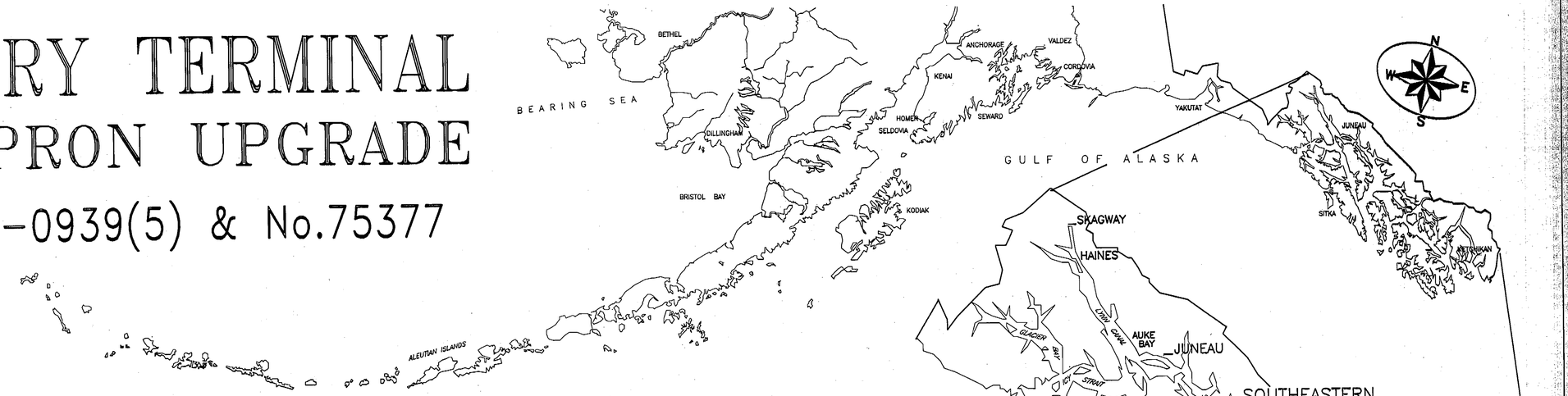
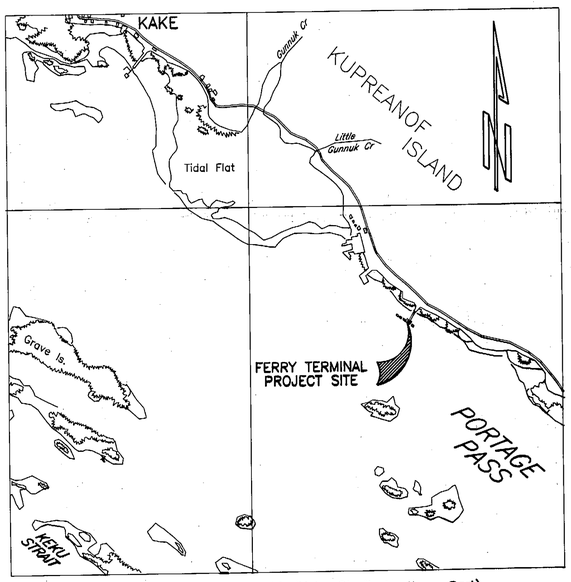
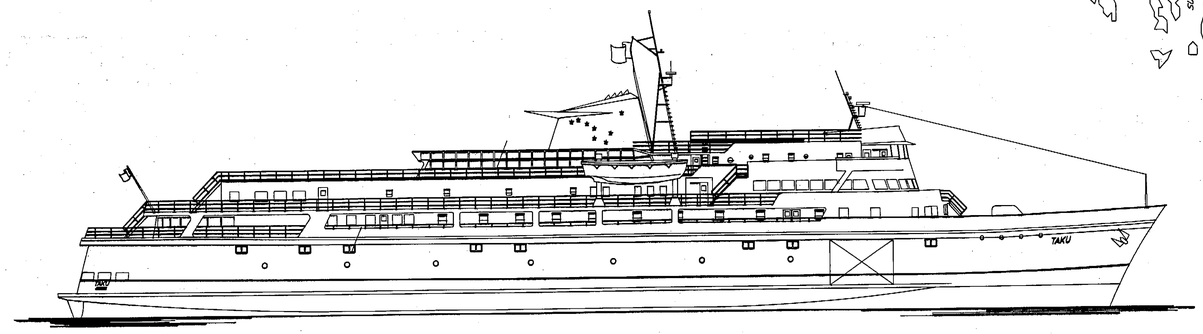
KAKE FERRY TERMINAL
RAMP & APRON UPGRADE
PROJECT No. STP-0939(5) & No.75377





KAKE SITE, From: NOAA Chart 17368 (Keku Strait, Northern Part)

As-Built PLans
Contractor- Tamico, Inc.
Project Engineer- CLiff Douglas
Began - October 1994
Completed- November 1994



INDEX TO SHEETS			
1	TITLE SHEET	10	13 FT. APRON DETAILS
2	GENERAL LAYOUT, QUANTITIES & NOTES	11	AS-BUILT, EXIST. RAMP DETAILS
3	BRIDGE LAYOUT	12	AS-BUILT, EXIST. SUPERSTRUCTURE
4	FRAME DETAILS	13	AS-BUILT, EXIST. RAMP LIFT DETAILS
5	INTERMEDIATE RAMP	14	AS-BUILT, EXIST. BRIDGE/BARGE DETAILS
6	INTERMEDIATE RAMP, DETAILS	15	AS-BUILT, TRANSFER BRIDGE DETAILS
7	HANGER BAR & LOCK-OFF DETAILS	16	ELECTRO-HYDRAULIC SCHEMATIC
8	SIDING DETAILS	17/19	ELECTRICAL POWER E1, E2, E3
9	MISCELLANEOUS DETAILS		

STATE OF ALASKA

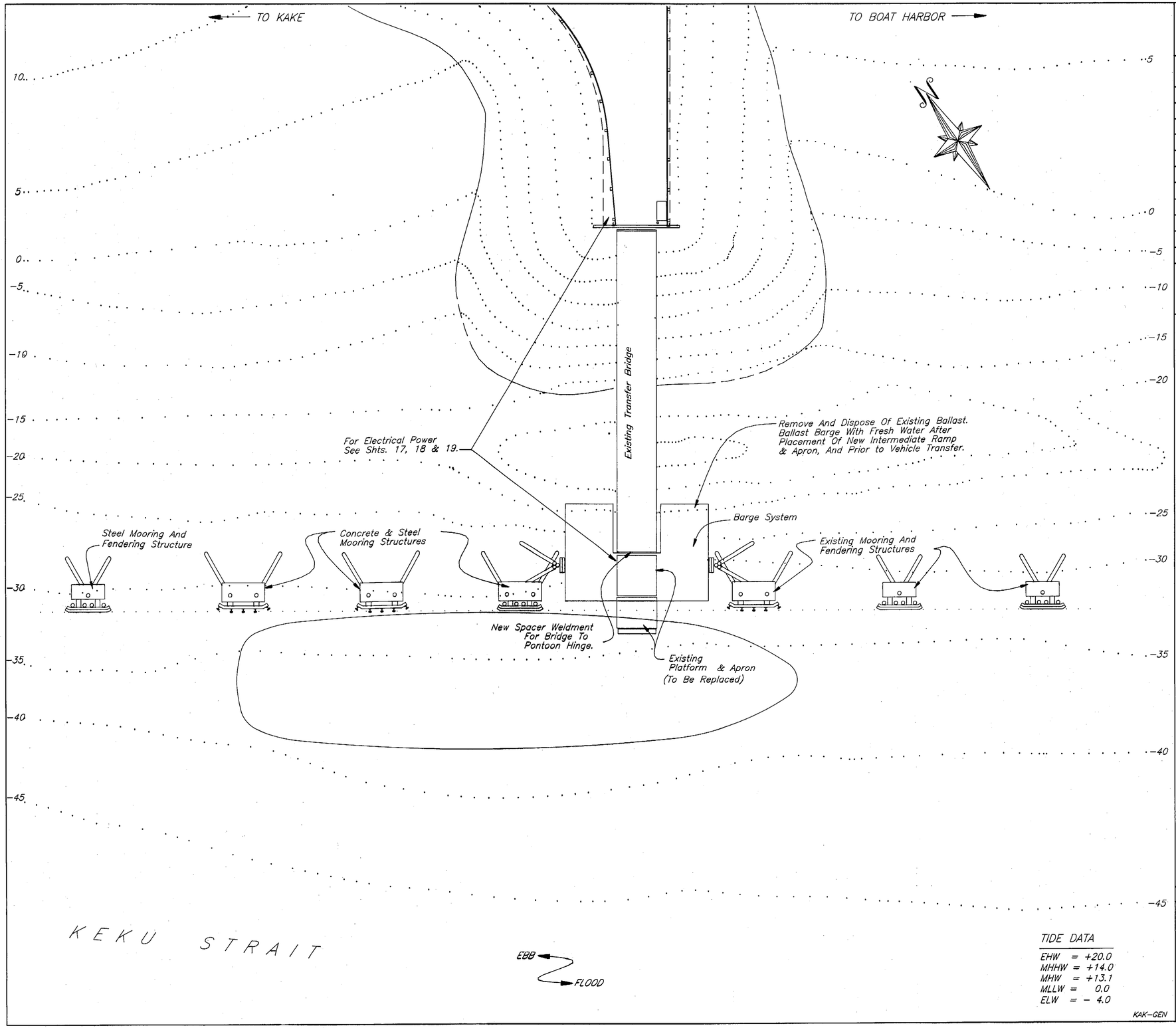
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

MARINE FACILITIES

APPROVED

5-6-94
Shore Facilities Engineer

Recommend for Approval
Group Design Chief



TIDE DATA

EHW	= +20.0
MHHW	= +14.0
MHW	= +13.1
MLLW	= 0.0
ELW	= - 4.0

KAK-GEN

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	ESTIMATED QUANTITIES	UNIT
110	Mobilization	All Req'd	L.S.
111	Temp. Erosion & Pollution Control	All Req'd	C.S.
114	Traffic Maintenance and Control	All Req'd	L.S.
116	Furnish & Maintain Field Office	All Req'd	L.S.
120	DBE & WBE Adjustment	All Req'd	C.S.
201	Removal of Structures and Obstructions	All Req'd	L.S.
302	Intermediate Ramp & Apron	All Req'd	L.S.
501	Electrical Power	All Req'd	L.S.

GENERAL NOTES

Specifications:
Construction: Per Contract Documents for Project No. STP-0939(5) / 75377
Design: Restraint and Mooring Structures: Marine Facilities Design Standards.
Design Loads: Transfer Ramp System: AASHTO 1983 with latest interim specifications

Design Unit Stresses:
Steel:

A36	F_a	= 20 Ksi
A252 Gr. 2	F_a	= 19.25 Ksi
A500 Gr. B	F_a	= 25 Ksi
A572	F_a	= 27 Ksi
A108	F_a	= 29 Ksi
A608 Gr. D	F_a	= 30 Ksi

Materials:
Steel:
Tube Sections A500 Gr. B
Pile A252 Gr. 2, A501 or A53, Gr. B, type E or S
Pipe A53, Gr. B, type E or S
Stainless Type 302, 304 or 316
All other shall be A36 or A572 as noted.
Charpy Group 2 impact requirements shall apply.

Protective Coatings:

Ramp, Apron and Hardware:
Hot Dip Galvanized After Fabrication

Ballast: Transfer Bridge Pontoon Ballast Shall Be Fresh Potable Water. Ballast Flexifloat Pontoon Units So That Pontoon System Is Approximately Level And Within 1' Of Existing Freeboard.

Priority Of Ferry Traffic

1. Once the Contractor begins improvements the following will remain in force until the project is completed.
   A. The Contractor shall conduct his operations so as not to interfere with normal scheduled ferry access or vehicular traffic to and from the existing ferry facilities.
   B. Ferry traffic shall have priority over construction activities and it shall be the Contractor's responsibility to coordinate his activities with ferry arrivals and departures.
   C. A.M.H.S. personnel will stage traffic, and operate the transfer equipment.
   D. Contractor shall provide safe access and lighting for A.M.H.S. personnel to tie up points as required throughout the contract.
2. The Contractor shall not stockpile any materials in the existing staging area without written approval from the A.M.H.S. Engineer.

STAMP

STATE OF ALASKA 49TH
Bern A. Savikko
CE-6466
REGISTERED PROFESSIONAL ENGINEER
5-6-94

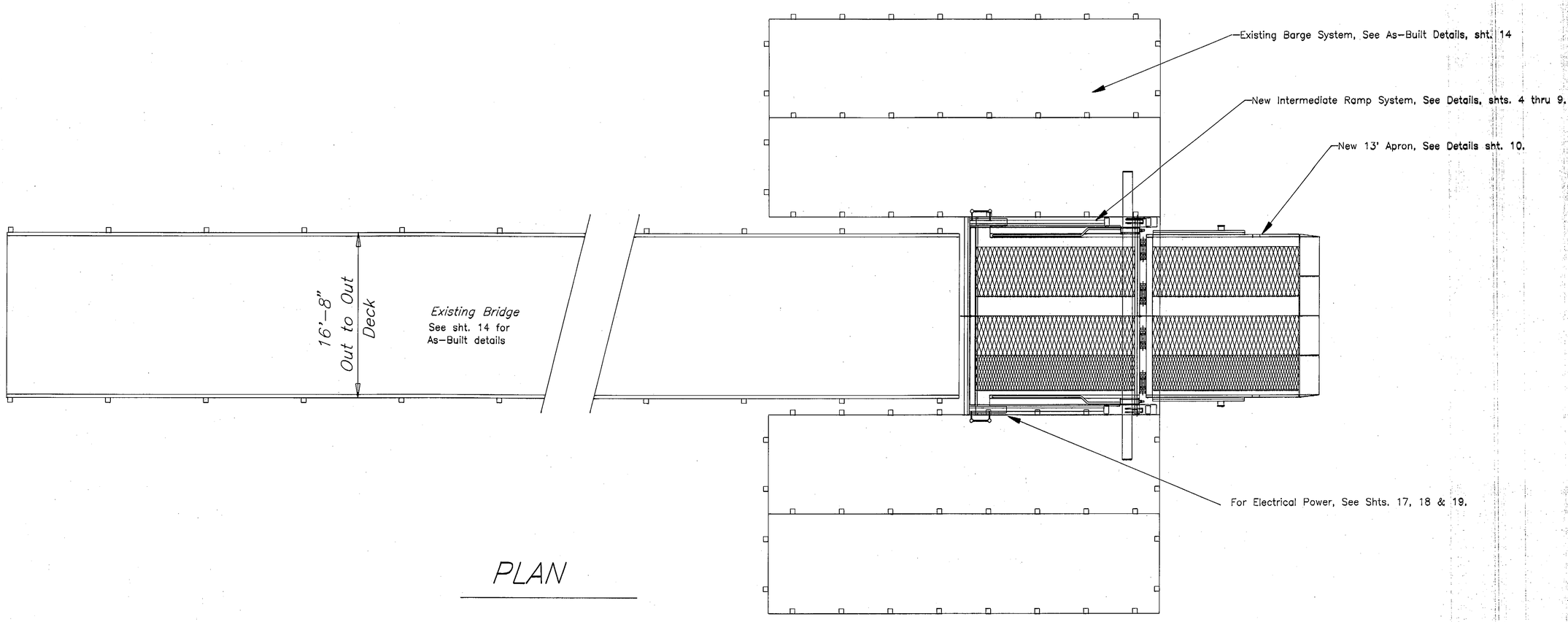
DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

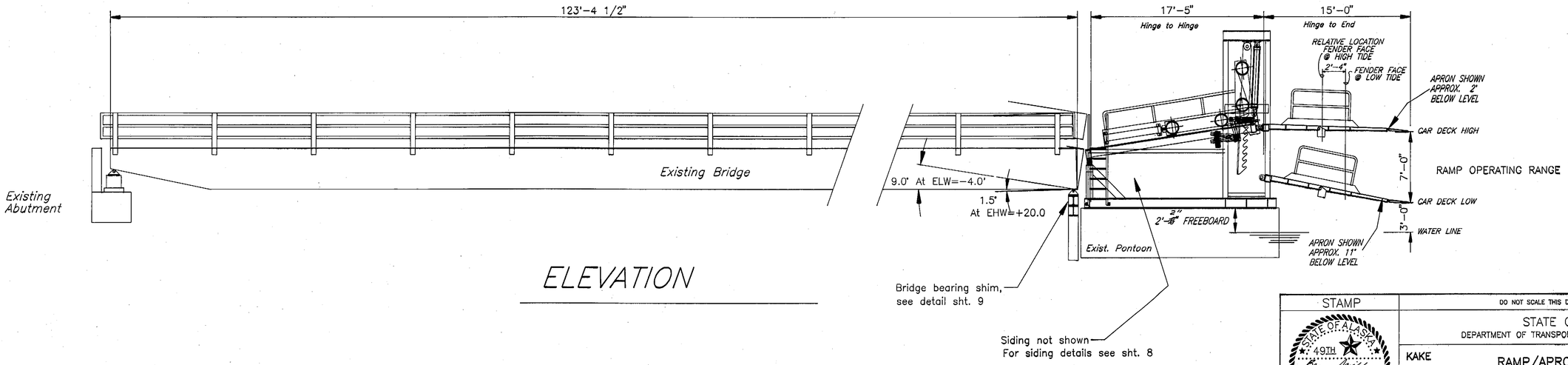
KAKE ALASKA

GENERAL LAYOUT, QUANTITIES AND GENERAL NOTES

DESIGNED	STAFF	CHECKED	BAS	DRAWN	WN	DATE	Jan 1994
PROJECT NUMBER	STP-0939(5)/75377			SHEET	2	OF	19



PLAN



ELEVATION

STAMP

STATE OF ALASKA
49TH
Bern A. Savikko
CE-6466
REGISTERED PROFESSIONAL ENGINEER

5-6-94
KAK-BRBG.DWG

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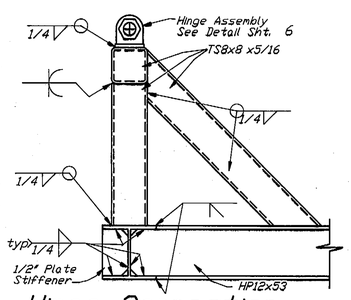
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KAKE — RAMP/APRON UPGRADE — ALASKA

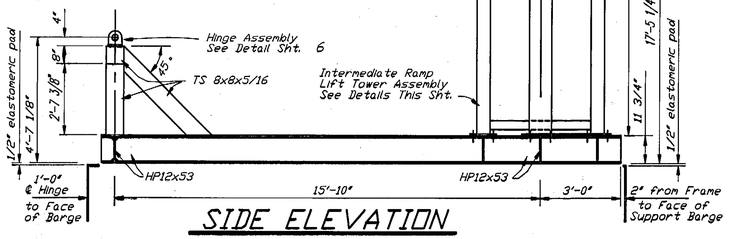
BRIDGE LAYOUT

DESIGNED:	CHECKED:	DRAWN:	DATE:
STAFF	BAS	BAS	JAN 1994

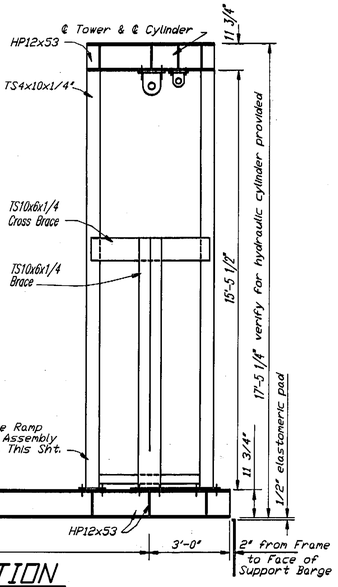
PROJECT NUMBER: STP-0939(5)/75377 — SHEET 3 OF 19

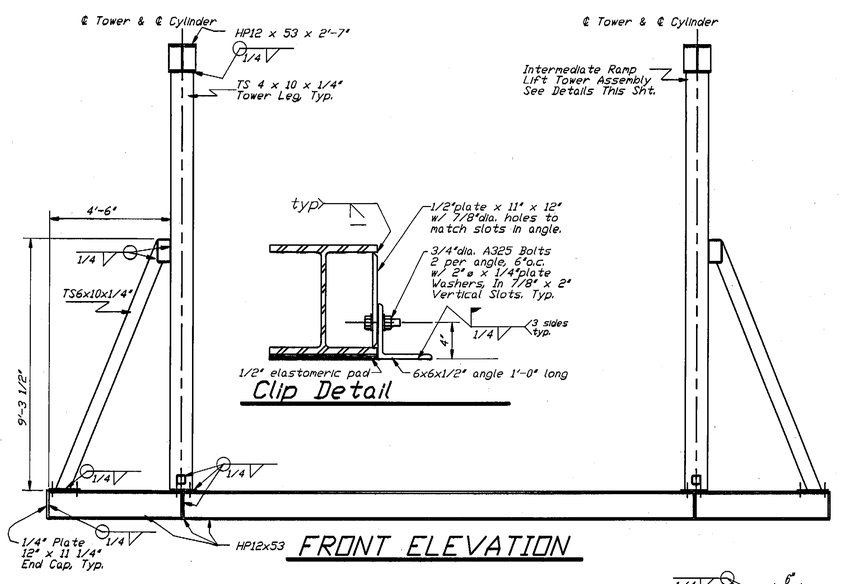


Hinge Connection



SIDE ELEVATION

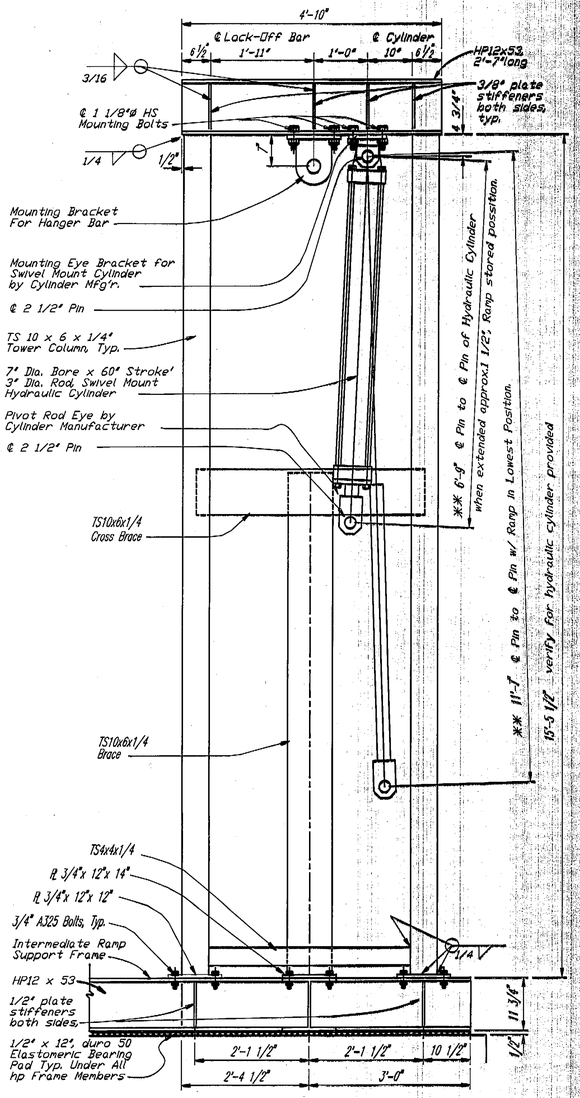




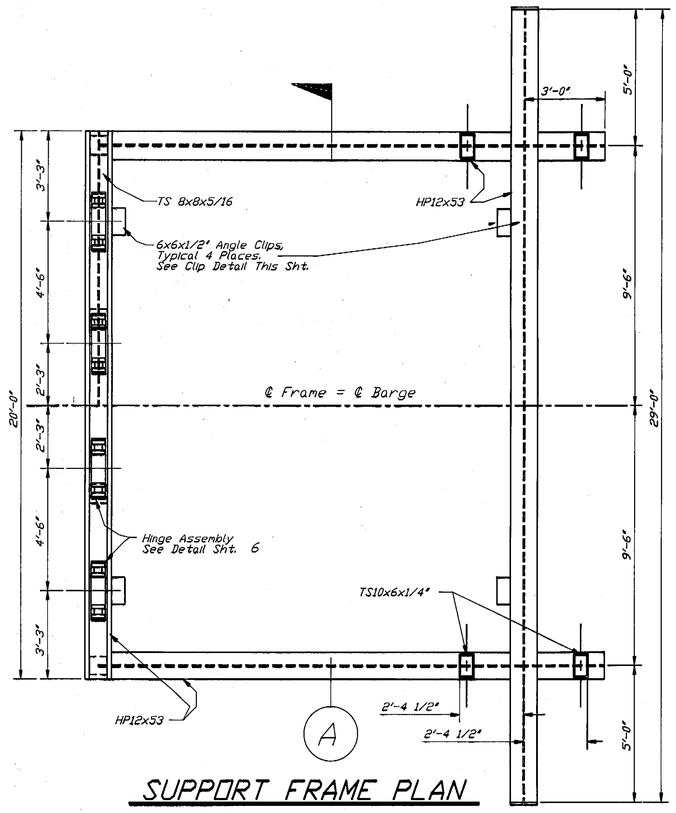
FRONT ELEVATION

Clip Detail

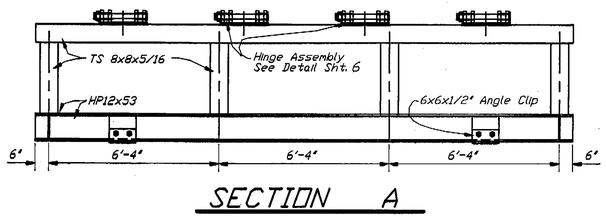
** Dimensions are based on Cunningham Model HS Hydraulic Cylinders (7"dia. bore x 60" stroke, 3"dia. rod) with swivel mount and pivot rod eye by Manufacturer. Cylinder supplied may vary and Ramp Lift Tower height or swivel mount must be adjusted accordingly.



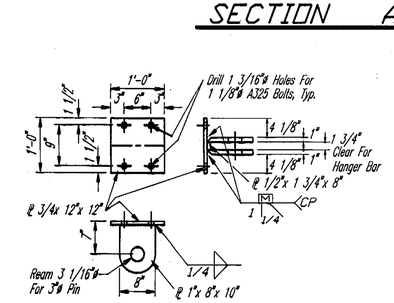
LIFT TOWER DETAILS



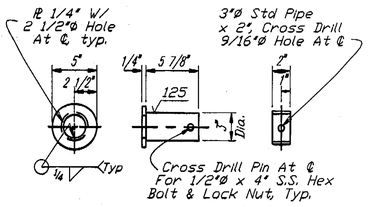
SUPPORT FRAME PLAN



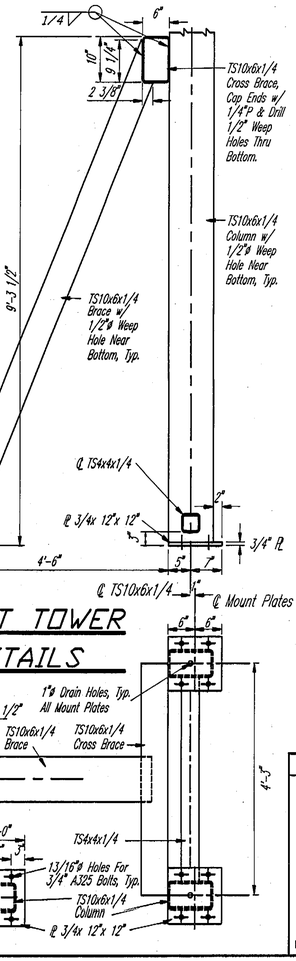
SECTION A



HANGER BAR MOUNT DETAILS



HANGER BAR PIN DETAIL



RAMP LIFT TOWER MOUNT DETAILS

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

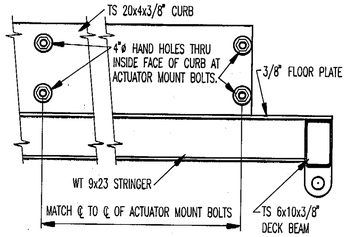
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KAKE ALASKA

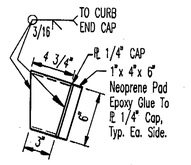
FRAME DETAILS

DESIGNED	Staff	CHECKED	BAS	DRAWN	BN	DATE	APR 1994
PROJECT NUMBER:	STP-0939(5)/75377			SHEET	4	OF	19

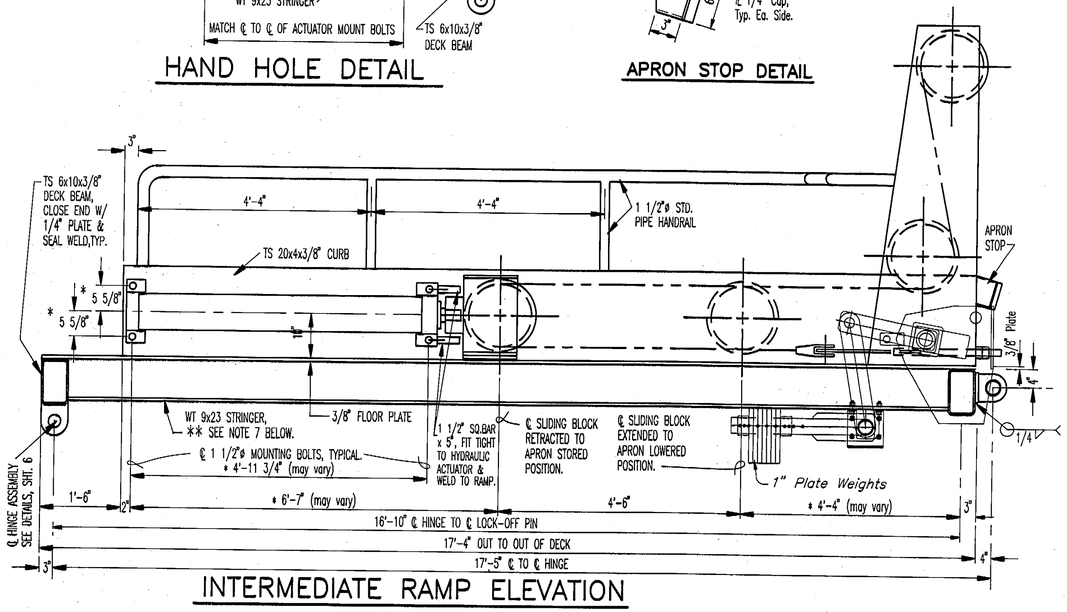
KAK-FRM5 5-6-94



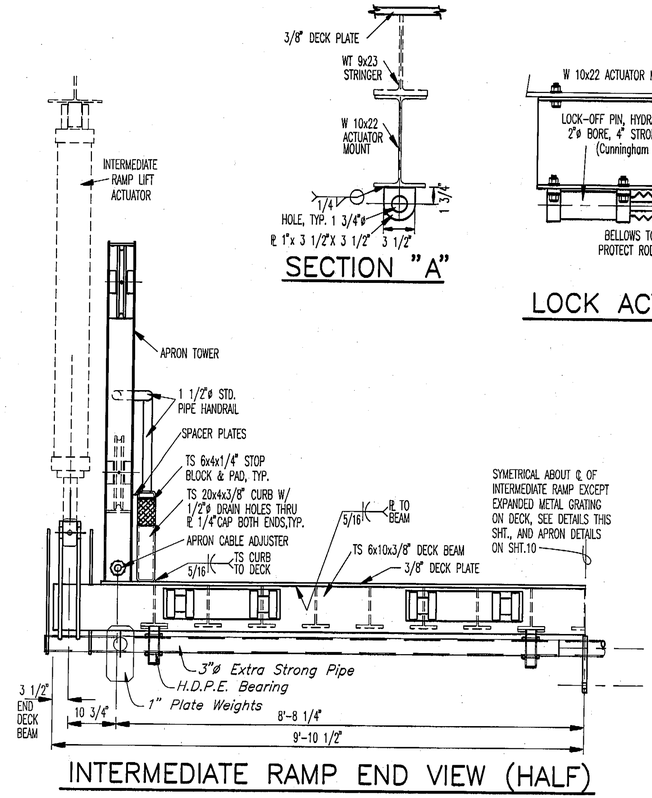
HAND HOLE DETAIL



APRON STOP DETAIL

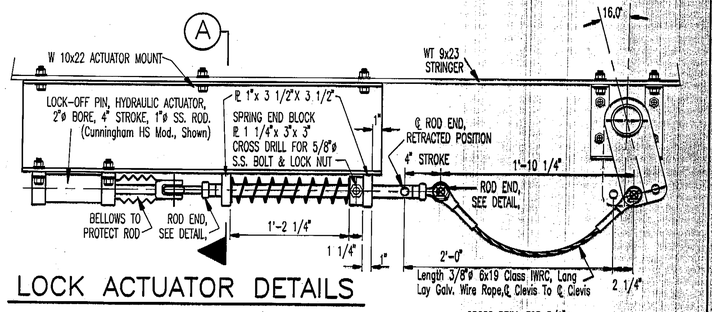


INTERMEDIATE RAMP ELEVATION

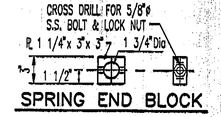


INTERMEDIATE RAMP END VIEW (HALF)

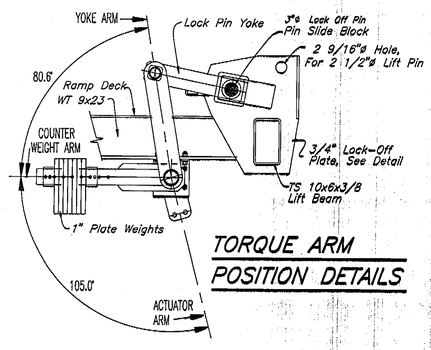
SECTION "A"



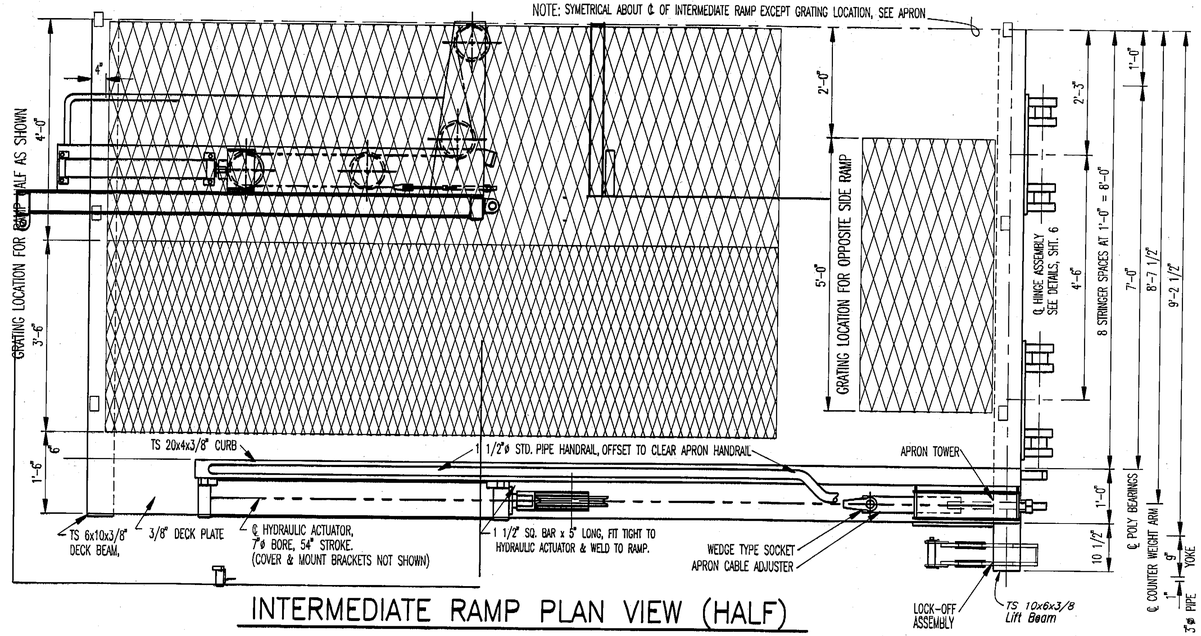
LOCK ACTUATOR DETAILS



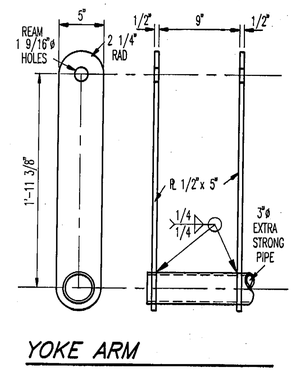
SPRING END BLOCK



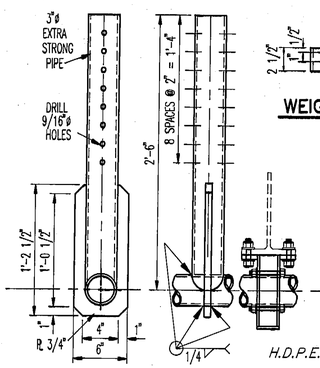
TORQUE ARM POSITION DETAILS



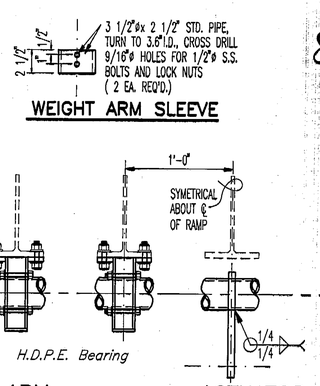
INTERMEDIATE RAMP PLAN VIEW (HALF)



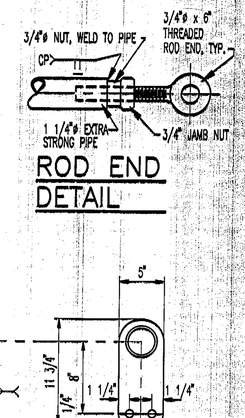
YOKE ARM



COUNTER WEIGHT ARM



WEIGHT ARM SLEEVE



ROD END DETAIL

ACTUATOR ARM

NOTES:

1. Approx. Weight Of Intermediate Ramp = 20,000 lbs.
2. Compression Spring: 1 13/16" Rod Size, 15" Free length, 10 1/4" Max. Solid Height, 4 3/4"Min. Deflection, Approx. Compression 160 lb/in., Install with 3/4" Precompression.
3. Close all open ended pipe & tube with 1/4" plate & seal weld.
4. * Dimensions based on Cunningham Hydraulic Actuator.
5. Cable shall be 7/8"ø, 6x30 flattened strand, lang lay, IWRC, Galvanized and Greased. Breaking strength 35.4 tons.
6. All Sheaves This Sheet shall be: 16"O.D., 13" Tread Dia., 2 5/16"Hub Width, and 2"ø Shaft w/ Bronze Bushing.
7. ** Main Members subject to tensile stress. Charpy Impact Test Required, See Specifications.

STATE OF ALASKA ★ 49TH ★ Bern A. Saviikko CE-6466 REGISTERED PROFESSIONAL ENGINEER
5-6-94

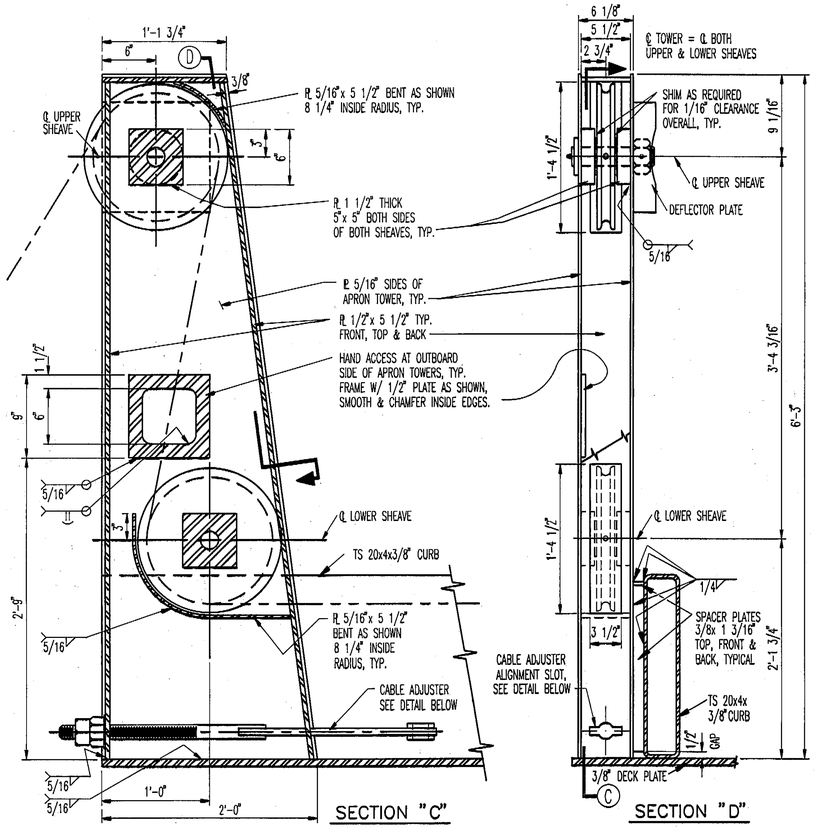
DO NOT SCALE THIS DRAWING – USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

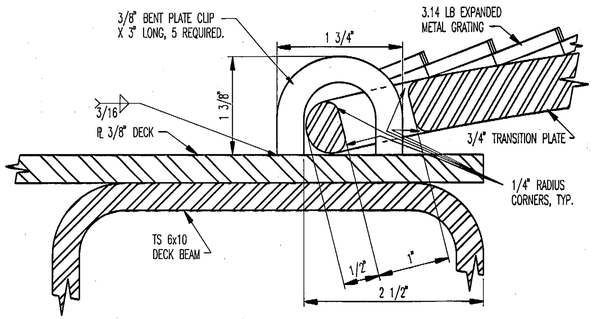
KAKE ALASKA

INTERMEDIATE RAMP

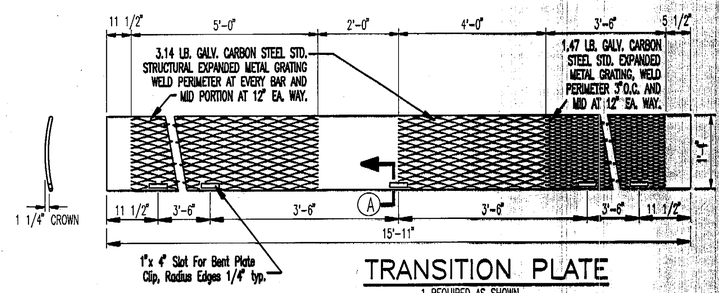
DESIGNED: STAFF	CHECKED: BAS	DRAWN: BN	DATE: JAN.1994
PROJECT NUMBER: STP-0939(5) 75377	SHEET 5 OF 19		



APRON TOWER DETAILS

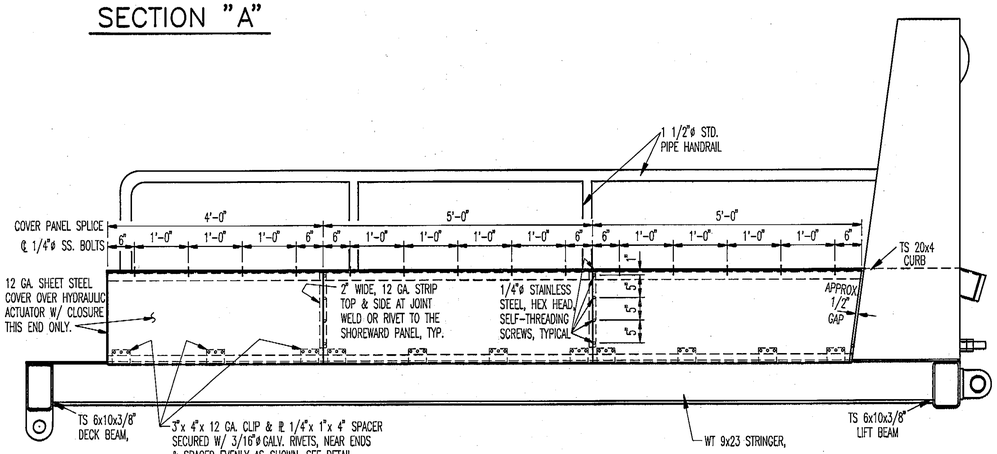


SECTION "A"

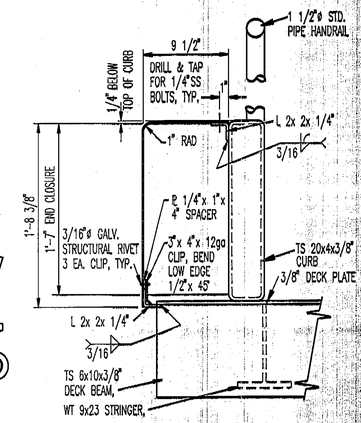


TRANSITION PLATE

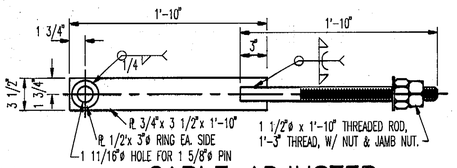
1 REQUIRED AS SHOWN



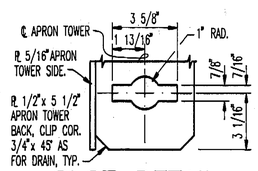
ACTUATOR COVER



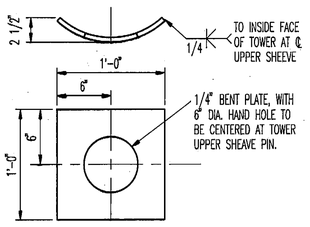
COVER DETAIL



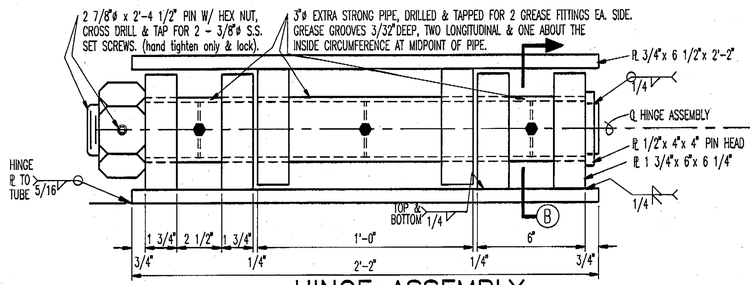
CABLE ADJUSTER



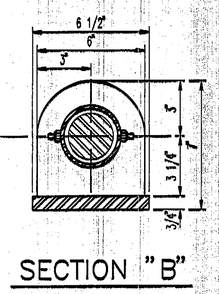
SLOT DETAIL



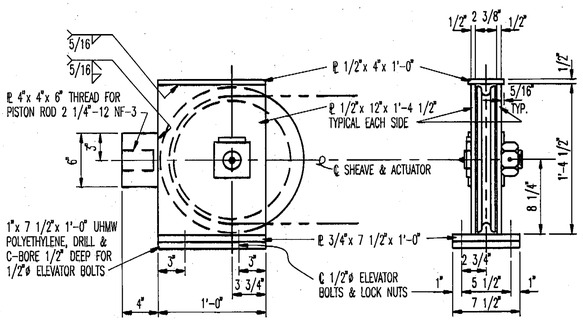
DEFLECTOR PLATE



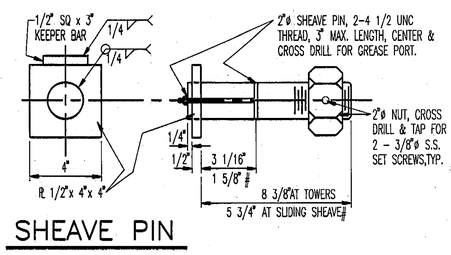
HINGE ASSEMBLY



SECTION "B"



SLIDING BLOCK



SHEAVE PIN

NOTES:

1. Hinge & Sheave Pin grease fittings shall be 1/8" PTF, short, straight and stainless steel with polyethylene caps.
2. ** Reduce 1/4" clearance at Hinges with 1/16" thick flat washers as required to acheave minimum spaces.
3. Close all open ended pipe & tube with 1/4" plate & seal weld.
4. * Dimensions based on Cunningham Hydraulic Actuator. Contractor shall use actual Hydraulic Actuator dimensions.
5. All Sheaves This Sheet shall be: 16"O.D., 13" Tread Dia., 2 5/16" Hub Width, and 2"ø Shaft w/ Bronze Bushing.

RMP-INT2

STATE OF ALASKA
49TH
Bern A. Saviikko
CE-6466
REGISTERED PROFESSIONAL ENGINEER
5-6-94

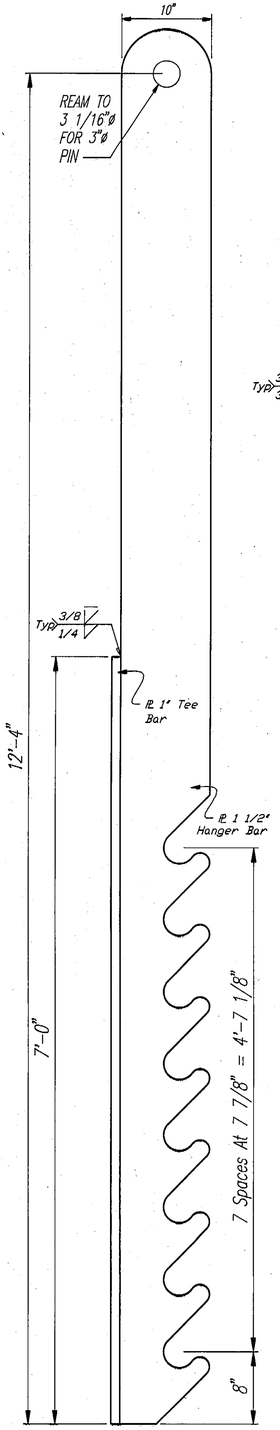
DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

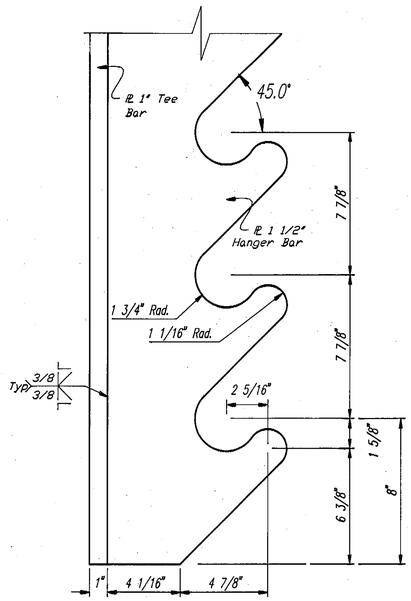
KAKE ALASKA

INTERMEDIATE RAMP DETAILS

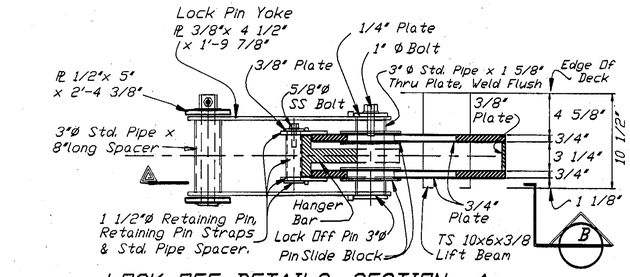
DESIGNED: STAFF	CHECKED:	DRAWN: BN	DATE: JAN. 1994
PROJECT NUMBER: STP-0939(5) 75377		SHEET 6	OF 19



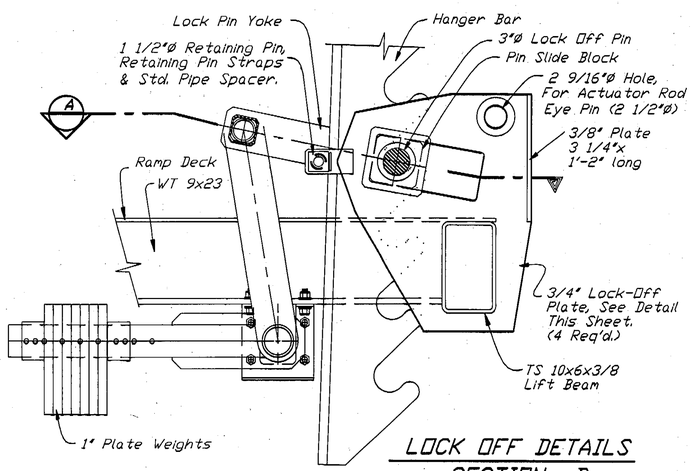
HANGER BAR



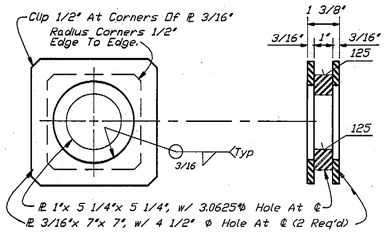
HANGER BAR DETAILS



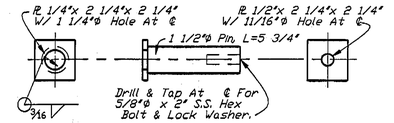
LOCK OFF DETAILS SECTION A



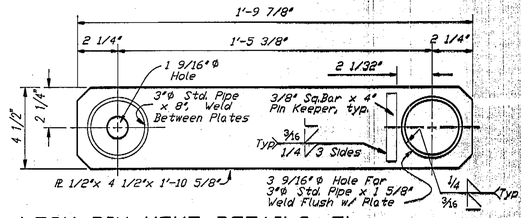
LOCK OFF DETAILS SECTION B



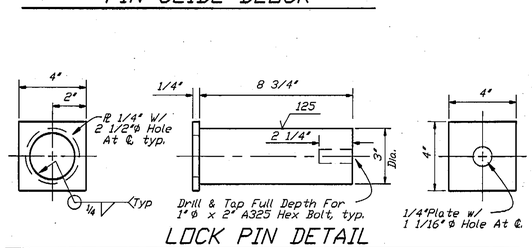
PIN SLIDE BLOCK



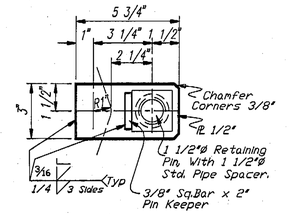
HANGER BAR RETAINING PIN



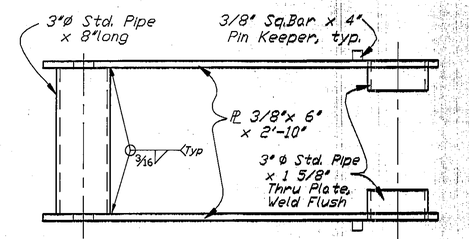
LOCK PIN YOKE DETAILS, Elev.



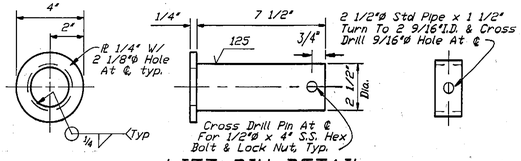
LOCK PIN DETAIL



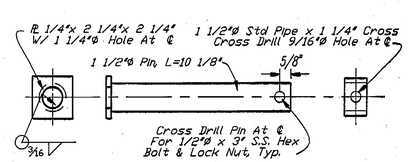
RETAINING PIN STRAP



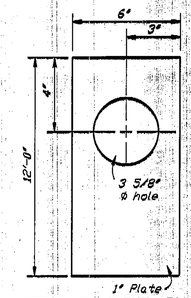
LOCK PIN YOKE DETAILS, Plan



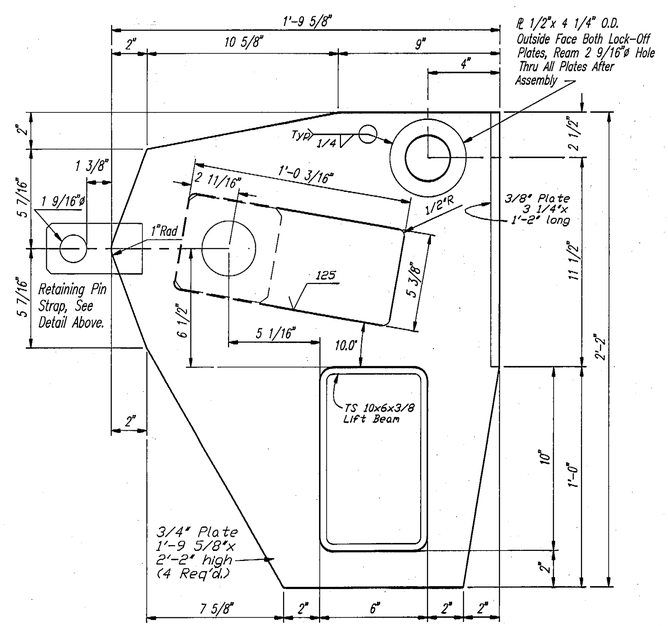
LIFT PIN DETAIL



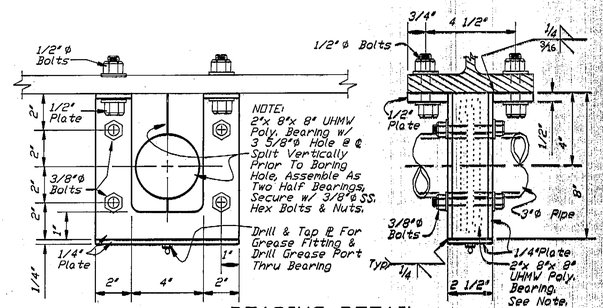
YOKE ARM PIN



WEIGHT DETAIL



LOCK-OFF PLATE DETAIL



BEARING DETAIL

4 Bearings Req'd, Center On WT9x23 Stringers At 1'-0" & 8'-0" Each Side Of Centerline Of Intermediate Ramp. Grease Both pipe And Bearing During Assembly.

STAMP

STATE OF ALASKA 49TH
Bern A. Savikko
CE-6466
REGISTERED PROFESSIONAL ENGINEER
KAK-LOK

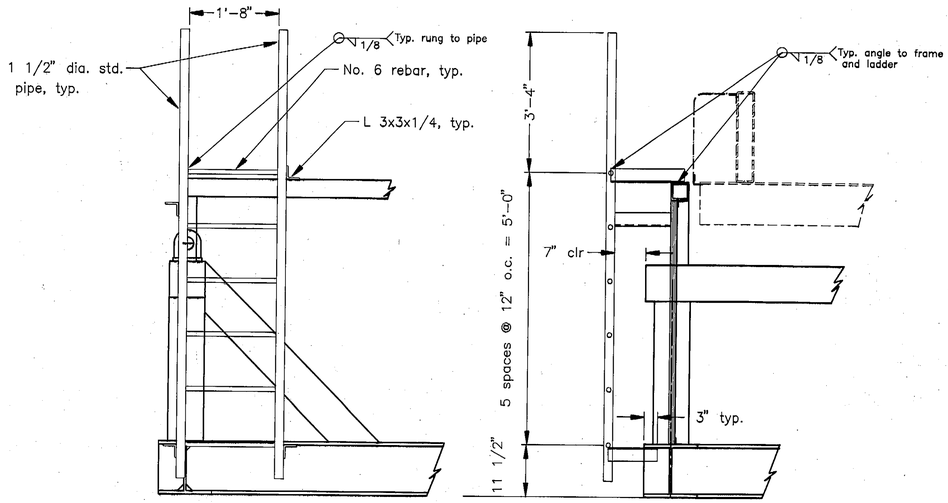
DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

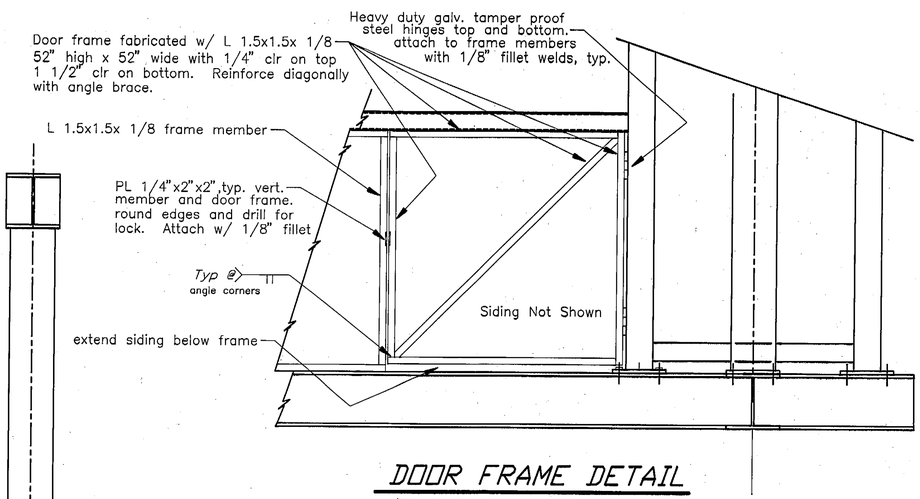
KAKE ALASKA

HANGER BAR & LOCK OFF DETAILS

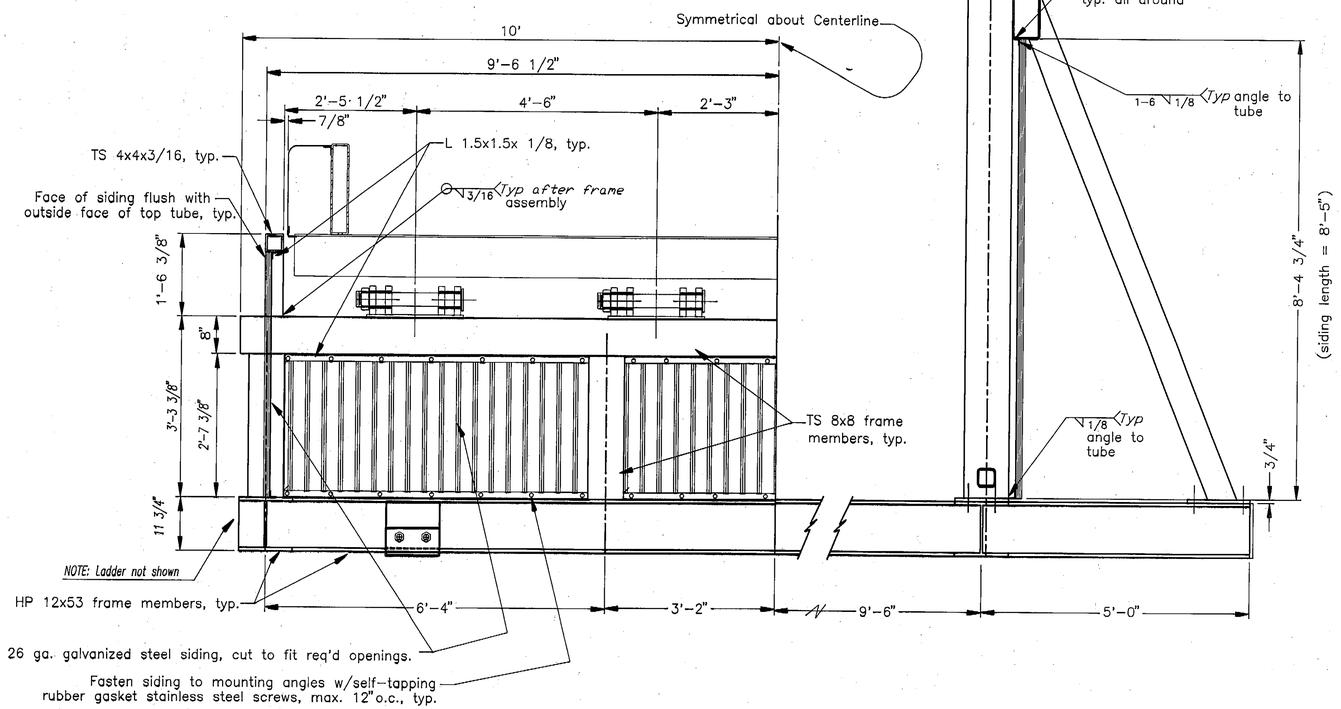
DESIGNED BAS	CHECKED JAL	DRAWN WN		DATE MARCH, 1994	
PROJECT NUMBER STP-0939(5) 75377		SHEET 7	OF 19		



LADDER DETAIL
(Typical ea. side of ramp)

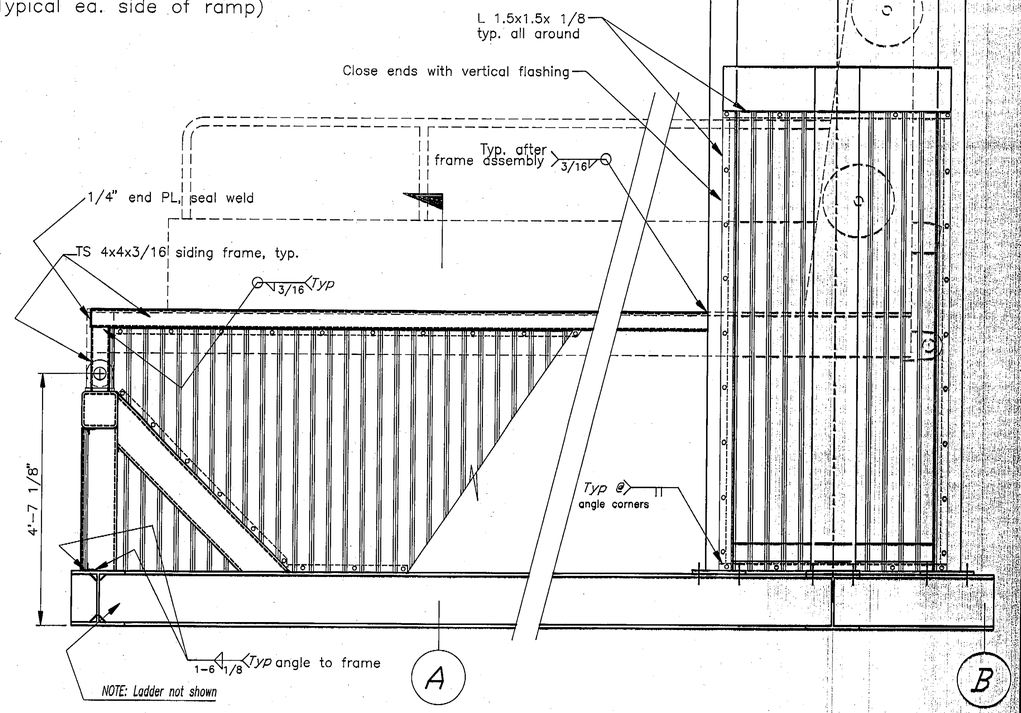


DOOR FRAME DETAIL
(Typical ea. side of ramp)



SECTION A

SECTION B



SIDE ELEVATION

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

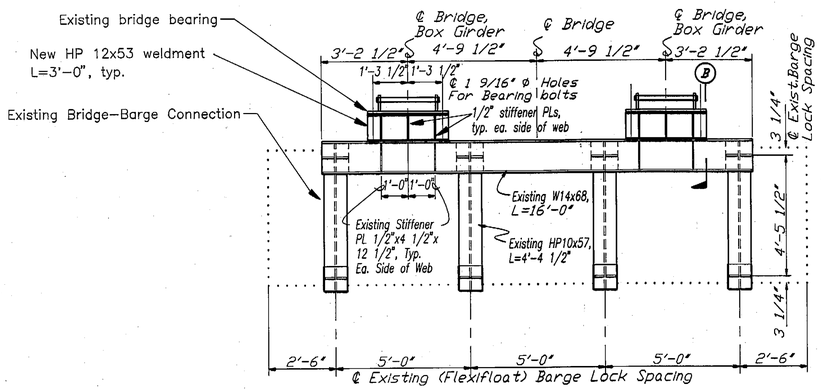
KAKE ALASKA

SIDING DETAILS

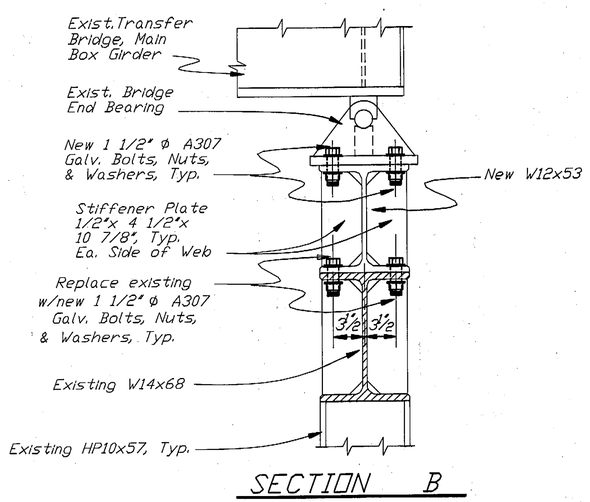
STATE OF ALASKA 49TH — Bern A. Savikko CE-6466 — REGISTERED PROFESSIONAL ENGINEER — 5-6-94

KAK-MSC1

DESIGNED: BAS	CHECKED:	DRAWN: BAS	DATE: JAN 1994
PROJECT NUMBER: STP-0939(5) / 75377		SHEET 8	OF 19

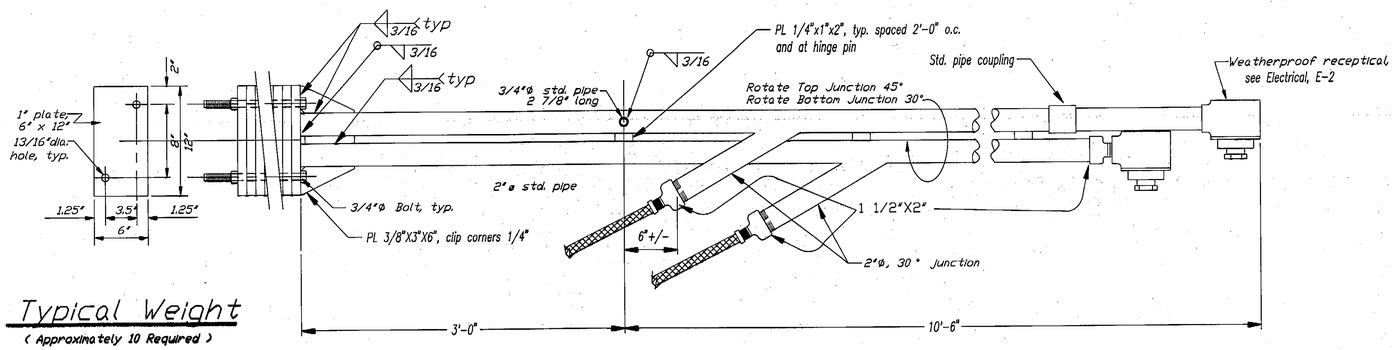


ELEVATION
BRIDGE-BARGE CONNECTION



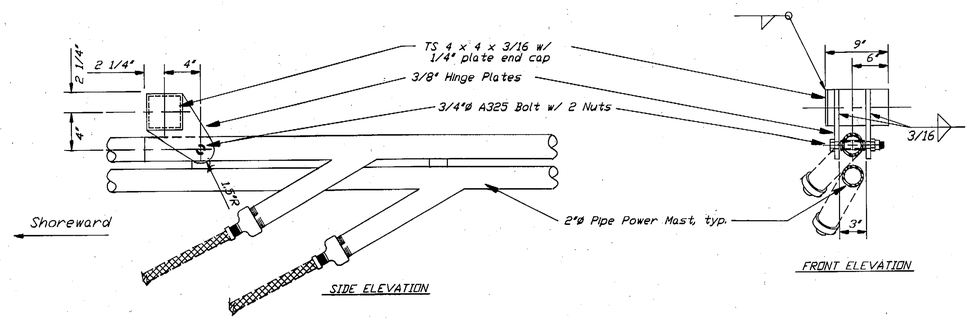
SECTION B

BRIDGE WEDGE DETAIL

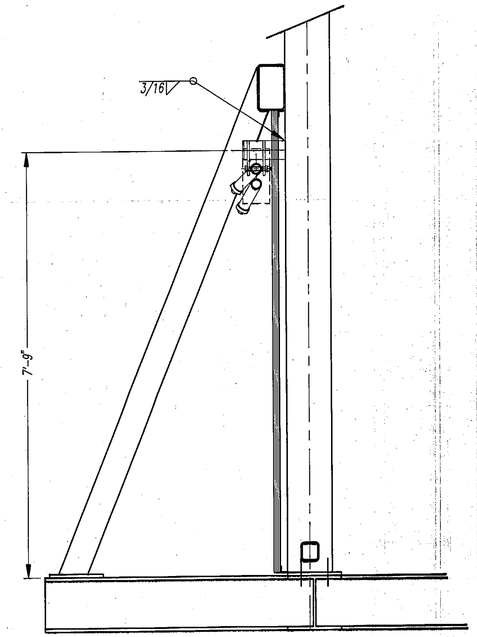


Typical Weight
(Approximately 10 Required)

POWER MAST DETAILS



Mast Mounting Details



Mast Mount Elevation

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

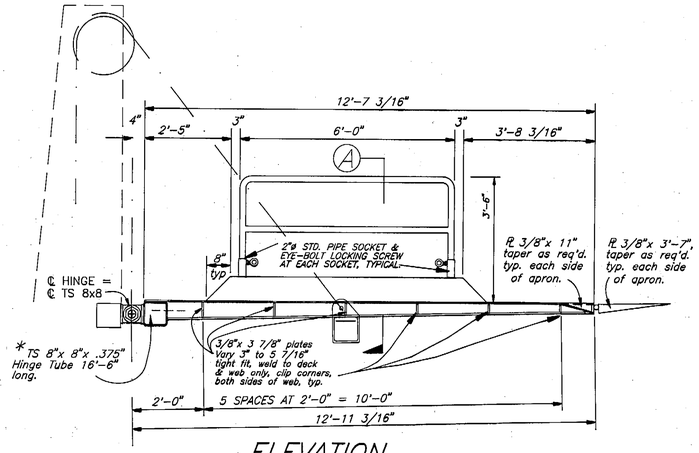
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KAKE ALASKA

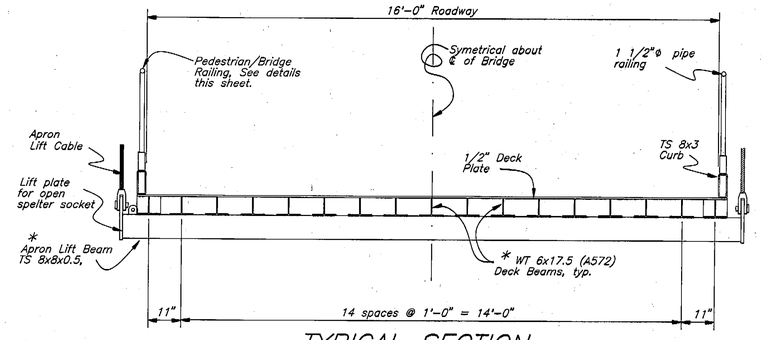
MISC. DETAILS

DESIGNED: BAS	CHECKED:	DRAWN: BAS	DATE: JAN 1994
PROJECT NUMBER: STP-0939(5)/75377		SHEET 9 OF 19	

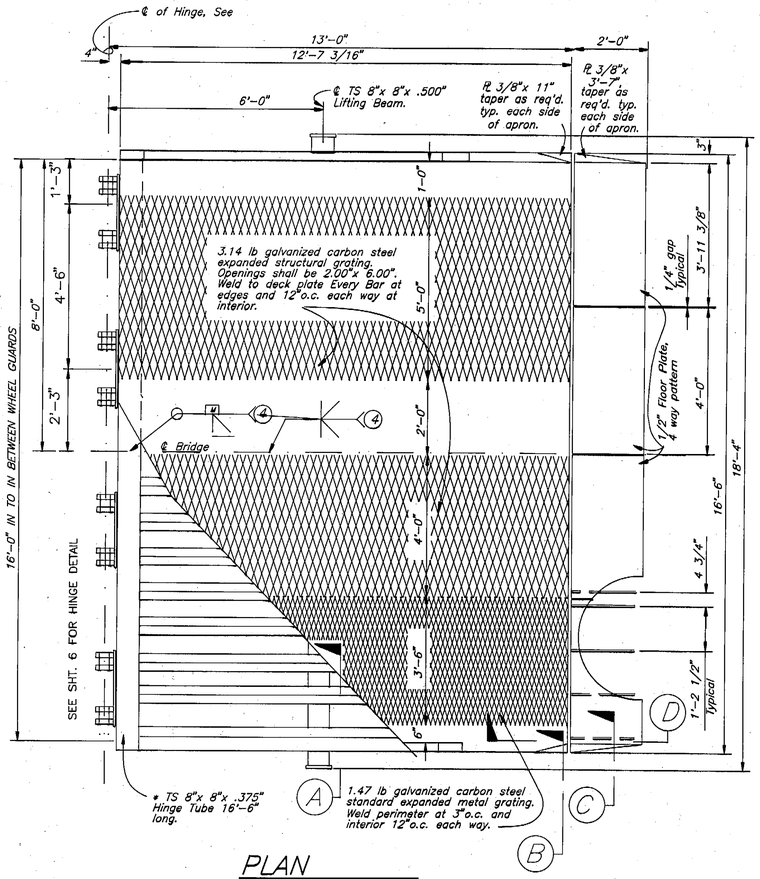
STATE OF ALASKA 49TH
Bern A. Sovikko
CE-6466
REGISTERED PROFESSIONAL ENGINEER
5-6-94
KAK-MSC2.DWG



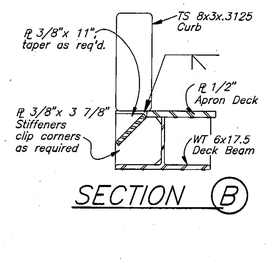
ELEVATION



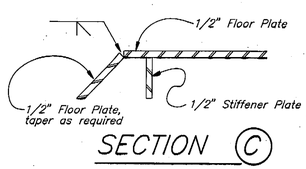
TYPICAL SECTION



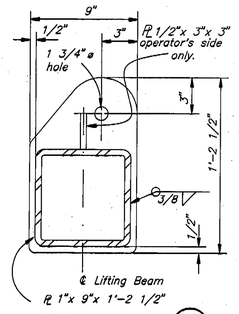
PLAN



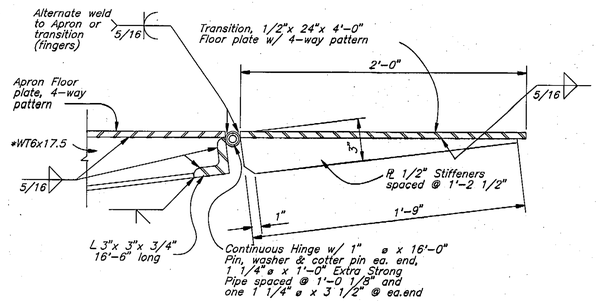
SECTION (B)



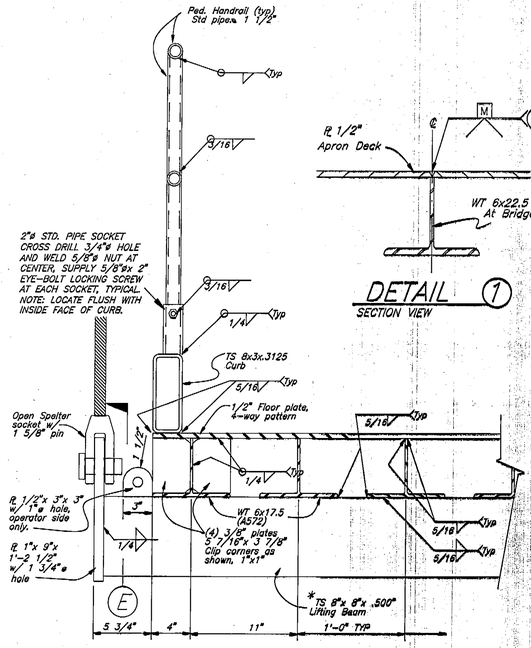
SECTION (C)



SECTION (E)



SECTION (D)



SECTION (A)

DETAIL (1)
SECTION VIEW

NOTES:
1. * Main members subject to tensile stress.
2. Galvanize after fabrication.
3. Close all open ended pipe or tubing with 1/4" Pl and seal weld.
4. Permissable welds for splice to allow galvanizing must be approved, See Detail (1). Submit any proposed sub-assembly procedures along with shop drawings for Engineer's approval.

STAMP

STATE OF ALASKA 49TH
Bern A. Sovikko CE-6466
REGISTERED PROFESSIONAL ENGINEER
5-6-94

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KAKE ALASKA

13 FT. APRON DETAILS

DESIGNED	STAFF	CHECKED	BAS	DRAWN	BN	DATE	FEB. 1994
PROJECT NUMBER	STP-0939(5)/75377			SHEET	10	OF	19

KAK-APR3

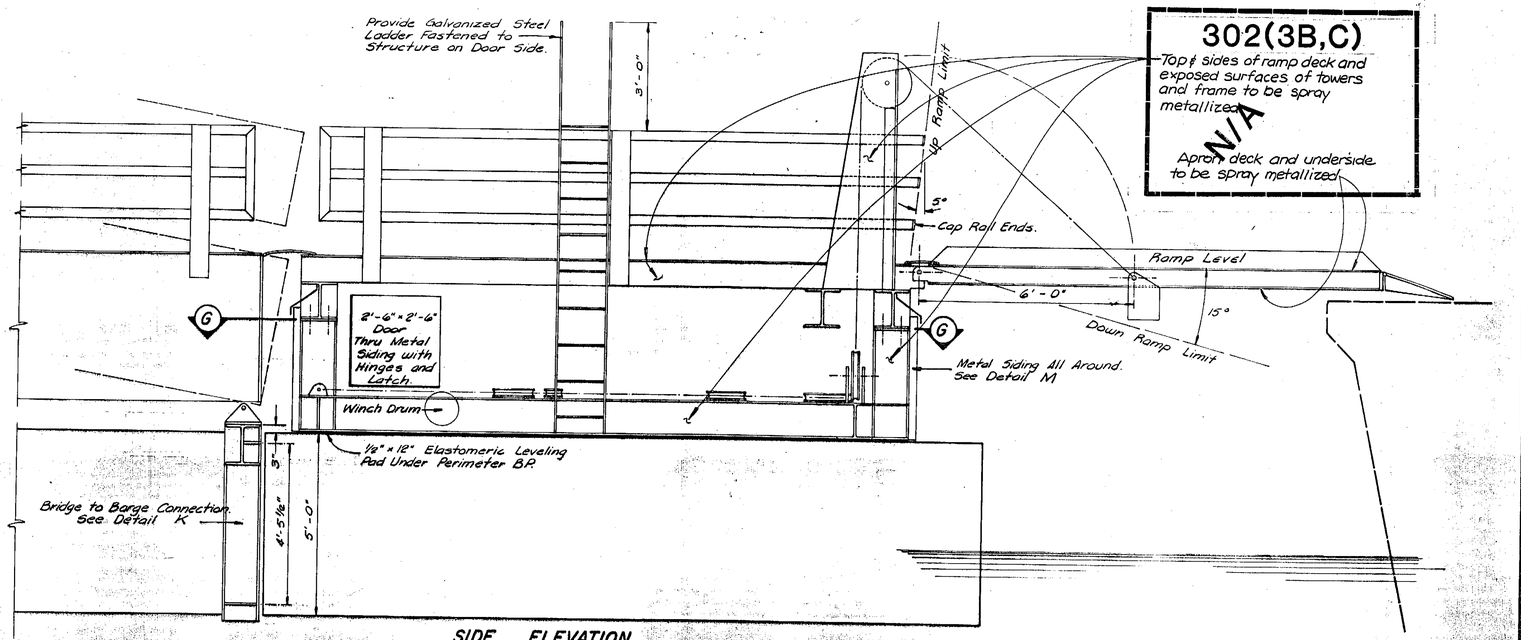
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA		1973	2K	2K

302(3B,C)

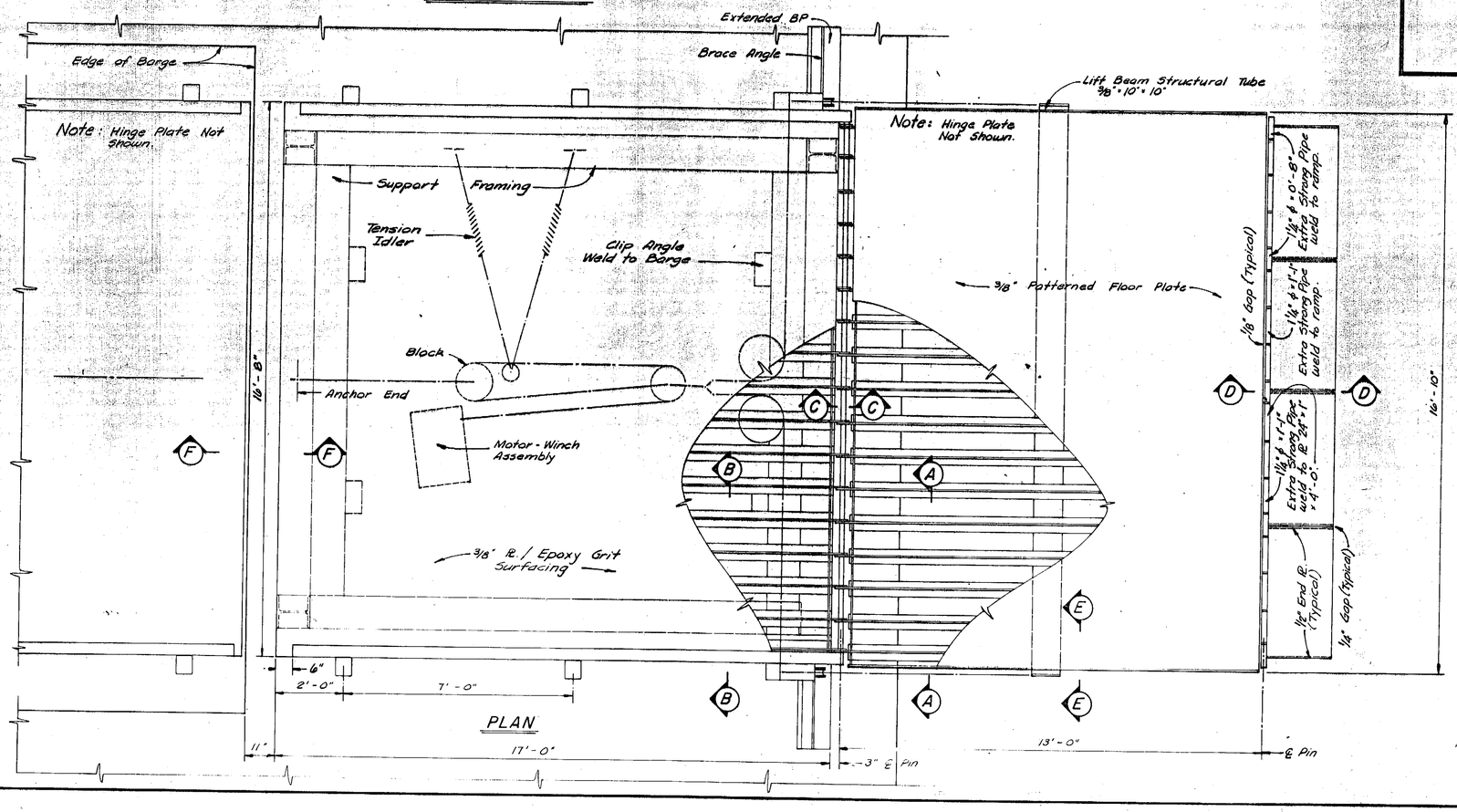
Top & sides of ramp deck and exposed surfaces of towers and frame to be spray metallized.

N/A

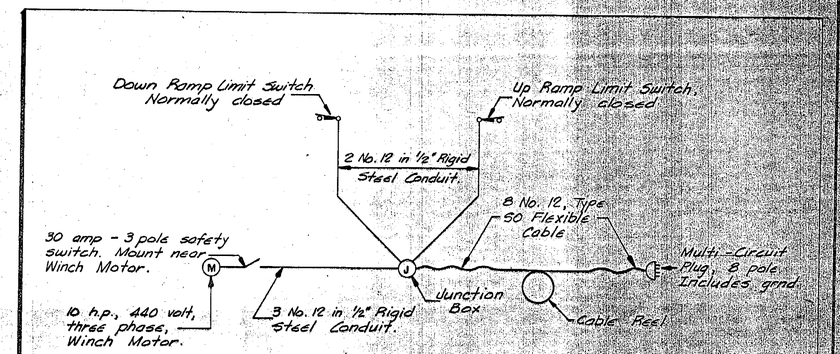
Apron deck and underside to be spray metallized.



SIDE ELEVATION



PLAN



1. All conduit to be plastic-coated.
2. Connection to motor to be in liquidtight flexible metal conduit.
3. All wiring to be in accordance with the latest edition of The National Electrical Code and all state and local codes.
4. Cable fittings required at all transition points.

SCHEMATIC ONE-LINE WIRING DIAGRAM

N.T.S. = Not To Scale

N/A

SEE ELECTRICAL DWGS SHTS 17-19

Ramp weight approx. 26,000 lbs.
Apron weight approx. 11,000 lbs.

AS-BUILT

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Kake, Alaska

EXISTING
KAKE & HOONAH RAMP SYSTEM DETAILS

DESIGNED	CHECKED	DRAWN	DATE
PROJECT NUMBER STP-0939(7537)		SHEET 17K OF 19	

KAKE & HOONAH FERRY TERMINALS
TRANSFER BARGE SUPERSTRUCTURE

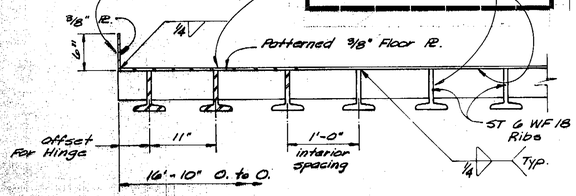
BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Pinewood Lane
Anchorage, Alaska 99503

STATE OF ALASKA 49TH — REGISTERED PROFESSIONAL ENGINEER — NO. 12048

DESIGNED BY	D.K.
DRAWN BY	S.P.M.
CHECKED BY	D.K.
SCALE	As Noted
DATE	
SHEET	OF

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA		1973	XX	XX

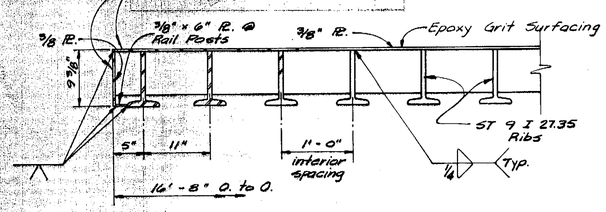
302(3B,C)
Spray metallize all sound



SECTION A-A

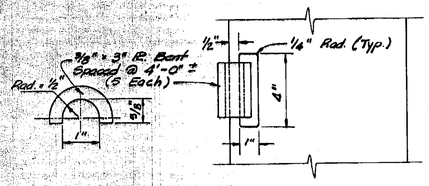
12 4 0 1 2
Inches Feet

302(3B,C)
Spray metallize deck & sides

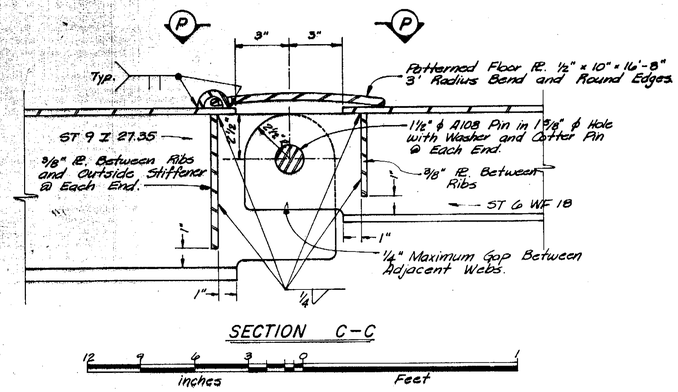


SECTION B-B

12 4 0 1 2
Inches Feet

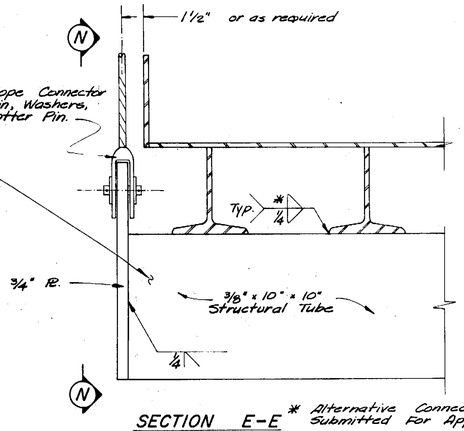


VIEW P-P



SECTION C-C

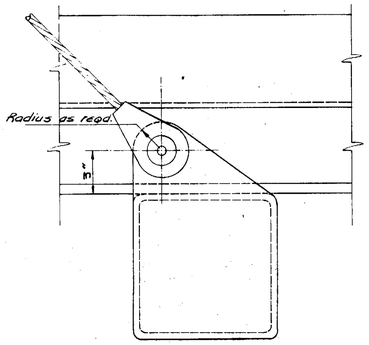
12 9 6 3 0
Inches Feet



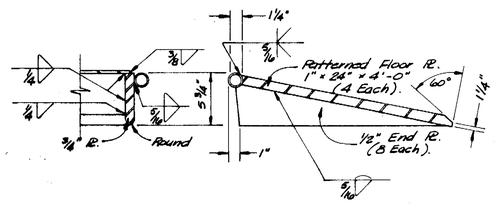
SECTION E-E

12 9 6 3 0 1
Inches Feet

* Alternative Connection May Be Submitted For Approval.

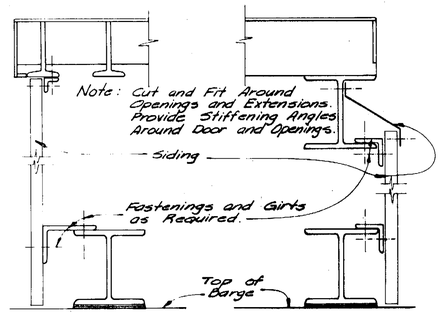


VIEW N-N



SECTION D-D

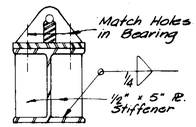
12 9 6 3 0 1
Inches Feet



SIDES ENDS

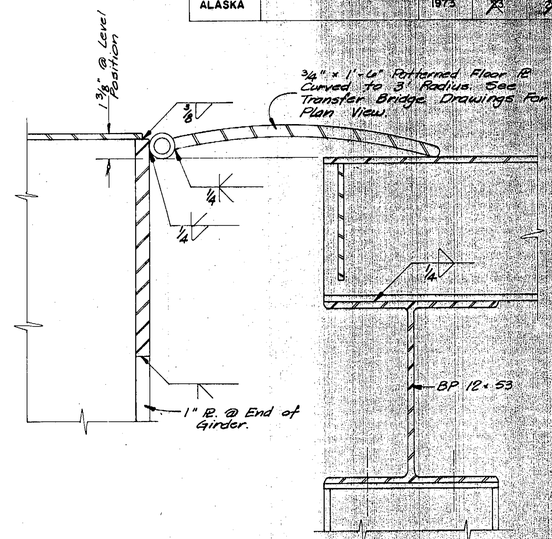
SIDING DETAIL M

12 4 0 1 2
Inches Feet



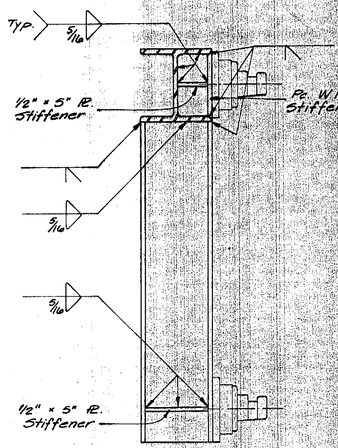
SECTION J-J

12 4 0 1
Inches Feet



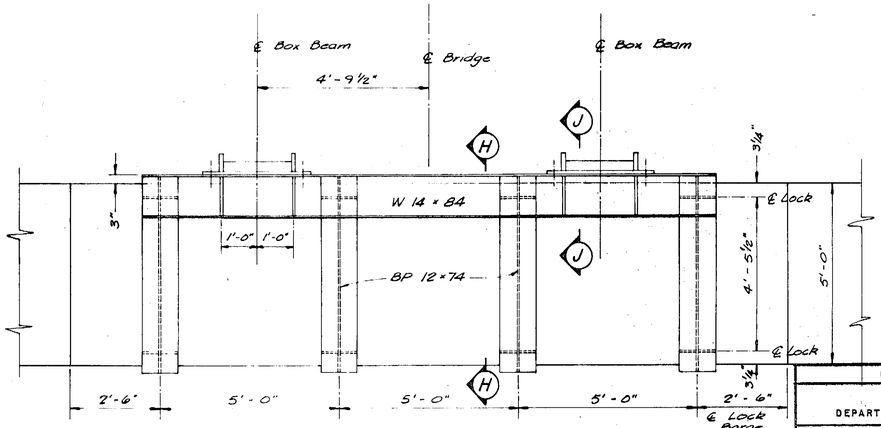
SECTION F-F

12 9 6 3 0
Inches Feet



SECTION H-H

12 9 6 3 0
Inches Feet



BARGE TO BRIDGE CONNECTION DETAIL K

12 4 0 1 2 3 4 6
Inches Feet

AS-BUILT

KAKE & HOONAH FERRY TERMINALS
SUPERSTRUCTURE DETAILS

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

DO NOT SCALE THIS DRAWING – USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

kake Alaska

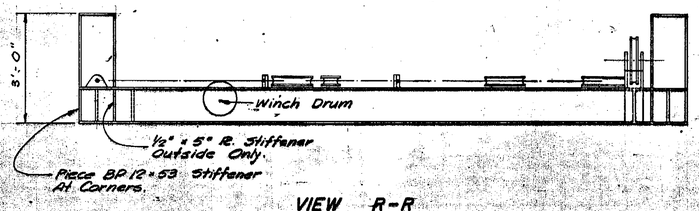
EXISTING SUPERSTRUCTURE DETAILS

DESIGNED	CHECKED	DRAWN	DATE
PROJECT NUMBER: STP-0939/75377	SHEET 12 OF 19		

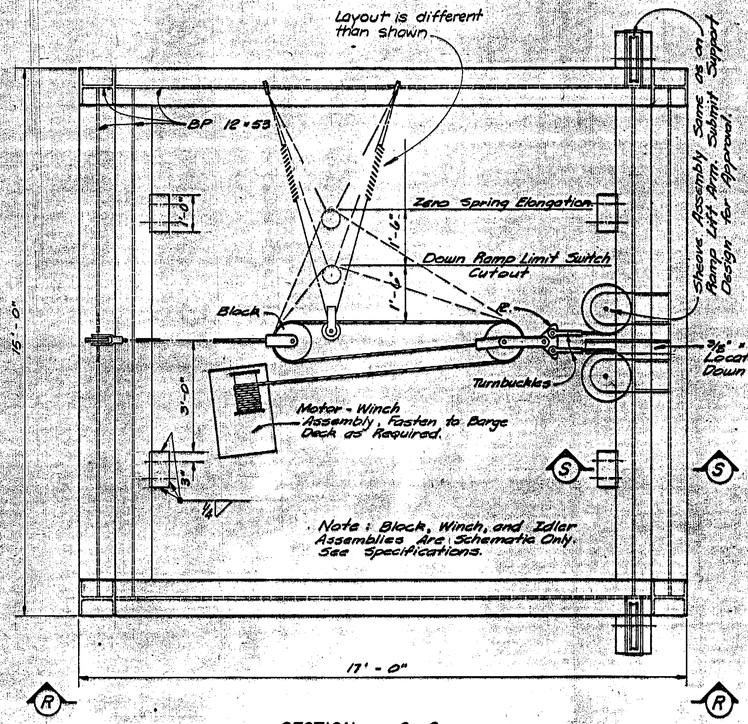
DESIGNED BY:	D. N.
DRAWN BY:	S. B. L.
CHECKED BY:	G. C. S.
SCALE:	As Noted
DATE	
SHEET	OF

ALASKA 1204-E REGISTERED PROFESSIONAL ENGINEER

Welding Notes: Bevel Weld All BP Flange to Flange Connections and 1/4" Fillet Weld Each Side Web Connections or Equivalent.

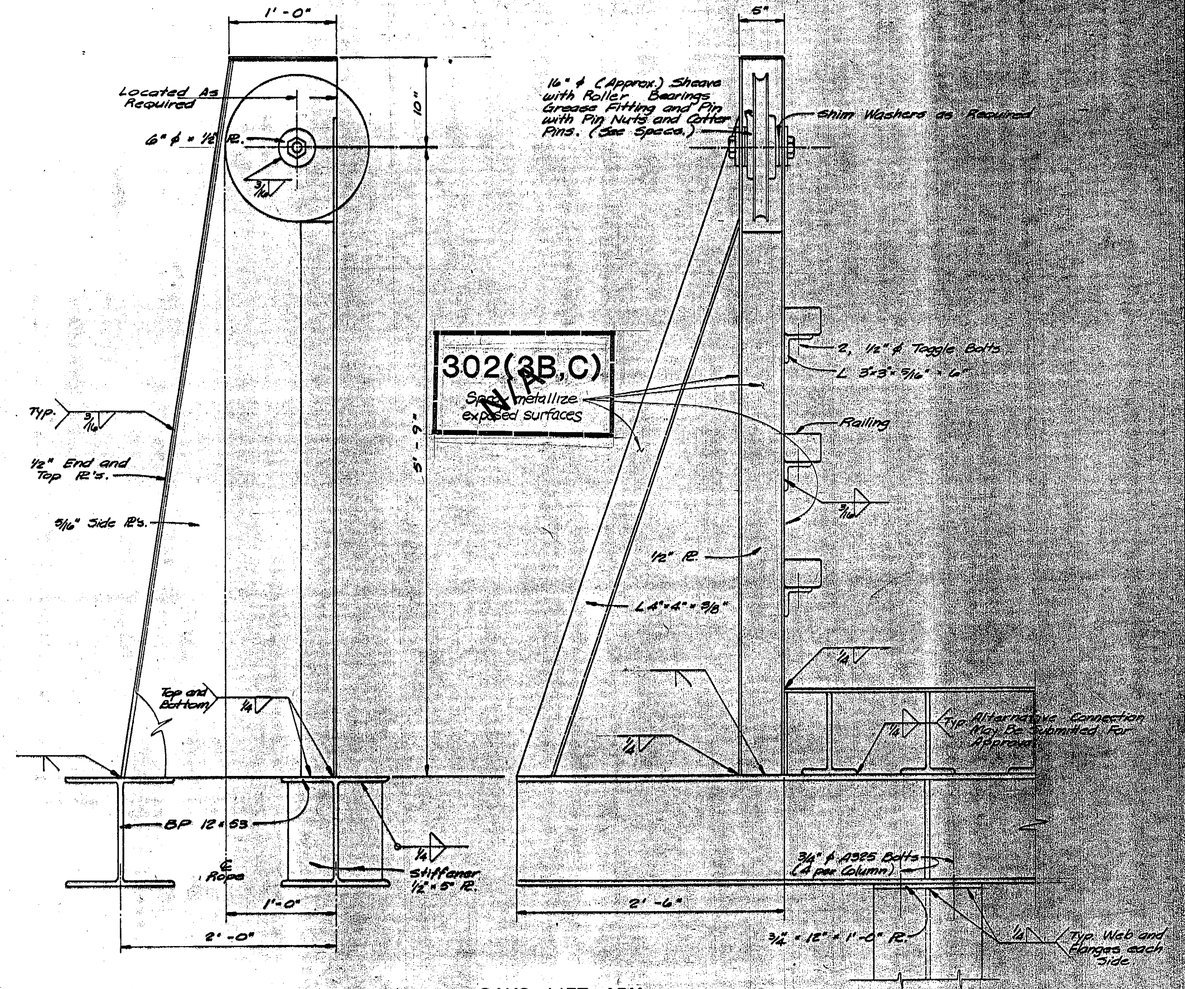


VIEW R-R



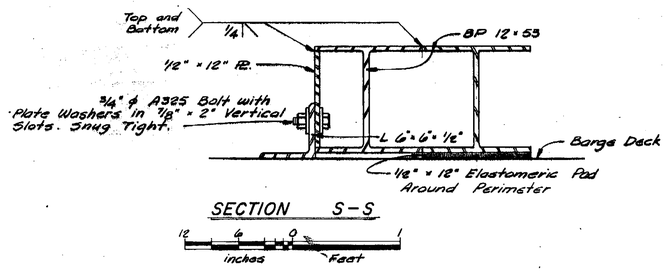
SECTION G-G

12 0 1 2 3 4 5
inches Feet



RAMP LIFT ARM

12 9 6 3 0 1 2 3 4
inches Feet



SECTION S-S

12 4 0 1
inches Feet

AS-BUILT

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA		1973	14	19

DO NOT SCALE THIS DRAWING — USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Kake Alaska

EXISTING
RAMP LIFT DETAILS

DESIGNED	CHECKED	DRAWN	DATE
PROJECT NUMBER STP-0939/75377	SHEET 13 OF 19		

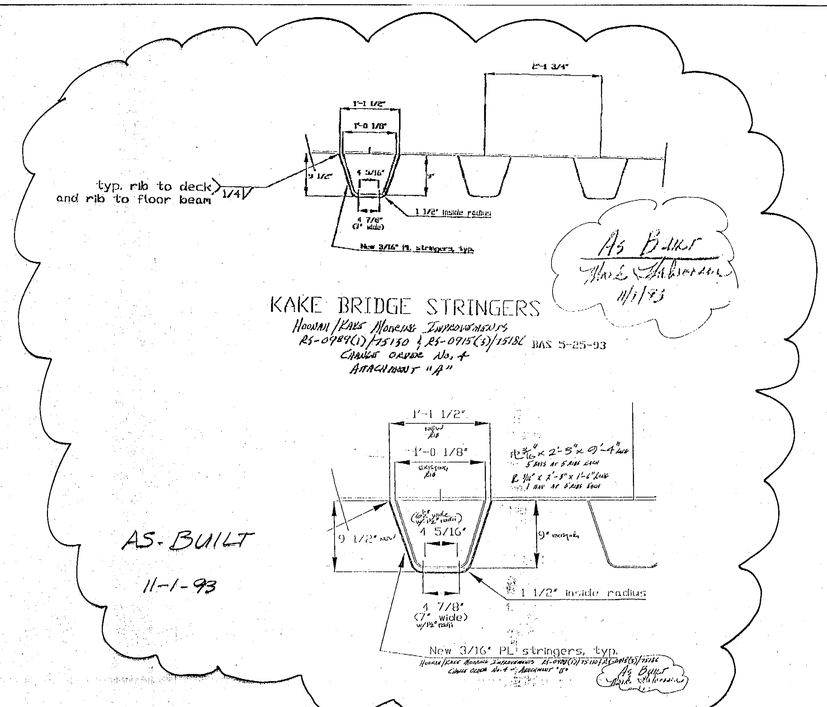
KAKE & HOONAH FERRY TERMINALS

RAMP LIFT DETAILS

BOMHOFF & ASSOCIATES
Engineering and Surveys
1020 West Fireweed Lane
Anchorage, Alaska 99503

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER NO. 1204-E

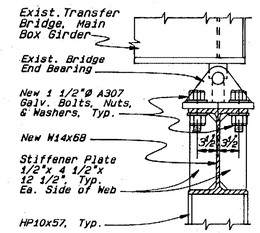
DESIGNED BY	D. N.
DRAWN BY	S.B.L.
CHECKED BY	D. N.
SCALE	As Noted
DATE	
SHEET	OF



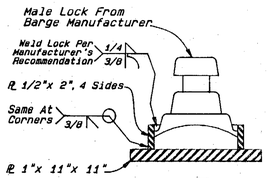
KAKE BRIDGE STRINGERS

Houston 1/Lake Monroe Improvements
RS-0989(1)/75150 & RS-0915(3)/15158 BAS 5-25-93
Change Order No. 4
Attachment "A"

As Built
11/1/93

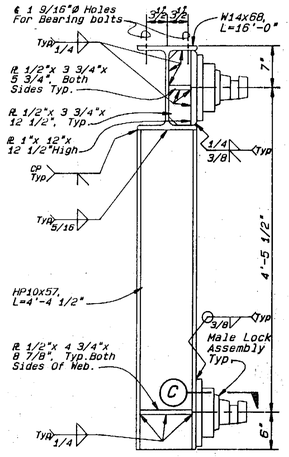


SECTION (B)



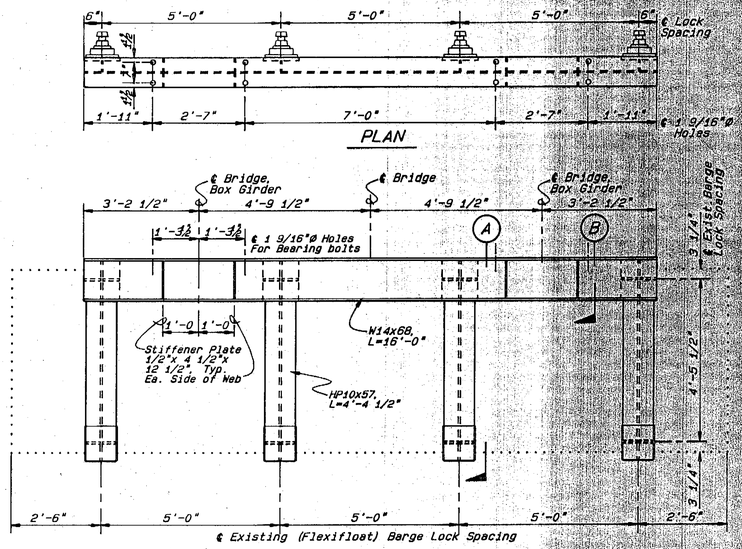
SECTION (C)

MALE LOCK ASSEMBLY



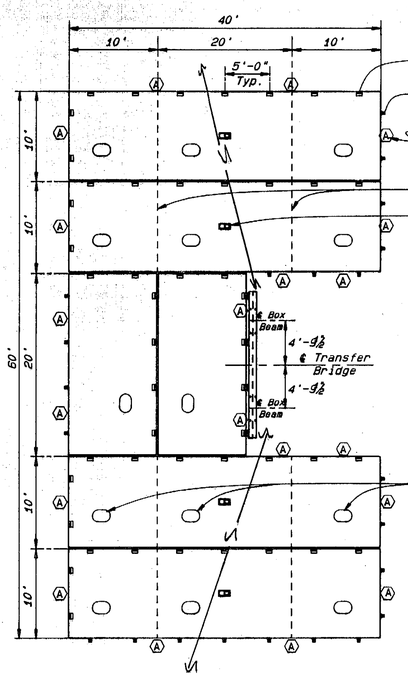
SECTION (A)

NOTE: Existing Barge Units Are Flexifloat S-50 Series From:
Robishaw Engineering, Inc.
P.O.Box 19246
Houston, Texas 77224
Phone (713) 468-1706



ELEVATION

NEW BRIDGE-BARGE CONNECTION @ KAKE



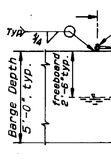
Female Lock Assembly, Typ.
See Manufacturer For Details

Male Lock Assembly, Typ.
See Manufacturer For Details

Approximate Location Of New Anodes.
A Total Of 20 Anodes Are Required,
4 On Ea. 40'Unit & 2 On Ea. 20'Unit.

Watertight Bulkhead (2 per 40'unit)

Lifting Lug, Typ. (at center of unit)



ANODE DETAIL

Approximate Location Of Access Hatches. Locate Between Deck Beams (See Mfg'r.) And Away From Structures Mounted On The Barge Deck. See Note This Sht.

ACCESS HATCHES: New Access Hatches shall be Baier oval, flush, plain, type"C" commercial, aluminum w/ galv. steel rim or equal and installed per manufacturer's recommendations.

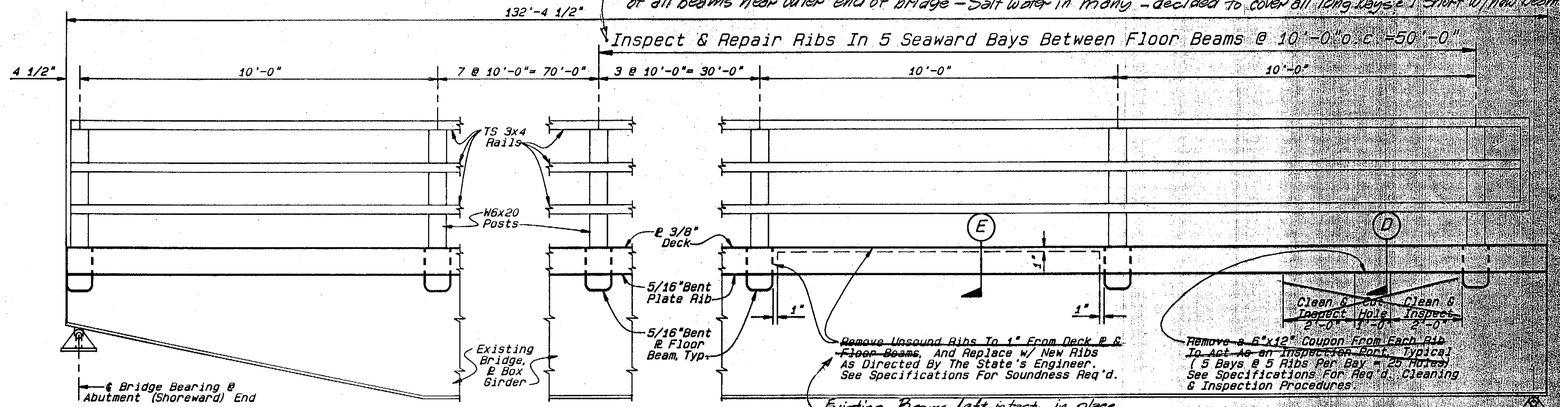
BALLAST: Barge System shall be ballasted to 2'-6" freeboard all around with all structures installed.

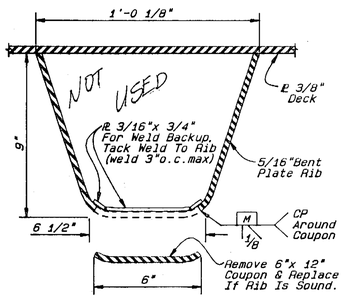
COATING SYSTEM: Coating system for barge units shall be per Spec. Section 303.

BARGE UNITS: Barge Units are Flexifloat S-50 Series from: Robishaw Engineering, Inc.
P.O.Box 19246
Houston, TX 77224
Ph: (713) 468-1706

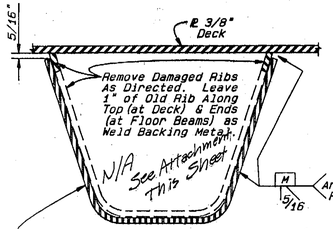
NEW BARGE SYSTEM LAYOUT

Some existing ribs had so much scale inside them, hole couldn't be cut on bottom w/torch.
Areas of rust and scale observed on bottom of existing surfaces of some beams- small holes cut in bottoms of all beams near outer end of bridge - Salt water in many - decided to cover all long bays & short w/new beams.





SECTION (D)



SECTION (E)

AS-BUILT

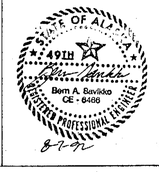
HNHKAK10

TRANSFER BRIDGE RIB INSPECTION & REPAIR

Longitudinal Section Along ℄ Existing Transfer Bridge

Rust spots showing in areas of all bridge members - Salt water in all crossbeam deck members on outer half of bridge - coming out of holes drilled for electrical conduit.
NOTE: Existing bridge has a spray metallized zinc coating.
Repair damaged coating ~~with spray metallized zinc to 6 mils per Section 302.~~
Zinc Stick method used as per approved request.

STAMP



DO NOT SCALE THIS DRAWING - USE DIMENSIONS

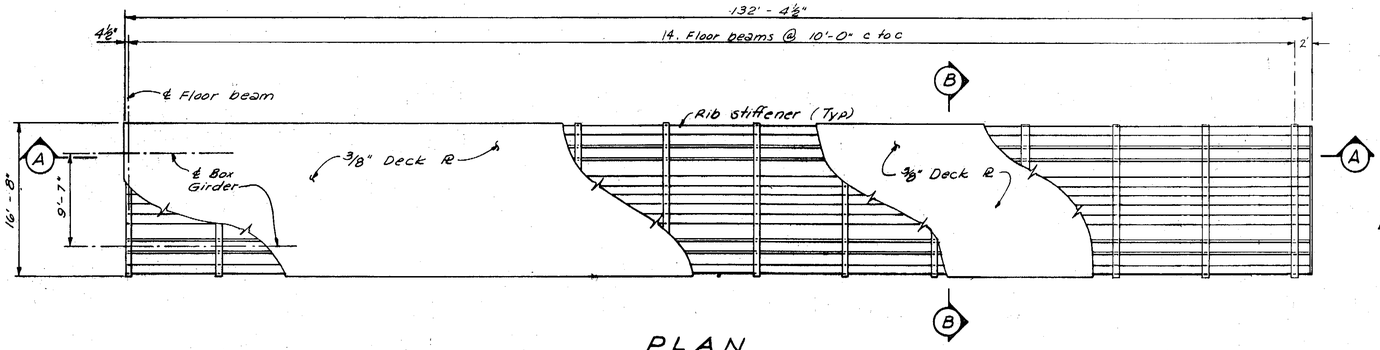
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KAKE ALASKA

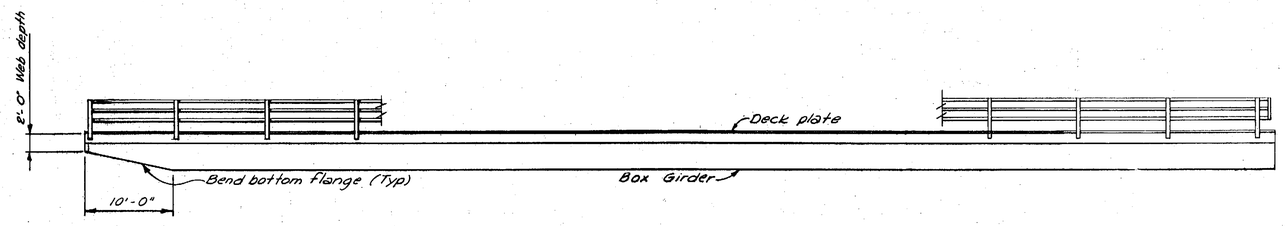
KAKE
BRIDGE REPAIR & BARGE DETAILS

DESIGNED	CHECKED	DRAWN	DATE
BS	JS	WN	

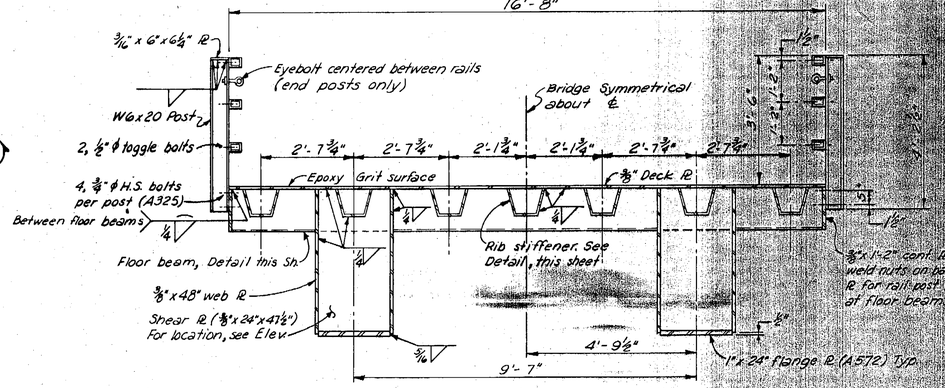
PROJECT NUMBER STP-0939/75377 SHEET 14 OF 19



PLAN
3/8" = 1'-0"

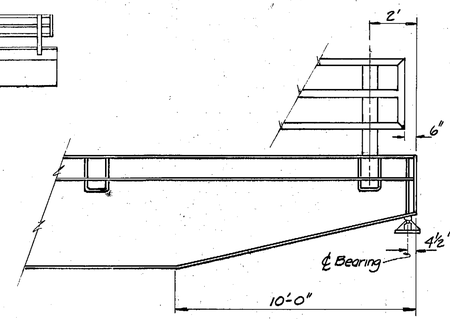


ELEVATION
3/8" = 1'-0"

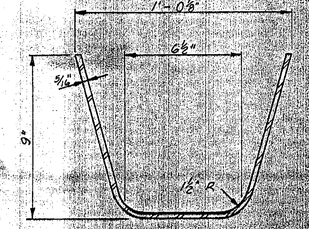


Note: Notch girder web plates for floor beams. Notch floor beams and shear plates (where applicable) for rib stiffeners.

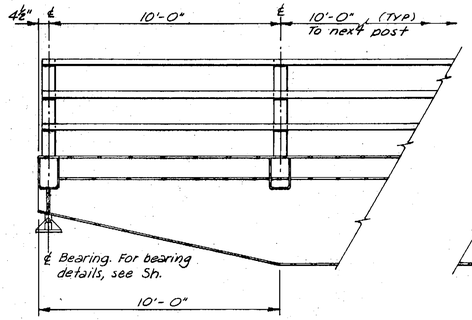
SECTION B-B
½" = 1'-0"

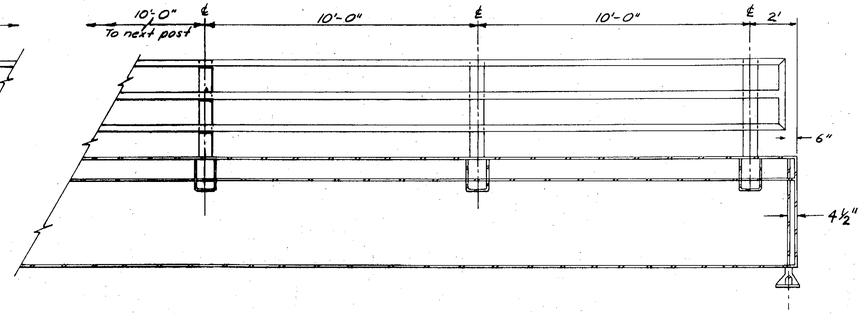


BARGE END of TRANSFER BRIDGE @ ANGOON

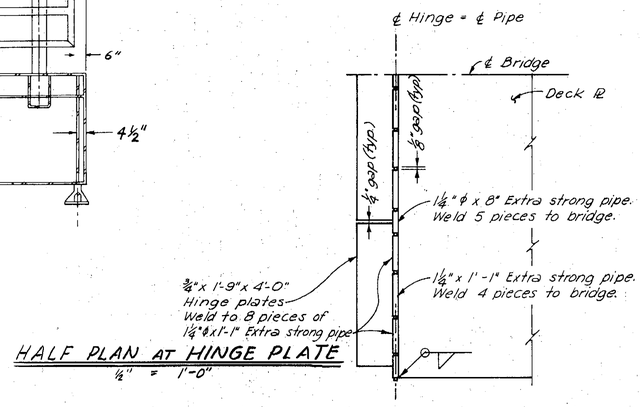


RIB DETAIL
3" = 1'-0"

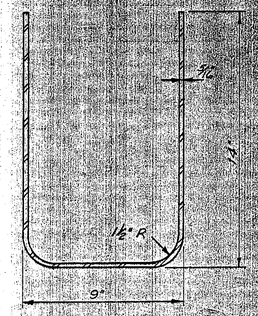




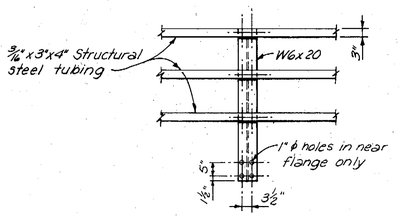
SECTION A-A
3/8" = 1'-0"



HALF PLAN AT HINGE PLATE
½" = 1'-0"



FLOOR BEAM DETAIL
3" = 1'-0"



RAIL AND POST DETAIL
½" = 1'-0"

HALF PLAN AT HINGE PLATE
½" = 1'-0"

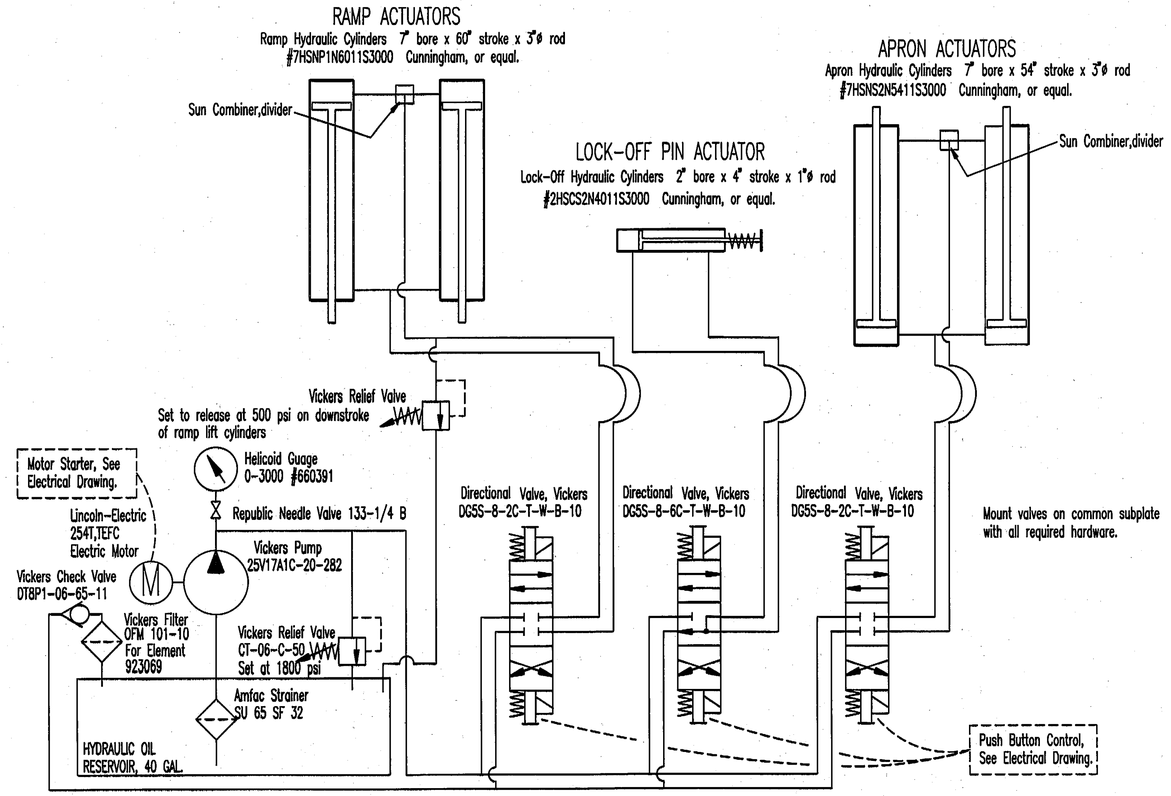
AS-BUILT

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	~~FAP~~ PS 0926 (2)	1976	15	17

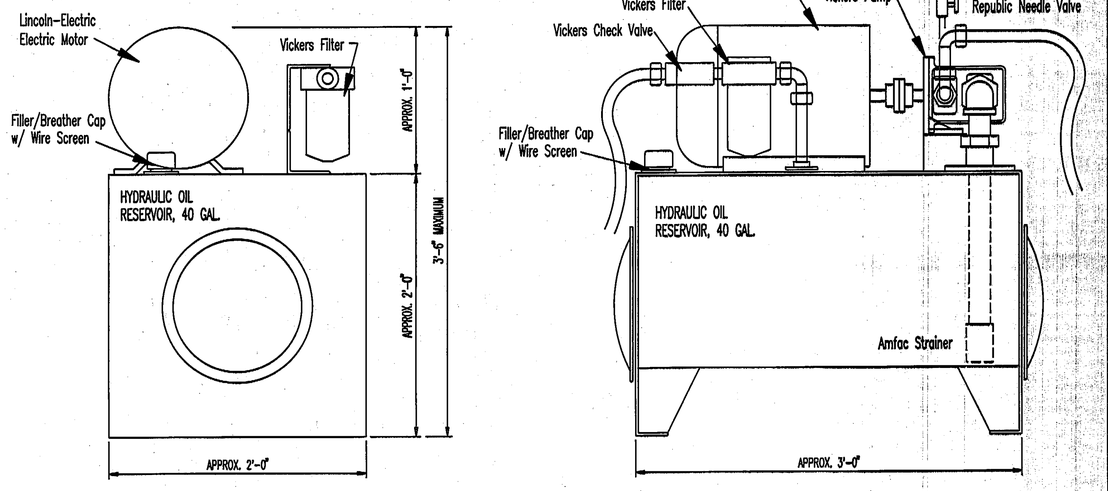
Kake — Alaska

EXISTING
TRANSFER BRIDGE DETAILS

SCALE	SURVEYED	APPROVED
DESIGNED	DRAWN	DIRECTOR
CHECKED	DATE	
PROJECT NUMBER STP-0939(7)377	SHEET 15 OF 17	



HYDRAULIC SCHEMATIC



HYDRAULIC POWER UNIT

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

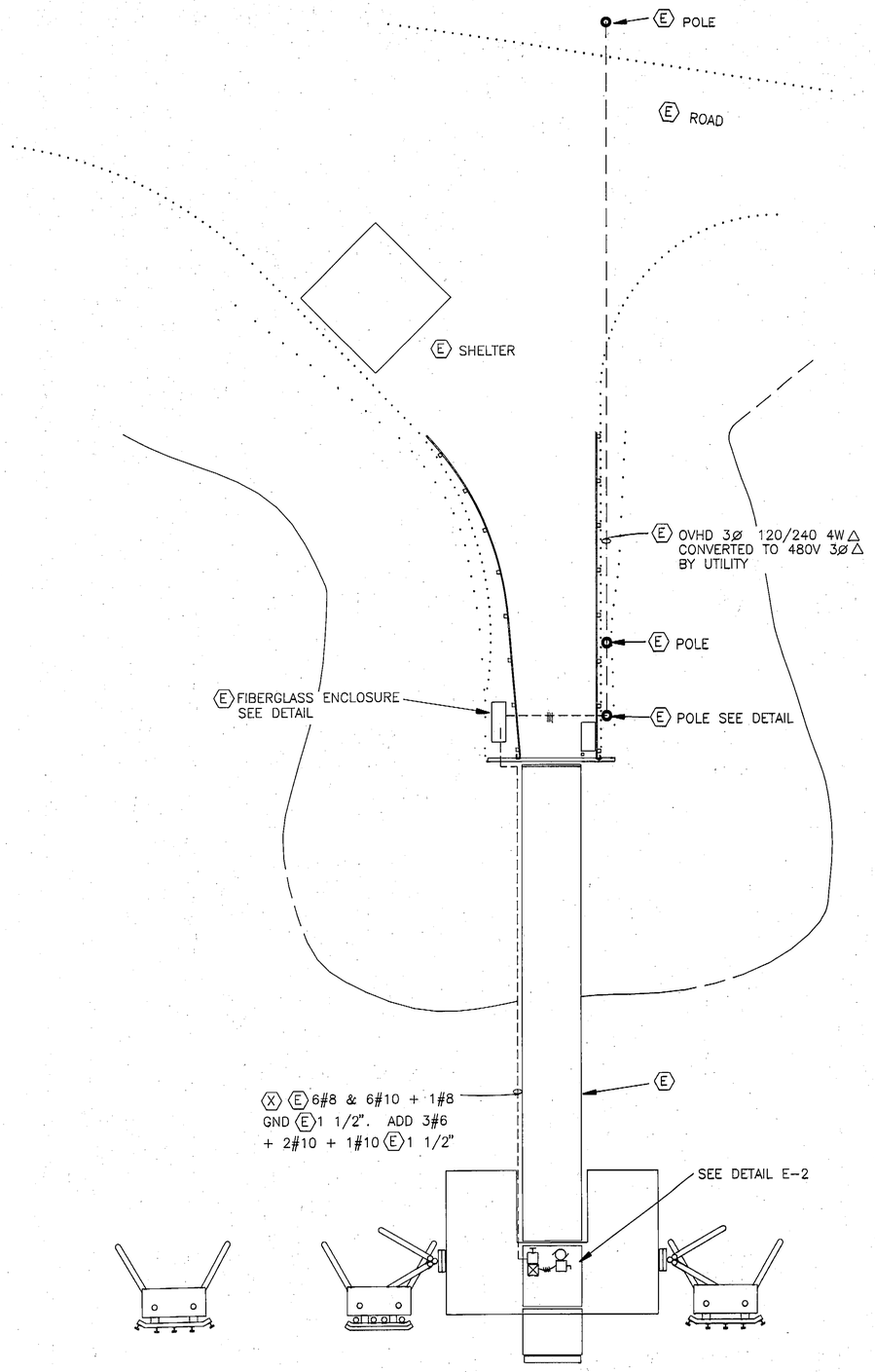
KAKE ALASKA

HYDRAULIC SCHEMATIC

DESIGNED: STAFF	CHECKED: BAS	DRAWN: BN	DATE: FEB, 1994
PROJECT NUMBER: STP-0939(5) 75377		SHEET 16 OF 19	

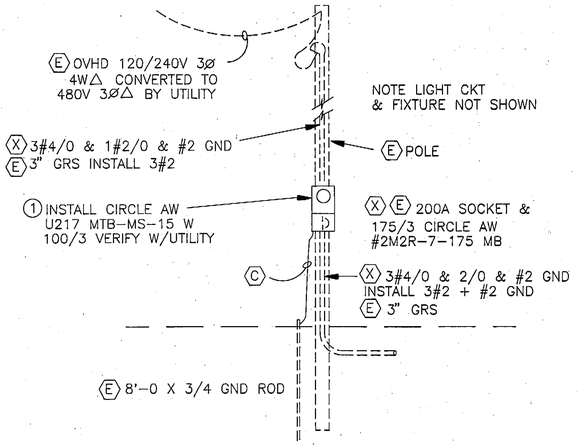
STATE OF ALASKA 49TH
Sam A. Sanidas
CE-6466
REGISTERED PROFESSIONAL ENGINEER
5-6-94

KAK-HYD



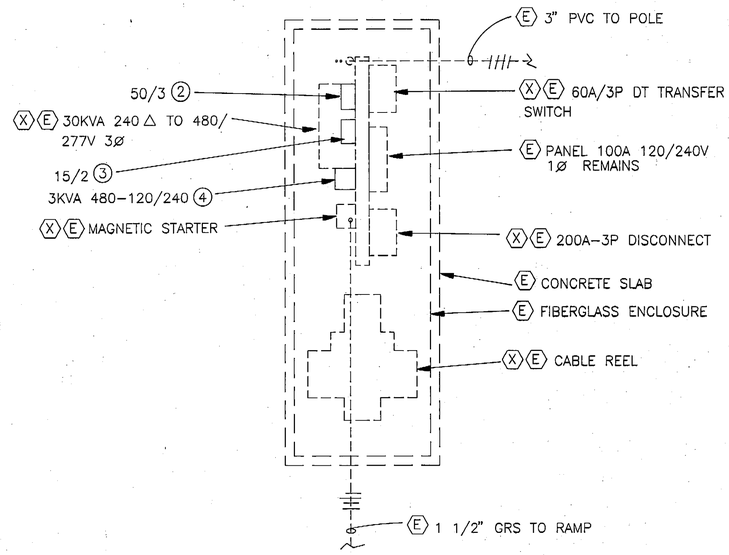
SITE PLAN

1" = 20'



POLE DETAIL

NO SCALE



FIBERGLASS ENCLOSURE DETAIL

NO SCALE

LEGEND

- ELECTRIC MOTOR
- (J) JUNCTION
- (E) EXISTING
- (X) REMOVE
- (C) CONNECT
- (2) NOTE 2
- MAGNETIC STARTER
- DISCONNECT
- TRANSFER SWITCH
- (1) EQUIPMENT NUMBER
- $(S)_3$ HYDRAULIC SOLENOID #3
- RELAY CONTACT NORMALLY OPEN
- RELAY CONTACT NORMALLY CLOSED
- NEW CONDUIT & WIRE 3/C
- EXISTING CONDUIT & WIRE
- EXISTING CONDUIT & *NEW WIRE 3/C*
- OVERHEAD WIRING BY OTHERS
- OL OVERLOAD PROTECTION
- OVHD OVERHEAD
- GRS GALVANIZED RIGID STEEL
- RECEPTACLE

EQUIPMENT SCHEDULE

NUMBER	ITEM	REMARKS
(1)	METER CIRCLE AW 217-MTB-MS-15 & 100/3	VERIFY WITH UTILITY
(2)	CIRCUIT BREAKER 50/3 SQD FA 100DS	NEMA 4X 480V
(3)	CIRCUIT BREAKER 15/2 SQD FA 100DS	NEMA 4X 480V
(4)	3KVA TIERNEY XCL103-BW13H115-COT	480V 1Ø TO 120/240V 1Ø
(5)	TRANSFER SW. SQ D 82342DS-DT100SG-4X	60A-3P D.T. LOCKABLE ON-OFF-ON
(6)	MAGNETIC STARTER SQ D SDO-2-F4T	SEE DETAIL *E-3*
(7)	DISCONNECT SQ D HU362DS 60-3P 4X	
(8)	PENDANT CONTROL	SEE DETAIL *E-3*

E-1

STAMP

STATE OF ALASKA 49TH Leonard P. Lowell No. 553-E REGISTERED PROFESSIONAL ENGINEER

KAK-E-1.DWG

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

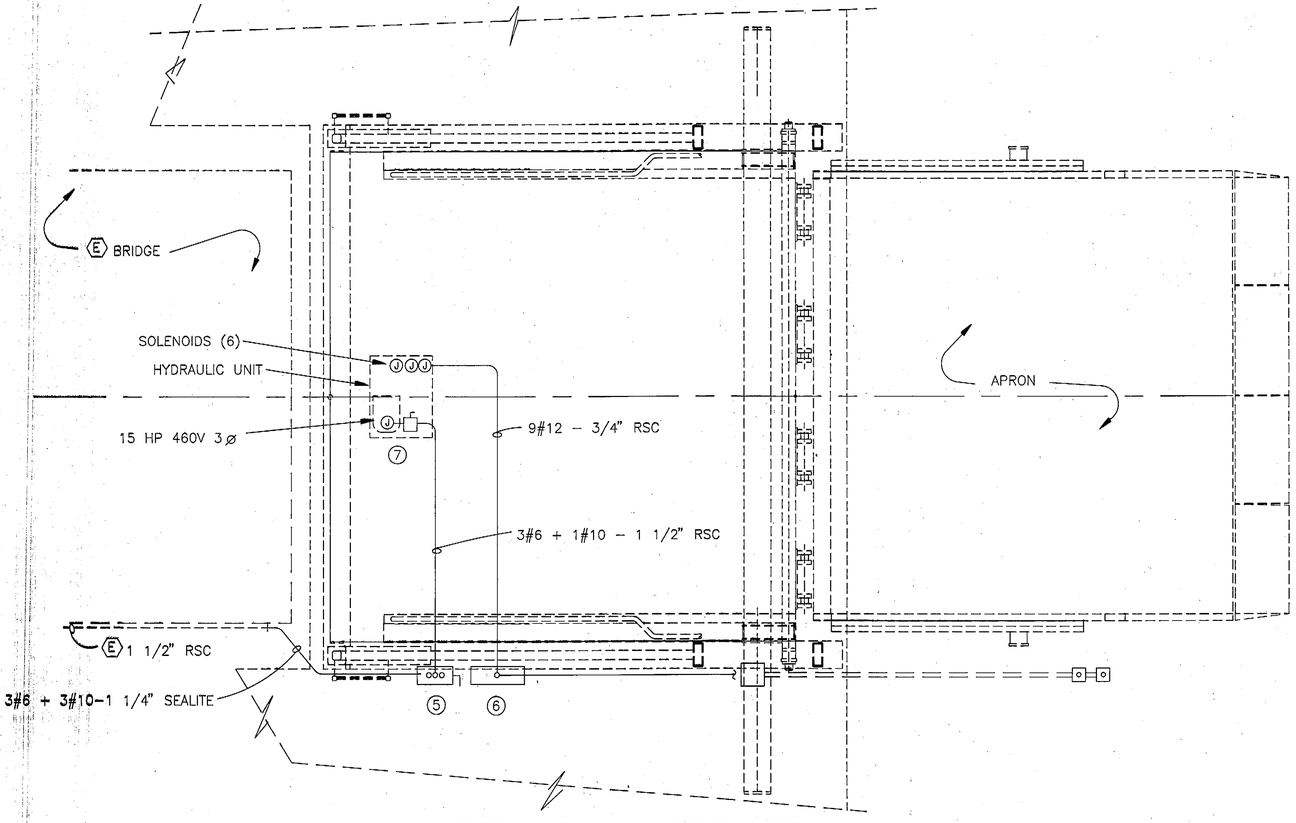
KAKE ALASKA

ELECTRICAL

DESIGNED:	CHECKED:	DRAWN:	DATE:
LPL		LPL/BAS	MARCH 1994

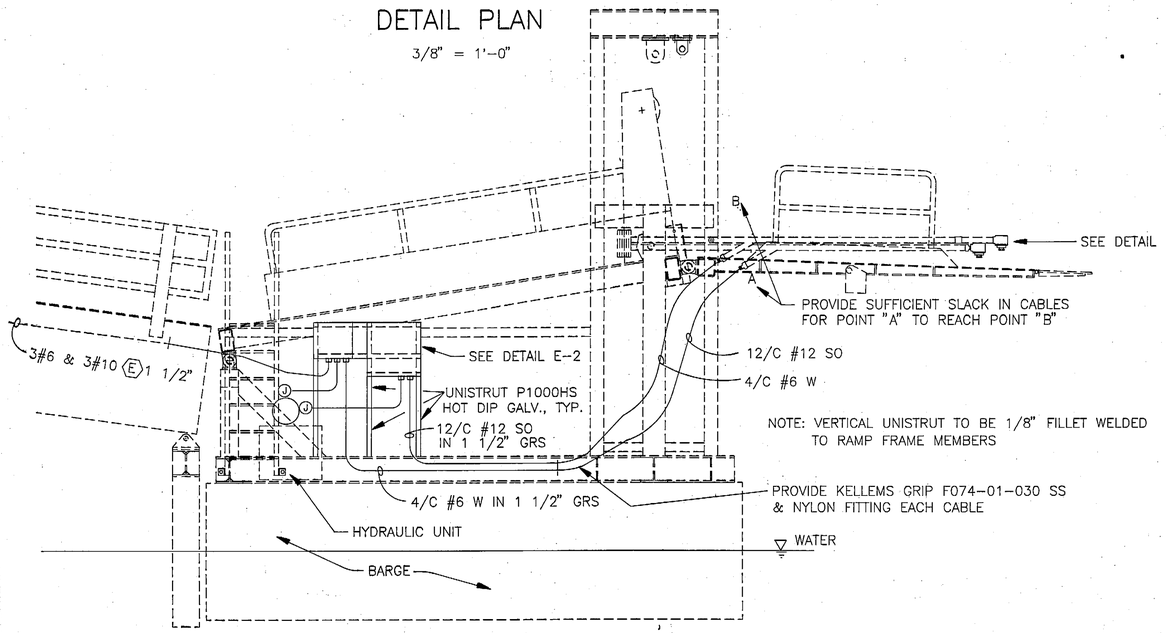
PROJECT NUMBER: STP-0939(5)/75377

SHEET 17 OF 19



DETAIL PLAN

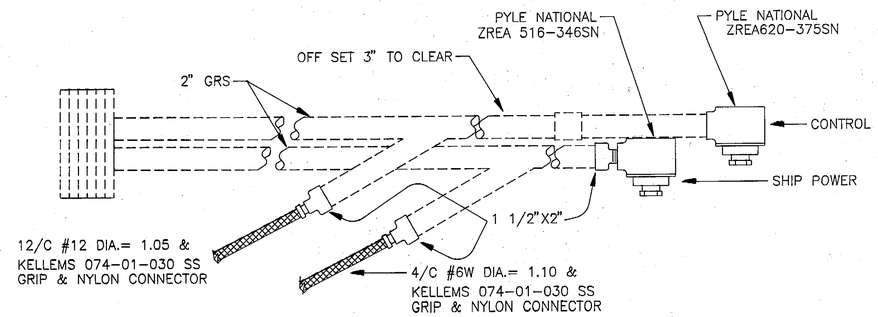
3/8" = 1'–0"



NOTE: VERTICAL UNISTRUT TO BE 1/8" FILLET WELDED TO RAMP FRAME MEMBERS

DETAIL ELEVATION

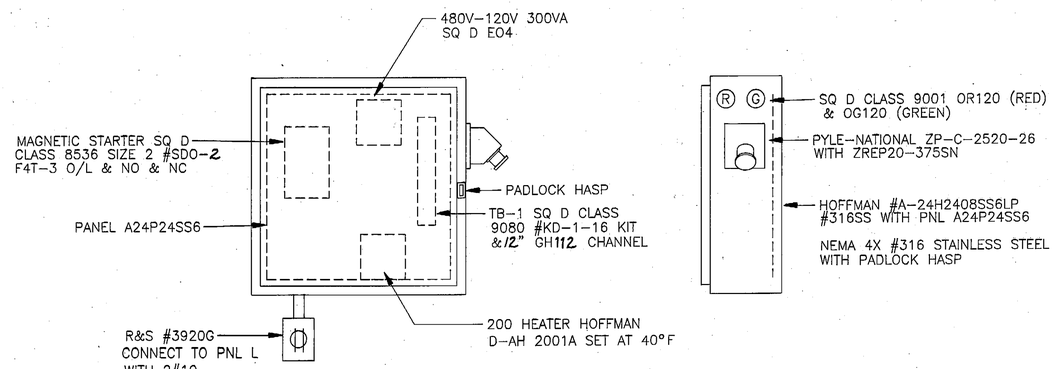
3/8" = 1'–0"



MAST DETAIL

1 1/2" = 1'–0"

(SEE SHEET 9 FOR MAST STRUCTURAL DETAILS)



⑥ CONTROL ENCLOSURE

1 1/2" = 1'–0"

E–2

STAMP

STATE OF ALASKA 49TH Leonard P. Lowell No. 553–E REGISTERED PROFESSIONAL ENGINEER

KAK–E–2.DWG

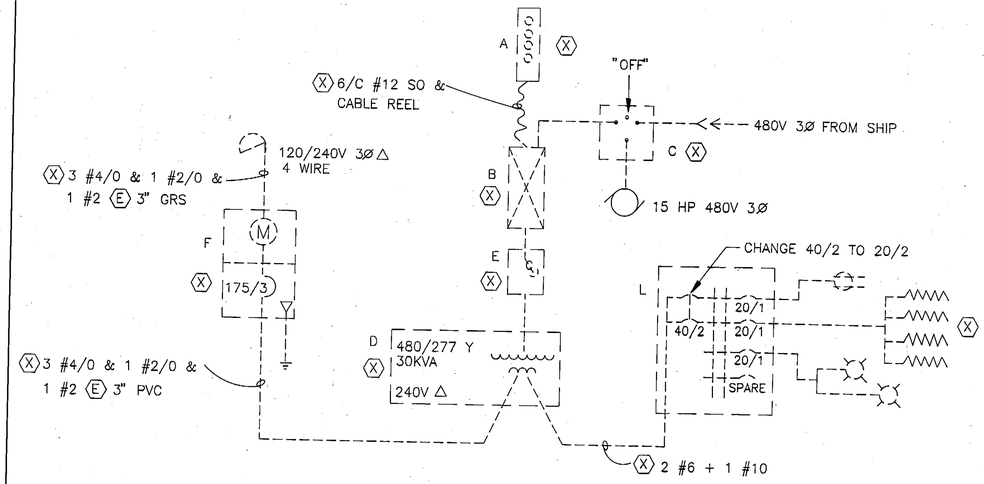
DO NOT SCALE THIS DRAWING – USE DIMENSIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KAKE ALASKA

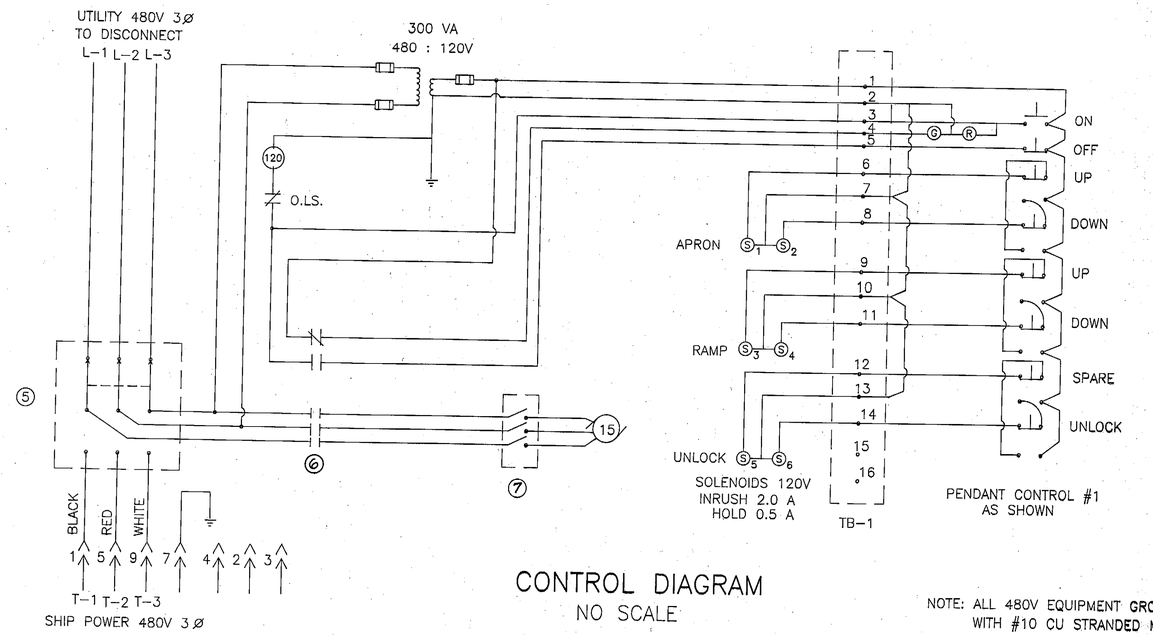
ELECTRICAL

DESIGNED: LPL	CHECKED:	DRAWN: LPL/BAS	DATE: MARCH 1994
PROJECT NUMBER: STP–0939(5)/75377		SHEET 18	OF 19



EXISTING ONE LINE DIAGRAM

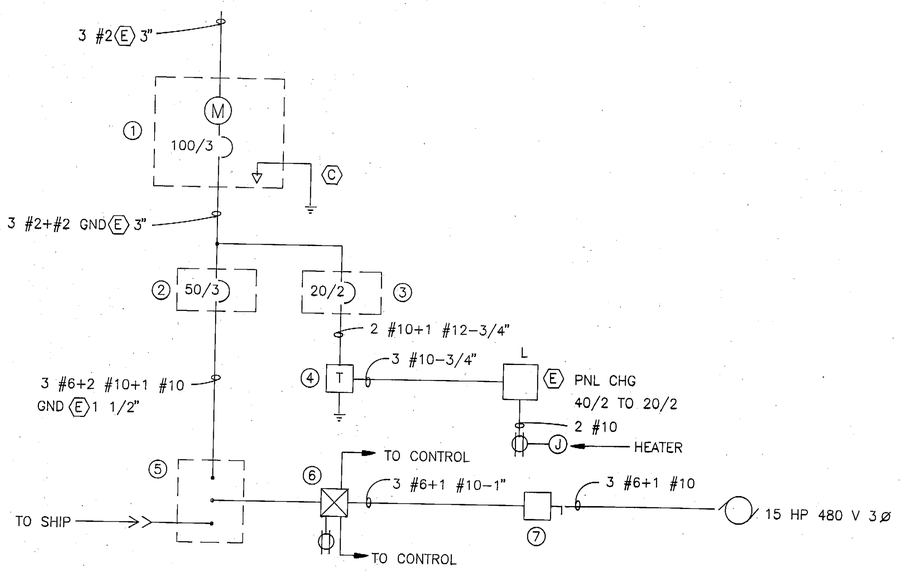
NO SCALE



CONTROL DIAGRAM

NO SCALE

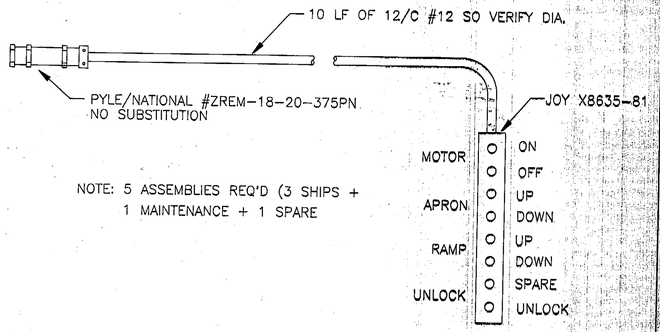
NOTE: ALL 480V EQUIPMENT GROUNDED WITH #10 CU STRANDED MINIMUM



REVISED ONE LINE DIAGRAM

NO SCALE

EXISTING EQUIPMENT SCHEDULE		
TYPE	DESCRIPTION	MANUFACTURER
A	4-button control console	Joy Flextite X 8635-41B
B	Magnetic starter, size 2, NEMA 4X Auxiliary contacts	A-B 509-CSD-6PX 595 A-B: (3) FORM C, (1) NO, (3) Heaters
C	Transfer Switch: NEMA 4X encl. 60A, 3 poles.	Square D #82342DS-E1 with #H60LBA Lockable "Off"
D	Transformer: 240△: 480Y/277	SQ D 30T*HNB
E	Fused disconnect switch: 200A 4-wire, NEMA 4X	Square D #H364NDS
F	Meter Socket w/175A/3 pole brkr	Circle A-W: #2M2R-7
G	(4) Equipment strip heaters: 120V, 250W	Chromalox #OT-1202, 129728
H	Fiberglass enclosure	Kearney Powerglass #135-6
I	Cable reel	Aero-motive Pow-R-Matic #2340-60-306 (200')
J	Junction Box: NEMA 4X	A-B #1450-SA1
K	Street lamp, non-cutoff type II dist, Lexan cover	GE #M2AR15S1N2LMN21
L	Panelboard, 100A main lugs, NEMA 3R, 12 single poles	Square D #NQOD12L100CU, MH20WP MH20TK



NOTE: 5 ASSEMBLIES REQ'D (3 SHIPS + 1 MAINTENANCE + 1 SPARE

⑧ PENDANT ASSEMBLY

1 1/2" = 1'-0"

E-3

STAMP

STATE OF ALASKA 49TH
Leonard P. Lowell
No. 553-E
REGISTERED PROFESSIONAL ENGINEER

KAK-E-3.DWG

DO NOT SCALE THIS DRAWING - USE DIMENSIONS

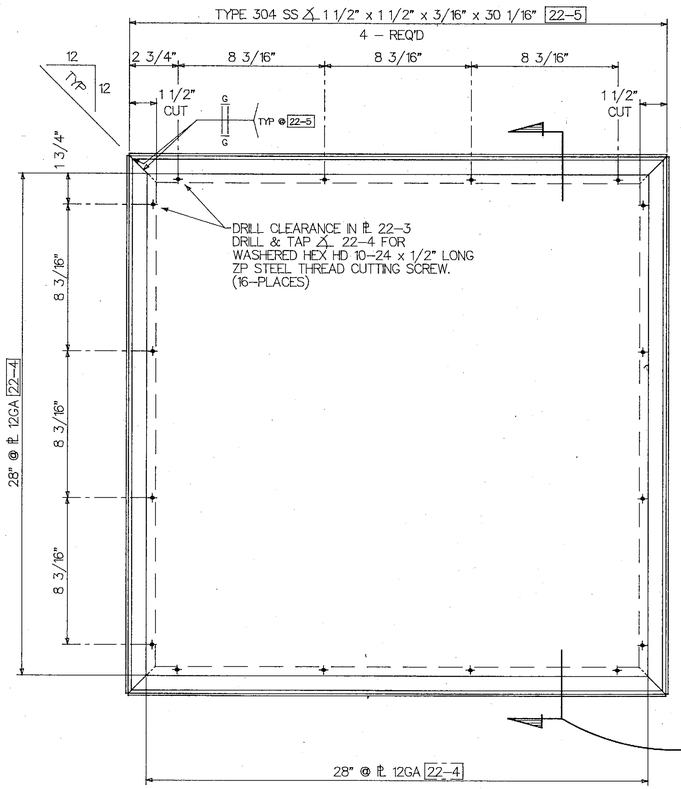
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

KAKE ALASKA

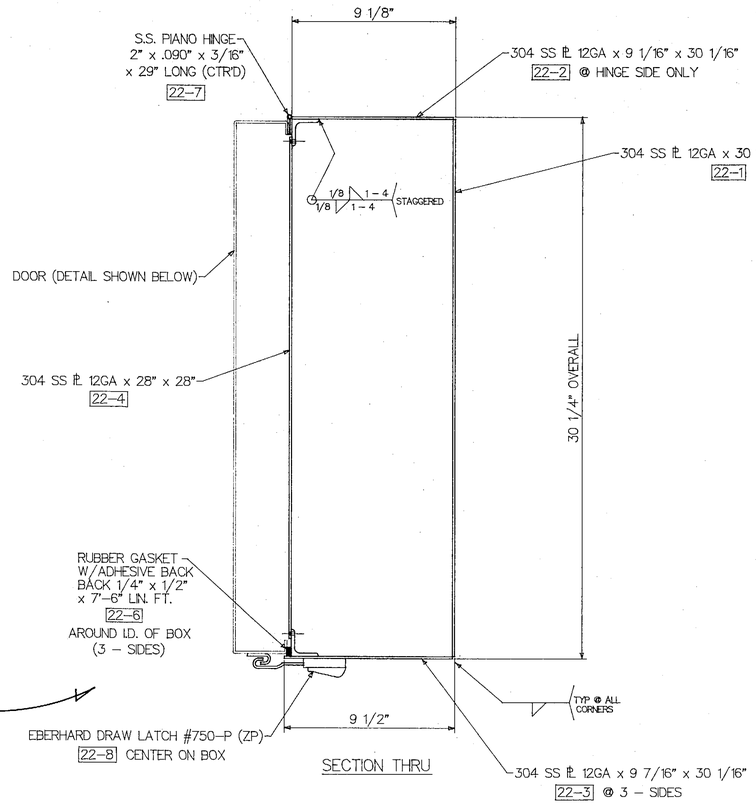
ELECTRICAL

DESIGNED: LPL	CHECKED:	DRAWN: LPL/BAS	DATE: MARCH 1994
PROJECT NUMBER: STP-0939(5)/75377		SHEET 19 OF 19	

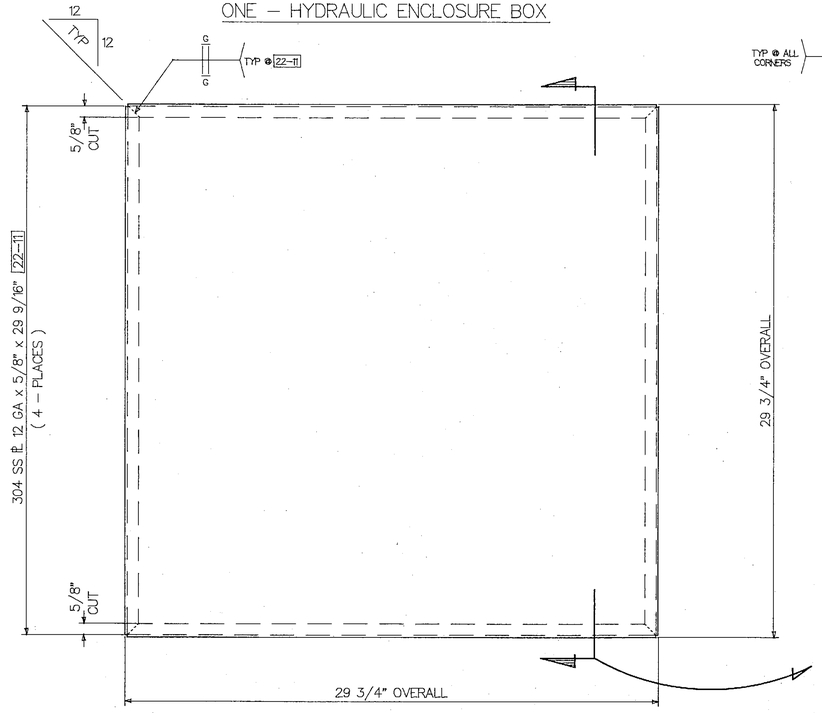
MARK NO.	QUANTITY	MATERIAL	DESCRIPTION	LENGTH	NOTES
22–1	ONE		PL 12GA x 9 1/16"	2'–6 1/16"	TYPE 304 SS #4 FINISH
22–2	ONE		PL 12GA x 30 1/16"	2'–6 1/16"	
22–3	3		PL 12GA x 9 7/16"	2'–6 1/16"	
22–4	ONE		PL 12GA x 28"	2'–4"	
22–5	4		∠ 1 1/2" x 1 1/2" x 3/16"	2'–6 1/16"	
22–6	ONE		RUBBER GASKET 1/4" x 1/2"	7'–6" LIN. FT.	
22–7	ONE		PIANO HINGE 2" x .090" x 3/16"	2'–5"	TYPE 304 SS #4 FINISH
22–8	ONE		EBERHARD DRAW LATCH # 750–P		ZINC PLATED
22–9	ONE		PL 12GA x 29 9/16"	2'–5 9/16"	TYPE 304 SS #4 FINISH
22–10	4		PL 12GA x 2 13/16"	2'–5 9/16"	
22–11	4		PL 12GA x 5/8"	2'–5 9/16"	
	16		WASHERED HEX HD 10–24 THRD CUTTING SCREW	0'–0 1/2"	ZINC PLATED



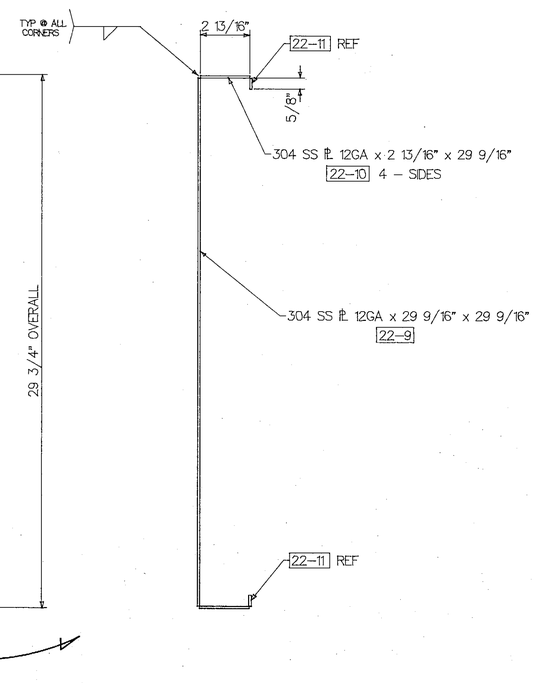
ONE – HYDRAULIC ENCLOSURE BOX



SECTION THRU



ONE – HYDRAULIC ENCLOSURE DOOR



State of Alaska
Dept. of Transportation and Public Facilities
Marine Facilities Engineering

CONTRACTOR SUBMITTAL REVIEW

Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correctness of the job site for information that pertains solely to the fabrication process or to techniques of construction and for coordination of the work of all trades.

ACCEPTED
ACCEPTED AS NOTED
RETURNED FOR CORRECTION

Date Project Engineer

PEDERSON BROS. INC.
Bellingham, WA 98226 (206)734-9180

TITLE: HYDRAULIC CONTROL ENCLOSURE
DATE: 8/26/94
SCALE: 1"= 1'–0"

TAMICO INC.
KAKE RAMP/APRON UPGRADE
DRWN: LINDENAU SERVICES

STATE OF ALASKA – Project: 75377
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
DWG NO: 27742–D–2356 Sht. 22 of