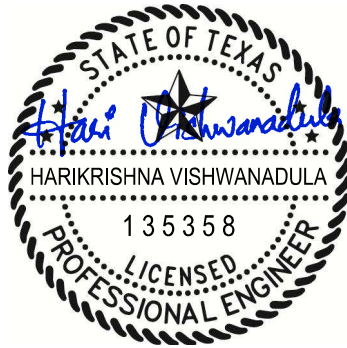


July 12, 2024

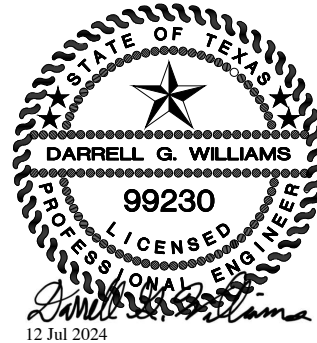


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07.12.2024

MECHANICAL ENGINEER OF RECORD



12 Jul 2024

ELECTRICAL ENGINEER OF RECORD

**RWB CONSULTING ENGINEERS
MECHANICAL, PLUMBING & ELECTRICAL ADDENDUM 1 ITEMS FOR
WALNUT GROVE MIDDLE SCHOOL CHILLER REPLACEMENT
MIDLOTHIAN I.S.D.**

The following items modify the Specifications and Drawings and shall become part of the Contract Documents.

REVISIONS TO THE PROJECT MANUAL

The following specifications have been revised in this addendum. These revisions shall replace previously issued specifications as noted below.

1. SECTION 00 30 00 – Proposal Form

- a. Refer to Notes under Alternate No. 3 table, revise note 2 to read as follows

2. Prices listed on Bid Form acknowledge that work for Walnut Grove Middle School cannot begin until Thanksgiving or Winter Break of 2024.

REVISED & REISSUED DRAWINGS

The following list of drawings notes drawings revised and re-issued in this addendum. Previous versions of these drawings shall be removed and replaced with these revised drawings.

1. REVISED & REISSUED DRAWINGS:

1. MP1.01 – FLOOR PLAN – CENTRAL UTILITY PLANT – MECHANICAL
2. M3.01 – HYDRONIC FLOW DIAGRAMS - HVAC
3. M4.01 – DETAILS, SCHEDULES, & LEGEND – MECHANICAL
4. DE1.01 – DEMOLITION FLOOR PLAN – CENTRAL UTILITY PLANT – ELECTRICAL
5. E1.01 – FLOOR PLAN – CENTRAL UTILITY PLANT – ELECTRICAL

REVISED BUT NOT ISSUED DRAWINGS

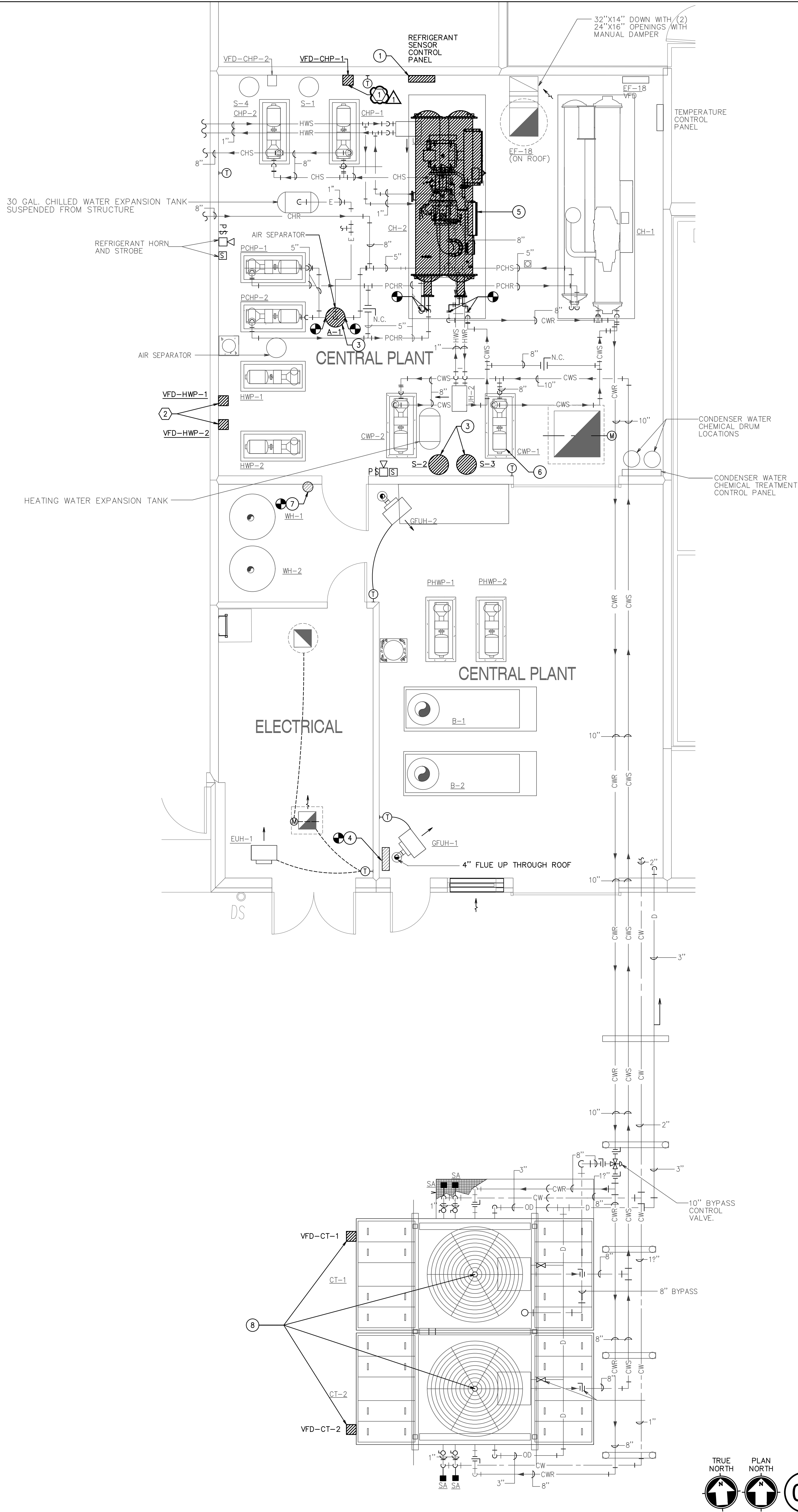
1. E1.02 – ENLARGED FLOOR PLANS – LEVEL 1 – ELECTRICAL

- a. Revise sheet title from “ENLARGED DEMOLITION FLOOR PLANS – LEVEL 1 – ELECTRICAL” to read as “ENLARGED FLOOR PLANS – LEVEL 1 – ELECTRICAL”.
- b. Delete side note stating “90% REVIEW – NOT FOR CONSTRUCTION”

2. E2.01 – ENLARGED FLOOR PLANS – LEVEL 2 – ELECTRICAL

- a. Revise sheet title from “ENLARGED DEMOLITION FLOOR PLANS – LEVEL 2 – ELECTRICAL” to read as “ENLARGED FLOOR PLANS – LEVEL 2 – ELECTRICAL”.

END OF RWB CONSULTING ENGINEERS' ADDENDUM ITEMS



GENERAL MECHANICAL NOTES:

1. RECTANGULAR SUPPLY AIR DUCTWORK IS TO BE LINED WITH 1½" THICK ACoustICAL AND THERMAL LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH INSULATION. THEREAFTER, THE FIRST 10' TO 15' OF EACH 10' RISE OR 20' RISE DUCTWORKS RECTANGULAR RETURN DUCT SHALL BE LINED WITH 1" LINER FOR THE FIRST 10'-0" FROM THE UNIT AND EXTERNALLY WRAPPED WITH MINIMUM 2" INSULATION AFTER THE FIRST 10' TRANSFER. THEREAFTER, THE FIRST 10' TO 15' OF EACH 10' RISE OR 20' RISE DUCTWORKS SIZES SHOWN ARE NET INTERNAL AIR STREAM DIMENSIONS. SHEET METAL SIZES ARE TO BE INCREASED IN SIZE TO MAINTAIN THESE INTERNAL CLEAR DIMENSIONS. ROUND DUCTWORK IS TO BE EXTERNALLY WRAPPED, FLEXIBLE ROUND DUCT SHALL HAVE A MINIMUM R=VALUE OF 6.0.
2. BRANCH RUN-OUTS TO CEILING MOUNTED AIR DEVICES SHALL BE SAME SIZE AS NECK, UNLESS NOTED OTHERWISE. PROVIDE A TWIST-IN FLARED PAI WITH MANUAL VOLUME DAMPER AT MAIN DUCT CUT, AND EXTEND AS SHOWN. EXTEND FLEXIBLE DUCTWORK A MINIMUM 5'-0" FROM THE DEVICES. INSTALL STRAIGHT AS POSSIBLE WITH LONG RADII BENDS WITH CLAMPS TO BE USED AT BOTH ENDS.
3. ALL DUCTWORK AND PIPING SHALL BE RUN CONCEALED ABOVE CEILINGS AS HIGH AS POSSIBLE & CONCEALED IN WALLS, CHASES, OR FURROUTS IN GENERAL LOCATIONS SHOWN, UNLESS NOTED OTHERWISE.
4. LOCATE CEILING MOUNTED AIR DEVICES APPROXIMATELY WHERE SHOWN, VERIFY EXISTING CEILING TIES TO CONFIRM FRAME MOUNTING TIES REQUIRED. ALL CEILING DIFFUSERS TO BE FOUR-WAY TYPE UNLESS NOTED OTHERWISE BY AIR FLOW ARROWS ON FLOOR PLAN.
5. EXISTING AND NEW DIFFUSERS FOR ALL DUCTWORK CONNECTED TO UNITS REPLACED OR EXTEND TO BE BALANCED TO NEW AIRFLOW VALUES SHOWN. TAB FIRM CONTRACTED DIRECTLY WITH OWNER.
6. WHERE EXISTING DUCTWORK IS REMOVED AND NOT REUSED, INSTALL INSULATED CAPS AND SEAL AIR TIGHT.
7. REMOVE EXISTING CEILING GRID AND TILE AS REQUIRED TO REMOVE EXISTING AND INSTALL NEW DUCTWORK, PIPING, AND TIES. REMOVE EXISTING CEILING TILE AND GRID WHEREVER POSSIBLE. STORE AND STACK EXISTING TILE FOR REUSE AND PROTECT. WHERE NEW CEILING TILE IS REQUIRED, IT SHALL BE ALL NEW THROUGH THE ROOM. DO NOT MIX NEW AND EXISTING CEILING TILE IN THE SAME SPACE. ALL NEW CEILING HEIGHTS TO MATCH EXISTING CEILING HEIGHTS, ANY CEILINGS TO REMAIN THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY THE CONTRACTOR WITH PRODUCTS AND MATERIALS THAT MATCH EXISTING.
8. EXISTING LIGHTS TO BE REUSED AND REMAIN IN PLACE. CONTRACTOR TO SUPPORT LIGHTS ABOVE CEILING DURING ANY CEILING REMOVAL.
9. WHERE ITEMS ARE REMOVED PATCH WALLS, CEILING, OR FLOOR AS APPLICABLE TO MATCH EXISTING FINISHES.
10. EXISTING SECURITY SYSTEM AND DEVICES TO REMAIN IN PLACE AND ACTIVE DURING CONSTRUCTION. ANY DEVICES IN CEILINGS TO BE REMOVED AND REPLACED TO BE TEMPORARILY SUPPORTED. ALL SECURITY SCOP OF WORK TO BE CONTRACTED WITH SAS.
11. CLEAN ALL EXISTING REUSED SUPPLY, RETURN, AND EXHAUST AIR GRILLES FREE OF ALL DUST AND DEBRIS. PAINT ALL EXISTING SUPPLY AND RETURN AIR GRILLES WHERE SIGNS OF RUST ARE NOTED ON EXISTING GRILLES TO MATCH EXISTING COLOR OF GRILLE.
12. NEW TEMPERATURE SENSOR TO BE INSTALLED WHERE OLD SENSOR WAS REMOVED, WHEN IN COMPLIANCE WITH ADA HEIGHT REQUIREMENTS, WHEN NOT IN COMPLIANCE PROVIDE ADA COMPLIANT ADA HEIGHT AND REMOVE STAINLESS STEEL COVER PLATE OVER EXISTING WALL OPENING. RE-USE EXISTING WIRING PATHWAY TO ACCESSIBLE CEILING, UP TO ROOF. PATCH, REPAIR AND PAINT WALL AS NEEDED.
13. PROVIDE FLOOR PROTECTION IN ALL AREAS OF THE DEMOLITION AND NEW WORK THAT THE BUILDING FLOOR SHALL BE PROTECTED TO BE FULL WIDTH TO BE FULL WIDTH OF CORRIDOR AND STAIRWELL TO BE RAM BOARD OR EQUAL FLOOR PROTECTION.

GENERAL PLUMBING NOTE:

1. CONTRACTOR SHALL PROVIDE AN EASY WATER SYSTEM AND CONTROLLER ON ALL DOMESTIC HOT WATER RETURN PIPING DOWNSTREAM OF THE CIRCULATION PUMP AND INSTALLED PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

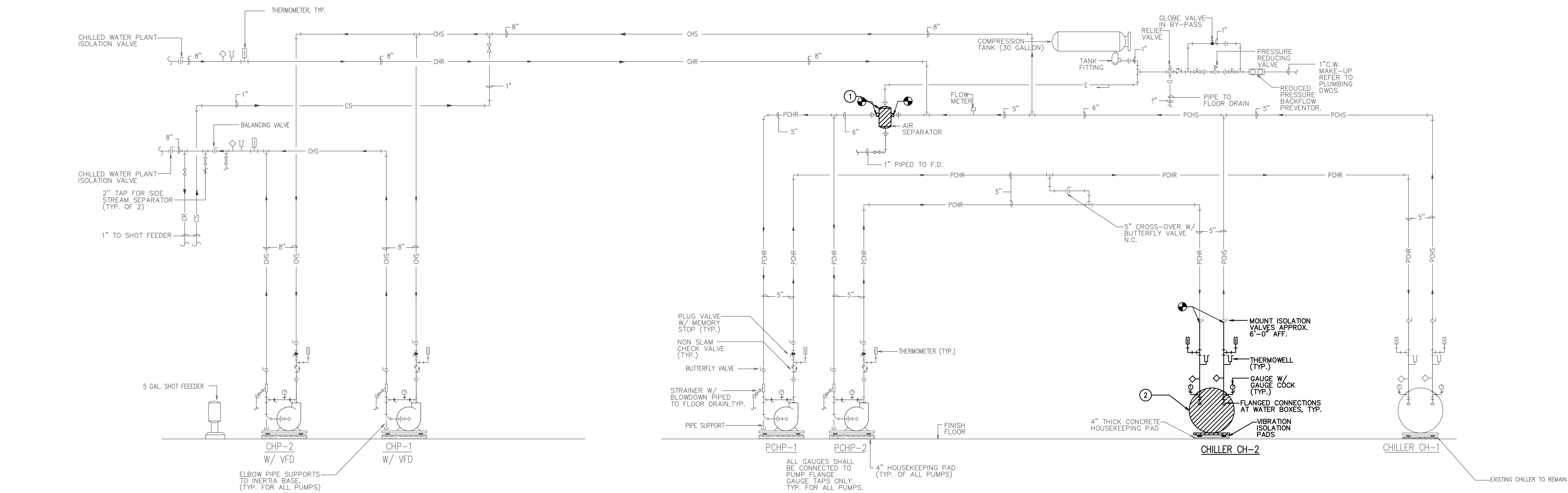
NOTES BY SYMBOL '○':

- ① NEW NECESSARY MONITORING STATION TO BE INSTALLED (PATCH, REPAIR, AND PAINT) WALL AS FEEDER AFTER INSTALLATION.
- ② NEW AIR SEPARATOR TO BE INSTALLED.
- ③ NEW CENTRIFUGAL SEPARATOR TO BE INSTALLED UNDER ALTERNATE SCOPE.
- ④ NEW EASY WATER SYSTEM, EF-50-IN W/ TWS-4-4 AND CONTROLLER.
- ⑤ NEW CENTRIFUGAL CHILLER TO BE INSTALLED.
- ⑥ EXISTING CWP-1 TO BE RE-INSTALLED AFTER THE INSTALLATION OF THE NEW CENTRIFUGAL CHILLER.
- ⑦ NEW EASY WATER SYSTEM, CSS50 W/ TWS-1 AND CONTROLLER.
- ⑧ REPLACE EXISTING FAN MOTORS WITH NEW 10HP FAN MOTORS. CONFIRM NEW FAN MOTOR POWER TO BE THE SAME AS EXISTING MOTORS TO BE VFD COMPATIBLE. VFDs TO BE OF NEMA 3R CONSTRUCTION, WITH 10HP, 480V, 3PH, 3W, 400% INRUSH CURRENT. EXISTING FAN MOTOR STARTERS, CONTRACTOR TO REMOVE EXISTING 2-SPEED STARTERS AND REPLACE WITH VFD'S. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER FROM EXISTING 480V/3PH, 400% INRUSH CIRCUIT BREAKER IN EXISTING PANEL. "HPT" TO NEW VFDs FOR COOLING TOWER FAN MOTORS. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO FIELD TRACE ALL EXISTING FEEDERS AND BRANCH CIRCUIT WIRING FOR COOLING TOWERS FROM EXISTING ELECTRICAL DISTRIBUTION EQUIPMENT, ANY ABANDONED EQUIPMENT, RACEWAYS, AND CONDUITORS SHALL BE REMOVED IN THEIR ENTIRETY AS REQUIRED BY CODE. CONTRACTOR TO PROVIDE NEW PULLBOXES, CONDUITS, AND CONDUIT FITTINGS REQUIRED TO CONNECT ALL NEW REPLACEMENT HVAC EQUIPMENT, INCLUDING THEIR RESPECTIVE ACCESSORIES TO EXISTING ELECTRICAL CIRCUITS MADE AVAILABLE BY DEMOLITION OF OLD HVAC EQUIPMENT.

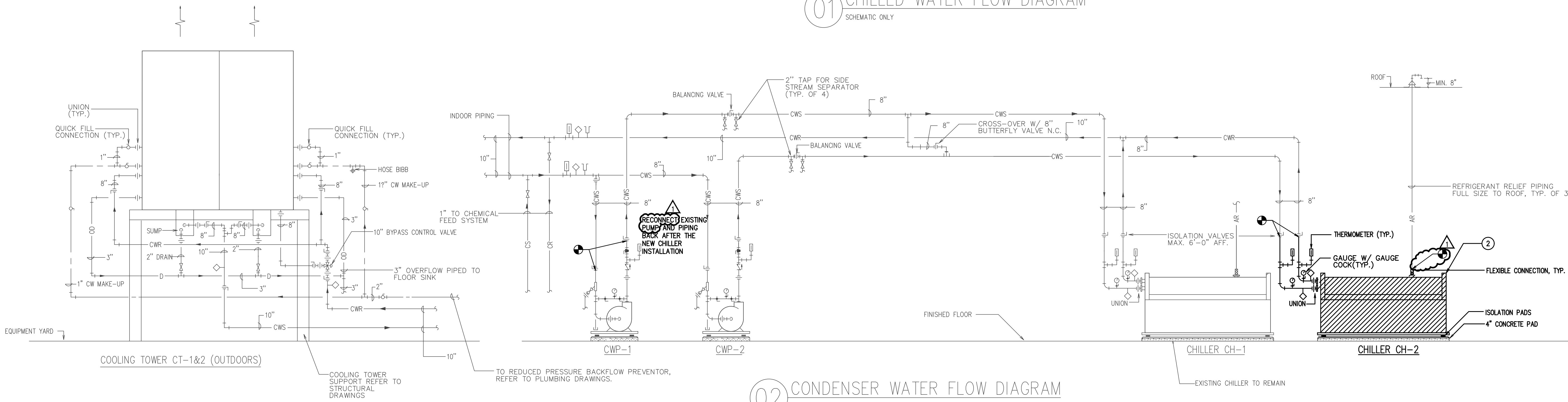
ALTERNATE NOTES BY SYMBOL '⬡':

- ① NEW CHP-1 VFD TO BE INSTALLED.
- ② NEW HWP-1 & HWP-2 VFDS TO BE INSTALLED.

Drawing: 24040 - MIDLOTHIAN I.S.D. WALNUT GROVE MS CHILLER/PAVING SHEETS/MS.DWG. P&ID By:BAUER MAND. Plot Date: 7/12/2024 3:29 PM. Plot Scale: 1"= 30'-0" 30442 IN



01 CHILLED WATER FLOW DIAGRAM
SCHEMATIC ONLY



02 CONDENSER WATER FLOW DIAGRAM
SCHEMATIC ONLY

NOTES BY SYMBOL 'O':

- 1 NEW AIR SEPARATOR TO BE INSTALLED.
- 2 NEW CENTRIFUGAL CHILLER TO BE INSTALLED.

2024.07.03

ISSUES

01 ISSUE FOR CONSTRUCTION 2024.07.03

REVISIONS

01 ADDENDUM #1 2024.07.12



WALNUT GROVE MS
CHILLER REPLACEMENT
MIDLOTHIAN I.S.D.
990 Walnut Grove Rd, Midlothian, TX 76065

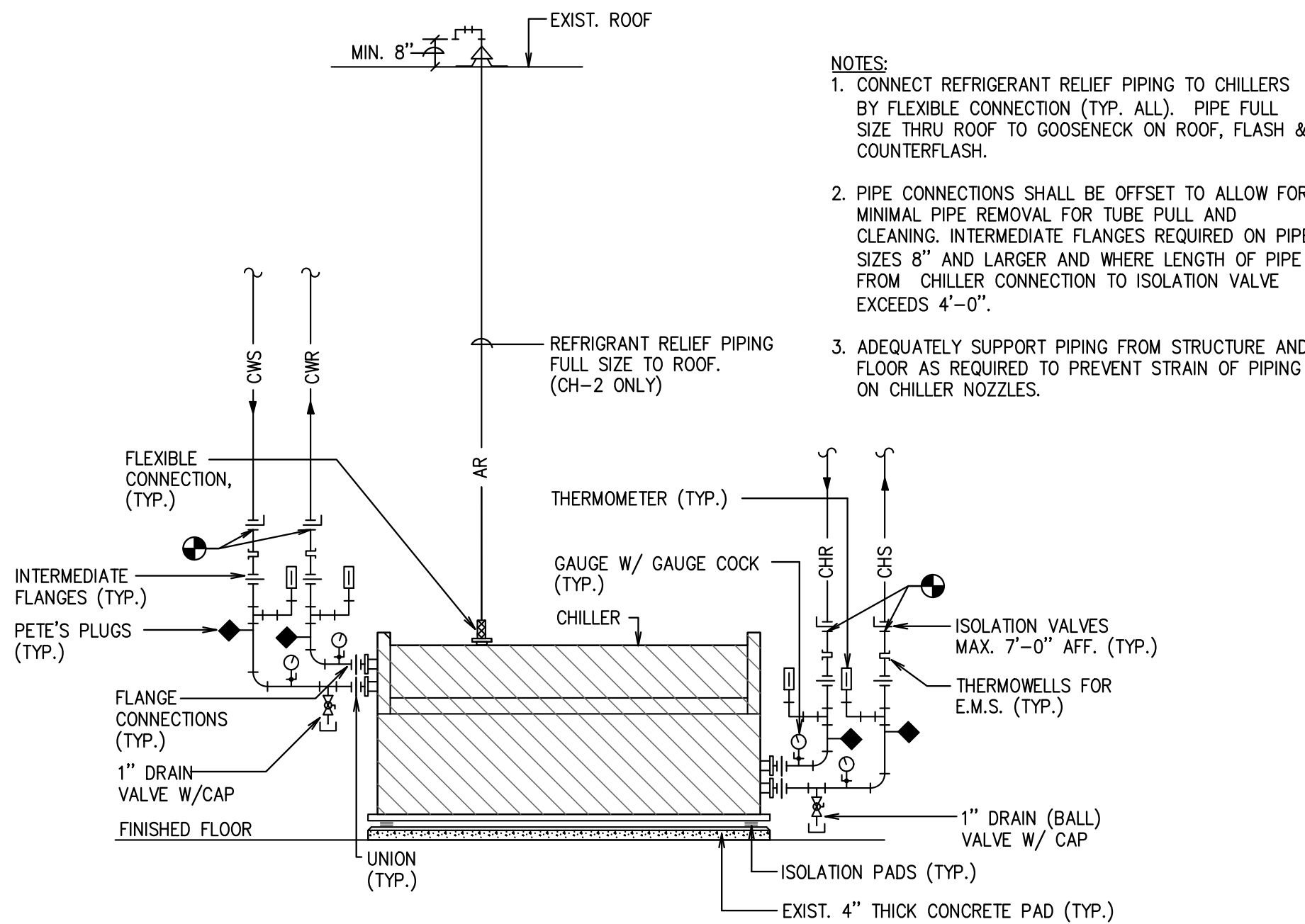
HYDRONIC FLOW
DIAGRAMS - HVAC

JOB NO.: 24040-00
DRAWN BY: BM
CHECKED BY: HV

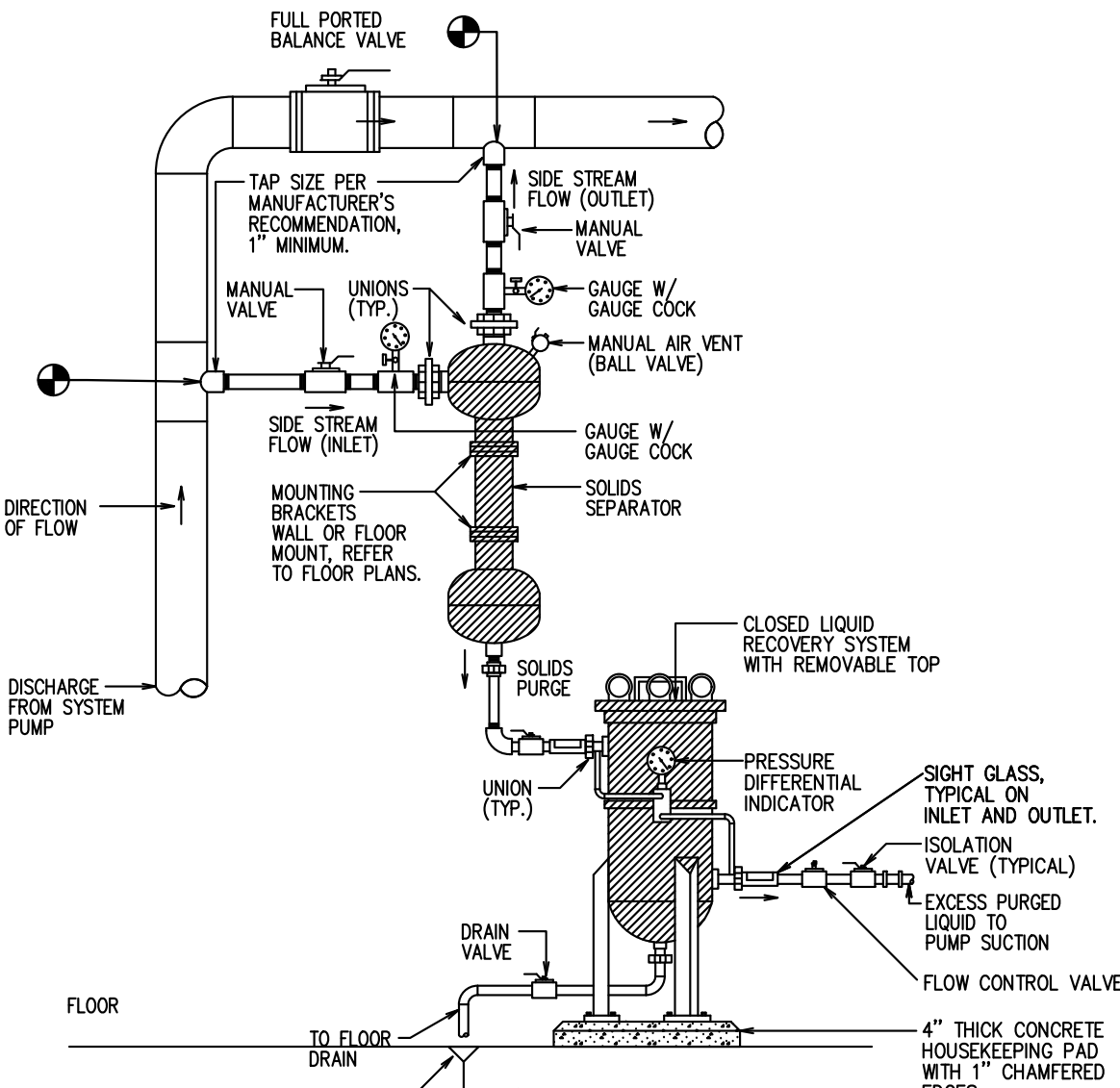
SHEET NO.

M3.01

Drawing: 3/1/2024 - MIDLOTHIAN ISD WALNUT GROVE MS CHILLER/UNITS/MS COOLING TOWER FAN - P&ID SHEET 307 30042 IN Plot Date: 7/12/2024 3:12 PM Plot Scale: 1:1 Paper Size: 30" x 36" 42 IN



1 CHILLER PIPING DETAIL
NOT TO SCALE



2 SIDE STREAM SEPARATOR AND LIQUID RECOVERY SYSTEM DETAIL
SCALE: NOT TO SCALE

VFD SCHEDULE – AIR HANDLING UNITS – ALTERNATE NO.1

DATA GENERAL	DESIGNATION	VFD-AHU-1	VFD-AHU-2	VFD-AHU-3	VFD-AHU-4	VFD-AHU-5	VFD-AHU-7	VFD-AHU-9
	EQUIPMENT SERVED	AHU-1	AHU-2	AHU-3	AHU-4	AHU-5	AHU-7	AHU-9
	LOCATION	MECH B110	MECH C210	MECH A109	MECH B210	MECH A210	MECH D104	MECH F103
	MODEL	ACH580-VCR-014A-4	ACH580-VCR-014A-4	ACH580-VCR-014A-4	ACH580-VCR-014A-4	ACH580-VCR-014A-4	ACH580-VCR-014A-4	ACH580-VCR-014A-4
EQUIPMENT SERVED DATA	POWER (HP)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
	VOLTS/Ph/Hz	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60
REMARKS								
1. PROVIDE VFD WITH MANUFACTURER FURNISHED SERVICE SWITCH.								

VFD SCHEDULE – RELIEF FANS – ALTERNATE NO.1

DATA GENERAL	DESIGNATION	VFD-RF-1	VFD-RF-2	VFD-RF-3	VFD-RF-4	VFD-RF-5	VFD-RF-6	VFD-RF-7	VFD-RF-8	VFD-RF-9	VFD-RF-10	VFD-RF-11	VFD-RF-12
	EQUIPMENT SERVED	RF-1	RF-2	RF-3	RF-4	RF-5	RF-6	RF-7	RF-8	RF-9	RF-10	RF-11	RF-12
	LOCATION	MECH B110	MECH C210	MECH A109	MECH B210	MECH A210	MECH A211	MECH D104	MCH D204	MECH F103	MEZZANINE E201	MEZZANINE E201	MEZZANINE E201
	MODEL	ACH580-VCR-03A5-4	ACH580-VCR-03A5-4	ACH580-VCR-03A5-4	ACH580-VCR-03A5-4	ACH580-VCR-03A5-4	ACH580-VCR-03A5-4	ACH580-VCR-03A5-4	ACH580-VCR-04A8-4	ACH580-VCR-03A5-4	ACH580-VCR-04A8-4	ACH580-VCR-07A6-4	ACH580-VCR-02A1-4
EQUIPMENT SERVED DATA	POWER (HP)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	2.0	3.0	5.0	1.0
	VOLTS/Ph/Hz	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60	460/3/60
REMARKS													
1. PROVIDE VFD WITH MANUFACTURER FURNISHED SERVICE SWITCH.													

VFD SCHEDULE – HYDRONIC PUMPS – ALTERNATE NO.1

DATA GENERAL	DESIGNATION	VFD-CHP-1	VFD-HWP-1	VFD-HWP-2
	EQUIPMENT SERVED	CHP-1	HWP-1	HWP-2
	LOCATION	CENTRAL PLANT F122	CENTRAL PLANT F122	CENTRAL PLANT F122
	MODEL	ACH580-VCR-044A-4	ACH580-VCR-027A-4	ACH580-VCR-027A-4
EQUIPMENT SERVED DATA	POWER (HP)	30.0	20.0	20.0
	VOLTS/Ph/Hz	460/3/60	460/3/60	460/3/60
REMARKS				
1. PROVIDE VFD WITH MANUFACTURER FURNISHED SERVICE SWITCH.				

VFD SCHEDULE – COOLING TOWER FANS

DATA GENERAL	DESIGNATION	VFD-CT-1	VFD-CT-2
	EQUIPMENT SERVED	CT-1 FAN MOTOR	CT-2 FAN MOTOR
	LOCATION	COOLING TOWER YARD	COOLING TOWER YARD
	MODEL	ACH580-BCR-023A-4	ACH580-BCR-023A-4
EQUIPMENT SERVED DATA	POWER (HP)	15.0	15.0
	VOLTS/Ph/Hz	460/3/60	460/3/60
REMARKS			
1. PROVIDE VFD WITH MANUFACTURER FURNISHED SERVICE SWITCH. 2. VFD TO BE OF NEMA 3R CONSTRUCTION RATED FOR OUTDOOR INSTALLATION. 3. PROVIDE SUN SHIELD FOR VFD.			

CENTRIFUGAL SEPARATOR SCHEDULE

DESIGNATION	S-2 & S-3
SERVES	CONDENSER WATER
MANUFACTURER	PURIFLUX
MODEL	PF-61-020
GPM	70.5
MAX. PRESSURE DROP (PSI)	4
INLET SIZE	2"
OUTLET SIZE	2"
REMARKS	W/ CLOSED RECOVERY SYSTEM

AIR SEPARATOR SCHEDULE

DESIGNATION	A-1
LOCATION	CENTRAL PLANT
SERVICE	CHILLED WATER
ORIENTATION	VERTICAL
TYPE	BLADDER
SYSTEM FLOW, GPM	353
WEIGHT, LBS	570
MAXIMUM WATER PRESSURE DROP, FT	0.4
MANUFACTURER	BELL & GOSSETT
MODEL	RL-6F
COMMENTS	
1. AIR SEPARATOR TO BE SUSPENDED FROM CEILING.	

WATER COOLED CHILLER SCHEDULE

GENERAL	DESIGNATION	CH-2
	LOCATION	CENTRAL PLANT
	SERVICE	CHILLED WATER
	TYPE	CENTRIFUGAL
	REFRIGERANT	R-513A
	NOMINAL CAPACITY, TONS	235
	AMBIENT AIR TEMPERATURE, DEG. F.	105
	EFFICIENCY AT FULL LOAD, KW/TON	0.6291
	EFFICIENCY AT PART LOAD, KW/TON	0.4199
	MINIMUM UNLOADING, %	25
EVAPORATOR DATA	GPM	351.6
	E.W.T., DEG. F.	60.0
	L.W.T., DEG. F.	44.0
	MAX W.P.D, FT.	6.61
CONDENSER DATA	GPM	705.0
	E.W.T., DEG. F.	85.0
	L.W.T., DEG. F.	94.4
	MAX W.P.D, FT.	16.1
ELECTRICAL DATA	VOLTAGE	460
	PHASE	3
	FREQUENCY, HZ	60
	M.C.A.	258
COMMENTS	M.O.C.P.	450
	1,2,3,4,5	

1. REFER TO PLANS FOR EQUIPMENT ORIENTATION AND PIPE CONNECTION LOCATIONS.
2. PROVIDE BACKUP IP INTERFACE CARD.
3. ALL PIPE CONNECTIONS TO BE ON PLAN SOUTH SIDE OF CHILLER BARREL.
4. WATER COOLED CHILLERS TO BE DISASSEMBLED (IF REQUIRED) BY FACTORY TRAINED YORK REPRESENTATIVE SO CHILLERS CAN BE BROUGHT INTO PLANT THROUGH EXISTING ROLLING DOORS.
5. UNDER ALTERNATE NO.2 PROVIDE AN EXTENDED FOUR YEAR COMPRESSOR WARRANTY FOR THE CHILLER, RESULTING IN A TOTAL OF FIVE YEARS FROM THE DATE OF SUBSTANTIAL COMPLETION.

MECHANICAL/PLUMBING LEGEND

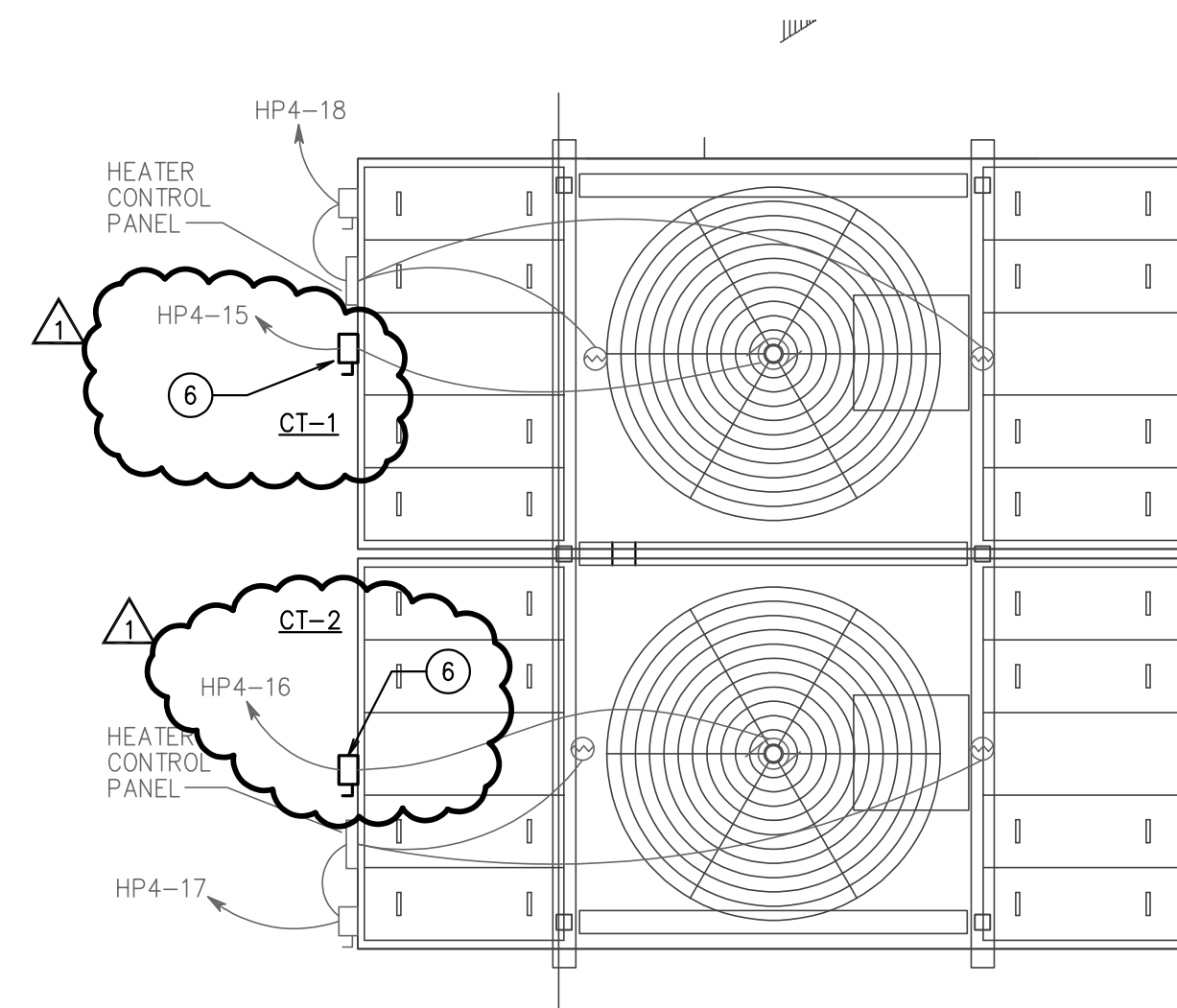
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
DHW	DOMESTIC HOT WATER SUPPLY
DHWR	DOMESTIC HOT WATER RETURN
CW	DOMESTIC COLD WATER
RS	REFRIGERANT SUCTION
RL	REFRIGERANT LIQUID
CWS	CONDENSATE DRAIN
CWR	AUXILIARY DRAIN LINE
D	DRAIN LINE
E	EXPANSION LINE
CS	CHEMICAL SUPPLY
CR	CHEMICAL RETURN
→	FLOW IN DIRECTION OF ARROW
↘	SLOPE DOWN IN DIRECTION OF ARROW
↗	RISE AND DROP IN PIPING
⊗	STRAINER WITH BLOWDOWN VALVE
⊕	GATE VALVE
⊖	BUTTERFLY VALVE
⊗	UNION
⊕	BALL VALVE
⊖	PLUG VALVE
⊗	CHECK VALVE
⊕	FLOW SWITCH
⊖	AUTOMATIC 3-WAY CONTROL VALVE
⊗	AUTOMATIC 2-WAY VALVE
⊕	PRESSURE REDUCING VALVE
⊖	PRESSURE RELIEF VALVE
⊗	GAUGE COCK
⊕	PRESSURE GAUGE WITH GAUGE COCK
⊖	THERMOMETER
⊗	P/T PORT
⊕	CAP
⊖	AUTOMATIC AIR VENT
↗	RISE AND DROP IN PIPING
⊖	THERMOWELL
⊕	THERMOSTAT/TEMPERATURE SENSOR
⊖	HUMIDITY SENSOR
⊕	CARBON DIOXIDE SENSOR
⊖	DUCT SMOKE DETECTOR
\$	WALL SWITCH
\$	WALL SWITCH WITH PUSH BUTTON
→	SUPPLY AIR ARROW
↗	RETURN AIR ARROW
↗	RISE IN DUCT
↘	DROP IN DUCT
⊗	SUPPLY DUCT
⊕	RETURN OR EXHAUST DUCT
⊖	MANUAL DAMPER
⊕	MOTORIZED DAMPER
⊖	CONNECT TO EXISTING
⊕	EXISTING WORK TO REMAIN
⊖	EXISTING WORK TO BE REMOVED
⊕	NEW WORK
⊖	DOMESTIC COLD WATER (CW)
⊕	DOMESTIC HOT WATER (HW)
⊖	DOMESTIC HOT WATER RETURN (HWR)
⊕	140°F DOMESTIC HOT WATER (HW)
⊖	140°F DOMESTIC HOT WATER RETURN (HWR)
⊕	GAS PIPE
⊖	FLOOR DRAIN
⊕	ROOF PIPE SUPPORT
⊖	GAS COCK

NOTE: NOT ALL SYMBOLS ARE USED

2024.07.03

ISSUES
01 ISSUE FOR CONSTRUCTION 2024.07.03

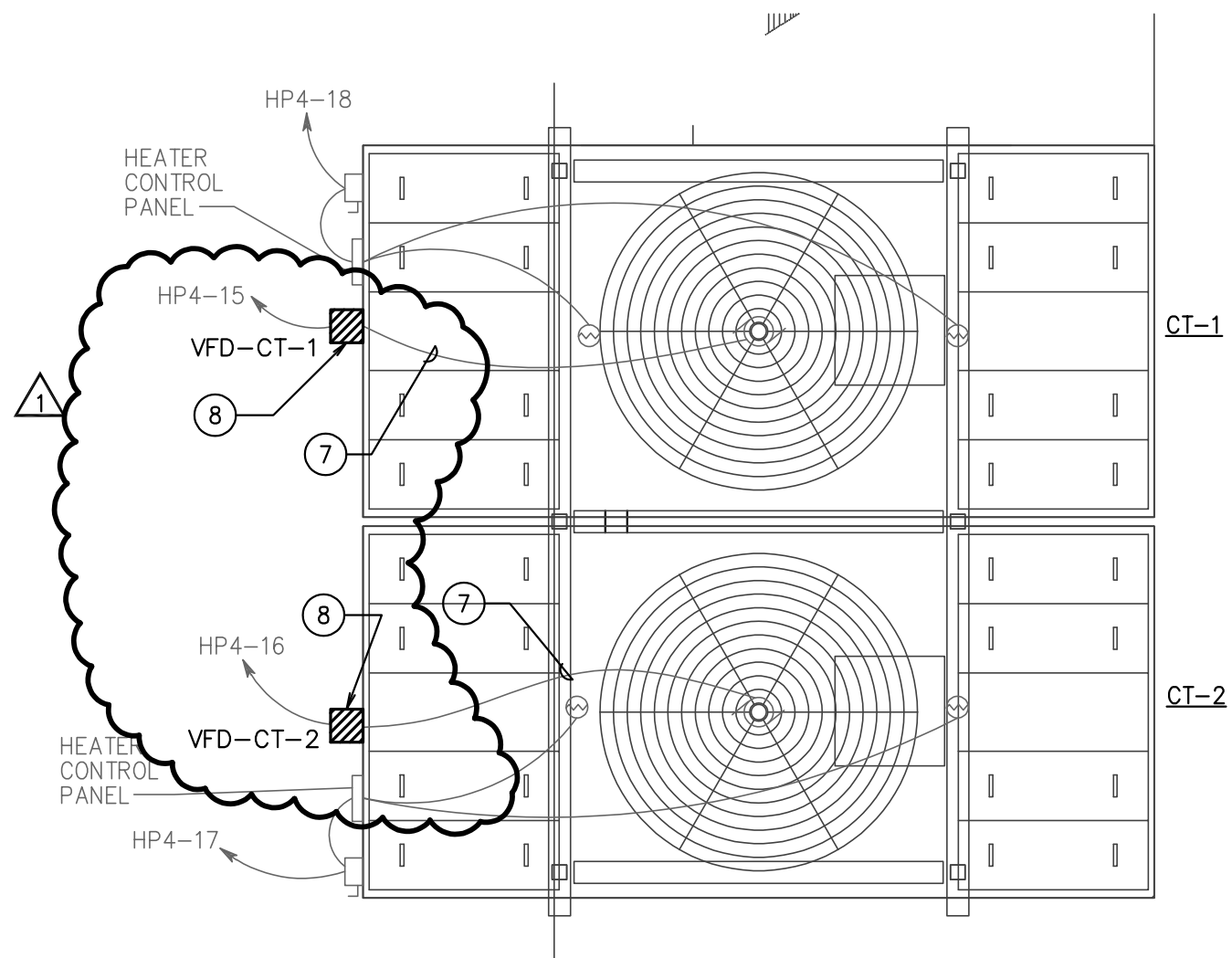
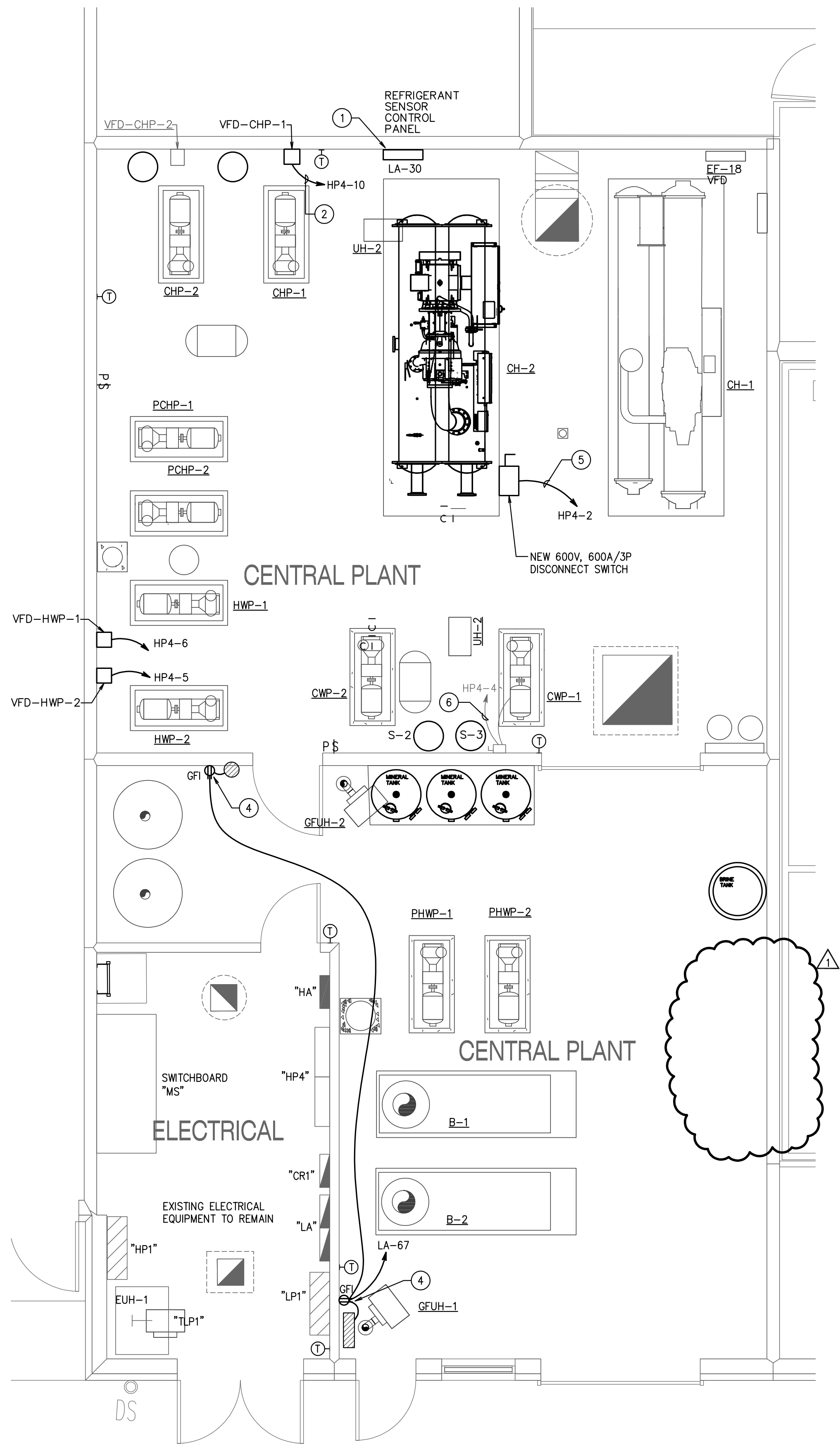
REVISIONS
01 ADDENDUM #1 2024.07.12



1. THE INFORMATION ON THE DEMOLITION DRAWINGS ARE NOT FROM "AS-BUILD" DRAWINGS BUT FROM ORIGINAL DRAWINGS. THIS INFORMATION IS INCLUDED FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS TO DETERMINE THE AMOUNT OF WORK THAT WILL BE REQUIRED. CONTRACTOR SHALL EXAMINE THE EXISTING BUILDING AND GENERALLY VERIFY THE LOCATION OF ALL EXISTING WORK AND BECOME FAMILIAR WITH THE BUILDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A BID. SUBMISSION OF A BID WILL CONSTITUTE EVIDENCE THAT THE CONTRACTOR HAS INSPECTED THE SITE OF THE PROPOSED WORK.
2. EXISTING MEP ITEMS TO BE REMOVED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF AS DIRECTED BY THE DESIGNATED OWNER'S REPRESENTATIVE.
3. COORDINATE DEMOLITION WORK WITH THE BUILDING MAINTENANCE PERSONNEL AND OTHER TRADES PERFORMING WORK IN THE BUILDING PRIOR TO THE REMOVAL OF ANY ITEMS OF THE BUILDING SYSTEMS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR NEW CONSTRUCTION OR OTHER AREAS OF THE BUILDING. THE BUILDING WILL BE OCCUPIED DURING CONSTRUCTION, AND, THEREFORE, UTILITIES MUST REMAIN IN OPERATION AT ALL TIMES. ANY REQUIRED QUOTES MUST BE COORDINATED WITH THE OWNER.
4. PRIOR TO THE REMOVAL OF ANY MEP ITEMS OR EQUIPMENT, CONTRACTOR MUST VERIFY THE LOCATION AND TERMINATION OF THESE SYSTEMS AND CONFIRM THAT THE ITEMS BEING REMOVED DO NOT SERVE ANY ITEMS THAT ARE TO REMAIN (INCLUDING THOSE IN AREAS OUTSIDE THE CONTRACT LIMITS).
5. CONTRACTOR SHALL CONTACT CONTACTS SYSTEMS INSTALLER BEFORE ANY DEMOLITION WORK IS STARTED TO ALLOW THEM TO TAG & IDENTIFY ITEMS TO REMAIN AND BE PROTECTED AND ITEMS TO BE REMOVED. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR THE REMOVAL OF ELEMENTS OF THE EXISTING CONTROLS SYSTEM THAT SHALL BE CAREFULLY REMOVED AND GIVEN TO THE OWNER SUCH AS EXISTING THERMOSTATS, SENSORS THAT WILL NOT BE RE-USED. ALL EXISTING CONTROLS SHALL BE CAREFULLY REMOVED, PROTECTED, AND STORED IN A DRY, SECURELY PROTECTED, SHRINK WRAPPED, PALLETIZED, AND PROVIDED TO OWNER FOR THEIR USE.
6. DO NOT ABANDON ANY ITEMS IN PLACE. REMOVE ALL COMPONENTS ASSOCIATED WITH EACH ITEM CALLED OUT TO BE REMOVED. WHERE ITEMS ARE REMOVED PATCH/REPLACE ROOF, WALLS, CEILING OR FLOOR, IF APPLICABLE, TO MATCH EXISTING FINISHES, WHERE NEW FINISHES ARE REQUIRED FOR PATCHING SHALL BE DONE BY THE CONTRACTOR.
7. ALL EXISTING FIRE ALARM, SECURITY AND OTHER CEILING MOUNTED DEVICES TO REMAIN IN OPERATION DURING CONSTRUCTION AND BE RE-INSTALLED AS NEEDED. TEMPORARILY SUPPORT AS NEEDED.
8. ALL EXISTING LIGHTS ARE TO BE REUSED AND REMAIN IN PLACE, UNLESS NOTED OTHERWISE. CONTRACTOR TO SUPPORT LIGHTS ABOVE CEILING DURING ANY CEILING DEMOLITION.
9. THE MECHANICAL CONTRACTOR / DEMOLITION CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR REGARDING THE SCOPE OF DEMOLITION FOR ELECTRICAL CONNECTIONS. THOSE UNITS BEING REMOVED SHALL BE SAFELY DISCONNECTED FROM EXISTING POWER.
10. CONTRACTOR SHALL COORDINATE REMOVAL OF EXISTING UNITS WITH DISTRICT, ALLOWING THE DISTRICT TO REMOVE ANY EXISTING UNIT COMPONENTS FOR SPARE STOCK.
11. PROVIDE FLOOR PROTECTION IN ALL AREAS OF DEMOLITION AND NEW WORK THROUGHOUT THE BUILDING WORK AREA TO EXTERIOR. FLOORING PROTECTION TO BE FULL WIDTH OF CORRIDOR AND BE RAM BOARD OR EQUAL TYPE FLOOR PROTECTION.

1. DISCONNECT POWER TO EXISTING REFRIGERANT MONITORING STATION TO BE DEMOLISHED AND REPLACED WITH NEW. PREPARE CIRCUIT FOR REUSE.
2. DISCONNECT POWER TO EXISTING CHP-1 VFD TO BE DEMOLISHED AND REPLACED WITH NEW. PREPARE CIRCUIT FOR REUSE.
3. EXISTING HWP-1 & HWP-2 VFDs TO BE DEMOLISHED AND REPLACED WITH NEW.
4. DISCONNECT POWER TO EXISTING SCREW CHILLER TO BE DEMOLISHED AND REPLACED WITH NEW CENTRIFUGAL CHILLER. PREPARE CIRCUIT FOR REUSE.
5. DISCONNECT POWER TO EXISTING CMP-1 TO BE REMOVED TO ALLOW FOR THE REMOVAL OF THE EXISTING CHILLER AND THE INSTALLATION OF THE NEW CHILLER. PREPARE CIRCUIT FOR REUSE.
6. DISCONNECT POWER TO EXISTING COOLING TOWER MOTOR DISCONNECT SWITCH TO BE REMOVED AND REPLACED WITH NEW VFD. PREPARE CIRCUIT FOR REUSE.

Drawing: 24040 - MIDLOTHIAN I&B WALNUT GROVE MS CHILLER REPLACEMENT - SHEET 1 OF 10 - 11/17/2024 8:45 AM - Plot Scale: 1/8" = 1'-0" - Paper Size: 30" x 42" IN

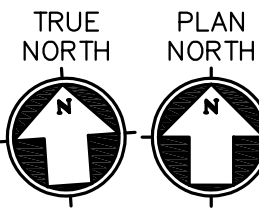


GENERAL POWER NOTES:

1. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES, RULES, REGULATIONS AND REQUIREMENTS OF THE SERVICE UTILITY COMPANY.
2. ALL WORK SHALL COMPLY WITH THE BUILDING OWNER'S CONSTRUCTION GUIDELINES.
3. ALL CIRCUITS SHOWN SHALL BE 120V, 20A CIRCUITS UNLESS NOTED OTHERWISE.
4. ALL CONDUCTORS SHALL BE #12 AWG UNLESS NOTED OTHERWISE.
5. ALL 120V RUNS LONGER THAN 60' SHALL BE #10 AWG UNLESS NOTED OTHERWISE ON THE PLANS.
6. ALL CONDUCTORS SHALL BE COPPER (#10 AND SMALLER SHALL BE SOLID).
7. WHERE CONDUCTOR SIZES ARE NOTED ON DRAWINGS, THAT CONDUCTOR SIZE SHALL BE THROUGH THE ENTIRE RUN UNLESS NOTED OTHERWISE.
8. PANELBOARD DIRECTORIES SHALL BE COMPLETELY FILLED OUT TO ACCURATELY IDENTIFY EACH CIRCUIT (EXISTING AND NEW CIRCUITS) IN ALL PANELS WITHIN SCOPE OF WORK. DIRECTORIES SHALL BE TYPEWRITTEN.
9. REFER TO MECHANICAL FLOOR PLANS FOR WALL MOUNTED THERMOSTAT, SENSOR AND ALL OTHER CONTROL DEVICE LOCATIONS. PROVIDE FLUSH, GALVANIZED STEEL, WALL MOUNTED JUNCTION BOX WITH 3/4" EMT CONDUIT AND NYLON PULL-STRING TO 4'-ABOVE ACCESSIBLE CEILING FOR EACH DEVICE.
10. ALL RECEPTACLES MOUNTED IN KITCHENS, RESTROOMS, AT COUNTERS CONTAINING SINKS, OUTSIDE THE BUILDING OR SERVING VENDING MACHINES SHALL HAVE GROUND FAULT CIRCUIT INTERRUPTER(GFI) PROTECTION.
11. ELECTRIC CONNECTIONS TO PANELBOARDS AND BUS DUCTS SHALL BE MADE ONLY WHEN PANELBOARD OR BUS DUCT HAS BEEN DE-ENERGIZED.
12. ALL ELECTRICAL PANELS AND TRANSFORMERS SHALL HAVE PERMANENT ENGRAVED LABELS ON COVER INDICATING PANEL OR TRANSFORMER DESIGNATION.
13. ELECTRICAL CONTRACTOR SHALL X-RAY SLAB PRIOR TO ANY CORE-DRILLING.
14. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR ALL MOTOR STARTERS AND CONTROL PANEL LOCATIONS.
15. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL NOTES, SYMBOLS AND DETAILS.

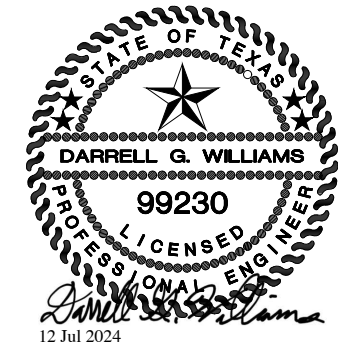
NOTES BY SYMBOL 'O':

1. REUSE EXISTING 120V CIRCUIT POWER FOR NEW REFRIGERANT MONITORING STATION.
2. RECONNECT NEW CHP-1 VFD TO EXISTING 480V/3PH, 80A/3P CIRCUIT BREAKER IN EXISTING PANEL "HP4". TO BE INSTALLED UNDER ALTERNATE SCOPE.
3. RECONNECT NEW HWP-1 & HWP-2 VFDs TO EXISTING 480V/3PH, 40A/3P CIRCUIT BREAKERS IN PANEL "HP4". TO BE INSTALLED UNDER ALTERNATE SCOPE.
4. GFI DUPLEX RECEPTACLE MOUNTED AT 36" AFF FOR NEW EASY WATER SYSTEM CONTROLLER. USE AVAILABLE SPACE IN EXISTING PANEL "LA" AND PROVIDE 20A/1P CIRCUIT BREAKER WITH 2#12,1#12G-3/4".
5. RECONNECT NEW CENTRIFUGAL CHILLER TO EXISTING 480V/3PH, 450A/3P CIRCUIT BREAKER IN PANEL "HP4". REUSE EXISTING CONDUIT AND WIRE. ADJUST CONDUIT AND WIRE FOR FINAL CONNECTION TO CHILLER.
6. RECONNECT EXISTING POWER FOR EXISTING CWP-1 TO BE RE-INSTALLED AFTER THE INSTALLATION OF THE NEW CENTRIFUGAL CHILLER.
7. RECONNECT NEW 10HP FAN MOTOR TO EXISTING 480V/3PH, 40A/3P CIRCUIT BREAKER IN EXISTING PANEL "HP4". REUSE EXISTING CONDUIT AND WIRE.
8. ELECTRICAL CONTRACTOR SHALL PROVIDE POWER FROM EXISTING 480V/3PH, 40A/3P CIRCUIT BREAKER IN EXISTING PANEL "HP4" TO NEW VFDs FOR COOLING TOWER FAN MOTORS. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO FIELD TRACE ALL EXISTING FEEDERS AND BRANCH CIRCUIT WIRING FOR COOLING TOWER(S) FROM EXISTING ELECTRICAL DISTRIBUTION EQUIPMENT. CONTRACTOR SHALL FIELD DETERMINE THE BEST METHOD TO ACCOMMODATE ANY OBSTRUCTIONS PRIOR TO BID OR ROUGH-IN. REPAIR OF EXISTING CABLES TO REMAIN THAT ARE DAMAGED DURING WORK SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ANY ABANDONED EQUIPMENT, RACEWAYS, AND CONDUCTORS SHALL BE REMOVED IN THEIR ENTIRETY AS REQUIRED BY CODE. THE CONTRACTOR SHALL PROVIDE NEW PULLBOXES, RACEWAYS, AND CONDUCTORS AS REQUIRED TO CONNECT ALL NEW REPLACEMENT HVAC EQUIPMENT, INCLUDING THEIR RESPECTIVE ACCESSORIES, TO EXISTING ELECTRICAL CIRCUITS MADE AVAILABLE BY DEMOLITION OF OLD HVAC EQUIPMENT.



01

FLOOR PLAN - CENTRAL UTILITY PLANT - ELECTRICAL
SCALE: 1/8" = 1'-0"



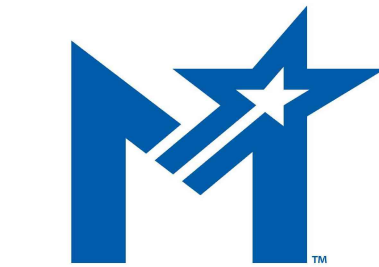
2024.07.03

ISSUES

01 ISSUE FOR CONSTRUCTION 2024.07.03

REVISIONS

01 ADDENDUM #1 2024.07.12



**WALNUT GROVE MS
CHILLER REPLACEMENT**
MIDLOTHIAN I.S.D.
990 Walnut Grove Rd, Midlothian, TX 76065

FLOOR PLAN -
CENTRAL UTILITY
PLANT - ELECTRICAL

JOB NO.: 24040-00
DRAWN BY: BM
CHECKED BY: HV

SHEET NO.

E1.01