECT DESIGN ENGINEER	DATE
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

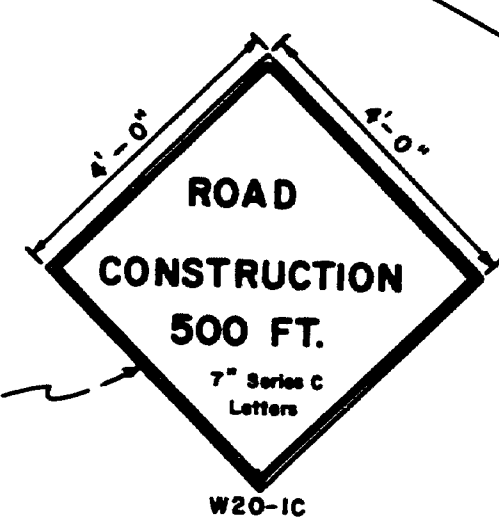
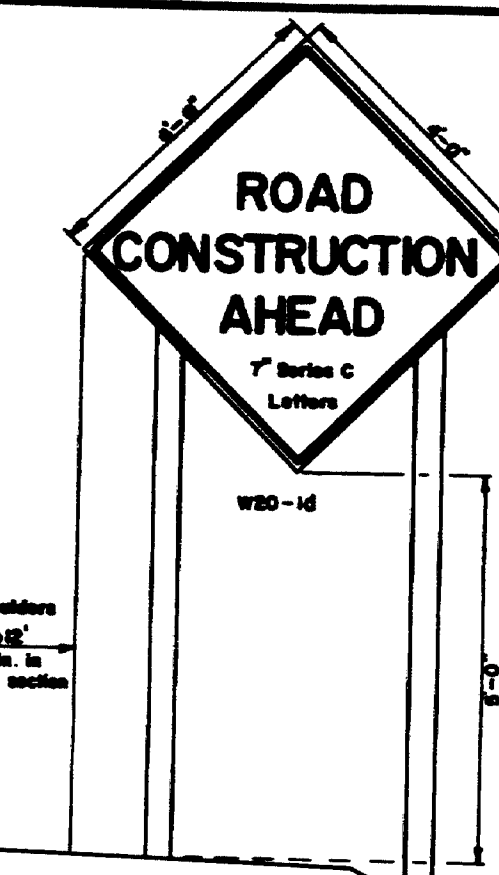
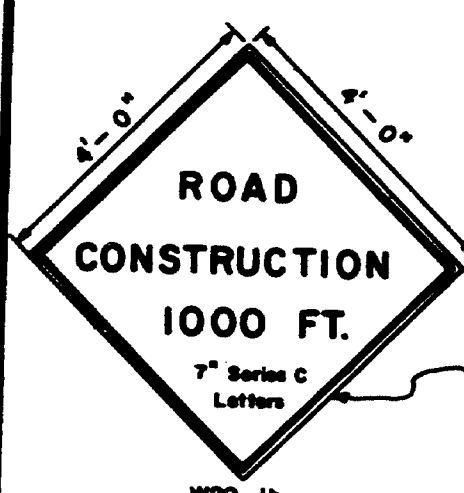
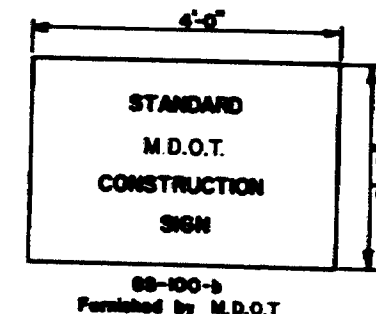
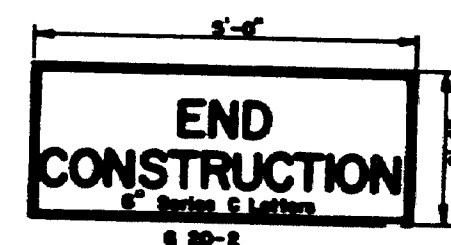
REVISIONS	STATE OF MAINE DEPARTMENT OF TRANSPORTATION
4/3/80 PF B, C, D	MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES



NOTE  
SIGNING IN AN AREA WHERE BLASTING IS NECESSARY SHALL BE PLACED AS OUTLINED IN THE "MANUAL", AND THE PRECAUTIONS OF SUBSECTION 107.12 OF THE STANDARD SPECIFICATIONS SHALL BE OBSERVED.



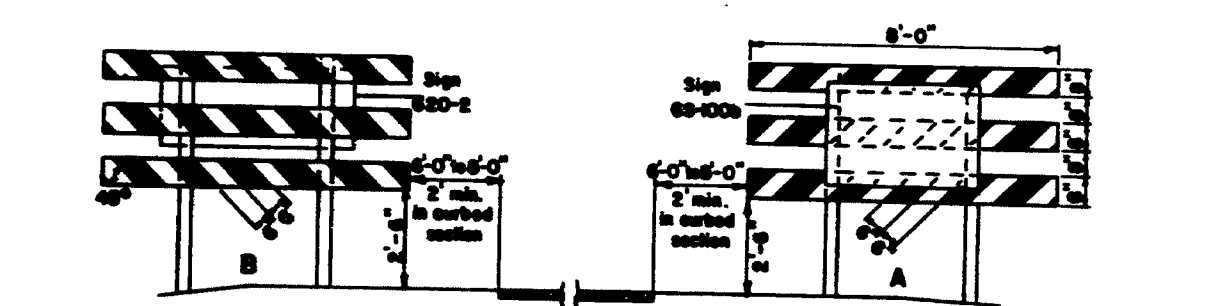
GENERAL NOTE  
Construction Signs  
1. Sign Borders: All signs shall have borders conforming to the size and spacing on signs below:  
a. 30" x 30" Sign - 1/2" Border, 1/2" Space from sign edge.  
b. 2' x 4' Sign - 1/2" Border, 1/2" Space from sign edge.  
c. 2' x 4' Sign - 1/2" Border, 1/2" Space from sign edge.  
d. 4' x 4' Sign - 1/2" Border, 1/2" Space from sign edge.



CONSTRUCTION SIGNS

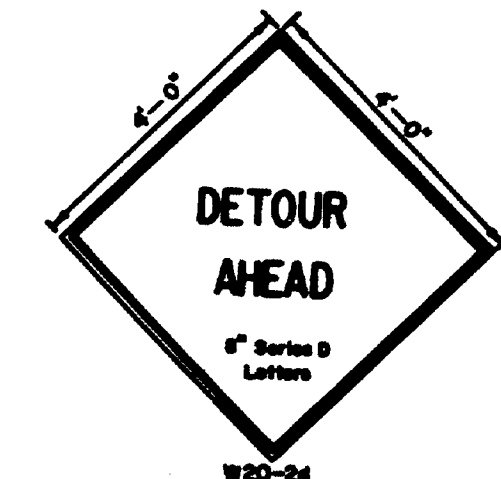
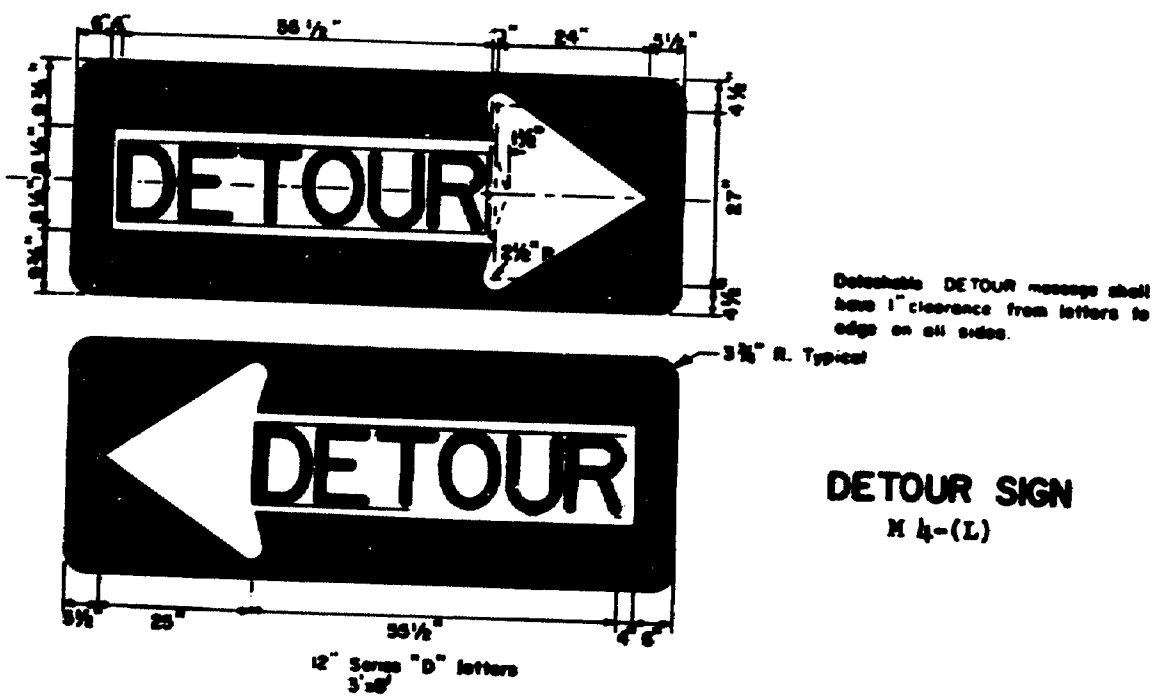
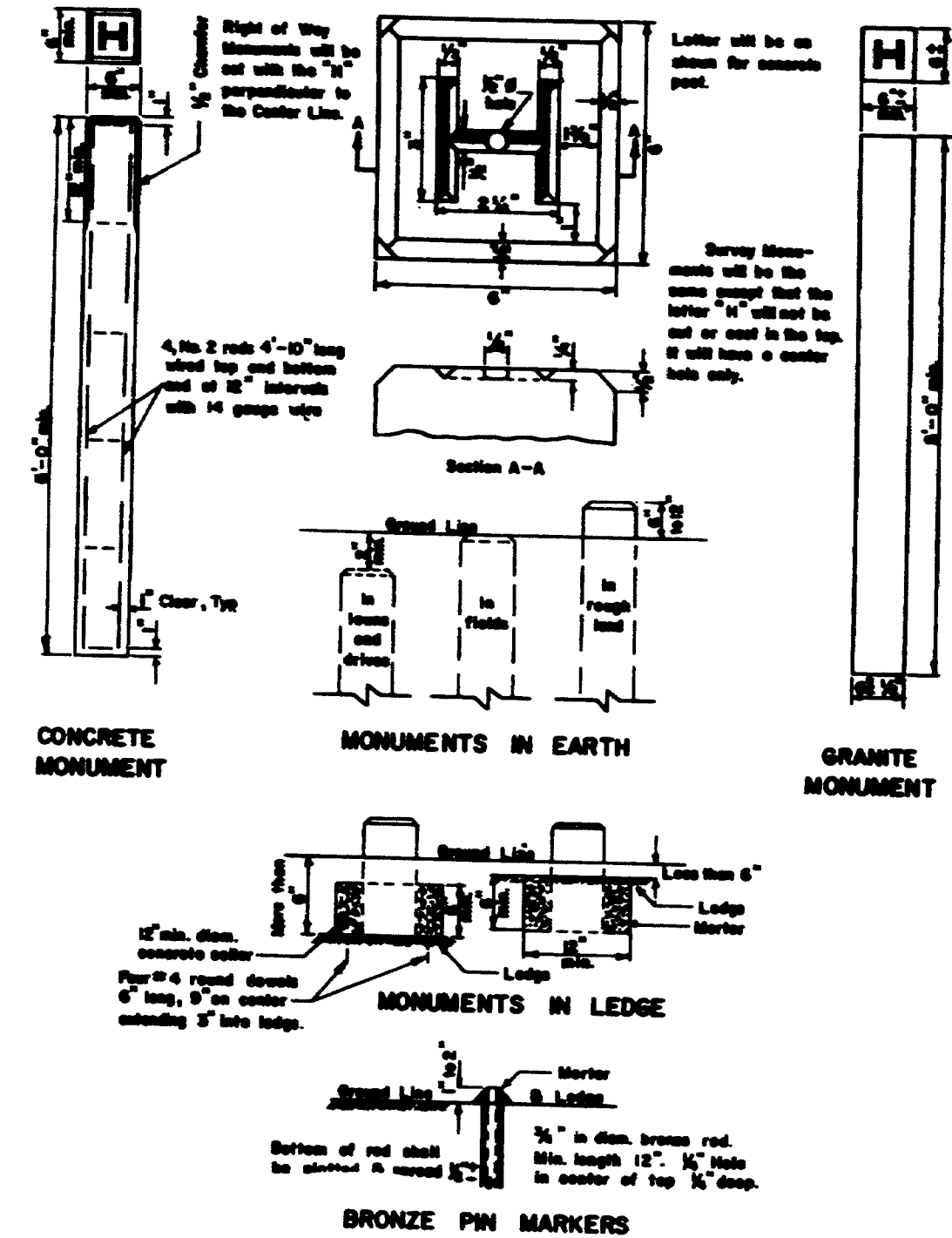
- GENERAL NOTES - BARRICADES
1. Unless otherwise designated, sign designation letters shall refer to the "Manual of Uniform Traffic Control Devices for Streets and Highways," published by the U.S. Department of Transportation, Federal Highway Administration, 1971.
  2. White stripes shall be of silver reflective sheeting bonded to 0.019 minimum gauge aluminum, 16 minimum gauge galvanized steel, or 1/4" plywood. Individual white sheets may be attached to the orange reflectorized background to form the orange and white stripes. At the Contractor's option the reflective sheeting and backing may extend the full width of the barricade with an opaque film or paint applied to form the stripes.
  3. All signs shall be of reflective sheeting on 5/8" thick plywood. The plywood shall conform to subsection 722.25.
  4. Pressure sensitive reflective sheeting will be an acceptable alternate to the reflective sheeting required by Standard Specifications.

- NOTES - PORTABLE BARRICADES
1. Lumber sizes for portable barricades shall be 2" x 8" except posts which shall be 4" x 4" (nominal sizes).
  2. The detour sign shall be an oversized W20-1d sign with a detachable "DETOUR" message which shall be made of surfaced reflective sheeting on 1/4" plywood, masonite, sheet steel or sheet aluminum.
  3. Hazard markers shall be attached to the barricade with a bolt assembly of steel cadmium plated 5/16" bolt, lock washer and vandal resistant nuts.
  4. When two W20-6 signs are required, W20-2, W20-3, or W20-4 signs shall be omitted.
  5. Flashing lights housings shall be mounted to permit rotating in a vertical axis to allow for adjustment to those mounting traffic.
  6. Location of electric service and meter to be determined after the power source has been located.

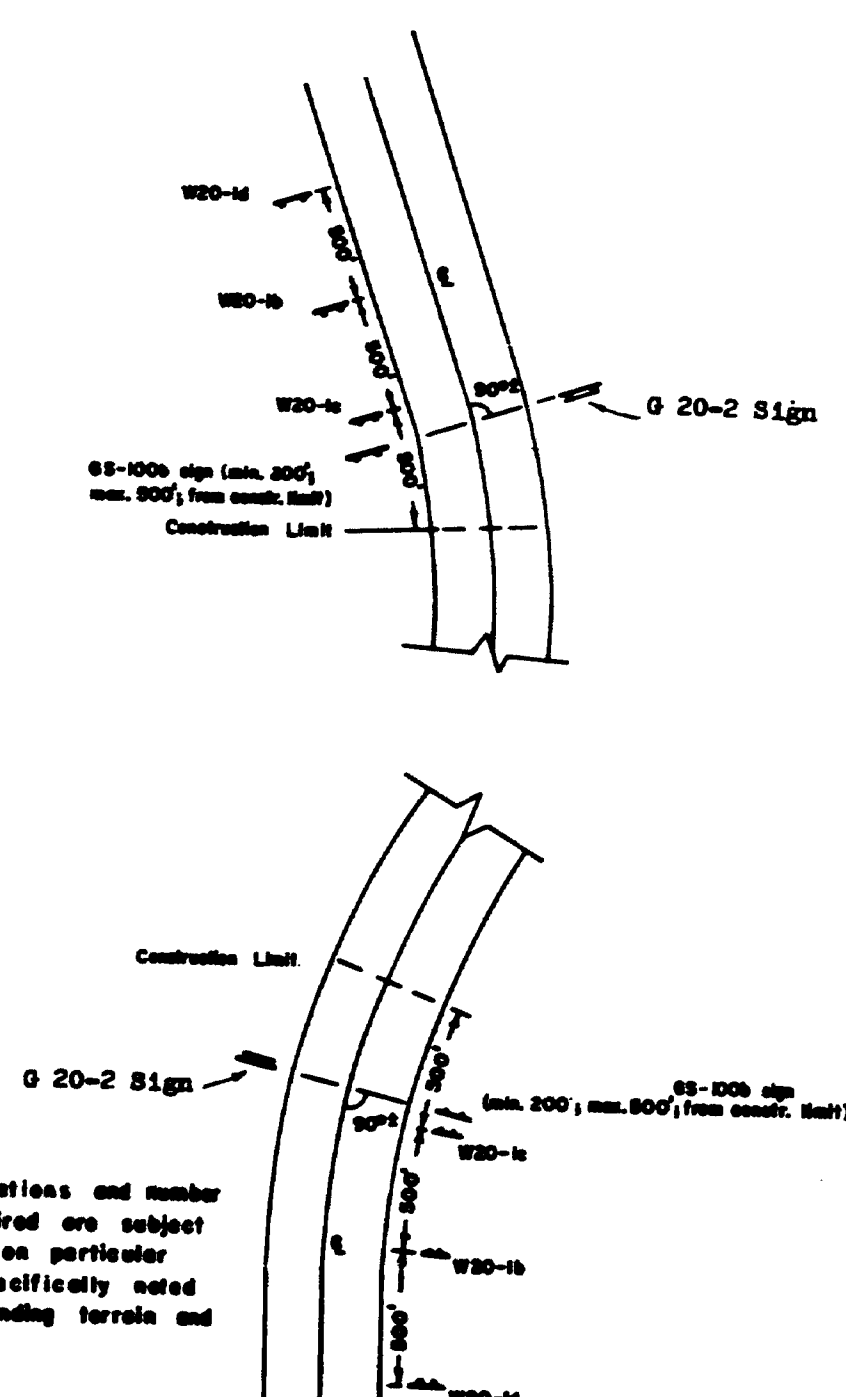


WING BARRICADES

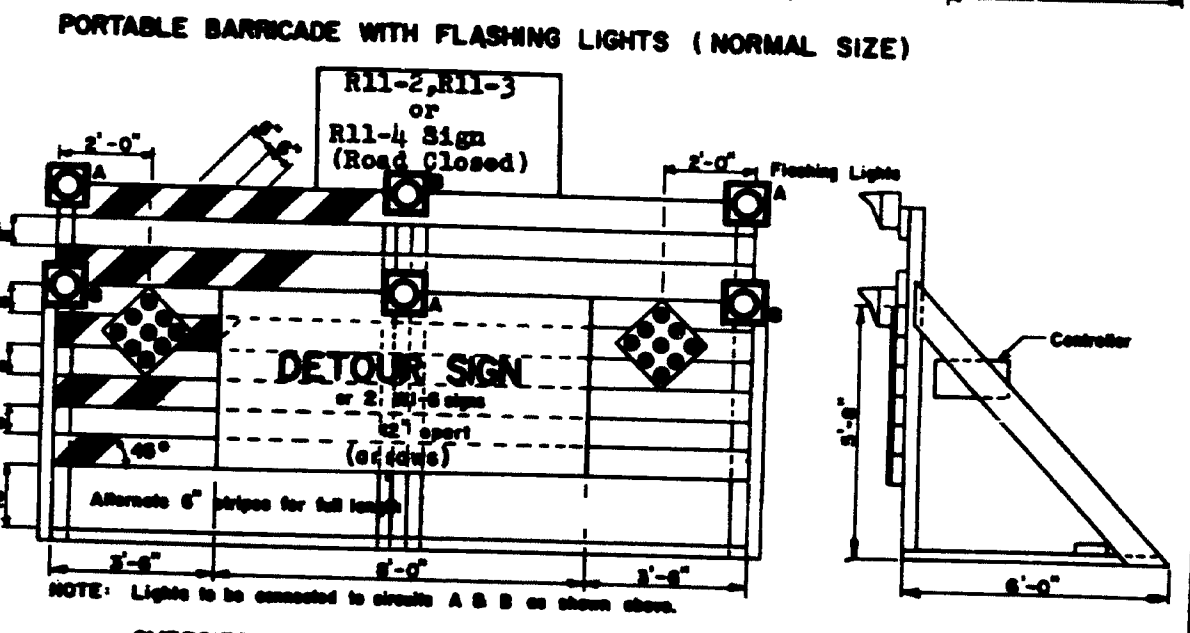
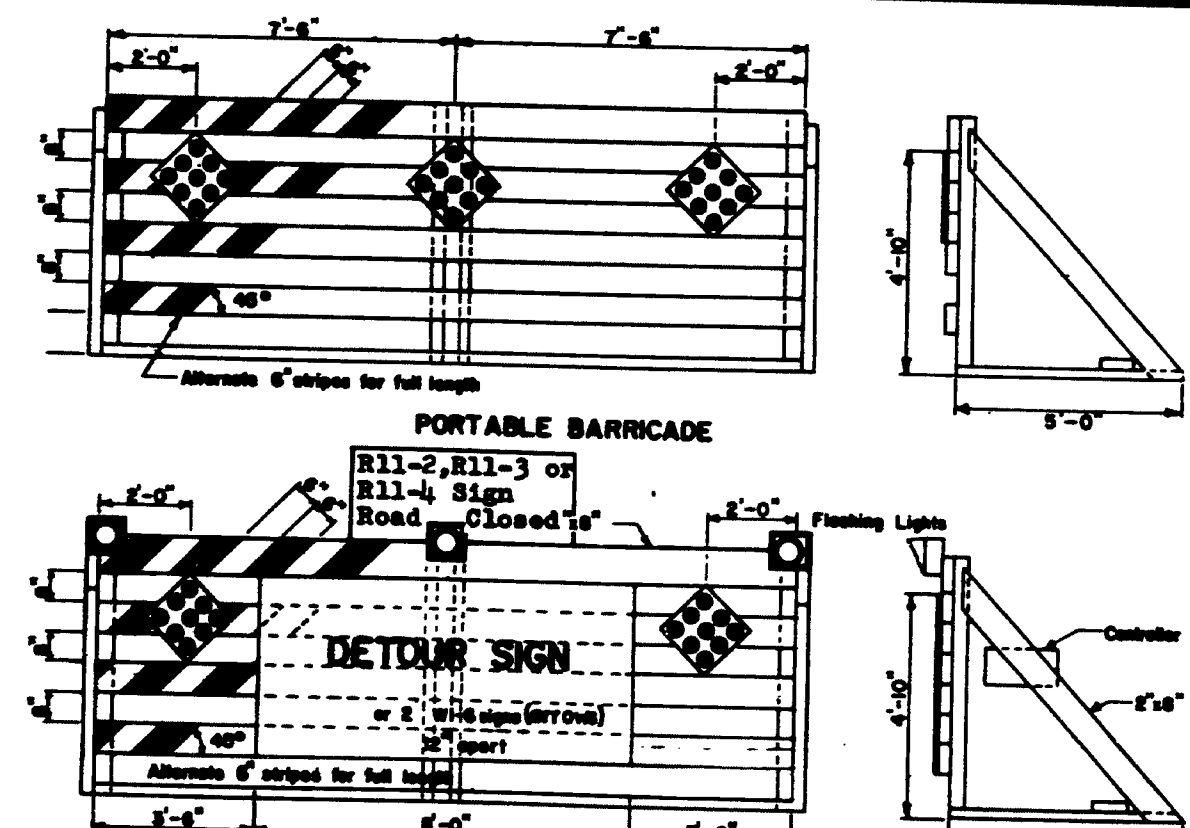
RIGHT OF WAY & SURVEY MONUMENTS



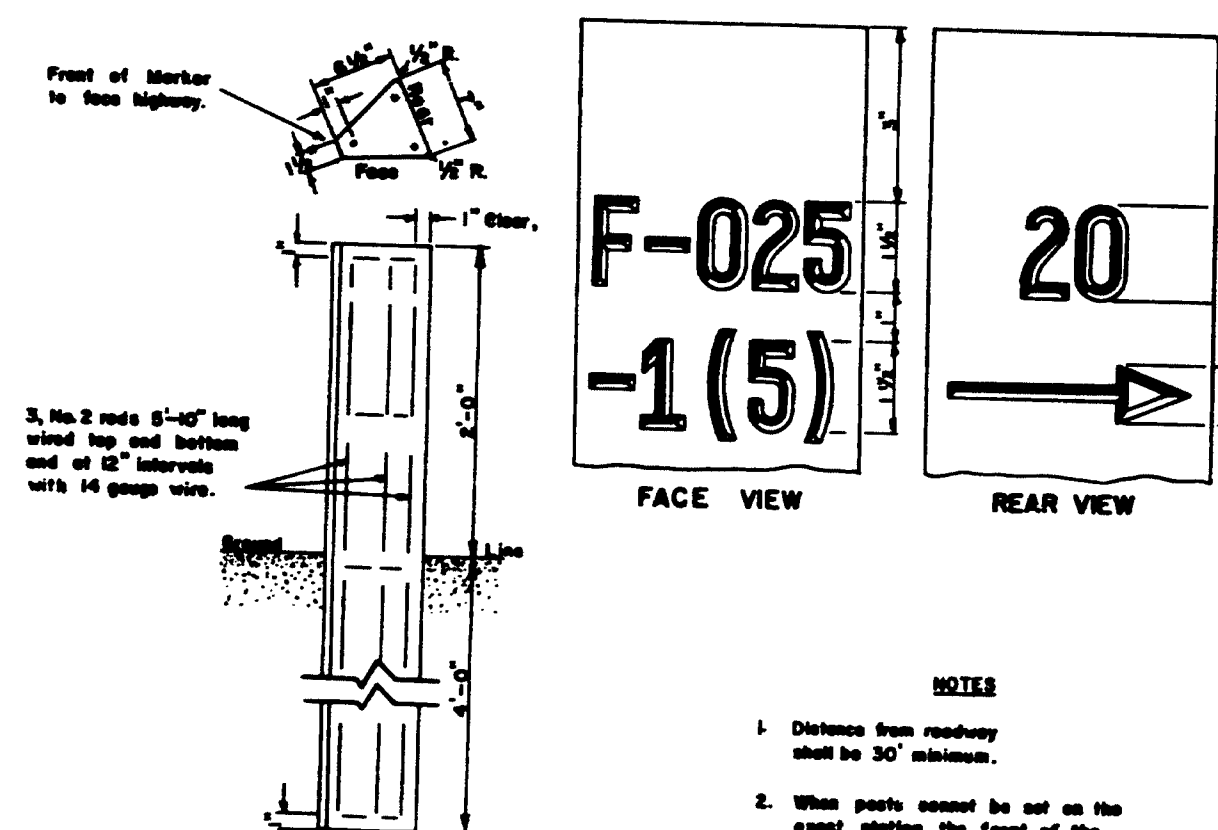
STANDARD SIGN LOCATIONS



NOTE:  
Standard locations and number of signs required are subject to variation on particular projects if specifically noted due to surrounding terrain and road use.



OVERSIZED PORTABLE BARRICADE WITH FLASHING LIGHTS



REVISION	
PLATE B	12-21-70
PLATE C	12-15-71
PLATE D	10-12-72
PLATE E	3-25-76
PLATE F	3-22-77

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION  
AUGUSTA, MAINE  
**BARRICADES  
WARNING SIGNS  
MONUMENTS  
PROJECT MARKERS**  
AUG. 1989