F.H.W.A. REGL. 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
TOWN LINES
PROPERTY LINES
R/W LINES - EXISTING
R/W LINES - NEW - ACCESS CONTROL
R/W LINES - NEW - NO ACCESS CONTROL
CULVERT - EXISTING
CULVERT - PROPOSED
CURBING - EXISTING
CURBING - PROPOSED
TRAVELLED WAY - EXISTING
TRAVELLED WAY - PROPOSED
UNDERGROUND UTILITIES - EXISTING
UNDERGROUND UTILITIES - PROPOSED
RAILROAD - SINGLE TRACK
RAILROAD - DOUBLE TRACK
UTILITY POLE - EXISTING
UTILITY POLE - JOINT OCCUPANCY J
PROPOSED UTILITY POLE - TEMPORARY X
PROPOSED UTILITY POLE - PERMANENT
TREES — hardwood softwood
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

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

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 A36

BASIC DESIGN STRESSES

CONCRETE: ..... See Special Provisions

REINFORCING STEEL: ..... fy = 60,000 psi

STRUCTURAL STEEL:
- ASTM A572 ..... Fy = 50,000 psi
- ASTM A325 ..... Fv = 25,000 psi
- ASTM A36 ..... Fy = 36,000 psi

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.

STATE OF MAINE — PROFESSIONAL ENGINEER — RICHARD A. SHAN — 6-1-83

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

COMMISSIONER — DATE

Richard A. Shan
CHIEF ENGINEER

100-311

As Built 1987

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ADMINISTRATOR — DATE

DRAWING 44-132 62253

JANUARY 1988

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-0250(12)	2	18

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 I	1	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 I 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	GP.
652.38	FLAGGER	1000	M.H.
652.50	TEMPORARY BRIDGE RAIL	1	L.S.
659.10	MOBILIZATION	1	L.S.

ESTIMATE LUMP SUM QUANTITIES

(ITEM 545.60)

ALTERNATE NO. 1

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

ALTERNATE NO. 2

- CONCRETE CLASS PC 990 C.Y.
- EPOXY COATED REIN FORCING 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 Precast Concrete Slab

100-312

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN DETAILED	RAF	7-86
CHECKED	NLG	8-86
REVISIONS		
FIELD CHANGES		

PLANS

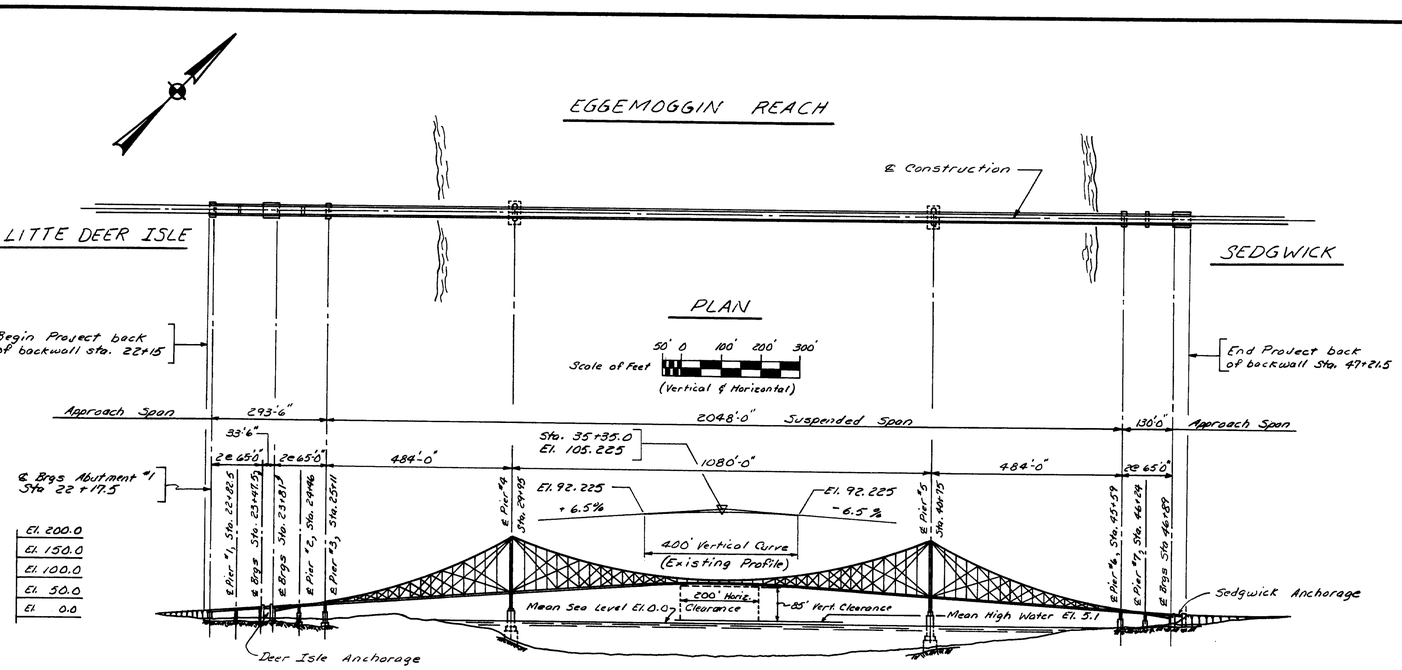
BRUNING 44-132 4571D-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
ESTIMATED QUANTITIES

SHEET 2 OF 18 AUGUSTA, MAINE

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



ALTERNATE NO. 1

HALF SECTION AT SUSPENDER CONNECTION

CONCRETE FILLED STEEL GRID FLOORING SHOWN

ALTERNATE NO. 2

HALF SECTION AT FLOORBEAM 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

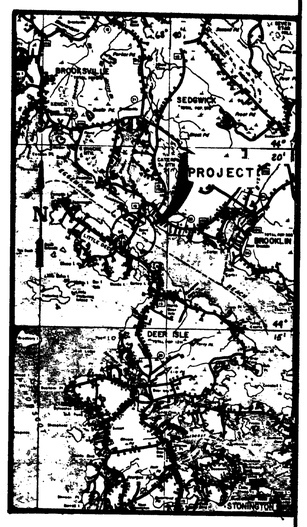
ALT 2

USED

NOTE: Dimensions, Stationing & Elevations shown are from existing plans.

100-313

BRIDGE No. 3257



LOCATION MAP

scale

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

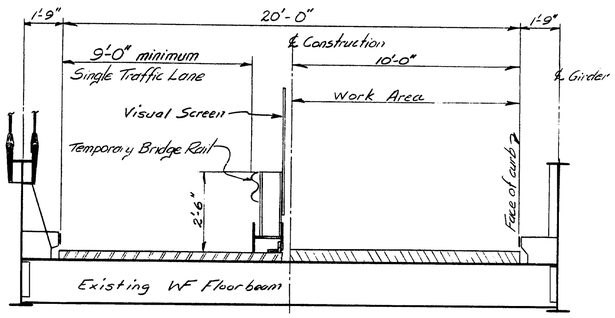
DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
GENERAL PLAN

SHEET 3 OF 18 AUGUSTA, MAINE

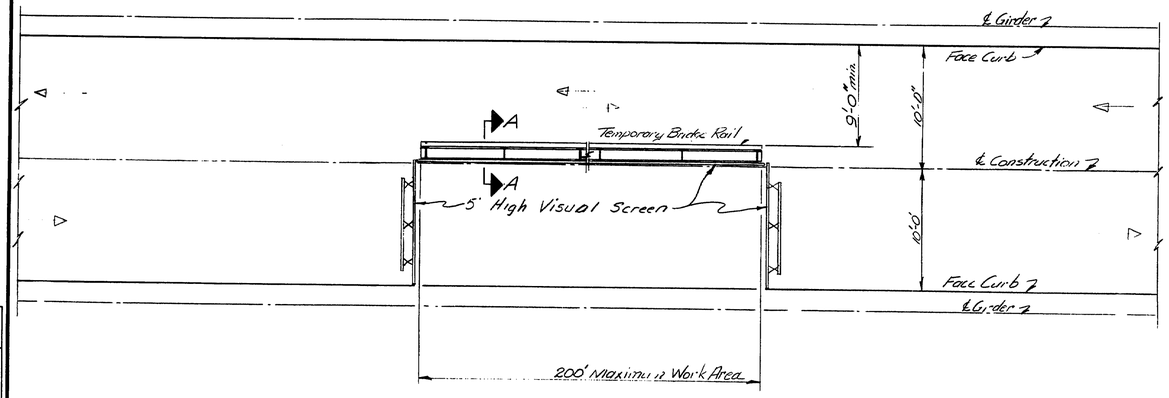
PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN-DETAILED	BAS RN	3-86
	CHECKED	NLB	7-86
	REVISIONS		
	FIELD CHANGES		

BRUNING 44-132 45710-1

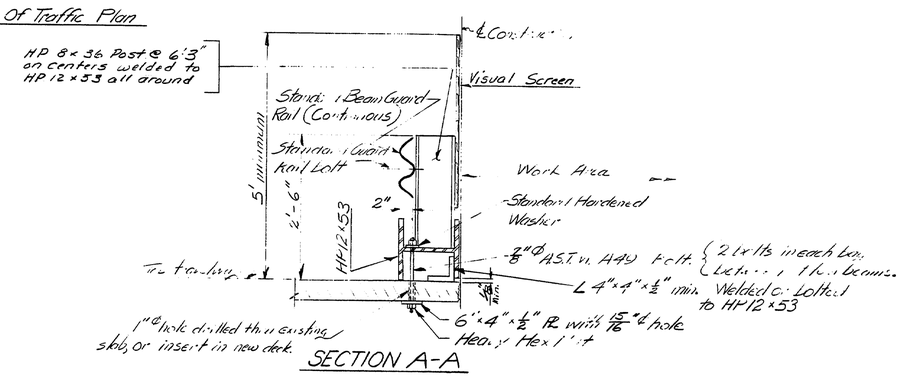
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-0250(12)	4	18



BRIDGE SECTION WITH TRAFFIC CONTROL



Maintenance Of Traffic Plan



SECTION A-A

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 saftey 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.

As Built 1987

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
TRAFFIC PLAN & DETAILS

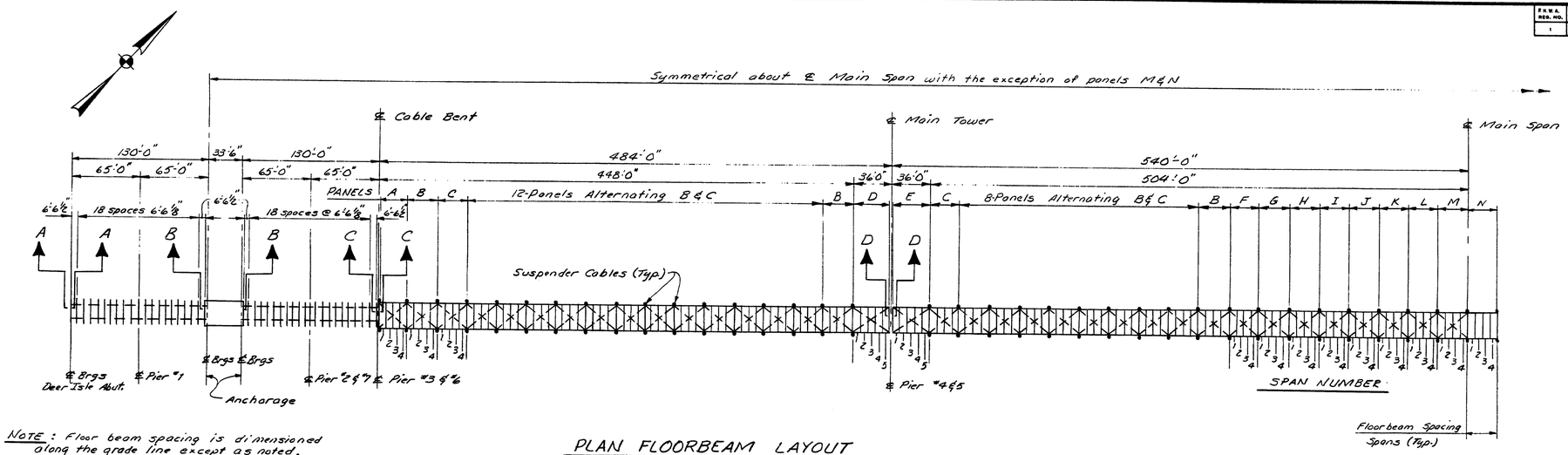
SHEET 4 OF 18 AUGUSTA, MAINE

100-314

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	BAS	6-86
	CHECKED	RWL	6-86
	REVISIONS	NLB	8-86
	FIELD CHANGES		

BRUNING 44-132 45710-1

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-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.

FLOORBEAM SPACING (C to C)

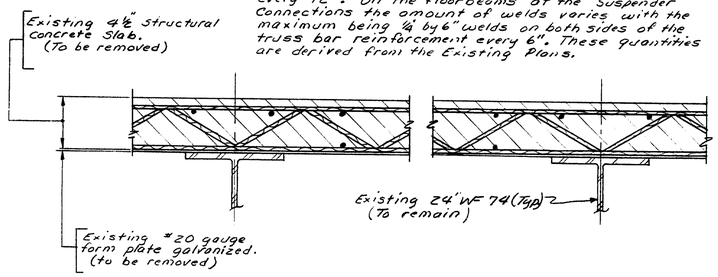
PANEL	SPAN #1	SPAN #2	SPAN #3	SPAN #4	SPAN #5
A	6'-8"	6'-8"	6'-8"	6'-8"	—
B	7'-0¼"	7'-0⅛"	7'-0⅛"	7'-0 9/16"	—
C	7'-0 3/16"	7'-0⅛"	7'-0⅛"	7'-0¼"	—
D	6'-8 3/8"	6'-8 3/8"	6'-8 3/8"	6'-8 3/8"	6'-8 15/32"
E	6'-10 23/32"	6'-10½"	6'-10½"	6'-10½"	6'-10½"
F	7'-0"	7'-0"	7'-0"	7'-0 13/32"	—
G*	7'-0 7/32"	7'-0⅛"	7'-0⅛"	7'-0⅛"	—
H*	6'-11 9/16"	7'-0 1/16"	7'-0 1/16"	7'-0 1/16"	—
I*	7'-0 1/16"	7'-0 1/16"	7'-0 1/16"	7'-0⅛"	—
J*	6'-10 9/16"	7'-0"	7'-0"	7'-0"	—
K*	7'-0"	7'-0"	7'-0"	7'-0 3/32"	—
L*	6'-10 29/32"	7'-0"	7'-0"	7'-0"	—
M*	7'-0"	7'-0"	7'-0"	7'-0"	—
N*	6'-11½"	7'-0"	7'-0"	7'-0"	—

NOTE:

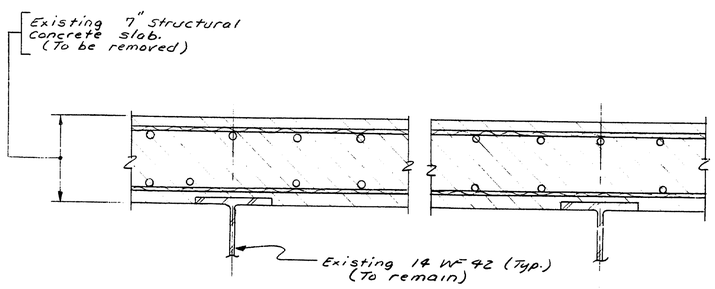
All existing dimensions shown on the plans were obtained from available existing design plans and shop drawings. The Contractor is responsible for verifying all existing dimensions prior to Construction and fabrication of components based upon existing dimensions. The fit of all components based upon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

PLAN FLOORBEAM LAYOUT

NOTE: Reinforcing steel is welded to the floorbeams in the Suspended Spans. On the floorbeams not at Suspender Connections there are ¼" x 2" welds every 12". On the floorbeams at the Suspender Connections the amount of welds varies with the maximum being ¼" by 6" welds on both sides of the truss bar reinforcement every 6". These quantities are derived from the Existing Plans.



TYPICAL EXISTING SUSPENDED SPAN LONGITUDINAL SECTION



TYPICAL EXISTING APPROACH SPAN LONGITUDINAL SECTION

GENERAL NOTES

2---The top flanges of the existing floor beams 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).

9-11

3---New deck units shall be ~~10'-0"~~ wide for alternate #1 and ~~10'-0"~~ 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.

1---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 floor beams where care shall be taken so as not to damage the steel flanges. Saw cutting of the slab shall not extend far 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 floor beams 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.

As Built 1987

100-315

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

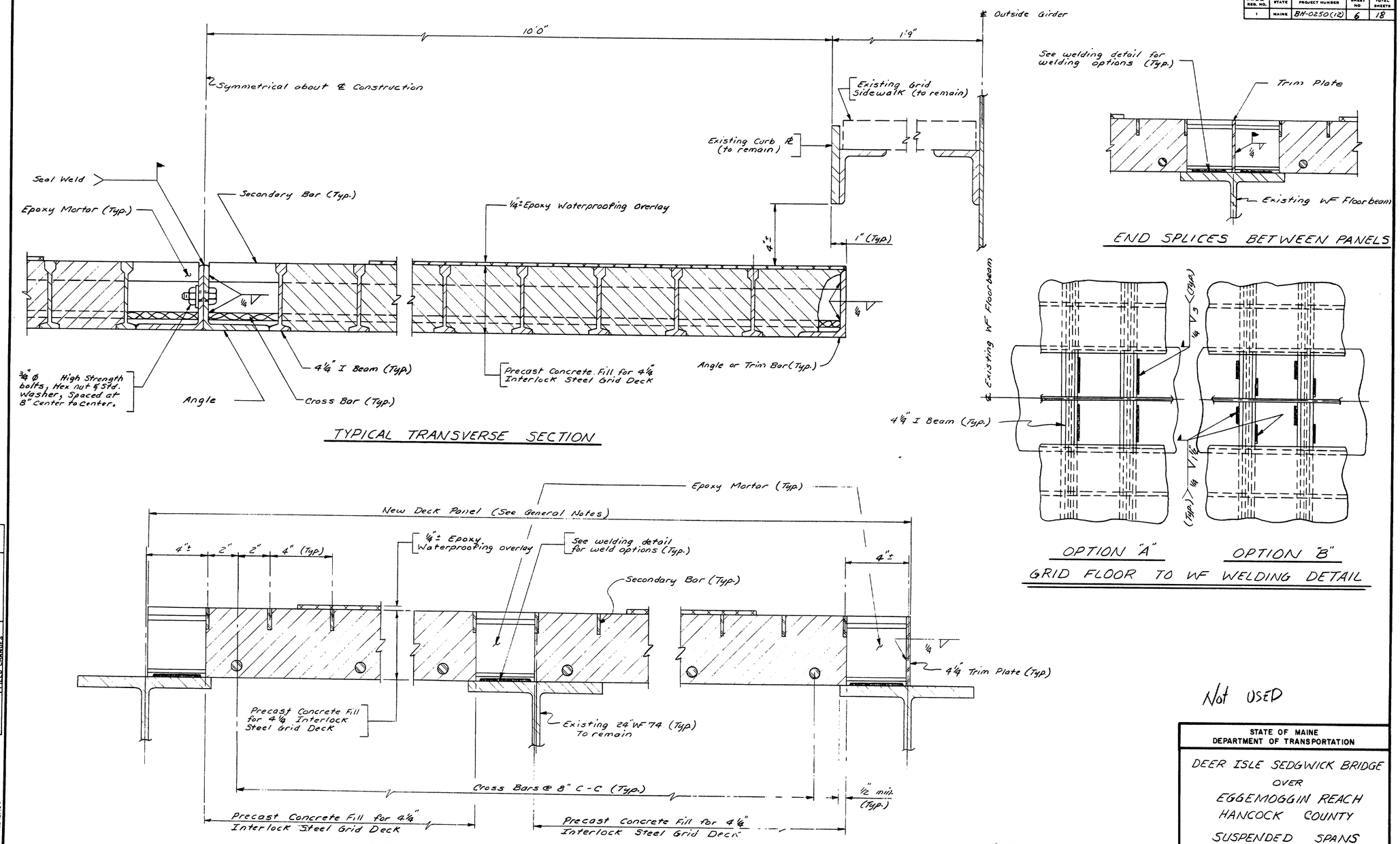
DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
FLOORBEAM LAYOUT

SHEET 5 OF 18 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	BAS	5-86
	CHECKED	LRK	7-86
	REVISIONS	MLD	
	FIELD CHANGES		

DRAWING 44-132-4571-0-1

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



Not USED

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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

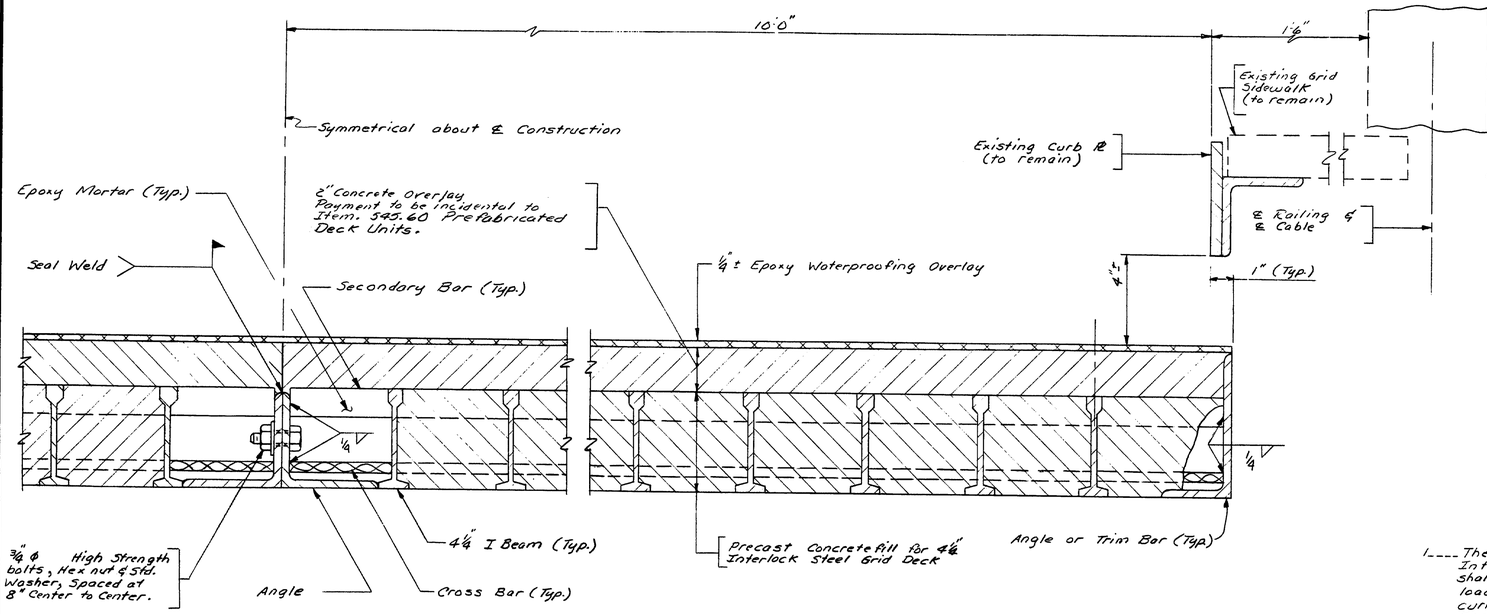
SHEET 6 OF 18 AUGUSTA, MAINE

100-316

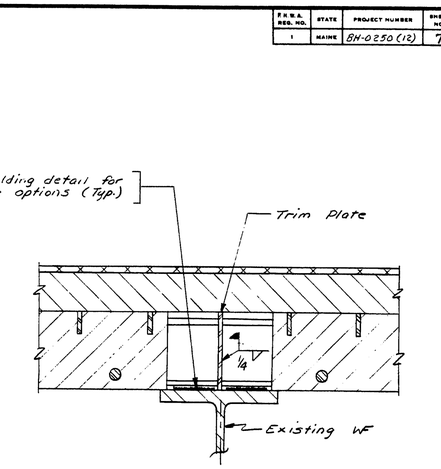
PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	BAS RW	6-86
CHECKED	NLB	7-86
REVISIONS		
FIELD CHANGES		

BRUNING 44-132 45710-1

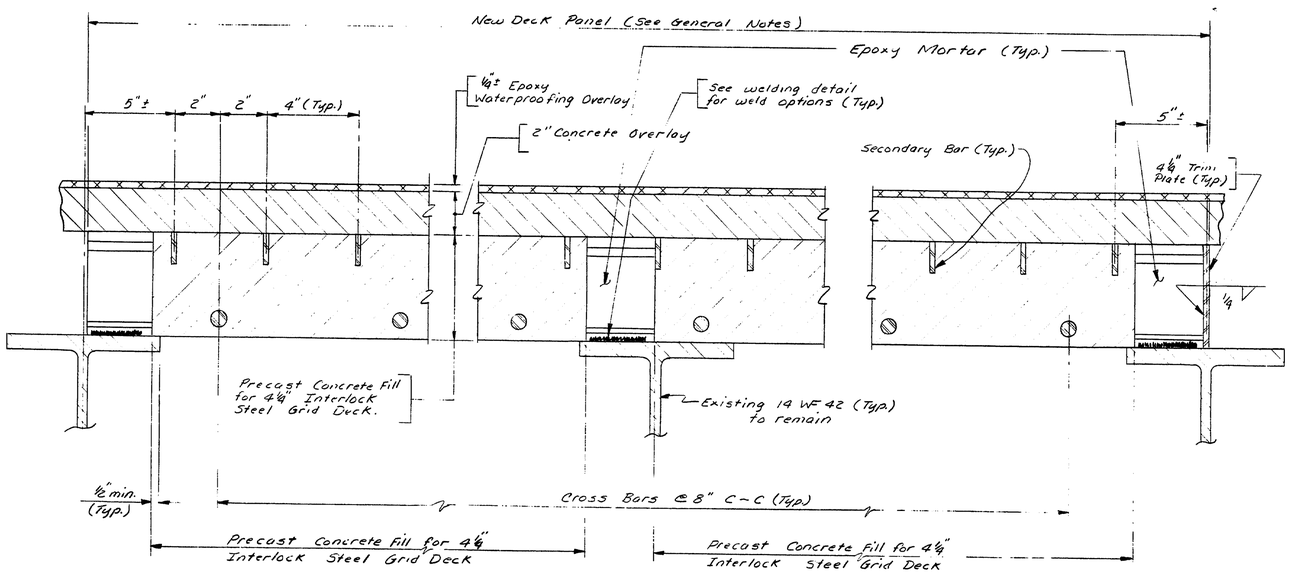
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-0230(12)	7	18



TYPICAL TRANSVERSE SECTION



END SPLICES BETWEEN PANELS



TYPICAL LONGITUDINAL SECTION

STEEL GRID NOTES

1---The Concrete filled 4 1/4" Interlock Steel Grid Deck shall be designed for a live load of HS 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.

Not USED

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	BAS	6-86
CHECKED	RAV	7-86
REVISIONS	NLB	
FIELD CHANGES		

BRUNING 44-132-4571D-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

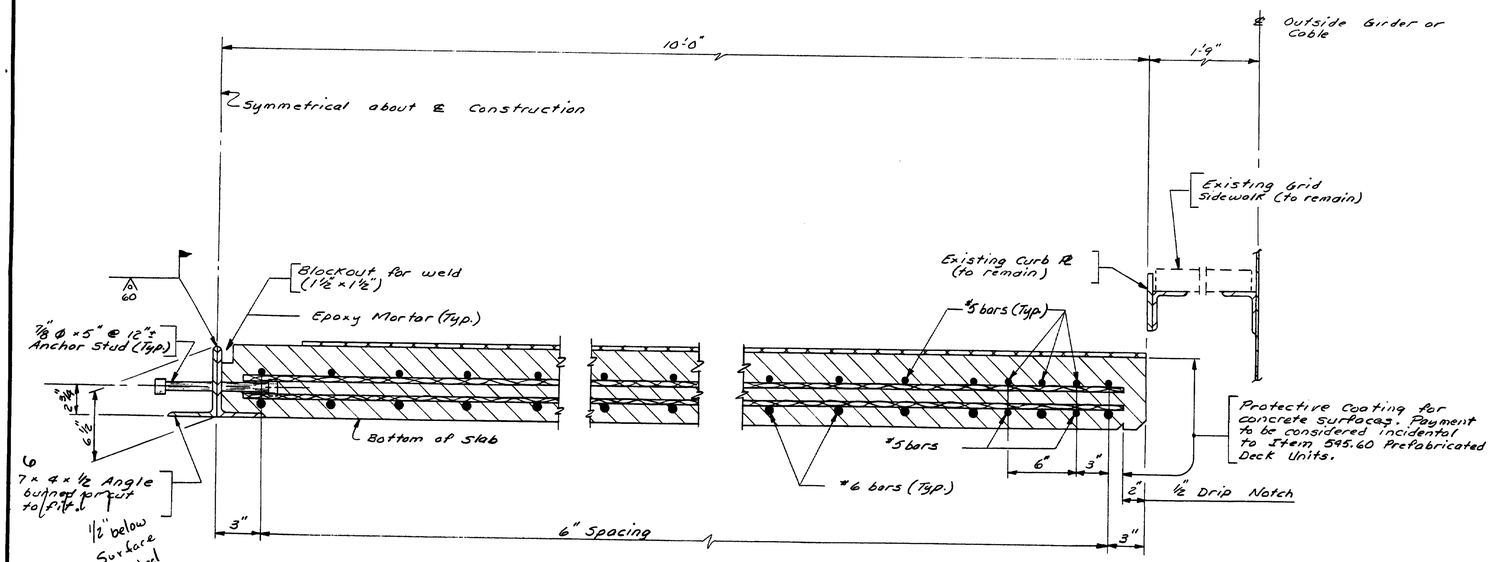
DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY

APPROACH SPANS
ALTERNATE NO 1

SHEET 7 OF 18 AUGUSTA, MAINE

100-317

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



TYPICAL TRANSVERSE SECTION

PRECAST CONCRETE SLAB NOTES

1. All reinforcing steel shall be epoxy coated and shall have 2 inches cover unless otherwise indicated.

2. 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 6 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.

3. The concrete used shall have a 28 day compressive strength of 4000 psi and shall have a maximum weight of 115 LBS/FT³.

4. After a precast deck unit is erected into its proper position ~~shear connector studs~~ ANGLE SEC. 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

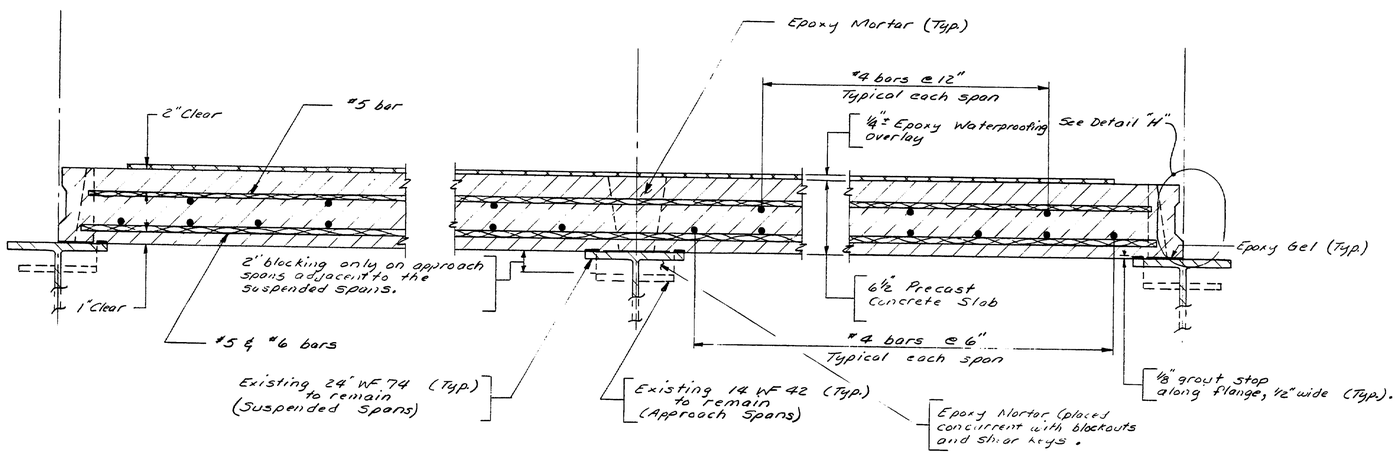
5. The Contractor shall support the precast slab units at the fabrication site, during transportation and during lifting, in such a manner as to prevent any cracking or damage from occurring to the slab units.

6. The minimum splices for reinforcing steel are as follows: #5 bars 2'-3" and #6 bars 2'-9".

7. ⅛" 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.

8. 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.

9. The Contractor shall not be required to test the shear connector welds by the bending test specified in Section 506 of the Standard Specifications.



TYPICAL LONGITUDINAL SECTION

PROJECT BRIDGE ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	BAS	6-86
CHECKED	GRV	7-86
REVISIONS	MJB	
FIELD CHANGES		

BRUNING 44-132 4571D-1

As Built 1987

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

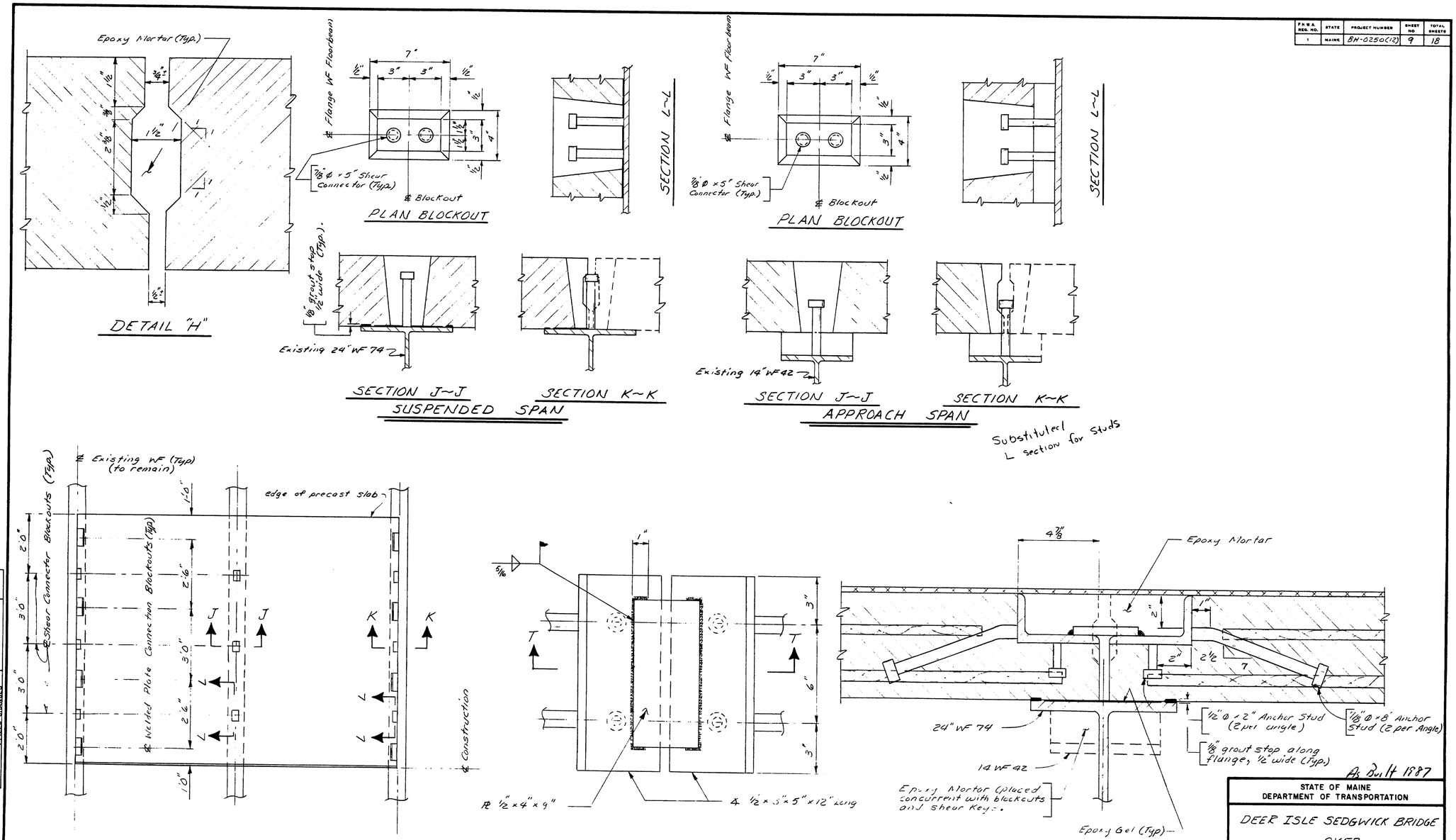
DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY

APPROACH & SUSPENDED SPANS
ALTERNATE NO. 2

SHEET 8 OF 18 AUGUSTA, MAINE

100-318

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



As Built 1987

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY

DETAILS
ALTERNATE NO. 2

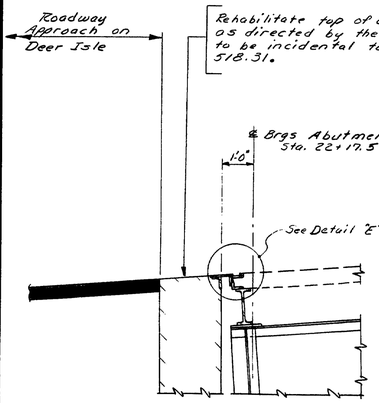
SHEET 9 OF 18 AUGUSTA, MAINE

100-319

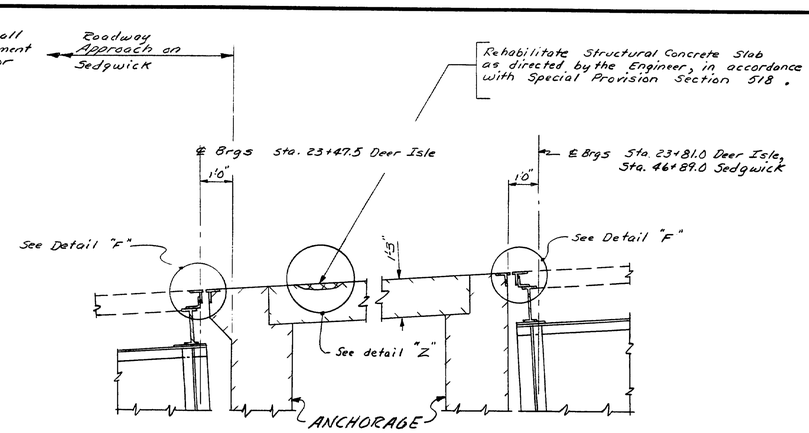
PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	BAS RNF	7-86
	CHECKED	NLB	7-86
	REVISIONS		
	FIELD CHANGES		

BRUNING 44-132 45710-1

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-0250(12)	10	18

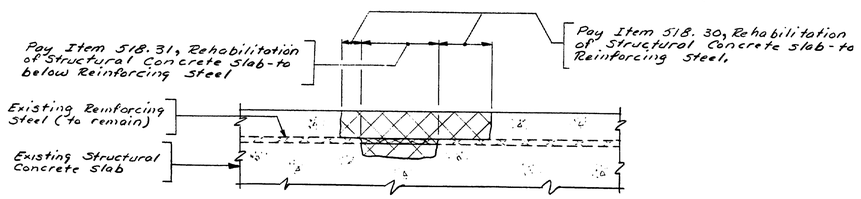


SECTION A~A

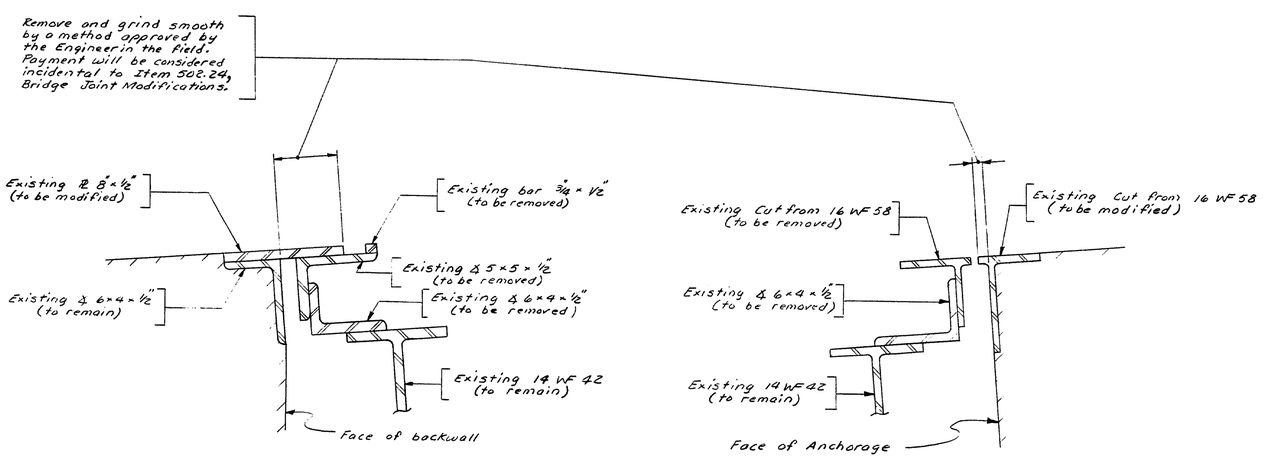


SECTION B~B

(Section taken thru Deer Isle or Sedgwick Anchorage)



DETAIL "Z"



DETAIL "E"

Sta. 22+16.5±

NOTE: For joint modifications See Sheet #11.

DETAIL "F"

Sta. 23+46.5±,
Sta. 23+80±,
Sta 46+88±.

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 #1. 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

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN-DETAILED	BAS	6-86
CHECKED	RJV	7-86
REVISIONS	NLB	
FIELD CHANGES		

As Built 1987

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

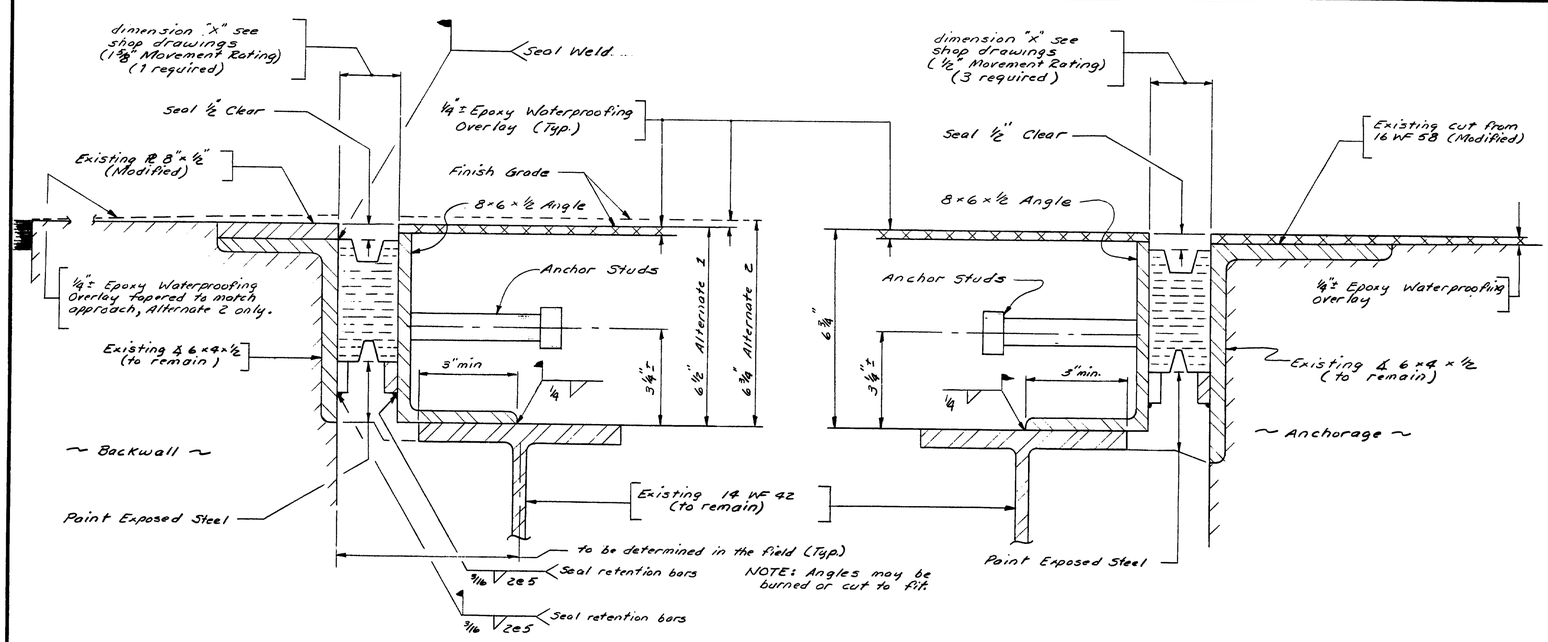
DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
BRIDGE JOINT DETAILS

SHEET 10 OF 18 AUGUSTA, MAINE

100-320

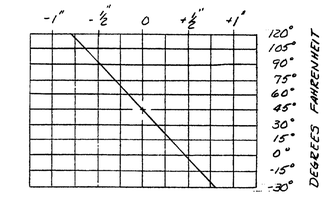
BRUNING 44-132 4S710.1

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-0250(12)	11	18



DETAIL "E" MODIFIED

DETAIL "F" MODIFIED



COMPRESSION SEAL ADJUSTMENT CHART

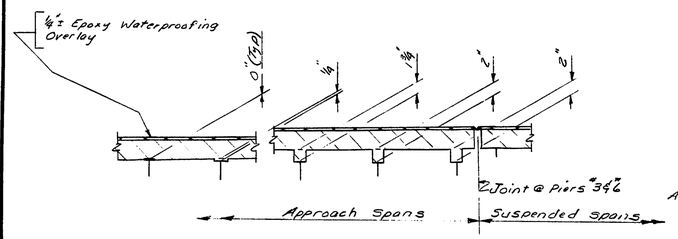
1. The seal to be furnished at the Deer Isle Abutment shall have a movement rating of 1 3/8 inches. The seals furnished at the anchorages shall have a movement rating of 1/2 inch.

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.

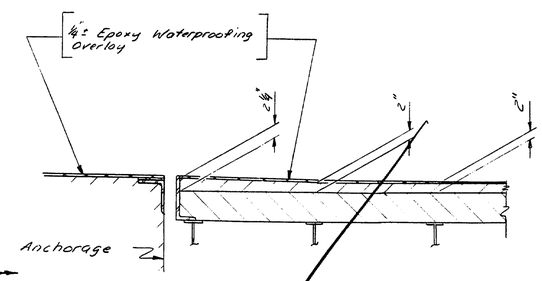
4. The anchorage and abutment backwall concrete will be in place before the final adjustments to the joints are made and no allowance for movement due to dead load deflections is needed.

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.



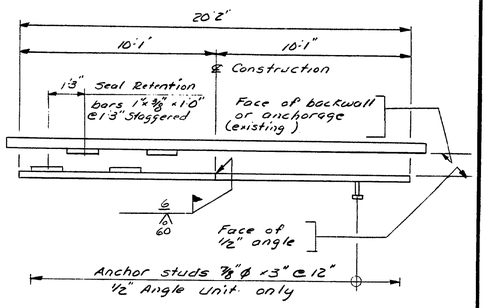
ALTERNATE 2 BLOCKING TRANSITION

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



ALTERNATE 1 CONCRETE WEARING SURFACE TRANSITION

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 Alternate 2 and the back of the Sedgwick Anchorage for both Alternates.



PLAN ARMOR ASSEMBLY

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	BAS	6-86
CHECKED	RVV	7-86
REVISIONS	NLR	
FIELD CHANGES		

As Built 1987

100-321

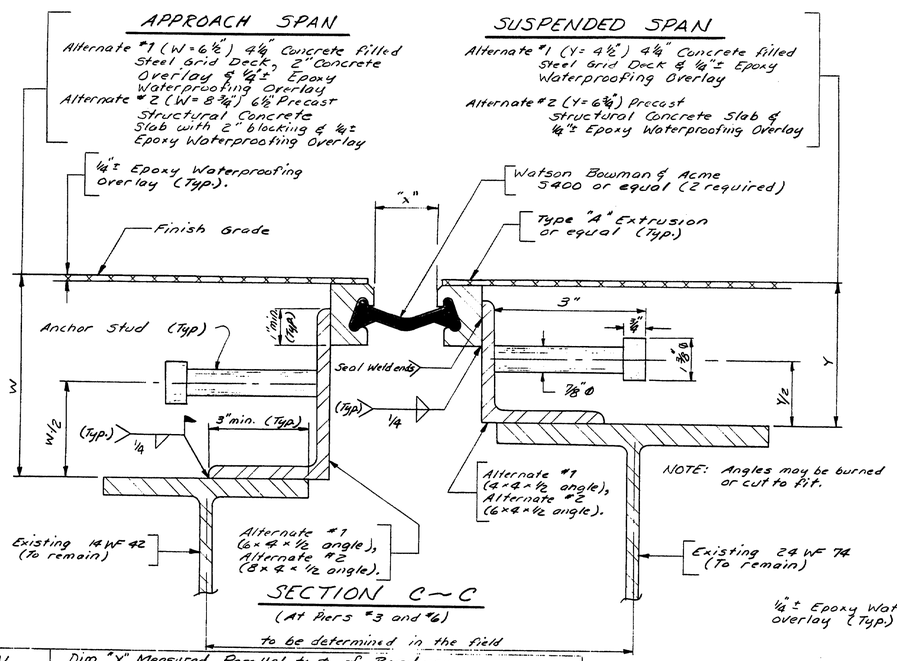
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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

SHEET 11 OF 18 AUGUSTA, MAINE

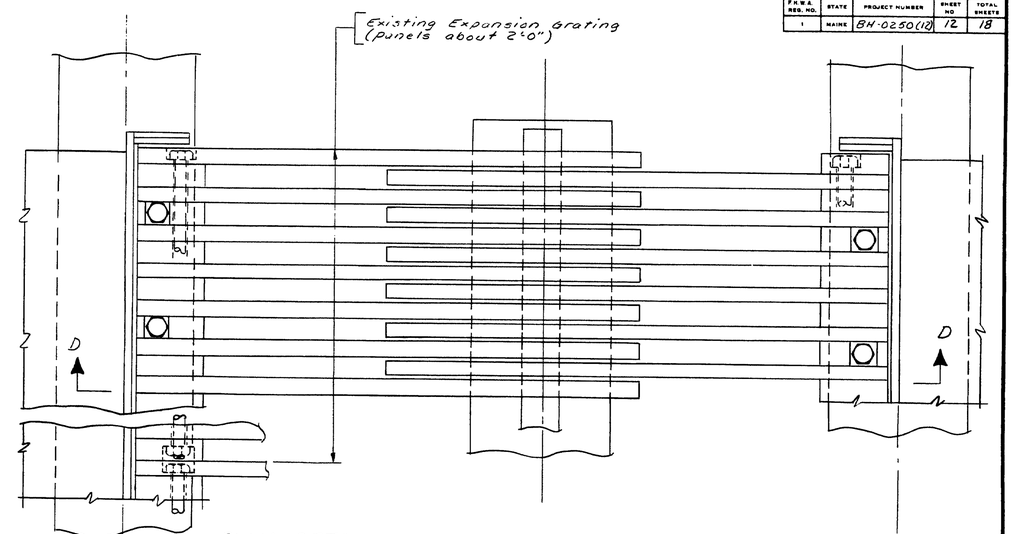
BRUNING 44-132 45710-1

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

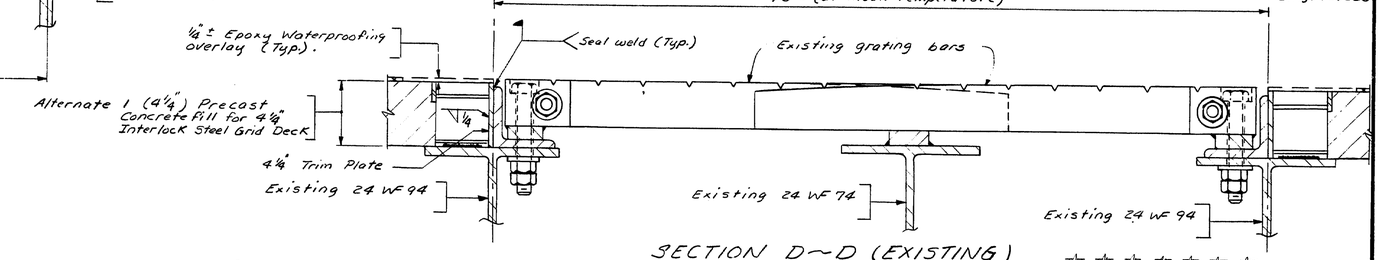


SECTION C~C
(At Piers #3 and #6)
to be determined in the field

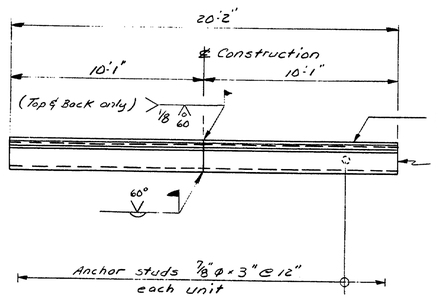
TOTAL MOVEMENT REQUIRED	Dim "X" Measured Parallel to ℄ of Roadway Temperature (°F)										
	120°	105°	90°	75°	60°	45°	30°	15°	0°	-15°	-30°
3"	½"	¾"	1⅛"	1⅜"	1¾"	2"	2¼"	2⅝"	2⅞"	3⅛"	3½"
GLAND SEAL SETTING TABLE											



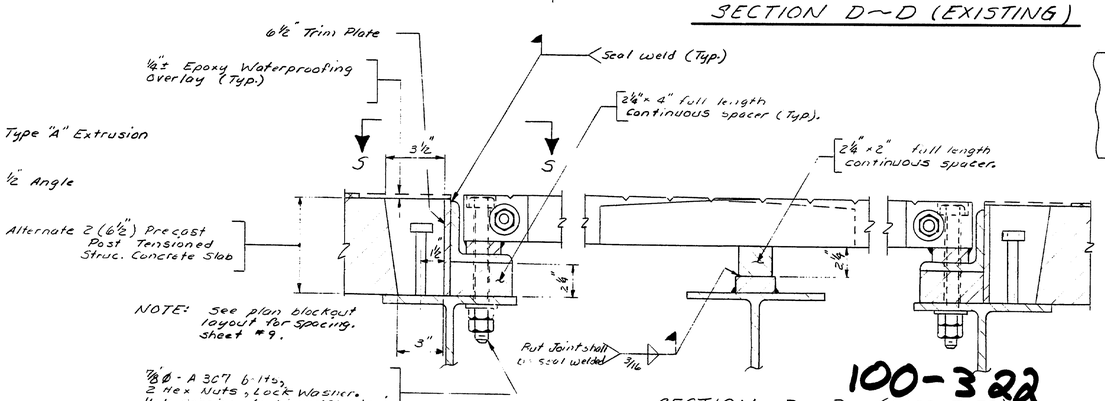
PLAN DETAIL OF EXISTING EXPANSION GRATING



SECTION D~D (EXISTING)



ELEVATION ARMOR ASSEMBLY

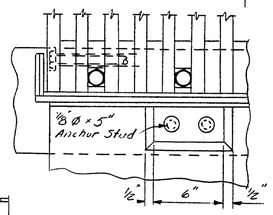


NOTE: See plan blockout layout for spacing. Sheet #9.

⅞" Ø - A 307 bolts, 2 Hex Nuts, Lock Washer. Hole spacing to be verified in the field prior to fabrication of Spacers.

SECTION D~D (MODIFIED)

Note: Modify existing expansion gratings as shown for Alternate #2. Payment for modifications to be incidental to related contract items.



DETAIL S~S

As Built 1987

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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

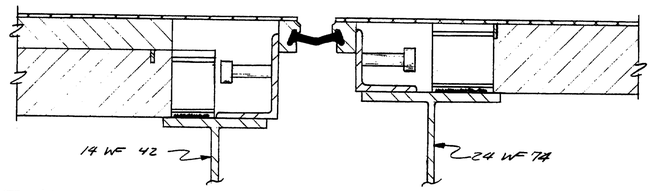
SHEET 12 OF 18 AUGUSTA, MAINE

100-322

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	BAS RN	6-86
CHECKED	NLB	7-86
REVISIONS		
FIELD CHANGES		

BRUNING 44-132 45710-1

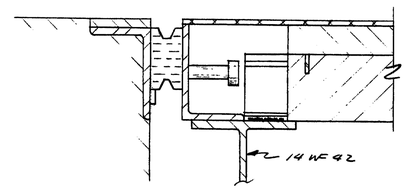
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-0250(12)	13	18



Approach Side of Cable Bent

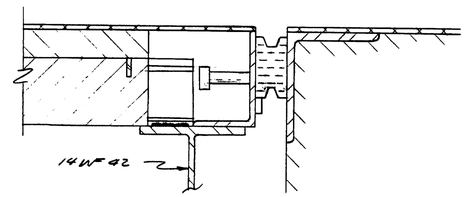
Suspended Side of Cable Bent

SECTION C~C



Deer Isle Abutment

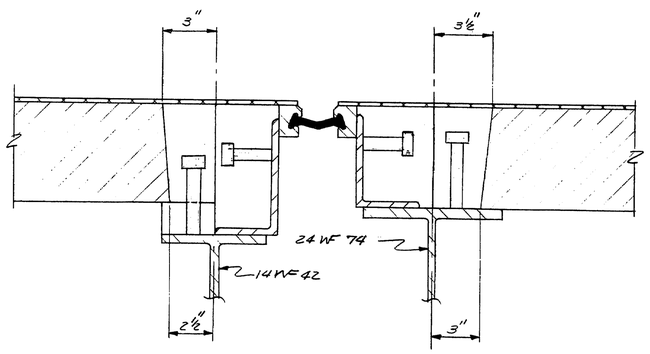
DETAIL E



Anchorage

DETAIL F

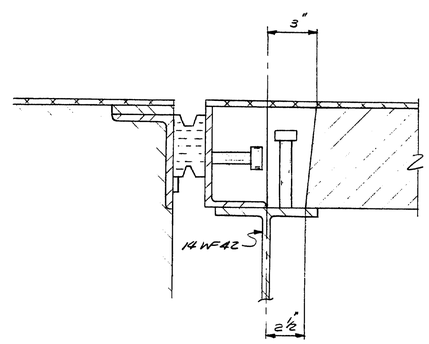
BLOCKOUT SECTIONS AT JOINTS ~ ALTERNATE #1



Approach Side of Cable Bent

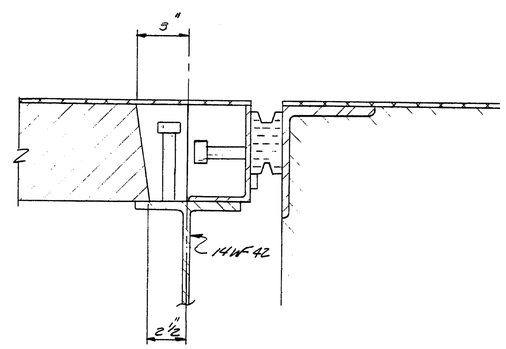
Suspended Side of Cable Bent

SECTION C~C



Deer Isle Abutment

DETAIL ~ E



Anchorage

DETAIL ~ F

BLOCKOUT SECTIONS AT JOINTS ~ ALTERNATE #2

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

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN-DETAILED	BAS	7-86
CHECKED	RVC	8-86
REVISIONS	NLB	
FIELD CHANGES		

BRUNING 44-132 4570-1

As Built 1987

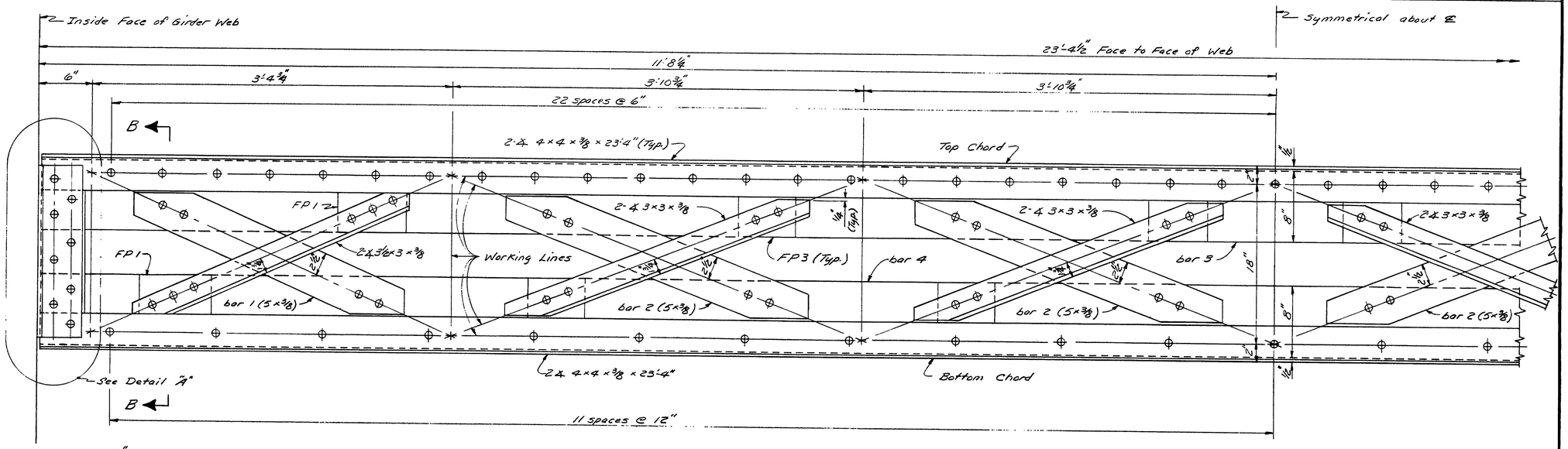
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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

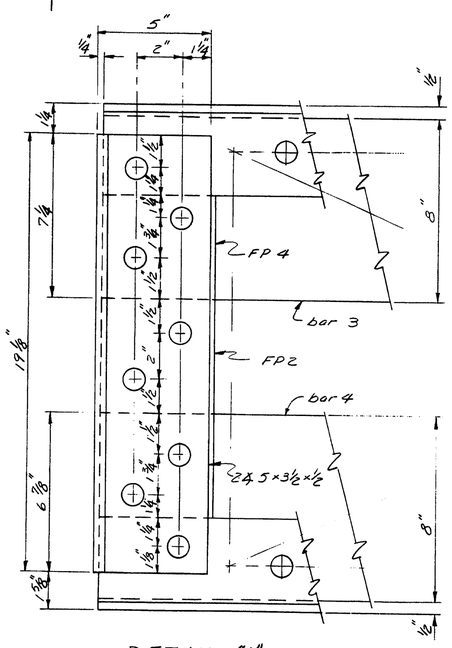
SHEET 13 OF 18 AUGUSTA, MAINE

100-323

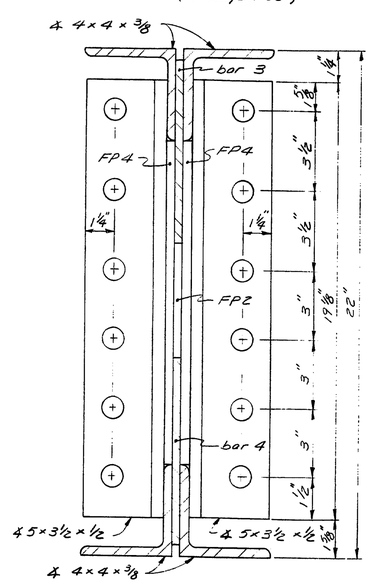
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	BH-0250(12)	A	D



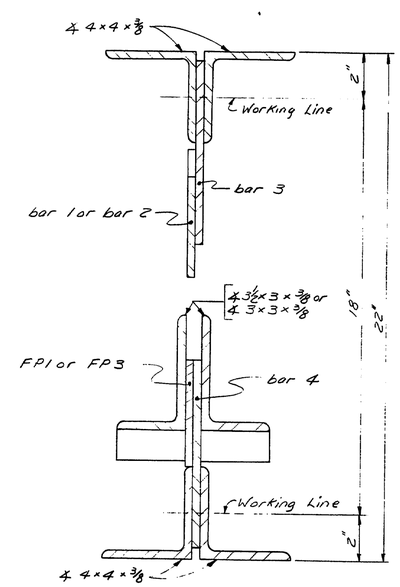
HALF ELEVATION TRUSS BEAM
(4 Required)



DETAIL "A"



SECTION B–B



TYPICAL SECTION

INSTALLED BY
BRIDE MAINT. 1988

ESTIMATED TOTAL WEIGHT

4-Truss Beam Alternate = 7,450 Lbs

All Holes 1" ϕ
H.S. Bolts 7/8" ϕ
Bridge No. 3257

100-324

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

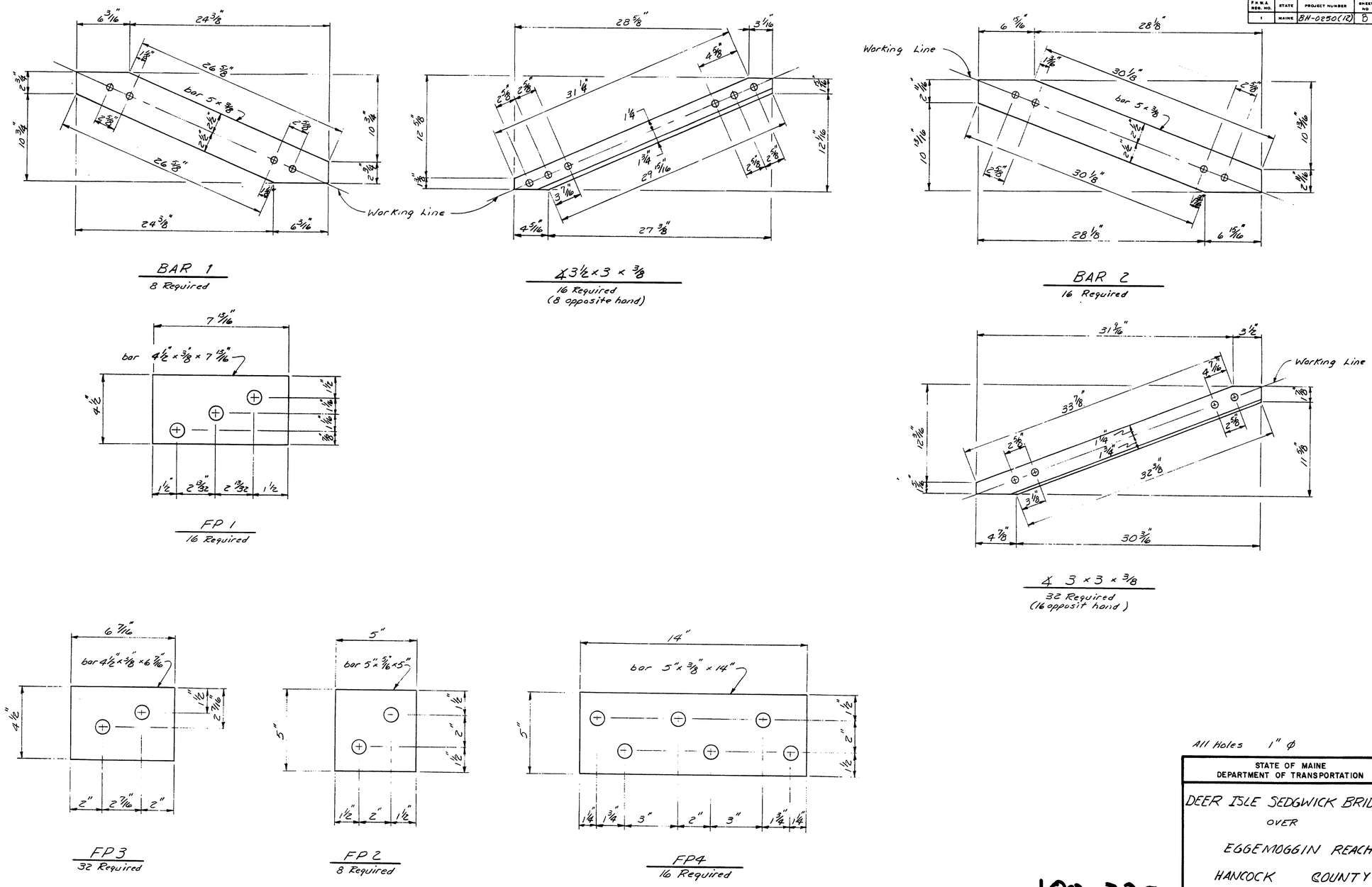
DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
TRUSS BEAM ALTERNATE

SHEET 1 OF 4 AUGUSTA, MAINE

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN-DETAILED	BAS	4-88
	CHECKED	PAV	5-88
	REVISIONS	MR	
	FINAL CHANGES		

BRUNING 44-132 4571D-1

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



All Holes 1" ϕ

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
TRUSS BEAM ALTERNATE

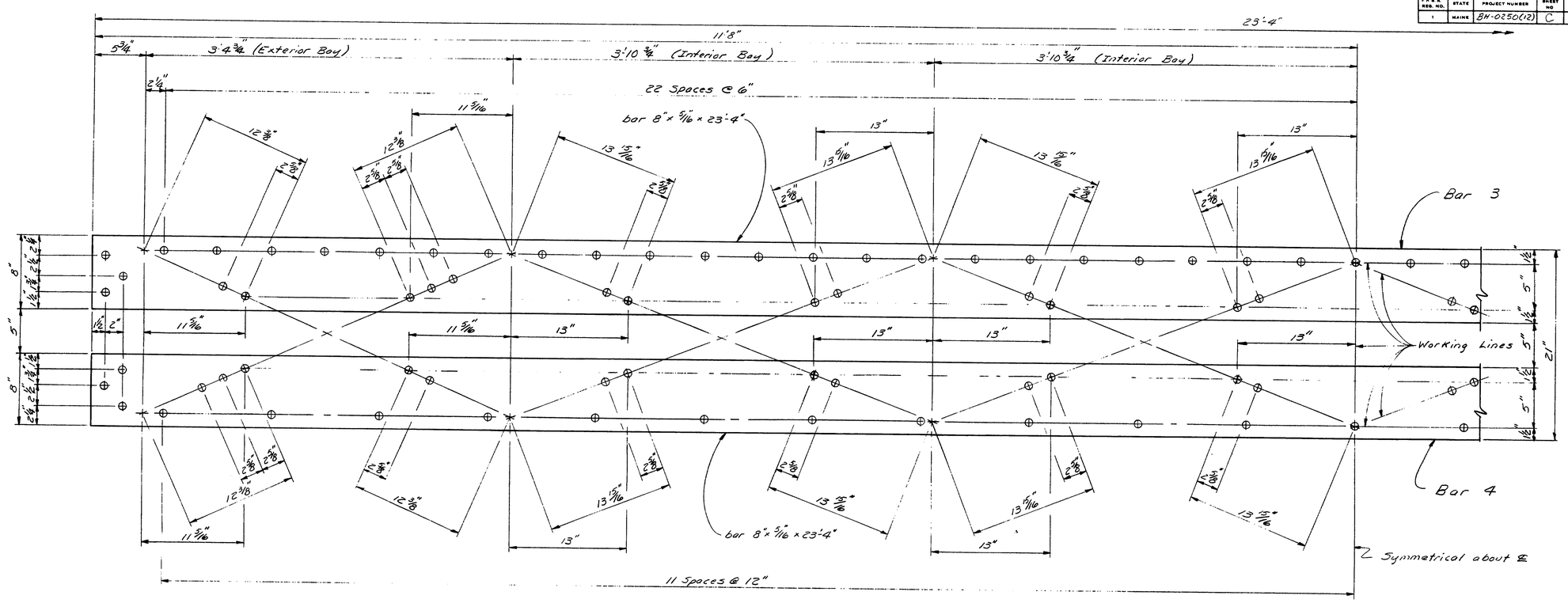
SHEET 2 OF 4 AUGUSTA, MAINE

100-325

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN - DETAILED	BAS RN	4-88
CHECKED	NLA	5-88
REVISIONS		
FIELD CHANGES		

BRUNING 44-132 45710-1

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



BAR 3
4 Required

BAR 4
4 Required

Not USED

LIST OF MATERIALS

Quantity	Description	Location
16	∠ 5 × 3½ × ½ × 1'-7⅛"	Web Connection ∠s
16	∠ 4 × 4 × ⅜ × 23'-4"	Top & Bottom Chord ∠s
16	∠ 3½ × 3 × ⅜ × 2'-10 9/16"	Exterior Diagonal
32	∠ 3 × 3 × ⅜ × 3'-1 9/16"	Interior Diagonal
8	bar 1, bar 5 × ⅜ × 2'-9 7/16"	Exterior Diagonal
16	bar 2, bar 5 × ⅜ × 3'-1 3/16"	Interior Diagonal
4	bar 3, bar 8 × 5/16 × 23'-4"	Top Chord
4	bar 4, bar 8 × 5/16 × 23'-4"	Bottom Chord
16	FP1, bar 4½ × ⅜ × 7 13/16"	Filler Plate Exterior Diagonal
8	FP2, bar 5 × 5/16 × 0'-5"	Filler Plate Ends
32	FP3, bar 4½ × ⅜ × 0'-6 7/16"	Filler Plate Interior Diagonal
16	FP4, bar 5 × ⅜ × 1'-2"	Filler Plate Ends

All Holes 1" ϕ

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	BAS	4-88
CHECKED	PW	5-88
REVISIONS	WLB	
FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

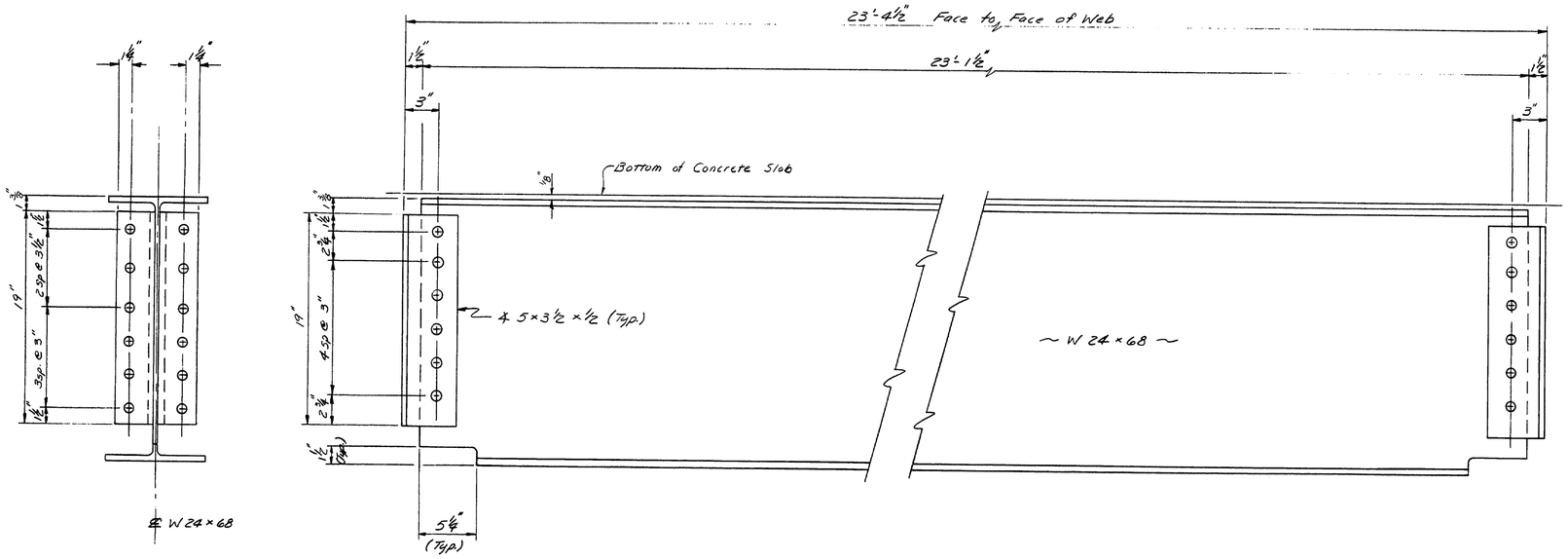
DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
TRUSS BEAM ALTERNATE

SHEET 3 OF 4 AUGUSTA, MAINE

100-326

BRUNING 44-132 45710-1

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



END VIEW

ELEVATION W 24×68
(4 Required)

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 ---------- HS 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 -- Fy 36,000psi

ASTM A572 -- Fy 50,000psi

ASTM A325 -- Fv 25,000psi

FABRICATION NOTES

1. ---- All bolts shall be ⅞" Φ 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 ⅛ inch larger in diameter than the bolts used, and edge distances shall be 1½ 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 ⅛ 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.O.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 at piers #4 and #5.

NOT USED

LIST OF MATERIALS

Quantity	Description	Location
16	∠ 5×3½×½×1'-7"	Web Connection ∠s
4	W 24×68×23'-1½"	Beam

ESTIMATED TOTAL WEIGHT

4 - W 74×68 Alternate = 6,650 Lbs

100-327

PROJECT DESIGN ENGINEER		BY	DATE
PLANS	DESIGN - DETAILED	BAS	5-88
	CHECKED	RW	5-88
	REVISIONS		
	FIELD CHANGES		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
HANCOCK COUNTY
W24×68 ALTERNATE

SHEET 4 OF 4 AUGUSTA, MAINE

BRUNING 44-132 45710-1

REEL 100

328-410

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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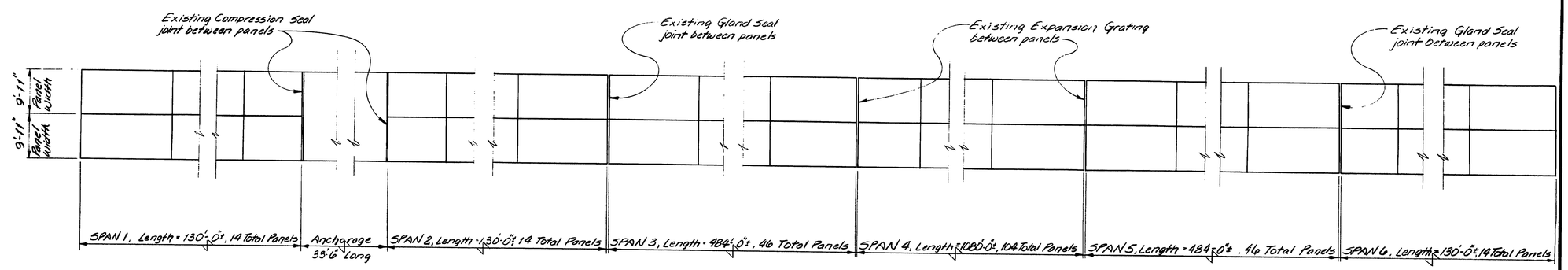
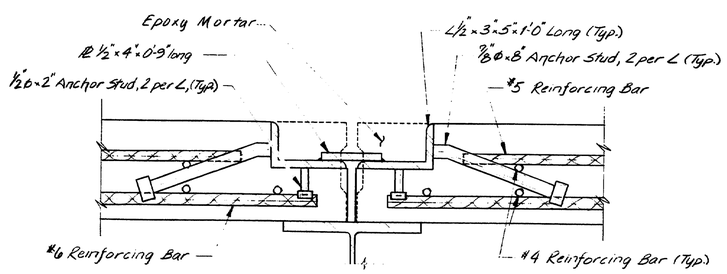


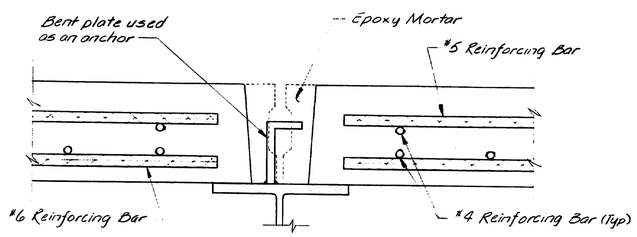
DEER ISLE

SEDGWICK

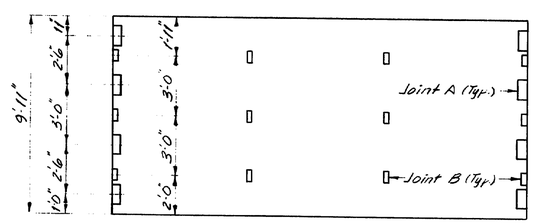
PRECAST SLAB PANEL LAYOUT



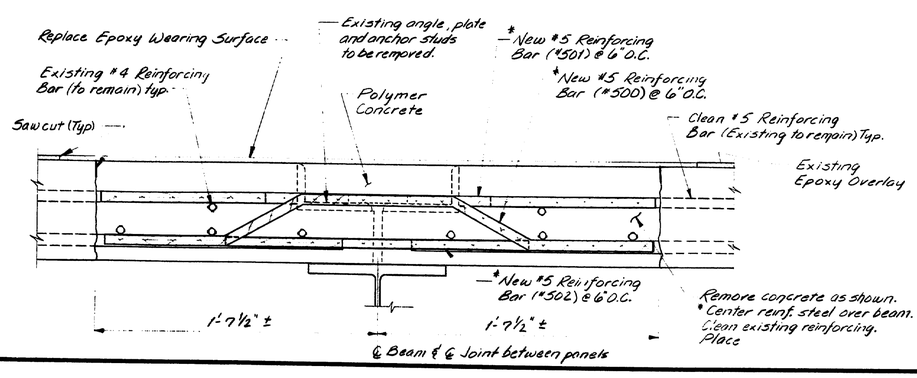
EXISTING JOINT BETWEEN PANELS (JOINT A)



EXISTING JOINT BETWEEN PANELS (JOINT B)



TYPICAL SLAB PANEL PLAN



Remove concrete as shown.
* Center reinf. steel over beam.
Clean existing reinforcing.
Place

REPAIR PROCEDURES

DAMAGE	REPAIR
JOINT "B" ONLY:	Remove all existing Epoxy Mortar. Replace Mortar with Polymer Concrete (Silikal)
JOINT "A", Structurally sound, concrete in good condition (Except Epoxy Mortar)	Remove existing Epoxy Mortar. Inspect and reweld 1/2" PL if necessary. Replace mortar with Polymer Concrete (Silikal)
JOINT "A" Concrete at end of slab cracked or broken.	Remove end of slab and repair entire length of joint as shown in the detail at the left.

REINFORCING STEEL SCHEDULE

MARK	NO.	LENGTH	DETAIL
*500	*	3'-1 1/2"	8" 5" 10" 5" 8"
*501	*	3'-2"	
*502	*	1'-8"	
			*500 3 1/2" out to out

Reinforcing steel to be A615 Grade 60
* Field Determine

GENERAL NOTES

1. Select type of repair based on condition of joint.
2. Saw cut Epoxy wearing surface around repair area.
3. Remove all Epoxy Mortar.
4. Sand blast areas prior to placing Polymer concrete and again before placing Epoxy wearing surface overlay.
5. Epoxy wearing surface to be Polycarb-Flexogrid.

111-52

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
BETWEEN
DEER ISLE & SEDGWICK
HANCOCK COUNTY

GENERAL PLANS

SHEET 1 OF 1 AUGUSTA, MAINE Feb. 1990

PROJECT DESIGN ENGINEER	BY	DATE
PLANS DESIGN-DETAILED	LSB	2-90
CHECKED		
REVISIONS		
FIELD CHANGES		

BRIGHING 457101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

DESIGN: AASHTO Standard Specifications for Highway Bridges, 17th Edition 2002 and Interim Specifications through March 2005.

DESIGN LOADING

Live Load H20

TRAFFIC DATA

Current (2005) AADT	3,470
Future (2025) AADT	5,210
DHV - % of AADT	12
Design Hour Volume	625
% Heavy Trucks (AADT)	7
% Heavy Trucks (DHV)	5
Directional Distribution (DHV)	50
18 kip Equivalent P 2.0	104
18 kip Equivalent P 2.5	100
Design Speed (mph)	25

HYDROLOGIC DATA

Mean Lower Low Water (MLLW)	-5.712 ft
Mean Low Water (MLW)	-5.312 ft
Mean Tide Level (MTL)	-0.312 ft
Mean High Water (MHW)	4.688 ft
Mean Higher High Water (MHHW)	5.788 ft
2006 Predicted High Tide	6.788 ft

MATERIALS

Concrete (Deck)	4,000 psi, 3/8" Max. Aggregate Size
Concrete (All Other)	Class "A"
Reinforcing Steel	AASHTO M 31 (ASTM A 615, Grade 60)
Structural Steel	AASHTO M 270 (ASTM A 709, Grade 36) (Unless Otherwise Noted)
High Strength Bolts	AASHTO M 164 (ASTM A 325, Type 1) (Unless Otherwise Noted)
Steel Grid	AASHTO M 270 (ASTM A 709, Grade 50)
Shear Connectors	AASHTO M 169 (ASTM A 108)

BASIC DESIGN STRESSES

Concrete (Deck)	f 'c = 4,000 psi
Concrete (All Other)	f 'c = 4,350 psi
AASHTO M 31 (ASTM A 615, Grade 60)	f y = 60,000 psi
Structural Steel:	
AASHTO M 270 (ASTM A 709, Grade 36)	F y = 36,000 psi
AASHTO M 270 (ASTM A 709, Grade 50)	F y = 50,000 psi
AASHTO M 164 (ASTM A 325)	F u = 120,000 psi
AASHTO M 169 (ASTM A 108, Grade 60)	F u = 60,000 psi
ASTM 1011 Galv.	Fs = 18,000 psi

UTILITIES

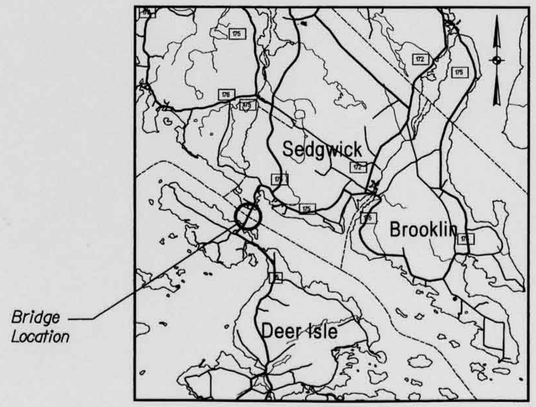
Adelphia Communications Corporation
Bangor Hydro-Electric Company
Verizon

MAINTENANCE OF TRAFFIC

One lane of traffic 9'-0" wide, using temporary traffic signals, shall be typically maintained throughout construction. Periodic bridge closures (no traffic except emergency vehicles) and periodic complete bridge openings (two lanes of unobstructed traffic) shall be scheduled throughout the work as approved by the Engineer. See Special Provision Section 652.

DEER ISLE-SEDGWICK
HANCOCK COUNTY
DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
US ROUTE 15

PROJECT No. BH-1006(200)X
PROJECT LENGTH 0.539 mi.
BRIDGE REHABILITATION
BRIDGE NO. 3257



LOCATION MAP

2 0 2 4
Scale In Miles

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SCOPE OF WORK

THE WORK UNDER THIS PROJECT SHALL CONSIST OF THE FOLLOWING MAJOR ITEMS OF WORK:

- DECK REMOVAL AND REPLACEMENT
- HIGH PERFORMANCE WATERPROOFING MEMBRANE
- DECK JOINT REMOVAL AND REPLACEMENT
- SHEAR CONNECTOR INSTALLATION
- STRUCTURAL STEEL REPAIRS
- STRUCTURAL CONCRETE REPAIRS
- MICROSURFACING AND PAVING
- FABRIC TROUGH INSTALLATION
- GUARDRAIL INSTALLATION

141-~~155~~ 202

Lichtenstein
Consulting Engineers

PIN 10062.00

BH-1006(200)X

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED	DATE
COMMISSIONER:	2/06/06
CHIEF ENGINEER:	03/08/06

STATE OF MAINE JOSEPH J. PALLADINO NO. 10364 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 10364
P.E. NUMBER
02/13/06
DATE

PROJECT INFORMATION

PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	DEVIN ANDERSON
DESIGNER	CONSULTANT
CONSULTANT	LICHTENSTEIN
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

DEER ISLE-SEDGWICK
DEER ISLE-SEDGWICK BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 25

Filename: 001_Title Sheet.dgn Division: Bridge Username: $user$ Date:2/9/2006

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	Removing Existing Superstructure (Property of Contractor) (1,100 CY)	1	LS
202.127	Removing of Existing Bituminous Pavement (25 CY)	1	LS
403.210	Hot Mix Asphalt, 9.5 mm Nominal Maximum Size	55	TON
403.213	Hot Mix Asphalt, 12.5 mm Nominal Maximum Size, Base	55	TON
409.15	Bituminous Tack Coat, Applied	100	G
462.001	Microsurfacing (5,600 SY)	1	LS
502.49	Structural Concrete Curbs And Sidewalks (1.5 CY)	1	LS
504.81	Floorbeam Retrofit	4	EA
504.83	Expansion Joint Support Beam Retrofit	1	LS
504.84	Channel Shear Connectors (24,000 LBS)	1	LS
505.08	Shear Connectors (21,500 EA)	1	LS
507.131	Temporary Bridge Rail	1	LS
508.14	High Performance Waterproofing Membrane (Anchorages) (1,500 SF)	1	LS
508.14	High Performance Membrane Waterproofing (Deck) (49,000 SF)	1	LS
518.51	Repair of Upward Facing Surfaces-Below Reinforcing Steel, <7.9"	250	SF
518.60	Repair of Vertical Surfaces, < 7.9"	3,000	SF
518.61	Repair of Vertical Surfaces, >7.9"	30	CY
518.80	Crack Repair	100	LF
520.21	Expansion Device - Gland Seal	2	EA
520.22	Expansion Device - Compression Seal	4	EA
521.231	Expansion Joint Device - Finger Joint Removed and Reset	2	EA
521.32	Fabric Trough for Finger Joint	2	EA
530.00	Prefabricated Deck Panel (49,000 SF)	1	LS
606.151	Guardrail Type 3aa - Single Rail (Corrosion Resistant Steel)	600	LF
606.1722	Bridge Transition - Type 2 (Corrosion Resistant Steel)	4	EA
606.25	Terminal Connector (Corrosion Resistant Steel)	4	EA
606.266	Guardrail Terminal End (Trailing End)(Corrosion Resistant Steel)	2	EA
606.35	Guardrail Delineator Post	12	EA
606.79	Guardrail 350 Flared End Terminal (Corrosion Resistant Steel)	2	EA
627.711	White or Yellow Painted Pavement Marking Line (Plan Quantity)	8,000	LF
638.18	Field Office, Type A	1	EA
643.72	Temporary Traffic Signal	1	LS
652.38	Flaggers	650	HR
652.39	Work Zone Traffic Control	1	LS
659.10	Mobilization	1	LS
660.21	On-The-Job Training (Bid)	6, 000	HR

GENERAL NOTES:

1. THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS," DECEMBER 2002, AND "STANDARD DETAILS," DECEMBER 2002 INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND THE SPECIAL PROVISIONS OF THIS CONTRACT.

2. DIMENSIONS, ANGLES, STATIONING AND ELEVATIONS SHOWN ON EXISTING DETAILS ARE TAKEN FROM THE CONSTRUCTION DRAWINGS DATED SEPTEMBER 14, 1937 THROUGH JUNE 24, 1939 SUPPLEMENTED BY LIMITED FIELD MEASUREMENTS AND ARE NOT GUARANTEED TO BE CORRECT. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS, ANGLES, ELEVATIONS AND EXISTING DETAILS NECESSARY FOR THE COMPLETION OF ALL WORK BY FIELD MEASUREMENTS AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY EXISTING FIELD CONDITIONS (i.e. MEMBER SIZES, PLATE SIZES, AND MEMBER CONFIGURATION) BY FIELD MEASUREMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF AND SHALL NOT COMMENCE ANY FABRICATION UNTIL HE HAS MADE THE REQUIRED MEASUREMENTS ON THE ACTUAL STRUCTURE AND THE SUBMITTED SHOP DRAWINGS HAVE BEEN APPROVED BY THE ENGINEER. SHOP DRAWINGS SHALL STATE THAT THE EXISTING DIMENSIONS, ANGLES, ELEVATIONS AND FIELD CONDITIONS HAVE BEEN FIELD VERIFIED BY THE CONTRACTOR.

3. ALL DIRT, RUST, SCALE, SLAG, PAINT AND OTHER FOREIGN MATTER SHALL BE REMOVED FROM THE EXISTING STRUCTURE IN THE VICINITY OF ANY REPAIR WORK. ANY CLEANING OR MINOR MODIFICATIONS TO COMPONENTS OF THE EXISTING STRUCTURE SUCH AS GRINDING, WELDING OR DRILLING HOLES WHICH ARE REQUIRED TO ACCOMMODATE THE INSTALLATION OF NEW ELEMENTS, AS DETAILED AND FABRICATED, SHALL BE CONSIDERED INCIDENTAL TO THOSE ELEMENTS AND NO ADDITIONAL ALLOWANCE WILL BE MADE FOR SUCH WORK. ALL PROPOSED MODIFICATIONS TO EXISTING COMPONENTS WHICH ARE TO REMAIN AS PART OF THE FINISHED STRUCTURE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING THE WORK. IF THE CONTRACTOR'S OPERATIONS DAMAGE EXISTING MATERIALS TO REMAIN, REPAIRS SHALL BE MADE WITHOUT ADDITIONAL COMPENSATION. IF MAJOR REPAIRS DUE TO DAMAGE ARE REQUIRED, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TESTING AND ENGINEERING DESIGN OF THOSE REPAIRS WITHOUT ADDITIONAL COMPENSATION.

4. THE CONTRACTOR IS NOTIFIED THAT WHILE WORKING AT THE BRIDGE SITE, IT IS UNACCEPTABLE FOR ANY GRIT OR DUST TO ESCAPE THE WORK AREA IN A VISIBLE CLOUD OR PLUME. THE CONTRACTOR IS ALSO NOTIFIED THAT IT IS UNACCEPTABLE FOR ANY MATERIALS OR DEBRIS TO FALL INTO THE AREAS BELOW THE BRIDGE. ALL DEBRIS, MATERIALS, DUST AND GRIT SHALL BE CONTAINED BY DRAPING THE WORK AREA OR BY OTHER APPROVED MEANS AND SHALL BE COLLECTED AND REMOVED FROM THE WORK AREA. THERE WILL BE NO SEPERATE PAYMENT FOR THIS WORK. THE COST SHALL BE CONSIDERED INCIDENTAL TO THE WORK ITEM BEING PERFORMED. IF THE MAINE DEPARTMENT OF TRANSPORTATION DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

5. THE CONTRACTOR IS NOTIFIED THAT THE EXISTING BRIDGE HAS A POSTED LOAD RESTRICTION "TRUCKS AND BUSES OVER 20,000 LBS. G.V.W. MAINTAIN 500' SPACING." THE CONTRACTOR MUST ADHERE TO THE POSTED LOAD RESTRICTIONS AT ALL TIMES.

6. THE LOCATIONS OF THE EXISTING UTILITIES, BRIDGE WIRING AND WEATHER MONITORING INSTRUMENTS (i.e. "UTILITIES AND SPECIAL EQUIPMENT") SHOWN ON THESE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND SPECIAL EQUIPMENT PRIOR TO STARTING WORK. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND SPECIAL EQUIPMENT DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SUPPORTS WHERE REQUIRED BY HIS OPERATIONS. TEMPORARY SUPPORTS SHALL BE APPROVED BY THE UTILITY OR SPECIAL EQUIPMENT OWNER PRIOR TO THEIR INSTALLATION AND USE.

7. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND LICENSES AND PAY ALL CHARGES AND FEES INCURRED. THE CONTRACTOR SHALL GIVE ALL NOTICES NECESSARY AND INCIDENTAL TO THE DUE AND LAWFUL PROSECUTION OF THE WORK, AND SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES, AND REGULATIONS OF THE FEDERAL AND STATE GOVERNMENT.

8. MATERIAL THAT IS SPECIFICALLY CALLED OUT ON THE PLANS AND IS NOT DESIGNATED AS EXISTING SHALL BE NEW MATERIAL.

9. ALL BOLTS SHALL BE HIGH STRENGTH BOLTS MEETING THE REQUIREMENTS OF AASHTO M164 (ASTM 325, TYPE 1). BOLTS SHALL BE $7/8"\phi$ IN $15/16"\phi$ HOLES UNLESS OTHERWISE NOTED. HIGH STRENGTH BOLTS SHALL HAVE A HARDENED WASHER UNDER THE NUT. HARDENED WASHERS SHALL ALSO BE PLACED UNDER THE HEAD IF THE HEAD IS THE TURNED ELEMENT. SLOTTED HOLES, IN ACCORDANCE WITH THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES SHALL BE USED AT LOCATIONS SHOWN ON THE CONTRACT DRAWINGS OR APPROVED BY THE ENGINEER.

10. ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 (ASTM A709) GRADE 36, T2, EXCEPT AS NOTED. WELDED FABRICATION SHALL BE PERFORMED, AND WELDERS SHALL BE CERTIFIED, IN ACCORDANCE WITH THE CURRENT BRIDGE WELDING CODE, ANSI/AASHTO/AWS D1.5 AND ALL INTERIM REVISIONS PUBLISHED AS OF THE BID OPENING DATE. NO WELDING SHALL BE PERMITTED TO EXISTING STEEL UNLESS SPECIFIED ON THE CONTRACT DRAWINGS OR APPROVED IN WRITING BY THE ENGINEER. PAINTING SHALL CONFORM TO THE CONTRACT SPECIFICATIONS.

11. REMOVE GALVANIZING IN AREAS WHERE FIELD WELDING IS REQUIRED.

12. CLEAN AND COAT ALL FIELD WELDS IN ACCORDANCE WITH SECTION 506 OF THE SPECIAL PROVISIONS. THE COST OF ANY REQUIRED CLEANING AND COATING APPLICATION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK BEING PERFORMED.

13. AREAS WHERE EXISTING STEEL COATING IS COMPROMISED DUE TO THE CONTRACTOR'S OPERATIONS SHALL BE CLEANED AND RECOATED IN ACCORDANCE WITH SECTION 506 OF THE SPECIAL PROVISIONS. THE COST OF ANY REQUIRED CLEANING AND COATING APPLICATION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK BEING PERFORMED.

14. CLEAN AND COAT NEW FASTENERS IN ACCORDANCE WITH SECTION 506 OF THE SPECIAL PROVISIONS. THE COST OF ANY REQUIRED CLEANING AND COATING APPLICATION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK BEING PERFORMED.

15. THE PAINT ON THE EXISTING BRIDGE IS LEAD BASED. THIS PAINT WILL NEED TO BE REMOVED FROM AREAS WHERE THE CONTRACTOR IS REQUIRED TO WORK ON THE EXISTING STEEL. THIS COATING SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL FACILITY. THE CONTRACTOR SHALL SUBMIT A PLAN FOR APPROVAL BY THE ENGINEER, AT LEAST 10 BUSINESS DAYS PRIOR TO THE START OF WORK ON THIS ITEM, OUTLINING THE METHODS AND EQUIPMENT TO BE USED TO REMOVE AND DISPOSE OF ALL MATERIALS INCLUDED IN THE PORTIONS OF THE EXISTING BRIDGE TO BE REMOVED OR MODIFIED. NO WORK RELATED TO THE REMOVAL OR MODIFICATION OF ANY STRUCTURAL STEEL SHALL BE UNDERTAKEN UNTIL THE DEPARTMENT HAS APPROVED IN WRITING THE ABOVE REFERENCED PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE CONTAINMENT AND PROPER MANAGEMENT OF ALL LEAD-CONTAMINATED HAZARDOUS WASTE GENERATED IN THE PROCESS OF REMOVING PORTIONS OF, MODIFYING, WELDING TO, DRILLING, REAMING OR OTHERWISE ALTERING PART OR PARTS OF THE BRIDGE STRUCTURE, PERSUANT TO MAINE DEPARTMENT OF ENVIRONMENTAL REGULATION CHAPTER 850, SECTION 3A, (4)(a)(xvi). CONSEQUENTLY THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING APPROPRIATE PERSONAL PROTECTION STANDARDS MANDATED BY OSHA. THERE WILL BE NO SEPARATE PAYMENT FOR THIS WORK. THE COST SHALL BE CONSIDERED INCIDENTAL TO THE WORK REQUIRING THE PAINT REMOVAL.

16. ITEM 202.10 REMOVING EXISTING SUPERSTRUCTURE (PROPERTY OF CONTRACTOR) SHALL INCLUDE THE ENTIRE EXISTING DECK (EXCEPT THE ANCHORAGE SPANS).

17. AREAS OF DETERIORATED CONCRETE ON PIERS, ANCHORAGES AND ABUTMENTS TO BE MARKED PRIOR TO REMOVAL (SEE SHEET NO. 20). CONCRETE TO BE REMOVED SHALL BE CONSIDERED PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH SECTION 518 OF THE STANDARD SPECIFICATIONS.

18. DURING CONSTRUCTION, THE ROAD WILL BE OPEN TO ONE 9'-0" LANE OF BI-DIRECTIONAL TRAFFIC. AT A MINIMUM OF ONCE EVERY 30 CONSECUTIVE CALENDAR DAYS, THE CONTRACTOR WILL BE REQUIRED TO OPEN BOTH LANES OF THE BRIDGE TO TRAFFIC FOR A 48 HOUR PERIOD. THE CONTRACTOR MUST NOTIFY THE ENGINEER, THE TOWNS OF SEDGWICK AND DEER ISLE, AND THE LOCAL NEWS MEDIA, IN WRITING, OF HIS INTENT TO OPEN BOTH LANES A MINIMUM OF 30 CALENDAR DAYS IN ADVANCE.

19. THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS (I.E. BLOCKING VEHICLES, FLAGGERS, DRUMS, CONES, ETC.) TO SAFEGUARD HIS WORKERS AGAINST TRAFFIC AND OTHER HAZARDS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE WORK UNDER ITEM 652.39.

20. WELDING AND BURNING ABOVE THE NAVIGATION CHANNEL MUST CEASE UPON APPROACH OF A VESSEL, AND SHALL NOT START AGAIN UNTIL THE VESSEL HAS PASSED THE BRIDGE. PREVENTATIVE MEASURES MUST BE TAKEN TO PREVENT ANY HOT WORK, DEBRIS, OR CONSTRUCTION MATERIAL FOR ENTERING THE WATERWAY.

21. THE USE OF FALSEWORK, FORMWORK, RIGGING, SCAFFOLDING AS WELL AS OTHER CONSTRUCTION METHODS AND PROCEDURES SHALL BE SCHEDULED AND PERFORMED IN SUCH A WAY THAT IT SHALL NOT INTERFERE WITH OR CAUSE UNAUTHORIZED INTERRUPTIONS TO NAVIGATION. THE EXTENT AND LIMITS OF ENCROACHMENT, IF ANY, ON THE NAVIGATION CLEARANCES SHALL BE SUBMITTED TO THE USCG FOR APPROVAL. NO ENCROACHMENT SHALL BE CAUSED UNTIL WRITTEN AUTHORIZATION IS RECEIVED FROM THE USCG.

22. TWO GUARDRAIL DELINEATOR POSTS SHALL BE INSTALLED AT EACH LEADING GUARDRAIL END AND ONE AT EACH TRAILING GUARDRAIL END.

23. BIDDERS AND CONTRACTORS SHALL OBTAIN A COPY OF THE EXISTING BRIDGE PLANS BY CONTACTING THE DEPARTMENT. THE PLANS ARE REPRODUCTIONS OF THE ORIGINAL DRAWINGS AS PREPARED FOR THE CONSTRUCTION OF THE BRIDGE AS WELL AS BRIDGE REHABILITATION PROJECTS. THE EXISTING PLANS ARE CONSIDERED PART OF THE CONTRACT DOCUMENTS FOR THIS PROPOSED PROJECT.

24. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE. REPAIR WORK, IF NECESSARY, SHALL NOT BE DONE ON A LANE CARRYING TRAFFIC.

25. THE CONTRACTOR MAY USE THE EXISTING 100'± x 35'± GRAVEL LOT ALONGSIDE THE NORTH APPROACH ROADWAY AS A STAGING AREA. SEE SHEET NO. 21.

SUGGESTED SEQUENCE OF CONSTRUCTION - DECK REPLACEMENT

THE FOLLOWING CONSTRUCTION SEQUENCE IS INTENDED AS A SUGGESTION OF ONE FEASIBLE METHOD, IN ORDER TO PROVIDE A UNIFORM BASIS FOR BIDDING. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCE IN WRITING TO THE ENGINEER FOR APPROVAL BEFORE STARTING WORK. SUBMITTED SEQUENCES WHICH PROVIDE FOR A NARROWER TRAVEL LANE THAN THAT SHOWN ON THESE DRAWINGS (9'-0") WILL NOT BE FAVORABLY CONSIDERED.

1. INSTALL CONSTRUCTION SIGNAGE ON BRIDGE APPROACHES.
2. CLOSE THE SOUTHBOUND LANE FOR THE FULL LENGTH OF THE BRIDGE (CLOSURES WILL ONLY BE PERMITTED M-F, 7:30 AM -3:30 PM).
3. PLACE BITUMINOUS CONCRETE WEARING SURFACE IN ANCHORAGE SPANS IN CLOSED LANE. PROVIDE BITUMINOUS CONCRETE RAMP TO EXISTING ROADWAY ELEVATION ON EACH SIDE OF THE ANCHORAGE SPANS.
4. REMOVE WEARING SURFACE AND WELD BETWEEN DECK PANEL SIDE ANGLES ALONG THE CENTERLINE OF THE ROADWAY FOR THE FULL LENGTH OF THE BRIDGE.
5. RESET TRAFFIC CONTROL IN THE NORTHBOUND LANE AND REPEAT STEP 3 FOR THE NORTHBOUND LANE (CLOSURES WILL ONLY BE PERMITTED M-F, 7:30 AM -3:30 PM).
6. BEGINNING AT THE NORTH END OF SPAN 8, LAYOUT AND DRILL HOLES IN THE NORTHBOUND LANE OF THE EXISTING DECK IN ORDER TO ATTACH THE TEMPORARY BRIDGE RAIL TO PERMIT DECK REPLACEMENT IN THE SOUTHBOUND LANE.
7. PLACE TEMPORARY TRAFFIC SIGNALS, TEMPORARY CONCRETE BARRIERS, WORK ZONE CRASH CUSHION, TEMPORARY STOP LINE AND DRUMS, AND ATTACH TEMPORARY BRIDGE RAIL FOR FIRST WORK AREA.
8. DETACH EXISTING DECK FROM EXISTING SHEAR STUDS/ANGLES IN GROUTED POCKETS.
9. REMOVE EXISTING DECK BY SAWCTTING TRANSVERSELY (FROM CURBLINE TO CENTERLINE OF ROADWAY) AS REQUIRED TO REMOVE EXISTING DECK. IF CUTTING ABOVE A FLOORBEAM EXERCISE CAUTION SO AS NOT TO DAMAGE THE TOP FLANGE OF THE FLOORBEAM.
10. REMOVE AND DISPOSE OF EXISTING DECK PANEL.
11. REMOVE EXISTING SHEAR STUDS/BULB ANGLES FROM EXPOSED FLOORBEAM TOP FLANGE, EXERCISING CAUTION NOT TO DAMAGE THE FLOORBEAM TOP FLANGE.
12. CLEAN EXPOSED FLOORBEAM TOP FLANGE.
13. INSTALL STUD SHEAR CONNECTORS OR CHANNEL SHEAR CONNECTORS.
14. REPEAT STEPS 8 THROUGH 13 FOR THE ENTIRE WORK AREA.
15. INSTALL NEW DECK PANELS FOR THE ENTIRE WORK AREA.
16. INSTALL TRANSVERSE SPLICE CONNECTION BOLTS BETWEEN DECK PANELS (AT FLOORBEAM LOCATIONS).
17. PLACE CEMENTITIOUS FILL MATERIAL IN BLOCKOUT AT FLOORBEAMS.
18. PLACE CONCRETE SEALER ON NEW DECK.
19. RESET TEMPORARY TRAFFIC SIGNALS, TEMPORARY CONCRETE BARRIERS, WORK ZONE CRASH CUSHION, TEMPORARY STOP LINE, DRUMS AND TEMPORARY BRIDGE RAIL TO THE NEXT WORK AREA.
20. REPEAT STEPS 8 - 19 UNTIL THE DECK ON THE SOUTHBOUND LANE OF THE BRIDGE IS REPLACED.
21. BEGINNING AT THE NORTH END OF SPAN 8, RESET TEMPORARY TRAFFIC SIGNALS, TEMPORARY CONCRETE BARRIERS, WORK ZONE CRASH CUSHION, TEMPORARY STOP LINE AND DRUMS, AND ATTACH THE TEMPORARY BRIDGE RAIL USING PRECAST HOLES IN NEW DECK PANELS TO PERMIT DECK REPLACEMENT IN THE NORTHBOUND LANE.
22. REPEAT STEPS 8 - 16.
23. INSTALL LONGITUDINAL SPLICE CONNECTION BOLTS BETWEEN DECK PANELS ALONG CENTERLINE OF ROADWAY.
24. PLACE CEMENTITIOUS FILL MATERIAL IN BLOCKOUT AT FLOORBEAMS.
25. PLACE CONCRETE SEALER ON NEW DECK.
26. RESET TEMPORARY TRAFFIC SIGNALS, TEMPORARY CONCRETE BARRIERS, WORK ZONE CRASH CUSHION, TEMPORARY STOP LINE, DRUMS AND TEMPORARY BRIDGE RAIL TO THE NEXT WORK AREA.
27. REPEAT STEPS 21 - 26 UNTIL THE DECK ON THE NORTHBOUND LANE OF THE BRIDGE IS REPLACED.
28. REMOVE TEMPORARY CONCRETE BARRIERS, DRUMS AND TEMPORARY BRIDGE RAIL.
29. CLOSE THE SOUTHBOUND LANE FOR THE FULL LENGTH OF THE BRIDGE.
30. MILL 1/2" OF CONCRETE OFF THE NEW DECK IN THE SOUTHBOUND LANE.
31. PLACE NEW MEMBRANE WATERPROOFING IN THE SOUTHBOUND LANE.
32. PLACE NEW MICROSURFACING IN THE SOUTHBOUND LANE.
33. OPEN SOUTHBOUND LANE TO TRAFFIC.
34. REPEAT STEPS 29 - 33 FOR THE NORTHBOUND LANE.

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Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BH-1006(200)X
PIN 10062.00
BRIDGE NO. 3257 BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	ECL	CMD	01/06
CHECKED-REVIEWED	PGN	TGS	01/06
DESIGN2-DETAILED2	JLD	CMD	01/06
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

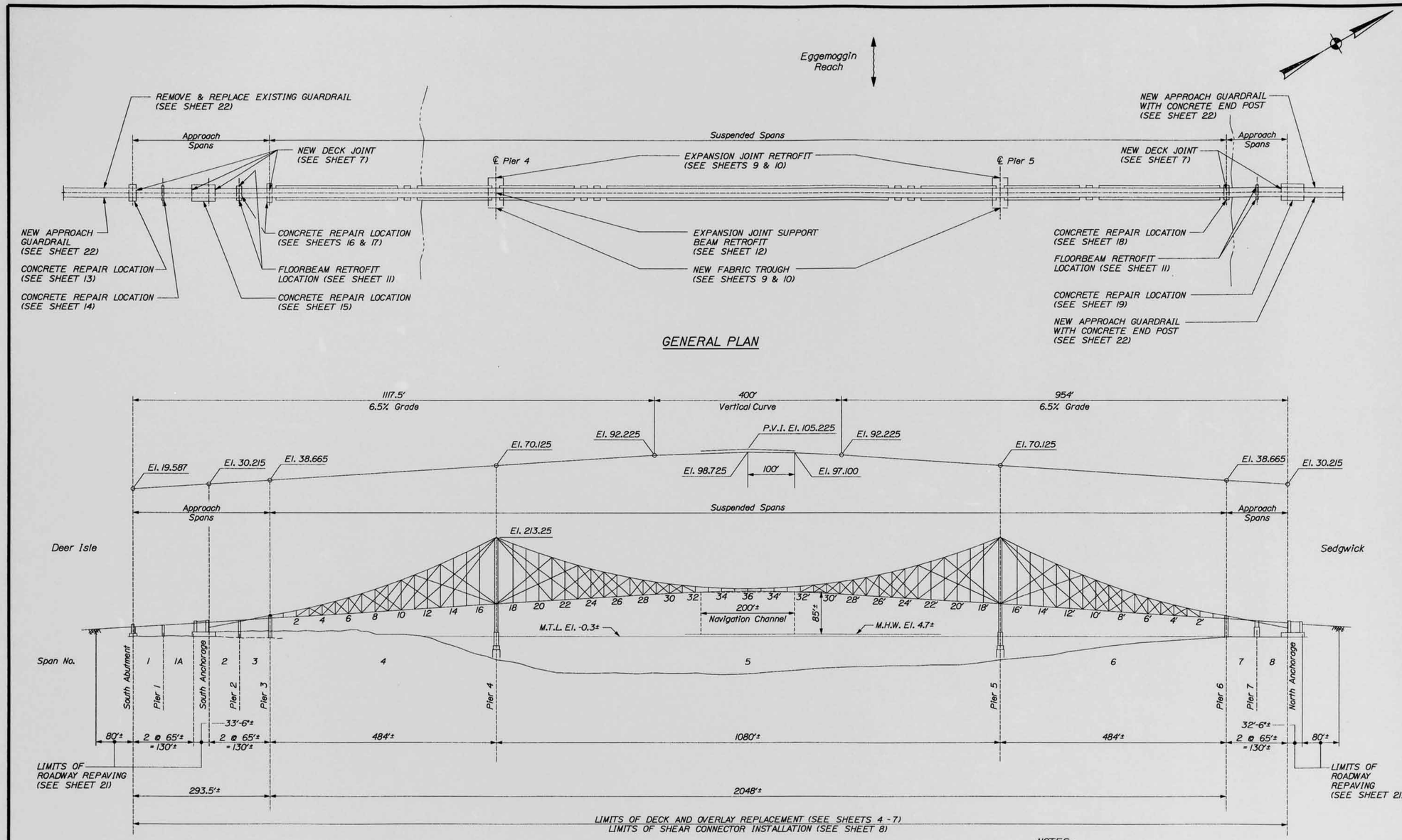
SIGNATURE
P.E. NUMBER
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

ESTIMATED QUANTITIES & GENERAL NOTES

SHEET NUMBER
2
OF 25

Filename: ...\BRIDGE\MSTA\002_Estimate.dgn Division: BRIDGE Username: david.shaw Date:4/6/2006



GENERAL ELEVATION

NOTES:

1. FOR GENERAL NOTES AND DECK REPLACEMENT SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 2.
2. FOR TRAFFIC CONTROL DETAILS SEE SHEETS 23 THROUGH 25.

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Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE NO. 3257

BRIDGE PLANS

STATE OF MAINE
JOSEPH J. PULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED DMS	DMD	01/06
CHECKED-REVIEWED	ECL	01/06
DESIGN-DETAILED2 JLD	DMD	01/06
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

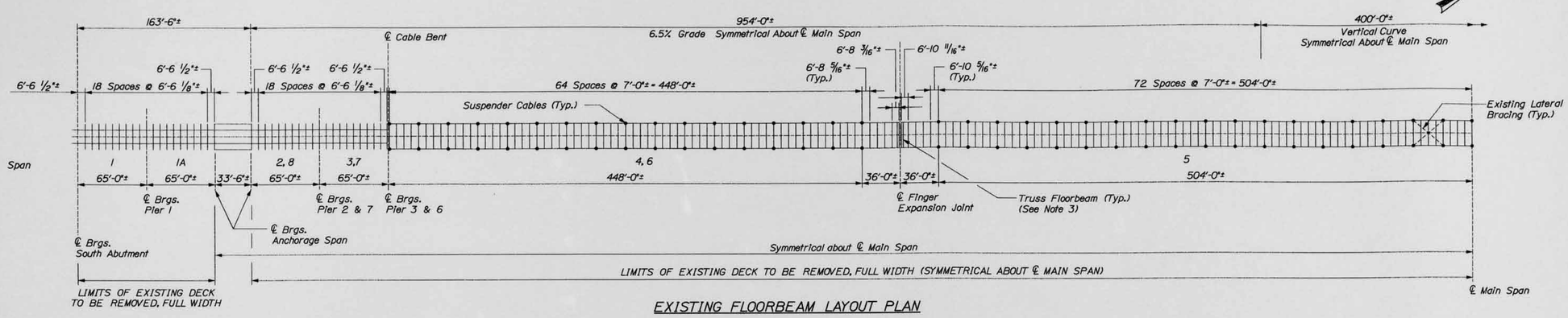
SIGNATURE
P.E. NUMBER 10364
DATE 02/13/06

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

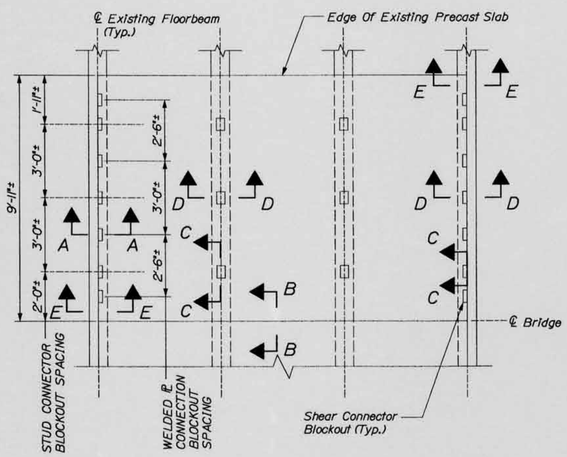
GENERAL PLAN & ELEVATION

SHEET NUMBER
3
OF 25

Filename: 003_Gpe.dgn Division: Bridge Username: $user$ Date:1/27/2006



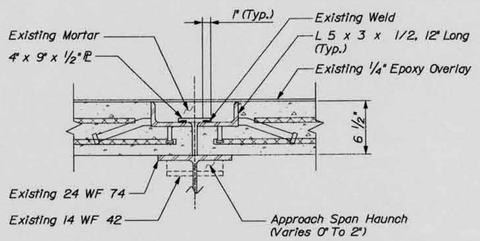
EXISTING FLOORBEAM LAYOUT PLAN



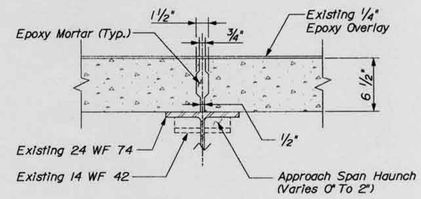
EXISTING DECK CONNECTION LAYOUT PLAN

DECK ELEVATION NOTE:

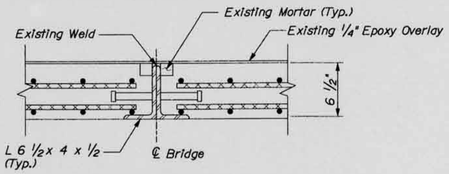
THE EXISTING DECK HAS A VARIABLE DEPTH HAUNCH IN SPANS 3 AND 7. THIS HAUNCH IS 2" AT THE END OF THESE SPANS ADJACENT TO THE SUSPENDED SPAN, AND TAPERS TO 0" OVER A 45'-6"± LENGTH. THIS PROJECT WILL ELIMINATE THE VARIABLE DEPTH HAUNCH, AND REPLACE IT WITH A CONSTANT 2" HAUNCH FOR THE FULL LENGTH OF THE APPROACH SPANS. THE DECK ELEVATION OF THE ANCHORAGE SPANS WILL HAVE TO BE RAISED 2 1/4"± TO MATCH THIS NEW DECK ELEVATION ON THE APPROACH SPANS. THIS WILL BE ACCOMPLISHED BY PLACING BITUMINOUS CONCRETE PAVEMENT ON THE ANCHORAGE SPANS. ADDITIONALLY, THE ELEVATION OF THE APPROACH ROADWAYS WILL BE ADJUSTED BY MILLING AND REPAVING SO THAT THE APPROACH ROADWAY ELEVATION MEETS BRIDGE ROADWAY ELEVATION, AND THE APPROACH ROADWAY ELEVATION WILL THEN TRANSITION OVER AN 80'± LENGTH TO MEET THE EXISTING APPROACH ROADWAY ELEVATION.



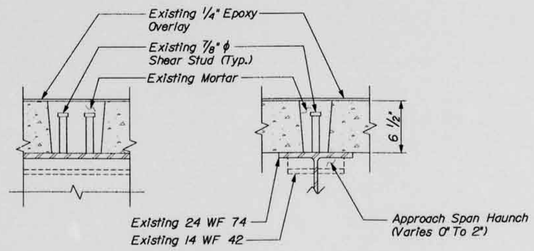
SECTION A-A
WELDED PLATE CONNECTION BLOCKOUTS



SECTION E-E



SECTION B-B
EXISTING LONGITUDINAL DECK JOINT SPLICE



SECTION C-C SECTION D-D

STUD CONNECTOR BLOCKOUTS (See Note 4)

NOTES:

1. FOR GENERAL NOTES AND DECK REPLACEMENT SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 2.
2. FLOORBEAM SPACING AS SHOWN IS DIMENSIONED ALONG THE HORIZONTAL. 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. THE CONTRACTOR IS ALSO RESPONSIBLE FOR THE PROPER FIT OF ALL NEW COMPONENTS ONTO THE EXISTING STRUCTURE TO REMAIN.
3. INFORMATION TAKEN FROM THE DECK REPLACEMENT DESIGN PLANS, 18 SHEETS. THE AS-BUILT DRAWINGS DATED 1987, SHOWS TRUSS FLOORBEAMS WERE INSTALLED BETWEEN THE FLOORBEAMS ADJACENT TO THE TOWER.
4. INFORMATION TAKEN FROM THE DECK REPLACEMENT DESIGN PLANS, 18 SHEETS. THE AS-BUILT DRAWINGS DATED 1987, INDICATE ANGLE SECTIONS WERE SUBSTITUTED FOR THE SHEAR STUDS.
5. ALL WORK ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 202.10 UNLESS OTHERWISE NOTED.

141-205

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE PLANS

BRIDGE NO. 3257

STATE OF MAINE JOSEPH L. PULLARO NO. 10364 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER 10364

DATE 02/13/06

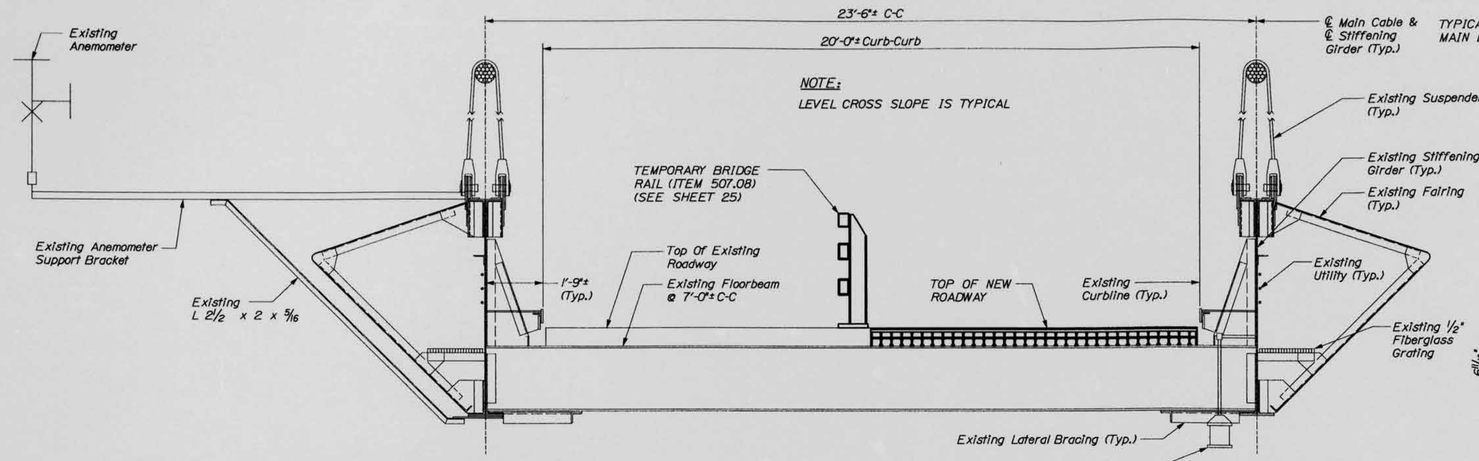
		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	01/06
CHECKED-REVIEWED		ECL	01/06
DESIGN2-DETAILED2	JLD	CMD	01/06
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

EXISTING DECK DETAILS

SHEET NUMBER 4 OF 25

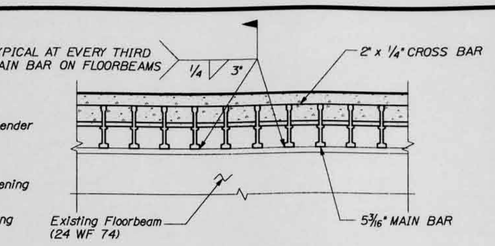
Filename: 004_Existing Deck Details.dgn Division: Bridge Username: $user$ Date:1/27/2006



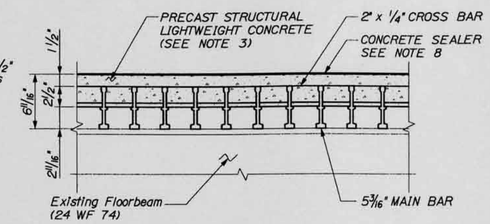
EXISTING HALF-SECTION AT ANEMOMETER SUPPORT BRACKETS

NEW HALF-SECTION AT NAVIGATION LIGHTS

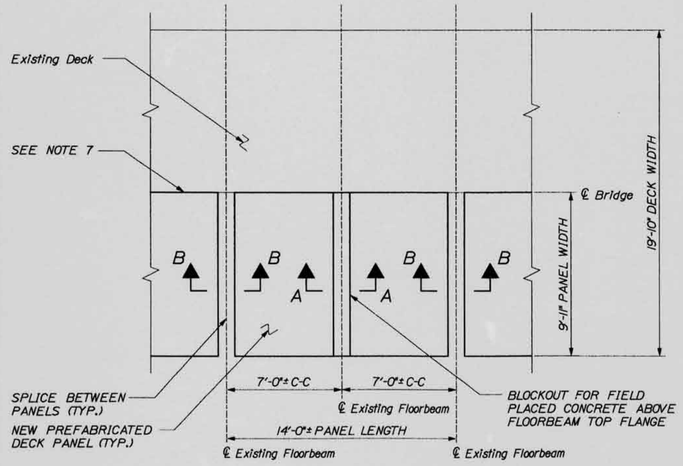
TYPICAL SUSPENDED SPAN TRANSVERSE SECTION



TYPICAL STEEL GRID WELDED ATTACHMENT

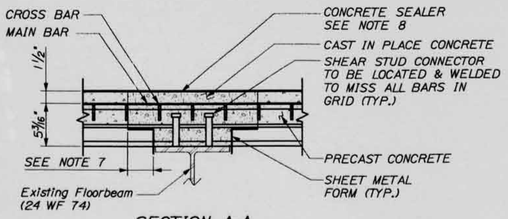


TYPICAL SUSPENDED SPAN TRANSVERSE DECK SECTION - DURING CONSTRUCTION

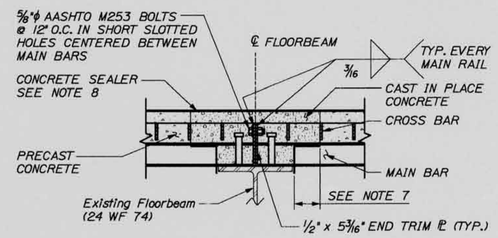


NOTE: EXISTING STEEL FRAMING AND NEW STEEL GRID NOT SHOWN

TYPICAL SUSPENDED SPAN NEW PREFABRICATED DECK PANEL PLAN VIEW - DURING CONSTRUCTION

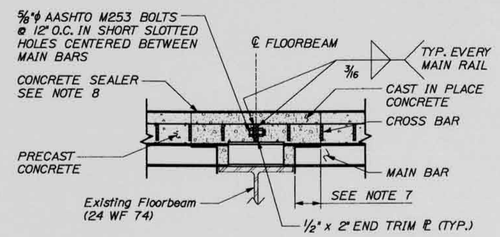


SECTION A-A



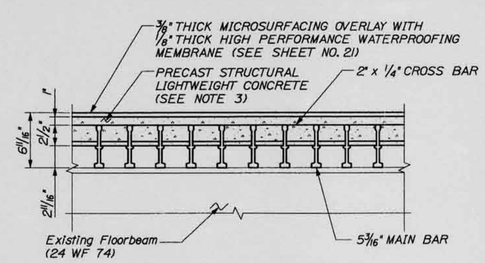
SECTION B-B

TYPICAL TRANSVERSE SPLICE AT SUSPENDED SPAN FLOORBEAM WITH SHEAR STUD CONNECTORS - DURING CONSTRUCTION



SECTION B-B

TYPICAL TRANSVERSE SPLICE AT SUSPENDED SPAN FLOORBEAM WITH SHEAR CHANNEL CONNECTORS - DURING CONSTRUCTION



TYPICAL SUSPENDED SPAN NEW TRANSVERSE DECK SECTION - FINAL

NOTES:

1. FOR GENERAL NOTES AND DECK REPLACEMENT SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 2.
2. FOR EXISTING FLOORBEAM LAYOUT PLAN SEE SHEET NO. 4.
3. PRECAST STRUCTURAL LIGHTWEIGHT CONCRETE FILL TO CONSIST OF 2½" FILL WITHIN STEEL GRID AND 1½" OVERFILL. AFTER INSTALLATION AND ACCEPTANCE OF ALL PREFABRICATED DECK PANELS AND PRIOR TO PLACEMENT OF HIGH PERFORMANCE WATERPROOFING MEMBRANE THE UPPER ½" OF THE OVERFILL TO BE GROUND OFF BY MICROMILLING. DECK SURFACE WITHIN 1'-6"± OF DECK JOINTS TO BE MILLED BY HANDWORK. THE COST OF THE MICROMILLING TO BE CONSIDERED INCIDENTAL TO THE WORK UNDER ITEM 530.00.
4. HIGH PERFORMANCE WATERPROOFING MEMBRANE TO BE PAID FOR UNDER ITEM 508.14.
5. MICROSURFACING TO BE PAID FOR UNDER ITEM 462.001.
6. SEE SHEET NO. 6, SECTION C-C, FOR LONGITUDINAL SPLICE BETWEEN DECK PANELS.
7. CAST IN PLACE CONCRETE CLOSURE POURS AT FLOORBEAM LOCATIONS TO BE STEPPED. THIS SHALL BE ACCOMPLISHED BY FORMING THE PRECAST CONCRETE TO END AT THE SECOND STEEL GRID CROSSBAR FROM THE CENTERLINE OF THE FLOORBEAM ON EACH SIDE OF THE FLOORBEAM AS SHOWN.
8. CONCRETE SEALER TO BE PLACED ON NEW DECK AFTER PLACEMENT AND CURING OF CAST IN PLACE CONCRETE, AND PRIOR TO RELOCATION OF TEMPORARY BRIDGE RAIL AND TRAFFIC CONTROL DEVICES TO THE NEXT WORK ZONE. THE CONCRETE SEALER IS A TEMPORARY PROTECTIVE MEASURE FOR THE NEW DECK WHICH IS PLACED INTO SERVICE DURING CONSTRUCTION, AND WILL BE REMOVED WITH THE TOP ½" OF CONCRETE DURING MICROMILLING.
9. ALL WORK ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 530.00 UNLESS OTHERWISE NOTED.

141-206

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE PLANS

BRIDGE NO. 3257

STATE OF MAINE JOSEPH J. PULLARO NO. 10304 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE

10304
P.E. NUMBER

02/13/06
DATE

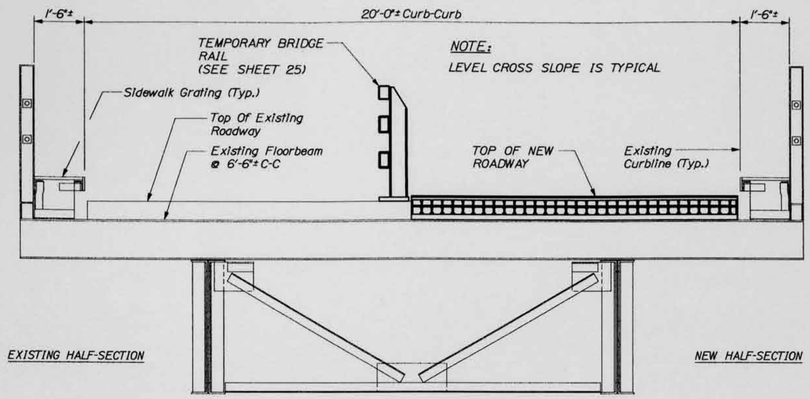
	BY	DATE
PROJ. MANAGER	ECL	
DESIGN-DETAILED	JLD	01/06
CHECKED-REVIEWED	CMD	01/06
DESIGN-SUPERVISION	ECL	01/06
DESIGN-DETAILED	DJS	01/06
DESIGN-DETAILED	JKC	01/06
REVISIONS 1	CMD	
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

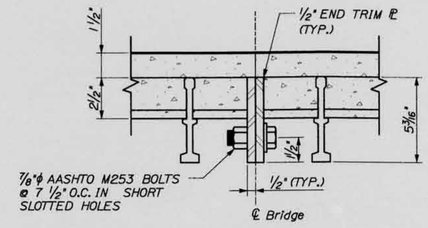
DECK REPLACEMENT 1 OF 3

SHEET NUMBER
5
OF 25

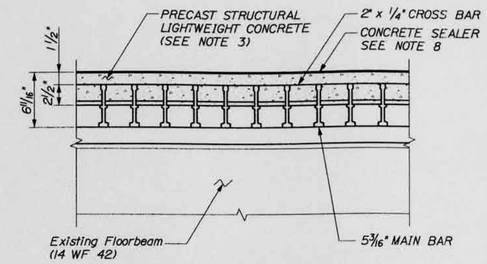
Filename: 005_Deck replacement 1.dgn Division: Bridge Username: $user$ Date:2/10/2006



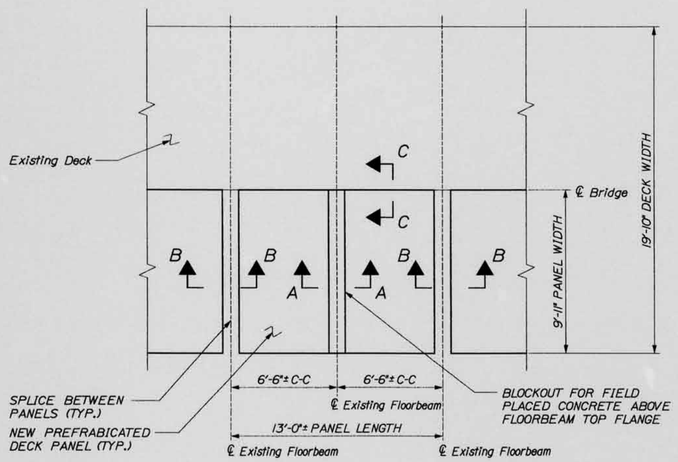
TYPICAL APPROACH SPAN TRANSVERSE SECTION



SECTION C-C
TYPICAL NEW LONGITUDINAL DECK SPLICE (PRIOR TO MILLING AND INSTALLATION OF HIGH PERFORMANCE WATERPROOFING MEMBRANE)

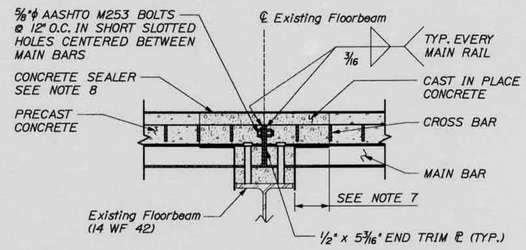


TYPICAL APPROACH SPAN
TRANSVERSE DECK SECTION - DURING CONSTRUCTION

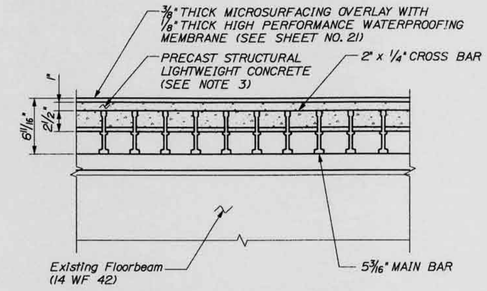


NOTE: EXISTING STEEL FRAMING AND NEW STEEL GRID NOT SHOWN

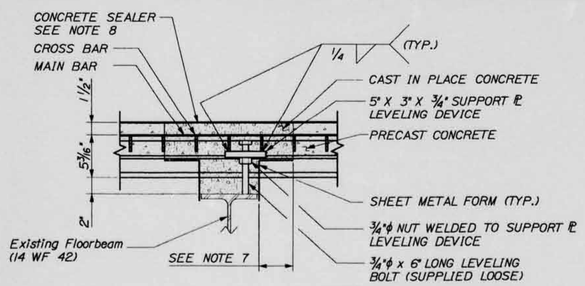
TYPICAL APPROACH SPAN
NEW PREFRABICATED DECK PANEL PLAN VIEW - DURING CONSTRUCTION



SECTION B-B
TYPICAL TRANSVERSE SPLICE AT APPROACH SPAN FLOORBEAM WITH SHEAR STUD CONNECTORS - DURING CONSTRUCTION

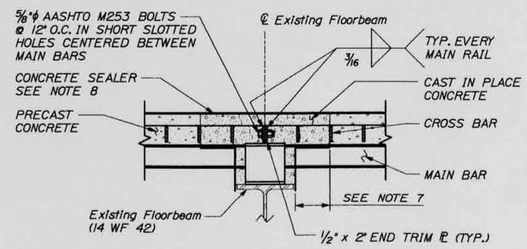


TYPICAL APPROACH SPAN
NEW TRANSVERSE DECK SECTION - FINAL



SECTION A-A

NOTE:
SHEAR STUDS NOT SHOWN FOR CLARITY



SECTION B-B
TYPICAL TRANSVERSE SPLICE AT APPROACH SPAN FLOORBEAM WITH SHEAR CHANNEL CONNECTORS - DURING CONSTRUCTION

NOTES:

1. FOR GENERAL NOTES AND DECK REPLACEMENT SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 2.
2. FOR EXISTING FLOORBEAM LAYOUT PLAN SEE SHEET NO. 4.
3. PRECAST STRUCTURAL LIGHTWEIGHT CONCRETE FILL TO CONSIST OF 2½" FILL WITHIN STEEL GRID AND 1½" OVERFILL. AFTER INSTALLATION AND ACCEPTANCE OF ALL PREFABRICATED DECK PANELS AND PRIOR TO PLACEMENT OF HIGH PERFORMANCE WATERPROOFING MEMBRANE THE UPPER ½" OF THE OVERFILL TO BE GROUND OFF BY MICROMILLING. DECK SURFACE WITHIN 1'-6"± OF DECK JOINTS TO BE MILLED BY HANDWORK. THE COST OF THE MICROMILLING TO BE CONSIDERED INCIDENTAL TO THE WORK UNDER ITEM 530.00.
4. HIGH PERFORMANCE WATERPROOFING MEMBRANE TO BE PAID FOR UNDER ITEM 508.14.
5. MICROSURFACING TO BE PAID FOR UNDER ITEM 462.001.
6. EACH DECK PANEL SHALL HAVE A MINIMUM OF TWO LEVELING BOLTS PER FLOORBEAM. LEVELING BOLTS SHALL BE PLACED APPROXIMATELY 2'-6" FROM EACH SIDE OF THE PANEL, AND BE LOCATED TO AVOID INTERFERENCE WITH THE STEEL GRID SPLICES, SHEAR CONNECTORS AND OTHER DECK COMPONENTS. THE CONTRACTOR SHALL NOT PLACE CONSTRUCTION VEHICLES OR OTHER EQUIPMENT ON DECK PANELS SUPPORTED BY LEVELING BOLTS PRIOR TO PLACEMENT AND SUFFICIENT CURING OF CAST IN PLACE CONCRETE ABOVE FLOORBEAMS.
7. CAST IN PLACE CONCRETE CLOSURE POURS AT FLOORBEAM LOCATIONS TO BE STEPPED. THIS SHALL BE ACCOMPLISHED BY FORMING THE PRECAST CONCRETE TO END AT THE SECOND STEEL GRID CROSSBAR FROM THE CENTERLINE OF THE FLOORBEAM ON EACH SIDE OF THE FLOORBEAM AS SHOWN.
8. CONCRETE SEALER TO BE PLACED ON NEW DECK AFTER PLACEMENT AND CURING OF CAST IN PLACE CONCRETE, AND PRIOR TO RELOCATION OF TEMPORARY BRIDGE RAIL AND TRAFFIC CONTROL DEVICES TO THE NEXT WORK ZONE. THE CONCRETE SEALER IS A TEMPORARY PROTECTIVE MEASURE FOR THE NEW DECK WHICH IS PLACED INTO SERVICE DURING CONSTRUCTION, AND WILL BE REMOVED WITH THE TOP ½" OF CONCRETE DURING MICROMILLING.
9. ALL WORK ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 530.00 UNLESS OTHERWISE NOTED.

141-207
Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BH-1006(200)X
PIN 10062.00
BRIDGE PLANS
BRIDGE NO. 3357

STATE OF MAINE JOSEPH J. PULLARO NO. 10364 REGISTERED PROFESSIONAL ENGINEER

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	01/06
CHECKED-REVIEWED		ECL	01/06
DESIGN-DETAILED2	JLD	CMD	01/06
DESIGN-DETAILED3	AKC	CMD	01/06
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

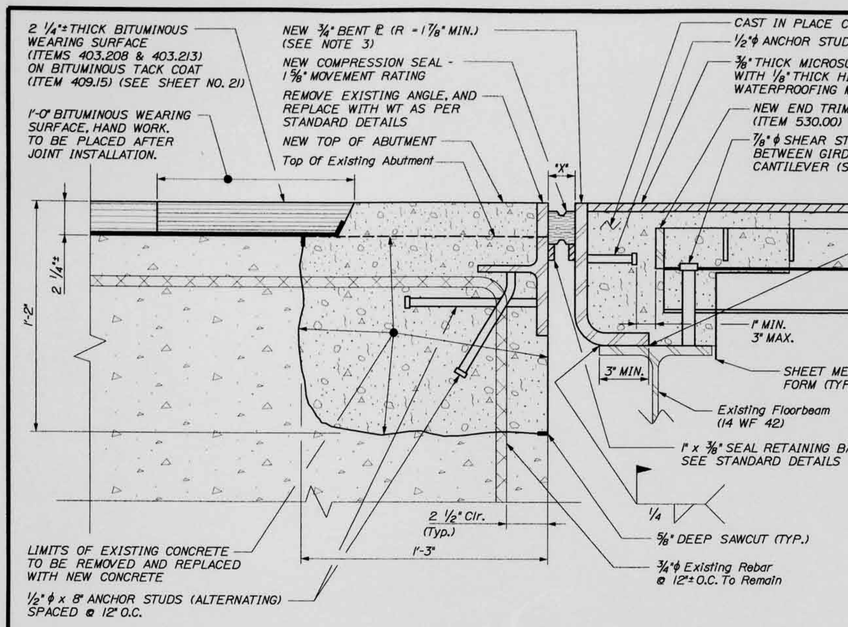
SIGNATURE 10364
P.E. NUMBER
02/13/06
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

DECK REPLACEMENT 2 OF 3

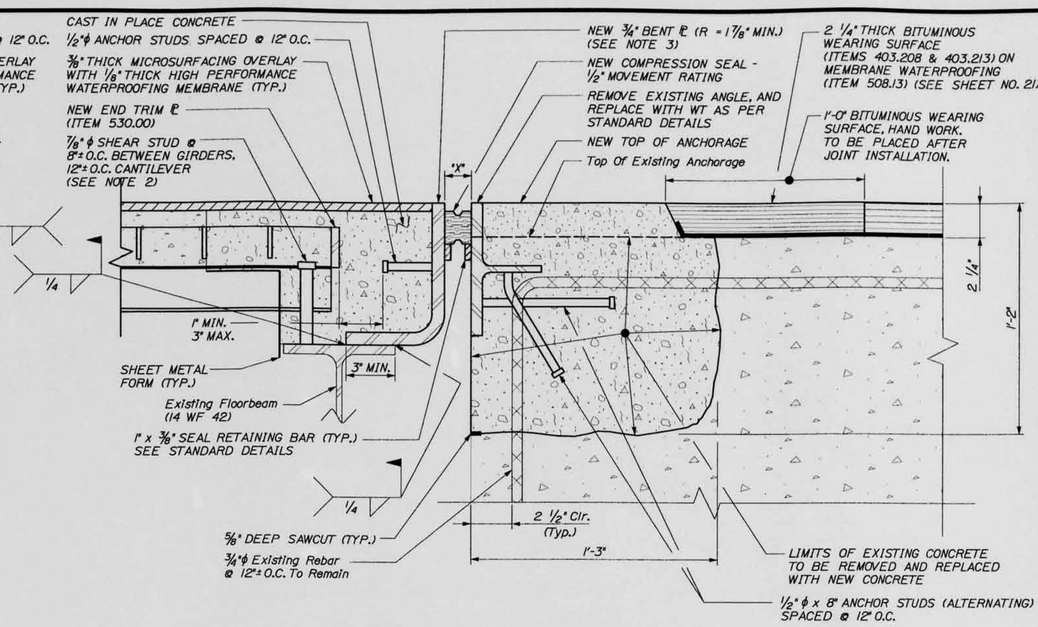
SHEET NUMBER
6
OF 25

Filename: 006_Deck replacement 2.dgn Division: Bridge Username: $user$ Date:2/9/2006



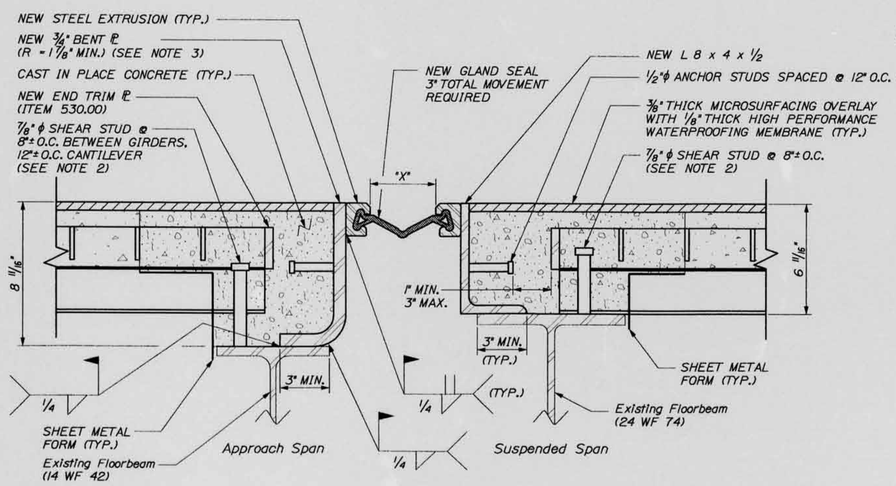
SECTION THROUGH NEW COMPRESSION SEAL AT DEER ISLE ABUTMENT

(ITEM 520.22)



SECTION THROUGH NEW COMPRESSION SEAL AT ANCHORAGE (3 LOCATIONS)

(ITEM 520.22)

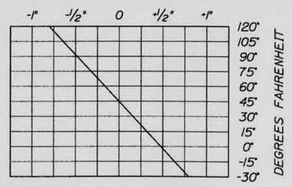


SECTION THROUGH NEW GLAND SEAL @ PIERS 3 & 6

(ITEM 520.21)

GLAND SEAL SETTING TABLE											
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 3/16"	1 3/4"	2"	2 1/4"	2 5/8"	2 7/8"	3 1/8"	3 1/2"

COMPRESSION SEAL ADJUSTMENT CHART



SUGGESTED SEQUENCE OF CONSTRUCTION - ITEM 520.22

1. SAWCUT EXISTING CONCRETE ABUTMENT/ANCHORAGE AT LOCATIONS AS SHOWN.
2. REMOVE EXISTING CONCRETE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, EXERCISING CAUTION TO AVOID DAMAGE TO EXISTING STEEL REINFORCING WHICH IS TO REMAIN. CHIPPING HAMMERS MAY BE USED UP TO A MAXIMUM WEIGHT OF 35 LBS., AND ONLY CHISEL POINT BITS WILL BE ALLOWED.
3. CLEAN EXISTING REINFORCING STEEL TO REMAIN OF ALL LOOSE RUST BY SAND BLASTING, WIRE BRUSHING OR MACHINE WIRE BRUSHING.
4. FORM AREA FOR NEW CONCRETE, AND PLACE NEW EXPANSION JOINT (COMPRESSION SEAL OR GLAND SEAL) IN POSITION BASED ON THE AMBIENT TEMPERATURE. NEW EXPANSION JOINT SHALL BE ADEQUATELY SUPPORTED SO THAT IT DOES NOT BECOME MISALIGNED DURING CONCRETE PLACEMENT.
5. PLACE NEW CONCRETE.

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. SHEAR CONNECTORS ON FLOORBEAMS ADJACENT TO JOINTS SHALL BE STUD CONNECTORS. NEW SHEAR CONNECTORS TO BE PAID UNDER ITEM 504.84 OR 505.08. SEE SHEET NO. 8.
3. BENDS SHALL BE ORIENTED PERPENDICULAR TO DIRECTION OF FINAL ROLLING OF THE PLATE.
4. THE CONTRACTOR SHALL SUBMIT THE GLAND SEAL AND COMPRESSION SEALS TO THE RESIDENT FOR APPROVAL PRIOR TO FABRICATION OF THE JOINT ARMOR.
5. THE JOINT OPENING DIMENSION "X" FOR COMPRESSION SEAL JOINTS WILL VARY DEPENDING ON THE DIMENSIONS OF THE SEAL SELECTED BY THE CONTRACTOR. THIS DIMENSION SHALL BE SET ACCORDING TO THE DIMENSION SHOWN ON THE APPROVED SHOP DRAWINGS.
6. THE COMPRESSION SEAL ADJUSTMENT CHART SHOWS THE ADJUSTMENT REQUIRED FOR THE JOINT OPENING DIMENSION "X" SHOWN ON THE SHOP DRAWINGS FOR TEMPERATURES OTHER THAN 45°F. ADJUSTEMNT IS TO BE MEASURED PARALLEL TO THE CENTERLINE OF THE BRIDGE.
7. MICROSURFACING TO BE PAID FOR UNDER ITEM 462.001, AND HIGH PERFORMANCE WATERPROOFING MEMBRANE TO BE PAID FOR UNDER ITEM 508.14. REMAINING WORK ON THIS SHEET TO BE PAID FOR UNDER ITEM 521.21 AND 521.22 UNLESS OTHERWISE NOTED.

141-208

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE PLANS

BRIDGE NO. 3257

STATE OF MAINE
JOSEPH J. FULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 10364
P.E. NUMBER
02/13/06
DATE

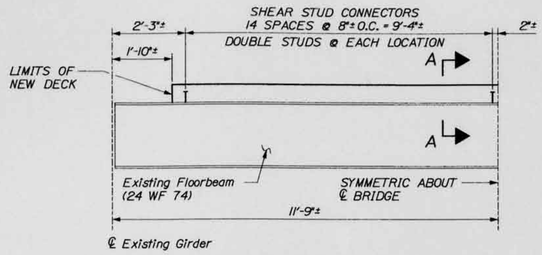
	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED DMS	DMD	01/06
DESIGN-CHECKED ECL	ECL	01/06
DESIGN-DETAILED2 LLD	DMD	01/06
DESIGN-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

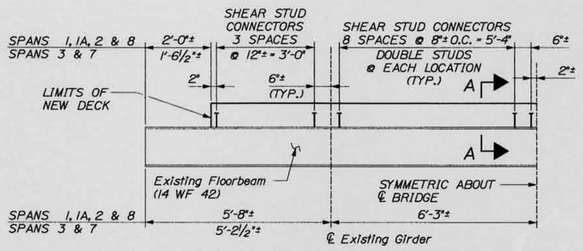
DECK REPLACEMENT 3 OF 3

SHEET NUMBER
7
OF 25

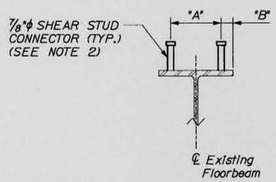
Filename: 007_Deck replacement 3.dgn Division: Bridge Username: $user$ Date:1/27/2006



SUSPENDED SPAN
FLOORBEAM ELEVATION



APPROACH SPAN
FLOORBEAM ELEVATION



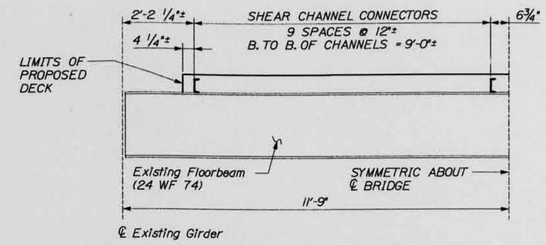
SECTION A-A

SHEAR CONNECTOR SPACING				
SPAN	"A"		"B"	
	MIN.	MAX.	MIN.	MAX.
SUSPENDED SPAN	3 1/2"	6"	1 7/16"	2 11/16"
APPROACH SPANS	3 1/2"	3 7/8"	1 7/16"	1 5/8"

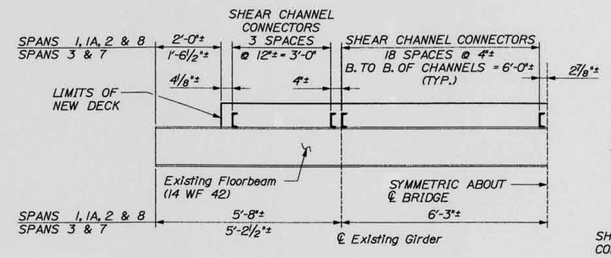
505.08 - SHEAR STUD CONNECTORS

SHEAR CONNECTOR NOTE:

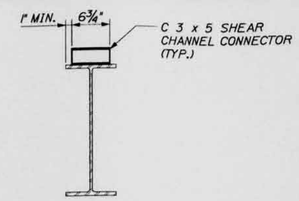
DUE TO THE MATERIAL PROPERTIES OF THE FLOORBEAMS, IT IS NOT KNOWN IF SHEAR STUD CONNECTORS INSTALLED BY CONVENTIONAL STUD WELDING PROCEDURES WILL PASS THE BEND TEST REQUIREMENTS. PRIOR TO BEGINNING WORK ON THIS ITEM, THE CONTRACTOR SHALL INSTALL TWO SHEAR STUD CONNECTORS ON TWO SUSPENDED SPAN FLOORBEAMS AND TWO APPROACH SPAN FLOORBEAMS AND PERFORM BEND TESTING ON EACH. IF THE INSTALLED SHEAR STUDS PASS THIS TESTING, SHEAR STUD CONNECTORS WILL BE USED FOR THIS PROJECT. IF THE INSTALLED SHEAR STUDS FAIL THIS TESTING, THEN CONVENTIONAL STUD WELDING PROCEDURES WILL NOT BE ALLOWED. THE COSTS ASSOCIATED WITH THIS TESTING SHALL BE INCIDENTAL TO THE COST OF PROVIDING SHEAR CONNECTORS.



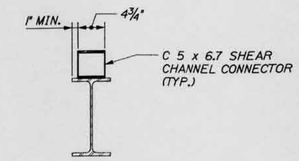
SUSPENDED SPAN
FLOORBEAM ELEVATION



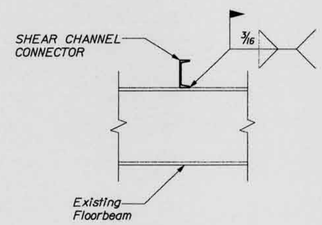
APPROACH SPAN
FLOORBEAM ELEVATION



SUSPENDED SPAN
FLOORBEAM CROSS SECTION



APPROACH SPAN
FLOORBEAM CROSS SECTION



SHEAR CHANNEL WELDING DETAIL

504.84 - SHEAR CHANNEL CONNECTORS

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. SHEAR STUD CONNECTORS ON SUSPENDED SPAN FLOORBEAMS TO BE 4 3/16" STANDARD LENGTH (I.E. LENGTH BEFORE WELDING), PROVIDING AN INSTALLED LENGTH OF 4"±. SHEAR CONNECTORS ON APPROACH SPAN FLOORBEAMS TO BE 5 3/16" STANDARD LENGTH, PROVIDING AN INSTALLED LENGTH OF 5"±.
3. SHEAR CONNECTORS SHALL BE PLACED TO AVOID INTERFERENCE WITH STEEL GRID.
4. SHEAR CONNECTORS SHALL BE INSTALLED BEFORE PREFABRICATED DECK PANEL IS PLACED ON FLOORBEAMS.
5. THE FLOORBEAM TOP FLANGE SHALL BE CLEANED OF SCALE, RUST, OIL OR OTHER DELETERIOUS MATERIAL PRIOR TO INSTALLING SHEAR CONNECTORS (SEE SPECIFICATIONS).
6. ALL SMAW WELDS SHALL BE PERFORMED WITH E70XX ELECTRODES.
7. SEE SHEET NOS. 7 & 9 FOR SHEAR CONNECTOR DETAILS AT EXPANSION JOINTS.

141-209

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE PLANS

BRIDGE NO. 3257

STATE OF MAINE
JOSEPH J. PULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	JLD	CMD	01/06
CHECKED-DETAILED		ECL	01/06
DESIGN-DETAILED2	CMS	CMD	01/06
DESIGN-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

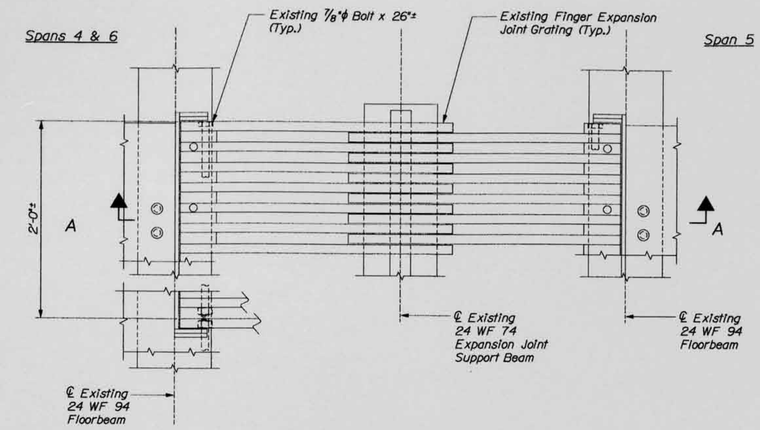
SIGNATURE
10364
P.E. NUMBER
02/13/06
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

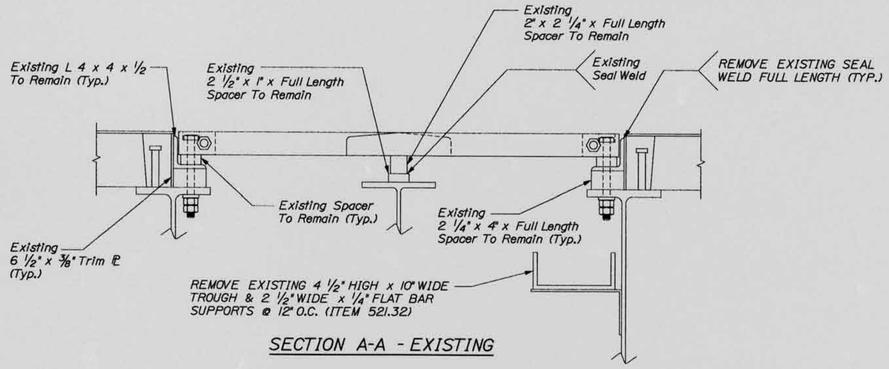
SHEAR CONNECTOR
PLACEMENT DETAILS

SHEET NUMBER
8
OF 25

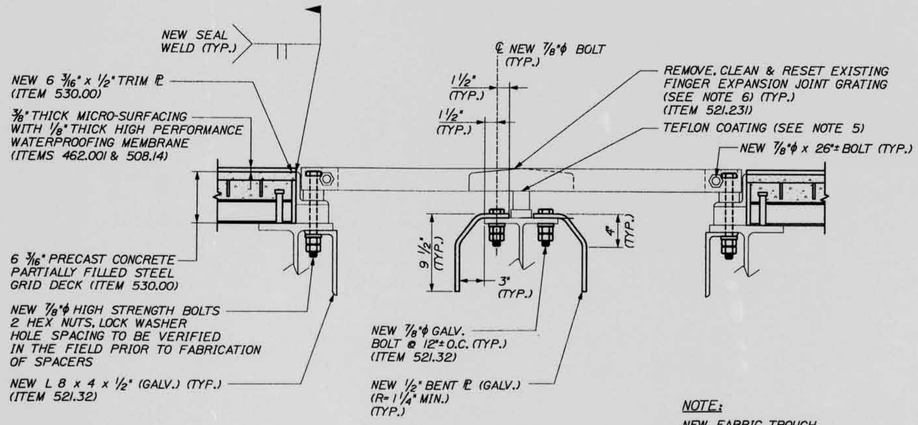
Filename: 008_Shear Conn Placement Details.dgn Division: Bridge Username: $user$ Date:1/27/2006



PLAN DETAIL OF EXISTING FINGER EXPANSION JOINT TYPICAL SEGMENT

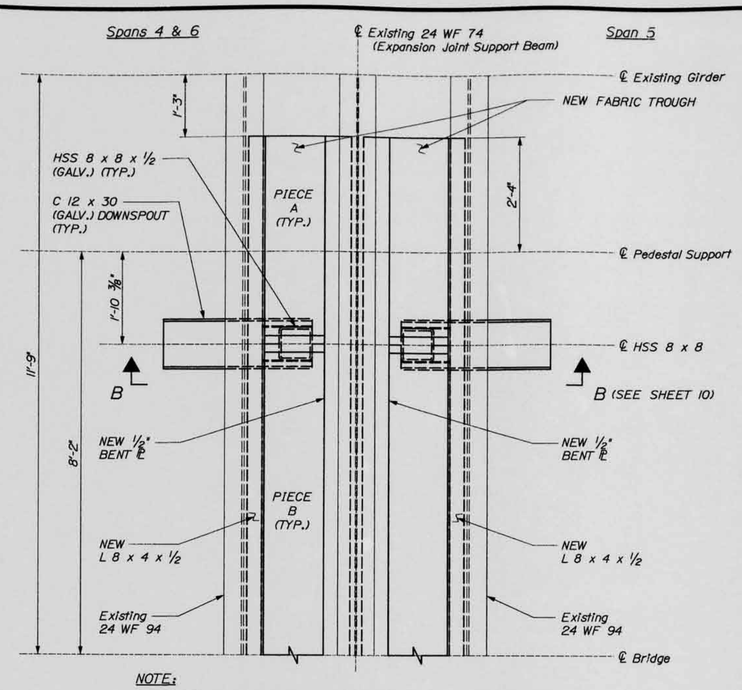


SECTION A-A - EXISTING



SECTION A-A - NEW
(ITEM 521.32)

NOTE:
NEW FABRIC TROUGH
NOT SHOWN FOR CLARITY.



NOTE:
EXPANSION JOINT GRATING AND SPACER BARS OMITTED FOR CLARITY.
SEE SHEET NO. 10 FOR FABRIC TROUGH AND DOWNSPOUT DETAILS

PLAN OF NEW FABRIC TROUGH SYSTEM
(ITEM 521.32)

SUGGESTED SEQUENCE OF CONSTRUCTION (ITEMS 521.231 & 521.32):

1. REMOVE EXISTING FASTENERS FOR FINGER EXPANSION JOINT IN THE WORK AREA.
2. REMOVE AND CLEAN EXISTING FINGER EXPANSION JOINT GRATINGS.
3. REMOVE EXISTING TRIM PLATES.
4. REMOVE EXISTING TROUGH AND SUPPORTS.
5. INSTALL NEW L 8 x 4 x 1/2 ANGLES AND 1/2" THICK BENT PLATES.
6. RESET EXISTING FINGER EXPANSION JOINTS USING NEW 7/8" DIAMETER FASTENERS.
7. INSTALL FABRIC TROUGH/DOWNSPOUT SYSTEMS.

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. ALL EXISTING WELDS SHALL BE REMOVED BY GRINDING.
3. ALL NEW WELDS SHALL BE PERFORMED WITH E70XX ELECTRODES.
4. WORK ON THIS SHEET TO BE COORDINATED WITH WORK UNDER ITEM 504.830 "EXPANSION JOINT SUPPORT BEAM RETROFIT" (SEE SHEET NO. 14).
5. TEFLON COATING TO BE DUPONT TEFLON®-S 954-103 BLACK OR APPROVED EQUAL.
6. EXISTING FINGER EXPANSION JOINT GRATINGS TO BE CLEANED OF SCALE, RUST, OIL OR OTHER DELETERIOUS MATERIAL PRIOR TO BEING RESET.
7. ALL WORK ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 521.231 UNLESS OTHERWISE NOTED.

141-210

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE PLANS

BRIDGE NO. 3257

STATE OF MAINE
JOSEPH J. PULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE
P.E. NUMBER 10364
DATE 02/13/06

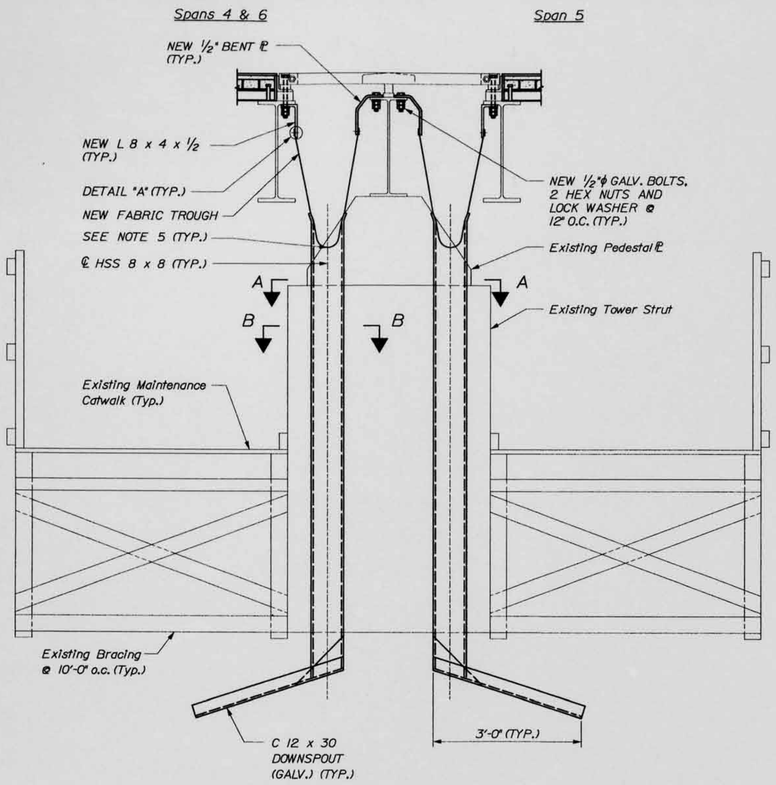
		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	01/06
CHECKED-REVIEWED		ECL	01/06
DESIGNS-DETAILED2	JLD	CMD	01/06
DESIGNS-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

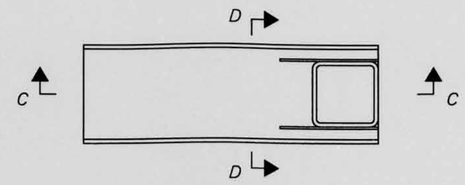
EXPANSION JOINT RETROFIT
1 OF 2

SHEET NUMBER
9
OF 25

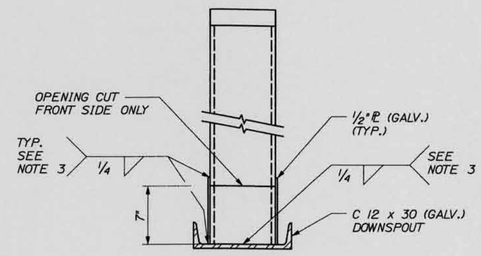
Filename: 009_Expansion Joint Retrofit 1.dgn Division: Bridge Username: $user$ Date:1/27/2006



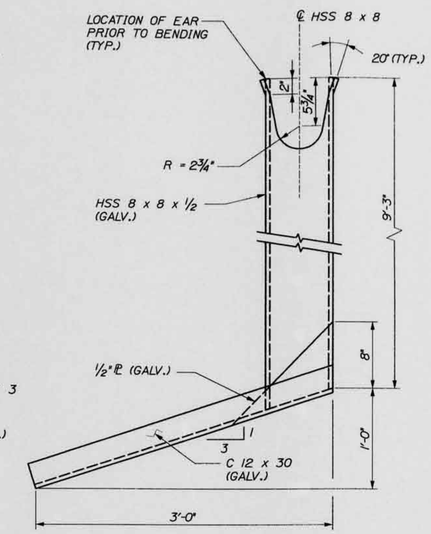
SECTION B-B (SEE SHEET NO. 9)
TROUGH AND DOWNSPOUT



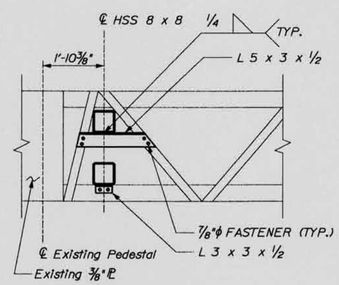
SECTION B-B
DOWNSPOUT PLAN



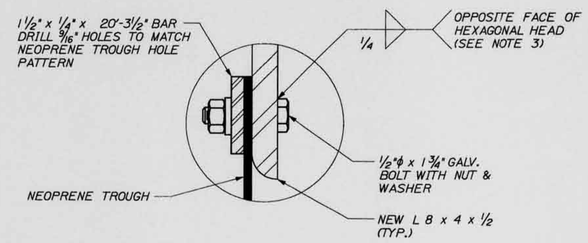
SECTION D-D



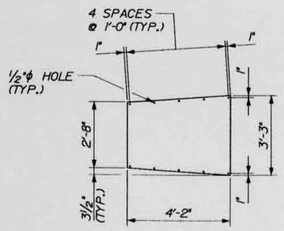
SECTION C-C



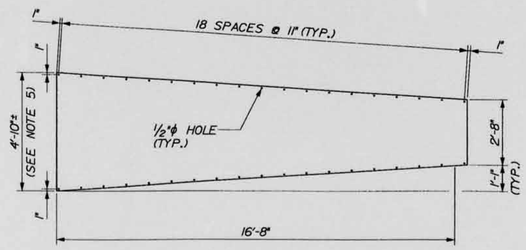
SECTION A-A
TOWER STRUT - PLAN VIEW



DETAIL "A"



PIECE A



PIECE B

FABRIC TROUGH
(SHOWN FLAT)

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 9.
3. CLEAN WELDS AFTER WELDING AND APPLY COLD GALVANIZED COATING.
4. WORK ON THIS SHEET TO BE COORDINATED WITH WORK UNDER ITEM 521.231 "EXPANSION JOINT DEVICE - FINGER JOINT REMOVED AND RESET" (SEE SHEET NO. 9) AND ITEM 504.830 "EXPANSION JOINT SUPPORT BEAM RETROFIT" (SEE SHEET NO. 14).
5. CONTRACTOR TO SIZE FABRIC TO PROVIDE A 1/2" GAP BETWEEN BOTTOM OF FABRIC AND BOTTOM OF CUTOUT IN HSS WHEN THE JOINT IS IN THE FULLY CONTRACTED POSITION.
6. ALL WORK ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 521.32 UNLESS OTHERWISE NOTED.

141-211

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE PLANS

BRIDGE NO. 3257

STATE OF MAINE JOSEPH PULLARO NO. 10384 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 10384
P.E. NUMBER
02/13/06
DATE

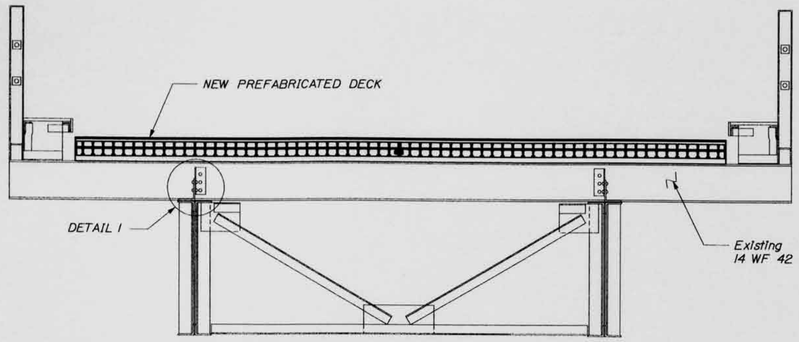
	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED CMS	CMD	01/06
CHECKED-REVIEWED	ECL	01/06
DESIGN2-DETAILED2 JLD	CMD	01/06
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

EXPANSION JOINT RETROFIT
2 OF 2

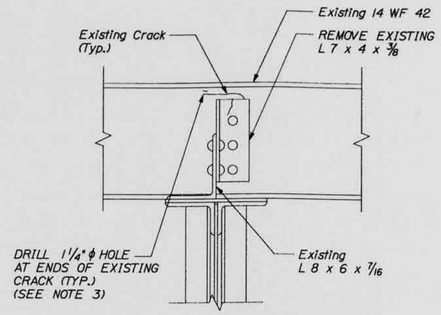
SHEET NUMBER
10
OF 25

Filename: 010_Expansion Joint Retrofit 2.dgn Division: Bridge Username: $user$ Date:1/27/2006



SOUTH ELEVATION, APPROACH SPAN FLOORBEAM AT PIER 2

(NORTH ELEVATION, APPROACH SPAN FLOORBEAM AT PIER 7 SIMILAR)

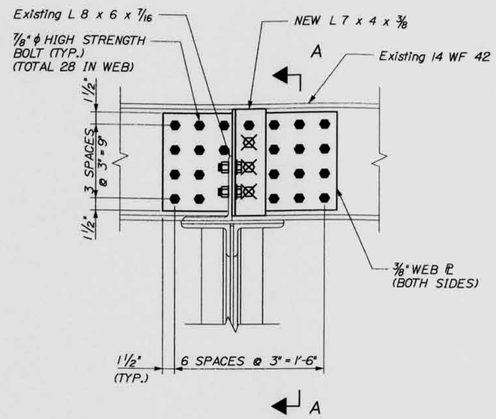


NOTE:

LOCATION AND LENGTH OF EXISTING CRACKS VARIES BY REPAIR LOCATION

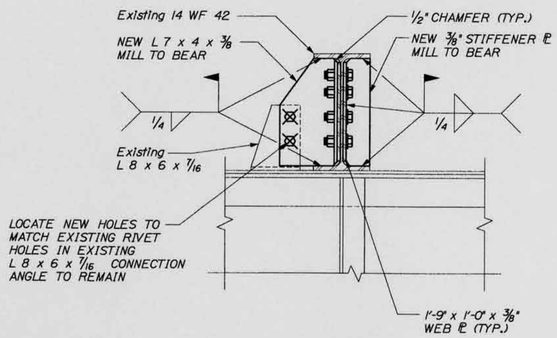
DETAIL 1 - EXISTING ELEVATION
APPROACH SPAN FLOORBEAM REPAIR AT PIER 2

(SOUTH ELEVATION OF WEST GIRDER/FLOORBEAM CONNECTION SHOWN, EAST GIRDER/FLOORBEAM CONNECTION OPPOSITE HAND, NORTH ELEVATION OF PIER 7 SIMILAR)



DETAIL 1 - PROPOSED ELEVATION
APPROACH SPAN FLOORBEAM REPAIR AT PIER 2

(SOUTH ELEVATION OF WEST GIRDER/FLOORBEAM CONNECTION SHOWN, EAST GIRDER/FLOORBEAM CONNECTION OPPOSITE HAND, NORTH ELEVATION OF PIER 7 SIMILAR)



SECTION A-A

SUGGESTED SEQUENCE OF CONSTRUCTION (ITEM 504.81):

1. THE TRAFFIC LANE DIRECTLY ABOVE THE REPAIR LOCATION SHALL BE CLOSED TO ALL TRAFFIC AND CONSTRUCTION VEHICLES AND EQUIPMENT WHILE WORK IS BEING PERFORMED.
2. REMOVE EXISTING L 7 x 4 x 3/8.
3. LOCATE END OF CRACK(S) THROUGH NON-DESTRUCTIVE MEANS, AND DRILL ARREST HOLE(S). (SEE NOTE 3.)
4. CLEAN ALL EXISTING STEEL SURFACES WHERE NEW STEEL WILL BE INSTALLED.
5. INSTALL NEW 3/8" THICK WEB PLATE ON EACH SIDE OF WEB.
6. DRILL HOLES IN NEW L 7 x 4 x 3/8 CONNECTION ANGLE TO MATCH EXISTING HOLES IN L 8 x 6 x 7/16 TO REMAIN AND INSTALL NEW FASTENERS.
7. INSTALL NEW 3/8" STIFFENER PLATE.
8. APPLY PAINT TO EXISTING AND NEW STRUCTURE AS REQUIRED.

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR REPAIR LOCATIONS SEE SHEET NO. 3.
3. THE FULL EXTENT OF PROPAGATION OF ALL CRACKS SHALL BE DETERMINED THROUGH MAGNETIC PARTICLE TESTING OR OTHER NON-DESTRUCTIVE MEANS AS APPROVED BY THE ENGINEER. A 1 1/4" DIAMETER ARREST HOLE SHALL BE DRILLED AT THE ENDS OF ALL CRACKS. FOR INDIVIDUAL CRACKS, THE HOLE SHALL BE CENTERED AT THE CRACK END. FOR LOCATIONS WITH MULTIPLE CRACKS, ARREST HOLE(S) SHALL BE LOCATED SO THAT THE HOLE(S) ENCOMPASS THE ENDS OF MULTIPLE CRACKS WHENEVER POSSIBLE. ARREST HOLE LOCATIONS TO BE APPROVED BY THE RESIDENT PRIOR TO DRILLING.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PERFORMED WHILE THE DECK IS BEING REPLACED IN THE TRAFFIC LANE ABOVE THE WORK AREA, AND SHALL BE PAID FOR UNDER ITEM 504.81 UNLESS OTHERWISE NOTED.

EXISTING CONDITIONS (SEE NOTE 3)

Approach Span Floorbeam Condition	
Location	Condition
Pier 2 - West Girder	1/2" Long Horizontal Crack In Floorbeam Web Above The Connection Angle
	5" Long Horizontal Crack In The Floorbeam Web Extending Out From Top Of Connection Angle
	1 - 7/8" Long Vertical Crack In The Connection Angle At The Top
Pier 2 - East Girder	2 - 1/2" Long Intermittent Horizontal Cracks In The Web Above The Connection Angle
	2 - 3/4" Long Vertical Cracks In The Connection Angle At The Top
Pier 7 - West Girder	1/4" Long Horizontal Crack In the Floorbeam Web Above The Top Rivet
	Abrasion Dust Along The Top Of The Connection Angle On The North Elevation Of The Floorbeam With Cracks In The Paint On The Floorbeam Web
Pier 7 - East Girder	Abrasion Dust Around The Top Rivet Head, And Cracks In The Paint On The Floorbeam Web

LEGEND	
SYM.	DESCRIPTION
○	EXISTING RIVET
○	EXISTING BOLT
⊠	REMOVE EXISTING FASTENER AND PLACE NEW 7/8" ϕ HIGH STRENGTH BOLT IN EXISTING HOLE
●	PLACE NEW 7/8" ϕ HIGH STRENGTH BOLT IN NEW HOLE

141-212

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE PLANS

BRIDGE NO. 3257

STATE OF MAINE
JOSEPH J. PULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

P.E. NUMBER 10364
DATE 02/13/06

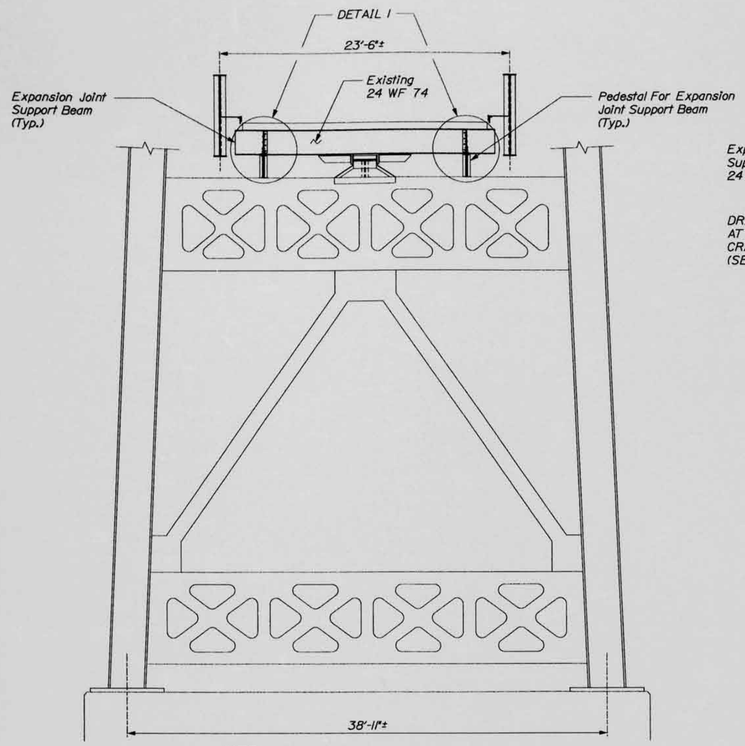
		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	DMS	DMD	01/06
CHECKED-REVIEWED		ECL	01/06
DESIGN-SIZE PLATES	JLD	DMD	01/06
DESIGN-SET ALIGN			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

FLOORBEAM RETROFIT

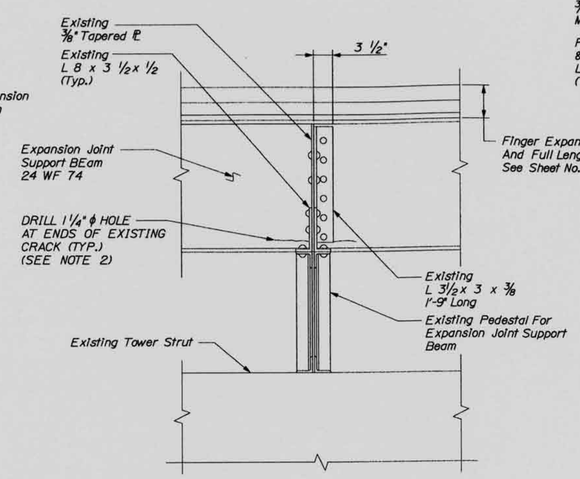
SHEET NUMBER
11
OF 25

Filename: 011_Floorbeam retrofit.dgn Division: Bridge Username: $user$ Date:1/27/2006

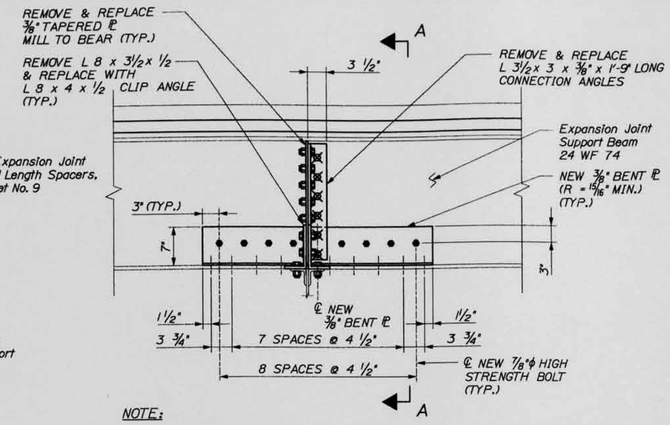


NOTE:
EXISTING MAINTENANCE CATWALK NOT SHOWN FOR CLARITY. SEE SHEET NO. 10 FOR DETAILS.

SOUTH ELEVATION, MAIN TOWER AT PIER 4

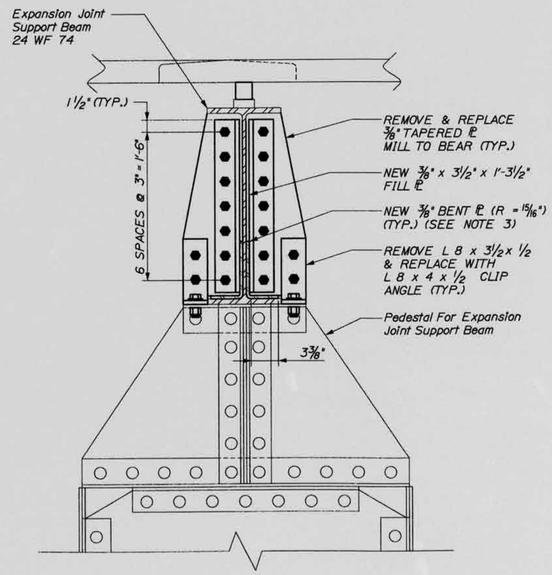


DETAIL I - EXISTING
(SOUTH ELEVATION OF WEST PEDESTAL SUPPORT CONNECTION SHOWN, EAST PEDESTAL SUPPORT CONNECTION OPPOSITE HAND)



NOTE:
EXISTING STRUT NOT SHOWN FOR CLARITY.

DETAIL I - PROPOSED
(SOUTH ELEVATION OF WEST PEDESTAL SUPPORT CONNECTION SHOWN, EAST PEDESTAL SUPPORT CONNECTION OPPOSITE HAND)



SECTION A-A
(RETROFIT LOCATIONS: PIER 4 - EAST & WEST PEDESTALS)

SUGGESTED SEQUENCE OF CONSTRUCTION (ITEM 504.83):

1. WORK ON THIS SHEET TO BE PERFORMED WHEN EXISTING EXPANSION JOINT GRATINGS HAVE BEEN REMOVED FROM THE LANE ABOVE THE WORK AREA, AND PRIOR TO THE NEOPRENE TROUGH INSTALLATION. SEE SHEETS NOS. 9 & 10.
2. THE TRAFFIC LANE DIRECTLY ABOVE THE RETROFIT LOCATION SHALL BE CLOSED TO ALL TRAFFIC AND CONSTRUCTION VEHICLES AND EQUIPMENT WHILE WORK IS BEING PERFORMED.
3. REMOVE ALL FOUR EXISTING L 8 x 3 1/2 x 3/8 CLIP ANGLES, EXISTING 3/8" THICK TAPERED PLATES, AND EXISTING L 3 1/2 x 3 x 3/8 CONNECTION ANGLES.
4. LOCATE END OF CRACK(S) AND DRILL ARREST HOLE(S). (SEE NOTE 2.)
5. CLEAN ALL EXISTING STEEL SURFACES WHERE NEW STEEL WILL BE INSTALLED.
6. INSTALL NEW 3/8" BENT PLATE ON EACH SIDE OF WEB.
7. INSTALL NEW 3/8" THICK FILL PLATES AND PROPOSED L 3 1/2 x 3 x 3/8 CONNECTION ANGLES.
8. INSTALL NEW 3/8" THICK TAPERED PLATES. MILL TO BEAR.
9. INSTALL NEW L 8 x 4 x 1/2 CLIP ANGLES.
10. APPLY TOUCH UP PAINT TO EXISTING AND NEW STRUCTURE AS REQUIRED.

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. THE FULL EXTENT OF PROPAGATION OF ALL CRACKS SHALL BE DETERMINED THROUGH MAGNETIC PARTICLE TESTING OR OTHER NON-DESTRUCTIVE MEANS AS APPROVED BY THE ENGINEER. A 1 1/4" DIAMETER ARREST HOLE SHALL BE DRILLED AT THE ENDS OF ALL CRACKS, WITH THE HOLE CENTERED AT THE CRACK END, PRIOR TO RETROFIT INSTALLATION.
3. BENDS SHALL BE ORIENTED PERPENDICULAR TO DIRECTION OF FINAL ROLLING OF THE PLATE.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 504.83 UNLESS OTHERWISE NOTED.

LEGEND

SYM.	DESCRIPTION
○	EXISTING RIVET
○	EXISTING BOLT
⊠	REMOVE EXISTING FASTENER AND PLACE NEW 7/8" ϕ HIGH STRENGTH BOLT IN EXISTING HOLE
●	PLACE NEW 7/8" ϕ HIGH STRENGTH BOLT IN NEW HOLE

EXISTING CONDITIONS (SEE NOTE 2)

LOCATION	LENGTH OF CRACK (IN)
PIER 4 - WEST PEDESTAL	15 5/8
PIER 4 - EAST PEDESTAL	22

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Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE PLANS

BRIDGE NO. 3257

STATE OF MAINE
JOSEPH PULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	07/06
CHECKED-REVIEWED		ECL	07/06
DESIGN-ESTIMATED	JLD	CMD	07/06
DESIGN-PLANS			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

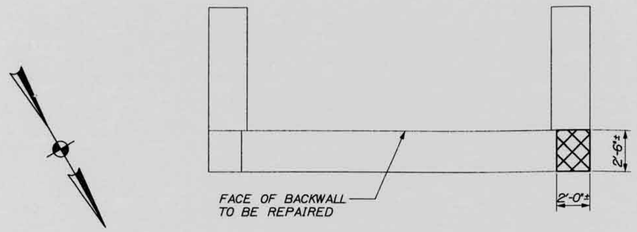
P.E. NUMBER 10364
DATE 02/13/06

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

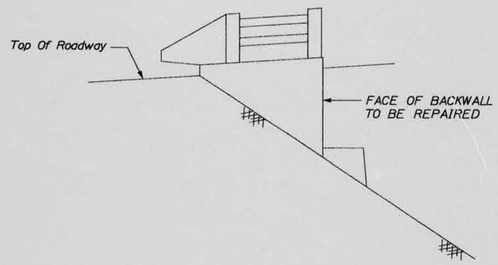
EXPANSION JOINT
SUPPORT BEAM RETROFIT

SHEET NUMBER
12
OF 25

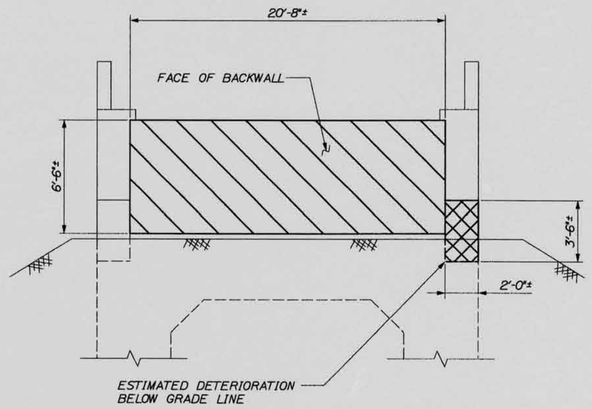
Filename: 012_Exp Jt Support Beam Retrofit.dgn Division: Bridge Username: $user$ Date:1/27/2006



PLAN

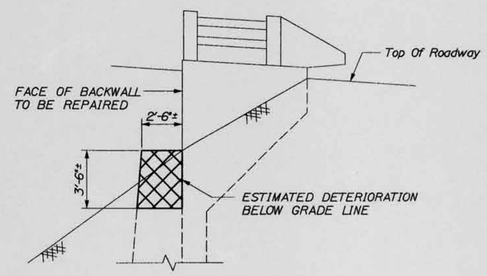


EAST ELEVATION



NORTH ELEVATION

SOUTH ABUTMENT



WEST ELEVATION

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR SUBSTRUCTURE REPAIR DETAILS AND SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 20.
3. AREAS AND VOLUMES INDICATED ARE APPROXIMATE. ACTUAL AREAS AND VOLUMES SHALL BE DETERMINED BY THE RESIDENT IN THE FIELD.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 518.60 AND 518.61 UNLESS OTHERWISE NOTED.

LEGEND

CONCRETE REPAIR AREA (SF)
(ITEM 518.60)

CONCRETE REPAIR AREA (CY)
(ITEM 518.61)

141-214

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

BRIDGE NO. 3257 | PIN 10062.00 | BRIDGE PLANS

STATE OF MAINE
JOSEPH L. PULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE
10364
P.E. NUMBER
02/13/06
DATE

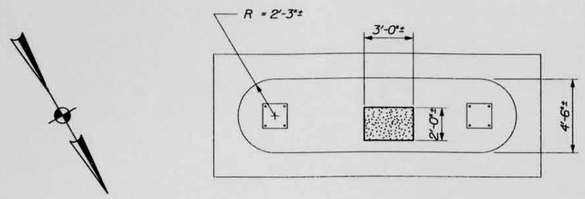
		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	01/06
CHECKED-DETAILED	ECL	ECL	01/06
DESIGN2-DETAILED	JLD	CMD	01/06
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

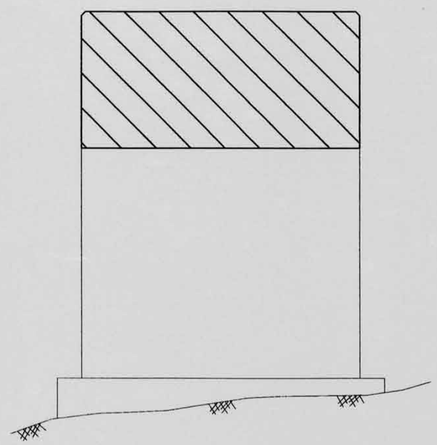
SUBSTRUCTURE REPAIRS - SOUTH ABUTMENT

SHEET NUMBER
13
OF 25

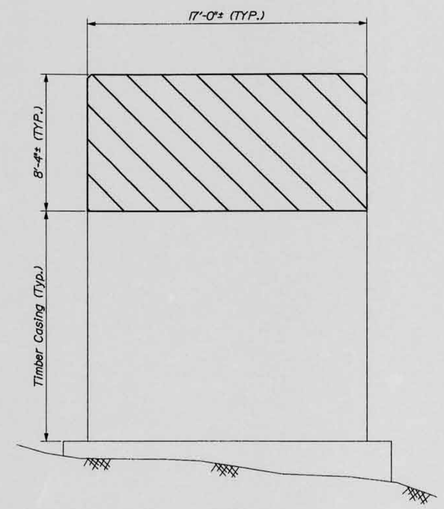
Filename: 013_Substructure Repairs-S Abut.dgn Division: Bridge Username: $user$ Date:1/24/2006



PLAN



NORTH ELEVATION



SOUTH ELEVATION

PIER 1

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR SUBSTRUCTURE REPAIR DETAILS AND SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 20.
3. AREAS AND VOLUMES INDICATED ARE APPROXIMATE. ACTUAL AREAS AND VOLUMES SHALL BE DETERMINED BY THE RESIDENT IN THE FIELD.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 518.51 AND 518.60 UNLESS OTHERWISE NOTED.

LEGEND

CONCRETE REPAIR AREA (SF) (ITEM 518.51)

CONCRETE REPAIR AREA (SF) (ITEM 518.60)

141-215

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE NO. 3257

BRIDGE PLANS

STATE OF MAINE
JOSEPH J. PULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 10364
P.E. NUMBER 02/13/06
DATE

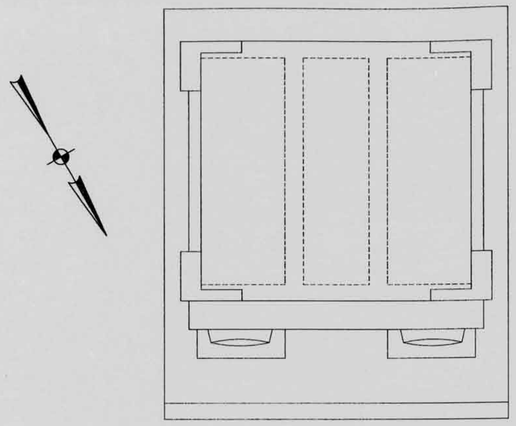
	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED CMS	CMD	01/06
CHECKED-REVIEWED	ECL	01/06
DESIGN2-DETAILED2 JLD	CMD	01/06
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

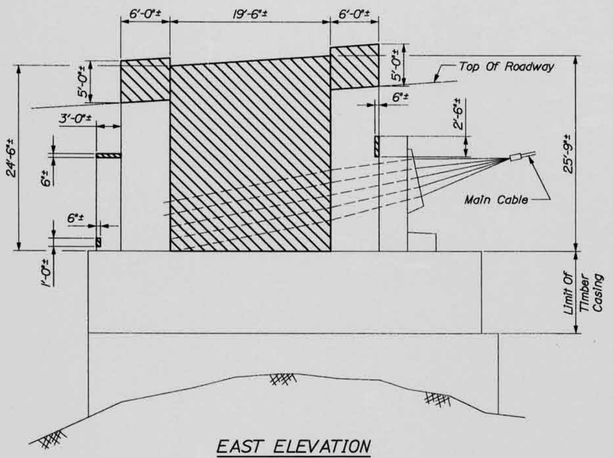
SUBSTRUCTURE REPAIRS - PIER 1

SHEET NUMBER
14
OF 25

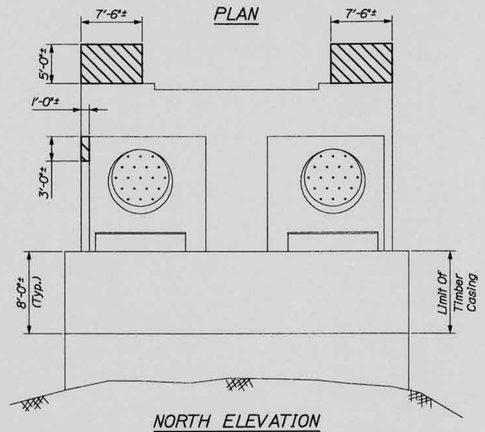
Filename: 014_Substructure Repairs-Pier 1.dgn Division: Bridge Username: $user$ Date:1/20/2006



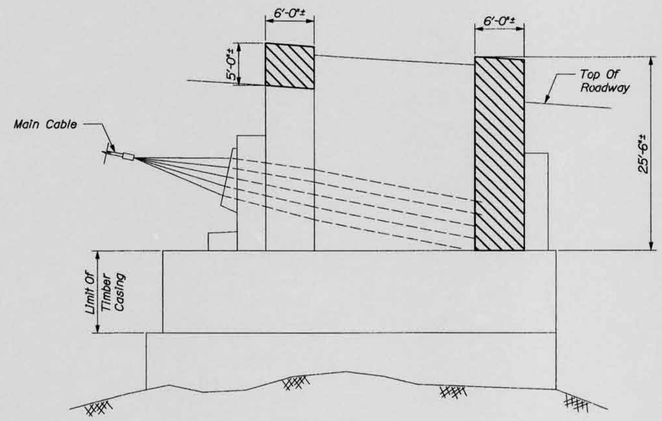
PLAN



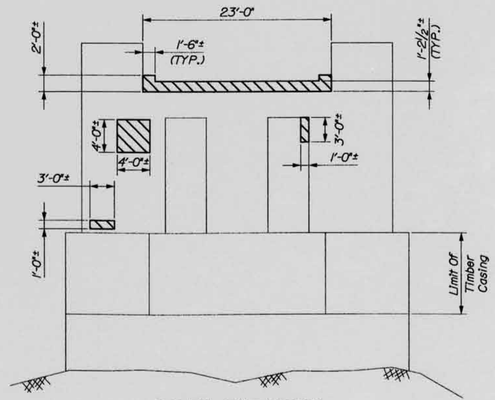
EAST ELEVATION



NORTH ELEVATION



WEST ELEVATION



SOUTH ELEVATION

SOUTH ANCHORAGE

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR SUBSTRUCTURE REPAIR DETAILS AND SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 20.
3. AREAS AND VOLUMES INDICATED ARE APPROXIMATE. ACTUAL AREAS AND VOLUMES SHALL BE DETERMINED BY THE RESIDENT IN THE FIELD.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 518.60 UNLESS OTHERWISE NOTED.

LEGEND

CONCRETE REPAIR AREA (SF) (ITEM 518.60)

141-216

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

BRIDGE NO. 3257 | PIN 10062.00 | BRIDGE PLANS

STATE OF MAINE · JOSEPH J. PULLANO · NO. 10364 · REGISTERED PROFESSIONAL ENGINEER

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	01/06
CHECKED-REVIEWED		ECL	01/06
DESIGN-DETAILED2	JLD	CMD	01/06
DESIGN-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

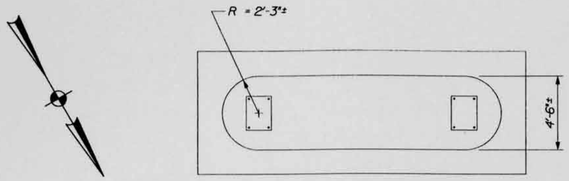
SIGNATURE 10364
P.E. NUMBER
02/13/06
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

SUBSTRUCTURE REPAIRS - SOUTH ANCHORAGE

SHEET NUMBER
15
OF 25

Filename: 015_Substructure Repairs-S Anch.dgn Division: Bridge Username: $user$ Date:1/20/2006



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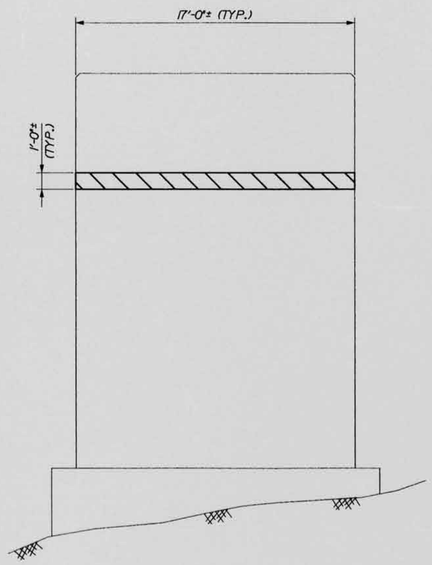
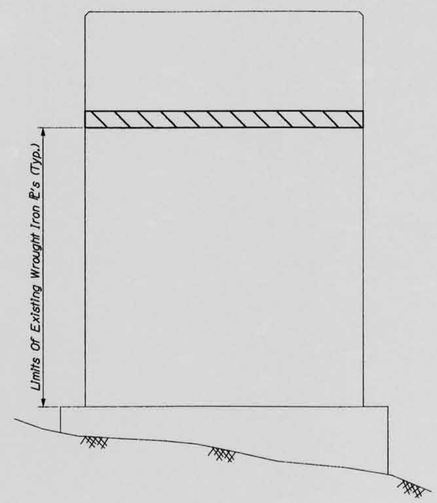


NORTH ELEVATION



SOUTH ELEVATION

PIER 2

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR SUBSTRUCTURE REPAIR DETAILS AND SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 20.
3. AREAS AND VOLUMES INDICATED ARE APPROXIMATE. ACTUAL AREAS AND VOLUMES SHALL BE DETERMINED BY THE RESIDENT IN THE FIELD.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 518.60 UNLESS OTHERWISE NOTED.

LEGEND

CONCRETE REPAIR AREA (SF) (ITEM 518.60)

141-217

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

BRIDGE NO. 3257 PIN 10062.00 BRIDGE PLANS

STATE OF MAINE JOSEPH J. PULLARO NO. 10364 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 10364
P.E. NUMBER 02/13/06
DATE

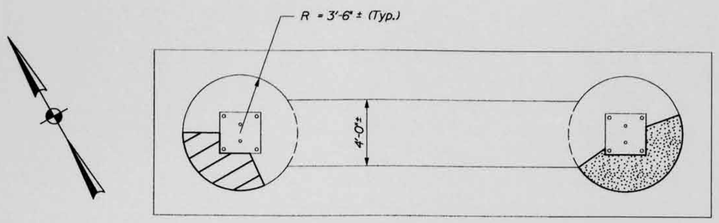
	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED CMS	CMD	01/06
CHECKED-REVIEWED	ECL	01/06
DESIGN2-DETAILED2 JLD	CMD	01/06
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

SUBSTRUCTURE REPAIRS - PIER 2

SHEET NUMBER
16
OF 25

Filename: 016_Substructure Repairs-Pier 2.dgn Division: Bridge Username: $user$ Date:1/20/2006



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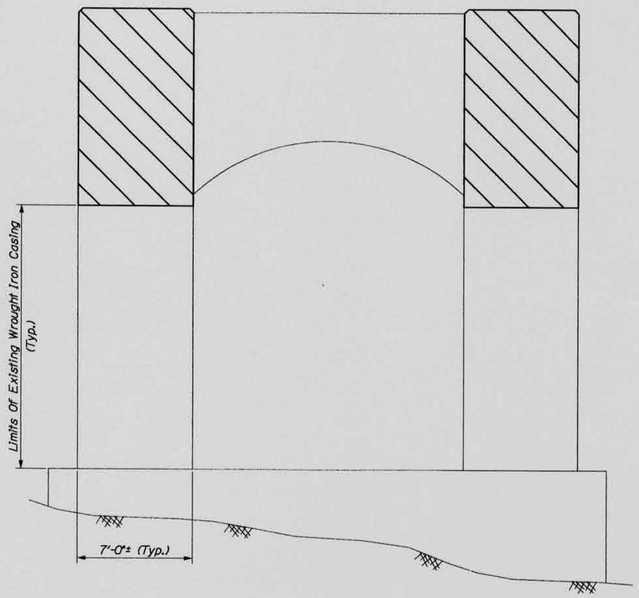
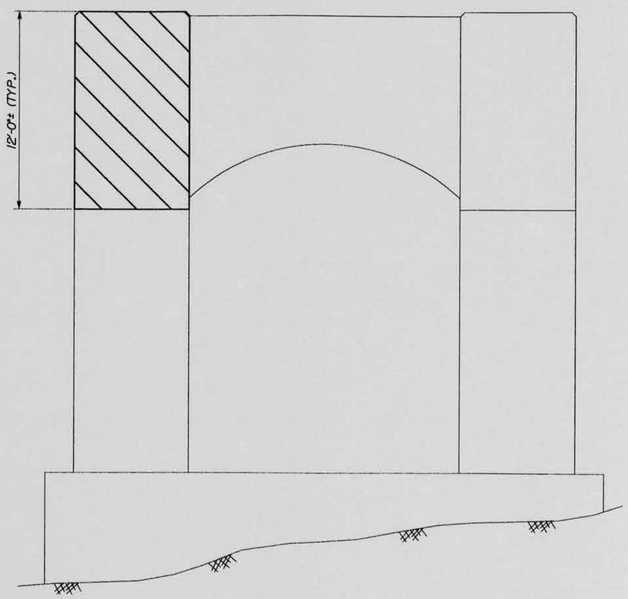


SOUTH ELEVATION



NORTH ELEVATION

PIER 3

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR SUBSTRUCTURE REPAIR DETAILS AND SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 20.
3. AREAS AND VOLUMES INDICATED ARE APPROXIMATE. ACTUAL AREAS AND VOLUMES SHALL BE DETERMINED BY THE RESIDENT IN THE FIELD.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 518.60 UNLESS OTHERWISE NOTED.

LEGEND

CONCRETE REPAIR AREA (SF) (ITEM 518.51)

CONCRETE REPAIR AREA (SF) (ITEM 518.60)

141-218

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE NO. 3257

BRIDGE PLANS

STATE OF MAINE
JOSEPH J. PULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 10364
P.E. NUMBER 02/13/06
DATE

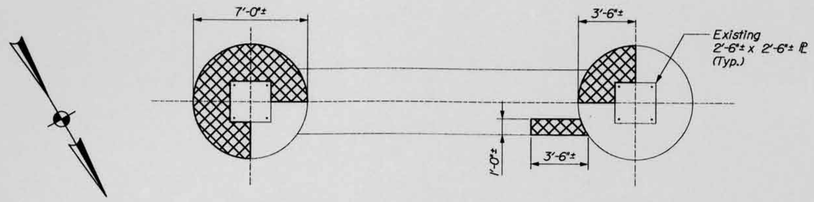
		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	01/06
CHECKED-REVIEWED		ECL	01/06
DESIGN2-DETAILED2	JLD	CMD	01/06
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

SUBSTRUCTURE REPAIRS - PIER 3

SHEET NUMBER
17
OF 25

Filename: 017_Substructure Repairs-Pier 3.dgn Division: Bridge Username: $user$ Date:1/20/2006



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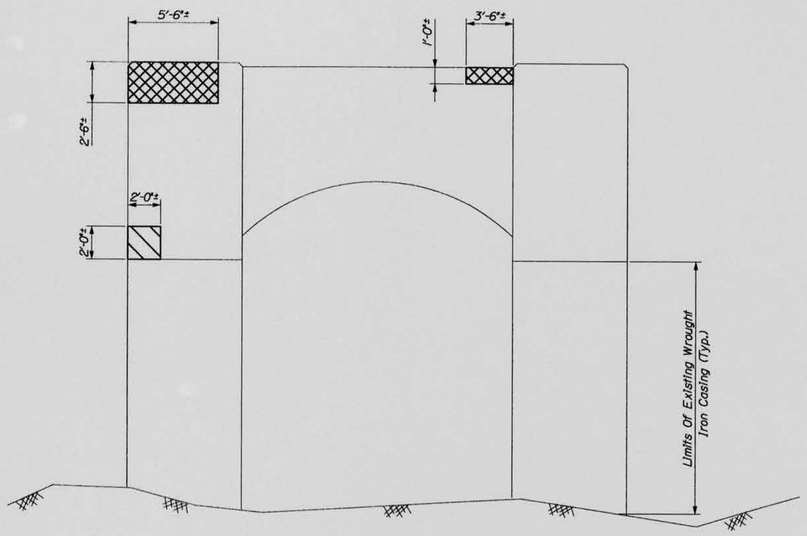
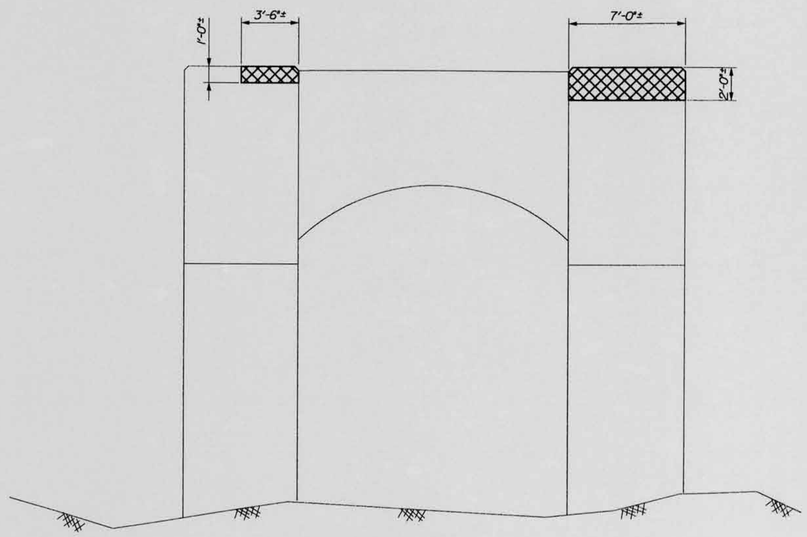


NORTH ELEVATION



SOUTH ELEVATION

PIER 6

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR SUBSTRUCTURE REPAIR DETAILS AND SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 20.
3. AREAS AND VOLUMES INDICATED ARE APPROXIMATE. ACTUAL AREAS AND VOLUMES SHALL BE DETERMINED BY THE RESIDENT IN THE FIELD.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 518.60 AND 518.61 UNLESS OTHERWISE NOTED.

LEGEND

CONCRETE REPAIR AREA (SF)
(ITEM 518.60)

CONCRETE REPAIR AREA (CY)
(ITEM 518.61)

141-219

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

BRIDGE NO. 3257 | PIN 10062.00 | BRIDGE PLANS

STATE OF MAINE
JOSEPH J. POLLARD
NO. 10304
REGISTERED PROFESSIONAL ENGINEER

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	01/06
CHECKED-REVIEWED		ECL	01/06
DESIGN2-DETAILED2	JLD	CMD	01/06
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

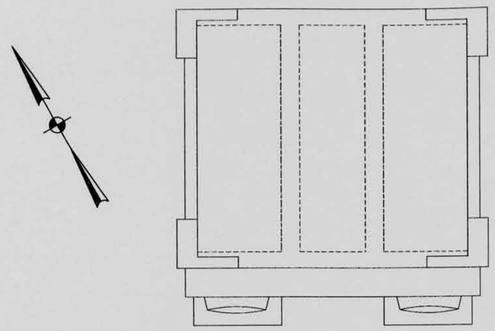
P.E. NUMBER 10304
DATE 02/13/06

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

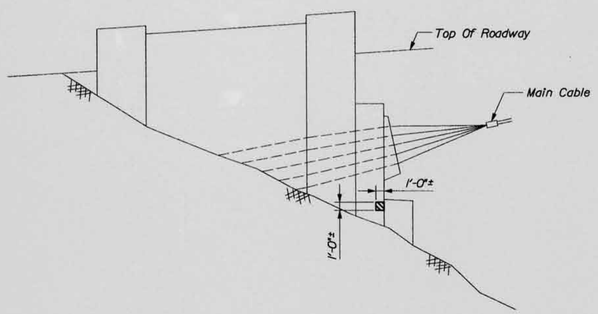
SUBSTRUCTURE REPAIRS - PIER 6

SHEET NUMBER
18
OF 25

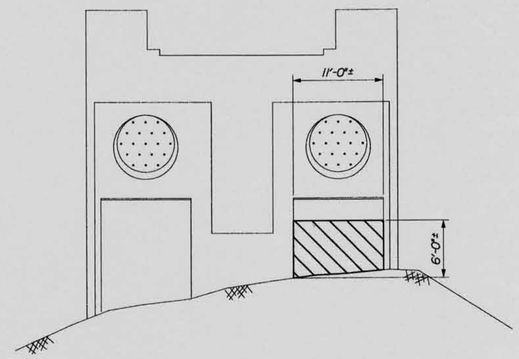
Filename: 018_Substructure Repairs-Pier 6.dgn Division: Bridge Username: $user$ Date:1/20/2006



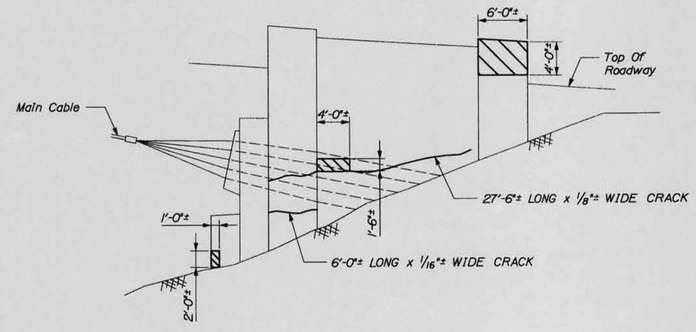
PLAN



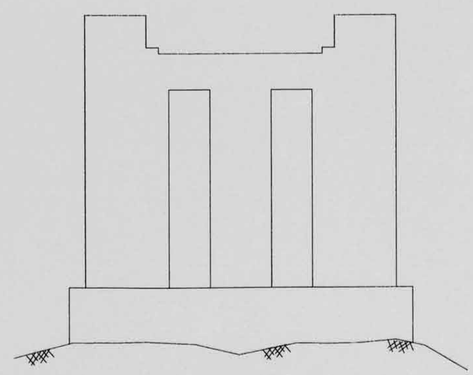
WEST ELEVATION



SOUTH ELEVATION



EAST ELEVATION



NORTH ELEVATION

NORTH ANCHORAGE

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR SUBSTRUCTURE REPAIR DETAILS AND SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET NO. 20.
3. AREAS AND VOLUMES INDICATED ARE APPROXIMATE. ACTUAL AREAS AND VOLUMES SHALL BE DETERMINED BY THE RESIDENT IN THE FIELD.
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 518.60 AND 518.80 UNLESS OTHERWISE NOTED.

LEGEND

CONCRETE REPAIR AREA (SF) (ITEM 518.60)

CRACK REPAIR (LF) (ITEM 518.80)

141-220

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE NO. 3257

BRIDGE PLANS

STATE OF MAINE
JOSEPH J. PULLARO
NO. 10364
REGISTERED PROFESSIONAL ENGINEER

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	01/06
CHECKED-REVIEWED		ECL	01/06
DESIGN2-DETAILED2	JLD	CMD	01/06
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

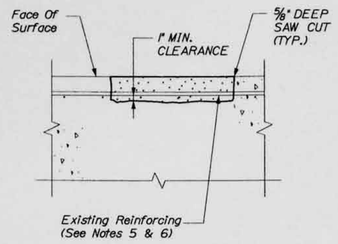
SIGNATURE
10364
P.E. NUMBER
02/13/06
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

SUBSTRUCTURE REPAIRS - NORTH ANCHORAGE

SHEET NUMBER
19
OF 25

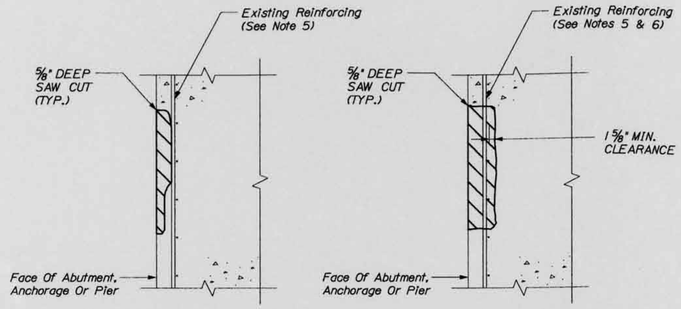
Filename: 019_Substructure Repairs-N Anch.dgn Division: Bridge Username: $user$ Date:1/20/2006



REPAIR DEPTH BEYOND REINFORCEMENT

CONCRETE REPAIRS OF UPWARD-FACING SURFACES - BELOW REINFORCING STEEL < 7.9"

(ITEM 518.51)

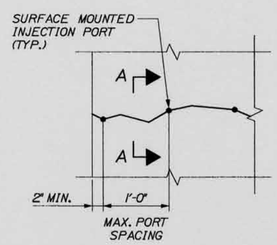


REPAIR DEPTH TO REINFORCEMENT

REPAIR DEPTH BEYOND REINFORCEMENT

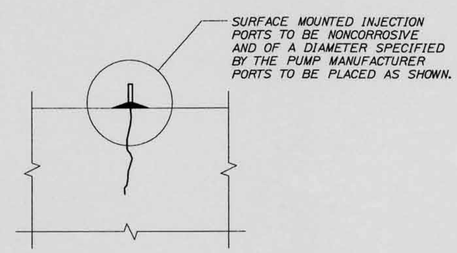
CONCRETE REPAIRS OF VERTICAL SURFACES

(ITEMS 518.60 & 518.61)



CRACK REPAIR DETAIL

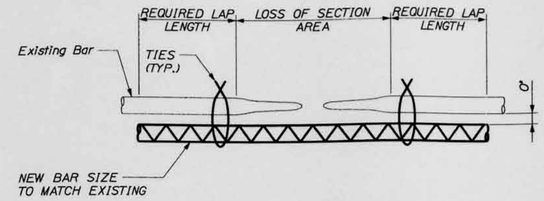
(ITEM 518.80)



SECTION A-A

SUBSTRUCTURE UNIT	CONCRETE REPAIR ITEM 518.51 * (SF)	CONCRETE REPAIR ITEM 518.60 * (SF)	CONCRETE REPAIR ITEM 518.61 * (CY)	CRACK REPAIR ITEM 518.80 * (LF)
SOUTH ABUTMENT	-	150	1	-
PIER 1	10	350	-	-
SOUTH ANCHORAGE	-	900	-	-
PIER 2	-	80	-	-
PIER 3	35	450	-	-
PIER 6	-	10	5	-
NORTH ANCHORAGE	-	110	-	40
OTHER	205	950	24	60
TOTAL	250	3000	30	100

* INCLUDES A QUANTITY FOR "IF & WHERE" REPAIRS AS MAY BE REQUIRED AND AS DIRECTED BY THE RESIDENT DURING CONSTRUCTION.



REINFORCING REPAIR PLAN

(INCIDENTAL TO WORK REQUIRED UNDER CONCRETE REPAIR ITEMS)

SUGGESTED SEQUENCE OF CONSTRUCTION (ITEMS 518.51, 518.60, AND 518.61):

1. PRIOR TO REMOVING DETERIORATED CONCRETE, CONTRACTOR TO PROVIDE ACCESS TO ALL WORK AREAS. USING THE CONTRACT DRAWINGS AS A GUIDE, THE RESIDENT AND CONTRACTOR SHALL HAMMER SOUND ALL WORK AREAS AND MARK THE LIMITS OF CONCRETE TO BE REMOVED.
2. DETERIORATED CONCRETE SHALL BE REMOVED WITHIN THE MARKED LIMITS OF CONCRETE REMOVAL TO THE GREATER OF THE FOLLOWING DEPTHS: A SOUND SUBSTRATE OR A DEPTH AS INDICATED ON THE REPAIR DETAILS.
3. EQUIPMENT USED FOR REMOVAL OF UNSOUND CONCRETE SHALL BE CHIPPING HAMMERS WEIGHING A MAXIMUM OF 35 LBS AND ONLY CHISEL POINT BITS WILL BE ALLOWED.
4. UPON REINSPECTION AND DETERMINATION THAT DETERIORATED CONCRETE HAS BEEN REMOVED, THE CONTRACTOR SHALL SAWCUT THE PERIMETER OF ALL REMOVAL AREAS TO A DEPTH OF 5/8".
5. ALL REINFORCING STEEL EXPOSED BY CONCRETE REMOVAL SHALL BE CLEANED OF ALL LOOSE RUST BY SANDBLASTING, WIRE BRUSHING, OR BY MACHINE WIRE BRUSHING.
6. EXISTING REINFORCING WHICH HAS BEEN BROKEN OR LOST 25% OR MORE OF THE ORIGINAL CROSS SECTIONAL AREA SHALL BE SUPPLEMENTED WITH REINFORCING STEEL OF THE SAME DIAMETER, LAPPED 30 BAR DIAMETERS AND WIRED TO THE EXISTING STEEL.
7. THE SURFACES TO RECEIVE THE REPAIR MATERIAL SHALL BE FREE OF OIL, SOLVENT, GREASE, DIRT, LOOSE PARTICLES AND FOREIGN MATTER. CLEANING OF THE REPAIR AREAS SHALL BE PERFORMED BY SANDBLASTING (NOT MORE THAN 36 HRS AHEAD OF THE REPAIR PLACEMENT) OR OTHER METHODS APPROVED BY THE ENGINEER.
8. CONCRETE REPAIR MATERIAL SHALL BE PLACED ACCORDING TO THE STANDARD SPECIFICATIONS.
9. THE CONCRETE REPAIRS SHALL BE FINISHED TO CONFORM TO THE LINE AND GRADE OF THE ORIGINAL CONCRETE SURFACE.

SUGGESTED SEQUENCE OF CONSTRUCTION (ITEMS 518.80):

1. CRACKS SHALL BE REPAIRED IN LOCATIONS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE RESIDENT (SEE CONTRACT SPECIFICATIONS FOR CRACK SEALING COMPOUND AND CRACK FILLER MATERIAL).
2. AREAS TO BE REPAIRED SHALL BE CLEANED WITH A FRESH WATER JET.
3. PLACE SURFACE MOUNTED INJECTION PORTS AND SEAL SURFACE OF CRACK AND PORTS WITH CRACK SEALING COMPOUND A MINIMUM OF 1/16" THICK AND 1" WIDE.
4. AFTER CRACK SEALING COMPOUND HAS CURED, INJECT CRACK FILLER MATERIAL BEGINNING AT LOWEST POINT OF THE CRACK UNDER PRESSURE UNTIL IT IS OBSERVED FLOWING FROM THE FOLLOWING INJECTION PORT. CONTINUE PRESSURE INJECTION ADVANCING UPWARD ONE PORT AT A TIME UNTIL ENTIRE CRACK IS FILLED.
5. AFTER INJECTED CRACK FILLER MATERIAL HAS CURED, CUT PORTS AND GRIND PORTS AND CRACK SEALING COMPOUND FLUSH WITH EXISTING SURFACE.

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 518.51, 518.60, 518.61, AND 518.80 UNLESS OTHERWISE NOTED.

141-221

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE NO. 3257

BRIDGE PLANS

STATE OF MAINE JOSEPH L. POLLARD NO. 10364 REGISTERED PROFESSIONAL ENGINEER

SIGNATURE 10364

P.E. NUMBER

02/13/06

DATE

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	CMS	CMD	01/06
CHECKED-REVIEWED		ECL	01/06
DESIGN2-DETAILED2	JLD	CMD	01/06
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

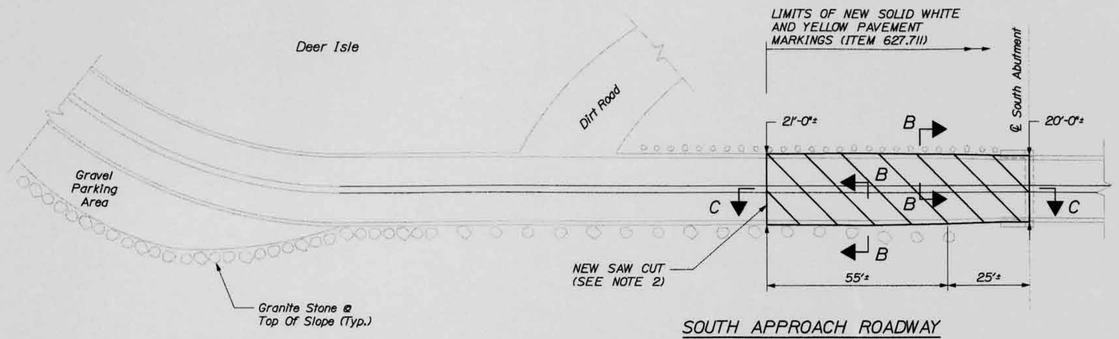
SUBSTRUCTURE REPAIR DETAILS

SHEET NUMBER

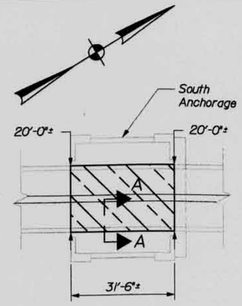
20

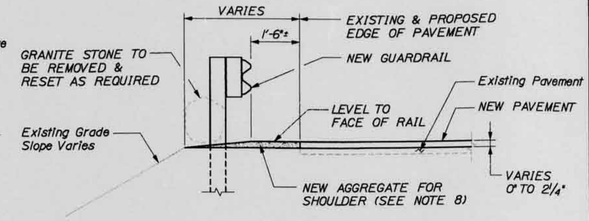
OF 25

Filename: 020_Substructure Repair Details.dgn Division: Bridge Username: $user$ Date:1/17/2006

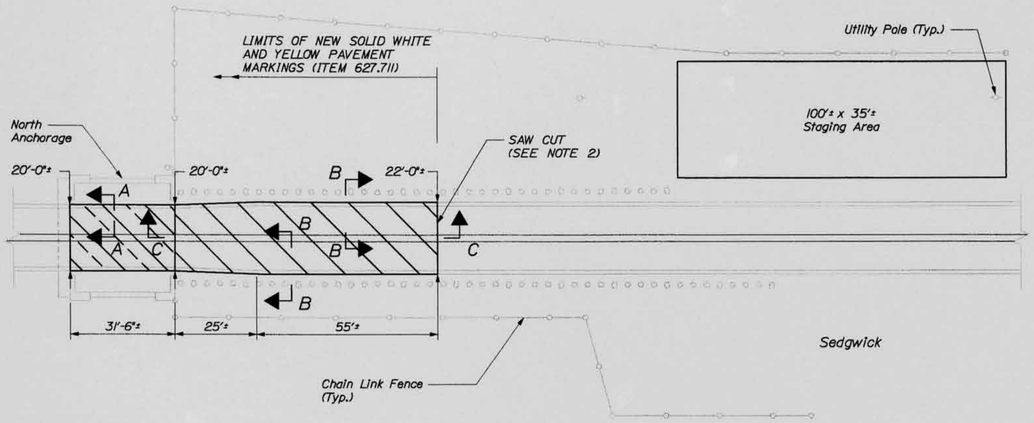


SOUTH APPROACH ROADWAY
NEW PLAN VIEW

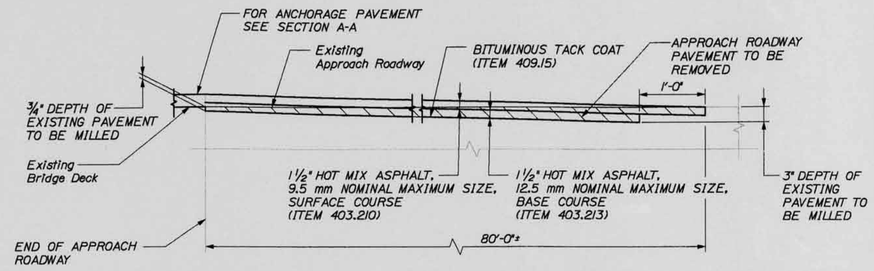




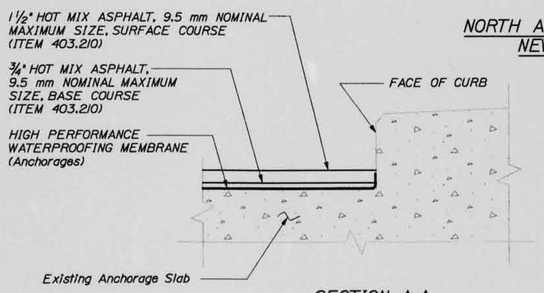
SECTION B-B
TYPICAL ROADWAY SECTION AT APPROACH RAIL



NORTH APPROACH ROADWAY
NEW PLAN VIEW



SECTION C-C
TYPICAL LONGITUDINAL SECTION THROUGH APPROACH ROADWAY

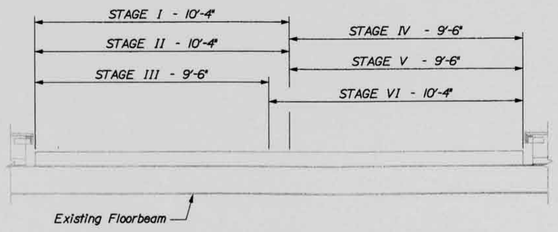


SECTION A-A
TYPICAL ANCHORAGE PAVEMENT

LEGEND

PAVEMENT REMOVAL AND NEW BITUMINOUS PAVEMENT (SEE NOTE 4)

NEW BITUMINOUS PAVEMENT (SEE NOTE 5)



STAGE I: MICROMILL ½" DEPTH
STAGE II: PLACE HIGH PERFORMANCE WATERPROOFING MEMBRANE
STAGE III: PLACE MICROSURFACING
STAGE IV: MICROMILL ½" DEPTH
STAGE V: PLACE HIGH PERFORMANCE WATERPROOFING MEMBRANE
STAGE VI: PLACE MICROSURFACING

BRIDGE MEMBRANE AND PAVEMENT PLACEMENT STAGING
(SEE NOTE 9)

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. SAW CUT EXISTING PAVEMENT TO THE DEPTH OF NEW BITUMINOUS PAVEMENT AT BUTT JOINT BETWEEN EXISTING AND NEW BITUMINOUS PAVEMENTS. SAW CUT JOINTS IN SURFACE COURSE AND BASE COURSE TO BE STAGGERED BY A MINIMUM DISTANCE OF 1'-0". SAW CUTTING AND SEALING PAVEMENT BUTT JOINTS TO BE CONSIDERED INCIDENTAL TO WORK UNDER ITEM 403.208.
3. THE EXISTING PAVEMENT IS TO BE REMOVED TO A MAXIMUM DEPTH OF 3" FROM THE SURFACE IN ACCORDANCE WITH STANDARD DETAIL 202(01) PAVEMENT OVERLAY BUTT JOINT DETAIL (ROADWAYS), AND PAID FOR UNDER ITEM 202.127.
4. NEW BITUMINOUS PAVEMENT ON THE APPROACH ROADWAYS SHALL CONSIST OF 1½" HOT MIX ASPHALT, 9.5 mm NOMINAL MAXIMUM SIZE, SURFACE COURSE (ITEM 403.210) ON TOP OF 1½" HOT MIX ASPHALT, 12.5 mm NOMINAL MAXIMUM SIZE, BASE COURSE (ITEM 403.213) ON TOP OF BITUMINOUS TACK COAT. (ITEM 409.15) BUTT JOINTS FOR EACH COURSE TO BE STAGGERED BY A MINIMUM OF 1'-0" AS SHOWN, AND CONSTRUCTRED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. BUTT JOINT FOR EACH COURSE TO BE CONSIDERED INCIDENTAL TO THE WORK UNDER ITEMS 403.208 AND 403.213 RESPECTIVELY.
5. NEW BITUMINOUS PAVEMENT ON THE ANCHORAGES SHALL CONSIST OF 1½" HOT MIX ASPHALT, 9.5 mm NOMINAL MAXIMUM SIZE, SURFACE COURSE (ITEM 403.210) ON TOP OF ¾" HOT MIX ASPHALT, 9.5 mm NOMINAL MAXIMUM SIZE, BASE COURSE (ITEM 403.210) ON TOP OF MEMBRANE WATERPROOFING. (ITEM 508.13)
6. CONTRACTOR TO PROVIDE ASPHALT RAMPS AS REQUIRED TO ACCOMMODATE DIFFERENCES IN TOP OF PAVEMENT ELEVATIONS BETWEEN BRIDGE SPANS, ANCHORAGE SPANS, AND APPROACH ROADWAYS. ASPHALT RAMPS TO BE CONSIDERED INCIDENTAL TO WORK UNDER ITEM 403.208.
7. FOR GUARDRAIL DETAILS SEE SHEET NO. 22.
8. NEW AGGREGATE FOR SHOULDER TO BE PLACED AND COMPACTED PRIOR TO THE GUARDRAIL INSTALLATION AND IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECIFICATIONS. NEW AGGREGATE FOR THE SHOULDER IS CONSIDERED INCIDENTAL TO THE WORK UNDER ITEM 606.151.
9. MICROMILLING, HIGH PERFORMANCE WATERPROOFING MEMBRANE AND MICROSURFACING TO BE PAID FOR UNDER ITEMS 530.00, 508.14 AND 462.001, RESPECTIVELY. SEE SHEET NOS. 5 & 6.
10. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 403.213 UNLESS OTHERWISE NOTED.

141-222

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BH-1006(200)X
PIN 10062.00
BRIDGE PLANS
BRIDGE NO. 3257

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED	JLD	01/06
CHECKED-REVIEWED	DMD	01/06
DESIGN-DETAILED	ECL	01/06
CHECKED-REVIEWED	DMD	01/06
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

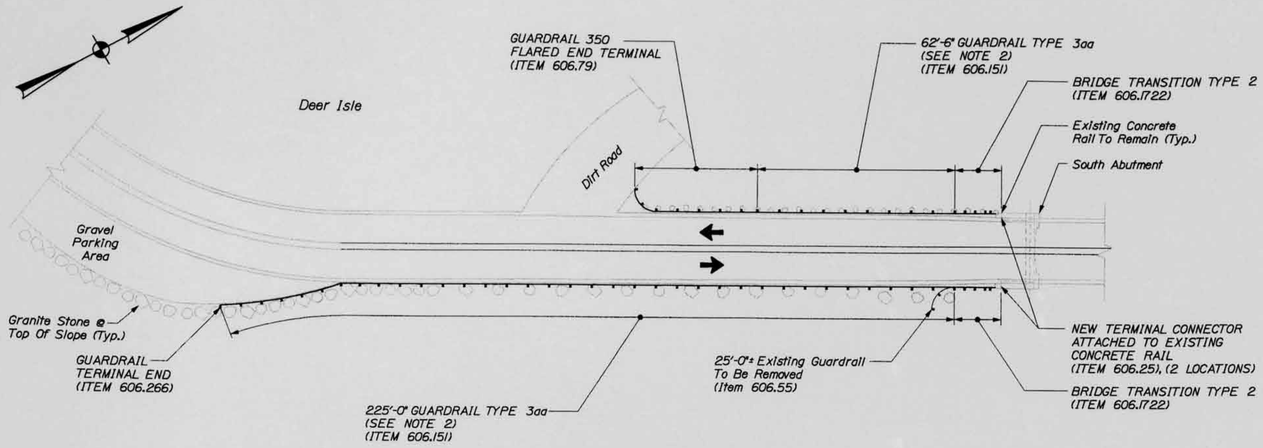
SIGNATURE
P.E. NUMBER
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

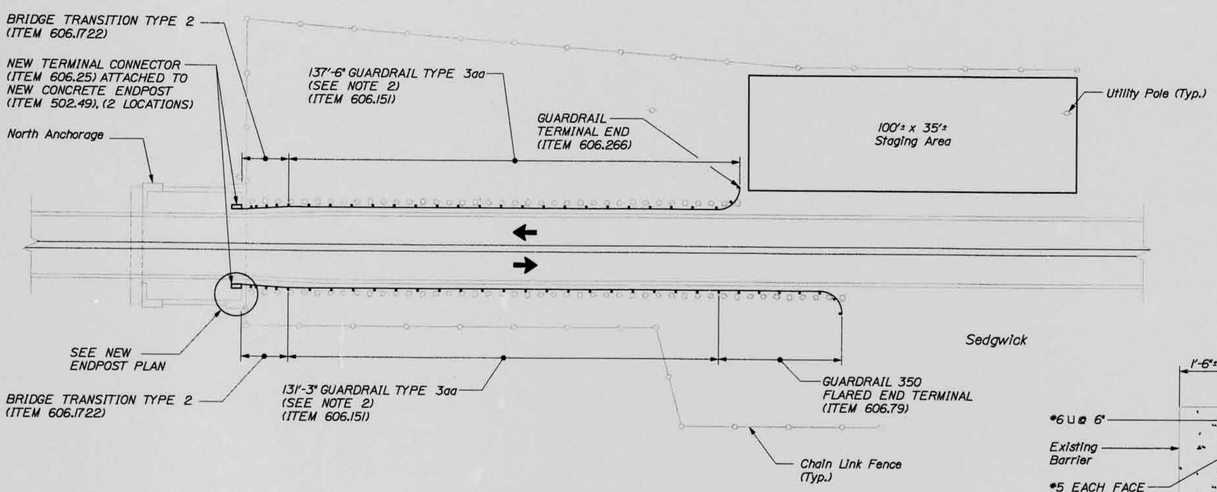
PAVEMENT PLAN & DETAILS

SHEET NUMBER
21
OF 25

Filename: ...\W21_Pavement Plan & Details.dgn Division: Bridge Username: dsit.rdon Date: 4/27/2006



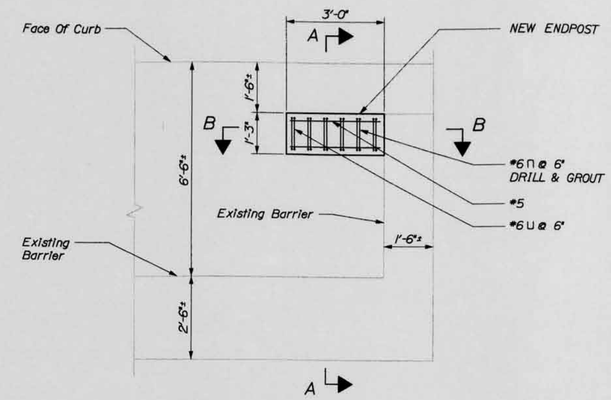
SOUTH APPROACH ROADWAY
NEW GUARDRAIL PLAN VIEW



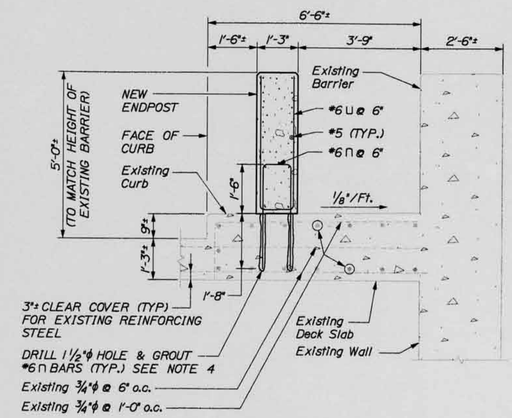
NORTH APPROACH ROADWAY
NEW GUARDRAIL PLAN VIEW

LEGEND

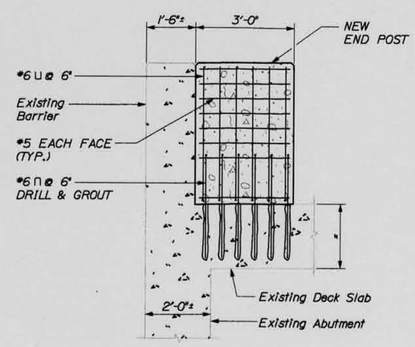
NEW GUARDRAIL WITH STEEL POSTS



NEW ENDPOST PLAN
(ITEM 502.49)



SECTION A-A



* Existing Sidewalk Depth Varies

SECTION B-B

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. TWO GUARDRAIL DELINEATOR POSTS SHALL BE INSTALLED AT EACH LEADING GUARDRAIL END AND ONE AT EACH TRAILING GUARDRAIL END. (ITEM 606.35)
3. EXISTING GRANITE STONES AT TOP OF SLOPE TO BE REMOVED AND RESET AS NECESSARY FOR THE INSTALLATION OF GUARDRAIL. THIS WORK IS INCIDENTAL TO GUARDRAIL INSTALLATION.
4. LOCATE NEW 1 1/2"ϕ DRILL HOLES TO AVOID DAMAGE TO EXISTING REINFORCING STEEL.
5. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 606.151 UNLESS OTHERWISE NOTED.
6. ALL GUARDRAIL TYPE 3aa, BRIDGE TRANSITIONS TYPE 2, TERMINAL CONNECTORS, GUARDRAIL TERMINAL ENDS, AND GUARDRAIL 350 FLARED END TERMINALS SHALL BE CORROSION RESISTANT STEEL (RUSTY STEEL) "W" BEAM WITH WOOD OR COMPOSITE OFFSET BRACKET AND MEET THE REQUIREMENTS OF STANDARD SPECIFICATIONS SECTION 606.

141-223

Lichtenstein
Consulting Engineers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED J.LD	CMD	01/06
CHECKED-REVIEWED	ECL	01/06
DESIGN2-DETAILED2 CNS	CMD	01/06
DESIGN3-DETAILED3 JKC	CMD	01/06
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

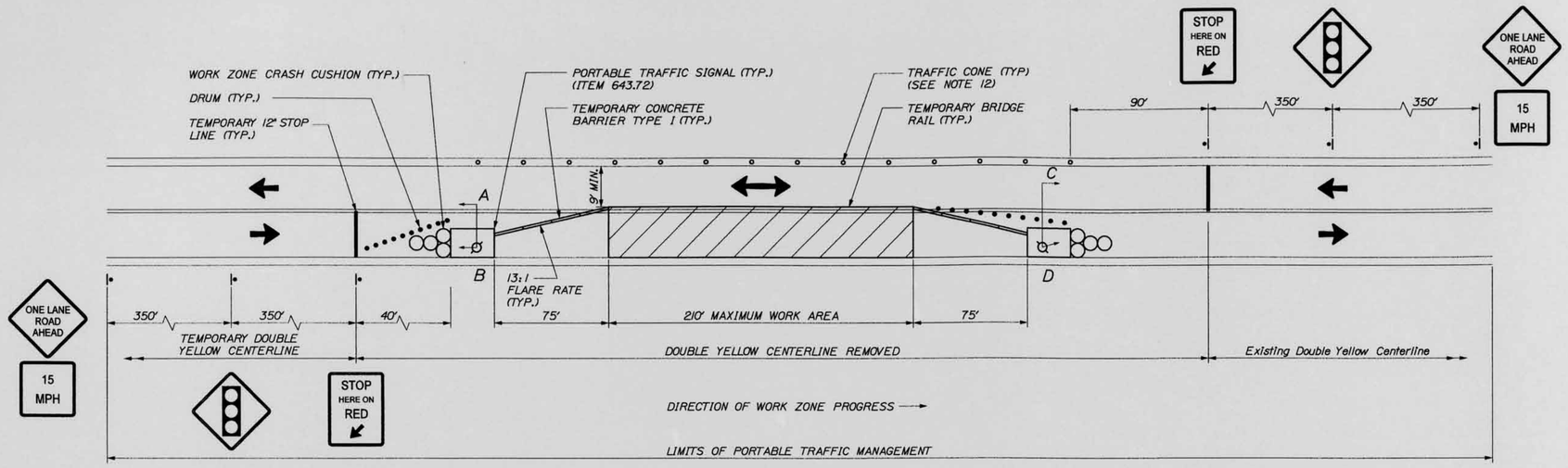
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

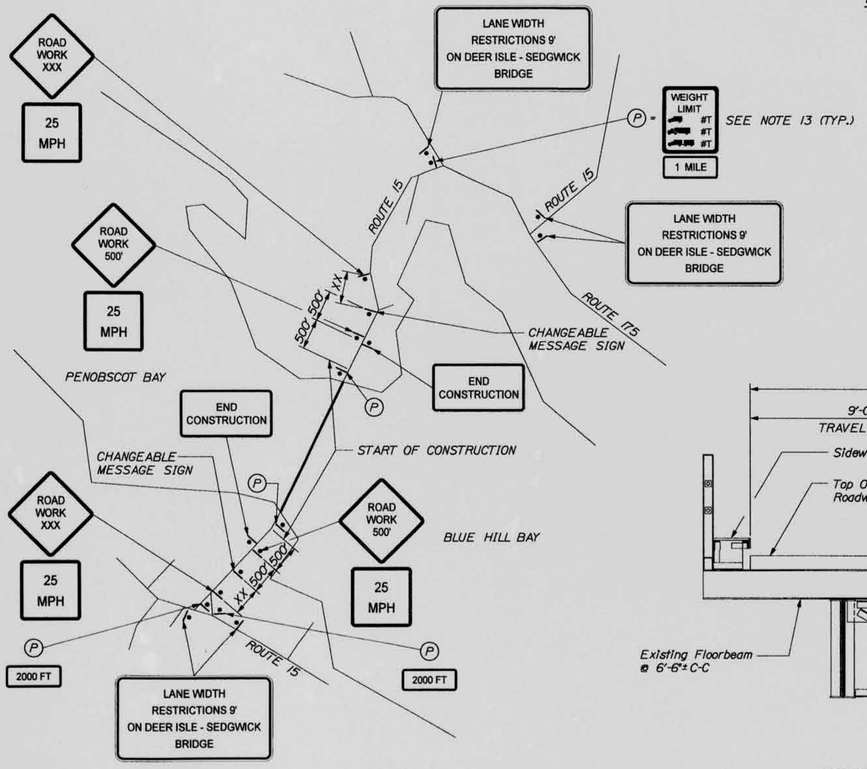
GUARDRAIL PLAN

SHEET NUMBER
22
OF 25

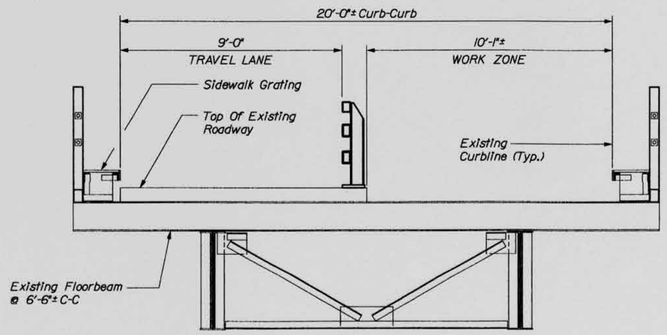
Filename: ...\msta\022_Guardrail Plan.dgn Division: BRIDGE Username: david.shaw Date:3/27/2006



TYPICAL WORK ZONE



PERMANENT ADVANCE WARNING SIGNING



TYPICAL WORK AREA CROSS SECTION
(APPROACH SPAN SHOWN, SUSPENDED SPAN SIMILAR)

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. WORK AREA WILL BE AT A MAXIMUM OF 210 FEET IN LENGTH.
3. STRIPING DURING CONSTRUCTION SHALL CONFORM TO TYPICAL WORK ZONE DETAIL.
4. DURING PERIODS OF NON-WORK, 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.
5. FOR SIGN MOUNTING DETAILS ON THE BRIDGE SEE SHEET NO. 24.
6. ALL CONSTRUCTION SIGNING, TRAFFIC/LANE STRIPING, AND OTHER TRAFFIC MANAGEMENT DEVICES SHALL CONFORM WITH THE CURRENT MUTCD AND MDOT SPECIFICATIONS.
7. ALL DISTANCES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
8. MAXIMUM SPACING OF CHANNELIZING DEVICES IN A TAPER IS EQUAL IN FEET TO THE POSTED SPEED LIMIT (MPH).
9. MINIMUM TRAVEL LANE WIDTH SHALL BE 9 FEET.
10. FLAGGERS SHALL BE USED IN TIMES WHEN PORTABLE TRAFFIC SIGNAL IS NOT IN USE. FLAGGER REGULATIONS SHALL CONFORM TO THE CURRENT MUTCD AND MDOT SPECIFICATIONS.
11. SIGNS SHALL BE COVERED OR REMOVED WHEN THEY ARE NOT REQUIRED.
12. CONES SHALL BE USED WITHIN WORK ZONE ALONG OPPOSING SIDEWALK GRATING TO DRAW ATTENTION TO LANE WIDTH REDUCTION. CONES SHALL BE SPACED AT INTERVALS EQUAL IN FEET TO TWO TIMES THE SPEED LIMIT. CONES SHALL BE FASTENED TO THE BRIDGE TO PREVENT FROM BEING TURNED OVER.
13. LOAD POSTING SIGNS TO BE INSTALLED AND LEFT IN PLACE UPON COMPLETION OF CONSTRUCTION.
14. ALL WORK ON THIS SHEET TO BE PAID FOR UNDER ITEM 652.39 UNLESS NOTED OTHERWISE.

141-224

C & C CONSULTING ENGINEERS, LLC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE PLANS

BRIDGE NO. 3257

STATE OF MAINE — SAMUEL PRESTON BAILEY JR. — NO. 8159 — PROFESSIONAL ENGINEER

SIGNATURE

P.E. NUMBER

10-17-2006
DATE

PROJ. MANAGER	ECL		
DESIGN-DETAILED	JJG	BY	DATE
CHECKED-DETAILED	JJG	CMD	01/06
DESIGN2-DETAILED2	TFQ	RKS	01/06
DESIGN3-DETAILED3		CMD	01/06
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

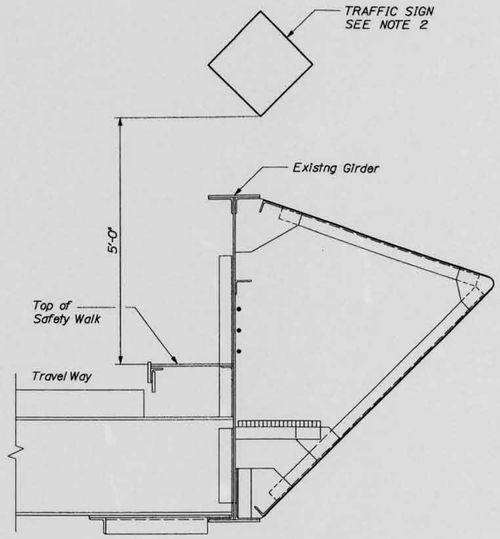
DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

TRAFFIC CONTROL 1 OF 3

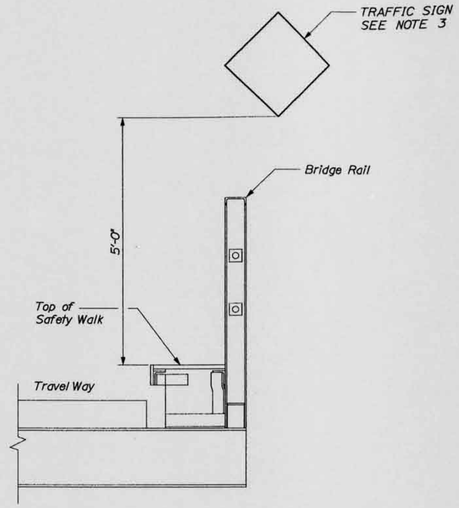
SHEET NUMBER
23
OF 25

Filename: 023_Traffic control1.dgn Division: Bridge Username: $user$ Date:2/3/2006

IDENTIFICATION NUMBER	SIZE OF SIGN (Inch) WIDTH	HEIGHT	TEXT	NUMBER OF SIGNS REQUIRED	AREA IN SQUARE FEET
R10-6	24	36	STOP HERE ON RED	2	12.00
W3-3	48	48		2	32.00
G20-2	36	18	END CONSTRUCTION	2	9.00
W20-1 (500)	48	48	ROAD WORK 500'	2	32.00
W20-4	48	48	ONE LANE ROAD AHEAD	2	32.00
W20-1 (XXX)	48	48	ROAD WORK XXX	2	32.00
W20-7a	48	48		2	32.00
W13-1 (15)	30	30	15 MPH	2	12.50
W13-1 (25)	30	30	25 MPH	4	25.00
W-LR	72	48	LANE WIDTH RESTRICTIONS 9' ON DEER ISLE - SEDGWICK BRIDGE	5	120.00
R12-5	24	36	WEIGHT LIMIT #T #T #T	5	30.00
W16-2a	24	12	2000 FT	2	4.00
W16-3a	24	12	1 MILE	1	9.00
				TOTAL	374.50



TYPICAL SIGN MOUNTING ON SUSPENDED SPANS



TYPICAL SIGN MOUNTING ON APPROACH SPANS

DEER ISLE BRIDGE								
SIGNAL SEQUENCE AND TIMING CHART								
			PHASE 1			PHASE 2		
			1	2	3	4	5	6
MAXIMUM GREEN			18			18		
YELLOW CLEARANCE				3			3	
ALL RED CLEARANCE					30			30
WALK INTERVAL								
PEDS. CLEARANCE INTERVAL								
STREET	DIRECTION	HOUSING						
DEER ISLE BRIDGE	EB	A, B	G	Y	R	R	R	R
DEER ISLE BRIDGE	WB	C, D	R	R	R	G	Y	R
#1 / #2			→		←		→	←
PREFERRED PHASING								
DETECTOR			LOCK			LOCK		

SIGNAL HOUSING

A, B, C AND D

ITEM 643.72 TEMPORARY TRAFFIC SIGNAL DEER ISLE BRIDGE LIST OF MAJOR ITEMS REQUIRED	
QUANTITY	DESCRIPTION
2	PORTABLE TRAFFIC CONTROL SYSTEM

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. TRAFFIC SIDE EDGE OF SIGN AND SUPPORT WILL NOT EXTEND MORE THAN 3' BEYOND THE ROADSIDE EDGE OF EXISTING GIRDER.
3. TRAFFIC SIDE EDGE OF SIGN AND SUPPORT WILL NOT EXTEND BEYOND THE ROADSIDE EDGE OF THE BRIDGE RAIL.
4. THE SIGN SPACING FOR THE PORTABLE TRAFFIC MANAGEMENT SIGNING ARE MINIMUM DISTANCES. IF THERE IS A SIGHT DISTANCE PROBLEM FOR A SIGN, THE DISTANCES CAN BE INCREASED AS APPROVED BY THE ENGINEER.
5. SIGN SUPPORT DESIGN FOR SIGNS TO BE LOCATED ON THE BRIDGE TO BE PREPARED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO SIGN INSTALLATION.
6. SIGNAL TIMINGS ARE BASED ON THE TYPICAL WORK ZONE AS SHOWN ON SHEET NO. 23, AND MAY BE ADJUSTED TO ACCOMODATE EXISTING TRAFFIC PATTERNS OR FIELD CONDITIONS, AS APPROVED BY THE ENGINEER.
7. ALL WORK ON THIS SHEET TO BE PAID FOR UNDER ITEM 652.39 UNLESS OTHERWISE NOTED.

141-225

C & C CONSULTING ENGINEERS, LLC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE NO. 3257

BRIDGE PLANS

STATE OF MAINE SAMUEL J. PRESTON No. 5131 REGISTERED PROFESSIONAL ENGINEER

P.E. NUMBER 5131
SIGNATURE
10FEB06
DATE

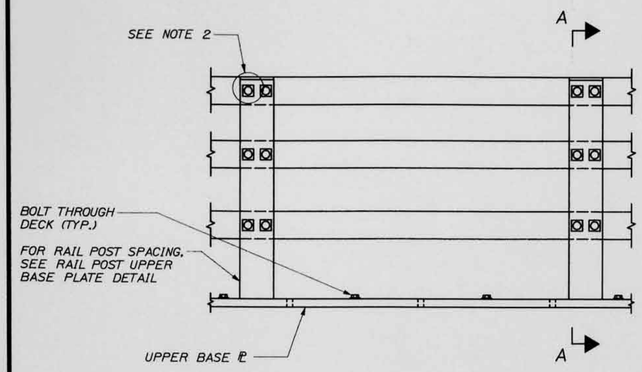
		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	JJC	CMD	01/06
CHECKED-REVIEWED		PLS	01/06
DESIGN2-DETAILED2	TFQ	CMD	01/06
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

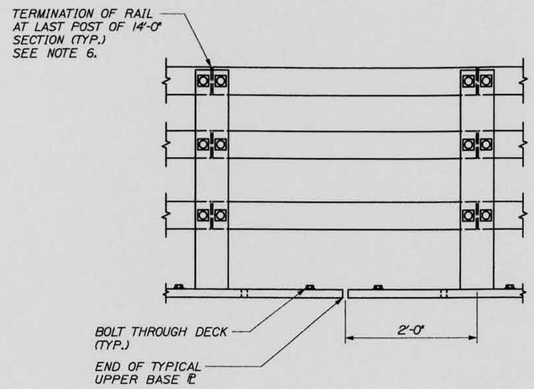
TRAFFIC CONTROL 2 OF 3

SHEET NUMBER
24
OF 25

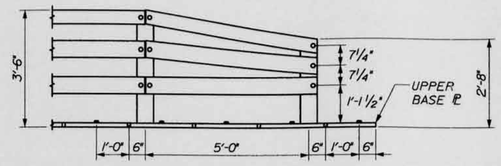
Filename: 024_Traffic control2.dgn Division: Bridge Username: $user$ Date:2/1/2006



TYPICAL TEMPORARY BRIDGE RAIL ELEVATION



TYPICAL TRANSITION RAIL



RAIL SIZES THE SAME SIZE AS SHOWN ON RAIL POST, LONGITUDINAL RAIL DETAIL. CONNECTION METHODS ARE ALSO THE SAME.

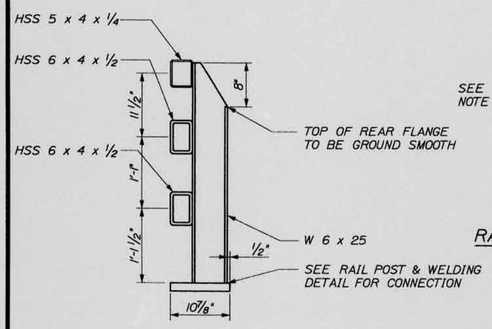
FINAL POST TO HAVE SIMILAR CUT AS SHOWN ON RAIL POST, LONGITUDINAL RAIL DETAIL EXCEPT HEIGHT FROM TOP OF BASE PLATE TO TOP OF POST IS TO BE 2'-8".

RAIL END TREATMENT FOR OPPOSITE END OF RAIL TO BE OPPOSITE HAND OF DETAIL SHOWN HERE. TWO RAIL SECTIONS SHALL BE FABRICATED AS SHOWN IN THIS DETAIL, AS SHOWN AND OPPOSITE HAND.

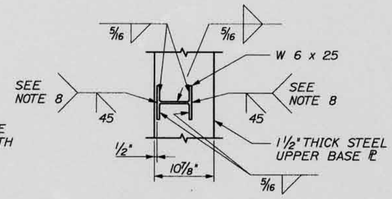
SEE RAIL TRANSITION TO TAPER BARRIERS FOR LAYOUT OF END TREATMENT.

OTHER END OF RAIL END TREATMENT SECTION TO BE SIMILAR TO TRANSITION RAIL DETAIL ON THIS SHEET.

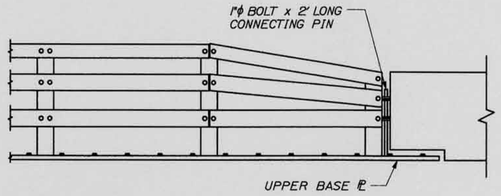
RAIL END TREATMENT



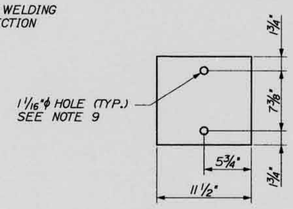
SECTION A-A
RAIL POST, LONGITUDINAL RAIL DETAIL



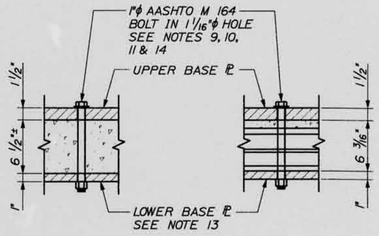
RAIL POST AND WELDING DETAIL



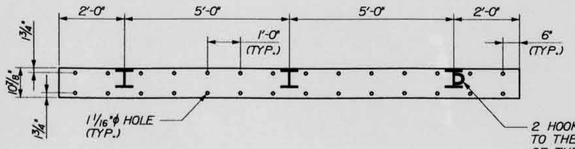
RAIL TRANSITION TO TAPER BARRIERS



LOWER BASE PLATE DETAIL



TYPICAL BOLT CONNECTION THROUGH DECK



2 HOOKS TO BE FILLET WELDED TO THE EXTERIOR OF THE WEB OF THE SHORT RAIL POST OF EACH RAIL END TREATMENT. HOOKS TO BE ⅝" BARS AND BE BENT TO 4"ϕ. PLACE HOOKS EVEN WITH CENTER OF LOWEST TWO RAILS TO RECEIVE CONNECTING PIN.

RAIL POST UPPER BASE PLATE DETAIL

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FASTENER TO BE ⅞" DIAMETER AASHTO M164 ROUND HEAD BOLT WITH NUT, 2" x 2" x 3/16" WASHER AND LOCKWASHER. BOLT THROUGH RAIL TO RAIL POST FLANGE.
3. RAILS SHOWN AS CONTINUOUS ACROSS RAIL POSTS. RAILS TO TERMINATE AT THE ENDPOSTS OF EACH 14 FOOT RAIL SECTION TO PERMIT ATTACHMENT OF TRANSITION RAIL SECTION AS REQUIRED. SEE TYPICAL TRANSITION RAIL DETAIL ON THIS SHEET.
4. TRANSITION RAIL SECTIONS (E.G. RAIL SECTIONS BETWEEN RAIL POSTS ON ADJACENT 14' BASE PLATES) TO BE UNBOLTED AND REMOVED PRIOR TO REMOVING RAIL ANCHOR BOLTS THROUGH DECK WHEN REMOVING AND RESETTING RAIL.
5. RAIL POST AND BASE PLATE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270, GRADE 50.
6. HOLLOW RAIL STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 WITH A CERTIFIED Fy = 50 KSI MINIMUM. AT FINGER EXPANSION JOINTS RAILS SHALL CANTILEVER 1'-6" MIN. PAST LAST POST OF 14' RAILING SECTION, AND BE SPLICED OVER FINGER EXPANSION JOINTS USING HOLLOW RAIL STRUCTURAL TUBING FITTED OVER STANDARD RAILS. STRUCTURAL TUBING USED FOR SPLICES SHALL BE OF EQUAL OR GREATER THICKNESS THAN THE RAIL BEING SPLICED, AND SHALL BE WELDED TO THE RAIL BEING SPLICED AT ONE END TO PERMIT EXPANSION AND CONTRACTION. THE END OF STRUCTURAL TUBING NOT BEING WELDED SHALL OVERLAP THE STANDARD RAILS BY A MINIMUM OF 4" AT ALL TIMES.
7. ALL WELDING TO BE PERFORMED USING E70XX ELECTRODES UNLESS OTHERWISE NOTED.
8. WELDS CONNECTING RAIL POST AND UPPER BASE PLATE DO NOT REQUIRE MAGNETIC PARTICLE TESTING. WELDS SHALL BE BACK GOUGED ON THE BACK SIDE EXCEPT AT THE WEB. THE 45° GROOVE WELD TO BE BACK GOUGED WITH 1"-0.
9. HOLES IN UPPER AND LOWER BASE PLATES SHALL BE STANDARD HOLES DRILLED WITH TEMPLATES.
10. RAIL ANCHOR BOLT HOLES IN NEW DECK TO BE PRECAST AND SHALL BE LOCATED TO AVOID DAMAGE TO GRID BEARING BARS AND SECONDARY BARS. FIELD DRILLING OF RAIL ANCHOR BOLT HOLES IN EXISTING DECK SHALL BE PERFORMED WITH TEMPLATES.
11. ALL RAIL ANCHOR BOLTS TO BE TIGHTENED TO 51 KIPS OF TENSION DURING USE AS PER THE AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES", DIVISION II, TABLE 11.5.A FOR 1"ϕ BOLTS.
12. TEMPORARY CONCRETE BARRIER SHALL NOT BE PLACED ON TOP OF RAIL UPPER BASE PLATE. BASE OF TEMPORARY CONCRETE BARRIER SHALL BE RECESSED TO ALLOW IT TO FIT OVER STEEL BASE PLATE AND BOLTS. SEE RAIL TRANSITION TO TAPER BARRIERS DETAIL ON THIS SHEET.
13. LOWER BASE PLATE TO BE PROVIDED AT LOCATIONS OF RAIL ANCHOR BOLTS.
14. LONGITUDINAL SPACING BETWEEN PAIRS OF ANCHOR BOLTS IS NOT TO EXCEED 2'-6" EXCEPT AT FINGER EXPANSION JOINT LOCATIONS AS APPROVED BY THE ENGINEER. ANCHOR BOLTS WILL BE PLACED TO AVOID DRILLING THROUGH FLOORBEAM FLANGES.
15. ALL WORK ON THIS SHEET TO BE PAID FOR UNDER ITEM 507.08 UNLESS OTHERWISE NOTED.

141-226

C & C CONSULTING ENGINEERS, LLC

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 10062.00

BRIDGE NO. 3257

BRIDGE PLANS

STATE OF MAINE — ENGINEER — L. SAMUEL PRESTON No. 6131 — PROFESSIONAL

SIGNATURE 6131
P.E. NUMBER
10-11-06
DATE

PROJ. MANAGER ECL	BY	DATE
DESIGN-DETAILED APB	CMD	01/06
CHECKED-REVIEWED	ECL	01/06
DESIGN2-DETAILED2 CDD	CMD	01/06
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

TRAFFIC CONTROL 3 OF 3

SHEET NUMBER
25
OF 25

Filename: 025_Traffic control 3.dgn Division: Bridge Username: $user$ Date:2/1/2006

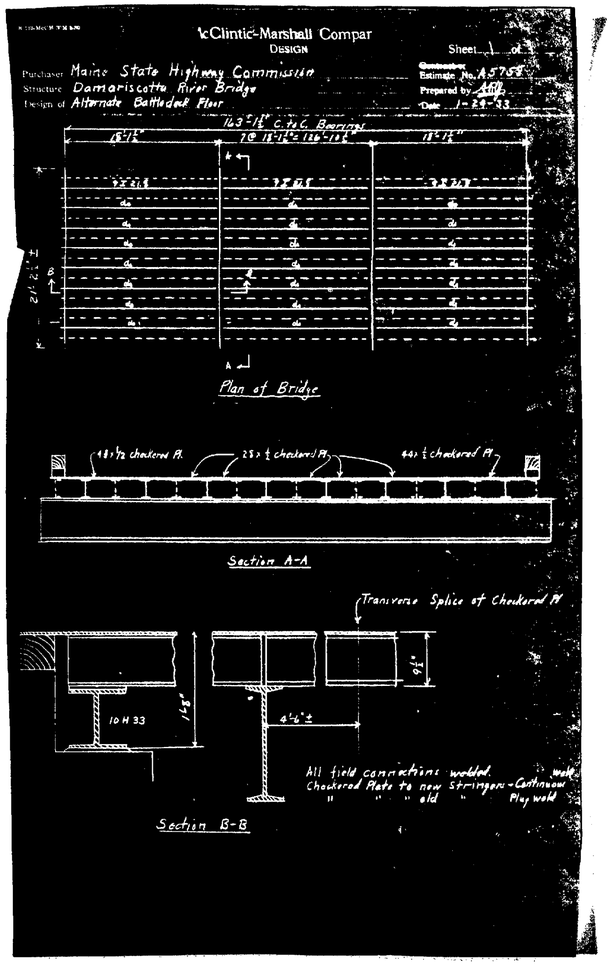
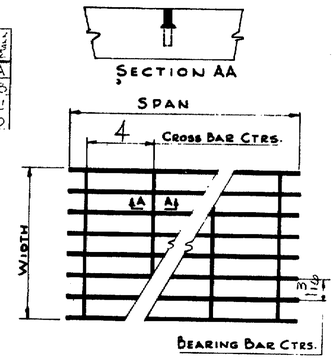


TABLE OF UNITS

No REQ'D	WIDTH	SPAN	MARK
138	35¾	1-8½	A
12	35¾	1-0¾	B
4	25 1/16	0-11¾	C
1390	35¾	1-8	D



GRATING TYPE B-1
BEARING BARS: ¾ × ⅛
CROSS BARS: ⅝ × ⅛

ALL MATERIAL TO BE MILD STEEL
BEARING BARS:
CROSS BARS:

REFERENCE

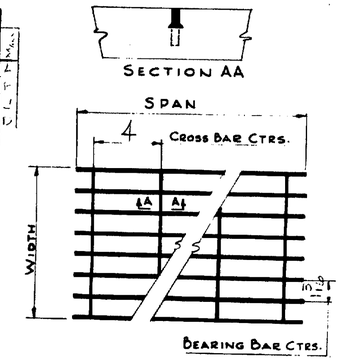
GRATING FOR DEER ISLE - SEDGWICK BRIDGE
CUSTOMER: STATE HIGHWAY COMMISSION MAINE
P.O. 19SH39233 REQ. No 41-2266 JOB No 57H4307

BORDEN METAL PRODUCTS CO.
MAIN PLANT - ELIZABETH, N. J.
SOUTHERN DIVISION - LEEDS, ALABAMA

C-28713
DD-411

TABLE OF UNITS

No REQ'D	WIDTH	SPAN	MARK
8	35¾	1-8½	A
[illegible]	35¾	1-0¾	B
4	25 1/16	0-11¾	C
[illegible]	35¾	1-8	D



GRATING TYPE B-1
BEARING BARS: ¾ × ⅛
CROSS BARS: ⅝ × ⅛

ALL MATERIAL TO BE MILD STEEL
BEARING BARS:
CROSS BARS:

REFERENCE

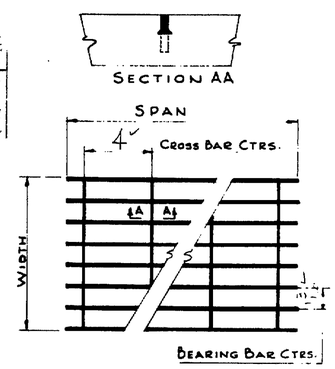
GRATING FOR DEER ISLE - SEDGWICK BRIDGE
CUSTOMER: STATE HIGHWAY COMMISSION MAINE
P.O. 19SH39233 REQ. No 41-2266 JOB No 57H4307

BORDEN METAL PRODUCTS CO.
MAIN PLANT - ELIZABETH, N. J.
SOUTHERN DIVISION - LEEDS, ALABAMA

C-28713
DD-411

TABLE OF UNITS

No REQ'D	WIDTH	SPAN	MARK
[illegible]	[illegible]	1-8½	A
[illegible]	[illegible]	[illegible]	B
[illegible]	[illegible]	[illegible]	C
[illegible]	[illegible]	[illegible]	D



GRATING TYPE B-1
BEARING BARS: ¾ × ⅛
CROSS BARS: ⅝ × ⅛

ALL MATERIAL TO BE MILD STEEL
BEARING BARS:
CROSS BARS:

REFERENCE

GRATING FOR DEER ISLE - SEDGWICK BRIDGE
CUSTOMER: STATE HIGHWAY COMMISSION MAINE
P.O. 19SH39233 REQ. No 41-2266 JOB No 57H4307

BORDEN METAL PRODUCTS CO.
MAIN PLANT - ELIZABETH, N. J.
SOUTHERN DIVISION - LEEDS, ALABAMA

C-28713
DD-411

BORDEN METAL PRODUCTS CO.
Steel and Non-Ferrous Products
Phone Elizabeth 2-6410

Main Plant
Elizabeth, N. J.
P. O. Box 172

Southern Division
Leeds, Ala.

Borden DeLuxe Safety Steps
Borden Floor Armor
Borden Gratings

TO: STATE HIGHWAY COMMISSION
BRIDGE DIVISION
AUGUSTA, MAINE

Date: 4/1/56
Ref: Your P. O. No. 19SH39233
Your Job No.
Our Contract No. C28713
Grating For DEER ISLE SEDGWICK BRIDGE

Gentlemen:

We are sending you ☒ Herewith ☐ Under Separate Cover:

Copies	Dwg. No.	Elevation	Issue	Remarks
5	28713-DD411		1st	

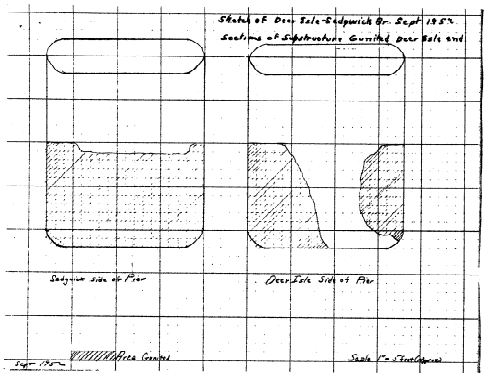
For Your ☒ Approval Before Fabrication Kindly Return Copy Approved or Corrected.
☐ Erection Our Erection Marks Have Been Shown For Your Use in the Installation of the Grating.

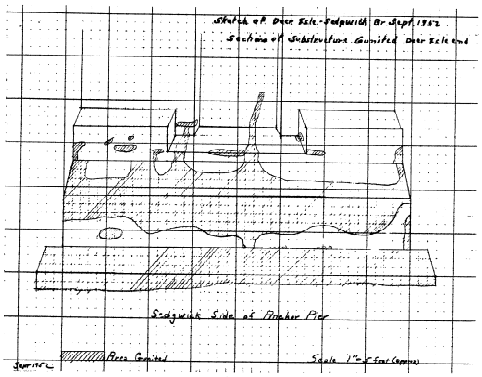
Remarks:

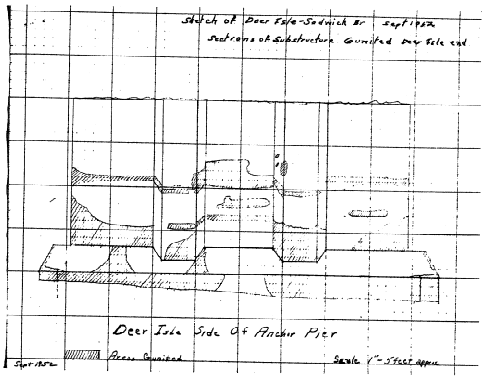
A7 .02% Corporation

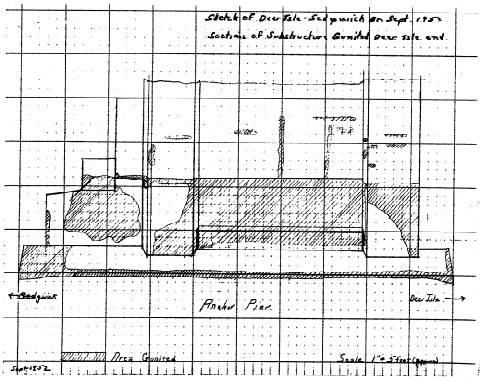
128-58

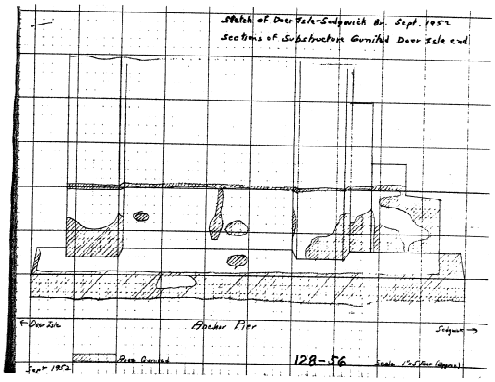
Very truly yours,
BORDEN METAL PRODUCTS CO.
per: [signature]
Engineering Dept.


Sketch of Deer Isle-Sedgwick Br. Sept. 1952
Sections of Substructure Gunited Deer Isle end
Sedgwick Side of Pier
Deer Isle Side of Pier
Sept. 1952
Area Gunited
Scale 1" = 5 feet (approx)


Sketch of Deer Isle-Sedgwick Br. Sept. 1952
Sections of Substructure Gunited Deer Isle end
Sedgwick Side of Anchor Pier
Sept. 1952
Area Gunited
Scale 1" = 5 feet (approx)


Sketch of Deer Isle-Sedgwick Br. Sept. 1952
Sections of Substructure Gunited Deer Isle end
Deer Isle Side Of Anchor Pier
Sept. 1952
Area Gunited
Scale 1" = 5 feet (approx)


Sketch of Deer Isle-Sedgwick Br. Sept. 1952
Sections of Substructure Gunited Deer Isle end
Sedgwick
Anchor Pier
Deer Isle
Sept. 1952
Area Gunited
Scale 1" = 5 feet (approx)


Sketch of Deer Isle-Sedgwick Br. Sept. 1952
Sections of Substructure Gunited Deer Isle end
Deer Isle
Anchor Pier
Sedgwick
Sept. 1952
Area Gunited
128-56
Scale 1" = 5 feet (approx)

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION

BUREAU OF HIGHWAYS

DEER ISLE-SEDGWICK BRIDGE

*LIST OF DRAWINGS

SHEET NO.	TITLE	REFERENCE	REMARKS
7208- 1	TITLE SHEET		
2	GENERAL PLAN-ELEVATION & LIGHTING	RS3310-SF101	
3	SUSPENSION BRIDGE-CROSS SECTION & STIFFENING GIRDERS	RS3310-S102	
4	MAIN TOWERS	RS3310-S103	
5	CABLE BENTS	RS3310-S104	
6	CABLE DETAILS STIFFENING GIRDERS & LATERAL SYSTEM	RS3310-S105	
7	FLOOR EXPANSION JOINTS AT MAIN TOWERS	RS3310-S106	
8	MAIN TOWER SADDLES	RS3310-S107	
9	CABLE BENT SADDLES	RS3310-S108	
10	SPLAY CASTINGS	RS3310-S109	
11	VIADUCT LAYOUT-CROSS SECTIONS & DETAILS	RS3310-S110	
12	ANCHORAGE STEEL	RS3310-SF111	
13	DEER ISLE ANCHORAGE	RS3310-F112	
14	SEDGWICK ANCHORAGE	RS3310-F113	
15	VIADUCT PIERS & ABUTMENT	RS3310-F114	
16	MAIN PIERS NOS. 4 & 5	RS3310-F115	
17	TOLL HOUSE	RS3310-F119	TOLL HOUSE REMOVED
18	CABLE STAYS FOR MAIN SPAN	RS3310-S122	
19	CABLE STAYS FOR SIDE SPAN	RS3310-S126	
20	DRAINAGE DETAILS AT MAIN TOWER	RS3310-S127	

SHEET NO.	TITLE	REFERENCE	REMARKS
7208- 21	REINFORCEMENT WITH CABLE STAYS GENERAL PLAN	RS4207-1	
22	CABLE STAY SUPPORTS AT EACH SUSPENDER	RS 4109-1	SUPERSEDED
23	LONGITUDINAL & TRANSVERSE STAYS SOCKETS & CONNECTIONS TO MAIN CABLES		REPLACES RS 4207-2
24	LONGITUDINAL STAY CONNECTIONS AT TOWER SADDLES & GIRDERS	RS4207-3	
25	CABLE BENT ROCKER ARM BRACKETS FOR TRANSVERSE STAYS	RS4207-4	
26	LONGITUDINAL STAY CONNECTIONS DETAILS	RS4207-5	
27	REPAIRS AND IMPROVEMENT; ELEVATION AND CABLE TIES	7204-1	
28	REPAIRS AND IMPROVEMENT STIFFENING GIRDER COVER PLATES	7204-2	
29	REPAIRS AND IMPROVEMENT ; REINFORCEMENT OF STIFFENING GIRDERS-CABLE BENT TIE DOWN	7204-3	
30	REPAIRS AND IMPROVEMENT CABLE TIE DETAILS & BILL OF MATERIAL	7204-4	
31	ELEVATION - HANDROPES	7204X-1	
32	HANDROPE SUPPORTS	7204X-2	
33	HANDROPE STRUT DETAILS AT CABLE BENT	7204X-3	
34	HANDROPE STRUT & STANCHION DETAILS	7204X-4	
35	HANDROPE SUPPORT DETAILS AT TOWER AND BILL OF MATERIAL	7204X-5	
36	1972 LOAD TEST RECORDS		
37	UNDER WATER INSPECTION-PIERS NO. 4 & 5		

DAVID H. STEVENS, COMMISSIONER

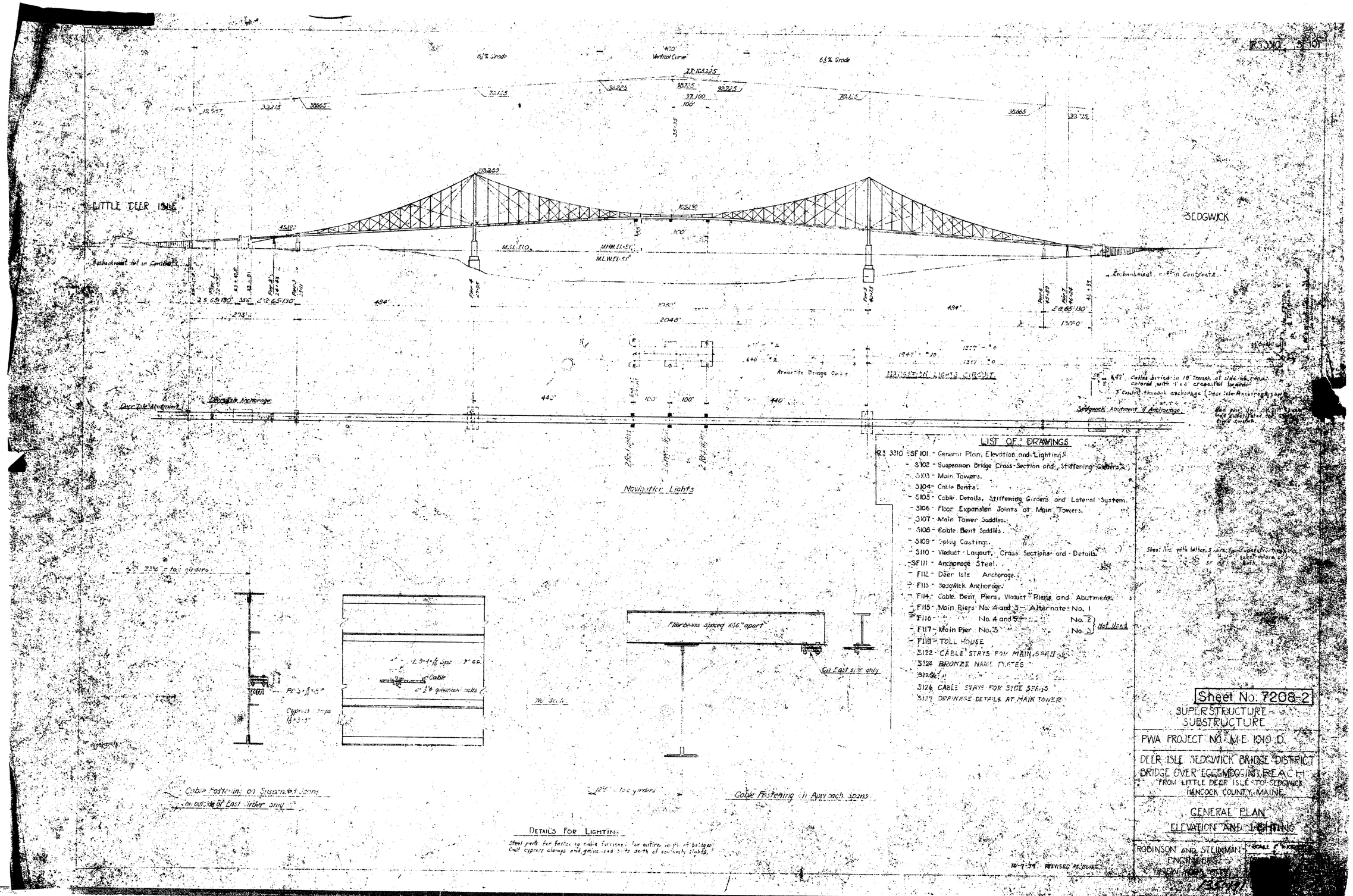
RICHARD A. LUETTICH, BUREAU DIRECTOR

* A complete list of drawings which have been up-dated to give the existing structural details as of 1972. Drawings are included for the handropes which are scheduled for completion in 1973.

STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
150 BROADWAY
NEW YORK, N.Y.
DATE: MARCH 1973

Sheet No. 7208-1

135:190



LIST OF DRAWINGS

RS 3310 - SF101 - General Plan, Elevation and Lighting.
- S102 - Suspension Bridge Cross-Section and Stiffening Girders.
- S103 - Main Towers.
- S104 - Cable Bents.
- S105 - Cable Details, Stiffening Girders and Lateral System.
- S106 - Floor Expansion Joints at Main Towers.
- S107 - Main Tower Saddles.
- S108 - Cable Bent Saddles.
- S109 - Splay Castings.
- S110 - Viaduct Layout, Cross Sections and Details.
- SF111 - Anchorage Steel.
- F112 - Deer Isle Anchorage.
- F113 - Sedgwick Anchorage.
- F114 - Cable Bent Piers, Viaduct Piers and Abutment.
- F115 - Main Piers No. 4 and 5 - Alternate No. 1
- F116 - " No. 4 and 5 - " No. 2 } Not Used
- F117 - Main Pier No. 5 - " No. 3 }
- F118 - TOLL HOUSE
- S122 - CABLE STAYS FOR MAIN SPAN
- S124 BRONZE NAME PLATES
- S125 " " "
- S126 CABLE STAYS FOR SIDE SPANS
- S127 DRAINAGE DETAILS AT MAIN TOWER

Sheet No. 7208-2

SUPERSTRUCTURE - SUBSTRUCTURE

PWA PROJECT NO. M.E. 1010 D.

DEER ISLE SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
HANCOCK COUNTY, MAINE

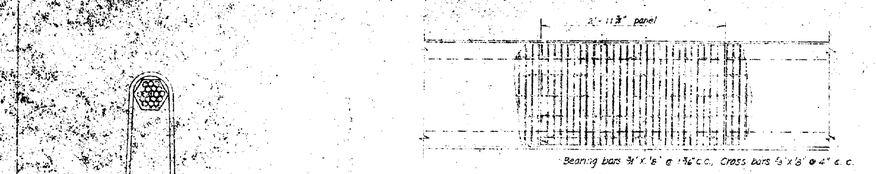
GENERAL PLAN
ELEVATION AND LIGHTING

ROBINSON AND STEINMAN
ENGINEERS
NEW YORK CITY

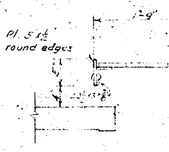
10-9-34 REVISED AS BUILT

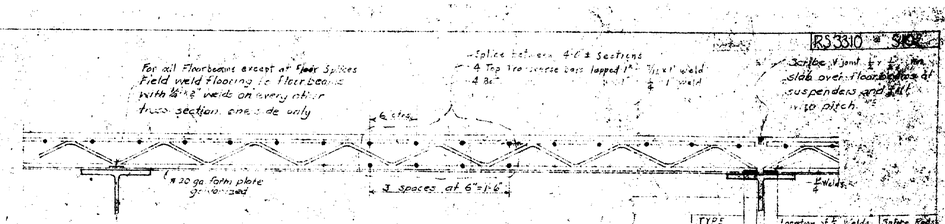
135-191

RS 3310 - SHEET



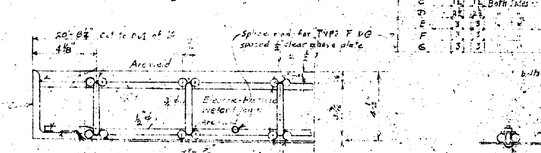
DETAILS OF SIDEWALK
Scale 1" = 1'-0"



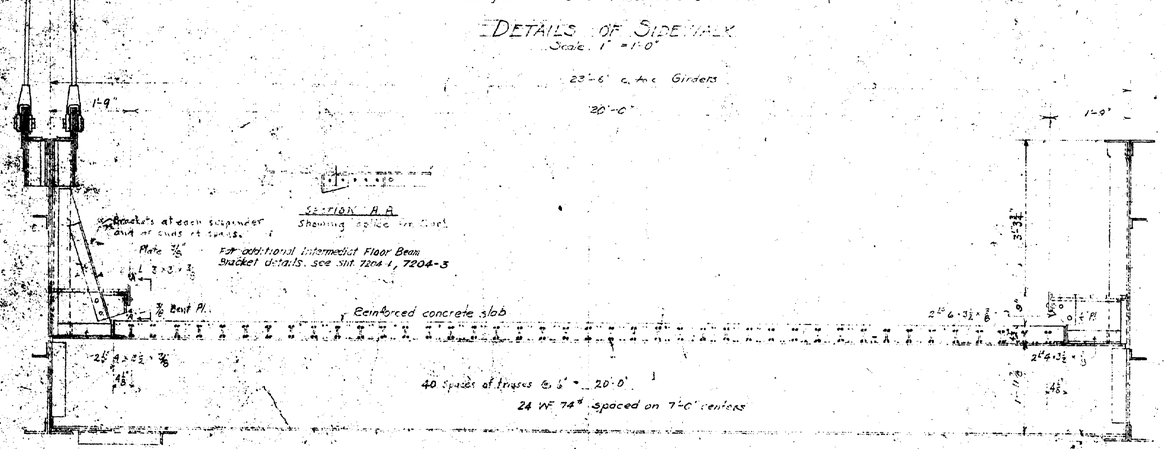


TYPE		Location of Welds	Splice Rods
A	2	Both sides	none
B	2	" " Each side	"
C	2	Both sides	
D	2		
E	3		
F	3		Both sides
G	3		Both sides

Galvanized corrugated with long side on slab joint. In every other line of trusses section to support form plate.



DETAILS OF ROADWAY DECK SLAB

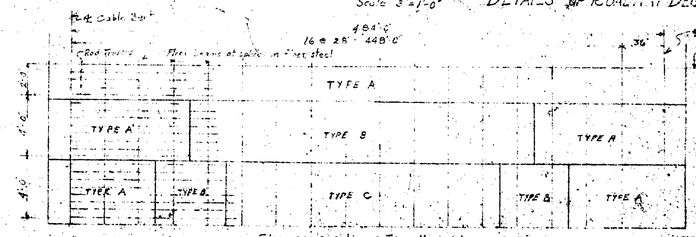


HALF SECTION AT SUSPENDER CONNECTION

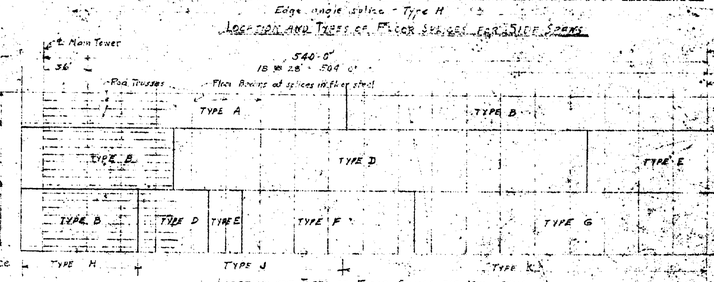
HALF SECTION AT FLOORBEAM BETWEEN SUSPENDERS

For Brackets of Transverse Stay connections, see sht. RS 4207-4

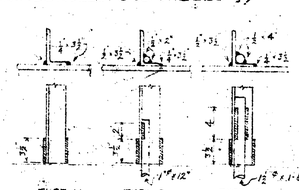
Scale 3/4" = 1'-0"



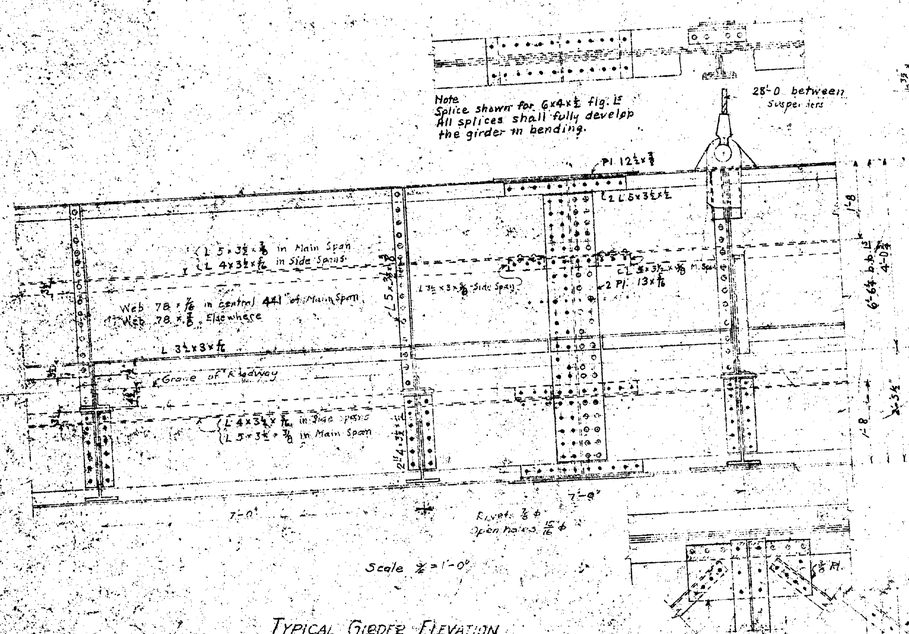
LOCATION AND TYPES OF FLOOR SPLICES FOR SIDE SPANS



LOCATION AND TYPES OF FLOOR SPLICES FOR MAIN SPAN

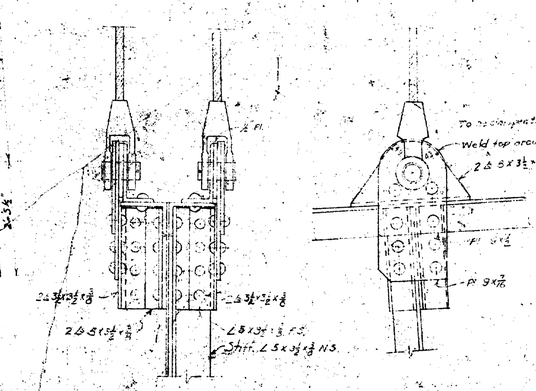


SPLICES FOR EDGE ANGLES OF FLOOR



TYPICAL GIRDER ELEVATION

Connections shall develop the full web section of laterals. See sheet 5105 for number of rivets.



TYPICAL DETAIL OF SUSPENDER CONNECTION

Scale 1/2" = 1'-0"

For suspender connections at longitudinal stays, see Sht. RS 4207-3

REVISIONS
1-7-38 - Stiff. Girder web, stiff. on web, suspender connections, floor beam bkts. at suspender and web splice.
3-31-38 - Added web steel P.B. Bits. occur at spacings. Revised length of 7/16 web to agree with details.
7-27-38 - As built as built

Estimated Quantities

Structural Steel in Girders and Floor System	Contract Dim. 1,770,000 lb. Wt. 1,851,937
Roadway deck	42,116 sq. ft.
Timber Sidewalk	6,827 sq. ft.

Sheet No. 7208-3

SUPERSTRUCTURE

PWA PROJECT NO. ME 1019-D

DEER ISLE SEDGWICK BRIDGE DISTRICT

BRIDGE OVER EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
HANCOCK COUNTY, MAINE.

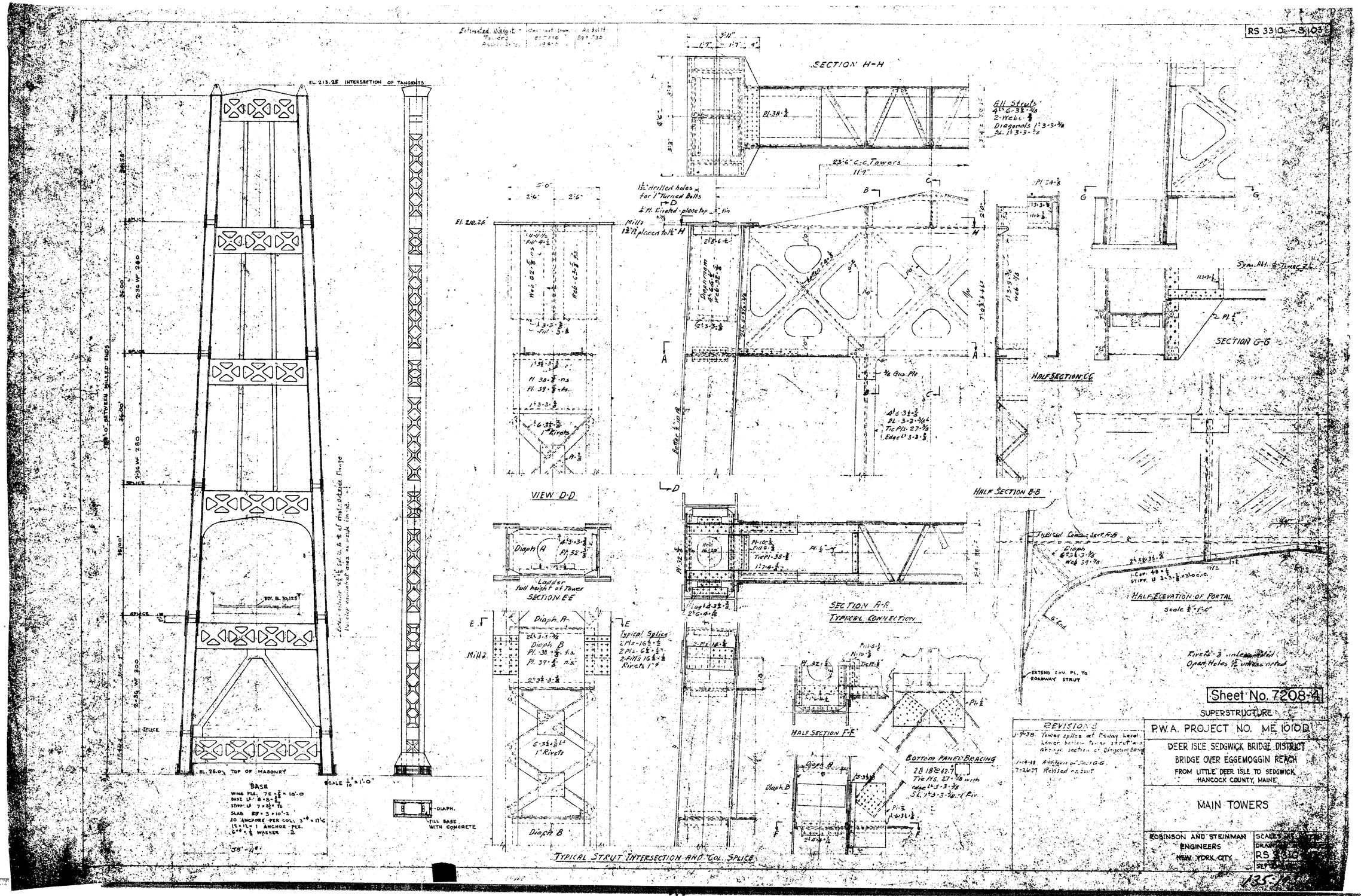
SUSPENSION BRIDGE
CROSS SECTION AND
STIFFENING GIRDERS

ROBINSON AND STEINMAN
CONSULTING ENGINEERS
NEW YORK CITY

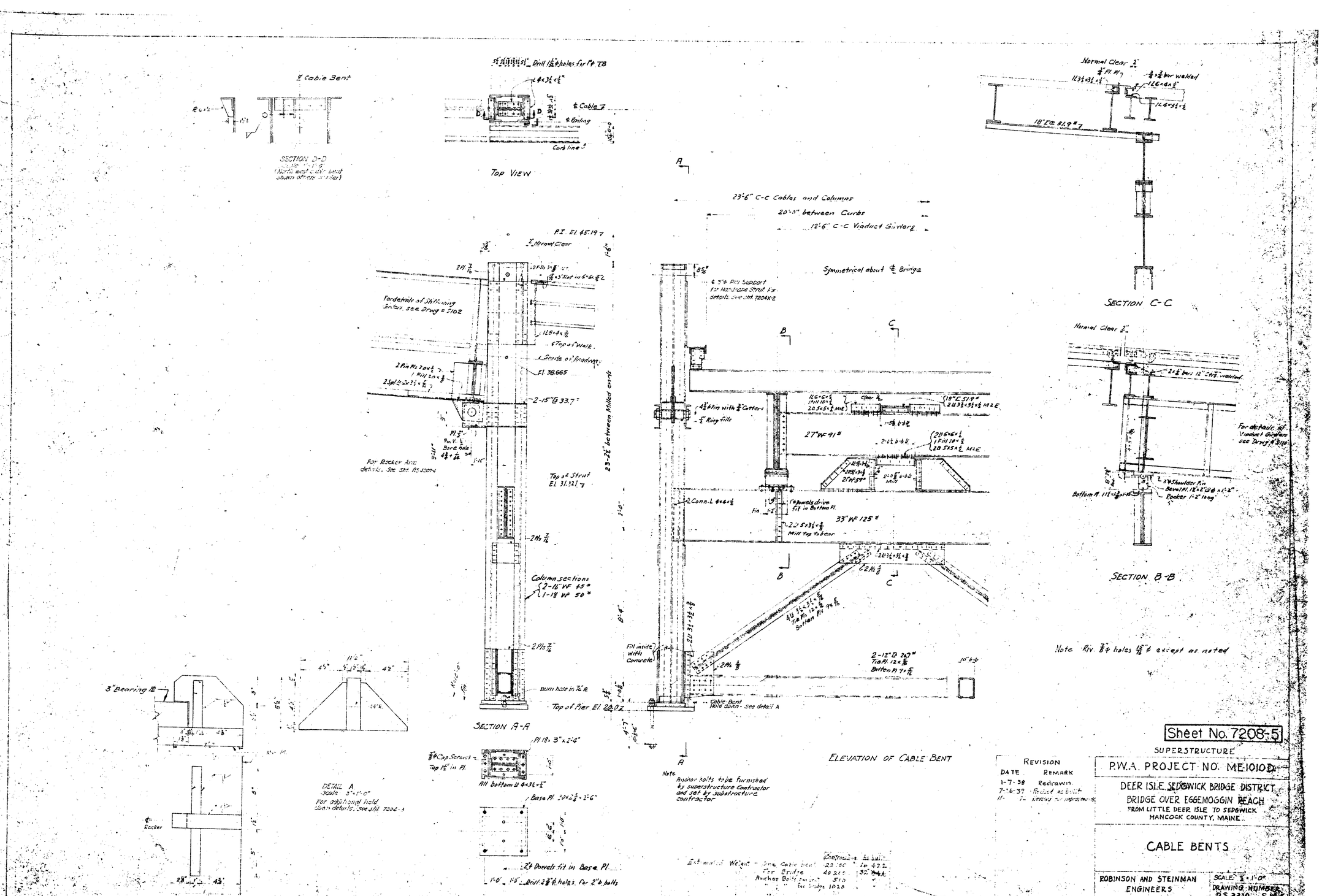
SCALE AS NOTED
DRAWN
PS
CHECKED
1938

RS 3310 - 3.103

Estimated Weight - Contract Dwgs. As Built
Towers 87,000 599,730
Anchorages 198,000

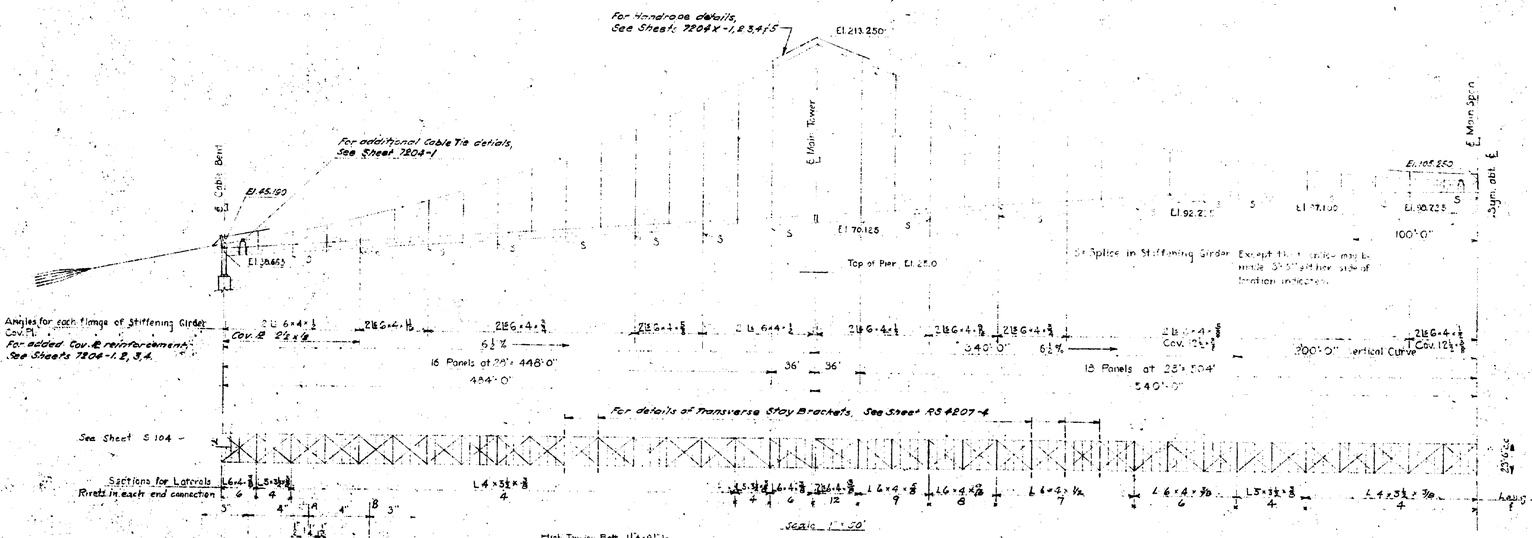


135/6

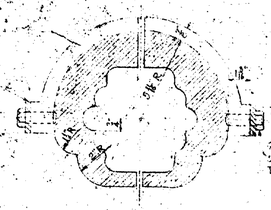


SECTION D-D
Top View
SECTION A-A
ELEVATION OF CABLE BENT
SECTION C-C
SECTION B-B
23'-6" C-C Cables and Columns
20'-0" between Curbs
12'-6" C-C Viaduct Girders
Symmetrical about ℄ Bridge
Normal Clear 2"
Column sections
2-16" WF 45#
1-18" WF 50#
Top of Pier El 20.0
Top of Strut El 31.921
Note Anchor bolts to be furnished by superstructure contractor and set by substructure contractor
Note Riv. 7/8" ϕ holes 15/16" ϕ except as noted
DETAIL A
Scale 3"=1'-0"
For additional hold down details, see sht 7204-5
Sheet No. 7208-5
SUPERSTRUCTURE
P.W.A. PROJECT NO. ME1010D
DEER ISLE SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
HANCOCK COUNTY, MAINE
CABLE BENTS
ROBINSON AND STEINMAN
ENGINEERS
NEW YORK CITY
SCALE 1/2" = 1'-0"
DRAWING NUMBER
RS 3310 - S104
SEPTEMBER 4
REVISION
DATE REMARK
1-7-38 Redrawn
7-16-39 Revised as built
11- 7- Revised for improvements
135-194

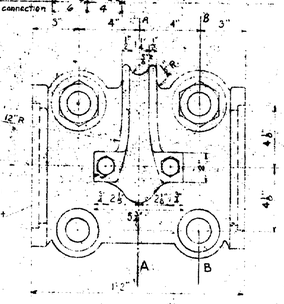
RS 3310 - S 105

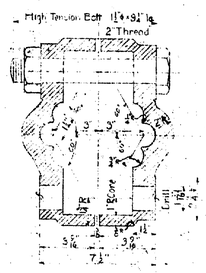


Scale 1"=50'

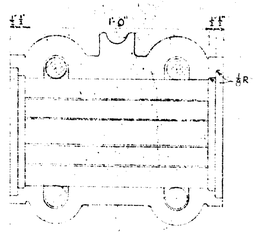


SECTION A-A

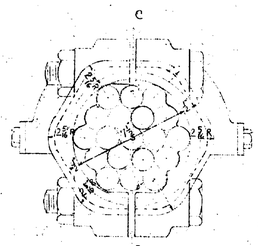




SECTION B-B



SECTION C-C



END VIEW

For additional Cable Band details for Cable Stays, See Sheet RS 4207-2

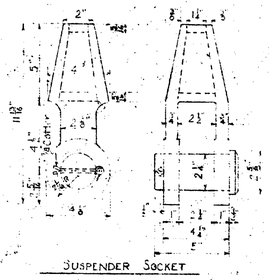
CABLE BAND

Scale 3"=1'-0"

Estimated WEIGHT OF ONE CABLE BAND = 208# TOTAL FOR BRIDGE = 28,704#
WEIGHT OF HIGH TENSION BOLTS = 29# TOTAL FOR BRIDGE = 400.2#

QUARTER SECTION OF CABLE

Scale - Full Size



SUSPENDER SOCKET

Scale 3"=1'-0"

276 Required
Drop Forged Steel
Use zinc only for attaching

Estimated WEIGHT OF ONE FORGING INCLUDING PIN = 22# TOTAL FOR BRIDGE = 6072#
SUSPENDER LENGTH FOR BRIDGE = 15000 L.F.
WEIGHT OF MAIN CABLE STRAND = 416,000#

Required:

138 Cable Bands complete, each consisting of
2 - Identical Castings (Cast Steel Annealed)
4 - 1½" ϕ Bolts High Tensile Steel
4 - 1½" Hex. Nuts High Tensile Steel
2 - Keeper Pls.
4 - ¾" Tap Bolts 1½" long

Note:

Suspender groove and inside surface of cable bands to be ground smooth and free from all burrs and irregularities.
All openings and joints to be caulked with lead wool.

Notes

The elevation of cable and roadway given above are for a condition of full dead load and a normal temperature of 50°F. with Main Towers leaning 1½" towards anchorages and Cable Bents leaning 1" towards anchorages.

Cables

Two Cables are required, each composed of 19 strands of 1½" diameter.

Suspenders

138 suspender ropes of 1½" diameter are required, one rope looped over each cable band.
The cable strands and suspenders will not have to be painted.
The cable bands and suspender rope sockets shall be painted with three coats of paint as for structural steel.

Sheet No. 7208-6

Revisions
Jr 7-38 - Lateral System redesigned as a tension and compression system. Shorter Wind Tongue, at C 12 to be in agree with detail on Dwg. 104
9-20-39 Revised as built

SUPERSTRUCTURE

P.W.A. PROJECT NO. ME-1010 D

DEER ISLE-SEDGWICK BRIDGE DISTRICT

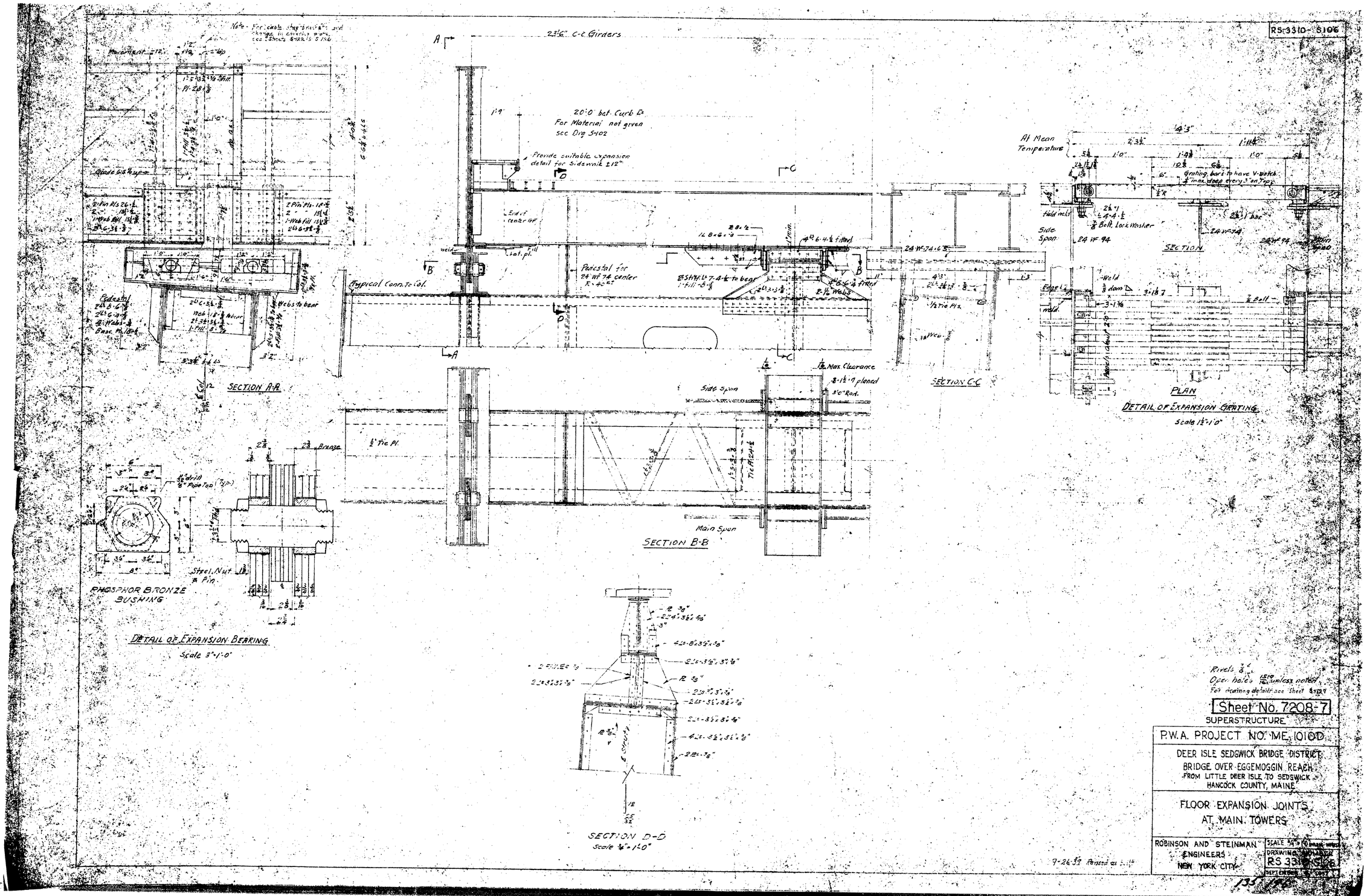
BRIDGE OVER EGGEMOGGIN REACH FROM LITTLE DEER ISLE TO SEDGWICK, HANCOCK COUNTY, MAINE

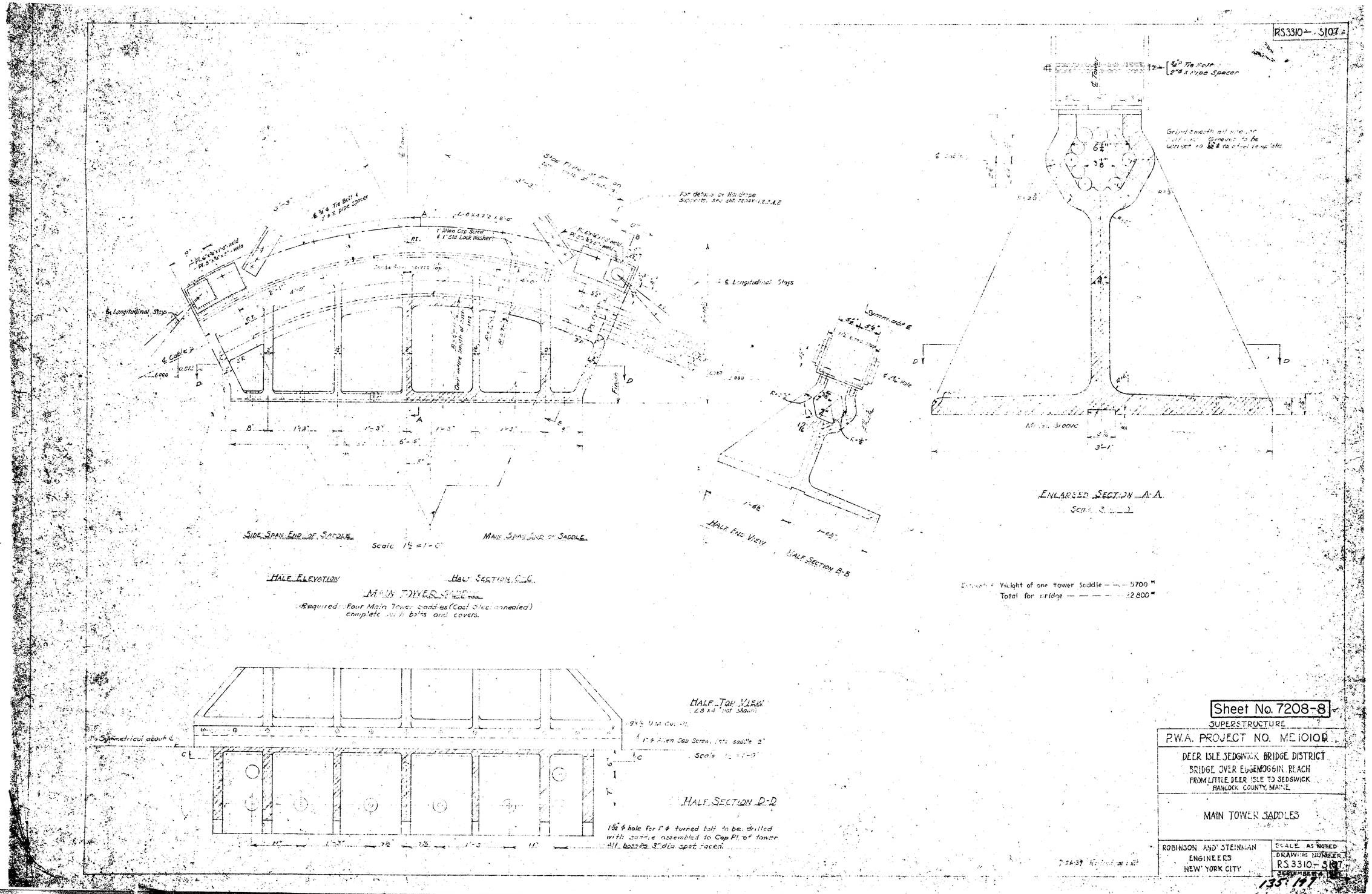
CABLE DETAILS
STIFFENING GIRDERS
AND LATERAL SYSTEM

ROBINSON AND STEINMAN
ENGINEERS
NEW YORK CITY

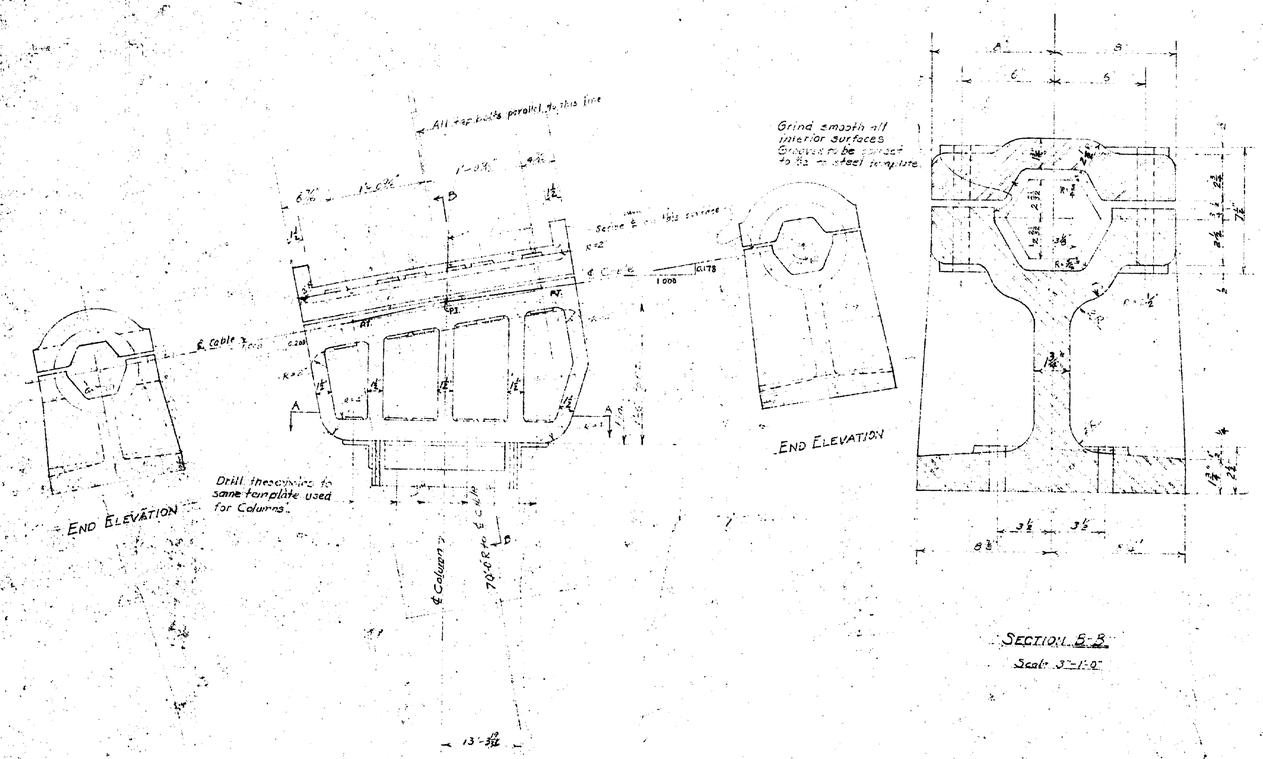
SCALE - AS NOTED
DRAWING NUMBER
RS 3310-S 105
SEPTEMBER 1938

135.1 F


RS-3310-S106
23'6" C-C Girders
20'0" bet. Curb Ls
For Material not given
see Dwg S-102
Provide suitable expansion detail for Sidewalk ±12"
Typical Conn. to Col.
Pedestal for 24 WF 74 center
SECTION A-A
SECTION B-B
SECTION C-C
SECTION
PLAN
DETAIL OF EXPANSION GRATING
Scale 1½"=1'0"
At Mean Temperature
Side Span
Main Span
Max. Clearance
PHOSPHOR BRONZE BUSHING
Steel Nut & Pin
DETAIL OF EXPANSION BEARING
Scale 3"=1'-0"
SECTION D-D
Scale ¾"=1'-0"
Rivets ⅞"
Open holes 15/16" unless noted
For drawing details see Sheet S-129
Sheet No. 7208-7
SUPERSTRUCTURE
P.W.A. PROJECT NO. ME 1010D
DEER ISLE SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
HANCOCK COUNTY, MAINE
FLOOR EXPANSION JOINTS
AT MAIN TOWERS
ROBINSON AND STEINMAN
ENGINEERS
NEW YORK CITY
SCALE ¾"=1'0"
DRAWING NUMBER
RS 3310-S106
SEPTEMBER 1937
9-26-39 Passed as built
135-146


RS3310-S107
Side Span End of Saddle
Main Span End of Saddle
Scale 1½ = 1'-0"
Half Elevation
Half Section C-C
Main Tower Saddle
Required: Four Main Tower Saddles (Cast Steel annealed) complete with bolts and covers.
Half End View
Half Section B-B
Enlarged Section A-A
Weight of one tower Saddle — — — 5700 #
Total for bridge — — — — — 22,800 #
Half Top View
Half Section D-D
Symmetrical about ℄
Sheet No. 7208-8
SUPERSTRUCTURE
P.W.A. PROJECT NO. ME 1010D
DEER ISLE SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
HANCOCK COUNTY, MAINE
MAIN TOWER SADDLES
ROBINSON AND STEINMAN
ENGINEERS
NEW YORK CITY
SCALE AS NOTED
DRAWING NUMBER
RS 3310-S107
135:197

RS 3310 - S108



	Concrete Dia.	Ac. Bolts
Estimated Weight of one cable bent saddle	2000#	1660
Total for bridge	8000#	6640

Sheet No. 7208-9

SUPERSTUCTURE

REVISION DATE	REMARK
1-7-38	Reduction of thickness and correction of R.
7-24-39	Revised as built

P.W.A. PROJECT NO. ME 1010D

DEER ISLE SEDGWICK BRIDGE DISTRICT

BRIDGE OVER EGGEMOGGIN REACH FROM LITTLE DEER ISLE TO SEDGWICK HANCOCK COUNTY MAINE

CABLE BENT SADDLES

ROBINSON AND STEINMAN ENGINEERS NEW YORK CITY

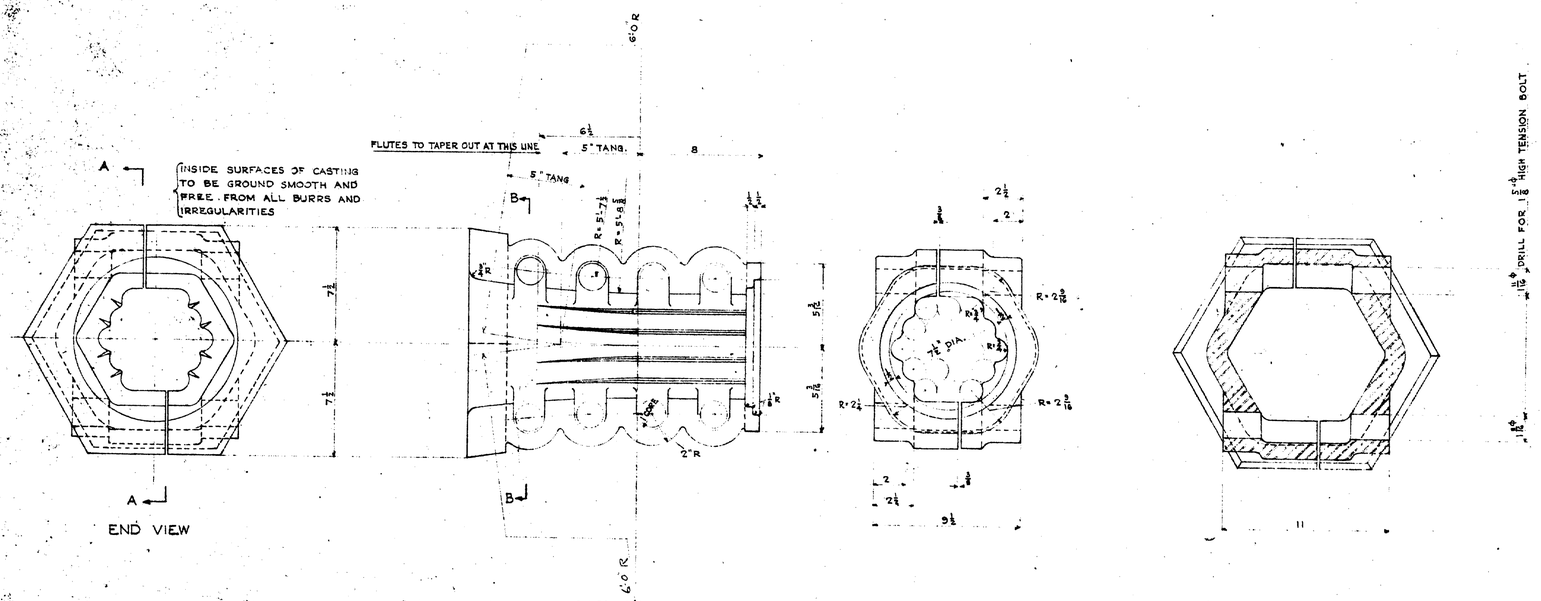
SCALE - AS NOTED

DRAWING NUMBER RS 3310-S108

SEPTEMBER 6

135-188

RS3310 - S109

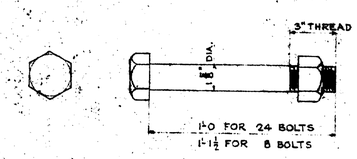


END VIEW

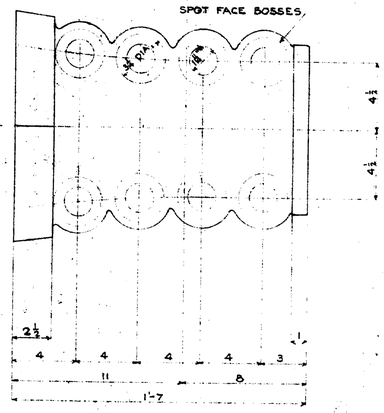
SECTION A-A

END VIEW

SECTION B-B



DETAIL OF HIGH TENSION BOLTS
32 REQUIRED



ELEVATION OF SPLAY CASTING
4 REQUIRED CAST STEEL ANNEALED
COMPLETE WITH HIGH TENSION BOLTS

WEIGHT OF ONE SPLAY CASTING = 450# TOTAL FOR BRIDGE = 1800#
WEIGHT OF HIGH TENSION BOLTS FOR ONE CASTING = 90# TOTAL FOR BRIDGE = 360#

7-26-39 Revised as built

Sheet No. 7208-10
SUPERSTRUCTURE

P.W.A. PROJECT NO. ME 1010 D

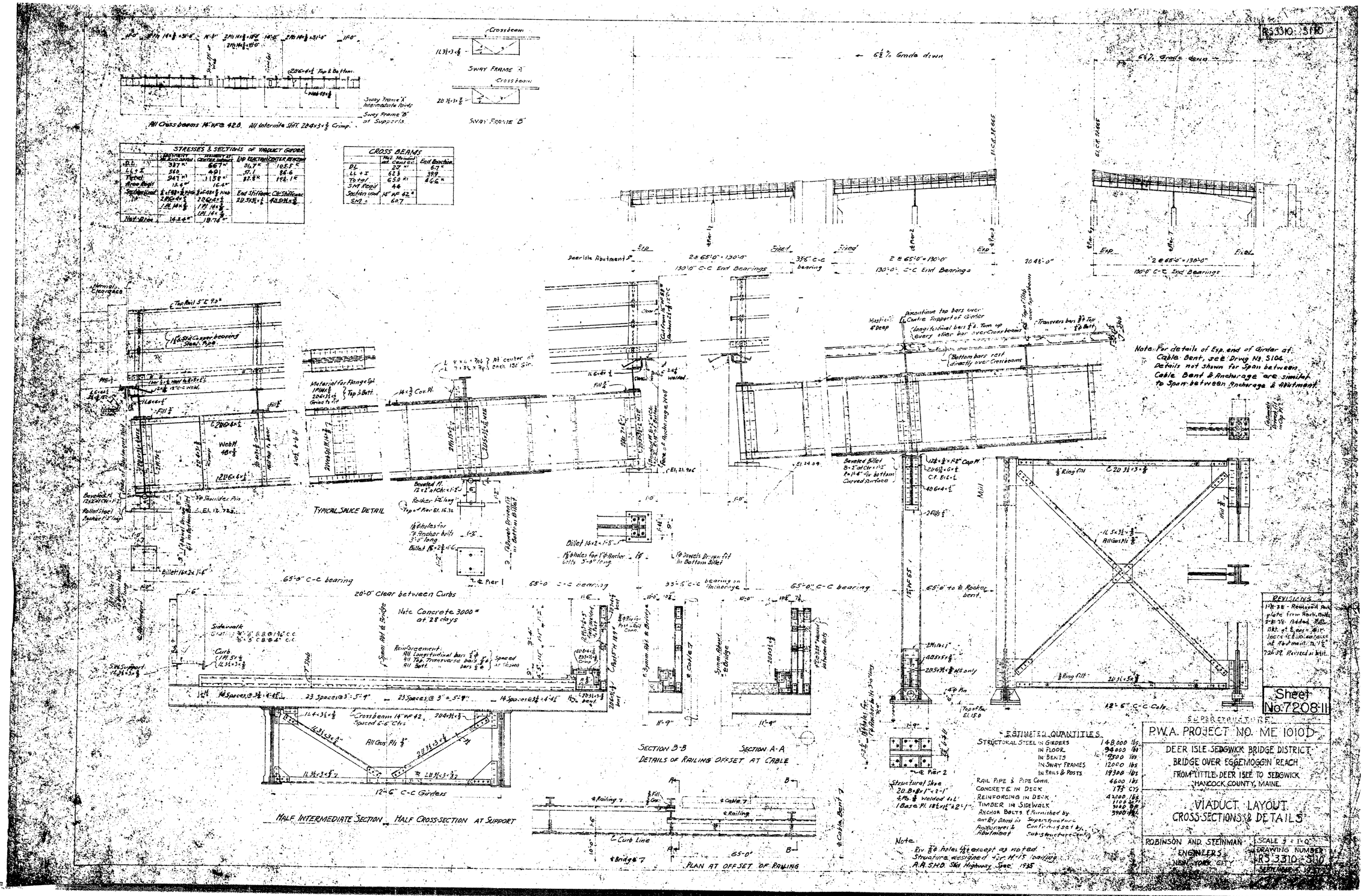
DEER ISLE SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
HANCOCK COUNTY, MAINE

SPLAY CASTINGS

ROBINSON AND STEINMAN
ENGINEERS
NEW YORK CITY

SCALE 3" = 1'-0
DRAWING NUMBER
RS 3310-S109
SEPTEMBER 4, 1939
135-199

RS3310: S110

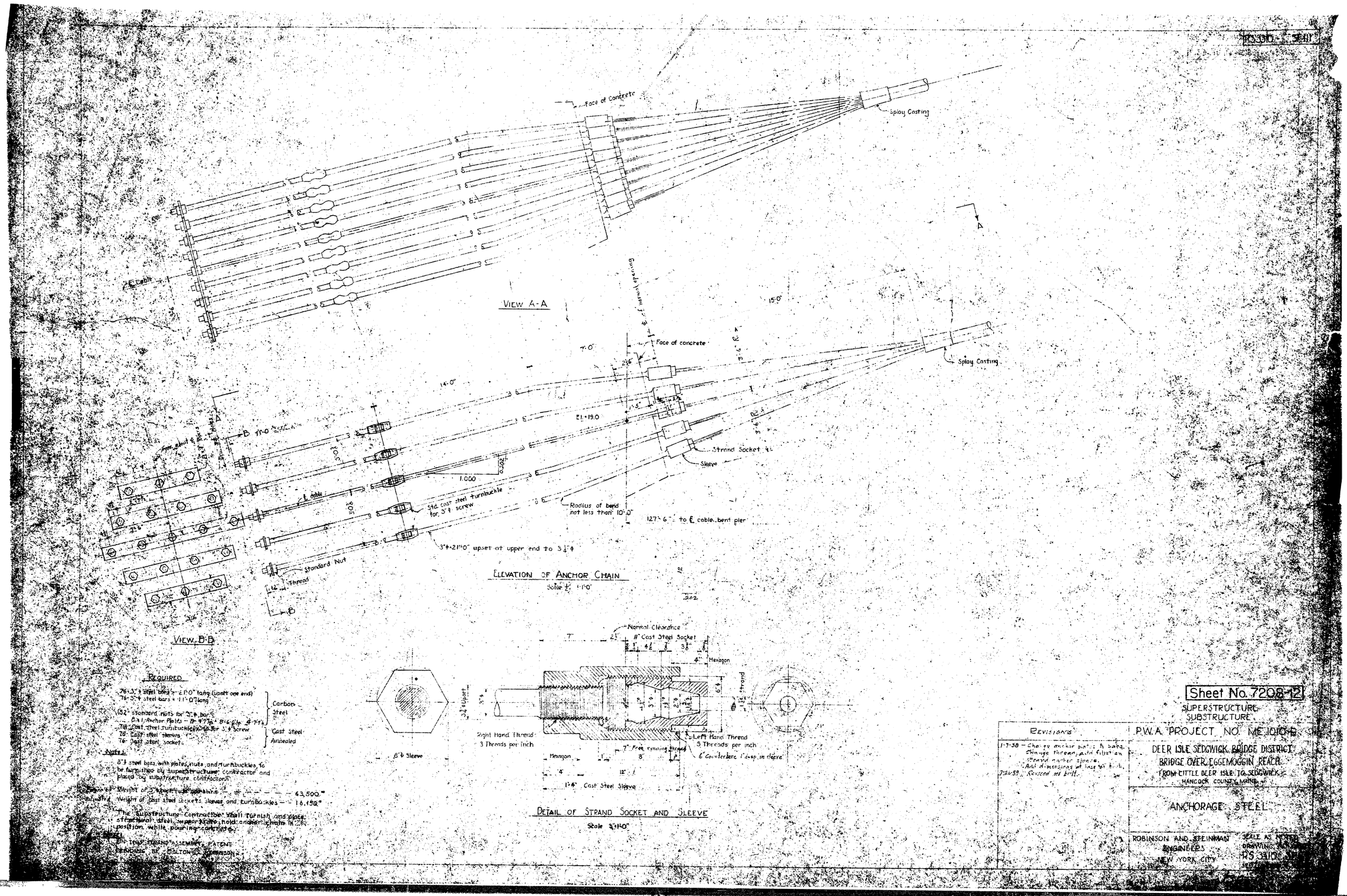


STRESSES & SECTIONS OF VIADUCT GIRDER				
	Maximum Moment	Centers at	End Reaction	Center Reaction
D.L.	387 M'	667 M'	31.7 K	102.5 K
LL + I	560	491	57.1	86.6
Total	947 M'	1158 M'	82.8 K	192.1 K
Area Regd	13.4 □"	16.4 □"		
Section used	2 PL 14×½ 2 Web 48×⅜ 2 L 6×6×½	2 PL 14×½ 2 Web 48×⅜ 2 L 6×6×½ 1 PL 14×½ 2 L 6×6×½	End Stiffeners 2 L 3½×3½×½	Ctr. Stiffeners 4 L 3½×3½×½
Net Wbm	14.24 □"	18.74 □"		

CROSS BEAMS		
	Max Moment at Center	End Reaction
DL	27 M'	6.7 K
LL + I	62.3	39.9
Total	62.0 M'	46.6 K
SM Regd	44	
Section used	14" WF 42	
SM =	60.7	

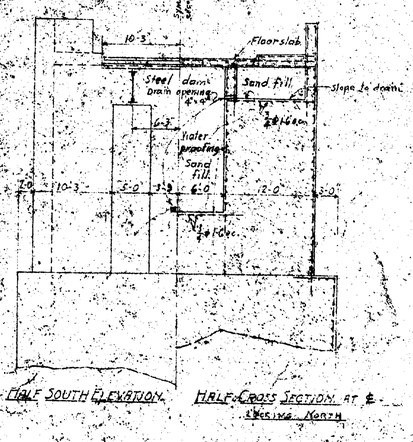
Estimated Quantities	
Structural Steel in Girders	148,000 lbs
in Floor	94,000 lbs
in Bents	92,000 lbs
in Sway Frames	12,000 lbs
in Rails & Posts	19,300 lbs
Rail Pipe & Pipe Conn.	4600 lbs
Concrete in Deck	173 CYS
Reinforcing in Deck	42,000 lbs
Timber in Sidewalk	1100 BM
Anchor Bolts (Furnished by Superstructure Contractor & set by Sub-structure Contr.)	3940 lbs
Anchor Bolts (Furnished by and Built into Foundations & Abutment)	3900 lbs

Note
Rivets ⅞ holes ⅞ except as noted
Structure designed for H-15 loading
A.A.S.H.O. Std Highway Spec. 1935



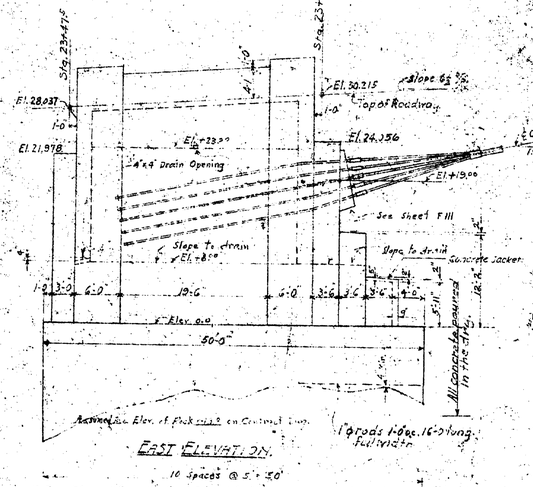
Face of Concrete
Splay Casting
VIEW A-A
Face of concrete
Splay Casting
Strand Socket
Sleeve
Std. cast steel turnbuckle for 3" ϕ screw
Radius of bend not less than 10'-0"
127'-6" to ℄ cable bent pier
3"ϕ×21'-0" upset at upper end to 3¼"ϕ
Standard Nut
Thread
VIEW B-B
ELEVATION OF ANCHOR CHAIN
Scale ½" = 1'-0"
Normal Clearance
Cast Steel Socket
Hexagon
Right Hand Thread 3 Threads per inch
Left Hand Thread 3 Threads per inch
Hexagon
Cast Steel Sleeve
DETAIL OF STRAND SOCKET AND SLEEVE
Scale 3" = 1'-0"
REQUIRED
76 3" ϕ steel bars × 21'-0" long (upset one end)
76 3" ϕ steel bars × 11'-0" long
152 standard nuts for 3" ϕ bar
Carbon Steel
76 Cast steel turnbuckles for 3" ϕ screw
76 Cast steel sleeves
76 Cast steel sockets
Cast Steel Annealed
Notes:
8" ϕ steel bars with plates, nuts and turnbuckles, to be furnished by superstructure contractor and placed by substructure contractors.
Weight of 3" ϕ bars, nuts and turnbuckles — 63,500#
Weight of cast steel sockets, sleeves and turnbuckles — 16,150#
The Substructure Contractor shall furnish and place structural steel supports to hold anchor chain in position while pouring concrete.
Sheet No. 7208-12
SUPERSTRUCTURE
SUBSTRUCTURE
P.W.A. PROJECT NO. ME 1010-B
DEER ISLE SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
HANCOCK COUNTY, MAINE
ANCHORAGE STEEL
ROBINSON AND STEINMAN ENGINEERS
NEW YORK CITY
SCALE AS NOTED
DRAWING NO.
RS 3310
REVISIONS
1-7-38 – Change anchor plates to bars. Change thread, add filler on strand anchor sleeve. Add dimensions at base of bolt.
7-26-39 Revised as built.

RS 3310 - F.112

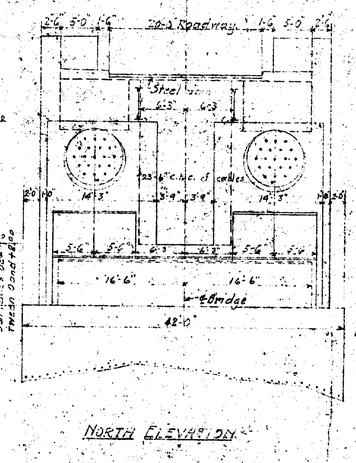


HALF SOUTH ELEVATION.

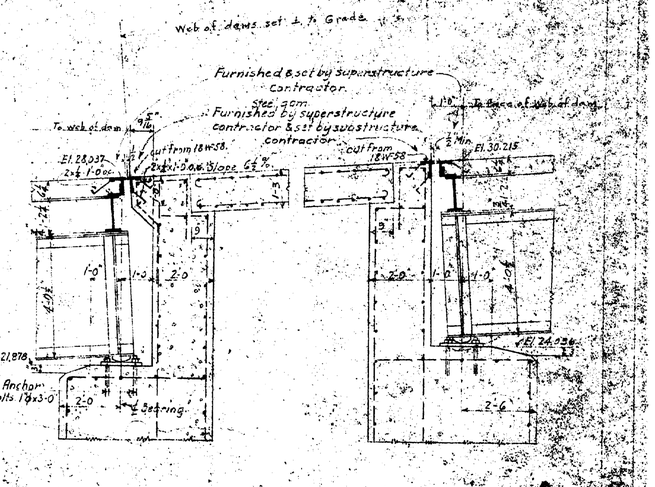
HALF CROSS SECTION AT ℄ LOOKING NORTH



EAST ELEVATION.



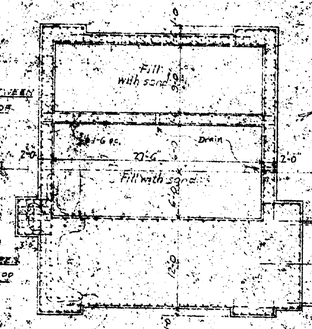
NORTH ELEVATION.



SECTION B-B

SECTION C-C

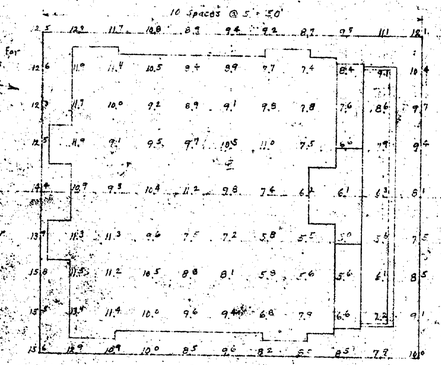
Scale ¼" = 1 foot.



HALF SECTION BETWEEN El. 23.00 AND BOTTOM OF FLOOR SLAB

HALF SECTION BETWEEN El. 19.00 AND El. 13.00

Extend down to Elev. -3.2' all vertical rods in this area.

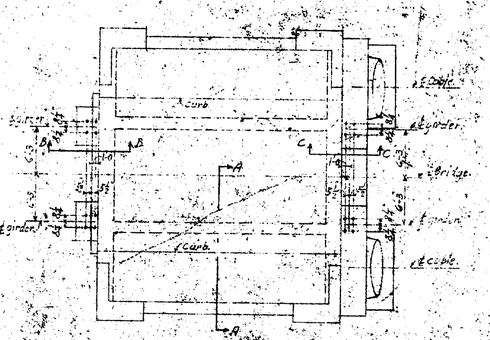


See Dwg. F.114 for borings in this vicinity.

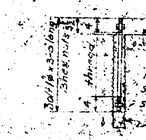
All rock elevations are minus. Average rock elevation = -9.138 before benching. 6 cu. yds. of disintegrated rock removed.

PLAN AT BOTTOM ⊥

ELEVATIONS OF ROCK BEFORE BENCHING

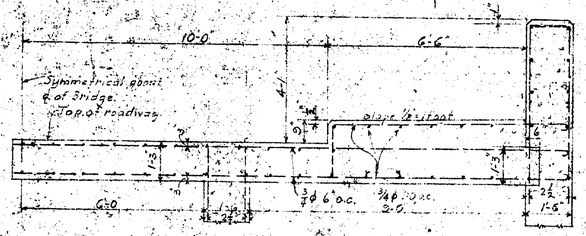


TOP PLAN



ANCHOR BOLT DETAIL.

Scale 2" = 1 foot.



SECTION A-A

Scale ¼" = 1 foot.

CONCRETE: All concrete to be Class A.

REINFORCEMENT: Unless otherwise indicated, all surfaces to be reinforced with ½ø bars spaced 18" o.c. for contraction vertically.

BITUMINOUS WATERPROOFING: Inside walls of anchorages in contact with sand fill to be mopped with bituminous material, water proofing, using not less than 4 gallons per 100 sq. ft. Material and application in accordance with B.P.R. and H.C. specifications.

PLACING STEEL: The anchor chains for the cables and anchorages for the approach girders shall be furnished by the contractor for the superstructure and placed by the contractor for the substructure.

WATERPROOFING: 2" EXTERIOR SURFACES: Where indicated on the drawing to be of Thermo or approved equal, painted in specified coats.

CHAMFER: All corners chamfered 1½" unless otherwise noted.

ESTIMATED ANCHORAGE QUANTITIES.

	Contract Quan.	As Built
Concrete	20 cu. yds.	18.20
Reinforcement	4400 lbs.	5,090
Sand fill	220 cu. yds.	
Interior waterproofing	14.0 gal.	15.76
Bituminous " do	5.5 gal.	
Steel plates	360 lbs.	
Placing anchor chains in approach spans	Incl. in Sub-structure	

REVISIONS	
1-7-38	Add note "Slope to drain" at elevation +9. Correct sizes of cable. Change estimated quantities at Result to agree with Item 5 of Addendum No. 1.
2-11-38	Add dimensions locating roadway curbs on anchorage. Add corrugated sleeves for setting anchor bolts. In East Elevation, level of slopes increased to 2" per foot.
2-19-38	Revise elevations of Bridge Seats.
3-4-38	Add and relocate drains.
3-21-38	Add note about chamfer.
2-19-39	Revised as built.

Sheet No. 7208-13

SUBSTRUCTURE

PWA PROJECT NO. ME 1010-D

DEER ISLE SEDGWICK BRIDGE DISTRICT

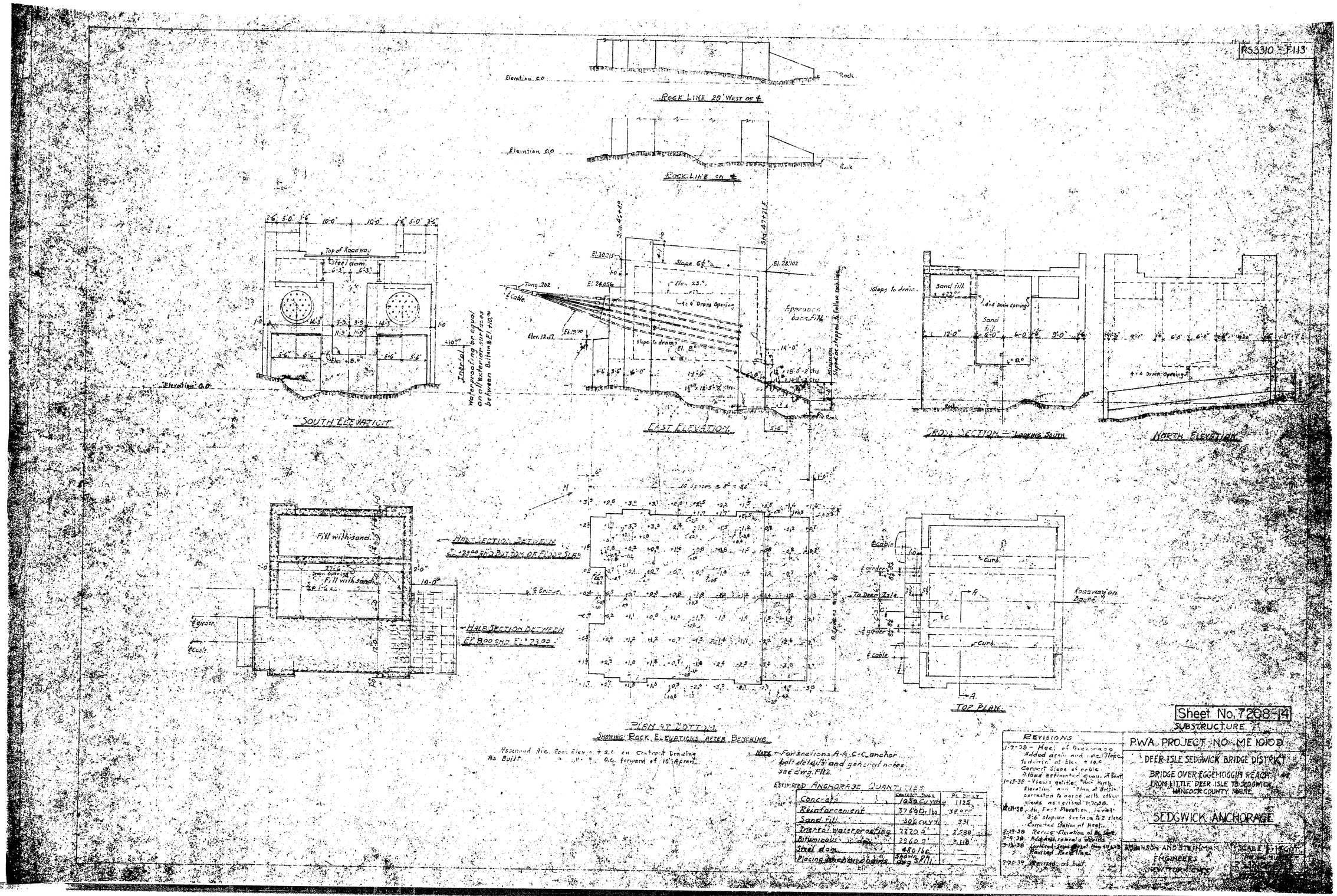
BRIDGE OVER EGGEMOGGIN REACH FROM LITTLE DEER ISLE TO SEDGWICK HANCOCK COUNTY, MAINE.

DEER ISLE ANCHORAGE

ROBINS OFF AND [illegible] ENGINEERS NEW YORK CITY

SCALE [illegible] DRAWING NUMBER RS 3310-F.112

RS33310 F113



Assumed Avg. Rock Elevation + 2.0 on Contract Drawing
As Built " " " " O.K. forward of 10" Apron

NOTE — For sections A-A, C-C, anchor bolt details and general notes see dwg. F112.

ESTIMATED ANCHORAGE QUANTITIES

	Contract Quan.	As Built
Concrete	1050 cu.yds.	1124
Reinforcement	37690 lbs.	38007
Sand fill	306 cu.yd.	331
Internal waterproofing	7220 ☐'	2,588
Bituminous " "	2960 ☐'	3,118
Steel dam	480 lbs.	—
Placing Anchorage chains	370 hrs.	—

REVISIONS

1-7-38 — Heel of footwall was Added drain and incl. Slope to drain at Elev. +10.0
Correct Slope of cable
Added estimated quan. of Fill
1-13-38 — Views entitled "Plan" "North Elevation" and "Plan at Bottom" corrected to agree with other views as revised 1-7-38.
2-11-38 — In Cross Elevation, revised 3:6" sloping footwall to 2" slope
Corrected Station of Heel.
2-19-38 — Revised Elevation of Rock
3-9-38 — Added anchorage details
3-14-38 — Revised Cross Section to show Revised Rock Line.
7-20-39 — Revised as built

P.W.A. PROJECT NO. ME 1010 D

DEER ISLE SEDGWICK BRIDGE DISTRICT

BRIDGE OVER EGGEMOGGIN REACH

FROM LITTLE DEER ISLE TO SEDGWICK

HANCOCK COUNTY, MAINE

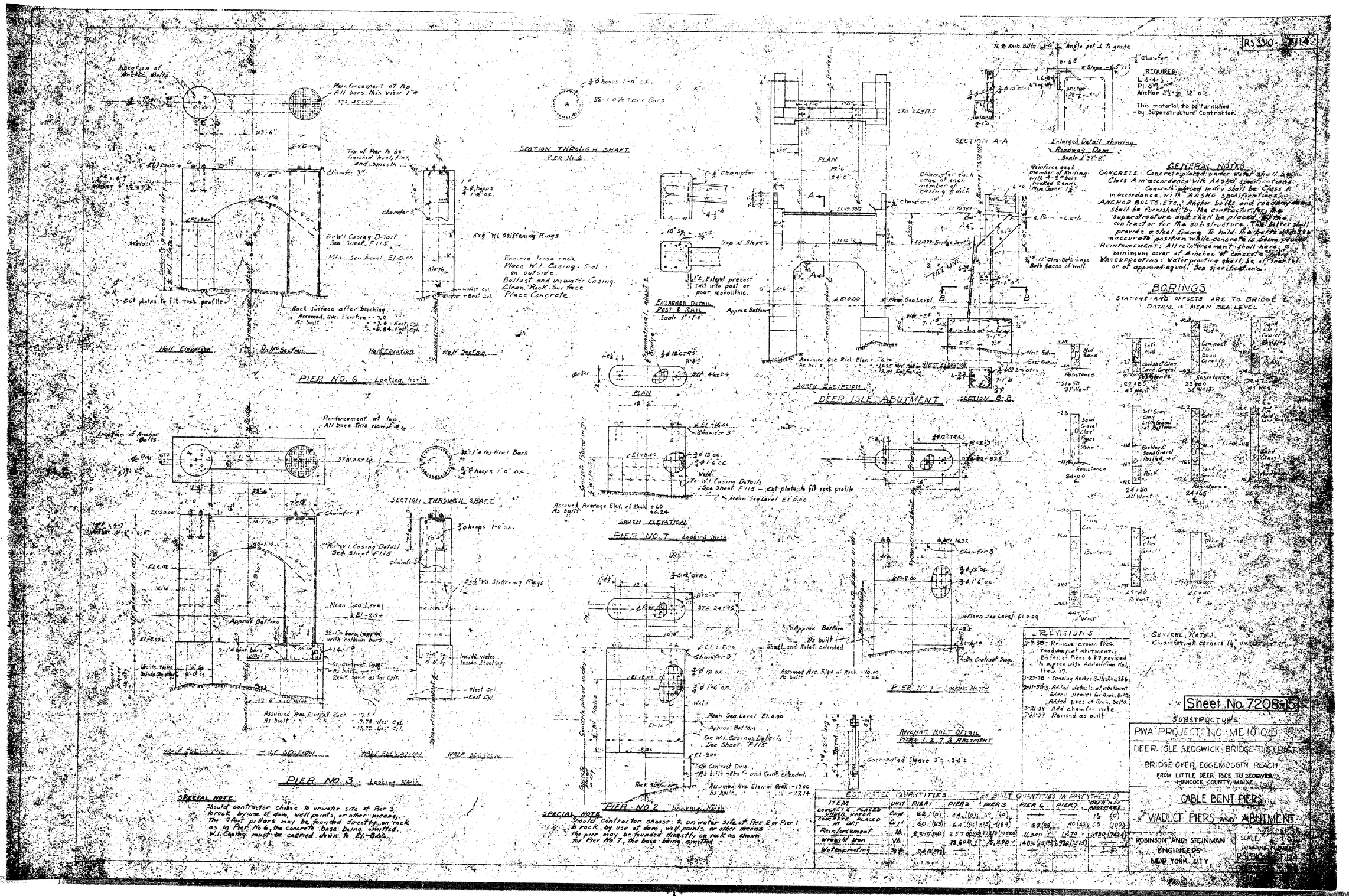
SEDGWICK ANCHORAGE

ROBINSON AND STEINMAN
ENGINEERS
NEW YORK CITY

SCALE 1" = 1'-0"

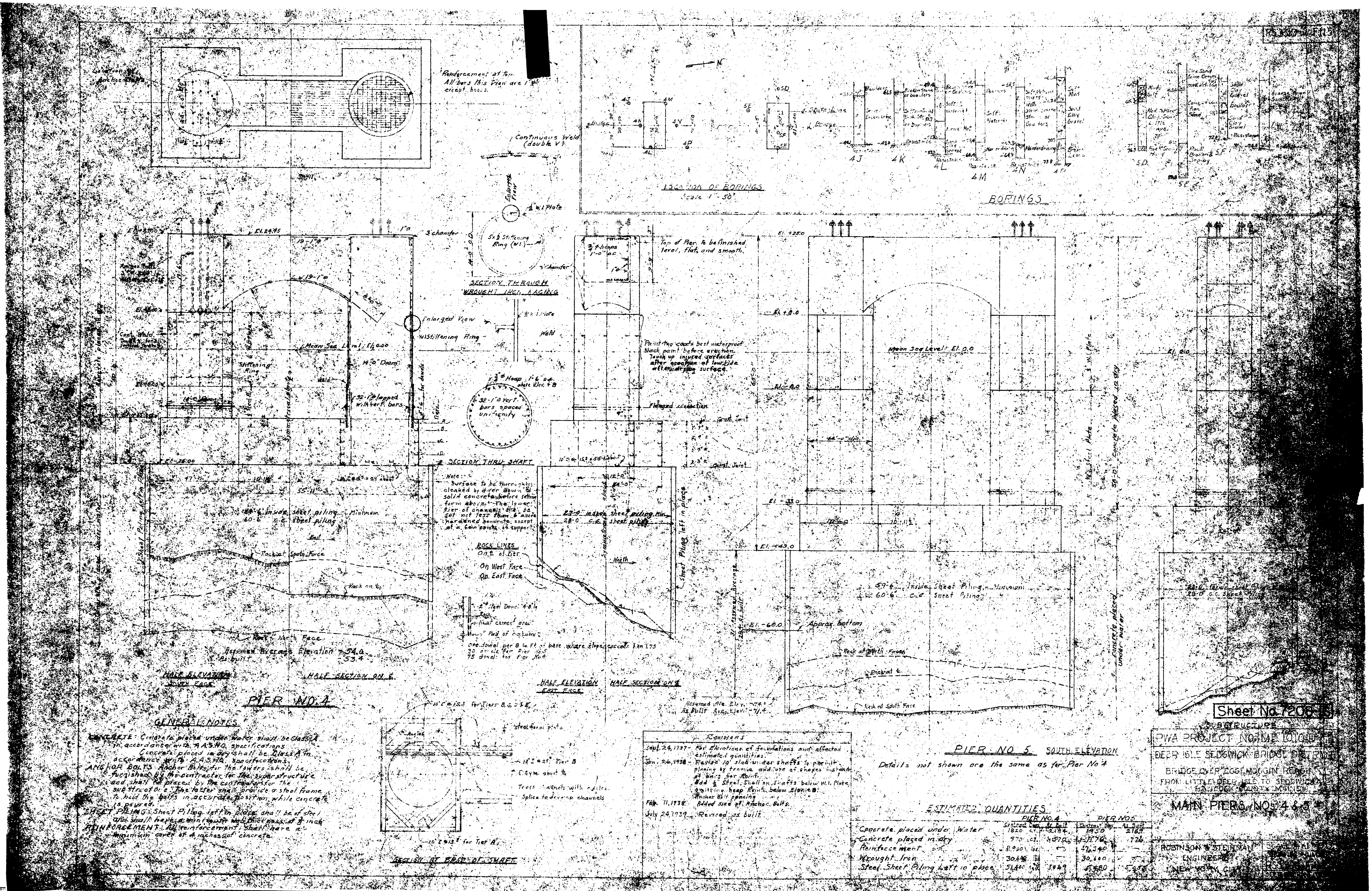
Sheet No. 7208-14
SUBSTRUCTURE

RS 3310 - Sheet 14



ESTIMATED QUANTITIES / AS BUILT QUANTITIES IN PARENTHESES

ITEM	UNIT	PIER 1	PIER 2	PIER 3	PIER 6	PIER 7	DEER ISLE ABUTMENT
Concrete placed under water	Cu. yd.	82 (0)	44 (0)	59 (0)	—	—	16 (0)
Concrete placed in dry	Cu. yd.	60 (63)	64 (66)	115 (183)	97 (98)	46 (42)	65 (102)
Reinforcement	lb.	8,345 (46)	6,570 (1,050)	17,310 (19,020)	11,300	6,270	4,890 (7,424)
Wrought Iron	lb.	—	13,600	15,290	14,870 (14,790)	6,930 (7,615)	—
Waterproofing	Sq. ft.	548 (97)	—	—	—	—	—



PIER NO. 4

PIER NO. 5 SOUTH ELEVATION

Details not shown are the same as for Pier No. 4

GENERAL NOTES

CONCRETE: Concrete placed under water shall be Class A in accordance with A.A.S.H.O. specifications. Concrete placed in dry shall be Class A in accordance with A.A.S.H.O. specifications.
ANCHOR BOLTS: Anchor Bolts for the towers shall be furnished by the contractor for the superstructure and shall be placed by the contractor for the substructure. The latter shall provide a steel frame to hold the bolts in accurate position while concrete is poured.
SHEET PILING: Sheet Piling left in place shall be of steel and shall have a minimum web thickness of 3/8 inch.
REINFORCEMENT: All reinforcement shall have a minimum cover of 4 inches of concrete.

Revisions

Sept. 24, 1937	For Elevations of foundations and affected estimated quantities.
Jan. 26, 1938	Revise 10' slab under shafts to permit placing by tremie and use of shapes instead of bars for Reinf. Add 1/2" Steel Shell on Shafts below W.I. Plate, omitting hoop Reinf. below Elev. +8. Anchor Bolt spacing
Feb. 11, 1938	Added size of Anchor Bolts.
July 24, 1939	Revised as built

ESTIMATED QUANTITIES

	Pier No. 4 Contract Quan.	Pier No. 4 As Built	Pier No. 5 Contract Quan.	Pier No. 5 As Built
Concrete placed under Water	1820 c.y.	2184	1950	2169
Concrete placed in dry	970 c.y.	1570	1176	776
Reinforcement	8,900 lbs	←	47,340	←
Wrought Iron	30,600 lbs	—	30,600	—
Steel Sheet Piling Left in place	51,400 s.f.	3949	5,680	5,952

Sheet No. 7206

SUBSTRUCTURE

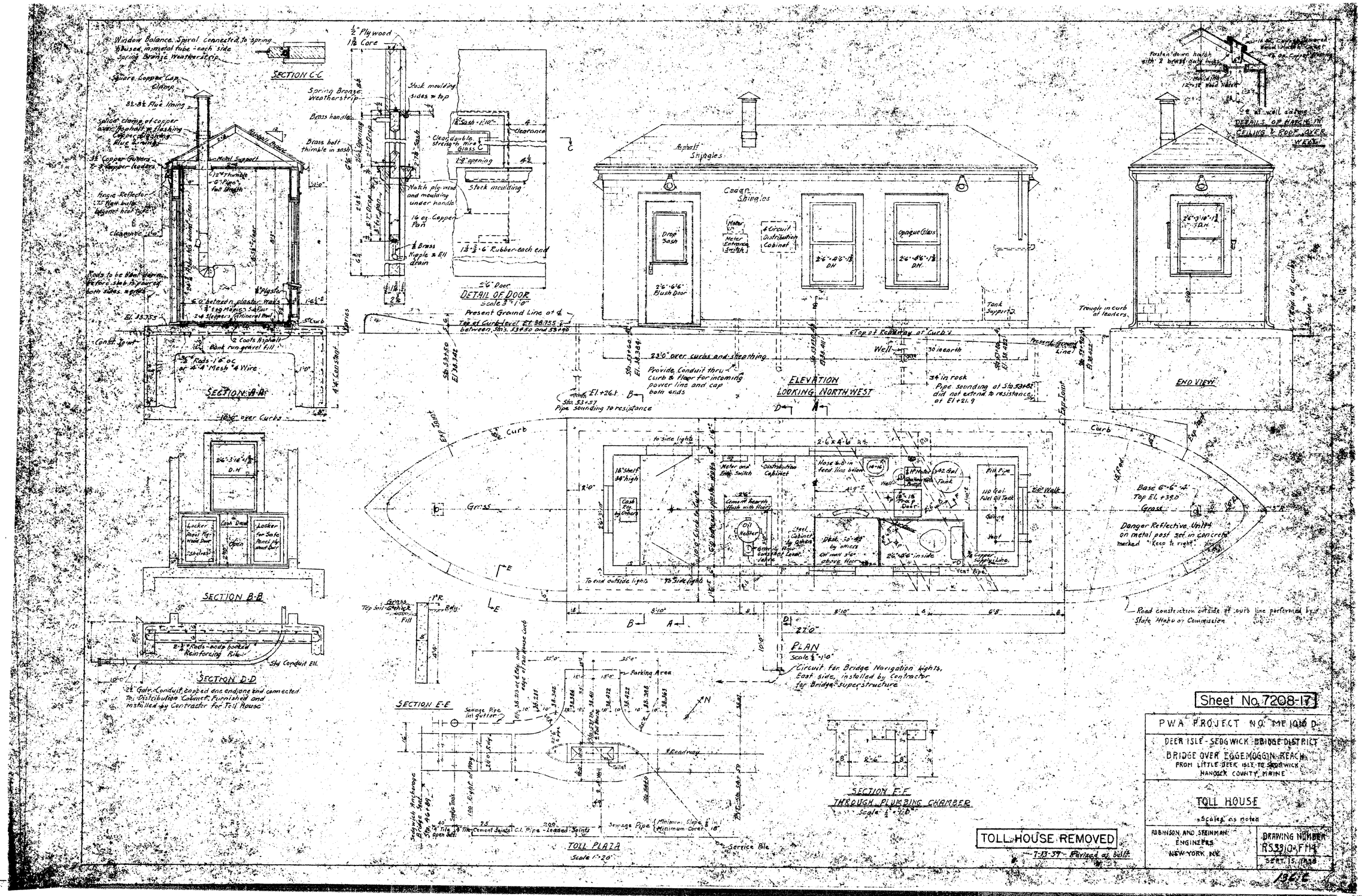
PWA PROJECT NO. ME 1010-D

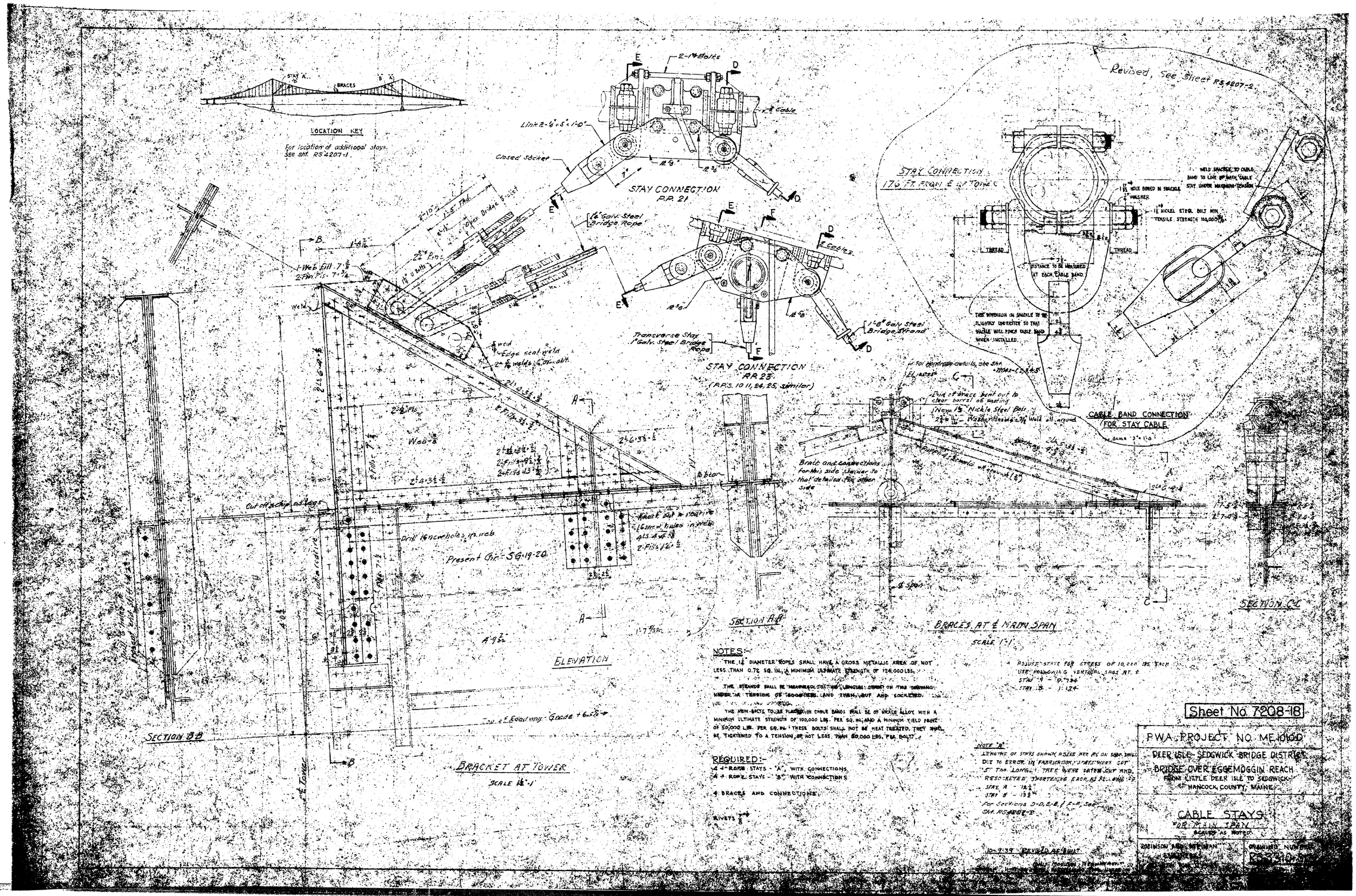
DEER ISLE SEDGWICK BRIDGE DISTRICT

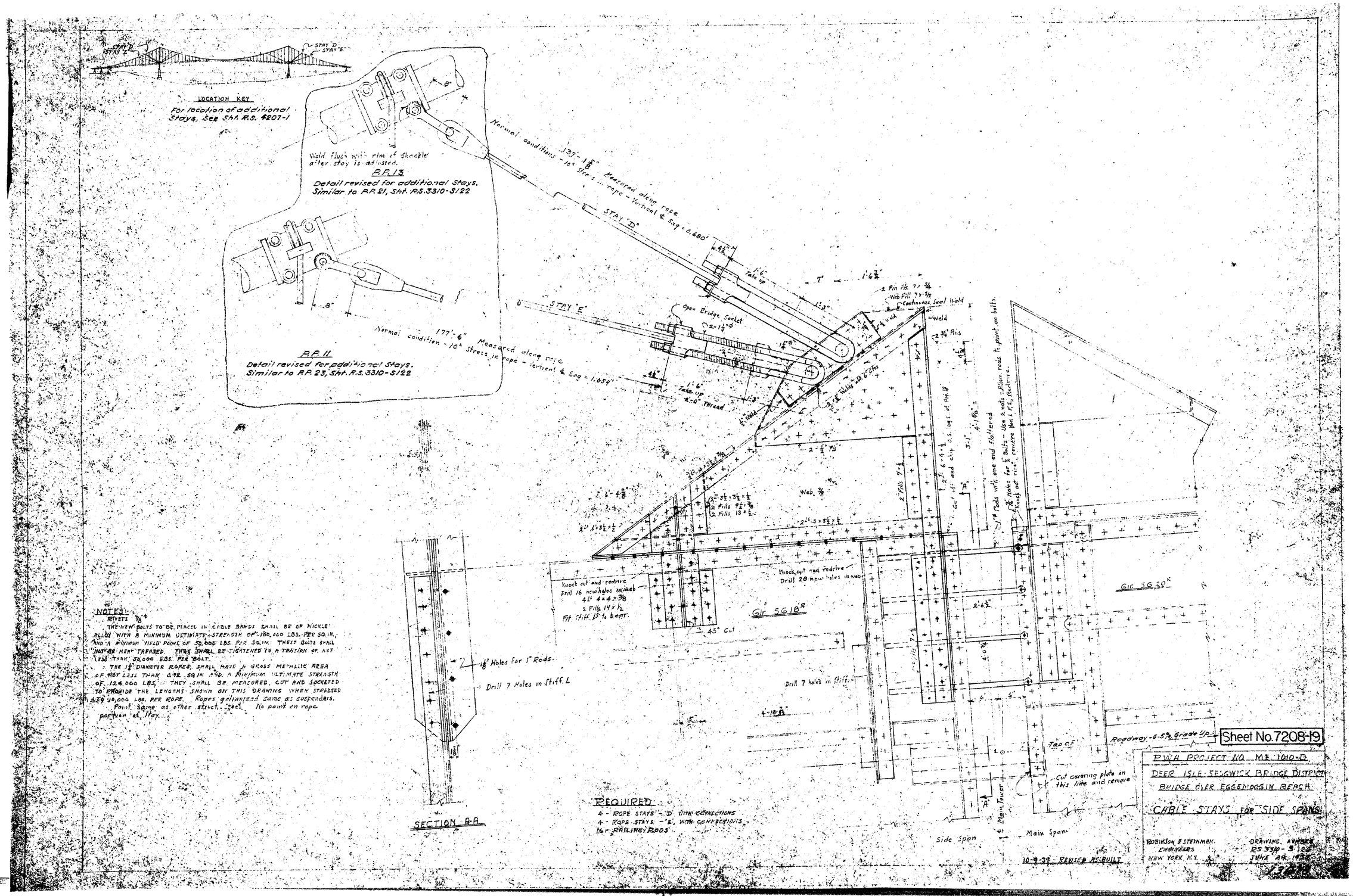
BRIDGE OVER EGGEMOGGIN REACH FROM LITTLE DEER ISLE TO SEDGWICK HANCOCK COUNTY, MAINE

MAIN PIERS NOs. 4 & 5

ROBINSON & STEINMAN ENGINEERS NEW YORK CITY


SECTION C-C
Window Balance. Spiral connected to spring
Bronze Weatherstrip
Square Copper Cap
Clamp
8"x8" Flue lining
Splice clamp of copper over Asphalt & flashing
Copper flashing
Flue lining
Copper Gutters
Copper leaders
Metal Support
Magic Reflector
Rods to be bent down before slab is poured of both sides
6" between plaster walls
Const. joint
Bank run gravel fill
2 Coats Asphalt
Rods 16" o.c. at 4"x4" Mesh & Wire
SECTION A-A
Spring Bronze Weatherstrip
Brass handle
Brass bolt thimble in sash
Stock moulding sides & top
Clear double strength Wire Glass
Clearance
Stock moulding
Notch plywood and moulding under handle
16 oz. Copper Pan
Brass Nipple & Ell drain
Rubber-each end
DETAIL OF DOOR
Scale 3/4" = 1'-0"
Present Ground Line at ℄
Top of Curb Level El. 38.755
between Sta. 53+50 and 53+90
Asphalt Shingles
Cedar Shingles
Drop Sash
Meter
Meter Entrance Switch
4 Circuit Distribution Cabinet
Opaque Glass
Tank Support
Trough in curb at leaders
Top of Roadway at Curb
23'0" over curbs and sheathing
Well
30' in earth
Provide Conduit thru Curb & Floor for incoming power line and cap both ends
Pipe sounding to resistance
Pipe sounding at Sta. 53+82 did not extend to resistance at El. +21.9
ELEVATION
LOOKING NORTHWEST
END VIEW
DETAILS OF FRAMING CEILING & ROOF OVER WELL
Fasten down hatch with 2 brass gate hooks
Grass
Base 6'-6"x4'
Top El. +39.0
Danger Reflective Unit on metal post set in concrete marked "Keep to right"
Road construction outside of curb line performed by State Highway Commission
SECTION B-B
SECTION D-D
2" Galv. Conduit capped one end one end connected to Distribution Cabinet. Furnished and installed by Contractor for Toll House
SECTION E-E
Parking Area
Roadway
Toilet
Service Pipe
TOLL PLAZA
Scale 1" = 20'
PLAN
Scale 1/4" = 1'-0"
Circuit for Bridge Navigation lights, East side, installed by Contractor for Bridge Superstructure
SECTION F-F
THROUGH PLUMBING CHAMBER
Scale 1/2" = 1'-0"
TOLL HOUSE REMOVED
7-13-39 Revised as built
Sheet No. 7208-17
PWA PROJECT NO. ME 1010 D
DEER ISLE - SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
HANCOCK COUNTY, MAINE
TOLL HOUSE
Scales as noted
ROBINSON AND STEINMAN
ENGINEERS
NEW YORK, N.Y.
DRAWING NUMBER
RS3310-FTH
SEPT. 15, 1938
136E


LOCATION KEY
For location of additional stays, see Sht. RS 4207-1.
STAY K
BRACES
STAY CONNECTION P.P. 21
STAY CONNECTION P.P. 23
(P.P.S. 10, 11, 24, 25, similar)
Revised, see Sheet RS 4207-2
STAY CONNECTION 176 Ft. FROM ℄ OF TOWER C
CABLE BAND CONNECTION FOR STAY CABLE
ELEVATION
SECTION A-A
SECTION B-B
SECTION C-C
BRACKET AT TOWER
BRACES AT ℄ MAIN SPAN
Present Grade - SG-19-20
Drill 16 new holes in arch
Knock out & repair 16 screw holes in arch
Brace and connections for this side similar to that detailed for other side
Transverse Stay 1" Galv. Steel Bridge Rope
1½" Galv. Steel Bridge Rope
1-1" Galv. Steel Bridge Strand
Closed Socket
Link 2-4"x5"x1'-0"
2-1¼ Bolts
1-1¼ Cable
Web Fill 7 3/8
2-Pin Pls. 7 3/4
Edge seal weld
Cut off & chip as req'd
Weld
Web-2
℄ Tower
℄ Roadway - Grade + 6.58
℄ Span
NOTES:-
THE 1½" DIAMETER ROPES SHALL HAVE A GROSS METALLIC AREA OF NOT LESS THAN 0.72 SQ. IN., A MINIMUM ULTIMATE STRENGTH OF 124,000 LBS.
THE STRANDS SHALL BE MEASURED TO THE LENGTHS GIVEN ON THE DRAWING UNDER A TENSION OF 1800 LBS. AND THEN CUT AND SOCKETED.
THE PIN-BACK TO BE PLACED IN CABLE BANDS SHALL BE OF NICKEL ALLOY WITH A MINIMUM ULTIMATE STRENGTH OF 100,000 LBS. PER SQ. IN. AND A MINIMUM YIELD POINT OF 50,000 LBS. PER SQ. IN. THESE BOLTS SHALL NOT BE HEAT TREATED. THEY SHALL BE TIGHTENED TO A TENSION OF NOT LESS THAN 50,000 LBS. PER BOLT.
REQUIRED:-
4 - ROPE STAYS - "A", WITH CONNECTIONS
4 - ROPE STAYS - "B", WITH CONNECTIONS
4 BRACES AND CONNECTIONS.
RIVETS 7/8"
ADJUST STAYS FOR STRESS OF 10,000 LBS. EACH USE FOLLOWING VERTICAL SAGS AT ℄
STAY A - 0.734
STAY B - 1.124
NOTE "A"
LENGTHS OF STAYS SHOWN ABOVE ARE AS ON SHOP DWG. DUE TO ERROR IN FABRICATION, STAYS WERE CUT "5" TOO LONG. THEY WERE EATEN OUT AND RESOCKETED, SHORTENING EACH AS FOLLOWS:
STAY A - 18 3/4"
STAY B - 13 3/4"
For Sections D-D, E-E, & F-F, see Sht. RS 4207-2
10-7-39 REVISED AS BUILT
Sheet No. 7208-18
P.W.A. PROJECT NO. ME 1060
DEER ISLE-SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
℄ HANCOCK COUNTY, MAINE
CABLE STAYS
℄ OF MAIN SPAN
ROBINSON & ... ENGINEERS
DRAWING NUMBER
RS 4210



NOTES:-

RIVETS 7/8"

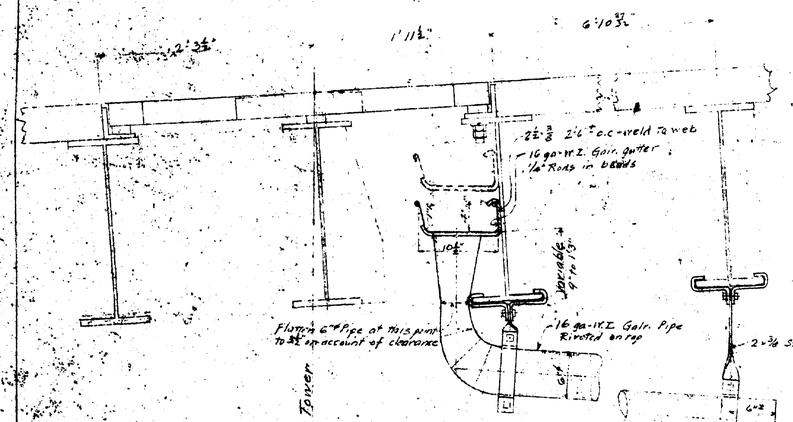
THE NEW BOLTS TO BE PLACED IN CABLE BANDS SHALL BE OF NICKLE ALLOY WITH A MINIMUM ULTIMATE STRENGTH OF 180,000 LBS. PER SQ. IN. AND A MINIMUM YIELD POINT OF 50,000 LBS. PER SQ. IN. THESE BOLTS SHALL NOT BE HEAT TREATED. THEY SHALL BE TIGHTENED TO A TENSION OF NOT LESS THAN 50,000 LBS. PER BOLT.

THE 1 1/8" DIAMETER RODS, SHALL HAVE A GROSS METALLIC AREA OF NOT LESS THAN 0.92 SQ. IN. AND A MINIMUM ULTIMATE STRENGTH OF 124,000 LBS. THEY SHALL BE MEASURED, CUT AND SOCKETED TO PROVIDE THE LENGTHS SHOWN ON THIS DRAWING WHEN STRESSED WITH A PULL OF 10,000 LBS. PER ROPE. Ropes galvanized same as suspenders. Paint same as other struct. steel. No paint on rope portion at Stay.

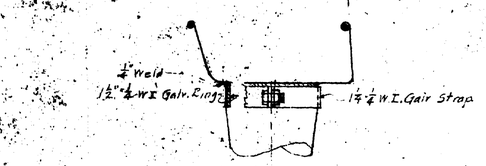
REQUIRED

4 - ROPE STAYS - "D" WITH CONNECTIONS
4 - ROPE STAYS - "E" WITH CONNECTIONS
16 - RAILING RODS

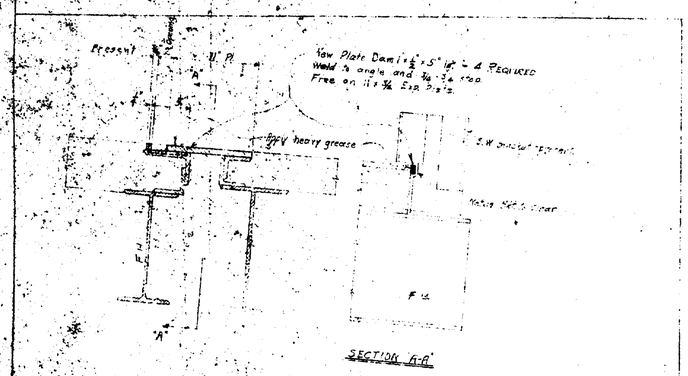
RS3310-5127



SECTION B-B
Scale 1½" = 1'0"

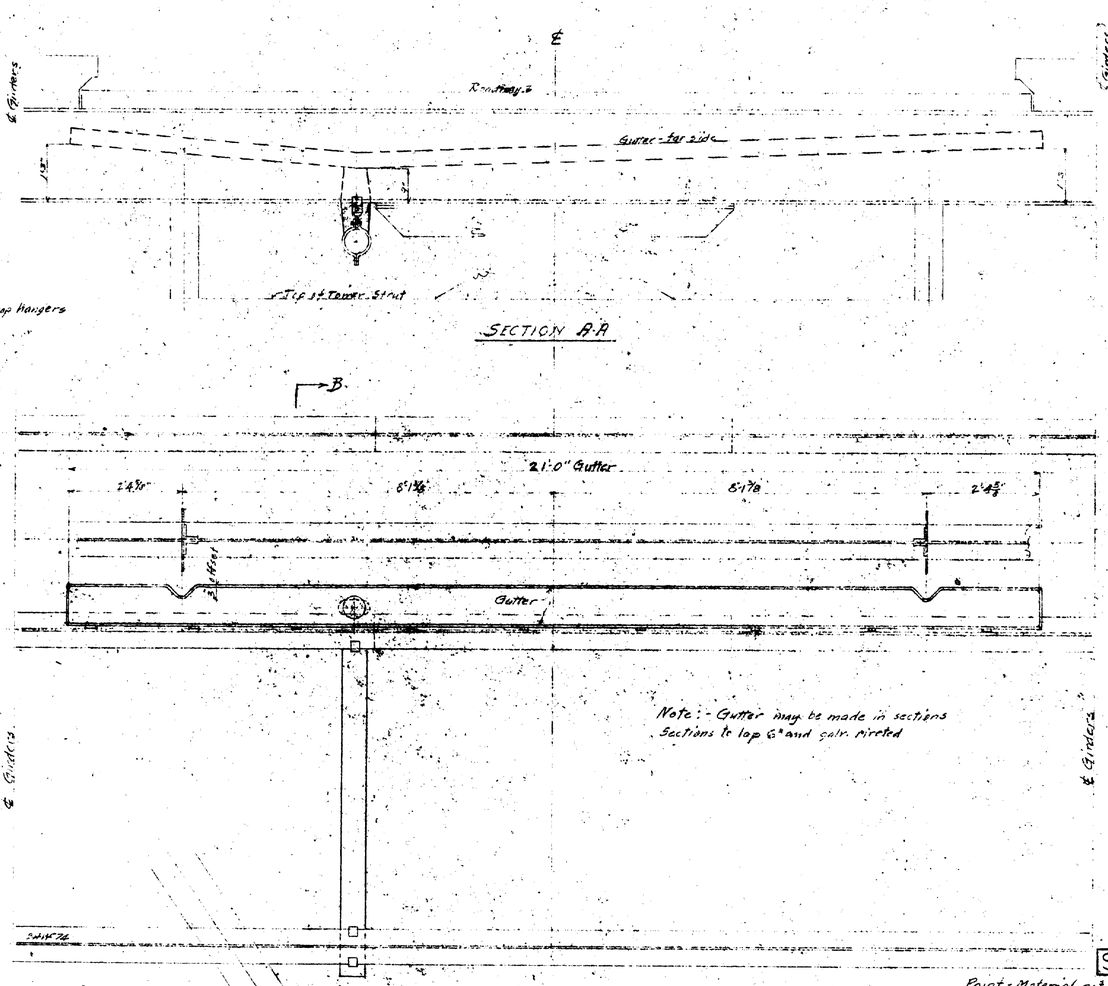


DETAIL
PIPE TO GUTTER
Scale 3" = 1'0"



SECTION A-A

DETAIL OF END DAMS FOR 2" x 3/4" OPENING IN ROADWAY. EAR DETAIL AT CABLE BENTS
Scale 1½" = 1'0"



PLAN
Scale 3/4" = 1'0"

Point - Material, not galvanized, same as Bridge

Sheet No. 7208-20

REQUIRED
Gutter, run off pipe and fittings as required for expansion joint at each of two Main Towers

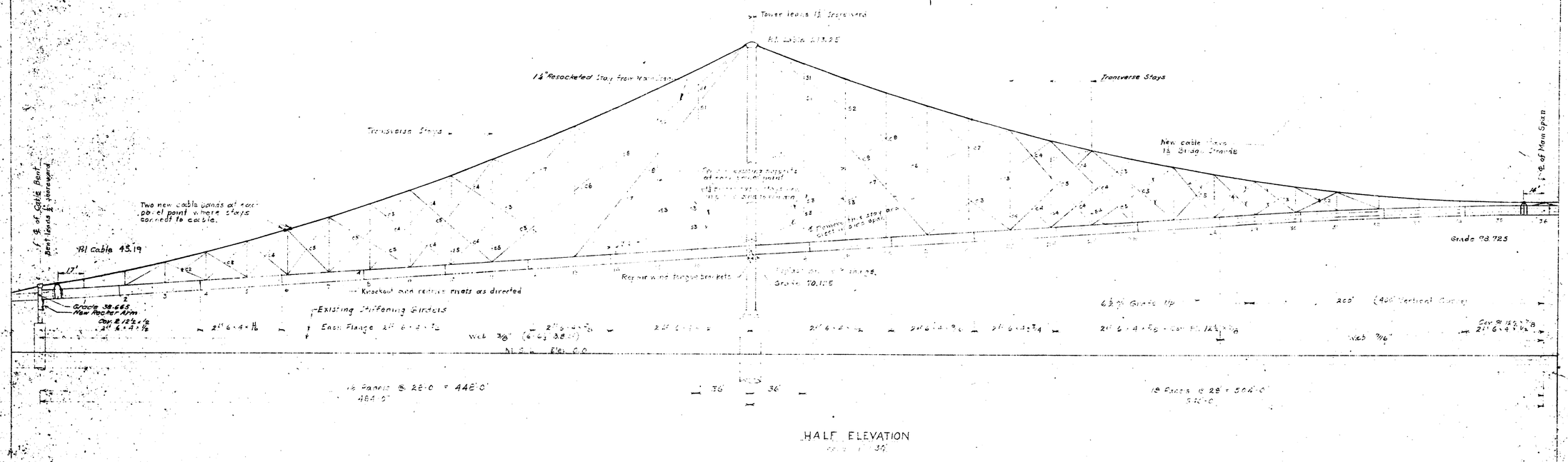
Revised 7-5-39 - Added detail of new end dams for roadway expansion at Cable Bents.
10-9-39 - Revision as built.

P.W.A. PROJECT NO. ME 1010 D
DEER ISLE-SEDGWICK BRIDGE DISTRICT
BRIDGE OVER EGGEMOGGIN REACH

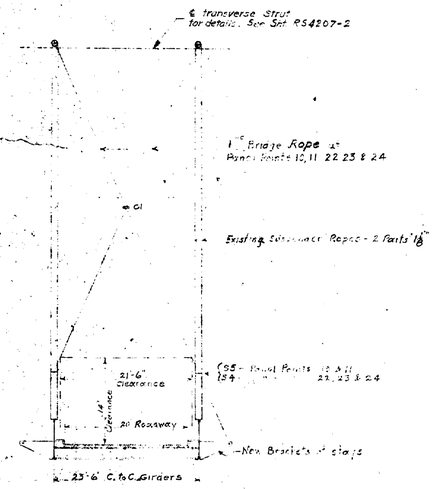
DRAINAGE DETAILS
AT
MAIN TOWERS

ROBINSON AND STEINMAN
ENGINEERS
NEW YORK CITY

SCALES AS NOTED
DRAWING NUMBER
RS3310-5127



HALF ELEVATION



SECTION SHOWING TRANSVERSE STAYS
Scale 1" = 10'

SPECIFIED ORIGINAL ELEVATION

PANEL POINT	ELEVATION ℄ MAIN CABLE	ELEVATION TOP OF SOCKET PIN
1	50.381	44.890
2	56.098	46.710
3	62.366	48.530
4	69.160	50.350
5	76.555	52.170
6	84.488	53.900
7	92.990	55.810
8	102.054	57.630
9	111.691	59.450
10	121.892	61.270
11	132.666	63.090
12	144.007	64.910
13	155.916	66.730
14	168.390	68.550
15	181.426	70.370
16	195.019	72.190
18	199.353	76.850
19	189.223	78.690
20	179.657	80.510
21	170.662	82.330
22	162.236	84.150
23	154.385	85.970
24	147.106	87.790
25	140.412	89.610
26	134.278	91.430
27	128.771	93.250
28	123.820	95.070
29	119.457	96.889
30	115.670	98.541
31	112.433	99.940
32	109.870	101.085
33	107.846	101.976
34	106.401	102.612
35	105.510	102.994
36	105.250	103.121

NOTES:-
Existing stays are 1¼" Bridge Cable.
New longitudinal stays are to be 1⅛" Strand.
New transverse stays are to be 1" Bridge Cable.
Estimated average dead load of existing bridge is 1200 lbs. per linear foot per cable.

Sheet No. 7208-21

STATE OF MAINE
STATE HIGHWAY COMMISSION

DEER ISLE-SEDGWICK BRIDGE

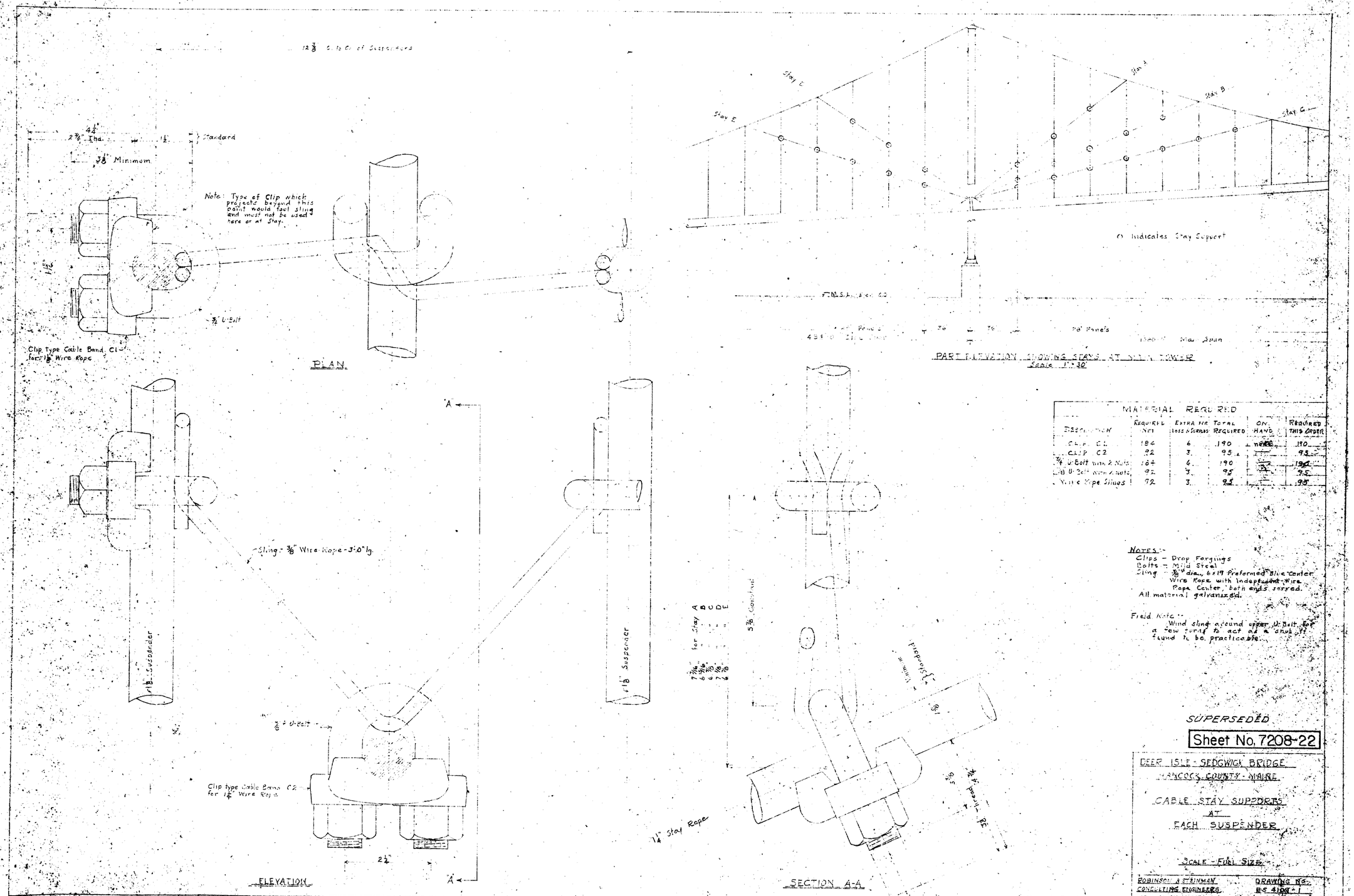
REINFORCEMENT WITH CABLE STAYS

GENERAL PLAN

ROBINSON & SCHIMMEL
CONSULTING ENGINEERS
NEW YORK, N.Y.

DRAWING NUMBER
RS 4207-F
FEBRUARY 26, 1943

136:10



MATERIAL REQUIRED					
DESCRIPTION	REQUIRED NET	EXTRA FOR LOSS & SURPLUS	TOTAL REQUIRED	ON HAND	REQUIRED THIS ORDER
CLIP C1	184	6	190	none	190
CLIP C2	92	3	95		95
3/4" U-Bolt with 2 Nuts	184	6	190		190
3/8" U-Bolt with 2 Nuts	92	3	95		95
Wire Rope Slings	92	3	95		95

NOTES:-
Clips - Drop Forgings
Bolts - Mild Steel
Sling - 3/8" dia., 6x19 Preformed Blue Center Wire Rope with Independent Wire Rope Center, both ends served.
All material galvanized.

Field Note:-
Wind sling around upper U-Bolt for a few turns to act as a shut if found to be practicable.

SUPERSEDED

Sheet No. 7208-22

DEER ISLE - SEDGWICK BRIDGE
HANCOCK COUNTY - MAINE

CABLE STAY SUPPORTS
AT
EACH SUSPENDER

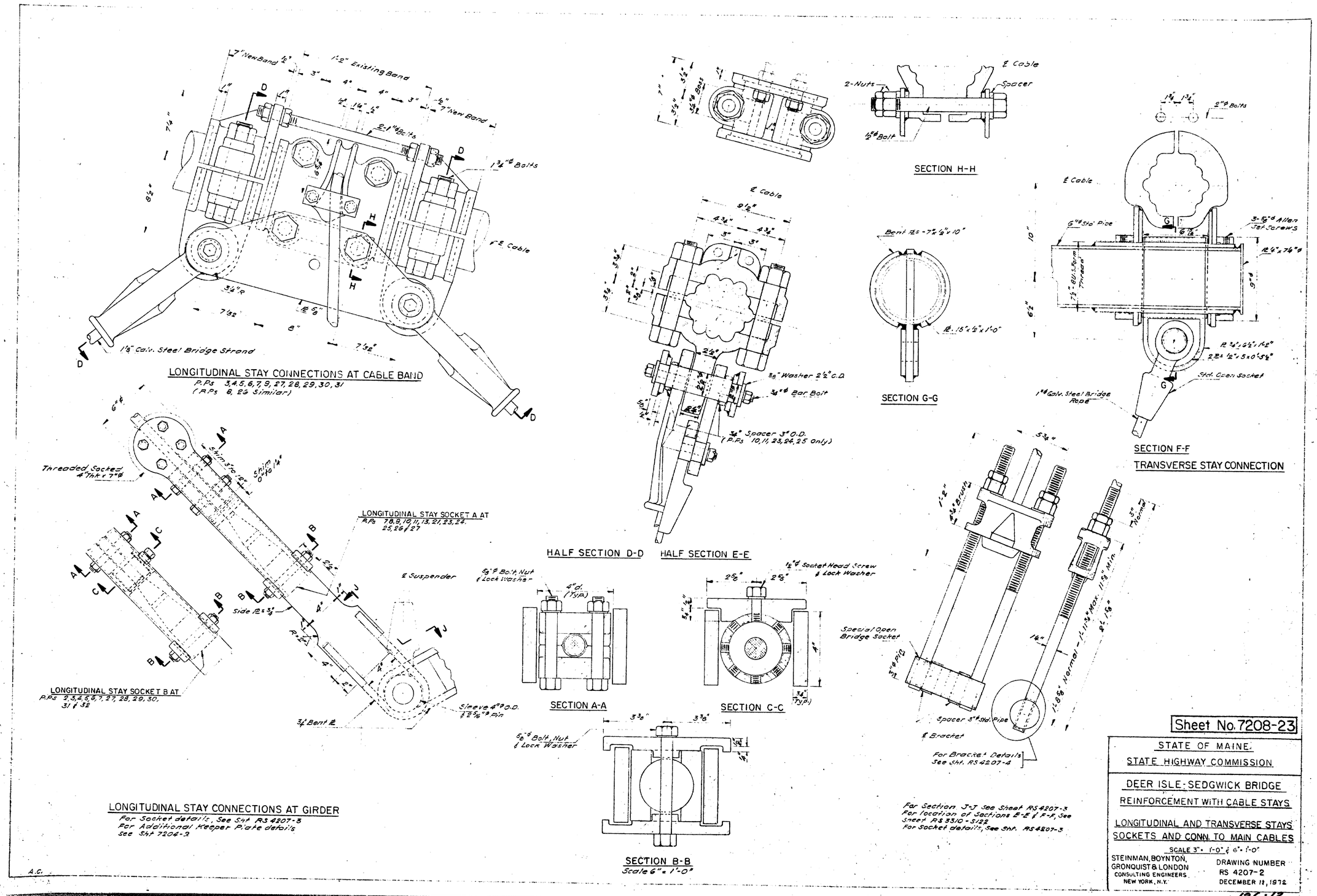
SCALE - FULL SIZE

ROBINSON & STEINMAN
CONSULTING ENGINEERS
NEW YORK CITY

DRAWING NO.
BS 4109-1
DEC. 6, 1941

Revised Dec 31, 1941

136/11



Sheet No. 7208-23

STATE OF MAINE
STATE HIGHWAY COMMISSION

DEER ISLE-SEDGWICK BRIDGE
REINFORCEMENT WITH CABLE STAYS

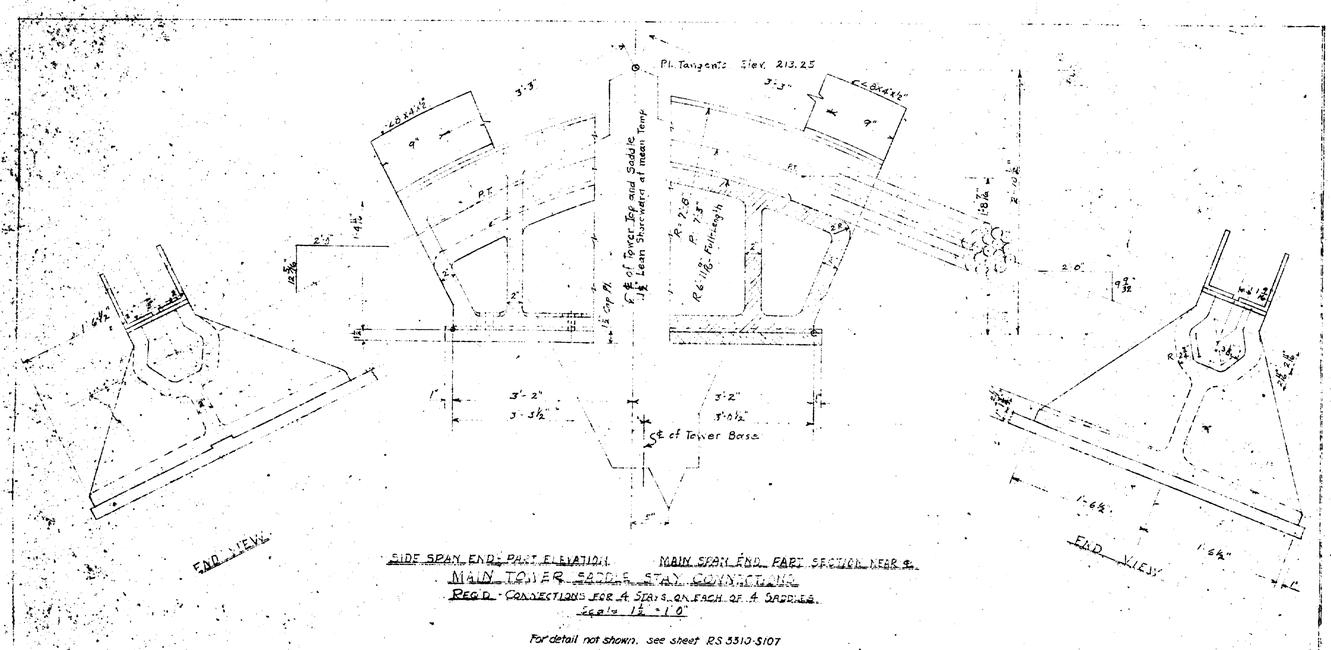
LONGITUDINAL AND TRANSVERSE STAYS
SOCKETS AND CONN. TO MAIN CABLES

SCALE 3" = 1'-0" & 6" = 1'-0"

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

DRAWING NUMBER
RS 4207-2
DECEMBER 11, 1972

136:12



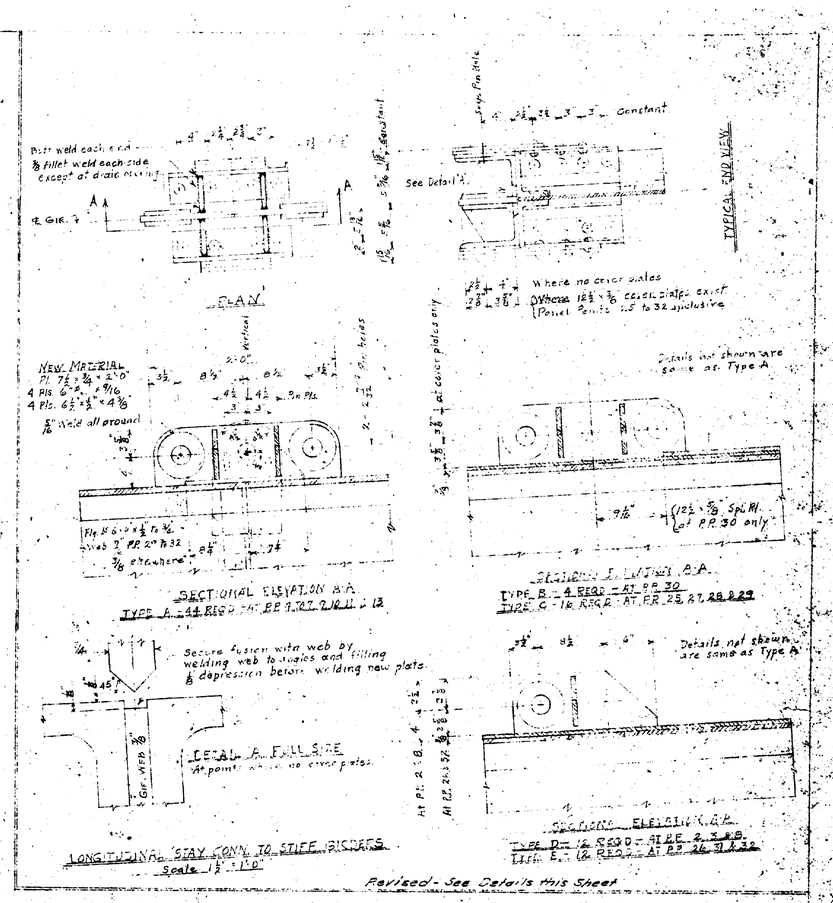
SIDE SPAN END PART ELEVATION MAIN SPAN END PART SECTION NEAR ℄

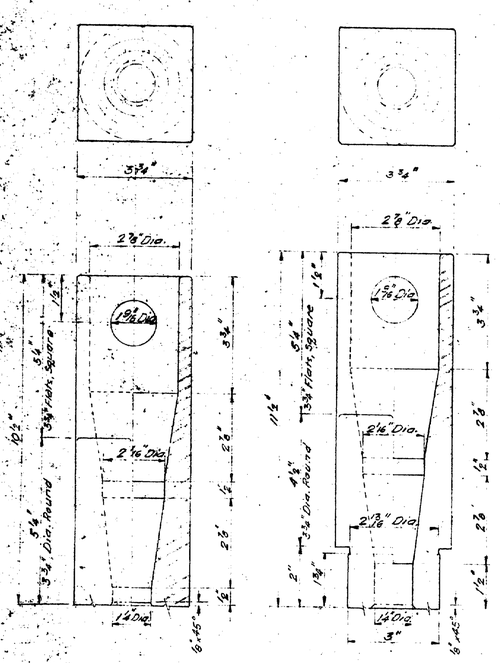
MAIN TOWER SADDLE STAY CONNECTIONS

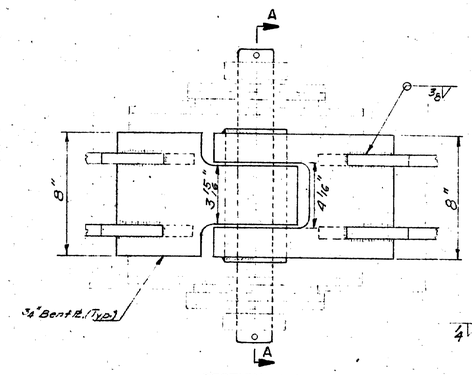
REQ'D - CONNECTIONS FOR 4 STAYS ON EACH OF 4 SADDLES.

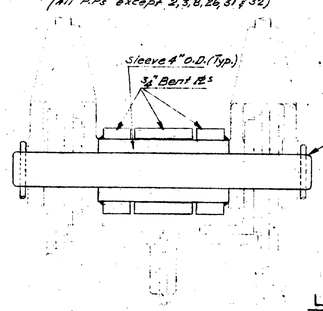
Scale 1½" = 1'0"

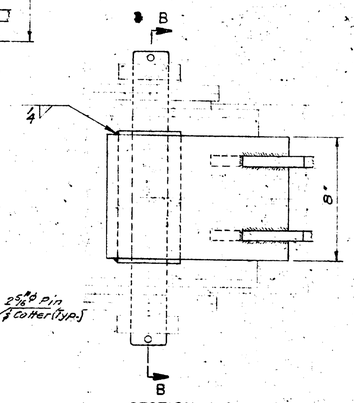
For detail not shown, see sheet RS 5510-5107





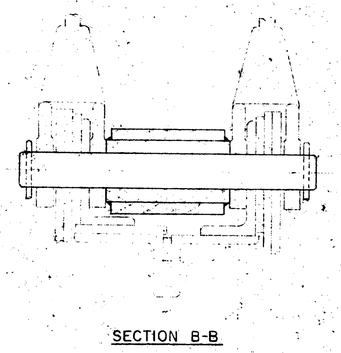






LONGITUDINAL STAY CONNECTIONS TO GIRDERS

Scale 3" = 1'0"



Note: For location of Section J-J See Sheet RS 4207-2

Sheet No. 7208-24

STATE OF MAINE

STATE HIGHWAY COMMISSION

DEER ISLE BRIDGE OR BRIDGE REINFORCEMENT WITH CABLE STAYS

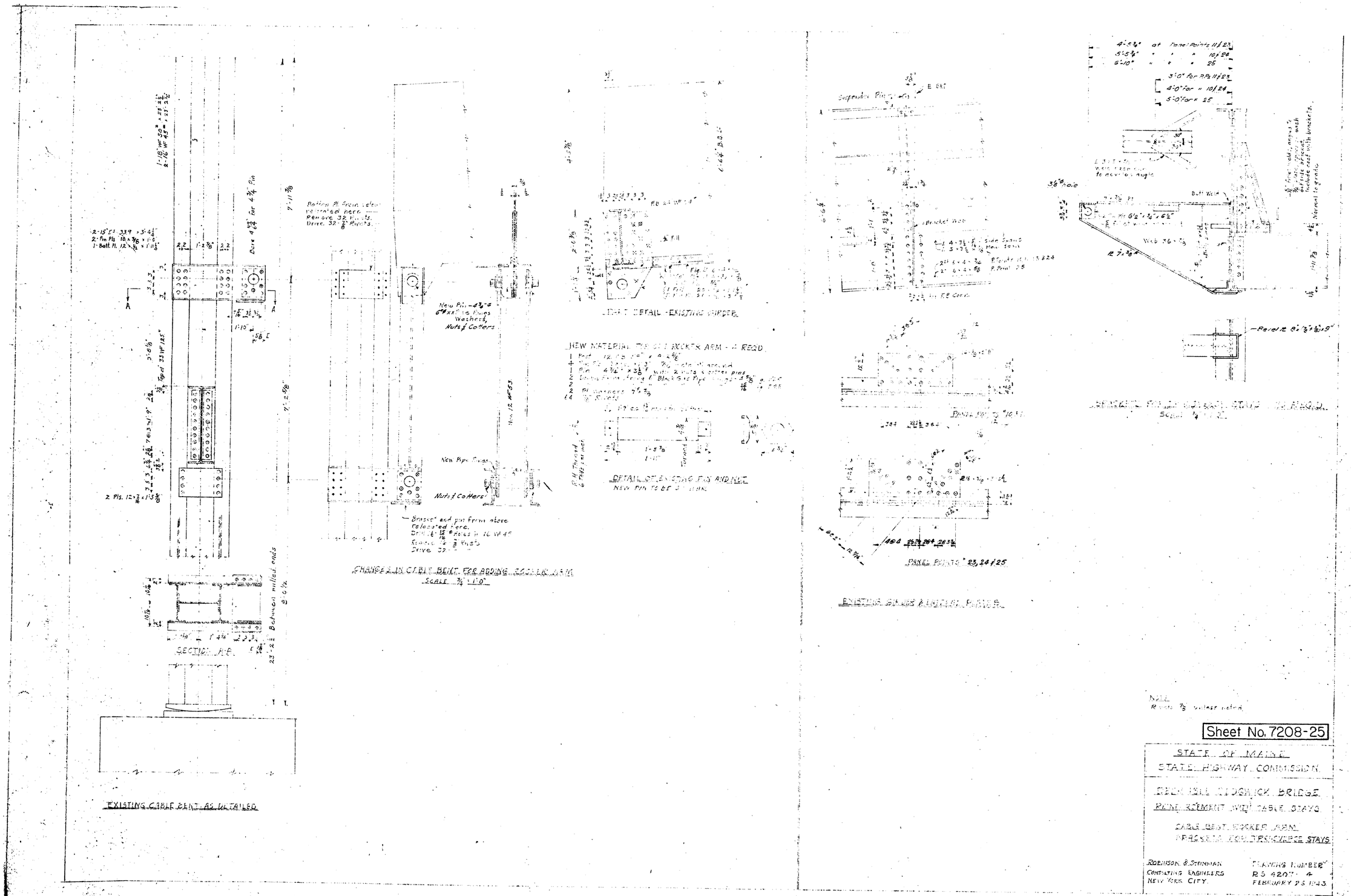
LONGITUDINAL STAY CONNECTIONS AT TOWER, SADDLES AND GIRDERS

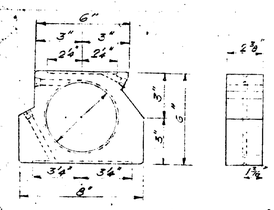
ROBINSON & STEINMAN CONSULTING ENGINEERS NEW YORK CITY

DRAWING NUMBER RS 4207-3

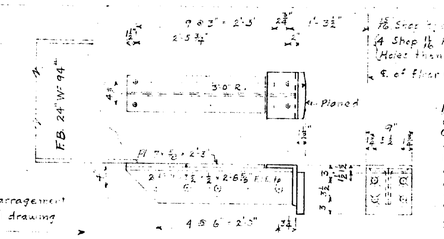
FEBRUARY 26, 1943

136:13


SECTION A-A
EXISTING CABLE BENT AS DETAILED
CHANGES IN CABLE BENT FOR ADDING ROCKER ARM
SCALE 3/4" = 1'-0"
DETAIL OF EXISTING PIN AND NUT
NEW MATERIAL FOR ROCKER ARM - 4 REQD.
PANEL POINTS 23, 24 & 25
EXISTING GIRDER & LATERAL PLATES
Sheet No. 7208-25
STATE OF MAINE
STATE HIGHWAY COMMISSION
DEER ISLE SEDGWICK BRIDGE
REINFORCEMENT WITH CABLE STAYS
CABLE BENT ROCKER ARM
BRACKETS FOR TRANSVERSE STAYS
ROBINSON & STEINMAN
CONSULTING ENGINEERS
NEW YORK CITY
DRAWING NUMBER
RS 4207-4
FEBRUARY 26 1943
136:14



PHOSPHOR BRONZE PLATE No. 7 - 8 REQ'D
FOR MAIN SPAN GIRDER & LATERAL BEARINGS.
Scale 3" = 1'-0"

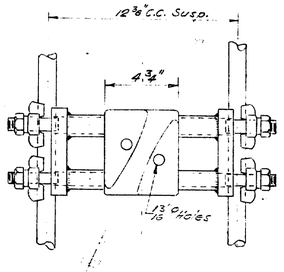


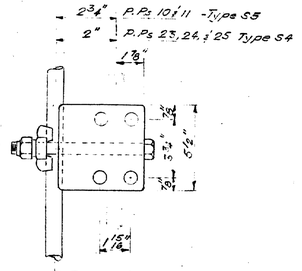
For location and general arrangement at expansion joints, see old drawing No. RC 3310-S106.

1/8 Shims in floor beam - Original Detail.
4 Shop 1 1/8 Holes in Bracket - "
Holes thus drilled 1 1/8 to fit floor beam in field.
℄ of floor beam and 24"x6"x74" angles.

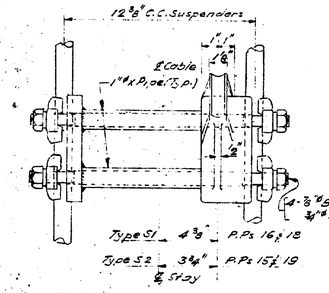
New material for One Bracket
One ∠ 8 x 6 x 5/8 x 0'-9"
One Plate 6 x 1 1/2 x 0'-9"
4 Rivets
Knock out 4 rivets, remove existing angle and plate, adjust new angle and plate for old clearance on tongue, with bridge centered transverse to, drill 4 holes in new angle, drive 4 rivets and hold new angle to old. Drill 2 1/2 angle to drill for 4 rivets.

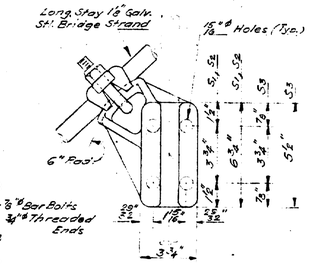
ANGLE AND PLATE REPLACEMENT AT WINGTOP OF TO MAIN TOWERS.
FOR MAIN AND SIDE SPANS - 8 REQ'D. Scale 1" = 1'-0"





SUPPORTS FOR TRANSVERSE STAYS
Required - 8 Supports - Type S5
12 " Type S4

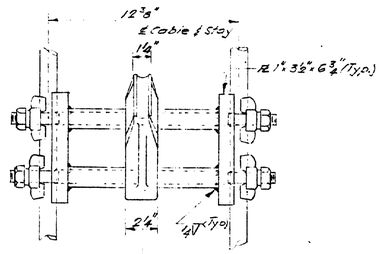




Type S1 _ 4 3/8" _ P.Ps 16 & 18
Type S2 _ 3 3/4" _ P.Ps 15 & 19
℄ Stay

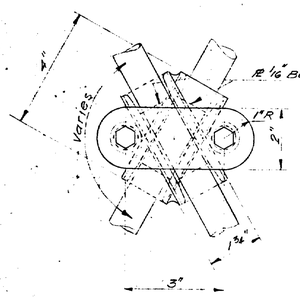
SUPPORTS FOR TOWER STAYS - PPs 15, 16, 18 & 19
Required - 16 Supports - Type S1
8 " - Type S2

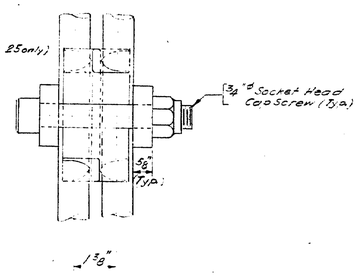
NOTE: Wire Rope Clips removed from existing stay supports shall be used for these supports.



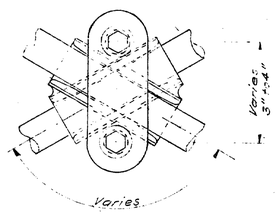
SUPPORTS FOR TOWER STAYS - PPs 15, 16, 18 & 19
Required - 24 Supports - Type S3

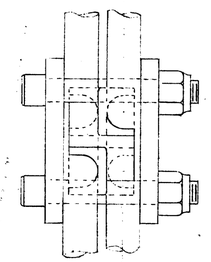
Scale 3" = 1'-0"





CROSS CLAMPS FOR TRANSVERSE STAYS
Required - 10 Type C1





1 3/8" C2, C3, C4, C5
1 7/8" C6
1 11/16" C7
2 3/16" C8
2 5/16" C9

CROSS CLAMPS FOR LONGITUDINAL STAYS
Required - 160 Type C2 thru C9

Scale: 6" = 1'-0"

NOTE:
Section [illegible] 3, Stand S5 and clamps C1 [illegible] be galvanized after not [illegible]

Sheet No. 7208-26

STATE OF MAINE
STATE HIGHWAY COMMISSION

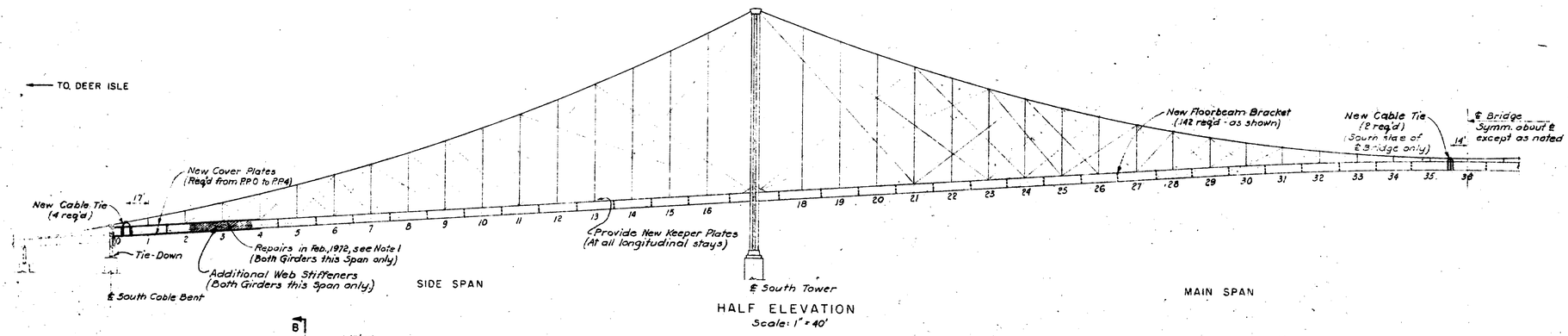
DEER ISLE-SEDGWICK BRIDGE
[illegible] STAYS

DETAILS

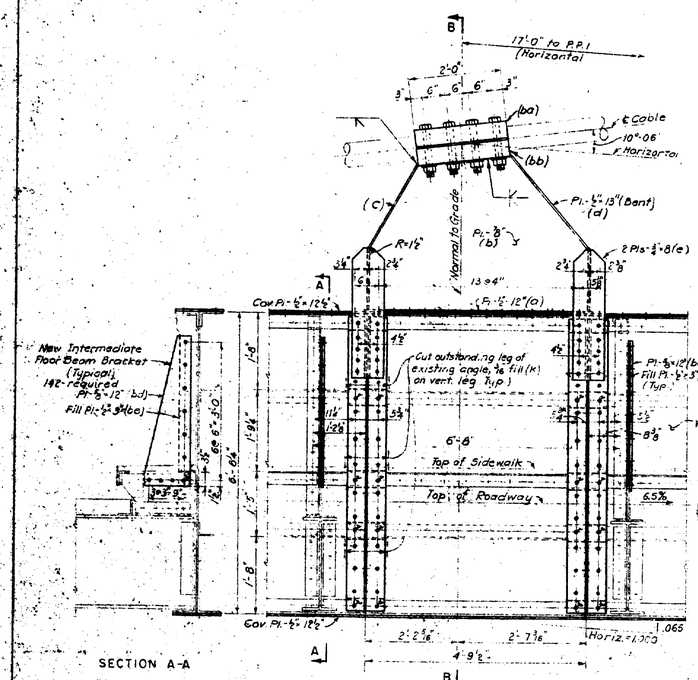
ROBINSON & STEINMAN
CONSULTING ENGINEERS
NEW YORK, N.Y.

DRAWING NUMBER
P.C. 4227 - 5
FEBRUARY 22, 1943

136:15

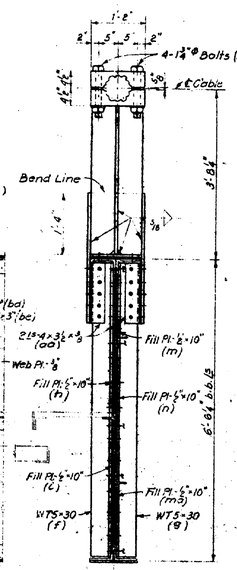


HALF ELEVATION
Scale: 1" = 40'

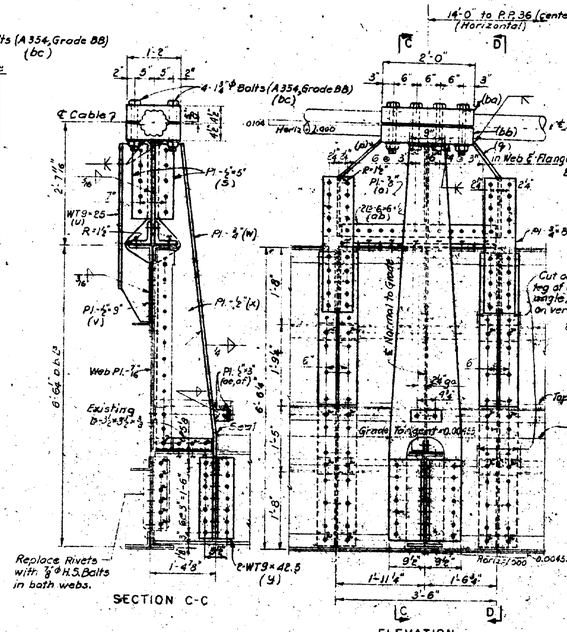


SECTION A-A

ELEVATION
SIDE SPAN CABLE TIE
Scale: 3/4" = 1'-0"

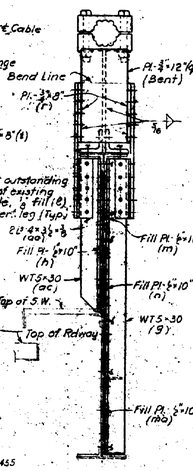


SECTION B-B



SECTION C-C

ELEVATION
MAIN SPAN CABLE TIE
Scale: 3/4" = 1'-0"



SECTION D-D

NOTES

1. - Straightening and splicing of deformed and broken flange angles and other repairs in shaded areas were done in February, 1972.
2. - All new material shall be A36 steel unless otherwise noted.
3. - Use A-325 - 3/4" ϕ bolts in 13/16" ϕ holes except as noted.
4. - Use low-hydrogen E7018 electrodes for all welds.
5. - Prepare and weld material in the shop as far as practicable. Drill bolt holes shown ⊕ (full size).
6. - In the field, remove rivets where shown ⊕; place new material and drill through ⊕ and ⊕ holes; complete bolting.
7. - Do not weld when temperature is less than 20° F.
8. - Finish cable clamp flutes to roughness rating between 500 and 400 micro-inches. Cut parallel or at right angles to cable axis.
9. - All dimensions shall be checked in the field as necessary before fabrication of new steel.
10. - ⊕ Indicates new holes.
11. - ⊕ Indicates existing holes.

PRIORITIES OF REPAIRS AND IMPROVEMENTS

1 - Install new web stiffeners to reinforce and straighten the web plates.
2 - Install 68 new floor beam brackets in side spans.
3 - Install 16 new top cover plates on stiffening girders from P.P.0 to P.P.4 in side spans.
4 - Install new cable bent tie-down at each cable bent column.
5 - Install 4 new cable ties in side spans.
6 - Install 74 new floor beam brackets in main span.
7 - Install 2 new cable ties in main span.
8 - Provide keeper plates for finger shims of diagonal stays.
9 - Install 12 new bottom cover plates on stiffening girders from P.P.0 to P.P.4 in side spans.
10 - For details and bill of material see Sheet 4.

Sheet No. 7208-27

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REPAIRS AND IMPROVEMENTS OF SUSPENDED SPANS

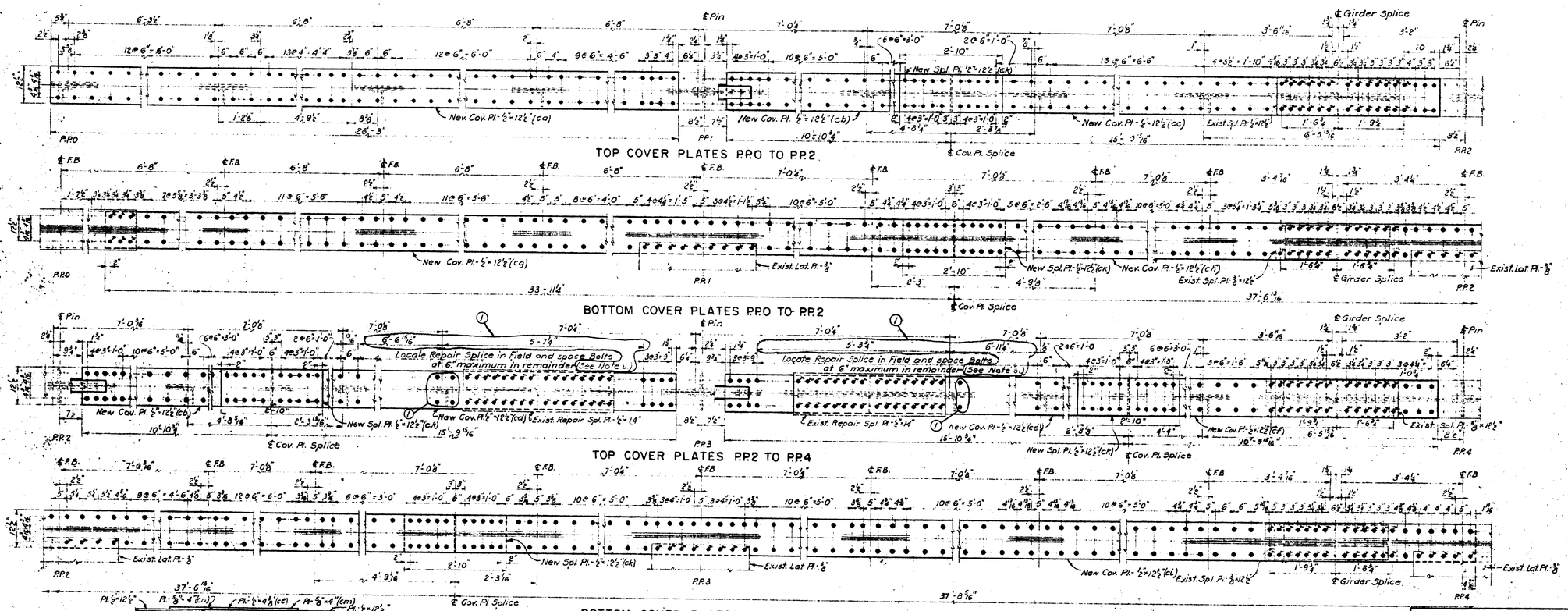
ELEVATION AND CABLE TIES

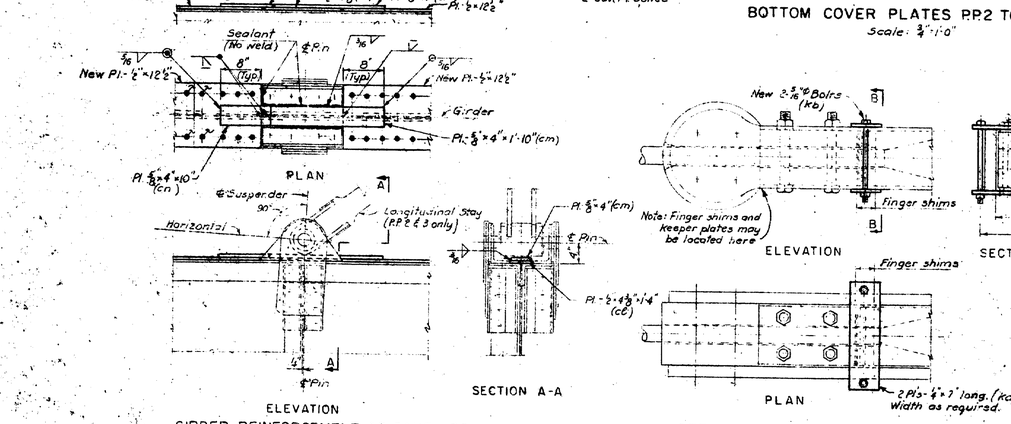
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

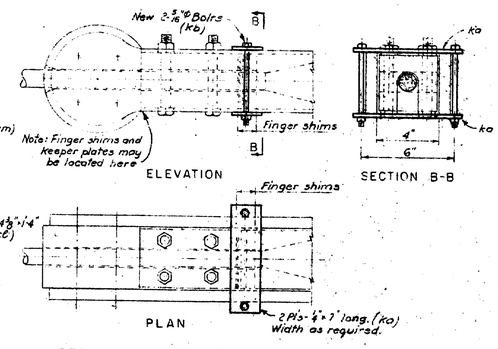
SCALE As noted
DATE May 19, 1972
SHEET 7204-1

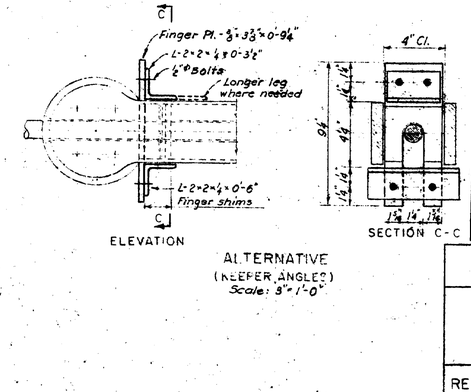
Design C.U. Chk. A.W.
Drawn R.T. C.U.
Engineer in Charge

136.16









Sheet No. 7208-28

NOTES

1. Prior to placing plates on stiffening girders straighten flange angles as far as practicable. Use of moderate heat is permitted.
2. Existing flange splice plate shall be removed and then replaced after placing of cover plates.
3. In the new material holes shown ✚ shall be drilled in shop; holes shown ✓ to be drilled in the field through holes in the girder after bolts or rivets have been removed.
4. For bill of material see Sheet 4.
5. For other notes see Sheet 1.
6. Top flange of west girder in South Side Span shown. East girder in South Side Span similar. Girders in the North Side Span do not have repair splice plates and a maximum bolt spacing of 6" should be used throughout the interval shown. Holes to clear web stiffeners as indicated. (1)

Revision	By	Ckd	Date
(1)	C.U.	G.A.	5-22-72

STATE HIGHWAY COMMISSION
BRIDGE DIVISION — AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REPAIRS AND IMPROVEMENTS OF SUSPENDED SPANS

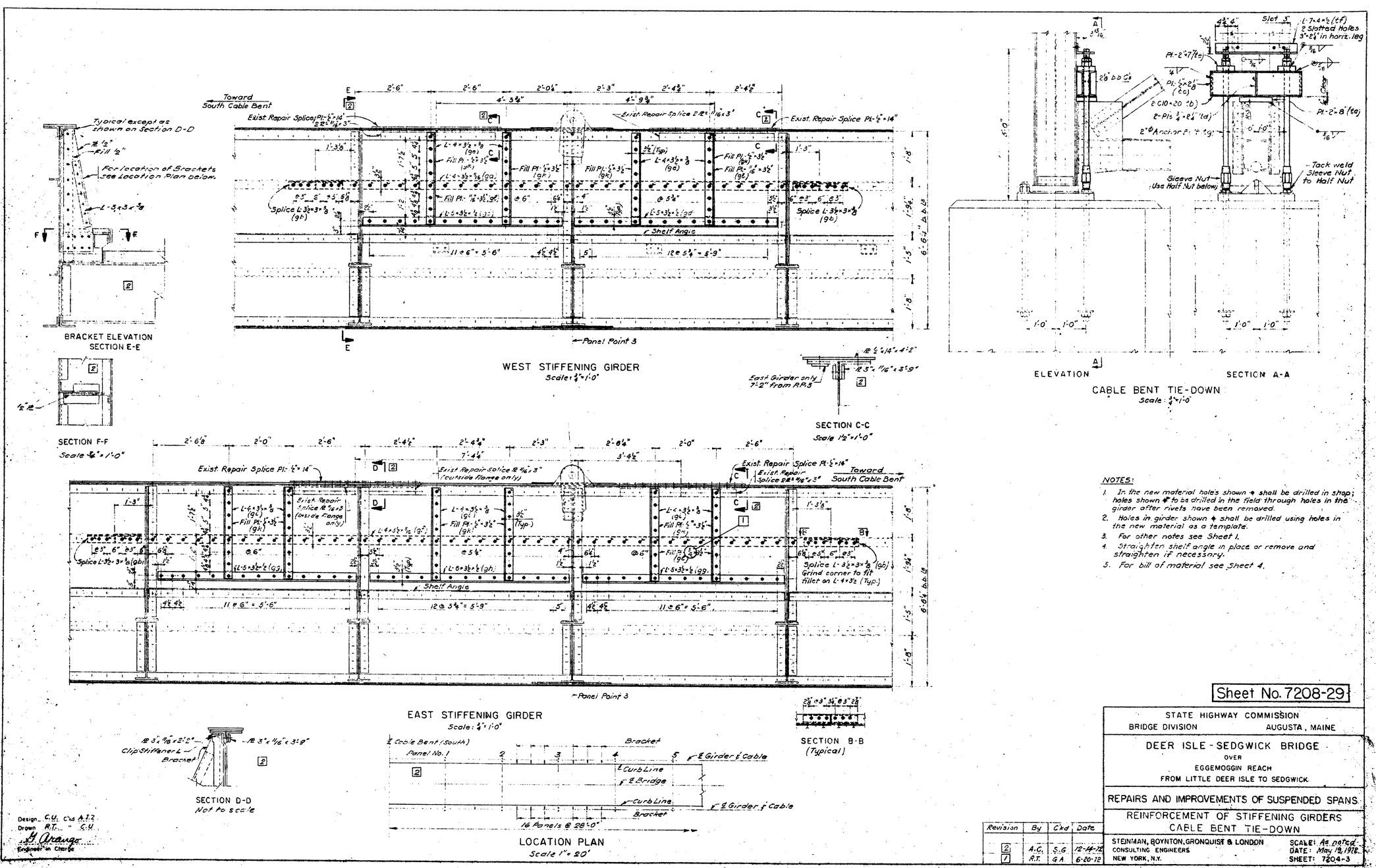
STIFFENING GIRDER COVER PLATES

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

SCALE: As noted
DATE: May 19, 1972
SHEET: 7208-28

Design A.W. Ckd. C.U.
Drawn R.T. S.G.
H. Arango
Engineer in Charge

736:11



NOTES:

1. In the new material holes shown ✦ shall be drilled in shop; holes shown ✦ to be drilled in the field through holes in the girder after rivets have been removed.
2. Holes in girder shown ✦ shall be drilled using holes in the new material as a template.
3. For other notes see Sheet 1.
4. Straighten shelf angle in place or remove and straighten if necessary.
5. For bill of material see Sheet 4.

Sheet No. 7208-29

STATE HIGHWAY COMMISSION
BRIDGE DIVISION — AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REPAIRS AND IMPROVEMENTS OF SUSPENDED SPANS

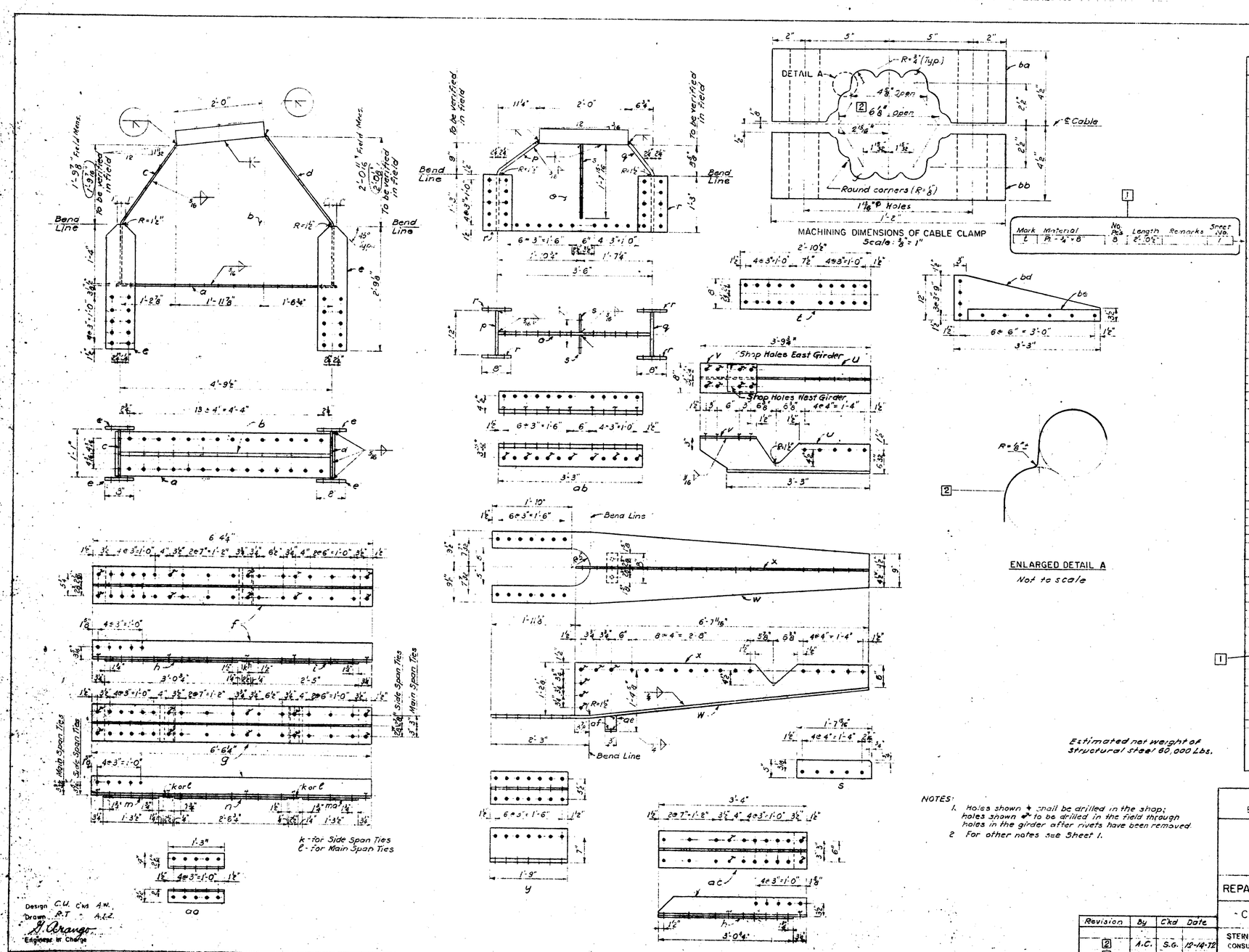
REINFORCEMENT OF STIFFENING GIRDERS
CABLE BENT TIE-DOWN

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

SCALE: As noted
DATE: May 19, 1972
SHEET: 7204-3

Revision	By	Ck'd	Date
2	A.G.	S.G.	12-14-72
1	R.T.	G.A.	6-20-72

136.18



Estimated net weight of Structural steel 80,000 Lbs.

NOTES:

1. Holes shown ✦ shall be drilled in the shop; holes shown ✧ to be drilled in the field through holes in the girder after rivets have been removed.
2. For other notes see Sheet 1.

BILL OF MATERIAL

Mark	Material	No. Pcs	Length	Remarks	Sheet No.
a	Pl. - 1/2" × 12"	4	5'-0"		1
b	Pl. - 3/8" × 40 1/8"	4	4'-9"	Dim. to be verified in field	
c	Pl. - 1/2" × 13" (Bent)	4	3'-6"		
d	Pl. - 1/2" × 13" (Bent)	4	3'-11"		
e	Pl. - 3/4" × 8"	16	2'-9 1/8"		
f	WT 5 × 30	8	6'-4 1/2"		
h	Fill Pl. - 1/2" × 10"	8	3'-0 1/4"		
i	" Pl. - 1/2" × 10"	8	2'-5"		
g	WT 5 × 30	8	6'-4 1/2"		
m	Fill Pl. - 1/2" × 10"	8	1'-3 1/2"		
n	" Pl. - 1/2" × 10"	8	2'-6 3/4"		
ma	" Pl. - 1/2" × 10"	8	1'-3 1/2"		
k	" Pl. - 3/8" × 2 1/2"	24	0'-10"		
aa	L - 4 × 3 1/2 × 3/8	32	1'-3"		1
o	Pl. - 3/8" × 21 1/8"	2	3'-5 1/8"	Dim. to be verified in field	1
p	Pl. - 3/4" × 12" (Bent)	2	2'-5"		
q	Pl. - 3/4" × 12" (Bent)	2	2'-2"		
r	Pl. - 3/4" × 8"	8	1'-3		
s	Pl. - 1/2" × 5"	4	1'-7 15/16"		
ab	L - 6 × 6 × 1/2	4	3'-3"		
u	WT 9 × 25	2	3'-9 1/4"		
v	Pl. - 1/2" × 8"	2	1'-3"		
w	Pl. - 3/4" × 19" (Bent)	2	8'-7"		
x	Pl. - 2" × 14 3/4"	2	6'-7 15/16"		
ae	Pl. - 1/2" × 3"	2	0'-3 15/16"	Cut to fit	
af	Pl. - 1/2" × 3"	2	0'-8"		
y	WT 9 × 42.5	4	1'-9"		
ac	WT 5 × 30	4	3'-6"		
h	Fill Pl. - 1/2" × 10"	4	3'-0 1/4"		
g	WT 5 × 30	4	6'-4 1/2"		
m	Fill Pl. - 1/2" × 10"	4	1'-3 1/2"		
n	" Pl. - 1/2" × 10"	4	2'-6 3/4"		
ma	" Pl. - 1/2" × 10"	4	1'-3 1/2"		
ℓ	" Pl. - 3/8" × 2 1/2"	8	0'-10"		
aa	L - 4 × 3 1/2 × 3/8	16	1'-3"		1
ba	Pl. 4 5/8" × 14"	6	2'-0"		1
bb	Pl. 4" × 14"	6	2'-0"		1
bc	1 1/8" Φ Bolt	48	1'-0"	A354, Grade BD	1
bd	Pl. 5/8" × 18"	142	3'-3"	Cut to Fit	1
be	Fill Pl. 1/2" × 3"	42	2'-11 1/2"		1
co	Pl. - 1/2" × 12 1/2"	4	56'-3"		2
cb	" "	8	10'-10 1/8"		
cc	" "	4	12'-9 15/16"		
cd	" "	4	12'-9 15/16"		
ce	" "	4	12'-9 15/16"		
cf	" "	4	10'-9 15/16"		
cg	" "	4	33'-11 3/8"		
ch	" "	4	37'-6 15/16"		
ci	" "	4	37'-6 15/16"		
ck	Spl. Pl. 1/2" × 12 1/2"	60	2'-10"		
cℓ	Pl. 1/2" × 4 1/2"	12	1'-4"		
cm	Pl. - 1/2" × 4"	12	1'-10"		
cn	Pl. - 3/8" × 4"	12	0'-10"		2
ga	L - 4 × 3 1/2 × 3/8	1	16'-6 1/2"		3
gb	Spl. L 3 1/2 × 3 × 3/8	4	1'-9"		
gc	L - 5 × 3 1/2 × 1/2	1	6'-7"		
gd	L - 5 × 3 1/2 × 1/2	1	6'-7"		
ge	L - 4 × 3 1/2 × 3/8	1	3'-0 1/2"		
gf	L - 4 × 3 1/2 × 5/16	1	13'-6 1/2"		
gg	L 5 × 3 1/2 × 1/2	8	6'-7"		
gh	L 5 × 3 1/2 × 1/2	1	6'-7"		
gi	L - 4 × 3 1/2 × 3/8	6	3'-0 1/2"		
gk	Fill Pl. - 1/2" × 3 1/2"	10	2'-6 1/2"		
gℓ	Fill Pl. - 1/2" × 3 1/2"	4	2'-3 1/2"		3
ta	Pl. - 2" × 8"	4	1'-1"		3
tb	C 10 × 20	8	3'-0"		
tc	Pl. - 1/2" × 2 1/8"	8	0'-10"		
td	Pl. - 3/8" × 2 1/4"	8	0'-8"	Cut to Fit	
te	Pl. - 2" × 7"	8	0'-7"		
tf	L - 2 × 2 × 1/2	8	0'-8"		
tg	2" Φ Anchor Bolt	8	4'-3 1/2"	1/2" - Hex. Hd. Nut, Half Nut & Sleeve Nut.	3
ka	Pl. - 3/8" × 2"	5	0'-7"	Width of Plate and No. of Pieces to be determined in field	2
"	Pl. - 3/8" × 3"	5	0'-7"		2
"	Pl. - 3/8" × 4"	5	0'-7"		
kb	3/4" Φ Bolts	30	0'-3 1/4"	A325	
	3/4" H.S. Bolts	7000			

Sheet No. 7208-30

STATE HIGHWAY COMMISSION
BRIDGE DIVISION — AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REPAIRS AND IMPROVEMENTS OF SUSPENDED SPANS

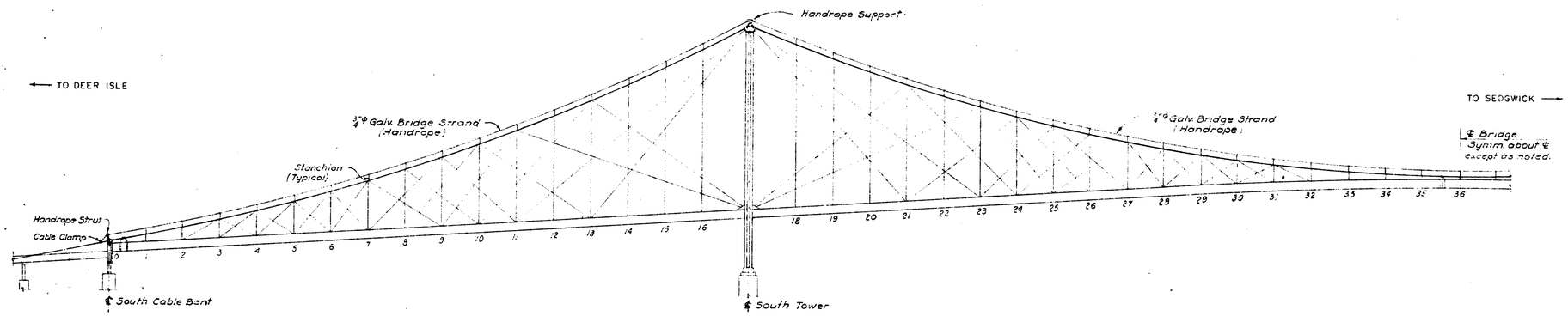
CABLE TIE DETAILS & BILL OF MATERIAL

Revision	By	Ckd	Date
2	A.C.	S.G.	12-14-72
1	R.T.	G.A.	6-20-72

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

SCALE: 1" = 0 & 3/8" = 1"
DATE: May 15, 1972
SHEET: 7204-4

136:19



HALF ELEVATION
Scale: 1" = 40'

Sheet No. 7208-31

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

IMPROVEMENT OF SUSPENDED SPANS

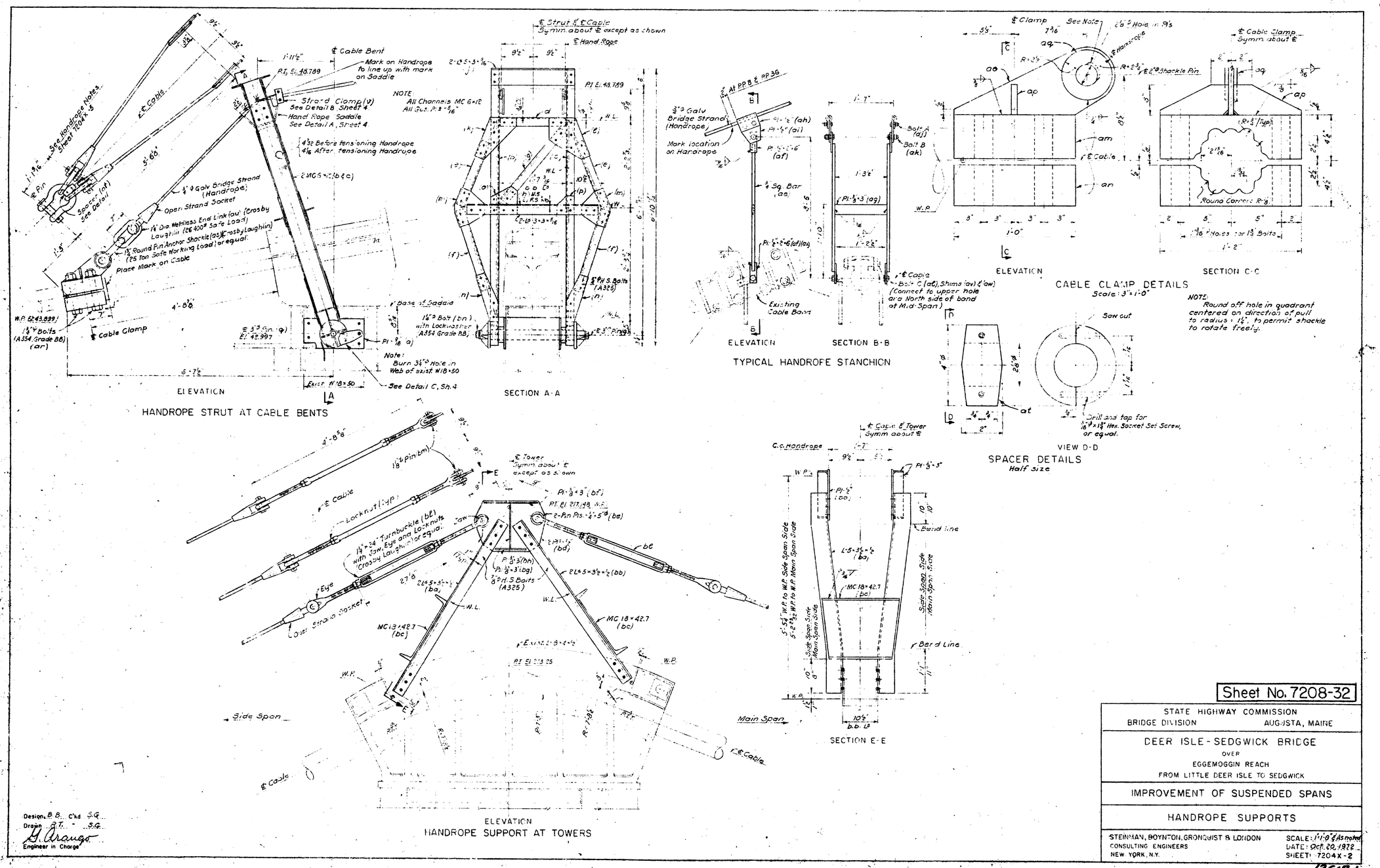
ELEVATION - HANDROPES

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

SCALE: As noted
DATE: Oct. 20, 1972
SHEET: 7204X-1

Design ..... C'kd .....
Drawn R.T. " S.G.
G. Arango
Engineer in Charge

136:20



Sheet No. 7208-32

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

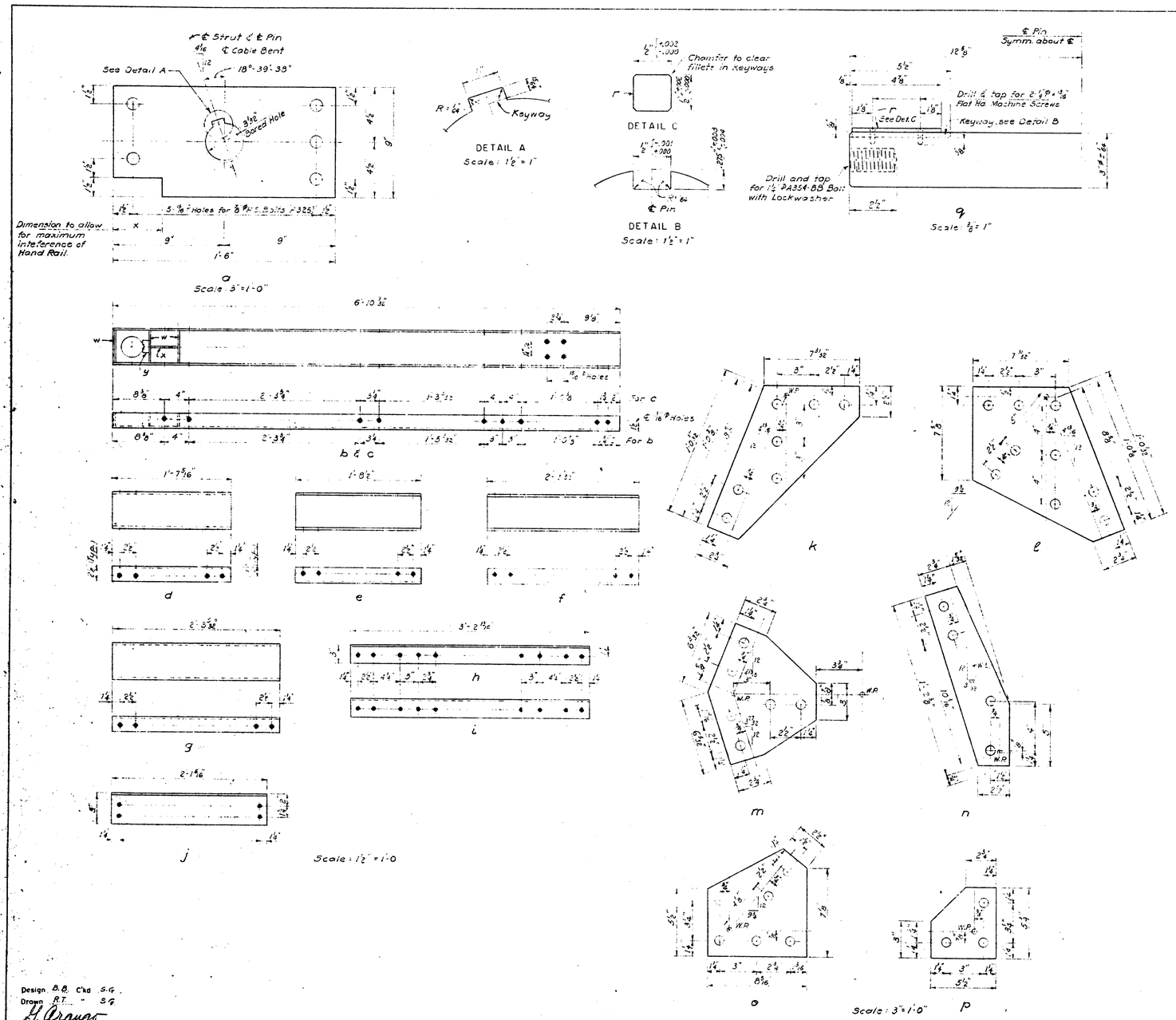
IMPROVEMENT OF SUSPENDED SPANS

HANDROPE SUPPORTS

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

SCALE: 1'-0" & As noted
DATE: Oct. 20, 1972
SHEET: 7204X-2

136:21



All Holes 3/16" ⌀ except as noted.

Sheet No. 7208-33

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

IMPROVEMENT OF SUSPENDED SPANS

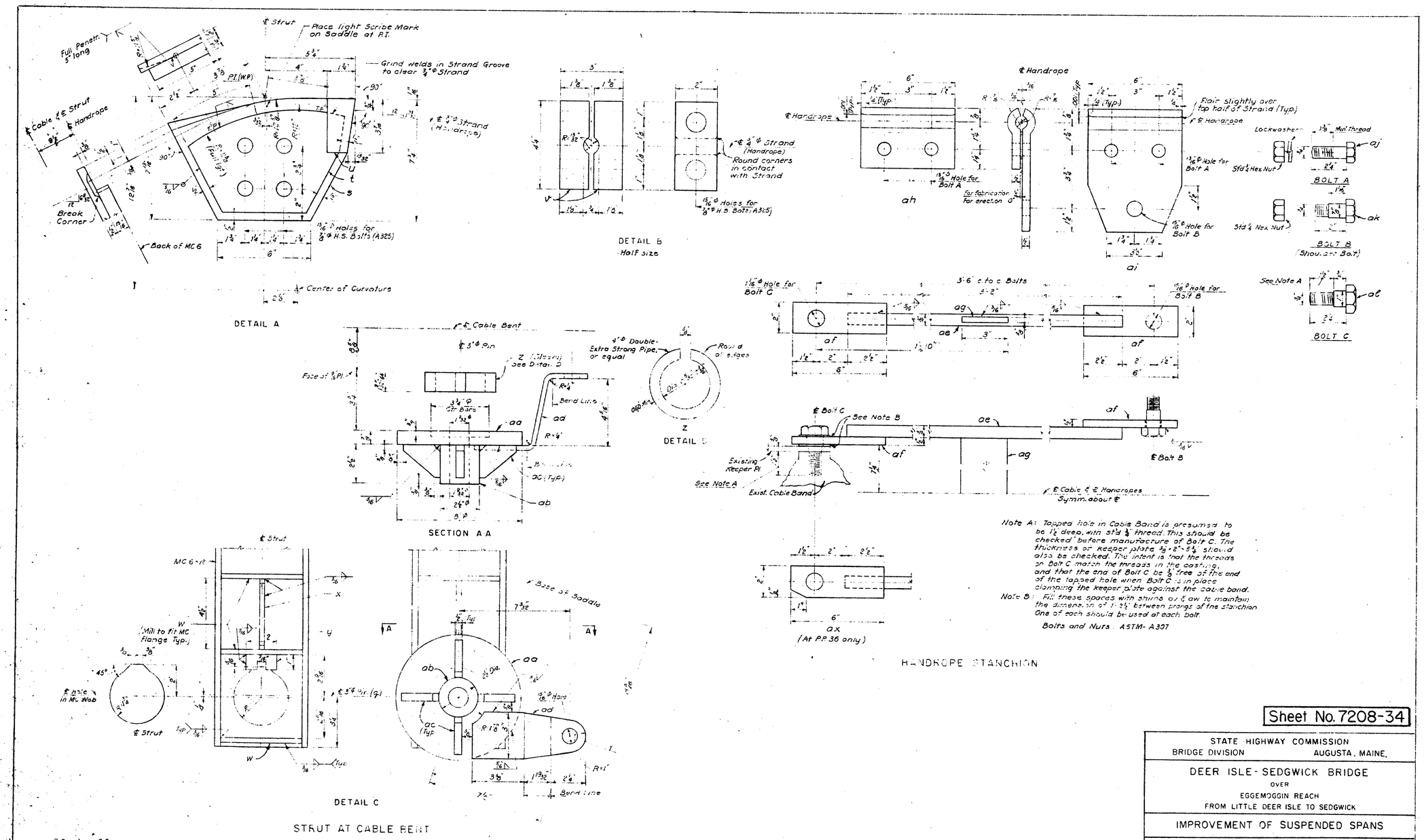
HANDROPE STRUT DETAILS AT CABLE BENT

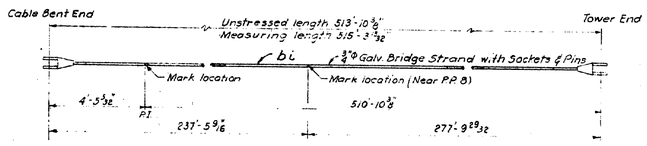
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As noted
DATE: Oct. 20, 1932.
SHEET: 7204X - 3

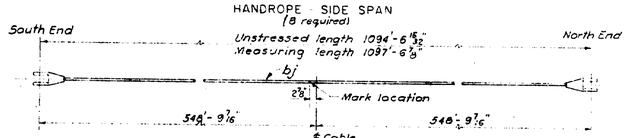
Design B.B. C'kd S.G.
Drawn R.T. " S.G.
G. Arango
Engineer in Charge

136:22


DETAIL A
DETAIL B
Half size
DETAIL C
STRUT AT CABLE BENT
SECTION A-A
DETAIL D
HANDROPE STANCHION
BOLT A
BOLT B
BOLT C
Note A: Tapped hole in Cable Band is presumed to be 1½" deep, with std ¾" thread. This should be checked before manufacture of Bolt C. The thickness of keeper plate ⅜"×2"×5¾" should also be checked. The intent is that the threads on Bolt C match the threads in the casting, and that the end of Bolt C be ⅛" free of the end of the tapped hole when Bolt C is in place clamping the keeper plate against the cable band.
Note B: Fill these spaces with shims or ⅝" av. to maintain the dimension of 1'-2½" between prongs of the stanchion. One of each should be used at each bolt.
Bolts and Nuts: ASTM-A307
Sheet No. 7208-34
STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE.
DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
IMPROVEMENT OF SUSPENDED SPANS
HANDROPE STRUT & STANCHION DETAILS
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.
SCALE: ⅜" = 1"
DATE: Oct. 20, 1972
SHEET: 7204X-4
Design B.A. C'kd S.G.
Drawn R.T. S.G.
G. Arango
Engineer in Charge
136-23



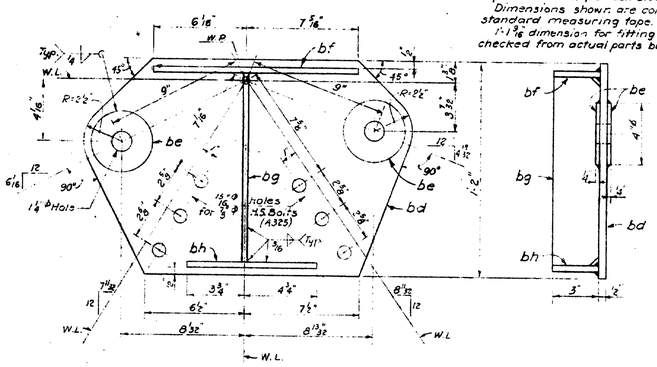
HANDROPE - SIDE SPAN
(8 required)



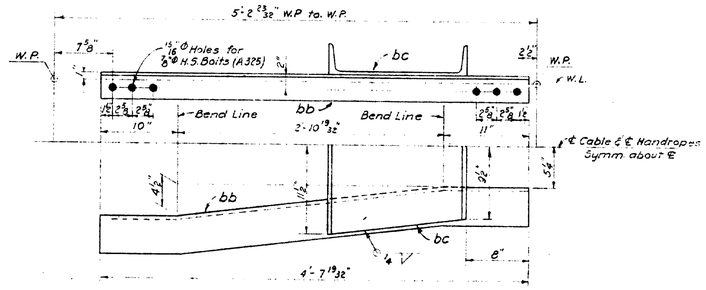
HANDROPE - MAIN SPAN
(4 required)
Not to Scale

Notes:

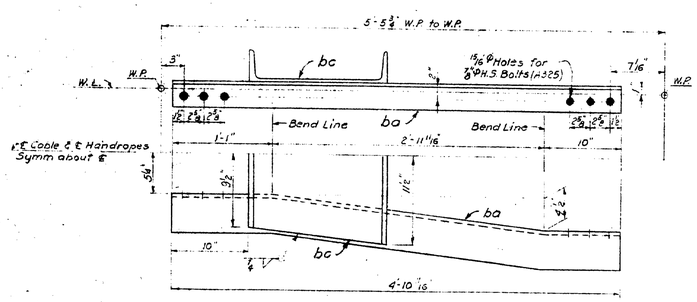
Measuring Tension in shop = 21,365 lbs.
Marks on Handrope to be placed on measured length. Mark with light scribe on zinc coating and cover with tape. Paint 1" stripe each side of scribe mark.
Dimensions shown are corrected for 68°F standard measuring tape.
1'-1 3/16" dimension for fittings at Cable Clamp to be checked from actual parts before cutting Strands.



Scale: 3"=1'-0"



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



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

Design B.B. Ck'd S.G.
Drawn R.T. " S.G.
G. Arango
Engineer in Charge

BILL OF MATERIAL

Mark	Material	No. Pc's	Length	Remarks	Sheet No.
a	Pl. 9/16" × 9"	8	1'-6"		3
b	MC 6 × 12	4	8'-10 9/32"		
c	" "	4	6'-10 9/32"		
d	" "	4	1'-7 5/16"		
e	" "	8	1'-8 1/2"		
f	" "	8	2'-1 1/32"		
g	" "	4	2'-3 5/32"		
h	L 3 × 3 × 5/16	4	3'-2 13/32"		
i	L 3 × 3 × 5/16	4	3'-0 3/16"		
j	L 5 × 3 × 5/16	8	2'-1 5/16"		
k	Pl. 5/16" × 6 1/2"	8	1'-3"		
l	Pl. 5/16" × 10 1/2"	8	1'-3"		
m	Pl. 5/16" × 9 9/16"	16	0'-2 5/8"		
n	Pl. 5/16" × 3 15/16"	16	1'-3 3/8"		
o	Pl. 5/16" × 8 5/16"	8	0'-8 11/16"		
p	Pl. 5/16" × 5 1/2"	8	0'-5 3/4"		
q	Bar 3" φ	4	2'-1 1/4"	Pin	
r	Bar 1/4" × 1/2"	4	0'-4 1/8"	Key	3
s	Pl. 1/2" × 7 1/2"	8	1'-0 1/16"		4
t	Pl. 11/16" × 6 1/2"	8	0'-10 1/16"		
u	Pl. 2" × 1 3/4"	8	0'-3 7/16"		
v	Pl. 1 3/4" × 2"	16	0'-4 1/4"		
w	Pl. 5/8" × 2 3/16"	24	0'-3 11/16"	Cut to fit	
x	Pl. 5/16" × 2 3/16"	8	0'-4 1/2"		
y	Pl. 1" × 8"	8	0'-2 1/16"	Trunnion Block	
z	4" φ Pipe	8	0'-1 5/16"	Double Extra Strong Steel	
aa	Pl. 3/8" × 8	8	0'-8"		
ab	Bar 2 1/2" φ	8	0'-2 1/2"		
ac	Pl. 1/2" × 8 1/8"	32	0'-2 3/4"		
ad	Pl. 5/8" × 3"	8	0'-10 3/8"	Bend	
ae	Bar 3/4" □	276	3'-2"	Hot-dip galv.	
af	Pl. 1/2" × 2"	548	0'-6"	"	
ag	Pl. 3/8" × 3"	138	1'-3 1/2"	"	
ah	Pl. 1/2" × 3 1/2"	276	0'-9"	"	
ai	Pl. 1/2" × 7 1/2"	276	0'-6"	"	
aj	3/4"φ Bolt	552	0'-2 1/4"	With Hex Hd Nut & Lockwasher H.D.G.	
ak	1 1/8"φ Shoulder Bolt	276	0'-2"	With Hex. Hd. Nut H.D.G.	1
al	1"φ " "	276	0'-2 1/4"	" " H.D.G.	4
am	Pl. 4 1/2" × 12"	4	1'-2"	Cable Clamp	2
an	Pl. 4" × 12"	4	1'-2"	"	
ao	Pl. 1/2" × 6"	4	1'-4 1/4"	"	
ap	Pl. 1/2" × 3"	8	0'-6 3/4"	"	
aq	Pl. 3/8" × 5"	8	0'-5"	"	
ar	1 1/2"φ Bolt (Hex. Hd.)	16	1'-0"	A354, Grade BB	
as	1 1/2"φ Round Pin Anchor Shackle	4			
at	Bar 4"φ	4	0'-2"	Spacer	
au	1 1/4" Dia. End Link	8			2
av	Shim 1/4" × 2 1/4" or 2" × 2"	276			4
aw	Shim 1/8" × 2 1/4" or 2" × 2"	276			
ax	Pl. 1/2" × 2"	4	0'-6"	At P.P. 36 Hot-dip galv.	5
ba	L 5 × 3 1/2 × 1/2	8	4'-...		5
bb	L 5 × 3 1/2 × 1/2	8	4'-7 15/16"		
bc	MC 18 × 42.7	8	1'-11"		
bd	Pl. 1/2" × 14"	8	1'-9 1/2"		
be	Pl. 1/4" × 4"	32	0'-2 1/2"		
bf	Pl. 3/8" × 3"	8	1'-1 3/8"		
bg	Pl. 1/8" × 3"	8	1'-0 3/4"		
bh	Pl. 1/2" × 3"	8	0'-6 1/2"		
bi	3/8"φ Bridge Strand	8	See Detail	With Sockets & Pins (See Spans)	1
bj	3/8"φ Bridge Strand	4	See Detail	Main Span	5
bk	1 1/4"-24 Turnbuckle	16		With Eye, Jaw & Locknuts	2
bm	1 1/4"φ Pin	16			2
bn	1 1/4"φ Bolt & Lockwasher	8	0'-5 1/2"	A354, Grade BB	2
	3/8"φ Hex. Socket Set Screw	15	0'-1 1/4"		
	3/8"φ Flat Hd. Mach. Screw	6	0'-3/4"		2
	3/8"φ H.S. Bolts	395	0'-2"	A325	2
	3/8" " "	100	0'-2 1/2"		
	" " "	35	0'-2 3/4"		
	" " "	10	0'-3"		
	" " "	35	0'-3 1/2"		
	" " "	20	0'-4 1/2"		

Estimated Net Weight of Structural Steel - 14,200 Lbs.
(Not Included 3/8"φ Strands, Sockets & Pins)

Sheet No. 7208-35

STATE HIGHWAY COMMISSION
BRIDGE DIVISION — AUGUSTA, MAINE

DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

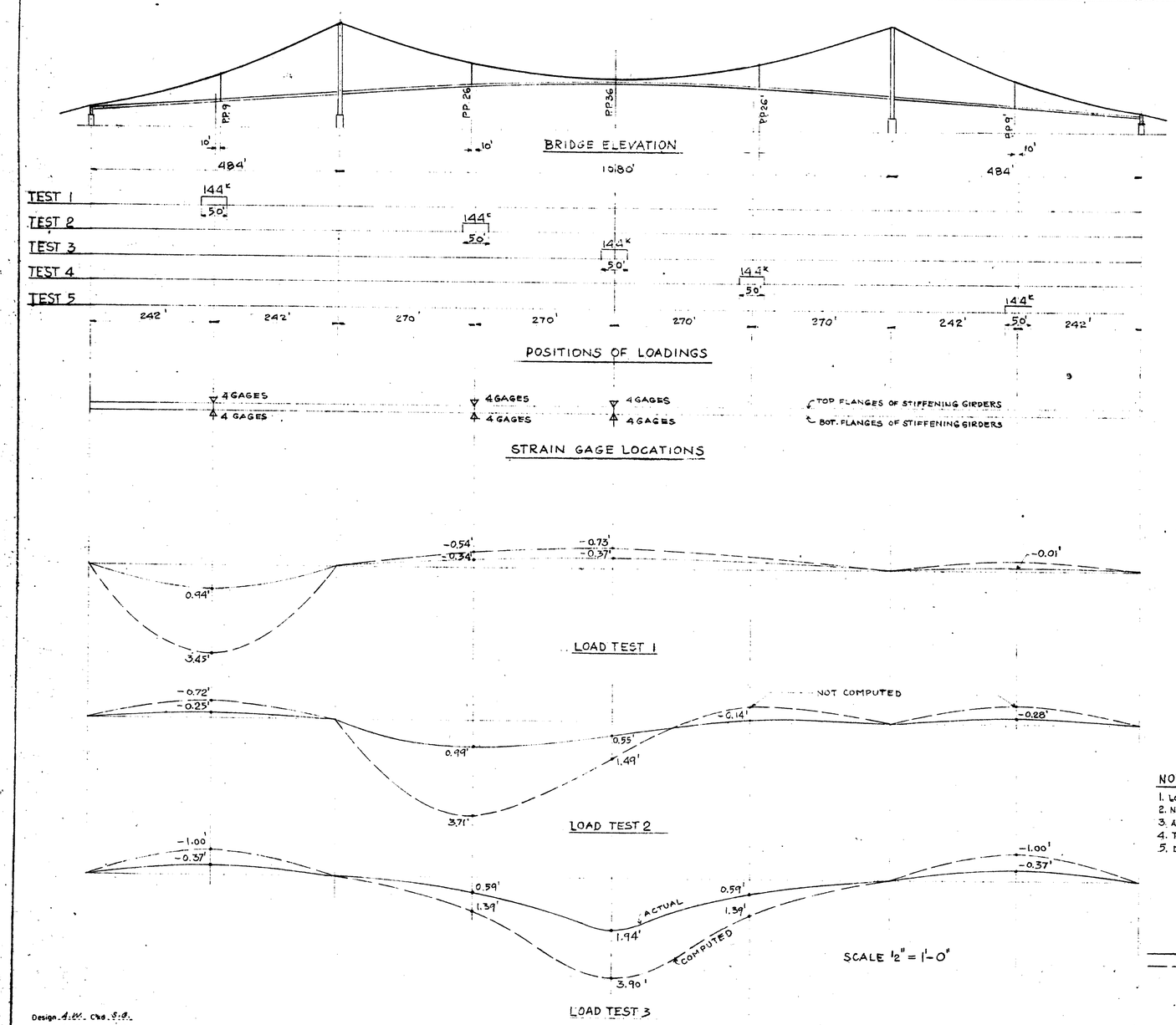
IMPROVEMENT OF SUSPENDED SPANS

HANDROPE SUPPORT DETAILS AT TOWER AND BILL OF MATERIAL

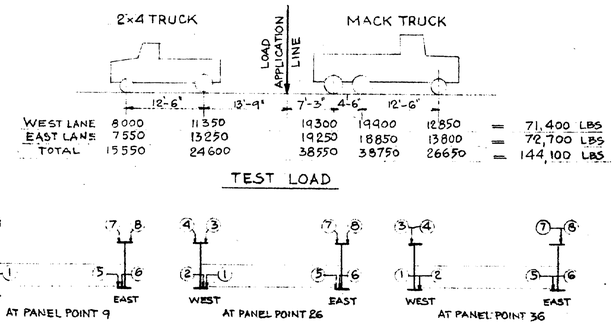
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As noted
DATE: Oct 20, 1972
SHEET 7204X-5

136-24



Design A.N. Chd. S.B.
Drawn A.N. " S.B.
B. Arango
Engineer in Charge



STRESS TABLE

	GAGE / GIRDER		AT PANEL POINT 9 WEST	AT PANEL POINT 9 EAST	AT PANEL POINT 26 WEST	AT PANEL POINT 26 EAST	AT PANEL POINT 36 WEST	AT PANEL POINT 36 EAST	REMARKS
TEST 1	TOP f_T	psi	-2,436	-3,161	+1,726	+116			SEE NOTE 2
	BOT. f_B	psi	+3,947	+3,530	+1,535	+116			
	$\frac{1}{2}(f_T+f_B)$	psi	±3,192	±3,346	± 96	0			
	AXIAL f_a	psi	+ 755	+ 184	±1,631	+116			
	MOMENT	fk	+ 384	+ 413	- 13	0			
	AXIAL FORCE	k	+46.4	+11.3	+111.2	+7.9			
	COMPUTED f_T	psi	-19,700	-19,700	- 400	- 400	- 500	- 500	SEE NOTE 3
TEST 2	TOP f_T	psi	+ 334	+ 145	-3,422	-4,031			SEE NOTE 2
	BOT f_B	psi	- 150	- 280	+5,581	+4,604			
	$\frac{1}{2}(f_T+f_B)$	psi	± 242	± 213	±4,501	±4,318			
	AXIAL f_a	psi	+ 92	- 67	-1,080	+ 286			
	MOMENT	fk	- 29	- 26	+ 621	+ 596			
	AXIAL FORCE	k	+ 1.8	- 4.1	+ 73.6	+ 19.5			
	COMPUTED f_T	psi	-2,200	-2,200	-16,500	-16,500	-1,800	-1,800	SEE NOTE 3
TEST 3	TOP f_T	psi	+ 346	+ 377	+ 870	+ 957	-12,950	-13,935	
	BOT f_B	psi	- 501	- 355	- 1,039	- 1,070	+15,452	+14,643	
	$\frac{1}{2}(f_T+f_B)$	psi	± 425	± 366	± 955	± 1,013	-14,179	±14,289	
	AXIAL f_a	psi	- 76	+ 11	- 84	- 57	+1,273	+ 354	
	MOMENT	fk	- 51	- 44	- 132	- 139	+1,839	+1,853	
	AXIAL FORCE	k	- 4.7	+ 0.7	- 5.7	- 3.9	+ 87.3	+ 24.3	
	COMPUTED f_T	psi	-3,200	-3,200	-2,600	-2,600	-16,500	-16,500	SEE NOTE 3
TEST 4	TOP f_T	psi	+ 240	+ 145	+669	+669	- 58	- 44	
	BOT f_B	psi	- 120	- 104	- 449	- 566	+1,234	+1,042	
	$\frac{1}{2}(f_T+f_B)$	psi	± 205	± 125	± 529	± 587	± 645	± 543	
	AXIAL	psi	+ 85	+ 21	+ 81	+ 21	+ 587	+ 499	
	MOMENT	fk	- 25	- 15	- 73	- 81	+ 84	+ 70	
	AXIAL FORCE	k	+ 5.2	+ 1.3	+5.5	+ 1.4	+ 40.3	+ 34.2	
	COMPUTED f_T	psi							NOT COMPUTED
TEST 5	TOP f_T	psi	± 116	+ 116	- 145	- 29	+ 638	+ 783	
	BOT f_B	psi	- 1	- 1	- 28	0	-1,063	- 816	
	$\frac{1}{2}(f_T+f_B)$	psi	± 59	± 59	± 59	± 15	± 850	± 799	
	AXIAL	psi	+ 58	+ 58	- 87	- 15	- 213	- 17	
	MOMENT	fk	- 7	- 7	+ 8	+ 2	- 110	- 164	
	AXIAL FORCE	k	+ 3.6	+3.6	- 5.9	- 1.0	- 146	- 1.2	
	COMPUTED f_T	psi							NOT COMPUTED

NOTES

1. LOAD TESTS WERE CARRIED OUT ON AUGUST 18, 1972.
2. NO RELIABLE STRAIN GAGE READINGS WERE OBTAINED FOR TESTS 1 AND 2 AT P.P. 36.
3. ALL COMPUTED STRESSES AND DEFORMATIONS ARE FOR SUSPENSION BRIDGE WITHOUT DIAGONAL STAYS.
4. THE STRAIN GAGES USED ARE OF THE SR4 TYPE.
5. DETAILS OF THE TESTS ARE CONTAINED IN THE COMPUTATIONS RECORDS.

——— MEASURED DEFLECTIONS
— — — COMPUTED DEFLECTIONS (SEE NOTE 3)

Sheet No. 7208-36

STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE

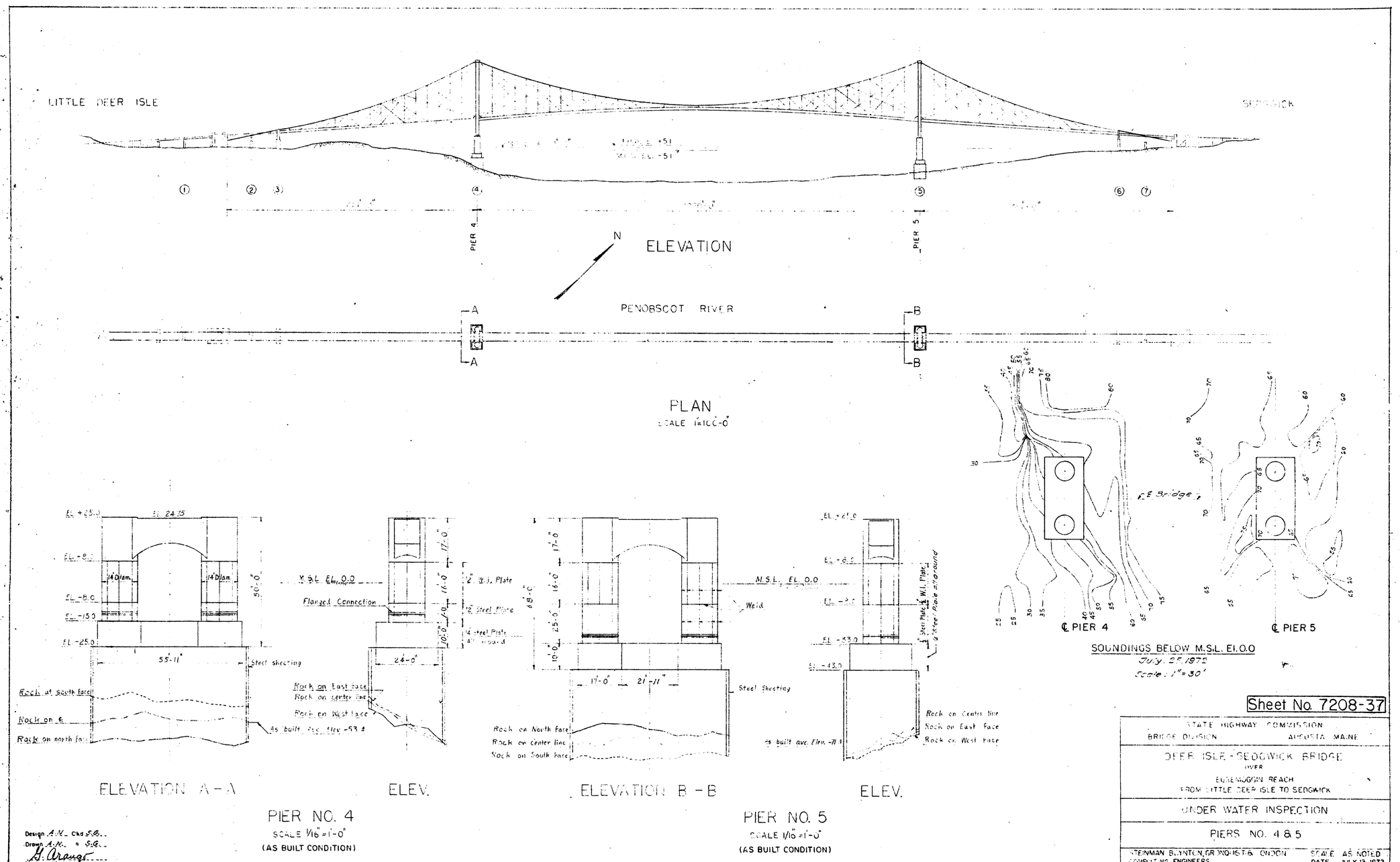
DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

LOAD TEST RECORDS

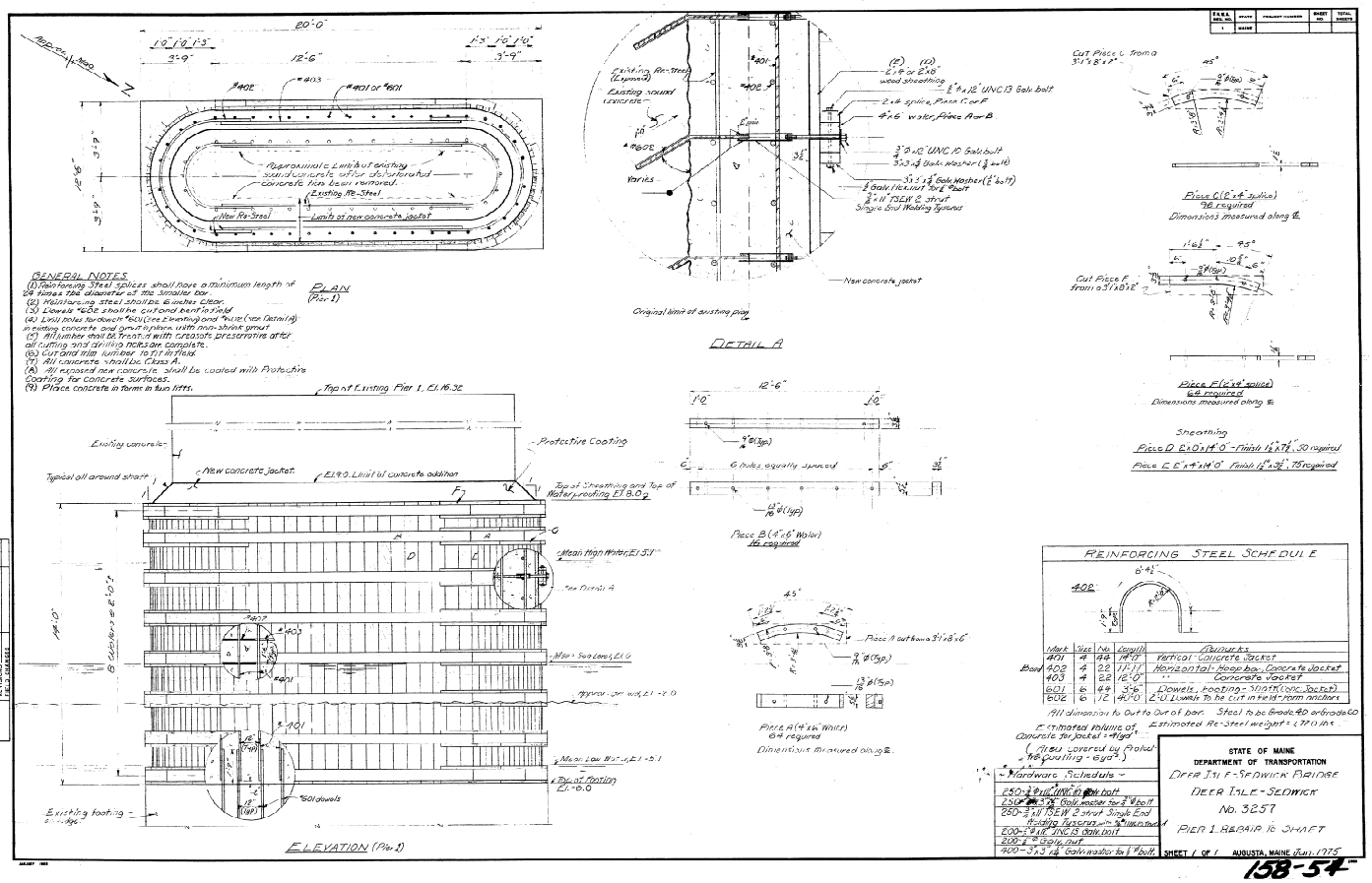
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As Noted
DATE: Feb. 2, 1973
SHEET: 1

136:25


LITTLE DEER ISLE
SEDGWICK
PIER 4
PIER 5
ELEVATION
N
PENOBSCOT RIVER
A
B
PLAN
SCALE 1"=100'-0"
EL +25.0
EL 24.75
14 Diam.
EL -8.0
EL -15.0
EL -25.0
50'-0"
55'-11"
Steel Sheeting
Rock at South face
Rock on ℄
Rock on north face
ELEVATION A-A
M.S.L. EL. 0.0
Flanged Connection
2" W.I. Plate
1/2" Steel Plate
1/4" steel Plate
17'-0"
16'-0"
10'-0"
24'-0"
Rock on East face
Rock on center line
Rock on West face
As built Ave. Elev. -53.4
ELEV.
68'-0"
25'-0"
17'-0"
21'-11"
Weld
Rock on North face
Rock on center line
Rock on South face
ELEVATION B-B
EL -33.0
EL -43.0
3/4" Steel Plate & W.I. Plate
3/4" Steel Plate all around
As built ave. Elev. -71.4
Rock on Center line
Rock on East Face
Rock on West Face
ELEV.
PIER NO. 4
SCALE 1/16"=1'-0"
(AS BUILT CONDITION)
PIER NO. 5
SCALE 1/16"=1'-0"
(AS BUILT CONDITION)
℄ PIER 4
℄ PIER 5
SOUNDINGS BELOW M.S.L. El. 0.0
July 25 1972
Scale: 1"=30'
Design A.N. Chk S.G.
Drawn A.N. " S.G.
Engineer in Charge
Sheet No. 7208-37
STATE HIGHWAY COMMISSION
BRIDGE DIVISION AUGUSTA, MAINE
DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK
UNDER WATER INSPECTION
PIERS NO. 4 & 5
STEINMAN, BOYNTON, GRONQUIST & LONDON
CONSULTING ENGINEERS
NEW YORK, N.Y.
SCALE AS NOTED
DATE JULY 13 1972
SHEET 1

136:26


PLAN (Pier 1)
Approximate Limit of existing sound concrete after deteriorated concrete has been removed.
(Existing RR Steel)
New Re-Steel
Limits of new concrete jacket
DETAIL A
Existing Re-Steel (Exposed)
Existing sound concrete
Varies
New concrete jacket
Original limit of existing pier
Cut Piece C from a 3"x8"x8'
Piece C (2"x4" Splice) 96 required
Dimensions measured along ℄
Cut Piece F from a 3"x8"x8'
Piece F (6"x4" splice) 68 required
Dimensions measured along ℄
Sheathing
Piece D 2"x10"x14'-0" finish 1½"x7¼" 30 required
Piece E 2"x4"x14'-0" finish 1½"x3½" 75 required
Piece B (4"x6" Waler) 16 required
Piece A (4"x6" Waler) 64 required
Dimensions measured along ℄
ELEVATION (Pier 1)
Typical all around shaft
Existing concrete
Protective Coating
New concrete jacket
Mean High Water, El. 5.1'
Mean Sea Level, El. 0
Approx. Low Water, El. -2.0
Mean Low Water, El. -5.1
Top of footing El. -8.0
Existing footing
#601 dowels
REINFORCING STEEL SCHEDULE
Mark Size No. Length Remarks
401 4 44 14'-0" Vertical - Concrete Jacket
402 4 22 11'-11" Horizontal - Hoop ba. - Concrete Jacket
403 4 22 12'-0" " " Concrete Jacket
601 6 44 3'-6" Dowels, footing - 5 in Pt. (conc. Jacket)
602 6 12 4'-0" 2'-0" U bars to be cut in field - form anchors
All dimension to out to out of bar. Steel to be Grade 40 or Grade 60
Estimated volume of Concrete for Jacket = 41 yd³
Estimated Re-Steel weight = 2770 lbs
(Also covered by Pedestal Footing - 6 yd³)
Hardware Schedule
250-¾" x 16" UNC 13 Galv. bolt
250-¾" x 3" Galv. washer for ¾" bolt
250-3"x11" TSEW 2 strut Single End Holding Turnbuckle with ¾" U bolts instead
200-¾" x 12" UNC 13 Galv. bolt
200-¾" Galv. nut
400-3"x3"x¼" Galv. washer for ¾" bolt
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DEER ISLE-SEDGWICK BRIDGE
DEER ISLE-SEDWICK
No. 3257
PIER 1 REPAIR TO SHAFT
SHEET 1 OF 1
AUGUSTA, MAINE JUN. 1975
158-54

F.H.W.A. REGN. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK
HANCOCK COUNTY

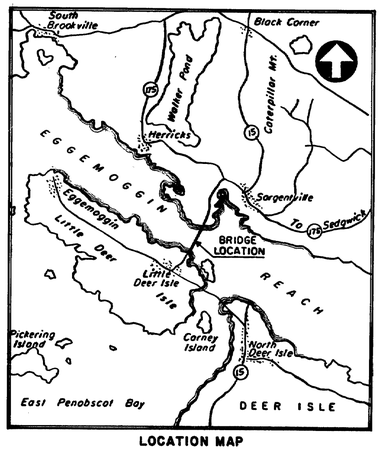
REHABILITATION

DEER ISLE - SEDGWICK
BRIDGE
OVER
EGGEMOGGIN REACH

MAINE FEDERAL AID PROJECT
PROJECT NO. BH-0250(11) A

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES
3	GENERAL NOTES
4	GENERAL PLAN AND ELEVATION
5	TOWER AND CABLE BENT
6	EXISTING STAY CONNECTIONS AT TOWER
7	EXISTING STAY CONNECTIONS
8	DETAILS OF EXISTING STAY CONNECTIONS
9	HANDROPES, SUSPENDERS AND CABLE DETAILS
10	HANDROPE SUPPORTS
11	DETAIL FOR HANDROPE SUPPORTS
12	TEMPORARY SUPPORTS AT SUSPENDERS
13	NEW BEARINGS AT TOWERS
14	REPAIRS TO SOUTH ANCHORAGE
15	REPAIRS TO NORTH ANCHORAGE
16	REPAIRS TO PIER NO. 4 AND PIER NO. 5
17	CROSS SECTIONS AND DECK DETAILS
18	NOTES FOR HANDROPES, STAYS AND PAINTING
HIGHWAY STANDARD DETAILS	
19	MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONE
20	MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONE
21	MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONE
22	AUGUST 1969 (11) BARRICADES, WARNING SIGNS, MONUMENTS, PROJECT MARKERS, REV. 3-25-7
23	AUGUST 1969 (12) FIELD OFFICES, ETC. REV. 3-16-73



LOCATION MAP

½ 0 1 2 MILES
SCALE

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 Jr.
GASTON ARANGO, MAINE P.E. No. 3001

STATE OF MAINE
GASTON ARANGO
3001
REGISTERED PROFESSIONAL ENGINEER

TRAFFIC DATA

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

APPROVED:
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION — DATE
COMMISSIONER

BUREAU DIRECTOR AND CHIEF ENGINEER

R94-1

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ADMINISTRATOR — DATE

F.A.S.S.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
502.65	Structural Concrete - South Anchorage Repairs	1	L.S.
502.651	Structural Concrete - Pier Repairs,		
	Piers 4 and 5	1	L.S.
502.652	Structural Concrete - North Anchorage Repairs	1	L.S.
503.12	Reinforcing Steel, Fabricated and Delivered	21,000	Lbs.
503.13	Reinforcing Steel, Placing	21,000	Lbs.
504.650	Structural Steel - Tower Bearings,		
	Fabricated and Delivered	1	L.S.
504.651	Structural Steel - Tower Bearings,		
	Erection	1	L.S.
504.652	Structural Steel - Repairs at Towers,		
	Fabricated and Delivered	1	L.S.
504.653	Structural Steel - Repairs at Towers,		
	Erection	1	L.S.
504.654	Structural Steel - Hand Rope Supports,		
	Fabricated and Delivered	1	L.S.
504.655	Structural Steel - Hand Rope Supports		
	Erection	1	L.S.
506.142	Field Painting, Existing Structural Steel	1	L.S.
506.16	Surface Preparation of Existing Structural Steel	12,000	Manhour
519.01	Tensioning of Stays	1	L.S.
528.61	Stay-in-Place Timber Forms	1	L.S.
602.011	1⅛ inch diameter Suspenders with Sockets,		
	Fabricated, Primed and Delivered	7	Each
602.021	1⅛ inch diameter Suspenders with Sockets,		
	Erection	7	Each
602.04	¾ inch diameter Hand Ropes with Sockets and		
	Fittings, Fabricated, Primed and Delivered	1	L.S.
602.05	¾ inch diameter Hand Ropes with Sockets		
	and Fittings, Erection	1	L.S.

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

R94-2

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

ESTIMATED QUANTITIES

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

SCALE: NONE
DATE: Jan. 29, 1982
SHEET: 2

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

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

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: ALL CONCRETE 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 1/8" DIAMETER TO BE USED FOR THE NEW SUSPENDERS SHALL CONFORM TO A.S.T.M. - A603, CLASS A ZINC COATING.

STRUCTURAL GALVANIZED BRIDGE STRAND, 3/4" DIAMETER TO BE USED FOR THE NEW HAND ROPES SHALL CONFORM TO A.S.T.M. - A586, CLASS A ZINC COATING.

THE BRIDGE ROPE SHALL BE FURNISHED WITH WIRE ROPE SOCKETS AND THE BRIDGE STRAND WITH STRAND SOCKETS.

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.

ERECTION

ERECTION PROCEDURES AND SEQUENCES OF FIELD WORK FOR THE REPLACEMENT OF SUSPENDERS ROPES 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.

WHERE REPAIRS TO EXISTING CONCRETE ARE REQUIRED ALL LOOSE MATERIAL SHALL BE REMOVED AND EXPOSED REINFORCING BARS SHALL BE CLEANED BY WIRE BRUSH OR SANDBLASTING. THE CONCRETE SURFACES SHALL BE CLEANED BY COMPRESSED AIR BEFORE REPAIRS ARE MADE.

DATUM

REFERENCE ELEVATION SHALL BE TOP OF TIE PLATE ON TOWER STRUT. DIRECTLY BENEATH THE DECK. THIS ELEVATION SHALL BE 66.0'. SEE SHEET NO. 13.

GENERAL NOTES

1. ALL DIMENSIONS OF THE EXISTING STRUCTURE AFFECTING FABRICATION AND CONSTRUCTION ARE TO BE VERIFIED BY THE CONTRACTOR IN THE FIELD.
2. EXISTING PARTS OF THE STRUCTURE WHICH ARE TO BE REPAIRED ARE TO BE CLEANED TO BARE METAL PRIOR TO INSTALLATION OF NEW MATERIAL.
3. 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.
4. SHOP DRAWINGS OF MOST OF THE EXISTING STRUCTURE ARE AVAILABLE TO THE CONTRACTOR UPON REQUEST.
5. H.S. BOLTS INSTALLED IN EXISTING RIVET HOLES SHALL HAVE THE SAME DIAMETER AS THE RIVET.
6. RIVETS SHALL BE REMOVED 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.
7. ALL OPEN BOLT OR RIVET HOLES REMAINING AFTER PRESENT OR PREVIOUS CONSTRUCTION SHALL BE FILLED WITH H.S. BOLTS.
8. PROVIDE ALL NEW H.S. BOLTS WITH HARDENED STEEL WASHERS UNDER HEAD AND NUT.
9. PROVIDE ALL CABLE BAND BOLTS WITH HARDENED WASHERS UNDER HEAD AND NUT.
10. SOME TEMPORARY RELOCATION OF THE NAVIGATION LIGHT MAY BE REQUIRED WHEN NEW SUSPENDERS ARE INSTALLED. THE CONTRACTOR SHALL INCLUDE THIS WORK IN THE LUMP SUM PRICE FOR THIS CONTRACT WORK.

Design CCU Ck'd R.A.
Drawn LTD
Engineer in Charge

R9-3

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

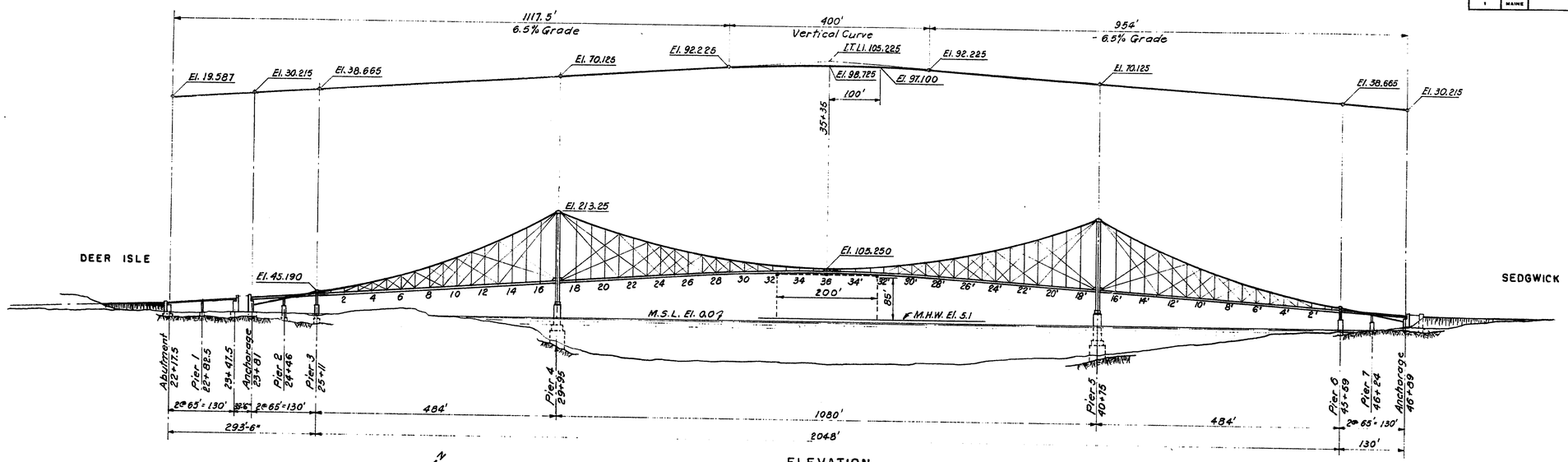
REHABILITATION OF BRIDGE

GENERAL NOTES

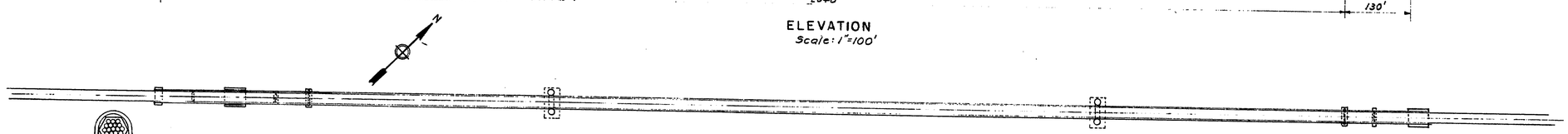
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: NONE
DATE: Jan. 28, 1982
SHEET: 3

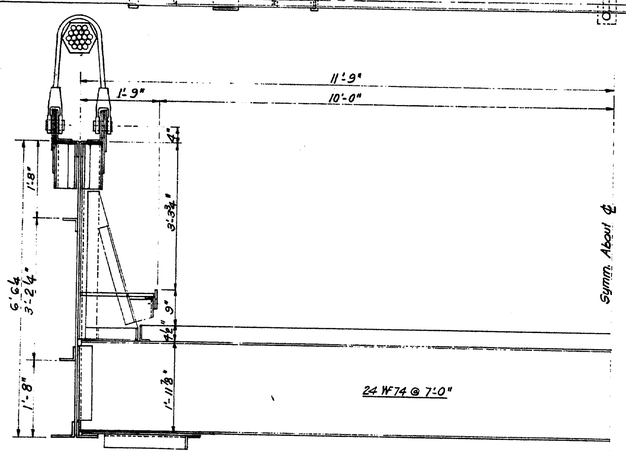
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



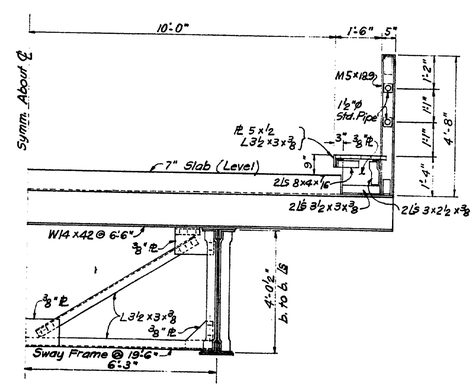
ELEVATION
Scale: 1"=100'



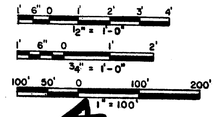
PLAN



HALF-CROSS SECTION (SUSPENDED SPANS)
Scale: 3/4"=1'-0"



HALF-CROSS SECTION (APPROACH SPANS)
Scale: 1/2"=1'-0"



NOTE:
1. For General Notes see Sheet No. 3
2. Entire Bridge to be painted under Pay Items 506.142 and 506.16. See Sht. no. 18

Design ____ Ch'd. ____
Drawn L.D. ____ M.J.G.
Engineer in Charge

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

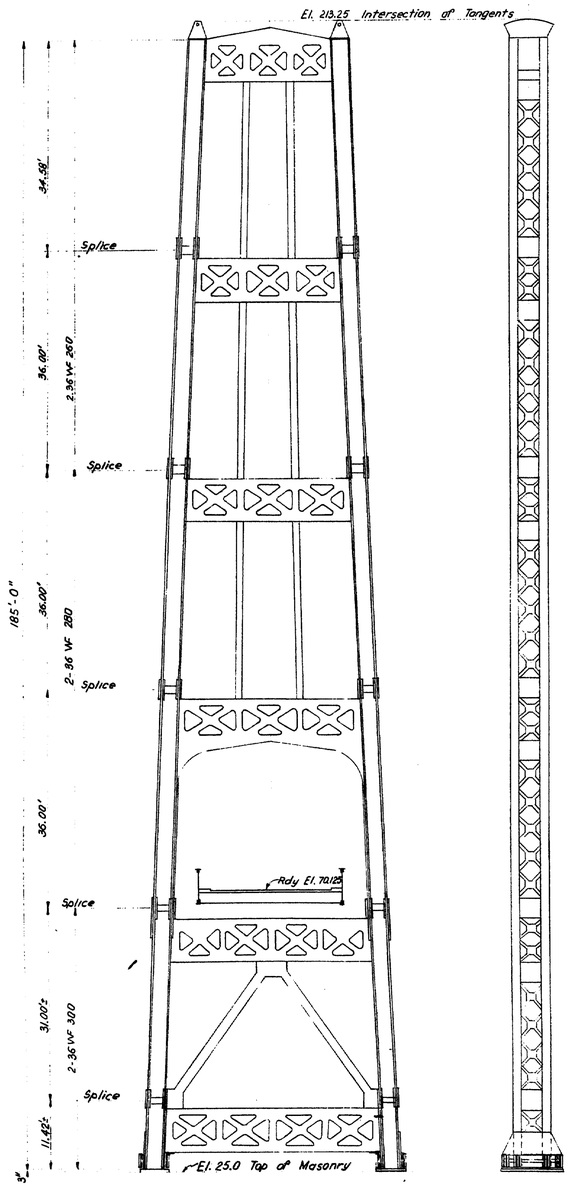
GENERAL PLAN AND ELEVATION

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

SCALE: As shown
DATE: Jan. 29, 1982
SHEET: 4

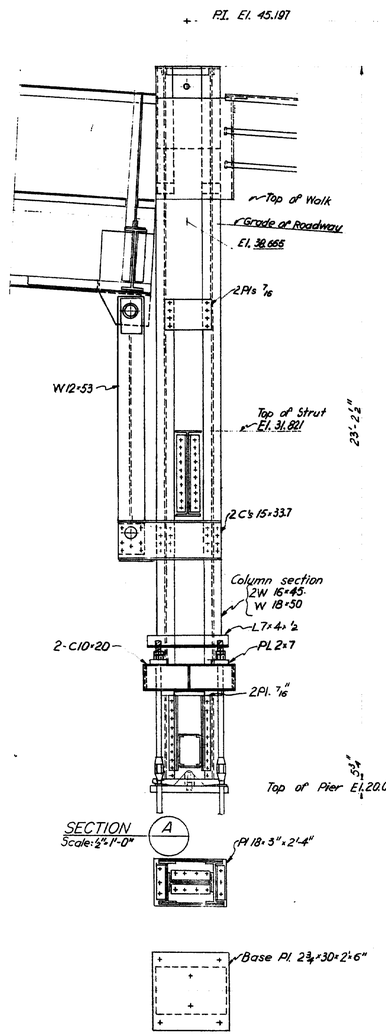
R93-4

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

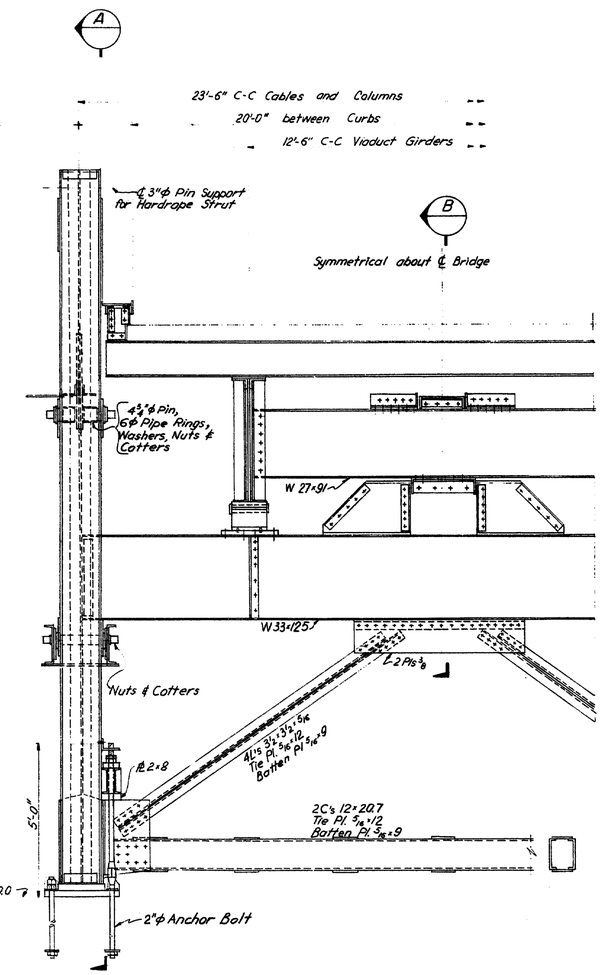


Design CK'd.
Drawn J.G. " M.T.G.
Engineer in Charge

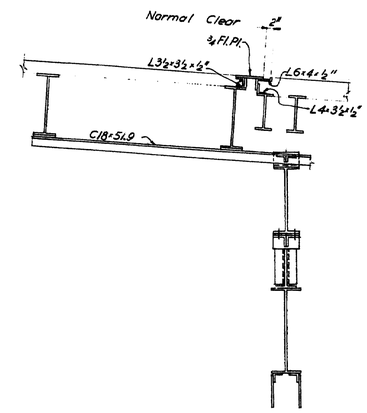
ELEVATION OF TOWER
Scale: 1" = 10'-0"



SECTION A
Scale: ½" = 1'-0"



ELEVATION OF CABLE BENT
Scale: ½" = 1'-0"



SECTION B
Scale: ½" = 1'-0"

NOTE:

1. For General Notes see Sheet No. 3
2. For Notes on painting see Sheet No. 18. Pay Items 506.142 and 506.16.

1' 6" 0 1' 2' 3' 4'
½" = 1'-0"
10' 5' 0 10' 20'
1" = 10'

R94-5 ~~R98-5~~

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

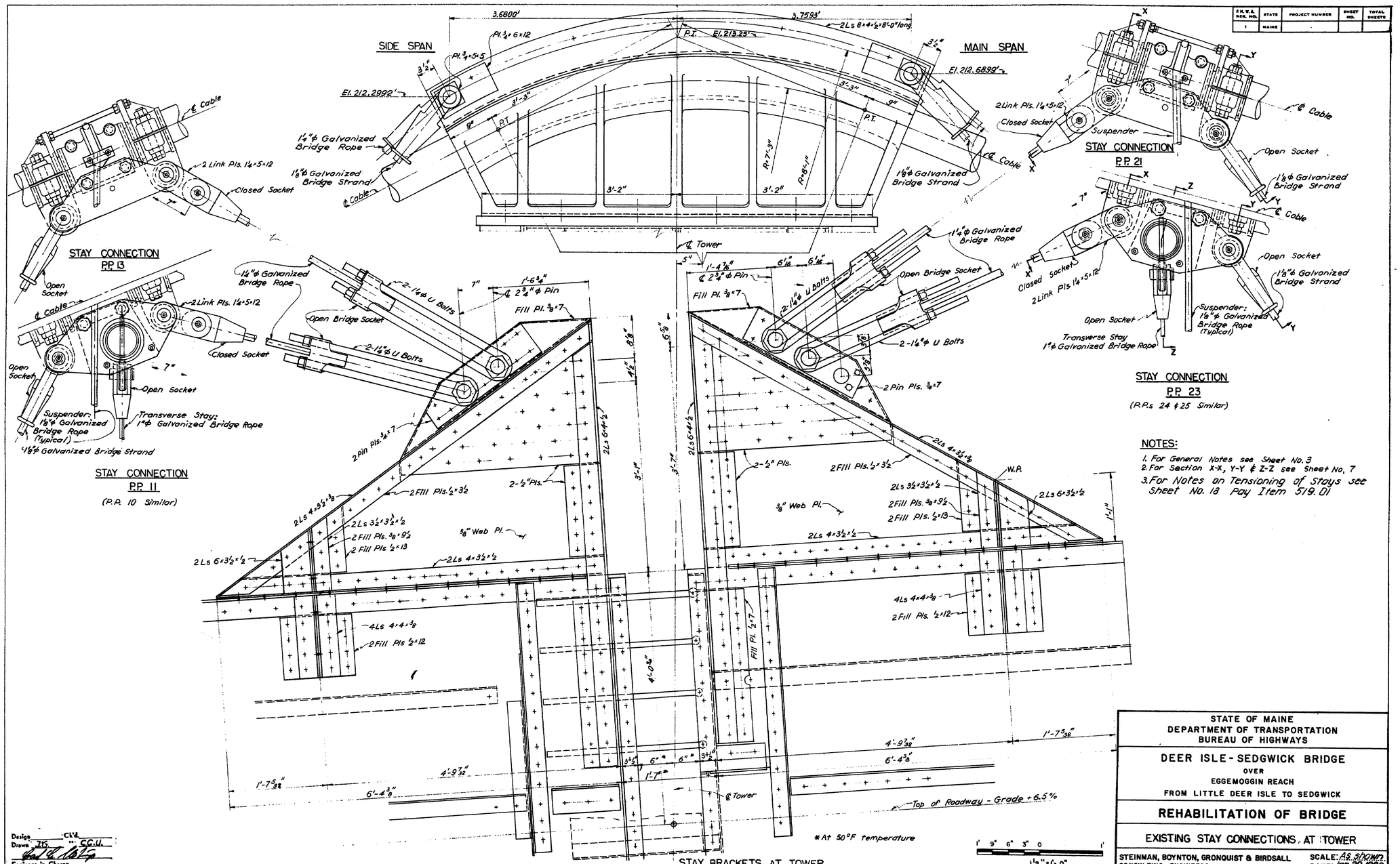
DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

TOWER AND CABLE BENT

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

SCALE: As shown
DATE: Jan. 25, 1968
SHEET: 5



NOTES:

1. For General Notes see Sheet No. 3
2. For Section X-X, Y-Y & Z-Z see Sheet No. 7
3. For Notes on Tensioning of Stays see Sheet No. 18 Pay Item 519.01

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

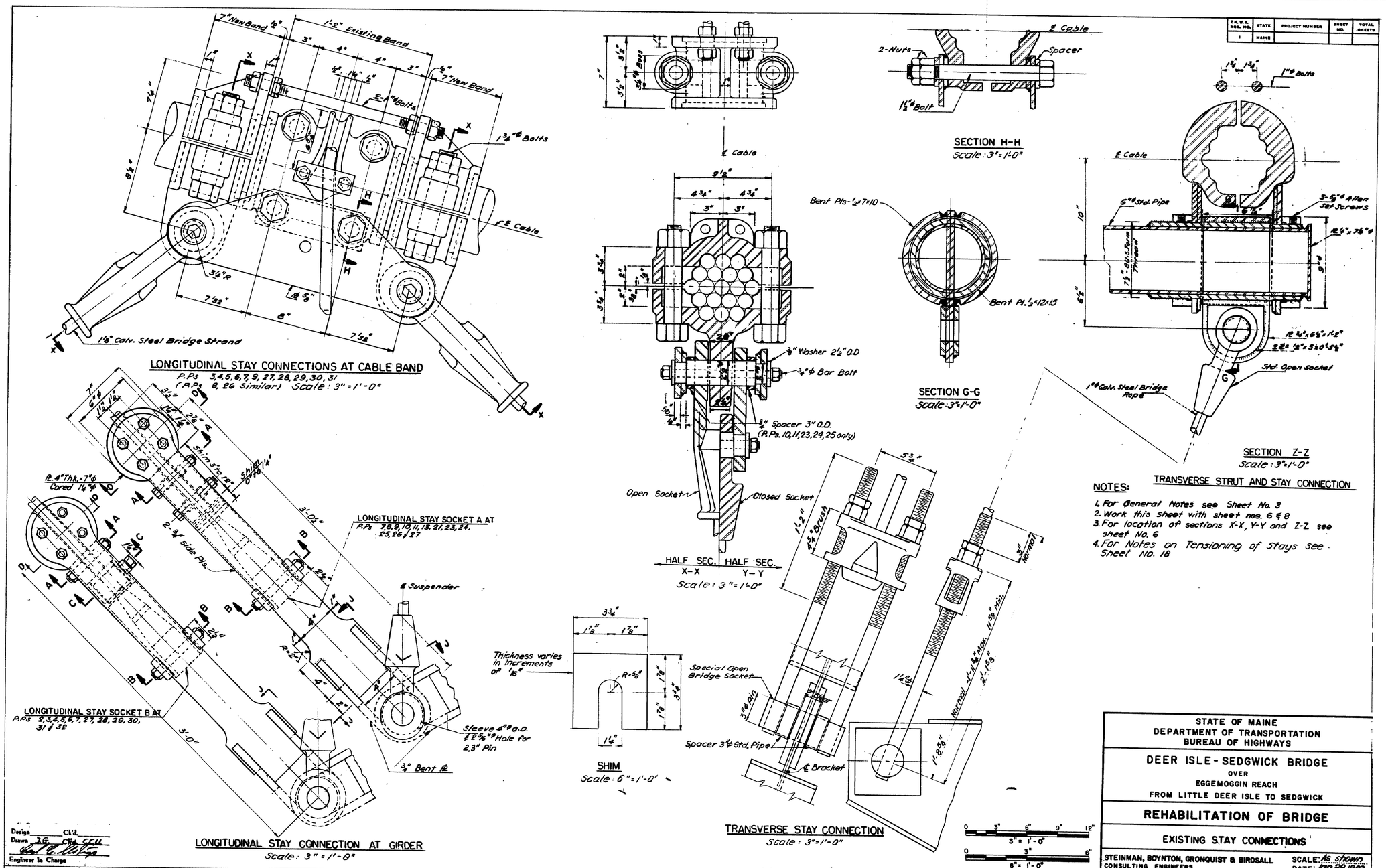
EXISTING STAY CONNECTIONS AT TOWER

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

SCALE: As shown
DATE: Jan. 29, 1982
SHEET: 6

Design ___ Ck'd. ___
Drawn J.G. ___ C.C.U.
Engineer in Charge

R94-6 ~~R93-6~~



NOTES:

1. For General Notes see Sheet No. 3
2. Work this sheet with sheet nos. 6 & 8
3. For location of sections X-X, Y-Y and Z-Z see sheet No. 6
4. For Notes on Tensioning of Stays see Sheet No. 18

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

EXISTING STAY CONNECTIONS

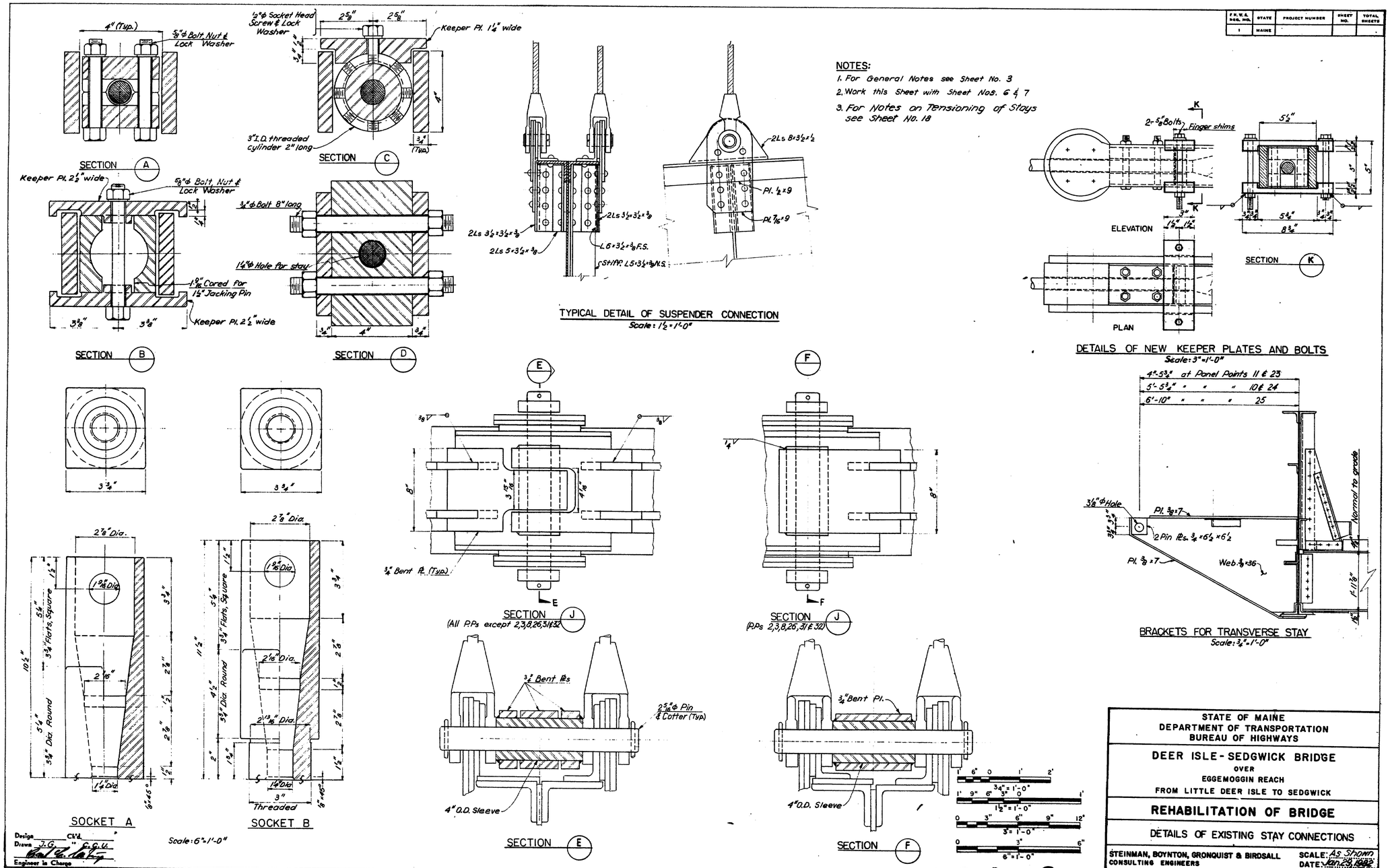
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As shown
DATE: Jan. 29, 1982
SHEET: 7

Design ____ Ck'd. ____
Drawn J.G. Ck'd. CCU
Engineer in Charge

R94-7

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

DETAILS OF EXISTING STAY CONNECTIONS

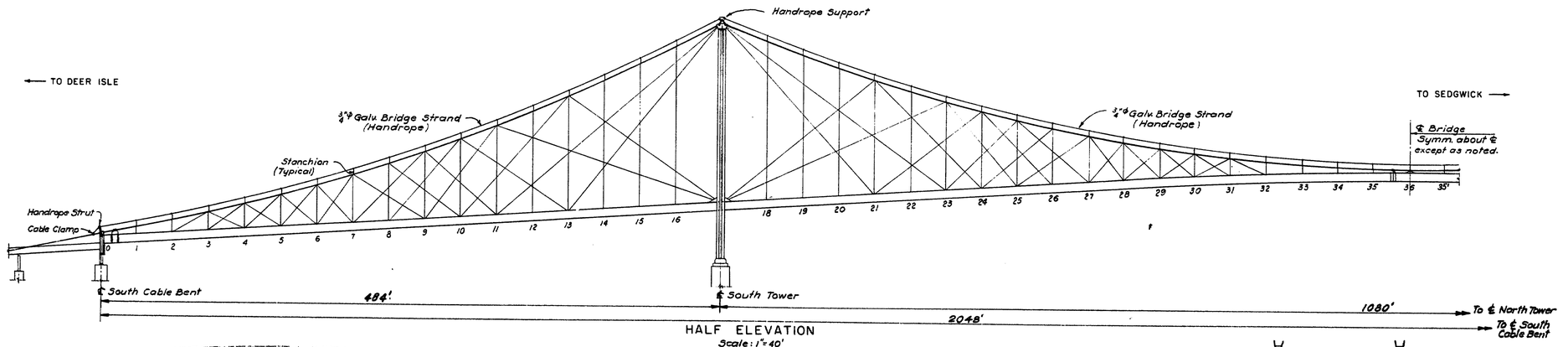
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As Shown
DATE: Jan. 24, 1933
SHEET:

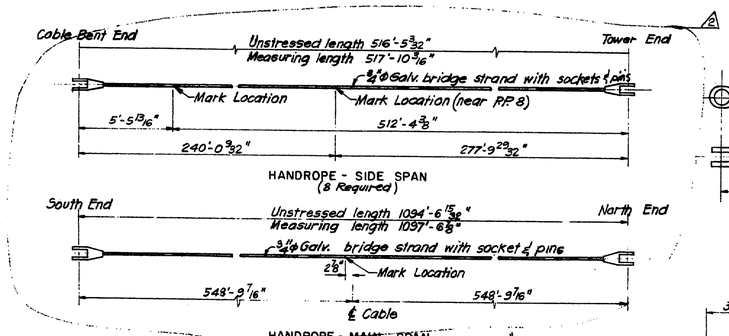
R94-8

J-J - RS-4207-2

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

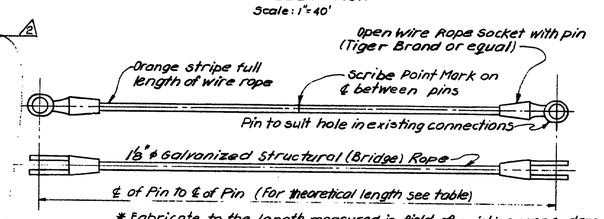


HALF ELEVATION
Scale: 1"=40'



HANDROPE - SIDE SPAN
(8 Required)

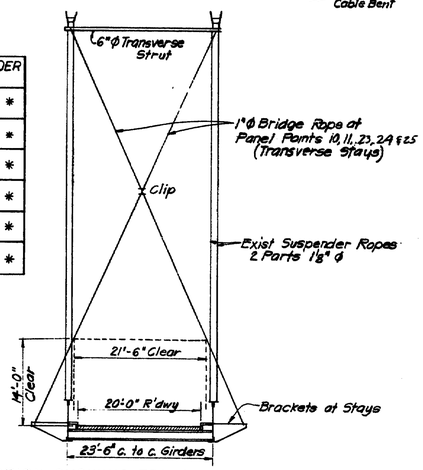
HANDROPE - ~~MAIN~~ SPAN
(4 Required)



* Fabricate to the length measured in field of existing suspenders by the Contractor and verified by the Engineer. Fabrication tolerance ±0'-1/8" after prestretching and after sockets are set. Pay Item 602.01 & 021

DETAIL OF NEW SUSPENDERS

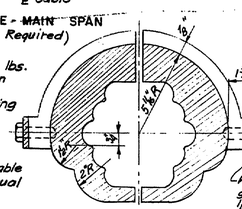
PANEL POINT	LENGTH OF SUSPENDER (THEORETICAL)	
32E	19'-2 3/8"	*
33E & W	13'-4 1/2"	*
34E	9'-2 1/2"	*
35W	6'-8 5/8"	*
36E	5'-10 5/8"	*
35'W	6'-8 1/2"	*



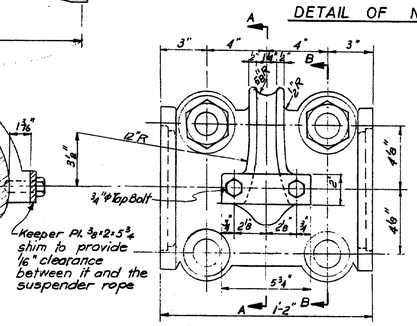
SECTION SHOWING TRANSVERSE STAYS
Scale: 1"=10'-0"

HANDROPE NOTES:

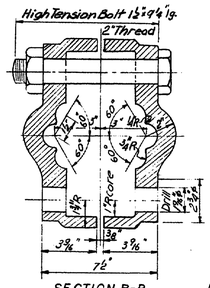
Measuring Tension in Shop = 21,365 lbs.
Mark on Handrope to be placed on measured length.
Mark with light scribe on zinc coating and cover with tape. Paint 1" stripe each side of scribe mark.
All dimensions shown should be measured with a calibrated tape
1'-1 9/16" dimension for fittings at cable clamp to be checked from actual parts before cutting strands.
Handropes sall be paid under Item 602.04 & 05



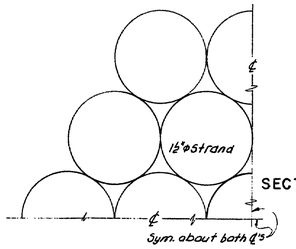
SECTION A-A
Scale 3"=1'-0"



EXISTING CABLE BAND
(Arrangement of Stay Connections not shown)
Scale: 3"=1'-0"



SECTION B-B
Scale 3"=1'-0"



QUARTER SECTION OF CABLE
Scale 12"=1'-0"

NOTE:
1. For General Notes see sheet No. 3
2. For Notes on Erection of Handropes see Sheet No. 18

DATE	BY	REV.	DESCRIPTION
12-21-82	C.C.U.	2	Handropes
11-8-82	C.C.U.	1	Handropes

REVISIONS

10' 5' 0 10' 20'
1" = 10'
40' 20' 0 40' 80'
1" = 40'
0 3" 6" 9" 12"
3" = 1'-0"
0 1" 2" 3"
12" = 1'-0"

Design B.B. Ck'd. S.G.
Drawn L.L. " M.J.G.
Engineer in Charge

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

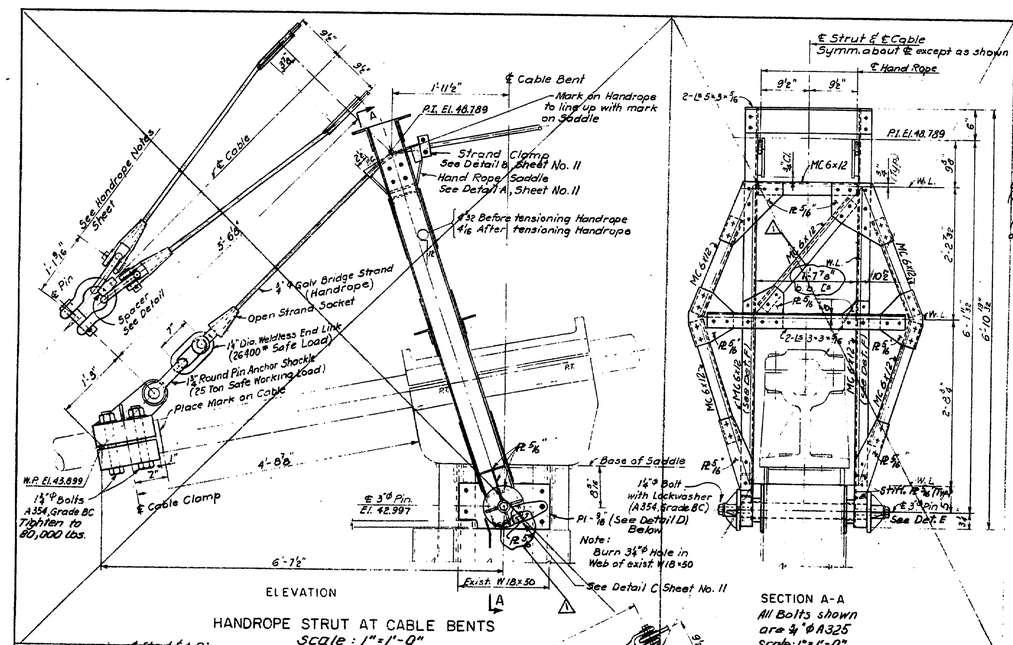
REHABILITATION OF BRIDGE

HANDROPES, SUSPENDERS & CABLE DETAILS

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

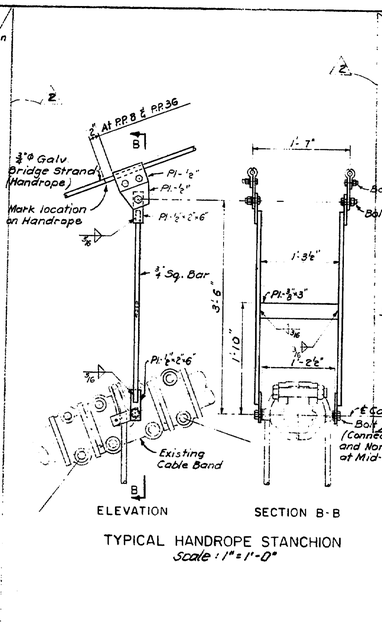
SCALE: As shown
DATE: Jan. 29, 1982
SHEET: 9

R94-9

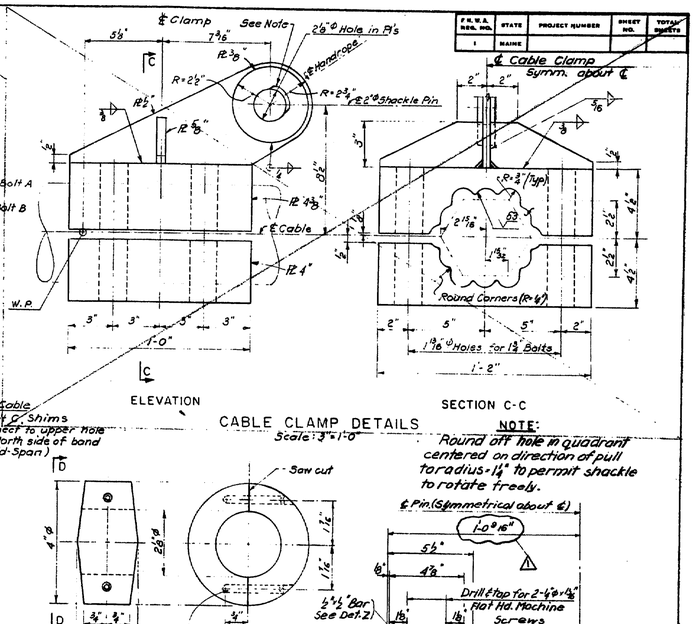


HANDROPE STRUT AT CABLE BENTS
Scale: 1" = 1'-0"

All Bolts shown are ¾"Φ A325
Scale: 1" = 1'-0"

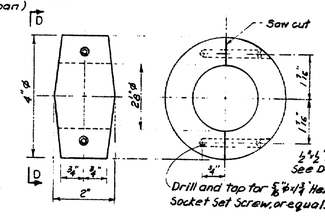


TYPICAL HANDROPE STANCHION
Scale: 1" = 1'-0"

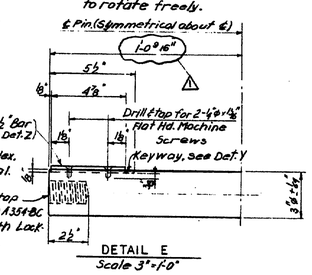


CABLE CLAMP DETAILS
Scale: 3" = 1'-0"

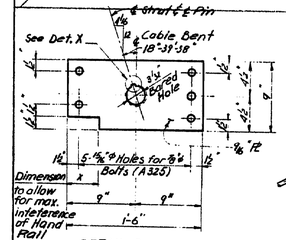
NOTE:
Round off hole in quadrant centered on direction of pull to radius = 1⅛" to permit shackle to rotate freely.



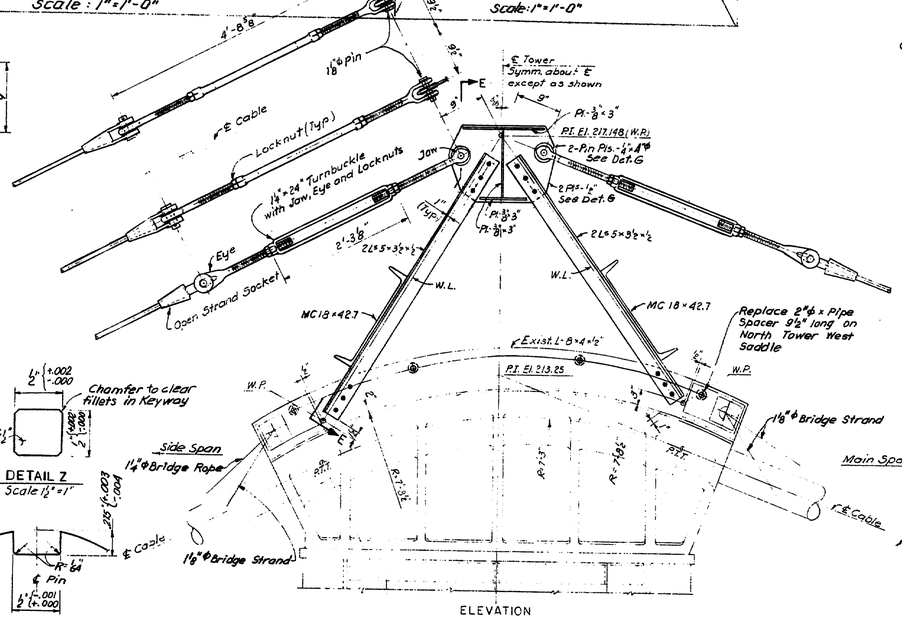
SPACER DETAILS
Scale: 6" = 1'-0"

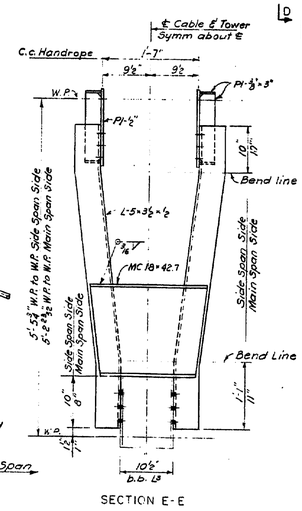


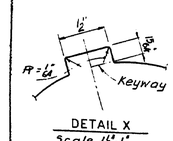
Scale 3" = 1'-0"



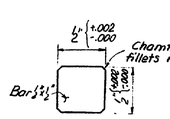
Scale 1½" = 1'-0"



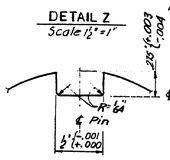




Scale 1½" = 1'



Scale 1½" = 1"



Scale 1½" = 1"

Design B.B. Ck'd S.G.
Drawn R.T. " M.J.G.
Engineer in Charge

NOTES:

1. For General Notes see Sheet No. 3
2. All Bolts ⅞"Φ A325 unless otherwise noted.
3. For Notes on Erection at Handropes see Sheet No. 18
4. Handrope supports shall be paid under Item 504.654 & 504.655. Handropes with fitting & cable clamps to be paid for under Item 504.654 & 504.655.

DATE	BY	REV.	DESCRIPTION
11-8-82	C.C.U	2	Revised Handrope Strut & Cable Clamp
10-12-82	TAF	1	Revise Detail E, Sect A-A, Handrope Strut

REVISIONS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER-ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

HANDROPE SUPPORTS

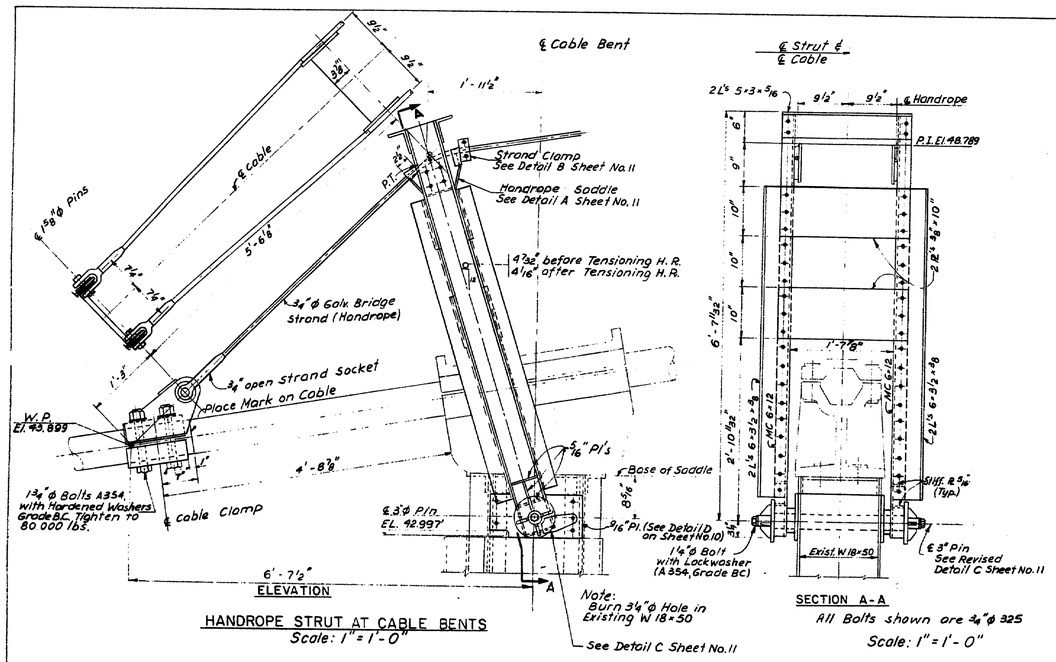
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL
CONSULTING ENGINEERS
NEW YORK, N.Y.

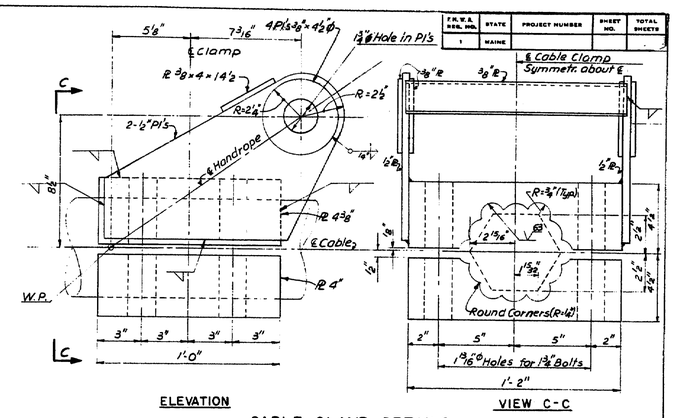
SCALE: As Shown
DATE Jan. 29, 1982
SHEET: 10

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

R94-10

7821 B





CABLE CLAMP DETAILS
Scale: 3" = 1'-0"

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

NOTES:

1. This Drawing is revision 2 to Sheet No. 10

1" = 1'-0"

3" = 1'-0"

DATE	BY	REV.	DESCRIPTION
11-8-82	C.U.	2	Revised Handrope Strut & Cable Clamp
10-12-82	T.A.F.	1	Revise Detail C, Sect. A-A, Handrope Strut

REVISIONS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

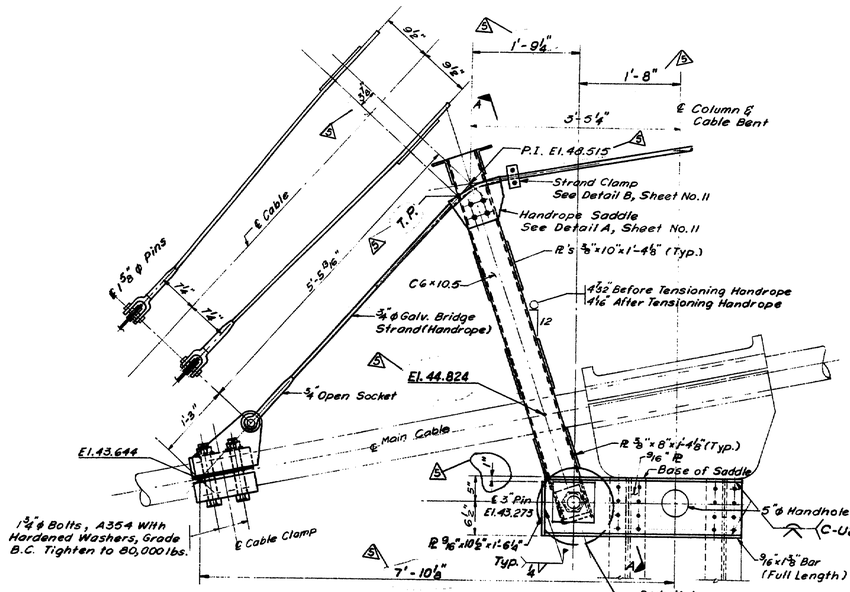
HANDROPE SUPPORTS

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

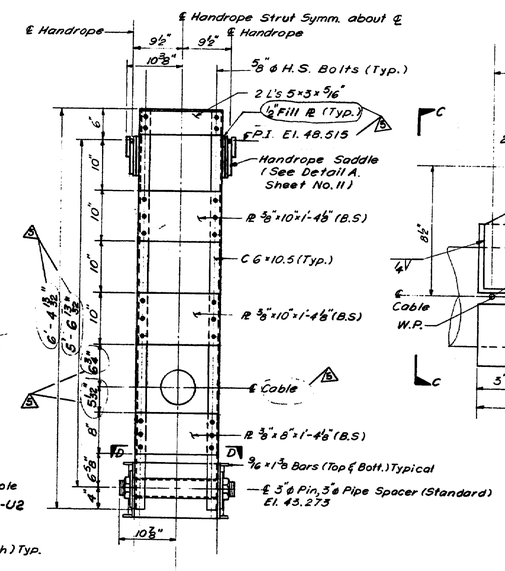
SCALE: AS SHOWN
DATE: 11-8-82
SHEET: 10A

R94-11

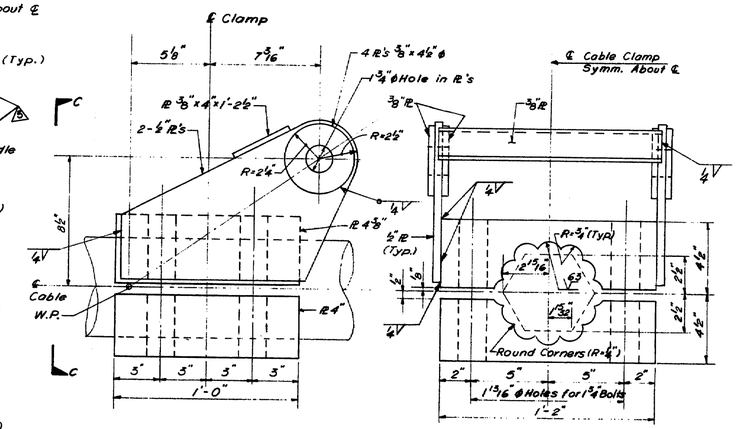
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	-		



HANDROPE STRUT AT CABLE BENTS
Scale: 1"=1'-0"



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

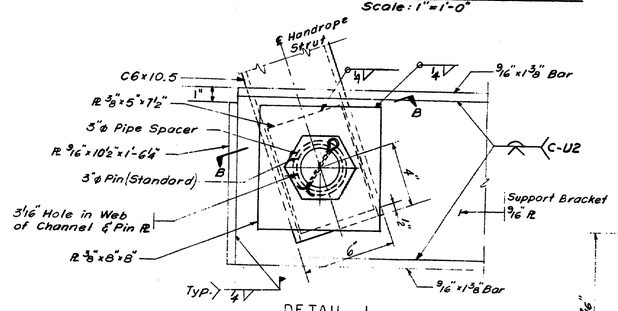


ELEVATION

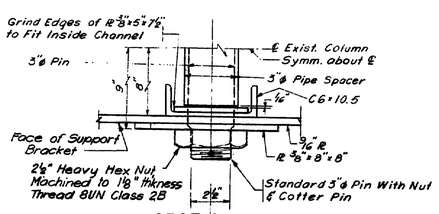
VIEW C-C

CABLE CLAMP DETAILS
Scale: 3"=1'-0"

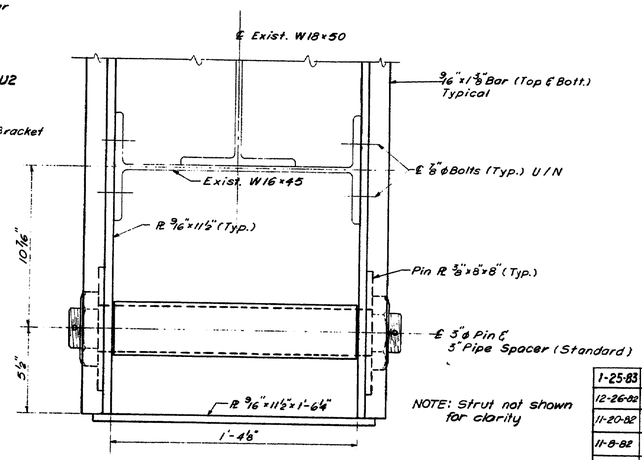
NOTE:
This Drawing is Revision 3 to Sht. No. 10



DETAIL 1
Scale: 3"=1'-0"



SECTION B-B
Scale: 3"=1'-0"



SECTION D-D
Scale: 3"=1'-0"

NOTE: Strut not shown for clarity

1" = 1'-0"
3" = 1'-0"
SCALE IN FEET

DATE	BY	REV.	DESCRIPTION
1-25-83	T.F.	5	Revise Handrope Strut, Det. 1 & Sect. A-A
12-26-82	T.F.	4	Revise Detail 1
11-20-82	C.U.	3	Revise Handrope Strut
11-8-82	C.U.	2	Revise Handrope Strut & Cable Clamp
10-12-82	T.A.F.	1	Revise Detail A, Sect. A-A, Handrope Strut

REVISIONS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

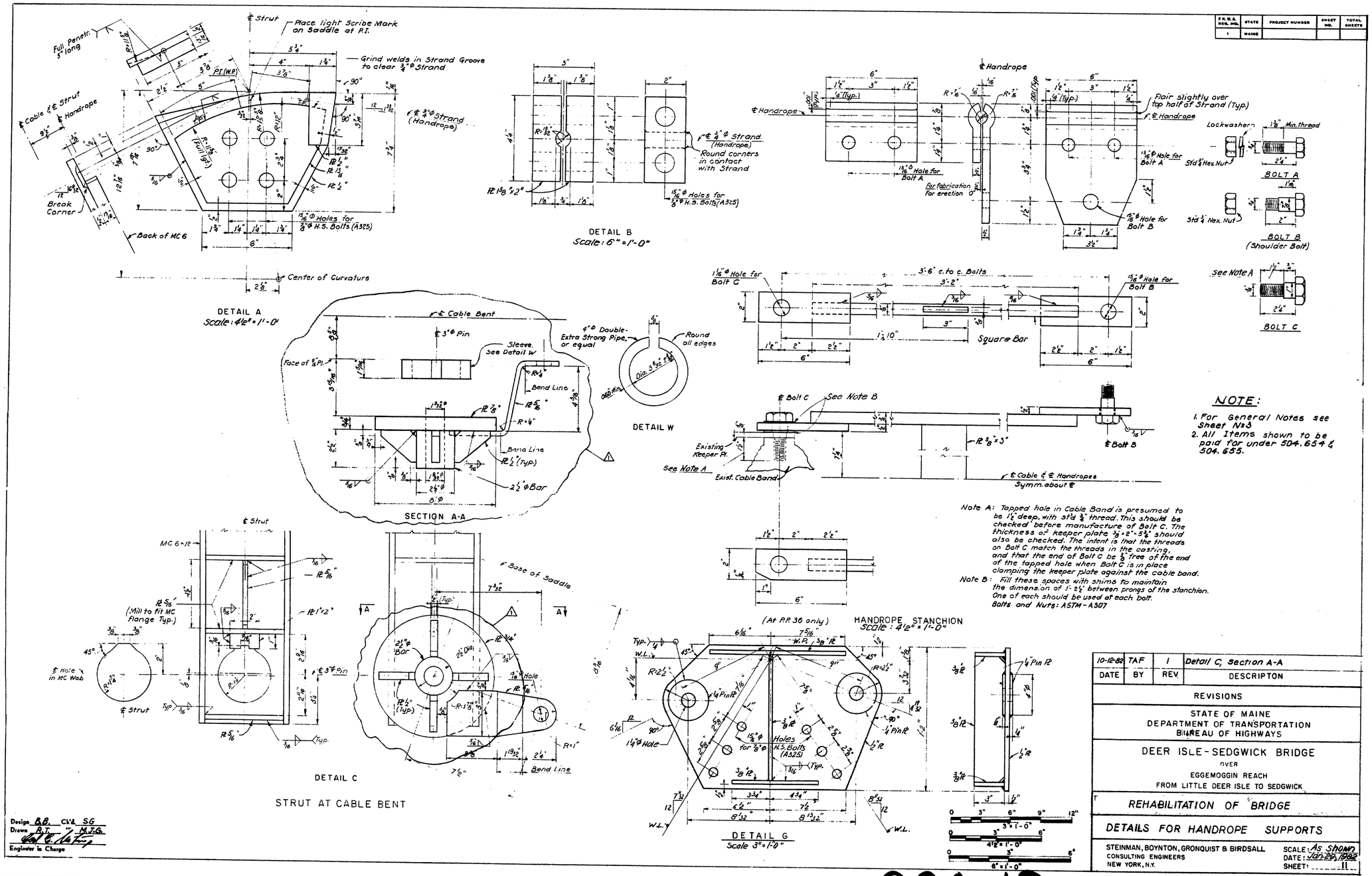
HANDROPE SUPPORTS

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

SCALE: As shown
DATE: Dec. 21, 1982
SHEET: 10 B

R94-12

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



DATE	BY	REV.	DESCRIPTION
10-12-82	TAF	1	Detail C, Section A-A

REVISIONS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

DETAILS FOR HANDROPE SUPPORTS

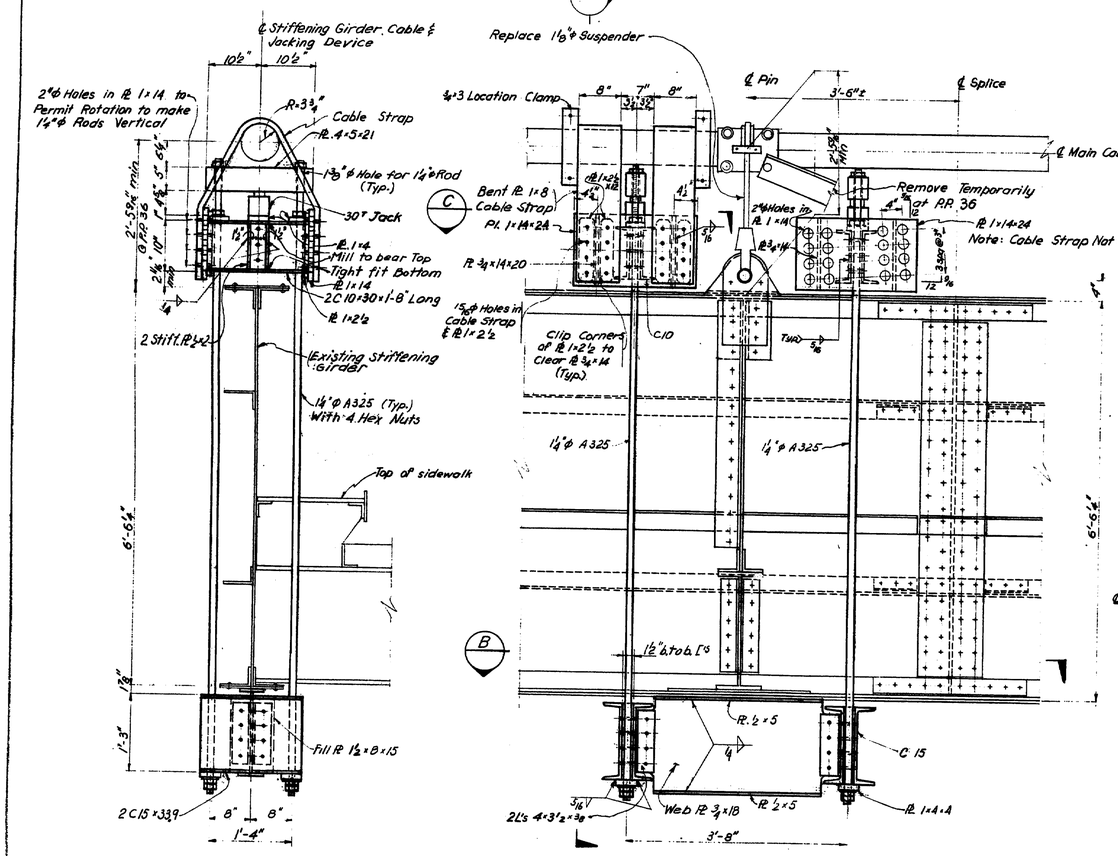
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As Shown
DATE: Jan. 29, 1982
SHEET: 11

Design B.B. Ck'd. S.G.
Drawn R.T. " M.J.G.
Engineer in Charge

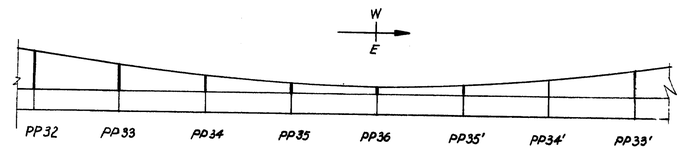
R94-13

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



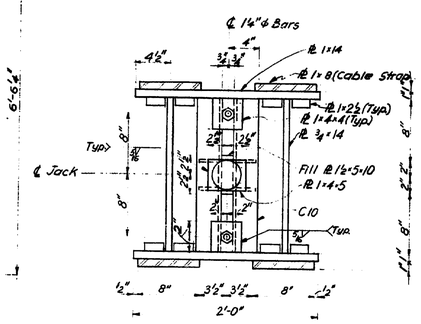
SECTION (A)
Scale: 1"=1'-0"

SUGGESTED TEMPORARY SUPPORTS
SHOWN FOR P.P.36 (OTHER P.P.S SIMILAR)
Scale 1"=1'-0"



Remove and replace the following suspenders:
32 East
33 East & West
34 East
35 West
36 East
35' West

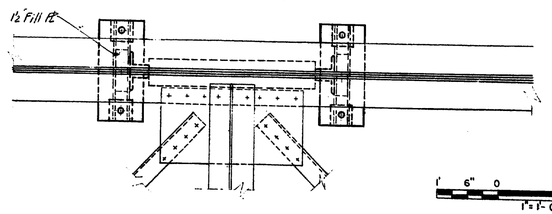
LOCATION OF SUSPENDER WORK
Scale: 1"=20'



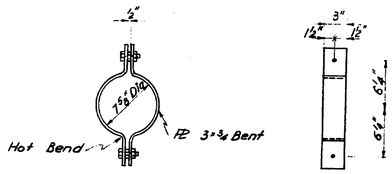
SECTION (C)
Scale: 1½"=1'-0"

NOTES:

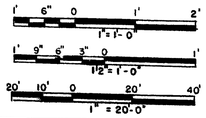
1. For General Notes see Sheet No. 3
2. Two temporary Supports shall be used when replacing Suspenders.
3. All Bolts shall be ⅞"φ A325 H.S. with hardened Washers under Part that turns.
4. All Jacking Procedure and Design shall be submitted by the Contractor to the Engineer for Approval.
5. The Contractor may use Temporary Support of his own Design after written Approval of the Engineer.
6. After Jacking to the desired Height the Load shall be transferred from the Jack to the Nuts on 1¼"φ Rods.
7. At Panel Point 36 there are Center Ties made up of structural Angles. These may be temporarily removed when Suspenders are installed.
8. All Open Holes shall be filled with A-325 Bolts.
9. 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.
10. All materials for temporary supports, including Jacks, and removal of existing suspenders shall be incidental to Pay Item 602.021.
11. The installation of new suspenders shall be incidental to Pay Item 602.021



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



DETAIL OF LOCATION CLAMP (4 REQ'D)
Scale: 1½"=1"



Design M.J.G. Ck'd J.A.R.
Drawn I.G. " M.J.G.
Engineer in Charge

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

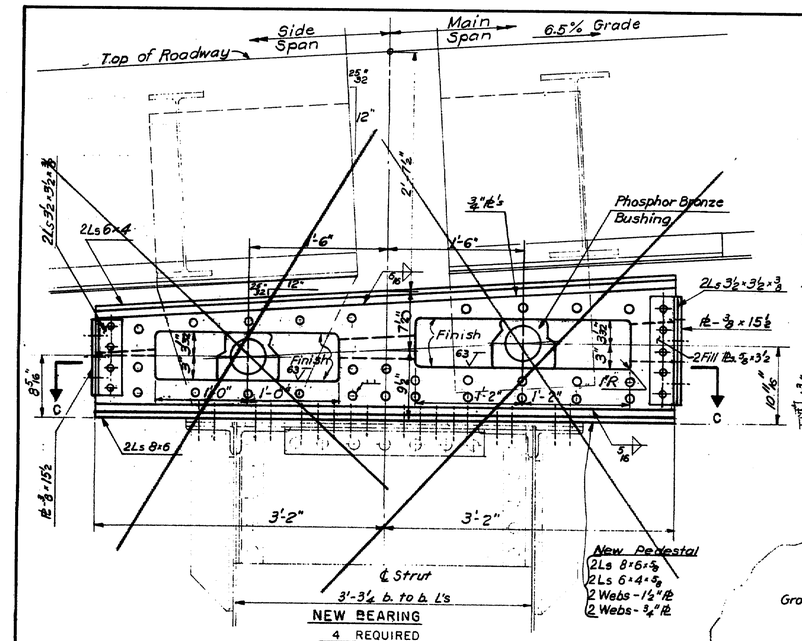
TEMPORARY SUPPORTS AT SUSPENDERS

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

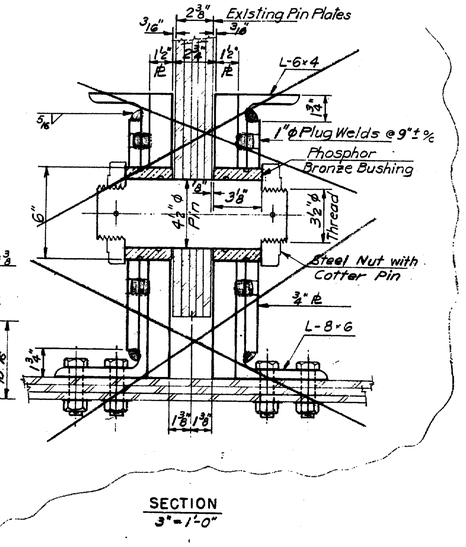
SCALE: As Shown
DATE: Jan. 29, 19[illegible]
SHEET: 12

R94-14

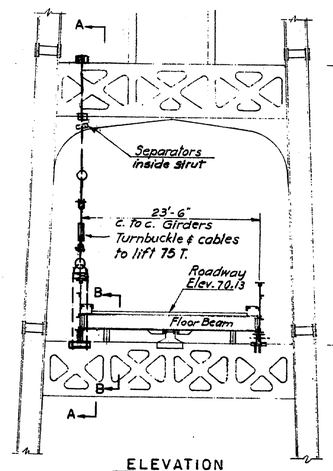
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



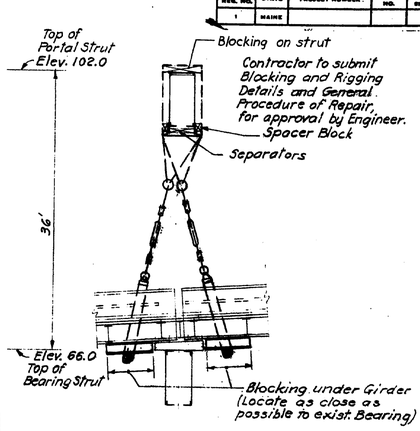
NEW BEARING
4 REQUIRED
1½"=1'-0"



SECTION
3"=1'-0"

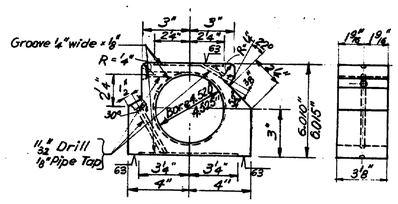


ELEVATION
⅛"=1'-0"

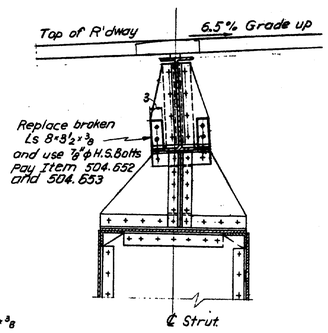


SECTION A-A
⅛"=1'-0"

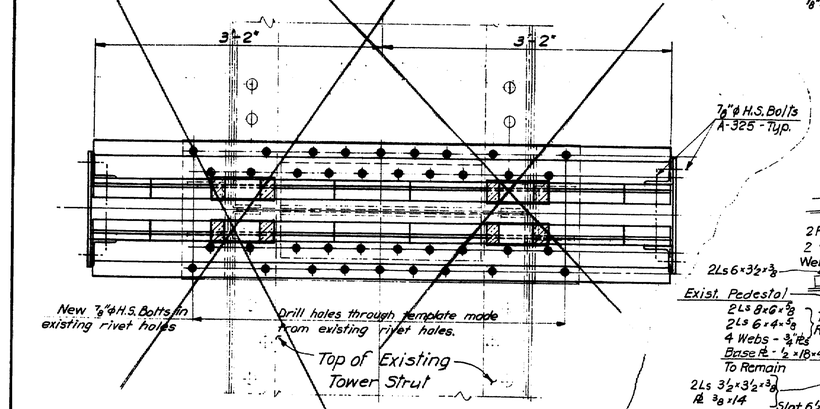
SUGGESTED METHOD OF TEMPORARY END SUPPORT DURING BEARING REPLACEMENTS
Pay Item 504.651



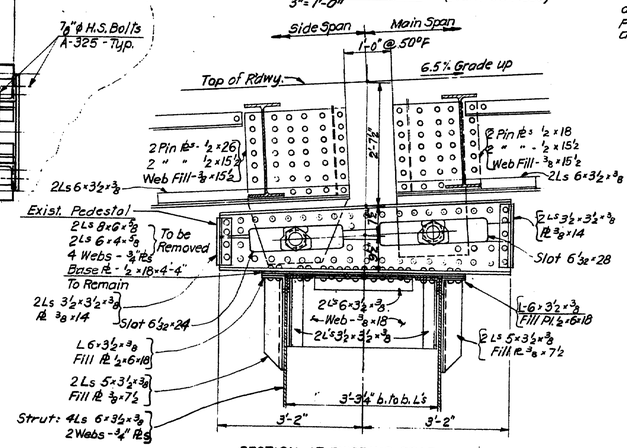
ELEVATION
PHOSPHOR BRONZE BUSHING (Item 504.650)
3"=1'-0"



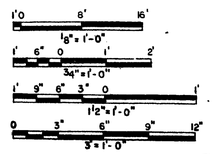
SECTION B-B
¾"=1'-0"



SECTION C-C
1½"=1'-0"



SECTION AT EXISTING BEARINGS
¾"=1'-0"



NOTES:

1. For General Notes see Sheet No. 3
2. Material to A.S.T.M. A-36 Specifications.
3. Bolts to A.S.T.M. A-325 Specifications. (⅞"φ H.S. Friction Type Bolts)
4. All New ⅞"φ H.S. Bolts which replace existing rivets shown thus ✦
5. Phosphor Bronze Bushing to confirm to A.S.T.M. B-22 Specifications.
6. The Fabrication and delivery of new materials for bearings are incidental to pay Item 504.650.
7. The erection of the bearings, including temporary supports is incidental to pay Item 504.650
8. The bridge may be closed for a couple of hours to all traffic, except emergency vehicles, while the bearing is being installed

DATE	BY	REV.	DESCRIPTION
10-11-82	TAF	1	Revise Bearing Detail-See SHT. 13A.

REVISIONS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

NEW BEARINGS AT TOWERS

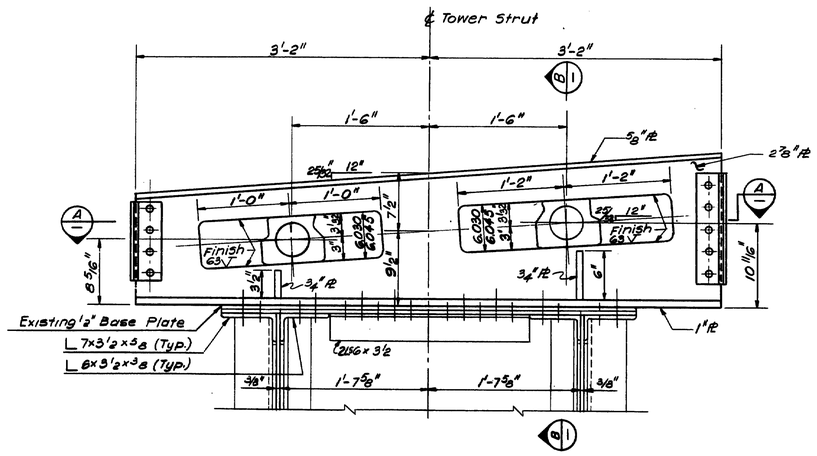
STEINMAN, BOYNTON, GRONQUIST & BIRDSALL
CONSULTING ENGINEERS
NEW YORK, N.Y.

SCALE: As Shown
DATE: Jan. 28, 1982
SHEET: 6

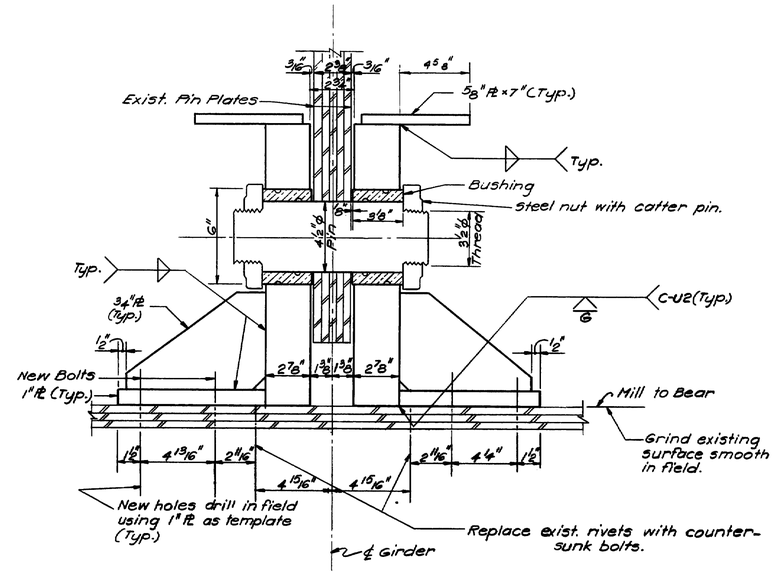
Design R.P. Ck'd. A.Y.T.
Drawn I.G. " J.G.U.
Engineer in Charge

R94-15

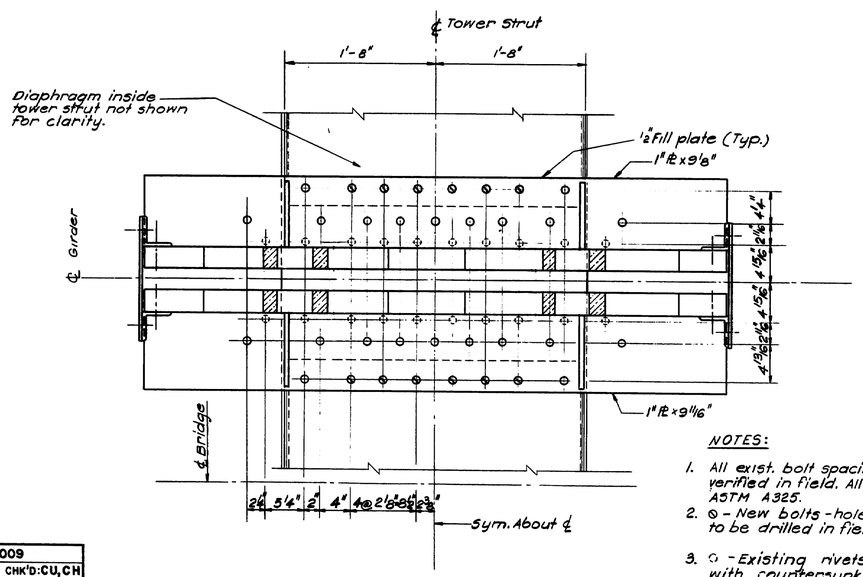
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



BEARING ELEVATION (Four Required)
Scale: 1 1/2"=1'-0"



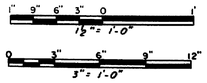
SECTION B-B
Scale: 3"=1'-0"



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

NOTES:

1. All exist. bolt spacing to be verified in field. All bolts to be ASTM A325.
2. ⊗ - New bolts - holes in tower strut to be drilled in field.
3. ○ - Existing rivets to be replaced with countersunk bolts.
4. ⊙ - Existing rivets to be replaced with High Strength Bolts.



PROJECT NO. 8009	
DESIGNED: TAF	CHK'D: CU, CH
DRAWN: M.L.	CHK'D: TAF
ENGINEER IN CHARGE	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

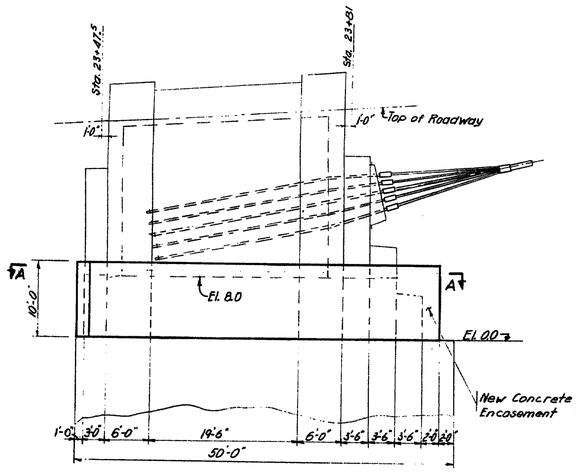
REHABILITATION OF BRIDGE
NEW BEARINGS AT TOWERS

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

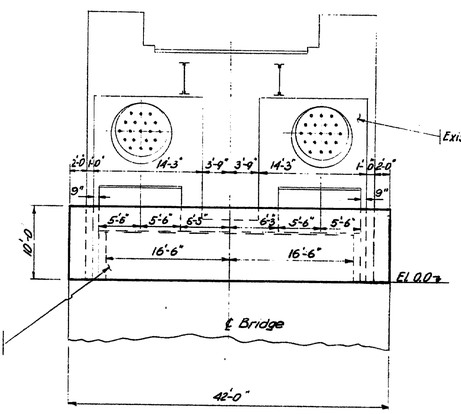
SCALE: AS SHOWN	SHEET NO.	DRAWING NO.	REVISION NO.
DATE: OCT. 8, 1982	13A OF 18		

R94-16

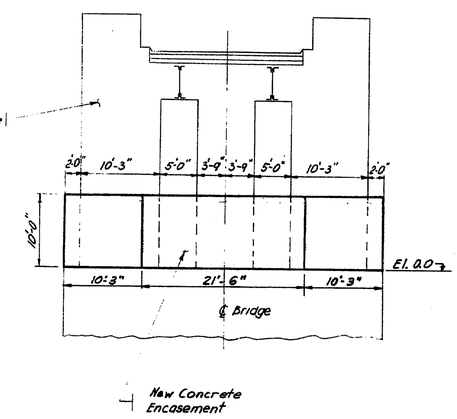
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	8009		



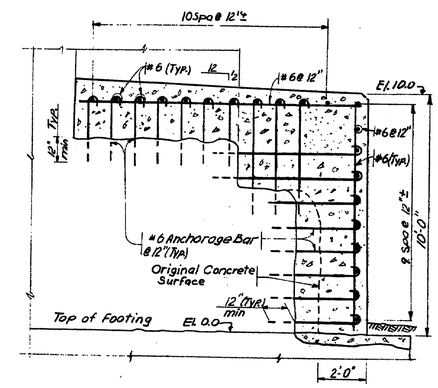
EAST ELEVATION
Scale 1/8" = 1'-0"



NORTH ELEVATION
Scale 1/8" = 1'-0"

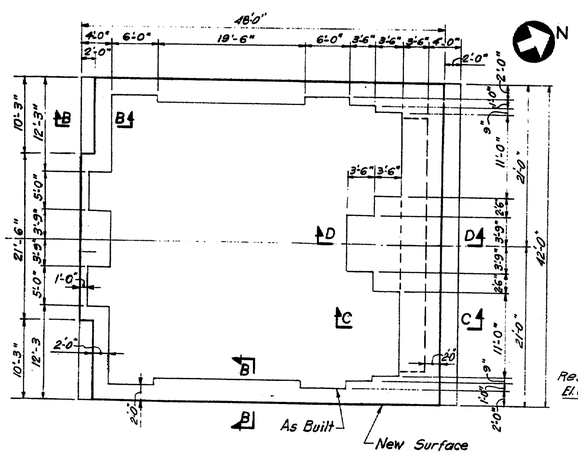


SOUTH ELEVATION
Scale 1/8" = 1'-0"

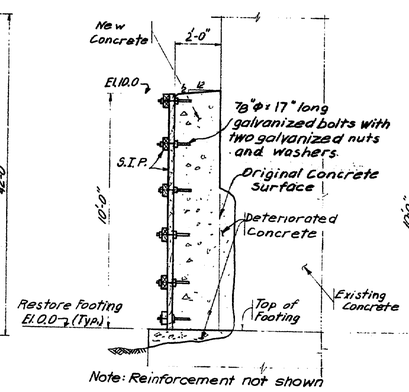


Note: Formwork not shown.

SECTION D-D
Scale 1/8" = 1'-0"

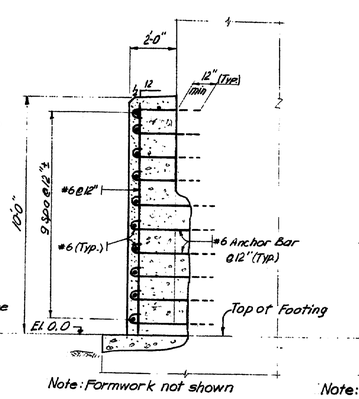


SECTION-A A
Scale 1/8" = 1'-0"



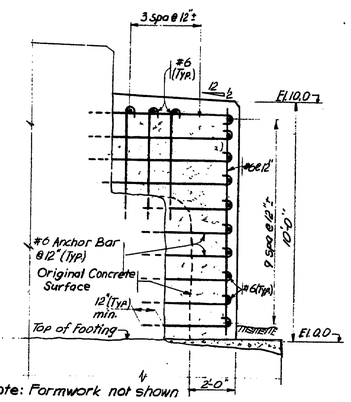
Note: Reinforcement not shown

S.I.P. FORMS DETAIL
Scale: 3/8" = 1'-0"



Note: Formwork not shown

SECTION B-B
Scale: 3/8" = 1'-0"



Note: Formwork not shown

SECTION C-C
Scale: 3/8" = 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. All deteriorated concrete shall be removed down to sound concrete. Exposed reinforcing steel shall be cleaned or removed and replaced as directed by the Engineer.
4. All additional concrete to be reinforced with #6 bars spaced 1'-0" on centers horizontally and vertically unless otherwise noted.
5. Drill 2" φ holes into existing concrete for new anchor bars. Fill holes with high early strength non-shrinking grout. Cost shall be incidental to Pay Item 502.65.
6. New reinforcing bars shall be ASTM-A615, Grade 60. Provide a minimum of 6" cover.
7. All new concrete corners shall be chamfered 1" unless otherwise noted.
8. The concrete form from elevation 0.0 to elevation +10.0 shall be made of treated timber with galvanized bolts and washers. The construction shall be similar to the formwork found on Pier No. 1. This stay-in-place (S.I.P.) formwork shall be a permanent part of the anchorage. The minimum nominal thickness of the timber shall be 2".
9. The cost of the galvanized bolts, nuts and washers shall be included in the Timber Stay-in-Place Formwork. Pay Item 528.61.

NOTE: After all deteriorated concrete has been removed, the Contractor shall make field measurements to determine the length and amount of new reinforment required. Based on these measurements, he shall submit a Bar Schedule for the Engineers Approval. The cost of this shall be incidental to Pay Item 503.12

The fabrication and delivery of reinforcing steel shall be paid for under Item 503.12. The placing of reinforcing steel shall be paid for under Item 503.13.

The removal of existing deteriorated concrete and reinforcing steel, the drilling of holes for new dowels, cleaning of exposed concrete and reinforcing steel surfaces application of bonding agent and placing of new concrete shall be paid for under Item 502.65.

Note that the stay-in-place formwork, including all temporary supports will be paid for under Item 528.61.

1'0 8' 16'
1/8" = 1'-0"
1' 0 2' 4'
3/8" = 1'-0"
SCALES IN FEET

Design M.J.G. Ck'd
Drawn J.J. L.A.P.
Engineer in Charge

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

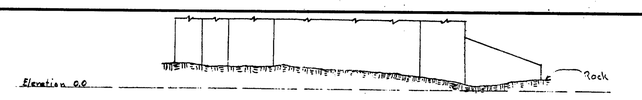
REPAIRS TO SOUTH ANCHORAGE

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

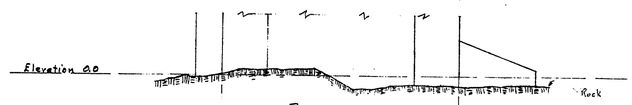
SCALE: AS SHOWN
DATE: Jan. 29, 1962
SHEET: 14

R94-17

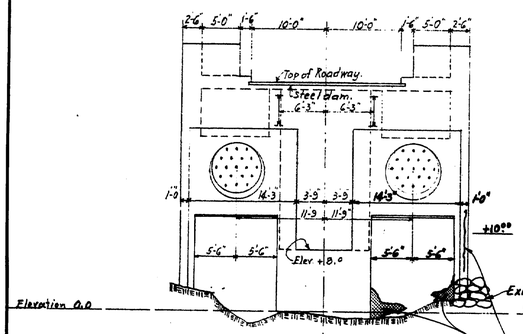
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



ROCK LINE 20' WEST OF ℄
N.T.S.



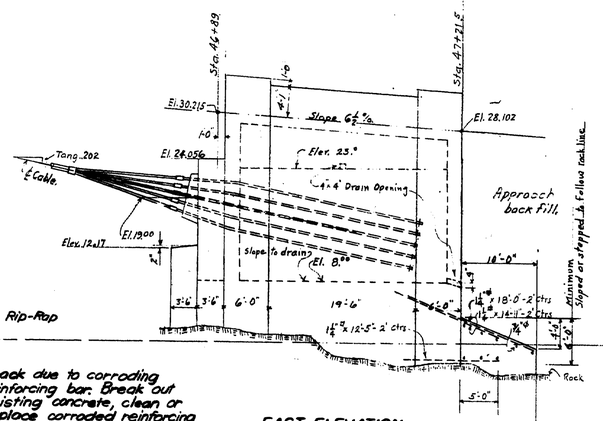
ROCK LINE ON ℄
N.T.S.



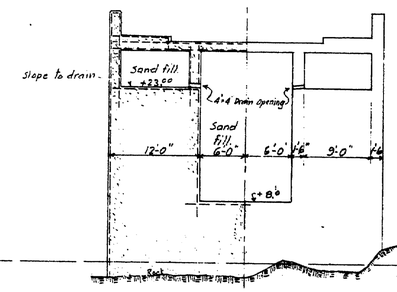
SOUTH ELEVATION
Scale: 1/8" = 1'-0"

Typical spalling of Deteriorated Concrete See Note 2

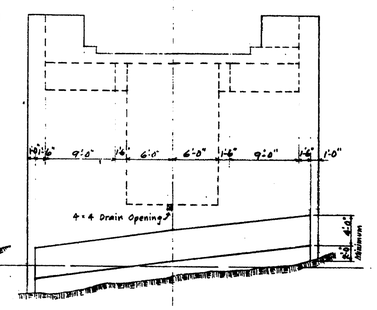
Crack due to corroding reinforcing bar. Break out existing concrete, clean or replace corroded reinforcing bar and, with new concrete, restore to original dimensions



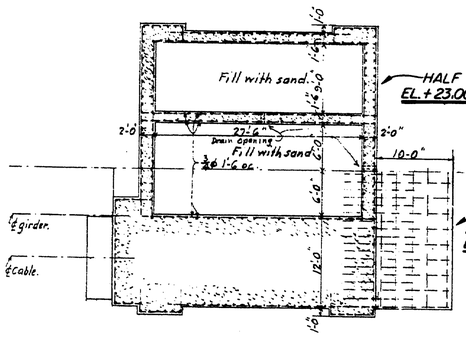
EAST ELEVATION
Scale: 1/8" = 1'-0"



CROSS SECTION - LOOKING SOUTH
Scale: 1/8" = 1'-0"

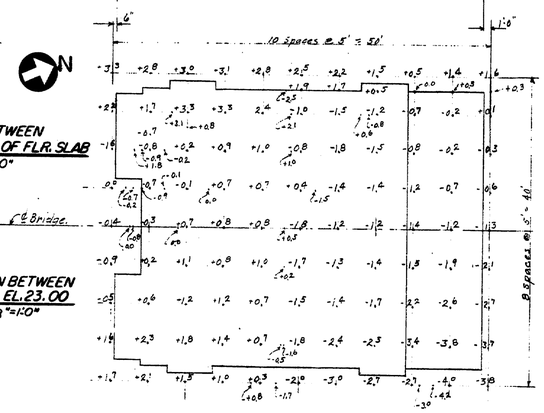


NORTH ELEVATION
Scale: 1/8" = 1'-0"



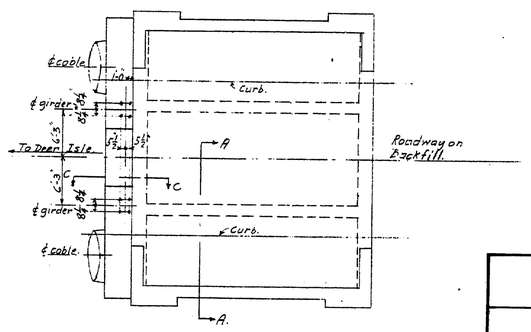
HALF SECTION BETWEEN EL. +23.00 & BOTTOM OF FLR. SLAB
Scale: 1/8" = 1'-0"

HALF SECTION BETWEEN EL. 8.00 AND EL. 23.00
Scale: 1/8" = 1'-0"



PLAN AT BOTTOM
SHOWING ROCK ELEVS. AFTER BENCHING
Scale: 1/8" = 1'-0"

— Assumed Ave. Rock Elev = + 2.0 on Contract Drawing
As Built " " " = 0.0 forward of 10' Apron.



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

1'0 8' 16'
1/8" = 1'-0"
SCALE IN FEET

NOTES:

1. For General Notes see sheet No. 3
2. Repair all spalled concrete areas. Remove deteriorated concrete and clean exposed reinforcing bars. Apply epoxy bonding compound before repairing with new concrete.
3. All repairs are incidental to Pay Item 502.652.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

REHABILITATION OF BRIDGE

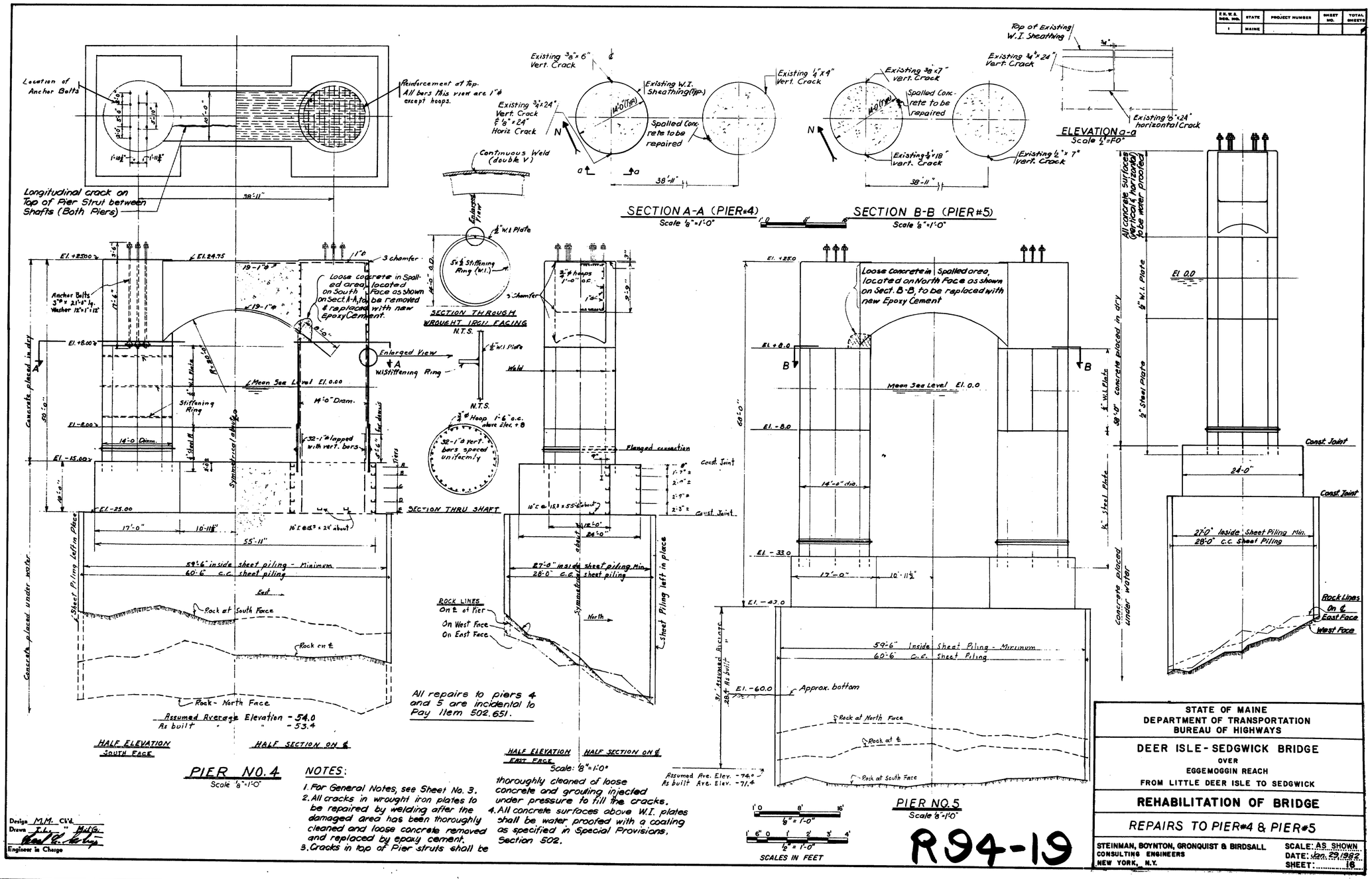
REPAIRS TO NORTH ANCHORAGE

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

SCALE: AS SHOWN
DATE: Nov. 29, 1966
SHEET: 15

Design M.I.G. Ck'd.
Drawn T.L. " J.A.R.
Engineer in Charge

R94-18



NOTES:

1. For General Notes, see Sheet No. 3.
2. All cracks in wrought iron plates to be repaired by welding after the damaged area has been thoroughly cleaned and loose concrete removed and replaced by epoxy cement.
3. Cracks in top of Pier struts shall be thoroughly cleaned of loose concrete and grouting injected under pressure to fill the cracks.
4. All concrete surfaces above W.I. plates shall be water proofed with a coating as specified in Special Provisions, Section 502.

Design M.M. Ck'd.
Drawn I.L. " M.H.G.
Engineer in Charge

R94-19

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

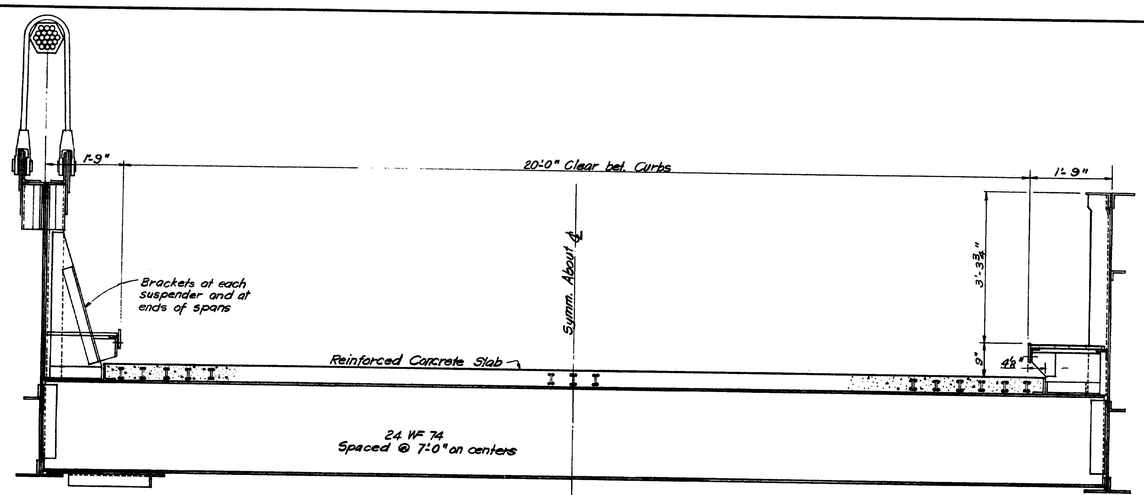
REHABILITATION OF BRIDGE

REPAIRS TO PIER#4 & PIER#5

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

SCALE: AS SHOWN
DATE: Jan. 29, 1982
SHEET: 16

F.A.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

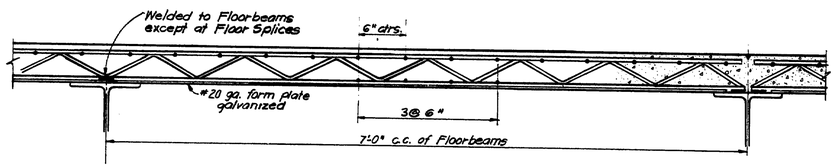


HALF SECTION AT SUSPENDER CONNECTION

HALF SECTION AT FLOORBEAM BETWEEN SUSPENDERS

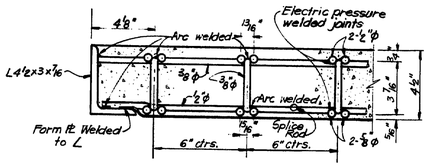
CROSS SECTION - SUSPENDED SPANS

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



PARTIAL LONGITUDINAL SECTION

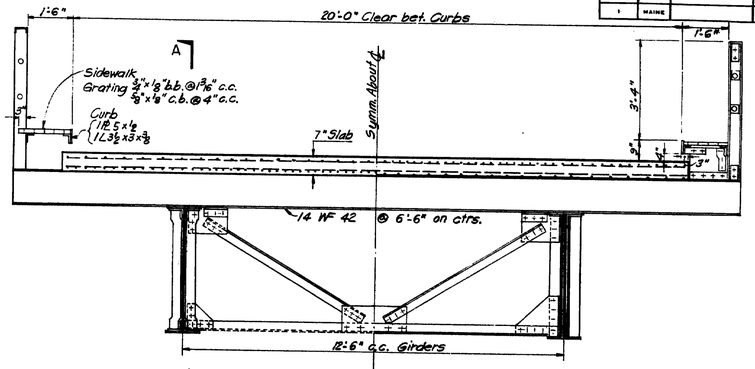
Scale: 1 1/2" = 1'-0"



PARTIAL CROSS SECTION

Scale: 3" = 1'-0"

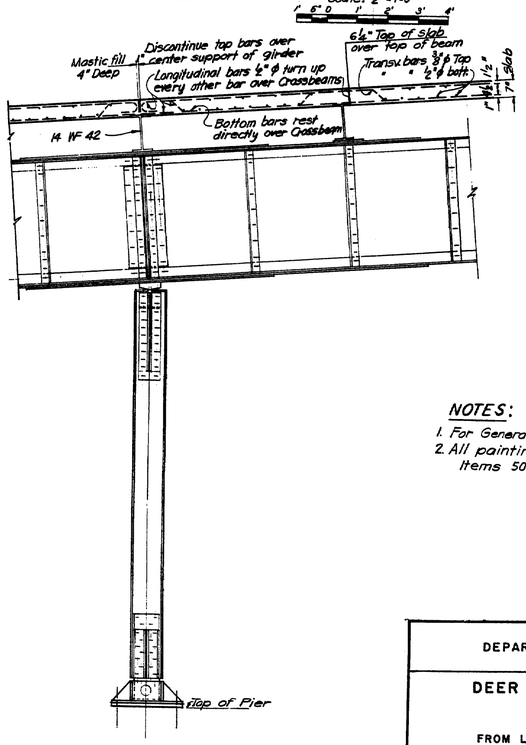
DETAILS OF ROADWAY DECK SLAB - SUSPENDED SPANS



A

CROSS SECTION - APPROACH SPANS

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



SECTION A-A

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

NOTES:

1. For General Notes see Sheet No. 3
2. All painting to be paid for under Items 506.142 and 506.16.

Design ____ Ck'd. ____
Drawn L.T.D. " M.J.G.
Engineer in Charge

R94-20

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

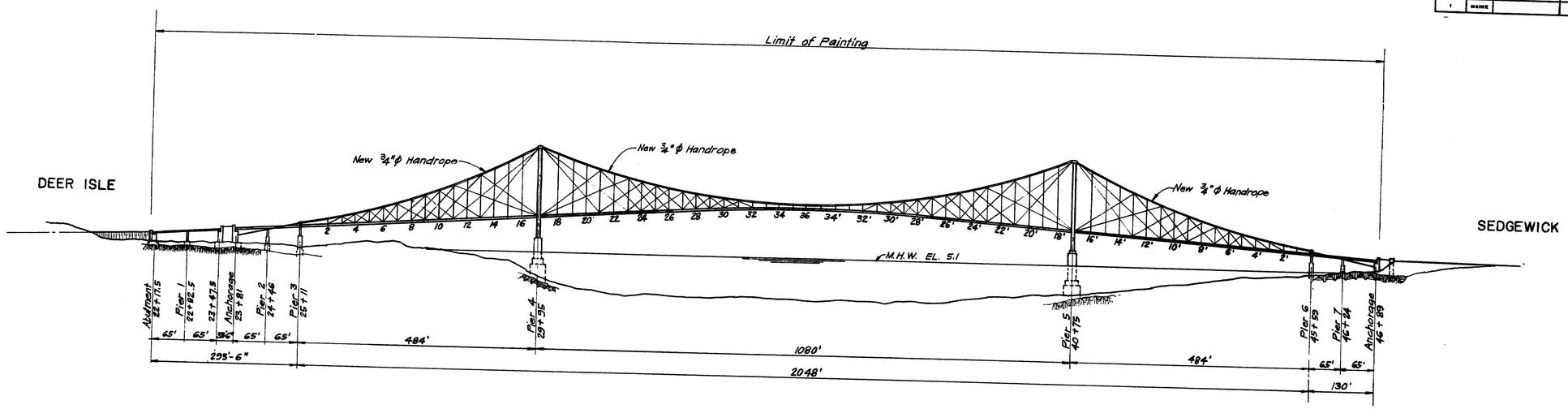
REHABILITATION OF BRIDGE

CROSS SECTIONS AND DECK DETAILS

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

SCALE: AS SHOWN
DATE: Jan. 29, 1962
SHEET: 17

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	NAME			



ELEVATION
SCALE: 1" = 100'
100' 50' 0 100' 200'

Erection of Handropes

1) Install handrope to specified turnbuckle settings and allow it to hang freely. Check mid-span deflection above main cable. In the main span the handrope should be approximately 10.5 feet above the main cable and approximately 11.5 feet in side spans. Modify above turnbuckle settings if required.

2) Pull down the handrope at mid-point of main span to final position with 250 pound tackle and lash for 3,600 pounds pull. Pull down at 1/4 points with 3,600 pound tackle and then at 1/8 points finishing up finally with temporary tackle at alternate panel points.

3) At this time connect stanchions at vacant panel points. Then proceed to the others. Do not release temporary tackle at any point until stanchion is connected and ready to receive load. Be sure to secure bridge suspenders (by lashing, for example) before loosening the keeper plate to make the stanchion connection. All stanchions must be vertical upon completion of installation.

Procedure for the side span handrope erection is similar except that 3,600 pound tackle will be required at mid-span.

All handropes in one span may be completed before proceeding to another span.

An alternative procedure may be used in the field, if each stanchion is reinforced with a temporary horizontal strut at the level of the handrope.

High strength bolts shall be tightened by the turn of the nut method or calibrated wrench with a hardened washer under the part that turns.

Tensioning of All Stays

The stays from the top of the towers to the stiffening girders (Panel Points L11, L13, L21, L23, L23', L21', L13' and L11') shall be stressed to a minimum of 13,000 lbs. and a maximum of 13,500 lbs. All other stays shall be stressed to a minimum of 10,000 lbs. and a maximum of 10,500 lbs.

The stays radiating from the deck level of the tower to the cable (Panel Point U11, U13, U21, U23, U23', U21', U13 and U11') shall be adjusted by turning the nuts on the U bars at deck level. The other stays shall be adjusted by adding or removing shims at the connections at deck level.

To prevent the shims from falling out, specially designed keeper plates shall be installed at each connection having shims. Since the location of the shims on the connections may vary, it may be necessary in certain cases to modify the design of the keeper plates shown on the Plans. The Contractor shall inspect the connections in the field and propose necessary changes to the Engineer.

The tensioning shall be done symmetrically in each span, for example starting at the middle and working simultaneously toward each end. The tensioning of one stay will affect the tension in adjacent stays. Having gone through the procedure for the entire bridge once, it is necessary to recheck each stay again to see that the forces in them are within the specified limits. If not, adjustments must be made again.

Painting

The entire bridge shall be painted from abutment to abutment. This includes the superstructure with sidewalks and bearings, the towers both outside and inside, the cable bents on the outside only, the steel bents, the cables, suspenders and new 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 cable bands, cable ties, sockets and handrope supports shall be painted as per "Supplemental Specifications", Subsection 506.05.

Cables, suspenders and handropes shall receive four costs of paint 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	1,540
Sidewalk Grating	S.F.	8,530
Cables	L.F.	4,800
Suspenders	L.F.	14,000
Stays	L.F.	15,000

New Items	Unit	Quantity
Structural Steel	Tons	7
Handropes	L.F.	8,500
Suspenders	L.F.	75

NOTE:
For General Notes see Sheet No. 3

Design C.C.U. Ck'd. R.A.
Drawn "
Engineer in Charge

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
BUREAU OF HIGHWAYS

DEER ISLE - SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
FROM LITTLE DEER ISLE TO SEDGWICK

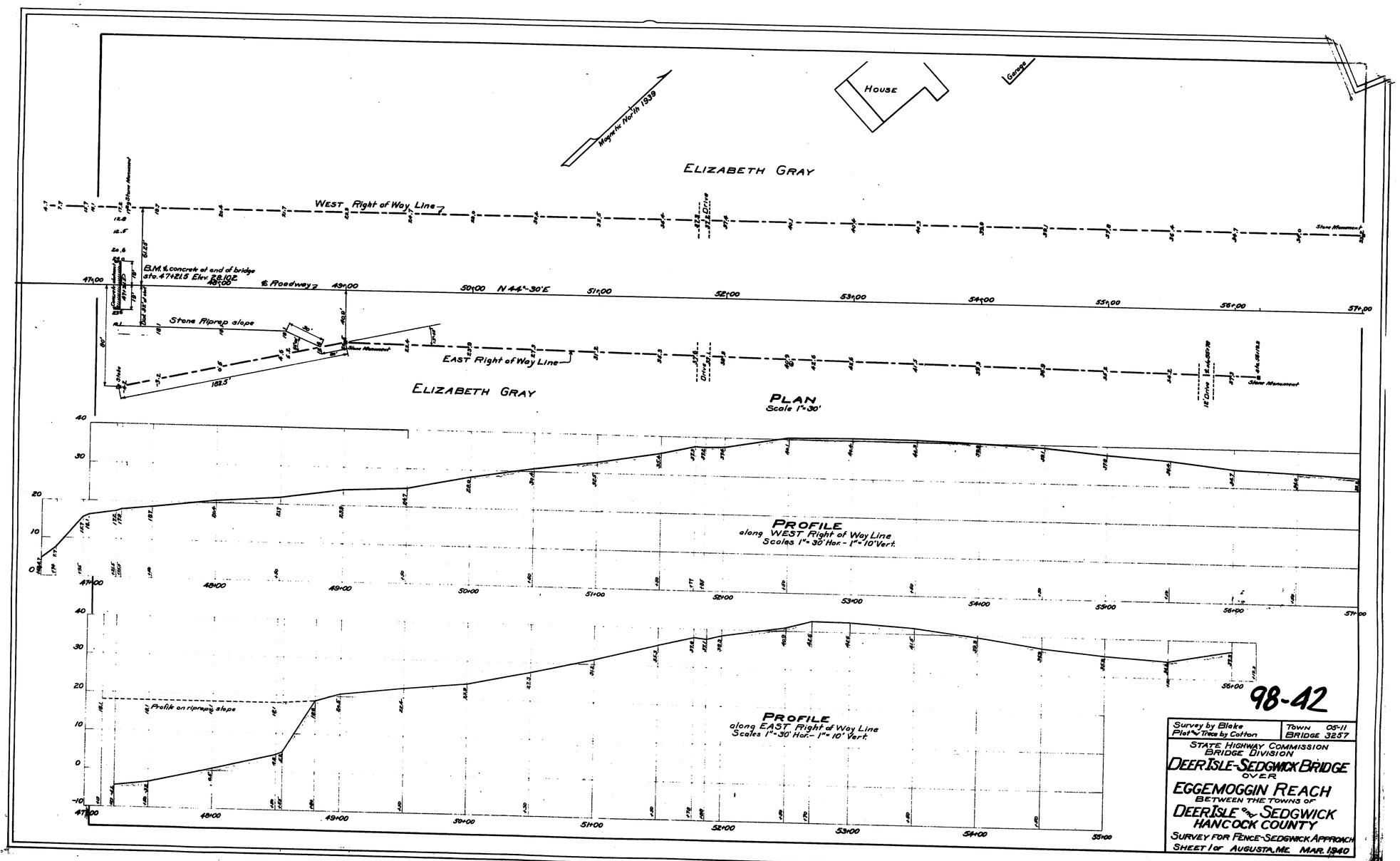
REHABILITATION OF BRIDGE

NOTES FOR HANDROPES, STAYS & PAINTING

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

SCALE: AS SHOWN
DATE: Jan. 29 1962
SHEET: 18

R94-21


House
Garage
Magnetic North 1939
ELIZABETH GRAY
WEST Right of Way Line
Stone Monument
B.M. & concrete at end of bridge
sta. 47+21.5 Elev. 28.102
℄ Roadway
N 44°-30'E
Stone Riprap slope
EAST Right of Way Line
ELIZABETH GRAY
PLAN
Scale 1"=30'
PROFILE
along WEST Right of Way Line
Scales 1"=30' Hor.- 1"=10' Vert.
Profile on riprap slope
PROFILE
along EAST Right of Way Line
Scales 1"=30' Hor.- 1"=10' Vert.
98-42
Survey by Blake
Plot & Trace by Cotton
Town 05-11
Bridge 3257
STATE HIGHWAY COMMISSION
BRIDGE DIVISION
DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
BETWEEN THE TOWNS OF
DEER ISLE AND SEDGWICK
HANCOCK COUNTY
SURVEY FOR FENCE-SEDGWICK APPROACH
SHEET 1 of
AUGUSTA, ME. MAR. 1940

ADELPHIA COMMUNICATIONS CORP.

Adelphia

DEER ISLE BRIDGE CROSSING
DEER ISLE / SEDGWICK
OVER
EGGEMOGGIN REACH
STATE ROUTE 15

PROJECT NO. 53252

PROJECT LENGTH 0.000 mi

MAINE DOT BRIDGE NO. 3257

SPECIFICATIONS

DESIGN: AASHTO LRFD Bridge Design Specifications, Second Edition 1998 and Interim Specifications 1999.

MATERIALS

Structural Steel: ..... ASTM A36
High Strength Bolts ..... ASTM A 325M, Type 3

BASIC DESIGN STRESSES

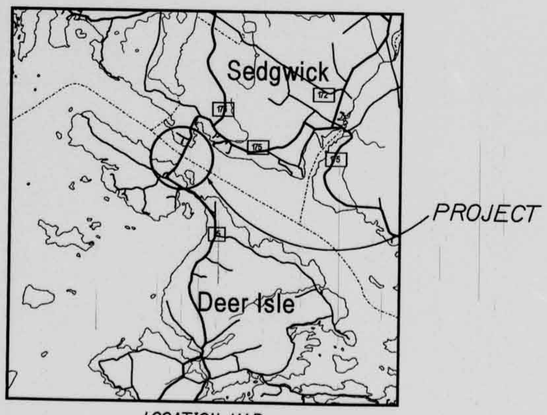
Structural Steel:
ASTM A36 ..... Fy = 36,000 psi
ASTM A 325M ..... Fu = 120,000 psi

MAINTENANCE OF TRAFFIC

Maintain one 10 foot wide lane of alternating two - way traffic using flaggers in accordance with the traffic control plan (TCP).

LIST OF DRAWINGS

Title Sheet 1
Quantities, Notes & Typicals 2
General Plan 3
Sedgwick Anchorage 4
Approach Span to Suspended Span Details 5
Deer Isle Anchorage 6
Deer Isle Abutment 7
Traffic Control Plan 8



LOCATION MAP

2 0 2 4
Scale in Miles

131-145

STATE OF MAINE
REGISTERED PROFESSIONAL ENGINEER

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		

PROJECT NO. 53252.000
DATE 6/25/04
DESIGNED BY K.WOOD
DRAWN BY D.SHAW
CHECKED BY P.HETHERLY

Guertin Elkerton & Associates, Inc.
Engineers & Scientists
331 State Street, Augusta, Maine 04330
Tel: 207-623-0646 Fax: 207-623-0466
www.geainc.us

ADELPHIA CABLE CROSSING
DEER ISLE - SEDGWICK BRIDGE
OVER EGGEMOGGIN REACH
TITLE SHEET

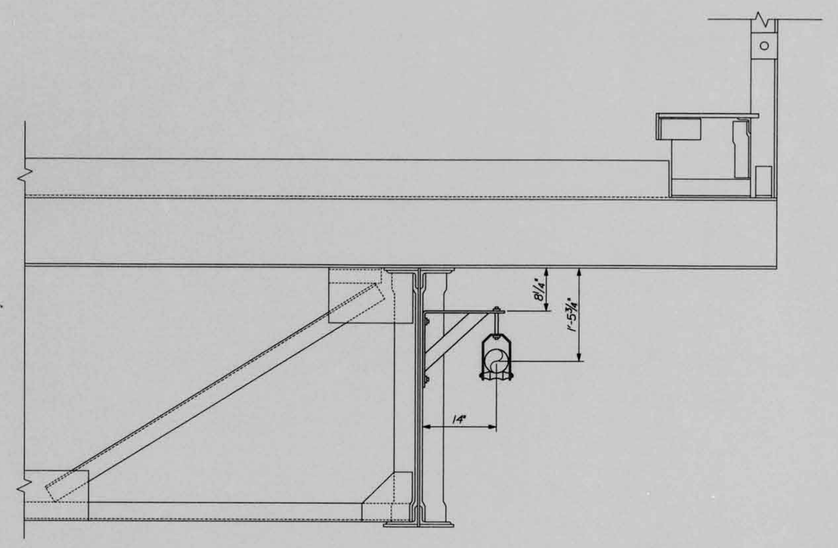
SHEET NUMBER
1
OF 8

Date: $date$ Division: $wkgroup$ Username: $user$ Filename: $file$

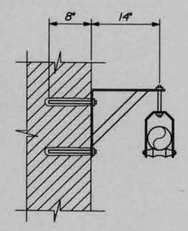
ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	12" OFFSET BRACKET	59	EA.
2	24" OFFSET BRACKET	4	EA.
3	4" STEEL YOKE / PIPE ROLL	63	EA.
4	2" STEEL YOKE / PIPE ROLL	113	EA.
5	TOP FLANGE C-CLAMP	113	EA.
6	4" PVC EXPANSION JOINTS - 6" EXPANSION	3	EA.

NOTES

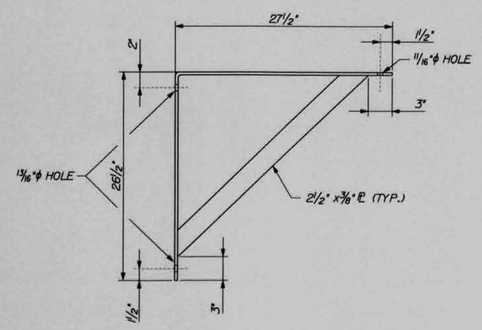
1. Bolts for attachment of brackets to girder shall be 3/4" with 13/16" holes.
2. All bracket and bolt material in contact with the structure shall be hot dipped galvanized.
3. Maximum spacing of brackets/beam clamps is as follows:
   a. Approach spans - 10 ft
   b. Suspended spans within faring - 20 ft
4. Brackets shall be oriented plum to a vertical line and should not be located within 4" of any vertical stiffener or splice plate.
5. Conduit on the bridge shall be as follows:
   a. Approach spans - Schedule 80 PVC
   b. Suspended spans within faring - 2" inner duct - SDR 13.5
6. Adelphia is responsible for acquiring any and all applicable permits beyond the utility permit required by Maine DOT.
7. A permanent tag shall be affixed to each end of the conduit identifying the owner of the conduit, the type of attachment, and a telephone contact number. All tags shall be maintained in a legible condition with current information.
8. The communication line shall be installed in accordance will all applicable national standards.
9. Where holes are cut in the grating at the ends of the fairing, the gratings shall be framed to prevent damage to the grating and the conduit.
10. 1 - 2" steel yoke hanger shall be placed a minimum of 6" from each location where the 2" conduit passes through the grating at the ends of the fairing.
11. 1 - 4" PVC expansion joint capable of 6" of expansion shall be placed on each set of approach spans (2 ~ 65' spans), in accordance with the manufactures specifications.
12. Anchoring material for anchor bolts shall be one of the products listed on the Maine DOT list of prequalified Type 2 anchoring materials. Installation shall be in accordance with the manufacturer's recommendations.
13. Anchor bolts for anchorage into concrete shall be 3/4", and shall be capable of developing a minimum unconfined pullout strength in 3000 psi concrete of 10 tons. The minimum embedment depth is 8 inches. Spacing of anchor bolts shall match the bolt pattern for the applicable hanger.
14. Contractor shall accurately locate the existing rebar within the anchorages so as not to drill through the existing rebar during the installation of the concrete anchors.
15. All welding shall be in accordance with AASHTO/AWS D1.5.



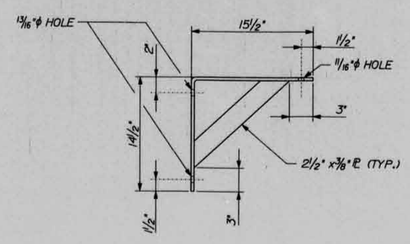
CROSS SECTION (APPROACH SPANS)



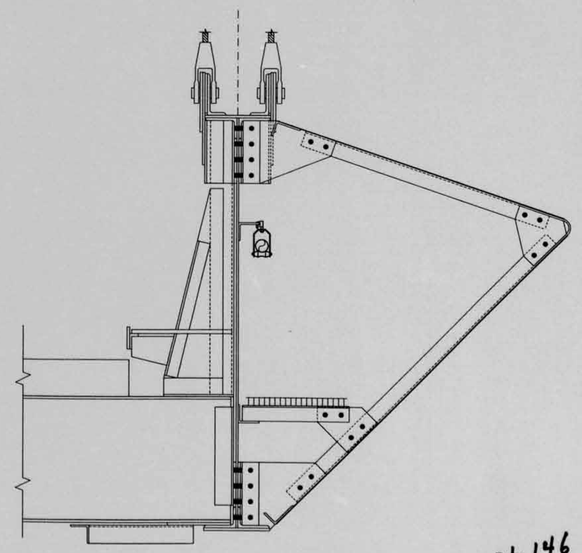
SECTION AT ABUTMENT / ANCHORAGE



24" OFFSET BRACKET



12" OFFSET BRACKET



CROSS SECTION AT FAIRING

131-146

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		

PROJECT NO. 53252.000
DATE 6/29/04
DESIGNED BY K.WOOD
DRAWN BY D.SHAW
CHECKED BY P.HETHERLY

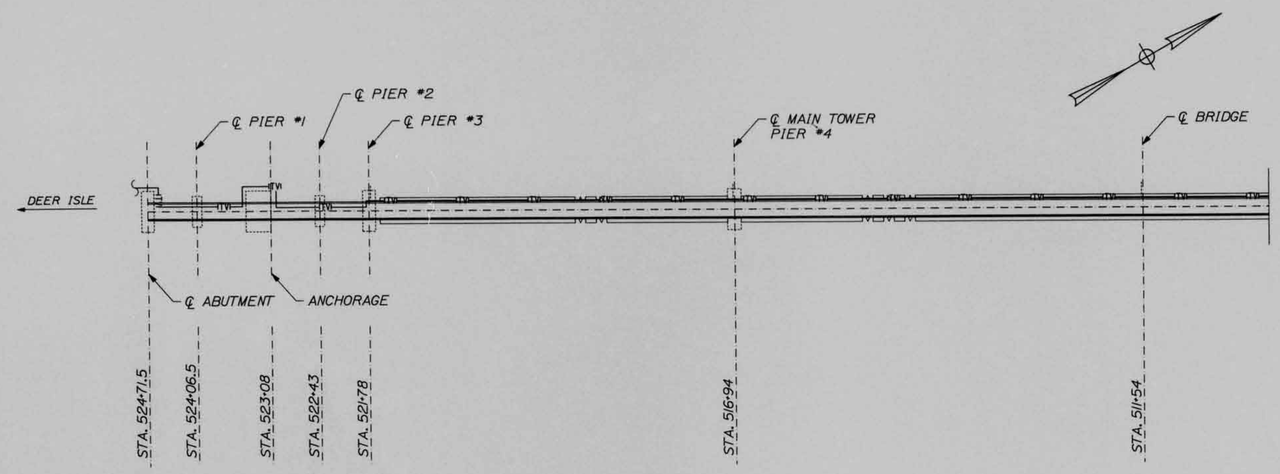
Guertin Elkerton & Associates, Inc.
Engineers & Scientists
391 Riverside Street, Portland, Maine
Tel: 207-773-2626 Fax: 207-423-0480
www.geeinc.us

ADELPHIA CABLE CROSSING
DEER ISLE - SEDGWICK BRIDGE
OVER EGGEMOGGIN REACH

QUANTITIES, NOTES AND TYPICALS

SHEET NUMBER
2
OF 8

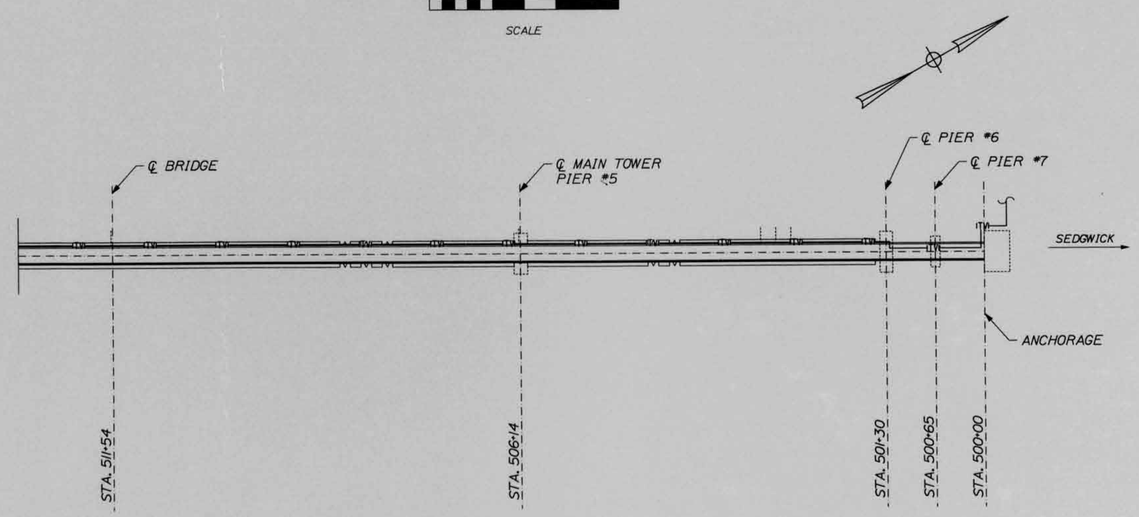
Filename: ...\002_Quant_Notes_Details.dgn Division: BRIDGE Username: dshaw Date:06/29/2004



PLAN

100 0 100 200

SCALE



PLAN

100 0 100 200

SCALE

131-147

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		

PROJECT NO. 53252.000
DATE 6/29/04
DESIGNED BY K. WOOD
DRAWN BY D. SHAW
CHECKED BY P. HETHERLY

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www.gaainc.us

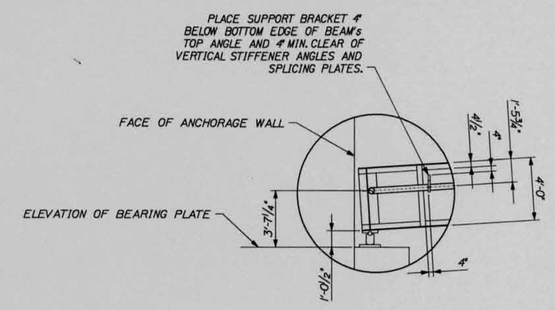
ADELPHIA CABLE CROSSING

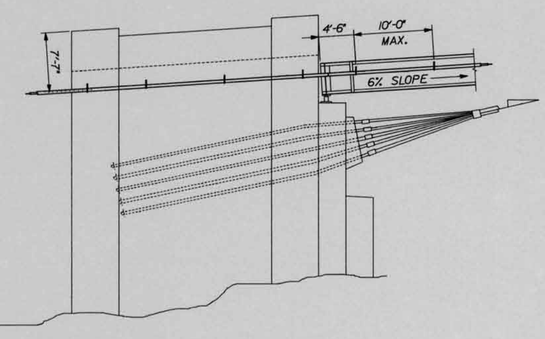
DEER ISLE - SEDGWICK BRIDGE
OVER EGGEMOGGIN REACH

PLAN

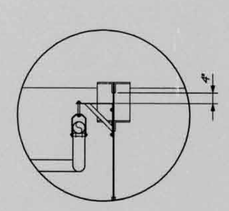
SHEET NUMBER
3
OF 8

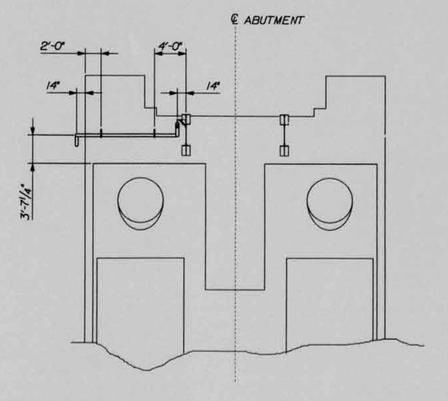
Filename: ...\000\BRIDGE\MSTA\003_Plan.dgn Division: BRIDGE Username: dshaw Date:06/29/2004



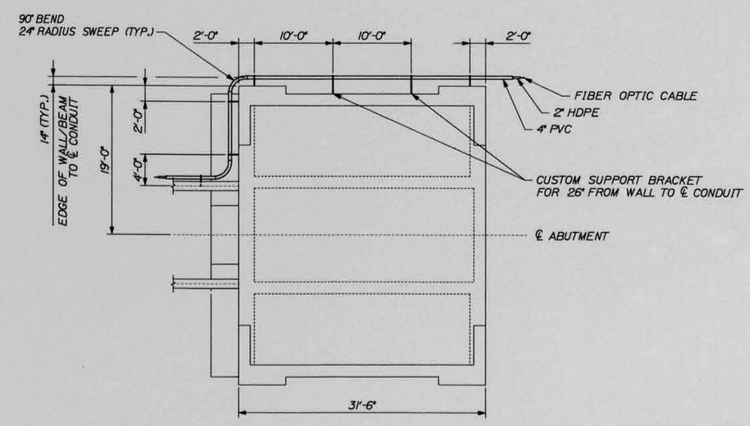


WEST ELEVATION





SOUTH ELEVATION



SEDGWICK ANCHORAGE PLAN

131-148

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		

PROJECT NO. 53252.000
DATE 6/29/04
DESIGNED BY K.K. WOOD
DRAWN BY D. SHAW
CHECKED BY P. HETHERLY

Guertin Elkerton & Associates, Inc.
Engineers & Scientists
331 State Street, Augusta, Maine 04330
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www.geainc.us

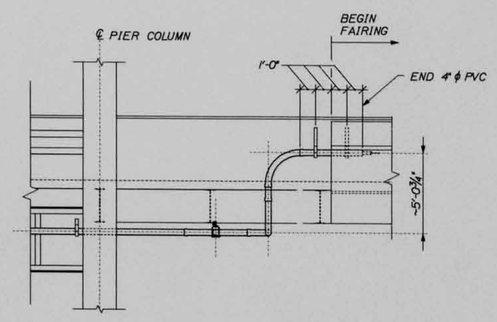
ADELPHIA CABLE CROSSING

DEER ISLE - SEDGWICK BRIDGE
OVER EGGEMOGGIN REACH

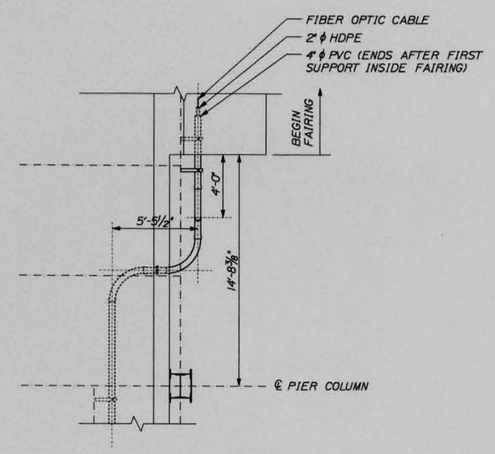
SEDGWICK ANCHORAGE

SHEET NUMBER
4
OF 8

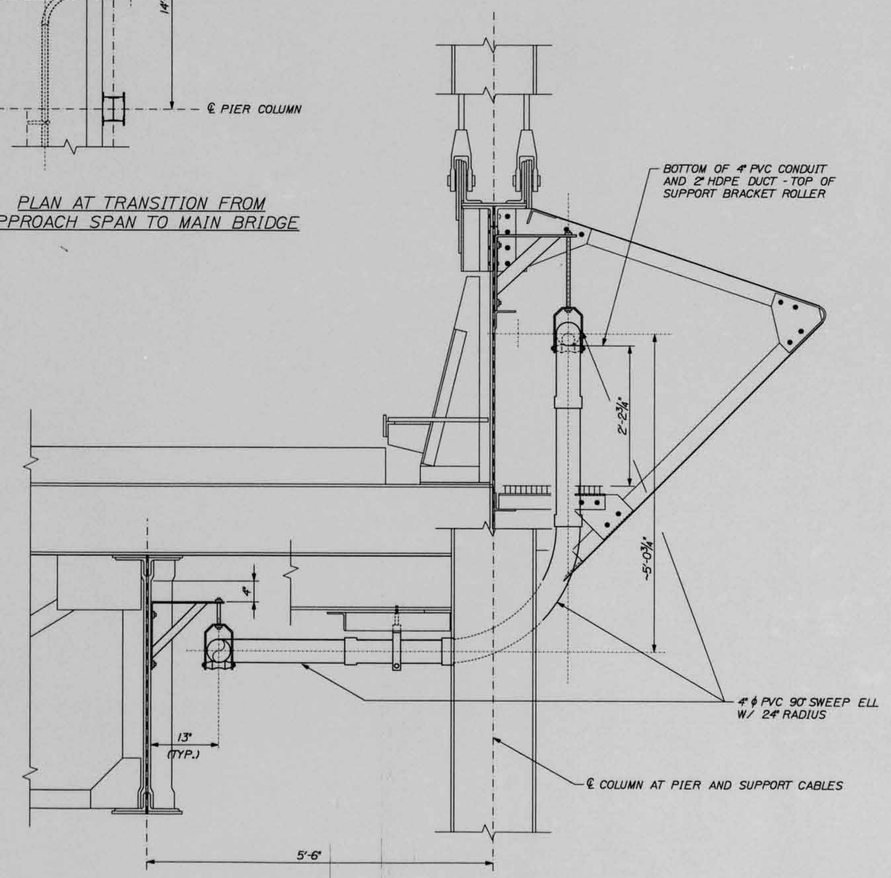
Filename: ...\004_Sedgwick_Anchorage_Details.dgn Division: BRIDGE Username: dshaw Date:06/29/2004



ELEVATION AT TRANSITION FROM APPROACH SPAN TO MAIN BRIDGE



PLAN AT TRANSITION FROM APPROACH SPAN TO MAIN BRIDGE



131-149

CROSS SECTION AT TRANSITION FROM APPROACH SPAN TO MAIN BRIDGE

REVISIONS

NO.	DATE	DESCRIPTION

PROJECT NO. 53252.000
DATE 6/29/04
DESIGNED BY K.WOOD
DRAWN BY D.SHAW
CHECKED BY P.HETHERLY

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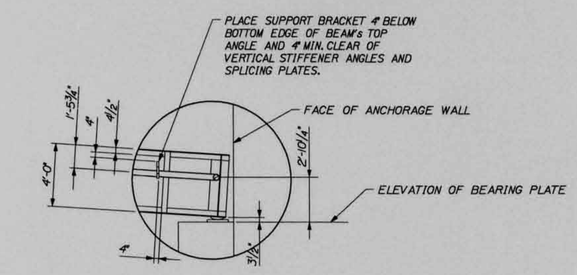
ADELPHIA CABLE CROSSING

DEER ISLE - SEDGWICK BRIDGE
OVER EGGEMOGGIN REACH

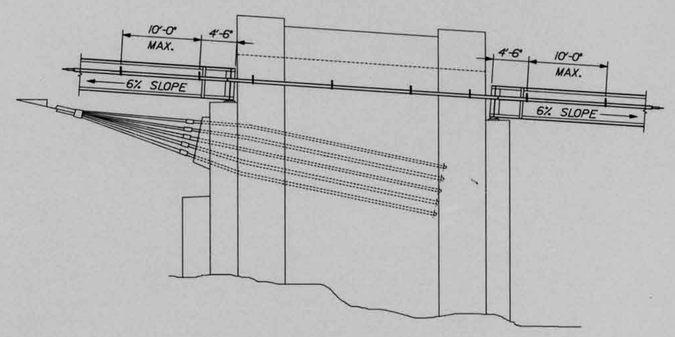
APPROACH SPAN TO SUSPENDED SPAN DETAILS

SHEET NUMBER
5
OF 8

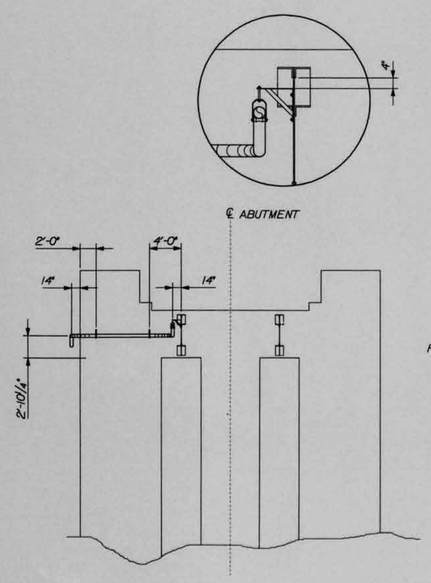
Filename: ...\005_Approach_Span_Detail.dgn Division: BRIDGE Username: dshaw Date:06/29/2004



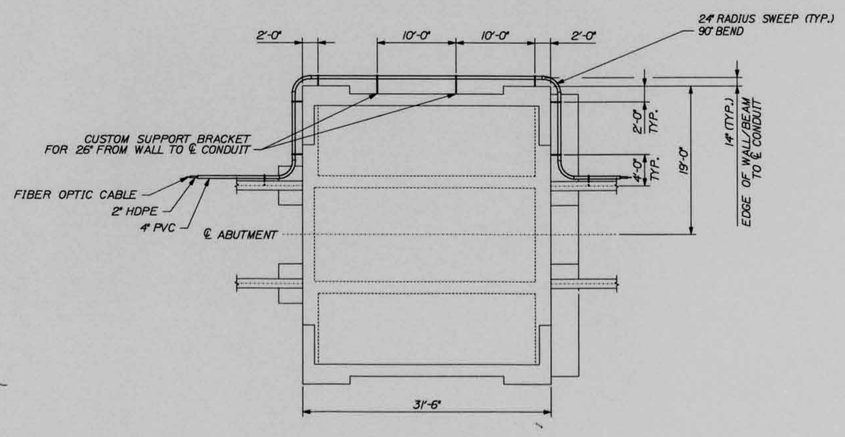
TYPICAL BOTH SIDES OF ANCHORAGE



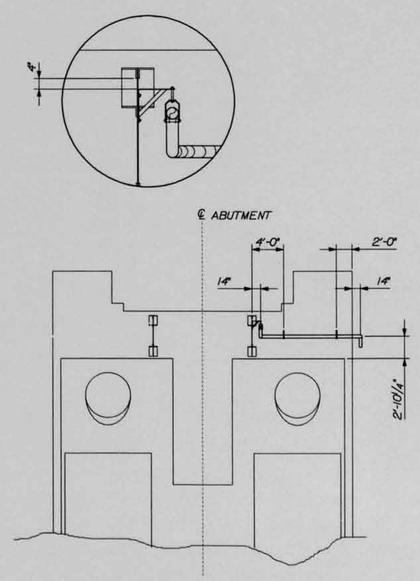
WEST ELEVATION



SOUTH ELEVATION



DEER ISLE ANCHORAGE PLAN



NORTH ELEVATION

131-150

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		

PROJECT NO. 53252.000
DATE 6/29/04
DESIGNED BY K.WOOD
DRAWN BY D.SHAW
CHECKED BY P.HETHERLY

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Engineers & Scientists
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Tel: 207-622-6087 Fax: 207-622-0480
www.geainc.us

ADELPHIA CABLE CROSSING

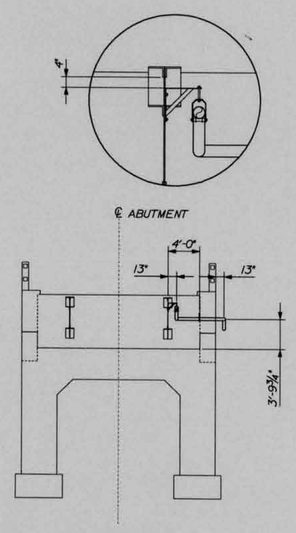
DEER ISLE - SEDGWICK BRIDGE
OVER EGGEMOGGIN REACH

DEER ISLE ANCHORAGE

SHEET NUMBER
6
OF 8

Filename: ...\006_Deer_Isle_Anchorage_Details.dgn Division: BRIDGE Username: dshaw Date:06/29/2004

Filename: ...\007_Deer_Isle_Abutment_Details.dgn Division: BRIDGE Username: dshaw Date:06/29/2004



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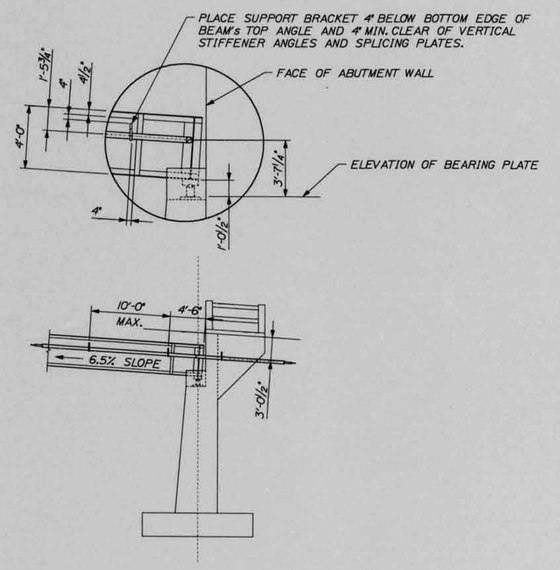
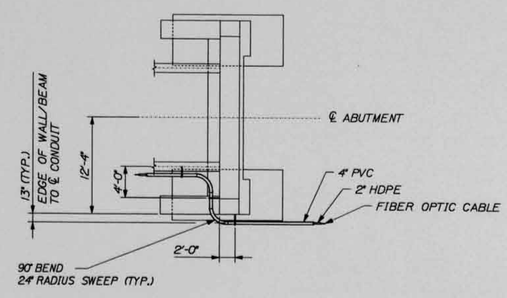


WEST ELEVATION



DEER ISLE ABUTMENT PLAN

131-151

REVISIONS		
NO.	DATE	DESCRIPTION
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PROJECT NO. 53252.000
DATE 6/29/04
DESIGNED BY K.WATWOOD
DRAWN BY D.SHAW
CHECKED BY P.HETHERLY

GEA
Guertin Elkerton & Associates, Inc.
Engineers & Scientists
331 State Street, Augusta, Maine 04330
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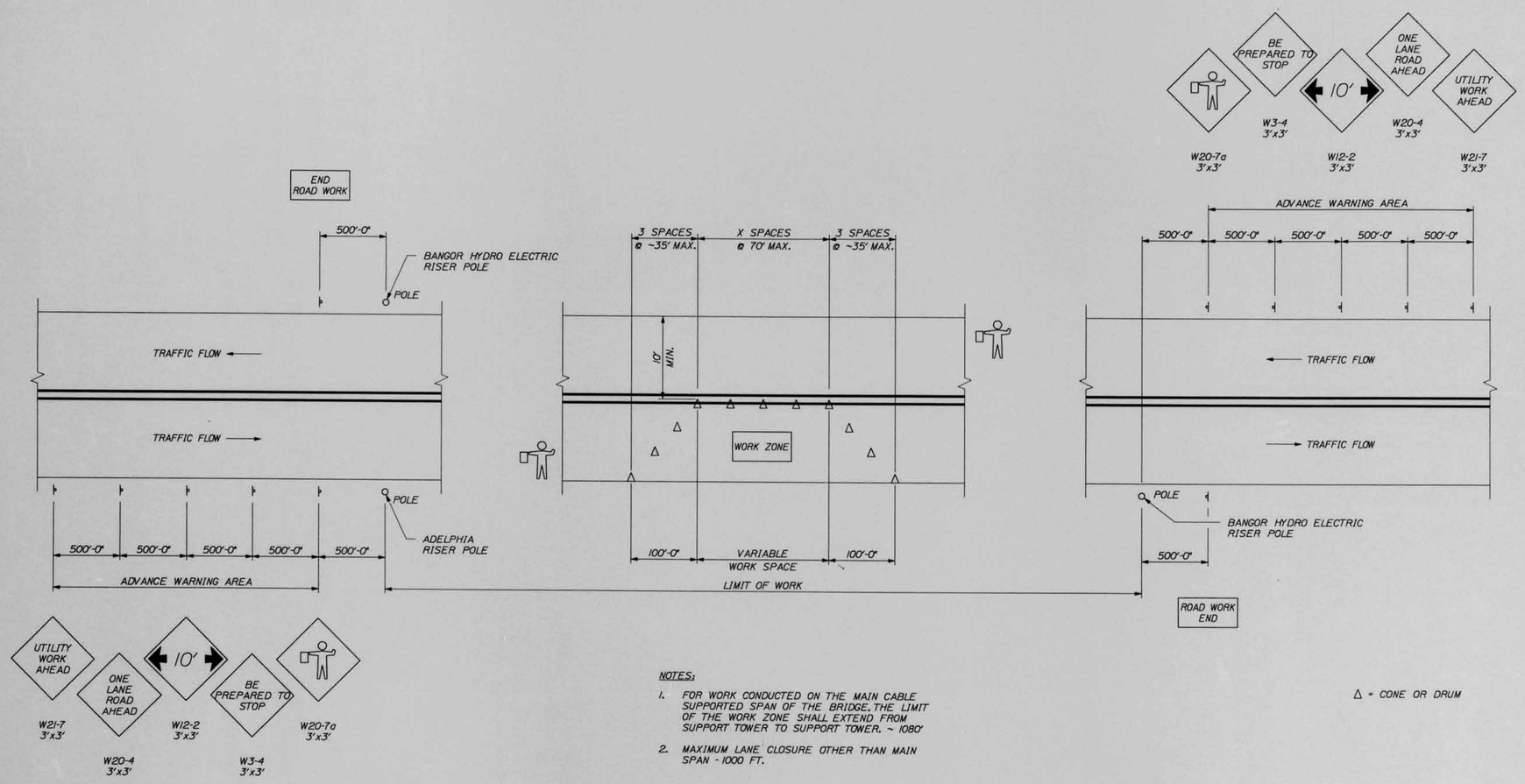
ADELPHIA CABLE CROSSING

DEER ISLE - SEDGWICK BRIDGE
OVER EGGEMOGGIN REACH

DEER ISLE ABUTMENT

SHEET NUMBER
7
OF 8



NOTES:

1. FOR WORK CONDUCTED ON THE MAIN CABLE SUPPORTED SPAN OF THE BRIDGE. THE LIMIT OF THE WORK ZONE SHALL EXTEND FROM SUPPORT TOWER TO SUPPORT TOWER. ~ 1080'
2. MAXIMUM LANE CLOSURE OTHER THAN MAIN SPAN - 1000 FT.

Δ = CONE OR DRUM

131-152

REVISIONS

NO.	DATE	DESCRIPTION
1		
2		
3		
4		

PROJECT NO. 5325.000
DATE 6/29/04
DESIGNED BY K.WOOD
DRAWN BY D.SHAW
CHECKED BY P.HETHERLY

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Engineers & Scientists
331 State Street, Augusta, Maine 04330
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ADELPHIA CABLE CROSSING

DEER ISLE - SEDGWICK BRIDGE OVER EGGEMOGGIN REACH

TRAFFIC CONTROL PLAN

SHEET NUMBER 8 OF 8

Date:06/29/2004 Filename: ...\MSTA\008_Traffic_Control.dgn Division: BRIDGE Username: dshaw

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DEER ISLE-SEDGWICK
HANCOCK COUNTY
DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
US ROUTE 15

PROJECT LENGTH 0.539 mi.

BRIDGE REHABILITATION OF TOWER PIERS (PIERS 4 AND 5)

BRIDGE NO. 3257

SPECIFICATIONS

DESIGN: AASHTO Standard Specifications for Highway Bridges, 17th Edition 2002 and interim specifications through March 2005.

DESIGN LOADING

Live Load ..... H20 Site Specific Load Posting

TRAFFIC DATA

Current (2005) AADT	3,470
Future (2025) AADT	5,210
DHV - % of AADT	12
Design Hour Volume	625
% Heavy Trucks (AADT)	7
% Heavy Trucks (DHV)	5
Directional Distribution (DHV)	50
18 kip Equivalent P 2.0	104
18 kip Equivalent P 2.5	100
Design Speed (mph)	25

HYDROLOGIC DATA*

2009 Predicted High Tide	7.4 ft
Mean Higher High Water (MHHW)	6.4 ft
Mean High Water (MHW)	5.3 ft
Mean Tide Level (MTL)	0.3 ft
Mean Low Water (MLW)	-4.7 ft
Mean Lower Low Water (MLLW)	-5.1 ft

* Elevations based on NVGD 29, see General Notes.

MATERIALS

Structural Steel	AASHTO M 270 (ASTM A 572, Grade 50) (Pylon Jackets)
Structural Steel	AASHTO M 270 (ASTM A 709, Grade 36) (Unless Otherwise Noted)
High Strength Bolts	AASHTO M 164 (ASTM A 325, Type 1) (Unless Otherwise Noted)
Concrete	Self Consolidating Concrete
Grout	As Specified
Reinforcing Steel	AASHTO M31 (ASTM A615)
Epoxy Coated Reinforcing Steel	AASHTO M284 (ASTM A775)

BASIC DESIGN STRESSES

Structural Steel:

AASHTO M 270 (ASTM A 572, Grade 50)	F y = 50,000 psi
AASHTO M 270 (ASTM A 709, Grade 36)	F y = 36,000 psi
AASHTO M 164 (ASTM A 325)	F u = 120,000 psi

Reinforced Concrete:

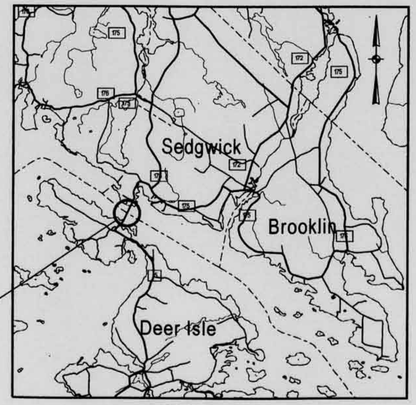
AASHTO M85, Type II	F 'c = 5,000 psi
AASHTO M31 (ASTM A615)	fy = 60,000 psi
Grout	F 'c = 5,000 psi

UTILITIES

Bangor Hydro-Electric Company
Fairpoint Communications
FHWA Aerodynamics Laboratory
Genex Systems
MDOT Bridge Maintenance
MDOT Electrical Department
Time Warner Cable
Verizon

MAINTENANCE OF TRAFFIC

Uninterrupted roadway and navigation traffic shall be maintained throughout construction.



LOCATION MAP

2 0 2 4
Scale in Miles

LIST OF DRAWINGS

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SCOPE OF WORK

THE WORK UNDER THIS PROJECT SHALL CONSIST OF THE FOLLOWING MAJOR ITEMS OF WORK:

-REMOVAL OF MARINE GROWTH, SILT, AND DEBRIS BUILD UP FROM PIERS (UNDERWATER)
-REMOVAL AND DISPOSAL OF EXISTING METAL CASING ON PIERS (UNDERWATER AND ABOVE WATER)
-CONCRETE DEMOLITION AND DISPOSAL (UNDERWATER AND ABOVE WATER)
-INSTALLATION OF PERMANENT METAL FORMWORK (UNDERWATER AND ABOVE WATER)
-INSTALLATION AND REMOVAL OF TEMPORARY TIMBER FORMWORK (ABOVE WATER)
-REPAIRS TO EXISTING CONCRETE (UNDERWATER AND ABOVE WATER)
-MAINTENANCE OF NAVIGATION TRAFFIC

149-94

TranSystems

BH-1006(200)X PIN 16696.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

		DATE
APPROVED		
COMMISSIONER:		6/19/09
CHIEF ENGINEER:		06/19/09

STATE OF MAINE EVAN C. LOWELL NO. 9065 LICENSED PROFESSIONAL ENGINEER

SIGNATURE		
P.E. NUMBER	9065	
DATE	JUNE 18, 2009	

PROJECT INFORMATION

PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	DEVIN ANDERSON
DESIGNER	CONSULTANT
CONSULTANT	TRANSYSTEMS
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

DEER ISLE-SEDGWICK
DEER ISLE-SEDGWICK BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 16

Filename: 001_Title Sheet.dgn Division: Bridge Username: $user$ Date: 6/8/2009

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.172	PYLON CASING DEMOLITION	1	LS
202.173	PYLON DEMOLITION BELOW ELEVATION +8.0'	1,200	CF
202.174	PYLON BASE CASING DEMOLITION	1	LS
202.175	PYLON BASE DEMOLITION	2,750	CF
202.178	SILT REMOVAL	1	LS
503.14	EPOXY-COATED REINFORCING STEEL, FABRICATED AND DELIVERED	20,000	LB
503.15	EPOXY-COATED REINFORCING STEEL, PLACING	20,000	LB
503.17	MECHANICAL / WELDED SPLICE	500	EA
504.70	STRUCTURAL STEEL FABRICATION AND DELIVERY - PYLON JACKET (56,000 LBS)	1	LS
504.70	STRUCTURAL STEEL FABRICATION AND DELIVERY - PYLON BASE FORMS (90,000 LBS)	1	LS
504.71	STRUCTURAL STEEL ERECTION - PYLON JACKET (56,000 LBS)	1	LS
504.71	STRUCTURAL STEEL ERECTION - PYLON BASE FORMS (90,000 LBS)	1	LS
515.20	PROTECTIVE COATING FOR CONCRETE SURFACES	600	SY
518.50	REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL, < 7.9 IN	900	SF
518.51	REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL, < 7.9 IN	250	SF
518.52	REPAIR OF UPWARD FACING SURFACES ≥ 7.9 IN	15	CY
518.60	REPAIR OF VERTICAL SURFACES < 7.9 IN	3,900	SF
518.61	REPAIR OF VERTICAL SURFACES ≥ 7.9 IN	15	CY
518.70	REPAIR OF OVERHEAD SURFACES < 7.9 IN	600	SF
518.71	REPAIR OF OVERHEAD SURFACES ≥ 7.9 IN	10	CY
531.21	PYLON PATCHING	375	CF
531.22	PYLON STRENGTHENING BELOW ELEVATION +8.0'	2,700	CF
532.01	PYLON BASE STRENGTHENING	5,100	CF
659.10	MOBILIZATION	1	LS
853.10	BOAT - RESIDENT	1	LS

GENERAL NOTES:

1. THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS," DECEMBER 2002, AND "STANDARD DETAILS," DECEMBER 2002 INCLUDING ALL SUPPLEMENTAL SPECIFICATIONS AND THE SPECIAL PROVISIONS OF THIS CONTRACT.

2. DIMENSIONS, ANGLES, STATIONING AND ELEVATIONS SHOWN ON EXISTING DETAILS ARE TAKEN FROM THE CONSTRUCTION DRAWINGS DATED SEPTEMBER 14, 1937 THROUGH JUNE 24, 1939 SUPPLEMENTED BY LIMITED FIELD MEASUREMENTS AND ARE NOT GUARANTEED TO BE CORRECT. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS, ANGLES, ELEVATIONS AND EXISTING DETAILS NECESSARY FOR THE COMPLETION OF ALL WORK BY FIELD MEASUREMENTS AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY EXISTING FIELD CONDITIONS (i.e. MEMBER SIZES, PLATE SIZES, AND MEMBER CONFIGURATION) BY FIELD MEASUREMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF AND SHALL NOT COMMENCE ANY FABRICATION UNTIL HE HAS MADE THE REQUIRED MEASUREMENTS ON THE ACTUAL STRUCTURE AND THE SUBMITTED SHOP DRAWINGS HAVE BEEN APPROVED BY THE FABRICATION ENGINEER. SHOP DRAWINGS SHALL STATE THAT THE EXISTING DIMENSIONS, ANGLES, ELEVATIONS AND FIELD CONDITIONS HAVE BEEN FIELD VERIFIED BY THE CONTRACTOR.

3. ELEVATIONS FROM THE ORIGINAL DESIGN DRAWINGS, WHICH SERVE AS THE BASIS FOR ELEVATIONS SHOWN ON THESE CONTRACT PLANS AND SPECIFICATIONS, ARE ASSUMED TO BE REFERENCED TO VERTICAL DATUM NGVD 29

4. ALL DIRT, RUST, SCALE, SLAG, PAINT, VEGETATION, MARINE GROWTH OR OTHER FOREIGN MATTER SHALL BE REMOVED FROM THE EXISTING STRUCTURE IN THE VICINITY OF ANY REPAIR WORK. ANY CLEANING OR MINOR MODIFICATIONS TO COMPONENTS OF THE EXISTING STRUCTURE SUCH AS GRINDING, WELDING OR DRILLING HOLES WHICH ARE REQUIRED TO ACCOMMODATE THE INSTALLATION OF NEW OR TEMPORARY ELEMENTS, AS DETAILED AND FABRICATED, SHALL BE CONSIDERED INCIDENTAL TO THOSE ELEMENTS AND NO ADDITIONAL ALLOWANCE WILL BE MADE FOR SUCH WORK. ALL PROPOSED MODIFICATIONS TO EXISTING COMPONENTS WHICH ARE TO REMAIN AS PART OF THE FINISHED STRUCTURE SHALL BE SUBMITTED TO THE RESIDENT FOR APPROVAL PRIOR TO STARTING THE WORK. IF THE CONTRACTOR'S OPERATIONS DAMAGE EXISTING MATERIALS TO REMAIN, REPAIRS SHALL BE MADE WITHOUT ADDITIONAL COMPENSATION. IF MAJOR REPAIRS DUE TO DAMAGE ARE REQUIRED, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TESTING AND ENGINEERING DESIGN OF THOSE REPAIRS WITHOUT ADDITIONAL COMPENSATION.

5. THE METAL PORTIONS OF THE EXISTING BRIDGE ARE COATED WITH A LEAD BASED PAINT SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR THE CONTAINMENT, PROPER MANAGEMENT, AND DISPOSAL OF ALL LEAD-CONTAMINATED HAZARDOUS WASTE GENERATED BY THE PROCESS OF REHABILITATING THE BRIDGE. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING APPROPRIATE OSHA MANDATED PERSONAL PROTECTION STANDARDS RELATED TO THIS PROCESS. ONCE AN EXISTING BRIDGE COMPONANT IS REMOVED, THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE CARE, CUSTODY, AND CONTROL OF THE COMPONANTS OF THE EXISTING BRIDGE AND ANY HAZARDOUS WASTE GENERATED AS A RESULT OF THE STORAGE, RECYCLING, OR DISPOSAL OF THE BRIDGE COMPONANTS, INCLUDING LEAD-COATED STEEL AND/OR WROUGHT IRON. THE CONTRACTOR SHALL RECYCLE OR REUSE THE STEEL IN ACCORDANCE WITH THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTIONS'S "MAINE HAZARDOUS WASTE MANAGEMENT REGULATIONS" CHAPTER 850. A COPY OF THIS REGULATION IS AVAILABLE AT MAINE DOT'S OFFICES ON CHILD STREET IN AUGUSTA.

6. THE CONTRACTOR IS NOTIFIED THAT THE EXISTING BRIDGE HAS A POSTED LOAD RESTRICTION "TRUCKS AND BUSES OVER 20,000 LBS. G.V.W. MAINTAIN 500' SPACING." THE CONTRACTOR MUST ADHERE TO THE POSTED LOAD RESTRICTIONS AT ALL TIMES.

7. THE LOCATIONS OF THE EXISTING UTILITIES, BRIDGE WIRING AND WEATHER MONITORING INSTRUMENTS (i.e. "UTILITIES AND SPECIAL EQUIPMENT") SHOWN ON THESE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND SPECIAL EQUIPMENT PRIOR TO STARTING WORK. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND SPECIAL EQUIPMENT DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SUPPORTS WHERE REQUIRED BY HIS OPERATIONS. TEMPORARY SUPPORTS SHALL BE APPROVED BY THE UTILITY OR SPECIAL EQUIPMENT OWNER PRIOR TO THEIR INSTALLATION AND USE. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE WORK REQUIRED UNDER ITEM 659.10 MOBILIZATION.

8. MATERIAL THAT IS SPECIFICALLY CALLED OUT ON THE PLANS AND IS NOT DESIGNATED AS EXISTING SHALL BE NEW MATERIAL.

9. ALL BOLTS SHALL BE HIGH STRENGTH BOLTS MEETING THE REQUIREMENTS OF AASHTO M164 (ASTM 325, TYPE 1). BOLTS SHALL BE 7/8" DIA. IN 15/16" DIA. HOLES UNLESS OTHERWISE NOTED. HIGH STRENGTH BOLTS SHALL HAVE A HARDENED WASHER UNDER THE NUT. HARDENED WASHERS SHALL ALSO BE PLACED UNDER THE HEAD IF THE HEAD IS THE TURNED ELEMENT. SLOTTED HOLES, IN ACCORDANCE WITH THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES SHALL BE USED AT LOCATIONS SHOWN ON THE CONTRACT DRAWINGS OR AS APPROVED BY THE RESIDENT.

10. ALL WELDING SHALL CONFORM TO THE BRIDGE WELDING CODE, ANSI/AASHTO/AWS D1.5-2002 AND BE PERFORMED BY AWS CERTIFIED WELDERS. NO WELDING SHALL BE PERMITTED TO EXISTING METAL UNLESS SPECIFIED ON THE DRAWINGS OR APPROVED IN WRITING BY THE RESIDENT.

11. ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO (ASTM A709) GRADE 36, T2, EXCEPT AS NOTED. WELDED FABRICATION SHALL BE PERFORMED, AND WELDERS SHALL BE CERTIFIED, IN ACCORDANCE WITH THE CURRENT BRIDGE WELDING CODE, ANSI/AASHTO/AWS D1.5 AND ALL INTERIM REVISIONS PUBLISHED AS OF THE BID OPENING DATE. NO WELDING SHALL BE PERMITTED TO EXISTING STEEL UNLESS SPECIFIED ON THE CONTRACT DRAWINGS OR APPROVED IN WRITING BY THE RESIDENT. PAINTING SHALL CONFORM TO THE CONTRACT SPECIFICATIONS.

12. DETERIORATED CONCRETE AND METAL ON PIERS 4 AND 5 SHALL BE CONSIDERED PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH SECTION 202 OF THE STANDARD SPECIFICATIONS.

13. THE CONTRACTOR IS ADVISED THAT THE BRIDGE IS CURRENTLY BEING PAINTED UNDER MAINE DOT CONTRACT P.I.N. 10062.01. THE CONTRACTOR MUST COORDINATE HIS ACTIVITIES WITH THE WORK UNDER THIS PAINTING CONTRACT AND ANY OTHER WORK BEING PERFORMED ON THE BRIDGE.

14. THE CONTRACTOR WILL NOT BE PERMITTED TO USE THE BRIDGE ROADWAY FOR OPERATIONS.

15. THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO SAFEGUARD HIS WORKERS AGAINST NAVIGATIONAL TRAFFIC AND OTHER HAZARDS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST FOR THE WORK ITEM BEINGPERFORMED.

16. THE USE OF FALSEWORK, FORMWORK, RIGGING, SCAFFOLDING AS WELL AS OTHER CONSTRUCTION METHODS AND PROCEDURES SHALL BE SCHEDULED AND PERFORMED IN SUCH A WAY THAT IT SHALL NOT INTERFERE WITH OR CAUSE UNAUTHORIZED INTERRUPTIONS TO NAVIGATION. THE EXTENT AND LIMITS OF ENCROACHMENT, IF ANY, ON THE NAVIGATION CLEARANCES SHALL BE SUBMITTED TO THE USCG FOR APPROVAL. NO ENCROACHMENT SHALL BE CAUSED UNTIL WRITTEN AUTHORIZATION IS RECEIVED FROM THE USCG.

17. BIDDERS AND CONTRACTORS SHALL OBTAIN A COPY OF THE EXISTING BRIDGE PLANS BY CONTACTING THE DEPARTMENT. THE PLANS ARE REPRODUCTIONS OF THE ORIGINAL DRAWINGS AS PREPARED FOR THE CONSTRUCTION OF THE BRIDGE AS WELL AS BRIDGE REHABILITATION PROJECTS. THE EXISTING PLANS ARE CONSIDERED PART OF THE CONTRACT DOCUMENTS FOR THIS PROPOSED PROJECT. EXISTING PLANS MAY BE ACCESSED AT THE FOLLOWING WEB ADDRESS:
http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php

18. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE. REPAIR WORK, IF NECESSARY, SHALL NOT BE DONE ON A LANE CARRYING TRAFFIC. THE COST OF THESE REPAIRS SHALL BE CONSIDERED INCIDENTAL TO THE WORK ITEM WHICH CAUSED THE DAMAGE.

19. ALL EXISTING MATERIALS WHICH ARE REMOVED FROM THE WORK AREA SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE RESIDENT. THESE EXISTING MATERIALS INCLUDE, BUT ARE NOT LIMITED TO, CONCRETE, METAL CASING, REINFORCING STEEL, SILT AND OTHER DEBRIS ON OR ATTACHED TO THE STRUCTURE WITHIN THE WORK AREAS. THE COST OF REMOVAL AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK ITEMS FOR WHICH THESE REMOVALS ARE REQUIRED.

SUGGESTED SEQUENCE OF CONSTRUCTION

THE FOLLOWING CONSTRUCTION SEQUENCE IS INTENDED AS A SUGGESTION OF ONE FEASIBLE METHOD. IN ORDER TO PROVIDE A UNIFORM BASIS FOR BIDDING. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SEQUENCE IN WRITING TO THE RESIDENT FOR APPROVAL BEFORE STARTING WORK ON THIS PROJECT.

PIER 4

1. PERFORM PYLON BASE CASING DEMOLITION.
2. PERFORM PYLON BASE DEMOLITION IN STAGES AS NOTED.
3. INSTALL NEW REINFORCING STEEL FOR PYLON BASE, IN STAGES AS NOTED.
4. INSTALL PYLON BASE FORMS, IN STAGES AS NOTED.
5. PLACE REPAIR MATERIAL FOR PYLON BASE STRENGTHENING, IN STAGES AS NOTED.
6. PERFORM PYLON CASING DEMOLITION ON EAST PYLON LEG TO ELEVATION +8.0.
7. PERFORM PYLON DEMOLITION ON EAST PYLON LEG, IN STAGES AS NOTED.
8. INSTALL NEW REINFORCING STEEL (WHERE REQUIRED) AND PERFORM PYLON PATCHING ON EAST PYLON LEG IN STAGES AS NOTED.
9. INSTALL PYLON STRENGTHENING ON EAST PYLON LEG, IN STAGES AS NOTED.
10. REPEAT STEPS 6 - 9 ON WEST PYLON LEG.
11. PERFORM CONCRETE REPAIRS ON PIER CAP IN STAGES, AS SHOWN.
12. PLACE PROTECTIVE COATING FOR CONCRETE SURFACES.

PIER 5

1. REPEAT STEPS 1 - 12 AS DESCRIBED ABOVE.

M9-95

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00
BRIDGE NO. 3257
BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	ECL	LBD	05/09
CHECKED-REVIEWED	TGS		05/09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

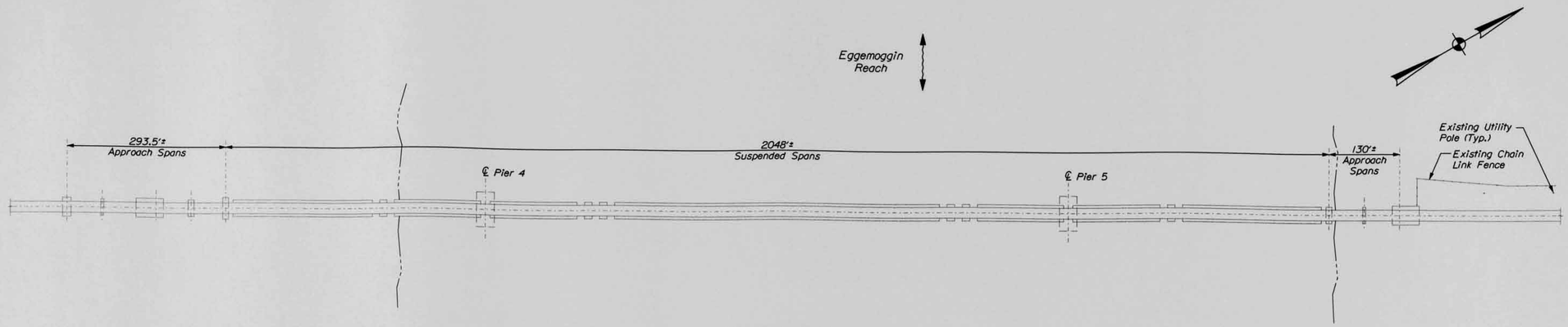
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

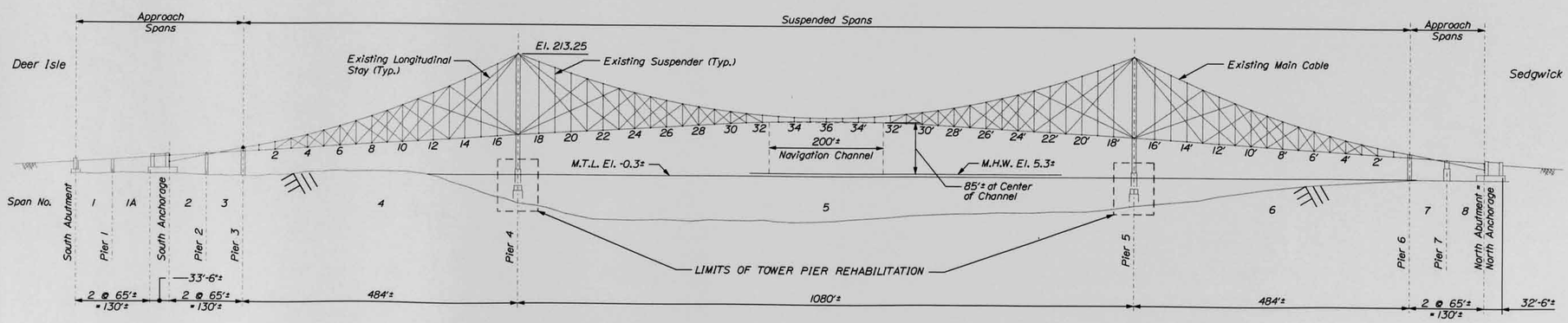
ESTIMATED QUANTITIES
& GENERAL NOTES

SHEET NUMBER
2
OF 16

Filename: ...\bridge\msta\002_Estimate.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



GENERAL PLAN



GENERAL ELEVATION

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR NAVIGATION REQUIREMENTS SEE SHEET 16.

149-96

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	ECL	LBD	5-09
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DESIGN-DETAILED2			
DESIGN-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

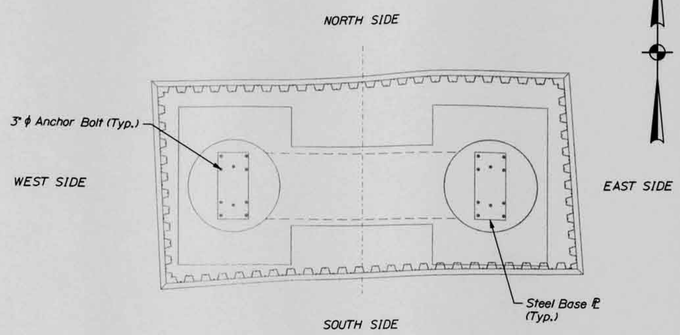
GENERAL PLAN & ELEVATION

SHEET NUMBER

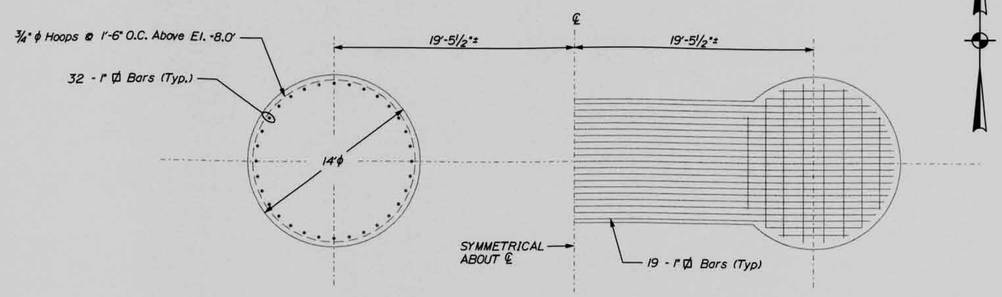
3

OF 16

Filename: ...\bridge\msta\003_Elevation.dgn Division: BRIDGE Username: richard.simon Date:6/19/2009

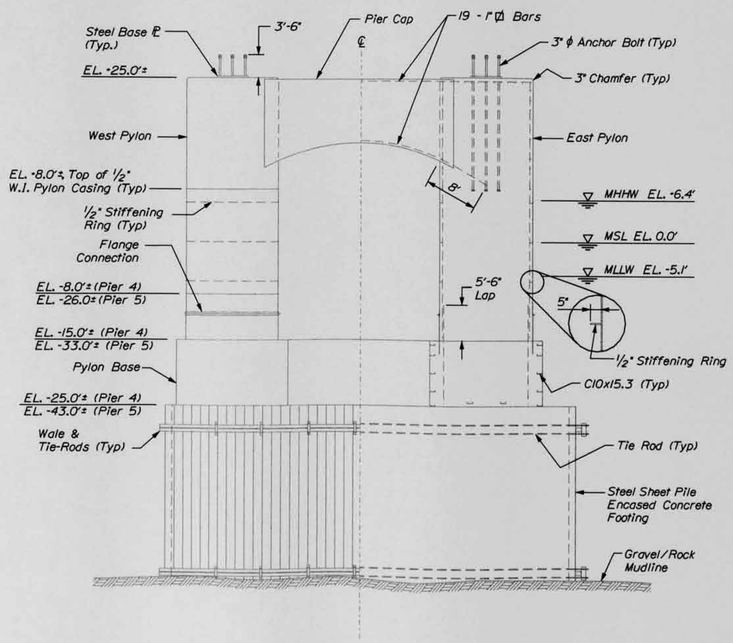


PIER PLAN



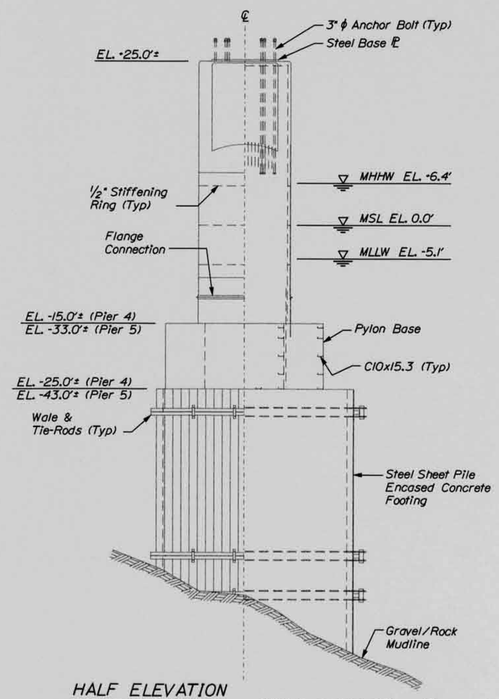
SECTION @ EL. 0.0' PLAN @ EL. +25.0'

PIER REINFORCING BAR PLAN



HALF ELEVATION @ SOUTH FACE HALF SECTION @ ℄

PIER 4



HALF ELEVATION @ EAST FACE HALF SECTION @ ℄

PIER 4

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR PIER LOCATIONS SEE SHEET 3.
3. PIER 4 SHOWN, PIER 5 SIMILAR EXCEPT AS NOTED.

149-97

CHILDS ENGINEERING CORPORATION
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	PI	TEQ	5-09
CHECKED-REVIEWED	RGF	RGF	5-09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

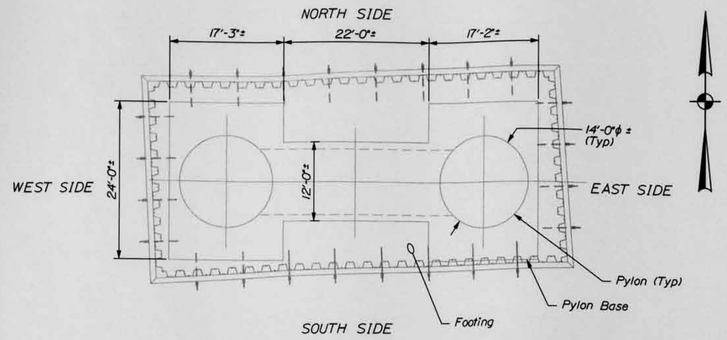
TYPICAL PIER EXISTING COMPONENTS

SHEET NUMBER

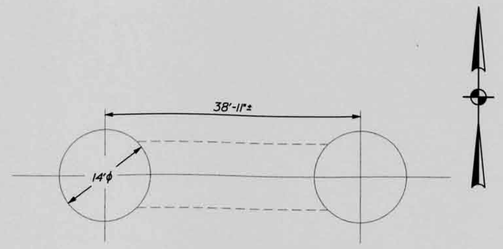
4

OF 16

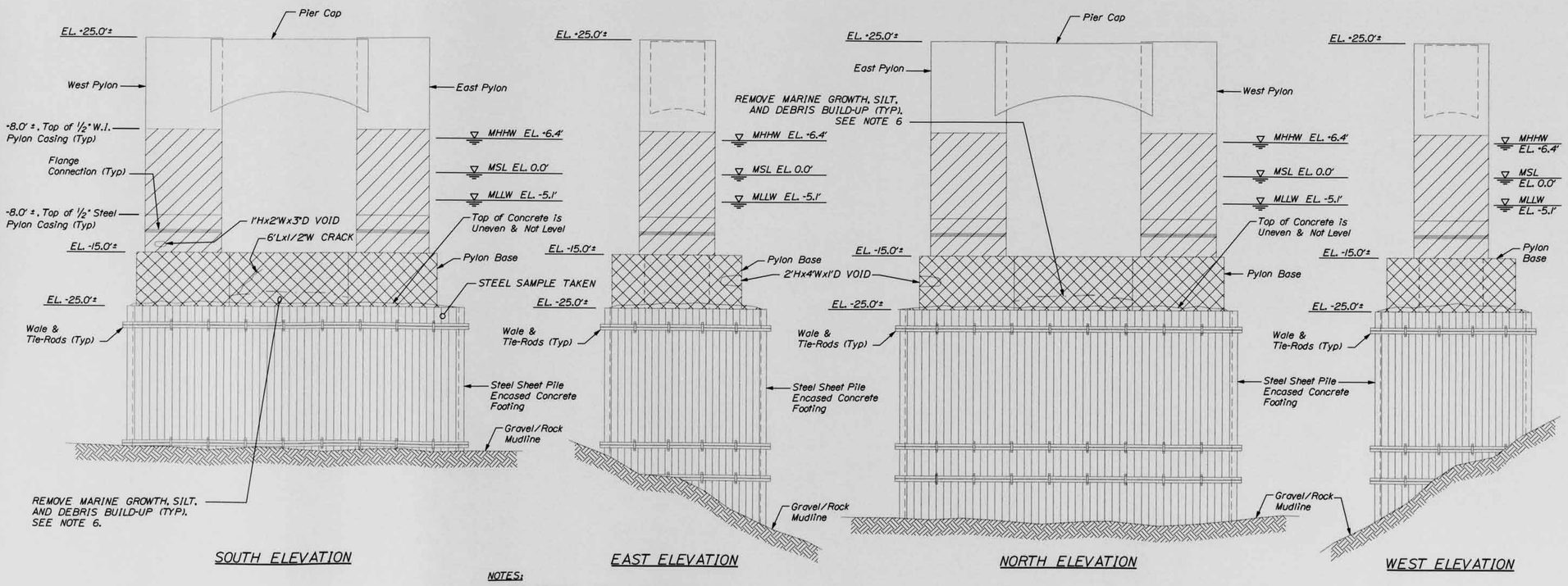
Filename: ...\004_TypicalPier Existing Components.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



PLAN



PYLON PLAN



SOUTH ELEVATION

EAST ELEVATION

NORTH ELEVATION

WEST ELEVATION

LEGEND:

- LIMITS OF 1/2" THK. PYLON CASING AND CONCRETE DEMOLITION (ITEMS 202.172 AND 202.173)
- LIMITS OF 1/2" THK. PYLON BASE CASING AND CONCRETE DEMOLITION (ITEMS 202.174 AND 202.175)

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR EXISTING PYLON AND PYLON BASE CONCRETE REINFORCING DETAILS SEE SHEET 4.
3. FOR SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET 7.
4. FOR CONCRETE REMOVAL DETAILS SEE SHEETS 7, 8 AND 9.
5. ORIGINAL THICKNESS OF METAL CASING ON PYLONS AND PYLON BASE IS 1/2", CURRENT EXISTING THICKNESS RANGES FROM 1/8" TO 3/8" THICK WITH HOLES.
6. SILT AND DEBRIS REMOVAL, ESTIMATED TO BE 10 CY±, AND DISPOSAL TO BE PAID UNDER ITEM 202.178.

149-98

CHILDS ENGINEERING CORPORATION
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	PI	TEQ	5-09
CHECKED-REVIEWED	RGF	RGF	5-09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

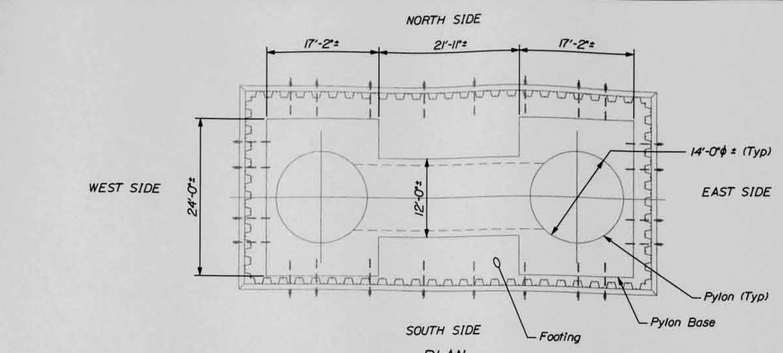
PIER 4 EXISTING CONDITIONS AND DEMOLITION

SHEET NUMBER

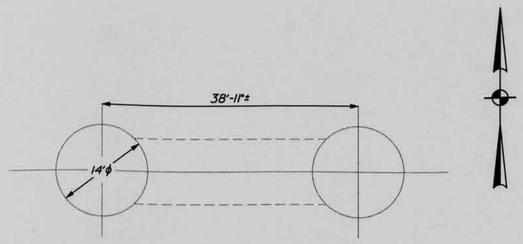
5

OF 16

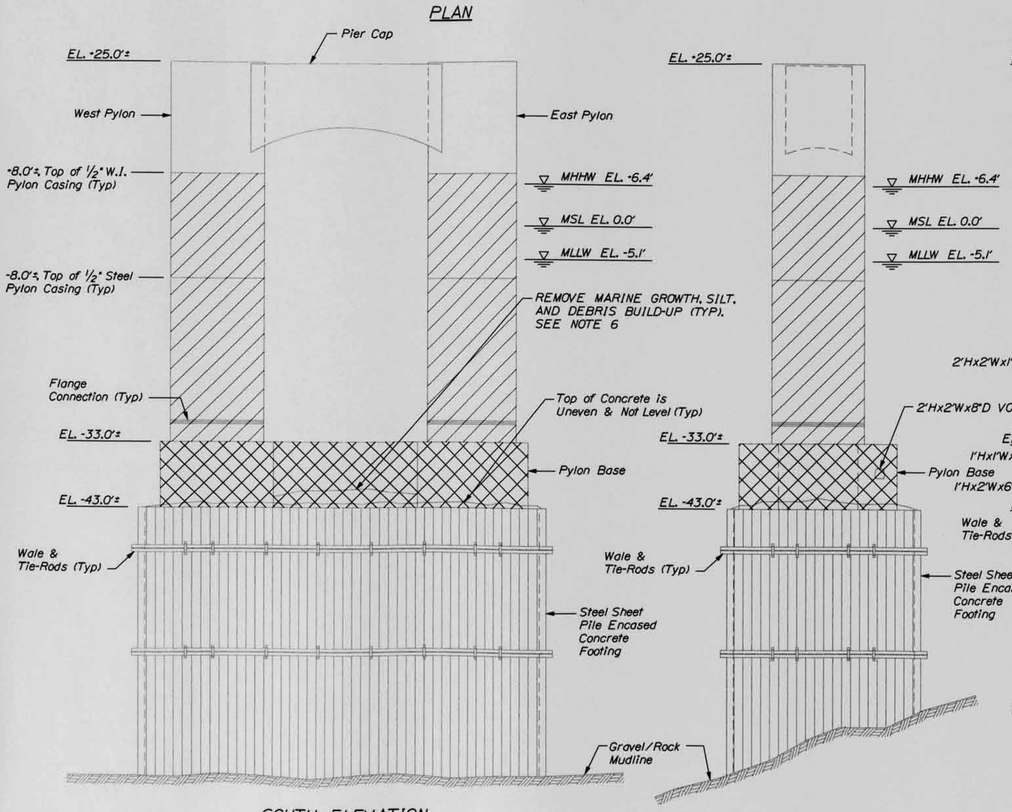
Filename: ...\005_Pier 4 Existing Conditions and Demolition.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



PLAN

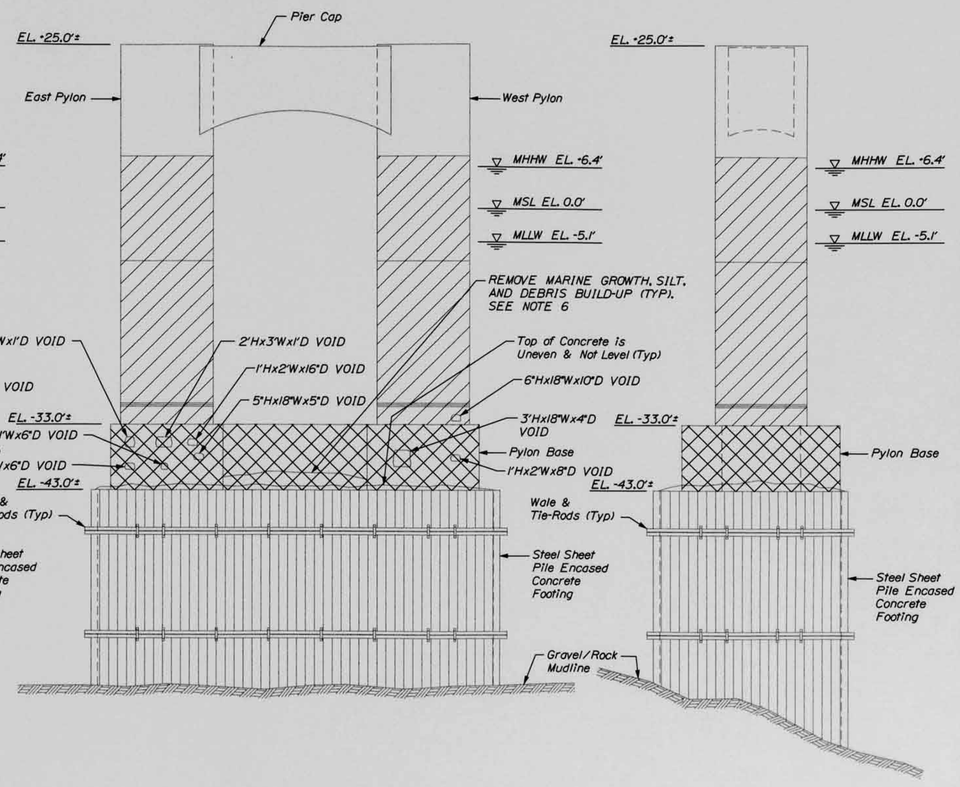


PYLON PLAN



SOUTH ELEVATION

EAST ELEVATION



NORTH ELEVATION

WEST ELEVATION

149-99

LEGEND:

- LIMITS OF 1/2" THK. PYLON CASING AND CONCRETE DEMOLITION (ITEMS 202.172 AND 202.173)
- LIMITS OF 1/2" THK. PYLON BASE CASING AND CONCRETE DEMOLITION (ITEMS 202.174 AND 202.175)

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR EXISTING PYLON AND PYLON BASE CONCRETE REINFORCING DETAILS SEE SHEET 4.
3. FOR SUGGESTED SEQUENCE OF CONSTRUCTION SEE SHEET 7.
4. FOR CONCRETE REMOVAL DETAILS SEE SHEETS 7, 8 AND 9.
5. ORIGINAL THICKNESS OF METAL CASING ON PYLONS AND PYLON BASE IS 1/2". CURRENT EXISTING THICKNESS RANGES FROM 1/8" TO 3/8" THICK WITH HOLES.
6. SILT AND DEBRIS REMOVAL, ESTIMATED TO BE 10 CY±, AND DISPOSAL TO BE PAID UNDER ITEM 202.178.

CHILDS ENGINEERING CORPORATION
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E-mail: mail@childseng.com

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED PI	TEQ	5-09
CHECKED-REVIEWED RGF	RGF	5-09
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

PIER 5 EXISTING CONDITIONS AND DEMOLITION

SHEET NUMBER

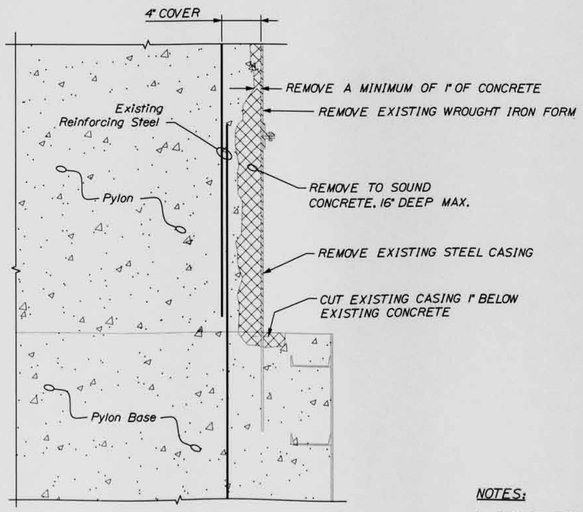
6

OF 16

Filename: ...\006_Pier 5 Existing Conditions and Demolition.dgn Date:6/19/2009 Username: richard.nimon

SUGGESTED SEQUENCE OF CONSTRUCTION - PYLONS (ITEMS 202.172, 202.173, 504.70, 504.71, 515.20, 531.21, AND 531.22):

1. PRIOR TO REMOVING METAL CASING OR CONCRETE, CONTRACTOR SHALL PROVIDE ACCESS TO ALL WORK AREAS TO THE RESIDENT AND DIVE CREW.
2. THE REPAIRS SHALL BE EXECUTED ACCORDING TO SPECIAL SPECIFICATION SECTION 531 AND AS OUTLINED BELOW.
3. USING THE CONTRACT DRAWINGS AS A GUIDE THE CONTRACTOR SHALL REMOVE THE ENTIRE EXISTING STEEL AND WROUGHT IRON CASING AND PERFORM AN UNDERWATER AND TOPSIDE SURVEY OF THE EXPOSED CONCRETE SURFACE. MARKING AREAS OF UNSOUND CONCRETE TO BE REMOVED DEEPER THAN 1 INCH. THE CONTRACTOR SHALL THEN NOTIFY THE RESIDENT WHO WILL VERIFY THE MARKED AREAS BY CONDUCTING HIS OWN UNDERWATER SURVEY. THE RESIDENT SHALL HAVE 72 HOURS TO VERIFY THE CONTRACTORS MARKED AREAS. BASED ON THE RESIDENTS APPROVAL OF MARKED AREAS THE CONTRACTOR SHALL THEN PROCEED WITH THE REMOVAL OF CONCRETE.
4. REMOVE STEEL CASING. DO NOT USE EXCESSIVE FORCE AND PROTECT EXISTING STRUCTURES DURING DEMOLITION.
5. LIMIT DEMOLISHED AREA OF CONCRETE DEEPER THAN 6" TO NO MORE THAN 1/4 THE CIRCUMFERENCE OF THE PYLON TO PREVENT UNDERMINING THE STRUCTURE.
6. CONCRETE REMOVAL UNDERWATER SHALL BE PERFORMED USING HYDRODEMOLITION METHODS AS DESCRIBED IN THE SPECIAL PROVISIONS.
7. CONCRETE SHALL BE REMOVED WITHIN THE MARKED AREAS TO SOUND SUBSTRATE OR A MAXIMUM DEPTH OF 16 INCHES.
8. FOR AREAS WHERE CONCRETE HAS BEEN REMOVED FROM 6" TO 16" DEEP APPLY PATCH FULL DEPTH USING FORM AND PUMP METHODS.
9. REMOVE A MINIMUM OF 1" OF EXISTING CONCRETE OVER ENTIRE SURFACE OF PYLON.
10. PRIOR TO ADDITIONAL CONCRETE REMOVAL WITHIN 3 FEET OF PATCH, ALLOW PATCH TO CURE FOR 3 DAYS.
11. CONTRACTOR SHALL COLLECT ALL DEMOLISHED CONCRETE, STEEL, WROUGHT IRON, AND OTHER DEBRIS AND DISPOSE OF IT OFF SITE AT AN OFF SITE DISPOSAL AREA AS APPROVED BY THE RESIDENT.
12. CONTRACTOR SHALL PLACE, SECURE AND SEAL STEEL JACKET SECTIONS AFTER SURFACE PREPARATION IS APPROVED. WHEN JACKET IS IN PLACE, CONTRACTOR SHALL PRESENT THE JACKET TO THE RESIDENT FOR APPROVAL. RESIDENT SHALL HAVE 48 HOURS TO APPROVE THE JACKET PLACEMENT.
13. CONTRACTOR SHALL PLACE CONCRETE ACCORDING TO SPECIFICATION SECTION 531 ONCE THE JACKETS HAVE BEEN APPROVED.
14. THE SURFACES TO RECEIVE REPAIR SHALL BE CLEANED ACCORDING TO THE SPECIFICATION TO REMOVE FLASH RUST AND MARINE GROWTH NO MORE THAN 72 HOURS PRIOR TO CONCRETE OR GROUT PLACEMENT. DEPENDING ON THE TIME ELAPSED, RE-WASHING MAY BE REQUIRED.
15. EXISTING REINFORCING STEEL THAT HAS BROKEN OR LOST GREATER THAN 25% OF THE ORIGINAL CROSS SECTIONAL AREA SHALL BE SUPPLEMENTED WITH REINFORCING STEEL OF THE SAME CROSS SECTIONAL AREA. SUPPLEMENTAL STEEL SHALL BE INSTALLED USING A LAP SPLICE OR MECHANICAL SPLICE AS DIRECTED BY THE RESIDENT.
16. THE CONCRETE REPAIRS SHALL CONFORM TO THE LINES AND GRADES SHOWN ON THE PLANS AND SHALL HAVE PLUMB AND TRUE SURFACES TO ± 1/4 INCH.



PYLON DEMOLITION DETAIL

LEGEND:

REMOVED CONCRETE

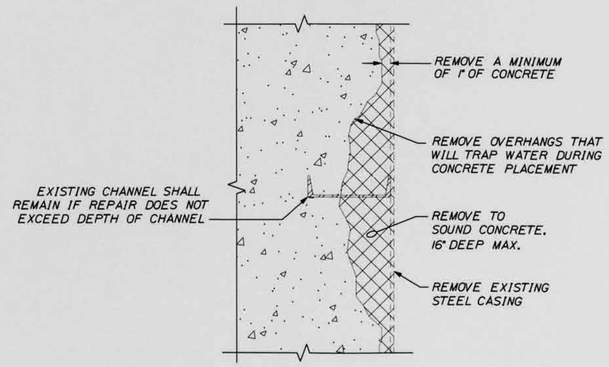
Existing Concrete

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR PYLON AND PYLON BASE EXISTING CONDITIONS SEE SHEETS 4, 5 AND 6.

SUGGESTED SEQUENCE OF CONSTRUCTION - PYLON BASE (ITEMS 202.174, 202.175, 504.70, 504.71, AND 532.01):

1. PRIOR TO REMOVING METAL CASING OR CONCRETE, CONTRACTOR SHALL PROVIDE ACCESS TO ALL WORK AREAS TO THE RESIDENT AND DIVE CREW.
2. THE REPAIRS SHALL BE EXECUTED ACCORDING TO SPECIAL SPECIFICATION SECTION 532 AND AS OUTLINED BELOW.
3. USING THE CONTRACT DRAWINGS AS A GUIDE THE CONTRACTOR SHALL REMOVE THE ENTIRE EXISTING METAL CASING. DO NOT USE EXCESSIVE FORCE AND PROTECT EXISTING STRUCTURES DURING DEMOLITION. LEAVE EMBEDDED CHANNELS IN PLACE IF POSSIBLE. PERFORM AN UNDERWATER SURVEY OF THE EXPOSED CONCRETE SURFACE. MARKING AREAS OF UNSOUND CONCRETE TO BE REMOVED DEEPER THAN 1 INCH. THE CONTRACTOR SHALL THEN NOTIFY THE RESIDENT WHO WILL VERIFY THE MARKED AREAS BY CONDUCTING HIS OWN UNDERWATER SURVEY. THE RESIDENT SHALL HAVE 72 HOURS TO VERIFY THE CONTRACTORS MARKED AREAS. BASED ON THE RESIDENTS APPROVAL OF MARKED AREAS THE CONTRACTOR SHALL THEN PROCEED WITH THE REMOVAL OF CONCRETE.
4. TO PREVENT UNDERMINING OF THE STRUCTURE, THE IMPLEMENTATION OF REPAIRS SHALL BE SEQUENCED AS SHOWN ON SHEET 13 AND INDICATED AS PHASE 1 , PHASE 2 AND PHASE 3 ADJACENT FACES OF THE PYLON BASE SHALL NOT BE WORKED ON CONCURRENTLY.
5. REMOVE ALL LOOSE AND/OR POOR QUALITY CONCRETE TO A MAXIMUM DEPTH OF 16" IN AREAS ACCEPTED FOR DEMOLITION. LIMIT DEMOLITION TO NO MORE THAN ONE PHASE AT A TIME. DEMOLITION MAY EXTEND PAST FACE BY A MAXIMUM OF 18" TO PREVENT DAMAGE DURING DEMOLITION TO ADJOINING FACE.
6. CONCRETE REMOVAL UNDERWATER SHALL BE PERFORMED USING HYDRODEMOLITION METHODS AS DESCRIBED IN THE SPECIAL PROVISIONS.
7. CONCRETE SHALL BE REMOVED TO A MINIMUM OF 1 INCH OVER THE ENTIRE EXPOSED SURFACE.
8. CONTRACTOR SHALL COLLECT ALL DEMOLISHED CONCRETE, METAL, AND OTHER DEBRIS AND DISPOSE OF IT OFF SITE AT AN APPROVED OFF SITE DISPOSAL AREA.
9. THE SURFACES TO RECEIVE REPAIR SHALL BE PRESSURE WASHED TO REMOVE FLASH RUST AND MARINE GROWTH NO MORE THAN 72 HOURS PRIOR TO CONCRETE PLACEMENT. DEPENDING ON THE TIME ELAPSED RE-WASHING MAY BE REQUIRED.
10. PRESENT PREPARED AREA TO RESIDENT FOR APPROVAL. RESIDENT SHALL HAVE 48 HOURS TO APPROVE THE PREPARED SURFACE.
11. CONTRACTOR SHALL SET FORMS AS SHOWN ON THE PLANS ONCE PREPARED SURFACE IS APPROVED. FORMS SHALL BE ANCHORED AND SECURED TO RESIST ALL FORCES FROM CONCRETE PLACEMENT AND THE ENVIRONMENT.
12. CONTRACTOR SHALL PRESENT THE FORMS FOR APPROVAL ONCE THE FORMS ARE SET AND SECURE. RESIDENT SHALL HAVE 48 HOURS TO APPROVE THE FORMS.
13. CONTRACTOR SHALL PLACE CONCRETE ACCORDING TO SPECIFICATION SECTION 532 ONCE FORMS HAVE BEEN APPROVED.
14. REPAIR MATERIAL SHALL BE PLACED ACCORDING TO SPECIAL SPECIFICATION SECTION 532
15. THE CONCRETE REPAIRS SHALL CONFORM TO THE LINES AND GRADES SHOWN ON THE PLANS AND SHALL HAVE PLUMB AND TRUE SURFACES TO ± 1/4 INCH.
16. TOP OF FOOTING AND SHEET PILE ARE IN POOR CONDITION AND GRADE IS UNEVEN. CONTRACTOR SHALL PROVIDE LEVEL SURFACE TO SUPPORT FORMS.



PYLON BASE DEMOLITION DETAIL

149-100

CHILDS ENGINEERING CORPORATION
BOX 333 MEDFIELD, MASSACHUSETTS 02052 U.S.A.
Phone: (508) 359-8945 Fax: (508) 359-2751
E-mail: mail@childseng.com

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED PI	TEQ	5-09
CHECKED-REVIEWED RGF	RGF	5-09
DESIGN-DETAILED		
CHECKED-DETAILED		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

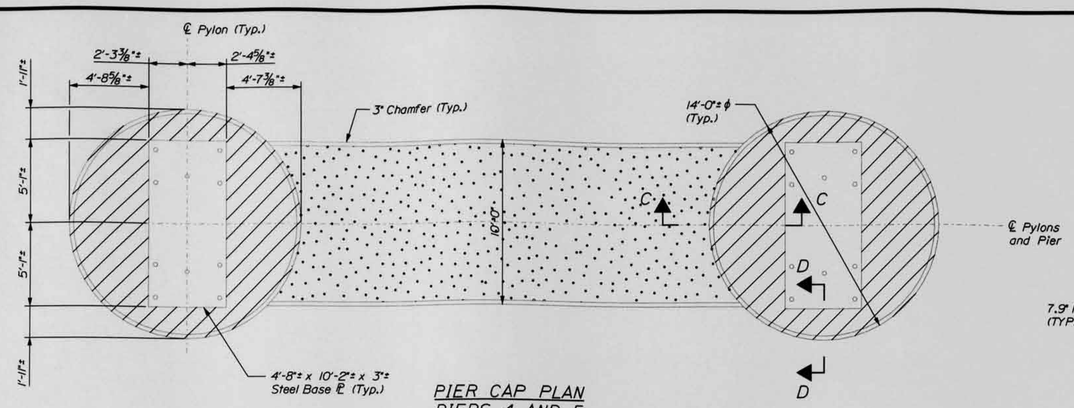
DEMOLITION DETAILS

SHEET NUMBER

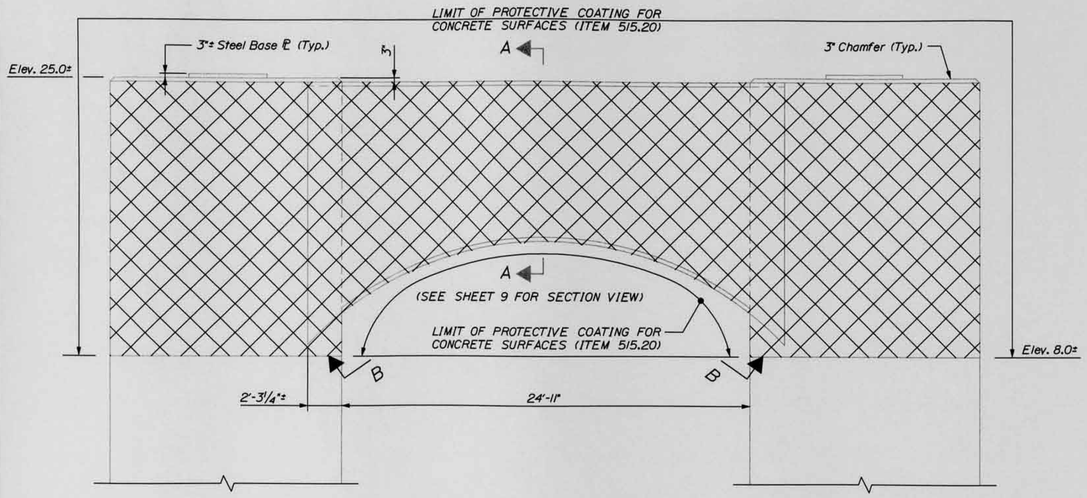
7

OF 16

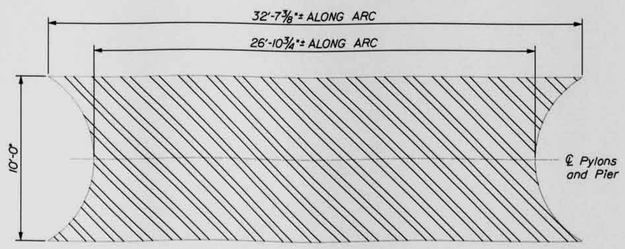
Filename: ...\007_Demolition Details.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



PIER CAP PLAN
PIERS 4 AND 5



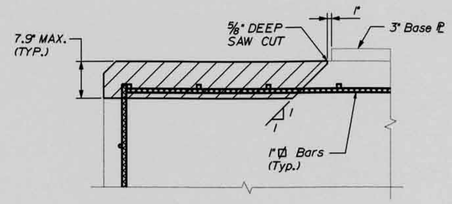
TYPICAL PIER CAP ELEVATION
PIERS 4 AND 5



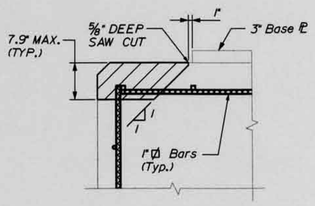
VIEW B-B

LEGEND:

- LIMITS OF REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 7.9" (ITEM 518.50)
- LIMITS OF REPAIR OF UPWARD FACING SURFACES - BELOW REINFORCING STEEL < 7.9" (ITEM 518.51)
- LIMITS OF REPAIR OF VERTICAL SURFACES (ITEMS 518.60 & 518.61)
- LIMITS OF REPAIR OF OVERHEAD SURFACES (ITEMS 518.70 & 518.71)



SECTION C-C



SECTION D-D

SUGGESTED SEQUENCE OF CONSTRUCTION (ITEMS 515.20, 518.50, 518.51, 518.52, 518.60, 518.61, 518.70, AND 518.71):

1. PRIOR TO REMOVING DETERIORATED CONCRETE, CONTRACTOR TO PROVIDE ACCESS TO ALL WORK AREAS. USING THE CONTRACT DRAWINGS AS A GUIDE, THE RESIDENT AND CONTRACTOR SHALL HAMMER SOUND ALL WORK AREAS AND MARK THE LIMITS OF CONCRETE TO BE REMOVED.
2. DETERIORATED CONCRETE SHALL BE REMOVED WITHIN THE MARKED LIMITS OF CONCRETE REMOVAL TO THE LESSER OF THE FOLLOWING DEPTHS: A SOUND SUBSTRATE OR A DEPTH AS INIDICATED ON THE REPAIR DETAILS.
3. EQUIPMENT USED FOR REMOVAL OF UNSOUND CONCRETE SHALL BE CHIPPING HAMMERS WEIGHING A MAXIMUM OF 35 LBS AND ONLY CHISEL POINT BITS WILL BE ALLOWED.
4. UPON REINSPECTION AND DETERMINATION THAT DETERIORATED CONRETE HAS BEEN REMOVED, THE CONTRACTOR SHALL SAWCUT THE PERIMETER OF ALL REMOVAL AREAS TO A DEPTH OF ⅝".
5. ALL REINFORCING STEEL EXPOSED BY CONCRETE REMOVAL SHALL BE CLEANED OF ALL LOOSE RUST BY SANDBLASTING, WIRE BRUSHING, OR BY MACHINE WIRE BRUSHING.
6. EXISTING REINFORCING WHICH HAS BEEN BROKEN OR LOST 25% OR MORE OF THE ORIGINAL CROSS SECTIONAL AREA SHALL BE SUPPLEMENTED WITH REINFORCING STEEL OF THE SAME CROSS SECTIONAL AREA. SUPPLEMENTAL REINFORCING TO BE INSTALLED USING A LAP SPLICE OR A MECHANNICAL SPLICE AS DIRECTED BY THE RESIDENT.
7. THE SURFACES TO RECEIVE THE REPAIR MATERIAL SHALL BE FREE OF OIL SOLVENT, GREASE, DIRT, LOOSE PARTICLES AND FOREIGH MATTER. CLEANING OF THE REPAIR AREAS SHALL BE PERFORMED BY SANDBLASTING (NOT MORE THAN 36 HRS. AHEAD OF THE REPAIR PLACEMENT) OR OTHER METHODS APPROVED BY THE RESIDENT.
8. CONCRETE REPAIR MATERIAL SHALL BE PLACED ACCORDING TO THE STANDARD SPECIFICATIONS.
9. THE CONRETE REPAIRS WHALL BE FINISHED TO CONFORM TO THE LINE AND GRADE OF THE ORIGINAL CONRETE SURFACE.
10. PLACE PROTECTIVE COATING FOR CONCRETE SURFACES.

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR PIER LOCATIONS SEE SHEET 3.
3. FOR TYPICAL PIER EXISTING COMPONENTS SEE SHEET 4.
4. FOR PIER CAP REPAIR DETAILS SEE SHEET 9.
5. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 515.20, 518.50, 518.51, 518.60, 518.61, 518.70, AND 518.71 UNLESS NOTED OTHERWISE.

149-101

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED JJR	LRD	6-09
CHECKED-REVIEWED ECL	TGS	6-09
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

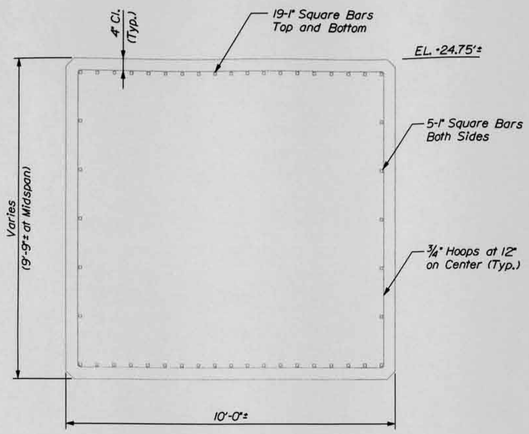
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

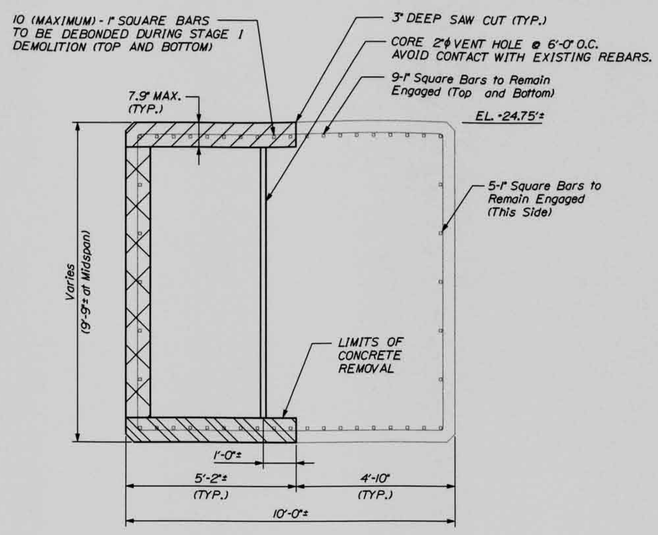
PIER CAP REPAIR LOCATIONS

SHEET NUMBER
8
OF 16

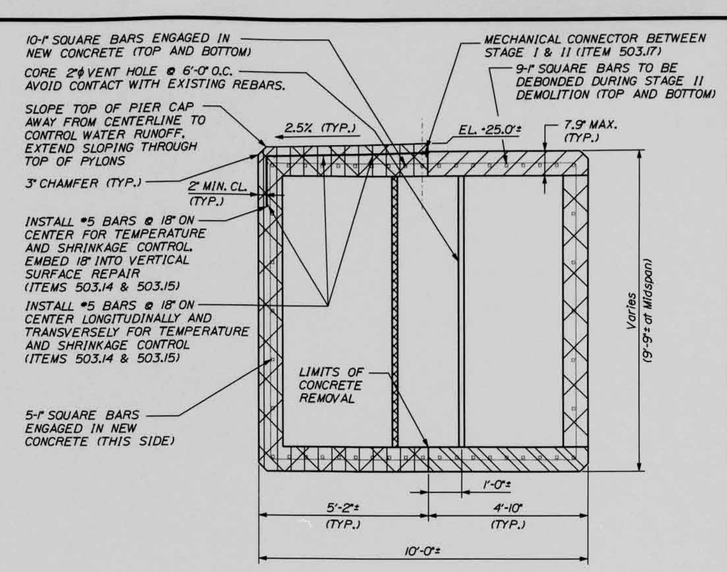
Filename: ...\008_Pier Cap Repair Locations.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



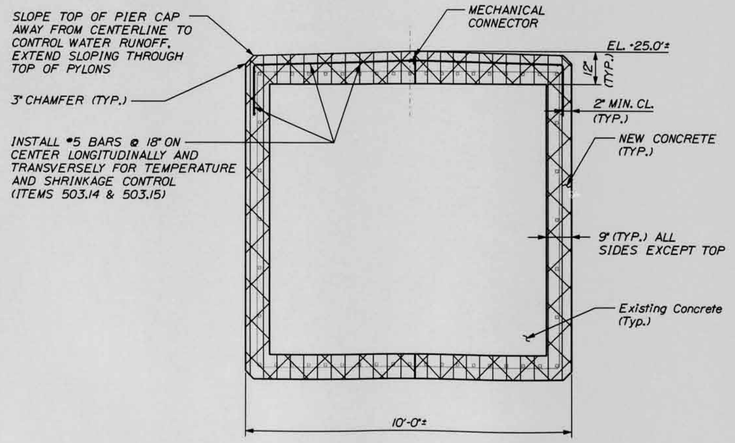
SECTION A-A
(AS-BUILT CONDITIONS)



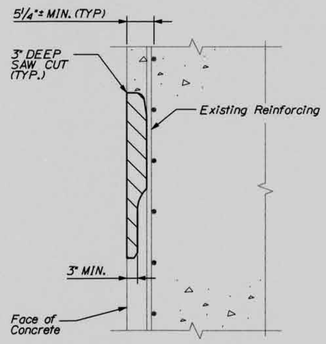
SECTION A-A
(STAGE I CONDITIONS)



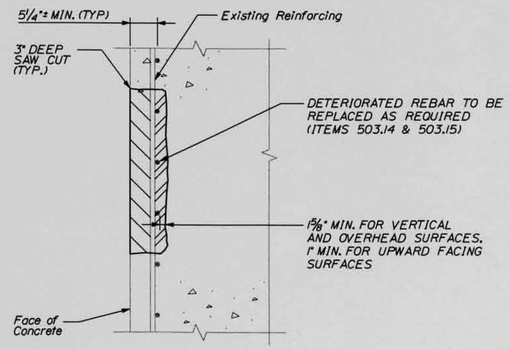
SECTION A-A
(STAGE II CONDITIONS)



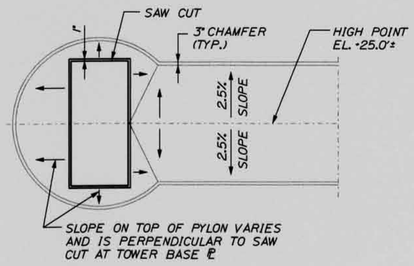
SECTION A-A
(FINAL CONDITION)



REPAIR DEPTH TO
REINFORCEMENT



REPAIR DEPTH
BEYOND REINFORCEMENT



PIER CAP HALF PLAN

LEGEND:

- LIMITS OF REPAIR OF UPWARD FACING SURFACES - TO REINFORCING STEEL < 7.9" (ITEM 518.50)
- LIMITS OF REPAIR OF VERTICAL SURFACES (ITEMS 518.60 & 518.61)
- LIMITS OF REPAIR OF OVERHEAD SURFACES (ITEMS 518.70 & 518.71)
- LIMITS OF REPAIR BEYOND REINFORCEMENT
- LIMITS OF COMPLETED REPAIR

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR ADDITIONAL TYPICAL PIER CAP EXISTING DETAILS SEE SHEET 4.
3. FOR PIER CAP REPAIR LOCATIONS SEE SHEET 8.
4. DETERIORATED CONCRETE TO BE REMOVED TO SOUND SUBSTRATE OR LIMITS OF CONCRETE REMOVAL, WHICHEVER OCCURS FIRST.
5. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 518.50, 518.51, 518.60, 518.61, 518.70, AND 518.71 UNLESS NOTED OTHERWISE.

149-102

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

PROJ. MANAGER	ECL		BY
DESIGN-DETAILED	STB	LBD	6-09
CHECKED-REVIEWED	ECL	TGS	6-09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

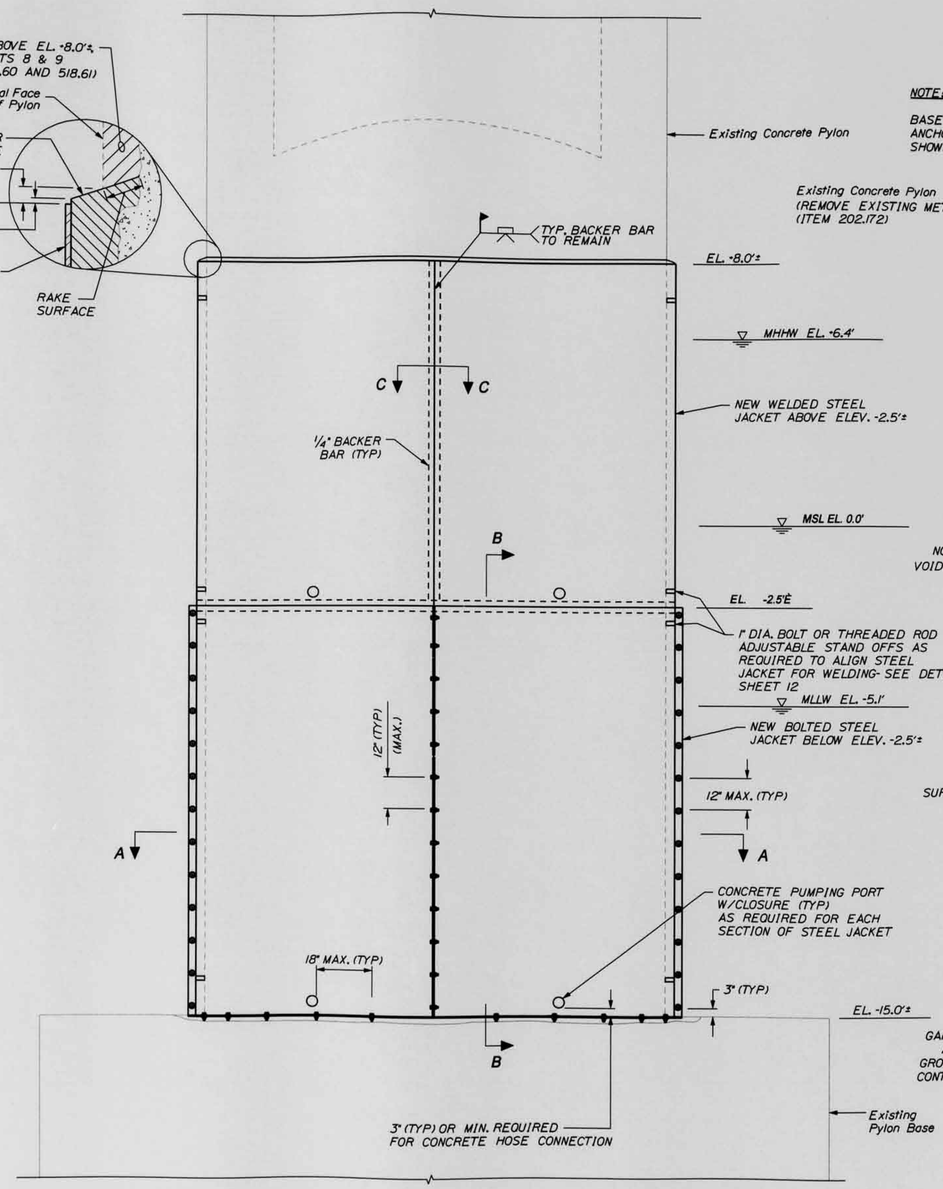
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

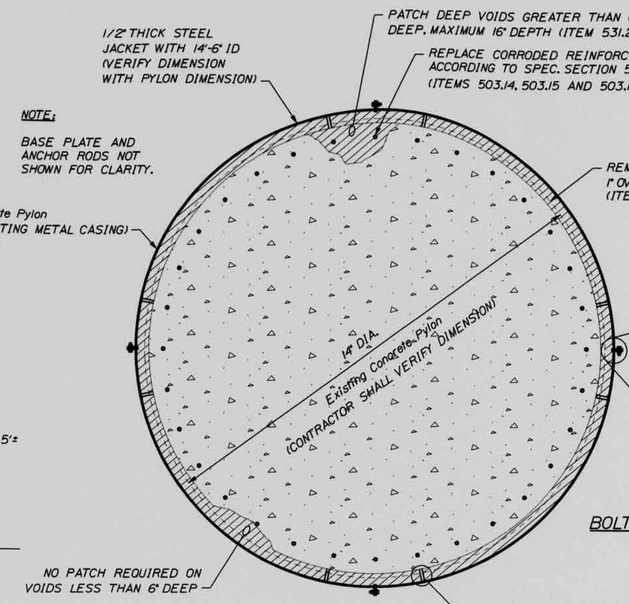
PIER CAP REPAIR DETAILS

SHEET NUMBER
9
OF 16

Filename: ...\009_Pier Cap Repair Details.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



ELEVATION - PIER 4 PYLON REPAIR

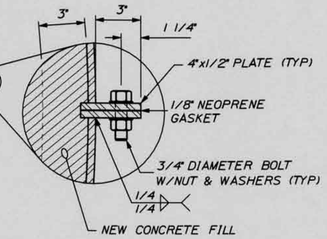


SECTION A-A

LEGEND:

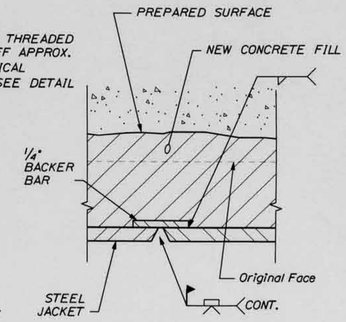
NEW CONCRETE (ITEM 531.22)

Existing Concrete



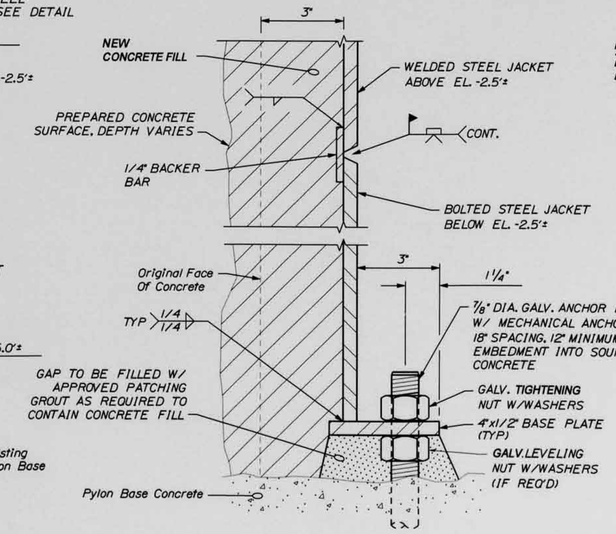
BOLTED VERTICAL SPLICE DETAIL

(4 LOCATIONS)



SECTION C-C

(4 LOCATIONS)



SECTION B-B

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. STEEL JACKET SHALL BE LEFT IN PLACE.
3. CONCRETE TO BE PLACED IN MAXIMUM LIFTS OF 15'-6".
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 504.70 STRUCTURAL STEEL FABRICATION AND DELIVERY - PYLON JACKET AND ITEM 504.71 STRUCTURAL STEEL ERECTION - PYLON JACKET, UNLESS NOTED OTHERWISE.

149-103

CHILDS ENGINEERING CORPORATION
BOX 333 MEDFIELD, MASSACHUSETTS 02052 U.S.A.
Phone: (508) 359-8945 Fax: (508) 359-2751
E-mail: mail@childseng.com

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED PJI	TEQ	5-09
CHECKED-DETAILED RGF	RGF	5-09
DESIGN2-DETAIL ED2		
DESIGN3-DETAIL ED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

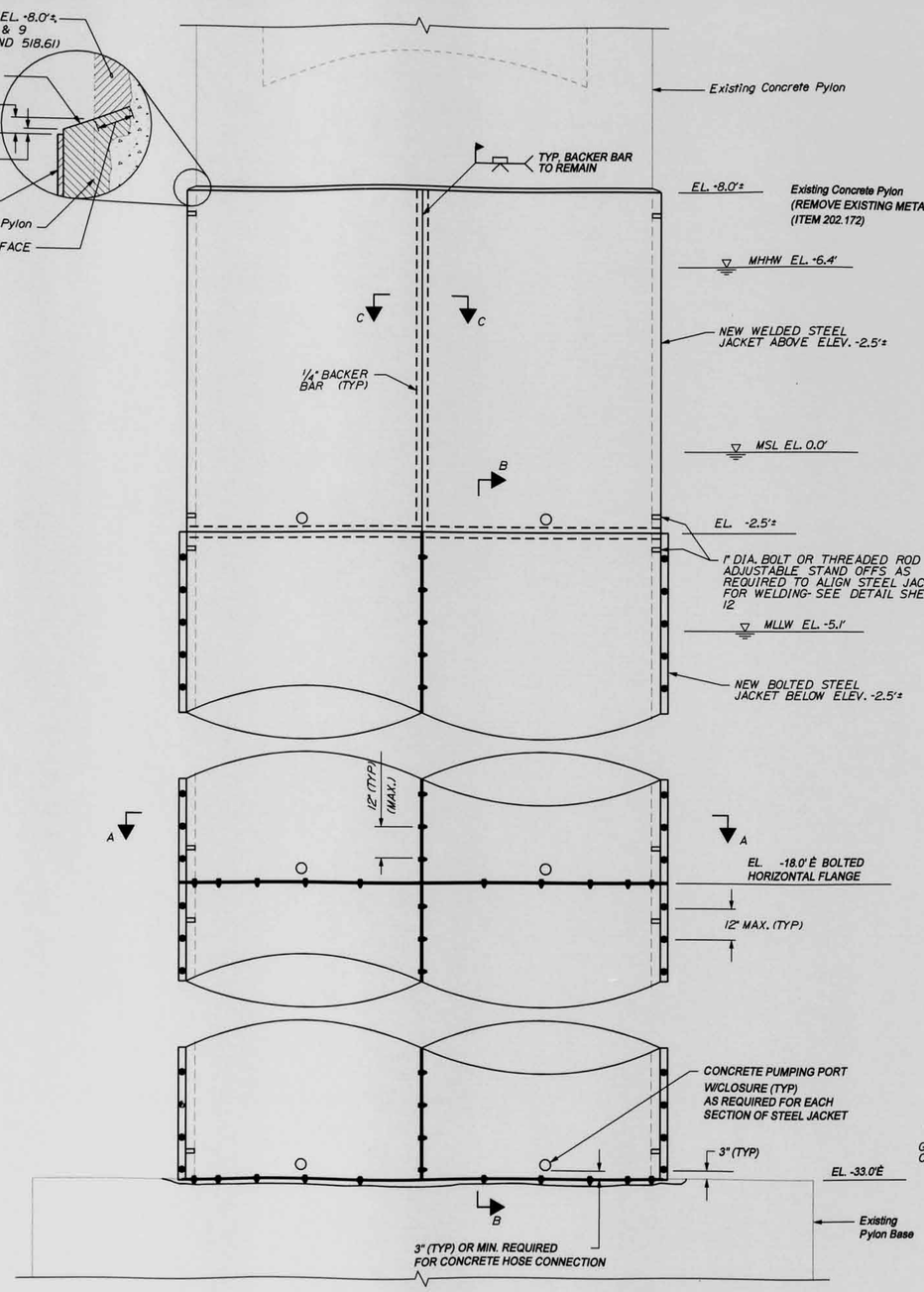
PIER 4 PYLON
REPAIR DETAILS

SHEET NUMBER

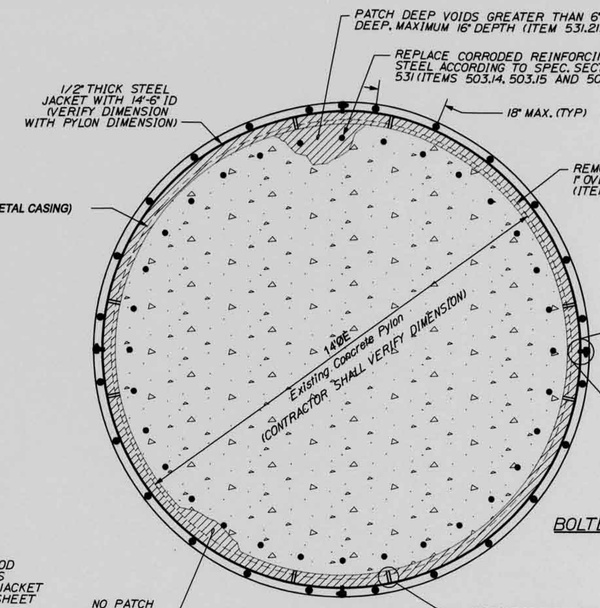
10

OF 16

Filename: ...\010_Pier 4 Pylon Repair Details.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



ELEVATION - PIER 5 PYLON REPAIR

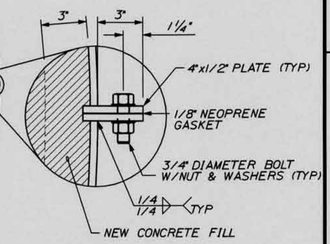


SECTION A-A

LEGEND:

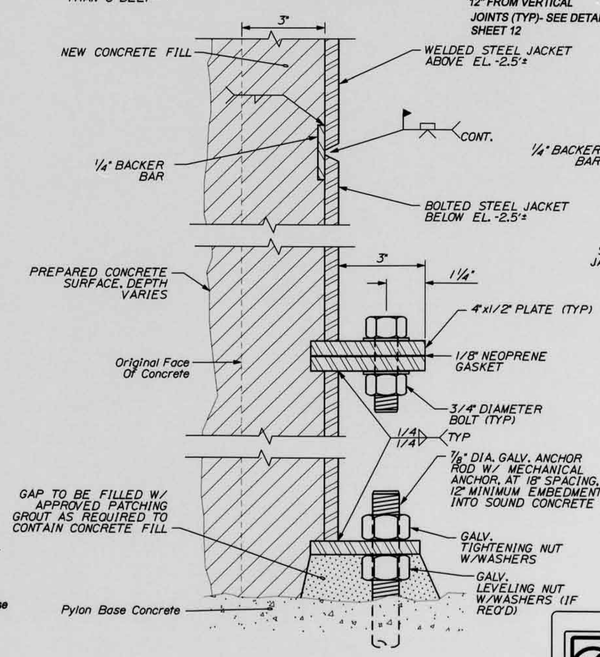
NEW CONCRETE (ITEM 531.22)

Existing Concrete

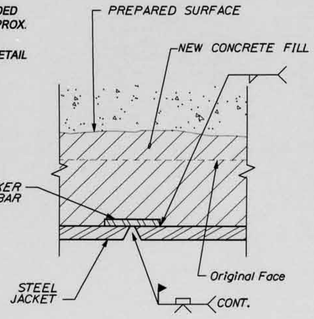


BOLTED VERTICAL SPLICE DETAIL

(4 LOCATIONS)



SECTION B-B



SECTION C-C

(4 LOCATIONS)

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. STEEL JACKET SHALL BE LEFT IN PLACE.
3. CONCRETE TO BE PLACED IN MAXIMUM LIFTS OF 15'-6".
4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM 504.70 STRUCTURAL STEEL FABRICATION AND DELIVERY - PYLON JACKET AND ITEM 504.71 STRUCTURAL STEEL ERECTION - PYLON JACKET, UNLESS NOTED OTHERWISE.

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CHILDS ENGINEERING CORPORATION
BOX 333 MEDFIELD, MASSACHUSETTS 02052 U.S.A.
Phone: (508) 359-8945 Fax: (508) 359-2751
E-mail: mail@childseng.com

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

	BY	DATE
PROJ. MANAGER RGF		
DESIGN-DETAILED PI	TEQ	5-09
CHECKED-REVIEWED RGF	RGF	5-09
CHECKED-DETAILED		
DESIGN2-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

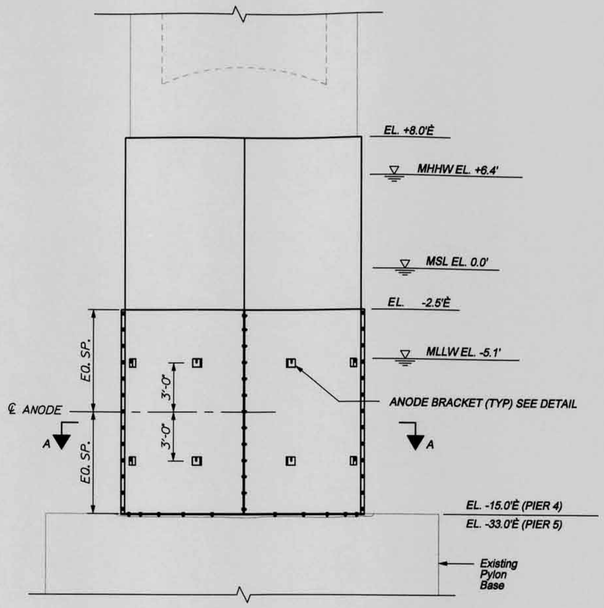
PIER 5 PYLON REPAIR DETAILS

SHEET NUMBER

11

OF 16

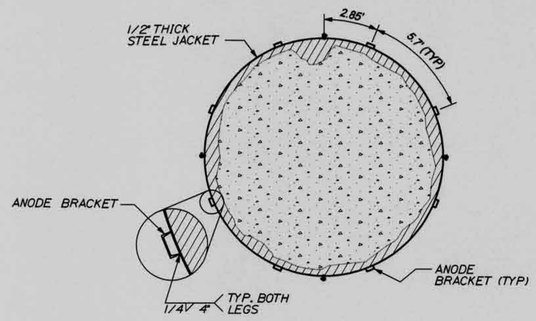
Filename: ...\011_Pier 5 Pylon Repair Details.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



NOTES:

1. 4 ANODE BRACKETS PER STEEL JACKET SECTION BELOW EL. -2.5' (TYP) - (8 PAIRS TOTAL FOR PIER 4, 16 PAIRS TOTAL FOR PIER 5).
2. PIER 4 SHOWN, PIER 5 SIMILAR EXCEPT AS NOTED.

ELEVATION - PIER 4 & 5 ANODE LOCATIONS

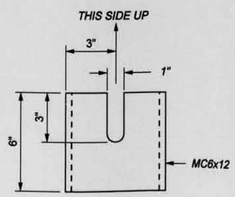


SECTION A-A

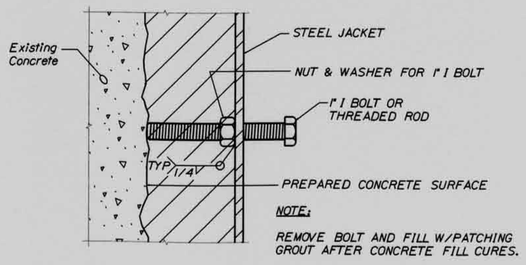
LEGEND:

NEW CONCRETE

Existing Concrete



ANODE BRACKET DETAIL



NOTE:

REMOVE BOLT AND FILL W/PATCHING GROUT AFTER CONCRETE FILL CURES.

PYLON JACKET STAND OFF DETAIL

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 504.70 STRUCTURAL STEEL FABRICATION AND DELIVERY - PYLON JACKET AND 504.71 STRUCTURAL STEEL ERECTION - PYLON JACKET.

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STATE OF MAINE
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BH-1006(200)X

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BRIDGE NO. 3257

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	RGF		
DESIGN-DETAILED	PI	TEQ	5-09
CHECKED-REVIEWED	RGF	RGF	5-09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

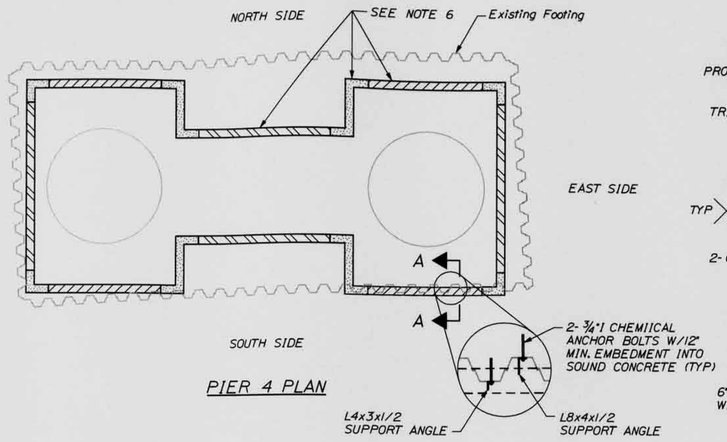
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

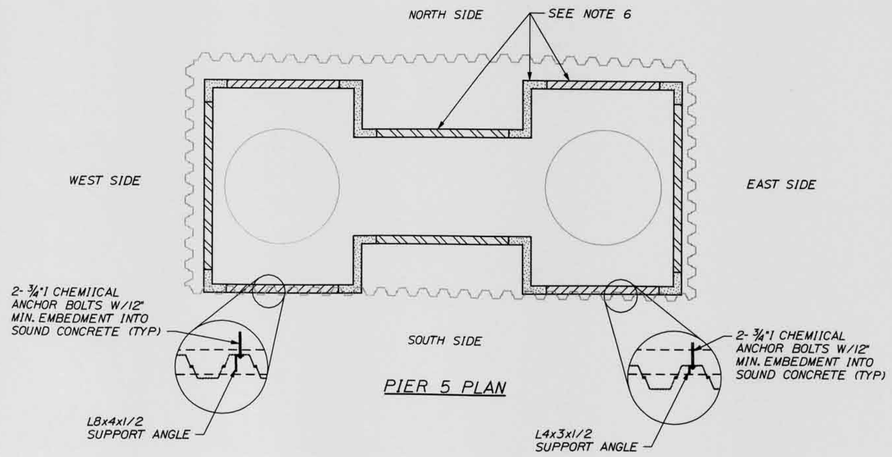
PYLON ANODE BRACKET LAYOUT AND DETAILS

SHEET NUMBER
12
OF 16

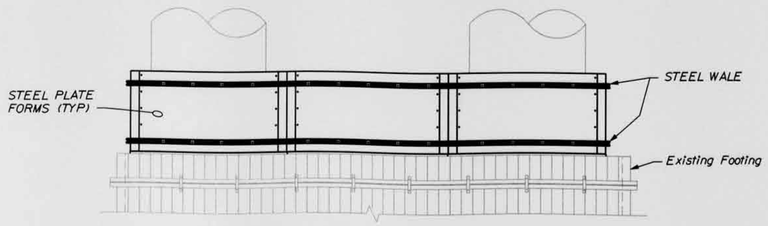
Filename: ...\msta\012_PylonAnodeDetail.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



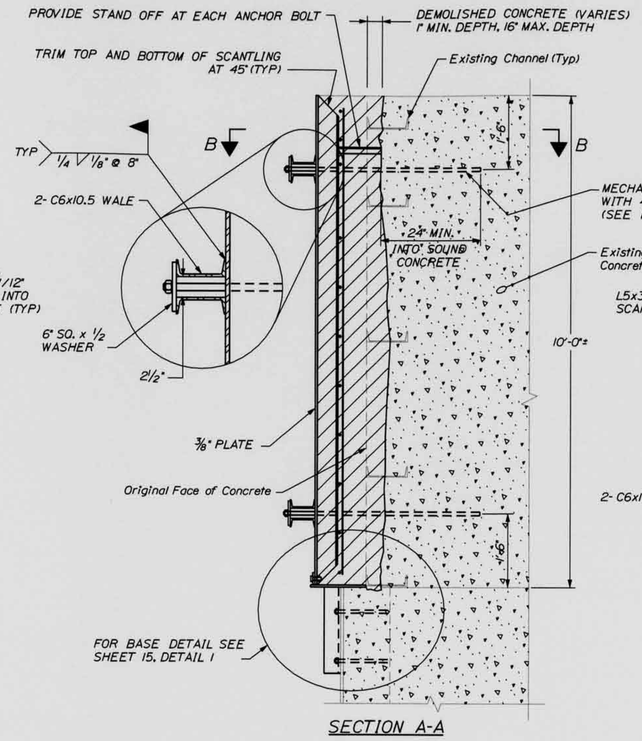
PIER 4 PLAN



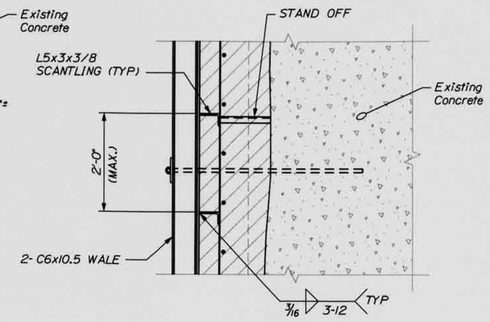
PIER 5 PLAN



TYPICAL SOUTH ELEVATION



SECTION A-A



SECTION B-B

GENERAL NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. FOR SUGGESTED CONSTRUCTION SEQUENCE SEE SHEET 7.
3. WHERE EMBEDDED PYLON CASING LIMITS DEPTH OF ANCHOR BOLT, REDUCE DEPTH OF EMBEDMENT AND REDUCE SPACING TO COMPENSATE FOR LOWER STRENGTH. SUBMIT PLAN TO RESIDENT FOR APPROVAL.
4. PROOF TEST PULL OUT CAPACITY OF ANCHOR BOLTS BY METHOD APPROVED BY THE RESIDENT PRIOR TO PLACING CONCRETE.
5. CONTRACTOR MAY SUBMIT ALTERNATE FORM BASE DESIGN FOR APPROVAL BY THE RESIDENT.
6. SEE SHEET 7, SUGGESTED SEQUENCE OF CONSTRUCTION - PYLON BASE, FOR PHASING OF PYLON BASE REPAIR CONCRETE PLACEMENT.
7. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 504.70 STRUCTURAL STEEL FABRICATION AND DELIVERY - PYLON BASE FORMS AND 504.71 STRUCTURAL STEEL ERECTION - PYLON BASE FORMS, UNLESS NOTED OTHERWISE.

149-106

LEGEND:

NEW CONCRETE (ITEM 532.01)

Existing Concrete

CHILDS ENGINEERING CORPORATION
BOX 333 MEDFIELD, MASSACHUSETTS 02052 U.S.A.
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

SIGNATURE

P.E. NUMBER

DATE

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED PI	TEQ	6-09
PLAN CHECKED RGF	RGF	6-09
DESIGN2-DETAILED3		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

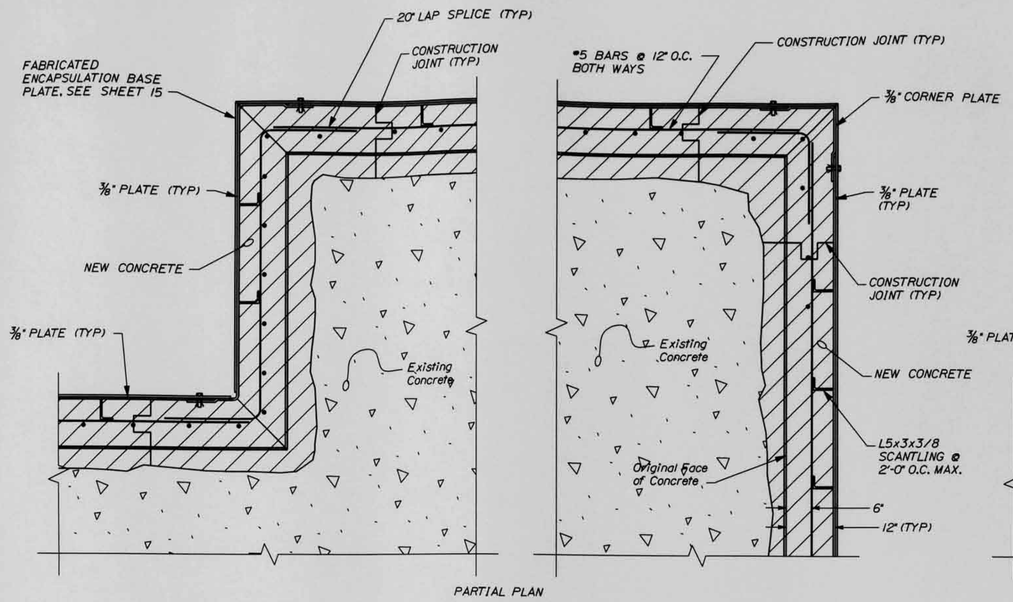
TYPICAL PYLON BASE REPAIR DETAILS 1 OF 3

SHEET NUMBER

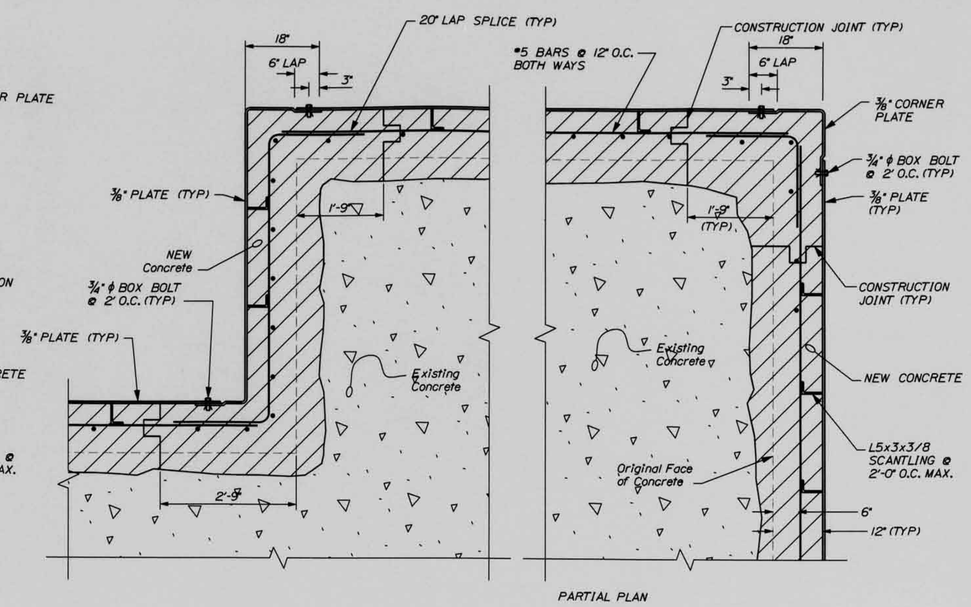
13

OF 16

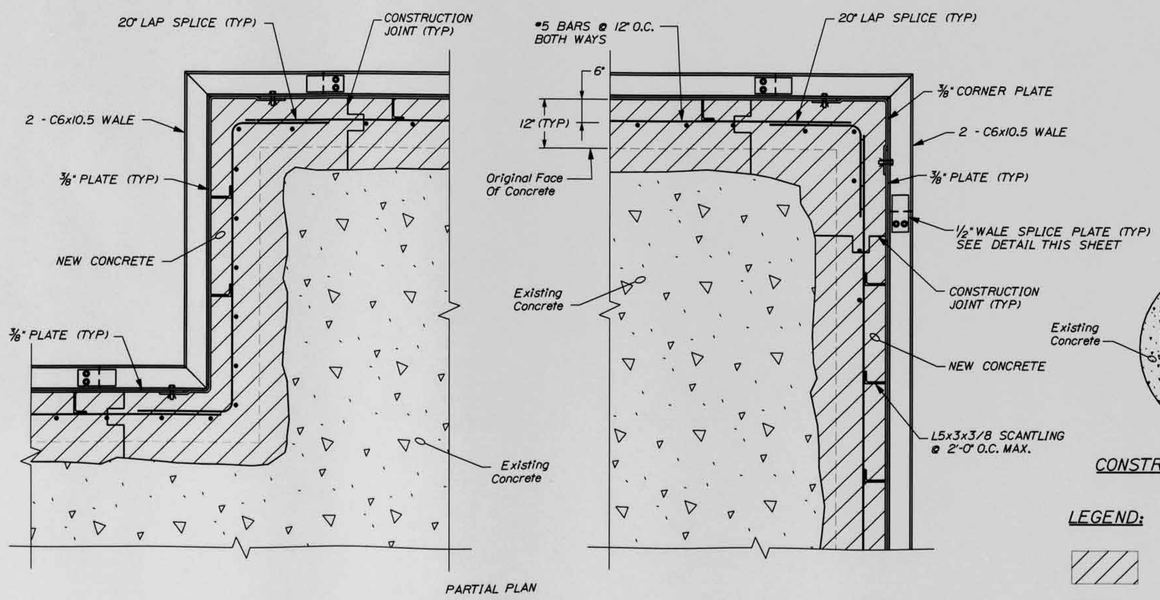
Filename: ...\013_TypicalPylon Base Repair Details Username: richard.nimon Date:6/19/2009



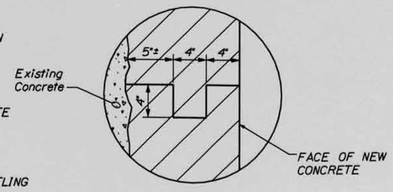
PYLON BASE REPAIR DETAIL @ BOTTOM



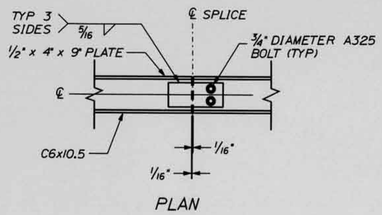
PYLON BASE REPAIR DETAIL @ MID HEIGHT



PYLON BASE REPAIR DETAIL @ WALES



CONSTRUCTION JOINT DETAIL



WALE FIELD SPLICE DETAIL

LEGEND:

NEW CONCRETE (ITEM 532.01)

Existing Concrete

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR PYLON BASE REPAIR PHASING SEE SHEET 13.
3. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 504.70 STRUCTURAL STEEL FABRICATION AND DELIVERY - PYLON BASE FORMS AND 504.71 STRUCTURAL STEEL ERECTION - PYLON BASE FORMS, UNLESS NOTED OTHERWISE.

149-107

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED	PI	6-09
CHECKED-REVIEWED	TEQ	6-09
DESIGN2-DETAILED2	RGF	
DESIGN3-DETAILED3	RGF	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

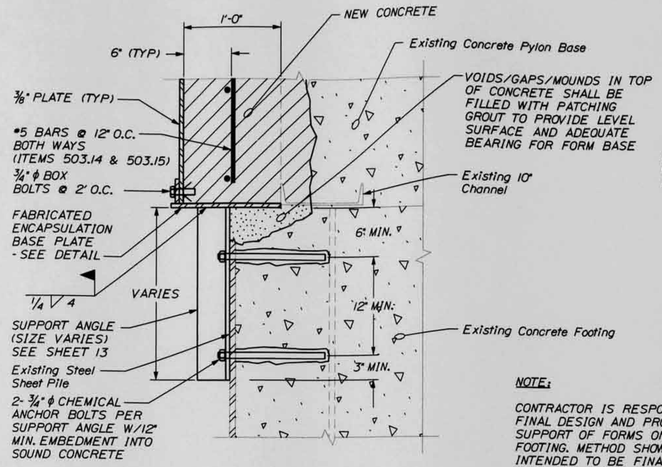
TYPICAL PYLON BASE REPAIR DETAILS 2 OF 3

SHEET NUMBER

14

OF 16

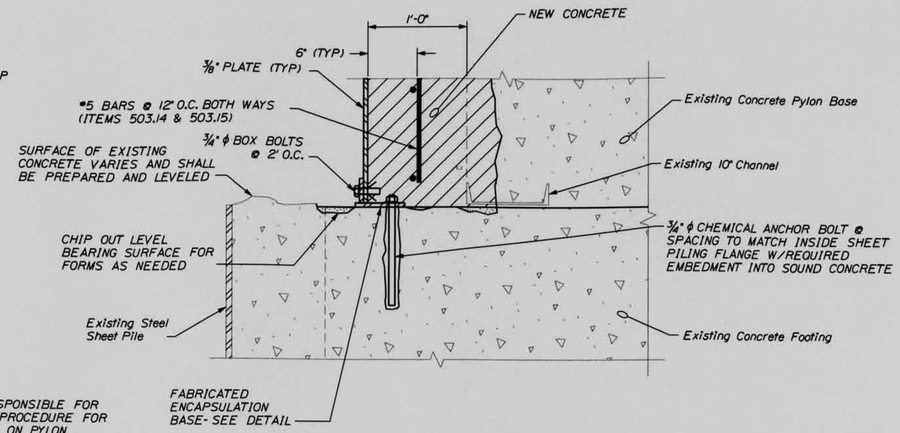
Filename: ...\014_TypicalPylon Base Repair Details Division BRIDGE Username: richard.nimon Date:6/19/2009



OVERHANGING BASE DETAIL I

NOTE:

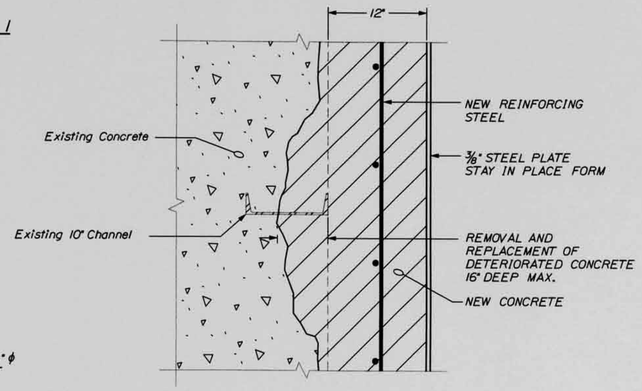
CONTRACTOR IS RESPONSIBLE FOR FINAL DESIGN AND PROCEDURE FOR SUPPORT OF FORMS ON PYLON FOOTING. METHOD SHOWN IS NOT INTENDED TO BE FINAL DESIGN AND SHALL BE ALTERED TO MEET ACTUAL FIELD CONDITIONS.



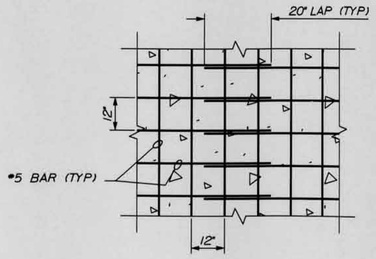
SET BACK BASE DETAIL I

LEGEND:

- NEW CONCRETE (ITEM 532.01)
- Existing Concrete
- NEW PATCHING GROUT

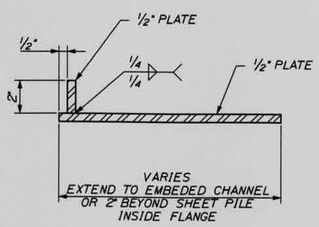


PYLON BASE FINISHED REPAIR DETAIL

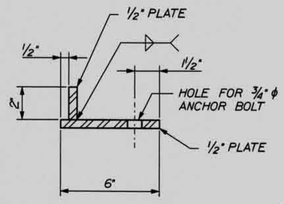


ELEVATION

TYPICAL REINFORCING STEEL



FOR OVERHANGING BASE



FOR SET BACK BASE

FABRICATED ENCAPSULATION BASE PLATE DETAILS

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR PYLON BASE REPAIR PHASING SEE SHEET 13.
3. STEEL SHEET PILE IS SEVERELY CORRODED AT TOP. APPROXIMATELY 12" BELOW TOP. SHEET THICKNESS WAS MEASURED TO BE 0.125".
4. SUPPORT ANGLE FOR BASE PLATE MAY BE WELDED TO SHEET PILE IN LIEU OF BOLTING IF CONTRACTOR: DEMONSTRATES SUFFICIENT STEEL THICKNESS ON SHEET PILE, SUBMITS DETAIL AND PROCEDURE TO THE RESIDENT FOR APPROVAL, AND SUBMITS WEDLER QUALIFICATION FOR UNDERWATER WELDING.
5. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEMS 504.70 STRUCTURAL STEEL FABRICATION AND DELIVERY - PYLON BASE FORMS AND 504.71 STRUCTURAL STEEL ERECTION - PYLON BASE FORMS, UNLESS NOTED OTHERWISE.

149-108

CHILDS ENGINEERING CORPORATION
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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED	PI	TEQ 6-09
CHECKED-REVIEWED	RGF	RGF 6-09
DESIGN2-DETAILED3		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

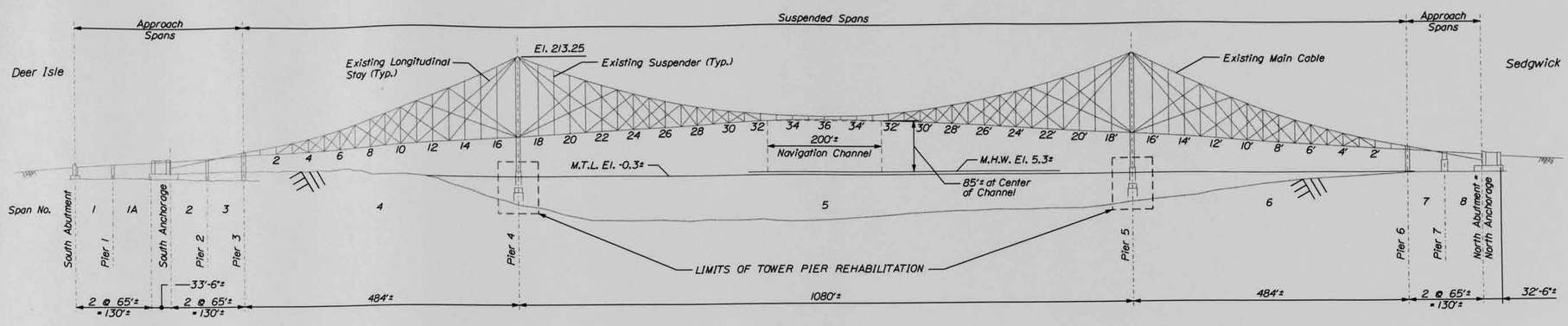
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

TYPICAL PYLON BASE
REPAIR DETAILS 3 OF 3

SHEET NUMBER
15
OF 16

Filename: ...\015_Typical Pylon Base Repair Details 3 of 3.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009



GENERAL ELEVATION

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. THE CONTRACTOR, THROUGH THE RESIDENT, SHALL SUBMIT TO THE U.S. COAST GUARD (USCG) AN EMERGENCY CONTACT LIST (24 HOUR CONTACT), CONSTRUCTION SCHEDULE AND SHOP/WORKING DRAWINGS OF THE PROPOSED EQUIPMENT (I.E. BARGES, WORK PLATFORMS, ETC.) WHICH WILL INCLUDE THE DISTANCE FROM THE PROPOSED EQUIPMENT TO THE NAVIGATION CHANNEL ENVELOPE. THE COAST GUARD MUST APPROVE THESE ITEMS PRIOR TO THE START OF WORK.
3. UPON APPROVAL OF THE ABOVE ITEMS, THE CONTRACTOR SHALL THEN BE REQUIRED TO CONTACT THE USCG AT THE COMMANDER (DPB), U.S. COAST GUARD, 408 ATLANTIC AVENUE, BOSTON, MA 02110 AT LEAST 30 DAYS IN ADVANCE OF BEGINING THE WORK SO THAT MARINE INTERESTS MAY BE NOTIFIED.
4. AT NO TIME DURING THE WORK WILL THE WATERWAY BE CLOSED/RESTRICTED TO NAVIGATION.
5. ALL CONTRACTOR EQUIPMENT ON OR ABOVE THE WATER LINE MUST BE LIGHTED WITH CONSTANT BURNING WHITE LIGHTS EVERY 50 FEET AND ON ALL CORNERS.
6. BARGES HELD IN PLACE BY ANCHOR LINES MUST BE MARKED BY ANCHOR BUOYS, WHICH SHOULD BE LIGHTED.
7. DURING THE PROGRESS OF THE WORK, SHOULD ANY MATERIAL, MACHINERY OR EQUIPMENT BE LOST, DUMPED, SUNK OR MISPLACED WHICH MAY BE DANGEROUS TO NAVIGATION, IMMEDIATE NOTICE SHALL BE GIVEN TO THE USCG AND THE OBJECT MUST BE REMOVED AS SOON AS POSSIBLE. UNTIL REMOVAL CAN BE EFFECTED, THE OBSTRUCTION SHALL BE PROPERLY MARKED IN ORDER TO PROTECT NAVIGATION. NOTICE TO USCG SHALL GIVE A DESCRIPTION AND LOCATION OF ANY SUCH OBJECT AND THE ACTION TAKEN OR BEING TAKEN TO PROTECT NAVIGATION. THE CONTRACTOR SHALL IMMEDIATLEY REMOVE ANY FLOATING MATERIAL WHICH ENTERS THE WATER.
8. THE USCG SHALL BE NOTIFIED IMMEDIATELY UPON COMPLETION OF THE REMOVAL OF ANY OBSTRUCTION, AND CERTIFICATION SHALL BE PROVIDED IN WRITING BY THE CONTRACTOR THAT THE WATERWAY HAS NOT BEEN IMPAIRED AND ALL DEBRIS HAS BEEN CLEARED FROM SAME.
9. MAINE DOT, THE RESIDENT, AND THE USCG ASSUME NO RESPONSIBILITY FOR ANY DAMAGES SUSTAINED OR CAUSED BY THE CONTRACTOR'S OPERATIONS.

149-109

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

BH-1006(200)X

PIN 16696.00

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED ECL	LRD	6-09
CHECKED-REVIEWED TGS		6-09
DESIGN-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

NAVIGATION REQUIREMENTS

SHEET NUMBER
16
OF 16

Filename: ...\016_Navigation Requirements.dgn Division: BRIDGE Username: richard.nimon Date:6/19/2009

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS

DESIGN: AASHTO Standard Specifications for Highway Bridges, 17th Edition 2002 and interim specifications through March 2005.

DESIGN LOADING

Live Load H20

TRAFFIC DATA

Current (2005) AADT	3,470
Future (2025) AADT	5,210
DHV - % of AADT	12
Design Hour Volume	625
% Heavy Trucks (AADT)	7
% Heavy Trucks (DHV)	5
Directional Distribution (DHV)	50
18 kip Equivalent P 2.0	104
18 kip Equivalent P 2.5	100
Design Speed (mph)	25

HYDROLOGIC DATA

Mean Lower Low Water (MLLW)	-5.712 ft
Mean Low Water (MLW)	-5.312 ft
Mean Tide Level (MTL)	-0.312 ft
Mean High Water (MHW)	4.688 ft
Mean Higher High Water (MHHW)	5.788 ft
2009 Predicted High Tide	6.78 ft

MATERIALS

Structural Steel ..... AASHTO M 270 (ASTM A 709, Grade 36) (Unless Otherwise Noted)

High Strength Bolts ..... AASHTO M 164 (ASTM A 325, Type 1) (Unless Otherwise Noted)

BASIC DESIGN STRESSES

Structural Steel:

AASHTO M 270 (ASTM A 709, Grade 36) ..... F y = 36,000 psi

AASHTO M 164 (ASTM A 325) ..... F u = 120,000 psi

UTILITIES

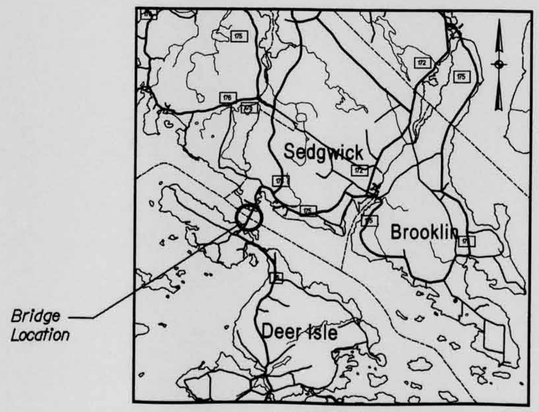
Adelphia Communications Corporation
Bangor Hydro-Electric Company
Verizon

MAINTENANCE OF TRAFFIC

One lane of traffic 10'-0" wide, using flaggers, shall be typically maintained throughout construction. Periodic complete bridge openings (two lanes of unobstructed traffic) shall be scheduled throughout the work as approved by the Resident. See Special Provision Section 652.

DEER ISLE-SEDGWICK
HANCOCK COUNTY
DEER ISLE-SEDGWICK BRIDGE
OVER
EGGEMOGGIN REACH
US ROUTE 15

PROJECT LENGTH 0.539 mi.
BRIDGE PAINTING
BRIDGE NO. 3257



LOCATION MAP

2 0 2 4
Scale in Miles

LIST OF DRAWINGS

Title Sheet	1
Estimated Quantities & General Notes	2
General Plan & Elevation	3
Approach Span Cross Section & Details	4
Suspended Span Cross Section & Details	5
Main Tower Details	6
Main Cable Details 1 of 3	7
Main Cable Details 2 of 3	8
Main Cable Details 3 of 3	9
Approach Span Floorbeam Repair	10
Floor System Lateral Bracing Replacement	11
Main Cable Handrope Stanchion Replacement	12
Traffic Control 1 of 2	13
Traffic Control 2 of 2	14

SCOPE OF WORK

THE WORK UNDER THIS PROJECT SHALL CONSIST OF THE FOLLOWING MAJOR ITEMS OF WORK:

- STRUCTURAL STEEL CLEANING AND PAINTING
- APPROACH SPAN FLOORBEAM REPAIR
- FLOOR SYSTEM LATERAL BRACING REPLACEMENT
- MAIN CABLE HANDROPE STANCHION REPLACEMENT
- INSTALLATION OF NEW BOLTS
- MAINTENANCE AND PROTECTION OF TRAFFIC

149-316

TranSystems

HP-1006(201)X

PIN 10062.01

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: DATE 1/28/09
CHIEF ENGINEER: 01-

STATE OF MAINE EVAN C. LOWELL NO. 9265 LICENSED PROFESSIONAL ENGINEER

SIGNATURE 9265
P.E. NUMBER
1-21-2009
DATE

PROJECT INFORMATION

PROGRAM	BRIDGE PROGRAM
PROJECT MANAGER	DEVIN ANDERSON
DESIGNER	CONSULTANT
CONSULTANT	TRANSYSTEMS
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

DEER ISLE-SEDGWICK
DEER ISLE-SEDGWICK BRIDGE

TITLE SHEET

SHEET NUMBER
1
OF 14

Filename: 001_Title Sheet.dgn Division: Bridge Username: $user$ Date:1/21/2009

ESTIMATED QUANTITIES			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
504.66	Main Cable Handrope Stanchion Replacement	20	EA
504.72	Floorbeam Repair	10,000	LB
504.721	Floor System Lateral Bracing Replacement	5,000	LB
504.842	New High Strength Bolts	125	EA
506.144	Field Painting of Existing and New Structural Steel*	1	LS
506.17	Surface Preparation of Existing Structural Steel*	1	LS
506.1703	Shop Surface Preparation and Shop Priming	1	LS
506.18	Containment and Pollution Control	1	LS
506.191	Disposal of Special Waste or Hazardous Waste	1	LS
506.31	Field Repair of Damaged Coating	1	LS
639.18	Field Office, Type A	1	EA
652.35	Construction Signs	350	SF
652.38	Flaggers	13,000	HR
652.39	Work Zone Traffic Control	1	LS
652.41	Portable Changeable Message Sign	2	EA
659.10	Mobilization	1	LS
660.21	On the Job Training	3,000	HR

* AREA TO BE CLEANED AND PAINTED CONSISTS OF APPROXIMATELY 326,000 SF OF STRUCTURAL STEEL, 5,000 LF OF MAIN CABLE, AND 30,000 LF OF WIRE ROPES.

GENERAL NOTES:

1. THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS," DECEMBER 2002, AND "STANDARD DETAILS," DECEMBER 2002 INCLUDING SUPPLEMENTAL SPECIFICATIONS THROUGH AUGUST 2008 AND THE SPECIAL PROVISIONS OF THIS CONTRACT.

2. DIMENSIONS, ANGLES, STATIONING AND ELEVATIONS SHOWN ON EXISTING DETAILS ARE TAKEN FROM THE CONSTRUCTION DRAWINGS DATED SEPTEMBER 14, 1937 THROUGH JUNE 24, 1939 AND ADDITIONAL BRIDGE REHABILITATION CONSTRUCTION DRAWINGS, SUPPLEMENTED BY LIMITED FIELD MEASUREMENTS AND ARE NOT GUARANTEED TO BE CORRECT. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS, ANGLES, ELEVATIONS AND EXISTING DETAILS NECESSARY FOR THE COMPLETION OF ALL WORK BY FIELD MEASUREMENTS AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY EXISTING FIELD CONDITIONS (I.e. MEMBER SIZES, PLATE SIZES, AND MEMBER CONFIGURATION) BY FIELD MEASUREMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADEQUACY AND ACCURACY THEREOF AND SHALL NOT COMMENCE ANY FABRICATION UNTIL HE HAS MADE THE REQUIRED MEASUREMENTS ON THE ACTUAL STRUCTURE AND THE SUBMITTED SHOP DRAWINGS HAVE BEEN APPROVED BY THE RESIDENT. SHOP DRAWINGS SHALL STATE THAT THE EXISTING DIMENSIONS, ANGLES, ELEVATIONS AND FIELD CONDITIONS HAVE BEEN FIELD VERIFIED BY THE CONTRACTOR.

3. BIDDERS AND CONTRACTORS SHALL OBTAIN A COPY OF THE EXISTING BRIDGE PLANS BY CONTACTING THE DEPARTMENT. THESE PLANS ARE REPRODUCTIONS OF THE ORIGINAL DRAWINGS AS PREPARED FOR THE CONSTRUCTION OF THE BRIDGE AS WELL AS BRIDGE REHABILITATION PROJECTS. THESE EXISTING PLANS ARE CONSIDERED PART OF THE CONTRACT DOCUMENTS FOR THIS PROPOSED PROJECT.

4. ALL DIRT, RUST, SCALE, SLAG, PAINT AND OTHER FOREIGN MATTER SHALL BE REMOVED FROM THE EXISTING STRUCTURE IN THE VICINITY OF ANY REPAIR WORK. ANY CLEANING OR MINOR MODIFICATIONS TO COMPONENTS OF THE EXISTING STRUCTURE SUCH AS GRINDING, WELDING OR DRILLING HOLES WHICH ARE REQUIRED TO ACCOMMODATE THE INSTALLATION OF NEW ELEMENTS, AS DETAILED AND FABRICATED, SHALL BE CONSIDERED INCIDENTAL TO THOSE ELEMENTS AND NO ADDITIONAL ALLOWANCE WILL BE MADE FOR SUCH WORK. ALL PROPOSED MODIFICATIONS TO EXISTING COMPONENTS WHICH ARE TO REMAIN AS PART OF THE FINISHED STRUCTURE SHALL BE SUBMITTED TO THE RESIDENT FOR APPROVAL PRIOR TO STARTING THE WORK. IF THE CONTRACTOR'S OPERATIONS DAMAGE EXISTING MATERIALS TO REMAIN, REPAIRS SHALL BE MADE WITHOUT ADDITIONAL COMPENSATION. IF MAJOR REPAIRS DUE TO DAMAGE ARE REQUIRED, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE TESTING AND ENGINEERING DESIGN OF THOSE REPAIRS WITHOUT ADDITIONAL COMPENSATION.

5. THE CONTRACTOR IS NOTIFIED THAT WHILE WORKING AT THE BRIDGE SITE, IT IS UNACCEPTABLE FOR ANY GRIT OR DUST TO ESCAPE THE WORK AREA IN A VISIBLE CLOUD OR PLUME. THE CONTRACTOR IS ALSO NOTIFIED THAT IT IS UNACCEPTABLE FOR ANY MATERIALS OR DEBRIS TO FALL INTO THE AREAS BELOW THE BRIDGE. ALL DEBRIS, MATERIALS, DUST AND GRIT SHALL BE CONTAINED BY DRAPING THE WORK AREA OR BY OTHER APPROVED MEANS AND SHALL BE COLLECTED AND REMOVED FROM THE WORK AREA. THERE WILL BE NO SEPERATE PAYMENT FOR THIS WORK. THE COST SHALL BE CONSIDERED INCIDENTAL TO THE WORK ITEM BEING PERFORMED. IF THE MAINE DEPARTMENT OF TRANSPORTATION DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

6. THE CONTRACTOR IS NOTIFIED THAT THE EXISTING BRIDGE HAS A POSTED LOAD RESTRICTION "TRUCKS AND BUSES OVER 20,000 LBS. G.V.W. MAINTAIN 500' SPACING." THE CONTRACTOR IS ADVISED THAT VEHICLE LOADS IN EXCESS OF THE POSTED LOAD CAPACITY MAY BE PERMITTED ON THE BRIDGE, DEPENDING UPON THE AXLE WEIGHT AND AXLE SPACING OF THE OVERWEIGHT VEHICLE. PRIOR TO UTILIZING VEHICLES IN EXCESS OF THE POSTED CAPACITY, THE CONTRACTOR SHALL SUBMIT CALCULATIONS, TO THE RESIDENT FOR REVIEW AND APPROVAL, PREPARED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF MAINE, DEMONSTRATING THAT THE BRIDGE CAN SAFELY SUPPORT THE PROPOSED LOADS. THROUGHOUT THE COURSE OF THE WORK, WHENEVER APPROVED VEHICLE LOADS IN EXCESS OF THE POSTED LOAD CAPACITY ARE USED, THE CONTRACTOR SHALL MAKE EVERY EFFORT TO STORE/PARK THESE VEHICLES AT LOCATIONS ABOVE A PIER.

7. THE LOCATIONS OF THE EXISTING UTILITIES, BRIDGE WIRING AND WEATHER MONITORING INSTRUMENTS (I.e. "UTILITIES AND SPECIAL EQUIPMENT") SHOWN ON THESE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AND ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES AND SPECIAL EQUIPMENT PRIOR TO STARTING WORK. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES AND SPECIAL EQUIPMENT DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SUPPORTS WHERE REQUIRED BY HIS OPERATIONS. TEMPORARY SUPPORTS SHALL BE APPROVED BY THE UTILITY OR SPECIAL EQUIPMENT OWNER PRIOR TO THEIR INSTALLATION AND USE.

8. MATERIAL THAT IS SPECIFICALLY CALLED OUT ON THE PLANS AND IS NOT DESIGNATED AS EXISTING SHALL BE NEW MATERIAL.

   ALL BOLTS SHALL BE HIGH STRENGTH BOLTS MEETING THE REQUIREMENTS OF AASHTO M164 (ASTM 325, TYPE 1). BOLTS SHALL BE 7/8"ϕ IN 15/16"ϕ HOLES UNLESS OTHERWISE NOTED. HIGH STRENGTH BOLTS SHALL HAVE A HARDENED WASHER UNDER THE NUT. HARDENED WASHERS SHALL ALSO BE PLACED UNDER THE HEAD IF THE HEAD IS THE TURNED ELEMENT. SLOTTED HOLES, IN ACCORDANCE WITH THE CURRENT AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES SHALL BE USED AT LOCATIONS SHOWN ON THE CONTRACT DRAWINGS OR APPROVED BY THE RESIDENT.

10. ALL STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M270 (ASTM A709) GRADE 36, T2, EXCEPT AS NOTED. WELDED FABRICATION SHALL BE PERFORMED, AND WELDERS SHALL BE CERTIFIED, IN ACCORDANCE WITH THE CURRENT BRIDGE WELDING CODE, ANSI/AASHTO/AWS D1.5 AND ALL INTERIM REVISIONS PUBLISHED AS OF THE BID OPENING DATE. NO WELDING SHALL BE PERMITTED TO EXISTING STEEL UNLESS SPECIFIED ON THE CONTRACT DRAWINGS OR APPROVED IN WRITING BY THE RESIDENT. PAINTING SHALL CONFORM TO THE CONTRACT SPECIFICATIONS.

11. AREAS WHERE EXISTING STEEL COATING IS COMPROMISED DUE TO THE CONTRACTOR'S OPERATIONS SHALL BE CLEANED AND RECOATED IN ACCORDANCE WITH SECTION 506 OF THE SPECIAL PROVISIONS. THE COST OF ANY REQUIRED CLEANING AND COATING APPLICATION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK BEING PERFORMED.

12. CLEAN AND COAT NEW FASTENERS IN ACCORDANCE WITH SECTION 506 OF THE SPECIAL PROVISIONS. THE COST OF ANY REQUIRED CLEANING AND COATING APPLICATION SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WORK BEING PERFORMED.

13. UPON COMPLETION OF THE CLEANING AND PAINTING OF STEEL BEARING COMPONENTS WHICH ARE IN CONTACT WITH THE CONCRETE SUBSTRUCTURE, THE CONTRACTOR SHALL SEAL THE STEEL-CONCRETE INTERFACE. THE SEALANT SHALL MEET OR EXCEED THE REQUIREMENTS OF JOINT SEALANTS ON THE DEPARTMENT'S QUALIFIED PRODUCTS LIST, AND BE SUBMITTED TO THE RESIDENT FOR APPROVAL PRIOR TO PLACEMENT.

14. THE EXISTING PAINT ON THE EXISTING BRIDGE LIKELY CONTAINS LEAD AND HEXA-VALENT CHROMIUM; IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE THE EXISTING PAINT TESTED TO DETERMINE THE LEAD AND CHROMIUM CONTENT. THIS COATING SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL FACILITY. THE CONTRACTOR SHALL SUBMIT A PLAN FOR APPROVAL BY THE RESIDENT, AT LEAST 2 WEEKS PRIOR TO THE START OF WORK ON THIS ITEM, OUTLINING THE METHODS AND EQUIPMENT TO BE USED TO REMOVE AND DISPOSE OF ALL MATERIALS INCLUDED IN THE PORTIONS OF THE EXISTING BRIDGE TO BE REMOVED OR MODIFIED. THE PLAN DEVELOPED BY THE CONTRACTOR FOR THE REMOVAL, HANDLING AND DISPOSAL OF THE EXISTING PAINT, OR MEMBER COATED WITH THE EXISTING PAINT, SHOULD TAKE INTO CONSIDERATION THE LEAD AND CHROMIUM CONTENT OF THE EXISTING PAINT. NO WORK RELATED TO THE REMOVAL OR MODIFICATION OF ANY EXISTING PAINT OR STRUCTURAL STEEL SHALL BE UNDERTAKEN UNTIL THE DEPARTMENT HAS APPROVED IN WRITING THE ABOVE REFERENCED PLAN. THE CONTRACTOR IS RESPONSIBLE FOR THE CONTAINMENT AND PROPER MANAGEMENT OF ALL LEAD-CONTAMINATED HAZARDOUS WASTE GENERATED IN THE PROCESS OF REMOVING PORTIONS OF, MODIFYING, WELDING TO, DRILLING, REAMING OR OTHERWISE ALTERING PART OR PARTS OF THE BRIDGE STRUCTURE, PERSUANT TO MAINE DEPARTMENT OF ENVIRONMENTAL REGULATION CHAPTER 850, SECTION 3A, (4XaXxvi). CONSEQUENTLY THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING APPROPRIATE PERSONAL PROTECTION STANDARDS MANDATED BY OSHA.

15. DURING CONSTRUCTION, THE ROAD WILL BE OPEN TO ONE 10'-0" LANE OF BI-DIRECTIONAL TRAFFIC. AT A MINIMUM OF ONCE EVERY 30 CONSECUTIVE CALENDAR DAYS, THE CONTRACTOR WILL BE REQUIRED TO OPEN BOTH LANES OF THE BRIDGE TO TRAFFIC FOR A 48 HOUR PERIOD. THE CONTRACTOR MUST NOTIFY THE RESIDENT, THE TOWNS OF SEDGWICK AND DEER ISLE, AND THE LOCAL NEWS MEDIA, IN WRITING, OF HIS INTENT TO OPEN BOTH LANES A MINIMUM OF 30 CALENDAR DAYS IN ADVANCE.

16. THE CONTRACTOR SHALL SCHEDULE HIS WORK SO AS TO MINIMIZE LANE CLOSURES ON THE BRIDGE. DURING THE PERFORMANCE OF WORK ON SPANS 1, 1A, 2, 3, 4, 6, 7 AND 8, EXTENDED LANE CLOSURES (I.E. LANE CLOSURES LASTING MORE THAN 24 HOURS IN A 7 DAY PERIOD) WILL NOT BE PERMITTED. THE CONTRACTOR SHALL UTILIZE THE BRIDGE APPROACH AREAS AND AREAS UNDER OR ALONGSIDE THE BRIDGE TO FACILITATE HIS OPERATIONS DURING WORK IN THESE SPANS. LONG TERM LANE CLOSURES WILL BE PERMITTED DURING WORK ON SPAN 5 AND THE SUSPENSION TOWERS AT PIERS 4 AND 5. WHEN LONG TERM LANE CLOSURES ARE IN PLACE, THE CONTRACTOR SHALL WORK 24 HOURS PER DAY, 7 DAYS PER WEEK. LONG TERM LANE CLOSURES ARE REQUIRED TO BE REMOVED FOR A 48 HOUR PERIOD ONCE EVERY 30 CONSECUTIVE CALENDAR DAYS, AS STATED IN NOTE 16.

17. THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS (I.E. BLOCKING VEHICLES, FLAGGERS, DRUMS, CONES, ETC.) TO SAFEGUARD HIS WORKERS AGAINST TRAFFIC AND OTHER HAZARDS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE WORK UNDER ITEM 652.39.

18. THE USE OF FALSEWORK, FORMWORK, RIGGING, SCAFFOLDING AS WELL AS OTHER CONSTRUCTION METHODS AND PROCEDURES SHALL BE SCHEDULED AND PERFORMED IN SUCH A WAY THAT IT SHALL NOT INTERFERE WITH OR CAUSE UNAUTHORIZED INTERRUPTIONS TO NAVIGATION. THE EXTENT AND LIMITS OF ENCROACHMENT, IF ANY, ON THE NAVIGATION CLEARANCES SHALL BE SUBMITTED TO THE USCG FOR APPROVAL. NO ENCROACHMENT SHALL BE CAUSED UNTIL WRITTEN AUTHORIZATION IS RECEIVED FROM THE USCG.

19. THE CONTRACTOR SHALL LIMIT THE DEAD WEIGHT OF SCAFFOLDING OR ANY OTHER DEVICE THAT THE CONTRACTOR MAY EMPLOY FOR CONSTRUCTION ACCESS ON THE SUSPENDED SPANS TO NOT MORE THAN 100 PLF ALONG EACH CABLE. PRIOR TO THE INSTALLATION OF ANY SCAFFOLDING OR OTHER CONSTRUCTION ACCESS DEVICE, THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS WHICH SHOW THE WEIGHT AND LIMITS OF INSTALLATION AND THE METHOD USED TO SUPPORT THE SCAFFOLDING OR DEVICE FROM THE BRIDGE TO THE RESIDENT FOR REVIEW.

20. THE CONTRACTOR IS ADVISED THAT THE FOOTPRINT OF SHIELDING/SCAFFOLDING/CONTAINMENT ATTACHED TO EITHER SUSPENSION TOWER SHALL NOT EXCEED 40 FEET IN HEIGHT AND 43 FEET IN WIDTH PERPENDICULAR TO TRAFFIC AT ANY POINT IN TIME, EXCEPT FOR THE UPPERMOST 45 FEET OF THE TOWER WHERE THE MAXIMUM WIDTH SHALL NOT EXCEED 37 FEET PERPENDICULAR TO TRAFFIC.

21. ANY DAMAGE TO THE APPROACH ROADWAY SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE. REPAIR WORK, IF NECESSARY, SHALL NOT BE DONE ON A LANE CARRYING TRAFFIC.

22. THE CONTRACTOR MAY USE THE EXISTING 100'± x 35'± GRAVEL LOT ALONGSIDE THE NORTH APPROACH ROADWAY AS A STAGING AREA. SEE SHEET NO. 3.

23. EXISTING PLANS MAY BE ACCESSED AT THE FOLLOWING WEB ADDRESS: http://www.maine.gov/mdot/comprehensive-list-projects/project-information.php

24. THIS CONTRACT INCLUDES THE CLEANING AND PAINTING OF ALL STEEL COMPONENTS ON THE BRIDGE. THESE CONTRACT DOCUMENTS (PLANS AND SPECIFICATIONS) SHOW THE GENERAL CONFIGURATION OF THE BRIDGE. THE CONTRACTOR IS ENCOURAGED TO REVIEW ADDITIONAL EXISTING PLANS OF THE BRIDGE, AS DIRECTED IN NOTE 23, AND VIEW THE SITE, FOR DETAILS OF STEEL COMPONENTS NOT SHOWN IN THESE CONTRACT DOCUMENTS.

149-317

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

PIN 10062.01

BRIDGE NO. 3257

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	ECL	CMD	1-09
CHECKED-REVIEWED	TGS	ECL	1-09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

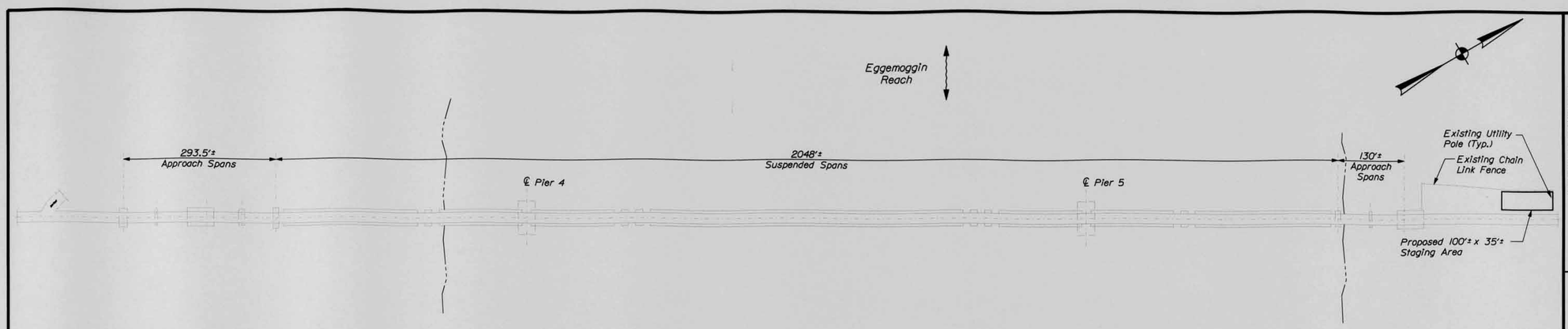
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

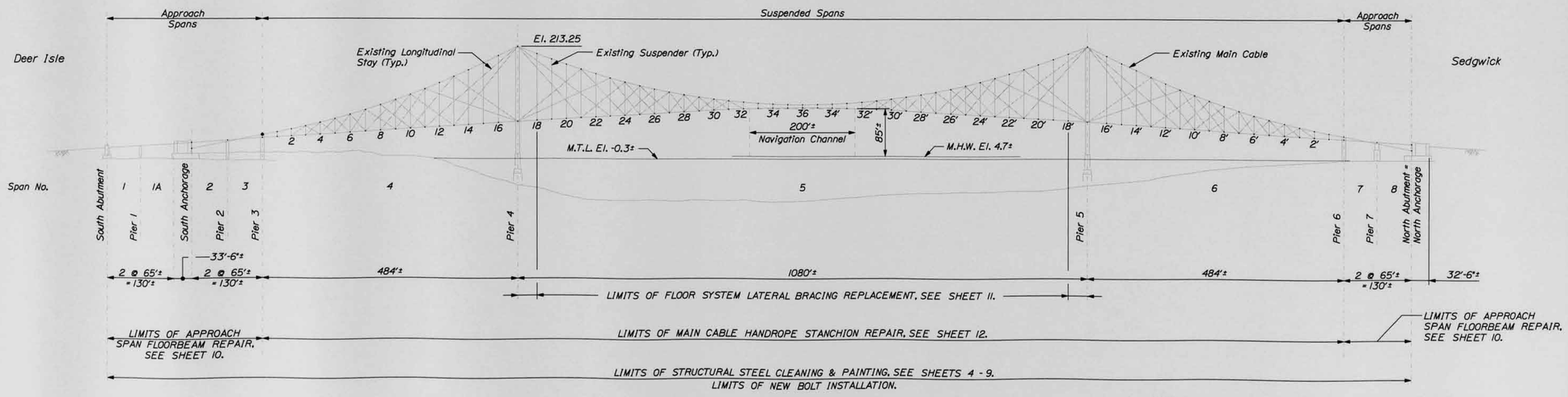
ESTIMATED QUANTITIES
& GENERAL NOTES

SHEET NUMBER
2
OF 14

Filename: ...\bridge\vnsta\002_Estimate.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009



GENERAL PLAN



GENERAL ELEVATION

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR TRAFFIC CONTROL DETAILS SEE SHEETS 13 & 14.

149-318

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

PIN 10062.01

BRIDGE NO. 3257

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	ECL	CMD	1-09
CHECKED-REVIEWED	TGS	ECL	1-09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

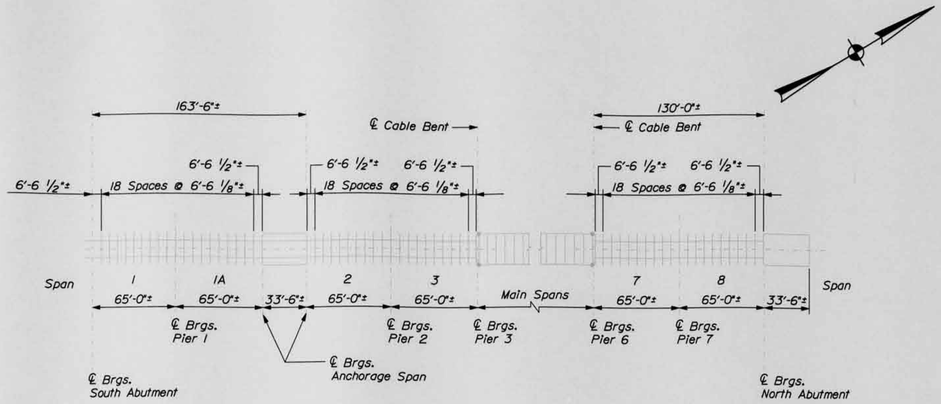
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

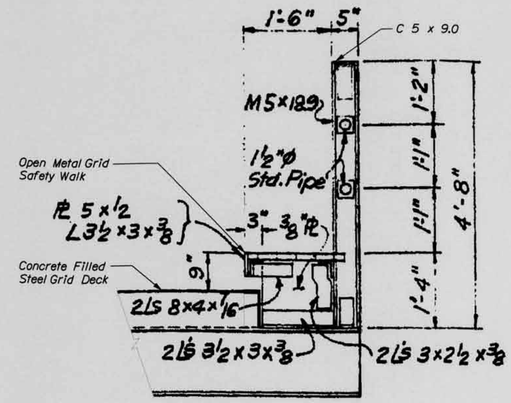
GENERAL PLAN & ELEVATION

SHEET NUMBER
3
OF 14

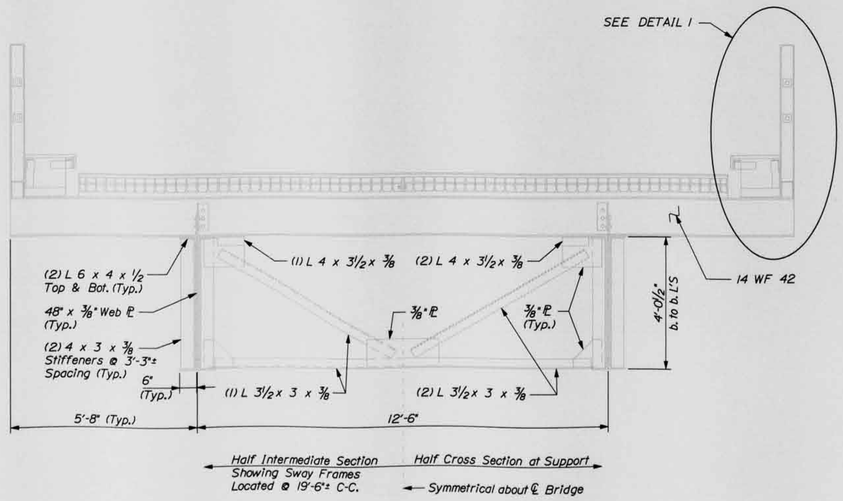
Filename: ...\01\bridge\msta\003_Gpe.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009



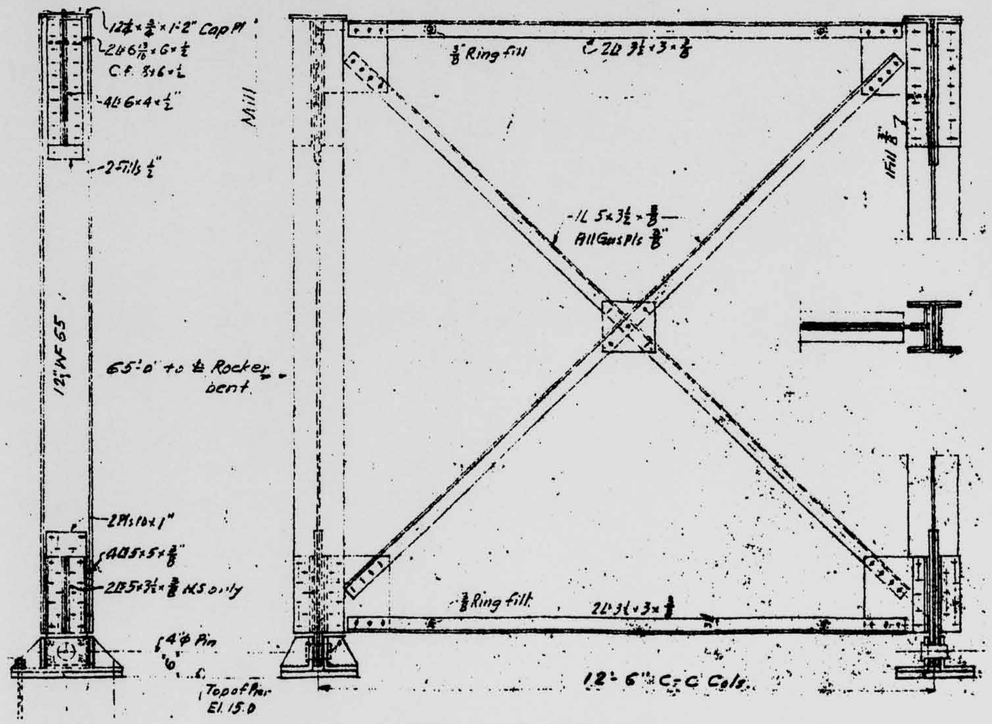
EXISTING FLOORBEAM LAYOUT PARTIAL PLAN - APPROACH SPANS



DETAIL I
TYPICAL RAILING AND SAFETY WALK DETAILS AT FLOORBEAM



TYPICAL HALF CROSS SECTIONS: APPROACH SPAN FLOORBEAM



TYPICAL PIER BENT AT PIERS 1, 2, & 7

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR APPROACH SPAN FLOOBEAM REPAIR DETAILS SEE SHEET 10.
3. DETAILS SHOWN ARE REPRESENTATIVE OF EXISTING STRUCTURAL STEEL IN SPANS 1, 1A, 2, 3, 7 AND 8, AND ARE NOT GUARANTEED TO BE CORRECT. ALL WORK REQUIRED TO CLEAN AND PAINT EXISTING STRUCTURAL STEEL IN THESE SPANS TO BE PAID FOR UNDER ITEMS 506.144 AND 506.17 RESPECTIVELY.

149-319

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

PIN 10062.01

BRIDGE NO. 3257

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	ECL	CMD	1-09
CHECKED-REVIEWED	TGS	ECL	1-09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

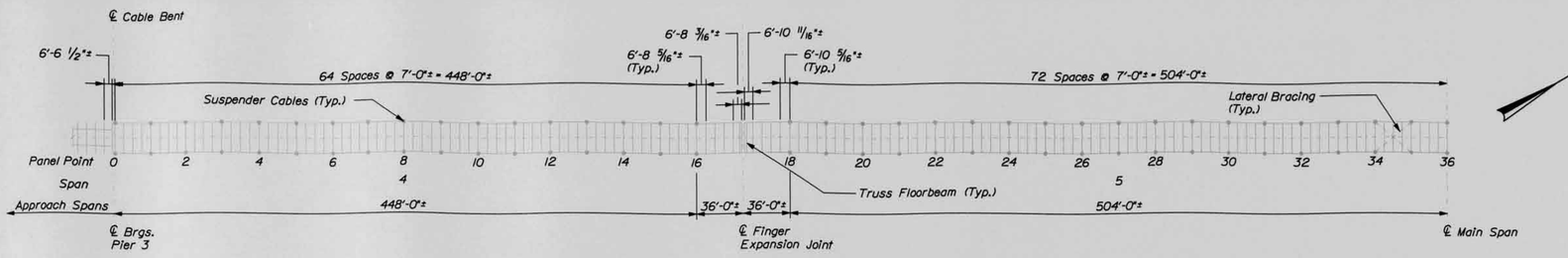
DATE

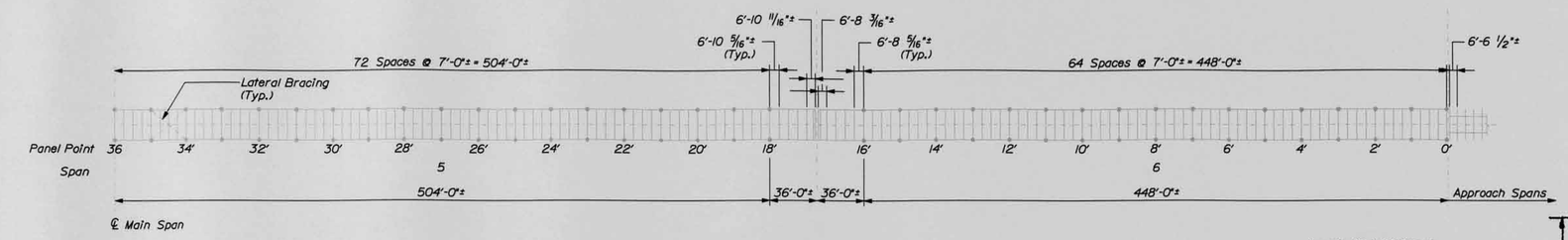
DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

APPROACH SPAN
CROSS SECTION & DETAILS

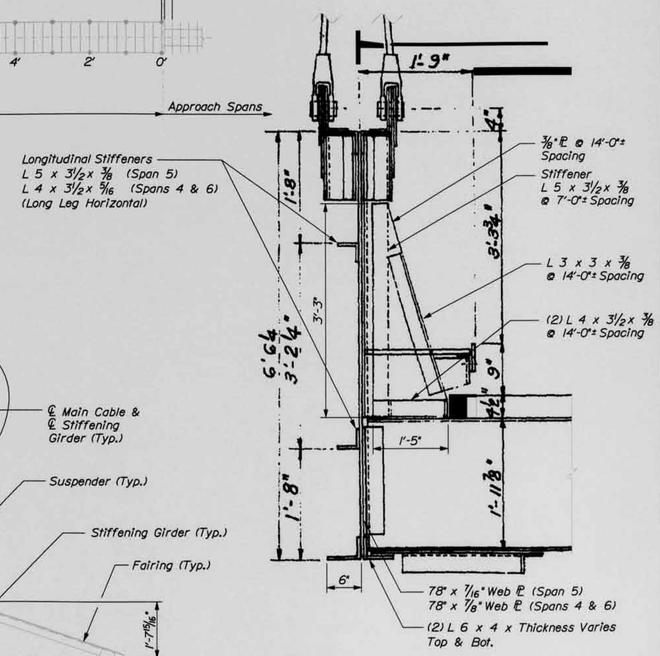
SHEET NUMBER
4
OF 14

Filename: ...\004_Approach Span Xsec.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009

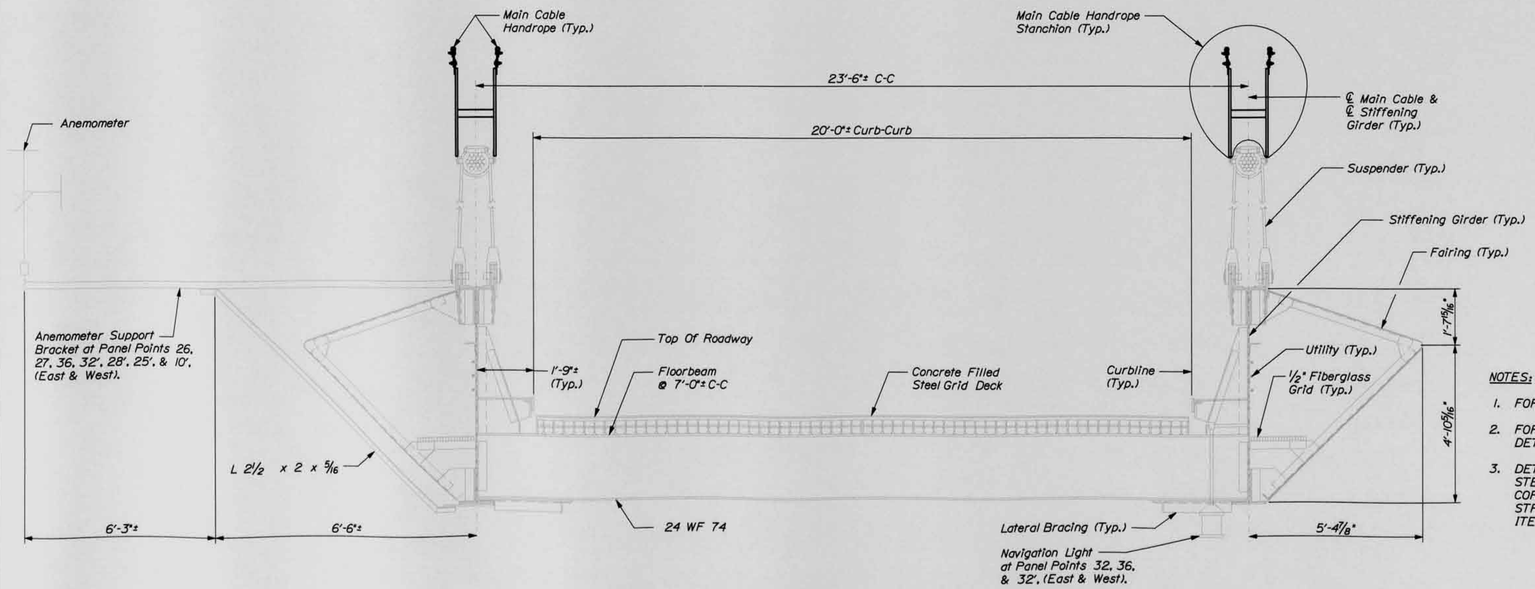




EXISTING FLOORBEAM LAYOUT PARTIAL PLAN - MAIN SPANS



TYPICAL GIRDER DETAIL



TYPICAL SUSPENDED SPAN TRANSVERSE SECTION

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR MAIN CABLE, SUSPENDER, AND CABLE STAY DETAILS SEE SHEET 7.
3. DETAILS SHOWN ARE REPRESENTATIVE OF EXISTING STRUCTURAL STEEL IN SPANS 4, 5 AND 6, AND ARE NOT GUARANTEED TO BE CORRECT. ALL WORK REQUIRED TO CLEAN AND PAINT EXISTING STRUCTURAL STEEL IN THESE SPANS TO BE PAID FOR UNDER ITEMS 506.144 AND 506.17 RESPECTIVELY.

149-320

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

PIN 10062.01

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	ECL	
DESIGN-DETAILED	ECL	1-09
CHECKED-REVIEWED	TGS	1-09
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

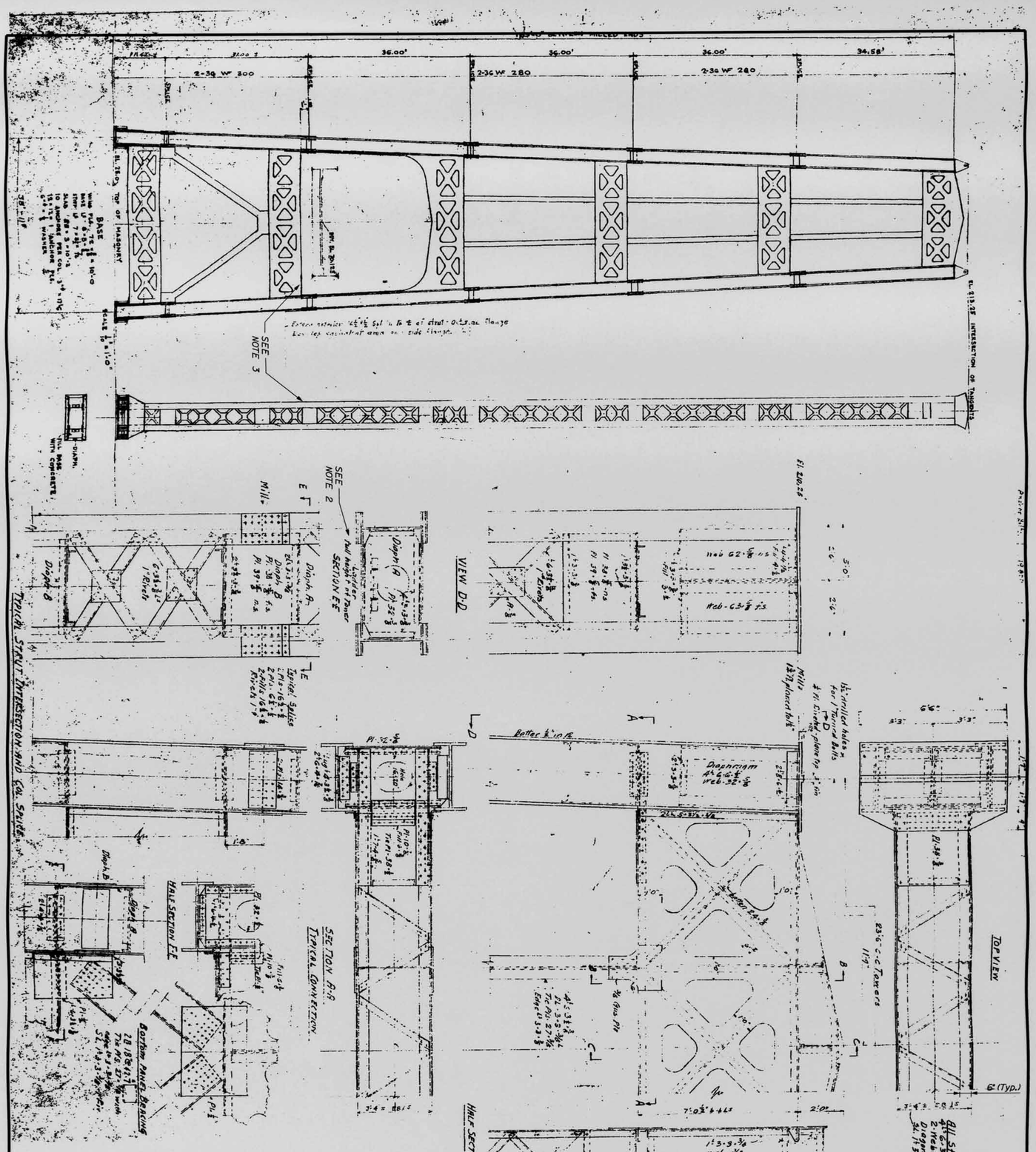
DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

SUSPENDED SPAN
CROSS SECTION & DETAILS

SHEET NUMBER
5
OF 14

Filename: ...\005_Suspended Span Xsec.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009

Filename: ...\006_Main Tower Details.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009



NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. THERE IS A LADDER FROM ELEVATION 25.0 TO ELEVATION 210.0 LOCATED WITHIN EACH OF THE TWO TOWER LEGS AT EACH TOWER.
3. AT EACH TOWER THERE ARE MAINTENANCE CATWALKS ALONG THE NORTH AND SOUTH FACES OF THE STRUT BELOW THE ROADWAY.
4. DETAILS SHOWN ARE REPRESENTATIVE OF EXISTING STRUCTURAL STEEL IN THE MAIN TOWERS LOCATED ON PIERS 4 AND 5, AND ARE NOT GUARANTEED TO BE CORRECT. ALL WORK REQUIRED TO CLEAN AND PAINT EXISTING STRUCTURAL STEEL IN THE MAIN TOWERS TO BE PAID FOR UNDER ITEMS 506.144 AND 506.17 RESPECTIVELY.

149-321

TranSystems

DEER ISLE-SEDGWICK BRIDGE EGGEMOGGIN REACH DEER ISLE-SEDGWICK HANCOCK COUNTY	PROJ. MANAGER ECL		BY	DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION
	DESIGN-DETAILED	ECL	CMD	1-09	
	CHECKED-REVIEWED	TGS	ECL	1-09	SIGNATURE
	DESIGN2-DETAILED2				HP-1006(201)X
	DESIGN3-DETAILED3				P.E. NUMBER
MAIN TOWER DETAILS	REVISIONS 1				
	REVISIONS 2				DATE
	REVISIONS 3				BRIDGE NO. 3257 PIN 10062.01 BRIDGE PLANS
	REVISIONS 4				
	FIELD CHANGES				

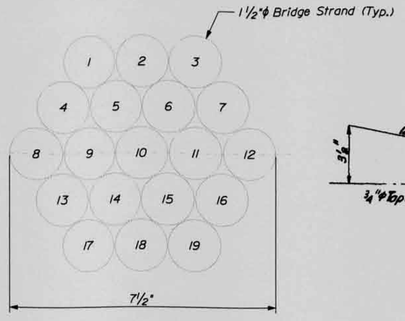
SHEET NUMBER 6 OF 14

TABLE OF SUSPENDER LENGTHS

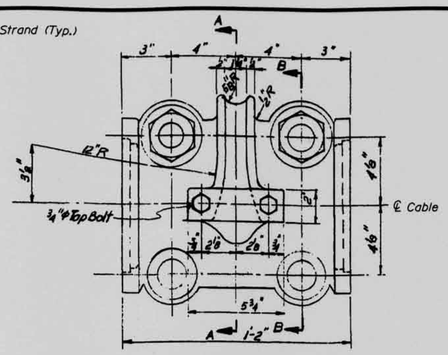
Panel Point	Cable Elevation	Girder Elevation	Suspender Length (Ft)
1	49.82	44.28	12.08
2	55.40	45.92	19.96
3	61.40	47.51	28.78
4	68.19	49.33	38.72
5	75.44	51.05	49.78
6	83.38	52.85	62.06
7	91.96	54.73	75.46
8	101.02	56.55	89.94
9	110.64	58.42	105.44
10	120.89	60.22	122.34
11	131.77	62.18	140.18
12	143.27	64.10	159.34
13	155.21	65.96	179.50
14	167.78	67.90	200.76
15	180.96	69.84	223.24
16	194.65	71.77	246.78
17	212.55	74.01	0.00
18	198.80	76.25	246.10
19	188.56	77.93	222.26
20	178.79	79.55	199.48
21	169.52	81.13	177.78
22	160.89	82.75	157.28
23	152.88	84.42	137.92
24	145.44	86.09	119.70
25	138.62	87.77	102.70
26	132.38	89.42	86.92
27	126.71	91.13	72.16
28	121.74	92.92	58.64
29	117.24	94.64	46.20
30	113.45	96.26	35.38
31	110.18	97.56	26.24
32	107.51	98.67	18.68
33	105.43	99.54	12.78
34	104.02	100.16	8.72
35	103.10	100.53	6.14
36	102.88	100.73	5.30
35'	103.19	100.56	6.26
34'	104.07	100.26	8.62
33'	105.60	99.67	12.86
32'	107.60	98.76	18.68
31'	110.24	97.57	26.34
30'	113.45	96.32	35.26
29'	117.32	94.74	46.16
28'	121.81	93.01	58.60
27'	126.83	91.31	72.04
26'	132.63	89.67	86.92
25'	138.77	87.92	102.70
24'	145.59	86.25	119.68
23'	153.05	84.63	137.84
22'	161.13	83.01	157.24
21'	169.69	81.26	177.86
20'	178.90	79.69	199.42
19'	188.60	78.05	222.10
18'	198.90	76.35	246.10
17'	212.55	74.09	0.00
16'	194.69	71.83	246.72
15'	181.05	69.90	223.30
14'	167.91	68.08	200.66
13'	155.42	66.23	179.38
12'	143.43	64.26	159.36
11'	132.09	62.48	140.22
10'	121.18	60.53	122.30
9'	110.96	58.67	105.58
8'	101.02	56.57	89.90
7'	91.95	54.68	75.54
6'	83.41	52.85	62.12
5'	75.47	51.03	49.88
4'	68.14	49.30	38.68
3'	61.41	47.57	28.68
2'	55.22	45.80	19.84
1'	49.68	44.18	12.00
	Suspender Length Per Cable =		6,984
	Overall Total = 2 x Suspender Length Per Cable =		13,968

TABLE OF TRANSVERSE CABLE STAY LENGTHS

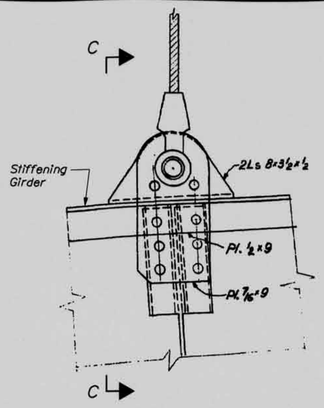
Panel Point	Horizontal Dimension (Ft)	Vertical Dimension (Ft) (Cable Elevation - Girder Elevation)	No. Cables per Panel Point	Diagonal Stay Cable Length (Ft)
10	28.98	60.67	2	134.47
11	27.98	69.59	2	150.01
23	27.98	68.46	2	147.91
24	28.98	59.35	2	132.09
25	30.33	50.85	2	118.42
25'	30.33	50.85	2	118.42
24'	28.98	59.34	2	132.08
23'	27.98	68.42	2	147.84
11'	27.98	69.61	2	150.05
10'	28.98	60.65	2	134.44
			Total =	1,366



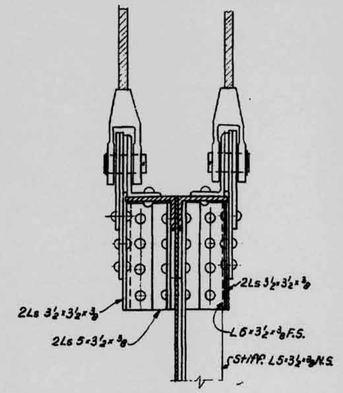
MAIN CABLE CROSS SECTION
SEE NOTE 6



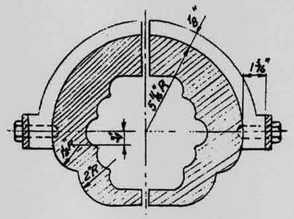
TYPICAL CABLE BAND ELEVATION



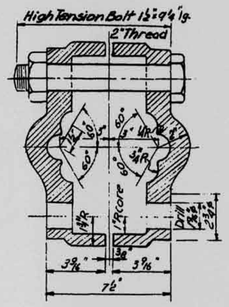
TYPICAL DETAIL OF SUSPENDER CONNECTION TO STIFFENING GIRDER



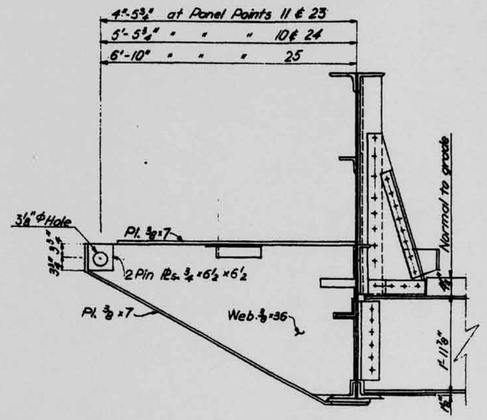
SECTION C-C



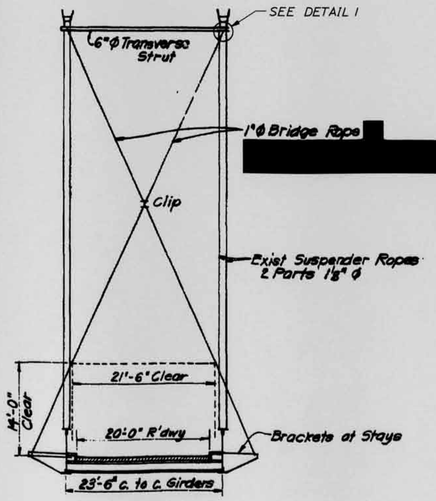
SECTION A-A



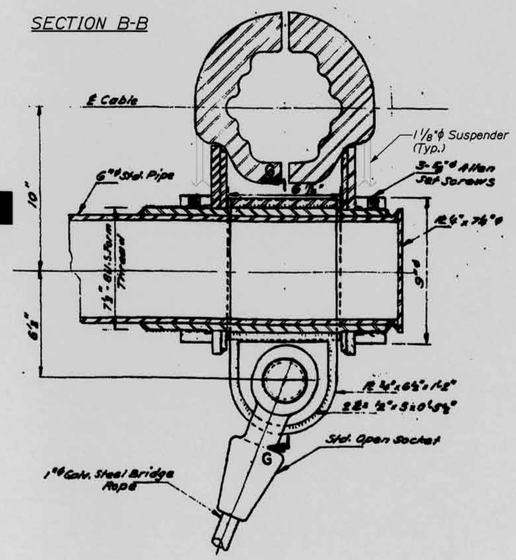
SECTION B-B



BRACKETS FOR TRANSVERSE STAY
SEE NOTE 8



SECTION SHOWING TRANSVERSE STAYS AT PANEL POINTS 10, 11, 23, 24, 25, 25', 24', 23', 11', & 10'



DETAIL 1
TRANSVERSE STRUT AND STAY CONNECTION

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR PANEL POINT NUMBERING SEE SHEET 3.
3. EACH SUSPENDER CONSISTS OF TWO 1 1/8" DIAMETER WIRE ROPES AT EACH PANEL POINT FOR EACH CABLE. THE LENGTHS PROVIDED ACCOUNT FOR BOTH WIRE ROPES AT THE SUSPENDER LOCATION.
4. THE SUSPENSION SPANS ARE SYMMETIRCAL ABOUT PANEL POINT 36.
5. THERE ARE NO SUSPENDERS AT PANEL POINTS 0 AND 0', OR AT PANEL POINTS 17' AND 17' (MAIN TOWER LOCATIONS).
6. THE LENGTH OF ONE MAIN CABLE IS APPROXIMATELY 2,500 LF FROM ANCHORAGE TO ANCHORAGE.
7. DETAILS SHOWN ARE REPRESENTATIVE OF EXISTING MAIN CABLES. WIRE ROPES AND APPURTENANCES, AND ARE NOT GUARANTEED TO BE CORRECT. ALL WORK REQUIRED TO CLEAN AND PAINT EXISTING MAIN CABLES, WIRE ROPES AND APPURTENANCES TO BE PAID FOR UNDER ITEMS 506.144 AND 506.17 RESPECTIVELY.
8. DETAILS SHOWN FOR BRACKETS FOR TRANSVERSE STAYS ARE REPRESENTATIVE OF THE EXISTING BRACKETS, AND ARE NOT GUARANTEED TO BE CORRECT. ALL WORK REQUIRED TO CLEAN AND PAINT EXISTING BRACKETS FOR TRANSVERSE STAYS TO BE PAID FOR UNDER ITEMS 506.144 AND 506.17 RESPECTIVELY.

TranSystems

149-322

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

PIN 10062.01

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED ECL	CMD	1-09
CHECKED-REVIEWED TGS	ECL	1-09
DESIGN-DETAILED2		
DESIGN-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

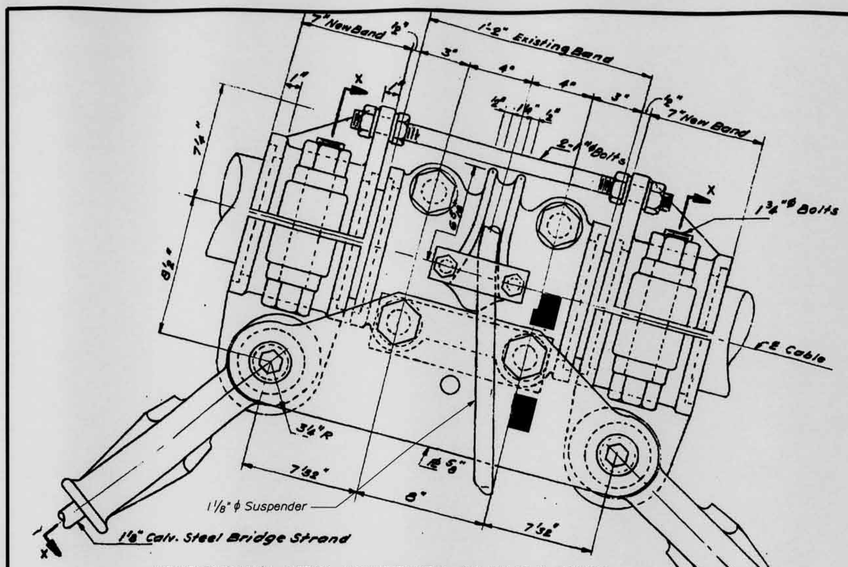
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

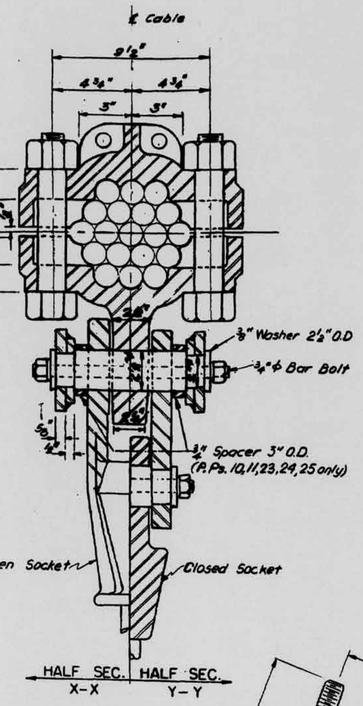
MAIN CABLE DETAILS
1 OF 3

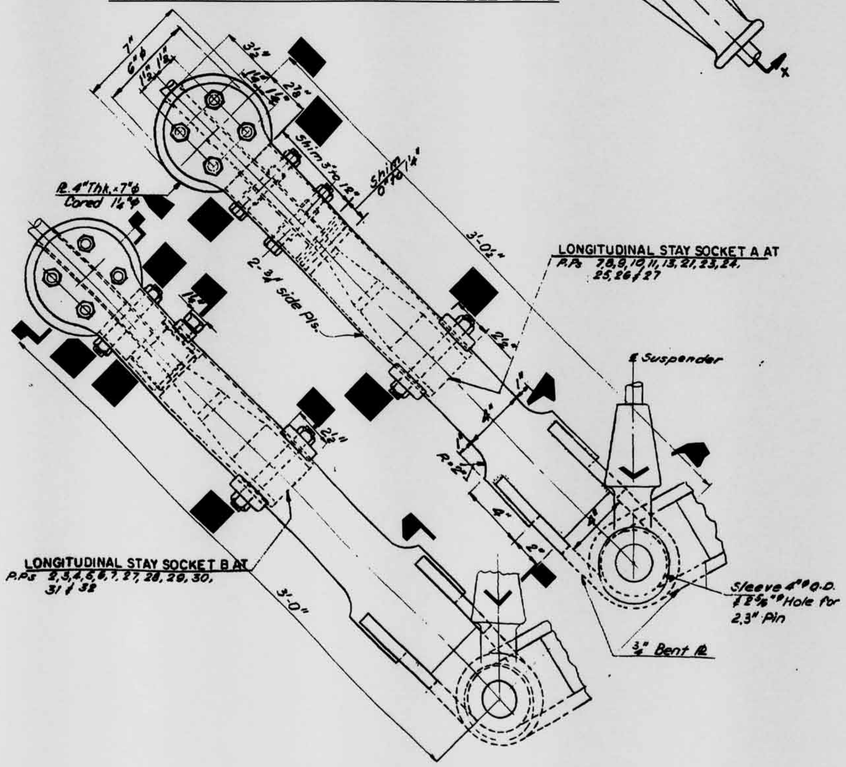
SHEET NUMBER
7
OF 14

Filename: ...\007_Main Cable Details 1.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009

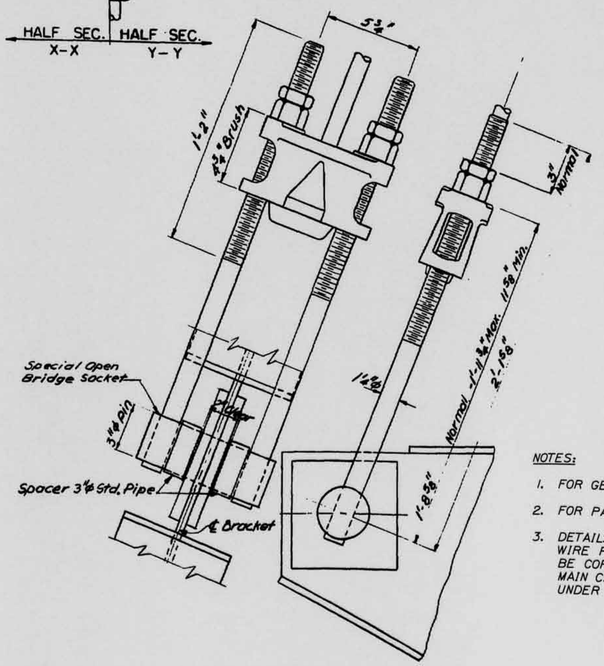


LONGITUDINAL STAY CONNECTION AT CABLE BAND





LONGITUDINAL STAY CONNECTION AT GIRDER



TRANSVERSE STAY CONNECTION

TABLE OF LONGITUDINAL CABLE STAY LENGTHS
(Symmetrical About Panel 36)

Panel Points	Horizontal Dimension (Ft) (No. panel pts x 28)	Vertical Dimension (Ft) (Cable Elevation - Girder Elevation)	Diagonal Stay Cable Length (Ft)
3 - 2	28.00	15.48	31.99
3 - 4	28.00	12.07	30.49
4 - 3	28.00	20.68	34.81
4 - 5	28.00	17.14	32.83
5 - 4	28.00	26.11	38.28
5 - 6	28.00	22.59	35.98
6 - 5	28.00	32.33	42.77
6 - 7	28.00	28.65	40.06
7 - 6	28.00	39.11	48.10
7 - 9	56.00	33.54	65.28
8 - 10	56.00	40.80	69.29
9 - 7	56.00	55.91	79.13
9 - 11	56.00	48.46	74.06
10 - 8	56.00	64.34	85.30
10 - 13	84.00	54.93	100.37
11 - 9	56.00	73.35	92.28
11 - 17	176.00*	57.76	185.24
13 - 9	84.00	94.99	126.80
13 - 17	120.00*	81.20	144.89
17 - 11	176.00*	150.37	231.49
17 - 13	120.00*	146.59	189.44
17 - 21	120.00*	131.42	177.96
17 - 23	176.00*	128.13	217.70
21 - 17	120.00*	95.51	153.37
21 - 24	84.00	83.43	118.39
23 - 17	176.00*	78.87	192.86
23 - 25	56.00	65.11	85.88
24 - 21	84.00	64.31	105.79
24 - 26	56.00	56.02	79.21
25 - 23	56.00	54.20	77.93
25 - 27	56.00	47.49	73.43
26 - 24	56.00	46.29	72.66
27 - 25	56.00	38.94	68.21
27 - 28	28.00	33.79	43.88
28 - 27	28.00	30.61	41.48
28 - 29	28.00	27.10	38.97
29 - 28	28.00	24.32	37.09
29 - 30	28.00	20.98	34.99
30 - 29	28.00	18.81	33.73
30 - 31	28.00	15.89	32.19
31 - 30	28.00	13.92	31.27
31 - 32	28.00	11.51	30.27

Subtotal, Panel Points 0 - 36 (1/2 of 1 Cable) = 3,526.15
Total = 2 x (Subtotal, Panel Points 0 - 36) x 2 Cables = 14,105

NOTES:
1. Panel Points recorded with Panel Point on Main Cable listed first.
2. * Denotes one 36 foot panel width added to account for panel adjacent to tower.

NOTES:
1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR PANEL POINT NUMBERING SEE SHEET 3.
3. DETAILS SHOWN ARE REPRESENTATIVE OF EXISTING MAIN CABLES. WIRE ROPES AND APPURTENANCES, AND ARE NOT GUARANTEED TO BE CORRECT. ALL WORK REQUIRED TO CLEAN AND PAINT EXISTING MAIN CABLES, WIRE ROPES AND APPURTENANCES TO BE PAID FOR UNDER ITEMS 506.144 AND 506.17 RESPECTIVELY.

TranSystems

149-323

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
HP-1006(201)X
BRIDGE NO. 3257
PIN 10062.01
BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	ECL	CMD	1-09
CHECKED-REVIEWED	TGS	ECL	1-09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

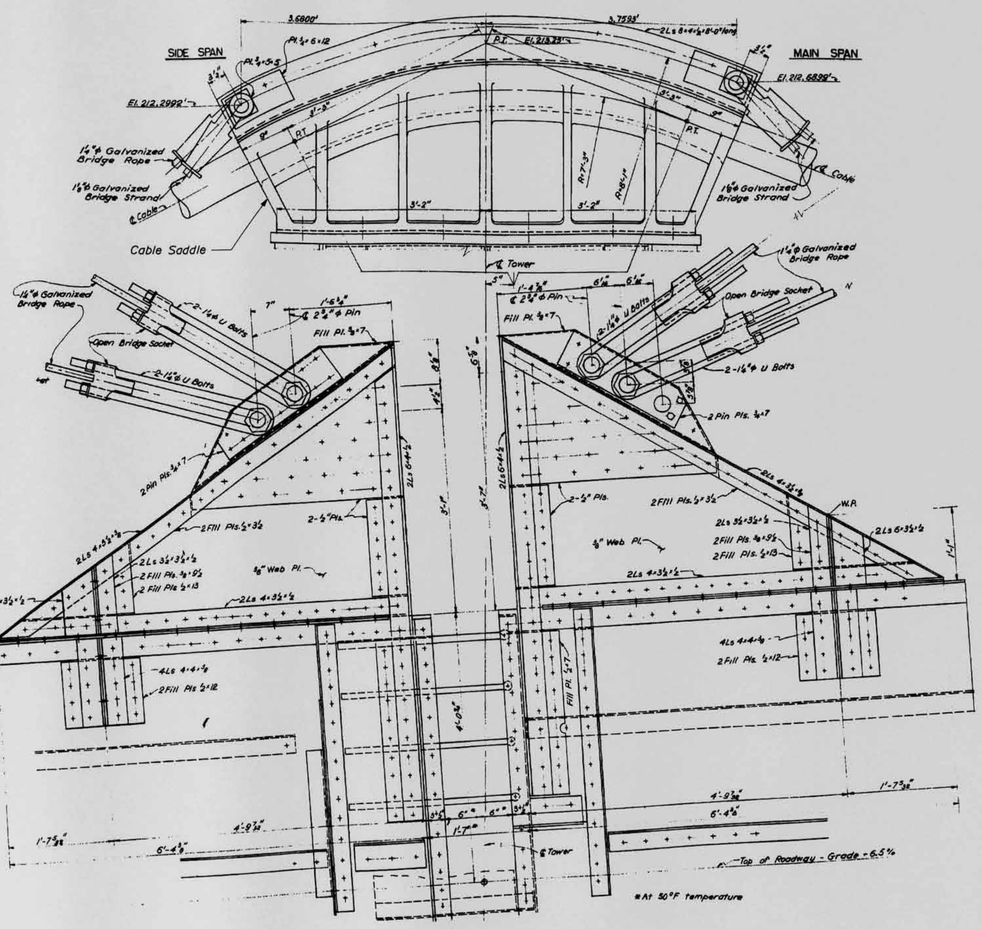
SIGNATURE
P.E. NUMBER
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

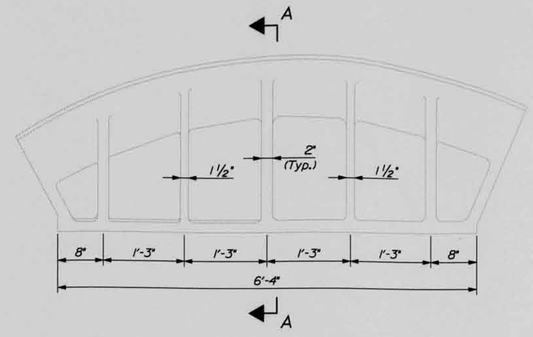
MAIN CABLE DETAILS
2 OF 3

SHEET NUMBER
8
OF 14

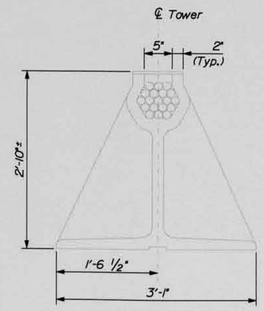
Filename: ...\008_Main Cable Details 2.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009



STAY BRACKETS AT TOWER



MAIN TOWER SADDLE



MAIN TOWER SADDLE

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR TOWER LOCATIONS SEE SHEET 3.
3. DETAILS SHOWN ARE REPRESENTATIVE OF EXISTING STRUCTURAL STEEL IN SPANS 4, 5 AND 6, AND ARE NOT GUARANTEED TO BE CORRECT. ALL WORK REQUIRED TO CLEAN AND PAINT EXISTING STRUCTURAL STEEL IN THESE SPANS TO BE PAID FOR UNDER ITEMS 506.144 AND 506.17 RESPECTIVELY.

TranSystems

149-324

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

PIN 10062.01

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER ECL		
DESIGN-DETAILED ECL	CMD	1-09
CHECKED-REVIEWED TGS	ECL	1-09
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

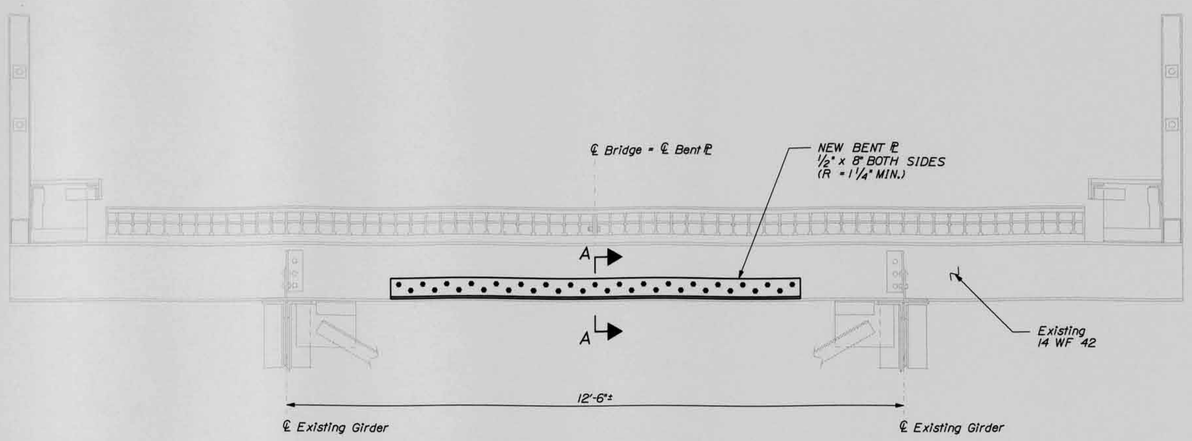
MAIN CABLE DETAILS
3 OF 3

SHEET NUMBER

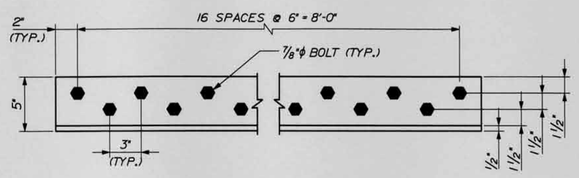
9

OF 14

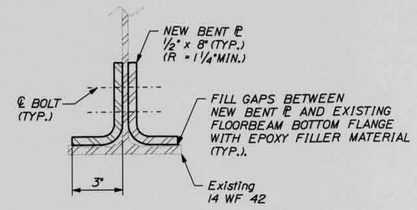
Filename: ...\009_Main Cable Details 3.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009



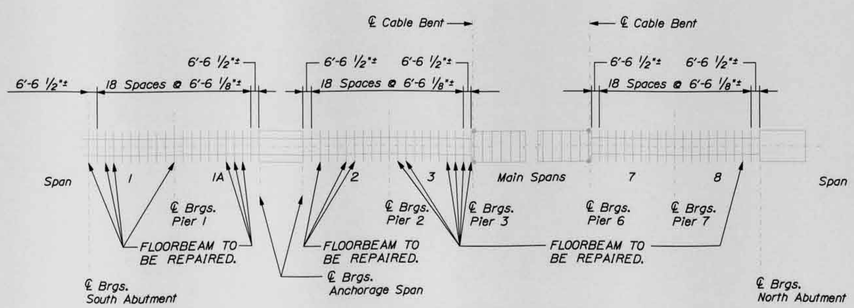
TYPICAL ELEVATION - APPROACH SPAN FLOORBEAM REPAIR



TYPICAL ELEVATION - NEW BENT PLATE



SECTION A-A



NOTE:

FLOORBEAM REPAIRS TO BE PERFORMED AT ADDITIONAL LOCATIONS AS DIRECTED BY THE RESIDENT.

APPROACH SPAN FLOORBEAM REPAIR LOCATION PLAN

LEGEND	
SYM.	DESCRIPTION
○	EXISTING RIVET
○	EXISTING BOLT
⊠	REMOVE EXISTING FASTENER AND PLACE NEW HIGH STRENGTH BOLT IN EXISTING HOLE
●	PLACE NEW HIGH STRENGTH BOLT IN NEW HOLE

SUGGESTED SEQUENCE OF CONSTRUCTION (ITEM 504.72)

1. CLEAN FAYING SURFACE ON WEB AND BOTTOM FLANGE OF EXISTING FLOORBEAM.
2. LOCATE NEW BENT PLATE SO THAT CENTER LINE OF BENT PLATE = CENTERLINE OF BRIDGE
3. USE NEW BENT PLATE AS A TEMPLATE TO LOCATE NEW FASTENER HOLES IN EXISTING FLOORBEAM.
4. DRILL NEW FASTENER HOLES IN EXISTING FLOORBEAM.
5. INSTALL EPOXY FILLER MATERIAL.
6. INSTALL NEW BENT PLATE AND NEW FASTENERS.
7. REMOVE EXCESS EPOXY FILLER MATERIAL.

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 2.
2. ALL WORK ON THIS SHEET TO BE PERFORMED PRIOR TO PAINTING OF FLOORBEAMS TO BE REPAIRED.
3. ALL WORK ON THIS SHEET TO BE PAID FOR UNDER ITEM 504.72.

149-325

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

PIN 10062.01

BRIDGE NO. 3257

BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	ECL	
DESIGN-DETAILED	CMD	1-09
CHECKED-REVIEWED	TCS	1-09
DESIGN2-DETAILED2	ECL	1-09
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

P.E. NUMBER

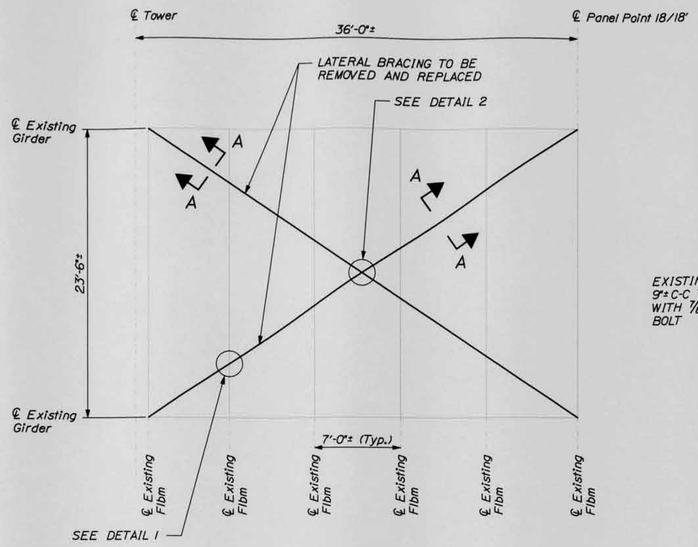
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

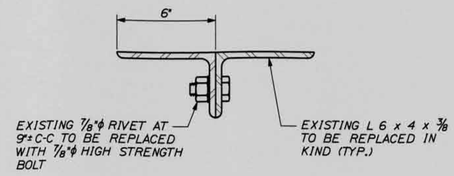
APPROACH SPAN
FLOORBEAM REPAIR

SHEET NUMBER
10
OF 14

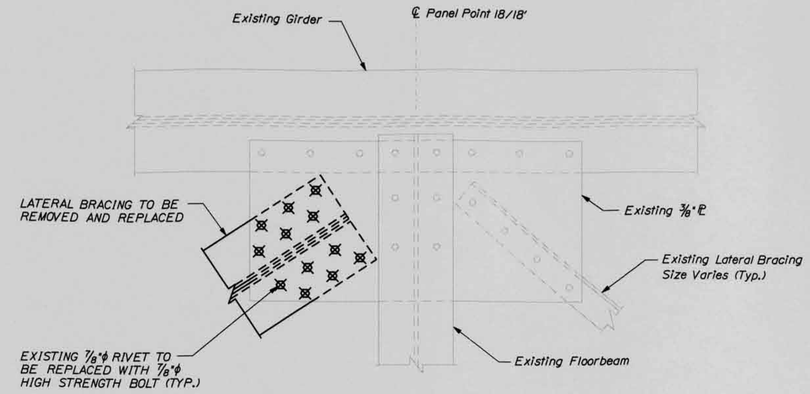
Filename: ...\010_Approach Span Floorbeam Repair.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009



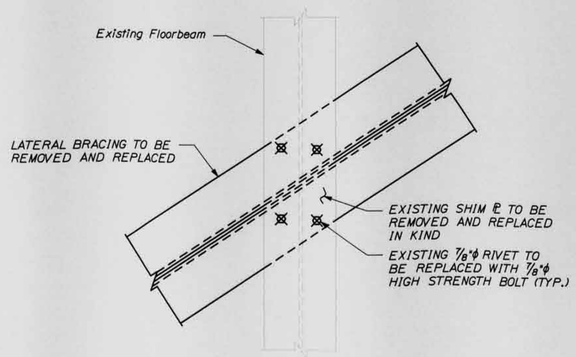
TYPICAL LATERAL BRACING



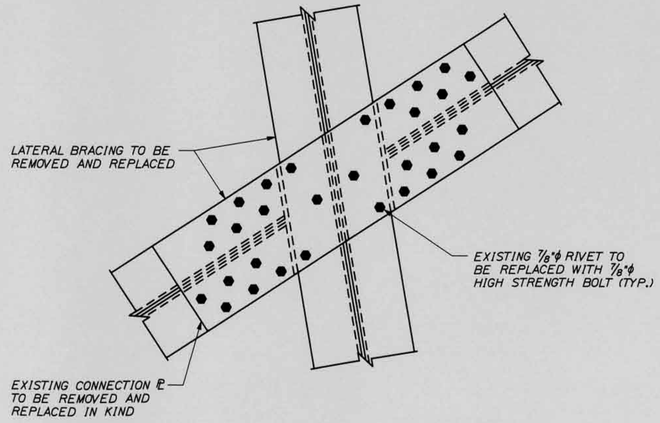
SECTION A-A



LATERAL BRACING CONNECTION TO GIRDER



DETAIL 1 - TYPICAL LATERAL BRACING CONNECTION TO INTERMEDIATE FLOORBEAM



DETAIL 2 - LATERAL BRACING CONNECTION AT MIDSPAN

LEGEND	
SYM.	DESCRIPTION
○	EXISTING RIVET
○	EXISTING BOLT
⊠	REMOVE EXISTING FASTENER AND PLACE NEW HIGH STRENGTH BOLT IN EXISTING HOLE
●	PLACE NEW HIGH STRENGTH BOLT IN NEW HOLE

SUGGESTED SEQUENCE OF CONSTRUCTION (ITEM 504.721)

1. REMOVE ONE LEG (I.E. ONE HALF OF THE "X") OF THE EXISTING LATERAL BRACING.
2. CLEAN FAYING SURFACES ON EXISTING FLOORBEAMS AND GUSSET PLATES EXPOSED BY THE REMOVED LATERAL BRACING.
3. INSTALL ONE LEG OF NEW LATERAL BRACING. USE FASTENER HOLES IN EXISTING FLOORBEAMS AND GUSSET PLATES TO LOCATE AND DRILL APPROPRIATE FASTENER HOLES IN NEW LATERAL BRACING.
4. REMOVE REMAINING LEG OF THE EXISTING LATERAL BRACING.
5. CLEAN FAYING SURFACES ON EXISTING FLOORBEAMS AND GUSSET PLATES EXPOSED BY THE REMOVED LATERAL BRACING.
6. INSTALL REMAINING LEG OF NEW LATERAL BRACING. USE FASTENER HOLES IN EXISTING FLOORBEAMS AND GUSSET PLATES TO LOCATE AND DRILL APPROPRIATE FASTENER HOLES IN NEW LATERAL BRACING.

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. FOR TOWER LOCATION SEE SHEET 3.
3. ALL WORK ON THIS SHEET TO BE PERFORMED PRIOR TO PAINTING OF STRUCTURAL STEEL MEMBERS WHICH SUPPORT THE LATERAL BRACING TO BE REMOVED AND REPLACED.
4. NEW LATERAL BRACING AND FASTENERS SHALL BE ONSITE, ACCEPTED AND READY FOR INSTALLATION PRIOR TO REMOVAL OF EXISTING LATERAL BRACING.
5. ALL WORK ON THIS SHEET TO BE PAID FOR UNDER ITEM 504.721.

149-326

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

BRIDGE NO. 3257 | PIN 10062.01 | BRIDGE PLANS

	BY	DATE
PROJ. MANAGER	ECL	
DESIGN-DETAILED	ECL	
DESIGN-REVIEWED	TGS	
DESIGN-DETAILED2		
DESIGN-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

	BY	DATE
DRAWN	DMD	1-09
CHECKED	ECL	1-09

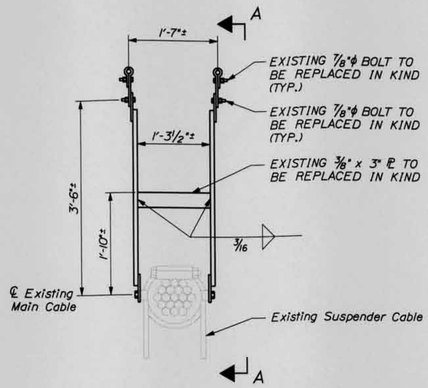
SIGNATURE
P.E. NUMBER
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

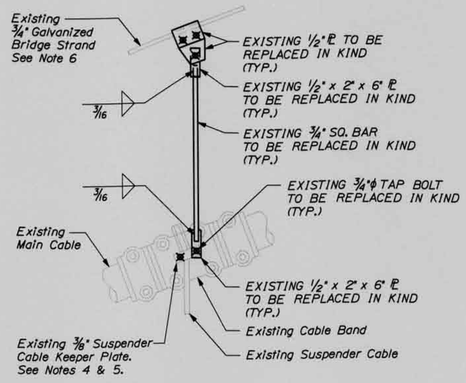
FLOOR SYSTEM LATERAL BRACING REPLACEMENT

SHEET NUMBER
11
OF 14

Filename: ...\011_Floor System Lateral Bracing Replacement.dgn Division: BRIDGE Username: coy.williams Date: 2/3/2009



TYPICAL ELEVATION



SECTION A-A

TYPICAL HANDROPE STANCHION

SUGGESTED SEQUENCE OF CONSTRUCTION (ITEM 504.66)

1. SECURE SUSPENDER CABLE TO CABLE BAND.
2. SECURE 3/4" GALVANIZED BRIDGE STRAND TO AVOID IMPACTS TO VEHICLES TRAVELING ON THE BRIDGE.
3. REMOVE EXISTING HANDROPE STANCHION.
4. INSTALL NEW HANDROPE STANCHION. RREMOVING RESTRAINTS ON 3/4" GALVANIZED BRIDGE STRAND AS REQUIRED.
5. REMOVE RESTRAINTS SECURING SUSPENDER TO CABLE BAND.

NOTES:

1. FOR GENERAL NOTES SEE SHEET 2.
2. TYPICAL HANDROPE STANCHIONS LOCATED AT CABLE BAND/SUSPENDER LOCATIONS. FOR CABLE BAND/SUSPENDER LOCATIONS SEE SHEET 3.
3. REPAIR LOCATIONS INCLUDE:
   - WEST CABLE PANEL POINTS: 7 & 8
   - EAST CABLE PANEL POINTS: 27, 28, 35', 33', 32', 29', 28', 27', 9', 8', 7' & 6'

   AS WELL AS ADDITIONAL LOCATIONS AS DIRECTED BY THE ENGINEER.
4. THE BOLTS WHICH ATTACH THE HANDROPE STANCHION TO THE CABLE BAND ALSO SECURE THE SUSPENDER CABLE KEEPER PLATE. THE CONTRACTOR MUST SECURE THE SUSPENDER CABLE TO THE CABLE BAND PRIOR TO LOOSENING THE BOLTS WHICH ATTACH THE HANDROPE STANCHION TO THE CABLE BAND. PRIOR TO BEGINNING WORK ON THIS ITEM THE CONTRACTOR MUST SUBMIT HIS PROPOSED METHOD OF SECURING THE SUSPENDER CABLE TO THE CABLE BAND TO THE ENGINEER FOR APPROVAL.
5. CONTRACTOR TO SHIM EXSITING SUSPENDER CABLE KEEPER PLATE TO PROVIDE 1/16" CLEARANCE BETWEEN THIS PLATE AND THE SUSPENDER CABLE.
6. CONTRACTOR TO SECURE EXISTING 3/4" GALVANIZED BRIDGE STRAND AS REQUIRED DURING THE WORK ON THIS ITEM TO AVOID ANY IMPACTS TO VEHICLES TRAVELING ON THE BRIDGE.
7. NEW HANDROPE STANCHION AND FASTENERS SHALL BE ONSITE, ACCEPTED AND READY FOR INSTALLATION PRIOR TO REMOVAL OF EXISTING HANDROPE STANCHION.
8. ALL WORK ON THIS SHEET TO BE PERFORMED PRIOR TO PAINTING OF THE STEEL CABLES AND CABLE BANDS.
9. ALL WORK ON THIS SHEET TO BE PAID FOR UNDER ITEM 504.66.

LEGEND	
SYM.	DESCRIPTION
○	EXISTING RIVET
○	EXISTING BOLT
⊠	REMOVE EXISTING FASTENER AND PLACE NEW HIGH STRENGTH BOLT IN EXISTING HOLE
●	PLACE NEW HIGH STRENGTH BOLT IN NEW HOLE

149-327

TranSystems

STATE OF MAINE
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HP-1006(201)X

PIN 10662.01

BRIDGE NO. 3257

BRIDGE PLANS

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	ECL	CMD	1-09
CHECKED-REVIEWED	TGS	ECL	1-09
DESIGN-DETAILED2			
DESIGN-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

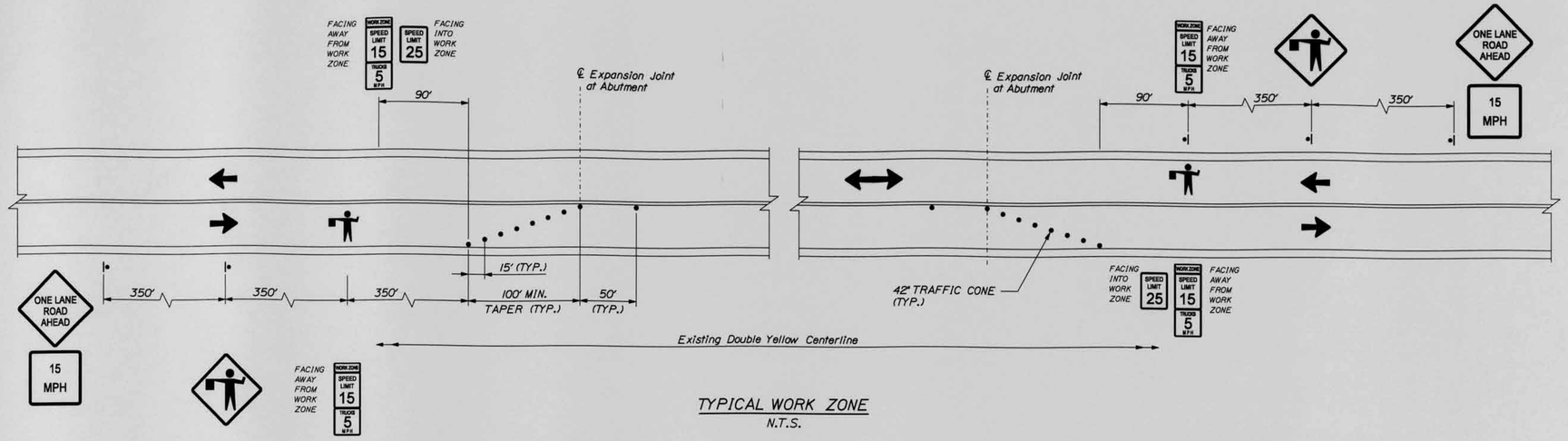
DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

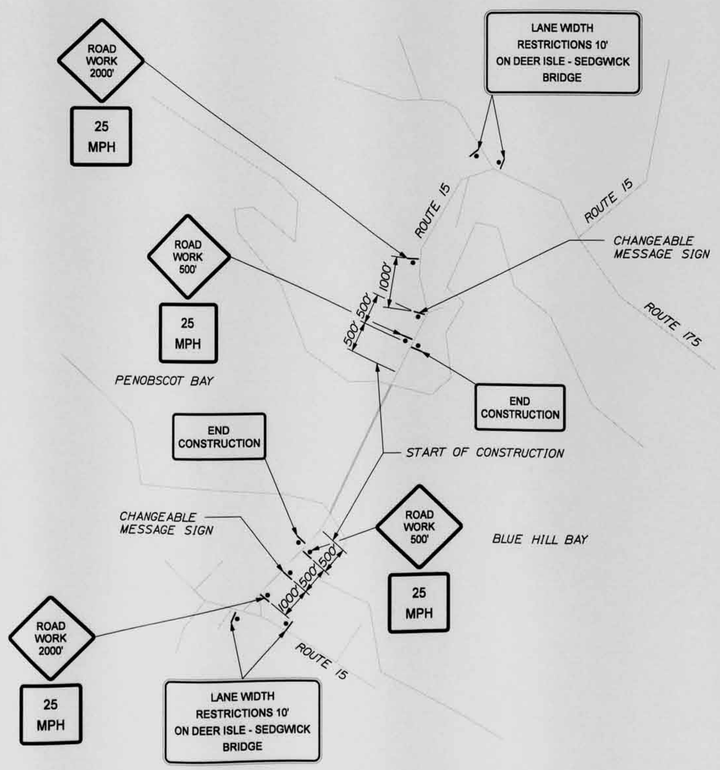
MAIN CABLE HANDROPE
STANCHION REPLACEMENT

SHEET NUMBER
12
OF 14

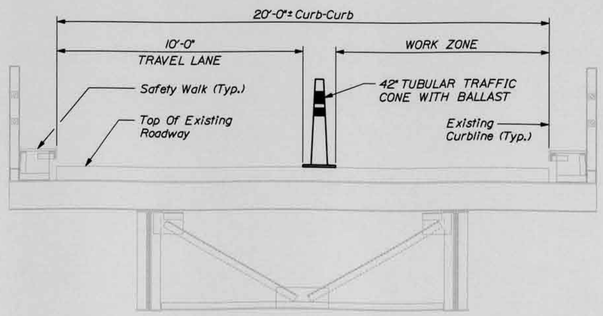
Filename: ...\012_Main Cable Handrope Stanchion Replacement.dgn Username: coy.williams Date:2/3/2009



TYPICAL WORK ZONE
N.T.S.



PERMANENT ADVANCE WARNING SIGNING



TYPICAL WORK AREA CROSS SECTION
(APPROACH SPAN SHOWN, SUSPENDED SPAN SIMILAR)
SCALE: 3/8" = 1'-0"

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. ALL CONSTRUCTION SIGNING AND OTHER TRAFFIC MANAGEMENT DEVICES SHALL CONFORM WITH THE CURRENT MUTCD AND MAINE DOT SPECIFICATIONS.
3. ALL DISTANCES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
4. MAXIMUM SPACING OF CHANNELIZING DEVICES IN A TAPER IS EQUAL IN FEET TO THE POSTED SPEED LIMIT (MPH).
5. MINIMUM TRAVEL LANE WIDTH SHALL BE 10 FEET.
6. FLAGGERS SHALL BE USED DURING ALL LANE CLOSURES. FLAGGER REGULATIONS SHALL CONFORM TO THE CURRENT MUTCD AND MAINE DOT SPECIFICATIONS.
7. SIGNS SHALL BE COVERED OR REMOVED WHEN THEY ARE NOT REQUIRED.
8. CONSTRUCTION SIGNS TO BE PAID FOR UNDER ITEM 652.35; FLAGGERS TO BE PAID FOR UNDER ITEM 652.38; AND PORTABLE CHANGEABLE MESSAGE SIGNS TO BE PAID FOR UNDER ITEM 652.41. ALL REMAINING WORK ON THIS SHEET TO BE PAID FOR UNDER ITEM 652.39 UNLESS NOTED OTHERWISE.

149-328

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

PIN 10062.01 BRIDGE PLANS

BRIDGE NO. 3257

		BY	DATE
PROJ. MANAGER	ECL		
DESIGN-DETAILED	ECL	CMD	1-09
CHECKED-REVIEWED	TGS	ECL	1-09
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

TRAFFIC CONTROL 1 OF 2

SHEET NUMBER
13
OF 14

Filename: ...\msta\013_Traffic control.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009

IDENTIFICATION NUMBER	SIZE OF SIGN (inch)		TEXT	NUMBER OF SIGNS REQUIRED	AREA IN SQUARE FEET
	WIDTH	HEIGHT			
G20-2	36	18	END CONSTRUCTION	2	9.00
W20-1 (2000)	48	48	ROAD WORK 2000'	2	32.00
W20-1 (500)	48	48	ROAD WORK 500'	2	32.00
W20-4	48	48	ONE LANE ROAD AHEAD	2	32.00
W20-7a	48	48		2	32.00
W13-1 (15)	30	30	15 MPH	2	12.50
W13-1 (25)	30	30	25 MPH	4	25.00
W-LR	72	48	LANE WIDTH RESTRICTIONS 10' ON DEER ISLE - SEDGWICK BRIDGE	4	96.00
R2-1	24	30	SPEED LIMIT 25	2	10.00
R2-1	24	30	SPEED LIMIT 15	4	20.00
R2-2	24	24	TRUCK 5 MPH	4	16.00
	24	12	WORK ZONE	4	8.00
				TOTAL	324.50

NOTES:

1. FOR GENERAL NOTES SEE SHEET NO. 2.
2. THE SIGN SPACING FOR THE TRAFFIC MANAGEMENT SIGNING ARE MINIMUM DISTANCES. IF THERE IS A SIGHT DISTANCE PROBLEM FOR A SIGN, THE DISTANCES CAN BE INCREASED AS APPROVED BY THE ENGINEER.
3. ALL WORK ON THIS SHEET TO BE PAID FOR UNDER ITEM 652.35 UNLESS OTHERWISE NOTED.

149-329

TranSystems

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

HP-1006(201)X

PIN 10062.01

BRIDGE NO. 3257 BRIDGE PLANS

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PROJ. MANAGER	ECL		
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FIELD CHANGES			

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P.E. NUMBER

DATE

DEER ISLE-SEDGWICK BRIDGE
EGGEMOGGIN REACH
DEER ISLE-SEDGWICK HANCOCK COUNTY

TRAFFIC CONTROL 2 OF 2

SHEET NUMBER
14
OF 14

Filename: ...\msta\014_Traffic control2.dgn Division: BRIDGE Username: coy.williams Date:2/3/2009