

PUMPS									
IDENT	SYSTEM	FLOW	HEAD	MOTOR			BASIS OF DESIGN		NOTES
		GPM	FT	HP	Elec	RPM	BRAND	MODEL	
CHWP-1	CHILLED WATER	620	70	20	208/60/3	1750	PEERLESS (Grundfos)	4AE11G	
CHWP-2	CHILLED WATER	620	70	20	208/60/3	1750	PEERLESS (Grundfos)	4AE11G	

- NOTES:
1. REPLACE EXISTING CHILLED WATER PUMPS CHWP-1 AND CHWP-2 WITH NEW CHILLED WATER PUMPS.
 2. INSTALL IN PLACE OF EXISTING PUMP SKID. LEVEL AND GROUT PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
 3. RE-INSULATE PIPE INSULATION DAMAGED BY REPLACEMENT. PIPING INSULATION TO BE PHENOLIC INSULATION WITH ASJ. PUMP SUCTION DIFFUSER TO BE INSULATED WITH CLOSED CELL POLYURETHANE INSULATION.
 4. NEW PUMP HOUSING TO BE FULLY INSULATED USING CLOSED CELL POLYURETHANE INSULATION
 5. REINSTALL SKID BASE DRAIN USING COPPER PIPING.
 6. REINSTALL AIR VENT LINE.
 7. CHWP-2 TO HAVE VFD REPLACED. REFER TO ELECTRICAL DRAWING (E-01).
 8. PER THE MANUFACTURER THE PUMP SKIDS ARE A DIRECT REPLACEMENT. UPON RECEIVING NEW PUMP SKID CONTRACTOR SHALL VERIFY NEW PUMP DIMENSIONS AGAINST CURRENT INSTALLATION. THIS IS TO BE PERFORMED PRIOR TO REMOVAL OF EXISTING PUMPS.



CHWP-2



CHWP-1

NO.	DATE	DESCRIPTION	APPD.
0	04/10/19	ISSUE FOR CONSTRUCTION	EMK



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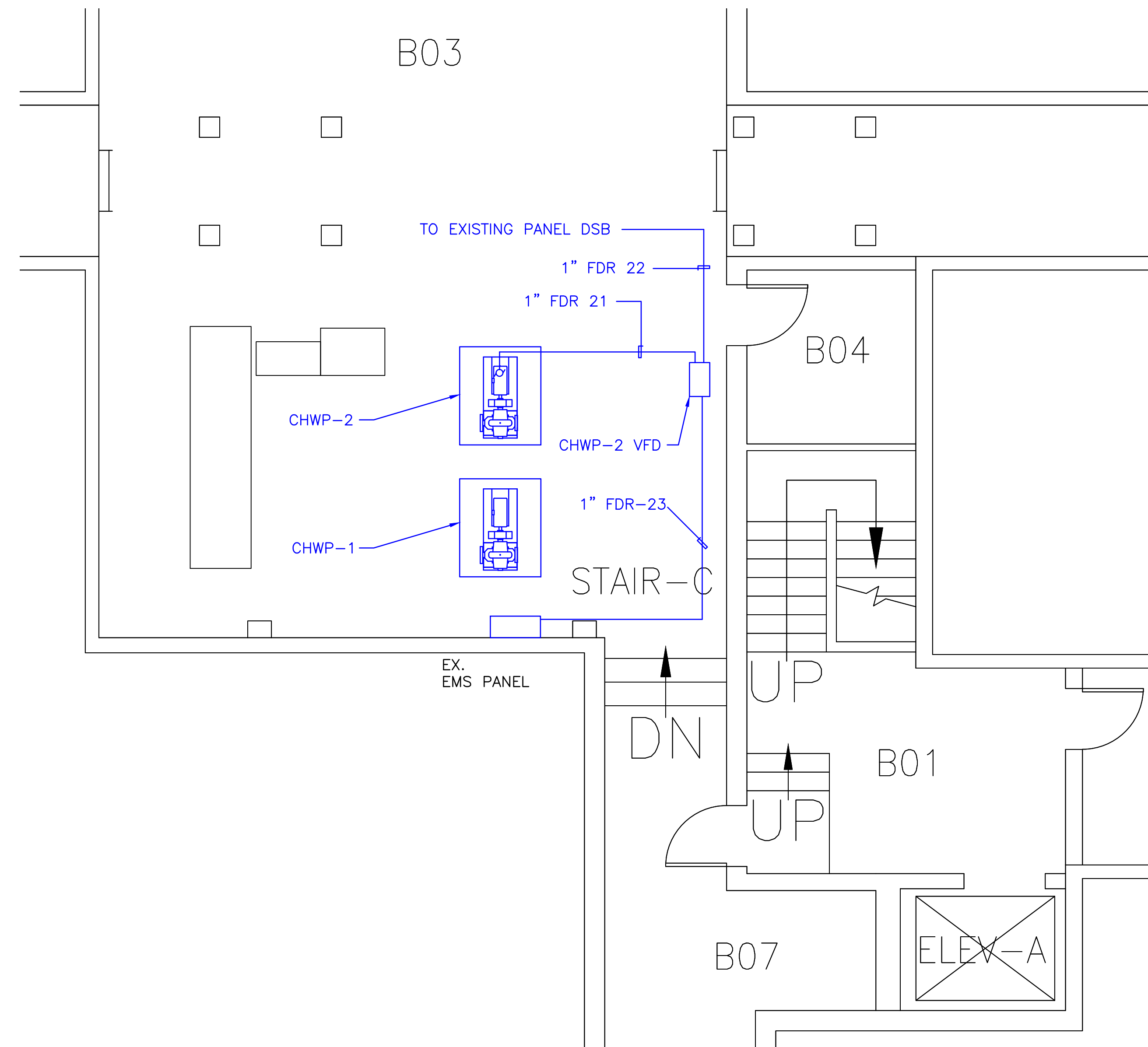
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WILLIAM MARSH RICE UNIVERSITY
 WIESS GEOLOGY PUMP UPGRADES
 CHWP REPLACEMENT
 DEMO / NEW WORK

SCALE
 NONE
 JOB NO.
 RU18-10A
 SHEET NO.
 1 OF 2
 SHEET NAME
 M-01

CABLE AND CONDUIT SCHEDULE

CABLE/CONDUIT TAGS		Amps	VOLTAGE	CONDUIT			CABLE		CABLE ORIGIN (FROM)	CU B.N C.	CABLE ORIGIN (TO)	SCHEM. OR WIRING DIAGRAM DWG. NO.	REMARKS
CONDUIT NUMBER	WIRE NUMBER			SIZE (in)	MATL	LENGTH (feet)	CABLE DESCRIPTION	LENGTH (feet)					
FDR-21	PCHWP-2 VFD	59.4	208	1	RGS	40	3-1/C #8 AWG, 600V, W/ #10 AWG GND, 600V, XHHW-2	60	CHWP-2 VFD		DSB PANELBOARD, CKT 8,10,12		
FDR-22	PCHWP-2 VFD	59.4	208	1	RGS	40	3-1/C #8 AWG, 600V, W/ #10 AWG GND, 600V, XHHW-2	60	CHWP-2 VFD		CHWP-2 PUMP/MOTOR		
FDR-23	CCHWP-2 VFD		24	1	RGS	90	1PR #16 AWG, 300V, SHIELDED, XHHW-2	120	CHWP-2 VFD		COMMS PATCH PANEL		



NOTES:

1. CONTRACTOR SHALL REMOVE POWER CABLES FROM EXISTING CHILLED WATER PUMP CHWP-1 FOR MECHANICAL CONTRACTOR TO REPLACE PUMP. CONTRACTOR SHALL THEN RELAND POWER CABLES FOR CHWP-1.
2. CONTRACTOR SHALL REMOVE ALL POWER CABLE AND CONDUIT FROM CHILLED WATER PUMP CHWP-2 BACK TO THE MOTOR DRIVE. CONTRACTOR SHALL REMOVE DRIVE FOR CHWP-2. CONTRACTOR SHALL REMOVE ALL POWER CABLE AND CONDUIT FROM CHWP-2 DRIVE BACK TO PANEL DSB.
3. CONTRACTOR SHALL REMOVE ALL COMMUNICATION CABLE AND CONDUIT FROM CHILLED WATER PUMP CHWP-2 MOTOR DRIVE BACK TO DCS CABINET.
4. CONTRACTOR SHALL INSTALL NEW CABLE AND CONDUITS AS INDICATED ON THIS DRAWING.
5. CONTRACTOR MAY REUSE EXISTING COMMUNICATION CABLE AND CONDUIT IF HE CAN DEMONSTRATE TO THE UNIVERSITY CONSTRUCTION MANAGER THAT THE CABLE AND CONDUIT ARE IN EXCELLENT CONDITION. DETERMINATION OF SUITABILITY SHALL BE SOLELY AT THE DISCRETION OF THE UNIVERSITY CONSTRUCTION MANAGER.
6. ALL OF THE CONDUIT, CABLE AND ELECTRICAL EQUIPMENT SHALL MEET AS A MINIMUM THE 2017 NPFA 70 (NEC).
7. CONTRACTOR SHALL CONSTRUCT A UNISTRUT RACK TO SUPPORT THE NEW VFD SUCH THAT THE FRONT FACE IS FORWARD OF THE CONDENSATE PIPING MOUNTED BELOW. STANDOFF FROM WALL BE WILL APPROXIMATELY 10".

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