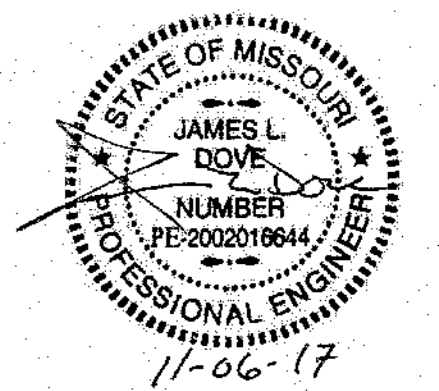


SPECIFIC MECHANICAL CONSTRUCTION NOTES

- 1 ANY PIPE PENETRATION THROUGH A FIRE RATED ASSEMBLY SHALL BE INSTALLED WITH AN APPROVED UL SYSTEM, SEE SPECIFICATIONS.
- 2 SEE SPECIFICATIONS FOR CONTRACTOR REQUIREMENTS FOR HYDRONIC WATER TREATMENT.
- 3 INSTALL SUMP PIT DISCHARGE THROUGH FOUNDATION WALL AND ANGLE DOWN AT 90 DEG. TERMINATE ~12" ABOVE GRADE SUCH THAT PUMP DISCHARGE WILL BE NOTICEABLE. ANCHOR PIPING TO BUILDING STRUCTURE AND SEAL ALL PENETRATIONS TO MAKE WATER AND AIR TIGHT.

STATE OF MISSOURI
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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

MISSOURI DEPARTMENT
OF CORRECTIONS

ABATE AND REPLACE
PIPING VARIOUS

MOBERLY CORRECTIONAL
CENTER
5201 S. MORLEY STREET
MOBERLY, MO

PROJECT # C1601-01
SITE # 2305
FACILITY # 27250/27265

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 11/06/2017

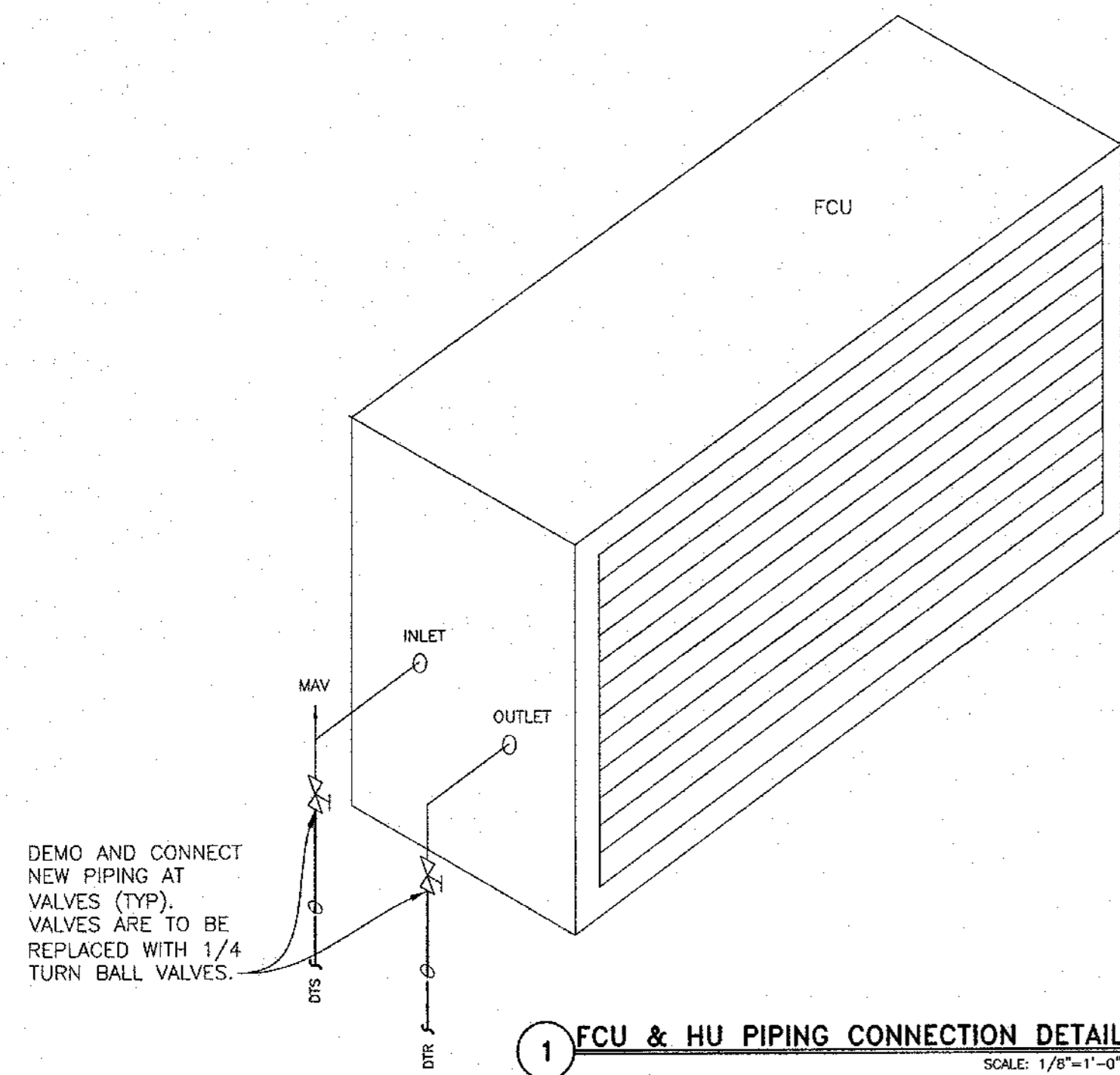
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DRAWN BY: CJH/MDS/JDK
CHECKED BY: JLD
DESIGNED BY: CJH

SHEET TITLE:
**HVAC PIPING
SCHEDULE AND
DETAIL SHEET**

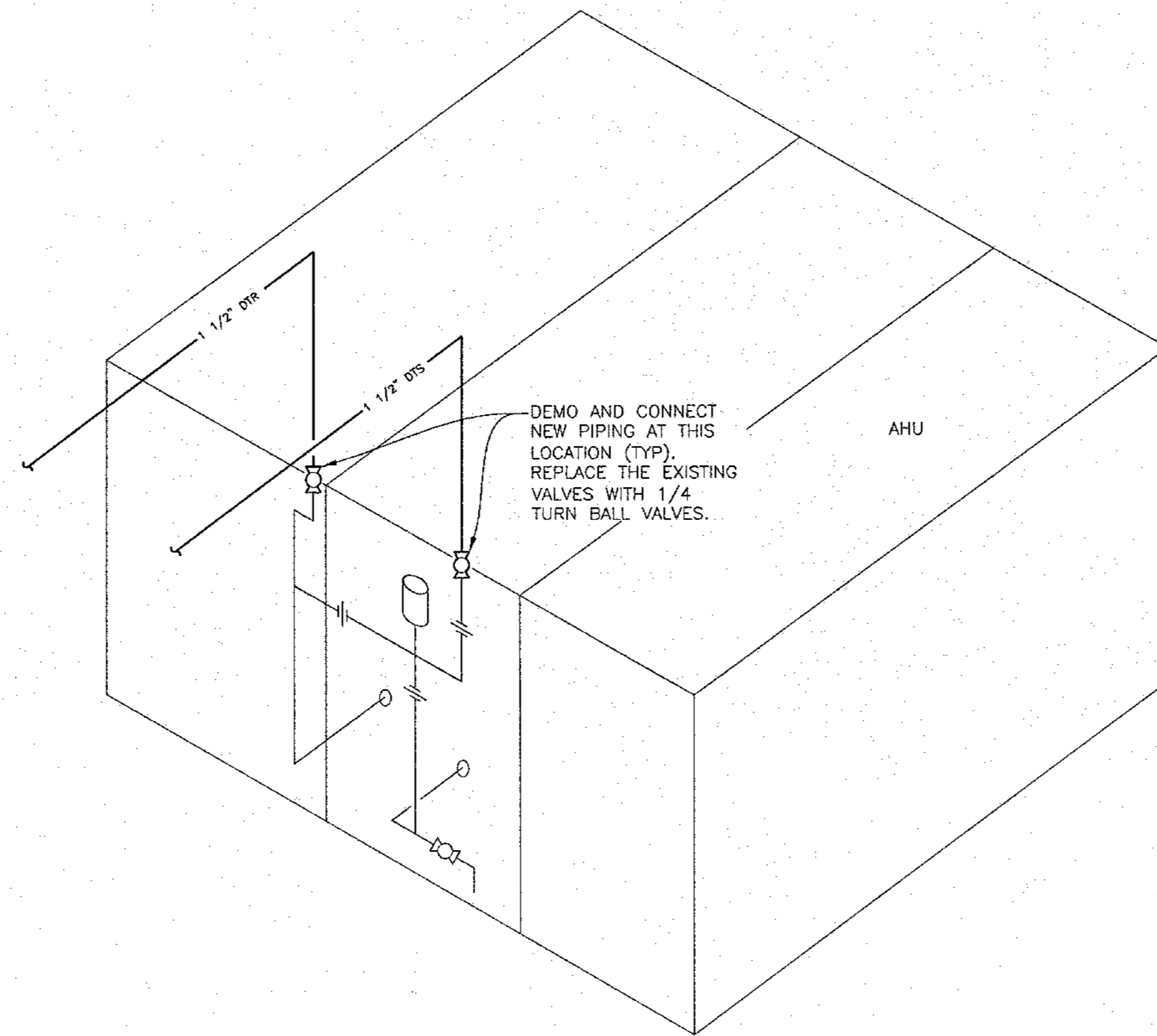
SHEET NUMBER:

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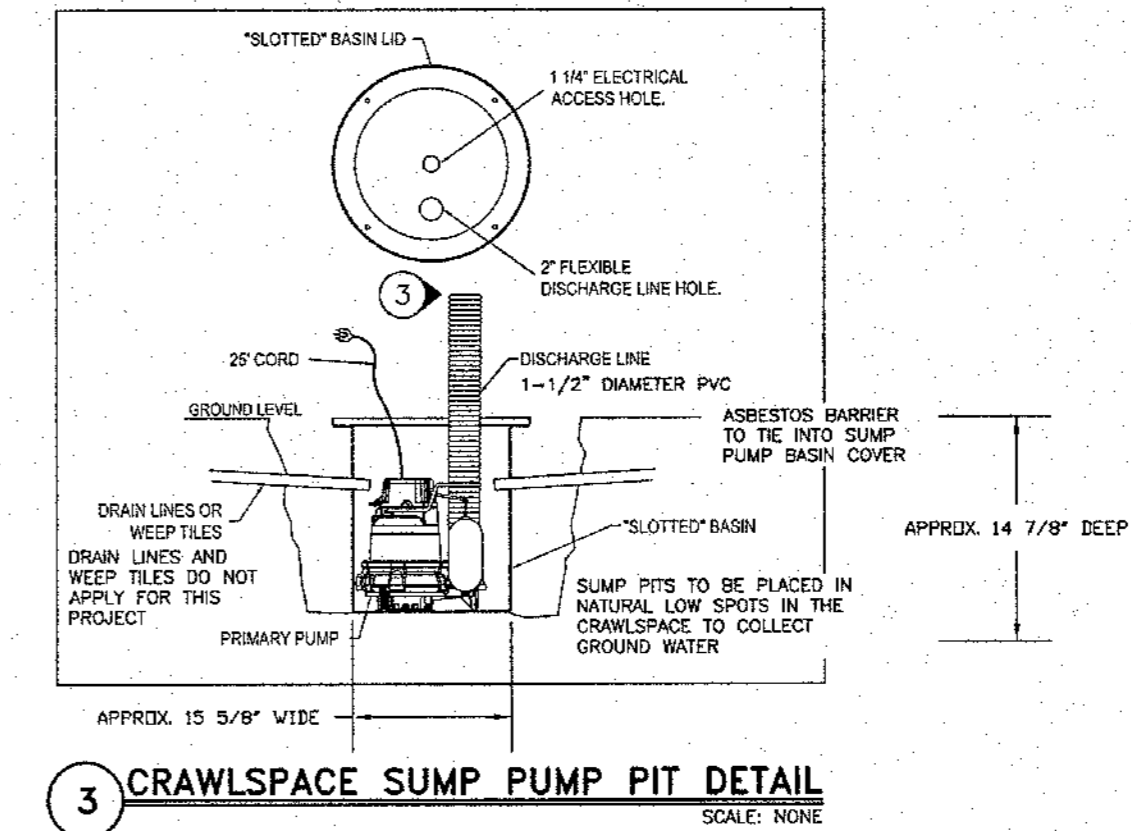
28 OF 30 SHEETS



1 FCU & HU PIPING CONNECTION DETAIL
SCALE: 1/8"=1'-0"



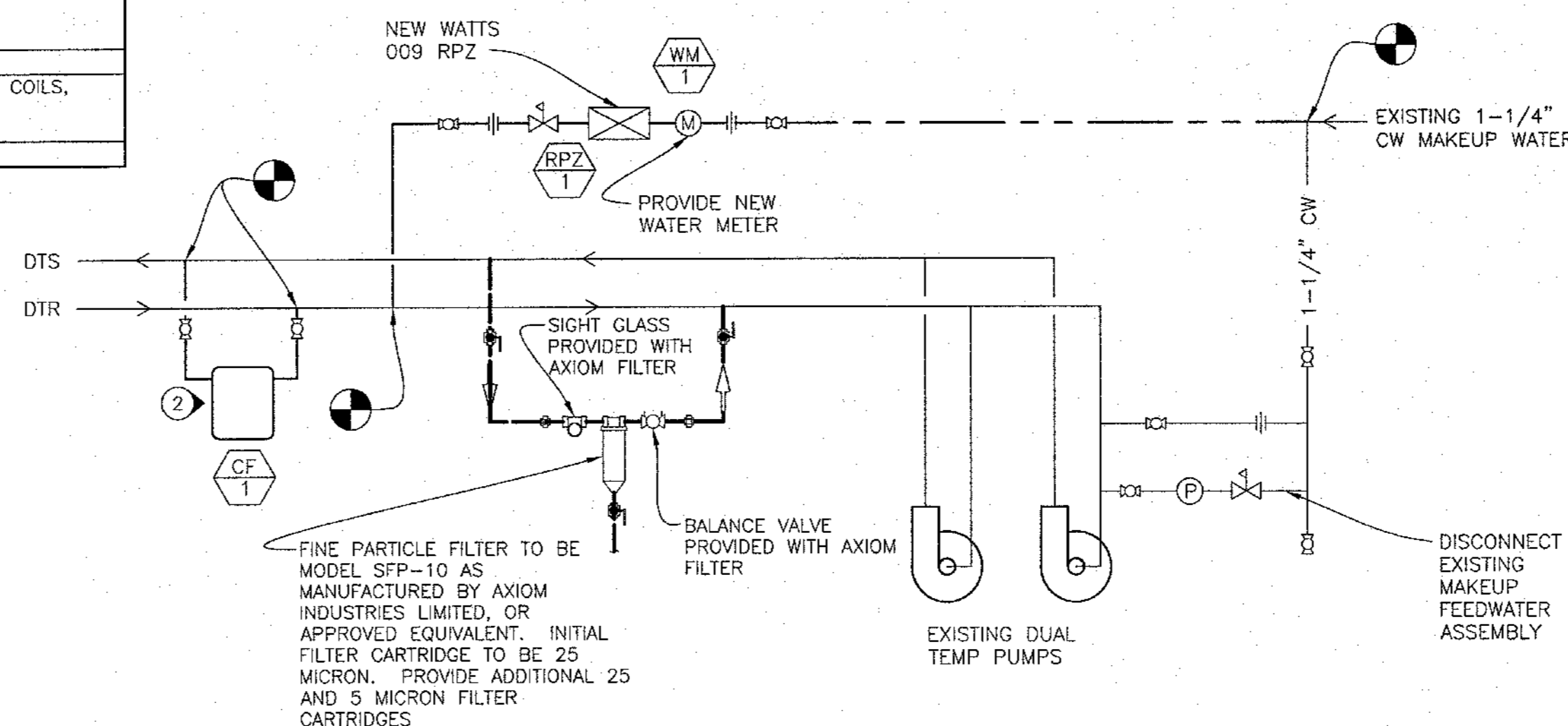
2 AHU 5-5 & 5-6 PIPING CONNECTION DETAIL
SCALE: NONE



3 CRAWLSPACE SUMP PUMP PIT DETAIL
SCALE: NONE

FAN COIL UNIT SCHEDULE								
TAG	MODEL & LOCATION	AIR FLOW	HEATING CAPACITY	HEATING FLUID	COOLING CAPACITY	COOLING FLUID	ELECTRICAL & WEIGHT	NOTES
FCU 1	42VFC10 VERTICAL	SUPPLY: 1000 CFM ESP: 0.00 IN WC OA: NA	TOTAL: 32.7 MBH EAT: 68° F	EWT: 180° F FLOW RATE: 5.8 GPM WPD: 3.6 FT WC	TOTAL: 32.7 MBH SENSIBLE: 24.5 MBH EAT: 80°/67°	EWT: 45° F FLOW RATE: 5.8 GPM WPD: 4.6 FT WC	115/1/60 FLA: 3.9 MCA: 4.88 178 LB	1,2
FCU 2	42VFC06 VERTICAL	SUPPLY: 600 CFM ESP: 0.00 IN WC OA: NA	TOTAL: 63.9 MBH EAT: 68° F	EWT: 180° F FLOW RATE: 5.5 GPM WPD: 5.6 FT WC	TOTAL: 21.9 MBH SENSIBLE: 15.6 MBH EAT: 80°/67°	EWT: 45° F FLOW RATE: 5.5 GPM WPD: 7.8 FT WC	115/1/60 FLA: 3.9 MCA: 4.88 178 LB	1,2
FCU 3	42VFC06 VERTICAL	SUPPLY: 600 CFM ESP: 0.00 IN WC OA: NA	TOTAL: 59.5 MBH EAT: 68° F	EWT: 180° F FLOW RATE: 5.0 GPM WPD: 4.8 FT WC	TOTAL: 20.5 MBH SENSIBLE: 14.6 MBH EAT: 80°/67°	EWT: 45° F FLOW RATE: 5.0 GPM WPD: 6.5 FT WC	115/1/60 FLA: 2.5 MCA: 141 LB	1,2
FCU 4	42VFC08 VERTICAL	SUPPLY: 800 CFM ESP: 0.00 IN WC OA: NA	TOTAL: 75.4 MBH EAT: 68° F	EWT: 180° F FLOW RATE: 5.5 GPM WPD: 5.9 FT WC	TOTAL: 24.8 MBH SENSIBLE: 18.2 MBH EAT: 80°/67°	EWT: 45° F FLOW RATE: 5.5 GPM WPD: 7.8 FT WC	115/1/60 FLA: 2.4 MCA: 4.88 144 LB	1,2
FCU 5	42VFC03 VERTICAL	SUPPLY: 300 CFM ESP: 0.00 IN WC OA: NA	TOTAL: 33.7 MBH EAT: 68° F	EWT: 180° F FLOW RATE: 5.0 GPM WPD: 18.4 FT WC	TOTAL: 12.4 MBH SENSIBLE: 8.5 MBH EAT: 80°/67°	EWT: 45° F FLOW RATE: 5.0 GPM WPD: 24.9 FT WC	115/1/60 FLA: .83 MCA: 98 LB	1,2
FCU 6	42VFC04 VERTICAL	SUPPLY: 400 CFM ESP: _____ OA: _____	TOTAL: 45.6 MBH EAT: 69° F	EWT: 180° F FLOW RATE: 5.0 GPM WPD: 6.0 FT WC	TOTAL: 15.3 MBH SENSIBLE: 11.1 MBH EAT: 80°/67°	EWT: 45° F FLOW RATE: 5.0 GPM WPD: 8.1 FT WC	115/1/60 FLA: _____ MCA: 122 LB	1,2
NOTES								
1	MFG: DESIGN BASIS: CARRIER, PROVIDE HORIZONTAL TOP SUPPLY/LOW FRONT RETURN AIRFLOW ARRANGEMENT, 2-PIPE HEATING & COOLING, 4 ROW COILS, VARIABLE SPEED FAN, GALVANIZED DRAIN PAN, INSULATION, SINGLE POINT POWER CONNECTION, CONDENSATE OVERFLOW SWITCH, 3-WAY MOTORIZED ACTUATOR, 150 PSI, SUPPLY LINE, COOLING COIL. SEE SPECS FOR ALTERNATES.							
2	FIELD VERIFY COIL CONNECTION SIDE							

HYDRONIC SPECIALTIES SCHEDULE				
TAG	MODEL	DESCRIPTION	REMARK	NOTES
SP 1	108	CRAWL SPACE SUMP PUMP KIT		MFG: ZOELLER MODEL 53 PUMP 1/3 HP, 115 V 43 GPM @ 5' HEAD, 1-1/2" NPT DISCHARGE
CF 1	CPFT-5	CHEMICAL FEEDER	0.75 INCH INLET, OUTLET	MFG: WESSELS CO. IN-LINE POT FEEDER, 5 GAL. CAPACITY, PIPE FITTINGS INLET OUTLET, 10 INCH DIAMETER, 19.75 INCHES TALL
WM 1	25	WATER METER	3/4 INCH NPT	MFG: BADGER: WATER METER: DISC SERIES METER POLYMER BODY, 1/2 TO 25 GPM
SP 1	SFP-10	SIDE STREAM FILTER	3/4 INCH FNPT	MFG: AXIOM: SIDE STREAM FILTER W/ BALANCE VALVE AND FLOW INDICATOR, 1 TO 10 GPM
RPZ 1	009M3QT	REDUCED PRESSURE ZONE	3/4 INCH NPT	MFG: WATTS REDUCED PRESSURE ZONE BACKFLOW PREVENTOR. 13 GPM AT ~14 PSI
NOTES				
1	PROVIDE WITH CHECK VALVE, SLOTTED BASIN AND LID. SEE SPECIFICATIONS FOR ALTERNATES.			
2	CHEMICAL FEEDER IS DESIGNED TO DELIVER LIQUID OR SOLID CHEMICAL. SEE SPECS FOR ALTERNATES.			
3	PROVIDE WITH 25 MICRON CARTRIDGE AND TWO 25 MICRON CARTRIDGE REPLACEMENTS			
4	PROVIDE WITH AN AIR GAP DRAIN CONNECTION AND PIPE TO NEAREST DRAIN.			



4 MAKE UP WATER AND POT FEEDER DETAIL
SCALE: NONE

LEGEND	
HWS	NEW HOT WATER SUPPLY PIPE
HWR	NEW HOT WATER RETURN PIPE
HWS	EXISTING HOT WATER SUPPLY PIPE
HWR	EXISTING HOT WATER RETURN PIPE
DTS	NEW DUAL TEMP SUPPLY PIPE
DTR	NEW DUAL TEMP RETURN PIPE
DTS	EXISTING DUAL TEMP SUPPLY PIPE
DTR	EXISTING DUAL TEMP RETURN PIPE
CTS	EXISTING COOLING TOWER SUPPLY
CTR	EXISTING COOLING TOWER RETURN
COND DRIP	EXISTING CONDENSATE LINE
⊘	NEW BALL VALVE
⊘	EXISTING VALVE
⊘	NEW GATE VALVE
⊘	EXISTING GATE VALVE
⊘	EXISTING CONTROL VALVE
⊘	PRESSURE REDUCING VALVE UNION
⊘	WATER METER
⊘	NEW ELBOW UP
⊘	EXISTING ELBOW UP
⊘	NEW ELBOW DOWN
⊘	EXISTING ELBOW DOWN
⊘	NEW TEE DOWN
⊘	EXISTING TEE DOWN
⊘	NEW TEE UP
⊘	EXISTING TEE UP
⊘	TIE NEW TO EXISTING HERE
⊘	MANUAL VALVE
⊘	POT FEEDER