Bridge #6340

F.A. W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	003002.00	1	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

CONVENTIONAL SIGNS

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

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

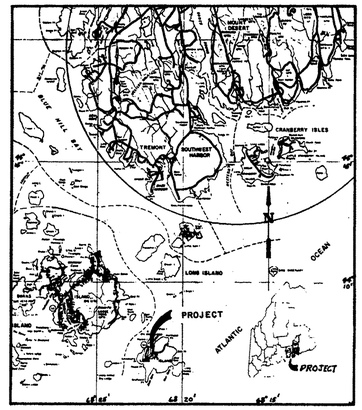
CONCRETE: ---------- Class A
REINFORCING STEEL: ---------- ASTM A615 Grade 60
STRUCTURAL STEEL: ---------- All materials ASTM A36 (GALVANIZED) except as noted
High Strength Bolts ------ ASTM A325 (Galvanized)
Pulleys (Sheaves) — Hot Dip Galvanize

BASIC DESIGN STRESSES

CONCRETE: ---------- f'_c = 3000 psi
REINFORCING STEEL: ---------- fy = 60,000 psi
STRUCTURAL STEEL: ---------- ASTM A36 fy = 36,000 psi
---------- ASTM A325 fv = 25,000 psi

TRANSFER BRIDGE
FRENCHBORO
LONG ISLAND
HANCOCK COUNTY

PROJECT NO. 003002.00



LOCATION MAP

scale : KILOMETRE / MILES

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.

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL PLAN
3	CROSS SECTIONS
4	ABUTMENT
5 to 11	BRIDGE DETAILS
12	TOWER MODIFICATIONS
13	ACCESS LADDER
14	MACHINERY PLATFORM
15 to 20	MECHANICAL - ELECTRICAL

ESTIMATED QUANTITIES (Structural Steel)

Ramp (Including Accessories) - 40,000 lbs.

Machinery Platform(Including Accessories) - 11000 lbs

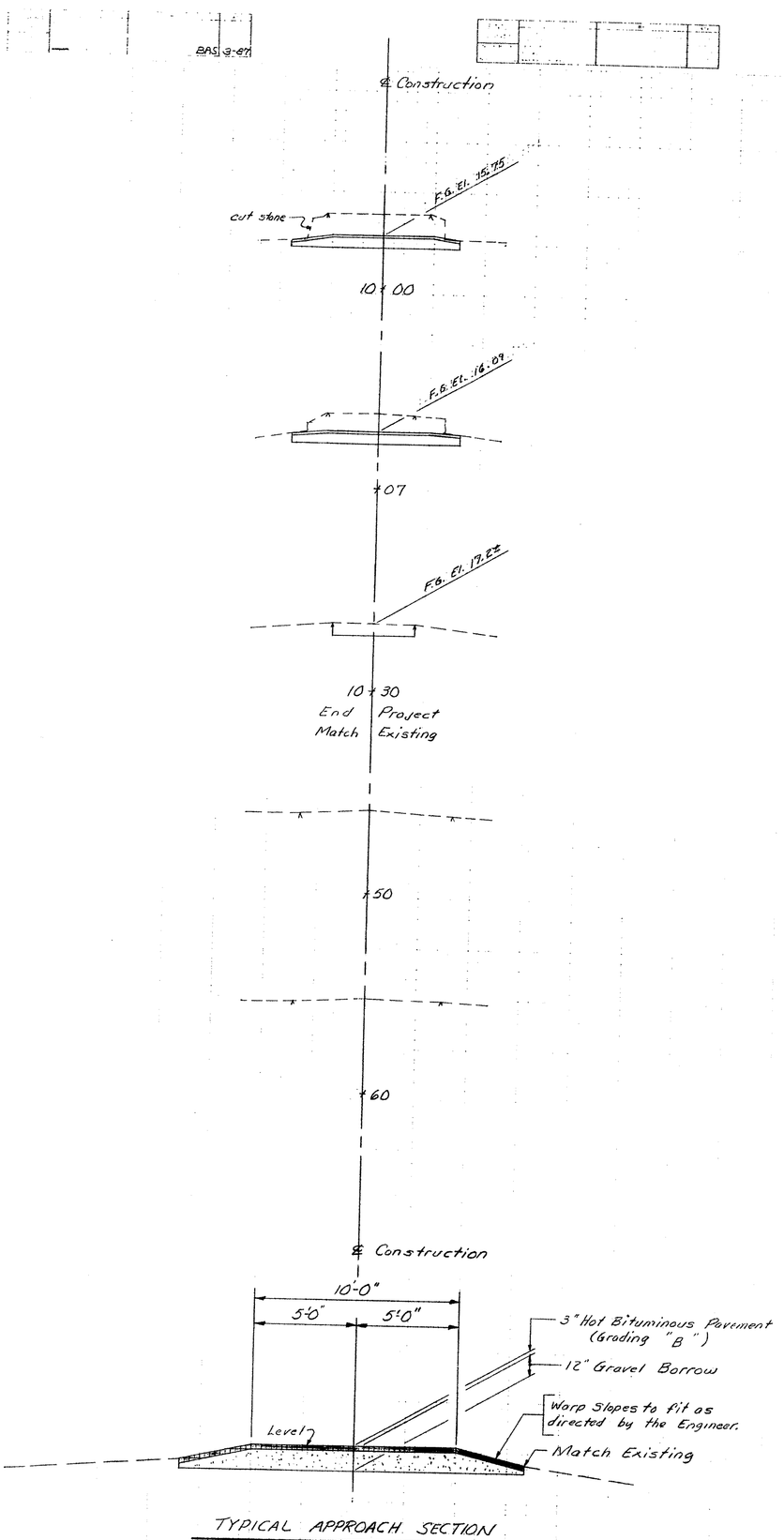
APPROVED:

5-14-87 _____ COMMISSIONER

5-14-87 _____ CHIEF ENGINEER

111-259

6609



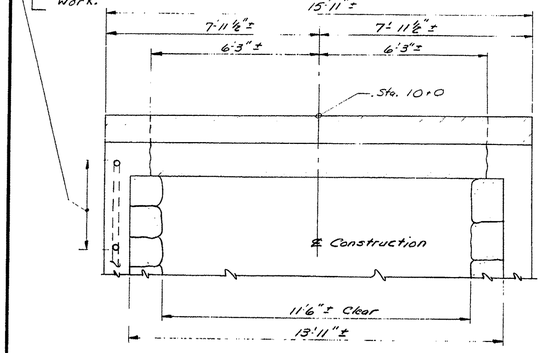
TYPICAL APPROACH SECTION

111-261
~ FRENCHBORO ~

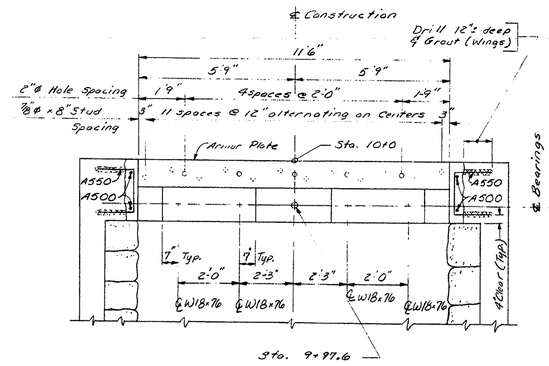
003902.00 3 - 20

F.A.P.R. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	003002.00	4	20

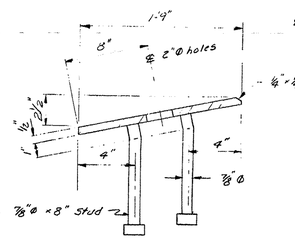
NOTE: Repair first section of existing 6"± threaded pipe handrail as directed by the Engineer. Payment will be made under Subsection 109.04 Extra and Force Account Work.



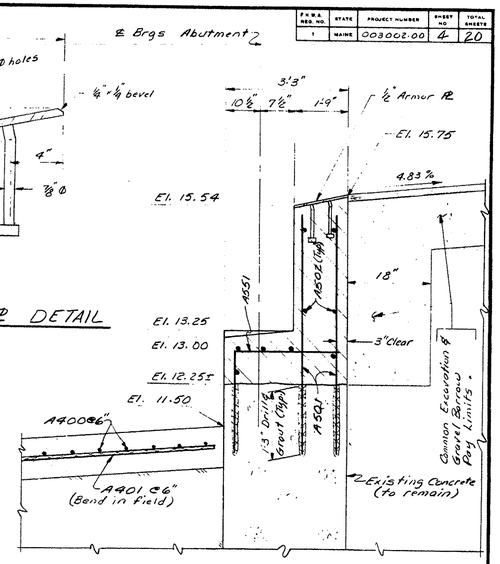
PLAN EXISTING ABUTMENT



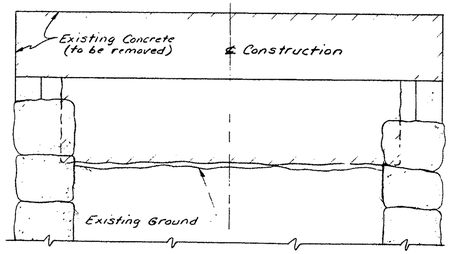
PLAN MODIFIED ABUTMENT



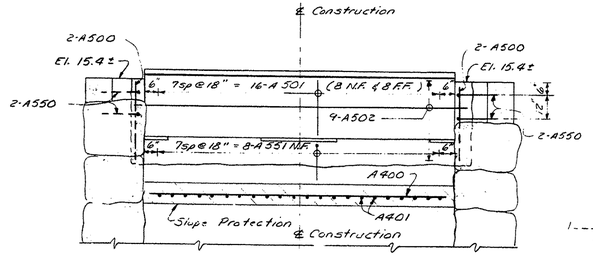
ARMOR ℄ DETAIL



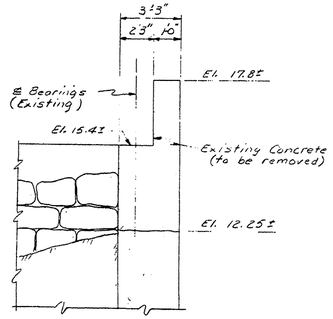
TYPICAL MODIFIED ABUTMENT SECTION



ELEVATION EXISTING ABUTMENT



ELEVATION MODIFIED ABUTMENT



TYPICAL ABUTMENT SECTION EXISTING

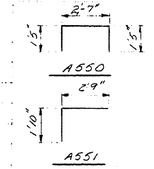
~ REINFORCING STEEL SCHEDULE ~

-STRAIGHT BARS-

Mark	Quantity	Length	Location
A400	63	11'0"	Slope Protection
A401	23	36'0"	Slope Protection
A500	4	2'8"	Wing Vertical
A501	16	4'5"	Abutment Vertical
A502	9	12'0	Abutment Horizontal

-BENT BARS-

A550	4	5'-5"	Wing Horizontal
A551	8	4'-7"	Breastwall



NOTE: Dimensions are subject to adjustments

ASTM A615, Grade 60
A5 = #5 bar (5/8"Ø)
A6 = #6 bar (3/4"Ø)

ABUTMENT NOTES

1. Reinforcing steel shall have 3 inches cover unless otherwise indicated.
2. Protective coating for concrete surfaces shall be applied to all exposed concrete surfaces, new and old.
3. Remove the existing concrete backwall and bridge seat as shown on the plans.
4. Any existing reinforcing steel shall be bent to fit into the new concrete as directed.
5. Existing reinforcing steel that has been exposed from concrete removal that will be on a finished surface shall be removed to 2 inches below the finished surface and the holes shall be filled with an approved Non-Shrink grout.
6. All concrete for Abutment and Slope Protection shall be Class A.
7. Holes for grouting reinforcing steel shall be 1½ to 2" diameter. Holes shall be filled with water for a minimum of two hours before grouting at which time all of the water shall be removed. The grouted areas shall be kept wet from time of initial set for a minimum of twelve hours, with burlap or other suitable means. The grout shall be used in accordance with the manufacturer's recommendations and shall be included on the department's list of approved Non-Shrink Grouts.

PROJECT DESIGN ENGINEER AECG	BY	DATE
PLANS — DESIGN - DETAILED	AECG	2-87
CHECKED		
REVISIONS	BRS	3-87
FIELD CHANGES		

BRUNING 44-132 457161

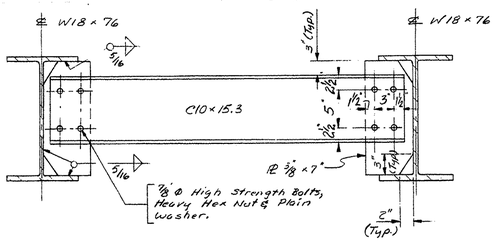
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY
ABUTMENT

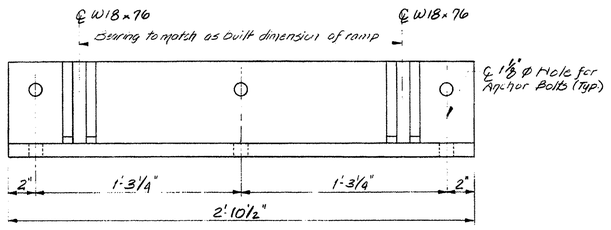
SHEET 4 OF 20 AUGUSTA, MAINE

111-262

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	003002.00	5	20



TYPICAL DIAPHRAGM DETAIL

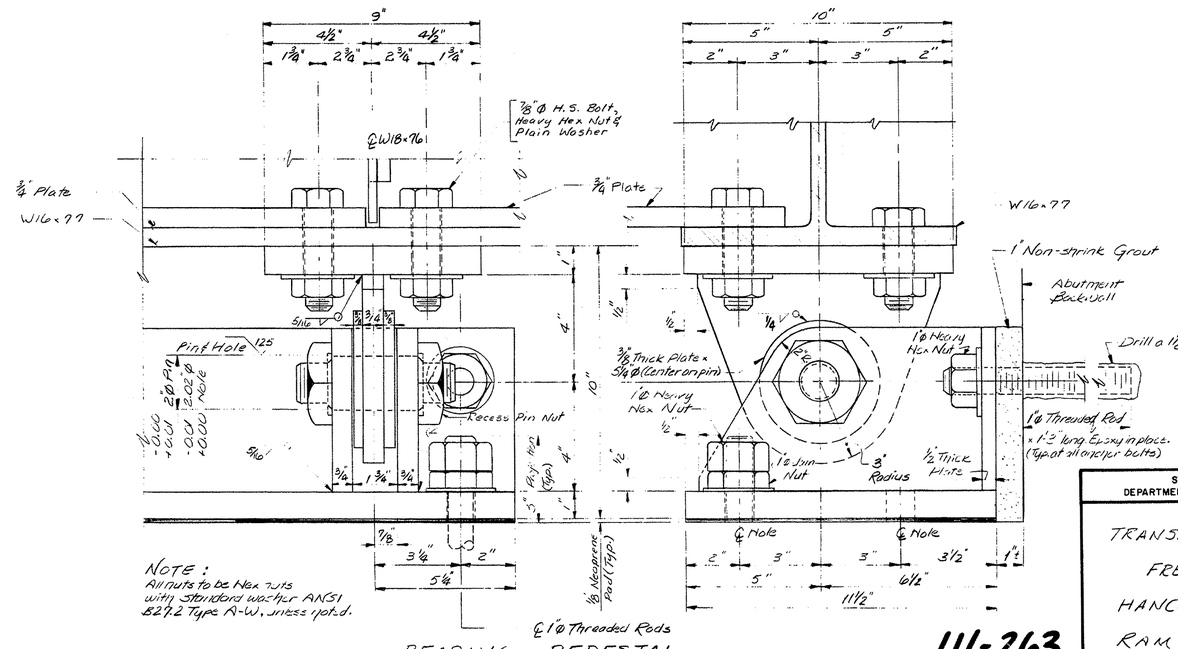


BEARING PEDESTAL ANCHOR R

(Each plate to cover 2 Beams as shown)

FABRICATION NOTES

1. All steel including anchor bolts, shall be ASTM A36 and Hot Dipped Galvanized except for contact surfaces
2. Coat all contact surfaces with 125 micro-inch finish with NEVER-SIEZE or approved equal
3. All areas of galvanizing damaged during assembly or field welding, shall be touched up with a zinc coating as recommended by the galvanizer and as approved by the Engineer.
4. Upset threads on bearing pins and anchor bolts after assembly.



BEARING PEDESTAL

PROJECT ORIGIN ENGINEER: MDE	BY	DATE
DESIGN DETAILED	AMB	1-87
CHECKED	RAC	2-87
REVISIONS	BAS	3-87
FIELD CHANGES		

PLANS

BROWNING 44-132 45710-1

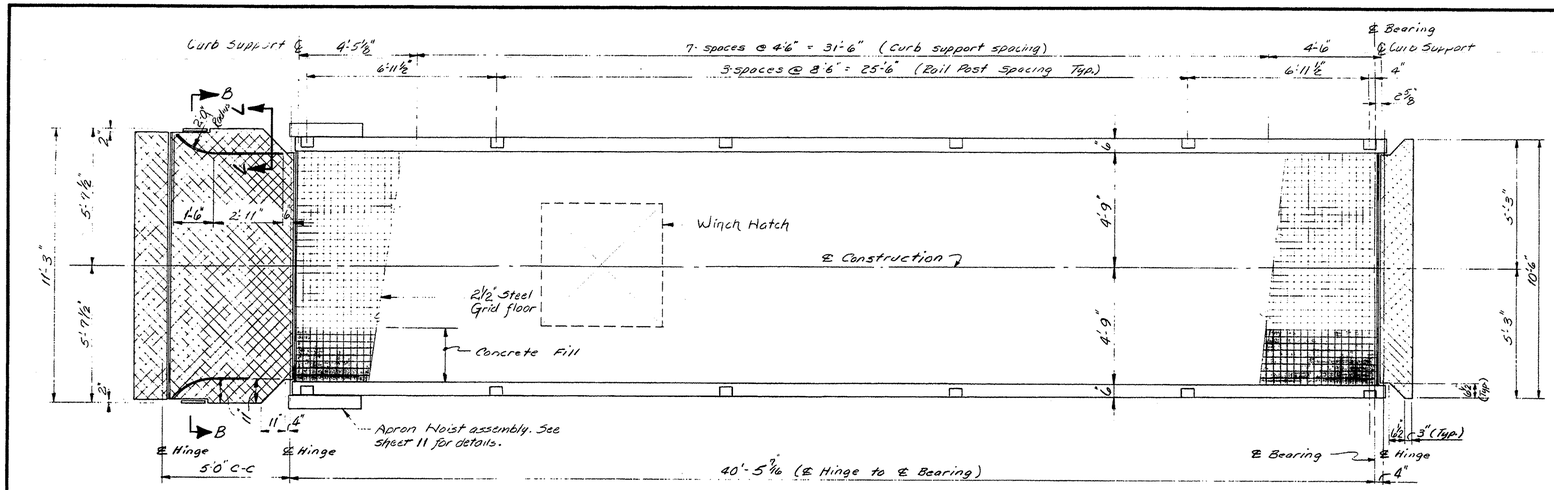
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY
RAMP BEARING

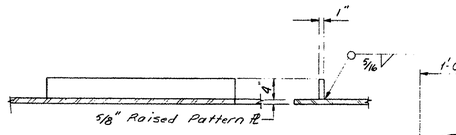
SHEET 5 OF 20 AUGUSTA, MAINE

111-263

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	003002.00	6	20



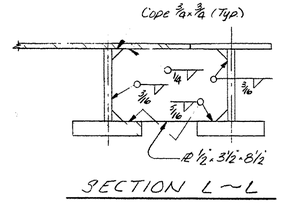
PLAN



GUIDE BAR DETAIL

TYPICAL LONGITUDINAL SECTION

NOTE:
All enclosed sections of pipe must be provided with a ⅜" Ø vent hole 3" from ends, according to galvanizing requirements.



SECTION L ~ L

NOTE

1. For section B-B, G-G, G1-G1, G2-G2, see sheet 8.
2. For details C, D and E see sheet 9.
3. For transverse section see sheet 8.
4. Complete ramp structure shall be shop assembled including grating, curb/apron, hoist tower prior to galvanizing. All necessary reaming and other adjustments shall be made at that time.

SUPERSTRUCTURE NOTES

1. Concrete fill for superstructure will be paid for under Item 502.21, Structural Concrete Abutments & Retaining Walls, and shall be installed by the Contr.
2. Protective coating for concrete surfaces shall be applied to both surfaces of the concrete filled grid.

PROJECT DESIGN ENGINEER	MKB	BY	DATE
PLANS	DESIGN DETAILED	MKB	PAC 3-87
	CHECKED		BAS 3-87
	REVISIONS		
	FIELD CHANGES		

BRUNING 44-132 45710-1

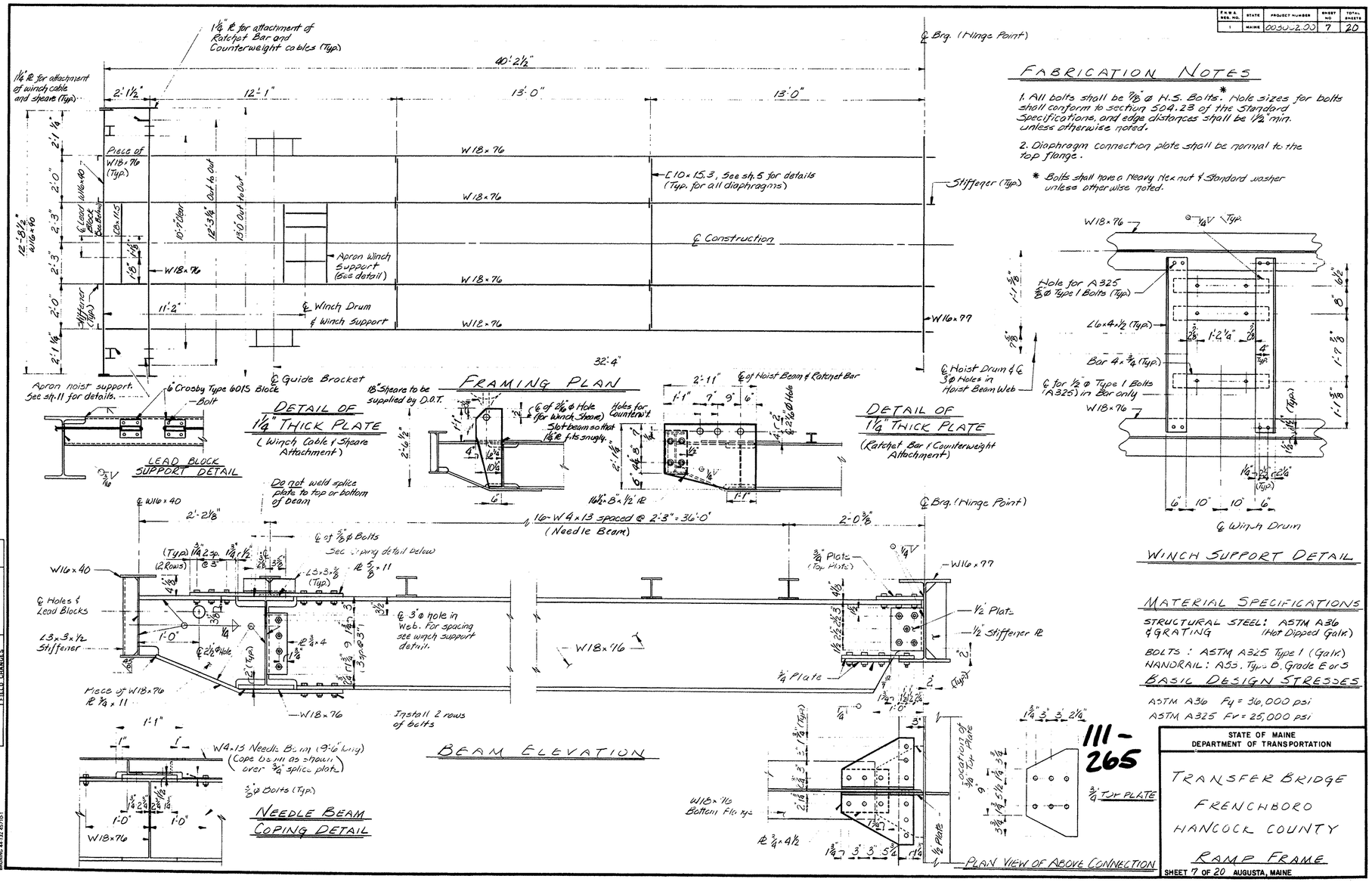
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY
RAMP GENERAL PLAN

SHEET 6 OF 20 AUGUSTA, MAINE

111-264

F.A.W.S. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	0030(2.00)	7	20



FABRICATION NOTES

1. All bolts shall be ⅞" ⌀ H.S. Bolts*. Hole sizes for bolts shall conform to section 504.23 of the Standard Specifications, and edge distances shall be 1½" min. unless otherwise noted.
2. Diaphragm connection plate shall be normal to the top flange.

* Bolts shall have a Heavy Hex nut & Standard washer unless otherwise noted.

MATERIAL SPECIFICATIONS

STRUCTURAL STEEL: ASTM A36 (Hot Dipped Galv.)
& GRATING

BOLTS: ASTM A325 Type 1 (Galv.)
HANDRAIL: A53, Type S, Grade B or S

BASIC DESIGN STRESSES

ASTM A36 F_y = 36,000 psi
ASTM A325 F_v = 25,000 psi

PROJECT DESIGN ENGINEER — PLANS — DESIGN - DETAILED BY LSG DATE 5-20
CHECKED
REVISIONS - FIELD CHANGES

BRUNING 44-132-457(5)

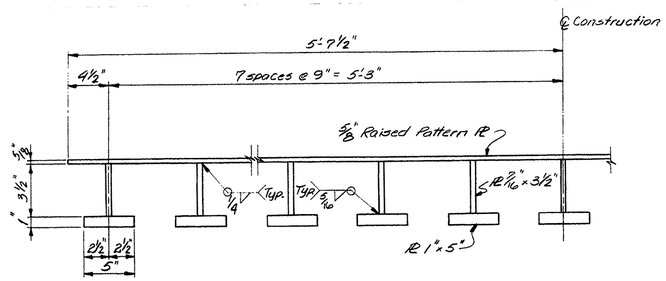
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY
RAMP FRAME

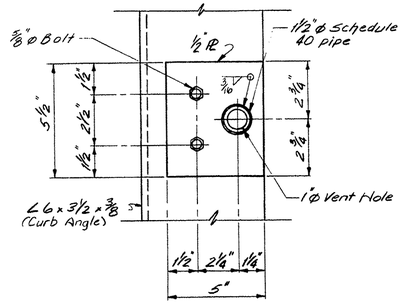
111-265

SHEET 7 OF 20 AUGUSTA, MAINE

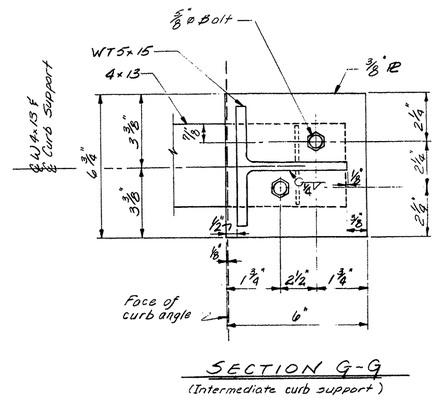
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	003002.00	8	20



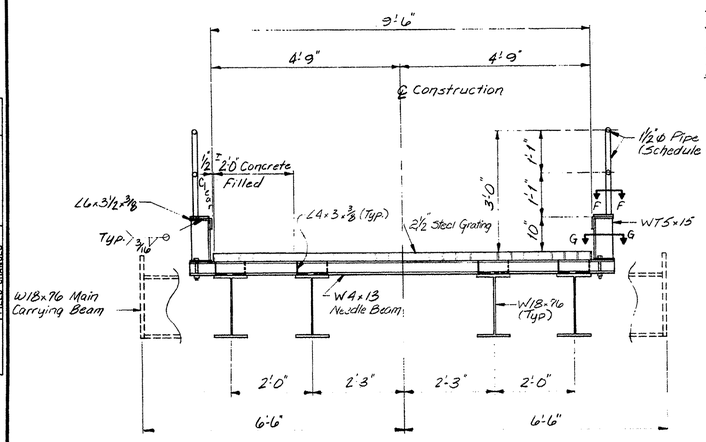
SECTION B-B
(Symmetrical about ℄)



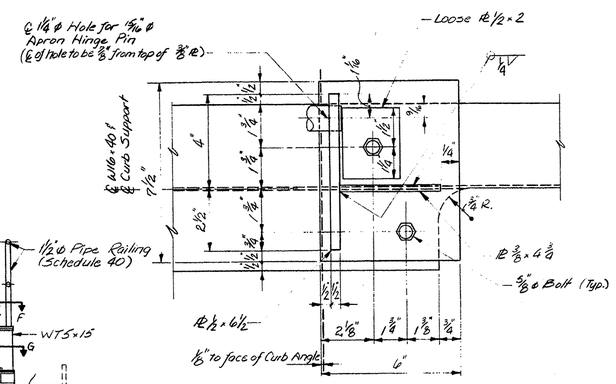
SECTION F-F



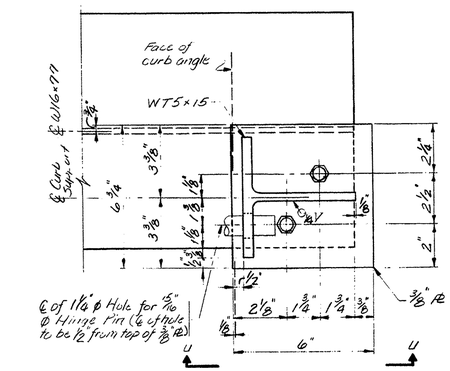
SECTION G-G
(Intermediate curb support)



TYPICAL TRANSVERSE SECTION

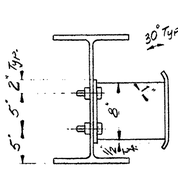


SECTION G-1-G-1, CURB SUPPORT

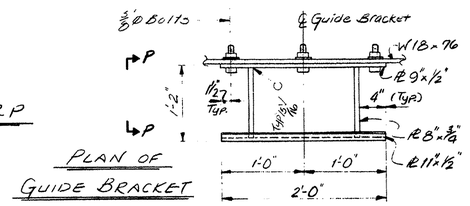


SECTION G-2-G 2, CURB SUPPORT*

111-266



VIEW P-P



PLAN OF
GUIDE BRACKET

PROJECT DESIGN ENGINEER | BY | DATE
PLANS | DESIGN - DETAILED | | |
CHECKED | | |
AS BUILT CONDITIONS | | |
FIELD CHANGES | | |

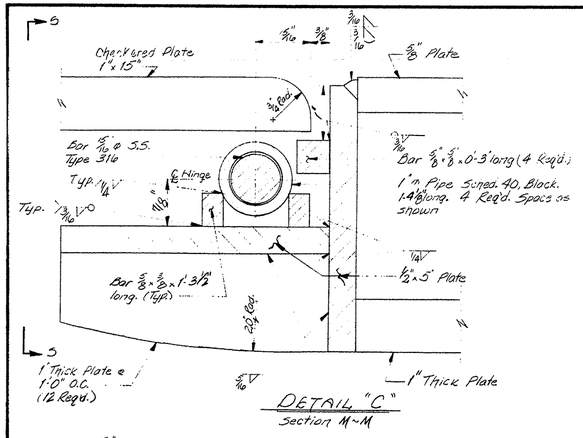
BRUNING 45710-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

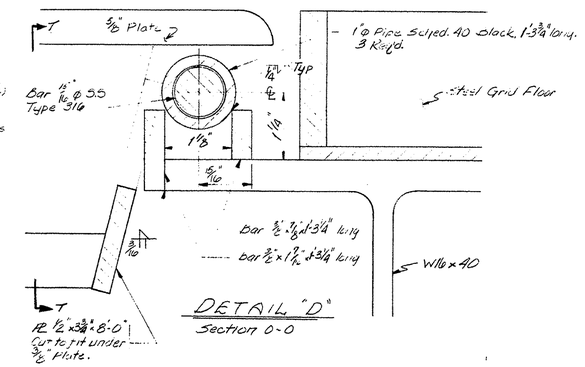
TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY
RAMP DETAILS

SHEET 8 OF 20 AUGUSTA, MAINE

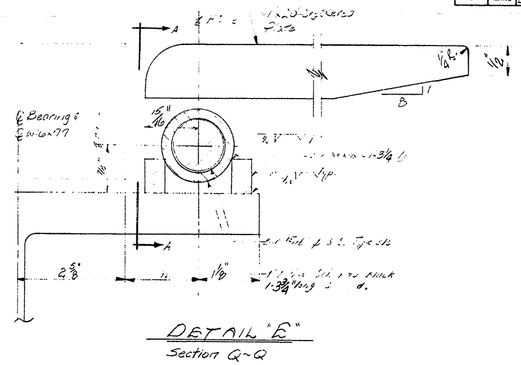
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	003002.00	9	20



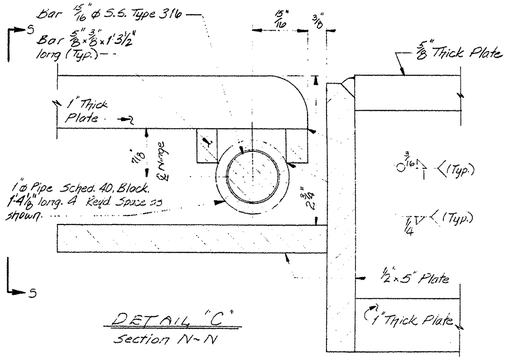
DETAIL "C"
Section M-M



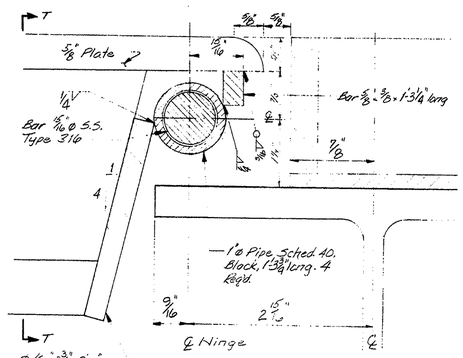
DETAIL "D"
Section O-O



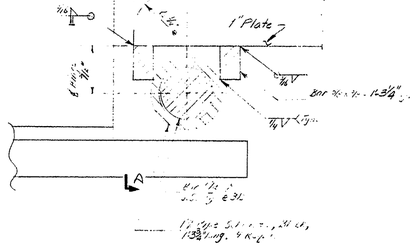
DETAIL "E"
Section Q-Q



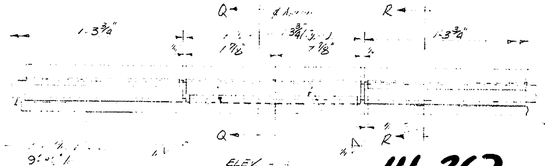
DETAIL "C"
Section N-N

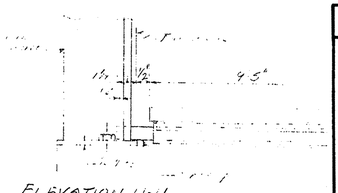


DETAIL "D"
Section P-P

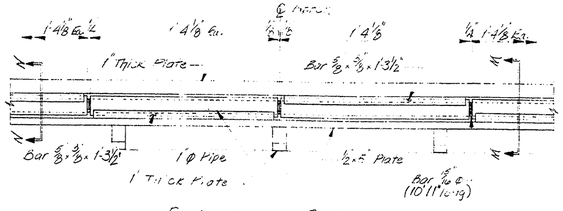


DETAIL "E"
Section R-R

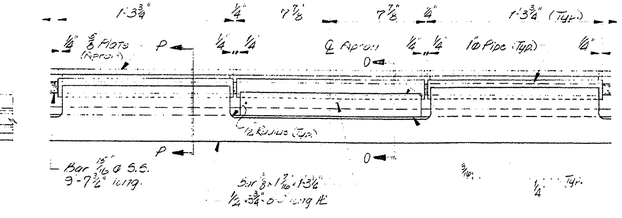




ELEVATION H-H



ELEVATION S-S



ELEVATION T-T

PROJECT DESIGN ENGINEER | DESIGN - DETAILED | CHECKED | REVISIONS | FIELD CHANGES | BY | DATE
PLANS | LAS | 1-89

BRUNING 45710-1

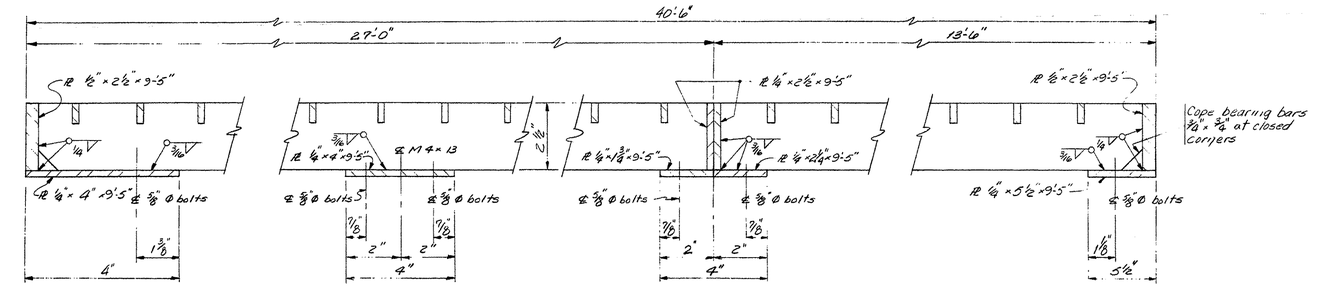
111-267

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY
RAMP DETAILS

SHEET 9 OF 20 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	008002.00	10	20



SECTION H-H

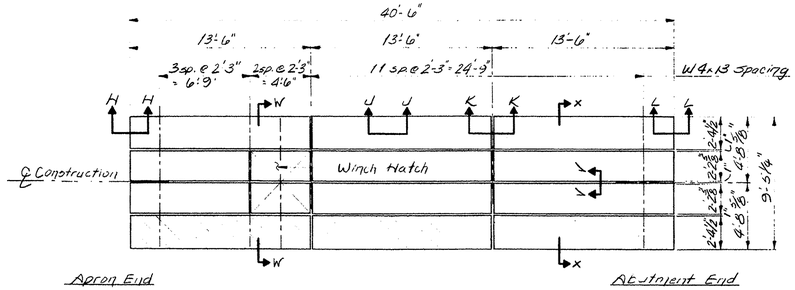
SECTION J-J
(@ All intermediate panel locations)

SECTION K-K
(Detail is typical for all intermediate ends of panels)

SECTION L-L

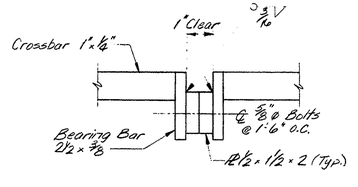
NOTES

1. Grating shall have 2 1/2" × 3/16" bearing bars at 1 7/8" spacing, with welded 1" × 1/4" cross bars at 4" c. to c.
2. All bolts for grating and needle beams shall be 5/8" ø.
3. Bolt layout to fit grating selected by Fabricater and approved by the Engineer.
4. Grating and appertinent material to be hot-dipped galvanized after fabrication.
5. All material shall be A36.

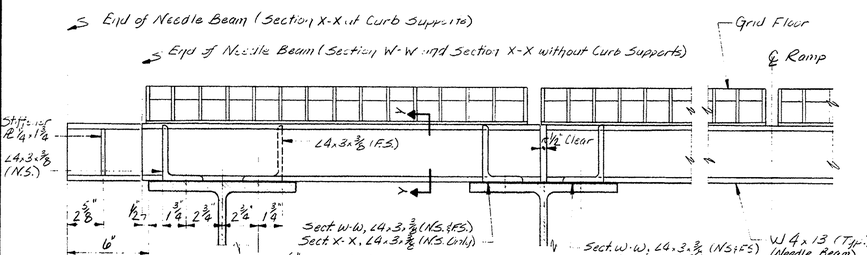


PLAN OF GRID FLOOR LAYOUT

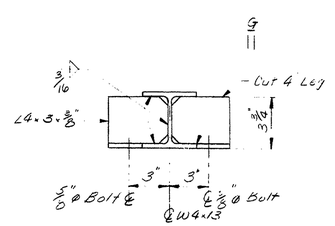
Note: Cross hatched areas to be filled with concrete after installation



SECTION V-V
Typ. of all Longitudinal Grating Joints



SECTION W-W, (SECTION X-X IS SIMILAR)
(Symmetrical about Ramp ℄)



SECTION Y-Y

PROJECT DESIGN ENGINEER: MDS	BY	DATE
DESIGN DETAILED	MCD	2-87
CHECKED	VGA	3-87
REVISIONS	BAS	
FIELD CHANGES		

PLANS

BRUNING 44-132-43751

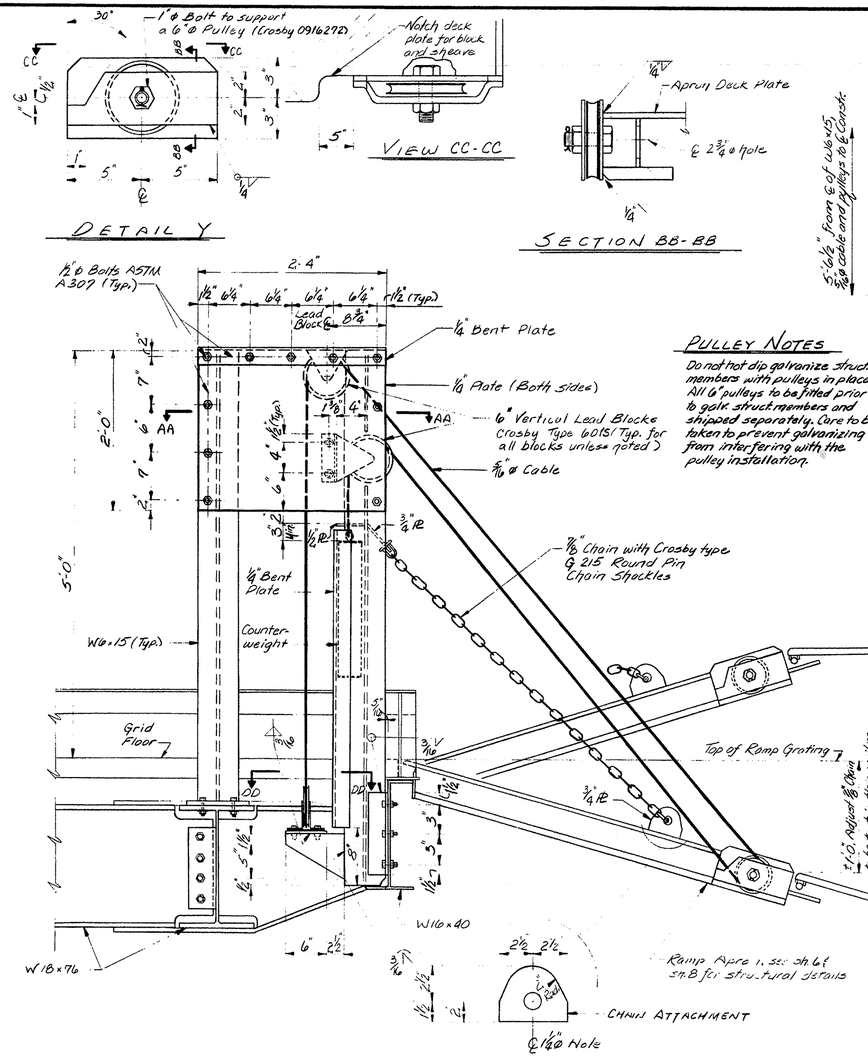
111-268

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY
RAMP FLOOR

SHEET 10 OF 20 AUGUSTA, MAINE

P.I. & R.B.A. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	003002.00	11	20



PROJECT DESIGN ENGINEER	BY	DATE
DESIGN DETAILED	LSB	5/84
CHECKED		
REVISIONS		
FIELD CHANGES		

PLANS

BROWNING 45710-1

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

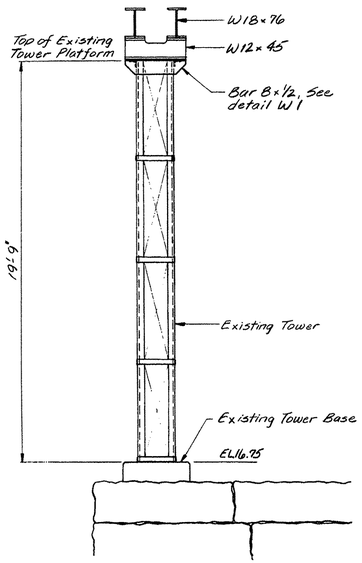
TRANSFER BRIDGE IN FRENCHBORO HANCOCK COUNTY

APRON HOIST ASSEMBLY

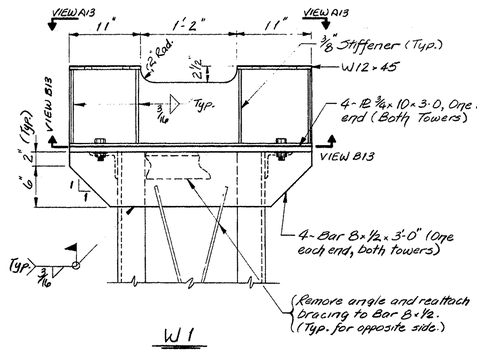
SHEET 11 OF 20 AUGUSTA, MAINE

111-269

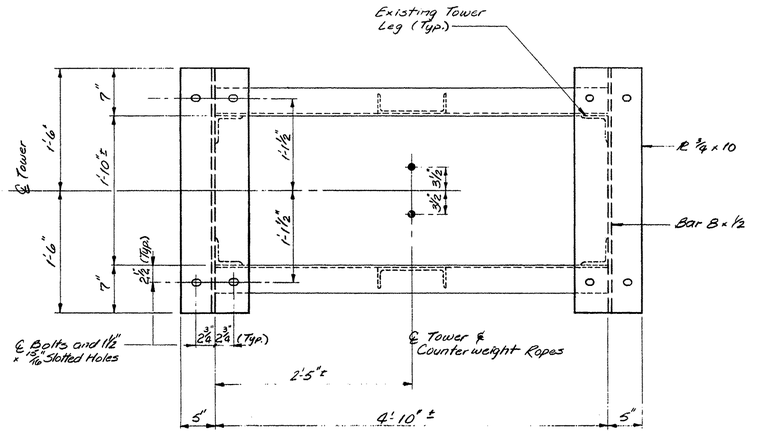
F.A.H.S. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	003002.00	12	20



TOWER ELEVATION



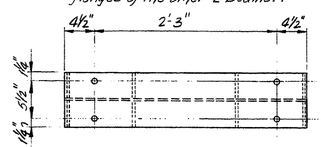
W1



PLAN VIEW, TOP OF TOWER

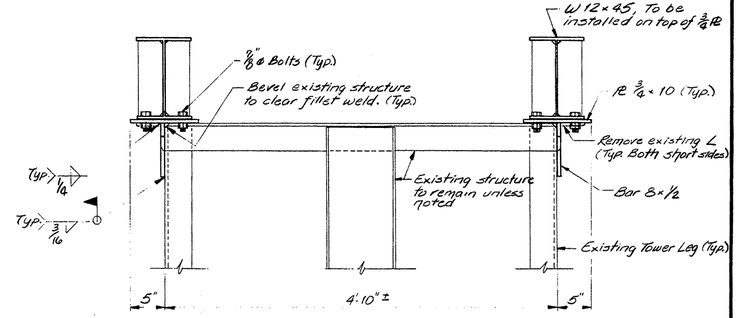
VIEW A13

(Cope top flange as shown, see detail W1 also, for 2 Beams. Do not cope flanges of the other 2 Beams.)



VIEW B13

(Typ. for all 4 Beams)



ELEVATION VIEW TOP OF TOWER

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN & DETAILED	LSD	10/89
CHECKED		
REVISIONS		
FIELD CHANGES		

PLANS

BRUNING 457101

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

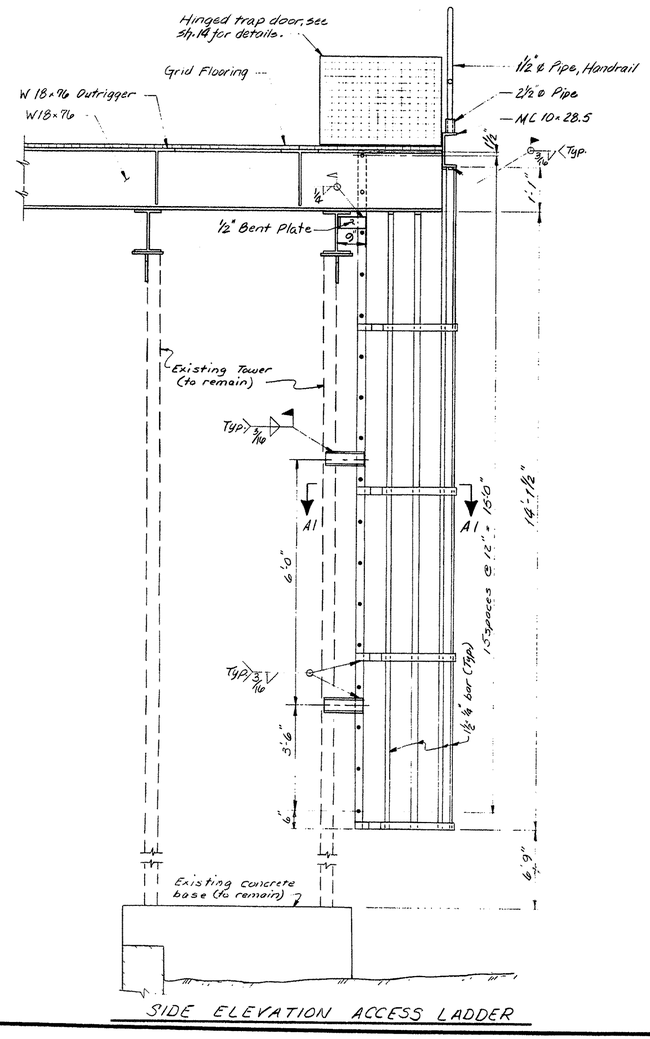
TRANSFER BRIDGE IN FRENCHBORO HANCOCK COUNTY

TOWER MODIFICATIONS

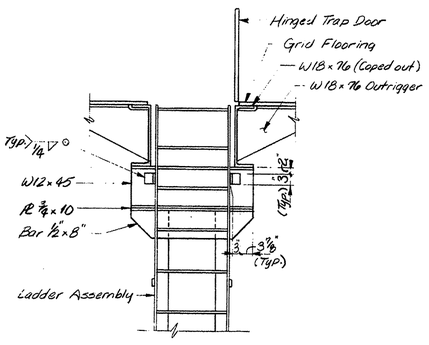
SHEET 12 OF 20 AUGUSTA, MAINE

111-270

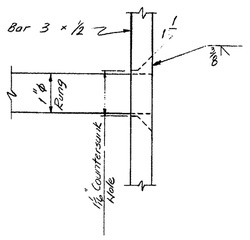
F.A.P. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	003002.00	13	20



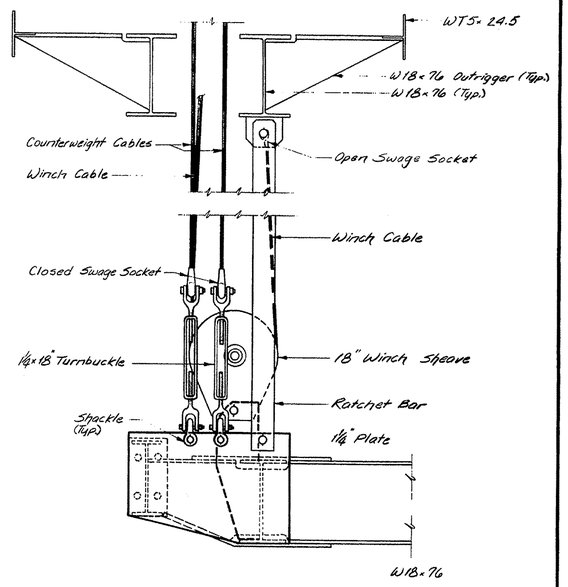
SIDE ELEVATION ACCESS LADDER



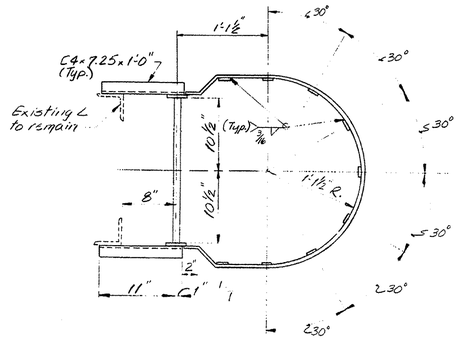
PARTIAL FRONT VIEW



TYPICAL LADDER RUNG DETAIL



LIFTING MECHANISM DETAIL



SECTION A1

MATERIALS

ASTM A36 (Galvanized)

PROJECT DESIGN ENGINEER	BY	DATE
PLANS	CHECKED DETAILED	5-27
	CHECKED	RAS 5-27
	REVISIONS	
	FIELD CHANGES	

BRUNING 44132 457101

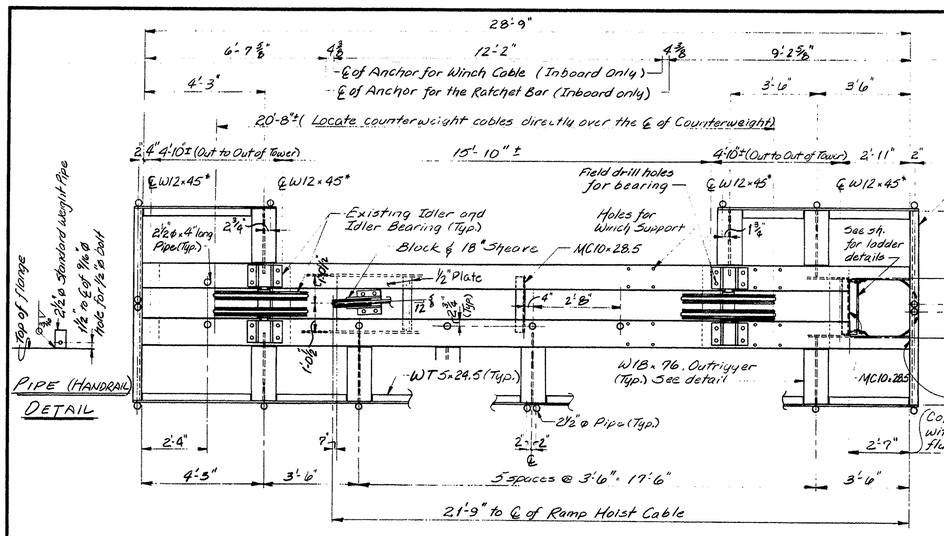
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY
ACCESS LADDER

SHEET 13 OF 20 AUGUSTA, MAINE

111-271

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	003002.00	14	20



PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	LCS	11-89
CHECKED		
REVISIONS		
FIELD CHANGES		

BRUNING 45710-1

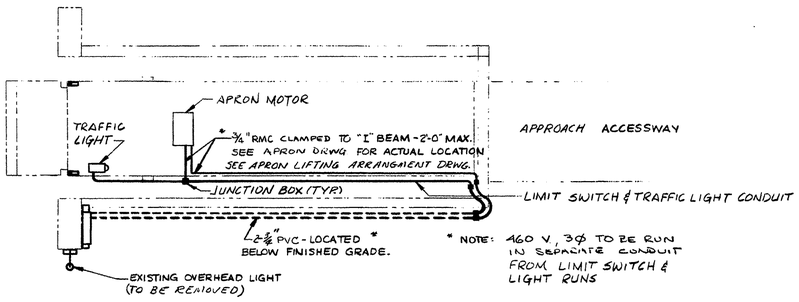
111-272

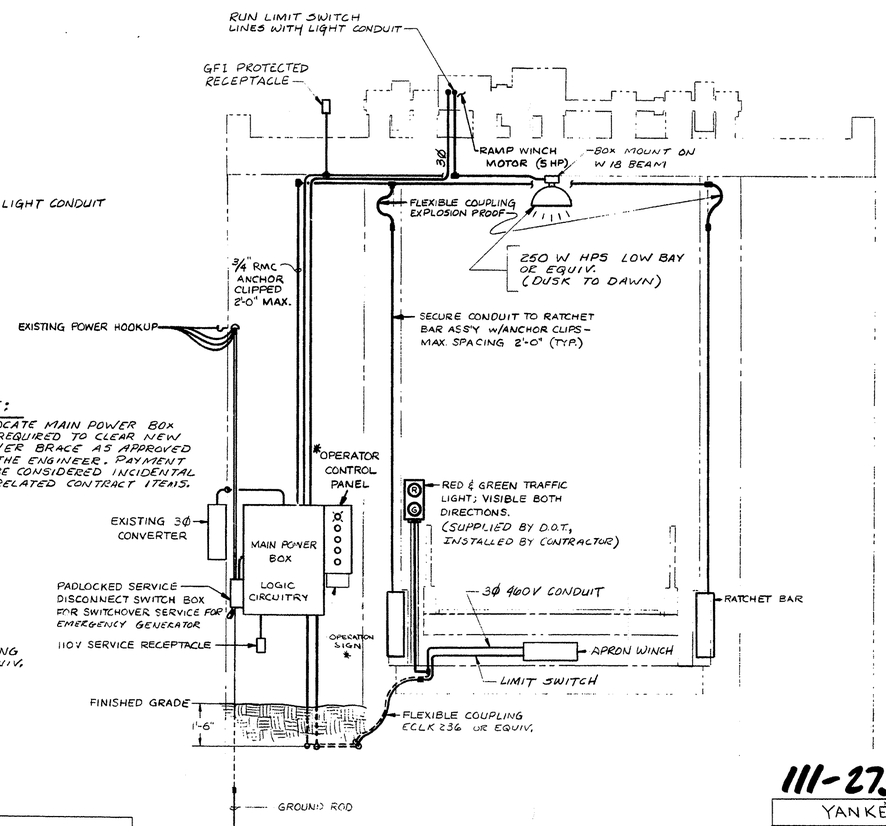
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

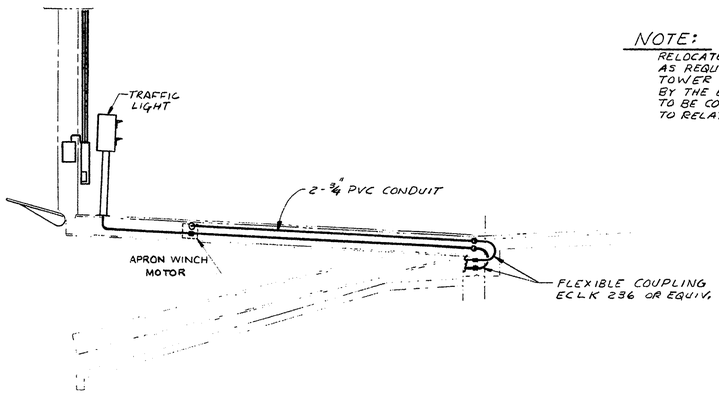
TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY
MACHINERY PLATFORM DETAILS

SHEET 14 OF 20 AUGUSTA, MAINE

F.A.P. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	003002.00	15	20







PROCEDURE LABEL

1. PRESS & HOLD RATCHET RELEASE BUTTON
2. ADJUST RAMP HEIGHT
3. RELEASE RATCHET BUTTON
4. DROP RAMP TO INSURE RATCHET ENGAGEMENT (LIGHT SHOULD COME ON)
5. ADJUST APRON
6. WHEN SAFE, PRESS 'GO'

*OPERATOR CONTROL PANEL; AS FOLLOWS:

1- GREEN INDICATOR LAMP (RATCHETS ENGAGED)
2- RAMP UP SWITCH
3- RAMP DOWN SWITCH
4- APRON UP SWITCH
5- APRON DOWN SWITCH
6. RATCHET RELEASE BUTTON
7. BELL WARN[illegible] BUTTON
8. GROUND FAULT [illegible]

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN DETAILED	DVS	4/9/87
CHECKED		
REVISIONS		
FIELD CHANGES		

PLANS

BRUNING 44-132-45101

111-273

YANKEE ENG. & DES.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY

ELECTRICAL LAYOUT PLAN

SHEET 15 OF 20 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	505002.00	16	20

220 V. SINGLE PHASE
3 WIRE SERVICE
ENTRANCE

N L1 L2

EMERGENCY GENERATOR CONNECTIONS.

SEPARATE SERVICE DISCONNECT

MANUAL EMERGENCY SWITCH OVER; (LOCATED OUTSIDE AND PADLOCKED), TO ACT AS THE MAIN POWER DISCONNECT.

PHOTO CELL

15 AMP

OUTDOOR OVERHEAD LIGHT
(250 W HPS LOW BAY OR EQUIV.)

100 AMP

60 AMP

SINGLE PHASE TO THREE PHASE CONVERTOR
OUTPUT 460 VOLTS

20 AMP

S.P. 3501 LEV. OR EQUAL (TYP.)

110 VOLT GFI SERVICE RECEPTACLE W/T

20 AMP

110 VOLT GFI SERVICE RECEPTACLE

L2

N

10 AMP

110 VOLTS

3M A1 A2 3M

A

B

L1 RED L2 RED

L1 RED L2 RED

RATCHET BAR SOLENOIDS (2)

SOLENOID D.C CONVERTERS

GREEN — GROUNDING
RED } FROM SOLENOIDS
RED }
BROWN } FROM LIMIT SWITCH (CLOSED WHEN ENGAGED)
BROWN }

RATCHET BAR WIRING LEGEND

10 AMP OR EXISTING

1MF 1MF 1MF 1MR 1MR 1MR

OVERLOAD (EXISTING) T1 T2 T3

RAMP M 5HP

2MF 2MF 2MF 2MR 2MR 2MR

OVERLOAD T1 T2 T3

APRON M 2HP

MAIN POWER BOX

BROWN WIRES ON RATCHET BARS (GREEN WIRE GOES TO GROUND) (RED WIRE GOES TO D.C. CONVERTERS)

N L2

OVERTRAVEL LIMIT SWITCH (LOCATED ON WINCH)

APRON 2MF APRON 2MR UP NC 1MR 1MF OVERLOAD

RAMP

DOWN 1MF 1MR

RAMP 1MF RAMP 1MR UP NC 2MR 2MF OVERTRAVEL LIMIT SWITCH OVERLOAD

APRON

DOWN 2MF LS 2MR

LS (LOWERING LIMIT (LOCATED ON WINCH MOTOR)

RATCHET SOLENOID 3M

RATCHET SOLENOID LIMIT SWITCHES CLOSED WHEN BOTH SWITCHES ARE ENGAGED.

"RATCHET ENGAGED" GREEN (LOCATED ON PANEL)

GREEN RED N.C. 1CR

1CR

TRAFFIC LIGHT

1CR RED

1CR GREEN

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	VPS	4/87
CHECKED	D.V. SPINDLER	8/87
REVISIONS FIELD CHANGES		

BRUNING 44-132 457101

Dan Kidd

111-274 to 275

YANKEE ENG & DES

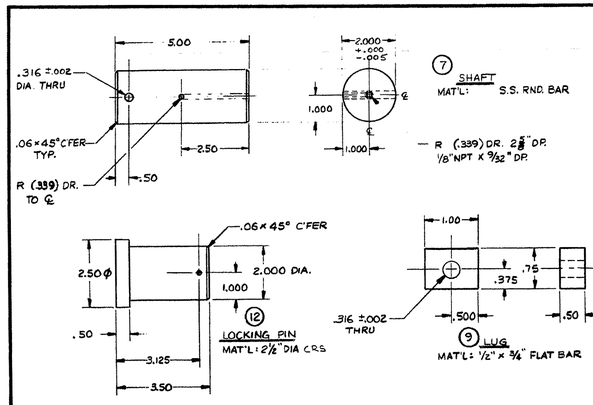
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY

ELECTRICAL SCHEMATIC

SHEET 16 OF 20 AUGUSTA, MAINE

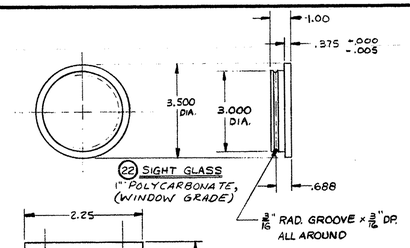
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	003002.00	17	20



(7) SHAFT
MAT'L: S.S. RND. BAR

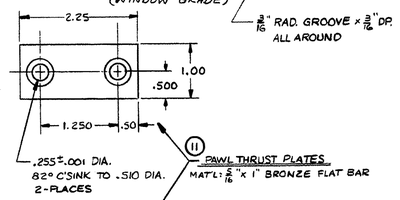
(12) LOCKING PIN
MAT'L: 2½" DIA CRS

(9) LUG
MAT'L: ½" x ¾" FLAT BAR

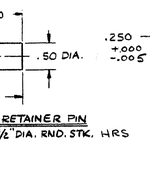


(22) SIGHT GLASS
1" POLYCARBONATE, (WINDOW GRADE)

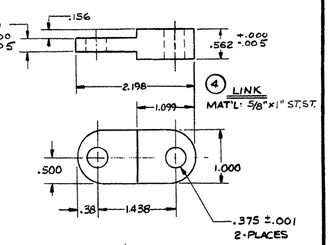
3/16" RAD. GROOVE x 3/16" DP. ALL AROUND



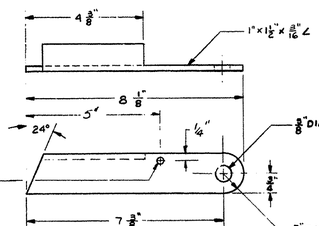
(11) PAWL THRUST PLATES
MAT'L: 5/16" x 1" BRONZE FLAT BAR

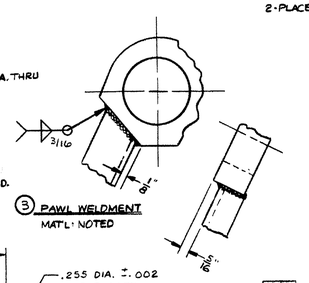


(10) SPRING RETAINER PIN
MAT'L: ½" DIA. RND. STK. HRS

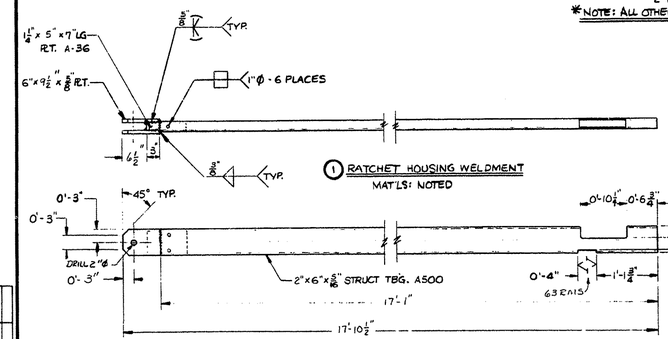


(4) LINK
MAT'L: 5/8" x 1" ST. ST.

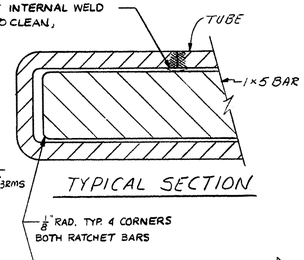


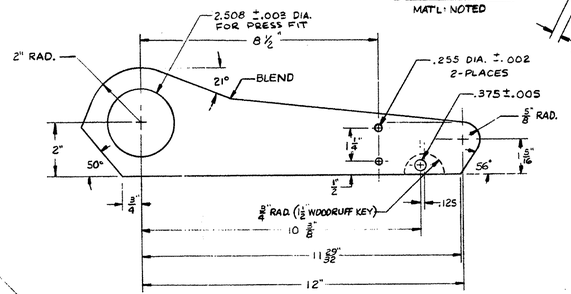


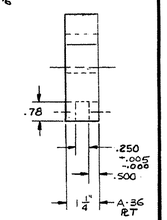
(3) PAWL WELDMENT
MAT'L: NOTED

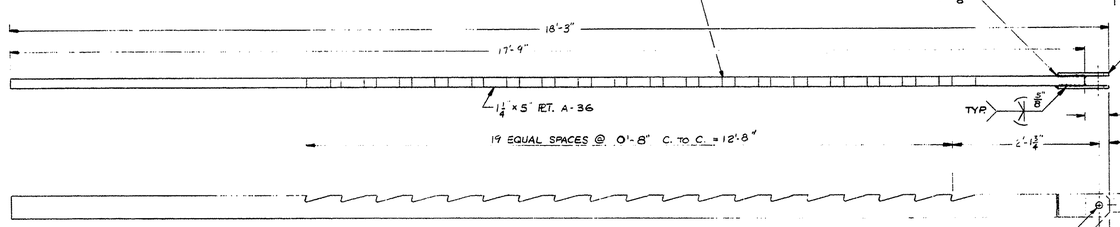


(1) RATCHET HOUSING WELDMENT
MAT'LS: NOTED

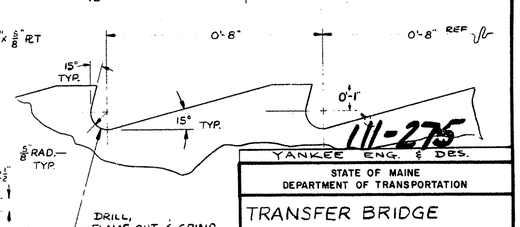








(2) RATCHET BAR WELDMENT
MAT'LS: NOTED



NOTE: THE MINIMUM CENTER-TO-CENTER DISTANCE BETWEEN UPPER AND LOWER RACHET BAR PINS IS 18'-10", WITH THE MAXIMUM DISTANCE OF 31'-6".

PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	DVS	4/1/87
CHECKED		
REVISIONS		
FIELD CHANGES		

BRUNING 44-132-45701-1

Dan Kidd

YANKEE ENG. & DES.

111-275

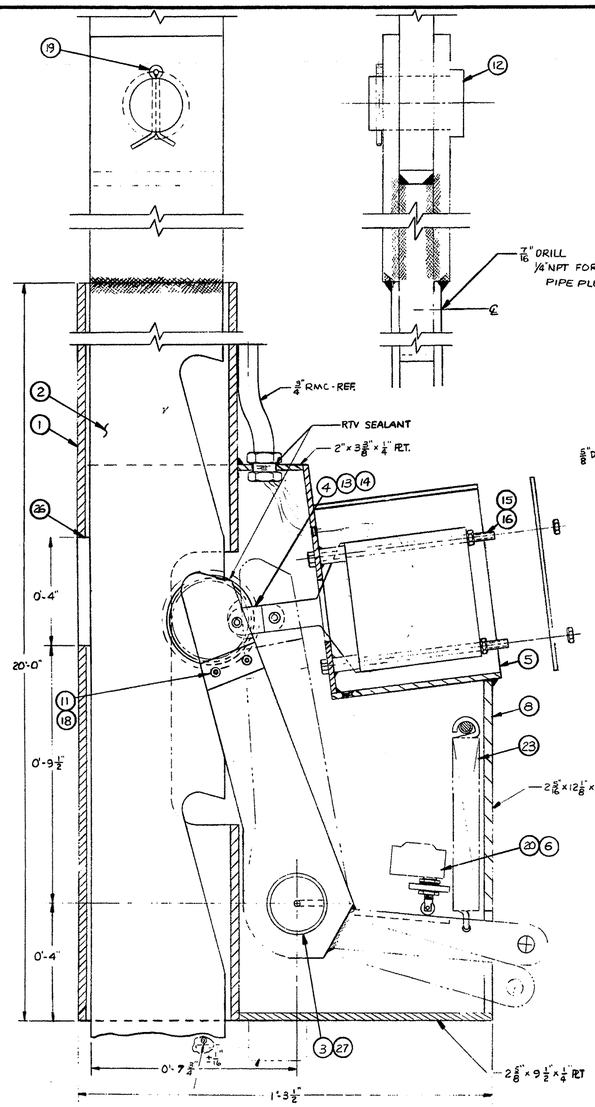
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY

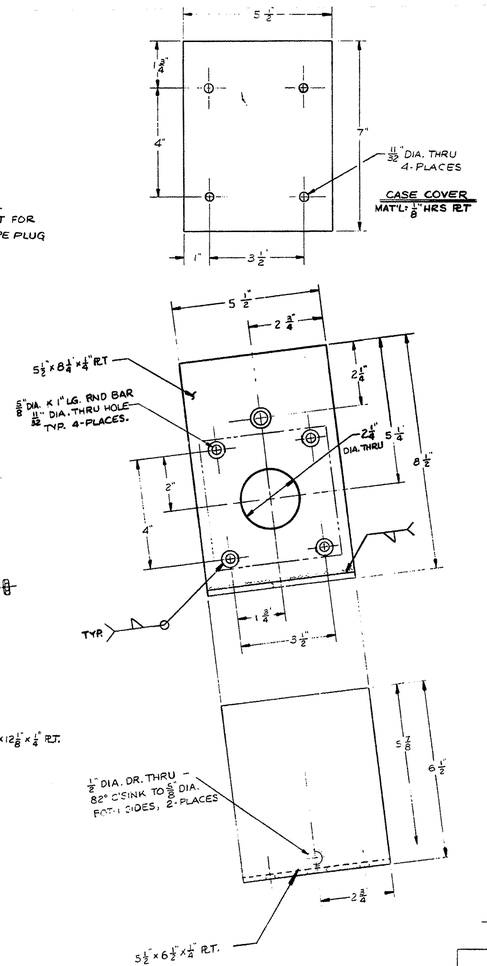
MACHINERY PART DETAILS
RACHET BAR

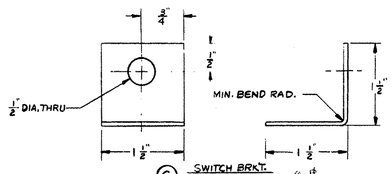
SHEET 17 OF 20 AUGUSTA, MAINE

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	003002.00	18	20



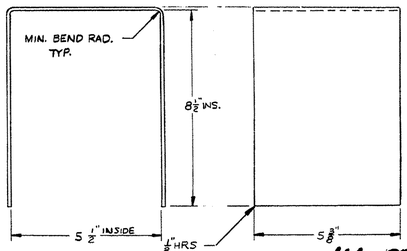
1 - ENCLOSED WOBBLE LIMIT SWITCH
1 - 3/8 S.S. ROLL PIN, FIELD INSTALLED





6 SWITCH BRKT. SCALE: FULL

ITEM	QTY.	DESCRIPTION	COMMENTS
1	2	RATCHET HOUSING WELDMENT	
2	2	RATCHET BAR WELDMENT	
3	2	PAWL WELDMENT	
4	2	LINK	
5	2	SOLENOID CASE WELDMENT	
6	2	SWITCH BRACKET	
7	2	SHAFT	
8	2	PAWL HOUSING WELDMENT	
9	8	LUG	
11	2	SPRING RETAINER PIN	
11	4	PAWL THRUST PLATES	
12	4	LOCKING PIN	
13	2	3/8 "x 2" LG. SPRING PIN	
14	2	3/8"x 1 1/8" LG SPRING PIN	
15	8	5/16 -18 x 6 3/4" LG. HEX HD. BOLT	
16	26	5/16 -18 HEX LOCK NUT	
17	2	MODEL F-329 TROMBETTA SOLENOID	
18	4	1/4-20 x 1 3/4" LG. S.S. C'SUNK CAP SCREW	
19	4	COTTER PIN - 5/16 x 2 1/2" LG. - S.S.	
20	2	MICRO-SWITCH #MD3211Q	
21	4	3/16" x 3" ø O-RING	
22	4	SIGHT GLASS	
23	2	EXTENSION SPRING - 1" DIA. x .115 WIRE x 5 1/2" FREE LENGTH	LE 115 J-7 ST. STL.
24	8	5/16-18 x 3 1/4" LG. HEX HD. BOLT	
25	2	5/16-18 x 3 3/4" LG. HEX HD. BOLT	
26	2	WEAR PLATE - 2" x 4" x 1/2" HRS FLAT BAR	
27	2	OIL FILLED BRONZE BUSHINGS - 2" I.D. x 2 1/2" O.D. x 1 1/4" LG.	
28	4	OIL FILLED BRONZE BUSHINGS - 2" I.D. x 2 1/2" O.D. x 3/8" LG.	
29	2	1/8" NPT GREASE FITTING	
30	2	1/4" NPT PIPE PLUG	



Dan Kidd

111-276 #7

YANKEE ENG. & DES

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY

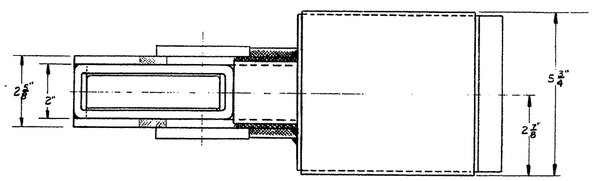
MACHINERY ASS'Y. & DETAILS
RACHET BAR

SHEET 18 OF 20 AUGUSTA, MAINE

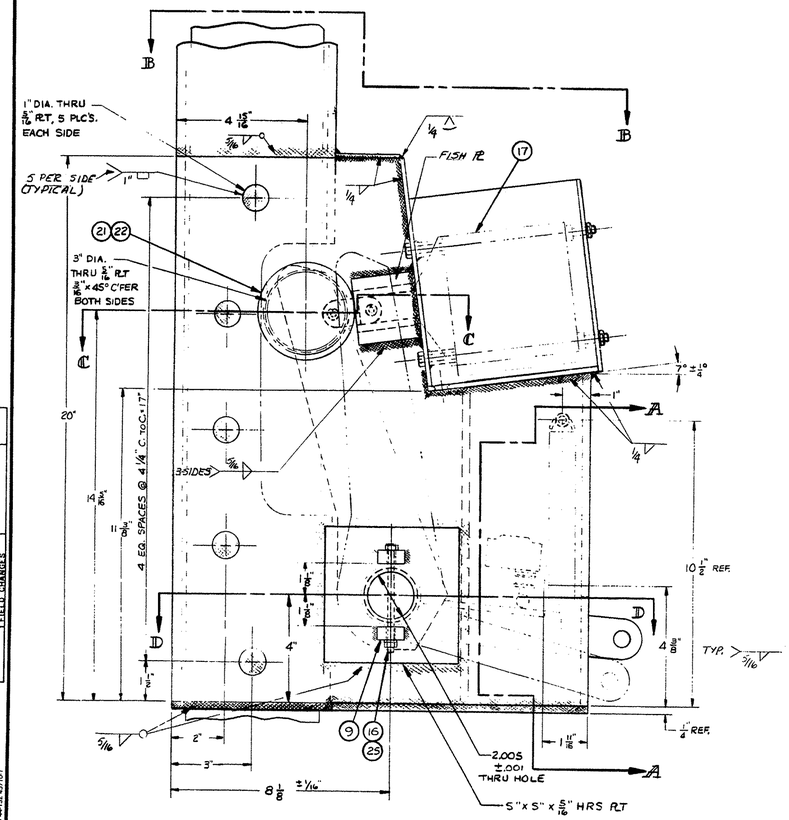
PROJECT DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	DWS	4/11/87
CHECKED		
REVISIONS		
FIELD CHANGES		

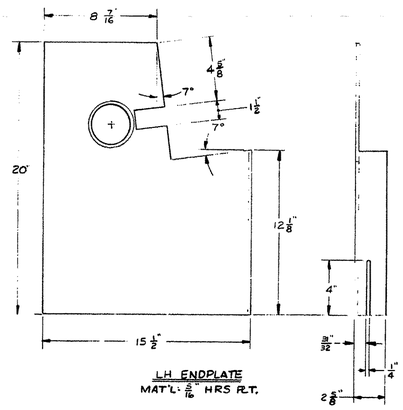
BRUNING 44-132 427101

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO	TOTAL SHEETS
1	MAINE	003002.00	19	20

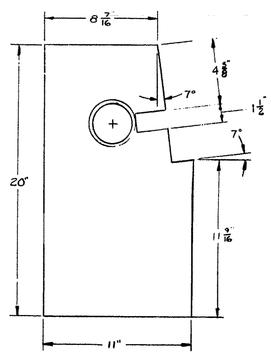


SECTION IB-IB

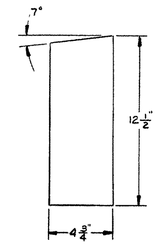




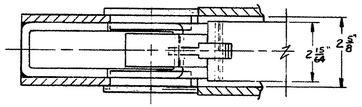
LH ENDPLATE
MAT'L: ⅝" HRS PL'T.



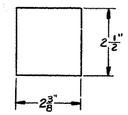
RH ENDPLATE
MAT'L: ⅝" HRS PL'T



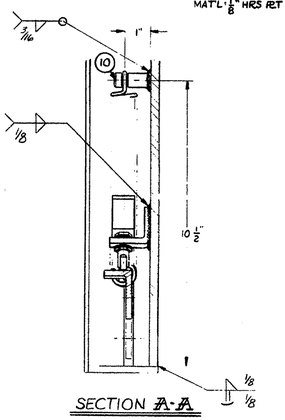
COVER PL'T
MAT'L: ⅛" HRS PL'T



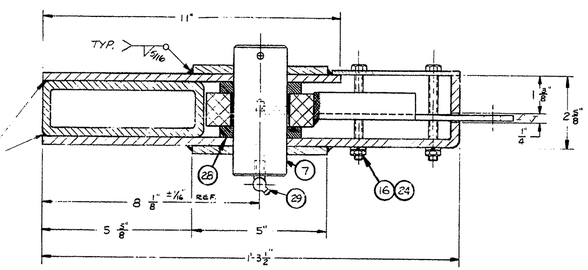
SECTION C-C



FISH PL'T
MAT'L: ⅝ HRS PL'T



SECTION A-A



SECTION D-D

Dan Field

111-277

YANKEE ENG. & DES.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY

MACHINERY ASS'Y. & DETAILS
RACHET BAR

SHEET 19 OF 20 AUGUSTA, MAINE

PROJECT ORDER ENGINEER	BY	DATE
PLANS	DESIGN-DETAILED	DVS 4/1487
	CHECKED	
	REVISIONS	
	FIELD CHANGES	

BRUNING 44-132 427101

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE		20	20

ITEM	QTY.	DESCRIPTION
1	2	RATCHET HOUSING
2	2	RATCHET BAR
3	2	PAWL
4	2	LINK
5	2	YOKE
6	2	SWITCH BRACKET
7	2	SHAFT
8	2	COUPLING
9	8	LUG
10	2	SPRING RETAINER PIN
11	2/E	PAWL THRUST PLATE
12	4	LOCK PIN
13	4	CLEVIS PIN SS 3/8 x 3/4 LG
14	4	COTTER PIN SS 1/16 x 3/4 LG
15	8	5/16-18 x 1 LG HEX HD BOLT - SS
16	12	5/16-18 HEX LOCK NUT - SS
17	2	SOLENOID
18	4	1/4-20 x 1 3/4 LG. C'SUNK CAP SCREW-SS
19	4	COTTER PIN 5/32 x 2 1/2 LG. - SS
20	2	MICRO SWITCH BZ 2E - A2 W/MC 27 11 H
21	4	3/16 x 2 1/2 Ø ORING
22	4	SIGHT GLASS
23	2	SPRING
24	2	3/8 - 16 HEX LOCK NUT - SS
25	4	5/16-18 x 3 3/4 LG. HEX HD BOLT - SS.
26	2	WEAR PLATE
27	2	BUSHING
28	4	BUSHING
29	2	1/8 NPT GREASE FITTING
30	2	1/4 NPT PIPE PLUG - BROWBE
31	4	SIDE COVER
32	4	SIDE PLATE
33	2	TOP PLATE
34	2	BOTTOM PLATE
35	4	FISH PLATE
36	4	SHIM
37	4	SHIM
38	8	1/4-20 x 5/8 - SS
39	4	1/4-20 x 7/8 - SS
40	4	1/4-20 HEX LOCKNUT - SS
41	8	1/4-20 STOVE BOLT NUT-7/16SQx3/16THK
42	2	ACCESS COVER

(8) MAT'L: 304 SS 3/4 SQ. BAR FULL SCALE

(4) MAT'L: 304 SS 1/4 x 3/4 BAR FULL SCALE

(5) MAT'L: 304 SS 3/4 SQ. BAR FULL SCALE

(11) MAT'L: BRONZE 5/16 x 1 BAR FULL SCALE

(11) MAT'L: BRONZE 5/16 x 1 BAR FULL SCALE

(10) MAT'L: 1/2 Ø ROUND BAR H.R.S. FULL SCALE 1/2 SCALE

(42) MAT'L: 1/4 PL HRS

(31) MAT'L: 1/4 PL HRS

(22) MAT'L: 1 THK. POLYCARBONATE (WINDOW GRADE)

(36) MAT'L: 3/8 SQ. BAR HRS

(37) MAT'L: 3/8 SQ. BAR HRS

(1) RATCHET HOUSING

(33) MAT'L: 1/4 PL HRS

(34) MAT'L: 1/4 x 2 x 9 1/2 PL HRS

(35) 5/16 x 5 x 5 PL HRS

(32) MAT'L: 5/16 PL HRS RIGHT/LEFT HAND, ADM. REQ'D.

PROJECT: DESIGN ENGINEER	BY	DATE
PLANS — DESIGN - DETAILED	CGTE	9-15-80
CHECKED		
REVISIONS		
FIELD CHANGES		

BRUNING 44-132-45710-1

111-278

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TRANSFER BRIDGE
FRENCHBORO
HANCOCK COUNTY

RATCHET BAR DEVIATIONS

SHEET 20 OF 20 AUGUSTA, MAINE