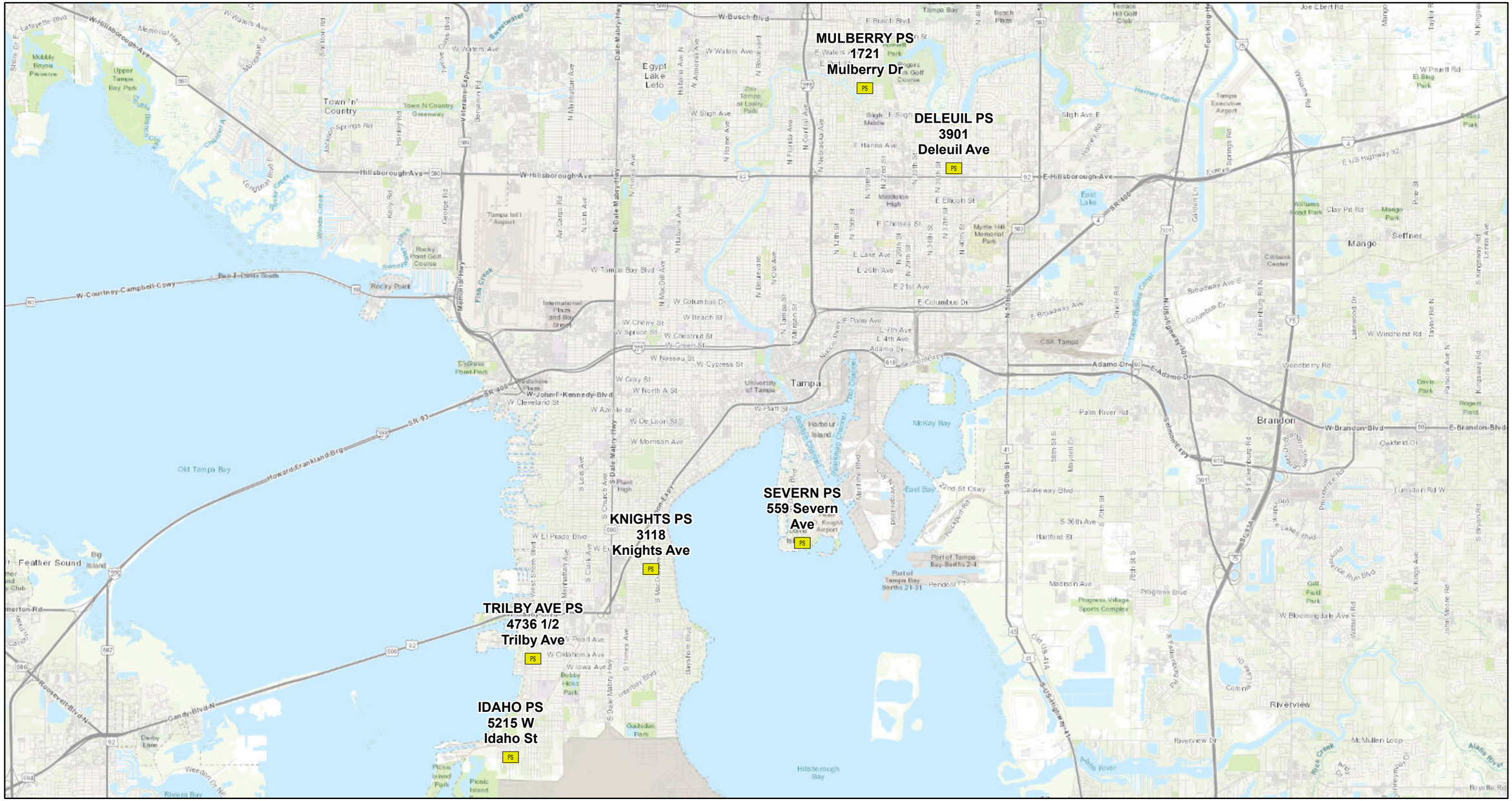


0 3 6 12 Miles

25-D-00039 Wastewater Pumping Station Rehabilitations Design Services

City of Tampa Wastewater Department

Legend

PS Pump Station

City of Tampa Florida

Sheet No.

Overview

N

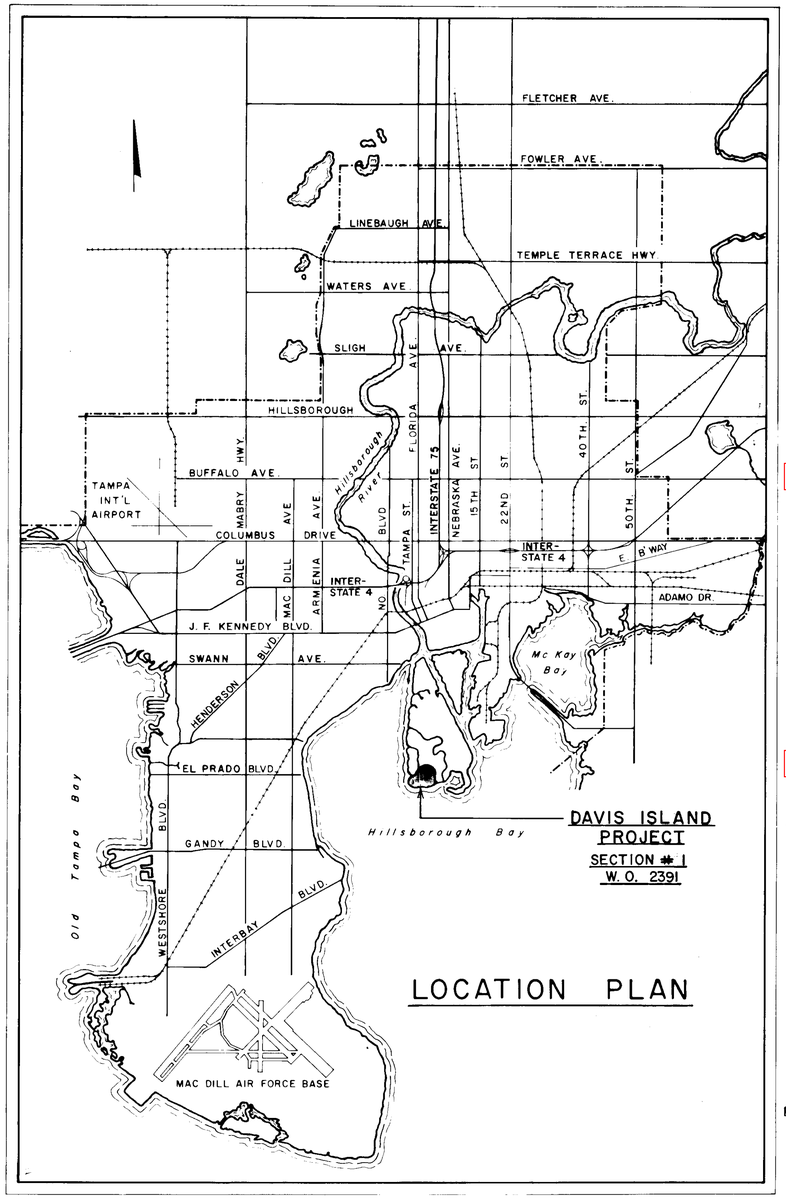
CITY OF TAMPA, FLORIDA

DEPT. OF SANITARY SEWERS

PLANS

FOR THE CONSTRUCTION OF

SEWAGE DISPOSAL SYSTEM & SEWER IMPROVEMENTS

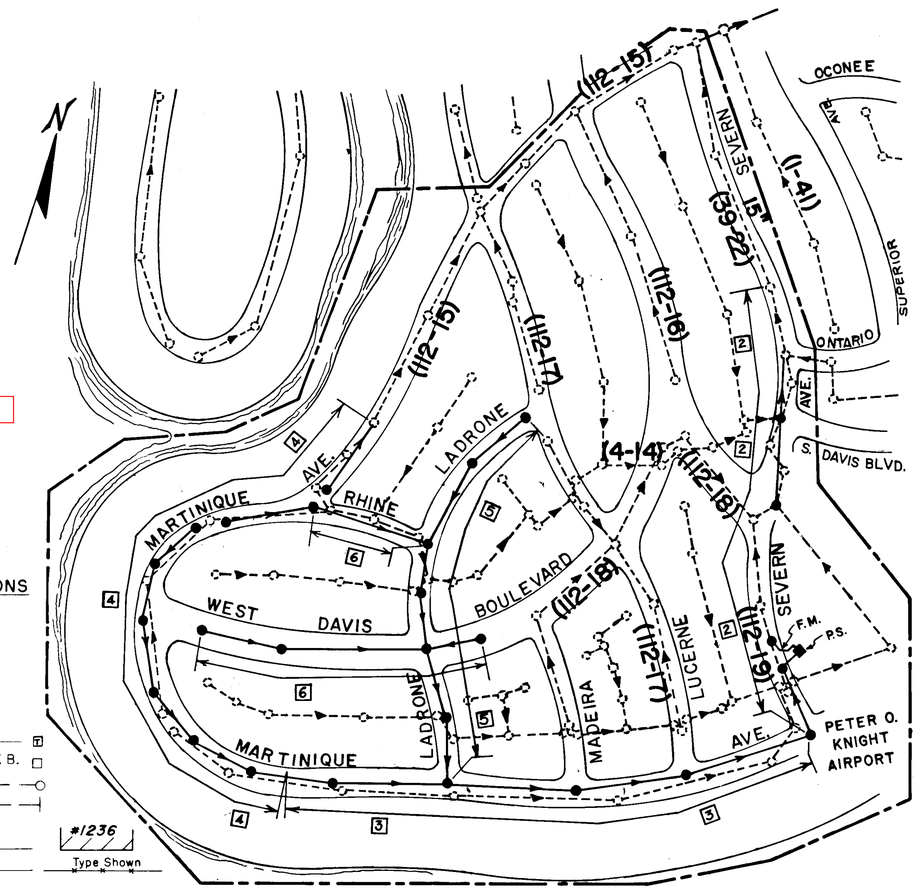


DAVIS ISLAND PROJECT
SECTION # 1
W. O. 2391

LOCATION PLAN

INDEX

Sh. No.	ON	FROM	TO
1	LOCATION PLAN, INDEX & PROJECT MAP		
2	SEVERN AVE.	Sta. 0+00.0 (Ontario)	Sta. 4+30.93
2	SEVERN AVE.	Sta. 0+00.0 (F.M.)	Sta. 0+90.83 (P.S.)
2	SEVERN AVE.	Sta. 0+00.0 (P.S.)	Sta. 2+67.27 (Martinique)
3	MARTINIQUE AVE.	Sta. 2+67.27	Sta. 17+50.00
4	MARTINIQUE AVE.	Sta. 17+50.00	Sta. 27+40.20
4	MARTINIQUE AVE.	Sta. 3+35.82 (Rhine)	Sta. 5+89.92
4	MARTINIQUE AVE.	Sta. 0+00.00	Sta. 1+72.00
5	LADRONE AVE.	Sta. 0+00.00 (Martinique)	Sta. 11+39.55 (Lucerne)
6	W. DAVIS BLVD.	Sta. 0+00.00 (Ladrone)	Sta. 1+50.00 (East)
6	W. DAVIS BLVD.	Sta. 0+00.00 (Ladrone)	Sta. 6+24.60 (West)
6	RHINE AVE.	Sta. 0+00.00 (Ladrone)	Sta. 3+35.82 (Martinique)
7	SEVERN AVE. PUMPING STATION SITE (Etc.)		
8	MISCELLANEOUS, STANDARDS & DETAILS		
9	MISCELLANEOUS, STANDARDS & DETAILS		



APPROXIMATE POSITION OF HOUSE CONNECTIONS

To Be Connected to a Wye
To Be Connected to a Tee
To Be Connected to a Tee (Inclined Riser) T

EXISTING STRUCTURES AND FEATURES

Sewers — Up to 36" & Smaller — 36" & Larger

Force Main
Ex Sanitary Sewer & Manhole
Storm Sewer & Manhole
Design Sanitary Sewer

Other Features

Property Line — P/L
Curb Line
Water Line
Gas Line
Electrical Cable or Duct
Telephone Cable or Duct
Valve
Hydrant
Catch Basin — CB
Power Pole
Telephone Pole
Valve Vault — V
Water Meter — M
Electrical Manhole or Vault — E
Sheet No. — 2

Telephone Manhole or Vault — T
Telephone Booth — T. B.
Guy Pole
Guy Wire
Building Limit
Fence — #1236 Type Shown
Trees:
Conifer — 8"
Palm — 12"
Other — 10"
Railroad Tracks
Marsh
Hedge
Bridge or Culvert
Property Corners:
Iron Pipe
Concrete Monument
Open Ditches
Section Boundary

GENERAL NOTES

1. *All elevations are referred to the City Datum which is 0.65 feet above the Mean Low Water Datum of the U.S. Corp of Engineers and is 0.15 feet below the Mean Sea Level Datum of the U.S.C. & G.S.*
2. *Existing utilities, buildings, ground elevations, and other physical features are shown according to the best information available at the time the plans were prepared*

PROJECT MAP
Section # 1
W.O. 2391

K-12 38

CITY OF TAMPA, FLORIDA
SANITARY SEWER DEPARTMENT
SEWAGE DISPOSAL SYSTEM & SEWER IMPROVMENTS

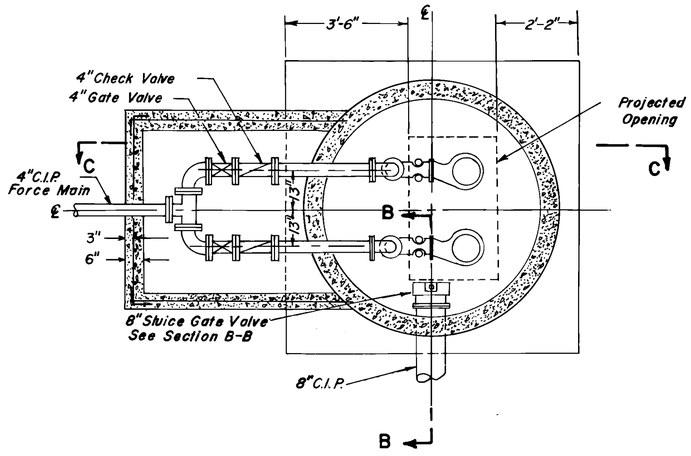
LOCATION PLAN
INDEX
&
PROJECT MAP 126-42

DES: MJA
DRN: lds
CKD: MJA
DATE:

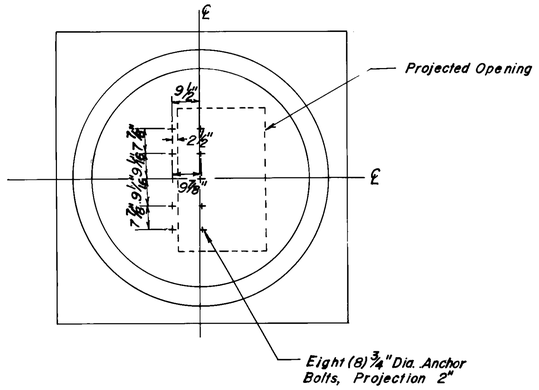
Revisions

DAVIS ISLAND PROJECT
SCALE: 1" = 200'

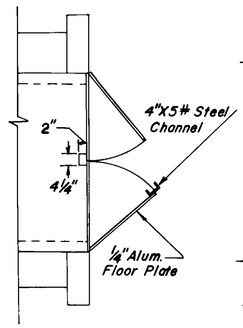
SHEET 1 OF 9



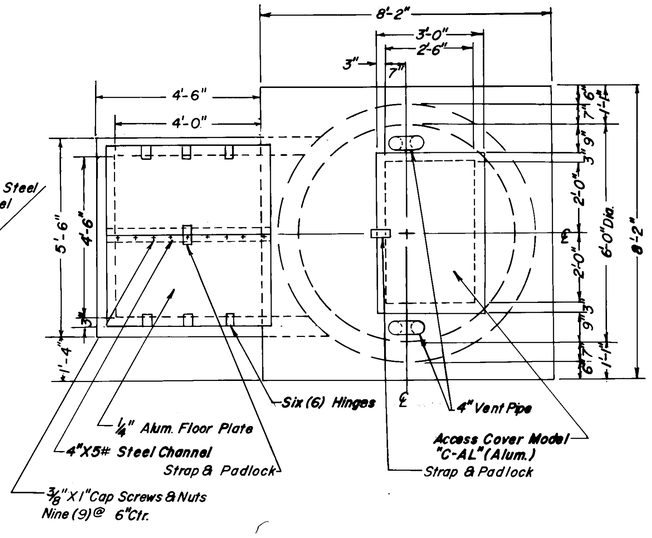
Section A-A



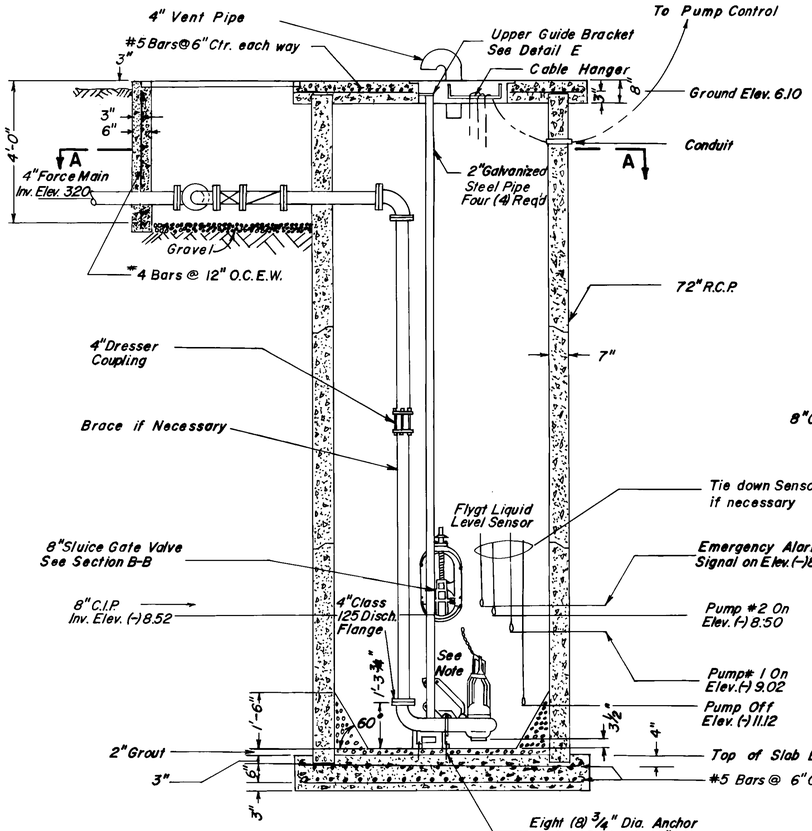
Anchor Bolts Location



Side View

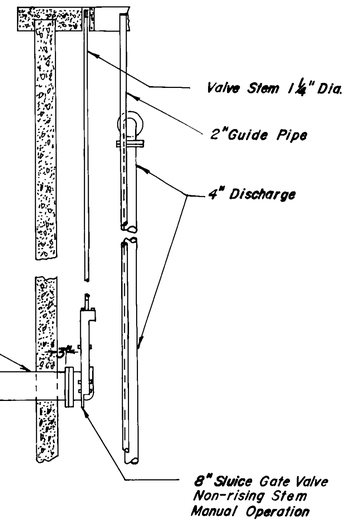


Top View

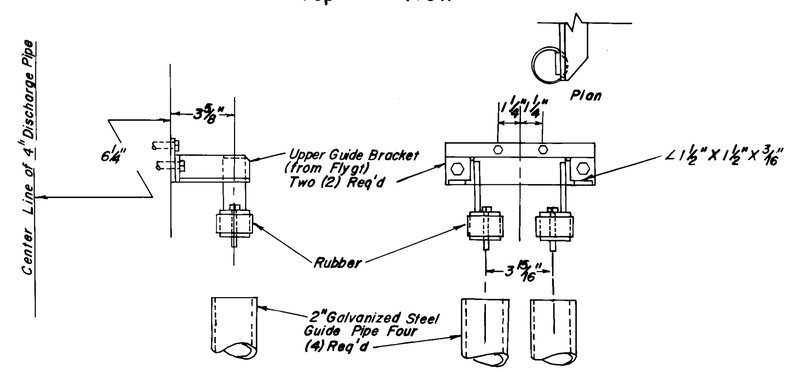


Section C-C

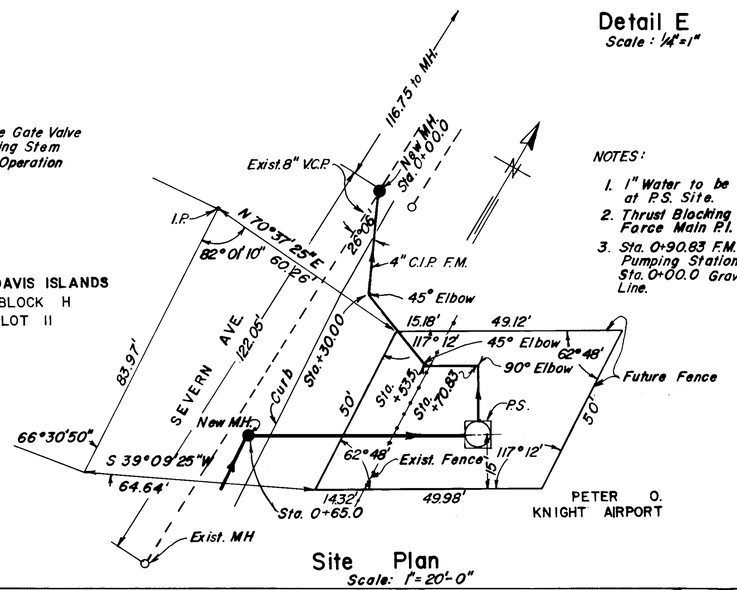
NOTE: Flygt Model 4" CP 3082
Capacity: 150 G.P.M.
T.D.H: 15.0'



Section B-B



Detail E
Scale: 1/4"=1"



Site Plan
Scale: 1"=20'-0"

NOTES:
1. 1" Water to be Provided at P.S. Site.
2. Thrust Blocking at all Force Main P.I.
3. Sta. 0+90.83 F.M. Pumping Station = Sta. 0+00.0 Gravity Line.

SEWER LINE LOCATION
K-12

CITY OF TAMPA, FLORIDA
RENEWAL & REPLACEMENT
SEWER IMPROVEMENTS

SEVERN AVE. PUMPING STATION
DAVIS ISLANDS

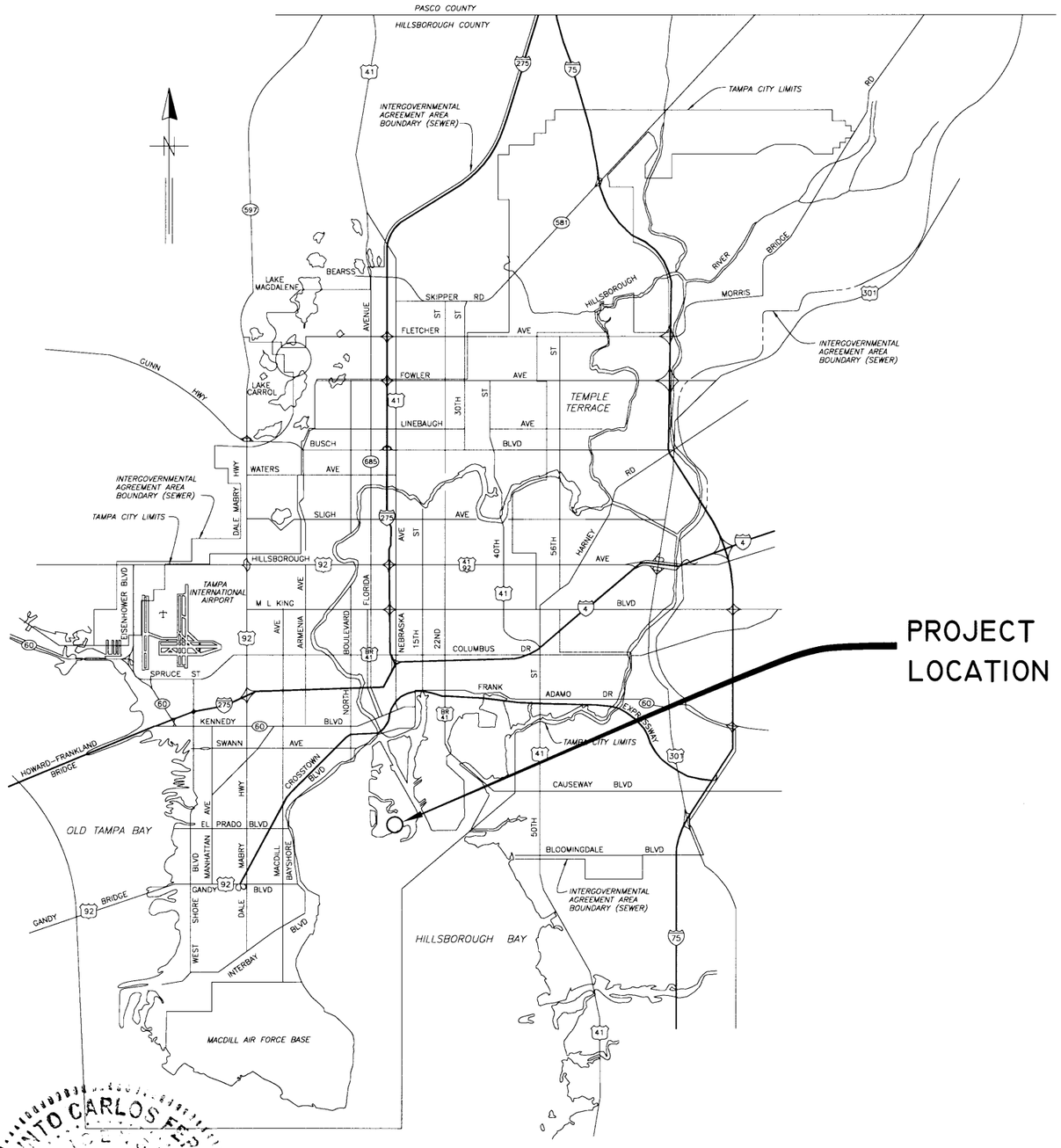
DES: M.J.A.
DRN: L.H.W.
CKD: MWA
DATE MARCH 75

SCALE
1/2" = 1'-0" UNLESS NOTED

SHEET 7 OF 9

B069-037

LOCATION MAP



PROJECT LOCATION

CITY of TAMPA

CITY OF TAMPA FLORIDA
MASCOTTE
ORGANIZED JULY 15 1887

WASTEWATER DEPARTMENT

PLANS FOR

SEVERN PUMPING STATION REHABILITATION

JACINTO CARLOS FERRAS
STATE OF FLORIDA
No. 49454
REGISTERED
PROFESSIONAL ENGINEER

Jacinto Carlos Ferras 8/10/10
JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: J.F.
DRN: BB
CKD: JF
DATE: 8/10/10

CITY of TAMPA
WASTEWATER DEPARTMENT

COVER SHEET

W.O. 2049
SHEET 1

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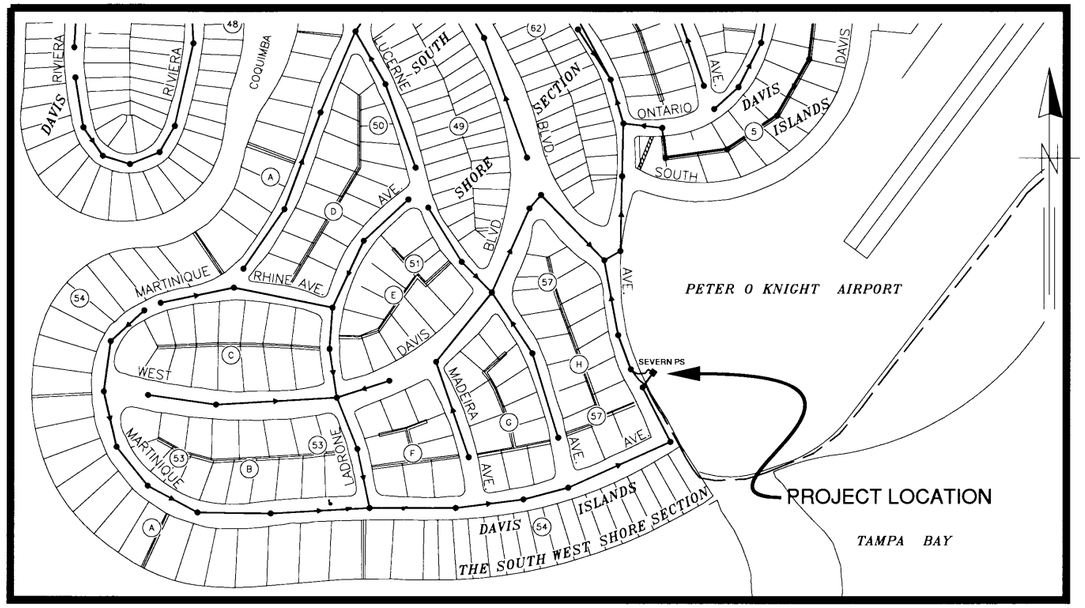
B069-038



PROJECT MAP

NOT TO SCALE

GENERAL NOTES

1. ELEVATION INFORMATION SHOWN ON THESE PLANS IS REFERENCED TO NGVD 1929 UNLESS OTHERWISE STATED.

2. LOCATIONS OF EXISTING UNDERGROUND UTILITIES WERE PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE. VERIFY THE LOCATION AND DEPTH OF ALL PERTINENT UTILITIES PRIOR TO CONSTRUCTION. NOTIFY UTILITY COMPANIES AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.

3. EXISTING DIMENSIONS ARE BASED ON THE BEST INFORMATION AVAILABLE. TRUE DIMENSIONS SHALL BE VERIFIED IN THE FIELD.

4. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE LINED WITH PROTECTO 401 CERAMIC EPOXY OR EQUAL. PVC PIPE SHALL BE C-900 (DR-18). HDPE SHALL BE DR-11, DIPS O.D. WITH GREEN STRIPES. HDPE JOINTS SHALL BE BUTT-FUSED, ELECTROFUSED OR FLANGED WITH 316 S.S. BACKUP RINGS.

5. ALL METAL PIPE, FITTINGS, VALVES, ETC. SHALL RECEIVE:
   A) SHOP COAT – ONE COAT, 3-5 MILS (DRY) TNEMEC N140-1211 EPOXY PRIMER.
   B) FIELD COAT – ONE COAT, 3-5 MILS (DRY) TNEMEC N69
   C) FIELD COAT – ONE COAT, 2.5-4 MILS (DRY) TNEMEC 1074U ENDURASHIELD (WITH FACTORY ADDED UV BLOCKER)

6. SLAB SHALL BE 6-INCH THICK, 4,000 PSI (28-DAY) CONCRETE POURED ON COMPACTED SOIL (OR FLOWABLE FILL) AND REINFORCED WITH WIRE MESH (6 GAUGE 4"x4" WWF). THE SLAB SHALL BE SLOPED TO FLOOR DRAIN AND SHALL HAVE A 4" HIGH, 4" WIDE CONTAINMENT CURB WITH CHAMFERED EDGES.

7. CONTRACTOR SHALL REMOVE WOOD PANELS OF EXISTING PRIVACY FENCE AS NECESSARY TO FACILITATE CONSTRUCTION. AFTER THE REHABILITATION WORK IS COMPLETED, CONTRACTOR SHALL REINSTALL PANELS. THE QUALITY OF THE EXISTING WOOD FENCE IS POOR. CONTRACTOR SHALL INSTALL 2 STAINLESS STEEL SCREWS TO REATTACH/REINFORCE EACH PRIVACY SLAT.

INDEX

SH. No.	DESCRIPTION
1	COVER SHEET
2	INDEX, PROJECT MAP & GENERAL NOTES
3	SITE PLAN AND BYPASS PLAN
4	BYPASS SECTION AND NOTES
5	DEMOLITION PLAN & SECTION
6	PROPOSED PLAN
7	PROPOSED SECTION
8	MISCELLANEOUS DETAILS

GENERAL NOTES (CONT'D)

8. AFTER WET WELL IS DEWATERED, THE CONTRACTOR SHALL CLEAN WET WELL OF ALL DEBRIS. DEBRIS MAY BE DELIVERED AND DISPOSED OF AT THE CITY OF TAMPA HOWARD F. CURREN AWTP, 2700 MARITIME BOULEVARD.

9. CHECK VALVES SHALL BE APCO RUBBER FLAPPER SWING CHECK VALVE, SERIES 100. THIS EQUIPMENT IS A STANDARDIZED ITEM AT THIS FACILITY AND NO "OR EQUAL" SUBMITTALS WILL BE CONSIDERED.

10. CONTRACTOR SHALL NOTIFY HILLSBOROUGH COUNTY AVIATION AUTHORITY (TRACEY CARTWRIGHT AT 813-927-7569) A MINIMUM 1 WEEK BEFORE THE START OF CONSTRUCTION. NO EQUIPMENT TALLER THAN 15 FEET IS ALLOWED UNLESS THE AVIATION AUTHORITY IS NOTIFIED A MINIMUM 48 HOURS PRIOR TO THE EQUIPMENT'S ARRIVAL TO THE SITE.

11. SALVAGEABLE MATERIAL AS DETERMINED BY TREATMENT PLANT PERSONNEL SHALL BE DELIVERED TO THE CITY OF TAMPA'S HOWARD F. CURREN AWTP AT 2700 MARITIME BOULEVARD. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF AT THE CONTRACTOR'S EXPENSE. IN GENERAL, ALL ITEMS CONSTRUCTED OF METAL SHALL REMAIN THE PROPERTY OF THE CITY AND SHALL BE DELIVERED TO THE TREATMENT PLANT.

12. ALL HARDWARE SHALL BE 316 STAINLESS STEEL.

13. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH WASTEWATER PERSONNEL AND PUMPING STATION OPERATIONS. UPON THE CITY'S NOTICE TO PROCEED, CONTRACTOR SHALL CONTACT OSCAR ESTRADA AT (813) 323-4182 TO SCHEDULE A PRECONSTRUCTION MEETING.

14. PLUG VALVES SHALL BE DEZURIK, 100% FULL PORT ECCENTRIC PLUG VALVES (PEF). THIS EQUIPMENT IS A STANDARDIZED ITEM AT THIS FACILITY AND NO "OR EQUAL" SUBMITTALS WILL BE CONSIDERED.

15. RESTRAINING DEVICES SHALL BE MEGALUGS AS MANUFACTURED BY EBAA IRON, OR APPROVED EQUAL.

16. SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE CITY FOR ALL PROPOSED ITEMS. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE ORIGINALS OR HIGH QUALITY COPIES (EASILY READABLE). NO FAXED SHEETS OR POOR QUALITY COPIES WILL BE ACCEPTED FOR SUBMITTAL REVIEW.

17. CONTRACTOR SHALL RESTORE ALL LANDSCAPING, SODDING, SPRINKLER SYSTEM PIPING AND PAVEMENT THAT MAY HAVE BEEN DAMAGED DURING CONSTRUCTION TO ITS ORIGINAL CONDITION OR BETTER.

18. AFTER THE INSTALLATION OF ALL THE DISCHARGE PIPING INSIDE THE WET WELL, THE CITY'S ANNUAL COATING CONTRACTOR (SAK) WILL COAT THE ENTIRE WET WELL WHILE THE STATION IS STILL ON BYPASS. SAK WILL BE PAID DIRECTLY BY THE CITY. THE CONTRACTOR SHALL ALLOW A MAXIMUM OF 2 CONSECUTIVE WEEKDAYS FOR THIS WORK TO OCCUR. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH SAK (CASEY AT 813-777-9158) IN ADVANCE.

19. NORMAL WORKING HOURS SHALL BE WEEKDAYS FROM 7 AM TO 3 PM UNLESS OTHERWISE APPROVED BY THE ENGINEER.

20. OSHA STANDARD SAFETY EQUIPMENT SUCH AS SAFETY HARNESSES, GAS MONITORS, LOWER EXPLOSIVE LIMIT (LEL) DETECTORS, BREATHING APPARATUS, ETC. SHALL BE UTILIZED WHERE THE WORK DICTATES THEIR USE.

21. DURING THE REHABILITATION PROCESS, THE STRUCTURE SHALL BE ADEQUATELY VENTILATED AND HYDROGEN SULFIDE LEVELS SHALL BE CONTINUOUSLY MONITORED. THE CONTRACTOR MAY ALSO UTILIZE FORCED AIR.

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JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

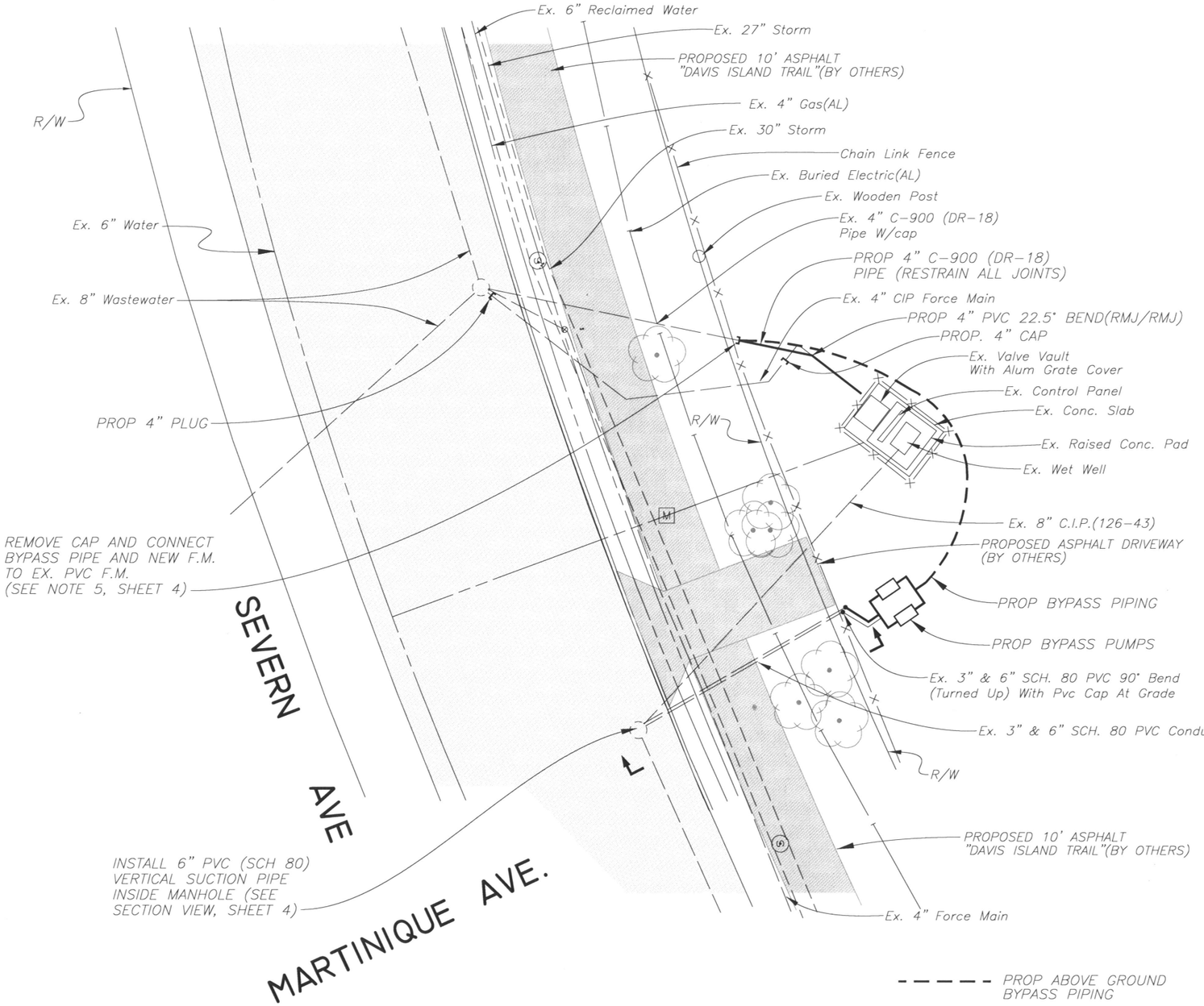
DES: J.F.
DRN: BB
CKD: JF
DATE: 2/10/10

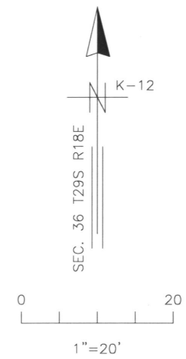
CITY of TAMPA
WASTEWATER DEPARTMENT

SEVERN PUMPING STATION
REHABILITATION
INDEX, PROJECT MAP & GENERAL NOTES

W.O. 2049
SHEET 2

B069-039





PETER O. KNIGHT AIRPORT

SITE PLAN & BYPASS PLAN

SCALE: 1" = 20'

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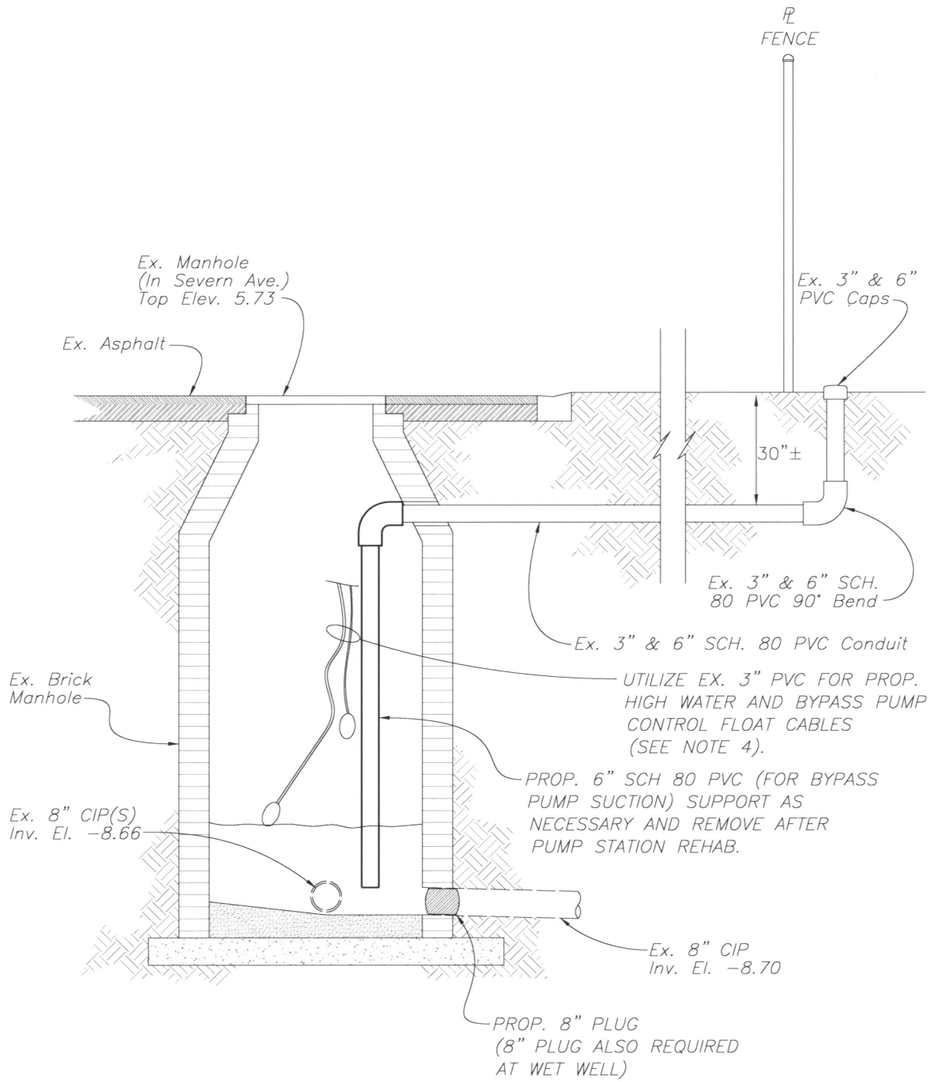
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: J.F. DRN: BB CKD: JF DATE: 8/10/10	CITY of TAMPA WASTEWATER DEPARTMENT	SEVERN PUMPING STATION REHABILITATION SITE PLAN AND BYPASS PLAN	W.O. 2049 SHEET 3
	3						
	2						
	1						

B069-04D



SECTION VIEW

NOT TO SCALE

BYPASS NOTES

1. CONTRACTOR SHALL BYPASS THE EXISTING PUMPING STATION AS SHOWN ON THE BYPASS PLAN ON SHEETS 3 & 4. THE ENTIRE BYPASS PUMPING SYSTEM SHALL REMAIN ON THE EAST SIDE (PUMPING STATION SIDE) OF THE FENCE. BYPASS PUMPS SHALL BE SIZED FOR 150 GPM AT 15 FEET OF TDH.
2. CONTRACTOR SHALL PROVIDE BACKUP BYPASS PUMPS DURING ALL PHASES OF BYPASS PUMPING PROCEDURES. CONTRACTOR SHALL SUBMIT BYPASS PUMPING SYSTEM FOR APPROVAL PRIOR TO STARTING BYPASS OPERATIONS.
3. BYPASS PUMP NOISE SHALL STRICTLY COMPLY TO ALL LOCAL REGULATIONS AND ORDINANCES COVERING NOISE CONTROL. THIS MAY REQUIRE CONSTRUCTING SOUND ATTENUATING ENCLOSURE.
4. CONTRACTOR SHALL UTILIZE THE 3" PVC CONDUIT ROUTED FROM THE INFLUENT MANHOLE TO THE FENCE TO INSTALL THE BYPASS PUMP CONTROL FLOAT CABLES. THE CITY WILL TRANSFER THE HIGH WATER ALARM FLOAT TO THE INFLUENT MANHOLE ALSO USING THIS 3" CONDUIT. A MINIMUM 1 WEEK NOTICE WILL BE NECESSARY TO SCHEDULE THIS WORK.
5. CONTRACTOR SHALL FIRST CONNECT TEMPORARY BYPASS PIPING TO EXISTING 4" PVC (C-900) PIPE AS SHOWN ON SHEET 3. AFTER THE REHABILITATION WORK IS COMPLETED, THE BYPASS PIPING SHALL BE DISCONNECTED AND THE NEW 4" C-900 FM SHALL BE CONNECTED. THE BYPASS SYSTEM SHALL REMAIN IN PLACE FOR A MINIMUM 4 HOURS TO ENSURE THAT THE PROPOSED SYSTEM IS WORKING SATISFACTORILY WITH NO LEAKS. THE CONTRACTOR WILL BE REQUIRED TO RECONNECT THE BYPASS SYSTEM SHOULD ANY REPAIRS BE NECESSARY.
6. THE PUMPING STATION OR BYPASS SYSTEM, WHICHEVER IS IN OPERATION, CAN'T BE SHUTDOWN FOR MORE THAN 1 HOUR AND A MINIMUM 24 HOUR NOTICE IS REQUIRED FOR A SHUTDOWN.
7. BYPASS SYSTEM SHALL BE EQUIPPED WITH AN AUTODIALER FEATURE TO CONTACT KEY PERSONNEL IN THE EVENT OF A HIGH WATER. MAXIMUM RESPONSE TIME SHALL BE 1 HOUR.

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JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

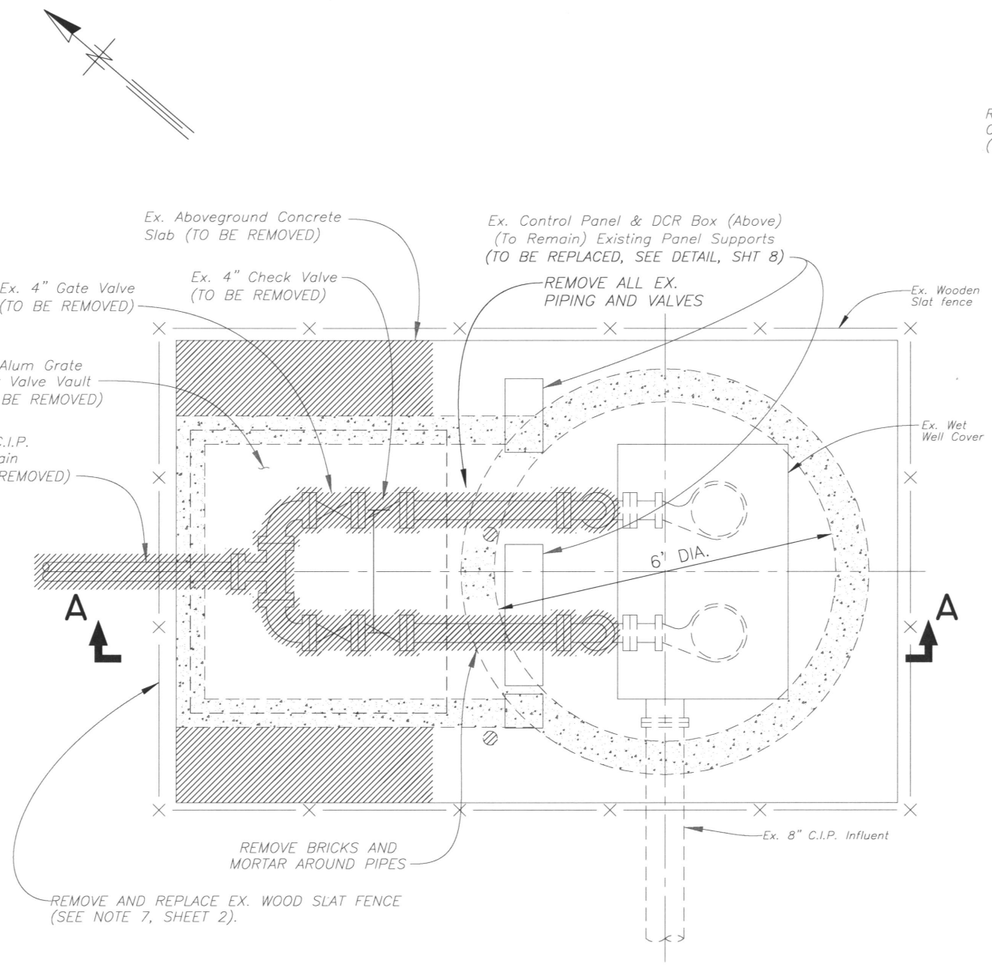
DES: J.F.
DRN: BB
CKD: JF
DATE: 8/10/10

CITY of TAMPA
WASTEWATER DEPARTMENT

SEVERN PUMPING STATION
REHABILITATION
BYPASS SECTION AND NOTES

W.O. 2049
SHEET
4

B069-041

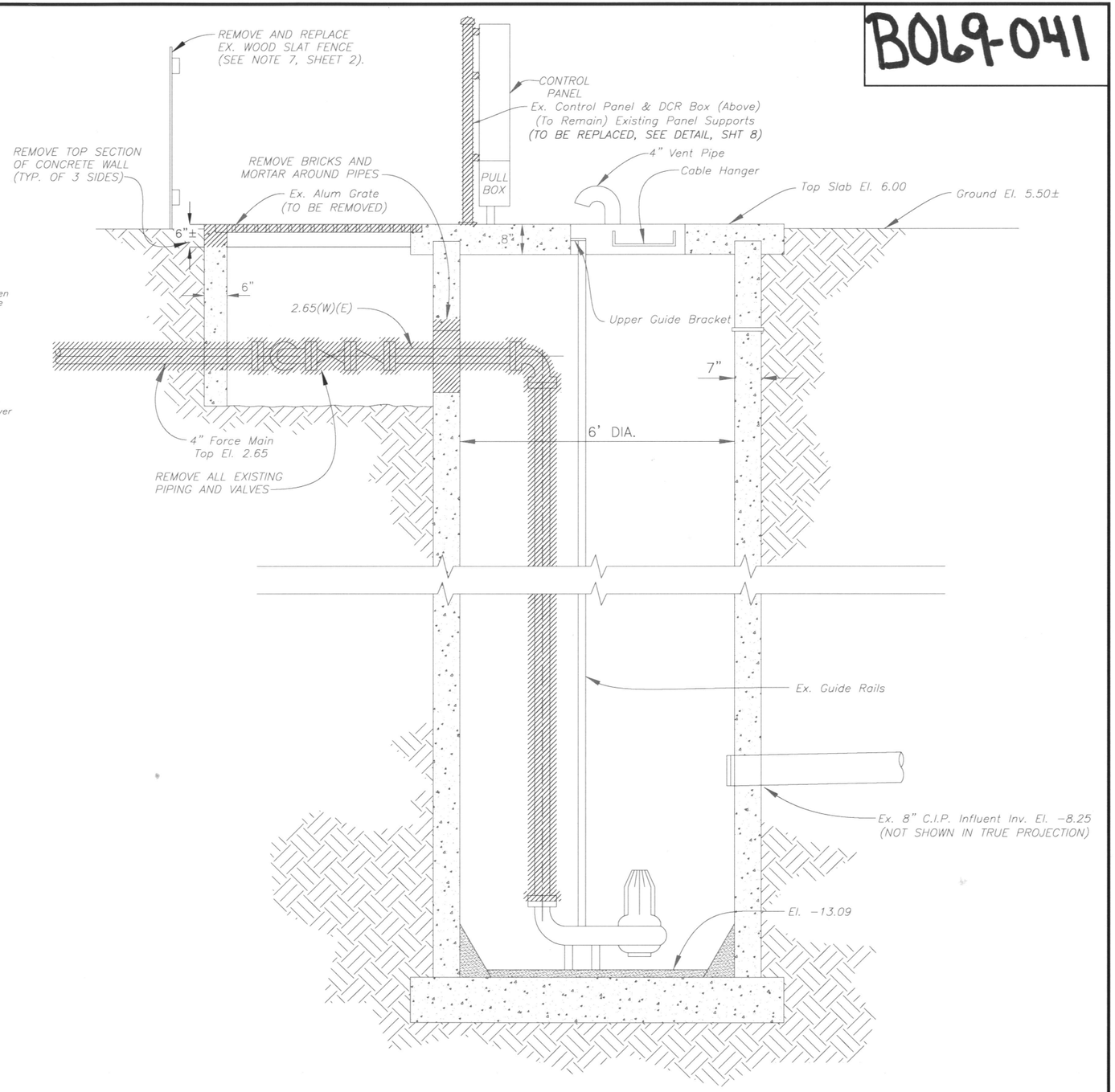


DEMOLITION SECTIONAL PLAN @ EL 5.00

3/8" = 1'-0"

LEGEND

ALL ITEMS SHOWN IN HATCHED AREAS ARE TO BE REMOVED



SECTION A-A

3/8" = 1'-0"

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JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

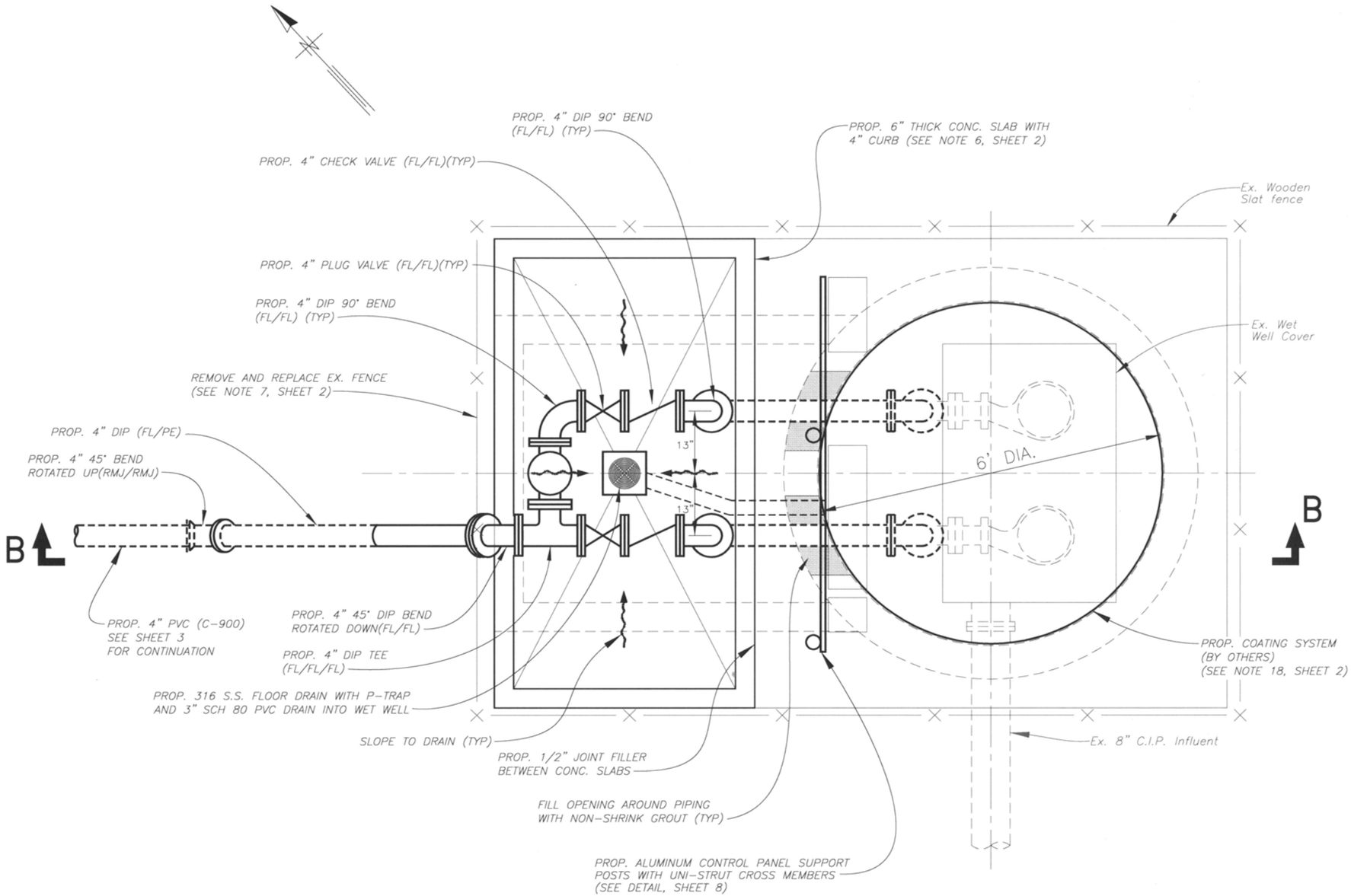
DES: J.F.
DRN: MRL
CKD: JF
DATE: 8/10/10

CITY of TAMPA
WASTEWATER DEPARTMENT

SEVERN AVE. PUMPING STATION
REHABILITATION
DEMOLITION PLAN & SECTION

W.O. 2049
SHEET 5

B069-042



PROPOSED PLAN

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

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JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: J.F. DRN: BB CKD: JF DATE: 8/10/10	CITY of TAMPA WASTEWATER DEPARTMENT	SEVERN AVE. PUMPING STATION REHABILITATION PROPOSED PLAN	W.O. 2049 SHEET 6
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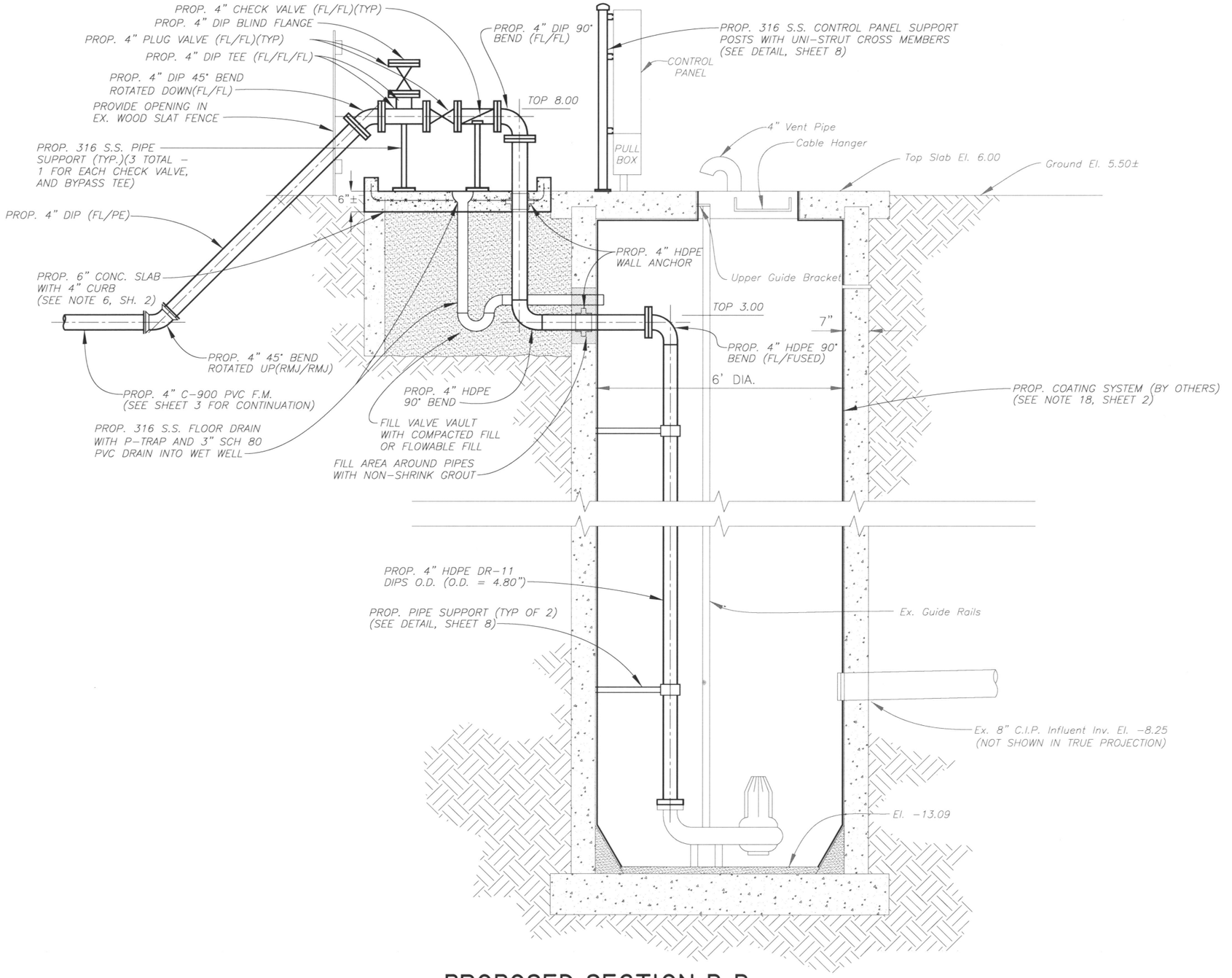
	2						
	1						

B069-043



PROPOSED SECTION B-B

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

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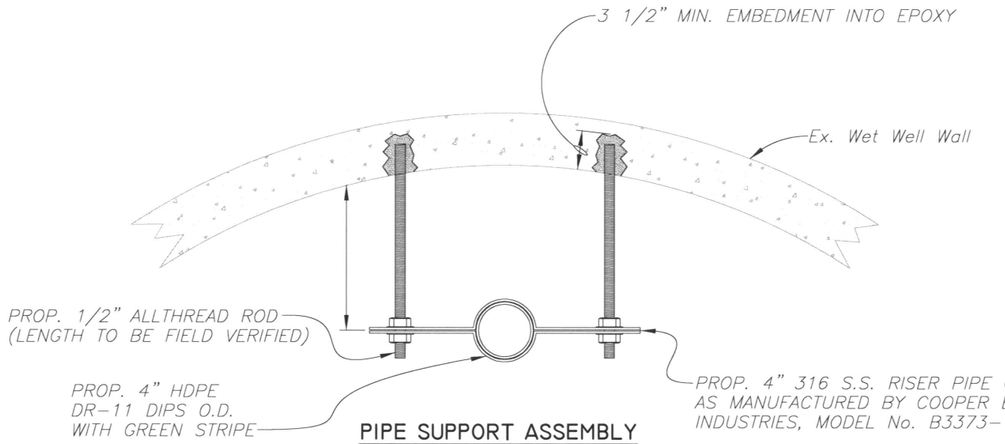
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No. / DATE / REVISIONS 3 2 1		DES: J.F. DRN: BB CKD: DATE:	CITY of TAMPA WASTEWATER DEPARTMENT	SEVERN AVE. PUMPING STATION REHABILITATION PROPOSED SECTION	W.O. 2049 SHEET 7

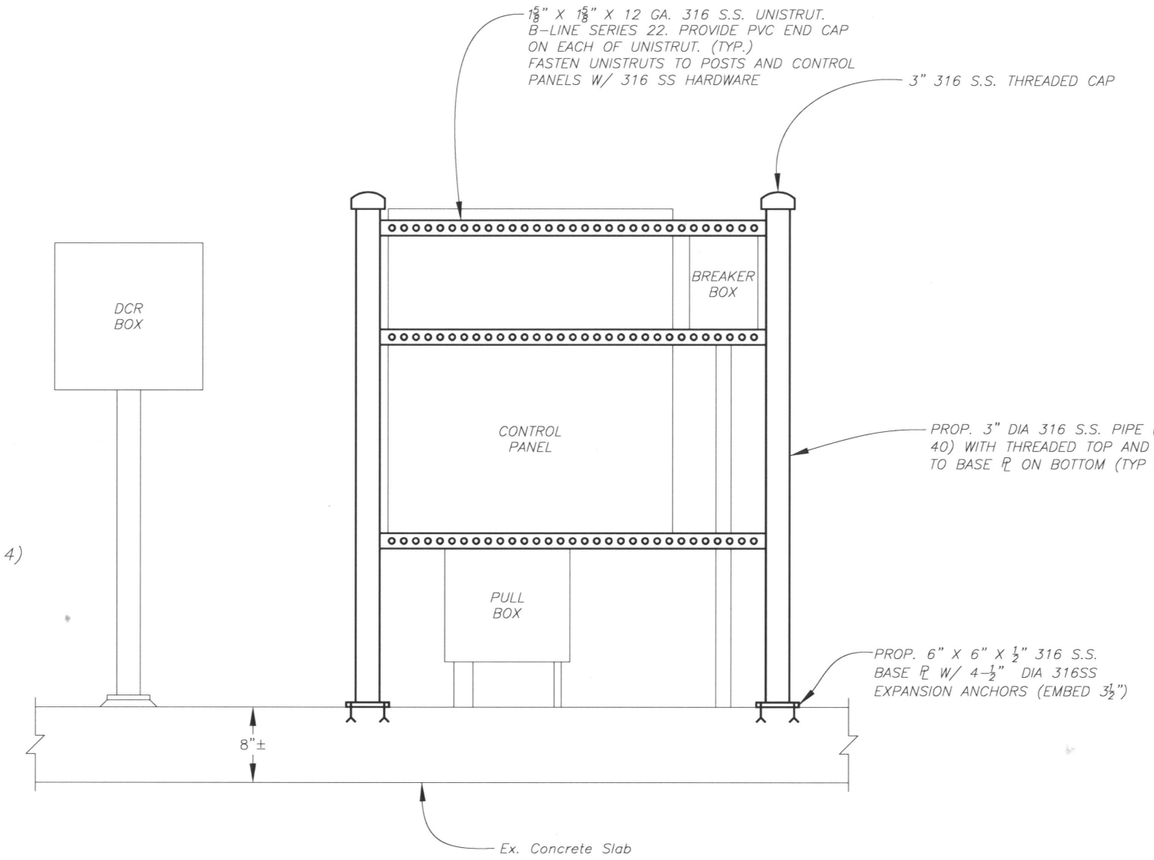
B069-044



PIPE SUPPORT ASSEMBLY

PLAN VIEW

NOT TO SCALE



CONTROL PANEL SUPPORT DETAIL (REAR VIEW)

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

C:\Program Files\AutoCAD Civil 3D 2010\DWG files\PS\SEVERN P.S\2049-Sh-05-08.dwg

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No. / DATE / REVISIONS 3 2 1	DES: J.F. DRN: MRL CKD: DATE:	CITY of TAMPA WASTEWATER DEPARTMENT	SEVERN AVE. PUMPING STATION REHABILITATION MISCELLANEOUS DETAILS	W.O. 2049 SHEET 8

CLAIR-MEL BUILDERS, INC.

TAMPA, FLA

SEWAGE COLLECTION SYSTEM & PUMPING STATIONS

KEY MAP

DEC 30, 1957 JULY 20 1959 SCALE 1 = 300'
APRIL 30, 1958
MAY 26, 1958

PIMM ENGINEERING COMPANY
TAMPA, FLA
BY _____
MAURICE C PIMM - REG ENGR #3625

APPROVED BY _____ DATE _____
B M DUNCAN - Superintendent, Bureau of Sanitary Sewers
City of Tampa, Fla

GANDY MANOR ESTATES

DETAIL OF LIFT STATION NO 2
Scale 1/2 1 0
TRILBY AVE
See Project 16 3rd Prog for alterations

NOTE
Drop Manholes To Be Bu lt In Accordance W th C ty Of Tampa Standards And Spec f cat n

APPROVED April 27, 1954
CITY OF TAMPA FLORIDA
BY B M Duncan
B M Duncan Super ntendent
Bureau Of San tary Sewers

REVISION APPROVED 1-27 1954
CITY OF TAMPA FLORIDA
BY
B M Duncan Super ntendent
Bureau Of San tary Sewers

GANDY GARDENS AND
GANDY MANOR 2ND ADDITION
TAMPA, FLORIDA
Sewage Collection System & Pumping Station

DETAILS
April 23, 1954 Scale as indicated

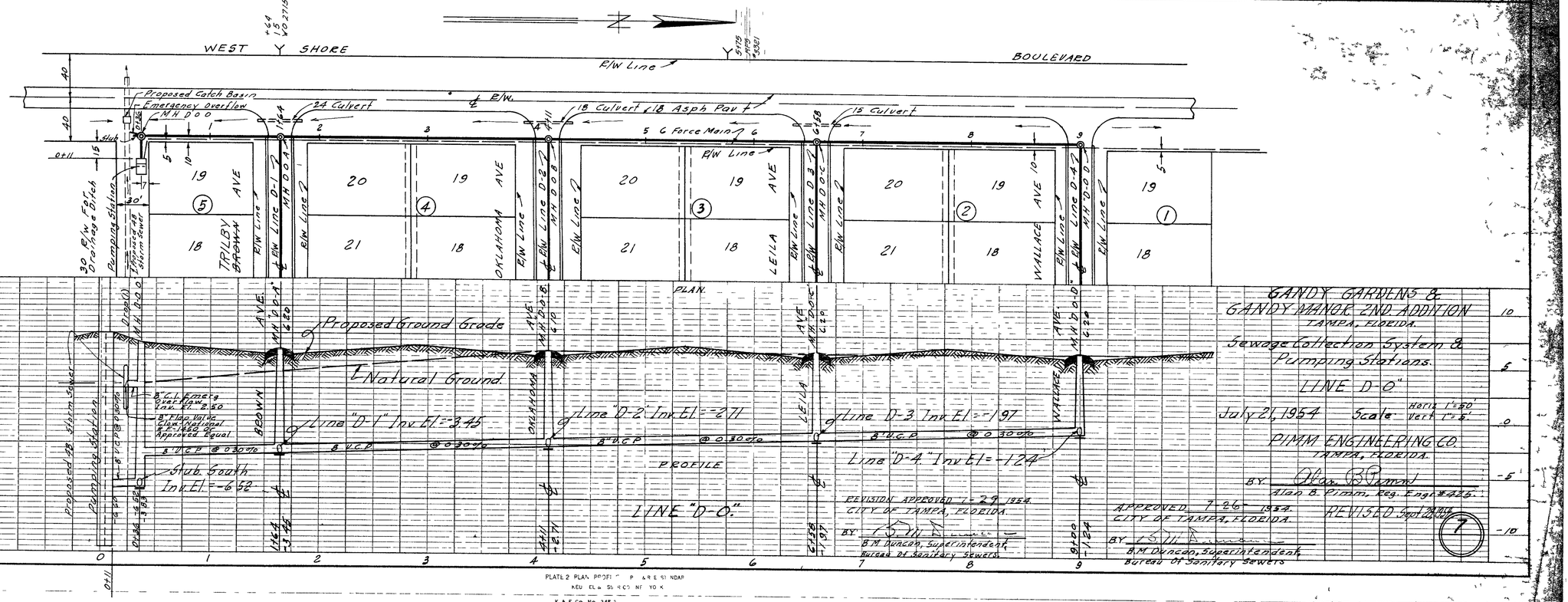
PIMM ENGINEERING CO
TAMPA, FLORIDA
BY Alan B Pimm
Alan B Pimm, Reg Engr #425
REVISED Sept 28 1954
Lift Station No 2 Added

6

TRILBY P S #2 GANDY MANOR
LOIS PS #1 2ND ADDN
15-6

PLAN — SURVEYED ____ BY ____ DATE ____
PLOTTED ____ BY ____ DATE ____
GRADES CHECKED ____ BY ____ DATE ____
NOTE BOOK ALIGNMENT CHECKED ____ BY ____ DATE ____
NO ____ AT U/V CHECKED ____ BY ____ DATE ____

PROFILE — SURVEYED ____ BY ____ DATE ____
PLOTTED ____ BY ____ DATE ____
GRADES CHECKED ____ BY ____ DATE ____
NOTE BOOK "JOT" 2" N/TAP HSCH-F ____ BY ____ DATE ____
NO ____



REVISION APPROVED 6-29-1954
CITY OF TAMPA, FLORIDA
BY B.M. Duncan
B.M. Duncan, Superintendent
Bureau of Sanitary Sewers

APPROVED 7-26-1954
CITY OF TAMPA, FLORIDA
BY B.M. Duncan
B.M. Duncan, Superintendent
Bureau of Sanitary Sewers

GANDY GARDENS & GANDY MANOR 2ND ADDITION
TAMPA, FLORIDA.
Sewage Collection System & Pumping Stations.
LINE D-0"
July 21, 1954 Scale Horiz 1"=50' Vert 1"=5'
PIMM ENGINEERING CO.
TAMPA, FLORIDA.
BY Alan B. Pimm
Alan B. Pimm, Reg. Engr. #426.
REVISED Sept 23, 1954

PLATE 2 PLAN PROFILE PAPER STANDARD
KEUFFEL & ESSER CO. OF NEW YORK
K & E Co No 345 2

GANDY GARDENS & GANDY MANOR 2ND ADD'N.
15-7

PROPERTY OF HILLSBOROUGH COUNTY BOARD OF PUBLIC INSTRUCTION

WEST SHORE BOULEVARD

E/W Line Sta 0+00

Existing Pumping Station

30 Drainage Easement

Storm Sewer

MH

40

E/W Line 8 Asph Pavt

12" CI Water Main

E/W Line Ex Sta MH E0 D

135.0

10

2

5

3

4

MH E0 A

MH E0 B

5

6

7

8

CB

Proposed 10 Easement

4+11.25

WO 3368

New R/W as per Atlas

New R/W as per Atlas 11-21-79

RENELLIE DRIVE

E/W Line Sta 7+98.25

MH E0 C

Ex Storm Sewer

E/W Line Sta 8+13.75

9

8

7

12

WYOMING AVENUE

E/W Line

8 Cone Curb 2

Line E1

28 Asph Pavt

2 Cone Curb 2

E/W Line 2

30

PLAN.

Natural Ground

Proposed Pavement & Grade.

18" Storm Sewer

Line "E-2"

Line "E-1"

8" stub S.I.

Line "D-0" (Existing)

158' 8" V.C.P. @ 6.2%

336.25 8" V.C.P. @ 30%

332.50 8" V.C.P. @ 30%

PROFILE

LINE "E-0"

GANDY GARDENS 3 & 4

TAMPA FLORIDA.

Sewage Collection System

LINES E-0" and "E-2

June 1, 1955 Scale HORIZ. 1" = 50'

APPROVED — 3 — 1955.

CITY OF TAMPA, FLORIDA

BY B.M. Duncon, Superintendent, Bureau of Sanitary Sewers.

PIMM ENGINEERING CO

104 JACKSON ST

TAMPA, FLORIDA.

BY Alan B Pimm

Alan B Pimm, Reg. Engr. #485

PLAN

PROFILE

PROPERTY OF HILLSBOROUGH COUNTY BOARD OF PUBLIC INSTRUCTION

WYOMING AVE

RENELLIE

WISCONSIN AVENUE

IOWA AVENUE

OHIO AVE

BAY DRIVE

E/W Line Sta 0+30

Storm Sewer

Line E0

Line E1

Line E2

Line E3

Line E4

Line E5A

Line E6A

MH E2 A

MH E2 B

MH E2 C

MH E2 D

22 Asph Pavt

8 Cone Curb 2

CB

R/W Line

E/W Line

Storm Sewer

Drainage Ditch

9

10

11

12

13

16

17

20

21

1

2

19

PLAN.

Proposed Pavement & Grade

Natural Ground

15" Storm Sewer

27" Storm Sewer

Line "E-3"

Line "E-4"

Lines "E-0" & "E-1"

Lines "E-5A" & "E-5B"

Lines "E-6A" & "E-6B"

270' 8" V.C.P. @ 30%

321' 8" V.C.P. @ 30%

PROFILE.

LINE "E-2.

PLATE 2 PLAN OFILE

15-12

CITY OF TAMPA, FLORIDA

THIRD SEWER REVENUE BOND PROGRAM

PLANS

FOR THE CONSTRUCTION OF

SEWAGE DISPOSAL SYSTEM

SUB-DISTRICT A-1
DISTRICT B

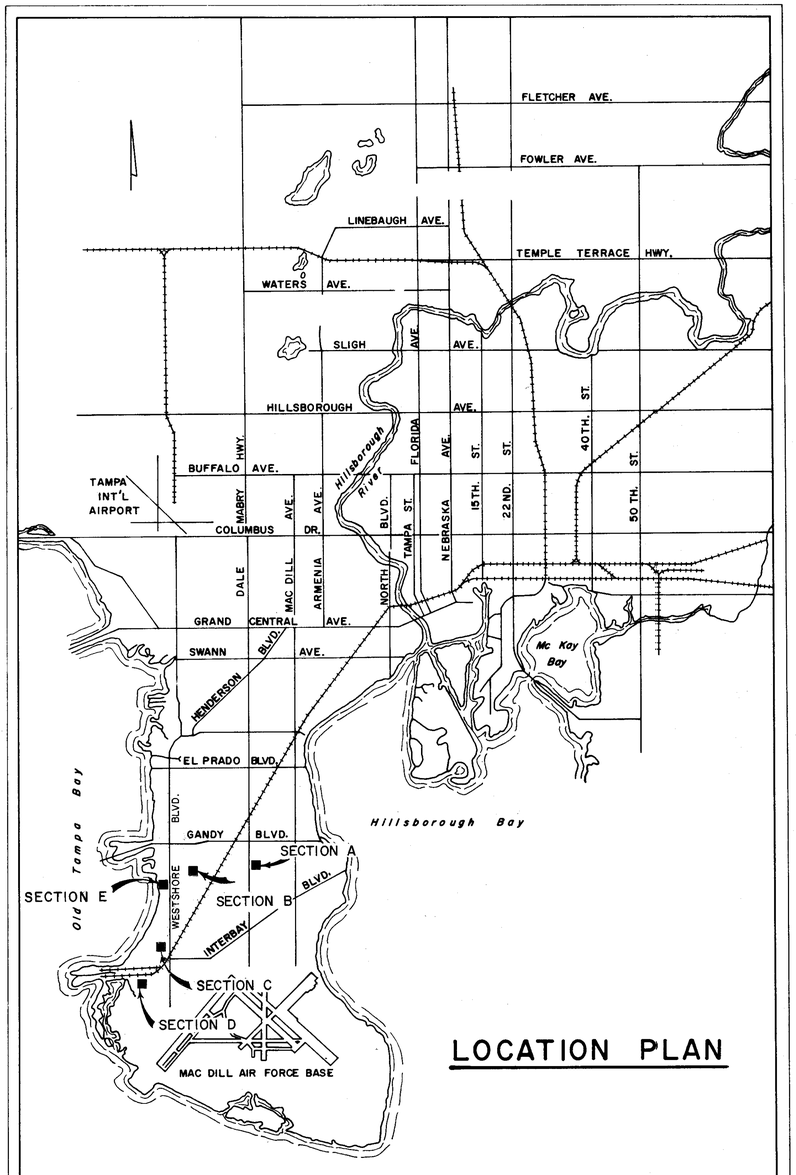
PROJECT 16

SECTION A – BALLAST POINT BOULEVARD PUMPING STATION
SECTION B – PAXTON AVENUE PUMPING STATION
SECTION C – PRESCOTT STREET PUMPING STATION
SECTION D – IDAHO STREET PUMPING STATION
SECTION E – TRILBY AVENUE PUMPING STATION

J. E. GREINER COMPANY
Consulting Engineers
Tampa, Florida

WIEDEMAN AND SINGLETON, ENGINEERS
Associate Engineers
Atlanta, Georgia

100-0



LOCATION PLAN

INDEX

SECTION	SHEET NUMBER	TITLE
		GENERAL
A,B,C,D & E	1	INDEX SHEET
		BALLAST POINT BLVD. PUMPING STATION
A	2	EQUIPMENT - PLANS & SECTIONS
↑	3	EQUIPMENT - SECTIONS
	4	STRUCTURAL - PLANS & SECTIONS
↓	5	STRUCTURAL - SECTIONS
A	6	ELECTRICAL - PLANS
		PAXTON AVENUE PUMPING STATION
B	7	EQUIPMENT - PLANS & SECTIONS
↑	8	EQUIPMENT - SECTIONS & STRUCTURAL SCHEDULE
	9	STRUCTURAL - PLANS & SECTIONS
↓	10	ELECTRICAL - PLANS
B		
		PRESCOTT STREET PUMPING STATION
C	11	EQUIPMENT - PLANS
↑	12	EQUIPMENT - SECTIONS
	13	STRUCTURAL - PLANS & SECTIONS
↓	14	STRUCTURAL - SECTIONS
C	15	ELECTRICAL - PLANS
		IDAHO STREET PUMPING STATION
D	16	EQUIPMENT - PLANS
↑	17	EQUIPMENT - SECTIONS
	18	STRUCTURAL - PLANS
↓	19	STRUCTURAL - SECTIONS
D	20	ELECTRICAL - PLANS
		TRILBY AVENUE PUMPING STATION
E	21	EXISTING PUMPING STATION
E	22	MODIFICATIONS
A,B,C,D & E	23	ELECTRICAL DETAILS
A,B & E	24	CONNECTIONS TO EXISTING UTILITIES
A,B,C,D & E	25	MISCELLANEOUS DETAILS
A,B,C,D & E	26	MISCELLANEOUS DETAILS
A,B,C,D & E	27	MISCELLANEOUS DETAILS

J.E. GREINER COMPANY
CONSULTING ENGINEERS
BY George S. Jenkins
REGISTERED ENGINEER
STATE OF FLORIDA
CERTIFICATE No. 6858

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

WIEDEMAN AND SINGLETON, ENGINEERS
ASSOCIATE ENGINEERS
BY C. E. Drummond, Jr.
REGISTERED ENGINEER
STATE OF FLORIDA
CERTIFICATE No. 8983

C. E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

ACCEPTED E W Southworth
SUPERINTENDENT — BUREAU OF SANITARY SEWERS

CONCURRED Wayne Jump
SUPERINTENDENT — DEPARTMENT OF PUBLIC WORKS

INDEX SHEET

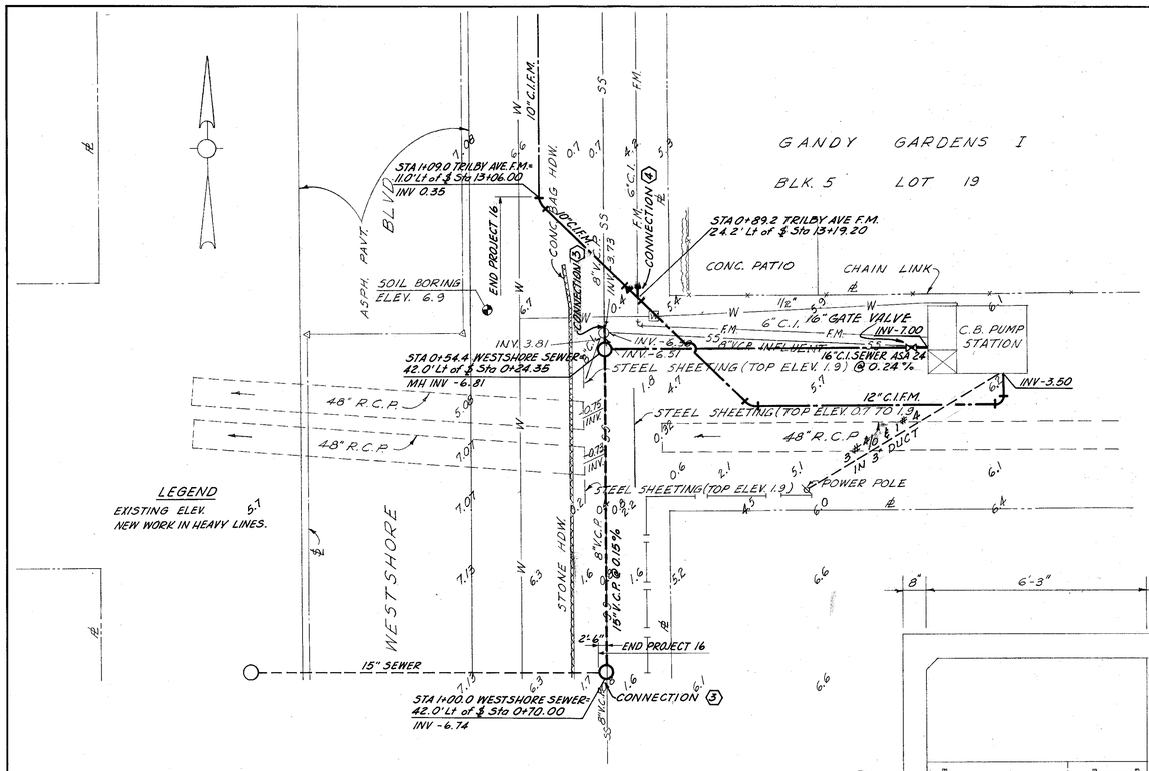
J.E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.P.
DRN. R.F.L.
CKD. H.N.P.
SCALE AS SHOWN
DATE NOV. 1963

PROJECT 16
SECTIONS A,B,C,D,&E
SUBDISTRICT A-1 & DISTRICT B

SHEET 1 OF 27

100-1



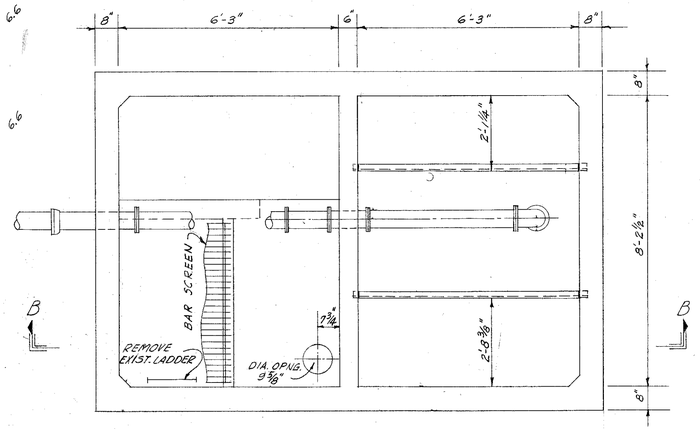
LOCATION PLAN

TRILBY AVENUE PUMPING STATION

SCALE: 1"= 10'-0"

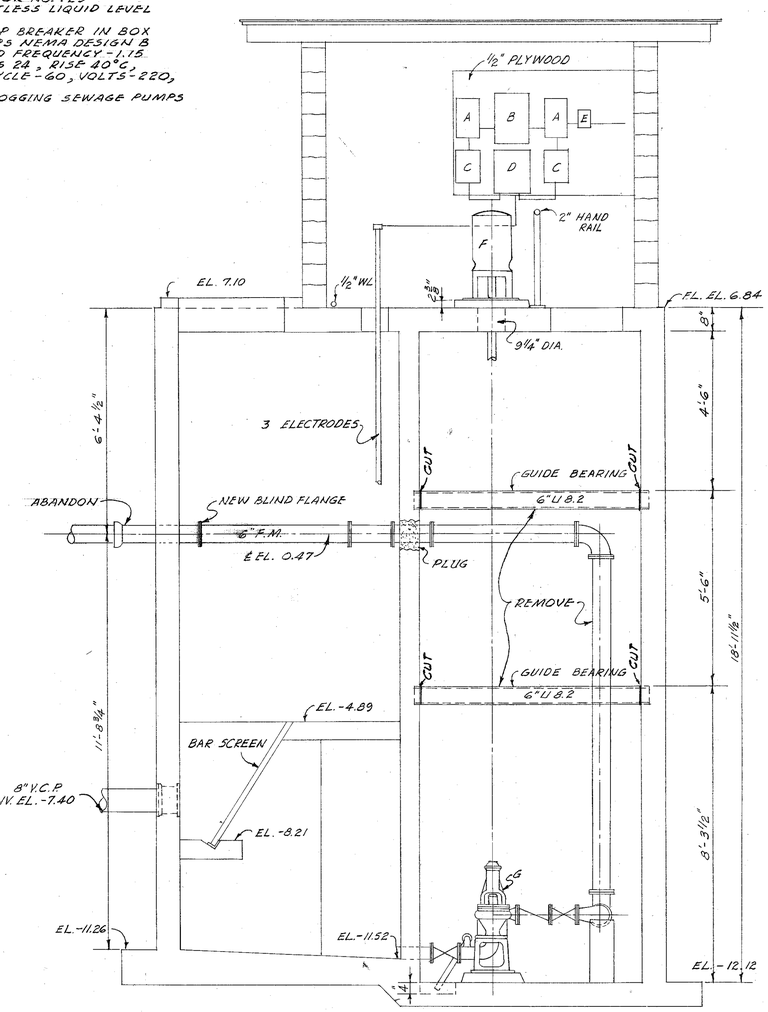
NOTE ON CONSTRUCTION OF MANHOLE AT STA 0+54.4 WESTSHORE: PROVIDE 16" C.I. STUB, INVERT ELEVATION +1.0, TO SERVE AS OVERFLOW, WITH BROWN AND BROWN TYPE M TIDE GATE. SET TOP OF MANHOLES AT ELEV. 7.50

A - SAFETY SWITCH "SQUARE D" 60 AMP. 240 VOLT CAT. D96352 SERIES A-2
B - INCOMING BREAKER "SQUARE D" 100 AMP. 240 VOLT CAT. 96353 SERIES A-1
C - CUTLER HAMMER MOTOR CONTROL MODEL 6-151 NO. 6-151 NO. 9586H6723A CONTACTOR NO. 729
D - CHARLES F. WARRICK COMPANY FLOATLESS LIQUID LEVEL CONTROL TYPE C275W
E - "SQUARE D" CAT. 161103 20 AMP. 1 P BREAKER IN BOX
F - ALLIS CHALMERS INDUCTION MOTORS NEMA DESIGN B SERVICE FACTOR @ RATED VOLTS AND FREQUENCY - 1.15 TYPE - APV, FRAME 284 CV, HOURS 24, RISE 40°C, H.P.-7.5, RPM-1740, PHASE 3, CYCLE-60, VOLTS-220, AMPS-20
G - 400 G.P.M. @ 46' YEOMANS NON-CLOGGING SEWAGE PUMPS NO. 4 MS 3



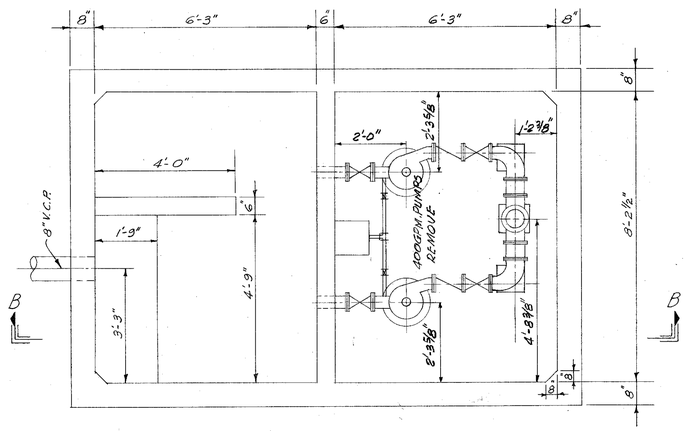
INTERMEDIATE FLOOR PLAN

SCALE: ½"=1'-0"



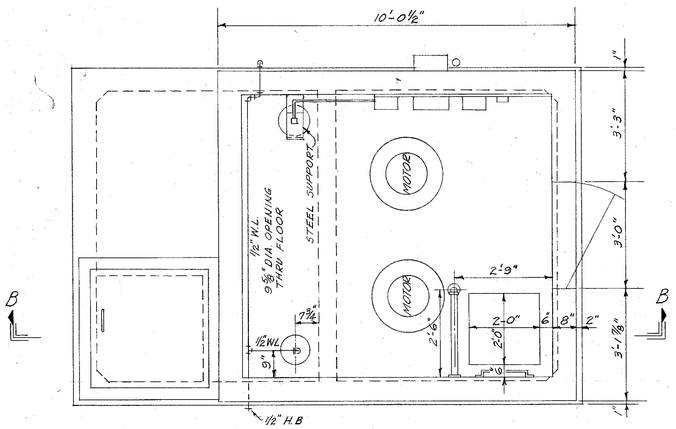
SECTION B-B

SCALE: ½" = 1'-0"



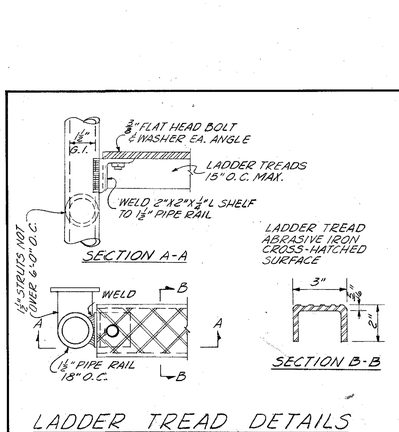
BOTTOM FLOOR PLAN

SCALE: ½" = 1'-0"



ENTRANCE FLOOR PLAN

SCALE: ½" = 1'-0"



LADDER TREAD DETAILS

GEORGE S. JENNINGS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

G. E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

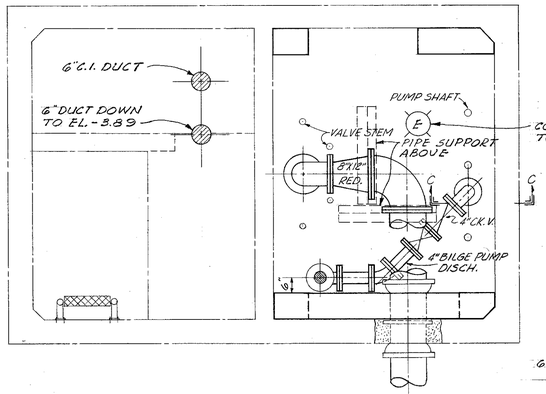
CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

TRILBY AVENUE PUMPING STATION
EXISTING PUMPING STATION

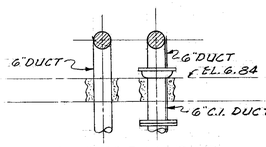
J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES. H.N.P.	PROJECT 16	SHEET
DRN. R.F.	SECTION E	21
CKD. H.N.B.	DISTRICT B	OF 27
SCALE AS SHOWN		
DATE NOV. 1963		

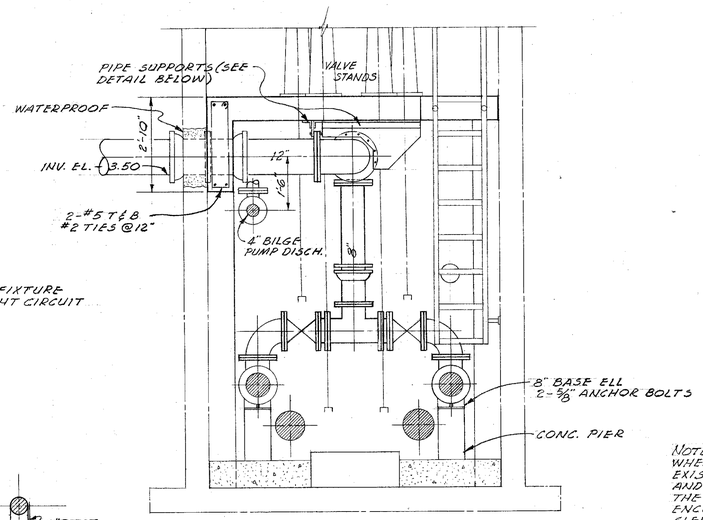
100-21



PLAN AT ELEV. -2.00
SCALE: 1/2"=1'-0"



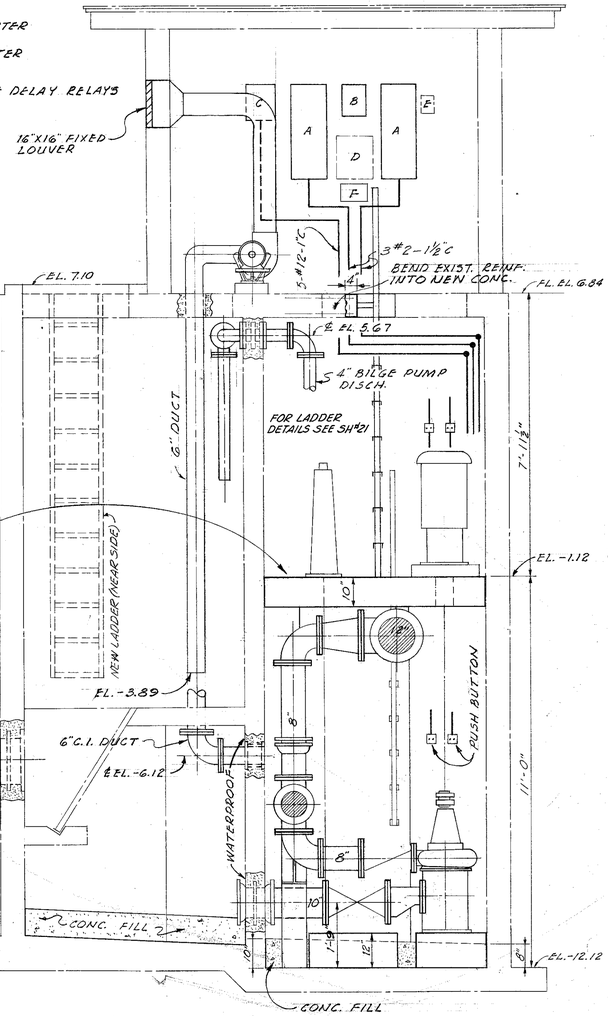
SECTION D-D
SCALE: 1/2"=1'-0"



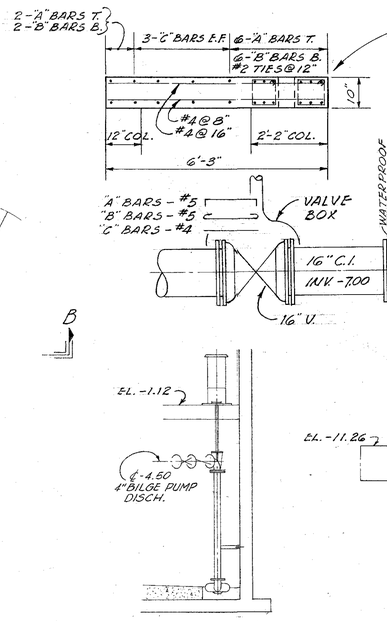
SECTION A-A
SCALE: 1/2"=1'-0"

A - NEW SEWAGE PUMP MOTOR STARTER
B - NEW INCOMING BREAKER
C - NEW BILGE PUMP MOTOR STARTER
D - EXISTING LIQUID LEVEL CONTROL
E - EXISTING BREAKER
F - ELAPSED TIME METERS AND TIME DELAY RELAYS

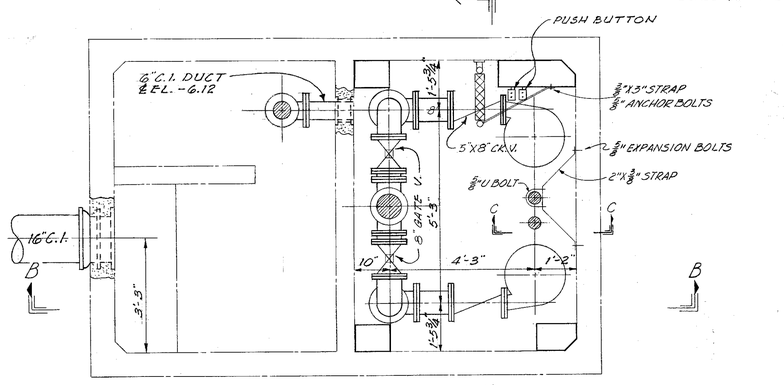
NOTE:
WHERE SLEEVES ARE TO BE PLACED IN EXISTING WALLS, CUT OPENINGS NEATLY AND ONLY LARGE ENOUGH TO ACCOMMODATE THE SLEEVE. CUT ANY REINFORCING ENCOUNTERED ONCE AND BEND AROUND SLEEVE. FILL SPACE BETWEEN SLEEVE AND CONCRETE WITH NON-SHRINK GROUT EQUIVALENT TO EMBECO PRE-MIXED MORTOR.



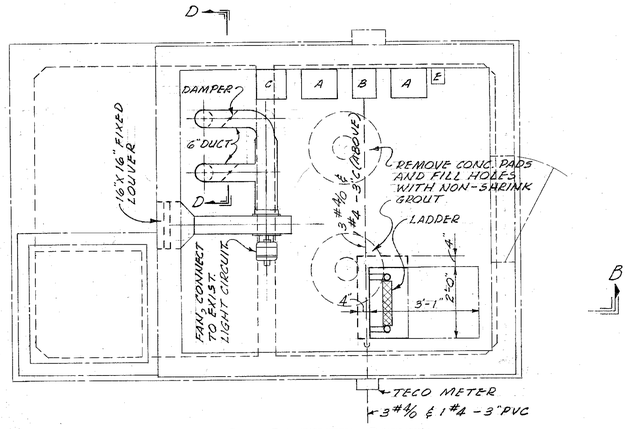
SECTION B-B
SCALE: 1/2"=1'-0"



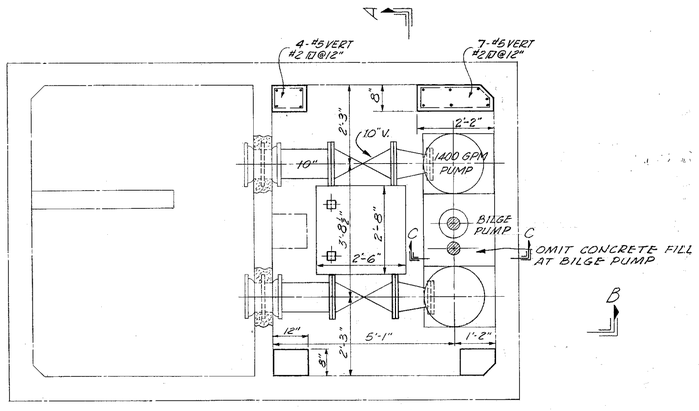
SECTION C-C
SCALE: 1/2"=1'-0"



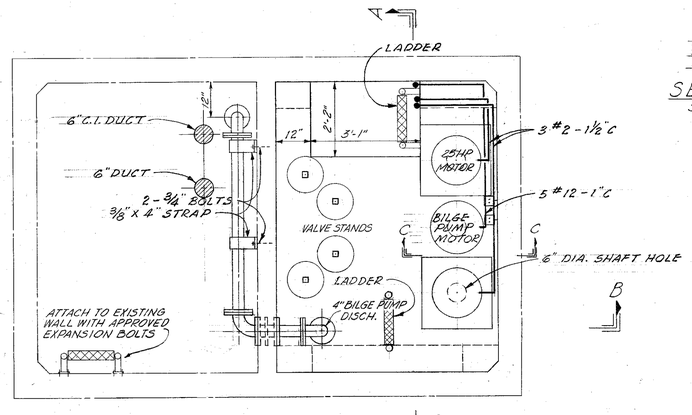
PLAN AT ELEV. -6.00
SCALE: 1/2"=1'-0"



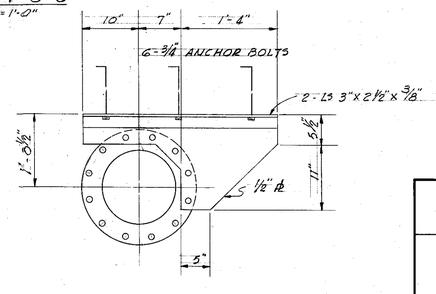
ENTRANCE FLOOR PLAN
SCALE: 1/2"=1'-0"



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



INTERMEDIATE FLOOR PLAN
SCALE: 1/2"=1'-0"



DETAIL OF PIPE SUPPORT
SCALE: 1"=1'-0"

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

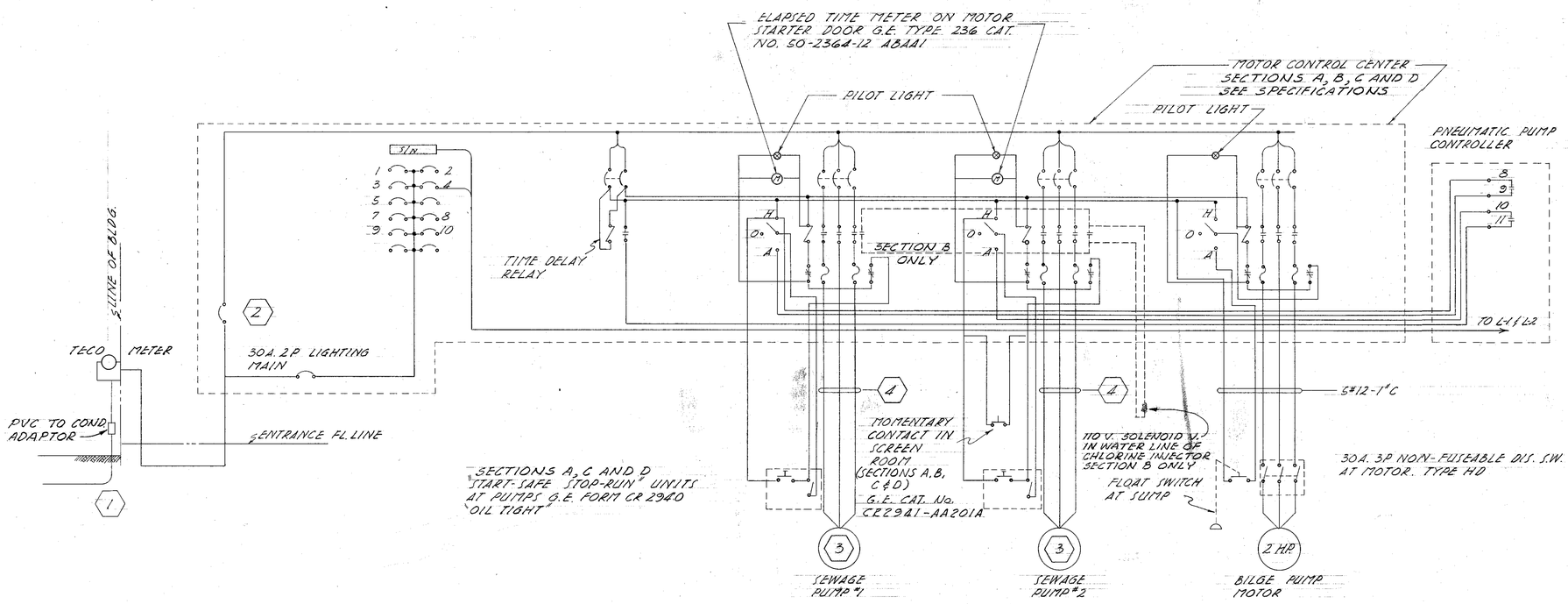
TRILBY AVENUE PUMPING STATION MODIFICATIONS

J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.P.
DRN. R.N.C.
CHD. H.N.P.
SCALE AS SHOWN
DATE NOV 1963

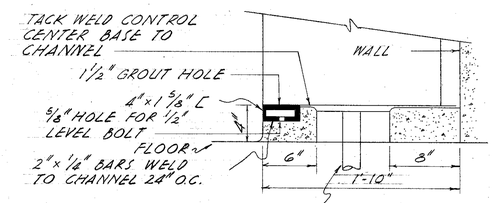
PROJECT 16
SECTION E
DISTRICT B

SHEET 22 OF 27



SCHEMATIC CONTROL AND POWER DIAGRAM

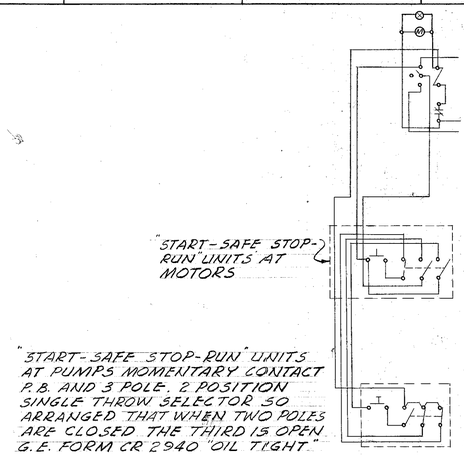
N.T.S.



CONTROL CENTER BASE DETAIL

N.T.S.

MARK / DESCRIPTION		1 INCOMING	2 BREAKER	3 MOTOR	4 MOTOR LEADS
SECTION	STATION				
A	BALLAST POINT	3#4 & 1#6-1½"C	75	7.5 H.P.	3#10-1"C
B	PAXTON AVE.	3#300 & 1#4-3"C	350	40 H.P.	3-#2/0-2½"C
C	PRESCOTT ST.	3#4 & 1#6-1½"C	100	10 H.P.	3#8-1"C
D	IDAHO ST.	3#4 & 1#6-1½"C	75	7.5 H.P.	3#10-1"C
E	TRILBY AVE.	3#4/0 & 1#4-3"C	250	25 H.P.	3-#2-1½"C



SEWAGE PUMP CONTROLS SECTIONS B AND E

LEGEND

- CEILING OUTLET FOR INCANDESCENT FIXTURE
- BRACKET OUTLET FOR INCANDESCENT FIXTURE
- CEILING OUTLET FOR FLUORESCENT FIXTURE
- DUPLEX RECEPTACLE - HUBBELL CAT. NO. 5262
- 20A. 3P. 2W GROUNDED RECEPTACLE - HUBBELL CAT. NO. 7310-G "/CAT. NO. 3965-G CAP.
- S SINGLE POLE TOGGLE SWITCH - HUBBELL CAT. NO. 1221
- S_x EXPLOSION-PROOF SINGLE POLE TOGGLE SWITCH - CROUSE-HINDS "E.F.S." SERIES
- S_3^x EXPLOSION-PROOF THREE WAY TOGGLE SWITCH - CROUSE-HINDS "E.F.S." SERIES
- "START-SAFE STOP-RUN" P.B. STATION
- ——— CONDUIT RUN EXPOSED
- - - - - - CONDUIT RUN CONCEALED
- MOTOR LOCATION
- W.P. INDICATES WEATHERPROOF

LIGHTING FIXTURE SCHEDULE			
MARK	MOUNTING	DESCRIPTION	LAMP
A	CEILING	BENJAMIN CAT. NO. FL 1024-A	2-F40 CM
B	WALL	HOLOPHANE CAT. NO. 415	1-150
C	WALL	BENJAMIN CAT. NO. 7613-BX	1-200
D	CEILING	BENJAMIN CAT. NO. 7613-CX	1-200
E	CEILING	BENJAMIN CAT. NO. 5643	1-200

GEORGE S. JENNINGS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND, JR. CERTIFICATE No. 8983 ★ STATE OF ★ REGISTERED ENGINEER

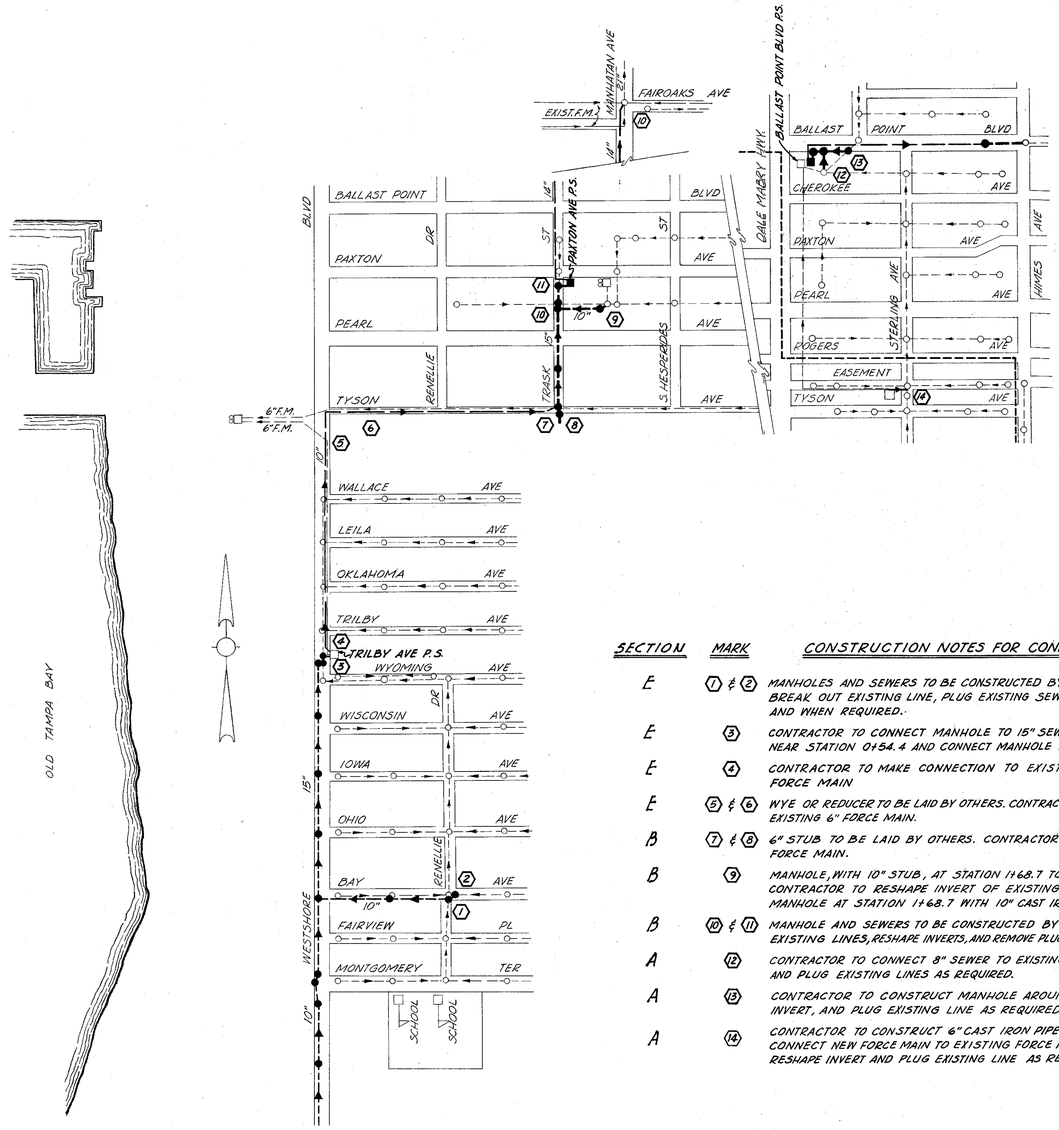
CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

ELECTRICAL DETAILS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

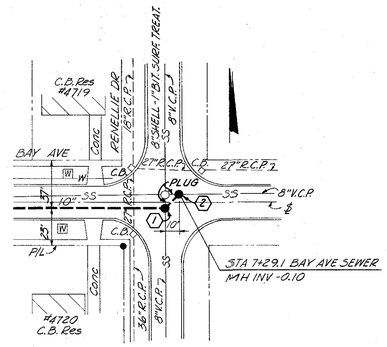
DES. H.N.P.	PROJECT 16 SECTIONS A,B,C,D & E SUBDISTRICT A-1 & DISTRICT B	SHEET 23 OF 27
DRN. B.L.B.		
CKD. H.N.P.		
SCALE AS SHOWN		
DATE NOV. 1963		

100-23

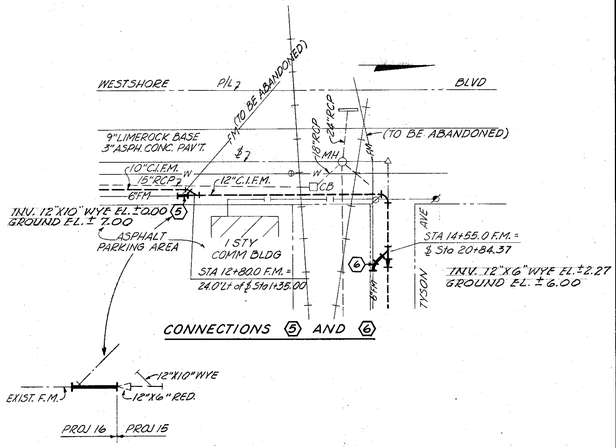


CONSTRUCTION NOTES FOR CONNECTIONS

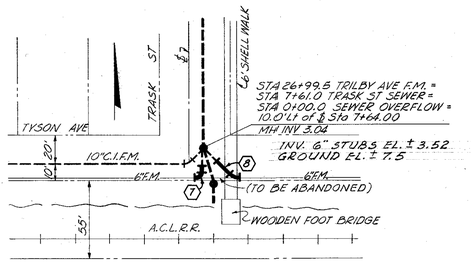
SECTION	MARK	
E	① & ②	MANHOLES AND SEWERS TO BE CONSTRUCTED BY OTHERS. CONTRACTOR TO BREAK OUT EXISTING LINE, PLUG EXISTING SEWERS, AND SHAPE INVERTS AS AND WHEN REQUIRED.
E	③	CONTRACTOR TO CONNECT MANHOLE TO 15" SEWER, REMOVE EXISTING MANHOLE NEAR STATION 0+54.4 AND CONNECT MANHOLE TO EXISTING 8" SEWER.
E	④	CONTRACTOR TO MAKE CONNECTION TO EXISTING 6" FORCE MAIN
E	⑤ & ⑥	WYE OR REDUCER TO BE LAID BY OTHERS. CONTRACTOR TO CONNECT WYE OR REDUCER TO EXISTING 6" FORCE MAIN.
B	⑦ & ⑧	6" STUB TO BE LAID BY OTHERS. CONTRACTOR TO CONNECT STUB TO EXISTING 6" FORCE MAIN.
B	⑨	MANHOLE, WITH 10" STUB, AT STATION 1+68.7 TO BE CONSTRUCTED BY OTHERS. CONTRACTOR TO RESHAPE INVERT OF EXISTING MANHOLE AND CONNECT TO MANHOLE AT STATION 1+68.7 WITH 10" CAST IRON PIPE.
B	⑩ & ⑪	MANHOLE AND SEWERS TO BE CONSTRUCTED BY OTHERS. CONTRACTOR TO PLUG EXISTING LINES, RESHAPE INVERTS, AND REMOVE PLUG FROM 14" FORCE MAIN AS REQUIRED.
A	⑫	CONTRACTOR TO CONNECT 8" SEWER TO EXISTING MANHOLE, RESHAPE INVERT, AND PLUG EXISTING LINES AS REQUIRED.
A	⑬	CONTRACTOR TO CONSTRUCT MANHOLE AROUND EXISTING 8" SEWER, SHAPE INVERT, AND PLUG EXISTING LINE AS REQUIRED.
A	⑭	CONTRACTOR TO CONSTRUCT 6" CAST IRON PIPE FORCE MAIN (STA 0+00 TO STA 0+86), CONNECT NEW FORCE MAIN TO EXISTING FORCE MAIN AND EXISTING MANHOLE, AND RESHAPE INVERT AND PLUG EXISTING LINE AS REQUIRED.



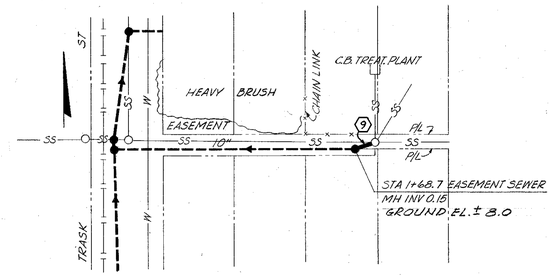
CONNECTIONS ① AND ②



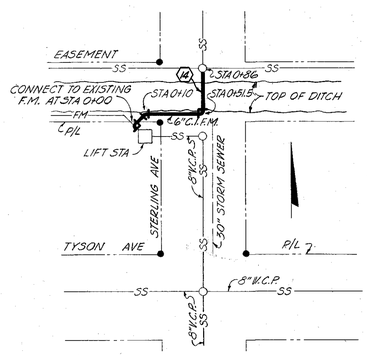
CONNECTIONS ⑤ AND ⑥



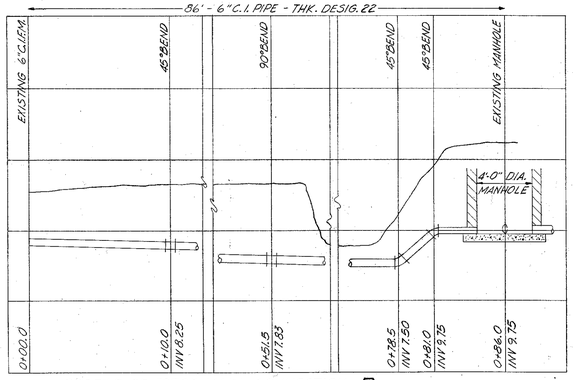
CONNECTIONS ⑦ AND ⑧



CONNECTION ⑨



CONNECTION ⑭



PROFILE OF FORCE MAIN CONNECTION ⑭

NOTE

FOR PLAN OF CONNECTIONS ③ AND ④ SEE SHEET Nº 21

FOR PLAN OF CONNECTIONS ⑩ AND ⑪ SEE SHEET Nº 7

FOR PLAN OF CONNECTIONS ⑫ AND ⑬ SEE SHEET Nº 2

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

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CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

CONNECTIONS TO EXISTING UTILITIES

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES. H.N.P.
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SCALE AS SHOWN
DATE NOV. 1963

PROJECT 16
SECTIONS A, B & E
SUBDISTRICT A-1 & DISTRICT B

SHEET 24 OF 27

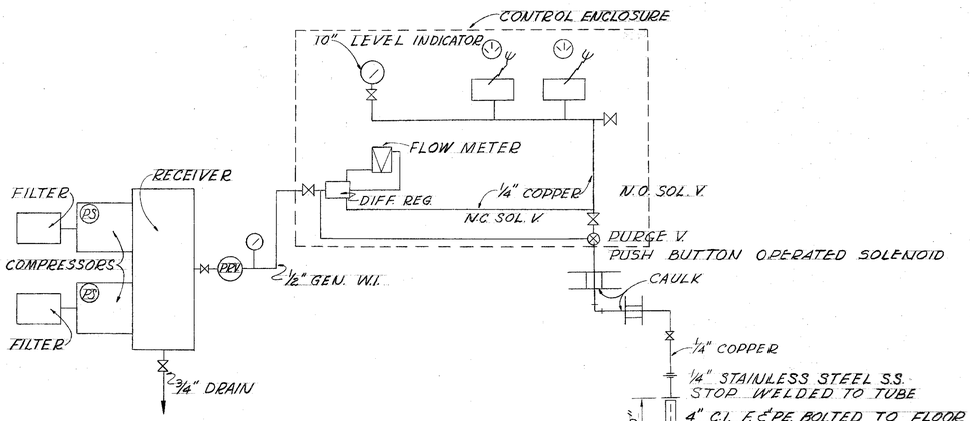


DIAGRAM OF PUMP CONTROL PIPING

PNEUMATIC WATER LEVEL CONTROLS NOT REQUIRED. ADJUST EXISTING ELECTRODES TO THESE ELEVATIONS.

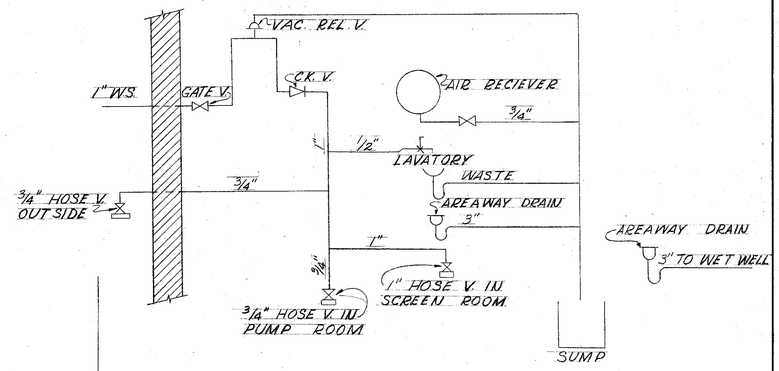
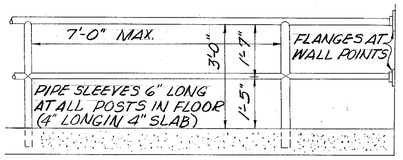
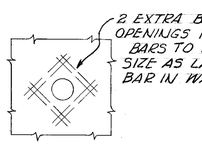


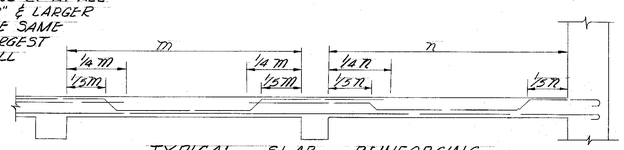
DIAGRAM OF WATER AND WASTE PIPING



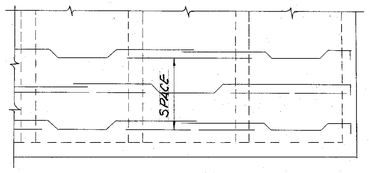
1½" PIPE HANDRAIL



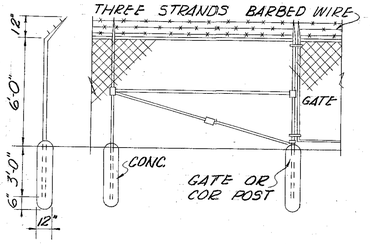
OPENING IN WALLS



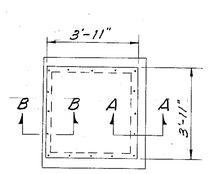
TYPICAL SLAB REINFORCING



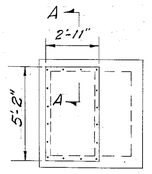
TYPICAL REINFORCING CONTINUOUS SLABS



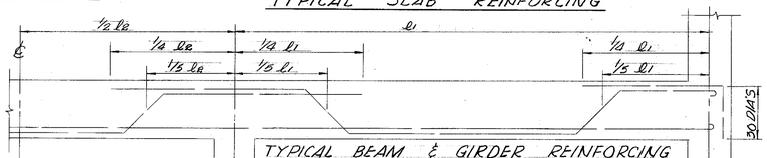
FENCE DETAIL



HATCH COVER N°1



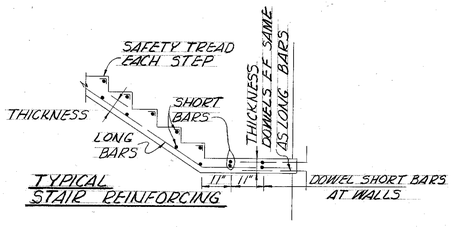
HATCH COVER N°2



TYPICAL BEAM & GIRDER REINFORCING

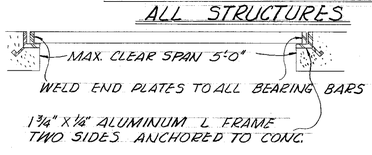
TYPICAL SECTION OF STRUCTURE WALLS
(USE SAME CLEARANCE FOR ALL STRUCTURES)

BENDING & PLACING REINFORCING ALL STRUCTURES

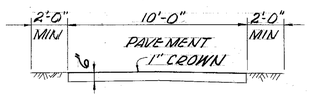


TYPICAL LAP ALL HORIZONTAL STEEL

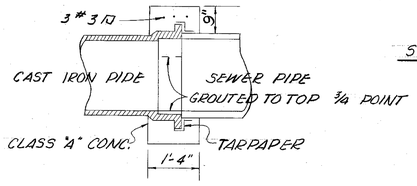
TYPICAL STAIR REINFORCING



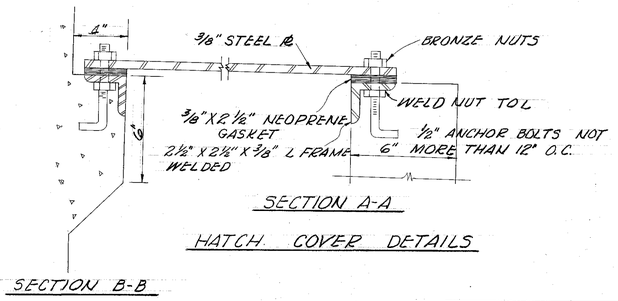
FLOOR GRATING DETAIL



TYPICAL DRIVE SECTION



TYPICAL DETAIL
SQ. CONC. COLLAR FOR JOINING C.I. PIPE TO V.C. OR CONC. PIPE



HATCH COVER DETAILS

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C. E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

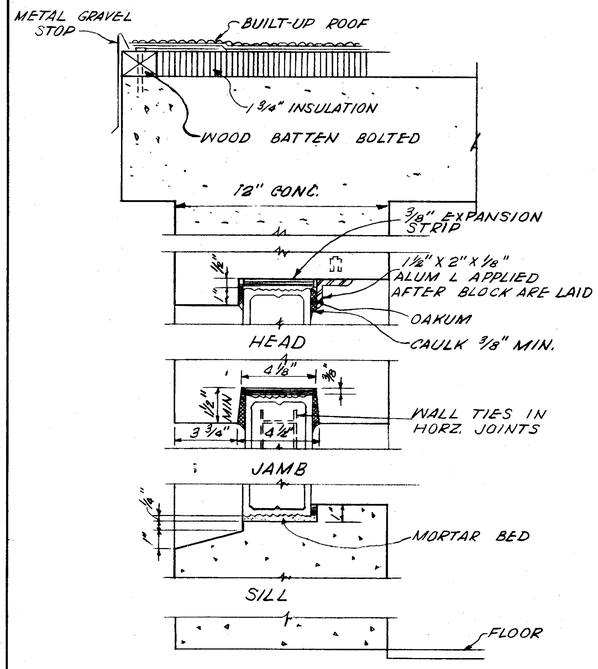
MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES. H.N.P.
DRN. L.R.C.
CKD. H.N.P.
SCALE AS SHOWN
DATE NOV. 1963

PROJECT 16
SECTIONS A,B,C,D & E
SUBDISTRICT A-1 & DISTRICT B

SHEET 25 OF 27



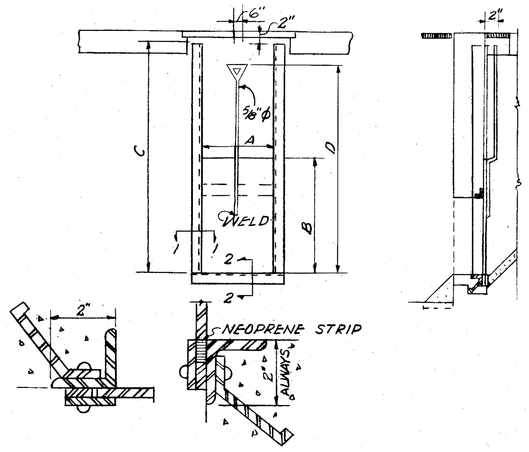
TYPICAL WALL SECTION THROUGH GLASS BLOCK

SCALE: 3"=1'-0"

LOCATION	GATE PLATE REQUIRED	GATE FRAME REQUIRED	A	B	C	D
BALLAST POINT	1	2	1'-0"	5'-11	7'-5	7'-5"
PAXTON ST.	1	2	1'-0"	6'-11	8'-7"	7'-10"
PRESCOTT ST.	1	2	1'-0"	6'-6"	7'-11⅞	7'-11½"
IDAHO ST.	1	2	1'-0"	6'-2"	7'-11⅞	7'-11½"

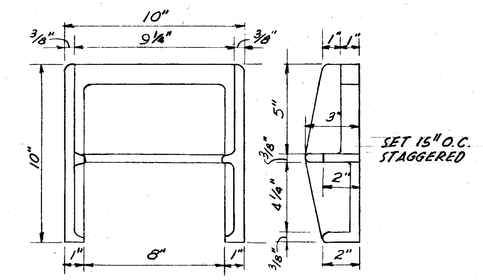
6061- ANGLES 2"x1½"x¼"
6053-T61 RIVETS 3/16"ØØ4"
6061-FILLER PLATE 3/16"x1"
6061-COVER PLATE ⅛"x1½"
3003-GATE ⅛"

NOTE: WELD JAMB ANGLE TO SILL AND HEAD. CLEAN FLUX AND GRIND SMOOTH.



SECTION 1-1 SECTION 2-2

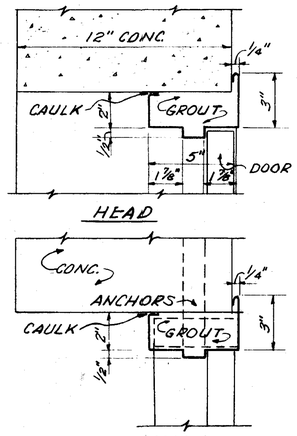
ALUMINUM FABRICATED GATE DETAILS

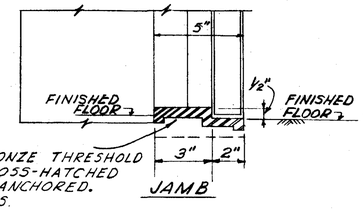


C.I MANHOLE STEP

APPROX. WT. 11 #
SCALE: 3"=1'-0"

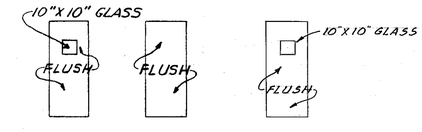
NOTE: C.I. MANHOLE STEPS TO BE INSTALLED IN SPECIAL STRUCTURES ONLY. EXCEPT AS OTHERWISE ORDERED BY THE ENGINEER





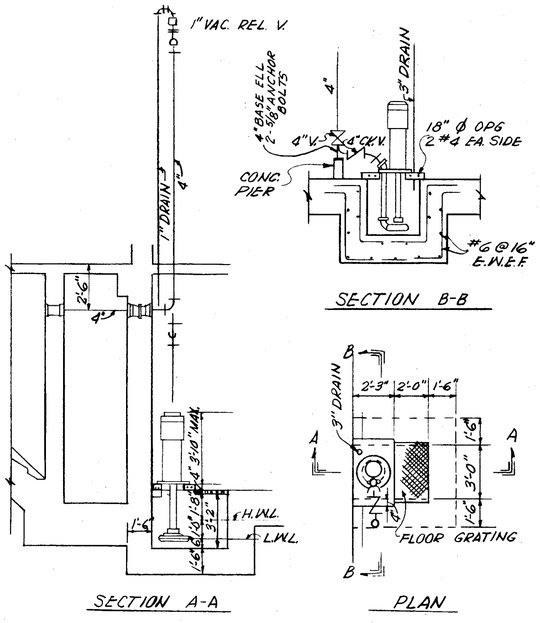
AMERICAN-MASON BRONZE THRESHOLD STYLE DS WITH CROSS-HATCHED ABRASIVE SURFACE, ANCHORED. CUT TO FIT JAMBS.

DOOR DETAILS



DOOR 'A' 3'-0"X 6'-10"
DOOR 'B' 3'-0"X 6'-10"
DOOR 'C' 3'-0"X 7'-2"

NOTE: SEE SPECIFICATIONS FOR DOOR CLOSERS AND LOCK SETS PERTAINING TO ALL DOORS

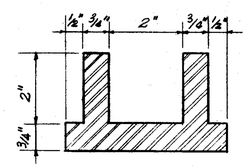


SECTION B-B

SECTION A-A PLAN

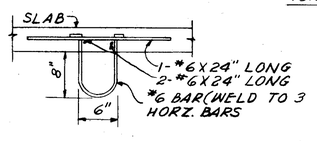
BILGE SUMP PUMP

NO SCALE

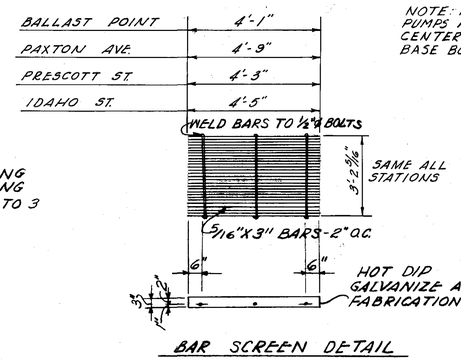


2" C.I. STOP LOG GROOVE

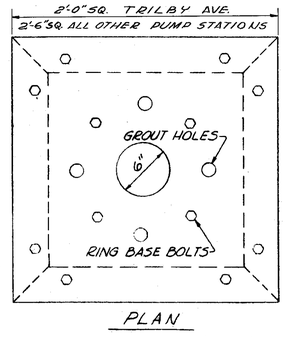
HALF SCALE



DETAIL OF BAR HOOK



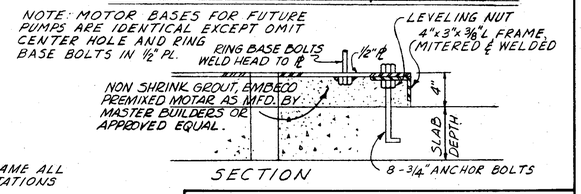
BAR SCREEN DETAIL



PLAN

PUMP MOTOR BASE & CURB RING

NOTE: MOTOR BASES FOR FUTURE PUMPS ARE IDENTICAL EXCEPT OMIT CENTER HOLE AND RING BASE BOLTS IN ½" PL.



SECTION

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS ASSOCIATE ENGINEERS
TAMPA, FLORIDA ATLANTA, GEORGIA

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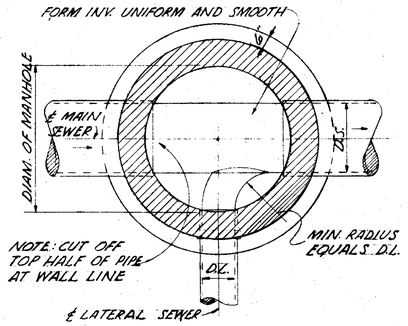
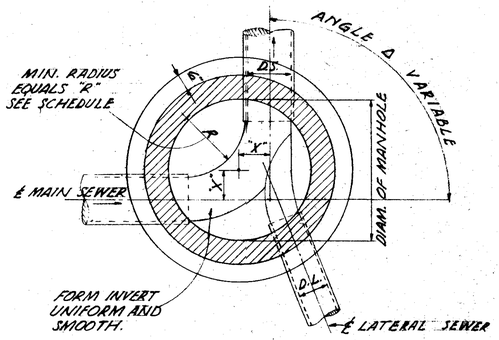
DATE NOV 1963

PROJECT 16
SECTIONS A B C D & E
SUBDISTRICT A-1 & DISTRICT B

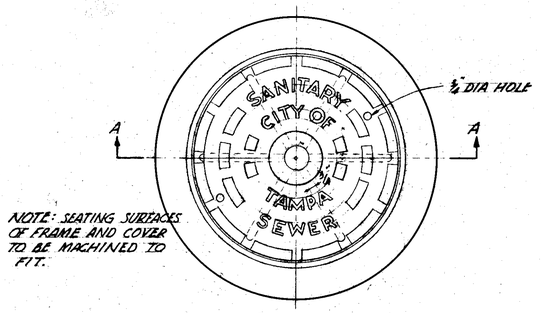
SHEET 26 OF 27



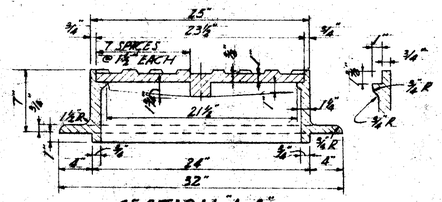
INVERT PLAN



INVERT PLAN



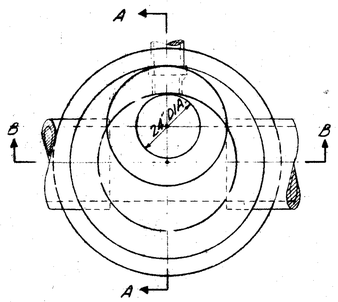
PLAN



SECTION "A-A"

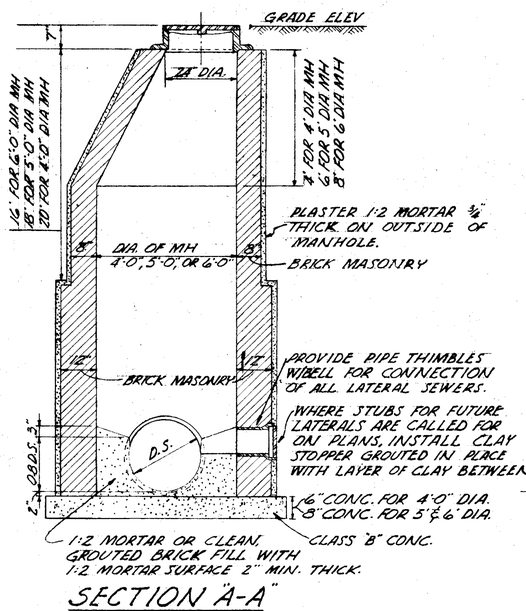
STD. CAST IRON MANHOLE FRAME & COVER

APPROX. WT. 330#
SCALE: 1½" = 1'-0"

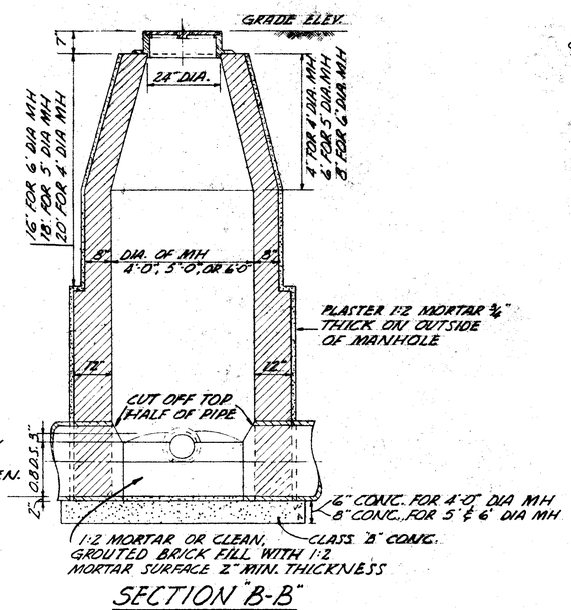


TOP PLAN

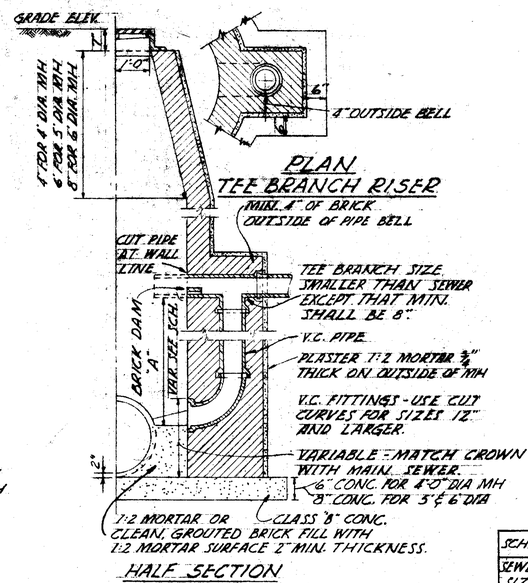
STANDARD BRICK MANHOLES SCHEDULE OF GOVERNING DIMENSIONS				
PIPE SIZE	ANGLE Δ	MH DIA.	R	X
8" TO 15"	0° TO 30°	4'-0"	1'-8"	0" TO 10"
18", 21" & 24"	0° TO 60°	4'-0"	2'-0"	0" TO 7"
18" & 21"	60° TO 90°	5'-0"	2'-0"	5" TO 12"



SECTION "A-A"



SECTION "B-B"



HALF SECTION

DROP MANHOLES

SCHEDULE FOR DROP MANHOLES		
SEWER SIZE	TEE BRANCH RISER SIZE	DIM "A" MINIMUM
8"	8"	19½"
10"	8"	19½"
12"	10"	22"
15"	12"	24½"
18"	15"	29"

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C. E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

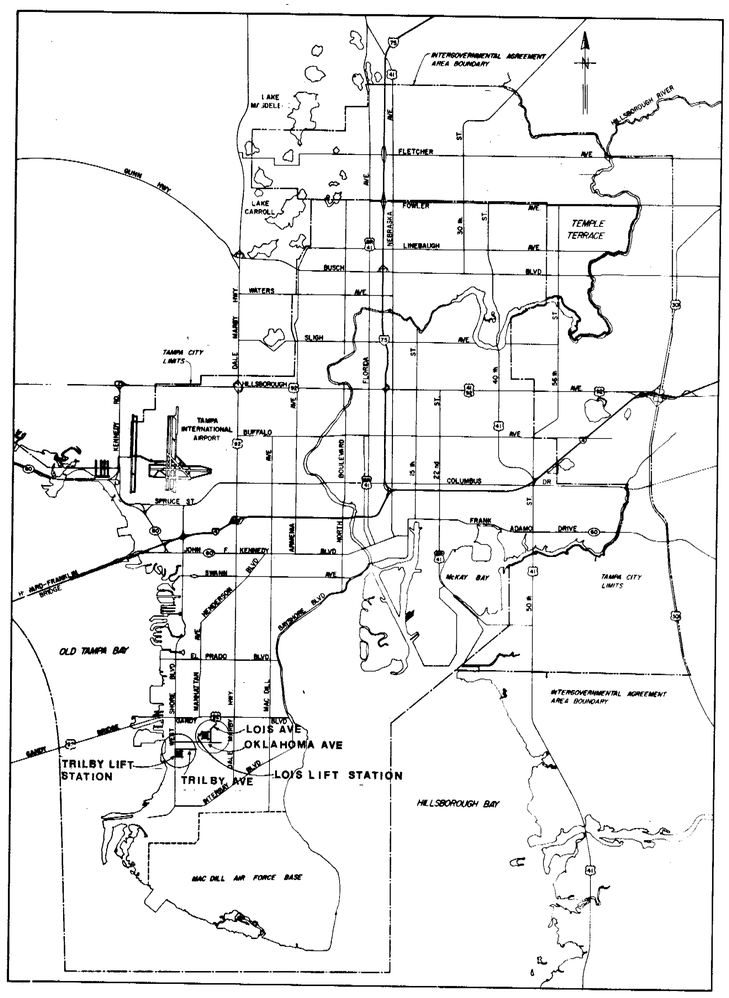
MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.B.
DRN. B.N.B.
CKD. B.N.B.
SCALE AS SHOWN
DATE NOV. 1963

PROJECT 16
SECTIONS A, B, C, D & E
SUBDISTRICT A-1 & DISTRICT B

SHEET 27 OF 27



LOCATION MAP

SCALE
1"= Approximately 1½ Miles

CITY OF TAMPA

CITY OF TAMPA FLORIDA · ORGANIZED JULY 15, 1887 · MASCOTTE

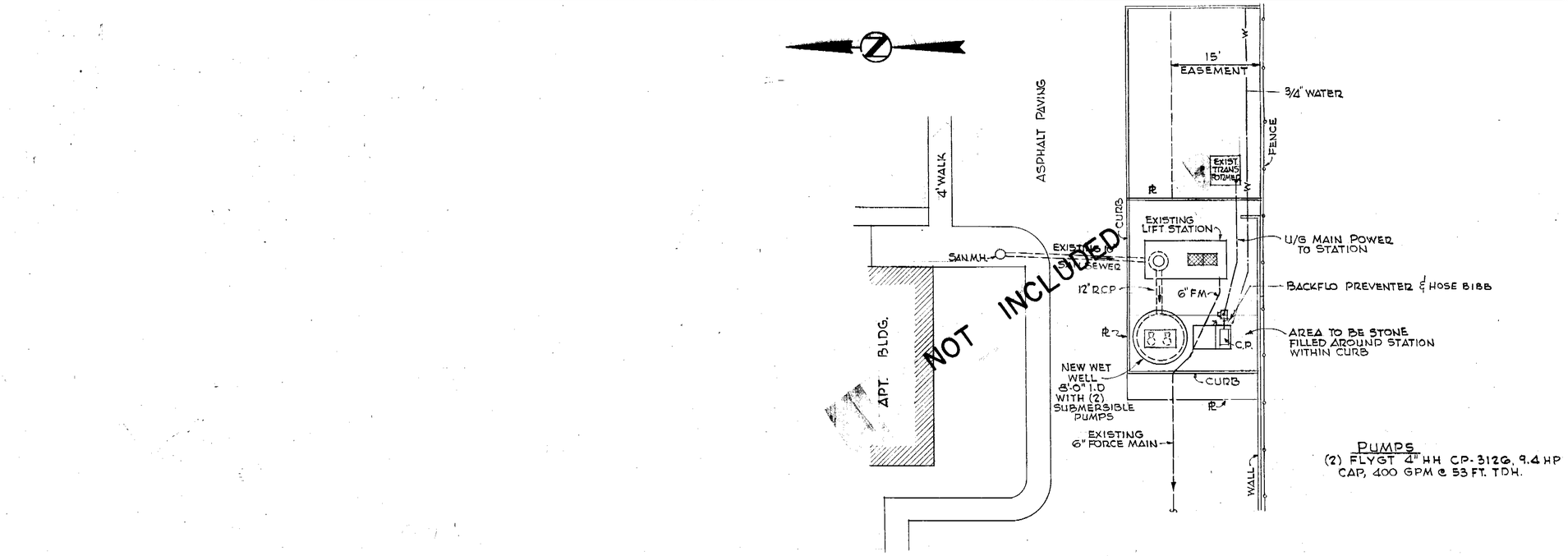
SEWAGE DISPOSAL SYSTEM

PLANS
FOR IMPROVEMENTS TO
TWO SEWAGE PUMPING STATIONS

VOID

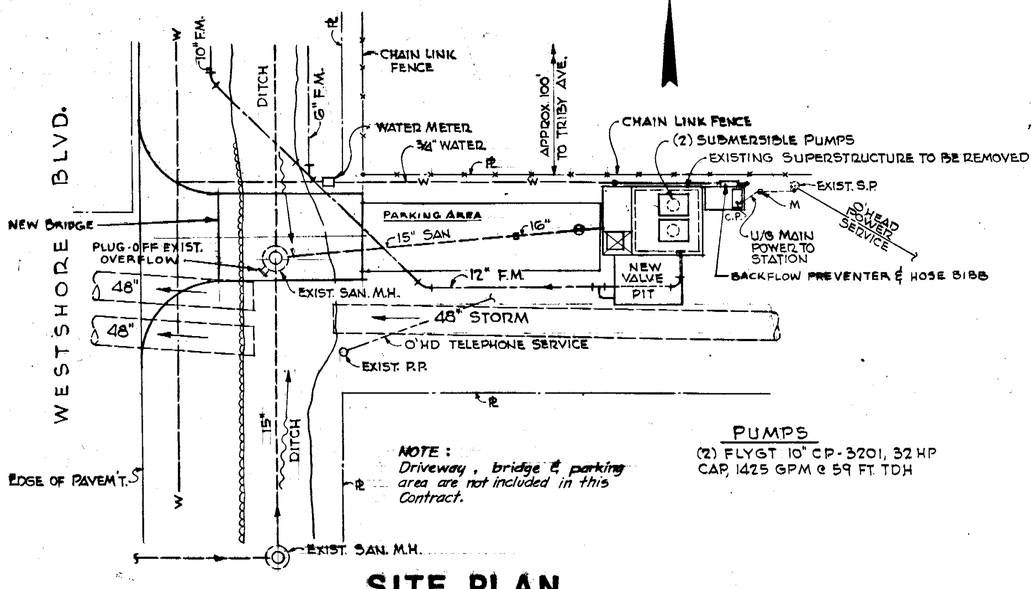
	ELTON B. SMITH, P.E. CHIEF ENGINEER DEPARTMENT of SANITARY SEWERS	DES: RJR DRN: F.N. CKD: JAA DATE 5/5/78	APPROVED BY J.W. SILLIMAN, P.E., DIRECTOR DEPARTMENT of SANITARY SEWERS	No.	DATE	REVISIONS	FLORIDA PROFESSIONAL ENGINEER NO. DATE	DEPARTMENT of SANITARY SEWERS CITY of TAMPA, FLORIDA RENEWAL & REPLACEMENT	COVER SHEET AND LOCATION MAP	SHEET 1 OF 6
				1						
				2						
				3						
				4						
				5						

101-022A1



PUMPS
(2) FLYGT 4" HH CP-3126, 9.4 HP
CAP, 400 GPM @ 53 FT. TDH.

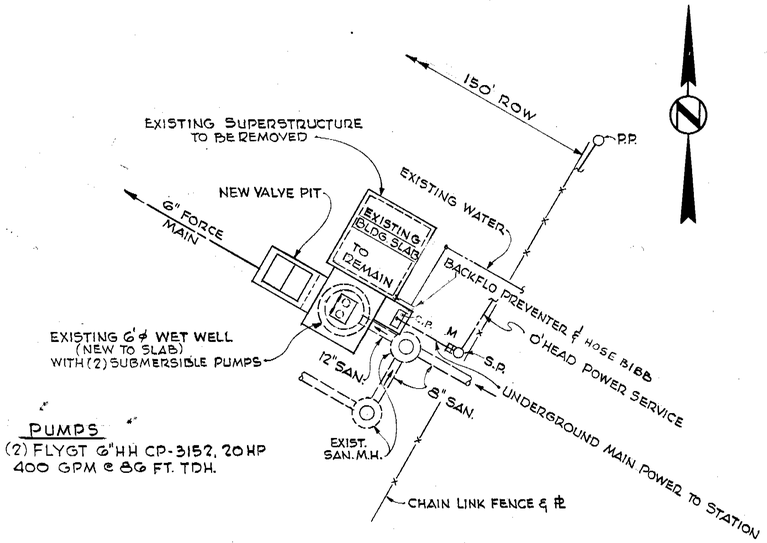
SITE PLAN
La Mancha Dos Pumping Station
1" = 10'-0"



NOTE : *Driveway, bridge & parking area are not included in this Contract.*

PUMPS
(2) FLYGT 10" CP-3201, 32 HP
CAP, 1425 GPM @ 59 FT. TDH

SITE PLAN
Trilby Pumping Station
1" = 10'-0"



PUMPS
(2) FLYGT 6" HH CP-3152, 20 HP
400 GPM @ 86 FT. TDH.

SITE PLAN
Lois Pumping Station
1" = 10'-0"

"AS-BUILT"
7-24-80

R. RAFFERZEDER
FLORIDA PROF. ENG'R
21833
5/15/78

ELTON G. SMITH, P.E.
CHIEF ENGINEER
DEPT. of SANITARY SEWERS

DES: RJR
DRN: F.N.
CKD: JAA
5/15/78

APPROVED BY
J.W. SILLIMAN, P.E., DIRECTOR
DEPT. of SANITARY SEWERS

No	DATE	REVISIONS
1	7-24-80	"AS-BUILT"
2		
3		
4		
5		

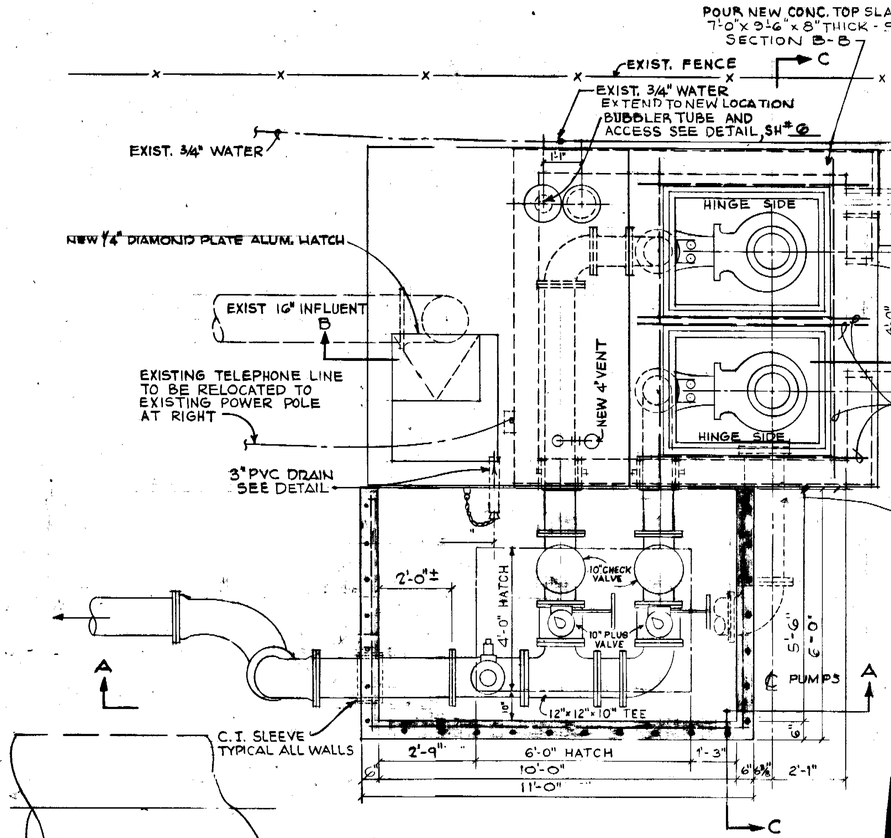
ANDERSON·JOHNSON·PARRISH, INC.
ARCHITECTS ENGINEERS PLANNERS
ST. PETERSBURG, FLORIDA

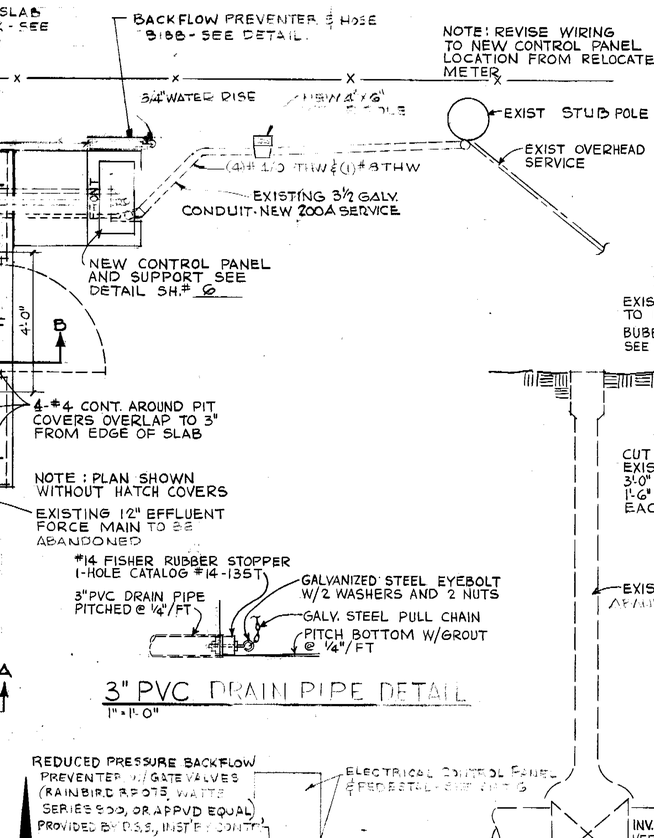
DEPARTMENT of SANITARY SEWERS
CITY of TAMPA FLORIDA
IMPROVEMENTS TO SEWAGE PUMPING STATIONS

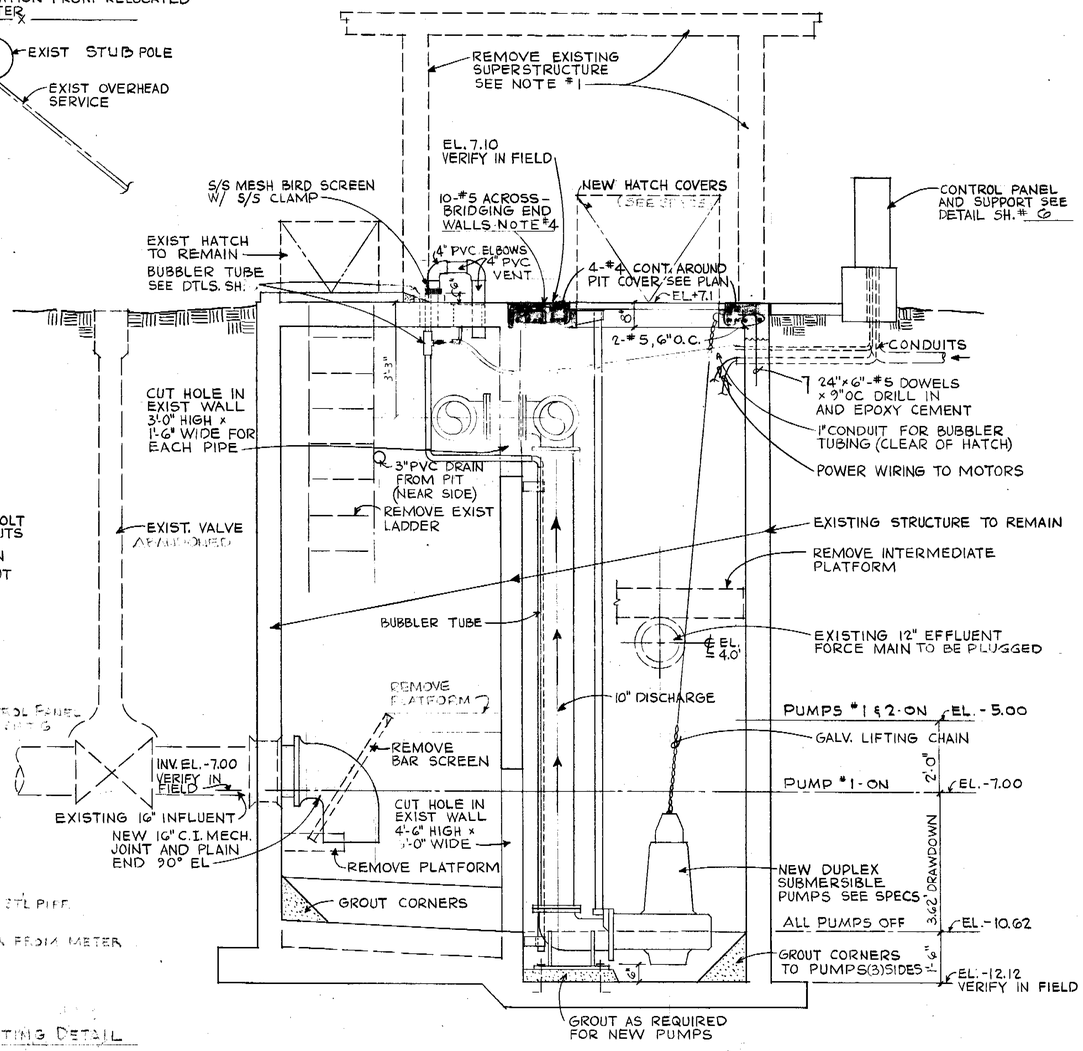
SITE PLANS
LaMancha Dos, Trilby & Lois Sanitary Pumping Stations

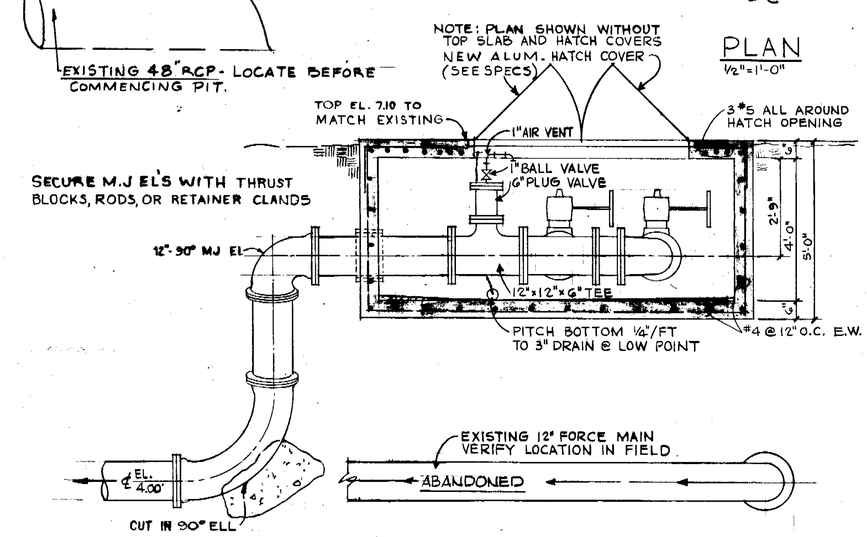
SHEET 2 OF 6

101-022A2







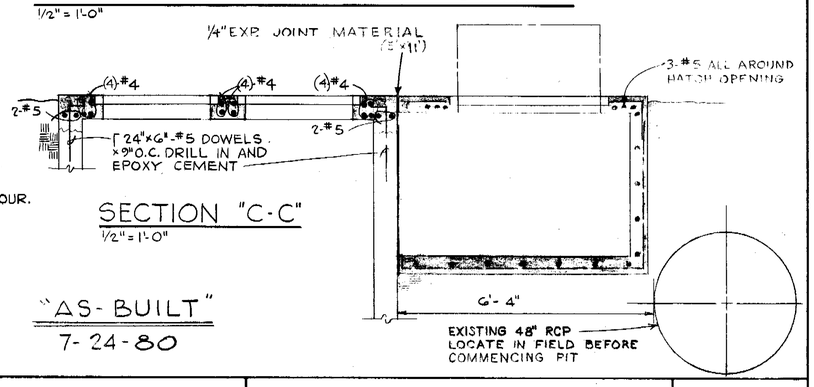


SECTION "A-A" THRU VALVE VAULT
1/2" = 1'-0"

NOTES:

1- EXISTING SUPERSTRUCTURE, ALL MECHANICAL AND ELECTRICAL EQUIPMENT, A PORTION OF THE TOP SLAB AND INTERMEDIATE SLABS TO BE REMOVED AS SHOWN.
2- EXISTING REMAINING TOP SLAB SHALL BE GROUND SMOOTH IN FORMER WALL LOCATIONS, SHALL BE CLEANED AND THEN PAINTED PER SPECS.
3- EXISTING WET WELL AND DRY PIT SHALL BE MODIFIED AS SHOWN, SHALL BE SANDBLASTED SMOOTH AND CLEAN ON ALL SURFACES AND SHALL THEN BE COATED PER SPECS.
4- NEW NORTH-SOUTH CONC. BEAM SHALL BE CONTINUOUS AND SHALL BEAR ON EXISTING NORTH, SOUTH & WEST WALLS.
5- EXISTING EQUIPMENT REMOVED REMAINS THE PROPERTY OF THE OWNER AND SHALL BE DELIVERED OR DISPOSED OF AS DIRECTED BY THE OWNER.
6- REMOVE EXISTING TOP SLAB AS SHOWN, CLEAN, AND ROUGHEN SURFACE FOR NEW POUR.
7- VERIFY ALL ELEVATIONS & DIMENSIONS IN FIELD BEFORE COMMENCING WORK.
8- FOR CONTROL PANEL DETAIL, SEE SHEET #6
9. PUMPS SHALL BE: (2) FLYGT 10" CP-3201, 32 HP CAPACITY, 1425 GPM @ 58' TDH.

SECTION "B-B" THRU LIFT STATION
1/2" = 1'-0"

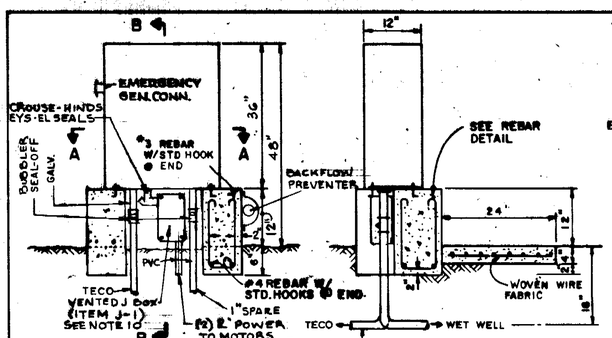


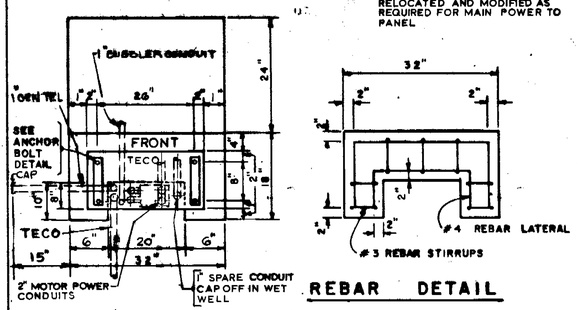
SECTION "C-C"
1/2" = 1'-0"

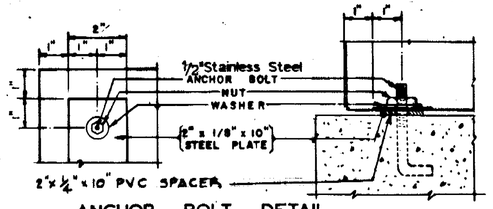
"AS-BUILT"
7-24-80

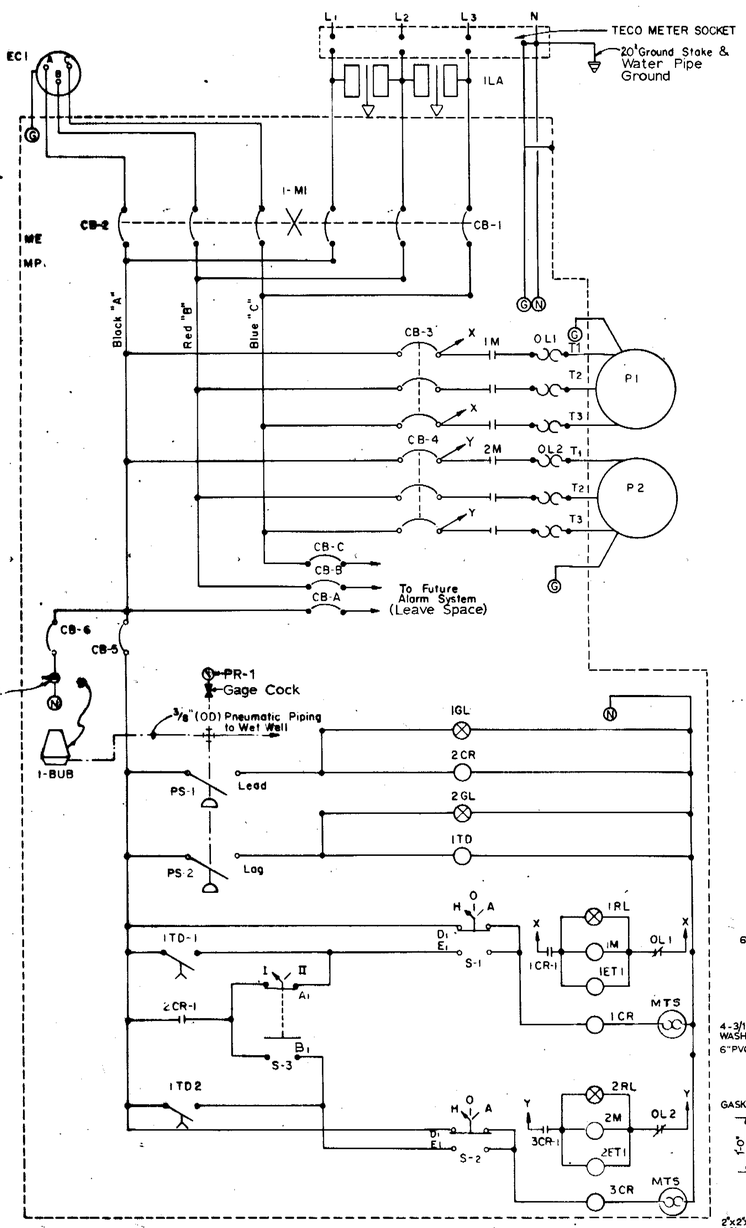
R. RAFFERZEDER FLORIDA PROF. ENG'R #21833 5/15/78	Elton G. Smith ELTON G. SMITH, P.E. CHIEF ENGINEER DEPT. of SANITARY SEWERS	DES: RJR DRN: RDB, SAA CKD: JAA 5/15/78	APPROVED BY J.W. SILLIMAN, P.E., DIRECTOR DEPT. of SANITARY SEWERS	No. 1 DATE 7-24-80 REVISIONS "AS-BUILT" Ray Rafferzeder P.E.	ANDERSON-JOHNSON-PARRISH, INC. ARCHITECTS ENGINEERS PLANNERS ST. PETERSBURG, FLORIDA	DEPARTMENT of SANITARY SEWERS CITY of TAMPA FLORIDA — IMPROVEMENTS TO SEWAGE PUMPING STATIONS	TRILBY LIFTSTATION PLANS, SECTIONS, DETAILS	SHEET 3 OF 6

101-226









LEGEND

- CIRCUIT BREAKER (SINGLE-POLE)
- CIRCUIT BREAKER (TRIPLE-POLE)
- CONTACTS (NORMALLY OPEN)
- CONTACTS (NORMALLY CLOSED)
- OVERLOAD HEATER COIL
- RELAY COIL { TD= TIME DELAY, CR= CONTROL, ET= TIMEMETER }
- PILOT LIGHT
- PRESSURE LEVEL SWITCH CONTACT
- TIME DELAY RELAY CONTACTS (TIME TO CLOSE) (INSTANT OPEN)
- MTS MOTOR THERMAL SWITCH
- CONNECTED
- NOT CONNECTED
- G GROUND BUSS
- N NEUTRAL BUSS
- FUSE

NOTES:

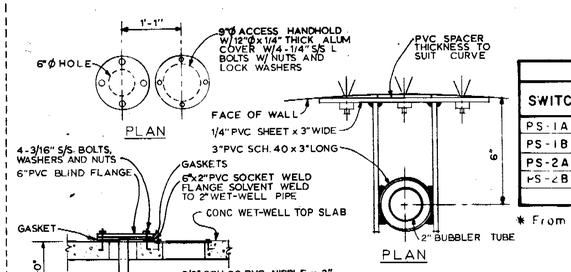
1. Prop. TECO Service; 120/240V, 200 A, 3Ø, 4 W, Δ, minimum.
2. Alarm CB's installed but load not connected
3. Space (5"x7") should be provided for future Alarm Phase Monitor.
4. Bubbler Pump to be connected to Duplex Outlex.
5. All electrical components shall be U.L. listed.
6. All electrical work shall be performed within latest N.E.C. and City of Tampa codes and shall be inspected by City of Tampa Electrical Bureau inspectors.
7. All control wiring to be minimum AWG #14 THHN or RHH in Polyvinyl Panducts and shall have Lug terminations.
8. Pressure Switch Levels shall be adjusted in coordination with DSS Maintainance personel prior to final inspection.
9. Control air tubing shall be polyethylene pt. 240-6, 3/8" O.D., 1/16" wall, 160psi w.p., Amazon Hose Co.

NOTES:

10. N.E.C. ARTICLE 500 SHALL BE APPLICABLE FOR INTERFACING THE WET WELL & THE M.C.C. • THE WET WELL IS CLASS I, DIVISION I, GROUP "D" • THHN CONDUCTORS, AWG # AS REQ'D BY FLYGT, SHALL EXTEND FROM THE MCC INTO THE J-BOX 12" MINIMUM & SHALL BE SEALED IN THE ELBOW SEAL SHOWN. SPLICES TO MOTOR CONDUCTORS IN J-BOX SHALL BE MADE WITH WATER-PROOF INSULATION & SPLIT BOLTS.

SCHEDULE

SYMBOL	NAME	PART MAKE	PART TYPE	PART MODEL OR CAT #	RATING	REMARKS
CB-1	Circuit Breaker	Westinghouse	Triple-Pole	FA 3600	240 V 300 A	AIC=10,000
CB-2	" "	" "	" "	" "	240 V 200 A	Sized for Emergency Needs
CB-3	" "	" "	" "	CA3200	240 V 200 A	
CB-4	" "	" "	" "	" "	240 V 200 A	
CB-5	" "	" "	Single-Pole	QOU-115	120 V. 15A	
CB-6	" "	" "	" "	" "	" "	
CB-A	" "	" "	" "	" "	" "	
CB-B	" "	" "	" "	" "	" "	
CB-C	" "	" "	" "	" "	" "	
IM-1	Mechanical Interlock	WESTINGHOUSE	SLIDING BAR TYPE	CAT #29-120-TWE (P49)		INTERLOCK CB 1-2
EC-1	Emerg. Power Conn.	Crouse & Hinds	Arkite	AR-1037-S-22	240 V, 100 A	(Male)
1M	Motor Starter	Square-D	Nema Size 4	#8536, SFO-1, FORM Y59	240 V (Coil)	50 H-P(max.) 1 N.O.
2M	" "	" "	" " "	" " " " "	"	" " "
OL1	Overload Heater Coils	" "	Bi-Metalic	(3) E 96	82.0 A	Temp Comp.
OL2	" " "	" "	"	"	82.0 A	" "
				"		
1ET1	Elapse-Timemeter	Westinghouse	GH 332	Style # 6718375A09	240 V	
2ET1	" "	" "	" "	" "	"	
PS-1	Pressure Switch	Asco	0-65"	SA20A + TA20A32	120 V	WITH ASCO STANDOFF #GY-188-274
PS-2	" "	Asco	0-65"	SA20A + TA20A32	"	
1BUB	Bubbler Pump	Silent Giant	Model 120		120 V	
1TD-1	Time Delay Relay	Cutler-Hammer	Type PN, File D80	#10337H292-66E	120 V	2 N.O.
1CR	Control Relay	Allen-Bradley	Type "C" (Gen. Purp)	#700-C200-A1	"	" "
2CR	" "	" "	" " "	"	"	" "
3CR	" "	" "	" " "	"	"	" "
1RL	Indicator Light	Cutler Hammer	Presstest	#10250T-222	240 V	Red Lens #102507-C33
2RL	" "	" "	"	"	"	" " "
1GL	" "	" "	"	#10250T-221	120 V	Green #10250T-C34
2GL	" "	" "	"	" "	"	" " "
S-1	HO-A Switch Assembly	" "	Oil-Tight	10250T-21	"	W/Legend
S-2	" " "	" "	" "	" "	"	" "
S-3	Selector Switch	Square-D	Type-K-Class 9001	Type KS-11B, CAM-E	"	(W/KN-600 Legend Plates & 2KA-1 Contacts)
ILA	Lightning Arrestor	Gen. Elec.	Thyrite	9LA15 B23	240 V	
ME	Main Enclosure	Hoffman	NEMA 4X 36"x30"x12"	A36H3012SSLP		
JI	Junction Box	"	Fiberglass 9½"XQ"x5¹¹/₁₆"	A-1066JFG		WITH VENT (3/8) & FACTORY DRILLING 83
MP	Main Panel	Hoffman	33"x 21"	A36P30		
PR-1	Pressure Gage	Marshall Town	2 1/2" dial, diaphragm	83K	0-60" w.c.	For Back Panel Mount



PRESSURE SWITCHES						
SWITCH	LEVEL *	LEAD PUMP ON	LEAD PUMP OFF	LAG PUMP ON	LAG PUMP OFF	NOTES
PS-1A	1		0			Lead Levels
PS-1B	3	X				" "
PS-2A	2				0	Lag Levels
PS-2B	4			X		" "

* From Lowest Level

HAND-OFF-AUTO SWITCH (S-1 & S-2)				LEAD PUMP SELECTOR SWITCH (S-3)		
POSITION	HAND	OFF	AUTO	POSITION	PUMP # 1	PUMP # 2
D1	X			A1	X	
E1			X	B1		X

PUMP MOTOR DATA

Make: Flygt
Model: 10" cp 3201
H.P: 32
240 V. 92 AFLC.

"AS-BUILT
7-24-80

R. RAFFERZEDER, FLORIDA PROF. ENG'R. # 21833 5/15/78

ELTON G. SMITH, P.E. # 19872, CHIEF ENGINEER, DEPARTMENT of SANITARY SEWERS

DES: RJR
DRN: E.R, FN
CKD: JAA
DATE: 5/5/78

APPROVED BY
J.W. SILLIMAN, P.E., DIRECTOR, DEPARTMENT of SANITARY SEWERS

No	DATE	REVISIONS
1	7-24-80	"AS-BUILT" Ray Rafferzeder PE
2		
3		
4		
5		

ANDERSON·JOHNSON·PARRISH, INC.
ARCHITECTS ENGINEERS PLANNERS
ST. PETERSBURG, FLORIDA

DEPARTMENT of SANITARY SEWERS
CITY of TAMPA, FLORIDA

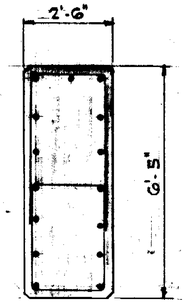
IMPROVEMENTS TO SEWAGE PUMPING STATIONS

TRILBY
PUMPING STATION
ELECTRICAL SCHEMATIC

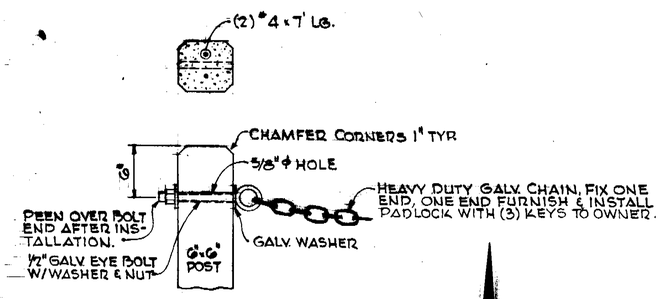
SHEET 4 OF 6

DRAWING 44.32.29917

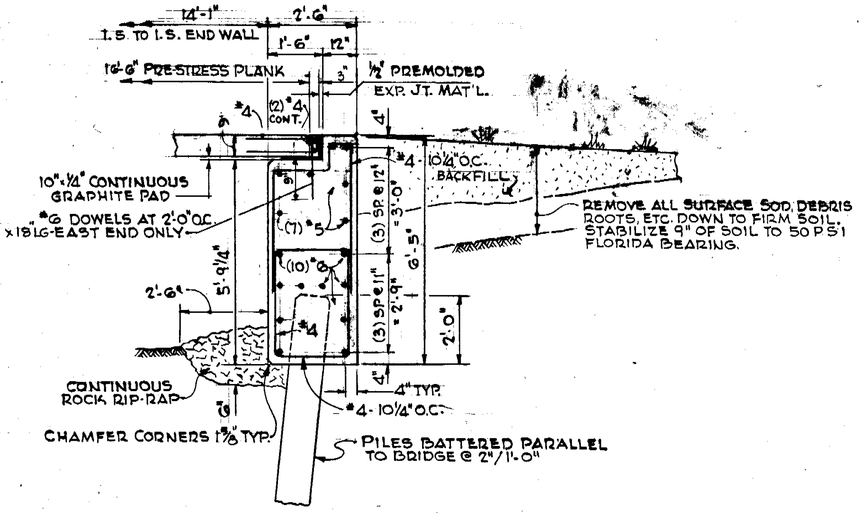
101-22C



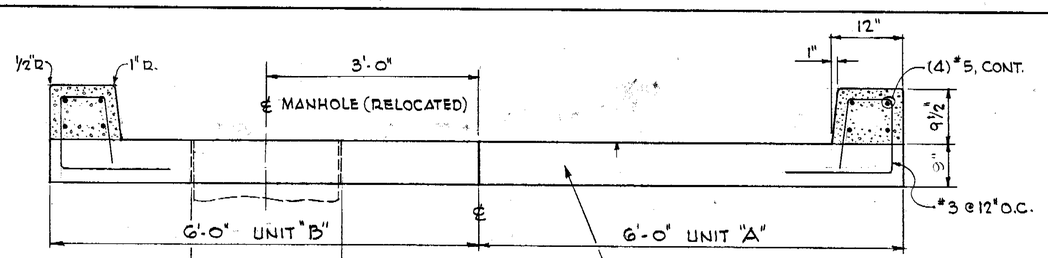
SECTION "D-D"
1/2" = 1'-0"



DETAIL "A"
1 1/2" = 1'-0"



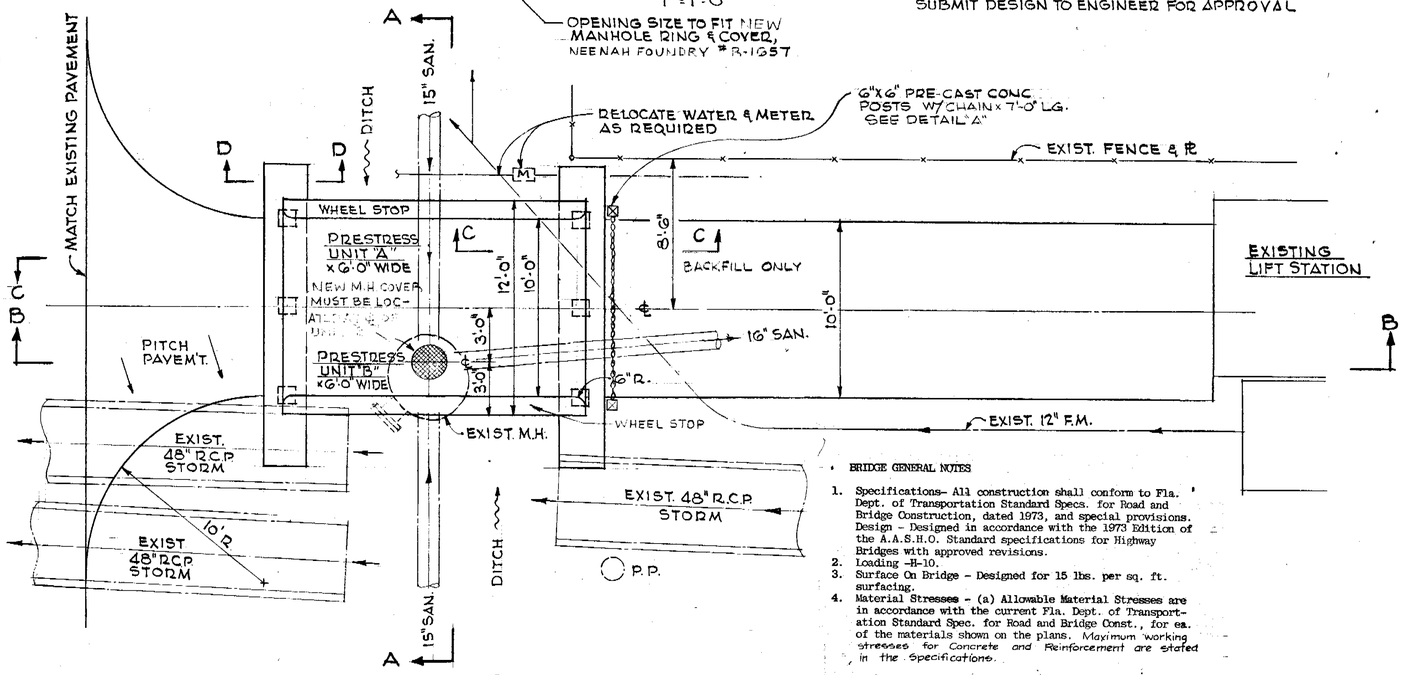
SECTION "C-C"
1/2" = 1'-0"



SECTION "A-A"
1" = 1'-0"

NOTE: PRESTRESSED UNITS SHALL CONFORM TO H-10 LOADING. PRESTRESS MF'R. SHALL SUBMIT DESIGN TO ENGINEER FOR APPROVAL

OPENING SIZE TO FIT NEW MANHOLE RING & COVER, NEENAH FOUNDRY # R-1655T

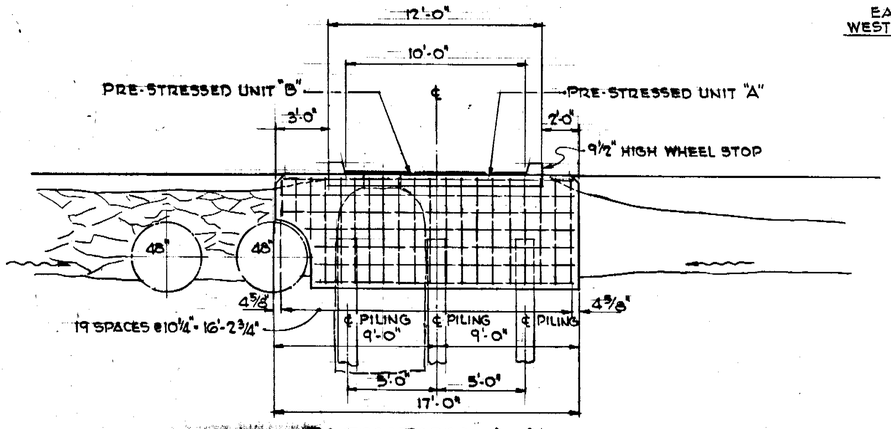


PLAN
1/4" = 1'-0"

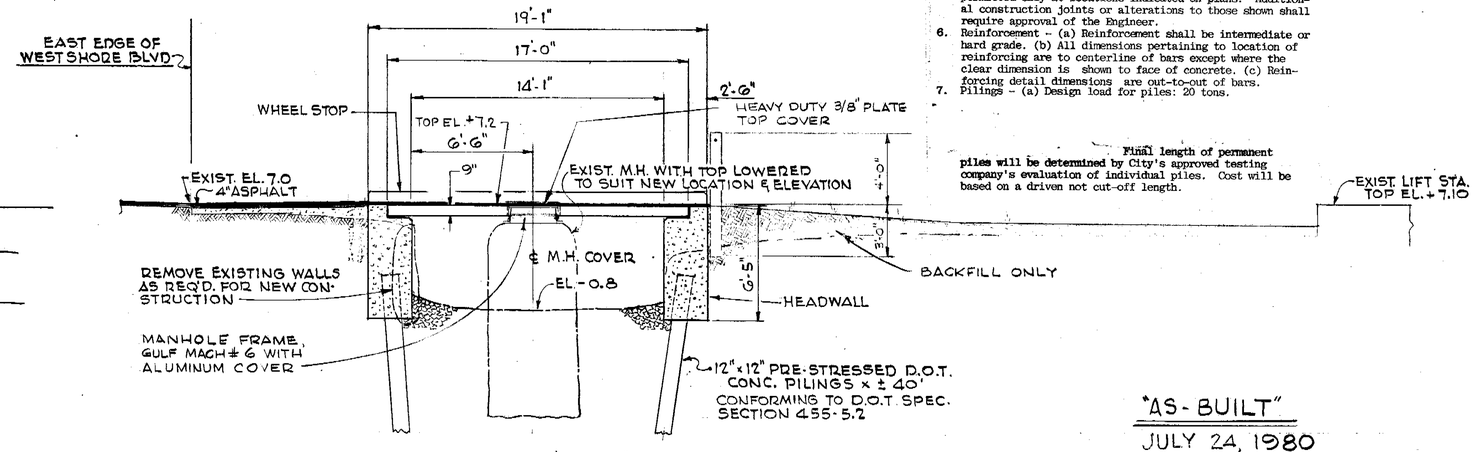
BRIDGE GENERAL NOTES

1. Specifications- All construction shall conform to Fla. Dept. of Transportation Standard Specs. for Road and Bridge Construction, dated 1973, and special provisions. Design - Designed in accordance with the 1973 Edition of the A.A.S.H.O. Standard specifications for Highway Bridges with approved revisions.
2. Loading -H-10.
3. Surface On Bridge - Designed for 15 lbs. per sq. ft. surfacing.
4. Material Stresses - (a) Allowable Material Stresses are in accordance with the current Fla. Dept. of Transportation Standard Spec. for Road and Bridge Const., for ea. of the materials shown on the plans. Maximum working stresses for Concrete and Reinforcement are stated in the Specifications.
5. Concrete - (a) Provide 3/4" chamfers on all exposed edges except as otherwise noted. (b) Construction joints will be permitted only at locations indicated on plans. Additional construction joints or alterations to those shown shall require approval of the Engineer.
6. Reinforcement - (a) Reinforcement shall be intermediate or hard grade. (b) All dimensions pertaining to location of reinforcing are to centerline of bars except where the clear dimension is shown to face of concrete. (c) Reinforcing detail dimensions are out-to-out of bars.
7. Pilings - (a) Design load for piles: 20 tons.

Final length of permanent piles will be determined by City's approved testing company's evaluation of individual piles. Cost will be based on a driven not cut-off length.



ELEVATION A-A
1/4" = 1'-0"



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

"AS-BUILT"
JULY 24, 1980

R. RAFFERZEDER
FLORIDA PROF. ENG'R
21833
5/15/78

ELTON G. SMITH, P.E.
CHIEF ENGINEER
DEPT. of SANITARY SEWERS

DES: RJR
DRN: FN
CKD: JAA
5/15/78

APPROVED BY
J.W. SILLIMAN, P.E., DIRECTOR
DEPT. of SANITARY SEWERS

No	DATE	REVISIONS
1	7-24-80	AS-BUILT
2		
3		
4		
5		

ANDERSON-JOHNSON-PARRISH, INC.
ARCHITECTS ENGINEERS PLANNERS
ST. PETERSBURG, FLORIDA

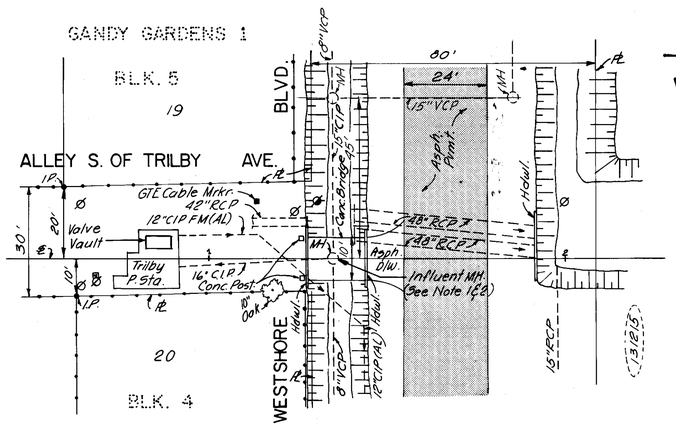
DEPARTMENT of SANITARY SEWERS
CITY of TAMPA FLORIDA

IMPROVEMENTS TO SEWAGE PUMPING STATIONS

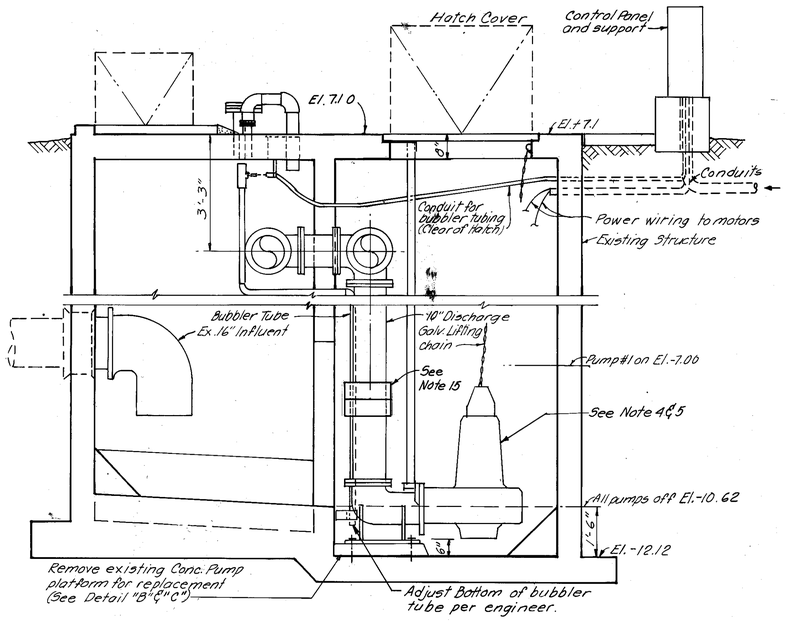
ACCESS BRIDGE to TRILBY LIFT STATION

SHEET 2 OF 2

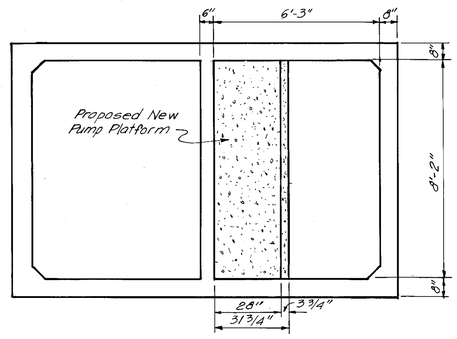
101-22d



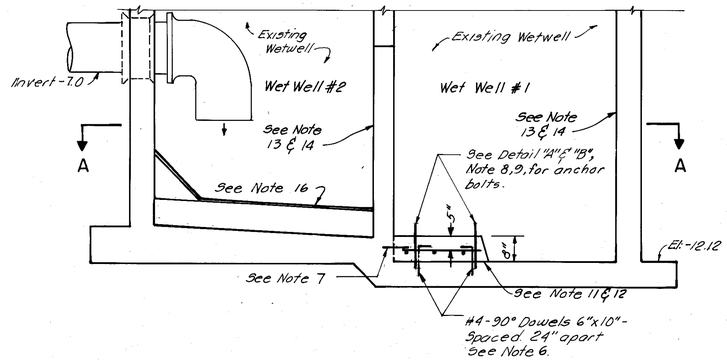
SITE PLAN
SCALE: 1"=20'-0"



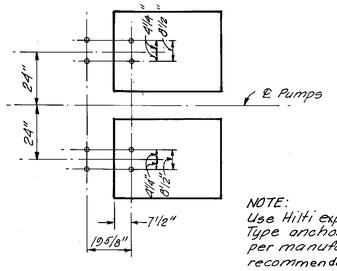
SECTIONAL ELEVATION THRU EXISTING LIFT STATION
SCALE: 1/2"=1'-0"



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

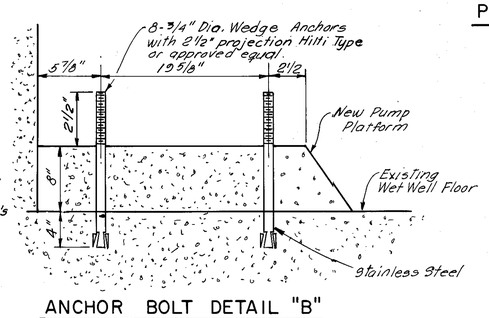


PROPOSED NEW CONCRETE PAD ELEVATION
SCALE: 1/2"= 1'-0"

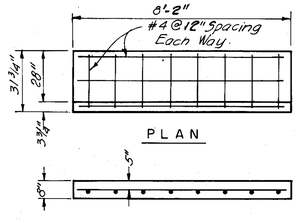


NOTE:
Use Hilti expansion Type anchor bolts per manufacturer's recommendations

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



ANCHOR BOLT DETAIL "B"
NOT TO SCALE



PUMP PLATFORM REINFORCING DETAIL "C"
SCALE: 3/8"= 1'-0"

NOTES

1.- Set up By-Pass Pump at influent manhole. Connect to By-pass Plug Valve located in the valve vault. By Pass pump to be capable of pumping 1425 GPM at 59 T.D.H. Sewer service to customers shall not be disrupted during construction.

2.- Contractor shall coordinate shutdown of Trilby P.S. to install a plug in the influent line. City forces shall be responsible for handling up stream facilities during this shutdown operation.

3.- Pump Wet Well dry.

4.- Remove the two pumps and stands. Remove existing pump platform and thoroughly clean the bottom slab and any area that will come in contact with the new concrete. After precleaning, ETCH the area with a 10% solution of HCL. For application procedure See specifications.

5.- All electrical work required to disconnect the pumps, will be done by Treatment Plant personnel, Contractor to coordinate this phase through Dennis Troyan 223-8930

6.- Use #4 Dowels 6"x10" (90° hook 24" O.C. Drill 3/4"ϕ hole in concrete floor 5" deep, install dowels and fill with epoxy.

7.- Use #4 Dowels 10" long @ 8" o.c. perpendicular to walls. Drill 3/4" holes in concrete 5" deep, install dowels and fill with epoxy.

8.- Anchor bolt location Detail "A" & "B" is for a Flygt pump model C.P. 3201. It is the contractors responsibility to verify these dimensions to ascertain the existing conditions.

9.- Pump anchor bolts shall be Hilti expansion bolts 3/4"ϕ x 12 1/2" long.

10.- Use only stainless steel bolts, washers, nut, etc. unless otherwise specified by City engineers.

11.- Apply a coat 12-15 mils thick of Niklepoxy fresh concrete bonder (#19) as manufactured by the Rocky Mountain Chemical Company Casper, Wyo or approved equal. See specifications. Apply Bonder to area of new Pump Platform.

12.- Pour the new Pump Platform. Use a Type III high early strength concrete with a minimum strength of 5000 P.S.I. allowing it to cure for three days.

13.- Repair any cracks or holes with non-shrink grout after sand blasting.

14.- The interior of the wet wells shall be sand blasted, and coated with a two component epoxy coating formulated for chemical resistance, durability and long service life in the intended application. The epoxy coating shall be Nicklepoxy all purpose coating (#15) as manufactured by Rocky Mountain Chemical Company, Casper Wyoming or equal. Apply coating to all interior surfaces of w/w 1 ft. down to elev. -10.7

15.- Reinstall the pump stands according to detail "A". The existing discharge piping will be cut midway between flanges and Approx. 2" cut out. Install a solid sleeve. Contractor to determine exact length to be cut.

16.- After sand blasting the floor of wet well #2 apply a minimum of 1/4" of Perma-Lock Concrete Surfacer as manufactured by Porter Coatings, Division of Porter Paint Co., Tampa, Fla.

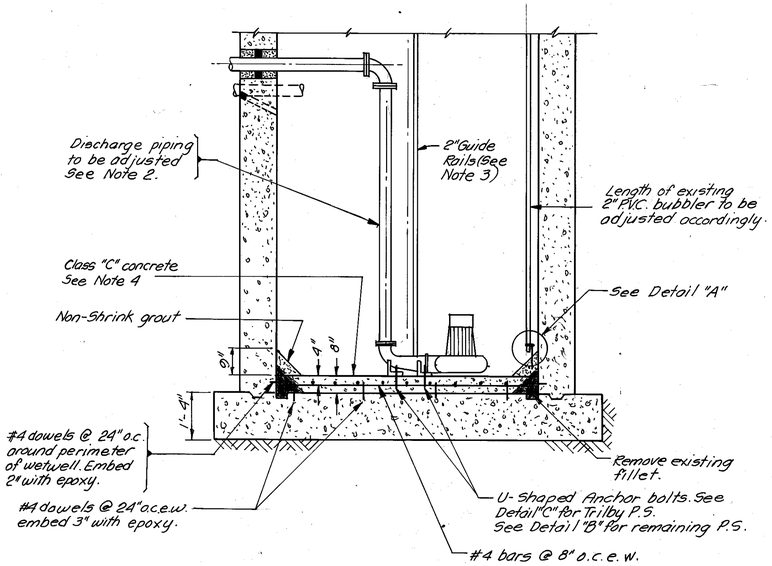
17.- The influent MH is located in the middle of the access bridge to the Station Site. Contractor to note that when the by pass pump is connected, access to the P.S. Site will be restricted.

	Ralph L. Metcalf, II, P.E. #23041 CHIEF ENGINEER DEPARTMENT of SANITARY SEWER	DES: D.S. DRN: E.R. CKD: RLMC DATE: 4/84	APPROVED BY E. G. Smith ELTON G. SMITH, P.E. DIRECTOR DEPARTMENT of SANITARY SEWER	No. / DATE / REVISIONS 1 2 3 4 5	SCALE AS SHOWN	DEPARTMENT of SANITARY SEWERS CITY of TAMPA, FLORIDA RENEWAL & REPLACEMENT SEWAGE DISPOSAL SYSTEM	PROPOSED REPLACEMENT OF TRILBY PUMP PLATFORM. PROJ. 665	SHEET 1 OF 1

BRUNING 44-132 29917

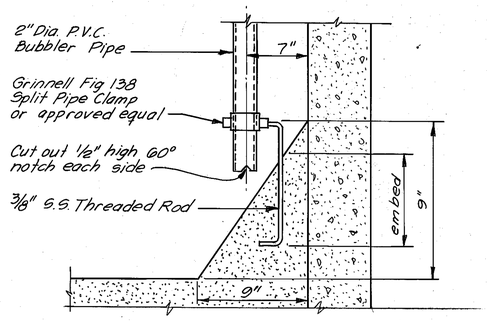
100-22C

A F 30179



TYPICAL PUMPING STATION SECTION

NOT TO SCALE



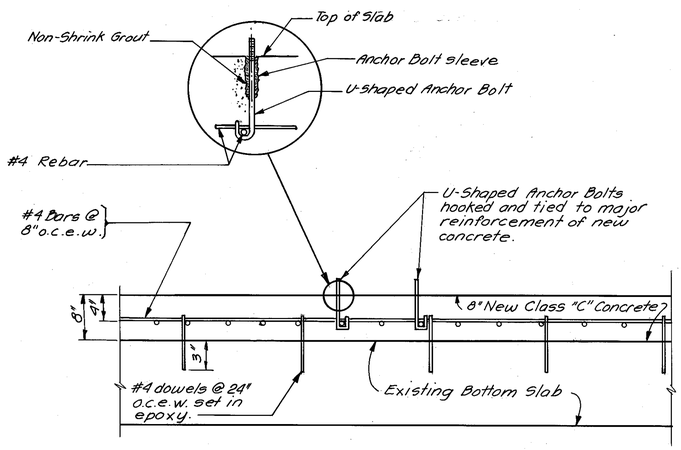
DETAIL "A"

NOT TO SCALE

NOTES

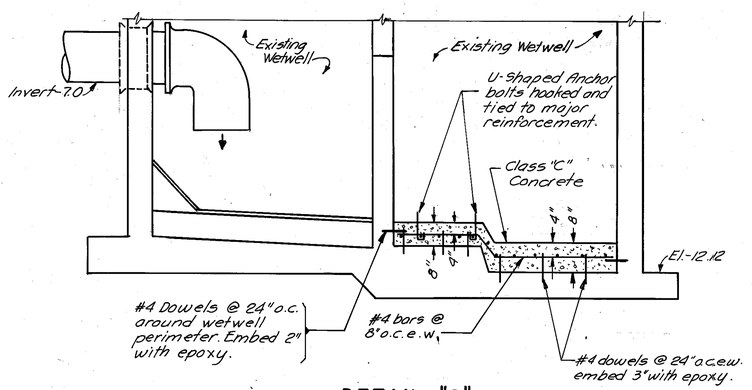
1. This Contract is for the replacement of pump base anchor bolts at the stations shown in table 1.

   Sheets 3 through 12 are As-Built drawings of the Stations.
2. All existing cast iron discharge piping shall be replaced with class 52 ductile iron pipe. Length of existing ductile iron discharge piping shall be adjusted accordingly.
3. All existing 2" galvanized steel guide rails shall be replaced with 2" stainless steel guide rails. Length of existing stainless steel guide rails shall be adjusted accordingly.
4. All surfaces to be in contact with new concrete shall be cleaned and coated with concrete bonding agent.
5. Contractor shall submit (for approval) by-pass pumping plan prior to starting construction.
6. All nuts, bolts, washers, etc. shall be stainless steel unless otherwise specified by engineer.
7. All steel reinforcement shall be grade 40.



DETAIL "B"

NOT TO SCALE



DETAIL "C"

PROPOSED CONCRETE PAD FOR TRILBY P.S.

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

TABLE 1	
STATION NAME	FLOW RATE(gpm)
TRILBY (100-22d)	2137
LOIS (15-13a2)	600
SHERWOOD HEIGHTS (11-17b)	525
ROGERS AVE. (11-15b2)	315
RIVER GROVE (14-17b)	300
BRECKENRIDGE PARK (168-13a)	600
CARMEN (6-23b2)	300
EGYPT LAKE (171-23a)	650
HIMES AVE. (14-26b2)	375

ANDREW T. CRONBERG, P.E. #32560 CHIEF ENGINEER DEPARTMENT of SANITARY SEWERS	DES: H. D. DRN: E. R. CKD: DW DATE: 8-5-86	APPROVED BY JACK P. MORRISS, P. E. DIRECTOR DEPARTMENT of SANITARY SEWERS	No.	DATE	REVISIONS	SCALE AS SHOWN
			1			
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			3			
			4			
			5			

DEPARTMENT of SANITARY SEWERS
CITY of TAMPA, FLORIDA
RENEWAL & REPLACEMENT
SEWAGE DISPOSAL SYSTEM

TRILBY (TRILBY)
PUMP BASE
ANCHOR BOLT REPLACEMENT

SHEET 2 OF 11

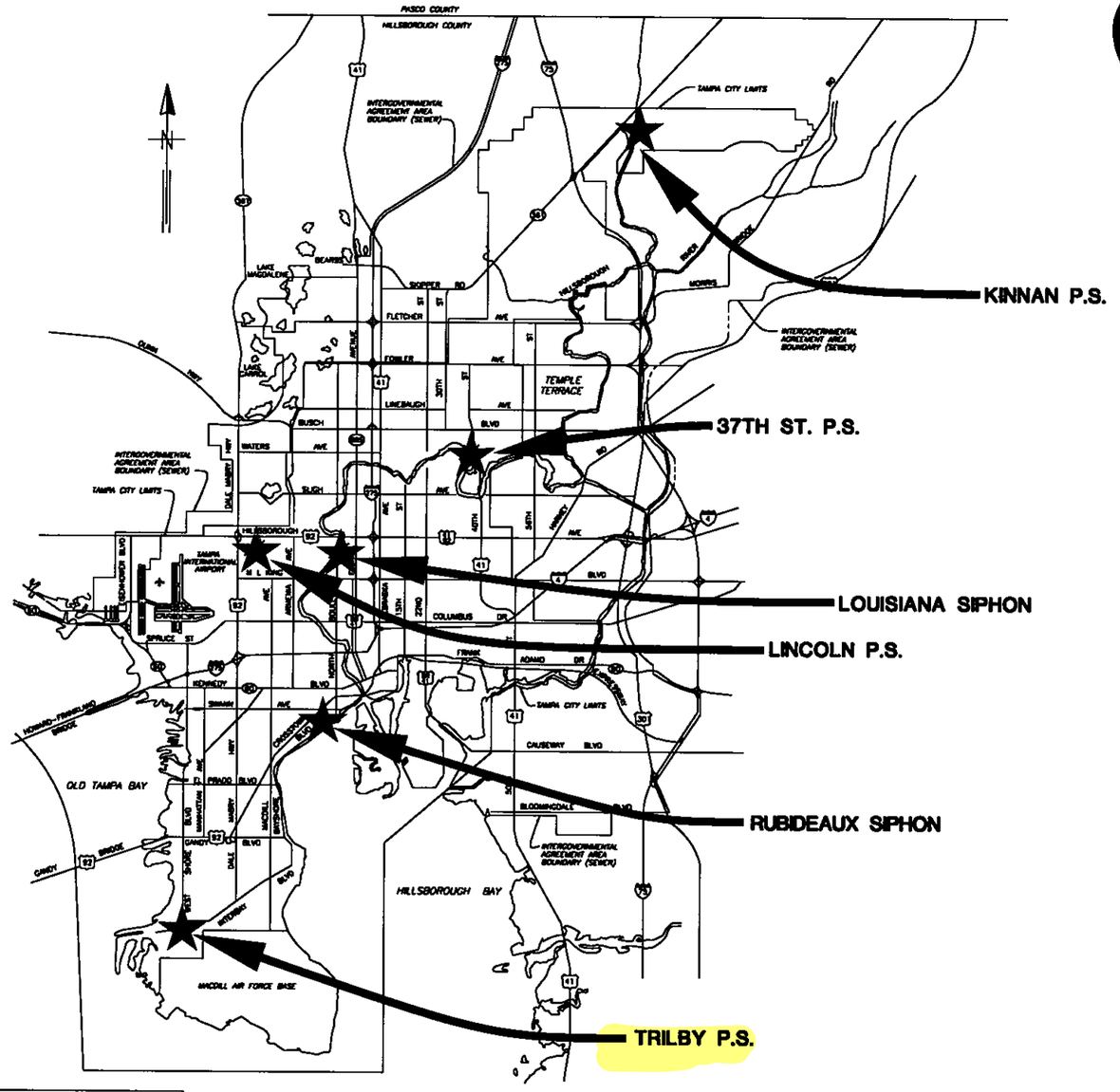
100-22d

K & E 19-1253

B10-1

R14

LOCATION MAP



CITY of TAMPA

CITY OF TAMPA FLORIDA • ORGANIZED JULY 15 1887 • MASCOTTE

DEPARTMENT OF SANITARY SEWERS

SEWAGE DISPOSAL SYSTEM

PLANS FOR

MISCELLANEOUS PUMPING STATION & SIPHON REPAIRS

CONTRACT 16-98

ROMAN D KORCHAK, PE #42626
ELECTRICAL SECTION HEAD
DEPARTMENT OF SANITARY SEWERS

HENRY DORZBACK, P.E. #39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

DES: RP
DRN: BB
CKD:
DATE: 5/16

No.	DATE	REVISIONS
1		
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CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS

COVER SHEET

W.O. 5374
SHEET 1 OF 19

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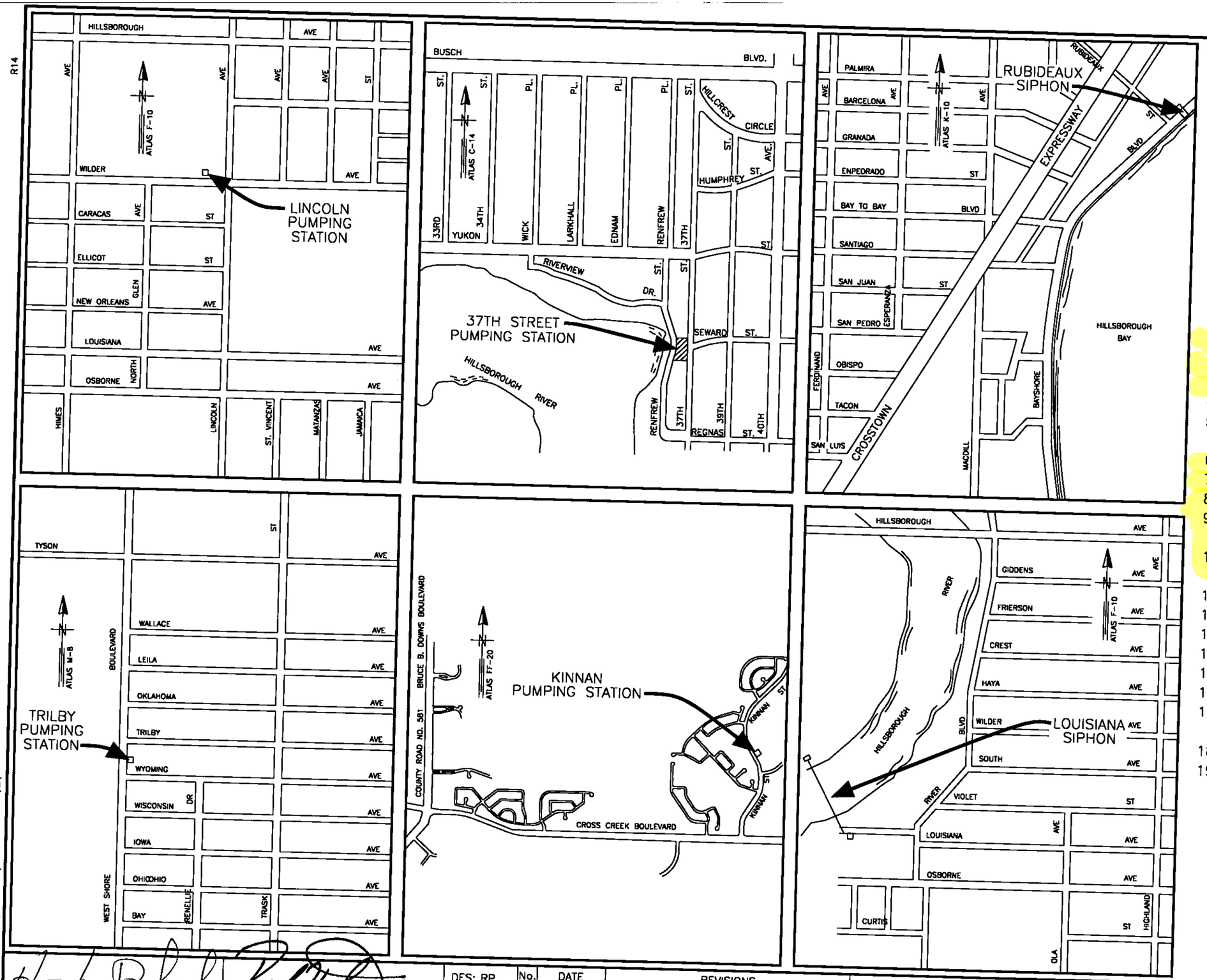

BIO-2

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1. COVER SHEET
2. LOCATION MAPS AND INDEX
3. LINCOLN P.S. & TRILBY P.S. SITE PLANS
4. 37TH ST. PUMPING STATION SITE PLAN
5. RUBIDEAUX SIPHON & LOUISIANA SIPHON SITE PLANS
6. TABLES AND NOTES RELATED TO REPAIRS
7. NOTES
8. REBAR & BASE PLATE DETAILS
9. 37TH ST. P.S. & TRILBY P.S. BASE PLATE DETAILS
10. TRILBY P.S. VALVE VAULT ACCESS COVER DETAILS
11. KINNAN P.S. SITE PLAN AND NOTES
12. KINNAN P.S. DEMOLITION PLAN
13. KINNAN P.S. PLAN AND SECTION
14. KINNAN P.S. MISC. DETAILS
15. KINNAN P.S. ELECTRICAL
16. RUBIDEAUX SIPHON, PLAN & DETAIL
17. RUBIDEAUX SIPHON, ACCESS COVER PLAN & SECTIONS
18. LOUISIANA SIPHON, PLAN & SECTION
19. LOUISIANA SIPHON, CHECK VALVE & THIMBLE DETAILS

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HENRY DORZBACK, P.E. #39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

DES: RP
DRN:
CKD:
DATE: 5/00

No.	DATE	REVISIONS
1		
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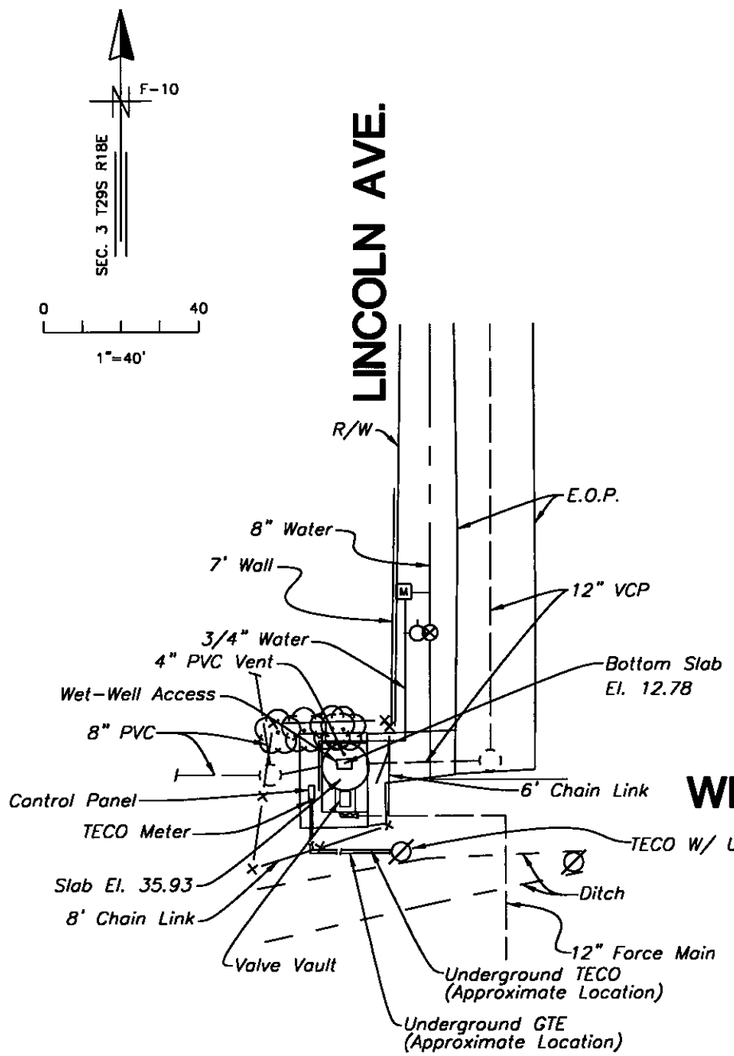
CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS

MISCELLANEOUS PUMPING STATION AND SIPHON REPAIRS
LOCATION MAPS & INDEX

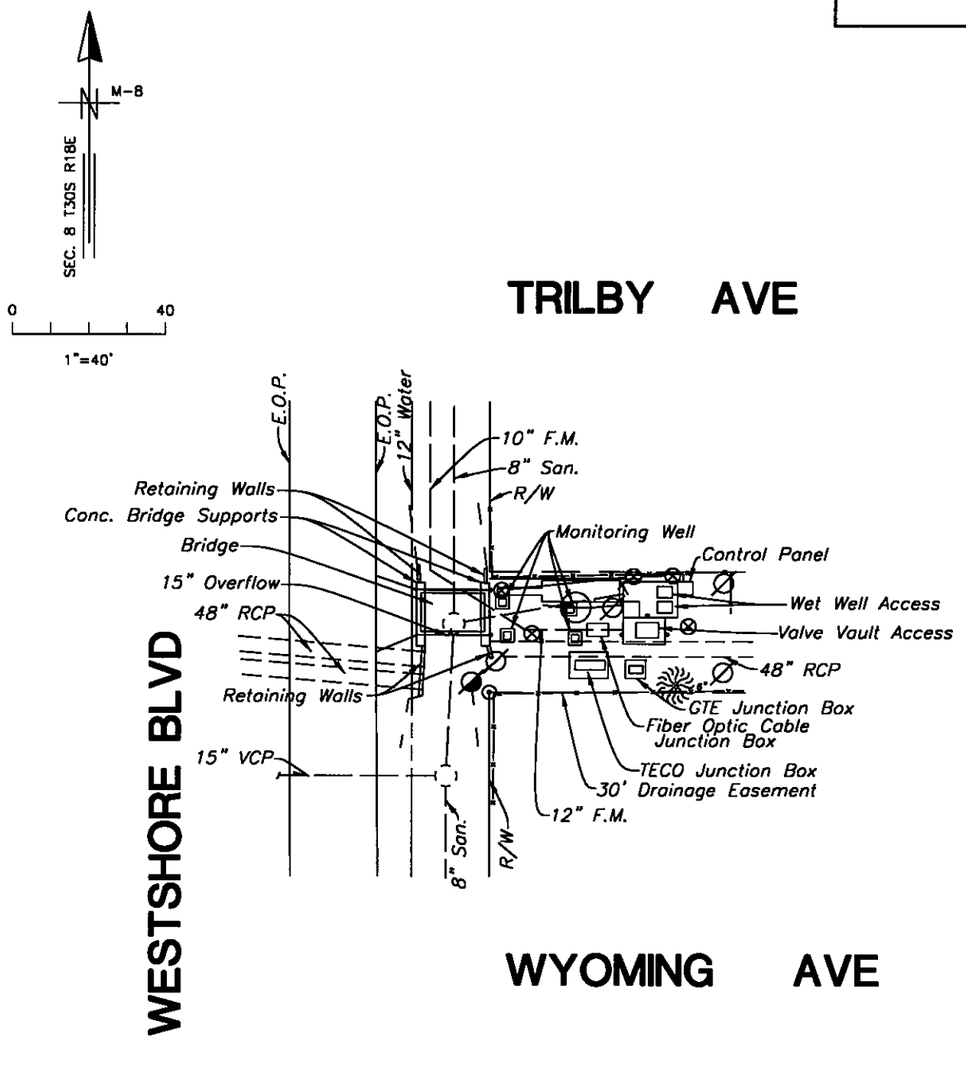
W.O. 5374
SHEET 2

R14



EXISTING
LINCOLN PUMPING STATION
SITE PLAN

SCALE: 1"= 40'



EXISTING
TRILBY PUMPING STATION
SITE PLAN

SCALE: 1"= 40'

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HENRY DORZBACK, P.E. #39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

DES: RP
DRN: BB
CKD: AK
DATE: 3/00

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1		
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CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS

MISCELLANEOUS PUMPING STATION AND SIPHON REPAIRS
LINCOLN AVE. P.S. & TRILBY P.S.
EXISTING SITE PLANS

W.O. 5374
SHEET 3 OF 19

B10-6

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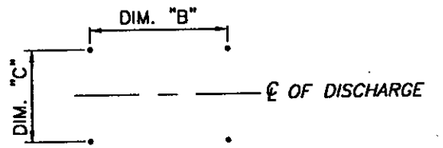
NOTES:

1. RATES BASED ON SEWAGE PUMP HOUR METER READINGS FOR DECEMBER 1997. RATES TOTALED FOR ENTIRE STATION. ALL PUMP STATIONS ARE DUPLEX.
2. PUMP DIMENSIONS WILL BE PROVIDED BY THE CITY AND BE FINALIZED AT THE SHOP DRAWING LEVEL.
3. THE DISCHARGE PIPING AT THE TRILBY P.S. EXTENDING FROM THE TWO PUMPS IS NOT SYMMETRICAL.
4. CONTRACTOR SHALL VERIFY QUANTITIES OF ALL NECESSARY REDUCERS, AS WELL AS ANY MISCELLANEOUS BRACKETS, FITTINGS AND SUPPORTS.
5. FUTURE PUMPS SHALL NOT BE SUPPLIED BY THIS CONTRACT BUT, THE NEWLY INSTALLED BASE ELBOWS WILL BE SPECIFICALLY DESIGNED AND MANUFACTURED FOR THE FUTURE PUMPS.
6. ANY EXISTING PUMPS THAT DIFFER FROM THE FUTURE PUMP MODEL SHALL BE MODIFIED BY THE CONTRACTOR TO ACCOMODATE THE NEWLY INSTALLED BASE ELBOWS.



PLAN VIEW OF PUMP ANCHOR BOLTS

TABLE 1: SCOPE OF WORK	
LOCATION	WORK DESCRIPTION
LINCOLN PUMPING STATION	• INSTALL NEW PUMP BASE FLOOR, • INSTALL NEW FLYGT BASE ELBOWS, • INSTALL NEW FLYGT RAILS, • INSTALL NEW DISCHARGE PIPING FROM PUMP TO CHECK VALVE
TRILBY PUMPING STATION	• INSTALL NEW PUMP BASE FLOOR, • INSTALL NEW FLYGT BASE ELBOWS, • INSTALL NEW FLYGT RAILS, • INSTALL NEW DISCHARGE PIPING FROM PUMP TO CHECK VALVE AND • INSTALL NEW VEHICLE RATED ACCESS COVER FOR VALVE VAULT
37TH STREET PUMPING STATION	• INSTALL NEW PUMP BASE FLOOR, • INSTALL NEW FLYGT BASE ELBOWS, • INSTALL NEW FLYGT RAILS, • INSTALL NEW DISCHARGE PIPING FROM PUMP TO CHECK VALVE
KINNAN PUMPING STATION	• INSTALL NEW PUMP BASE FLOOR, • INSTALL NEW BASE ELBOWS • INSTALL NEW DISCHARGE PIPING FROM PUMP TO CONNECTION WITH HORIZONTAL PIPE • INSTALL NEW UPPER AND INTERMEDIATE GUIDE BRACKETS AND STAINLESS STEEL GUIDE RAIL PIPING • INSTALL BY-PASS CONNECTION IN VALVE VAULT
RUBIDEAUX SIPHON	• INSTALL NEW VEHICLE RATED ACCESS COVERS
LOUISIANA SIPHON	• REMOVE EXISTING FLAP GATE • INSTALL FLEXIBLE CHECK VALVE

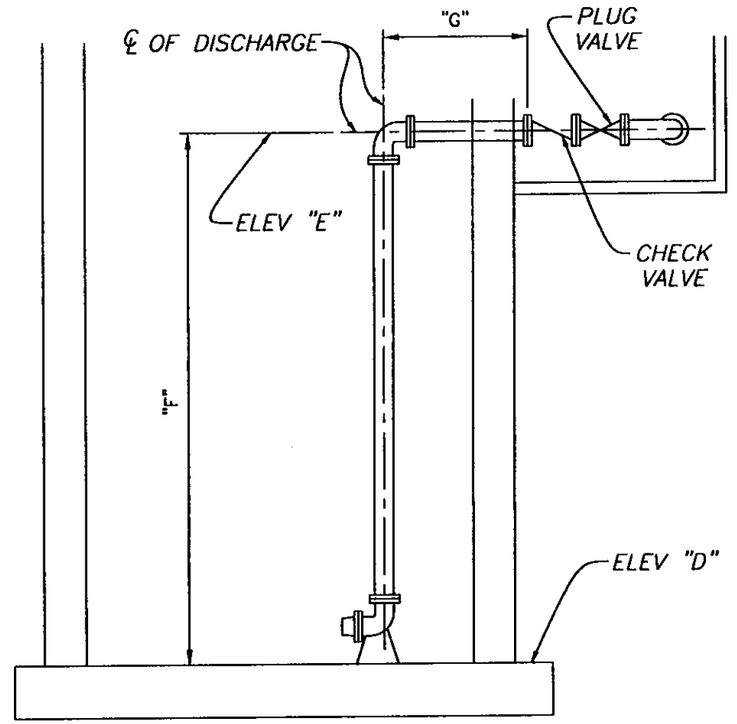


TABLE 2:
TABLE OF PUMP STATIONS
LOCATIONS, PLAN SHEETS AND DIMENSIONS
(ALL QUANTITIES ARE APPROXIMATE – CONTRACTOR SHALL VERIFY)

	EXISTING DATA		BASE FLOOR DATA					PROPOSED PUMP AND BYPASS DATA					PIPE DATA							
	EXISTING PUMP SEE NOTE 3 & 4	EX. FLOOR THICKNESS (INCHES)	PROP. DEMO. DEPTH (INCHES)	PROP. DOWEL DEPTH (INCHES)	PROP. PUMP BASE TYPE	PROP. LONGIT. BOLT SPACING DIM. "B" (INCHES)	PROP. TRANSVERSE BOLT SPACING DIM. "C" (INCHES)	PUMP MODEL FOR PROP. BASE (SEE NOTE 5)	AVERAGE SEWAGE FLOWS (GPM) (SEE NOTE 1)	PEAK SEWAGE FLOWS (GPM) (SEE NOTE 1)	TDH (FEET)	PUMP H.P. (EACH)	DISCHARGE PIPE DIAMETER (INCHES)	EX. FLOOR ELEV. DIM. "D" (FEET)	℄ DISCHARGE ELEV. DIM. "E" (FEET)	VERTICAL D.I.P. LENGTH DIM. "F" (FEET)	HORIZONTAL D.I.P. LENGTH DIM. "G" (FEET)	EX. TOP SLAB ELEV. (FEET)	VERTICAL RAIL LENGTH (FEET)	90° ELBOWS (EACH)
LINCOLN P.S.	DAVIS / EMU MODEL FA152-245 25 HP/923 GPM @ 50' TDH 6"	18	6	6	NONSHRINK EPOXY GROUT W/ BASEPLATE (SEE SHEETS 8 & 9)	11	9 1/2	FLYGT CP 3152 6" DIA. VERSION HT	435	1304	62	20	8 (PROP. & EX.)	13.50	32.65	19.15	5.58	35.40	21.90	2
TRILBY P.S.	FLYGT MODEL CP-3201 35 HP/1425 GPM @ 59' TDH 10"	16	6	6	NONSHRINK EPOXY GROUT W/ BASEPLATE (SEE SHEETS 8 & 9)	19 3/4	9 1/2	FLYGT CP 3201 10" DIA. VERSION MT	1077	3230	58	35	10 (PROP. & EX.)	-12.12	3.85	15.97	6.75 (AVERAGE) (SEE NOTE 3)	7.10	19.22	3 (SEE NOTE 3)
37TH ST. P.S.	PACO MODEL 5810221 100 HP/5200 GPM @ 46' TDH 10"	36	8	6	NONSHRINK EPOXY GROUT W/ BASEPLATE (SEE SHEETS) 8 & 9)	25 5/8	23 3/4	FLYGT CP 3306 / 705 12" DIA.	1019	3055	53	100	12 (PROP. & EX.)	5.79	22.50	16.71	7.00	28.60	22.81	2
KINNAN P.S.	MODEL YEOMAN 6x6x15x3	(SEE SHEETS 11 – 15)	9	6	NONSHRINK EPOXY GROUT W/ BASEPLATE (SEE SHEETS 11 – 15)	11	10	N/A	130	250	100	75	10 (PROP.)	28.40	54.00	25.60	N/A	60.50	32.85	2

HENRY DORZBACK, P.E. #39449
CHIEF ENGINEER

RALPH L. METCALF II, P.E.
DIRECTOR

DES: RP
DRN: BB
CKD: MK
DATE: 4/98

No.	DATE	REVISIONS
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CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS

MISCELLANEOUS PUMP STATION AND SIPHON REPAIRS
TABLES AND NOTES RELATED TO REPAIRS

W.O. 5374
SHEET 6 OF 19

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R14

GENERAL PUMPING STATION NOTES

1. CONTRACTOR SHALL SUBMIT A BY-PASS PUMPING PLAN FOR APPROVAL, UNLESS OTHERWISE NOTED.
2. ANY MODIFICATIONS NEEDED FOR EXISTING PUMPS TO ACCOMODATE THE NEW BASE ELBOWS SHALL BE SUBMITTED FOR REVIEW.
3. CONTRACTOR SHALL REMOVE THE EXISTING RAILS AND DISCHARGE BASE ELBOWS AND SHALL THEN SUPPLY AND INSTALL NEW BASE ELBOWS AND CYLINDRICAL 316 STAINLESS STEEL RAILS ALL MADE SPECIFICALLY FOR THE FUTURE PUMPS WHERE APPLICABLE.
4. CONTRACTOR SHALL REMOVE DAMAGED BASE CONCRETE FROM THE ORIGINAL FLOOR ELEVATION TO EXPOSE SOUND CONCRETE.
5. CONTRACTOR SHALL DRILL 5/8 INCH DIAMETER HOLES SPACED 12 INCHES O.C.E.W., 6 INCHES DEEP INTO THE NEWLY EXPOSED SOUND CONCRETE. CONTRACTOR SHALL EPOXY GROUT NO. 4 DOWELS AS SHOWN WITH 90 DEGREE HOOKS INTO THE HOLES USING FIVE STAR HF EPOXY GROUT OR APPROVED EQUAL.
6. ALL J-BOLTS SHALL BE SIZED, THREADED, ALIGNED AND SPACED PER PUMP MANUFACTURER'S REQUIREMENTS.
7. CONTRACTOR SHALL POUR GROUT AS SHOWN AND SPECIFIED UP TO ORIGINAL FLOOR ELEVATION.
8. NO NEW PUMPS SHALL BE SUPPLIED FOR THIS PROJECT.
9. THE PUMP BASE ELBOWS SHALL NOT BE BOLTED ONTO THE NEWLY POURED BASES UNTIL NEW GROUT HAS ATTAINED 2800 PSI COMPRESSIVE STRENGTH.
10. THE EXISTING PUMPS SHALL NOT BE RE-MOUNTED ON THE NEWLY BOLTED BASE ELBOWS UNTIL NEW GROUT HAS ATTAINED 4000 PSI COMPRESSIVE STRENGTH.
11. ALL NEW DISCHARGE PIPING SHALL BE CLASS 52 DUCTILE IRON PIPE WITH FLANGE CONNECTIONS.
12. THE LENGTH OF THE EXISTING GUIDE RAILS SHALL BE ADJUSTED ACCORDINGLY AND THEY SHALL BE CONNECTED AND BRACED AS PER PUMP MANUFACTURER'S RECOMMENDATIONS.
13. THE FINAL BOLT ASSEMBLY SHALL BE TIGHTENED IN ACCORDANCE WITH AISC AND SHALL HAVE AT LEAST 1/2 INCH PROTRUSION ABOVE THE NUT.

GENERAL NOTES

1. ALL SURFACES IN CONTACT WITH NEW CONCRETE SHALL BE CLEANED AND COATED WITH AN APPROVED CONCRETE BONDING AGENT.
2. ALL NUTS, BOLTS AND WASHERS SHALL BE 316 STAINLESS STEEL UNLESS OTHERWISE SPECIFIED.
3. ALL STEEL REINFORCEMENT SHALL BE GRADE 60.
4. ALL PIPE, FITTINGS, SUPPORTS, VALVES, FABRICATED BASE PLATE (TOP ONLY), ETC, SHALL RECEIVE:
   A) SHOP COAT - ONE COAT, 4 MILS, INTERNATIONAL COATING'S INTER TUF
   B) FIELD COAT - TWO COATS, 10 MILS, INTERNATIONAL COATING'S INTER TUF
5. DIMENSIONS SHOWN ARE NOT NECESSARILY ACCURATE TO THE DEGREE REQUIRED FOR FABRICATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION AND SUBMIT TO ENGINEER FOR APPROVAL.
6. ALL CEMENTITIOUS CONCRETE AND GROUT SHALL CONFORM TO SPECIFICATIONS FOR CLASS "B". (SEE CONTRACT SPECIFICATIONS)
7. ALL NONSHRINK EPOXY GROUT SHALL CONFORM TO THE SPECIFICATIONS AND THE MANUFACTURER'S RECOMMENDATIONS.
8. ALL SALVAGEABLE MATERIALS AS DEEMED BY TREATMENT PLANT PERSONNEL SHALL BE DELIVERED TO THE HOWARD F. CURREN AWTP LOCATED AT 2700 MARITIME BLVD AND THEN PLACED INTO THE APPROPRIATE RECYCLE BINS.
9. ALL STEEL REINFORCING SHALL BE DETAILED ACCORDING TO THE LATEST "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES". THE ACTUAL PLACEMENT OF STEEL REINFORCING SHALL BE SHOWN ON SHOP DRAWINGS.

ALUMINUM ACCESS COVER NOTES

1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALUMINUM ACCESS COVERS FOR THE EXISTING CONCRETE SEWER STRUCTURES. THE ACCESS COVERS SHALL BE FABRICATED TO FIT THE EXISTING STRUCTURES AND TO WITHSTAND AN H-20 VEHICLE LOAD ON AN "OCCASSIONAL" BASIS, AS DEFINED BY THE ACCESS COVER MANUFACTURER.
2. DIMENSIONS SHOWN ARE NOT NECESSARILY ACCURATE TO THE DEGREE REQUIRED FOR FABRICATION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
3. THE ALUMINUM ACCESS COVERS SHALL BE MANUFACTURED BY U.S. FOUNDRY OR APPROVED EQUAL. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE ENGINEER'S APPROVAL PRIOR TO FABRICATION.
4. THE ACCESS COVERS SHALL ACCOMMODATE THE USE OF A CITY LOCK BY MEANS OF A RECESSED HASP.
5. CONTRACTOR SHALL SHIM THE NEW ACCESS COVERS INTO PLACE AND INSTALL BY DRILLING HOLES 9/16 INCHES IN DIAMETER AT 18 INCHES ON CENTER AND INSTALLING ANCHOR BOLTS USING NON-SHRINK EPOXY GROUT.
6. THE NON-SHRINK EPOXY GROUT SHALL BE HF EPOXY GROUT MANUFACTURED BY FIVE STAR PRODUCTS, INC OR EQUAL.
7. THE EXISTING ACCESS COVERS SHALL BE DELIVERED TO THE HOWARD F. CURREN AWTP WAREHOUSE, 2700 MARITIME BLVD, AND DEPOSITED INTO THE ALUMINUM RECYCLING BIN.
8. ANY DAMAGE TO THE CONCRETE SLAB RESULTING FROM THE REMOVAL OF THE EXISTING ACCESS COVER SHALL BE REPAIRED.

NON-SHRINK EPOXY GROUTED BASE NOTES

FOR TRILBY PUMP STATION, 37TH STREET PUMP STATION, KINNAN PUMP STATION

1. BEFORE BASEPLATE FABRICATION, CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SUBMIT TO ENGINEER FOR APPROVAL.
2. BASEPLATES SHALL BE CONSTRUCTED OF ONE INCH THICK COLD-ROLLED, A36 STEEL PLATES WITH WELDED WT STRUCTURAL TEES AS SHOWN.
3. THE BASEPLATES SHALL HAVE STRATEGICALLY LOCATED AIR RELIEF HOLES WHERE BASEPLATE CONFIGURATION OR HIGH SPOTS WILL ENTRAP AIR.
4. THE BASEPLATE SHALL BE PLACED OVER THE J-BOLTS WITH ITS TOP SURFACE FLUSH WITH THE ORIGINAL FLOOR AND SHALL BE LEVELED PRECISELY INTO PLACE AT THE ORIGINAL FLOOR ELEVATION.
5. CONTRACTOR SHALL NOT "DOUBLE-NUT" THE BASEPLATE INTO PLACE.
6. THE CONTRACTOR SHALL POUR THE SPECIFIED EPOXY GROUT UP TO THE ORIGINAL FLOOR ELEVATION USING FIVE STAR EPOXY DP GROUT OR APPROVED EQUAL.

C:\R14\DWG\PS\MISC-PS\NOTES 1=40

HENRY DORZBACK, P.E. #39449
CHIEF ENGINEER

RALPH L. METCALF II, P.E.
DIRECTOR

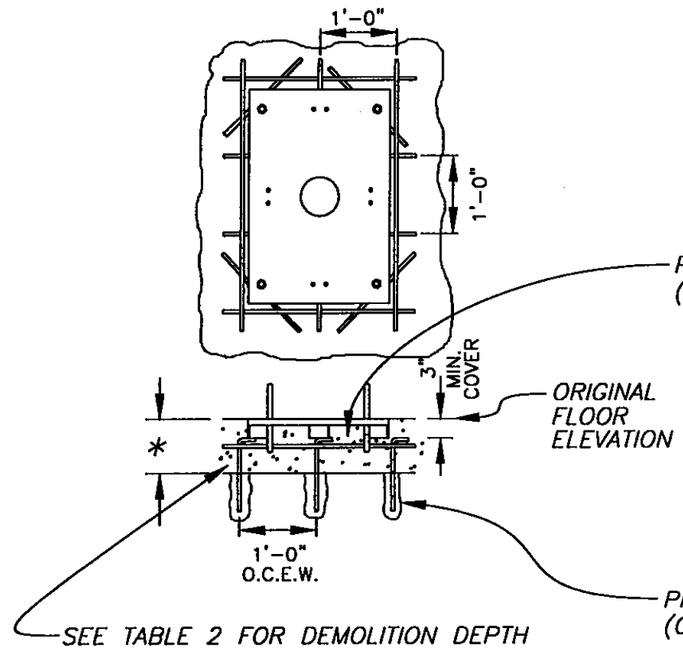
DES: RP
DRN: BB
CKD:
DATE:

No.	DATE	REVISIONS
1		
2		

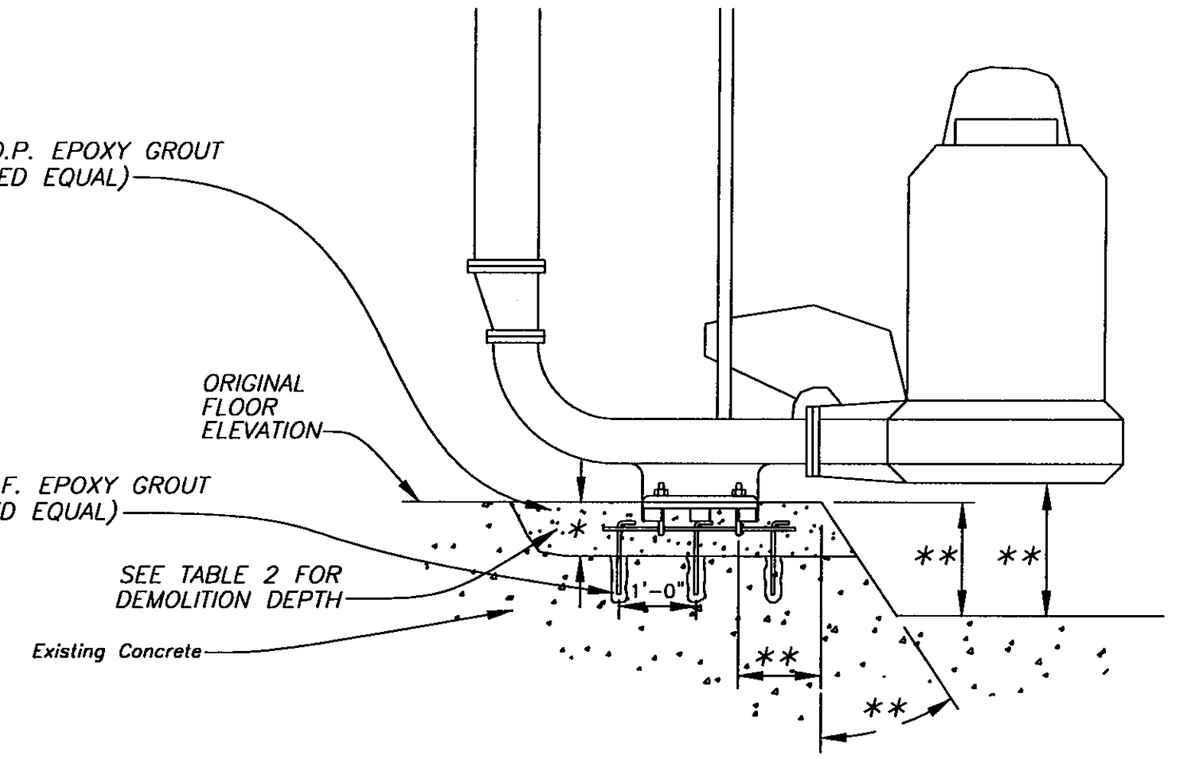
CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS

MISCELLANEOUS PUMPING STATION AND SIPHON REPAIRS
NOTES

W.O. 5374
SHEET 7 OF 19



REBAR DETAIL
N.T.S.



PUMP BASE DETAIL
N.T.S.

NOTES:

1. *CONTRACTOR SHALL VERIFY ALL BOLT SIZES, SPACINGS AND LOCATIONS*
2. *CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND CONSTRUCTION*

* *SEE TABLE 2*

** *AS DETERMINED AT THE SHOP DRAWING LEVEL*

HENRY DORZBACK, P.E. #39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

DES: RP
DRN:
CKD:
DATE:

No.	DATE	REVISIONS
1		
2		

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS

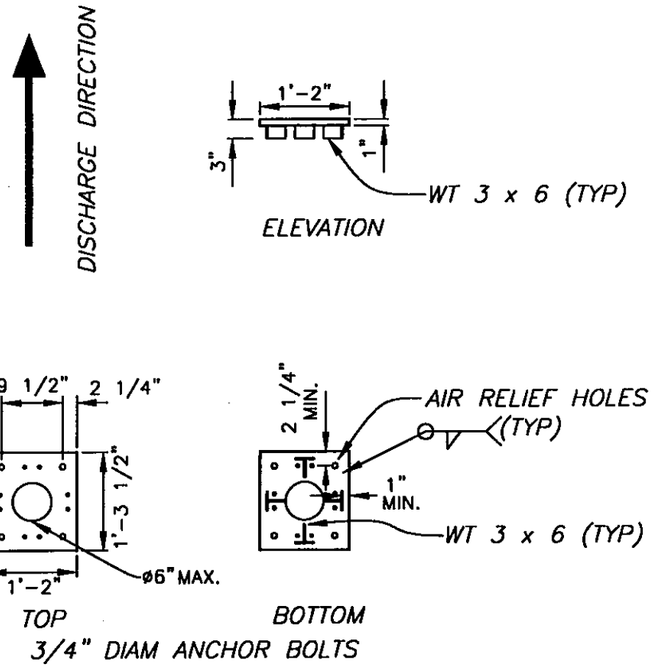
MISCELLANEOUS PUMPING STATIONS AND SIPHON REPAIRS
REBAR AND BASE PLATE DETAILS

W.O. 5374
SHEET 8

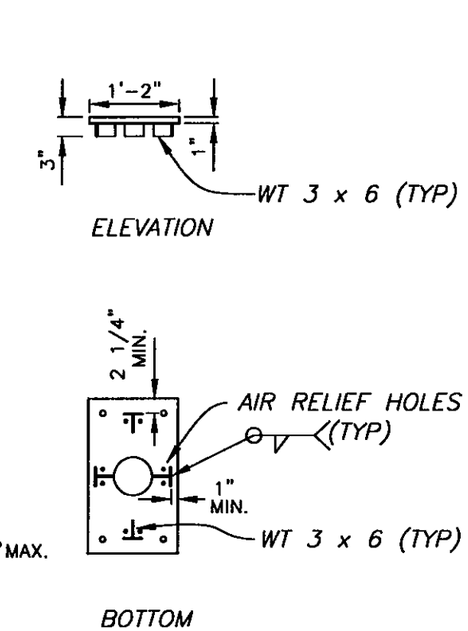
R14
C:\R14\DWG\PS\MISC-PS\ROYCEDET 1/2"=1'-0"

B10-9

R14



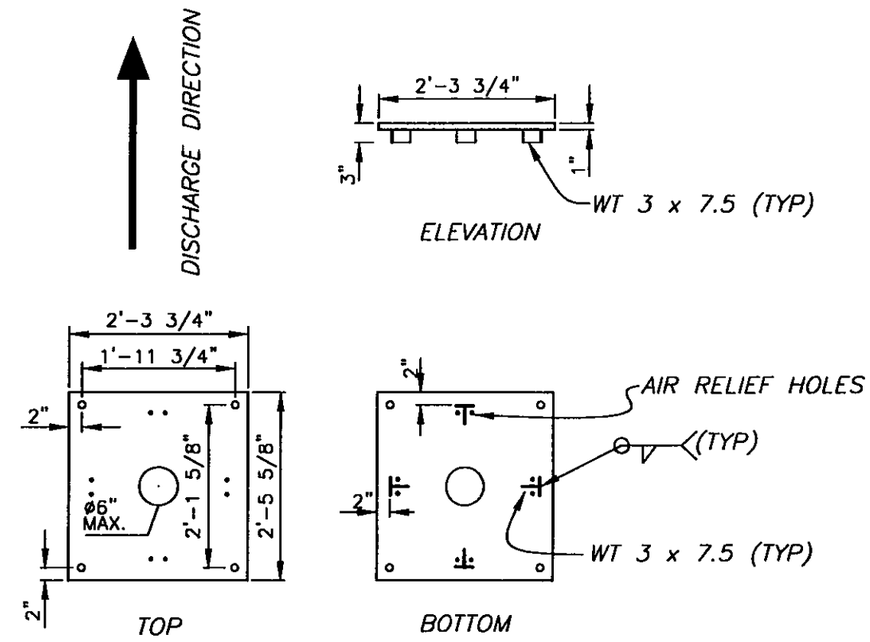
DETAIL
BASEPLATE FOR LINCOLN PUMPING STATION
FLYGT MODEL CP-3152 6" HT PUMP BASE
SCALE: 1/2" = 1'- 0"



DETAIL
BASEPLATE FOR TRILBY PUMPING STATION
FLYGT MODEL CP-3201 10" MT PUMP BASE
SCALE: 1/2" = 1'- 0"

NOTES:

1. *DIMENSIONS SHOWN IN THE PLANS ARE NOT NECESSARILY ACCURATE TO THE DEGREE FOR FABRICATION.*
2. *CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.*



DETAIL
BASEPLATE FOR 37TH ST. PUMPING STATION
FLYGT MODEL 3306/705 12" PUMP BASE
SCALE: 1/2" = 1'- 0"

C:\R14\DWG\PS\MISC-PS\ROYCEDET 1/2"=1'-0"

HENRY DORZBACK, P.E. #39449
CHIEF ENGINEER

RALPH L. METCALF II, P.E.
DIRECTOR

DES: RP
DRN: BB
CKD:

No.	DATE	REVISIONS
1		
2		

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS

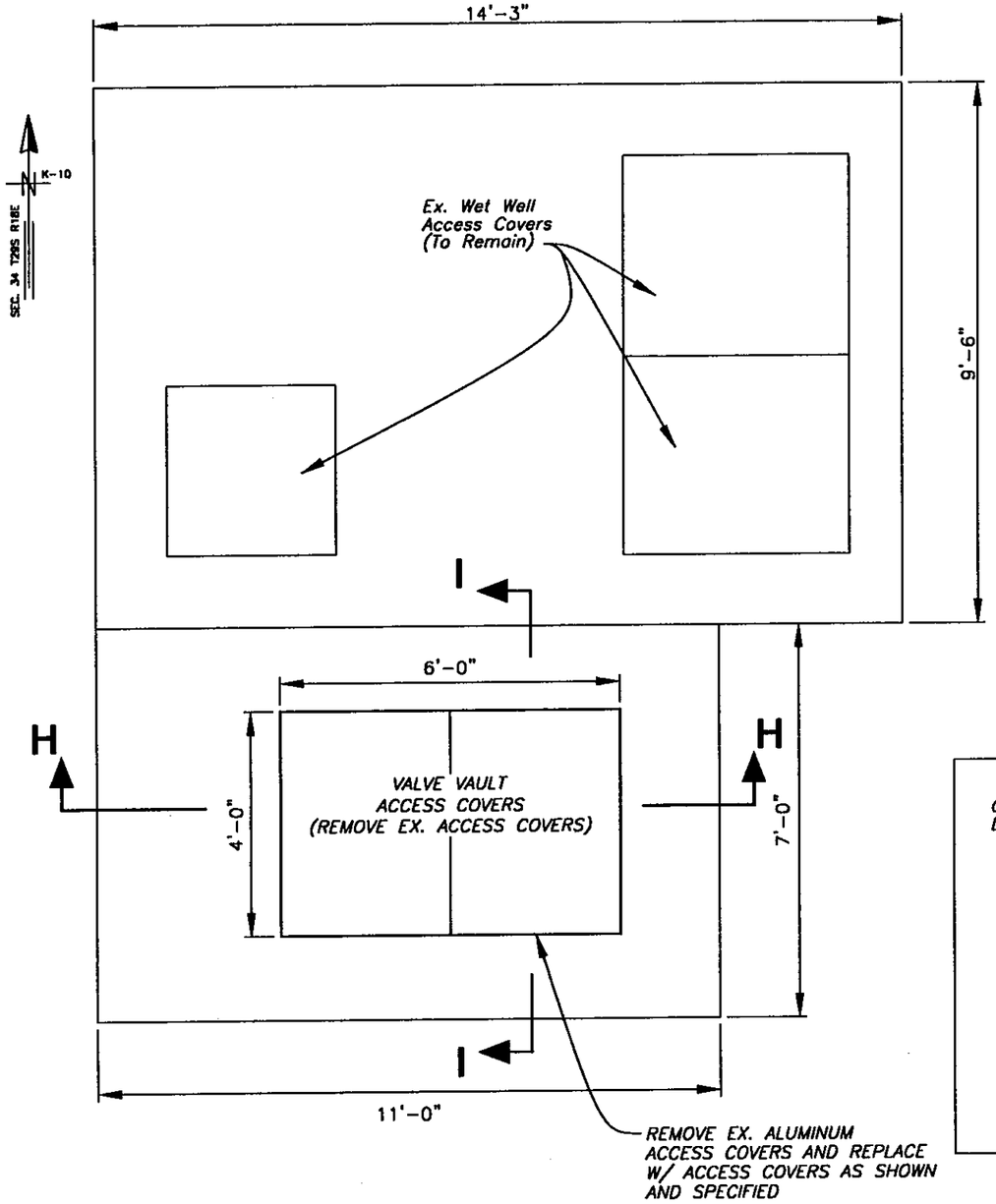
MISCELLANEOUS PUMPING STATIONS
AND SIPHON REPAIRS
37TH ST. P.S. & TRILBY P.S.

W.O. 5374
SHEET
9

B10-10

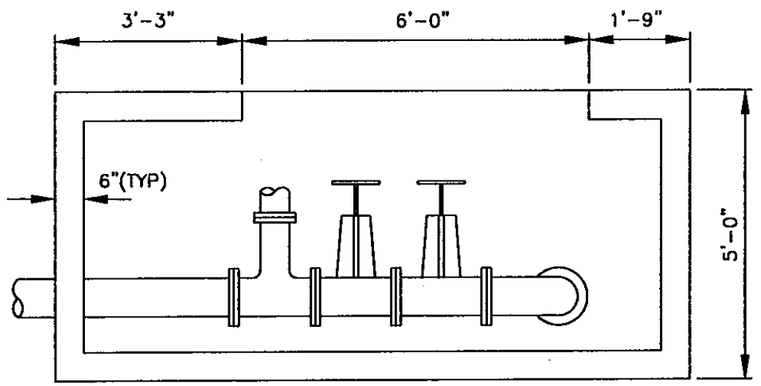
B10-10

R14

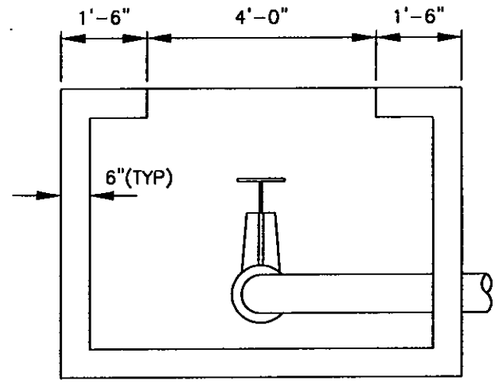


PLAN
TOP SLAB AND ACCESS COVERS
SCALE: 3/8"= 1'-0"

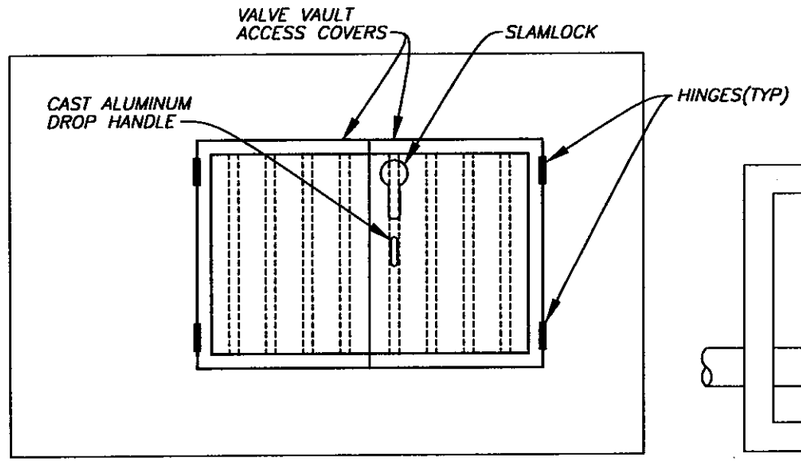
SEE ALUMINUM ACCESS COVER NOTE ON SHEET 7



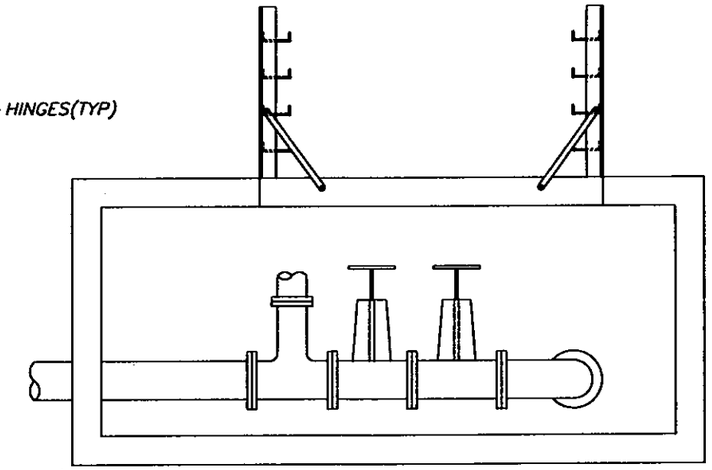
SECTION H-H
SCALE: 3/8"= 1'-0"



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



PLAN
WITH NEW ACCESS COVERS INSTALLED
SCALE: 3/8"= 1'-0"



SECTION A-A
WITH NEW ACCESS COVERS INSTALLED
SCALE: 3/8"= 1'-0"

C:\R14\DWG\PS\MISC-PS\RUBACCS 3/8"=1'-0"

HENRY DORZBACK, P.E. #39449

RALPH L. METCALF II, P.E.
DIRECTOR

DES: RP
DRN: BB
CKD: HH

No.	DATE	REVISIONS
1		
2		

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS

MISCELLANEOUS PUMPING STATION AND SIPHON REPAIRS
TRILBY PUMPING STATION
VALVE VAULT ACCESS COVER DETAILS

W.O. 5374
SHEET
10

CITY OF TAMPA, FLORIDA

—◇—

PLANS

FOR THE CONSTRUCTION OF

SEWAGE DISPOSAL SYSTEM

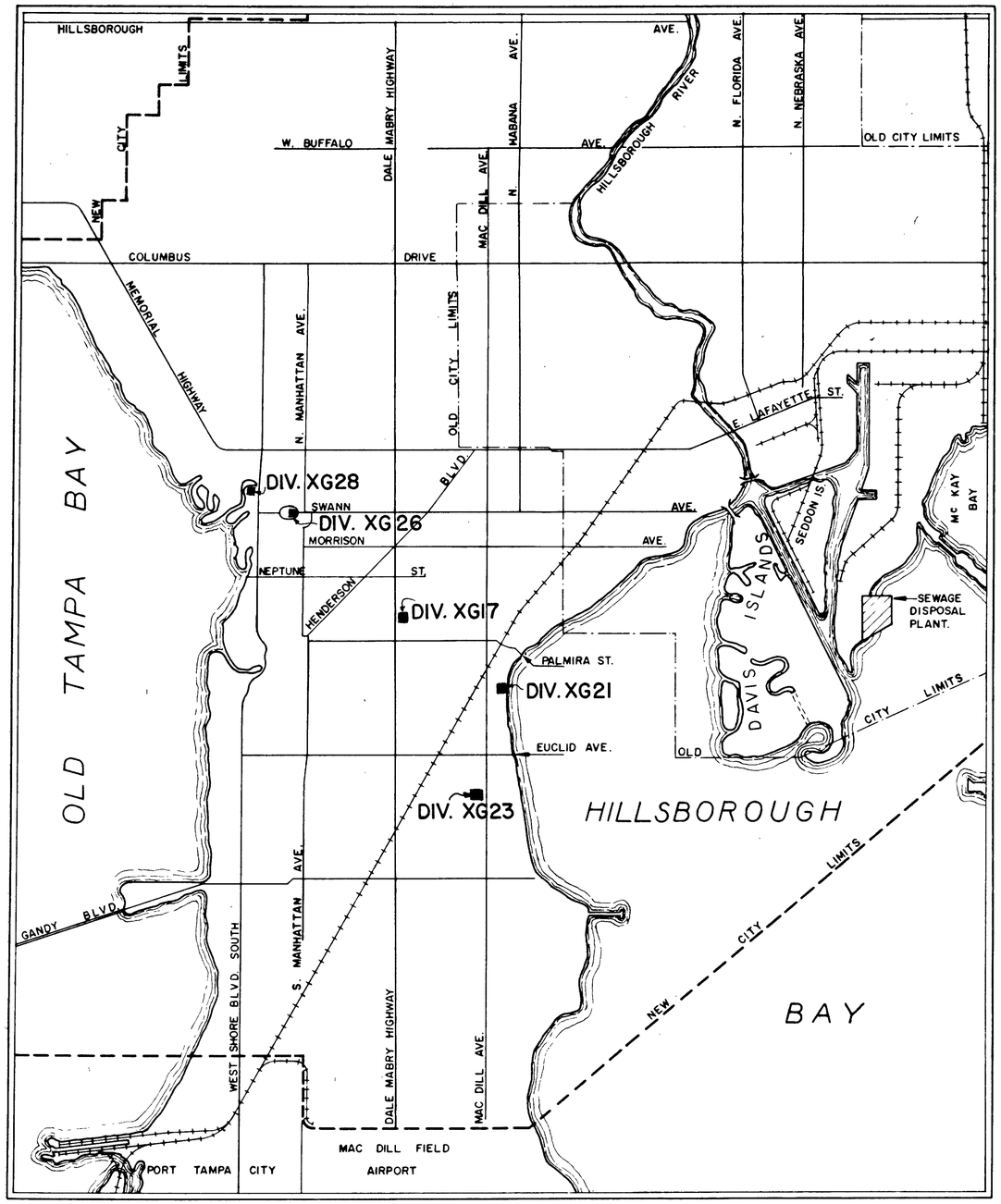
PUMPING AND EJECTOR STATIONS

DIV.	XG17	DALE MABRY EJECTOR STATION
DIV.	XG21	BAYSHORE PUMPING STATION
DIV.	XG23	KNIGHTS AVENUE PUMPING STATION
DIV.	XG26	SWANN AVENUE PUMPING STATION
DIV.	XG28	NEPTUNE WAY EJECTOR STATION ← VOID this set, see File No 83-21

GREELEY AND HANSEN - ENGINEERS

220 SOUTH STATE STREET - CHICAGO 4, ILLINOIS

6TH FLOOR, CITY HALL - TAMPA, FLORIDA



LOCATION PLAN

SCALE
0 ¼ ½ 1 2 MILES

GREELEY AND HANSEN
ENGINEERS
CHICAGO, ILL.

INDEX

DIVISIONS XG17, XG21, XG23, XG26, XG28

SHEET NO.		
	GENERAL	
XG-1	LOCATION PLAN AND INDEX	
	DIVISION XG17 DALE MABRY EJECTOR STATION	
XG17-2	DALE MABRY EJECTOR STATION	
	DIVISION XG21 BAYSHORE PUMPING STATION	
XG21-3	EQUIPMENT	
XG21-4	EQUIPMENT	
XG21-5	STRUCTURAL	
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	DIVISION XG23 KNIGHTS AVENUE PUMPING STATION	
XG23-8	EQUIPMENT	
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XG26-11	EQUIPMENT	
XG26-12	STRUCTURAL	
XG26-13	STRUCTURAL	
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	DIVISION XG28 NEPTUNE WAY EJECTOR STATION	
XG28-15	NEPTUNE WAY EJECTOR STATION	

WADE E. LANGDON
CERTIFICATE
NO. 3207
STATE OF FLORIDA
REGISTERED ENGINEER

NOTES

1. All elevations are referred to City Datum, which is 0.65 feet above the Mean Low Water Datum of the U.S. Engineers and 0.15 feet below the Mean Sea Level Datum of the U.S.C.&G.S.
2. Existing utilities, buildings, ground elevations and other features are shown according to the best information available. The contractor shall verify all conditions affecting his work.

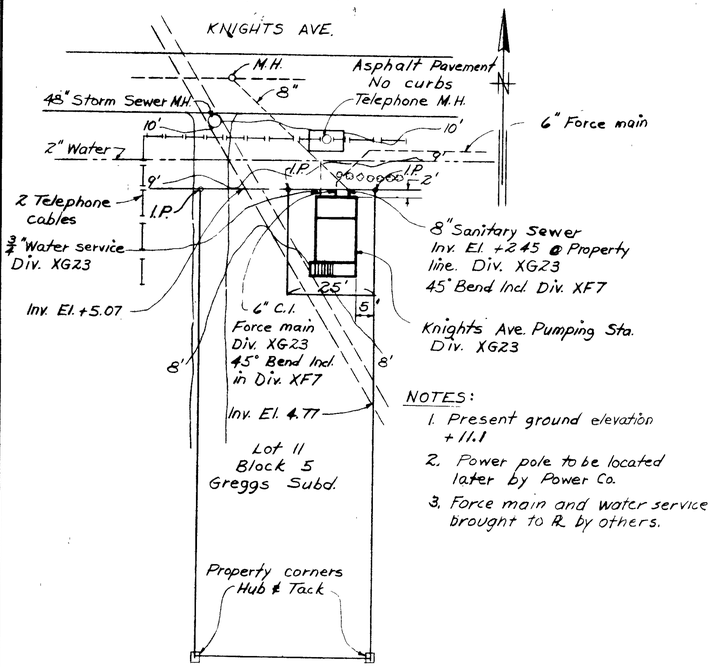
CITY OF TAMPA, FLORIDA
SEWAGE DISPOSAL SYSTEM
DIVISIONS XG17, XG21, XG23, XG26, XG28

LOCATION PLAN AND INDEX

GREELEY AND HANSEN, ENGINEERS
BY _____
SUPT., BUREAU OF SANITARY SEWERS

SHEET XG-1 OF 15

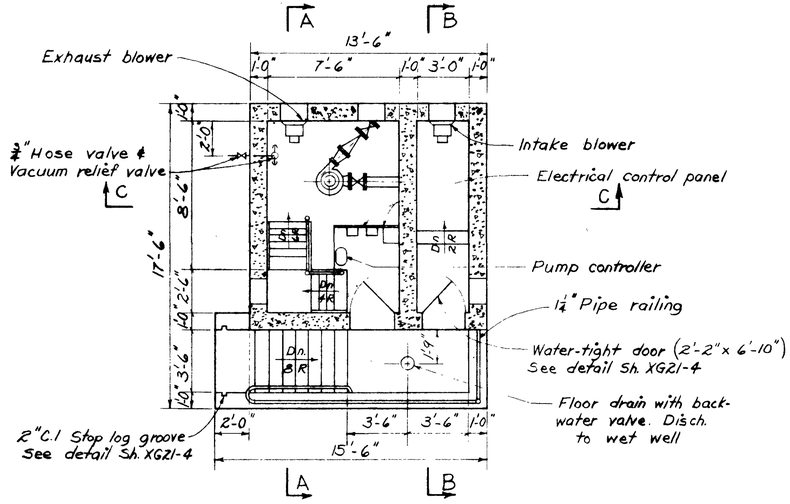
83-1



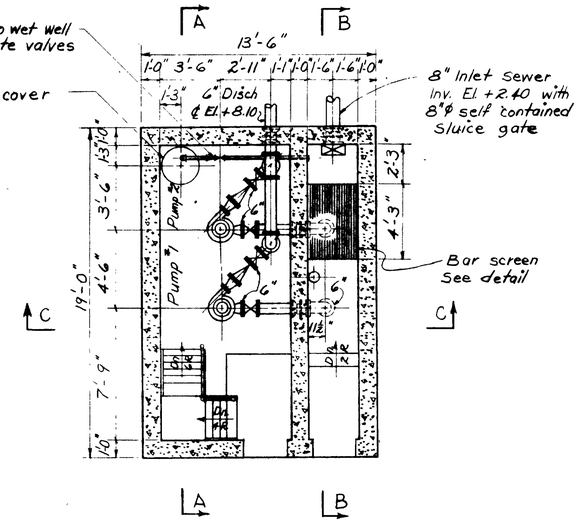
LOCATION PLAN
SCALE 1"= 20'

NOTES:

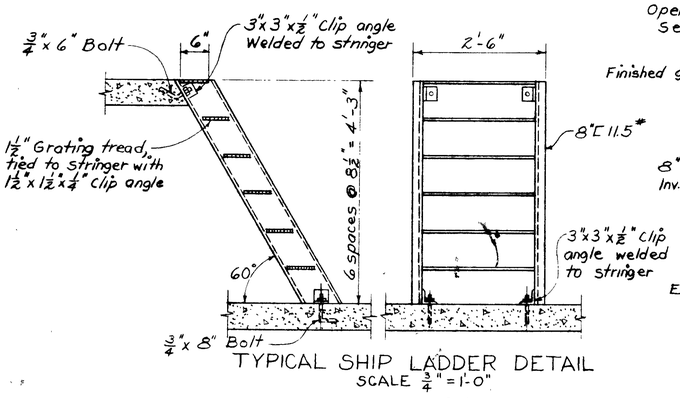
1. Present ground elevation +11.1
2. Power pole to be located later by Power Co.
3. Force main and water service brought to R. by others.



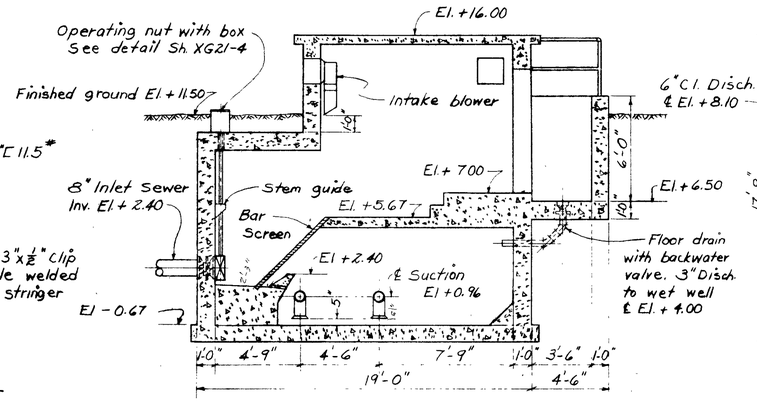
PLAN EL. +14.50
SCALE 1/4"=1'-0"



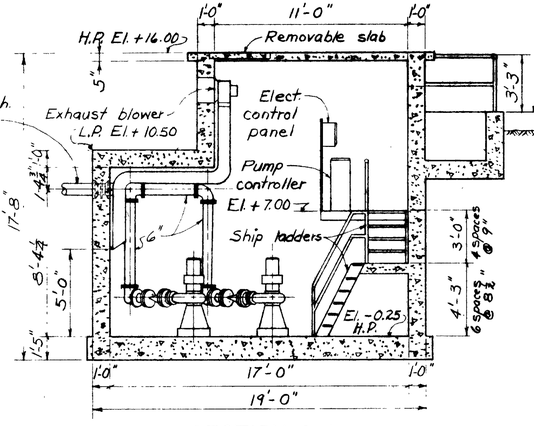
PLAN EL. +8.00
SCALE 1/4" 1'-0"



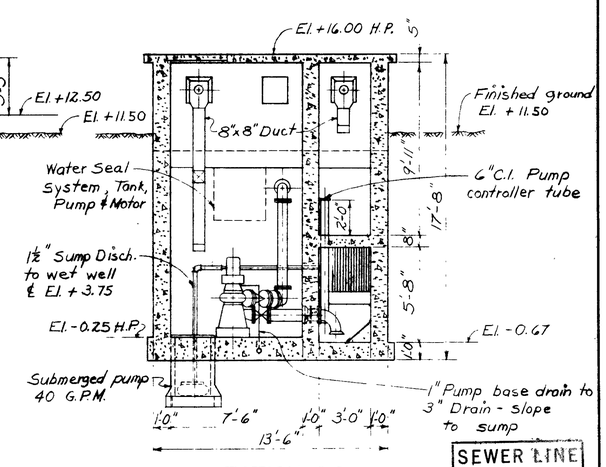
TYPICAL SHIP LADDER DETAIL
SCALE 3/4" = 1'-0"



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



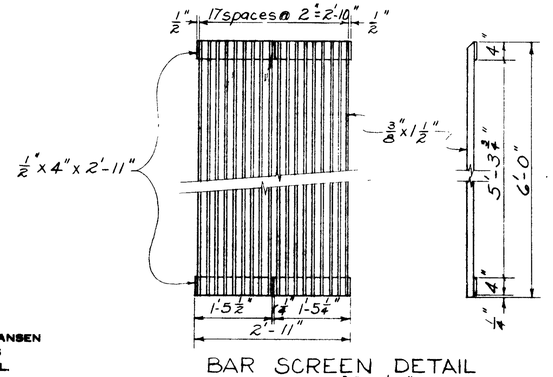
SECTION A-A
SCALE 1/4"=1'-0"



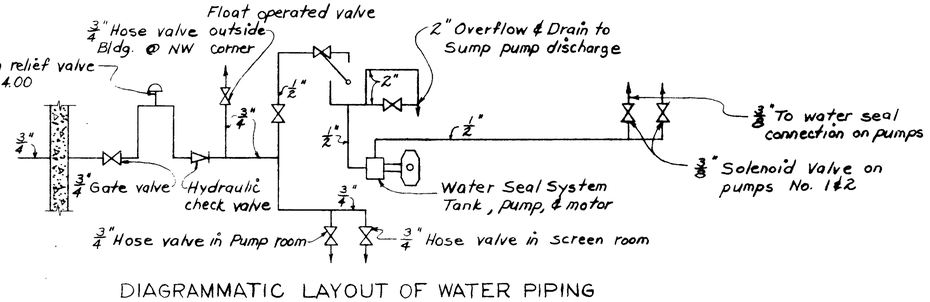
SECTION C-C
SCALE 1/4"=1'-0"

SEWER LINE LOCATION

SEC. MAP No.	LINE No.
L-10	19



BAR SCREEN DETAIL
SCALE 3/4" = 1'-0"



DIAGRAMMATIC LAYOUT OF WATER PIPING
NO SCALE

GREELEY AND HANSEN
ENGINEERS
CHICAGO, ILL.

CITY OF TAMPA, FLORIDA
SEWAGE DISPOSAL SYSTEM
DIVISION XG23 KNIGHTS AVENUE PUMPING STATION

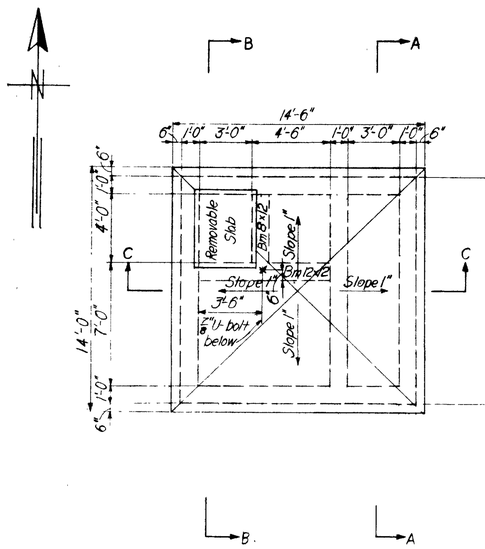
EQUIPMENT

DES. J.B.V.
DR. R.A.P.
CKD. J.B.V.
DATE: JULY 1955

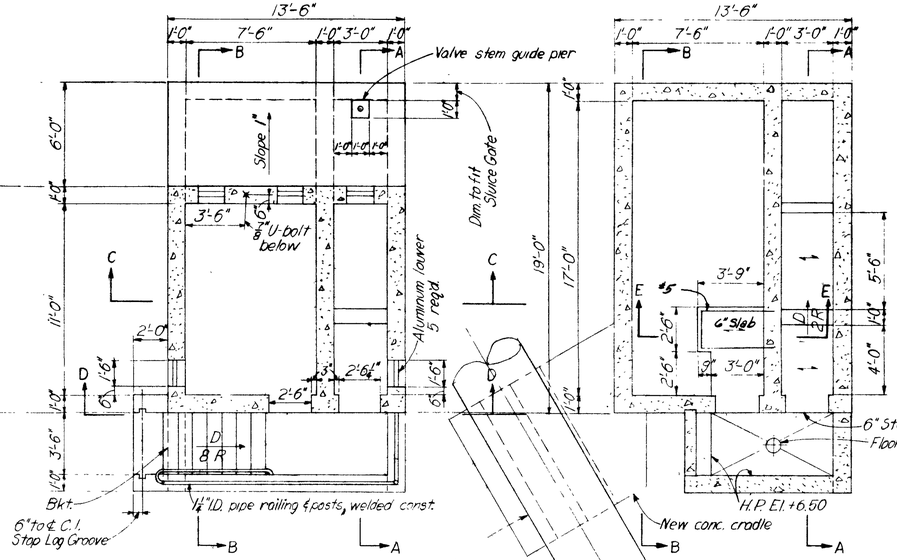
SCALE
4 2 0 4 8Ft 1/4"=1'-0"
10 0 2 5Ft 3/8"=1'-0"
20 0 20 40Ft 1"=20'

SHEET
XG 23-8
OF 15

83-8

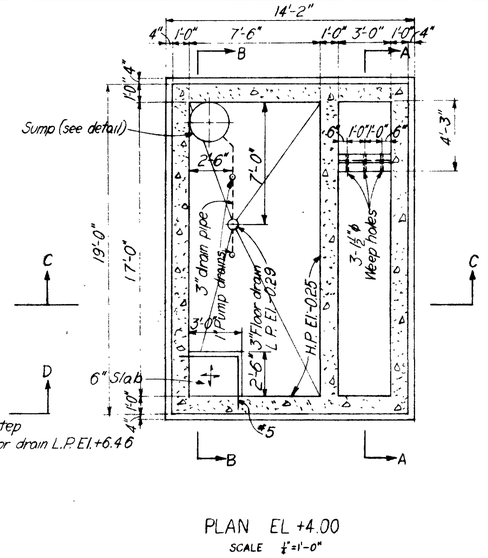


ROOF PLAN EL +16.00
SCALE 1/4"=1'-0"

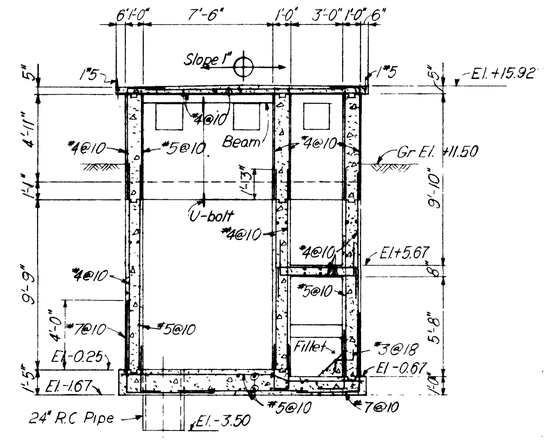


PLAN EL.+14.50
SCALE 1/4"=1'-0"

PLAN EL.+7.00
SCALE 1/4"=1'-0"

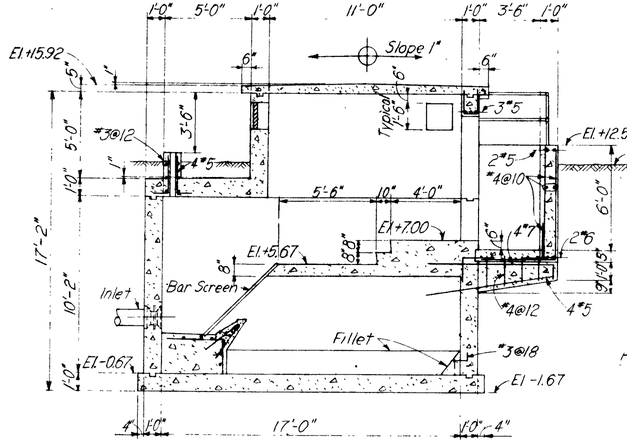


PLAN EL +4.00
SCALE 1/4"=1'-0"

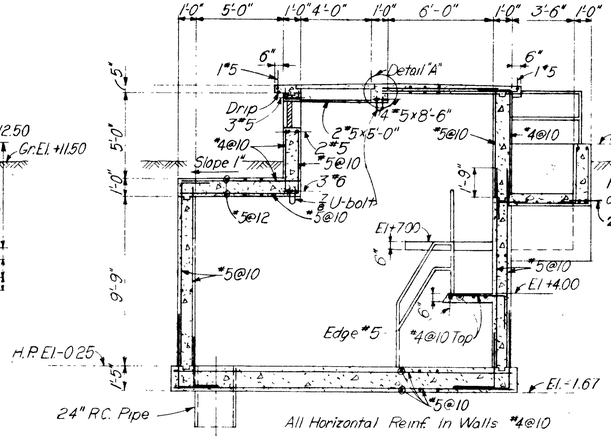


All Horizontal Reinf. In Walls #4@10

SECTION C
SCALE 1/4"=1'-0"

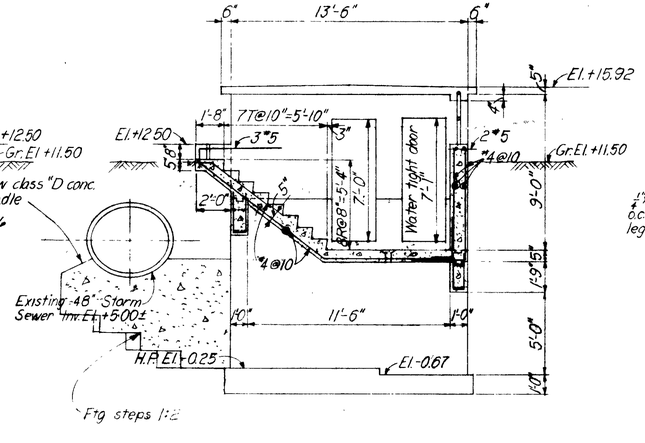


SECTION A
SCALE 1/4"=1'-0"

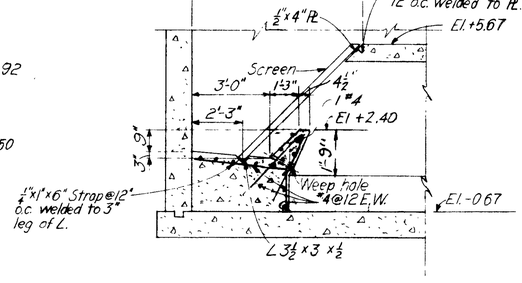


All Horizontal Reinf. In Walls #4@10

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

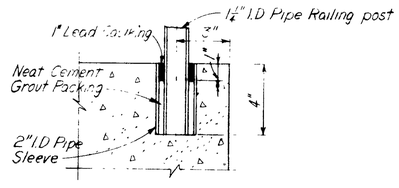


SECTION D
SCALE 1/4"=1'-0"

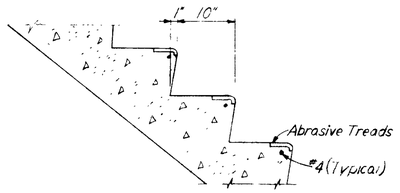


DETAIL OF BAR SCREEN SUPPORT
SCALE 3/8"=1'-0"

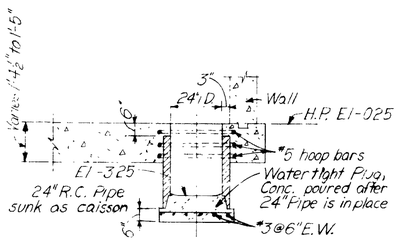
NOTES:
1. For General Notes see Sheet XG21-5
2. Structure is figured stable for high water at El.+11.50
3. Live Load High roof 100 p.s.f.
   Low roof Earth plus 200 p.s.f.
4. For watertight door details see Sheet XG21-4
5. For Stop Log Groove detail see Sheet XG21-4
6. Place 5/8" Eye Bolts above pumps for Lifting.



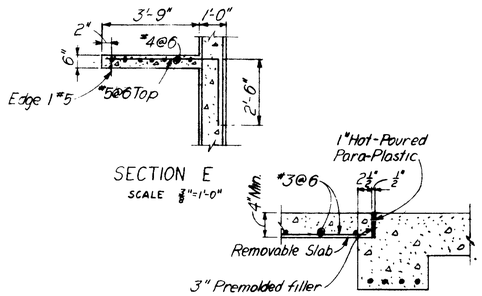
DETAIL OF RAILING SLEEVE
NO SCALE



TYPICAL STAIR DETAIL
SCALE 1"=1'-0"



DETAIL OF SUMP
SCALE 3/8"= 1'-0"



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

DETAIL A
SCALE 1"=1'-0"

CITY OF TAMPA, FLORIDA
SEWAGE DISPOSAL SYSTEM

DIVISION XG23- KNIGHTS AVENUE PUMPING STATION

STRUCTURAL

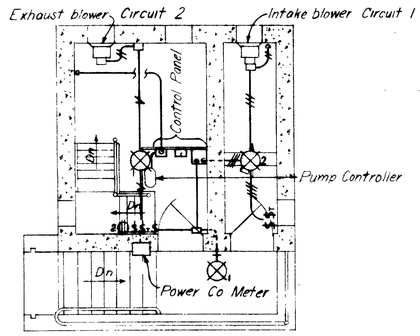
DES. J.G.Q.
DR. R.N.K.
CKD. J.G.Q.
DATE: JULY 1955

SCALE 8Ft. 1/4"=1'-0" 4Ft. 3/8"=1'-0" 2Ft. 1"=1'-0"

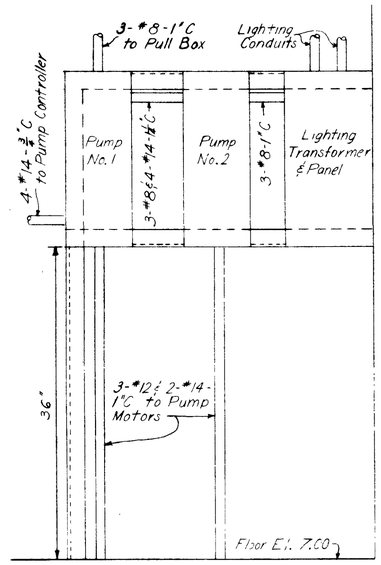
SHEET XG23-9 OF 15

GREELEY AND HANSEN
ENGINEERS
CHICAGO, ILL.

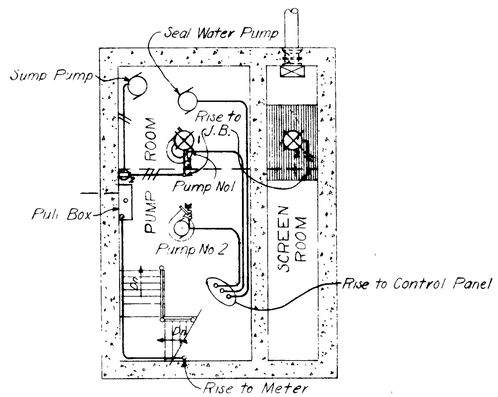
63-9



PLAN EL +14.5
SCALE $\frac{1}{4}$"= 1'-0"



POWER CONTROL PANEL
ELEVATION
NOT TO SCALE



PLAN EL +6.00
SCALE $\frac{1}{4}$"= 1'-0"

CIRCUIT SCHEDULE

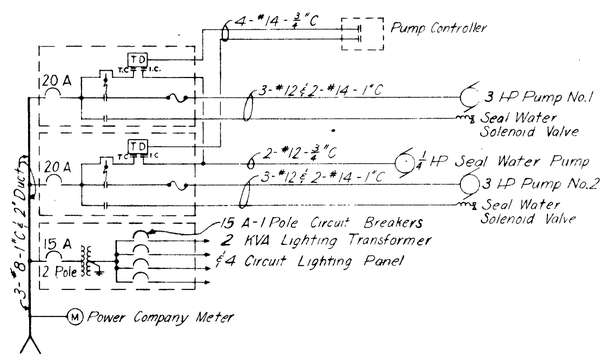
CRCT NO	LOCATION	FLOOR EL	MTG HGT	FIXTURE TYPE	LIGHTS MOTORS	REC	TOTAL WATTS	REMARKS
1	Pump Room-Entry	7.00	Clg.	B-1	1-200	—		Switched together
	Pump Room	-0.25	Clg.	B-1	1-200	—		
	Entrance	6.50	7'-9"	H-1	1-100	—		Outside light
	Screen Room	5.67	——	——	1-⅛ HP	—	810	Intake fan
2	Screen Room Entry	7.00	Clg.	B-2	1-200	—		
	Screen Room	5.67	Clg.	B-2	1-200	—		
	Pump Room	-0.25	——	——	1-⅛ HP	—		Exhaust fan
	Pump Room	-0.25	3'-6"	——	——	2	950	
3	Pump Room	-0.25	——	——	1-¼ HP	—	440	Sump Pump
	Circuit 4 - Spare							

Total Watts 2200

LEGEND

- 15 A — Trip rating in amperes
- Air Circuit Breaker
- Contact (Normally Open)
- Manual-Off-Automatic Switch
- Operating Coil
- Thermal Overload Element
- TD — Time Delay Relay
- TC. — Time close contact
- IC. — Instantaneous close contact
- Induction motor
- Solenoid Valve
- Transformer
- Ground Connection
- Ceiling type lighting fixture
- Bracket type lighting fixture
- Exposed conduit
- Concealed conduit
- Cross lines indicate number of #12 wires in conduit
- Junction box
- Single pole, single throw switch
- Switch with thermal overload
- 2 pole receptacle

NOTE: All equipment in Screen Room area to be explosion proof (Suitable for use in Class I, Group D atmospheres.) All conduits & fittings in Screen Room area to be aluminum.



Incoming Line from Power Company pole.

POWER LINE DIAGRAM
POWER CONTROL PANEL
220 VOLTS, 3 PHASE, 60 CYCLE
NOT TO SCALE

LIGHTING FIXTURE SCHEDULE

TYPE	NO. OF UNITS	DESCRIPTION
B-1	2	Benjamin "Turnlox" ceiling fixture for 200 W lamp with RLM dome reflector - Catalog No. 9643
B-2	2	Benjamin explosion-proof ceiling fixture for 200W medium base lamp with dome reflector, without guard & tapped for ¾" conduit - Catalog No. 7573 CX
H-1	1	Holophane outdoor bracket fixture for 100 W lamp with asymmetric light distribution along the mounting surface - Catalog No. 415

GREELEY AND HANSEN
ENGINEERS
CHICAGO, ILL.

CITY OF TAMPA, FLORIDA
SEWAGE DISPOSAL SYSTEM

DIVISION XG23 KNIGHTS AVENUE PUMPING STATION

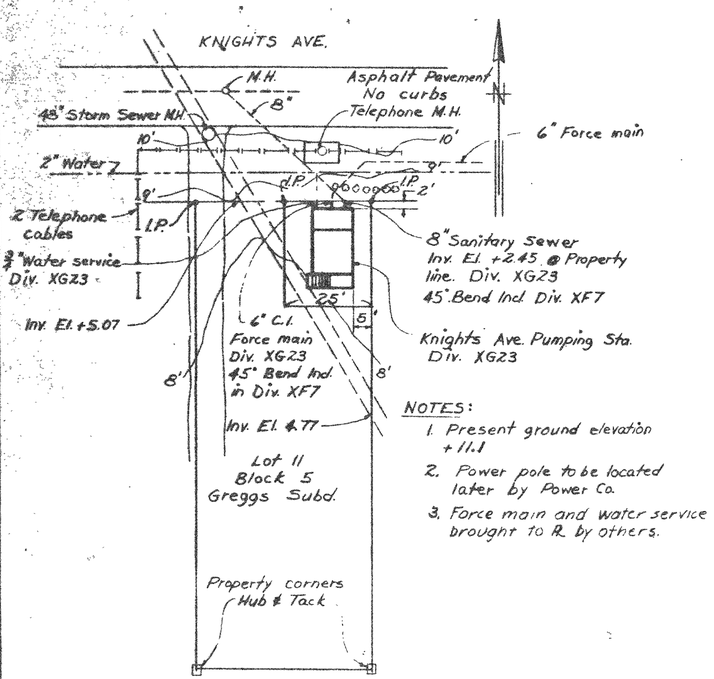
ELECTRICAL

DES. H. A. B.
DR. L. C. C.
CKD. C. D. L.
DATE: JULY 1955

SCALE 8 Ft 4 0 4 8 Ft 1"=1'-0"

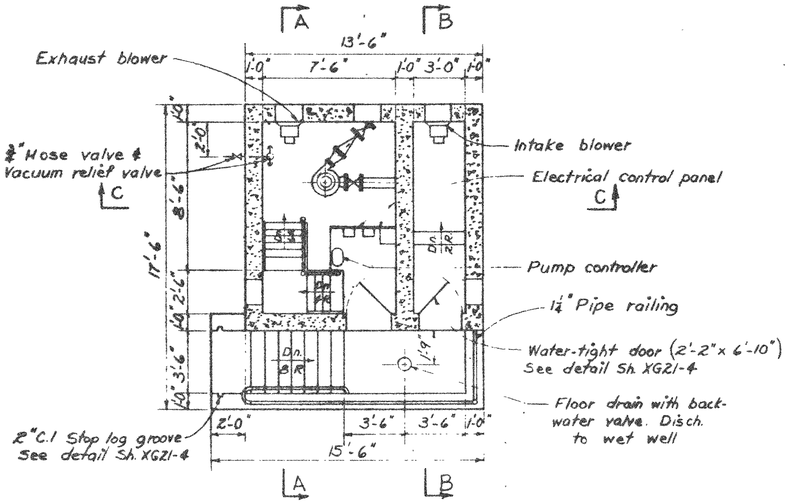
SHEET XG23-10 OF 15

83-10

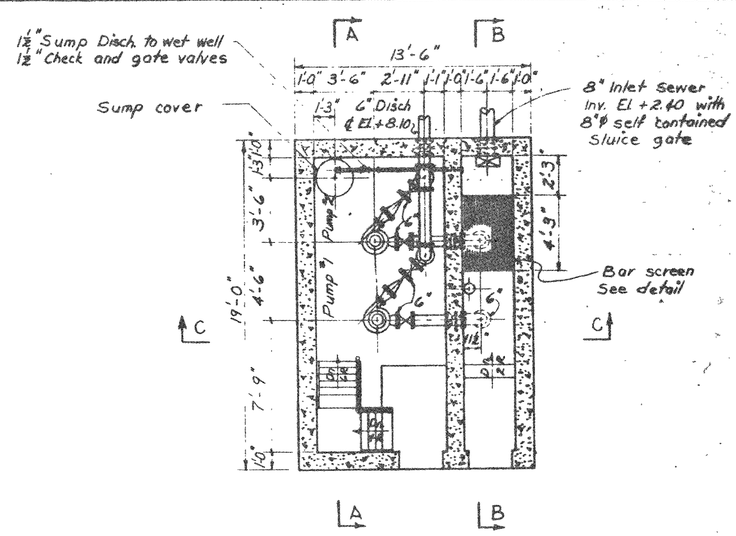


LOCATION PLAN
SCALE 1"= 20'

NOTES:
1. Present ground elevation +11.1
2. Power pole to be located later by Power Co.
3. Force main and water service brought to R. by others.

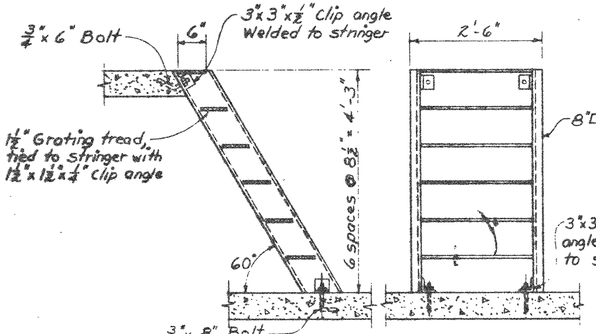


PLAN EL. +14.50
SCALE ¼"= 1'-0"

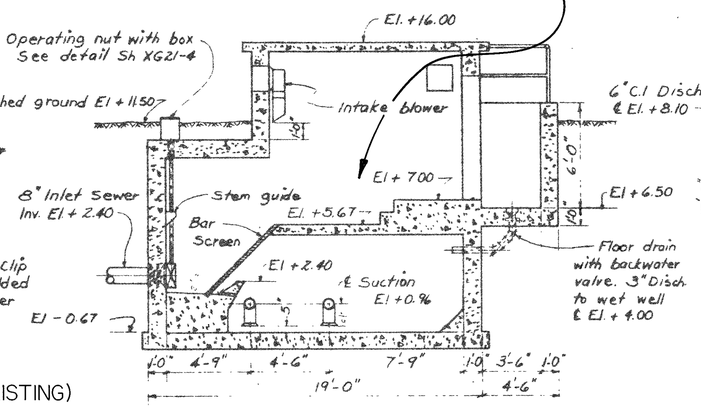


PLAN EL. +8.00
SCALE ¼" 1'-0"

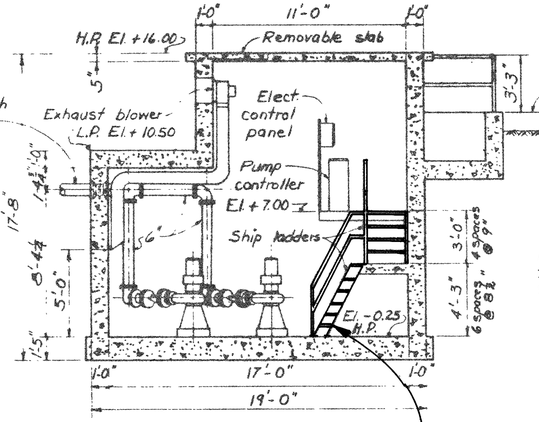
WET WELL HAS NO SHIP LADDER.
NO WORK REQUIRED IN WET WELL.



TYPICAL SHIP LADDER DETAIL (EXISTING)
SCALE ¾"= 1'-0"

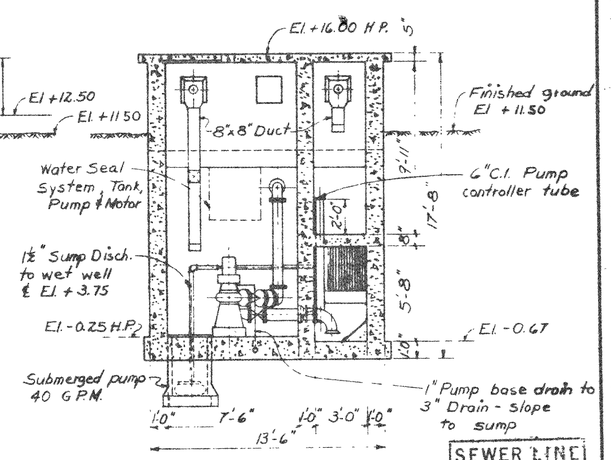


SECTION B-B
SCALE ¼"=1'-0"



SECTION A-A
SCALE ¼"=1'-0"

EXISTING STEEL SHIP LADDER AND HANDRAIL SHALL BE PREPARED AND REPAINTED AS SPECIFIED. (HANDRAIL IS GALVANIZED STEEL)



SECTION C-C
SCALE ¼"=1'-0"

SEWER LINE LOCATION

SEC. MAP No.	LINE No.
L-10	19

CITY OF TAMPA, FLORIDA
SEWAGE DISPOSAL SYSTEM
KNIGHTS AVENUE PUMPING STATION

EQUIPMENT

APPROVED BY
RALPH L. METCALF, II, P.E.
DIRECTOR
DEPARTMENT of SANITARY SEWERS

HENRY L. DORZBACK, P.E. # 39449
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

DES.
DR.
CKD. A.H.
DATE: 11/82

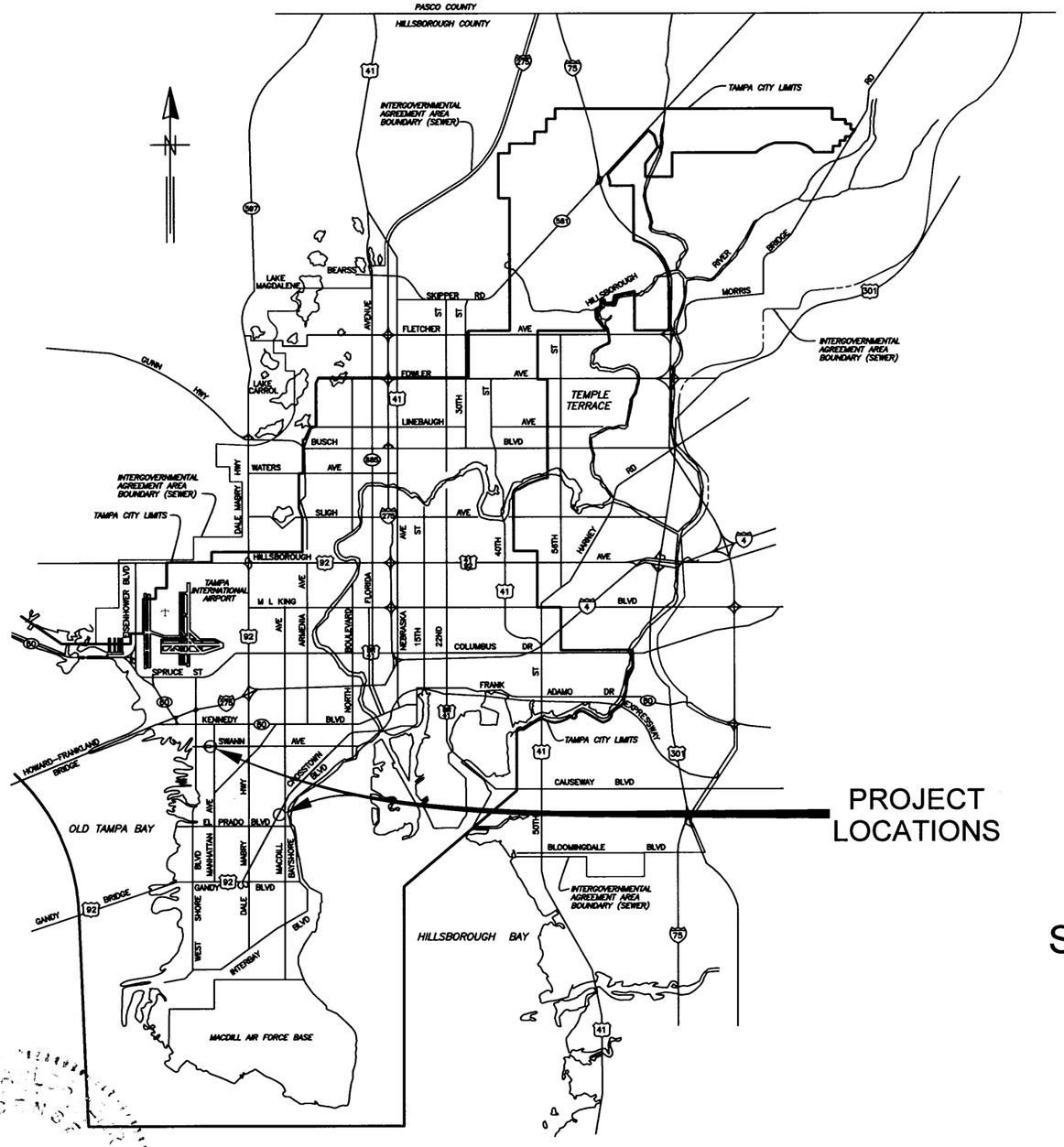
SCALE
1"=1'-0"
½"=1'-0"
1"= 20'

SHEET 5 OF 6

83-82

B068-075

LOCATION MAP



PROJECT LOCATIONS

CITY of TAMPA

CITY OF TAMPA FLORIDA
MASCOTTE
ORGANIZED JULY 15 1887

WASTEWATER DEPARTMENT

PLANS FOR

SWANN AVE AND KNIGHTS AVE PUMP STATION REHABILITATION

FLORIDA REGISTERED PROFESSIONAL ENGINEER LICENSE No. 49454

6/11/10
Jacinto Carlos Ferras
JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: CB
DRN: GAP
CKD: JF
DATE: 6/11/10

CITY of TAMPA
WASTEWATER DEPARTMENT

COVER SHEET

W.O. 2109
SHEET 1 OF 12

User: SSH5 Drawing Name: K:\WW_Projects\2010-2109 Swann PS and Knights PS\5404-01-02.dwg
Layout- Jun 11, 2010 - 1:33pm CTB - WW.CTB

B068-076

GENERAL NOTES

G1) EXISTING DIMENSIONS ARE BASED ON THE BEST INFORMATION AVAILABLE. TRUE DIMENSIONS SHALL BE DETERMINED IN THE FIELD.

G2) SHOP DRAWINGS SHALL BE SUBMITTED AND APPROVED BY THE CITY FOR ALL PROPOSED ITEMS. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE ORIGINALS OR HIGH QUALITY COPIES (EASILY READABLE). NO FAXED SHEETS OR POOR QUALITY COPIES WILL BE ACCEPTED FOR SUBMITTAL REVIEW.

G3) ALL HARDWARE, UNLESS OTHERWISE NOTED, SHALL BE 316 STAINLESS STEEL.

G4) OSHA STANDARD SAFETY EQUIPMENT SUCH AS SAFETY HARNESSES, GAS MONITORS, LOWER EXPOLOSIVE LIMIT (LEL) DETECTORS, BREATHING APPARATUS, ETC. SHALL BE UTILIZED WHERE THE WORK DICTATES THEIR USE.

G5) THE CONTRACTOR SHALL PROTECT ALL TREES IN THE VICINITY OF THE PROPOSED CONSTRUCTION IN ACCORDANCE WITH CHAPTER 13 OF THE CITY OF TAMPA CODE. NO TREES SHALL BE PRUNED WITHOUT PRIOR APPROVAL FROM THE CITY OF TAMPA PARKS AND RECREATION DEPARTMENT, CONTACT BRUCE LUCAS 813-274-5155 NATURAL RESOURCE DIVISION, AND SHALL BE COMPLETED BY A CERTIFIED ARBORIST.

G6) ALL METAL PIPE, FITTINGS, SUPPORTS, VALVES, ETC SHALL RECEIVE:
A) SHOP COAT – ONE COAT, 3 MILS (DRY), TNEMEC N140 -1211 EPOXY PRIMER (RED OXIDE IN COLOR).
B) FIELD COAT – TWO COATS, 10 MILS, (DRY) EACH TNEMEC HI-BUILD TNEMEC-TAR 46H-413 (BLACK IN COLOR)

G7) SALVAGEABLE MATERIAL AS DETERMINED BY DEPARTMENT PERSONNEL SHALL BE DELIVERED TO THE CITY OF TAMPA'S HOWARD F. CURREN AWTP AT 2700 MARITIME BLVD. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR AS DIRECTED BY TREATMENT PLANT PERSONNEL.

G8) CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH WASTEWATER PERSONNEL AND PUMPING STATION OPERATIONS. UPON THE CITY'S NOTICE TO PROCEED, CONTRACTOR SHALL CONTACT JOHN HASTINGS AT (813) 299-9049 TO SCHEDULE A PRECONSTRUCTION MEETING

INDEX

SHEET	Sheet Title
1	COVER SHEET
2	INDEX AND GENERAL NOTES
3	SWANN AVE PUMP STATION PROJECT MAP AND NOTES
4	SWANN AVE PUMP STATION SITE PLAN AND BYPASS PLAN
5	SWANN AVE PUMP STATION DEMOLITION PLAN
6	SWANN AVE PUMP STATION PROPOSED PLAN
7	SWANN AVE PUMP STATION PROPOSED SECTION DETAILS
8	SWANN AVE PUMP STATION MISCELLANEOUS DETAILS
9	KNIGHTS AVE PUMP STATION PROJECT MAP AND NOTES
10	KNIGHTS AVE PUMP STATION DEMOLITION PLAN AND SECTION
11	KNIGHTS AVE PUMP STATION PROPOSED PLAN AND SECTION
12	KNIGHTS AVE PUMP STATION MISCELLANEOUS DETAILS

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

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DRN: GAP
CKD: JF
DATE: 6/11/10

CITY of TAMPA
WASTEWATER DEPARTMENT

INDEX AND GENERAL NOTES

W.O. 2109
SHEET 2 OF 12

User: SSH5 Drawing Name: K:\WW_Projects\2010-2109 Swann PS and Knights PS\5404-01-02.dwg
Layout- Jun 11, 2010 - 1:33pm CTB - WW.CTB

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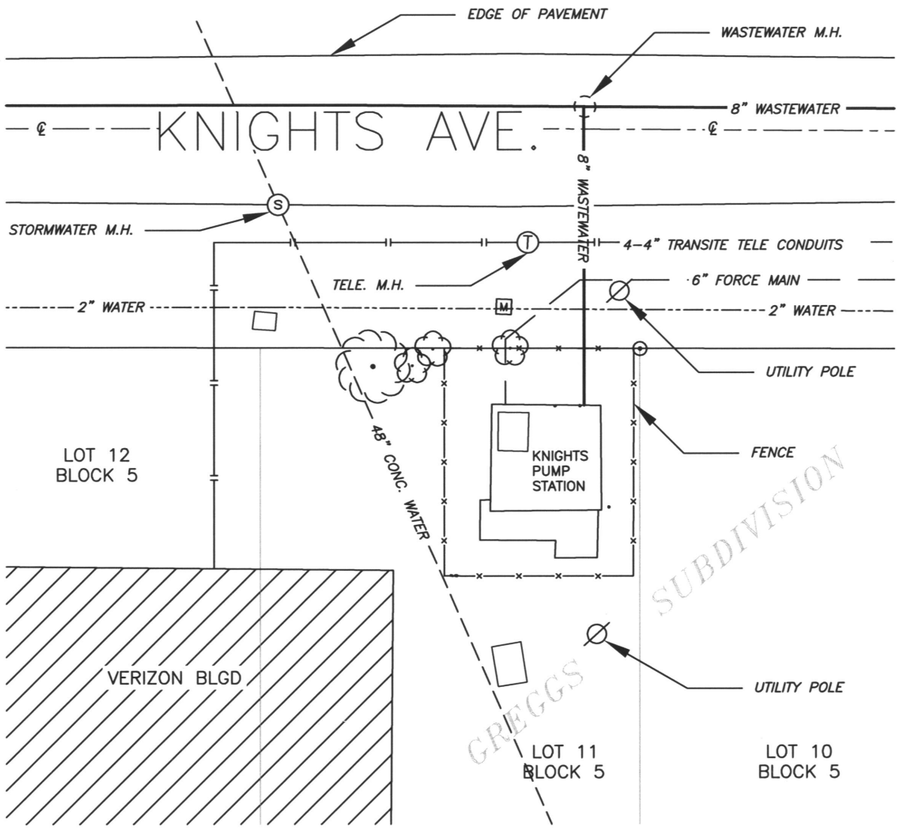
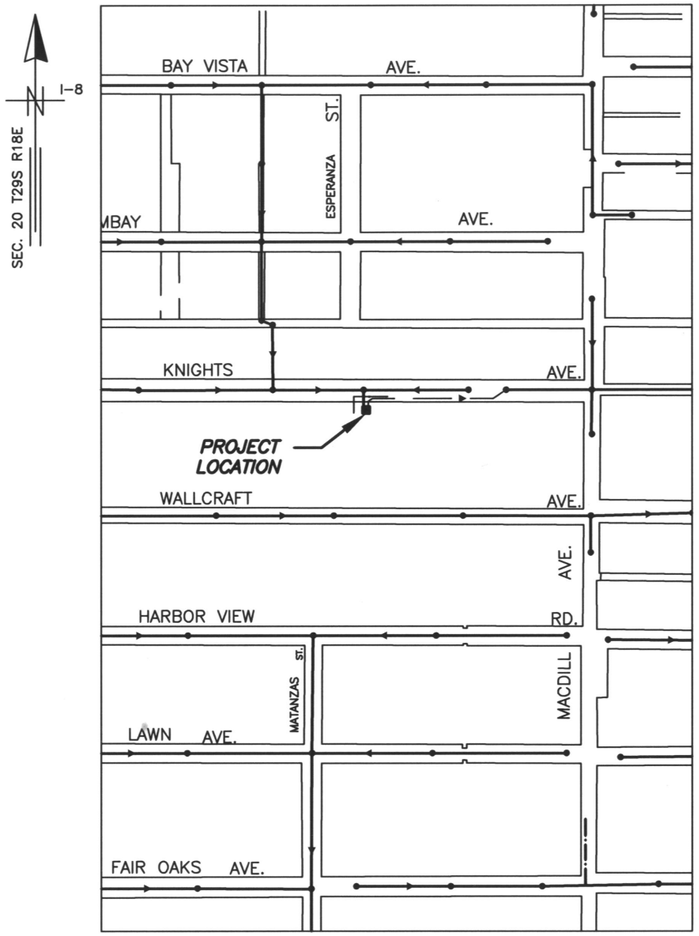


KNIGHTS AVE PUMP STATION
SITE PLAN
NOT TO SCALE
(NO NEW WORK SHOWN IN THIS SITE PLAN)



KNIGHTS AVE PUMP STATION
PROJECT MAP
NOT TO SCALE

KNIGHTS PS NOTES

K1) ALL AIR DUCT PIPING SHALL BE PVC SCHEDULE 40 ASTM D 2665.

K2) SKYLIGHT SHALL BE DOUBLE-GLAZED WITH A POLYCARBONATE INTERIOR AND EXTERIOR GLAZING SUPPORTED BY AN ALUMINUM FRAME. SKYLIGHT SHALL BE THE DADE SELF FLASHING MODEL AS MANUFACTURED BY MAXIM SKYLIGHTS OR APPROVED EQUAL. (SEE DETAIL SHEET 12)

K3) ALUMINUM ACCESS COVER SHALL BE U.S. FOUNDRY OR APPROVED EQUAL. ACCESS COVER SHALL HAVE STAINLESS STEEL HARDWARE AND SHALL BE RATED FOR A LIVE LOAD OF 300 PSF. THE ALUMINUM ACCESS COVER SHALL CLOSE FLUSH WITH THE FRAME WITH RECESSED STAINLESS STEEL BOLTS FOR SECURING THE COVER IN THE CLOSED POSITION AND SHALL REST ON A BUILT IN NEOPRENE GASKET. ALL ALUMINUM SURFACES THAT CONTACT CONCRETE SHALL BE COATED WITH TWO COATS OF COAL TAR EPOXY. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE INSTALLATION AND CONFIGURATION OF THE ACCESS COVERS. (SEE DETAIL SHEET 12)

GREGGS SUBDIVISION

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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1		

DES: CB
DRN: GAP
CKD: JF
DATE: 6/11/10

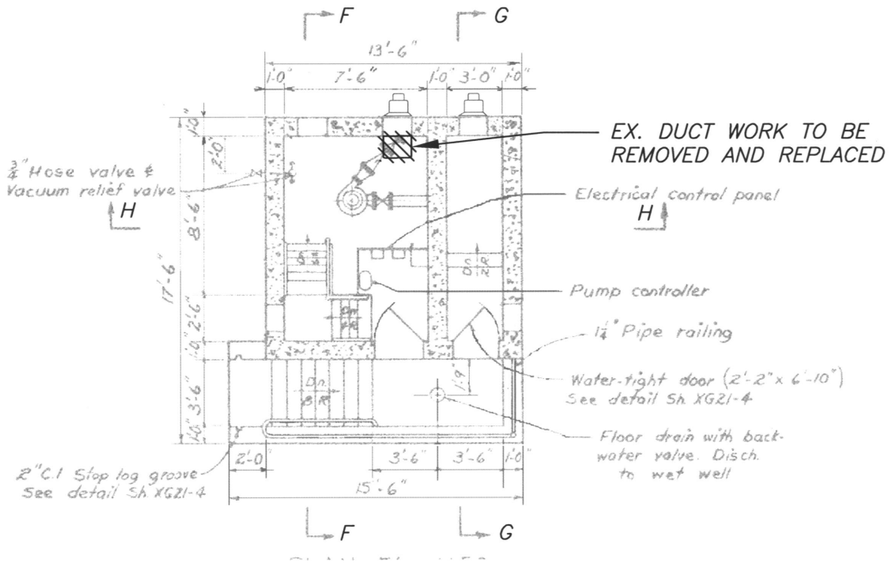
CITY of TAMPA
WASTEWATER DEPARTMENT

KNIGHTS AVE PUMP STATION
PROJECT MAP AND NOTES

W.O. 2109
SHEET 9
OF 12

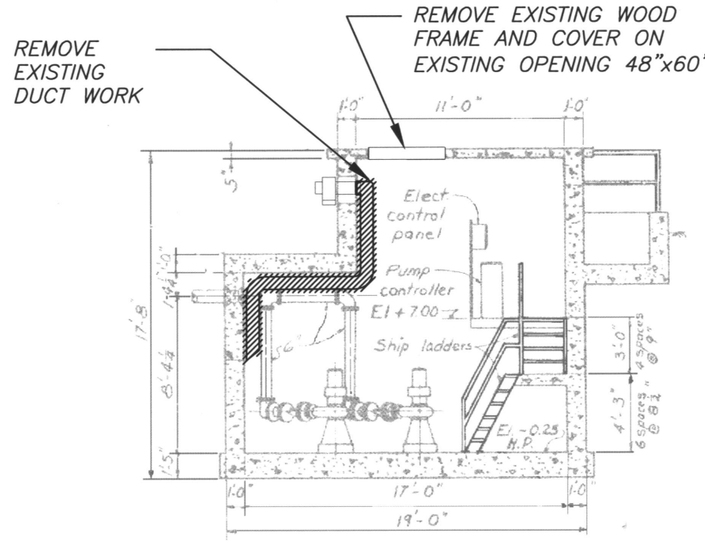
User: SSH5 Drawing Name: K:\WW_Projects\2010-2109 Swann PS and Knights PS\5404-01-02.dwg
Layout- Jun 11, 2010 - 1:33pm CTB - WW.CTB

B068-084



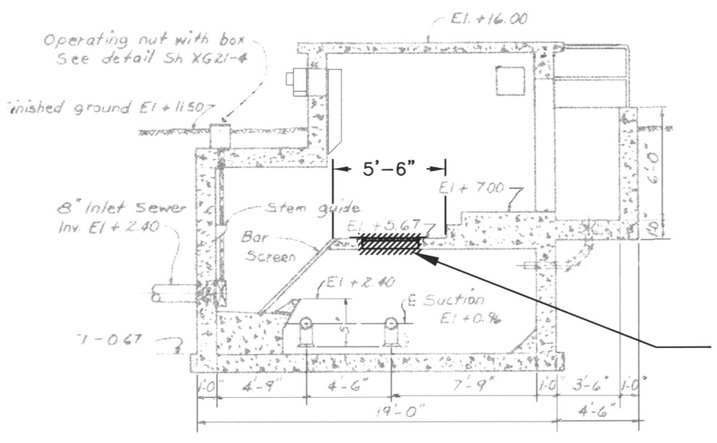
DEMOLITION PLAN

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



DEMOLITION SECTION "F"

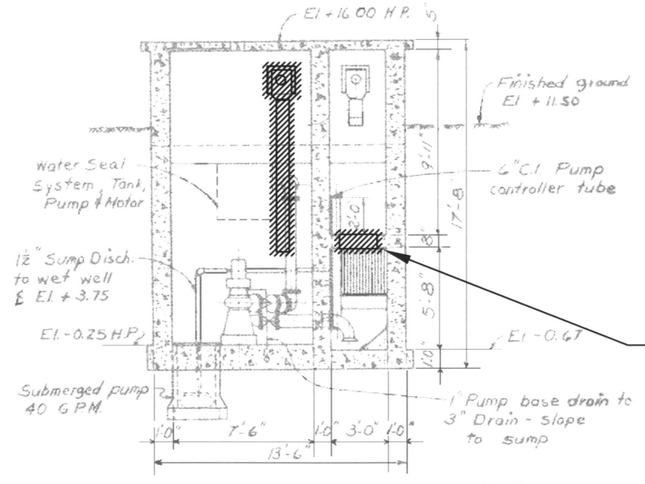
NOT TO SCALE



SAW CUT OPENING IN EXISTING CONCRETE SLAB 24"x36" FOR PROPOSED ALUMINUM ACCESS COVER

DEMOLITION SECTION "G"

NOT TO SCALE



SAW CUT OPENING IN EXISTING CONCRETE SLAB 24"x36" FOR PROPOSED ALUMINUM ACCESS COVER

DEMOLITION SECTION "H"

NOT TO SCALE

User: SSH5 Drawing Name: K:\WW_Projects\2010-2109 Swann PS and Knights PS\5404-01-02.dwg
Layout- Jun 11, 2010 - 1:33pm CTB - WW.CTB

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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1		

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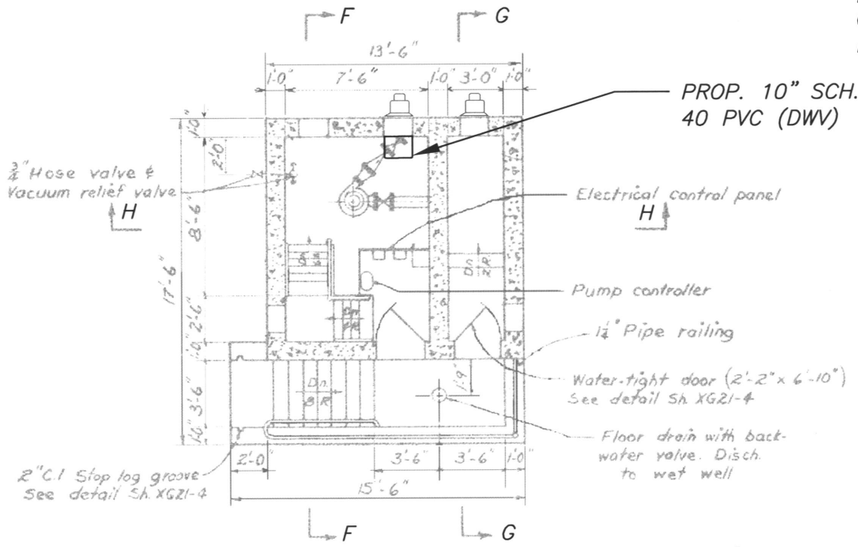
DRN: GAP
CKD: JF
DATE: 6/11/10

CITY of TAMPA
WASTEWATER DEPARTMENT

KNIGHTS AVE PUMP STATION DEMOLITION PLAN AND SECTION

W.O. 2109
SHEET 10 OF 12

B068-085



PROPOSED PLAN
NOT TO SCALE

CONNECT PROP. 10" PVC (DWV) TO EXTERIOR ALUM. OR S.S. DUCT, SEAL OPENING IN THE WALL WITH DUCT MATERIAL. (SEE DETAIL SHT 12)

EXISTING EXHAUST BLOWER

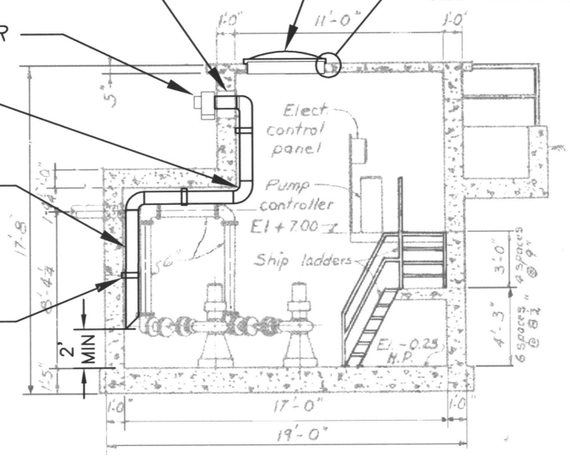
PROP. 90° ELBOW SCH 40 PVC (TYP)

PROP. 10" PVC VENT DUCT WORK

PROP. 316 SS PIPE SUPPORT (MIN 1 SUPPORT PER 10' OF PIPE)

PROPOSED SKYLIGHT EXISTING 48"x60" (SEE NOTE K2 SHEET 9)

SEE DETAIL SHT 12 (TYP)



PROPOSED SECTION "F–F"
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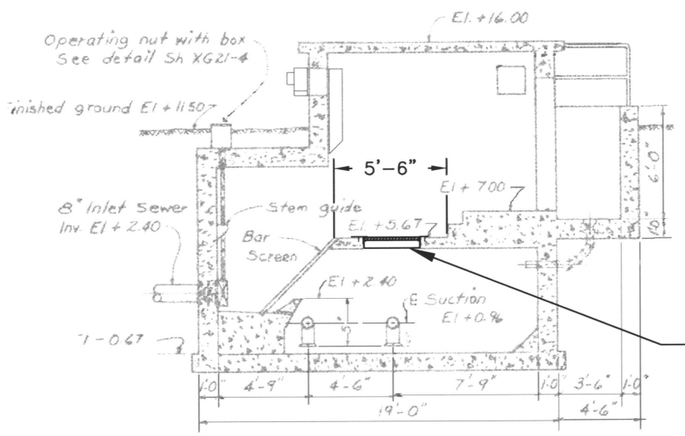
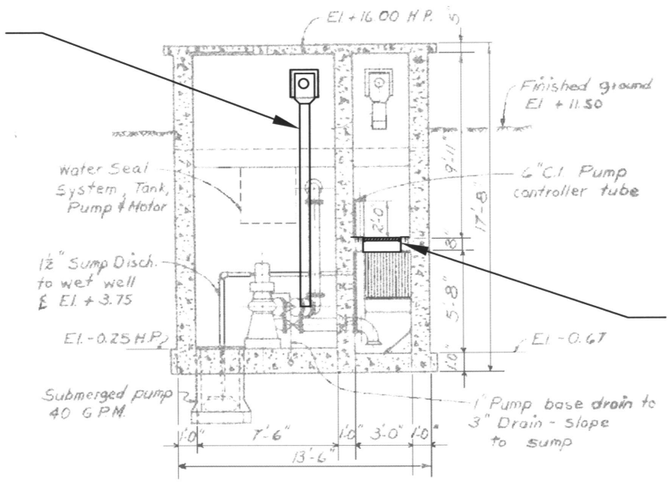


PROP. 24"X36" ALUMINUM ACCESS COVER FLUSH WITH SLAB (SEE NOTE K3 SHT 9)

PROPOSED SECTION "G–G"
NOT TO SCALE

PROP. 10" SCH 40 PVC (VENTILATION DUCT)



PROP. ALUMINUM ACCESS COVER FLUSH WITH SLAB (SEE NOTE K3 SHT 9)

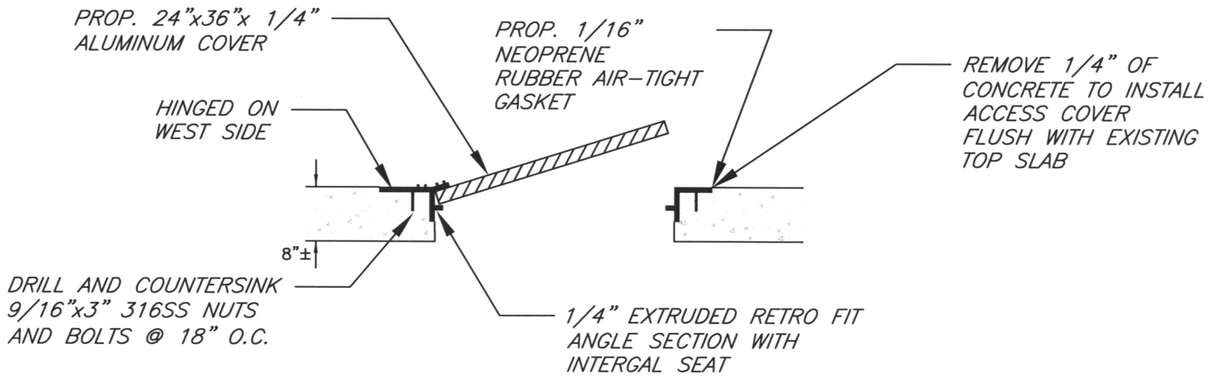
PROPOSED SECTION "H–H"
NOT TO SCALE

	No.	DATE	REVISIONS			
JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	3			DES: CB DRN: GAP CKD: JF DATE: 6/11/10	CITY of TAMPA WASTEWATER DEPARTMENT	KNIGHTS AVE PUMP STATION PROPOSED PLAN AND SECTION
	2					
	1					

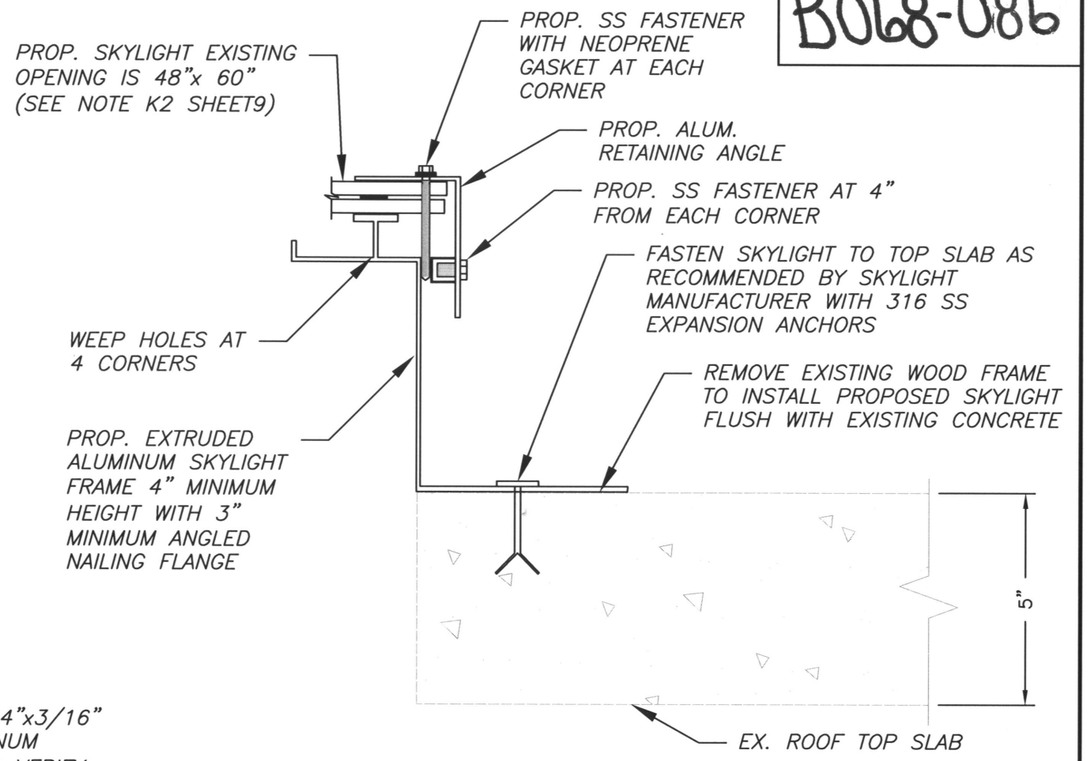
W.O. 2109
SHEET 11
OF 12

User: SSH5 Drawing Name: K:\WW_Projects\2010-2109 Swann PS and Knights PS\5404-01-02.dwg
Layout- Jun 11, 2010 - 1:33pm CTB - WW.CTB

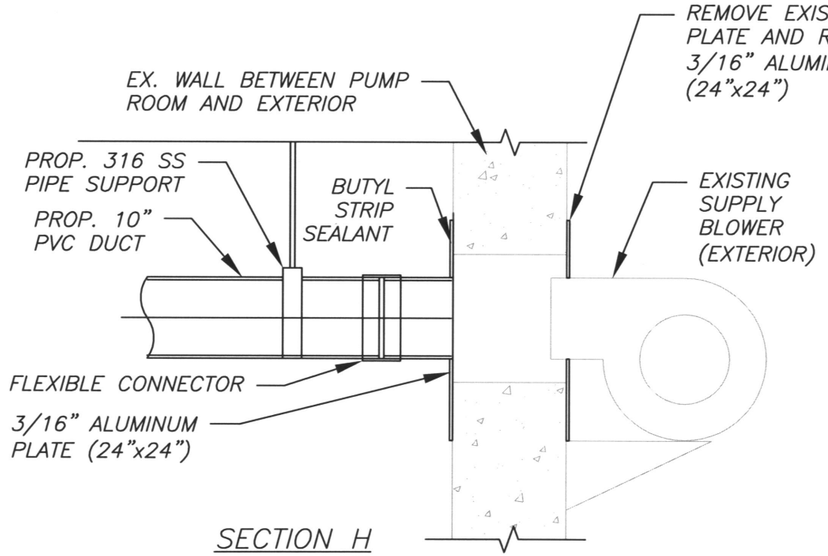
B068-086



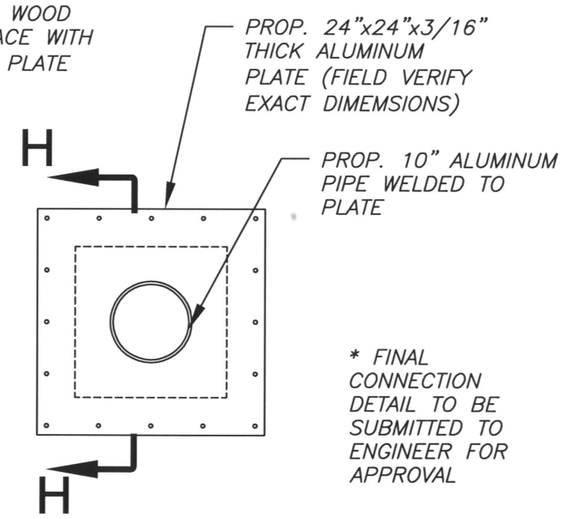
ALUMINUM ACCESS COVER DETAIL
NOT TO SCALE



SKYLIGHT DETAIL
NOT TO SCALE



SECTION H
NOT TO SCALE



DUCT CONNECTION TO CONCRETE DETAIL
NOT TO SCALE

SKYLIGHT NOTES:

1. SKYLIGHT DETAIL IS NOT INTENDED TO REFLECT ALL DETAILS OF THE SKYLIGHT INSTALLATION. INSTALLATION OF THE SKYLIGHT SHALL BE DONE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION. DETAILS OF INSTALLATION SHALL BE SUBMITTED AND APPROVED BY ENGINEER BEFORE FABRICATION OF THE SKYLIGHTS.
2. SKYLIGHTS SHALL BE REMOVABLE ONLY BY REMOVING EXTERIOR FASTENERS.
3. SKYLIGHTS SHALL BE EQUIPPED WITH 4 3/8" (MIN.) STAINLESS STEEL (316) EYEBOLTS FOR LIFTING. PLACEMENT OF EYEBOLTS SHALL BE SHOWN ON SHOP DRAWINGS.

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

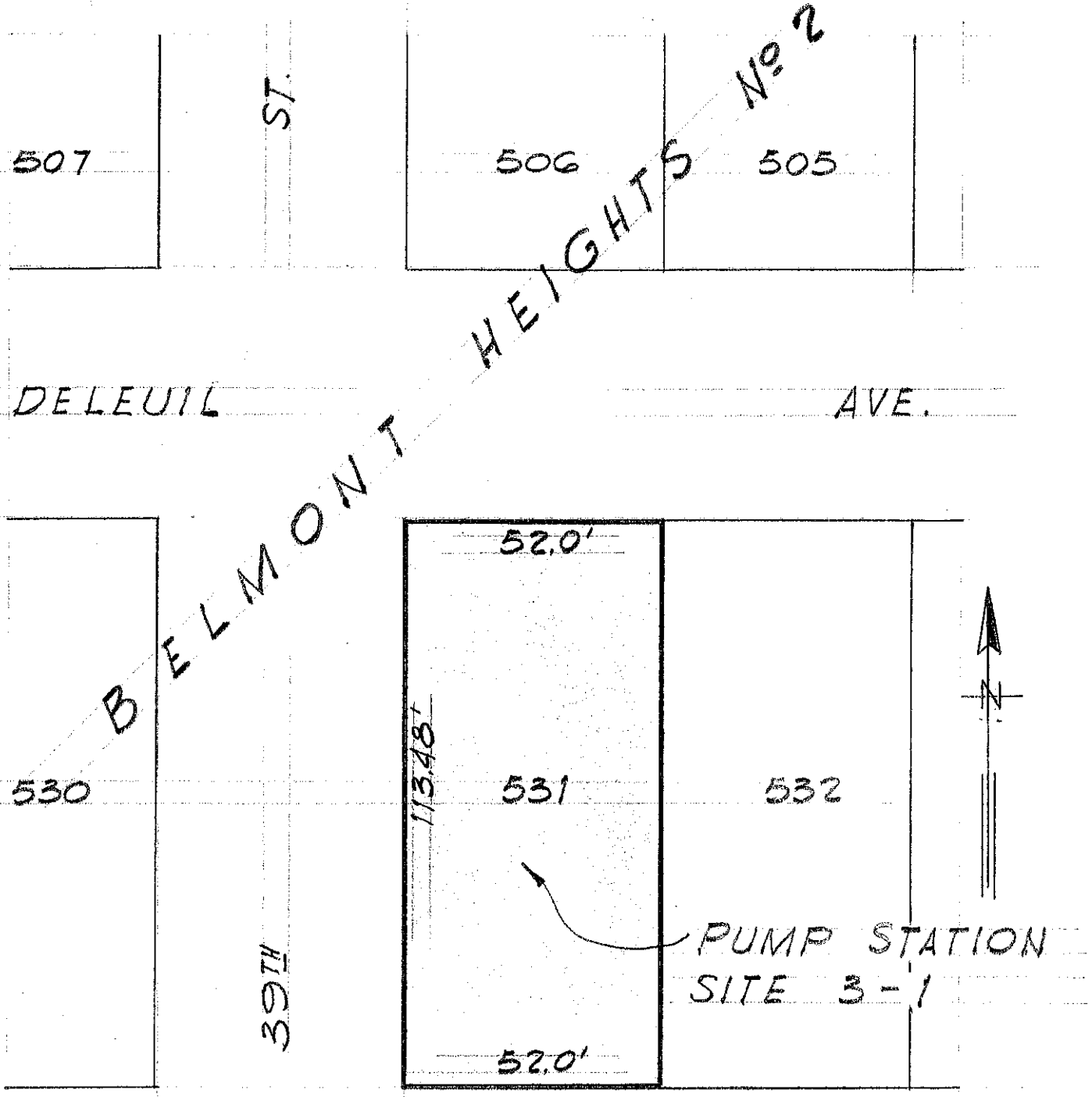
DES: CB
DRN: GAP
CKD: JF
DATE: 6/11/10

CITY of TAMPA
WASTEWATER DEPARTMENT

KNIGHTS AVE PUMP STATION
MISCELLANEOUS DETAILS

W.O. 2109
SHEET 12
OF 12

User: SSH5 Drawing Name: K:\WW_Projects\2010-2109 Swann PS and Knights PS\5404-01-02.dwg
Layout- Jun 11, 2010 - 1:33pm CTB - WW.CTB



CITY OF TAMPA, FLA.
BUREAU OF SAN. SEWERS
PUMP STATION REQUEST 3-1

DELEUIL AVENUE PUMPING STATION

DR: ECA	SCALE	DWG. NO.
AUG., 61	1" = 30'	PSR 3-1

A-10
P.B. 10-12
S 33, T 28 S, R 19 E.

SEC. INDEX
NO. E-15

357-011

CITY OF TAMPA, FLORIDA

THIRD SEWER REVENUE BOND PROGRAM

AS-BUILT PLANS

FOR THE CONSTRUCTION OF

SEWAGE DISPOSAL SYSTEM

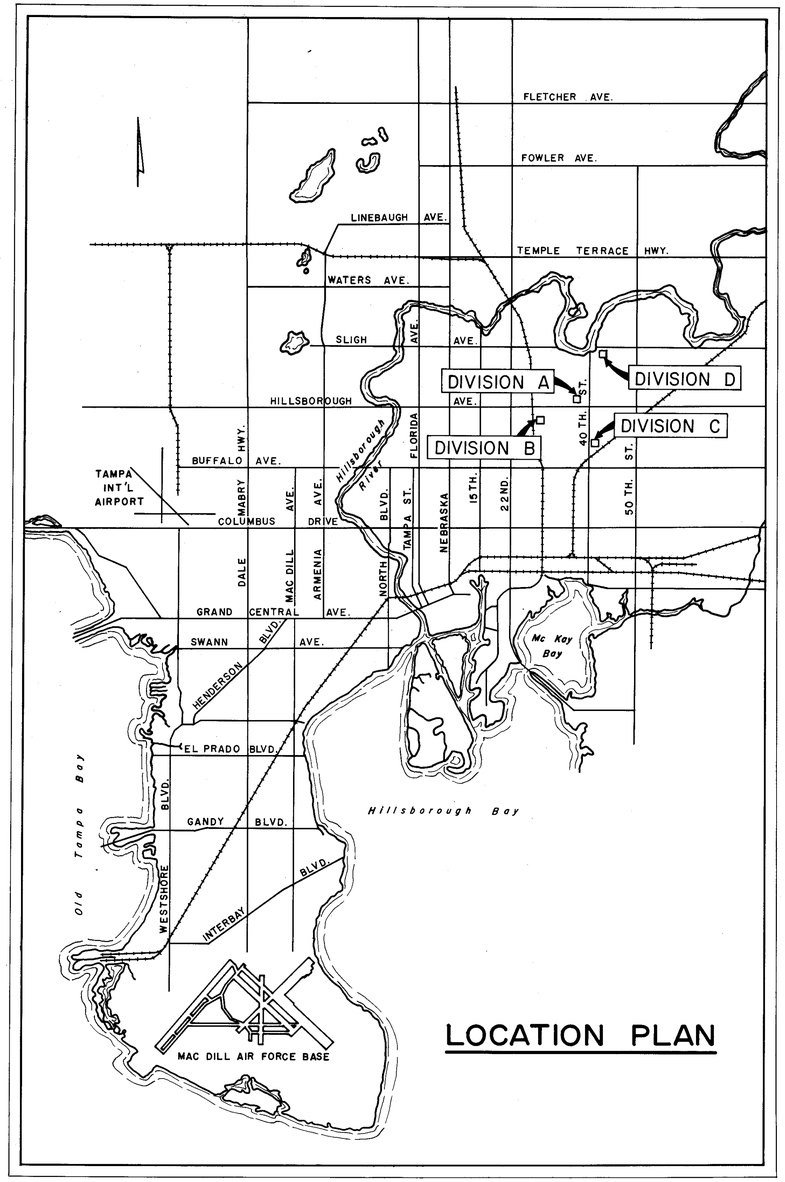
SUB-DISTRICT A-10

PROJECT 3

DIVISION A – DELEUIL AVENUE PUMPING STATION
DIVISION B – Mc BERRY AVENUE PUMPING STATION
DIVISION C – 42ND. STREET PUMPING STATION
DIVISION D – 43RD. STREET PUMPING STATION

J. E. GREINER COMPANY
Consulting Engineers
Tampa, Florida

WIEDEMAN AND SINGLETON, ENGINEERS
Associate Engineers
Atlanta, Georgia



LOCATION PLAN

INDEX

DIV.	SH. NO.	TITLE
		GENERAL
A,B,C & D	1	INDEX SHEET
		DELEUIL AVENUE PUMPING STATION
A	87-2	EQUIPMENT-PLANS & SECTIONS
↑	3	EQUIPMENT-SECTIONS
↑	4	STRUCTURAL-PLANS & SECTIONS
↑	5	STRUCTURAL-SECTIONS
↑	6	ELECTRICAL-PLANS
A	7	ELECTRICAL-DETAILS
		McBERRY AVENUE PUMPING STATION
B	8	EQUIPMENT-PLANS & SECTIONS
↑	9	EQUIPMENT-SECTIONS
↑	10	STRUCTURAL-PLANS & SECTIONS
↑	11	STRUCTURAL-SECTIONS
↑	12	ELECTRICAL-PLANS
B	13	ELECTRICAL-DETAILS
		42ND. STREET PUMPING STATION
C	14	EQUIPMENT-PLANS
↑	15	EQUIPMENT-SECTIONS
↑	16	STRUCTURAL-PLANS & SECTIONS
↑	17	STRUCTURAL-SECTIONS
↑	18	ELECTRICAL-PLANS
C	19	ELECTRICAL-DETAILS
		43RD. STREET PUMPING STATION
D	20	LOCATION PLAN
↑	21	EQUIPMENT & ARCHITECTURAL-PLANS
↑	22	EQUIPMENT & ARCHITECTURAL-SECTIONS
↑	23	STRUCTURAL-PLANS & SECTIONS
↑	24	STRUCTURAL-SECTIONS
↑	25	ELECTRICAL-PLANS
D	26	ELECTRICAL-DETAILS

DIV.	SH. NO.	TITLE
A,B,C & D	27	MISCELLANEOUS DETAILS
A,B,C & D	28	MISCELLANEOUS DETAILS
A,B,C & D	29	MISCELLANEOUS DETAILS

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

J. E. GREINER COMPANY
CONSULTING ENGINEERS
BY George S. Jenkins
REGISTERED ENGINEER
STATE OF FLORIDA
CERTIFICATE No. 6858

WIEDEMAN AND SINGLETON, ENGINEERS
ASSOCIATE ENGINEERS
BY C. E. Drummond, Jr.
REGISTERED ENGINEER
STATE OF FLORIDA
CERTIFICATE No. 8983

APPROVED Earl Lamb Smith
SUPERINTENDENT — BUREAU OF SANITARY SEWERS

CONCURRED Roy R. Van Camp
SUPERINTENDENT — DEPARTMENT OF PUBLIC WORKS

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

INDEX SHEET

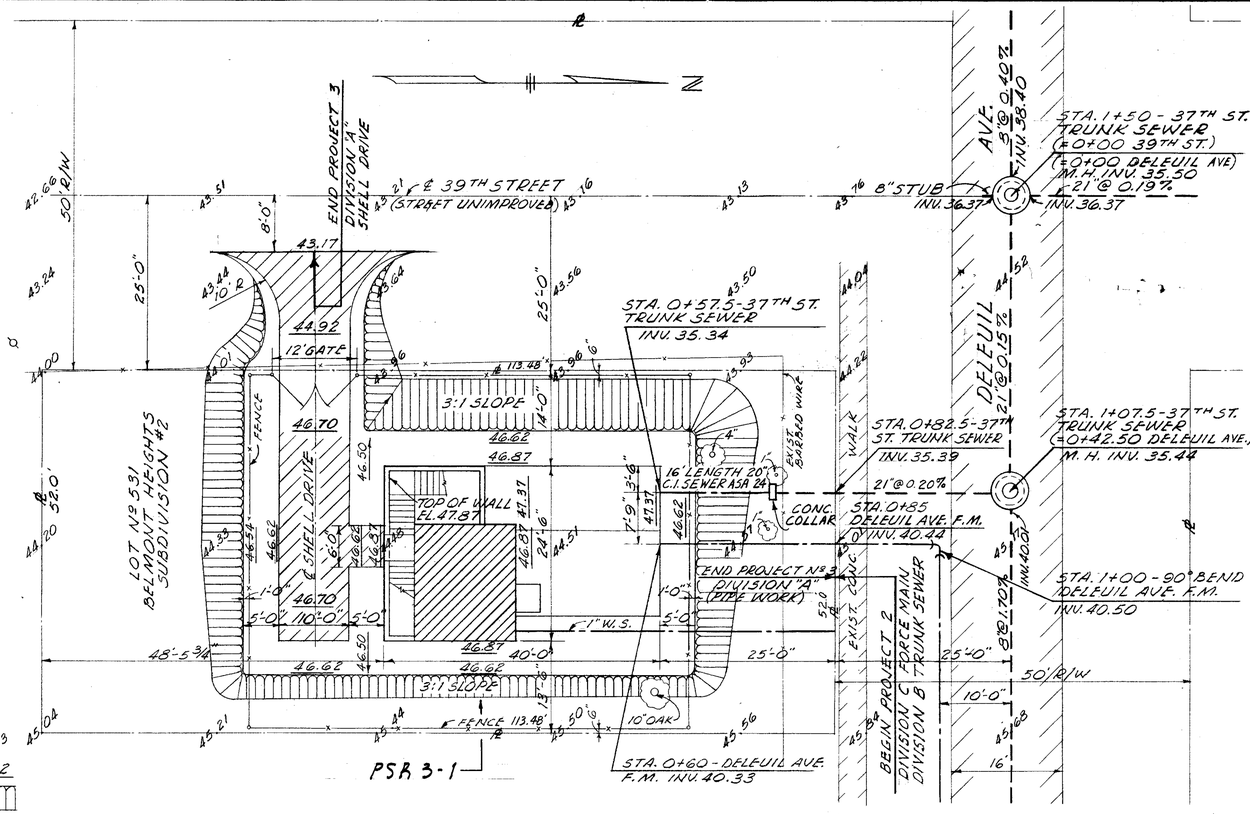
J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.R.
DRN. R.N.C.
CKD. H.N.R.
SCALE AS SHOWN
DATE JAN. 1962

PROJECT 3
DIVISIONS A,B,C&D
SUBDISTRICT A-10

SHEET 1 OF 29

87-1



LOCATION PLAN
DELEUIL AVE. PUMPING STATION
SCALE: 1"=10'

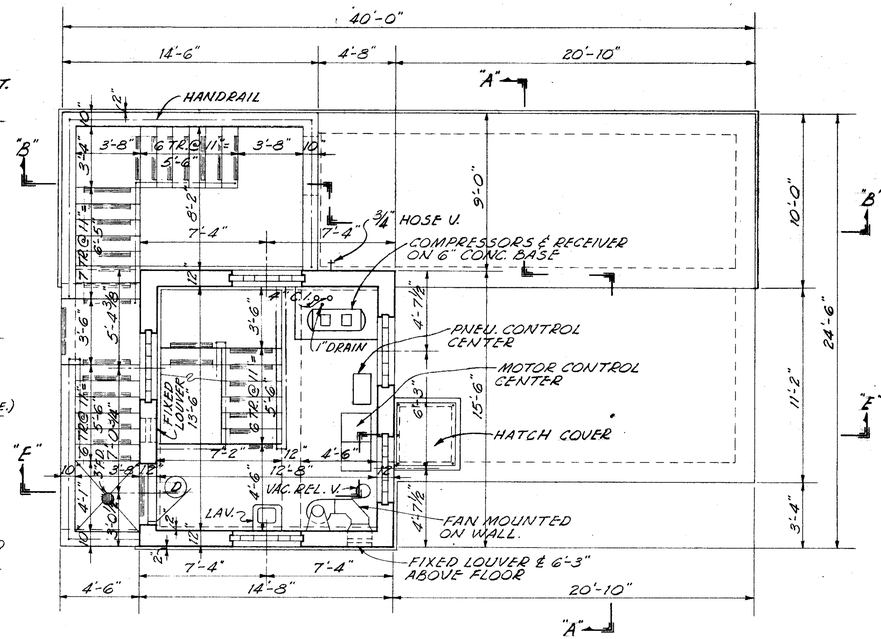
LEGEND

EXISTING ELEV. 43.13

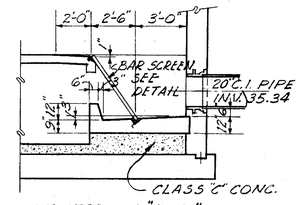
FINISHED GRADE 46.62

3:1 SLOPE (FILL)

GROUND TO SLOPE AWAY FROM STRUCTURE TOWARD NATURAL DRAINAGE.



ENTRANCE FLOOR PLAN
SCALE: 1/4"=1'-0"



SECTION "D-D"
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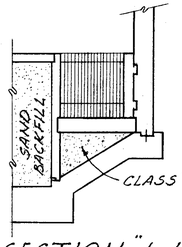

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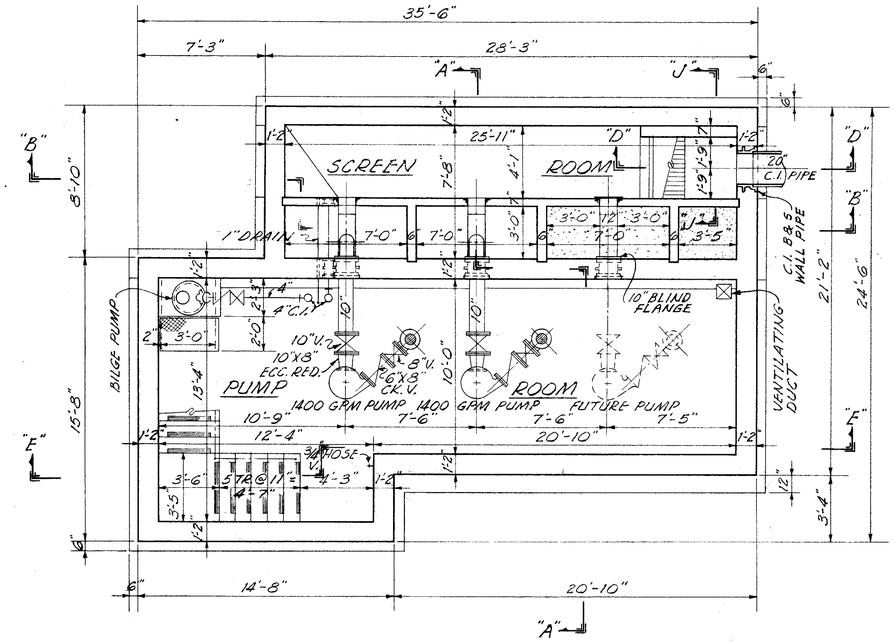
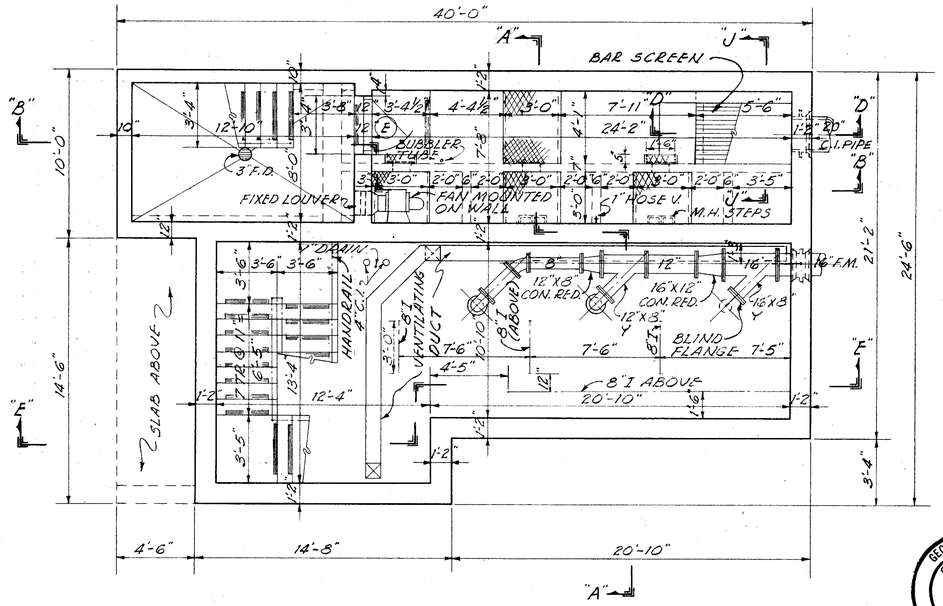


FOUNDATION PLAN
SCALE: 1/4"=1'-0"



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

D.E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

DELEUIL AVENUE PUMPING STATION
EQUIPMENT - PLANS & SECTIONS

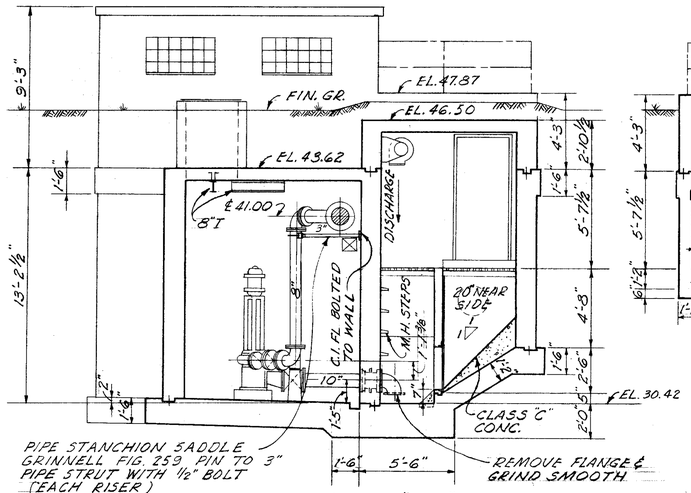
J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES. E.N.P.
DRN. E.N.C.
CKD. H.N.P.
SCALE AS SHOWN
DATE JAN. 1962

PROJECT 3
DIVISION A
SUBDISTRICT A-10

SHEET 2 of 29

8-7-2



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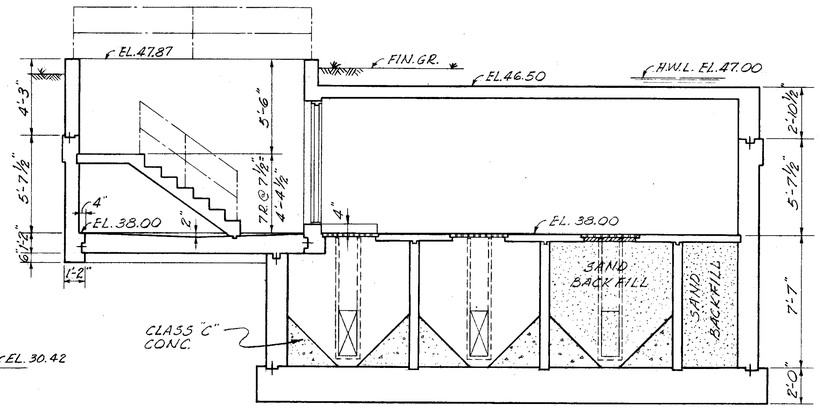
SCALE: ¼"=1'-0"



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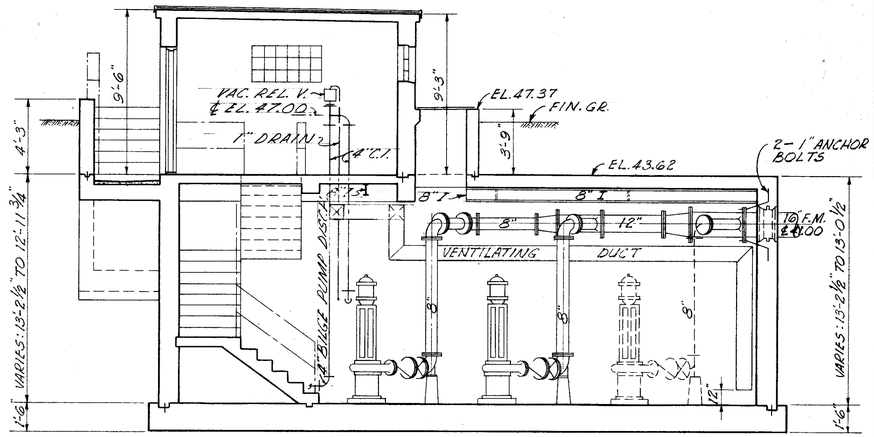

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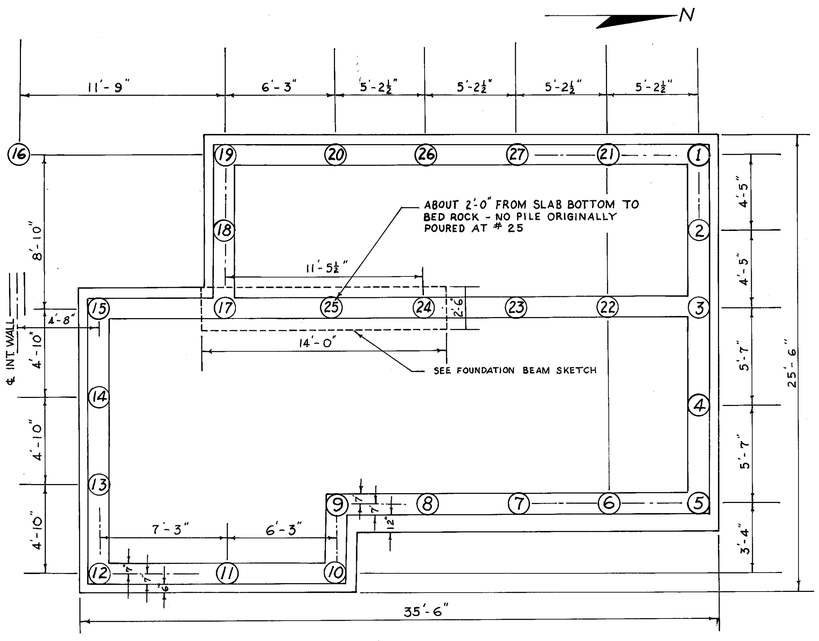
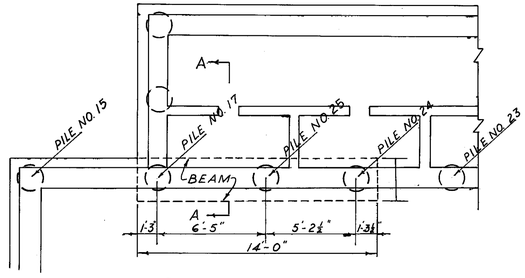
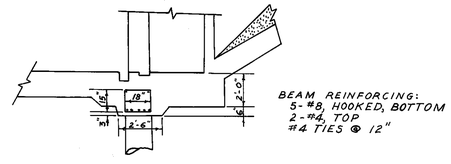


18" BORED PILES (27)
DELEUIL AVENUE PUMPING STATION

PILE NO	TOP ELEV.	BOTTOM ELEV.	GR. WATER ELEV.
1	31.84	18.09	23.26
2	28.42	17.08	23.33
3	28.42	16.02	23.53
4	29.08	16.36	23.86
5	29.08	14.83	23.50
6	29.08	16.76	23.50
7	29.08	14.03	24.36
8	29.08	17.90	27.92
9	29.08	16.77	24.77
10	29.14	17.97	27.97
11	29.14	19.78	25.28
12	29.14	16.59	25.92
13	29.06	15.18	25.68
14	25.75	18.45	26.45
15	25.75	14.22	27.82
16	36.33	14.95	24.45
17	28.42	26.14	26.14
18	28.42	18.69	27.19
19	31.84	25.61	26.64
20	31.84	18.62	26.12
21	31.84	17.32	23.82
22	28.42	15.76	24.43
23	28.42	15.46	25.46
24	28.42	16.64	28.14
25	28.42	24.43	29.00
26	31.84	17.56	27.06
27	31.84	16.37	24.37



PLAN



SECTION A-A

NOTE: CUT CONCRETE OF PILES 24 AND 25 OFF AT ELEVATION OF BOTTOM OF BEAM LEAVING DOWELS. POUR BEAM DIRECTLY ON PILES 17, 25 AND 24.

FOUNDATION BEAM
DELEUIL AVENUE PUMPING STATION

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C. E. DRUMMOND CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

DELEUIL AVENUE PUMPING STATION
EQUIPMENT - SECTIONS

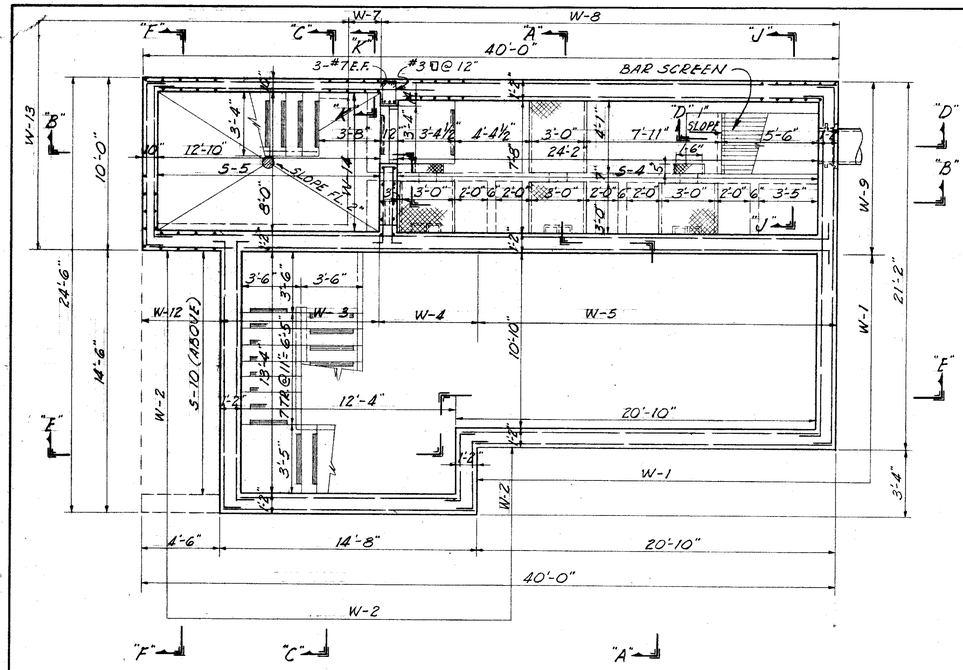
J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES.	H.N.P.
DRN.	R.N.C.
CKD.	H.N.P.
SCALE	AS SHOWN
DATE	JAN. 1962

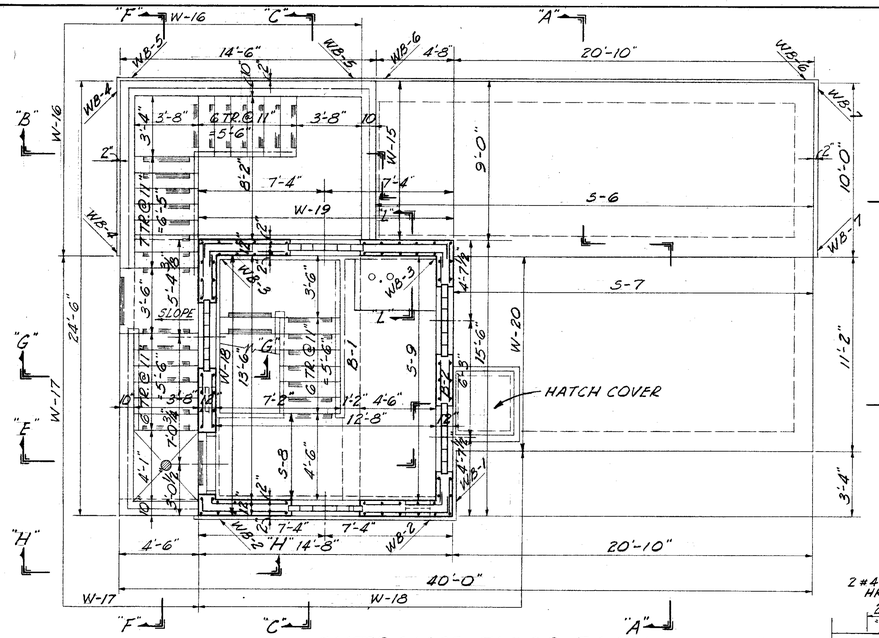
PROJECT 3
DIVISION A
SUBDISTRICT A-10

SHEET 3 OF 29

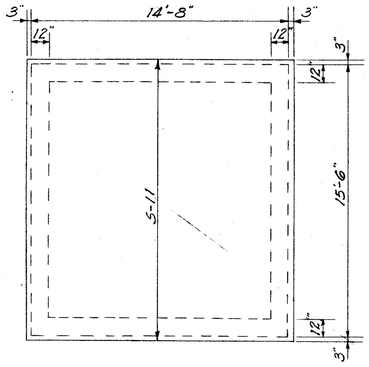
87-3



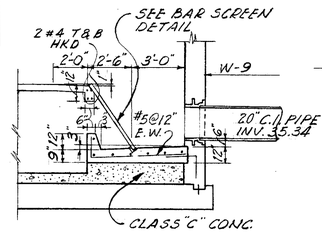
INTERMEDIATE PLAN
SCALE: 1/4"=1'-0"



ENTRANCE FLOOR PLAN
SCALE: 1/4"=1'-0"



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



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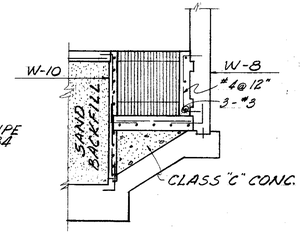

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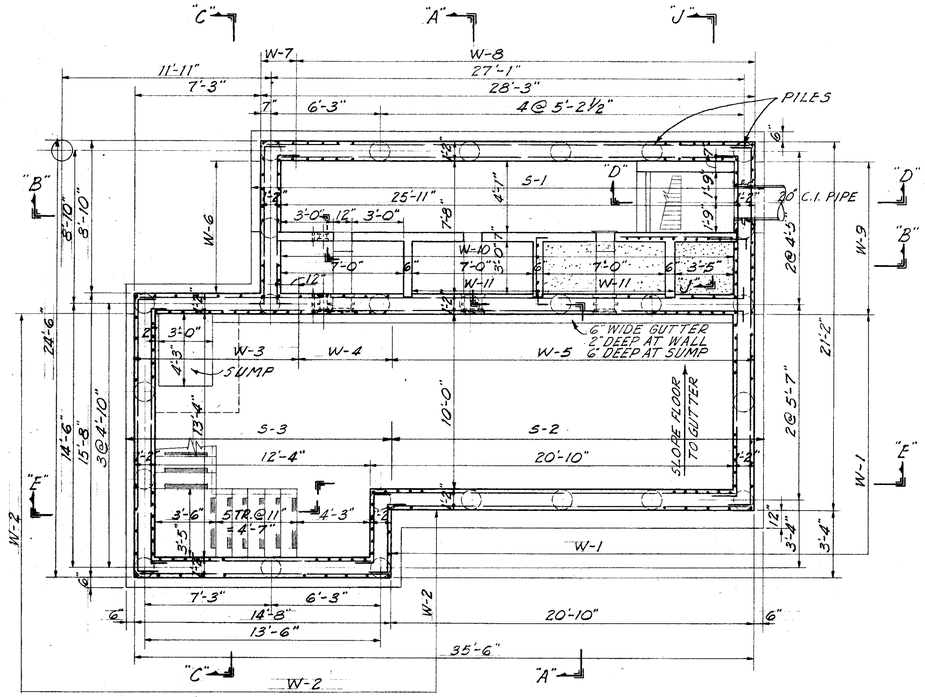
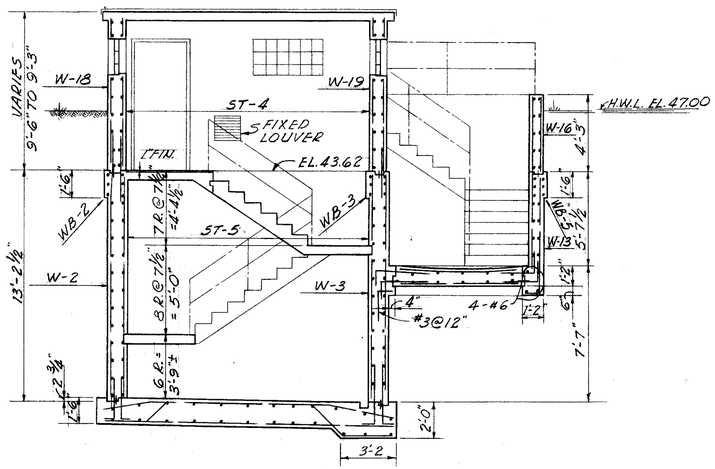


FOUNDATION PLAN
SCALE: 1/4"=1'-0"



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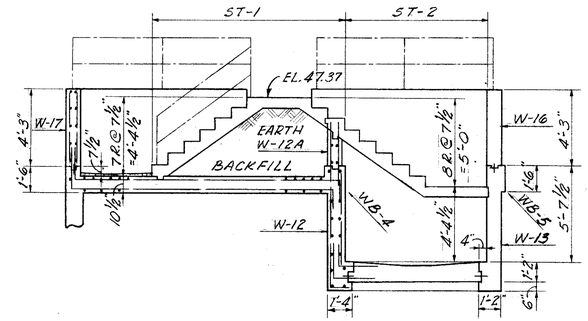

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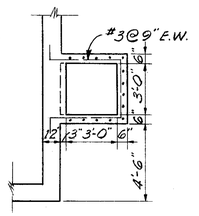


PLAN "X-X"
SCALE: 1/4"=1'-0"

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

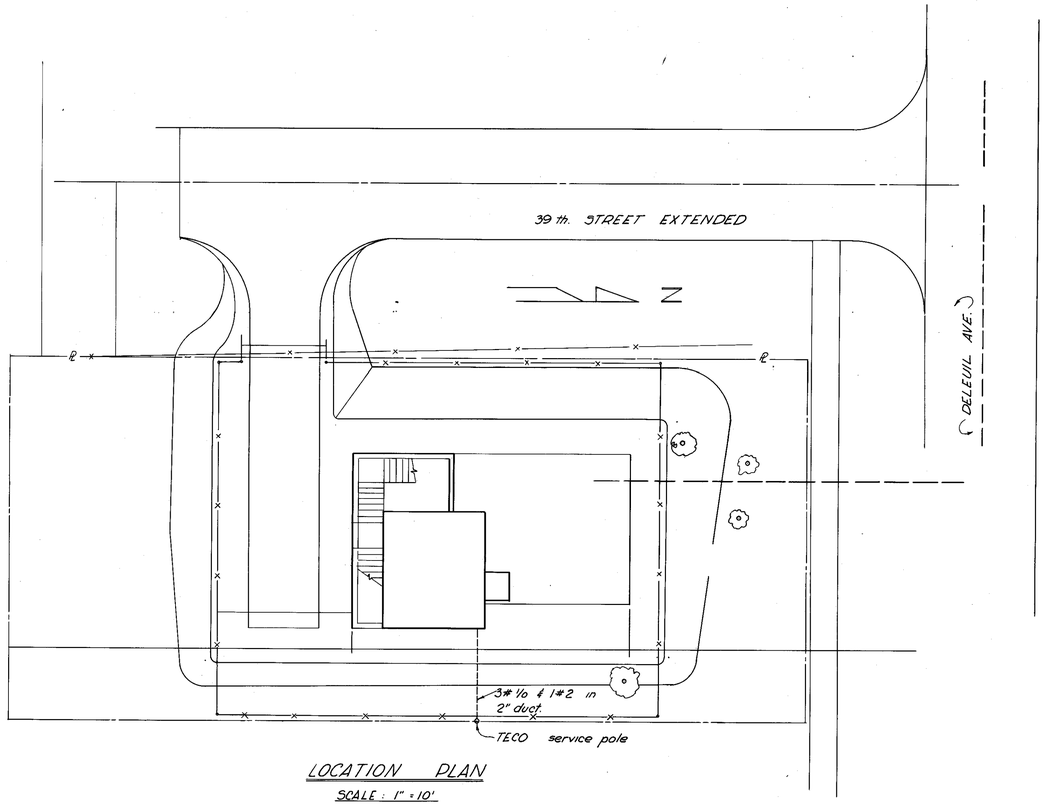
CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

DELEUIL AVENUE PUMPING STATION
STRUCTURAL - PLANS & SECTIONS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

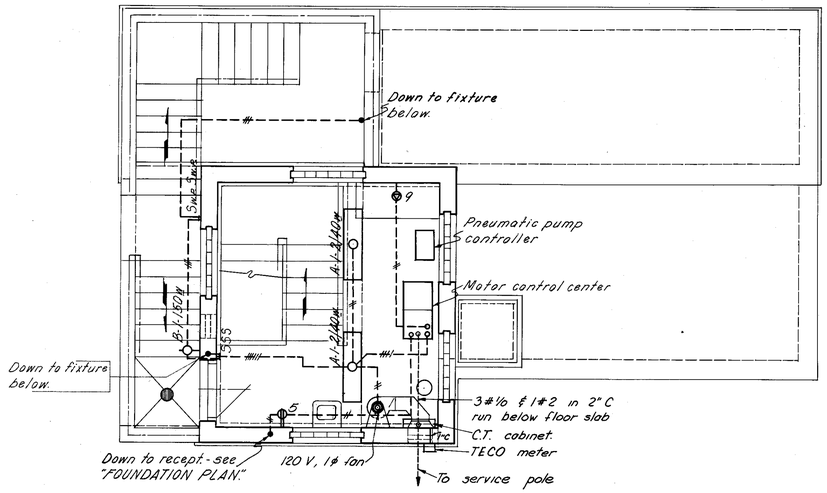
DES. H.N.P. DRN. R.N.C. CKD. H.N.P. SCALE AS SHOWN DATE JAN 1962	PROJECT 3 DIVISION A SUBDISTRICT A-10	SHEET 4 OF 29

87-4



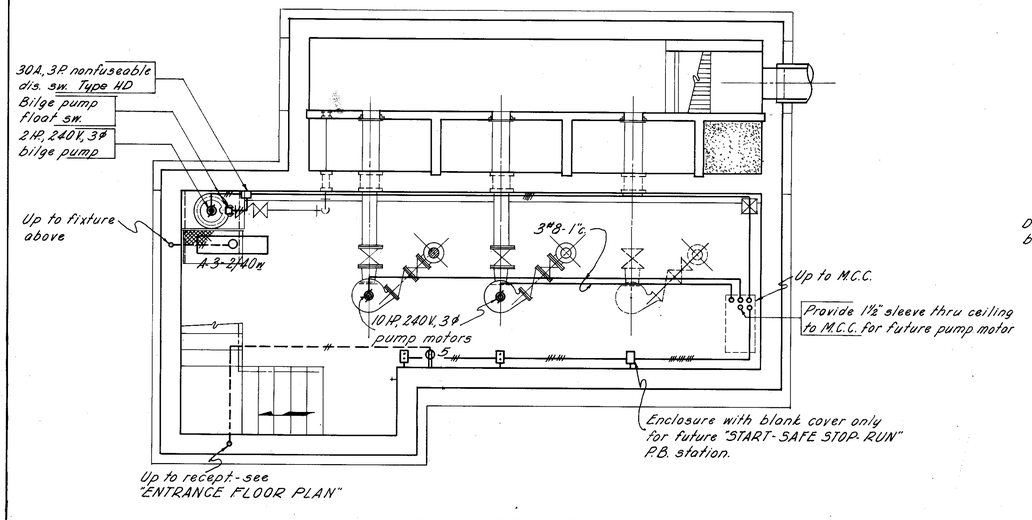
LOCATION PLAN

SCALE : 1" = 10'



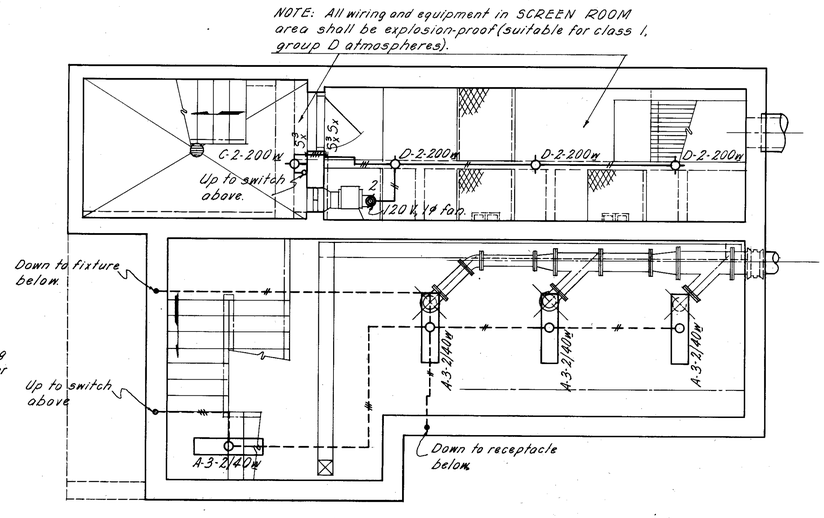
ENTRANCE FLOOR PLAN

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



FOUNDATION PLAN

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



INTERMEDIATE FLOOR PLAN

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

GEORGE S. JEWETT CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C. E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

DELEUIL AVENUE PUMPING STATION
ELECTRICAL PLANS

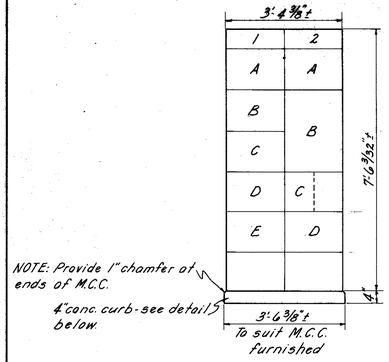
J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS, TAMPA, FLORIDA
ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. GCL
DRN. GCL
CK'D. GCL
SCALE None
DATE

PROJECT 3
DIVISION A
SUBDISTRICT A-10

SHEET 6 OF 29

87-6



ELEVATION OF MOTOR CONTROL CENTER

N. T. S.

SCHEDULE OF M.C.C. COMPARTMENTS

1-A Control relays and 15A, 2P breaker
1-B 10 HP. sewage pump no. 1
1-C 10 HP. sewage pump no. 2
1-D Space only
1-E 2 HP. Bilge pump
2-A Space only
2-B Lighting panelboard
2-C 30 A. 2P. Lighting main
2-D 125 A. 3P. Power main

LIGHTING PANEL SCHEDULE

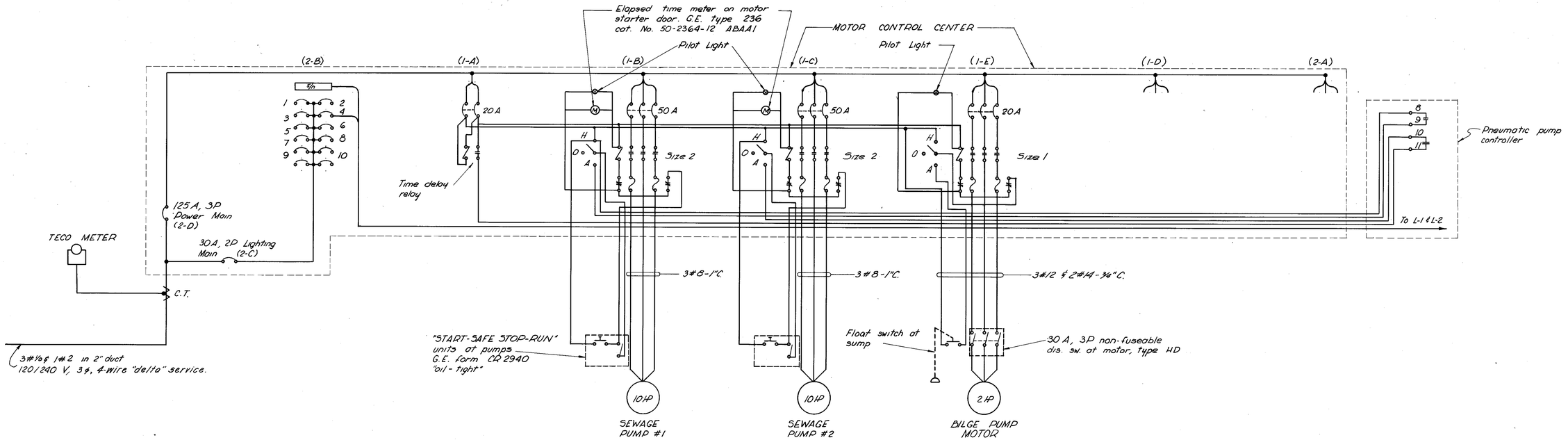
CCT. NO.	BREAKER I.P.	BREAKER 2.P.	USE	CONNECTED WATTS
1	20A.		Lights & fan - Entrance Floor	500
2	20A.		Lights & fan - Screen room	1050
3	20A.		Lights - Pump Room	500
4	20A.		Pneumatic pump controller	200
5	15A.		Recept - Entr. Fl. & Pump Room	300
6	20A.		Spare	
7	20A.		Spare	
8	20A.		Spare	
9		20A.	Recept. (Compressor) - Entr. Floor	500
10		20A.	Spare	

LIGHTING FIXTURE SCHEDULE

MARK	MOUNTING	DESCRIPTION	LAMP
A	Ceiling	Benjamin cat. no. FL1024-4	2-F40 CW
B	Wall	Halophane cat. no. 415	1-150 A
C	Wall	Benjamin cat. no. 7613-BX	1-200 A
D	Ceiling	Benjamin cat. no. 7613-CX	1-200 A

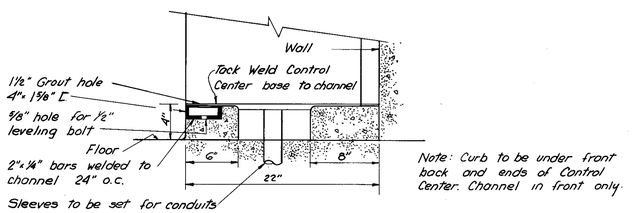
LEGEND

- Ceiling outlet for incandescent fixture
- Bracket outlet for incandescent fixture
- Ceiling outlet for fluorescent fixture
- Duplex Receptacle Hubbell Cat. No. 5262
- 20A, 3P, 2W grounded receptacle - Hubbell cat No. 7310-6 W/cat No. 9965-G Cap.
- S Single pole Toggle switch Hubbell cat No. 1221
- Sx Explosion-proof single pole Toggle switch. Crouse-Hinds "EFS" Series
- S3 Explosion-proof three-way Toggle switch. Crouse-Hinds "EFS" Series
- "Start-safe stop-run" p.b. station
- Conduit run exposed
- Conduit run concealed
- Motor location
- W.P. Indicates Weatherproof.



SCHEMATIC CONTROL AND POWER DIAGRAM

N. T. S.



CONTROL CENTER BASE DETAIL

N. T. S.

GEORGE S. TERHUNE CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C. E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

DELEUIL AVENUE PUMPING STATION
ELECTRICAL DETAILS

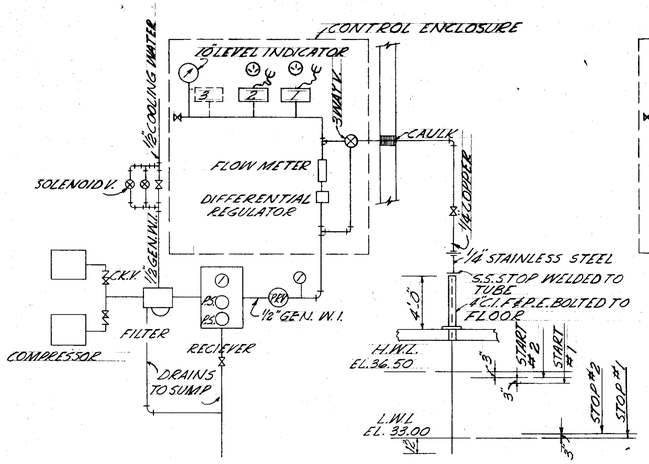
J.E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS TAMPA, FLORIDA
ASSOCIATE ENGINEERS ATLANTA, GEORGIA

DES. G.C.L.
D.RN. G.C.L.
C.K.C. E.C.L.
SCALE NOTED
DATE

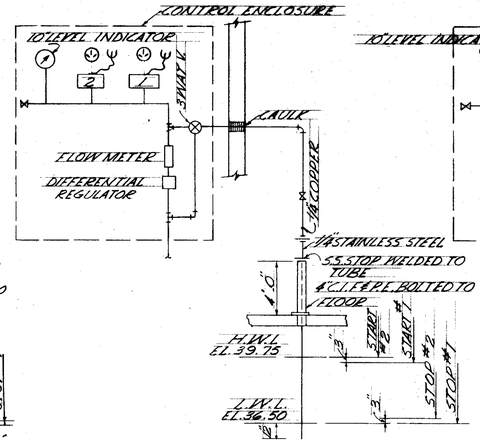
PROJECT 3
DIVISION A
SUBDISTRICT A-10

SHEET 7 OF 29

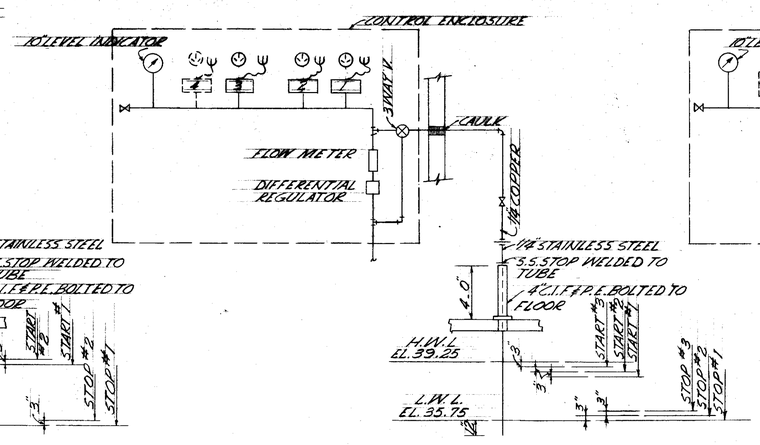
87-7



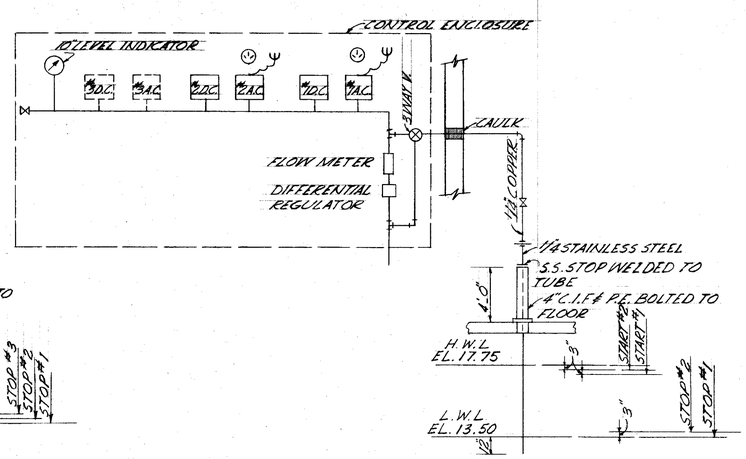
DELEUIL AVE.



McBERRY AVE.

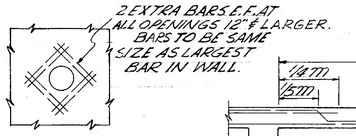


42ND ST.

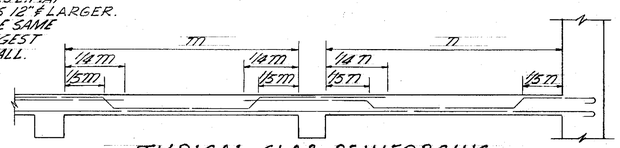


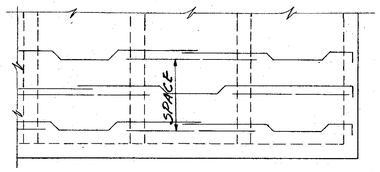
43RD ST.

DIAGRAMS OF PUMP CONTROL PIPING

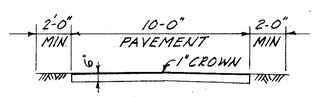


OPENING IN WALLS

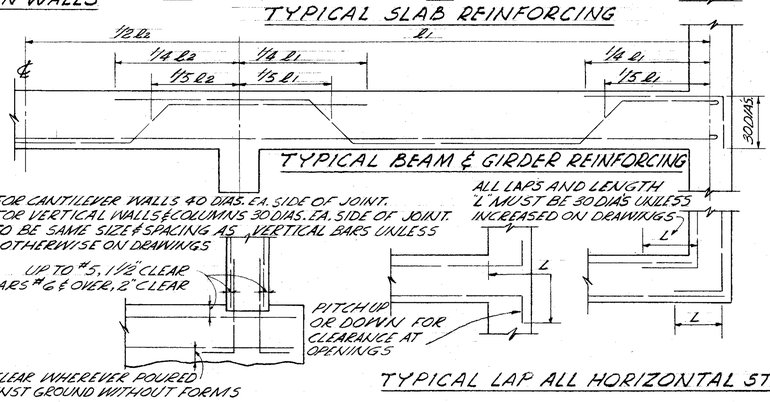




TYPICAL REINFORCING CONTINUOUS SLABS



TYPICAL DRIVE SECTION



TYPICAL SECTION OF STRUCTURE WALLS
(USE SAME CLEARANCES FOR ALL STRUCTURES)

BENDING & PLACING REINFORCING ALL STRUCTURES

FLOOR GRATING DETAIL

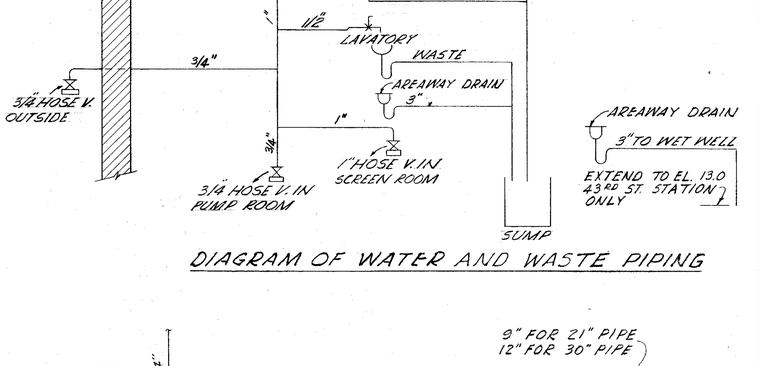
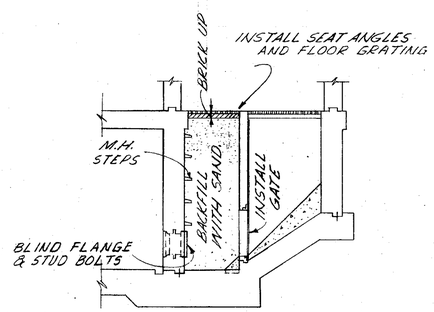
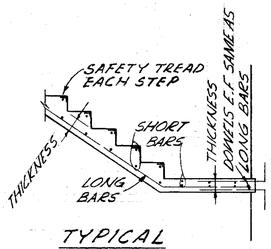


DIAGRAM OF WATER AND WASTE PIPING

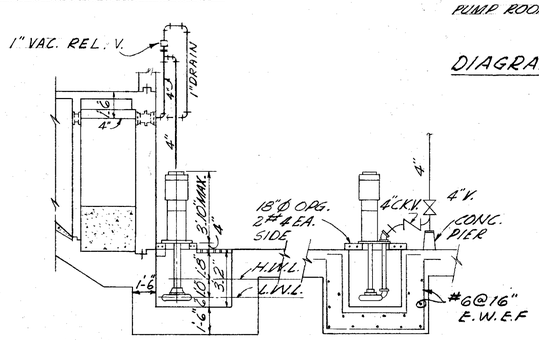
I BEAM DETAIL
NO SCALE



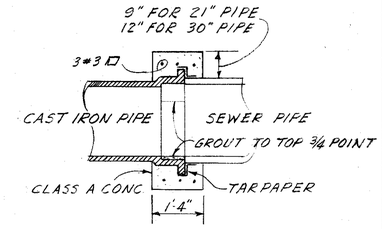
SUCTION WELL FOR FUTURE PUMP



TYPICAL STAIR REINFORCING



BILGE SUMP PUMP
SCALE: 1/4" = 1'-0"



TYPICAL DETAIL

SQ. CONC. COLLAR FOR JOINING C.I. PIPE TO V.C. OR CONC. PIPE

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES. H.N.P.
DRN. R.N.C.
CKD. H.N.P.
SCALE AS SHOWN
DATE JAN. 1962

PROJECT 3
DIVISIONS A, B, C & D
SUBDISTRICT A-10

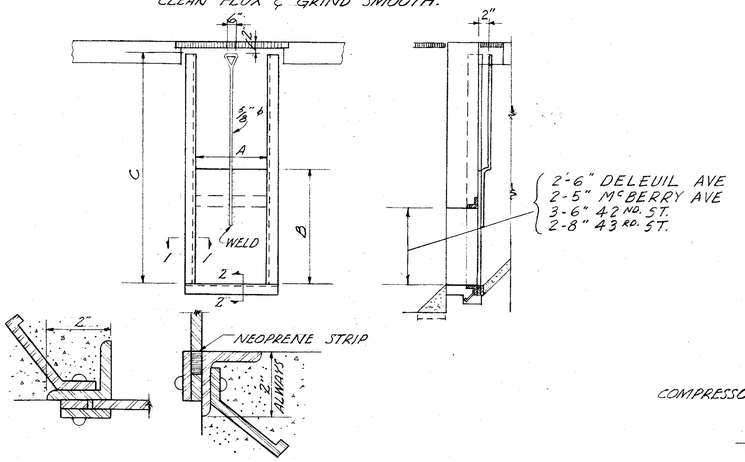
SHEET 27 OF 29

87-27

LOCATION	GATE # REQ'D	GATE FRAME REQ'D	A	B	C
43RD ST.	2	3	1'-0"	3'-6"	7'-11"
42ND ST.	2	4	1'-4"	4'-6"	8'-6½"
DELEUIL AVE.	2	3	1'-0"	3'-6"	6'-10"
McBERRY AVE.	1	2	1'-0"	3'-6"	6'-10"

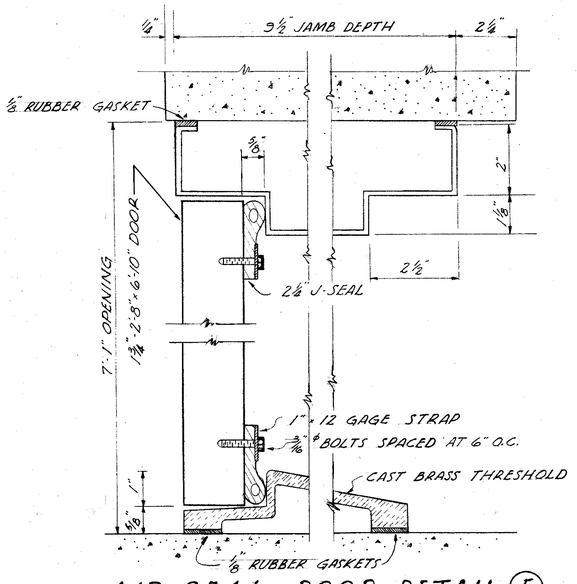
6061 ANGLES	2"-1½"-⅛"
6053-T61 RIVETS	⅜" ø @ 4"
6061-FILLER PLATE	⅜" x 1"
6061-COVER PLATE	⅜" x 1⅛"
3003-GATE	⅛"

NOTE: WELD JAMB ANGLES TO SILL & HEAD. CLEAN FLUX & GRIND SMOOTH.



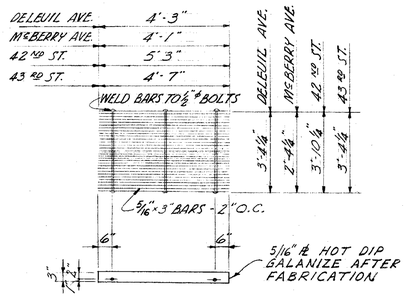
SECTION 1-1 SECTION 2-2

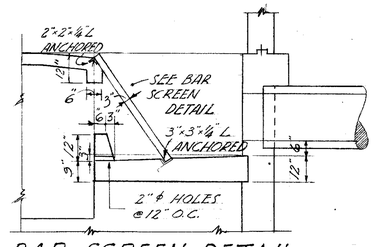
ALUMINUM FABRICATED GATE DETAILS



AIR SEAL DOOR DETAIL (E)

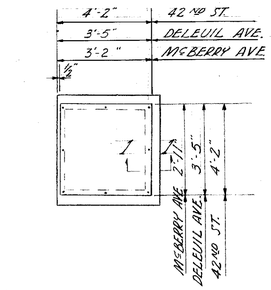
SCALE: 6" = 1'-0"

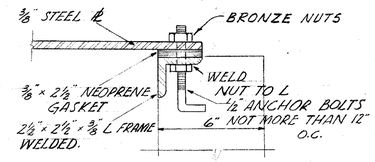




BAR SCREEN DETAIL

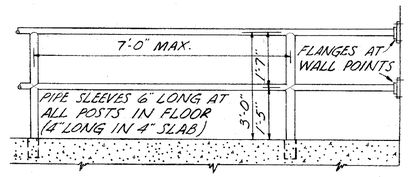
SCALE: ⅜" = 1'-0"



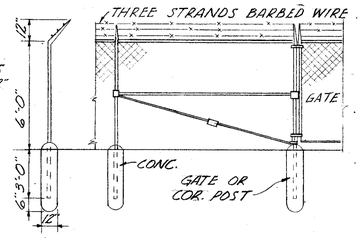


SECTION 1-1

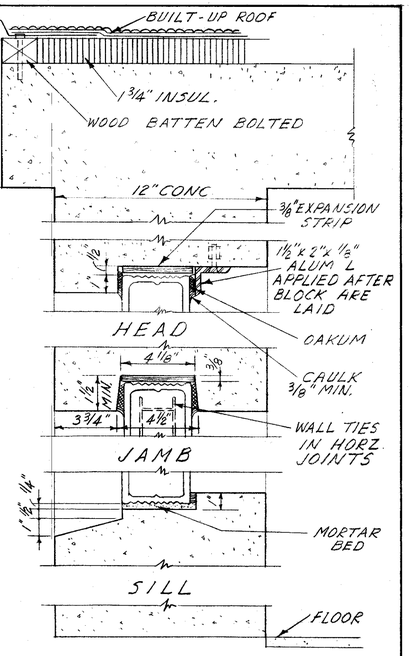
HATCH COVER DETAILS



1½" PIPE HANDRAIL

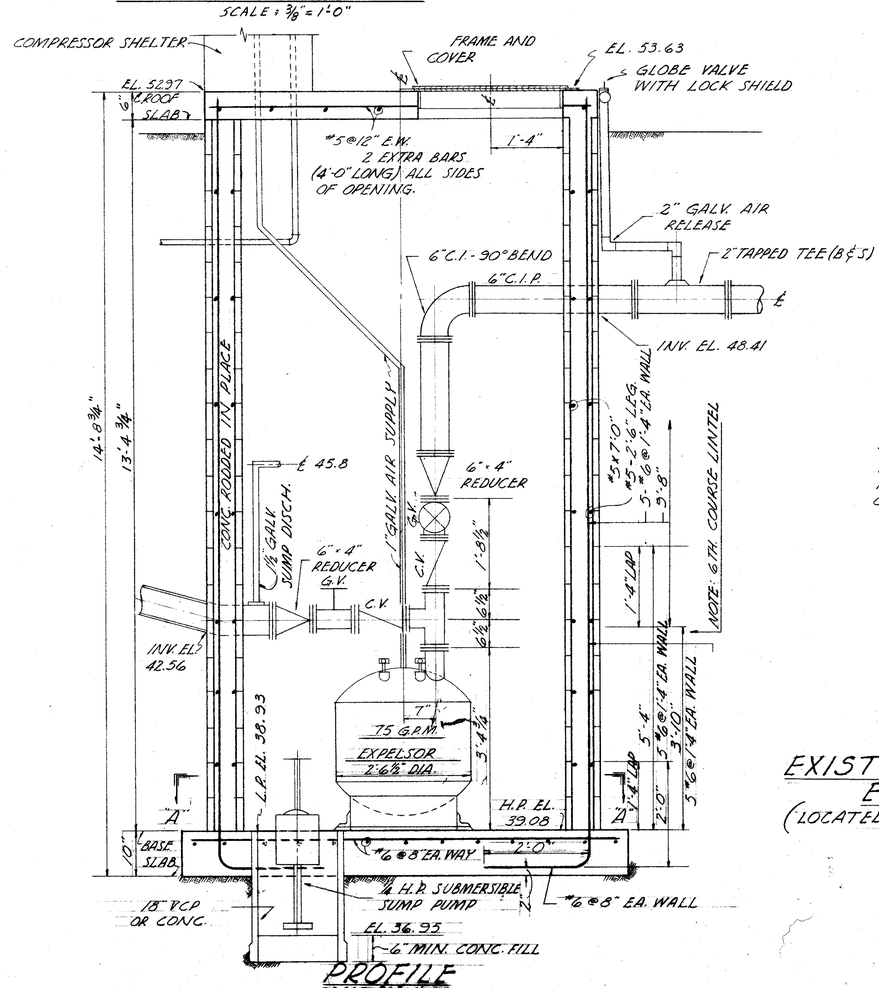


FENCE DETAIL



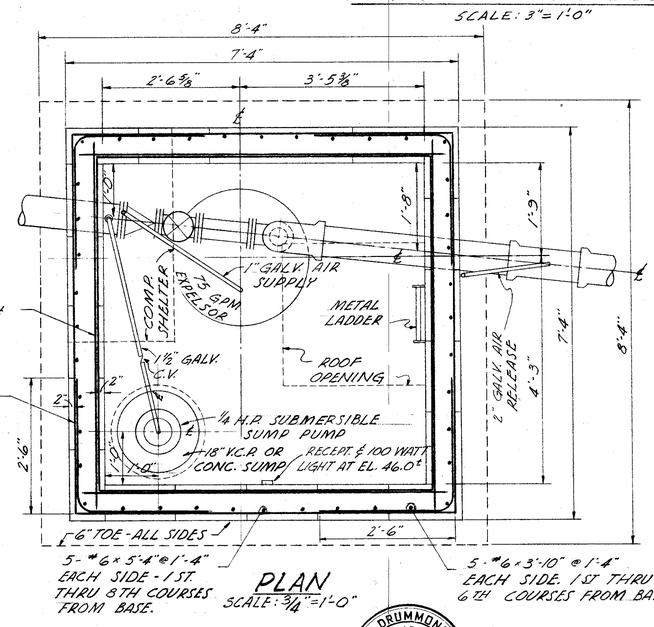
TYPICAL WALL SECTION THROUGH GLASS BLOCK

SCALE: 3" = 1'-0"



PROFILE

SCALE: ¾" = 1'-0"



PLAN

SCALE: ¾" = 1'-0"

EXISTING FARMER'S MARKET EJECTOR STATION

(LOCATED ON McBERRY AVE. PUMPING STATION SITE)

C. E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
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J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
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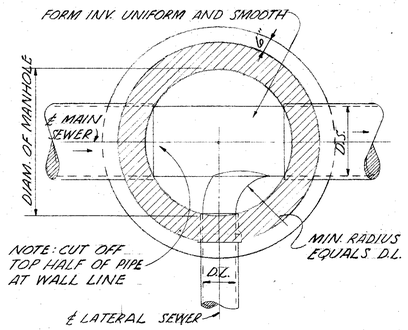
DES.	H.N.P.
DRN.	R.N.S.
CKD.	H.N.P.
SCALE	AS SHOWN
DATE	JAN. 1962

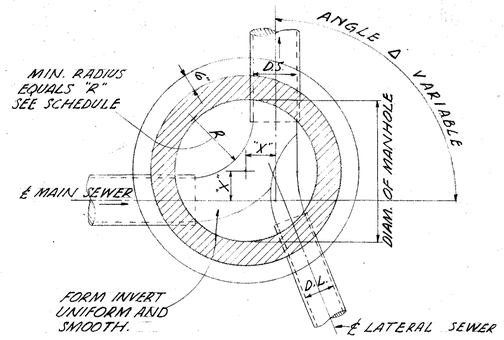
PROJECT 3
DIVISIONS A, B, C & D
SUBDISTRICT A-10

SHEET 28 OF 29

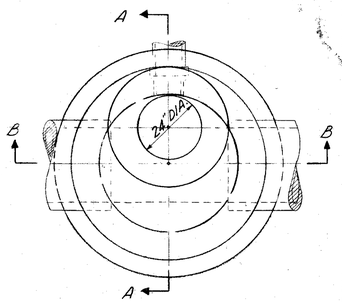
87-28



INVERT PLAN



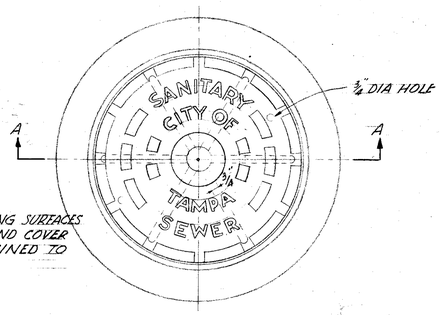
INVERT PLAN



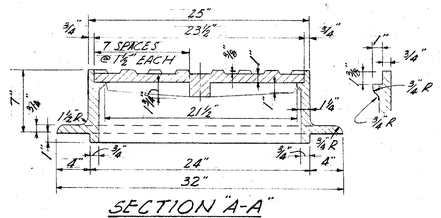
TOP PLAN

STANDARD BRICK MANHOLES
SCHEDULE OF GOVERNING DIMENSIONS

PIPE SIZE	ANGLE Δ	MH DIA.	R	X
8" TO 15"	0° TO 30°	4'-0"	1'-8"	0" TO 10"
18", 21" & 24"	0° TO 60°	4'-0"	2'-0"	0" TO 4"
18" & 21"	60° TO 90°	5'-0"	2'-0"	4" TO 12"



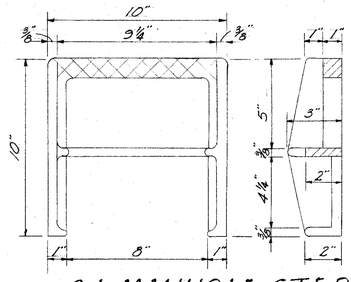
PLAN



SECTION "A-A"

STD. CAST IRON MANHOLE FRAME & COVER

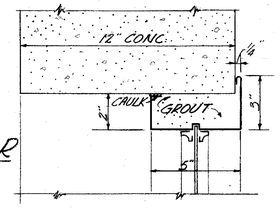
APPROX. WT 380#
SCALE: 1½" = 1'-0"



C.I. MANHOLE STEP

APPROX. WT 11#
SCALE: 3" = 1'-0"

NOTE: C.I. MANHOLE STEPS TO BE INSTALLED IN SPECIAL STRUCTURES ONLY, EXCEPT AS OTHERWISE ORDERED BY THE ENGINEER.



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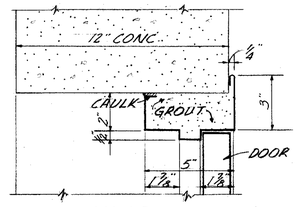

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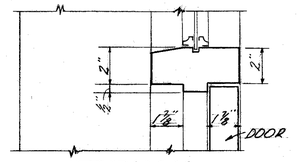
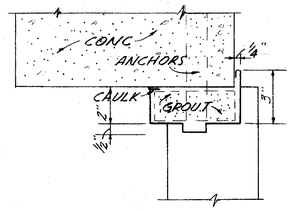
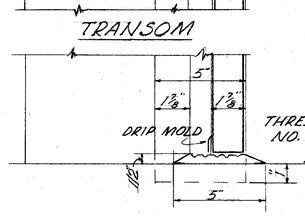


TRANSOM

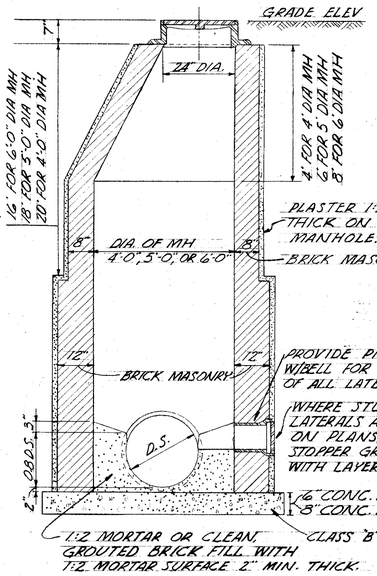


JAMB



THRESHOLD - CHABERLAIN CO. NO. 912-AA OR EQUAL

SILL



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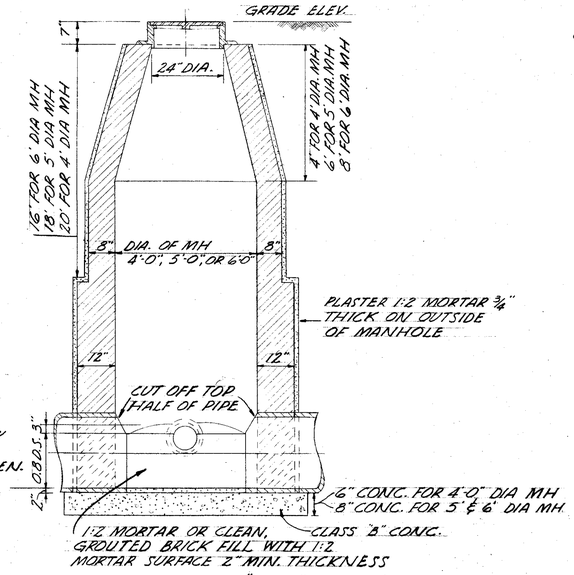

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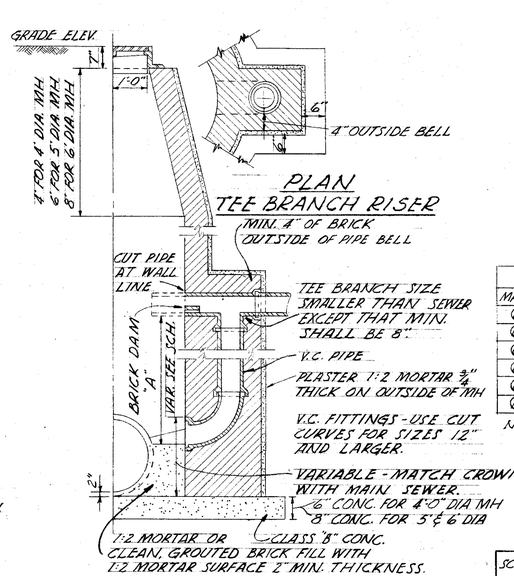


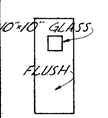
HALF SECTION

DROP MANHOLES

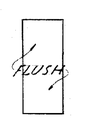
SCHEDULE FOR DROP MANHOLES		
SEWER SIZE	TEE BRANCH RISER SIZE	DIM "A" MINIMUM
8"	8"	19½"
10"	8"	19½"
12"	10"	22"
15"	12"	24½"
18"	15"	29"

DOOR SCHEDULE			
MARK	TYPE	NOM. SIZE	REMARKS
A	2	2'-3'0"x7'-2"	
B	2	1'-3'0"x7'-2"	
C	1	1'-3'0"x7'-2	
D	1	1'-3'0"x6'-10	
E	2	1'-3'0"x6'-10	SEE DETAIL SHEET NO. 28
F	3	1'-3'0"x7'-2"	

NOTE: SEE SPECIFICATIONS FOR DOOR CLOSERS AND LOCK SETS PERTAINING TO ALL DOORS.



TYPE 1



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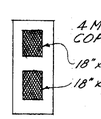


TYPE 3

DOOR DETAILS

GEORGE S. JEYNES CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MISCELLANEOUS DETAILS

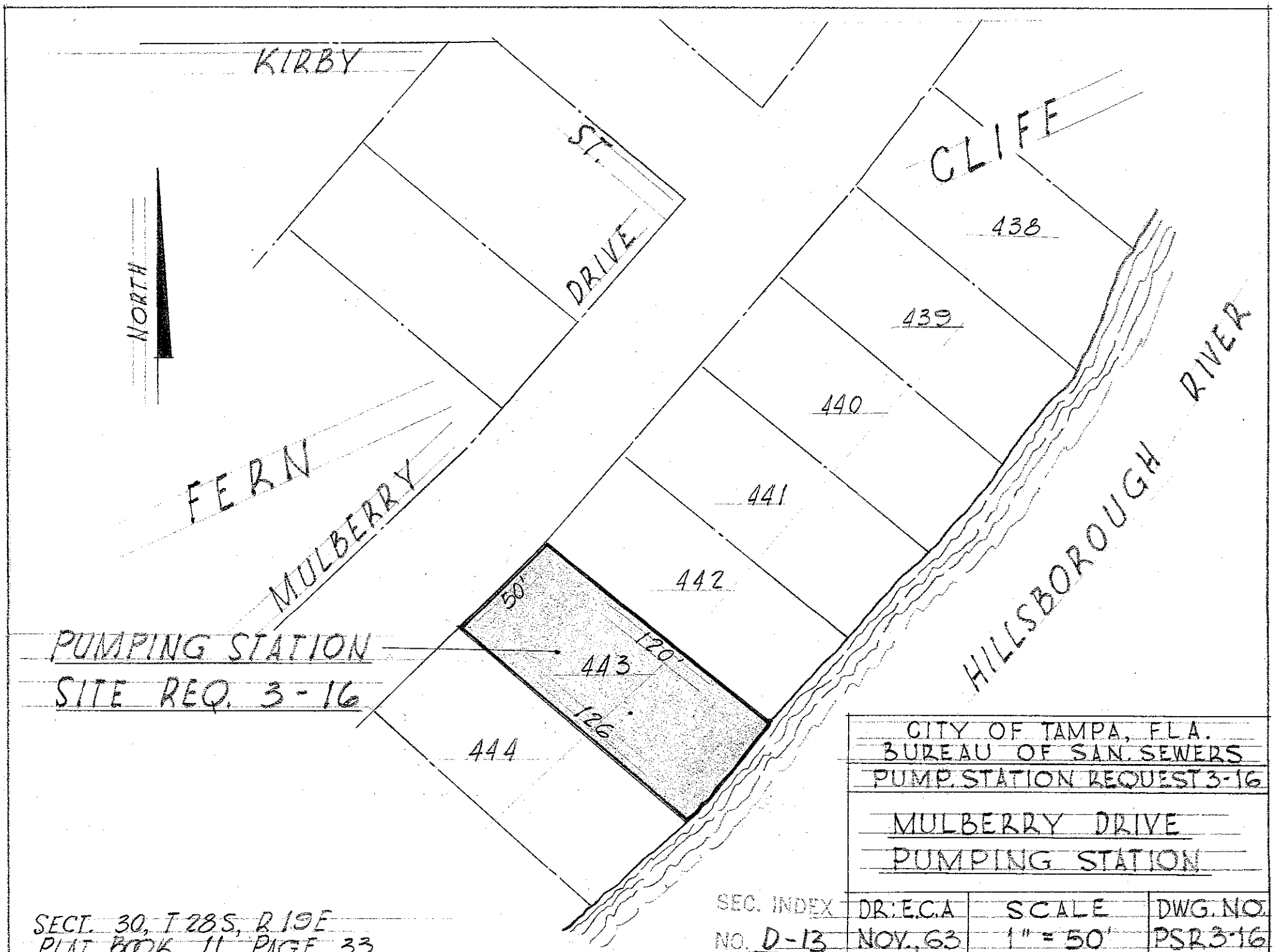
J.E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.R.
DRN. R.N.C.
CKD. H.N.R.
SCALE AS SHOWN
DATE JAN. 1962

PROJECT 3
DIVISIONS A, B, C & D
SUBDISTRICT A-10

SHEET 29 OF 29

187-29



CITY OF TAMPA, FLA.
BUREAU OF SAN. SEWERS
PUMP. STATION REQUEST 3-16

MULBERRY DRIVE
PUMPING STATION

SEC. INDEX	DR: E.C.A	SCALE	DWG. NO.
NO. D-13	NOV., 63	1" = 50'	PSR 3-16

SECT. 30, T 28 S, R 19 E
PLAT BOOK 11, PAGE 33

356-104

CITY OF TAMPA, FLORIDA

THIRD SEWER REVENUE BOND PROGRAM

PLANS

FOR THE CONSTRUCTION OF

SEWAGE DISPOSAL SYSTEM

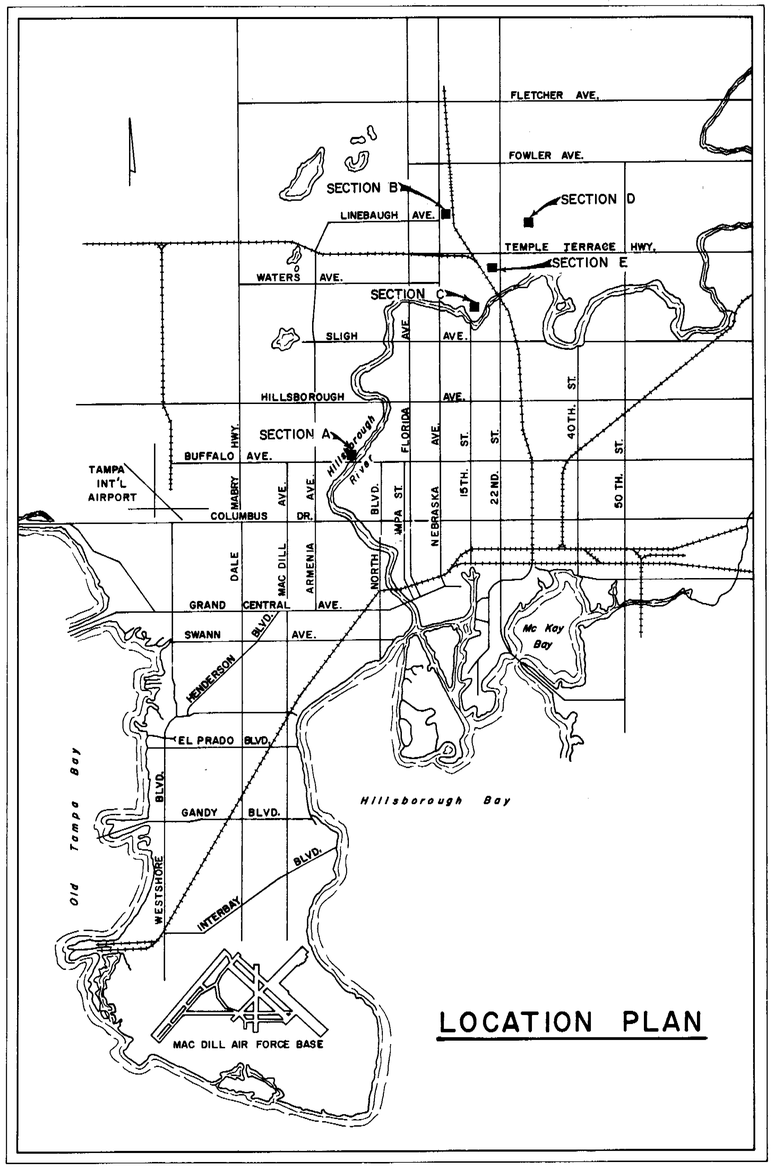
SUB-DISTRICT A-6b
SUB-DISTRICT A-8a
SUB-DISTRICT A-8b

PROJECT 20

SECTION A – ROME AVENUE PUMPING STATION
SECTION B – LINEBAUGH AVENUE PUMPING STATION
SECTION C – MULBERRY DRIVE PUMPING STATION
SECTION D – 26th STREET PUMPING STATION
SECTION E – HUMPHREY STREET EJECTOR STATION

J. E. GREINER COMPANY
Consulting Engineers
Tampa, Florida

WIEDEMAN AND SINGLETON, ENGINEERS
Associate Engineers
Atlanta, Georgia



LOCATION PLAN

INDEX

SECTION	SHEET NUMBER	TITLE
		GENERAL
A,B,C,D & E	1	INDEX SHEET
		ROME AVENUE PUMPING STATION
A	2	EQUIPMENT PLANS
↑	3	EQUIPMENT SECTIONS
↓	4	STRUCTURAL PLANS
↓	5	STRUCTURAL SECTIONS
A	6	ELECTRICAL PLANS
		LINEBAUGH AVENUE PUMPING STATION
B	7	EQUIPMENT PLANS
↑	8	EQUIPMENT SECTIONS
↓	9	STRUCTURAL PLANS
↓	10	STRUCTURAL SECTIONS
B	11	ELECTRICAL PLANS
		MULBERRY DRIVE PUMPING STATION
C	12	EQUIPMENT PLANS
↑	13	EQUIPMENT SECTIONS
↓	14	STRUCTURAL PLANS
↓	15	STRUCTURAL SECTIONS
C	16	ELECTRICAL PLANS
		26th STREET PUMPING STATION
D	17	EQUIPMENT PLANS
↑	18	EQUIPMENT SECTIONS
↓	19	STRUCTURAL PLANS
↓	20	STRUCTURAL SECTIONS
D	21	ELECTRICAL PLANS
		HUMPHREY STREET EJECTOR STATION
E	22	EQUIPMENT AND STRUCTURAL PLANS
E	23	ELECTRICAL PLANS
A,B,C,D & E	24	ELECTRICAL DETAILS
A,B,C,D & E	25	MISCELLANEOUS DETAILS
A,B,C,D & E	26	MISCELLANEOUS DETAILS
A,B,C,D & E	27	MISCELLANEOUS DETAILS

J.E. GREINER COMPANY
CONSULTING ENGINEERS
BY George E. Jenkins
REGISTERED ENGINEER
STATE OF FLORIDA
CERTIFICATE No. 6858

GEORGE E. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

WIEDEMAN AND SINGLETON, ENGINEERS
ASSOCIATE ENGINEERS
BY C. E. Drummond, Jr.
REGISTERED ENGINEER
STATE OF FLORIDA
CERTIFICATE No. 8983

C. E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

INDEX SHEET

ACCEPTED E W Santhuff
SUPERINTENDENT — BUREAU OF SANITARY SEWERS

CONCURRED Wayne Jump
SUPERINTENDENT — DEPARTMENT OF PUBLIC WORKS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS, TAMPA, FLORIDA — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

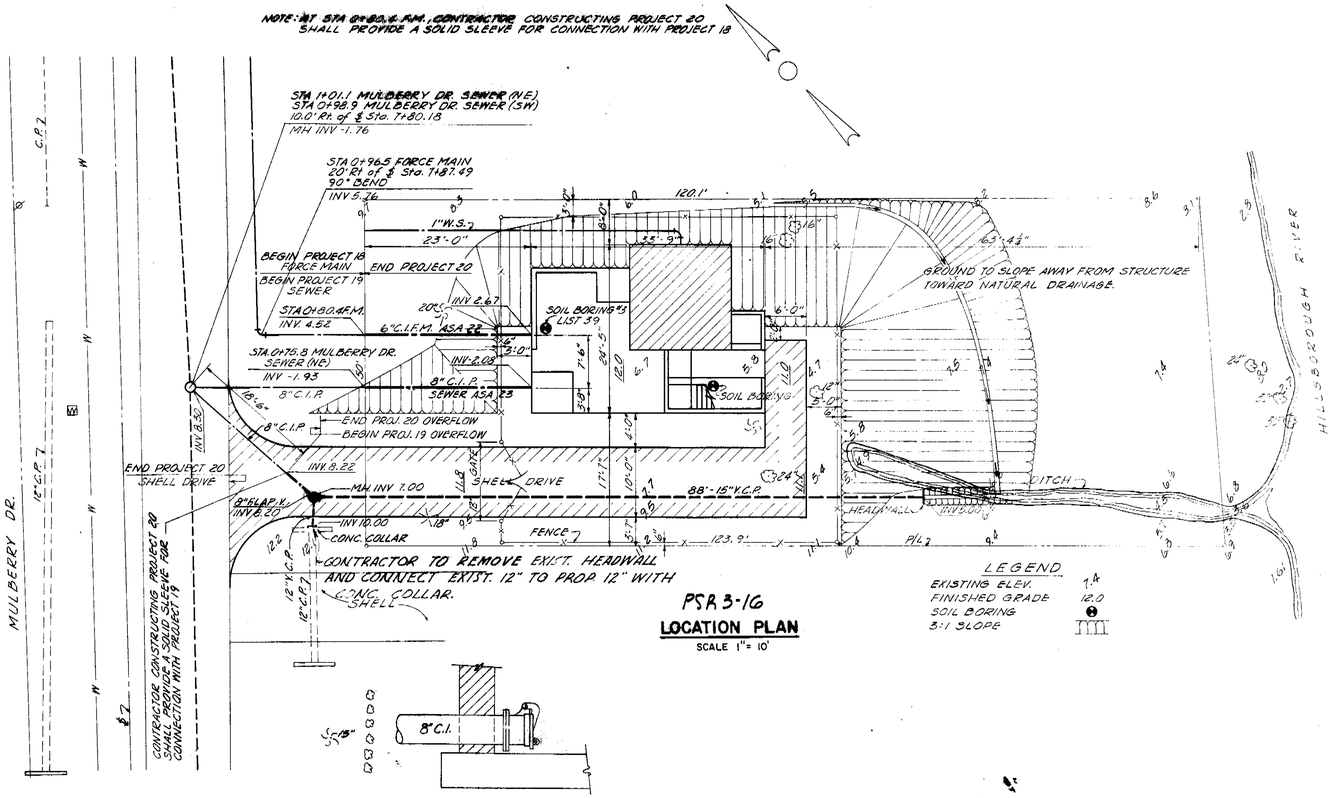
DES. H.N.P.
DRN. R.F.L.
CHD. H.N.P.
SCALE AS SHOWN
DATE FEB. 1944

PROJECT 20
SECTIONS A,B,C,D,& E
SUBDISTRICTS A-4b, A-8a, & A-8b

SHEET 1 of 27

104-1

NOTE: AT STA 0+80.4 A.M., CONTRACTOR CONSTRUCTING PROJECT 20 SHALL PROVIDE A SOLID SLEEVE FOR CONNECTION WITH PROJECT 18

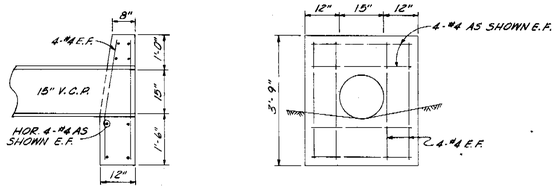


PSR 3-16

LOCATION PLAN

SCALE 1" = 10'

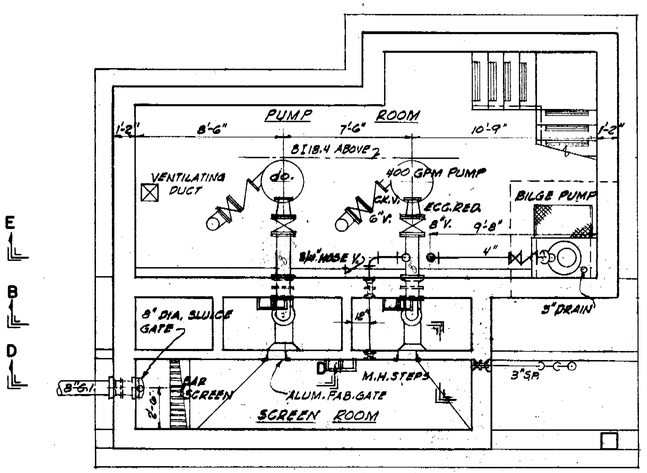
DETAIL OF STANDARD MANHOLE WITH FLAP VALVE



HEADWALL DETAIL

SCALE 1/2" = 1'-0"

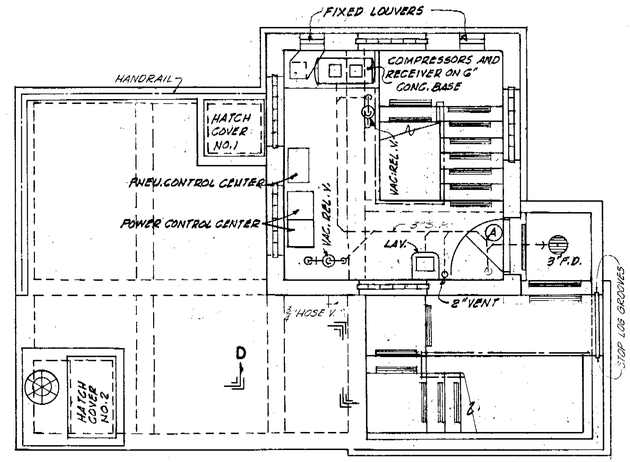
A C



FOUNDATION PLAN

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

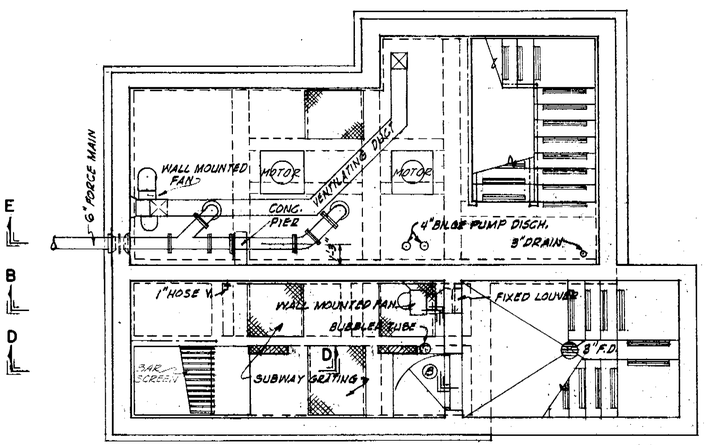
A C F



ENTRANCE FLOOR PLAN

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

A C F



MOTOR FLOOR PLAN

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

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MULBERRY DRIVE PUMPING STATION EQUIPMENT PLANS

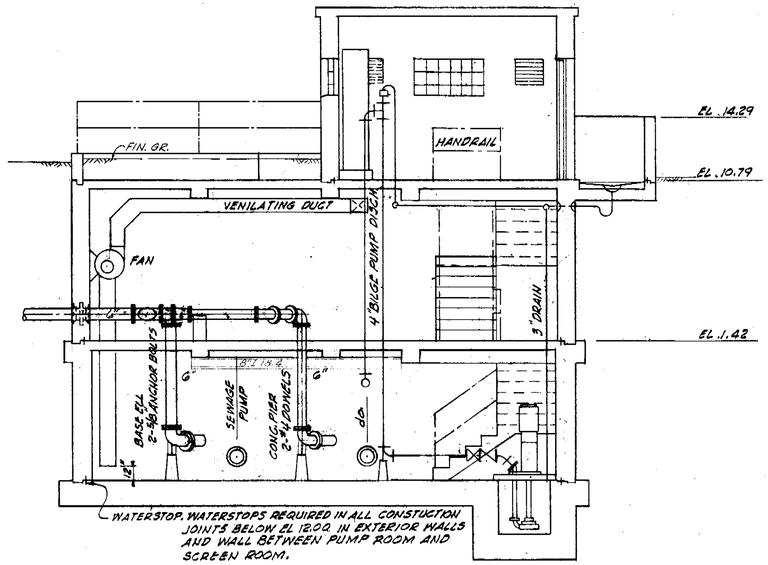
J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

C. E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

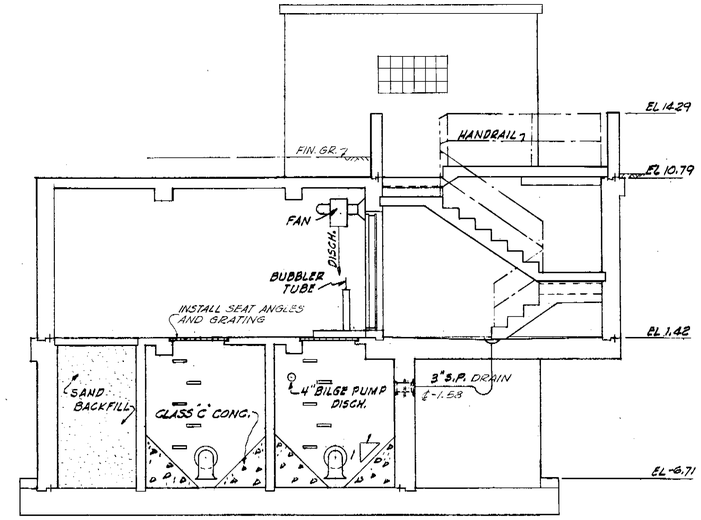
GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

DES. H.N.P.	PROJECT 20 SECTION C SUBDISTRICT A-8b	SHEET 12 of 27
DRN. B.E.L.		
CKD. H.N.P.		
SCALE AS SHOWN		
DATE FEB. 1964		

104-12



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



SECTION B-B
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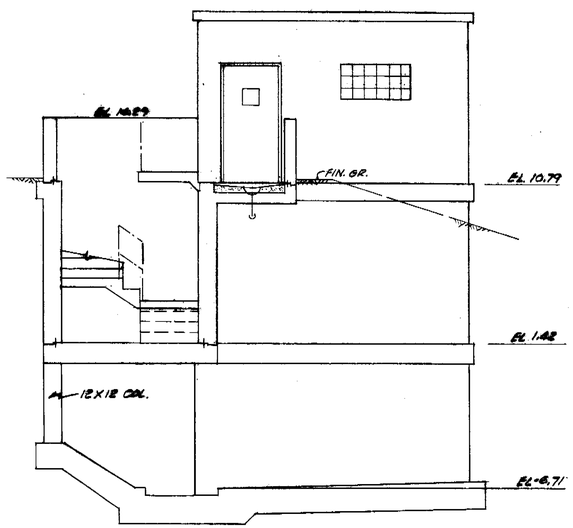

SECTION F-F
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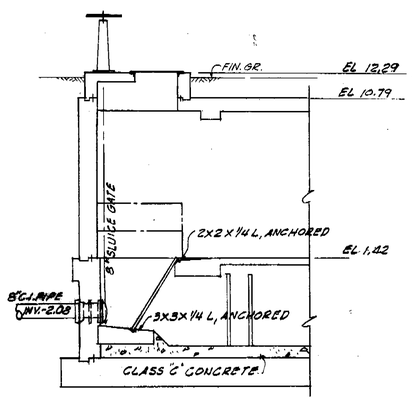

SECTION D-D
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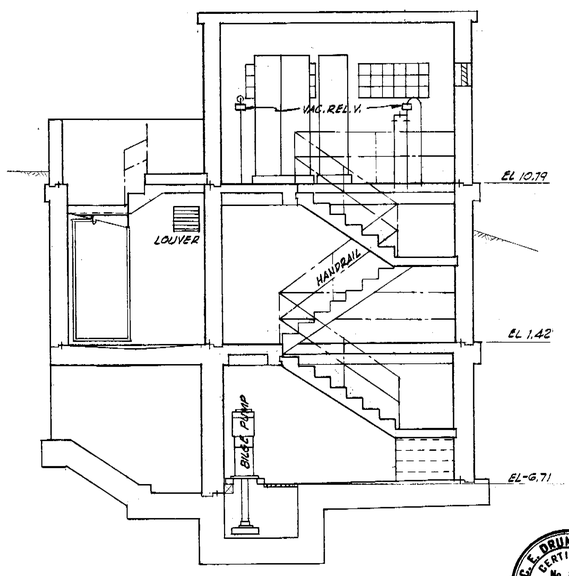
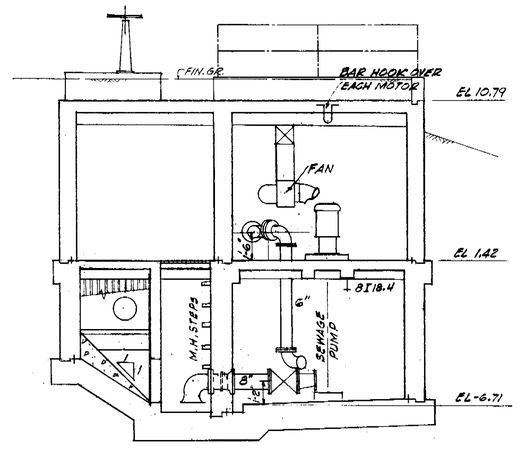


SECTION C-C
SCALE: 1/4" = 1'-0"



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

G. E. DRUMMOND JR. CERTIFICATE No. 8983 ★ STATE OF FLORIDA REGISTERED ENGINEER

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MULBERRY DRIVE PUMPING STATION EQUIPMENT SECTIONS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES. H.N.P.
DRN. R.E.L.
CKD. H.N.P.
SCALE AS SHOWN
DATE FEB. 1964

PROJECT 20
SECTION C
SUBDISTRICT A-8b

SHEET 13 OF 27

104-13

WALL SCHEDULE

PRF = PUMP ROOM FACE
SRF = SCREEN ROOM FACE

MARK	DOWELS	VERTICAL	HORZ	REMARKS
W-1	#5@9 EF	#5@9 PRF, #5@18 SRF	#4@12 EF	EXTEND PRF BARS INTO WALL ABOVE FOR DOWELS
W-2	do	#5@9 IF, #5@18 OF	do	EXTEND O.F. BARS INTO WALL ABOVE FOR DOWELS
W-3	do	do	do	do
W-4	do	do	do	do
W-5	do	do	do	do
W-6	do	do	do	do
W-7	do	#5@9 EF	do	BEND INTO SLAB ABOVE
W-8	#5@18 EF	#5@18 EF	do	EXTEND O.F. BARS INTO WALL ABOVE FOR DOWELS
W-9	#5@9 EF	#5@9 EF	do	do
W-10	#4@9 CENTER	#4@9 CENTER	#3@9	
W-11	#3@9 CENTER	#3@9 CENTER	do	
W-12	#5@9 SRF	#5@9 PRF, #5@18 SRF	#4@12 EF	EXTEND VERTICAL BARS INTO WALL ABOVE FOR DOWELS
W-13	do	do	do	BEND INTO SLAB ABOVE
W-14	#5@18 OF, #5@9 IF	#5@18 OF, #5@9 IF	do	
W-15	do	do	do	EXTEND VERTICAL BARS INTO WALL ABOVE FOR DOWELS
W-16	#5@9 EF	#5@9 EF	do	
W-17	do	do	do	EXTEND OF BARS THRU WALL ABOVE
W-18	#5@18 OF, #5@9 IF	do	do	
W-19	#4@12 EF	#4@12 EF	do	
W-20		do	do	BEND INTO SLAB ABOVE
W-21		#3@12 EF	#3@18 EF	
W-22	#3@12 IF	#3@12 IF	do	
W-23	#3@12 EF	#3@12 EF	do	
W-14A	#5@9 IF	#5@9 EF	#4@12 EF	

SLAB SCHEDULE

MARK	THICK.	TOP	TRUSS	BOT.	TEMP.	REMARKS
S-1	18	#7@5		#7@10	#6@18 EF	BEND TOP BARS INTO SUMP WALL
S-2	do	#7@10	#7@10	do	do	
S-3	do	#7@20	#7@20	do	do	SEE SEC. A-A
S-4	do	do		do	do	
S-5	do	do		do	do	
S-6	6"	#4@12		#4@12	#3@18 EF	
S-7	do	#4@18		#4@18	do	
S-8	do	do		do	do	EXTEND BARS THRU OVERHANG & HOOK
S-9	do	do		do	do	do
S-10	do	#3@18	#4@18	do	do	
S-11	do			do	do	
S-12	do	#3@12	#4@18	#4@18	do	
S-13	do	do	do	do	do	EXTEND BARS THRU S-11 & HOOK
S-14	14⅝"	#6@14		#5@14	#5@18 EF	SEE SEC. B-B, C-C, & F-F FOR ADDITIONAL REINF.
S-15	5"			#3@9	#3@9	
S-16	do			do	do	
S-17	do			do	do	
S-18*	8"	#4@12		#4@12	#3@12 EF	
S-19	do	do		do	do	
S-20*	do	do		do	do	
S-21*	do	do		do	do	EXTEND BARS THRU OVERHANG & HOOK
S-22*	do	do		do	do	do
S-23	do	#5@12	#5@12	#5@12	#4@12 EF	EXTEND TRUSS, & BOT. BARS THRU S-26 & HOOK
S-24	do	do	do	do	do	
S-25	do				do	
S-26	do				do	
S-27	do	#5@12	#5@12	#5@12	do	
S-28	do	do	do	do	do	EXTEND TRUSS & BOT. BARS THRU S-25 & HOOK
S-29	7½"	#4@12		#4@12	do	SEE SEC. E-E & F-F.
S-30	7"	#3@20	#4@20	#4@20	#4@18 EF, #3@12 TF.	

HOOK ALL BARS AT ENDS. USE 90° HOOKS AT WALLS.
*INCLUDES 1" FL. FIN. WHERE SHOWN.

STAIR SCHEDULE

MARK	THICK	LONG BARS	SHORT BARS	REMARKS
ST-1	6"	8-#5	#3 ⌐	8-#5 EF DOWELS THRU B-13
ST-2	do	do	#3	8-#5 EF DOWELS THRU B-7
ST-3	do	do	#3 ⌐	do
ST-4	do	6-#5	do	
ST-5	do	5-#5		
ST-6	do	do	#4 ⌐	
ST-7	do	do		
ST-8	do	do	#4 ⌐	

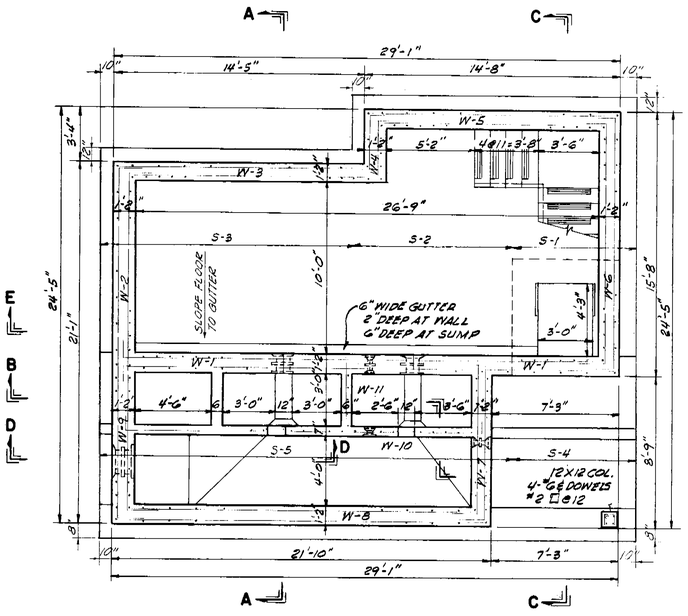
WALL BEAM SCHEDULE

MARK	SIZE	BARS	#3 TIES □	REMARKS
WB-1	14X24	5-#8 EF	1@4, 28@6, 2@8 (X2) CONT. @ 12	
WB-2	14X18	3-#8 EF	1@4, 2@6, 2@8 (X2) CONT @ 12. BEGIN AT WB-1 & B-5	
WB-3	14X18	2-#8 EF	12"	
WB-4	do	do	do	
WB-5	do	4-#8 EF	1@4, 28@6, 2@8 (X2) CONT. @ 12	
WB-6	do	3-#8 EF	1@4, 28@6, 2@8 (X2) CONT. @ 12	
WB-7	do	2-#8 EF	12"	
WB-8	do	do	do	
WB-9	12X16	3-#8 EF	do	
WB-10	do	2-#8 EF	do	
WB-11	do	3-#8 EF	do	
WB-12	do	2-#8 EF	do	

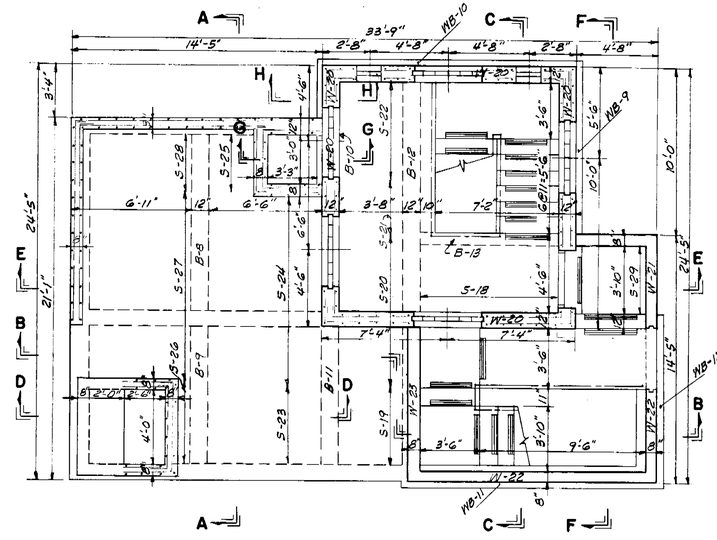
BEAM SCHEDULE

MARK	SIZE	TOP	TRUSS	BOT.	TIES □	REMARKS
B-1	12X12	2-#6	2-#5	2-#6	#3@12	EXTEND T&B BARS THRU B-2
B-2	do				#3@12	SEE SEC D-D
B-3	do	2-#6	2-#5	2-#6	do	EXTEND T&B BARS THRU B-4
B-4	do				do	
B-5	12X15	2-#6	2-#5	2-#6	do	
B-6	8X10	2-#5		2-#5	#2@12	
B-7	10X15	do		do	do	
B-8	12X16	2-#6	2-#7	2-#8	#3@6	EXTEND T&B BARS THRU B-9
B-9	do		2-#6		do	
B-10	do	2-#6	2-#7	2-#7	#4@18	EXTEND T&B BARS THRU B-11
						USE TIES □ AS DOWELS TO WALL
B-11	do	2-#6			#3@6	
B-12*	12X15	do	2-#5	2-#6	#3@12	
B-13*	8X15	do		do	#2@12	EXTEND THRU S-29 & HOOK

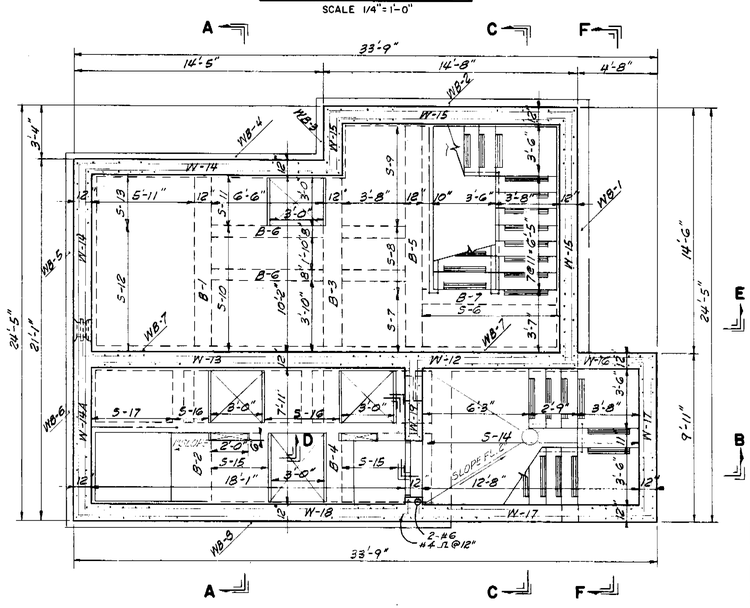
*INCLUDES 1" FL. FIN. WHERE SHOWN.



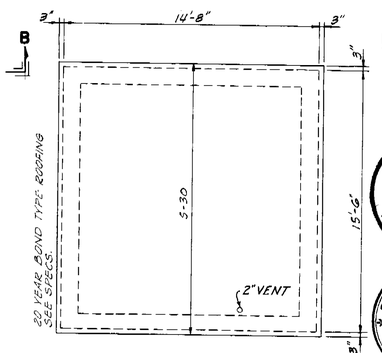
FOUNDATION PLAN
SCALE 1/4" = 1'-0"



ENTRANCE FLOOR PLAN
SCALE 1/4" = 1'-0"



MOTOR FLOOR PLAN
SCALE 1/4" = 1'-0"



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

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND-JR CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MULBERRY DRIVE PUMPING STATION STRUCTURAL PLANS

J.E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES. HNP
DRN. RFL
CKD. HNP
SCALE AS SHOWN
DATE FEB. 1964

PROJECT 20
SECTION C
SUBDISTRICT A-8b

SHEET 14 OF 27

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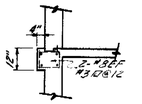

SECTION H-H
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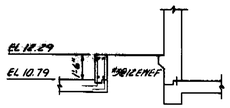

SECTION G-G
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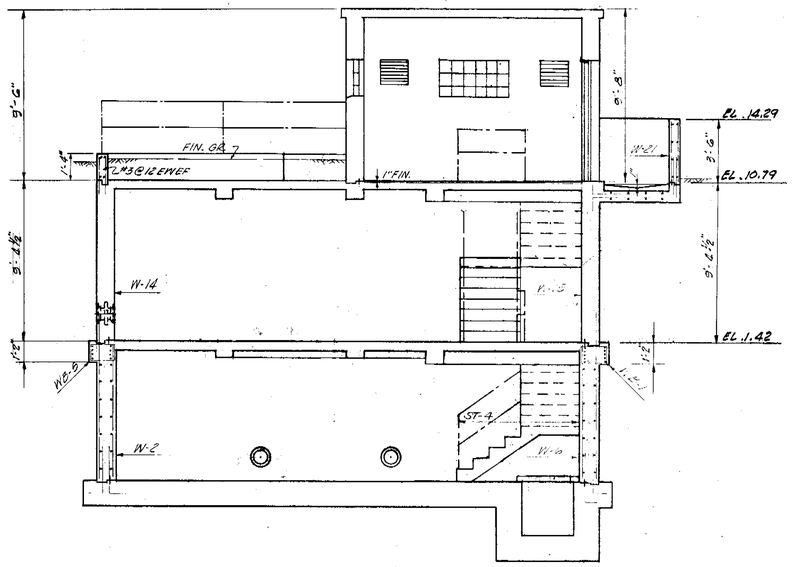

SECTION E-E
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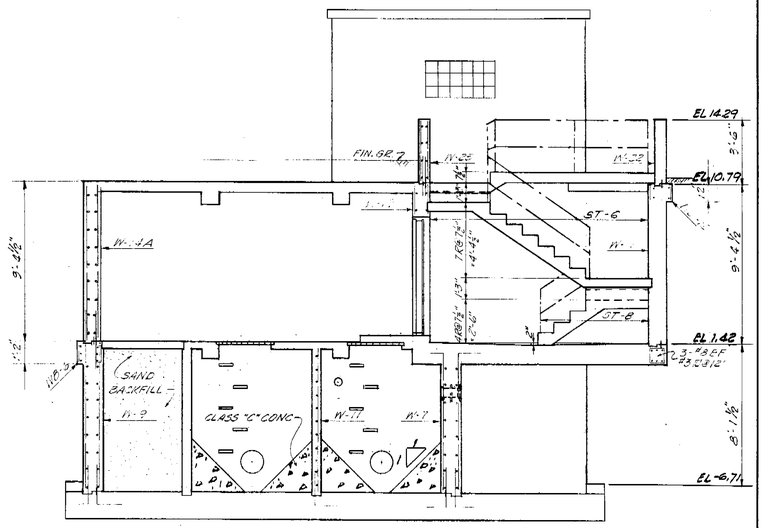

SECTION B-B
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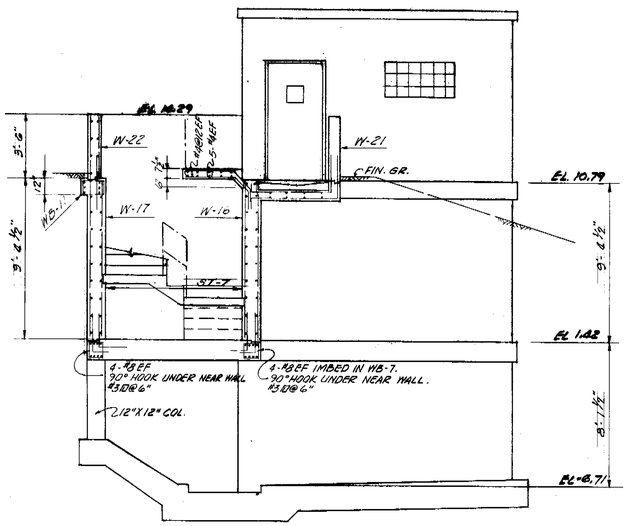

SECTION F-F
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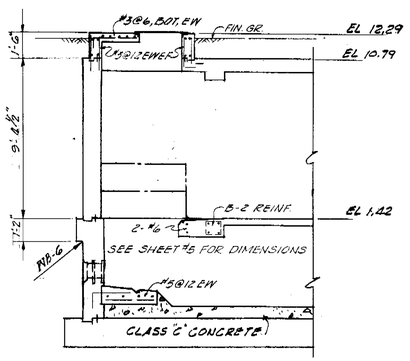

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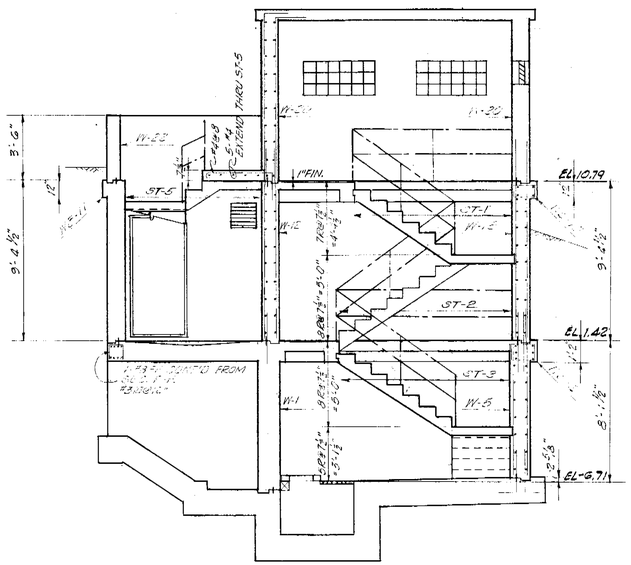

SECTION C-C
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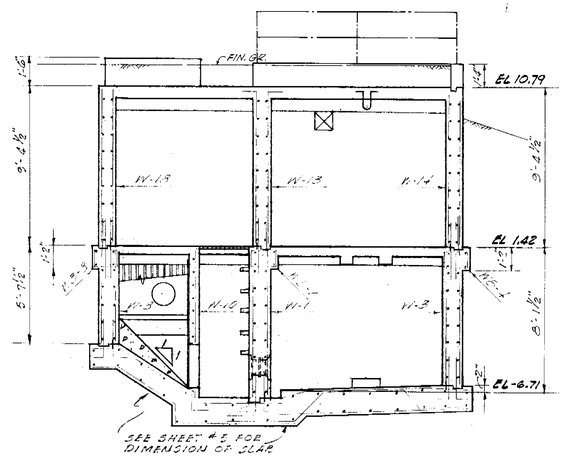

SECTION A-A
SCALE: 1/4" = 1'-0"

GEORGE E. TEANIS
CERTIFICATE
No. 6858
STATE OF
FLORIDA
REGISTERED ENGINEER

G. E. DRUMMOND, JR.
CERTIFICATE
No. 8983
STATE OF
FLORIDA
REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MULBERRY DRIVE PUMPING STATION
STRUCTURAL SECTIONS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — TAMPA, FLORIDA
ASSOCIATE ENGINEERS — ATLANTA, GEORGIA

DES. H.N.P.
DRN. R.F.L.
CKD. H.N.P.
SCALE AS SHOWN
DATE FEB. 1964

PROJECT 20
SECTION C
SUBDISTRICT A-8b

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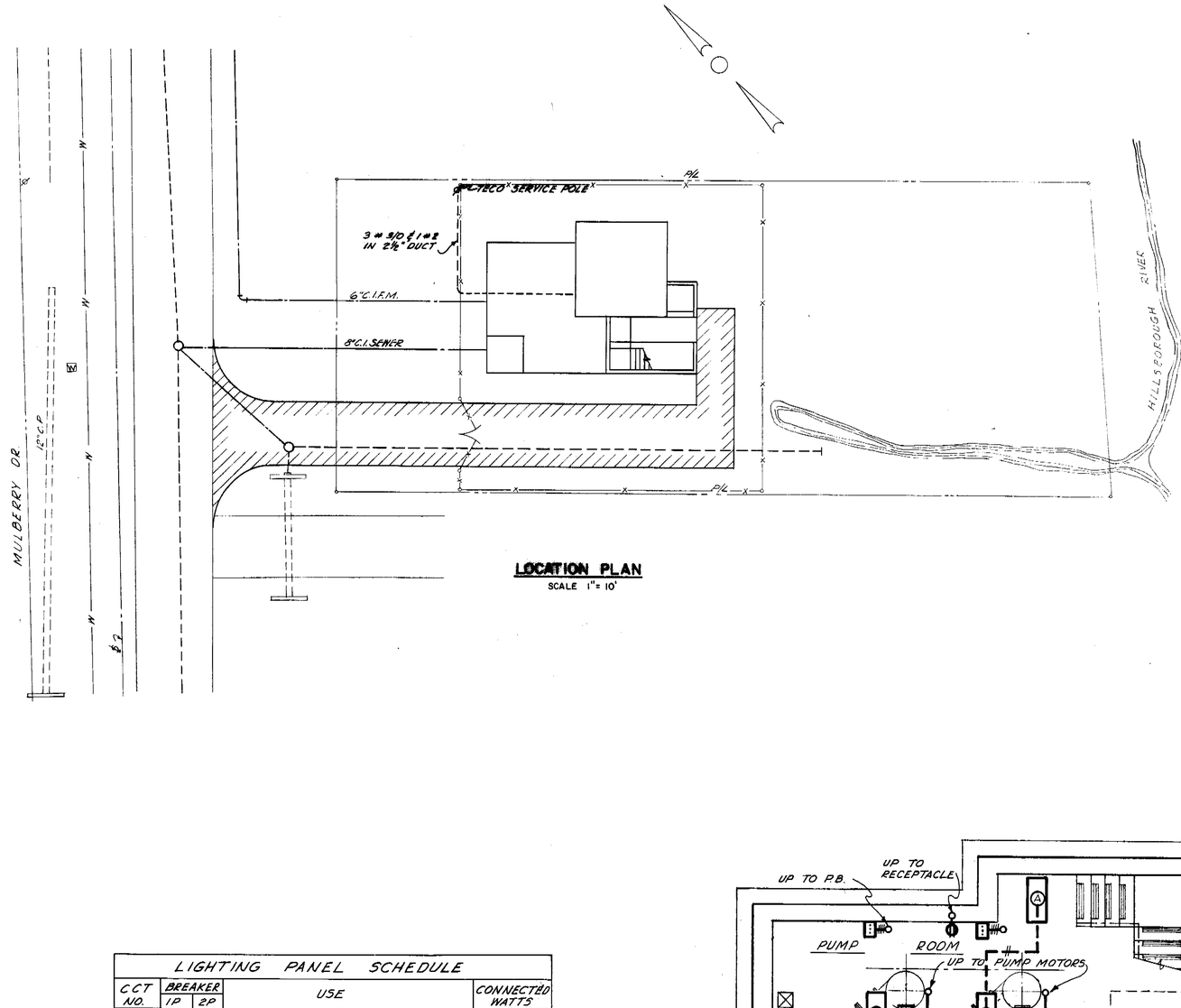
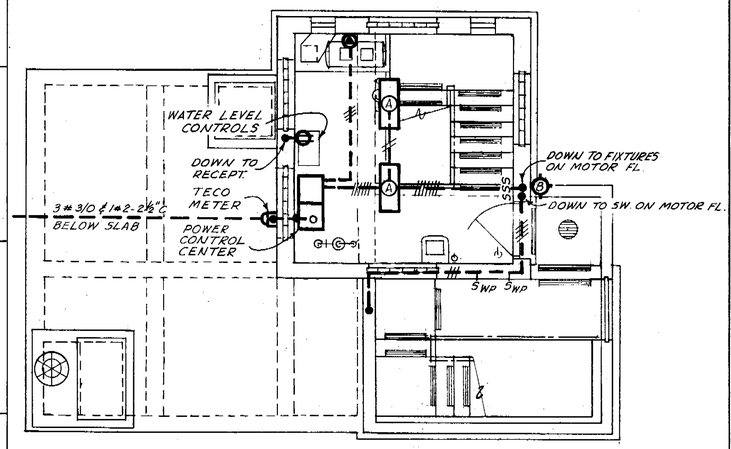


LOCATION PLAN
SCALE 1" = 10'

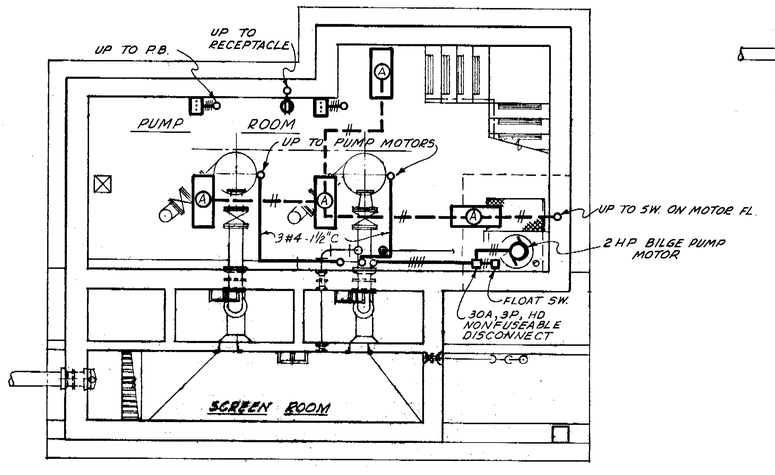
SPARE	CONTROL RELAYS
BILGE PUMP	SEWAGE PUMP
LIGHTING PANEL BOARD	
LIGHTING MAIN	
POWER MAIN	SEWAGE PUMP

ELEVATION OF POWER CONTROL CENTER

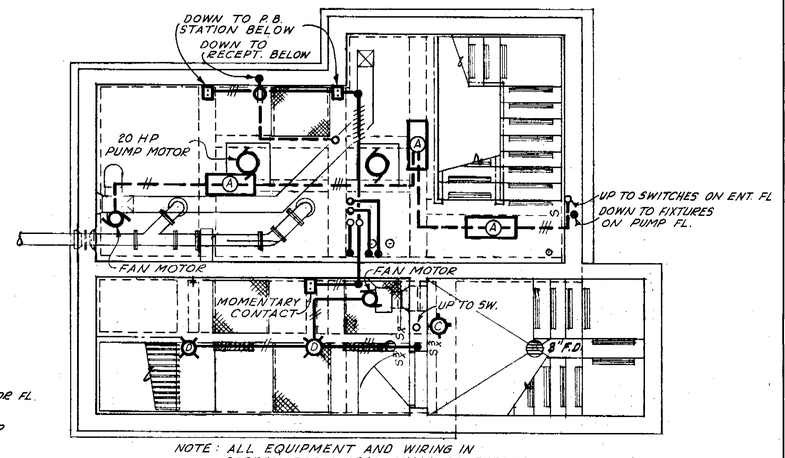


ENTRANCE FLOOR PLAN
SCALE: 1/4" = 1'-0"

LIGHTING PANEL SCHEDULE				
CCT NO.	BREAKER 1P	BREAKER 2P	USE	CONNECTED WATTS
1	20A		LIGHTS & FAN, ENTRANCE & MOTOR FL.	750
2	20A		LIGHTS, PUMP RM. FL.	400
3	20A		LIGHTS & FAN, SCREEN RM.	700
4	20A		PNEU. PUMP CONTROL POWER	200
5	20A		RECEPTACLES	500
6	20A		SPARE	
7	20A		SPARE	
8	20A		SPARE	
9		20A	RECEPTACLE	500
10		20A	SPARE	



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



NOTE: ALL EQUIPMENT AND WIRING IN SCREEN ROOM AREA SHALL BE EXPLOSION PROOF SUITABLE FOR CLASS I, GROUP D ATMOSPHERES.

MOTOR FLOOR PLAN
SCALE: 1/4" = 1'-0"

C. E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

GEORGE S. IGNINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MULBERRY DRIVE PUMPING STATION ELECTRICAL PLANS

J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.P.
DRN. B.F.L.
CHD. H.N.P.
SCALE AS SHOWN
DATE FEB. 1964

PROJECT 20
SECTION C
SUBDISTRICT A-8b

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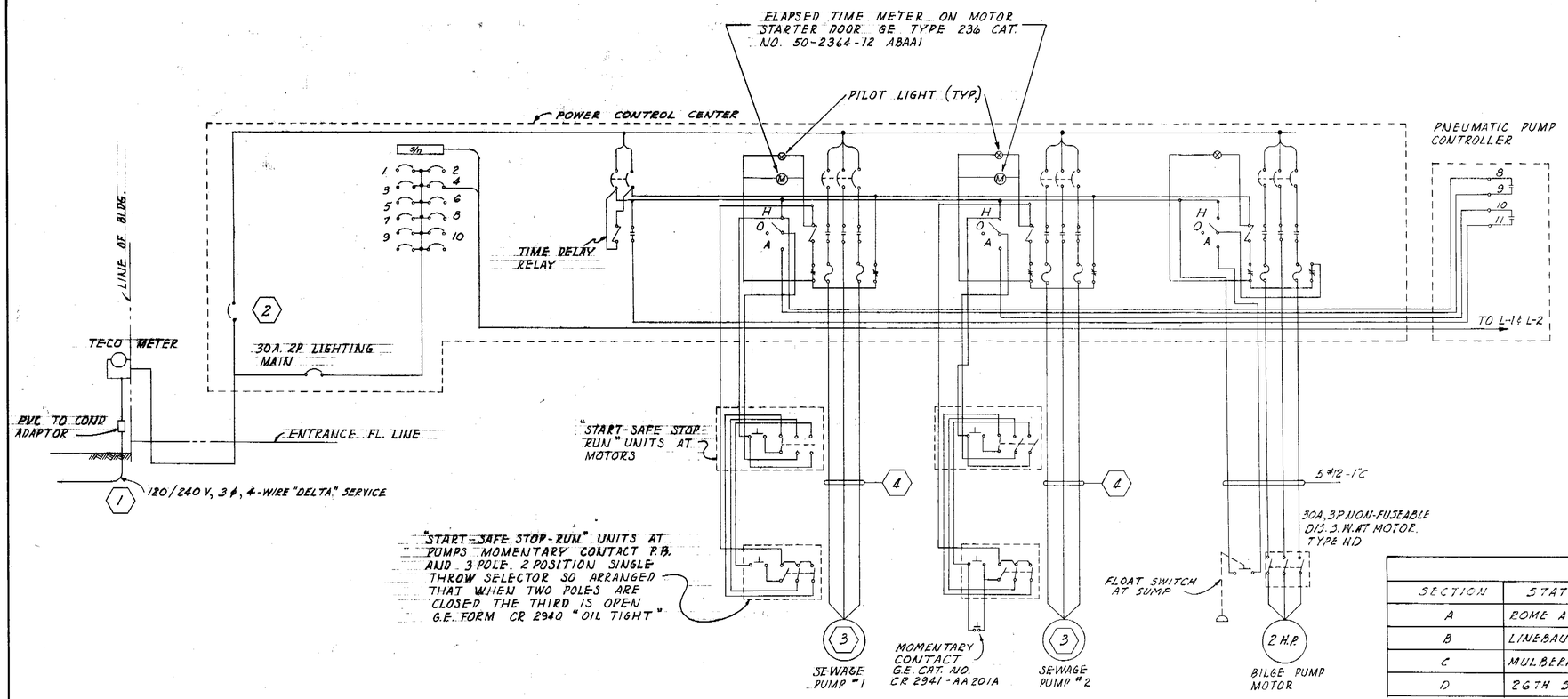
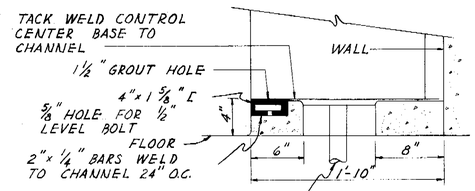


SCHEMATIC CONTROL AND POWER DIAGRAM
SECTION A, B, C, D



SLEEVES TO BE SET FOR CONDUITS

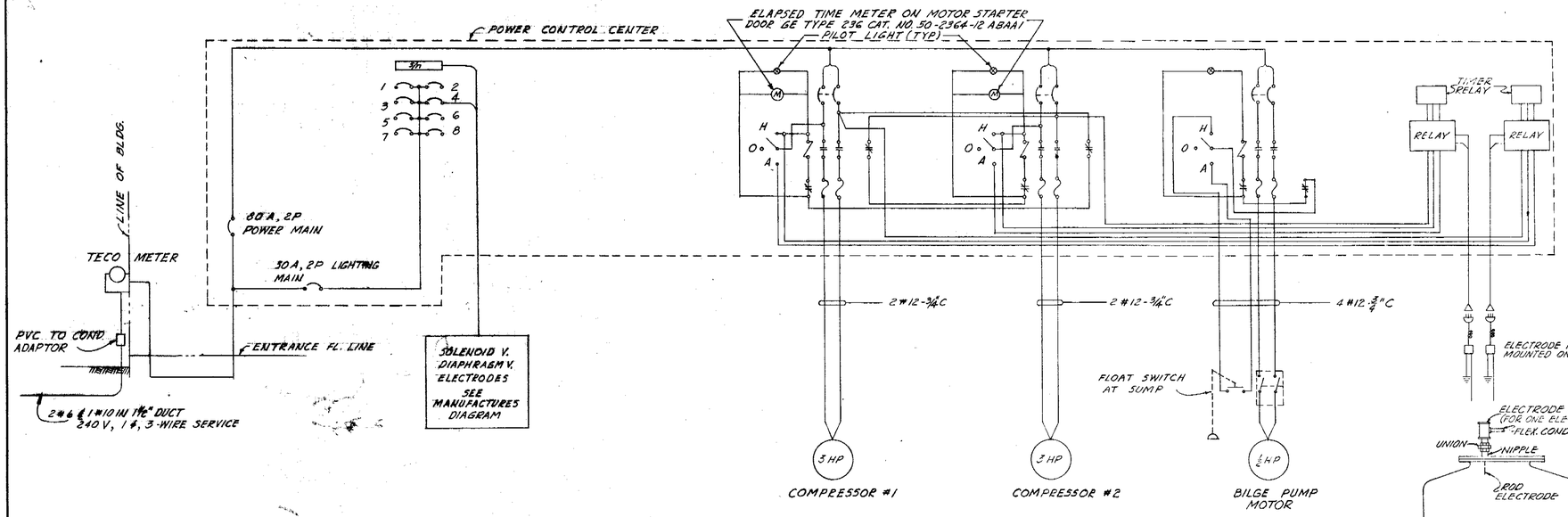
NOTE:
CURB TO BE UNDERFRONT BACK AND ENDS OF CONTROL CENTER CHANNEL IN FRONT ONLY

CONTROL CENTER BASE DETAIL
N.T.S.

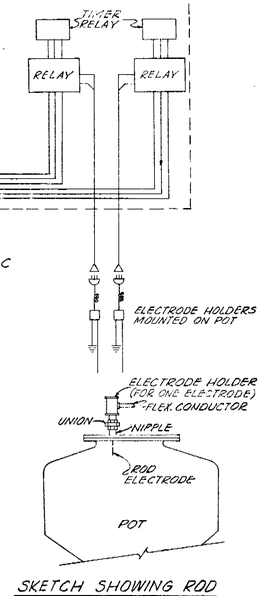
LIGHTING FIXTURE SCHEDULE

MARK	MOUNTING	DESCRIPTION	LAMP
A	CEILING	BENJAMIN CAT. NO. FL/1024-A	2-F40CM
B	WALL	HOLOPHANE CAT. NO. 415	1-150
C	WALL	BENJAMIN CAT. NO. T613-BX	1-200
D	CEILING	BENJAMIN CAT. NO. T613-CX	1-200

MARK AND DESCRIPTION					
SECTION	STATION	① INCOMING	② BREAKER	③ MOTOR	④ MOTOR LEADS
A	ROME AVE.	3#1/0 & 1#2-2"C	150 A	15	3#6-1½"C
B	LINEBAUGH AVE.	do	150A	15	do
C	MULBERRY DR.	3#3/0 & 1#2-2½"C	200A	20	3#4-1½"C
D	26TH ST.	3#1/0 & 1#2-2½"C	150A	15	3-#6-1½"C



SCHEMATIC CONTROL AND POWER DIAGRAM
SECTION E



SKETCH SHOWING ROD ELECTRODE INSTALLATION

LEGEND

- CEILING OUTLET FOR INCANDESCENT FIXTURE
- BRACKET OUTLET FOR INCANDESCENT FIXTURE
- CEILING OUTLET FOR FLUORESCENT FIXTURE
- DUPLEX RECEPTACLE - HUBBELL CAT. NO. 5262
- 20A. 3P, 2W GROUNDED RECEPTACLE - HUBBELL CAT. NO. 7310-G W/CAT. NO. 9965-G CAP.
- S SINGLE POLE TOGGLE SWITCH - HUBBELL CAT. NO. 1221
- S_x EXPLOSION-PROOF SINGLE POLE TOGGLE SWITCH - CROUSE-HINDS "E.F.S." SERIES
- S_x^3 EXPLOSION-PROOF THREE WAY TOGGLE SWITCH - CROUSE-HINDS "E.F.S." SERIES
- "START-SAFE STOP-RUN" P.B. STATION
- CONDUIT RUN EXPOSED
- CONDUIT RUN CONCEALED
- MOTOR LOCATION
- W.P. INDICATES WEATHERPROOF

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C. E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

ELECTRICAL DETAILS

J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.P.
DRN. H.N.C.
CHD. H.N.P.
SCALE AS SHOWN
DATE FEB. 1964

PROJECT 20
SECTIONS A,B,C,D & E
SUBDISTRICTS A-6b, A-8a & A-8b

SHEET 24 OF 27

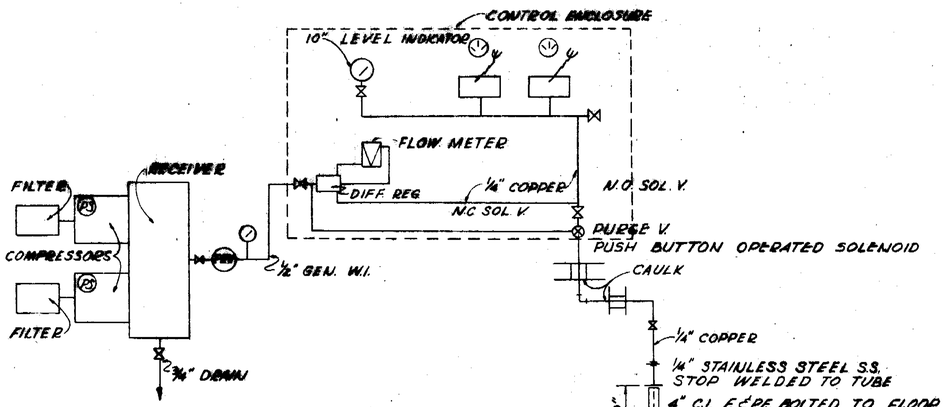


DIAGRAM OF PUMP CONTROL PIPING

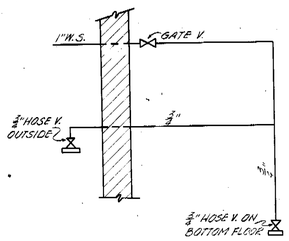


DIAGRAM OF WATER AND WASTE PIPING
SECTION E

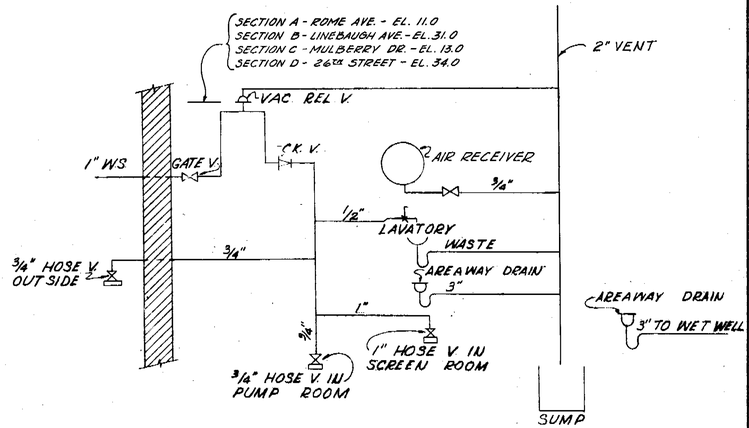
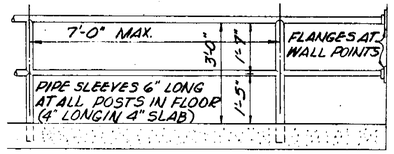
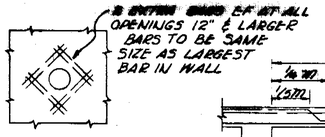


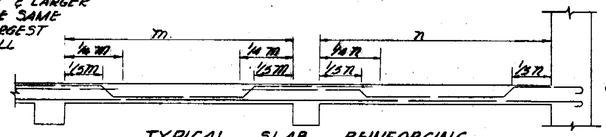
DIAGRAM OF WATER AND WASTE PIPING
SECTIONS A,B,C, & D



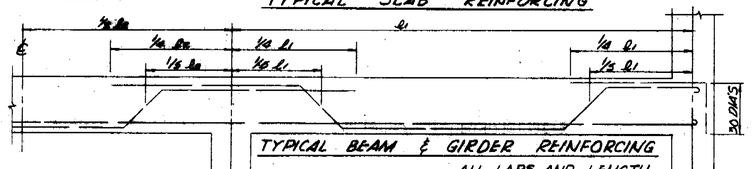
1 1/2" PIPE HANDRAIL



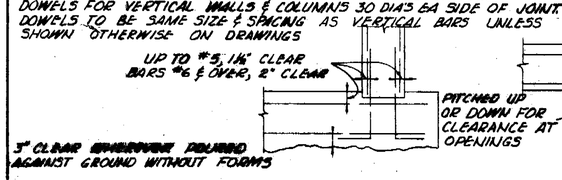
OPENING IN WALLS



TYPICAL SLAB REINFORCING

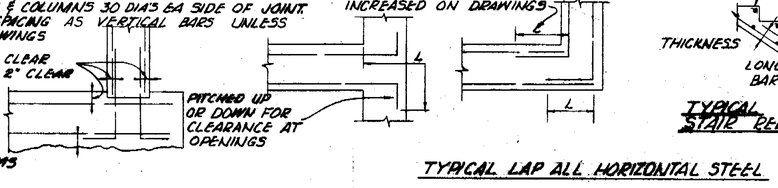


TYPICAL BEAM & GIRDER REINFORCING

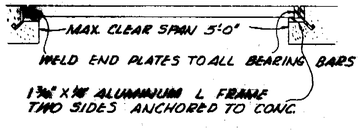


TYPICAL SECTION OF STRUCTURE WALLS
(USE SAME CLEARANCE FOR ALL STRUCTURES)

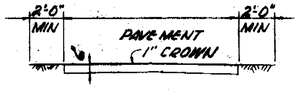
BENDING & PLACING REINFORCING
ALL STRUCTURES



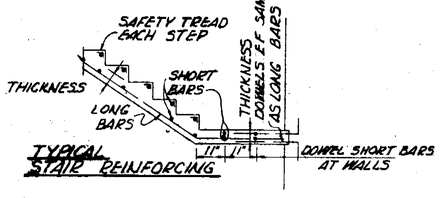
TYPICAL LAP ALL HORIZONTAL STEEL



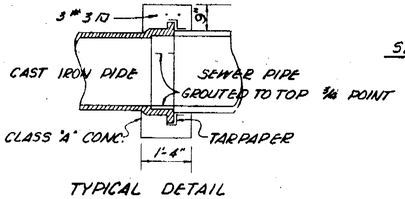
FLOOR GRATING DETAIL



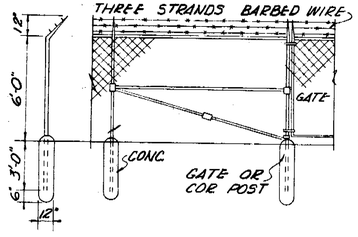
TYPICAL DRIVE SECTION



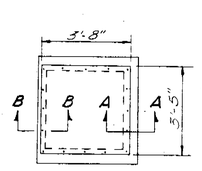
TYPICAL STAIR REINFORCING



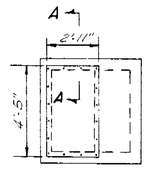
TYPICAL DETAIL
SQ CONC. COLLAR FOR JOINING C.I. PIPE TO V.C. OR CONC. PIPE



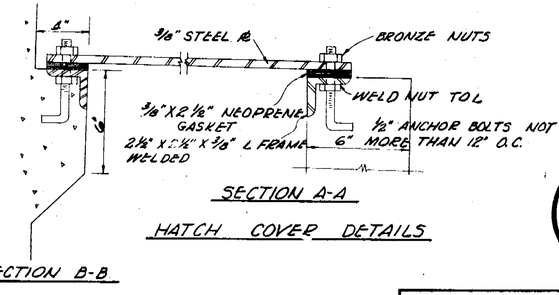
FENCE DETAIL



HATCH COVER No 1



HATCH COVER No 2



SECTION A-A

HATCH COVER DETAILS

SECTION B-B

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C. E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS ASSOCIATE, ATLANTA, GEORGIA

DES. H.N.P.
DRN. H.N.P.
CHK. H.N.P.
SCALE AS SHOWN
DATE FEB. 1964

PROJECT 20
SECTIONS A,B,C,D &E
SUBDISTRICTS A-6b, A-8a & A-8b

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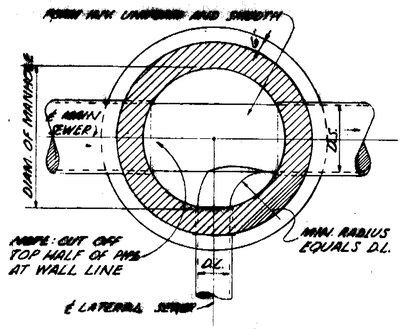
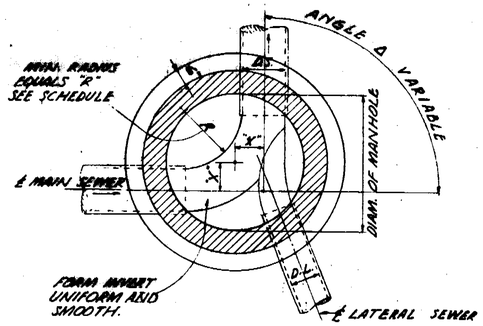
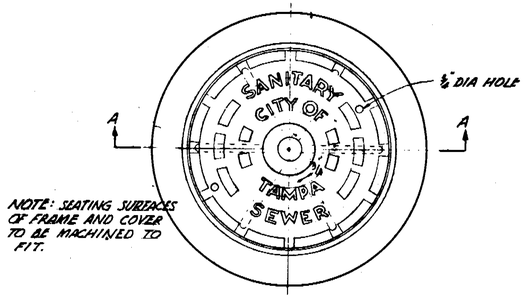


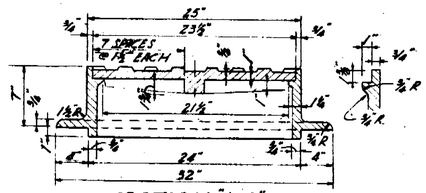
INVERT PLAN



INVERT PLAN



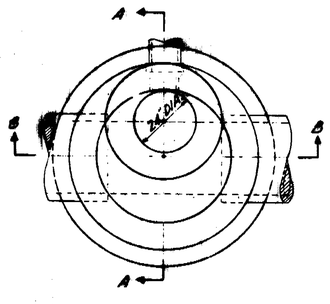
PLAN



SECTION "A-A"

STD. CAST IRON MANHOLE FRAME & COVER

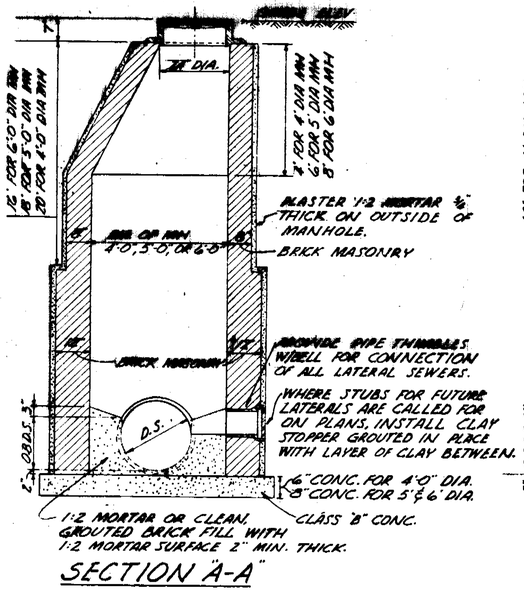
APPROX. WT. 380#
SCALE: 1½" = 1'-0"



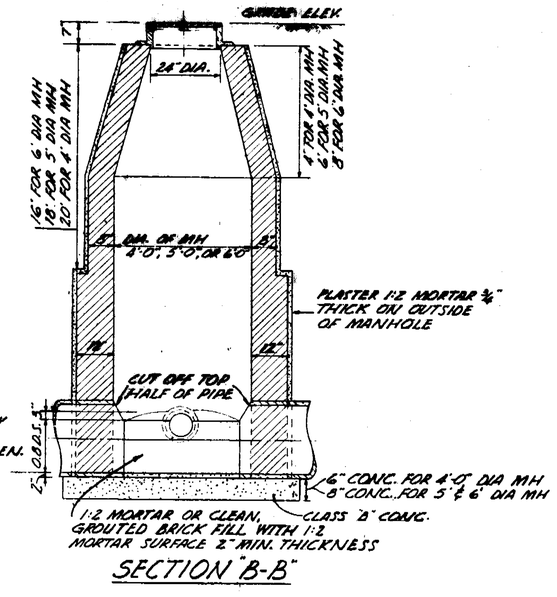
TOP PLAN

STANDARD BRICK MANHOLES
SCHEDULE OF GOVERNING DIMENSIONS

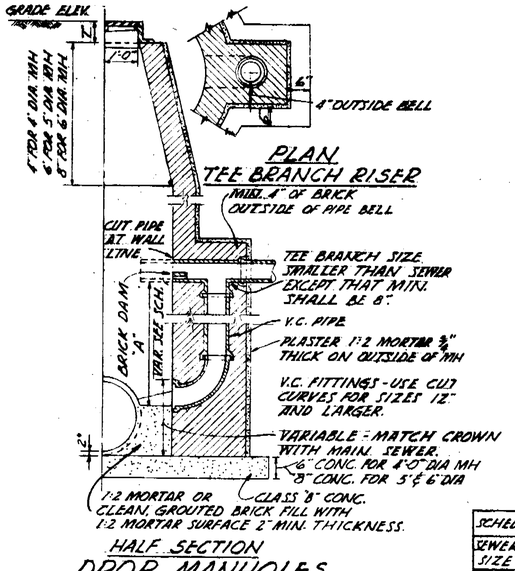
PIPE SIZE	ANGLE Δ	MH. DIA.	R	X
8" TO 15"	0° TO 90°	4'-0"	1'-8"	0" TO 10"
18", 21" & 24"	0° TO 60°	4'-0"	2'-0"	0" TO 4"
18" & 21"	60° TO 90°	5'-0"	2'-0"	6" TO 12"



SECTION "A-A"



SECTION "B-B"



PLAN
TEE BRANCH RISER

HALF SECTION
DROP MANHOLES

SCHEDULE FOR DROP MANHOLES

SEWER SIZE	TEE BRANCH RISER SIZE	DIM "A" MINIMUM
8"	8"	19½"
10"	8"	19½"
12"	10"	22"
15"	12"	24½"
18"	15"	29"

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

MISCELLANEOUS DETAILS

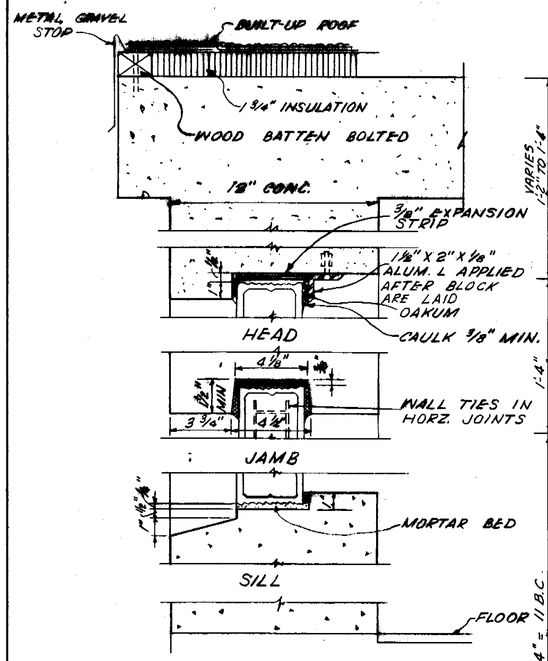
J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.S.
DRN. J.N.S.
CHD. H.N.S.
SCALE AS SHOWN
DATE FEB. 1964

PROJECT 20
SECTIONS A,B,C,D & E
SUBDISTRICTS A-6b, A-8a & A-8b

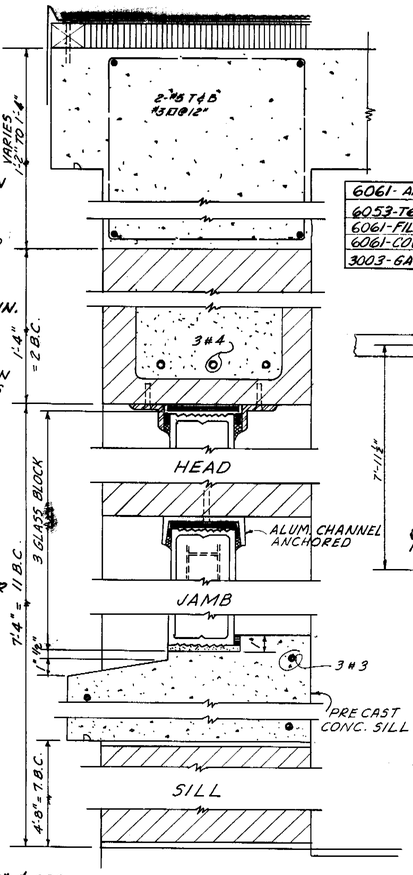
SHEET 26 OF 27

104-26



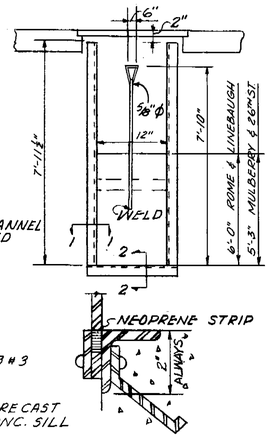
TYPICAL WALL SECTION
REINF. CONC.

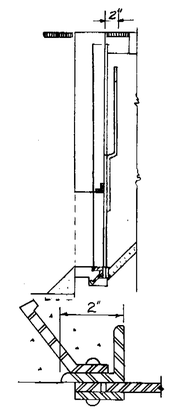
SCALE: 3" = 1'-0"



6061 - ANGLES	2" x 1½" x ⅛"
6053-T61 RIVETS	⅜" ø @ 4"
6061 - FILLER PLATE	⅜" x 1"
6061 - COVER PLATE	⅛" x 1⅛"
3003 - GATE	⅛"

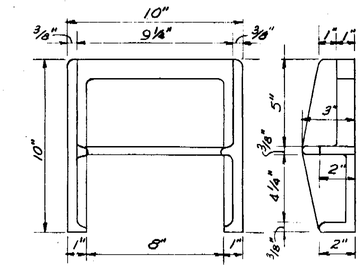
NOTE: WELD JAMB ANGLE TO SILL AND HEAD. CLEAN FLUX AND GRIND SMOOTH.





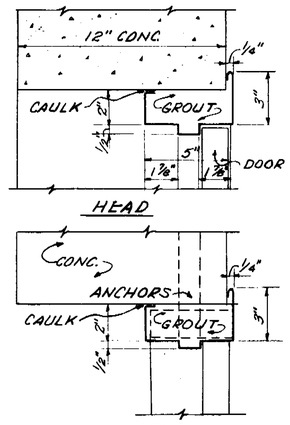
SECTION 2-2 SECTION 1-1

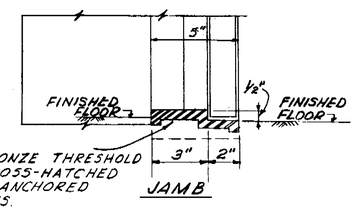
ALUMINUM FABRICATED GATE DETAILS
SECTIONS A, B, C & D



C.I. MANHOLE STEP
APPROX WT. 11 #
SCALE: 3" = 1'-0"

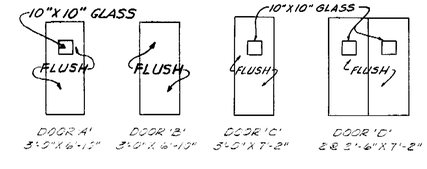
NOTE: C.I. MANHOLE STEPS TO BE INSTALLED IN SPECIAL STRUCTURES ONLY, EXCEPT AS OTHERWISE ORDERED BY THE ENGINEER



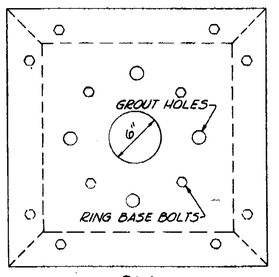


AMERICAN-MASON BRONZE THRESHOLD STYLE DS WITH CROSS-HATCHED ABRASIVE SURFACE, ANCHORED CUT TO FIT JAMBS.

DOOR DETAILS



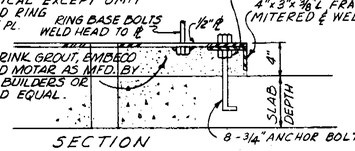
NOTE: SEE SPECIFICATIONS FOR DOOR CLOSERS AND LOCK SETS PERTAINING TO ALL DOORS



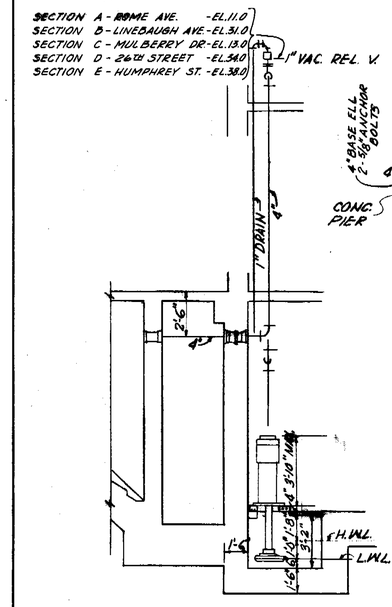
PLAN

PUMP MOTOR BASE & CURB RING

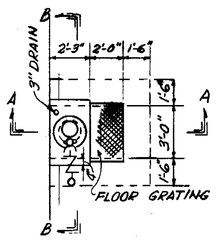
NOTE: MOTOR BASES FOR FUTURE PUMPS ARE IDENTICAL EXCEPT OMIT CENTER HOLE AND RING BASE BOLTS IN ½" PL.



SECTION

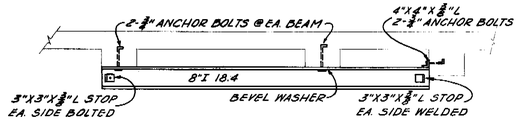


SECTION A-A

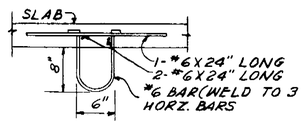


PLAN

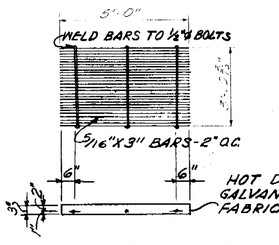
SILBE SUMP PUMP
NO SCALE



I BEAM DETAIL
NO SCALE



DETAIL OF BAR HOOK
(LOCATED OVER EACH PUMP MOTOR)



BAR SCREEN DETAIL
SECTIONS A, B, C & D

G. E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
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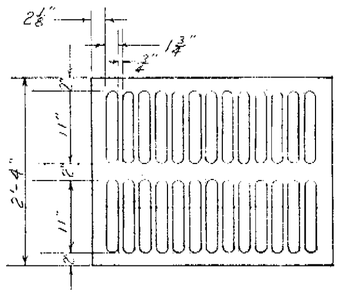
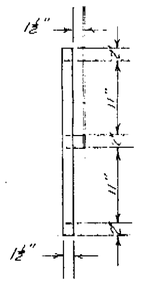
DES. H.N.P.
DRN. J.W.P.
CKD. H.N.S.
SCALE AS SHOWN
DATE FEB. 1964.

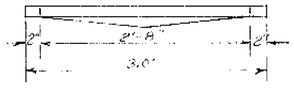
PROJECT 20
SECTIONS A,B,C,D&E
SUBDISTRICTS A-6b A-8a & A-8b

SHEET 27 OF 27

104-27

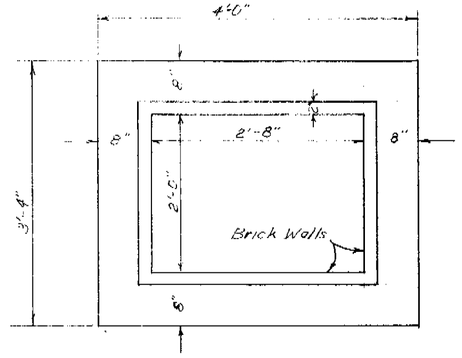






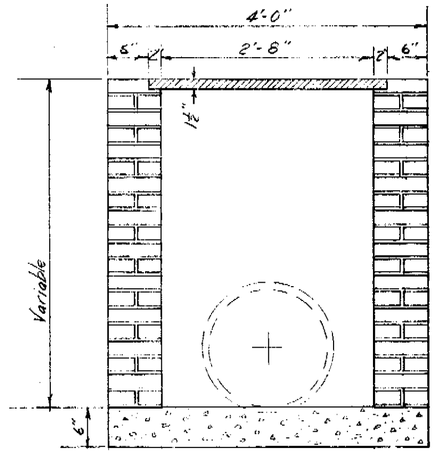
CAST IRON GRATING

TYPE "C" GRATING INLET



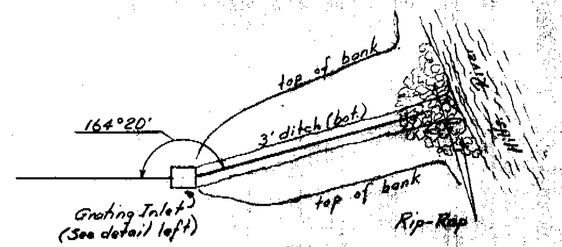
PLAN

SCALE: ¾" = 1'-0"



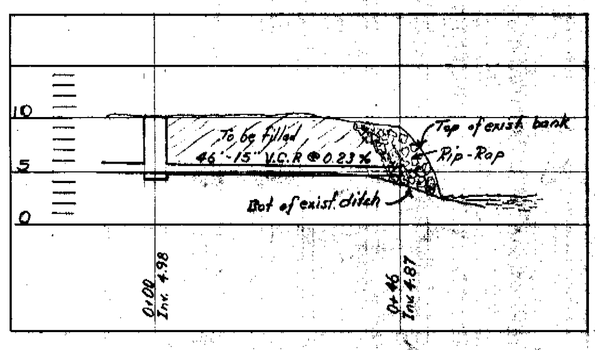
SECTION

NOTE: REMOVE EXIST. HEADWALL AT 0+00.
DITCH MUST BE BACK-FILLED TO MEET EXIST. GRADES.
APPROX. 125 CU.YDS. FILL - APPROX. 12 CU.YDS. RIP-RAP



PLAN

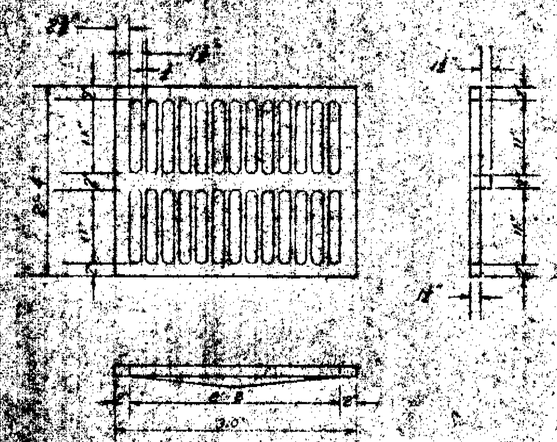
SCALE: 1" = 20'



PROFILE

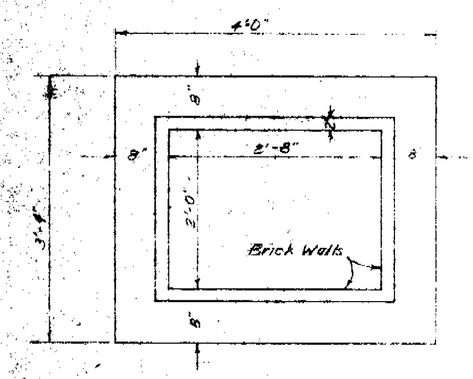
SUPPLEMENTARY DRAWING No. 20C-SD1
CONTRACT No. 96
DATE ISSUED 12-2-65

MULBERRY PS OVERFLOW
PROJ. 20-C CONT. 96
CONE BROS.
11-9-65
W. I. E.



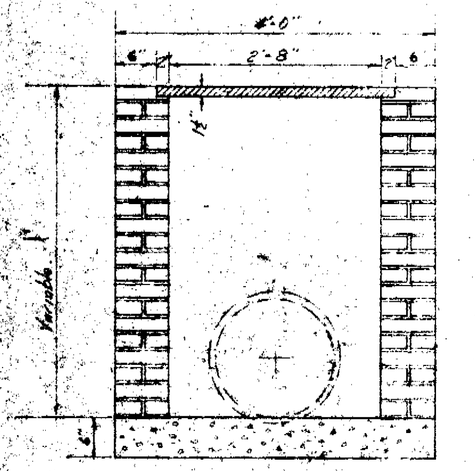
CAST IRON GRATING

TYPE "C" GRATING INLET



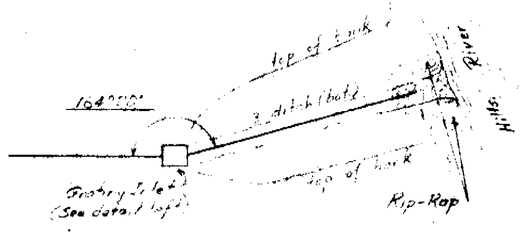
PLAN

SCALE: ¾" = 1'-0"



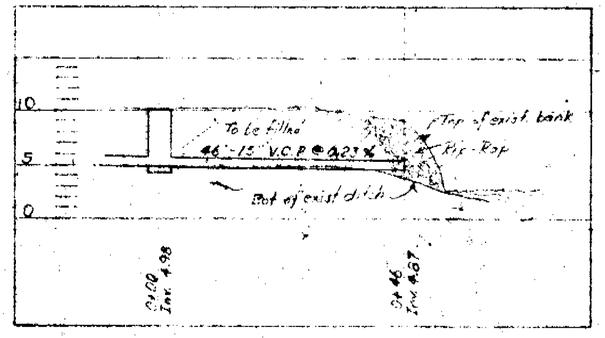
SECTION

NOTE: REMOVE EXIST. HEADWALL AT 0+00.
DITCH MUST BE BACK-FILLED TO MEET EXIST. GRADES.
APPROX. 125 CU.YDS. FILL - APPROX. 12 CU.YDS. RIP-RAP



PLAN

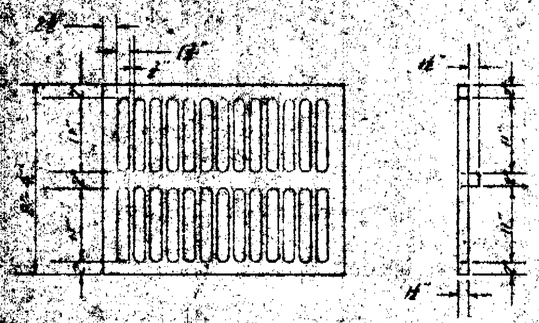
SCALE: 1" = 20'



PROFILE

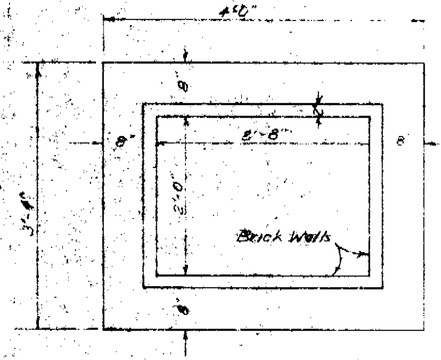
SUPPLEMENTARY DRAWING No. 20C-SD1
CONTRACT No. 96
DATE ISSUED 12-2-65

MULBERRY P.S. OVERFLOW
PROJ. 20-C CONT. 96
CONE BROS.
11-9-65
W. J. B.



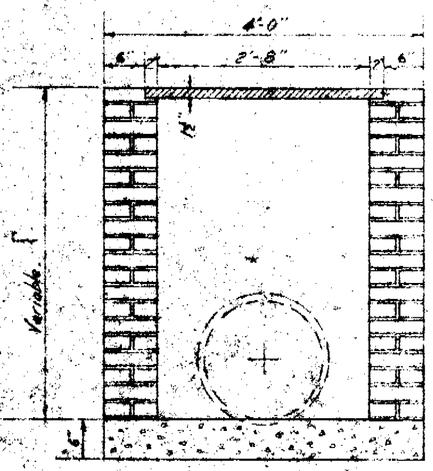
CAST IRON GRATING

TYPE "C" GRATING INLET



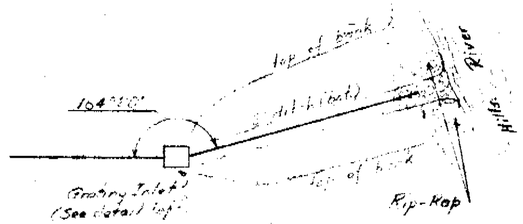
PLAN

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



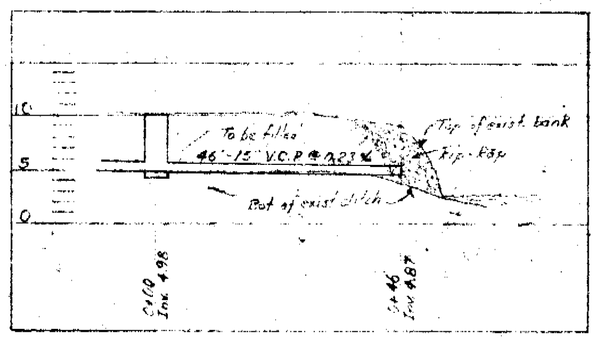
SECTION

NOTE: REMOVE EXIST. HEADWALL AT 0+00.
DITCH MUST BE BACK-FILLED TO MEET EXIST. GRADES.
APPROX. 125 CU.YDS. FILL - APPROX. 12 CU.YDS. RIP-RAP.



PLAN

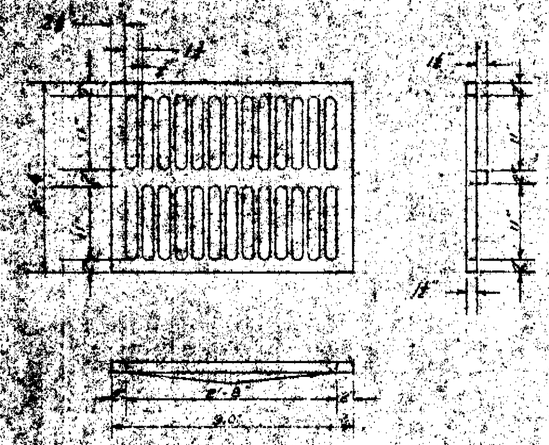
SCALE: 1" = 20'



PROFILE

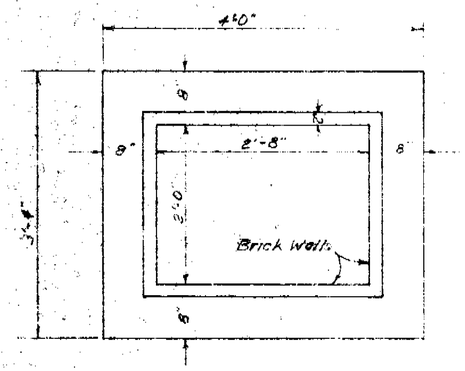
SUPPLEMENTARY DRAWING No. 20C-SP1
CONTRACT No. 96
DATE ISSUED 12-2-65

MULBERRY, P.S. OVERFLOW
PROJ. 20-C CONT. 96
CONE BROS.
11-9-65
W. J. B.



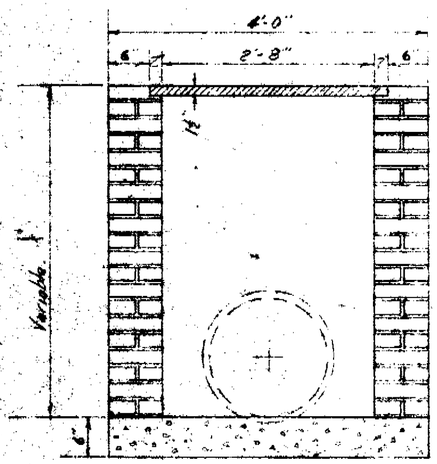
CAST IRON GRATING

TYPE "C" GRATING INLET



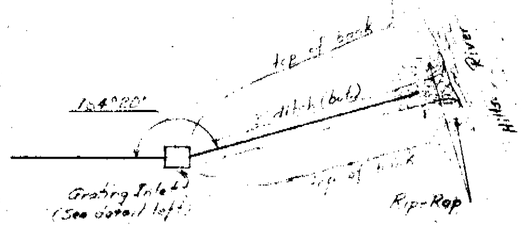
PLAN

SCALE: ¾" = 1'-0"



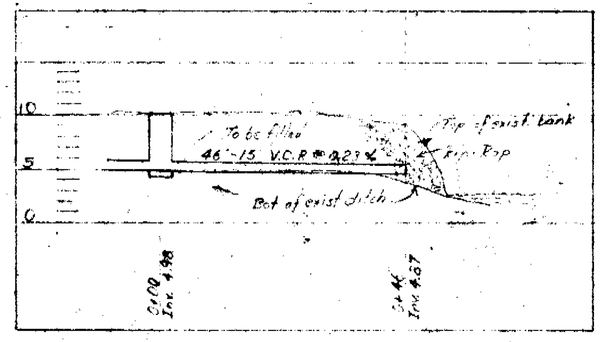
SECTION

NOTE: REMOVE EXIST. HEADWALL AT 0+00.
DITCH MUST BE BACK-FILLED TO MEET EXIST. GRADES.
APPROX. 125 CU.YDS. FILL - APPROX. 12 CU.YDS. RIP-RAP



PLAN

SCALE: 1" = 20'



PROFILE

SUPPLEMENTARY DRAWING No. 20C-SD1
CONTRACT No. 96
DATE ISSUED 12-2-65

MULBERRY P.S. OVERFLOW
PROJ. 20-C CONT. 96
CONE BROS.
11-9-65
W. J. B.

CITY OF TAMPA, FLORIDA

THIRD SEWER REVENUE BOND PROGRAM

PLANS

FOR THE CONSTRUCTION OF

SEWAGE DISPOSAL SYSTEM

SUB-DISTRICT A-1
DISTRICT B

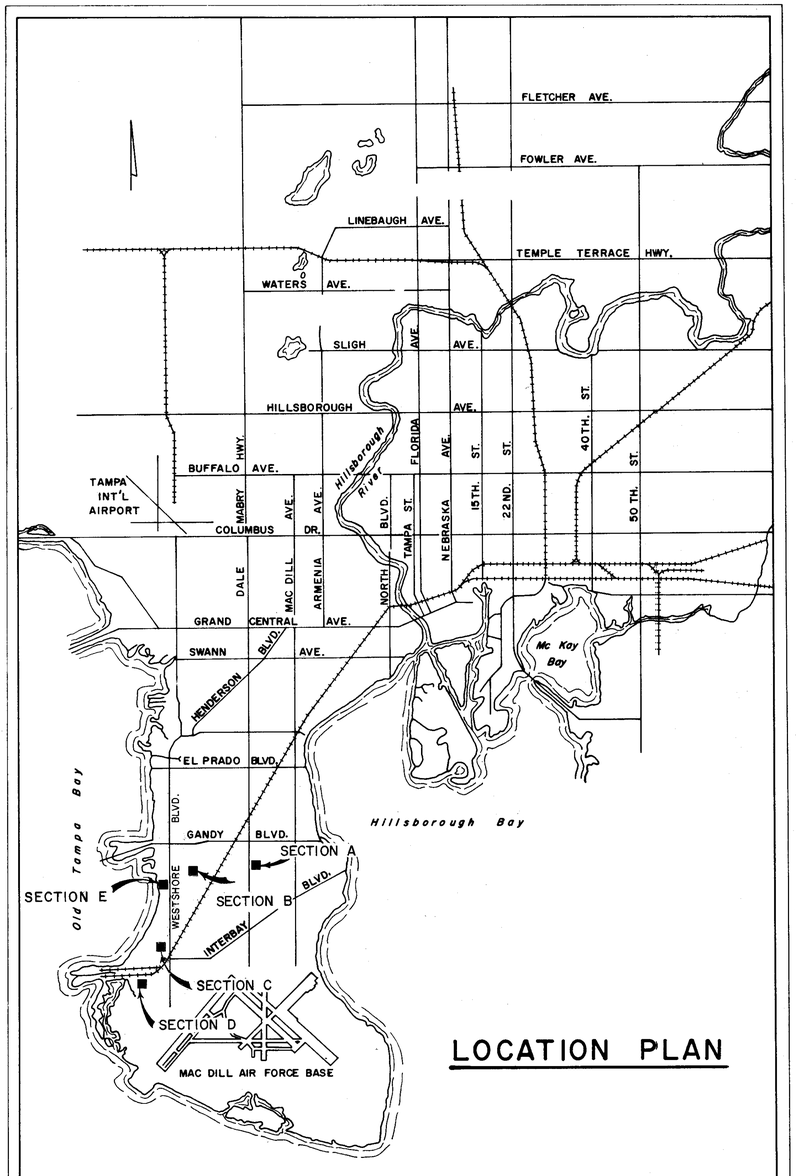
PROJECT 16

SECTION A – BALLAST POINT BOULEVARD PUMPING STATION
SECTION B – PAXTON AVENUE PUMPING STATION
SECTION C – PRESCOTT STREET PUMPING STATION
SECTION D – IDAHO STREET PUMPING STATION
SECTION E – TRILBY AVENUE PUMPING STATION

J. E. GREINER COMPANY
Consulting Engineers
Tampa, Florida

WIEDEMAN AND SINGLETON, ENGINEERS
Associate Engineers
Atlanta, Georgia

100-0



LOCATION PLAN

INDEX

SECTION	SHEET NUMBER	TITLE
		GENERAL
A,B,C,D & E	1	INDEX SHEET
		BALLAST POINT BLVD. PUMPING STATION
A	2	EQUIPMENT - PLANS & SECTIONS
↑	3	EQUIPMENT - SECTIONS
	4	STRUCTURAL - PLANS & SECTIONS
	5	STRUCTURAL - SECTIONS
A	6	ELECTRICAL - PLANS
		PAXTON AVENUE PUMPING STATION
B	7	EQUIPMENT - PLANS & SECTIONS
↑	8	EQUIPMENT - SECTIONS & STRUCTURAL SCHEDULE
	9	STRUCTURAL - PLANS & SECTIONS
B	10	ELECTRICAL - PLANS
		PRESCOTT STREET PUMPING STATION
C	11	EQUIPMENT - PLANS
↑	12	EQUIPMENT - SECTIONS
	13	STRUCTURAL - PLANS & SECTIONS
	14	STRUCTURAL - SECTIONS
C	15	ELECTRICAL - PLANS
		IDAHO STREET PUMPING STATION
D	16	EQUIPMENT - PLANS
↑	17	EQUIPMENT - SECTIONS
	18	STRUCTURAL - PLANS
	19	STRUCTURAL - SECTIONS
D	20	ELECTRICAL - PLANS
		TRILBY AVENUE PUMPING STATION
E	21	EXISTING PUMPING STATION
E	22	MODIFICATIONS
A,B,C,D & E	23	ELECTRICAL DETAILS
A,B & E	24	CONNECTIONS TO EXISTING UTILITIES
A,B,C,D & E	25	MISCELLANEOUS DETAILS
A,B,C,D & E	26	MISCELLANEOUS DETAILS
A,B,C,D & E	27	MISCELLANEOUS DETAILS

J.E. GREINER COMPANY
CONSULTING ENGINEERS
BY George S. Jenkins
REGISTERED ENGINEER
STATE OF FLORIDA
CERTIFICATE No. 6858

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

WIEDEMAN AND SINGLETON, ENGINEERS
ASSOCIATE ENGINEERS
BY C. E. Drummond, Jr.
REGISTERED ENGINEER
STATE OF FLORIDA
CERTIFICATE No. 8983

C. E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

ACCEPTED E W Southworth
SUPERINTENDENT — BUREAU OF SANITARY SEWERS

CONCURRED Wayne Jump
SUPERINTENDENT — DEPARTMENT OF PUBLIC WORKS

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

INDEX SHEET

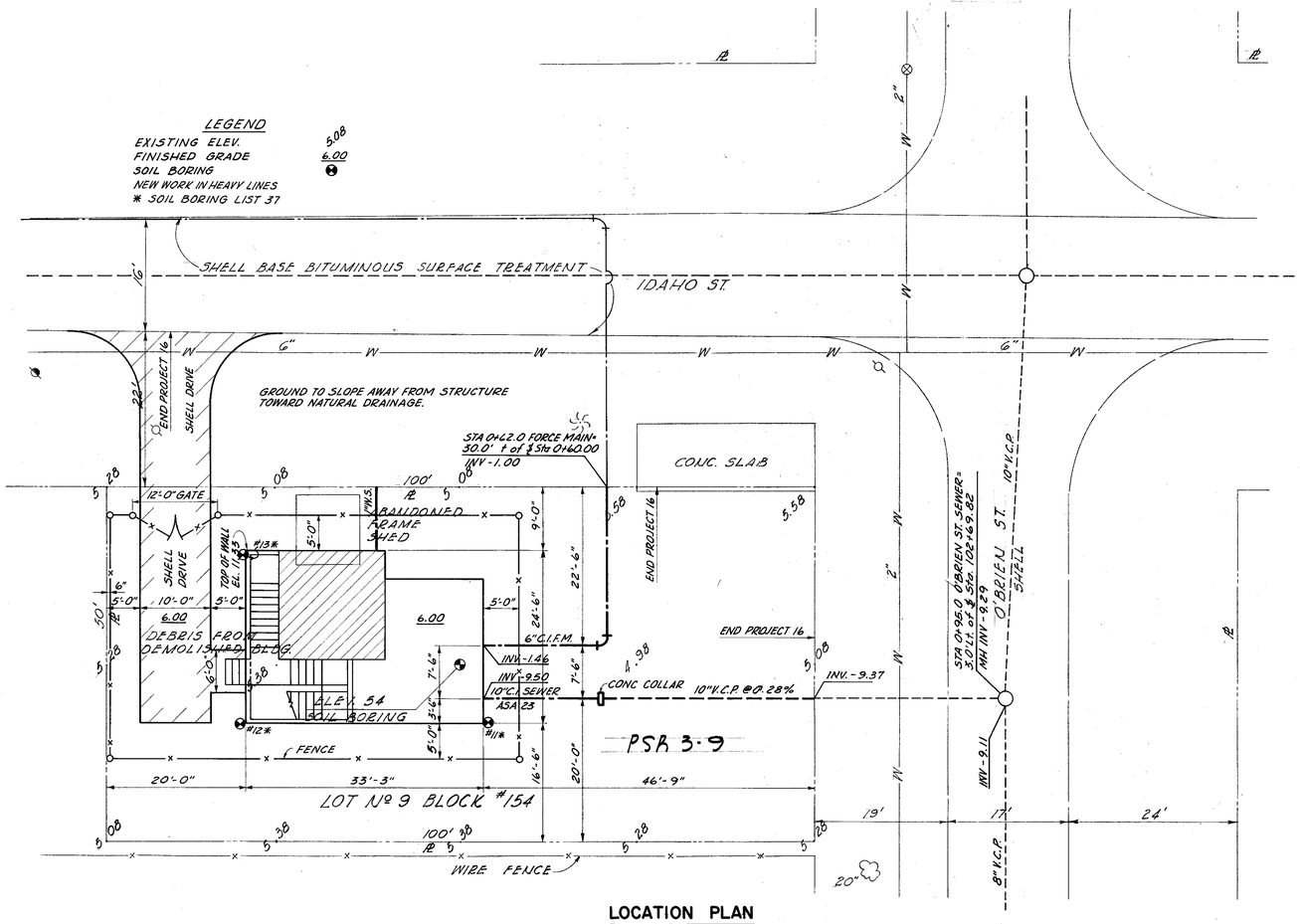
J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.P.
DRN. R.F.L.
CKD. H.N.P.
SCALE AS SHOWN
DATE NOV. 1963

PROJECT 16
SECTIONS A,B,C,D,&E
SUBDISTRICT A-1 & DISTRICT B

SHEET 1 OF 27

100-1



LOCATION PLAN

IDAHO STREET PUMPING STATION

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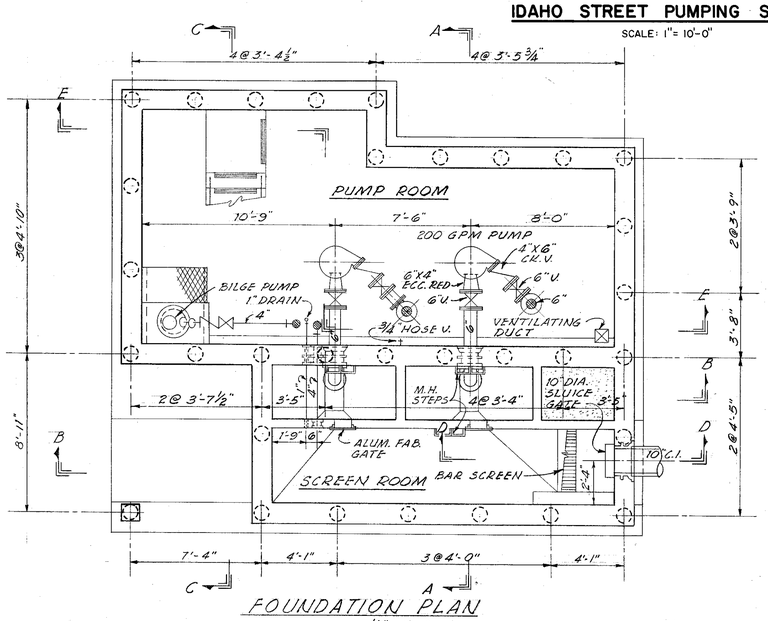
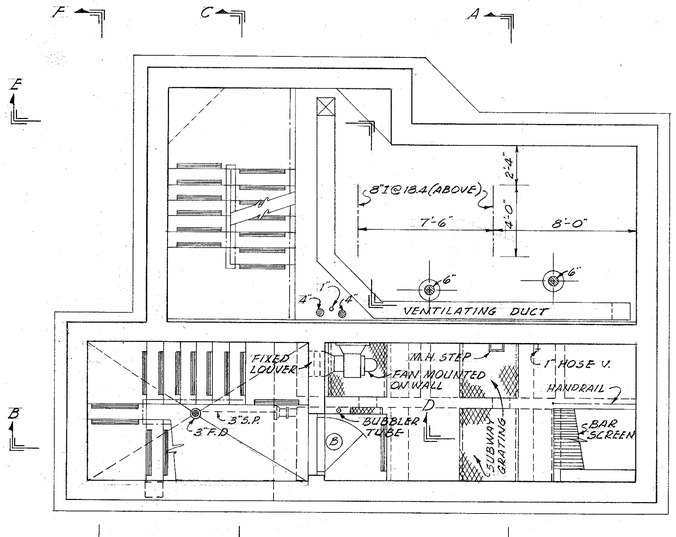


FOUNDATION PLAN

SCALE: ¼"=1'-0"

PILE LAYOUT FOR 207 PILES (PILES TO BE PAID FOR AT UNIT PRICES UNDER CONTINGENT ITEMS)



INTERMEDIATE FLOOR PLAN

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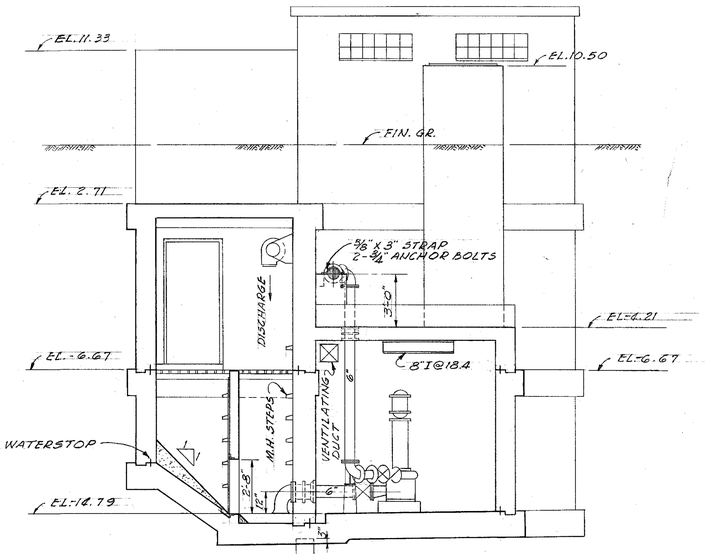
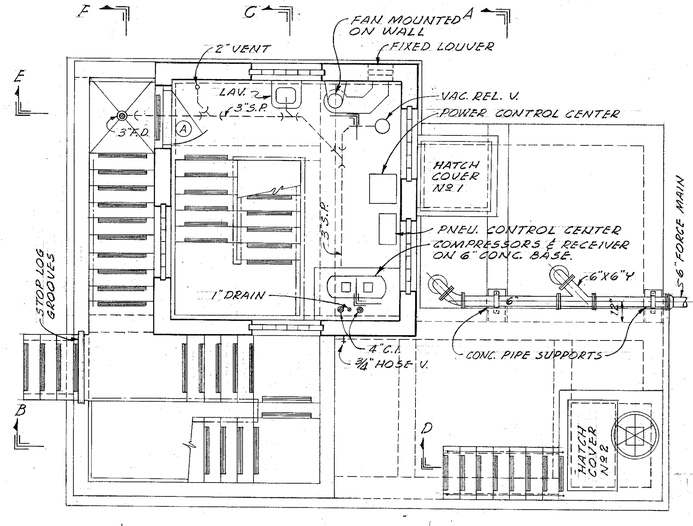


SECTION A-A

SCALE: 1¼"=1'-0"

NOTE:
WATERSTOP REQUIRED IN ALL CONSTRUCTION JOINTS BELOW EL. 11.33 IN EXTERIOR WALLS AND WALL BETWEEN PUMP ROOM AND SCREEN ROOM.



ENTRANCE FLOOR PLAN

SCALE: ¼"=1'-0"

GEORGE S. JENKINS CERTIFICATE No. 6856 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

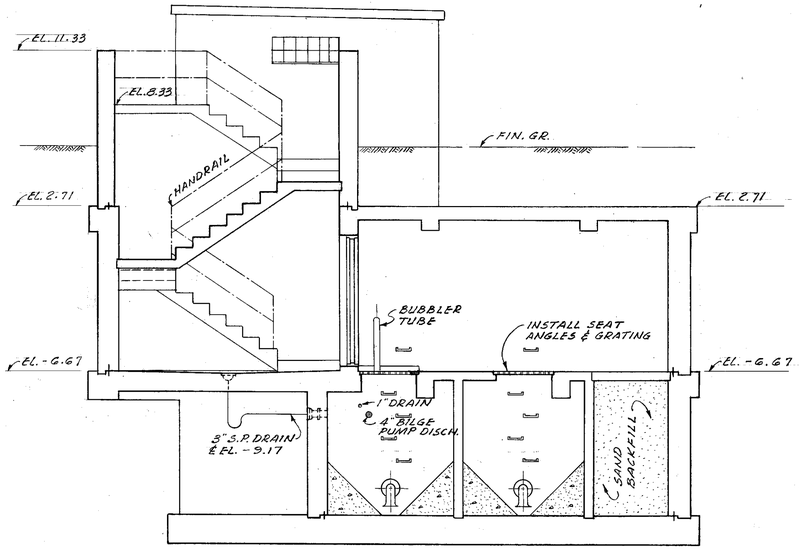
CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

IDAHO STREET PUMPING STATION EQUIPMENT PLANS

J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.P.	PROJECT 16
DRN. R.F.L.	SECTION D
CKD. H.N.P.	DISTRICT B
SCALE AS SHOWN	
DATE NOV. 1963	

SHEET 16 OF 27



SECTION B-B
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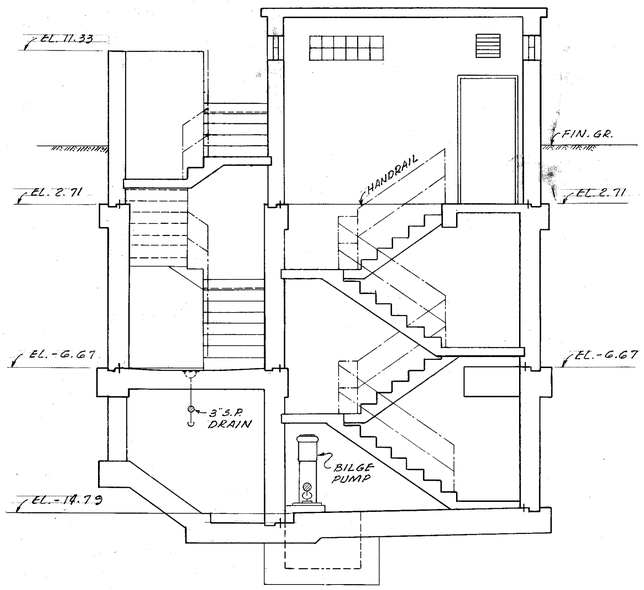

SECTION C-C
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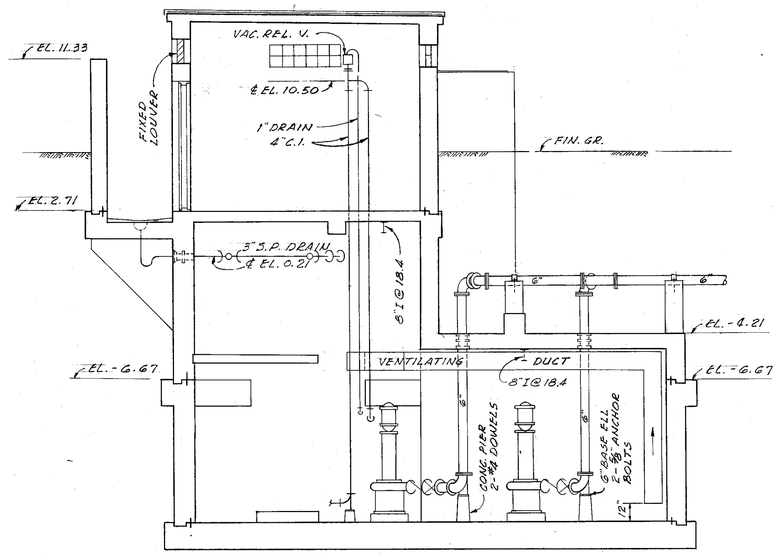

SECTION E-E
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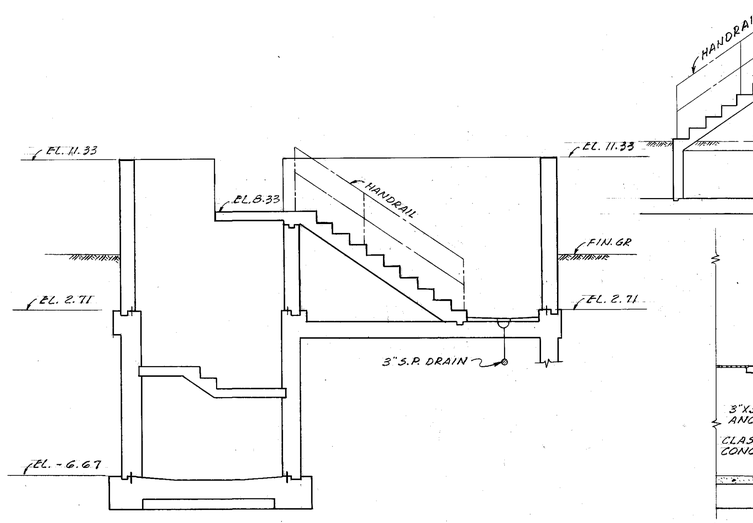

SECTION F-F
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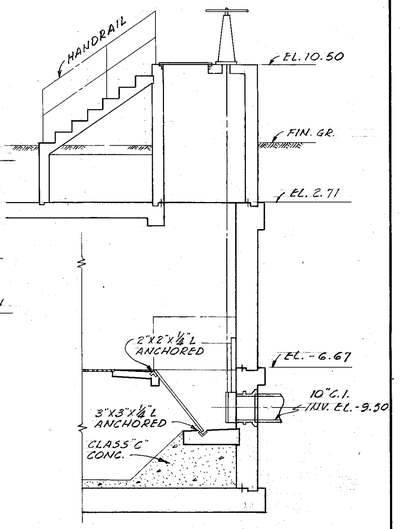


SECTION D-D
SCALE: 1/4" = 1'-0"

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C. E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

IDAHO STREET PUMPING STATION
EQUIPMENT SECTIONS

J. E. GREINER COMPANY — CONSULTING ENGINEERS, TAMPA, FLORIDA
WIEDEMAN & SINGLETON, ENGINEERS — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.P.	PROJECT 16
DRN. H.N.C.	SECTION D
CKD. H.N.P.	DISTRICT B
SCALE AS SHOWN	
DATE NOV. 1963	

SHEET 17 OF 27

WALL BEAM SCHEDULE

MARK	SIZE	BARS	TIES	REMARKS
WB-1	18"X22"	4-#8 E.F.	#4; 1@4", 2@5", 2@6, 2@8" 2@10"(X4) CONT.@12"	IN HAUNCHES, BEGIN 12" WITH FACE OF WALL
WB-2	do	5-#8 E.F.	do (X2)	do
WB-3	do	2-#8 E.F.	#3@12"	
WB-4	15"X22"	3-#8 E.F.	do	
WB-5	18"X22"	4-#8 E.F.	#4; 1@4", 2@5", 2@6", 2@8" 2@10"(X4) CONT.@12"	
WB-6	18"X16"	3-#8 E.F.	#3; 2@11", 2@6", 2@8"(X6), CONT.@12"	
WB-7	16"X16"	3-#7 E.F.		
WB-8	16"X16"	3-#7 E.F.		
WB-9	16"X18"	3-#7 E.F.	#3@12"	
WB-10	16"X20"	4-#8 E.F.	#3; 2@8", 1@10"(X2) CONT. @12"	
WB-11	16"X16"	3-#7 E.F.		SEE SEC. F-F
WB-12	16"X16"	3-#7 E.F.		
WB-13	16"X20"	3-#7 E.F.	#3@12"	
WB-14	16"X16"	3-#7 E.F.		

BEAM SCHEDULE

MARK	SIZE	TOP	TRUSS	BOT	TIES	REMARKS
B-1	22"X18"	2-#7		2-#7	#3@12"	
B-2	do	do		do	do	BEND INTO B-1 & B-3
B-3	do	do		do	do	
B-4	12"X18"	2-#5		2-#5	do	
B-5	10"X15"	2-#5		2-#5	#2@12"	
B-6	12"X16"	2-#6	2-#5	2-#6	#3@12"	
B-7	14"X24"	2-#5	2-#8	2-#8	#3; 1@6", 2@8" (X2) CONT. @12"	
B-8	12"X16"	2-#6	2-#6	2-#7	#3; 1@6", 2@8" (X2) CONT. @12"	
B-9	16"X16"	3-#8		3-#8	#3@12"	

STAIR SCHEDULE

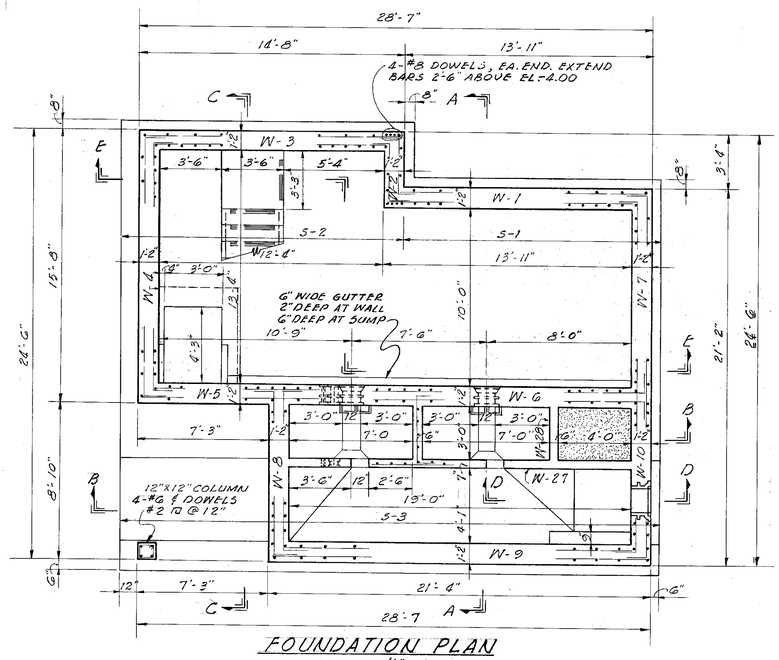
MARK	THICK	LONG BARS	SHORT BARS	REMARKS
ST-1	4"	4-#3	#3	SEE SEC. F-F
ST-2	6"	6-#5	#3 ⌐⌐	6-#5 DOWELS E.F. THRU B-5
ST-3	do	9-#5	#3	
ST-4	do	do	#3 ⌐⌐	
ST-5	do	6-#5	#3	
ST-6	do	6-#5	#4 ⌐⌐ @ WALLS	
ST-7	do	do	do	
ST-8	do	do	do	
ST-9	do	do	do	
ST-10	do	do	do	

SLAB SCHEDULE

MARK	THICK	TOP	TRUSS	BOT	TEMP	REMARKS
S-1	18"	#8@22"	#8@22"	#8@22"	#6@18" E.F.	SEE SEC. A-A
S-2	do	#8@11"	#8@11"	#8@11"	do	
S-3	do	#8@22"		#8@22"	do	SEE SEC. A-A
S-4	5"			#3@9"	#3@9"	PROVIDE EXTRA BARS AT OPENINGS
S-5	do			do	do	do
S-6	do			do	do	do
S-7	14½"12"	#6@16"		#5@16"	#5@16" E.F.	
S-8	12"	#6@16"	#6@16"	#6@16"	#6@12" E.F.	SEE SEC. E-E AND A-A
S-9	do	#6@12"		#6@12"	#6@16" E.F.	
S-10	7"	#4@18"		#4@18"	#3@12" E.F.	EXTEND BARS THRU OVERHANG
S-11	10"	#5@14"		#5@14"	#5@18" E.F.	
S-12	do	do	#5@14"	do	do	
S-13	do	do		do	do	
S-14	7"		#4@18"	#4@18"	#3@12" E.F.	SEE STAIR SCHEDULE
S-15	7"	#3@20"	#4@20"	#4@20"	#3@12" T.F. #4@12" B.F.	
S-16	5½"	#5@6"		#5@12"	#4@12" E.F.	SEE SEC. J-J

WALL SCHEDULE

MARK	DOWELS	VERT.	HORIZ.	REMARKS
W-1	#6@9" E.F.	#6@9" I.F., #6@18" O.F.	#4@12" E.F.	EXTEND VERT. BARS INTO WALL ABOVE
W-2	do	do	do	EXTEND VERT. BARS INTO WALL ABOVE FOR DOWELS
W-3	do	#6@9" I.F., #6@18" O.F.	do	do
W-4	do	do	do	do
W-5	do	do	do	do
W-6	do	do	do	do
W-7	do	do	do	EXTEND VERT. BARS INTO WALL ABOVE
W-8	do	#6@9" E.F.	do	EXTEND VERT. BARS INTO SLAB ABOVE AND HOOK
W-9	#6@18" E.F.	#6@18" E.F.	do	EXTEND VERT. BARS INTO WALL ABOVE FOR DOWELS
W-10	#6@9" E.F.	#6@9" E.F.	do	do
W-11	#6@18" O.F.	#6@9" I.F., #6@18 O.F.	do	EXTEND O.F. VERT. BARS INTO WALL ABOVE FOR DOWELS
W-12	#6@18" O.F.	#6@9" I.F., #6@18" O.F.	do	do
W-13	do	do	do	do SEE SECT. E-E
W-14	do	do	do	EXTEND I.F. VERT. BARS INTO WALL ABOVE FOR DOWELS
W-15	do	#6@9" E.F.	do	
W-16	#6@18" E.F.	do	do	
W-17		do	do	
W-18	#6@9" E.F.	do	do	EXTEND O.F. VERT. BARS INTO WALL ABOVE FOR DOWELS
W-19	#6@12" O.F.	#4@12" E.F.	do	BEND VERT. BARS INTO ROOF
W-20		do	do	do
W-21	#4@12" I.F.	do	do	do
W-22	#4@12" I.F.	do	do	do
W-23		do	do	
W-24		#5@9" O.F., #4@12" I.F.	do	
W-25	#4@12" I.F.	do	do	
W-26	#5@9" I.F., #4@12" I.F.	do	do	
W-27	#4@9" CENTER	#4@9" CENTER	#4@9" CENTER	
W-28	#3@9" CENTER	#3@9" CENTER	#3@9" CENTER	
W-29	#5@18" E.F.	#5@18" E.F.	#4@12" E.F.	
W-30	#5@9" I.F., #5@18" O.F.	#5@9" I.F., #5@18" O.F.	do	SEE SECTION E-E
W-31	#4@12" I.F.	#4@12" E.F.	do	SEE SECTION F-F



FOUNDATION PLAN
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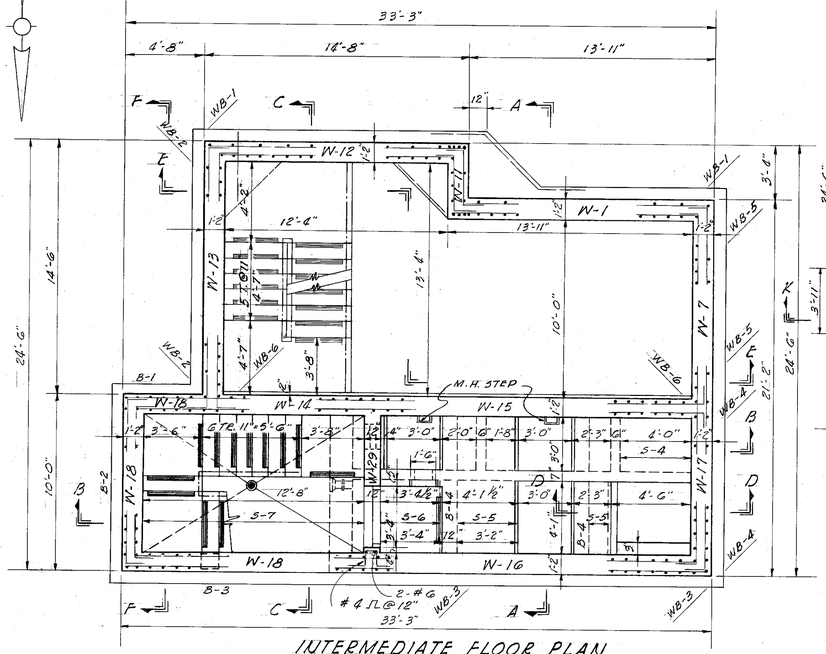

INTERMEDIATE FLOOR PLAN
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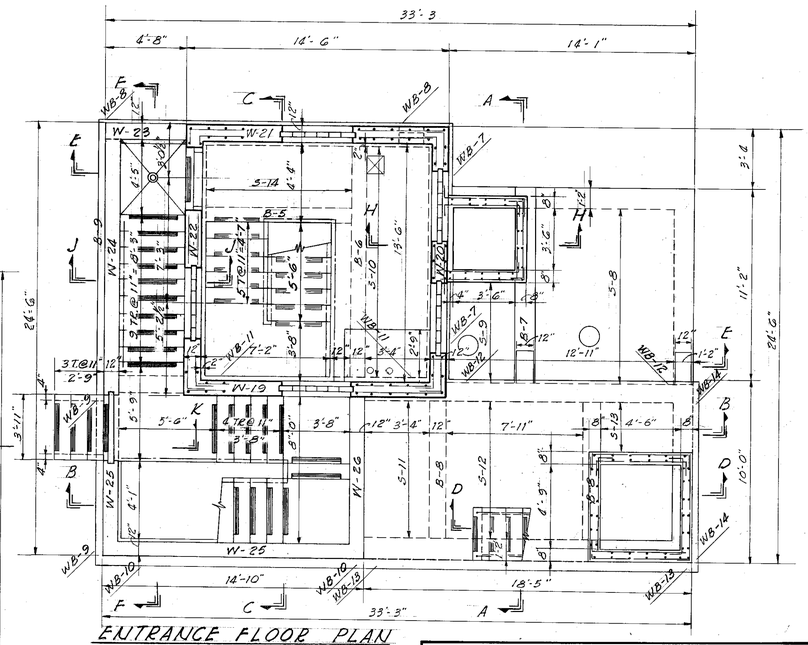


ENTRANCE FLOOR PLAN
SCALE: 1/4"=1'-0"

GEORGE S. JENNINGS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

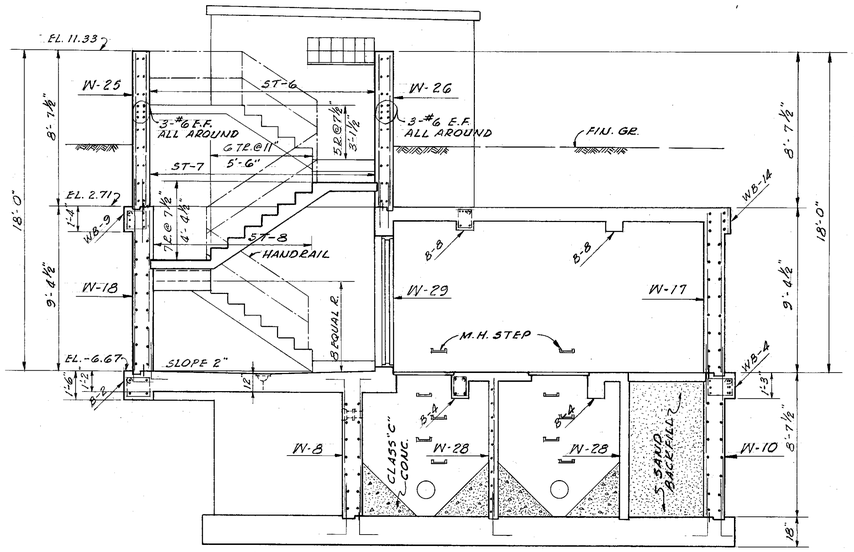
IDAHO STREET PUMPING STATION STRUCTURAL PLANS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS, TAMPA, FLORIDA — ASSOCIATE ENGINEERS, ATLANTA, GEORGIA

DES. H.N.P.
DRN. R.N.C.
CHD. H.N.P.
SCALE AS SHOWN
DATE NOV. 1963

PROJECT 16
SECTION D
DISTRICT B

SHEET 18 OF 27



SECTION B-B
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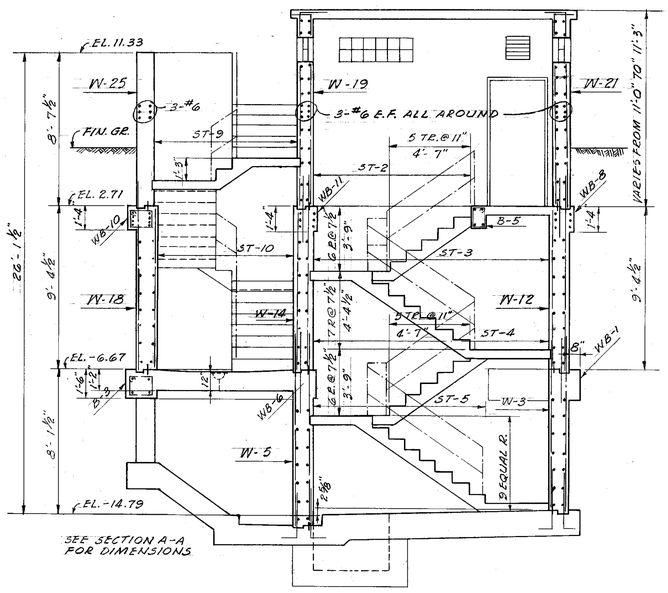

SECTION C-C
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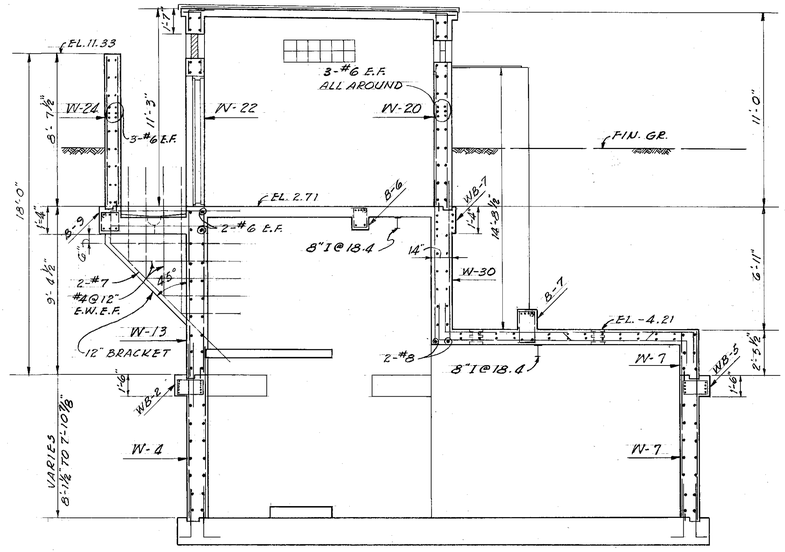

SECTION E-E
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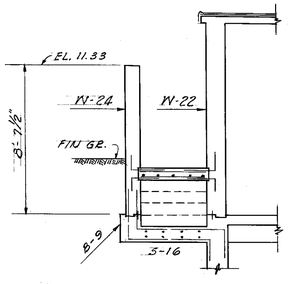

SECTION J-J
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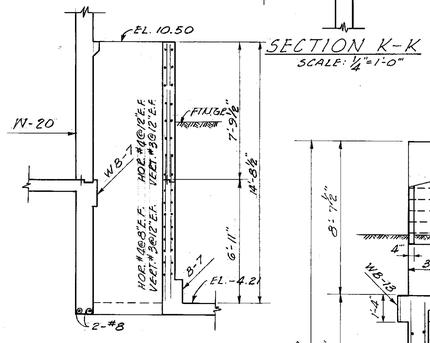
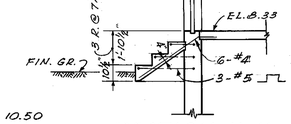


SECTION H-H
SCALE: 1/4"=1'-0



SECTION K-K
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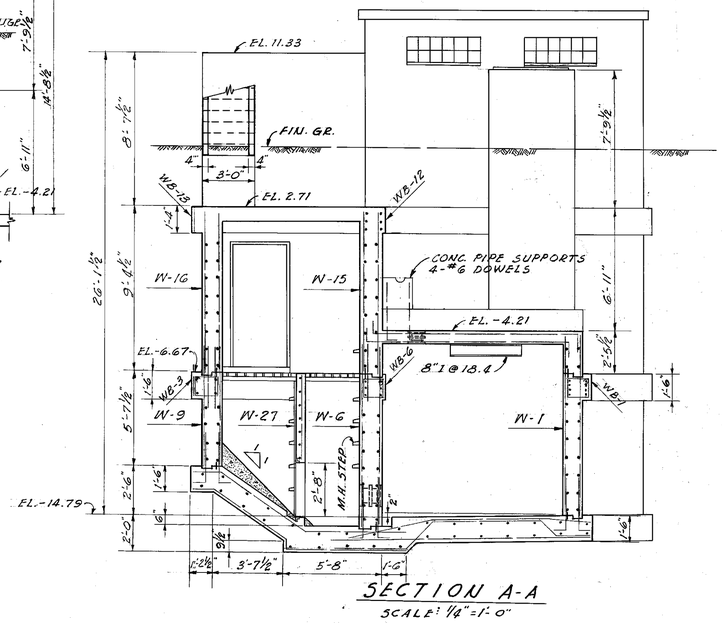
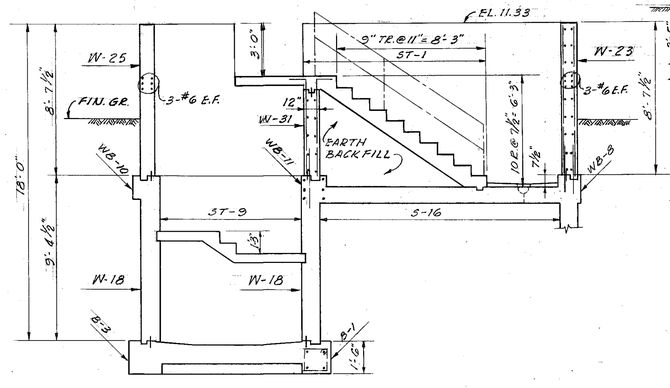


SECTION A-A
SCALE: 1/4"=1'-0"



SECTION F-F
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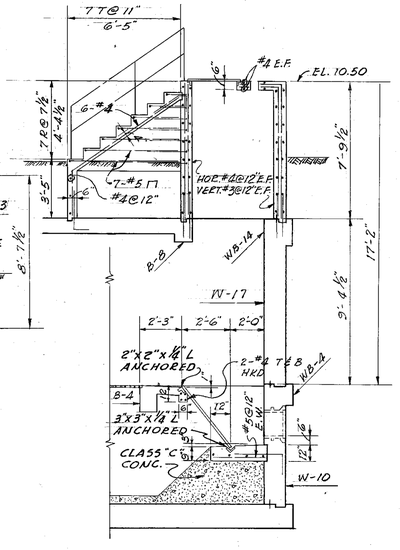
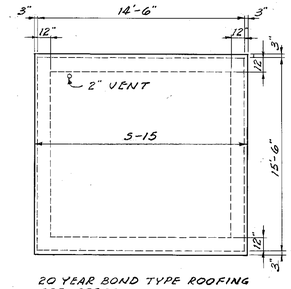


SECTION D-D
SCALE: 1/4"=1'-0"



20 YEAR BOND TYPE ROOFING SEE SPECS.

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

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

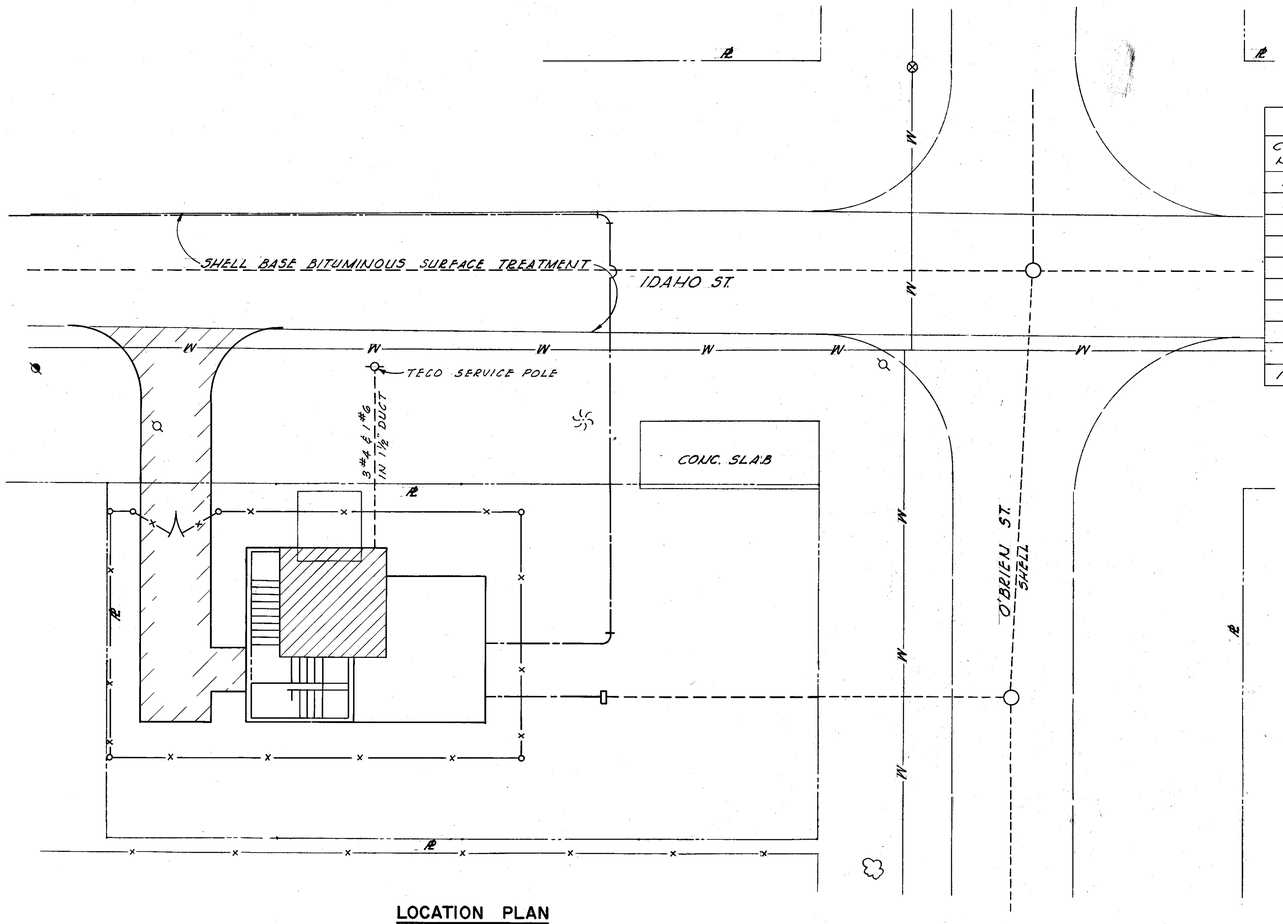
C.E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

IDAHO STREET PUMPING STATION
STRUCTURAL SECTIONS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES. H.N.P.	PROJECT 16	SHEET 19
DRN. H.N.P.	SECTION D	OF 27
CKD. H.N.P.	DISTRICT B	
SCALE AS SHOWN		
DATE NOV. 1965		

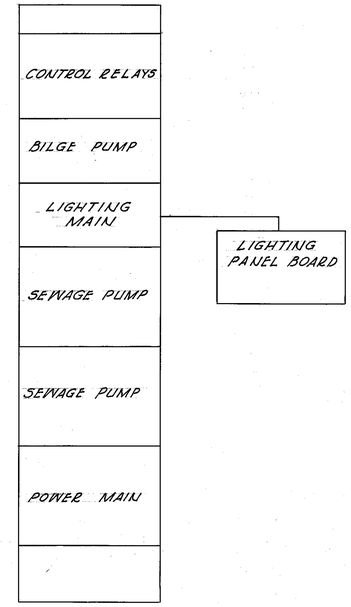


LOCATION PLAN

SCALE: 1"=10'-0"

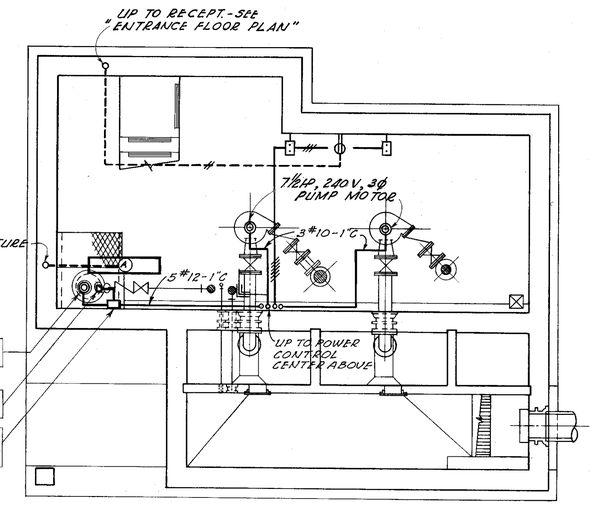
LIGHTING PANEL SCHEDULE

CCT. NO.	BREAKER 1P	BREAKER 2P		CONNECTED WATTS
1	20A		LIGHTS & FAN - ENTRANCE FLOOR	500
2	20A		LIGHTS & FAN - SCREEN ROOM	800
3	20A		LIGHTS - PUMP ROOM	400
4	20A		PNEUMATIC PUMP CONTROLLER	200
5	20A		RECEPTACLES	300
6	20A		SPARE	
7	30A		SPARE	
8	20A		SPARE	
9		20A	RECEPTACLE COMPRESSOR	500
10		20A	SPARE	



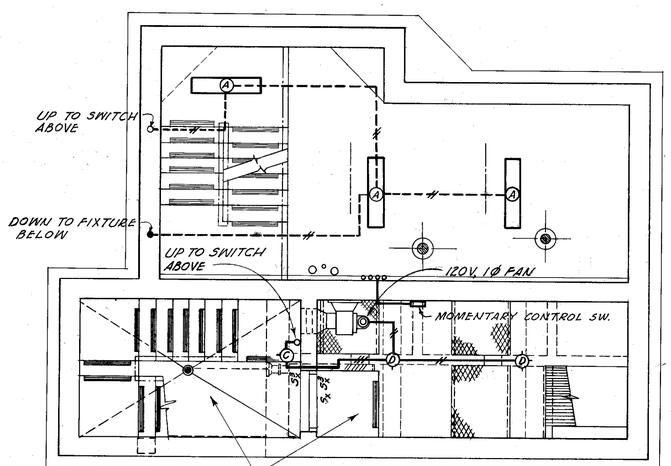
POWER CONTROL CENTER

NTS



FOUNDATION PLAN

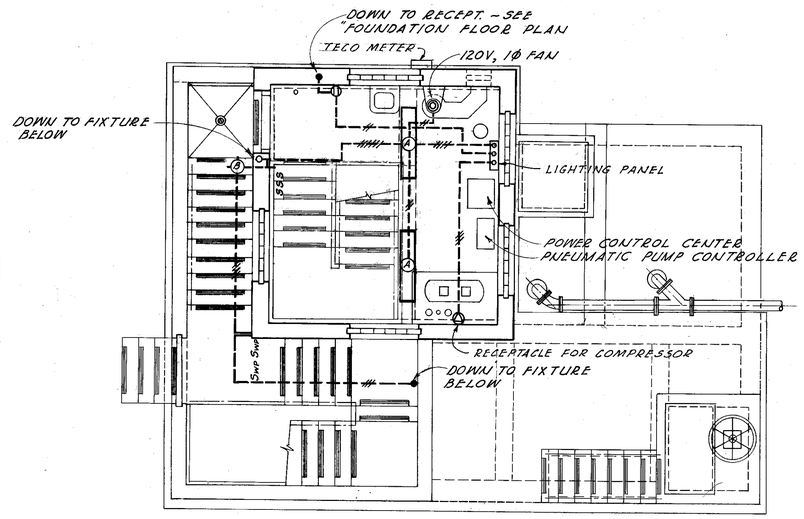
SCALE: 1/4"=1'-0"



NOTE: ALL EQUIPMENT AND WIRING IN SCREEN ROOM AREA SHALL BE EXPLOSION-PROOF - SUITABLE FOR CLASS I, GROUP "D" ATMOSPHERES.

INTERMEDIATE FLOOR PLAN

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



ENTRANCE FLOOR PLAN

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

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CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

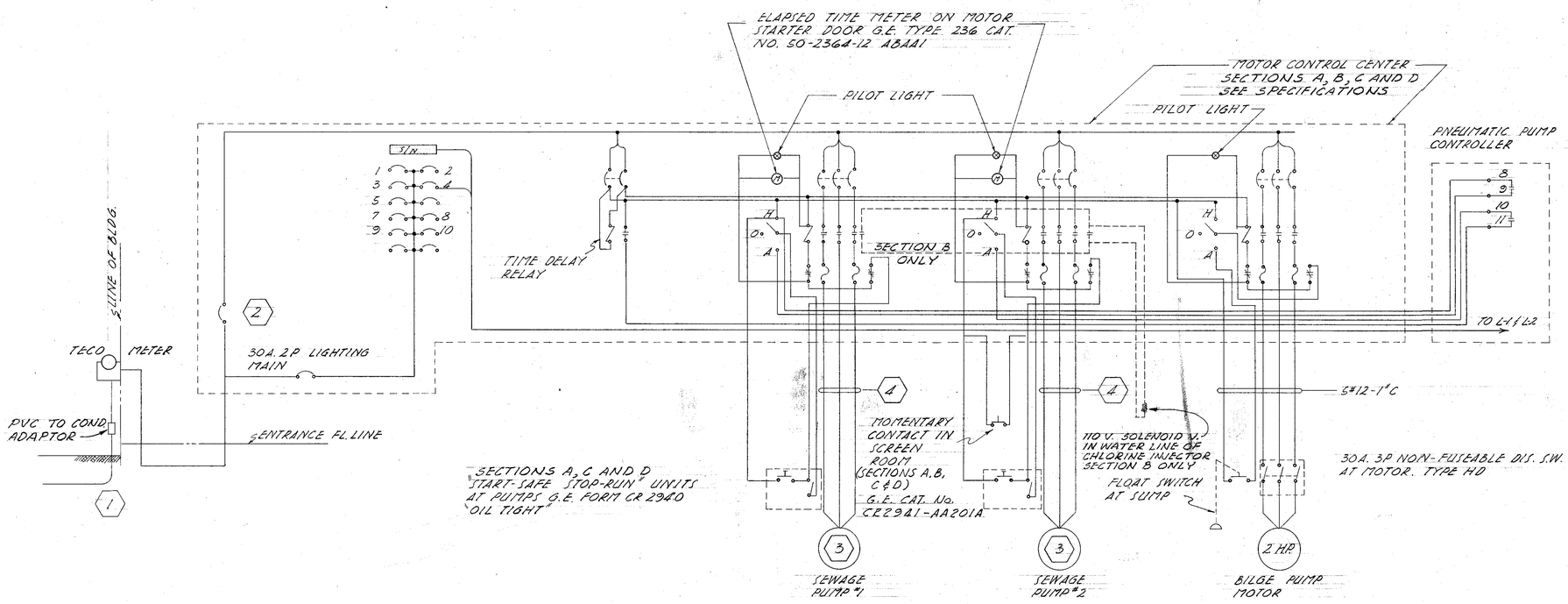
IDAHO STREET PUMPING STATION ELECTRICAL PLANS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS TAMPA, FLORIDA — ASSOCIATE ENGINEERS ATLANTA, GEORGIA

DES. H.N.P.
DRN. R.D.
CKD. H.N.P.
SCALE AS SHOWN
DATE NOV. 1963

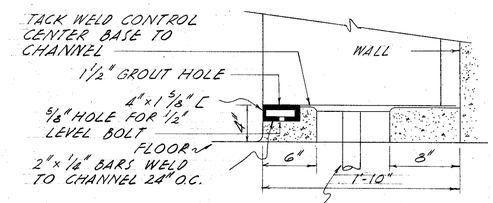
PROJECT 16
SECTION D
DISTRICT B

SHEET 20 OF 27



SCHEMATIC CONTROL AND POWER DIAGRAM

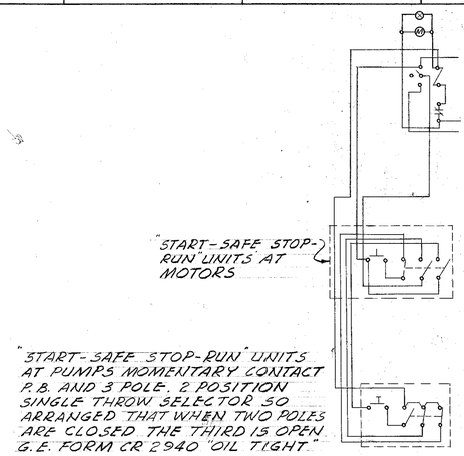
N.T.S.



CONTROL CENTER BASE DETAIL

N.T.S.

MARK / DESCRIPTION		1 INCOMING	2 BREAKER	3 MOTOR	4 MOTOR LEADS
SECTION	STATION				
A	BALLAST POINT	3#4 & 1#6-1½"C	75	7.5 H.P.	3#10-1"C
B	PAXTON AVE.	3#300 & 1#4-3"C	350	40 H.P.	3-#2/0-2½"C
C	PRESCOTT ST.	3#4 & 1#6-1½"C	100	10 H.P.	3#8-1"C
D	IDAHO ST.	3#4 & 1#6-1½"C	75	7.5 H.P.	3#10-1"C
E	TRILBY AVE.	3#4/0 & 1#4-3"C	250	25 H.P.	3-#2-1½"C



SEWAGE PUMP CONTROLS SECTIONS B AND E

LEGEND

- CEILING OUTLET FOR INCANDESCENT FIXTURE
- BRACKET OUTLET FOR INCANDESCENT FIXTURE
- CEILING OUTLET FOR FLUORESCENT FIXTURE
- DUPLEX RECEPTACLE - HUBBELL CAT. NO. 5262
- 20A. 3P. 2W GROUNDED RECEPTACLE - HUBBELL CAT. NO. 7310-G "/CAT. NO. 3965-G CAP.
- S SINGLE POLE TOGGLE SWITCH - HUBBELL CAT. NO. 1221
- S_x EXPLOSION-PROOF SINGLE POLE TOGGLE SWITCH - CROUSE-HINDS "E.F.S." SERIES
- S_3^x EXPLOSION-PROOF THREE WAY TOGGLE SWITCH - CROUSE-HINDS "E.F.S." SERIES
- "START-SAFE STOP-RUN" P.B. STATION
- ——— CONDUIT RUN EXPOSED
- - - - - - CONDUIT RUN CONCEALED
- MOTOR LOCATION
- W.P. INDICATES WEATHERPROOF

LIGHTING FIXTURE SCHEDULE			
MARK	MOUNTING	DESCRIPTION	LAMP
A	CEILING	BENJAMIN CAT. NO. FL 1024-A	2-F40 CM
B	WALL	HOLOPHANE CAT. NO. 415	1-150
C	WALL	BENJAMIN CAT. NO. 7613-BX	1-200
D	CEILING	BENJAMIN CAT. NO. 7613-CX	1-200
E	CEILING	BENJAMIN CAT. NO. 5643	1-200

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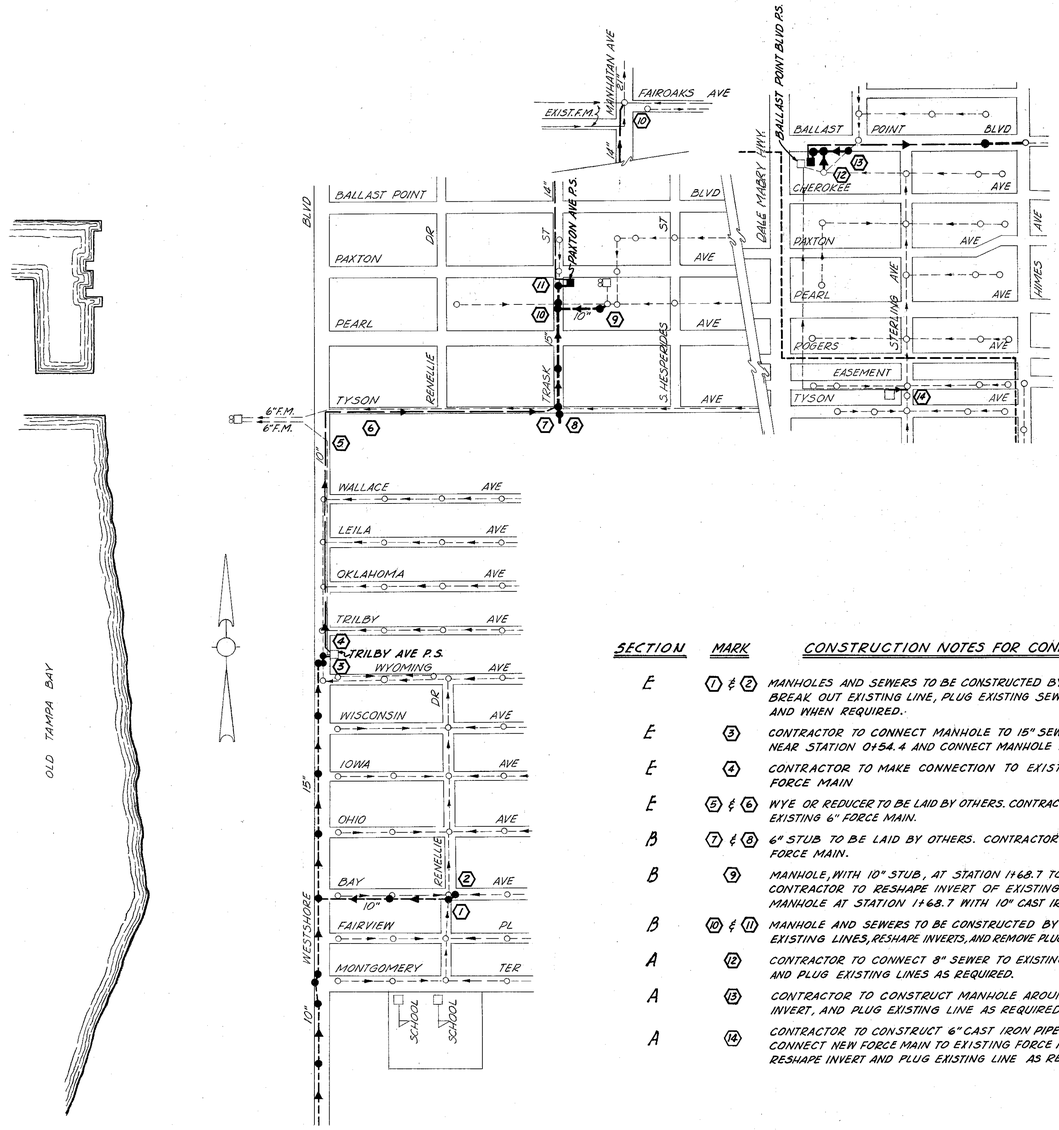
CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

ELECTRICAL DETAILS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

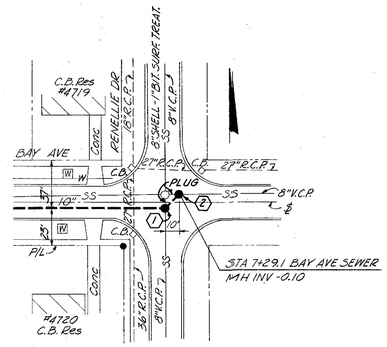
DES. H.N.P.	PROJECT 16 SECTIONS A,B,C,D & E SUBDISTRICT A-1 & DISTRICT B	SHEET 23 OF 27
DRN. B.L.B.		
CKD. H.N.P.		
SCALE AS SHOWN		
DATE NOV. 1963		

100-23

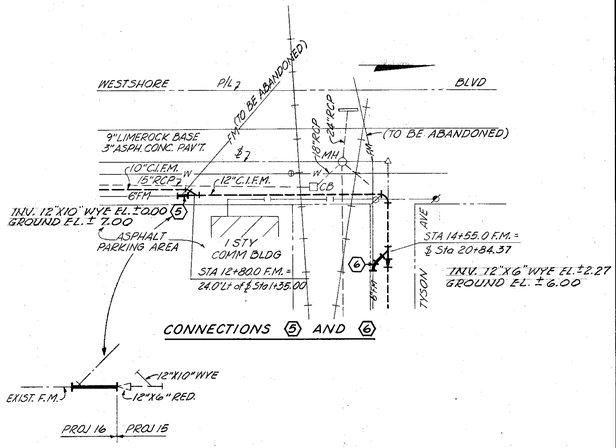


CONSTRUCTION NOTES FOR CONNECTIONS

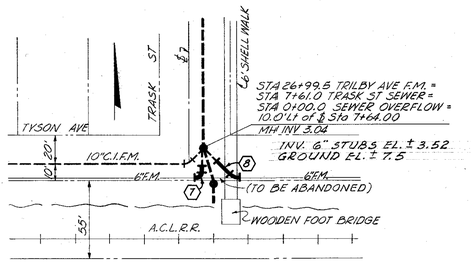
SECTION	MARK	
E	① & ②	MANHOLES AND SEWERS TO BE CONSTRUCTED BY OTHERS. CONTRACTOR TO BREAK OUT EXISTING LINE, PLUG EXISTING SEWERS, AND SHAPE INVERTS AS AND WHEN REQUIRED.
E	③	CONTRACTOR TO CONNECT MANHOLE TO 15" SEWER, REMOVE EXISTING MANHOLE NEAR STATION 0+54.4 AND CONNECT MANHOLE TO EXISTING 8" SEWER.
E	④	CONTRACTOR TO MAKE CONNECTION TO EXISTING 6" FORCE MAIN
E	⑤ & ⑥	WYE OR REDUCER TO BE LAID BY OTHERS. CONTRACTOR TO CONNECT WYE OR REDUCER TO EXISTING 6" FORCE MAIN.
B	⑦ & ⑧	6" STUB TO BE LAID BY OTHERS. CONTRACTOR TO CONNECT STUB TO EXISTING 6" FORCE MAIN.
B	⑨	MANHOLE, WITH 10" STUB, AT STATION 1+68.7 TO BE CONSTRUCTED BY OTHERS. CONTRACTOR TO RESHAPE INVERT OF EXISTING MANHOLE AND CONNECT TO MANHOLE AT STATION 1+68.7 WITH 10" CAST IRON PIPE.
B	⑩ & ⑪	MANHOLE AND SEWERS TO BE CONSTRUCTED BY OTHERS. CONTRACTOR TO PLUG EXISTING LINES, RESHAPE INVERTS, AND REMOVE PLUG FROM 14" FORCE MAIN AS REQUIRED.
A	⑫	CONTRACTOR TO CONNECT 8" SEWER TO EXISTING MANHOLE, RESHAPE INVERT, AND PLUG EXISTING LINES AS REQUIRED.
A	⑬	CONTRACTOR TO CONSTRUCT MANHOLE AROUND EXISTING 8" SEWER, SHAPE INVERT, AND PLUG EXISTING LINE AS REQUIRED.
A	⑭	CONTRACTOR TO CONSTRUCT 6" CAST IRON PIPE FORCE MAIN (STA 0+00 TO STA 0+86), CONNECT NEW FORCE MAIN TO EXISTING FORCE MAIN AND EXISTING MANHOLE, AND RESHAPE INVERT AND PLUG EXISTING LINE AS REQUIRED.



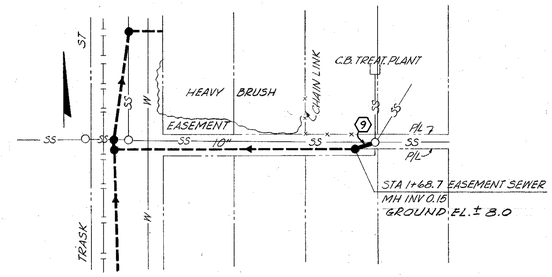
CONNECTIONS ① AND ②



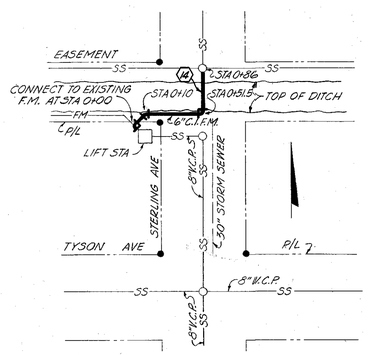
CONNECTIONS ⑤ AND ⑥



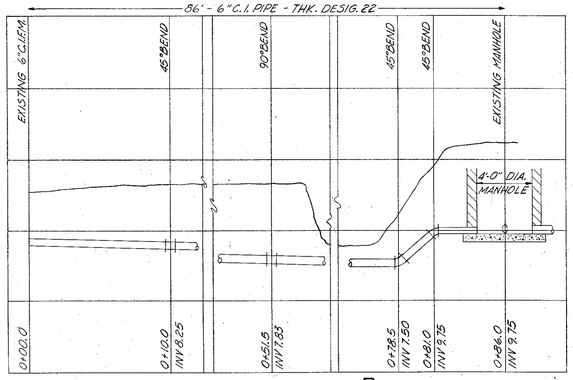
CONNECTIONS ⑦ AND ⑧



CONNECTION ⑨



CONNECTION ⑭



PROFILE OF FORCE MAIN CONNECTION ⑭

NOTE

FOR PLAN OF CONNECTIONS ③ AND ④ SEE SHEET Nº 21

FOR PLAN OF CONNECTIONS ⑩ AND ⑪ SEE SHEET Nº 7

FOR PLAN OF CONNECTIONS ⑫ AND ⑬ SEE SHEET Nº 2

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

CONNECTIONS TO EXISTING UTILITIES

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

DES. H.N.P.
DRN. R.E.L.
CKD. H.N.P.
SCALE AS SHOWN
DATE NOV. 1963

PROJECT 16
SECTIONS A, B & E
SUBDISTRICT A-1 & DISTRICT B

SHEET 24 OF 27

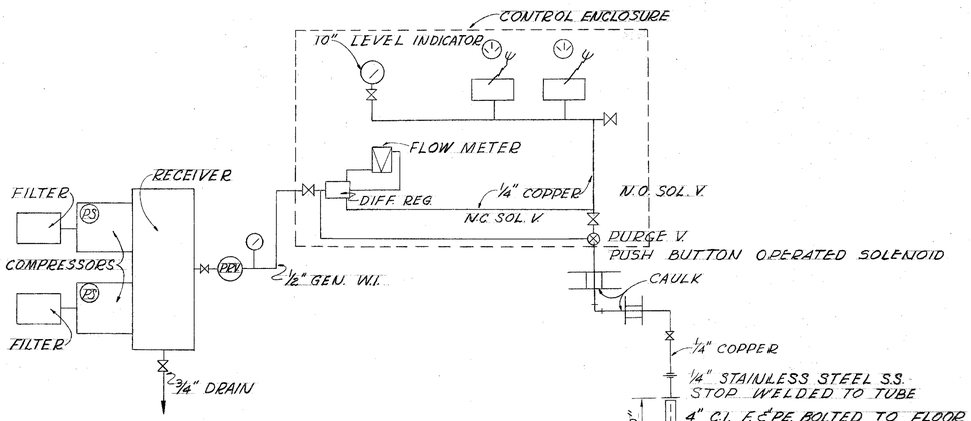


DIAGRAM OF PUMP CONTROL PIPING

PNEUMATIC WATER LEVEL CONTROLS NOT REQUIRED. ADJUST EXISTING ELECTRODES TO THESE ELEVATIONS.

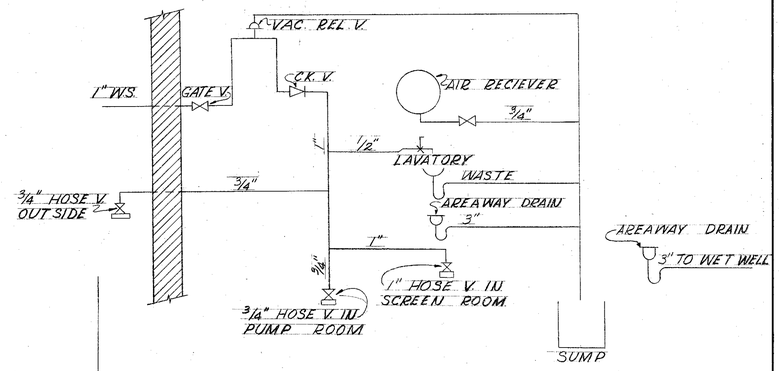
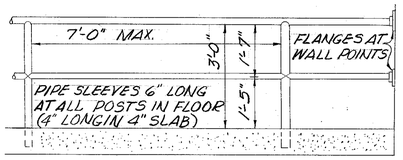
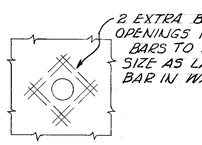


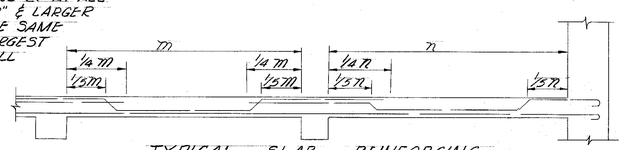
DIAGRAM OF WATER AND WASTE PIPING



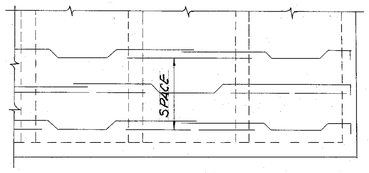
1½" PIPE HANDRAIL



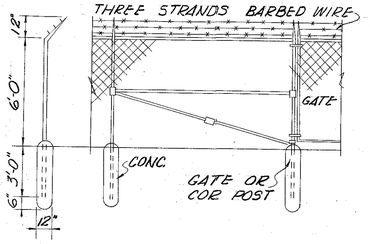
OPENING IN WALLS



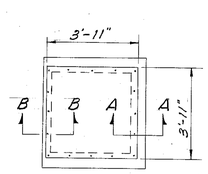
TYPICAL SLAB REINFORCING



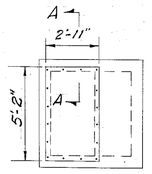
TYPICAL REINFORCING CONTINUOUS SLABS



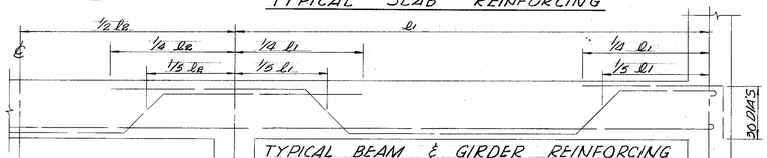
FENCE DETAIL



HATCH COVER N°1



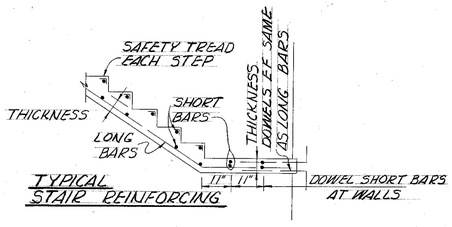
HATCH COVER N°2



TYPICAL BEAM & GIRDER REINFORCING

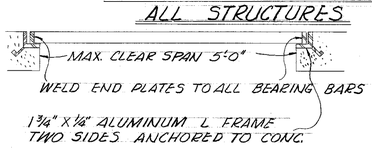
TYPICAL SECTION OF STRUCTURE WALLS
(USE SAME CLEARANCE FOR ALL STRUCTURES)

BENDING & PLACING REINFORCING ALL STRUCTURES

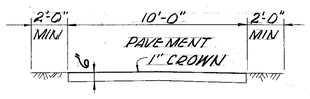


TYPICAL LAP ALL HORIZONTAL STEEL

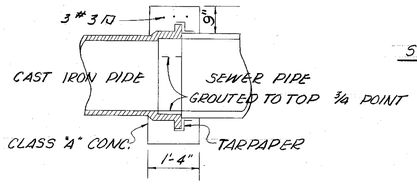
TYPICAL STAIR REINFORCING



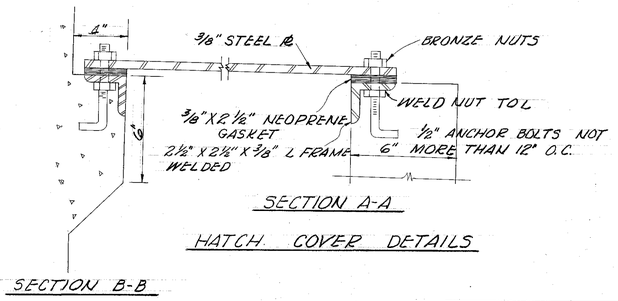
FLOOR GRATING DETAIL



TYPICAL DRIVE SECTION



TYPICAL DETAIL
SQ. CONC. COLLAR FOR JOINING C.I. PIPE TO V.C. OR CONC. PIPE



HATCH COVER DETAILS

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C. E. DRUMMOND JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM

MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS — ASSOCIATE ENGINEERS
TAMPA, FLORIDA — ATLANTA, GEORGIA

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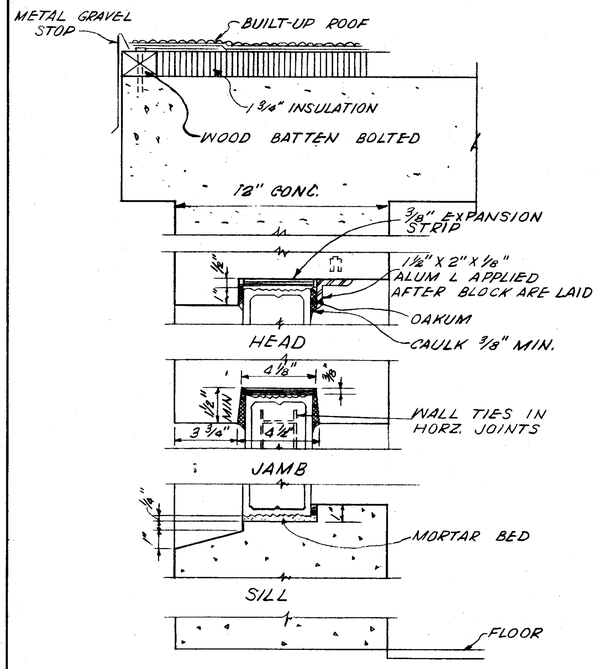
DATE NOV. 1963

PROJECT 16
SECTIONS A,B,C,D & E
SUBDISTRICT A-1 & DISTRICT B

SHEET 25 OF 27



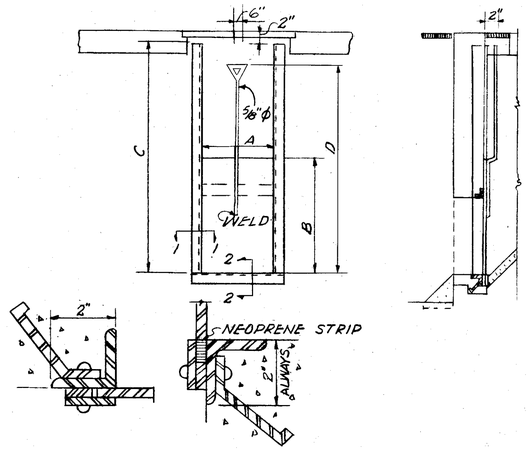
TYPICAL WALL SECTION THROUGH GLASS BLOCK

SCALE: 3"=1'-0"

LOCATION	GATE PLATE REQUIRED	GATE FRAME REQUIRED	A	B	C	D
BALLAST POINT	1	2	1'-0"	5'-11	7'-5	7'-5"
PAXTON ST.	1	2	1'-0"	6'-11	8'-7"	7'-10"
PRESCOTT ST.	1	2	1'-0"	6'-6"	7'-11⅞	7'-11½"
IDAHO ST.	1	2	1'-0"	6'-2"	7'-11⅞	7'-11½"

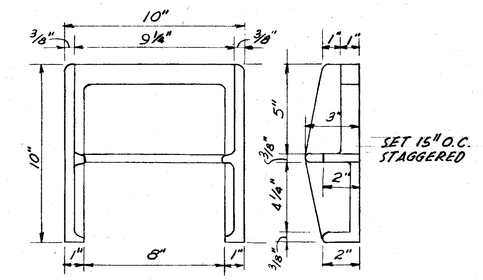
6061- ANGLES 2"x1½"x¼"
6053-T61 RIVETS 3/16"ØØ4"
6061-FILLER PLATE 3/16"x1"
6061-COVER PLATE ⅛"x1½"
3003-GATE ⅛"

NOTE: WELD JAMB ANGLE TO SILL AND HEAD. CLEAN FLUX AND GRIND SMOOTH.



SECTION 1-1 SECTION 2-2

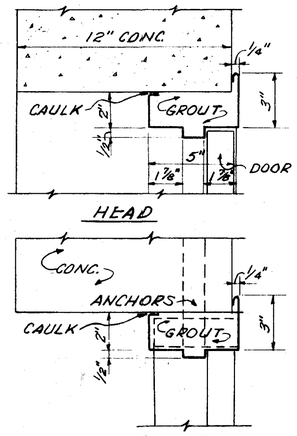
ALUMINUM FABRICATED GATE DETAILS

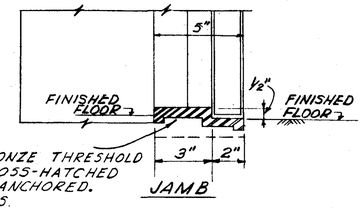


C.I MANHOLE STEP

APPROX. WT. 11 #
SCALE: 3"=1'-0"

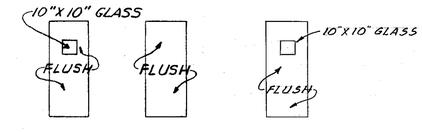
NOTE: C.I. MANHOLE STEPS TO BE INSTALLED IN SPECIAL STRUCTURES ONLY. EXCEPT AS OTHERWISE ORDERED BY THE ENGINEER





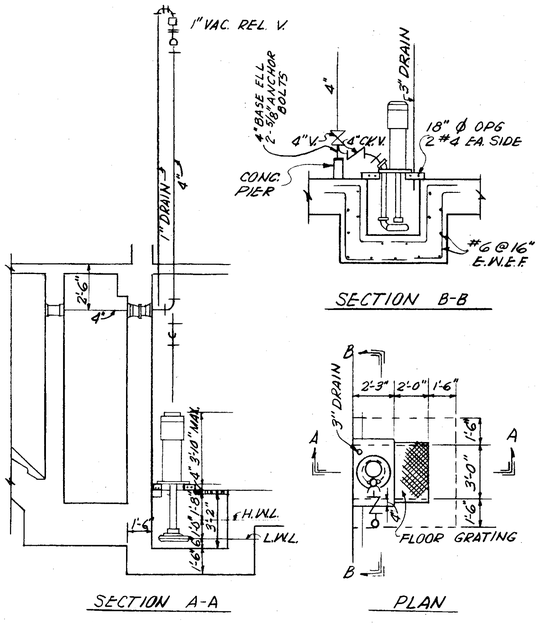
AMERICAN-MASON BRONZE THRESHOLD STYLE DS WITH CROSS-HATCHED ABRASIVE SURFACE, ANCHORED. CUT TO FIT JAMBS.

DOOR DETAILS



DOOR 'A' 3'-0"X 6'-10"
DOOR 'B' 3'-0"X 6'-10"
DOOR 'C' 3'-0"X 7'-2"

NOTE: SEE SPECIFICATIONS FOR DOOR CLOSERS AND LOCK SETS PERTAINING TO ALL DOORS

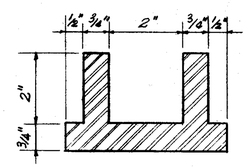


SECTION B-B

SECTION A-A PLAN

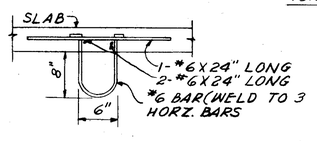
BILGE SUMP PUMP

NO SCALE

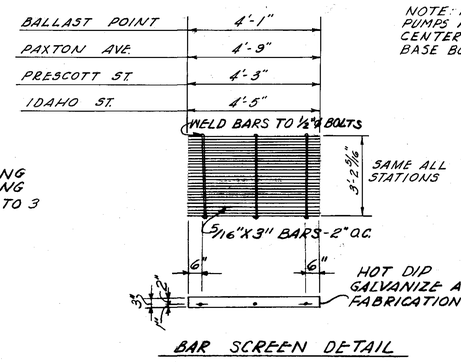


2" C.I. STOP LOG GROOVE

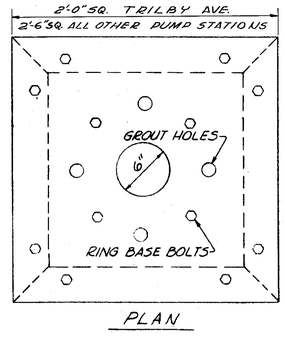
HALF SCALE



DETAIL OF BAR HOOK



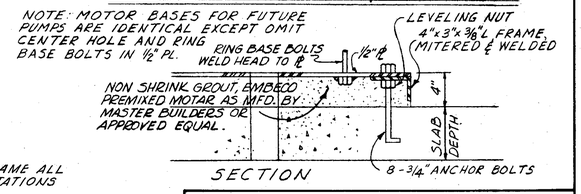
BAR SCREEN DETAIL



PLAN

PUMP MOTOR BASE & CURB RING

NOTE: MOTOR BASES FOR FUTURE PUMPS ARE IDENTICAL EXCEPT OMIT CENTER HOLE AND RING BASE BOLTS IN ½" PL.



SECTION

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

C.E. DRUMMOND, JR. CERTIFICATE No. 8983 STATE OF FLORIDA REGISTERED ENGINEER

CITY OF TAMPA, FLORIDA
THIRD SEWER REVENUE BOND PROGRAM
SEWAGE DISPOSAL SYSTEM

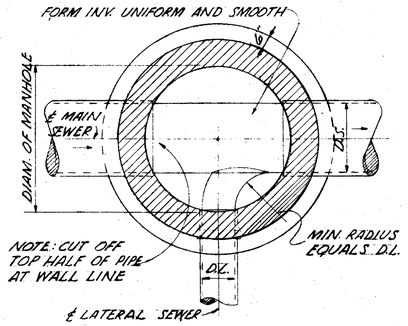
MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — WIEDEMAN & SINGLETON, ENGINEERS
CONSULTING ENGINEERS ASSOCIATE ENGINEERS
TAMPA, FLORIDA ATLANTA, GEORGIA

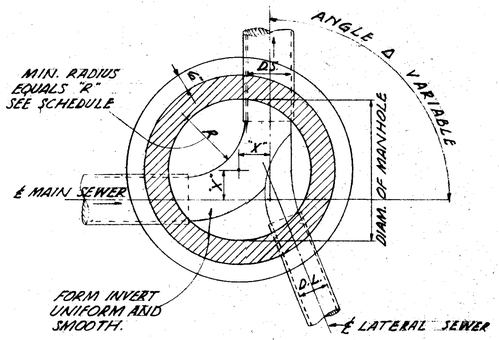
DES. H.N.P.
DRN. J.C.W.
CKD. H.N.S.
SCALE AS SHOWN
DATE NOV 1963

PROJECT 16
SECTIONS A B C D & E
SUBDISTRICT A-1 & DISTRICT B

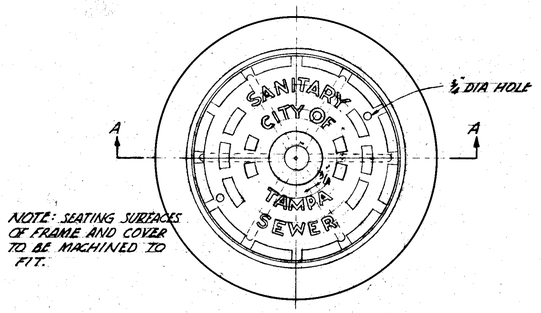
SHEET 26 OF 27



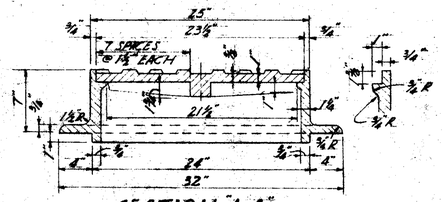
INVERT PLAN



INVERT PLAN



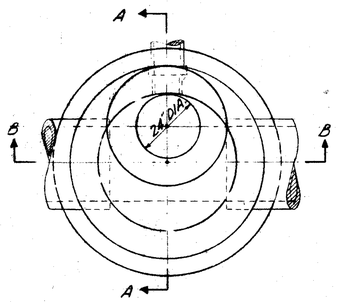
PLAN



SECTION "A-A"

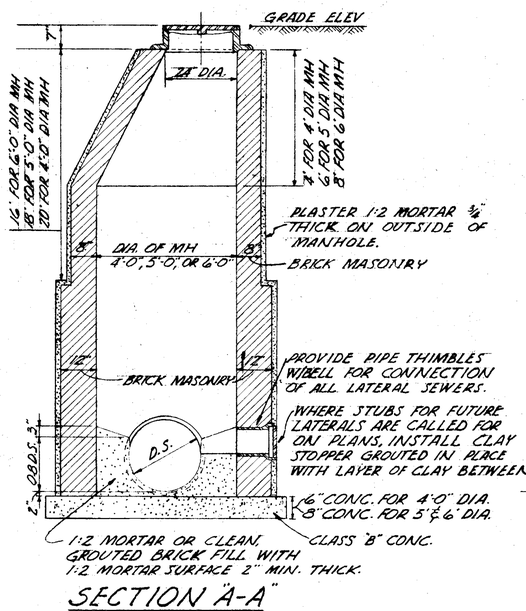
STD. CAST IRON MANHOLE FRAME & COVER

APPROX. WT. 330#
SCALE: 1½" = 1'-0"

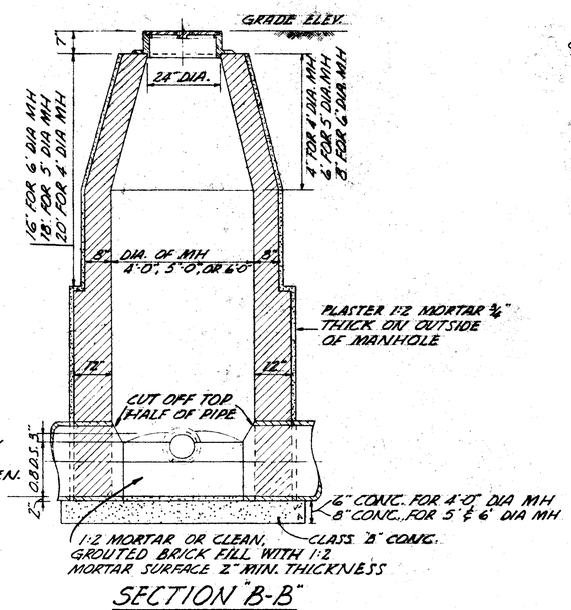


TOP PLAN

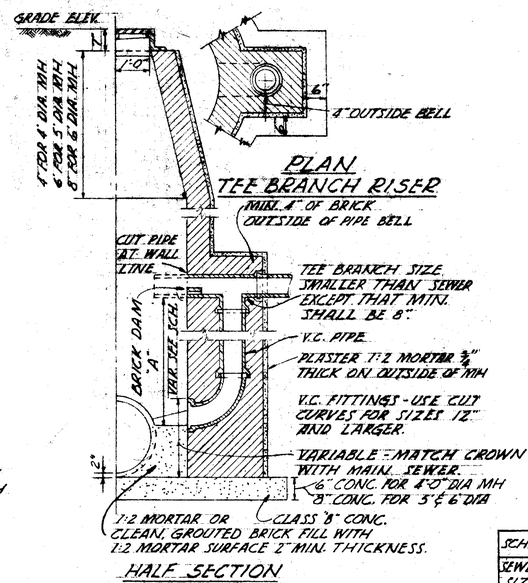
STANDARD BRICK MANHOLES SCHEDULE OF GOVERNING DIMENSIONS				
PIPE SIZE	ANGLE Δ	MH DIA.	R	X
8" TO 15"	0° TO 30°	4'-0"	1'-8"	0" TO 10"
18", 21" & 24"	0° TO 60°	4'-0"	2'-0"	0" TO 7"
18" & 21"	60° TO 90°	5'-0"	2'-0"	5" TO 12"



SECTION "A-A"



SECTION "B-B"



HALF SECTION

DROP MANHOLES

SCHEDULE FOR DROP MANHOLES		
SEWER SIZE	TEE BRANCH RISER SIZE	DIM "A" MINIMUM
8"	8"	19½"
10"	8"	19½"
12"	10"	22"
15"	12"	24½"
18"	15"	29"

GEORGE S. JENKINS CERTIFICATE No. 6858 STATE OF FLORIDA REGISTERED ENGINEER

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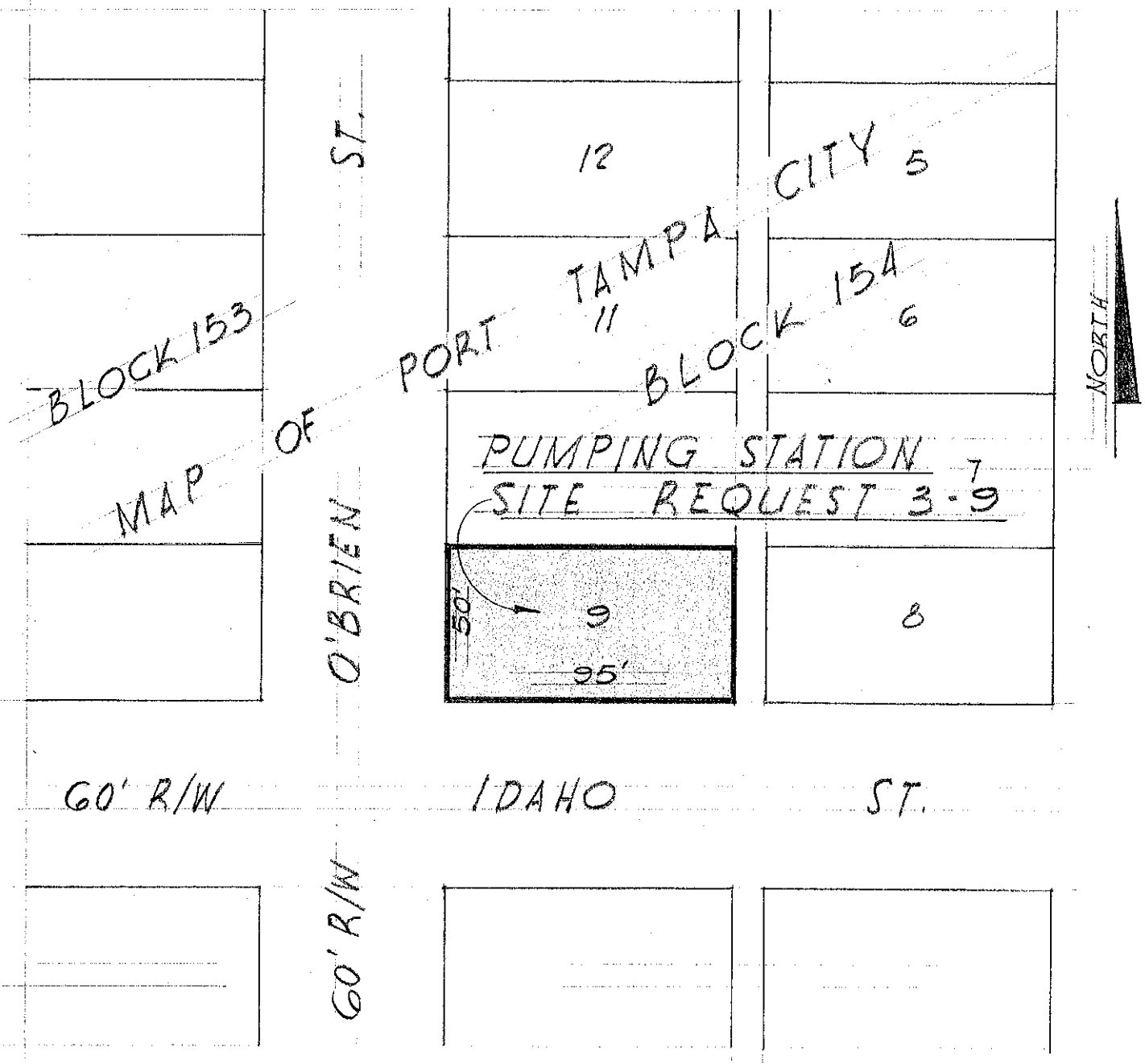
PROJECT 16
SECTIONS A, B, C, D & E
SUBDISTRICT A-1 & DISTRICT B

SHEET 27 OF 27



CITY OF TAMPA, FLA.
BUREAU OF SAN SEWERS
PUMP. STATION REQUEST 3-9

IDAHO STREET PUMPING STATION

PLAT BOOK 1, PAGE 56
SECT 20-30-18

SEC. INDEX NO. 0-8

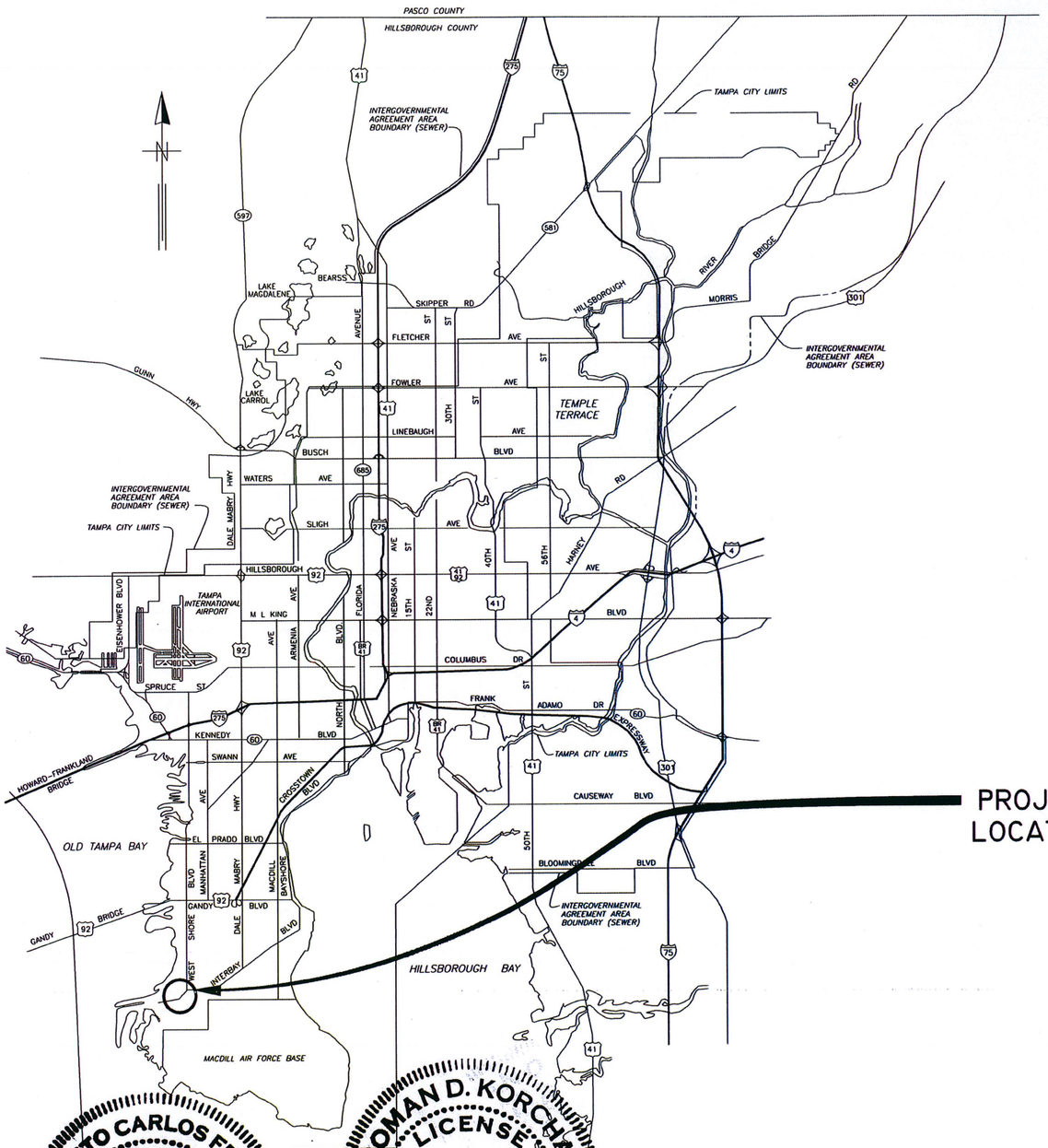
DR: E.C.A.	SCALE	DWG. NO.
MAY, 63	1" = 50'	PSR 3-9

357-049

B077-166

CITY of TAMPA

LOCATION MAP



CITY OF TAMPA FLORIDA • ORGANIZED JULY 15 1887 •

MASCOTTE

WASTEWATER DEPARTMENT

PLANS FOR

IDAHO PUMPING STATION REHABILITATION

CONTRACT No.

13-C-00017

JACINTO CARLOS FERRAS LICENSE No 49454 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jacinto Carlos Ferras 4/2/13

JACINTO CARLOS FERRAS, P.E. #49454
DESIGN DISCIPLINE LEAD
WASTEWATER DEPARTMENT

ROMAN D. KORCHAK LICENSE No 42626 STATE OF FLORIDA PROFESSIONAL ENGINEER

4/2/13

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION LEAD
WASTEWATER DEPARTMENT

NO	DATE	REVISIONS
1		

DES: JPW/LRG
DRN: JHJ
CKD:
DATE: 4/1/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
COVER SHEET

W.O. 5879
SHEET 1

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Layout- Mar 27, 2013 - 3:05pm CTB - MONOCHROME.CTB

B077-167

LOCATION MAP
N.T.S.

IDAHO PS
PROJECT LOCATION

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SHEET 4	PROPOSED SITE PLAN
SHEET 5	BYPASS PUMPING PLAN
SHEET 6	DEMO NOTES
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SHEET 8	INTERMEDIATE FLOOR DEMOLITION PLAN
SHEET 9	PUMP ROOM DEMOLITION PLAN
SHEET 10	DEMOLITION SECTION A-A
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SHEET E13	PUMP CONTROL LEGEND & B.O.M.
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SHEET E15	ELECTRICAL DEMOLITION / ENTRANCE PLAN
SHEET E16	ELECTRICAL DEMOLITION / INTERMEDIATE PLAN
SHEET E17	ELECTRICAL DEMOLITION / FOUNDATION PLAN
SHEET E18	PROPOSED ELECTRICAL / ENTRANCE PLAN
SHEET E19	PROPOSED ELECTRICAL / INTERMEDIATE PLAN
SHEET E20	PROPOSED ELECTRICAL / FOUNDATION PLAN
SHEET E21	PROPOSED ELECTRICAL / SECTION A-A

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: JPW/LRG
DRN: JHJ
CKD:
DATE: 4/1/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
LOCATION MAP AND INDEX

W.O. 5879
SHEET 2

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Jul 12, 2013 - 8:19am

B077-168

GENERAL NOTES

GENERAL NOTES

1. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH THE PUMP STATION OPERATORS, VIA THE CONTRACT ADMINISTRATION DEPARTMENT PERSONNEL.
2. SEWER SERVICE TO CUSTOMERS SHALL NOT BE DISRUPTED DURING CONSTRUCTION.
3. EXISTING DIMENSIONS AND INTERNAL ELEVATIONS ARE BASED ON THE ORIGINAL AS-BUILT DRAWINGS FROM 1963. TRUE DIMENSIONS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR PRIOR TO LAYOUT AND SHOP DRAWING SUBMITTALS. A RECENT SURVEY ESTABLISHED GROUND SURFACE AND PIPE INVERT ELEVATIONS.
4. REPEATED FROM THE SPECIFIC PROVISIONS, "GENERAL PROVISIONS G-7.01 & 7.02 SHALL BE MODIFIED IN THAT WATER AND ELECTRICAL POWER IS PRESENTLY PROVIDED AT THE SITE AND MAY BE USED BY THE CONTRACTOR IN THEIR PRESENT STATE. SHOULD ANY CHANGES, MODIFICATIONS OR RELOCATIONS BE NECESSARY TO PROVIDE WATER OR POWER DURING THE CONSTRUCTION AND/OR BY-PASS PUMPING PHASE, ALL COSTS SHALL BE BORNE BY THE CONTRACTOR."
5. ALL SUBMITTALS AND SHOP DRAWINGS SHALL BE ORIGINALS OR HIGH QUALITY COPIES (EASILY READABLE). NO FAXED SHEETS OR POOR QUALITY COPIES WILL BE ACCEPTED FOR SUBMITTAL REVIEW.
6. THE TWO EXISTING SEWAGE PUMPS HAVE RECENTLY BEEN REPLACED BY CITY PERSONNEL. THESE PUMPS AND THEIR CONCRETE BASES ARE TO REMAIN WITHOUT BEING CHANGED OR MODIFIED. THE SUCTION AND DISCHARGE PIPING AND VALVES FROM THESE PUMPS SHALL BE REPLACED BY THE CONTRACTOR.
7. SEWAGE CHECK VALVES SHALL BE APCO SERIES 100 RUBBER FLAPPER, HORIZONTAL SWING CHECK VALVES. THIS EQUIPMENT IS A STANDARDIZED ITEM AT THIS FACILITY AND NO "OR EQUAL" SUBMITALS WILL BE CONSIDERED.
8. SEWAGE PLUG VALVES SHALL BE DEZURIK, 100% FULL PORT ECCENTRIC PLUG VALVES (PEF). OR APPROVED EQUAL.
9. ALL PUMP STATION PIPING FOR SEWAGE WITHIN THE "FOOT PRINT" OF THE PUMP STATION SHALL BE CLASS 53 FLANGED DUCTILE IRON PIPE. PIPING FOR THE FORCE MAIN OUTSIDE THE FOOT PRINT OF THE PUMP STATION SHALL BE CLASS 53, RESTRAINED MECHANICAL JOINT, DUCTILE IRON PIPE. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE LINED WITH PROTECTO 401 CERAMIC EPOXY.
10. ALL REPLACEMENT PUMP STATION PIPING FOR: (1) SUMP PUMP PIPING, (2) POTABLE WATER SUPPLY, (3) LAVATORY DRAIN AND VENT AND (4) FLOOR DRAINS SHALL BE SCHEDULE 80 PVCP WITH GLUED JOINTS, UNLESS OTHERWISE SPECIFIED.
11. PIPE SUPPORTS AND HANGERS SHALL BE TYPE 316 STAINLESS STEEL ADJUSTABLE PIPE SADDLE SUPPORTS AND HANGERS. CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL BY ENGINEER. HANGERS AND SUPPORTS FOR THE NEW PVC PIPING SHALL REPLICATE THE EXISTING LOCATIONS OR 5-FOOT SPACING, WHICHEVER IS LESS.
12. ALUMINUM DOOR DESIGNED AS IMPACT RESISTANT PER 1609.1.4 OF THE FLORIDA BUILDING CODE AND MEETS REQUIREMENTS FOR ENHANCED PROTECTION OF ESSENTIAL FACILITIES (MISSILE LEVEL "D", WIND ZONE 4) AS DEFINED IN ASTM E1996. PLEASE SEE PRODUCT APPROVAL ATTACHED TO PLAN.
13. THE NEW REPLACEMENT SUMP PUMP SHALL BE A SINGLE PHASE, 1 HORSEPOWER, EBARA SUBMERSIBLE STAINLESS STEEL SUMP PUMP, MODEL NO. 50DWXU61.1S2 OR APPROVED EQUAL.
14. ALL HARDWARE, UNLESS OTHERWISE NOTED, SHALL BE TYPE 316 STAINLESS STEEL.
15. THE CONTRACTOR SHALL SUBMIT A PROPOSAL FOR A BYPASS PUMPING STRATEGY USING THE EXISTING BYPASS APPARATUS. THE CONTRACTOR SHALL ALSO SUBMIT A SCHEDULE OF SEQUENCES FOR COMPLETION, TESTING AND TRANSFER OF DUTY BACK TO THE PUMP STATION ALONG WITH THE PUMPING STRATEGY.
16. PRIOR TO BYPASS PUMPING, THE CONTRACTOR SHALL HAVE IN HIS POSSESSION ALL PROPOSED VALVES, PIPING, APPURTENANCES AND ALL NECESSARY ELECTRICAL EQUIPMENT TO MINIMIZE THE DURATION OF THE BYPASS PUMPING.
17. SALVAGEABLE MATERIAL AS DETERMINED BY DEPARTMENT PERSONNEL SHALL BE DELIVERED TO AND UNLOADED BY THE CONTRACTOR AT THE CITY OF TAMPA'S HOWARD F. CURREN AWTP LOCATED AT 2700 MARITIME BLVD. NON-SALVAGEABLE MATERIALS ARE TO BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
18. ALL METAL SURFACES COMING IN CONTACT WITH CONCRETE SHALL BE PROVIDED WITH NEOPRENE PADS OR 2 COATS OF COAL TAR EPOXY WITH PROPER SURFACE PREPARATION. CONTRACTOR SHALL SUBMIT SYSTEM(S) FOR APPROVAL.
19. ALL METAL (NOT TO INCLUDE STAINLESS STEEL) PIPE, FITTINGS, SUPPORTS, VALVES, ETC ON THE SUCTION AND DISCHARGE SEWAGE PIPE SHALL RECEIVE:
    a. SHOP COAT – ONE COAT, 4 MILS, TNEMEC'S POTA POX PLUS N140 EPOXY PRIMER – 1211 RED OXIDE IN COLOR.
    b. FIELD COAT – TWO COATS, 10 MILS, TNEMEC'S HI BUILD TNEME-TAR 46H-413-GREY SEMI GLOSS.
20. ALL CEMENTITIOUS CONCRETE AND GROUT, UNLESS OTHERWISE SPECIFIED, SHALL BE CLASS "B" 4000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
21. THE CONTRACTOR SHALL TREAT ANY EXPOSED REBAR OR OTHER METAL IN THE CONCRETE EXPOSED BY HIS ACTIONS, BY GRINDING THEM BACK A MINIMUM OF 1/2-INCH AND FILLING THE DEPRESSION(S) WITH AN FDOT TYPE F-1, NON-SAG GEL TYPE EPOXY.
22. AFTER THE DEMOLITION PHASE, THE CONTRACTOR SHALL PRESSURE WASH ALL EXISTING SURFACES WITHIN THE CONTROL ROOM, PUMP ROOM (INCLUDING SUMP PIT), SCREEN ROOM (ABOVE THE WET WELL AND SUCTION PITS) AND INTERIOR STAIR WELLS TO REMOVE ALL LOOSE PAINT AND SOIL FROM THE SURFACES. THE CONTRACTOR SHALL CONTAIN ALL DEBRIS TO PREVENT IT FROM ENTERING THE SEWER SYSTEM AND DISPOSE OF IT PROPERLY. THE CONTRACTOR WILL NOT BE REQUIRED TO REPAINT THE INTERIOR WALLS, FLOORS OR CEILING.
23. PRIOR TO PRESSURE WASHING THE WET WELL AND SUCTION PITS, THE CONTRACTOR SHALL BE REQUIRED TO SCRAPE AND REMOVE ALL GREASE, SEDIMENT AND DEBRIS FROM THE WALLS, CEILINGS AND FLOORS OF THE WET WELL AND SUCTION PITS. THE GREASE, SEDIMENT AND DEBRIS SHALL BE PROPERLY DISPOSED OF AT THE SLUDGE DRYING BEDS OF THE CITY OF TAMPA'S HOWARD F. CURREN AWTP LOCATED AT 2700 MARITIME BLVD.
24. THE CONTRACTOR SHALL PRESSURE WASH THE WALLS, CEILING AND FLOORS OF THE WET WELL AND SUCTION PITS PRIOR TO THE APPLICATION OF THE COATING SYSTEM WITH A MINIMUM OF 10,000 PSI PRESSURE SUCH THAT ALL DETERIORATED CONCRETE AND BUILT UP DEBRIS ARE REMOVED TO SOUND CONCRETE. ALL DEBRIS SHALL BE PROPERLY DISPOSED OF AT THE SLUDGE DRYING BEDS OF THE CITY OF TAMPA'S HOWARD F. CURREN AWTP LOCATED AT 2700 MARITIME BLVD.
25. THE CONTRACTOR IS ADVISED THAT THE CITY'S AWTP IS LOCATED WITHIN THE CONFINES OF THE TAMPA PORT AUTHORITY WHICH HAS RESTRICTED ACCESS IN ACCORDANCE WITH FLORIDA STATUTE 311.12. PROCEDURES FOR ACCESS INTO THE TAMPA PORT AUTHORITY AREAS ARE LOCATED AT HTTP://WWW.TAMPAPORT.COM/PORT-OPERATIONS/SECURITY. ALL COSTS TO COMPLY WITH THESE PROCEDURES WHILE DELIVERING DEBRIS AND ANY SALVAGED MATERIAL TO THE AWTP SHALL BE INCLUDED IN THE TOTAL PRICE FOR THIS PROJECT AND NO ADDITIONAL PAYMENT SHALL BE MADE.
26. ALL EXPOSED CONCRETE SURFACES OF THE CEILING, WALLS AND FLOORS IN THE SCREEN ROOM, WET WELL AND SUCTION PITS SHALL BE COATED WITH A MINIMUM OF 125 MILS OF APPROVED STRUCTURAL COATING SYSTEM AFTER PROPER SURFACE PREPARATION (SEE SPECIFICATIONS) TO ELEVATION (-)6.00', WHICH IS 3" ABOVE THE CONCRETE DOOR STOOP.
27. THE CONTRACTOR SHALL PROVIDE 2-INCH SQUARE, FIBERGLASS TUBING HANDRAIL AND STANCHIONS TO REPLACE THE MISSING HANDRAIL ON THE SOUTH SIDE OF THE BAR SCREEN OPENING. SUBMITT DESIGN AND MATERIALS TO THE ENGINEER FOR APPROVAL.
28. THE CONTRACTOR SHALL PROVIDE A NEW STAINLESS STEEL BAR SCREEN IN THE SCREEN ROOM. SEE DETAILS.
29. THE CONTRACTOR SHALL PROVIDE THREE 16" BY 16" (+/-) LOUVERED GRILLS WITH INSECT SCREEN IN THE OPENINGS IN THE EAST AND SOUTH WALLS OF THE CONTROL ROOM AND THE EAST WALL OF THE SCREEN ROOM. LOUVERS SHALL BE EXTRUDED ALUMINUM VENTS, "EX" STYLE, 4" DEEP CHANNEL FRAME VENTS, AS MANUFACTURED BY SUNVENT INDUSTRIES, ONE INDUSTRIAL DRIVE, #26, PELHAM, NH 03076, E-MAIL:INFO@SUNVENTINDUSTRIES.COM, OR APPROVED EQUAL.
30. THE CONTRACTOR SHALL PROVIDE NEW REPLACEMENT ALUMINUM DOORS, ALUMINUM DOOR FRAMES AND DOOR THRESHOLDS TO BOTH THE WET SIDE AND DRY SIDE OF THE PUMP STATION (SEE SPECIFICATIONS). BOTH DOORS SHALL INCLUDE DOOR KNOBS AND LOCKABLE HASPS, SIMILAR TO EXISTING HASPS.
31. IN THE PUMP ROOM, THE CONTRACTOR SHALL REPLACE THE EXISTING METAL GRATE AND CONCRETE SLAB OVER THE ENTIRE SUMP PIT WITH NEW FIBERGLASS GRATING. SAWCUT A GROOVE UNDER THE EXISTING, CONCRETE SLAB IF NECESSARY TO HAVE THE FIBERGLASS GRATING SIT FLUSH WITH THE ADJACENT CONCRETE FLOOR ELEVATION.
32. THE CONTRACTOR SHALL REMOVE LOOSE PAINT BY PRESSURE WASHING, THEN SOLVENT CLEAN AND ENCAPSULATE THE EXISTING PAINT BY APPLYING PRIMER AND TWO COATS OF PAINT TO THE INTERIOR AND EXTERIOR PIPE HANDRAILS, STANCHIONS AND TO THE TWO "I" BEAM RAILS FOR THE CHAIN HOIST IN THE PUMP ROOM. SEE PAINT SPECIFICATIONS.
33. THE CONTRACTOR SHALL PRESSURE WASH THE ENTIRE EXTERIOR (LESS ROOF) OF THE PUMP STATION BUILDING AND SLUICE GATE HANDWHEEL STRUCTURE. CARE SHALL BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE FLOOR DRAINS AT THE FOOT OF THE EXTERIOR STAIR WELLS.
34. AFTER SANDING AND PRIMING ANY BARE SPOTS, THE CONTRACTOR SHALL APPLY TWO COATS OF PAINT TO ALL EXTERIOR SURFACES THAT ARE PRESENTLY PAINTED. COLOR SHALL CLOSELY MATCH EXISTING COLOR. SEE PAINT SPECIFICATIONS.
35. THE CONTRACTOR SHALL CLEAN BOTH FLOOR DRAINS AT THE FOOT OF THE EXTERIOR STAIR WELLS AND FLUSH OUT THE DRAIN PIPES TO THEIR OUTFALL.
36. THE CONTRACTOR SHALL REPLACE THE EXISTING POTABLE WATER, BACK-FLOW PREVENTION DEVICE, SEE DETAILS.
37. THE CONTRACTOR SHALL REPLACE THE POTABLE WATER LINES FROM THE BACK-FLOW PREVENTION DEVICE, TO THEIR PRESENT TERMINAL LOCATIONS (EXCEPT AS NOTED ELSEWHERE) WITH SCHEDULE 80, PVC PIPE AND FITTINGS. SIZES ARE TO MATCH EXISTING PIPE SIZES (+/-) AND CURRENT PLUMBING CODES. PROVIDE NEW HOSE BIBBS TO REPLACE EXISTING HOSE BIBBS. SECURE THE NEW PIPE WITH APPROPRIATE SIZED STAINLESS STEEL CLAMPS OR HANGERS WITH NO GREATER THAN 5-FEET OF SEPARATION.
38. THE CONTRACTOR SHALL ALSO REPLACE THE EXISTING LAVATORY FAUCET AND FOOT OPERATED FAUCET CONTROL WITH LIKE ITEMS.
39. THE CONTRACTOR SHALL REPLACE THE EXISTING SUMP PUMP PIPING, FLOOR DRAIN PIPING, LAVATORY DRAIN AND VENT PIPING WITH SCHEDULE 80 PVC PIPE AND FITTINGS. CONNECT THE PVC PIPES TO THE CUT VENT PIPE AND EXTERIOR STAIR WELL FLOOR DRAIN PIPE WITH FERNCO (OR APPROVED EQUAL) FLEXIBLE COUPLINGS WITH STAINLESS STEEL SHEAR RINGS. PROVIDE NEW STAINLESS STEEL HANGERS / CLAMP / SUPPORTS WITH NO GREATER THAN 5-FEET OF SEPARATION.
40. ALL WALL, CEILING AND FLOOR PENETRATIONS SHALL BE CORED OR RE-CORED TO THE APPROPRIATE DIMENSION IN ORDER TO PROVIDE A NEAT AND CLEAN EDGE. THE PIPE SHALL THEN BE SEALED IN THE CORED HOLE WITH AN APPROPRIATE SIZED LINK-SEAL (OR APPROVED EQUAL), WITH THE EXCEPTION NOTED BELOW.
41. THE TWO SUCTION PIPES AND THE SUMP PUMP DISCHARGE PIPE LEADING FROM OR TO THE WET SIDE SHALL BE SEALED WITH TWO BACK-TO-BACK LINK-SEALS (OR APPROVED EQUAL).
42. THE DRAWINGS FOR THE ORIGINAL PUMP STATION CONSTRUCTION INDICATES THE: (1) WALL PENETRATION FOR THE 6-INCH PUMP SUCTION PIPES, (2) CEILING PENETRATION FOR THE 6-INCH PUMP DISCHARGE PIPES, (3) WALL PENETRATION FOR THE 4-INCH SUMP PUMP DISCHARGE PIPE AND (4) 1-INCH ARV DRAIN PIPE, TO BE CAST-IN-PLACE WALL SLEEVES. IF CORRECT THIS WILL REQUIRE OVER SIZE CORES AND LINK-SEALS.
43. PIPE PENETRATIONS THROUGH THE FLOOR, CEILING OR EXTERIOR WALL SHALL HAVE THE ANNULAR SPACE BETWEEN THE PIPE AND EDGE OF CORED HOLE, FILLED WITH NON-SHRINK GROUT AND SLOPED AT 45-DEGREES IN ORDER TO SHED WATER AWAY FROM THE LINK-SEAL.
44. THE CONTRACTOR SHALL PATCH ALL OUT-OF-SERVICE OPENINGS 2-INCHES AND GREATER WITH NON-SHRINK GROUT. ALSO PATCH ALL OUT-OF-SERVICE OPENINGS LESS THAN 2-INCHES AND ANY SPALLS WITH AN FDOT TYPE F-1, NON-SAG GEL TYPE EPOXY.
45. THE CONTRACTOR SHALL PROVIDE ONE "NEW YORK BLOWER, SIZE 200, RADIAL FUME EXAUSTER WITH 1.5 HP MOTOR (OR APPROVED EQUAL), AND ONE NEW YORK BLOWER, SIZE 315, RADIAL FUME EXAUSTER WITH 2HP MOTOR (OR APPROVED EQUAL). CONCRETE SLABS AND 8" & 14" DIAMETER SCHEDULE 80 PVC DUCTS. PVC DUCTS SHALL PASS THROUGH 12" & 18" DIAMETER CORED HOLES, SEALED WITH LINK-SEAL AND BE FASTENED WITH STAINLESS STEEL CLAMPS OR HANGERS AT 5' MAXIMUM SPACING. CONTRACTOR TO PROVIDE NEW FABRICATED SHEET METAL TRANSITION DUCT FROM EXISTING 12" SQUARE METAL DUCT TO THE NEW 8" PVC DUCT. SEE DETAIL SHEET.
46. ⚠1 CONTRACTOR SHALL SUPPLY (2) SOUND ATTENUATED DIESEL BY-PASS PUMPS* (1 PRIMARY AND 1 BACKUP), EACH CAPABLE OF DELIVERING 500 GPM AT 30'. TDH PLUS ANY LOSSES PRODUCED IN THE TEMPORARY BY-PASS PIPING. THE PUMPS SHALL SUCTION FROM THE INFLUENT MANHOLE AND DISCHARGE INTO THE EXISTING BY-PASS VALVE. CONTRACTOR SHALL SUBMIT BYPASS PUMPING PLAN TO THE ENGINEER FOR APPROVAL. BYPASS SYSTEM WILL HAVE A MONITORING/ALARM SYSTEM EQUIPPED WITH AN AUTO-DIALER THAT AUTOMATICALLY CONTACTS THE CONTRACTOR IF THE PRIMARY SYSTEM FAILS OR HIGH WATER LEVER OCCURS. *CONTRACTOR MAY USE ELECTRIC PUMPS IN LIEU OF DIESEL PUMPS. IT'S THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE TEMPORARY ELECTRICAL SERVICE WITH TECO AND PAY ALL ASSOCIATED FEES.

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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⚠1	05/02/13	ADDENDUM I

DES: JPW
DRN: JHJ
CKD:
DATE: 4/1/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
GENERAL NOTES

W.O. 5879
SHEET 3

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS RETAB.dwg
Layout- Aug 19, 2013 - 4:28pm

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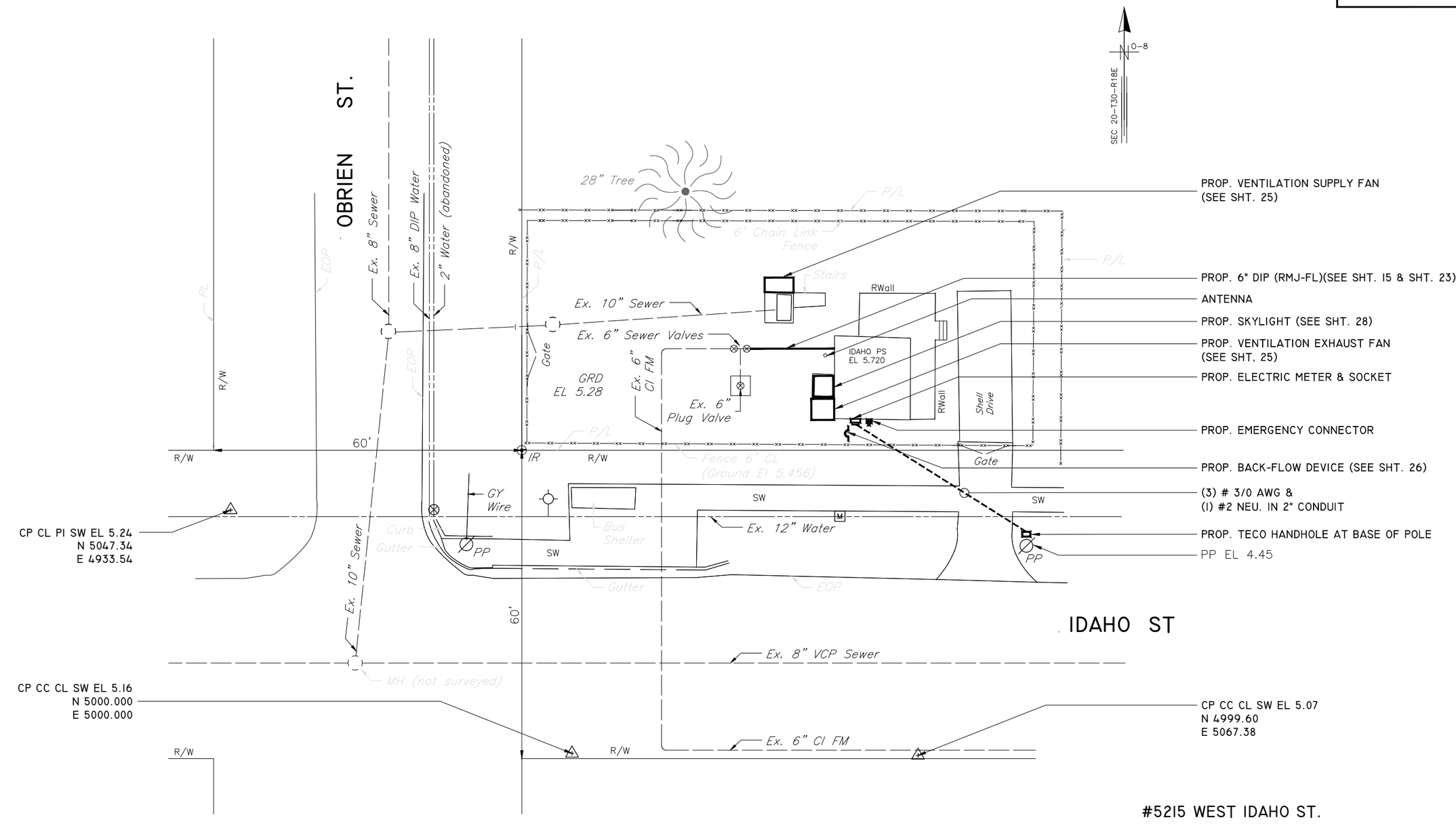

PROPOSED SITE PLAN
SCALE: 1 = 20

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No. / REVISIONS 3 2 1	DES: JPW/LRG DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION PROPOSED SITE PLAN	W.O. 5879 SHEET 4

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS SURVEY.dwg
Layout- Jul 12, 2013 - 8:15am

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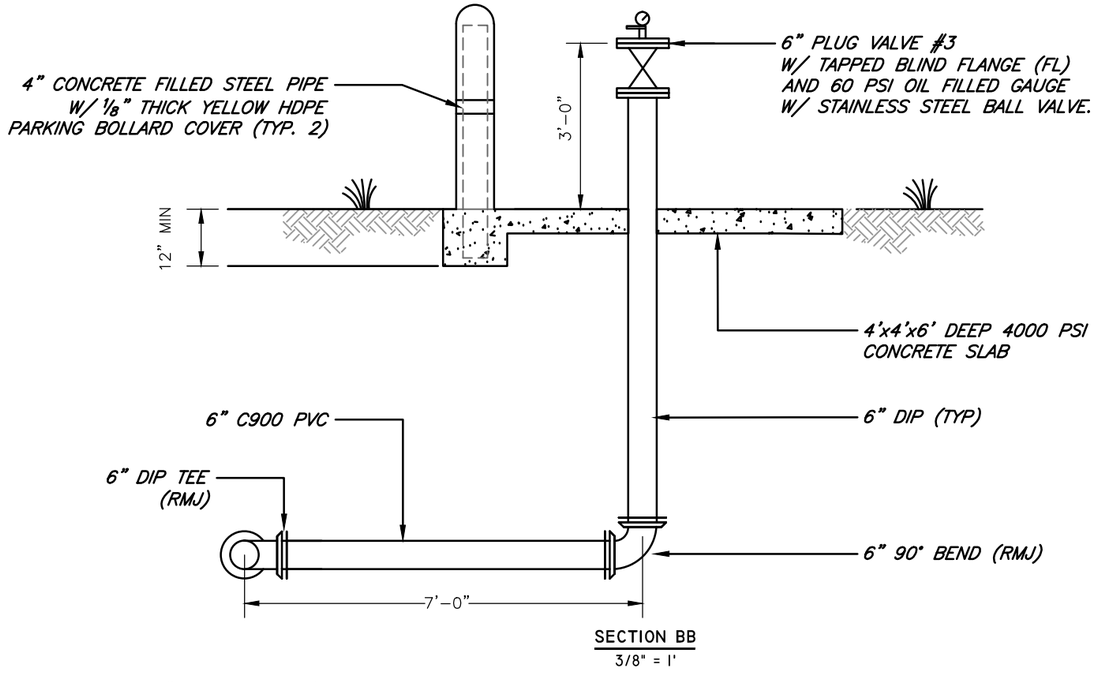
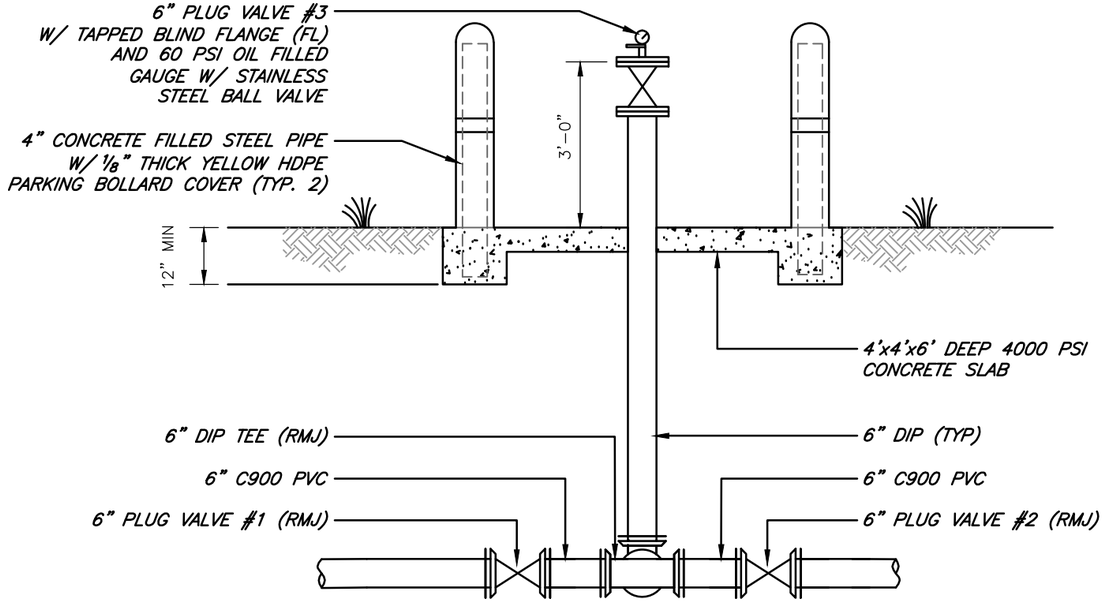
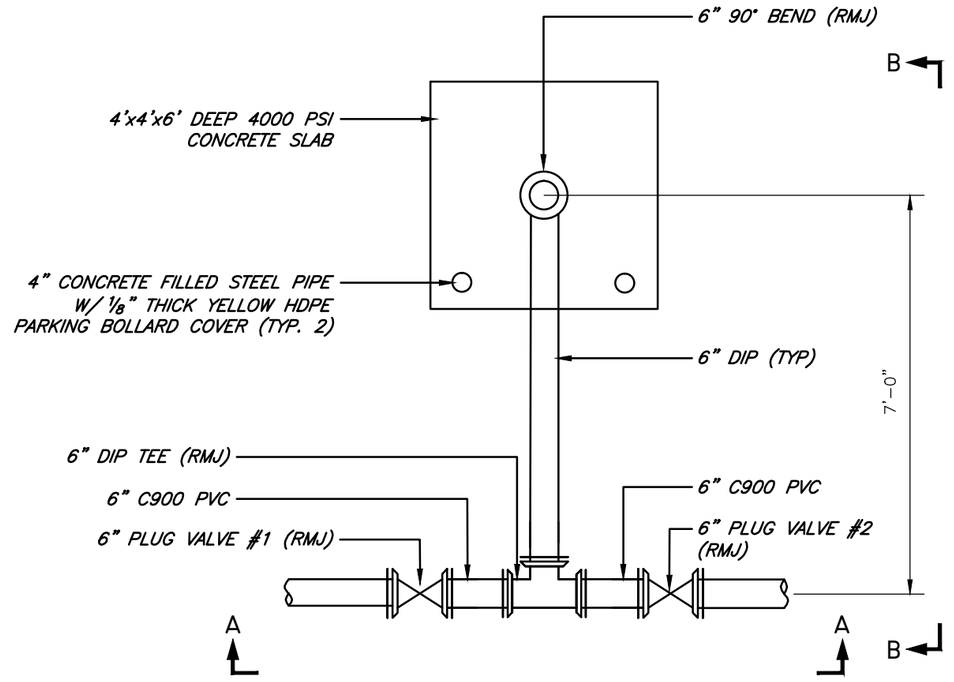


SECTION BB
3/8" = 1'



SECTION CC
3/8" = 1'

ALL PIPING, VALVES, ETC. SHOWN ON THIS SHEET ARE EXISTING AND TO BE UTILIZED FOR PUMP STATION BYPASS.



DETAIL A (PLAN VIEW)
3/8" = 1'

PROPOSED BYPASS PUMPING PLAN

1. *CLOSE PLUG VALVE #1.*
2. *REMOVE AND SAFELY STORE BLIND FLANGE ON PLUG VALVE #3 AND ATTACH TEMPORARY BYPASS PIPING.*
3. *PUMP FROM INFLUENT MANHOLE.*
4. *AFTER PUMP STATION IMPROVEMENTS HAVE BEEN COMPLETED, TESTED AND ACCEPTED, RETURN TO EXISTING CONDITIONS.*

JACINTO CARLOS FERRAS, P.E., #49454
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CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
BYPASS PUMPING PLAN

W.O. 5879
SHEET
5

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout– Aug 19, 2013 – 4:28pm

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DEMO NOTES

DEMOLITION NOTES

THE CONTRACTOR SHALL:

1. AFTER CONSULTATION WITH A CERTIFIED ARBORIST, CAREFULLY TRIM BACK ALL TREE LIMBS AND OTHER VEGETATION THAT HANGS OVER THE PROPERTY LINE (NOT THE CITY FENCE, BUT THE PROPERTY LINE) UP TO A HEIGHT OF 15–FEET.

2. EXCAVATE AND REMOVE THE 6–INCH CAST IRON FORCE MAIN TO THE EXISTING BY–PASS PUMPING ARRANGEMENT AND THE TWO CEILING PENETRATIONS.

3. EXCAVATE TO EXPOSE THE ONE INCH (+/–) POTABLE WATERLINE BETWEEN THE FENCE AND THE EXISTING BACK FLOW PREVENTION DEVICE. CUT THE PIPE AND REMOVE THE WATERLINE, INCLUDING THE BACKFLOW PREVENTION DEVICE, INTO THE BUILDING AND IT'S WALL PENETRATION.

4. REMOVE THE HAND WHEEL AND STAND FOR THE 10–INCH SLUICE GATE.

5. REMOVE THE HOSE BIBB ON THE NORTH EXTERIOR WALL (CLOSE TO THE NORTH WEST CORNER) AND IT'S WALL PENETRATION.

6. REMOVE THE TWO LOUVERS, APPROXIMATELY 16–INCH SQUARE FROM THE EAST AND SOUTH WALLS OF THE CONTROL ROOM.

7. REMOVE THE TWO DOORS, DOOR FRAMES AND DOOR THRESHOLDS LEADING TO BOTH THE SCREEN ROOM AND THE CONTROL ROOM.

8. REMOVE THE VENTILATING FAN AND MOTOR LOCATED ON THE WALL, FEEDING THE WET WELL SIDE, THE 6–INCH PVC AIR DISCHARGE PIPE AND THE TWO PLASTIC COVERINGS AROUND THE PVC PIPE.

9. REMOVE THE TWO OUT–OF–SERVICE METAL BRACKETS UNDER THE AIR SUPPLY PIPE.

10. REMOVE THE METAL HATCH COVER NUMBER ONE, LEADING TO THE PUMP ROOM

11. IN THE SCREEN ROOM, REMOVE THE 10–INCH SLUICE GATE, SHAFT AND WALL SUPPORTS. GRIND BACK ANY ANCHORS, ONE–HALF INCH. ALSO REMOVE THE GUIDE RAILS FOR THE ALREADY REMOVED SLIDE GATES TO THE SUCTION PITS.

12. IN THE SCREEN ROOM, WET WELL AND BOTH SUCTION PITS, REMOVE THE SEVERAL CAST IRON MANHOLE STEPS. GRIND BACK THE ANCHORS, ONE–HALF INCH.

13. IN THE WET WELL AND EAST SUCTION PIT, REMOVE THE 4–INCH CAST IRON SUMP PUMP PIPE, THE 1–INCH AIR RELEASE DRAIN PIPE AND BOTH WALL PENETRATIONS THROUGH THE MAIN WALL SEPARATING THE WET AND DRY SIDES AND ALSO THROUGH THE WALL SEPARATING THE WET WELL FROM THE SUCTION PIT.

14. IN THE SCREEN ROOM, REMOVE THE HOSE BIBB, HORIZONTAL LENGTH OF WATER PIPE AND WALL PENETRATION.

15. IN THE SCREEN ROOM, REMOVE THE BAR SCREEN AND THREE FLOOR GRATINGS.

16. IN BOTH SUCTION PITS, REMOVE THE FLARED 90–DEGREE BENDS, SUCTION PIPING AND WALL PENETRATIONS.

17. IN THE CONTROL ROOM, CUT THE 2–INCH CAST IRON VENT PIPE AS CLOSE TO THE CEILING AS POSSIBLE. REMOVE THE VENT PIPE, LAVATORY DRAIN PIPE AND IT'S FLOOR PENETRATION.

18. IN THE CONTROL ROOM, REMOVE THE FAUCET AND FOOT OPERATED FAUCET CONTROL. THE LAVATORY BASIN IS TO REMAIN.

19. IN THE CONTROL ROOM REMOVE THE POTABLE WATER SUPPLY LINES (VARIOUS SIZES) AND FLOOR AND WALL PENETRATIONS.

20. IN THE CONTROL ROOM, REMOVE THE FAN ASSEMBLY ATOP THE VERTICAL VENTILATION DUCT, THE HORIZONTAL DUCT TO THE EXTERIOR WALL AND THE VERTICAL DUCT TO APPROXIMATELY THE FLOOR LEVEL.

21. IN THE CONTROL ROOM, REMOVE BOTH OUT–OF–SERVICE, 4–INCH CAST IRON SUMP PUMP DISCHARGE PIPES AND AIR RELEASE VALVE. ALSO REMOVE THE 1–INCH ARV DRAIN LINE AND THE THREE FLOOR PENETRATIONS.

22. IN THE CONTROL ROOM, GRIND SMOOTH THE SUPPORT FOR THE ALREADY REMOVED AIR COMPRESSOR TANK THAT IS LOCATED APPROXIMATELY 4–FEET EAST AND 3–FEET SOUTH OF THE NORTHWEST CORNER.

23. IN THE PUMP ROOM / STAIR WELL, CUT THE 3–INCH, CAST IRON, EXTERIOR STAIR WELL FLOOR DRAIN PIPE AS CLOSE TO THE WALL AS POSSIBLE. REMOVE: (1) THAT PIPE, (2) THE 2–INCH DRAIN FROM THE LAVATORY ABOVE, (3) THE 3–INCH CAST IRON PIPE TO THE NORTH WALL, (4) BOTH OUT–OF–SERVICE, 4–INCH CAST IRON SUMP PUMP DISCHARGE PIPES, (5) THE 1–INCH DRAIN PIPE FROM THE ARV, (6) THE 3–INCH VERTICAL AND HORIZONAL CAST IRON DRAIN PIPE ALONG THE NORTH WALL TO THE SUMP PIT AND THE VARIOUS WALL AND FLOOR PENETRATIONS.

24. IN THE PUMP ROOM, REMOVE: (1) THE ORIGINAL OUT–OF–SERVICE SUMP PUMP, (2) SUMP GRATING AND CONCRETE SLAB, (3) THE EXISTING IN–USE SUMP PUMP, (4) PVC PIPING, (5) 4–INCH PLUG VALVE, (6) THE 4–INCH CAST IRON DISCHARGE PIPE TO THE WET WELL, (7) THE CONCRETE SUPPORT UNDER THE 4–INCH DIP SUMP PUMP DISCHARGE PIPE (GRIND THE FLOOR SMOOTH) (8) WALL AND FLOOR PENETRATIONS AND (9) THE VARIOUS PIPE SUPPORTS.

25. IN THE PUMP ROOM, REMOVE THE ONE AND A QUARTER–INCH (+/–) POTABLE WATER PIPE ALONG THE CEILING AND WALLS AND THE HOSE BIBB.

26. IN THE PUMP ROOM, REMOVE: (1) BOTH 6–INCH, CAST IRON SUCTION PIPES AND WALL PENETRATIONS, (2) BOTH 6–INCH TO 4–INCH REDUCERS, (3) FOUR 6–INCH PLUG VALVES, (4) BOTH 6–INCH CHECK VALVES AND (5) BOTH 6–INCH CAST IRON DISCHARGE PIPES TO THE CEILING AND THEIR CEILING PENETRATIONS. NOTE: THE EXISTING PUMPS AND CONCRETE BASES ARE TO REMAIN UNDISTURBED.

27. IN THE PUMP ROOM, REMOVE THE TWO CONCRETE BASES UNDER THE TWO 6" BASE 90° BENDS. GRIND THE CONCRETE FLOOR SMOOTH.

28. REMOVE THE ELECTRICAL COMPONENTS THROUGHOUT THE PUMP STATION AS DESCRIBED IN THE ELECTRICAL PLAN SHEET(S).

29. THROUGHOUT THE PUMP STATION (EXTERIOR AND INTERIOR OF BOTH THE DRY SIDE AND WET SIDE) REMOVE ANY SUPPORTS, BRACKETS, CLAMPS, ETC THAT ARE NOT OR WILL NOT BE USED. GRIND BACK ANY EXPOSED / REMAINING REBAR, BOLTS, SCREWS, ETC ONE–HALF INCH AND SMOOTHLY PATCH WITH EPOXY.

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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DES: JPW
DRN: JHJ
CKD:
DATE: 4/1/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
DEMO NOTES

W.O. 5879
SHEET
6

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout– Aug 19, 2013 – 4:28pm

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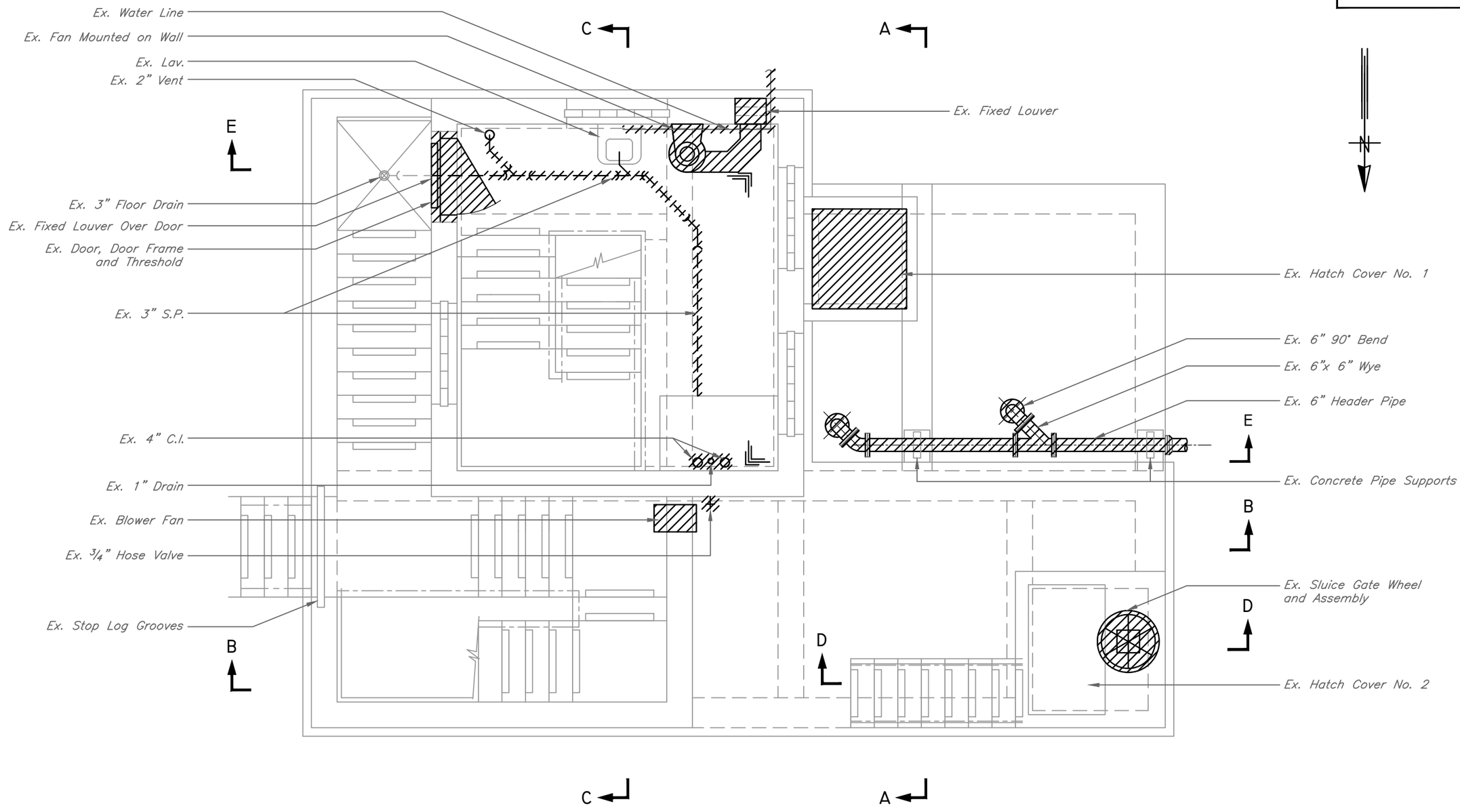

HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

ENTRANCE FLOOR DEMOLITION PLAN

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

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CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
ENTRANCE FLOOR DEMOLITION PLAN

W.O. 5879
SHEET 7

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout– Aug 19, 2013 – 4:28pm

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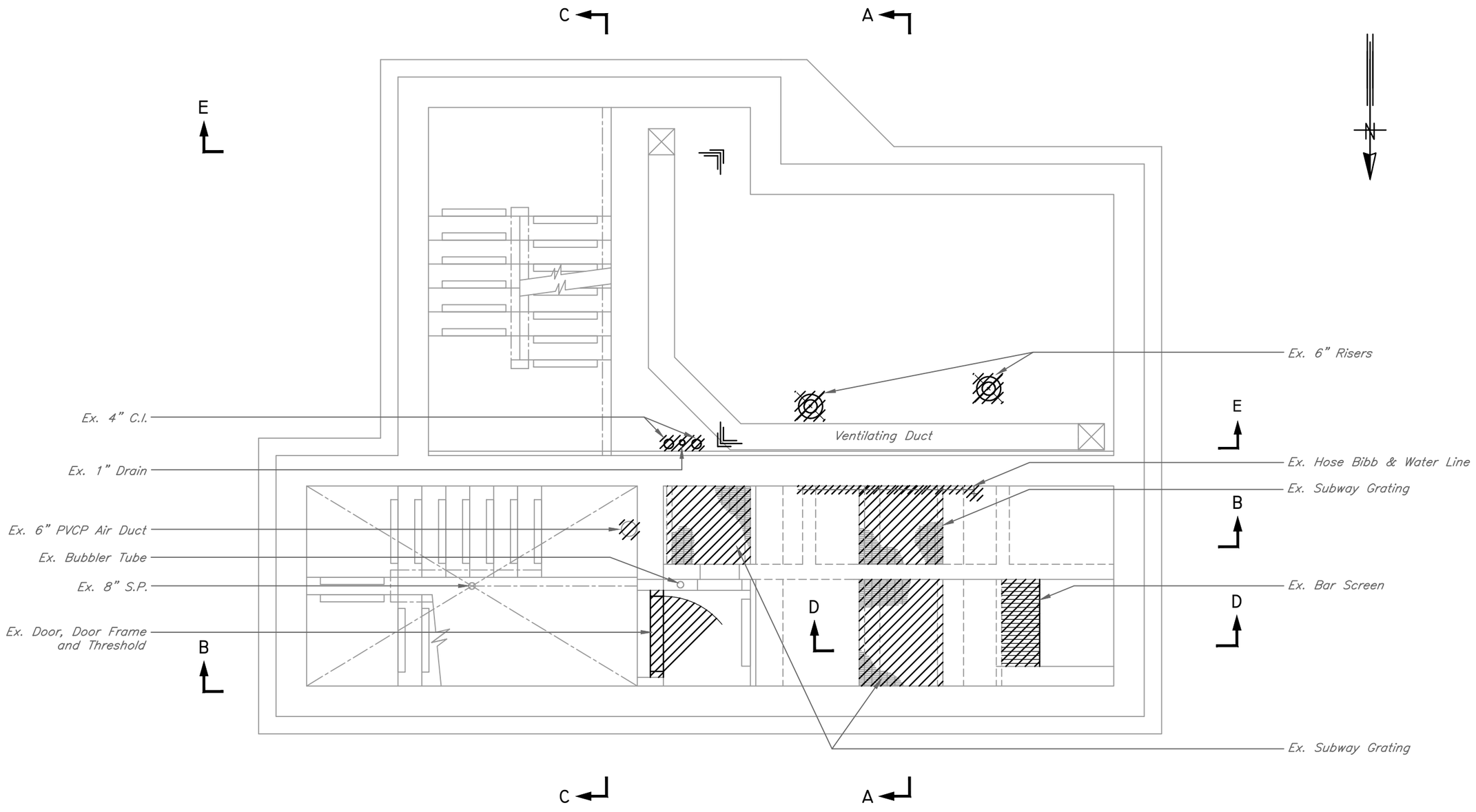

HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

INTERMEDIATE FLOOR DEMOLITION PLAN

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

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DATE: 4/1/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
INTERMEDIATE FLOOR DEMOLITION PLAN

W.O. 5879
SHEET
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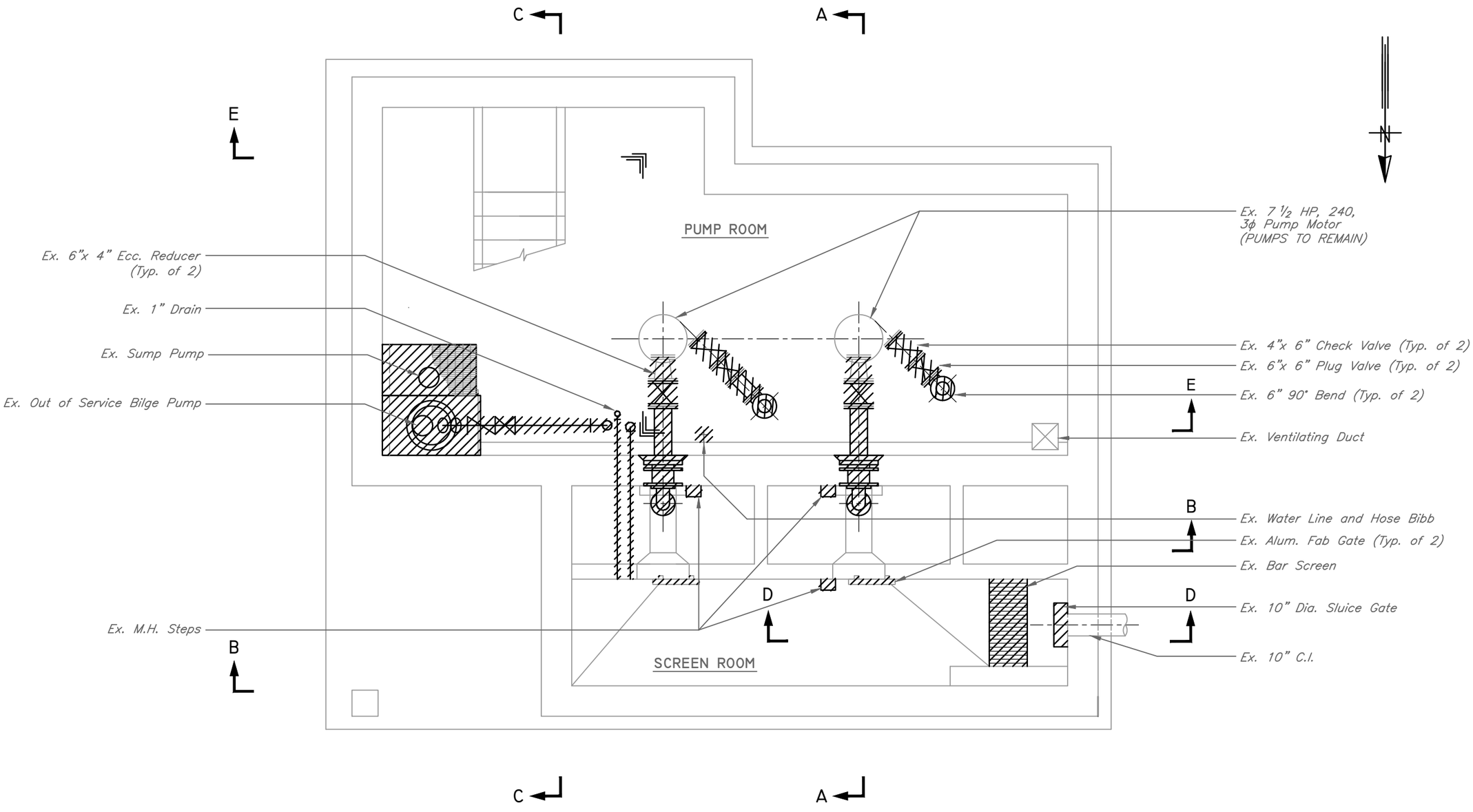

HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

PUMP ROOM DEMOLITION PLAN

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

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No. / DATE / REVISIONS 3 2 1	DES: JPW DRN: JHJ CKD: DATE: 4/1/13
CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION PUMP ROOM DEMOLITION PLAN	W.O. 5879 SHEET 9

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS RETAIL.dwg
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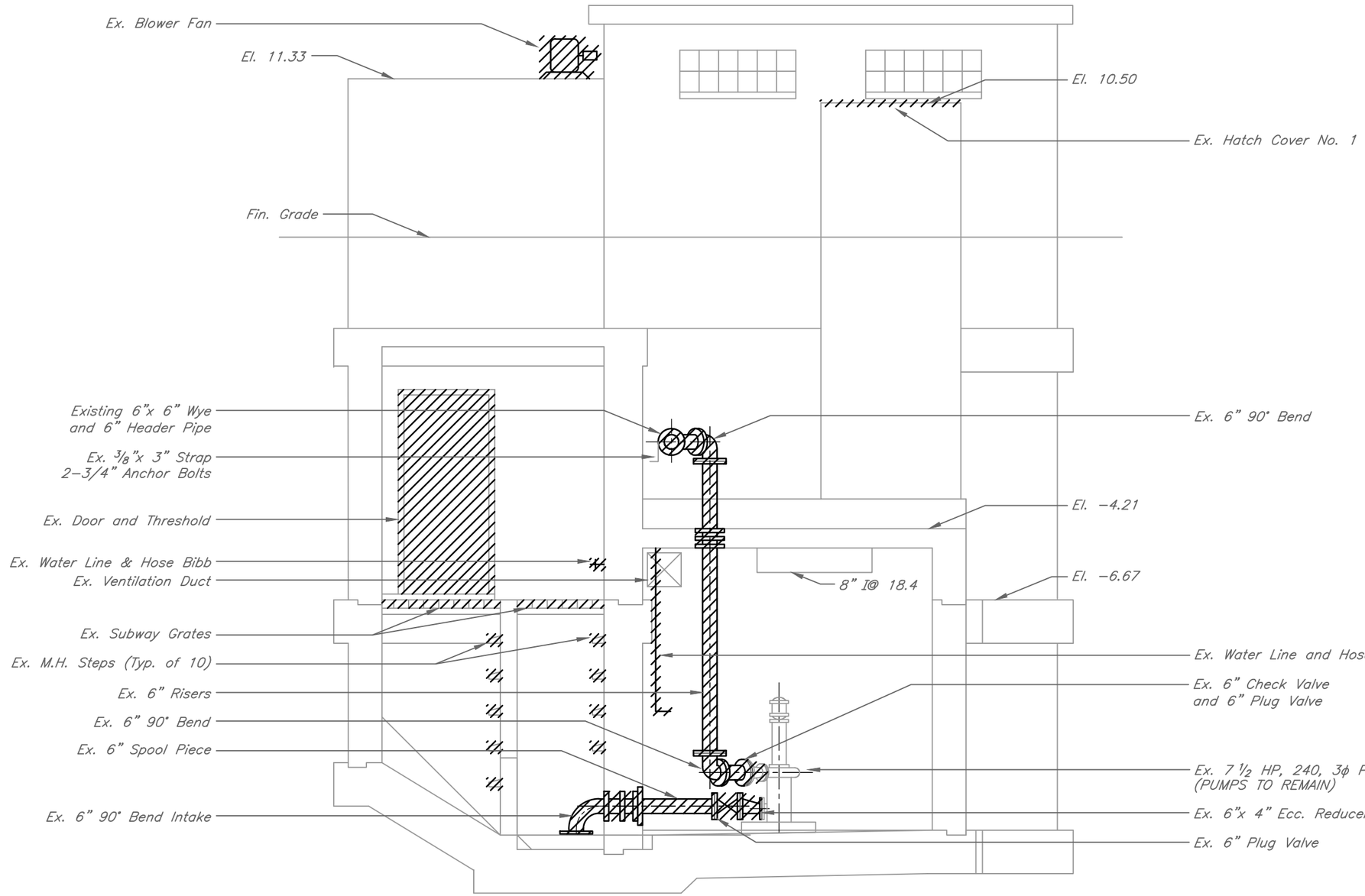

HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

DEMOLITION SECTION A-A

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

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: JPW
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DATE: 4/1/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
DEMOLITION SECTION A-A

W.O. 5879
SHEET
10

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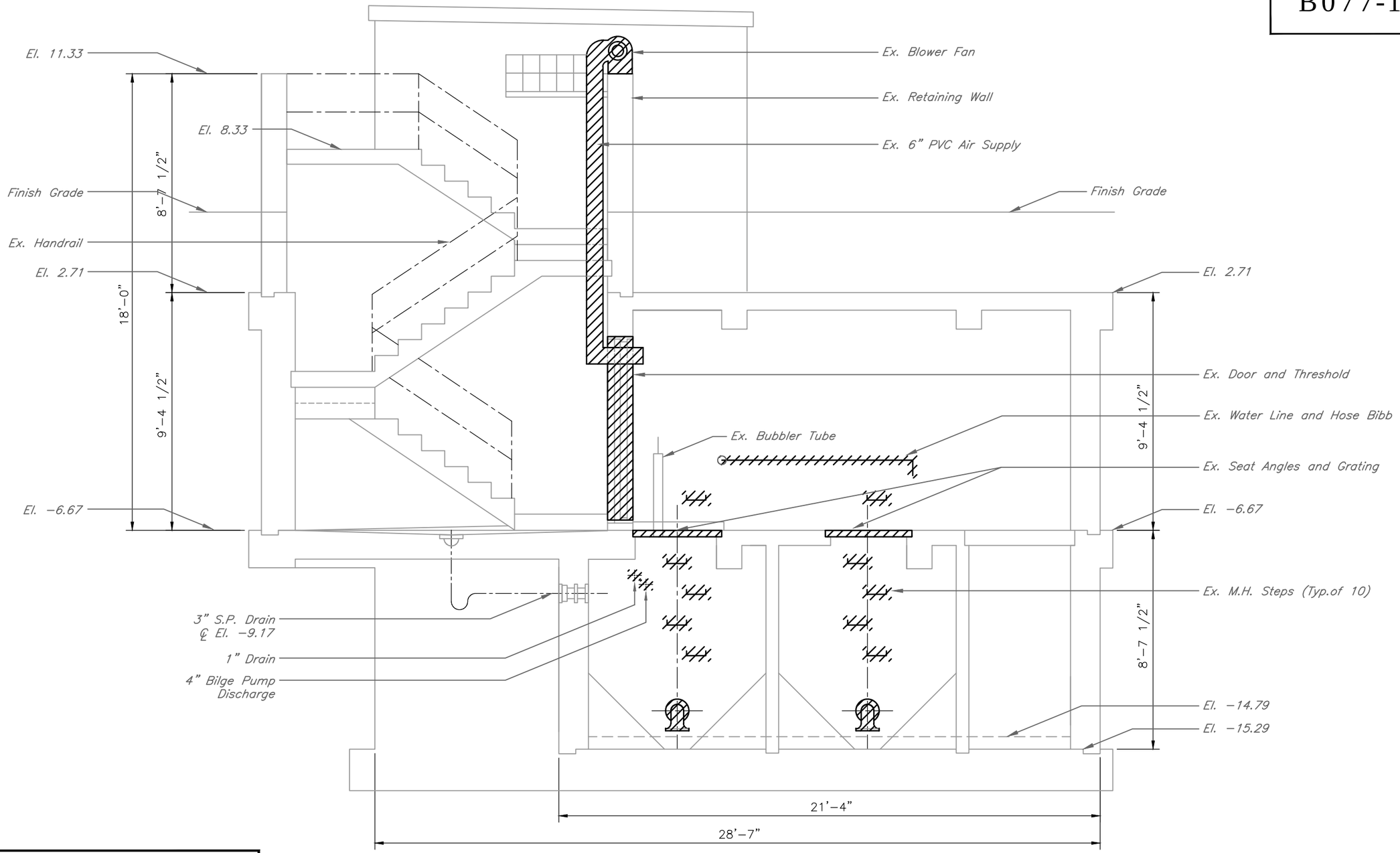


HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

DEMOLITION SECTION B-B

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

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: JPW
DRN: JHJ
CKD:
DATE: 4/1/13

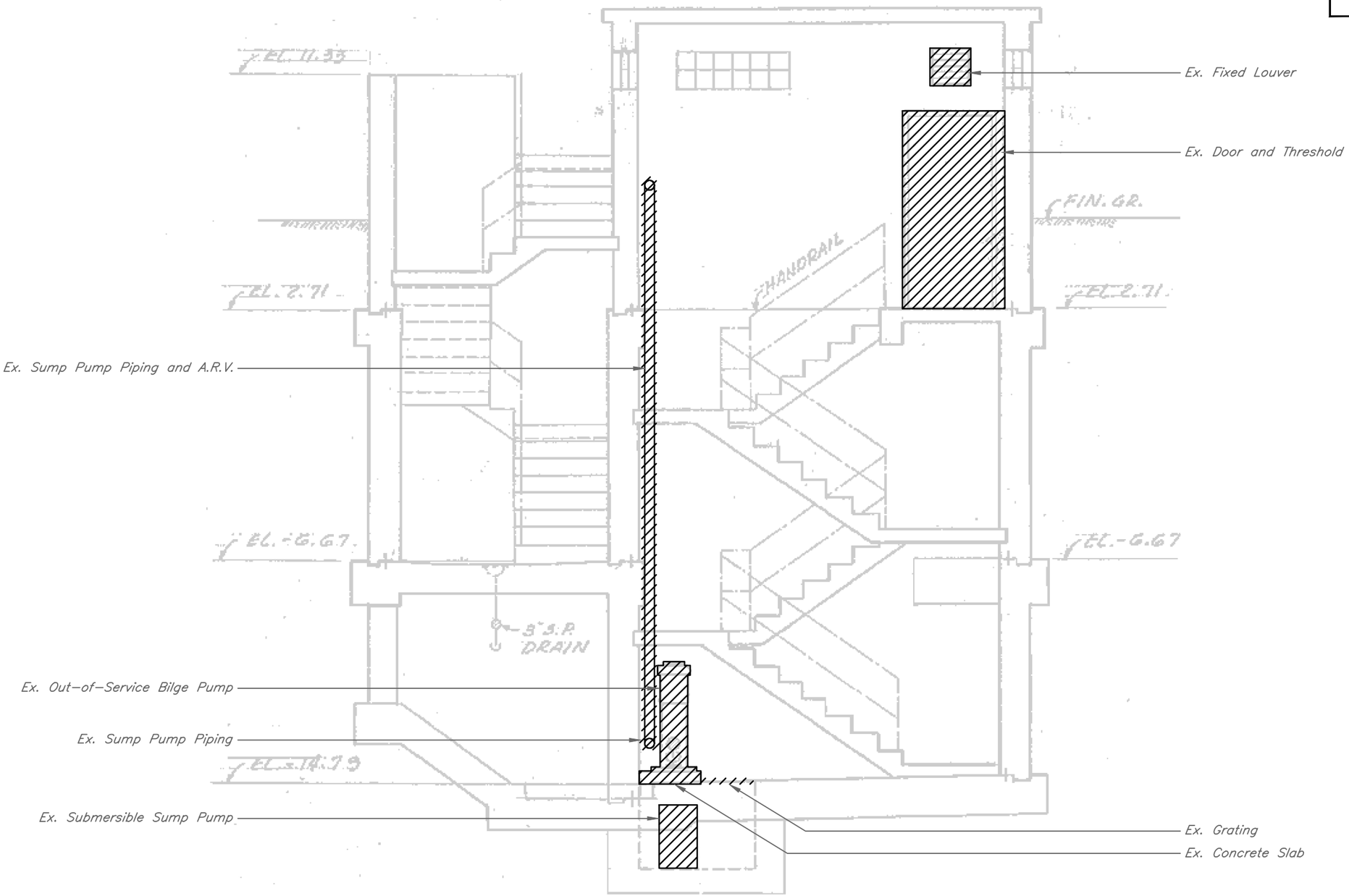
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
DEMOLITION SECTION B-B

W.O. 5879
SHEET
11

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 8:11am

B077-177



HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

DEMOLITION SECTION C-C

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

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: JPW
DRN: JHJ
CKD:
DATE: 4/1/13

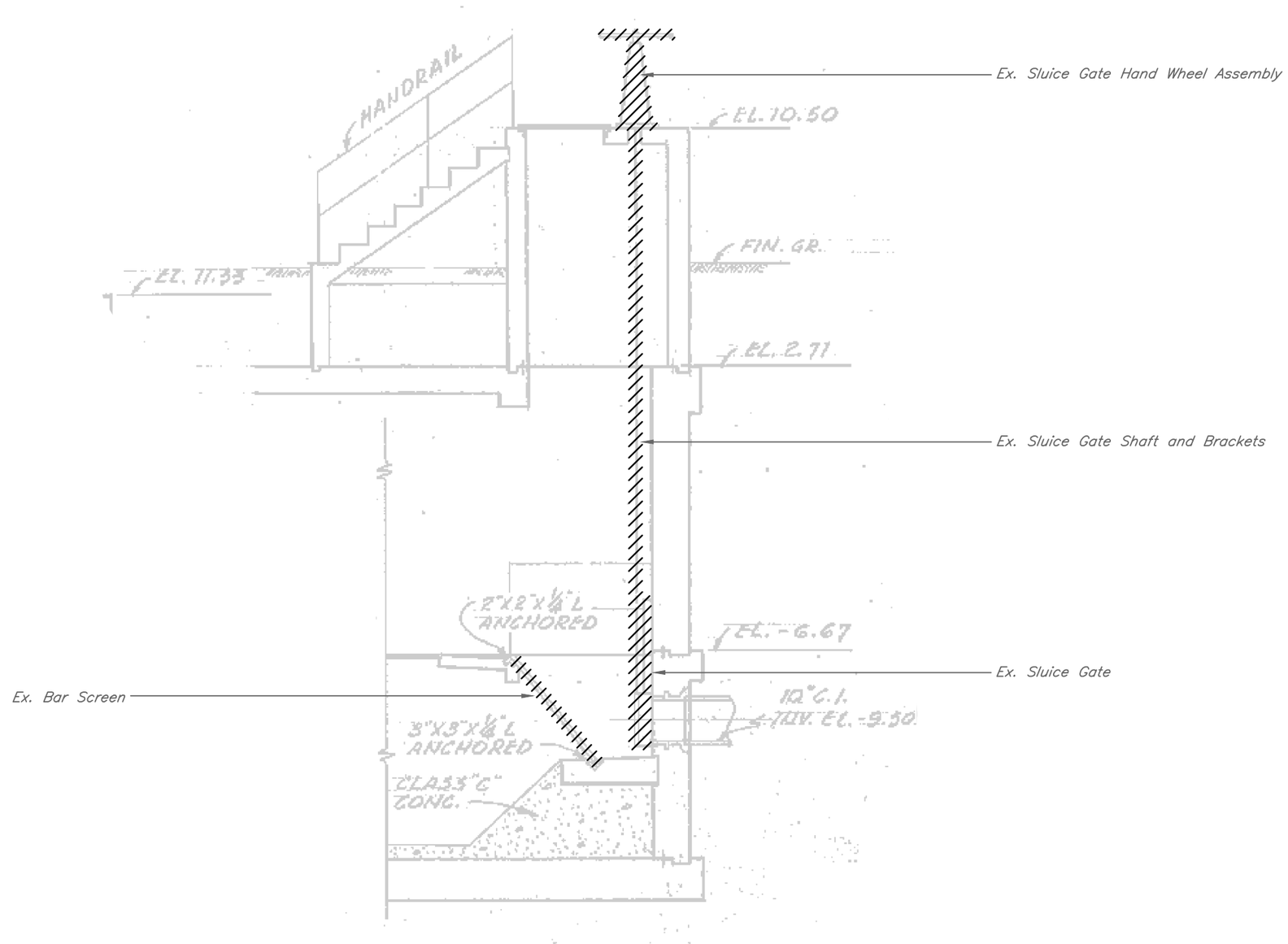
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
DEMOLITION SECTION C-C

W.O. 5879
SHEET
12

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS RETAB.dwg
Layout- Aug 21, 2013 - 8:11am

B077-178



HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

DEMOLITION SECTION D-D

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

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
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DES: JPW
DRN: JHJ
CKD:
DATE: 4/1/13

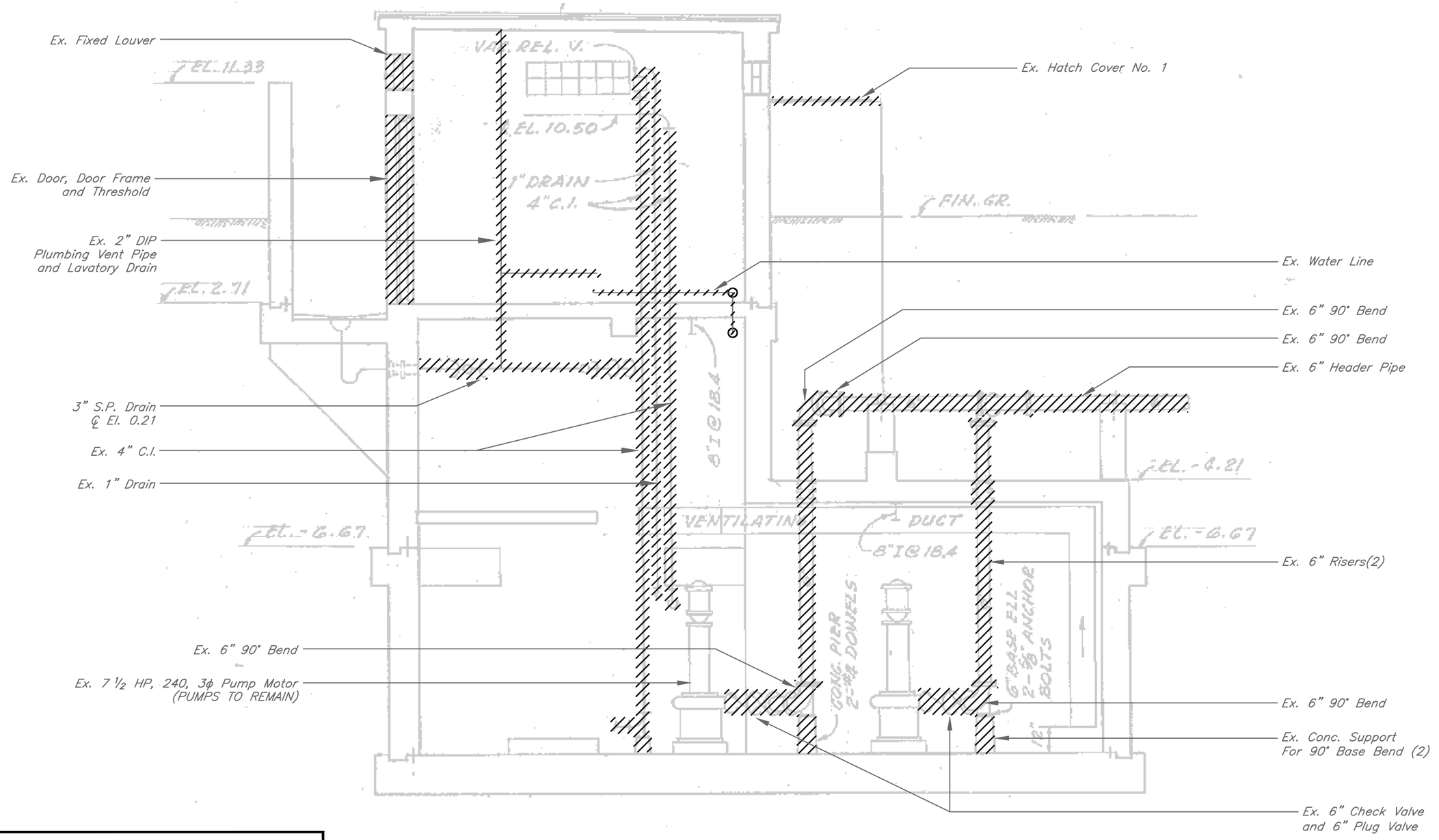
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
DEMOLITION SECTION D-D

W.O. 5879
SHEET
13

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS RETAIL.dwg
Layout- Aug 21, 2013 - 8:11am

B077-179



HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

DEMOLITION SECTION E-E

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

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
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DES: JPW
DRN: JHJ
CKD:
DATE: 4/1/13

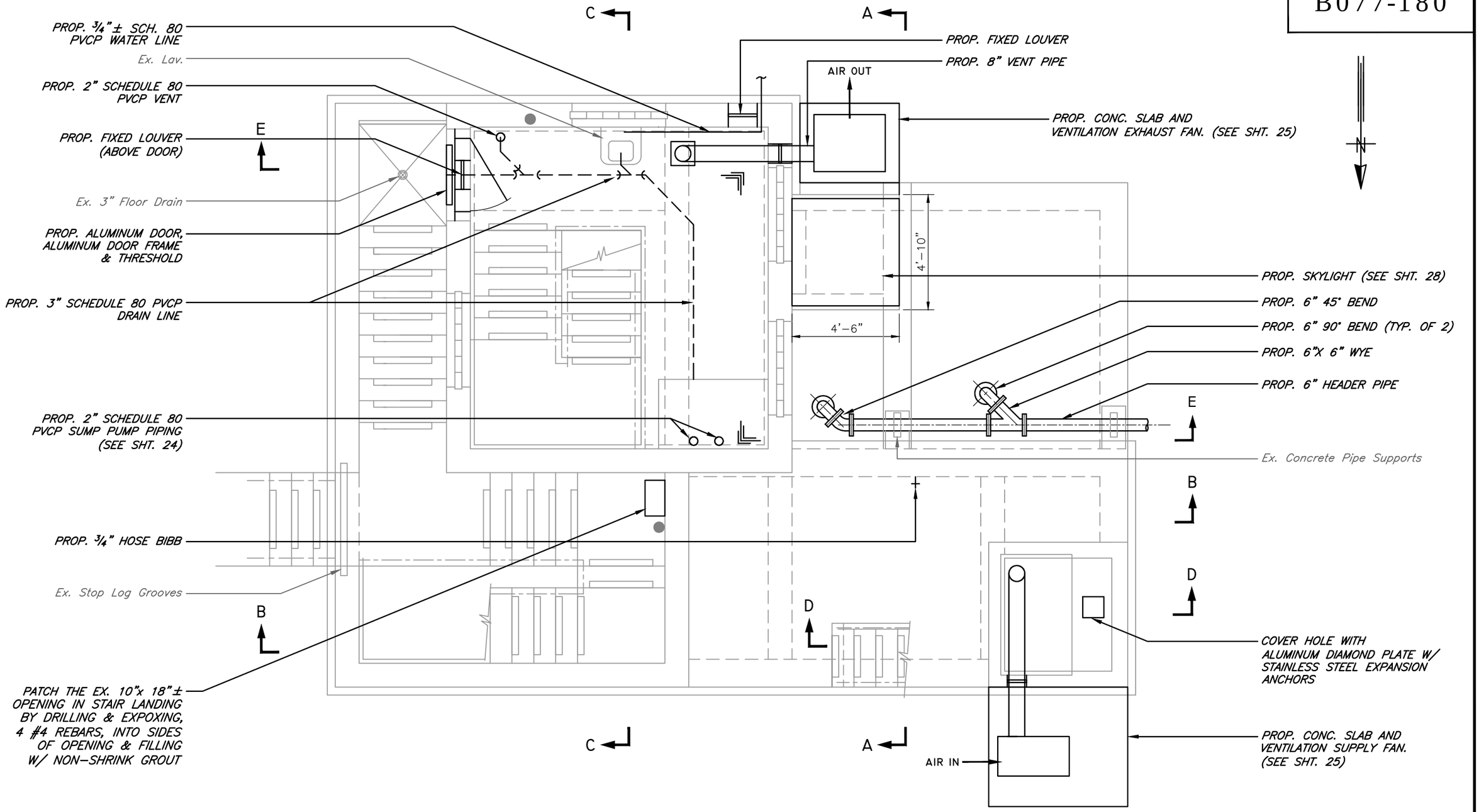
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
DEMOLITION SECTION E-E

W.O. 5879
SHEET
14

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout= Aug 21, 2013 - 8:11am

B077-180



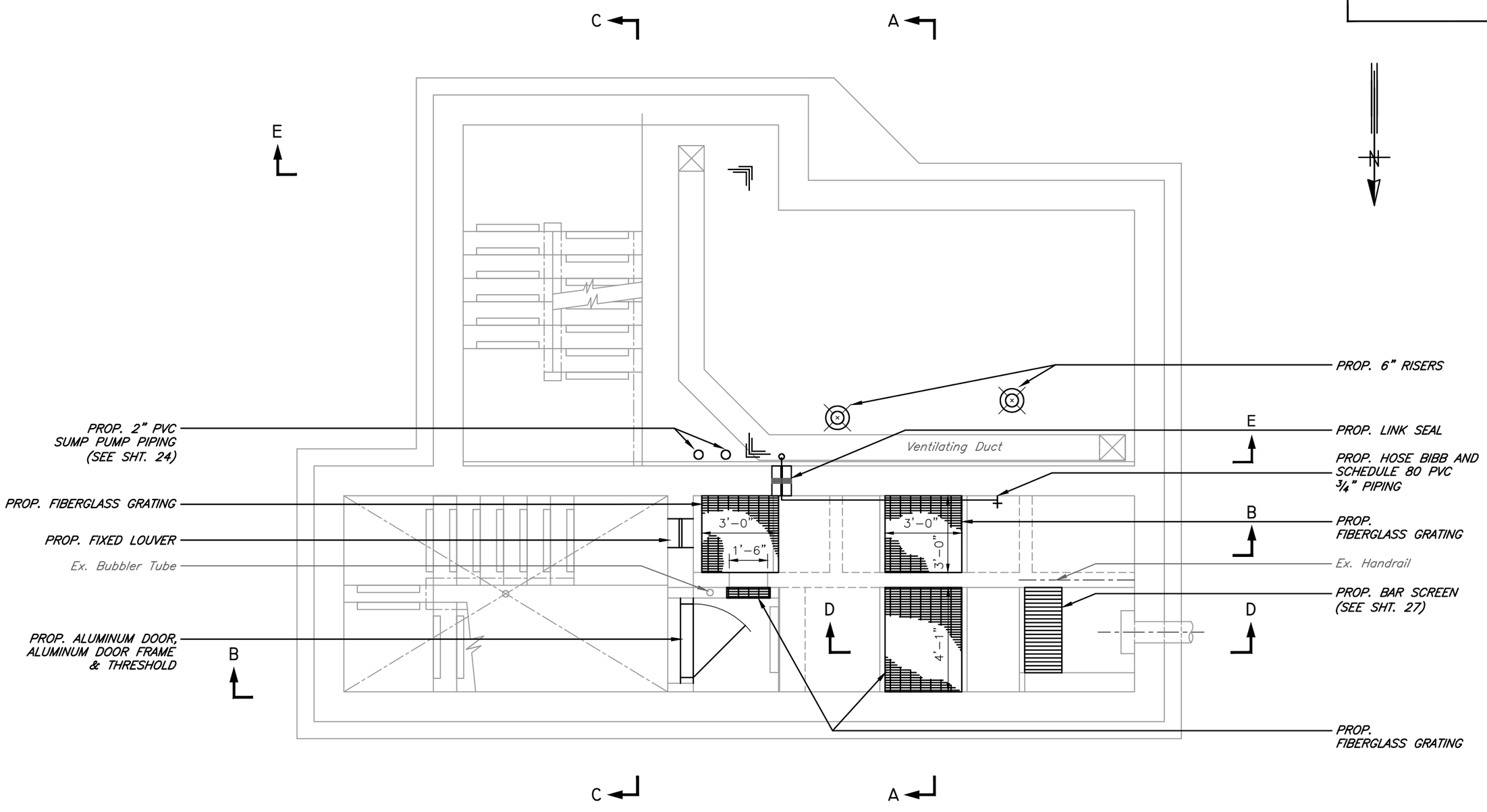
ENTRANCE FLOOR PROPOSED PLAN

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

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: JPW DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION ENTRANCE FLOOR PROPOSED PLAN	W.O. 5879 SHEET 15
	3						
	2						
	1						

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 8:11am

B077-181



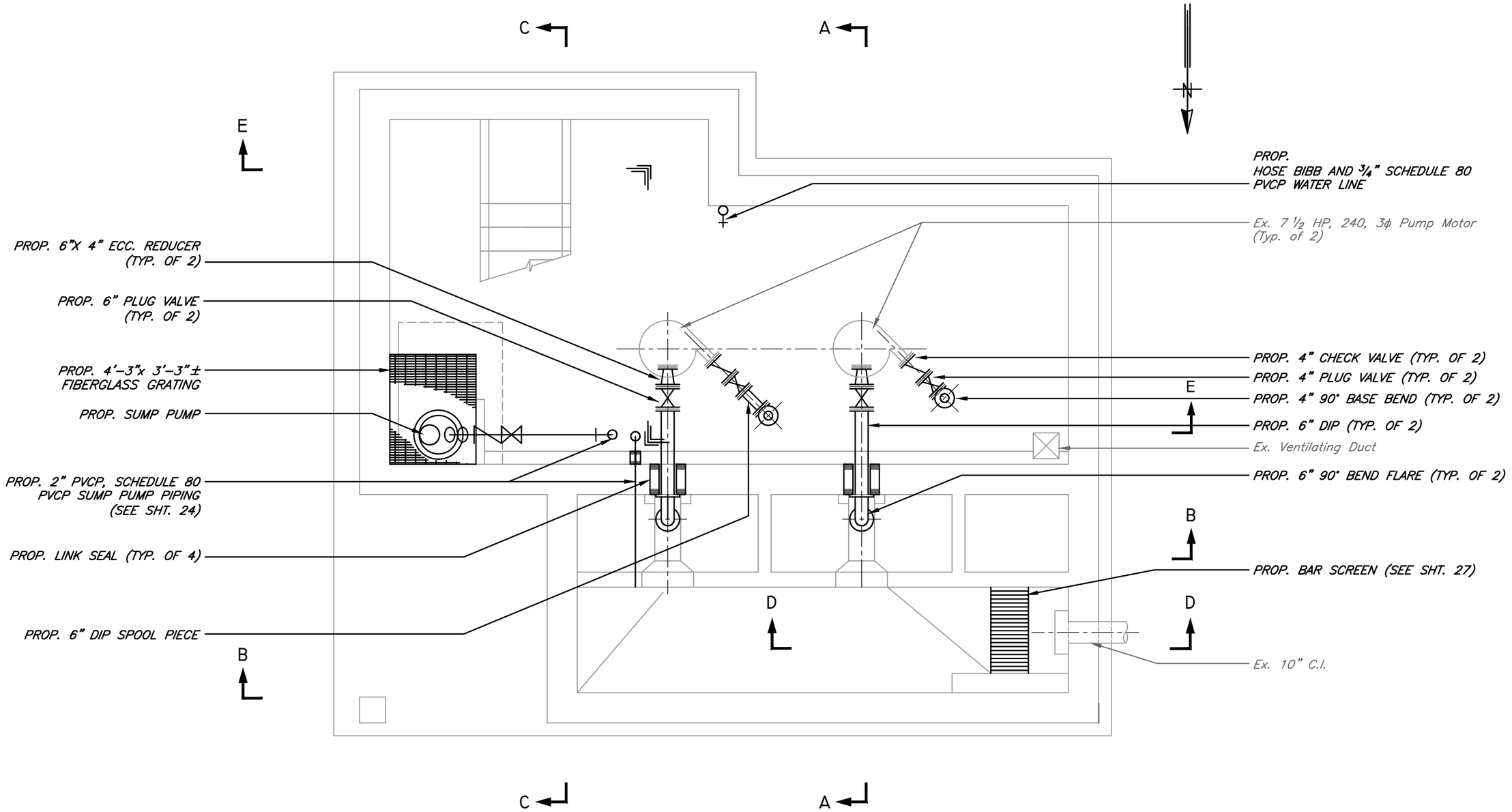
INTERMEDIATE FLOOR PROPOSED PLAN

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

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: JPW DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION INTERMEDIATE FLOOR PROPOSED PLAN	W.O. 5879 SHEET 16
	3						
	2						
	1						

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout– Aug 21, 2013 – 8:11am

B077-182



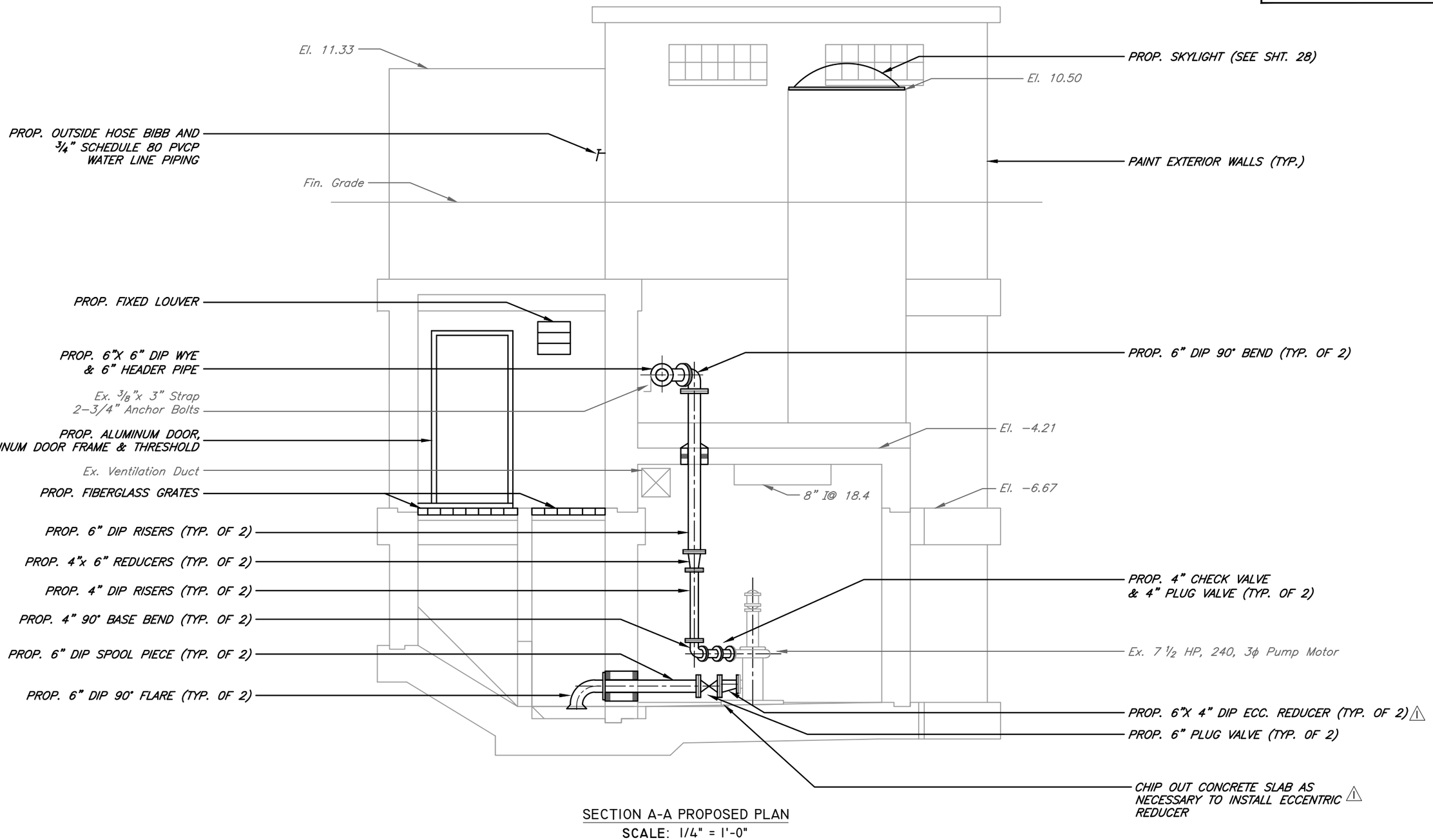
PUMP ROOM PROPOSED PLAN

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

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No. / DATE / REVISIONS 3 2 1		DES: JPW DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION PUMP ROOM PROPOSED PLAN	W.O. 5879 SHEET 17

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 8:11am

B077-183



SECTION A-A PROPOSED PLAN
SCALE: 1/4" = 1'-0"

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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⚠	05/02/13	ADDENDUM 1

DES: JPW
DRN: JHJ
CKD:
DATE: 4/1/13

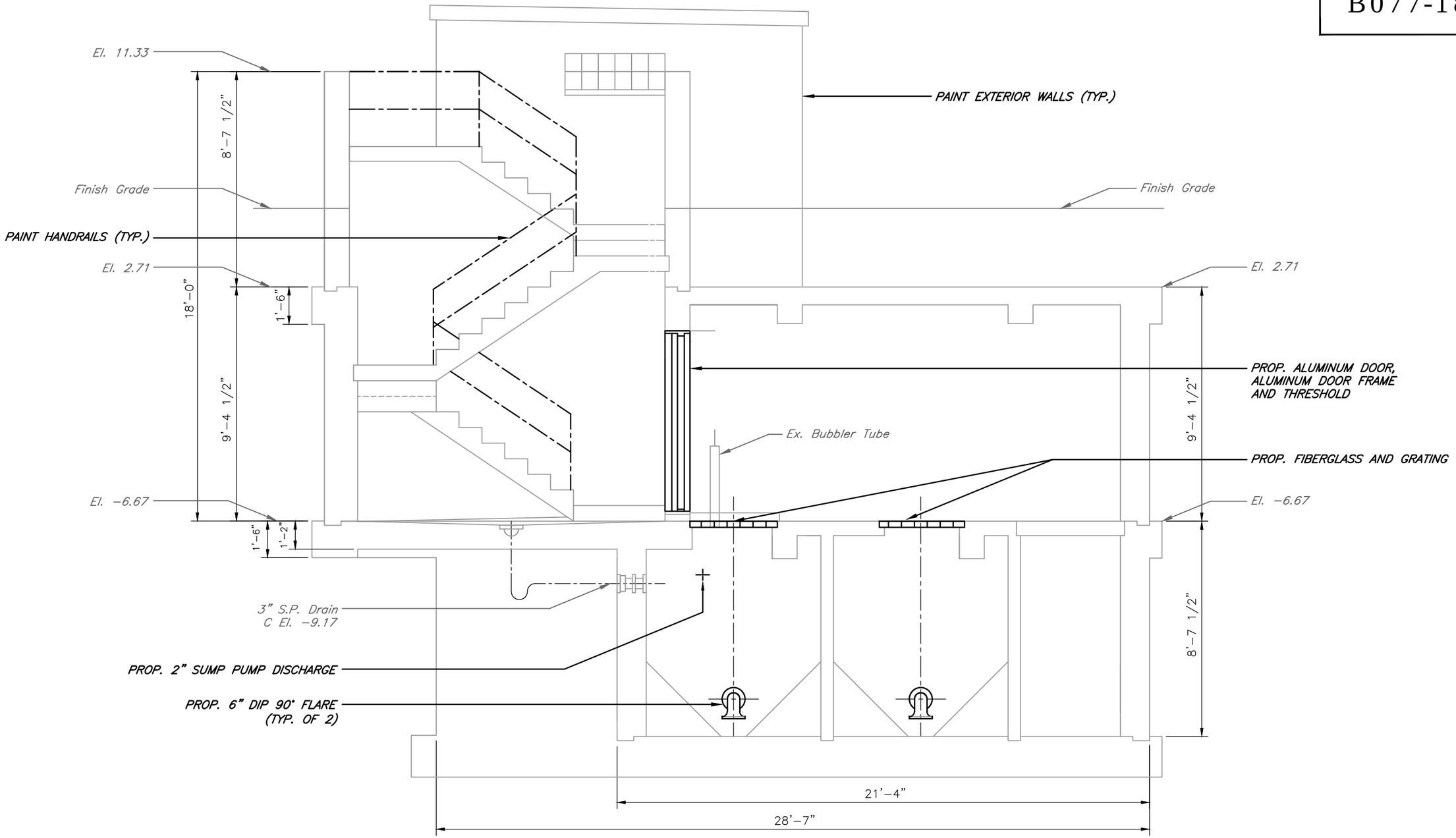
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
SECTION A-A PROPOSED PLAN

W.O. 5879
SHEET
18

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS RETAIL.dwg
Layout- Aug 21, 2013 - 8:11am

B077-184



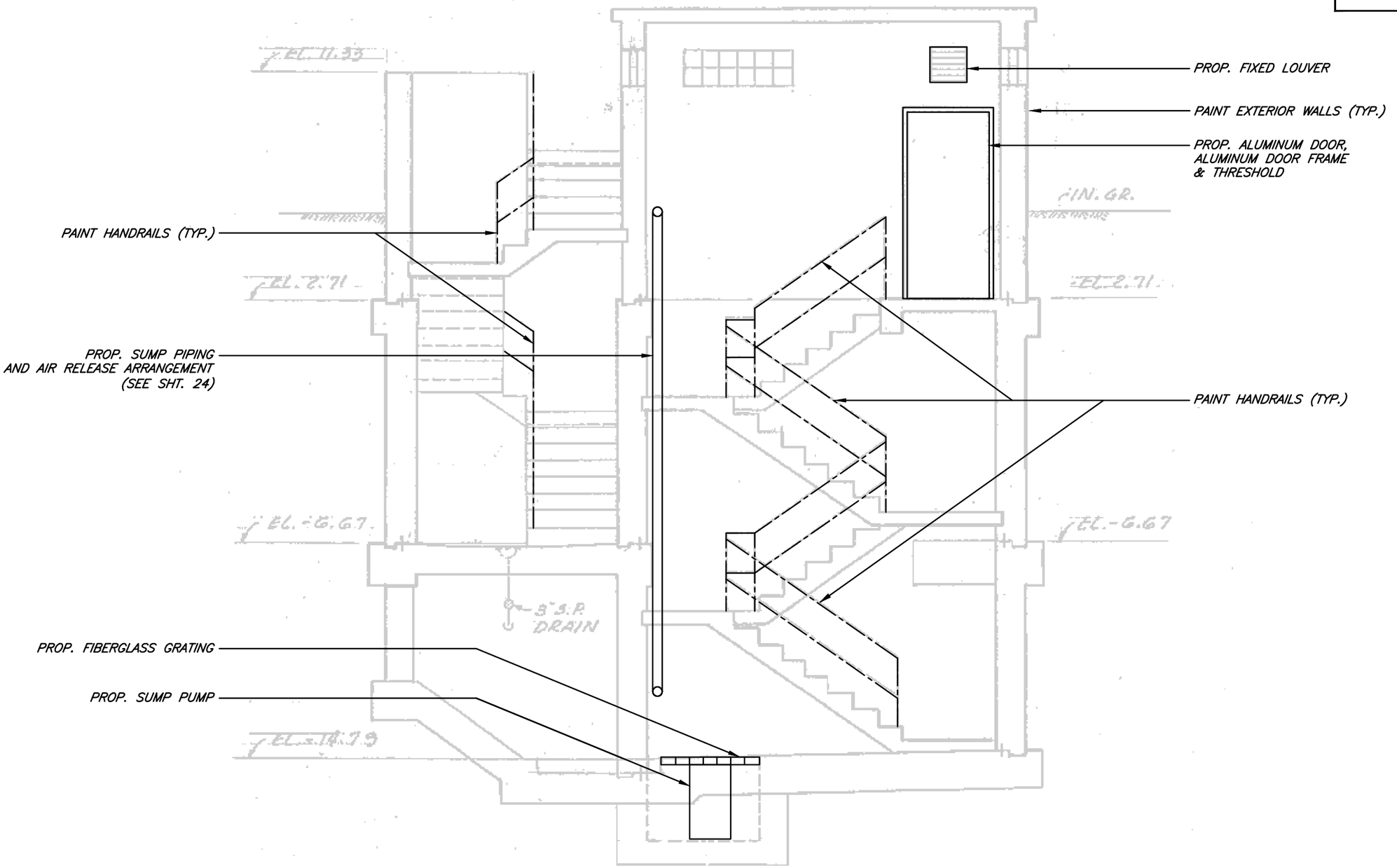
SECTION B-B PROPOSED PLAN

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

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: JPW DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION SECTION B-B PROPOSED PLAN	W.O. 5879 SHEET 19
	3						
	2						
	1						

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 8:11am

B077-185



SECTION C-C PROPOSED PLAN

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

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No. / DATE / REVISIONS 3 2 1	DES: JPW DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION SECTION C-C PROPOSED PLAN	W.O. 5879 SHEET 20

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout– Aug 21, 2013 – 8:11am

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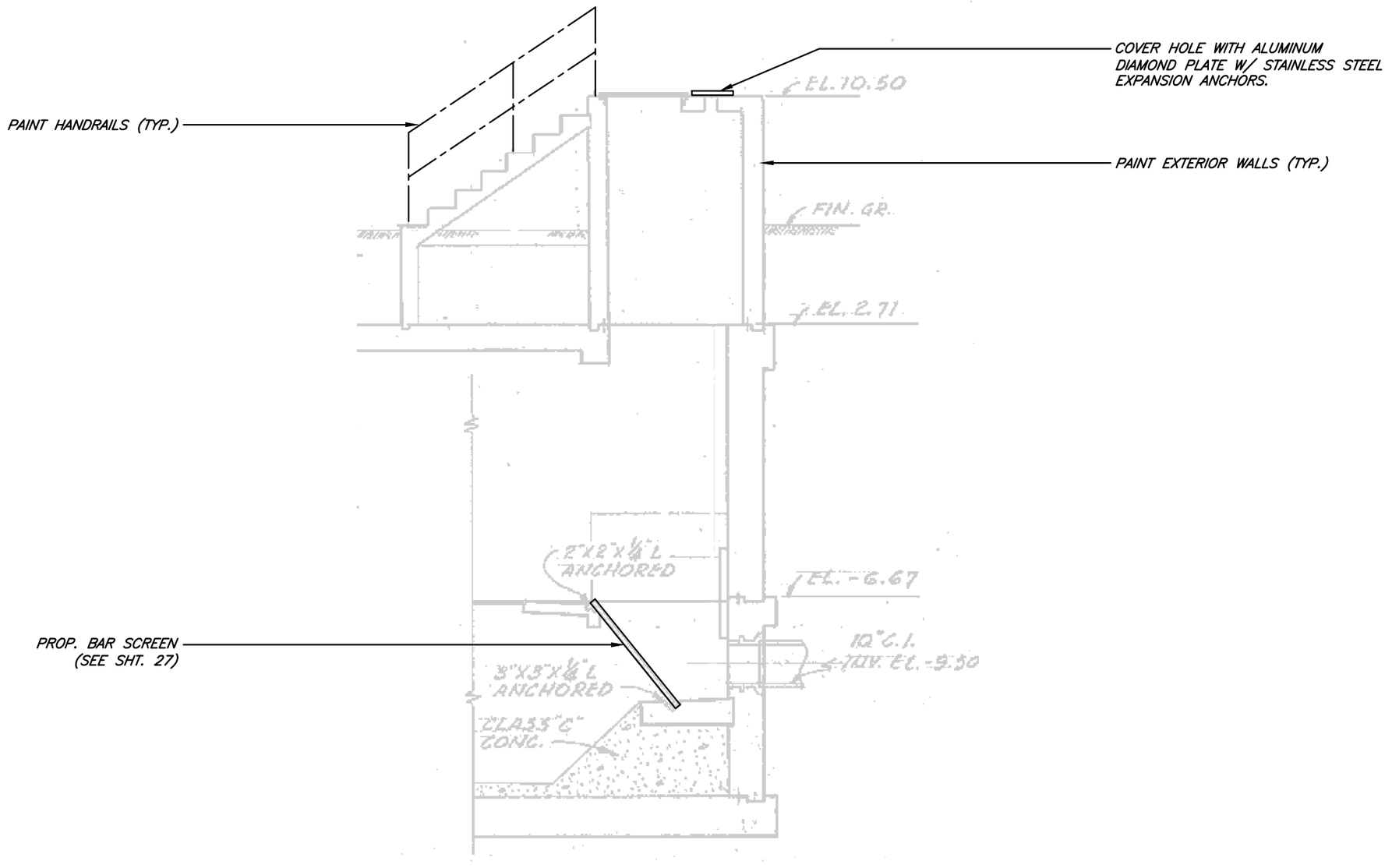

SECTION D-D PROPOSED PLAN
SCALE: 1/4" = 1'-0"

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: JPW DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION SECTION D-D PROPOSED PLAN	W.O. 5879 SHEET 21
	3						
	2						
	1						

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 8:11am

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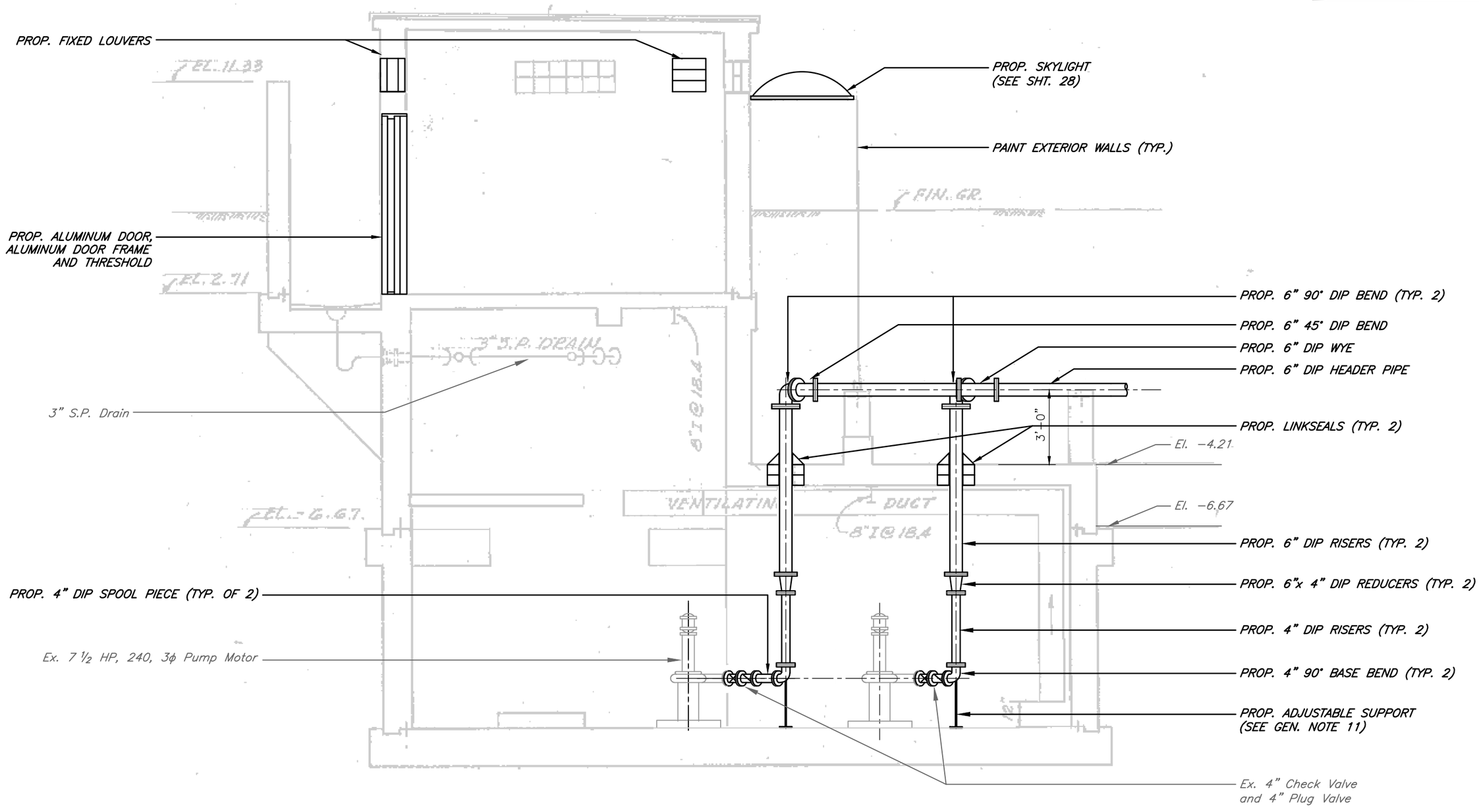


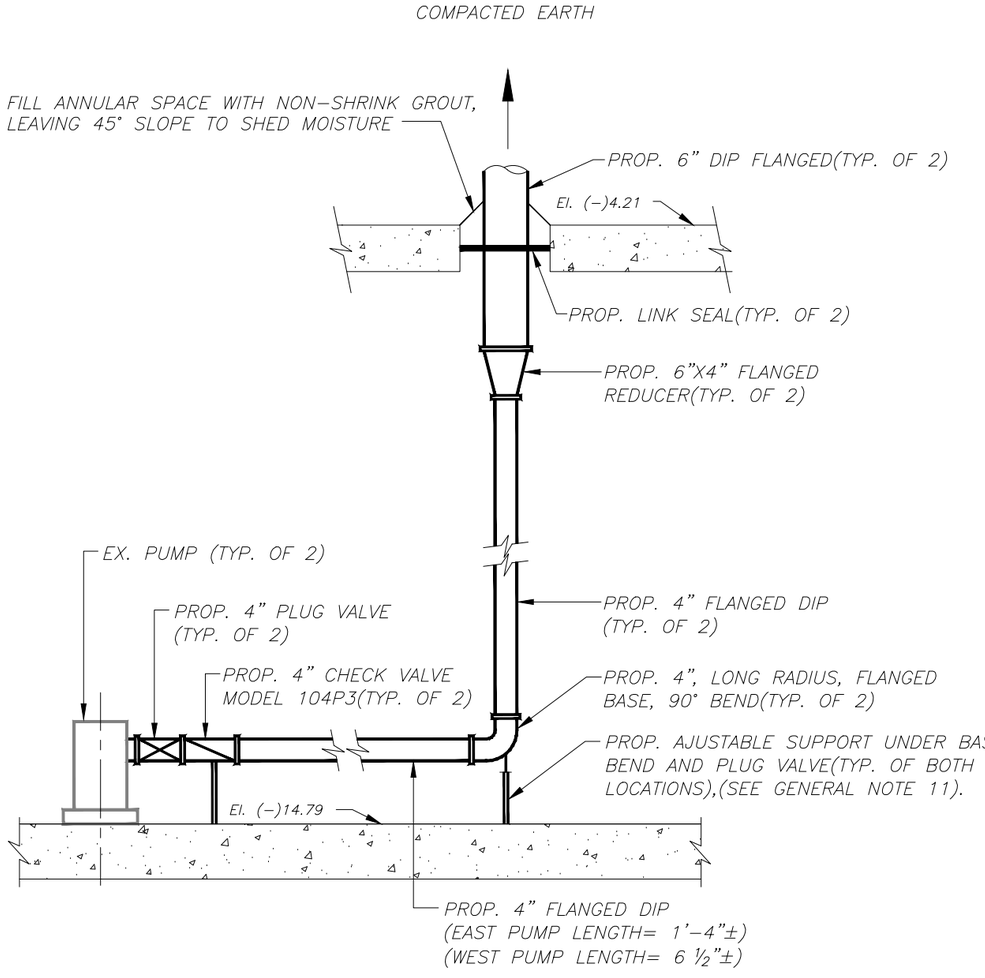
SECTION E-E PROPOSED PLAN

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

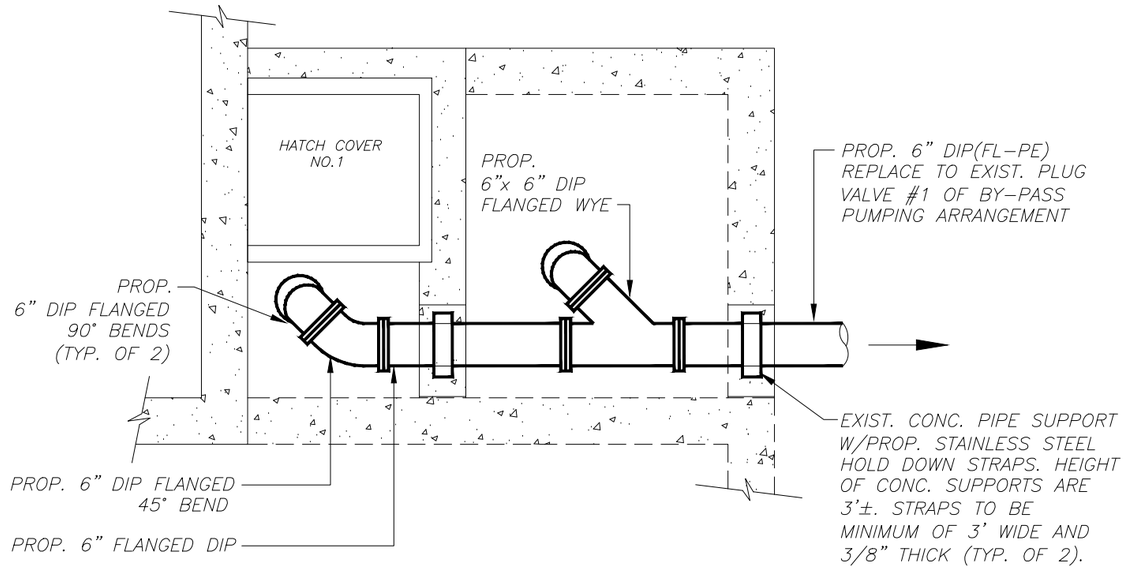
JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: JPW DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION SECTION E-E PROPOSED PLAN	W.O. 5879 SHEET 22
	3						
	2						
	1						

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 8:11am

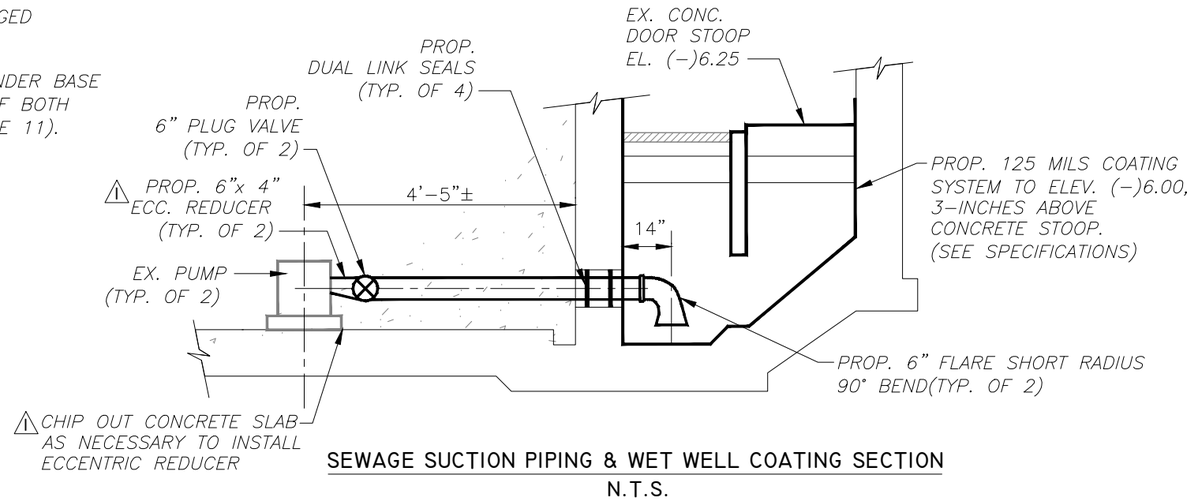
B077-188



SEWAGE DISCHARGE PIPING SECTION (INSIDE PUMP ROOM)
N.T.S.



SEWAGE DISCHARGE PIPING PLAN VIEW (ABOVE PUMP ROOM)
N.T.S.

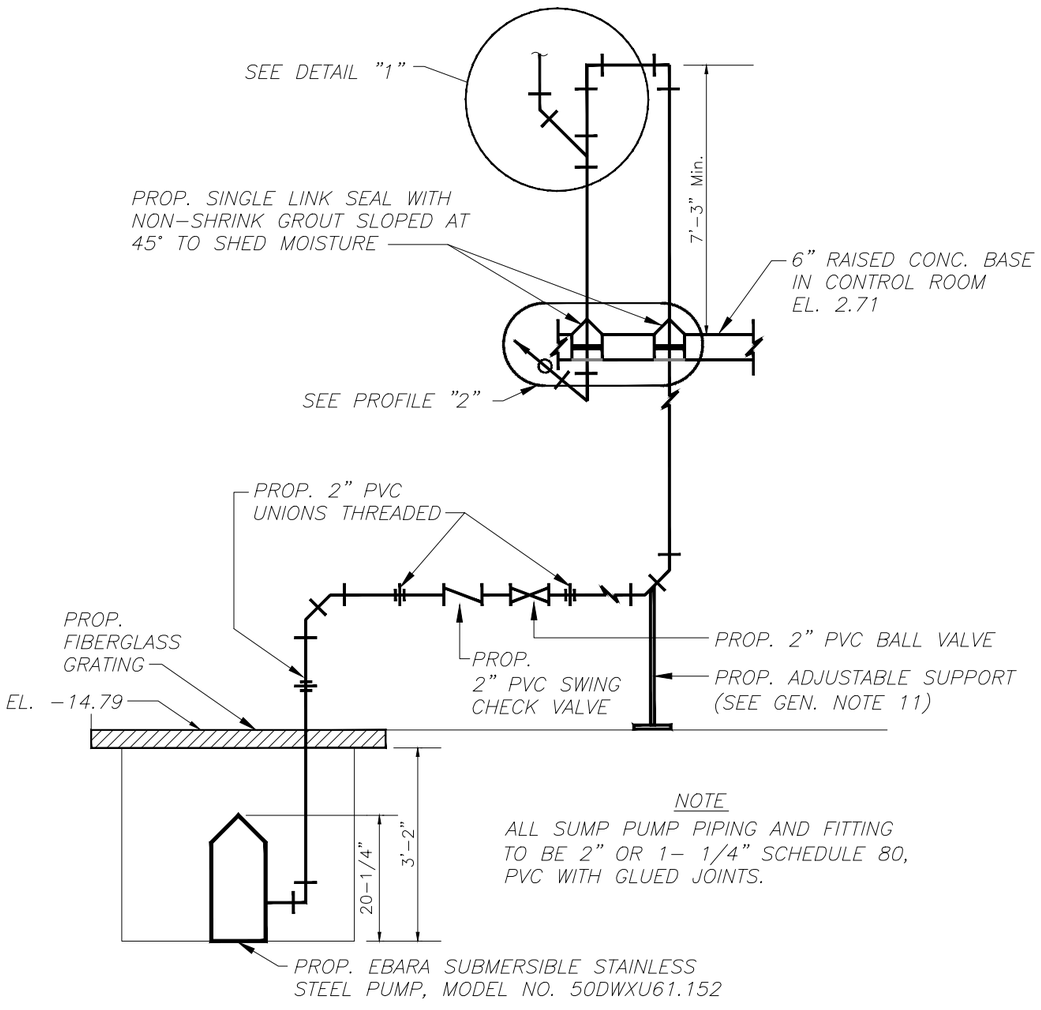


SEWAGE SUCTION PIPING & WET WELL COATING SECTION
N.T.S.

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 8:11am

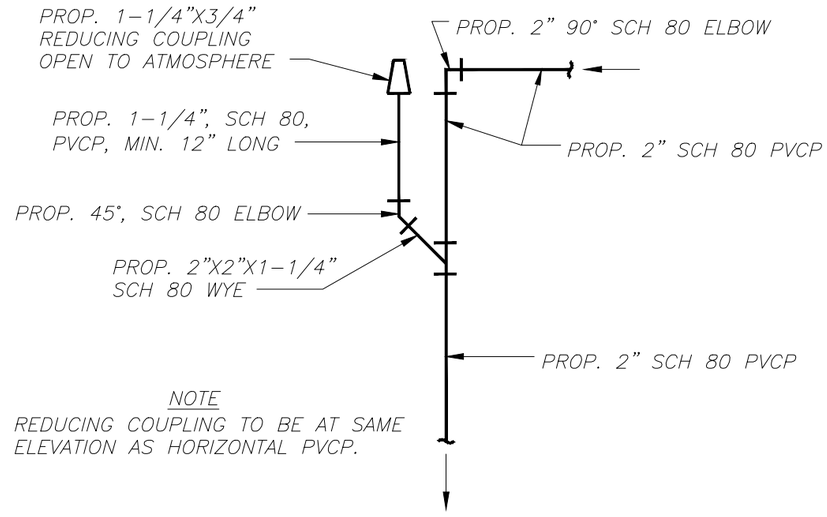
JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No. / DATE / REVISIONS 3 / / 2 / / 1 / 05/02/13 / ADDENDUM 1	DES: JPW DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION DISCHARGE PIPING DETAILS	W.O. 5879 SHEET 23

B077-189



NOTE

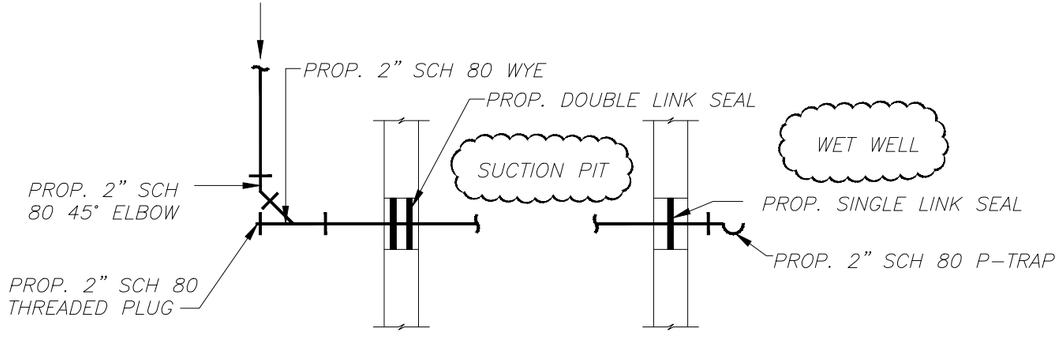
ALL SUMP PUMP PIPING AND FITTING TO BE 2" OR 1- 1/4" SCHEDULE 80, PVC WITH GLUED JOINTS.



NOTE

REDUCING COUPLING TO BE AT SAME ELEVATION AS HORIZONTAL PVCP.

DETAIL "I"
N.T.S.



PROFILE "2"
N.T.S.

SUMP PUMP PIPING DETAILS
N.T.S.

NOTE

1. ALL PIPE AND FITTINGS ARE TO BE 2" SCHEDULE 80 PVC
2. P-TRAP MAY BE FACTORY PRODUCED OR FABRICATED WITH THREE, 2" SCHEDULE 80 90° SWEEP ELBOWS

JACINTO CARLOS FERRAS, P.E., #49454
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CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
SUMP PUMP PIPING DETAILS

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24

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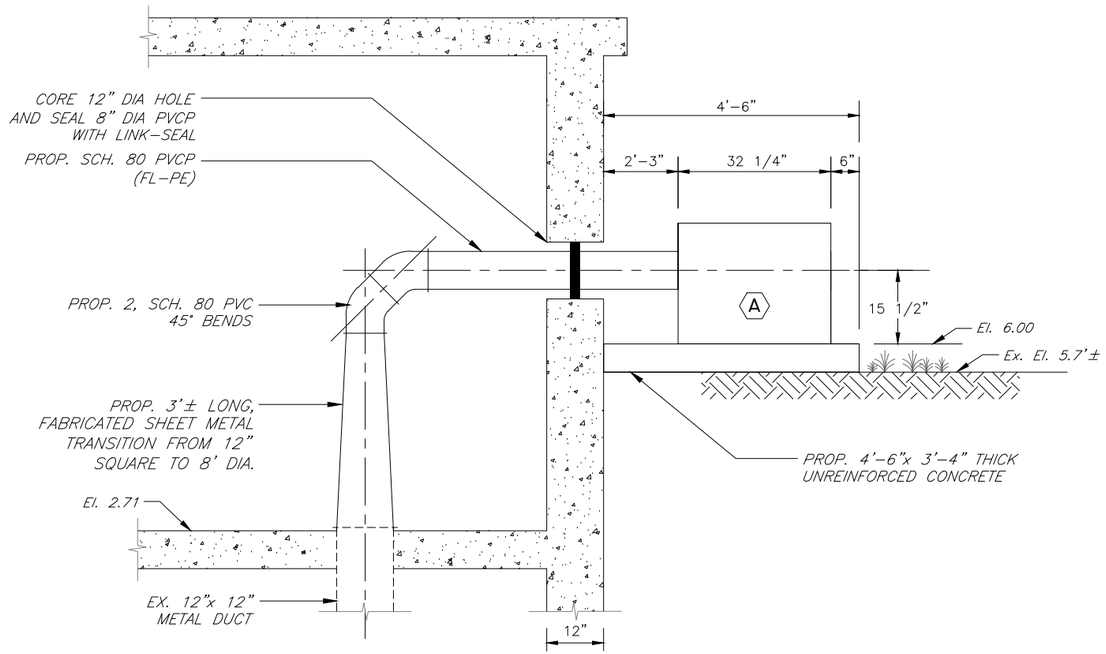
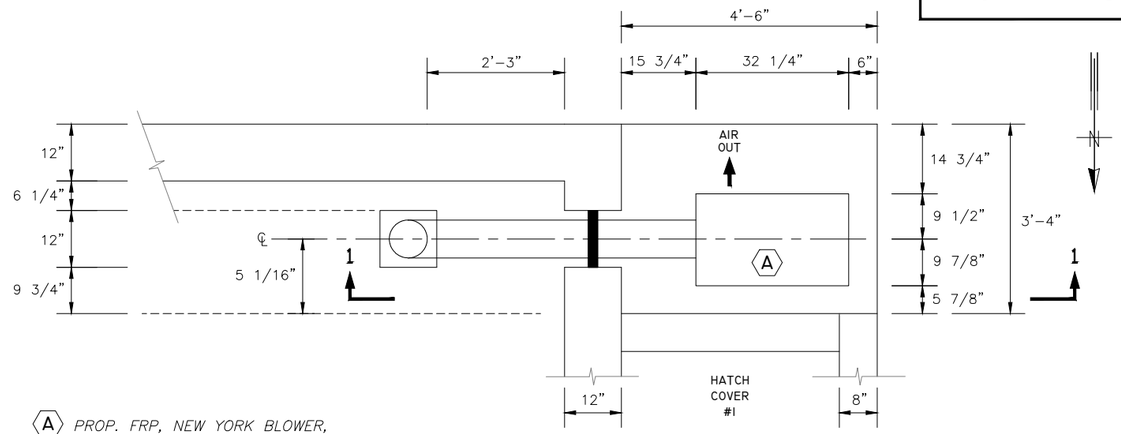
B077-190



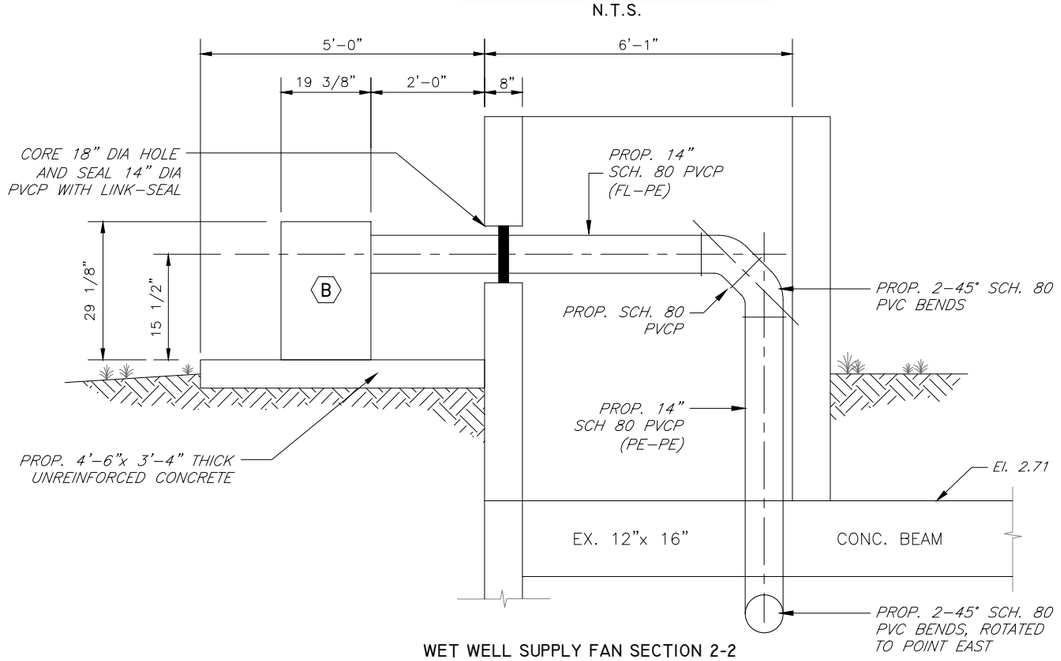
DRY WELL EXHAUST FAN SECTION I-I
N.T.S.



(A) PROP. FRP, NEW YORK BLOWER, SIZE 315 RADIAL FLUME EXHAUSTER, ARRANGEMENT 10, COUNTER CLOCK WISE-BOTTOM HORIZONTAL (CCW BH), WITH:

(1) ANSI CLASS 150 HOLES ON FLANGED INLET
(2) WEATHER COVER / BELT GUARD
(3) OPTIONAL MOTOR AND V-BELT DRIVE
(4) POSITIVE SCREW ADJUSTMENT

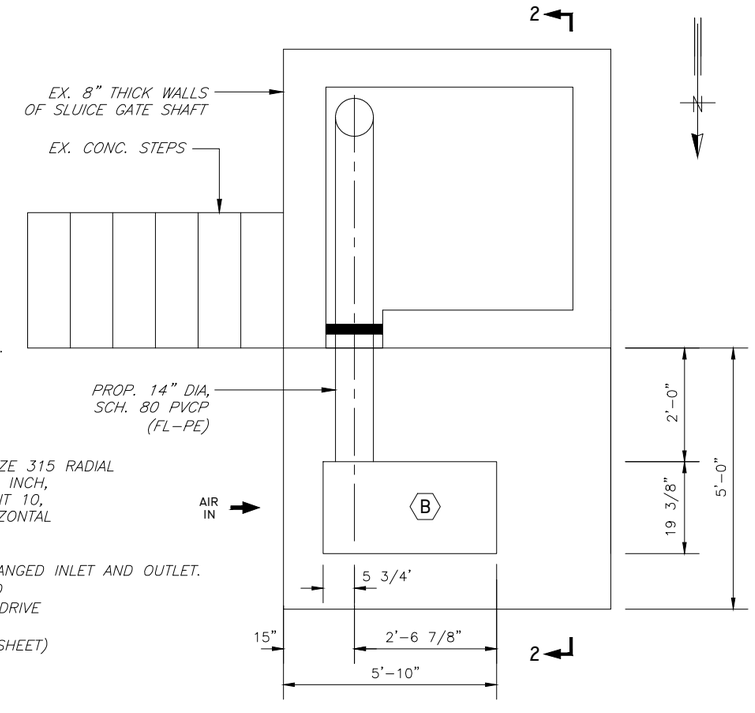
DRY WELL EXHAUST FAN PLAN VIEW
N.T.S.



WET WELL SUPPLY FAN SECTION 2-2
N.T.S.

INLET GUARD NOTE:

INLET GUARD TO CONSIST OF 12"ø PVC FLANGE, 4" LENGTH 12"ø, SCH 80, PVCP, CAPPED WITH PLASTIC NETTING SECURED WITH S.S. ADJUSTABLE BAND. PLASTIC NETTING SHALL BE "INDUSTRIAL NETTING, MODEL XB 1132" WITH A MINIMUM OPENING OF ½", OR APPROVED EQUAL.



(B) PROP. FRP, NEW YORK BLOWER. SIZE 315 RADIAL FLUME EXHAUSTER, 1700 CFM @ 1 INCH, RPM 3600, BHP 1.27, ARRANGEMENT 10, COUNTER-CLOCKWISE BOTTOM HORIZONTAL (CCW BH), WITH:

(1) ANSI CLASS 150 HOLES ON FLANGED INLET AND OUTLET.
(2) WEATHER COVER / BELT GUARD
(3) OPTIONAL MOTOR AND V-BELT DRIVE
(4) POSITIVE SCREW ADJUSTMENT
(5) INLET GUARD (SEE NOTE THIS SHEET)

WET WELL SUPPLY FAN PLAN VIEW
N.T.S.

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
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CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
VENTILATION DETAILS

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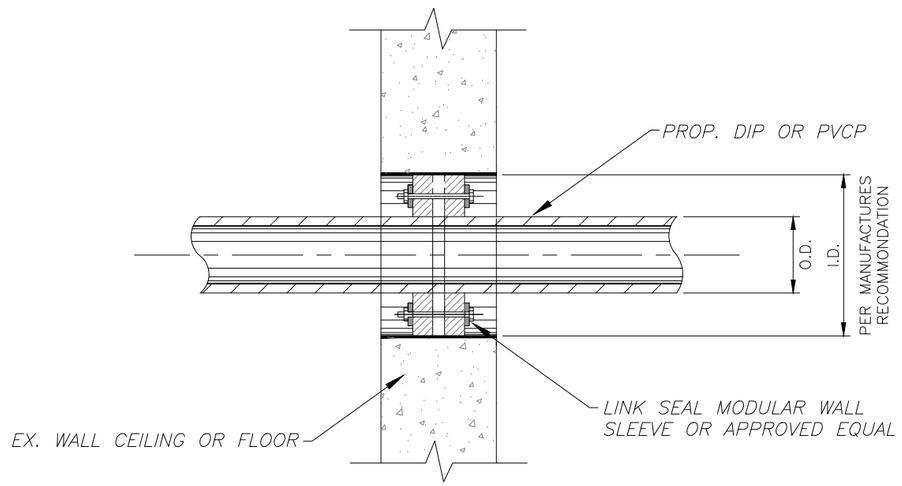
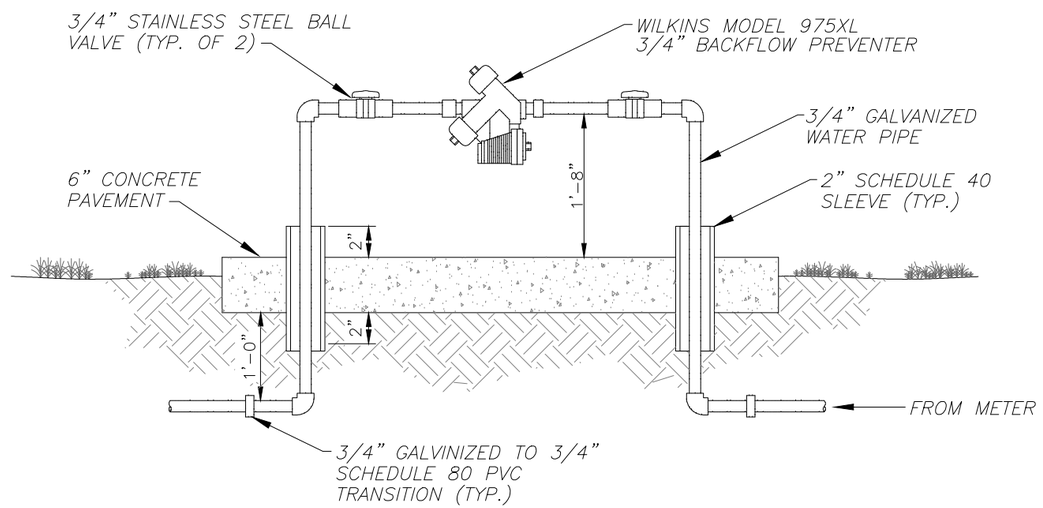


LINK SEAL DETAIL
N.T.S.



BACKFLOW PREVENTER DETAIL
N.T.S.

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
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JACINTO CARLOS FERRAS, P.E., #49454
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CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
LINK SEAL & BACKFLOW PREVENTER DETAILS

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SHEET
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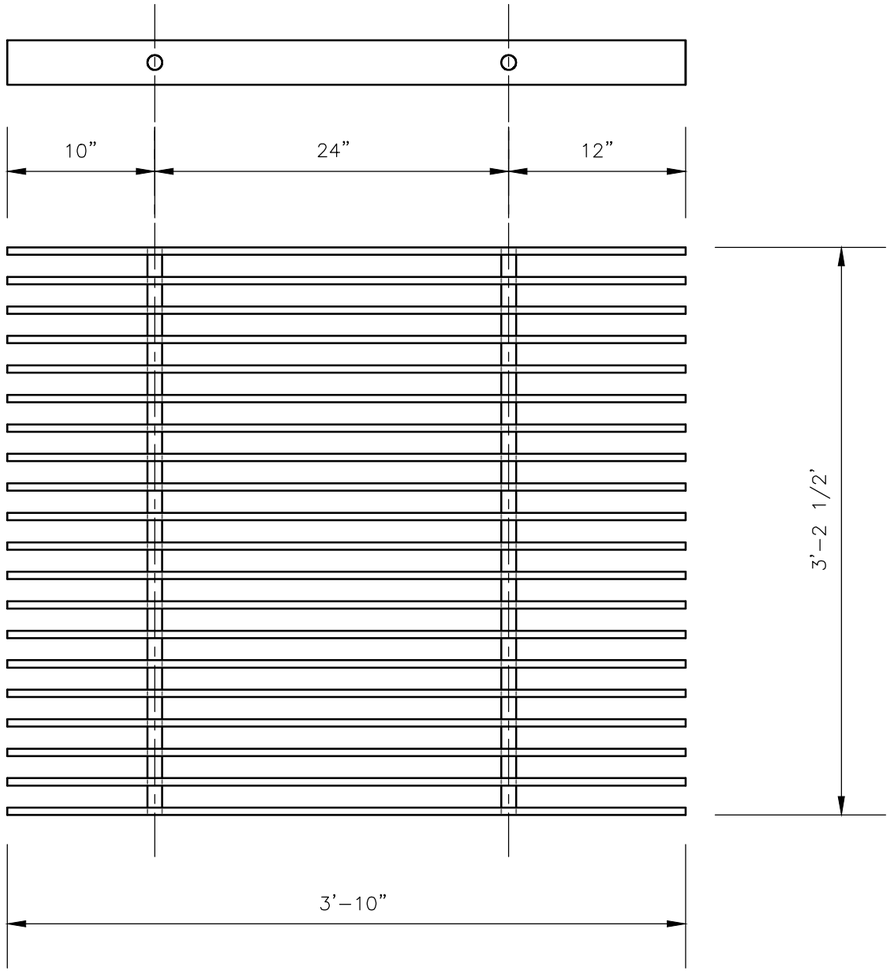
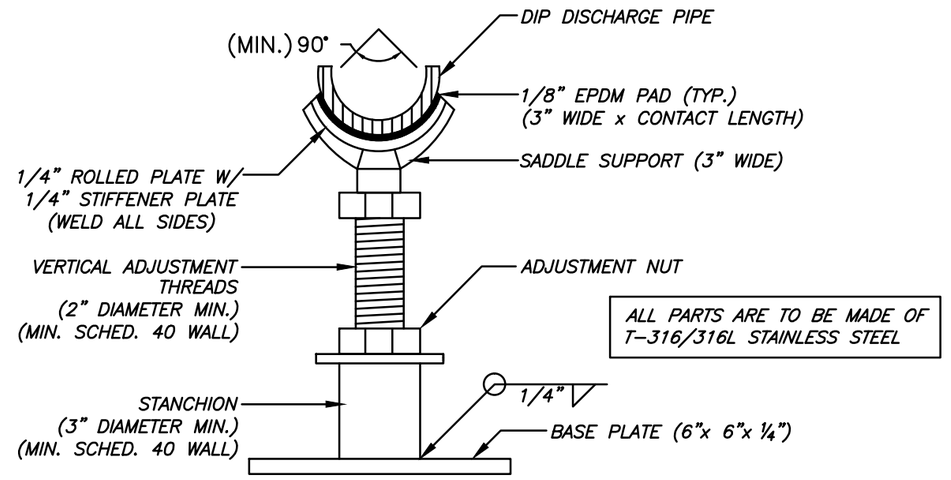


20 – 3" WIDE x ½" THICK x 3'-10" LONG S.S BARS WITH 2 – 1" DIA. S.S RODS WELDED THROUGH HOLES TO MAINTAIN 1 ½" CLEAR OPENING BETWEEN THE BARS

ALL PARTS ARE TO BE MADE OF T-316/316L STAINLESS STEEL

BAR SCREEN DETAIL
N.T.S.



SECTION VIEW - STAINLESS STEEL STANCHION SADDLE SUPPORT
N.T.S.

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DRN: JHJ
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DATE: 4/1/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
BAR SCREEN & STANCHION SADDLE SUPPORT DETAILS

W.O. 5879
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27

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B077-193

DADE SELF FLASHING MODEL SPECIFICATIONS

1). MINIMUM #12 x 1.5" FASTENER BY OTHERS. PRE-PUNCHED INSTALLATION HOLES 3" FROM EACH CORNER, MAXIMUM 12" ON CENTER. MINIMUM PENENTRATION =1"

2). .060" x 1.5" x 1.75" 6063-T6 EXTRUDED ALUMINUM RETAINING ANGLE. ALUMINUM ANGLE MITERED AND WELDED @ 4 CORNERS.

3). 0.118" CLEAR HYZOD INNER POLYCARBONATE DOME @ 4" HEIGHT.

4). 0.118" CLEAR HYZOD OUTER POLYCARBONATE DOME @ 8" HEIGHT.

5). OSI PR 256 URETHANE SEALANT: LOCATED BETWEEN ALUMINUM ANGLE RETAINER AND TOP DOME & BETWEEN BOTTOM DOME AND ALUMINUM FRAME.

6). BUTYL TAPE: 1" x .125 LOCATED BETWEEN TOP AND BOTTOM DOMES.

7). 6063-T5 EXTRUDED ALUMINUM FRAME. 0.060" SHAPE MITERED AND WELDED @ 4 CORNERS.

8). #12 x 1.75" FASTENER. ONE FASTENER LOCATED EQUIDISTANCE FROM EACH CORNER. (FOUR FASTENERS PER SKYLIGHT).

9). #10 x .375" STAINLESS STEEL FASTENER @ 4" FROM EACH CORNER, MAXIMUM 10" ON CENTER.

10). MINIMUM DISTANCE =4".

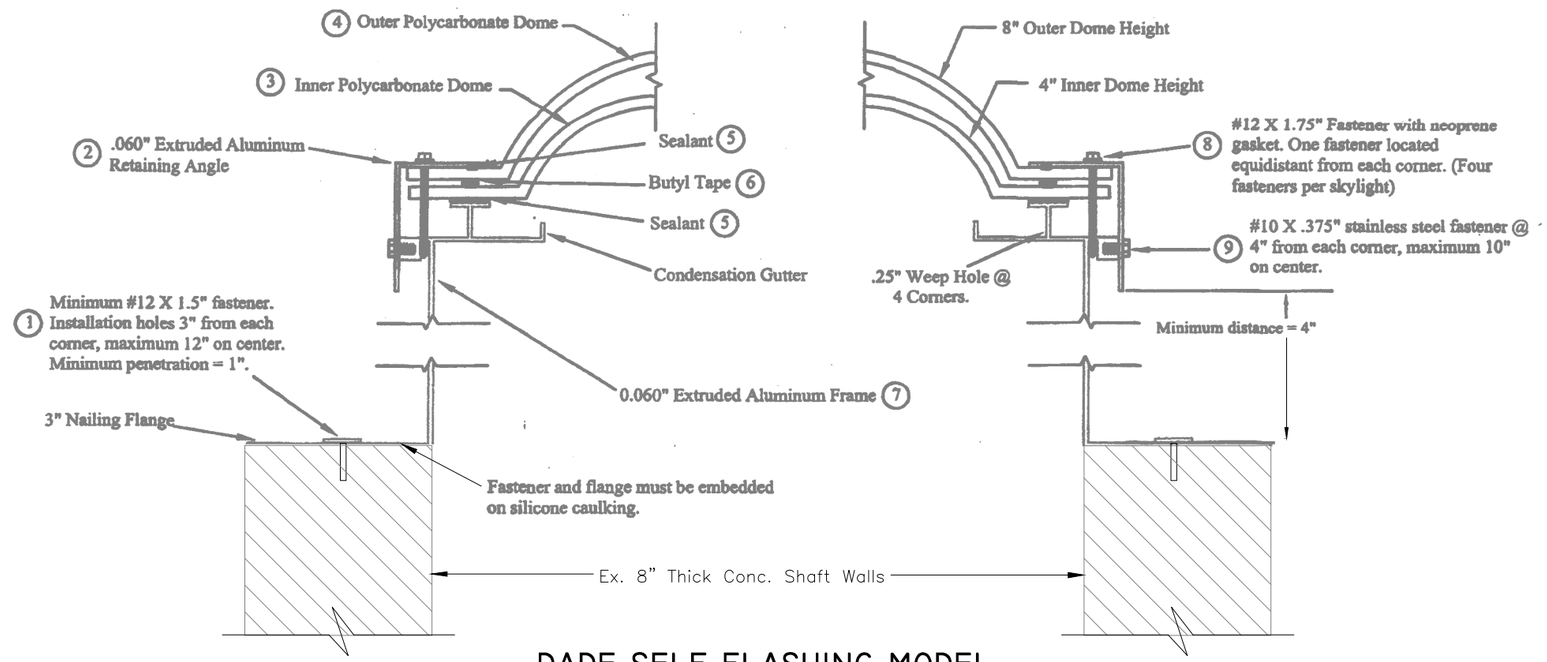
SKYLIGHT NOTES :

1. SKYLIGHT SHALL BE 54" X 54" I.D.. THE SKYLIGHT SHALL BE DESIGNED TO COMPLY WITH THE "HIGH VELOCITY HURRICANE ZONE OF THE FLORIDA BUILDING CODE" WITH A CURRENT "NOTICE OF ACCEPTANCE" ISSUED BY THE MIAMI-DADE COUNT BUILDING CODE COMPLIANCE OFFICE. AND SHALL BE THE "DADE SELF FLASHING MODEL" AS MADE BY MAXIM INDUSTRIES, INC, 6170 VANDERBILT AVE, DALLAS, TX 75214, (214) 824-1557, OR EQUAL.

2. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL, PRIOR TO PLACING AN ORDER FOR THE SKYLIGHTS.

3. THE SKYLIGHT SHALL BE CENTERED OVER THE EXISTING OPENING INTO THE PUMP ROOM. AFTER HATCH COVER NO. 1 IS REMOVED

4. FASTENERS SHALL BE 316 STAINLESS STEEL AND APPROVED FOR INSTALLATION INTO CONCRETE.



DADE SELF FLASHING MODEL

SKYLIGHT DETAIL

N.T.S.

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: JPW DRN: JHJ CKD: DATE: 4/1/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION SKYLIGHT DETAIL	W.O. 5879 SHEET 28
	3						
	2						
	1						

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 1:58pm

B077-194

R W B C

R W Building Consultants, Inc.

Consulting and Engineering Services for the Building Industry

P.O. Box 230 Valrico, FL 33595 Phone 813.659.9197

Florida Board of Professional Engineers Certificate of Authorization No. 9813

Product Evaluation Report — *Report No.:* FL-6336.4 R2 — *Date:* February 6, 2012

Product Category	Sub Category	Manufacturer	Product Name
Exterior Doors	Swinging Exterior Door Assemblies	Cline Aluminum Doors, Inc. 112 32nd Ave. West Bradenton, FL 34205-8096 800.648.6736	Series 100BE Aluminum Glazed Door Outswing "Impact"

Scope: This is a Product Evaluation report issued by R W Building Consultants, Inc. and Lyndon F. Schmidt, P.E. for Cline Aluminum Doors, Inc. based on Rule Chapter No. 9N-3, Method 1D of the State of Florida Product Approval, Department of Business & Professional Regulation.

RW Building Consultants and Lyndon F. Schmidt, P.E. do not have nor will acquire financial interest in the company manufacturing or distributing the product or in any other entity involved in the approval process of the product named herein.

Limitations:

1. This product has been evaluated and is in compliance with the 2010 Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in the "HVHZ" this product complies with Section 1626 of the Florida Building Code and does not require an impact resistant covering.
4. When used in areas outside of the "HVHZ" requiring wind borne debris protection this product complies with Section 1609.1.2 of the 2010 FBC and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E 1996 and Section 1609.1.2.4 of the FBC.
5. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
6. Site conditions that deviate from the details of drawing FL-6336.4 require further engineering analysis by a licensed engineer or registered architect.
7. Outswing configurations do not meet the water infiltration requirements for the "HVHZ" and shall be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.
8. All steel in contact with aluminum to be protected as specified in Section 2003.8.4 of the FBC.
9. See drawing FL-6336.4 for size and design pressure limitations.

Supporting Documents:

1. **Test Report No.** — **Test Standard** — **Testing Laboratory** — **Signed by**
   - TEL 01920363.1 — TAS 201, 202 & 203-94 — Testing Evaluation Lab. — Lyndon F. Schmidt, P.E.
   - TEL 01920364 — TAS 201, 202 & 203-94 — Testing Evaluation Lab. — Lyndon F. Schmidt, P.E.
   - TEL 01920453 — TAS 201, 202 & 203-94 — Testing Evaluation Lab. — William B. Shelton, P.E.
2. **Drawing No.** — **Prepared by** — **Signed & Sealed by**
   - No. FL-6336.4 — RW Building Consultants, Inc. (CA #9813) — Lyndon F. Schmidt, P.E.
3. **Miami-Dade NOA No.** — **Materials Testing**
   - 11-0624.02 — DuPont Sentryglas® Interlayer
4. **Calculations** — **Prepared by** — **Signed & Sealed by**
   - Anchoring — RW Building Consultants, Inc. (CA #9813) — Lyndon F. Schmidt, P.E.
   - ASTM E 1300 Glass Load — Lyndon F. Schmidt, P.E.
5. **Quality Assurance**
   Certificate of Participation issued by National Accreditation and Management Institute, certifying that Cline Aluminum Doors, Inc. is manufacturing products within a quality assurance program that complies with ISO/IEC 17020 and Guide 53.

Lyndon F. Schmidt, P.E.
FL PE No. 43409
2/8/2012

CLINE DOORS

CLINE ALUMINUM DOORS, INC.
112 32nd AVENUE WEST, BRADENTON, FL 34205-8096
Telephone (800) 648-6736

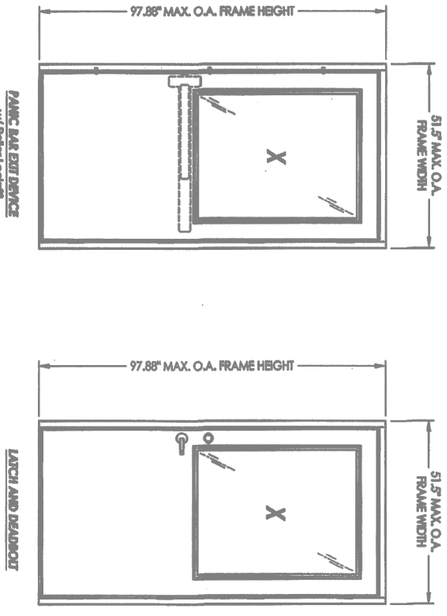
SERIES 100BE ALUMINUM GLAZED DOOR
OUTSWING "IMPACT"

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 2010 Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ).
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in the "HVHZ" this product complies with Section 1626 of the Florida Building Code and does not require an impact resistant covering.
4. When used in areas outside of the "HVHZ" requiring wind borne debris protection this product complies with Section 1609.1.2 of the 2010 FBC and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E 1996 and Section 1609.1.2.4 of the FBC.
5. For 2x stud framing construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
6. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
7. Outswing configurations do not meet the water infiltration requirements for the "HVHZ" and shall be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.
8. All steel in contact with aluminum to be protected as specified in Section 2003.8.4 of the FBC.

TABLE OF CONTENTS

SHEET	DESCRIPTION
1	Typical elevations, design pressures & general notes
2	Door panel details and glazing detail
3	Horizontal cross sections
4	Vertical cross sections
5	Buck and frame anchoring (4"X6")
6	Buck and frame anchoring (3"X7")
7	Bill of materials and components



LOCK DIRECTION		LATCH AND DEADBOLT		PANIC BAR EXIT DEVICE w/ ROLLER LOCKS **
MAX. DESIGN PRESSURE (PSF)		51.5" x 97.88"	40.0" x 85.0"	51.5" x 97.88"
MIN. DESIGN PRESSURE (PSF)		34.88" X 44.88"	22.75" X 32.75"	34.88" X 44.88"
WIND LOAD DESIGN PRESSURE (PSF)	+70.0	+90.0		+55.0
	-70.0	-90.0		-55.0

** Note: Roller Locks required for use with Panic Bar Exit Device in order to achieve design pressure shown. Panic Bar Exit Device without roller locks meets minimum 75 mph fastest mile wind design speed resistance.

SHEET 1 OF 7	DRAWING NO. FL-6336.4	CHK. BY: LFS	DRN. BY: JK
SCALE: N.T.S.	DATE: 02/02/12		

NO.	DATE	REVISIONS	BY
1	4/10/12	ADD ITEM #3	JK

PRODUCT: CLINE DOORS

PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

Documents Prepared By:
RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197
Florida Board of Professional Engineers
Certificate Of Authorization No. 9813
Lyndon F. Schmidt, P.E. No. 43409 4/1/12

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: JPW
DRN: JHJ
CKD:
DATE: 3/28/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
ALUMINUM GLAZED DOOR DETAILS

W.O. 5879
SHEET 29

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout– Aug 21, 2013 – 1:58pm

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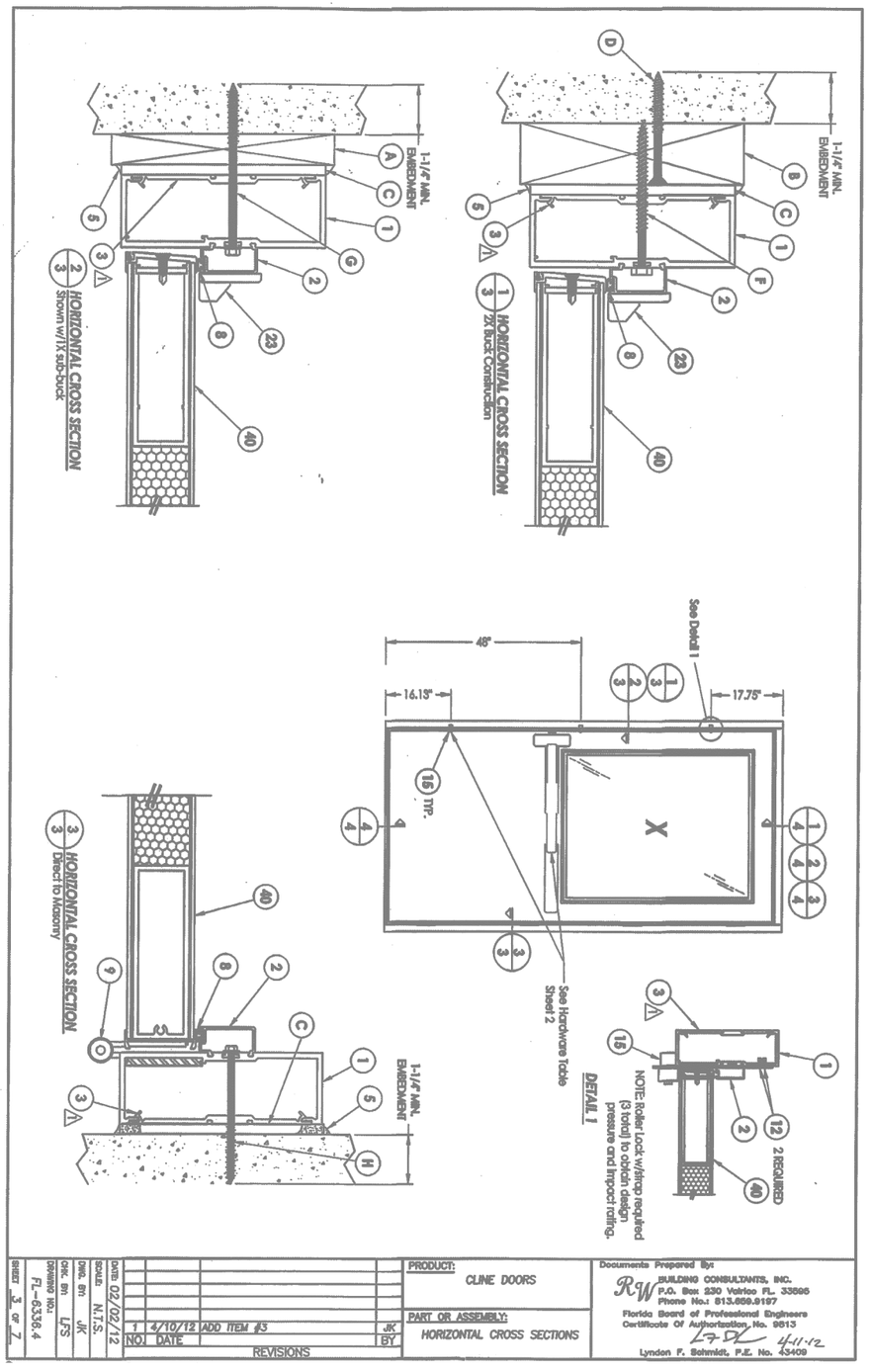
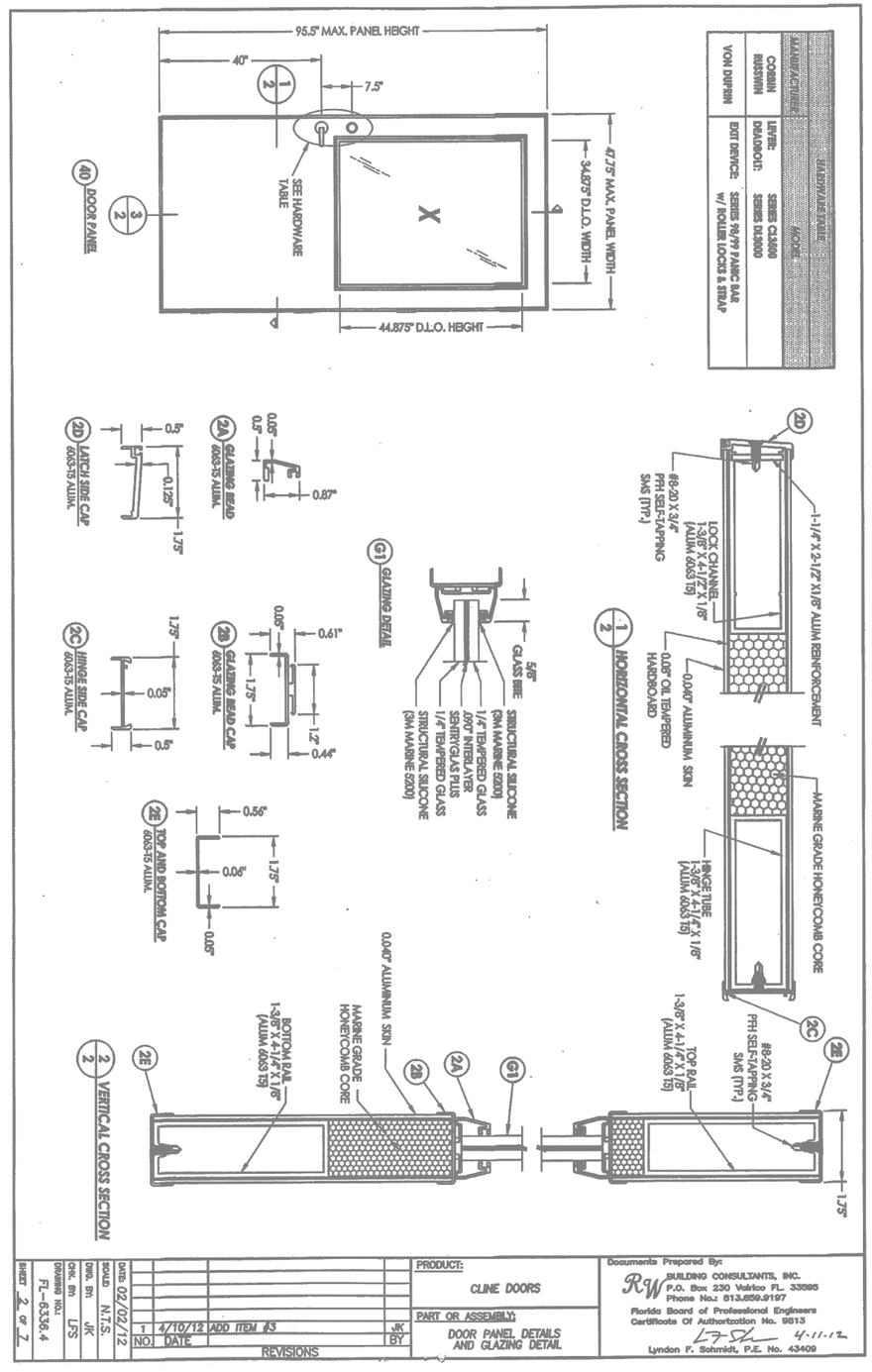


MANUFACTURER	HARDWARE SERIES MODEL
CORBIN RUSSWIN	LEVER: SERIES CL5500
VON DUPRIN	DEADBOLT: SERIES DL5000
	EXIT DEVICE: SERIES 99/99 PANIC BAR w/ ROLLER LOCKS & STRAP



SHEET 2 OF 7	DRAWING NO.: FL-6336.4	CHK. BY: LFS	DRN. BY: JK	SCALE: N.T.S.

NO.	DATE	REVISIONS	BY
1	4/10/12	ADD ITEM #3	JK

DATE: 02/02/12

PRODUCT: CLINE DOORS

PART OR ASSEMBLY: DOOR PANEL DETAILS AND GLAZING DETAIL

Documents Prepared By:
RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197
Florida Board of Professional Engineers
Certificate Of Authorization No. 9813
Lyndon F. Schmidt, P.E. No. 43409
4-11-12

SHEET 3 OF 7	DRAWING NO.: FL-6336.4	CHK. BY: LFS	DRN. BY: JK	SCALE: N.T.S.

NO.	DATE	REVISIONS	BY
1	4/10/12	ADD ITEM #3	JK

DATE: 02/02/12

PRODUCT: CLINE DOORS

PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

Documents Prepared By:
RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197
Florida Board of Professional Engineers
Certificate Of Authorization No. 9813
Lyndon F. Schmidt, P.E. No. 43409
4-11-12

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: JPW
DRN: JHJ
CKD:
DATE: 3/28/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
CLINE DOORS DETAIL

W.O. 5879
SHEET 30

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 1:58pm

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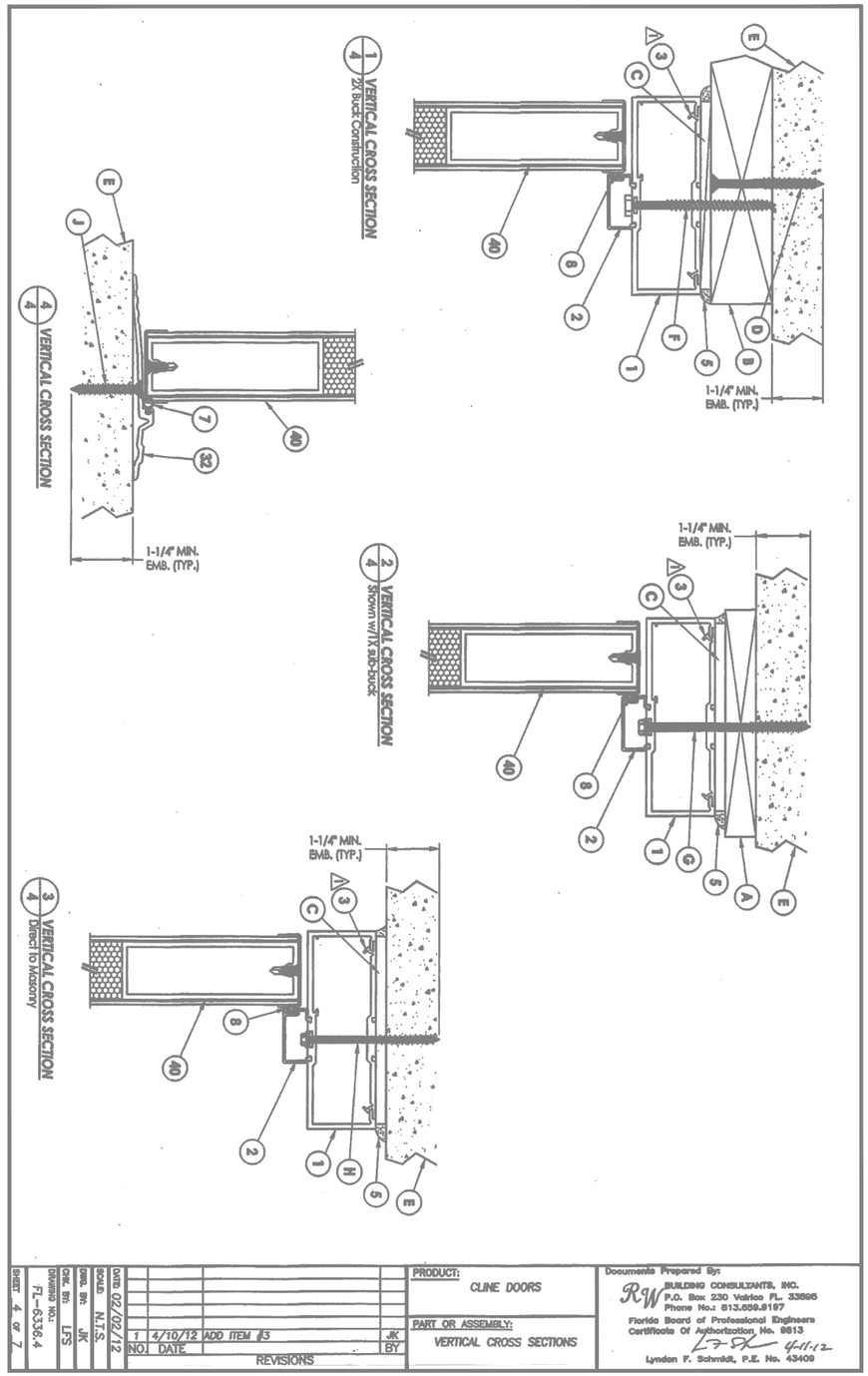

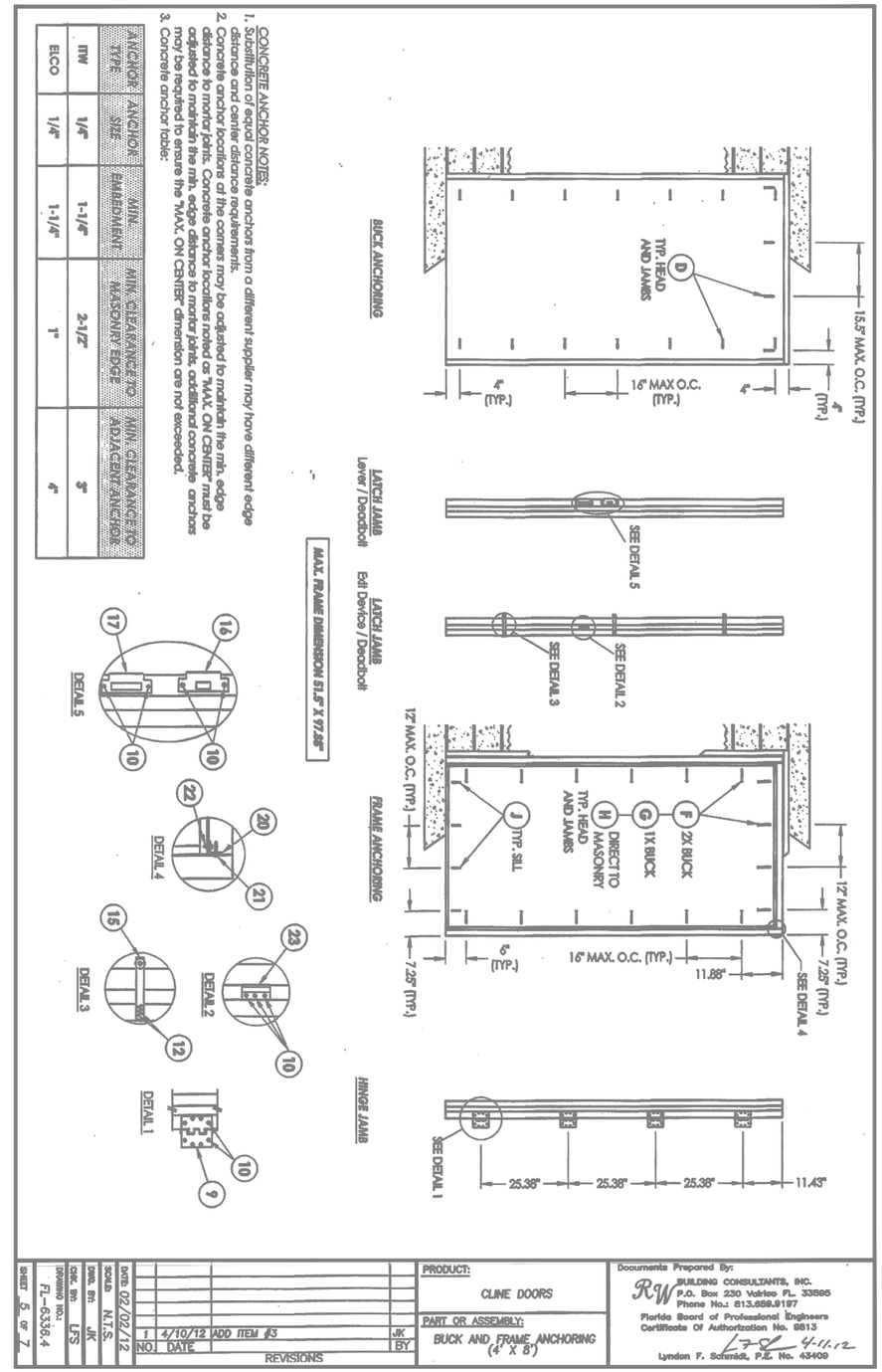

CONCRETE ANCHOR NOTES:

1. Substitution of equal concrete anchors from a different supplier may have different edge distance and center distance requirements.
2. Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints. Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are not exceeded.
3. Concrete anchor table:

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW	1/4"	1-1/4"	2-1/2"	3"
ELCO	1/4"	1-1/4"	1"	4"

JACINTO CARLOS FERRAS, P.E., #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS
	3		
	2		
	1		

DES: JPW
DRN: JHJ
CKD:
DATE: 3/28/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
CLINE DOORS DETAIL

W.O. 5879
SHEET 31

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 21, 2013 - 1:58pm

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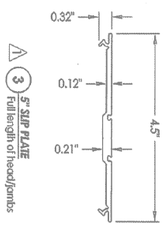
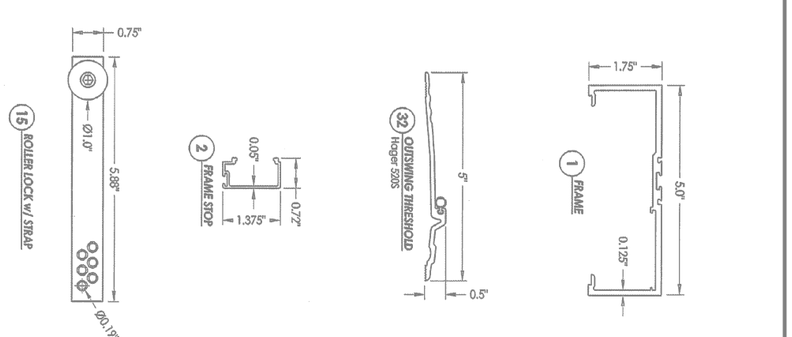
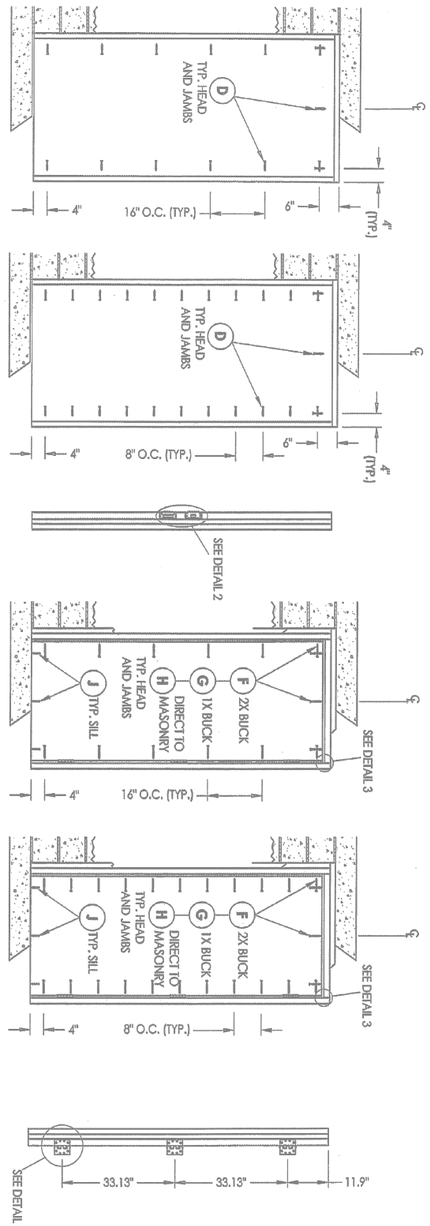
BILL OF MATERIALS

ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK SG >= 0.55	WOOD
B	2X BUCK SG >= 0.55	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" ELCO OR ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,192 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
F	1/4" X 3-1/2" HEX LAG SCREW	STEEL
G	1/4" X 4" HH ELCO OR ITW CONCRETE SCREW	STEEL
H	1/4" X 3-1/4" HH ELCO OR ITW CONCRETE SCREW	STEEL
J	1/4" x 1-3/4" HH ELCO OR ITW CONCRETE SCREW	STEEL
1	FRAME	ALUM. 6063 T5
2	FRAME STOP	ALUM. 6063 T5
3	5" SLIP PLATE	ALUM. 6063 T5
5	SILICONE SEALANT	SILICONE
7	WEATHERSTRIP	PVC
8	WOOL PILE WEATHERSTRIP	-
9	4-1/2" X 4-1/2" HINGE	STEEL
10	#12 X 11/16" PPH SELF-DRILLING SMS	STEEL
12	10-24 X 1/2" PPH MACHINE SCREW	STEEL
15	ROLLER LOCK w/ STRAP	-
16	ANSI DEADBOLT STRIKE PLATE	STEEL
17	ANSI LATCH STRIKE PLATE	STEEL
20	CORNER REINFORCEMENT	STEEL
21	#10 X 1" PPH SMS	STEEL
22	#10 X 1/2" PPH SMS	STEEL
23	EXIT DEVICE STRIKE PLATE	STEEL
32	OUTSWING THRESHOLD	ALUM.
40	DOOR PANEL (SEE DOOR PANEL DETAILS)	-



3 5" SLIP PLATE
Full length of head/jambs





MAX. FRAME DIMENSION 49" X 88"

CONCRETE ANCHOR NOTES:

1. Substitution of equal concrete anchors from a different supplier may have different edge distance and center distance requirements.
2. Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints. Concrete anchor locations noted as "MAX. ON CENTER" must be adjusted to maintain the min. edge distance to mortar joints; additional concrete anchors may be required to ensure the "MAX. ON CENTER" dimension are not exceeded.
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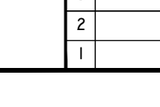


SHEET	DRAWING NO.	CHK. BY:	DWG. BY:	SCALE:	DATE
6 OF 7	FL-6336.4	LFS	JK	N.T.S.	02/02/12

NO.	DATE	REVISIONS	BY
1	4/10/12	ADD ITEM #3	JK

PRODUCT: CLINE DOORS

PART OR ASSEMBLY: BUCK AND FRAME ANCHORING (3' X 7')

Documents Prepared By:
RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197
Florida Board of Professional Engineers
Certificate Of Authorization No. 9813
4-11-12
Lyndon F. Schmidt, P.E. No. 43409

SHEET	DRAWING NO.	CHK. BY:	DWG. BY:	SCALE:	DATE
7 OF 7	FL-6336.4	LFS	JK	N.T.S.	02/02/12

NO.	DATE	REVISIONS	BY
1	4/10/12	ADD ITEM #3	JK

PRODUCT: CLINE DOORS

PART OR ASSEMBLY: BILL OF MATERIALS & COMPONENTS

Documents Prepared By:
RW BUILDING CONSULTANTS, INC.
P.O. Box 230 Valrico FL. 33595
Phone No.: 813.659.9197
Florida Board of Professional Engineers
Certificate Of Authorization No. 9813
4-11-12
Lyndon F. Schmidt, P.E. No. 43409

JACINTO CARLOS FERRAS, P.E., #49454
DESIGN DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: JPW
DRN: JHJ
CKD:
DATE: 3/28/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
CLINE DOORS DETAIL

W.O. 5879
SHEET 32

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout– Aug 21, 2013 – 1:58pm

ONE LINE DIAGRAM SYMBOLS

B077-198

600 A — BUS–RATING AS SHOWN

INCOMING LINE

OUTCOMING LINE

DISCONNECTING DEVICE

CONDUCTORS CONNECTED

CONDUCTORS NOT CONNECTED

100A — FUSE–RATING AS SHOWN

100A — SINGLE THROW DISCONNECT SWITCH–RATING AS SHOWN

100A/70A — FUSED DISCONNECT SWITCH–100A SWITCH, 70A FUSE

100A — LOW VOLTAGE AIR CIRCUIT BREAKER WITHOUT TRIP DEVICE 100A FRAME

225A/125A — LOW VOLTAGE AIR CIRCUIT BREAKER WITH 225A FRAME AND 125A TRIP

52 — MEDIUM VOLTAGE DRAWOUT TYPE AIR CIRCUIT BREAKER

GROUND CONNECTION

LIGHTNING OR SURGE ARRESTOR

SURGE CAPACITOR

POWER TRANSFORMER WITH WINDING CONNECTIONS INDICATED

CPT — CONTROL POWER TRANSFORMER

PT — POTENTIAL TRANFORMER

CT — CURRENT TRANSFORMER

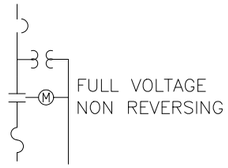
THERMAL OVERLOAD ELEMENT (OL)

5 — SQUIRREL CAGE MOTOR (INDICATE HORSEPOWER)

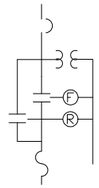
G — GENERATOR

R — INDICATING LIGHT (R–RED, G–GREEN, A–AMBER, B–BLUE, W–WHITE)

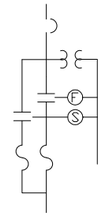
COMBINATION STARTER WITH CONTROL TRANSFORMERS AND OVERLOAD RELAYS AND MOTOR CIRCUIT PROTECTOR



FULL VOLTAGE NON REVERSING



FULL VOLTAGE REVERSING



FULL VOLTAGE TWO SPEED

SCHEMATIC AND WIRING DIAGRAM SYMBOLS

M — OPERATING COIL

M–MOTOR STARTER
C– CONTACTOR
F– FORWARD
R– REVERSE

AR– AUXILIARY RELAY
CR– CONTROL RELAY
TR– TIME DELAY RELAY

NORMALLY OPEN CONTACT (N.O.)

NORMALLY CLOSED CONTACT (N.C.)

NORMALLY OPEN CONTACT WITH TIME DELAY CLOSING (ON–DELAY)

INSTANT OPEN– TIME DELAY CLOSED CONTACT (OFF DELAY)

NORMALLY CLOSED CONTACT WITH TIME DELAY OPENING (ON–DELAY)

INSTANT CLOSE– TIME DELAY OPEN CONTACT (OFF DELAY)

R — INDICATING LIGHT– PUSH TO TEST (R–RED, G–GREEN, A–AMBER, B–BLUE, W–WHITE)

H O A — 3–POSITION SELECTOR SWITCH (SHOWN IN "H" POS.)

NORMALLY OPEN PUSHBUTTON– MOMENTARY CONTACT

NORMALLY CLOSED PUSHBUTTON– MOMENTARY CONTACT

DOUBLE CIRCUIT PUSHBUTTON WITH SPRING RETURN TO NORMAL

TRANSFORMER

OL — OVERLOAD RELAY CONTACT

THERMAL OVERLOAD ELEMENT (OL)

ON–OFF SWITCH

G — GROUND BUS

N — NEUTRAL BUS (INSULATED)

SINGLE–POLE CIRCUIT BREAKER

NORMALLY OPEN N.O.	NORMALLY CLOSED N.C.	
		LIMIT SWITCH
		FLOAT SWITCH
		PRESSURE SWITCH
		FLOW SWITCH
		TEMPERATURE

NOTE:

THE SYMBOLS SHOWN COMPRISE A GENERAL LEGEND TO FACILITATE THE USE OF PLANS. REFER TO THE PLANS AND SPECIFICATIONS FOR ITEMS REQUIRED.

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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DES: LRG
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CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
ELECTRICAL SYMBOL LEGEND-SHT. I

W.O. 5879
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E1

POWER AND LIGHTING SYMBOLS

B077-199

EXPOSED CONDUIT RUN

CONDUIT RUN CONCEALED IN FLOOR OR UNDERGROUND

CONDUIT RUN CONCEALED IN WALLS, ABOVE SUSPENDED CEILING, OR IN ROOF SLAB

CONDUIT WITH HOT, NEUTRAL AND GROUND WIRES (LONG LINE IS NEUTRAL; LONG LINE WITH DOTS DENOTE GROUND)

PNL–1 1,3,5 HOMERUN TO LIGHTING PANELBOARD (PNL–1 INDICATES PANELBOARD AND 1, 3, 5 INDICATES 20A–1P CKTS. 1, 3 AND 5)

FLEXIBLE LIQUIDTIGHT CONDUIT

CONDUIT–UP (OR TOWARDS VIEWER)

CONDUIT–DOWN (OR AWAY FROM VIEWER)

G GROUNDING CONDUCTOR

GROUND ROD

LIGHTNING ROD

CEILING MOUNTED INCANDESCENT OR MERCURY VAPOR FIXTURE. "A" INDICATES FIXTURE TYPE LISTED IN SCHEDULE

WALL MOUNTED LIGHTING FIXTURE

EXIT SIGN

EMERGENCY INCANDESCENT OR MERCURY VAPOR LIGHTING FIXTURE

FLUORESCENT FIXTURE

EMERGENCY FLUORESCENT FIXTURE

POLE MOUNTED LIGHTING FIXTURE

4 DUPLEX RECEPTACLE– 20 A, 120 V, 3 WIRE (TO PNL– CIRCUIT No.4)

30 A SINGLE RECEPTACLE – 2 POLE, 3 WIRE, 240V, RATING NOTED

60 A 3 POLE, 4 WIRE, 240V WELDING OUTLET (60 A)

SINGLE POLE SWITCH

2P TWO POLE SWITCH

3 THREE WAY SWITCH

J OUTLET BOX WITH BLANK COVER

JB JUNCTION BOX

PB PULL BOX

TB TERMINAL BOX

GENERAL SYMBOLS

START–STOP PUSHBUTTON

ON/OFF/L ON–OFF MAINTAINED CONTACT PUSHBUTTON WITH LOCK ATTACHMENT

S/L INDICATING LIGHT AND START–STOP PUSHBUTTON WITH LOCK ATTACHMENT ON STOP

RESUME STOP/L PUSH/PULL BUTTON WITH STOP LOCK. (PULL TO RESUME– PUSH TO STOP)

SELECTOR SWITCH ("HOA" INDICATES HAND, OFF, AND AUTO; "MOR" INDICATES MANUAL, OFF, AND REMOTE; ETC)

I L ON–OFF SWITCH WITH LOCK ATTACHMENT ON OFF POSITION

FL FLOW SWITCH

LS LIMIT SWITCH

P PRESSURE SWITCH

S SOLENOID OPERATED VALVE

T TEMPERATURE SWITCH

F FLOAT SWITCH

L LEVEL TRANSMITTER (PRESSURE ANALOG TYPE)

LC LEVEL TRANSMITTER (FLOAT TYPE)

T TEMPERATURE TRANSMITTER

FT FLOW TRANSMITTER

MH	DESIGNATES MOUNTING HEIGHT
WP	DESIGNATES WATERPROOF EQUIPMENT
XP	DESIGNATES EXPLOSIONPROOF EQUIPMENT
MOV	DESIGNATES MOTOR OPERATED VALVE
EX.	DESIGNATES EXISTING EQUIPMENT
PROP.	DESIGNATES PROPOSED EQUIPMENT

NOTE:
THE SYMBOLS SHOWN COMPRISE A GENERAL LEGEND TO FACILITATE THE USE OF PLANS. REFER TO THE PLANS AND SPECIFICATIONS FOR ITEMS REQUIRED.

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IDAHO PUMPING STATION
REHABILITATION
ELECTRICAL SYMBOL LEGEND-SHT. 2

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GENERAL NOTES

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO PURCHASING EQUIPMENT OR COMMENCING IN CONSTRUCTION.
2. ALL CONDUCTORS SHALL BE STRANDED COPPER, #12 AWG MIN. W/THWN INSULATION, UNLESS OTHERWISE NOTED.
3. ALL WIRING SHALL BE IDENTIFIED W/NUMBERS AT ALL TERMINALS AND ON WIRING DIAGRAMS.
4. VERIFY ALL MECHANICAL EQUIPMENT SIZES AND RATING PRIOR TO CONNECTING.
5. FIELD VERIFY ALL EQUIPMENT LOCATIONS AND CONNECTIONS PRIOR TO COMMENCING CONSTRUCTION.
6. ALL ELECTRICAL WORK SHALL BE PREFORMED IN ACCORDANCE W/ THE LATEST EDITION OF THE NEC AND ALL APPLICABLE LOCAL ORDINANCES.
7. ALL THREADED CONNECTIONS SHALL BE COATED W/ COPPER SHIELD ANTI-SEIZE COMPOUND MANUFACTURED BY THOMAS & BETTS (T & B) OR EQUAL.
8. ALL PANELS, DISCONNECTS, SWITCHES, AND EQUIPMENT COVERPLATES SHALL BE LABELED W/ NAMEPLATES. NAMEPLATES SHALL BE THREE-PLY PHENOLIC BLACK-WHITE-BLACK ENGRAVED THROUGH THE FIRST BLACK LAYER. LETTERING SHALL BE 0.5 CM (3/16") MIN. EDGE OF NAMEPLATE SHALL BE BEVELED 45 DEG.
9. ALL CONDUIT SHALL BE SUPPORTED AT MAXIMUM 5'-0" INTERVALS.
10. ALL CIRCUITS SHALL HAVE A PROPERLY SIZED GROUNDING CONDUCTOR ROUTED INSIDE EACH CONDUIT W/ POWER CONDUCTORS.
11. ALL CONDUCTOR LENGTHS SHALL BE CONTINUOUS, NO SPLICES OR CONDUCTOR TERMINATIONS SHALL BE PERMITTED UNLESS SPECIFICALLY DESIGNATED IN THE DRAWINGS.
12. NEATLY COIL ALL SPARE CONDUCTORS & TAPE W/ VINYL ELECTRICAL TAPE (SCOTCH 33+) POWER CONDUCTORS.
13. PROVIDE A MINIMUM OF 3'-6" CLEARANCE IN FRONT OF ALL ELECTRICAL EQUIPMENT IN ACCORDANCE W/ ARTICLE 110 OF THE NEC.
14. ALL FASTENING HARDWARE (SCREW, BOLTS, NUTS, ETC.) SHALL BE 316-STAINLESS STEEL. FASTENING HARDWARE CONSTRUCTED OF FERROUS MATERIAL ARE NOT ACCEPTABLE.
15. EXPOSED CONDUITS SHALL BE NON-COATED RIGIID ALUMINUM CONDUIT, UNLESS OTHERWISE NOTED (UON). INSTALL PVC COATED RIGID ALUMINUM CONDUIT IN THE SCREEN ROOM.
16. DIRECT BURIED AND CONCRETE ENCASED CONDUIT SHALL BE SCHEDULE 80 PVC WITH A TRANSITION TO RIGID ALUMINUM IN THE VERTICAL RUN AT LEAST ONE FOOT PRIOR TO EMERGENCE. ALL ALUMINUM SURFACES IN CONTACT WITH SOIL, CONCRETE, AND OTHER INCOMPATIBLE MATERIALS SHALL BE COATED WITH TWO COATS OF BITUMASTIC OR OTHER APPROVED INSULATING MATERIAL.
17. ABOVE GRADE INDOOR, AND NON-WASHDOWN AREAS, RIGID ALUMINUM CONDUIT CONNECTIONS TO CONTROL BOXES, ETC. SHALL BE MADE WITH ALUMINUM DOUBLE LOCKNUTS AND BUSHINGS. TURN DOWN ON THREADS TO SOLIDLY CONNECT RACEWAY TO BOX OR ENCLOSURE.
18. ALUMINUM WATERTIGHT HUBS (MYERS HUBS) SHALL BE USED FOR CONNECTIONS TO CONTROL BOXES, ETC. MOUNTED OUTDOORS, BELOW GRADE, OR IN WASHDOWN AREAS.
19. A 316-STAINLESS STEEL CHANNEL ERECTOR SYSTEM SHALL BE USED TO SUPPORT ALL CONDUITS, BOXES, ETC. USE 316-STAINLESS STEEL MOUNTING HARDWARE.
20. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY TO EXECUTE THE PROPOSED INSTALLATIONS.
21. ALL EXISTING INSTALLATIONS DENOTED ON THE DRAWINGS ARE FOR THE CONTRACTOR'S REFERENCE ONLY. ALL EXISTING INSTALLATIONS SHALL BE FIELD VERIFIED PRIOR TO SUBMITTING A BID AND PRIOR TO COMMENCING CONSTRUCTION.

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WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
GENERAL NOTES-ELECTRICAL

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SCOPE OF WORK

1. THE CONTRACTOR SHALL COORDINATE ELECTRICAL SERVICE REQUIREMENTS WITH TAMPA ELECTRIC COMPANY (TEC). THE CITY WILL MAKE PRELIMINARY ARRANGEMENTS WITH TEC AND COMPENSATE THE UTILITY DIRECTLY FOR ANY CONTRIBUTION IN AID OF CONSTRUCTION (CIAC) REQUIRED FOR TEC TO INSTALL A HAND HOLE AT THE BASE OF THE EXISTING ELECTRICAL POLE. THE SERVICE VOLTAGE TO THIS FACILITY SHALL REMAIN 120/240 VAC, 3–PHASE, 4–WIRE, DELTA. THE EXISTING SERVICE RISER/WEATHERHEAD AND METER SOCKET SHALL BE DISCONNECTED AND REMOVED. PROVIDE AND INSTALL A NEW METER SOCKET, LIGHTNING ARRESTOR, AND GROUNDING SYSTEM AS SHOWN ON PLANS. PROVIDE AND INSTALL UNDERGROUND CONDUIT/CONDUCTORS EXTENDING FROM THE PROPOSED TEC HANDHOLE TO THE PROPOSED METER.
2. REMOVE THE EXISTING EMERGENCY CONNECTOR, MAIN DISCONNECT SWITCH, LIGHTING PANEL, MISCELLANEOUS CONTROL BOXES, AND CONDUITS, AS SHOWN ON THE PLANS, SPECIFIED, AND REQUIRED TO PRESENT A CLEAN, WORKMANLIKE INSTALLATION.
3. PROVIDE AND INSTALL A HEAVY DUTY, SERVICE ENTRANCE RATED, FUSED, DOUBLE THROW SWITCH AND EMERGENCY CONNECTOR.
4. REMOVE THE EXISTING TWO–SECTION MOTOR CONTROL CENTER (MCC) AND PREPARE THE SITE FOR THE INSTALLATION OF THE PROPOSED ONE–SECTION MCC, SEPARATE WALL MOUNTED PUMP CONTROL ENCLOSURE AND APPLIANCE PANELBOARD.
5. ANY SALVAGEABLE MATERIALS, AS DETERMINED BY THE ENGINEER, SHALL BE DELIVERED, BY THE CONTRACTOR, TO THE HOWARD F. CURREN AWT PLANT. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL OTHER REMOVED EQUIPMENT.
6. CAREFULLY REMOVE THE EXISTING DCR SCADA RTU CABINET MOUNTED IN THE CONTROL ROOM. DELIVER THIS RTU PACKAGE TO THE CITY FOR MAINTENANCE INVENTORY.
7. PROVIDE NEW CONDUIT AND CABLE TO CONNECT THE EXISTING SCADA ANTENNA TO THE PROPOSED PCSR AS SHOWN, SPECIFIED, AND REQUIRED. PROVIDE NEW GROUND RODS AND ANTENNA MAST GROUNDING CONDUCTOR, AS SHOWN, SPECIFIED, AND REQUIRED.
8. PROVIDE AND INSTALL THE PROPOSED ONE–SECTION MCC AS SHOWN, SPECIFIED, AND REQUIRED. MCC SECTION DEPTH SHALL BE 15 INCHES.
9. PROVIDE AND INSTALL THE PROPOSED DUPLEX PUMP CONTROL PANEL (PCSR), COMPLETE WITH THE MOTOROLA ACE3600 PACKAGE, AS DISTRIBUTED BY DCR ENGINEERING SERVICES, INC. OR SCADA ONE, LLC. AS SHOWN, SPECIFIED AND REQUIRED.
10. REMOVE FROM THE WET WELL AREA, ALL EXISTING ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: ALARM FLOAT SWITCH, CONVENIENCE RECEPTACLES, BUBBLER TUBING, SWITCHES, PILOT LIGHTS; AND ALL ASSOCIATED CONDUITS, BOXES, SEALS, FITTINGS AND MOUNTING HARDWARE. PATCH/SEAL PENETRATIONS AND DAMAGED CONCRETE WITH APPROVED PRODUCTS AND FINISH TO MATCH SURROUNDING SURFACE. THE EXISTING BUBBLER CONDUIT SHALL REMAIN, BUT THE EXISTING TUBING IN THE WET WELL AREA SHALL BE REMOVED AND REPLACED WITH 3/8", 316 STAINLESS STEEL BUBBLER TUBING AS SHOWN ON PLANS.
11. PROVIDE AND INSTALL FLOAT SWITCH FOR DRY WELL HIGH–WATER ALARM AND NEW CONDUIT FOR SCREEN ROOM FLOAT SWITCH.
12. PROVIDE AND INSTALL TWO (2) EXPLOSION–PROOF FIXTURES IN THE WET WELL AREA AS SHOWN, SPECIFIED, AND REQUIRED. ALL BRANCH CIRCUITS SHALL BE CONNECTED TO THE PROPOSED LIGHTING PANEL.
13. PROVIDE AND INSTALL THE PROPOSED BUBBLER–TYPE SCREEN ROOM LEVEL MONITORING / CONTROL EQUIPMENT AS SHOWN, SPECIFIED AND REQUIRED. IN THE CONTROL PANEL ENCLOSURE, ALL INTERNAL TUBING SHALL BE 3/8" POLYETHYLENE TUBING; TUBING EXTERNAL OF THE CONTROL PANEL SHALL BE 3/8", 316 STAINLESS STEEL.
14. PROVIDE: (1) WEATHER–PROOF SNAP SWITCH FOR SCREEN ROOM LIGHTS AND (1) WEATHER–PROOF SNAP SWITCH FOR STAIRWELL LIGHT.
15. A PVC COATED ALUMINUM CONDUIT SYSTEM SHALL BE USED FOR ALL CONDUITS BOXES, FITTINGS, SEAL, ETCETERA IN THE SCREEN ROOM. THE SCREEN ROOM IS CLASSIFIED CLASS I, DIVISION, GROUP D (HAZARDOUS LOCATION); THEREFORE, NATIONAL ELECTRIC CODE (NEC) CHAPTER 5 APPLIES. NEW CONDUIT SEALS SHALL BE PROVIDED AND INSTALLED AS SHOWN, SPECIFIED, AND REQUIRED. EXISTING CONDUCTORS IN THE SCREEN ROOM SHALL BE REPLACED. THE EXISTING HOMERUN CONDUITS (AND CONDUCTORS) ON THE NON–CLASSIFIED SIDE SHALL BE REMOVED AND REPLACED WITH NON–COATED RIGID ALUMINUM CONDUIT.
16. (1) PROVIDE AND INSTALL CONDUITS AND CONDUCTORS AS SHOWN, SPECIFIED, AND REQUIRED, TO CONNECT THE EXISTING PUMP MOTORS TO THE PROPOSED CONTROLS. THE EXISTING TWO "PULL TO RESUME–PUSH TO STOP" (W/ LOCK ATTACHMENT) CONTROL STATIONS IN THE DRY WELL, SHALL REMAIN.
17. PROVIDE AND INSTALL ALL NECESSARY POWER DUCT BANKS, CONDUITS, CONDUCTORS, AND GROUNDING SYSTEMS AS SHOWN, SPECIFIED AND REQUIRED. A 316 SS CHANNEL ERECTOR SYSTEM SHALL BE USED TO MOUNT AND SUPPORT THE ENCLOSURES, BOXES, CONDUITS AND OTHER EQUIPMENT.
18. PROVIDE AND INSTALL A PROPOSED 120/240 VAC THREE–PHASE 30 CIRCUIT APPLIANCE PANELBOARD, WITH MAIN LUGS ONLY, AS SPECIFIED, SHOWN, AND REQUIRED. ALL LOADS PREVIOUSLY CONNECTED TO THE OLD LIGHTING PANEL SHALL BE TRANSFERRED TO THE NEW PANEL. REPLACE ALL SWITCHES, EXISTING DEVICE BOXES, AND COVERS WITH PRODUCTS OF THE SAME, OR BETTER QUALITY. NEW DEVICE BOXES AND COVERS SHALL BE CAST ALUMINUM. NEW RECEPTACLE BOXES SHALL BE SURFACE MOUNTED, AS SHOWN, SPECIFIED, AND REQUIRED. EXISTING FLUSH MOUNTED RECEPTACLES SHALL BE ABANDONED AND STAINLESS STEEL BLANK COVER PLATES PROVIDED. CONCEALED CONDUITS TO THE EXISTING LIGHTING IN THE DRY WELL MAY BE REUSED, AND ALL CONDUCTORS SHALL BE REPLACED. MAKE NECESSARY MODIFICATIONS TO EXISTING CONDUIT SYSTEM, AND ADD NEW CONDUITS AND CONDUCTORS AS SHOWN, SPECIFIED, AND REQUIRED.
19. REMOVE THE EXISTING EXHAUST FAN AND ALL ASSOCIATED CONDUITS AND CONDUCTORS, AS SHOWN, SPECIFIED, AND REQUIRED.
20. REMOVE THE EXISTING SUPPLY FAN AND ALL ASSOCIATED CONDUITS AND CONDUCTORS, AS SHOWN, SPECIFIED, AND REQUIRED.
21. PROVIDE AND INSTALL A PROPOSED 2.0 HP, 3–PH, 240V, EXHAUST FAN MOTOR AND MANUAL MOTOR STARTER, AS SHOWN, SPECIFIED, AND REQUIRED.
22. PROVIDE AND INSTALL A PROPOSED 2.0 HP, 3–PH, 240V, SUPPLY FAN MOTOR AND MANUAL MOTOR STARTER, AS SHOWN, SPECIFIED, AND REQUIRED.
23. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND CHAPTER 5 OF THE CITY OF TAMPA CODE.

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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1	5/7/2013	REVISION 1

DES: LRG
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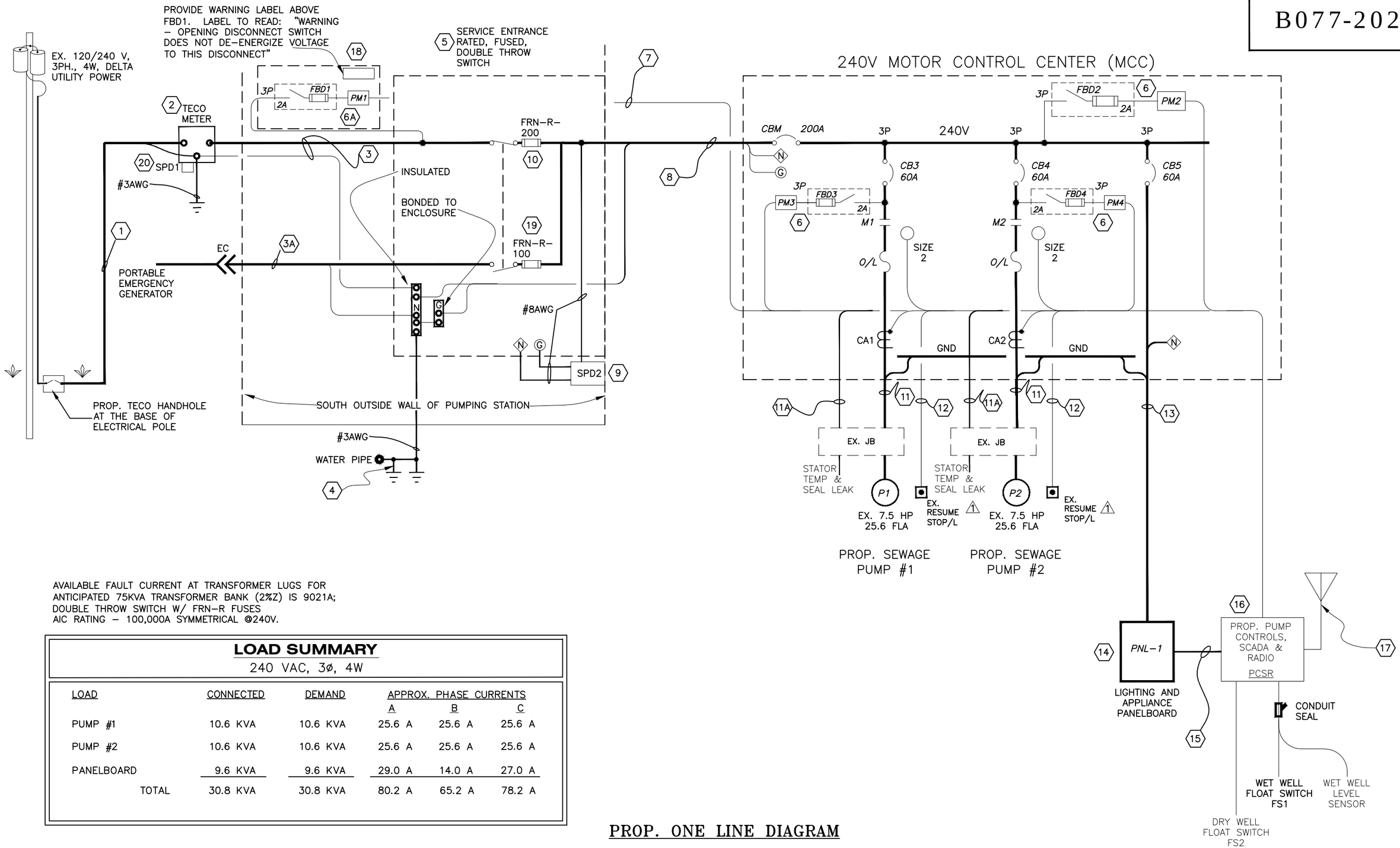
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
SCOPE OF WORK-ELECTRICAL

W.O. 5879
SHEET
E4

B077-202



AVAILABLE FAULT CURRENT AT TRANSFORMER LUGS FOR ANTICIPATED 75KVA TRANSFORMER BANK (2%Z) IS 9021A; DOUBLE THROW SWITCH W/ FRN–R FUSES
AIC RATING – 100,000A SYMMETRICAL @240V.

LOAD SUMMARY

240 VAC, 3ø, 4W

LOAD	CONNECTED	DEMAND	APPROX. PHASE CURRENTS A	B	C
PUMP #1	10.6 KVA	10.6 KVA	25.6 A	25.6 A	25.6 A
PUMP #2	10.6 KVA	10.6 KVA	25.6 A	25.6 A	25.6 A
PANELBOARD	9.6 KVA	9.6 KVA	29.0 A	14.0 A	27.0 A
TOTAL	30.8 KVA	30.8 KVA	80.2 A	65.2 A	78.2 A

PROP. ONE LINE DIAGRAM

ROMAN D. KORCHAK, P.E. #42626
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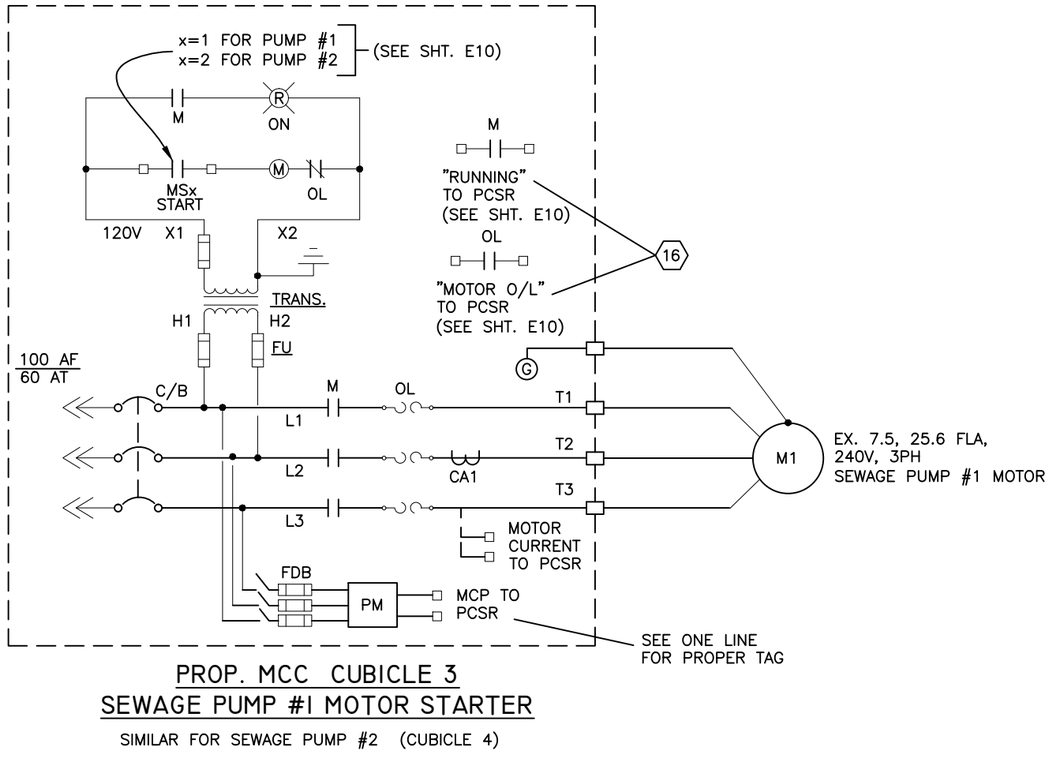
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
ONE LINE DIAGRAM

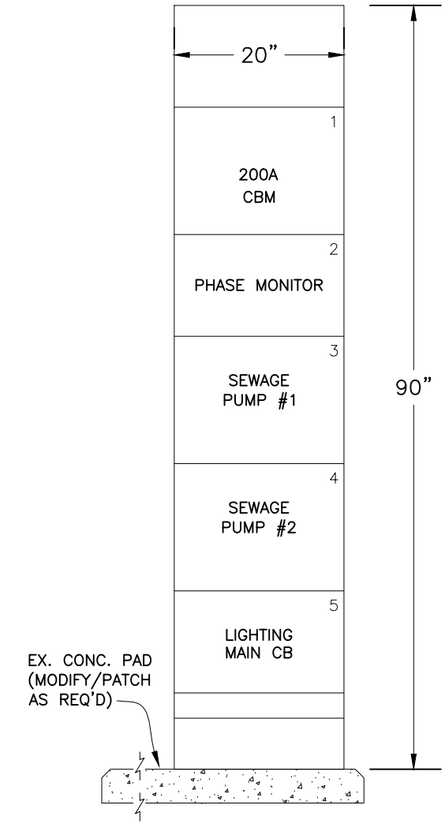
W.O. 5879
SHEET E5

B077-203



PROP. MCC CUBICLE 3
SEWAGE PUMP #1 MOTOR STARTER

SIMILAR FOR SEWAGE PUMP #2 (CUBICLE 4)



PROP. MOTOR CONTROL CENTER (MCC)

MCC SHALL BE 15" DEEP

KEYED NOTES:

1. 120/240V, 3–PHASE, 4W, OPEN DELTA, UTILITY POWER–– (3) #3/0 AWG & (1) #3 NEU. IN 2" C.
2. PROP. METER SOCKET (ALUMINUM CONSTRUCTION)–– MILBANK MODEL UAP9701–X–QG–HSP.
3. (3) #3/0 AWG & (1) #3 NEU. IN 2" C.
3A. (3) #3 AWG, (1) #6 AWG NEU., & (1) #6 AWG GND. IN 1 1/4" C.
4. (2) S.S. 5/8"X10' GROUNDING RODS (6 FT. MINIMUM SPACING)
5. HEAVY DUTY, DOUBLE THROW, FUSIBLE SWITCH, 3–POLE, 240 VAC, 200 AMP IN NEMA 3R TYPE ENCLOSURE 250 VOLT, NEMA 3R DUAL–ELEMENT, TIME–DELAY CLASS RK5 FUSES; SWITCH–– EATON DT324FRK, DT200NK– 200A DT NEUTRAL KIT, DS200GK– 200A DT GROUND LUG KIT, DS46FK– "R" FUSE 200A DT ADAPTER KIT
6. 3–PHASE POWER MONITOR RELAY W/ 240VAC LINE INPUT–– ALARM ON PHASE LOSS, UNDERVOLTAGE, OR WRONG ROTATION. EIGHT PIN PLUG–IN W/ DIN RAIL SOCKET. ATC DIVERSIFIED. MODEL SLA–230–ALA. FUSE BLOCK DISCONNET (FBD)–– ALLEN BRADLEY 1492–FB3C30–L W/ BUSSMANN KTK–R–2 FUSES.
6A. 3–PHASE POWER MONITOR RELAY W/ 240VAC LINE INPUT–– ALARM ON PHASE LOSS, UNDERVOLTAGE, OR WRONG ROTATION. PANEL MOUNT, ATC DIVERSIFIED. MODEL SLA–240–AFN. FUSE BLOCK DISCONNET (FBD)–– ALLEN BRADLEY 1492–FB3C30–L W/ BUSSMANN KTK–R–2 FUSES.
7. (6) #14 AWG & (1) #12 GND. IN 3/4"C.
8. (3) #3/0 AWG, (1) #3 NEU. & (1) #4 GND IN 2" C.
9. SURGE PROTECTION DEVICE (SPD), ADVANCED PROTECTION TECHNOLOGIES, TE03XDS104X–– CONNECT W/ 3–#8, 1–#8 NEUT, 1–#8 GND.
10. 250 VOLT, 200 AMP, DUAL–ELEMENT, TIME–DELAY CLASS RK5 FUSE.
11. (3) #8 AWG & (1) #10 GND. IN 1"C.
11A. (4) #12 AWG & (1) #12 GND. IN 3/4"C.
12. (4) #14 AWG & (1) #12 GND. IN ¾" C. TO TWO POSITION –– MAINTAINED PULL/MAINTAINED PUSH, NEMA 4X OPERATOR STATION w/ NECESSARY NUMBER OF CONTACTS–– SQUARE D 9001SKR9R W/ LEGEND PLATE: "PULL TO RESUME–– PUSH TO STOP" AND PADLOCK ATTACHMENT K62.
13. (3) #6 AWG, (1) #6 NEU. & (1) #8 GND IN 1"C.
14. NEW THREE PHASE, 4–WIRE, 240 VAC, 30 CIRCUIT PANELBOARD W/ 100A MAIN LUGS ONLY–– SQUARE D MODEL NQ430L1C. PROVIDE CIRCUIT BREAKERS PER PANELBOARD SCHEDULE.
15. (3) #12 AWG, (1) #12 NEU. & (1) #12 GND IN 3/4"C.
16. "PCSR" IS THE PROPOSED PUMP CONTROL / SCADA / RADIO PANEL (SEE SHTS. E6–E11).
17. EXISTING TEMETRY ANTENNA. PROVIDE CONNECTIONS BETWEEN PCSR & EXISTING ANTENNA AS REQUIRED. PROVIDE PROPER MAST GROUNDING AS SHOWN, SPECIFIED, AND REQUIRED.
18. NEMA CONTINUOUS HINGE FUSE BLOCK ENCLOSURE–– HAMMOND MANUFACTURING MODEL EJ863JS16, 8"X6"X3.5" NEMA 4X SS
19. 250 VOLT, 100 AMP, DUAL–ELEMENT, TIME–DELAY CLASS RK5 FUSE
20. SURGE PROTECTION DEVICE (SPD), LIGHTNING ARRESTOR, GENERAL ELECTRIC, TRANQUEL 9L15ECC001, 650V

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DATE: 7/18/2012

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILTATION
PROP. DETAILS & KEYED NOTES

W.O. 5879
SHEET
E6

B077-204

PANELBOARD SCHEDULE

PANEL "PNL–1"

bus amps A	bus amps B	bus amps C	LOAD	poles	amps		bus ABC		amps	poles	LOAD	bus amps A	bus amps B	bus amps C
7			SUMP PUMP RECEPTACLE	1	20	1		2	20	1	SCREEN ROOM LIGHTING	2		
			SPACE (208V)			3		4			SPACE (208V)			
		3	PUMP ROOM LIGHTING	1	20	5		6	20	1	PUMP CONTROLS			5
			SPACE	1	20	7		8	20	1	RECEPTACLES	6		
	7		SCREEN ROOM FAN	3	15	9		10	15	3	PUMP ROOM FAN		7	
		7				11		12						7
7						13		14				7		
			SPACE (208V)	1	20	15		16			SPACE (208V)			
		3	ENTRANCE/INTER. FLOOR LIGHTING			17		18	20	3	OUTSIDE LIGHTS			2
			SPACE			19		20			SPACE			
						21		22						
						23		24						
						25		26						
						27		28						
						29		30						

RATED VOLTAGE: 120/240 VAC, 3ø, 4W (B PHASE IS 208 VOLTS TO NEU.)	BRANCH POLES: 30
RATED AMPS: 100	CABINET: SURFACE
FULL NEUTRAL BUS / GROUND BUS / HINGED DOOR / KEYED DOOR LATCH / MAIN LUGS ONLY	
CIRCUIT BREAKER (BOLT ON) BRANCH DEVICES	FEED IS TO BE TOP
ALL BRKRS. MUST BE RATED TO INTERRUPT A SHORT CIRCUIT I_{sc} OF 22,000 AMPS SYMMETRICAL	
APPROVED MANUFACTURERS: SQUARE D, SIEMENS	MAIN LUGS: 1 SET; SIZE: #6 AWG/CU
TOTAL AMPS: BUS A 29, BUS B 14, BUS C 27, CONNECTED KVA 9.6, DEMAND KVA 9.6	

THE CONTRACTOR SHALL CONNECT ALL EXISTING 120/240V LOADS TO THE NEW PANELBOARD AS REQUIRED. THE ABOVE SCHEDULE CONTAINS THE BEST INFORMATION AVAILABLE AT THE TIME OF DESIGN AND MAY NOT BE ENTIRELY ACCURATE OR COMPLETE. PROVIDE RED ON WHITE LAMACOID TAG WITH 3/8" LETTERING STATING: "CAUTION B–PHASE IS 208V TO NEUTRAL."

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IDAHO PUMPING STATION
REHABILTATION
PROP. PANELBOARD PNL-I

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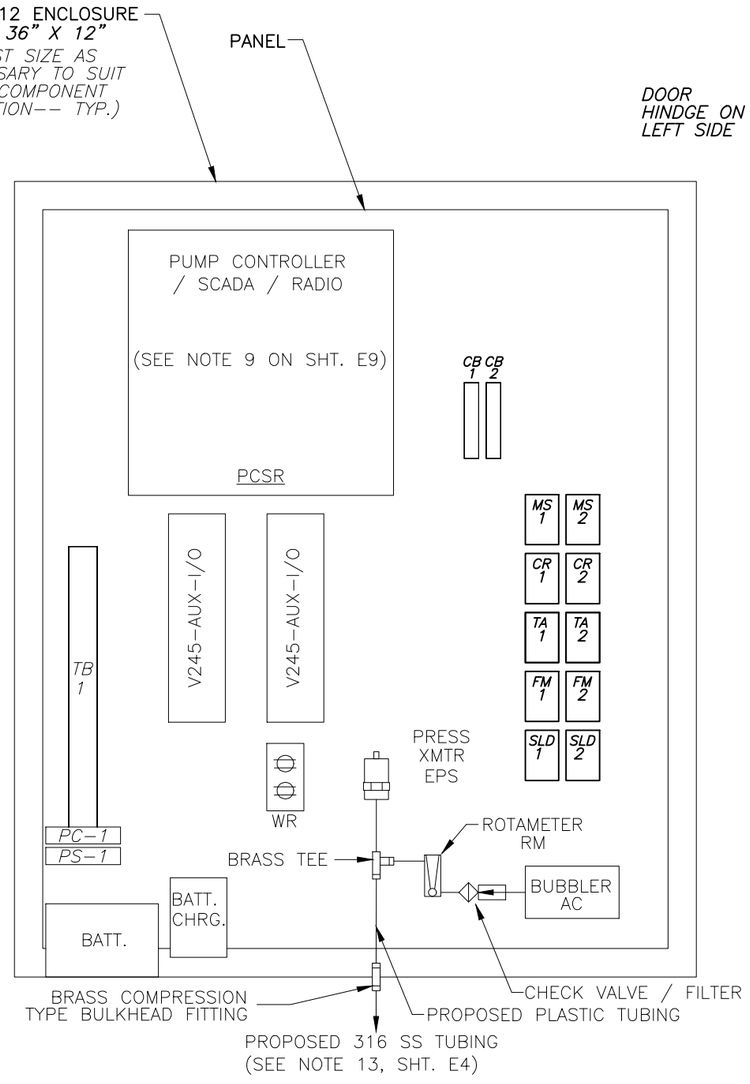
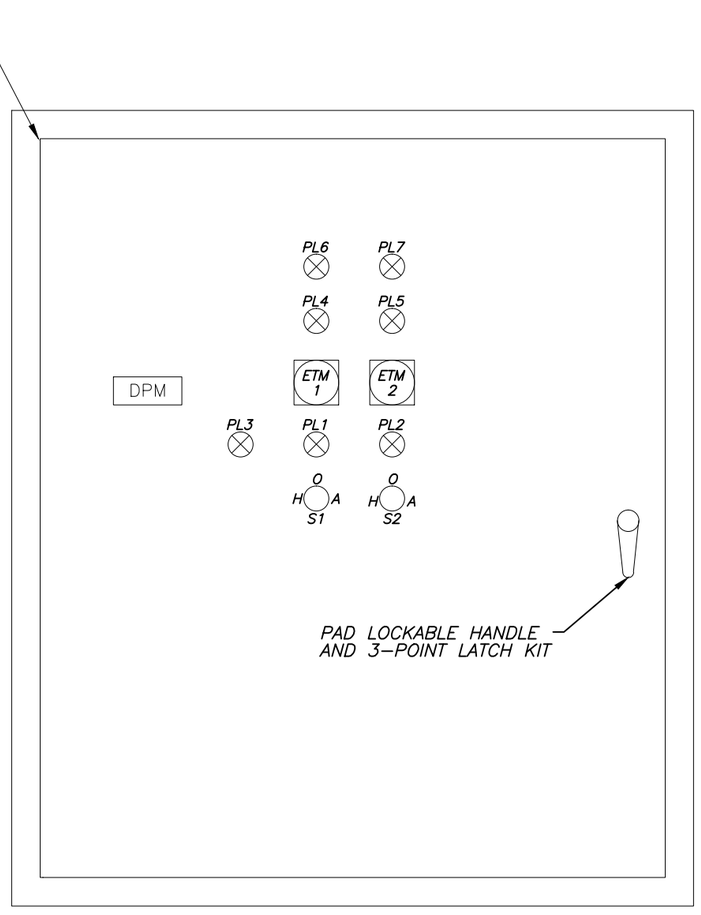
E7

B077-205



CONTROL PANEL ENCLOSURE – FRONT INSIDE VIEW

SCALE: 1/8" = 1'



CONTROL PANEL ENCLOSURE FRONT DOOR VIEW

SCALE: 1/8" = 1'

LEGEND PLATE SCHEDULE

SYMBOL	DEVICE	LEGEND
ETM1	ELAPSED TIME METER	PUMP NO. 1 HOURS
ETM2	ELAPSED TIME METER	PUMP NO. 2 HOURS
PL1	YELLOW PILOT LIGHT	PUMP NO. 1 ON
PL2	YELLOW PILOT LIGHT	PUMP NO. 2 ON
PL3	WHITE PILOT LIGHT	CONTROL POWER ON
PL4	RED PILOT LIGHT	PUMP 1 SEAL LEAK
PL5	RED PILOT LIGHT	PUMP 2 SEAL LEAK
PL6	RED ILLUM. PUSH BUTTON	PUMP 1 HIGH TEMP & RESET
PL7	RED ILLUM. PUSH BUTTON	PUMP 2 HIGH TEMP & RESET
S1	3 POSITION SWITCH	PUMP NO. 1 HAND-OFF-AUTO
S2	3 POSITION SWITCH	PUMP NO. 2 HAND-OFF-AUTO
DPM	DIGITAL PROCESS METER	WET WELL LEVEL

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DRN: LRG
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABLITATION
PUMP CONTROL PANEL LAYOUT

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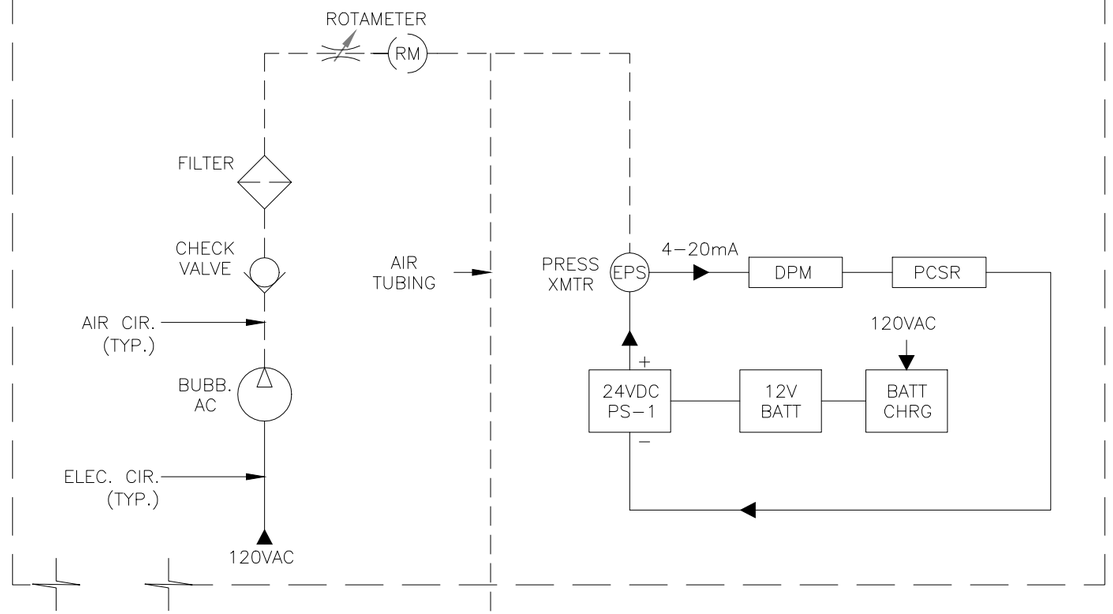
SHEET
E8

CONTROL PANEL



LEVEL CONTROL DETAIL

N.T.S

(SEE NOTE 10, THIS SHEET)

EX. BUBBLER PIPE IN WET WELL

PUMP CONTROL NOTES:

1. THE SCREEN ROOM CLASSIFICATION IS CLASS I, DIVISION 2, GROUP D, (HAZARDOUS AREA) NEC CHAPTER 5 IS APPLICABLE FOR INTERFACING WET WELL AND THE CONTROL ENCLOSURE.
2. ALL ELECTRICAL WORK SHALL BE PERFORMED WITHIN THE LATEST EDITION OF NEC AND CITY OF TAMPA/HILLSBOROUGH COUNTY CODES AND SHALL BE INSPECTED BY CITY OF TAMPA/HILLSBOROUGH COUNTY ELECTRICAL INSPECTORS AS APPLICABLE.
3. ALL ELECTRICAL COMPONENTS SHALL BE UL LISTED AND AS SPECIFIED, OR AS APPROVED BY THE ENGINEER.
4. ALL COMPONENTS TO BE MOUNTED ON PANEL USING TAPPED HOLES.
5. ALL WIRING SHALL BE COPPER. ALL CONTROL WIRING SHALL BE STRANDED THWN COPPER, MINIMUM AWG #14, AND SHALL HAVE SPACE LUG TERMINATIONS.
6. ALL MECHANICAL CONNECTORS SHALL BE TORQUED PER NEC, UL, OR MANUFACTURERS SPECIFICATIONS.
7. CONDUCTORS WITHIN THE ENCLOSURE AND NOT ROUTED IN WIREWAYS, SHALL BE SECURED TO THE BACKPANEL WITH MECHANICAL FASTENERS. FASTENERS SECURED WITH ADHESIVE ARE NOT ACCEPTABLE.
8. INSTALL LAMINATED SCHEMATIC AND LAMINATED DATA SHEET ON BACK FACE OF THE DOOR INSIDE THE ENCLOSURE.
9. THE PCSR SHALL BE A MOTOROLA ACE3600 PACKAGE AS DISTRIBUTED BY DCR ENGINEERING SERVICES, INC. OR SCADA ONE, LLC. CONTRACTOR SHALL COORDINATE HIS EFFORTS WITH DCR OR SCADA ONE TO ENSURE SYSTEM COMPATIBILITY. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE DUPLEX CONTROL SYSTEM PACKAGE AS PROGRAMMED BY DCR OR SCADA ONE –– THE EXISTING IDAHO PUMPING STATION DCR CONTROLS SHALL REVERT TO THE CITY AS A SPARE.
10. A SCREEN ROOM DETECTION SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. THE OUTPUT SHALL BE A LINEAR 4–20mA SIGNAL WITH RANGE AND CALIBRATION SUITABLE FOR THIS APPLICATION. THE SYSTEM SHALL BE OF THE BUBBLER TYPE–– SEE LEVEL CONTROL DETAIL, THIS SHEET.

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
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CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
LEVEL CONTROL DET. & PUMP CONTROL NOTES

W.O. 5879
SHEET
E9

B077-207

#12 AWG (TYP)
120 VAC
FROM PANELBOARD PNL-1
CB2
WR
G
CB1
TB1 (TYP.)
BUBBLER AC
AIR SUPPLY (SEE LEVEL CONTROL DETAIL, SHT. E9)
BATTERY CHRG
12V, 7AH
BATT
PS-1
DC-IN
DC-OUT
24VDC
LV1+
LV1-
SHLD
AI-1+
AI-1-
PCSR SLOT 1
PRESS XMTR EPS
DPM
PL3
W
CONTROL POWER ON
PL1
A
M
FROM P#1 STARTER IN MCC
PUMP #1 "ON"
ETM 1
CR 1
CR1
DI11
PL2
FROM P#2 STARTER IN MCC
PUMP #2 "ON"
ETM 2
CR 2
CR2
DI15
PC-1
24V+
DI1
DCR MODEL DR 560 BACK-UP PUMP CONTROLLER
CONTINUED ABOVE RIGHT

120VAC
H
O
A
XOO
SWITCH IN DRY WELL
COM1
D01
NO1
PC-1
OOX
RESUME
STOP/L
FM1
MS 1
DI12
24V+
PCSR SLOT 1
S1
DI9
DI10
START PUMP #1
MS1
MOTOR START TO MCC (SEE SHT. E6)
COM2
D02
NO2
FM2
MS 2
DI16
S2
DI13
DI14
START PUMP #2
MS2
PL4
SLD1
PUMP #1 SEAL LEAK ALARM
TO P1 SEAL LEAK DETECTOR PROBE
CONTRACTOR SHALL COORDINATE WITH PUMP MANUFACTURER TO DETERMINE SPECIFIC HARDWARE REQUIRED FOR STATOR TEMP AND SEAL-LEAK DETECTION (E.G. WARRICK MODEL 2800 FOR FAIRBANKS MORSE).
PL5
SLD2
PUMP #2 SEAL LEAK ALARM
TO P2 SEAL LEAK DETECTOR PROBE
CONTINUED ABOVE RIGHT

120VAC
PL6
R
TA1
RESET
TA 1
PUMP #1 TEMP ALARM
TS1
STATOR TEMP
OL1
FROM MCC CUBICLE 3
FM 1
PUMP #1 FAULT
DI4
PCSR SLOT 2 (SHT. E12 (TYP.))
PL7
TA2
TA 2
PUMP #2 TEMP ALARM
TS2
OL2
FROM MCC CUBICLE 4
FM 2
PUMP #2 FAULT
DI5
120VAC CONT. ON NEXT SHT

TERMINALS ON ACE I/O MODULE
TERMINALS IN PUMP CONTROL PANEL

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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IDAHO PUMPING STATION
REHABILITATION
PUMP CONTROL SCHEMATIC- SHTI

W.O. 5879
SHEET
E10

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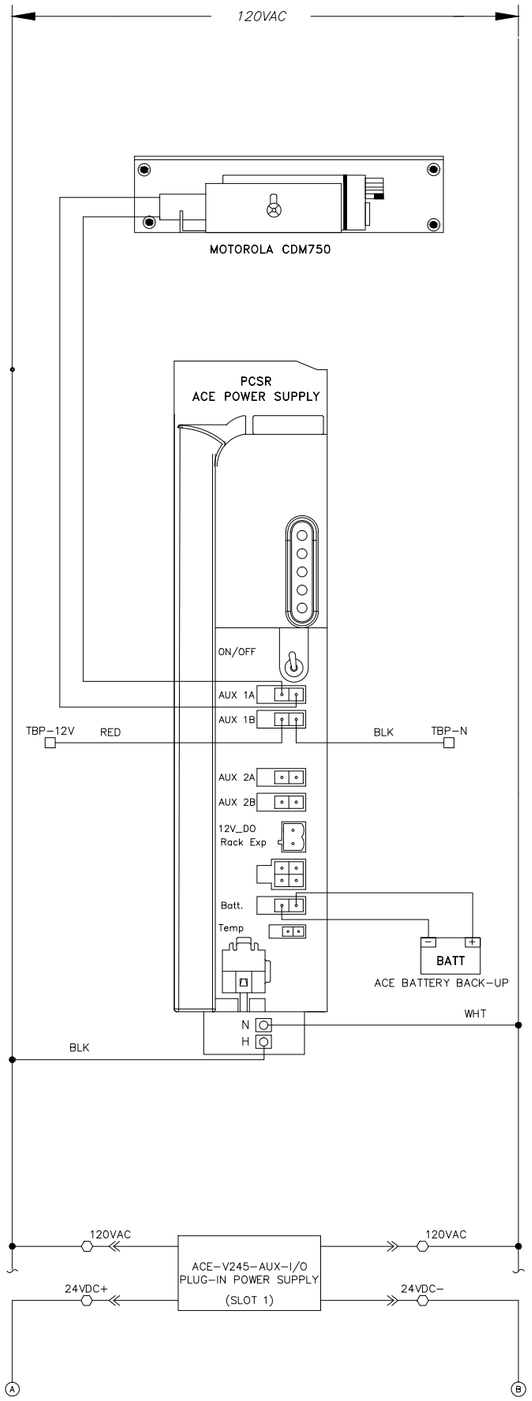

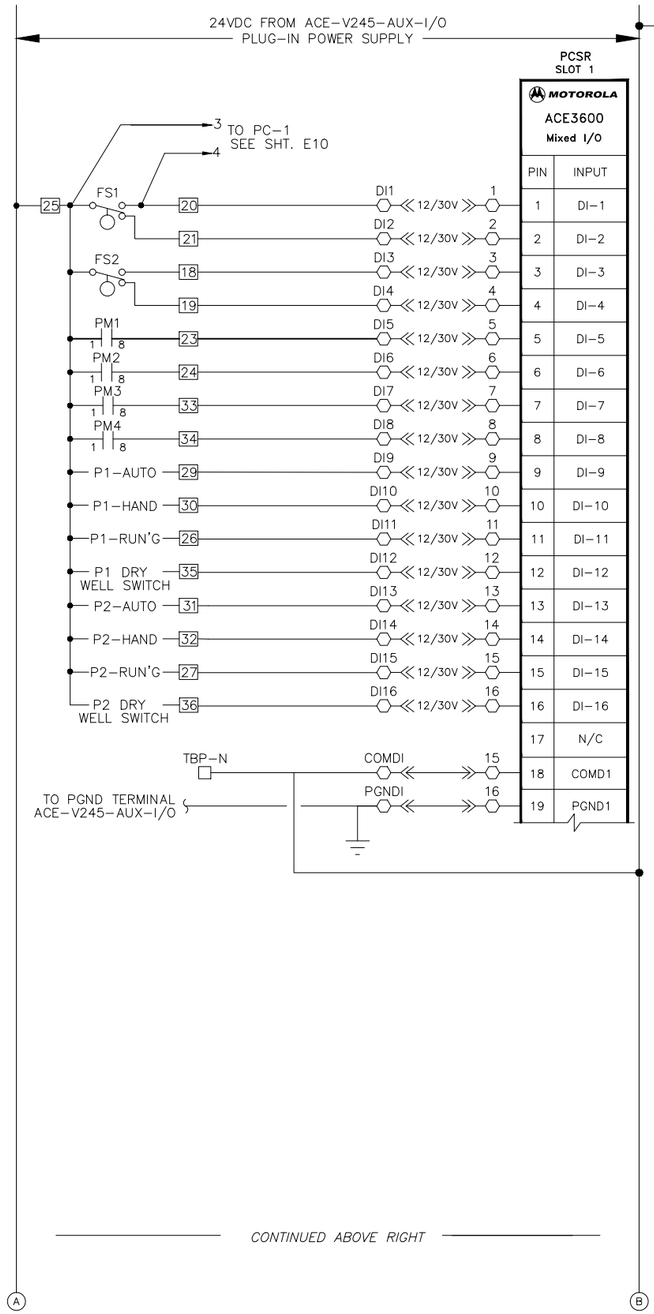

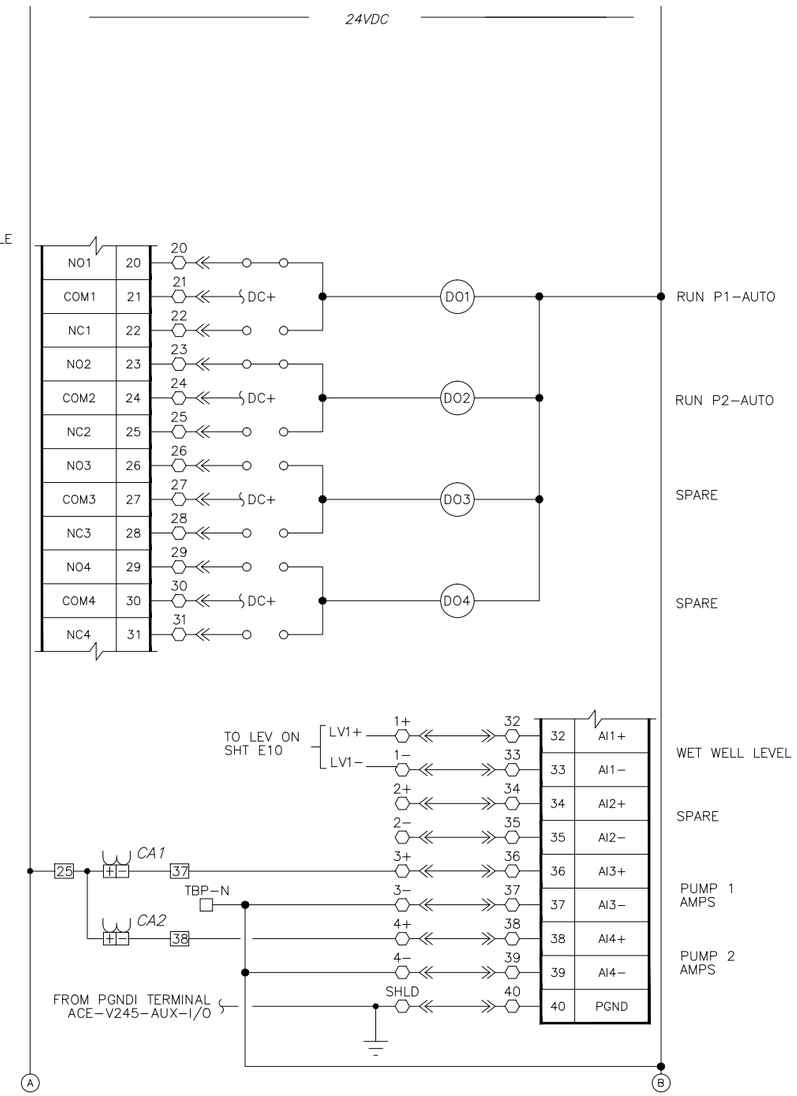

TERMINALS ON ACE I/O MODULE (GENERAL)

TERMINALS IN PUMP CONTROL PANEL

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL SECTION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG DRN: LRG CKD: DATE:	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION PUMP CONTROL SCHEMATIC- SHT2	W.O. 5879 SHEET EII
	3						
	2						
	1						

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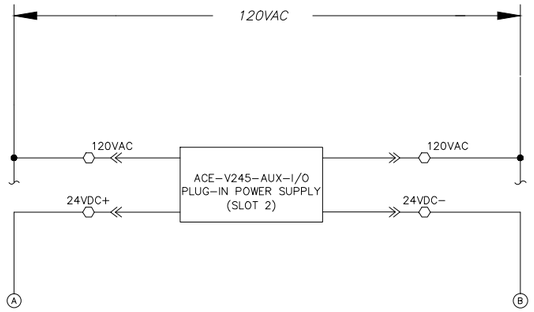

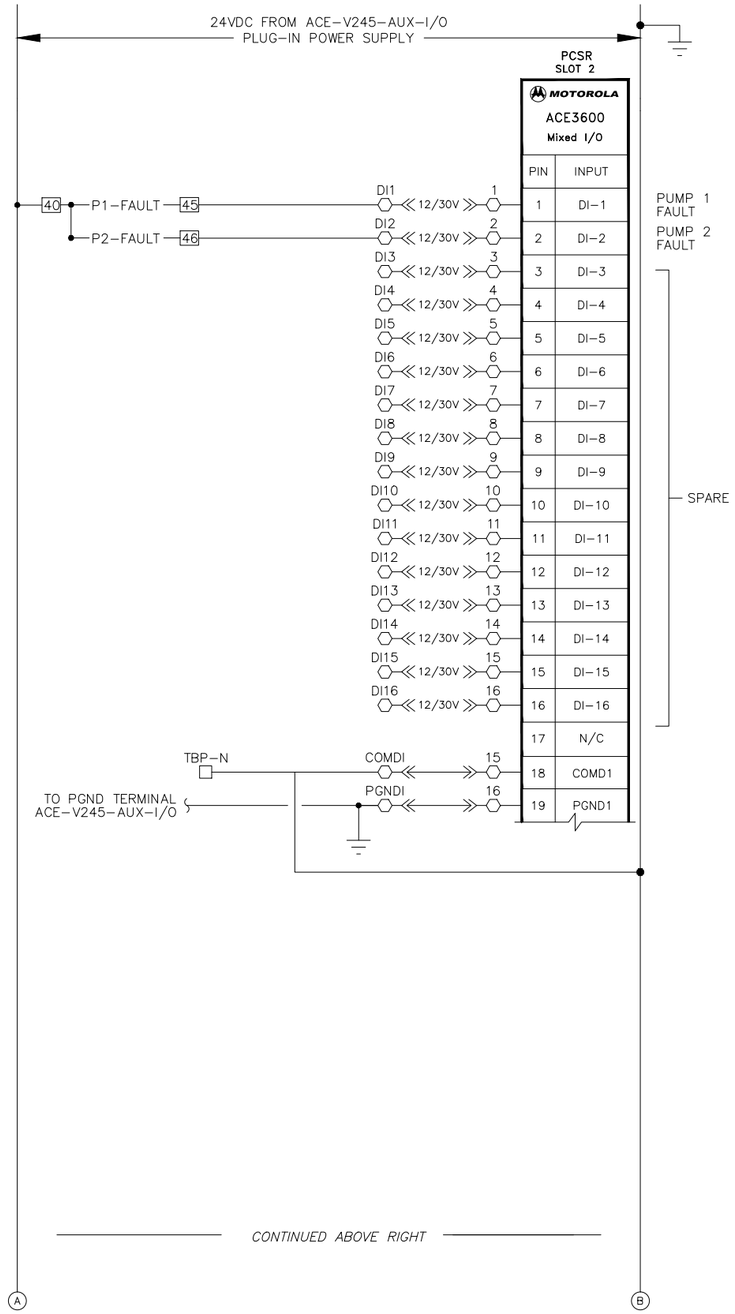

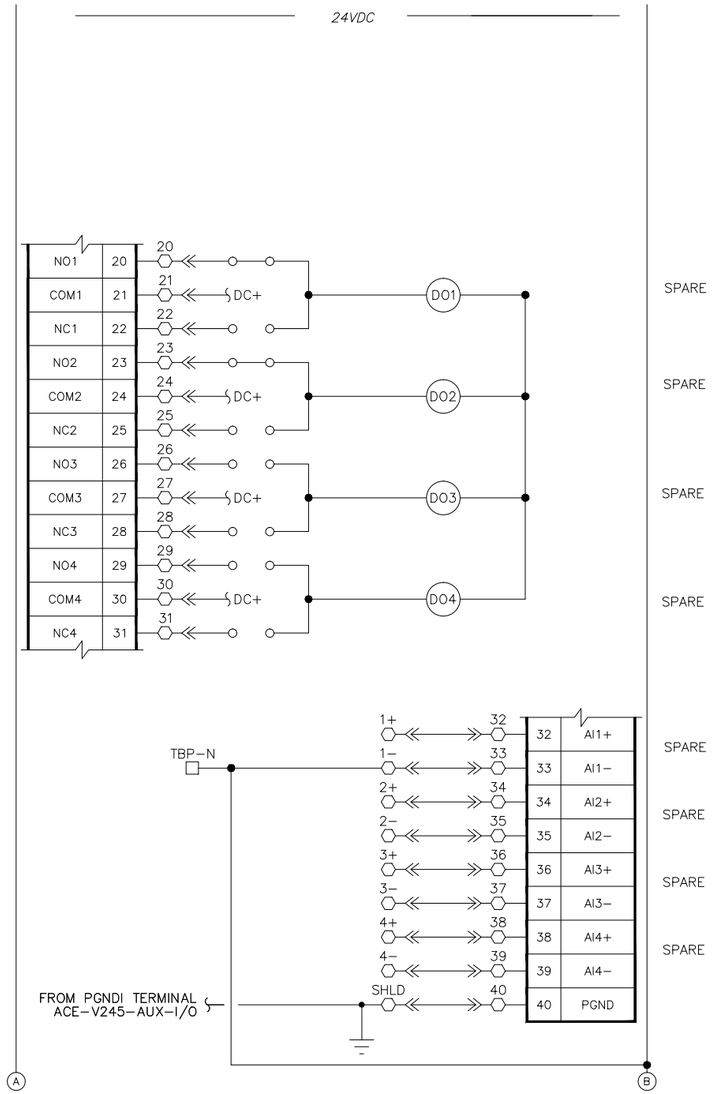

⬡ TERMINALS ON ACE I/O MODULE (GENERAL)

☐ TERMINALS IN PUMP CONTROL PANEL

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
PUMP CONTROL SCHEMATIC- SHT3

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SHEET
E12

B077-210

TBI- ◇

MOUNTED ON MAIN PANEL (MP)

TERM.	DESCRIPTION
1	CB 1 OUT PUMPS CONTROL POWER
2	PUMP 1 ON DISCRETE FROM MCC
3	PUMP 2 ON DISCRETE FROM MCC
4	PIN 1 — PRESS. XMTR, EPS
5	PIN 2 — PRESS. XMTR, EPS
6	P1 RESTART/STOP SW. IN DRY WELL
7	P1 RESTART/STOP SW. IN DRY WELL
8	P1 START COMMAND TO MCC
9	P1 START COMMAND TO MCC
10	SPARE
11	P2 RESTART/STOP SW. IN DRY WELL
12	P2 RESTART/STOP SW. IN DRY WELL
13	P2 START COMMAND TO MCC
14	P2 START COMMAND TO MCC
15	SLOT-1 PCSR, LV1+
16	SLOT-1 PCSR, LV1-
17	SLOT-1 PCSR, SHLD
18	DRY WELL FLOAT SWITCH
19	DRY WELL FLOAT SWITCH
20	HIGH WATER FLOAT SWITCH
21	HIGH WATER FLOAT SWITCH
22	NEUTRAL

TB1 CONT'D

23	UTILITY POWER AVAILABLE
24	PANEL PHASE LOSS
25	PCSR 24V+ - SLOT 1
26	P1 "ON" TO PCSR
27	P2 "ON" TO PCSR
28	SPARE
29	P1 "AUTO" TO PCSR
30	P1 "HAND" TO PCSR
31	P2 "AUTO" TO PCSR
32	P2 "HAND" TO PCSR
33	PUMP 1 MCP STATUS
34	PUMP 2 MCP STATUS
35	P1 DRYWELL LOCKOUT SWITCH
36	P2 DRYWELL LOCKOUT SWITCH
37	PUMP 1 AMPS
38	PUMP 2 AMPS
39	SPARE
40	PCSR 24V+- SLOT 2
41	PUMP 1 SEAL LEAK PROBE
42	PUMP 1 SEAL LEAK PROBE
43	PUMP 2 SEAL LEAK PROBE
44	PUMP 2 SEAL LEAK PROBE
45	PUMP 1 FAULT
46	PUMP 2 FAULT
47	PUMP 1 OVERLOAD
48	PUMP 2 OVERLOAD
49	PUMP 1 STATOR TEMP SWITCH
50	PUMP 2 STATOR TEMP SWITCH

⬡ TERMINALS ON ACE I/O MODULE (GENERAL)

☐ TERMINALS IN PUMP CONTROL PANEL (TB1)

BILL OF MATERIALS

QUAN.	SYMBOL	DESCRIPTION
2	CB1, CB2	SQUARE D SINGLE POLE CIRCUIT BREAKER MODEL QOU115
8	CR1, CR2 MS1, MS2 TA1, TA2 FM1, FM2	POTTER & BRUMFIELD CONTROL RELAYS MODEL KRPA-11AG-120 WITH SOCKETS AND HOLD DOWN SPRINGS
50	TB1	PHOENIX CONTACT, UK5N TERMINALS, 30A W/ AL DIN RAIL
1	PCSR	MOTOROLA CORPORATION PLC BASED PUMP CONTROLLER, SCADA & RADIO SYSTEM MODEL ACE3600 W/ UHF RADIO CDM750, 403-512 MHz- PART #: F7564
	MOTOROLA ACE 3600	1-14 X 14 METAL CHASSIS PART #: V214
		1- 3 I/O SLOT FRAME PART #: V103
		2- 16DI, 4DO(EE), 4AI, 20mA MODULE PART #: V245
		1- AC POWER SUPPLY 85-264V W/BAT. CHARGER PART #: V261
		1- 10 Ah BATTERY PART #: V328
		1- 40 PIN TB HOLDER KIT PART #: V153
		1- 20 PIN TB HOLDER KIT PART #: V158
		2- MIXED I/O AUXILLARY INTERFACE BOARD PART# ACE-V245-AUX-I/O
		1- ACE CPU3640 PART #: V446
		1- 40 WIRE CABLE W/TB HOLDER 3M PART #: V358
2	SLD1, SLD2	CROUZET SEAL LEAK DETECTOR, MODEL PNRU110, PUMP-UP CONTROL 110V INPUT, 10A CONTACTS, SPDT W/SOCKET
1	PC-1	DCR ENG. OR WILKERSON BACKUP PUMP CONTROLLER MODEL BR560 OR DR1920
1	BATT.	POWERSONIC AGM BATTERY MODEL PS-1270 F2, 12 V, 7.0 Ah
1	BATT. CHRG.	DELTRAN CORP. BATTERY CHARGER MODEL WATERPROOF 800
1	FS1	ANCHOR SCIENTIFIC FLOAT SWITCH, SPDT, MODEL S20NONC
1	FS2	ANCHOR SCIENTIFIC FLOAT SWITCH, SPDT, MODEL SM20NONC
5	PL1-PL5	SQUARE D LED PILOT LIGHTS, CLASS 9001, MODEL SKT-38L W/ PLASTIC DOMED LENS- COLOR AS SCHEDULED, PRESS TO TEST
2	PL6, PL7	SQUARE D ILLUMINATED PUSH BUTTON, CLASS 9001, MODEL SK2L38LRRH13, 1NO, 1 NC; LED TYPE W/ RED LENS
2	S1, S2	SQUARE D HOA SWITCH ASSEMBLY, CLASS 9001, SK43B H2 10A, 120VAC CONTACTS
1	RM	DWYER MINI-MASTER VARIABLE AREA FLOW METER WITH BOTTOM MOUNTED VALVE; RATED 1-10 SCFH AIR; WITH PANEL MOUNTING PART# MMF-10-PV
1	PS-1	PHOENIX CONTACT, POWER SUPPLY UNIT; 10-32VDC INPUT, 24VDC, 1 AMP ADJUSTABLE OUTPUT; 78% EFF; DIN RAIL MOUNTING-- PART# MINI-PS-12-24DC/24DC/1
1	DPM	NEWPORT ELECTRONICS CURRENT LOOP INDICATOR; 2-WIRE, 4-20mA, <2.5V DROP; 3-1/2 DIGIT LCD DISPLAY; WITH SPAN AND ZERO PART# 558B
1	EPS	IFM ELECTRONICS, PRESSURE TRANSMITTER; 0-15PSI (1-BAR); 4-20mA OUTPUT; 2-WIRE, 9.6-32VDC EXCITATION; WITH COMPATIBLE M12 CONNECTOR / CABLE -- PART# PA3227
1	AC	INGRAM PRODUCTS, BUBBLER AIR COMPRESSOR; PART# HR10WB3; WITH HRMTBKT MOUNTING PLATE; AP19FV0012P1L AIR FILTER; AND AP19CV0012NL CHECK VALVE

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: LRG
DRN: LRG
CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION REHABILITATION
PUMP CONTROLS LEGEND & B.O.M.

W.O. 5879
SHEET
E13

PROPOSED NOTES:

1. CLASS 1, DIVISION 1, GROUP D, FLUORESCENT FIXTURE W/ (2)–800 mA HIGH OUTPUT 4 FT. LAMPS AND LOW TEMPERATURE BALLAST. FIXTURE SHALL BE CONSTRUCTED OF COPPER FREE ALUMINUM ALLOY AND STAINLESS STEEL HARDWARE; 120VAC OPERATION W/ T6 BASIS OF DESIGN––R–A–L, XP800–4–2L–A.

2. PROVIDE: (1) WEATHER–PROOF SNAP SWITCH FOR SCREEN ROOM LIGHTS AND (1) WEATHER–PROOF SNAP SWITCH FOR STAIRWELL LIGHT, SEE SWITCH DETAIL, THIS SHEET.

3. ALL CONDUITS, FITTINGS, AND TERMINAL BOXES INSTALLED IN THE SCREEN ROOM SHALL BE RIGID ALUMINUM COATED WITH 40mil PVC OUTSIDE AND 2mil URETHANE INSIDE, AS MANUFACTURED BY ROBROY. ALL MATERIALS AND INSTALLATION METHODS IN THE WET WELL AREA MUST BE CONSISTENT W/ NEC CH. 5 STANDARDS FOR A CLASS I, DIVISION 1, GROUP D AREA.

4. THE CONTRACTOR SHALL TRACE–OUT EXISTING WIRING AND VERIFY PROPER CONNECTION TO THE END DEVICES. EXISTING CONDUCTORS IN THE SCREEN ROOM SHALL BE REPLACED. THE EXISTING HOMERUN CONDUITS (AND CONDUCTORS) ON THE NON–CLASSIFIED SIDE SHALL BE REMOVED AND REPLACED WITH NON–COATED RIGID ALUMINUM. REPLACE ALL DISTURBED CONDUIT SEALS.

5. OUTDOOR SECURITY FIXTURE, 42W COMPACT FLUORESCENT, W/ DARK BRONZE ALUMINUM HOUSING. BASIS OF DESIGN–– LITHONIA TWAC42TR120DDBLPI.

6. CORE DRILL CONCRETE AS REQUIRED TO INSTALL CONDUITS. FILL ANNULAR SPACE USING APPROVED PRODUCTS AND FINISH TO MATCH EXISTING SURFACE.

7. TOUCH–UP ANY DAMAGED PVC COATING USING MANUFACTURER RECOMMENDED PRODUCTS, MATCH EXISTING SURFACE.

8. PROVIDE AND INSTALL NEW CONDUITS FOR HIGH WATER ALARM FLOAT SWITCHES.

9. ENCLOSED AND GASKETED ALUMINUM INDUSTRIAL LIGHTING FIXTURE WITH 120V BALLAST VOLTAGE, COLUMBIA LIGHTING LU4–232E–120–WL OR EQUAL.

10. NEMA 4X CONTINUOUS HINGE ENCLOSURE–– HAMMOND MANUFACTURING MODEL EJ863S16, 8"X6"X3.5" NEMA 4X SS.

11. DISCONNECT AND ABANDON ALL FLUSH MOUNTED RECEPTACLES AND FURNISH AND INSTALL NEW SURFACE MOUNTED BOXES/RECEPTACLES. PROVIDE AND INSTALL WATER PROOF COVERS ON RECEPTACLES INSTALLED ON THE FOUNDATION FLOOR.

12. RECONNECT EXISTING SCADA ANTENNA CONDUIT TO THE PROPOSED PCSR AS SHOWN, SPECIFIED AND REQUIRED. PROVIDE AND INSTALL NEW CONDUCTORS.

13. TRANSFER ALL EXISTING LIGHTING LOADS TO PNL–1.

14. IF POSSIBLE, CONTRACTOR SHALL REUSE EXISTING OPENINGS TO CONNECT TO EQUIPMENT; OTHERWISE, CORE DRILL NEW OPENINGS AND FILL IN EXISTING OPENINGS WITH APPROVED PRODUCTS.

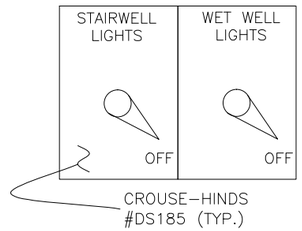
15. THREE PHASE EXHAUST FAN MANUAL MOTOR STARTER IN A NEMA 4X ENCLOSURE. SQUARE D, CLASS 2510, MODEL# MBA2. PROVIDE B OVERLOAD THERMAL UNITS MATCHED TO MOTOR PROVIDED.

16. THREE PHASE SUPPLY FAN MANUAL MOTOR STARTER IN A NEMA 4X ENCLOSURE. SQUARE D, CLASS 2510, MODEL# MBA2. PROVIDE B OVERLOAD THERMAL UNITS MATCHED TO MOTOR PROVIDED.

17. CONDUIT SHALL BE RIGID ALUMINUM FROM PROPOSED PNL–1 TO THE PROPOSED JUNCTION BOX, SECURE USING STAINLESS STEEL STRAPS.

18. HAND DIG PROPOSED CONDUIT. CONDUIT SHALL BE A MINIMUM 18" BELOW GRADE.

19. DIRECT BURIED CONDUIT SHALL BE SCHEDULE 40 PVC WITH A TRANSITION TO RIGID ALUMINUM IN THE VERTICAL RUN AT LEAST ONE FOOT PRIOR TO EMERGENCE. COAT ALUMINUM CONDUIT IN CONTACT WITH SOIL AND OTHER INCOMPATIBLE MATERIALS WITH TWO COATS OF BITUMASTIC.



SWITCH DETAIL

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL SECTION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
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DES: LRG
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CKD:
DATE:

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
PROPOSED NOTES

W.O. 5879
SHEET
E14

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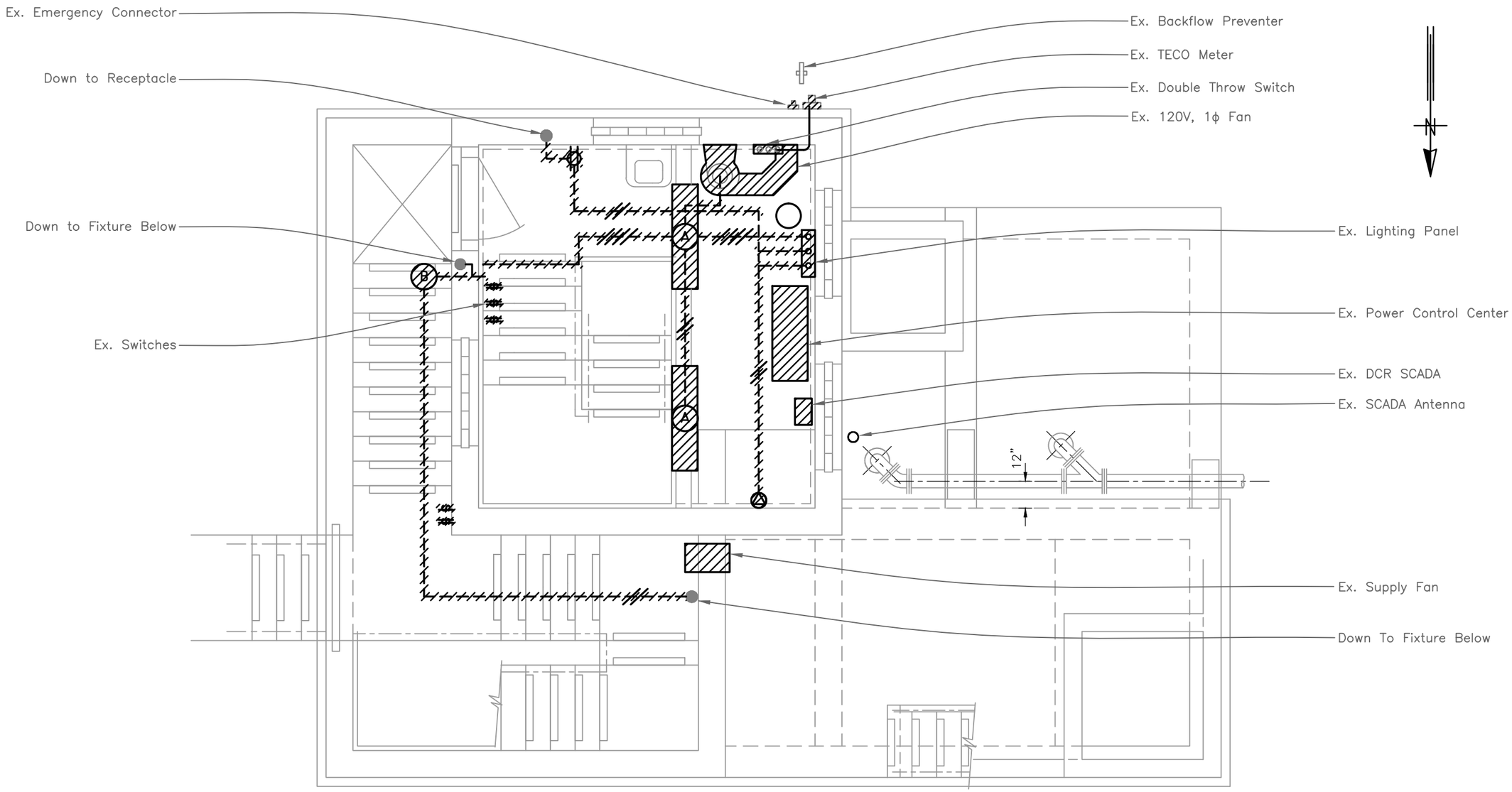

ELECTRICAL DEMOLITION / ENTRANCE PLAN

SCALE: N.T.S.

HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
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DES: LRG
DRN: JHJ
CKD:
DATE: 2/00/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
ELECTRICAL DEMOLITION / ENTRANCE PLAN

W.O. 5879
SHEET
E15

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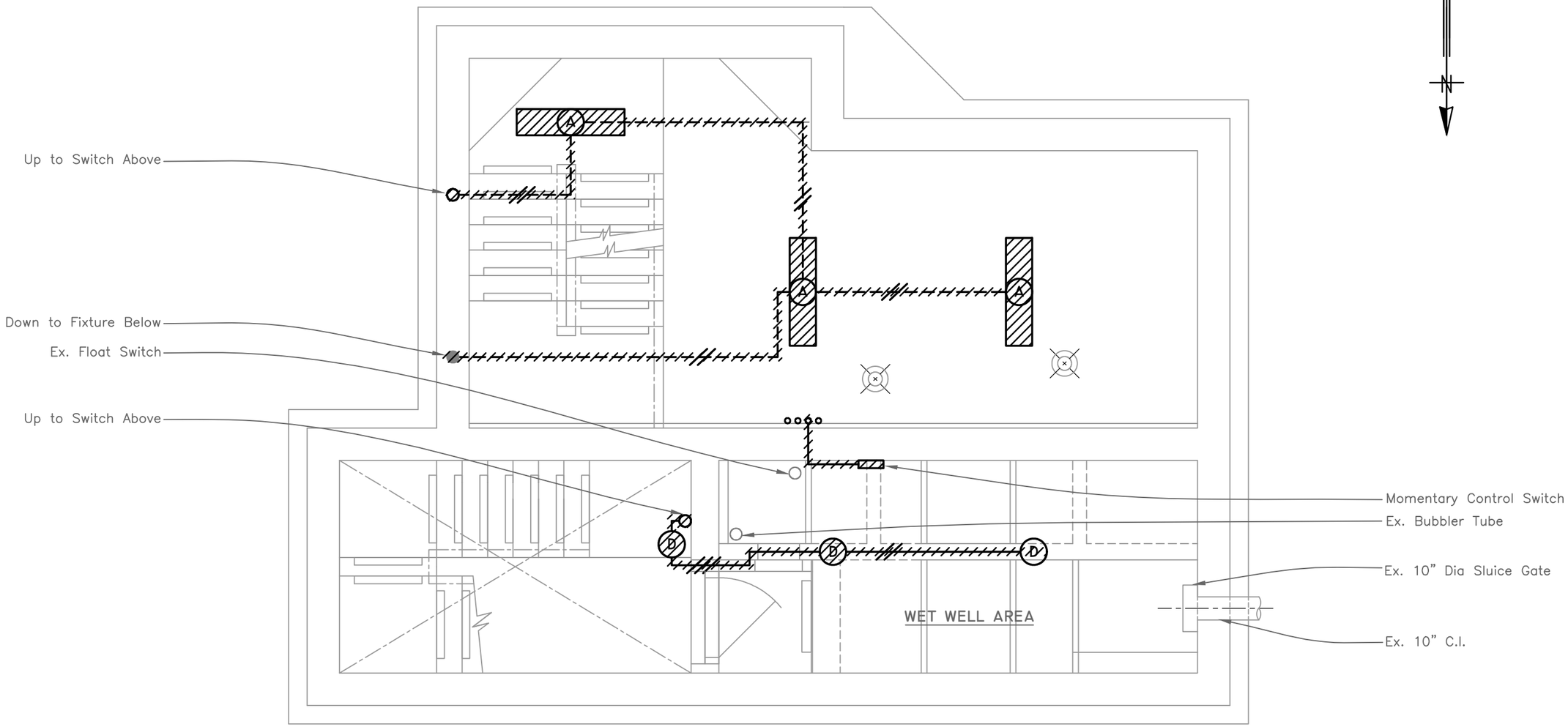

HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

ELECTRICAL DEMOLITION / INTERMEDIATE PLAN

SCALE: N.T.S.

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
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DES: LRG
DRN: JHJ
CKD:
DATE: 2/00/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
ELECTRICAL DEMOLITION / INTERMEDIATE PLAN

W.O. 5879
SHEET
E16

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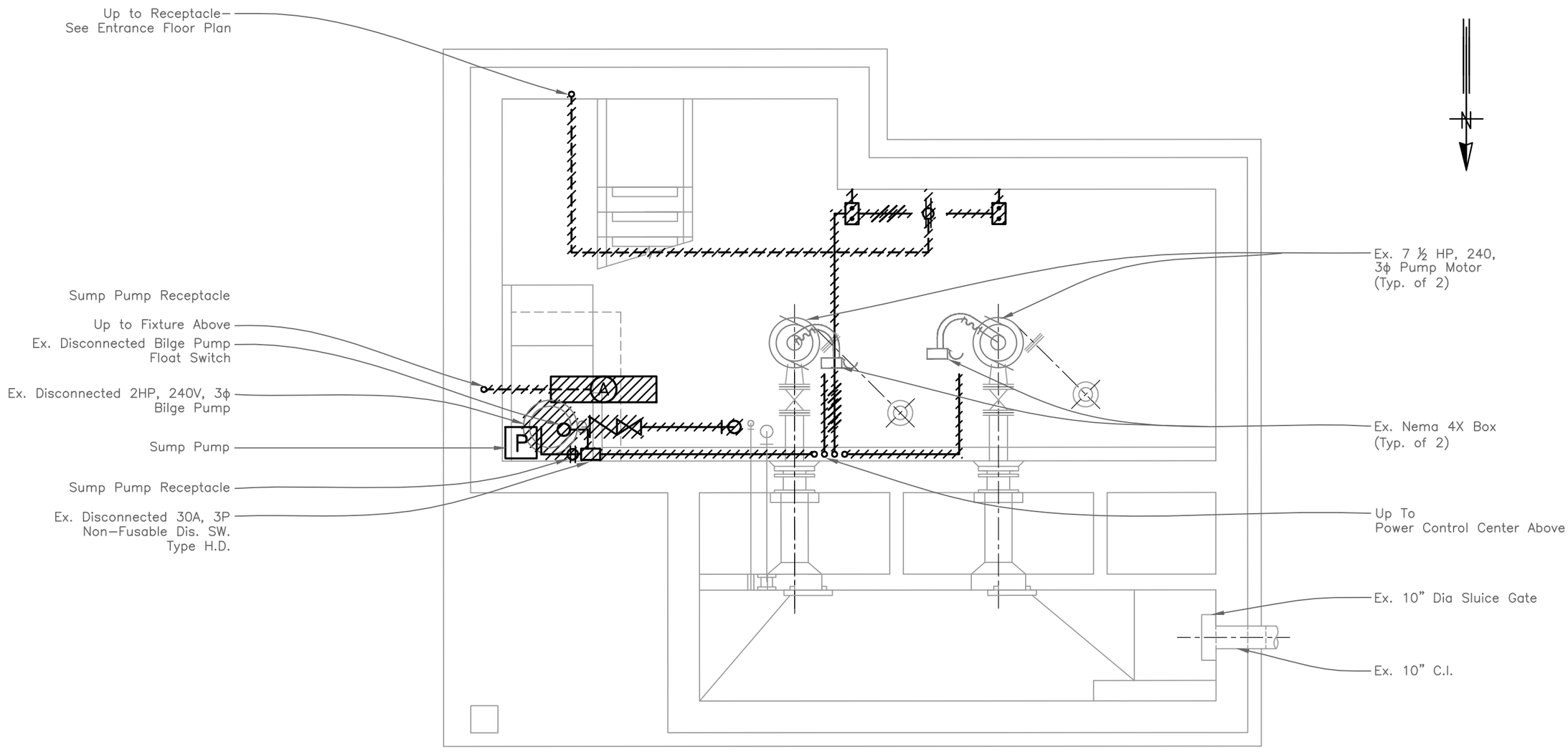


HATCHED AREAS ON THIS SHEET INDICATE PIPING AND EQUIPMENT TO BE REMOVED

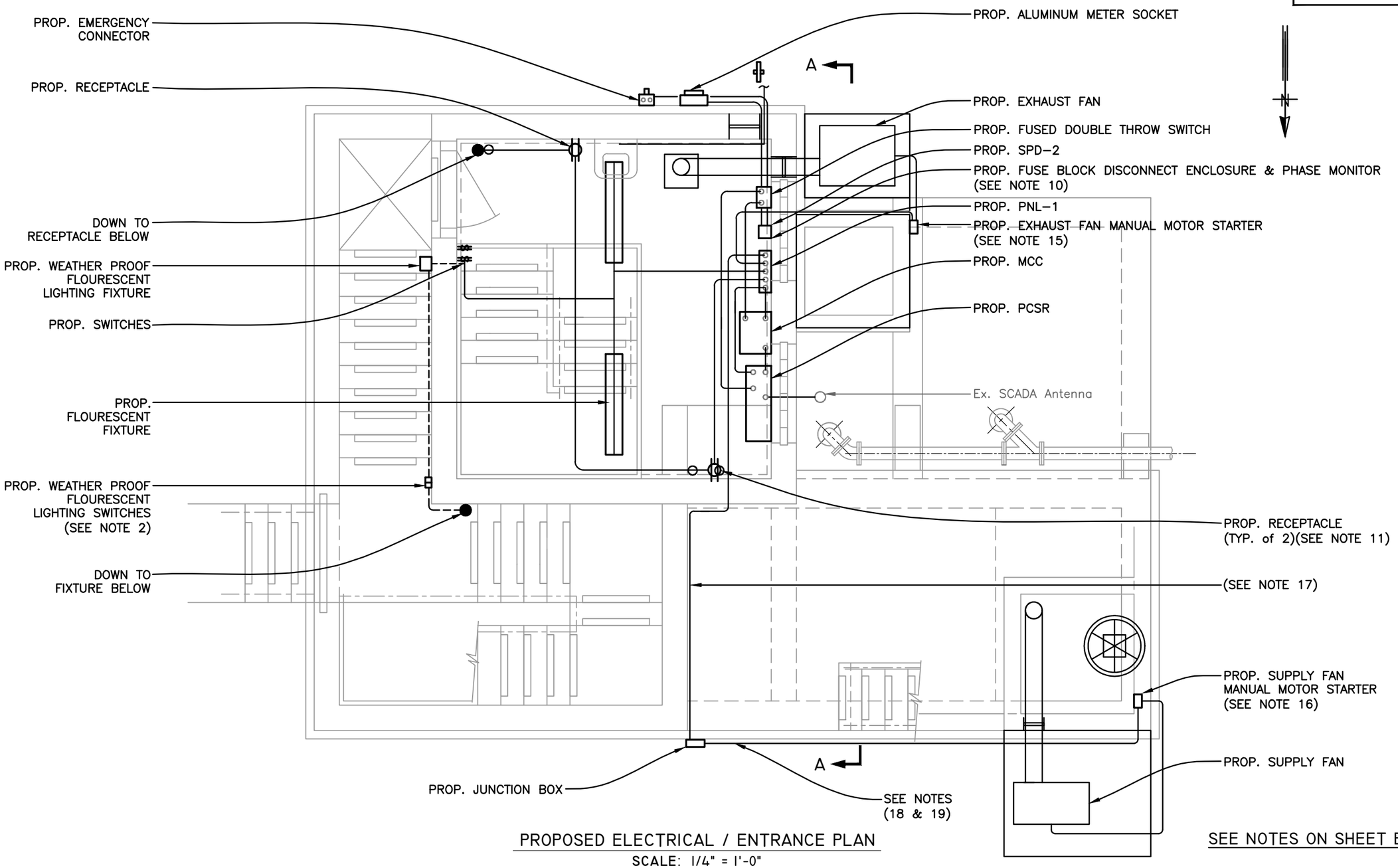
ELECTRICAL DEMOLITION / FOUNDATION PLAN

SCALE: N.T.S.

ROMAN D. KORCHAK, P.E. #42626 ELECTRICAL DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LRG DRN: JHJ CKD: DATE: 2/00/13	CITY of TAMPA WASTEWATER DEPARTMENT	IDAHO PUMPING STATION REHABILITATION ELECTRICAL DEMOLITION / FOUNDATION PLAN	W.O. 5879 SHEET E17
	3						
	2						
	1						

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout— Aug 23, 2013 - 3:06pm

B077-215



PROPOSED ELECTRICAL / ENTRANCE PLAN

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

SEE NOTES ON SHEET E14

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: LRG
DRN: JHJ
CKD:
DATE: 2/00/13

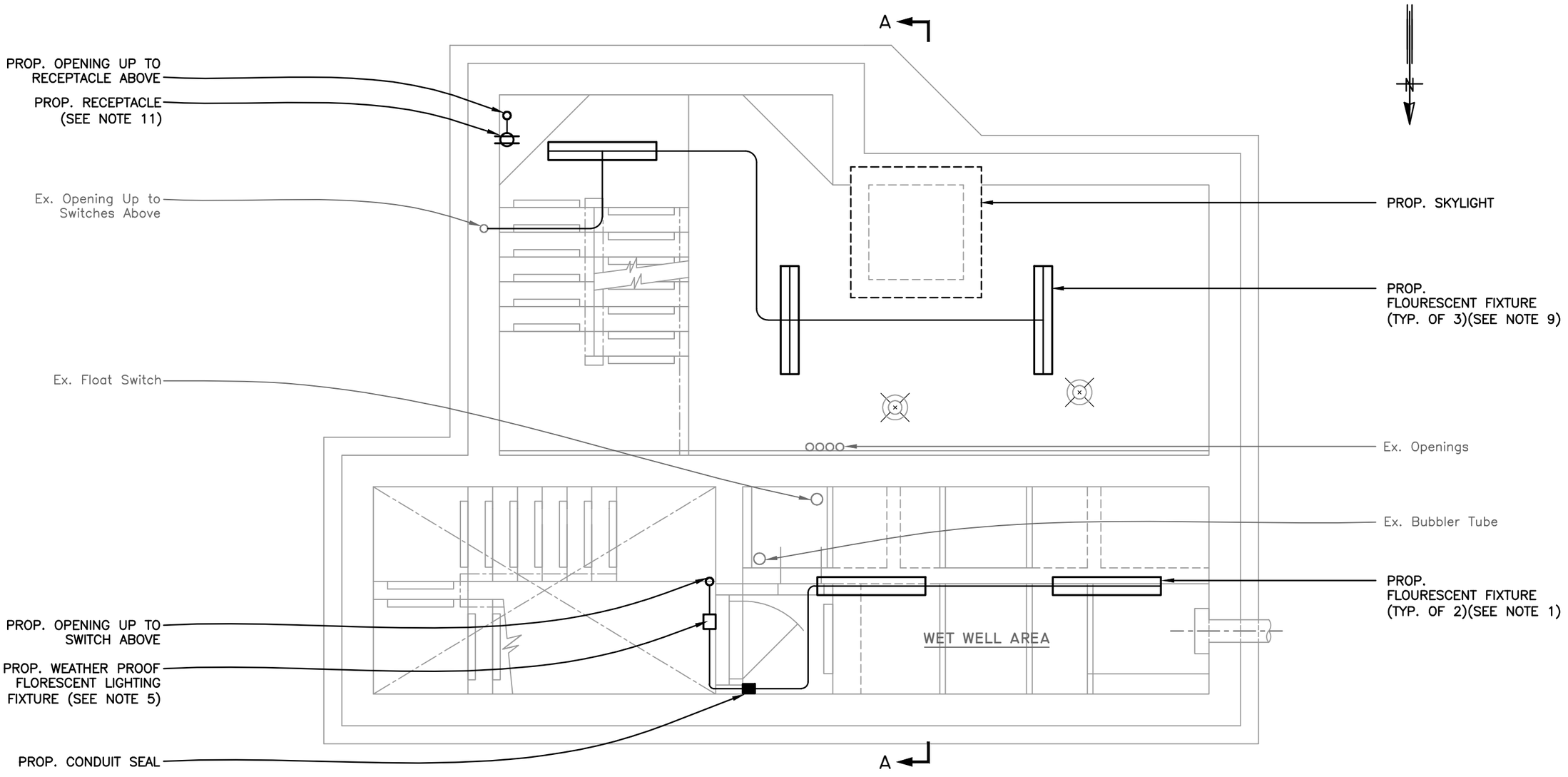
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
PROPOSED ELECTRICAL / ENTRANCE PLAN

W.O. 5879
SHEET
E18

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 23, 2013 - 3:06pm

B077-216



PROPOSED ELECTRICAL / INTERMEDIATE PLAN

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

SEE NOTES ON SHEET E14

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1		

DES: LRG
DRN: JHJ
CKD:
DATE: 2/00/13

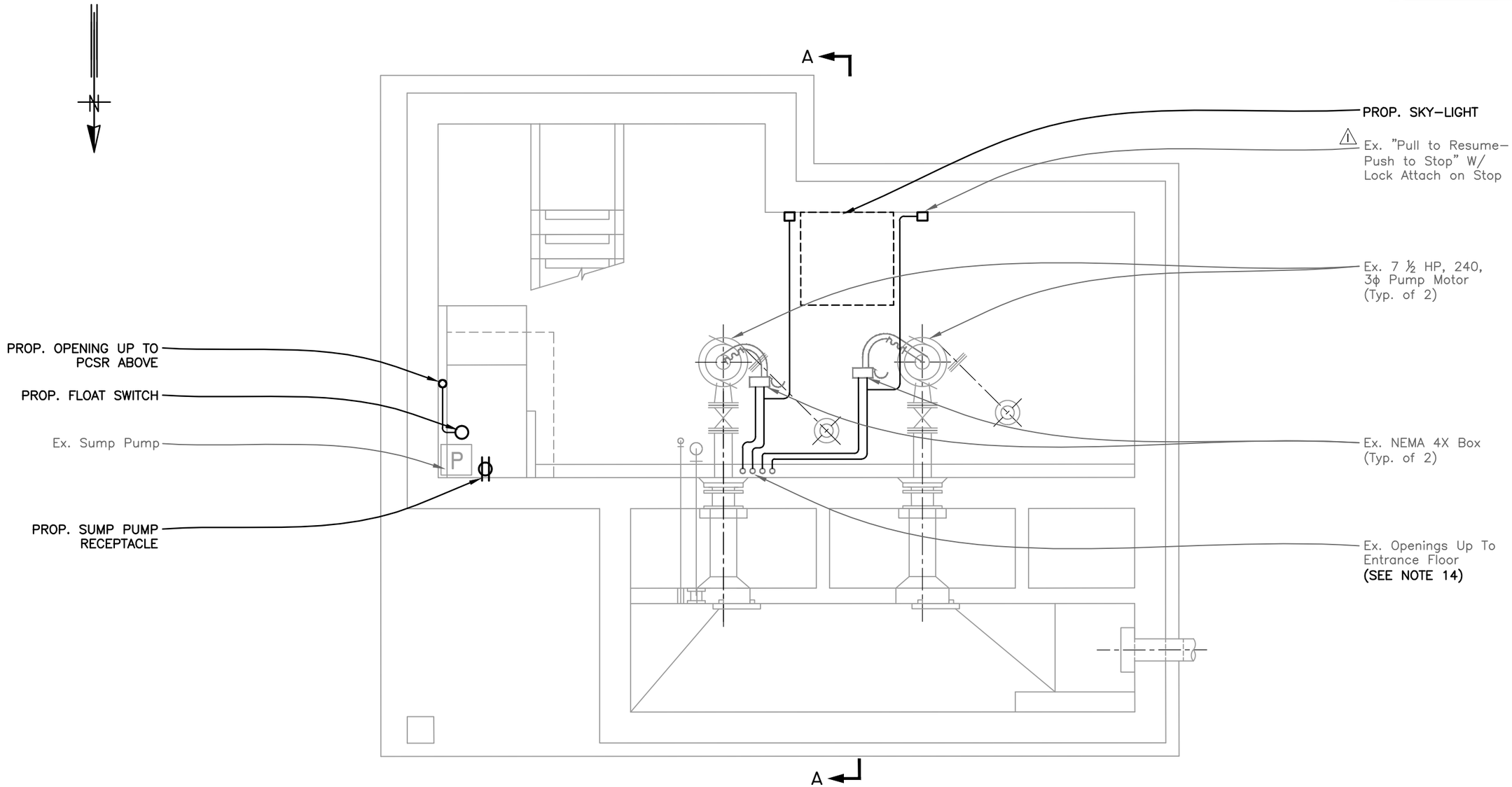
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
PROPOSED ELECTRICAL / INTERMEDIATE PLAN

W.O. 5879
SHEET
E19

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout= Aug 22, 2013 - 4:31pm

B077-217



PROPOSED ELECTRICAL / FOUNDATION PLAN

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

SEE NOTES ON SHEET E14

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1	5/7/13	REVISION 1

DES: LRG
DRN: JHJ
CKD:
DATE: 2/00/13

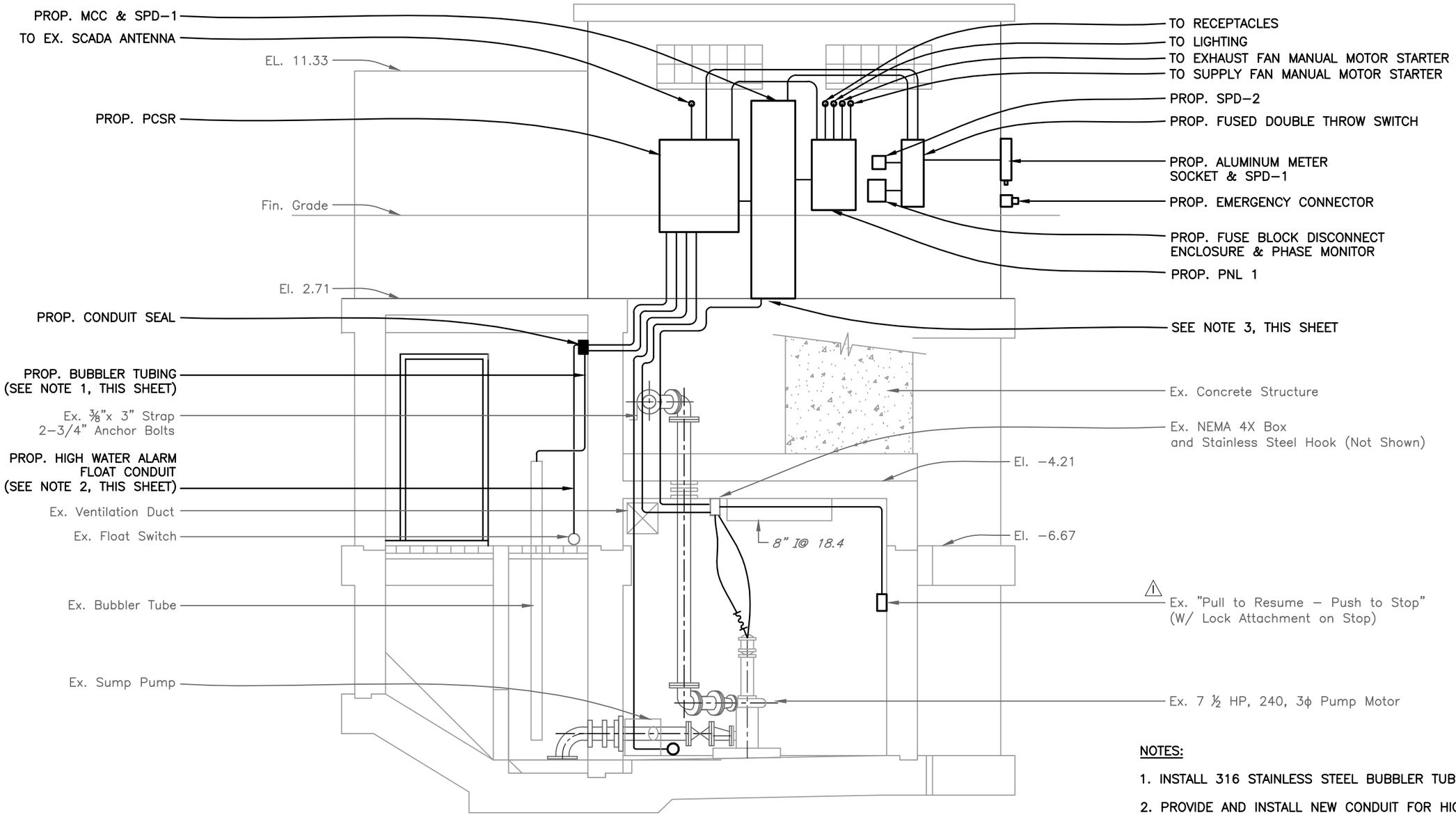
CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
PROPOSED ELECTRICAL / FOUNDATION PLAN

W.O. 5879
SHEET
E20

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout- Aug 22, 2013 - 4:31pm

B077-218



PROPOSED ELECTRICAL / SECTION A-A

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

NOTES:

1. INSTALL 316 STAINLESS STEEL BUBBLER TUBING.
2. PROVIDE AND INSTALL NEW CONDUIT FOR HIGH WATER ALARM FLOAT SWITCH.
3. IF POSSIBLE, REUSE EXISTING OPENINGS IN CONCRETE, OTHERWISE, CORE DRILL CONCRETE AS REQUIRED TO INSTALL CONDUITS.

ROMAN D. KORCHAK, P.E. #42626
ELECTRICAL DIVISION HEAD
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3		
2		
1	5/7/13	REVISION 1

DES: LRG
DRN: JHJ
CKD:
DATE: 2/00/13

CITY of TAMPA
WASTEWATER DEPARTMENT

IDAHO PUMPING STATION
REHABILITATION
PROPOSED ELECTRICAL / SECTION A-A

W.O. 5879
SHEET
E21

User: ss13 Drawing Name: K:\WW_Projects\2013\2013_5879_Idaho PS Rehabilitation\DWG\IDAHO PS REHAB.dwg
Layout– Aug 22, 2013 – 4:31pm