

MECHANICAL LEGEND (NOTE: NOT ALL SYMBOLS SHOWN ARE USED ON THESE DRAWINGS)

ABBR.	SYMBOL	DESCRIPTION	ABBR.	SYMBOL	DESCRIPTION	ABBR.	SYMBOL	DESCRIPTION	ABBR.	SYMBOL	DESCRIPTION	ABBR.	SYMBOL	DESCRIPTION
SA		POSITIVE PRESSURE DUCT UP			PIPE DOWN			PIPE DOWN			TEMPERATURE SENSOR			TEMPERATURE SENSOR
SA		POSITIVE PRESSURE DUCT DOWN			PIPE UP			PIPE UP			DUCT TEMPERATURE SENSOR			DUCT TEMPERATURE SENSOR
EA/RA		NEGATIVE PRESSURE DUCT UP			TEE OUTLET UP			TEE OUTLET UP			DUCT AVERAGING TEMP. SENSOR			DUCT AVERAGING TEMP. SENSOR
EA/RA		NEGATIVE PRESSURE DUCT DOWN			TEE OUTLET DOWN			TEE OUTLET DOWN			WELL MOUNTED TEMPERATURE SENSOR			WELL MOUNTED TEMPERATURE SENSOR
OA		OUTSIDE AIR INTAKE DUCT UP			HEATING HOT WATER SUPPLY			HEATING HOT WATER SUPPLY			CONTROL DAMPER ACTUATOR			CONTROL DAMPER ACTUATOR
OA		OUTSIDE AIR INTAKE DUCT DOWN			HEATING HOT WATER RETURN			HEATING HOT WATER RETURN			TEMPERATURE LOW LIMIT THERMOSTAT			TEMPERATURE LOW LIMIT THERMOSTAT
		ROUND DUCT UP			CHILLED WATER SUPPLY			CHILLED WATER SUPPLY			DUCT SMOKE DETECTOR			DUCT SMOKE DETECTOR
		ROUND DUCT DOWN			CHILLED WATER RETURN			CHILLED WATER RETURN			DAMPER W/ END SWITCH			DAMPER W/ END SWITCH
		CONICAL FITTING WITH DAMPER			COOLING TOWER SUPPLY			COOLING TOWER SUPPLY			DIFFERENTIAL PRESSURE SWITCH			DIFFERENTIAL PRESSURE SWITCH
		ECCENTRIC FITTING WITH DAMPER			COOLING TOWER RETURN			COOLING TOWER RETURN			HIGH PRESSURE SWITCH			HIGH PRESSURE SWITCH
		ECCENTRIC FITTING WITHOUT DAMPER			LOW PRESSURE STEAM SUPPLY			LOW PRESSURE STEAM SUPPLY			PRESSURE SWITCH MANUAL RESET			PRESSURE SWITCH MANUAL RESET
		ELBOW WITH TURNING VANES			LOW PRESSURE STEAM RETURN			LOW PRESSURE STEAM RETURN			AQUASTAT			AQUASTAT
		ELBOW WITHOUT TURNING VANES			MEDIUM PRESSURE STEAM SUPPLY			MEDIUM PRESSURE STEAM SUPPLY			PRESSURE SENSITIVE SWITCH			PRESSURE SENSITIVE SWITCH
		LONG RADIUS ELBOW			MEDIUM PRESSURE STEAM RETURN			MEDIUM PRESSURE STEAM RETURN			TEMPERATURE LOW LIMIT THERMOSTAT			TEMPERATURE LOW LIMIT THERMOSTAT
		SHORT RADIUS ELBOW			HIGH PRESSURE STEAM SUPPLY			HIGH PRESSURE STEAM SUPPLY			TEMPERATURE LOW LIMIT THERMOSTAT			TEMPERATURE LOW LIMIT THERMOSTAT
		SUPPLY DIFFUSER			HIGH PRESSURE STEAM RETURN			HIGH PRESSURE STEAM RETURN			DUCT SMOKE DETECTOR			DUCT SMOKE DETECTOR
		SUPPLY DIFFUSER ROUND NECK			CONDENSER WATER SUPPLY			CONDENSER WATER SUPPLY			DAMPER W/ END SWITCH			DAMPER W/ END SWITCH
		SUPPLY DIFFUSER SQUARE NECK			CONDENSER WATER RETURN			CONDENSER WATER RETURN			DIFFERENTIAL PRESSURE SWITCH			DIFFERENTIAL PRESSURE SWITCH
		EXHAUST/RETURN GRILLE SQUARE NECK			REFRIGERANT LIQUID			REFRIGERANT LIQUID			HIGH PRESSURE SWITCH			HIGH PRESSURE SWITCH
		EXHAUST/RETURN GRILLE ROUND NECK			REFRIGERANT SUCTION			REFRIGERANT SUCTION			PRESSURE SWITCH MANUAL RESET			PRESSURE SWITCH MANUAL RESET
		RETURN AIR GRILLE			REFRIGERANT HOT GAS			REFRIGERANT HOT GAS			AQUASTAT			AQUASTAT
		ROUND DIFFUSER			FUEL OIL SUPPLY			FUEL OIL SUPPLY			TEMPERATURE LOW LIMIT THERMOSTAT			TEMPERATURE LOW LIMIT THERMOSTAT
		SLOT DIFFUSER			FUEL OIL RETURN			FUEL OIL RETURN			DUCT SMOKE DETECTOR			DUCT SMOKE DETECTOR
		FLEX DUCT			FUEL OIL RETURN			FUEL OIL RETURN			DAMPER W/ END SWITCH			DAMPER W/ END SWITCH
		DUCTWORK			FUEL OIL RETURN			FUEL OIL RETURN			DIFFERENTIAL PRESSURE SWITCH			DIFFERENTIAL PRESSURE SWITCH
		MANUAL VOLUME DAMPER			FUEL OIL RETURN			FUEL OIL RETURN			HIGH PRESSURE SWITCH			HIGH PRESSURE SWITCH
		FIRE DAMPER 1-1/2 HOUR UNLESS NOTED			FUEL OIL RETURN			FUEL OIL RETURN			PRESSURE SWITCH MANUAL RESET			PRESSURE SWITCH MANUAL RESET
		FIRE/SMOKE DAMPER 1-1/2 HOUR UNLESS NOTED			FUEL OIL RETURN			FUEL OIL RETURN			AQUASTAT			AQUASTAT
		SMOKE DAMPER			FUEL OIL RETURN			FUEL OIL RETURN			TEMPERATURE LOW LIMIT THERMOSTAT			TEMPERATURE LOW LIMIT THERMOSTAT
		MOTORIZED DAMPER			FUEL OIL RETURN			FUEL OIL RETURN			DUCT SMOKE DETECTOR			DUCT SMOKE DETECTOR
		SECURITY BARRIER			FUEL OIL RETURN			FUEL OIL RETURN			DAMPER W/ END SWITCH			DAMPER W/ END SWITCH
		ACCESS PANEL (SIZE)			FUEL OIL RETURN			FUEL OIL RETURN			DIFFERENTIAL PRESSURE SWITCH			DIFFERENTIAL PRESSURE SWITCH
		PUMP			FUEL OIL RETURN			FUEL OIL RETURN			HIGH PRESSURE SWITCH			HIGH PRESSURE SWITCH
		DUCT BREAK			FUEL OIL RETURN			FUEL OIL RETURN			PRESSURE SWITCH MANUAL RESET			PRESSURE SWITCH MANUAL RESET
RBPB		REDUCED PRESSURE BACKFLOW PREVENTER			FUEL OIL RETURN			FUEL OIL RETURN			AQUASTAT			AQUASTAT
DCVA		DOUBLE CHECK VALVE ASSEMBLY			FUEL OIL RETURN			FUEL OIL RETURN			TEMPERATURE LOW LIMIT THERMOSTAT			TEMPERATURE LOW LIMIT THERMOSTAT

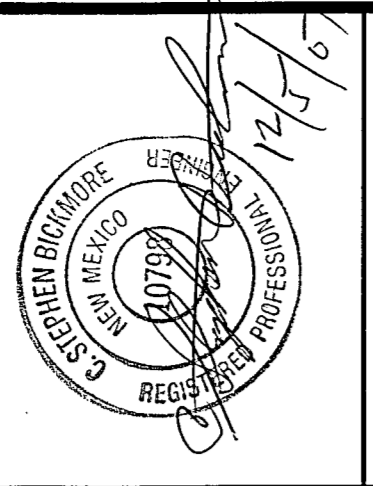
WORK COMPLETE

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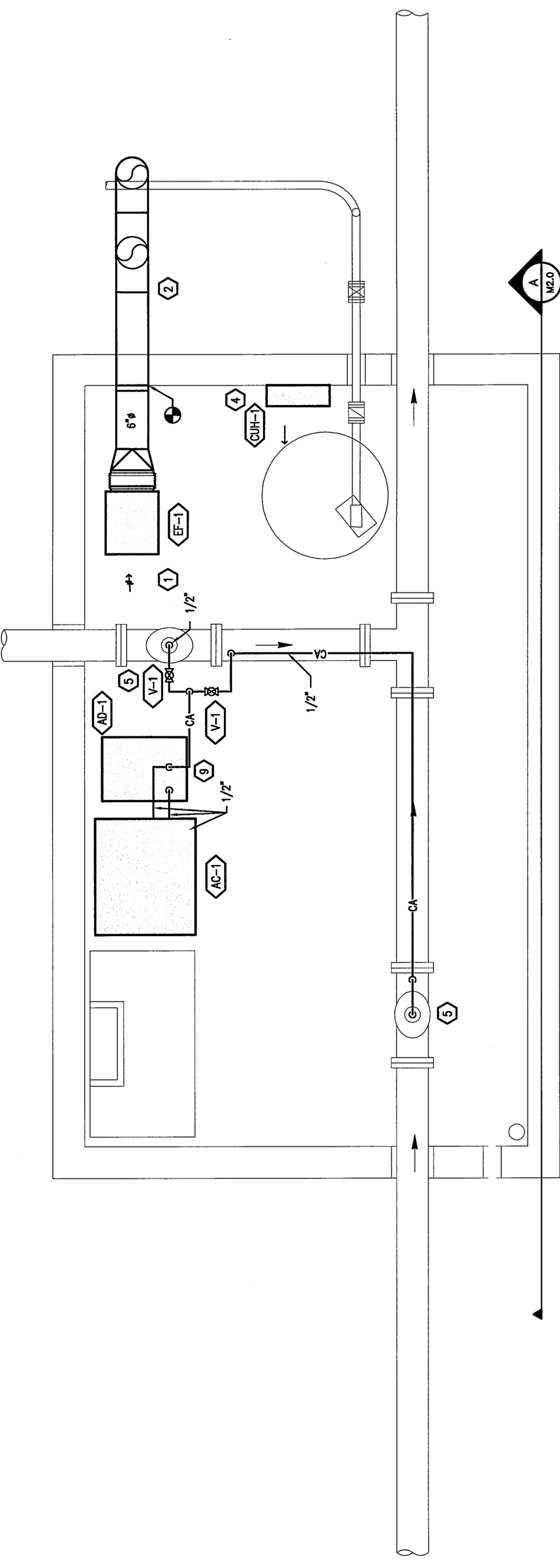
VILLAGE OF CIMARRON
 RAW WATER AUTOMATION
 MECHANICAL LEGEND

DATE: 12-5-07
 SCALE: NONE
 DESIGN BY: B. FABER
 DRAWN BY: B. FABER
 APPROVED BY: -
 PRL No: 17600
 CAD FILE: 17600.MO.1.dwg
 REVISION

MO.1
 SHEET NO.

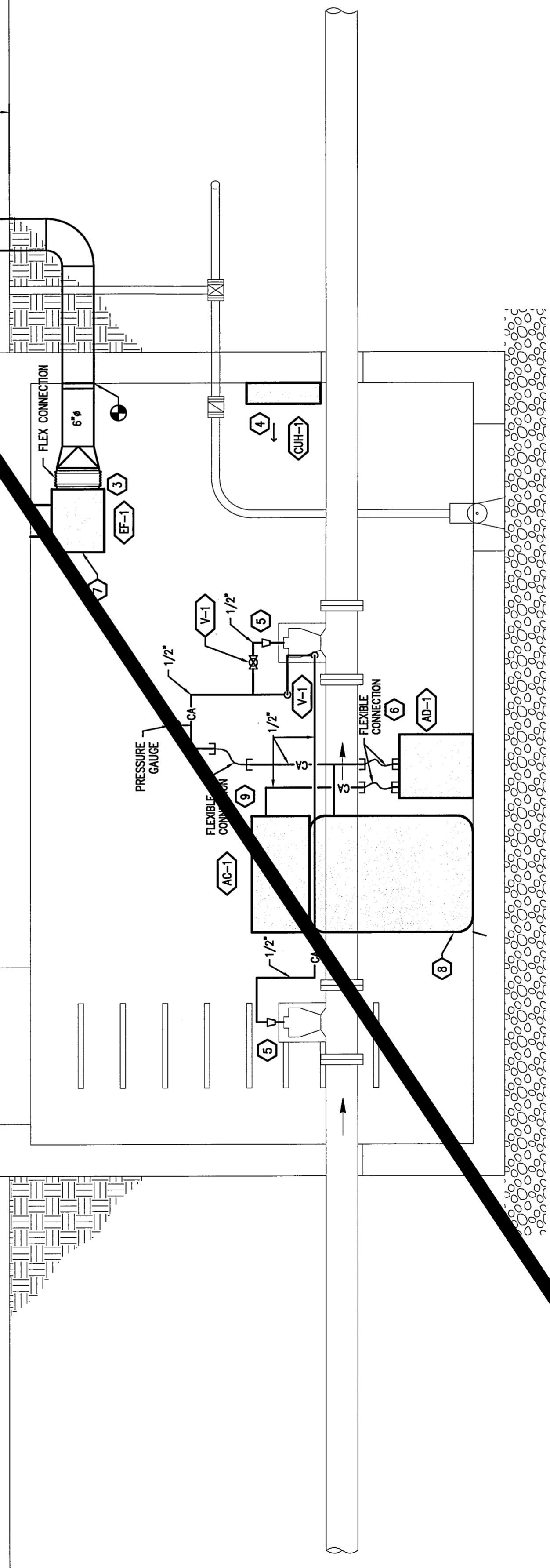


REV.	DATE	DESCRIPTION



VAULT MECHANICAL PLAN
 SCALE: 3/4"=1'-0"

WORK COMPLETE



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

KEY NOTES

1. MOUNT EF-1 TO THE STRUCTURE. HANG WITH VIBRATION SOLUTIONS. EF-1 PROVIDES 120V WIRE AIR CHANGES PER HOUR. COORDINATE EXACT LOCATION OF CEILING MOUNTED EXHAUST FAN AND ASSOCIATED DUCTWORK WITH ELECTRICAL CONTRACTOR TO AVOID LIGHTING. EF-1 TO BE CONTROLLED BY LIGHT SWITCH.
2. EXTERIOR EXHAUST VENT PIPE BY CIVIL. SEE CIVIL DRAWINGS FOR FURTHER INFORMATION. PROVIDE WITH BRASS SCREEN AT OUTLET.
3. AFFIX CHSA HAZARD TAPE ALONG EDGES OF FAN.
4. CABINET UNIT HEATER MOUNTED ON WALL. MOUNT BOTTOM OF HEATER AT 2 FT. ABOVE FINISHED FLOOR (AFF).
5. CONNECT 1/2" CA (SOFT COPPER W/ FLARE OR SWAGelok FITTINGS) TO SOLENOIDS (1/4" NPT) PER MANUFACTURER'S INSTRUCTIONS. RUN COPPER ALONG WATER PIPE FOR SUPPORT.
6. PIPE DRAIN AIR DRYER TO FLOOR SUMP.
7. PROVIDE 1/4" MESH SCREEN ON FAN INLET.
8. REMOVE WHEELS AND HANDLE, ANCHOR TO FLOOR/WALL.
9. INTERRUPT COMPRESSOR LINE TO TANK AND CONNECT IT TO AD-1 INTAKE. CONNECT AD-1 OUTPUT TO COMPRESSOR TANK.

ELECTRIC CABINET UNIT HEATER

TAG	TYPE	SERVICE	CFM	KW	RPM	ELECTRICAL			MANUFACTURER & MODEL	NOTES
						MA	FLA	DCP		
CUH-1	FORCED FAN WALL MOUNT		1.5	1	12.5		120	1	MARLEY B2451	1

GENERAL NOTES:
 A. PERFORMANCE IS AT SEA LEVEL CONDITIONS
 B. INTEGRAL ADJUSTABLE THERMOSTAT INITIALLY TO BE SET @ 59°F

NOTES:
 1. WITH 417 SURFACE MOUNTING FRAME

FAN SCHEDULE

TAG	SERVICE	TYPE	CFM	ESP	RPM	VFD	ELECTRICAL			WEIGHT LB.	MANUFACTURER & MODEL	NOTES
							HP	V	PH			
EF-1	VALVE VAULT	INLINE	185	0.35	1,000	N	115	1	21	GREENHECK CSP-A230	1, 2	

GENERAL NOTES:
 A. PERFORMANCE IS AT 6000' ABOVE SEA LEVEL
 B. FANS MAY CONTAIN RESERVE CAPACITY, BALANCE TO PLAN/CRI

NOTES:
 1. 83 WATTS
 2. WITH EBD

MISCELLANEOUS EQUIPMENT

TAG	DESCRIPTION	ELECTRICAL			NOTES
		POWER	V	PH	
AC-1	AIR COMPRESSOR, DEWALT 15 GAL. VERTICAL TANK, 200 PSI MAX (GRANINGER CAT.# MAG7B)	16A	120	1	1, 2
AD-1	AIR DRYER, HANNSON IFRS, IFR PLUS SERIES UNITS, 5 SCFM CAPACITY.	120W	120	1	
V-1	BALL VALVE WITH LOCK-OUT AND AIR BLEED, APOLLO 75-1034				

NOTES:
 1. SET OUTPUT AT 80 PSI
 2. 1.8HP, 5.4 FREE AIR CFM @ 90PSI. COMPLETE WITH RELIEF VALVE, DRAIN CONTROLS, ULL LISTED

ELECTRICAL LEGEND (NOTE: NOT ALL SYMBOLS SHOWN ARE USED ON THESE DRAWINGS)

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION																																												
	CIRCUIT BREAKER		DRAW-OUT CIRCUIT BREAKER (MOLDED/INSULATED CASE)		DRAW-OUT POWER CIRCUIT BREAKER		CONTROL FUSE		FUSE WITH SWITCH		SWITCH		PANELBOARD		TVSS OR MISC EQUIPMENT		AUTOMATIC TRANSFER SWITCH		FEEDER DESIGNATION, SEE FEEDER SCHEDULE		AUTOMATIC TRANSFER SWITCH WITH B1-PASS		ENGINE GENERATOR		TRANSFORMER		ENCLOSED BUSWAY		WEATHERHEAD		MOTOR		DELTA CONNECTION		WYE CONNECTION		GROUND WYE CONNECTION		GROUND WYE CONNECTION W/RESISTOR GROUND		GROUND WYE CONNECTION W/REACTOR GROUND		METERING DEVICE		CURRENT TRANSFORMER		POTENTIAL TRANSFORMER		LOAD-BREAK CONNECTOR		PROTECTIVE RELAY DEVICE		KEY INTERLOCK		RESISTOR		CONTACT NORMALLY OPEN - TYPE a		CONTACT NORMALLY CLOSED - TYPE b		SINGLE BATTERY		MULTIPLE BATTERIES		LIGHTNING ARRESTOR		THERMAL ELEMENT, OVERLOAD RELAY
<p>GENERAL</p> <p>BRANCH CIRCUIT HOME RUN TO PANELBOARD, DESIGNATION INDICATES PANEL AND CIRCUIT NUMBERS.</p> <p>CONTROL WIRING</p> <p>LIGHTING, ONE-LINE, AND POWER CIRCUITING</p> <p>LIGHTING, ONE-LINE, AND POWER CIRCUITING (UNDERGROUND)</p> <p>CONDUIT BREAK SYMBOL</p> <p>CONDUIT CAP</p> <p>CONDUIT CHANGE IN ELEVATION</p> <p>CONDUIT STUB DOWN (OUT OF DRAWING LIMITS)</p> <p>CONDUIT STUB UP (OUT OF DRAWING LIMITS)</p> <p>JUNCTION BOX</p> <p>WALL MOUNTED JUNCTION BOX</p> <p>FLOOR MOUNTED JUNCTION BOX</p> <p>PUSH BUTTON</p> <p>A = ABORT</p> <p>DA = DURESS ALARM</p> <p>EPO = EMERGENCY POWER OFF</p> <p>IC = INTERCOM</p> <p>ST = SHUNT TRIP</p> <p>SWITCH SYMBOL</p> <p>1 = SINGLE POLE (IF ELIM)</p> <p>2 = DOUBLE POLE</p> <p>3 = THREE-WAY</p> <p>4 = FOUR-WAY</p> <p>D = DIMMER</p> <p>K = KEY OPERATED</p> <p>P = PUSH-BUTTON</p> <p>P = WITH PILOT LIGHT</p> <p>TO = THERMAL OVERLOAD</p> <p>VS = VARIABLE SPEED</p> <p>WP = WEATHERPROOF</p> <p>X = SMALL LETTER INDICATES LUMINAIRES CONTROLLED</p> <p>XP = EXPLOSION PROOF</p> <p>DUAL SWITCH</p> <p>INTERCOM SWITCH</p> <p>SPECIAL SYSTEMS SYMBOLS:</p> <p>B = BUZZER</p> <p>CH = CHIME</p> <p>CR = CARD READER/KEYPAD</p> <p>CR = CARD READER</p> <p>DA = DURESS ALARM PUSH-BUTTON</p> <p>DC = DOOR CONTACT</p> <p>DS = DOOR SWITCH</p> <p>DS = DOOR SWITCH</p> <p>EL = ELECTRIC LOCK</p> <p>ES = ELECTRIC STRIKE</p> <p>F = FLOW SWITCH</p> <p>FS = FLOW SWITCH</p> <p>GS = GAS DETECTOR</p> <p>IS = INTERCOM CALL STATION</p> <p>IC = INTERCOM CALL STATION</p> <p>IP = KEYPAD</p> <p>MH = MANHOLE</p> <p>MD = MOTION DETECTOR</p> <p>MS = MOUNTING SENSOR</p> <p>OS = OCCUPANCY SENSOR</p> <p>PS = PRESSURE SWITCH</p> <p>R = REMOTE INDICATING LIGHT</p> <p>RT = REMOTE TEST STATION</p> <p>S = MOUNTED IN EXIT PUSH-BUTTON</p> <p>SC = WALL MOUNTED SPOONER</p> <p>TS = TIME CLOCK</p> <p>TS = TAMPER SWITCH</p> <p>VM = VIDEO MONITOR</p> <p>MISC. SYSTEM COMPONENT</p> <p>AMP = AMPIFIER</p> <p>ANN = ANNUNCIATOR</p> <p>ASD = ADJUSTABLE SPEED DRIVE</p> <p>ASD = ADJUSTABLE SPEED DRIVE</p> <p>BAS = BALANCED WINDING SYSTEM</p> <p>CM = CONTROL ADDRESSABLE MODULE</p> <p>DE = DELAYED EGRESS</p> <p>DMA = DOOR MANAGEMENT ALARM</p> <p>DTC = DATA TERMINAL CABLE</p> <p>EAP = ELECTRIC ALARM PANEL</p> <p>EAP = ELECTRIC ALARM PANEL</p> <p>FAP = FIRE ALARM ANNUNCIATOR</p> <p>FAP = FIRE ALARM ANNUNCIATOR</p> <p>FSD = FIRE SMOKE DAMPER</p> <p>MM = MONITOR ADDRESSABLE MODULE</p> <p>PSSE = POSITIVE SWITCHING SUPPLY</p> <p>SCS = SMOKE SENSITIVE SUPPRESSOR</p> <p>TSVS = TRANSIENT VOLTAGE SURGE SUPPRESSOR</p> <p>VD = VARIABLE FREQUENCY DRIVE</p>																																																																			
<p>POWER</p> <p>DUPLEX RECEPTACLE</p> <p>D = ISOLATED GROUND</p> <p>GF = GROUND FAULT CIRCUIT INTERRUPTER</p> <p>FLOOR MOUNTED DUPLEX RECEPTACLE</p> <p>FLOOR MOUNTED FOURPLEX RECEPTACLE</p> <p>FLOOR MOUNTED SPECIAL PURPOSE RECEPTACLE</p> <p>CEILING MOUNTED DUPLEX RECEPTACLE</p> <p>CEILING MOUNTED FOURPLEX RECEPTACLE</p> <p>CEILING MOUNTED SPECIAL PURPOSE RECEPTACLE</p> <p>FOURPLEX RECEPTACLE</p> <p>RANGE RECEPTACLE</p> <p>SINGLE RECEPTACLE</p> <p>SPECIAL PURPOSE RECEPTACLE</p> <p>SWITCHED RECEPTACLE</p> <p>DISCONNECT SWITCH</p> <p>FUSED DISCONNECT SWITCH</p> <p>MOTOR STARTER</p> <p>COMBINATION MOTOR STARTER</p> <p>DISTRIBUTION PANEL</p> <p>EXISTING DISTRIBUTION PANEL</p> <p>NEW PANEL, FLUSH MOUNTED</p> <p>EXISTING PANEL, FLUSH MOUNTED</p> <p>NEW PANEL, SURFACE MOUNTED</p> <p>EXISTING PANEL, SURFACE</p> <p>COMBINATION SWITCH AND RECEPTACLE</p> <p>DIMMER SWITCH</p> <p>CONDUIT SEAL OFF</p> <p>FIRE RATED POKE-THRU</p> <p>PARTITION CIRCUIT SPLIT</p> <p>POWER POLE</p> <p>SURFACE RACEWAY</p> <p>CONTROL RELAY</p> <p>METER</p> <p>TRANSFORMER</p>																																																																			
<p>LIGHTING (REFER TO LUMINAIRE SCHEDULE)</p> <p>FLUORESCENT LUMINAIRE</p> <p># = BRANCH CIRCUIT NUMBER</p> <p>x = SWITCH LEG IDENTIFIER</p> <p>SHADING INDICATES LUMINAIRE ON LIFE SAFETY</p> <p>SHADING INDICATES PORTION OF LUMINAIRE ON LIFE SAFETY</p> <p>WALL MOUNTED LUMINAIRE</p> <p>BARE-LAMP FLUORESCENT STRIP LIGHT</p> <p>POLE MOUNTED LUMINAIRE</p> <p>LUMINAIRE</p> <p>WALL WASHER LUMINAIRE</p> <p>ADJUSTABLE LUMINAIRE</p> <p>PENDENT LUMINAIRE</p> <p>TRACK LIGHTING</p> <p>PHOTOCELL</p> <p>EXIT LIGHT (WITH FACES & DIRECTION ARROWS INDICATED)</p> <p>WALL MOUNTED EXIT LIGHT (WITH FACES & DIRECTION ARROWS INDICATED)</p> <p>WALL MOUNTED BATTERY PACK EMERGENCY LIGHT</p> <p>FIRE ALARM DEVICES</p> <p>ABORT BUTTON</p> <p>BELL</p> <p>DUCT SMOKE DETECTOR</p> <p>FIRE FIGHTER'S TELEPHONE JACK</p> <p>COMBINATION FIRE HORN/STROBE LIGHT</p> <p>COMBINATION FIRE SPEAKER/STROBE LIGHT</p> <p>FIRE ALARM STROBE LIGHT</p> <p>FIRE ALARM STROBE, CEILING MOUNT</p> <p>FIRE HORN</p> <p>DUAL PROJECTION FIRE HORN</p> <p>DETECTOR UNDER FLOOR</p> <p>F = FLAME</p> <p>I = IONIZATION TYPE</p> <p>P = PHOTOELECTRIC TYPE</p> <p>T = THERMAL TYPE</p> <p>MAGNETIC DOOR HOLD OPEN</p> <p>DETECTOR</p> <p>F = FLAME</p> <p>I = IONIZATION TYPE</p> <p>P = PHOTOELECTRIC TYPE</p> <p>T = THERMAL TYPE</p> <p>BEAM DETECTOR</p> <p>PULL STATION/TELEPHONE JACK</p> <p>DELUGE VALVE</p>																																																																			
<p>ABBREVIATIONS - EXISTING</p> <p>(N) NEW</p> <p>(PART) PARTIAL CIRCUIT</p> <p>+XX MOUNTING HEIGHT IN INCHES. AFT UNO</p> <p>A AMP BRACING</p> <p>AB ABOVE COUNTER TOP</p> <p>AC AMP FRAME</p> <p>AF ABOVE FINISHED COUNTER</p> <p>AFB ABOVE FINISHED FLOOR</p> <p>AFG ABOVE FINISHED GRADE</p> <p>AHJ AUTHORITY HAVING JURISDICTION</p> <p>AC AMPS INTERRUPTING CAPACITY</p> <p>AS AMPS SENSOR</p> <p>AT AMP TRIP</p> <p>ATS AUTOMATIC TRANSFER SWITCH</p> <p>BFC BELOW FINISHED CEILING</p> <p>C CONDUIT</p> <p>CAM CONTROL ADDRESSABLE MODULE</p> <p>CB MOLDED CASE CIRCUIT BREAKER</p> <p>CCTV CLOSED CIRCUIT TV</p> <p>CKT CIRCUIT</p> <p>CLS CEILING</p> <p>CUH CABINET UNIT HEATER</p> <p>DMC DUAL MODE CONTROLLER</p> <p>DTB DATA TERMINAL BOARD</p> <p>DTC DATA TERMINAL CABINET</p> <p>E/G ENGINE/GENERATOR</p> <p>E/ empty CONDUIT</p> <p>EC EXHAUST FAN</p> <p>EF ELECTRIC</p> <p>ELEV ELEVATION</p> <p>ENERG ENERGY MANAGEMENT SYSTEM</p> <p>EMS EXPLOSION PROOF</p> <p>EP ELECTRIC WATER COOLER</p> <p>EX EXISTING</p> <p>F FUSE</p> <p>FA FIRE ALARM</p> <p>FAA FIRE ALARM ANNUNCIATOR</p> <p>FACP FIRE ALARM CONTROL PANEL</p> <p>FAP FIRE ALARM PANEL</p> <p>FCU FAN COIL UNIT</p> <p>FIXT FIXTURE</p> <p>FLOOR FLOOR</p> <p>FLUOR FLUORESCENT</p> <p>FTU FAN TERMINAL UNIT</p> <p>G GROUND (EQUIPMENT)</p> <p>GEN GENERATOR</p> <p>GFI GROUND FAULT CIRCUIT INTERRUPTER</p> <p>GFI GROUND FAULT CIRCUIT INTERRUPTER</p> <p>GND GROUND (EQUIPMENT)</p> <p>HG HOSPITAL GRADE</p> <p>HP HORSEPOWER</p> <p>HT HEAT TRACE</p> <p>HV HIGH VOLTAGE</p> <p>IC INTERRUPTING CAPACITY</p> <p>ICAND INCANDESCENT</p> <p>IDF INTERMEDIATE DISTRIBUTION FRAME</p>																																																																			
<p>ABBREVIATIONS - ABBREVIATIONS -</p> <p>IG ISOLATED GROUND</p> <p>JB JUNCTION BOX</p> <p>K THOUSAND</p> <p>LTS LIGHTS</p> <p>LV LOW VOLTAGE</p> <p>MAM MONITOR ADDRESSABLE MODULE</p> <p>MATV MASTER ANTENNA TV</p> <p>MCB MAIN CIRCUIT BREAKER</p> <p>MCC MOTOR CONTROL CENTER</p> <p>MCSW MOLDED CASE SWITCH</p> <p>MDF MAIN DISTRIBUTION FRAME</p> <p>MDP MAIN DISTRIBUTION PANEL</p> <p>MH MANHOLE</p> <p>MLO MAIN LUGS ONLY</p> <p>MTD MOUNTED</p> <p>MTG MOUNTING HEIGHT</p> <p>N NEUTRAL</p> <p>NC NORMALLY CLOSED</p> <p>NEC NATIONAL ELECTRICAL CODE</p> <p>NF NON FUSED</p> <p>NIC NOT IN CONTRACT</p> <p>NL NIGHT LIGHT</p> <p>NO NORMALLY OPEN</p> <p>P POLE</p> <p>PB PULL BOX</p> <p>PNL PANEL</p> <p>POWER RECEPTACLE(S)</p> <p>RF RETURN AIR FAN</p> <p>SBC STRANDED BARE COPPER</p> <p>SF SUPPLY AIR FAN</p> <p>SO SPACE ONLY</p> <p>SP SPARE</p> <p>ST SHUNT TRIP</p> <p>SW SWITCH</p> <p>T TRANSFORMER</p> <p>TEL TELEPHONE</p> <p>TF TRANSFER FAN</p> <p>TTB TELEPHONE TERMINAL BOARD</p> <p>TV TELEVISION</p> <p>TVSS TRANSIENT VOLTAGE SURGE SUPPRESSOR</p> <p>UF UNDERGROUND</p> <p>UG UNDERGROUND</p> <p>UH UNIT HEATER</p> <p>UNO UNLESS NOTED OTHERWISE</p> <p>UPS UNINTERRUPTIBLE POWER SUPPLY</p> <p>V VOLTAGE</p> <p>VP VARIABLE FREQUENCY DRIVE</p> <p>VAPOR VAPOR PROOF</p> <p>VV VARIABLE VOLUME UNIT</p> <p>W WIRE</p> <p>W/ WITH</p> <p>WG WIRE GUARD</p> <p>WP WEATHERPROOF</p> <p>WT WATERTIGHT</p> <p>XFMR TRANSFORMER</p> <p>XP EXPLOSION PROOF</p>																																																																			

GENERAL NOTES

ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL BUILDING CODES AND THE NATIONAL ELECTRICAL CODE (NEC).

CONTRACTOR SHALL REFERENCE SPECIFICATIONS FOR CONSTRUCTION MATERIALS AND INSTALLATION PROCEDURES. SPECIFICATIONS SHALL BE SHOWN ON THESE DRAWINGS. SHOULD ANY CONFLICT ARISE BETWEEN THE DRAWINGS AND SPECIFICATIONS, SUCH CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR RESOLUTION.

THESE DRAWINGS ARE DIAGRAMMATIC IN CHARACTER AND DO NOT NECESSARILY SHOW MATERIALS FOR A COMPLETE INSTALLATION.

ALL PENETRATIONS THROUGH FIRE SEPARATION WALLS ARE TO BE SEALED TO MAINTAIN SEPARATION RATING. JUNCTION BOXES FOR LUMINAIRES ARE NOT INDICATED HEREON. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE PROPER NUMBER OF J-BOXES TO MEET LOCAL CODE AND NATIONAL ELECTRICAL CODE.

KEY NOTE

REVISION NUMBER

DETAIL NOTE

X = DENOTES ALL LUMINAIRES IN THE RESPECTIVE AREA ARE THE TYPE INDICATED; REFER TO LUMINAIRE SCHEDULE

MECHANICAL EQUIPMENT TAG

SHADING INDICATES EQUIPMENT

HATCHING INDICATES ITEM(S) TO BE REMOVED

ROOM NUMBER

NORTH ARROW

DETAIL BUBBLE

1 - SHEET NUMBER - WHERE DETAIL IS SHOWN

2 - SECTION LETTER

2 - SHEET NUMBER - WHERE SECTION IS SHOWN

VILLAGE OF CIMARRON
RAW WATER AUTOMATION

ELECTRICAL LEGEND

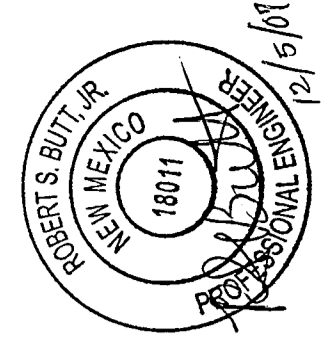
DATE: 12-04-07	SCALE: NONE	DESIGN BY: B. BERGER	DRAWN BY: C. MURRAY-TODD	APPROVED BY: B. BUTT	PRJ. NO: 17600	CAD FILE: 17600E01.dwg	REVISION
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RHM Job Number

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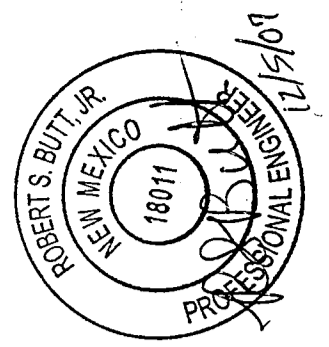


DATE: 12-04-07	SCALE: 1"=10'	DESIGN BY: B. BERGER	DRAMA BY: C. MURRAY-TODD	APPROVED BY: B. BUTT	PRI. NO: 17600	CAD FILE: 17600E1.0.dwg
DATE: 12-04-07	SCALE: 1"=10'	DESIGN BY: B. BERGER	DRAMA BY: C. MURRAY-TODD	APPROVED BY: B. BUTT	PRI. NO: 17600	CAD FILE: 17600E1.0.dwg

REVISION
E1.0

VILLAGE OF CIMARRON
RAW WATER OF AUTOMATION
ELECTRICAL SITE PLAN

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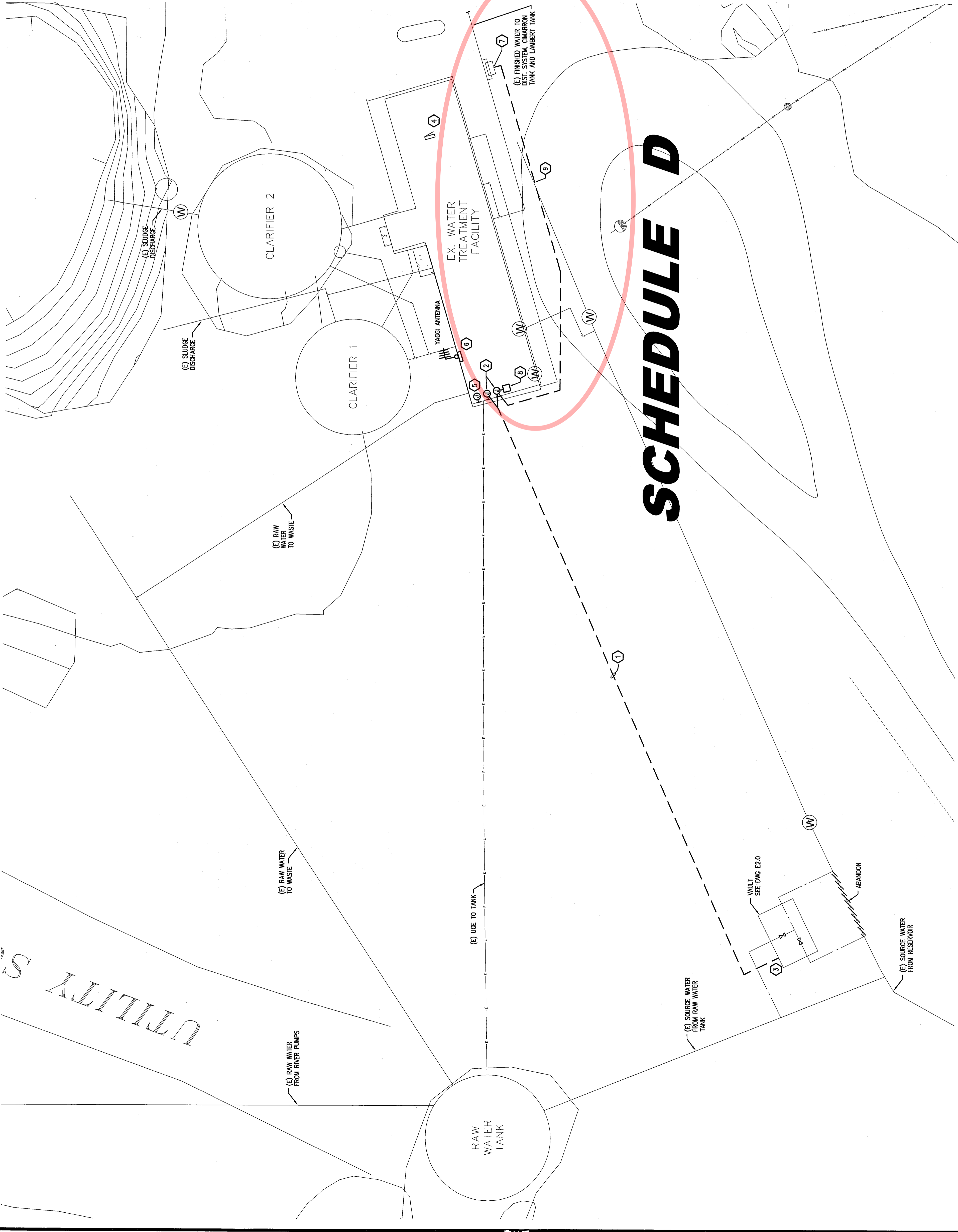


SHEET NOTES

- CONTRACTOR SHALL COORDINATE WITH OWNER AND PROVIDE RTU WITH BRISTOL BABCOCK CONTROL WAVE PROCESSOR, UPS, 900 MHZ FREE WAVE SPREAD SPECTRUM RADIO AND 900 MHZ ANTENNA AT TOWN HALL OPERATIONS CENTER TO COMMUNICATE WITH WTP SITE. OWNER SHALL PROVIDE A PC AND PRINTER THAT WILL BE USED TO ACCESS THE WTP SCADA SYSTEMS INTERFACE TO COMPLETE THE SCADA PORTION OF THIS PROJECT. OWNER'S SYSTEM INTEGRATION SHALL PERFORM RADIO PATH STUDY AS REQUIRED.
- ALL EXISTING UTILITIES SHALL BE LOCATED BEFORE TRENCHING.

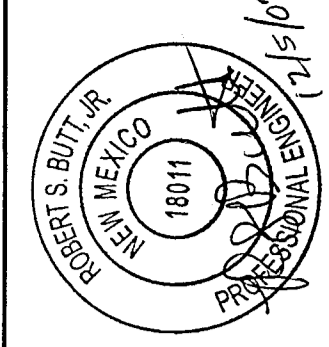
KEY NOTES

- 1" CONDUIT FOR AUTOMATION CONTROLS TO INCLUDE (8) #14 THIN FOR VALVE LIMIT SWITCHES, (2) #14 FOR WATER ON FLOOR DETECTION, AND (2) #14 FOR INTRUSION DETECTION. (1) 1-1/4" CONDUIT FOR VALVE POWER TO INCLUDE POWER TO THE FOLLOWING: CIRCUIT 15 - 2 #8 AND 1 #10 GND; CIRCUIT 16 - 2 #8 AND 1 #10 GND; CIRCUIT 17 - 2 #8 AND 1 #10 GND; CIRCUIT 18 - 2 #8 AND 1 #10 GND; CIRCUIT 21 - 2 #8 AND 1 #10 GND. PROVIDE CONNECTORS TO REDUCE WIRE SIZE AT DEVICES.
- PROVIDE TWO (2) SEPARATE PVC GASKETED JUNCTION BOXES, ONE EACH FOR CONDUITS ENTERING INSIDE THE BUILDING ADJACENT TO THE EXISTING JUNCTION BOX. PROVIDE TWO (2) SEPARATE PVC GASKETED JUNCTION BOXES AT EACH WALL FROM THE UNDERGROUND CONDUITS. MAINTAIN A MINIMUM SEPARATION OF 6" BETWEEN CONDUITS AND JUNCTION BOXES.
- REFER TO PLAN VIEW OF VAULT ON SHEET E2.0 FOR WALL PENETRATION INFORMATION.
- EXISTING TREATMENT PLANT BUILDING FROM THE JUNCTION BOXES TO PANEL 'A' AND THE RTU FOR VALVE CONTROL.
- PROVIDE PVC GASKETED JUNCTION BOX FOR THE NEW ISAACS LEVEL CONTROL TRANSMITTER. PROVIDE 2" PVC CONDUIT TO THE TRANSMITTER FROM THE LAMBERT TANK LEVEL INDICATION PRESSION DIGITAL PANEL METER PD 886. MATCH EXISTING INSTALLATION.
- PROVIDE PVC GASKETED JUNCTION BOX WITH BRISTOL BABCOCK CONTROL WAVE RTU AND PREWAVE 900 MHZ SPREAD SPECTRUM RADIO. CONNECT TO 900 MHZ ANTENNA AT TOWN HALL OPERATIONS CENTER. POWER FROM PANEL 'A'. CKT. 18. OWNER'S SYSTEM INTEGRATOR SHALL PROVIDE PROGRAMMING AS REQUIRED.
- VAULT MOUNTED ENDRESS-HAUUSER PROMAG 50W MAGNETIC FLOWMETER W/REMOTE MOUNTED IN WATER TREATMENT PLANT, FOR DETAILS REFER TO CIVIL DRAWINGS AND SPEC. VAULT DETAILS PER CIVIL DRAWINGS.
- FLOWMETER REMOTE INDICATOR LABEL (FINISHED WATER FLOW TO DISTRIBUTION SYSTEM) MOUNT ON WALL AND CONNECT TO MAGNETER. POWER FROM PANEL 'A'. CKT. 20
- PROVIDE 1" WITH (2) #12 MAGNET POWER AND 2-2/C #16 SH ANOLOG SIGNAL TO FLOW INDICATOR.



SCHEDULE D

ELECTRICAL SITE PLAN
SCALE: 1"=10'-0"



SHEET NOTES

1. ALL WIRING IN THE VAULT SHALL BE SUITABLE FOR USE IN A DAMP LOCATION.
2. CONDUIT LOCATIONS ARE APPROXIMATE. SEE SHOWN DIAGRAMMATICALLY. CONTRACTOR SHALL COORDINATE CONDUIT LOCATIONS WITH ACTUAL CONDITIONS.
3. ALL WORK SHALL COMPLY WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE (NEC) AND APPLICABLE STATE, COUNTY, AND LOCAL CODES.
4. ALL EXISTING DEVICES SHALL BE LOCATED BEFORE TRENCHING.

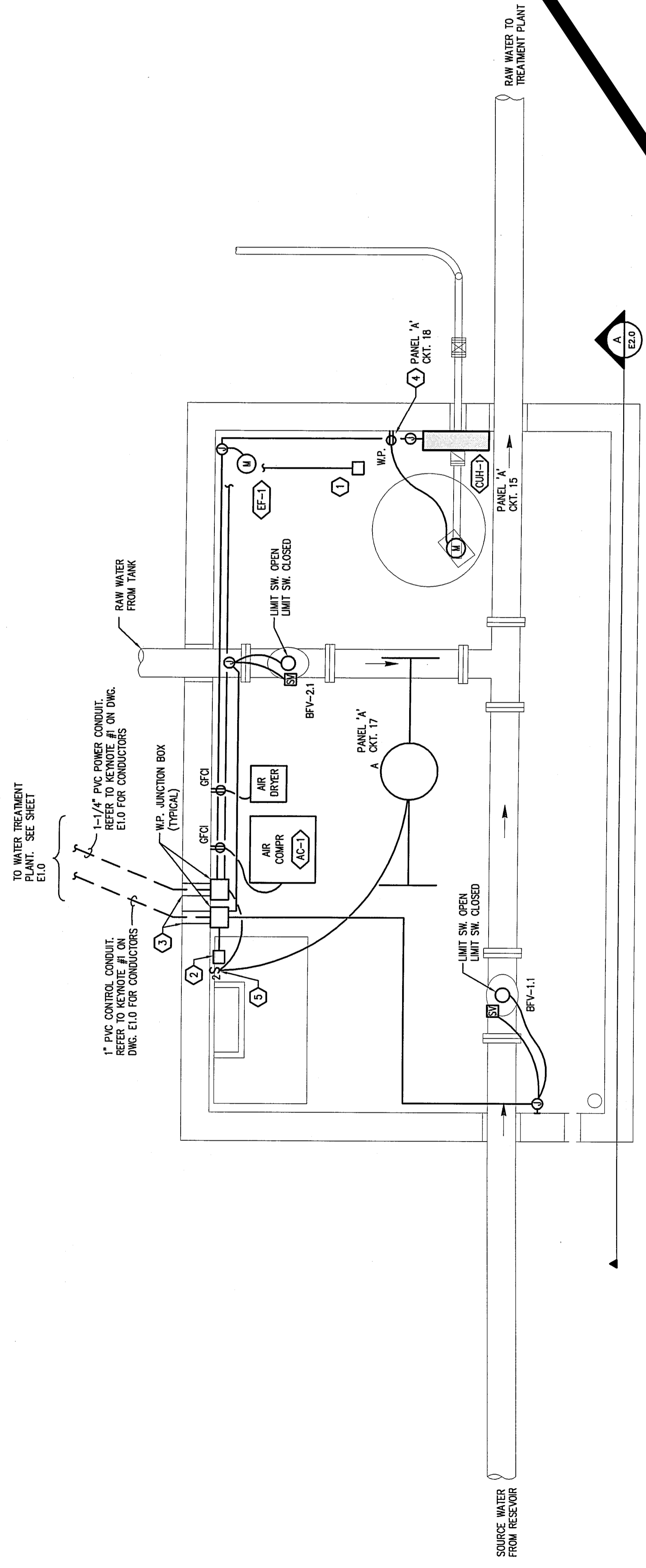
KEY NOTES

- ① WATER ON THE FLOOR SENSOR CAT # MODEL LS-270 MANUFACTURED BY GEMS. MOUNT 2" ABOVE FLOOR.
- ② INTRUSION DETECTION DEVICE AT HATCH COVER CAT # MODEL R11C MANUFACTURED BY ALLEN-BRADLEY NEMA 4X OR APPROVED EQUAL. PROVIDE STEEL PLATE MOUNTED TO HATCH COVER IN CLOSE PROXIMITY TO THE INTRUSION DETECTION SWITCH.
- ③ ALL VAULT WALL PENETRATIONS SHALL BE SEALED TO MAINTAIN A WATERPROOF BARRIER AT THE CONDUIT PENETRATIONS.
- ④ PROVIDE IN-JUSE COVER FOR RECEPTACLE. CAT #WPB26MP MANUFACTURED BY HUBBELL OR APPROVED EQUAL.
- ⑤ DOUBLE POLE SWITCH TO CONTROL BOTH FAN EF-1 AND LIGHT.

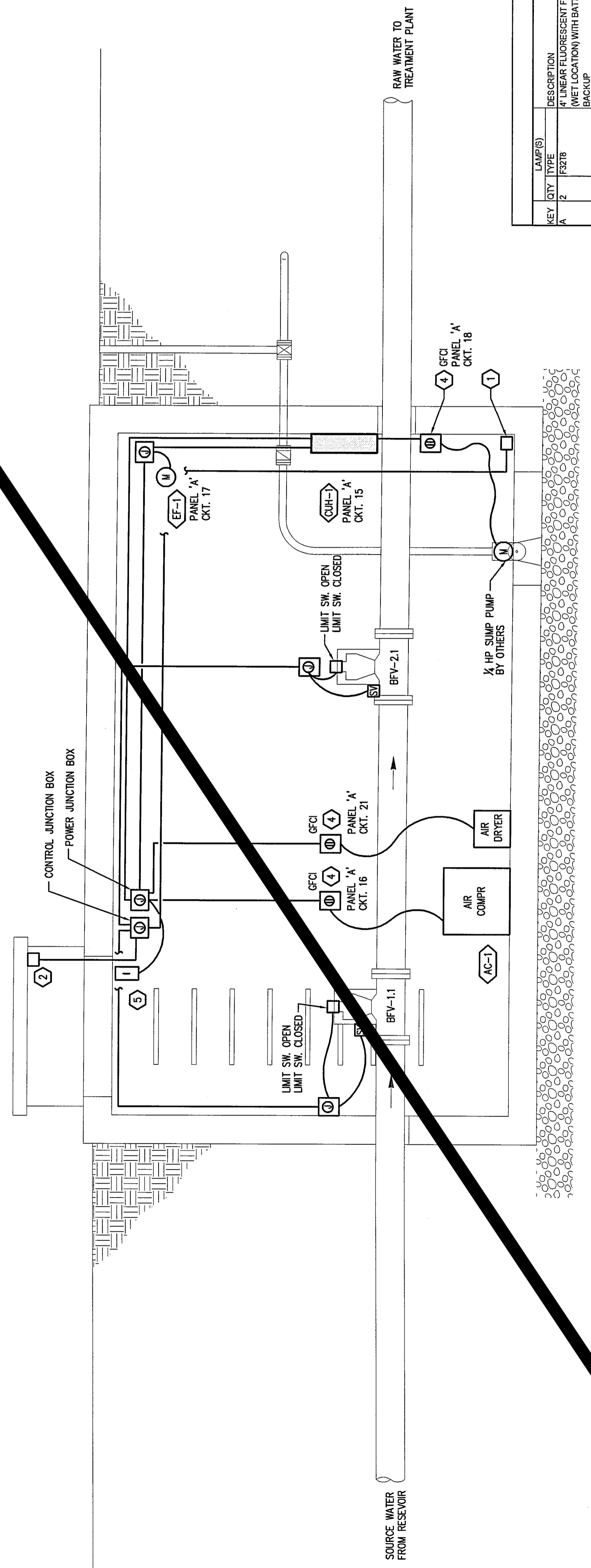
LUMINAIRE SCHEDULE

KEY	QTY	LAMP(S) TYPE	DESCRIPTION	FINISH	CATALOG NUMBER	VOLTS	NOTES
A	2	F32T8	4" LINEAR FLUORESCENT FIXTURE LOCATION WITH BATTERY BACKUP	STANDARD	DMW 232 120W EL 120	120	70

WORK COMPLETE



VAULT ELECTRICAL PLAN
 SCALE: 3/4"=1'-0"



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

