

CONSTRUCTION PLANS

ATTACHMENT 1

FOR

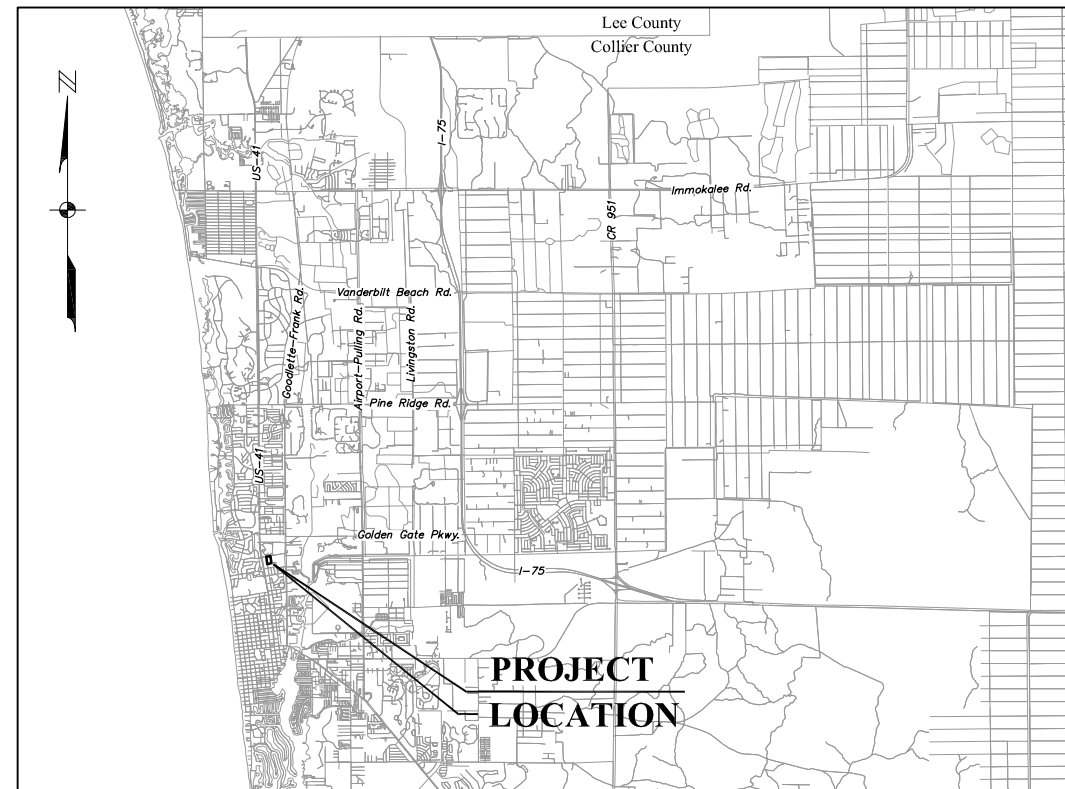
CITY OF NAPLES WATER TREATMENT PLANT VACUUM PUMP - DRUM BELT FILTER REPLACEMENT

SECTION 34, TOWNSHIP 49 S., RANGE 25 E.
Collier County, Florida

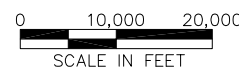
Latitude: 26° 10' 0.2" N
Longitude: 81° 47' 49.8" W

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LOCATION MAP



December 2012

Prepared for



Prepared by

JOHNSON
ENGINEERING

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PHONE (239) 334-0046
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E.B. #642 & L.B. #642

REGISTERED PROFESSIONAL ENGINEER
FLORIDA LICENSE NO. 66574

ERIK LEE HOWARD, PE

DATE

SHEET NUMBER

C-01

Construction Plan Set

ABBREVIATIONS

AC	ACRE
ALT	ALTERNATE
APPROX	APPROXIMATE
BM	BENCH MARK
BLDG.	BUILDING
BOT	BOTTOM
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CV	CHECK VALVE
CLF	CENTER LINE
CONC	CONCRETE
CONST	CONSTRUCTION
DIA, Ø	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DE	DRAINAGE EASEMENT
EA	EACH
EL/ELEV	ELEVATION
ERCP	ELLIPTICAL CONCRETE PIPE
EX, EXIST	EXISTING
FF	FINISHED FLOOR
FFE	FINISHED FLOOR ELEVATION
FM	FORCE MAIN
FDC	FIRE DEPARTMENT CONNECTION
FT	FEET
CV	NATURAL GAS
GR	GATE VALVE
H-V	GRADE HORIZONTAL TO VERTICAL
HDPE	HIGH DENSITY POLYETHYLENE
HYD	HYDRANT
DD	IONA DRAINAGE DISTRICT
INV	INVERT
LAE	LAKE ACCESS EASEMENT
LF	LINEAL FEET
LME	LAKE MAINTENANCE EASEMENT
MH	MANHOLE
MES	MITERED END SECTION
MIN	MINIMUM
NTS	NOT TO SCALE
NUM/#	NUMBER
NG	NATURAL GAS
OC	ON CENTERS
OH	OVERHEAD (POWER,PHONE,CATV)
OCEW	ON CENTER EACH WAY
PV	PLUG VALVE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
POLY, PE	POLYETHYLENE
PAVT	PAVEMENT
PW	PROPERTY LINE
PUE	POTABLE WATER
RD	PUBLIC UTILITY EASEMENT
RCP	ROAD
ROW	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
SAN	RIGHT OF WAY
SECT	SANITARY
SEW	SECTION
TOE	SEWER
TOB	TOE OF SLOPE
TEL	TOP OF BANK
TRANS	TELEPHONE
TYP	TRANSFORMER
UE	TYPICAL
WM	UTILITY EASEMENT
W/O	WATER
WV	WATER MAIN
WH	WITH
	WITHOUT
	WATER VALVE
	WALL HYDRANT

NOTICE TO ALL CONTRACTORS

IT'S THE LAW IN FLORIDA
2 BUSINESS DAYS BEFORE YOU DIG
CALL SUNSHINE 1-800-432-4770

STATE, COUNTIES & CITIES ARE
PART OF THE ONE CALL SYSTEM.
THEY MUST BE CALLED INDIVIDUALLY.

STATE OF FLORIDA DOT
ALL INTERSTATE RIGHT-OF-WAY
HIGHMAST LIGHTING
7-DAY NOTICE REQUIRED
239-656-7811
239-656-7742 FAX



SYMBOLS

	PROPOSED VALVE		IRRIGATION SERVICE (DOUBLE)
	TEE ASSEMBLY		IRRIGATION SERVICE (SINGLE)
	REDUCER		WATER SERVICE (DOUBLE)
	BLOW OFF		WATER SERVICE (SINGLE)
	FIRE HYDRANT		HEADWALL
	FIRE HYDRANT ASSEMBLY W/ GATE VALVE		CULVERT
	MITERED END SECTION		DRAINAGE INLET (SEE PLAN FOR TYPES)
	DIRECTION OF FLOW		THROAT INLET
	ELECTRICAL CONDUIT PULL BOX		EXISTING ELEVATION
	UTILITY ROLLDOWN		PROPOSED ELEVATION

LINETYPES

	EXISTING	PROPOSED
BASIN	---	---
RIGHT-OF-WAY LINE	---	---
LAKE MAINTENANCE EASEMENT	---	---
PUBLIC UTILITY EASEMENT	---	---
DRAINAGE EASEMENT	---	---
CENTER LINE	---	---
WETLAND BOUNDARY	---	---
FORCE MAIN	--- FM ---	--- FM ---
SANITARY SEWER	--- SS ---	--- SS ---
WATER MAIN	--- WM ---	--- WM ---
PERIMETER BERM	--->>>>---	--->>>>---
RIGHT OF WAY	---	---
FENCE LINE	-x-x-	-x-x-
SILT FENCE	▲▲▲	▲▲▲▲▲
BULKHEAD		
STRUCTURAL BUFFER	○○○○○○○○	○○○○○○○○
RAW WATER FLORIDAN WATER MAIN	--- RF-WM ---	--- RF-WM ---
RAW WATER SURFICAL WATER MAIN (EXISTING)	--- SUE 16 WM ---	--- SUE 16 WM ---
RAW WATER SANDSTONE WATER MAIN	--- RSS-WM ---	--- RSS-WM ---
REVERSE OSMOSIS CONCENTRATE WATER MAIN	--- ROC-WM ---	--- ROC-WM ---

NOTE: NOT ALL LINETYPES SHOWN ARE USED FOR EVERY PROJECT.

GENERAL NOTES:

THE LOCATION OF EXISTING UTILITIES, PAVEMENT, VEGETATION, AND MISCELLANEOUS IMPROVEMENTS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

EXISTING FACILITIES SHALL BE RESTORED TO A CONDITION EQUIVALENT TO THAT WHICH EXISTED PRIOR TO COMMENCING CONSTRUCTION, AT NO ADDITIONAL COST TO OWNER.

CONTRACTOR SHALL NOTIFY THE CITY OF NAPLES STAFF A MINIMUM OF 72 HOURS PRIOR TO ALL REQUIRED INSPECTIONS.

CONTRACTOR SHALL RETAIN, ON THE WORK SITE, COPIES OF ANY PERMITS NECESSARY FOR CONSTRUCTION.

CONTRACTOR SHALL PROMPTLY REPORT ALL FIELD CHANGES TO THE ENGINEER.

CONTRACTOR SHALL USE DESIGNATED CONSTRUCTION ENTRANCES FOR EMPLOYEES AND DELIVERY OF MATERIALS.

CONTRACTOR SHALL ACCURATELY PLOT THE LOCATIONS AND DEPTHS OF ALL IMPROVEMENTS INSTALLED ON A FINAL SET OF RECORDED DRAWINGS WHICH SHALL BE DELIVERED TO THE ENGINEER.

CONTRACTOR IS REQUIRED TO OBTAIN FROM THE ENGINEER AND OWNER WRITTEN APPROVAL FOR ANY DEVIATIONS FROM THE PLANS AND/OR SPECIFICATIONS.

CONTRACTOR IS RESPONSIBLE FOR BEING IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL ORDINANCES AND REGULATIONS AND OBTAINING ANY NEEDED PERMITS FOR CONSTRUCTION ACTIVITIES.

PROPOSED FACILITIES SHOWN SHALL BE CONNECTED AS NEEDED TO EXISTING FACILITIES IN USE TO PROVIDE A COMPLETE AND OPERATIONAL FACILITY. CONTRACTOR IS TO VERIFY FINAL DIMENSIONS REQUIRED FOR PROPER TIE IN.

CONSTRUCTION TO BE PHASED AS DIRECTED BY CITY OF NAPLES STAFF TO MAINTAIN OPERATIONAL CAPABILITIES.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE CITY OF NAPLES UTILITIES SPECIFICATIONS AND STANDARDS MANUAL, SEPTEMBER 2010.



NO.	DESCRIPTION	DATE

DATE:	DECEMBER 2012
PROJECT NO.	20129093-000
FILE NO.	34-49-25
SCALE:	AS SHOWN

General Notes

Construction Plan Set

SHEET NUMBER

C-02



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Aerial-Location Map

CONSTRUCTION PLAN SET
SHEET NUMBER

C-03



NO.	DESCRIPTION	DATE

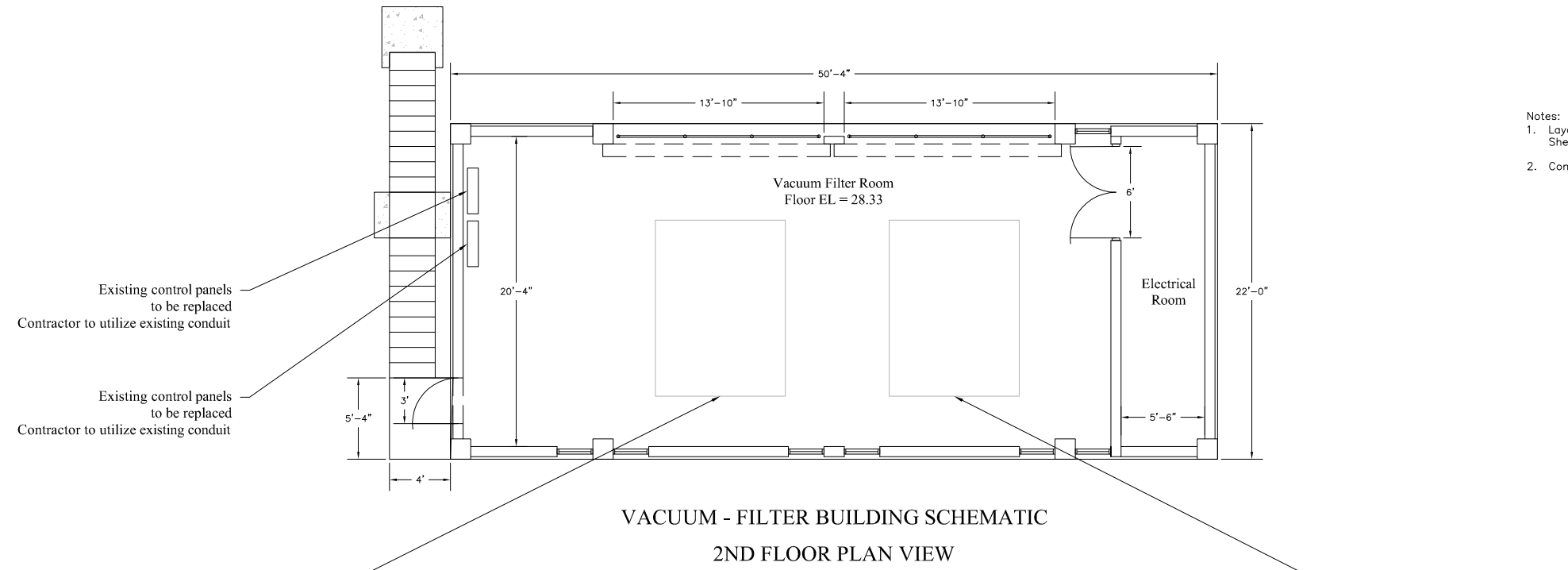
DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Vacuum Filter Building

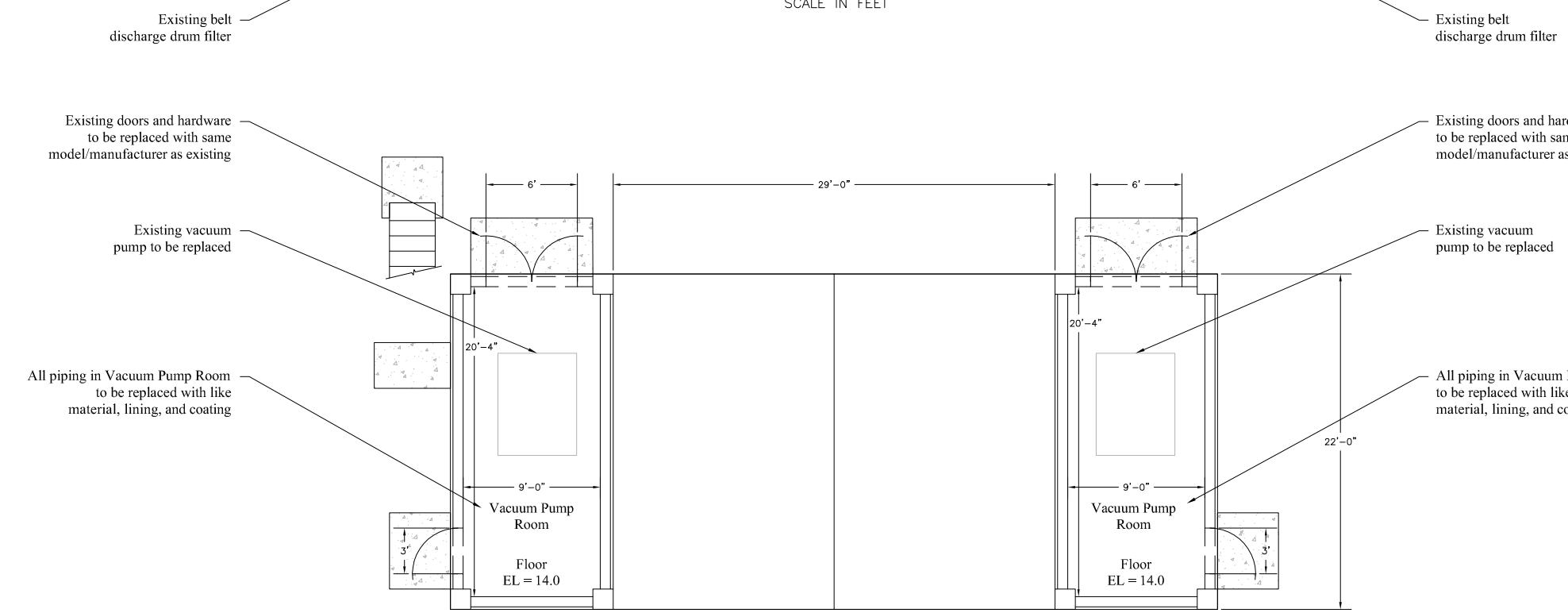
CONSTRUCTION PLAN SET

SHEET NUMBER

C-04



Notes:
1. Layout and dimensions from BC&E / CH2MHill Plan Sheet A-7 Drawing NA 3050971 dated Nov. 1978.
2. Contractor to verify dimensions shown.





City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

REVISIONS	DATE

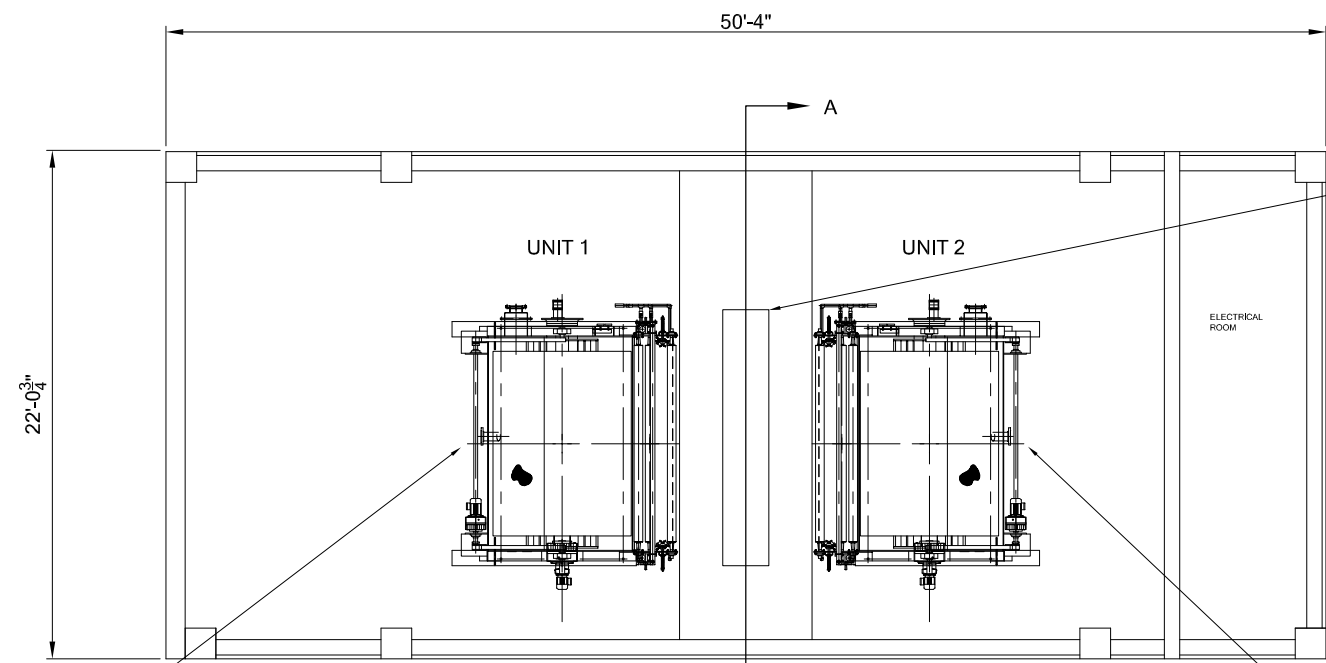
DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

1st & 2nd Floor
Equipment Layout

CONSTRUCTION PLAN SET

SHEET NUMBER

C-05



SECOND FLOOR PLAN VIEW

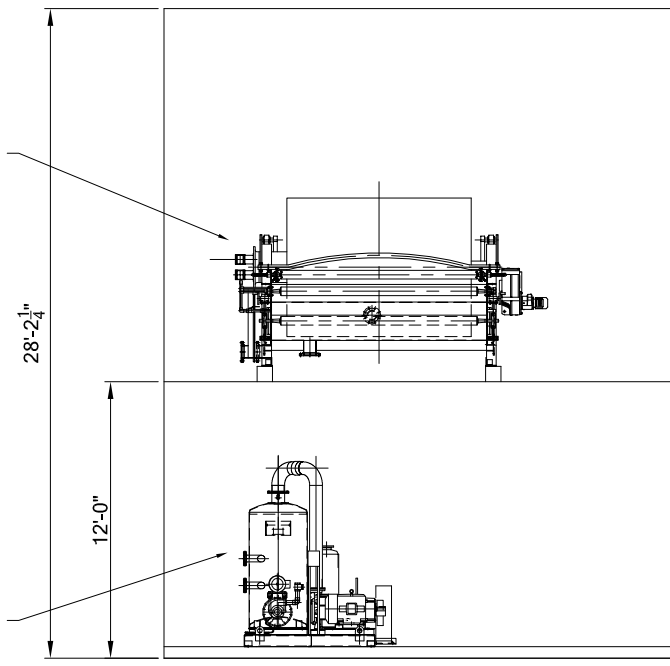
Existing floor penetrations to remain
Contractor to replace all hardware associated with chute

Proposed belt discharge drum filter

Proposed belt discharge drum filter

Proposed vacuum pump

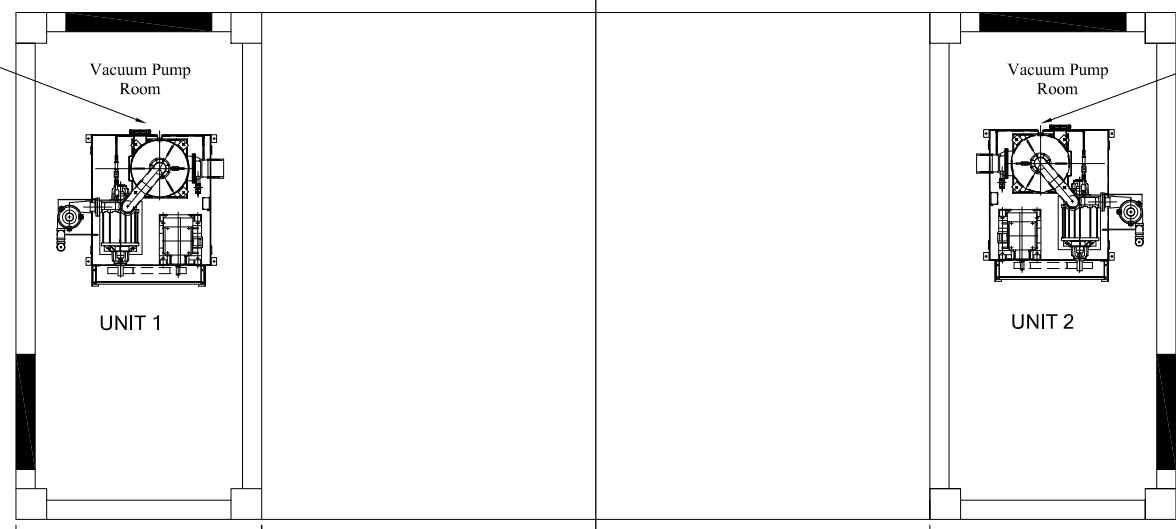
Proposed vacuum pump



VIEW A-A

Proposed belt discharge drum filter

Proposed vacuum pump



FIRST FLOOR PLAN VIEW

PREPARED FOR: CITY OF NAPLES
WATER TREATMENT PLANT

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EQUIPMENT/BUILDING LAYOUT				
DESCRIPTION	SIZE	DATE	SCALE	REV
BELT DISCHARGE DRUM FILTER	6'-0" DIA. X 8'-0" FACE	04/11/12	NONE	115
TYPE		DATE	CHKD BY	APPRVD BY
MNM		MWG		
115		1230010		

WestTech
Process Equipment. Process Driven.
USA - BRAZIL - CHINA - RSA - INDIA
3665 SOUTH WEST TEMPLE, SLC, UT, 84115
801-265-1000, www.WestTechInc.com

REVISION	BY	CHKD	DATE

Details shown provided by WesTech, Inc.



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DESCRIPTION	DATE

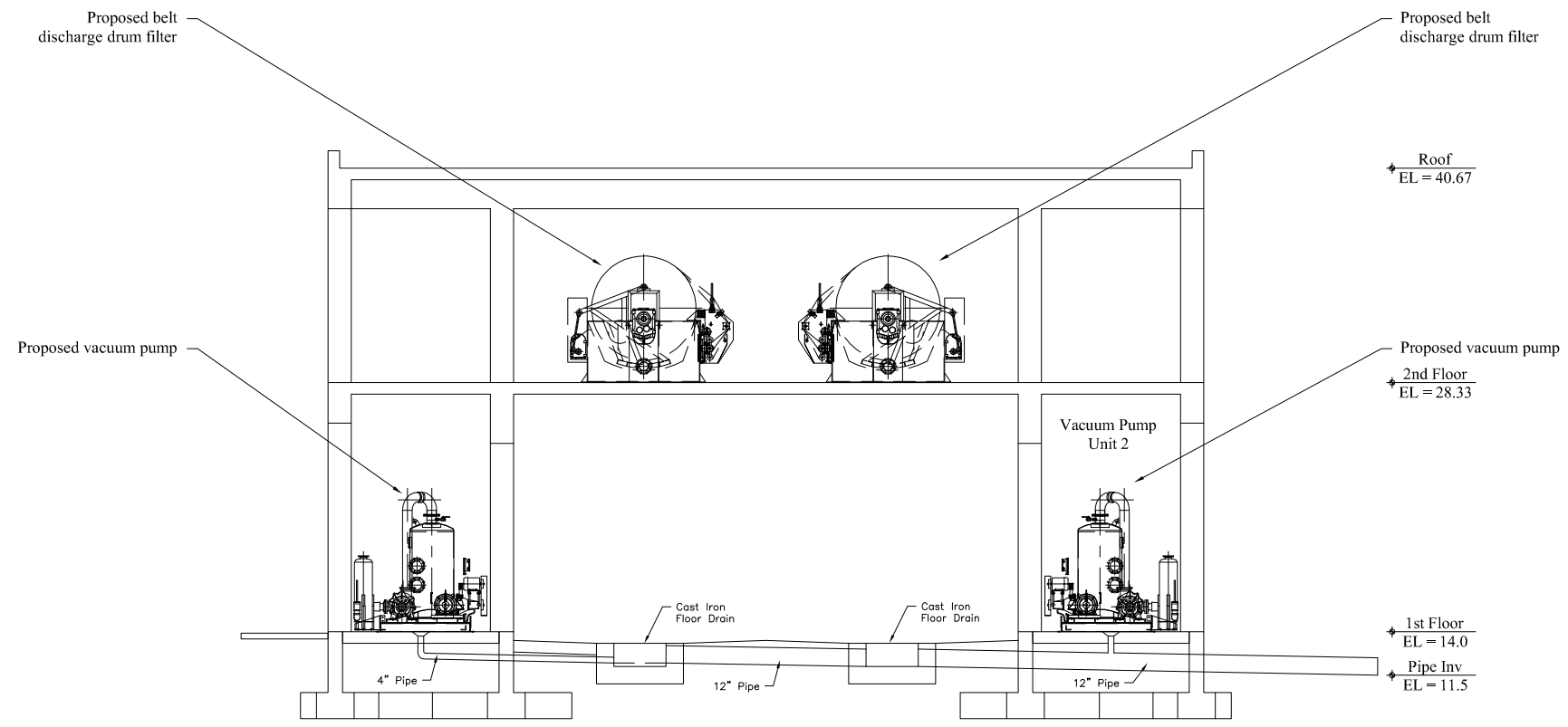
DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Elevation Views

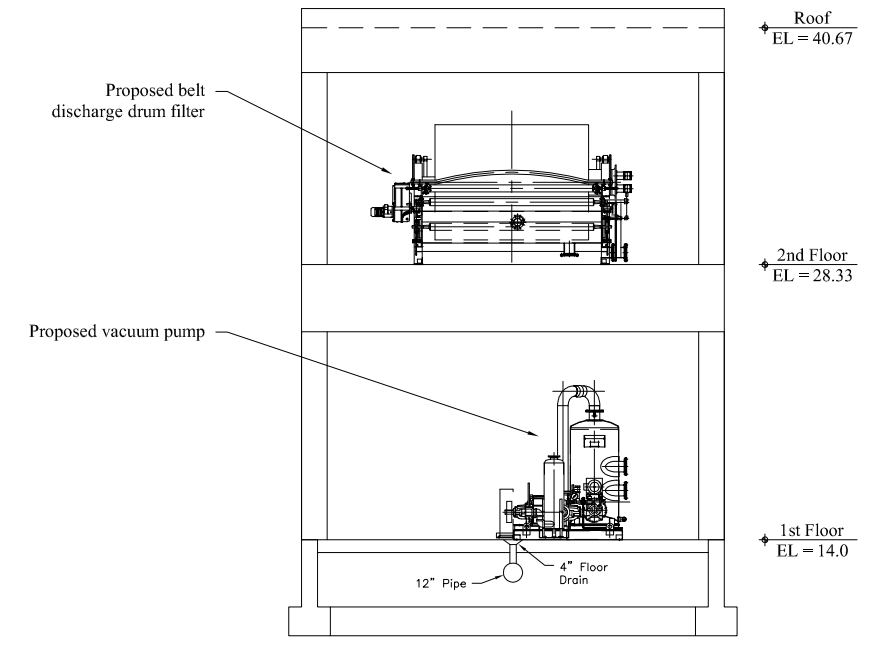
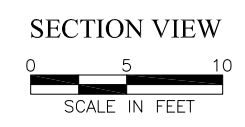
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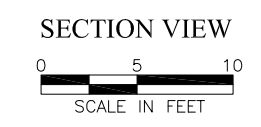
C-06



VACUUM - FILTER BUILDING SCHEMATIC



VACUUM - FILTER BUILDING SCHEMATIC





City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

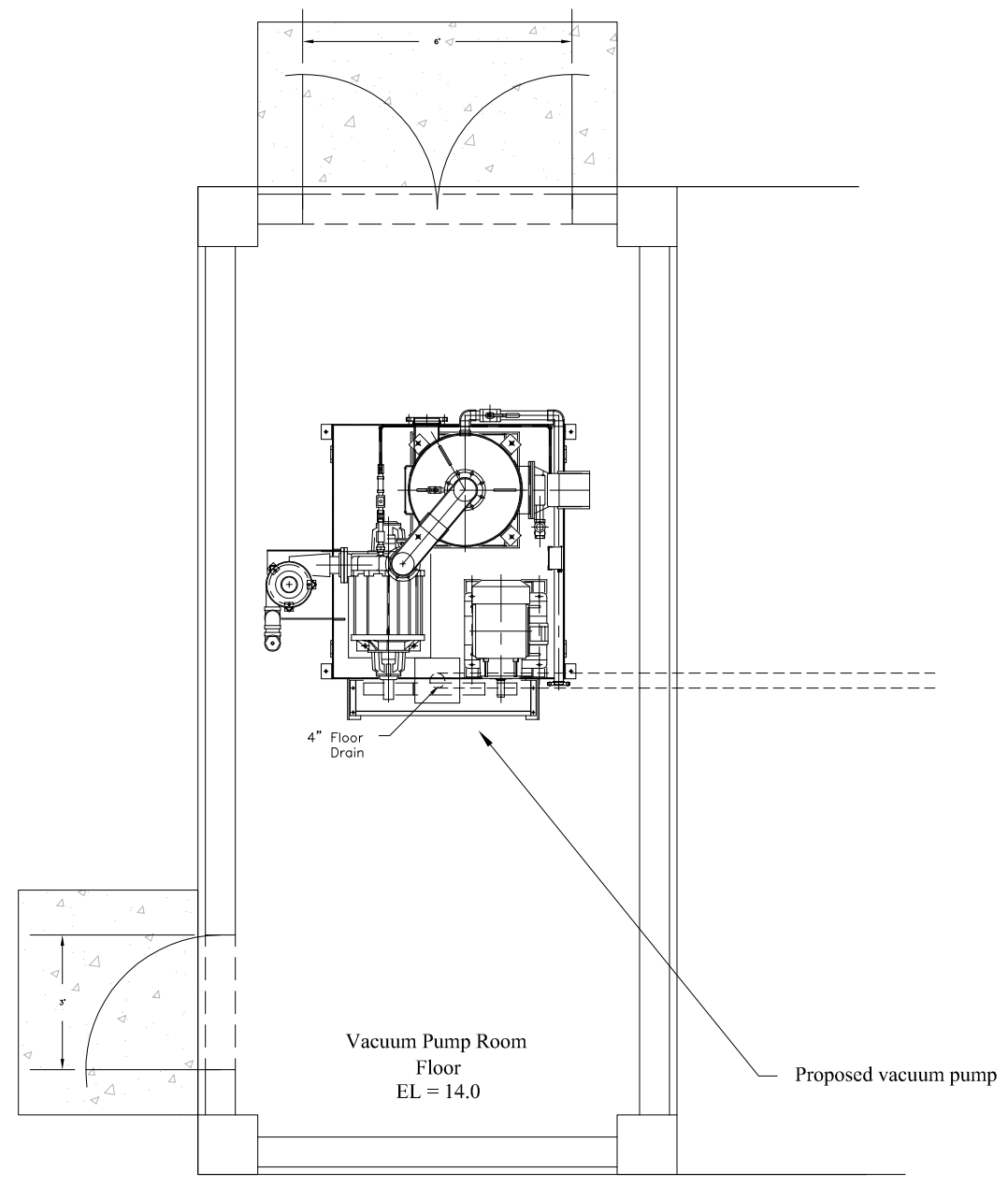
NO.	REVISIONS	DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

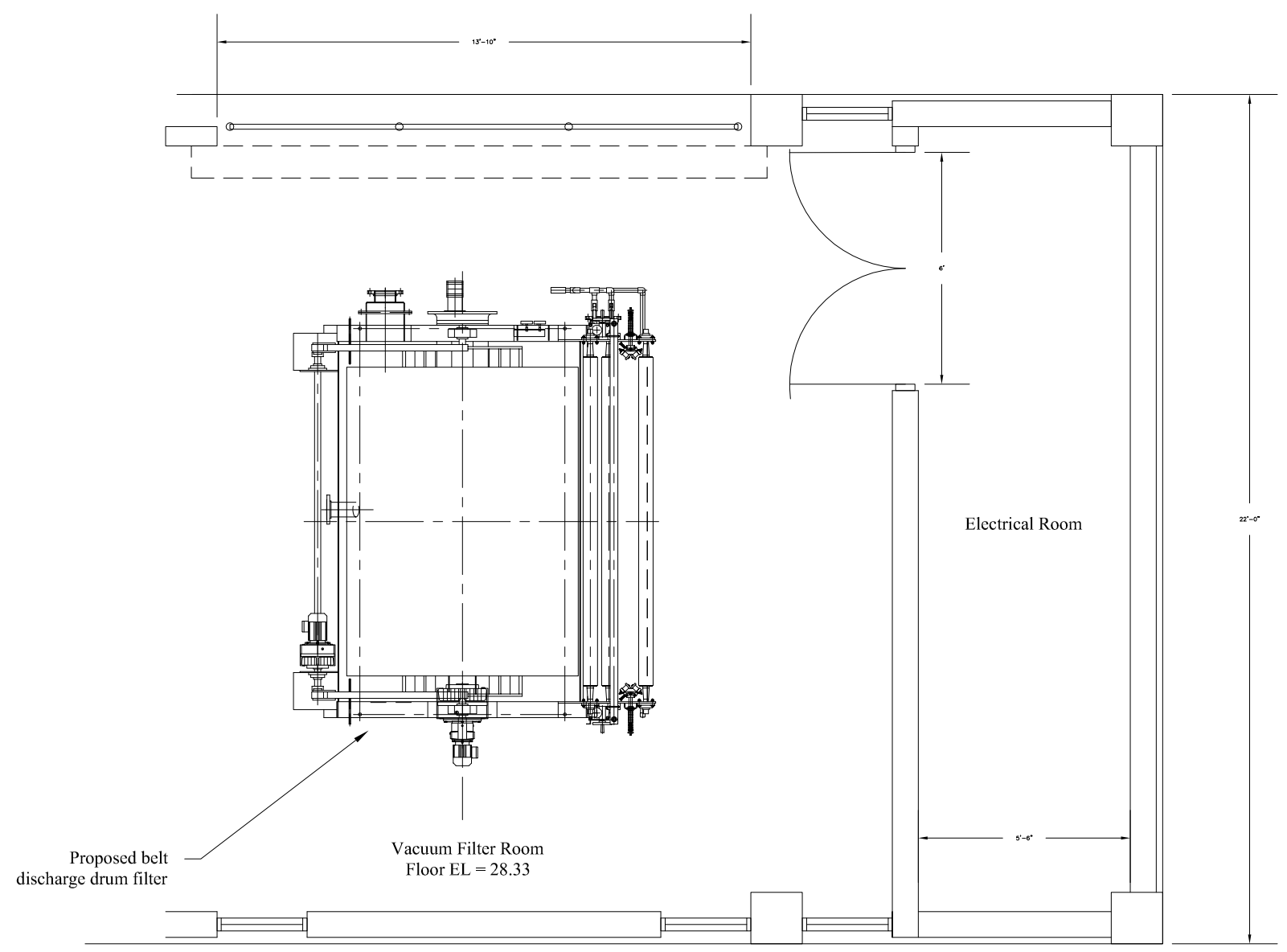
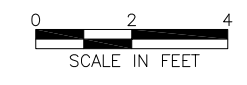
Plan Views

CONSTRUCTION PLAN SET
SHEET NUMBER

C-07



VACUUM PUMP SCHEMATIC
GROUND FLOOR PLAN DETAIL



VACUUM FILTER SCHEMATIC
2nd FLOOR PLAN DETAIL





City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

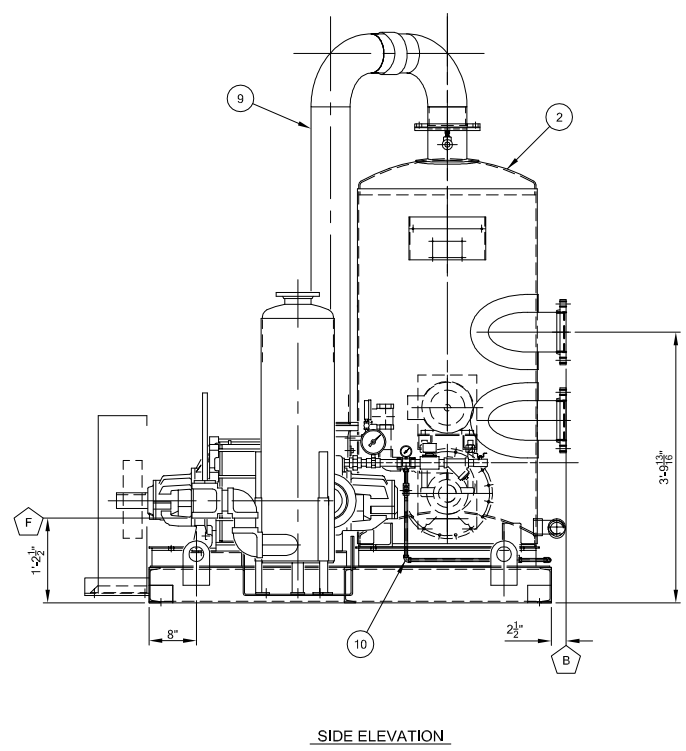
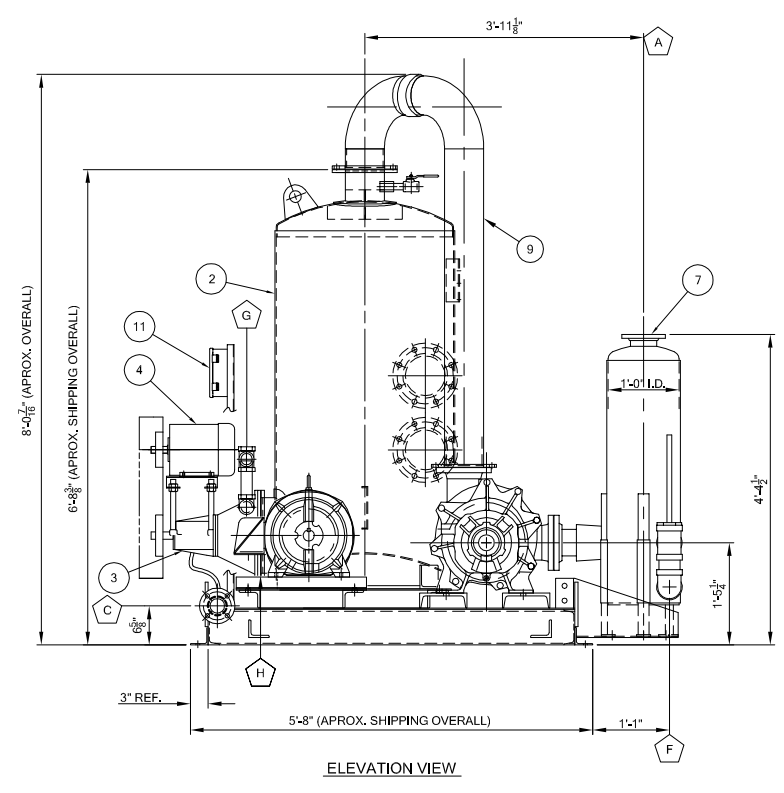
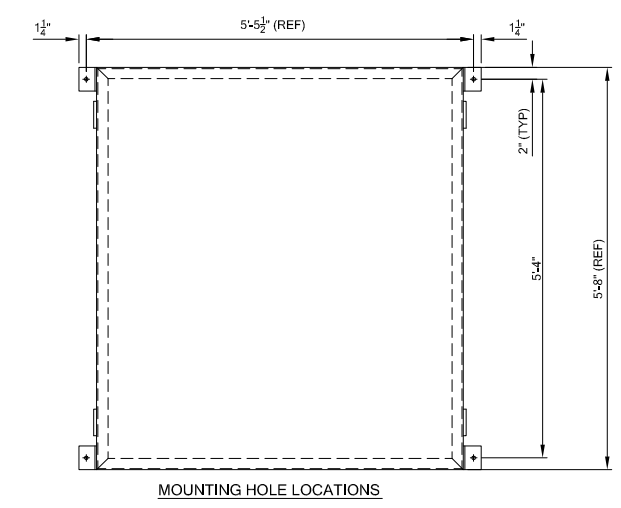
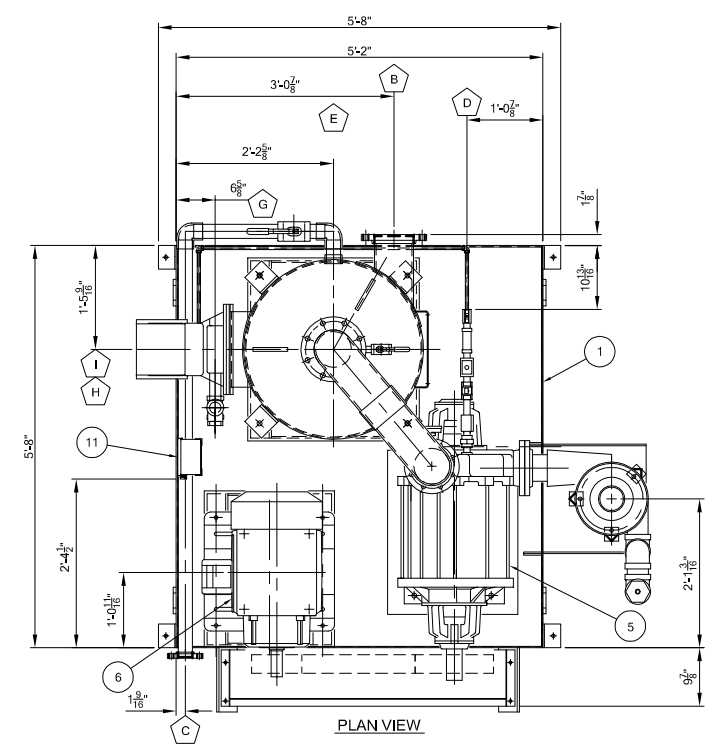
Vacuum Pump
Details - R.H.

CONSTRUCTION PLAN SET
SHEET NUMBER

M-01

ITEM	DESCRIPTION
1	PLATFORM WITH LIFTING LUGS - 304SS FRAME & 1/4" ALUM. DIAMOND PLATE WITH NEOP. GASKET
2	RECEIVER - 30" x 60" - 304SS
3	FILTRATE PUMP - 304SS - W/ SEAL WATER & BALL VALVE DISCHARGE LINE W/SWING CHECK VALVE (SHIPPED LOOSE)
4	FILTRATE PUMP MOTOR - 5 HP TEFC
5	VACUUM PUMP - C.I. - XL150 - RATING 550 CFM @ 22" Hg, W/SEAL WATER, IN-LINE STRAINER, VACUUM GAUGE, GLOBE VALVE, BALL VALVE & (V-BELT GUARD)
6	VACUUM PUMP MOTOR - 30 HP TEFC
7	SEPARATOR - VANEC - 4" (SHIPPED LOOSE) (APPROXIMATE. 200LBS)
8	RECEIVER INTERCONNECTION PIPE 6" (SHIPPED LOOSE)
9	RECEIVER TO PUMP INTERCONNECTION PIPE 6" (SHIPPED LOOSE)
10	SEAL WATER MANIFOLD WITH SOLENOID & BALL VALVE
11	JUNCTION BOX

ITEM	CONNECTION SUMMARY	MATERIAL
A	4" 150# F.F. FLANGE (WATER TRAP SILENCER)	304SS
B	3" 150# F.F. FLANGE (VACUUM RECEIVER INLET)	304SS
C	3" 150# F.F. FLANGE (VACUUM RECEIVER INLET)	304SS
D	2" 150# F.F. FLANGE (VACUUM RECEIVER DRAIN)	304SS
E	1" NPT (SEAL WATER PIPING CONNECTION)	304SS
F	1/4" NPT W/PLUG (FOR VACUUM GAUGE CONNECTION)	304SS
G	3" NPT (WATER TRAP SILENCER OUTLET)	304SS
H	1 1/2" NPT (SWING CHECK VALVE CONNECTION)	304SS
I	12" PUMP MOUNT & SUCTION FLANGE SPECIAL (FILTRATE PUMP)	304SS
J	6" 150# FF FLANGE (VACUUM RECEIVER OUTLET)	304SS



NOTES:
1. ALL FLANGE DRILLING AND O.D. CONFORM TO 150# ANSI. HOLES TO STRADDLE CENTERLINES
2. APPROX. EMPTY WT. = 2,975 LBS.
APPROX FLOODED WT. = 3,707 LBS.

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ANCILLARY SKID GENERAL ARRANGEMENT - R.H.

DESCRIPTION		SIZE		SCALE
BELT DISCHARGE DRUM FILTER				
DATE	DRAWN BY	DATE	CHKD BY	APPRVD BY
04/11/12	MNM		MWG	NONE
DRAWING NUMBER		PROJECT NUMBER		REV
113		1230010		

Process Equipment. Process Driven.
USA - BRAZIL - CHINA - RSA - INDIA
3665 SOUTH WEST TEMPLE, SLC, UT, 84115
801-265-1000, www.WestTech-Inc.com



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

DATE	DESCRIPTION

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Vacuum Pump
Details - L.H.

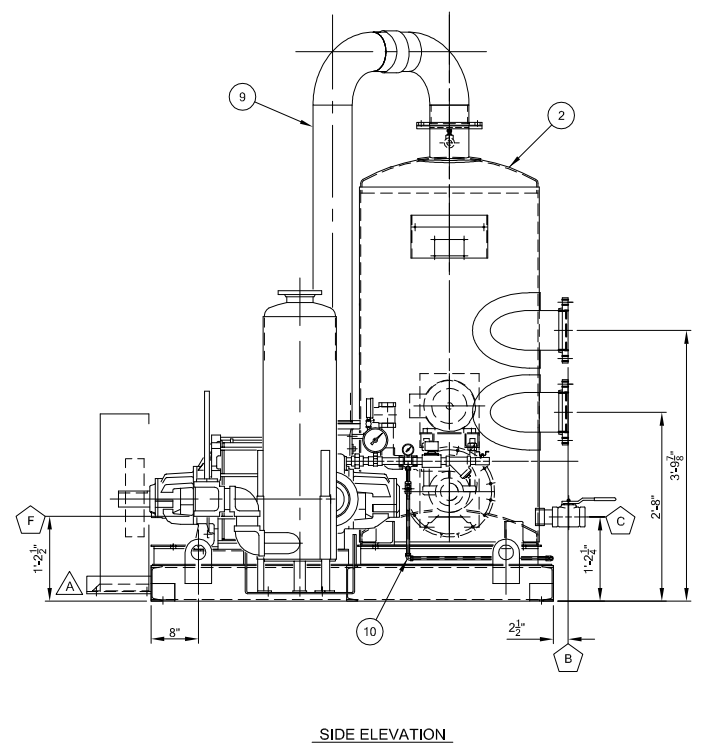
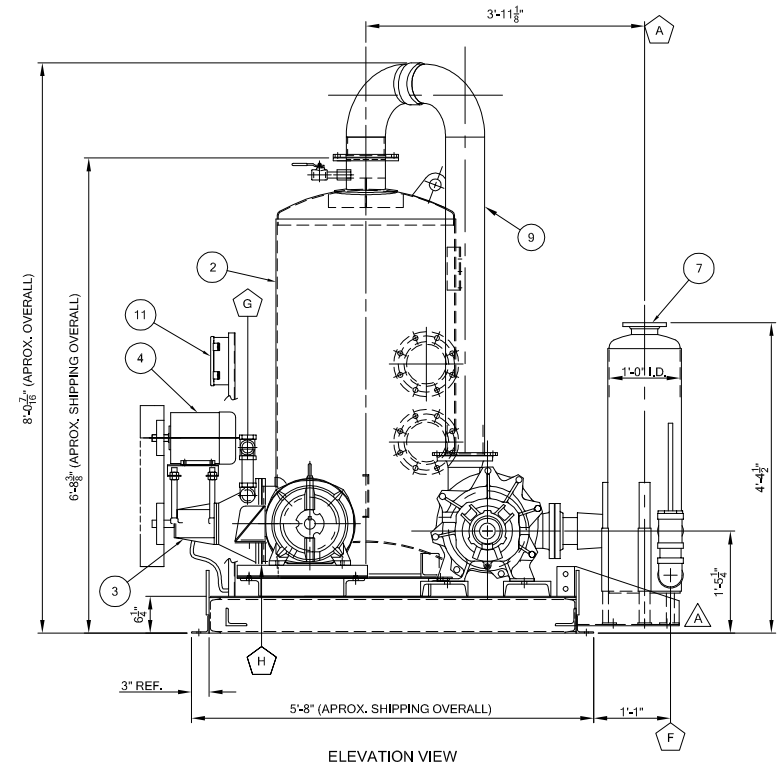
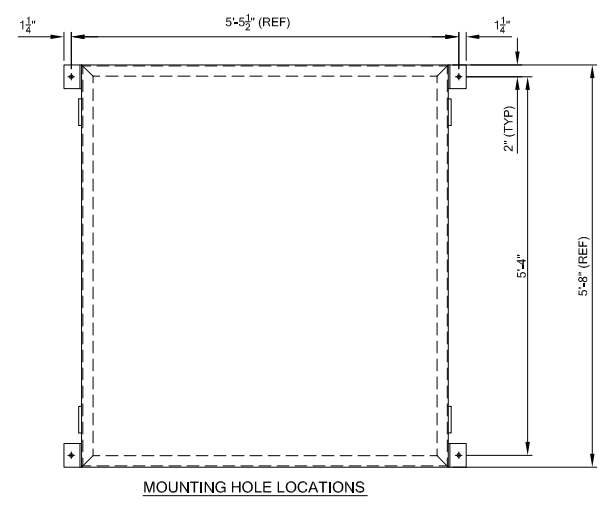
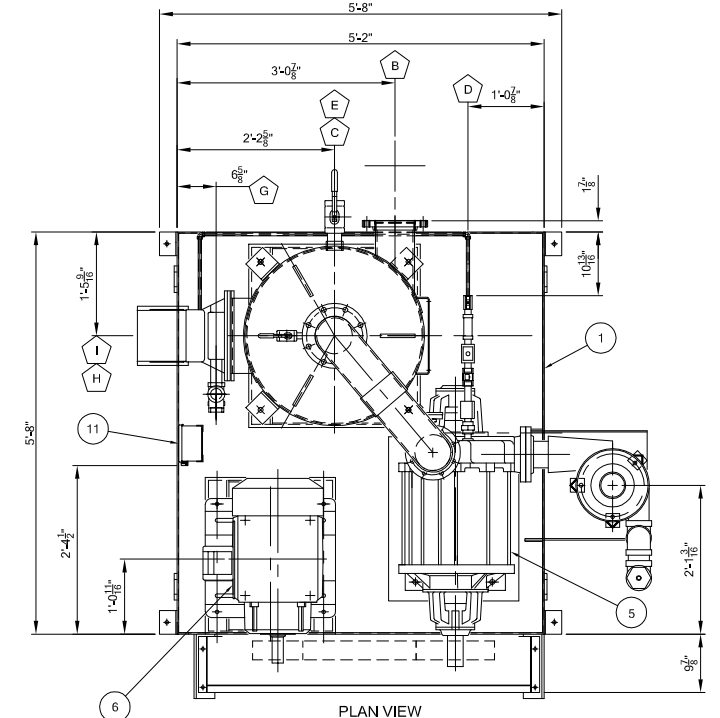
CONSTRUCTION PLAN SET

SHEET NUMBER

M-02

ITEM	DESCRIPTION
1	PLATFORM WITH LIFTING LUGS - 304SS FRAME & 1/4" ALUM. DIAMOND PLATE WITH NEOP. GASKET
2	RECEIVER - 30" x 60" - 304SS
3	FILTRATE PUMP - 304SS - W/ SEAL WATER & BALL VALVE DISCHARGE LINE W/SWING CHECK VALVE (SHIPPED LOOSE)
4	FILTRATE PUMP MOTOR - 5 HP TEFC
5	VACUUM PUMP - C.I. - RATING 550 CFM @ 22" Hg. W/SEAL WATER, IN-LINE STRAINER, VACUUM GAUGE, GLOBE VALVE, BALL VALVE & V-BELT GUARD
6	VACUUM PUMP MOTOR - 30 HP TEFC
7	SEPARATOR - VANEC - 4" (SHIPPED LOOSE) (APPROXIMATE, 200LBS)
8	RECEIVER INTERCONNECTION PIPE 6" (SHIPPED LOOSE)
9	RECEIVER TO PUMP INTERCONNECTION PIPE 6" (SHIPPED LOOSE)
10	SEAL WATER MANIFOLD WITH SOLENOID & BALL VALVE
11	JUNCTION BOX

ITEM	CONNECTION SUMMARY	MATERIAL
A	4" 150# F.F. FLANGE (WATER TRAP SILENCER)	304SS
B	3" 150# F.F. FLANGE (VACUUM RECEIVER INLET)	304SS
C	3" 150# F.F. FLANGE (VACUUM RECEIVER INLET)	304SS
D	2" NPT (VACUUM RECEIVER DRAIN CONNECTION W/BALL VALVE)	304SS
E	1" NPT (SEAL WATER PIPING CONNECTION)	304SS
F	1/4" NPT W/PLUG (FOR VACUUM GAUGE CONNECTION)	304SS
G	3" NPT (WATER TRAP SILENCER OUTLET)	304SS
H	1 1/2" NPT (SWING CHECK VALVE CONNECTION)	304SS
I	12" PUMP MOUNT & SUCTION FLANGE SPECIAL (FILTRATE PUMP)	304SS
J	6" 150# FF FLANGE (VACUUM RECEIVER OUTLET)	304SS



NOTES:
1. ALL FLANGE DRILLING AND O.D. CONFORM TO 150# ANSI. HOLES TO STRADDLE CENTERLINES
2. APPROX. EMPTY WT. = 2,975 LBS.
APPROX FLOODED WT. = 3,707 LBS.

PREPARED FOR: CITY OF NAPLES WATER TREATMENT PLANT

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ANCILLARY SKID GENERAL ARRANGEMENT - L.H.

DESCRIPTION		SIZE		SCALE	
BELT DISCHARGE DRUM FILTER		0.0833 x 12		NONE	
TYPE	DATE	DRAWN BY	CHKD BY	APPRVD BY	SCALE
WESTECH	04/11/12	MNM	MWG		NONE
114		1230010		1/4"	
DRAWING NUMBER		PROJECT NUMBER		REV	

REVISION	BY	CHKD	DATE	LTR

Details shown provided by WesTech, Inc.



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DESCRIPTION	DATE

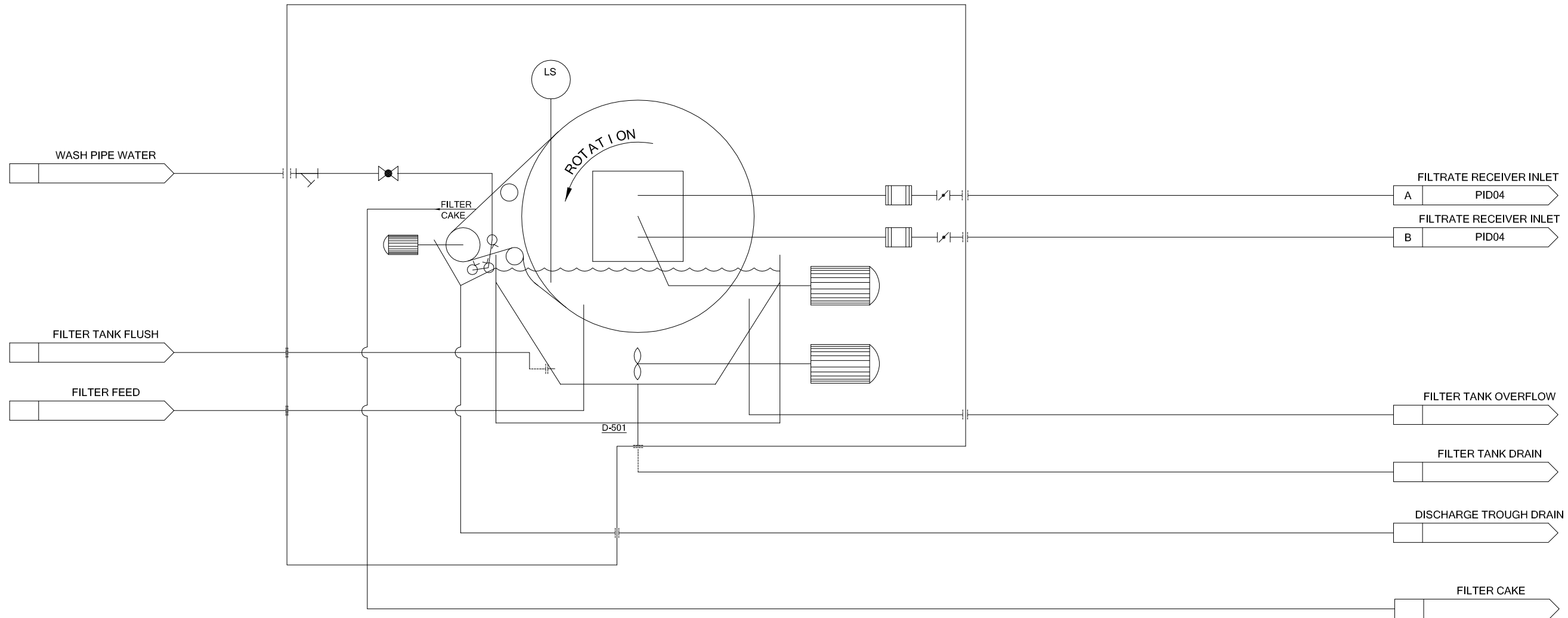
DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Drum Filter Piping & Instrumentation 1

CONSTRUCTION PLAN SET
SHEET NUMBER

M-03

TAG	DRUM FILTER	TAG	FILTER DRIVE & MOTOR	TAG	AGITATOR DRIVE & MOTOR	TAG	DISCHARGE ROLL DRIVE
ITEM	6'-0"	MANUF.		MANUF.		MANUF.	
DIA.	8'-0"	RPM		RPM		RPM	
FACE		HP		HP		HP	
		PH		PH		PH	



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WESTECH
Process Equipment. Process Driven.
USA - BRAZIL - CHINA - RSA - INDIA
3665 SOUTH WEST TEMPLE, SLC, UT, 84115
801-265-1000, www.WesTech-inc.com

DATE	04/11/12	DATE		DATE		DATE	
DRAWN BY	MNM	CHKD BY	MWG	APPRVD BY		SCALE	NONE
DRAWING NUMBER	PID03	PROJECT NUMBER	1230010	REV			

REVISION	BY	CHKD	DATE	LTR

Details shown provided by WesTech, Inc.



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

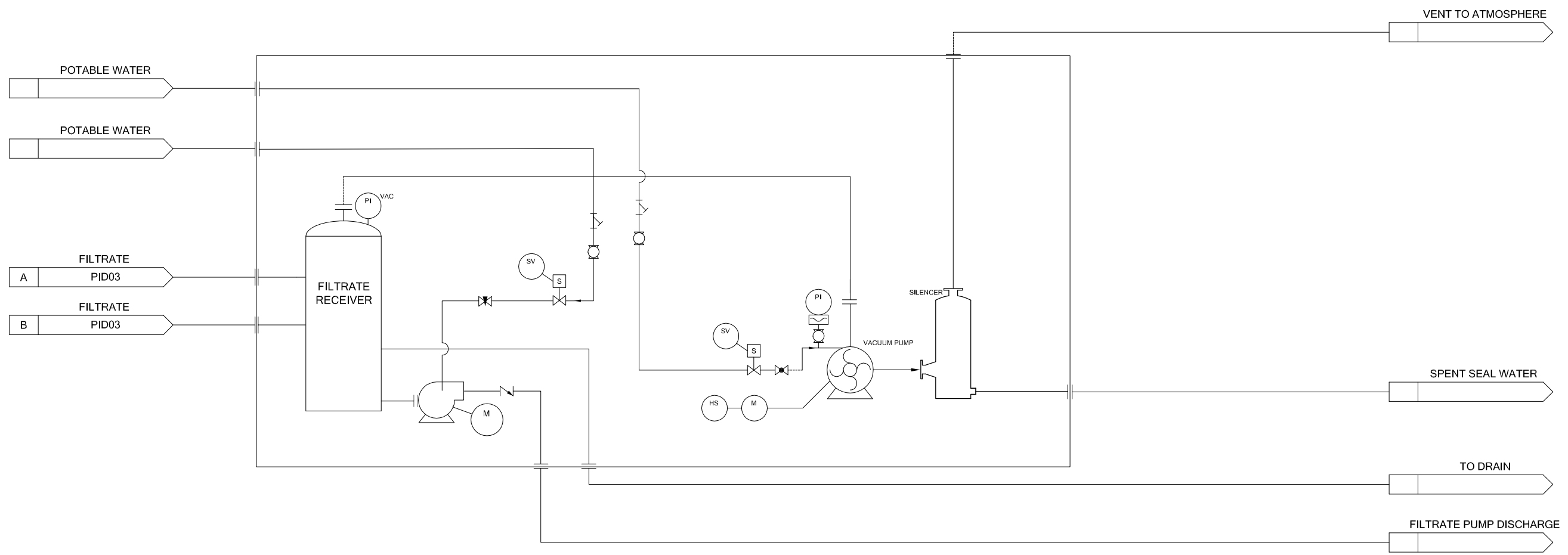
Drum Filter Piping & Instrumentation 2

CONSTRUCTION PLAN SET
SHEET NUMBER

M-04

1 2 3 4 5 6 7 8 9 10

TAG	FILTRATE RECEIVER	TAG	FILTRATE PUMP	TAG	FILTRATE PUMP MOTOR	TAG	VACUUM PUMP	TAG	VACUUM PUMP MOTOR
ITEM		ITEM		ITEM		ITEM		ITEM	
DIA.		MANUF.		MANUF.		MANUF.		MANUF.	
STRAIGHT SIDE		RPM		HP		CFM		HP	
								RPM	



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PIPING AND INSTRUMENTATION DIAGRAM

VACUUM PUMP AND FILTRATE RECEIVER

DATE	04/11/12	DATE	04/11/12
DRAWN BY	MNM	CHKD BY	MWG
APPRVD BY	NONE	SCALE	NONE

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801-265-1000, www.WestTech-inc.com

REVISION	BY	CHKD	DATE	LTR

DRAWING NUMBER	PROJECT NUMBER	REV
PID04	1230010	

Details shown provided by WesTech, Inc.



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO.: 20129093-000
FILE NO.: 34-49-25
SCALE: As Shown

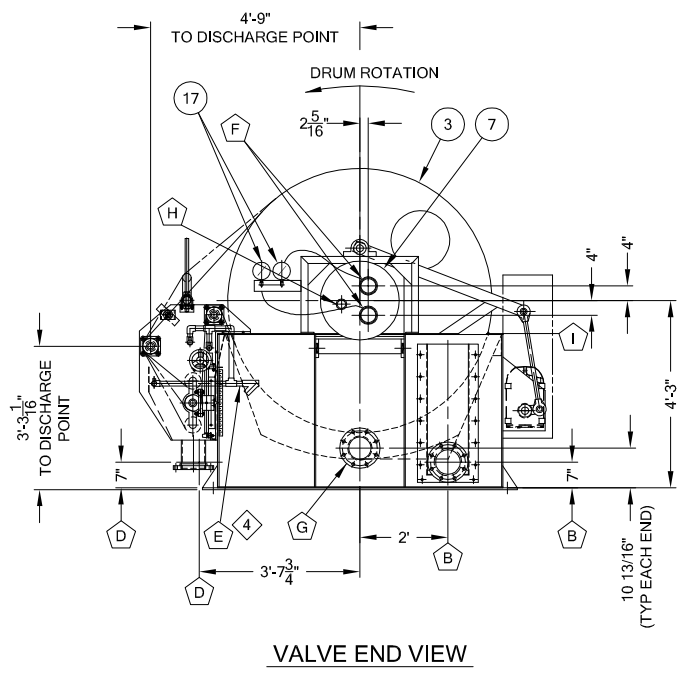
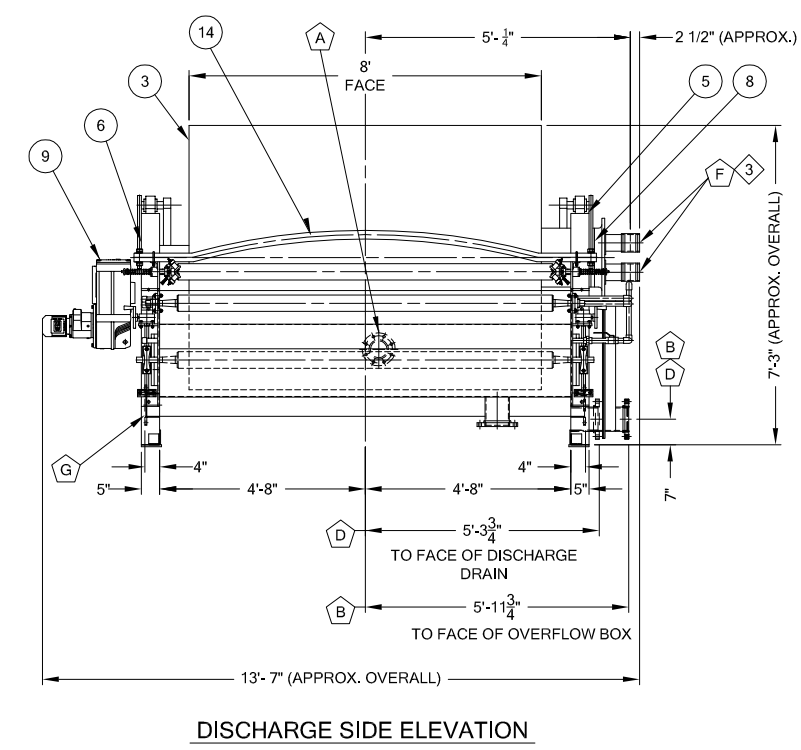
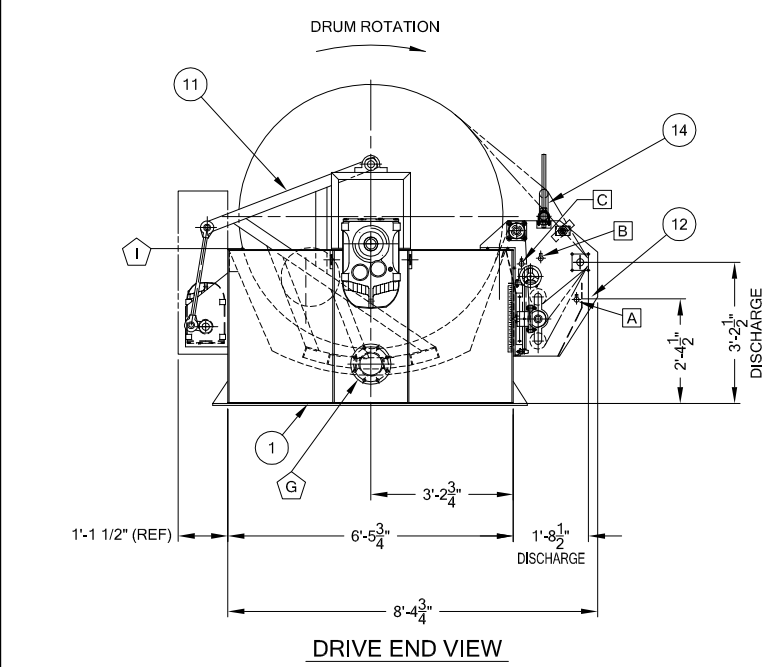
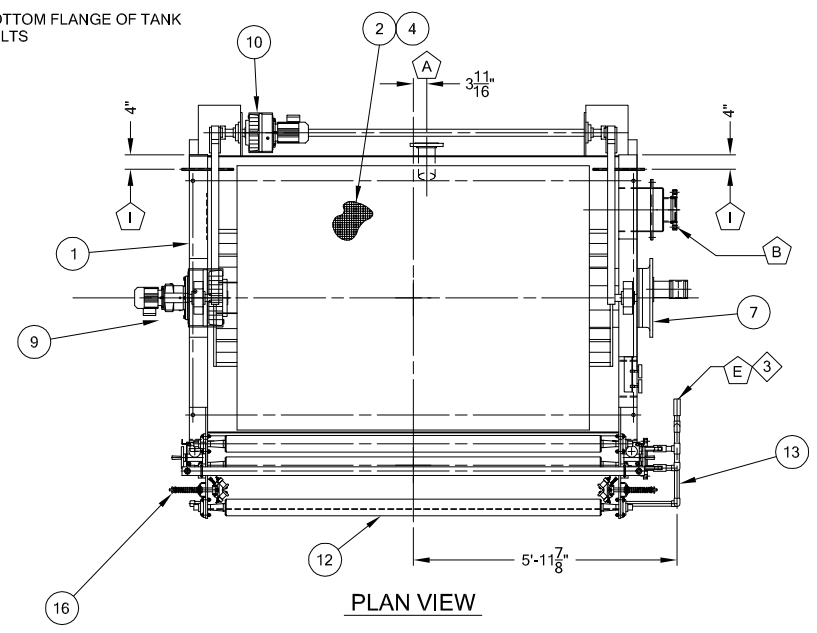
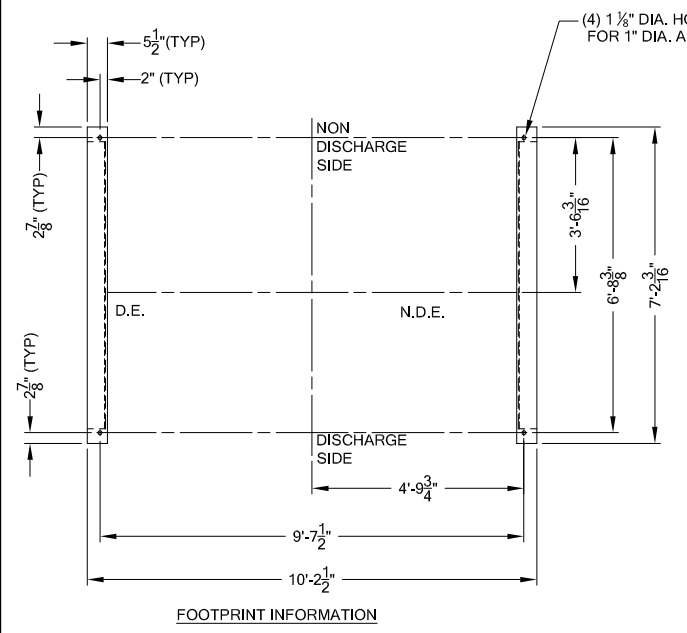
Drum Filter General Arrangement - R.H.

CONSTRUCTION PLAN SET

SHEET NUMBER

M-05

ITEM	DESCRIPTION
1	FILTER TANK - 3/16" THICK SHELL AND HEADS - 304SS - WITH (1) 6" DIA. CLEANOUT COVER EACH END
2	FILTER CLOTH - POLYPROPYLENE
3	DRUM - 3/16" THICK SHELL AND HEADS - (12) SECTIONS - 304SS - W/ 304SS. INTERNAL PIPING - W/(2) 22" DIA. MANHOLES W/GASKETS, LOCATED 180° FROM EACH OTHER
4	SNAP-IN POLYPROPYLENE GRIDS - WING TYPE 316L END RINGS AND DIVISION STRIPS WITH NEOPRENE STRIPS
5	TRUNNION BEARING WITH RENEWABLE LINER (VALVE END)
6	DRUM SHAFT BEARING - ANTI-FRICTION TYPE (DRIVE END)
7	VALVE BODY - 316SS - WITH MOVABLE BRIDGES
8	VALVE WEAR PLATE - RENEWABLE - UHMW-PE
9	FILTER DRIVE - SEW EURODRIVE - 1 HP - OUTPUT SPEED .125 TO 1 R.P.M.
10	AGITATOR DRIVE - SEW EURODRIVE - 1 1/2 HP - OUTPUT SPEED 6 TO 15 R.P.M.
11	AGITATOR ARC AND RAKES - 304SS
12	DISCHARGE ASSEMBLY - 304SS CONSTRUCTION - W/ 304 SS - 4" DISCHARGE ROLL, 4" TAKE-UP ROLL W/ 5" OF TRAVEL, & 4" RETURN ROLL (ROLLED LOOSE)
13	SPRAY HEADER - 304SS PIPES, 304SS Y-STRAINER& 316SS BALL VALVES-303 ST. STL. NOZZLES
14	DEMOONING BAR - 2" 304SS
15	DELETED
16	(2) CLOTH ALIGNMENT MECHANISMS
17	(2) 0-30" Hg PRESSURE GAUGES W/4 1/2" FACE



ITEM	CONNECTION SUMMARY	MATERIAL
A	4" 150# F.F. FLANGE (FILTER FEED)	304SS
B	6" 150# F.F. FLANGE (OVERFLOW BOX W/ADJ. WEIRS/FILTER DRAIN)	304SS
D	6" 150# F.F. FLANGE (DISCHARGE TROUGH DRAIN)	304SS
E	1" PIPE (CLOTH AND ROLL SPRAY)	304SS
F	(2) 4" PIPE (FILTER VALVE CONN. W/ FLEX CPLG)	304SS
G	(2) 6" CLEANOUT COVER	304SS
H	1 1/2" DIA VENT TO ATMOSPHERE	304SS
I	(2) 1/4" NPT PIPE (PIP EDGE WASH)	304SS

NOTES:
 1. ALL FLANGE DRILLING AND O.D. CONFORM TO 150LB ANSI- HOLES STRADDLE CENTERLINES.
 4. APPROX. EMPTY WT.: 7,500 LBS.
 APPROX. FLOODED WT.: 16,000 LBS.
 5. SHIPPING DIMENSIONS:
 TANK & DRUM:
 APPROX. SHIPPING WT.: 7,000 LBS
 APPROX. SHIPPING LENGTH: 11'-10"
 APPROX. SHIPPING WIDTH: 7'-7 1/4"
 APPROX. SHIPPING HEIGHT: 7'-3"
 DISCHARGE ASSEMBLY:
 APPROX. SHIPPING WT.: 500 LBS
 APPROX. SHIPPING LENGTH: 10'-0"
 APPROX. SHIPPING WIDTH: 2'-10 1/4"
 APPROX. SHIPPING HEIGHT: 5'-4 1/16"

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DRUM FILTER GENERAL ARRANGEMENT - R.H.	
BELT DISCHARGE DRUM FILTER TYPE:	6'-0" DIA. x 8'-0" FACE SIZE:
DATE: 04/11/12 DRAWN BY: MNM CHECKED BY: MWG APPROVED BY:	NONE SCALE:
DRAWING NUMBER: 111	PROJECT NUMBER: 1230010
WESTECH Process Equipment. Process Driven. USA - BRAZIL - CHINA - RSA - INDIA 3665 SOUTH WEST TEMPLE, SLC, UT, 84115 801-265-1000, www.WestTech-inc.com	

REVISION	BY	CHKD	DATE	LTR

Details shown provided by WesTech, Inc.



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DATE	DESCRIPTION

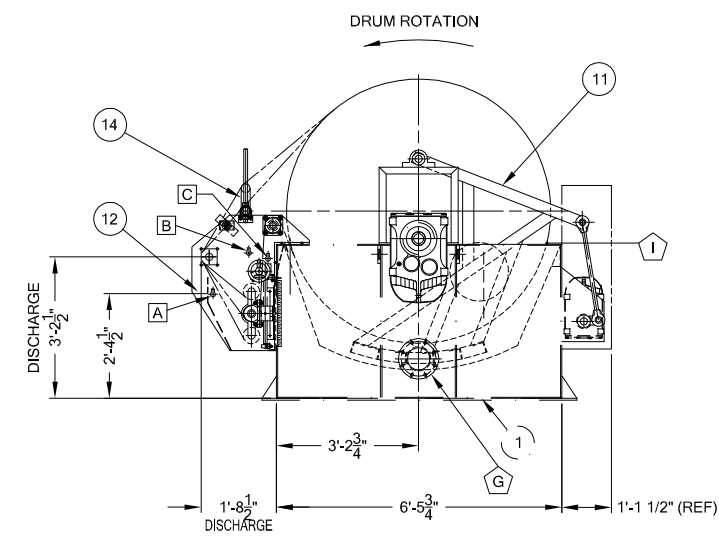
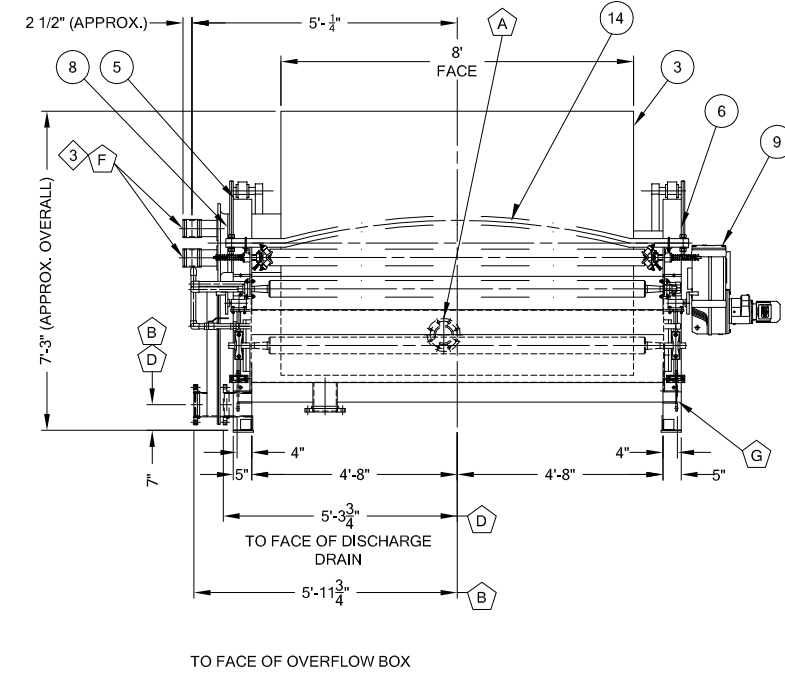
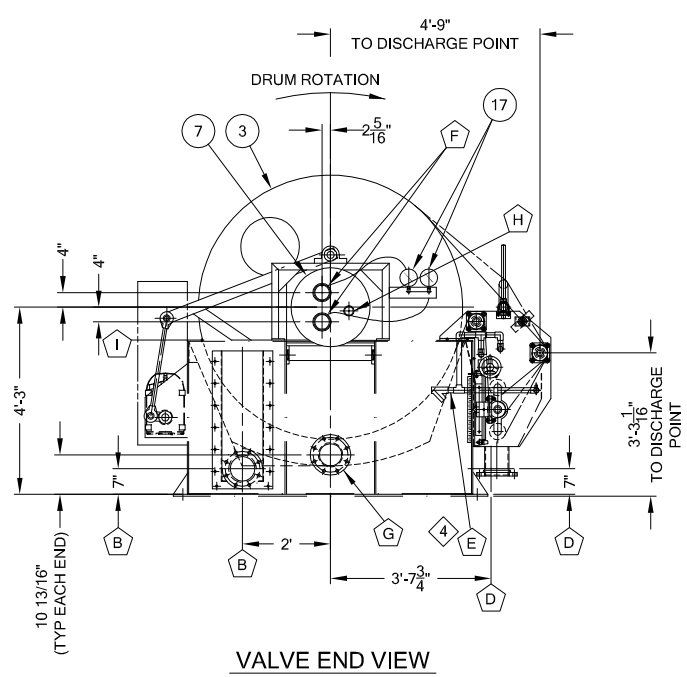
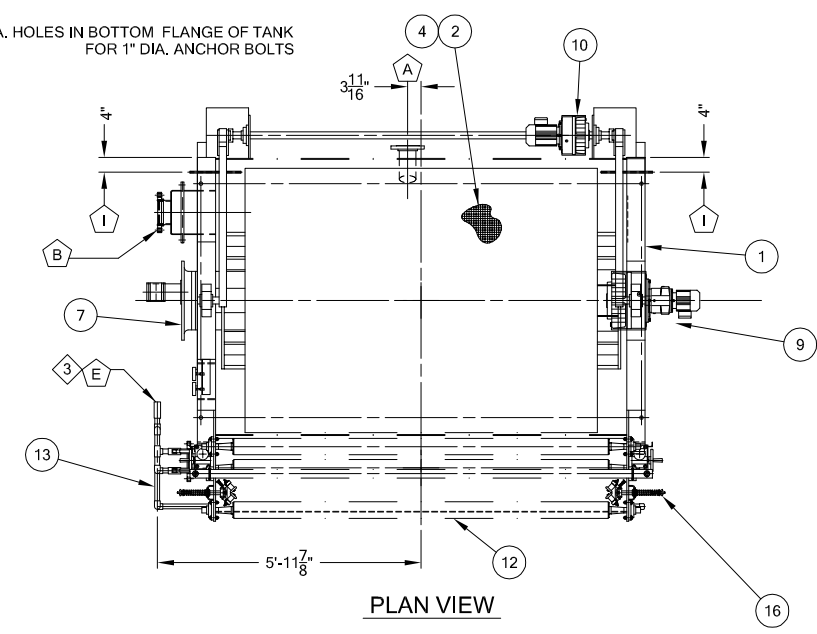
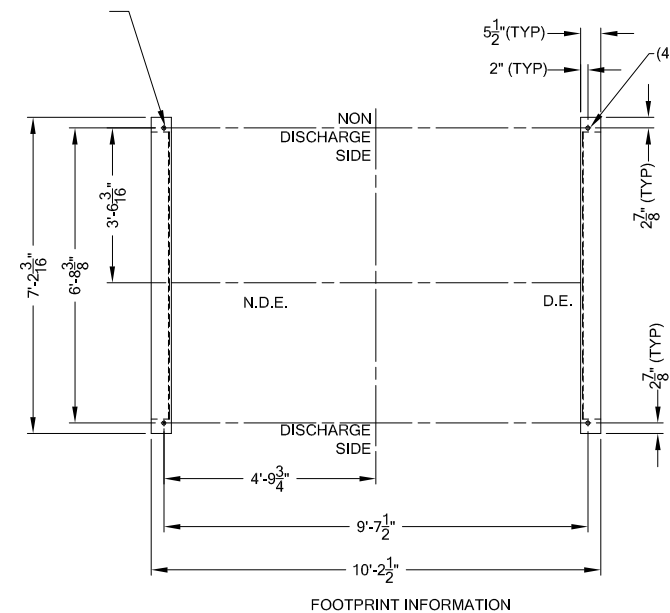
DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Drum Filter General Arrangement - L.H.

CONSTRUCTION PLAN SET
SHEET NUMBER

M-06

ITEM	DESCRIPTION
1	FILTER TANK - 3/16" THICK SHELL AND HEADS - 304SS - WITH (1) 6" DIA. CLEANOUT COVER EACH END
2	FILTER CLOTH - POLYPROPYLENE
3	DRUM - 3/16" THICK SHELL AND HEADS - (12) SECTIONS - 304SS - W/ 304SS. INTERNAL PIPING - W/(2) 22" DIA. MANHOLES W/GASKETS, LOCATED 180° FROM EACH OTHER
4	SNAP-IN POLYPROPYLENE GRIDS - WING TYPE 316L END RINGS AND DIVISION STRIPS WITH NEOPRENE STRIPS
5	TRUNNION BEARING WITH RENEWABLE LINER (VALVE END)
6	DRUM SHAFT BEARING - ANTI-FRICTION TYPE (DRIVE END)
7	VALVE BODY - 316SS - WITH MOVABLE BRIDGES
8	VALVE WEAR PLATE - RENEWABLE - UHMW-PE
9	FILTER DRIVE - SEW EURODRIVE - 1 HP - OUTPUT SPEED .125 TO 1 R.P.M.
10	AGITATOR DRIVE - SEW EURODRIVE - 1 1/2 HP - OUTPUT SPEED 6 TO 15 R.P.M.
11	AGITATOR ARC AND RAKES - 304SS
12	DISCHARGE ASSEMBLY - 304SS CONSTRUCTION - W/ 304 SS - 4" DISCHARGE ROLL, 4" TAKE-UP ROLL W/ 5" OF TRAVEL, & 4" RETURN ROLL (ROLLED LOOSE)
13	SPRAY HEADER - 304SS PIPES, 304SS Y-STRAINER& 316SS BALL VALVES-303 ST. STL. NOZZLES
14	DEMOONING BAR - 2" 304SS
16	(2) CLOTH ALIGNMENT MECHANISMS
17	(2) 0-30" Hg PRESSURE GAUGES W/4 1/2" FACE



ITEM	CONNECTION SUMMARY	MATERIAL
A	4" 150# F.F. FLANGE (FILTER FEED)	304SS
B	6" 150# F.F. FLANGE (OVERFLOW BOX W/ADJ. WEIRS/FILTER DRAIN)	304SS
D	6" 150# F.F. FLANGE (DISCHARGE TROUGH DRAIN)	304SS
E	1" PIPE (CLOTH AND ROLL SPRAY)	304SS
F	(2) 4" PIPE (FILTER VALVE CONN. W/ FLEX CPLG)	304SS
G	(2) 6" CLEANOUT COVER	304SS
H	1 1/2" DIA VENT TO ATMOSPHERE	304SS
I	(2) 1/4" NPT PIPE (PIP EDGE WASH)	304SS

NOTES:
1. ALL FLANGE DRILLING AND O.D. CONFORM TO 150LB ANSI- HOLES STRADDLE CENTERLINES.
4. APPROX. EMPTY WT.: 7,500 LBS.
APPROX. FLOODED WT.: 16,000 LBS.
5. SHIPPING DIMENSIONS:
TANK & DRUM:
APPROX. SHIPPING WT.: 7,000 LBS
APPROX. SHIPPING LENGTH: 11'-10"
APPROX. SHIPPING WIDTH: 7'-7 1/4"
APPROX. SHIPPING HEIGHT: 7'-3"
DISCHARGE ASSEMBLY:
APPROX. SHIPPING WT.: 500 LBS
APPROX. SHIPPING LENGTH: 10'-0"
APPROX. SHIPPING WIDTH: 2'-10 1/4"
APPROX. SHIPPING HEIGHT: 5'-4 1/16"

PREPARED FOR: CITY OF NAPLES WATER TREATMENT PLANT

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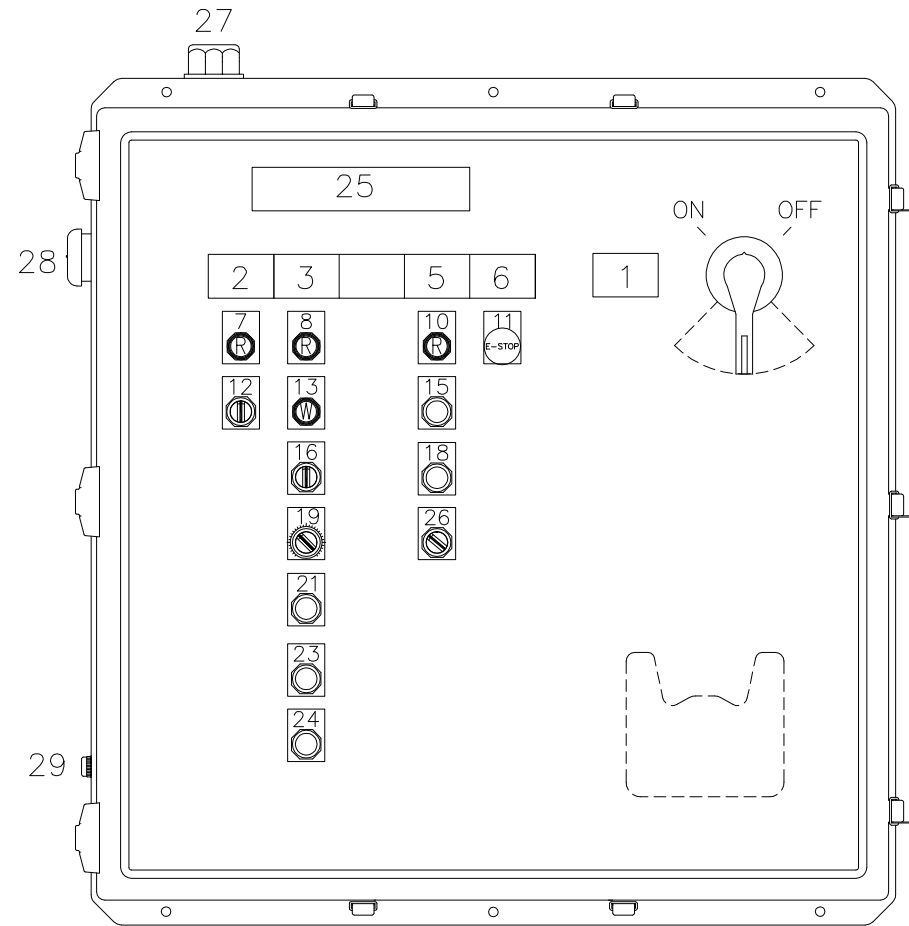
DRUM FILTER GENERAL ARRANGEMENT- LH				
DESCRIPTION	SIZE	DATE	DRAWN BY	CHKD BY
BELT DISCHARGE DRUM FILTER	6'-0" DIA. x 8'-0" FACE	04/11/12	MNM	MWG
TYPE				
DATE	DRAWN BY	CHKD BY	APPRVD BY	SCALE
112				NONE
DRAWING NUMBER		PROJECT NUMBER		REV
112		1230010		

REVISION	BY	CHKD	DATE	LTR

Details shown provided by WesTech, Inc.

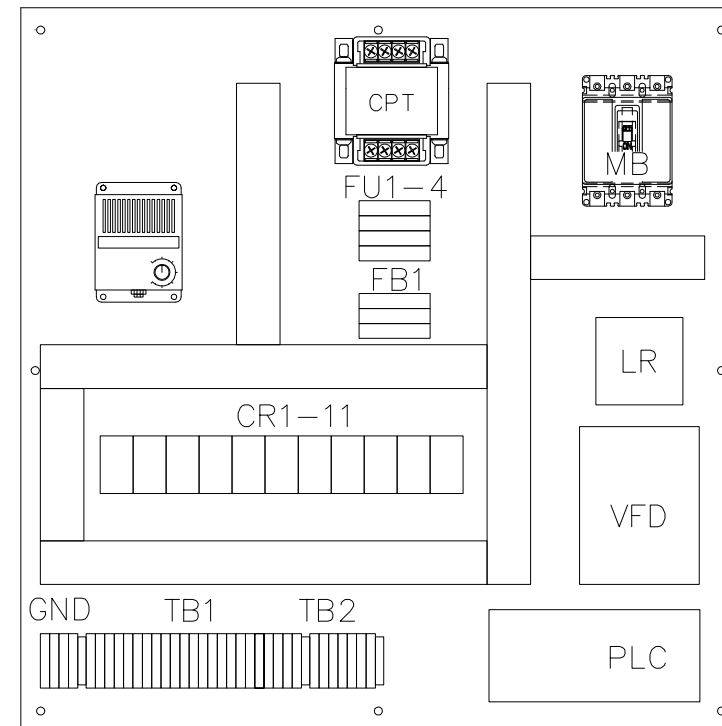


City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida



DOOR LAYOUT
NEMA 4X ENCLOSURE
(FIBERGLASS)

NAMEPLATES:	
1-	MAIN DISCONNECT
2-	AGITATOR
3-	DRUM FILTER
4-	NOT USED
5-	DISCH. ROLL DRIVE (if used)
6-	EMERGENCY STOP
25-	DRUM FILTER CONTROL PANEL
LEGENDS	
7-	RUNNING
8-	RUNNING
9-	NOT USED
10-	WINDING MODE ACTIVE
11-	NOT USED
12-	LOCAL/OFF/REMOTE
13-	FAULT
14-	NOT USED
15-	START
16-	LOCAL/OFF/REMOTE
17-	NOT USED
18-	STOP
19-	NOT USED
20-	STOP
21-	START
22-	JOG
23-	STOP
24-	JOG
26-	OFF / ON
27-	ALARM LIGHT
28-	ALARM BUZZER
29-	ALARM SILENCE BUTTON



PANEL LAYOUT

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PREPARED FOR:

PROJECT:
PROJECT NO.:
SPECIFICATION NO.:
SUBMITAL ITEM NO.:

PANEL LAYOUT

DESCRIPTION		F-1-1-1-1			
DRUM FILTER		SIZE			
TYPE		8-08	MNM	MWG	NONE
		DATE	DRAWN BY	CHKD BY	APPRVD BY
		E10D			
		DRAWING NUMBER		PROJECT NUMBER	

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REVISION	BY	CHKD	DATE	LTR

NO.	DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Electrical Panel
Drum Filter
CONSTRUCTION PLAN SET
SHEET NUMBER



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	REVISIONS DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

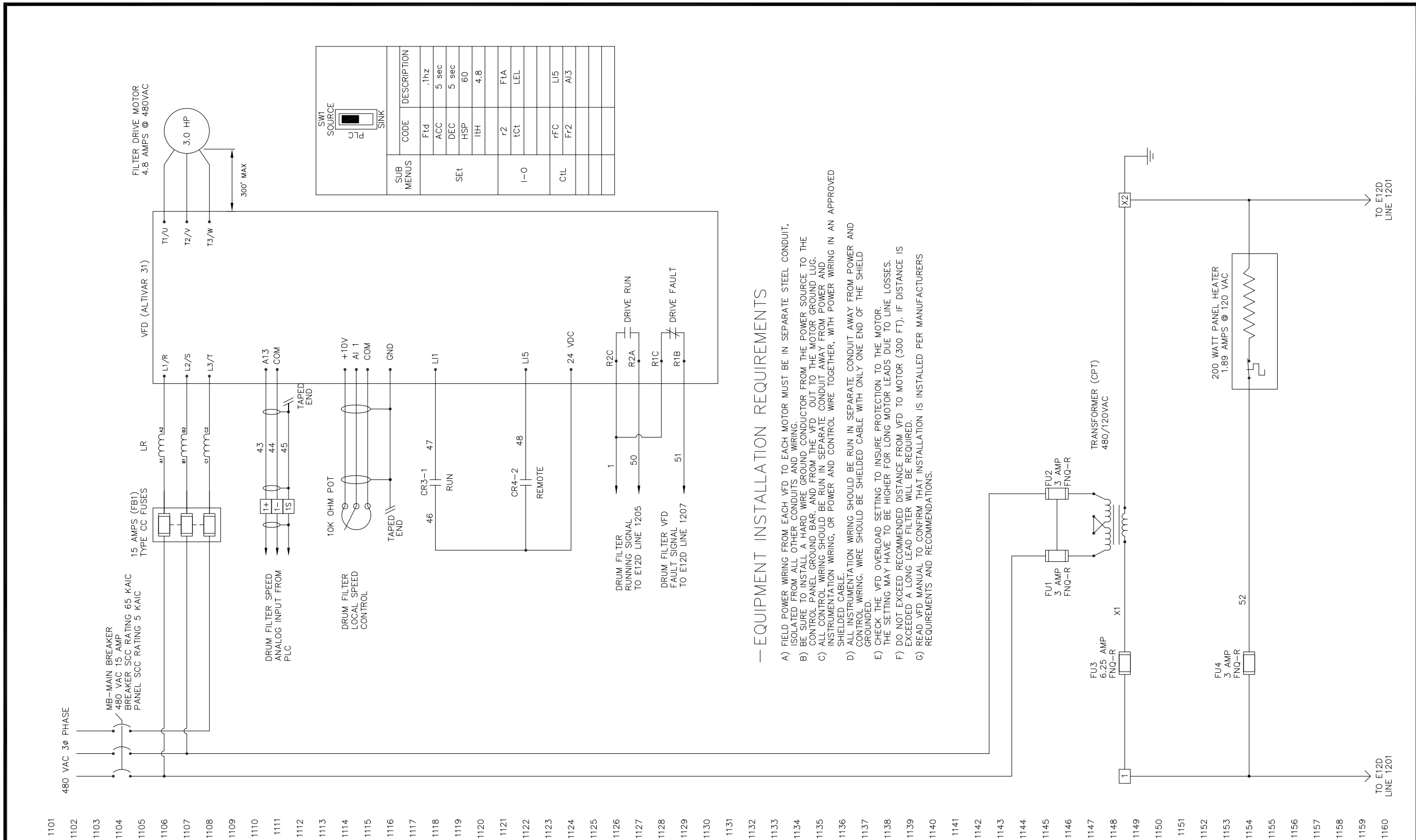
Electrical Schematic
Drum Filter

CONSTRUCTION PLAN SET

SHEET NUMBER

E-02

Details shown provided by WesTech, Inc.



SUB MENU	CODE	DESCRIPTION
SET	Ftd	.1hz
	ACC	5 sec
	DEC	5 sec
	HSP	60
	IHH	4.8
I-O	r2	F1A
	tct	LEL
	rFC	LJ5
CtL	Ft2	Al3

— EQUIPMENT INSTALLATION REQUIREMENTS

- FIELD POWER WIRING FROM EACH VFD TO EACH MOTOR MUST BE IN SEPARATE STEEL CONDUIT, ISOLATED FROM ALL OTHER CONDUITS AND WIRING.
- BE SURE TO INSTALL A HARD WIRE GROUND CONDUCTOR FROM THE POWER SOURCE TO THE CONTROL PANEL GROUND BAR, AND FROM THE VFD OUT TO THE MOTOR GROUND LUG.
- ALL CONTROL WIRING SHOULD BE RUN IN SEPARATE CONDUIT AWAY FROM POWER AND INSTRUMENTATION WIRING, OR POWER AND CONTROL WIRE TOGETHER, WITH POWER WIRING IN AN APPROVED SHIELDED CABLE.
- ALL INSTRUMENTATION WIRING SHOULD BE RUN IN SEPARATE CONDUIT AWAY FROM POWER AND CONTROL WIRING. WIRE SHOULD BE SHIELDED CABLE WITH ONLY ONE END OF THE SHIELD GROUNDED.
- CHECK THE VFD OVERLOAD SETTING TO INSURE PROTECTION TO THE MOTOR.
- THE SETTING MAY HAVE TO BE HIGHER FOR LONG MOTOR LEADS DUE TO LINE LOSSES.
- DO NOT EXCEED RECOMMENDED DISTANCE FROM VFD TO MOTOR (300 FT). IF DISTANCE IS EXCEEDED A LONG LEAD FILTER WILL BE REQUIRED.
- READ VFD MANUAL TO CONFIRM THAT INSTALLATION IS INSTALLED PER MANUFACTURERS REQUIREMENTS AND RECOMMENDATIONS.

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ELECTRICAL SCHEMATIC

DESCRIPTION: DRUM FILTER

TYPE: F-1-1-1-1

DATE: 8-08

DRAWN BY: MNM

CHKD BY: MWG

APPRVD BY: [Signature]

SCALE: NONE

DRAWING NUMBER: E11D

PROJECT NUMBER: [Blank]

REV: [Blank]

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REVISION	BY	CHKD	DATE	LTR



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	REVISIONS DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Electrical Schematic
Drum Filter

CONSTRUCTION PLAN SET

SHEET NUMBER

E-03

1301

1302

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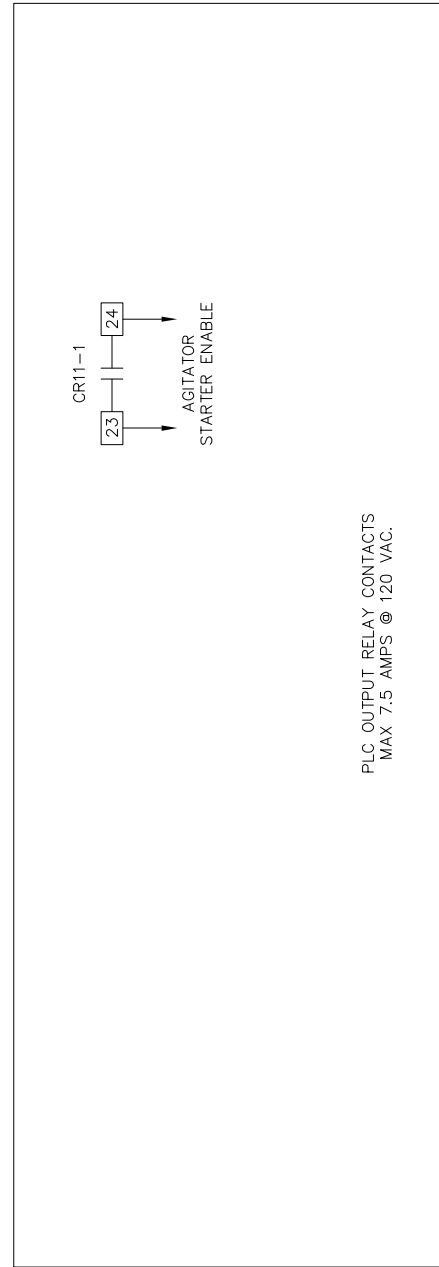
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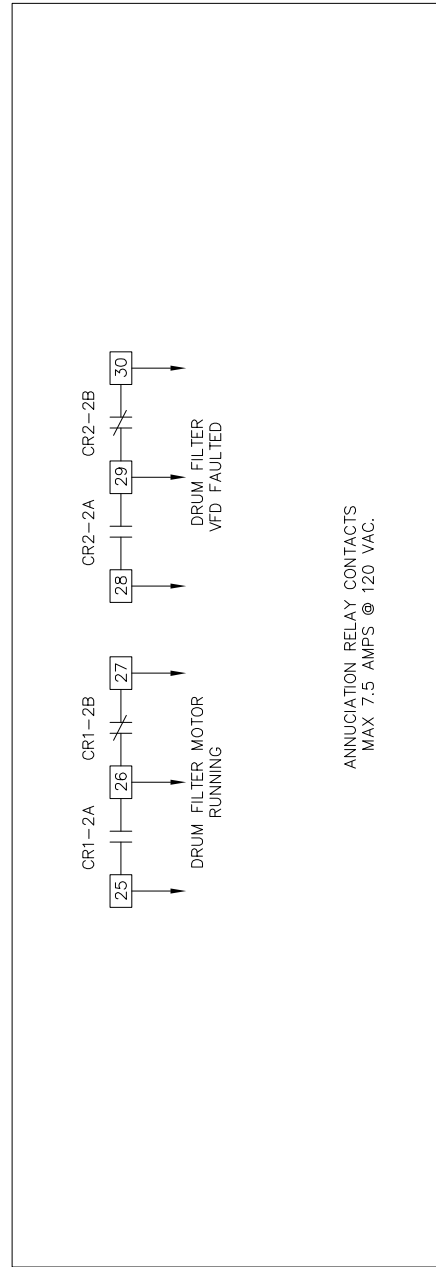
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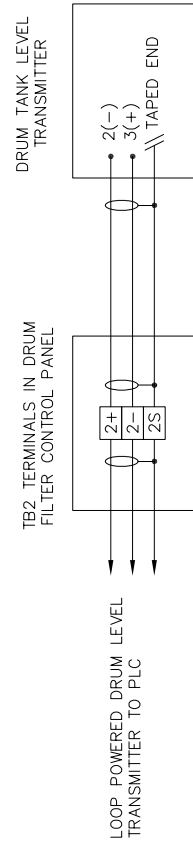
1360



PLC OUTPUT RELAY CONTACTS
MAX 7.5 AMPS @ 120 VAC.



ANNUNCIATION RELAY CONTACTS
MAX 7.5 AMPS @ 120 VAC.



TB1 LAYOUT

X2	X2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
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TB2 LAYOUT

1+	1-	1S	2+	2-	2S
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GND

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ELECTRICAL SCHEMATIC

DESCRIPTION		F-1-1-1-1				IX1
DRUM FILTER		SIZE				NONE SCALE
TYPE						
DATE	8-08	PES	JRL	BRJ	DRAWING NUMBER	PROJECT NUMBER
		DRAWN BY	CHKD BY	APPRVD BY		
E13D						
DRAWING NUMBER		PROJECT NUMBER				REV

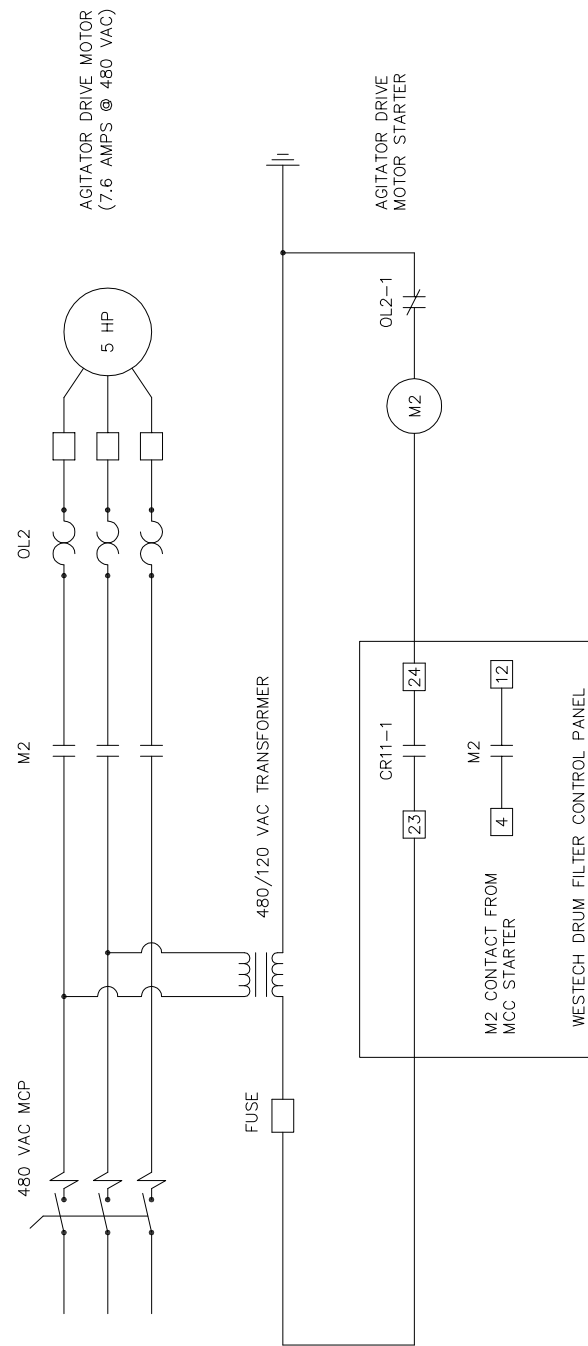
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801-265-1000, www.WesTech-Inc.com

REVISION	BY	CHKD	DATE	LTR

Details shown provided by WesTech, Inc.

SUGGESTED WIRING SCHEMATIC FOR
WIRE WINDER TRAVERSE MOTOR

SUGGESTED WIRING SCHEMATIC FOR
AGITATOR DRIVE MOTOR



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		WESTECH Process Equipment. Process Driven. USA - BRAZIL - CHINA - RSA - INDIA 3665 SOUTH WEST TEMPLE, SLC, UT, 84115 801-265-1000, www.WesTech-inc.com		8-08 DATE	
		E14D DRAWING NUMBER		F-1-1-1-1 SIZE	
		PES DRAWN BY		JRL CHKD BY	
		BRJ APPRVD BY		NONE SCALE	
		REVISION		PROJECT NUMBER	
		BY		REV	
		CHKD		DATE	
		DATE		LTR	

Details shown provided by WesTech, Inc.

ERIK LEE HOWARD, PE
 FL License No. 66574



City Of Naples Water Treatment Plant
 Vacuum Pump - Drum Belt Filter Replacement
 Naples, Florida

NO.	DESCRIPTION	DATE

DATE: DECEMBER 2012
 PROJECT NO. 20129093-000
 FILE NO. 34-49-25
 SCALE: As Shown

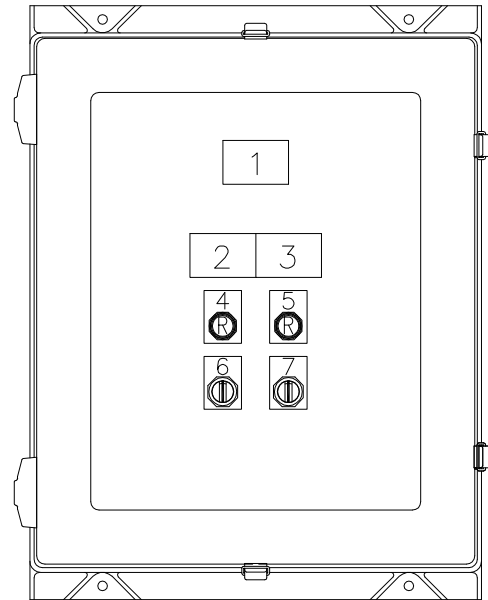
Electrical Schematic
 Drum Filter

CONSTRUCTION PLAN SET
 SHEET NUMBER

E-04

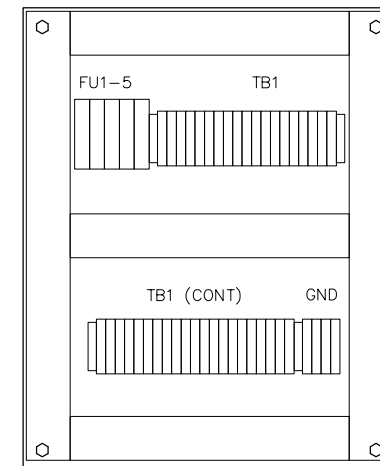


City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida



DOOR LAYOUT
NEMA 4X ENCLOSURE
(FIBERGLASS)

NAMEPLATES:	
1-	FILTRATE RECEIVER CONTROL PANEL
2-	FILTRATE PUMP
3-	VACUUM PUMP
LEGENDS	
4-	RUNNING
5-	RUNNING
6-	LOCAL/OFF/REMOTE
7-	LOCAL/OFF/REMOTE



PANEL LAYOUT

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PANEL LAYOUT		DESCRIPTION		F-1-1-1-1		SIZE		NONE	
VACUUM PUMP SKID		TYPE		DATE		DRAWN BY		CHCKD BY	
8-08		PES		JRL		BRJ		SCALE	
E15D		DRAWING NUMBER		PROJECT NUMBER		REV		NONE	



NO.	DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Electrical Panel
Vacuum Skid Pump

CONSTRUCTION PLAN SET
SHEET NUMBER

E-05

Details shown provided by WesTech, Inc.



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DESCRIPTION	DATE

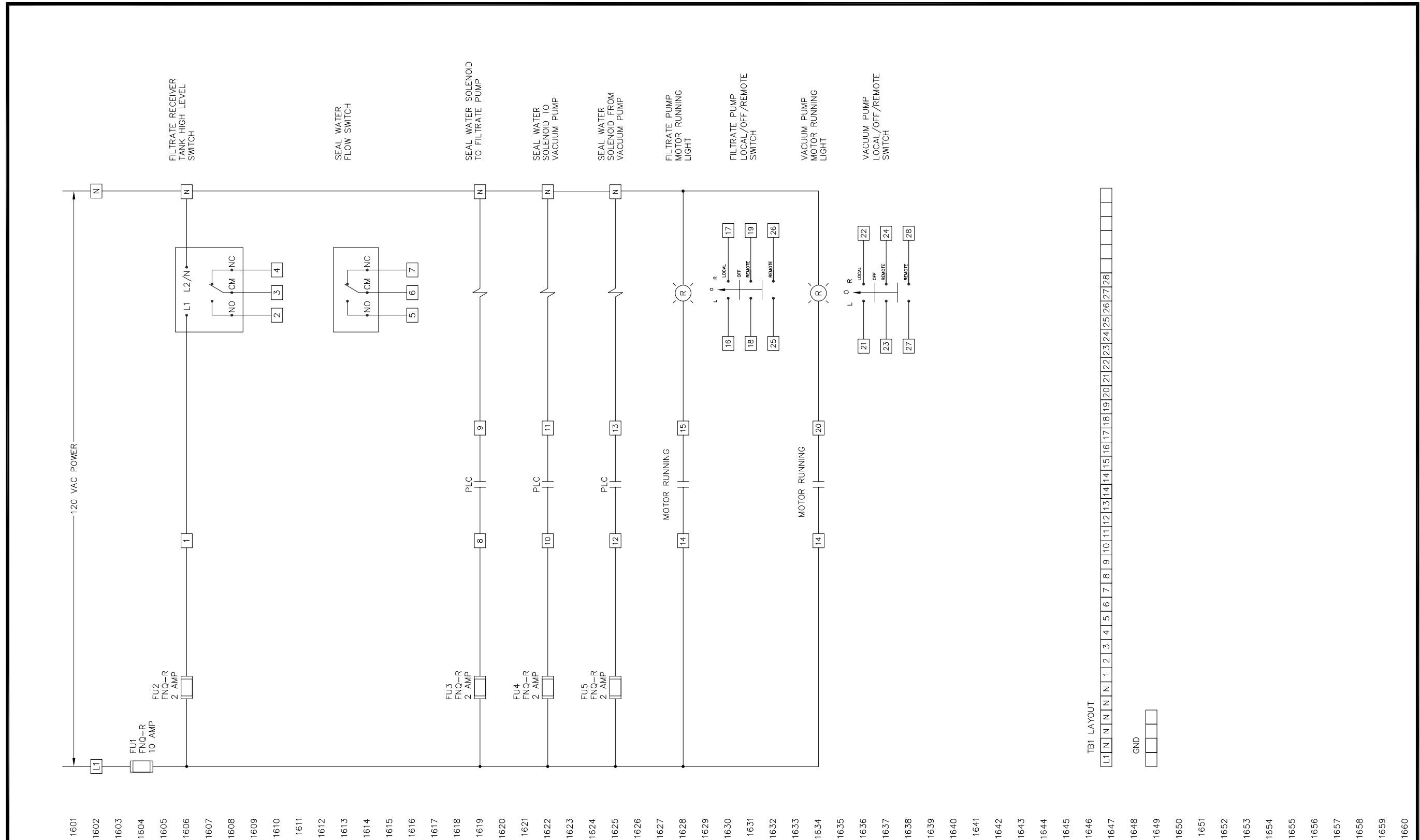
DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Electrical Schematic
Vacuum Pump Skid

CONSTRUCTION PLAN SET

SHEET NUMBER

E-06



1601	1602	1603	1604	1605	1606	1607	1608	1609	1610	1611	1612	1613	1614	1615	1616	1617	1618	1619	1620	1621	1622	1623	1624	1625	1626	1627	1628	1629	1630	1631	1632	1633	1634	1635	1636	1637	1638	1639	1640	1641	1642	1643	1644	1645	1646	1647	1648	1649	1650	1651	1652	1653	1654	1655	1656	1657	1658	1659	1660
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ELECTRICAL SCHEMATIC		DESCRIPTION		VACUUM PUMP SKID		F-1-1-1-1	
TYPE		DATE		DRAWN BY		CHKD BY	
8-08		PES		JRL		BRJ	
DATE		DRAWN BY		CHKD BY		APPRVD BY	
E16D		DATE		DRAWN BY		CHKD BY	
DRAWING NUMBER		PROJECT NUMBER		REV		SCALE	
NONE		SCALE		REV		SCALE	

WESTECH
Process Equipment. Process Driven.
USA - BRAZIL - CHINA - RSA - INDIA
3665 SOUTH WEST TEMPLE, SLC, UT, 84115
801-265-1000, www.WestTech-Inc.com

Details shown provided by WesTech, Inc.



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DESCRIPTION	DATE

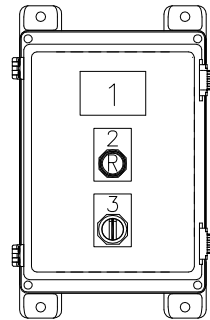
DATE: DECEMBER 2012
PROJECT NO.: 20129093-000
FILE NO.: 34-49-25
SCALE: As Shown

Electrical Panel
Blower Skid

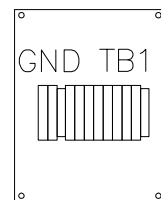
CONSTRUCTION PLAN SET

SHEET NUMBER

E-07



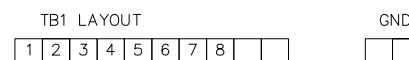
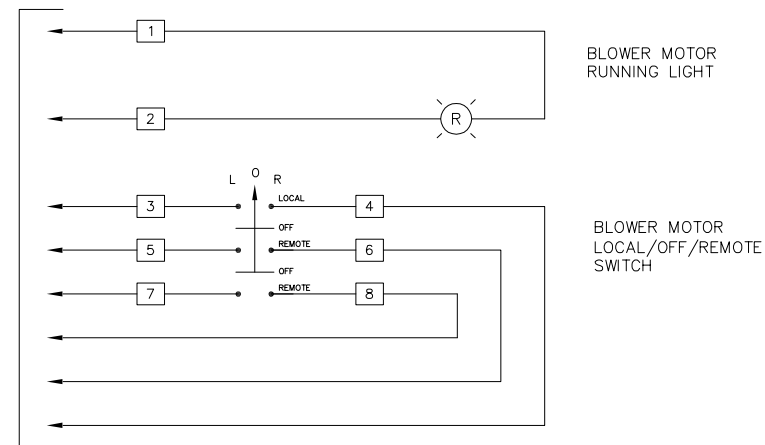
DOOR LAYOUT
NEMA 4X ENCLOSURE
(FIBERGLASS)



PANEL LAYOUT

NAMEPLATES:	
1-	BLOWER MOTOR CONTROL PANEL
LEGENDS	
2-	RUNNING
3-	LOCAL/OFF/REMOTE

TO PLC



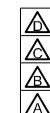
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PREPARED FOR:

PROJECT:
PROJECT NO.:
SPECIFICATION NO.:
SUBMITAL ITEM NO.:

PANEL LAYOUT/ELECTRICAL SCHEMATIC

DESCRIPTION		F-1-1-1-1			
BLOWER SKID		SIZE			
TYPE	DATE	DRAWN BY	CHKD BY	APPRVD BY	SCALE
8-08	PES	JRL	BRJ	NONE	
E17D					
DRAWING NUMBER		PROJECT NUMBER			
REV					



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801-265-1000, www.WestTech-inc.com

REVISION	BY	CHKD	DATE	LTR

Details shown provided by WesTech, Inc.



NO.	DATE	DESCRIPTION

DATE: DECEMBER 2012
PROJECT NO.: 20129093-000
FILE NO.: 34-49-25
SCALE: As Shown

Vacuum Filter Building
Floor Plans

CONSTRUCTION PLAN SET
SHEET NUMBER

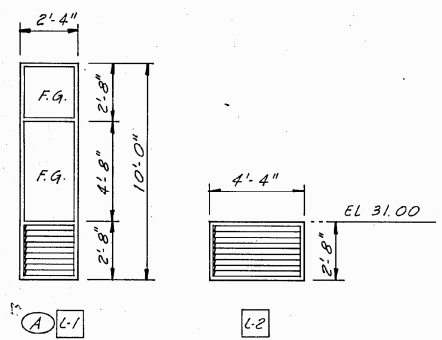
RA-7

Details shown provided by City
NOT TO SCALE

LOCATION	SIZE	TOP STL.	BOT. STL.	CONC. FILL	ADD. STL.
LOUVER L2	8" x 8" x 5'-8"	NONE	2-1/4"	YES	NONE
DOORS 1, 4, 5	8" x 8" x 4'-8"	NONE	2-1/4"	YES	NONE
DOORS 2, 3, 8	8" x 8" x 7'-8"	2-1/4"	2-1/2"	YES	NONE
*EXHAUST FANS EF-7 & EF-8	8" x 8" x 2'-10"	NONE	2-1/4"	YES	NONE

NOTE: SEE SHEET S-24 FOR ROOF PLAN

* TO BE FIELD VERIFIED IN ACCORDANCE W/ EXHAUST FAN MFR'S SPECIFICATIONS



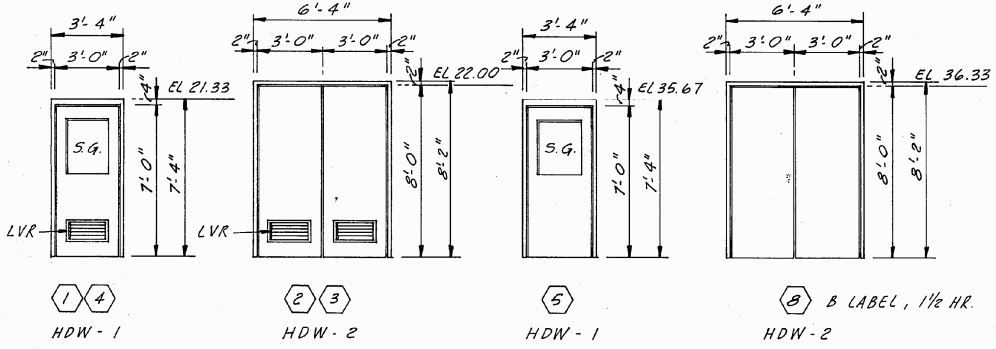
INTERIOR & EXTERIOR FINISHES

SEE SECTION 09901, PAINTING, & SECTION 03300, CONCRETE, AS APPLICABLE.

** CONC FILLED C.M.U. CELL W/ 1-#5 DOWEL IN CONC. BM (TOP/BM EL 28.33) EXTENDING MIN 16" INTO C.M.U.; 1-#6 CONT. VERT THRU C.M.U.; & 1-#5 DOWEL IN CONC. BM ABV (BOT/BM EL 38.33) EXTENDING MIN 12" INTO C.M.U. CUT C.M.U. AS REQD FOR PROPER PLACEMENT OF REINFORCING STL.

WINDOW & LOUVER ELEVATIONS

1/4" = 1'-0"
GLASS ABBREVIATION LEGEND: F.G. - FLOAT GLASS

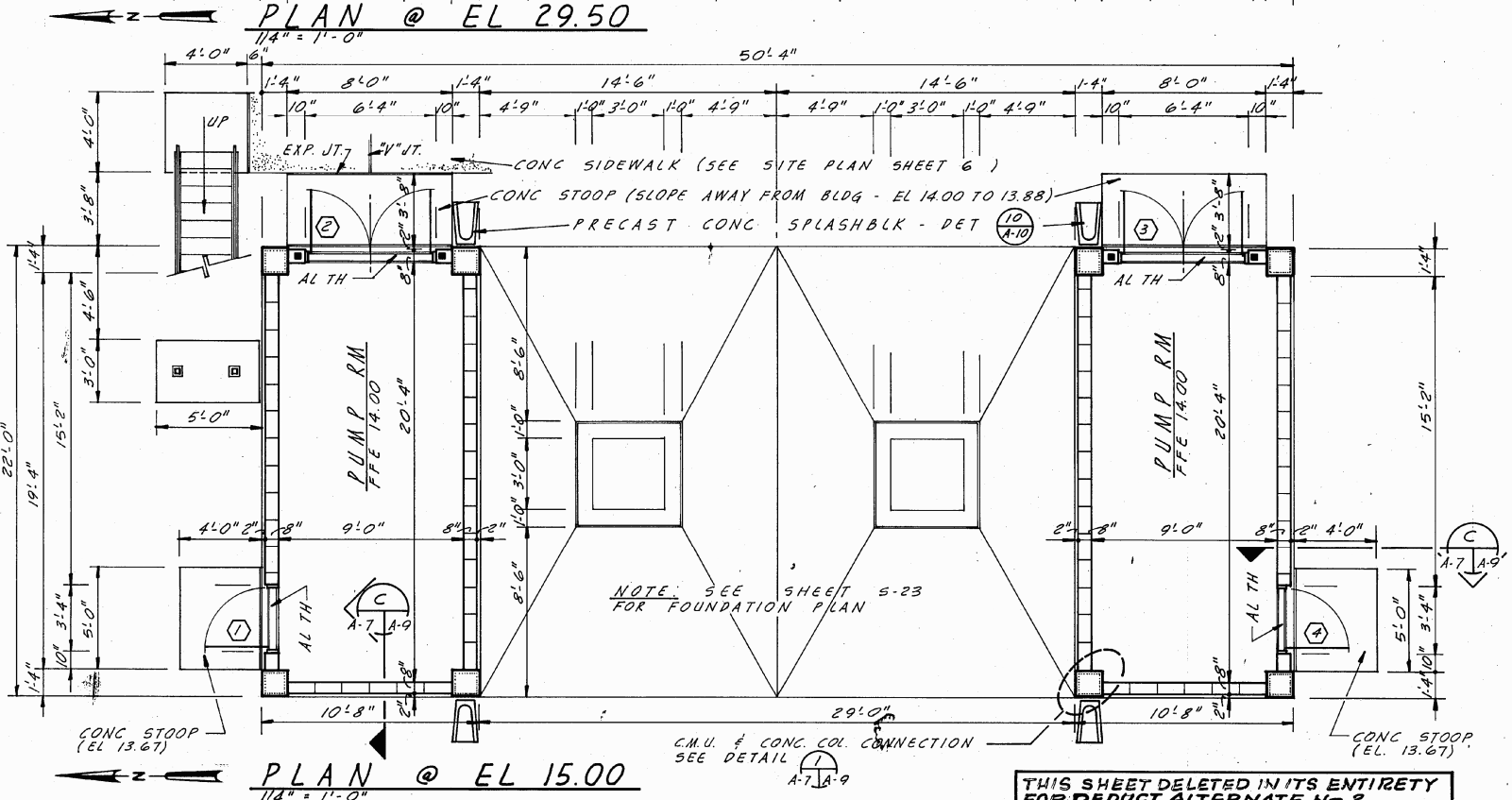
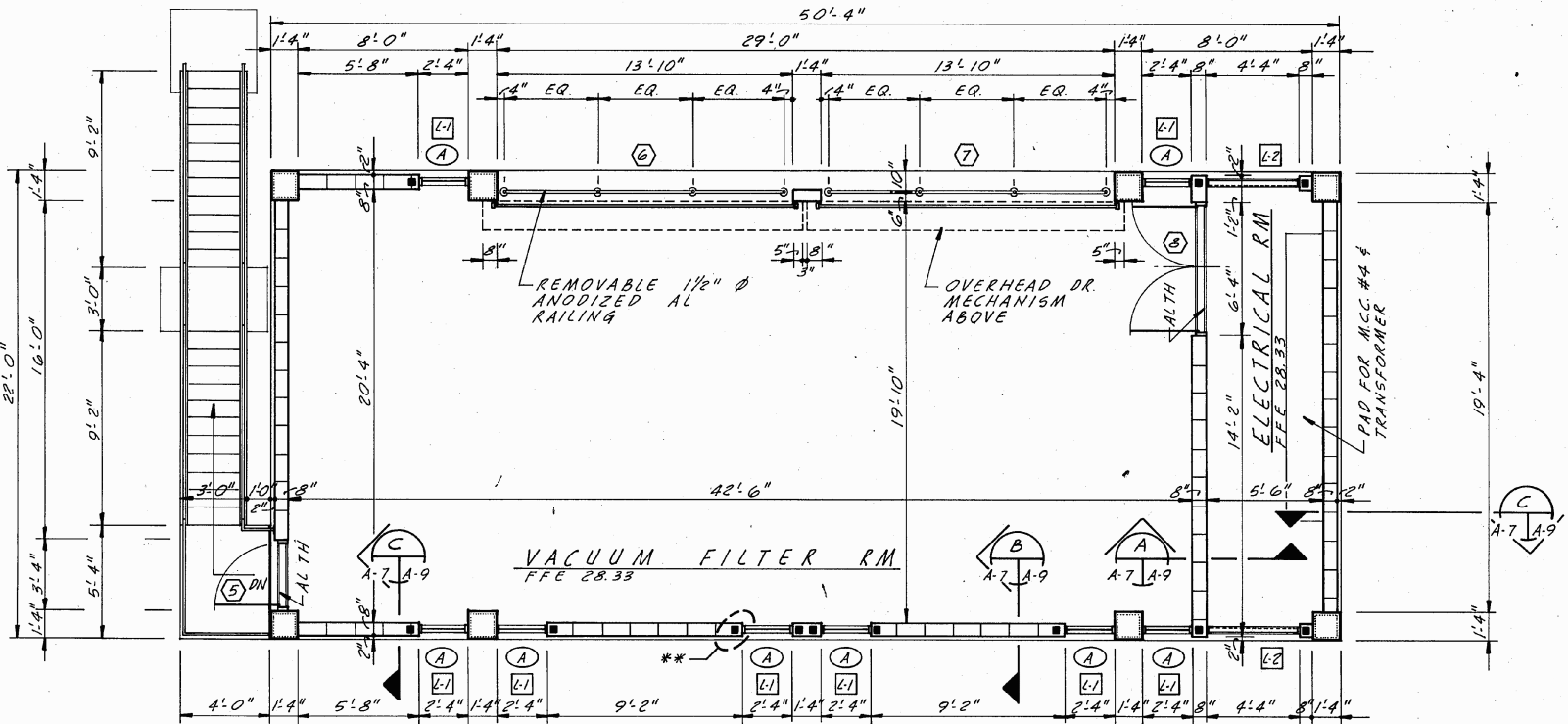


NOTES:

- SEE SHEETS A-10 & A-11, FOR TYPICAL DOOR, WINDOW & LOUVER DETAILS.
- SEE SECTION 08700, FINISH HARDWARE, FOR HARDWARE SET DESCRIPTIONS.
- SEE SHEET M-12, CHEMICAL FEED SYSTEM, FOR DOOR 1, HDW-4.
- DOOR LOUVERS TO BE 2'-0" x 1'-0" WITH ALUM. INSECT SCREENS.

DOOR ELEVATIONS

1/4" = 1'-0"
GLASS ABBREVIATION LEGEND: S.G. - LAMINATED SAFETY GLASS



	DES. <i>RA</i>				
	DR. <i>RA</i>				
	CHK. <i>RQB</i>				
	APPD. <i>R.G.</i>				
	NO.	DATE	REVISION	BY	APPD.

WATER TREATMENT PLANT EXPANSION
FOR THE
CITY OF NAPLES, FLORIDA

ARCHITECTURAL
VACUUM FILTER BUILDING
FLOOR PLANS
DOOR, WINDOW & LOUVER ELEVATIONS

SHEET
A-7
DATE NOV. 78
DWG. NO. NA 30509.71

THIS SHEET DELETED IN ITS ENTIRETY FOR PREDUCT ALTERNATE NO. 2



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DATE	DESCRIPTION

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

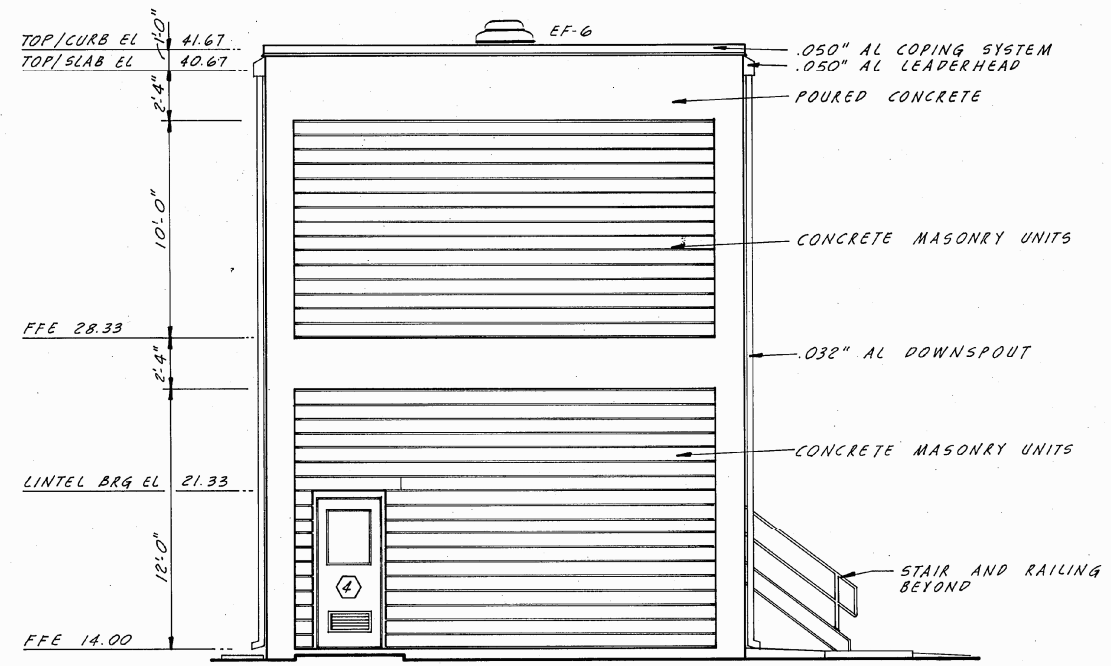
Vacuum Filter Building
Exterior Building

CONSTRUCTION PLAN SET

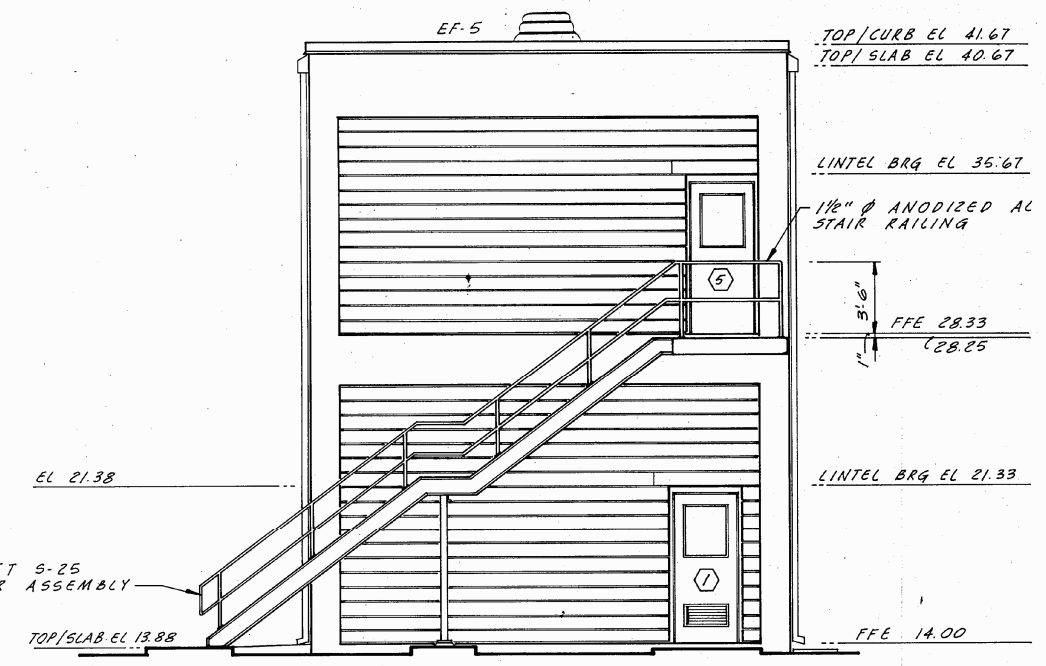
SHEET NUMBER

RA-8

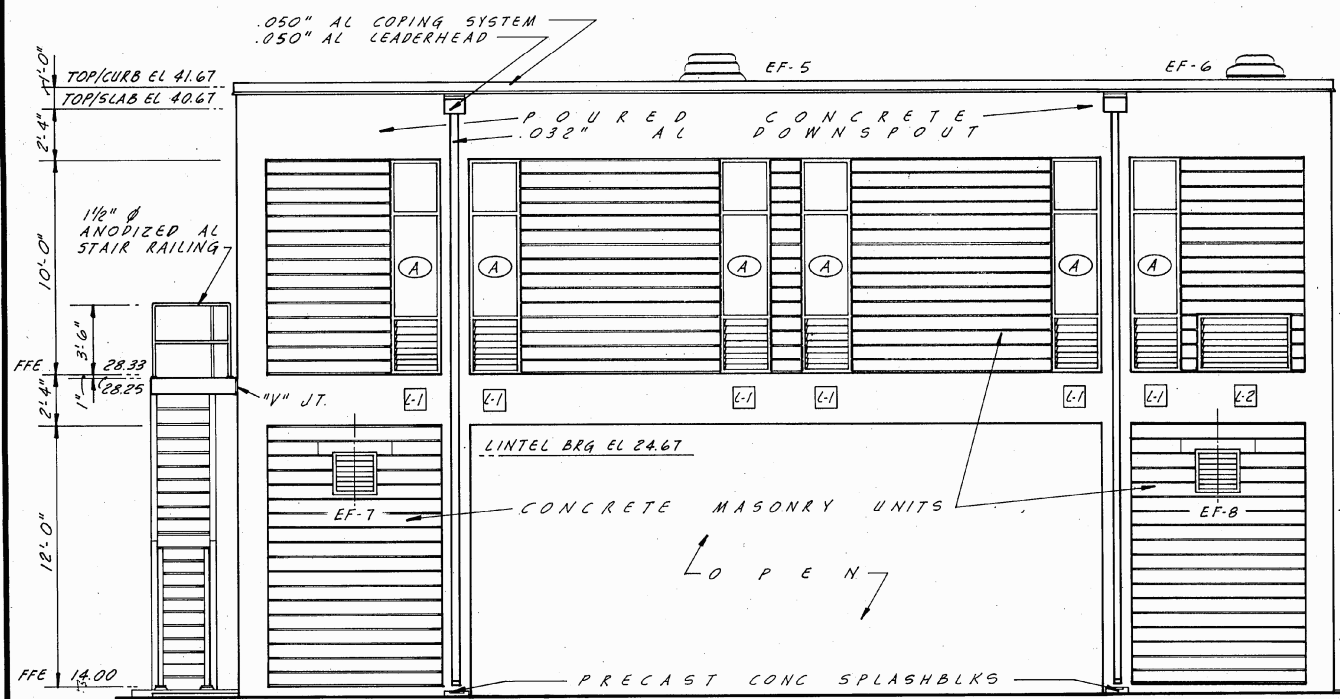
Details shown provided by City
NOT TO SCALE



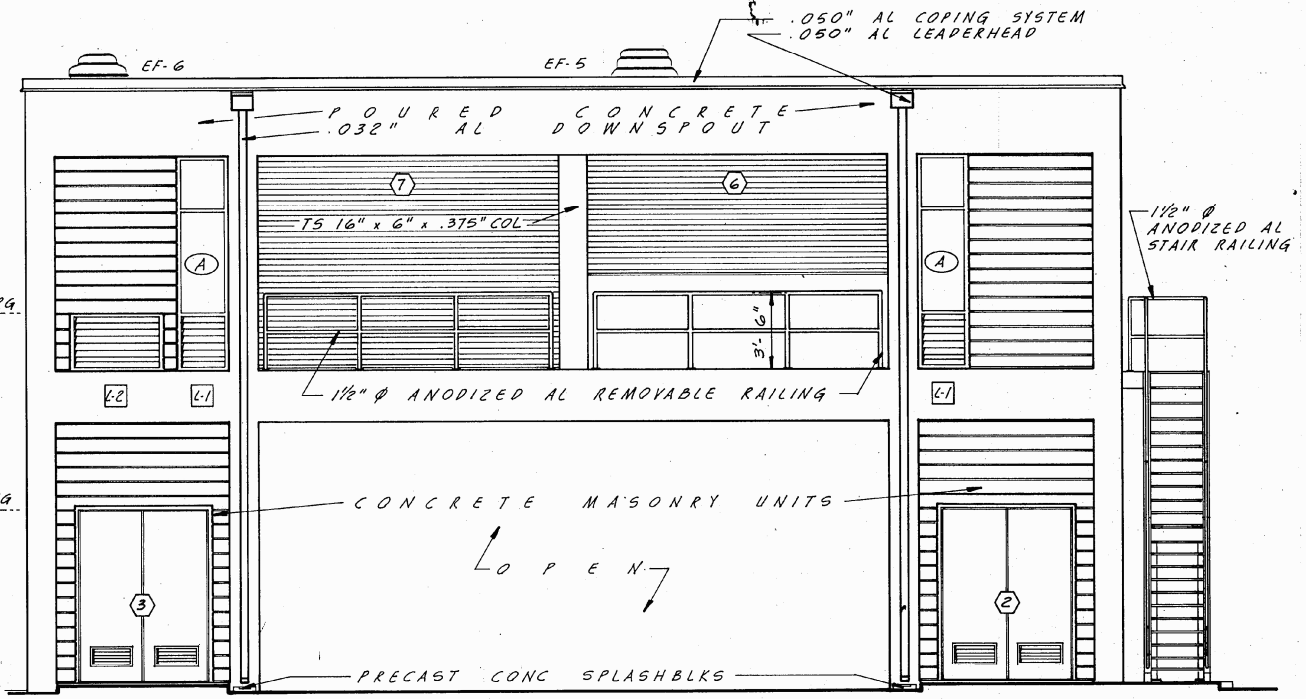
SOUTH ELEVATION
1/4" = 1'-0"



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



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



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

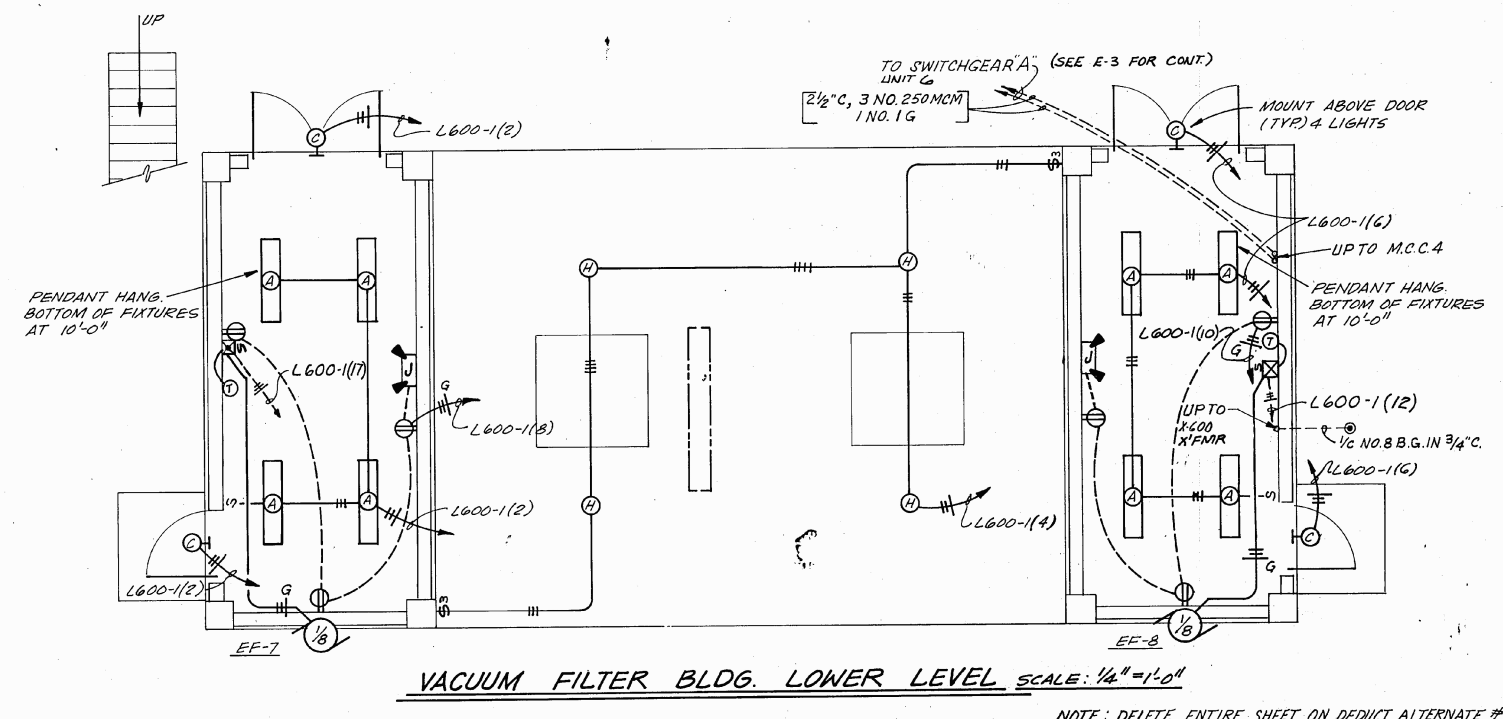
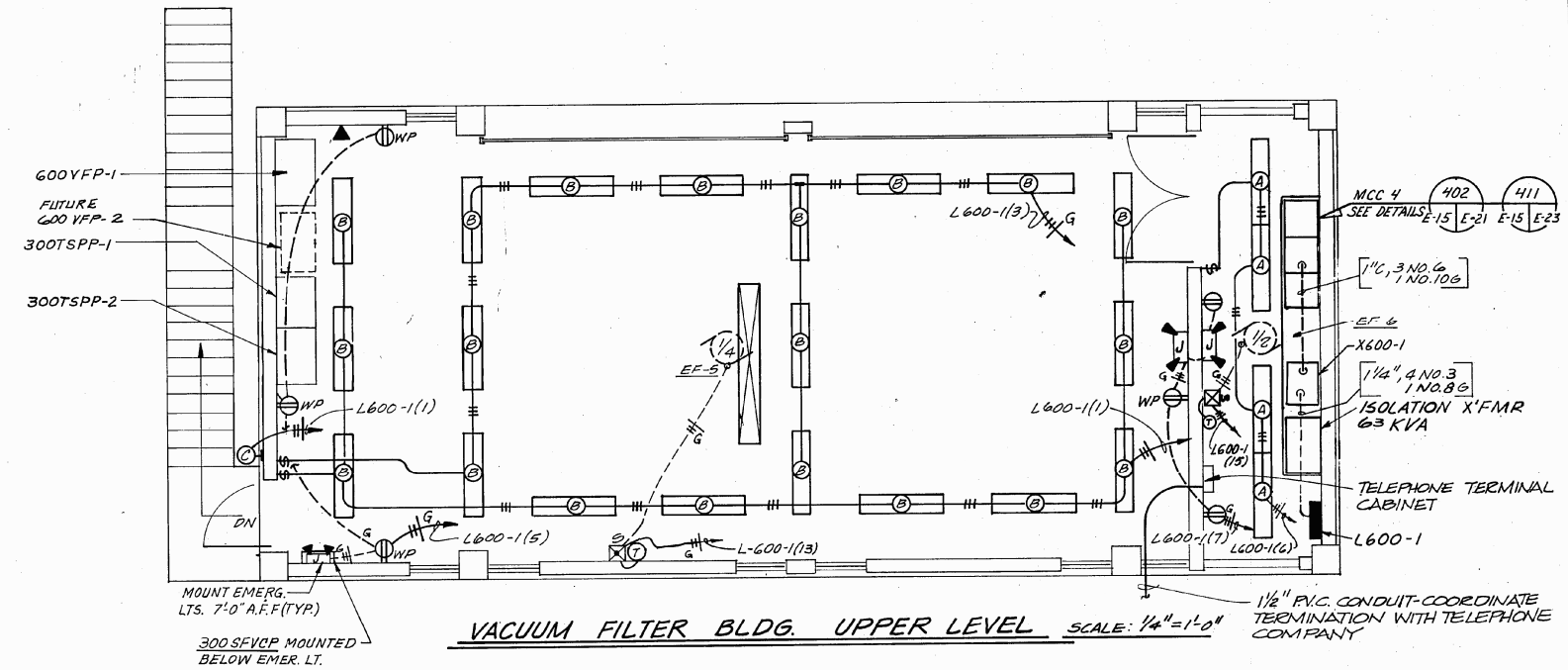
THIS SHEET DELETED IN ITS ENTIRETY FOR DEDUCT ALTERNATE No. 2

	DES. <i>RF</i>				
	DR. <i>RF</i>				
	CHK. <i>RCS</i>				
	APPD. <i>[Signature]</i>				
	NO.	DATE	REVISION	BY	APPD.

WATER TREATMENT PLANT EXPANSION
FOR THE
CITY OF NAPLES, FLORIDA

ARCHITECTURAL
VACUUM FILTER BUILDING
EXTERIOR ELEVATIONS

SHEET
A-8
DATE NOV. 78
DWG. NO. NA 30509.71



	DES. H. LESCHORN				
	DR. P. GILCHRIST				
	CHK. R. M. COLETT				
	APPD. TJS				
	NO.	DATE	REVISION	BY	APPD.

WATER TREATMENT PLANT EXPANSION
FOR THE
CITY OF NAPLES, FLORIDA

ELECTRICAL
VACUUM FILTER BLDG.
FACILITY PLAN

SHEET
E-15
DATE NOV. 1978
DWG. NO. NA 30509.71

NO.	DATE	DESCRIPTION

Vacuum Filter Building
Facility Plan

CONSTRUCTION PLAN SET
SHEET NUMBER

RE-15

Details shown provided by City
NOT TO SCALE



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DATE	DESCRIPTION

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

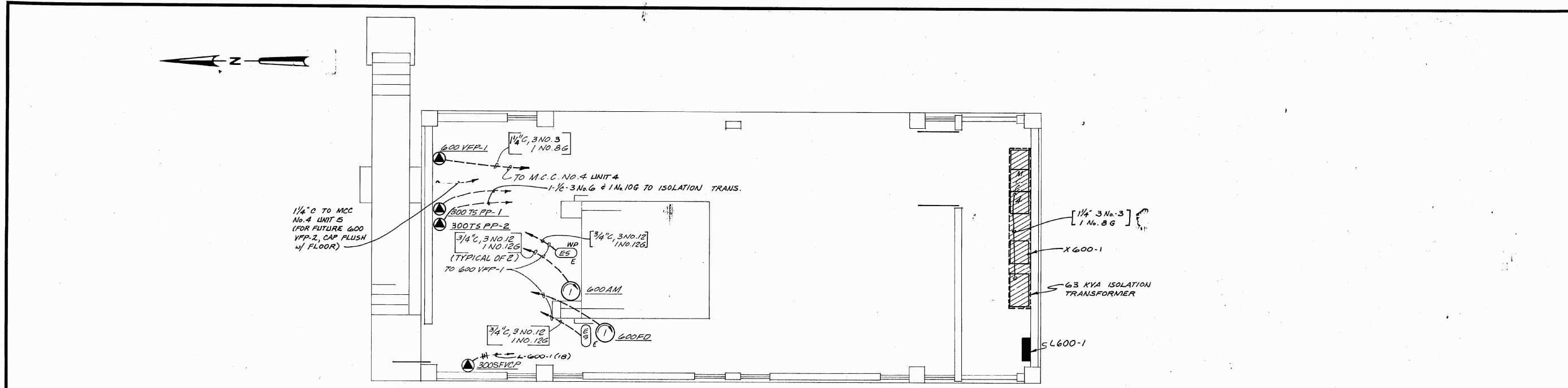
Vacuum Filter Building
Process Plan

CONSTRUCTION PLAN SET

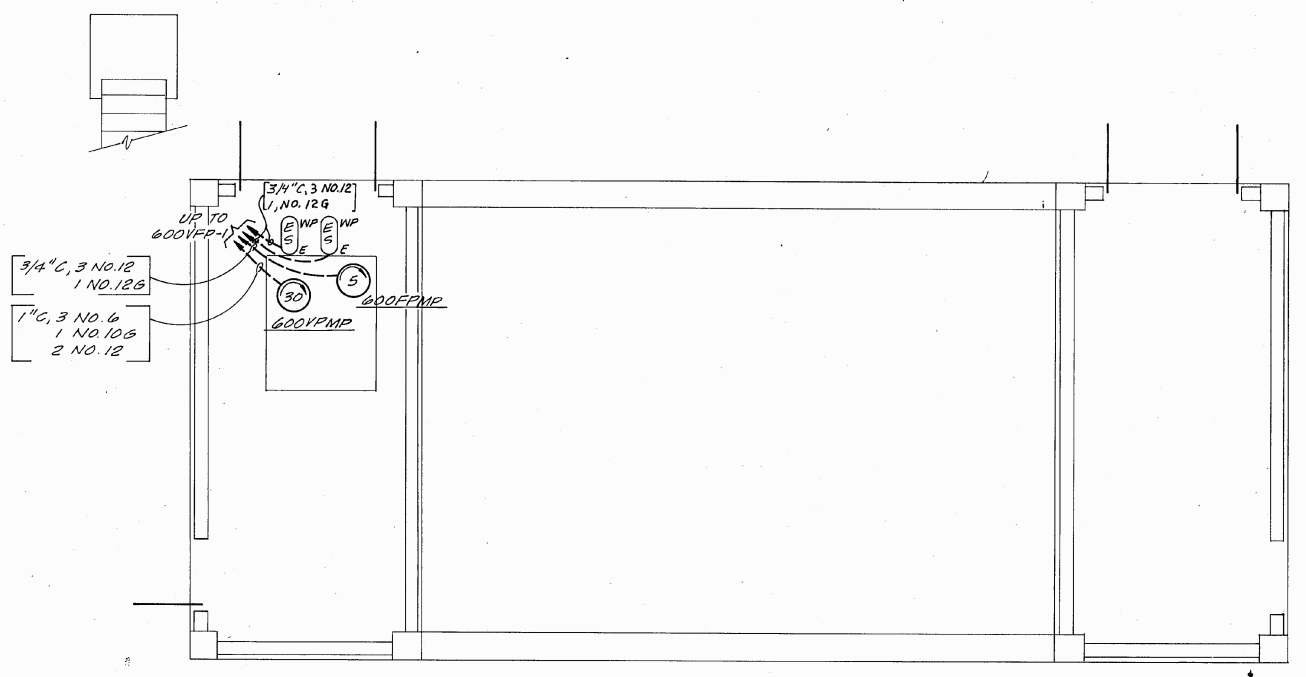
SHEET NUMBER

RE-16

Details shown provided by City
NOT TO SCALE



VACUUM FILTER BLDG. UPPER LEVEL SCALE: 1/4"=1'-0"



VACUUM FILTER BLDG. LOWER LEVEL SCALE: 1/4"=1'-0"

NOTE: DELETE ENTIRE SHEET ON DEDUCT ALTERNATE #2

	DES. D.V. HAYES	NO.	DATE	REVISION	BY	APPD.	WATER TREATMENT PLANT EXPANSION FOR THE CITY OF NAPLES, FLORIDA	ELECTRICAL VACUUM FILTER BLDG. PROCESS PLAN	SHEET E-16
	DR. P. GILCHRIST								DATE NOV 1978 DWG. NO. NA 30509.71
	CHK. R. M. COURET								
	APPD. TJS								



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DESCRIPTION	DATE

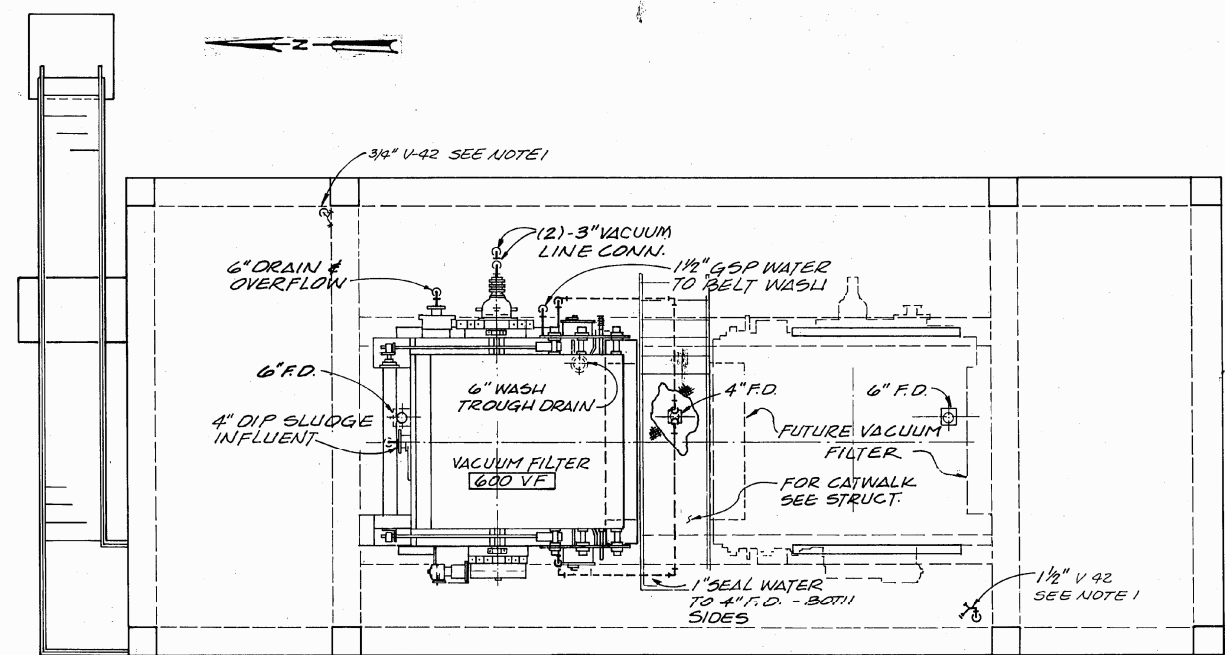
DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Mechanical First & Second Floor Plan

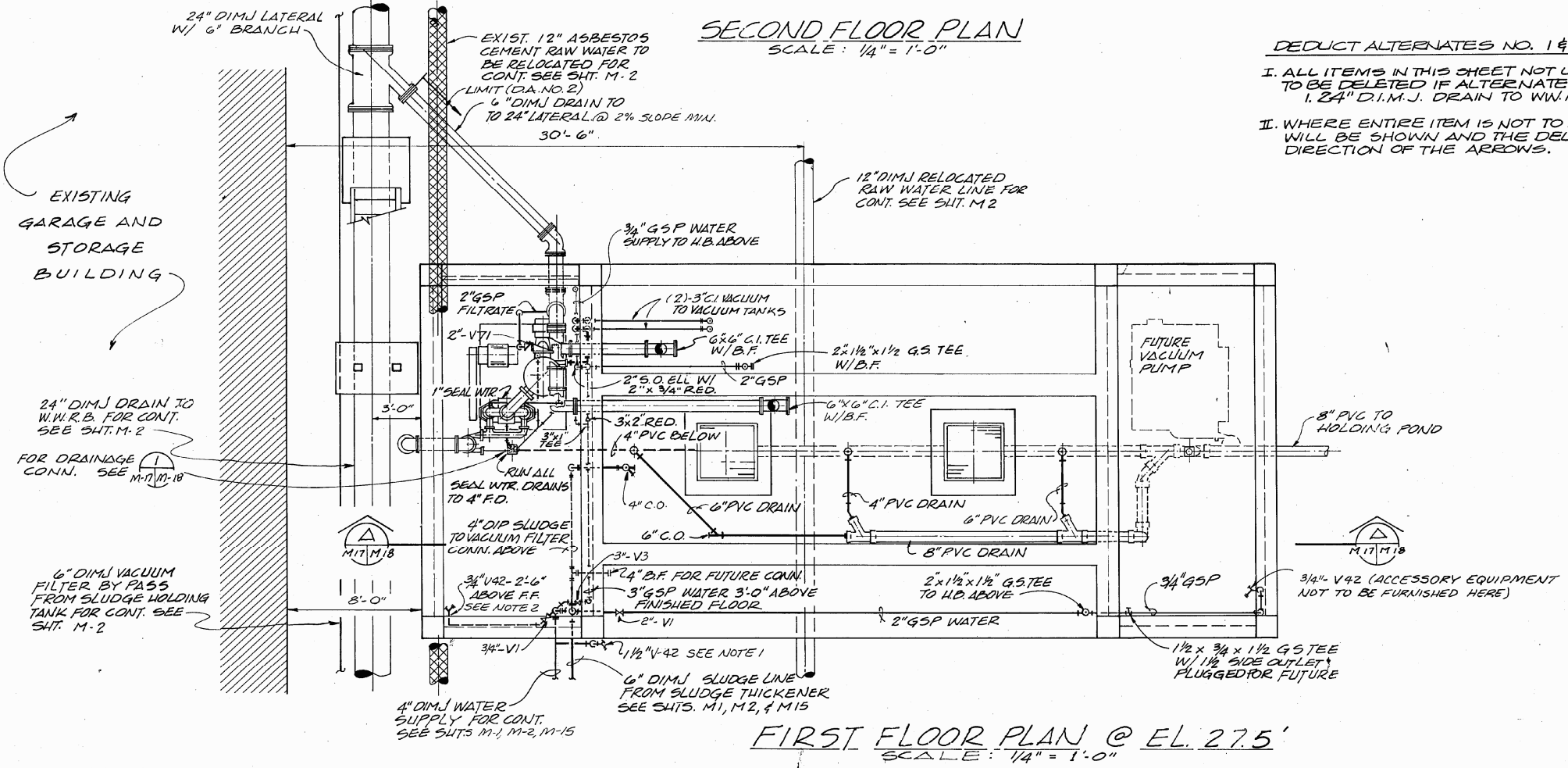
CONSTRUCTION PLAN SET
SHEET NUMBER

RM-17

NOTES
1. ALL HOSE VALVE LOCATIONS SHALL BE FURNISHED WITH HOSES, NIPPLES, NOZZLES, AND HOSE RACKS, EXCEPT AS NOTED. 1/2" HOSE SHALL BE FURNISHED IN 75-FOOT LENGTHS; 3/4" HOSE SHALL BE FURNISHED IN 50-FOOT LENGTHS. HOSES SHALL BE B.F. GOODRICH "DELUGE" SBR TYPE COMPLETE WITH HOSE CLAMPS, NOZZLES, AND NIPPLES FULLY COMPATIBLE WITH ASSOCIATED HOSE VALVE, REFER TO SHEET M-19 FOR HOSE RACK DETAIL.
2. ALL DRAINS SHALL HAVE A 2% SLOPE.



DEDUCT ALTERNATES NO. 1 & 2 - NOTES
I. ALL ITEMS IN THIS SHEET NOT LISTED BELOW ARE TO BE DELETED IF ALTERNATE NO. 2 IS SELECTED:
1. 24" D.I.M.J. DRAIN TO W.W.R.B.
II. WHERE ENTIRE ITEM IS NOT TO BE DELETED LIMITS WILL BE SHOWN AND THE DELETION SHALL BE IN THE DIRECTION OF THE ARROWS.



BC&E CH2M HILL	DES. V.J.P./R.J.P.	NO.	DATE	REVISION	BY	APPD.
	DR. W.A.C.					
	CHK. E.W.A.					
	APPD. T.R.S.					

WATER TREATMENT PLANT EXPANSION
FOR THE
CITY OF NAPLES, FLORIDA

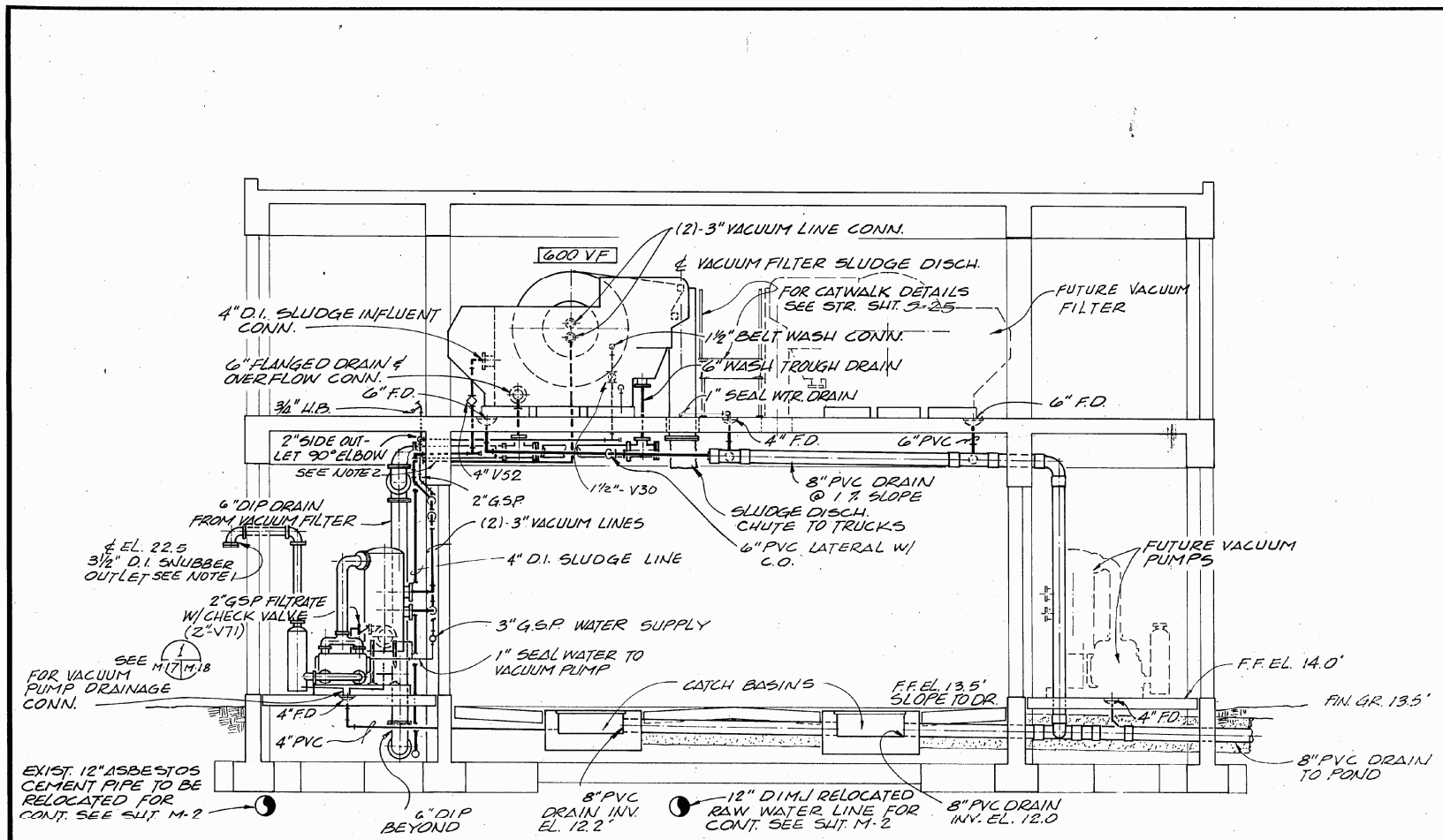
MECHANICAL
VACUUM FILTER BUILDING
FIRST & SECOND FLOOR PLAN

SHEET
M-17
DATE NOV. 19 2012
DWG. NO. NA 30509.71

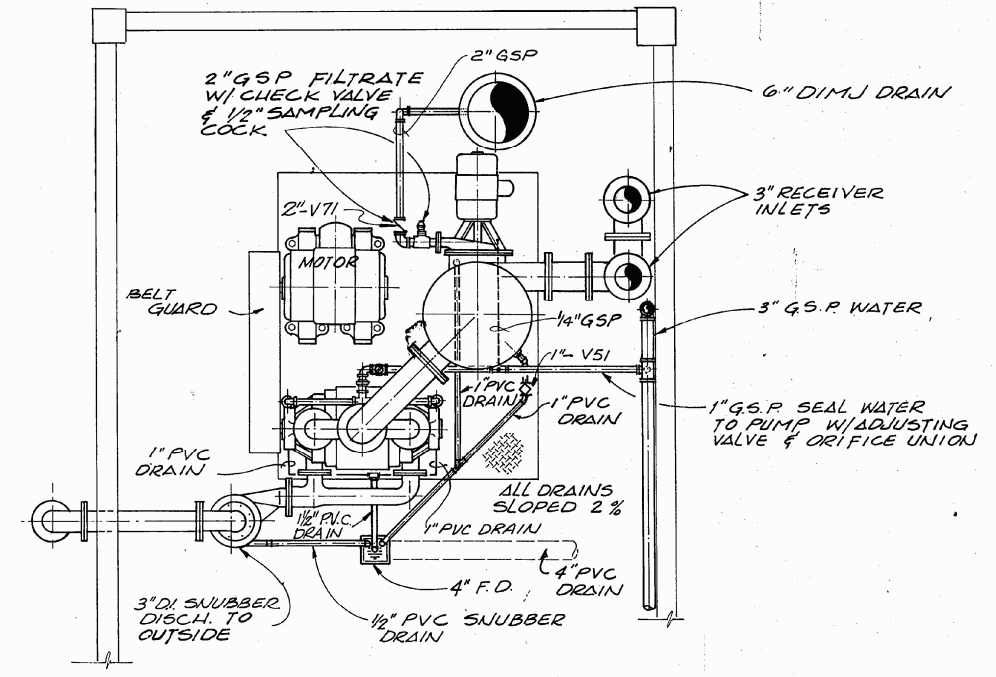
Details shown provided by City
NOT TO SCALE



City Of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida



SECTION A
SCALE: 1/4" = 1'-0" M-17, M-18



DETAIL 1
NTS M-17, M-18

- NOTES:**
1. SNUBBER OUTLET TO CONSIST OF 3/2" 90° ELBOW WITH BIRD SCREEN SANDWICHED BY DOUBLE FLANGE.
 2. PIPE SLEEVES SHOWN AT DIFFERENT ELEVATIONS FOR ILLUSTRATIVE PURPOSES ONLY. ALL PIPE SLEEVES IN BEAM ARE TO BE CENTERED AT EL. 26.33 UNLESS OTHERWISE INDICATED. REFER TO SHEET 5-2G.
 3. ALL DRAINS SHALL HAVE A 2% SLOPE, UNLESS OTHERWISE INDICATED.

NOTE: ALL ITEMS IN THIS SHT. ARE TO BE DELETED IF DEDUCT ALTERNATE NO. 2 IS SELECTED.

	DES. V.J.P./R.J.P.				
	DR. W.A.C.				
	CHK. R.W.A.				
APPD. T.R.S.	NO.	DATE	REVISION	BY	APPD.

WATER TREATMENT PLANT EXPANSION FOR THE CITY OF NAPLES, FLORIDA	MECHANICAL VACUUM FILTER BUILDING SECTION & DETAILS	SHEET M-18 DATE NOV. 19 78 DWG. NO. NA 30509.71
---	---	---

NO.	REVISIONS DESCRIPTION	DATE

DATE:	DECEMBER 2012
PROJECT NO.:	20129093-000
FILE NO.:	34-49-25
SCALE:	As Shown

Mechanical Section & Details

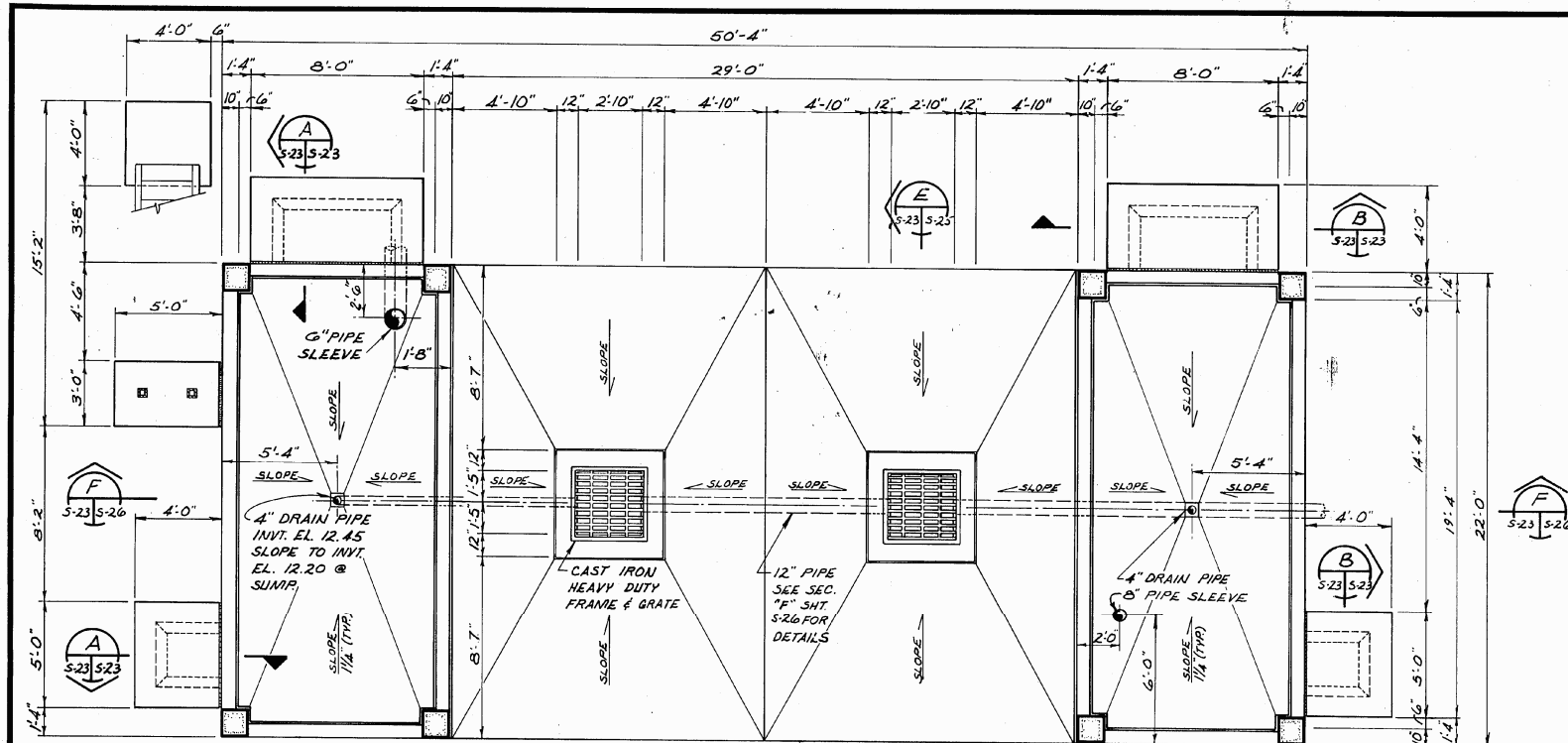
CONSTRUCTION PLAN SET
SHEET NUMBER

RM-18

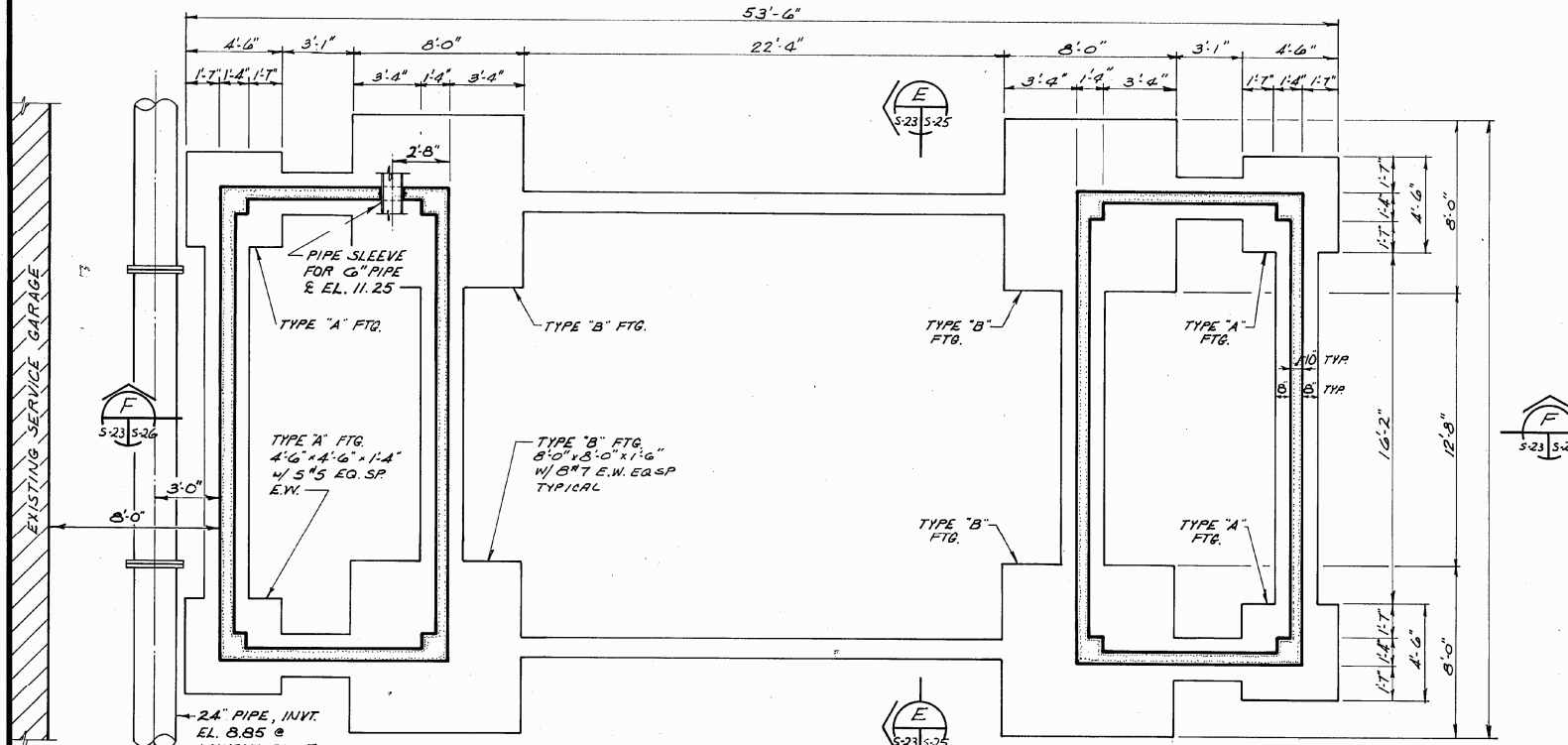
Details shown provided by City
NOT TO SCALE



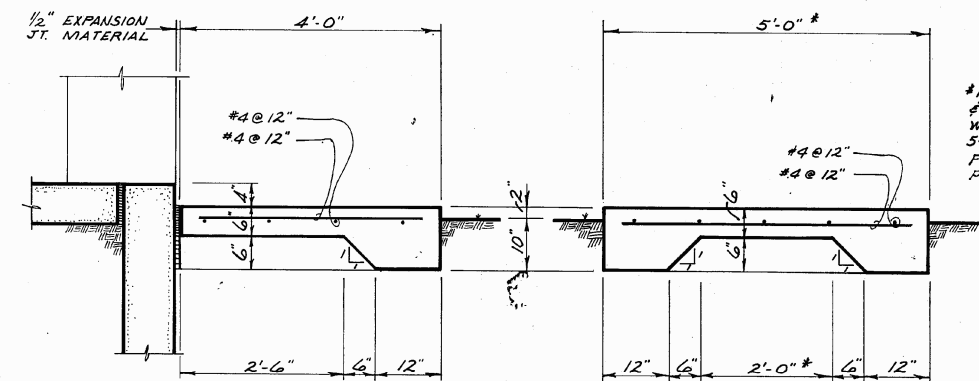
City of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida



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

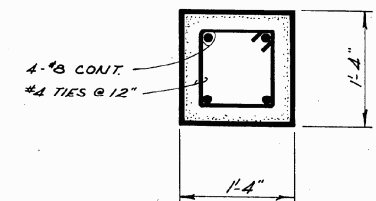


FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



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

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



TYPICAL COLUMN SECTION
SCALE: 1" = 1'-0"

*NOTE: THE 5'-0" & 2'-0" DIMENSION WILL BE 8'-0" & 5'-0", RESPECTIVELY, FOR 8'-0" WIDE R.A.D.

(DEDUCT ALTERNATE #2)

FOR STRUCTURAL NOTES AND STANDARD DETAILS SEE SHEETS S-27, S-28, & S-29

	DES. JEC				
	DR. D.B.S.				
	CHK. CMG				
APPD.		NO.	DATE	REVISION	BY

WATER TREATMENT PLANT EXPANSION
FOR THE
CITY OF NAPLES, FLORIDA

STRUCTURAL
VACUUM FILTER BUILDING
PLANS & SECTIONS

SHEET
S-23
DATE NOV. 1978
DWG. NO. NA 30509.71

NO.	DATE	DESCRIPTION

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

Structural Plan & Sections

CONSTRUCTION PLAN SET
SHEET NUMBER

RS-23

Details shown provided by City
NOT TO SCALE



City of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

NO.	DATE	DESCRIPTION

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

STRUCTURAL SHEET
S-24
DATE NOV. 1978
DWG. NO. NA 30509.71

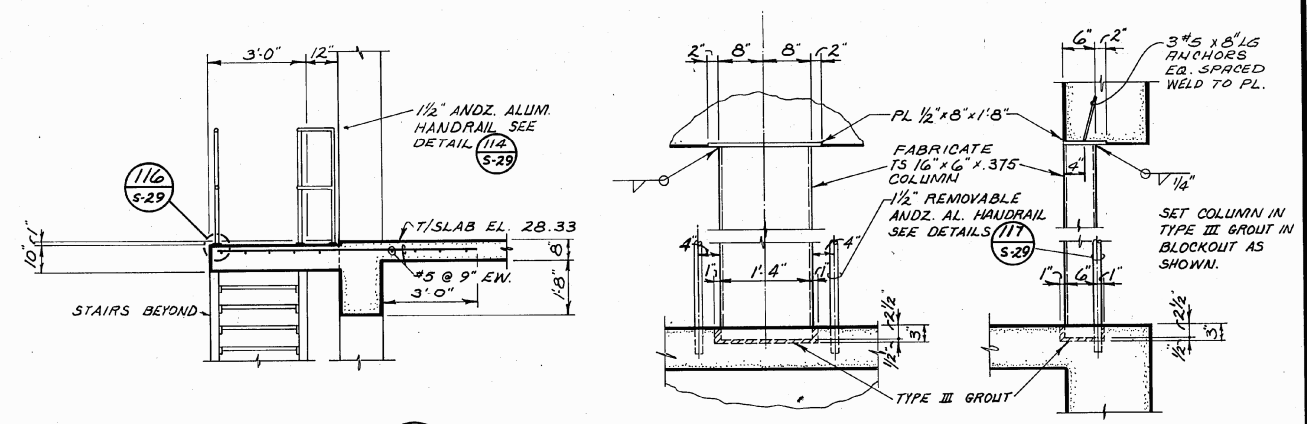
Structural Plans, Sections & Details

CONSTRUCTION PLAN SET

SHEET NUMBER

RS-24

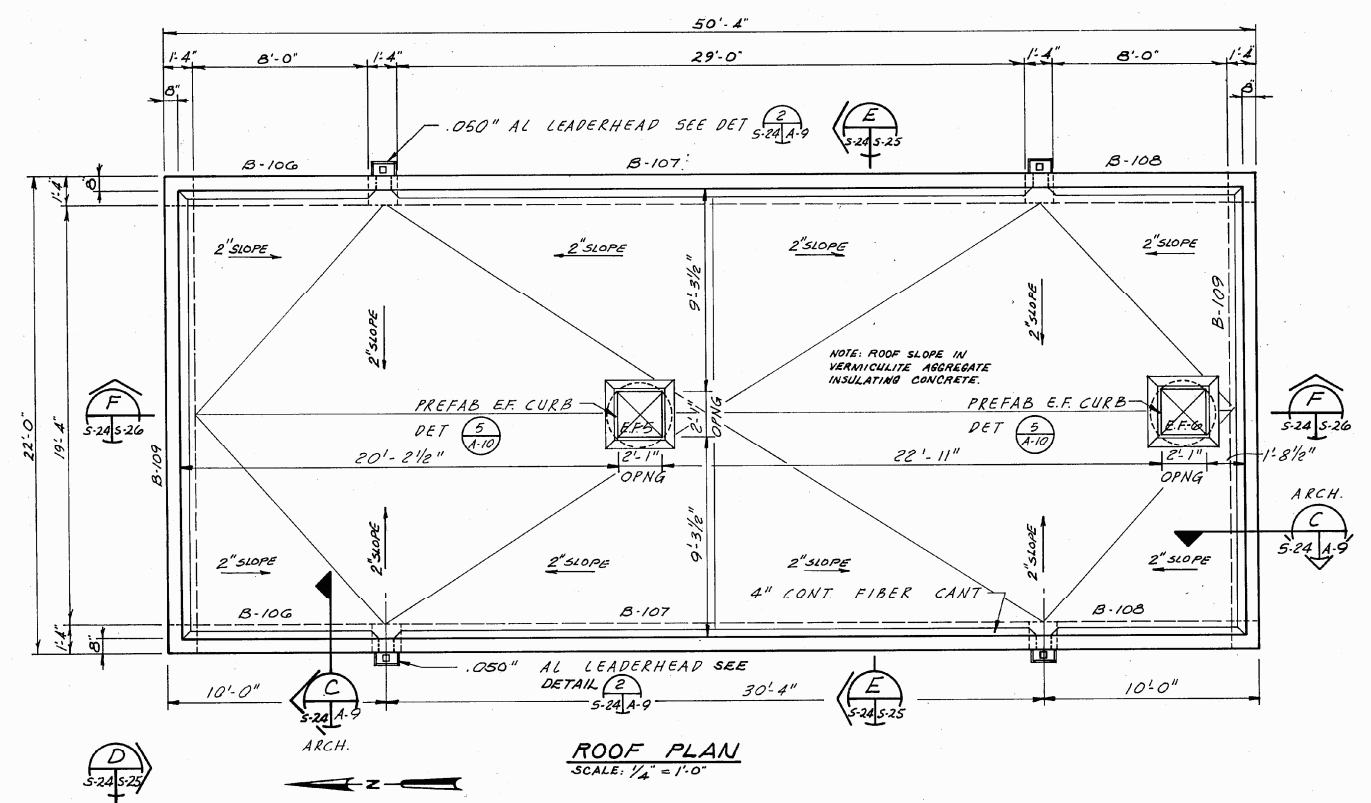
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NOT TO SCALE



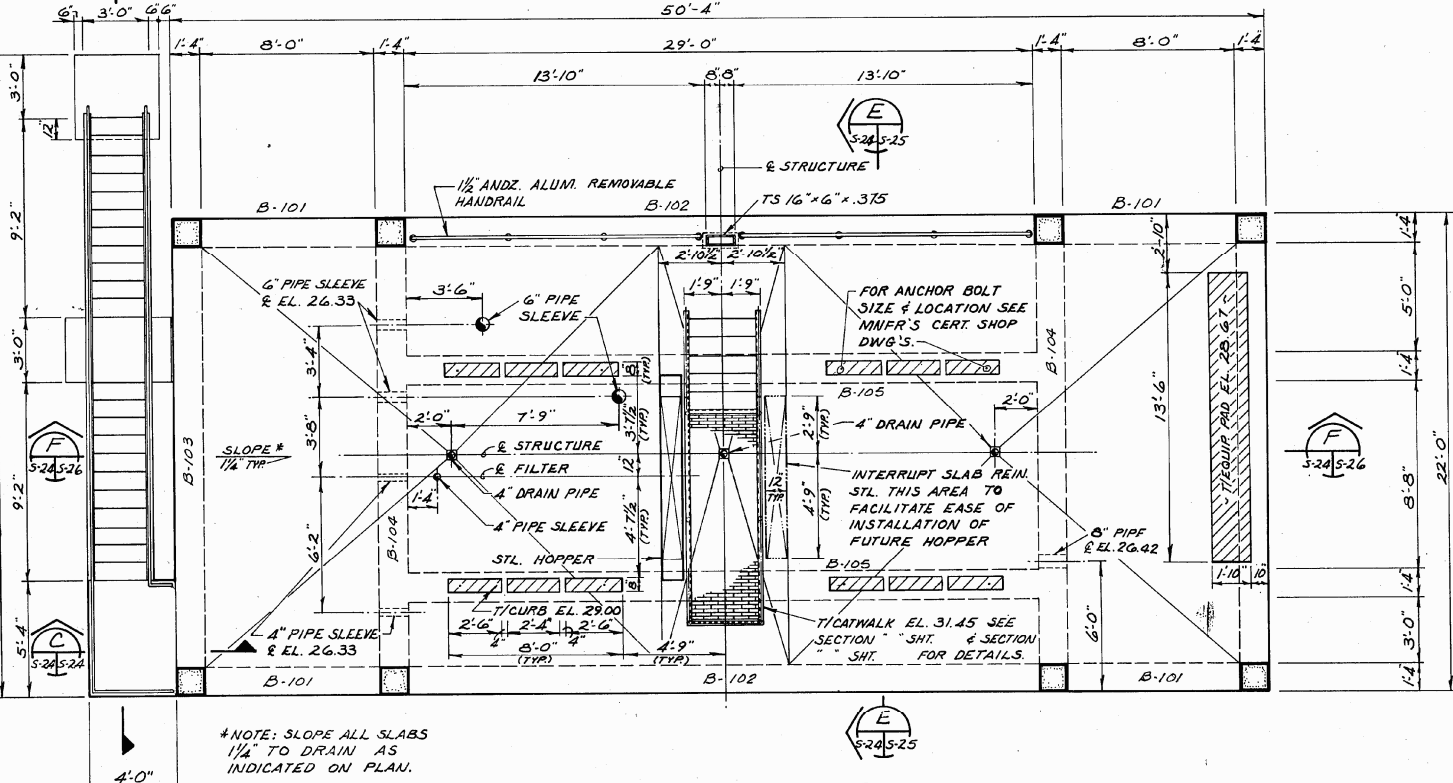
SECTION C
SCALE: 3/8" = 1'-0"

TS 16"x6"x.375 COLUMN
CONNECTION DETAIL
SCALE: 3/4" = 1'-0"

NOTE: SEE SECTION 07510, BUILT-UP ROOFING, OF THE SPECIFICATIONS FOR DESCRIPTION OF LOCATIONS OF ROOF WALKWAYS.



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



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

(DEDUCT ALTERNATE #2)

FOR STRUCTURAL NOTES AND STANDARD DETAILS SEE SHEETS S-27, S-28, & S-29

	DES. JEC				
	DR. D.B.S.				
	CHK. CMG				
	APPD.	NO.	DATE	REVISION	BY

WATER TREATMENT PLANT EXPANSION
FOR THE
CITY OF NAPLES, FLORIDA

VACUUM FILTER BUILDING
PLANS, SECTIONS, & DETAILS

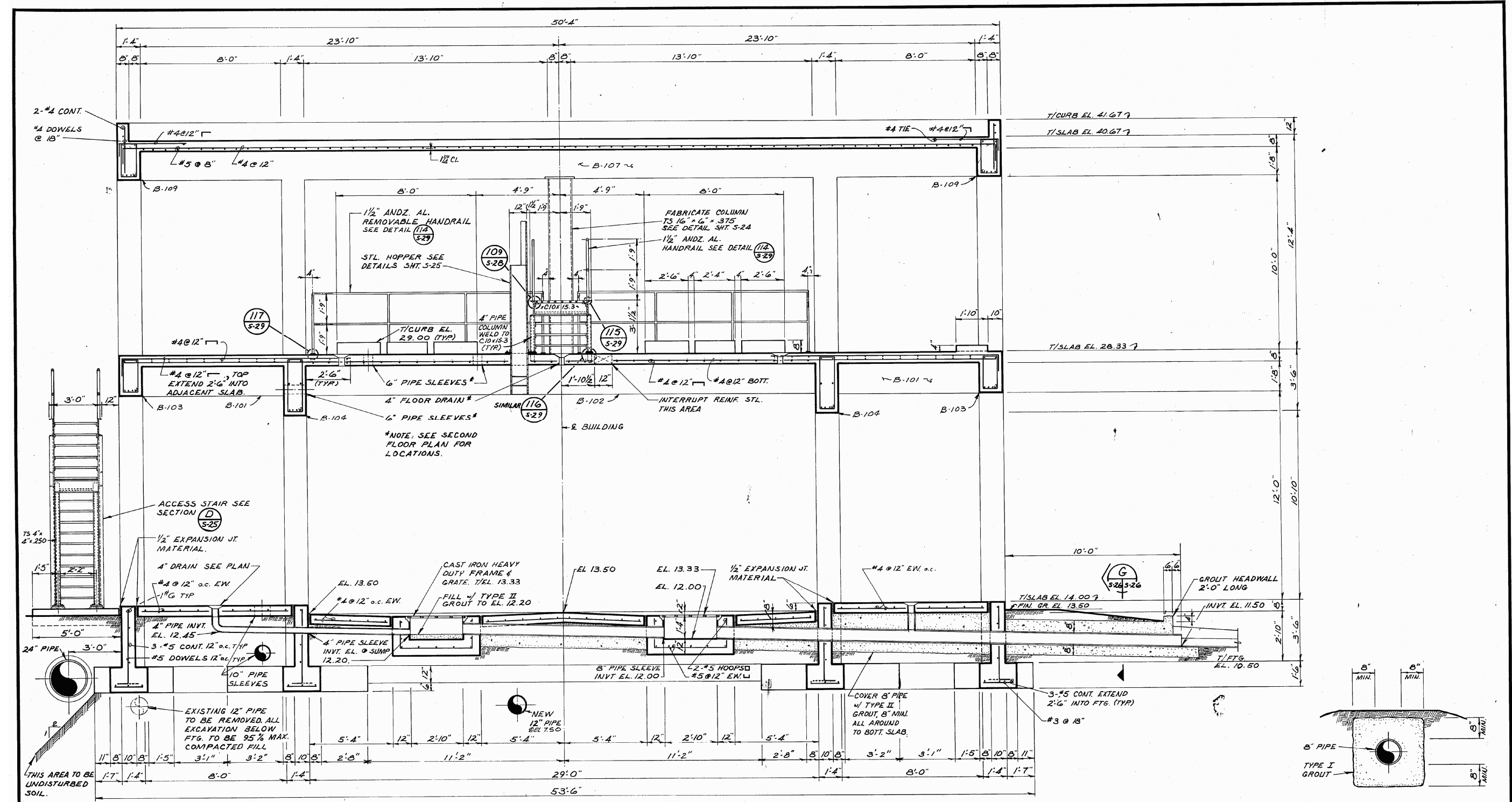


City of Naples Water Treatment Plant
Vacuum Pump - Drum Belt Filter Replacement
Naples, Florida

DATE	DESCRIPTION

NO. _____

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown



SECTION F
SCALE: 3/8" = 1'-0"
S-23, S-26

SECTION G
SCALE: 3/4" = 1'-0"
S-26, S-28

(DEDUCT ALTERNATE #2)

FOR STRUCTURAL NOTES AND STANDARD DETAILS SEE SHEETS S-27, S-28, & S-29

	DES. JEC				
	DR. D.B.S.				
	CHK. CMG				
	APPD.	NO.	DATE	REVISION	BY

WATER TREATMENT PLANT EXPANSION
FOR THE
CITY OF NAPLES, FLORIDA

STRUCTURAL
VACUUM FILTER BUILDING
SECTIONS

SHEET
S-26
DATE NOV. 17 12
DWG. NO. NA 30509.71

Structural Sections

CONSTRUCTION PLAN SET
SHEET NUMBER

RS-26

Details shown provided by City
NOT TO SCALE



NO.	DATE	DESCRIPTION

DATE: DECEMBER 2012
 PROJECT NO. 20129093-000
 FILE NO. 34-49-25
 SCALE: As Shown

RM-17 Notes

CONSTRUCTION PLAN SET
 SHEET NUMBER

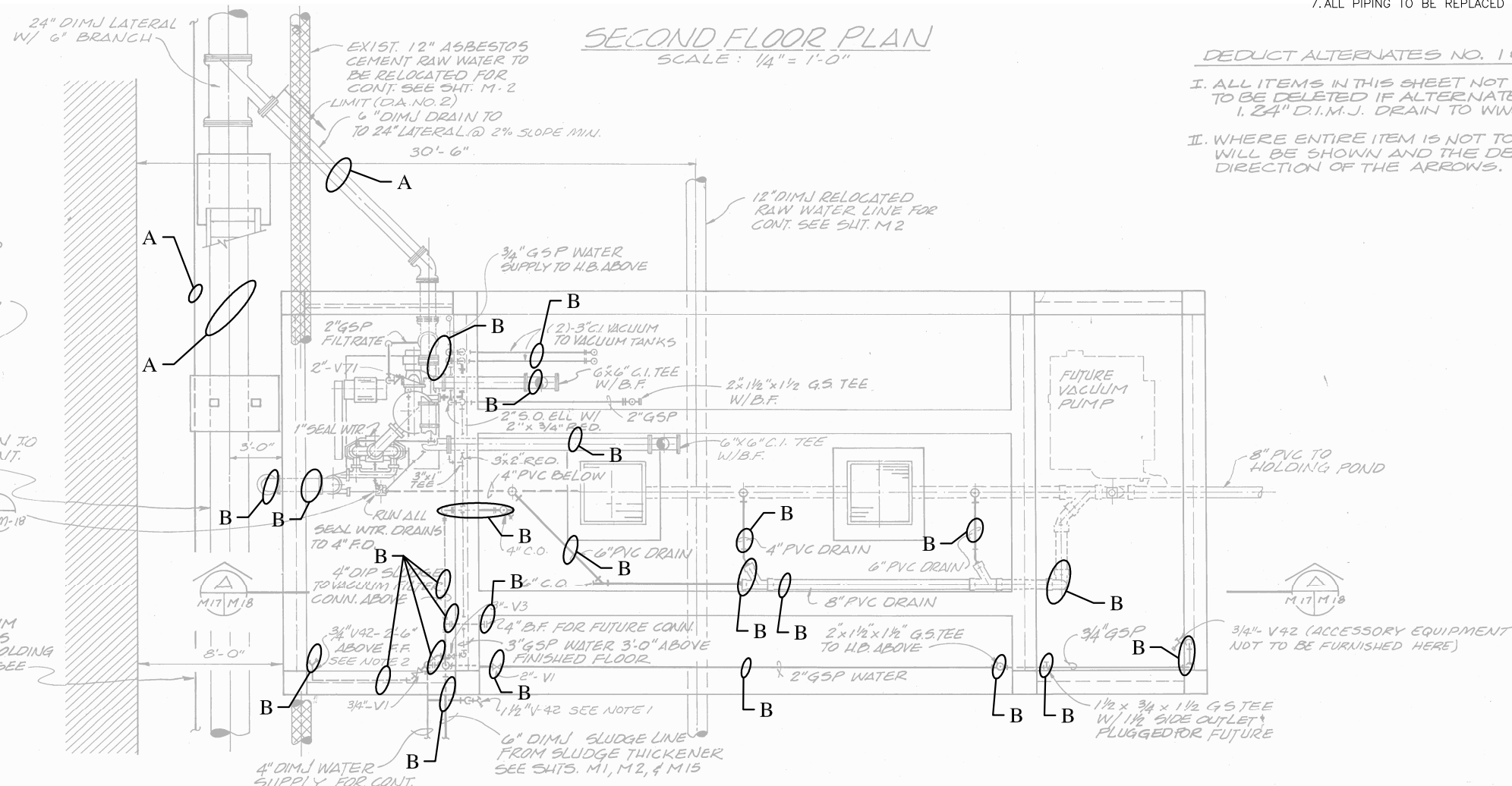
RM-17A

- NOTES:
1. ALL PIPING WITHIN THE BUILDING FOOTPRINT SHALL BE REPLACED WITH SAME MATERIAL, SIZE, AND PRESSURE CLASS OF PIPE OR BETTER. PIPES BELOW FIRST FLOOR CONCRETE SLAB OR ASPHALT DRIVE SHALL NOT BE REPLACED EXCEPT WHERE PIPING PENETRATES FIRST FLOOR CONCRETE SLAB OR ASPHALT DRIVE. PIPING THAT PENETRATES THE FIRST FLOOR SHALL BE REPLACED TO FIRST FITTING BELOW CONCRETE SLAB OR ASPHALT DRIVE UNLESS OTHERWISE APPROVED BY ENGINEER. THE PIPES THAT HAVE BEEN CUT AND USED AS CONCRETE PENETRATION SLEEVES SHALL BE REMOVED AND REPLACED WITH ORIGINALLY INSTALLED PIPE. ALL PIPING TO BE COATED AND PAINTED. ALL PROCESS DUCTILE IRON PIPING SHALL BE CERAMIC EPOXY LINED PER CITY WASTEWATER FORCEMAIN REQUIREMENTS. ALL VALVES AND FITTINGS ARE INCLUSIVE OF PIPING AS IT RELATES TO REPLACEMENT.
 2. ALL PIPE SUPPORTS AND HANGERS SHALL BE REPLACED INCLUDING CONCRETE ANCHORS, UNLESS EXISTING ANCHORS ARE STAINLESS STEEL.
 3. CONCRETE FLOORS TO BE PAINTED/STAINED AND INCLUDE SHERWIN WILLIAMS 5190/5191 SKID INHIBITING ADDITIVE. COLOR TO BE COORDINATED WITH OWNER. UP TO FOUR SAMPLE TEST AREAS OF 16 SQUARE FEET SHALL BE PAINTED WITH INHIBITOR FOR APPROVAL.
 4. ALL INTERIOR SURFACES OF THE BUILDING TO BE PAINTED IN THEIR ENTIRETY USING SHERWIN WILLIAMS LATEX ENAMEL EXTERIOR GRADE PAINT. COLOR TO BE COORDINATED WITH OWNER.
 5. ONE VACUUM FILTER SYSTEM SHALL REMAIN IN SERVICE AT ALL TIMES. THE OWNER SHALL DETERMINE WHICH SYSTEM SHALL BE REPLACED FIRST. BOTH SYSTEMS MAY BE OUT OF SERVICE A MAXIMUM OF THREE DAYS TO PERFORM WORK THAT IMPACTS BOTH SYSTEMS. THE FIRST SYSTEM SHALL BE IN OPERATION AND OPERATE SUCCESSFULLY FIVE CONCURRENT DAYS BEFORE THE SECOND SYSTEM IS REPLACED.
 6. THE DRAWING ON THIS SHEET WITH CALLOUTS IS FOR INFORMATIONAL PURPOSES TO CLARIFY NOTE 1 ABOVE.
 - A. NOT TO BE REPLACED.
 - B. REPLACE PIPING WITH LIKE PIPING OR WITH PIPING TYPE ORIGINALLY INSTALLED AS DETERMINED BY ENGINEER. BETTER PIPING THAN LIKE OR ORIGINAL MAY BE INSTALLED AT CONTRACTOR'S OPTION AND AS APPROVED BY ENGINEER. NOTE 1 ABOVE TAKES PRECEDENCE OVER THIS NOTE.
 7. ALL PIPING TO BE REPLACED IS NOT SHOWN.

DEDUCT ALTERNATES NO. 1 & 2 - NOTES

- I. ALL ITEMS IN THIS SHEET NOT LISTED BELOW ARE TO BE DELETED IF ALTERNATE NO. 2 IS SELECTED:
 1. 24" D.I.M.J. DRAIN TO W.W.R.B.
- II. WHERE ENTIRE ITEM IS NOT TO BE DELETED LIMITS WILL BE SHOWN AND THE DELETION SHALL BE IN THE DIRECTION OF THE ARROWS.

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

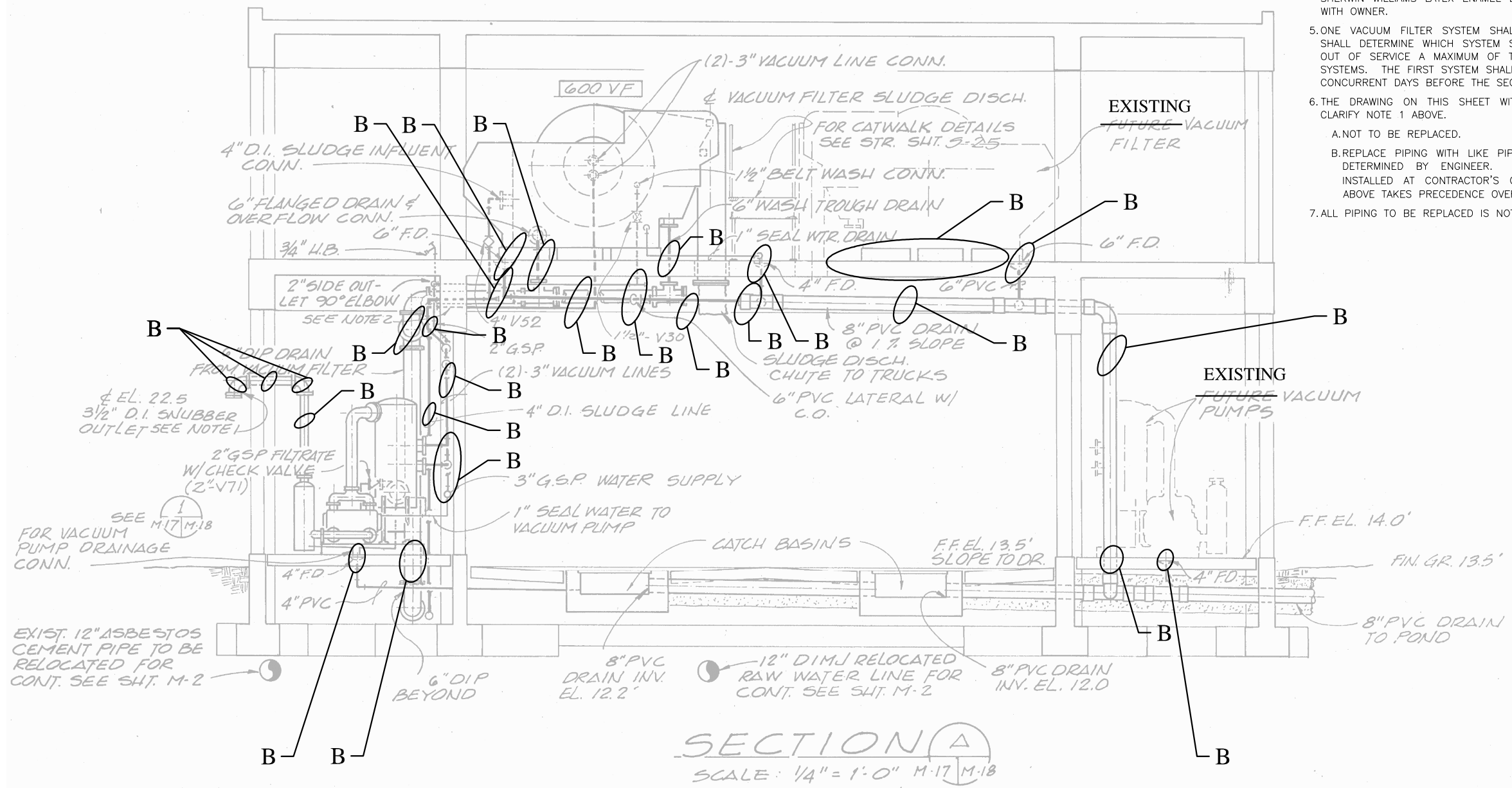


FIRST FLOOR PLAN @ EL. 27.5'
 SCALE: 1/4" = 1'-0"

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SECTION A-A
SCALE: 1/4" = 1'-0" M-17 M-18

NO.	REVISIONS DESCRIPTION	DATE

DATE: DECEMBER 2012
PROJECT NO. 20129093-000
FILE NO. 34-49-25
SCALE: As Shown

RM-18 Notes

CONSTRUCTION PLAN SET

SHEET NUMBER

RM-18A

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