CITY OF MYRTLE BEACH, SOUTH CAROLINA

DEPARTMENT OF PUBLIC UTILITIES

WATER AND SEWER DIVISION

WASTEWATER TREATMENT PLANT

ADDITIONS AND MODIFICATIONS

PHASE I

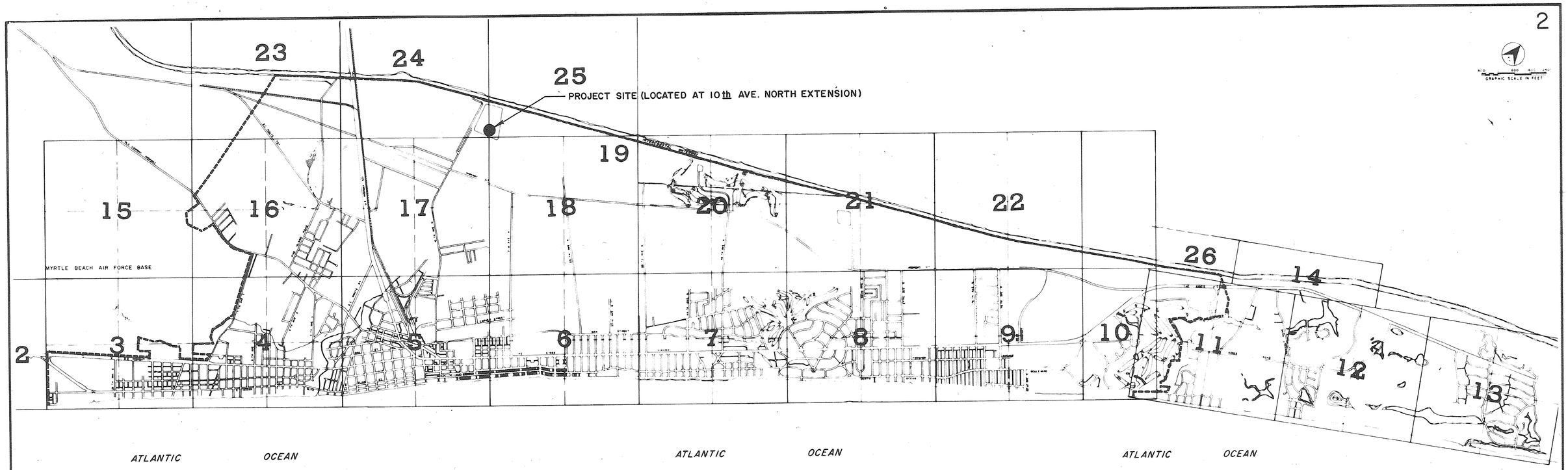
PRC CONSOER TOWNSEND
CONSULTING ENGINEERS
404 JAMES ROBERTSON PKWY.
NASHVILLE, TENNESSEE

VOLUME II OF
CONTRACT DOCUMENTS

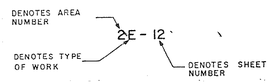
51-003-001

SHEET NO. G-1 OF SHEETS

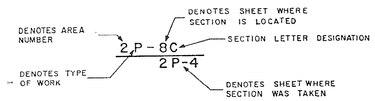
RECORD



SHEET NUMBERING SYSTEM



SECTION NUMBERING SYSTEM



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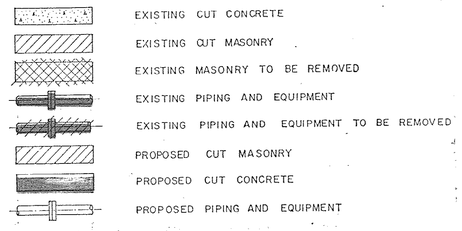

AREA OF WORK

1. SITE DEVELOPMENT
2. GRIT TANKS AND RAW WASTEWATER PUMPING STATION
3. LAGOON
4. ROTATING BIOLOGICAL CONTACTORS
5. FLOCCULATOR-CLARIFIERS AND CLARIFIERS
6. SLUDGE HOLDING TANK
7. SLUDGE COMPOSTING
8. CONTROL CENTER
9. PROCESS CENTER
10. WELL HOUSE
11. INTERMEDIATE PUMPING STATION
12. AERATION BASINS
14. SLUDGE PUMPING STATION
15. SLUDGE HANDLING BUILDING

TYPE OF WORK

G	GENERAL
SD	SITE DEVELOPMENT
A	ARCHITECTURAL
S	STRUCTURAL
P	PROCESS
M	MECHANICAL
E	ELECTRICAL
X	MISCELLANEOUS

MYRTLE BEACH WASTEWATER TREATMENT PLANT ADDITIONS AND MODIFICATIONS

PHASE I

SUBMITTED

PRC CONSOER TOWNSEND

BY Stephen C Betts 4508 DATE 6/30/86

SOUTH CAROLINA CERTIFICATE NO.

REGISTERED PROFESSIONAL ENGINEER — SOUTH CAROLINA — No. 9508 — STEPHEN C. BETTS

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DIRECTOR OF PUBLIC UTILITIES

APPROVED Richard M. Marr DATE 6/24/86

CITY MANAGER

APPROVED Robert M Grissom DATE 6/25/86

MAYOR

51-003-002

2815 RECORD

prc PRC Consoer Townsend Consulting Engineers
NASHVILLE, TENNESSEE

SHEET NO.	TITLE	DRAWING NO.
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G-2	LOCATION MAP	2
G-3	INDEX SHEET	3

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NOTE:
SYMBOL "△" DESIGNATES THIS ALTERNATE WAS NOT BUILT.

51-003-003

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

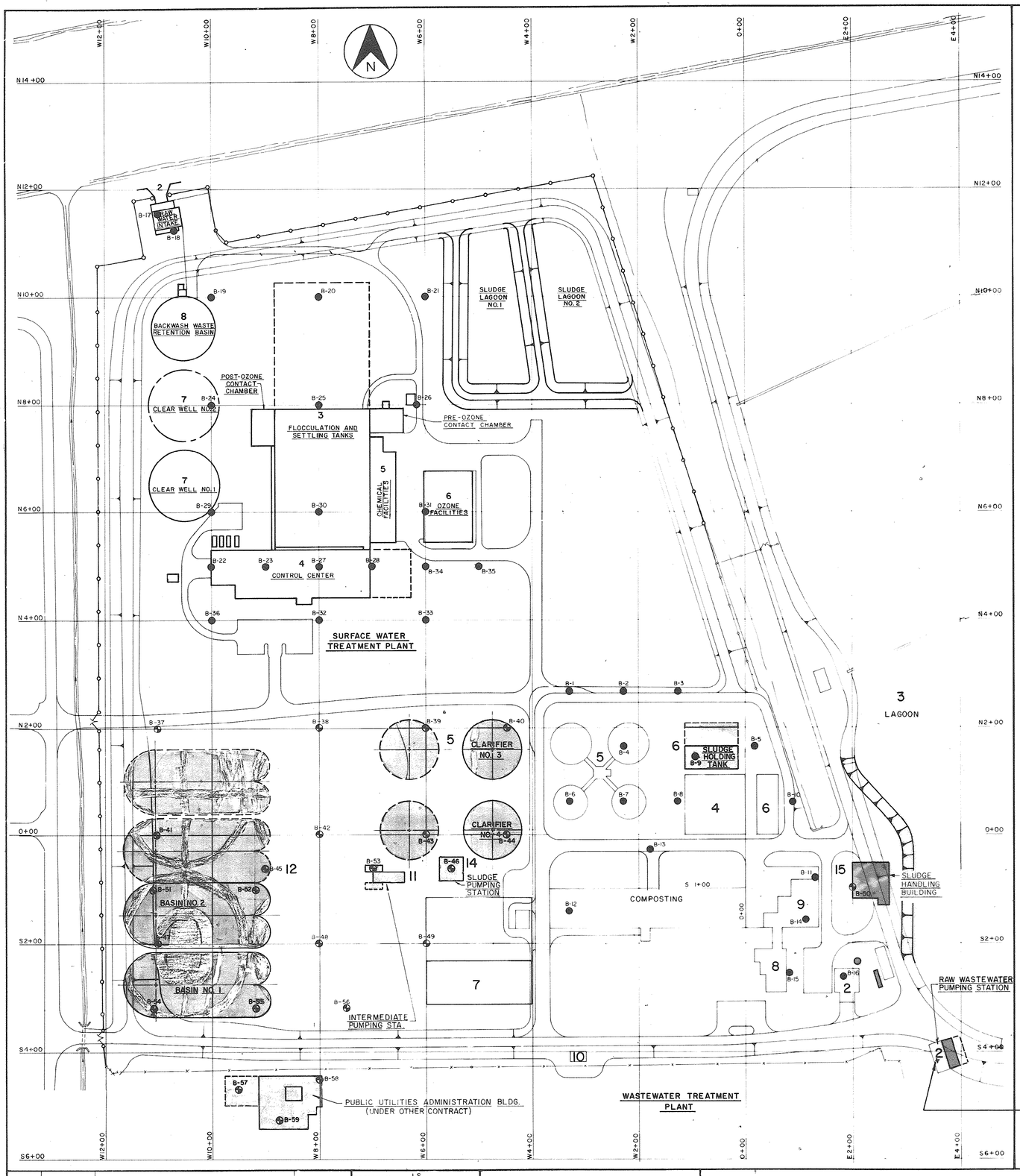
SCALE

INDEX SHEET

SHEET G-3
OF SHEETS
PROJECT NO. 2815

BRUNING 44 123 69716

RECORD



NOTE:

INVESTIGATIONS OF SUBSURFACE CONDITIONS AT THE SITE HAVE BEEN MADE. FOR THE PURPOSE OF DESIGN AND THE FINDINGS ARE AVAILABLE FOR INSPECTION BY PROSPECTIVE BIDDERS, BUT ARE NOT A PART OF THE CONTRACT DOCUMENTS. THE REPORT OF SUBSURFACE CONDITIONS PUBLISHED IN 1986 IS AVAILABLE FOR INSPECTION AT THE ENGINEER'S OFFICE. THE OWNER ASSUMES NO RESPONSIBILITY WHATSOEVER WITH RESPECT TO THE SUFFICIENCY OR ACCURACY OF THESE PRELIMINARY INVESTIGATIONS, OR OF THEIR INTERPRETATION, AND THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE CONDITIONS INDICATED ARE REPRESENTATIVE OF THOSE EXISTING THROUGHOUT THE WORK OR ANY PART OF IT, OR THAT UNFORSEEN DEVELOPMENTS MAY NOT OCCUR. THE CONTRACTOR SHALL PLAN THE WORK BASED UPON HIS OWN BORING INFORMATION.

INVESTIGATION INDICATES THAT EFFECTIVE GROUND WATER CONTROL IS ESSENTIAL FOR REQUIRED CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FULLY ASCERTAIN SUCH REQUIREMENTS; SHALL BE RESPONSIBLE FOR SUCH EFFECTIVE GROUND WATER CONTROL; AND, SHALL INCLUDE AS PART OF THE LUMP SUM ITEM OF THIS CONTRACT THE COSTS FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR CONTROL OF GROUND WATER AS REQUIRED.

LEGEND

- PROPOSED STRUCTURES
- FUTURE STRUCTURES
- EXISTING SOIL BORING (1979)
- PROPOSED SOIL BORING B-37 THRU B-59 (1986)

B.M. WEST SIDE OF RAW WASTEWATER PUMP STATION TOP OF WALL AT SCREW PUMP ELEV. 38.14

51-003-004

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.S.
DRAWN R.W.H./E.B
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1"=100'

CONSTRUCTION LAYOUT AND SOIL BORINGS LOCATION MAP

SHEET ISD-1
OF SHEETS
PROJECT NO. 2815

RECORD

OUTSIDE PIPING

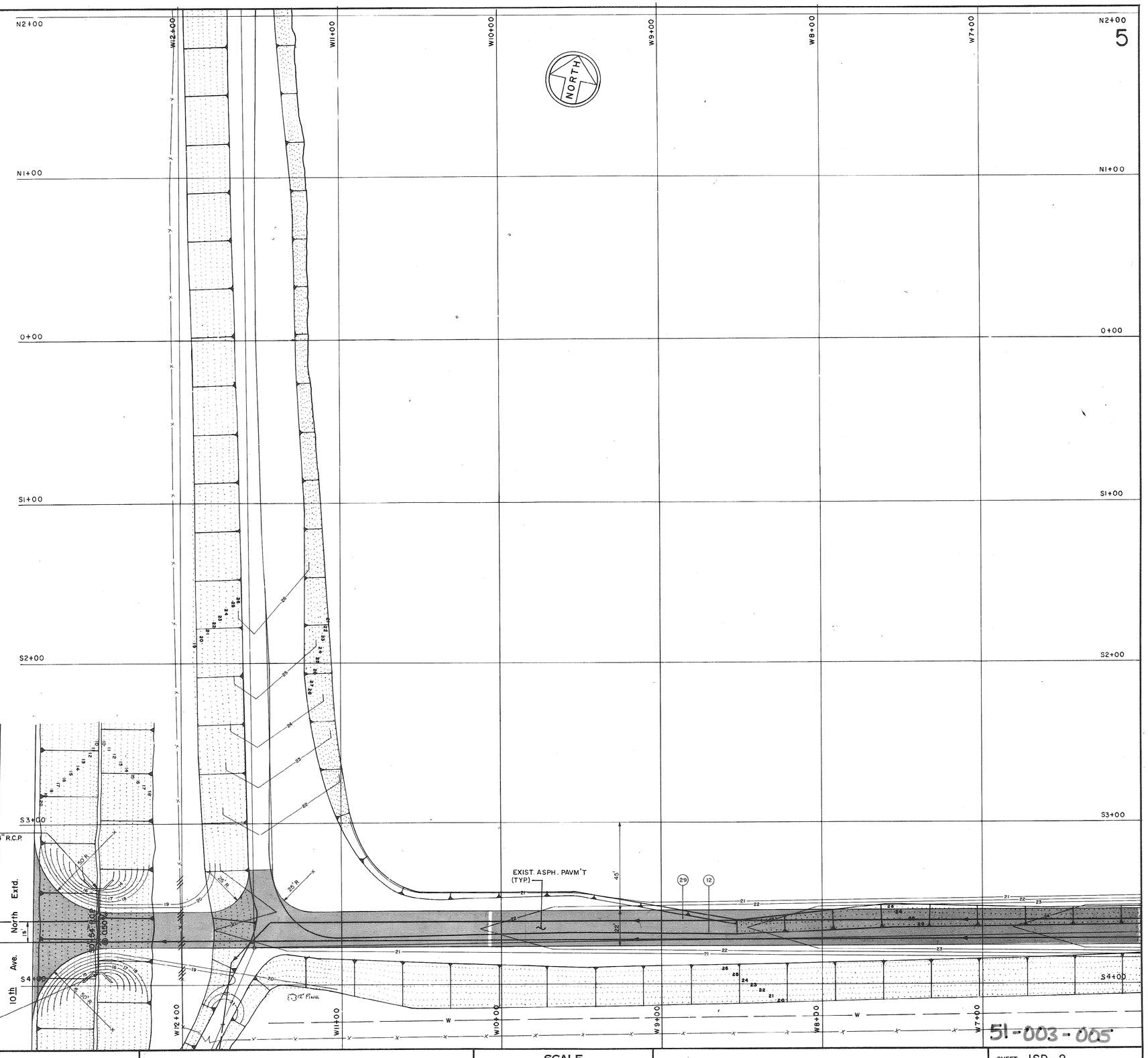
BURIED PRESSURE PIPELINES

LINE NO.	SIZE	SERVICE	TYPE	JOINT
1.	48"	Raw Wastewater	R.C.P.P.	S.E.R.G.
2.	48"	Grit Tank Effluent	R.C.P.P.	S.E.R.G.
3.	42"	Lagoon Influent	R.C.P.P.	S.E.R.G.
4.	30"	R.B.C. Influent	R.C.P.P.	S.E.R.G.
5.	24"	R.B.C. Effluent	D.I.	M.J. or P.O.
6.	24"	CLARIFIER INFLUENT	D.I.	M.J. or P.O.
7.	36"	Lagoon Effluent	R.C.P.P.	S.E.R.G.
8.	8"	Sludge	D.I.	M.J. or P.O.
9.	2½"	Lime Slurry Recirculation	G.S.P.	M.J. or P.O.
10.	6"	Sludge Holding Tank Influent	D.I.	M.J. or P.O.
11.	48"	FINAL EFFLUENT	R.C.P.P.	S.E.R.G.
12.	8"	City Water	D.I.	M.J. or P.O.
13.	2"	Sampling	P.V.C.	
14.	2-1/2"	High Pressure Effluent	P.V.C.	
15.	2"	High Pressure Effluent	P.V.C.	
16.	1-1/2"	High Pressure Effluent	P.V.C.	
17.	10"	Tank Drainage	D.I.	M.J. or P.O.
18.	18"	Low Pressure Air	D.I.	M.J. or P.O.
19.	16"	Low Pressure Air	D.I.	M.J. or P.O.
20.	14"	Low Pressure Air	D.I.	M.J. or P.O.
21.	12"	Low Pressure Air	D.I.	M.J. or P.O.
22.	10"	Low Pressure Air	D.I.	M.J. or P.O.
23.	8"	Low Pressure Air	D.I.	M.J. or P.O.
24.	6"	Low Pressure Air	D.I.	M.J. or P.O.
25.	4"	Low Pressure Air	D.I.	M.J. or P.O.
26.	8"	Scum	G.L.C.I.	M.J. or P.O.
27.	6"	Scum	G.L.C.I.	M.J. or P.O.
28.	1/2"	High Pressure Air	G.S.P.	T.O.S.
29.	36"	Plant Effluent	R.C.P.P.	S.E.R.G.
30.	4"	Spray Water	D.I.	M.J. or P.O.
31.	2-1/2"	Spray Water	G.S.P.	T.O.S.
32.	36"	Splitter Box Bypass	R.C.P.P.	S.E.R.G.
33.	36"	Lagoon Influent	R.C.P.P.	S.E.R.G.
34.	24"	Flocculator-Clarifier Influent	D.I.	M.J. or P.O.
35.	1-1/2"	Alum	P.V.C.	
36.	1"	Chlorine Solution	P.V.C.	
37.	1"	Lime Slurry	P.V.C.	
38.	6"	Sludge Holding Tank Supernatant	D.I.	M.J. or P.O.
39.	4"	Liquid Sludge	D.I.	M.J. or P.O.
40.	6"	Drain	D.I.	M.J. or P.O.
41.	8"	Well Water	D.I.	M.J. or P.O.
42	1-1/4"	High Pressure Effluent	P.V.C.	

GRAVITY SEWERS AND DRAINS

LINE NO.	SIZE	SERVICE	TYPE	JOINT
A	18"	Tank Drainage	D.I.	M.J. or P.O.
B	12"	Tank Drainage	D.I.	M.J. or P.O.
C	10"	Tank Drainage	D.I.	M.J. or P.O.
D	8"	Tank Drainage	D.I.	M.J. or P.O.
E	6"	Tank Drainage	D.I.	M.J. or P.O.
F	4"	Tank Drainage	D.I.	M.J. or P.O.
G	4"	Splash Pad Drain	P.V.C.	

NOTE:
1. FOR LEGEND AND GENERAL NOTES SEE SHEET ISD-11



5

51-003-005

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED S.P.S.
DRAWN E.B.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1" = 30'

SITE DEVELOPMENT
EXISTING CONDITIONS

SHEET ISD-2
OF SHEETS
PROJECT NO. 2815

RECORD

6

NOTES:
1. FOR LEGEND AND GENERAL NOTES SEE SHEET ISD-10
2. FOR LIST OF OUTSIDE PIPING SEE SHEET ISD-2.

FLOCCULATOR-CLARIFIER
FLOCCULATOR-CLARIFIER
CLARIFIER
CLARIFIER
ROTATING BIOLOGICAL CONTACTORS
SLUDGE HOLDING TANK
SLUDGE COMPOSTING PAD (CONC.)
PROCESS CENTER
OPERATIONS CENTER
GRIT TANKS
BLOWER BUILDING
DEODORIZING PAD
EXISTING LAGOON
EXISTING PUMPING STATION

SITE DRAIN
Rim Elev. 18.00
Inv. Elev. 15.00

MANHOLE "B"

100'-15" R.C.P. @ 0.62%

SITE DRAIN
Rim Elev. 17.75
Inv. Elev. 12.24

115'-15" R.C.P. @ 1.00%

STD. M.H.
Inv. Elev. -2.30

CHAMBER "A"

Inv. Elev. 19.90

50 S.Y. OF GROUTED RUBBLE RIP-RAP

ENDWALL
Inv. Elev. 10.88, 72" R.C.P.
Inv. Elev. 11.75, 30" R.C.P.

Inv. Elev. 13.91

Inv. Elev. 19.00

DROP M.H.
Inv. Elev. 0.76, W.
Inv. Elev. 15.00, S.

STD. M.H.
Inv. Elev. -2.22

MCC & PSI PAD

CHAMBER "D"

4.20%

123'

8" SAN.

183'-15" R.C.P.

STD. M.H.
Inv. Elev. -2.05

STD. M.H.
Inv. Elev. -1.78

Note: Chemical lines and sampling line were rerouted to the north side of the new composting pad.

SITE DRAIN
Rim Elev. 18.00
Inv. Elev. 13.17

SITE DRAIN
Rim Elev. 18.00
Inv. Elev. 14.00, E.
Inv. Elev. 16.72, S.

SITE DRAIN
Rim Elev. 19.00
Inv. Elev. 12.78

152'-15" R.C.P. @ 0.80%

166'-15" R.C.P. @ 1.40%

70'-8" D.I.P. @ 2.40%

SITE DRAIN
Rim Elev. 19.00
Inv Elev. 15.76, E.
Inv. Elev. 15.10, W.

STD. M.H.
Inv. Elev. -1.67

STD. M.H.
Inv. Elev. -0.42

LIQUID SLUDGE LOADING STATION

STD. M.H.
Rim Elev. 19.60
Inv. Elev. 13.88, S.
Inv. Elev. 13.48, N.
Inv. Elev. 15.56, E.

(17'-6" D.I.P. @ 1.00%)

SIGN "HANDICAPPED PARKING ONLY"

(16'-15" R.C.P. @ 36.00%)

SITE DRAIN TO BE REMOVED
Rim Elev. 28.00
Inv. Elev. 19.90

GENERATOR FUEL TANK (550 GAL. CAPACITY)
GENERATOR PAD
PROPANE TANKS

SIGN "EMPLOYEE PARKING"

SPLITTER BOX
Inv. Elev. 12.8±
Total Deflection Of 3°± Shall Be Accomplished In 3 Joints

SITE DRAIN
Rim Elev. 33.00
Inv. Elev. 26.38

GENERATOR FUEL TANK
GENERATOR PAD

MCC P22 PAD

SWGR S1 PAD

BACKFLOW PREVENTORS

EXIST. 12" D.I.P.

SIGN "VISITORS & EMPLOYEES & AUTHORIZED VEHICLES ONLY"

SIGN "AUTHORIZED VEHICLES ONLY"

VALVE BOX

EXIST. ASPH. PAVM'T (TYP.)

SITE DRAIN
Rim Elev. 19.00
Inv. Elev. 15.50

150'-18" R.C.P. @ 0.48%

115'-24" R.C.P. @ 0.48%

18" D.I.P. @ 3.20%

STD. INLET
Rim Elev. 33.00
Inv. Elev. 29.00

SIGN "HANDICAPPED PARKING ONL."

4" WIDE YELLOW PAINT STRIPE (TYPICAL)

FLAG POLE

150'-15" R.C.P. @ 0.48%

70'-18" R.C.P. @ 2.40%

STD. M.H.
Inv. Elev. 20.50

6' DIA. M.H.
Inv. Elev. 28.00

STD. INLET
Rim Elev. 33.00
Inv. Elev. 27.58, W.
Inv. Elev. 27.38, E.

STD. INLET
Rim Elev. 34.00
Inv. Elev. 28.28

30'-4" D.I.P. @ 1.00%

20" FM

W5+00 W4+00 W3+00 W2+00 W1+00 0+00 E1+00 E2+00 E3+00

N2+00 N1+00 0+00 S1+00 S2+00 S3+00 S4+00

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED S.P.S.
DRAWN E.B.
CHECKED K.A.R
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

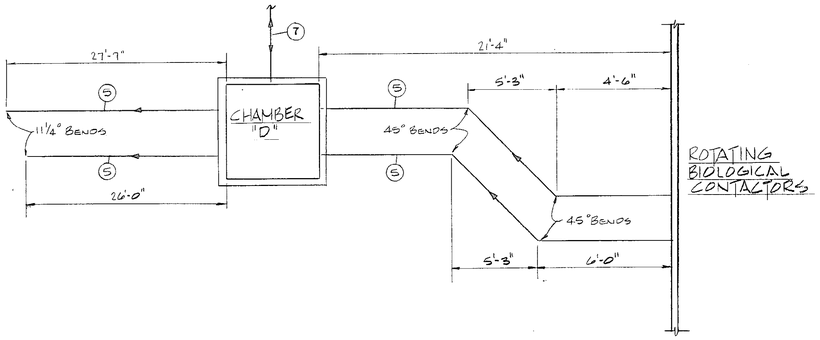
SCALE
1" = 30'

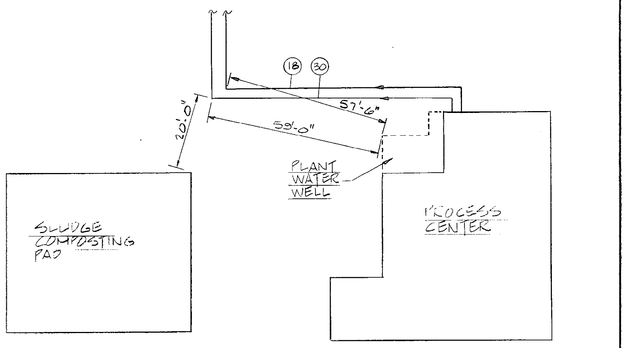
51-0130-006

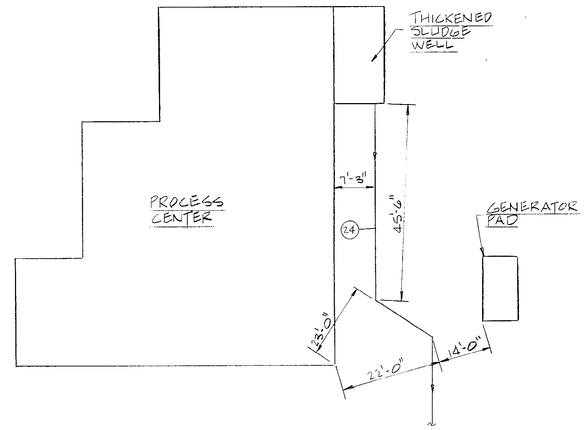
SITE DEVELOPMENT
EXISTING CONDITIONS

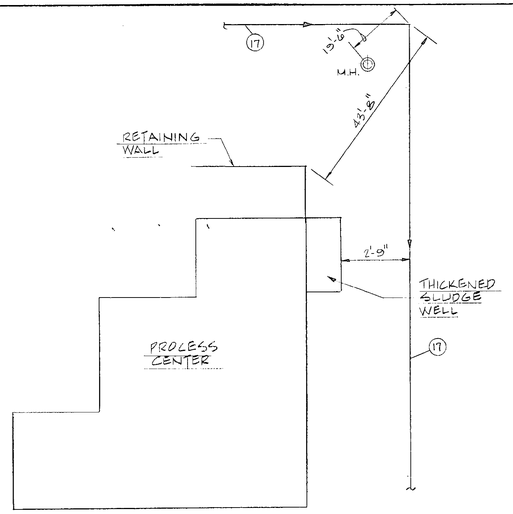
SHEET ISD-3
OF SHEETS
PROJECT NO. 2815

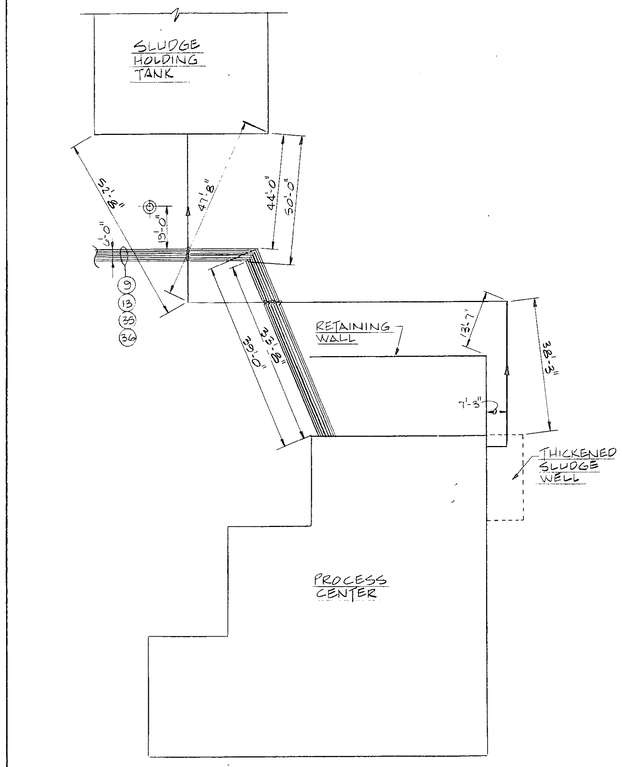
RECORD

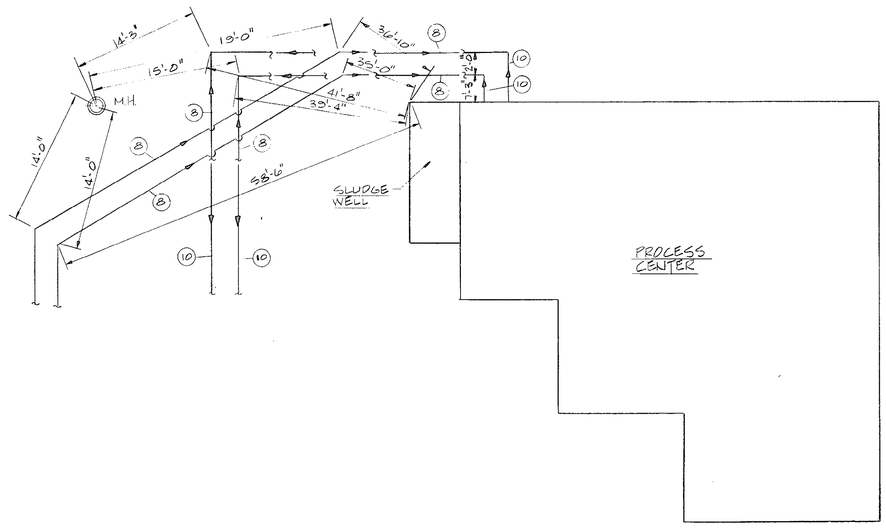












NOTES:
1. SEE DRAWING ISD-2 FOR OUTSIDE PIPING LIST.
2. SEE DRAWING ISD-3 AND PLAN DRAWINGS FOR ADDITIONAL OUTSIDE PIPING LOCATIONS.

51-003-007

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED S.P.S.
DRAWN E.B.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

OUTSIDE PIPING RELOCATION
SKETCHES
EXISTING CONDITIONS

SHEET ISD-4
OF SHEETS
PROJECT NO. 2815

RECORD

NOTES

1. FOR LEGEND AND GENERAL NOTES SEE SHEET ISD-10
2. FOR LIST OF PROPOSED OUTSIDE PIPING SEE SHEET ISD-2.

NORTH

EXISTING BLOWER BUILDING

10 S.Y. OF GROUTED RUBBLE RIP-RAP

ENDWALL
Inv. Elev. 9.10 , 24" R.C.P.

SITE DRAIN
Rim Elev. 18.00
Inv. Elev. 13.39, S.&W.
Inv. Elev. 10.50, E.

SITE DRAIN
Rim Elev. 18.00
Inv. Elev. 9.46

STD. M.H.
Rim Elev. 20.00
Inv. Elev. 14.48

GRAVEL

CHAMBER "C"

CHAMBER "B"

210' - 15" R.C.P. @ 0.52%

160' - 24" R.C.P. @ 0.52%

64' - 24" R.C.P. @ 0.60%

FLOCCULATOR-CLARIFIER

FLOCCULATOR-CLARIFIER

W5+00 W4+00 W3+00 W2+00 W1+00 0+00 E1+00 E2+00 E3+00

N8+00 N7+00 N6+00 N5+00 N4+00 N3+00 N2+00

51-003-005

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED S.P.S.
DRAWN E.B.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1" = 30'

SITE DEVELOPMENT
EXISTING CONDITIONS

SHEET ISD-5
OF SHEETS
PROJECT NO. 2815

RECORD

PROPOSED CLARIFIER NO. 3

FLOCCULATOR-CLARIFIER NO. 2

FLOCCULATOR-CLARIFIER NO. 1

5

FINAL EFFLUENT COLLECTOR CHAMBER

6 PROPOSED SLUDGE HOLDING TANK

FOR PIPING IN THIS AREA SEE SHT. ISD-10

CHAMBER "A"

FOR CONTINUATION OF PIPING THIS AREA SEE SH. ISD-9

FOR DETAILS OF THIS AREA SEE SH. SP-4

CLARIFIER NO. 2

CLARIFIER NO. 1

EXISTING 8" SLUDGE

ROTATING BIOLOGICAL CONTACTORS

4

SLUDGE HOLDING TANK

6

PROPOSED CLARIFIER NO. 4

4' SIDEWALK (TYP)

MOTOR CONTROL CENTER PAD

CLARIFIERS DISTRIBUTION CHAMBER NO. 1

EXIST. 24" C.I.

CHAMBER "D"

PROPOSED (ASPH.)

HEADWALL

℄ EL. 10.17

16" GATE VALVE PROVIDE VALVE BOX TO GRADE WITH NUT OPERATOR

SITE DRAIN S 0+54 W 2+55 Rim Elev. 19.5 Inv. Elev. 13.6, E. Inv. Elev. 11.16 N. Inv. Elev. 11.32, W.

SITE DRAIN S 0+54 W 1+06 Rim Elev. 19.5 Inv. Elev. 15.1

ASPHALT PAVEMENT

65'-18" R.C.P., C-76 CL. III @ 1.20%

150'-15" R.C.P., C-76 CL. III @ 1.00%

42'-15" R.C.P. C-76 CL. III @ 1.00%

PROPOSED (CONC.)

95'-18" R.C.P. C-76 CL. III @ 1.20%

SITE DRAIN S 0+54 W 3+20 Rim Elev. 19.8 Inv. Elev. 12.10

PROPOSED (ASPH.) SLUDGE COMPOSTING (ASPH.) PAD

SITE DRAIN S 0+45 W 0+65 Rim Elev. 19.5 Inv. Elev. 15.5, W. Inv. Elev. 16.0, S.

FOR CONTINUATION OF STORM SEWER, SEE SHEET ISD-9

37'-18" R.C.P., C-76 CL. III @ 1.00%

27'-8" D.I.P. @ 1.33%±

EXISTING COMPOSTING SCREEN TO BE RELOCATED SEE SHEET NO. ISD-9

ABANDON EXIST. STORM SEWER PIPES & REMOVE SITE DRAINS AND BACKFILL WITH CRUSHED STONE.

CONNECT TO EXIST. 8" D.I.P.

SEE DETAIL "A" UPPER RIGHT

PROPOSED CONVEYER

CONVEYER

SLUDGE COMPOSTING PAD

7

PROCESS CENTER

9

REBUILD EXIST SITE DRAIN Rim Elev. 19.80 Inv. Elev. 13.24, S.E. / Inv. Elev 15.90, N / Inv. Elev. 15.32, W. Inv. Elev. 16.72 Ex. 8" S.

SITE DRAIN S 1+17 W 4+02 Rim Elev. 19.60 Inv. Elev. 13.61 Inv. Elev. 15.48, W.

DRAINAGE TROUGH

RETAINING WALL

6" D.I.P. DRAIN

S 1+97.83

BLOWER BUILDING

PROPOSED (ASPH.)

PROPOSED (ASPH.)

PROPOSED SLUDGE COMPOSTING PAD (CONC.)

THIS SECTION ABANDONED BUT NOT REMOVED.

S 2+82.83

DEODORIZING PAD

PROPOSED SLUDGE COMPOSTING PAD (ASPH.)

89'-18" R.C.P., C-76, CL. III @ 0.52%

150'-18" R.C.P. C-76 CL. III @ 0.52%

SITE DRAIN S 2+57 W 4+03 Rim Elev. 20.50 Inv. Elev. 14.26

157'-15" R.C.P., C-76, CL. III @ 0.50%

SITE DRAIN W/CONC. APRON. S 3+00 W 2+80 Rim Elev. 18.50 Inv. Elev. 15.27, E. Inv. Elev 15.04, W.

SITE DRAIN W/CONC. APRON S 3+00 W 1+25 Rim Elev. 18.50 Inv. Elev. 16.06, W. Inv. Elev. 16.90, N.

W 2+97.5

W 0+97.5

OPERATIONS CENTER

8

PROPOSED UNIT SUB-STA.

EXISTING 6" L.P. AIR ℄ ELEV. 32.0

EXIST. 8" DRAINAGE ℄ ELEV. 20.75

EXIST. 10" TANK DRAINAGE ℄ ELEV. 27.92

PROVIDE 10"x10" MJ TEE & 10" PLUG VALVE ON EXISTING TANK DRAINAGE LINE PROVIDE VALVE BOX TO SURFACE W/ NUT OPERATOR.

PROVIDE 10" VALVE W/ VALVE BOX TO SURFACE W/ NUT OPERATOR

10" TANK DRAINAGE ℄ ELEV. 27.92

BACKFLOW PREVENTERS

SWITCHGEAR PAD

48" EXIST. RCPP

MH-2

EXIST. M.H.

PROPOSED GENERATOR NO. 3

PROPOSED LIME STORAGE AND FEED SYSTEM

EXISTING ½" H.P. AIR

GRIT TANKS

2

MOTOR CONTROL CENTER PAD

10" TANK DRAINAGE ℄ ELEV. 31.50

8" TANK DRAINAGE

PROPOSED METER VAULT AND RAPID MIX BASIN

PROVIDE 8"x8"x8" MJ TEE AND 2-8" PLUG VALVES W/ VALVE BOX TO SURFACE W/ NUT OPERATOR – ℄ ELEV. 30.00

24" D.I.P. BY-PASS

24" BUTTERFLY VALVE

MH-1

EXISTING GENERATOR (TO BE RELOCATED)

EXISTING GENERATOR & FUEL TANK (TO BE RELOCATED)

R=300'

FUTURE SCREW PUMPS

PROPOSED SCREW PUMPS

EXISTING GENERATOR NO.1 (RELOCATED)

RAW WASTEWATER PUMPING STATION

FUEL TANK

REMOVE EXIST. ASPH. PAVMT (TYP)

SPLITTER BOX

PROPOSED (ASPH.)

MATCH EXISTING GRADE WITH MAXIMUM PROPOSED EMBANKMENT SLOPE OF 2H:1V. REMOVE EXISTING UNCOMPACTED EARTH EMBANKMENT AND CONSTRUCT COMPACTED EMBANKMENT AS APPROVED BY THE ENGINEER.

PROPOSED EMBANKMENT (CONSTRUCT EMBANKMENT OF CLAY WITH MINIMUM THICKNESS OF 8 FEET ALONG WATER SIDE AT LEAST UP TO HIGH WATER LEVEL. LOCAL FILL MATERIAL FOR THE REST OF THE BODY OF THE EMBANKMENT SHALL BE USED ONLY IF APPROVED BY THE ENGINEER.)

LAGOON

3

PROPOSED SLUDGE HANDLING BLDG.

4" DRAIN TO EXIST. M.H.

GENERATOR FUEL TANK

GENERATOR

PROPANE TANKS

U-15

GEN-3

MUNIRAIL

EX. 14" P.W. MAIN

EX. 16" P.W. MAIN

DETAIL "A"

4" DRAIN TO EX. M.H.

LEGEND

- PROPOSED ASPHALT PAVEMENT (ASPH.)
- PROPOSED ASPHALT PAVEMENT (ASPH.)
- EXISTING PAVEMENT TO BE REMOVED
- PROPOSED EMBANKMENT
- PROPOSED CONCRETE WALK
- PROPOSED CONCRETE WALK

NOTE: SLUDGE COMPOSTING PADS AND OTHER AREAS SHALL BE SHAPED TO DRAIN TO SITE DRAINS.

NOTES

1. FOR LEGEND AND GENERAL NOTES SEE SHEET ISD-10 & ISD-11.
2. FOR LIST OF PROPOSED OUTSIDE PIPING SEE SHEET ISD-10.
3. FOR LIST OF EXISTING OUTSIDE PIPING SEE SHEET ISD-2.

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED S.P.S
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6/1/86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1" = 30'

SITE DEVELOPMENT

SHEET ISD-6 OF SHEETS
PROJECT NO. 2815

RECORD

NOTES:

1. FOR LEGEND AND GENERAL NOTES SEE SHEET 1SD-10 & 1SD-11.
2. FOR LIST OF PROPOSED OUTSIDE PIPING SEE SHEET 1SD-10.
3. FOR LIST OF EXISTING OUTSIDE PIPING SEE SHEET 1SD-2.

FUTURE AERATION BASIN

FUTURE AERATION BASIN

PROPOSED AERATION BASIN NO.2

S1+45, W1+05

12
PROPOSED AERATION BASIN NO.1

HEADWALL S3+05, ± W12+42 ±
Inv. Elev. 13.00

STONE RIP-RAP 20' x 20' x 1'

78'-18" R.C.P. C-76, CL. III @ 2.00%

SITE DRAIN W/CONC. APRON S3+40, W11+76
Rim Elev. 19.00
Inv. Elev. 14.56

338'-18" R.C.P., C-76, CL. III @ 0.80%

4'

1-1/2" PVC WATER

6' TYP.

100 EACH BUSHES (RED TIPS) @ 6' SPACING AS DIRECTED BY THE ENGINEER

DRAINAGE PUMPING STATION

SITE DRAIN W/CONC. APRON & WEIRS (N.&E.)
S2+00, W8+40
Rim Elev. 21.00
Inv. Elev. 18.30
Weir Elev. 20.25, N. & E.

140'-15" R.C.P., C-76, CL. III @ 0.60%

SITE DRAIN W/CONC. APRON & WEIR, N.
S3+40, W8+45
Rim Elev. 20.50
Inv. Elev. 17.26, W
Inv. Elev. 17.46, N
Weir Elev. 19.75, N.

PROPOSED 4" D.I.P. WATER MAIN

FOR CONT. SEE SHT. ISD-6

4' SIDEWALK (TYP.)

PROPOSED INTERMEDIATE PUMPING STATION

S0+58

W6+80

40 L.F.-15" R.C.P., C-76 CL. III @ 0.50%

PROPOSED SLUDGE PUMPING STATION

S1+10

160 L.F.-15" R.C.P., C-76 CL. III @ 0.50%

DEODORIZING PAD

RELOCATED COMPOSTING SCREEN

SITE DRAIN S1+27 W5+60
Rim Elev. 19.9
Inv. Elev. 16.28

REMOVE EXIST. 4" D.I.P. LINE

FOR WALL DETAIL SEE SECTION 7S-2H

PROPOSED SLUDGE COMPOSTING PAD (ASPH.)

PROPOSED SLUDGE COMPOSTING PAD ENCLOSURE

FOR DETAILS SEE SHEET 7S-2

7

200'

INSTALL 4" GATE VALVE w/VALVE BOX

CUT & CAP EX. 4" WATER MAIN

EX. 4" D.I.P. WATER MAIN

CONNECT TO EX. 4" D.I.P. WATER MAIN

INSTALL 4" GATE VALVE w/VALVE BOX

CONNECT TO EX. 4" D.I.P. WATER MAIN

EX. 4" D.I.P. WATER MAIN

Inv. Elev. 19.00

Inv. Elev. 15.40

SITE DRAIN W/CONC. APRON ON EXIST. STORM LINE
Rim Elev. 20.80
Inv. Elev. 17.30

REMOVE EXIST. PIPE & C.O.

FUTURE CLARIFIER

PROPOSED CLARIFIER NO.3
N1+65, W4+62

SITE DRAIN W/CONC. APRON
N1+08, W4+15
Rim Elev. 19.50
Inv. Elev. 16.51

SITE DRAIN W/CONC. APRON ON EXIST. STORM LINE
Rim Elev. 19.75
Inv. Elev. 16.80

EXIST. SITE DRAIN
Rim Elev. 18.00
Inv. Elev. 15.00

42"-15" R.C.P., C-76 CL. III @ 3.66%

5
PROPOSED CLARIFIER DISTRIBUTION CHAMBER NO.2

3/4" PVC H.P. AIR

4" TYP.

FUTURE CLARIFIER

PROPOSED CLARIFIER NO.4
N0+17, W4+62

SITE DRAIN W/CONC. APRON
S0+55, W4+65
Rim Elev. 19.50
Inv. Elev. 16.50

SITE DRAIN W/CONC. APRON
S0+88, W5+60
Rim Elev. 19.00
Inv. Elev. 16.48

14

60 L.F.-15" R.C.P., C-76 CL. III @ 3.00%

25' R

PROPOSED 4" D.I.P. WATER MAIN

FOR CONTINUATION OF STORM SEWERS SEE SHEET ISD-6

END CONSTRUCTION OF PROPOSED WALL

SEE SHEET ISD-6 FOR INFORMATION THIS STORM DRAIN

PROPOSED 4" D.I.P. WATER MAIN

EX. 4" D.I.P. WATER MAIN

W13+00 W12+00 W11+00 W10+00 W9+00 W8+00 W7+00 W6+00 W5+00 W4+00

N2+00 N1+00 0+00 S1+00 S2+00 S3+00

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED S.P.S
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6/1/86

PRC Consoer Townsend
CONSULTING ENGINEERS

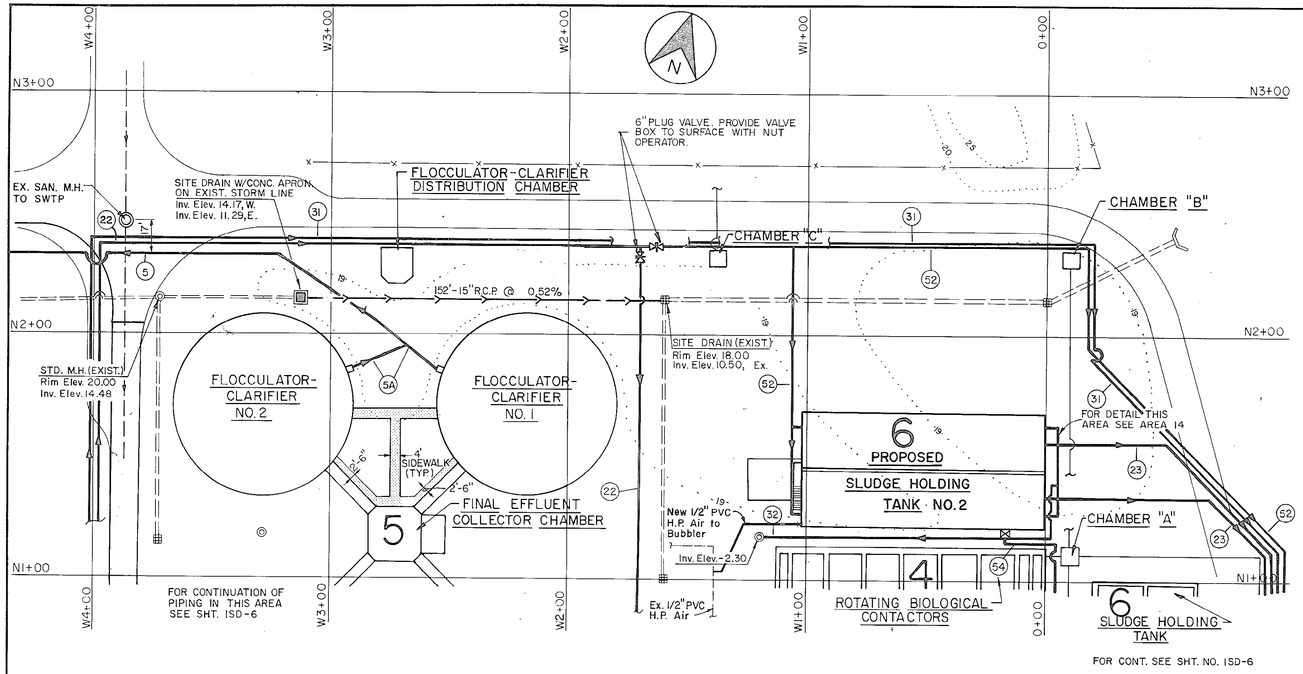
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1" = 30'

51-000.-0.10
SITE DEVELOPMENT
ALTERNATE II

SHEET ISD-9
OF SHEETS
PROJECT NO. 2815

RECORD



GENERAL NOTES:

1. PIPING SHOWN IS DIAGRAMMATIC ONLY.
2. ALL BENDS SHALL BE ANCHORED WITH ANCHOR RODS OR THRUST BLOCKS AS APPROVED.
3. THE LOCATIONS, SIZES, MATERIALS AND OTHER INFORMATION OF EXISTING UNDERGROUND AND OVERHEAD UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY BASED UPON AVAILABLE RECORDS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA AND SHALL AVOID ANY CONFLICT WITH EXISTING FACILITIES. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

OUTSIDE PIPING LEGEND

D.I.	DUCTILE IRON PIPE
G.L.D.I.	GLASS LINED DUCTILE IRON PIPE
R.C.P.P.	REINFORCED CONCRETE PRESSURE PIPE
P.V.C.	POLYVINYL CHLORIDE PIPE
G.S.P.	GALVANIZED STEEL PIPE
S.E.R.G.	STEEL END-RING & O-RING RUBBER GASKET
M.J.	MECHANICAL JOINT
P.O.	PUSH-ON JOINT
T.O.S.	THREADED OR SOCKET TYPE JOINT

LINE NO.	SIZE	SERVICE	TYPE	JOINT
52	6"	Waste Activated Sludge	G.L.D.I.	M.J. or P.O.
53	6"	Scum Ejector Discharge	G.L.D.I.	M.J. or P.O.
54	1½"	High Pressure Effluent Water	PVC	

OUTSIDE PIPING

LINE NO.	SIZE	SERVICE	TYPE	JOINT
1	42"	Raw Wastewater	R.C.P.P.	S.E.R.G.
2	48"	Raw Wastewater	R.C.P.P.	S.E.R.G.
3	30"	Degritted Raw Wastewater	R.C.P.P. or D.I.	S.E.R.G. M.J. or P.O.
4	24"	R.B.C. Effluent	D.I.	M.J. or P.O.
5	36"	Flocculator-Clarifier Effluent	R.C.P.P. or D.I.	S.E.R.G. M.J. or P.O.
5A	24"	Flocculator-Clarifier Effluent	R.C.P.P. or D.I.	S.E.R.G. M.J. or P.O.
6	36"	Aeration Basin No. 1 Influent	R.C.P.P. or D.I.	S.E.R.G. M.J. or P.O.
7	36"	Aeration Basin No. 2 Influent	R.C.P.P. or D.I.	S.E.R.G. M.J. or P.O.
8	36"	Aeration Basins Effluent	R.C.P.P. or D.I.	S.E.R.G. M.J. or P.O.
9	48"	Aeration Basins Effluent	R.C.P.P. or D.I.	S.E.R.G. M.J. or P.O.
10	24"	Mixed Liquor to Existing Clarifiers	D.I.	M.J. or P.O.
11	36"	Mixed Liquor	R.C.P.P. or D.I.	S.E.R.G. M.J. or P.O.
12	36"	Clarifier No. 3 Effluent	R.C.P.P. or D.I.	S.E.R.G. M.J. or P.O.
13	42"	Final Effluent	R.C.P.P.	S.E.R.G.
14	8"	Sludge Draw-Off	D.I.	M.J. or P.O.
15	10"	Sludge Draw-Off	D.I.	M.J. or P.O.
16	10"	Sludge Draw-Off	D.I.	M.J. or P.O.
17	8"	Heavy Sludge	D.I.	M.J. or P.O.
18	14"	Sludge Draw-Off	D.I.	M.J. or P.O.
19	8"	Heavy Sludge	D.I.	M.J. or P.O.
20	14"	Sludge Draw-Off	D.I.	M.J. or P.O.
21	18"	Return Activated Sludge	D.I.	M.J. or P.O.
22	6"	Waste Activated Sludge	G.L.D.I.	M.J. or P.O.
23	8"	Sludge	G.L.D.I.	M.J. or P.O.
24	8"	Thickened Sludge	G.L.D.I.	M.J. or P.O.

LINE NO.	SIZE	SERVICE	TYPE	JOINT
25A	6"	Sludge to Sludge Thickener No. 1	G.L.D.I.	M.J. or P.O.
25B	6"	Sludge to Sludge Thickener No. 2	G.L.D.I.	M.J. or P.O.
26	8"	Thickener Recirculation	D.I.	M.J. or P.O.
27	8"	Thickened Recirculation Return	D.I.	M.J. or P.O.
28	30"	RBC Influent (Relocation)	R.C.P.P.	S.E.R.G.
29	6"	Scum	G.L.D.I.	M.J. or P.O.
30	8"	Scum	G.L.D.I.	M.J. or P.O.
31	6"	Scum-Ejector Discharge	G.L.D.I.	M.J. or P.O.
32	8"	Sludge Holding Tank Supernatant	D.I.	M.J. or P.O.
33	12"	Drain (Relocation)	D.I.	M.J. or P.O.
34	12"	Thickener Supernatant	D.I.	M.J. or P.O.
35	12"	Clarifiers Drain	D.I.	M.J. or P.O.
36	12"	Aeration Basins Drain (Alternate 1A & 1B)	D.I.	M.J. or P.O.
37	16"	Aeration Basins Drain (Alternate 11)	D.I.	M.J. or P.O.
38	8"	Tank Drainage Pump Discharge	D.I.	M.J. or P.O.
39	4"	Drain	D.I.	M.J. or P.O.
40	3"	Drain (Alternates 1A & 1B only)	D.I.	M.J.
41	14"	Air Main (Relocation)	D.I.	M.J. or P.O.
42	2"	Sampling	PVC	
43	1½"	Lime Slurry	PVC or Rubber	
44	1½"	High Pressure Effluent Water	PVC	
45	1½"	High Pressure Air	PVC	
46	3/4"	High Pressure Air	PVC	
47	4"	Plant Water	PVC	-
48	3"	Plant Water	PVC	-
49	2½"	Plant Water	PVC	-
50	2"	Plant Water	PVC	-
51	1½"	Polymer	PVC	-

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED S.P.S.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6/1/86

PRC Consoer Townsend
CONSULTING ENGINEERS

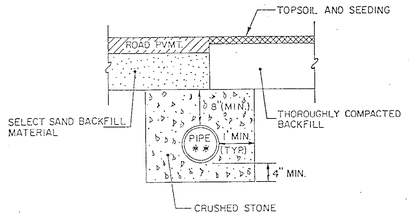
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1" = 30'

51-003-011
SITE DEVELOPMENT

SHEET ISD - 10 OF SHEETS
PROJECT NO. 2815

RECORD

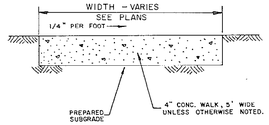


TRENCH BACKFILL
TYPICAL SECTION

** TO BE USED FOR ALL THE UNDERGROUND PIPES LAID UNDER THIS CONTRACT.

NOTES:

1. THE COST FOR CRUSHED STONE BEDDING, EXCAVATION, DISPOSAL OF EXCAVATED MATERIAL, SELECT SAND BACKFILL MATERIAL, COMPACTION OF BACKFILL, LABOR, HAULING AND OTHER INCIDENTALS TO LAY THE PIPES SHALL BE MERGED INTO THE LUMP SUM COST FOR THIS PROJECT.
2. ANY ADDITIONAL UNDERCUT REQUIRING SAND BACKFILL SHALL BE PAID UNDER UNIT PRICE ITEM FOR "SELECT SAND BACKFILL MATERIAL".

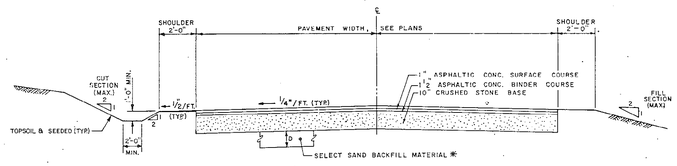


CONCRETE WALK

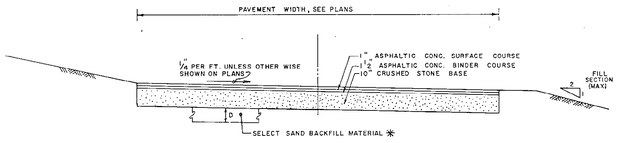
NOTE:
PREFORMED JOINT FILLER MATERIAL TO CONFORM TO AASHO M 213. SIDEWALKS TO BE SCORED TRANSVERSLY AT 5'-0" INTERVALS. PROVIDE 1/2" EXPANSION JOINTS AT 30'-0" INTERVALS, BETWEEN NEW AND EXISTING WALKS, AND WHERE WALKS ARE ADJACENT TO BUILDING, OR AS SHOWN ON PLANS. SLOPE WALKS 1/4" PER FOOT IN DIRECTION OF DRAINAGE.

CONTRACTION JOINTS IN CURBS ADJACENT TO BITUMINOUS PAVEMENTS SHALL BE PROVIDED AT 10'-0" INTERVALS. 1/2" EXPANSION JOINTS SHALL BE PLACED AT ENDS OF CURVED SECTIONS, AND AT UNIFORM INTERVALS NOT TO EXCEED 60'.

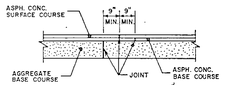
JOINTS IN CURBS ADJACENT TO P.C.C. PAVEMENT SHALL COINCIDE WITH PAVEMENT JOINTS.



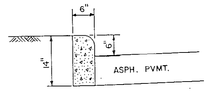
TYPICAL ROAD SECTION



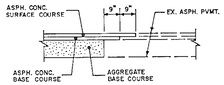
TYPICAL ASPHALT PAVEMENT DETAIL
TO BE USED AT: ASPHALT SURFACE COMPOST PAD AND OTHER ASPHALT SURFACE AREAS



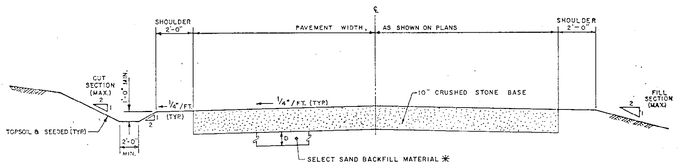
CONSTRUCTION JOINT FOR ASPHALT PAVEMENT



CONCRETE CURB DETAIL



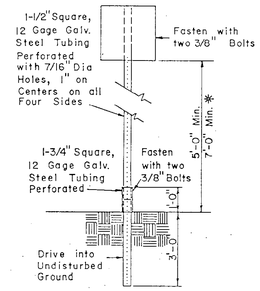
JOINT TO MATCH EXISTING PAVEMENT



TYPICAL CRUSHED STONE ROAD SECTION

* AT THE LOCATIONS AS DESIGNATED BY THE ENGINEER.

D = AS DIRECTED BY THE ENGINEER. PAYMENT FOR SELECT "SAND BACKFILL MATERIAL" WILL BE MADE UNDER UNIT PRICE ITEM.



NOTE: Signs are to be formed steel painted white with blue enamel characters

* At the location of pedestrian traffic.

SIGN & SIGN POST DETAILS
NOT TO SCALE

LEGEND
SYMBOLS

420	EXISTING CONTOUR LINE
418	PROPOSED CONTOUR LINE
	EXISTING BACKFILL SLOPE
	PROPOSED BACKFILL SLOPE
419.9	PROPOSED ELEVATION
	EXISTING OUTSIDE PIPING
	EXISTING MANHOLE
	EXISTING SITE DRAIN
	EXISTING UTILITY POLE
	EXISTING UTILITY POLE WITH GUY WIRE
6"	EXISTING GAS LINE
6" W	EXISTING WATER LINE
	EXISTING GAS VALVE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING HEADWALL
	EXISTING FENCE
	PROPOSED YARD HYDRANT
	PROPOSED BULKHEAD
	EXISTING STREET WASHER
E	EXISTING ELECTRICAL DUCT BANK AND MANHOLE / HANDHOLE
	PROPOSED OUTSIDE PROCESS PIPING (< 36"ø)
	PROPOSED OUTSIDE PROCESS PIPING (≥ 36"ø)
	PROPOSED STORM SEWER
	PROPOSED MANHOLE
	PROPOSED STANDARD INLET OR SITE DRAIN WITH APRON.
	PROPOSED STANDARD SITE DRAIN
	PROPOSED HEADWALL
	PROPOSED CLEAN - OUT
	PROPOSED SIGN
	PROPOSED GUARD RAIL
	PROPOSED CONCRETE WALK
	OUTSIDE PIPING TO BE REMOVED
	FENCE TO BE REMOVED
	PROPOSED ROADWAY (ASPHALT PAVEMENT)
	PROPOSED ASPHALT PAVEMENT
A	COLUMN LINE
	PROPERTY LINE
	PROPOSED CONCRETE PAVEMENT
	PROPOSED FIRE HYDRANT
	PROPOSED CHAIN - LINK FENCE
	PROPOSED CONC. WALL
	EXISTING PAVEMENT TO BE REMOVED

ABBREVIATIONS

B.M.	BENCHMARK	STA.	STATION
ELEV.	ELEVATION	℄	CENTER LINE
ℙ	PROPERTY LINE	Δ	DEFLECTION ANGLE
MON.	MONUMENT	T.	TANGENT LENGTH
INV.	INVERT	L.	LENGTH OF CURVE
R.	RADIUS OF CURVE	STD.	STANDARD
P.C.	POINT OF CURVATURE	M.H.	MANHOLE
P.I.	POINT OF INTERSECTION	CONC.	CONCRETE
P.T.	POINT OF TANGENCY	PVMT.	PAVEMENT
P.R.C.	POINT OF REVERSE CURVATURE	ASPH.	ASPHALT
P.C.C.	POINT OF COMPOUND CURVATURE	R.C.P.	REINFORCED CONCRETE PIPE

GENERAL NOTES

1. FOR LIST OF PROPOSED OUTSIDE PIPING, SEE SHEET NO. ISD-10.
2. THE LOCATION OF EXISTING UNDERGROUND PIPING IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UNDERGROUND PIPING PRIOR TO COMMENCING WORK IN EACH AREA. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE ANY AND ALL UNDERGROUND PIPING.
3. INSTALLATION OF PROPOSED FENCING AND REMOVAL AND STORAGE OF ANY EXISTING FENCING TO BE COORDINATED WITH THE OWNER. CONTRACTOR TO INSURE THAT ENTIRE PLANT SITE IS FENCED AT ALL TIMES.
4. PROPOSED FENCE SHALL CONFORM TO CONTRACT SPECIFICATIONS. DIMENSIONS AND DIRECTION OF GATE OPENINGS SHALL BE AS INDICATED ON DRAWINGS.
5. ALL AREAS WITHIN EXISTING AND PROPOSED PLANT FENCING NOT COVERED BY BUILDINGS, PAVEMENT, AND APPURTENANCES SHALL BE TOPSOILED AND SEEDED UNLESS SUCH AREAS HAVE EXISTING LAWN ESTABLISHED.
6. EXISTING PAVEMENT DAMAGED BY CONSTRUCTION, SHALL BE REPLACED OR RESTORED BY CONTRACTOR AS DIRECTED BY THE ENGINEER.
7. ALL TREES AND SHRUBBERY DISPLACED BY PROPOSED IMPROVEMENTS SHALL BE TRANSPLANTED OR REPLACED BY THE CONTRACTOR TO LOCATIONS WITHIN THE SITE AS DIRECTED BY THE ENGINEER.
8. EXISTING PAVEMENT AND GUTTER SHALL BE NEAT LINE CUT WITH AN ASPHALT CUTTING CHISEL AND/OR CONCRETE SAW WHERE EXISTING AND PROPOSED PAVEMENT CONNECTS. PROPOSED PAVEMENT SHALL BE BLENDED AT THESE LOCATIONS TO MATCH EXISTING PAVEMENT.
9. THE LOCATION OF EXISTING UNDERGROUND ELECTRICAL INSTALLATIONS ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UNDERGROUND ELECTRICAL INSTALLATIONS PRIOR TO COMMENCING WORK IN EACH AREA. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE ANY AND ALL UNDERGROUND ELECTRICAL INSTALLATIONS.
10. A CONSTRUCTION SCHEDULE WHICH CAN BE EFFECTIVELY COORDINATED WITH THE GRADING AND CLEARING ACTIVITY, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING THE CONSTRUCTION.
11. EROSION AND SEDIMENTATION CONTROL:
    A. ROADWAYS AND PARKING LOTS SHALL BE PAVED OR OTHERWISE STABILIZED AND EXPOSED AREAS SUBJECT TO EROSION SHALL BE COVERED BY MEANS OF MULCHING OR VEGETATION AS QUICKLY AS FEASIBLE.
    B. WHENEVER POSSIBLE, NATURAL VEGETATION SHALL BE RETAINED AND TOPSOIL SHALL BE REMOVED AND STOCKPILED BEFORE GRADING BEGINS.
12. ALL UNDERGROUND PIPES SHALL BE LAID IN ACCORDANCE WITH TYPICAL SECTION FOR TRENCH BACKFILL, SEE THIS SHEET.

51-003-07.

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED S.P.S.
DRAWN N.E.H.
CHECKED K.A.R.
DATE 6/1/86

PRC Consoer Townsend
CONSULTING ENGINEERS

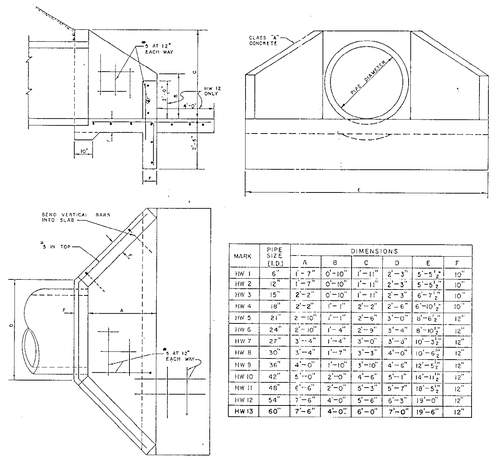
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

SITE DEVELOPMENT DETAILS

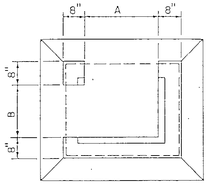
SHEET ISD-11
OF SHEETS
PROJECT NO. 2815

RECORD

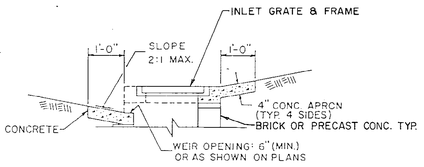


MARK	PIPE SIZE (I.D.)	DIMENSIONS A	B	C	D	E	F
HW 1	6"	1'-7"	0'-10"	1'-11"	2'-3"	5'-5 1/2"	10"
HW 2	12"	1'-7"	0'-10"	1'-11"	2'-3"	5'-5 1/2"	10"
HW 3	15"	2'-2"	0'-10"	1'-11"	2'-3"	6'-7 1/2"	10"
HW 4	18"	2'-8"	1'-7"	2'-2"	2'-6"	8'-10 1/2"	10"
HW 5	21"	2'-10"	1'-7"	2'-6"	3'-0"	10'-0 1/2"	12"
HW 6	24"	3'-10"	1'-4"	2'-9"	3'-6"	8'-10 1/2"	12"
HW 7	27"	3'-4"	1'-4"	3'-0"	3'-9"	10'-2 1/2"	12"
HW 8	30"	3'-4"	1'-7"	3'-3"	4'-0"	10'-6 1/2"	12"
HW 9	36"	4'-0"	1'-10"	3'-10"	4'-6"	12'-6 1/2"	12"
HW 10	42"	5'-0"	2'-0"	4'-6"	5'-1"	14'-11 1/2"	12"
HW 11	48"	6'-6"	2'-0"	5'-3"	5'-7"	18'-5 1/2"	12"
HW 12	54"	7'-6"	4'-0"	5'-6"	6'-3"	19'-0"	12"
HW 13	60"	7'-6"	4'-0"	6'-0"	7'-0"	19'-6"	12"

CONCRETE HEADWALLS



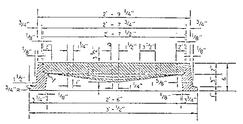
PLAN



APRON DETAIL
(WITH WEIR)

SITE DRAIN WEIR DETAIL

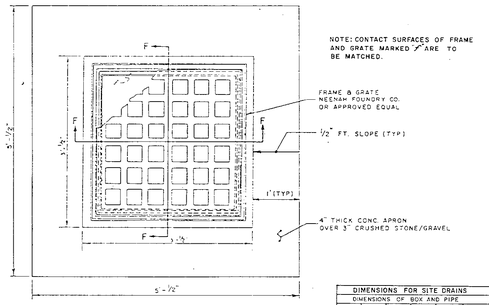
NOTE:
THE WEIR OPENING WILL BE AS DETERMINED BY THE ENGINEER.



SECTION F-F

STANDARD CLEAN-OUT

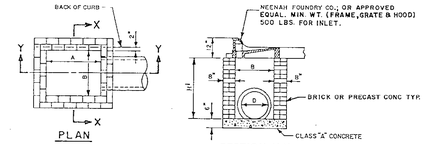
CLEAN-OUT WILL HAVE SOLID COVER, MIN. WT. FOR FRAME & GRATE: 115 LBS. R-1883-D NEENAH FOUNDRY CO. OR APPROVED EQUAL. A=B=18" AND H_1 VARIES.



PLAN

GRATE AND FRAME
FOR SITE DRAINS

MIN. WT.: FRAME - 345 LBS.
GRATE - 310 LBS.
TOTAL 655 LBS.

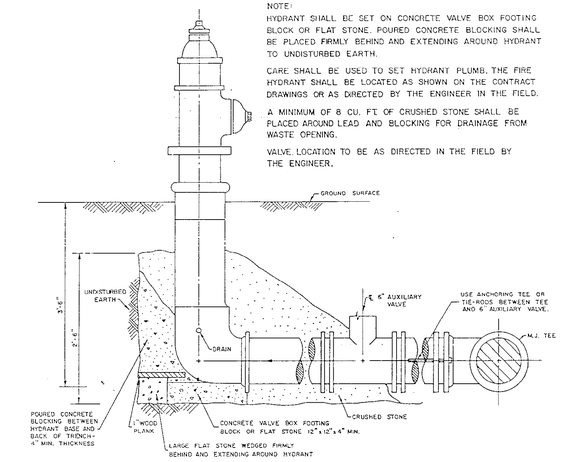


DIMENSIONS FOR SITE DRAINS							
DIMENSIONS OF BOX AND PIPE						COVER	
PIPE DIA.	SPAN A	WIDTH B	WIDTH C	HEIGHT MIN. H_1	HEIGHT H_2	DIMENSION E	F
15"	2'-6"	2'-6"	—	2'-6"	—	—	—
18"	2'-6"	2'-6"	—	2'-10"	—	—	—
24"	2'-6"	2'-6"	—	3'-4"	—	—	—
30"				3'-2"			
36"				3'-8"			

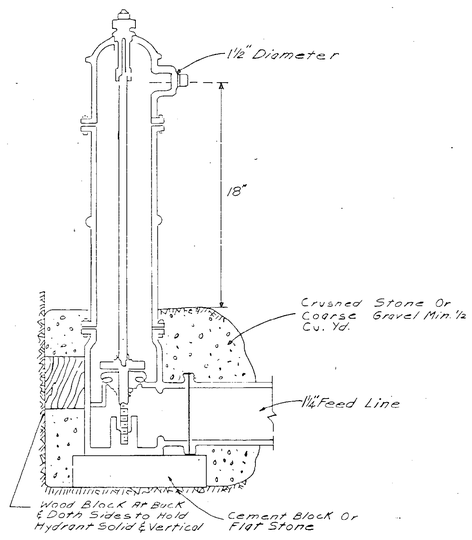
DIMENSIONS FOR CURB & GUTTER INLETS							
DIMENSIONS OF BOX AND PIPE						COVER	
PIPE DIA. D	SPAN A	WIDTH B	WIDTH C	HEIGHT MIN. H_1	HEIGHT H_2	DIMENSION E	F
15"	3'-0"	2'-0"	—	2'-5"	—	—	—
18"	3'-0"	2'-0"	—	2'-10"	—	—	—
24"	3'-0"	2'-0"	—	3'-4"	—	—	—
30"				3'-2"			
36"				3'-8"			

GENERAL NOTES:
1. ALL INLETS OVER 3'-6" IN DEPTH TO BE PROVIDED WITH STEPS 1'-2" ON CENTERS. STEPS SHALL BE IN ACCORDANCE WITH STD. M.H. DETAIL.
2. ALL EXPOSED CONC. CORNERS TO BE CHAMFERED 1". CLASS A CONC. TO BE USED.
3. ALL MORTAR JOINTS ARE TO BE 1/2" ±1/8".
4. ALL EXPOSED JOINTS WILL BE CONCAVE, TOOLED.
5. FORMS ARE TO BE USED FOR TIE CONSTRUCTION OF THE BOTTOM SLAB.
6. FOR 8'-0" IN HEIGHT OR LESS USE 8" WALL OVER 8'-0" IN HEIGHT USE 12" WALL TO 6'-0 FROM TOP OF WALL. AND 8" WALL FOR THE REMAINING 6'-0".

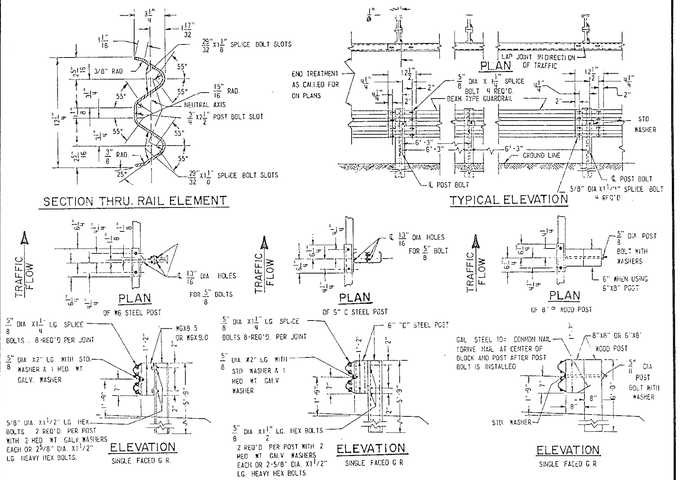
STANDARD SITE DRAIN, INLET AND CLEAN OUT



FIRE HYDRANT



YARD WATER HYDRANT DETAIL
Not To Scale



STANDARD OFFSET GUARDRAIL DESIGN AND REPLACEMENT

51-003-013

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED S.P.S.
DRAWN N.E.H.
CHECKED K.A.R.
DATE 6/1/86

PRC Consoer Townsend
CONSULTING ENGINEERS

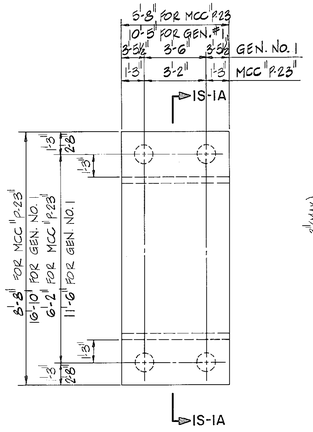
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

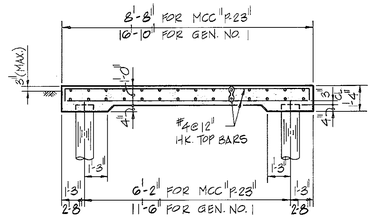
SITE DEVELOPMENT DETAILS

SHEET ISD-12
OF SHEETS
PROJECT NO. 2815

RECORD

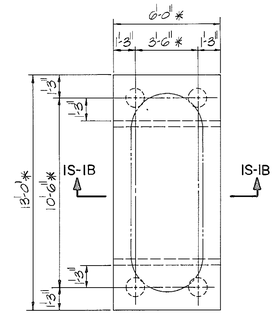


PLAN

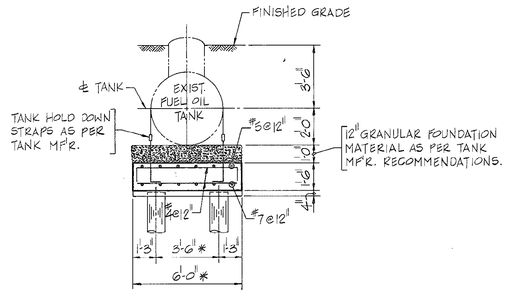


SECTION IS-1A

EXISTING GENERATOR NO. 1
MOTOR CONTROL CENTER "P-23"

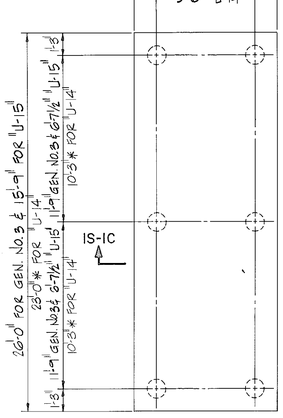


PLAN

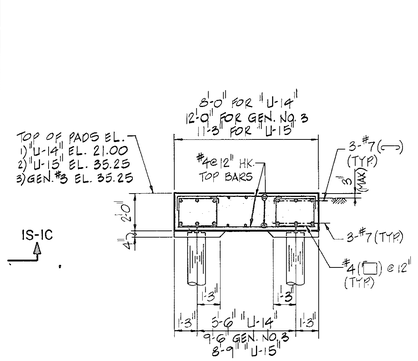


SECTION IS-1B

EXISTING FUEL OIL STORAGE TANK



PLAN



SECTION IS-1C

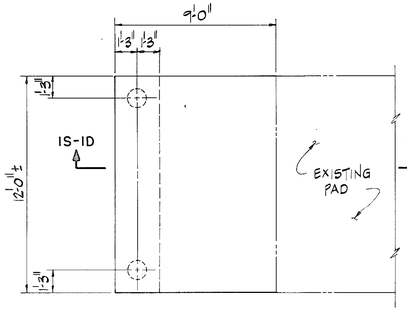
GENERATOR NO. 3
UNIT SUBSTATION "U-14"
UNIT SUBSTATION "U-15"

NOTES:

ALL PILES SHOWN ON THIS SHEET ARE TREATED TIMBER BEARING PILES. SEE SHEET XS-1 AND SPECIFICATIONS FOR PILE DETAILS.

ALL PILES SHALL BE 20 TON BEARING PILES.

SEE SHEETS 1E-1 AND 1E-3 FOR LOCATION AND PROPER ORIENTATION OF EQUIPMENT PADS.



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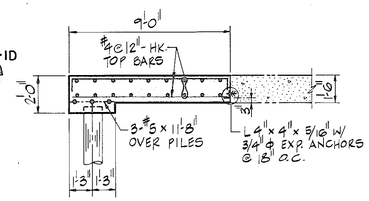


SECTION IS-1D

SWITCHGEAR "S-1"

51-003-014

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4" = 1'-0"

FUEL OIL STORAGE TANK AND ELECTRICAL EQUIPMENT PADS

SHEET 1S-1
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-33.66716

FLOCCULATOR-CLARIFIER NO. 2

FLOCCULATOR-CLARIFIER NO. 1

FINAL EFFLUENT COLLECTOR CHAMBER
P151-2: 3#2/0 & 1#10-2 1/2"C
P151-3: 3#2/0 & 1#10-2 1/2"C

BLOWER NO. 1

BLOWER NO. 2

SLUDGE HOLDING TANK

BUBBLER CUBICLE

CHAMBER "A"

CLARIFIER NO. 2

CLARIFIER NO. 1

ROTATING BIOLOGICAL CONTACTORS

SLUDGE HOLDING TANK

EXISTING MOTOR CONTROL CENTER PAD

#10

CONNECT TO SPARE 120V CIRCUIT IN MCC 'P151'

2-2/C #16-3/4"C

EXISTING HEADWALL

CLARIFIERS DISTRIBUTION CHAMBER

EMH#3

CHAMBER "D"

EMH#4

NOTE NO. 1

EMH#2

NOTE NO. 4

EXISTING ASPHALT PAVEMENT

2"C SPARE
4-2/C #16-2"C

SLUDGE HANDLING BLDG. 15

SLUDGE COMPOSTING PAD

EXISTING CONVEYER

PROCESS CENTER

NOTE NO. 9
NOTE NO. 7
EMH#2
EMH#1
NOTE NO. 6

NOTE NO. 5
EXISTING GENERATOR FUEL TANK
EXISTING GENERATOR
EXISTING PROPANE TANKS
EXISTING MONORAIL

NOTE NO. 12
UNIT SUB 'U15'

3#500 MCM & 1#1/0 IN EACH OF 4-4"C

GENERATOR NO. 3

DEODORIZING PAD

BLOWER BUILDING
(SEE SHEET 1E-6)

NOTE NO. 3

SPLITTER BOX

OPERATIONS CENTER 8

GRIT TANKS 2

LIME TOWER

3#6-1"C

MIXER

2/C #16-3/4"C

3#12 & 4#14-3/4"C

U15-5: 3#500 MCM & 1#2-4"C
4"C SPARE

METER VAULT

P23-6: 2#6-1"C
P23-7: 3#12 & 4#14-3/4"C
MOTOR CONTROL CENTER 'P23'

EXISTING FLAG POLE

NOTE NO. 2

EMH#1

CONNECT TO SPARE 120V CKT. IN MCC

EMHH

MHH#6

4-2/C #16-2"C

EXISTING SWITCHGEAR 'S-1' PAD

EMH#5

NOTE NO. 8

EXISTING ASPHALT PAVEMENT

2"C SPARE
P23-3 & 5: 3#1 & 1#12-2"C
P23-2 & 4: 3#1 & 1#12-2"C

EXISTING VALVE BOX

2-2"C 7C

NOTE NO. 10

EXISTING SERVICE POLE

3#350 MCM & 2#1/0-3"C

EXISTING GEN. NO. 1 LOCATION SEE NOTE NO. 11

WELL HOUSE 10

HH#2

MH#3

MH#8

MHH#8

PUMPING STATION 2

3#2-1"C

EXISTING HEADWALL

EXISTING GEN. NO. 1 (RELOCATED) SEE NOTE NO. 11

W5+00 W4+00 W3+00 W2+00 W1+00 0+00 E1+00 E2+00 E3+00 E4+00

N1+00 0+00 S1+00 S2+00 S3+00 S4+00

NOTES:

1. FURNISH AND INSTALL 3#2/0 & 1#10 IN EACH OF 2-4" SPARE CONDUITS P151-2 & 3
2. FURNISH AND INSTALL 2#12 IN 4"C SPARE CONDUIT
3. FURNISH AND INSTALL 3#2 (15KV) & 1#6 IN 4" SPARE CONDUIT
4. FURNISH AND INSTALL 8-2/C #16 IN 2" SPARE CONDUIT
5. FURNISH AND INSTALL 4-2/C #16 IN 2" SPARE CONDUIT
6. FURNISH AND INSTALL 24-2/C & 3-3/C #16 IN 4" SPARE CONDUIT
7. FURNISH AND INSTALL:
   - 3#350 MCM & 1#1/0 IN EACH OF 2-4"C
   - 48#14-2"C
   - 20#12-2"C
8. FURNISH AND INSTALL:
   - 3#2/0 & 1#10-2 1/2"C : P151-2
   - 3#2/0 & 1#10-2 1/2"C : P151-3
   - 48#14-2"C
9. FURNISH AND INSTALL 14-2/C #16 & 3-3/C #16-2"C
10. FURNISH AND INSTALL 3#350 MCM (15KV) & 1#1/0 IN SPARE 4"C. REMOVE EXISTING 3#1/0 & 1#6 AFTER NEW SERVICE IS INSTALLED.
11. DISCONNECT AND RELOCATE EXISTING GENERATOR TO PROPOSED NEW LOCATION. RELOCATION SHALL INCLUDE REMOVAL OF OLD AND INSTALLATION OF NEW UNDER GROUND FUEL TANK (FURNISHED BY CITY) AND ALL APPURTENANCES FOR A COMPLETE OPERATING SYSTEM.
12. FURNISH AND INSTALL 3#350 & 1#1/0 IN EACH OF 2-3"C.

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1" = 30'

SITE DEVELOPEMENT -- ELECTRICAL

SHEET 1E-1
OF SHEETS
PROJECT NO. 2815

51-0026-015

RECORD

FUTURE AERATION BASIN

FUTURE AERATION BASIN

AERATION BASIN NO.2

AERATION BASIN NO.1

12

AERATOR 2A

AERATOR 2B

AERATOR 1B

AERATOR 1A

AERATOR 1C

3#4/0-2½"C
6#12-¾"C] P141-22

3#4/0-2½"C
6#12-¾"C] P141-21

P141-13 & 14A-2
5#4-¾"C

P141-2 & 4: 3#4 & 9#12-1½"C
P141-3 & 6: 3#4 & 9#12-1½"C

P141-16 [3#4/0-2½"C
6#12-¾"C

P141-17 [3#4/0-2½"C
6#12-¾"C

P141-15 [3#4/0-2½"C
6#12-¾"C

P141-14 [3#4/0-2½"C
6#12-¾"C

P141-10: 2#6 &
2#12-¾"C

1"C-1C

INTERMEDIATE PUMPING STATION

11

P141

P141-11: 3#12 &
14A-6: 2#8-¾"C

2-2½"C-1C

SLUDGE PUMPING STATION

14

MHH#11

MHH#12

4-2/C SIG CABLES-1½"C

P141-12: 3#12
14A-6: 2#8-¾"C

FUTURE CLARIFIER

FUTURE CLARIFIER

CLARIFIER NO.3

P141-6

SEE DETAIL SHT.NO.XE-3 FOR ALARM LT. AND RELAY INSTALLATION (TYP. FOR CLARIFIER NO.4)

5

CLARIFIER DISTRIBUTION CHAMBER NO.2

P141-6: 3#12 & 7#14-1½"C

14A-8, 10, 12 & 14: 6#10-1½"C

P141-7: 3#12 & 7#14-1½"C

P141-37

P141-37: 3#12 & 3#14-¾"C

CLARIFIER NO.4

P141-7

MHH#7

2½"C SPARE

4-2/C SIG-1½"C

UNIT SUBSTATION "U14"

CONNECT TO CONTROL PANEL

P141-20: 2#6-1"C

P141-18: 3#12-¾"C
14A-7E, 9: 2#10-¾"C

SLUDGE COMPOSTING PAD

2-2"C-1C

MHH#9

MHH#10

MHH#8

MH#10

MH#11

CONTROL PANEL

DRAINAGE PUMP

W13+00 W12+00 W11+00 W10+00 W9+00 W8+00 W7+00 W6+00 W5+00 W4+00

N2+00 N1+00 S1+00 S2+00 S3+00

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

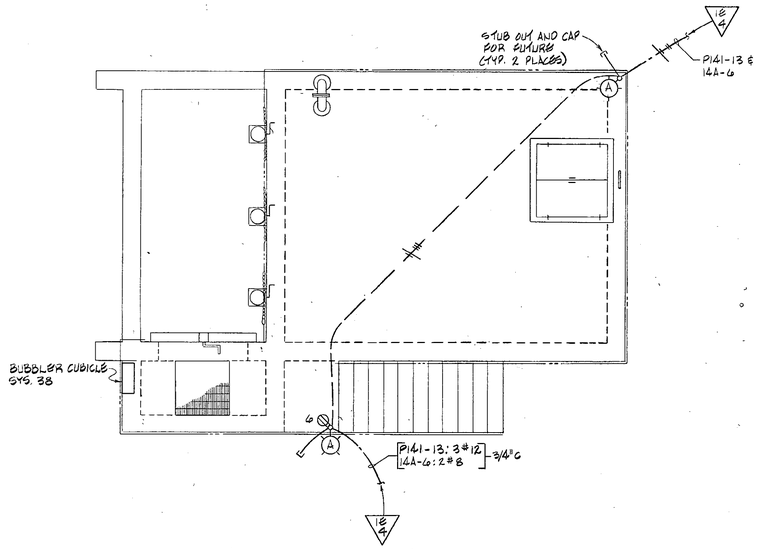
SCALE
1" = 30'

E1.0.0.0.018

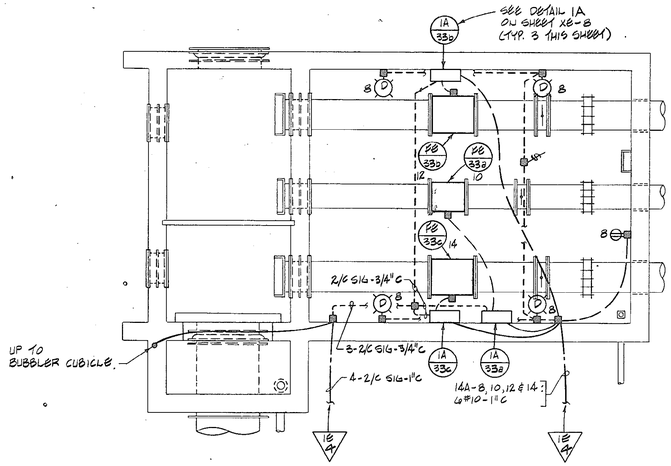
SITE DEVELOPMENT – ALTERNATE II ELECTRICAL

SHEET 1E-4
OF SHEETS
PROJECT NO 2815

RECORD

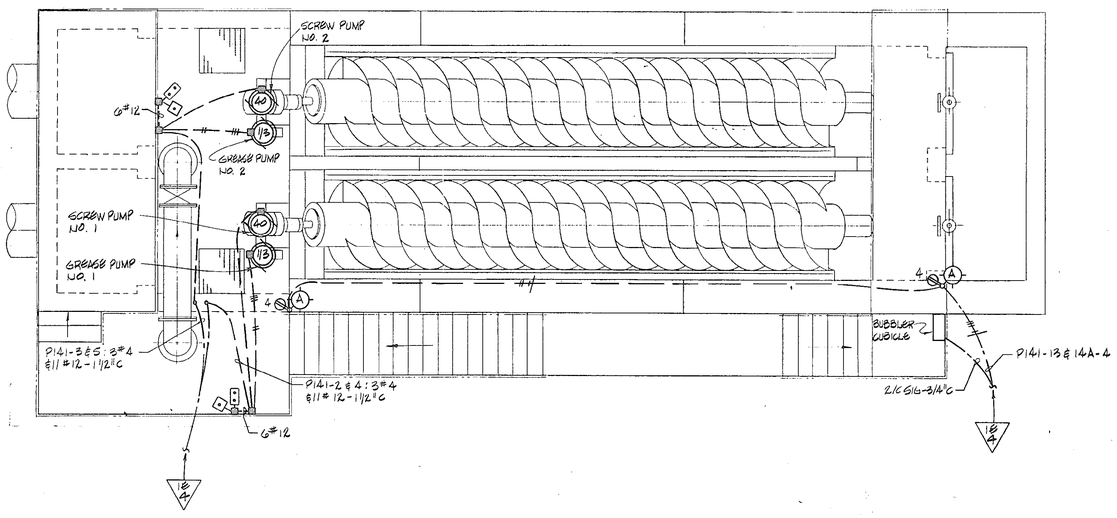


TOP PLAN



BASE PLAN

CLARIFIER DISTRIBUTION CHAMBER NO. 2
(AREA 5)



INTERMEDIATE PUMPING STATION
(AREA 11)

51-063-017

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

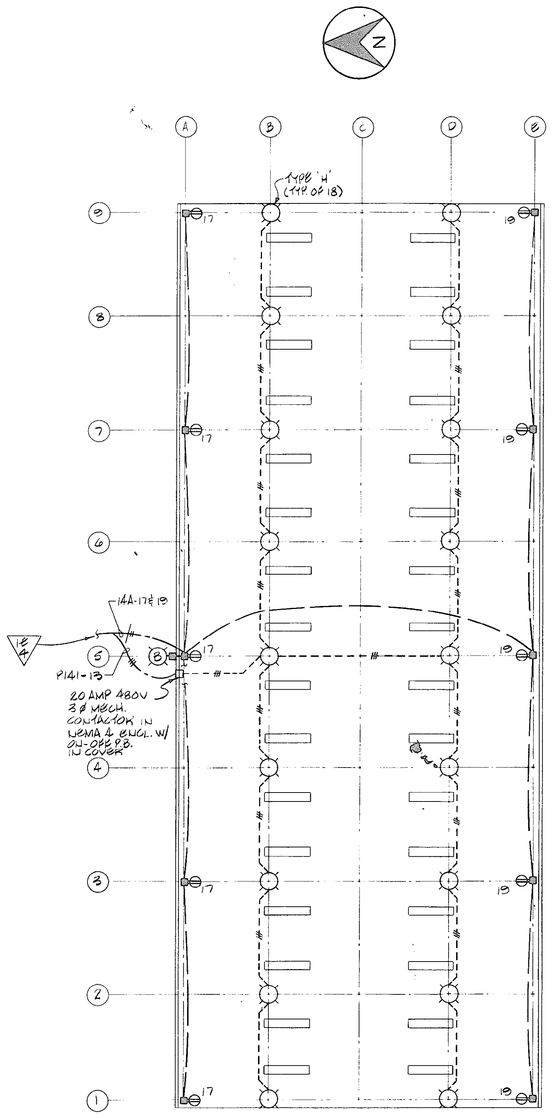
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

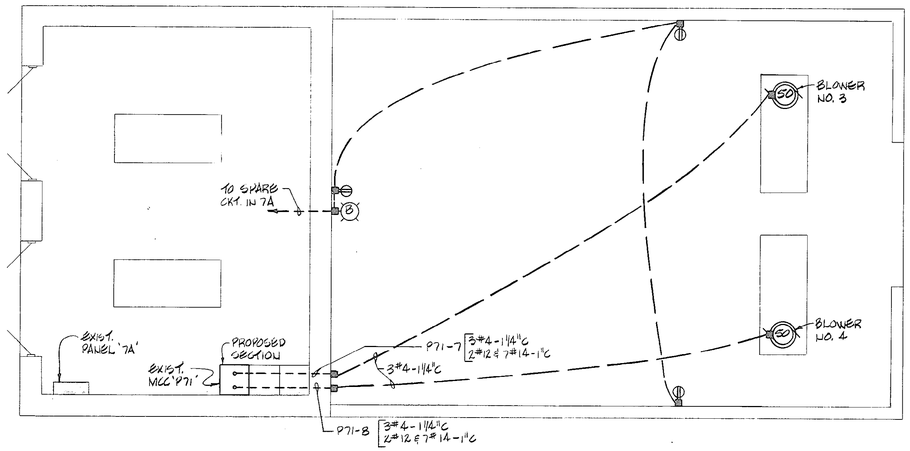
MISCELLANEOUS STRUCTURES - I
ELECTRICAL

SHEET 1E-5
OF SHEETS
PROJECT NO. 2815

RECORD



SLUDGE COMPOSTING
SCALE 1/16" = 1'-0"
(AREA 7)



COMPOST BLOWER BUILDING ADDITIONS
SCALE 1/4" = 1'-0"
(AREA 7)

51-003-013

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

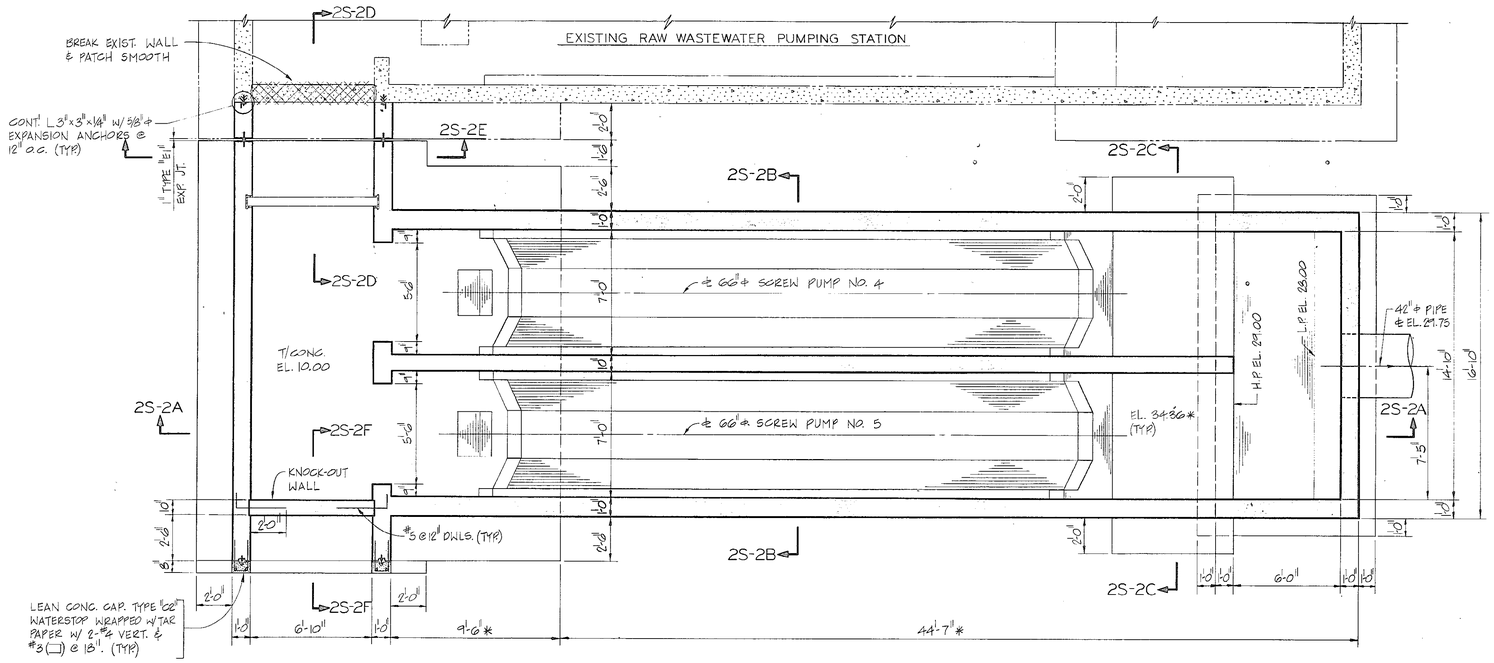
SCALE
AS NOTED

MISCELLANEOUS STRUCTURES - II
ELECTRICAL

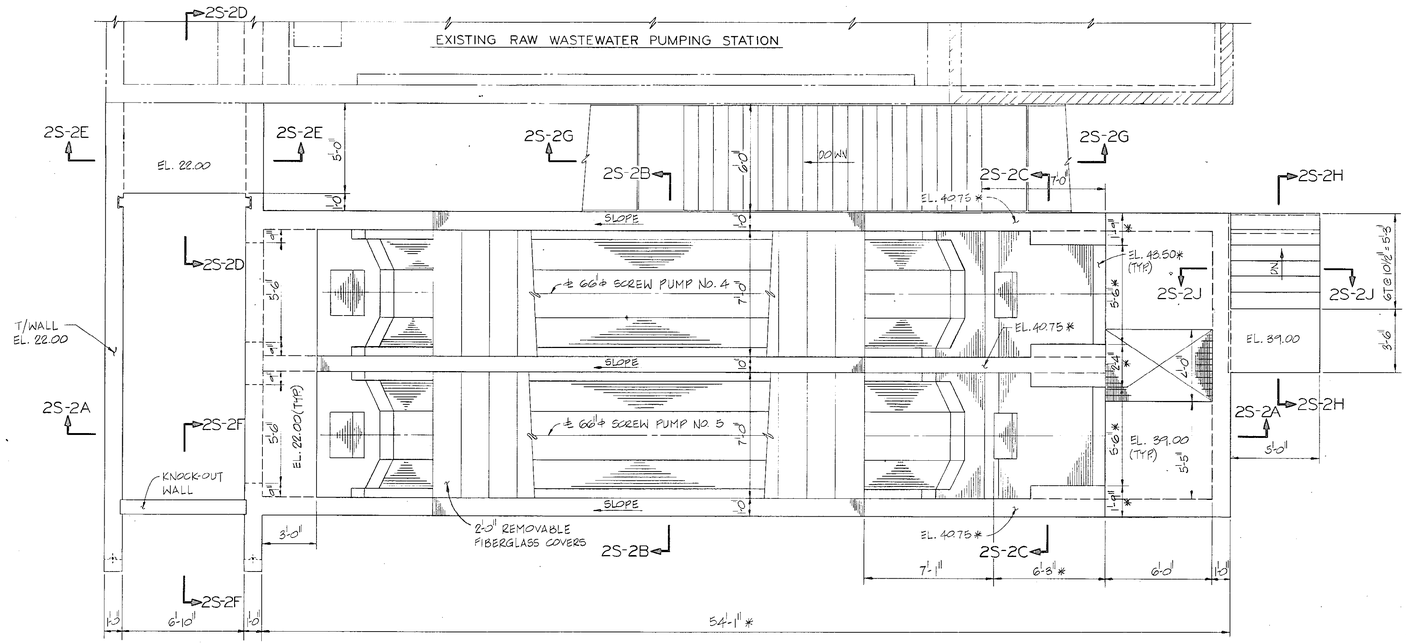
SHEET IE-6
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716



BASE SLAB PLAN



TOP PLAN

51-003-019

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

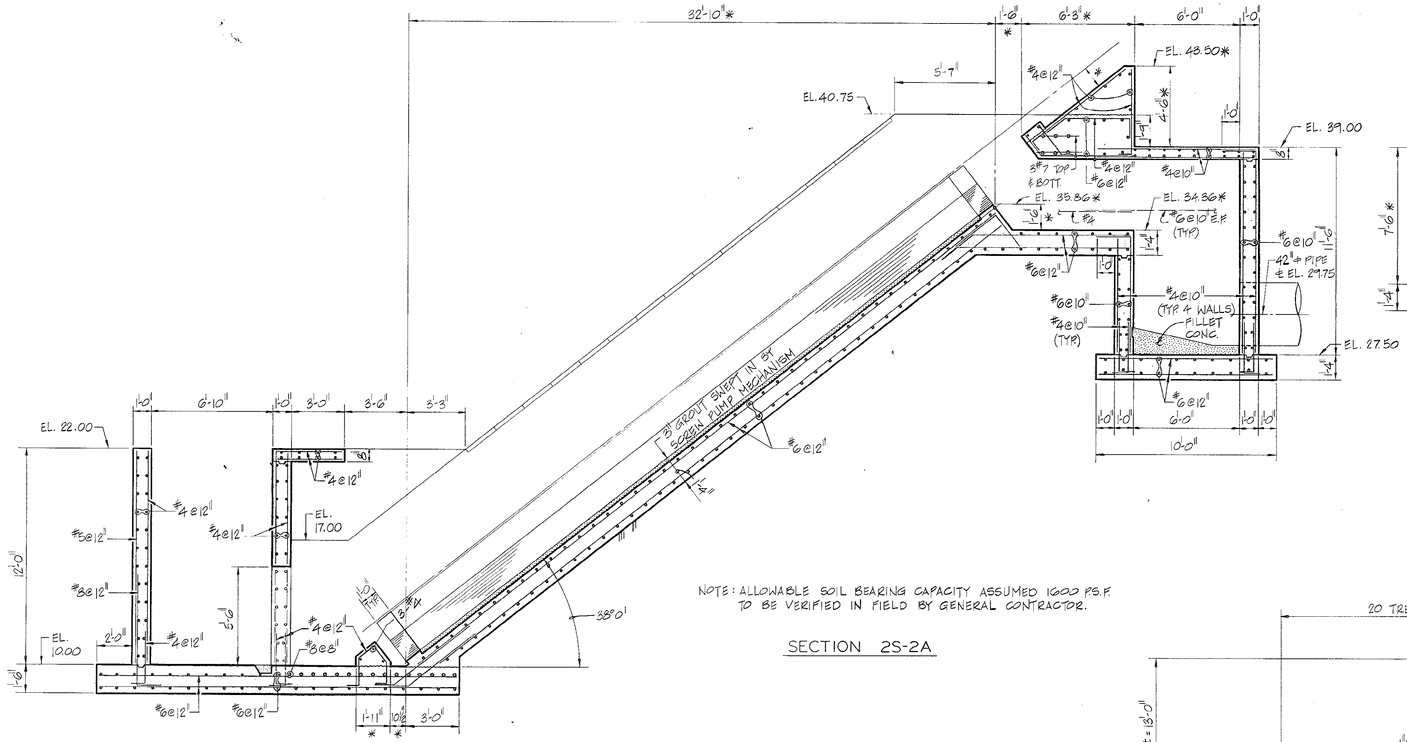
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

ADDITIONS TO EXISTING
RAW WASTEWATER PUMPING STATION
BASE SLAB AND TOP PLANS

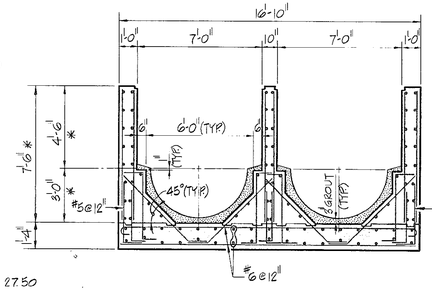
SHEET 2S-1
OF SHEETS
PROJECT NO. 2815

RECORD



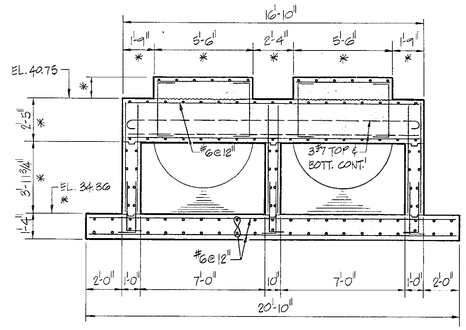
NOTE: ALLOWABLE SOIL BEARING CAPACITY ASSUMED 1600 PS.F. TO BE VERIFIED IN FIELD BY GENERAL CONTRACTOR.

SECTION 2S-2A



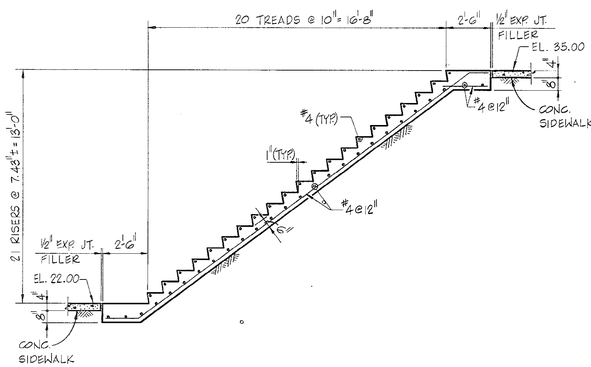
NOTE: ALL REINFORCING SHOWN IN THIS SECTION SHALL BE #4@12" UNLESS NOTED.

SECTION 2S-2B

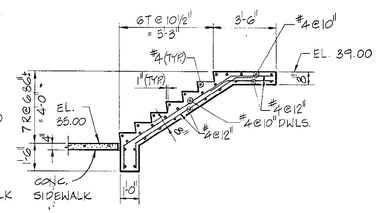


NOTE: ALL REINFORCING SHOWN IN THIS SECTION SHALL BE #4@12" UNLESS NOTED.

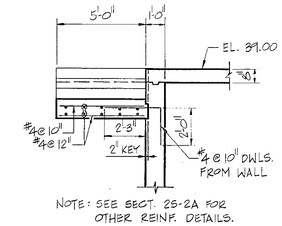
SECTION 2S-2C



SECTION 2S-2G

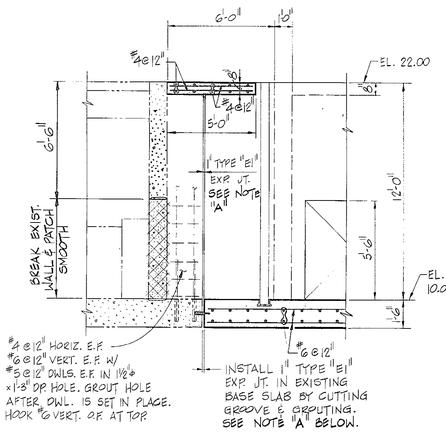


SECTION 2S-2H

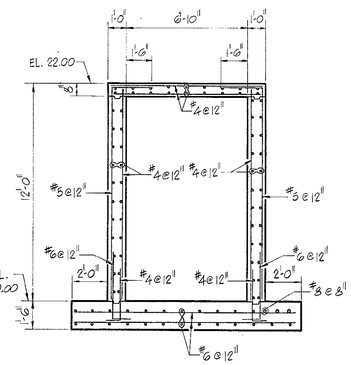


NOTE: SEE SECT. 2S-2A FOR OTHER REINF. DETAILS.

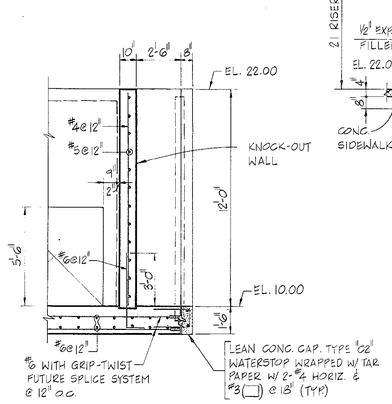
SECTION 2S-2J



SECTION 2S-2D



SECTION 2S-2E



SECTION 2S-2F

NOTE "A": THE 1" EXP. JT. IN THE BASE SLAB AND WALLS WAS GROUTED UP DUE TO UNEVEN SETTLEMENT.

5'-003-020

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

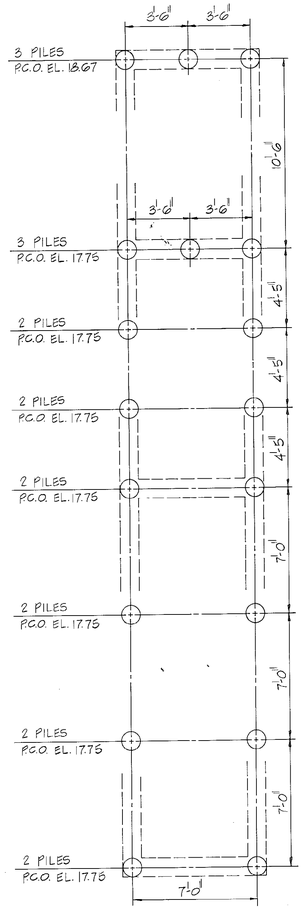
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
¼" = 1'-0"

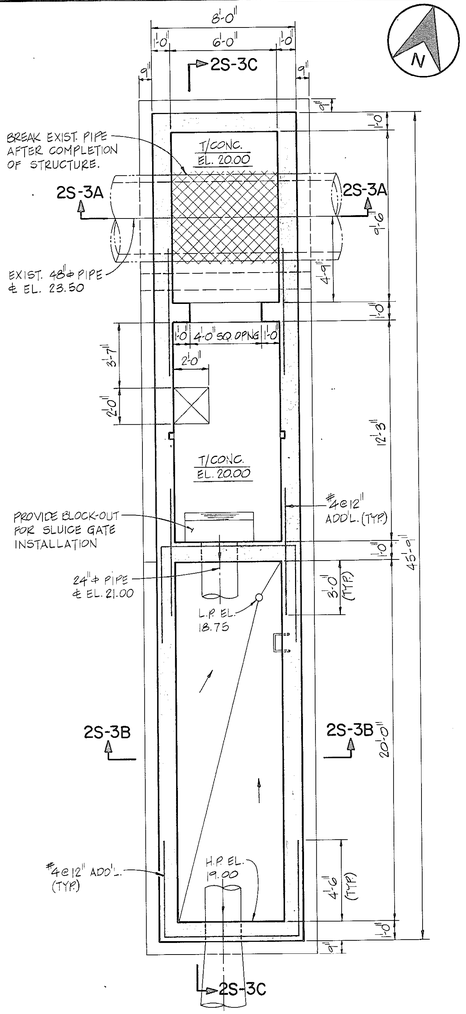
ADDITIONS TO EXISTING
RAW WASTEWATER PUMPING STATION
SECTIONS

SHEET 2S-2
OF SHEETS
PROJECT NO. 2815

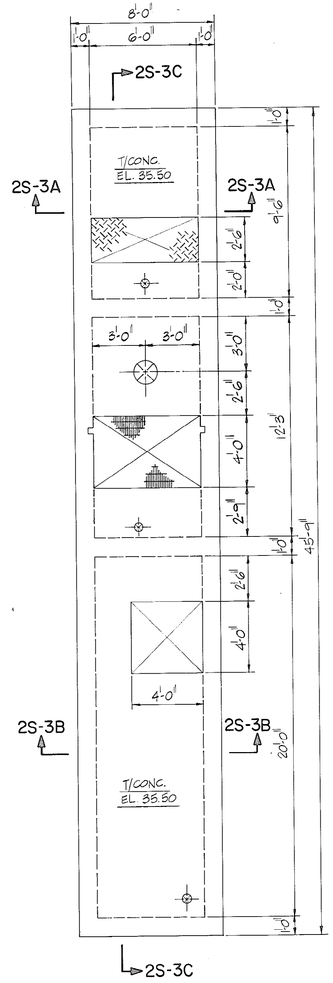
RECORD



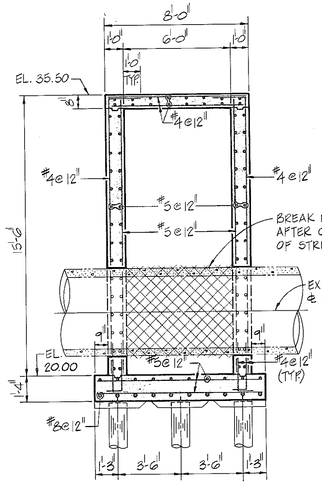
PILE PLAN



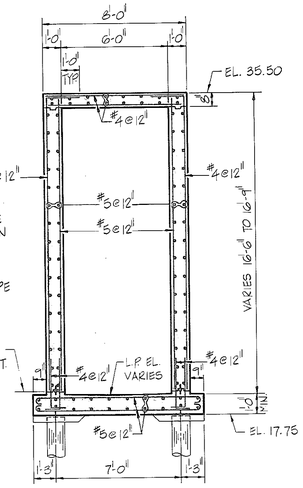
BASE SLAB PLAN



TOP PLAN



SECTION 2S-3A



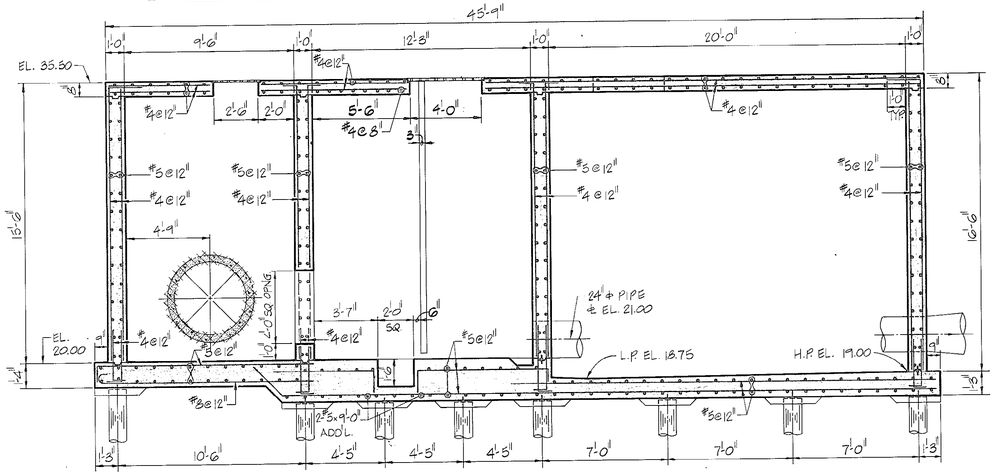
SECTION 2S-3B

NOTES:

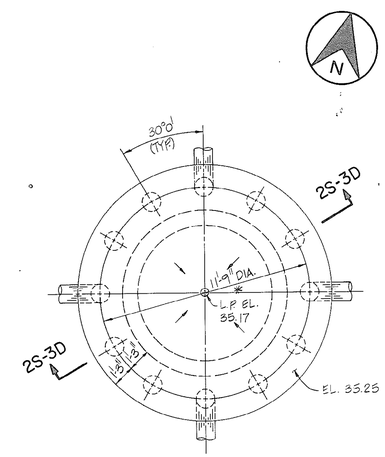
ALL PILES SHOWN ON THIS SHEET SHALL BE TREATED TIMBER OR DRILLED-IN-PLACE CONCRETE BEARING PILES. SEE SHEET XS-1 AND SPECIFICATIONS FOR PILE DETAILS.

ALL PILES SHALL BE 20 TON BEARING PILES.

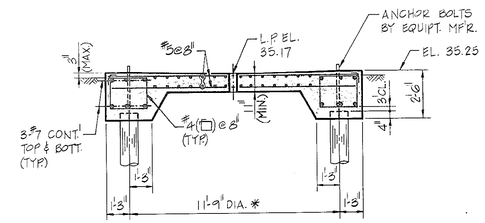
INDICATES BATTER PILE (BATTER OF ONE HORIZONTAL TO THREE VERTICAL - 1:3)



SECTION 2S-3C



FOUNDATION PLAN



SECTION 2S-3D

LIME SILO FOUNDATION PAD

51-003-021

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

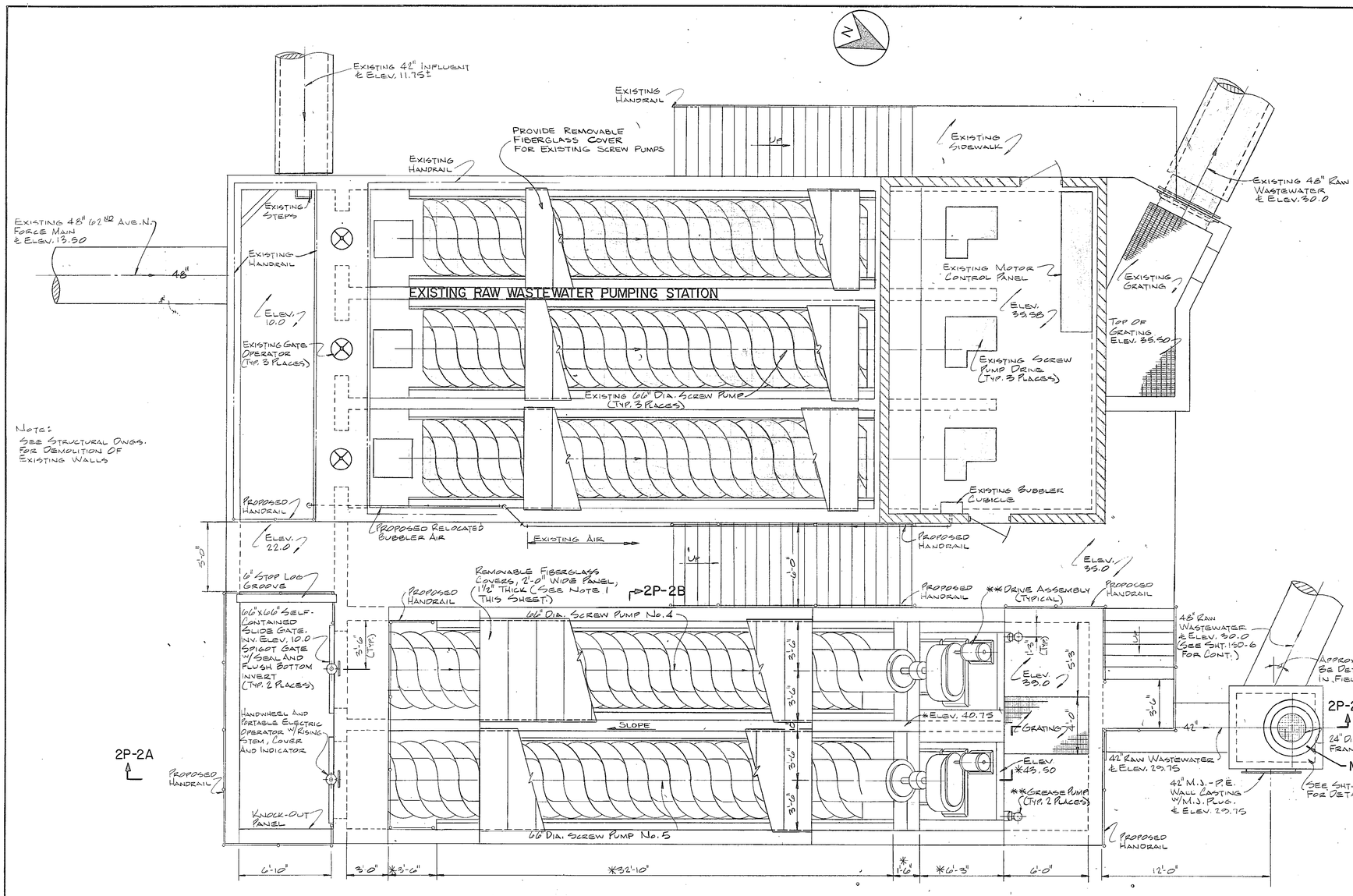
SCALE
1/4"=1'-0"

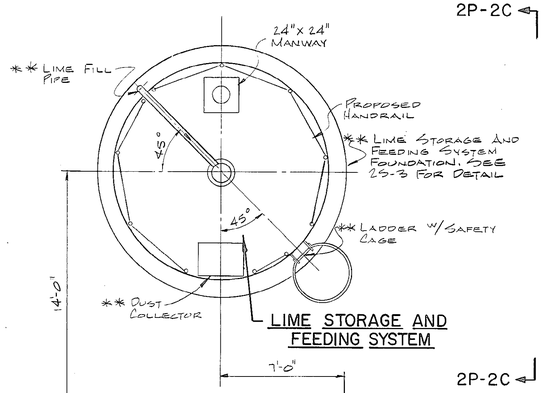
METER VAULT AND LIME SILO FOUNDATION PAD PLANS AND SECTIONS

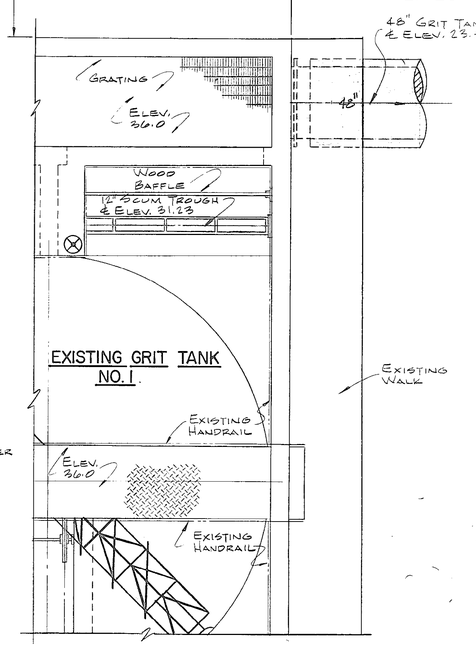
SHEET 2S-3
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716







Note:
See Structural Dwgs. For Demolition Of Existing Walls

RAW WASTEWATER PUMPING STATION PLAN VIEW

NOTES

1.) FIBERGLASS COVERS SHALL BE ATLAC 400 CORROSION RESISTANT FIBERGLASS REINFORCED RESIN OR APPROVED EQUAL. SUBMIT COLOR CHART TO ENGINEER FOR SELECTION. DETAIL OF SUPPORT SHALL BE AS RECOMMENDED BY MANUFACTURER.

2.) ALL EXISTING SIDEWALK DISTURBED DURING CONSTRUCTION SHALL BE REPLACED BY NEW SIDEWALKS.

** See Mfr's. Drawings For Details

* To Be Determined By Equipment Mfr.

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

51-003-022

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

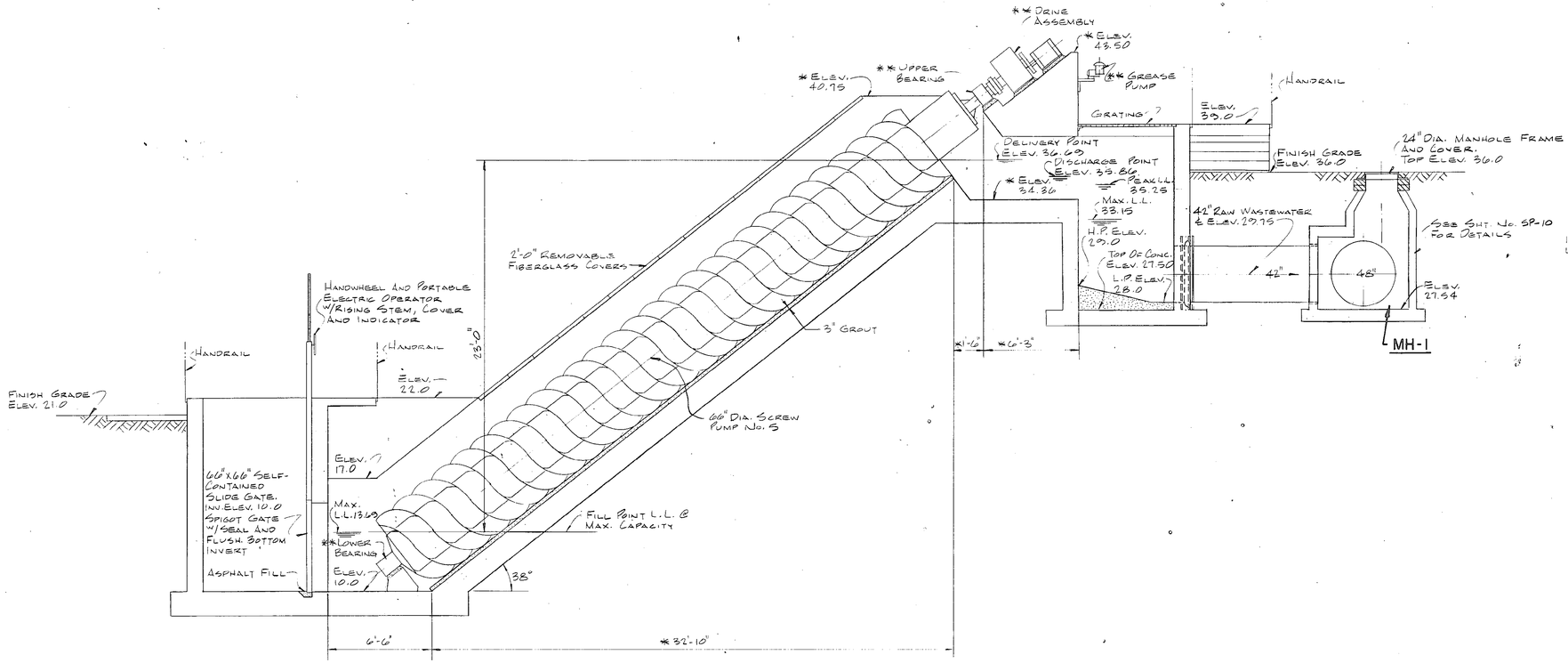
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

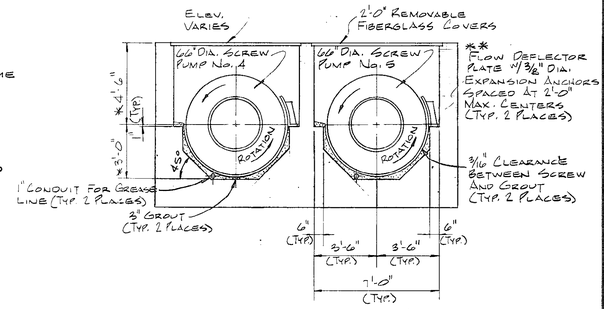
ADDITIONS TO EXISTING
RAW WASTEWATER PUMPING STATION
LIME STORAGE AND FEEDING SYSTEM
PLANS

SHEET 2P-1 OF SHEETS
PROJECT NO. 2815

RECORD



SECTION 2P-2A
2P-1



SECTION 2P-2B
2P-1

SECTION 2P-2C
2P-1

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

**SEE MFR'S. DRAWINGS FOR DETAILS
* TO BE DETERMINED BY EQUIPMENT MFR.

51-005-03

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

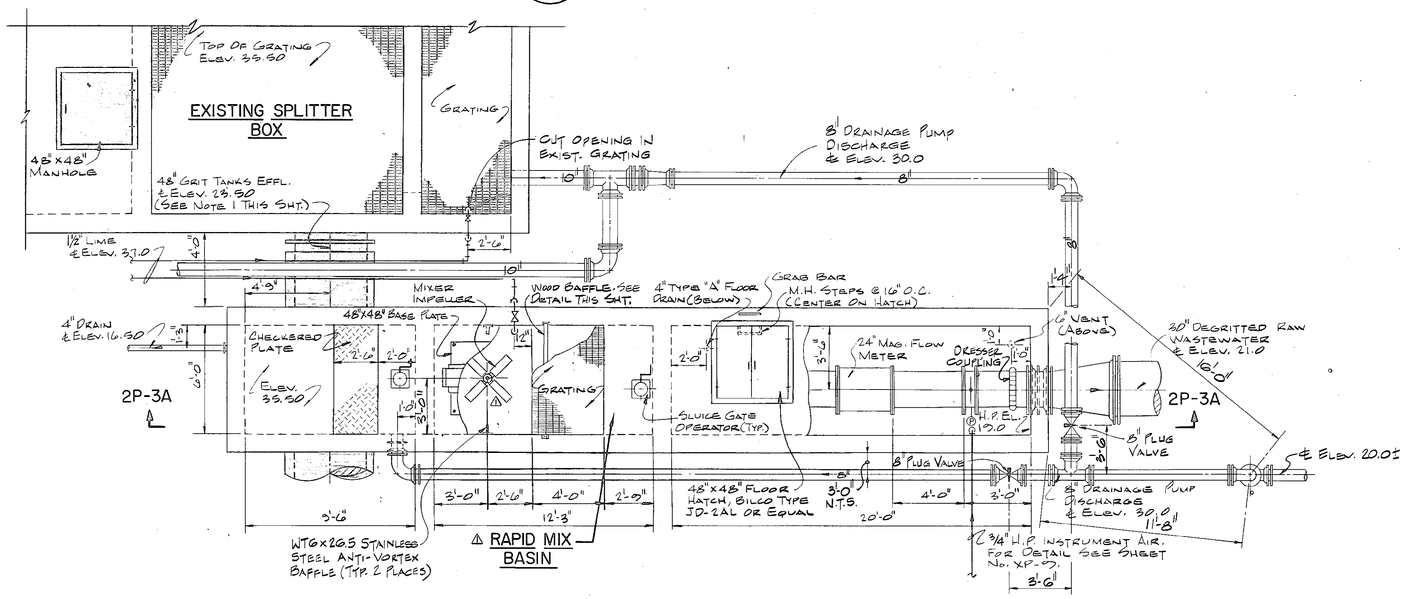
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

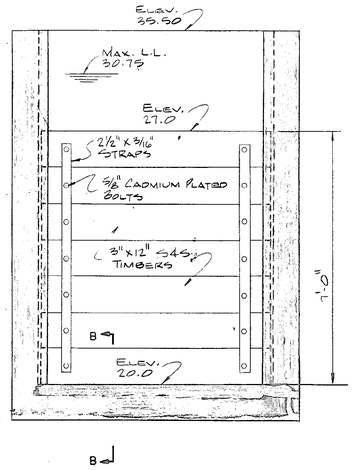
ADDITIONS TO EXISTING
RAW WASTEWATER PUMPING STATION
LIME STORAGE AND FEEDING SYSTEM
SECTIONS

SHEET 2P-2
OF SHEETS
prc
PROJECT NO. 2815

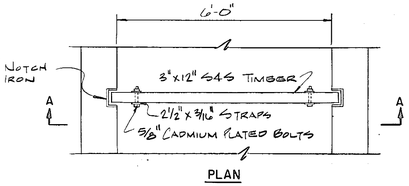
RECORD



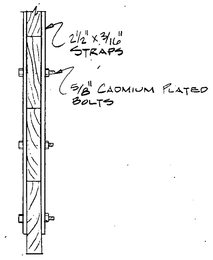
METER VAULT
PLAN VIEW
Scale: ¼"=1'-0"



SECTION A-A



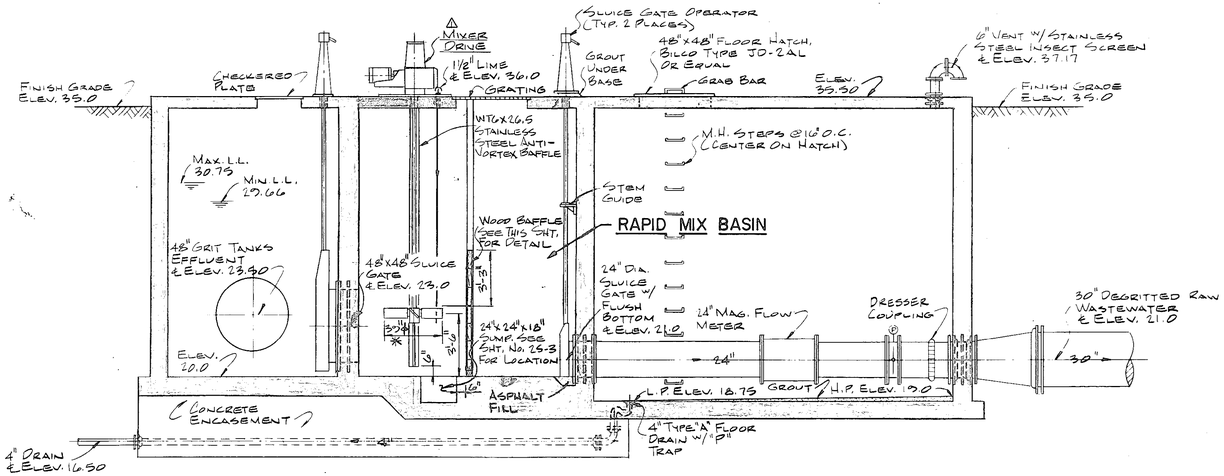
PLAN



SECTION B-B

Note:
Baffles shall be constructed of California Redwood Association, Clear All Heart Grade Timber or Timber Treated in Accordance with Specifications Section 1A, Paragraph 2.6.

RAPID MIX BASIN BAFFLE DETAIL
Scale: None



SECTION 2P-3A
2P-3
Scale: ¼"=1'-0"

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

* To Be Determined By Equipment Mfr.

Notes:
1. Remove Existing 48" R.C.P. Inside Meter Vault After Structure Is Complete.
2. See Sht. 150-6 For Continuation Of Outside Piping.

51-003-03.1

NO.	DATE	DESCRIPTION	APPROVED
⚠	7-24-87	MIXER RELOCATION IN "RAPID MIX BASIN"	E.E.I.

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

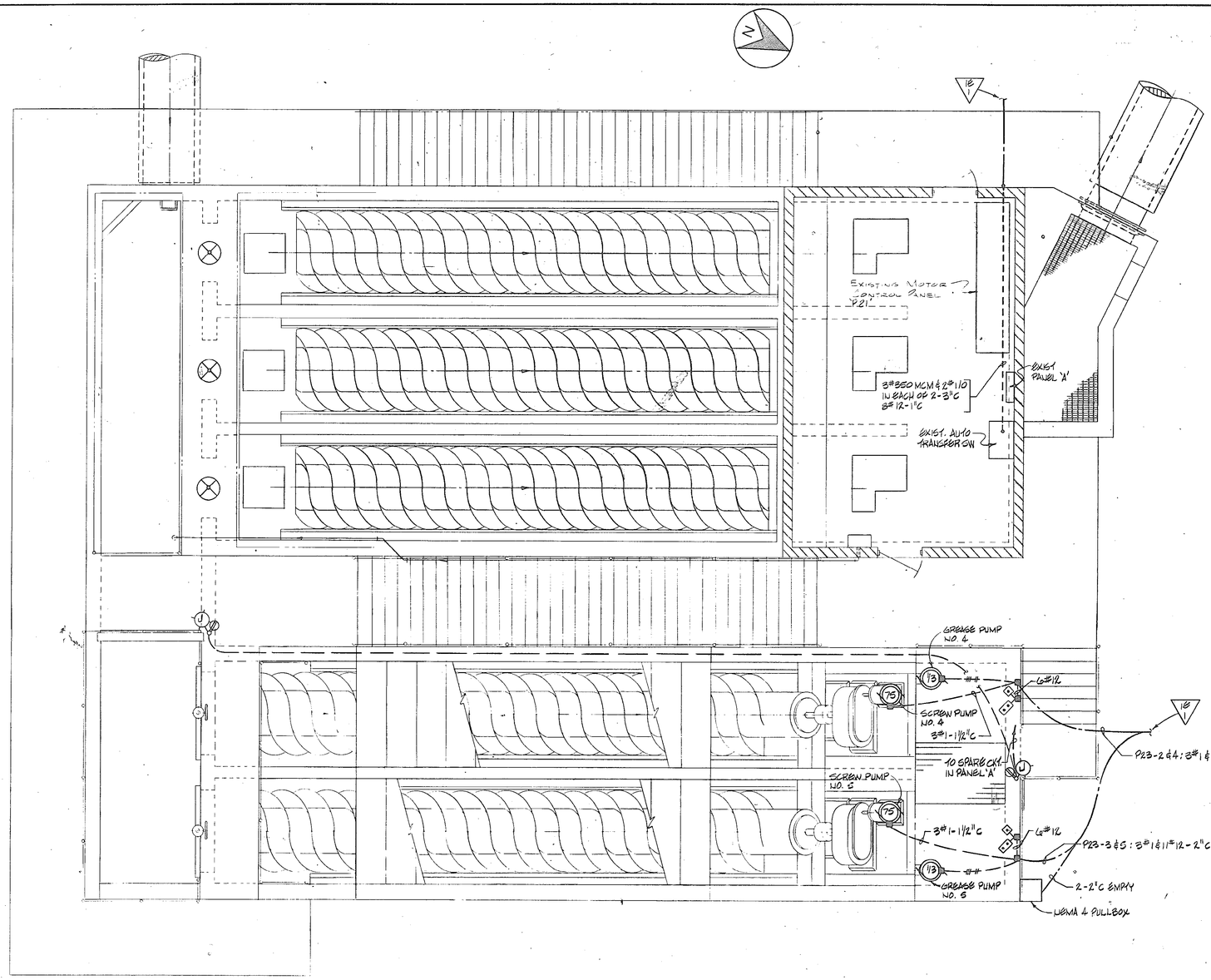
SCALE
AS NOTED

METER VAULT AND RAPID MIX BASIN
PLAN AND SECTION

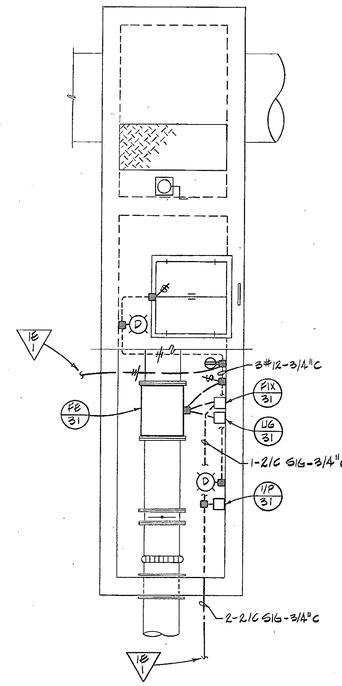
SHEET 2P-3
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-139 68716



PUMPING STATION



METER VAULT

51-003-025

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

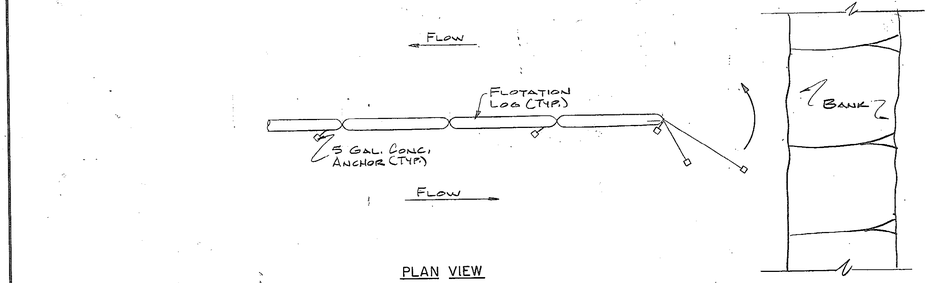
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

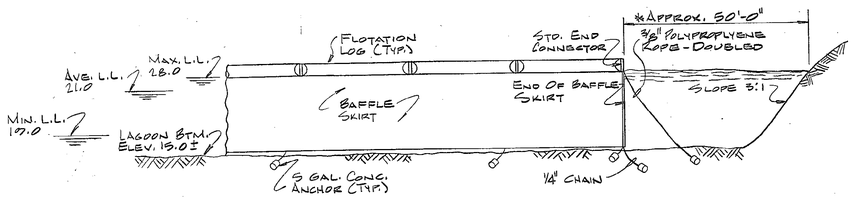
METER VAULT
AND ADDITIONS TO EXISTING
RAW WASTEWATER PUMPING STATION
ELECTRICAL

SHEET 2E-1
OF SHEETS
PROJECT NO. 2815

RECORD



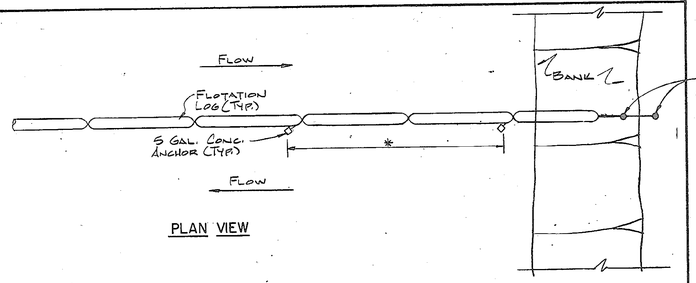
PLAN VIEW



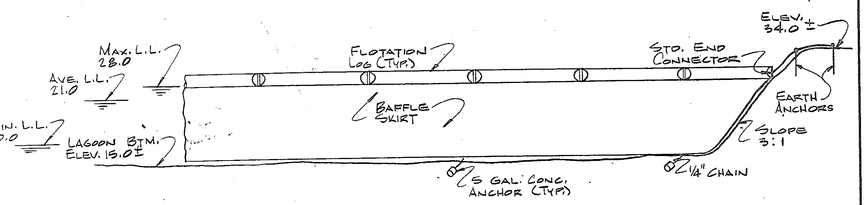
ELEVATION

DETAIL "A"

SCALE: NONE



PLAN VIEW



ELEVATION

DETAIL "B"

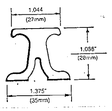
SCALE: NONE

1" (25mm) Roller Traveler Cars and Track

1. 1" x ¼" (25mm x 3mm) Track. 2' (51mm)-spacing. Use #10 (5mm) F.H. fasteners.

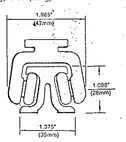
Length	Part No.
4' (1.2m)	42-04
5' (1.5m)	42-05
6' (1.8m)	42-06

(Longer sections available on request.)



4. 4-Wheel Traveler Car

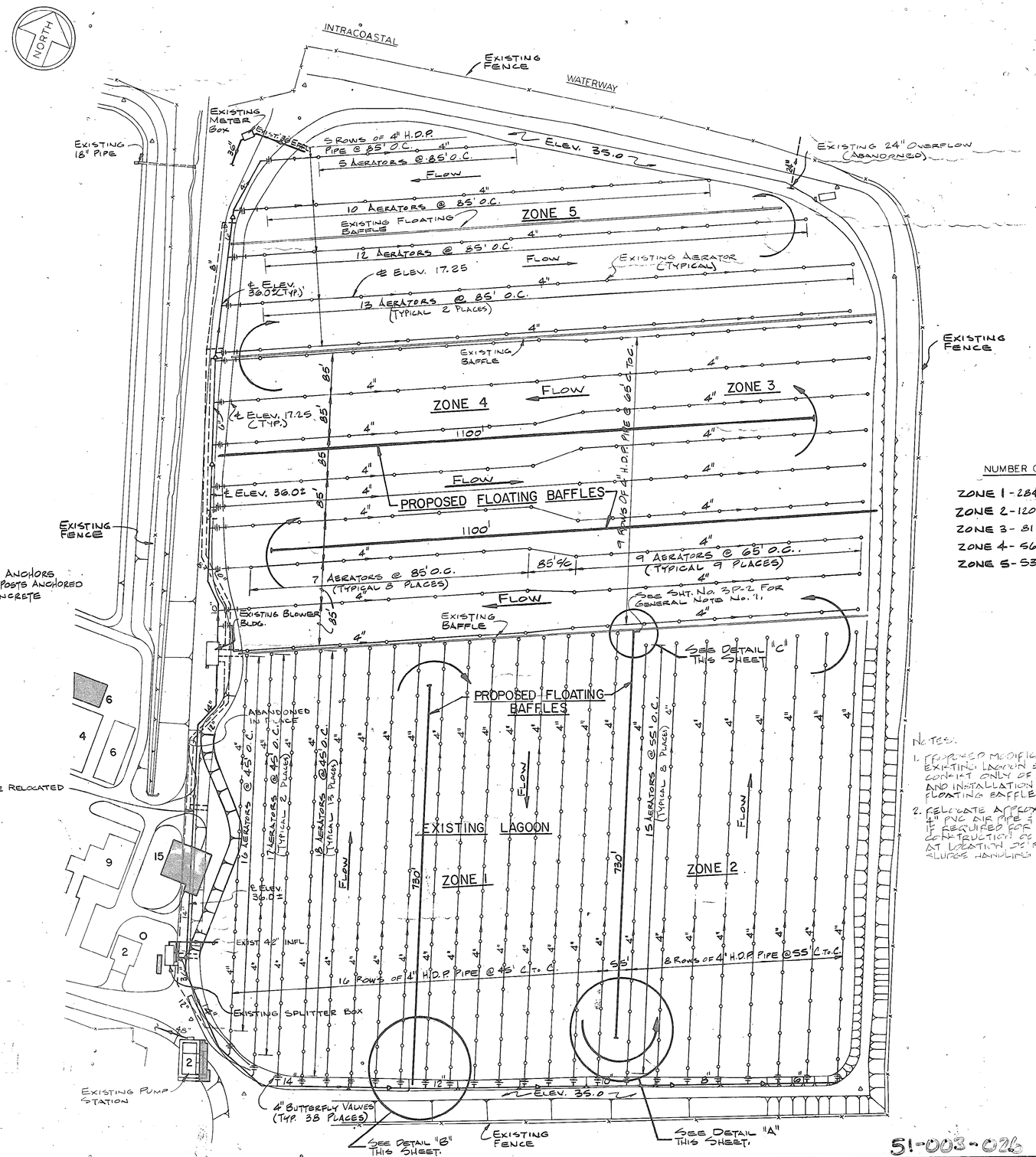
Car with stainless steel eye strap and two ¼" (6mm) R. H. fasteners. Slop dimension: ⅝" x ⅜" (16mm x 10mm); inside diameter: 2⅜" (60mm) long, ⅝" (16mm) wide. Safe Working Load: 2,230 lbs. (1,022kg). 8 oz. (227g). 72-81



DETAIL "C"

SCALE: NONE

NOTES:
1. * TO BE DETERMINED BY MFR.
2. FOR GENERAL NOTES SEE SHEET No. 3P-2.



NUMBER OF AERATORS

ZONE 1 - 284 AERATORS
ZONE 2 - 120 AERATORS
ZONE 3 - 81 AERATORS
ZONE 4 - 56 AERATORS
ZONE 5 - 53 AERATORS

NOTES:
1. PROPOSED MODIFICATIONS TO EXISTING LAGOON SHALL CONSIST ONLY OF FURNISHING AND INSTALLATION OF FOUR FLOATING BAFFLES.
2. RELOCATE APPROX. 100' OF 1" PVC AIR PIPE & TWO AERATORS IF REQUIRED FOR THE CONSTRUCTION OF EMBANKMENT AT LOCATION OF BLDG. NO. 15 - SLUDGE HANDLING BLDG.

51-003-026

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

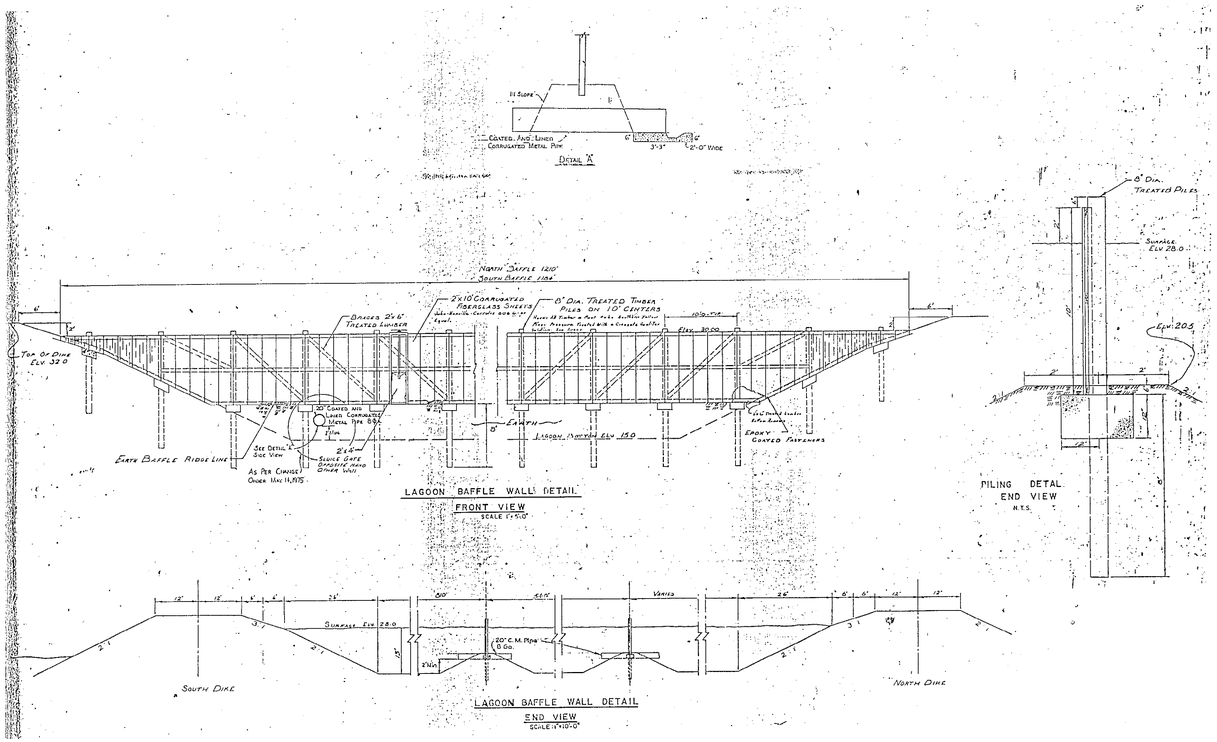
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1" = 100'
UNLESS NOTED

PROPOSED MODIFICATIONS AND ADDITIONS TO EXISTING LAGOON - I

SHEET 3P-1
OF ADDENDUM NO. 1 SHEETS
PROJECT NO. 2815

RECORD



EXISTING LAGOON BAFFLE

GENERAL NOTES

1. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, CONDUITS, PROCESS PIPING, OTHER UNDERGROUND PIPING, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION.

2. THE CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE CITY IN ORDER TO PERMIT THE LOCATION OF EXISTING UNDERGROUND UTILITIES, CONDUITS, PROCESS PIPING AND OTHER UNDERGROUND PIPING AND STRUCTURES IN ADVANCE OF CONSTRUCTION.

3. THE OPERATION OF THE EXISTING LAGOON SHALL BE MAINTAINED DURING PROPOSED CONSTRUCTION AND MODIFICATION.

4. EXACT LOCATION OF FLOATING BAFFLES AND ANCHORS SHALL BE DETERMINED IN THE FIELD BY THE EQUIPMENT MANUFACTURER AND APPROVED BY ENGINEER.

5. CONCRETE ANCHORS SHALL BE SUPPLIED BY GENERAL CONTRACTOR. TOTAL AMOUNT OF CONCRETE REQUIRED IS 8 CU. YD. OF CLASS "C" CONCRETE AS SPECIFIED UNDER DIVISION 3.

6. ALL STRUCTURES, PIPING, TOPO, DIMENSIONS, ETC. NOT LABELED "PROPOSED" ARE EXISTING.

7. ATTACHMENT OF THE PROPOSED FLOATING BAFFLES TO THE EXISTING BAFFLE WALL SHALL BE AS RECOMMENDED BY THE MANUFACTURER.

51-003-02.7

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
AS NOTED

PROPOSED MODIFICATIONS AND ADDITIONS TO EXISTING LAGOON - II

SHEET 3P-2
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 69716

148'-0"

CLARIFIER NO. 3

#7 @ 12" TOP ON RADIUS OF 55'-8" (TYP)

#5 @ 12" TOP ON RADIUS OF 49'-6" (TYP)

#4 @ 12" TOP & BOTT. CIRCUMFERENTIAL REINF. (TYP)
MIN. LAP LENGTH = 2'-0". STAGGER ALL SPLICES.

#5 @ 12" BOTT. ON RADIUS OF 49'-6" (TYP)

#7 @ 12" DWLS. ON RADIUS OF 52'-9" (TYP)

#8 @ 8" DWLS. ON RADIUS OF 52'-9" (TYP)

5S-3A

5S-3C

5S-3D

5S-3E

5S-3F

5S-3E1

5S-3J

5S-3H

5S-3K

SLOPE

36" ϕ PIPE ϕ EL. 1.25

42" ϕ PIPE ϕ EL. 11.75

36" ϕ PIPE ϕ EL. 11.50

42" ϕ DOWNCOMER ϕ EL. 13.25

T/STRUCT. CONC. EL. 9.50 (TYP)

T/STRUCT. CONC. EL. 10.25

EL. 13.00 (TYP)

14" ϕ PIPE ϕ EL. 2.33

8" ϕ PIPE ϕ EL. 2.08

3" ϕ PIPE ϕ EL. 2.08

L.P. EL. 13.00

H.P. EL. 13.25 (TYP)

H.P.

SEE DETAIL 5S-2M (TYP)

CLARIFIER NO. 4

L.P. GROUT EL. 5.75 (TYP) T/STRUCT. CONC. L.P. EL. 5.58 (TYP)

105'-0" INSIDE DIAMETER (TYP)

SEE PART PLAN AT CENTER FOR DETAILS. (TYP)

H.P. GROUT EL. 6.00 (TYP) T/STRUCT. CONC. H.P. EL. 5.83 (TYP)

4" ϕ RELIEF VALVE ϕ EL. 7.50 (TYP) SEE SHT. XS-1 FOR DETAILS.

NOTE: ALLOWABLE SOIL BEARING CAPACITY HAS BEEN ASSUMED 2,000 PS.F. THIS SHALL BE VERIFIED BY GENERAL CONTRACTOR IN FIELD.

74'-0"

74'-0"

CLARIFIER DISTRIBUTION CHAMBER NO. 2

7'-8" BASE DIA *

PART PLAN AT CENTER

1/4" = 1'-0"

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

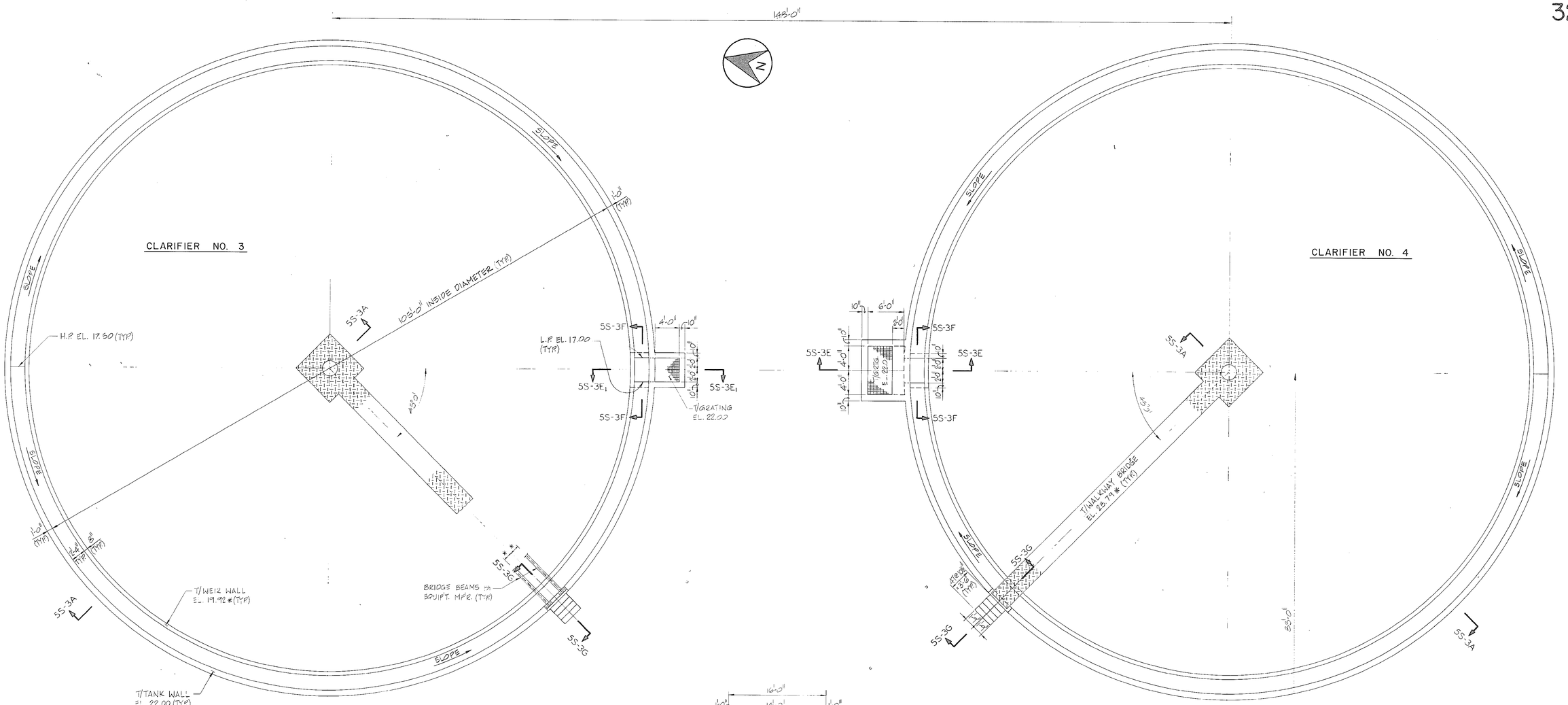
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

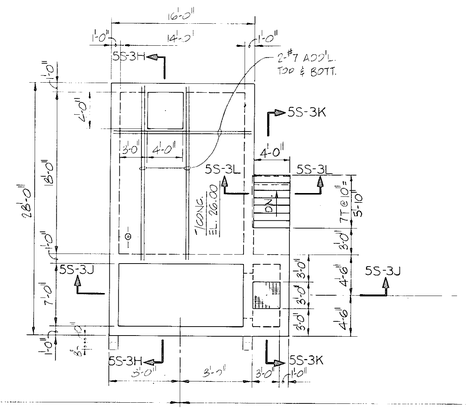
SCALE
1/8" = 1'-0" U.N.

CLARIFIERS
BASE SLAB PLAN

SHEET 5S-1
OF SHEETS
PROJECT NO. 2815

RECORD





CLARIFIER DISTRIBUTION
CHAMBER NO. 2

51-003-02.9

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

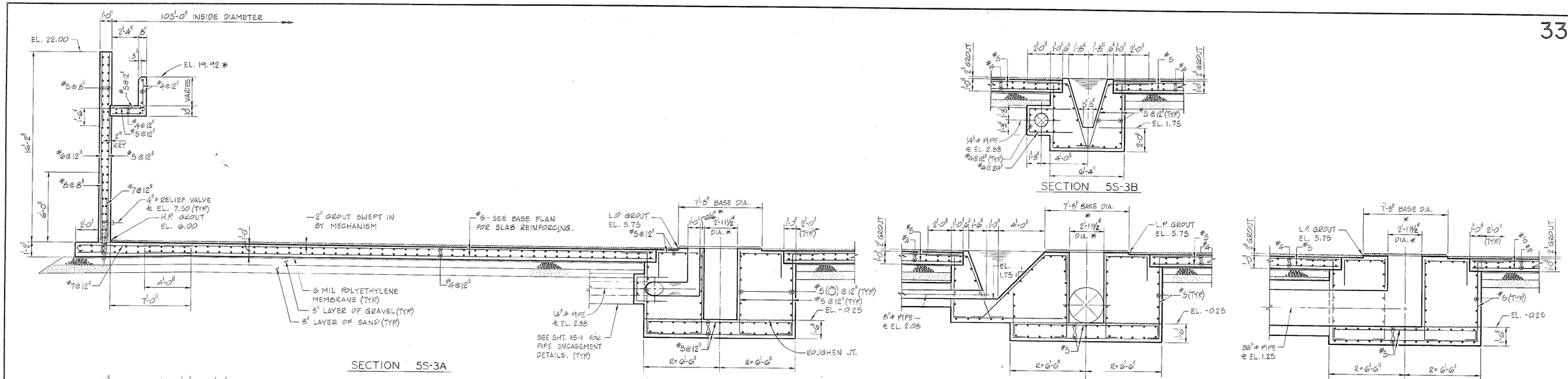
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/8" = 1'-0"

CLARIFIERS
TOP PLAN

SHEET 5S-2
OF SHEETS
PROJECT NO. 2815

RECORD



NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

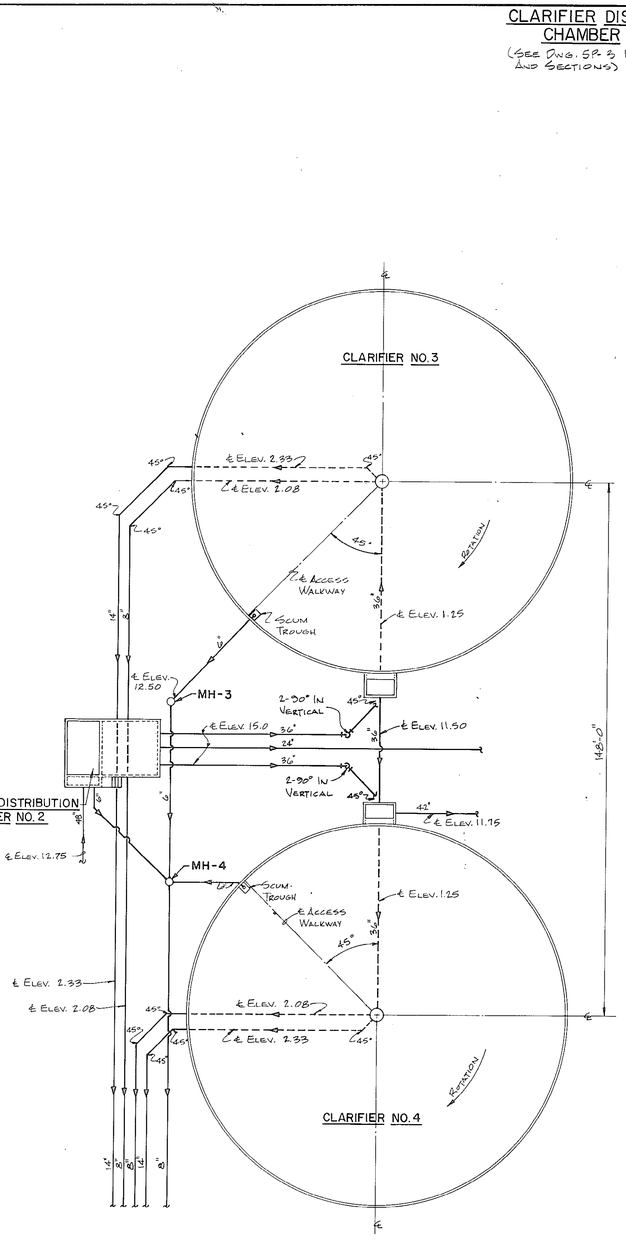
SCALE
1/4" = 1'-0" U.N.

CLARIFIERS
SECTIONS

51-003-030

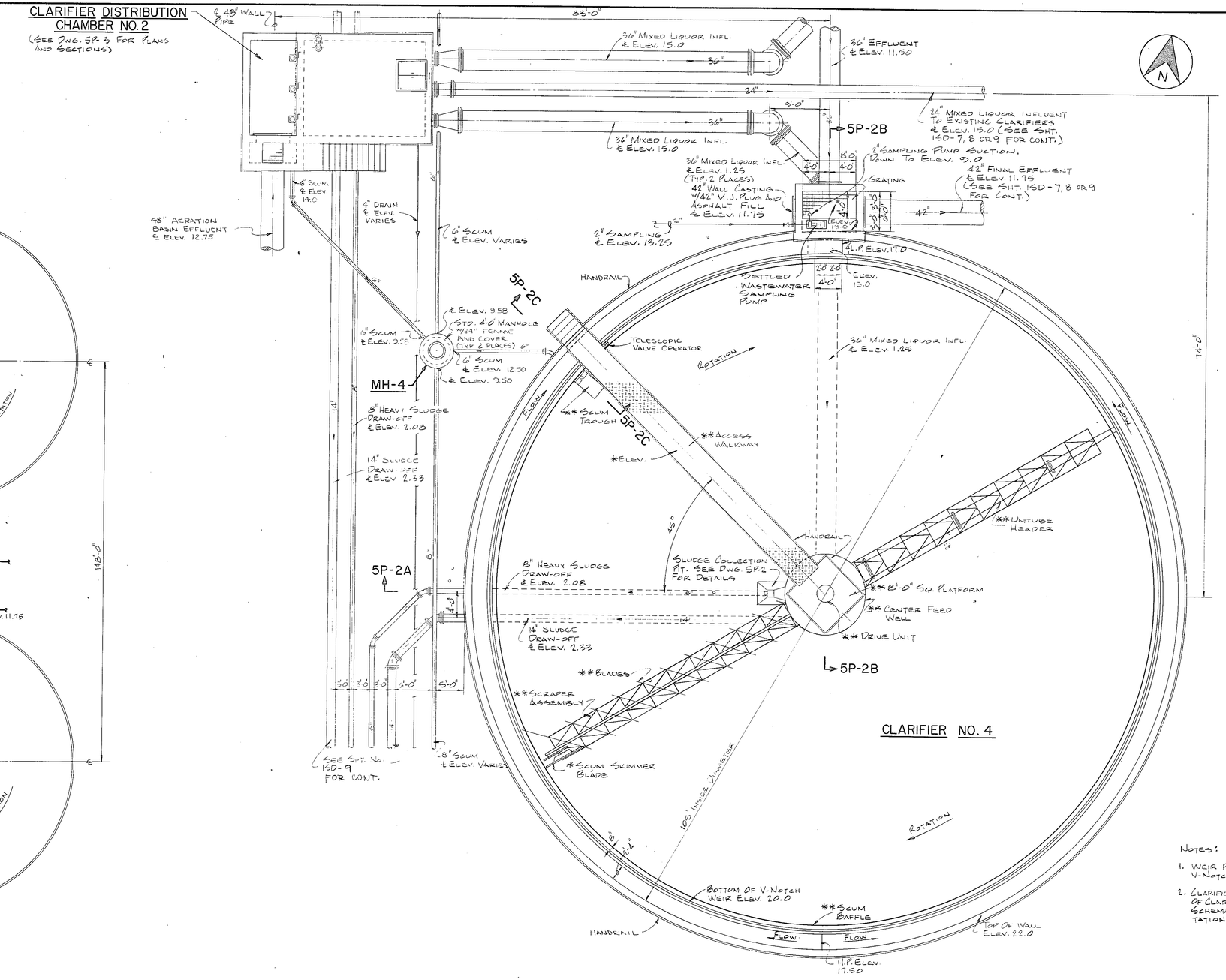
SHEET 5S-3
OF SHEETS
PROJECT NO. 2815

RECORD



MIXED LIQUOR INFLUENT, SLUDGE DRAW-OFF, FINAL EFFLUENT AND SCUM PIPING SCHEMATIC

SCALE: 1"=20'



TOP PLAN

SCALE: 1/8"=1'-0"

Notes:

1. Weir Plates Shall Be 1"-90° V-Notch On 4" Center.
2. Clarifier No.3 Is A Mirror Image Of Clarifier No.4. See Piping Schematic This Sheet For Orientation.

CLARIFIER DESIGN CONDITIONS - PER TANK BASIS

	AVG.	MAX.
EFFLUENT FLOW RATE (MGD)	3.75	3.75
RETURN SLUDGE FLOW RATE (MGD)	1.88	3.75
MIXED LIQUOR FLOW RATE (MGD)	5.63	7.50

** See Mfr's. Drawings For Details

* To Be Determined By Equipment Mfr.

51-003-031

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

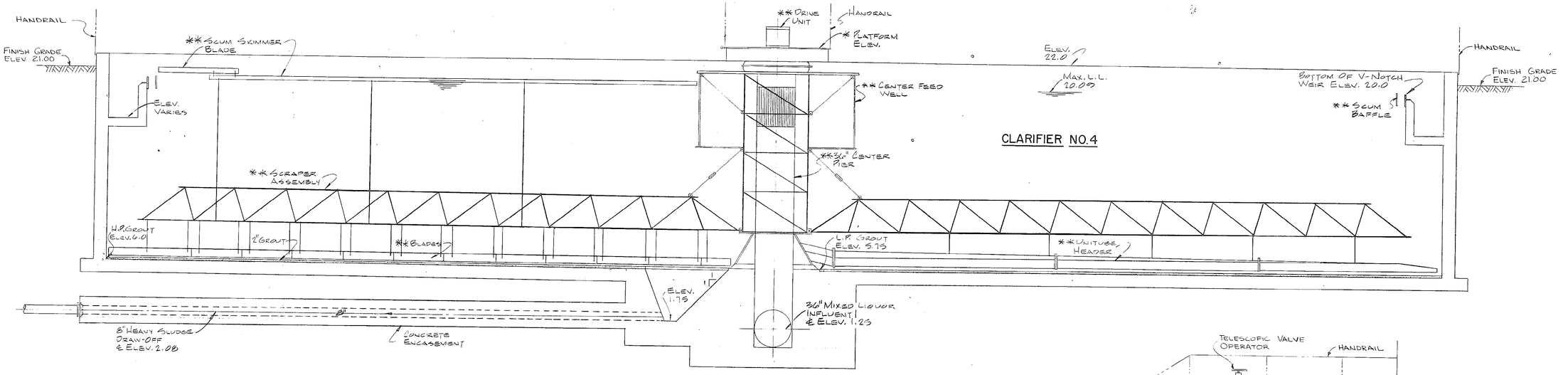
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
AS NOTED

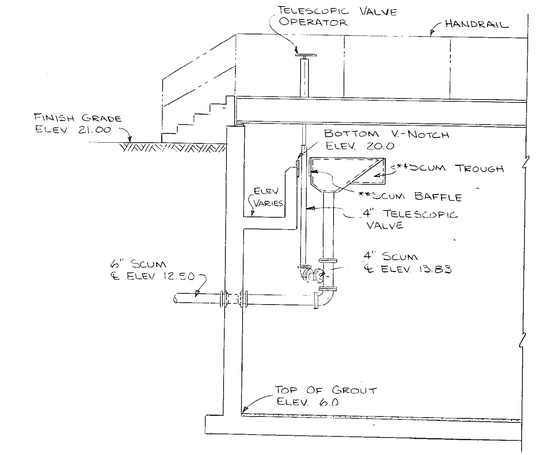
CLARIFIERS
PLAN VIEW AND PIPING SCHEMATIC

SHEET 5P-1 OF SHEETS
PROJECT NO 2815

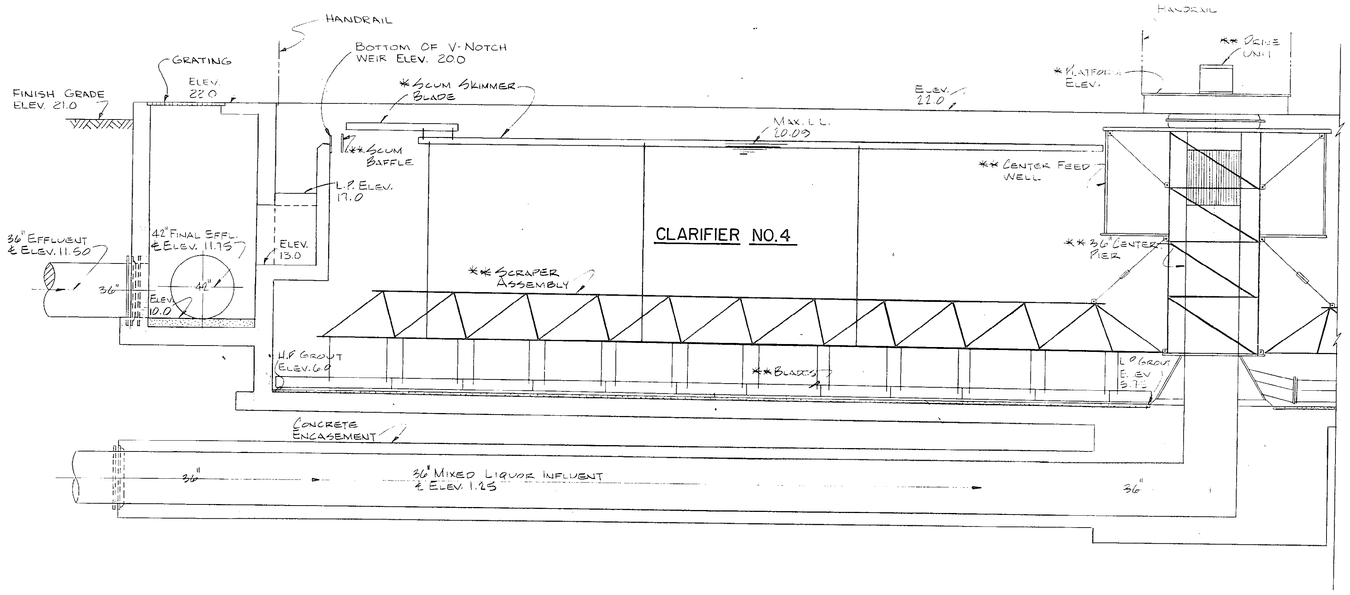
RECORD



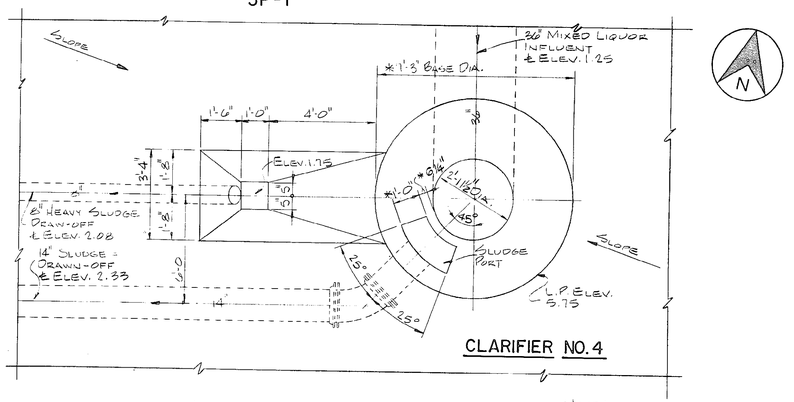
SECTION 5P-2A
5P-1



SECTION 5P-2C
5P-1



SECTION 5P-2B
5P-1



CENTER PIER BASE PLAN
SCALE: 3/8"=1'-0"

Note:
Clarifier No.3 center pier base plan is mirror image of clarifier No.4. See piping schematic on Drawing 5P-1.

**See Mfr's. Drawings for details.
* To be determined by equipment Mfr.

5!-003-032.

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

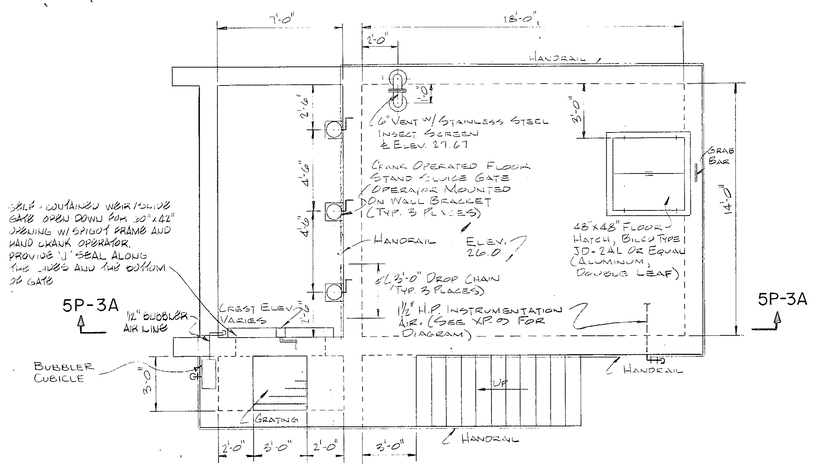
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"
UNLESS NOTED

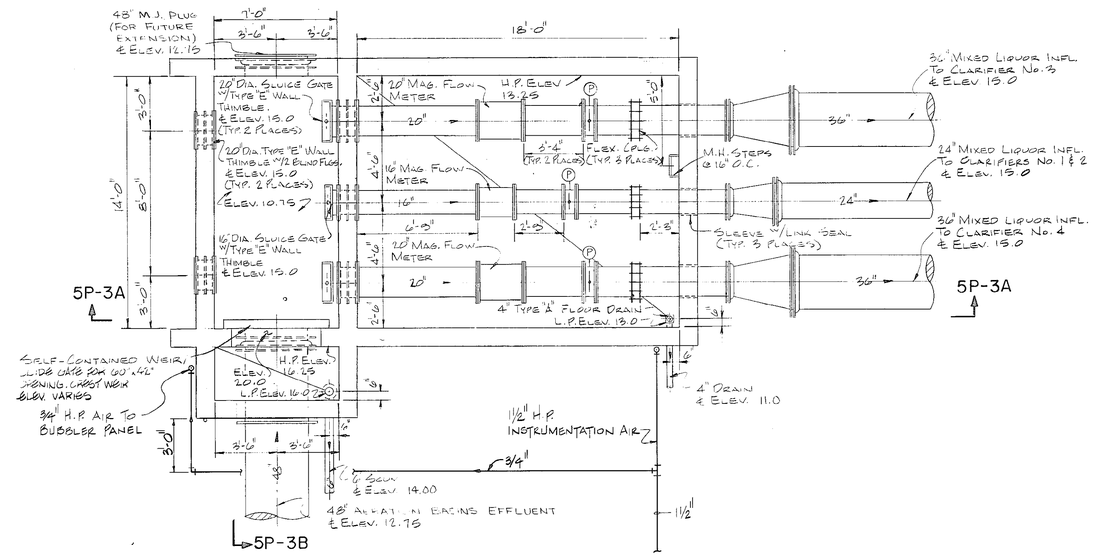
CLARIFIERS
SECTIONS

SHEET 5P-2
OF SHEETS
PROJECT NO. 2815

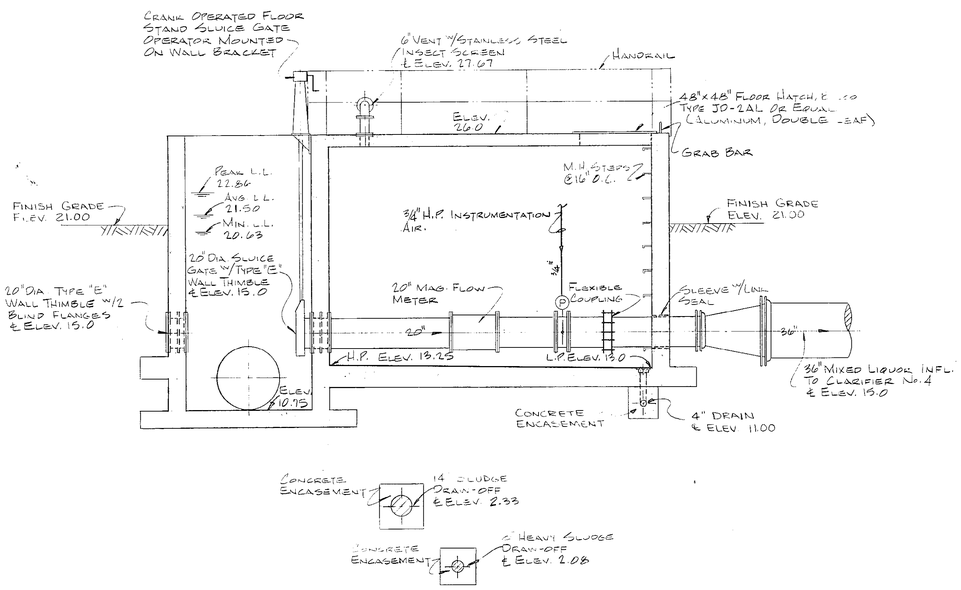
RECORD



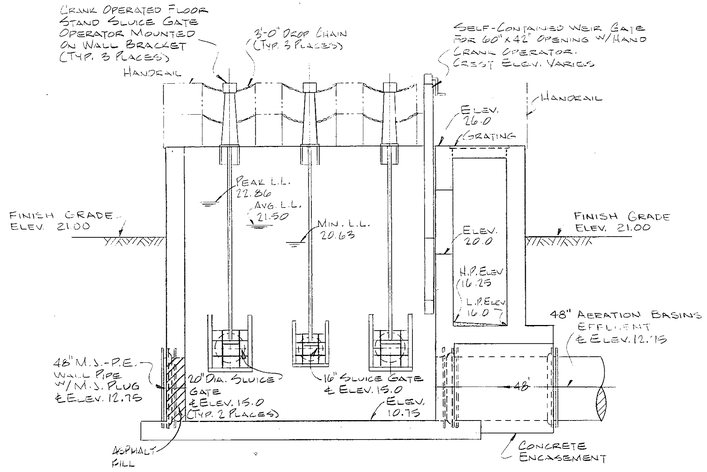
TOP PLAN



BASE PLAN



SECTION 5P-3A
5P-3



SECTION 5P-3B
5P-3

Note:
For Continuation of Outside Piping, See Sht. 150-9

5!-003-015

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

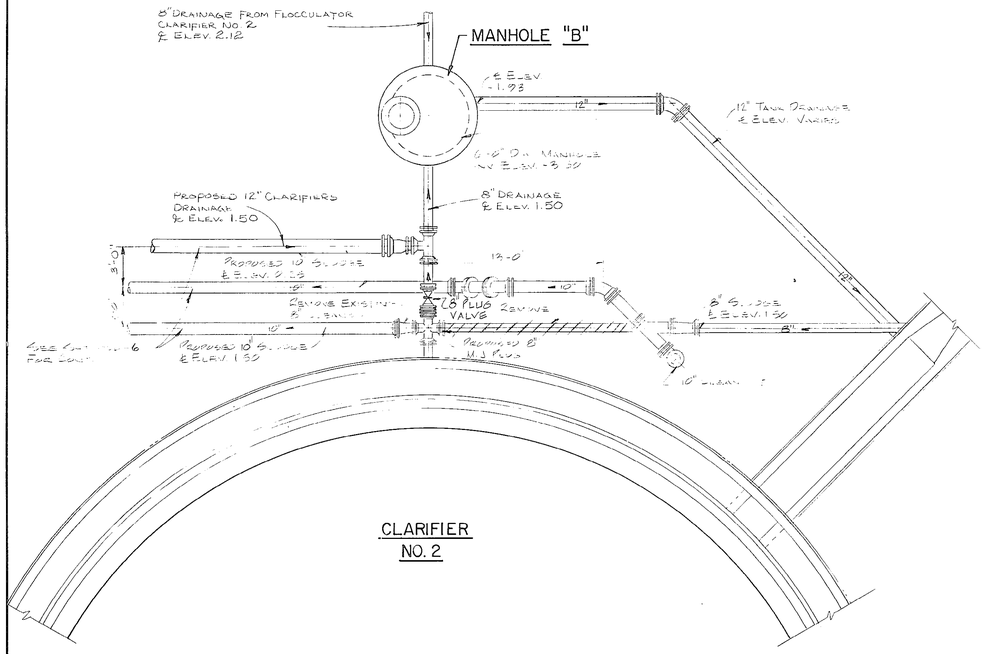
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

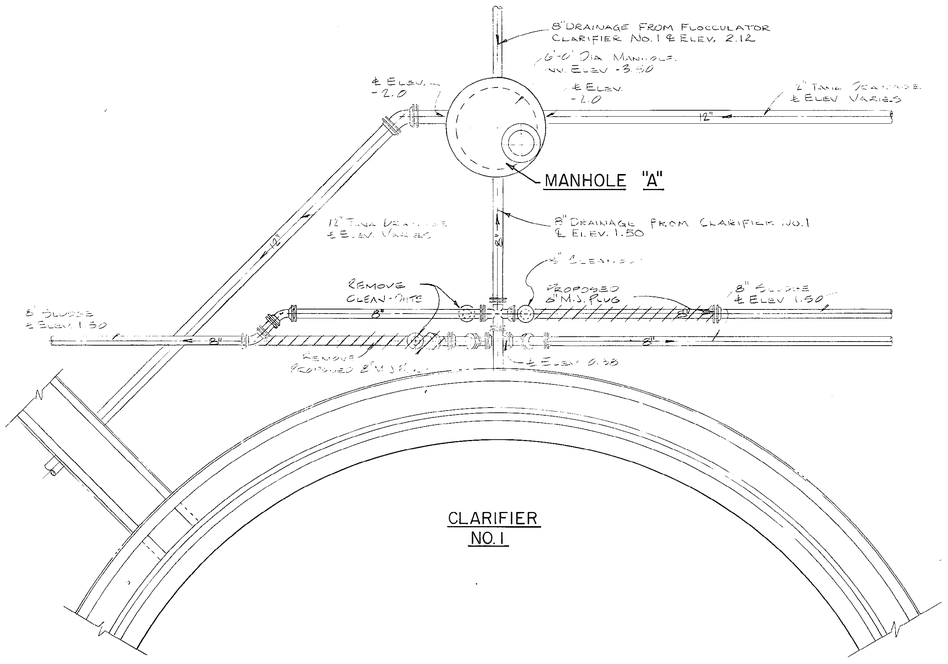
SCALE
1/4"=1'-0"

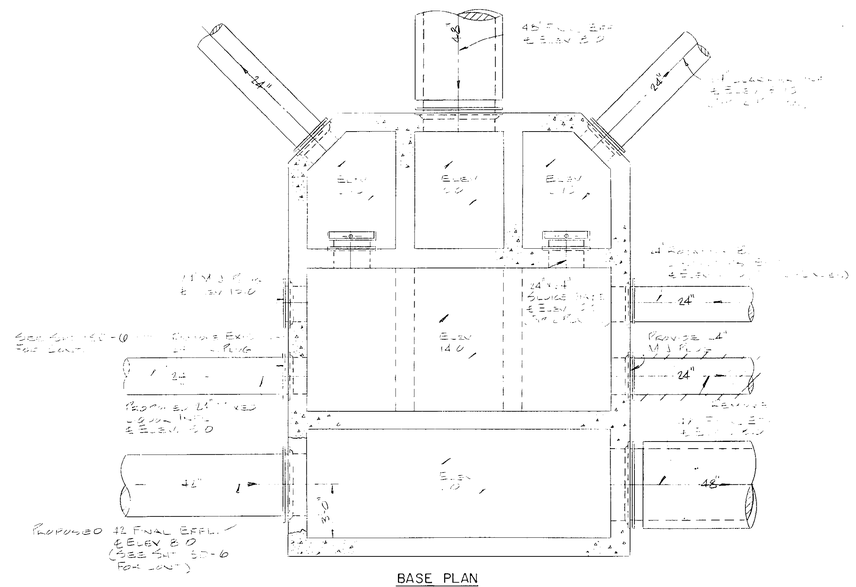
CLARIFIER DISTRIBUTION CHAMBER NO. 2
PLANS AND SECTIONS

SHEET 5P-3 OF SHEETS
PROJECT NO. 2815

RECORD



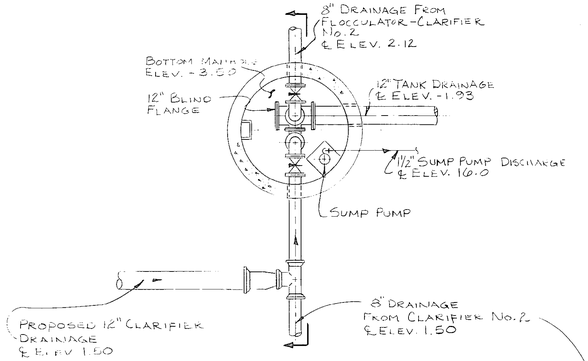




BASE PLAN

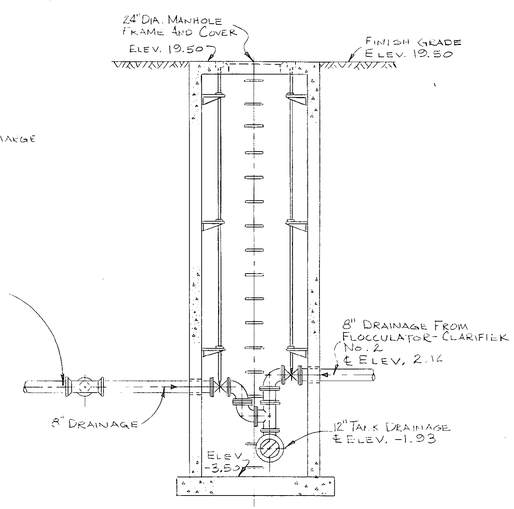
CLARIFIERS DISTRIBUTION CHAMBER NO. 1

SCALE: 1/4"=1'-0"



MANHOLE "B" BASE PLAN

SCALE: 1/4"=1'-0"



MANHOLE "B" SECTION

SCALE: 1/4"=1'-0"

NOTE:

BREAK EXISTING CONCRETE AS REQUIRED, BUT PRESERVE EXISTING REINFORCEMENT WHERE POSSIBLE. ADD 2 #5 NEW BARS ALL FOUR SIDES. SEE SPECIFICATIONS FOR EPOXY BINDER.

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

51-003-054

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED E.E.T.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

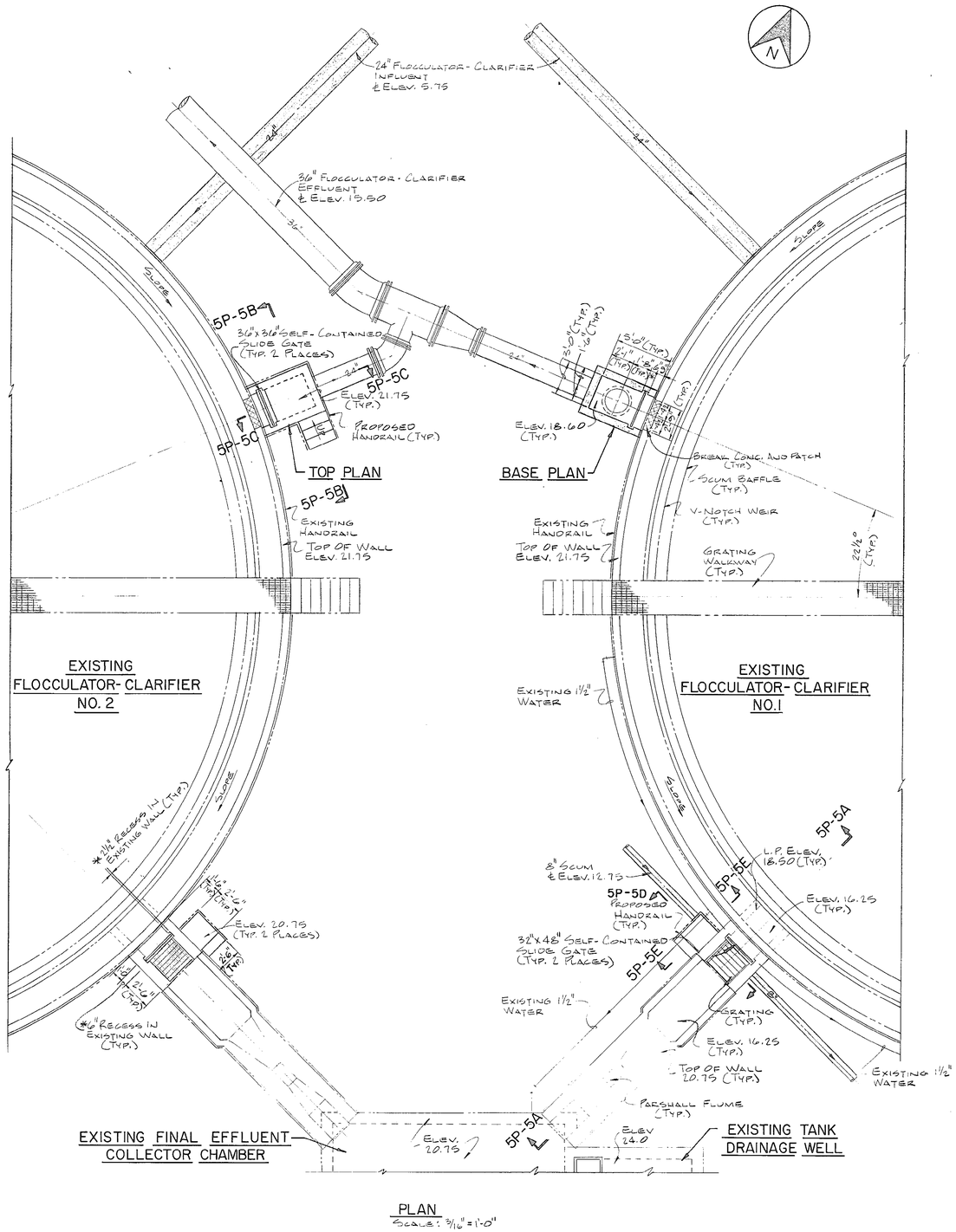
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
3/16" = 1'-0"
UNLESS NOTED

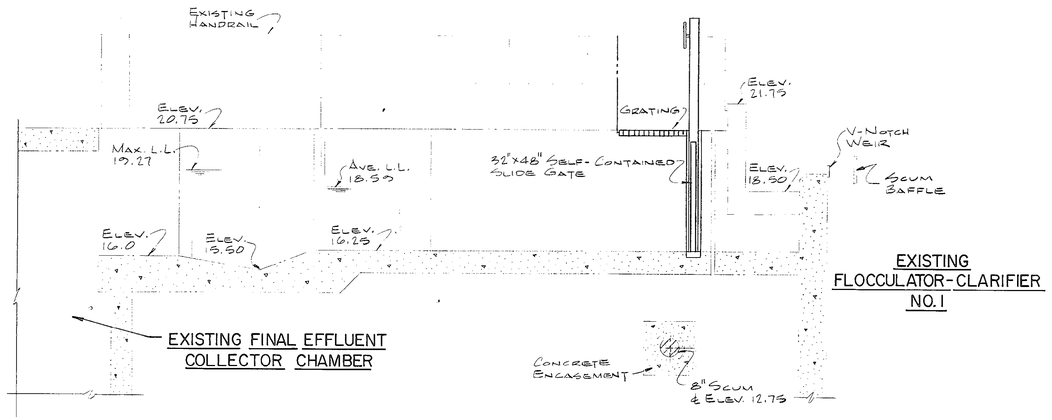
MODIFICATIONS TO EXISTING CLARIFIERS DISTRIBUTION CHAMBER NO. 1 AND TO EXISTING OUTSIDE PIPING

SHEET 5P-4 OF SHEETS
PROJECT NO. 2815

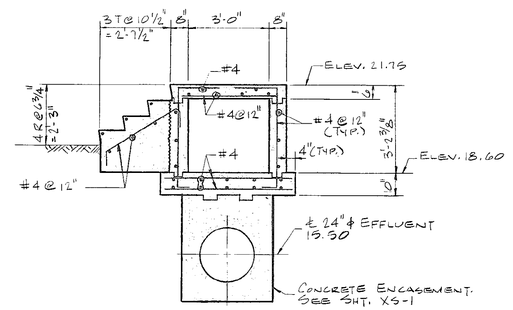
RECORD



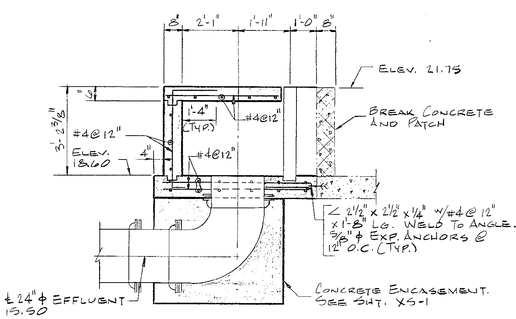
PLAN
SCALE: 3/16" = 1'-0"



SECTION 5P-5A
5P-5
SCALE: 3/8" = 1'-0"

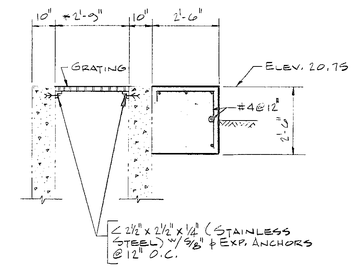


SECTION 5P-5B
5P-5
SCALE: 3/8" = 1'-0"

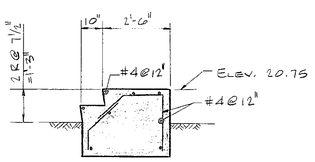


TYP. NOTE:
ROUGHEN AND CLEAN EXISTING CONCRETE. APPLY EPOXY BINDER PRIOR TO POURING NEW CONCRETE.

SECTION 5P-5C
5P-5
SCALE: 3/8" = 1'-0"



SECTION 5P-5D
5P-5
SCALE: 3/8" = 1'-0"



SECTION 5P-5E
5P-5
SCALE: 3/8" = 1'-0"

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

NOTE:
REMOVE EXISTING HANDRAIL WHERE NECESSARY FOR CONSTRUCTION OF PROPOSED STRUCTURES.

51-003-032

* TO BE DETERMINED BY EQUIPMENT MFR.

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

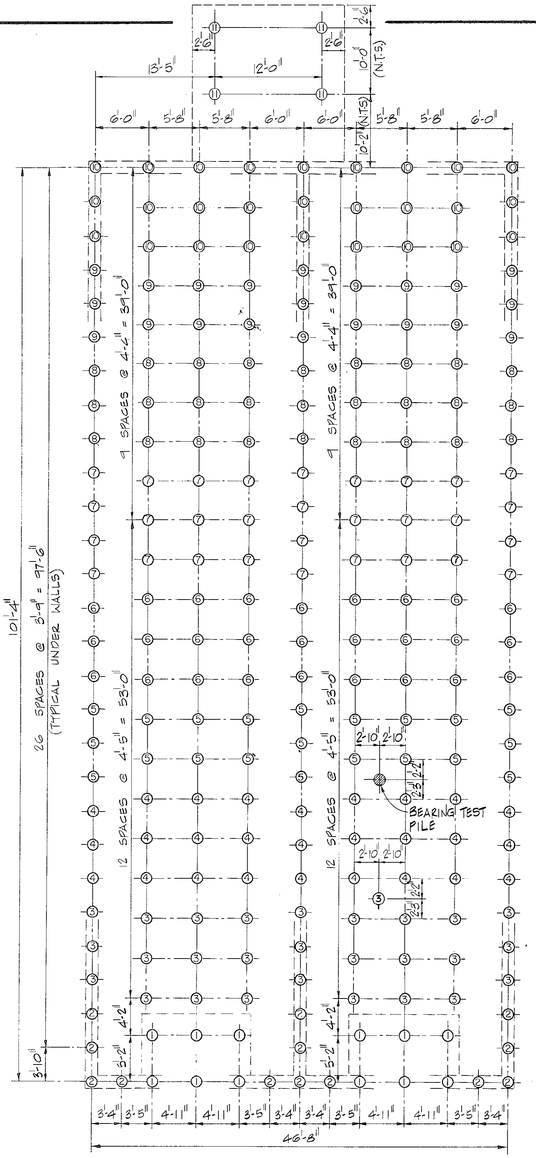
SCALE
AS NOTED

MODIFICATIONS TO EXISTING FLOCCULATOR-CLARIFIERS PLAN AND SECTIONS

SHEET 5P-5 OF SHEETS
PROJECT NO. 2815

BRUNING 44-132 68716

RECORD



PILE PLAN

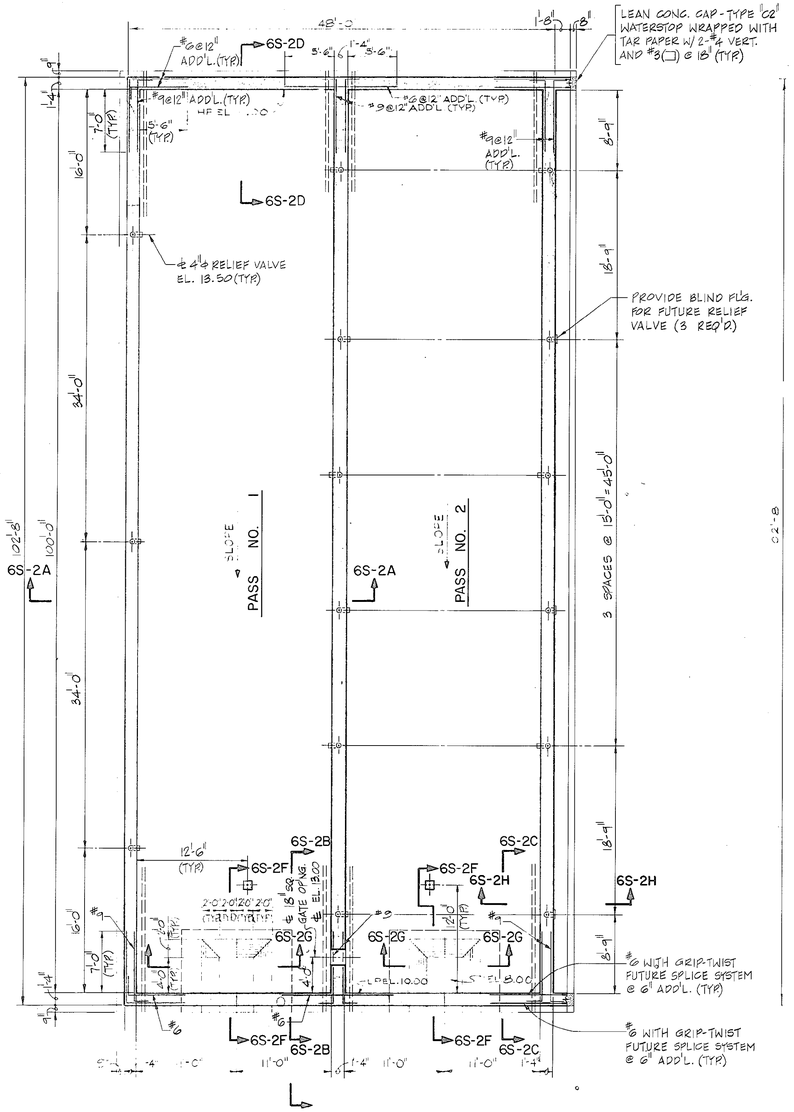
PILE CUT-OFF SCHEDULE	
MARK	ELEVATION
1	EL. 6.50
2	EL. 8.55
3	EL. 8.67
4	EL. 8.79
5	EL. 8.93
6	EL. 9.03
7	EL. 9.15
8	EL. 9.27
9	EL. 9.39
10	EL. 9.50
11	EL. 18.17

NOTES:

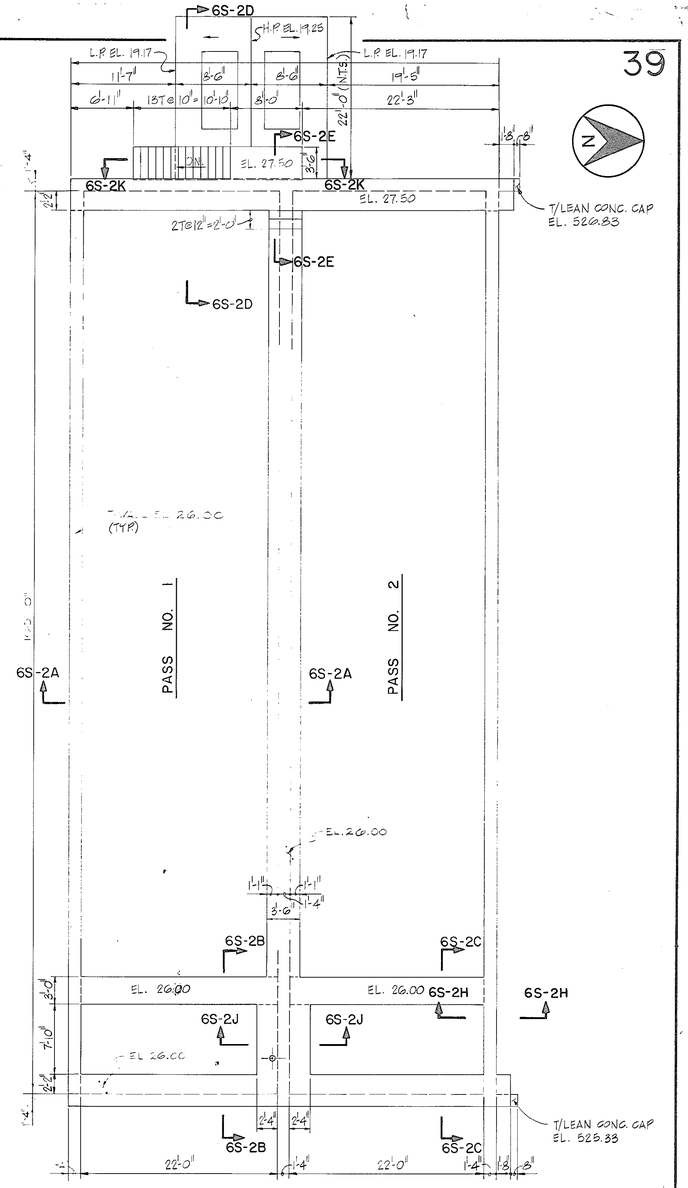
ALL PILES ARE TREATED TIMBER BEARING PILES. SEE SHEET XS-1 AND SPECIFICATIONS FOR PILE DETAILS.

ALL PILES SHALL HAVE A 20 TON BEARING CAPACITY.

● INDICATES BEARING TEST PILE



BASE PLAN



TOP PLAN

51-003-03L

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

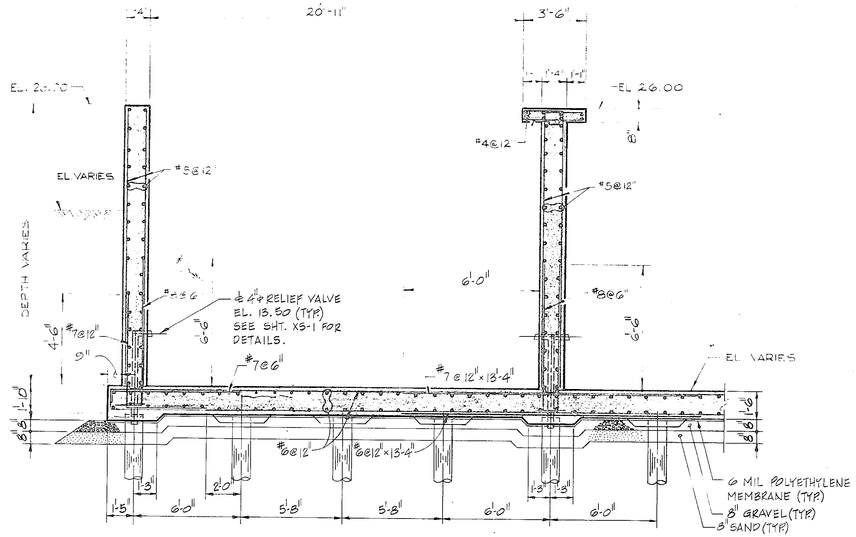
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE
1/8"=1'-0"

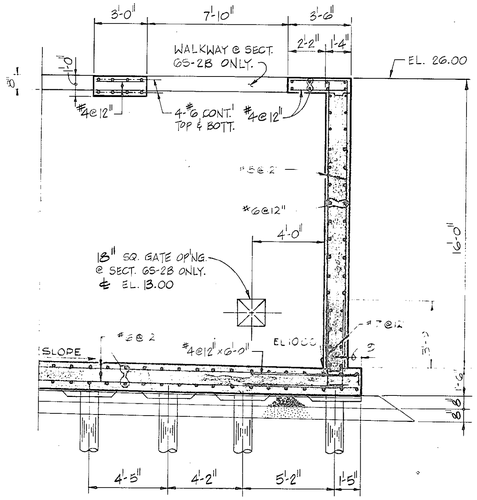
SLUDGE HOLDING TANK
PILE, BASE AND TOP PLANS

SHEET 6S-1
OF SHEETS
PROJECT NO. 2815

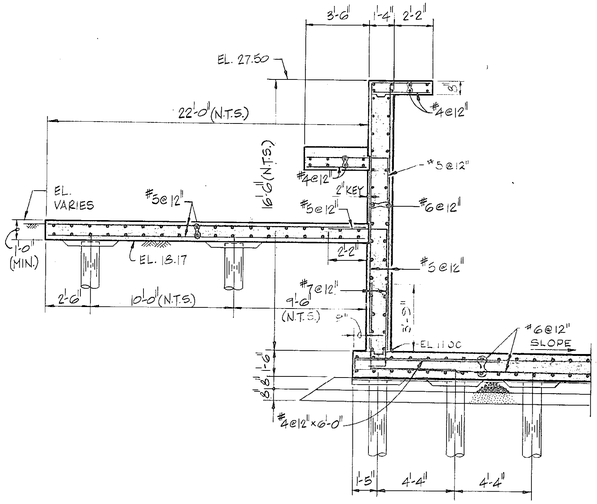
RECORD



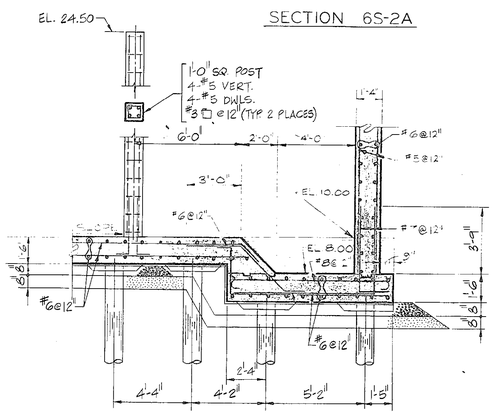
SECTION 6S-2A



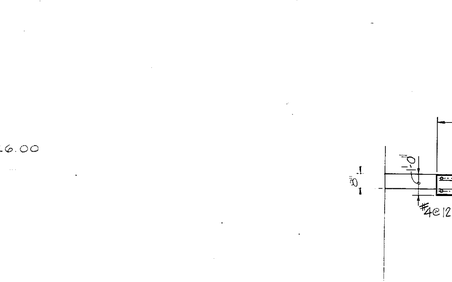
SECTION 6S-2B
SECTION 6S-2C



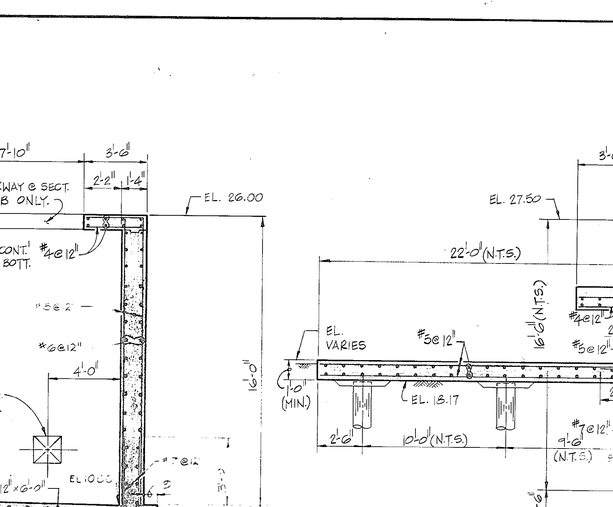
SECTION 6S-2D



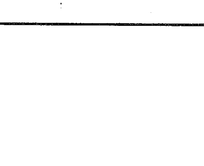
SECTION 6S-2F



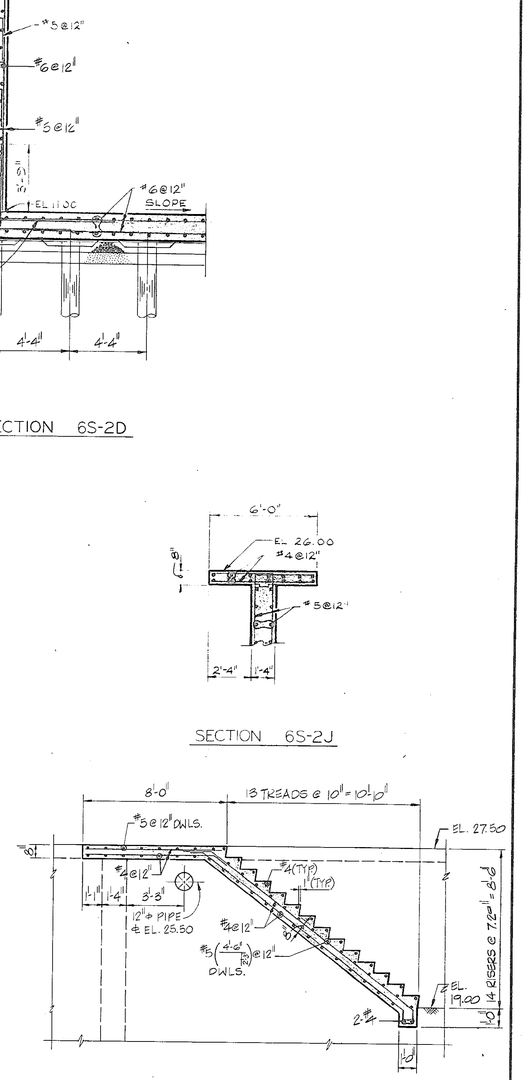
SECTION 6S-2G



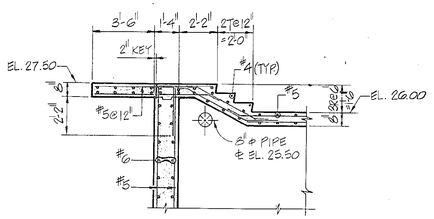
SECTION 6S-2H



SECTION 6S-2J



SECTION 6S-2K



NOTE: ALL REINF SHOWN IN THIS SECTION SHALL BE #4@12" UNLESS NOTED.

SECTION 6S-2E

51-003-037

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

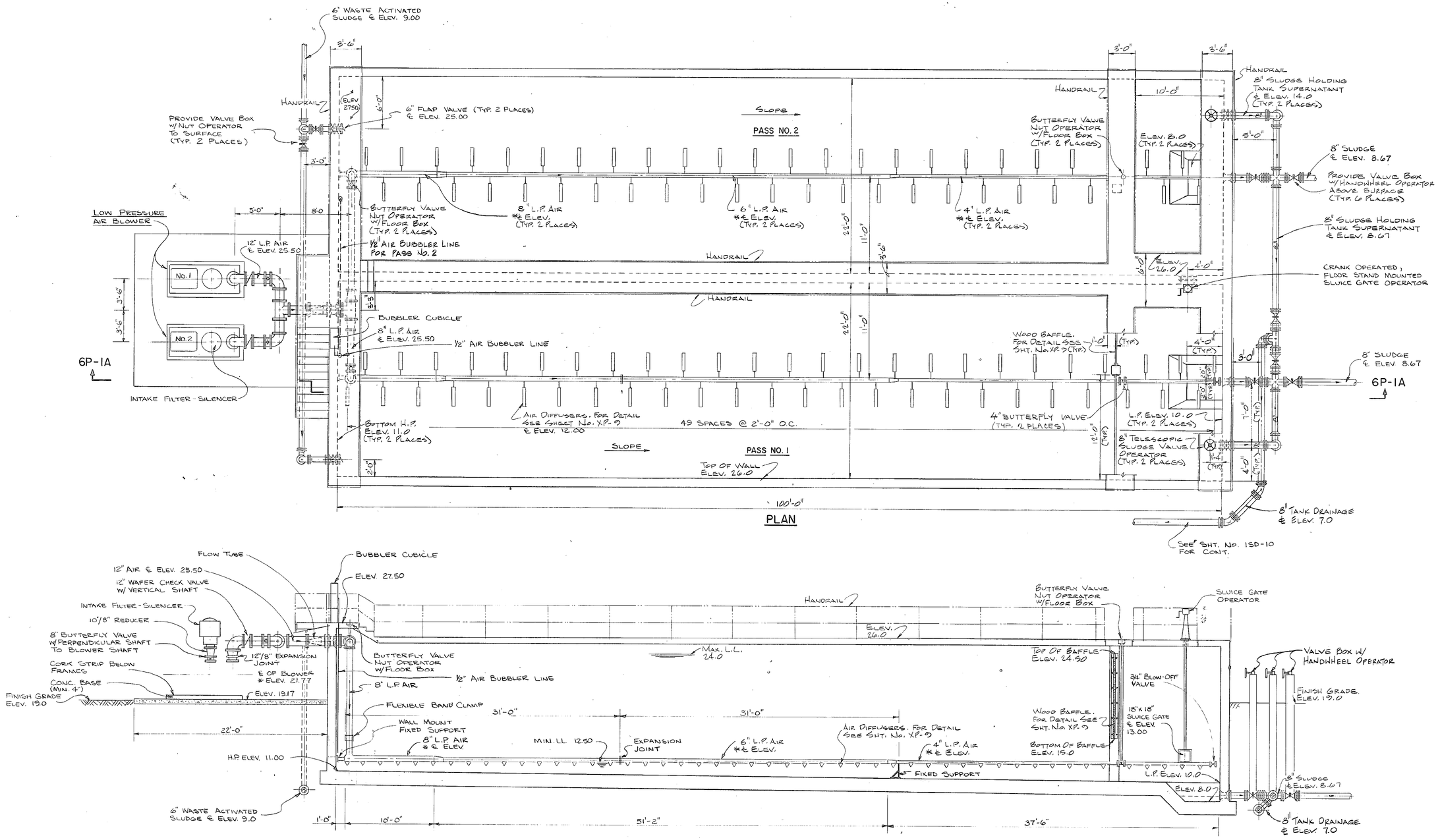
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC WORKS

SCALE
1/4" = 1'-0"

SLUDGE HOLDING TANK
SECTIONS

SHEET 6S-2
OF SHEETS
PROJECT NO. 2815

RECORD



SECTION 6P-1A
6P-1

NOTES:
(1) FOR CONTINUATION OF PIPING SEE SHEET 1SD-6
(2) MAXIMUM DISTANCE BETWEEN SUPPORTS SHALL BE 17'-6"
* TO BE DETERMINED BY EQUIPMENT MFR.

51-003-038

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

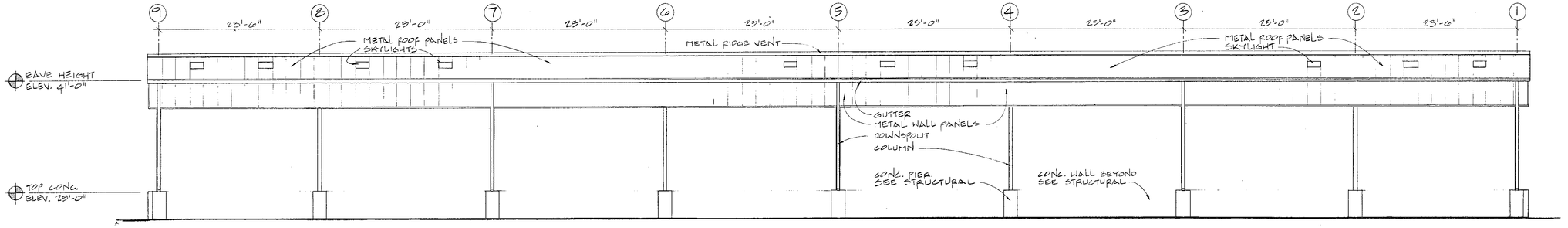
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
3/16"=1'-0"

SLUDGE HOLDING TANK NO. 2
PLAN AND SECTION

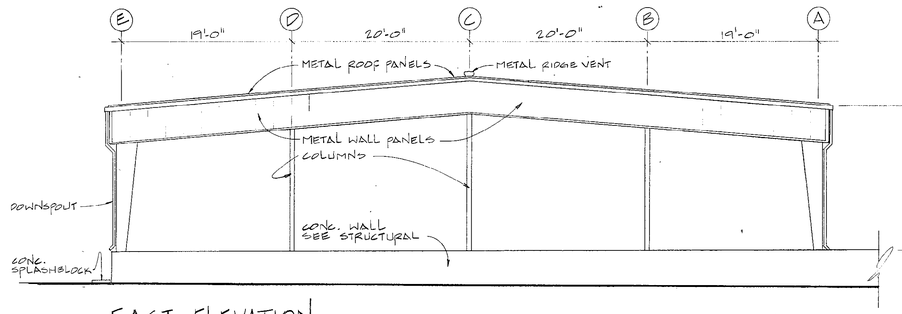
SHEET 6P-1 OF SHEETS
PROJECT NO. 2815

RECORD



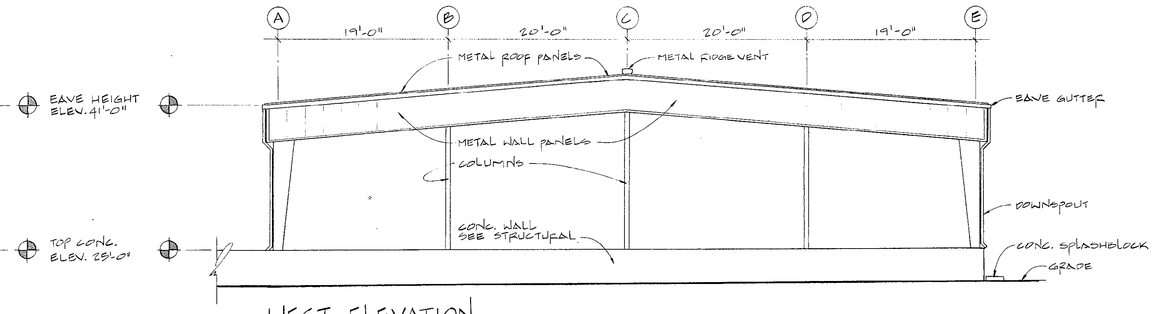
NORTH ELEVATION

SCALE: 1/8"=1'-0"
(PREFABRICATED BUILDING)



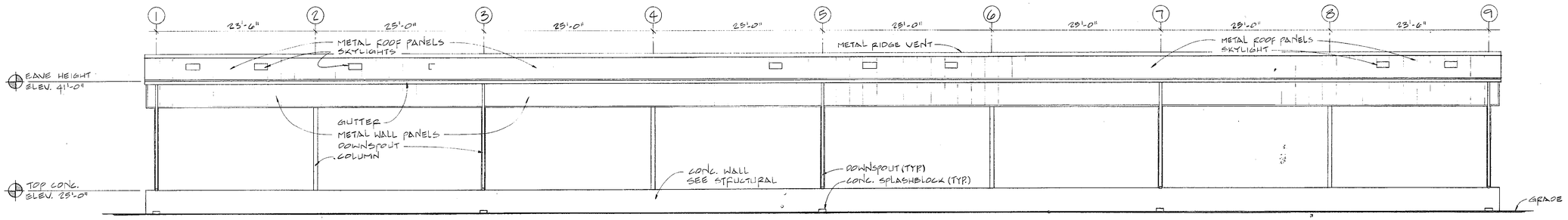
EAST ELEVATION

SCALE: 1/8"=1'-0"
(PREFABRICATED BUILDING)



WEST ELEVATION

SCALE: 1/8"=1'-0"
(PREFABRICATED BUILDING)



SOUTH ELEVATION

SCALE: 1/8"=1'-0"
(PREFABRICATED BUILDING)

51-003-059

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED CJB
DRAWN JDH
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

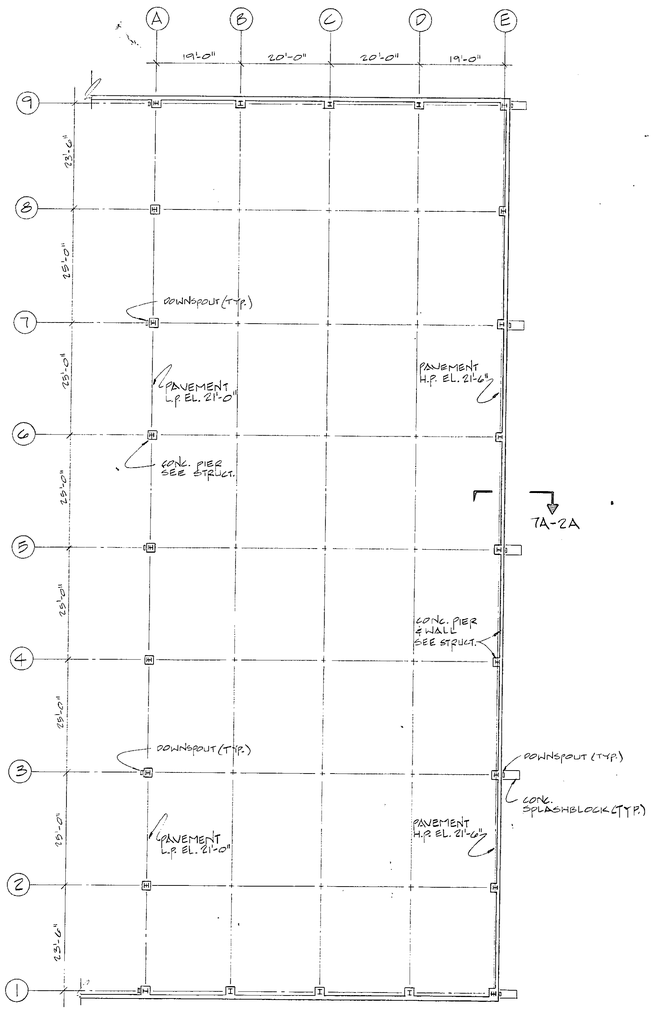
SCALE
AS NOTED

SLUDGE COMPOSTING
ELEVATIONS

SHEET 7A-1
OF SHEETS
PROJECT NO. 2815

RECORD

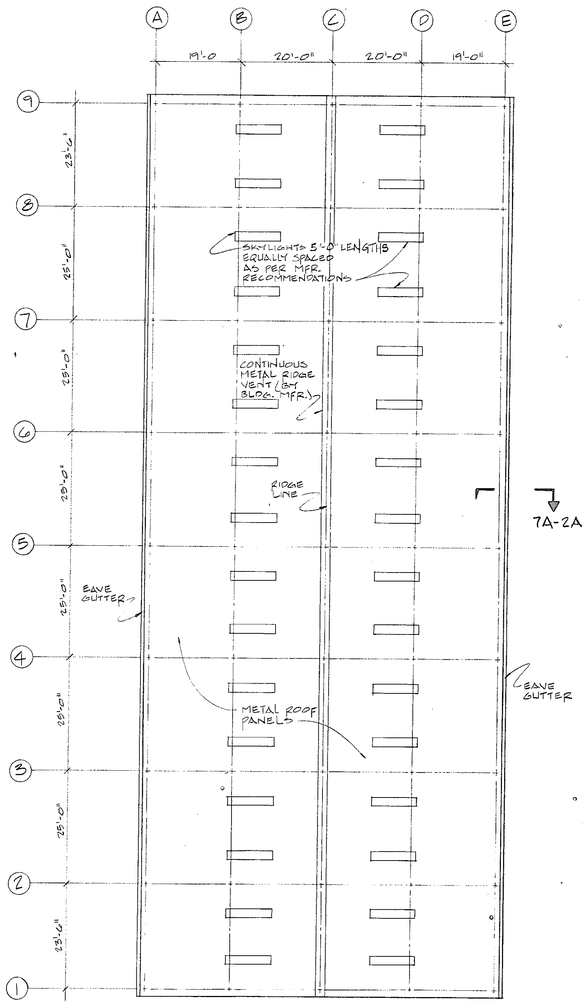
BRUNING 44-132 68716



FLOOR PLAN

SCALE: 1/16"=1'-0"

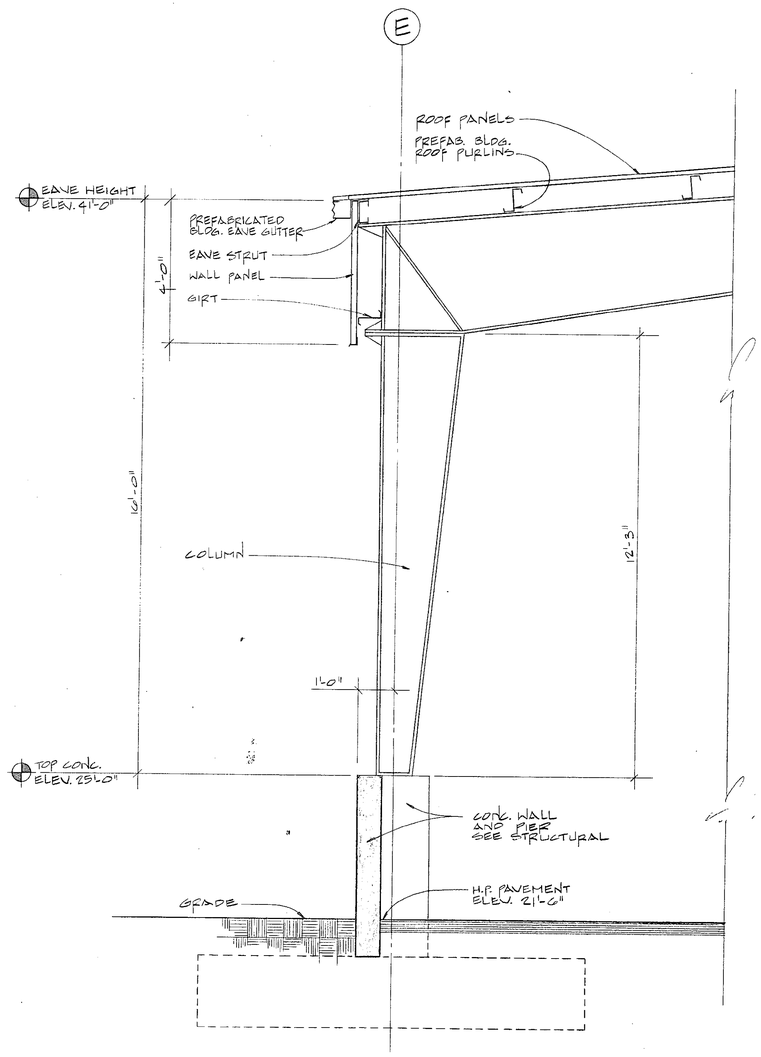
(PREFABRICATED BUILDING)



ROOF PLAN

SCALE: 1/16"=1'-0"

(PREFABRICATED BUILDING)



SECTION 7A-2A

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

(PREFABRICATED BUILDING)

51-003-046

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED CJB
DRAWN JDH
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

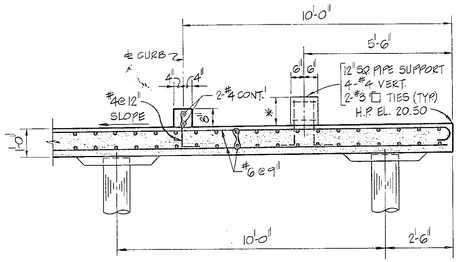
SCALE
AS NOTED

SLUDGE COMPOSTING
PLAN VIEWS AND SECTION

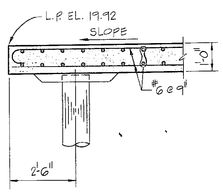
SHEET 7A-2
OF SHEETS
PROJECT NO. 2815

RECORD

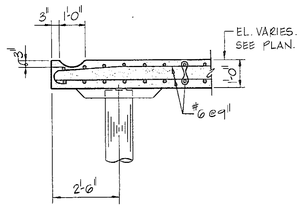
BRUNING 44-132-6B716



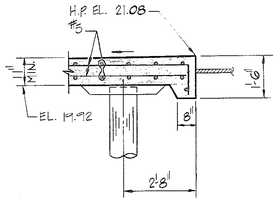
SECTION 7S-1A



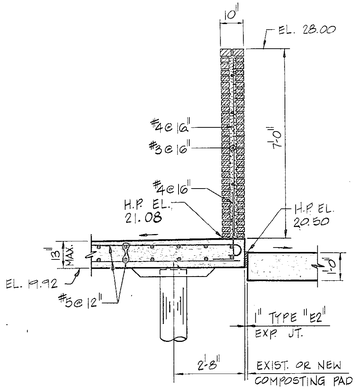
SECTION 7S-1B



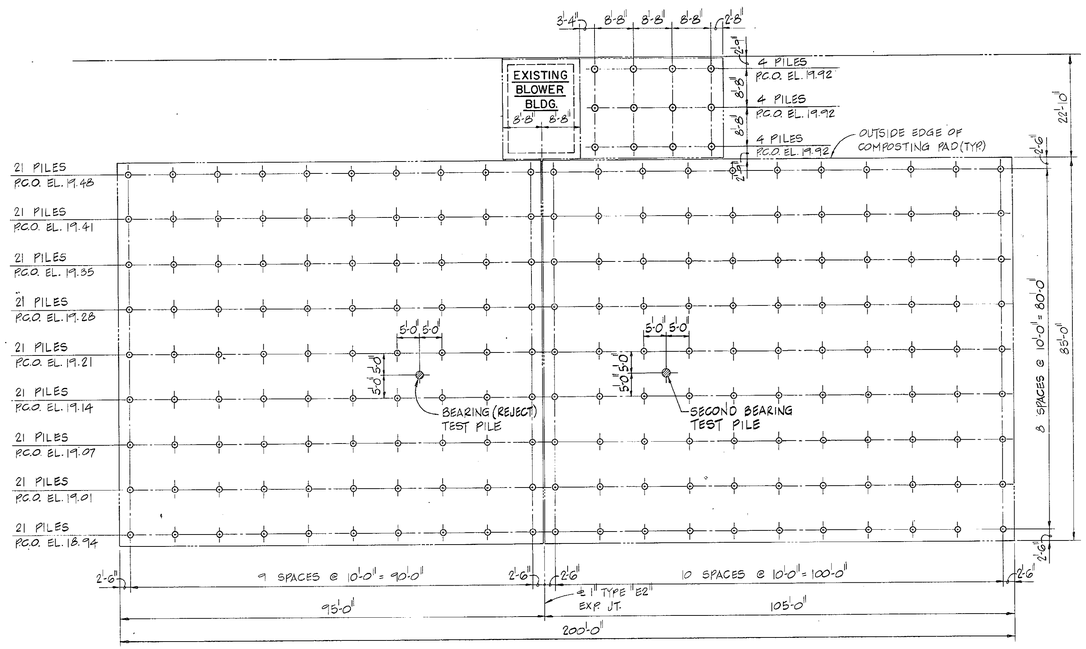
SECTION 7S-1C



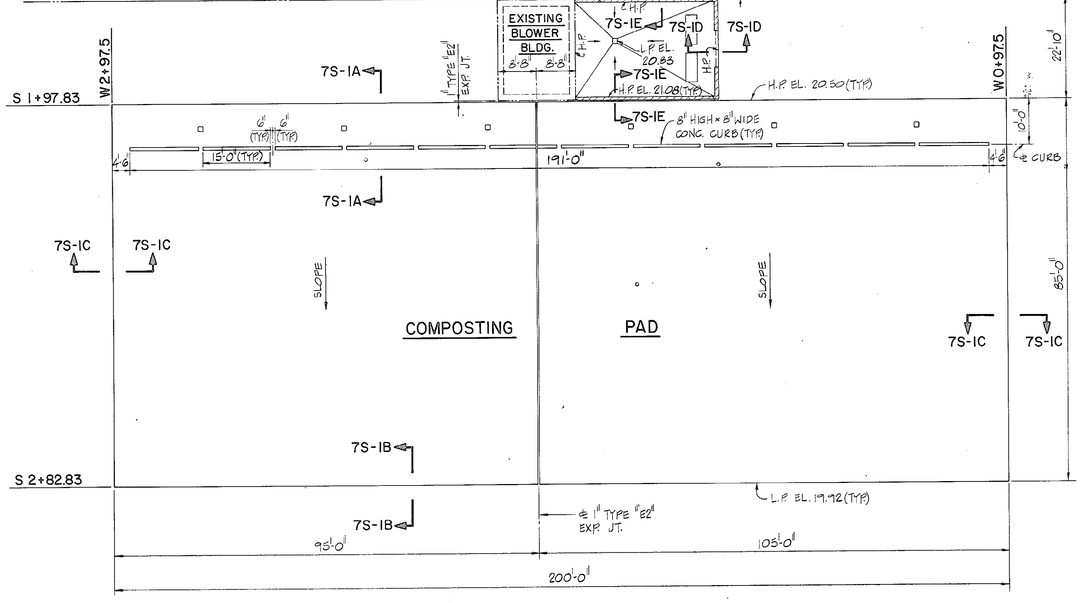
SECTION 7S-1D



SECTION 7S-1E



PILE PLAN
1/16" = 1'-0"



BASE PLAN
1/16" = 1'-0"

NOTES:

ALL PILES SHALL BE TREATED TIMBER BEARING PILES. SEE SHEET XS-1 AND SPECIFICATIONS FOR PILE DETAILS.

ALL PILES SHALL BE 20 TON BEARING PILES.

◎ INDICATES BEARING TEST PILE

51-003-0411

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

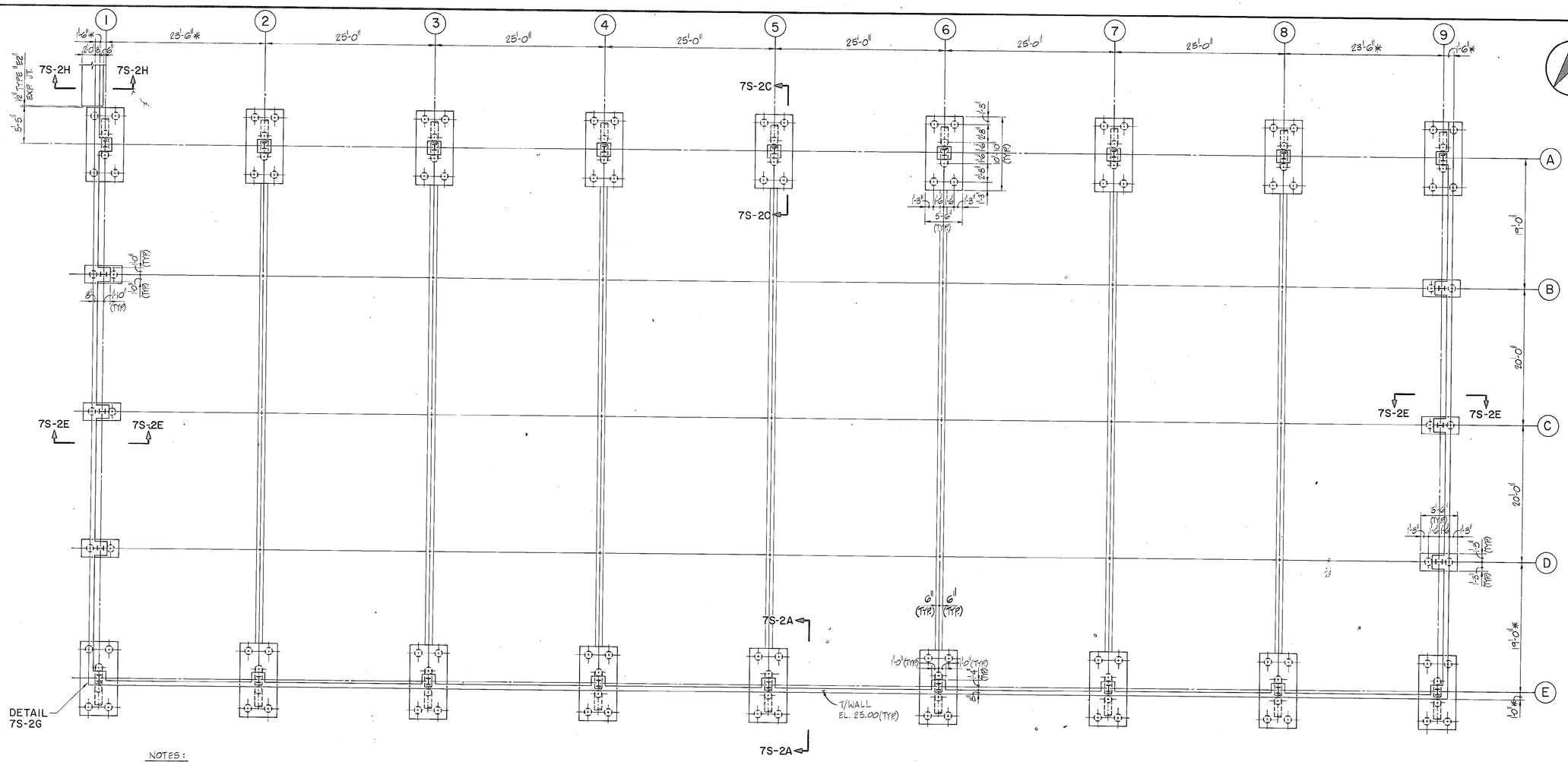
SCALE
3/8" = 1'-0" U.N.

COMPOSTING PAD
PLANS AND SECTIONS

SHEET 7S-1
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716



FOUNDATION PLAN
1/8" = 1'-0"

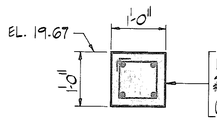
NOTES:

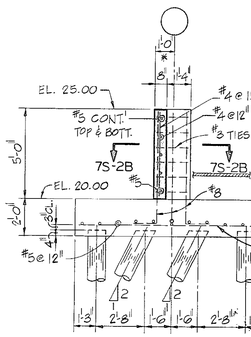
ALL PILES SHALL BE TREATED TIMBER BEARING PILES. SEE SHEET XS-1 AND SPECIFICATIONS FOR PILE DETAILS.

ALL PILES SHALL BE 20 TON BEARING PILES.

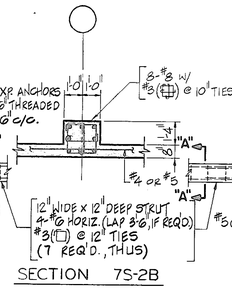
ALL PILES SHALL HAVE A PILE CUT-OFF ELEVATION OF P.C.O. EL. 18.33.

INDICATES BATTER PILE (BATTER OF ONE HORIZONTAL TO TWO VERTICAL - 1:2)



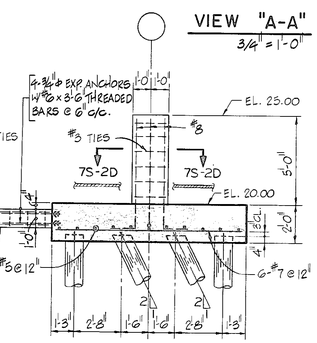


SECTION 7S-2A

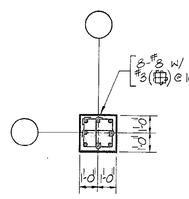


SECTION 7S-2B

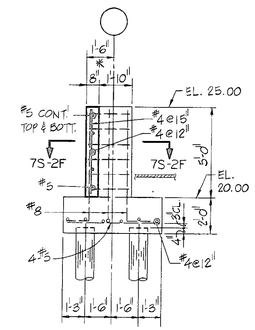
VIEW "A-A"
3/4" = 1'-0"



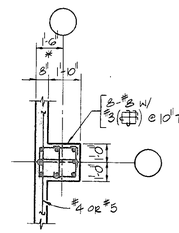
SECTION 7S-2C



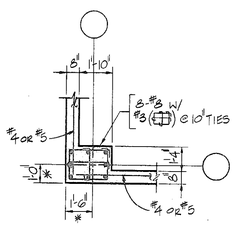
SECTION 7S-2D



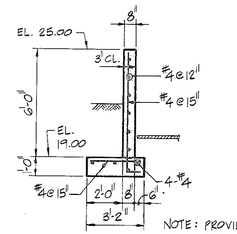
SECTION 7S-2E



SECTION 7S-2F



DETAIL 7S-2G



NOTE: PROVIDE 1/4" TYPE "EE" EXP. JT. AT EVERY 50 FT. (MAX.)

SECTION 7S-2H(TYP.)

51-003-042.

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

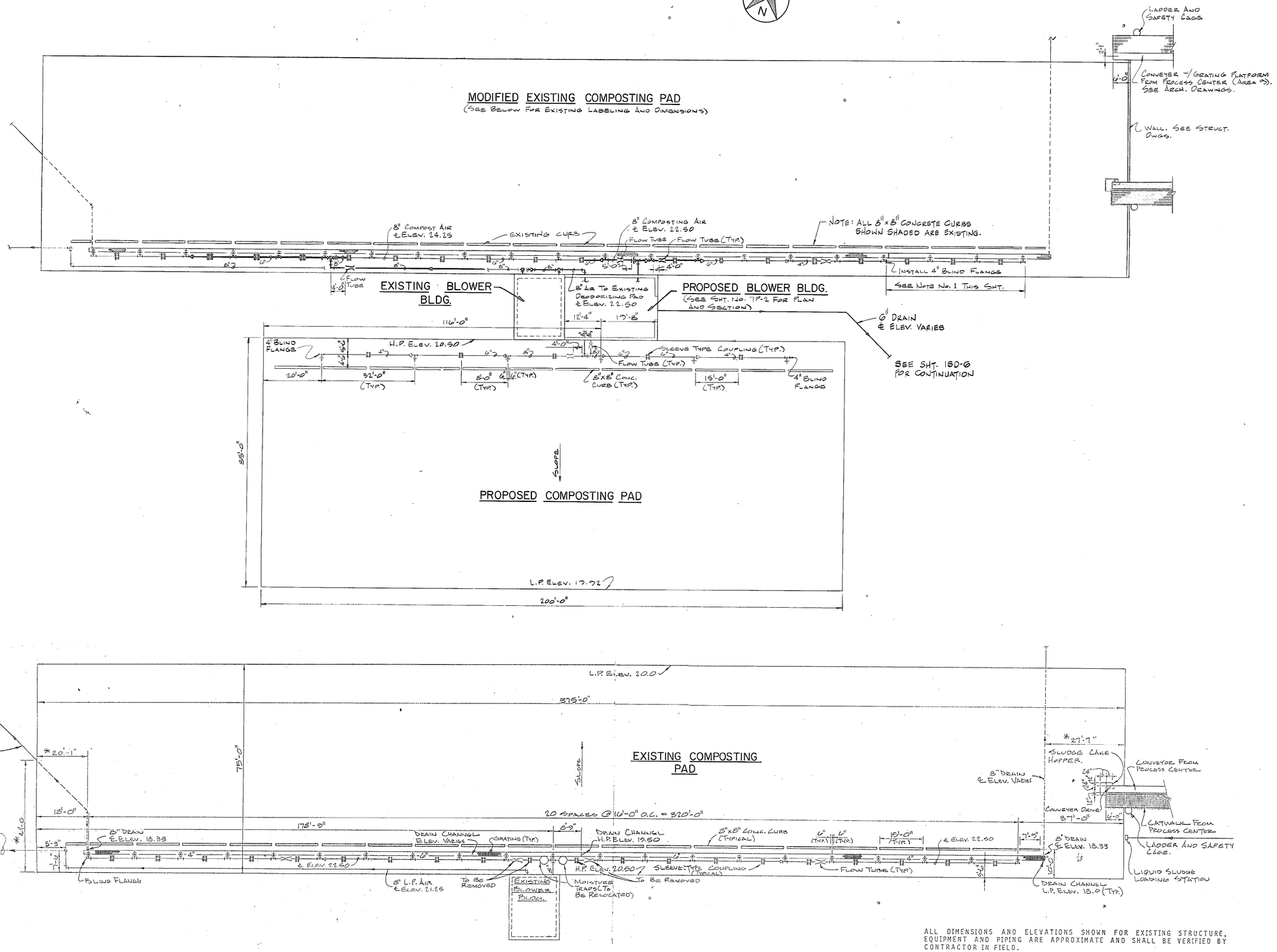
SCALE
1/4" = 1'-0" U.N.

SLUDGE COMPOSTING
FOUNDATION PLAN AND SECTIONS

SHEET 7S-2
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716



NOTES:

1. REMOVE EXISTING 4" AIR HEADER, COUPLINGS, FITTINGS, VALVES, PIPE SUPPORTS, AND APPURTENANCES IN AREA INDICATED.
2. ALL PROPOSED BUTTERFLY VALVES SHOWN ARE TO BE WAFER TYPE.

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

51-003-043

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.L.Y.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

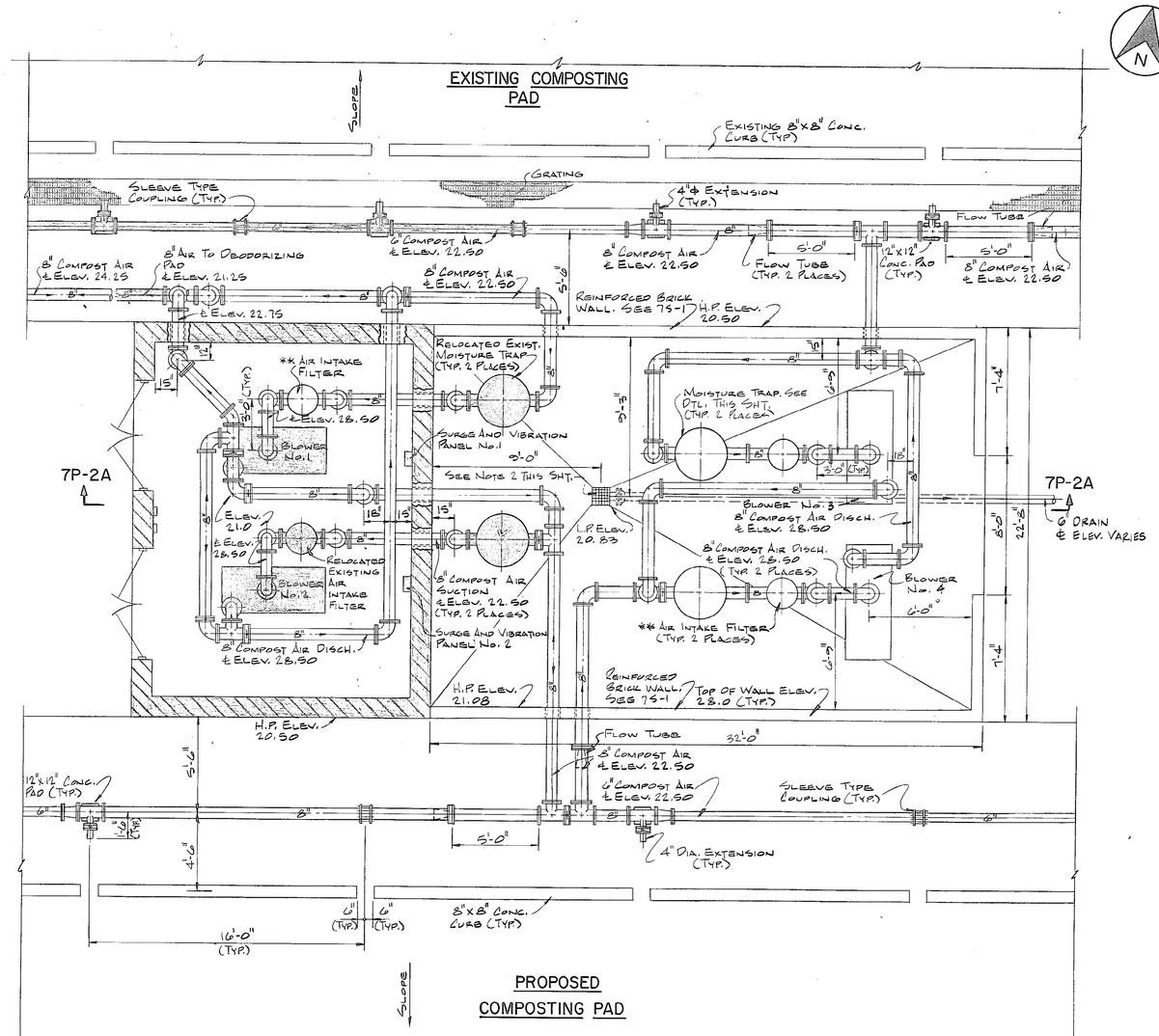
SCALE
1/16" = 1'-0"

COMPOSTING PADS
PLANS

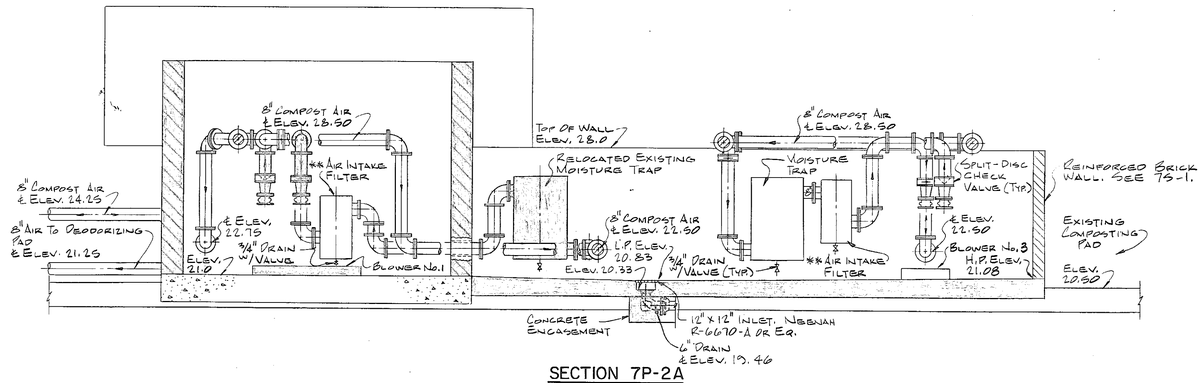
SHEET 7P-1
OF SHEETS
PROJECT NO. 2815

RECORD

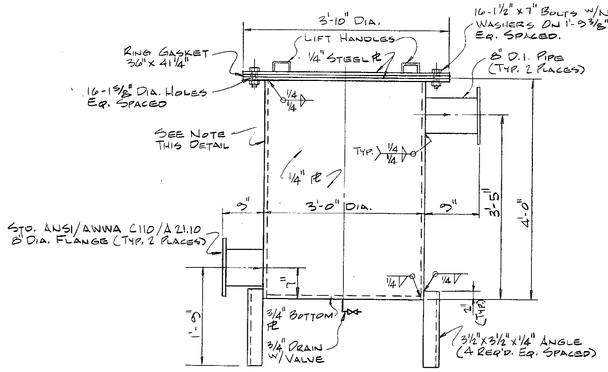
BRUNING 44-133 68716



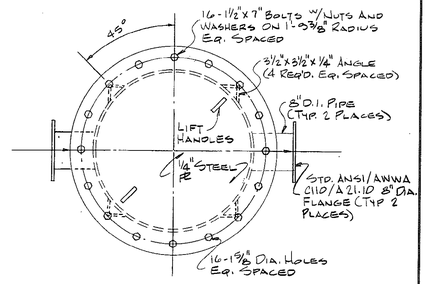
PLAN



SECTION 7P-2A
7P-2



ELEVATION



TOP PLAN

MOISTURE TRAP DETAIL

SCALE: NONE

NOTE:
MOISTURE TRAPS SHALL BE ALL WELDED TANKS OF CARBON STEEL W/ DOUBLE BUTT WELDED SEAMS, IN CONFORMANCE W/ THE ASME CODE FOR UNFIRED PRESSURE VESSELS AT A WORKING PRESSURE OF 125 PSI.

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

** SEE MFR'S. DRAWINGS FOR DETAILS.

NOTES:
1. ALL BUTTERFLY VALVES SHOWN ARE WAFER TYPE.
2. 12"X12" INLET, NEENAH R-6670-A OR EQUAL.

51-003-0414

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.L.Y.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

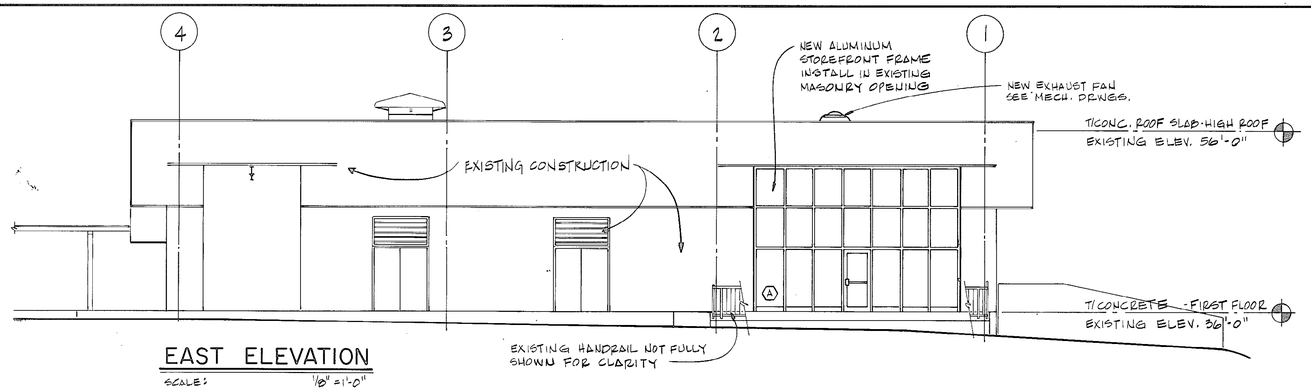
SCALE
1/4" = 1'-0"

BLOWER BUILDING
PLAN AND SECTION

SHEET 7P-2
OF SHEETS
PROJECT NO. 2815

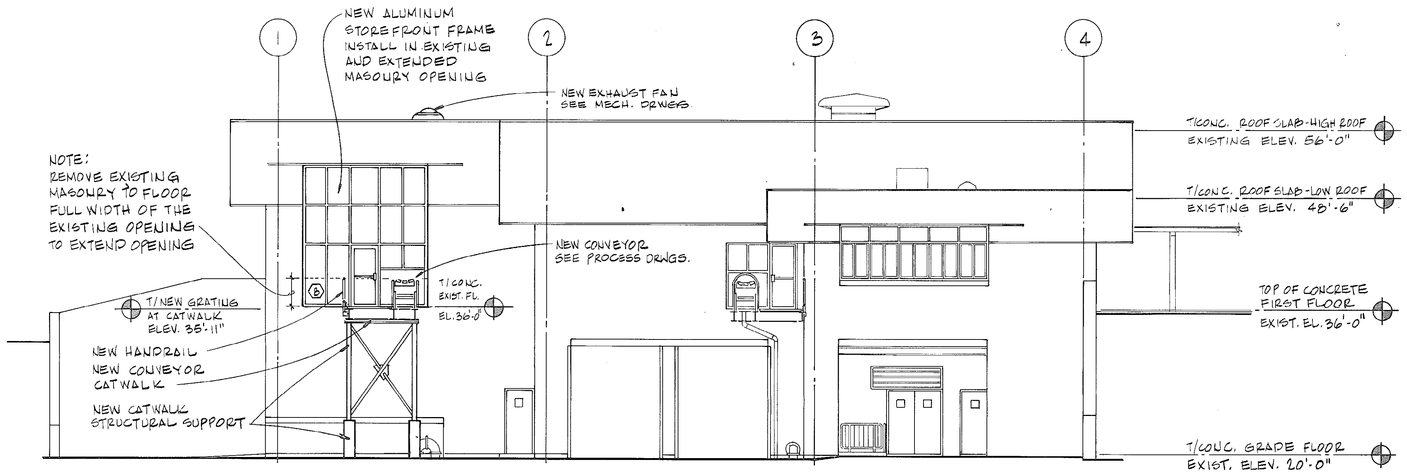
RECORD

BRUNING 44-132 68716



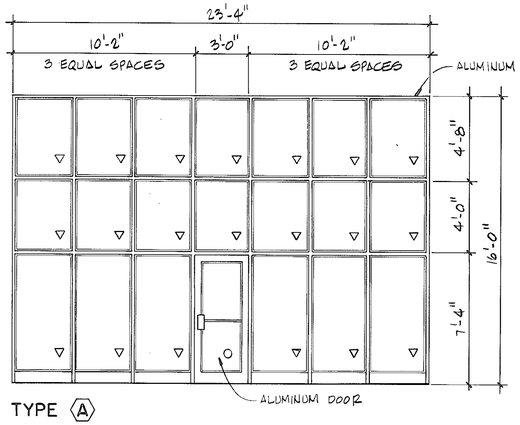
EAST ELEVATION

SCALE: 1/8" = 1'-0"



WEST ELEVATION

SCALE: 1/8" = 1'-0"



TYPE (A)

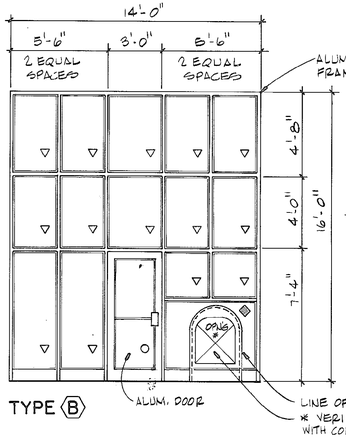
GLAZING LEGEND

▽ = 1" INSULATING GLASS
(1/4" CLEAR TEMPERED PLATE INSIDE)
(1/2" AIR SPACE)
(1/4" TINTED TEMPERED PLATE OUTSIDE)

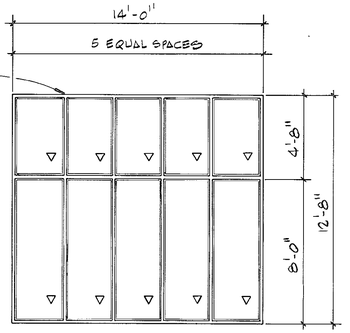
○ = 1/4" TINTED TEMPERED PLATE

◈ = 1" INSULATED METAL PANEL

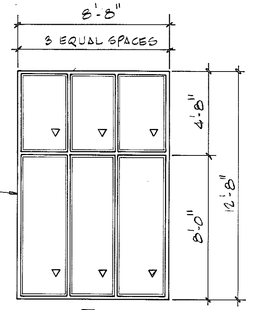
NOTE:
VERIFY ALL EXISTING MASONRY OPENING DIMENSIONS IN THE FIELD



TYPE (B)



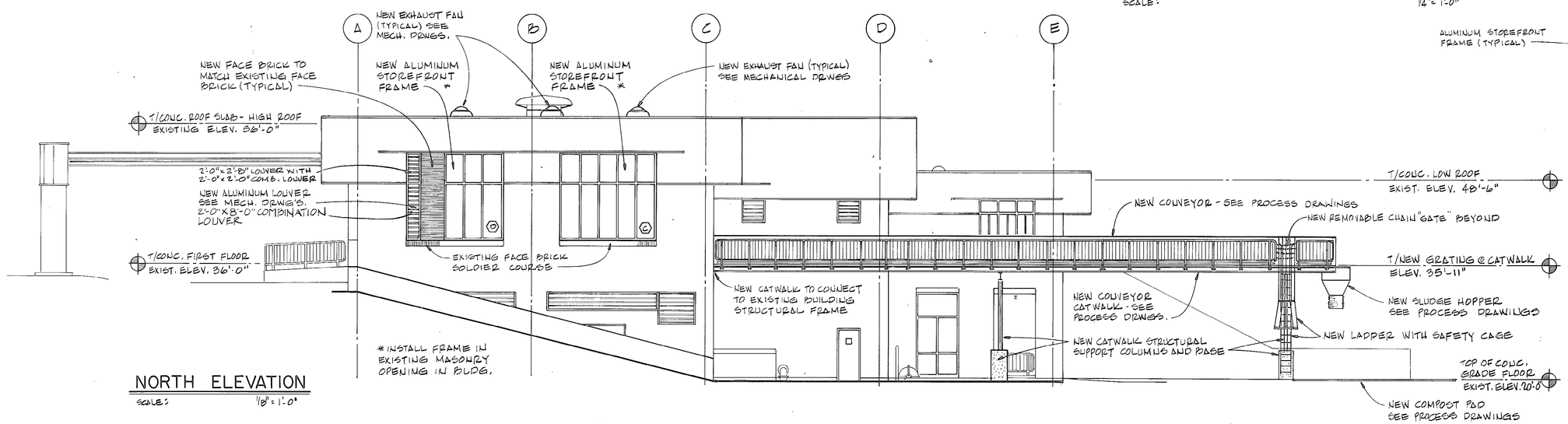
TYPE (C)



TYPE (D)

NEW ALUMINUM STOREFRONT FRAME

SCALE: 1/4" = 1'-0"



NORTH ELEVATION

SCALE: 1/8" = 1'-0"

51-003-015

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED CJB
DRAWN CJB
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

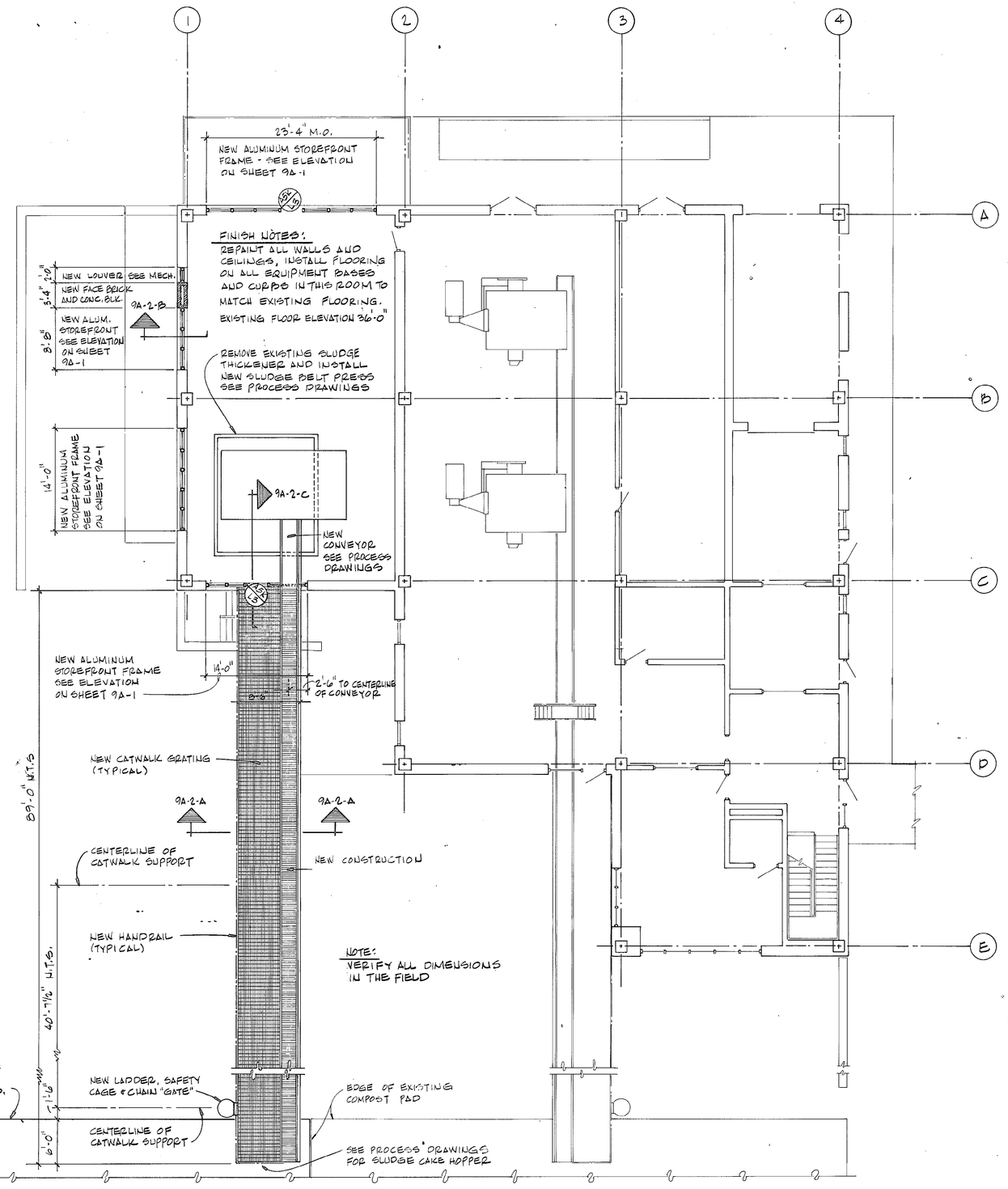
SCALE
AS NOTED

EXISTING PROCESS CENTER
BELT PRESS MODIFICATIONS
ELEVATIONS

SHEET 9A-1
OF SHEETS
PROJECT NO. 2815

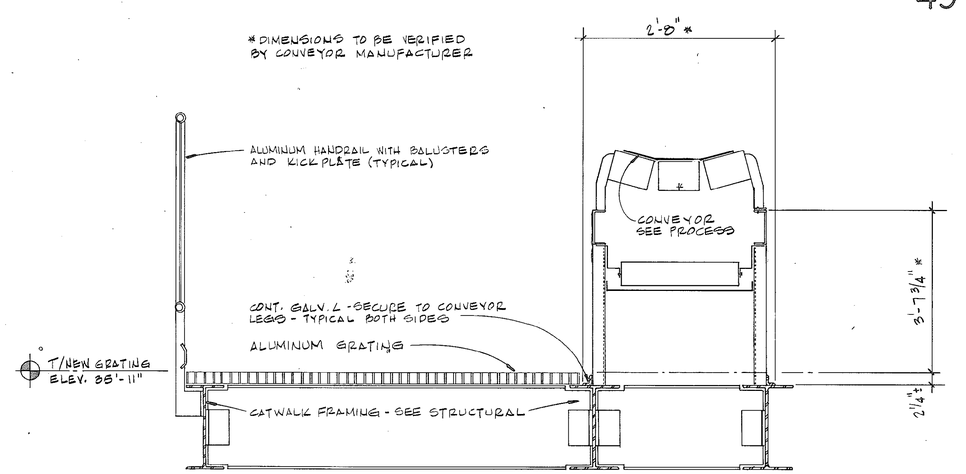
RECORD

BRUNING 44-132-69716



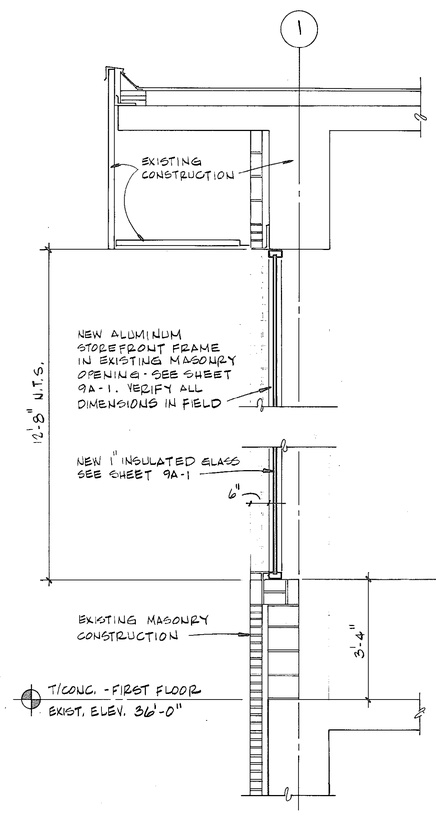
FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"



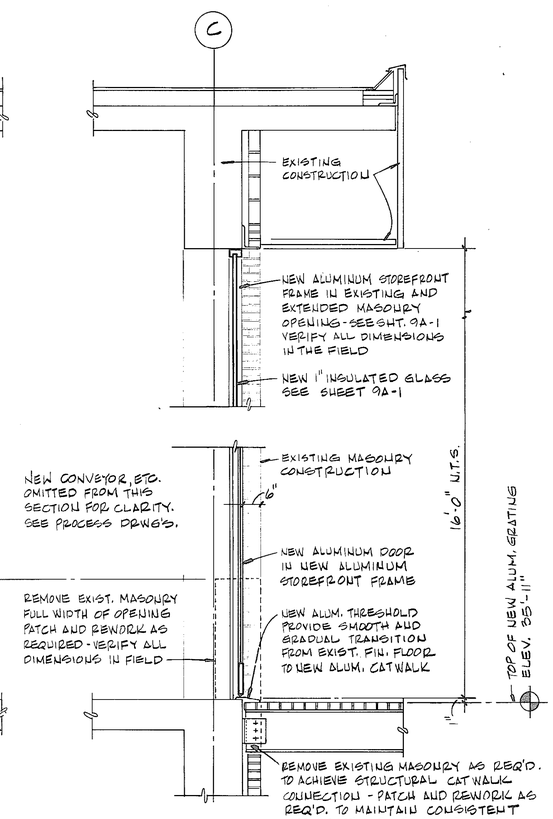
SECTION 9A-2-A

SCALE: N.T.S.



SECTION 9A-2-B

SCALE: ½" = 1'-0"



SECTION 9A-2-C

SCALE: ½" = 1'-0"

51-003-011

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED CJB
DRAWN CJB
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

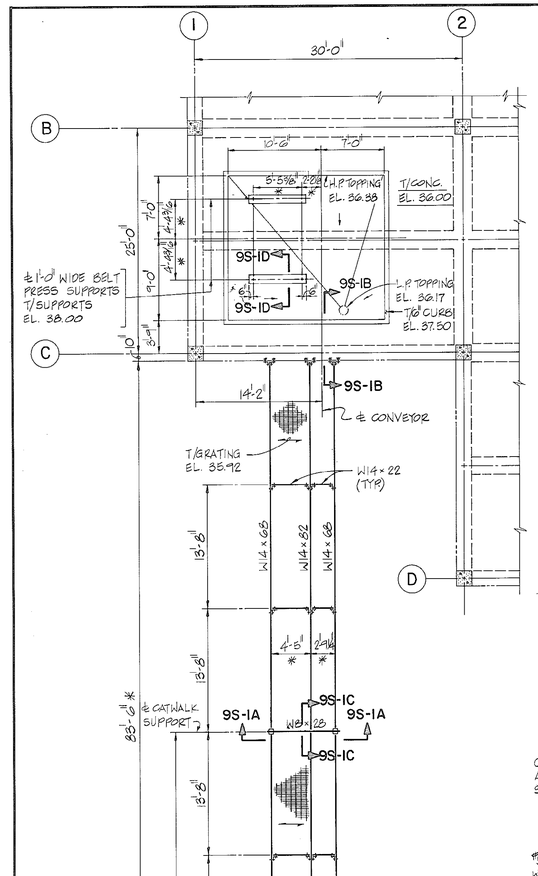
SCALE
AS NOTED

EXISTING PROCESS CENTER
BELT PRESS MODIFICATIONS
FLOOR PLAN AND SECTIONS

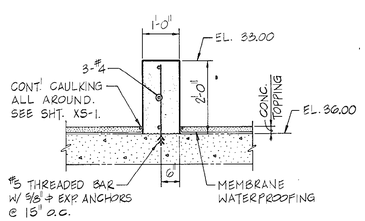
SHEET 9A-2
OF SHEETS
PROJECT NO. 2815

RECORD

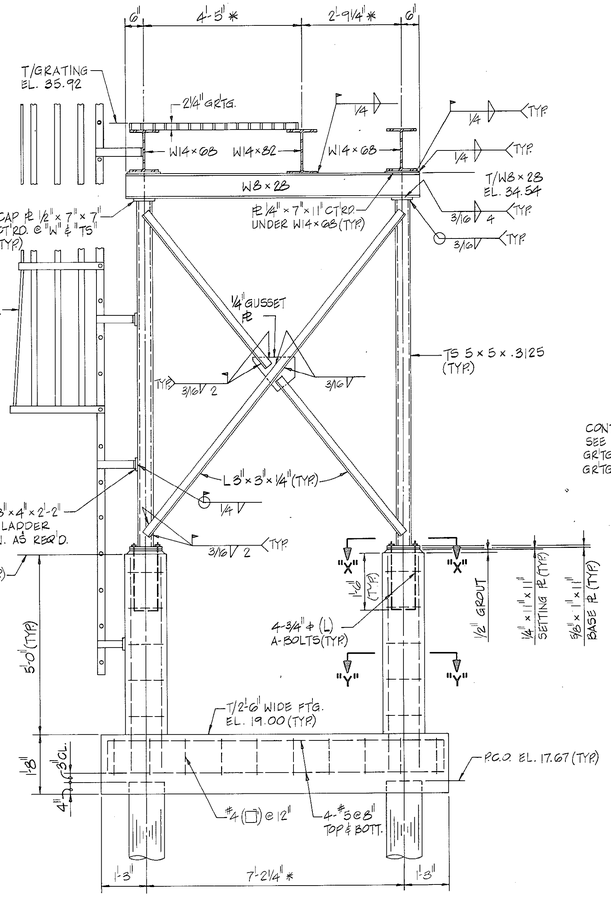
BRUNING 4c-132 68716



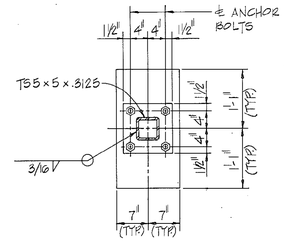
FIRST FLOOR PLAN
1/8" = 1'-0"



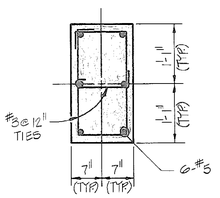
SECTION 9S-ID (TYP)
1/2" = 1'-0"



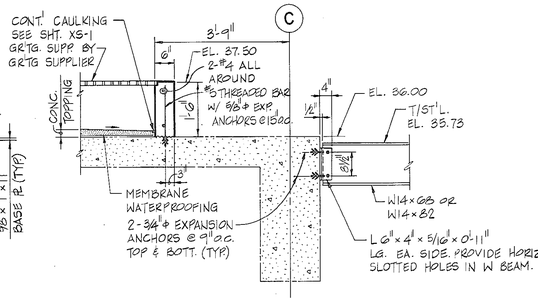
SECTION 9S-IA
1/8" = 1'-0"



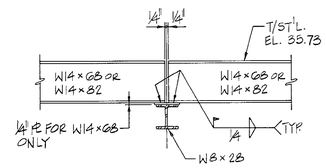
VIEW "X-X" (TYP.)
3/4" = 1'-0"



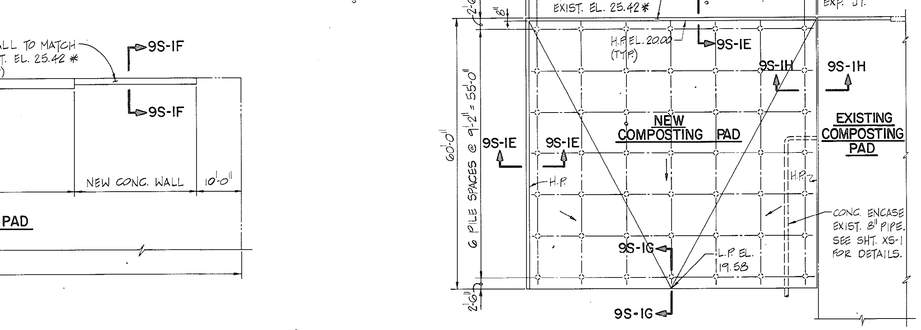
VIEW "Y-Y" (TYP.)
3/4" = 1'-0"



SECTION 9S-IB (TYP.)
1/2" = 1'-0"



SECTION 9S-IC (TYP.)
1/2" = 1'-0"

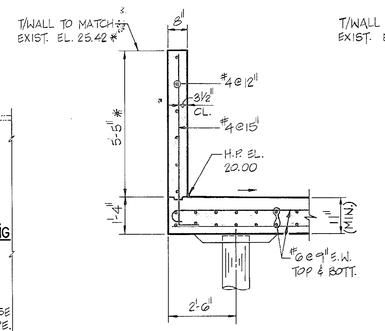


PILE AND BASE PLAN
(P.C.O. EL. 18.67) 1/16" = 1'-0"

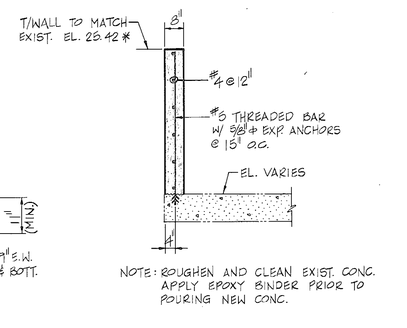
NOTES:

ALL PILES SHOWN ON THIS SHEET SHALL BE TREATED TIMBER BEARING PILES. SEE SHEET XS-1 AND SPECIFICATIONS FOR PILE DETAILS.

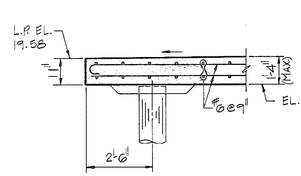
ALL PILES SHALL BE 20 TON BEARING PILES.



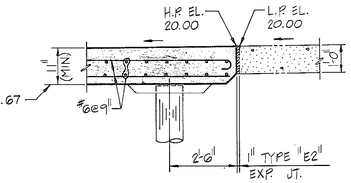
SECTION 9S-IE
3/8" = 1'-0"



SECTION 9S-IF
3/8" = 1'-0"



SECTION 9S-IG
3/8" = 1'-0"



SECTION 9S-IH
3/8" = 1'-0"

51-003-0

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

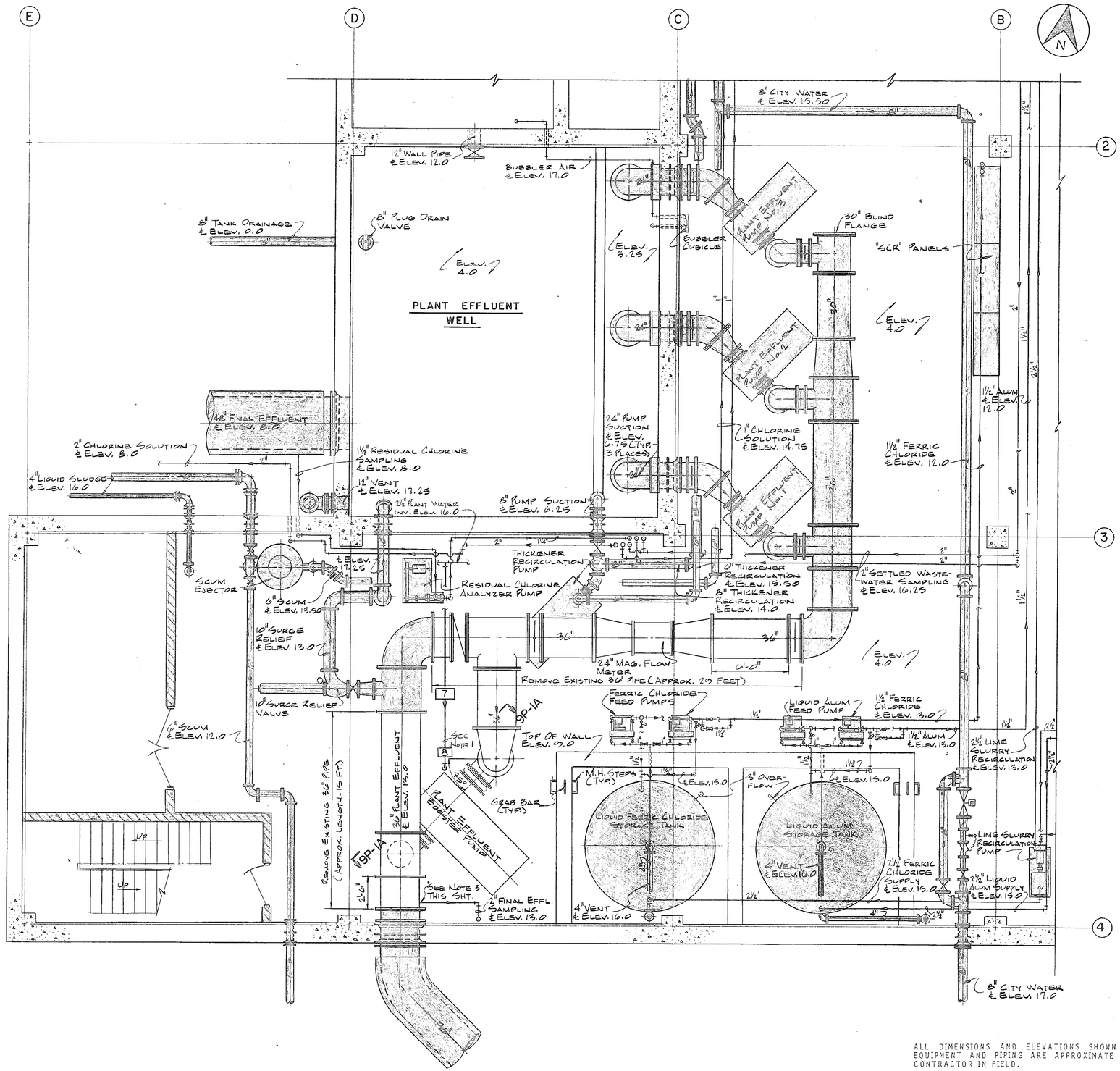
SCALE
AS NOTED

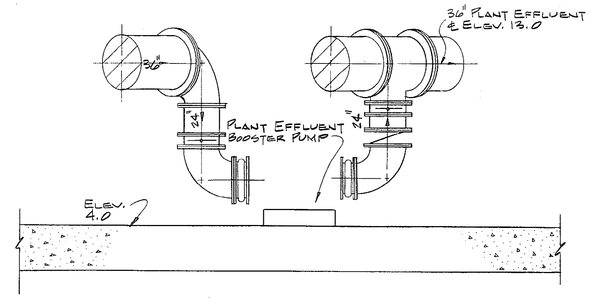
EXISTING PROCESS CENTER
BELT PRESS MODIFICATIONS
FLOOR PLAN AND SECTIONS

SHEET 9S-1
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716





SECTION 9P-1A
9P-1

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

Notes:
1. Connect Seal Water As Shown By Detail On Dwg. 14M-1.
2. All Single Line Piping Shown Are Existing Unless Labeled "Proposed".
3. Reconnect Existing 2" Final Effluent Sampling To Proposed 36" Plant Effluent.

51-093-0.0

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED R.A.S.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

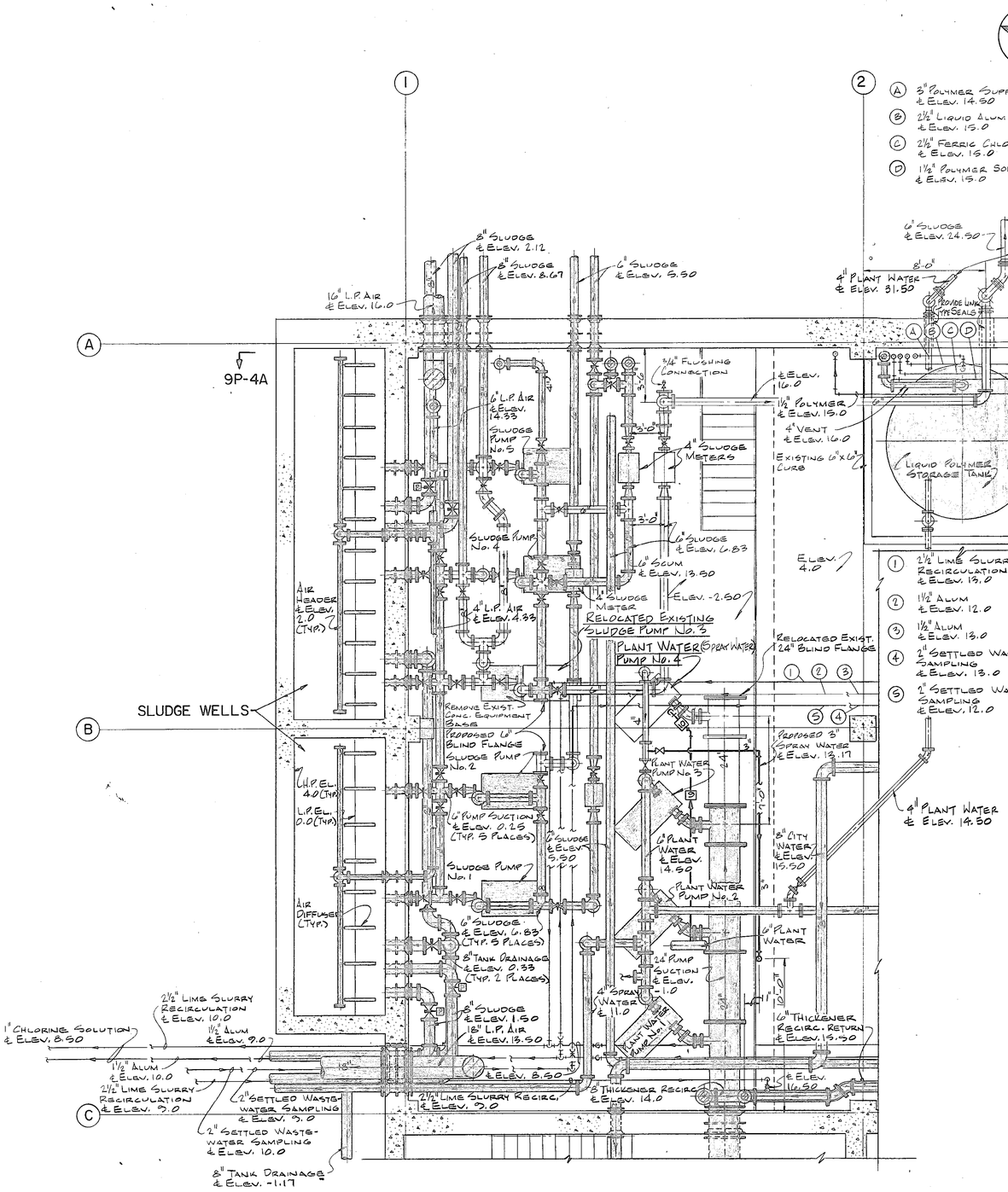
SCALE
1/4"=1'-0"

MODIFICATIONS TO EXISTING PROCESS CENTER BASEMENT FLOOR PLAN AND SECTION

SHEET 9P-1
OF SHEETS
PROJECT NO. 2815

RECORD

DRAWING 44-132-69716



PARTIAL BASEMENT PLAN

PARTIAL GRADE FLOOR PLAN
(All Proposed Bends In Sludge Lines To Be Long Radius)

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

Notes:
1. Connect Seal Water As Shown By Detail On Dwg. 14M-1
2. All Single Line Piping Shown Are Existing Unless Noted As "Proposed."

51-003-941

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

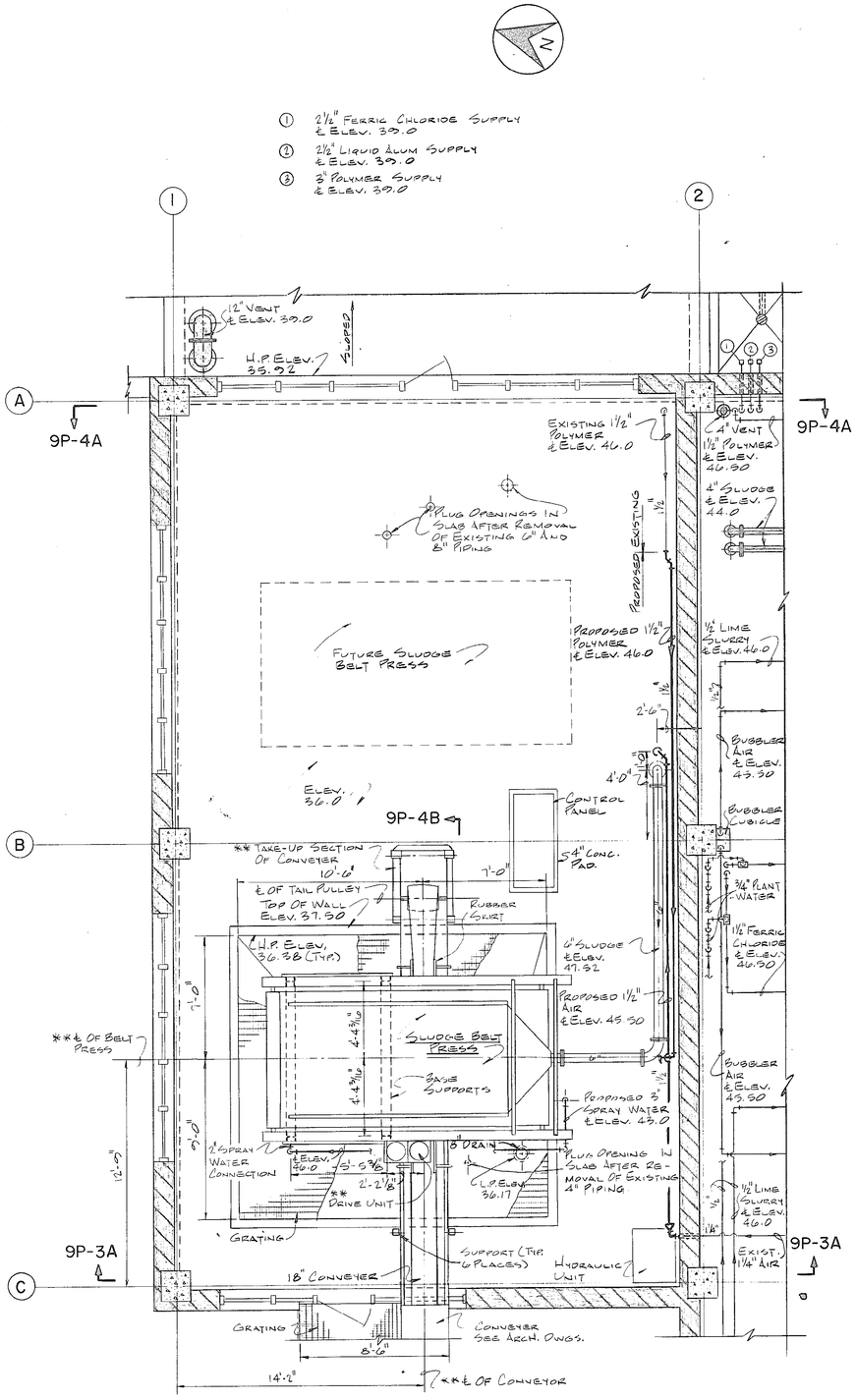
SCALE
1/4" = 1'-0"

MODIFICATIONS TO EXISTING PROCESS CENTER BASEMENT AND GRADE FLOOR PLANS

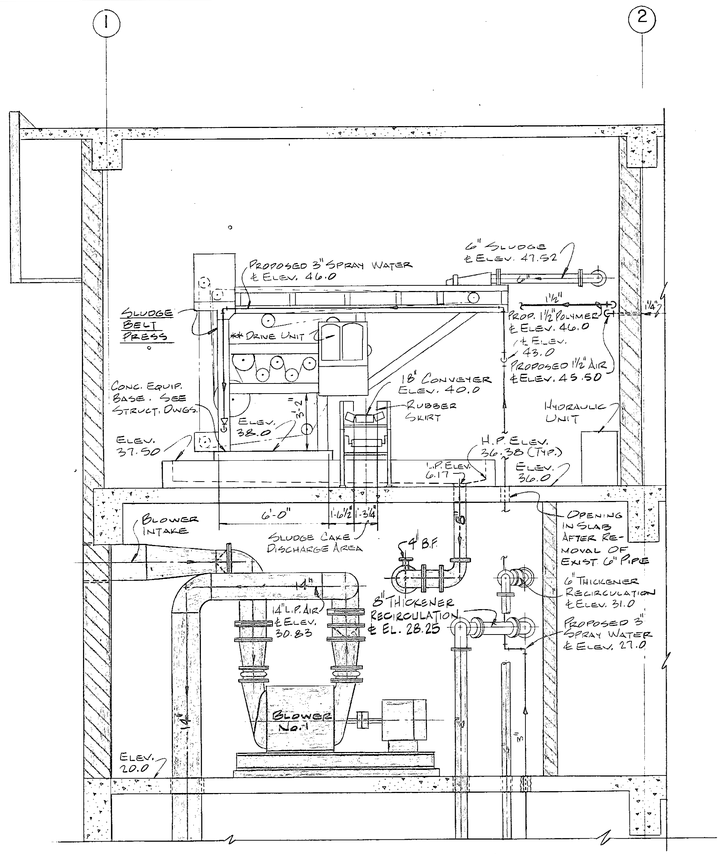
SHEET 9P-2
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716



PARTIAL FIRST FLOOR PLAN



SECTION 9P-3A
9P-3

NOTES

1.) ADJUSTABLE MIXING VALVE AND POLYMER INJECTION RING TO BE POSITIONED BY MANUFACTURER OF EQUIPMENT.

2.) ADDITIONAL DESIGN AND CONSTRUCTION COST INCURRED THROUGH DEVIATIONS FROM EQUIPMENT AND PIPING LAYOUT SHOWN SHALL BE THE RESPONSIBILITY OF THE EQUIPMENT SUPPLIER.

3.) EXISTING SLUDGE THICKENING TANK, RETENTION TANK, REAERATION PUMP TO BE DISMANTLED AND RELOCATED TO SLUDGE HANDLING BUILDING, AREA 15. ALL EXISTING PIPING, FITTINGS, VALVES, PLATFORMS, HANDRAILS, LADDERS TO BE UTILIZED WHERE POSSIBLE AT NEW LOCATION. CONCRETE PADS ARE TO BE REMOVED FLUSH TO FINISHED FLOOR.

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

* TO BE DETERMINED BY EQUIPMENT MFR.
** SEE MFR'S. DRAWINGS FOR DETAILS.

4. ALL SINGLE LINE PIPING SHOWN ARE EXISTING UNLESS LABELED "PROPOSED".
5. ALL BENDS IN SLUDGE LINES TO BE LONG RADIUS.
6. GRATING SHALL BE REMOVABLE IN 2'-0" WIDE SECTIONS.

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

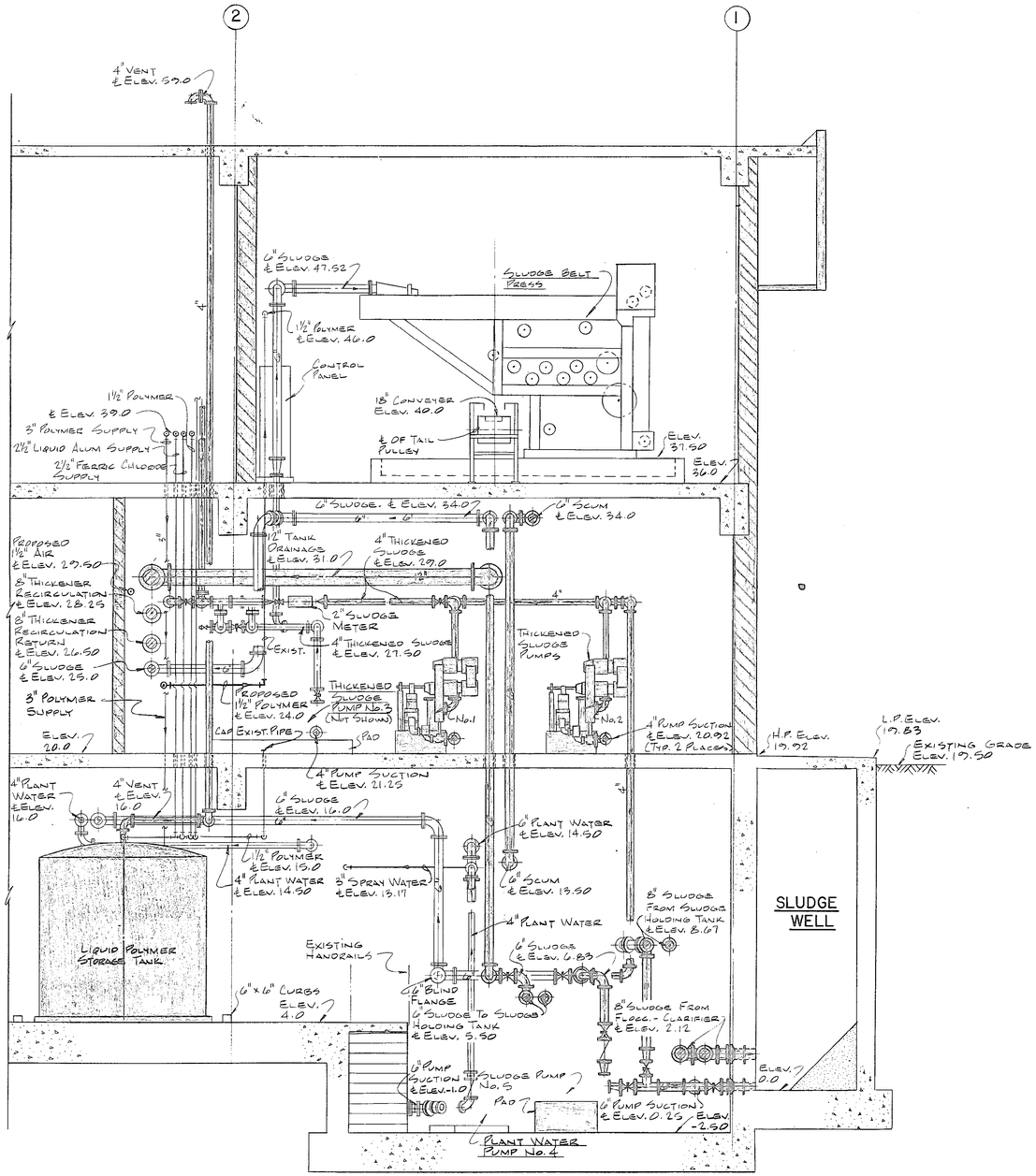
SCALE
1/4"=1'-0"

MODIFICATIONS TO EXISTING PROCESS CENTER
FIRST FLOOR PLAN AND SECTION
51-003-030

SHEET 9P-3
OF SHEETS
PROJECT NO. 2815

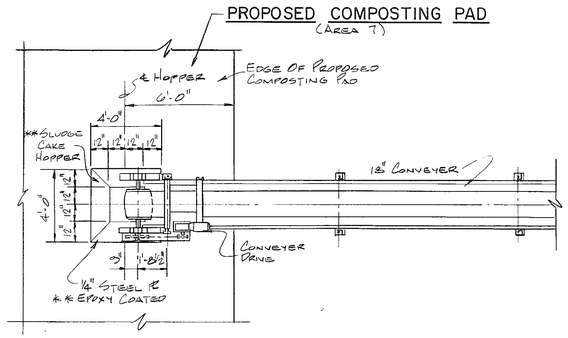
RECORD

BRUNING 44-32 66716

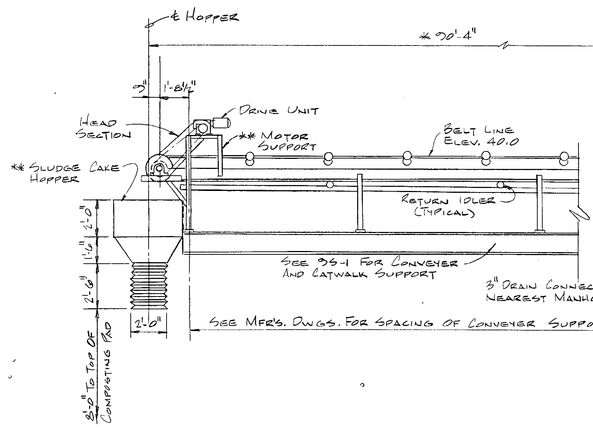


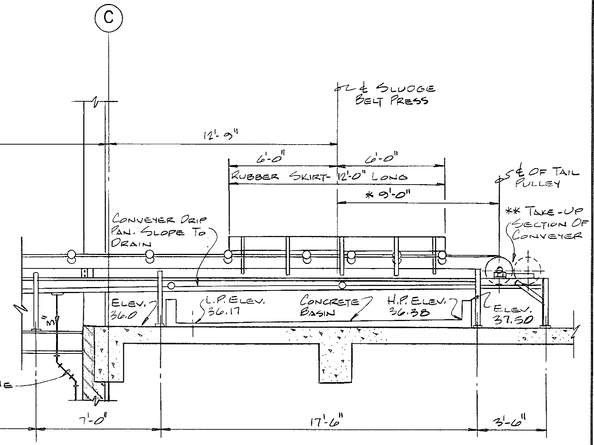
SECTION 9P-4A
9P-2, 9P-3

PROPOSED COMPOSTING PAD
(AREA 7)



PARTIAL PLAN





SECTION 9P-4B
9P-3

CONVEYER CAPACITY

MAX. LOADING-	600 LBS. PER MIN.
DENSITY-	64 LBS/FT.³
CONVEYER SPEED-	75 FPM

NOTES:
1. SLUDGE BELT PRESS NOT SHOWN FOR CLARITY.
2. SUPPORT FOR SLUDGE CAKE HOPPER AS RECOMMENDED BY MFR.

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

* TO BE DETERMINED BY EQUIPMENT MFR.

** SEE MFR'S. DRAWINGS FOR DETAILS.

NOTE:
ALL SINGLE LINE PIPING SHOWN ARE EXISTING UNLESS LABELED "PROPOSED".

51-003-051

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

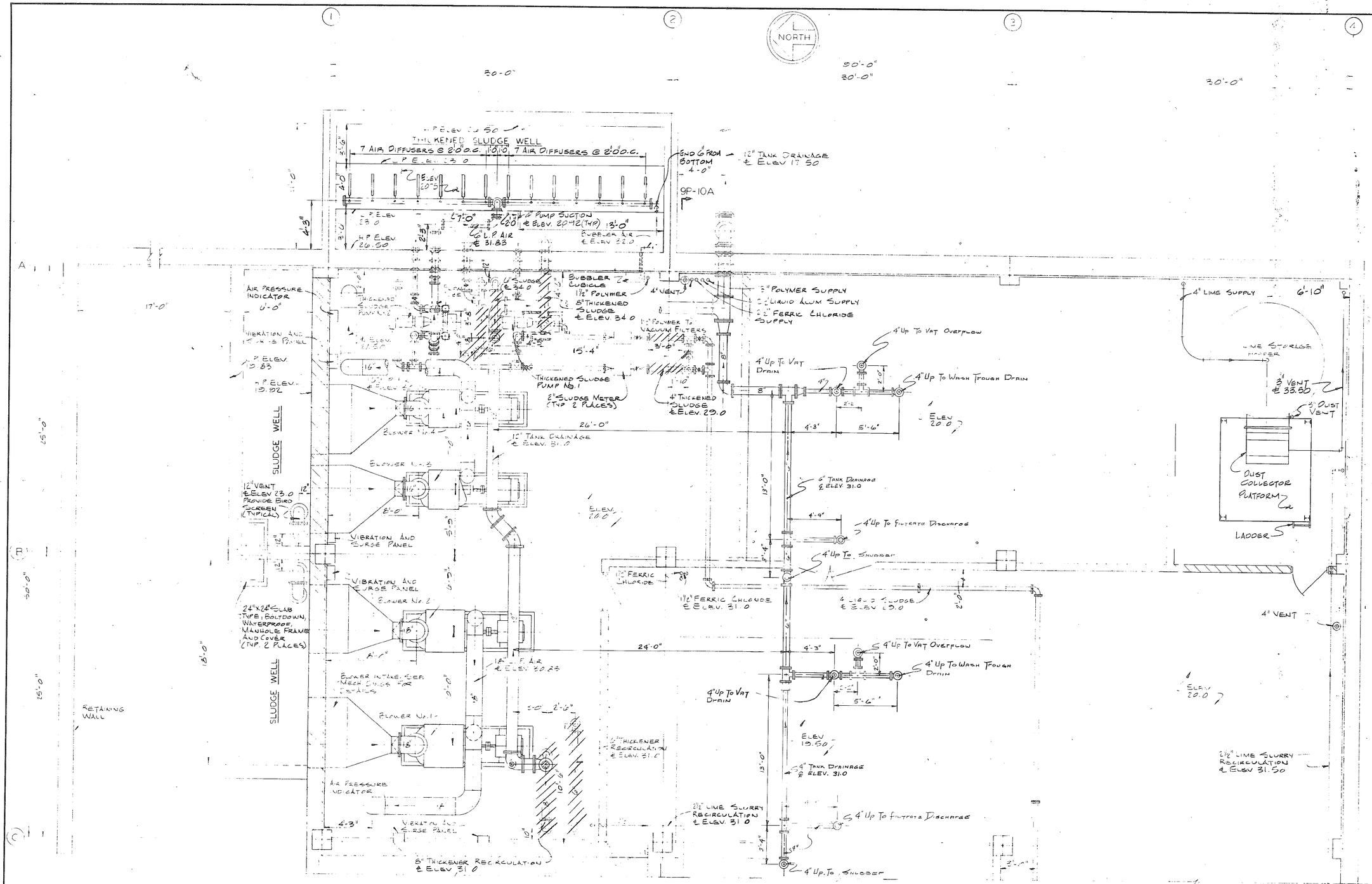
SCALE
¼"= 1'-0"

MODIFICATIONS TO EXISTING PROCESS CENTER SECTIONS

SHEET 9P-4
OF SHEETS
PROJECT NO. 2815

RECORD

DRAWING 44-132-16716



ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

51-093-052.

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED W.J.W
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4" = 1'-0"

MODIFICATIONS TO EXISTING PROCESS CENTER
GRADE FLOOR PLAN
EXISTING CONDITIONS

SHEET 9P-5
OF SHEETS
prc
PROJECT NO. 2815

RECORD

NORTH

30'-0" 30'-0" 30'-0" 30'-0"

THICKENED SLUDGE WELL

30"X30" SLAB TYPE, WATERTIGHT, BOLT-DOWN MANHOLE FRAME AND COVER

L.P. ELEV. 35.84

H.P. ELEV 35.92

12" VENT & ELEV. 39.0 (PROVIDE BIRD SCREEN)

4" DRAIN (A.R. PVC) & ELEV. 34.0 SEE SD-3 FOR TIE-IN

#4 @ 12" EQ. WAY.

6'-0"

4" TYPE "A" E.J.

QUICK RELEASE COUPLING (2 PLACES)

① 2½" FERRIC CHLORIDE SUPPLY & ELEV. 35.0

② 2½" LIQUID ALUM SUPPLY & ELEV 35.0

③ 3" POLYMER SUPPLY & ELEV 35.0

4" VENT

1½" POLYMER & ELEV 46.50

8'-3" 7'-0" 14'-0"

12'-0"

4" SLUDGE & ELEV. 44.0

SLUDGE CONDITIONING TANK No. 2

VACUUM FILTER No. 2

½" LIME SLURRY & 46.0

BUBBLER AIR & 45.50

BUBBLER CUBICLE

1½" FERRIC CHLORIDE & 46.50

VACUUM RECEIVER (TYPICAL)

VACUUM PUMP No. 2

SLUDGE CONDITIONING TANK No. 1

VACUUM FILTER No. 1

BUBBLER AIR & ELEV. 45.50

½" LIME SLURRY & ELEV. 46.0

VACUUM & ELEV 45.75

FILTRATE PUMP (TYPICAL)

SILENCER (TYPICAL)

4" FILTRATE (TYPICAL)

24" BELT CONVEYER

10'-8"

14'-3"

LADDER

HANDRAIL

ACCESS PLATFORM ELEV. 44.0

GRATING

SLUDGE & ELEV.

8" THICKENED SLUDGE EFFLUENT

12" SLUDGE & ELEV.

SKIMMER DRIVE

1½" POLYMER & ELEV. 46.0

14'-0"

BOTTOM SLUDGE COLLECTOR DRIVE

SLUDGE THICKENING TANK

RETAINING WALL

25'-0"

50'-0"

25'-0"

ELEV. 36.0

8" THICKENER RECIRCULATION & ELEV.

4" DRAIN & ELEV.

12" THICKENER SUBNATANT & ELEV

ACCESS PLATFORM ELEV 44.0

LADDER

10" THICKENER RECIRCULATION & ELEV

BOTTOM OF MONORAIL ELEV. 46.0. SEE ARCH. DRAWINGS FOR DETAILS

1" LINE SUPPLY W/QUICK-RELEASE BRASS COUPLING & ELEV. 35.50

3" VENT

CHLORINE CONTAINER

CONTAINER CRADLES

ELEV 36.0

EMERGENCY SHOWER

OVERHEAD DOOR 4" VENT

CHLORINE MANIFOLD

CHLORINE SCALES

CHLORINE SCALE DIAL

CHLORINE LEAK DETECTOR

1" CHLORINE & ELEV. 46.0

4" VENT

NOTE:
SLUDGE THICKENING TANK, RETENTION TANK, REAERATION PUMP, AND APPURTENANCES SHOWN TO BE REMOVED SHALL BE RELOCATED TO PROPOSED SLUDGE HANDLING BUILDING, AREA 15.

ALL DIMENSIONS AND ELEVATIONS SHOWN FOR EXISTING STRUCTURE, EQUIPMENT AND PIPING ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR IN FIELD.

51-003-053

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED W. J. W.
DRAWN C. E. E.
CHECKED K. A. R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

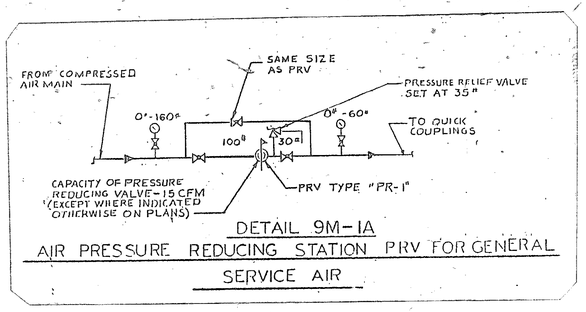
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4" = 1'-0"

MODIFICATIONS TO EXISTING PROCESS CENTER
FIRST FLOOR PLAN
EXISTING CONDITIONS

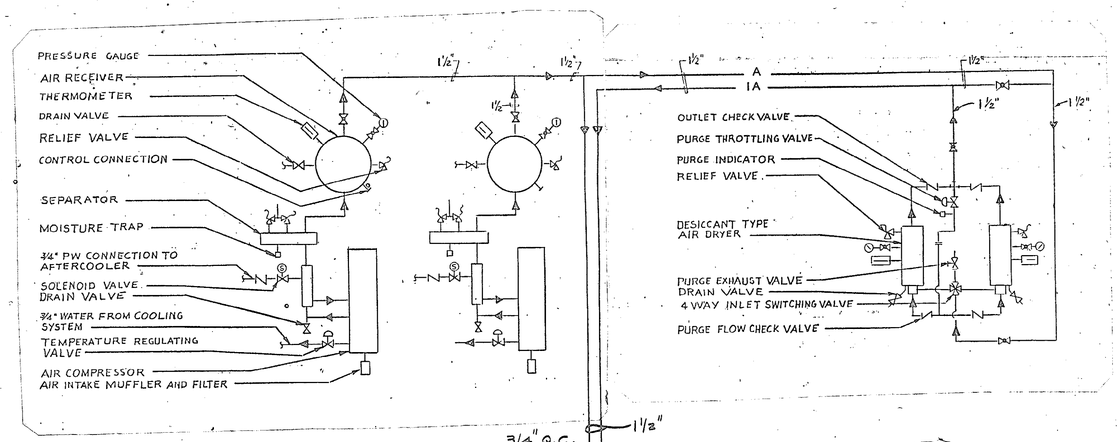
SHEET 9P-6 OF SHEETS
prc
PROJECT NO. 2815

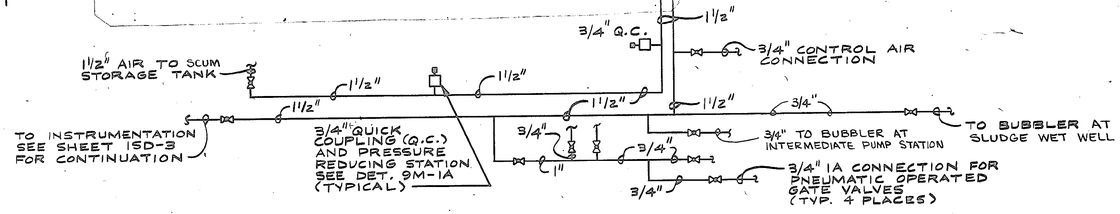
RECORD



DETAIL 9M-1A

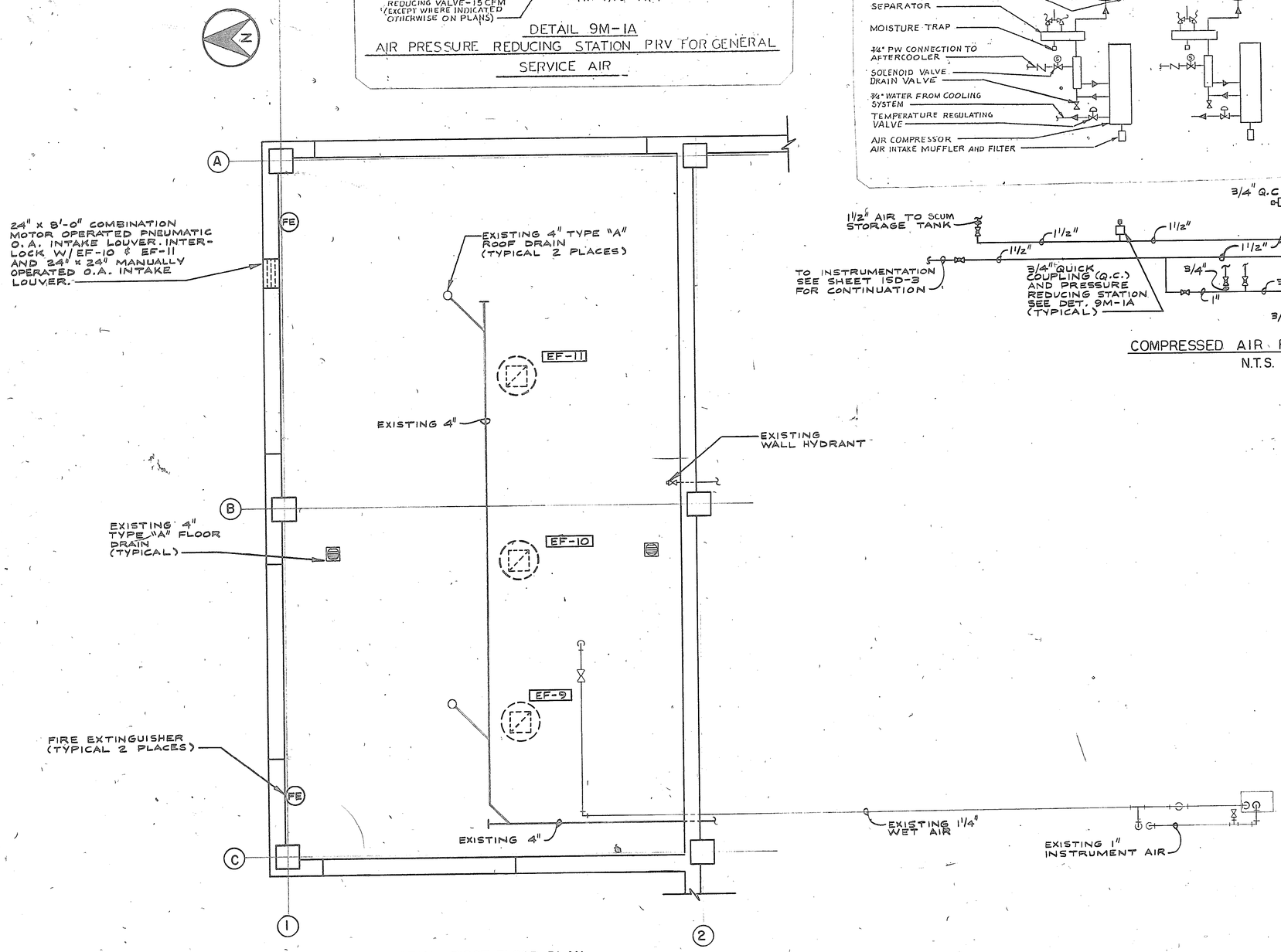
AIR PRESSURE REDUCING STATION PRV FOR GENERAL SERVICE AIR





COMPRESSED AIR FLOW DIAGRAM

N.T.S.



PARTIAL FIRST FLOOR PLAN

SYMBOLS

- PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE
- STRAINER
- CHECK VALVE
- GATE VALVE
- GLOBE VALVE
- A — COMPRESSED AIR (WET)
- 1A — COMPRESSED AIR (DRY)
- PHW — PROTECTED WATER (HOT)
- V — PLUMBING VENT
- PW — PROTECTED WATER
- DRAIN LINE-ABOVE GROUND
- DS — DOWNSPOUT-ROOF DRAIN
- DRAIN-UNDERGROUND
- FE — FIRE EXTINGUISHER
- T — THERMOSTAT
- PRESSURE GAGE W/GLOBE VALE

NOTES

1. SEE SPECIFICATION SECTION 15 I FOR EXHAUST FAN CONTROL MODES; EF-9, CONTROL MODE NO.3; EF-10, CONTROL MODE NO.4; EF-11, CONTROL MODE NO. 4.
2. PROVIDE NEW OPENINGS IN EXISTING ROOF FOR NEW EXHAUST FANS EF-9, 10 & 11. SEE DETAIL 10M-2A

51-003-054

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED EK, PK
DRAWN BMW, PK
CHECKED RH
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

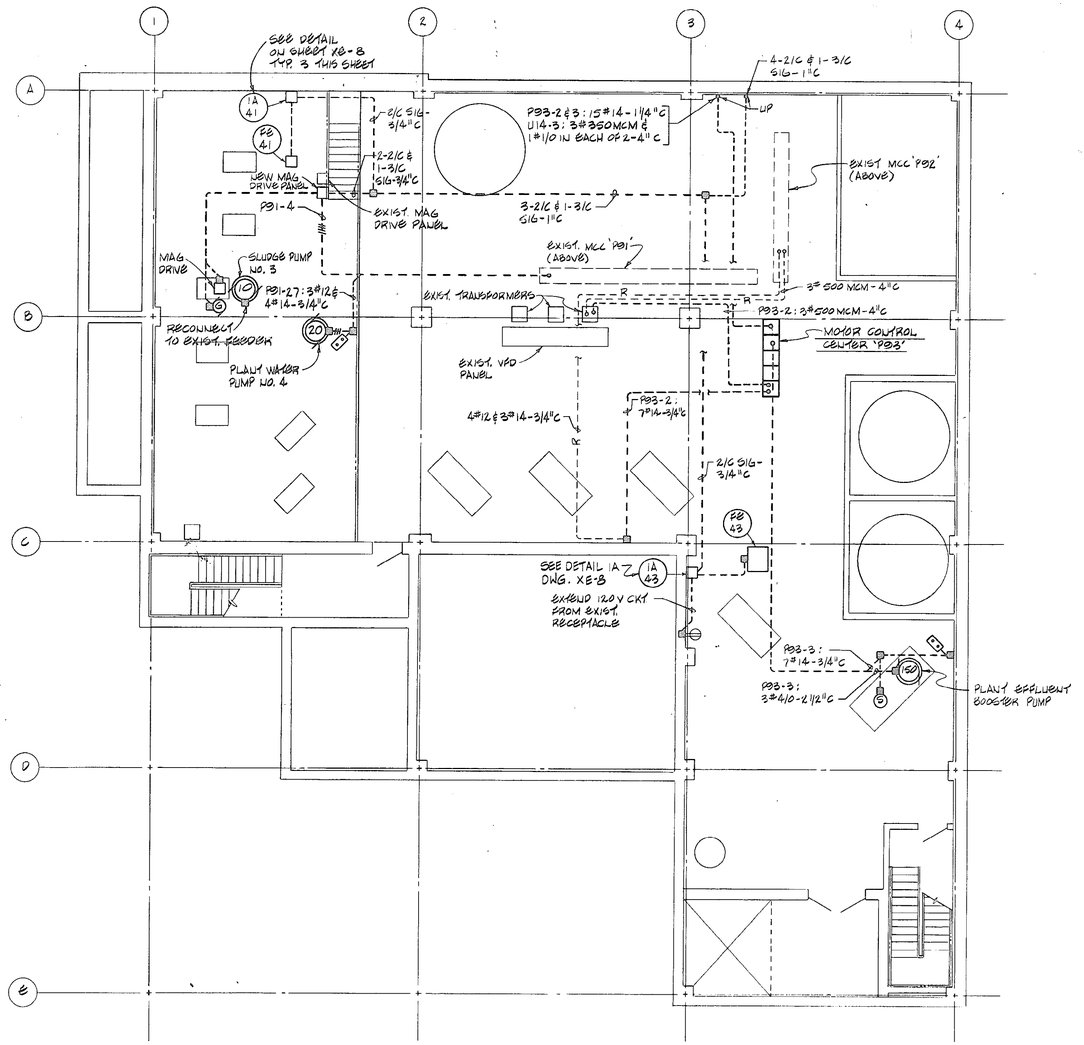
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

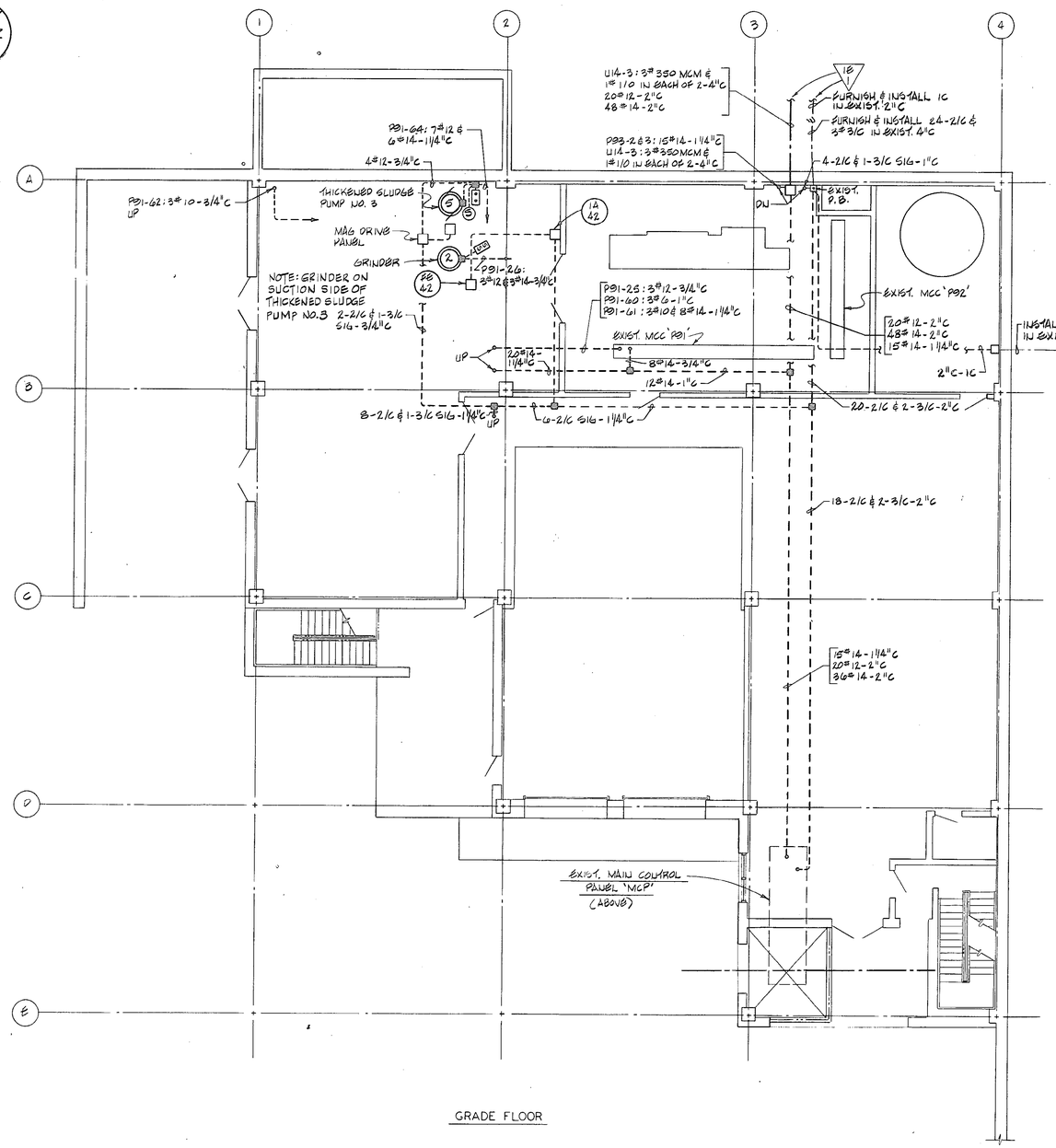
PROCESS CENTER
FIRST FLOOR PLAN
VENTILATION
MISCELLANEOUS

SHEET 9M-1
OF SHEETS
PROJECT NO 2815

RECORD



BASEMENT



GRADE FLOOR

51-003-055

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D. A. D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

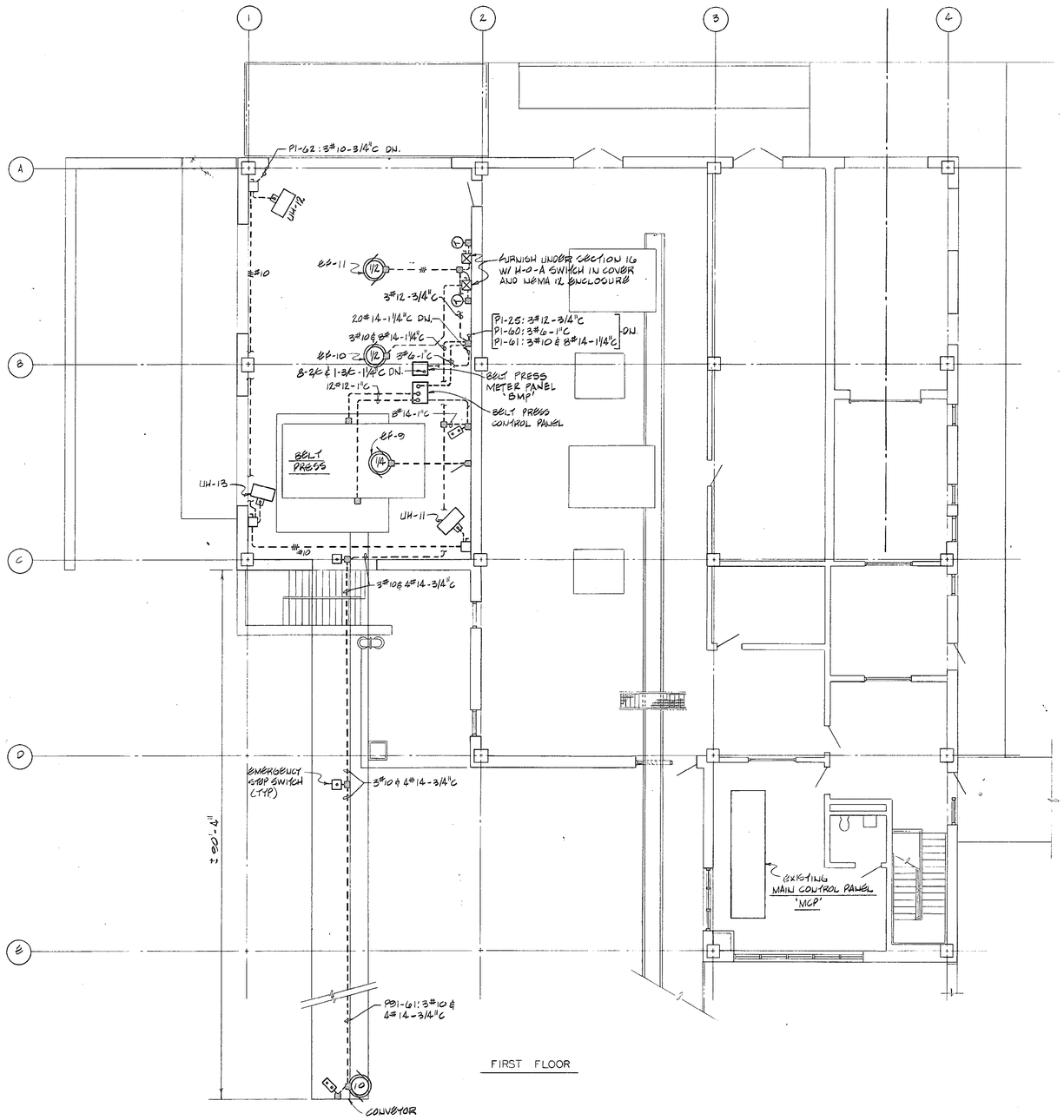
SCALE
1/8" = 1'-0"

EXISTING PROCESS CENTER – I
ELECTRICAL

SHEET 9E-1
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716



51-003-056

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

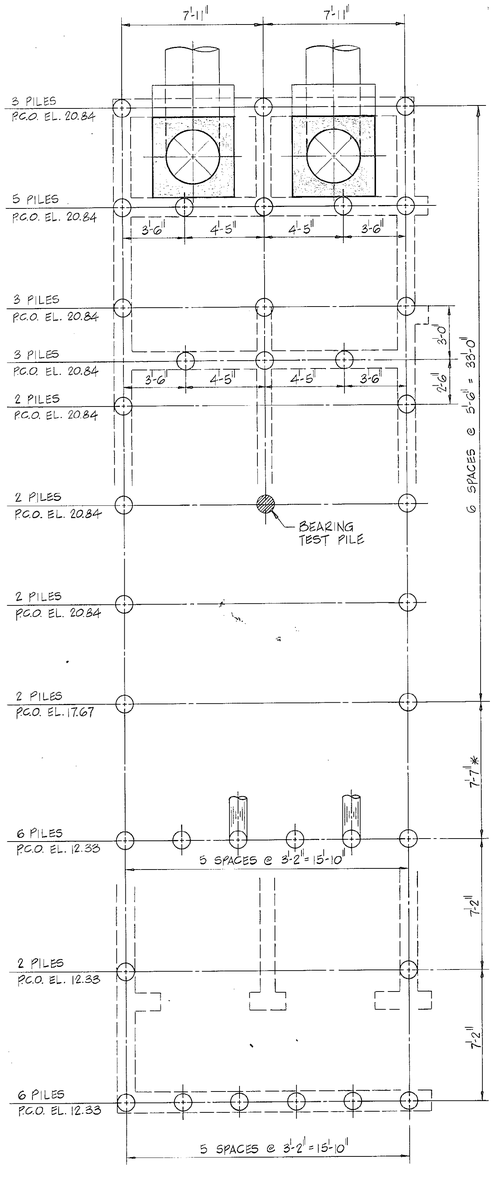
SCALE
1/8" = 1'-0"

EXISTING PROCESS CENTER - II
ELECTRICAL

SHEET 9E-2
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-133 68716



PILE PLAN

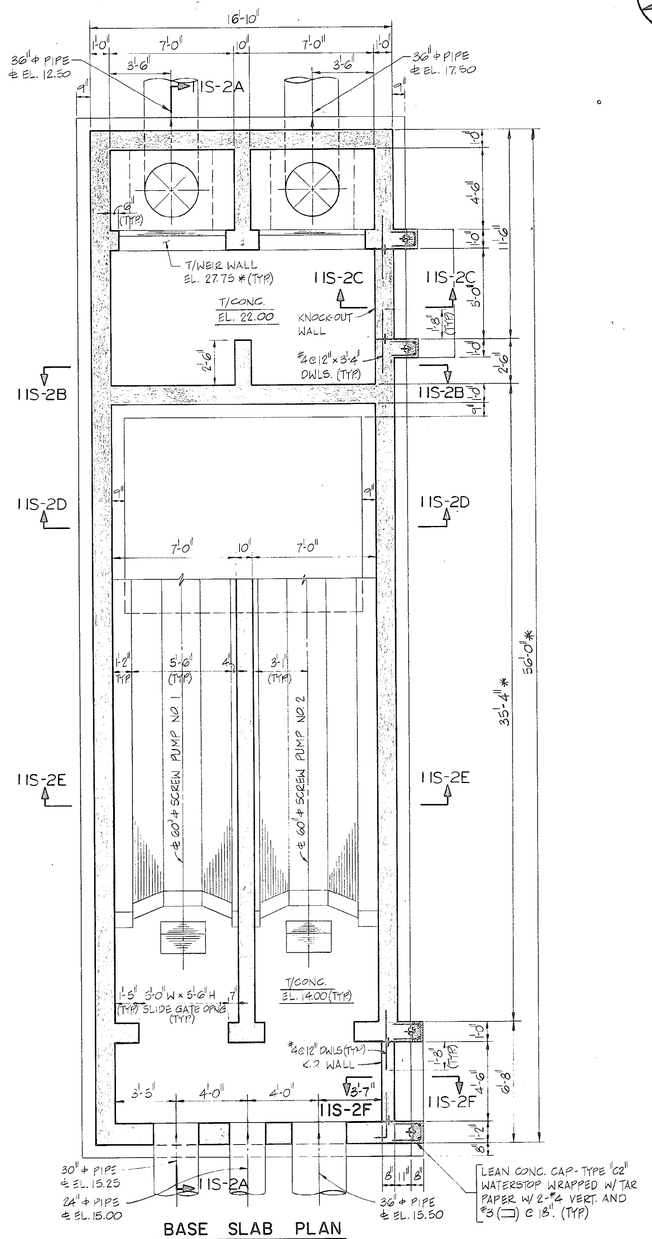
NOTES:

ALL PILES SHALL BE TREATED TIMBER BEARING PILES. SEE SHEET XS-1 AND SPECIFICATIONS FOR PILE DETAILS.

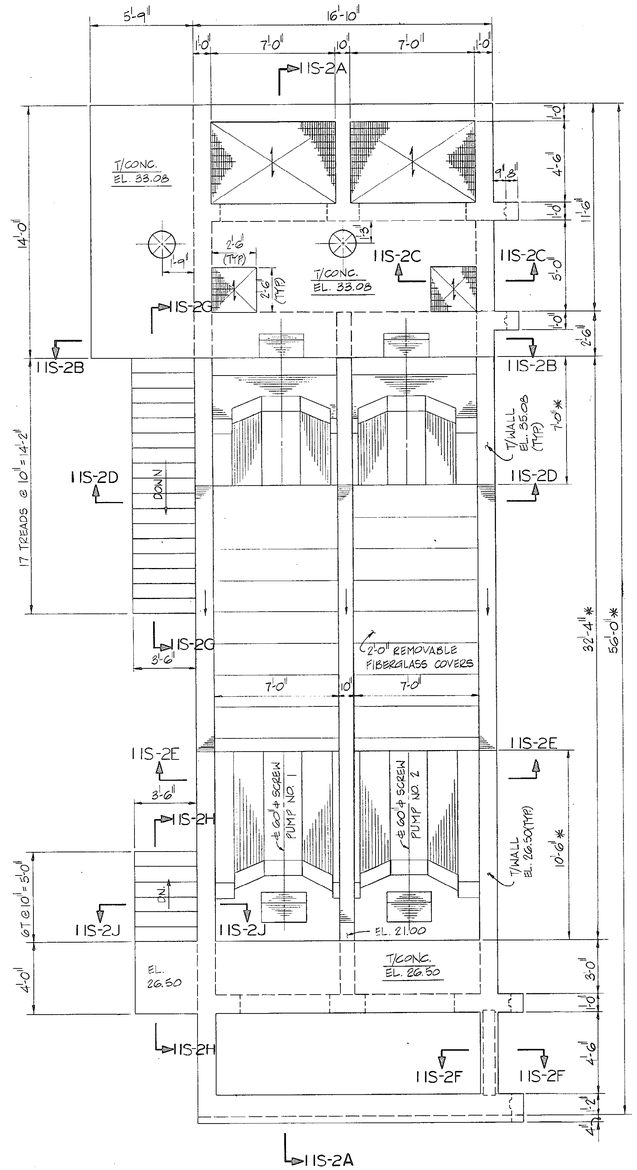
ALL PILES SHALL BE 20 TON BEARING PILES.

INDICATES BATTER PILE (BATTER OF ONE HORIZONTAL TO THREE VERTICAL - 1:3)

INDICATES BEARING TEST PILE



BASE SLAB PLAN



TOP PLAN

51-003-057

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

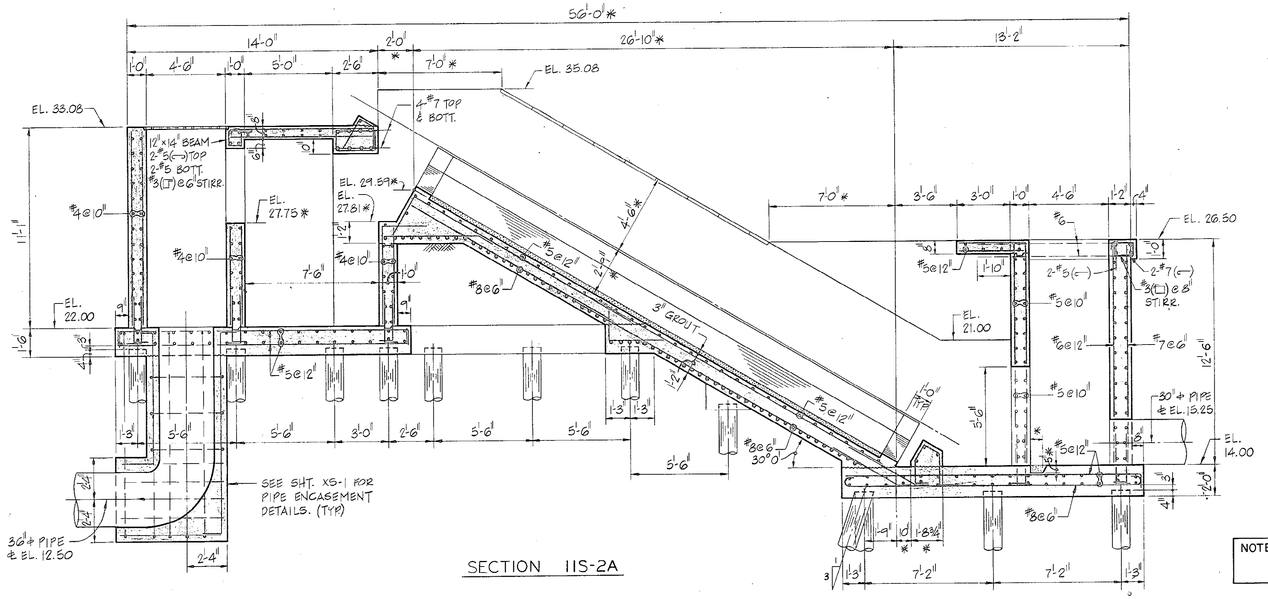
SCALE
1/4"=1'-0"

INTERMEDIATE PUMPING STATION
PILE, BASE SLAB AND TOP PLANS

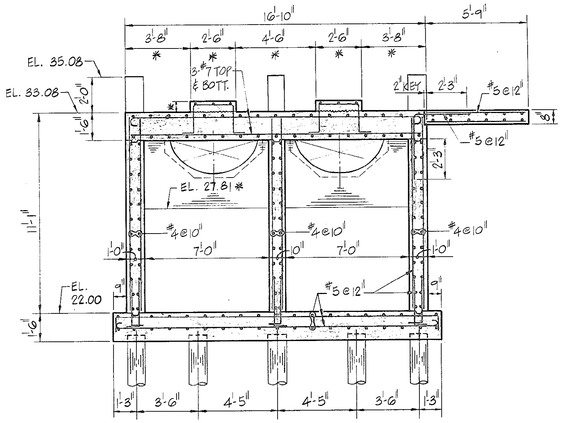
SHEET IIS-1
OF SHEETS
PROJECT NO 2815

RECORD

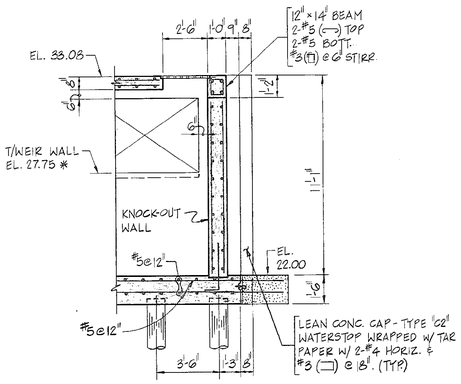
BRUNING 44-132-68716



SECTION 11S-2A

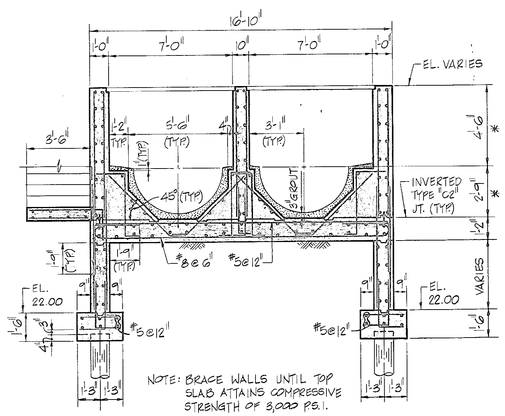


SECTION 11S-2B

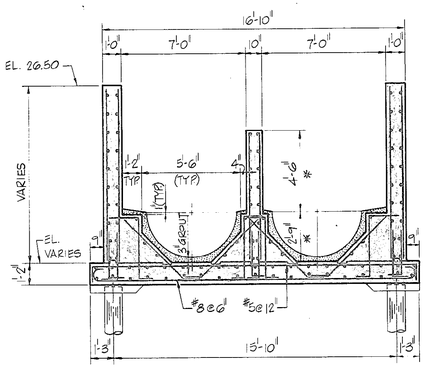


SECTION 11S-2C

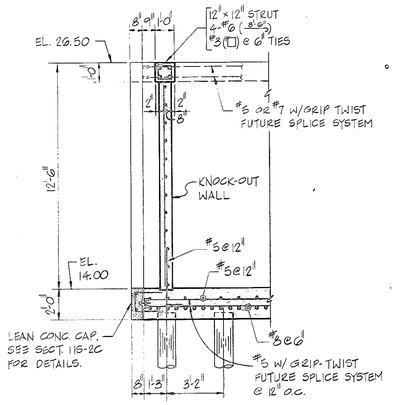
NOTE: ALL REINFORCEMENT SHOWN ON THIS SHEET SHALL BE #4 @ 12" UNLESS NOTED.



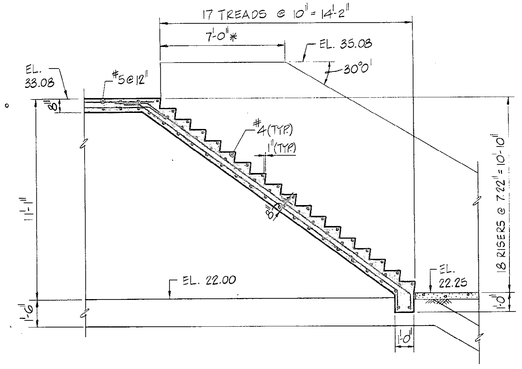
SECTION 11S-2D



SECTION 11S-2E

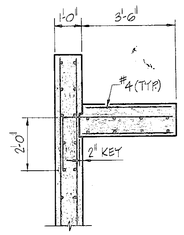


SECTION 11S-2F



SECTION 11S-2G

SECTION 11S-2H



SECTION 11S-2J
3/8" = 1'-0"

51-003-058

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

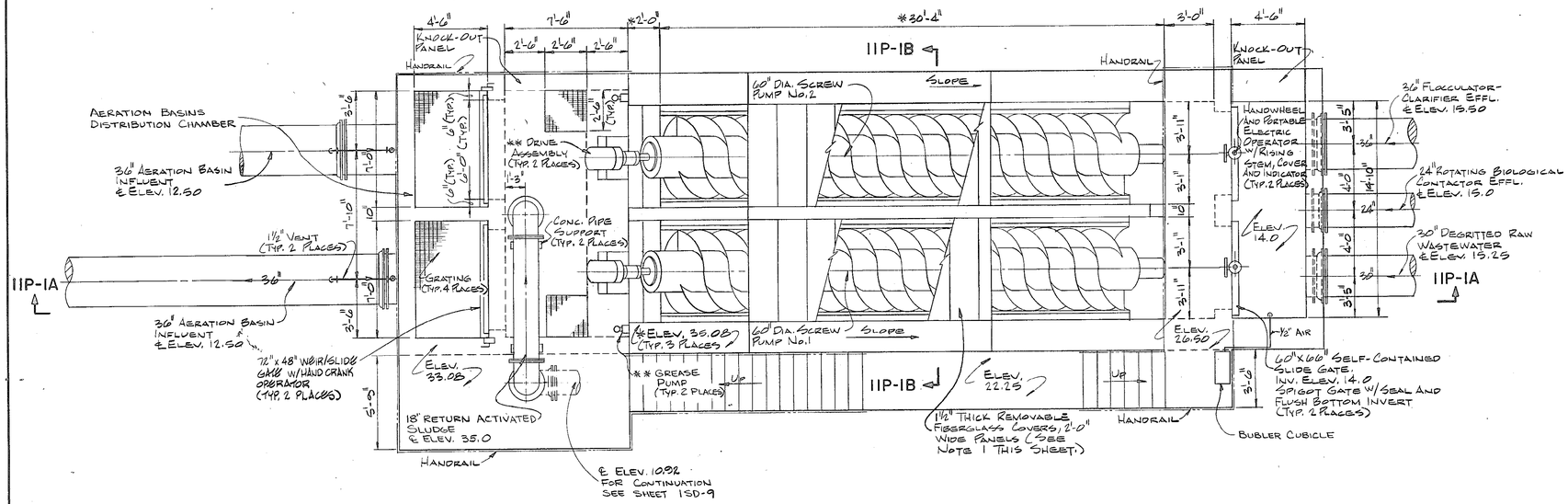
SCALE
1/4" = 1'-0" U.N.

INTERMEDIATE PUMPING STATION
SECTIONS

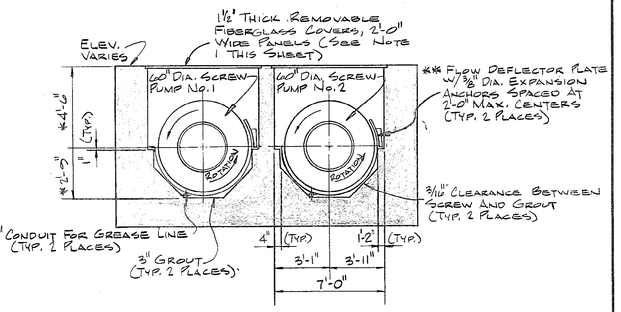
SHEET 11S-2
OF SHEETS
PROJECT NO. 2815

RECORD

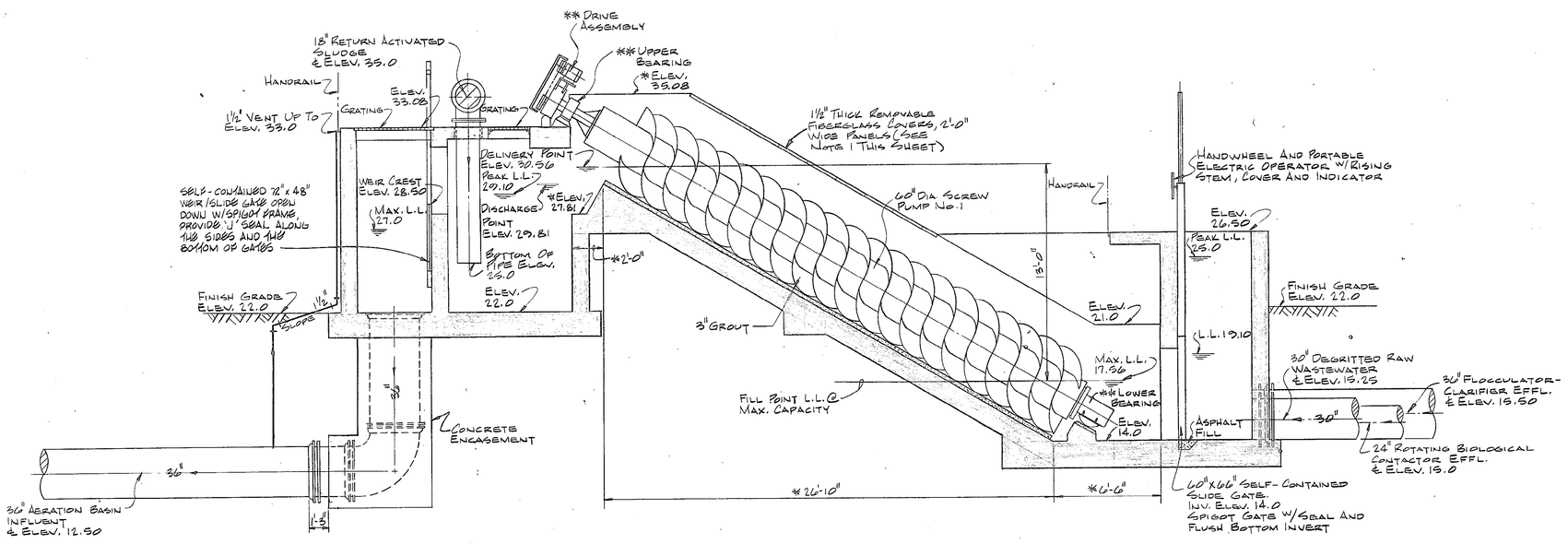
BRUNING 44-132 69716



PLAN VIEW



SECTION IIP-1B
IIP-1



SECTION IIP-1A
IIP-1

NOTES

1.) FIBERGLASS COVERS SHALL BE ATLAC 400 CORROSION RESISTANT FIBERGLASS REINFORCED RESIN OR APPROVED EQUAL. SUBMIT COLOR CHART TO ENGINEER FOR SELECTION. DETAIL OF SUPPORT SHALL BE AS RECOMMENDED BY MANUFACTURER.

2.) FOR CONTINUATION OF PIPING SEE SHT. NO. ISD-9.

** See Mfr's. Drawings For Details

* To Be Determined By Equipment Mfr.

5!-003-059

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

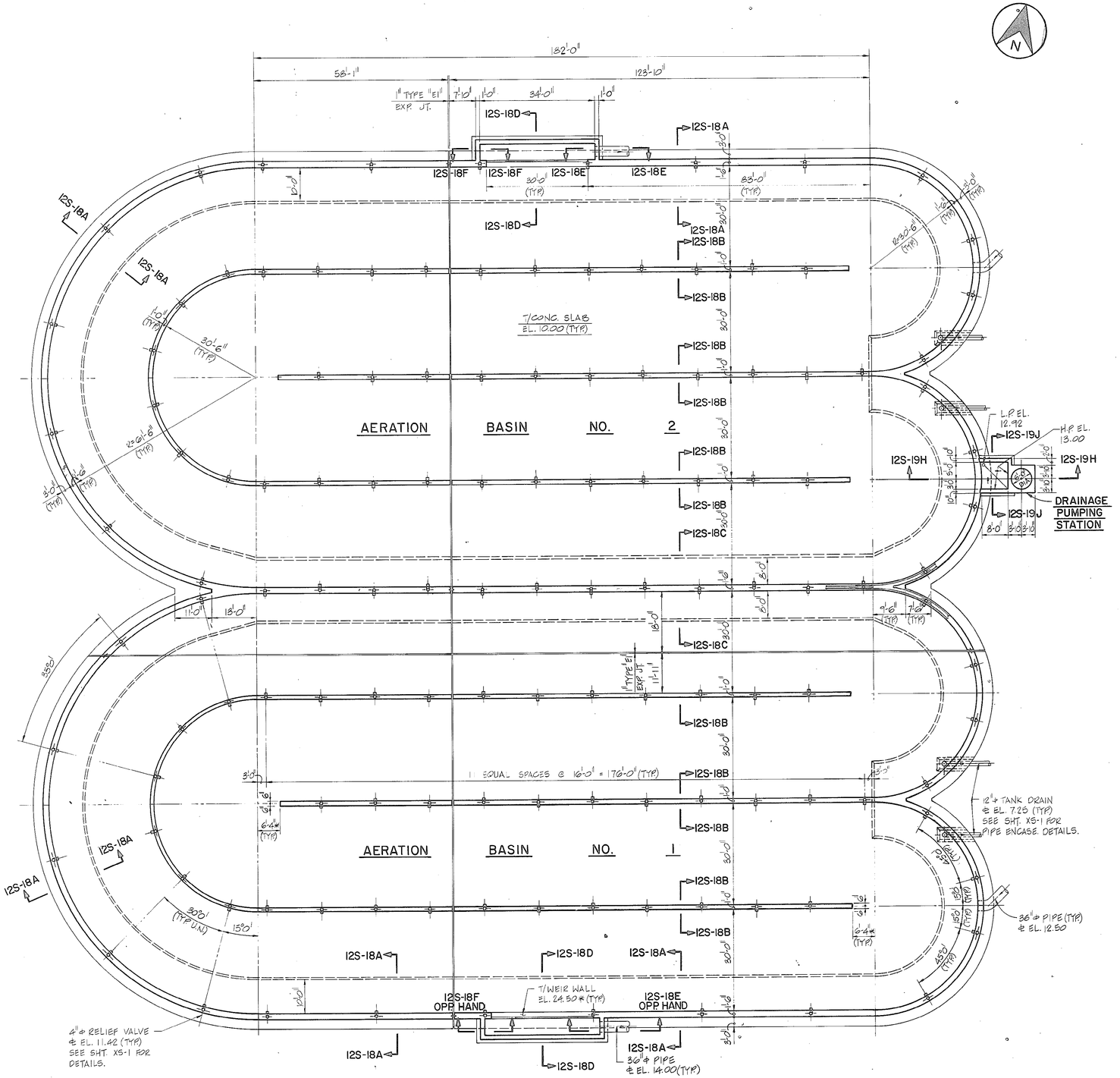
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

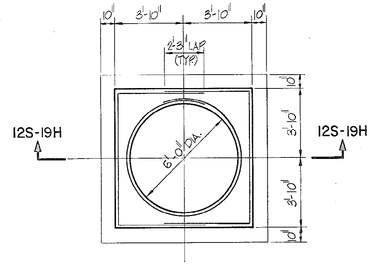
SCALE
1/4"=1'-0"

INTERMEDIATE PUMPING STATION
PLAN AND SECTIONS

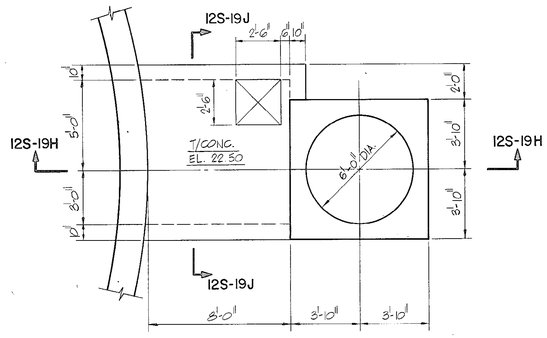
SHEET IIP-1
OF SHEETS
PROJECT NO. 2815

RECORD





BASE SLAB PLAN
DRAINAGE PUMPING STATION
1/4" = 1'-0"



INTERMEDIATE PLAN AT EL. 22.50
DRAINAGE PUMPING STATION
1/4" = 1'-0"

NOTES:

1. ALLOWABLE SOIL BEARING CAPACITY HAS BEEN ASSUMED 2,500 PS.F. UNDER WALLS AND 1,500 PS.F. ELSEWHERE. THIS SHALL BE VERIFIED BY GENERAL CONTRACTOR IN FIELD.
2. REMOVE UNSATISFACTORY SOIL AS DIRECTED BY THE ENGINEER AND REPLACE WITH GRANULAR FOUNDATION MATERIAL. THIS WORK WILL BE PAID FOR AS UNIT PRICE WORK UNDER ITEM 4 OF BIDDING SCHEDULE.

51-003-060

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

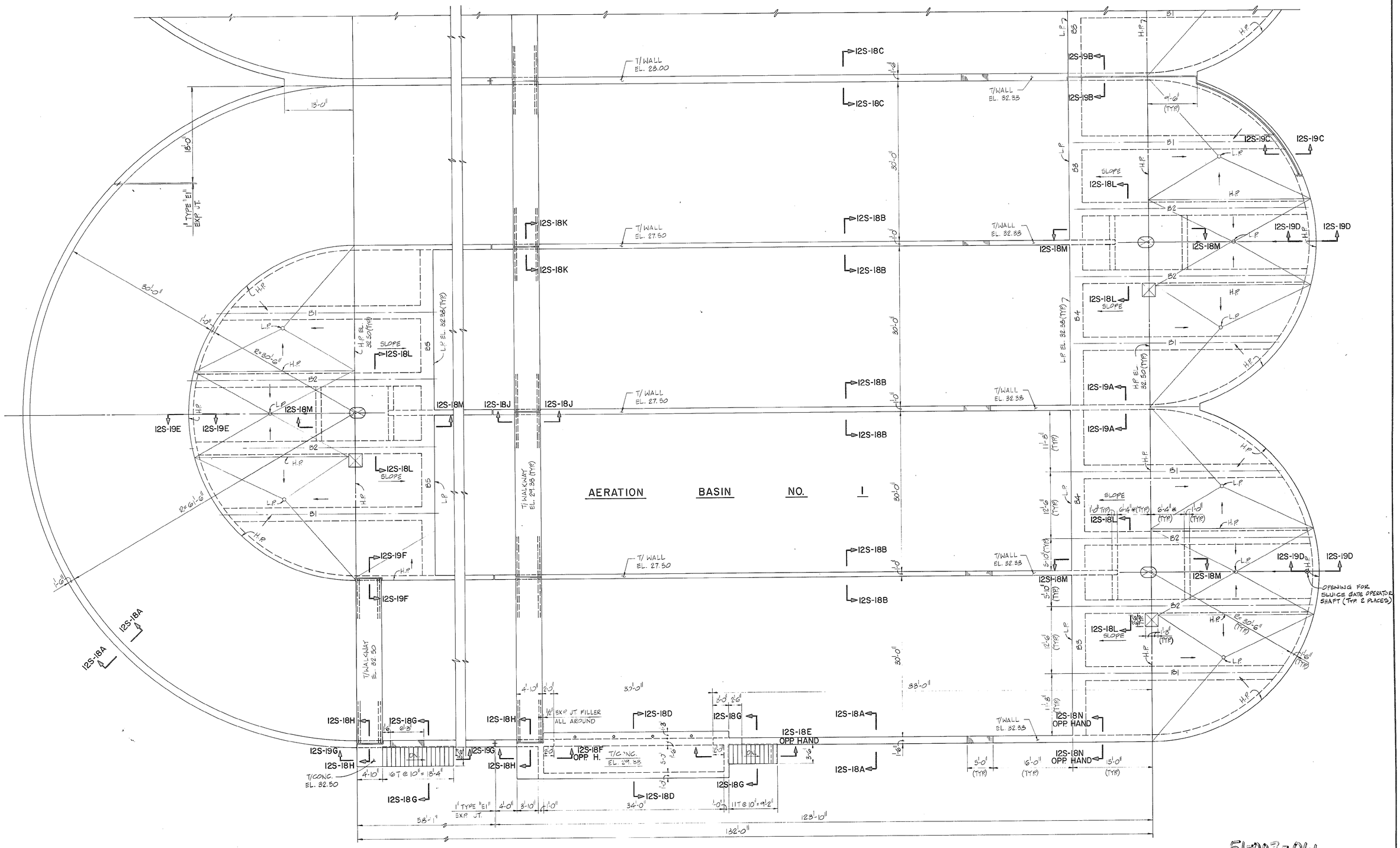
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/16" = 1'-0" U.N.

AERATION BASINS - ALTERNATE II
CARROUSEL PROCESS
BASE SLAB PLAN

SHEET 12S-15
OF SHEETS
PROJECT NO 2815

RECORD



51-003-061

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/8"=1'-0"

AERATION BASIN NO. 1 - ALTERNATE II
CARROUSEL PROCESS
TOP PLAN

SHEET 12S-16
OF SHEETS
PROJECT NO. 2815

RECORD

182'-0"
128'-10"
58'-1"
1" TYPE "E" EXP. JT.
4'-0" 3'-10" 1'-0" 34'-0" 1'-0" 11T @ 10" = 9'-2"
4'-10" 16T @ 10" = 13'-4"
12S-18D
12S-18G
12S-18A
T/CONC. EL. 32.50
12S-18H
12S-18F
T/CONC. EL. 29.33
12S-18E
12S-19G OPP. HAND
12S-19G OPP. HAND
12S-18H
6'-3"
1/2" EXP. JT. FILLER ALL AROUND
12S-18D 30'-0"
12S-18G
12S-18A
T/WALL EL. 28.00
T/WALL EL. 32.38
83'-0"
5'-0" (TYP)
16'-0" (TYP)
15'-0" (TYP)
12S-18N
T/WALL EL. 28.00
12S-18A
12S-18A
T/WALKWAY EL. 32.50
12S-19F
12S-19F
T/WALL EL. 27.50
12S-18B
T/WALL EL. 32.38
12S-18M
12S-18B
30'-0"
B1
B2
B3
B4
L.P
H.P
SLOPE
12S-18L
12S-19D
12S-19D
12S-18M
R=30'-6" (TYP)
30'-0"
1'-0"
R=61'-6"
T/WALKWAY EL. 27.38 (TYP)
12S-18M
12S-18J
12S-18J
T/WALL EL. 27.50
12S-18B
T/WALL EL. 32.38
12S-19A
12S-19A
12S-19E
12S-19E
12S-18L SLOPE
H.P EL. 32.50 (TYP)
L.P EL. 32.38 (TYP)
12S-18K
12S-18K
T/WALL EL. 27.50
12S-18B
T/WALL EL. 32.38
12S-18M
12S-19H
12S-19J
8'-0"
3'-10"
3'-10"
DRAINAGE PUMPING STATION
AERATION BASIN NO. 2
13'-0"
T/WALL EL. 28.00
12S-18C
T/WALL EL. 32.38
12S-19B
12S-19B
12S-18C
30'x48'* HATCH. SEE PROCESS DWGS.

51-003-062

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

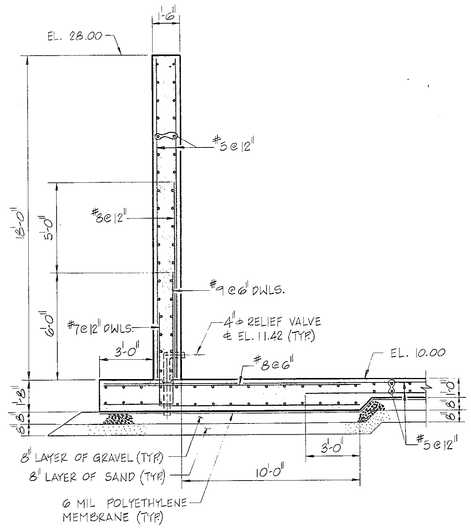
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/8" = 1'-0"

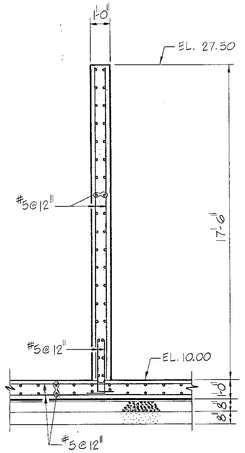
AERATION BASINS - ALTERNATE II
CARROUSEL PROCESS
TOP PLAN

SHEET 12S-17
OF SHEETS
PROJECT NO. 2815

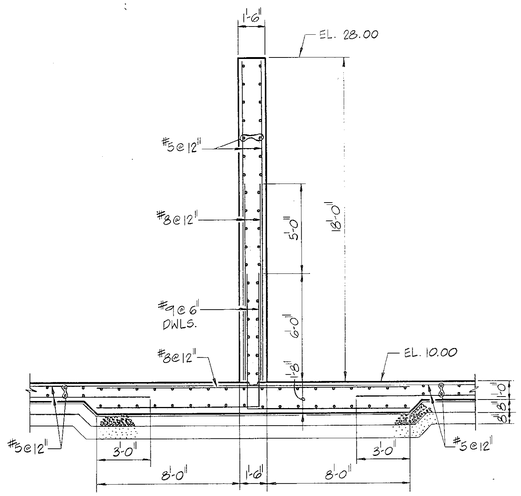
RECORD



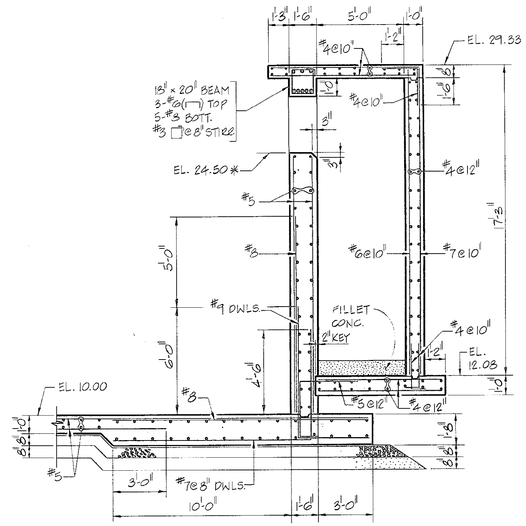
SECTION 12S-18A



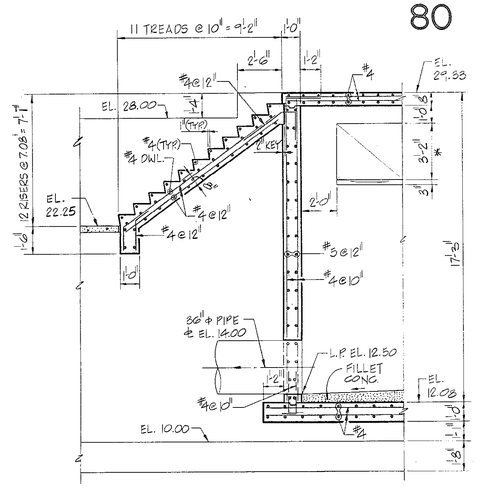
SECTION 12S-18B



SECTION 12S-18C



SECTION 12S-18D



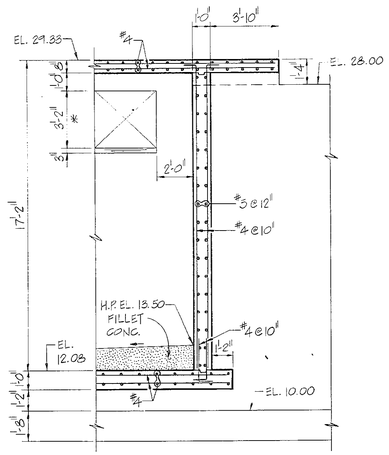
SECTION 12S-18E

NOTES:

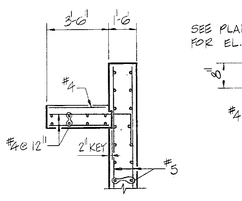
WALKWAY BRIDGE SHALL BE 16" DEEP PRECAST DOUBLE TEE AS SHOWN.

PRECAST MANUFACTURER SHALL DESIGN DOUBLE TEES FOR THE FOLLOWING SUPERIMPOSED LOADS:

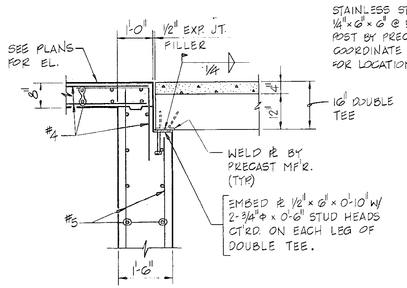
(a) LIVE LOAD = 100 P.S.F.
(b) WIND LOAD = 30 P.S.F.



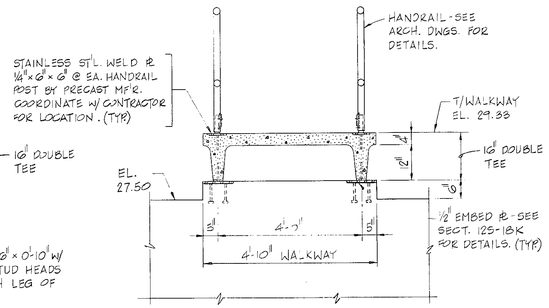
SECTION 12S-18F



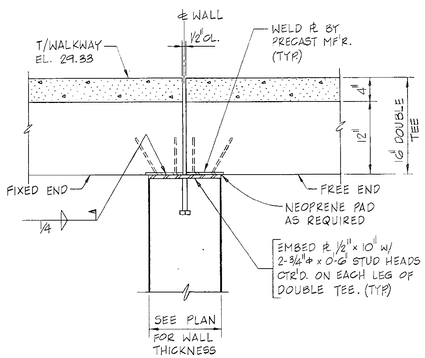
SECTION 12S-4 G



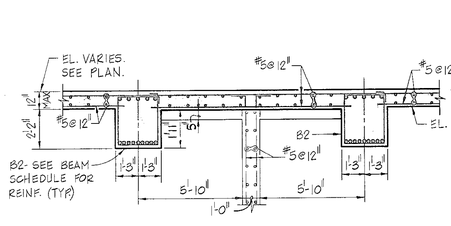
SECTION 12S-18H
1/2" = 1'-0"



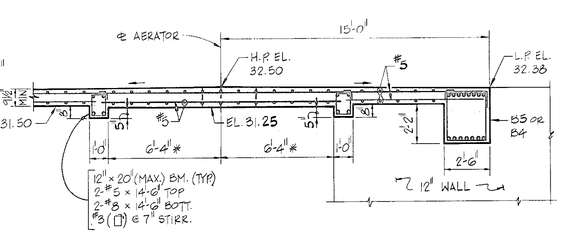
SECTION 12S-18J
1/2" = 1'-0"



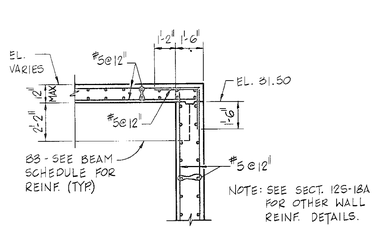
SECTION 12S-18K (TYP)
1" = 1'-0"



SECTION 12S-18L



SECTION 12S-18M



SECTION 12S-18N

BEAM SCHEDULE

MARK	SIZE "B"	SIZE "D"	REINFORCING BOTTOM	REINFORCING TOP	STIRRUPS NO.	STIRRUPS SIZE	STIRRUPS TYPE	STIRRUPS SPACING EA. END	SUPP. BARS	REMARKS
B1	30"	38" MAX.	9-#10	4-#8 CONT.	28	#4	□	1 @ 3", 13 @ 16"		BOTT. EL. OF BEAMS = 29.33
B2	30"	38" MAX.	9-#11	5-#8 CONT.	32	#4	□	1 @ 6", 15 @ 16"		BOTT. EL. OF BEAMS = 29.33
B3	30"	38" MAX.	9-#9	4-#10 CONT.	50	#5	□	1 @ 3", 24 @ 7"		BOTT. EL. OF BEAMS = 29.33
B4	30"	38" MAX.	7-#9	4-#10 CONT.	50	#5	□	1 @ 3", 24 @ 7"		BOTT. EL. OF BEAMS = 29.33
B5	30"	38" MAX.	9-#9	5-#10 CONT.	50	#5	□	1 @ 3", 24 @ 7"		BOTT. EL. OF BEAMS = 29.33

NOTES: MEASURE DISTANCE FOR STIRRUPS ALONG CENTER LINE OF BEAMS.
SEE SHEET XS-1 FOR TYPICAL DETAILS OF BEAM REINFORCEMENT.

51-003-053

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

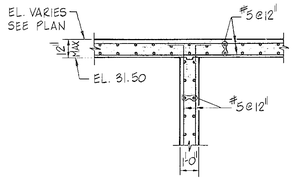
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4" = 1'-0" U.N.

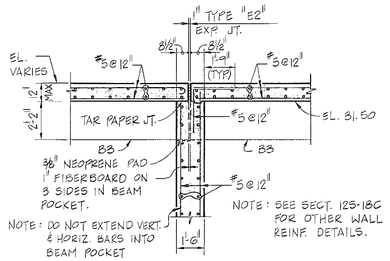
AERATION BASINS - ALTERNATE II
CARROUSEL PROCESS
SECTIONS

SHEET 12S-18
OF SHEETS
PROJECT NO. 2815

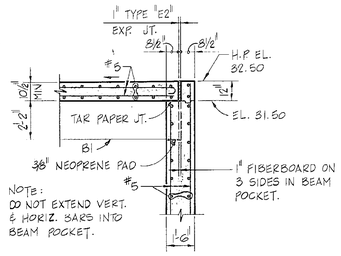
RECORD



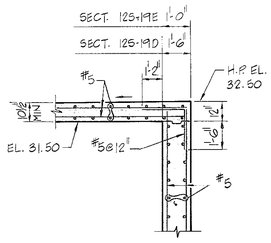
SECTION 12S-19A



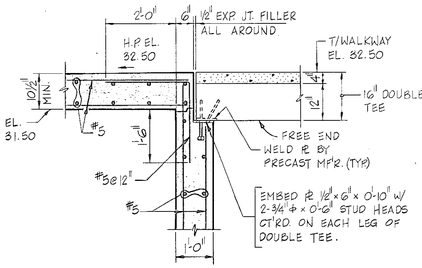
SECTION 12S-19B



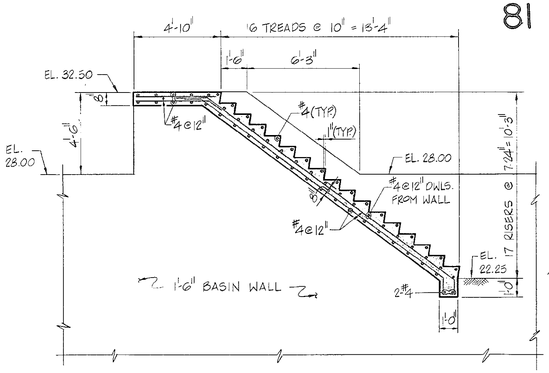
SECTION 12S-19C



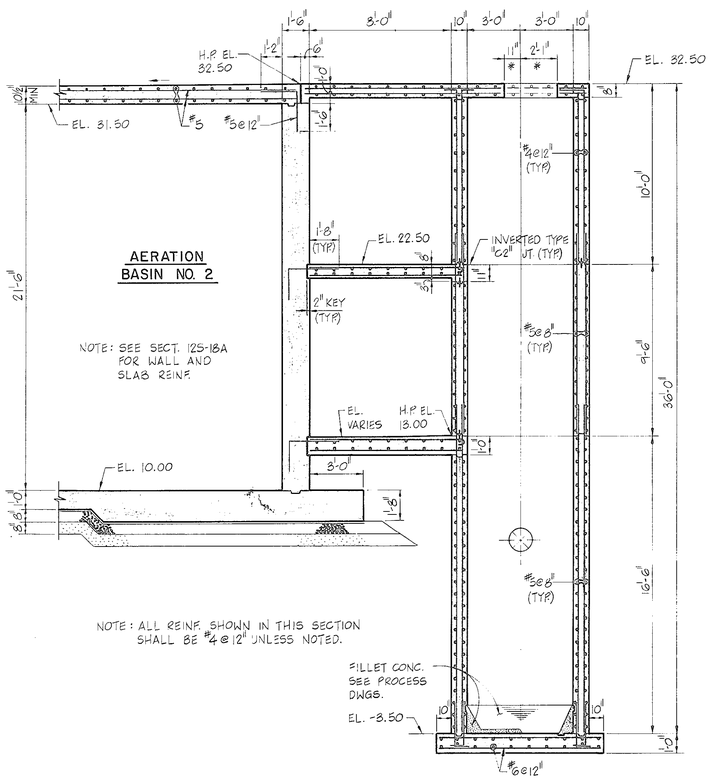
SECTION 12S-19D
SECTION 12S-19E



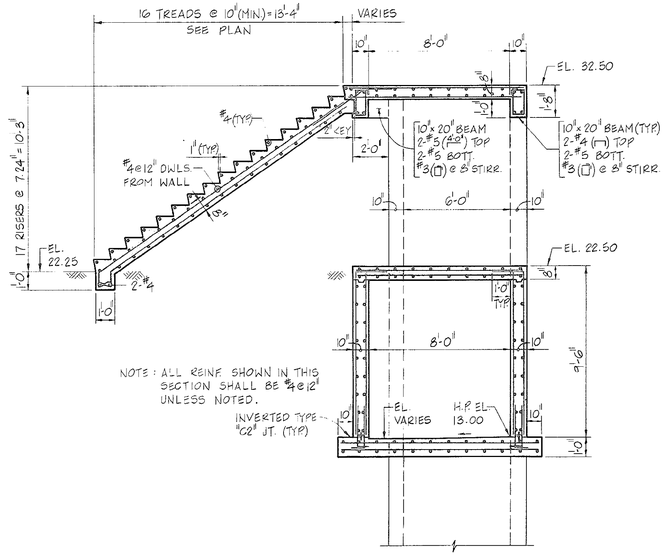
SECTION 12S-19F
½" = 1'-0"



SECTION 12S-19G



SECTION 12S-19H



SECTION 12S-19J

51-003-064

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
¼" = 1'-0" U.N.

AERATION BASINS – ALTERNATE II
CARROUSEL PROCESS
SECTIONS

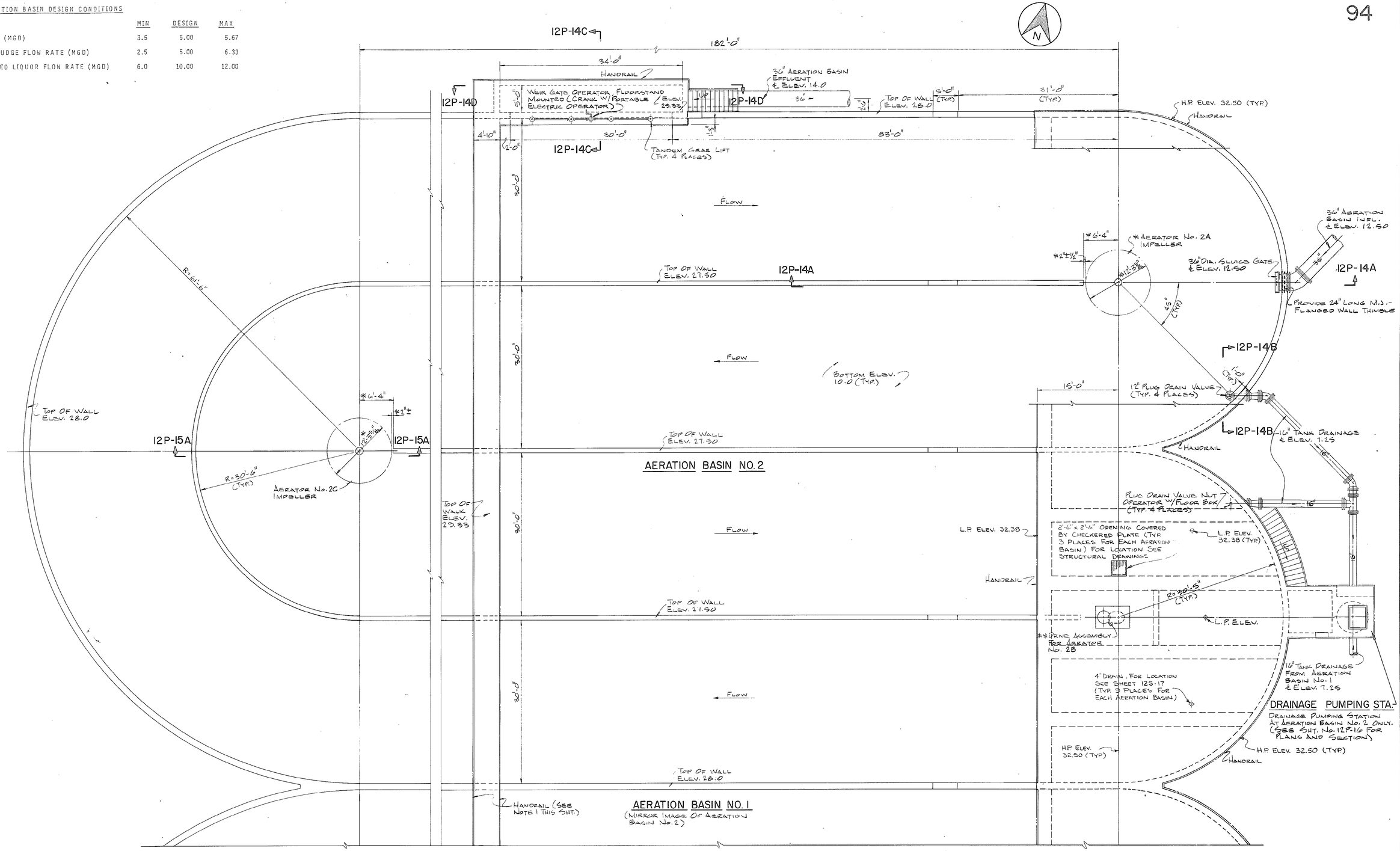
SHEET 12S-19
OF SHEETS
PROJECT NO 2815

RECORD

BRUNING 44-132 65716

EACH AERATION BASIN DESIGN CONDITIONS

	MIN	DESIGN	MAX
FLOW RATE (MGD)	3.5	5.00	5.67
RETURN SLUDGE FLOW RATE (MGD)	2.5	5.00	6.33
TOTAL MIXED LIQUOR FLOW RATE (MGD)	6.0	10.00	12.00



NOTES:

1. HANDRAIL ON WALKWAY BRIDGE, ONLY, TO BE TOP MOUNTED.
2. SEE SHT. 15D-3 FOR CONT. OF OUTSIDE PIPING.

* TO BE DETERMINED BY EQUIPMENT MFR.

** SEE MFR'S. DRAWINGS FOR DETAILS

51-003-015

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

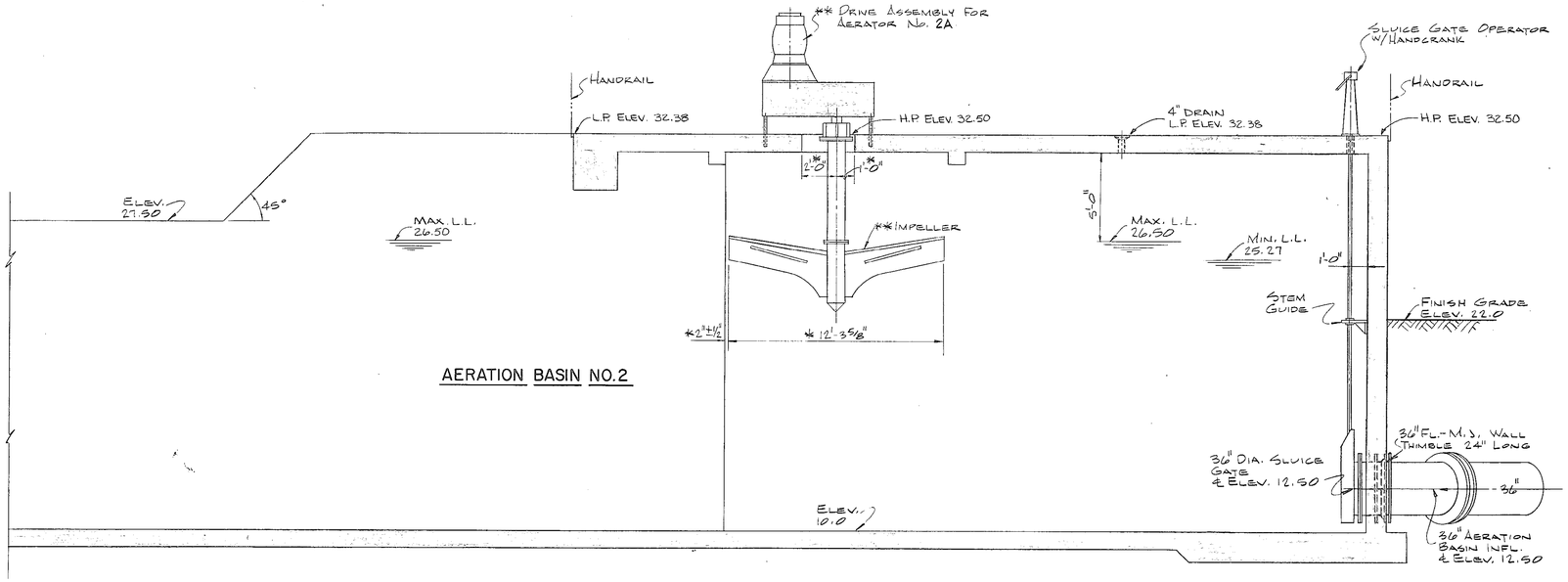
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/8" = 1'-0"

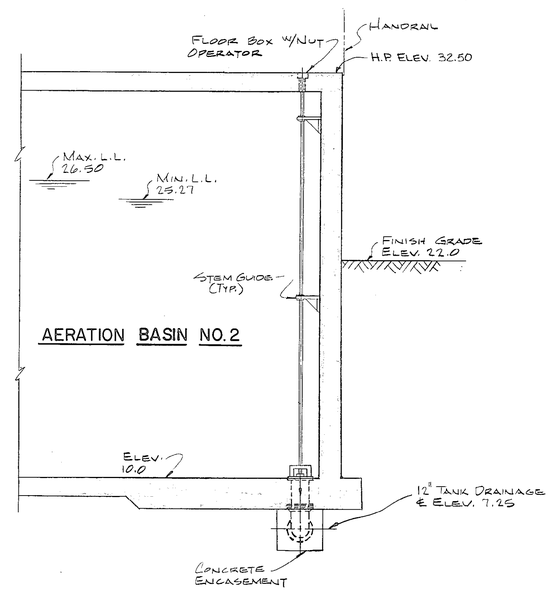
AERATION BASINS – ALTERNATE II
CARROUSEL PROCESS
PLAN

SHEET 12P-13
OF SHEETS
PROJECT NO. 2815

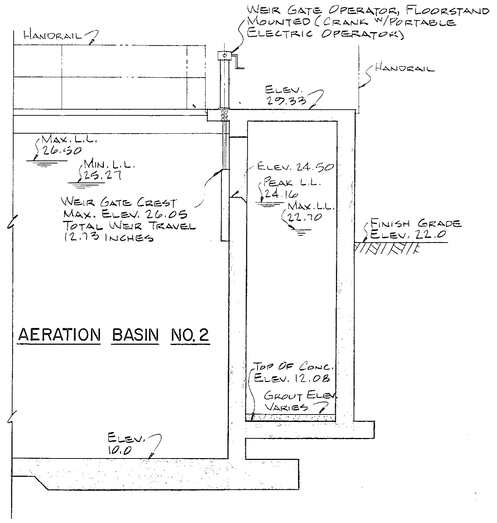
RECORD



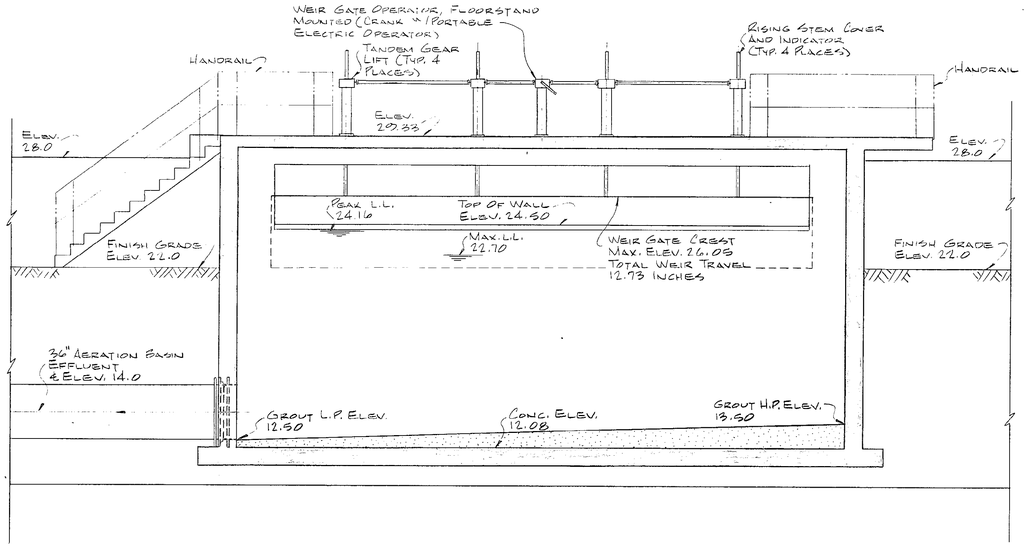
SECTION 12P-14A
12P-13



SECTION 12P-14B
12P-13



SECTION 12P-14C
12P-13



SECTION 12P-14D
12P-13

* TO BE DETERMINED BY EQUIPMENT MFR.
** SEE MFR'S. DRAWINGS FOR DETAILS.

5!-003-066

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

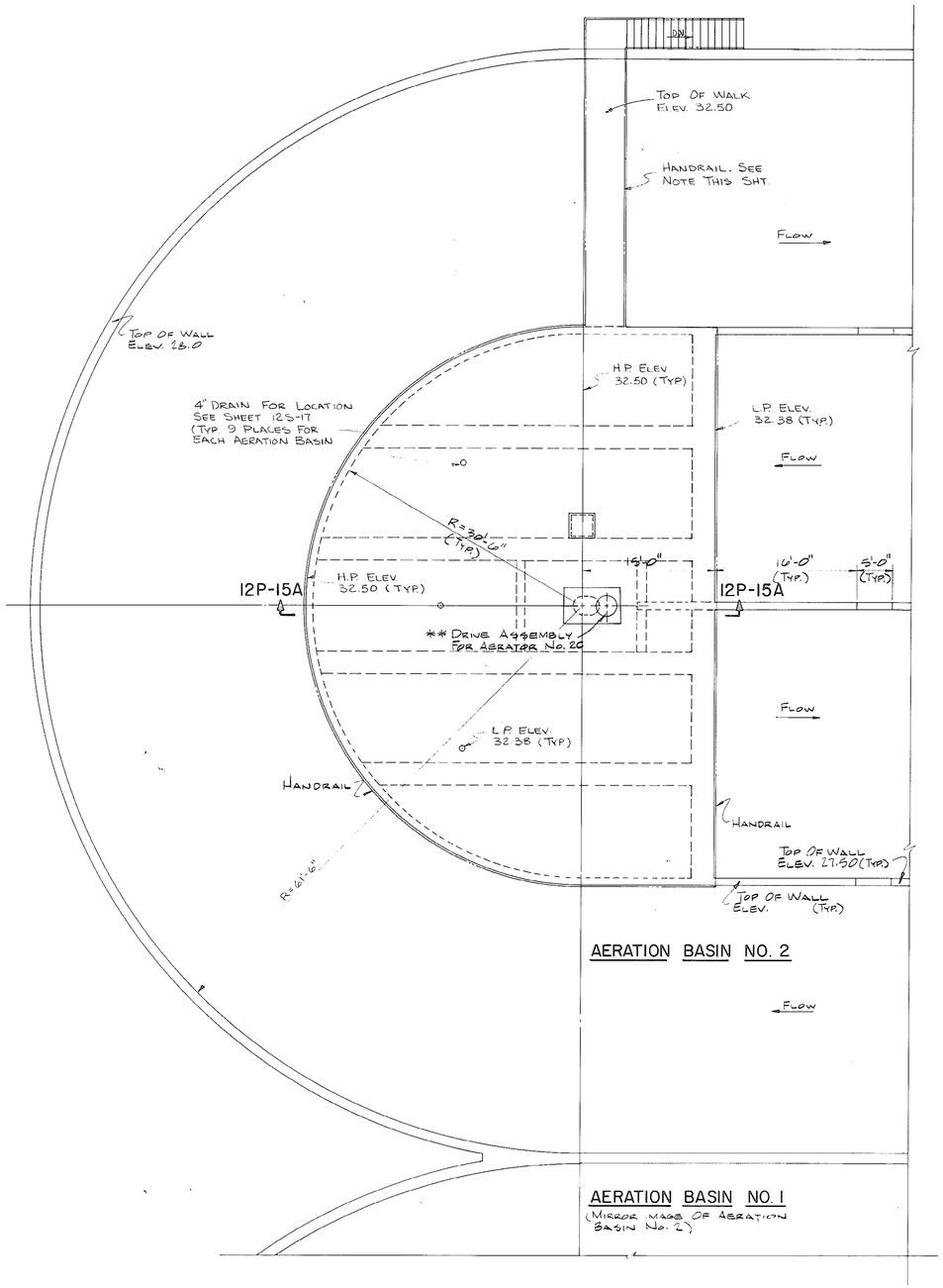
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

AERATION BASINS – ALTERNATE II
CARROUSEL PROCESS
SECTIONS

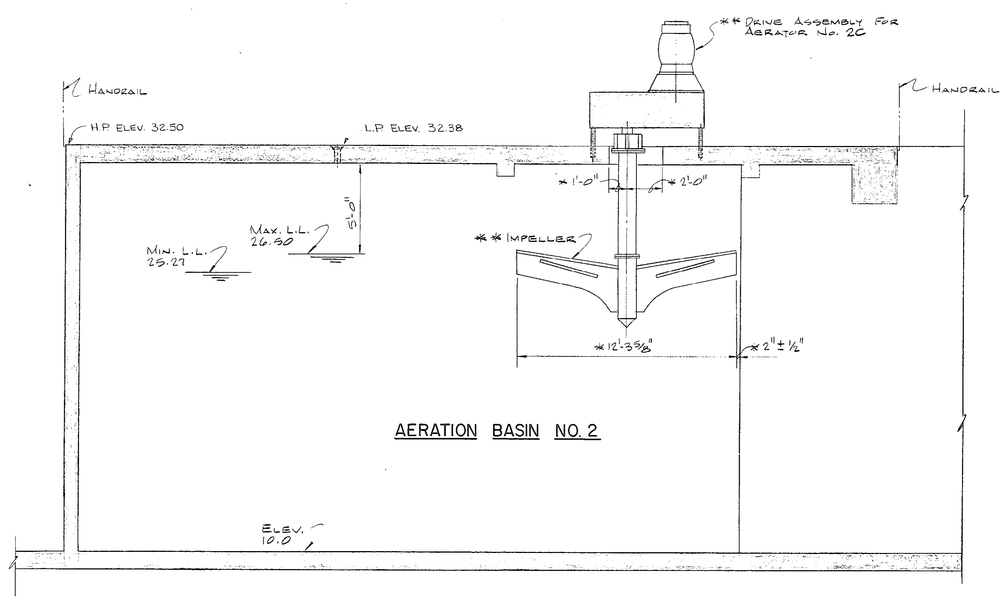
SHEET 12P-14
OF SHEETS
PROJECT NO. 2815

RECORD



PARTIAL TOP PLAN

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



SECTION 12P-15A
12P-15

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

* To Be Determined By Equipment Mfr.

** See Mfr's. Drawings For Details.

Note:
Handrail On Walkway Bridge,
Only, To Be Top Mounted

51-003-057

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DRAWING 44-132 66716

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

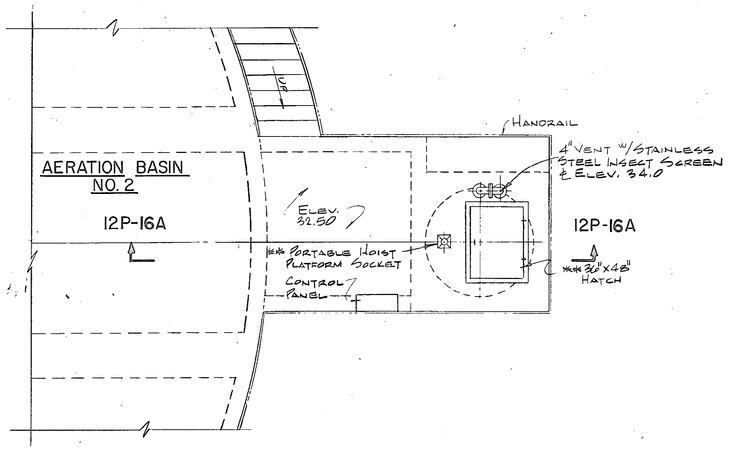
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
AS NOTED

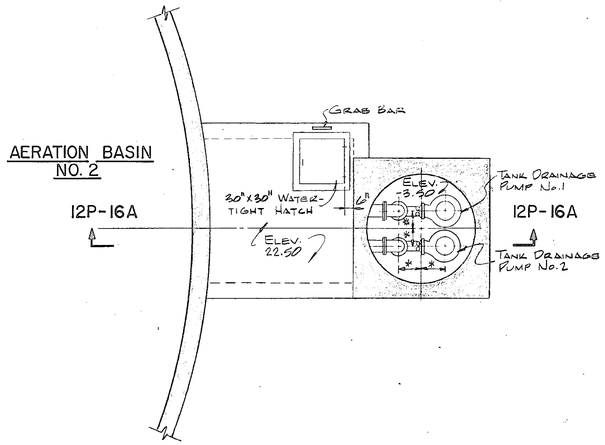
AERATION BASINS - ALTERNATE II
CARROUSEL PROCESS
PARTIAL TOP PLAN AND SECTION

SHEET 12P-15
OF SHEETS
PROJECT NO. 2815

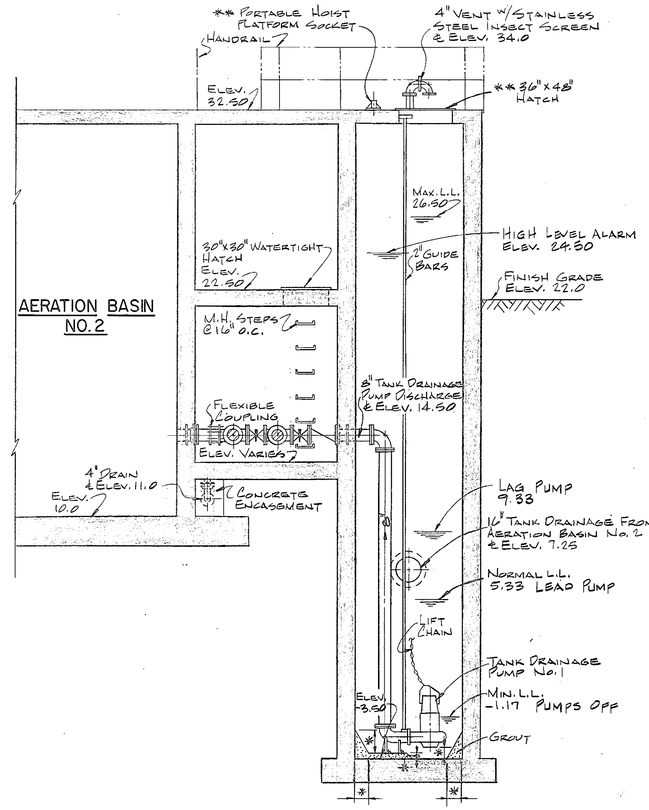
RECORD



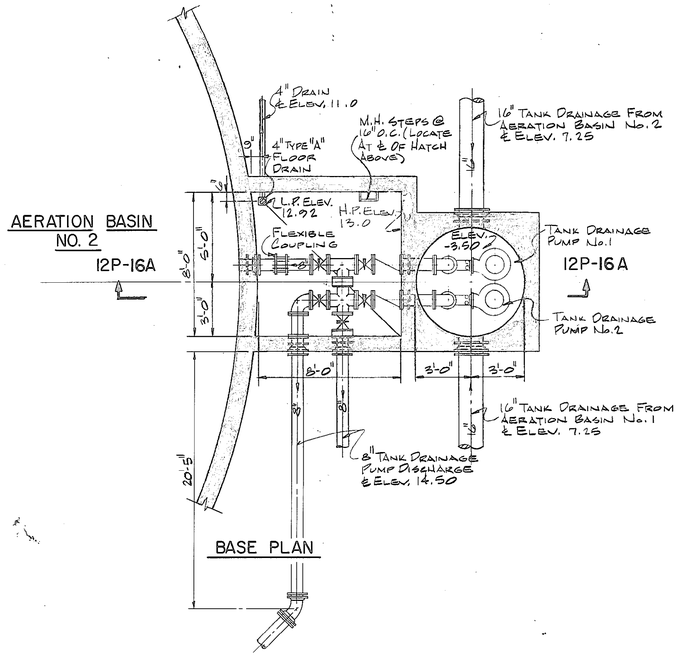
TOP PLAN



INTERMEDIATE PLAN AT ELEV. 23.0



SECTION 12P-16A
12P-16



BASE PLAN

NOTE:
SEE SHT. No. 150-3 FOR CONTINUATION OF OUTSIDE PIPING.

** SEE MFR's. DRAWINGS FOR DETAILS
* TO BE DETERMINED BY EQUIPMENT MFR.

51-003-068

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

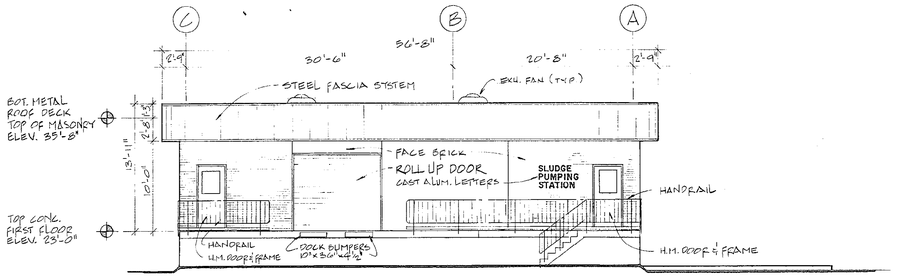
SCALE
1/4"=1'-0"

AERATION BASINS - ALTERNATE II
DRAINAGE PUMPING STATION
PLANS AND SECTION

SHEET 12P-16
OF SHEETS
PROJECT NO 2815

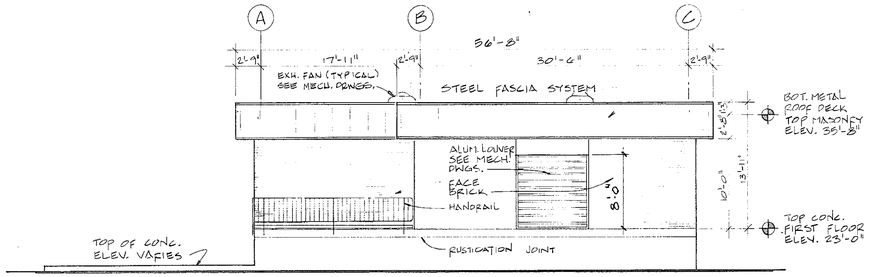
RECORD

BRUNING 44-132 68716



EAST ELEVATION

SCALE: 1/8" = 1'-0"

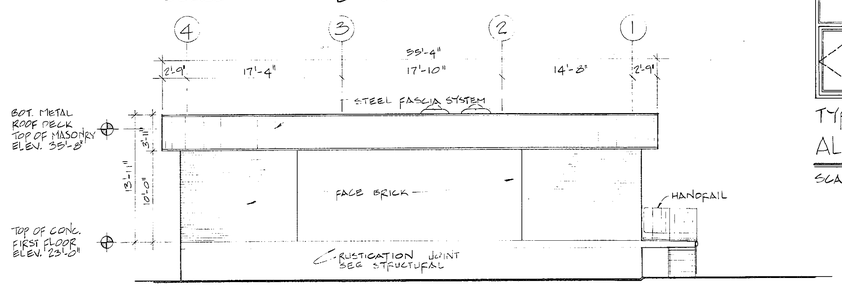


WEST ELEVATION

SCALE: 1/8" = 1'-0"

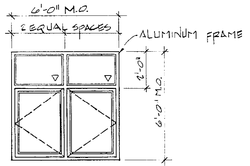
NORTH ELEVATION

SCALE: 1/8" = 1'-0"



SOUTH ELEVATON

SCALE: 1/8" = 1'-0"



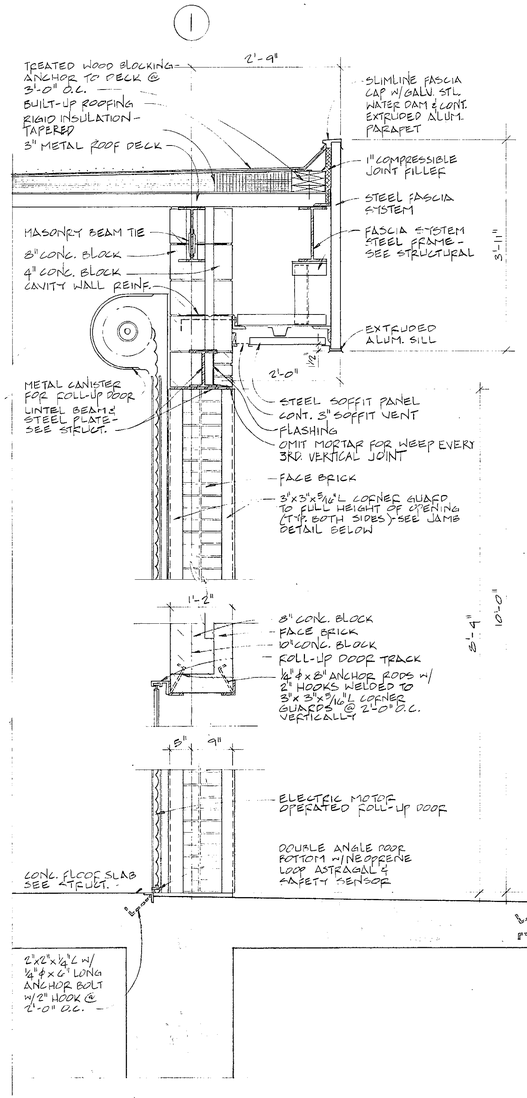
TYPE (A)

ALUM. CASEMENT WINDOW

SCALE: 1/4" = 1'-0"

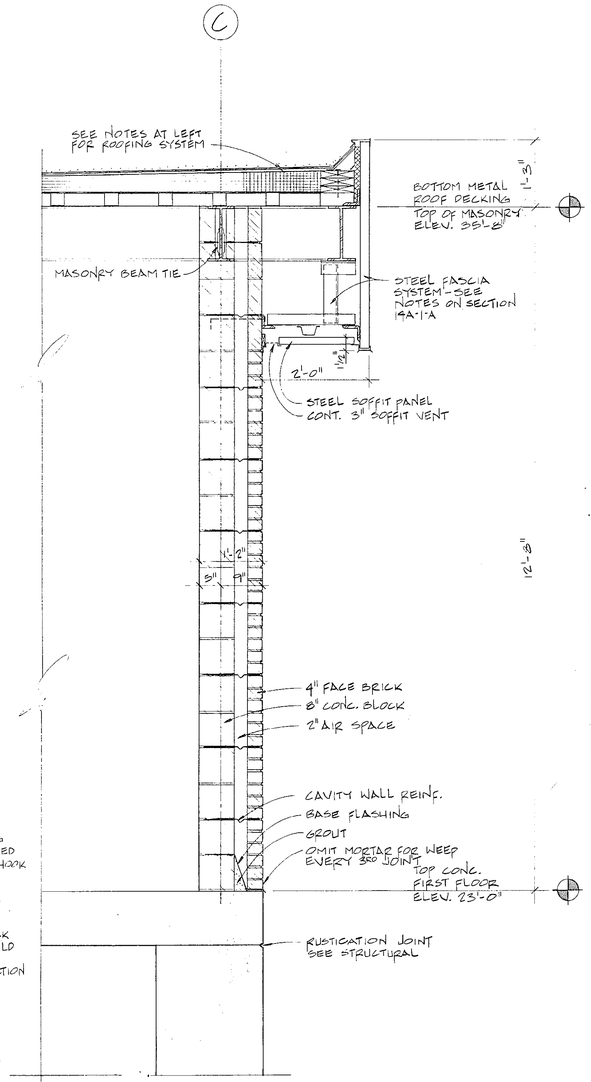
GLAZING LEGEND

▽ = 1" INSULATING GLASS
(1/4" CLEAR TEMPERED PLATE INSIDE)
(1/2" AIR SPACE)
(1/4" TINTED TEMPERED PLATE OUTSIDE)



SECTION 14A-1-A

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



SECTION 14A-1-B

SCALE 3/4" = 1'-0"

51-003-069

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED CJB
DRAWN JDH
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

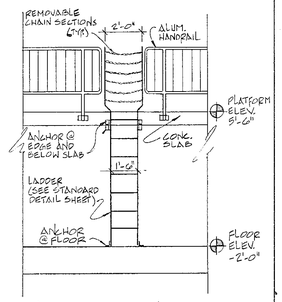
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
AS NOTED

SLUDGE PUMPING STATION
ELEVATIONS AND WALL SECTIONS

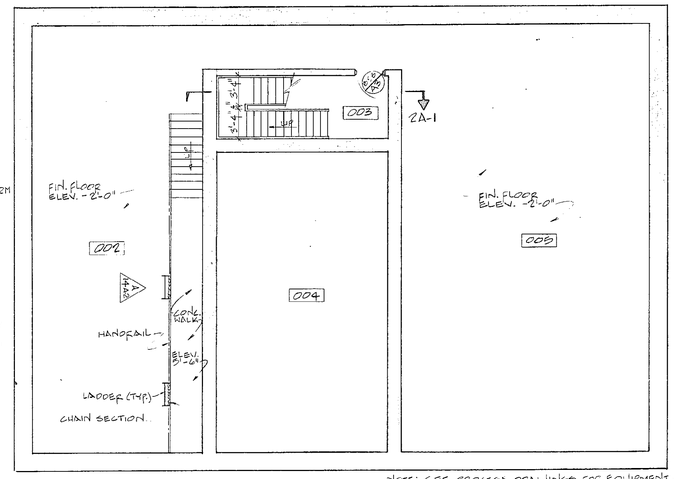
SHEET 14A-1
OF SHEETS
PROJECT NO. 2815

RECORD



4 14A-1 ELEVATION

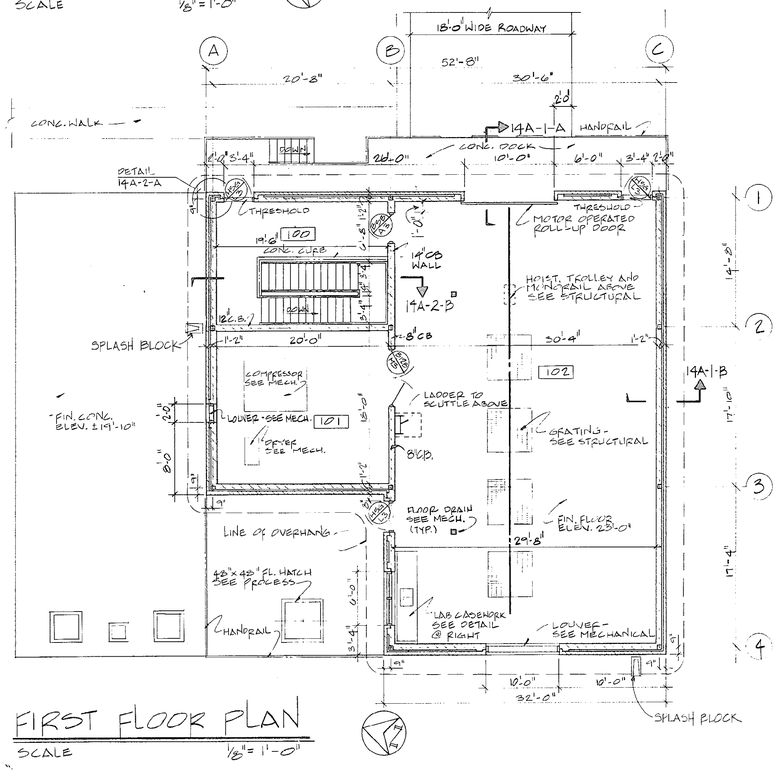
SCALE: 1/4"=1'-0"



NOTE: SEE PROCESS DRAWINGS FOR EQUIPMENT & PIPING SIZE & LOCATIONS. SEE MECHANICAL DRAWINGS FOR FLOOR DRAINS & EQUIPMENT.

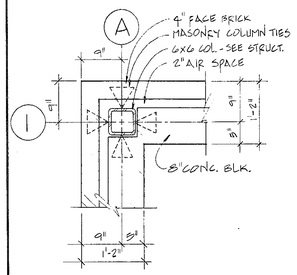
BASEMENT PLAN

SCALE 1/8"=1'-0"



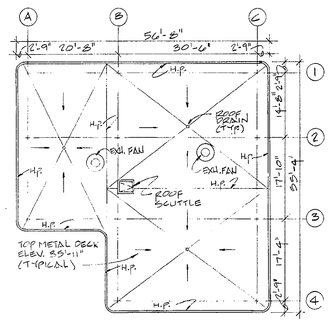
FIRST FLOOR PLAN

SCALE 1/8"=1'-0"



DETAIL 14A-2-A

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

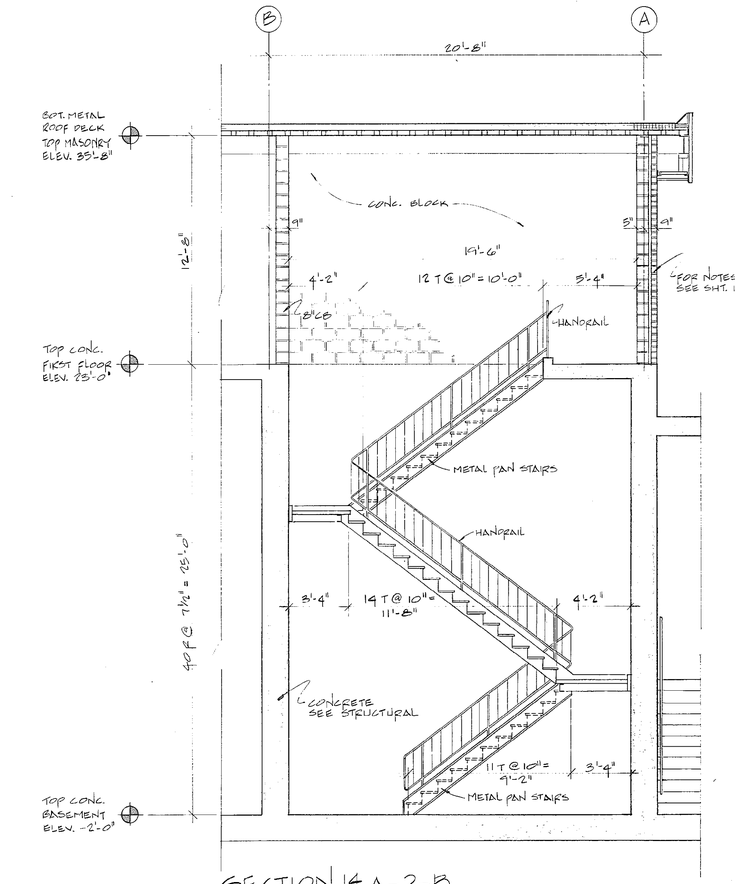


ROOF PLAN

SCALE 1/16"=1'-0"

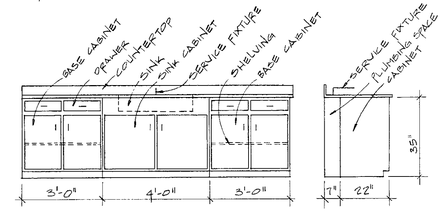
ROOF DRAIN AND LOW POINT OF RIGID ROOF INSULATION = ELEV. 32'-1 1/8" MINIMUM
H.P. = HIGH POINT OF RIGID ROOF INSULATION = 36'-3 1/2"
TAPER ROOF INSULATION TO 1/8" PER FOOT SLOPE ±

HOIST & TROLLEY SCHEDULE FOR MONORAIL	
TYPE	CAPACITY
STANDARD HEADROOM MOTORIZED PARALLEL MOUNTED TROLLEY NEMA TYPE I WIRE ROPE HOIST	2 TON 4,000 POUND CLASS "C" MODERATE SERVICE 7/16" ROPE
LIFT IN FEET	HOIST SPEED
40' HOIST & TROLLEY PUSH BUTTON PENDANT TO HANG 2'-0 ABOVE FLOOR	2 SPEED 16 F.P.M. MAXIMUM
MOTOR	TROLLEY
2 H.P., 460 VOLT, 3ϕ	PUSH TYPE W/6½" DIA. WHEELS



SECTION 14A-2-B

SCALE 1/4"=1'-0"



ELEVATION SECTION

LAB CASEWORK DETAIL

SCALE: 3/8"=1'-0"

NOTES:
1. PLUMBING SPACE TO BE COVERED W/ CLOSURE PANEL.
2. SINK SHALL BE 26"x17"x7½" DOUBLE BOWL, ACID RESISTANT
3. PROVIDE 4' MIN. HIGH COUNTER CURB AT WALLS.
4. COUNTERTOP SHALL BE 1½" ACID RESISTANT WITH INTEGRAL SINK.
5. SEE SPECIFICATIONS FOR DETAILS OF CONSTRUCTION.
6. SEE MECHANICAL DRAWINGS FOR SERVICE FIXTURE.

ROOM FINISH SCHEDULE						
ROOM NO.	DESCRIPTION	FLOOR	BASE	WALLS	CEILING	REMARKS
002	METERING ROOM	CONC.	CONC.	CONC.	CONC.	
003	STAIR	CONC.	CONC.	CONC./CB	STRUCT.	I.F. FLOORING ON TREADS
004	WET WELL	CONC.	CONC.	CONC.	CONC.	
005	PUMP ROOM	CONC.	CONC.	CONC.	CONC.	
100	VESTIBULE	I.F.	CB	CB	STRUCT.	SEE NOTE #1
101	COMPRESSOR ROOM	I.F.	CB	CB	STRUCT.	SEE NOTE #1
102	EQUIPMENT ROOM	I.F.	CB	CB	STRUCT.	SEE NOTE #1

NOTE #1
PAINT CB. BASE DIFFERENT COLOR THAN CB. WALLS
INSTALL I.F. ON ALL EQUIPMENT CURBS AND BASES

51-003-670

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED CJB
DRAWN JDH
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

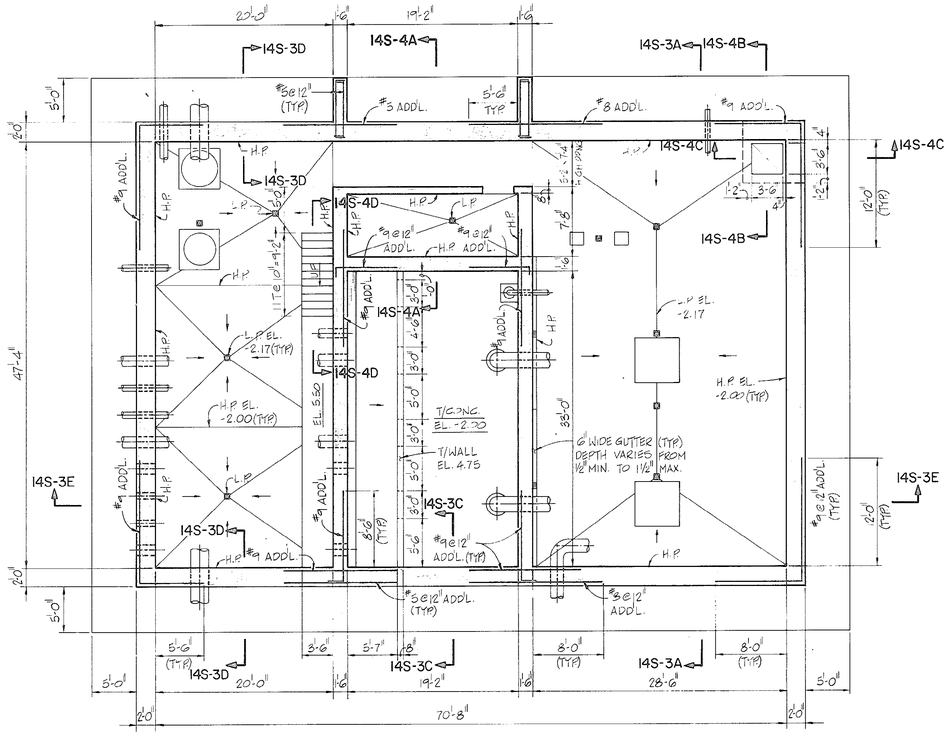
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
AS NOTED

SLUDGE PUMPING STATION
PLAN VIEWS, SECTION, AND SCHEDULE

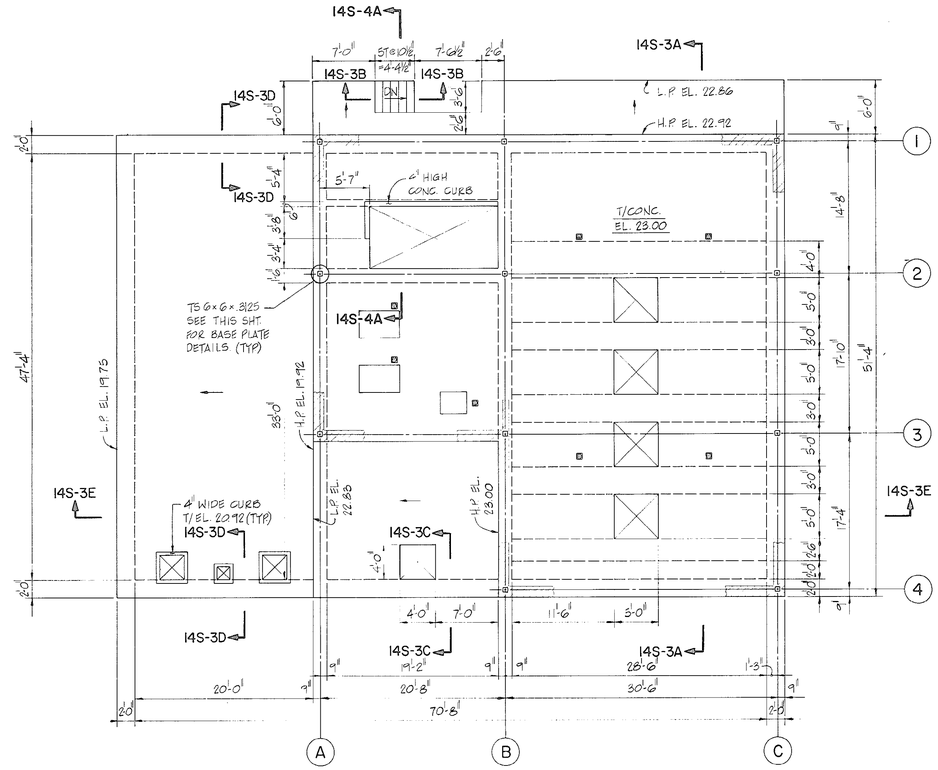
SHEET 14A-2
OF SHEETS
PROJECT NO. 2815

RECORD



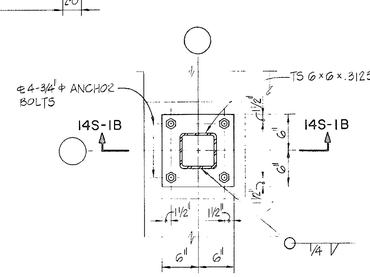
BASEMENT PLAN

NOTE: ALL WALLS AND BASEMENT SLAB OF SLUDGE PUMPING STATION SHALL BE WATERPROOFED AGAINST GROUND WATER INFILTRATION. SEE SHEET XS-1 FOR DETAILS.

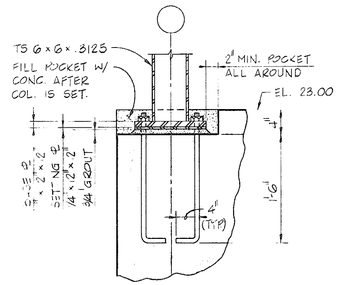


FIRST FLOOR PLAN

NOTE: SEE MECH. DWGS. FOR SIZE AND LOCATION OF MECH. OPENINGS IN SLAB.



DETAIL 14S-1A



SECTION 14S-1B

TYPICAL BASE PLATE DETAILS (11 REQ'D.)

1" = 1'-0"

5!-093-07!!

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

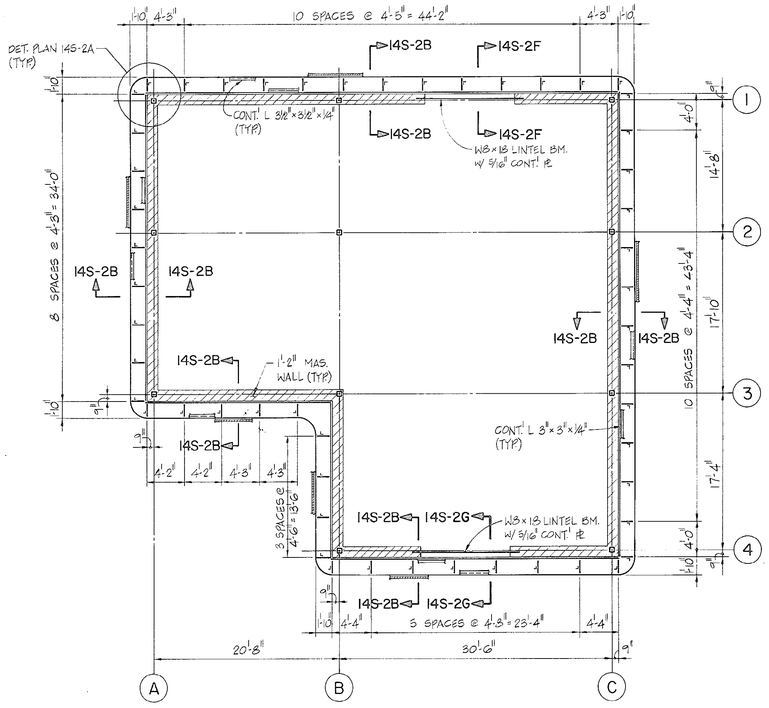
SCALE
1/8" = 1'-0" U.N.

SLUDGE PUMPING STATION
BASEMENT AND FIRST FLOOR PLANS

SHEET 14S-1
OF SHEETS
PROJECT NO. 2815

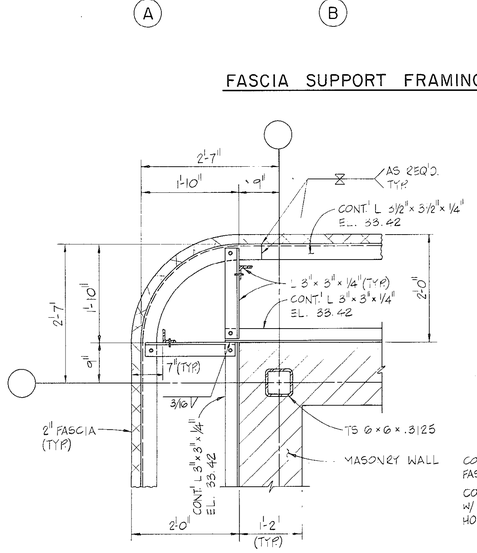
RECORD

BRUNING 44-132 68716

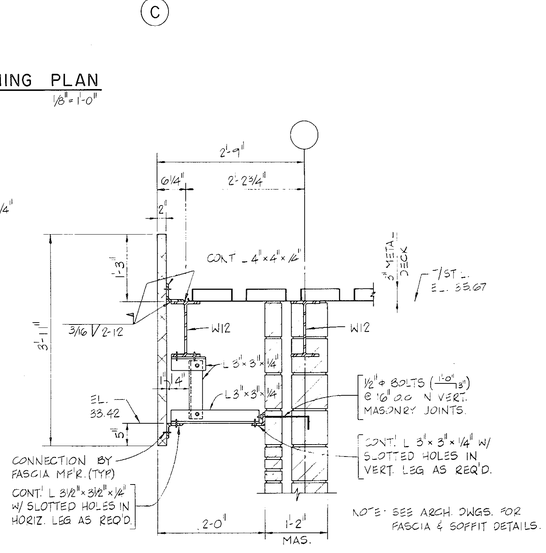


FASCIA SUPPORT FRAMING PLAN

1/8"=1'-0"



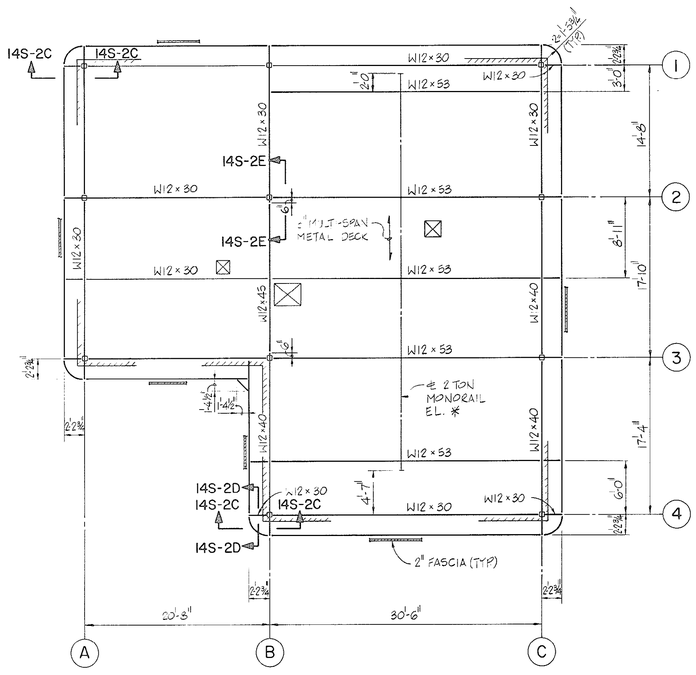
DETAIL PLAN 14S-2A(TYP)



SECTION 14S-2B(TYP)

ROOF FRAMING PLAN

(T/ST'L. EL. 33.67 U.N.) 1/8"=1'-0"



ROOF NOTES:

METAL DECK SHALL BE 3" DEEP, RIBBED TYPE WITH FLAT BOTTOM PLATE, 18/18 GAGE PAINTED STEEL (F_S = 20,000 PS.I.).

METAL DECK SHALL HAVE A MIN. "S" OF 0.97 $IN.^3$ AND SHALL BE CAPABLE OF SUPPORTING 55 P.S.F. TOTAL SUPERIMPOSED LOAD.

DECK MANUFACTURER SHALL PROVIDE DECK REINFORCING AT OPENINGS AS REQUIRED.

METAL DECK SHALL BE WELDED TO SUPPORTS AND LONGITUDINAL JOINTS OF DECK SHALL BE WELDED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

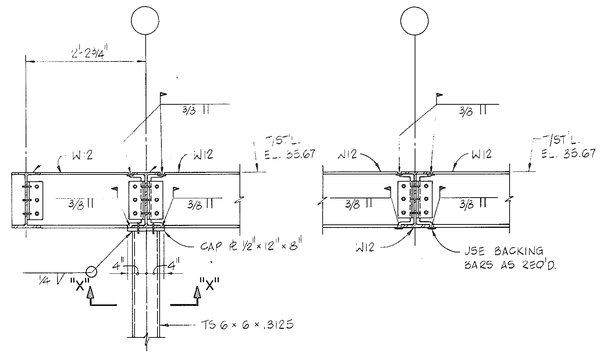
ALL LOOSE LINTELS FOR 14" MASONRY WALLS SHALL CONSIST OF ONE L 6"x6"x5/16" AND TWO L'S 6"x3½"x5/16" (JJL "6").

ALL COLUMNS ARE TS 6x6x.3125.

ALL ROOF FRAMING MEMBERS SHALL BE W12x20 UNLESS NOTED.

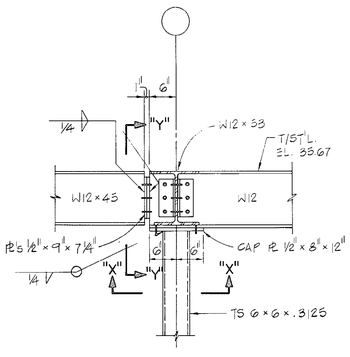
SEE MANUFACTURER'S DRAWINGS FOR MONORAIL CONNECTION TO BOTTOM OF W12x53.

SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF ROOF OPENINGS.

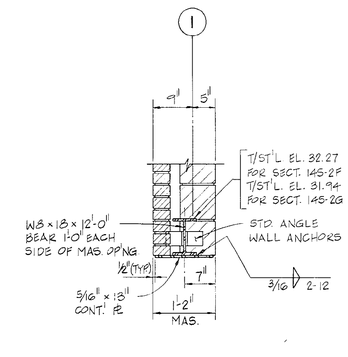


SECTION 14S-2C
(TYP. 5 PLACES)

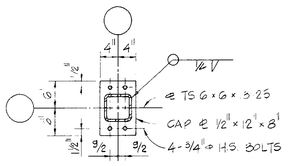
SECTION 14S-2D
(TYP. 10 PLACES)



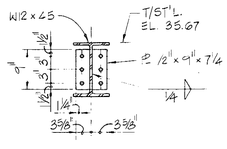
SECTION 14S-2E
(TYP. 2 PLACES)



SECTION 14S-2F
SECTION 14S-2G



VIEW "X-X"



VIEW "Y-Y"

51-003-072

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

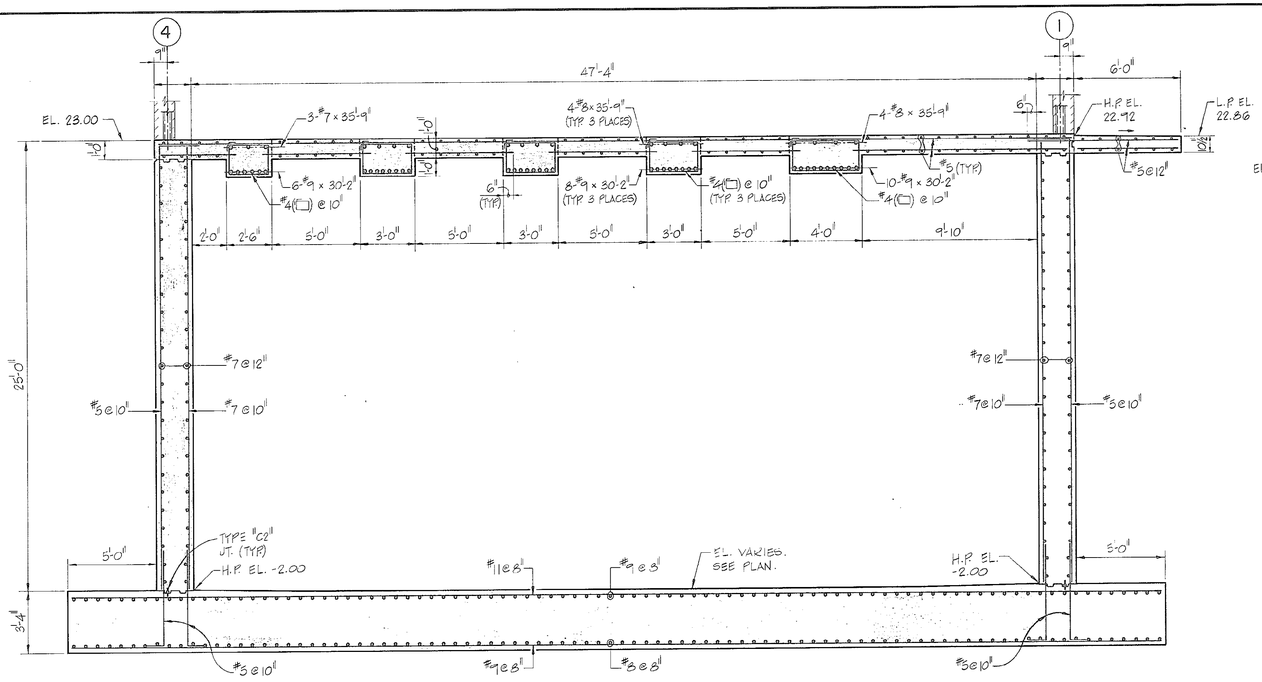
SCALE
¾"=1'-0" U.N.

SLUDGE PUMPING STATION
FASCIA SUPPORT AND ROOF
PLANS AND SECTIONS

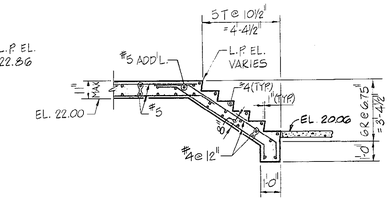
SHEET 14S-2
OF SHEETS
PROJECT NO. 2815

RECORD

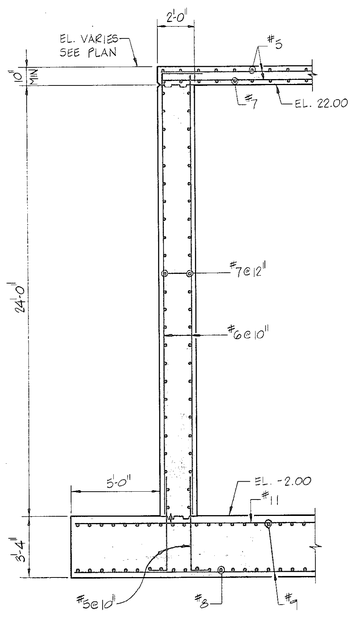
DRAWING 44-132 69716



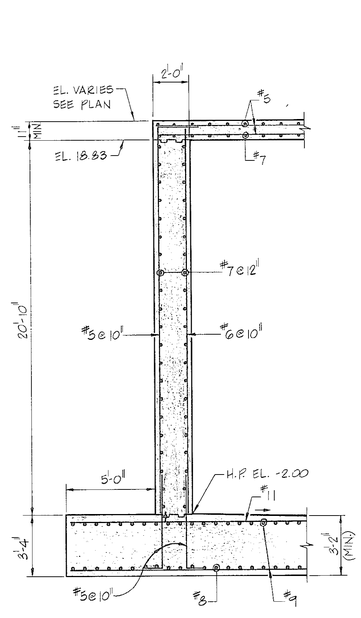
SECTION 14S-3A



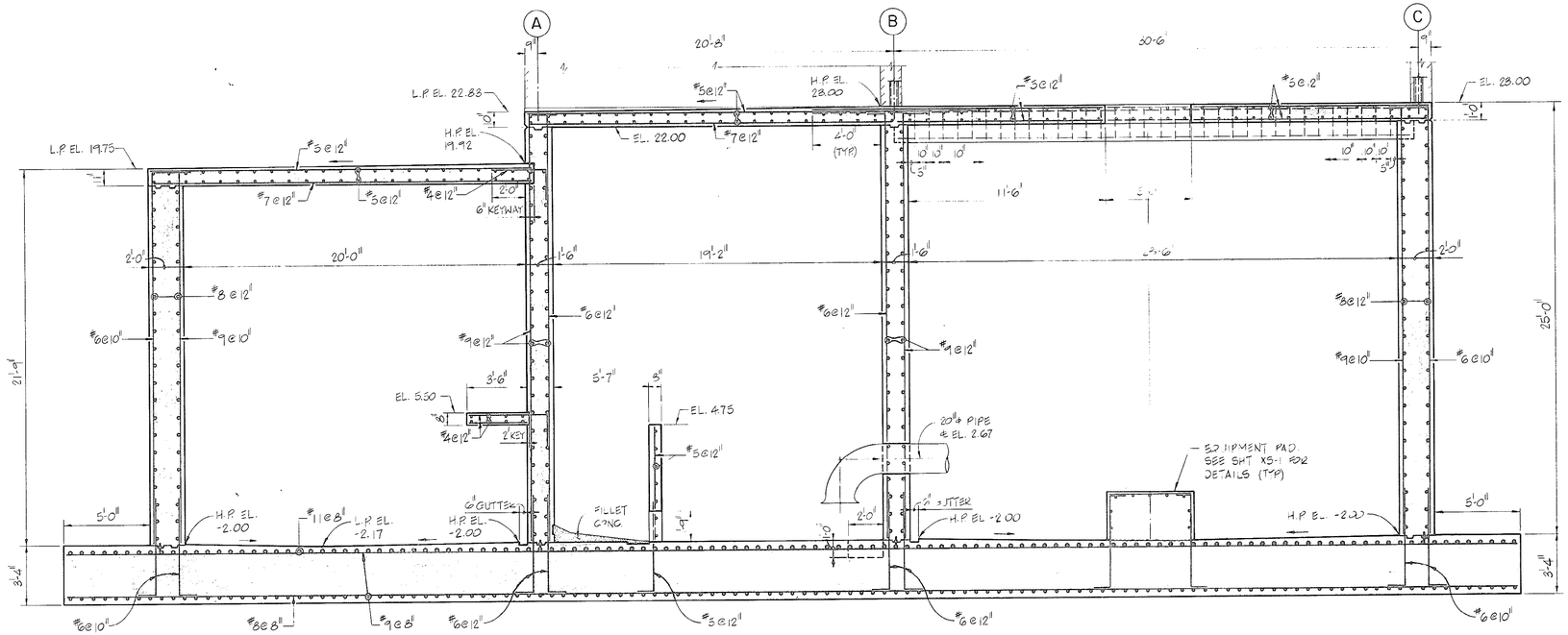
SECTION 14S-3B



SECTION 14S-3C



SECTION 14S-3D



NOTE: PROVIDE STAGGER LAPS (1.7 LD), AS REQUIRED.

SECTION 14S-3E

51-003-073

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

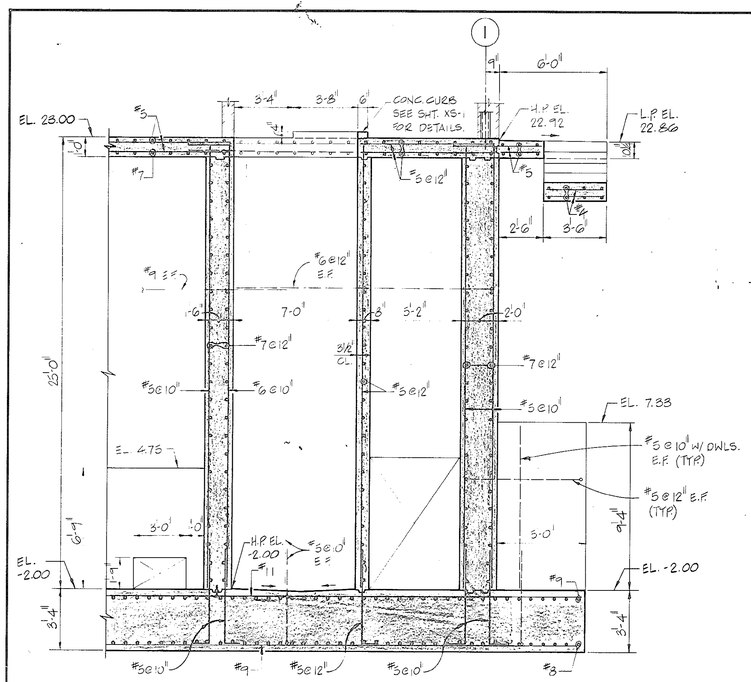
SCALE
1/4" = 1'-0"

SLUDGE PUMPING STATION
SECTIONS

SHEET 14S-3
OF SHEETS
PROJECT NO. 2815

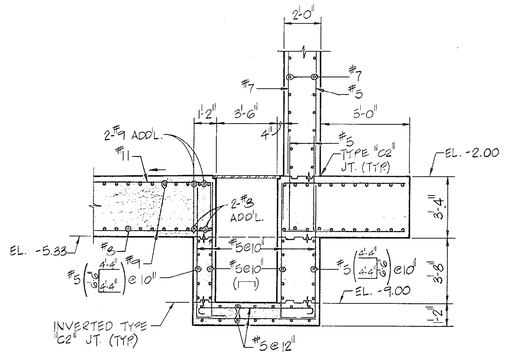
RECORD

BRUNING 44-132 88716

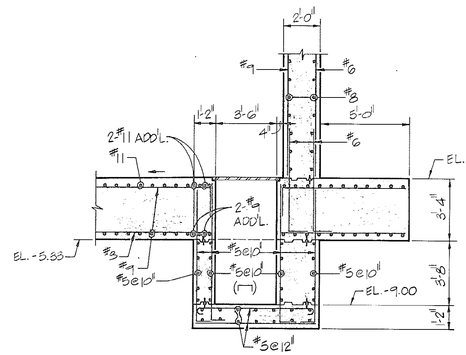


SECTION 14S-4A

SECTION 14S-4A



SECTION 14S-4B



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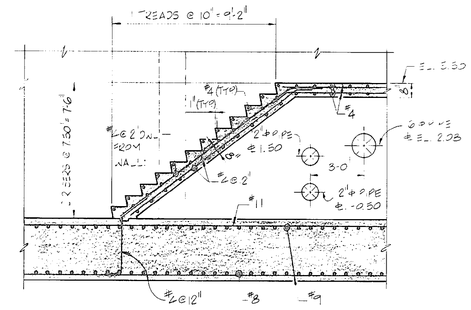


SECTION 14S-4D

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED J.S.
DRAWN R.W.H.
CHECKED H.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4" = 1'-0"

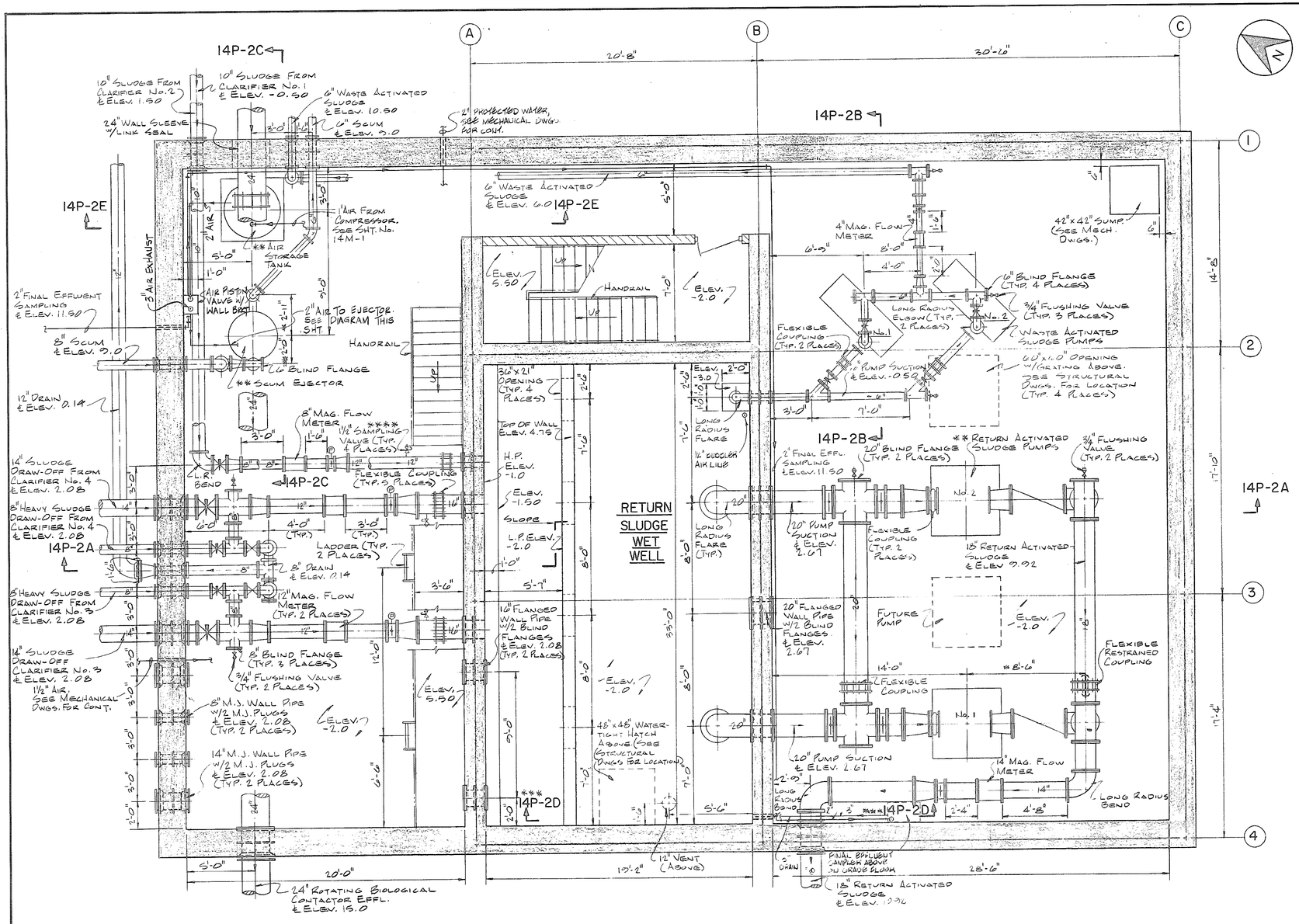
SLUDGE PUMPING STATION
SECTIONS

SHEET 14S-4
OF SHEETS
PROJECT NO. 2815

51-003-074

RECORD

BRUNING 44-132-6876



BASE PLAN

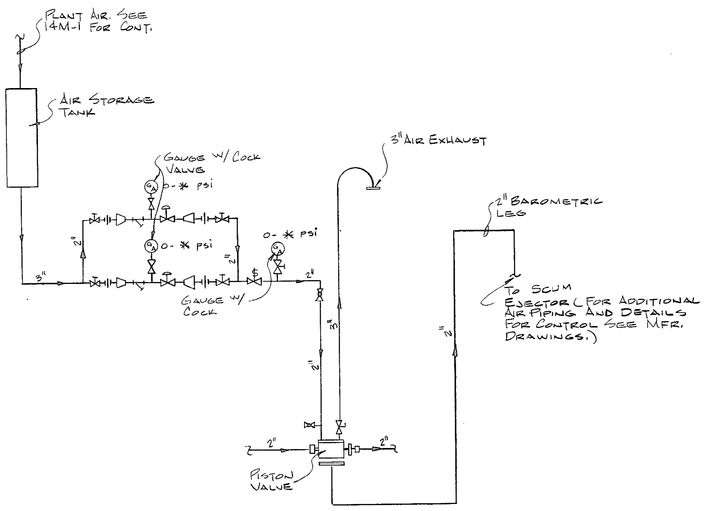


DIAGRAM OF AIR CONNECTION TO SCUM EJECTOR
SCALE: NONE

NOTE:
FOR CONTINUATION OF PIPING OUTSIDE OF BUILDING SEE SHT. No. 150-9

**** FOUR - 1½" SAMPLING VALVES SHALL BE LOCATED ABOVE SINK AND CONNECT. PIPES SHALL BE INSTALLED TO THE POINT INDICATED ON BASE PLAN.
*** THIS SECTION TAKEN FROM FLOOR ABOVE.
** SEE MFR'S. DRAWINGS FOR DETAILS
* TO BE DETERMINED BY EQUIPMENT MFR.

51-003-0715

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

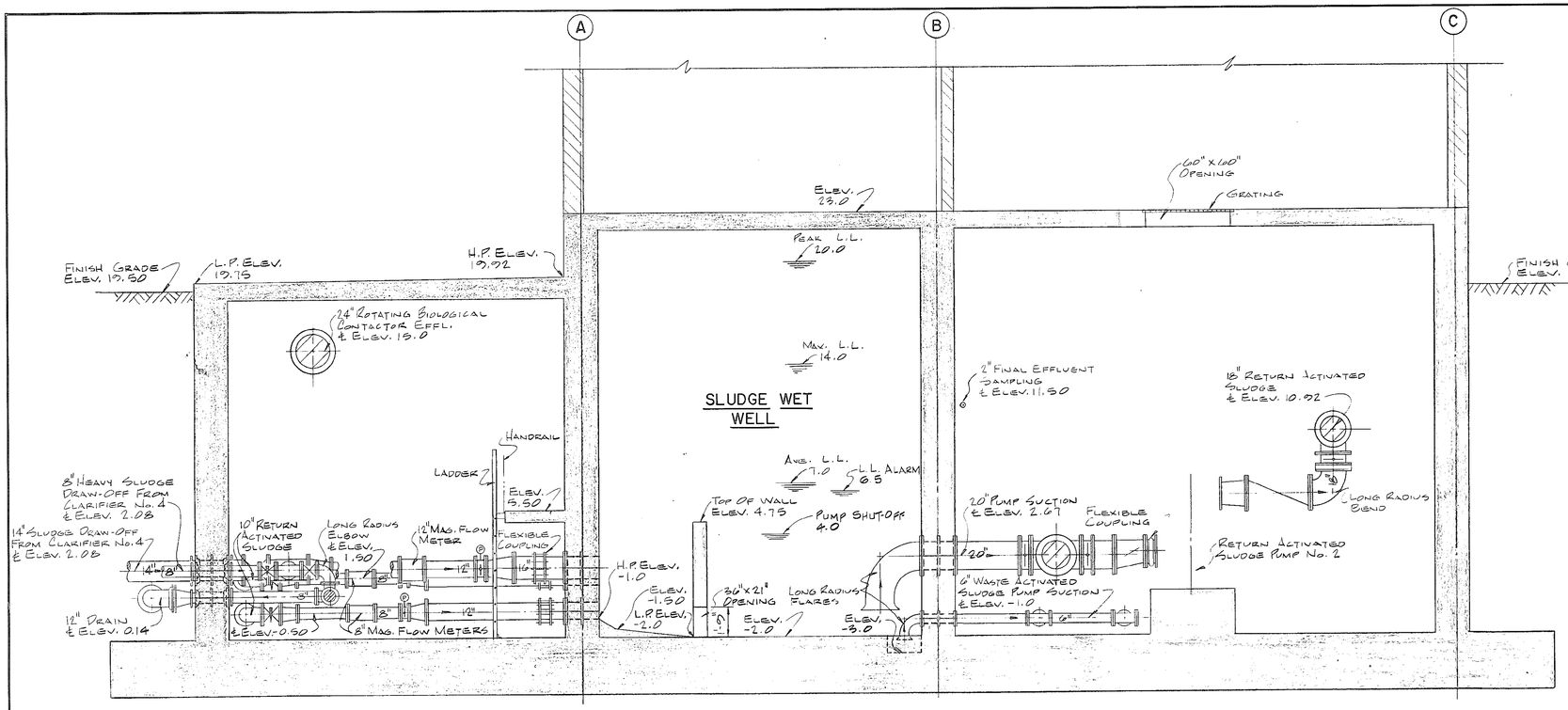
SCALE
¼"=1'-0"

SLUDGE PUMPING STATION
BASEMENT PLAN

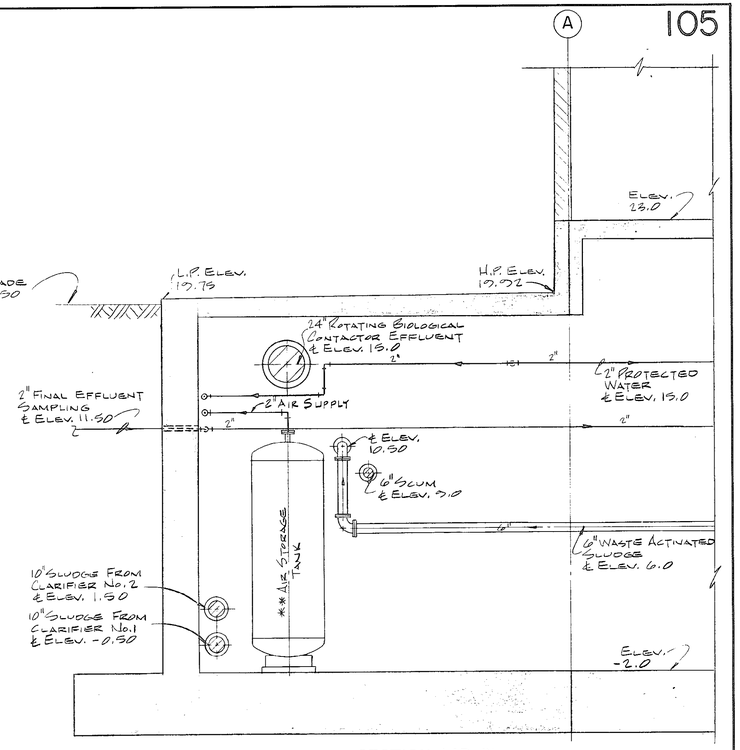
SHEET 14P-1
OF SHEETS
PROJECT NO. 2815

RECORD

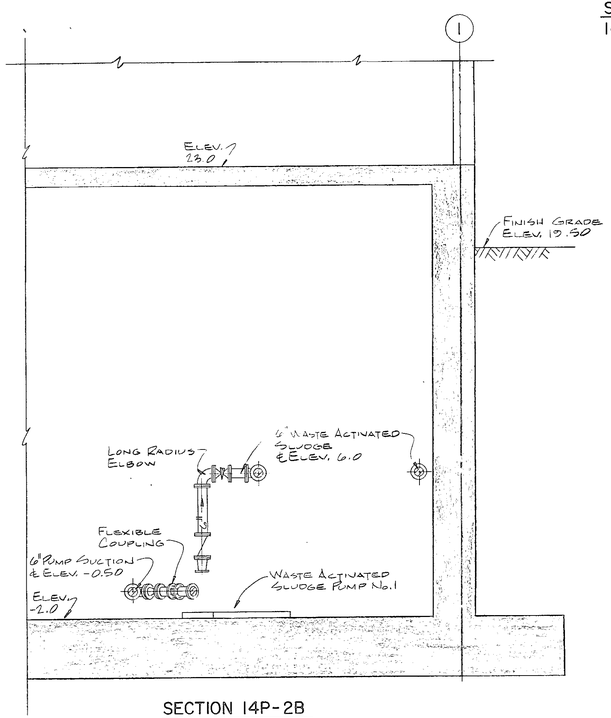
BRUNING 44-132 69716



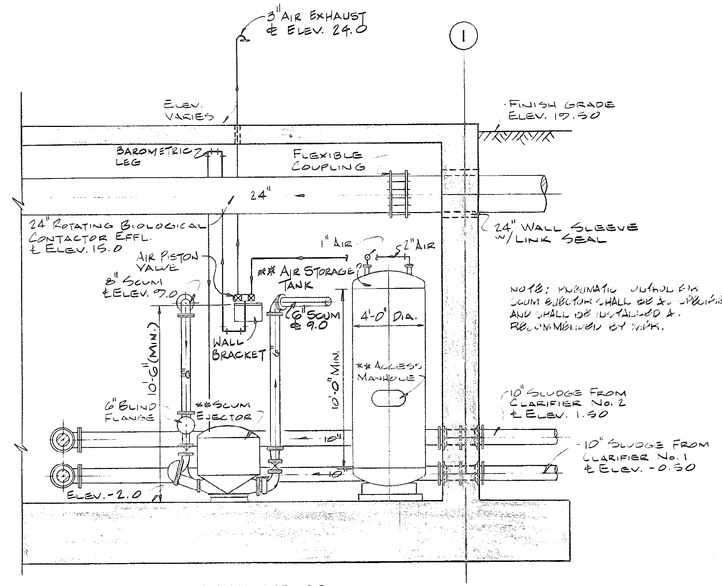
SECTION 14P-2E
14P-1



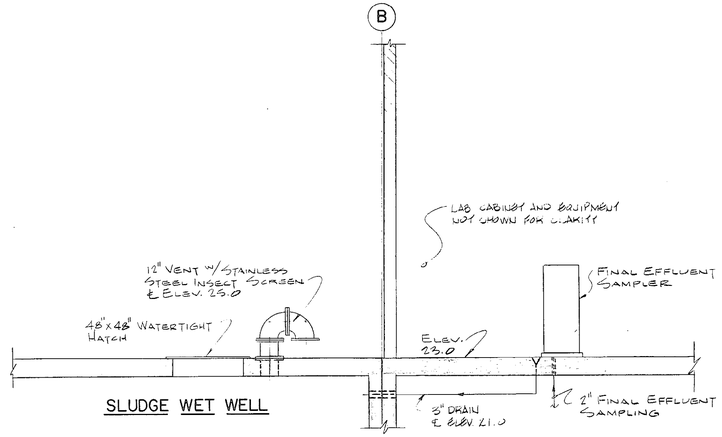
SECTION 14P-2A
14P-1



SECTION 14P-2B
14P-1



SECTION 14P-2C
14P-1



SECTION 14P-2D
14P-1

** SEE MFR'S. DRAWINGS FOR DETAILS

51-003-071S

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

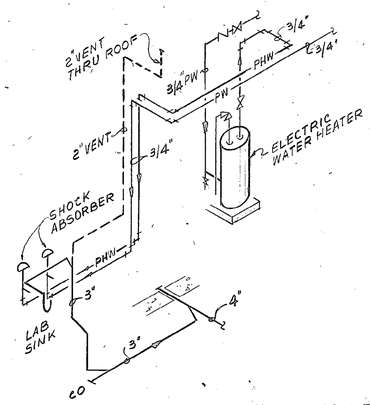
SCALE
1/4" = 1'-0"

SLUDGE PUMPING STATION
SECTIONS

SHEET 14P-2
OF SHEETS
PROJECT NO 2815

RECORD

BRUNING 44-132-68716

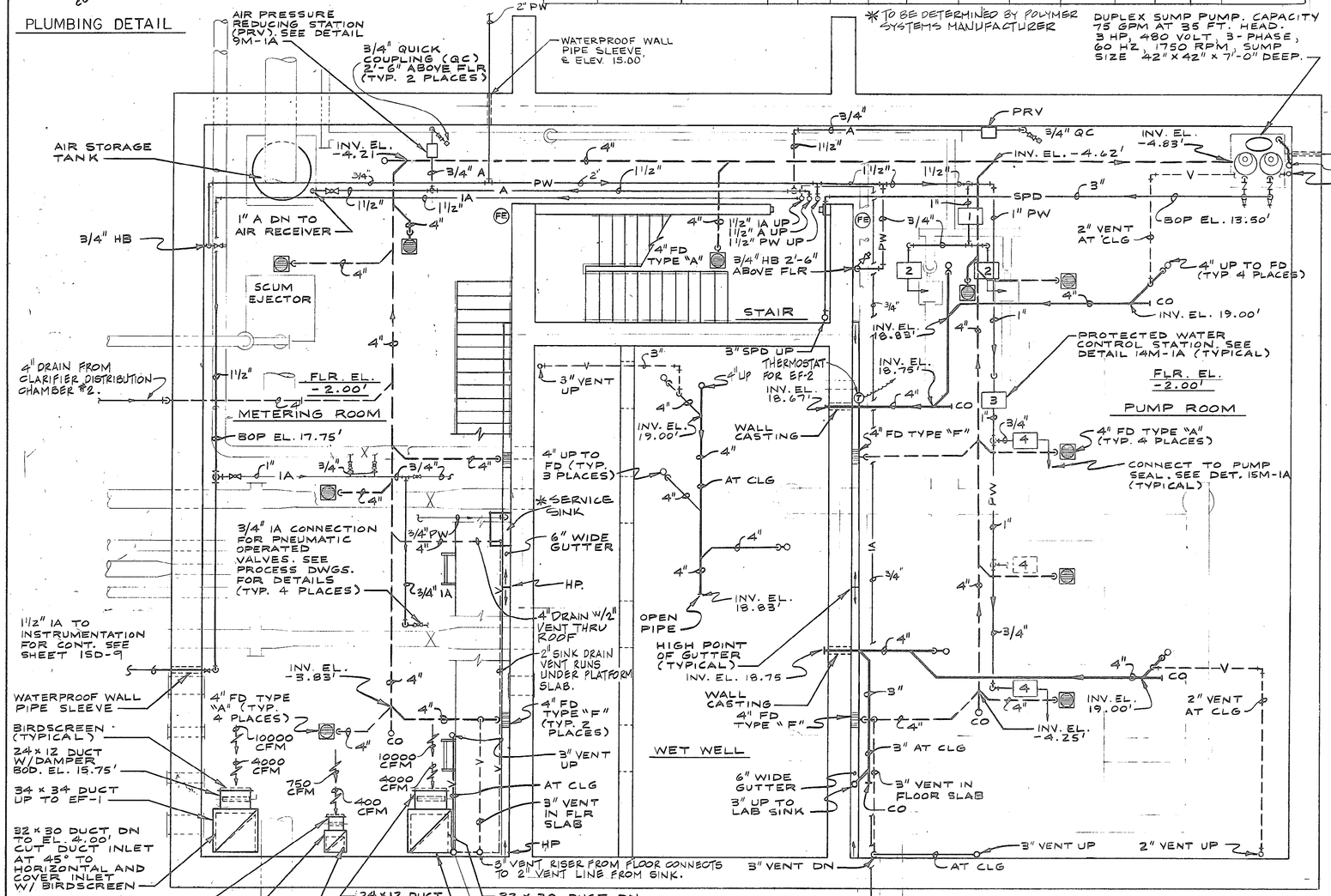


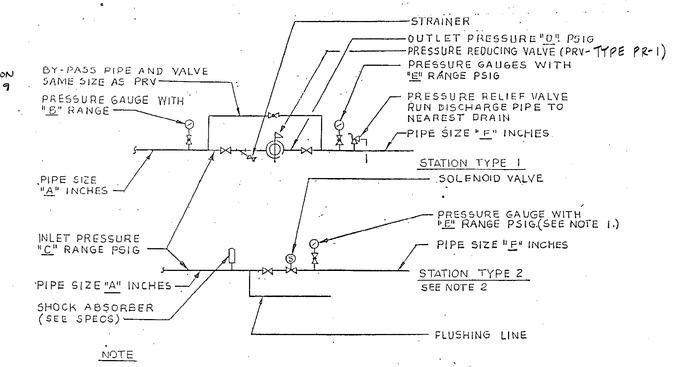
PLUMBING DETAIL

SYMBOL	LOCATION	SERVING	QTY.	TYPE	FLOW GPM	"A" INLET PIPE SIZE	"B" INLET PRESS. GAUGE RANGE (PSIG)	"C" INLET PRESS. RANGE	"D" OUTLET PRESS. REQ'D. (PSIG)	"E" OUTLET PRESS. GAUGE RANGE (PSIG)	"F" OUTLET PIPE SIZE	RELIEF VALVE MIN. SIZE	RELIEF VALVE SET PRESS (PSIG)	REMARKS
8	PROCESS CENTER	PLANT EFFLUENT BOOSTER PUMP	1	2	5	3/4"	—	45	—	0-60	3/4"	—	—	
9	PROCESS CENTER	SPRAY WATER PUMP	1	1	5	3/4"	0-160	60-100	48	0-60	3/4"	3/4"	53	
10	PROCESS CENTER	SPRAY WATER PUMP	1	2	5	3/4"	—	48	—	0-60	3/4"	—	—	
11	SLUDGE HAND'G. BLDG.	THICKENER RECIRC. PUMP	1	1	5	3/4"	0-160	60-100	75	0-100	3/4"	3/4"	80	
12	SLUDGE HAND'G. BLDG.	THICKENER RECIRC. PUMP	1	2	5	3/4"	—	75	—	0-100	3/4"	—	—	
13	SLUDGE HAND'G. BLDG.	THICKENER REAER. PUMP	1	1	2	3/4"	0-160	60-100	40	0-60	3/4"	3/4"	45	
14	SLUDGE HAND'G. BLDG.	THICKENER REAER. PUMP	1	2	1	3/4"	—	40	—	0-60	3/4"	—	—	
15	SLUDGE HAND'G. BLDG.	POLYMER SYSTEM	1	1	125	3"	0-160	60-100	60	0-100	3"	*	65	

PROTECTED WATER CONTROL STATIONS

SYMBOL	LOCATION	SERVING	QTY	TYPE	FLOW GPM	"A" INLET PIPE SIZE	"B" INLET PRESS. GAUGE RANGE (PSIG)	"C" INLET PRESS. RANGE	"D" OUTLET PRESS. REQ'D (PSIG)	"E" OUTLET PRESS. GAUGE RANGE (PSIG)	"F" OUTLET PIPE SIZE	RELIEF VALVE MIN SIZE	RELIEF VALVE SET PRESS (PSIG)	REMARKS
1	SLUDGE PUMPING STATION	WASTE ACTIVATED SLUDGE PUMPS	1	1	10	1"	0-160	60-100	44	0-60	1"	3/4"	49	
2	"	"	2	2	5	3/4"	—	44	—	0-60	3/4"	—	—	
3	"	RETURN ACTIVATED SLUDGE PUMPS	1	1	10	1"	0-160	60-100	35	0-60	1"	3/4"	40	
4	"	"	2	2	5	3/4"	—	35	—	0-60	3/4"	—	—	
5	"	AIR COMPRESSOR	1	1	10	1"	0-160	60-100	25	0-60	1"	3/4"	30	
6	"	"	2	2	5	3/4"	—	25	—	0-60	3/4"	—	—	
7	PROCESS CENTER	PLANT EFFL. BOOSTER PUMP	1	1	5	3/4"	0-160	60-100	45	0-60	3/4"	3/4"	50	

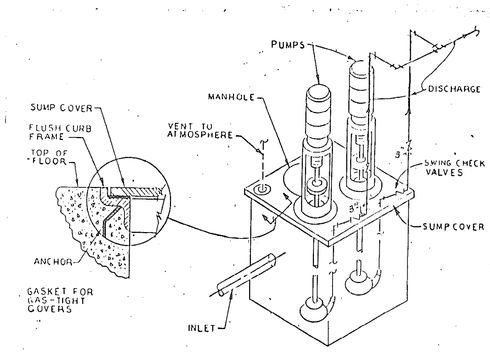




NOTE

1. STATIONS TYPE 2 SHALL BE LOCATED ABOVE THE PUMP THEY SERVE AND WITHIN EASY REACH FROM FLOOR, FOR SERVICING AND OPERATION

DETAIL 14M-1A
PROTECTED WATER CONTROL STATION



DETAIL 14M-1B
DUPLEX SUMP PUMP
NOT TO SCALE

*SERVICE SINK SHALL BE VITREOUS GLAZED EARTHENWARE WITH WALL HANGER AND FITTINGS FOR PROTECTED WATER.

Note:
FOR COMPRESSED AIR FLOW DIAGRAM SEE SHEET 9M-1.

51-003-0779

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED EK, PK
DRAWN BMW, PK
CHECKED RH
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

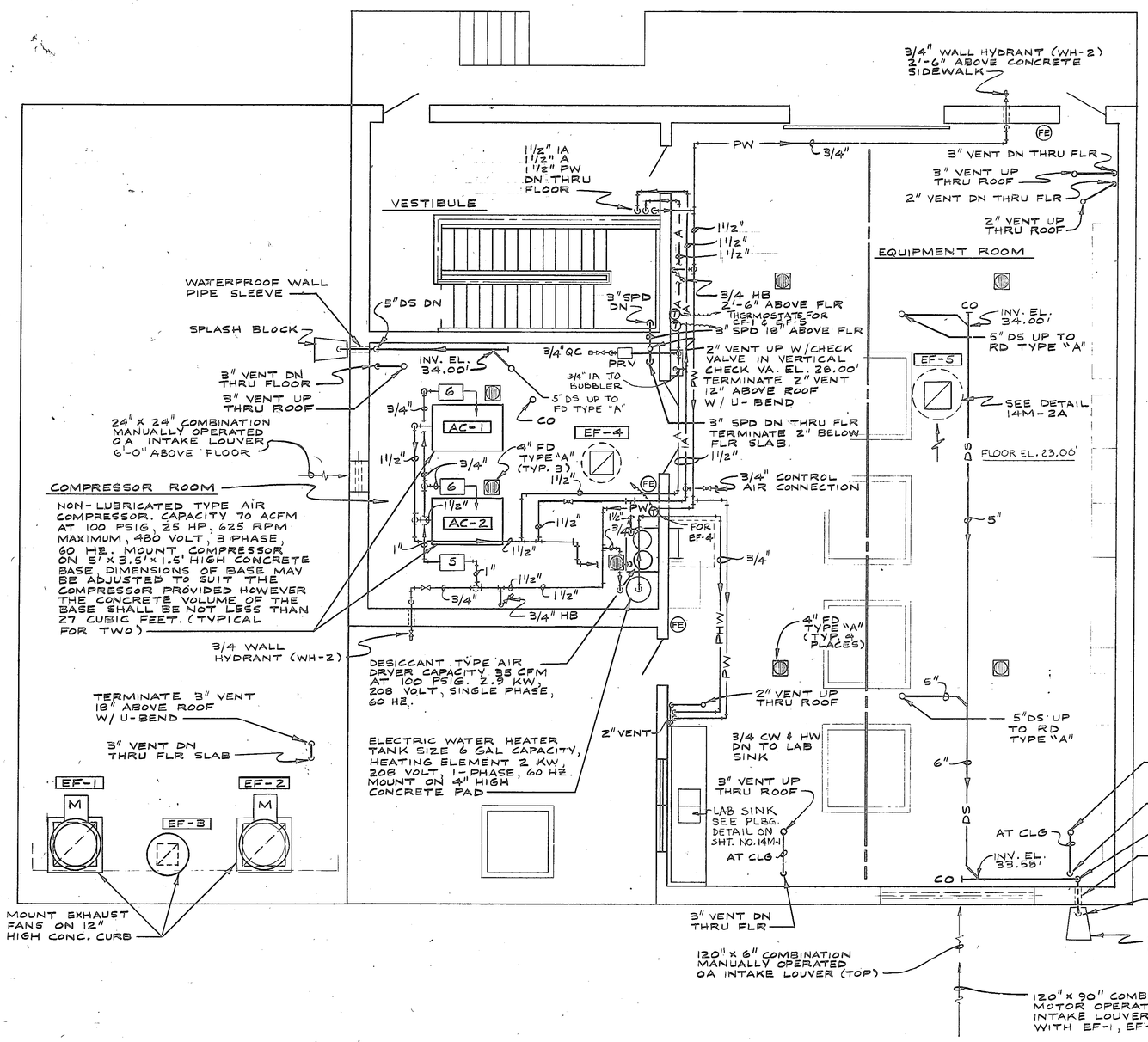
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

SLUDGE PUMPING STATION
BASEMENT PLAN
VENTILATION AND PLUMBING

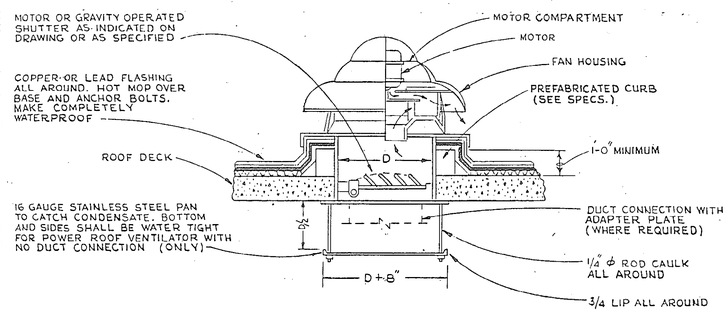
SHEET 14M-1
OF SHEETS
PROJECT NO 2815

RECORD



FAN SCHEDULE											
SYMBOL	LOCATION	TYPE	RPM	EXT SP IN WG.	CAPACITY CFM STD AIR	OUTLET VEL. FPM	WHEEL DIA. IN.	DRIVE	MOTOR HP	MOTOR TYPE	REMARKS
EF-1	SLUDGE PUMPING STATION	PRE	650	3/4	800	1347	33	BELT	5	L4-4M	TWO SPEED FAN W. GRAVITY SHUTTER
			1200		14,000	2357					
EF-2	SLUDGE PUMPING STATION	PRE	650	3/4	800	1347	33	BELT	5	L4-4M	TWO SPEED FAN WITH GRAVITY SHUTTER
			1200		14,000	2357					
EF-3	SLUDGE PUMPING STATION	PRV	1140	1/2	1150	—	18	DIRECT	1/6	S-2	WITH GRAVITY SHUTTER
EF-4	SLUDGE PUMPING STATION	PRV	1140	3/8	1276	—	13	DIRECT	1/6	S-2	WITH GRAVITY SHUTTER
EF-5	SLUDGE PUMPING STATION	PRV	900	3/8	3245	—	18	BELT	1/2	L4-3D	WITH GRAVITY SHUTTER
EF-6	SLUDGE HANDLING BUILDING	PROP	1550	1/4	678	—	12	DIRECT	1/20	S-2	WITH GRAVITY SHUTTER
EF-7	SLUDGE HANDLING BUILDING	PRV	860	3/8	1240	—	14	BELT	1/4	S-2	WITH GRAVITY SHUTTER
EF-8	SLUDGE HANDLING BUILDING	PRV	1410	3/8	2415	—	14	BELT	3/4	L4-3D	WITH GRAVITY SHUTTER
EF-9	PROCESS CENTER	PRV	860	3/8	1100	—	14	BELT	1/4	S-2	WITH GRAVITY SHUTTER
EF-10	PROCESS CENTER	PRV	1230	3/8	2033	—	14	BELT	1/2	L4-3D	WITH GRAVITY SHUTTER
EF-11	PROCESS CENTER	PRV	1230	3/8	2033	—	14	BELT	1/2	L4-3D	WITH GRAVITY SHUTTER

NOTES: PRE - POWER ROOF EXHAUSTER, PRV - POWER ROOF VENTILATOR, PROP - PROPELLOR FAN.



DETAIL 14M-2A
POWER ROOF VENTILATOR

NOTES:

(1) SEE SPECIFICATION SECTION 15I FOR EXHAUST FAN CONTROL MODES;
EF-1 & EF-2, CONTROL MODE NO. 2
EF-3, CONTROL MODE NO. 3
EF-4 & EF-5 CONTROL MODE NO. 1

(2) FOR COMPRESSED AIR FLOW DIAGRAM SEE SHEET 9M-1.

S1-003-018

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED PR, EK
DRAWN BMW, PK
CHECKED RH
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

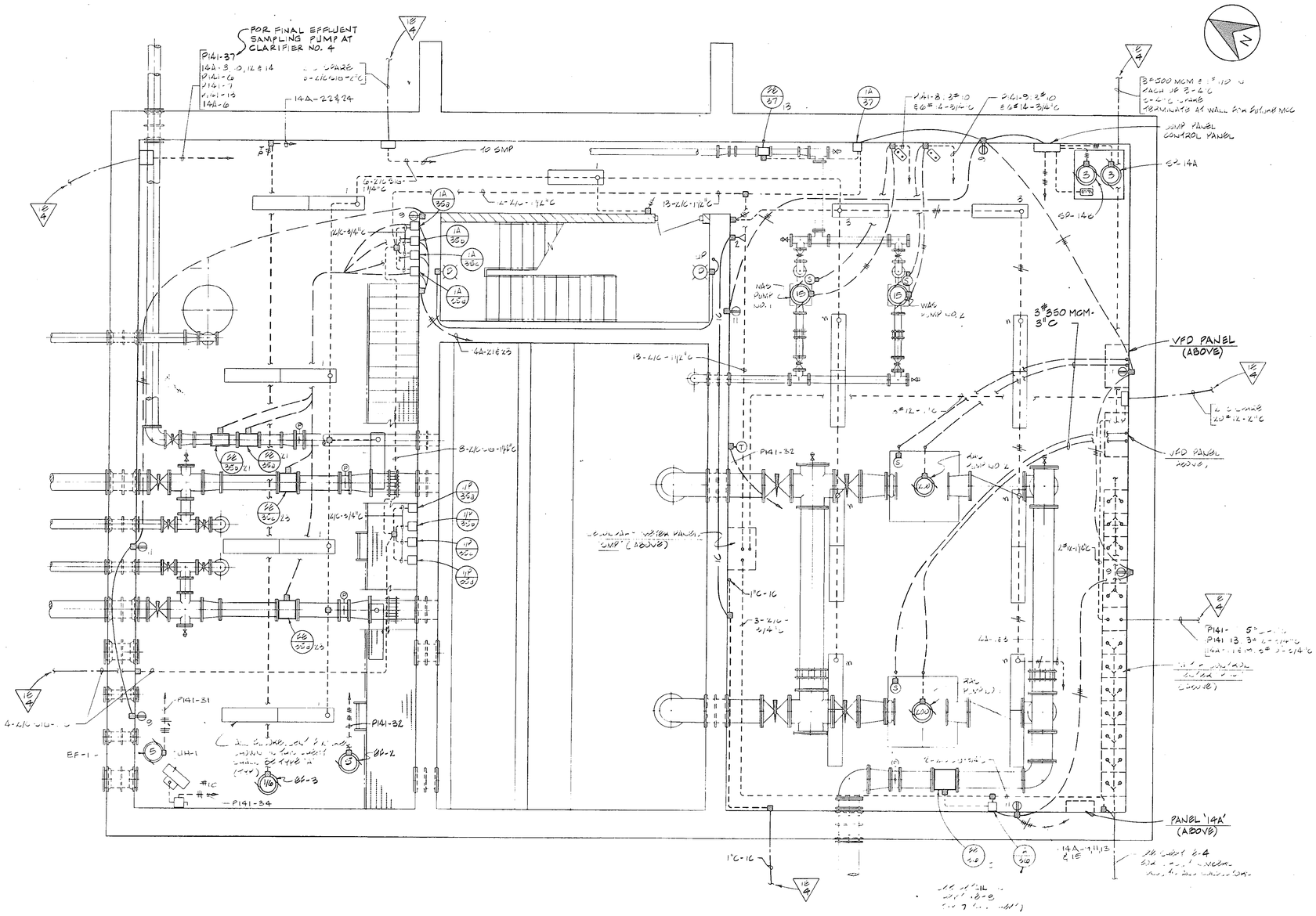
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

SLUDGE PUMPING STATION
GRADE FLOOR PLAN
HEATING, VENTILATING & PLUMBING

SHEET 14M-2 OF SHEETS
PROJECT NO. 2815

RECORD



NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

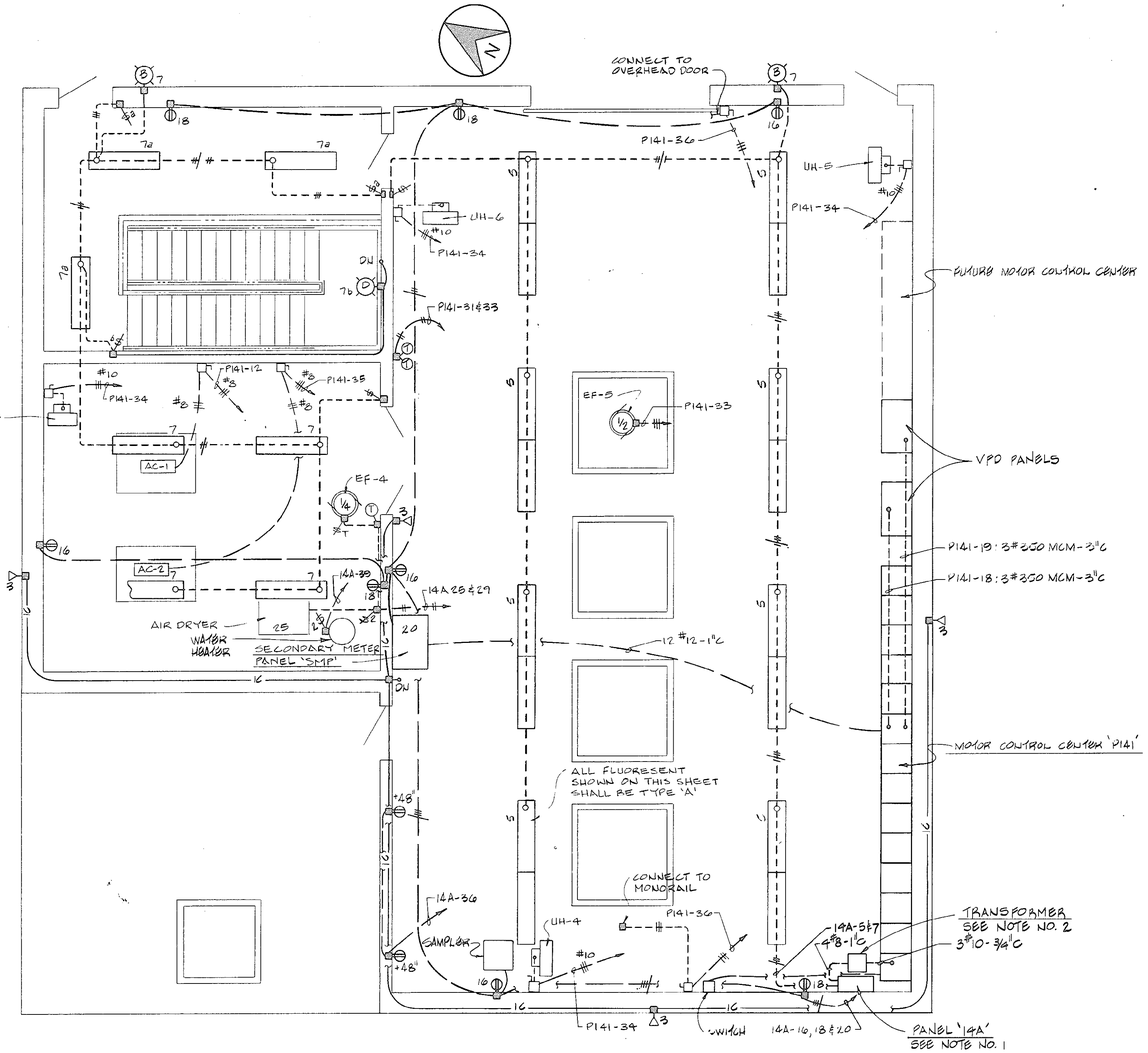
SLUDGE PUMPING STATION
BASEMENT PLAN-ELECTRICAL

SHEET 14E-1
OF SHEETS
PROJECT NO 2815

51-003-079

RECORD

BRUNING 44-132 68716



NOTES:

1. PANEL '14A' SHALL BE 120/208 VOLT 3 PHASE 4 WIRE WITH 50 AMP MAIN BREAKER, 1-2 POLE -20 AMP BREAKER (CKT 25) AND 34-1 POLE 20 AMP FEEDER BREAKERS.
2. 15 KVA TRANSFORMER 480-120/208 VOLT 3 PHASE 60 HZ.

S1-003-030

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

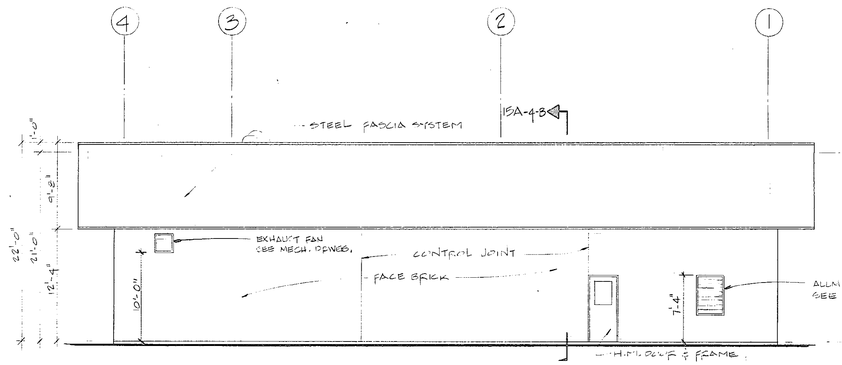
SCALE
1/4" = 1'-0"

SLUDGE PUMPING STATION
FIRST FLOOR—ELECTRICAL

SHEET 14E-2
OF SHEETS
PROJECT NO. 2815

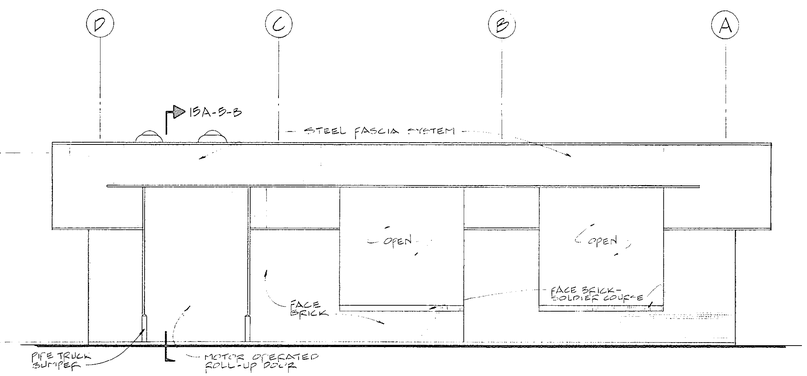
RECORD

BRUNING 44-132 687 16



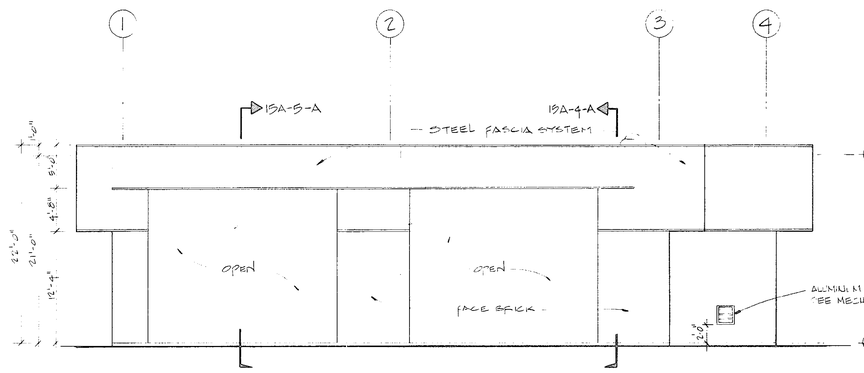
EAST ELEVATION

SCALE: 1/8" = 1'-0"



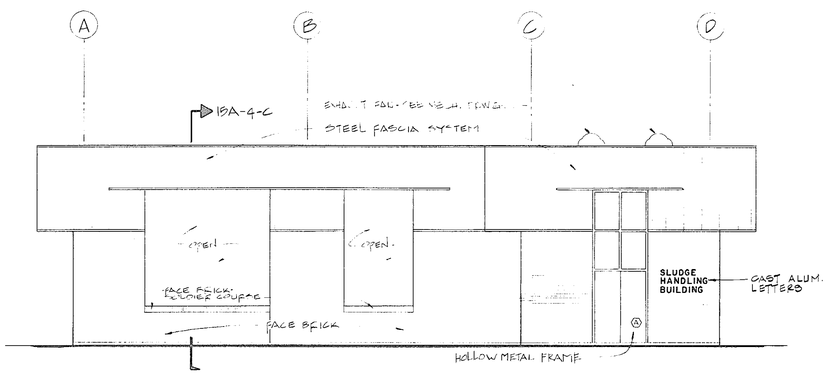
NORTH ELEVATION

SCALE: 1/8" = 1'-0"



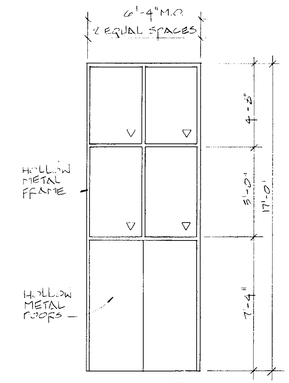
WEST ELEVATION

SCALE: 1/8" = 1'-0"



SOUTH ELEVATION

SCALE: 1/8" = 1'-0"



TYPE (A)

HOLLOW METAL EXTERIOR FRAMING

GLAZING LEGEND

▽ = 1" INSULATED GLASS
1/4" TINTED TEMPERED PLATE OUTSIDE
1/2" AIR SPACE
1/4" TEMPERED PLATE INSIDE

5!-003-081

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED CJB
DRAWN JDH
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

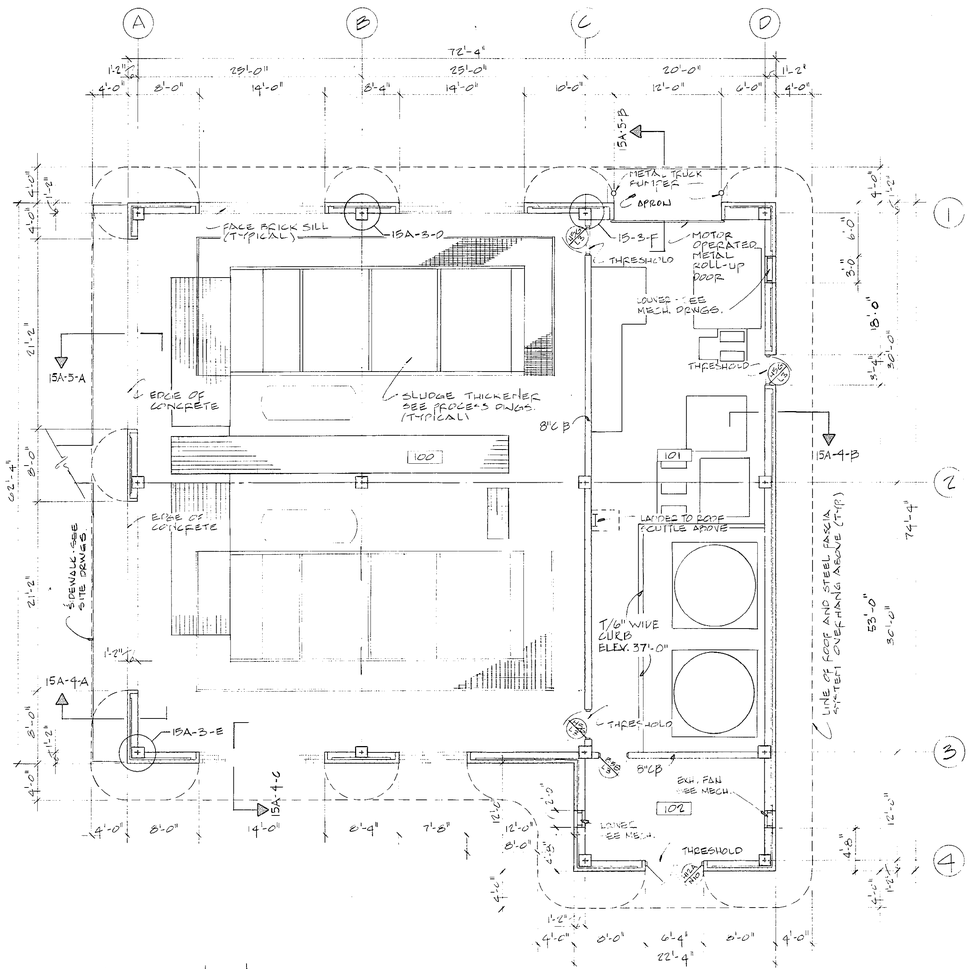
SCALE
AS NOTED

SLUDGE HANDLING BUILDING
ELEVATIONS AND STOREFRONT DETAILS

SHEET 15A-1
OF SHEETS
PROJECT NO. 2815

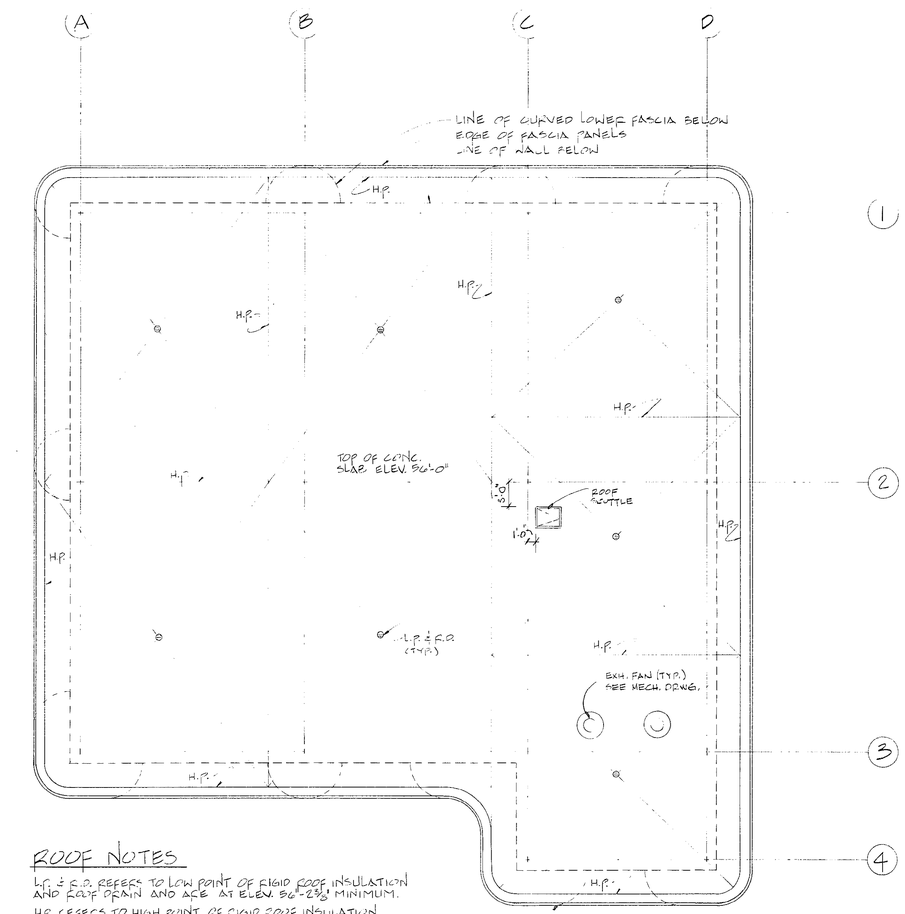
RECORD

BRUNING 44-132 69716



FLOOR PLAN

SCALE: 1/8" = 1'-0"



ROOF NOTES

L.P. & R.D. REFERS TO LOW POINT OF RIGID ROOF INSULATION AND ROOF DRAIN AND ACE AT ELEV. 96'-2 3/8" MINIMUM.

H.P. REFERS TO HIGH POINT OF RIGID ROOF INSULATION AND IS AT ELEVATION 96'-4 1/2".

TAPER RIGID ROOF INSULATION TO 1/4" PER FOOT SLOPE±.

ROOF PLAN

SCALE: 1/8" = 1'-0"

51-003-082

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED CJB
DRAWN JDH
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

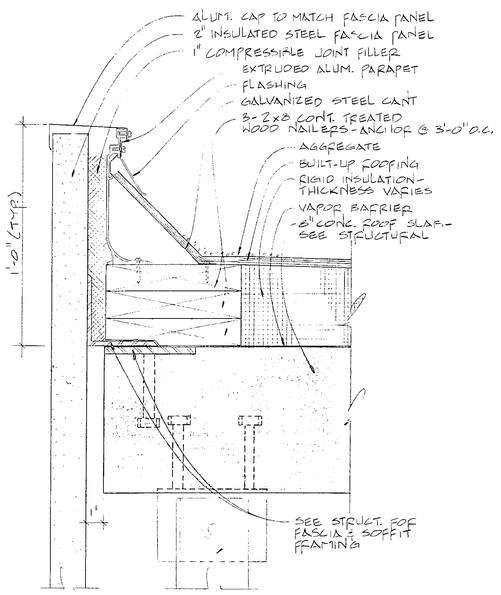
SCALE
AS NOTED

SLUDGE HANDLING BUILDING
FLOOR PLAN AND ROOF PLAN

SHEET 15A-2 OF SHEETS
PROJECT NO. 2815

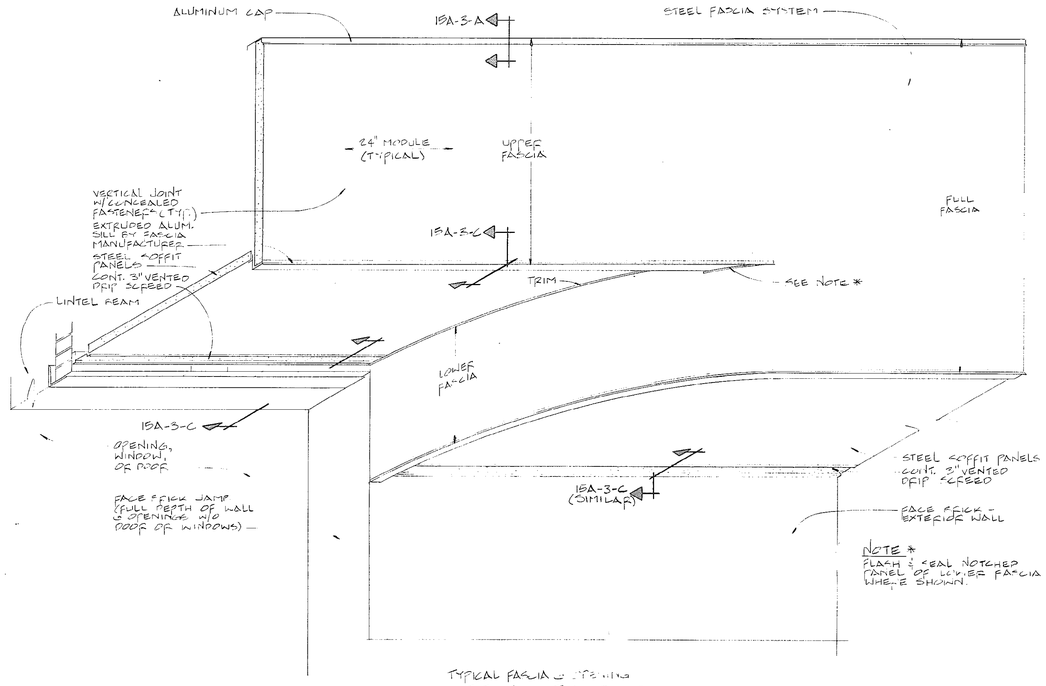
RECORD

BRUNING 44-132 69716



DETAIL 15A-3-A

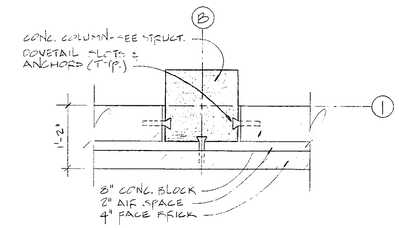
SCALE: 3" = 1'-0"



TYPICAL FASCIA & SOFFITING

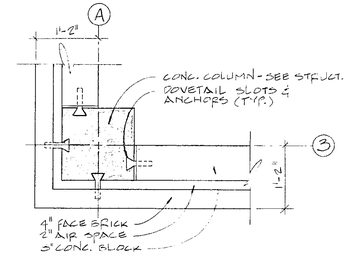
DETAIL 15A-3-B

SCALE: NONE



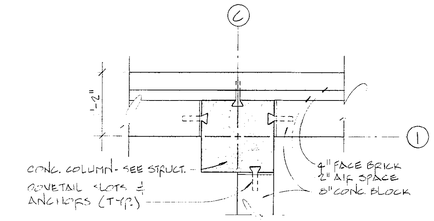
DETAIL 15A-3-D

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



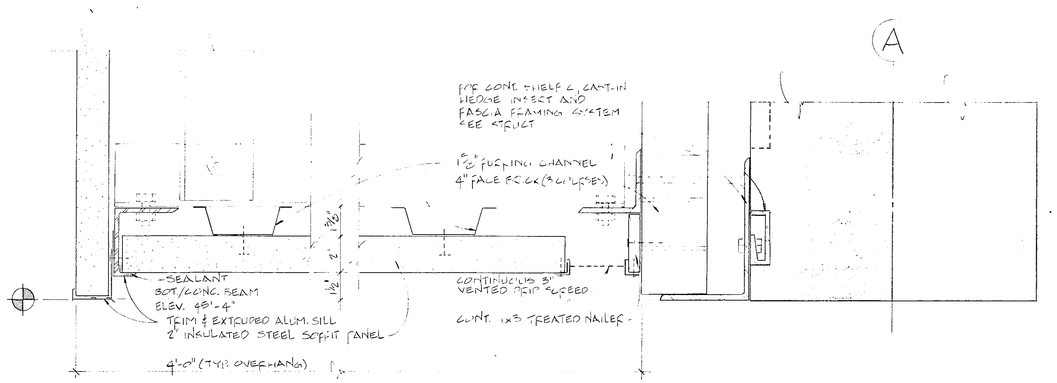
DETAIL 15A-3-E

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



DETAIL 15A-3-F

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



DETAIL 15A-3-C

SCALE: 3" = 1'-0"

ROOM FINISH SCHEDULE

ROOM NO.	DESCRIPTION	FLOOR	BASE	WALLS	CEILING MAT.	CEILING HT.	
100	SLUDGE THICKENING ROOM	I.F.	C.B.	C.B.	S.C.	–	
101	POLYMER ROOM	I.F.	C.B.	C.B.	S.C.	–	
102	ELECTRICAL ROOM	I.F.	C.B.	C.B.	S.C.	–	

NOTE: ALL CONC. BLOCK FACES TO BE PAINTED DIFFERENT COLOR THAN WALLS

51-003-083

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED CJB
DRAWN JDH
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

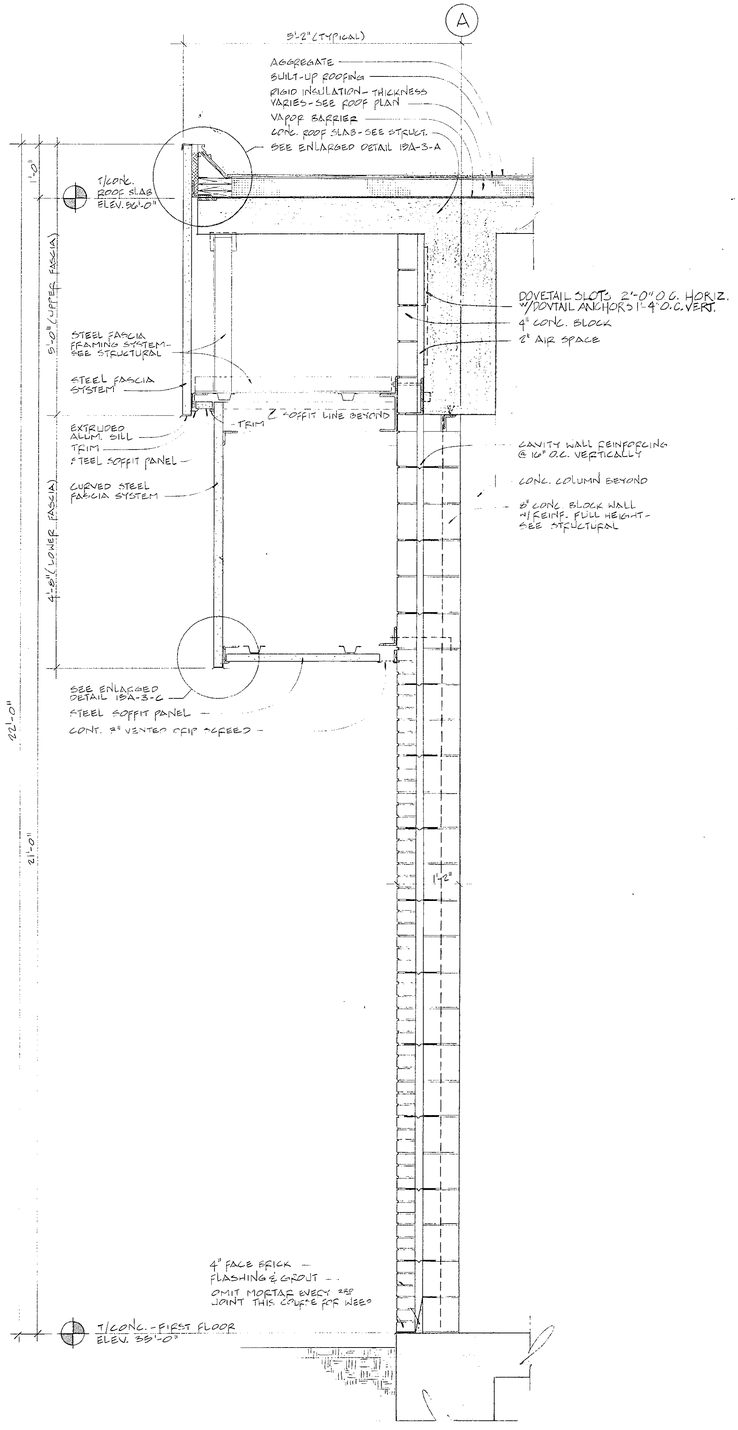
SCALE
AS NOTED

SLUDGE HANDLING BUILDING
DETAILS & ROOM FINISH SCHEDULE

SHEET 15A-3
OF SHEETS
PROJECT NO. 2815

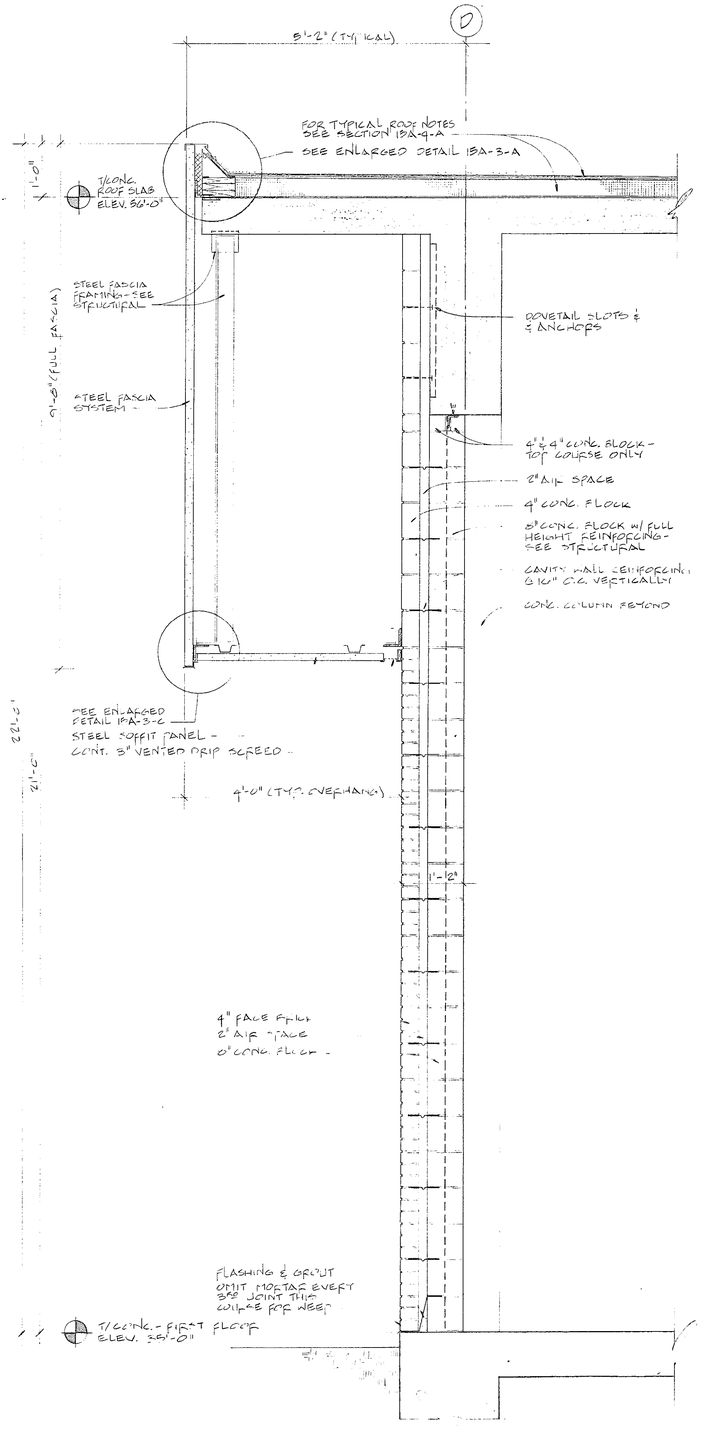
RECORD

BRUNING 44-132 68716



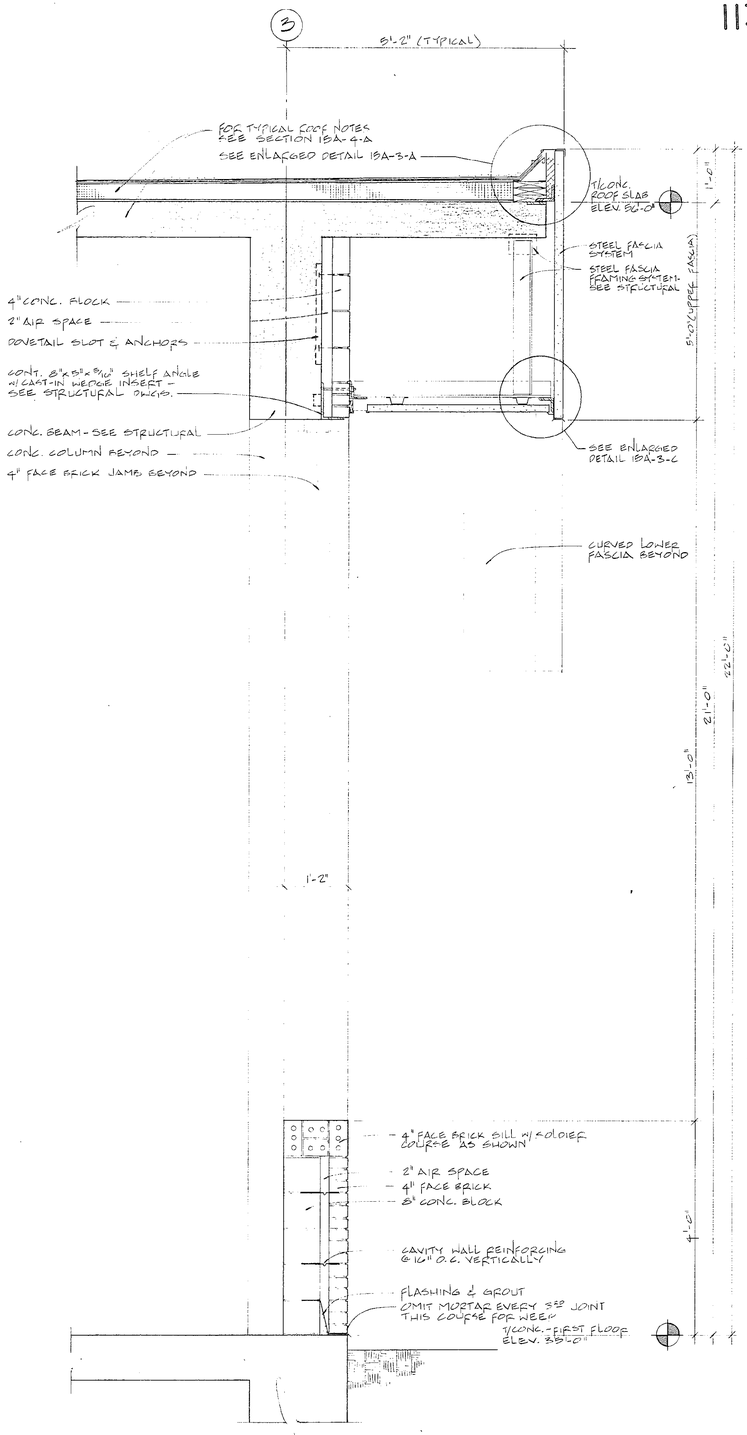
SECTION 15A-4-A

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



SECTION 15A-4-B

SCALE: 1/4" = 1'-0"



SECTION 15A-4-C

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

51-003-084

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED CJB
DRAWN JDH
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

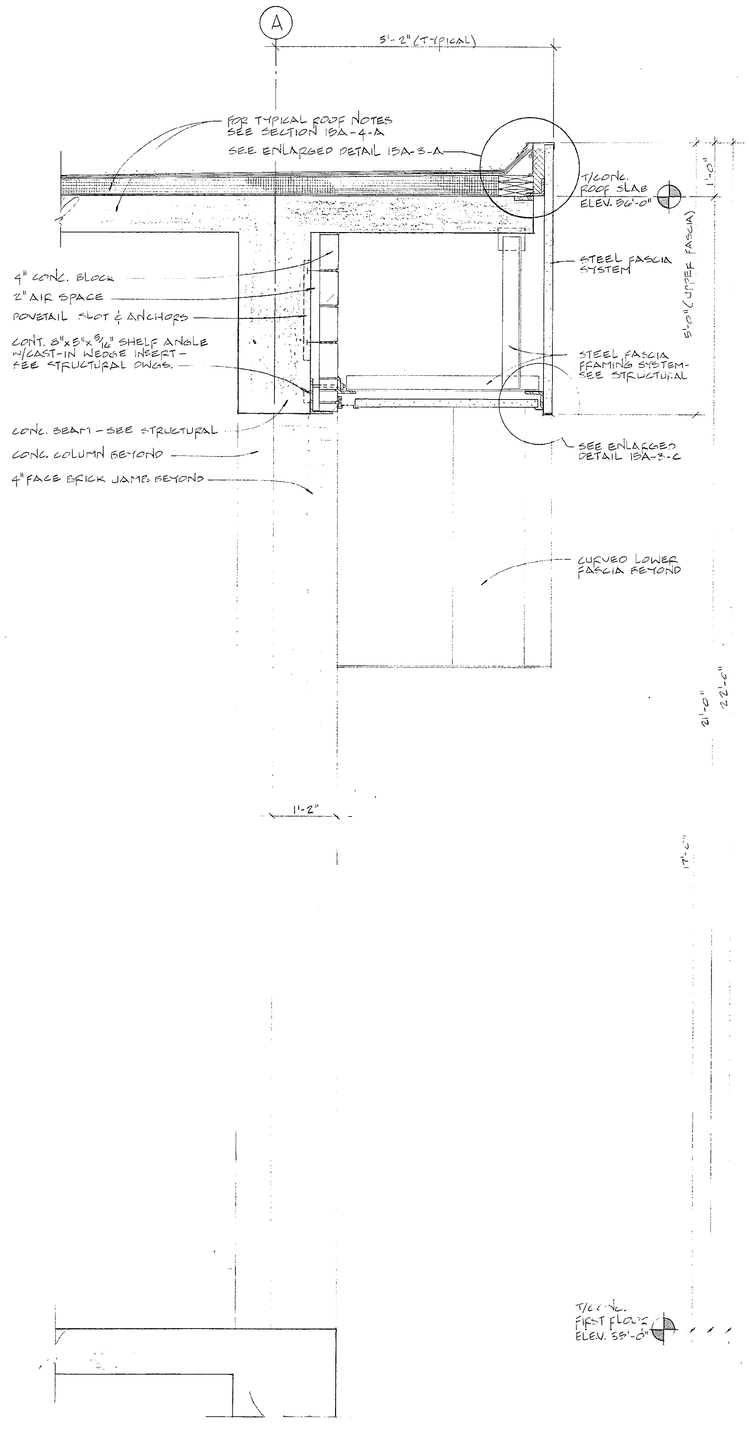
SCALE
AS NOTED

SLUDGE HANDLING BUILDING
WALL SECTIONS

SHEET 15A-4 OF SHEETS
PROJECT NO. 2815

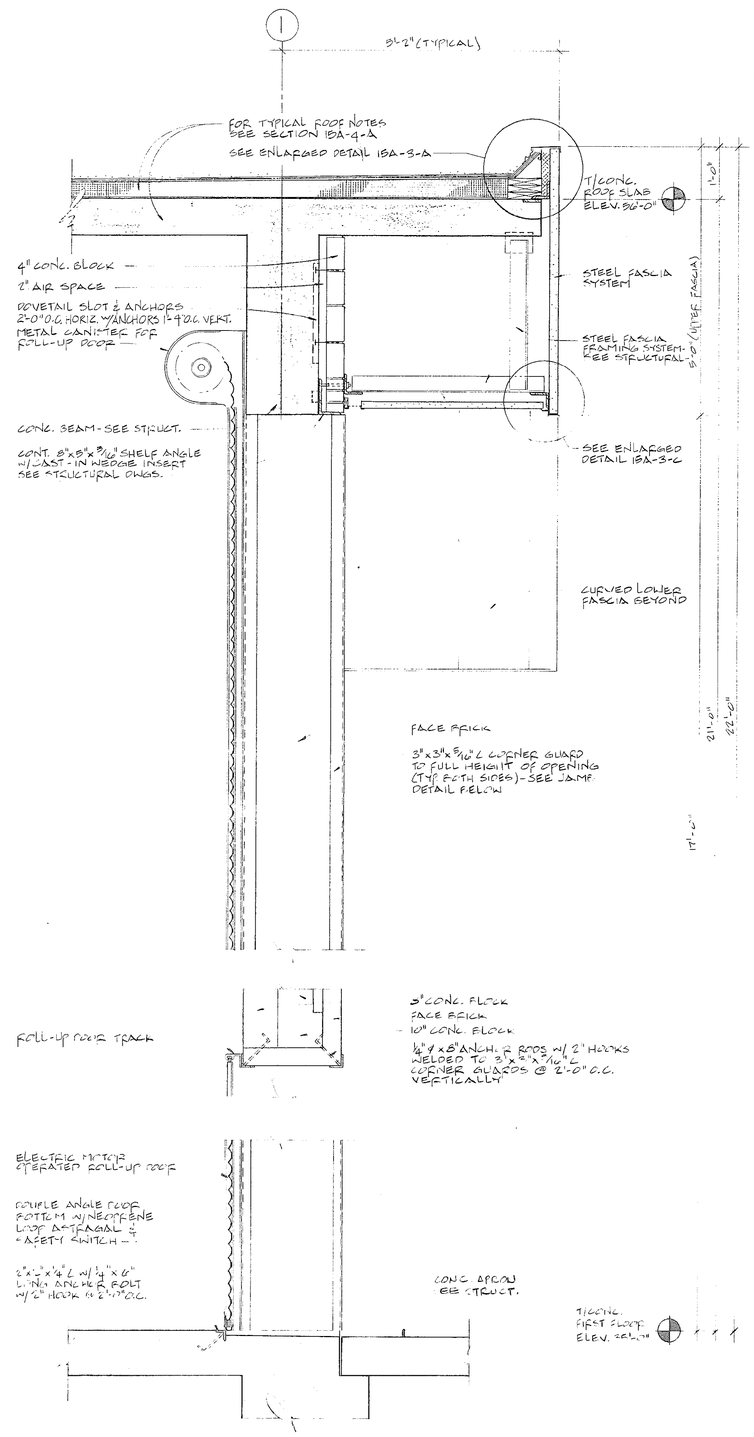
RECORD

BRUNING 44-132 69716



SECTION 15A-5-A

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



SECTION 15A-5-B

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

51-003-085

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED CJB
DRAWN JDH
CHECKED CJB
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

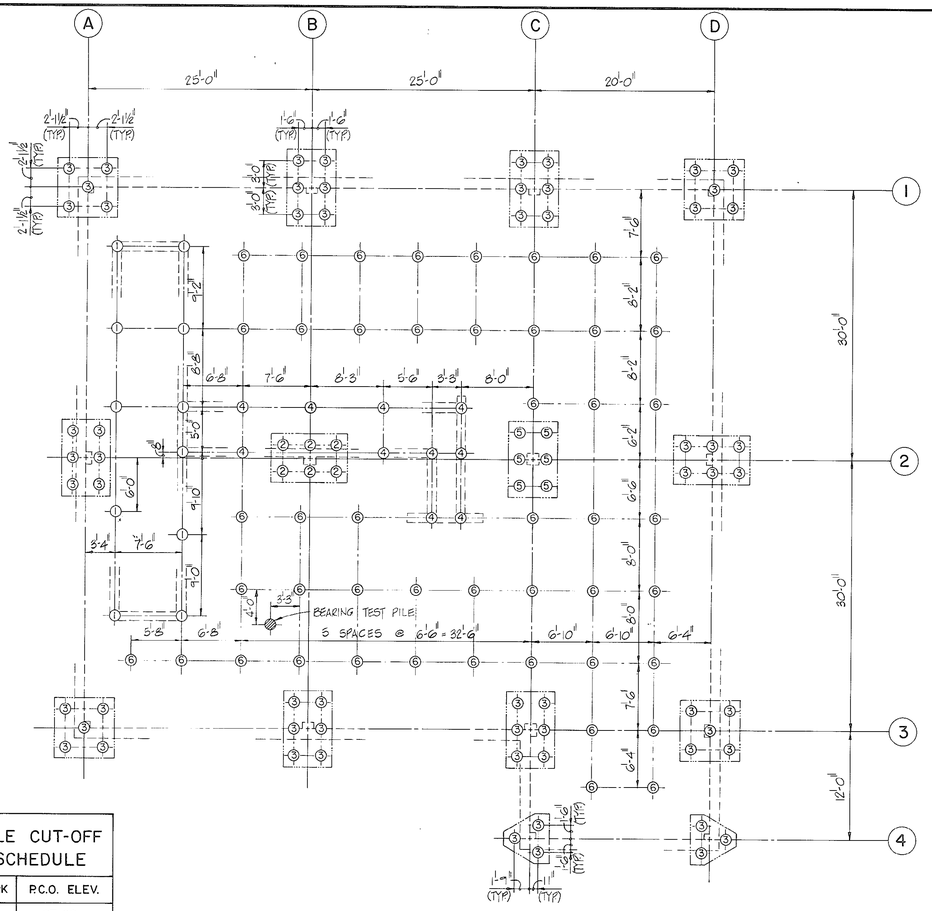
SCALE
AS NOTED

SLUDGE HANDLING BUILDING
WALL SECTIONS

SHEET 15A-5
OF SHEETS
PROJECT NO 2815

RECORD

BRUNING 44-132 69716



PILE CUT-OFF SCHEDULE	
MARK	P.C.O. ELEV.
①	27.92
②	28.67
③	29.00
④	29.84
⑤	33.00
⑥	34.00

PILE PLAN

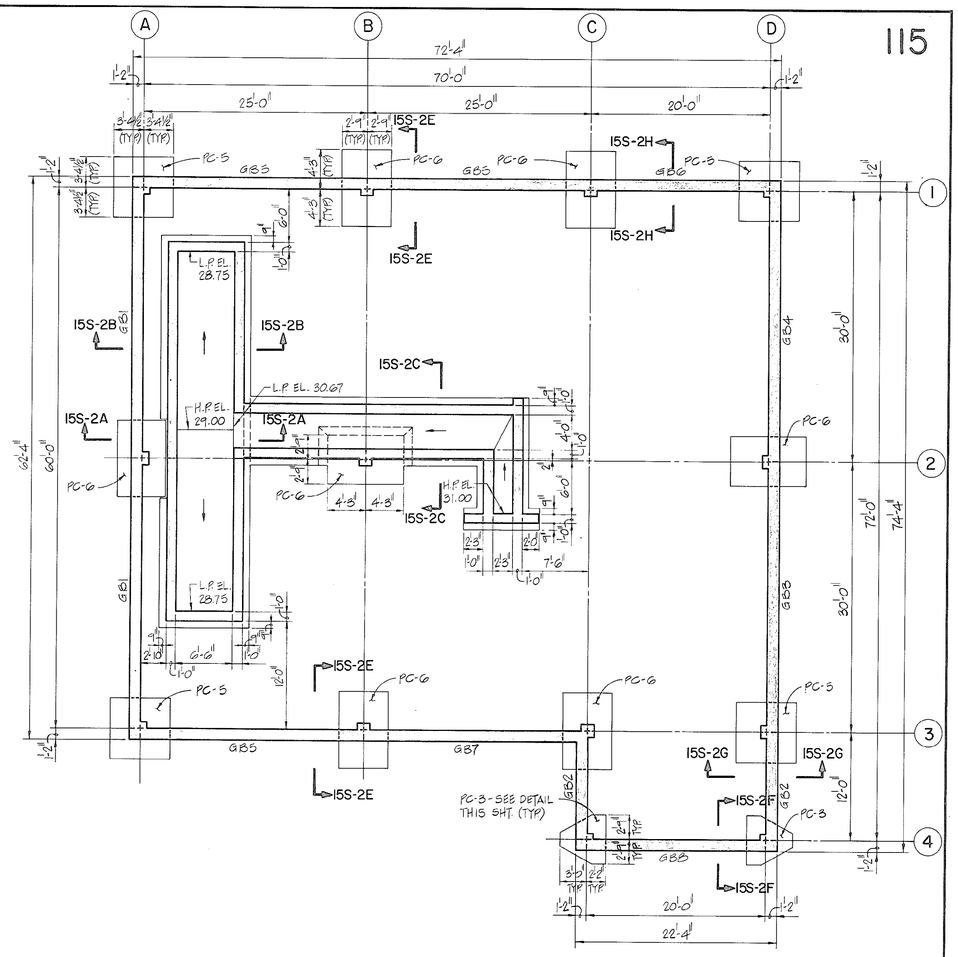
NOTES:

ALL PILES SHALL BE TREATED TIMBER BEARING PILES. SEE SHEET XS-1 AND SPECIFICATIONS FOR PILE DETAILS.

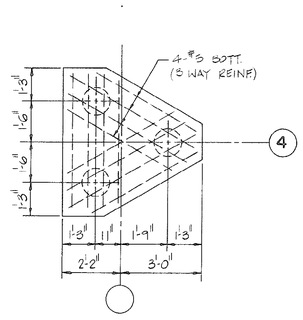
ALL PILES SHALL BE 20 TON BEARING PILES.

◍ INDICATES BEARING TEST PILE

ALL PILE CAPS SHALL BE PROVIDED WITH DOWELS OF SAME SIZE AND SPACING AS VERTICAL REINFORCING IN COLUMN ABOVE, UNLESS OTHERWISE NOTED.

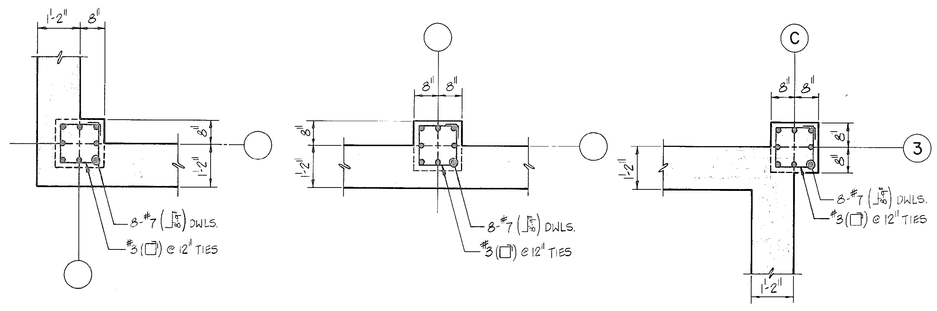


FOUNDATION PLAN



DETAIL PC-3

3/8" = 1'-0"



PILASTER DETAILS

1/2" = 1'-0"

51-093-086

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

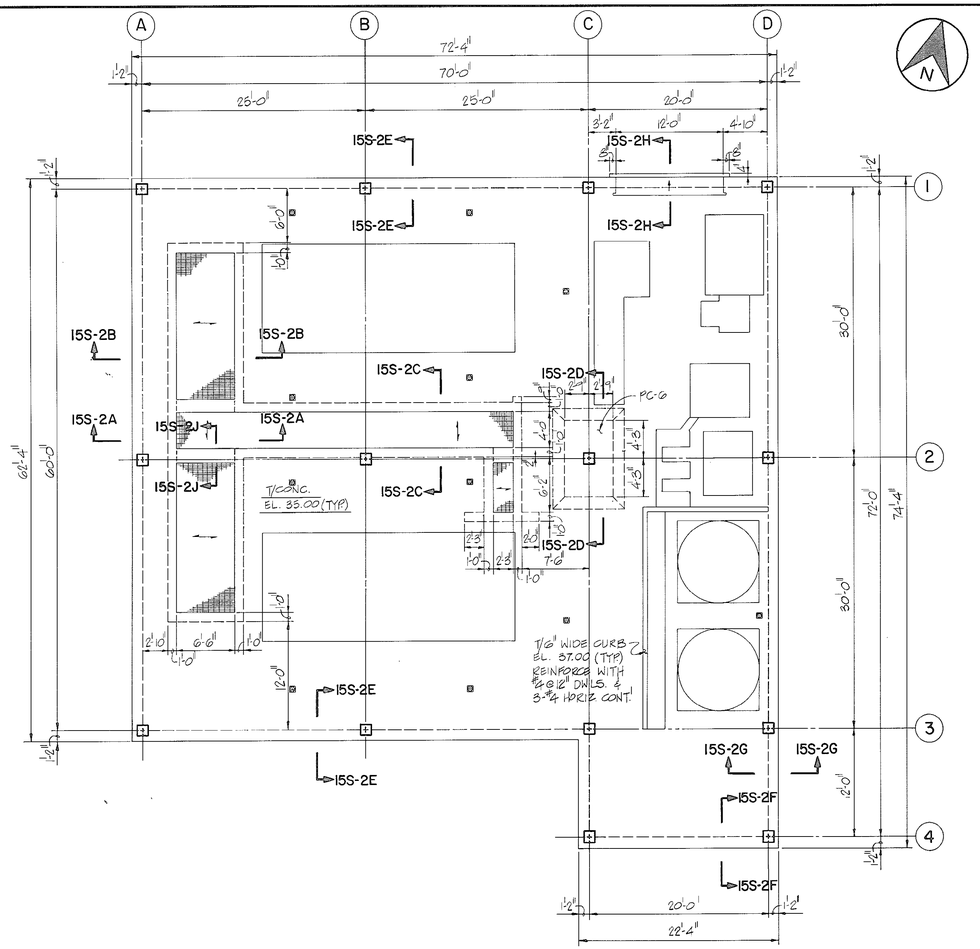
SCALE
1/8" = 1'-0" U.N.

SLUDGE HANDLING BUILDING
PILE AND FOUNDATION PLANS

SHEET 15S-1
OF SHEETS
PROJECT NO. 2815

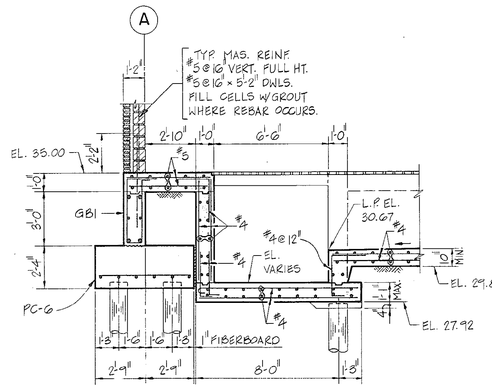
RECORD

BRUNING 44-132 68716

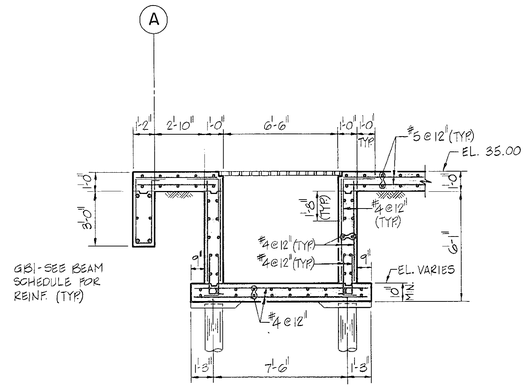


FLOOR PLAN
1/8" = 1'-0"

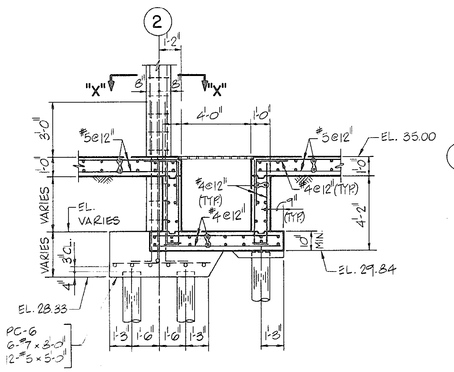
NOTE: ALL LOOSE LINTELS IN 14" MASONRY WALLS SHALL CONSIST OF ONE L 6" x 6" x 5/16" AND TWO L's 6" x 3½" x 5/16" (⌊⌊⌊) U.N.



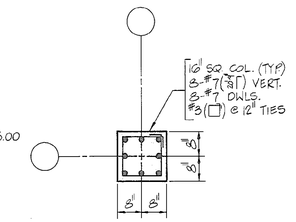
SECTION 15S-2A



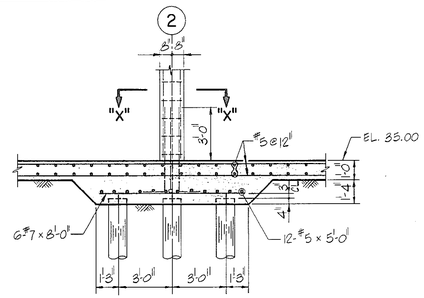
SECTION 15S-2B



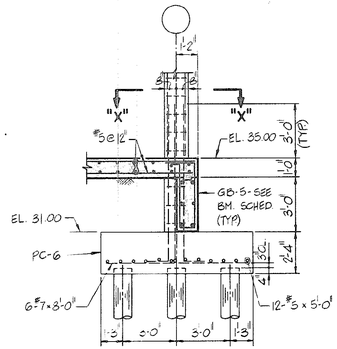
SECTION 15S-2C



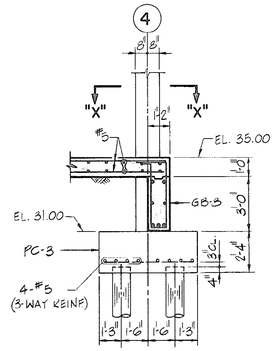
VIEW "X-X"
1/2" = 1'-0"



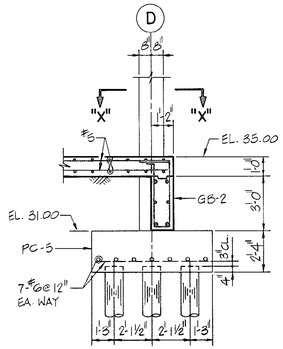
SECTION 15S-2D



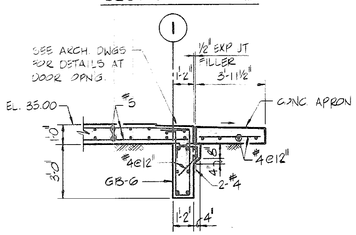
SECTION 15S-2E



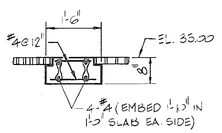
SECTION 15S-2F



SECTION 15S-2G



SECTION 15S-2H



SECTION 15S-2J
(TYP. 3 PLACES)
1/2" = 1'-0"

51-003-087

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

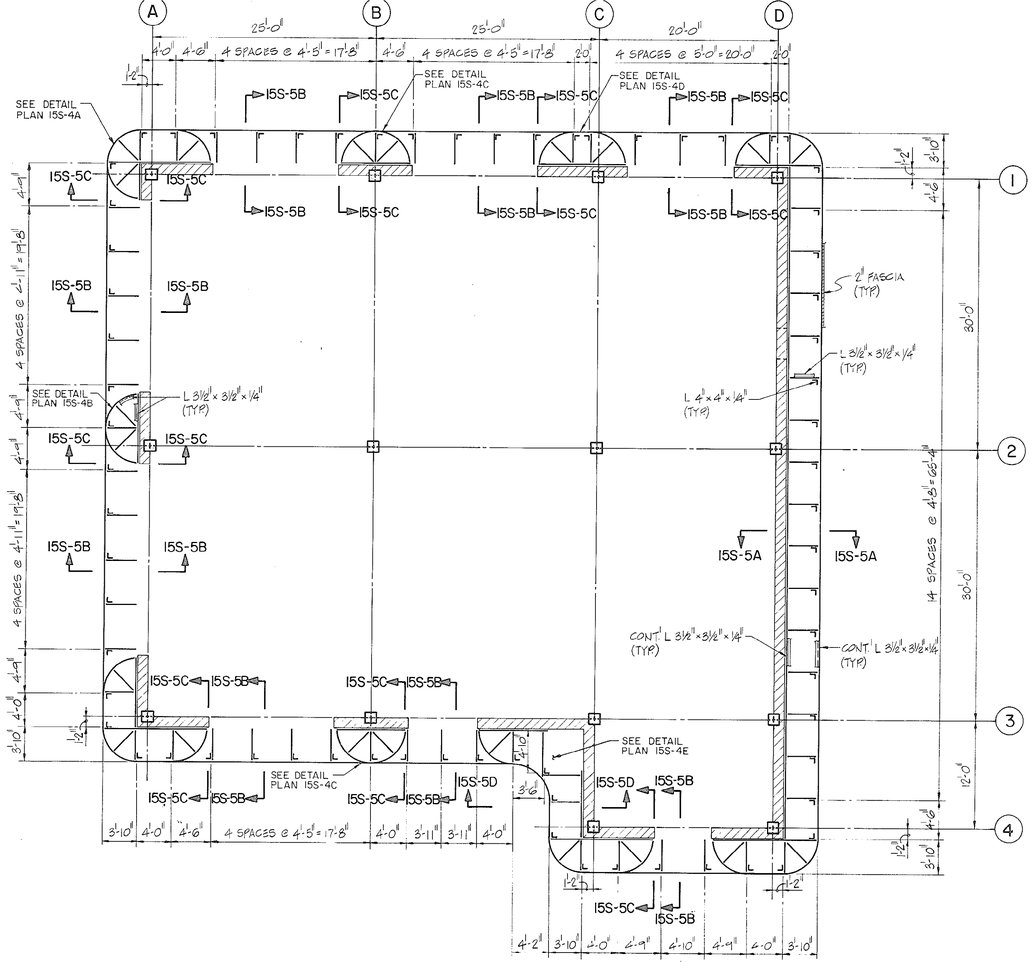
SCALE
1/4" = 1'-0" U.N.

SLUDGE HANDLING BUILDING
FLOOR PLAN AND SECTIONS

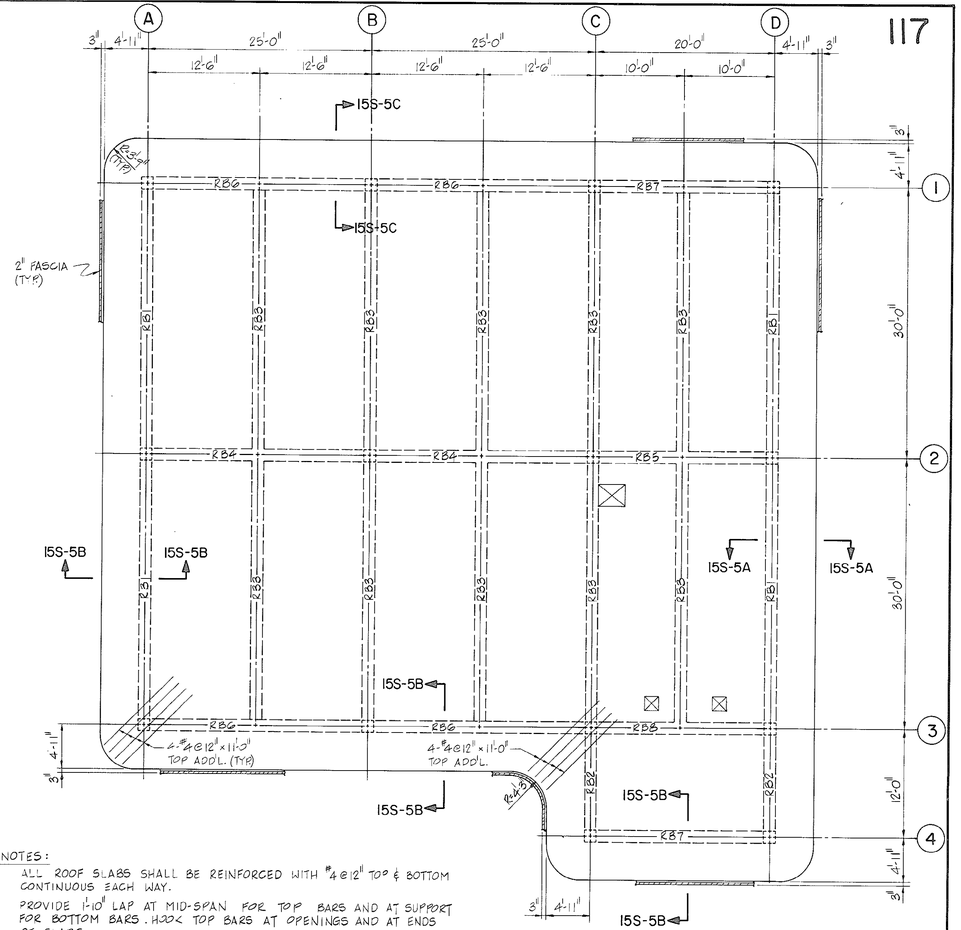
SHEET 15S-2
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716



FASCIA SUPPORT FRAMING PLAN



NOTES:

ALL ROOF SLABS SHALL BE REINFORCED WITH #4@12" TOP & BOTTOM CONTINUOUS EACH WAY.

PROVIDE 1'-10" LAP AT MID-SPAN FOR TOP BARS AND AT SUPPORT FOR BOTTOM BARS. HOOK TOP BARS AT OPENINGS AND AT ENDS OF SLABS.

REINFORCEMENT SHALL BE PLACED SUCH THAT BARS IN EAST-WEST DIRECTION ARE NEAREST TO CONCRETE SURFACE.

SEE SHEET XS-1 FOR ADDITIONAL REINFORCING AT OPENINGS.

ROOF FRAMING PLAN

51-003-083

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

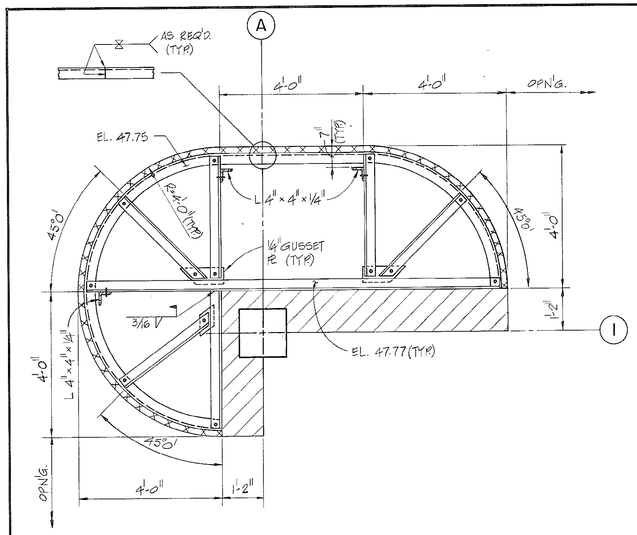
SCALE
1/8" = 1'-0"

SLUDGE HANDLING BUILDING
FASCIA SUPPORT AND ROOF FRAMING PLANS

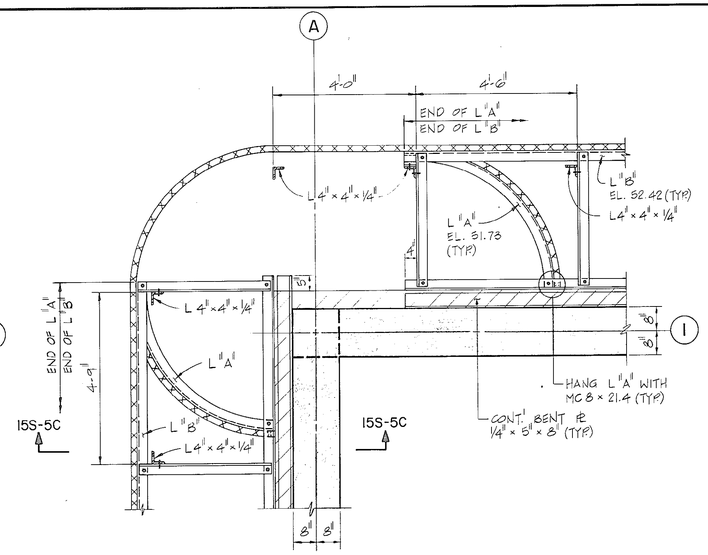
SHEET 15S-3
OF SHEETS
PROJECT NO. 2815

RECORD

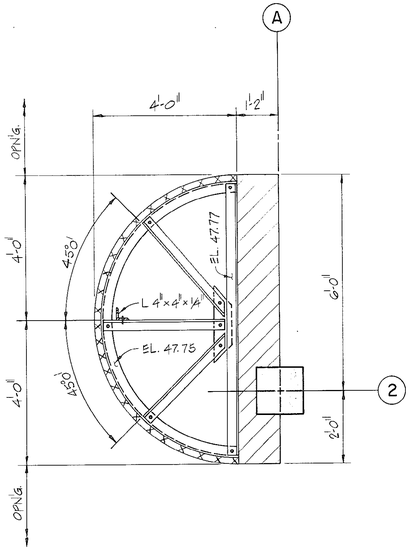
BRUNING 44-132 68716



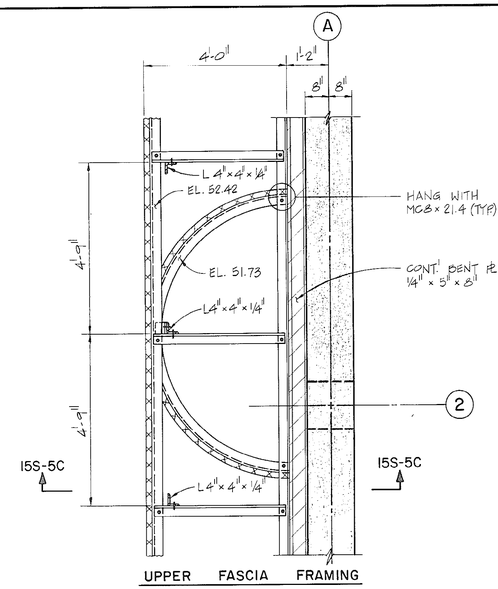
LOWER FASCIA FRAMING



UPPER FASCIA FRAMING

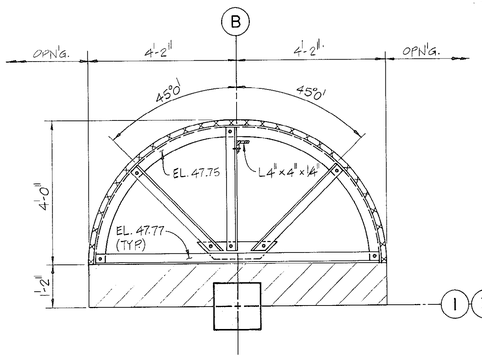


LOWER FASCIA FRAMING

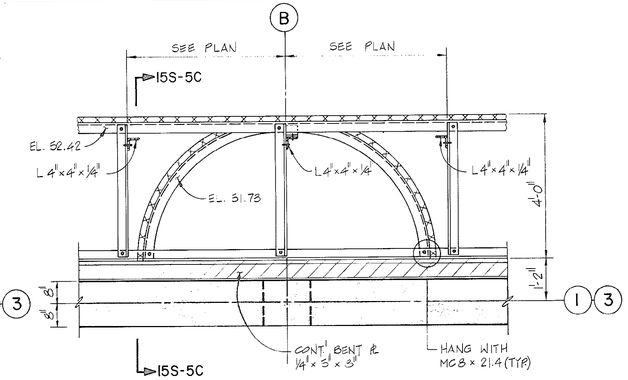


UPPER FASCIA FRAMING

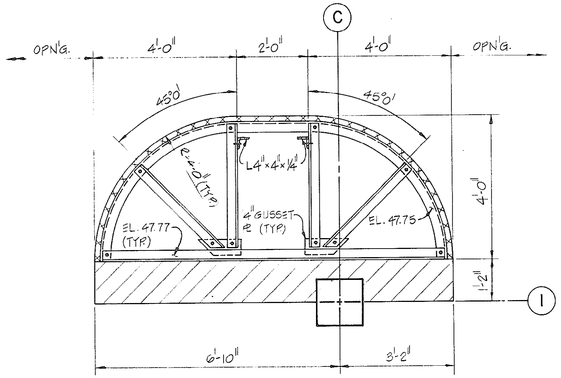
DETAIL PLAN 15S-4A



LOWER FASCIA FRAMING

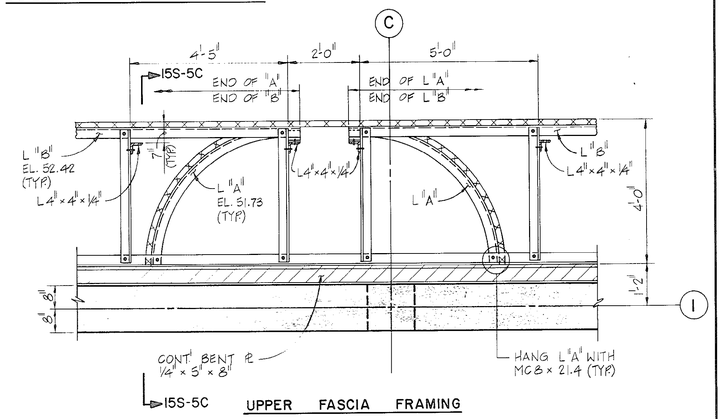


UPPER FASCIA FRAMING



LOWER FASCIA FRAMING

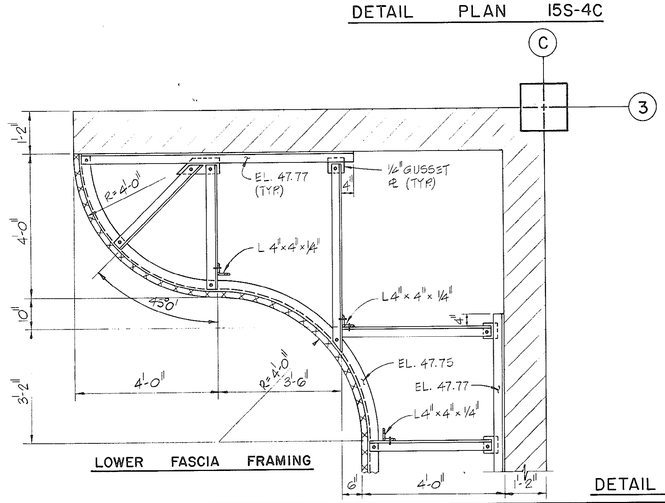
DETAIL PLAN 15S-4B



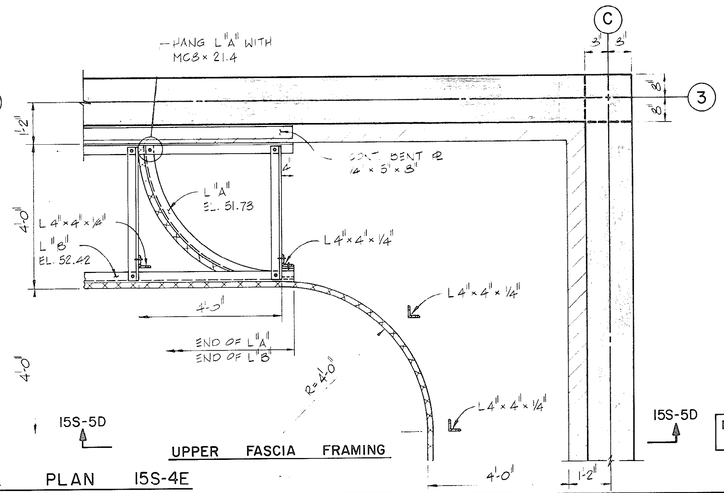
UPPER FASCIA FRAMING

DETAIL PLAN 15S-4D

DETAIL PLAN 15S-4C



LOWER FASCIA FRAMING



UPPER FASCIA FRAMING

DETAIL PLAN 15S-4E

NOTE: ALL ANGLES SHOWN ON THIS SHEET ARE L 3½" x 3½" x ¼" UNLESS OTHERWISE NOTED.

51-003-0091

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

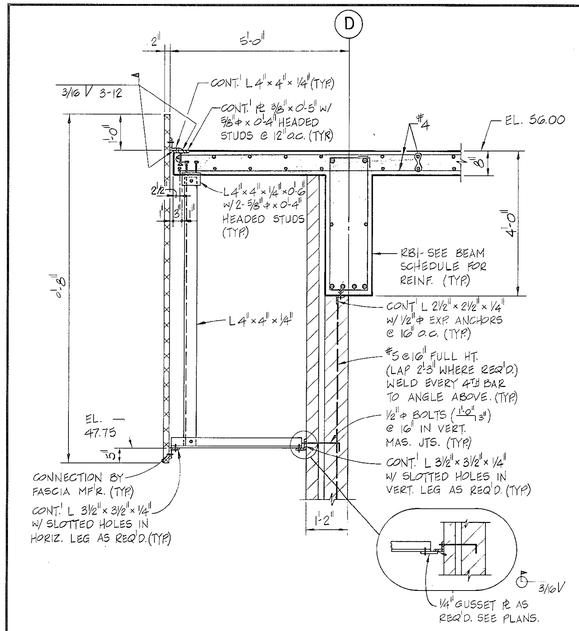
SCALE
½" = 1'-0"

SLUDGE HANDLING BUILDING
FASCIA FRAMING DETAILS

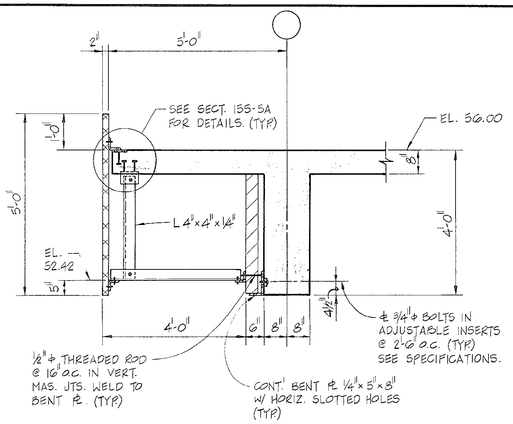
SHEET 15S-4
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-32 68716

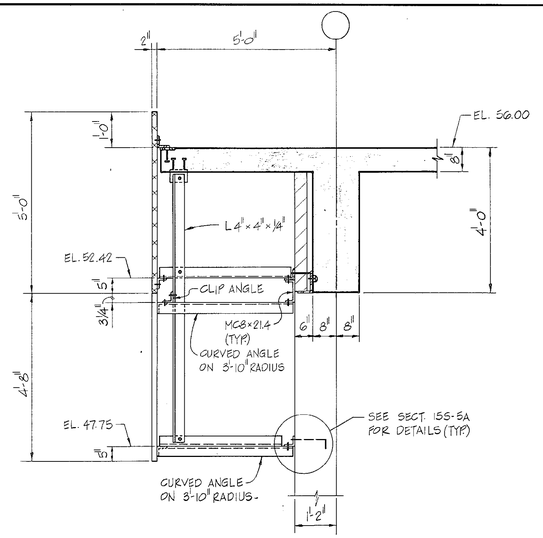


SECTION 15S-5A

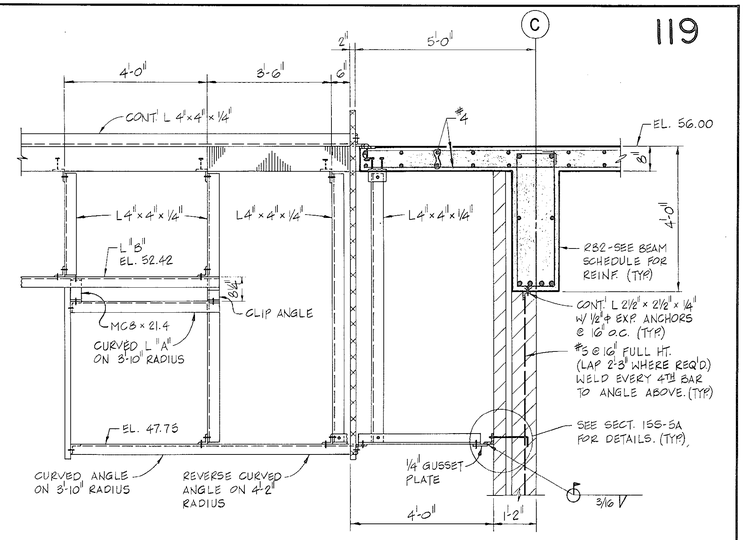


SECTION 15S-5B

NOTE: ALL ANGLES SHOWN ON THIS SHEET ARE L 3½"x 3½"x ¼" UNLESS OTHERWISE NOTED.



SECTION 15S-5C



SECTION 15S-5D

BEAM SCHEDULE

MARK	SIZE "B"	SIZE "D"	REINFORCING BOTTOM	REINFORCING TOP	STIRRUPS NO.	STIRRUPS SIZE	STIRRUPS TYPE	STIRRUPS SPACING EA. END	SUPP. BARS	REMARKS
GB1	14"	36"	2-#8	2-#6 CONT.'	24	#4		1 @ 4", 11 @ 12"		2-#5 (1 E.F.) SIDE BARS
GB2	14"	36"	2-#8	2-#5 CONT.'	10	#4		1 @ 2", 4 @ 12"		2-#5 (1 E.F.) SIDE BARS
GB3	14"	36"	4-#9	2-#7 CONT.'	26	#4		1 @ 30", 12 @ 12"		2-#5 (1 E.F.) SIDE BARS
GB4	14"	36"	4-#9	3-#8 CONT.'	26	#4		1 @ 30", 12 @ 12"		2-#5 (1 E.F.) SIDE BARS
GB5	14"	36"	2-#9	2-#7 CONT.'	22	#4		1 @ 27", 10 @ 12"		2-#5 (1 E.F.) SIDE BARS
GB6	14"	36"	2-#8	2-#5 CONT.'	18	#4		1 @ 18", 8 @ 12"		2-#5 (1 E.F.) SIDE BARS
GB7	14"	36"	3-#8	2-#7 CONT.'	22	#4		1 @ 27", 10 @ 12"		2-#5 (1 E.F.) SIDE BARS
GB8	14"	36"	3-#8	2-#6 CONT.'	18	#4		1 @ 18", 8 @ 12"		2-#5 (1 E.F.) SIDE BARS
R81	16"	48"	4-#7	2-#7 CONT.'	28	#4		1 @ 6", 13 @ 12"		2-#5 (1 E.F.) SIDE BARS
R82	16"	48"	4-#7	2-#7 CONT.'	10	#4		1 @ 6", 4 @ 12"		2-#5 (1 E.F.) SIDE BARS
R83	16"	28"	4-#9	2-#9 CONT.'	28	#4		1 @ 6", 13 @ 12"		
R84	16"	28"	7-#9	3-#9 CONT.'	32	#4		1 @ 6", 15 @ 9"		2-#9 IN 2ND LAYER BOTT.
R85	16"	28"	4-#9	2-#9 CONT.'	24	#4		1 @ 6", 11 @ 9"		
R86	16"	48"	4-#8	2-#8 CONT.'	24	#4		1 @ 6", 11 @ 12"		2-#5 (1 E.F.) SIDE BARS
R87	16"	48"	4-#7	2-#7 CONT.'	18	#4		1 @ 6", 8 @ 12"		2-#5 (1 E.F.) SIDE BARS
R88	16"	48"	4-#9	2-#9 CONT.'	18	#4		1 @ 6", 8 @ 12"		2-#5 (1 E.F.) SIDE BARS

NOTES: SPACING OF 1ST STIRRUP FOR GB1 THRU GB8 BEAMS SHALL BE MEASURED FROM ℄ OF SUPPORTING PILE CAP UNLESS NOTED.

SEE SHEET XS-1 FOR TYPICAL DETAILS OF BEAM REINFORCEMENT.

51-003-010

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED H.R.
DRAWN R.W.H.
CHECKED J.S.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

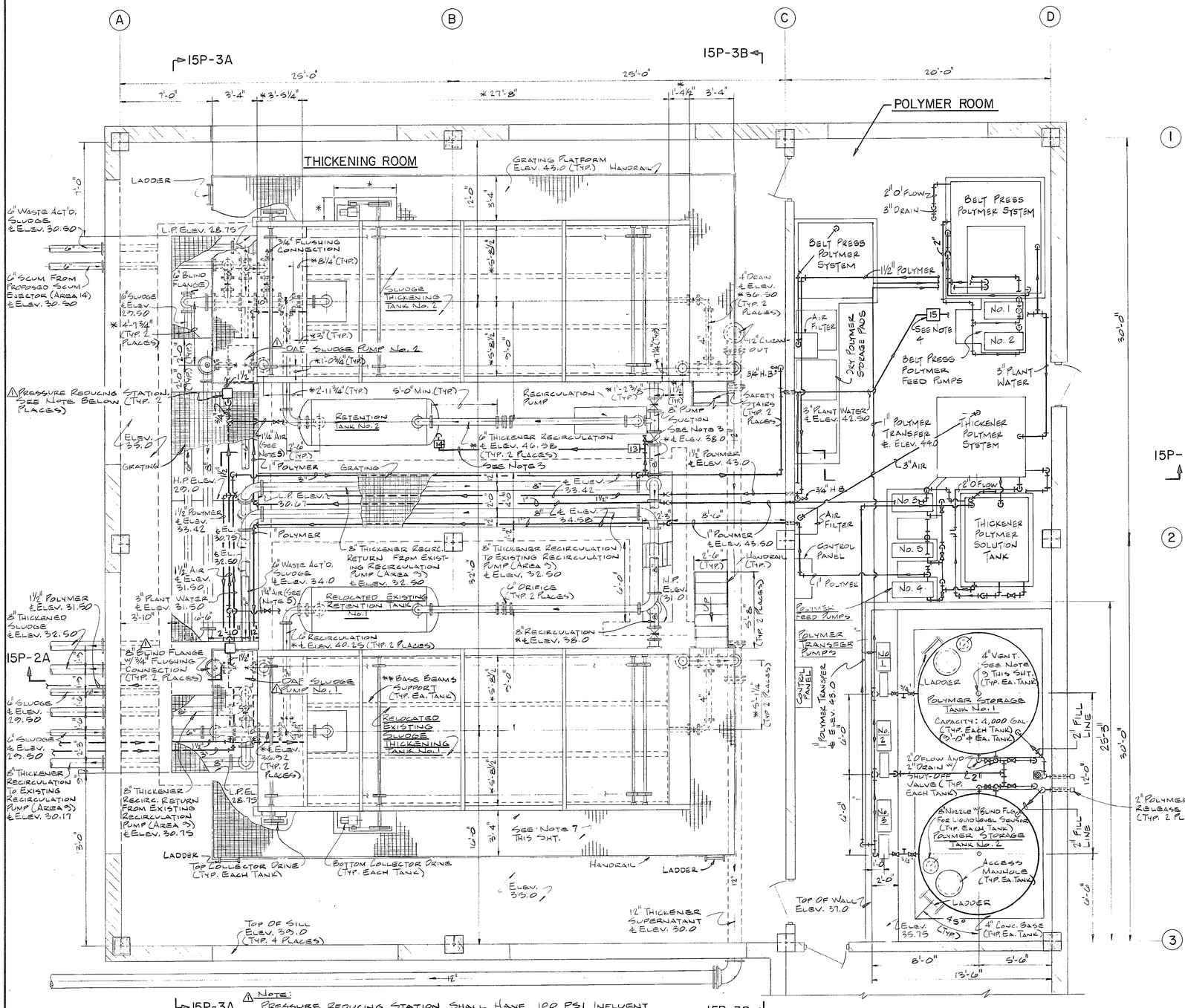
SCALE
½" = 1'-0"

SLUDGE HANDLING BUILDING
SCHEDULE AND ROOF SECTIONS

SHEET 15S-5
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716



NOTES:

1. SEE FLOW DIAGRAMS FOR COMPLETE CHEMICAL PIPING SYSTEM. SOME CHEMICAL LINES AND APPURTENANCES NOT SHOWN FOR CLARITY.
2. CHEMICAL PIPING ARE SHOWN IN A GENERAL MANNER. EXACT PIPE RUNS ARE TO BE DETERMINED BY FIELD CONDITIONS.
3. CONNECT SEAL WATER AS SHOWN BY DETAIL ON DRAWING 14M-1A.
4. PROVIDE PRESSURE REDUCING STATIONS FOR SEAL WATER AND PLANT WATER FOR POLYMER SYSTEMS AS REQUIRED BY MANUFACTURERS AND AS SHOWN ON DRAWING 14M-1.
5. CONNECT AIR AS REQUIRED BY MANUFACTURER. INCLUDE ALL APPURTENANCES REQUIRED BY MANUFACTURER FOR A COMPLETE INSTALLATION.
6. ALL BENDS SHOWN SHALL BE LONG RADIUS.
7. OPERATING PLATFORM (APPROX. 40 FT. LONG) TO BE PROVIDED FOR RELOCATED EXISTING SLUDGE THICKENER NO. 1.
8. FOR CONTINUATION OF OUTSIDE PIPING SEE SHT. NO. 15D-6.
9. RUN 4" VENT THROUGH ROOF. TURN VENT DOWN W/ 1'-0" MIN. CLEARANCE. PROVIDE STAINLESS STEEL INSECT SCREEN.
10. RELOCATED EXISTING SLUDGE THICKENER SHALL BE CLEANED AS SPECIFIED UNDER SECTION 9J, PARA. 8.5.3.2 AND PAINTED IN ACCORDANCE WITH SECTION 9J.

* TO BE DETERMINED BY EQUIPMENT MFR.

** SEE MFR'S. DRAWINGS FOR DETAILS.

⚠ NOTE: PRESSURE REDUCING STATION SHALL HAVE 100 PSI INFLUENT AND 20 PSI EFFLUENT. PRESSURE RELIEF VALVE SHALL BE SET AT 25 PSI. SEE SHEET NO. 9M-1 FOR TYPICAL DETAIL.

51-003-091

NO.	DATE	DESCRIPTION	APPROVED
⚠1	1-11-86	INSTALL 2 DAF SLUDGE PUMPS W/ I.C. AIR PERSSURE REDUCING STATIONS.	KAR

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

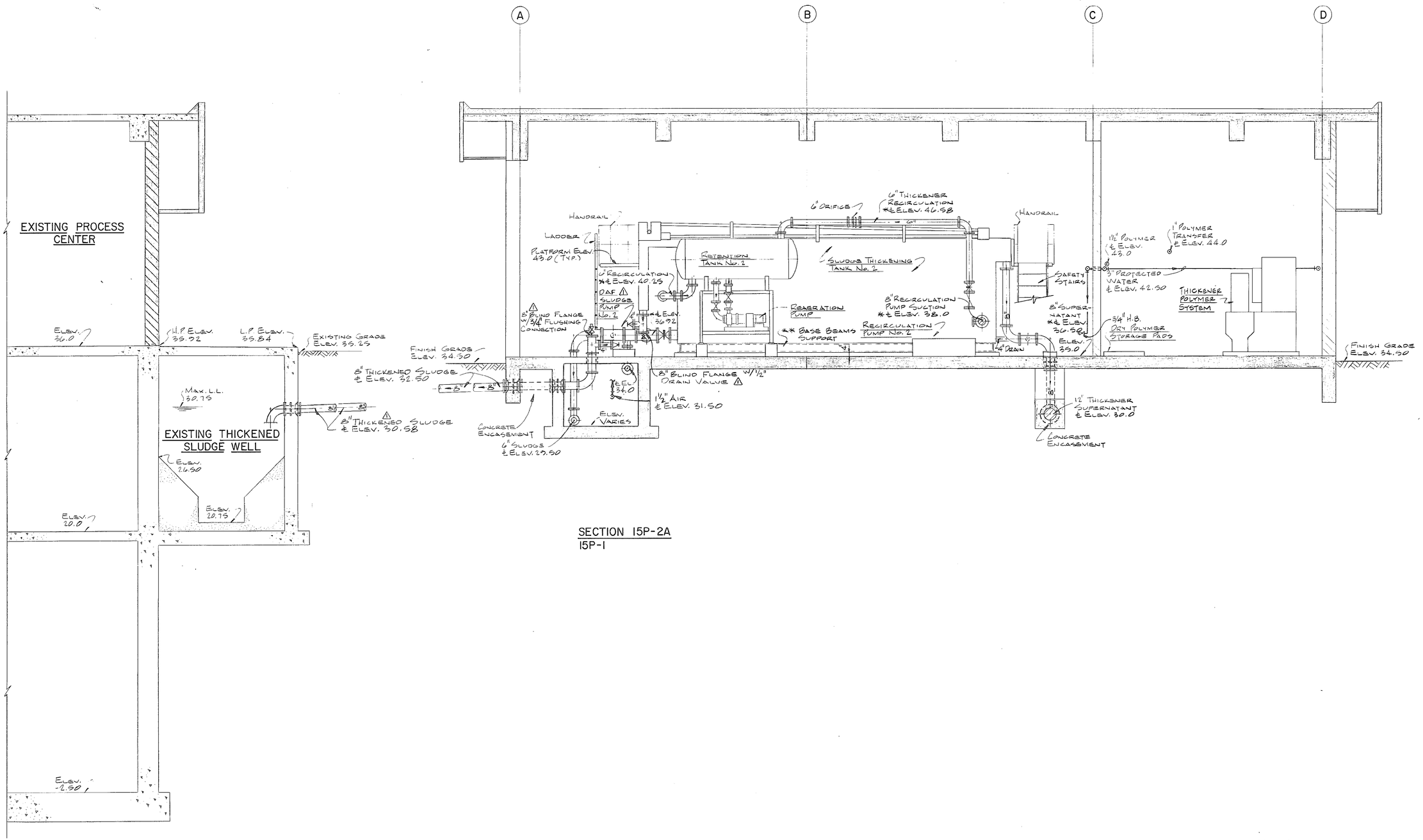
SCALE
1/4" = 1'-0"

SLUDGE HANDLING BUILDING
PLAN

SHEET 15P-1
OF SHEETS
PROJECT NO. 2815

RECORD

DRAWING 44-132-68716



SECTION 15P-2A
15P-1

NOTES:
1. ALL BENDS SHOWN SHALL BE LONG RADIUS.
2. FOR CONTINUATION OF OUTSIDE PIPING SEE SHT. No. 150-6

* TO BE DETERMINED BY EQUIPMENT MFR.
** SEE MFR'S. DRAWINGS FOR DETAILS

51-003-092

NO.	DATE	DESCRIPTION	APPROVED
1	1-11-88	INSTALLED DAF SLUDGE PUMP AND 2 of 8" BLIND FLANGES W/FLUSHING CONNECTIONS, ALSO LOWER ℄ OF 8" THICKENED SLUDGE	KAR

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

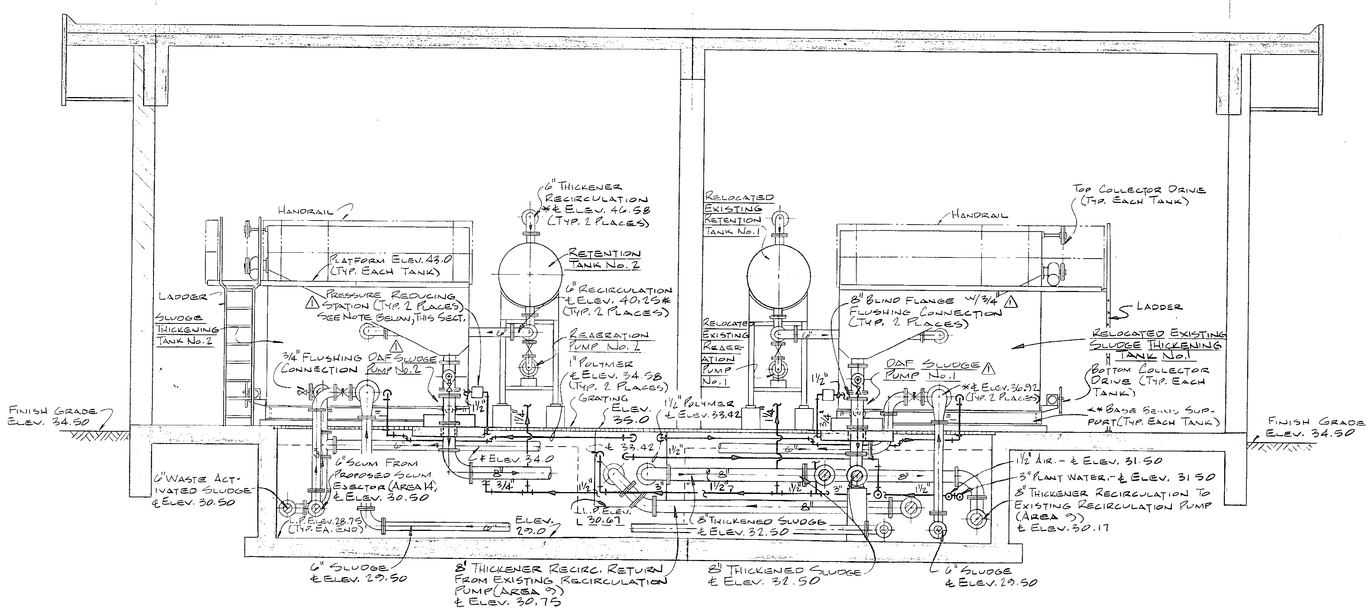
SCALE
1/4"=1'-0"

SLUDGE HANDLING BUILDING
SECTION

SHEET: 15P-2
OF SHEETS
PROJECT NO. 2815

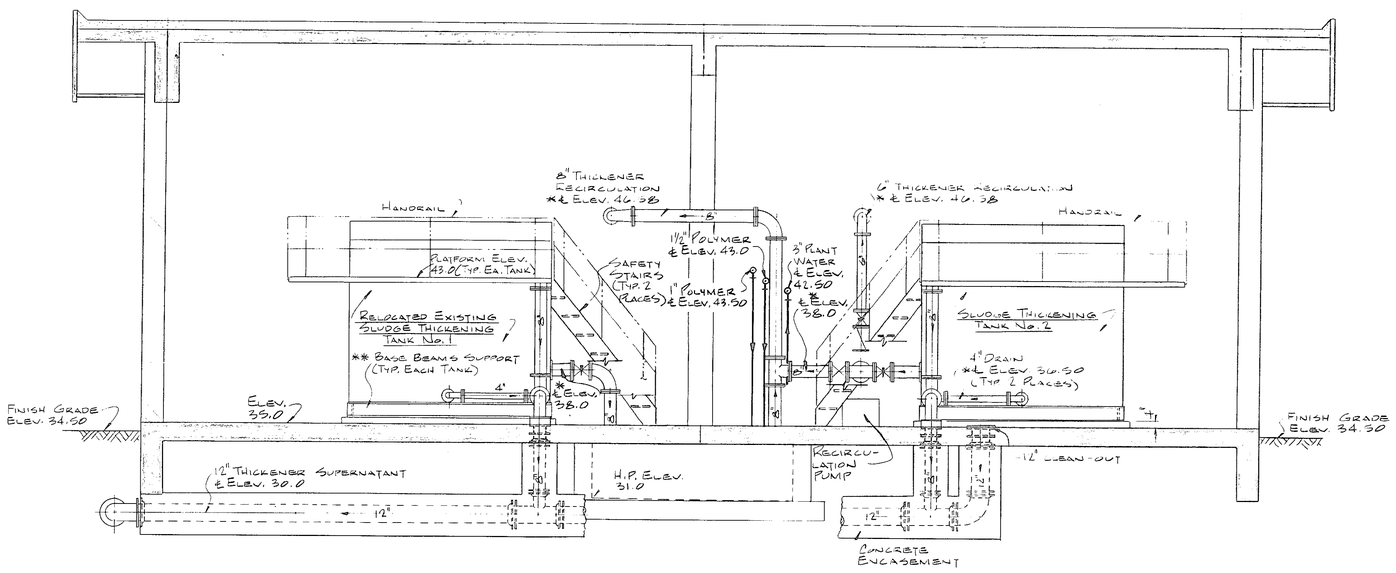
RECORD

DRAWING 44 173 69716



SECTION 15P-3A
15P-1

⚠ NOTE:
PRESSURE REDUCING STATION SHALL HAVE 100 PSI INFLUENT AND 20 PSI EFFLUENT. PRESSURE RELIEF VALVE SHALL BE SET AT 25 PSI. SEE SHEET NO. SM-1 FOR TYPICAL DETAIL.



SECTION 15P-3B
15P-1

Notes:
1. All bends shown shall be long radius.
2. For continuation of outside piping see sht. No. 15D-6.

* To be determined by equipment mfr.

** See mfr's. drawings for details.

51-903-043

NO.	DATE	DESCRIPTION	APPROVED
⚠	1-11-88	INSTALL 3 DAF SLUDGE PUMPS W/ 2 AIR PRESSURE REDUCING STATIONS.	KAR

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

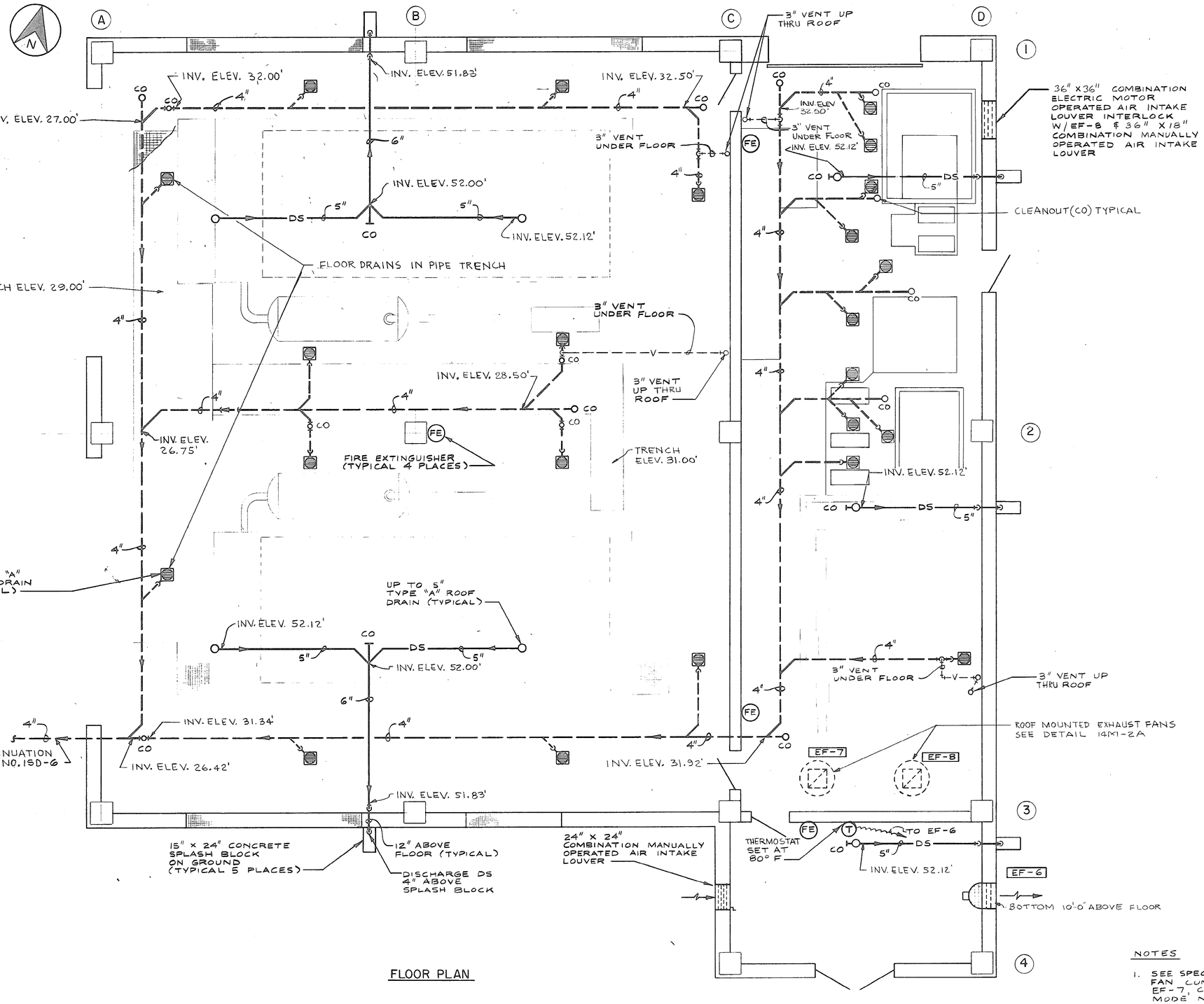
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

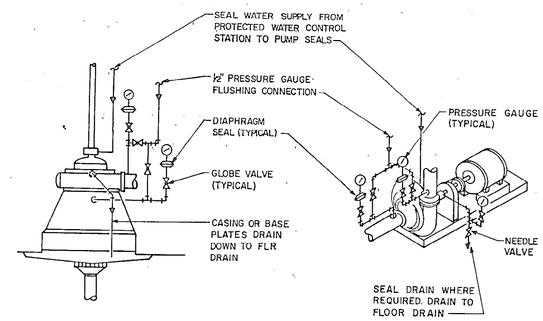
SLUDGE HANDLING BUILDING SECTIONS

SHEET 15P-3
OF SHEETS
PROJECT NO. 2815

BRUNING 44-132 68716

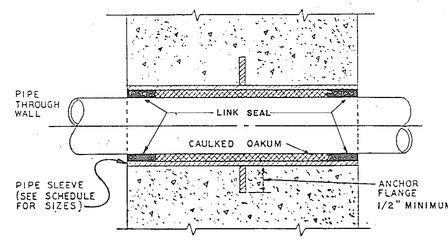


FLOOR PLAN



DETAIL 15M-1A

TYPICAL PROCESS PUMP SEAL, FLUSHING AND PRESSURE GAUGE PIPING DIAGRAM



SLEEVE SCHEDULE			
PIPE SIZE	SLEEVE SIZE	PIPE SIZE	SLEEVE SIZE
1/2"	2"	3"	5"
3/4"	2"	4"	6"
1"	2 1/2"	5"	8"
1 1/4"	3"	6"	8"
1 1/2"	3"	8"	10"
2"	4"	10"	12"
2 1/2"	4"	12"	14"

DETAIL 15M-1B

WATERPROOF WALL PIPE SLEEVE

NOTES

1. SEE SPECIFICATION SECTION 15 H FOR EXHAUST FAN CONTROL MODES; EF-6, CONTROL MODE NO. 1; EF-7, CONTROL MODE NO. 3; EF-8, CONTROL MODE NO. 4.

51-003-094

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED EK
DRAWN BMW
CHECKED RH
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

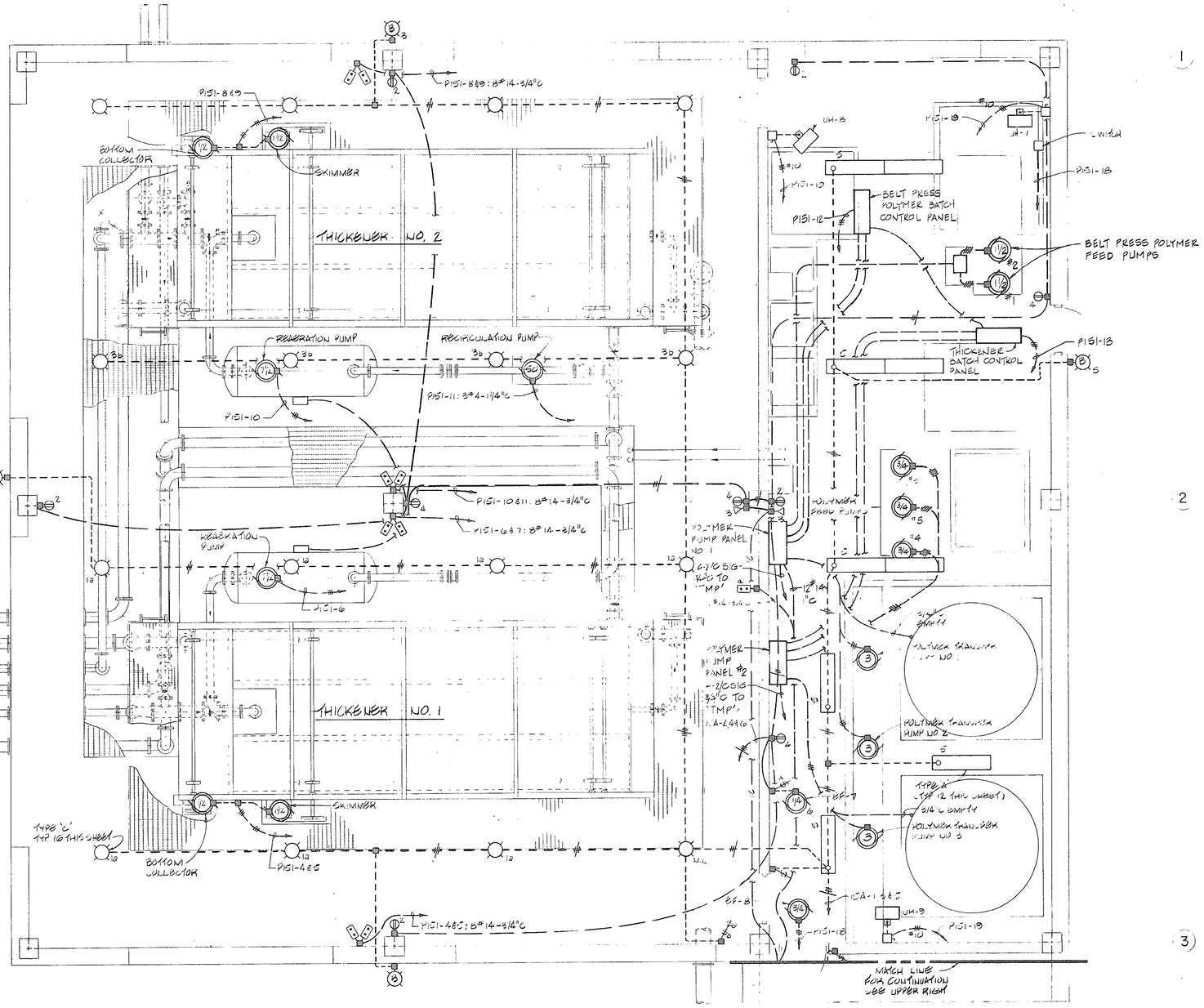
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
1/4"=1'-0"

SLUDGE HANDLING BUILDING
VENTILATION & PLUMBING
MISCELLANEOUS

SHEET 15M-1
OF SHEETS
PROJECT NO 2815

RECORD



NOTES:

1. PANEL '15A' SHALL BE 120/208 VOLT 3 PHASE WIRE WITH 50 AMP MAIN BREAKER AND 24-1 POLE 20 AMP FEEDER BREAKERS.
2. 15 KVA TRANSFORMER 480-120/208 VOLT 3 PHASE 60 HZ.

51-003-095

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

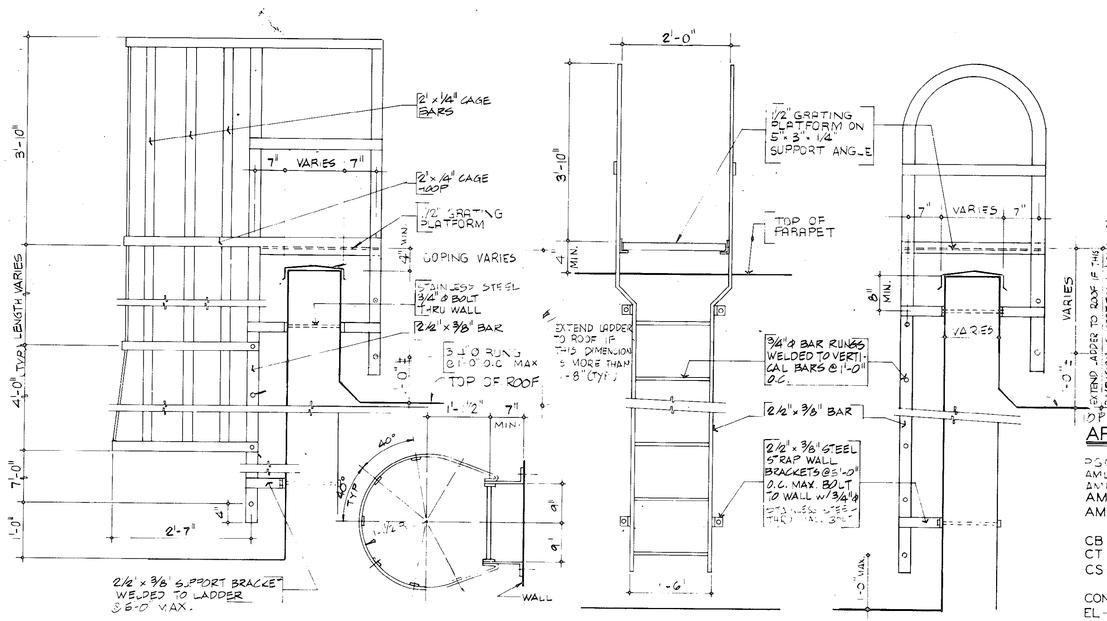
SCALE
1/4"=1'-0"

SLUDGE HANDLING BUILDING
ELECTRICAL

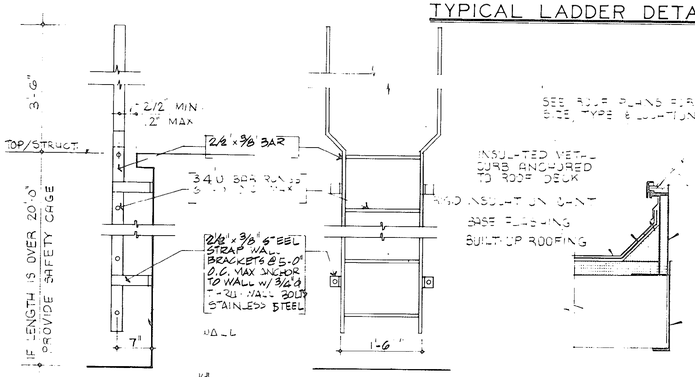
SHEET 15E-1
OF SHEETS
PROJECT NO 2815

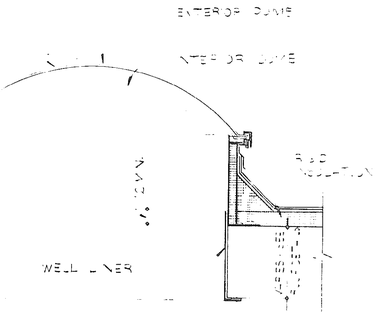
RECORD

BRUNING 44 132 68716

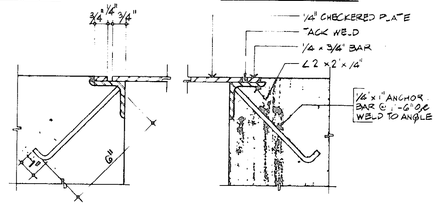


TYPICAL LADDER DETAIL

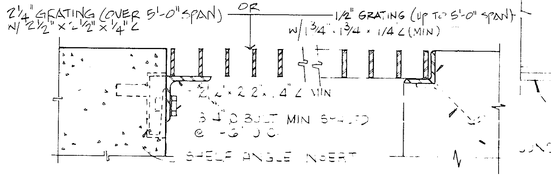




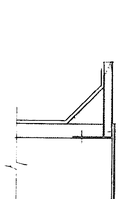
SKYLIGHT DETAIL

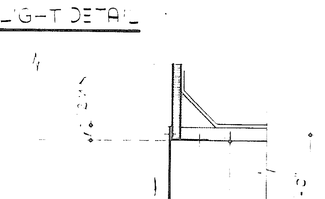


FRAME & COVER DETAIL

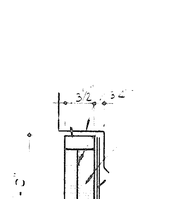


FRAME & GRATING DETAIL

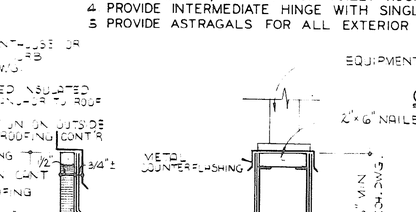




CEILING SKYLIGHT DETAIL



CURB DETAIL



CURB DETAIL

CURB DETAIL EQUIP. SUPPORT

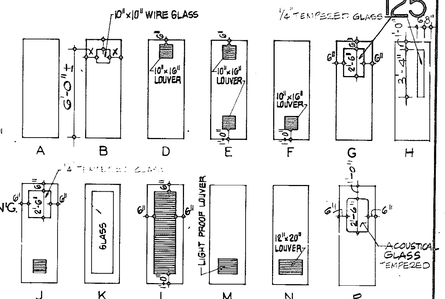
PREFABRICATED METAL CURB SECURE TO DECK. WORK LENGTH W/EQUIPMENT REQUIREMENTS.

DOOR AND HARDWARE SCHEDULE

A. ALUMINUM DOOR
B. FLUSH HOLLOW METAL "B" LABEL
F. STAINLESS STEEL DOOR
K. FLUSH METAL COVERED (KALAMEIN)
H. FLUSH HOLLOW METAL
M. FLUSH WOOD - MINERAL CORE
S. FLUSH WOOD - SOLID CORE
W. FLUSH WOOD - HOLLOW CORE
R. SOUND INSULATING DOOR
Z. HOLLOW METAL - SCREEN DOOR

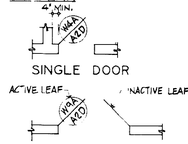
1 - 2'-0" X 7'-2"
2 - 2'-4" X 7'-2"
3 - 2'-6" X 7'-2"
4 - 2'-8" X 7'-2"
5 - 3'-0" X 7'-2"
6 - 3'-4" X 7'-2"
7 - 3'-8" X 7'-2"
8 - 3'-2" X 7'-2"
9 - 3'-0" X 9'-10"
10 - 2'-3'-8" X 7'-2"
11 - 2'-2'-6" X 7'-2"
12 - 2'-3'-0" X 7'-2"
13 - 2'-3'-2" X 7'-2"
14 - 2'-8" X 7'-0"
15 - 3'-0" X 7'-0"
16 - 2'-3'-0" X 7'-0"
17 - 2'-3'-0" X 9'-10"
18 - 2'-3"-10" X 8'-0"
19 - 3'-6" X 7'-0"
20 - 3'-0" X 7'-11½"
FIELD CHECK OPENG.

ALL DOORS 1¾" THICK UNLESS OTHERWISE NOTED.



KIND OF DOOR

TYPICAL DOOR INDICATION ON PLAN



SIZE OF DOOR

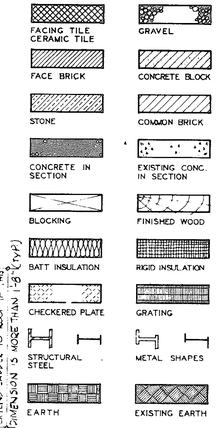
TYPE OF DOOR

DOOR REQUIREMENTS
HARDWARE REQUIREMENTS

W4A
A2D

NOTE:
IF ONE LETTER OR NUMBER IS OMITTED IN THE SYMBOL THE OTHER TWO LETTERS AND/OR NUMBERS APPLY IN ORDER AS SHOWN ON THIS DETAIL.
FOR ADDITIONAL HARDWARE REQUIREMENTS SEE SPECIFICATIONS.

ARCHITECTURAL SYMBOLS



PGC — GYPSUM PLASTER (2 COATS) (NEMA TYPE F)
AMLR — ACOUSTICAL TILE MINERAL FISSURED LAY-IN RECESSED (NEMA TYPE "G")
AMEL — ACOUSTICAL TILE MINERAL FISSURED LAY-IN (TYPE G)
AMT — ACOUSTICAL TILE-METAL PAN (NEMA TYPE "M")
AMF — ACOUSTICAL TILE-MINERAL FISSURED (NEMA TYPE "K")
CB — CONCRETE MASONRY UNIT
CT — CERAMIC GLAZED TILE
CS — CONCRETE SURFACE TO BE GROUND AND SPACKLED
CONC — CONCRETE
EL — ELEVATION
EXP JT — EXPANSION JOINT
FB — FACE BRICK
FLR — FLOOR
FT-I — CLAY FACING TILE
FD — FLOOR DRAIN
HC — HARDENED CONCRETE
H.P. — HIGH POINT
IF — INDUSTRIAL FLOORING
L.P. — LOW POINT
MAX — MAXIMUM
MIN — MINIMUM
O.C. — ON CENTER
PC — PORTLAND CEMENT PLASTER
PG — GYPSUM PLASTER
PSC — PAINT STRUCTURAL CEILING
RB — RUBBER BASE
RD — ROOF DRAIN
TYP — TYPICAL
UNP — UNPAINTED MASONRY OR CONCRETE FINISH
STR — STRUCTURAL
UNF — UNFINISHED
TERR — THIN SET TERRAZZO

ABBREVIATIONS AND KEY TO ROOM FINISHES

LOCKSETS AND BOLTS

A - PASSAGE LATCH
B - BATHROOM LOCKSET
D - DORMITORY LOCKSET
E - CLASSROOM LOCKSET
F - STOREROOM LOCKSET
G - DEADLOCK
H - EXTERIOR DOOR LOCKSET
J - COMMUNICATING DOOR LOCKSET
K - 6" FLUSH BOLT TOP AND BOTTOM INACTIVE LEAF DOUBLE CYLINDER DEADLOCK ACTIVE LEAF
L - PANIC HARDWARE CROSS BAR TYPE
M - 6" FLUSH BOLT TOP AND BOTTOM INACTIVE LEAF PASSAGE LATCH ACTIVE LEAF
N - 6" FLUSH BOLT TOP AND BOTTOM INACTIVE LEAF CLASSROOM LOCKSET ACTIVE LEAF
P - STORE DOOR LOCKSET
R - DOUBLE CYLINDER DEADLOCK
S - 6" FLUSH BOLTS EACH LEAF - ROOM SIDE
T - ONE-WAY DEADLOCK
Z - MANUFACTURERS STANDARD HARDWARE FOR SOUND DOORS INCLUDING HINGES. PASSAGE LATCH CLOSER AND DOOR STOP

STOPS, HOLDERS AND CLOSERS

EACH LEAF

1 - SINGLE ACTING FLOOR CHECK
2 - FRICTION DOOR HOLDER
3 - CLOSER AND DOOR STOP
4 - DOOR STOP
5 - DOOR STOP AND HOLDER
6 - DOOR STOP, HOLDER AND CLOSER
7 - DOOR STOP AND HOLDER AND CLOSER ACTIVE LEAF
8 - DOUBLE ACTING FLOOR CHECK
9 - SINGLE ACTING FLOOR CHECK DOOR STOP AND HOLDER
10 - CLOSER AND OVERHEAD DOOR STOP WITH HOLDER - ACTIVE LEAF.
11 - CLOSER, OVERHEAD DOOR STOP - ACTIVE LEAF AND FLOOR STOP WITH EXTENSION BOTH LEAFS

ACCESSORIES

EACH LEAF

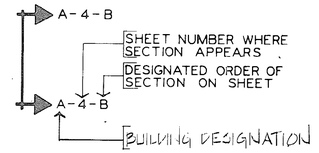
A - 2 PUSH PLATES
2 KICK PLATES
B - PUSH PLATE
C - 2 KICK PLATES
D - 2 PUSH PLATES
E - KICK PLATE
DOOR PULL
F - KICK PLATE
G - PUSH PLATE
DOOR PULL
H - DOOR PULL
J - KICK PLATE
PUSH PLATE
K - PUSH PLATE
PULL PLATE
L - 2 PUSH BARS
DOOR PULL

NOTE: 1. IF CLOSER WILL NOT MOUNT ON HINGED SIDE OF DOOR, PROVIDE PARALLEL ARMS FOR SOFFIT MOUNTING AND MOUNT ON RECESSED SIDE OF DOOR.
2. ALL DOOR SHALL OPEN 95°.
3 ALL CLOSERS, EXCEPT FOR TOILET ROOMS, STAIRWELL, AND LABELLED DOORS TO HAVE HOLD OPEN ACTION.
4 PROVIDE INTERMEDIATE HINGE WITH SINGLE ACTION FLOOR CHECKS.
5 PROVIDE ASTRAGALS FOR ALL EXTERIOR DOUBLE DOORS.

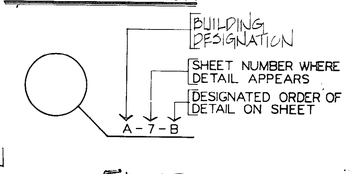
GENERAL NOTES

1 — ALL OPENINGS REQUIRED FOR WINDOWS, DOORS OR EQUIPMENT SHALL BE SIZED FROM SHOP DRAWINGS. DIMENSIONS SHOWN ON PLAN ARE NOMINAL.
2 — TYPICAL DETAILS ON THIS SHEET ARE TO BE USED WHEN CALLED FOR ON THE PLANS AND ELEVATIONS.
3 — DOOR AND DOOR FRAME SHALL BE OF THE SAME MATERIAL UNLESS OTHERWISE NOTED.

SECTION NOTATION



DETAIL NOTATION



51-003-096

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED C.B.
DRAWN D.C.G. F.C.A.
CHECKED M.Z.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

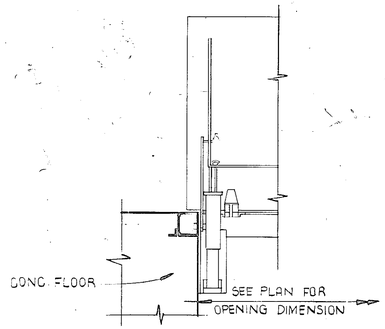
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

ARCHITECTURAL DETAILS

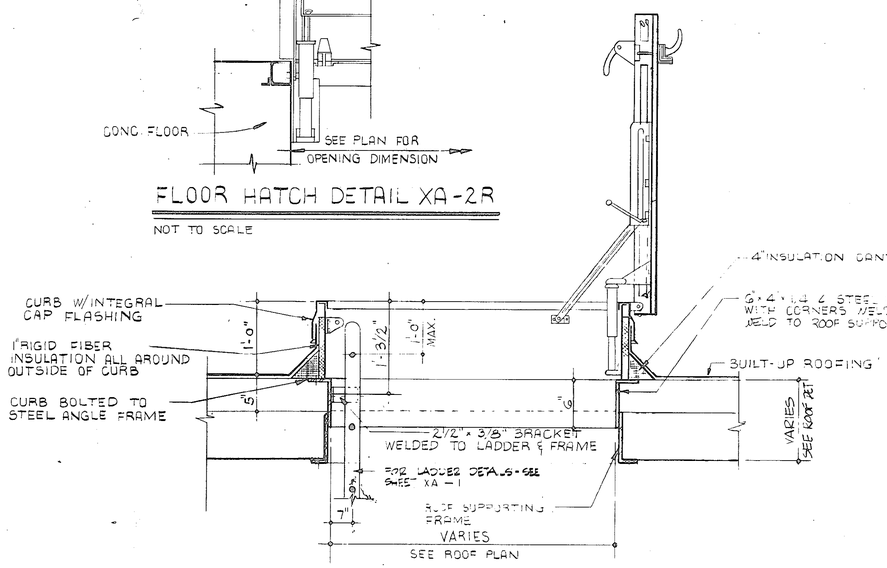
SHEET XA-1
OF SHEETS
PROJECT NO. 2815

RECORD



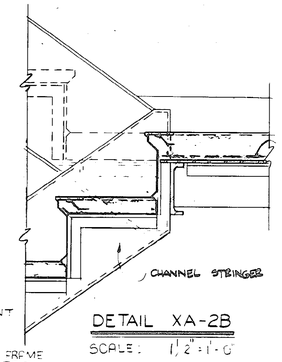
FLOOR HATCH DETAIL XA-2R

NOT TO SCALE



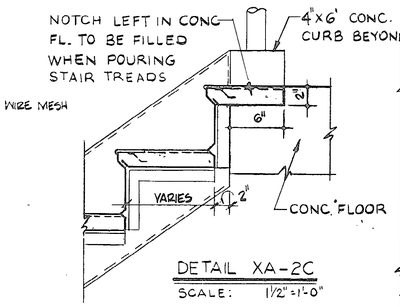
ROOF SCUTTLE DETAIL XA-2A

SCALE: 1" = 1'-0"



DETAIL XA-2B

SCALE: 1½" = 1'-0"

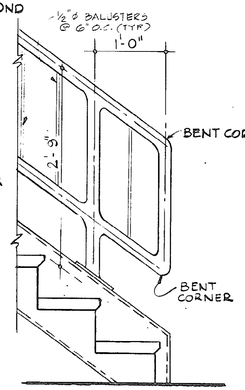


DETAIL XA-2C

SCALE: 1½" = 1'-0"

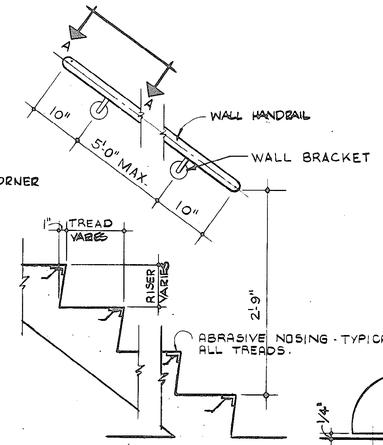
NOTE:

ALL HANDRAILS SHALL HAVE ½" BALUSTERS AT 6" O.C. (TYPICAL)



DETAIL XA-2D

SCALE: 1" = 1'-0"



DETAIL XA-2E

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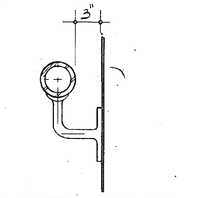
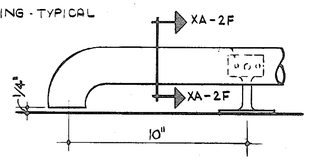


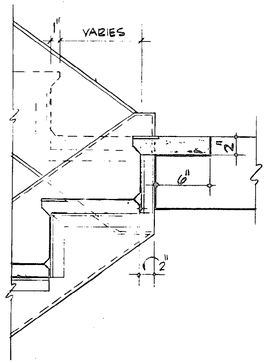
SECTION XA-2F

SCALE 3" = 1'-0"



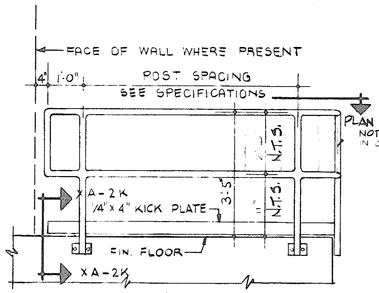
VIEW A-A

SCALE: 3" = 1'-0"



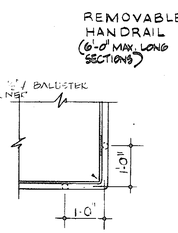
DETAIL XA-2G

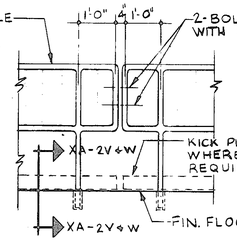
SCALE: 1½" = 1'-0"



DETAIL XA-2H PLAN H

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





DETAIL XA-2J

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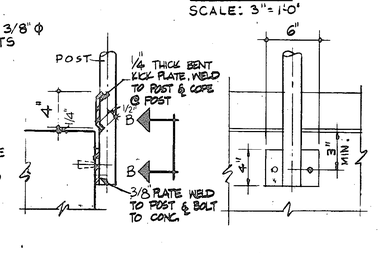
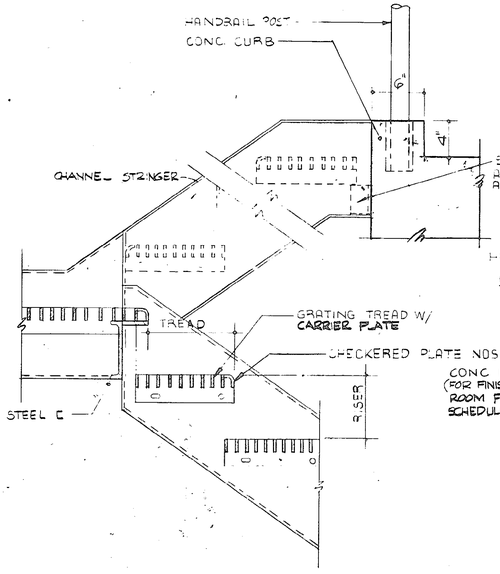


SECTION XA-2K

SCALE: 1½" = 1'-0"

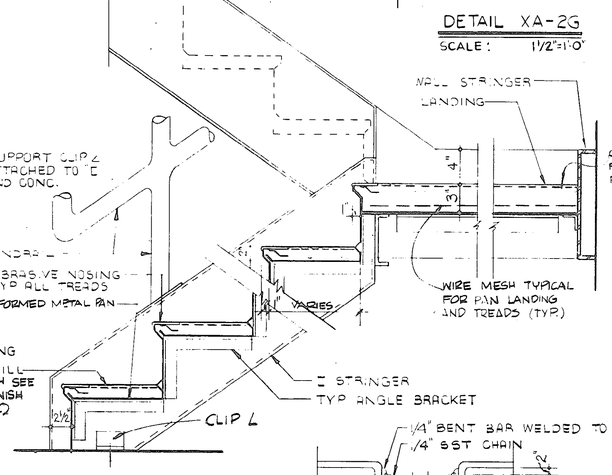
VIEW B-B

SCALE: 1½" = 1'-0"



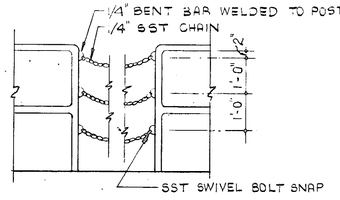
DETAIL XA-2L

SCALE: 1½" = 1'-0"



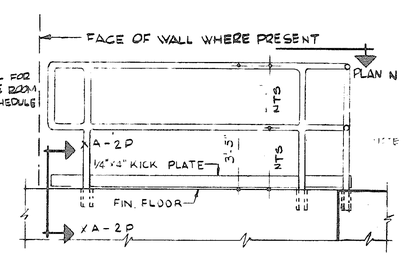
DETAIL XA-2M

SCALE: 1½" = 1'-0"



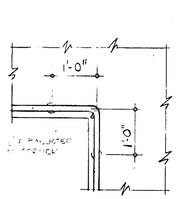
DETAIL XA-2S

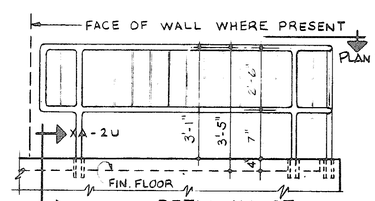
SCALE: 1½" = 1'-0"



DETAIL XA-2N PLAN N

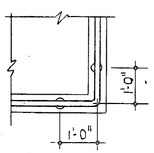
SCALE: 1/2" = 1'-0"

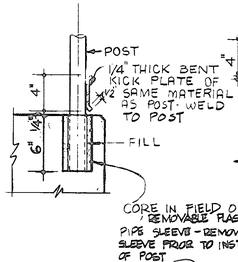




DETAIL XA-2T PLAN T

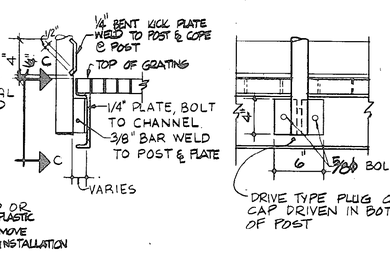
SCALE 1/2" = 1'-0"





SECTION XA-2P

SCALE: 1½" = 1'-0"

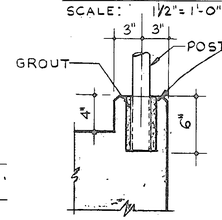


DETAIL XA-2Q

SCALE 1½" = 1'-0"

VIEW C-C

SCALE: 1½" = 1'-0"



SECTION XA-2U

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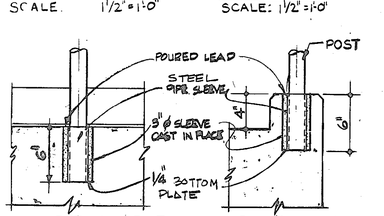


REMOVABLE HANDRAILS

SECTION XA-2V

SCALE: 1½" = 1'-0"

SECTION XA-2W

SCALE: 1½" = 1'-0"

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED C.B.
DRAWN F.C.A.
CHECKED M.Z.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

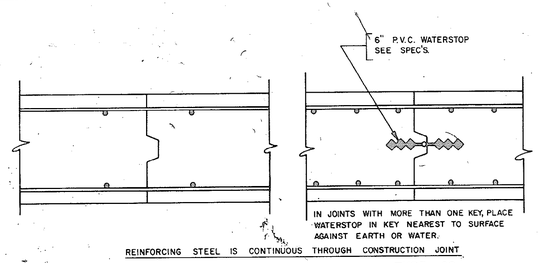
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
AS SHOWN

51-053-097
ARCHITECTURAL DETAILS

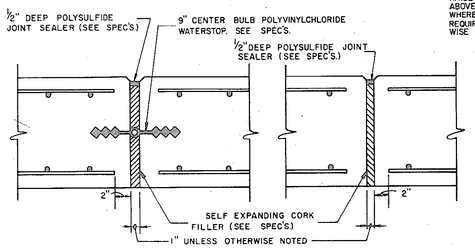
SHEET XA-2
OF SHEETS
PROJECT NO. 2815

RECORD



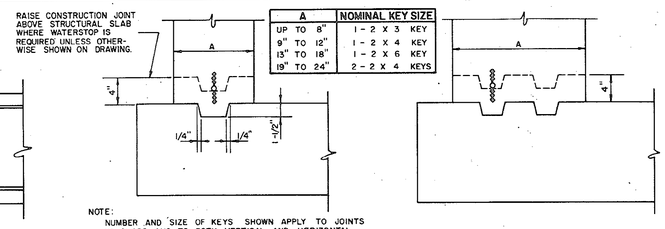
TYPE C1 TYPE C2

CONSTRUCTION JOINTS



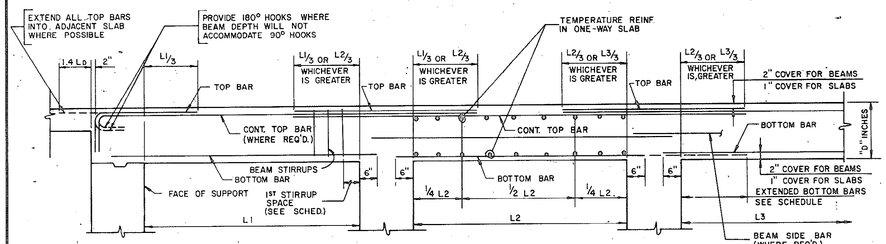
TYPE E1 TYPE E2

EXPANSION JOINTS



A	NOMINAL KEY SIZE
UP TO 8"	1 - 2 X 3 KEY
9" TO 12"	1 - 2 X 4 KEY
13" TO 18"	1 - 2 X 6 KEY
19" TO 24"	2 - 2 X 4 KEYS

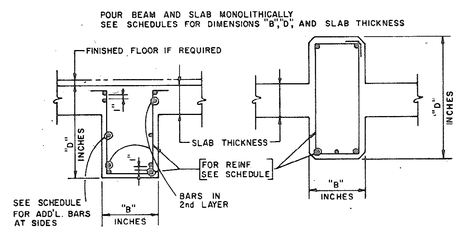
CONSTRUCTION JOINTS KEY DETAILS



EXTERIOR SPAN INTERIOR SPAN INTERIOR SPAN

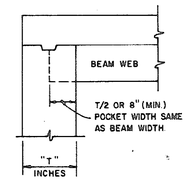
THESE DETAILS APPLY UNLESS OTHERWISE SHOWN OR NOTED

TYPICAL DETAILS FOR BEAM OR SLAB REINFORCEMENT

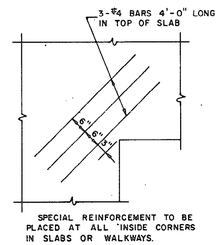


STANDARD BEAM UPTURNED BEAM

TYPICAL BEAM SECTION

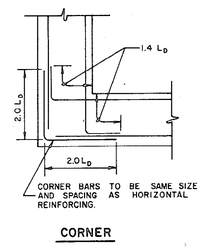


TYPICAL BEAM POCKET

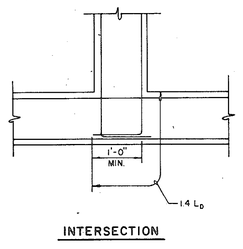


SLAB DETAIL AT RE-ENTRANT CORNER

BAR SIZE	DEVELOPMENT LENGTH "Ld"
#3	12"
#4	12"
#5	15"
#6	19"
#7	26"
#8	35"
#9	44"
#10	56"
#11	68"

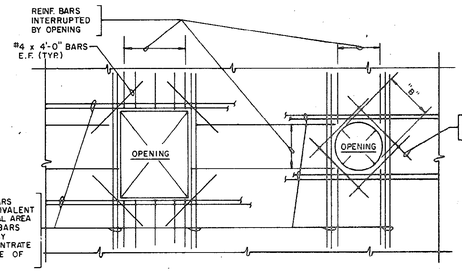


CORNER

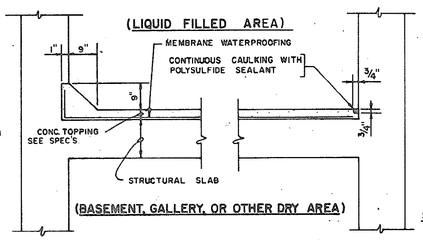


INTERSECTION

TYPICAL DETAILS OF HORIZ. WALL REINFORCEMENT

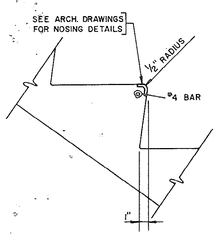


ADDITIONAL REINFORCING STEEL AT OPENINGS IN WALLS AND SLABS

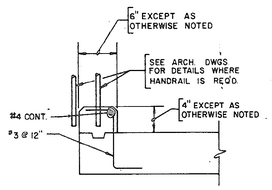


WITH FILLET WITHOUT FILLET

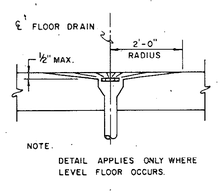
TYPICAL DETAIL WATERPROOFED AREA



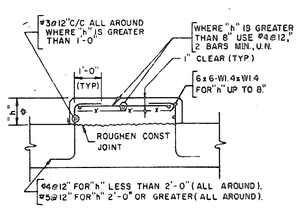
TYPICAL CONC. STAIR TREAD DETAIL



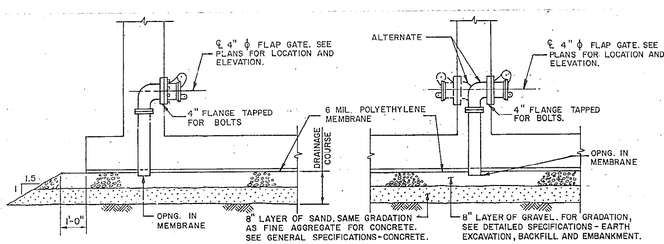
TYP. CONC. CURB DETAIL



TYPICAL DETAIL - PITCHED SLAB AT FLOOR DRAIN

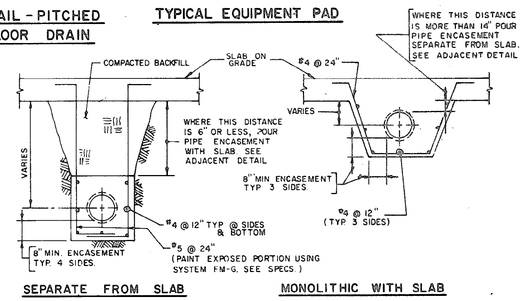


TYPICAL EQUIPMENT PAD



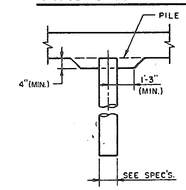
EXTERIOR WALL INTERIOR WALL

RELIEF VALVE DETAIL



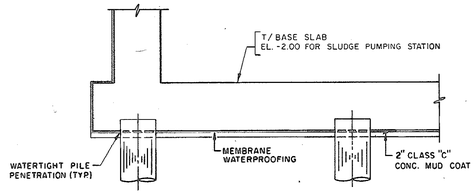
SEPARATE FROM SLAB MONOLITHIC WITH SLAB

PIPE ENCASEMENT



TIMBER PILE (20 TON BEARING)

TYPICAL PILE DETAIL



TYPICAL DETAIL WATERPROOFED BASE SLABS

GENERAL NOTES FOR STRUCTURES

CONCRETE

1. DESIGN AND CONSTRUCTION SHALL CONFORM TO THE LATEST "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" OF THE AMERICAN CONCETE INSTITUTE.
2. ALL REINFORCING BARS SHALL BE DEFORMED BILLET-STEEL CONFORMING TO A.S.T.M. A-615, GRADE 60. ARRANGEMENT AND DETAILS OF REINFORCING STEEL, INCLUDING BAR SUPPORTS AND SPACERS SHALL BE IN ACCORDANCE WITH THE LATEST A.C.I. DETAILING MANUAL UNLESS OTHERWISE NOTED.
3. ALL SLAB AND BEAM REINFORCEMENT SHALL HAVE A MINIMUM EXTENSION INTO THE SUPPORT IN ACCORDANCE WITH THE LATEST A.C.I. CODE. IF SUCH EXTENSION IS NOT POSSIBLE, BARS SHALL TERMINATE IN STANDARD HOOKS.
4. HORIZONTAL WALL REINFORCEMENT AND TEMPERATURE REINFORCEMENT SHALL LAP A MINIMUM OF $1.7\,L_D$ AT SPLICES. WALL DOWELS AND WALL BAR EXTENSIONS AND ALL STRESS SPLICES SHALL LAP A MINIMUM OF $1.7\,L_D$ UNLESS OTHERWISE NOTED.
5. COLUMNS SHALL HAVE DOWELS FROM FOUNDATIONS OR CONSTRUCTION BELOW OF SAME SIZE AND SPACING AS COLUMN VERTICAL STEEL; SEE COLUMN SCHEDULE/SECTIONS.
6. WHERE ONE WAY SLABS RUN PARALLEL WITH BEAMS OR WALL USE #4@12"x 5'-0" LONG TOP OVER THESE BEAMS OR WALLS AT RIGHT ANGLES TO SAME. HOOK BARS AT SPANDRELS.
7. UNLESS OTHERWISE SHOWN, THE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
   - SLABS
     - TOP AND BOTTOM OF FORMED SLABS — 1"
     - TOP OF WALKS AND DRIVEWAYS — 1½"
     - SURFACES IN CONTACT WITH LIQUID — 2"
     - BOTTOM OF SLABS ON FILL OR SOIL — 3"
   - FOOTINGS
     - TOP — 2½"
     - BOTTOM — 3"
   - WALLS
     - LESS THAN 12" THICK — ½"
     - 12" OR OVER IN THICKNESS WITH POURS LESS THAN 10 FEET HIGH — 2"
     - 12" OR OVER IN THICKNESS WITH POURS MORE THAN 10 FEET HIGH — 2½"
   - BEAMS AND GIRDERS
     - COVER AT TOP, BOTTOM, OR SIDE OF LONGITUDINAL REINF. — 2"
   - COLUMNS
     - COVER FOR VERTICAL BARS — 2"
8. UNLESS OTHERWISE NOTED, TEMPERATURE REINFORCEMENT IN ONE WAY SLABS SHALL BE AS FOLLOWS:
   - SLAB 5" OR LESS — #3 @ 12"
   - SLAB OVER 5" THRU 8" — #4 @ 12"
   - SLAB OVER 8" THRU 10" — #6 @ 16"
   - SLAB OVER 10" THRU 12" — #5 @ 12"
9. HORIZONTAL AND VERTICAL CONSTRUCTION JOINTS SHOWN OR NOTED ON THE PLANS ARE RECOMMENDED. ANY DEVIATION FROM THOSE SHOWN SHALL HAVE THE APPROVAL OF THE ENGINEER.
10. ANY STOP IN FRAMED CONCRETE WORK MUST BE MADE IN THE CENTER OF THE SPAN AND INCORPORATE AN APPROVED KEYWAY. REINFORCEMENT SHALL EXTEND THROUGH THESE JOINTS IF REQUIRED FOR CONTINUITY.
11. USE TYPE "C2" JOINT FOR ALL CONSTRUCTION JOINTS IN WALLS WHICH SEPARATE AREAS OF SOIL OR LIQUID FROM PERMANENTLY DRY AREAS SUCH AS TUNNELS, GALLERIES, BASEMENT ROOMS, ETC. USE TYPE "C1" JOINT AT ALL OTHER CONSTRUCTION JOINTS UNLESS OTHERWISE NOTED ON DRAWINGS OR SPECIFIED.
12. CONCRETE WALLS AND PARTITIONS SHALL BE POURED IN MAXIMUM LENGTHS OF 60 FEET BETWEEN VERTICAL CONSTRUCTION JOINTS.
13. ALL FLOOR SLABS 8" OR LESS IN THICKNESS, REINFORCED WITH W.W.F. AND POURED AGAINST SOIL SHALL BE POURED IN A CHECKERBOARD PATTERN OF 25 FEET OR LESS IN EACH DIRECTION.
14. ALL CONCRETE SLABS OVER 8" IN THICKNESS, REINFORCED WITH BARS, AND POURED AGAINST SOIL SHALL BE POURED IN A CHECKERBOARD PATTERN OF 60 FEET OR LESS IN EACH DIRECTION.
15. ALL EXPOSED EDGES OF BEAMS, COLUMNS, SLABS, AND WALLS SHALL BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
16. REFER TO PROCESS, MECHANICAL, ARCHITECTURAL, AND ELECTRICAL DRAWINGS FOR ALL SLEEVES, PIPES, CONDUITS, AND MISCELLANEOUS ANCHORING DEVICES TO BE INCORPORATED IN THE CONSTRUCTION.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST A.I.S.C." SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS." ALL STRUCTURAL STEEL SHALL BE A.S.T.M. A 36.
2. ELEVATIONS OF STEEL BEAMS SHOWN ON FRAMING PLANS REFER TO TOP OF FLANGE, UNLESS OTHERWISE NOTED.
3. ALL BOLTED CONNECTIONS SHALL BE MADE WITH 3/4" DIAMETER A.S.T.M. A-325N BOLTS EXCEPT AS OTHERWISE NOTED OR REQUIRED. ALL BEAM CONNECTIONS NOT DETAILED ON CONTRACT DRAWINGS SHALL BE SELECTED TO SUPPORT ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY AS TABULATED IN ALLOWABLE LOADS ON BEAMS IN THE MANUAL OF STEEL CONSTRUCTION (7TH EDITION) OF A.I.S.C.
4. FIELD CONNECTIONS SHALL BE FASTENED W/HIGH STRENGTH STEEL BOLTS, EXCEPT AS OTHERWISE SHOWN OR NOTED.
5. ALL WELDING SHALL CONFORM TO THE LATEST SPECIFICATION OF THE AMERICAN WELDING SOCIETY.
6. LOOSE LINTELS SHALL BEAR A MINIMUM OF 8" ON MASONRY UNLESS OTHERWISE NOTED. WHERE LINTEL BEARS ON CONC. BLOCK, GROUT SOLID TO SUPPORTING FLOOR OR BEAM BELOW.
7. WALL BEARING BEAMS SHALL HAVE STANDARD ANGLE WALL ANCHORS CONFORMING TO A.I.S.C. DETAILS UNLESS OTHERWISE NOTED.

GENERAL

1. ALL EXCAVATION FOR STRUCTURES SHALL BE KEPT DEWATERED DURING CONSTRUCTION OPERATIONS UNTIL BACKFILL IS IN PLACE.
2. DETAILS SHOWN ON THIS DRAWING ARE TYPICAL DETAILS AND SHALL BE USED WHOLLY OR IN PART WHERE THEY APPLY EXCEPT WHERE MODIFIED BY DETAILED DRAWINGS AND SPECIFICATIONS. ONLY THE TYPES OF EXPANSION JOINTS AND CONSTRUCTION JOINTS SPECIFICALLY CALLED FOR ON THE PLANS AND SECTIONS ARE INCLUDED IN THE WORK.
3. ALL OPEN TANKS AND CHANNELS SUPPORTED ON SOIL SHALL BE PROTECTED AGAINST FROST ACTION AND DANGER FROM HEAVING BY INSULATING THE BOTTOM SLAB WITH A LAYER OF INSULATING MATERIAL PLACED WITHIN THE TANK THICK ENOUGH TO PREVENT FROST PENETRATION.

ABBREVIATIONS

HORIZ. = HORIZONTAL	B/B = BACK TO BACK	T/STL. = TOP OF STEEL
E.F. = EACH FACE	BOTT. = BOTTOM	VERT. = VERTICAL
T. = TOP	BT. = BENT	HT. = HEIGHT
T/SL. = TOP OF SLAB	STR. = STRAIGHT	H.P. = HIGH POINT
T/BM. = TOP OF BEAM	ALT. BT. = ALTERNATE BARS BENT	P.C.O. = PILE CUT OFF
EL. = ELEVATION	CTRD. = CENTERED	REINF. = REINFORCING
E.W. = EACH WAY	C/C = CENTER TO CENTER	U.N. = UNLESS NOTED
SPCG. = SPACING	L.P. = LOW POINT	

℗ DIMENSIONS NOTED THUS TO BE DETERMINED BY EQUIPMENT MANUFACTURER, OR GENERAL CONTRACTOR.

LEGEND

- EXISTING CONCRETE STRUCTURE
- EXISTING STEEL STRUCTURE
- EXISTING STRUCTURE TO BE REMOVED
- NEW CONCRETE STRUCTURE
- NEW STEEL STRUCTURE

51-063-098

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED J.S. DRAWN R.W.H. CHECKED H.R. DATE 6-1-86

PRC Consoer Townsend CONSULTING ENGINEERS

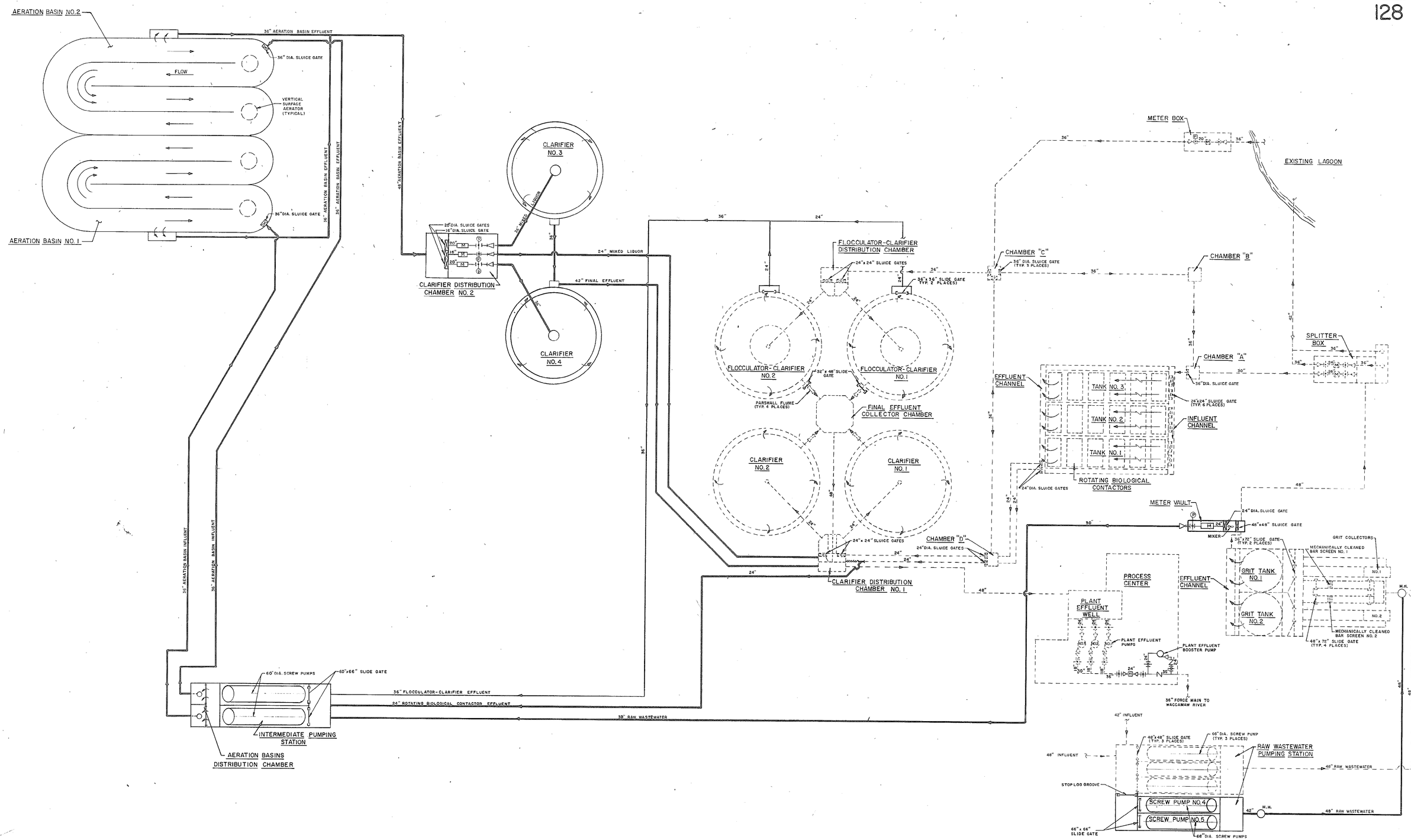
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE NONE

STRUCTURAL NOTES AND DETAILS

SHEET XS-1 OF SHEETS
PROJECT NO. 2815

RECORD



FLOW DIAGRAM NO. 1
RAW WASTEWATER TO FINAL EFFLUENT

51-003-049

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E./E.B.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

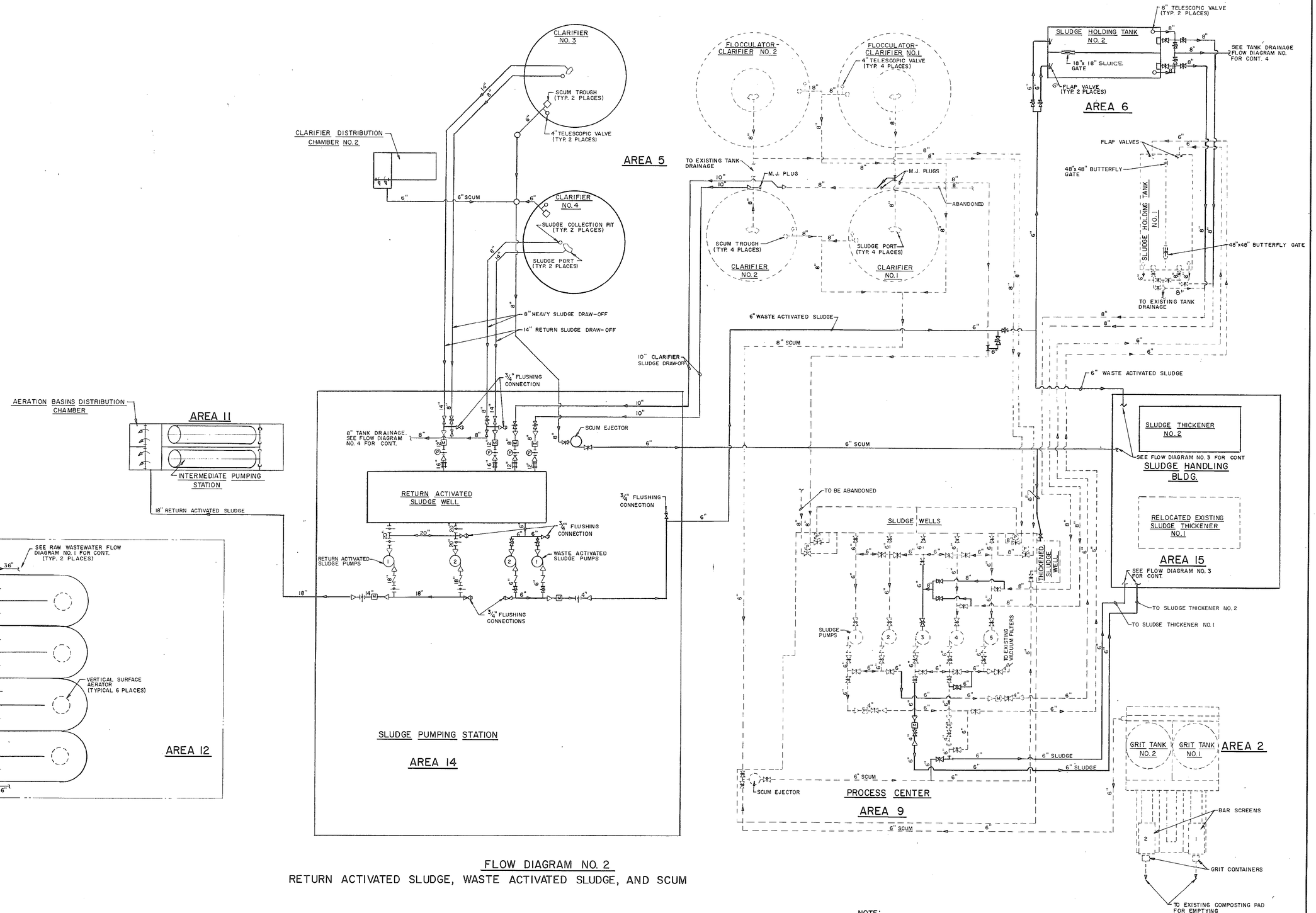
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

FLOW DIAGRAM

SHEET XP-1
OF SHEETS
PROJECT NO. 2815

RECORD



FLOW DIAGRAM NO. 2

RETURN ACTIVATED SLUDGE, WASTE ACTIVATED SLUDGE, AND SCUM

NOTE:
FOR FLOW DIAGRAM SYMBOLS
SEE SHEET XP-6

51-003-100

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

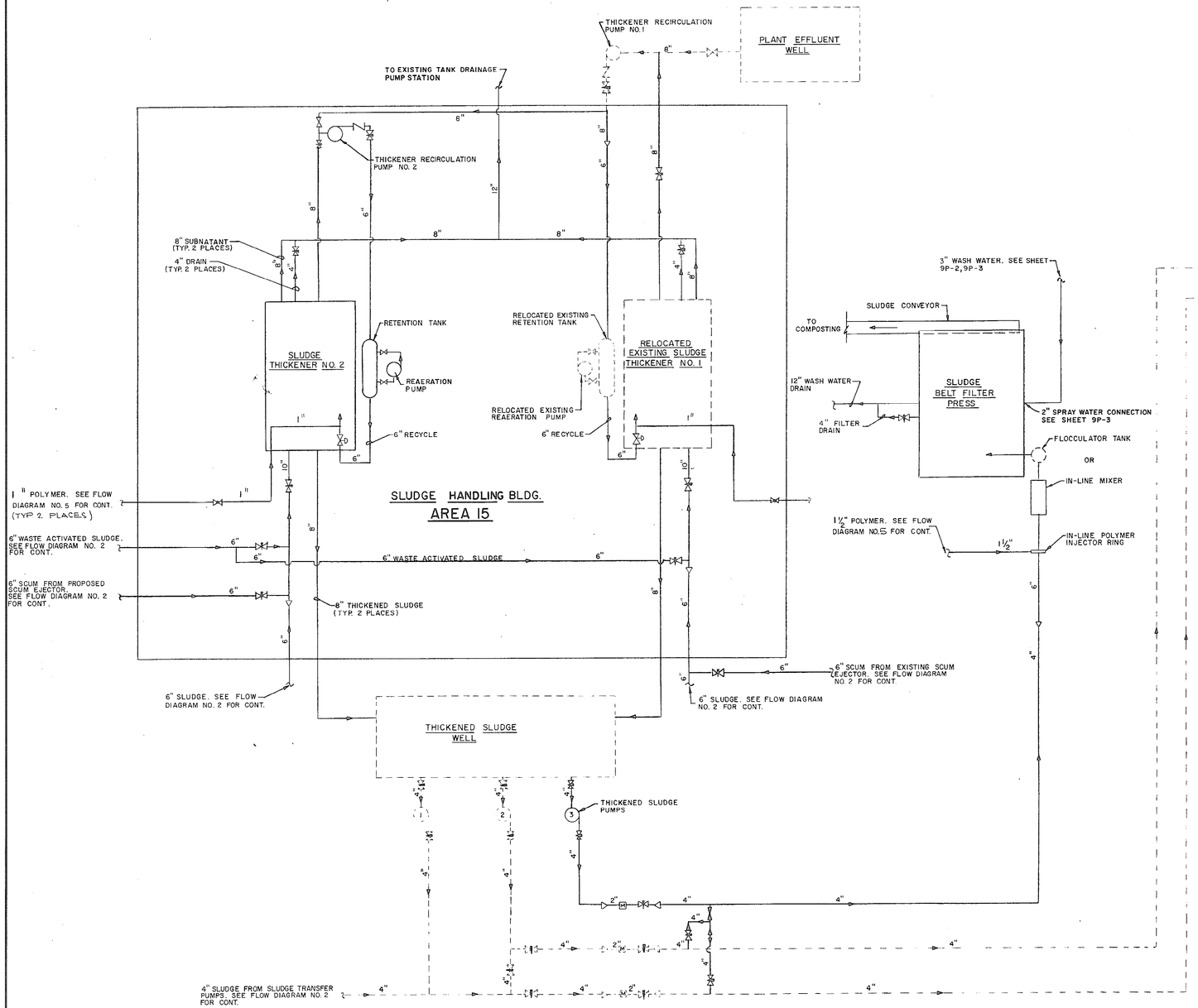
SCALE
NONE

FLOW DIAGRAM

SHEET XP-2
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716



NOTE:
ALL EQUIPMENT, PIPING, ETC. SHOWN OUTSIDE OF SLUDGE HANDLING BLDG.- AREA 15- ARE LOCATED IN EXISTING PROCESS CENTER BLDG.- AREA 9.

FLOW DIAGRAM NO. 3
THICKENED SLUDGE

NOTE:
FOR FLOW DIAGRAM SYMBOLS SEE SHEET XP-6

51-003-101

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

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CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

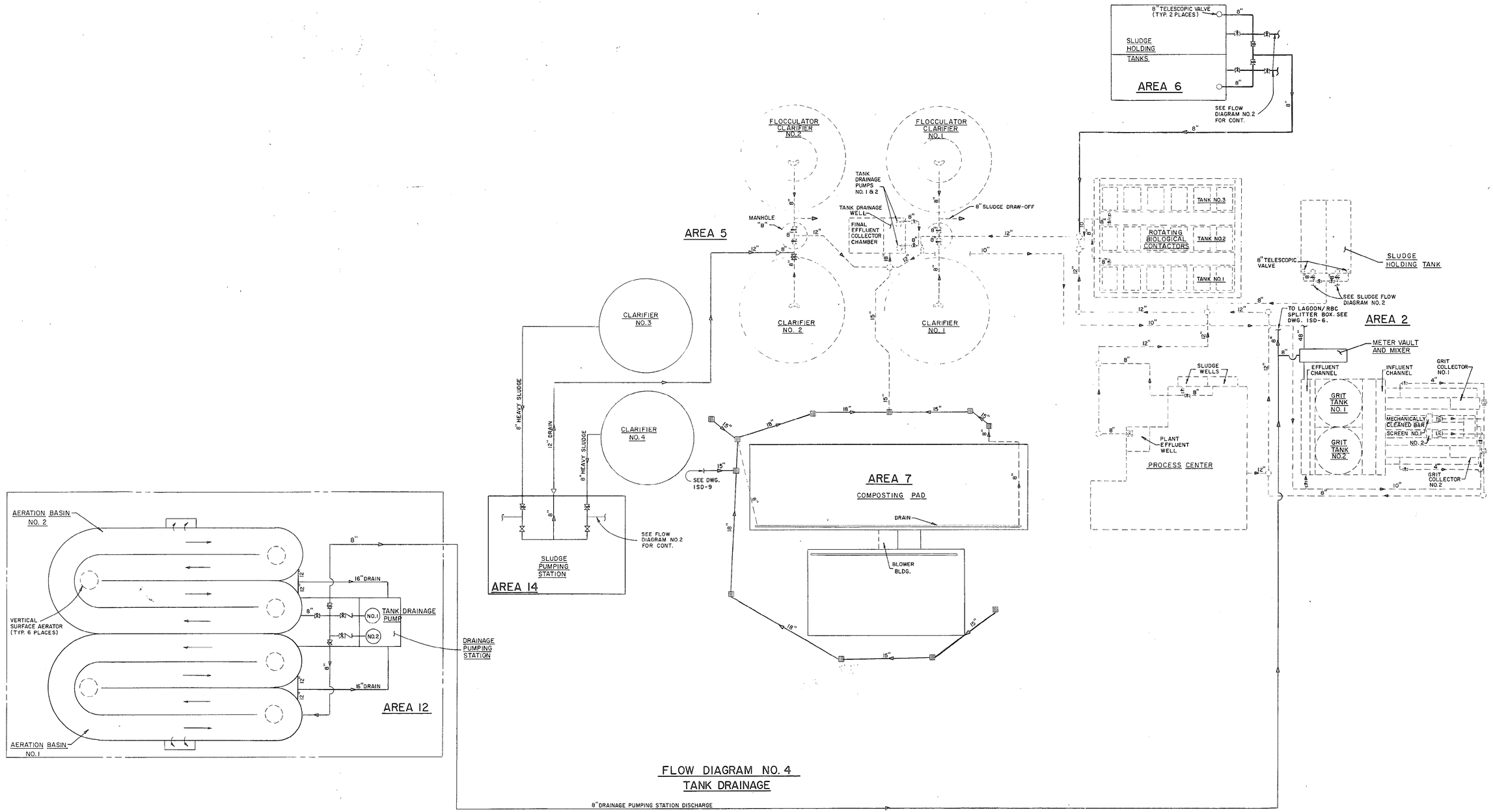
SCALE
NONE

FLOW DIAGRAM

SHEET XP-3
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 68716



FLOW DIAGRAM NO. 4
TANK DRAINAGE

NOTE:
FOR FLOW DIAGRAM SYMBOLS
SEE SHEET XP-6

51-003-102

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN J.T.Z.
CHECKED K.A.R.
DATE 6-1-86

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CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

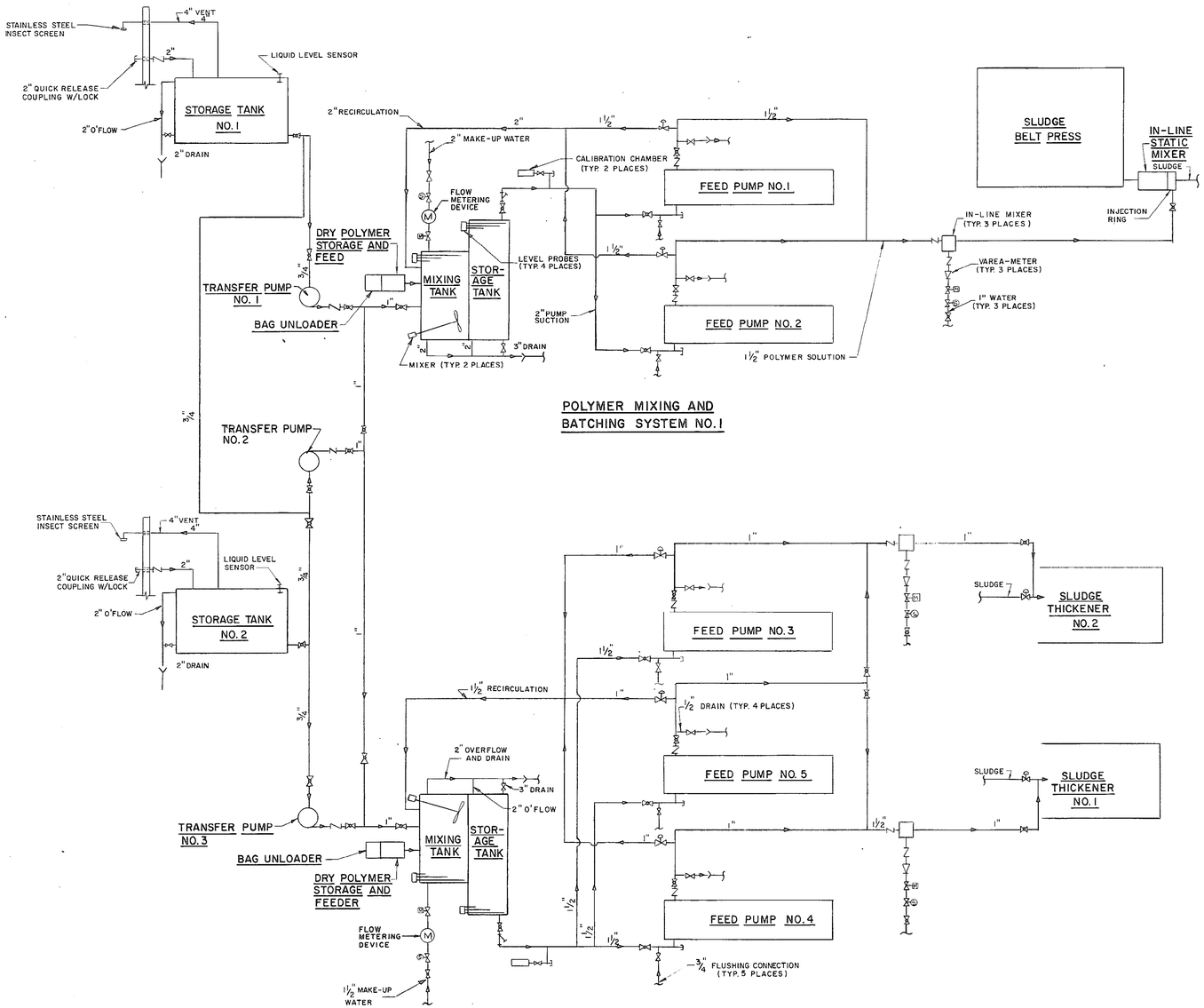
SCALE
NONE

FLOW DIAGRAM

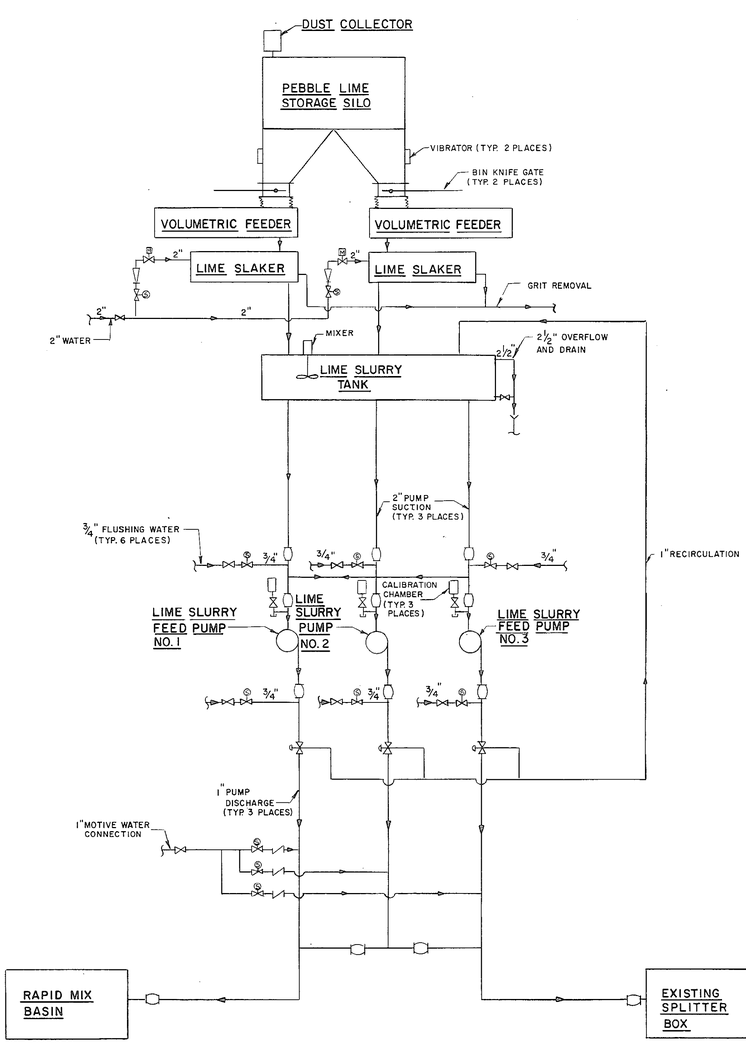
SHEET XP-4
OF SHEETS
PROJECT NO. 2815

BRUNING 44-132-68716

RECORD



FLOW DIAGRAM NO. 5
POLYMER



FLOW DIAGRAM NO. 6
LIME

NOTE: FOR FLOW DIAGRAM SYMBOLS SEE SHEET XP-6

51-003-07K

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN J.T.Z.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

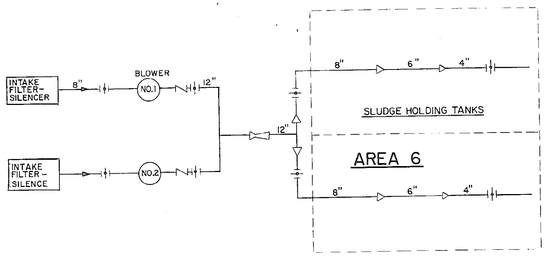
SCALE
NONE

FLOW DIAGRAM

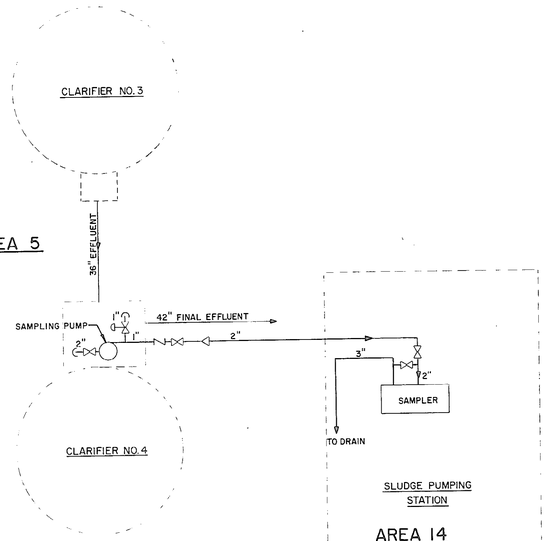
SHEET XP-5
OF SHEETS
PROJECT NO. 2815

RECORD

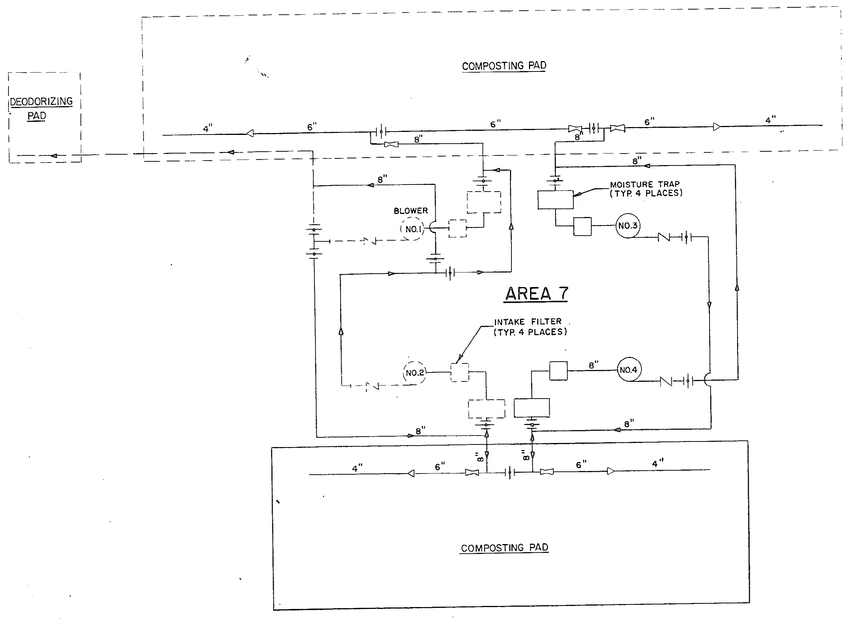
BRUNING 44-132 68716



FLOW DIAGRAM NO. 7
LOW PRESSURE AIR DIAGRAM



FLOW DIAGRAM NO. 8
SAMPLING



FLOW DIAGRAM SYMBOLS

SYMBOL	DESCRIPTION
20"	PIPE SIZE AND DIRECTION OF FLOW
	BLIND FLANGE
	GATE VALVE
	GATE VALVE W/ELECTRIC OPERATOR
	GATE VALVE W/PNEUMATIC OPERATOR
	PLUG VALVE
	PLUG VALVE W/ELECTRIC OPERATOR
	PLUG VALVE W/PNEUMATIC OPERATOR
	3 WAY PLUG VALVE
	BUTTERFLY VALVE
	BUTTERFLY VALVE W/ELECTRIC OPERATOR
	BUTTERFLY VALVE W/PNEUMATIC OPERATOR
	BUTTERFLY VALVE PNEUMATIC OPERATOR W/POSITIONER OR MODULATO
	MUD VALVE OR PLUG DRAIN VALVE
	PINCH VALVE
	GLOBE VALVE
	YARD HYDRANT
	GAS RELIEF VALVE
	SOLENOID VALVE
	BALL VALVE
	SAMPLING VALVE
	PRESSURE CONTROL VALVE RELIEF OR REDUCING
	REDUCER
	CHLORINE GAS VALVE
	CHECK VALVE
	FLAP VALVE
	SLUICE GATE
	STOP GATE OR SLIDE GATE
	PUMP OR BLOWER
	MAGNETIC FLOW METER
	ROTAMETER
	FLOW TUBE, VENTURI, OR RATE CONTROLLER
	ORIFICE PLATE
	DENSITY METER
	AMMONIA TYPE UNION
	PRESSURE GAUGE
	VENT
	DRIP TRAP
	STRAINER
	M.J. PLUG
	BUTTERFLY CHANNEL GATE
	BUTTERFLY CHANNEL GATE W/ELECTRIC MODULATOR
	BUTTERFLY CHANNEL GATE W/PORTABLE ELECTRIC OPERATOR
	SILENCER
	SLUICE GATE W/PORTABLE ELECTRIC OPERATOR
	MANHOLE
	BUTTERFLY VALVE W/ELECTRIC MODULATOR
	BACK PRESSURE VALVE
	ANTI-SIPHON AND BACK LOADING VALVE
	DIAPHRAGM VALVE
BFP	BACKFLOW PREVENTER
	INLET
	EXISTING PIPE, VALVES, EQUIPMENT AND STRUCTURES

FLOW DIAGRAM INDEX

NO.	TITLE	SHEET NO.
1.	RAW WASTEWATER TO FINAL EFFLUENT	XP-1
2.	RETURN ACTIVATED SLUDGE, WASTE ACTIVATED SLUDGE, AND SCUM	XP-2
3.	THICKENED SLUDGE	XP-3
4.	TANK DRAINAGE	XP-4
5.	POLYMER	XP-5
6.	LIME	XP-5
7.	LOW PRESSURE AIR	XP-6
8.	SAMPLING	XP-6

51-093-104

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED E.E.I.
DRAWN J.T.Z.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

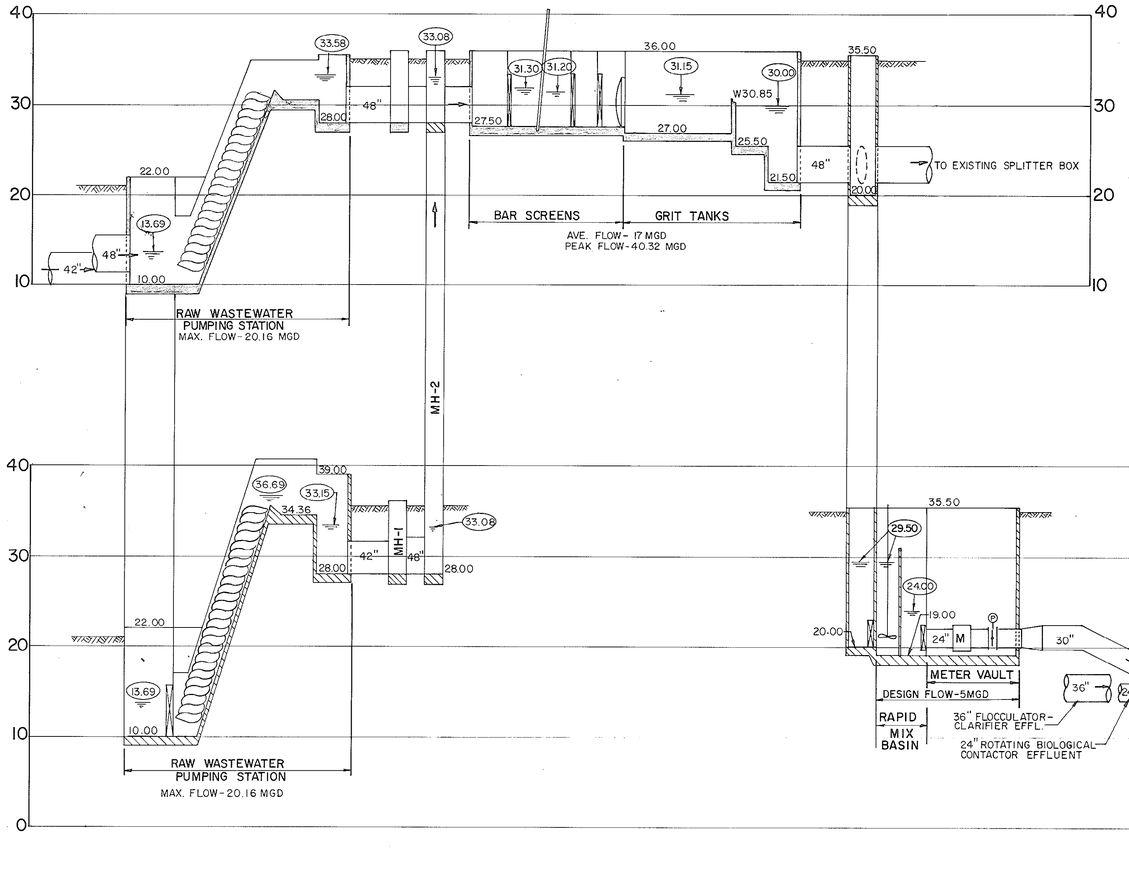
SCALE
NONE

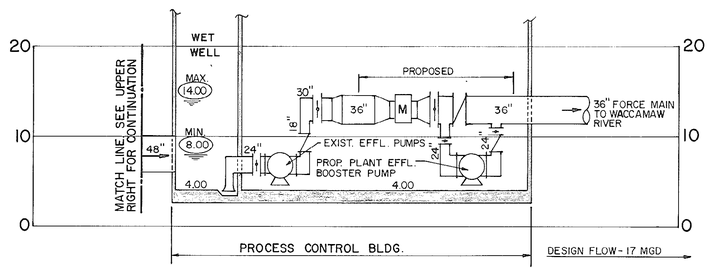
FLOW DIAGRAMS

SHEET XP-6
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 69716





LEGEND

22.00	WATER LEVEL AT DESIGNATED FLOW
W22.50	WEIR CREST ELEVATION
15.25	STRUCTURE ELEVATION
	PROPOSED STRUCTURE
	EXISTING STRUCTURE

51-003-105

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
HORIZ. - NONE
VERT. - 1/8"=1'-0"

HYDRAULIC PROFILE

SHEET XP-7
OF SHEETS
PROJECT NO 2815

RECORD

BRUNING 44-132 68716

MAJOR VALVE SCHEDULE

NO. REQUIRED	SIZE	TYPE	SERVICE	LOCATION	PRESSURE CLASS	ENDS	OPERATION
1	24"	Butterfly	Raw Wastewater	Meter Vault Area 2	150	FL	Pneumatic
2	20"	Butterfly	Mixed Liquor Influent	Clarifier Distribution Chamber No. 2 Area 5	150	FL	Pneumatic
1	16"	Butterfly	Mixed Liquor Influent	Clarifier Distribution Chamber No. 2 Area 5	150	FL	Pneumatic
6	8"	Plug	Sludge	Sludge Holding Tanks - Area 6	175	M.J.	Manual
2	6"	Plug	Waste Activated Sludge	Sludge Holding Tank No. 2 Area 6	175	M.J.	Manual
2	4"	Butterfly	Low Pressure Air	Sludge Holding Tank No. 2 Area 6	150	Wafer	Manual
2	12"	Double Disc Swing Check	Low Pressure Air	Sludge Holding Tank No. 2 Area 6	150	Wafer	-
2	12"	Butterfly	Low Pressure Air	Sludge Holding Tank No. 2 Area 6	150	Wafer	Manual
4	8"	Butterfly	Low Pressure Air	Sludge Holding Tank No. 2 Area 6	150	Wafer	Manual
13	8"	Butterfly	Low Pressure Air	Compost Pad Area 7	150	Wafer	Manual
2	8"	Double Disc Swing Check	Low Pressure Air	Compost Pad Area 7	150	Wafer	-
1	36"	Double Disc Swing Check	Plant Effluent	Process Center Area 9	75	Threaded Lug	-
2	36"	Butterfly	Plant Effluent	Process Center Area 9	75	FL	Manual
2	24"	Butterfly	Plant Effluent-Booster	Process Center Area 9	150	FL	Manual
1	24"	Double Disc Swing Check	Plant Effluent-Booster	Process Center Area 9	150	Threaded Lug	-
2	8"	Plug	Sludge	Process Center Area 9	175	FL	Manual
3	6"	Plug	Sludge	Process Center Area 9	175	FL	Manual
4	4"	Plug	Thickened Sludge	Process Center Area 9	175	FL	Manual
1	6"	Butterfly	Plant Water	Process Center Area 9	150	FL	Manual
1	4"	Gate	Plant Water	Process Center Area 9	GV-1	FL	Manual
1	4"	Butterfly	Plant Water	Process Center Area 9	150	FL	Manual
1	4"	Double Disc Swing Check	Plant Water	Process Center Area 9	150	FL	-
1	4"	Plug	Sludge	Process Center Area 9	175	FL	Manual
5	8"	Plug	Tank Drainage	Aeration Basin Area 12	175	FL	Manual
2	8"	Swing Check	Tank Drainage	Aeration Basin Area 12	150	FL	-
4	20"	Butterfly	Return Activated Sludge	Sludge Pumping Station - Area 14	150	FL	Manual
2	18"	Butterfly	Return Activated Sludge	Sludge Pumping Station - Area 14	150	FL	Manual
2	18"	Flapper Check	Return Activated Sludge	Sludge Pumping Station - Area 14	150	FL	-
1	14"	Butterfly	Return Activated Sludge	Sludge Pumping Station - Area 14	150	FL	Pneumatic
4	6"	Plug	Waste Activated Sludge	Sludge Pumping Station - Area 14	175	FL	Manual
2	6"	Flapper Check	Waste Activated Sludge	Sludge Pumping Station - Area 14	150	FL	-
1	4"	Butterfly	Waste Activated Sludge	Sludge Pumping Station - Area 14	150	FL	Manual
2	14"	Plug	Return Sludge Draw-off	Sludge Pumping Station - Area 14	175	FL	Manual
2	12"	Butterfly	Return Sludge Draw-off	Sludge Pumping Station - Area 14	150	FL	Pneumatic
2	8"	Plug	Heavy Sludge Draw-off	Sludge Pumping Station - Area 14	175	FL	Manual
2	8"	Resilient Seat Gate	Heavy Sludge Draw-off	Sludge Pumping Station - Area 14	200	FL	Manual
2	8"	Butterfly	Flocculator-Clarifier Effluent	Sludge Pumping Station - Area 14	150	FL	Pneumatic
2	10"	Plug	Flocculator-Clarifier Effluent	Sludge Pumping Station - Area 14	175	FL	Manual
2	8"	Plug	Recirculation Sludge	Sludge Handling Building - Area 15	175	FL	Manual
1	8"	Resilient Seat Gate	Thickened Sludge	Sludge Handling Building - Area 15	200	FL	Manual
1	6"	Plug	Scum	Sludge Handling Building - Area 15	175	FL	Manual
2	6"	Plug	Waste Activated Sludge	Sludge Handling Building - Area 15	175	FL	Manual
2	10"	Plug	Thickened Sludge Influent	Sludge Handling Building - Area 15	175	FL	Manual
1	6"	Plug	Recirculation Sludge	Sludge Handling Building - Area 15	175	FL	Manual
1	6"	Flapper Check	Recirculation Sludge	Sludge Handling Building - Area 15	150	FL	-
2	4"	Plug	Drain	Sludge Handling Building - Area 15	175	FL	Manual

MAJOR GATE SCHEDULE

NO. REQD.	SIZE	TYPE	LOCATION	SEATING HEAD(FT.)	UNSEATING HEAD(FT.)	OPERATION	MATERIAL
2	66" x 66"	Slide	Raw Wastewater Pumping Station Area 2	10	5	Manual/Ext'd Operator w/Portable Electric Operator	Aluminum or Coplastic
1	24" Dia.	Sluice	Meter Vault Area 2	10	10	Manual	Cast Iron
1	48" x 48"	Sluice	Rapid Mix Basin Area 2	10	10	Manual	Cast Iron
2	32" x 48"	Slide	Flocculator-Clarifiers Area 5	5	5	Manual	Coplastic
2	36" x 36"	Slide	Flocculator-Clarifiers Area 5	5	5	Manual	Coplastic
2	20" Dia.	Sluice	Clarifier Distribution Chamber No. 2 Area 5	10	10	Manual	Cast Iron
1	16" Dia.	Sluice	Clarifier Distribution Chamber No. 2 Area 5	10	10	Manual	Cast Iron
1	60" x 42"	Weir	Clarifier Distribution Chamber No. 2 Area 5	-	-	Manual	Aluminum
1	18" x 18"	Sluice	Sludge Holding Tank No. 2 - Area 6	15	15	Manual	Cast Iron
2	6" Dia.	Flap	Sludge Holding Tank No. 2 - Area 6	-	-	Automatic	Cast Iron
2	60" x 66"	Slide	Intermediate Pumping Station - Area 11	10	5	Manual/Ext'd Operator w/Portable Electric Operator	Aluminum or Coplastic
2	72" x 48"	Weir/Slide	Intermediate Pumping Station - Area 11	-	-	Manual	Aluminum
2	36" Dia.	Sluice	Aeration Basins Area 12	15	15	Manual	Cast Iron
2	30' x 2'	Weir	Aeration Basins Area 12	-	-	Manual w/Portable Electric Operator	Aluminum

51-003-106

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED
DRAWN
CHECKED
DATE

PRC Consoer Townsend
CONSULTING ENGINEERS
A Division of PRC Engineering

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

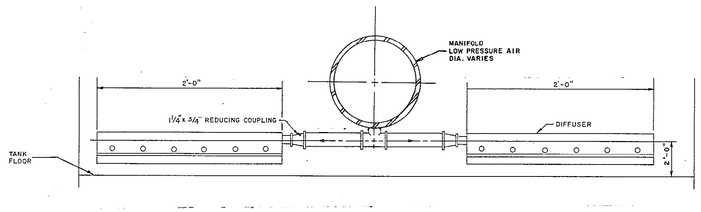
SCALE

VALVE AND GATE SCHEDULE

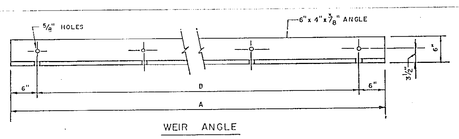
SHEET XP-8
OF SHEETS
PROJECT NO. 2815

RECORD

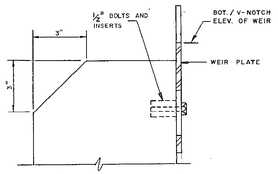
68716 BRUNING



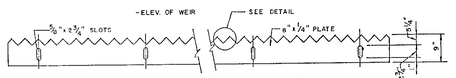
TYPICAL DETAIL OF DIFFUSER



WEIR ANGLE

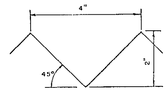


TYPICAL WEIR SECTION



V-NOTCH WEIR PLATE

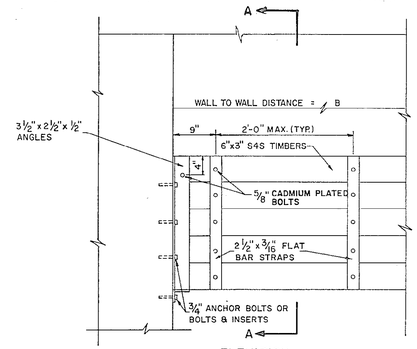
NOTE: GRIND ENDS OF PLATES AND ANGLE TO INSURE TIGHT FIT.



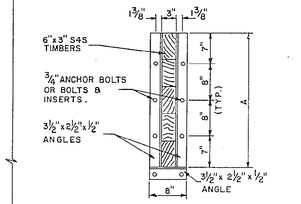
WEIR SCHEDULE

LOCATION AND WEIR TYPE	ELEVATION OF WEIR	NO. REQ'D.	DIMENSIONS	
			A	B
CLARIFIERS, V-NOTCH	20.0	2	—	—

WEIR DETAIL



ELEVATION



SECTION A-A

NOTE: BAFFLES SHALL BE CONSTRUCTED OF CALIFORNIA REDWOOD ASSOCIATION, CLEAR ALL HEART GRADE TIMBER OR TIMBER TREATED IN ACCORDANCE WITH SPEC. SECTION 6A, PARAGRAPH 2.6.

BAFFLE SCHEDULE

LOCATION	ELEVATION TOP OF BAFFLE	NO. REQD.	DIMENSIONS	
			A	B
SLUDGE HOLDING TANK NO. 2	24.50	4	9'-6"	12'-0"

BAFFLE DETAIL

PUMP LEGEND

SP	SCREW PUMP
HSCP	HORIZONTALLY SPLIT CASE PUMP
SCP	SUBMERSIBLE CENTRIFUGAL PUMP
CESP	CENTRIFUGAL, END SUCTION PUMP
NCCS	NON-CLOG CENTRIFUGAL SCREW PUMP
MFCV	MIXED FLOW CENTRIFUGAL VERTICAL PUMP
SPCP	SELF PRIMING CENTRIFUGAL PUMP
PDP	POSITIVE DISPLACEMENT PLUNGER PUMP
PDSD	POSITIVE DISPLACEMENT SINGLE DIAPHRAGM PUMP

THE SCHEDULES OF VALVES, GATES AND PUMPS SET FORTH ARE FOR THE CONVENIENCE OF THE CONTRACTOR, AND MAY NOT INCLUDE ALL THE VALVES, GATES AND PUMPS REQUIRED. THE CONTRACTOR SHALL PROVIDE ALL VALVES, GATES AND PUMPS IN THE QUANTITY, TYPES AND SIZES INDICATED ON THE CONTRACT DRAWINGS, THE CONTRACT SPECIFICATIONS, AND THE SCHEDULES LISTED ON THIS SHEET AND ON SHEET XP-8, TO PROVIDE A COMPLETE AND OPERATING SYSTEM AS REQUIRED.

PUMP SCHEDULE

NO. REQD.	TYPE	SERVICE	LOCATION	CAPACITY GPM	TDH OR LIFT FT.	SPEED RPM	EFFICIENCY PERCENT
2	SP	Raw Wastewater	Area 2 - Raw Wastewater Pumping Station	7,000	23	36	-
2	SP	Wastewater	Area 11 - Intermediate Pumping Station	7,000	13	33	-
2	MFCV	Return Activated Sludge	Area 14 - Sludge Pumping Station	7,000	70	880	80
2	NCCS	Waste Activated Sludge	Area 14 - Sludge Pumping Station	300	75	1750	60
2	SCP	Tank Drainage Alternate II	Area 12 - Aeration Basins	700	50	1800	50
1	CESP	Thickener Recirculation	Area 15 - Sludge Handling Building	600	160	3500	66
1	PDP	Thickened Sludge	Area 9 - Process Center	100	70	49 SPM	-
1	SPCP	Settled Waste - Water Sampling	Area 5 - Clarifiers	30	60	3500	55
1	HSCP	Plant Effluent Booster Pump	Area 9 - Process Center	12,000	30	880	75
1	HSCP	Spray Water Pump	Area 9 - Process Center	100	100	1770	58
3	PDSD	Lime Slurry Feed Pumps	Area 2 - Lime Storage and Feed System	300 GPH	60 PSIG		-

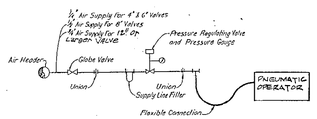


DIAGRAM OF AIR SUPPLY PIPING TO VALVES

51-093-167

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED E.E.I.
DRAWN C.E.E.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

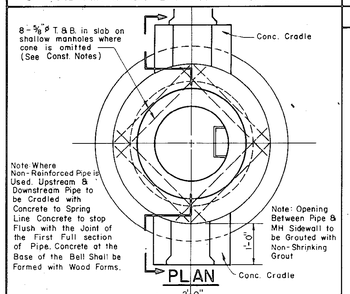
PUMP SCHEDULE & MISCELLANEOUS DETAILS

SHEET XP-9
OF SHEETS
PROJECT NO. 2815

RECORD

STANDARD MANHOLES

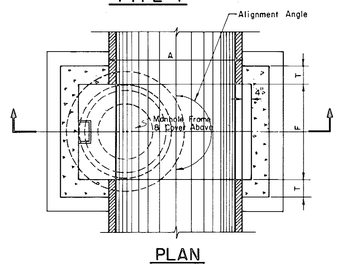
FOR SEWERS 36" DIAMETER & SMALLER



FOR SEWERS 42" INTERNAL DIAMETER AND LARGER

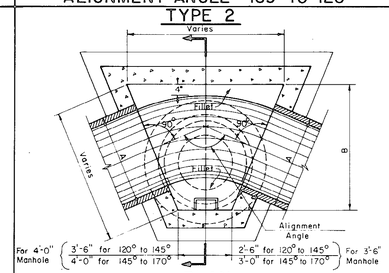
ALIGNMENT ANGLE - 180° TO 170°

TYPE 1



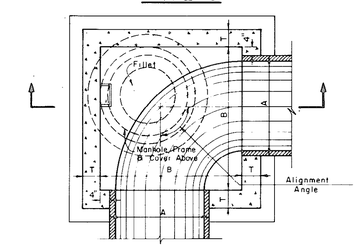
ALIGNMENT ANGLE - 169° TO 120°

TYPE 2



ALIGNMENT ANGLE - 119° TO 90°

TYPE 3



CONSTRUCTION DATA ALL MANHOLES

DIMENSIONS

A = Outside Diameter of Largest Pipe
B = A + 1'-8" (Minimum = 4'-0")
C = Not less than 6" above highest entering pipe.
D = Minimum 5-0"
E = Varies (See Note below)
F = Outside Diameter of entering pipe plus 1'-4" (4'-0" Minimum)

CONSTRUCTION NOTES

Cylindrical and Conical Sections of all Manholes shall be constructed of either monolithic concrete or precast concrete rings as designated in the Project Specifications of the Contract Document.

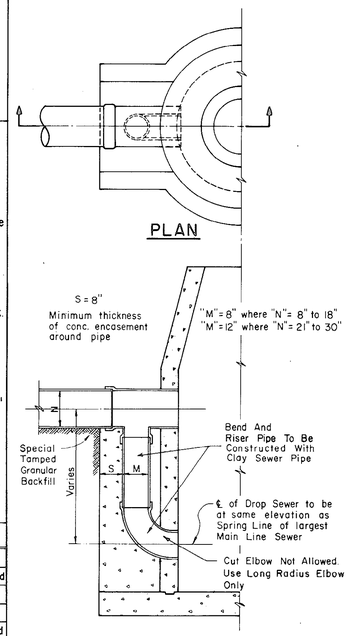
Concentric cones shall be used on Precast Concrete and Monolithic Concrete Units. Cylindrical section may be either 3'-6" or 4'-0" diameter at Contractors Option on 42" Dia. Sewers or larger.

Dimension "E" varies. When less than 5 feet omit cone and extend cylindrical manhole sidewall section to an elevation 8" inches below bottom of adjusting brick. Construct 8 inch thick concrete slab on top of cylindrical section reinforced with ⅝" ø bars as shown. Provide 24 inch diameter opening in slab for manhole frame and brick adjustment rings as on coned manholes.

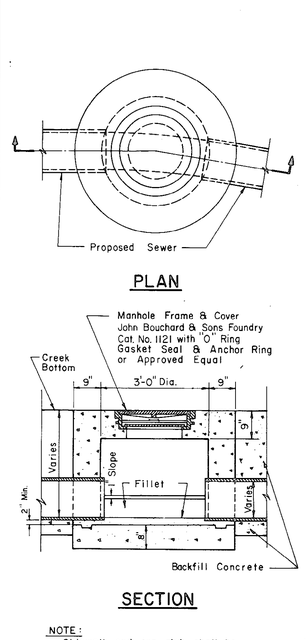
Bench Walls in manholes for sewers 18" in diameter and smaller to be built up to the three-quarter point on pipe. Sewers 21" to 30" in diameter - 15" high. Larger sewers to spring line. No Bench Walls required in dead end manholes, although bottom to be properly dished.

Item	For "X" Greater Than 15 Feet	For "X" Less Than 15 Feet
Dimension "T"	10"	8"
Bars "H"	⅝"ø @ 6"-Hooked	⅝"ø @ 9"-Hooked
Bars "V"	⅝"ø @ 6"	⅝"ø @ 9"
Bars "R"	⅝"ø @ 4"	⅝"ø @ 4½"
Bars "S"	⅝"ø @ 6"-Hooked	⅝"ø @ 8"-Hooked
Bars "M"	⅝"ø @ 5"	⅝"ø @ 6"
Bars "N"	⅝"ø @ 8"-Hooked	⅝"ø @ 8"-Hooked

DROP PIPE FOR STANDARD MANHOLES

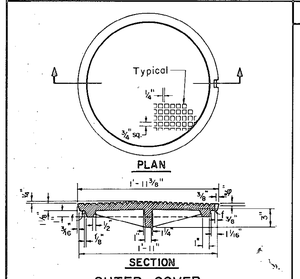


CREEK BOTTOM MANHOLE



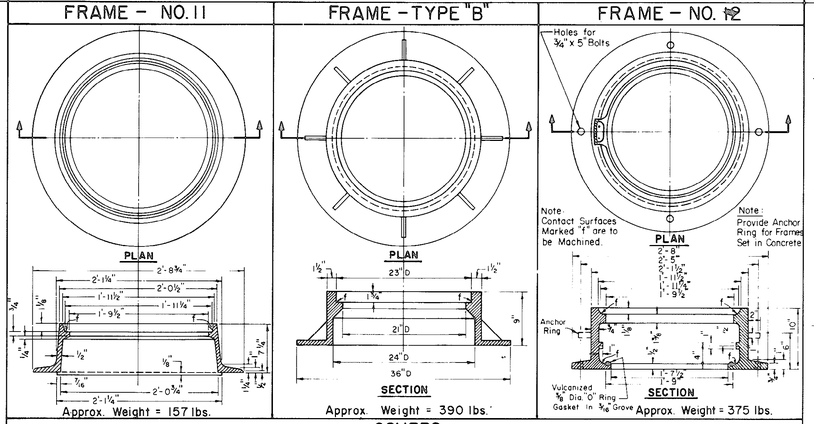
NOTE: Sidewall and top slab shall be monolithic.

WATERTIGHT MANHOLE COVERS

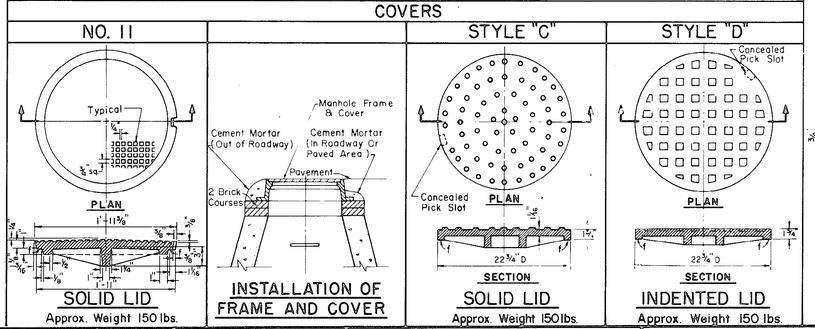


STANDARD MANHOLE FRAMES & COVERS

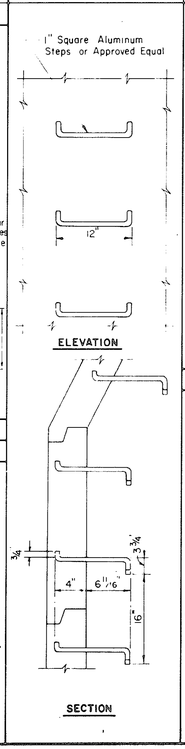
FRAMES



COVERS

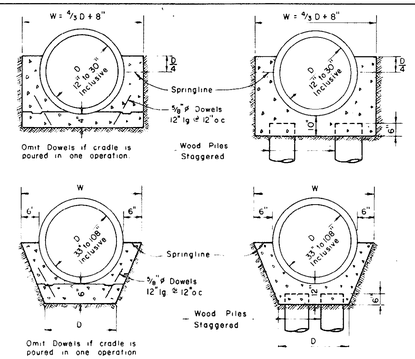


STANDARD LADDER STEPS



CONCRETE CRADLES

STANDARD CRADLE



STANDARD CRADLE DIMENSIONS & PAYMENT VOLUMES			
Internal Pipe Diameter	Width as shown	Payment Volumes of Concrete Cradle in Cubic Yards per Lineal Feet of Pipe	
D	W	Without Piling	With Piling
12"	24"	.052	.089
15"	28"	.065	.108
18"	32"	.078	.127
21"	36"	.092	.147
24"	40"	.107	.169
27"	44"	.122	.189
30"	48"	.142	.216
33"	52½	.123	.189
36"	56"	.136	.207
42"	63"	.163	.244
48"	70"	.191	.282
54"	77"	.222	.323
60"	84"	.254	.365
66"	91"	.288	.409
72"	98"	.324	.455
78"	105"	.362	.503
84"	112"	.401	.553
90"	118"	.443	.604
96"	125"	.487	.657
108"	138"	.579	.769

NOTES

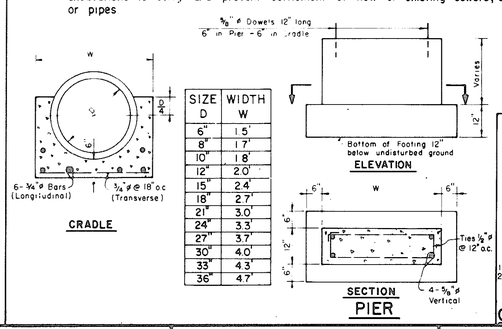
Concrete cradle shall be furnished and placed at locations shown on the contract drawings or at locations ordered by the Engineers. Concrete cradle shall be placed from the outside surface of the pipe to the undisturbed sides of the trench, with the minimum cross section as shown in Sections and dimensions for each pipe size as shown in table.

When a contract provides for payment for concrete cradle at a unit price per cubic yard, allowance for payment will be made on the basis of the installed lineal feet of each pipe size cradled multiplied by the volume in cubic yards per lineal feet as shown in the table regardless of the concrete volume actually placed.

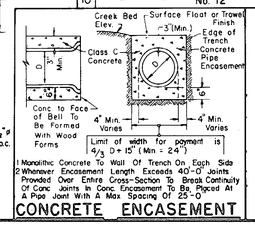
When a contract provides for payment for the installation of a sewer including cradle, the complete cost of cradle shall be included in the unit bid and contract price for the sewer and no extra allowance will be made for furnishing and placing concrete cradle.

SPECIAL REINFORCED CRADLE

NOTE: Build reinforced cradle supported by piers at maximum 10 ft. intervals across excavations to corry and prevent settlement of new or existing sewers, conduits or pipes



SIZE D	WIDTH W
6"	1.5'
8"	1.7'
10"	1.8'
12"	2.0'
15"	2.4'
18"	2.7'
21"	3.0'
24"	3.3'
27"	3.7'
30"	4.0'
33"	4.3'
36"	4.7'



THIS CONTRACT INCLUDES ITEMS CHECKED IN FOLLOWING TABULATIONS

1	Manhole for Sewers 36" Dia. & Smaller	X	11	Manhole Covers - No. 11	X
2	Manhole for Sewers 42" Dia. & Larger 180° to 170°	X	12	" " Style "C"	
3	" " " " " " 169° to 120°		13	" " Style "D"	
4	" " " " " " 119° to 90°		14	Standard Ladder Steps - Straight Wall	X
5	Drop Pipe for Standard Manholes	X	15	" " Curved Wall	
6	Creek Bottom Manhole		16	Concrete Cradle - Standard Cradle	X
7	Watertight Manhole Covers		17	Concrete Cradle - Special Reinforced Cradle	X
8	Manhole Frame - No. 11	X	18	Concrete Encasement	X
9	" " Type "B"	X			
10	" " No. 12	X			

51-003-108

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED S.P.S.
DRAWN J.T.Z.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

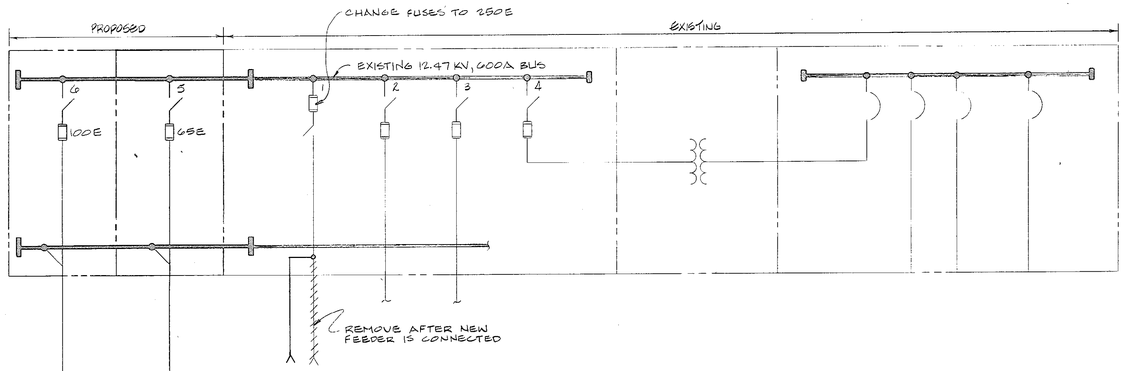
SEWER CONSTRUCTION DETAILS

SHEET XP-10
OF SHEETS
PROJECT NO. 2815

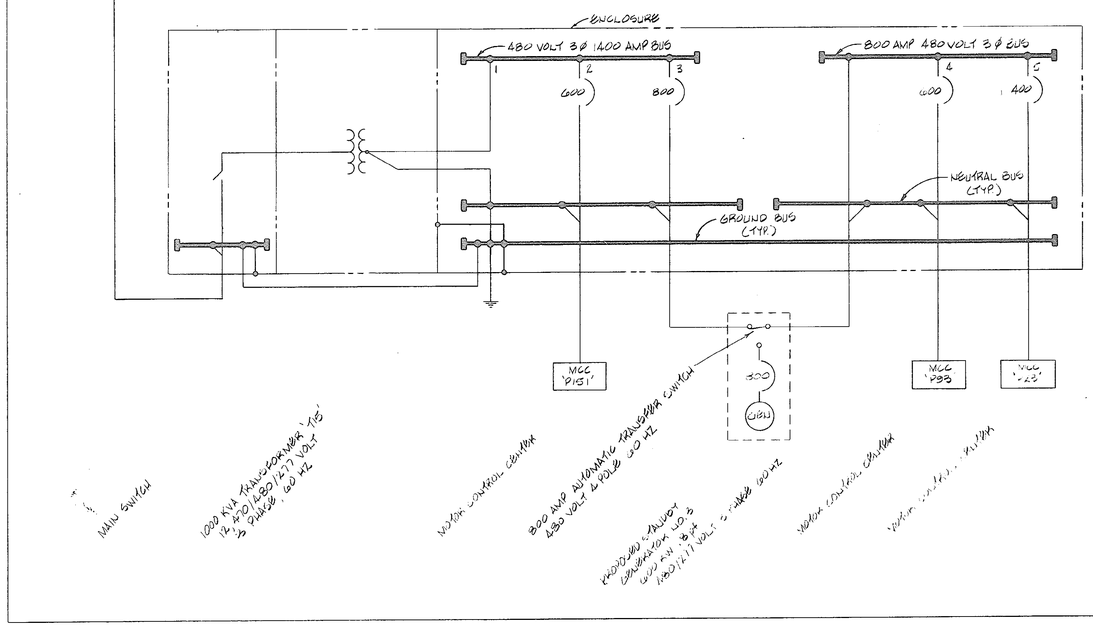
RECORD

BRUNING 44-132 88716

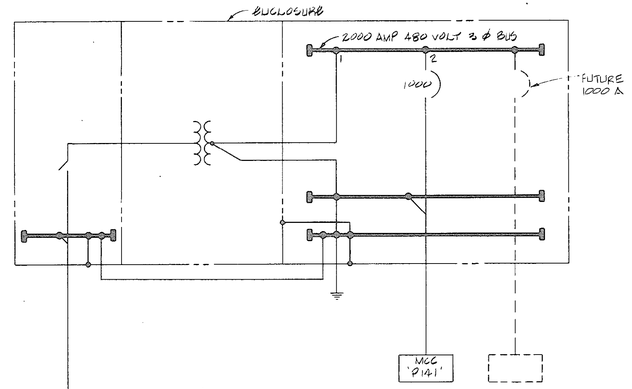
JUNE 73



EXISTING SWITCHGEAR 'S1'



UNIT SUBSTATION 'U15'



UNIT SUBSTATION 'U14'

51-003-109

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

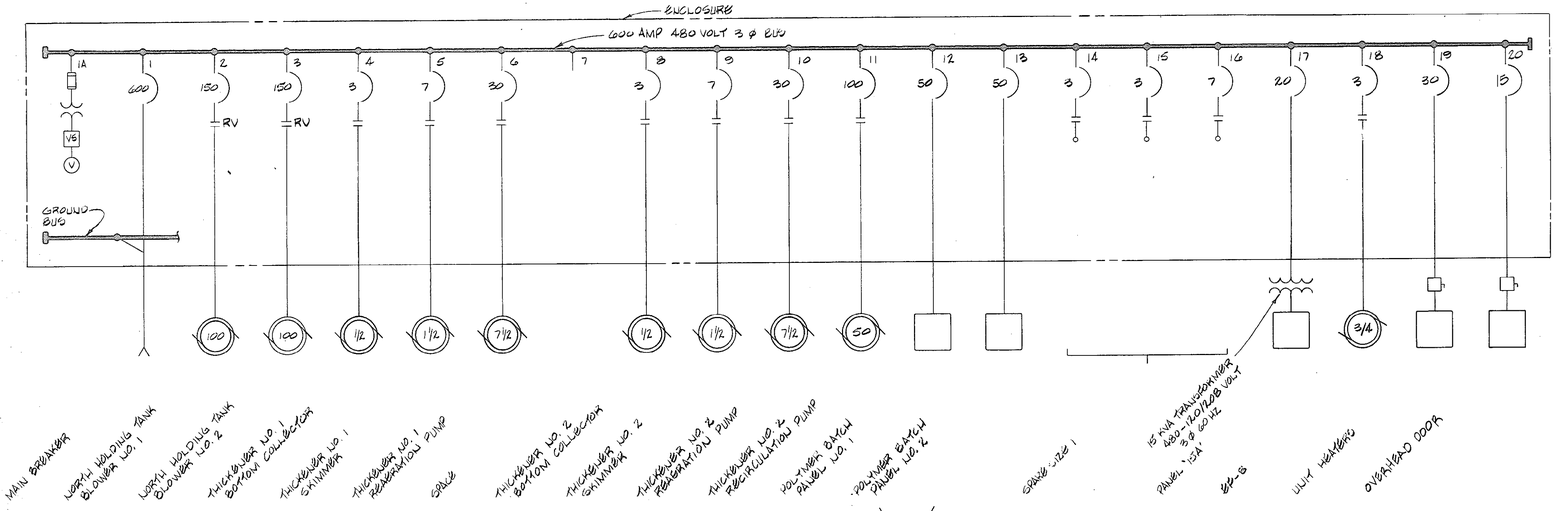
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

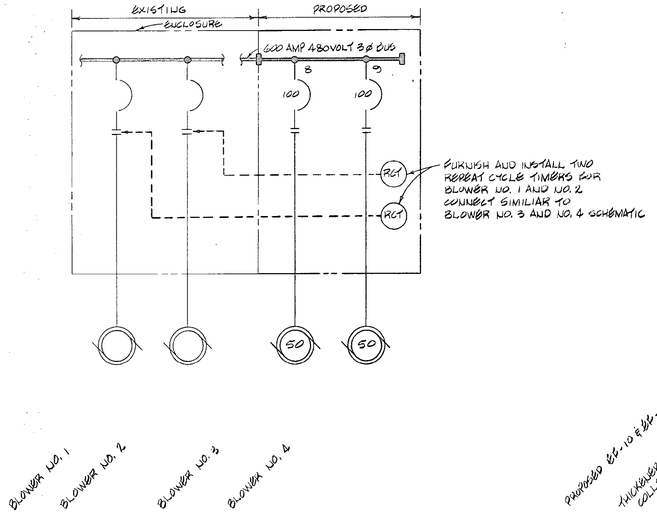
OVERALL SINGLE LINE

SHEET XE-1
OF SHEETS
PROJECT NO. 2815

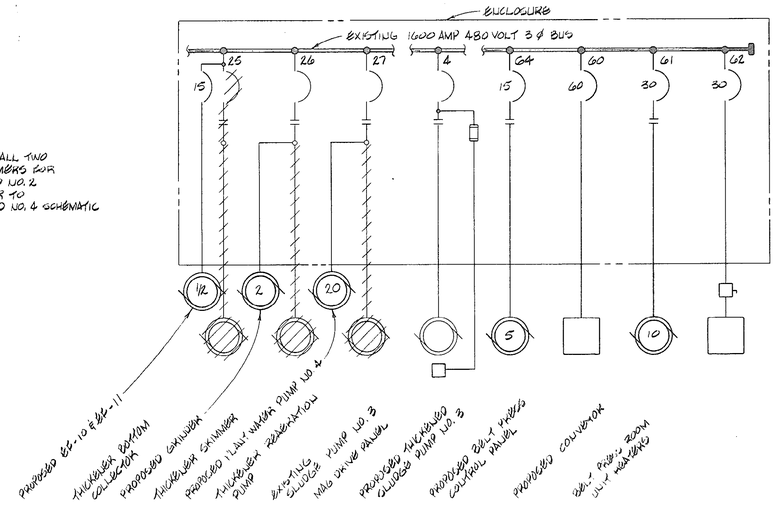
RECORD



MOTOR CONTROL CENTER 'P15I'



PARTIAL EXISTING MCC 'P7I'



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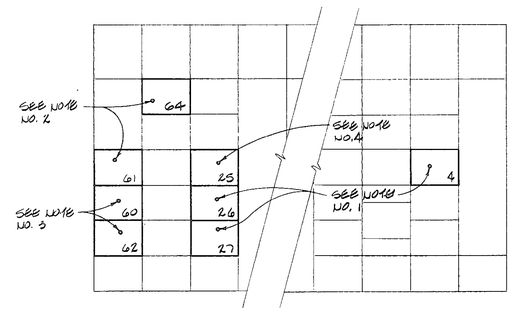


PARTIAL EXISTING MCC 'P9I'

NOTES:

1. REVISE EXISTING STARTER AS INDICATED FOR PROPOSED MOTORS.
2. FURNISH AND INSTALL PROPOSED STARTER IN EXISTING SPACE.
3. FURNISH AND INSTALL PROPOSED CIRCUIT BREAKER IN EXISTING SPACE.
4. REMOVE EXISTING STARTER AND FURNISH AND INSTALL CIRCUIT BREAKER.

51-003-110

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

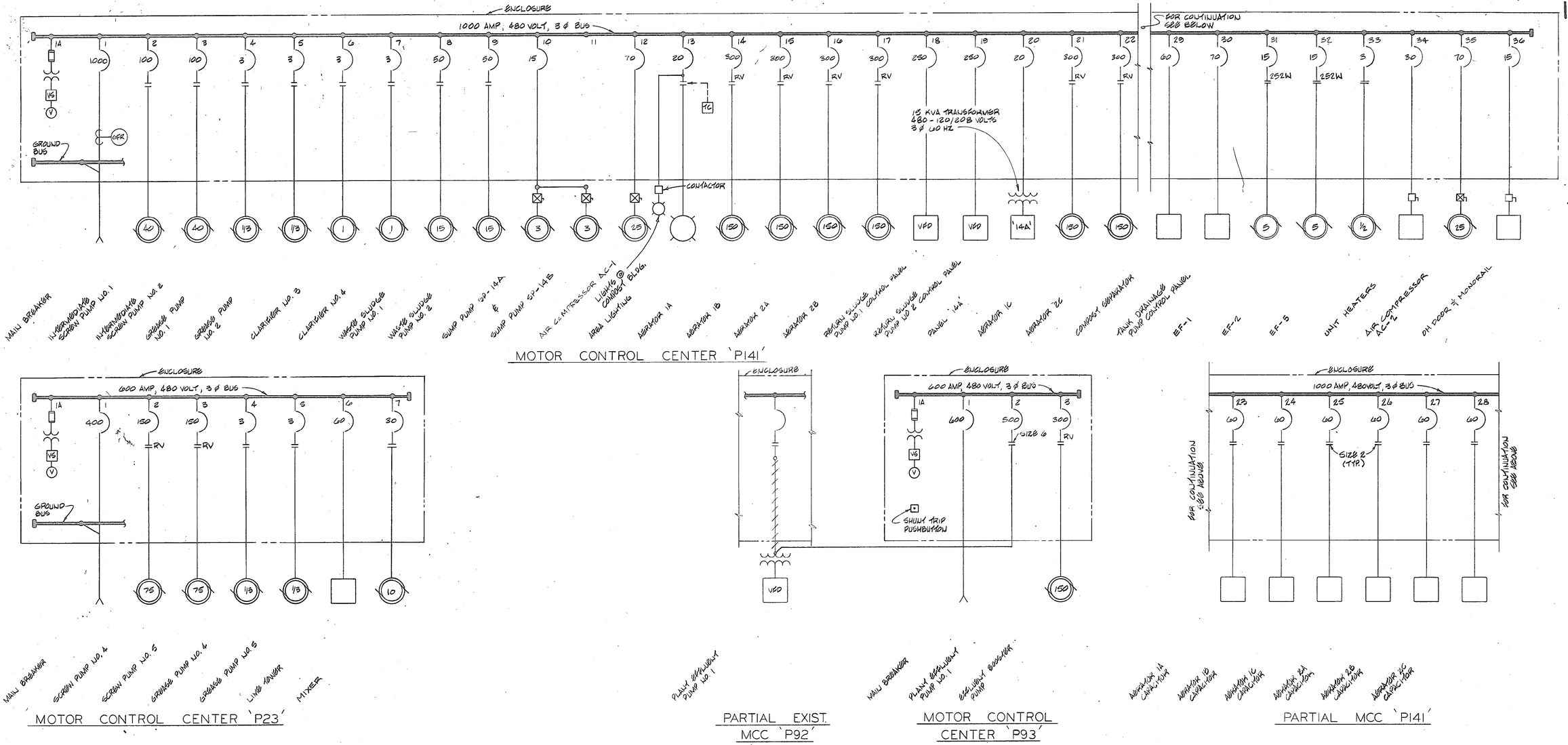
SCALE
NONE

MOTOR CONTROL CENTERS
SINGLE LINE DIAGRAMS

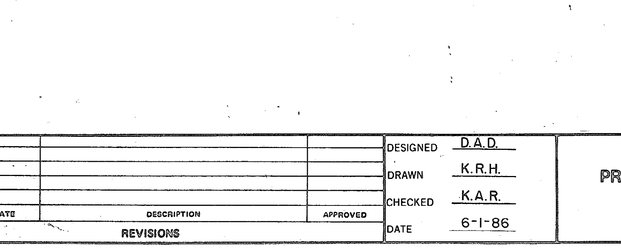
SHEET XE-2
OF SHEETS
PROJECT NO. 2815

RECORD

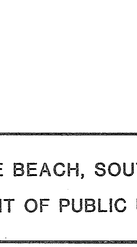
BRUNING 44-132 66716



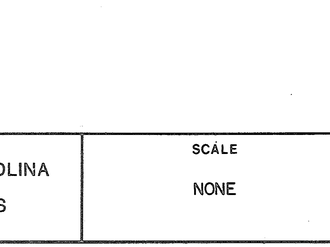
MOTOR CONTROL CENTER 'P141'



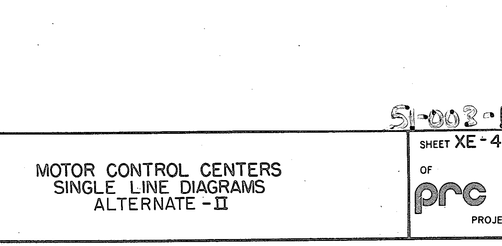
MOTOR CONTROL CENTER 'P23'



PARTIAL EXIST. MCC 'P92'



MOTOR CONTROL CENTER 'P93'



PARTIAL MCC 'P141'

51-003-111

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Conser Townsend
CONSULTING ENGINEERS

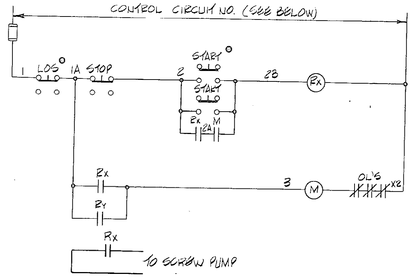
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

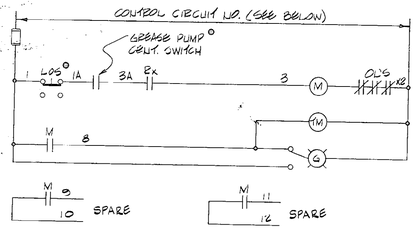
MOTOR CONTROL CENTERS
SINGLE LINE DIAGRAMS
ALTERNATE - II

SHEET XE-4
OF SHEETS
PROJECT NO. 2815

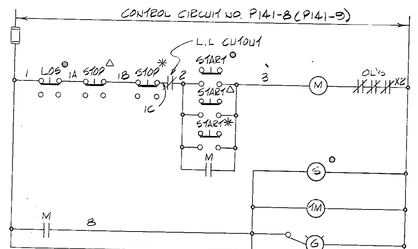
RECORD



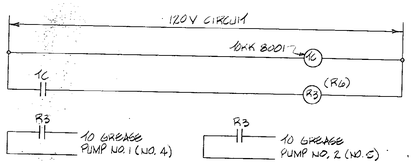
DESIGNATION	Ex	Ey	CKT. NO.
GREASE PUMP NO. 1	R1	R3	P141-6
GREASE PUMP NO. 2	R2	R3	P141-5
GREASE PUMP NO. 4	R4	R6	P123-4
GREASE PUMP NO. 5	R5	R6	P123-5



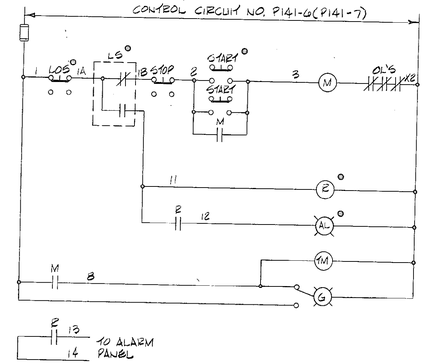
DESIGNATION	Ex	CKT. NO.
SCREW PUMP NO. 1	R1	P141-2
SCREW PUMP NO. 2	R2	P141-3
SCREW PUMP NO. 4	R4	P123-2
SCREW PUMP NO. 5	R5	P123-3



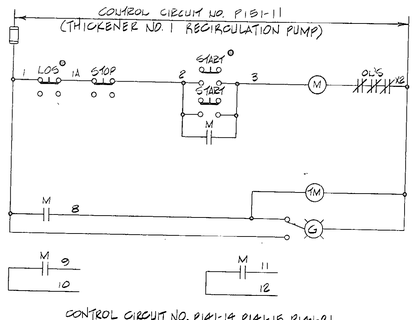
WASTE SLUDGE PUMP NO. 1 (NO. 2)

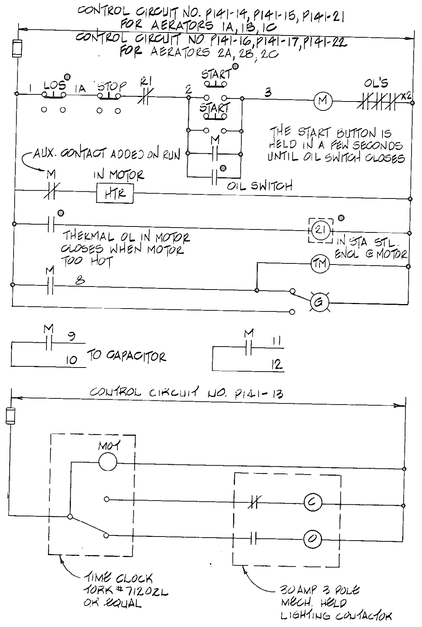


GREASE PUMP CONTROL

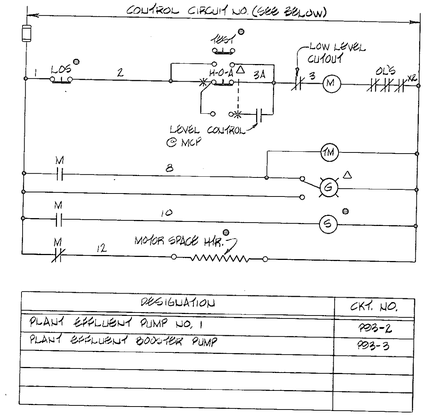


CLARIFIER NO. 3 (NO. 4)

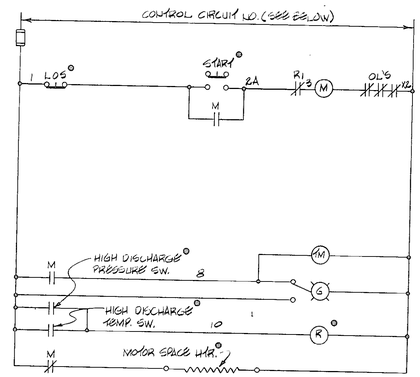




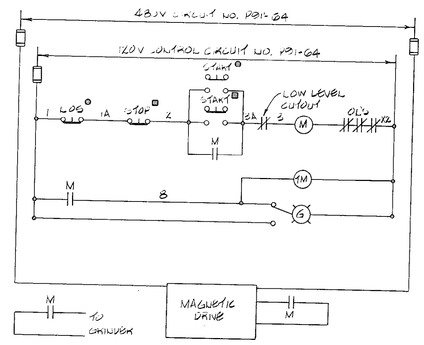
AREA LIGHTING



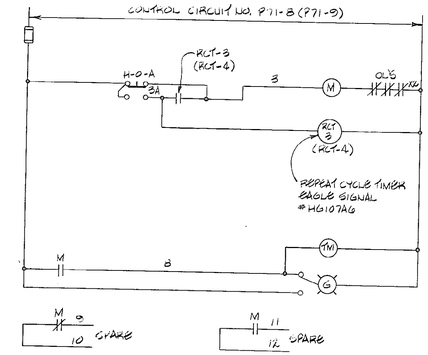
DESIGNATION	CKT. NO.
PLANT EFFLUENT PUMP NO. 1	P23-2
PLANT EFFLUENT BOOSTER PUMP	P23-3



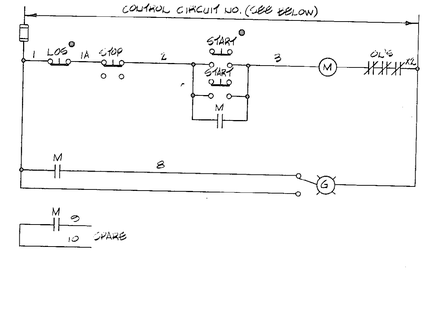
DESIGNATION	CKT. NO.
BLOWER NO. 1	P131-2
BLOWER NO. 2	P131-3

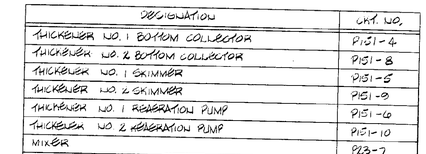


THICKENED SLUDGE PUMP NO. 3



BLOWER NO. 3 (NO. 4)



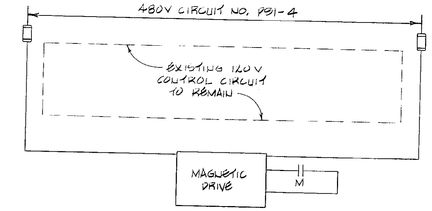


EXHAUST FAN EF-1 & EF-2

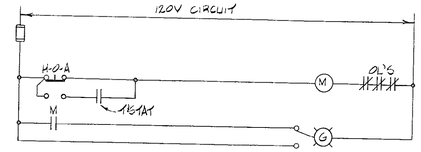
DESIGNATION	CKT. NO.
THICKENER NO. 1 BOTTOM COLLECTOR	P131-4
THICKENER NO. 2 BOTTOM COLLECTOR	P131-8
THICKENER NO. 1 SKIMMER	P131-5
THICKENER NO. 2 SKIMMER	P131-9
THICKENER NO. 1 RECIRCULATION PUMP	P131-6
THICKENER NO. 2 RECIRCULATION PUMP	P131-10
MIXER	P123-7
PLANT WATER PUMP NO. 4	P81-27

LEGEND
- o AT MOTOR
- △ IN MCP
- X REMOTE
- ▣ BELT PRESS CONTROL PANEL

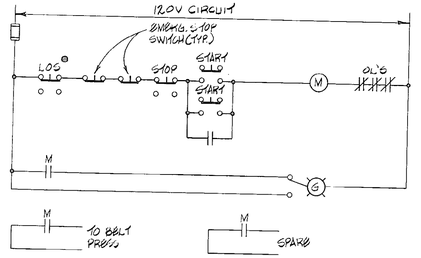
UNLESS OTHERWISE INDICATED ALL DEVICES SHALL BE LOCATED IN THEIR RESPECTIVE MOTOR CONTROL CENTERS.



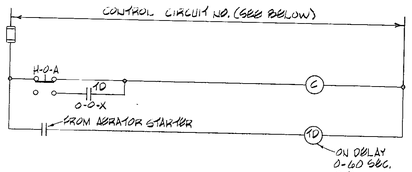
EXISTING SLUDGE PUMP NO. 3



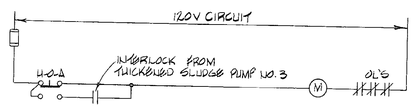
EF-5, EF-10 & EF-11
EF-8, MANUAL OPERATION
(EXHAUST FAN DATA ON DWG. 14M-2)



CONVEYOR



DESCRIPTION	CKT. NO.
AERATOR 1A CAPACITOR	P141-23
AERATOR 1C CAPACITOR	P141-24
AERATOR 1C CAPACITOR	P141-25
AERATOR 2A CAPACITOR	P141-26
AERATOR 2B CAPACITOR	P141-27
AERATOR 2C CAPACITOR	P141-28



GRINDER

NO.	DATE	DESCRIPTION	APPROVED
		REVISIONS	

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

ELECTRICAL SCHEMATICS

SHEET XE-5
OF SHEETS
PROJECT NO. 2815

RECORD

LIGHTING FIXTURE SCHEDULE

INCANDESCENT & HIGH INTENSITY DISCHARGE

TYPE	MANUFACTURER & CATALOG NO.	LAMP SIZE	MOUNTING	REMARKS
(A)	HUBBELL # P-1018-120 HO, GENERAL ELECTRIC # C680N601 OR EQUAL	150W HPS	POLE	WITH 480 VOLT BALLAST
(B)	HOLOPHANE # W2A-070HP-12-BZ, LUMARK # HPWL-70, OR EQUAL	70W HPS	SURFACE	WITH INTEGRAL PHOTOCELL INSTALL 10 FEET ABOVE WALK, DRIVE OR DECK UNLESS OTHERWISE NOTED
(C)	HOLOPHANE # 1978PD-C1-120 HUBBELL # 26H-0150S-IL1-90, OR EQUAL	150W HPS	PENDANT	INSTALL 10 FEET ABOVE THE FLOOR UNLESS OTHERWISE NOTED
(D)	PRESCOLITE # WB-2, PRESCOLITE # WNC1-100, OR EQUAL	100A	WALL	INSTALL 7 FEET ABOVE THE FLOOR UNLESS OTHERWISE NOTED
(E)	MSPHILBELL # A3-24HPJB, CAPRI # 20-0-SH-16, OR EQUAL	100A	FLUSH	APPROVED FOR DAMP LOCATIONS
(F)	GENERAL ELECTRIC # C788N810, CROUSE-HINDS # CGC2-352, OR EQUAL	250W HPS	POLE	
(G)	HUBBELL # MVK-01500-111, GENERAL ELECTRIC # C250N601	150W HPS	POLE	
(H)	SAME AS (C) WITH 480 VOLT BALLAST			
(J)	SAME AS (A) WITH 120 VOLT BALLAST			FURNISH INTEGRAL PHOTOCELL

FLUORESCENT

TYPE	MANUFACTURER & CATALOG NO.	LAMP SIZE	MOUNTING	REMARKS
A △	DAY-BRITE # 4WLS2-4 BENJAMIN # FL-2024-4U	2-40LW	PENDANT	INSTALL 9' ABOVE THE FLOOR UNLESS OTHERWISE NOTED WITH LENSETTE END CAP.
B △	DAY-BRITE # 4WS2-4 BENJAMIN # FL-2024-4U	2-40LW	SURFACE	WITH LENSETTE END CAPS
C * △	DAY-BRITE # CG-44-CFAQE3PNK24, BENJAMIN # APM-7244-4 OR EQUAL	4-40LW	RECESSED	
D * △	DAY-BRITE # CCG44-CFAQ3PNK24, BENJAMIN # APM-1244-4 OR EQUAL	2-40LW	RECESSED	

* CONTRACTOR SHALL VERIFY CEILING CONSTRUCTION BEFORE SUBMITTING DRAWINGS.

△ 120 VOLT BALLAST LEVEL CALIBRATE

EXIT/DIRECTIONAL FIXTURE SCHEDULE

TYPE	MANUFACTURER & CATALOG NO.	DESCRIPTION
A	TORK # 6201 CHLORIDE # SPE-S-1-R OR EQUAL	SURFACE MOUNTED, SINGLE FACE WITH ALUMINUM STENCIL
B	TORK # 3601 CHLORIDE # SX-S-1-R OR EQUAL	SURFACE MOUNTED, SINGLE FACE
C	CHLORIDE XP-C-120 CROUSE-HINDS SXL21 OR EQUAL	EXPLOSION PROOF, 120 VOLT LAMPS ONLY
D	TORK # 6201 CHLORIDE SPE-C-1-R OR EQUAL	CEILING MOUNTED, SINGLE FACE WITH ALUMINUM STENCIL
E	TORK # 3611 CHLORIDE SX-C-1-R OR EQUAL	CEILING MOUNTED, SINGLE FACE
F	TORK # 6201 CHLORIDE SPE-C-2-R OR EQUAL	CEILING MOUNTED, DOUBLE FACE WITH ALUMINUM STENCIL
G	TORK # 3621 CHLORIDE SX-C-2-R OR EQUAL	CEILING MOUNTED, DOUBLE FACE

NOTES:

1. EXIT FIXTURES SHALL BE FURNISHED WITH UNIVERSAL ARROWS. ARROWS SHALL BE INSTALLED WHERE INDICATED ON THE CONTRACT DRAWINGS.
2. EXIT FIXTURES SHALL BE FURNISHED WITH TWO 120V AC LAMPS & TWO 6V DC LAMPS.

EMERGENCY LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER & CATALOG NO.	LAMP SIZE	REMARKS
A	TORK # 2051NC-2 CHLORIDE 900-A16-TH2 OR EQUAL	12 WATT 350 LUMEN (6 VOLT)	120 VOLT
B	TORK # 2051NC-1 CHLORIDE 900-A16-TH1 OR EQUAL	12 WATT 350 LUMEN (6 VOLT)	120 VOLT
C	TORK # 2051NC-0 CHLORIDE 900-A116-TH0 OR EQUAL	——	120 VOLT
D	TORK # 2312 CHLORIDE MPO-1-TT OR EQUAL	12 WATT 350 LUMEN (6 VOLT)	6 VOLT-WITH SUITABLE MOUNTING PLATE
E	TORK (2) # 2312 CHLORIDE (2) # MPO-2-TT OR EQUAL	12 WATT 350 LUMEN (6 VOLT)	6 VOLT-WITH SUITABLE MOUNTING PLATE
F	CHLORIDE WX-1-6-28W DUAL LITE EX-1-B-GV (28W) OR EQUAL	28 WATT SEALED BEAM FLOOD (6 VOLT)	EXPLOSION PROOF

NOTES:

1. ALL BATTERY UNITS SHALL BE EQUIPPED WITH MANUFACTURERS STANDARD MOUNTING BRACKET AND HARDWARE.

ELECTRIC UNIT HEATER SCHEDULE

DESIGNATION	KW	VOLTAGE	DISC. SW. FUSE	REMARKS
UH-1	4.0	480/3	6A	WITH INTEGRAL T'STAT
UH-3 & 10	2.5	480/3	6A	DITTO
UH-4, 5, 6, 11 & 12	5.0	480/3	6A	DITTO
UH-7 & 13	10.0	480/3	15A	DITTO
UH-8 & 9	6.0	480/3	10A	DITTO

INTERPHONE SCHEDULE

ITEM	DESCRIPTION
1	STAFF INTERPHONE IN NEMA 4 ENCLOSURE
2	WALL MOUNTED STAFF INTERPHONE
3	WEATHERPROOF PAGING SPEAKER

51-003-113

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN: K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

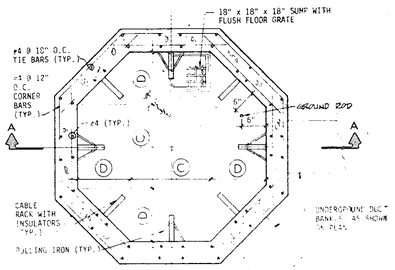
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

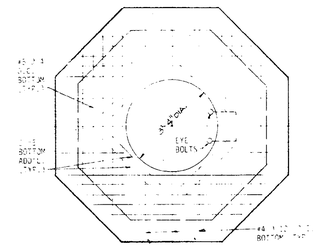
ELECTRICAL SCHEDULES

SHEET XE 6 OF SHEETS
PROJECT NO. 2815

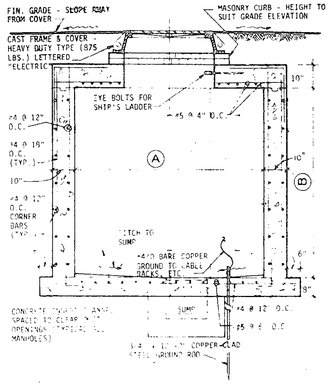
RECORD



PLAN



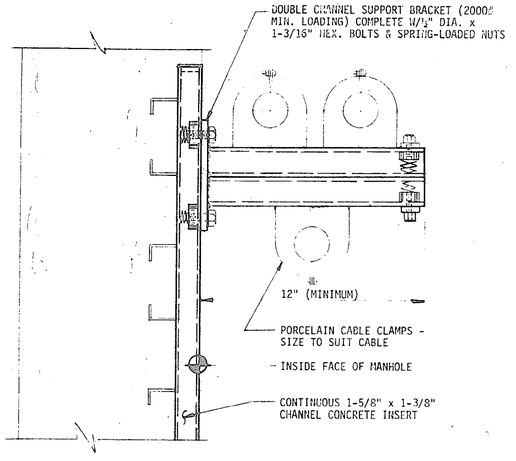
PLAN - TOP SLAB



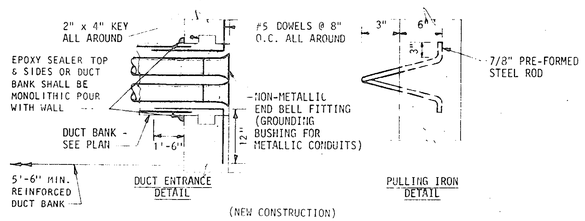
SECTION 'A-A'

DIMENSIONAL DATA				
SERVICE	A	B	C	D
SIGNAL, COMM'N, 208Y-120V	8'-0"	6'-6"	3'-0"	2'-6"
5.0 KV	8'-0"	6'-6"	3'-0"	2'-6"
15.0 KV	8'-0"	6'-6"	3'-0"	2'-6"

TYPICAL ELECTRICAL MANHOLE CONSTRUCTION DETAILS

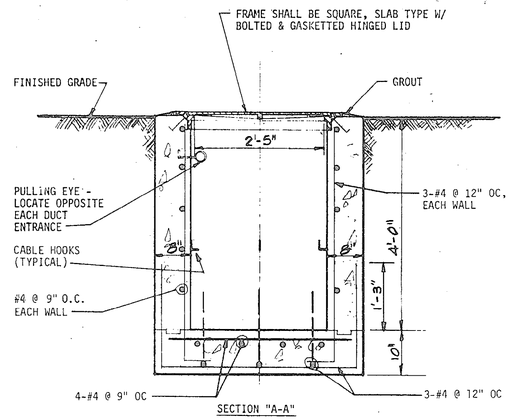


CONCRETE INSERT & CABLE SUPPORT BRACKET DETAIL

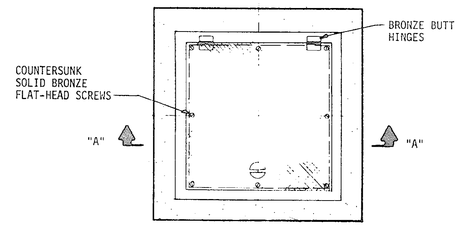


(NEW CONSTRUCTION)

MISCELLANEOUS TYPICAL MANHOLE CONSTRUCTION DETAILS

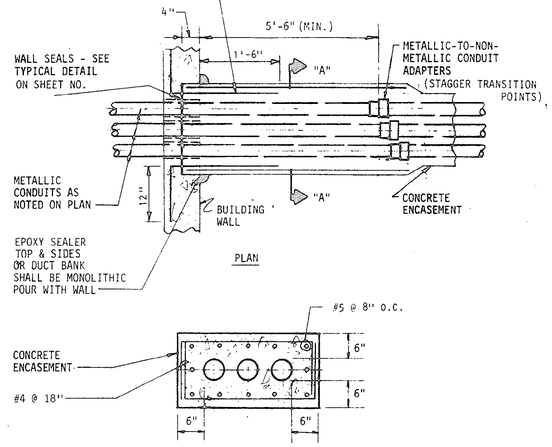


SECTION "A-A"



TOP PLAN

TYPICAL ELECTRICAL HANDHOLE CONSTRUCTION DETAILS

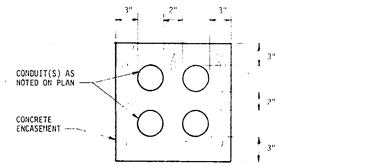


PLAN

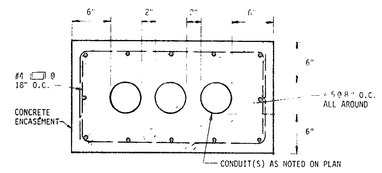
SECTION "A-A"

(NEW CONSTRUCTION)

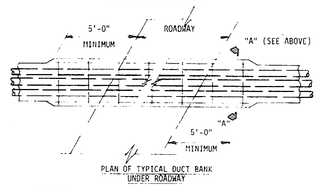
UNDERGROUND DUCT BANK ENTRANCE AT BUILDING WALL



NON-REINFORCED DUCT SECTION



REINFORCED DUCT SECTION



PLAN OF TYPICAL DUCT BANK UNDER ROADWAY

TYPICAL UNDERGROUND DUCTBANK INSTALLATION DETAILS

51-003-114

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

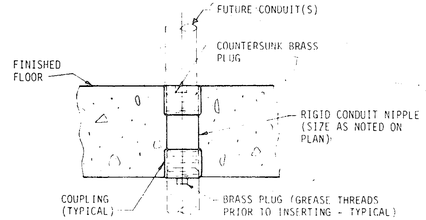
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

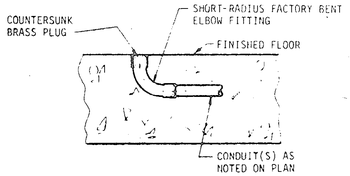
ELECTRICAL DETAILS I

SHEET XE-7
OF SHEETS
PROJECT NO. 2815

RECORD

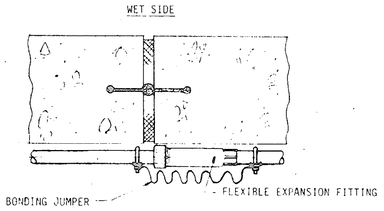


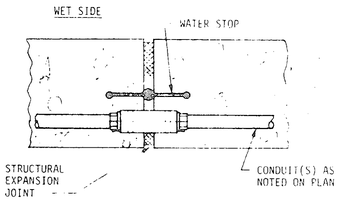
TYPICAL THRU-FLOOR INSTALLATION FOR CONDUITS 1½" OR LARGER



TYPICAL IN-FLOOR INSTALLATION FOR CONDUITS 1¼" AND SMALLER

TYPICAL CONDUIT TERMINATION AT FUTURE EQUIPMENT LOCATION

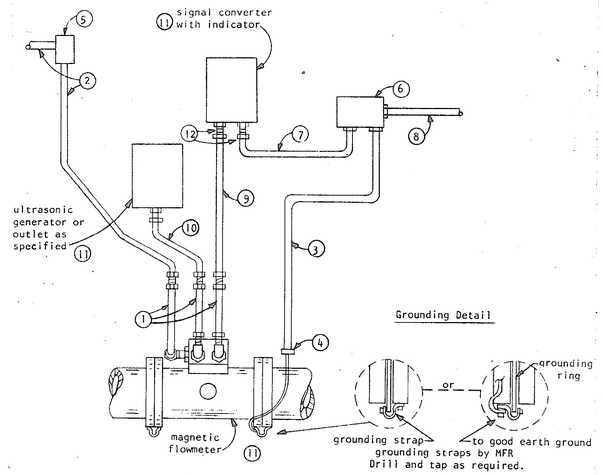




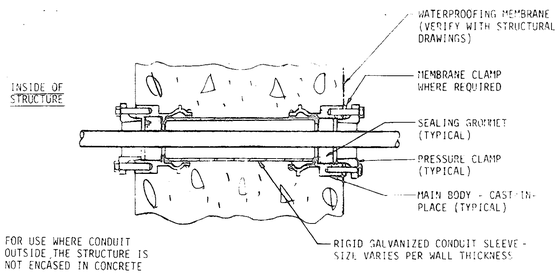
FOR NEW OR EXISTING CONSTRUCTION

TYPICAL EXPANSION JOINT DETAIL

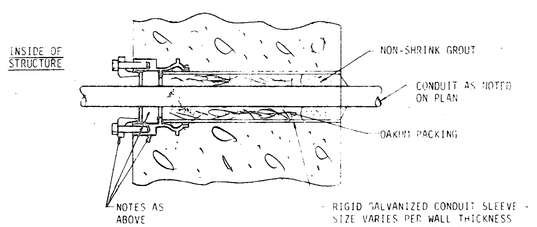
1. 3/4" flexible conduit
2. 2 #12 - 3/4" C. 120 V. power
3. #8 bare ground - 1/2" C.
4. conduit hub with grounding connector
5. disconnect switch, 1P-20 amp.
6. junction box
7. 2/C. sig. cable - 3/4" C.
8. 2/C. sig. cable #8, ground. - 3/4" C.
9. Install 2 #12, with the shielded cables furnished by inst. mfr. - 3/4" C.
10. Install shielded cable furnished by mfr. in - 3/4" C.
11. Equipment furnished and installed under Division 23, Instrumentation work.
12. 3/4" conduit x 1/2" npt adaptor



METER INSTALLATION DETAIL IA

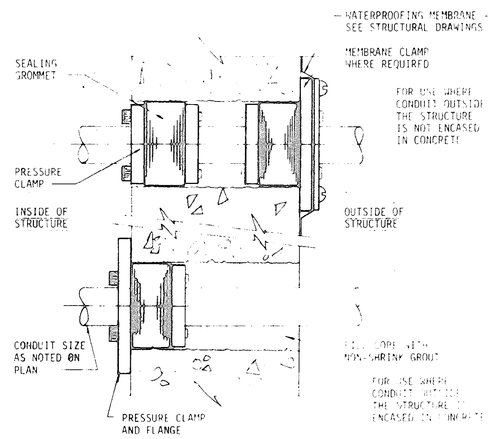


DOUBLE ENDED TYPE - FOR NEW CONSTRUCTION WITH MEMBRANE



SINGLE ENDED TYPE - FOR NEW CONSTRUCTION

TYPICAL CONDUIT SEAL DETAILS



CORED HOLE APPLICATIONS IN EXISTING WALLS

TYPICAL CONDUIT SEAL DETAILS

51-003-115

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.R.H.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

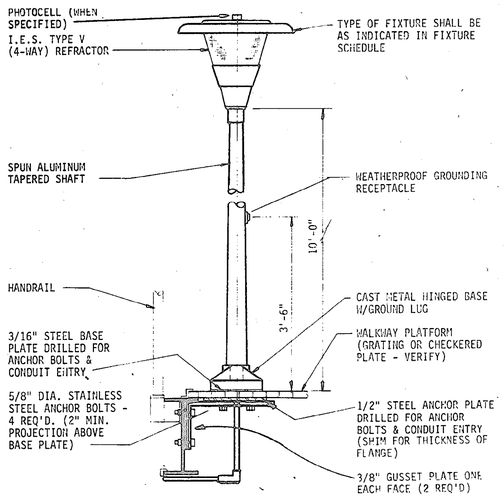
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

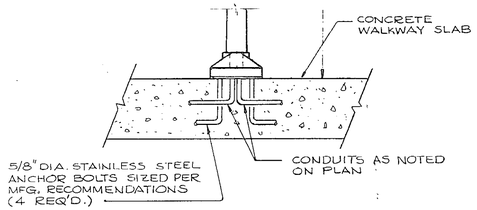
ELECTRICAL DETAILS II

SHEET XE-8 OF SHEETS
PROJECT NO 2815

RECORD

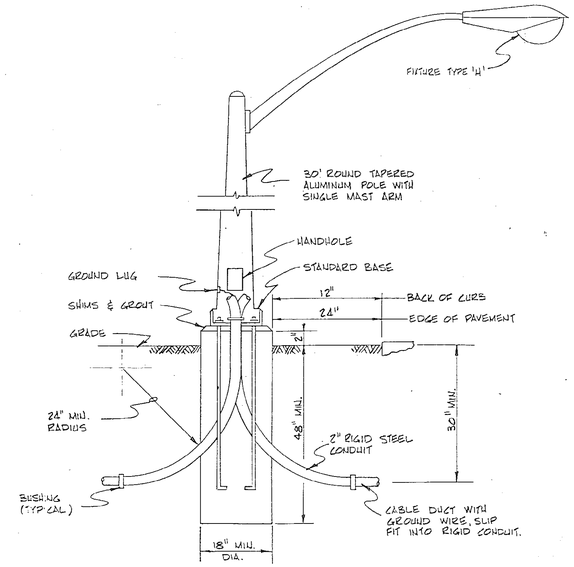


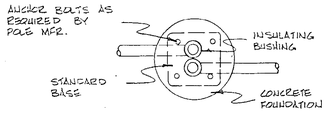
CHECKERED PLATE OR GRATING



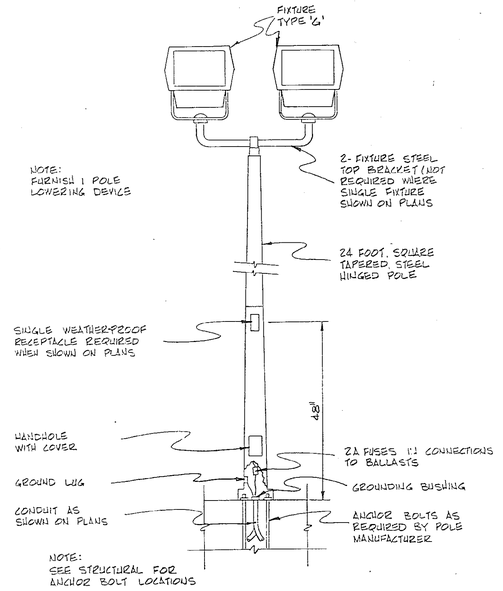
CONCRETE SLAB

POSTTOP LIGHTING STANDARD INSTALLATION DETAIL

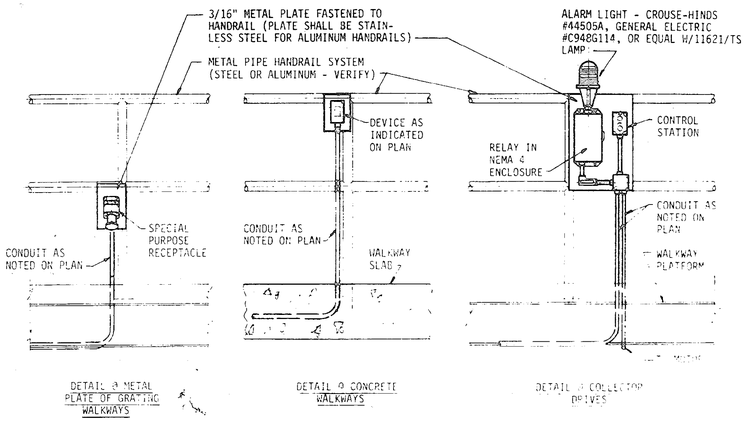




ROADWAY LIGHT INSTALLATION DETAIL



FLOODLIGHT INSTALLATION DETAIL



TYPICAL DETAILS - INSTALLATION OF EQUIPMENT ON METAL PIPE HANDRAIL

51-003-111

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

ELECTRICAL DETAILS III

SHEET XE-9
OF SHEETS
PROJECT NO 2815

RECORD

B A-1a	INCANDESCENT OR H.I.D. TYPE FIXTURE - LETTER INDICATES TYPE AS SHOWN IN FIXTURE SCHEDULE. ("A-1a" INDICATES CIRCUIT NO. 1 FROM PANEL "A" OR SWITCHLEG "a")
B A-1a	BRACKET MOUNTED FIXTURE (DITTO FOR DESIGNATION)
O F A-1a	FLUORESCENT LIGHTING FIXTURE (DITTO FOR DESIGNATION)
T	POLE-MOUNTED INCANDESCENT OR H.I.D. TYPE LUMINAIRE. (LETTER INDICATES TYPE AS SHOWN IN FIXTURE SCHEDULE)
	BATTERY - POWERED EMERGENCY LIGHTING FIXTURE. ARROWS INDICATE NUMBER OF LAMPS
	EMERGENCY LIGHTING SYSTEM BATTERY POWER PACK
	REMOTE BATTERY - POWERED LAMPHEAD
D	EXIT & DIRECTIONAL SIGN. SUBSCRIPT INDICATES TYPE AS SHOWN IN SCHEDULE
$ +20"	SINGLE POLE TOGGLE SWITCH (NUMBER INDICATES MOUNTING HEIGHT)
$2 +20"	TWO-POLE TOGGLE SWITCH (DITTO FOR DESIGNATION)
$3 +20"	THREE-WAY TOGGLE SWITCH (DITTO FOR DESIGNATION)
$4 +20"	FOUR-WAY TOGGLE SWITCH (DITTO FOR DESIGNATION)
$T +20"	MANUAL MOTOR STARTER W/THERMAL OVERLOAD PROTECTION (DITTO FOR DESIGNATION)
$MC +20"	MOMENTARY CONTACT SWITCH (DITTO FOR DESIGNATION)
$K +20"	KEY OPERATED SWITCH (DITTO FOR DESIGNATION)
$p (Dx)	600 WATT INCANDESCENT DIMMER ("DX" INDICATES 1500 WATT)
+20"	SINGLE CONVENIENCE RECEPTACLE (NUMBER INDICATES MOUNTING HEIGHT)
+20"	DUPLEX CONVENIENCE RECEPTACLE (DITTO FOR DESIGNATION)
	SINGLE CONVENIENCE RECEPTACLE IN FLOOR W/ADJUSTABLE FLOOR BOX, FLAP TYPE PLATE & CARPET FLANGE WHERE REQUIRED
	DUPLEX CONVENIENCE RECEPTACLE IN FLOOR W/ADJUSTABLE FLOOR BOX. FLAP TYPE PLATE & CARPET FLANGE WHERE REQUIRED
A +20"	SINGLE SPECIAL-PURPOSE RECEPTACLE (SUBSCRIPT INDICATES TYPE OF RECEPTACLE AS SCHEDULED NUMBER INDICATES MOUNTING HEIGHT)
A	SINGLE SPECIAL-PURPOSE RECEPTACLE IN FLOOR W/ADJUSTABLE FLOOR BOX, TRIM PLATE & FLANGE WHERE REQUIRED. (DITTO FOR DESIGNATION)
	CONVENIENCE RECEPTACLE FURNISHED AS A PART OF THE CABINETRY OR FURNITURE - CONNECT AS DIRECTED BY MFG.
	CLOCK W/OUTLET AS REQUIRED. OUTLET SHALL BE INSTALLED 9'-0" A.F.F. UNLESS OTHERWISE NOTED. (9" CLOCK UNLESS OTHERWISE INDICATED)
	LIGHTING PANEL
	DISTRIBUTION PANEL
	CABINET OR PULL BOX AS NOTED
	OUTLET OR JUNCTION BOX
10	ELECTRIC MOTOR - NUMBER INDICATES HORSEPOWER
F	FRACTIONAL HORSEPOWER MOTOR (1/8 HP OR LESS)
GEN	GENERATOR
	UNFUSED SAFETY SWITCH, 3P-30A, 600V, UNLESS OTHERWISE NOTED
30	FUSED SAFETY SWITCH, 3P-600V. (NUMBER INDICATES FUSE SIZE)
	COMBINATION 480V, 3-POLE CKT PROTECTIVE DEVICE & FVNR MAGNETIC STARTER W/480V-120V CONTROL TRANSFORMER & MINIMUM (3) AUX. CONTACTS SUBSCRIPT INDICATES SPECIAL TYPE
	SINGLE UNIT PUSHBUTTON STATION
	2-UNIT PUSHBUTTON STATION
	3-UNIT PUSHBUTTON STATION
HOA	"HAND-OFF-AUTOMATIC" SELECTOR SWITCH
C S B	CONTROL STATION LETTER INDICATES TYPE AS SCHEDULED
3E V	SIGNIFIES SHEET TO SEE FOR CONTINUATION

VS	VACUUM SWITCH
LS	LIMIT SWITCH
FS	FLOW SWITCH
PS	PRESSURE SWITCH
TS	TORQUE SWITCH
PE	PNEUMATIC - ELECTRIC SWITCH
FS	FLOAT SWITCH
EP	ELECTRO - PNEUMATIC VALVE
S	SOLENOID VALVE
T	TEMPERATURE ACTUATED DEVICE
T	ELECTRIC THERMOSTAT
D	ELECTRIC DAMPER MOTOR
	UNIT HEATER
	ALARM BELL
AL	ALARM LIGHT - CROUSE - HINDS CAT. NO. 43958, G.E. CO. CAT. NO. 9347G010 OR EQUAL WITH 100 WATT "A" LAMP
R	RELAY - SQUARE D CLASS 8501, TYPE DW20, CUTLER HAMMER CAT. NO. H2612 OR EQUAL
H	ALARM HORN
JB	UNDERFLOOR DUCT & JUNCTION BOX W/ALL NECESSARY FITTINGS, SUPPORTS, NIPPLES, ETC. TO ACCOMMODATE THE TYPE & NUMBER OF OUTLETS INDICATED
	UNDERGROUND CONCRETE ENCASED DUCT BANK (4" NON-METALLIC CONDUIT MINIMUM UNLESS OTHERWISE NOTED) SECTION INDICATION DENOTES NUMBER & SIZE OF DUCTS AS NOTED ON PLAN. E INDICATES EXISTING DUCT BANK
	EXPOSED CONDUIT
	CONDUIT CONCEALED IN CEILING OR WALL
	CONDUIT CONCEALED IN FLOOR SLAB OR UNDER FLOOR SLAB (CONDUITS 1 1/2" OR LARGER SHALL BE INSTALLED UNDER FLOOR SLAB) CONDUITS RUN UNDER FLOOR SLAB SHALL BE ENCASED IN CONCRETE
	HOMERUN TO PANEL AS NOTED

CONDUIT SYSTEM NOTES

1. ANY CONDUIT WITHOUT FURTHER DESIGNATION, INDICATES 2 #12 IN 3/4" CONDUIT. GREATER NUMBER OF WIRES ARE INDICATED AS FOLLOWS: —//— (3-WIRES) —///— (4-WIRES) ETC. LONGER HATCHMARK INDICATES NEUTRAL CONDUCTOR
2. CONDUITS IMBEDDED IN STRUCTURAL CONCRETE (FLOOR SLABS, ETC) SHALL BE SO LOCATED AS NOT TO UNDULY IMPAIR THE STRENGTH OF THE CONSTRUCTION, AND SHALL BE SPACED NOT LESS THAN TWO TIMES THE CONDUIT O.D. BETWEEN ADJACENT CONDUITS EXCEPT WHERE CROSSING OR OTHERWISE APPROVED BY THE ENGINEER.

COMMUNICATION SYSTEMS

	TELEPHONE UTILITY SYSTEM OUTLET
	TELEPHONE UTILITY SYSTEM OUTLET IN FLOOR W/ADJUSTABLE FLOOR BOX AND SUITABLE PLATE AND W/CARPET FLANGE WHERE REQUIRED
T	TELEPHONE UTILITY SYSTEM CONDUIT
	TELEPHONE UTILITY SYSTEM
I	INTERCOM SYSTEM OUTLET NUMBER DENOTES TYPE OF STATION REQUIRED AS SCHEDULED
I	INTERCOM SYSTEM OUTLET IN FLOOR W/ADJUSTABLE FLOOR BOX AND SUITABLE PLATE AND W/CARPET FLANGE WHERE REQUIRED. NUMBER DENOTES TYPE OF STATION REQUIRED AS SCHEDULED
I	INTERPHONE SYSTEM OUTLET. NUMBER DENOTES TYPE OF INSTRUMENT REQUIRED AS SCHEDULED
I	INTERPHONE SYSTEM OUTLET IN FLOOR W/ADJUSTABLE FLOOR BOX AND SUITABLE PLATE AND W/CARPET FLANGE WHERE REQUIRED. NUMBER DENOTES TYPE OF STATION REQUIRED AS SCHEDULED
	SOUND SYSTEM OUTLET. NUMBER DENOTES TYPE OF STATION REQUIRED AS SCHEDULED.
	SOUND SYSTEM OUTLET IN FLOOR W/ADJUSTABLE FLOOR BOX AND SUITABLE PLATE AND W/CARPET FLANGE WHERE REQUIRED. NUMBER DENOTES TYPE OF EQUIPMENT REQUIRED AS SCHEDULED
	COMMUNICATION SYSTEMS POWER SUPPLY AND TERMINAL CABINET
IC	COMMUNICATION SYSTEMS CONDUIT

REMODELING WORK

E/R	INDICATES NEW DEVICE(S) IN EXISTING OUTLET. REMOVE EXISTING DEVICE(S) AND INSTALL NEW DEVICE AS INDICATED
E	EXISTING DEVICE(S) WHICH SHALL BE REMOVED
E	EXISTING OUTLET AND DEVICE TO REMAIN
B B	INDICATES EXISTING DEVICE(S) OR FIXTURE(S) SHALL BE REMOVED AND A BLANK COVER PLATE INSTALLED OVER EXISTING OUTLET. WHERE NEW FINISH IS TO BE APPLIED, OMIT PLATE AND FILL W/GROUT
	INDICATES EXISTING LIGHTING FIXTURE(S) WHICH SHALL BE REMOVED
E	EXISTING CONDUIT AND WIRE SHALL REMAIN
R	EXISTING CONDUIT, WIRE, BOXES, ETC. WHICH SHALL BE REMOVED
A	EXISTING CONDUIT WHICH SHALL BE ABANDONED, DISCONNECT AND REMOVE EXISTING CONDUCTORS. CUT OFF CONDUIT FLUSH W/FINISHED SURFACE AND FILL W/GROUT
E/R	EXISTING CONDUIT WHICH SHALL BE REUSED. REMOVE EXISTING CONDUCTORS AND INSTALL NEW CONDUCTORS AS INDICATED OR NOTED ON PLAN

METERING SYSTEM

PX 0-0	PRESSURE TRANSMITTER
PI	PRESSURE INDICATOR
LI	LEVEL INDICATOR
LX	LEVEL TRANSMITTER
TX	TEMPERATURE TRANSMITTER
FE I-A A-24	FLOW ELEMENT ("A-24" INDICATES POWER CIRCUIT NUMBER)
FX	FLOW TRANSMITTER
FI	FLOW INDICATOR
I/P	CURRENT-TO-PNEUMATIC TRANSDUCER
UG	ULTRASONIC GENERATOR
ZR	ZERO RETURN UNIT
DM I-A A-22	DENSITY METER ("A-22" INDICATES POWER CIRCUIT NUMBER)
ORP	OXIDATION REDUCTION POTENTIAL PROBE
PH	PH PROBE
SL	SLUDGE LEVEL PROBE
DO	DISSOLVED OXYGEN PROBE
dp	DIFFERENTIAL PRESSURE TRANSMITTER

MO M	MOTORIZED OPERATOR
	METERING SYSTEM CONDUIT
	* IDENTIFICATION: (TYPICAL) FE I-A — "FLOW ELEMENT" — METERING SYSTEM #1 — FIRST OF A TYPE ("1" INDICATES SECOND, "2" ETC.)

SCHEMATIC WIRING DIAGRAMS

	PUSHBUTTON, MOMENTARY CONTACT, DOUBLE CIRCUIT, N.C.
	PUSHBUTTON, MOMENTARY CONTACT, DOUBLE CIRCUIT, N.O.
	SELECTOR SWITCH - "HAND-OFF-AUTO", UNLESS OTHERWISE NOTED OR SCHEDULED
	PUSHBUTTON, MAINTAINED CONTACT, DOUBLE CIRCUIT
G	PUSH-TO-TEST TRANSFORMER - TYPE PILOT LIGHT ASSEMBLY AND LEGEND PLATE "G" INDICATES GREEN COLOR CAP W/"MOTOR RUN" LEGEND. "A" INDICATES AMBER COLOR CAP W/"AUTO." LEGEND. (OTHER COLORS SHALL BE AS SPECIFIED OR SCHEDULED.)
M	STARTER COIL
R	CONTROL RELAY
TM	ELAPSED TIME METER
	CONTACT, N.O.
	CONTACT, N.C.
	OVERLOAD
	MANUAL MOTOR STARTER
	LIMIT SWITCH (N.C.)
	LIMIT SWITCH (N.O.)
	LIMIT SWITCH (N.O. - HELD CLOSED)
	LIMIT SWITCH (N.C. - HELD OPEN)
	FLOW SWITCH (OPENS WITH FLOW)
	FLOW SWITCH (CLOSES WITH FLOW)
	TEMPERATURE ACTUATED SWITCH (OPENS ON TEMP. RISE)
	TEMPERATURE ACTUATED SWITCH (CLOSES ON TEMP. RISE)
	FLOAT OPERATED SWITCH (OPENS ON RISE)
	FLOAT OPERATED SWITCH (CLOSES ON RISE)
	PRESSURE SWITCH (OPENS ON RISE)
	PRESSURE SWITCH (CLOSES ON RISE)
	VACUUM SWITCH (OPENS ON RISE)
	VACUUM SWITCH (CLOSES ON RISE)
	TORQUE SWITCH (OPENS ON INCREASE)
	TORQUE SWITCH (CLOSES ON INCREASE)
CL M	MOTORIZED TIME DELAY RELAY
0-0-X	TIME DELAY RELAY CONTACT "0" = OPEN "X" = CLOSED RESET → 0 - 0 - X→ TIMED OUT TIMING
TD	PNEUMATIC OR STATIC TIME DELAY RELAY
T.C.	PNEUMATIC OR STATIC TIME DELAY RELAY CONTACT. ("T.C." DENOTES TIMED CLOSING - "T.O." DENOTES TIMED OPENING)

SINGLE LINE DIAGRAMS

	TRANSFORMER, POWER OR CONTROL
	TRANSFORMER, GROUNDED
(3)4160 120V	POTENTIAL TRANSFORMER (PT) - (*SUBSCRIPT INDICATES QUANTITY AND VOLTAGE RATIO)
	CAPACITOR (THREE PHASE)
	SURGE ARRESTORS (THREE)
	NEUTRAL, MOTOR OR GENERATOR
600 A,B,C, D,E,F, G,H,J, K,L,M	INSULATED CASE OR POWER CIRCUIT BREAKER NUMBER INDICATES TRIP RATING. LEGEND AS FOLLOWS: A = INSULATED CASE B = POWER CKT. BKR. C = ELECTRIC OPERATOR D = DUAL MAGNETIC TRIP E = SOLID STATE TRIP F = ADJ. INSTANTANEOUS SETTING G = ADJ. MAG. DELAY W/FIXED INST. H = ADJ. SHORT TIME TRIP POINT J = ADJ. SHORT TIME DELAY TIME K = ADJ. GRD. FAULT TRIP POINT L = ADJ. GRD. FAULT DELAY TIME M = FIXED INST.

15	THERMAL MAGNETIC CIRCUIT BREAKER OR MOTOR CIRCUIT PROTECTOR (600/OR LESS) AS SPECIFIED NUMBER INDICATES TRIP RATING
15	FUSE (NUMBER INDICATES AMPERE RATING)
E	SWITCH AS SPECIFIED (E INDICATES ELECTRIC OPERATOR)
15	MOLDED CASE CIRCUIT "BREAKER," OR MOTOR CIRCUIT PROTECTOR, MAGNETIC STARTER, CONTROL TRANSFORMER, AUX. CONTACTS, ETC. AS SPECIFIED. NUMBER INDICATES TRIP RATING
15	FUSED SWITCH MAGNETIC STARTER: CONTROL TRANSFORMER, AUX. CONTACTS, ETC. AS SPECIFIED (NUMBER INDICATES AMPERE RATING)
50/5 1350/5	CURRENT TRANSFORMERS (CT) (*SUBSCRIPT INDICATES QUANTITY AND RATIO)
	CURRENT TRANSFORMER, RING OR DOUGHNUT TYPE. NUMBER INDICATES RATIO
52	CIRCUIT BREAKER (OVER 600V.)
	FUSE AND CONTACTOR (OVER 600V) WITH DISCONNECT PROVISION
	SEPARABLE CONNECTORS
	CABLE TERMINATORS
	INDICATING LIGHT
	SPACE HEATER
RTD	RESISTANCE TEMPERATURE DETECTOR
27	UNDERVOLTAGE RELAY
32	DIRECTIONAL POWER RELAY
40	FIELD CURRENT RELAY
46	PHASE REVERSE, OPEN PHASE, PHASE BALANCE CURRENT RELAY
46 B	PHASE REVERSE AND OPEN PHASE CURRENT RELAY
46 C	PHASE REVERSE AND PHASE UNBALANCE CURRENT RELAY
47	PHASE SEQUENCE VOLTAGE RELAY
49	MACHINE THERMAL RELAY
50	INSTANTANEOUS OVERCURRENT RELAY
50 G	GROUND INSTANTANEOUS OVERCURRENT RELAY
50 GS	GROUND SENSOR INSTANTANEOUS OVERCURRENT RELAY
51	TIME OVERCURRENT RELAY
51 G	GROUND TIME OVERCURRENT RELAY
51 GS	GROUND SENSOR TIME OVERCURRENT RELAY
55	POWER FACTOR RELAY
59	OVERVOLTAGE RELAY
67	DIRECTIONAL OVERCURRENT RELAY
81	FREQUENCY RELAY
86	LOCKING-OUT RELAY
87	DIFFERENTIAL PROTECTIVE RELAY
FC	FIELD CONTACTOR
PFR	POWER FACTOR RELAY
PF	POWER FACTOR METER
A	AMMETER
V	VOLTMETER
SY	SYNCHROSCOPE
T	TEMPERATURE METER
VA	VOLTAMMETER
WH	WATTHOUR METER (I = IMPULSE DEVICE)
WH D	WATTHOUR DEMAND METER
S	INSTRUMENT TRANSFER SWITCH
GF	GROUND FAULT RELAY
50 N	RESIDUAL GROUND INSTANTANEOUS OVERCURRENT RELAY
51 N	RESIDUAL GROUND TIME OVERCURRENT RELAY
K	KEY INTERLOCK

ABBREVIATIONS

P	SIGNIFIES WITH PILOT LIGHT
RV	SIGNIFIES REDUCED VOLTAGE
REV	SIGNIFIES REVERSING
2S	SIGNIFIES TWO SPEED
L.O.	SIGNIFIES "LOCK-OUT" ATTACHMENT
L.O.S.	SIGNIFIES "LOCK-OUT" ATTACHMENT ON "STOP" PUSH BUTTON OPERATOR
MH	PROPOSED MANHOLE
EMH	EXISTING MANHOLE
MHH	PROPOSED METERING HANDHOLE
EMHH	EXISTING METERING HANDHOLE
HH	PROPOSED HANDHOLE

FIRE ALARM SYSTEM

F	STATION FIRE ALARM SYSTEM INSTRUMENT AS SPECIFIED OR SCHEDULED
B	FIRE ALARM SYSTEM BELL
C	FIRE ALARM SYSTEM CHIME
S	SMOKE DETECTOR
D	RATE-OF-RISE HEAT DETECTOR
D FT	FIXED TEMPERATURE HEAT DETECTOR
F	FIRE ALARM SYSTEM CONDUIT

MISCELLANEOUS

51-003-117

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN W.C.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

ELECTRICAL SYMBOLS & LEGEND

SHEET XE-10
OF SHEETS
PROJECT NO. 2815

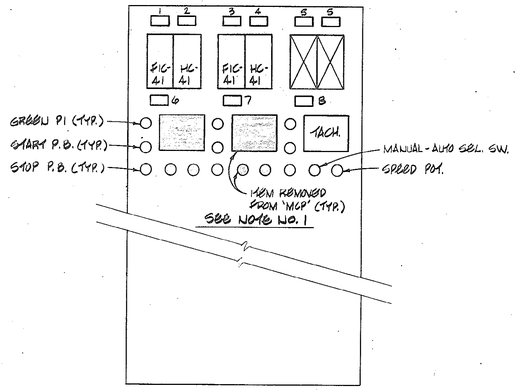
RECORD

SYSTEM NO.	DESCRIPTION	PRIMARY METER	SIZE	METER LOCATION	RANGE	FUNCTION	FUNCTION LOCATION	ALARMS	QUANTITY	REMARKS
31	INFLUENT PLANT FLOW TO AERATION BASINS	MAG METER	24"	AREA 2	0-15 MGD	IX ICRT 1	@METER MCP SMP		1	1. FLOW DIVIDE SYSTEM
32	(NOT USED)									
33	INFLUENT FLOW TO FINAL CLARIFIERS	MAG METER	16" 20"	AREA 5	0-10 0-10	IX IC	@METER SMP		1 2	1. FLOW DIVIDE SYSTEM
34	RETURN SLUDGE WELL LEVEL	BUBBLER		AREA 14	0-22	ICA	SMP	LL@ 6.5	1	1. PROVIDE SIX (6) CONTACTS FOR LOW LEVEL CUTOUT @ 4.2 FT. 2. PROVIDE SETPOINT TO SYSTEM 35
35	SLUDGE WITHDRAWAL FROM CLARIFIERS	MAG METER	8" 12"	AREA 14	0-3 0-6	IX IC	@METER @SMP		2 2	1. PROVIDE FLOW DIVIDE SYSTEM TO MAINTAIN RETURN SLUDGE WELL LEVEL
36	RETURN SLUDGE FLOW TO AERATION BASINS	MAG METER	14"	AREA 14	0-10 MGD	IX ICRT 1	@METER SMP MCP		1	PROVIDE TWO (2) 4-20mA DC SIGNALS TO CONTROL VARIABLE RETURN SLUDGE FEEDBACK SIGNAL FROM FLOW METER
37	WASTE SLUDGE FLOW	MAG METER	4"	AREA 14	0-500 GPM	IX IRT	@METER SMP		1	
38	MIXED LIQUOR DISTRIBUTION CHAMBER LEVEL	BUBBLER		AREA 5	0-15 FT.	IX A	BC-5 SMP	HL@ 12.0		
39	SLUDGE HOLDING TANK LEVEL	BUBBLER		AREA 6	0-15 FT.	IX IA	BC-6C MCP	LL@ 2.0 HL@ 14.5		PROVIDE TWO (2) CONTROLLERS @ MCP ONE FOR HOLDING TANK NO. 1 AND ONE FOR HOLDING TANK NO. 2
40	AIR FLOW TO SLUDGE HOLDING TANK	INSERT FLOW TUBE	12"	AREA 6	0-1800 SCFM	I	@METER			
41	HOLDING TANK SLUDGE FLOW TO THICKENER NO. 2	MAG METER	4"	AREA 9	0-300	IX IC IT	@METER TMP MCP			PROVIDE TWO (2) CONTROLLERS @ MCP ONE FOR THICKENER NO. 1 AND ONE FOR THICKENER NO. 2
42	THICKENED SLUDGE FLOW TO BELT PRESS	MAG METER	2"	AREA 9	0-200 GPM	IX IT IC	@METER MCP REMOTE			PROVIDE THREE (3) CONTROLLERS @ MCP TWO FOR VACUUM FILTERS AND ONE FOR BELT PRESS
43	EFFLUENT PLANT FLOW	MAG METER	24"	AREA 9	0-25 MGD	IX IRT	@METER MCP		1	REUSE EXISTING CRT ON MCP
44	(NOT USED									
45	INTERMEDIATE PUMPING STATION WELL LEVEL	BUBBLER		AREA 11	0-12 FT.	A	@BC-11 SMP	H.L@ 11.5	1	
46	AIR FLOW FROM COMPOST PAD	INSERT FLOW TUBE	8"	AREA 7	0-750 SCFM	I	@METER		5	
47	MISC. MODIFICATIONS TO EXISTING SYSTEMS	—	—	—	—	—	—	—	—	SEE CONTRACT SPECIFICATIONS SECTION 238

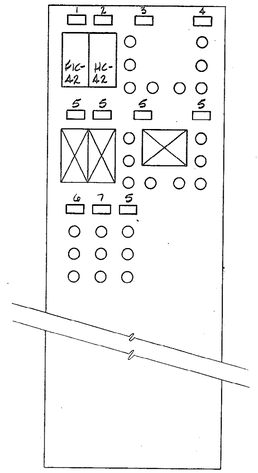
LEGEND:

A - ALARM
C - CONTROL
F - FLOW
I - INDICATE
L - LEVEL
R - RECORD
T - TOTALIZE

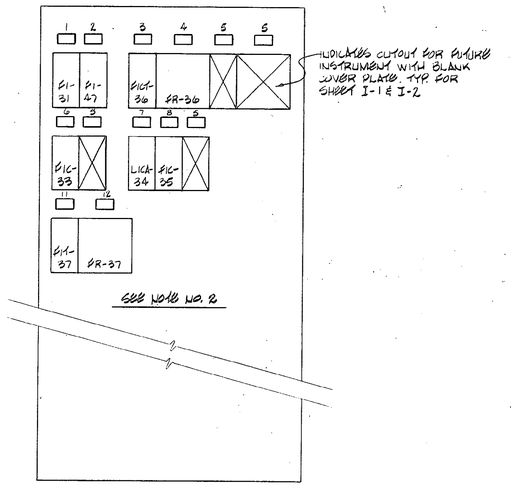
X - TRANSMIT
BC - BUBBLER
BMP - BELT PRESS METER PANEL
MCP - MAIN CONTROL PANEL (EXISTING)
SMP - SECONDARY METER PANEL
TMP - THICKENER METER PANEL



THICKENER METER PANEL 'TMP'



BELT PRESS METER PANEL 'BMP'



SECONDARY METER PANEL 'SMP'

NOTES:

1. FURNISH AND INSTALL A SIX-POINT ANNUNCIATOR WITH 'TEST AND SILENCE' PUSHBUTTONS AND ALARM HORN.
2. FURNISH AND INSTALL A TWELVE-POINT ANNUNCIATOR WITH 'TEST AND SILENCE' PUSHBUTTONS AND ALARM HORN.

PROPOSED NAMEPLATE SCHEDULE

NO.	ENGRAVED
—	THICKENER METER PANEL 'TMP'
1	SLUDGE FLOW THICKENER NO. 1
2	CHEMICAL FEED THICKENER NO. 1
3	SLUDGE FLOW THICKENER NO. 2
4	CHEMICAL FEED THICKENER NO. 2
5	(BLANK)
6	SLUDGE PUMP NO. 3
7	SLUDGE PUMP NO. 4
8	SLUDGE PUMP NO. 5
—	SECONDARY METER PANEL 'SMP'
1	FLOW TO AERATION BASINS
2	FLOW TO RBC'S
3	RETURN SLUDGE FLOW TO AERATION BASINS
4	RETURN SLUDGE FLOW TO AERATION BASINS
5	(BLANK)
6	INFLUENT FLOW TO FINAL CLARIFIERS
7	RETURN SLUDGE WELL LEVEL
8	SLUDGE WITHDRAWAL FROM FINAL CLARIFIERS
9	
10	
11	WASTE SLUDGE FLOW
12	WASTE SLUDGE FLOW
—	BELT PRESS METER PANEL 'BMP'
1	SLUDGE FLOW BELT PRESS NO. 1
2	POLYMER FEED BELT PRESS NO. 1
3	THICKENED SLUDGE PUMP NO. 3
4	PLANT WATER PUMP NO. 4
5	(BLANK)
6	POLYMER FEED PUMP NO. 1
7	POLYMER FEED PUMP NO. 2

51-003-118.

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
CONSULTING ENGINEERS

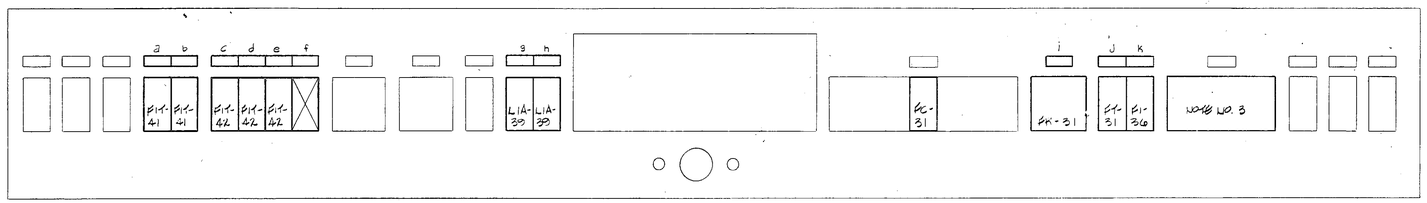
CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

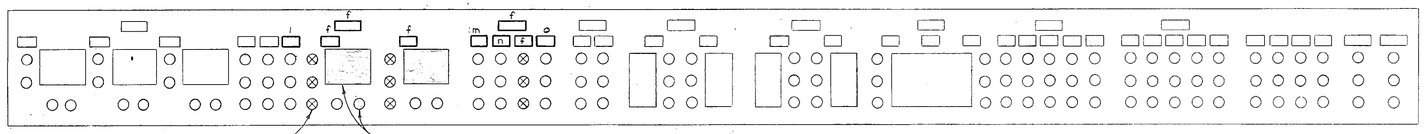
METERING AND INSTRUMENTATION - I

SHEET I-1 OF SHEETS
PROJECT NO. 2815

RECORD



UPRIGHT PORTION



BENCH PORTION

EXISTING MAIN CONTROL PANEL 'MCP'

PROPOSED NAMEPLATE SCHEDULE	
ITEM	ENGRAVED
a	HOLDING TANK SLUDGE FLOW THICKENER NO. 1
b	HOLDING TANK SLUDGE FLOW THICKENER NO. 2
c	THICKENED SLUDGE FLOW VACUUM FILTER NO. 1
d	THICKENED SLUDGE FLOW VACUUM FILTER NO. 2
e	THICKENED SLUDGE FLOW BELT PRESS
f	(BLANK)
g	NORTH SLUDGE HOLDING TANK LEVEL
h	SOUTH SLUDGE HOLDING TANK LEVEL
i	WASTEWATER TO AERATION BASINS
j	TOTAL WASTEWATER TO ABRATION BASINS
k	RETURN SLUDGE TO AERATION BASINS
l	PLANT EFFLUENT BOOSTER PUMP
m	WASTE SLUDGE PUMP NO. 1
n	WASTE SLUDGE PUMP NO. 2
o	THICKENED SLUDGE PUMP NO. 3

NOTES:

1. UNLESS OTHERWISE INDICATED THE EXISTING INSTRUMENTATION INSTALLATION SHALL REMAIN.
2. UNLESS OTHERWISE INDICATED ALL ITEMS ON THE EXISTING MAIN CONTROL PANEL 'MCP' THAT ARE BOLDLY OUTLINED SHALL CONSIST OF DISCONNECTING AND REMOVAL OF EXISTING ITEM AND THE FURNISHING, INSTALLING AND CONNECTION OF THE PROPOSED ITEM IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALL EXISTING ITEMS THAT ARE NOT REUSED SHALL BE TURNED OVER TO THE OWNER.
3. DISCONNECT EXISTING SIGNAL AND CONNECT THE SIGNAL FROM SYSTEM 43 TO EXISTING RECORDER, TOTALIZER AND CONTROLLER
4. ALL DEVICES PREVIOUSLY INSTALLED UNDER THE BOLDLY OUTLINED NAMEPLATES ON THE BENCH PORTION OF THE 'MCP' SHALL BE DISCONNECTED AND ALL CONDUCTORS SHALL BE EXTENDED TO THE 'MMP'.
5. WHERE INDICATED ON THE CONTRACT DRAWINGS THE DEVICES DISCONNECTED UNDER NOTE NO. 4 SHALL BE RECONNECTED TO THE NEW CONTROL CIRCUITS.

51-903-19

NO.	DATE	DESCRIPTION	APPROVED

REVISIONS

DESIGNED D.A.D.
DRAWN K.R.H.
CHECKED K.A.R.
DATE 6-1-86

PRC Consoer Townsend
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CITY OF MYRTLE BEACH, SOUTH CAROLINA
DEPARTMENT OF PUBLIC UTILITIES

SCALE
NONE

METERING AND INSTRUMENTATION – II

SHEET I-2
OF SHEETS
PROJECT NO. 2815

RECORD

BRUNING 44-132 69716