CONTRACT DRAWINGS FOR

1.0 MGD FAGATOGO AND 0.5 MGD VAIPITO MICROFILTRATION WATER TREATMENT PLANTS

AMERICAN SAMOA POWER AUTHORITY
JULY 2000

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E. C. LIVINGSTON NEW MEXICO 10481 REGISTERED PROFESSIONAL ENGINEER

LIVINGSTON ASSOCIATES, P.C.
500 E. TENTH STREET, SUITE 300
ALAMOGORDO, N.M. 88310
(505) 439-8588

INDEX OF SHEETS

GENERAL NOTES:

1. MICROFILTRATION EQUIPMENT IS OWNER FURNISHED (OFE) AND CONTRACTOR INSTALLED. REFER TO SPECIFICATIONS FOR DETAILS. CONTRACTOR TO COORDINATE WITH USFILTER FOR SUPPLIED EQUIPMENT, ACCESSORIES, ADDITIONAL MATERIALS NEEDED FOR PROPER INSTALLATION AND OPERATION, INSTALLATION, LOCATIONS FOR PIPING CONNECTIONS, ELECTRICAL AND MECHANICAL CONNECTIONS.

US FILTER REPRESENTATIVE:
DON MOORE, PROJECT MANAGER
(410) 308-2990
(410) 561-3017 (FAX)
DMOORE@USFMEMCOR.COM

2. OWNER FURNISHED EQUIPMENT WILL BE AVAILABLE FOR CONTRACTOR PICK-UP AT THE WATER DEPARTMENT YARD AT TAFUNA POWER PLANT. COORDINATE WITH ASPA A MINIMUM OF ONE WEEK PRIOR TO PICK-UP.

3. CONTRACTOR TO FURNISH AND INSTALL MISC. PIPING, ELECTRICAL AND MECHANICAL EQUIPMENT NEEDED FOR COMPLETE SYSTEM OPERATION. PIPING CONNECTIONS SHOWN ON PLANS ARE APPROXIMATE. COORDINATE WITH USFILTER.

4. MAJOR OFE ONLY IS SHOWN AND IDENTIFIED AS OFE ON PLANS. MISC. PIPING, VALVING, ETC. AS OFE IS NOT IDENTIFIED AS SUCH. SEE SPECIFICATIONS.

5. CONTRACTOR TO SUPPLY AND INSTALL APPROPRIATE MOUNTING HARDWARE FOR SUSPENDING OVERHEAD AND WALL MOUNTED PIPING, ELECTRICAL AND MECHANICAL AS NEEDED.

6. CONTRACTOR TO COORDINATE WITH USFILTER FOR INSTALLATION, START-UP AND TRAINING (OWNER FURNISHED USFILTER REPRESENTATIVE).

7. CONTRACTORS SUBMITTALS TO INCLUDE ANY ITEMS NOT SPECIFICALLY SPECIFIED BUT CALLED FOR IN THESE DRAWINGS OR SPECIFICATIONS.

8. EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. CONTRACTOR TO FIELD VERIFY UTILITIES AS REQUIRED. NOT ALL EXISTING UTILITIES ARE SHOWN.

9. CONTRACTOR TO COMPLY WITH THE UBC, UPC, NEC AND ALL APPLICABLE FEDERAL AND LOCAL CODES GOVERNING THIS WORK.

10. CONTRACTOR TO REQUEST AND OBTAIN ALL APPLICABLE PERMITS FOR CONSTRUCTION OF THIS PROJECT.

11. THE ASPA WILL DRAIN-DOWN THE RESERVOIRS AND MAKE WATER SYSTEM SHUT-OFFS AS NEEDED FOR PIPING CONNECTIONS. NOTIFY ASPA A MINIMUM OF 2 WEEKS PRIOR TO SCHEDULING CONNECTIONS.

12. A MINIMUM OF ONE WEEK PRIOR TO EXCAVATION ACTIVITIES, CONTRACTOR SHALL COORDINATE WITH UTILITIES FOR LOCATION OF UNDERGROUND SERVICES.

13. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING FACILITIES DURING CONSTRUCTION AND SHALL REPAIR OR REPLACE SAME AT CONTRACTORS EXPENSE AND NO COST TO OWNER.

14. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF CONSTRUCTION DEBRIS IN A SAFE AND APPROVED MANNER.

15. CONTRACTOR SHALL SUPPORT AND MAINTAIN OPERATIONAL ALL UTILITIES EXPOSED DURING CONSTRUCTION. NO UTILITY SERVICE SHALL BE DISRUPTED WITHOUT COORDINATING WITH UTILITY OWNER AND PROPER NOTIFICATION OF AFFECTED PARTIES.

16. PROJECT SHALL BE CONSTRUCTED IN A SAFE AND WORKMAN LIKE MANNER TO THE PLANS AND SPECIFICATIONS AND TO THE APPROVAL OF THE ENGINEER AND OWNER. ALL DEFECTIVE WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL EXPENSE.

17. IN CONTRACT DOCUMENTS AND SUPPORTING INFORMATION, THE TERM "CUSTOMER" IS EQUAL TO "CONTRACTOR".

LEGEND

PROPOSED	EXISTING	DESCRIPTION
6"W	6"W	WATER LINE W / SIZE
		GATE VALVE
		REDUCER
PP	PP	POWER POLE
N/A	UGP	UNDERGROUND ELECTRICITY
N/A	X X X	CHAIN LINK FENCE
X 460	X 460	SPOT ELEVATION
N/A		RIGHT OF WAY LINE
N/A	PL	PROPERTY LINE
N/A	ESMT	EASEMENT LINE
N/A		DITCH
5510	5510	CONTOUR

LIVINGSTON ASSOCIATES, P.C.

ISSUE	DESCRIPTION	DATE	DRWN	CHKD	ENGR	MNGR
C	BID SET	7/00				
B	FINAL SUBMITTAL	7/00				
A	PRELIMINARY SUBMITTAL	11/99				

E. C. LIVINGSTON NEW MEXICO NO. 10481 REGISTERED PROFESSIONAL ENGINEER

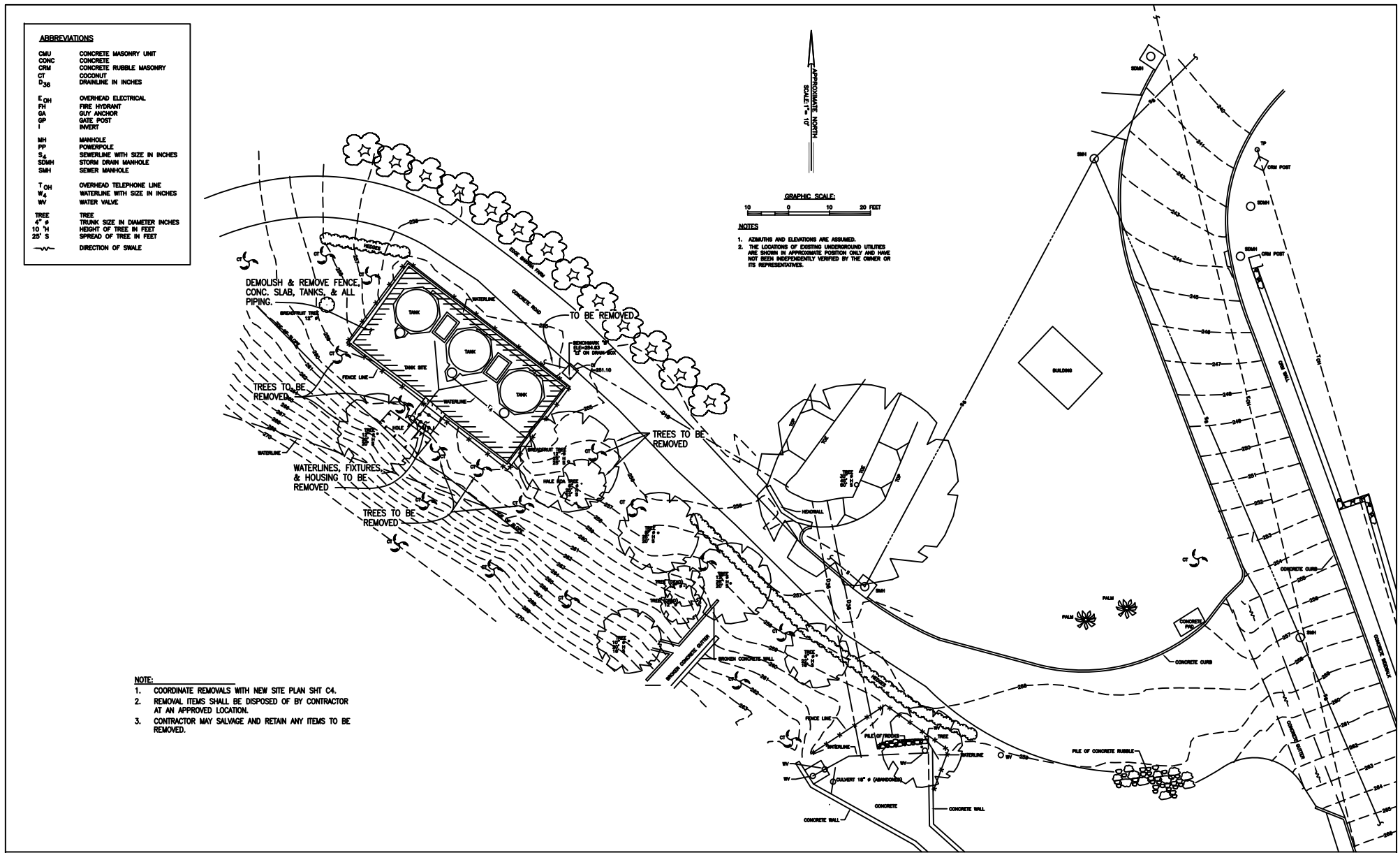
PROJECT MANAGER: E. LIVINGSTON	
ARCHITECT: –	MECHANICAL: –
CIVIL: E. LIVINGSTON	ELECTRICAL: –
STRUCTURAL: –	DRAWN BY: TPP

AMERICAN SAMOA POWER AUTHORITY
FAGATOGO AND VAIPITO
MICROFILTRATION
WATER TREATMENT PLANTS

GENERAL NOTES AND LEGEND

DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C2	C

SCALE: NONE



LIVINGSTON ASSOCIATES, P.C.

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E. LIVINGSTON NEW MEXICO NO. 10481 REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER	E. LIVINGSTON
ARCHITECT	–
MECHANICAL	–
CIVIL	E. LIVINGSTON
ELECTRICAL	–
STRUCTURAL	–
DRAWN BY	TPP

AMERICAN SAMOA POWER AUTHORITY
VAIPITO MICROFILTRATION WATER TREATMENT PLANT

VAIPITO WTP DEMOLITION PLAN

DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C3	C

SCALE 1"=10'

KEYED NOTES

1. 0.5 MGD VAIPITO WTP (SEE SHEETS C4 TO C7).
2. INSTALL APPROX. 240 LF OF 6" PVC WATERLINE. CONNECT TO BUILDING FILTRATE LINE.
3. INSTALL 1 ~ 6" 45° BEND (M.J.) W/ RESTRAINED JOINTS.
4. INSTALL 1 ~ 6" GATE VALVE & BOX (M.J.) W/ RESTRAINED JOINTS.
5. DEFLECT JOINTS AS NEEDED.
6. CONNECT INTO EXIST. 8" ZONE 1 WATERLINE. INSTALL 1 ~ 8x8 TEE (M.J.), 1 ~ 8" COUPLING, 1 ~ 6" GATE VALVE (M.J.) & BOX W/ RESTRAINED JOINTS. REPLACE CURB & GUTTER AND SIDEWALK AS NEEDED.
7. REMOVE & REPLACE AC/CONC. PAVEMENT AS REQUIRED FOR UTILITY INSTALLATION. REPLACE WITH EXIST. THICKNESS PLUS 1".
8. INSTALL APPROX 10 LF OF 6" DIP W/ RESTRAINED JOINTS. CONNECT TO BUILDING BACKWASH DRAIN LINE.
9. CUT INTO EXIST. STORM CATCH BASIN AND CONNECT 6" BACKWASH DRAIN. SEAL PENETRATION W/ NON-SHRINK GROUT, THEN CONCRETE ENCASE TO FITTING.
10. INSTALL APPROX. 100 LF OF 6" PVC CIP DRAIN LINE TO EXISTING MANHOLE (SLOPE MIN. 2%).
11. INSTALL 1 ~ 6" PVC 45° BEND.
12. CONNECT 6" DRAIN LINE (INV.=253.00) AND 4" SEWER SERVICE (INV.=254.00) INTO EXIST. SEWER MANHOLE. SEAL PENETRATIONS WITH NON-SHRINK GROUT.
13. INSTALL 4" CLEANOUT AND CONNECT TO BUILDING SEWER.
14. INSTALL APPROX. 150 LF 4" PVC SEWER SERVICE LINE (SLOPE MIN. 2%) TO EXIST. MANHOLE.
15. INSTALL 4" 45° BEND AND CLEANOUT.
16. CONSTRUCT 5x5 CONC. DOOR STOOP, 6" THICK (SLOPE AT ¼"/FT.
17. CONNECT 3" TRENCH DRAIN LINE TO 4" SEWER SERVICE LINE.
18. GRADE SWALE TO DRAIN.
19. KEYSTONE BLOCK RETAINING WALL.
20. 1-1/2" AC PAVEMENT (1500 LBS) ON 6" BASE COURSE (95%), 12" COMPACTED SUBGRADE (95%).
21. SAWCUT EDGES AND TACK COAT.
22. EXTEND TELEPHONE SERVICE TO BUILDING.
23. CHLORINE INJECTION MANHOLE.
24. INSTALL 1 ~ 8" TEE (M.J.) W/RESTRAINED JOINTS (ALL), 2 ~ 8" GATE VALVE & BOX (M.J.), 1 ~ 8" 45° BEND (M.J.).
25. INSTALL APPROX. 20 LF 8" DIP SLOPE APPROX 2% TO MANHOLE AND CONNECT. (8" INV. 252.00).
26. CUT INTO EXIST. 6" SEWERLINE AND INSTALL 4 FT. DIA. MANHOLE APPROX. 5 FT. DEPTH. (FIELD VERIFY).

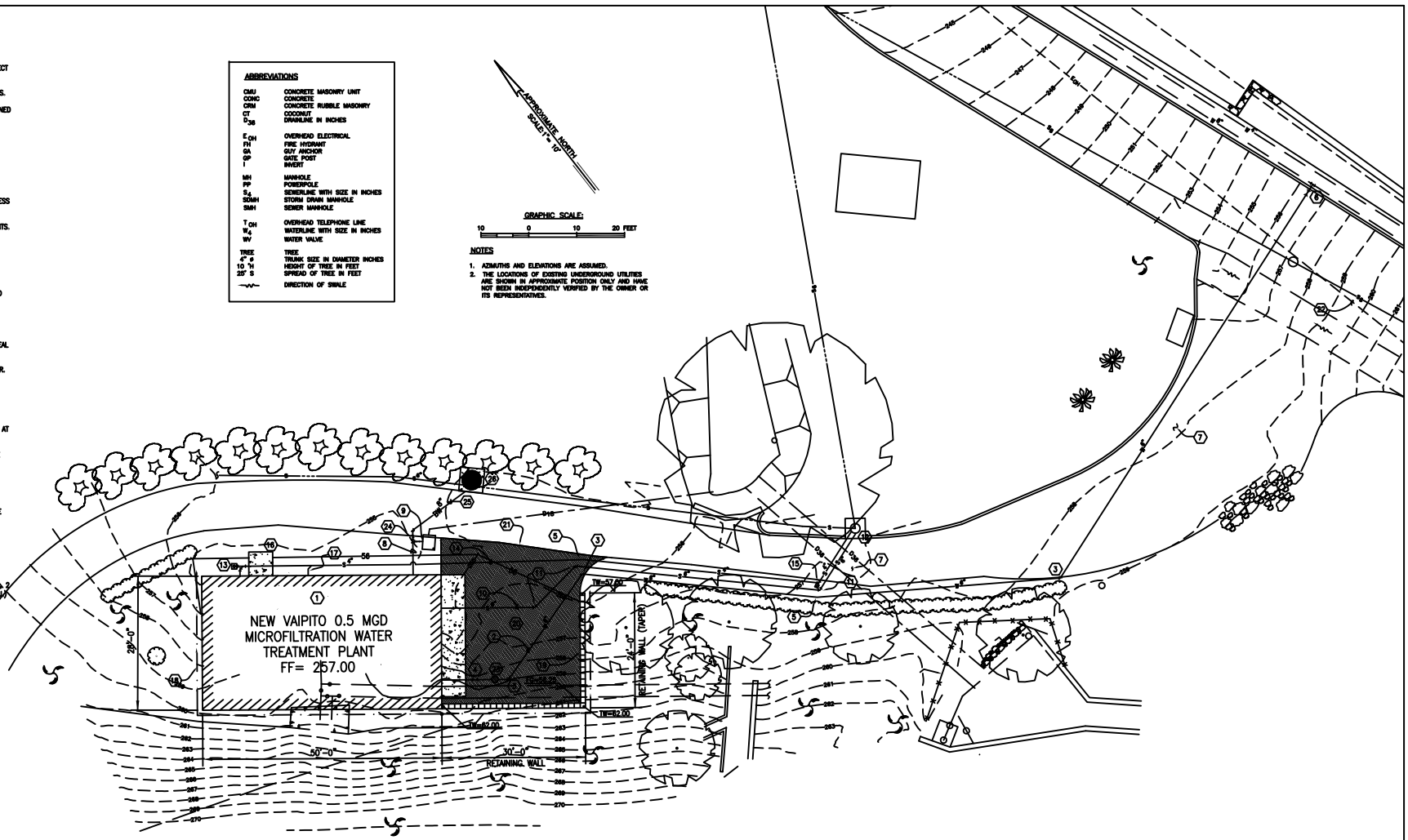
ABBREVIATIONS

CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CRM	CONCRETE RUBBLE MASONRY
CT	CONDUIT
D_{36}	DRAINLINE IN INCHES
E_{OH}	OVERHEAD ELECTRICAL
FH	FIRE HYDRANT
GA	GUY ANCHOR
GP	GATE POST
I	INVERT
MH	MANHOLE
PP	POWERPOLE
S_8	SEWERLINE WITH SIZE IN INCHES
SDMH	STORM DRAIN MANHOLE
SMH	SEWER MANHOLE
T_{OH}	OVERHEAD TELEPHONE LINE
W_8	WATERLINE WITH SIZE IN INCHES
WV	WATER VALVE
TREE 4" ø	TREE TRUNK SIZE IN DIAMETER INCHES
10 'H	HEIGHT OF TREE IN FEET
25' S	SPREAD OF TREE IN FEET
	DIRECTION OF SWALE

APPROXIMATE NORTH
SCALE: 1"=10'

GRAPHIC SCALE:
10 0 10 20 FEET

NOTES
1. AZIMUTHS AND ELEVATIONS ARE ASSUMED.
2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE POSITION ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES.



LIVINGSTON ASSOCIATES, P.C.

ISSUE	DESCRIPTION	DATE	DRWN	CHKD	ENGR	MNGR
D	CHANGE ORDER NO. 2	3/01				
C	BID SET	7/00				
B	FINAL SUBMITTAL	7/00				
A	PRELIMINARY SUBMITTAL	11/99				

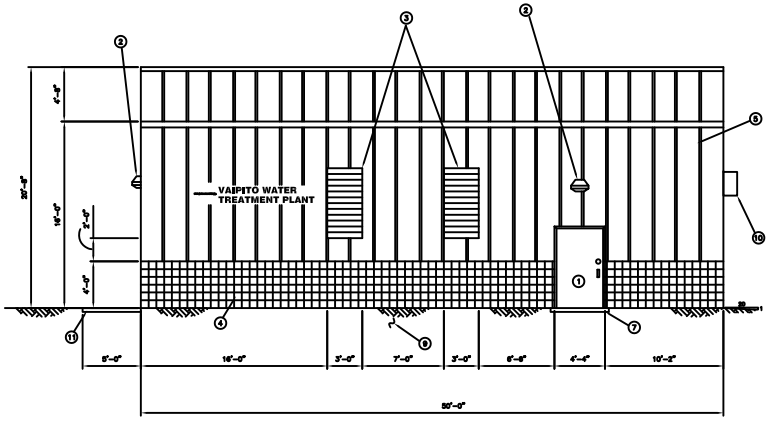
E. C. LIVINGSTON NEW MEXICO NO. 10481 REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER: E. LIVINGSTON	
ARCHITECT: –	MECHANICAL: –
CIVIL: E. LIVINGSTON	ELECTRICAL: –
STRUCTURAL: –	DRAWN BY: TPP

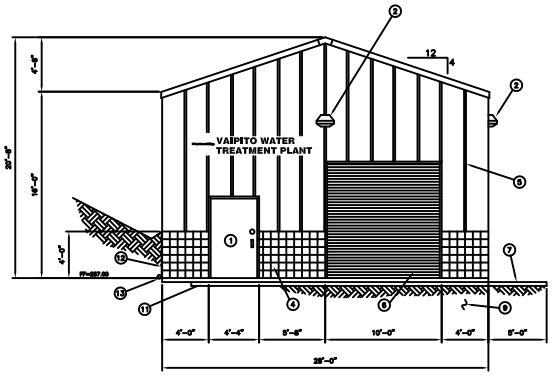
AMERICAN SAMOA POWER AUTHORITY
VAIPITO MICROFILTRATION
WATER TREATMENT PLANT

VAIPITO WTP SITE LAYOUT, GRADING & YARD PIPING PLAN

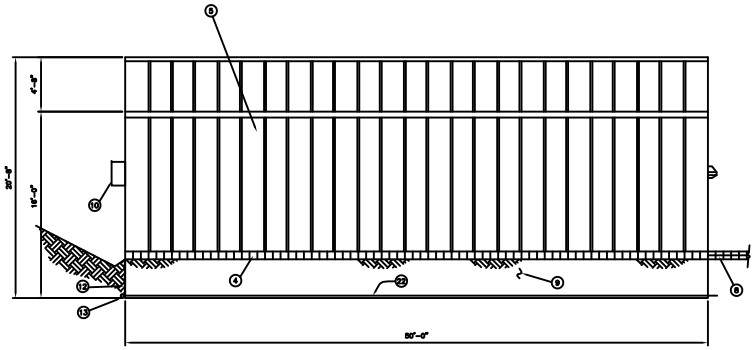
DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C4	C
SCALE: 1"=10'			



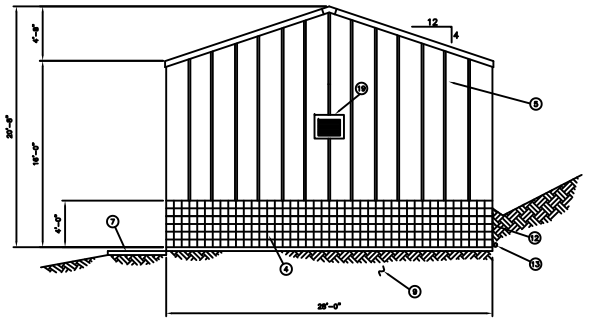
NORTH ELEVATION
SCALE: 1/4" = 1'-0"



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



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



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

KEYED NOTES:

1. DOOR, 4'-0"x7'-0"
2. PERIMETER LIGHT
3. LOUVER, 6'-0"x3'-0"
4. 8"x8" CMU BLOCK PAINTED
5. PRE-MANUFACTURED METAL BUILDING
6. METAL ROLL-UP DOOR, 10'-0"x10'-0"
7. 5'x5' CONC. STOOP
8. KEYSTONE RETAINING WALL
9. 1' TO 3' OF COMPACTED ENGINEERED FILL
10. WALL MOUNTED A.C. UNIT
11. 5'x25.5' CONC. APRON
12. WALL DRAIN SYSTEM
13. WALL DRAIN PIPE (DRAIN TO DAYLIGHT)

LIVINGSTON ASSOCIATES, P.C.

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E. LIVINGSTON, NO. 10481, REGISTERED PROFESSIONAL ENGINEER

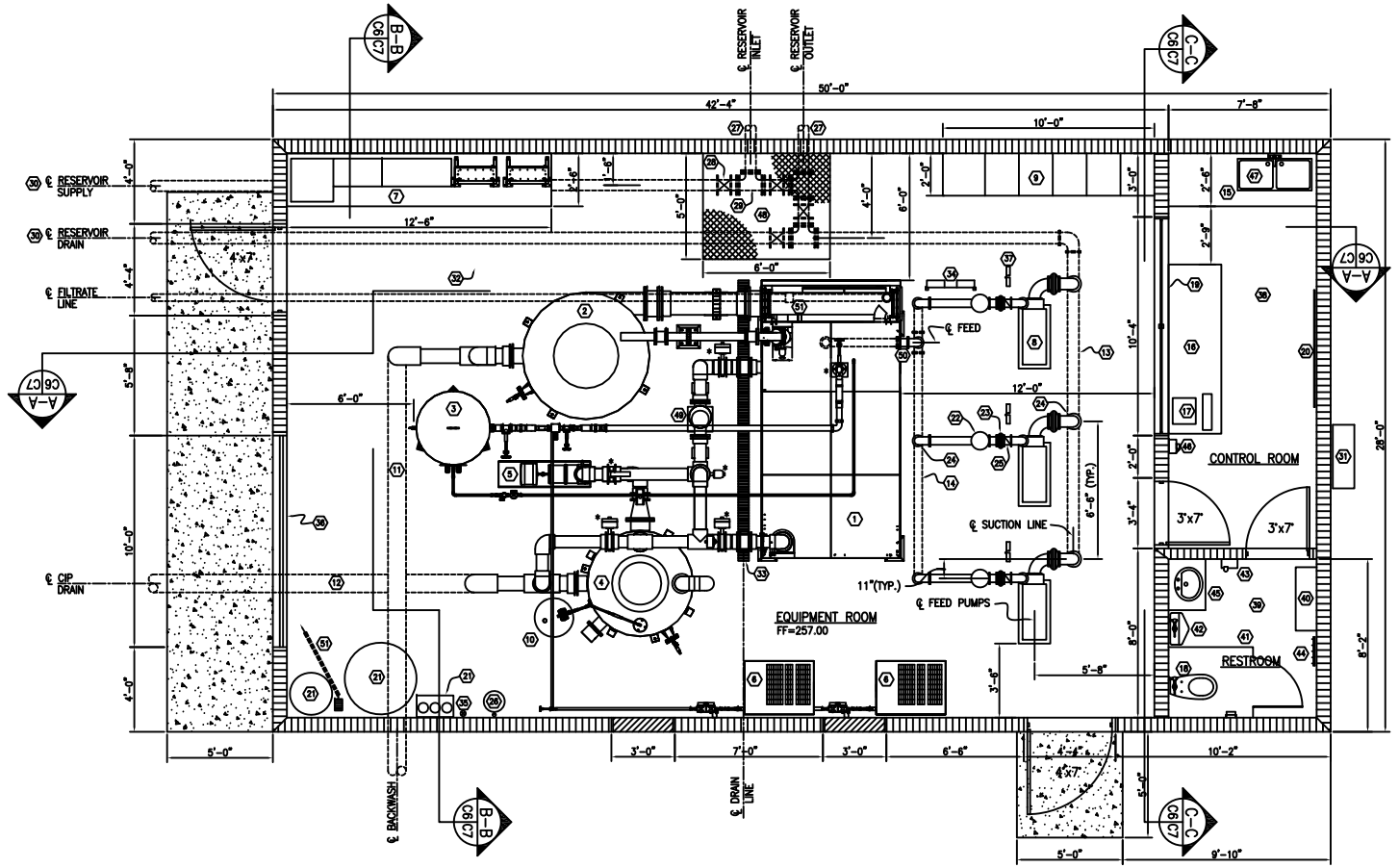
PROJECT MANAGER: E. LIVINGSTON
ARCHITECT: –
MECHANICAL: –
CIVIL: E. LIVINGSTON
ELECTRICAL: –
STRUCTURAL: QPEC
DRAWN BY: TPP

AMERICAN SAMOA POWER AUTHORITY
VAIPITO MICROFILTRATION
WATER TREATMENT PLANT

VAIPITO WTP
BUILDING ELEVATIONS

DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C5	C

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



KEYED NOTES

- *(1) 0.5 MG MICROFILTRATION SYSTEM (1x48M10C)
- *(2) BACKWASH TANK AND ACCESSORIES
- *(3) AIR TANK AND ACCESSORIES
- *(4) CIP TANK AND ACCESSORIES
- *(5) CIP RECIRCULATION PUMP
- *(6) AIR COMPRESSOR SYSTEM
- *(7) STATION CONTROL PANEL
- (8) 450 GPM @ 100 FT. TDH (20 HP) FEED PUMP (VFD) (TYPICAL OF 3) (SEE PIPING ELEVATION SHT C7.)
- (9) MOTOR CONTROL CENTER
- *(10) CIP CHEMICAL DOSING SYSTEM (3 EA.)
- (11) 6" BACKWASH DRAIN LINE
- (12) 6" CIP DRAIN LINE
- (13) 6" FEED PUMP SUCTION LINE
- (14) 6" FEED PUMP DISCHARGE LINE
- (15) LAB COUNTER TOP AND CABINETS
- (16) OPERATOR DESK
- *(17) COMPUTER SYSTEM
- (18) COMMODE AND FLUSH VALVE
- (19) 5'-0"x5'-0" DOUBLE PAYNE INSULATED AND REINFORCED GLAZING IN 6"x2" ANODIZED ALUMINUM FRAME
- (20) PLANT FLOW SCHEMATIC (FRAMED W/GLASS COVER)
- (21) ON-SITE HYPOCHLORITE SOLUTION GENERATOR AND STORAGE TANK, PUMP
- *(22) 6" MANUAL CLEAN STRAINER (TYPICAL OF 3)
- (23) RESTRAINED FLEX COUPLING (TYP.)
- (24) HAND-OPERATED QUARTER TURN BUTTERFLY VALVE (TYP.)
- (25) DOUBLE-DISK WAFER CHECK VALVE (TYP.)
- (26) EMERGENCY EYE-WASH/SHOWER
- (27) CUT INTO EXIST. 6" CIP AND REPLACE USING 6" DIP AND RESTRAINED COUPLING.
- (28) NEW 6" GATE VALVE AND BOX (TYP.)
- (29) NEW 6" TEE (M.J.) W/ RESTRAINED JOINTS
- (30) REPLACE OLD PIPES WITH NEW 6" DIP TO 10 FT BEYOND BUILDING. CONNECT TO EXIST.
- (31) WALL MOUNTED AC UNIT
- (32) 6" FILTRATE LINE
- (33) 6" WIDE TRENCH DRAIN AND 3" DRAIN LINE
- (34) FEED WATER AND FILTRATE WATER TURBIDIMETERS MOUNTED ON UNI-STRUT FRAME AND PLUMBED TO SUPPLY AND DRAIN.
- (35) HOSE BIBB
- (36) 10'x10' OVERHEAD COILING DOOR
- (37) PRESSURE GUAGE STAND (TYP. OF 3)
- (38) 130 SF VINYL FLOOR TILE
- (39) 55 SF CERAMIC FLOOR TILE
- (40) 36"W x 60"H STEEL LOCKERS (3 COMPARTMENTS)
- (41) STALL PARTITION
- (42) URINAL
- (43) WARM-AIR HAND DRYER
- (44) COAT HANGERS
- (45) SINK, CABINETS AND WATER HEATER
- (46) CORDLESS TELEPHONE (WIRE TO BLDG SERVICE)
- (47) S.S. SINK W/ELECTRIC WATER HEATER BELOW
- (48) 5'L x 6'W x 3'D VALVE PIT W/FIBERGLASS GRATING
- *(49) CIP STRAINER
- *(50) FEED FLOWMETER
- *(51) FILTRATE FLOW METER

NOTE: * DENOTES OWNER FURNISHED/CONTRACTOR INSTALLED EQUIPMENT.

NOTE:
STRUCTURAL FRAMING NOT SHOWN FOR CLARITY. FIR AROUND FRAMING IN CONTROL ROOM AND RESTROOM. ADJUST POSITION OF EQUIPMENT IN EQUIPMENT ROOM IF NEEDED.

LIVINGSTON ASSOCIATES, P.C.

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C	BID SET	7/00				
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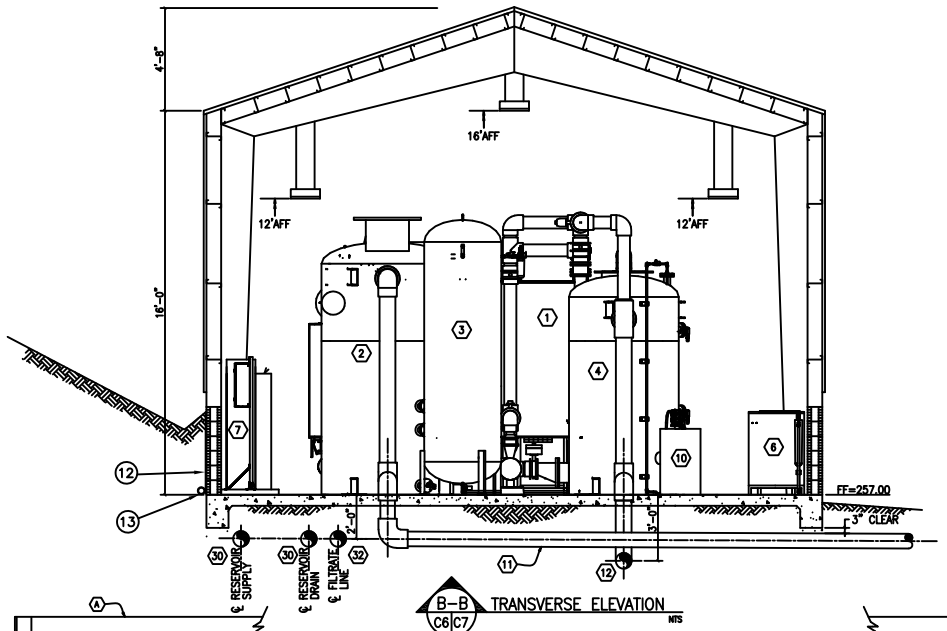
E. C. LIVINGSTON NEW MEXICO NO. 10481 REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER	E. LIVINGSTON
ARCHITECT	–
MECHANICAL	–
CIVIL	E. LIVINGSTON
ELECTRICAL	–
STRUCTURAL	–
DRAWN BY	TPP

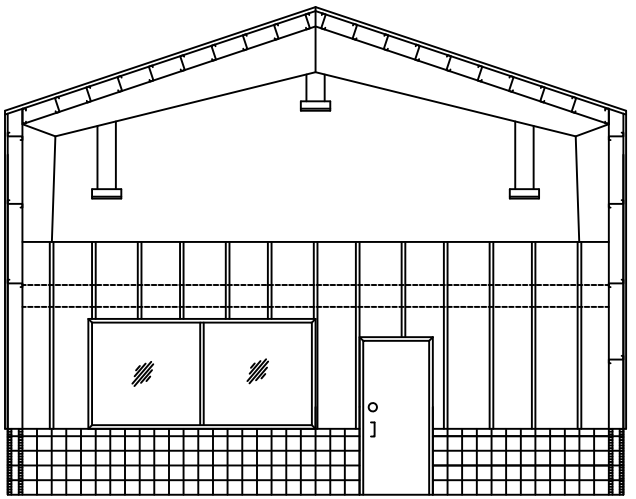
AMERICAN SAMOA POWER AUTHORITY
VAIPITO MICROFILTRATION
WATER TREATMENT PLANT

VAIPITO WTP
FLOOR AND PIPING PLAN

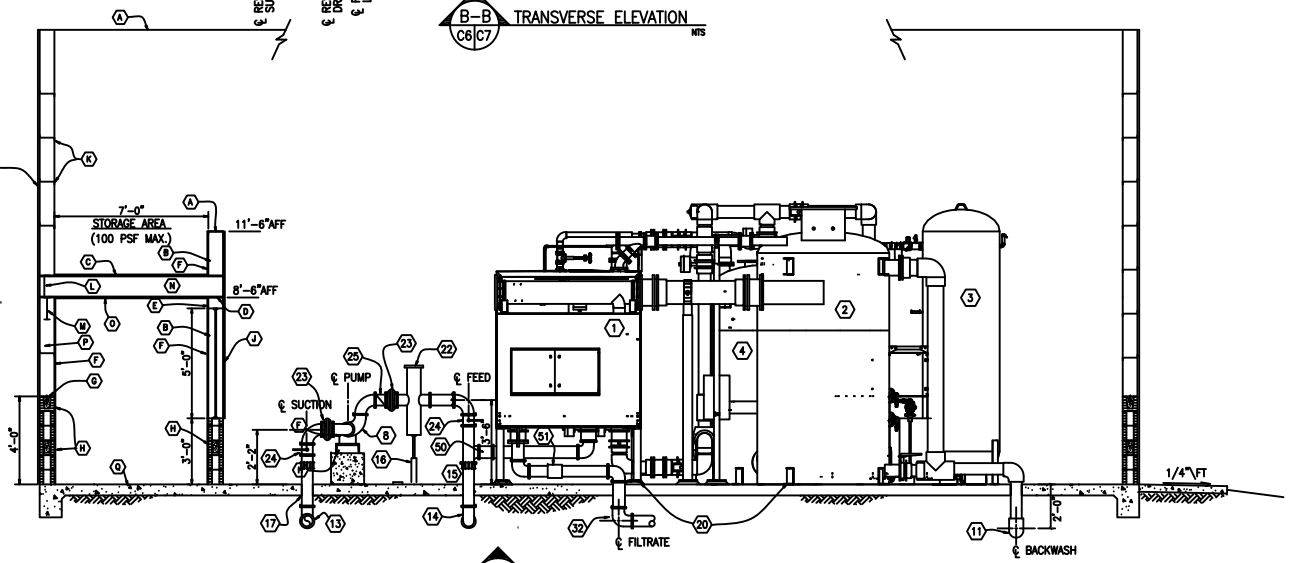
DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C6	C
SCALE 3/8"=1'-0"			



B–B C6|C7 TRANSVERSE ELEVATION NTS



C–C C6|C7 INTERIOR ELEVATION NTS



A–A C6|C7 LOGITUDINAL ELEVATION NTS

- (A) 20 GA TRACK
- (B) 20 GA STUDS @ 24" O.C.
- (C) 7/16" OSB
- (D) JOIST BEARING TRACK
- (E) DOUBLE STUDS @ JOIST BEARING
- (F) 1/2" SHEETROCK
- (G) 18 GA TRACK W/SHOT ANCHORS @ 24" O.C.
- (H) MASONRY BOND BEAM
- (J) PRE-MANUFACTURED WALL PANEL
- (K) PRE-MANUFACTURED BLDG "Z" GIRTS
- (L) 12"x1-3/8"x20 GA STUD BLOCKING
- (M) WIDE FLANGE BEAM SPANNING TO PRE-MANUFACTURED FRAME COLUMNS
- (N) 12"x2"x14 GA STUD JOISTS @ 24" O.C.
- (O) 7/16" OSB W/ACCOUSTIC CEILING
- (P) BUILDING INSULATION
- (Q) VINYL FLOOR TILE

KEYED NOTES

- *(1) 0.5 MG MICROFILTRATION SYSTEM (1x48M10C)
- *(2) BACKWASH TANK
- *(3) AIR TANK
- *(4) CIP TANK
- *(5) CIP RECIRCULATION PUMP
- *(6) AIR COMPRESSOR SYSTEM
- *(7) STATION CONTROL PANEL
- (8) 450 GPM @ 100 FT. TDH (20 HP) FEED PUMP (VFD)
- *(10) CIP CHEMICAL DOSING SYSTEM
- (11) 6" BACKWASH DRAIN LINE
- (12) 6" CIP DRAIN LINE
- (13) 6" FEED PUMP SUCTION LINE
- (14) 6" FEED PUMP SUPPLY LINE
- (15) RESTRAINED COUPLING
- (16) PIPE SUPPORT
- (17) WRAP PIPE W/30# FELT
- (18) WALL DRAIN
- (19) 3" WALL DRAIN PIPE (DRAIN TO DAYLIGHT)
- (20) FASTEN EQUIPMENT PER MANUFACTURER'S RECOMENDATIONS (TYP)
- *(22) 6" MANUAL CLEAN STRAINER (TYPICAL OF 3)
- (23) RESTRAINED FLEX COUPLING (TYP.)
- (24) HAND-OPERATED QUARTER TURN BUTTERFLY VALVE (TYP.)
- (25) DOUBLE-DISK WAFER CHECK VALVE (TYP.)
- (30) CONNECT TO EXIST. 8" DIP
- (32) 6" FILTRATE LINE
- (50) FEED FLOW METER
- (51) FILTRATE FLOW METER

*DENOTES OWNER FURNISHED/CONTRACTOR INSTALLED EQUIPMENT. COORDINATE WITH U.S. FILTER.

NOTE: REFER TO FLOOR AND PIPING PLAN SHEET C6.

LIVINGSTON ASSOCIATES, P.C.

ISSUE	DESCRIPTION	DATE	DRWN	CHKD	ENGR	MNGR
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E.C. LIVINGSTON NEW MEXICO NO. 10481 REGISTERED PROFESSIONAL ENGINEER

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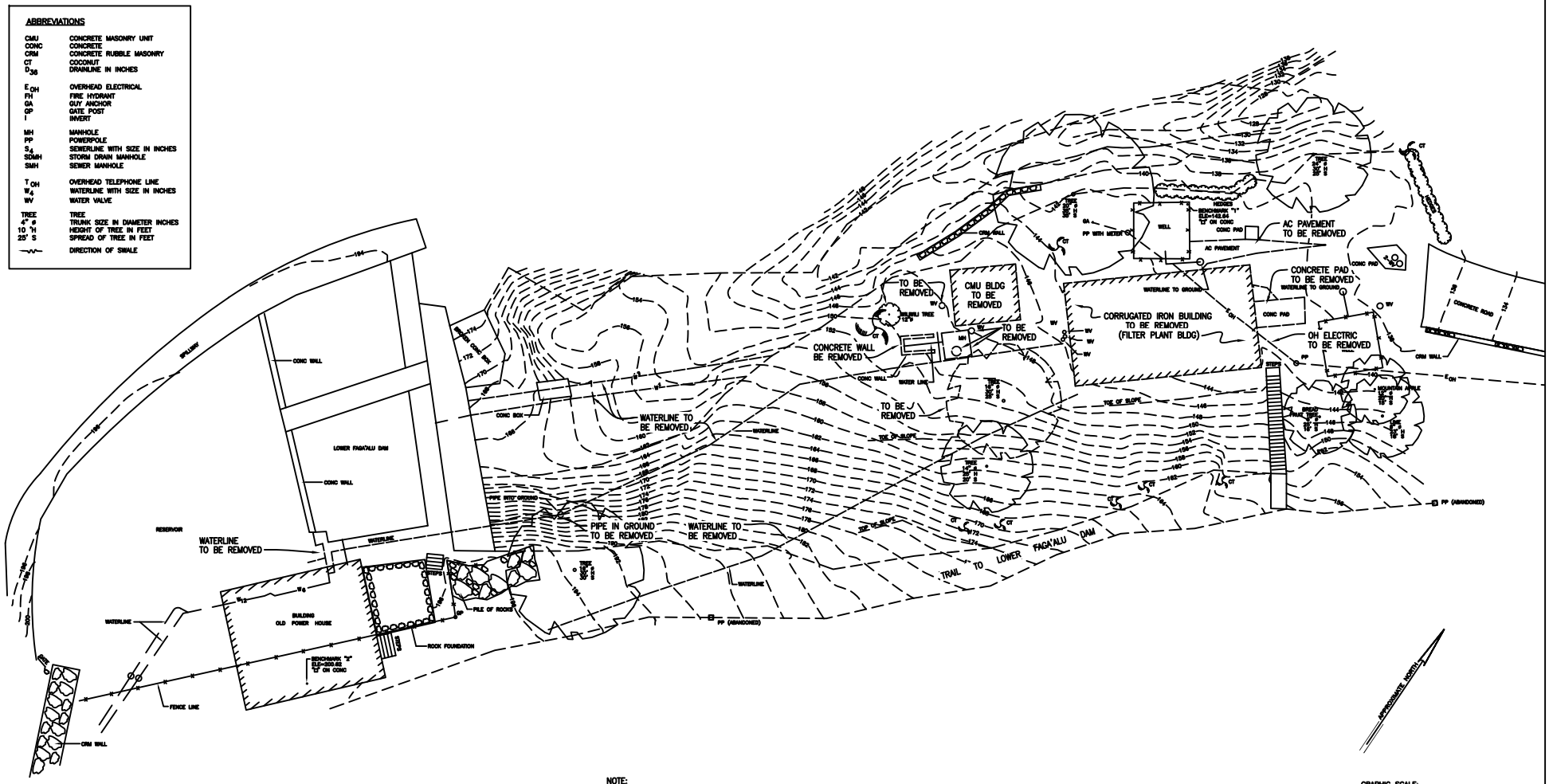
STRUCTURAL: –	DRAWN BY: TPP

AMERICAN SAMOA POWER AUTHORITY
VAIPITO MICROFILTRATION
WATER TREATMENT PLANT

VAIPITO WTP
PIPING ELEVATIONS AND DETAILS

DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C7	C
SCALE: NONE			



NOTE:

1. COORDINATE REMOVALS WITH NEW SITE PLAN SHT C9.
2. REMOVAL ITEMS SHALL BE DISPOSED OF BY CONTRACTOR AT AN APPROVED LOCATION.
3. CONTRACTOR MAY SALVAGE AND RETAIN ANY ITEMS TO BE REMOVED.

NOTES

1. AZIMUTHS AND ELEVATIONS ARE ASSUMED.
2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE POSITION ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES.

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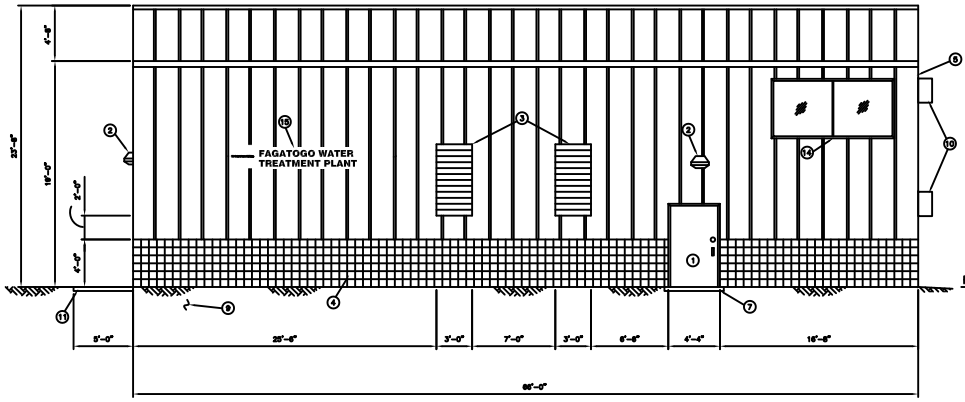
STRUCTURAL	–
DRAWN BY	TPP

AMERICAN SAMOA POWER AUTHORITY
FAGATOGO MICROFILTRATION
WATER TREATMENT PLANT

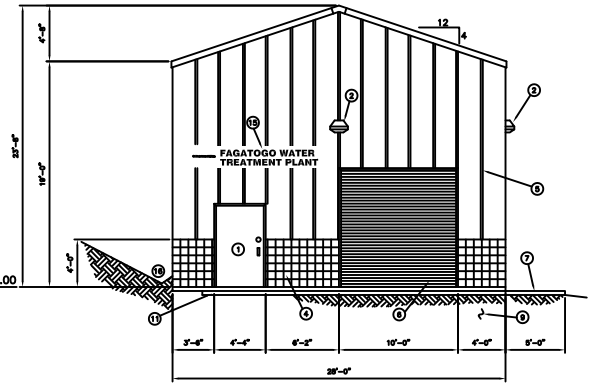
FAGATOGO WTP
DEMOLITION PLAN

DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C8	C

SCALE 1"=10'



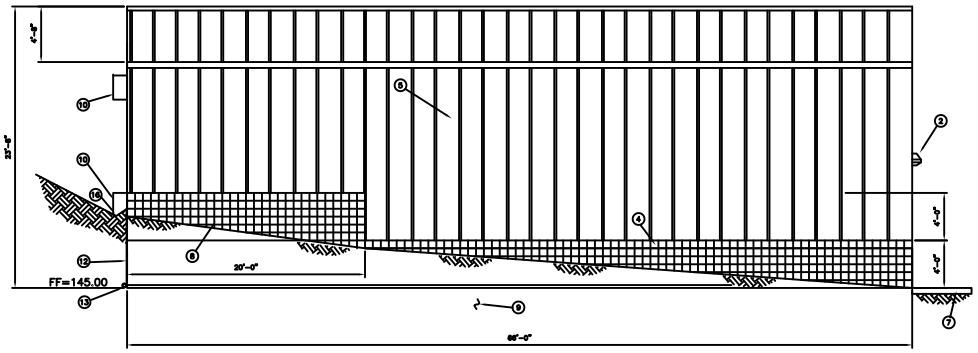
NORTH ELEVATION
SCALE: 1/4" = 1'-0"



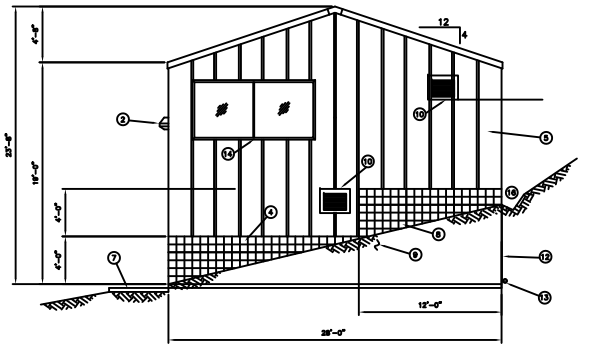
FAST ELEVATION
SCALE: 1/4" = 1'-0"

KEYED NOTES:

1 DOOR, 4'-0"x7'-0"	9 0' TO 2' OF COMPACTED ENGINEERED FILL
2 PERIMETER LIGHT	10 WALL MOUNTED A.C. UNIT
3 LOUVER, 6'-0"x3'-0"	11 5'x25.5' CONC. APRON
4 8"x8" CMU BLOCK PAINTED	12 WALL DRAIN SYSTEM
5 PRE-MANUFACTURED METAL BUILDING	13 WALL DRAIN PIPE (DRAIN TO DAYLIGHT)
6 METAL ROLL-UP DOOR, 10'-0"x10'-0"	14 GLAZING IN ALUMINUM FRAME
7 5'x5' CONC. STOOP	15 BUILDING LETTERING
8 ADDITIONAL 8"x8" CMU BLOCK PAINTED	16 DRAINAGE SWALE



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



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

LIVINGSTON ASSOCIATES, P.C.

ISSUE	DESCRIPTION	DATE	DRWN	CHKD	DSGN	MNGR
C	BID SET	7/00				
B	FINAL SUBMITTAL	7/00				
A	PRELIMINARY SUBMITTAL	11/99				

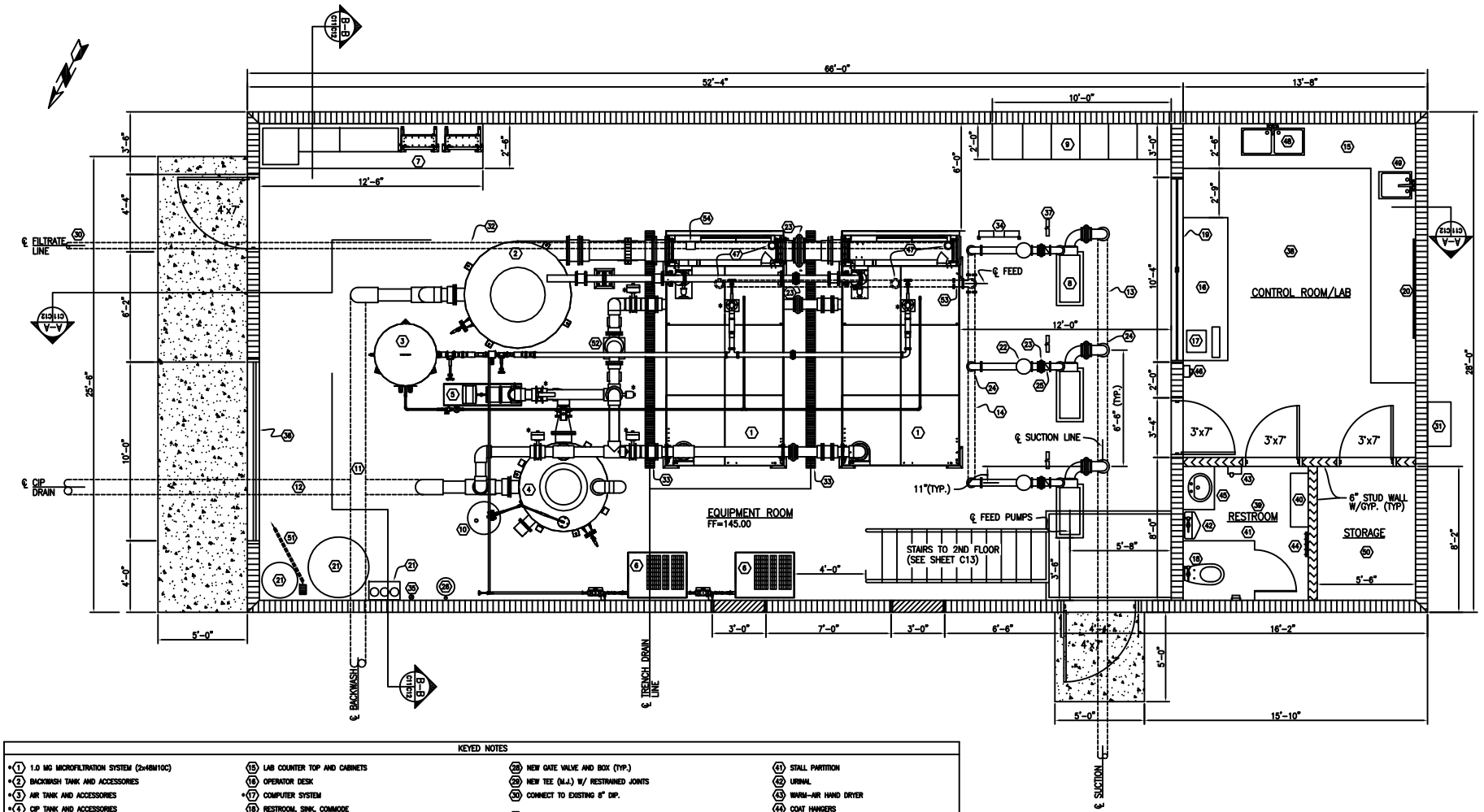
E. LIVINGSTON NEW MEXICO NO. 10461 REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER	E. LIVINGSTON		
ARCHITECT	–	MECHANICAL	–
CIVIL	E. LIVINGSTON	ELECTRICAL	–
STRUCTURAL	QPEC	DRAWN BY	TPP

AMERICAN SAMOA POWER AUTHORITY
FAGATOGO MICROFILTRATION
WATER TREATMENT PLANT

FAGATOGO WTP
BUILDING ELEVATIONS

DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C10	C
SCALE 1/4"=1'-0"			



KEYED NOTES

*(1) 1.0 MG MICROFILTRATION SYSTEM (2x48M10C)
*(2) BACKWASH TANK AND ACCESSORIES
*(3) AIR TANK AND ACCESSORIES
*(4) CIP TANK AND ACCESSORIES
*(5) CIP RECIRCULATION PUMP
*(6) AIR COMPRESSOR SYSTEM
*(7) STATION CONTROL PANEL
(8) 700 GPM @ 100 FT. TDH (25 HP) FEED PUMP (VFD) (TYPICAL OF 3) (SEE PIPING ELEVATION SHT C14.)
(9) MOTOR CONTROL CENTER
*(10) CIP CHEMICAL DOSING SYSTEM
(11) 6" BACKWASH DRAIN LINE
(12) 6" CIP DRAIN LINE
(13) 8" FEED PUMP SUCTION LINE
(14) 6" FEED PUMP DISCHARGE LINE
(15) LAB COUNTER TOP AND CABINETS
(16) OPERATOR DESK
*(17) COMPUTER SYSTEM
(18) RESTROOM, SINK, COMMODE
(19) 2EA. 5'-0"x5'-0" DOUBLE PAYNE INSULATED AND REINFORCED GLAZING IN 6"x2"ANODIZED ALUMINUM FRAME
(20) PLANT FLOW SCHEMATIC (FRAMED W/GLASS COVER)
(21) ON-SITE HYPOCHLORITE SOLUTION GENERATOR AND STORAGE TANK, PUMP, CONTROLS, AND ACCESSORIES
(22) 6" MANUAL CLEAN STRAINER (TYPICAL OF 3)
(23) RESTRAINED FLEX COUPLING (TYP.)
(24) HAND-OPERATED QUARTER TURN BUTTERFLY VALVE (TYP.)
(25) DOUBLE-DISK WAFER CHECK VALVE (TYP.)
(26) EMERGENCY EYE-WASH/SHOWER
(27) CUT INTO EXIST. CIP AND REPLACE USING DIP AND RESTRAINED COUPLING.
(28) NEW GATE VALVE AND BOX (TYP.)
(29) NEW TEE (M.J.) W/ RESTRAINED JOINTS
(30) CONNECT TO EXISTING 8" DIP.
(31) WALL MOUNTED AC UNIT
(32) 6" FILTRATE LINE
(33) 6" WIDE TRENCH DRAIN AND 3" DRAIN LINE
(34) FEED WATER AND FILTRATE WATER TURBIDIMETERS (2 EA.) MOUNTED ON UNI-STRUT FRAME AND PLUMBED TO SUPPLY AND DRAIN.
(35) HOSE BIBB
(36) 10'x10' OVERHEAD COILING DOOR
(37) PRESSURE GUAGE STAND (TYP. OF 3)
(38) 220 SF VINYL FLOOR TILE
(39) 55 SF CERAMIC FLOOR TILE
(40) 36"Wx60"H STEEL LOCKERS (3 COMPARTMENTS)
(41) STALL PARTITION
(42) URINAL
(43) WARM-AIR HAND DRYER
(44) COAT HANGERS
(45) SINK, CABINETS AND WATER HEATER
(46) CORDLESS TELEPHONE (WIRE TO BLDG SERVICE)
(47) 6" QUARTER TURN BUTTERFLY VALVES (AT OUTLETS)
(48) S.S. SINK W/ELECTRIC WATER HEATER BELOW
(49) LAB SINK
(50) 42 SF VINYL FLOOR TILE
(51) 1/2" HDPE TUBING IN 1" PVC CONDUIT FROM ℄ PUMP TO INJECTION BOX.
*(52) CIP STRAINER
*(53) FEED FLOW METER
*(54) FILTRATE FLOW METER

NOTE: * DENOTES OWNER FURNISHED/CONTRACTOR INSTALLED EQUIPMENT.

NOTE:
STRUCTURAL FRAMING NOT SHOWN FOR CLARITY. FIR AROUND IN CONTROL ROOM, CONFERENCE ROOM, AND STORAGE ROOM. ADJUST POSITION OF EQUIPMENT IN EQUIPMENT ROOM IF NEEDED.

LIVINGSTON ASSOCIATES, P.C.

ISSUE	DESCRIPTION	DATE	DRAWN	CHKD	ENGR	MNGR
C	BID SET	7/00				
B	FINAL SUBMITTAL	7/00				
A	PRELIMINARY SUBMITTAL	11/99				

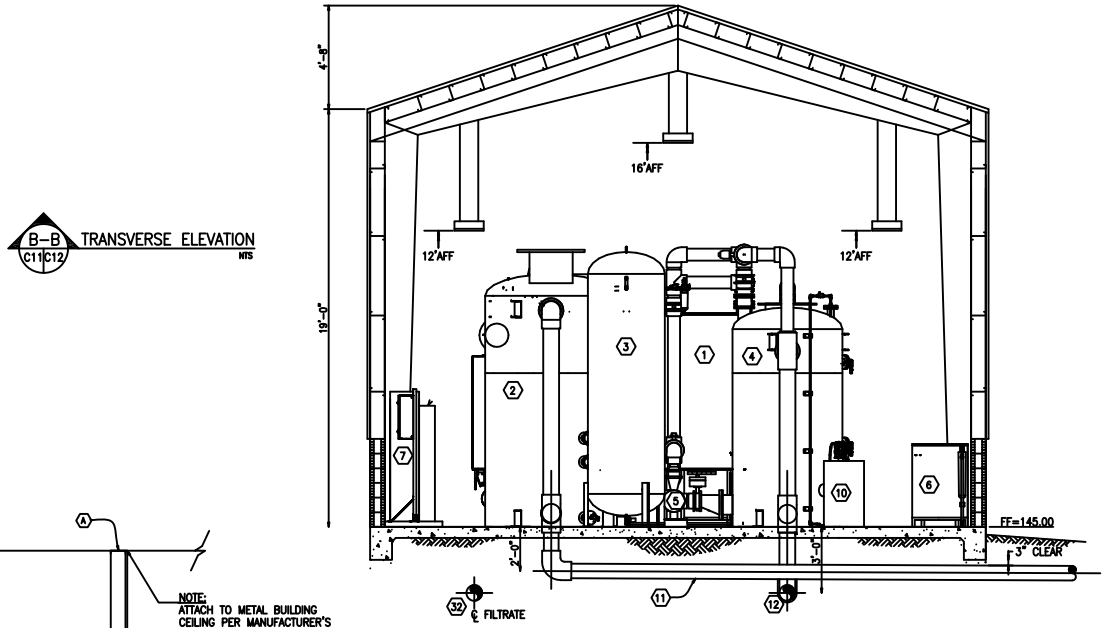
E. LIVINGSTON NEW MEXICO NO. 10481 REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER	E. LIVINGSTON
ARCHITECT	–
MECHANICAL	–
CIVIL	E. LIVINGSTON
ELECTRICAL	–
STRUCTURAL	–
DRAWN BY	TPP

AMERICAN SAMOA POWER AUTHORITY
FAGATOGO MICROFILTRATION
WATER TREATMENT PLANT

FAGATOGO WTP
FLOOR AND PIPING PLAN

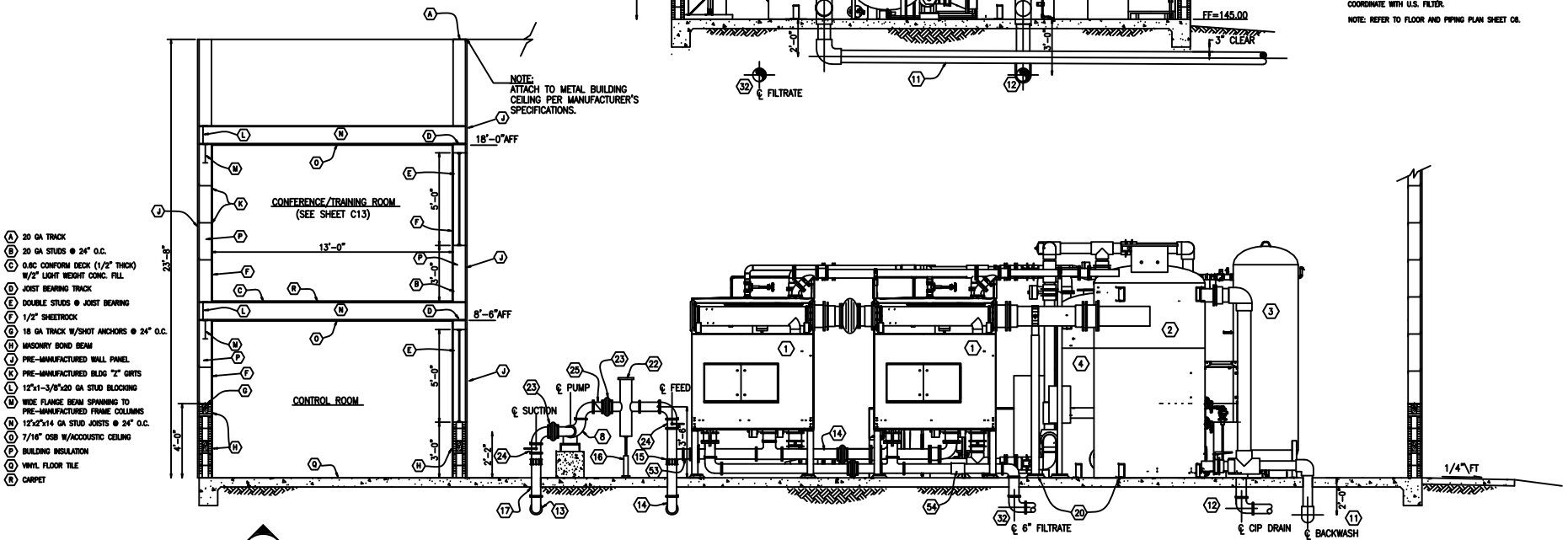
DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C11	C
SCALE 3/8"=1'-0"			



KEYED NOTES	
*1	1.0 MG MICROFILTRATION SYSTEM (2x48M10C)
*2	BACKWASH TANK
*3	AIR TANK
*4	CIP TANK
*5	CIP RECIRCULATION PUMP
*6	AIR COMPRESSOR SYSTEM
*7	STATION CONTROL PANEL
8	700 GPM @ 100 FT. TDH (25 HP) FEED PUMP (VFD)
*10	CIP CHEMICAL DOSING SYSTEM
11	8" BACKWASH DRAIN LINE
12	6" CIP DRAIN LINE
13	8" FEED PUMP SUCTION LINE
14	6" FEED PUMP SUPPLY LINE
15	RESTRAINED COUPLING
16	PIPE SUPPORT
17	WRAP PIPE W/30# FELT
18	WALL DRAIN
19	3" WALL DRAIN PIPE (DRAIN TO DAYLIGHT)
20	FASTEN EQUIPMENT PER MANUFACTURER'S RECOMENDATIONS (TYP)
*22	6" MANUAL CLEAN STRAINER (TYPICAL OF 3)
23	RESTRAINED FLEX COUPLING (TYP.)
24	HAND-OPERATED QUARTER TURN BUTTERFLY VALVE (TYP.)
25	DOUBLE-DISK WAFER CHECK VALVE (TYP.)
30	CONNECT TO EXIST. 8" DIP
32	6" FILTRATE LINE

*DENOTES OWNER FURNISHED/CONTRACTOR INSTALLED EQUIPMENT. COORDINATE WITH U.S. FILTER.

NOTE: REFER TO FLOOR AND PIPING PLAN SHEET C6.



A–A C11|C12 LONGITUDINAL ELEVATION NTS

LIVINGSTON ASSOCIATES, P.C.

ISSUE	DESCRIPTION	DATE	DRWN	CHKD	ENGR	MNGR
C	BID SET	7/00				
B	FINAL SUBMITTAL	7/00				
A	PRELIMINARY SUBMITTAL	11/99				

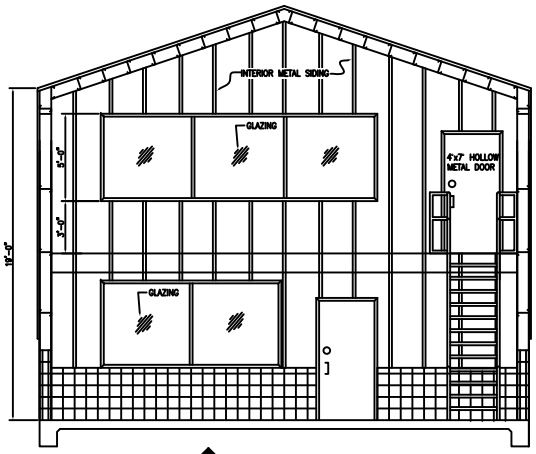
E.C. LIVINGSTON NEW MEXICO NO. 10481 REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER	E. LIVINGSTON
ARCHITECT	–
MECHANICAL	–
CIVIL	E. LIVINGSTON
ELECTRICAL	–
STRUCTURAL	–
DRAWN BY	TPP

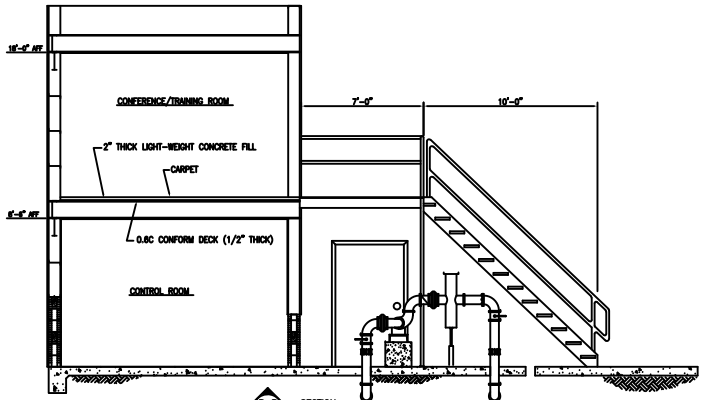
AMERICAN SAMOA POWER AUTHORITY
FAGATOGO MICROFILTRATION
WATER TREATMENT PLANT

FAGATOGO WTP
PIPING ELEVATIONS AND DETAILS

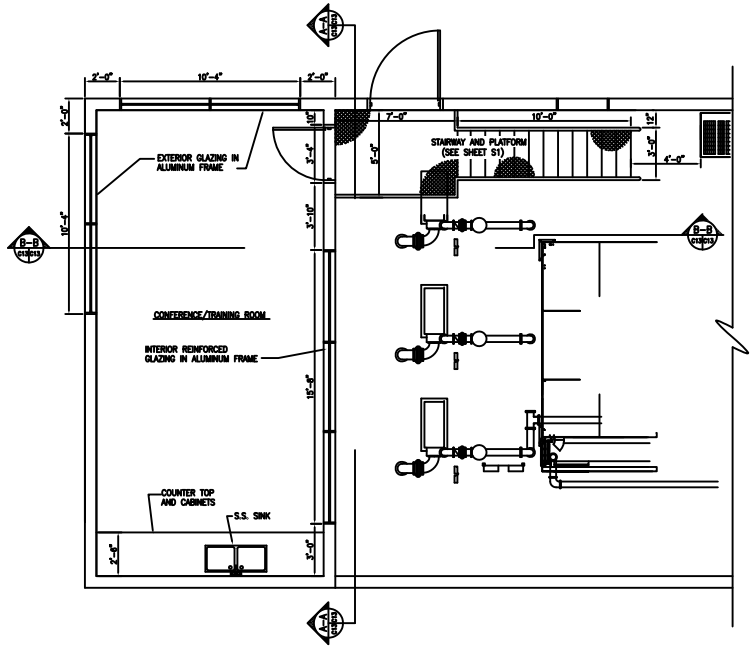
DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP–002–01	C12	C
SCALE: NONE			



A-A C13/C13 INTERIOR ELEVATION
3/8"=1'-0"



B-B C13/C13 SECTION
3/8"=1'-0"



2ND FLOOR PLAN
3/8"=1'-0"

LIVINGSTON ASSOCIATES, P.C.

ISSUE	DESCRIPTION	DATE
C	BID SET	7/00
B	FINAL SUBMITAL	7/00
A	PRELIMINARY SUBMITAL	11/99

E. LIVINGSTON NEW MEXICO NO. 10481 REGISTERED PROFESSIONAL ENGINEER

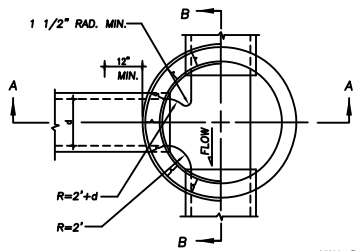
PROJECT ENGINEER: E. LIVINGSTON
ARCHITECT: –
MECHANICAL: –
CIVIL: E. LIVINGSTON
ELECTRICAL: –
STRUCTURAL: –
DRAWN BY: TPP

AMERICAN SAMOA POWER AUTHORITY
FAGATOGO MICROFILTRATION
WATER TREATMENT PLANT

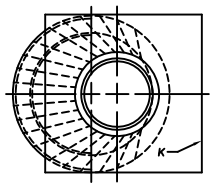
FAGATOGO WTP 2ND FLOOR PLAN, ELEVATION, & SECTION

DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C13	C

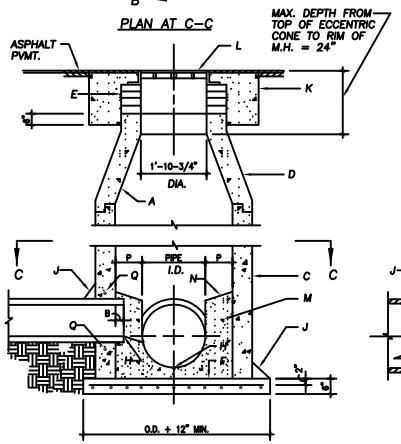
SCALE: 3/8"=1'-0"



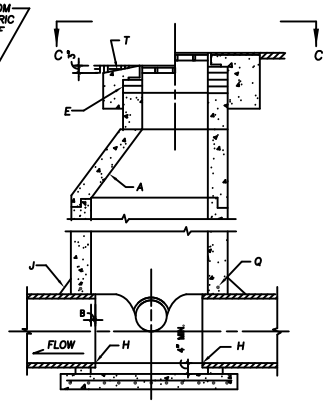
PLAN AT C–C



PLAN AT D–D



CROSS SECTION A–A



CROSS SECTION B–B

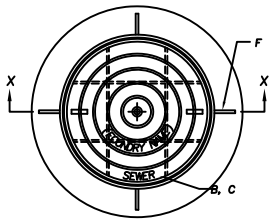
TYPICAL CONCRETE MANHOLE
N.T.S.

GENERAL NOTES:

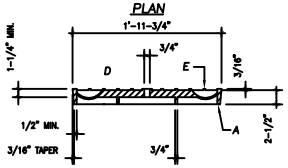
1. M.H. NOT FOR DEPTHS LESS THAN 6' MEASURED FROM INV. TO RIM.
2. M.H. SHALL BE PECAST CONCRETE SECTIONS ONLY.
3. DESIGN APPLIES TO 4' & 6' I.D. MANHOLES.
4. USE NON–SHRINK GROUT FOR JOINTS, FILLETS AND PENETRATIONS.
5. COMPACT ALL BACKFILL AROUND M.H. TO 95%.
6. POSITION M.H. OPENING OVER THE UPSTREAM SIDE OF MAIN LINE.

CONSTRUCTION NOTES:

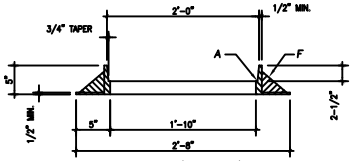
B. PIPE PENETRATION INTO MANHOLE SHALL BE FLUSH TO 2" MAX., MEASURED AT SPRING LINE OF PIPE.
C. PRECAST CONCRETE M.H. SECTION.
D. PRECAST CONCRETE M.H. CONE SECTION.
E. USE MAX. 4 COURSES ON UNPAVED STREET FOR FUTURE ADJ. OF M.H. FRAME TO PVMT. GRADE.
F. CONCRETE BASE TO BE POURED IN PLACE USING NO. 4 BARS AT 12" O.C. EA. WAY.
H. INV. EL. OF STUB OR LATERAL AS SHOWN ON PLANS.
J. 6" GROUT FILLET ON UPPER HALF OF PIPE AND AROUND BASE.
K. USE A 5' X 5' X 12" CONC. PAD IN ALL AREAS.
L. FRAME AND COVER.
M. CONCRETE FILL, 3000 PSI.
N. SLOPE 1" PER FOOT FROM PIPE CROWN.
P. SHELF TO BE 9" WIDE MINIMUM.
Q. APPROVED WATERSTOP TO BE COMPATIBLE WITH TYPE OF PIPE.



PLAN



SOLID COVER (180 LB.)



FRAME (145 LB.)

SECTION X–X

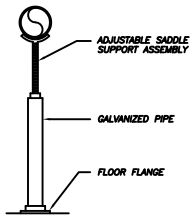
GENERAL NOTES:

1. STANDARD CAST IRON MANHOLE FRAME AND COVER. WEIGHTS: COVER = 180 LBS. FRAME = 145 LBS. TOTAL = 325 LBS (TOLERANCE = ±5%)

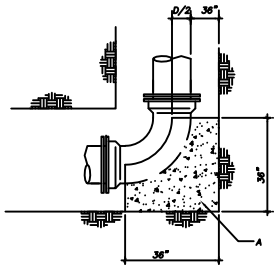
CONSTRUCTION NOTES:

A. MACHINED OR GROUND BEARING SURFACES.
B. "SEWER" CAST ON COVER.
C. LETTER SIZE TO BE 1" MIN. IN HEIGHT, TYP.
D. VENT HOLE REQUIRED.
E. MONOLITHIC CAST IRON OR STEEL ROD INSERTS. IF INSERT IS PROVIDED, IT MUST HAVE 3/16" MIN. COVER AND 3/4" END EMBEDMENT IN CASTING.
F. GUSSETS OPTIONAL IF REQUIRED BY MANUFACTURER.

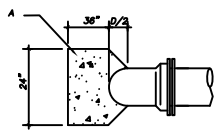
TYPICAL MANHOLE FRAME AND COVER
N.T.S.



PIPE SUPPORT DETAIL
(N.T.S.)



PLAN VIEW



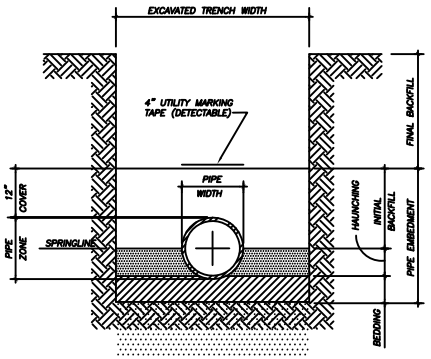
SECTION VIEW

NOTE:
ALL FITTINGS AND BURIED D.I. PIPE SHALL BE ENCASED IN POLYETHELENE

CONSTRUCTION NOTES :

A. PORTLAND CEMENT CONC. 3000 P.S.I.
B. COMPACTED EARTH FILL, 90% OF MAX. DENSITY

THRUST BLOCKING DETAIL
NO SCALE



TRENCH CROSS–SECTION SHOWING TERMINOLOGY

LIVINGSTON ASSOCIATES, P.C.

ISSUE	DESCRIPTION	DATE	DRWN	CHKD	ENGR	MNGR
C	BID SET	7/00				
B	FINAL SUBMITTAL	7/00				
A	PRELIMINARY SUBMITTAL	11/99				

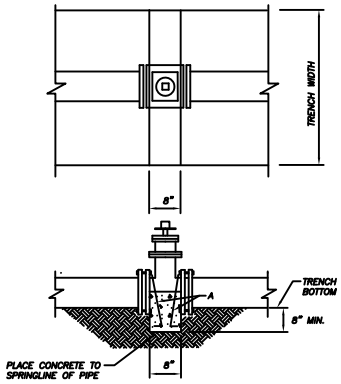
E. O. LIVINGSTON NEW MEXICO NO. 10481 REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER	E. LIVINGSTON
ARCHITECT	–
MECHANICAL	–
CIVIL	E. LIVINGSTON
ELECTRICAL	–
STRUCTURAL	–
DRAWN BY	TPP

AMERICAN SAMOA POWER AUTHORITY
FAGATOGO AND VAIPITO
MICROFILTRATION
WATER TREATMENT PLANTS

MISCELLANEOUS DETAILS

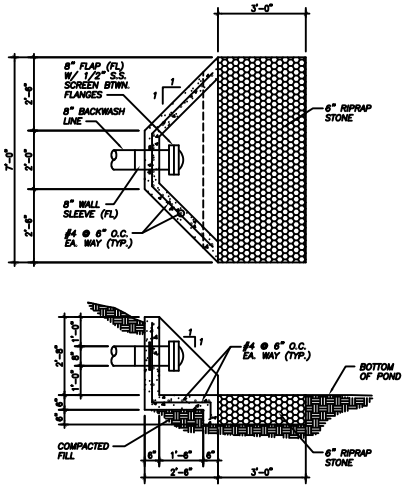
DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP–002–01	C14	C
SCALE: NONE			



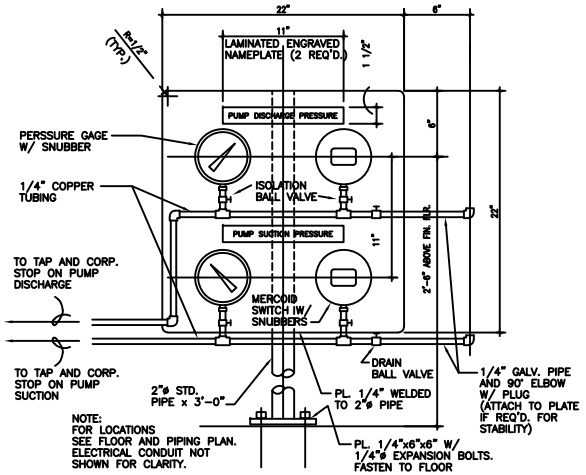
CONSTRUCTION NOTES :

A. TWO NO. 4 BARS FOR VALVE STRAPS WITH 3" HOOKS TO BE EMBEDDED BELOW BOTTOM OF PIPE. BARS TO BE COATED WITH BITUMINOUS MATERIAL TO PREVENT CORROSION.

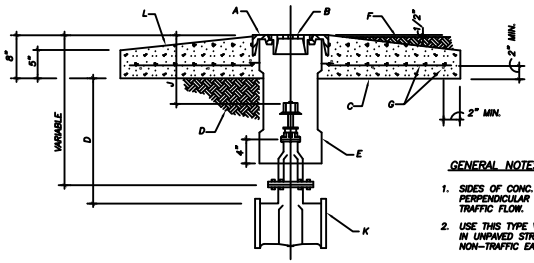
WATER VALVE ANCHORAGE
NTS



BACKWASH OUTLET DETAIL
NTS

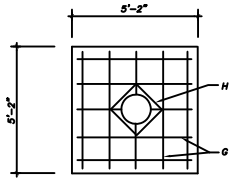


PRESSURE GAGE STAND DETAIL
NTS



GENERAL NOTES

1. SIDES OF CONC. PAD TO BE PARALLEL AND PERPENDICULAR TO THE NORMAL STREET TRAFFIC FLOW.
2. USE THIS TYPE VALVE BOX FOR LOCATION IN UNPAVED STREETS OR ALLEYS AND IN NON-TRAFFIC EASEMENTS.

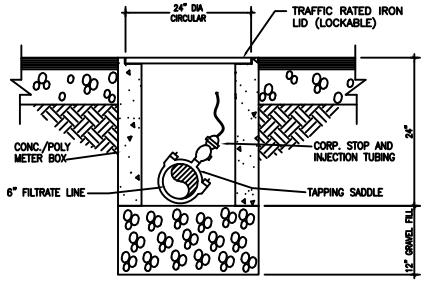


CONCRETE PAD PLAN VIEW

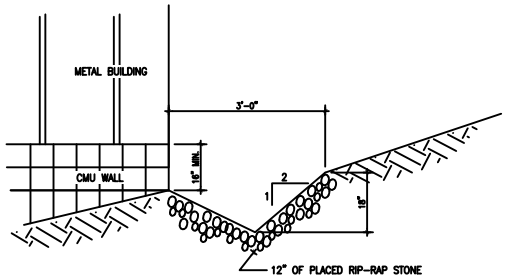
CONSTRUCTION NOTES :

A. RING.
B. COVER.
C. PORTLAND CEMENT CONC. 3000 P.S.I.
D. COMPACTED EARTH FILL, 90% OF MAX. DENSITY AS DETERMINED BY A.S.T.M. D 1557.
E. TWO PIECE SLIDING TYPE VALVE BOX.
F. GROUND LEVEL.
G. NO. 4 BARS AT 12" O.C. EACH WAY.
H. NO. 4 BARS 1'-6" LONG.
J. 2'-0" MAX., USE STEM EXTENSION AS NECESSARY,
K. NEW OR EXISTING VALVE.

TYPICAL WATER VALVE BOX
NTS



CHLORINE INJECTION MANHOLE DETAIL
NTS



TYPICAL SWALE DETAIL
NTS

LIVINGSTON ASSOCIATES, P.C.

ISSUE	DESCRIPTION	DATE	DRWN	CHKD	ENGR	MNGR
C	BID SET	7/00				
B	FINAL SUBMITTAL	7/00				
A	PRELIMINARY SUBMITTAL	11/99				

E. LIVINGSTON, NEW MEXICO, NO. 10481, REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER: E. LIVINGSTON	
ARCHITECT: –	MECHANICAL: –
CIVIL: E. LIVINGSTON	ELECTRICAL: –
STRUCTURAL: –	DRAWN BY: TPP

AMERICAN SAMOA POWER AUTHORITY
FAGATOGO AND VAIPITO
MICROFILTRATION
WATER TREATMENT PLANTS

MISCELLANEOUS DETAILS

DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	C15	C
SCALE: NONE			

GENERAL STRUCTURAL NOTES

1. CODES AND MANUALS
   Uniform Building Code, 1997 Edition
   ACI 318–89
   AISC Manual of steel construction 9th Edition
   AISI Specification for the design of Cold Form Steel Structural Members, Current Edition

2. DESIGN LOADS:
   A. Vertical:

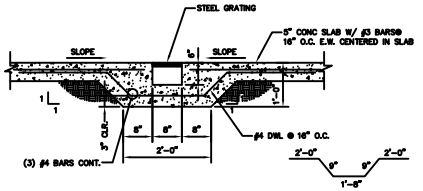
Mezzanine Floor Live Load:	125 psf
Mezzanine Floor Dead Load:	30 psf
Metal Building Live Load:	20 psf
Metal Building Dead Load:	Per Manuf.

   B. Horizontal:
      (1) Seismic*
      Seismic Zone 3
      (2) Wind*
      Basic Wind Speed: 125 mph
      *allowable 1/3 stress increase for combined gravity and seismic/wind loading

3. GENERAL
   A. The Contractor shall verify all dimensions in the field.
   B. Shop drawings shall be furnished for review before any fabrication and erection is started. Poorly executed shop drawings shall be rejected and resubmitted.
   C. The Contractor shall be responsible for providing safe and adequate shoring for all parts of the structure during construction.
   D. All trades shall coordinate and verify all openings in floors, roof, walls, and beams with the General Contractor.
   E. The General Contractor shall be responsible for foundations under Mechanical equipment and shall coordinate size and location of foundations with Mechanical Contractor.

4. MATERIALS
   A. Cast–in–place Concrete:
      (1) Hardrock Concrete (Unit Wt. = 150 pcf)
         a. f'c = 3000 psi @ 28 days – All cast–in–place foundation concrete including spot footings, stem walls, continuous footings and slabs on grade.
      (2) Hardrock Concrete (Unit Wt. = 150 pcf)
         a. f'c = 4000 psi @ 28 days – All cast–in–place equipment foundation concrete and exterior slabs on grade.
   B. Reinforcing Steel:
      (1) All reinforcing steel shall conform to ASTM A615 Grade 60.
      (2) Welded smooth wire fabric shall conform to ASTM A185 specification for welded wire fabric for concrete reinforcement.
      (3) Reinforcing steel shall be fabricated and placed in accordance with the building code requirements for reinforced concrete (ACI 318–89) and the standard Manual (ACI 315–80).
      (4) Bar supports and spacers for rebar shall be provided in accordance with ACI 315–80. Chairs with 22 GA. sand plates shall be provided for all rebar in slabs on grade.
      (5) Where lapped splices in reinforcing occur, the minimum lap shall be made as follows unless noted otherwise:
         a. Vertical reinforcing: 30 bar dia. or 18" minimum.
         b. Horizontal reinforcing: 30 bar dia. or 18" minimum.
         c. Horizontal corner bars: 30 bar dia. or 18" minimum.
      (6) Concrete cover for reinforcing shall be as follows:
         a. Footings: 3" from bottom and sides.
         b. Stem Walls: 2" from sides and 2" from top and bottom.
         c. Slabs on grade: as shown.
      (7) The contractor shall be responsible to see that all rebar is properly aligned and tied in place before placing concrete. All column, wall dowels and vertical steel shall be accurately located and secured in place so that it remain in position during the concrete placing operation. Any rebar found to be improperly installed shall be removed and replaced at no additional cost to the owner.
      (8) All horizontal reinforcing in footings, walls and beams shall be continuous around corners or have corner bars of the same size and spacing as the horizontal bars and lap a minimum of 30 bar diameters or 18" minimum.
      (9) Form Ties shall be either of the threaded or snap off type so that no metal will be left within 1" of the surface of the wall. Following removal of form ties, recesses are to be carefully filled and pointed with mortar.
   C. Structural and Miscellaneous Steel:
      (1) All structural and miscellaneous steel members, shapes and connection shall conform to ASTM A36.
      (2) All cold formed structual steel tubing shall conform to ASTM A500 grade B, FY=46ksi.
      (3) The contractor shall be responsible for checking the Architectural drawings for all miscellaneous steel.
      (4) Bolts Shall Conform to ASTM A325 tension control bolts unless noted otherwise, with sizes as shown on the drawings. Anchor bolts embedded in concrete or masonry shall be ASTM A307 bolts or A36 threaded bars.
      (5) All welding shall be done by certified welders and shall be in accordance with the latest standards of the AWS and AISC. Inspect all welding in Accordance with the specifications.
   D. Masonry:
      (1) All masonry units shall be type 1 units with type M morter. F'm =1900 psi fully grouted on the net area, and f'm = 1500 psi fully grouted on gross areas.
      (2) All reinforced cells shall be solid grouted from top to bottom of wall. Cleanouts shall be provided at the bottom of walls at all cells to be grouted where grout exceeds 4' in height.
      (3) Lap all bars 40 diameters or 18' minimum unless otherwise noted.
      (4) Contractor responsible for lateral bracing of cmu wall during construction.
      (5) Masonry control joints shall be placed at 20'–0" on ceneter maximum.

5. SITE GRADING AND EARTHWORK:
   A. Inspection: The contractor shall retain the services of a registered professional soils engineer who will inspect the placement of the engineered fill. The contractor shall notify the Soil Engineer at least two (2) working days in advance of any field operation requiring engineered fill.
   B. Foundation Preparation:
      Building areas shall be completely stripped of vegetation, pavements, walls, and soft or muddy areas.
      (1) The existing soil in the building pad areas shall be overexcavated to remove all existing fill or overexcavated to a minimum depth of two feet below footings and slabs, whichever is greater. Surface shall be scarified to depth of eight inches and moistened to a near optimum moisture content, and the exposed soils should then be compacted to a minimum of 95% of maximum density as determined by ASTM D–1557 prior to placing new compacted fill.
      (2) All scarification and removals specified herein shall extend to a distance of at least two feet beyond all footing edges.
      (3) Soil utilized for filling shall consist of approved on–site or imported soil.
      (4) Any imported soils shall be approved by the soil engineer for both expansive and strength qualities prior to importation to the project site. Final acceptance of any imported soil will be based on observation of the soil actually delivered to the site.
      (5) All fill shall be compacted to at least 95 percent of maximum density determined by ASTM d–1557.
      (6) The maximum density of all soils shall be determined in accordance with A.S.T.M. Test Method D–1557.
      (7) All fill shall be placed with a moisture content of near optimum. (+/–3%).
   C. Site Drainage:
      Positive surface drainage away from both existing structures and new foundation excavations should be provided during construction. A minimum of four percent gradient within the first ten feet away from structures in areas not protected by sidewalks and pavement shall be maintained.



2 / S1 SECTION
SCALE: 3/4" = 1'–0"

6. PREMANUFACTURED METAL BUILDING
   Foundation design loads are as shown below. Contractor shall verify actual loads and submit to engineer prior to proceeding with any metal building foundation work.

FAGATOGO

End Frame Reactions:

	Vertical (Kips)	Horizontal (Kips)
DL	P = 0.8 (DOWN)	H = 0.02 (OUT)
LL	P = 3.53 (DOWN)	H = 0.2 (OUT)
W– LONG.	P = 14.11 (UP)	H = 5.9 (IN)

Center Frame Reactions:

	Vertical (Kips)	Horizontal (Kips)
DL	P = 0.8 (DOWN)	H = 0.07 (OUT)
LL	P = 7.06 (DOWN)	H = 1.36 (OUT)
W– LONG.	P = 28.21 (UP)	H = 13.91 (IN)

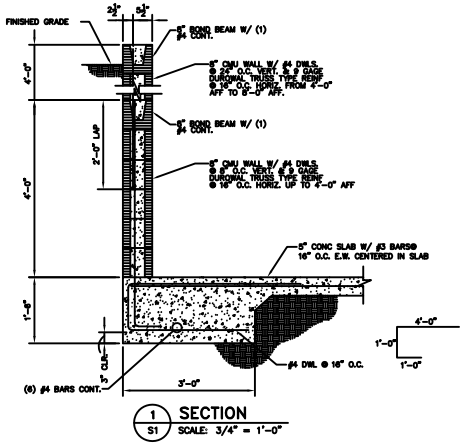
VAIPITO

End Frame Reactions:

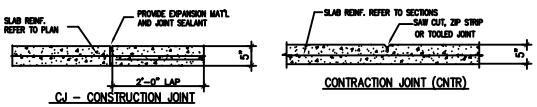
	Vertical (Kips)	Horizontal (Kips)
DL	P = 0.8 (DOWN)	H = 0.07 (OUT)
LL	P = 2.26 (DOWN)	H = 0.44 (OUT)
W– LONG.	P = 9.03 (UP)	H = 4.45 (IN)

Center Frame Reactions:

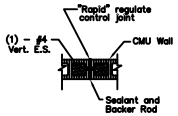
	Vertical (Kips)	Horizontal (Kips)
DL	P = 0.8 (DOWN)	H = 0.07 (OUT)
LL	P = 4.52 (DOWN)	H = 0.87 (OUT)
W– LONG.	P = 18.06 (UP)	H = 8.9 (IN)



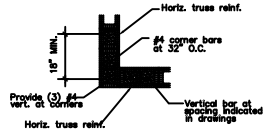
1 / S1 SECTION
SCALE: 3/4" = 1'–0"



CONCRETE JOINT DETAIL
NOT TO SCALE



TYP MASONRY CONTROL JOINT
Scale: NTS



TYP CMU CORNER DETAIL
Scale: NTS

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QPEC QUIROGA–PFEIFFER ENGINEERING CORPORATION
LIVINGSTON ASSOCIATES, P.C.

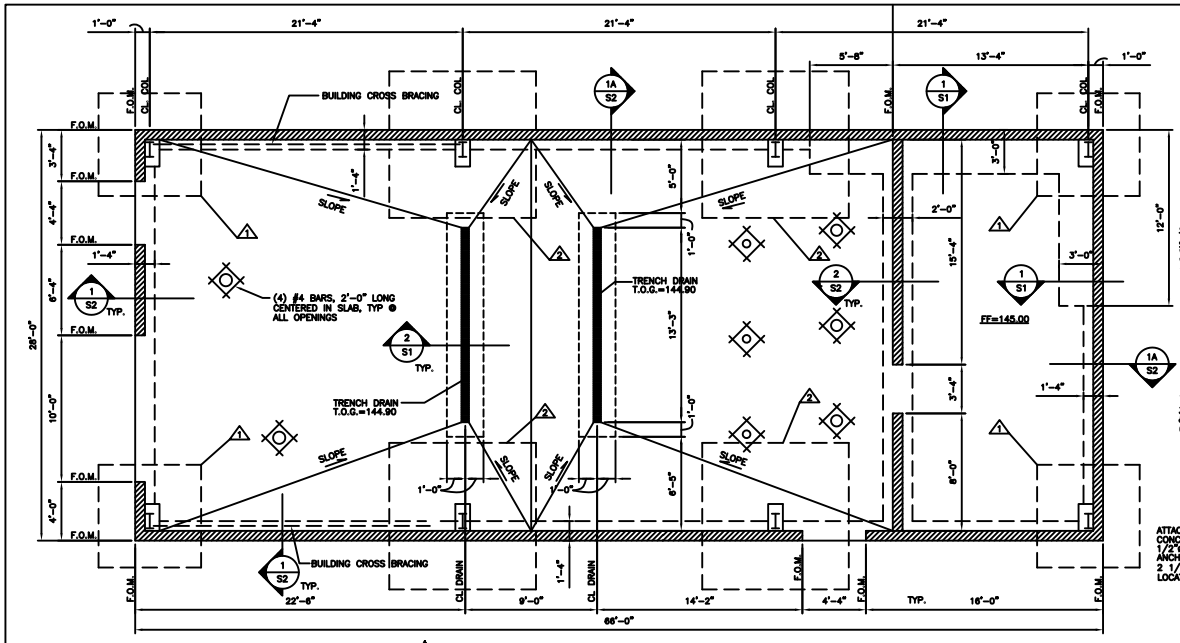
E. S. LIVINGSTON, NEW MEXICO, 10481, REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER: E. LIVINGSTON	
ARCHITECT: –	MECHANICAL: –
CIVIL: E. LIVINGSTON	ELECTRICAL: –
STRUCTURAL: D. GRABIEL	DRAWN BY: J. RELYEA

AMERICAN SAMOA POWER AUTHORITY
FAGATOGO & VAIPITO
MICROFILTRATION W.T.P.

GENERAL STRUCTURAL NOTES

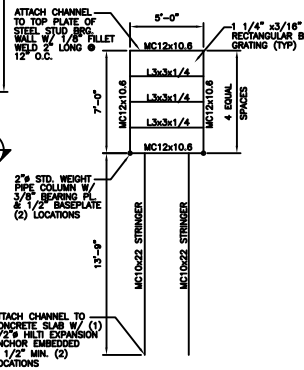
DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP–002–01	S1	C
SCALE: AS SHOWN			



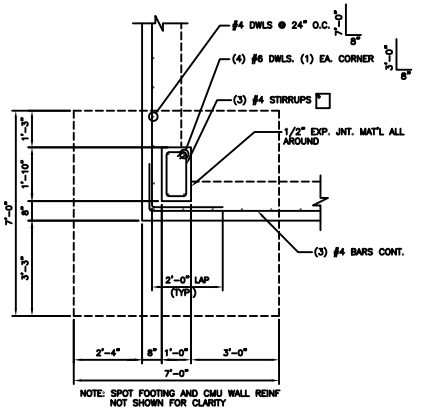
FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

LEGEND

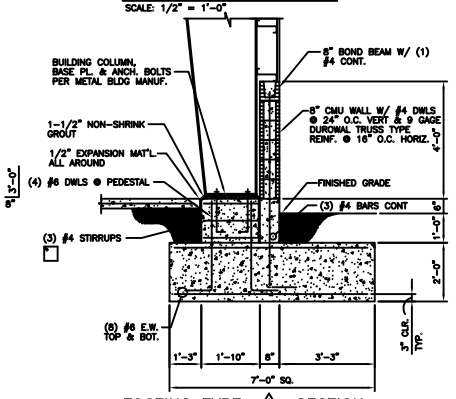
T.O.G. = TOP OF GRATING
F.O.M. = FACE OF MASONRY
8" MASONRY WALL
FOOTING TYPE



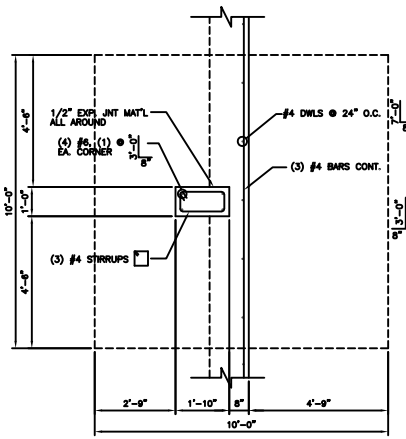
STAIR FRAMING PLAN
SCALE: 1/4" = 1'-0"



FOOTING TYPE 1 PLAN
SCALE: 1/2" = 1'-0"

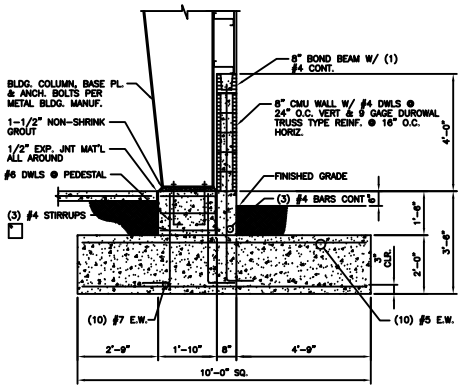


FOOTING TYPE 1 SECTION
SCALE: 1/2" = 1'-0"



NOTE: SPOT FOOTING AND CMU WALL REINF NOT SHOWN FOR CLARITY

FOOTING TYPE 2 PLAN
SCALE: 1/2" = 1'-0"



FOOTING TYPE 2 SECTION
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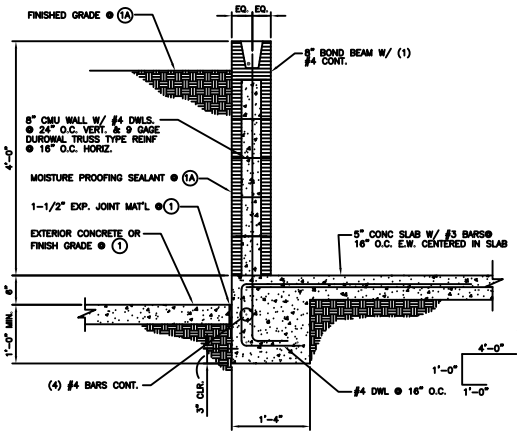
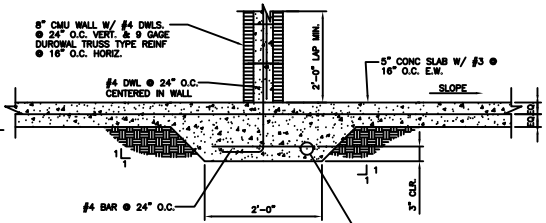


1 S2 1A S2 SECTION
SCALE: 1" = 1'-0"



2 S2 SECTION
SCALE: 1" = 1'-0"

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QPEC QUIROGA - PFEIFFER ENGINEERING CORPORATION

LIVINGSTON ASSOCIATES, P.C.

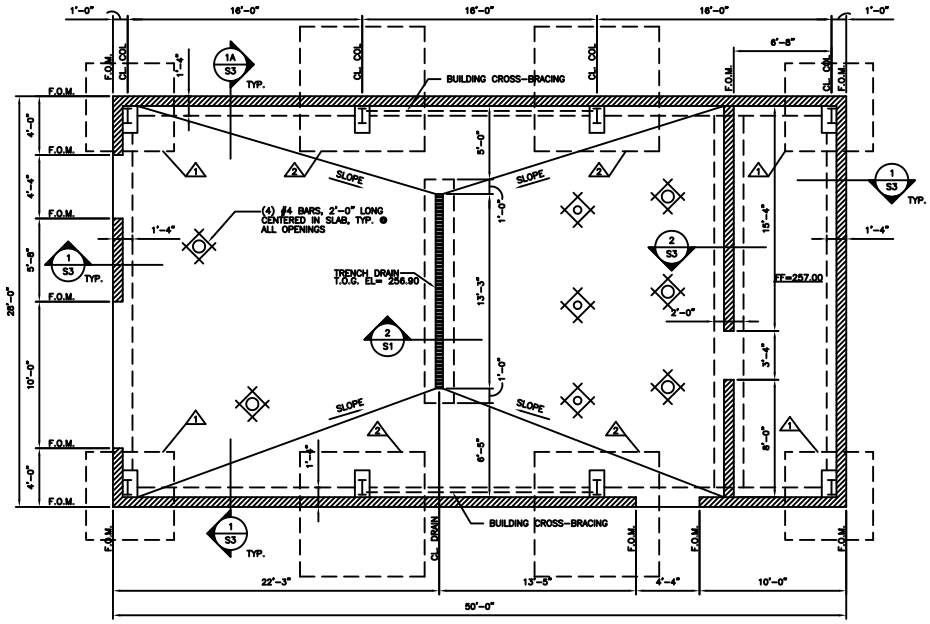
E. C. LIVINGSTON NEW MEXICO 10481 REGISTERED PROFESSIONAL ENGINEER

PROJECT MANAGER	E. LIVINGSTON
ARCHITECT	–
MECHANICAL	–
CIVIL	E. LIVINGSTON
ELECTRICAL	–
STRUCTURAL	D. GRABIEL
DRAWN BY	J. RELYEA

AMERICAN SAMOA POWER AUTHORITY
FAGATOGO MICROFILTRATION
WATER TREATMENT PLANT

FOUNDATION PLAN AND DETAILS

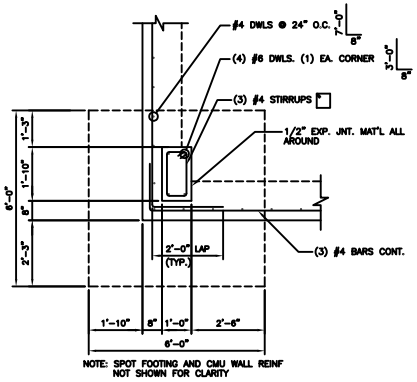
DATE	PROJECT NO.	SHEET NO.	ISSUE
JULY 2000	ASP-002-01	S2	C
SCALE: AS SHOWN			



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

LEGEND

T.O.G. = TOP OF GRATING
F.O.M. = FACE OF MASONRY
8" MASONRY WALL
FOOTING TYPE



FOOTING TYPE 1 PLAN
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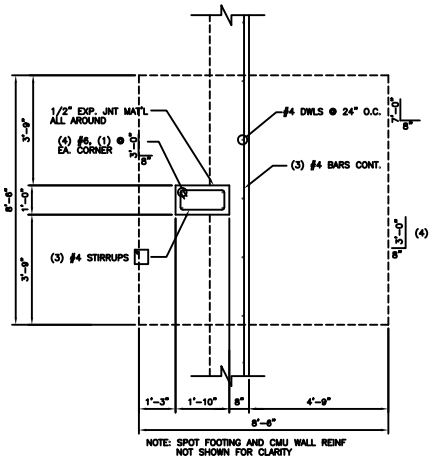

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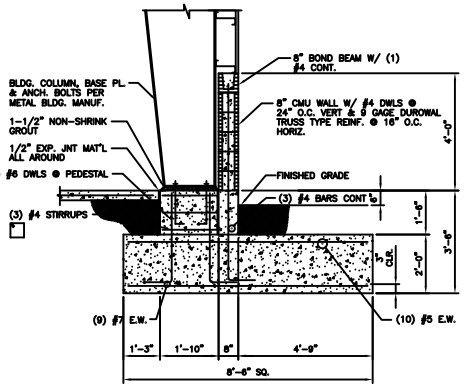

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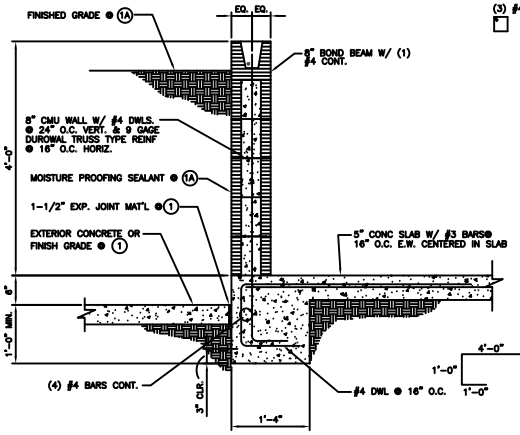

1 S3 1A S3 SECTION
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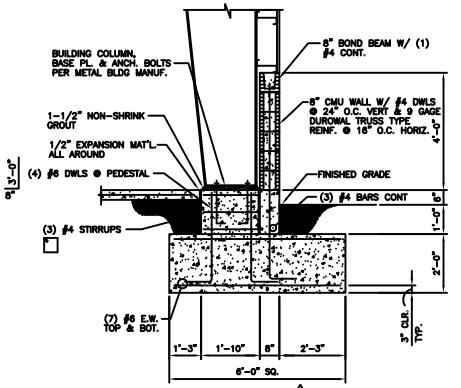

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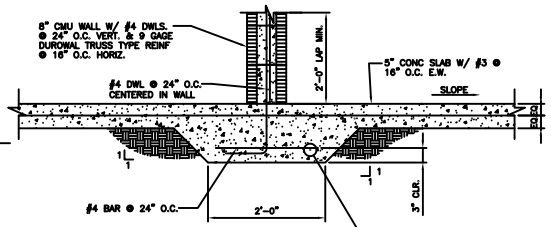

2 S3 SECTION
SCALE: 1" = 1'-0"

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AMERICAN SOMOA POWER AUTHORITY
VAIPITO MICROFILTRATION
WATER TREATMENT PLAN

FOUNDATION PLAN & DETAILS

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