CENTRIFUGAL CHILLER SCHEDULE

TAG	BID	NOMINAL CAPACITY	REFRIGERANT TYPE	REFRIGERANT CHARGE	EVAPORATOR SECTION INFORMATION							CONDENSER SECTION INFORMATION							INCOMING POWER	PRIMARY RLA	MCA	MOCP	PRIMARY POWER	NPLV	OPERATING WEIGHT	BASIS OF DESIGN
					GPM	EWT	LWT	PRESSURE DROP	FOULING FACTOR	TUBE THICKNESS	PASSES	GPM	EWT	LWT	PRESSURE DROP	FOULING FACTOR	TUBE THICKNESS	PASSES								
CH-1	BASE	125 TONS	R-513A	265 LB	357.8	54.0°F	44.0°F	22.8 FT	0.0001 HR-SF FT-DEG F / BTU	0.025"	4	458.7	85°F	94.3°F	23.54 FT	0.00025 HR-SF FT-DEG F / BTU	0.025"	4	460V-3ø-60Hz	33.30A	148A	200A	93.5 KW	0.6233 W/TON	7,100 LBS	MULTISTACK MFW5162MCHA
CH-2	DEDUCT	125 TONS	R-513A	265 LB	357.8	54.0°F	44.0°F	22.8 FT	0.0001 HR-SF FT-DEG F / BTU	0.025"	4	458.7	85°F	94.3°F	23.54 FT	0.00025 HR-SF FT-DEG F / BTU	0.025"	4	460V-3ø-60Hz	33.30A	148A	200A	93.5 KW	0.6233 KW/TON	7,100 LBS	MULTISTACK MFW5162MCHA

NOTES:

1. PROVIDE CHILLER WITH ISOLATION PADS AND INSTALL BETWEEN CHILLER AND CONCRETE PAD AT ALL CONTACT SURFACES.
2. PROVIDE CHILLER WITH RUPTURE DISK ASSEMBLY, FLEXIBLE CONNECTOR, AND VENT TO ATMOSPHERE AS SHOWN ON DRAWINGS.
3. FIELD FURNISH AND INSTALL AIR VENTS AND DRAIN VALVES ON EACH WATER BOX.
4. PROVIDE FACTORY FURNISHED INSULATION ON ALL SURFACES THAT MAY CONDENSATE DURING NORMAL OPERATION.
5. REFER TO INSTALLATION MANUAL AND PROVIDE ALL COMPONENTS REQUIRED FOR THE PROPER CLOSE-CHILLER PIPING AND OPERATION OF THE CHILLER. IF COMPONENTS ARE INSTALLED IN PIPING TO REMAIN THEY MAY BE RE-USED, IF COMPONENTS ARE NOT INSTALLED IN EXISTING PIPING TO REMAIN THEY ARE TO BE PROVIDED NEW. ALSO, PROVIDE ALL DISCONNECT SENSORS REMOVED DURING DEMOLITION INTO NEW CONNECTION PIPING TO ENSURE PROPER OPERATION OF CONTROL SYSTEM PRIOR TO CHILLER REPLACEMENT.

PUMP SCHEDULE

MARK	BID	SERVES/ DUTY	LOCATION	PUMP TYPE	CONTROL	CIRCULATING FLUID					ELECTRICAL MOTOR			BASIS OF DESIGN*		
						FLUID TYPE	TEMP. (F°)	FLOW (GPM)	HEAD (FT)	NET POSITIVE SUCTION (REQUIRED)	HORSE POWER (HP)	ELECTRICAL CHARACTERISTICS	SPEED (RPM)	MANUFACTURER	MODEL	IMPELLAR SIZE
P-2	DEDUCT	CHILLED WATER	CHILLER ROOM	END SUCTION	VFD	WATER	44°F	360	40	6.76	7.5	460V-60HZ-3ϕ	1,770	ARMSTRONG	SERIES 4030 - 5x4x8-4P-7.5HP	6.89"
P-3	BASE	CHILLED WATER	CHILLER ROOM	END SUCTION	VFD	WATER	44°F	360	40	6.76	7.5	460V-60HZ-3ϕ	1,770	ARMSTRONG	SERIES 4030 - 5x4x8-4P-7.5HP	6.89"
P-4	DEDUCT	CONDENSER WATER	CHILLER ROOM	END SUCTION	VFD	WATER	85°F	460	65	9.25	15	460V-60HZ-3ϕ	1,780	ARMSTRONG	SERIES 4030 - 5x4x10-4P-15HP	8.43"
P-5	BASE	CONDENSER WATER	CHILLER ROOM	END SUCTION	VFD	WATER	85°F	460	65	9.25	15	460V-60HZ-3ϕ	1,780	AMSTRONG	SERIES 4030 - 5x4x10-4P-15HP	8.43"

NOTES:
1. PUMP IS TO OPERATE WHENEVER THE AMBIENT TEMPERATURE IS BELOW 55° F (ADJ).
2. PUMPS ARE TO BE PROVIDED WITH TAPS FOR PRESSURE GAGES ON THE INLET AND OUTLET FLANGE WHERE AVAILABLE - IF NOT AVAILABLE ON PUMP FLANGE, FIELD INSTALL PRESSURE GAGES IN PIPING.
3. EACH PUMP FURNISHED WITH A SUCTION DIFFUSER AS MANUFACTURED BY THE PUMP MANUFACTURER.
4. PROVIDE REMOVABLE INSULATION JACKET COVERS FOR EACH CHILLED AND CONDENSER WATER PUMP.
* OR APPROVED EQUIVALENT.

4.

ELECTRIC WATER HEATER SCHEDULE

TAG	LOCATION	HEAT SOURCE	WATTAGE	RECOVERY GPH @ 90° RISE	WATER CONNECTION SIZE	VOLUME (GALLONS)	DIAMETER (INCHES)	HEIGHT (INCHES)	WEIGHT W/ WATER (LBS)	FULL LOAD AMPS	ELECTRICAL DATA (VOLTS-ϕ-HZ)	REMARKS	BASIS OF DESIGN*
EWH-1	MECHANICAL ROOM B31	ELECTRIC	18 KW	82.0	1-1/4"	80.0	25.5	60.25	APPROX. 280	21.7	480-3-60	ASME CONSTRUCTION	STATE WATER HEATERS MODEL CSB-82

NOTES:

1. P.C. TO PROVIDE EXPANSION TANK AS SHOWN ON EXPANSION TANK SCHEDULE ON THIS DRAWING.

* RHEEM ES85-18 OR APPROVED EQUIVALENT.

EXPANSION TANK SCHEDULE

TAG	TANK VOLUME (GALLONS)	MAXIMUM ACCEPTANCE FACTOR	MAX PRESSURE (PSI)	MAX TEMPERATURE (°F)	ASME RATED	BASIS OF DESIGN*
ET-1	4.4	0.7	150.0	140	NO	AMTROL ST-12

NOTE:

1. CONTRACTOR TO INSTALL TANK ON COLD WATER INLET LINE PER WATER HEATER MANUFACTURER INSTRUCTIONS AND CHECK AND ADJUST EXPANSION TANK CHARGE AS NEEDED.

*OR APPROVED EQUIVALENT

STATE OF MARYLAND
CHRISTOPHER G. ALBRIGHT
26275
PROFESSIONAL ENGINEER

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. 26275 EXPIRATION DATE: 05-12-2026

CHRISTOPHER G. ALBRIGHT DATE 10/17/2025

SCHEDULES - HVAC

CHILLER REPLACEMENT
COLLEGE CENTER
FOR
ALLEGANY COMMUNITY COLLEGE
WILLOWBROOK ROAD, CUMBERLAND, MD 21502

East Hills Engineering Associates
A LIMITED LIABILITY COMPANY
BRETT N. YONISH, P.E.
CHRISTOPHER G. ALBRIGHT, P.E.
541 MAIN STREET
WINDBER, PA 15963
(814) 467-6877

REVISIONS		
MARK	BY	DATE

DATE: 10-17-2025
DRAWING NO. H0.2
DRAWN BY: C.G.A.
CHECKED BY: C.G.A.
PROJECT NO. 25-015

ORIGINAL DRAWING SIZE = 24"x36"

NOTE: DO NOT SCALE DRAWING - EACH CONTRACTOR IS TO VERIFY ALL EXISTING CONDITIONS AND ALL DIMENSIONS BEFORE BEGINNING ANY WORK. EACH CONTRACTOR IS TO FULLY COORDINATE THEIR WORK WITH THAT OF OTHERS. REFER TO THE CONTRACT AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.