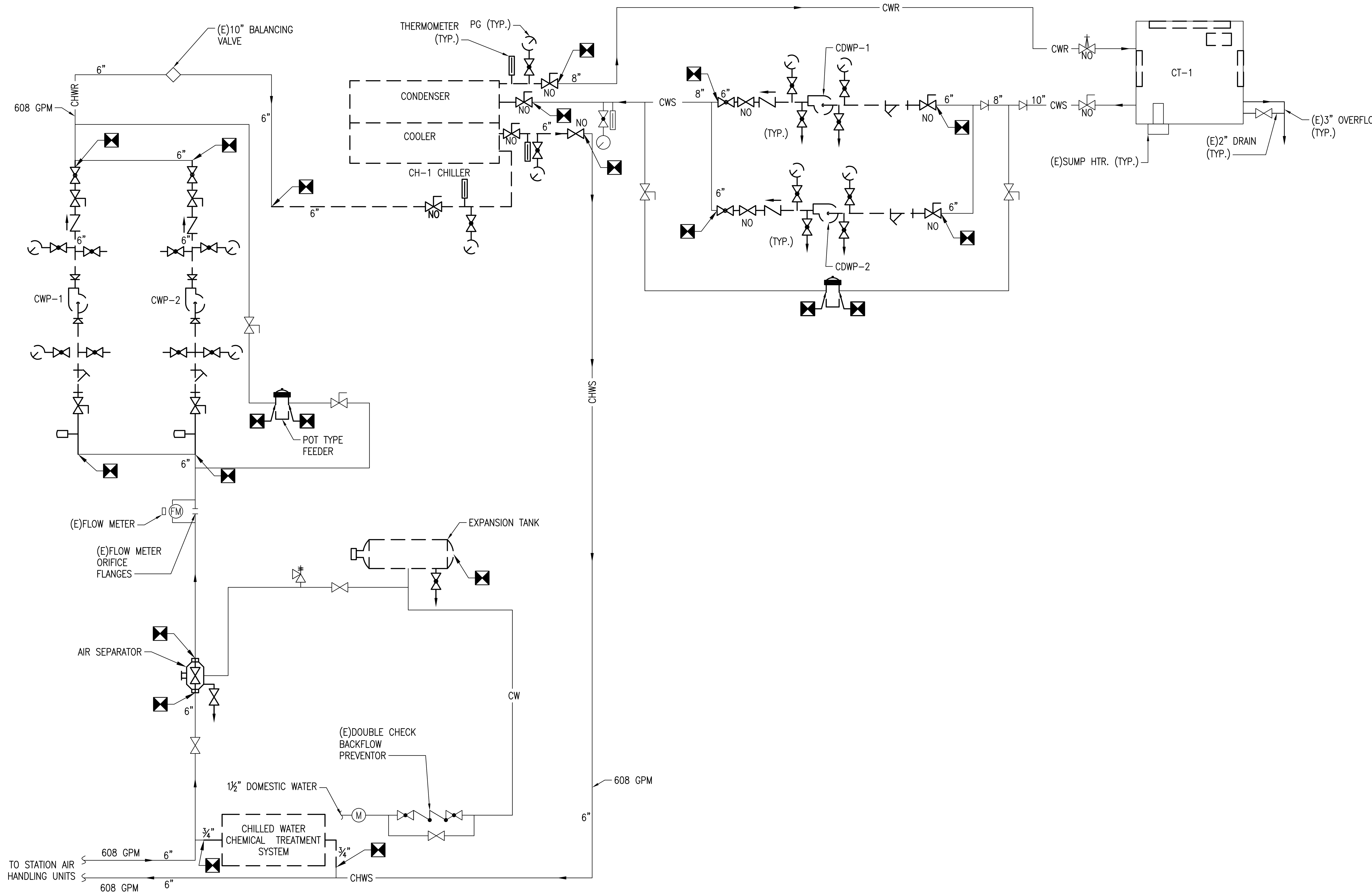

1 CWPA6-M-500 MECHANICAL FLOW DIAGRAM - DEMOLITION

NOT TO SCALE

GFP A Gannett Fleming/Parsons JOINT VENTURE

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STATE OF MARYLAND MICHAEL JOSEPH MCDONNELL 30749 PROFESSIONAL ENGINEER 03/29/2018

DESIGNED	M. MCDONNELL	01/26/18 DATE
DRAWN	M. MCDONNELL	01/26/18 DATE
CHECKED	D. GHOSAL	03/23/18 DATE

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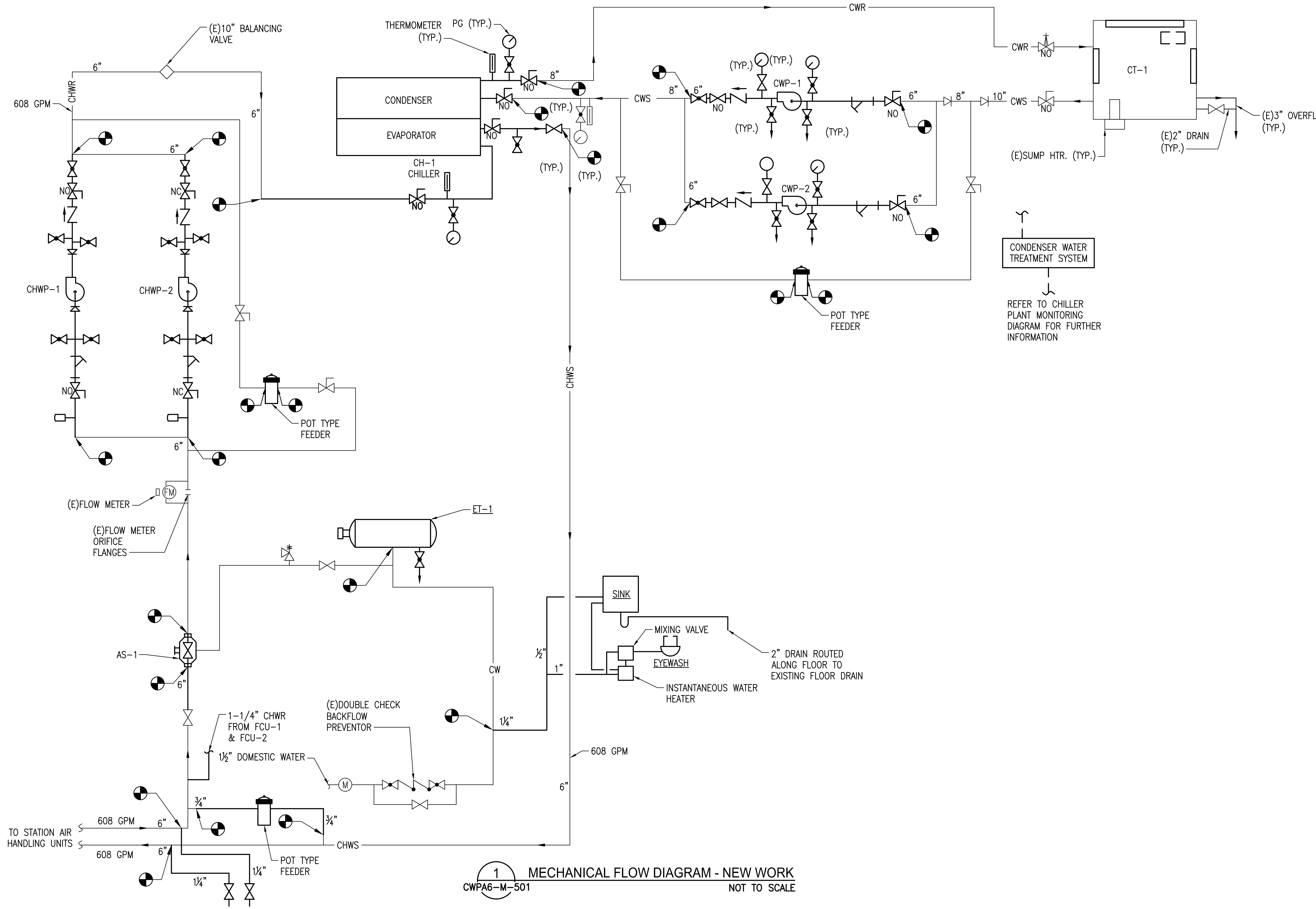
DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM GROUP

APPROVED Mark H. Magnussen 03/2018 DATE
MARK MAGNUSSEN
MANAGER, ENV. PLANNING AND COMP

APPROVED 03/2018 DATE
GRAHAM SPILLER
GFP DEPUTY PROGRAM MANAGER

REPLACEMENT OF CHILLERS
AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS
CWPA6 - MEDICAL CENTER (A10)
MECHANICAL FLOW DIAGRAM - DEMOLITION

M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
M1304	FQ-18102	1/4" = 1'-0"	CWPA6-M-500	61 of 173



1 CWPA6-M-501 MECHANICAL FLOW DIAGRAM - NEW WORK

NOT TO SCALE

GENERAL NOTES:

A. REFER TO REFERENCE DRAWING DD-ME-HVAC-007, 008, 009 FOR WATER TREATMENT CONNECTION TO SYSTEM LOOPS.

B. ALL GATE VALVES ARE SHOWN DIAGRAMMATICALLY. REFER TO SPECIFICATIONS FOR NON-RISING STEM AND SO&Y GATE VALVES.

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CWPA6 - MEDICAL CENTER (A10)
MECHANICAL FLOW DIAGRAM - NEW WORK

M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
M1304	FQ-18102	1/4" = 1'-0"	CWPA6-M-501	62 of 173

CHILLER SCHEDULE

MARK	DESIGNATION	CAPACITY (TONS)	EVAPORATOR					CONDENSOR					COMPRESSOR / CHILLER ELECTRICAL							BASIS OF DESIGN
			GPM	PASSES	EWT (F)	LWT (F)	PD (FT H2O)	GPM	PASSES	EWT (F)	LWT (F)	PD (FT H2O)	VOLTS	PHASE	Hz	RLA	LRA	MOCP	MCA	
CWPA10	CH-1	330	608	2	55.00	42.00	12.00	990	2	85.00	95.00	19.00	460	3	60	298	164	450	335	DAIKIN WMC060DD

NOTES:

1. PROVIDE WITH NEOPRENE ISOLATION PADS.
2. PROVIDE WITH CHILLED WATER FLOW INDICATOR.
3. WATER-COOLED, SEMI-HERMETIC OIL-FREE CENTRIFUGAL COMPRESSOR WATER CHILLER.
4. TWO MAGNETIC BEARING, COMPLETELY OIL-FREE CENTRIFUGAL COMPRESSORS ON EACH CHILLER.
5. CHILLERS SHALL BE CHARGED WITH REFRIGERANT R-134A.
6. MOTORS SHALL BE LIQUID REFRIGERANT COOLED WITH INTERNAL THERMAL SENSING DEVICES IN THE STATOR WINDINGS.
7. THE CHILLER SHALL BE EQUIPPED WITH AN INTEGRATED VARIABLE FREQUENCY DRIVE (VFD) TO AUTOMATICALLY REGULATE COMPRESSOR SPEED IN RESPONSE TO COOLING LOAD AND THE COMPRESSOR PRESSURE LIFT REQUIREMENT, OPERATING CONTROLS AND EQUIPMENT PROTECTION CONTROLS.
8. CHILLER CONTROLS SHALL COORDINATE COMPRESSOR SPEED AND GUIDE VANE POSITION TO OPTIMIZE CHILLER EFFICIENCY.
9. CHILLER SHALL BE EQUIPPED WITH MICROTECH II CONTROLLER OR EQUIVALENT AND SHALL INCLUDE REMOTE COMMUNICATIONS CARDS WITH MODBUS RTU CAPABILITY, TO CONNECT THE I/O POINTS TO CHILLER PLANT MONITORING PANEL.
10. CHILLER CAPACITY BASED ON WATER.
11. CHILLER TOTAL OPERATING WEIGHT 13,079 LB
12. CHILLER DIMENSIONS 178.19 IN X 55.17 IN (FOOT PRINT)
13. PROVIDE EACH CHILLER WITH SINGLE POINT POWER CONNECTION.

FAN COIL UNIT SCHEDULE

PLANT	DESIGNATION	CAPACITY (TONS)	EVAPORATOR							ELECTRICAL				BASIS OF DESIGN
			GPM	ROWS	EWT (F)	LWT (F)	CFM	EAT (F) (DB/WB)	LAT (F) (DB/WB)	HP	VOLTS	PHASE	Hz	
CWPA10	FCU-1	6	11.5	6	42.00	55.00	1870	80/67	55.7/54.5	0.75	115	1	60	DAIKIN HCBB120

NOTES:

1. FACTORY MOUNTED COIL, CONTROLS, MOTORS, DRIVE KITS.
2. PIPING PACKAGE WITH SINGLE 3-WAY MODULATING VALVE OPTION.

PUMP SCHEDULE

MARK	SERVICE	TYPE	GPM	FT HEAD	INLET (IN.)	OUTLET (IN.)	IMPELLER DIA (IN.)	OPERATING WEIGHT (LB)	FOOTPRINT (IN.)	MOTOR					BASIS OF DESIGN
										RPM	HP	VOLTS	PH	Hz	
CWP-1	CONDENSER WATER	CENTRIFUGAL	990	130	6	5	11.55	1,404	58x19	1790	50	460	3	60	ARMSTRONG 4600-6x5x12H
CWP-2	CONDENSER WATER	CENTRIFUGAL	990	130	6	5	11.55	1,404	58x19	1790	50	460	3	60	ARMSTRONG 4600-6x5x12H
CHWP-1	CHILLED WATER	CENTRIFUGAL	608	130	5	4	11.16	1,105	58x19	1780	30	460	3	60	ARMSTRONG 4600-5x4x12H
CHWP-1	CHILLED WATER	CENTRIFUGAL	608	130	5	4	11.16	1,105	58x19	1780	30	460	3	60	ARMSTRONG 4600-5x4x12H

NOTES:

1. PROVIDE WITH INVERTER DUTY, PREMIUM EFFICIENCY AND VFD COMPATIBLE MOTOR.
2. PROVIDE WITH SPRING TYPE ISOLATION.
3. PROVIDE WITH STRAINER AT INLET OF PUMPS AND ECCENTRIC REDUCER/INCREASER AT PUMP INLET/OUTLET FOR ALL PUMPS.

EXISTING COOLING TOWER SCHEDULE

MARK	SERVICE	TYPE	GPM	EWT (F)	LWT (F)	AMB. AIR WET BULB TEMP. (F)	FAN							OPERATING WEIGHT (LB)	EXISTING MODEL NO.
							NO.	CFM	NO. OF MOTORS	HP	V	PH	Hz		
(E) CT-1	CONDENSER WATER	AXIAL	990	95	85	78	1	88500	1	20	460	3	60	15630	EVAPCO USS-112-112

NOTES:

1. SEPARATE STARTER PANELS FURNISHED FOR FIELD MOUNTING.
2. PROVIDE DIRECT DRIVE FAN WITH INVERTER DUTY MOTORS.
3. COOLING TOWER FAN MOTORS SHALL BE RATED VFD COMPATIBLE.
4. PROVIDE WITH NEW LOUVERS FOR EXISTING COOLING TOWERS.
5. PROVIDE WITH NEW PLASTIC FILL FOR EXISTING COOLING TOWERS.

FLOW MONITORING SYSTEM

1. NON-INTRUSIVE CLAMP-ON FLOW SENSORS
2. MAINTENANCE-FREE
3. ACCURACY: 1% OF VELOCITY
4. NO DEPENDENCY ON CONDUCTIVITY
5. AUTOMATICALLY ADAPT TO PIPE MATERIAL AND LIQUID PROPERTY VARIATIONS
6. BUILT-IN FLOW TOTALIZERS
7. ISOLATED RS-485 INTERFACE WITH POWER SURGE PROTECTION. SUPPORTS THE MODBUS PROTOCOL – CONNECT TO PAC 3000 IN CHILLER PLANT MONITORING PANEL
8. INPUT/OUTPUT, ISOLATED 4-20MA OUTPUT, RELAY, PULSE OUTPUT, ALARM OUTPUT
9. SELF-EXPLANATORY MENU-DRIVEN PROGRAMMING
10. PIPE SIZE RANGE, 6"
11. NEMA 4X (IP55 OR BETTER) ENCLOSURE
12. SIEMENS SITRANS FUS 1010 (OR APPROVED EQUAL). PROVIDE CABLES OF SUFFICIENT LENGTH TO REACH ALL TERMINATION POINTS.

REFRIGERANT LEAK DETECTION SYSTEM

1. REFRIGERANT LEAK DETECTION SYSTEM INSTALLED AS PART OF WMATA CONTRACT FQ14114.
2. PROVIDE RS-485 ETHERNET CONNECTION TO CONNECT TO THE CHILLER PLANT CONTROL PANEL.

A Gannett Fleming/Parsons JOINT VENTURE

STATE OF MARYLAND — MICHAEL STEPHEN MCDONNELL — No. 30749 — PROFESSIONAL ENGINEER

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GRAHAM SPILLER
GFP DEPUTY PROGRAM MANAGER

REPLACEMENT OF CHILLERS
AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS
CWPA6 - MEDICAL CENTER (A10)
MECHANICAL EQUIPMENT SCHEDULES SHEET 1 0F 2

M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
M1304	FQ-18102	NONE	CWPA6-M-600	63 of 173

AIR SEPARATOR SCHEDULE

MARK	DESIGNATION	ORIENTATION	GPM	MAX. WORKING PRESSURE (PSIG)	MAX. WORKING TEMP. (F)	SYSTEM SERVED	INLET & OUTLET SIZE (IN.)	DRY WEIGHT (LB)	BASIS OF DESIGN
AS-1	CHILLER PLANT	VERTICAL	608	165	375	CHILLED WATER	6"	306	ARMSTRONG VAS-6

NOTES:

1. PROVIDE WITH FABRICATED STEEL SHELL.
2. PROVIDE WITH BLOW DOWN CONNECTION.
3. PROVIDE WITH STAINLESS STEEL STRAINER.

EXPANSION TANK SCHEDULE

MARK	LOCATION	EQUIP. SERVED	TYPE	ORIENTATION	INITIAL FILL PRESSURE (PSIG)	TANK VOLUME (GAL.)	SIZE (IN.)		WEIGHT (LB)	BASIS OF DESIGN
							DIA	LENGTH		
ET-1	CHILLER PLANT	CHILLED WATER	COMPRESSION	HORIZONTAL	12	220	30	77	368	ARMSTRONG AET 30x77

NOTES:

1. PROVIDE SADDLES WITH EXPANSION TANK.

UNIT HEATER SCHEDULE

MARK	LOCATION	TYPE	kW	ELECTRICAL DATA					HORIZ. AIR THROW (FT)	WIDTH (IN.)	HEIGHT (IN.)	DEPTH (IN.)	WEIGHT (LB)	BASIS OF DESIGN
				MOTOR HP	VOLT	PH	Hz	MOTOR RPM						
UH-12	CHILLER PLANT	ELECTRIC. SUSPENDED	20	.05	480	3	60	1550	32	21.5	28.70	6.5	85	TRANE UHEC-203DACA

NOTES:

1. UNIT INSTALLED MOTOR STARTER.
2. DISCONNECT: FACTORY INSTALLED.
3. WALL/CEILING MOUNTED BRACKET.
4. WALL MOUNT THERMOSTAT KIT.

VALVE SCHEDULE

TYPE	SIZE (IN.)	QUANTITY	SERVICE	BASIS OF DESIGN	MODEL
GATE VALVE	6	4	CONDENSER WATER	NIBCO	F-617-ON
GLOBE VALVE	6	2	CONDENSER WATER	NIBCO	F-718-B
CHECK VALVE	6	2	CONDENSER WATER	NIBCO	F-938-31
GATE VALVE	6	4	CHILLED WATER	NIBCO	F-617-ON
GLOBE VALVE	6	2	CHILLED WATER	NIBCO	F-718-B
CHECK VALVE	6	2	CHILLED WATER	NIBCO	F-938-31
GATE VALVE	6	2	CHILLED WATER	NIBCO	F-617-ON
GATE VALVE	6	1	CONDENSER WATER	NIBCO	F-617-ON

INSTANTANEOUS WATER HEATER SCHEDULE

MARK	INLET SIZE (IN.)	TURN ON FLOW (GPM)	kW	AMPS	MAX. TEMPERATURE (F)	BASIS OF DESIGN	NOTES
IWH-1	½	0.3	2.4	20	90	EEMAX EX2412T	SEE NOTE 1

NOTES:
1. PROVIDE WITH THERMOSTATIC MIXING VALVE: BRADLEY S19-2000.

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MARK MAGNUSSEN
MANAGER, ENV. PLANNING AND COMP

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GFP DEPUTY PROGRAM MANAGER

REPLACEMENT OF CHILLERS
AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS
CWPA6 - MEDICAL CENTER (A10)
MECHANICAL EQUIPMENT SCHEDULES SHEET 2 0F 2

M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
M1304	FQ-18102	NONE	CWPA6-M-601	64 of 173

CHILLED WATER PLANT SEQUENCE OF OPERATION

GENERAL FOR CHILLER PLANT AT MEDICAL CENTER

THE CHILLER PLANT CONSISTS OF ONE CHILLER WITH TWO (2) VARIABLE CAPACITY COMPRESSORS, ONE COOLING TOWER WITH VARIABLE SPEED FAN, ONE DUTY CHILLED WATER PUMP, ONE STANDBY CHILLED WATER PUMP, ONE DUTY CONDENSER WATER PUMP, AND ONE STANDBY CONDENSER WATER PUMP.

THE CHILLER PLANT IS DESIGNED FOR CONSTANT FLOW (GPM) FOR CHILLED WATER AND CONDENSER WATER.

THE CHILLER PLANT OPERATION IS PROGRAMMABLE.

DURING COOLING SEASON, THE CHILLERS ARE ABLE TO OPERATE 24 HOURS A DAY IN AUTOMATIC MODE.

THE CHILLED WATER SUPPLY TEMPERATURE SET POINT (42°F) IS SET TO THE CHILLER PLANT DESIGN TEMPERATURE AND THE SETPOINT TEMPERATURE CAN BE MANUALLY RESET BY THE OPERATOR. IT'S ENTERING CONDENSER WATER TEMPERATURE SHALL BE 85°F.

THE CHILLED WATER SYSTEM ENABLE POINT IS CONTROLLED EITHER MANUALLY BY THE OPERATOR OR PROGRAMMABLE. IF THE CHILLED WATER SYSTEM ENABLE POINT IS ON AND THERE IS A CALL FOR COOLING (I.E. THE CHILLED WATER RETURN TEMPERATURE EXCEEDS 55°F):

1) CHILLED WATER PUMP (CHWP–1 OR CHWP–2) AND CONDENSER WATER PUMP (CWP–1 OR CWP–2) WHICH ARE MANUALLY SELECTED BY THE PLANT OPERATOR, SHALL START. PUMPS SHALL OPERATE FOR CONSTANT WATER FLOW. THE ASSOCIATED VARIABLE SPEED DRIVES SHALL BE UTILIZED TO ADJUST PUMP SPEED FOR DESIGN FLOW RATE AND SET.
2) THE CHILLER START OR STOP POINT TURNS ON.
3) AFTER CHILLED WATER AND CONDENSER FLOW ARE PROVEN BY THE FLOW SWITCHES, THE CHILLER OPERATES UNDER ITS OPERATING AND SAFETY CONTROLS. CHILLER'S INTEGRATED VARIABLE SPEED DRIVE SHALL ADJUST ITS CAPACITY IN ORDER TO MAINTAIN THE CHILLER'S CHILLED WATER SUPPLY TEMPERATURE SET POINT.

THE CHILLER STOP SEQUENCE FIRSTLY STOPS THE CHILLER. AFTER A TIME DELAY (ADJUSTABLE), THE CONDENSER WATER PUMP AND THE CHILLED WATER PUMP SHALL STOP.

COOLING TOWER IS ENABLED WHEN CONDENSER WATER PUMP IS OPERATING. WHEN THE CONDENSER WATER SUPPLY TEMPERATURE INCREASES FROM THE SET POINT (85°F, ADJUSTABLE), THE COOLING TOWER FAN STARTS AT LOW SPEED. INCREASE AND DECREASE FAN SPEED BY VFD IN ORDER TO MAINTAIN THE CONDENSER WATER SUPPLY TEMPERATURE SET POINT.

CONFIRM THE PUMPS DESIRED STATE (I.E. ON OR OFF) FROM THEIR VARIABLE SPEED DRIVES. GENERATE AN ALARM IF STATUS DEVIATES FROM START OR STOP CONTROL.

CHILLER EMERGENCY SHUTDOWN:

A KEY SWITCH LOCATED OUTSIDE THE CHILLER PLANT ROOM SHALL SHUT DOWN THE CHILLER WHEN REQUIRED. ANOTHER KEY SWITCH SHALL MANUALLY START THE EXHAUST FAN IN ORDER TO VENTILATE THE CHILLER ROOM IN CASE OF REFRIGERANT GAS LEAK DETECTED. LOCATE IN A TAMPER PROOF ENCLOSURE, AT A LOCATION OUTSIDE OF THE CHILLER ROOM AND COORDINATED WITH THE OWNER.

GENERAL:

SEND ALL EQUIPMENT STATUS AND ALARM CONDITIONS TO CHILLER PLANT CONTROL PANEL WITHIN THE CHILLER PLANT. REFER TO CHILLER SPECIFICATION 15625 FOR ALL THE CHILLER, PUMP RELATED ANALOG POINT, STATUS POINTS, CONTROL POINTS AND ALARM POINTS REQUIREMENTS. PROVIDE CAPABILITY FOR THE CONTROL POINTS TO BE CONNECTED TO THE AEMS SYSTEM. IN ADDITION TO THE ABOVE, ALSO PROVIDE THE FOLLOWING.

HAND/OFF/AUTO

CHILLER PLANT FAN COIL UNIT/ AHU
CHILLER PLANT EXHAUST/ SUPPLY FANS
CHILLER PLANT UNIT HEATERS

EQUIPMENT STATUS WITH VISUAL INDICATING LAMPS (ON/ OFF/ FAULT)

CHILLER PLANT FAN COIL UNIT/ AHU
CHILLER PLANT EXHAUST/ SUPPLY FANS
CHILLER PLANT UNIT HEATERS

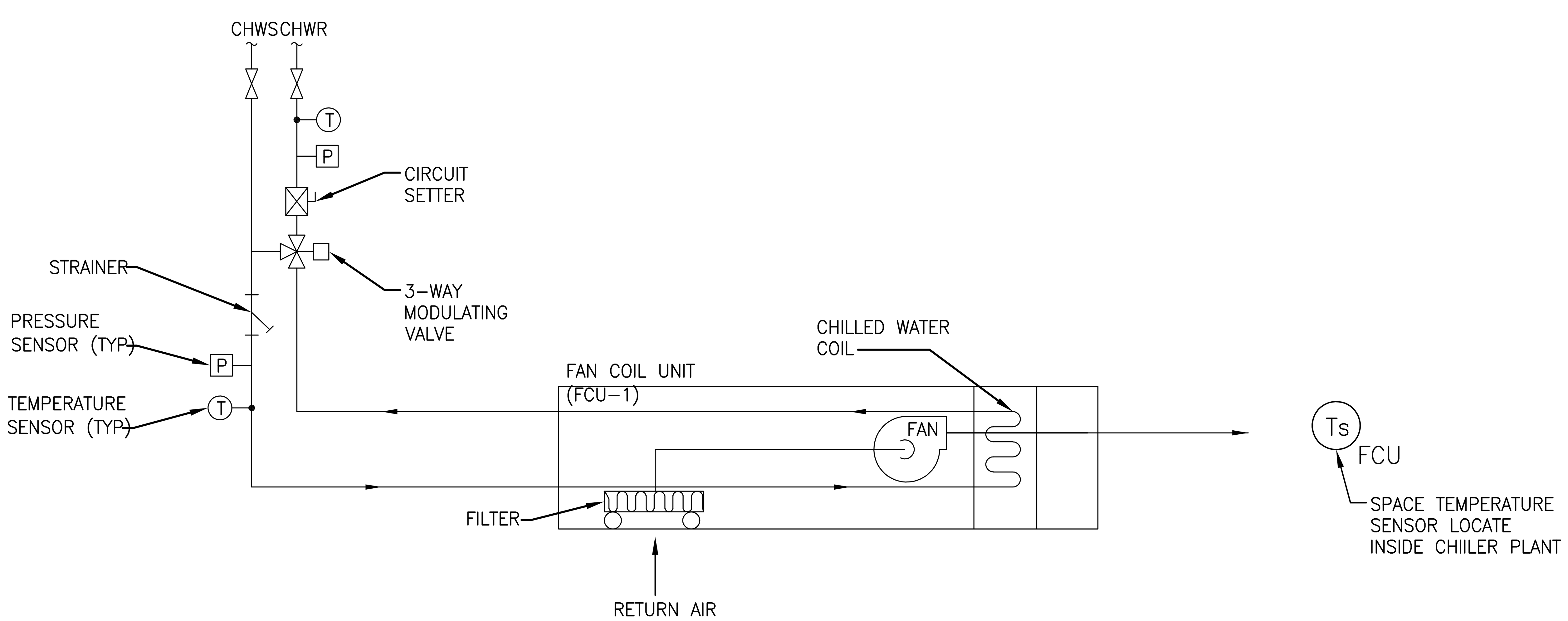
ALARMS:

FAN FAILURE ALARM (FCU, EXHAUST/ SUPPLY FANS): INITIATE AN ALARM UPON SENSING A LOSS OF POWER FROM THE CURRENT SENSOR WHEN THE UNITS ARE COMMANDED TO RUN.

HIGH TEMPERATURE ALARM: INITIATE AN ALARM WHEN THE SPACE TEMPERATURE RISES ABOVE SETPOINT. INITIAL SET POINT SHALL BE 90 DEG F (ADJUSTABLE).

LOW TEMPERATURE ALARM: INITIATE AN ALARM WHEN THE SPACE TEMPERATURE FALLS BELOW SETPOINT. INITIAL SETPOINT SHALL BE 45 DEG F (ADJUSTABLE).

UNIT COMMON ALARM: INITIATE AN ALARM UPON RECEIVING A COMMON ALARM FROM THE UNIT FACTORY CONTROLS OF FCU/ AHU. THIS INCLUDES THE FILTER CHANGE ALARM AS WELL.



FAN COIL UNIT

SQUENCE OF OPERATION

THE FCU FAN AND THE CHILLED WATER FLOW CONTROL VALVE SHALL BE CONTROLLED BY THE SPACE TEMPERATURE SENSOR VIA THE PRODUCTIVITY 3000, PAC AT THE CHILLER PLANT MONITORING PANEL. WHEN THE SPACE TEMPERATURE RISES ABOVE 82F, THE FCU FAN SHALL BE STARTED. THE THREE WAY VALVE SHALL CONTROL THE CHILLED WATER FLOW TO MAINTAIN THE SPACE SET POINT TEMPERATURE OF 80F. WHEN THE SPACE TEMPERATURE FALLS BELOW 78F, THE FCU FAN SHALL TURN OFF.

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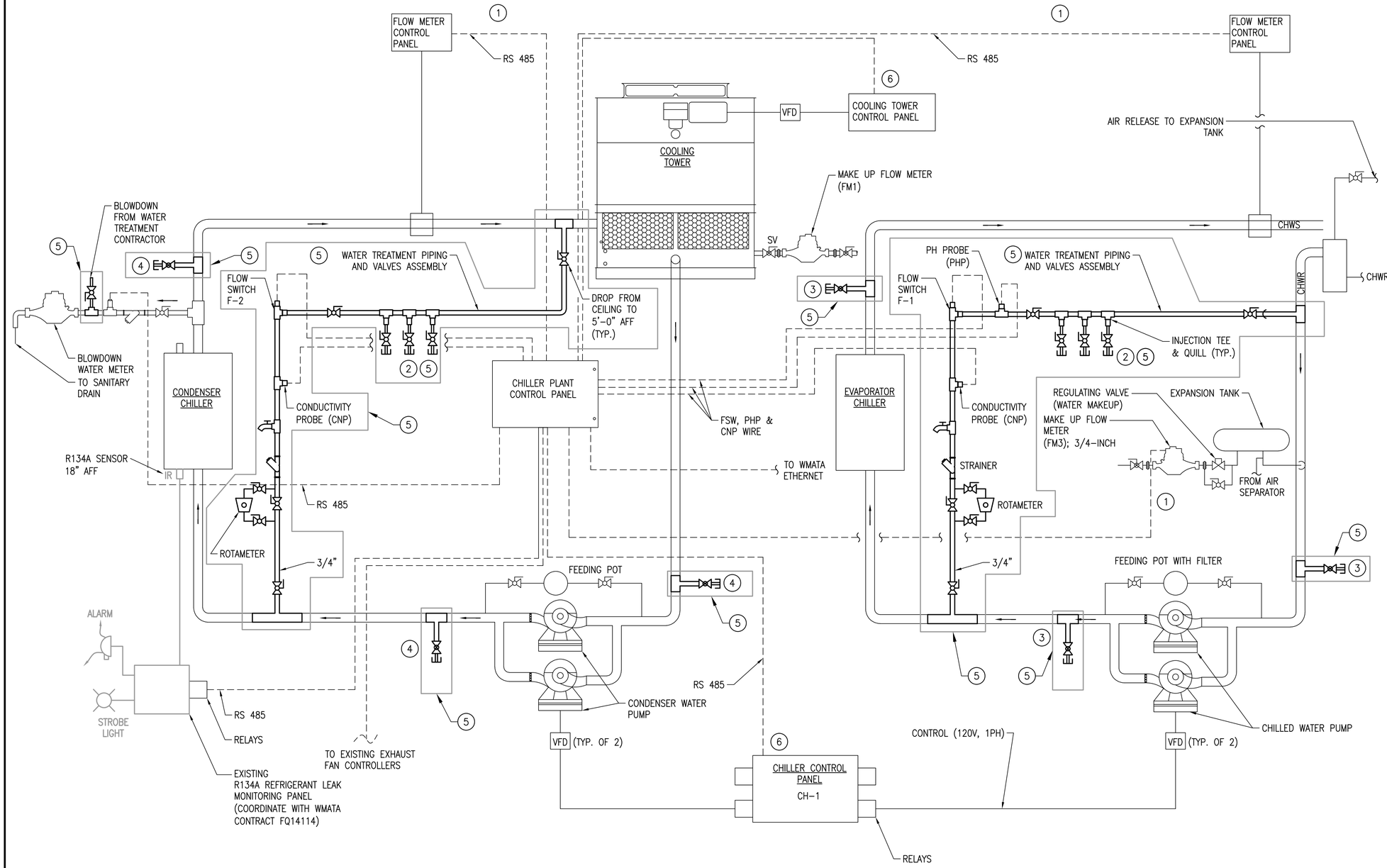
REPLACEMENT OF CHILLERS
AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS
CWPA6 - MEDICAL CENTER (A10)
MECHANICAL SEQUENCE OF OPERATION

M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
M1304	FQ-18102	NONE	CWPA6-M-610	65 of 173



GENERAL NOTES:

A. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION AND QUANTITIES OF EQUIPMENT, PIPING, VALVES, DUCTWORK, ELECTRICAL AND CONTROL WIRING PRIOR TO DEMOLITION. ITEMS SHOWN ON THIS PLAN ARE APPROXIMATE.

B. REFER TO LEGEND SHEET FOR GENERAL ABBREVIATIONS AND SYMBOLS.

KEYNOTES:

(1) COMMUNICATIONS WIRING SHALL BE IN RIGID CONDUIT FROM FLOW METER MONITORING PANEL TO THE CHILLER PLANT CONTROL PANEL, UTILIZING BELDEN 89842 MULTI-CONDUCTOR – LOW CAPACITANCE COMPUTER AND COMPUTER POS CABLE OR EQUIVALENT.

(2) TAPS FOR FUTURE CHEMICAL INJECTION PUMPS.

(3) TAPS FOR CHILLED WATER SYSTEM WATER MONITORING/TREATMENT.

(4) TAPS FOR CONDENSER WATER SYSTEM WATER MONITORING/TREATMENT.

(5) REFER TO WMATA REFERENCE DRAWINGS DD-ME-HVAC-007, DD-ME-HVAC-008, AND DD-ME-HVAC-009.

(6) REUSE EXISTING ANTENNA FOR COMMUNICATION BETWEEN COOLING TOWER AND CHILLER PLANT CONTROL PANEL.

LEGEND:

- GATE VALVE (GV)
- GLOBE VALVE (GB)
- BALL VALVE (1/4 TURN) SHUT OFF TYPE (SV), NORMALLY OPEN, UNLESS OTHERWISE NOTED
- STRAINER (STN)
- SAMPLE PET COCK (SPC)
- SOLENOID VALVE (SOL)
- IR — REFRIGERANT GAS LEAK SENSOR
- MS — MOTOR STARTER (FOR FANS)
- VFD — VARIABLE FREQUENCY DRIVE CONTROLLER
- FSW — FLOW SWITCH
- FLOW METER (FM 1 TO 3) PULSE OUTPUT
- FLOW METER (FM 4 & 5) ULTRASONIC FLOW METER
- CENTRIFUGAL PUMP

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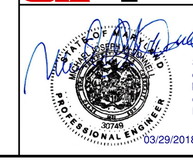

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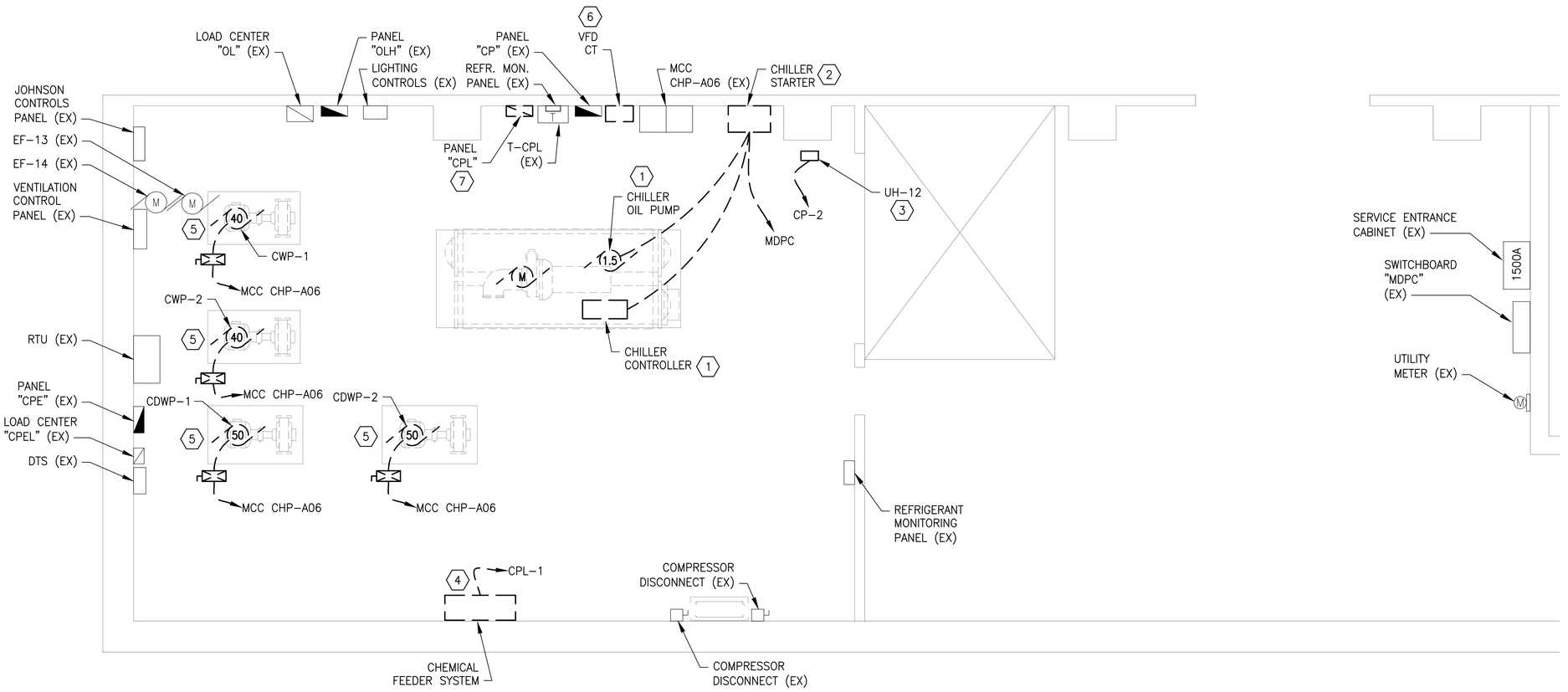
CHILLER PLANT MONITORING DIAGRAM

M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
M1304	FQ-18102	NONE	CWPA6-M-611	66 of 173



1 ELECTRICAL PLAN - DEMOLITION
CWPA6-E-100

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

GENERAL NOTES:

1. ALL SHOWN EQUIPMENT IS EXISTING TO REMAIN UNLESS SHOWN OTHERWISE.
2. FOR EQUIPMENT TO BE DEMOLISHED: ALL EXISTING CONDUIT AND WIRING SHALL BE REMOVED BACK TO SOURCE OR AS INDICATED.

KEYNOTES:

1. EXISTING CHILLER OIL PUMP AND CONTROLLER EQUIPMENT TO BE DEMOLISHED BY MECHANICAL CONTRACTOR. DISCONNECT AND REMOVE WIRING AND CONDUIT BACK TO EXISTING CHILLER STARTER.
2. EXISTING CHILLER STARTER TO BE DEMOLISHED. DISCONNECT AND REMOVE WIRING AND CONDUIT BACK TO SWITCHBOARD "MDPC".
3. EXISTING UNIT HEATER TO BE DEMOLISHED BY MECHANICAL CONTRACTOR. DISCONNECT AND REMOVE CONDUIT AND WIRING BACK TO PANEL "CP".
4. EXISITNG CHEMICAL FEEDER EQUIPMENT TO BE REMOVED BY MECHANICAL CONTRACTOR. DISCONNECT AND REMOVE ASSOCIATED POWER CONDUIT AND WIRING BACK TO PANEL "CPL".
5. EXISTING PUMP MOTOR TO BE DEMOLISHED BY MECHANICAL CONTRACTOR. DISCONNECT AND REMOVE ASSOCIATED STARTER, WIRING AND CONDUIT BACK TO MCC CHP-A06.
6. EXISTING COOLING TOWER FAN VFD TO BE DISCONNECTED AND REMOVED (CURRENTLY USED AS FEED-THROUGH FOR COOLING TOWER FAN WIRING. REROUTE AND RECONNECT WIRING TO ASSOCIATED MCC CHP-A06 CIRCUIT.
7. EXISTING PANEL "CPL" TO BE DEMOLISHED. PRESERVE EXISTING CIRCUITS FOR RECONNECTION TO NEW PANEL IN THE SAME LOCATION.

A Gannett Fleming/Parsons JOINT VENTURE

State of Maryland *Professional Certification.* I hereby certify that these documents were prepared or **approved** by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 030273, Expiration Date: 05/18/2018

03/29/2018

DESIGNED	R. LAUFER	03/16/18 DATE
DRAWN	O. FAYEMI	03/16/18 DATE
CHECKED	D. KHAN	03/23/18 DATE

REFERENCE DRAWINGS

NUMBER	TITLE

REVISIONS

DATE	NUM	DESCRIPTION
03/30/2018	0	FINAL CONTRACT DRAWINGS

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF DESIGN AND CONSTRUCTION SERVICES
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM GROUP

APPROVED Mark H. Magnussen 03/2018 DATE
MARK MAGNUSSEN
MANAGER, ENV. PLANNING AND COMP

APPROVED 03/2018 DATE
GRAHAM SPILLER
GFP DEPUTY PROGRAM MANAGER

REPLACEMENT OF CHILLERS
AND COOLING TOWER ACCESSORIES AT EIGHT METRO-RAIL STATIONS
CWPA6 - MEDICAL CENTER (A10)
ELECTRICAL PLAN - DEMOLITION

M NO.	CONTRACT NO.	SCALE	DRAWING NO.	SHEET NO.
M1304	FQ-18102	1/4" = 1'-0"	CWPA6-E-100	67 of 173