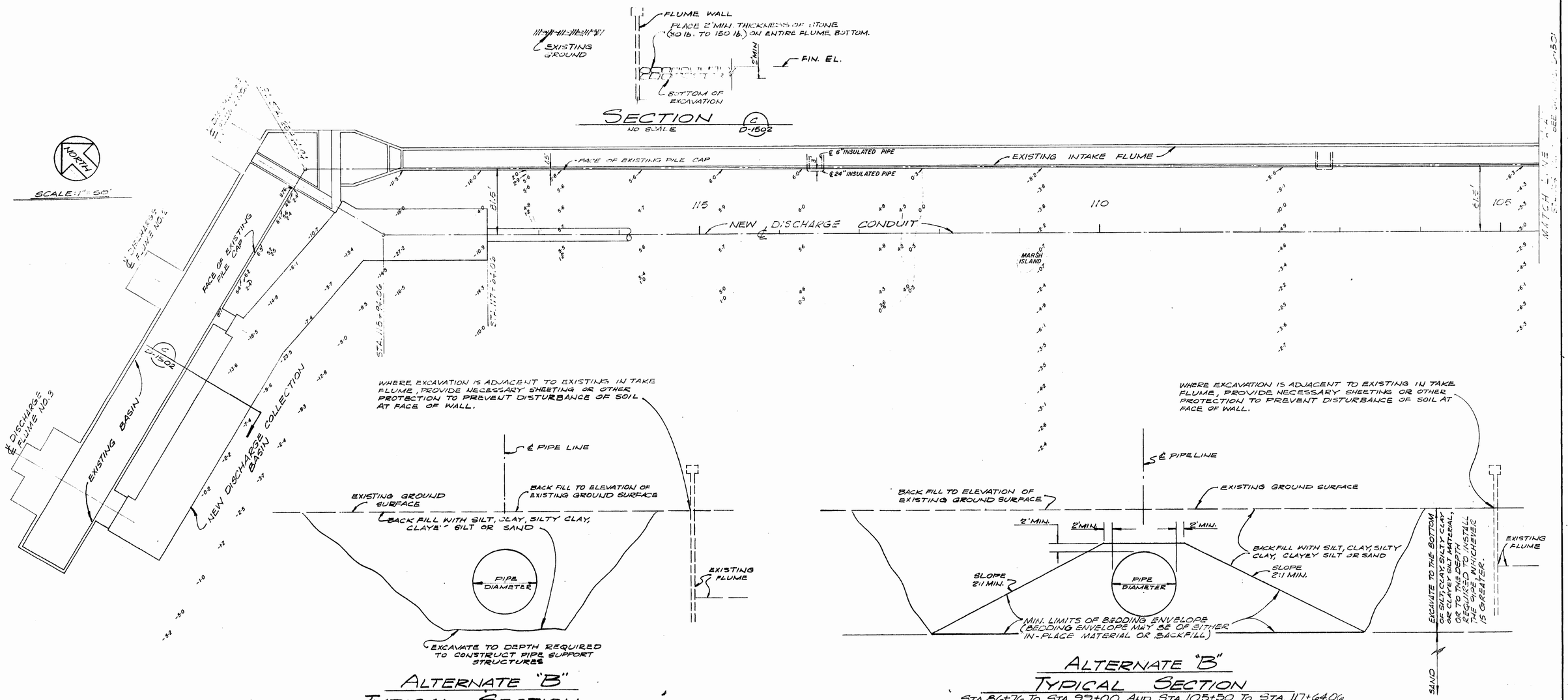
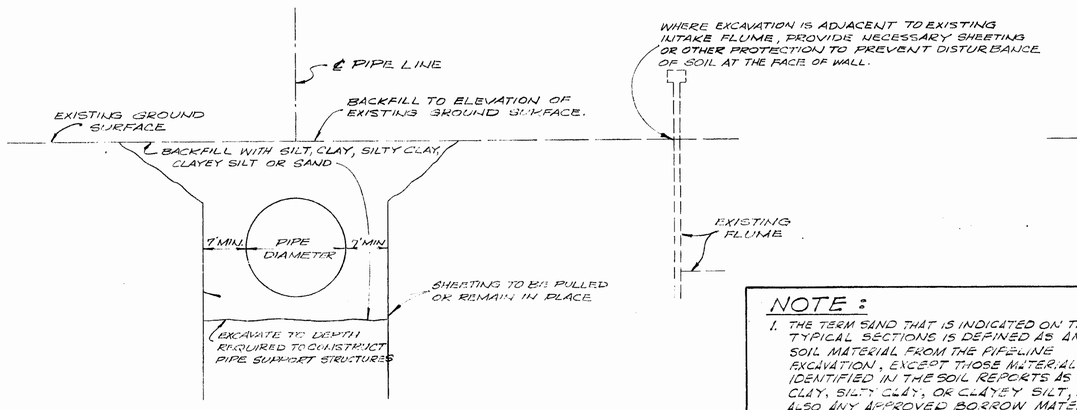


ALTERNATE "B"
TYPICAL SECTION
STA. 99+00 TO STA. 105+50

NOTE: FOR PIPE PROFILE GRADE SEE PIPE PLAN AND PROFILE DRAWINGS

ALTERNATE "B"
TYPICAL SECTION
STA. 86+76 TO STA. 99+00 AND STA. 105+50 TO STA. 117+64.06

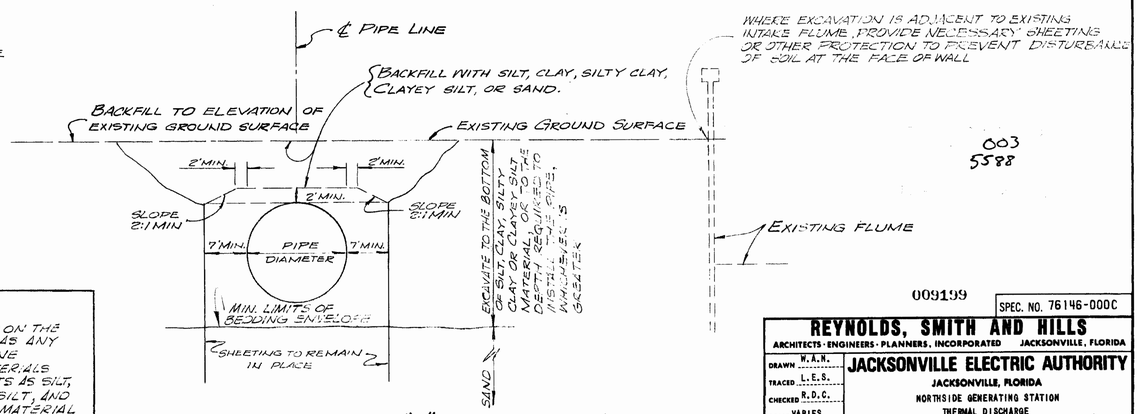
NOTE: FOR PIPE PROFILE GRADE SEE PIPE PLAN AND PROFILE DRAWINGS



ALTERNATE "A"
TYPICAL SECTION
STA. 99+00 TO STA. 105+50

NOTE: FOR PIPE PROFILE GRADE SEE PIPE PLAN AND PROFILE DRAWINGS

NOTE:
1. THE TERM SAND THAT IS INDICATED ON THE TYPICAL SECTIONS IS DEFINED AS ANY SOIL MATERIAL FROM THE PIPELINE EXCAVATION, EXCEPT THOSE MATERIALS IDENTIFIED IN THE SOIL REPORTS AS SILT, CLAY, SILTY CLAY, OR CLAYEY SILT, AND ALSO ANY APPROVED BORROW MATERIAL REQUIRED THAT MEETS THE REQUIREMENTS STATED IN SECTION 02631 OF THE SPECIFICATIONS.
2. PIPE EXCAVATION AND BEDDING SHALL MEET THE REQUIREMENTS INDICATED IN ALTERNATE "A" OR ALTERNATE "B".



ALTERNATE "A"
TYPICAL SECTION
STA. 86+76 TO STA. 99+00 AND STA. 105+50 TO STA. 117+64.06

NOTE: FOR PROFILE GRADE SEE PIPE PLAN AND PROFILE DRAWINGS

003
5588

009199

SPEC. NO. 76146-000C

REYNOLDS, SMITH AND HILLS
ARCHITECTS · ENGINEERS · PLANNERS, INCORPORATED JACKSONVILLE, FLORIDA

DRAWN W.A.N.
TRACED L.E.S.
CHECKED R.D.C.
SCALE VARIES
DATE 6-1-77

JACKSONVILLE ELECTRIC AUTHORITY
JACKSONVILLE, FLORIDA
NORTHSIDE GENERATING STATION
THERMAL DISCHARGE
SITE PLAN & DETAILS

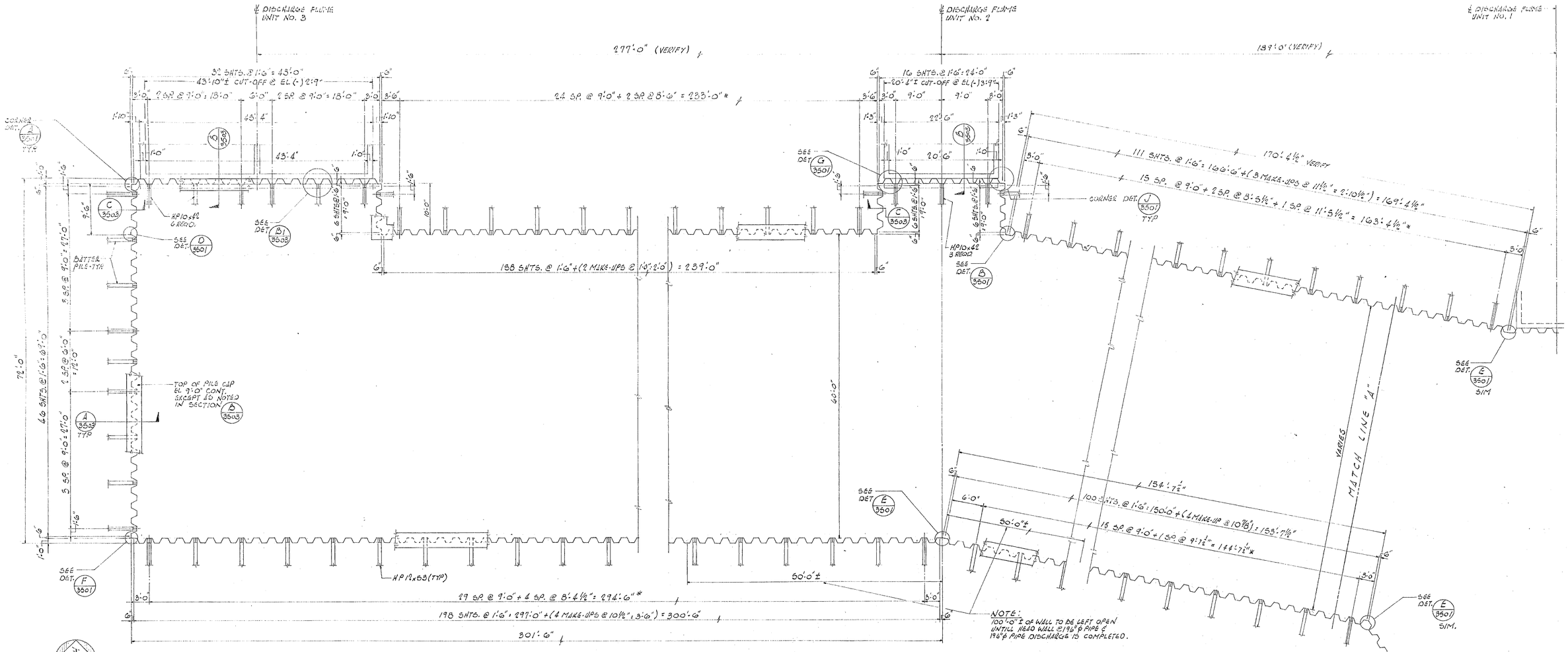
APPROVED FOR REYNOLDS, SMITH AND HILLS
REG. ENG. ST. OF FLA. NO. 7890

FOR THE JACKSONVILLE ELECTRIC AUTHORITY
DEPARTMENT HEAD — ENGINEERING DEPARTMENT
DEPARTMENT HEAD — MANAGING DIRECTOR

DRAWING NO. 76146 D 1502
SHEET 3 OF 28

REVISION	DESCRIPTION	DATE	BY	APPROVED
	UPDATED FOR RECORD SET	11-30-79		
0	UPDATED PER ADD. # 6	2-3-78	H.R.H.	L.I.B.M.

BRUNING 40-105 28870



NORTH

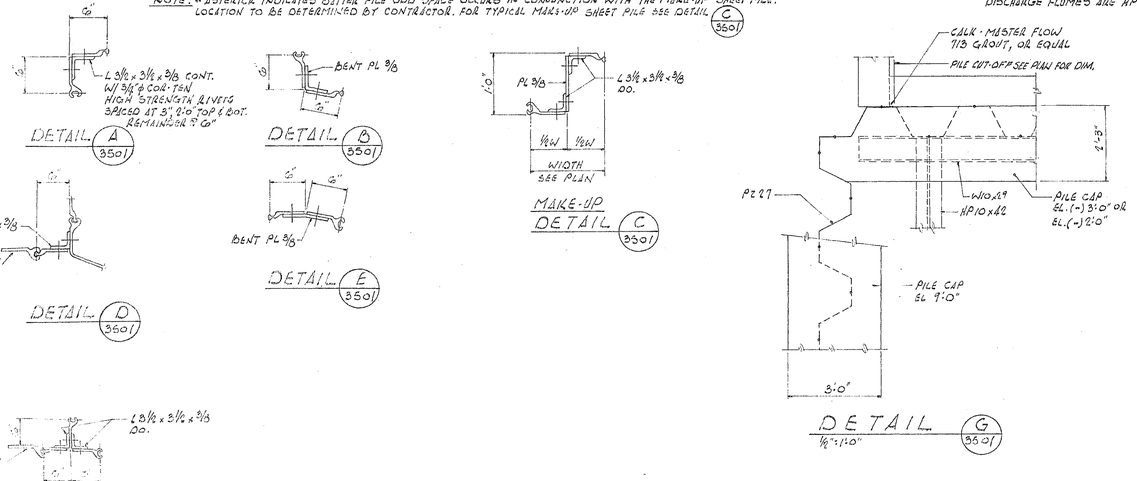
PLAN - DISCHARGE FLUME - EL. 9'-0"

1/8" = 1'-0"

NOTE: * ASTERICK INDICATES BATTER PILE ODD SPACE OCCURS IN CONJUNCTION WITH THE MAKE-UP SHEET PILE. LOCATION TO BE DETERMINED BY CONTRACTOR. FOR TYPICAL MAKE-UP SHEET PILE SEE DETAIL (C 3501)

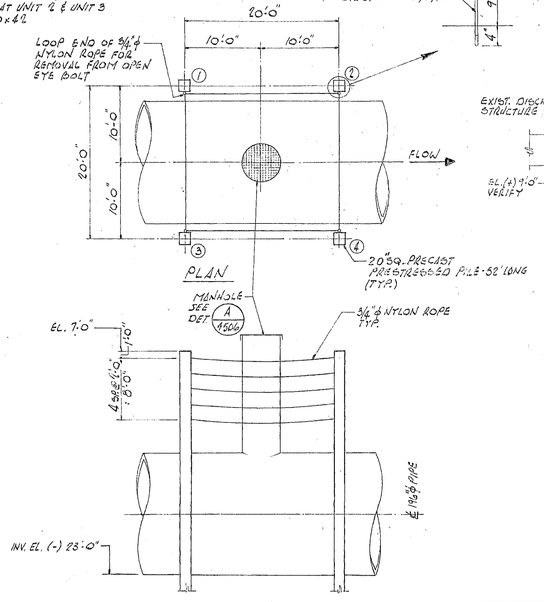
NOTES:

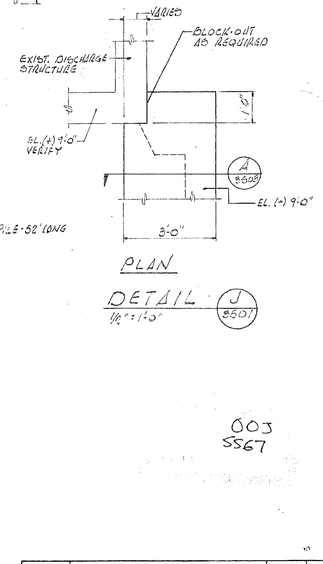
1. ALL STEEL SHEET PILED ON THIS DRAWING ARE PZ 27. TIP ELEVATION (-) 38'-0"
2. ALL BATTER PILES AT DISCHARGE FLUME ARE HP 12 x 53. ALL BATTER PILES AT UNIT 2 & UNIT 3 DISCHARGE FLUMES ARE HP 10 x 42



TYPICAL SHEET PILE JOINT CONNECTIONS

CONNECTIONS NOT SHOWN ARE SIMILAR.
WELDED CONNECTIONS MAY BE USED IN LIEU OF RIVETS.
SCALE 1" = 1'-0"





NOTES:

1. PROVIDE 1/4" WIDE X 1" DEEP CONTROL JOINTS AROUND SHEET, PILE CAPS AT ℄ OF BATTER PILE 18'-0" O.C. MAX.
2. PROVIDE CONSTRUCTION JOINTS IN CAPS AT CONTROL JOINTS AT 100'-0" O.C. MAX. WITH VERT. 2" DEEP X 12" WIDE X 1'-8 LONG KEY (TYP.).

009205

SPEC. NO. 76146-000C

REYNOLDS, SMITH AND HILLS
ARCHITECTS · ENGINEERS · PLANNERS, INCORPORATED JACKSONVILLE, FLORIDA

DRAWN C.R.P.
TRACED
CHECKED A.G.G.
SCALE AS NOTED
DATE 1 JUNE '77

JACKSONVILLE ELECTRIC AUTHORITY
JACKSONVILLE, FLORIDA
NORTHSIDE GENERATING STATION
THERMAL DISCHARGE
PLAN - DISCHARGE BASIN - SH. 1

APPROVED FOR REYNOLDS, SMITH AND HILLS
REG. ENG. ST. OF FLA. 5993

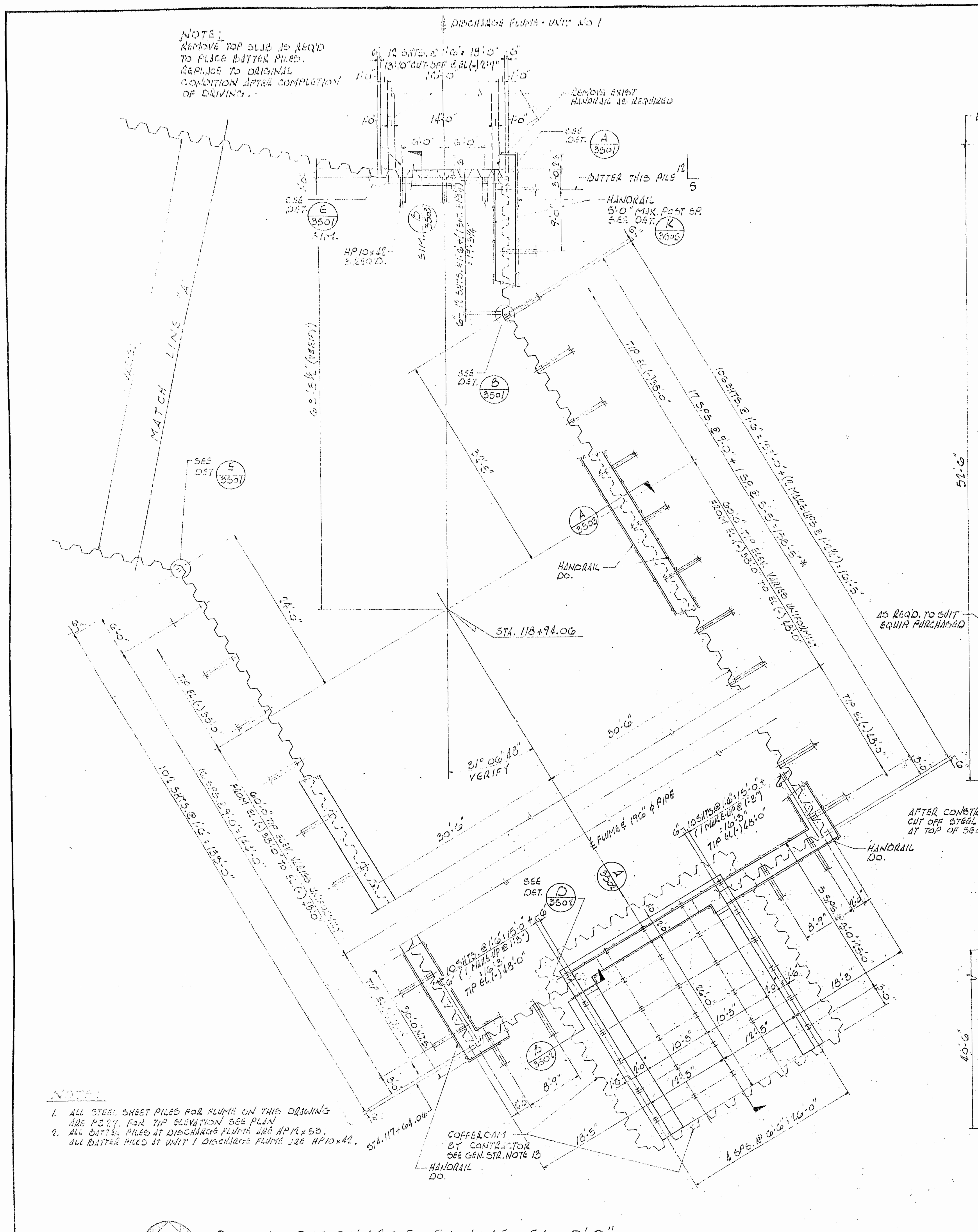
FOR THE JACKSONVILLE ELECTRIC AUTHORITY
DEPARTMENT HEAD ENGINEERING DEPARTMENT
DEPARTMENT HEAD MANAGING DIRECTOR

DRAWING NO. 76146 D 3501
SHEET 3 OF 3

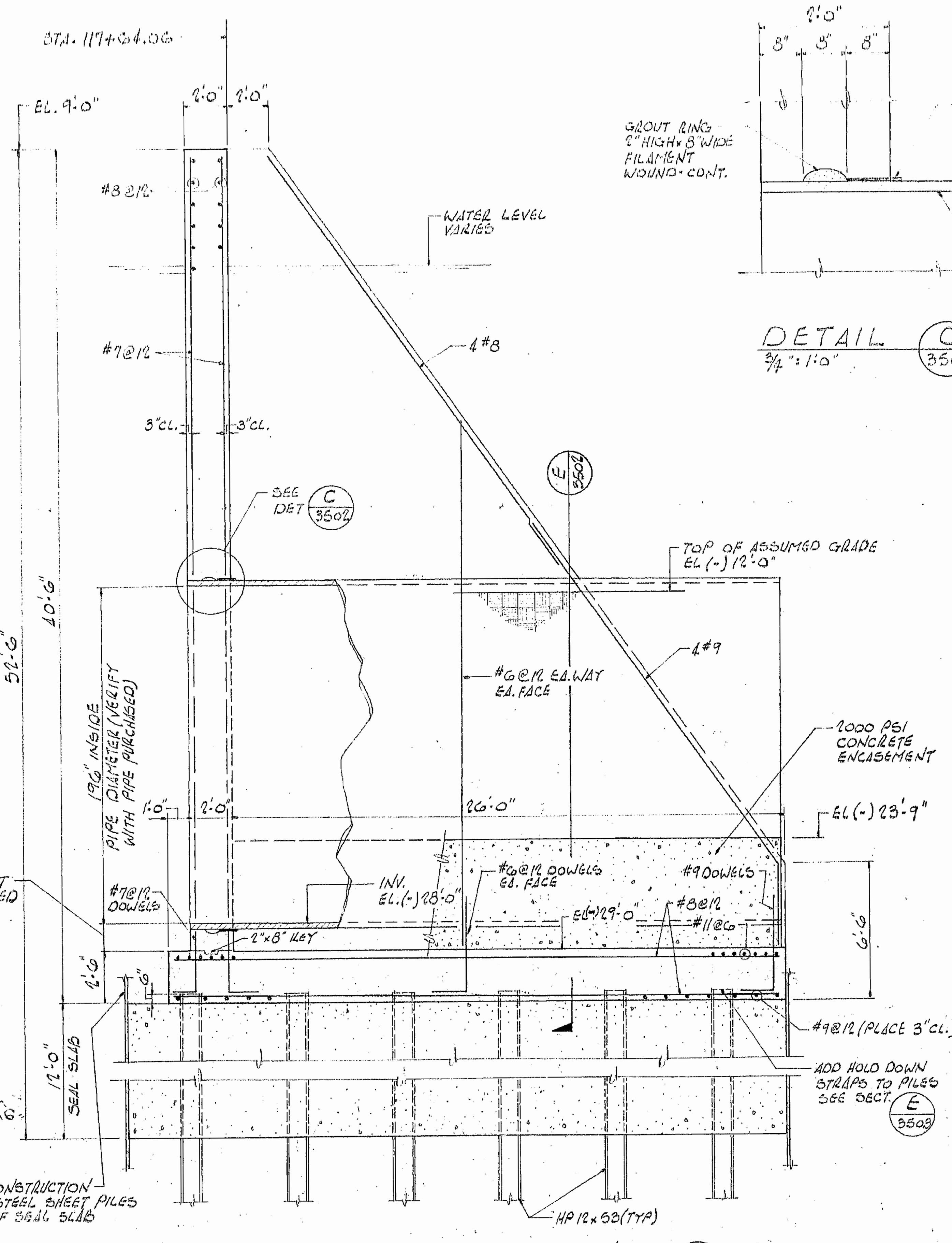
003
5567

REVISION	DESCRIPTION	DATE	BY	APPROVED
	UPDATED FOR RECORD SET	11-20-78		
0	UPDATED TO INCLUDE ADD. # 4	2-6-78	G.R.P.	A.G.G.

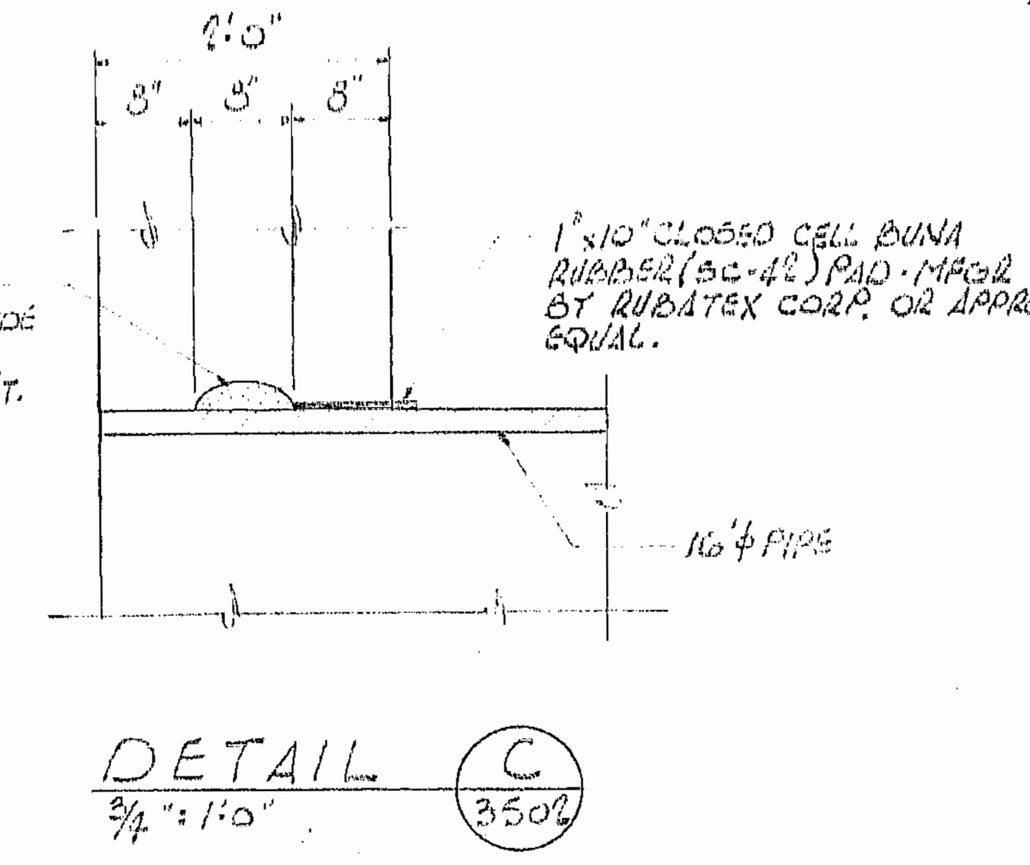
BRUNING 40-105 28670



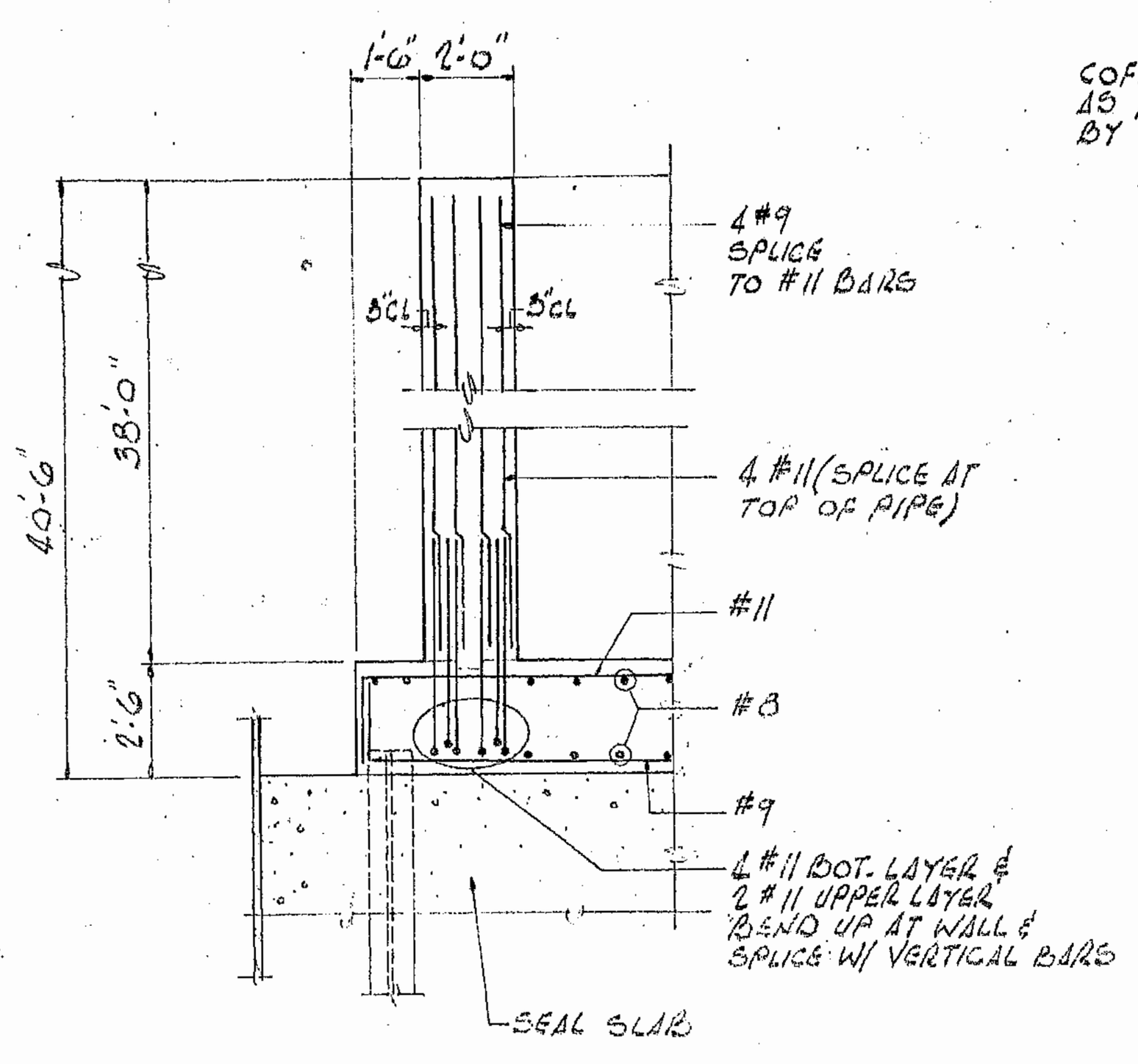
PLAN - DISCHARGE FLUME EL 9'-0"
1/8" = 1'-0"
NOTE: * ASTERISK INDICATES BATTER PILE ODD SPICE OCCURS IN CONJUNCTION WITH THE MAKE-UP SHEET PILE. LOCATION TO BE DETERMINED BY CONTRACTOR. FOR TYPICAL MAKE-UP SHEET PILE SEE DETAIL C/3501



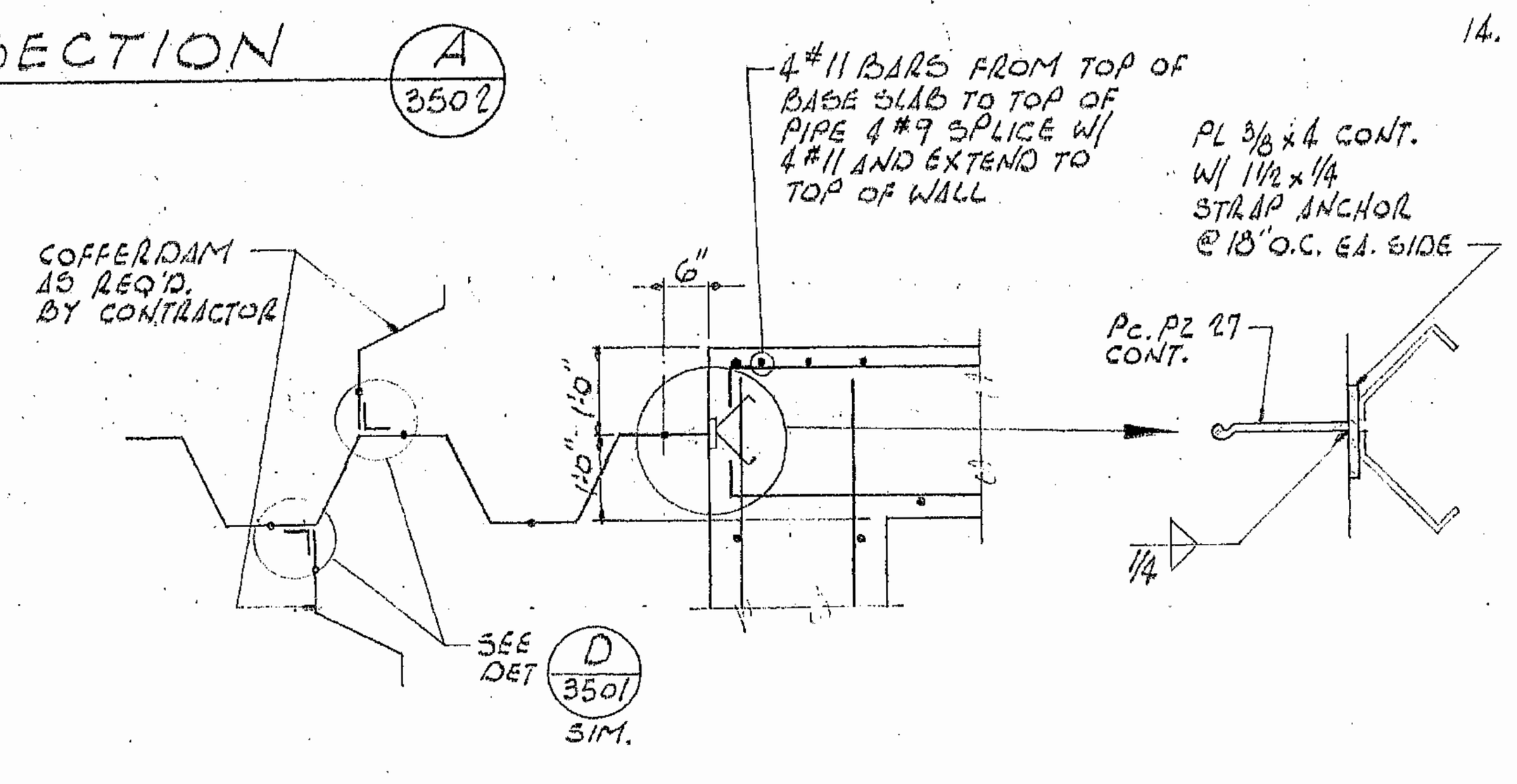
DISCHARGE HEADWALL - SECTION A/3502
1/4" = 1'-0"



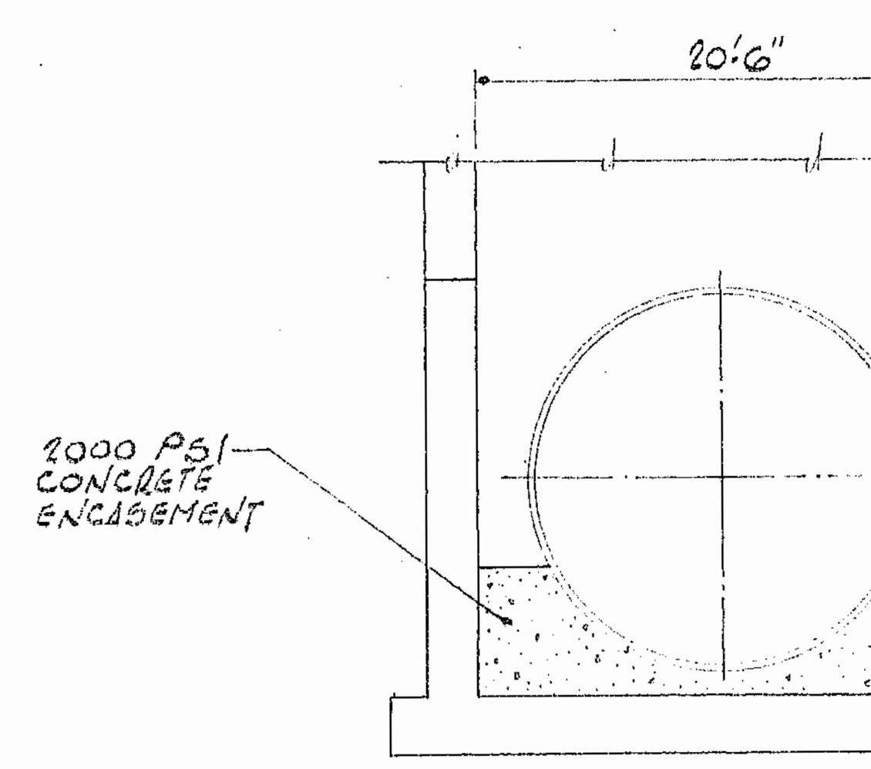
DETAIL C/3502
3/4" = 1'-0"



SECTION B/3502
1/4" = 1'-0"



DETAIL D/3502
1/2" = 1'-0"



SECTION E/3502
1/8" = 1'-0"

DESIGN CRITERIA

(ALL DESIGN PER "CITY OF JACKSONVILLE BUILDING CODE" UNLESS OTHERWISE NOTED)

1. LIVE LOADS
   - FISH TROUGH WALKWAYS .... 50#/S.F.
   - MAXIMUM SOIL COVER OVER 126" Ø PIPE - 3 FT. .... 5.0 K/FT.
   - MAXIMUM SOIL COVER OVER 120" Ø PIPE - 10 FT. .... 7.8 K/FT.
2. ALLOWABLE UNIT STRESSES
   - CONCRETE (DESIGN PER CURRENT EDITION A.C.I.)
     - PRESTRESSED CONCRETE PILES .... f'c = 6000 PSI
     - PRESTRESSED DOUBLE-TEES .... f'c = 5000 PSI
     - ALL OTHER (UNLESS OTHERWISE NOTED) .... f'c = 3000 PSI
   - STRUCTURAL STEEL (DESIGN PER CURRENT EDITION A.I.S.C.)
     - ALL STEEL ASTM A36 UNLESS OTHERWISE NOTED.
     - STEEL H PILES: USS MARINER STEEL A.S.T.M. A690
     - STEEL SHEET PILES: USS MARINER STEEL A.S.T.M. A690
   - PILE BEARING (DESIGN MAXIMUM)
     - H PILES (UNLESS OTHERWISE NOTED) .... 50 TONS/PILE
     - H PILES UNDER SEAL SLABS .... 70 TONS/PILE
     - CONCRETE PILES SUPPORTING PIPE .... 100 TONS/PILE

GENERAL STRUCTURAL NOTES

1. UNLESS OTHERWISE SHOWN ON DRAWINGS, MINIMUM COVER FOR REINFORCING SHALL BE AS FOLLOWS:
   - CAP BEAMS .... 2"
   - WALLS (EXPOSED TO WEATHER OR IN CONTACT WITH GROUND) .... 3"
   - BEAMS (OVER MAIN REINFORCING) .... 2"
2. ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES DURING PLACING OF THE CONCRETE.
3. SPLICES IN REINFORCING, WHERE PERMITTED, SHALL BE AS FOLLOWS:
   - TEMPERATURE REINFORCING .... 12"
   - ALL OTHER .... 40 BAR DIA.
4. REINFORCING IN BEAMS RUNNING IN EAST & WEST DIRECTION SHALL BE PLACED IN THE OUTER LAYER AT INTERSECTION WITH NORTH & SOUTH BEAMS.
5. SPLICES IN TOP REINFORCING SHALL BE MADE AT MID SPAN.
6. SPLICES IN BOTTOM REINFORCING SHALL BE MADE OVER SUPPORTS.
7. ALL HIGH STRENGTH BOLTS TO BE 3/4" DIA. A.S.T.M. A325, UNLESS OTHERWISE NOTED.
8. MINIMUM SIZE OF ALL FILLET WELDS SHALL CONFORM TO SECTION 1.17.5 A.I.S.C. SPECIFICATIONS EVEN THOUGH SHOWN OTHERWISE ON DRAWINGS.
9. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS OF EXISTING STRUCTURE AND SITE THAT ARE AFFECTED BY NEW WORK BEFORE PROCEEDING WITH FABRICATION & CONSTRUCTION.
10. ALL STRUCTURAL OPENINGS AROUND ARE AFFECTED BY MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE VERIFIED WITH EQUIPMENT PURCHASED BEFORE PROCEEDING WITH STRUCTURAL WORK AFFECTED.
11. SEE ELECTRICAL AND MECHANICAL DRAWINGS FOR OPENINGS, SLEEVES, ETC. NOT SHOWN ON STRUCTURAL DRAWINGS.
12. ALL ANGLES, BARS, ANCHORS, ANCHOR BOLTS, ETC. EMBEDDED IN CONCRETE SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
13. IF COFFERDAM IS ENLARGED, AN ADDITIONAL HP12x53 BEARING PILE SHALL BE PROVIDED FOR EACH ADDITIONAL 32 SQUARE FEET OF SEAL SLAB AREA. MAXIMUM SPACING OF PILES SHALL NOT EXCEED 6'-6" AND GENERAL ARRANGEMENT SHALL CONFORM TO THAT SHOWN ON THE DRAWING. CONTRACTOR SHALL SUBMIT REVISED LAYOUT TO THE ENGINEER FOR APPROVAL BEFORE STARTING CONSTRUCTION. THIS WORK SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER. THIS NOTE APPLYS TO DISCHARGE HEADWALL ONLY.
14. THE 16 FT. WIDE BRIDGE ADJACENT TO THE EXISTING INTAKE FLUME WAS DESIGNED FOR H20 LOADING.

003
5568

009206

SPEC. NO. 76146-000C

REYNOLDS, SMITH AND HILLS
ARCHITECTS · ENGINEERS · PLANNERS, INCORPORATED — JACKSONVILLE, FLORIDA

DRAWN C.R.P.
TRACED
CHECKED A.G.G.
SCALE AS NOTED
DATE 1 JUNE '77

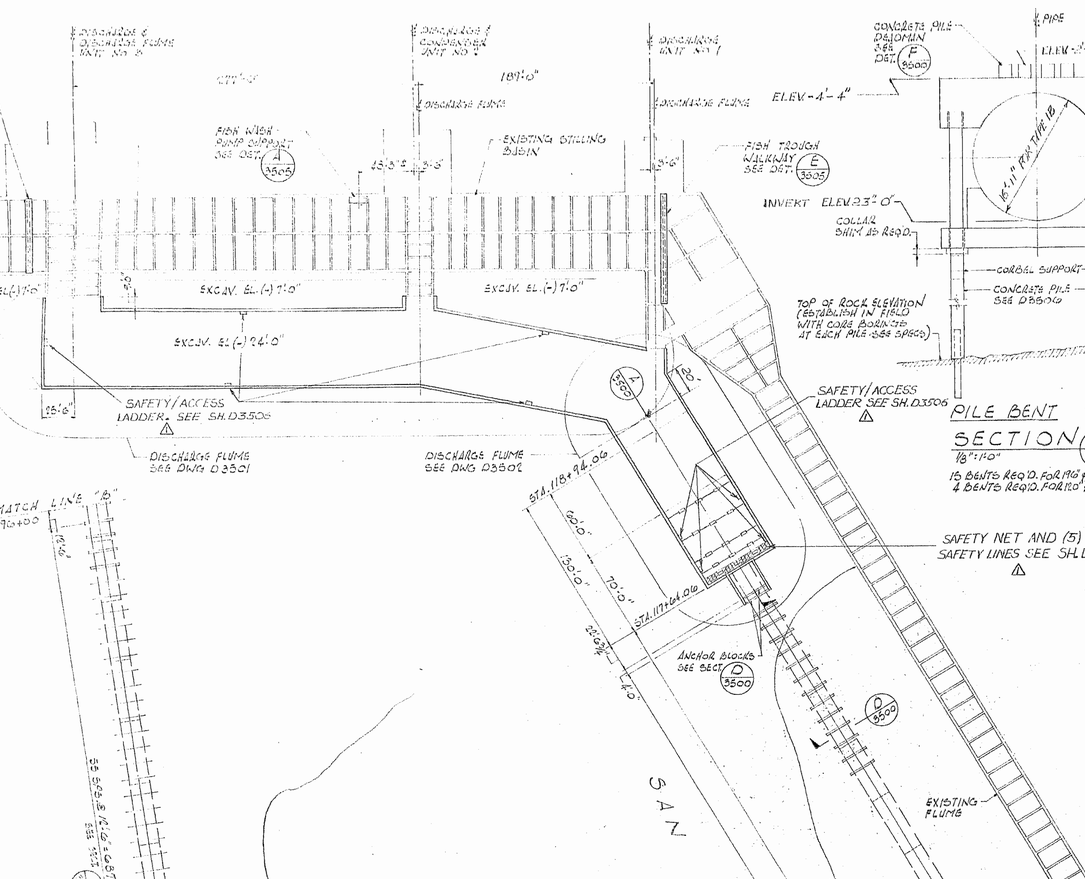
JACKSONVILLE ELECTRIC AUTHORITY
JACKSONVILLE, FLORIDA
NORTHSIDE GENERATING STATION
THERMAL DISCHARGE
PLAN - DISCHARGE BASIN - SH. 2

APPROVED FOR REYNOLDS, SMITH AND HILLS
REG. ENG. ST. OF FLA. NO. 5993

FOR THE JACKSONVILLE ELECTRIC AUTHORITY
DEPARTMENT HEAD — ENGINEERING DEPARTMENT
DEPARTMENT HEAD — MANAGING DIRECTOR

DRAWING NO.
76146
D 3502
SHEET 9 OF 28

REVISION	DESCRIPTION	DATE	BY	APPROVED
	UPDATED FOR RECORD SET	11-20-79		
0	UPDATED TO INCLUDE ADD #3, #4 & #6	2-6-78	CRP	AGG



NOTE:
ELEVATIONS SHOWN FOR ANCHORS ARE RELATIVE TO MEAN SEA LEVEL.

C03
5562

009204

SPEC. NO. 76146-000C

REYNOLDS, SMITH AND HILLS
ARCHITECTS · ENGINEERS · PLANNERS, INCORPORATED JACKSONVILLE, FLORIDA

DRAWN G.R.P.
TRACED
CHECKED A.G.G.
SCALE AS NOTED
DATE JUNE, '77

JACKSONVILLE ELECTRIC AUTHORITY
JACKSONVILLE, FLORIDA
NORTHSIDE GENERATING STATION
THERMAL DISCHARGE
GENERAL ARRANGEMENT

APPROVED FOR REYNOLDS, SMITH AND HILLS
REG. ENG. ST. OF FLA. NO. 5993

FOR THE JACKSONVILLE ELECTRIC AUTHORITY
DEPARTMENT HEAD — ENGINEERING DEPARTMENT
DEPARTMENT HEAD — MANAGING DIRECTOR

DRAWING NO. 76146 D 3500
SHEET ... OF ...

REVISION	DESCRIPTION	DATE	BY	APPROVED
1	UPDATED PER RECORD SET	11-30-79	GEH	
0	UPDATED TO INCLUDE ADD. #4 & #6	2-6-78	CPP	AGS

BRUNING 40-105 28870