

SAFETY ON THIS JOB DEPENDS ON YOU

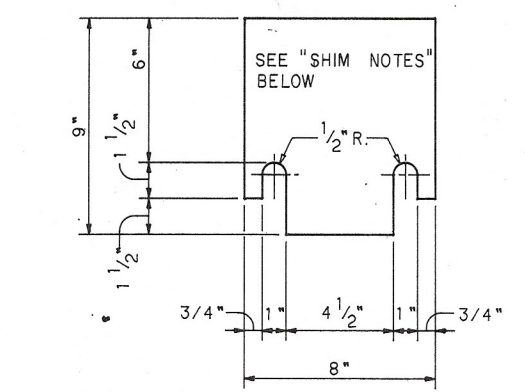
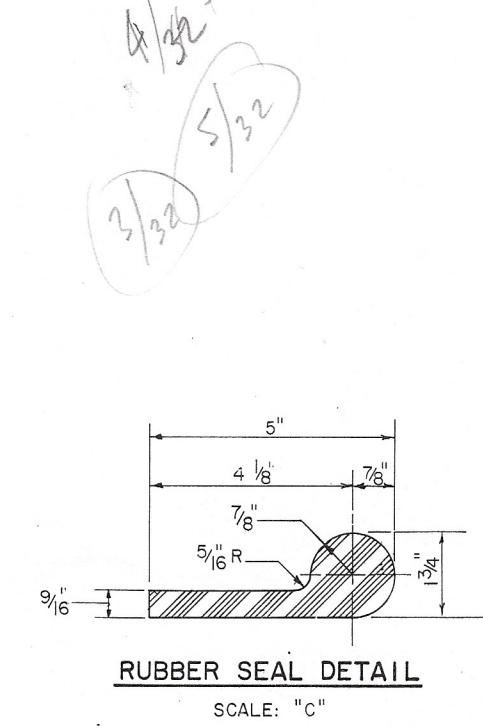
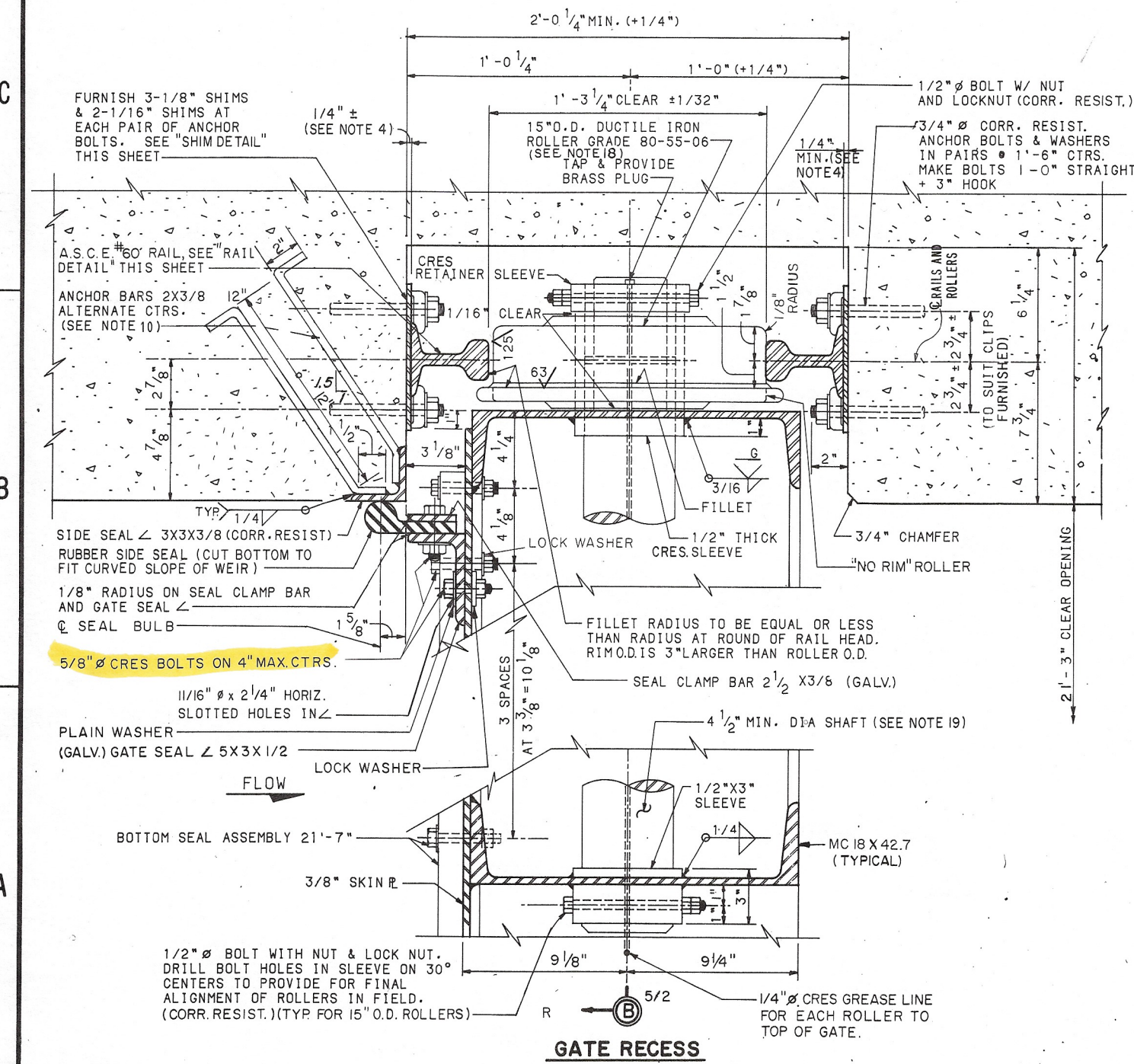
REVISIONS		DATE	APPROVED
NO.	SYM.	ZONE	DESCRIPTION

GENERAL WELDING NOTES:

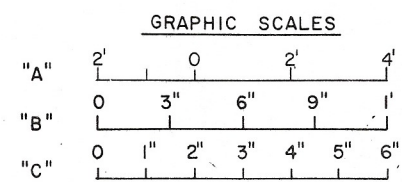
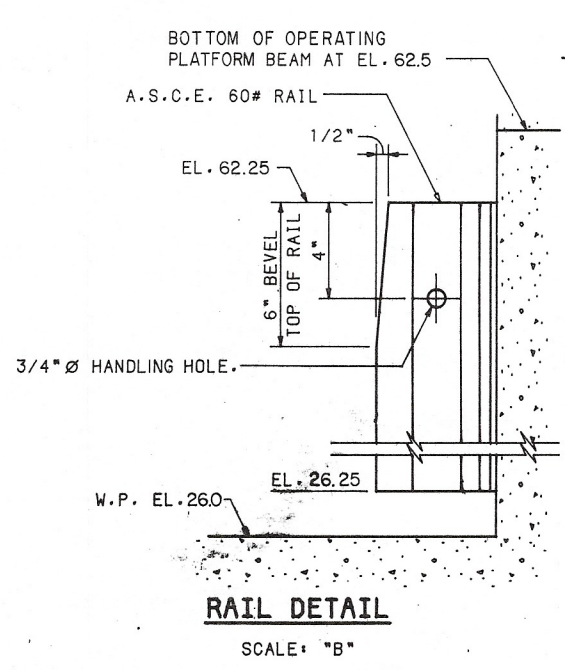
1. WELDING SYMBOLS ARE THOSE ADOPTED BY THE AMERICAN WELDING SOCIETY AND INDICATE ONLY SIZE AND TYPE OF WELDS REQUIRED. DETAILED INFORMATION SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL.
2. THE CONTRACTOR'S SHOP DRAWINGS SHALL CLEARLY DISTINGUISH BETWEEN SHOP AND FIELD WELDS. LENGTH OF WELD CALLED FOR ON THE DRAWINGS SHALL BE THE EFFECTIVE LENGTH.
3. WHERE CORROSION RESISTING STEEL IS WELDED, FILLER MATERIAL SHALL BE CORROSION RESISTING.
4. WELDING SYMBOL SHOWN THUS. TYP. MEANS THAT ALL SIMILAR JOINTS IN THIS VIEW SHALL BE WELDED IN THIS MANNER.
5. ALL JOINTS IN CONTACT WITH OTHER SURFACES (I.E., SKIN PLATE, GUSSET PL'S, ETC.) SHALL BE FLUSH WELDED.

GENERAL NOTES ON VERTICAL LIFT GATES:

1. ALL MATERIAL A-36 STRUCTURAL STEEL UNLESS OTHERWISE NOTED.
2. ALL MATERIAL NOTED AS CORR. RESIST OR CRES SHALL BE TYPE 304 STAINLESS STEEL.
3. IRREGULARITIES IN THE PLANE OF THE EXPOSED SURFACES OF EMBEDDED METAL SEALS IN CONTACT WITH THE RUBBER SEALS SHALL NOT VARY MORE THAN 1/16" FROM POSITIONS SHOWN.
4. PROVIDE SHIMS TO OBTAIN NECESSARY CLEARANCES.
5. THE ROLLER BUSHING I.D. SHALL BE 1/32" GREATER THAN THE SHAFT SLEEVE O.D.
6. OPTIONS ON EMBEDDED METAL SEALS ARE AS FOLLOWS:
(A) THE 3/8" THICK CORROSION RESISTING SEAL ANGLES MAY BE REPLACED WITH 1/2" THICK BENT CHROME CLAD PLATES.
(B) THE 5/8" THICK CORROSION RESISTING BOTTOM SEAL PLATES MAY BE REPLACED WITH 5/8" THICK CHROME CLAD PLATES.
7. ALL BOLTS, NUTS, AND WASHERS (EXCEPT THOSE NOTED AS CORR. RESIST OR CRES. OR THOSE BOLTS AND NUTS FULLY EMBEDDED IN CONCRETE) SHALL BE GALVANIZED.
8. SEE SPECIFICATIONS FOR QUALITY OF FINISH REQUIRED BY SYMBOLS: $\sqrt{25}$ AND $\sqrt{63}$
9. FURNISH AND INSTALL TWO VERTICAL LIFT GATES, AS SHOWN ON THIS DRAWING AND DWG. NO. 5/2.
10. AT THE OPTION OF THE CONTRACTOR, 5/8" X 6 3/8" OR EQUAL ANCHOR STUDS MAY BE GENERALLY SUBSTITUTED FOR 2" X 3/8" ANCHOR BARS. HOWEVER, SPECIFIC APPROVAL OF THE SUBSTITUTION FOR EACH INDIVIDUAL EMBEDDED ITEM IS REQUIRED PRIOR TO FABRICATION.
11. SPACE ALL BOLTS CONNECTING RUBBER SEAL ASSEMBLIES TO THE GATE SUCH THAT BOLTS FALL ON THE GAGE LINE OF THE FRAMING MEMBERS $\pm 1/4"$. BEVEL WASHERS SHALL BE FURNISHED AT BOLTED CONNECTIONS TO ALL CHANNEL FLANGES. ALL BOLTS SHALL BE FURNISHED WITH ONE NUT AND WASHER, UNLESS OTHERWISE INDICATED.
12. ALL GALVANIZED ITEMS SHALL BE GALVANIZED AFTER FABRICATION.
13. AT THE OPTION OF THE CONTRACTOR, RUBBER SEAL CORNERS MAY BE (1) STANDARD MOULDED CORNERS, (2) CORNERS SPLICED, CAREFULLY FITTED, AND VULCANIZED BY THE RUBBER SEAL MANUFACTURER.
14. PROVIDE A SEPARATE 1/4" I.P.S. CRES. GREASE LINE FROM EACH ROLLER TO TOP OF GATE. AT TOP OF GATE PROVIDE BOTTOM HEAD GREASE FITTING FOR EACH LINE.
15. 3/8" SKIN PLATE TO BE ATTACHED TO FRAME MEMBERS WITH CONTINUOUS 1/4" FILLET WELDS ON BOTH SIDES OF EACH CONTACT FLANGE AND STIFFENER PLATES.
16. 15" O.D. ROLLERS ARE TO HAVE AN 18" O.D. RIM AS SHOWN IN THE "GATE RECESS" DETAIL, WHERE A RIM IS INDICATED IN THE "GATE ELEVATION". ALL OTHER ROLLERS ARE NOT TO HAVE A RIM OR FILLET.
17. POSITION INDICATORS ARE REQUIRED ON EACH ABUTMENT AT THE LOCATIONS SHOWN ON DRAWING NUMBER 3/2 AND 3/3, FOR POSITION INDICATOR AND POSITION MARKER DETAILS. SEE DRAWING NUMBER 6/6.
18. CAST STEEL MAY BE SUBSTITUTED FOR DUCTILE IRON MATERIAL SHALL CONFORM TO ASTM A 148, CLASS 80-50.
19. SHAFTS, EXCEPT CRES, SHALL BE SAE J45 OR BETTER
20. VERTICAL LIFT GATES WILL BE PAID FOR UNDER BID ITEM NO. 9, "VERTICAL LIFT GATES"
21. ALL TYPE 304 STAINLESS STEEL BOLTS SHALL HAVE TYPE 304 STAINLESS STEEL WASHERS AND ARMCO NITRONIC 60-OR EQUAL NUTS.
22. FOR SECTIONS G-G AND H-H, SEE DWG. NO. 5/2.



SHIM NOTES:
1B. SHIM DIMENSIONS SHOWN ARE TO BE ADJUSTED TO SUIT RAIL CLIPS FURNISHED.
2B. ALL SHIMS SHALL BE GALVANIZED AFTER FABRICATION.



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT, CORPS OF ENGINEERS
JACKSONVILLE, FLORIDA

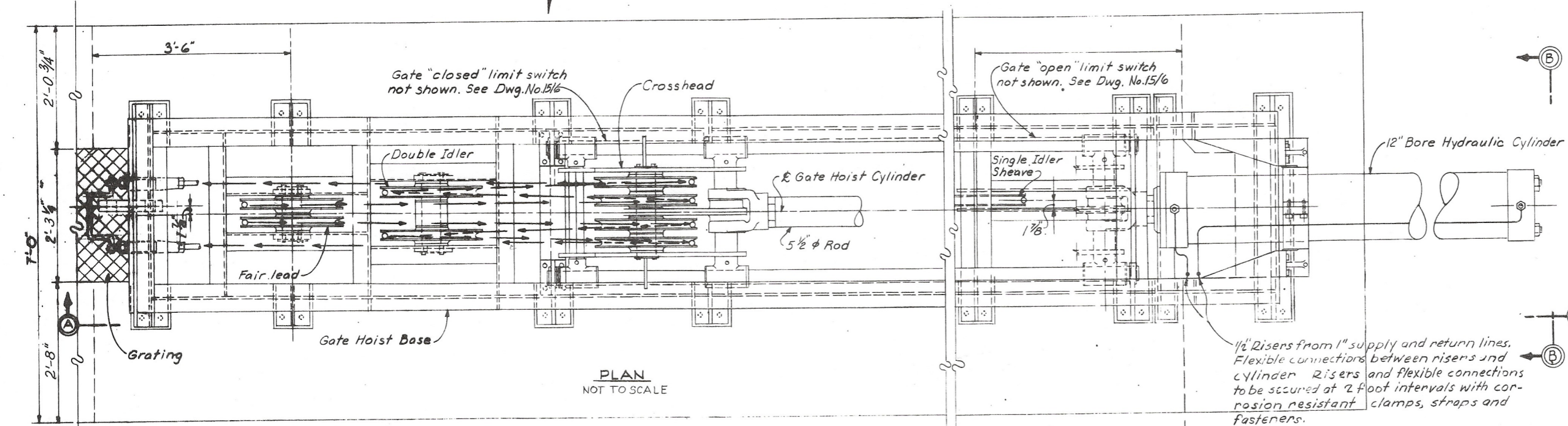
CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JOHNS RIVER BASIN

STRUCTURE 161A AND TIEBACK LEVEE
VERTICAL LIFT GATES
PLAN AND ELEVATION

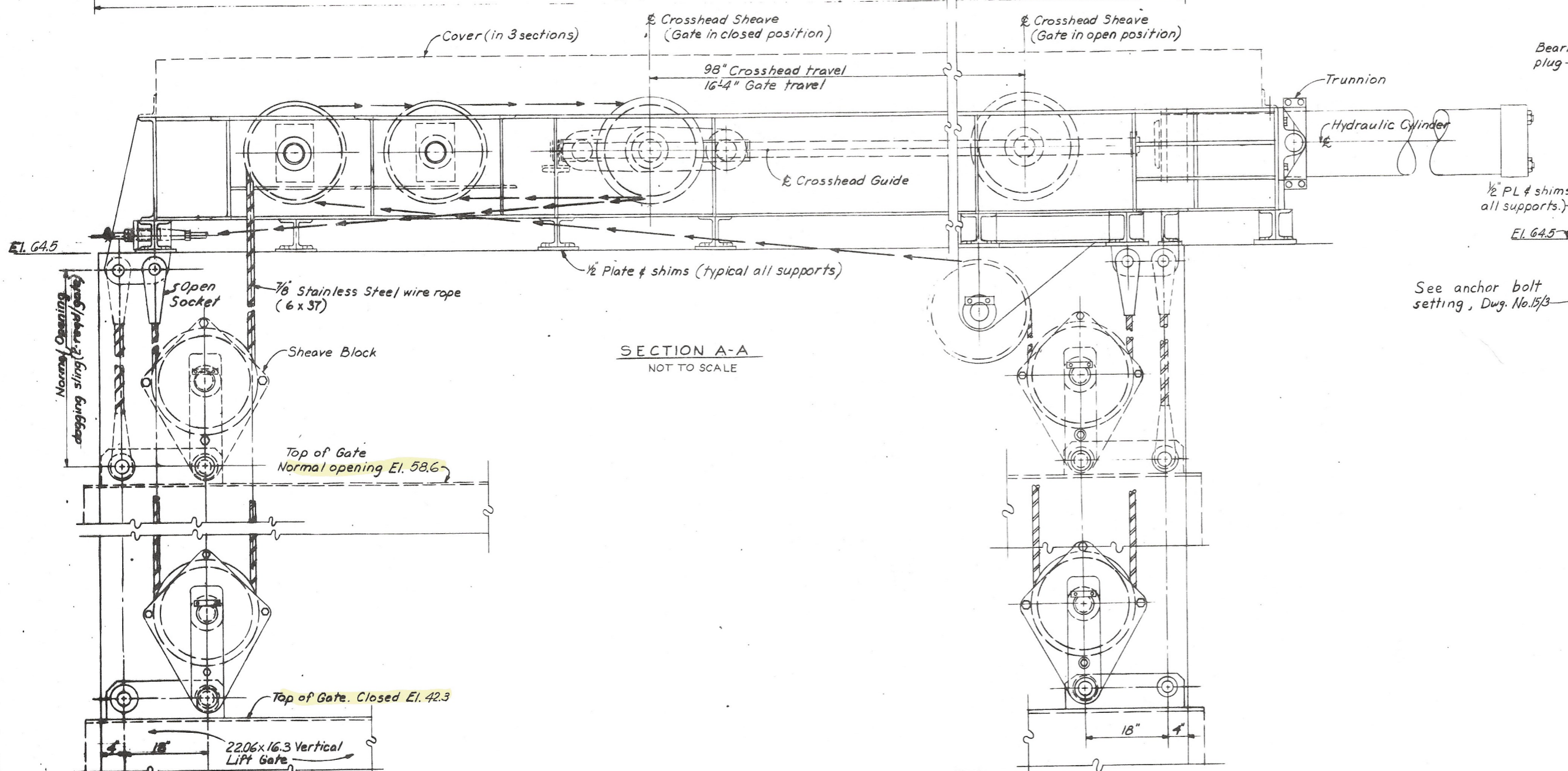
DESIGNED BY: [Signature] CHECKED BY: [Signature]
DATE: [Date] DRAWING NO: F 5/1
SCALE: AS SHOWN DATED: MAR. 1987 SHEET 23

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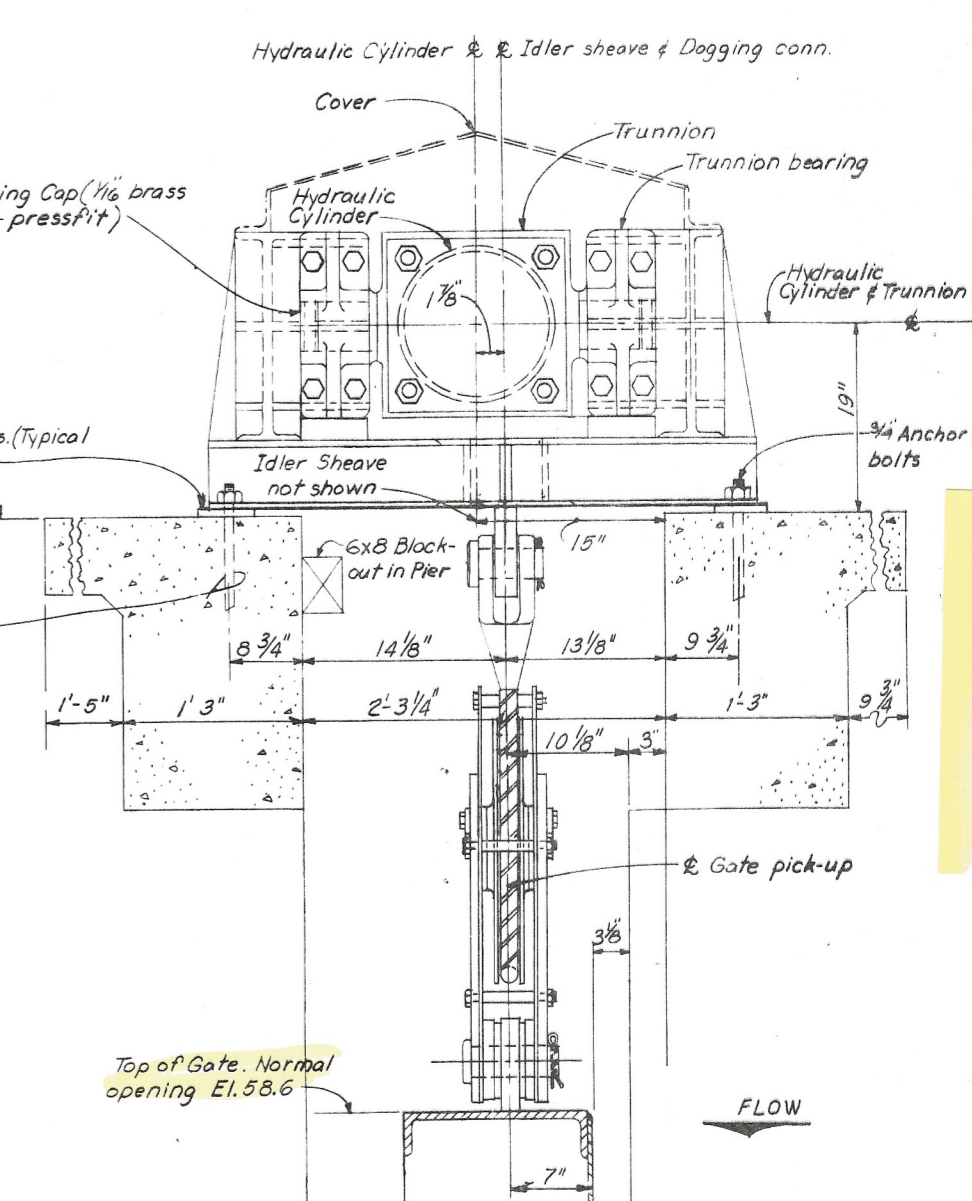
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PLAN
NOT TO SCALE



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

NOTES:

- HOIST ASSEMBLY, SHEAVE BLOCKS, CABLE ARRANGEMENT, AND LIMIT SWITCHES AS SHOWN ON THIS SHEET ARE FOR NORTHWEST GATE ONLY. UNLESS OTHERWISE INDICATED, HOIST ARRANGEMENT AND DETAILS FOR SOUTHEAST AS SHOWN ABOVE EXCEPT ARE OPPOSITE HAND TO PREVENT INTERFERENCE BETWEEN BLIND ENDS OF HYDRAULIC CYLINDERS.
- (a.) ESTIMATED GATE WEIGHT 22,000 #
(b.) ESTIMATED HOIST LOAD 47,000 #
(c.) ESTIMATED PISTON LOAD 118,000 #
- 12" BORE HYDRAULIC CYLINDER, 5 1/2" ROD, 98" STROKE
- OPERATING PRESSURE, 1,350 P.S.I.
- 2 GATES SHALL OPERATE SIMULTANEOUSLY AT 6 INCHES/MINUTE (± 10%) WHEN RAISING, AND 6 INCHES/MINUTE (± 10%) WHEN LOWERING.
- DOGGING SLINGS SAME SIZE AND TYPE AS HOIST ROPES.

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CENTRAL AND SOUTHERN FLORIDA PROJECT
UPPER ST. JOHNS RIVER BASIN
STRUCTURE 161 A AND TIEBACK LEVEE
MECHANICAL
GATE HOIST-GENERAL ARRANGEMENT

DESIGN NO. _____
INVT. NO. _____
DATE: _____
SCALE: NONE
DATED: JAN. 1987
SHEET 39

SIZE DWG. NO. 15/1