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REGISTERED
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STATE OF
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PROFESSIONAL ENGINEER

Addendum: **2**

Date: **08/12/2022**

Project: **FWCS 2023 ESSER Boiler/Chiller Repairs**

Comm #: **21281**

The following items shall be incorporated into the specifications and drawings and are considered to be integral to the bid documents for the project. Acknowledgement of receipt of this addendum is required on the bid form.

Item #1: General Clarifications.

A. Boiler combustion air intake material shall be galvanized sheet metal, SCH 40 PVC, or Polypropylene.

Item #2: Drawing Sheet FA-M501

A. Add ET-2 to Expansion Tank Schedule. Add AS-1 to Air and Sediment Separator Schedule. Add Diffuser and Grille Schedule. Refer to attached drawing revision.

Item #3: Drawing Sheet IN-M501

A. Add General Mechanical Equipment Schedule. Add Buffer Tank Schedule. Add Gas Regulator Schedule. Refer to attached drawing revision.

Item #4: Drawing Sheet NC-M401

A. Revise Boiler Room Flow Diagram. Refer to attached drawing revision.

Item #5: Drawing Sheet NC-M501

A. Add Buffer Tank Schedule. Refer to attached drawing revision.

Item #6: Drawing Sheet PO-M501

A. Add Air and Sediment Separator Schedule. Add General Mechanical Equipment Schedule. Refer to attached drawing revision.

Item #7: Drawing Sheet FA-E001

A. Replace existing drawing sheet with attached revised sheet FA-E001 dated 08-12-2022. See added schedule for new Panel HV.

Item #8: Drawing Sheet FA-E102

A. Replace existing drawing sheet with attached revised sheet FA-E102 dated 08-12-2022. Indicates replacement of Panel HV.

Item #9: Drawing Sheet PO-E102

A. Replace existing drawing sheet with attached revised sheet PO-E102 dated 08-12-2022. Shows location of existing Panels PP-1 & PP-2.

ROOFTOP UNIT SCHEDULE

												HEATING				COOLING													
TAG	MFR.	MODEL	SERVICE	OP. WEIGHT (LBS)	AIRFLOW (CFM)	ESP (IN WC)	MIN. O.A. (CFM)	DRIVE TYPE	MOTOR (HP)	MOTOR (BHP)	RPM	INPUT (MBH)	OUTPUT (MBH)	EAT/LAT (DEG F)	STAGES	TOTAL (MBH)	SENS. (MBH)	EDB/EWB (DEG F)	LDB (DEG F)	AMBIENT TEMP (DEG F)	STAGES	EER	ELEC (V/PH)	MCA	MOCP	FILTER TYPE	REFRIGERANT	REMARKS
RTU-1	CARRIER	48HCRB06	OFFICE	1,000	2250	1.00	225	BELT	3.0	1.96	1485	115	90	60 / 97	2	58.1	47.8	75 / 62	51	95	1	12.5	480/3	18	20	2" MERV 8	R410A	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

REMARKS:
1. PROVIDE AND INSTALL WITH FULLY MODULATING ECONOMIZER DAMPER AND 100% ECONOMIZER AIRFLOW POWERED EXHAUST.
2. PROVIDE AND INSTALL WITH PHASE LOSS MONITOR TO SHUT DOWN UNIT ON LOSS OF ANY PHASE.
3. MANUFACTURER TO PROVIDE INTEGRAL COMPARATIVE DRY BULB ECONOMIZER CONTROLLER.
4. PROVIDE AND INSTALL WITH OUTSIDE INTAKE HOOD WITH INLET SCREEN.
5. PROVIDE AND INSTALL WITH FACTORY INSTALLED ELECTRICAL DISCONNECT SWITCH.
6. PROVIDE AND INSTALL WITH POWERED EXHAUST FAN.
7. PROVIDE AND INSTALL WITH LOUVERED HAIL GUARDS ON ALL CONDENSER COILS. SHIP WITH COIL PROTECTION PANELS TO PREVENT DAMAGE DURING SHIPPING, RIGGING, INSTALLATION.
8. PROVIDE AND INSTALL WITH STAINLESS STEEL HEAT EXCHANGER.
9. PROVIDE AND INSTALL WITH 24" TALL INSULATED METAL ROOF CURB.
10. PROVIDE AND INSTALL WITH TERMINAL STRIP FOR CONTROL OF FAN AND HEAT/COOL STAGES FROM BMS OR PROGRAMMABLE STAT.
11. PROVIDE AND INSTALL WITH BACNET CONTROLLER FOR INTEGRATION OF DATA INTO BMS.
12. PROVIDE AND INSTALL WITH FACTORY MOUNTED, UNPOWERED CONVENIENCE RECEPTACLE.
13. PROVIDE AND INSTALL WITH CUSTOM METAL FILTER FRAME AND MEDIA FROM HOMETOWN FILTER, FORT WAYNE, INDIANA, (260) 423-6100.

BUFFER TANK SCHEDULE

TAG	MFR.	MODEL	SERVICE	TANK VOL (GAL)	DIA. (IN)	HEIGHT (IN)	CONN. SIZE (IN)	SHIP WT (LBS)	TANK FULL WT (LBS)	REMARKS
BT-1	AMTROL	CWBT300-6-150	CHILLED WATER	300	36	80.375	6	849	3357	1, 2, 3
BT-2	AMTROL	CWBT300-6-150	HOT WATER	300	36	80.375	6	849	3357	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH AUTOMATIC AIR VENT ON TOP OF TANK AND DRAIN PORT ON BOTTOM.
2. BAFFEL PLATE SHALL BE WELDED IN PLACE.
3. TANK SHALL BE ASME RATED FOR 150 PSI.

WATER FLOW/ENERGY METER SCHEDULE

TAG	MFR.	FLOW METER	SENSOR TYPE	DISPLAY	FLUID	PIPE SIZE (IN)	DESIGN NOMINAL FLOW (GPM)	MIN / MAX FLOW (GPM)	REQ PIPE DIA UP /DOWN STREAM	ACCURACY (% OF FLOW RATE)	ELEC (V/PH)	REMARKS
FM-1	BADGER	M2000	ELECTROMAG	INTEGRAL	WATER			8.4 / 3358	7D / 2D	0.2 %	24 VDC	1, 2, 3, 4, 5

REMARKS:
1. BODY SHALL BE EPOXY COATED CARBON STEEL WITH PTFE LINER.
2. PROVIDE WITH DISPLAY UNIT.
3. CONTRACTOR SHALL VERIFY REQUIRED UPSTREAM AND DOWNSTREAM MINIMUM STRAIGHT PIPE REQUIREMENTS DURING INSTALL.
4. PROVIDE FACTORY AUTHORIZED STARTUP TO CALIBRATE AND CONFIGURE METER FOR SPECIFIC PIPE/FLUID PARAMETERS.
5. FURNISHED BY TCC. TCC SHALL PROVIDE POWER TRANSFORMER DEDICATED TO POWER FLOWMETER.

DIFFUSER AND GRILLE SCHEDULE

TAG	MFR.	MODEL	NECK SIZE (IN)	FACE SIZE (IN)	THROW PATTERN	MAX CFM	MAX APD (IN)	THROW (FT)	MAX NC	MATERIAL	REMARKS
RG-1	TITUS	45F	-	12x12	45 DEG EGG	400	0.04	-	15	ALUMINUM	1, 2

REMARKS:
1. COLOR SHALL BE WHITE.
2. PROVIDE AND INSTALLWITH FRAME FOR SURFACE INSTALLATION.

1

HYDRONIC PUMP SCHEDULE

TAG	MFR.	MODEL	FRAME SIZE	IMPELLER DIA (IN)	FLUID	FLOW (GPM)	HEAD (FT)	MOTOR (HP)	MOTOR (BHP)	EFF (+/- 5%)	MOTO R RPM	ELEC (V/PH)	SERVICE	REMARKS
P-1	BELL & GOSSETT	E-1510 2BD	213T	9.375	WATER	150	90	7 1/2	4.83	71.0	1750	480/3	HW/CHW DIST	1, 2, 3, 4, 5, 6
P-2	BELL & GOSSETT	E-1510 2BD	213T	9.375	WATER	150	90	7 1/2	4.83	71.0	1750	480/3	HW/CHW DIST	1, 2, 3, 4, 5, 6
CP-1	BELL & GOSSETT	E-1510 2.5BB	213T	8.625	35% PG	200	70	7 1/2	5.24	72.6	1750	480/3	CHILLER	1, 2, 3, 4, 5, 7
CP-2	BELL & GOSSETT	E-1510 2.5BB	213T	8.625	35% PG	200	70	7 1/2	5.24	72.6	1750	480/3	CHILLER	1, 2, 3, 4, 5, 7

REMARKS:
1. ALL MOTORS SHALL BE NON-OVERLOADING.
2. MOTOR SHALL BE MULTI-TAP 460/240/208 BALDOR SUPER-E WITH INTEGRAL SHAFT GROUNDING RING AND COMPLY WITH NEMA MG1 FOR VARIABLE SPEED OPERATION.
3. MOTOR SHALL HAVE CLASS F INSULATION FOR USE WITH VARIABLE SPEED DRIVE.
4. MFR SHALL ALIGN PUMP SHAFT IN THE FIELD, PRIOR TO START-UP. PROVIDE WRITTEN REPORT OF ALIGNMENT AND STARTUP.
5. PROVIDE WITH IMPELLER SIZE LISTED, VSD WILL BE USED TO BALANCE FLOW TO DESIGN POINT.
6. LEAD-LAG PARALLEL PUMPING OPERATION FOR COMBINED FLOW AT 300 GPM AND 90 FEET HEAD.
7. LEAD-LAG PARALLEL PUMPING OPERATION FOR COMBINED FLOW AT 400 GPM AND 70 FEET HEAD.

1

EXPANSION TANK SCHEDULE

TAG	MFR.	MODEL	SERVICE	APPROX SYS VOL (GAL)	PRE-CHARGE (PSIG)	CALC. ACCEPT FACTOR	TANK VOL. (GAL)	ACCEPT. VOL (GAL)	DIA. (IN)	HEIGHT (IN)	CONN. SIZE (IN)	TANK FULL WT (LBS)	REMARKS
ET-1	BELL & GOSSETT	B-500	HW SYSTEM			0.618	132	82	30	57	3/4	1435	1, 2, 3
ET-2	**BELL & GOSSETT**	**B-200**	**GLYCOL LOOP**			**0.618**	**53**	**33**	**24**	**37**	**1**	**629**	**1, 2, 3**

REMARKS:
1. PROVIDE AND INSTALL WITH LINE SIZE T&P RELIEF VALVE ON INLET.
2. ALL TANKS SHALL BE ASME STAMPED.
3. CONTRACTOR MUST VERIFY THE SYSTEM STATIC WATER PRESSURE PRIOR TO INSTALLING TANK AND ADJUST PRE-CHARGE AS REQUIRED.

VARIABLE SPEED DRIVE SCHEDULE

TAG	MFR.	MODEL	EQUIPMENT SERVED	MOTOR SIZE (HP)	ELEC (V/PH)	MAX HARMONIC DIST.	BYPASS	ENCLOSURE	REMARKS
VSD-P-1	ABB	ACH580	P-1	7 1/2	480/3	5%	NONE	NEMA 1	1, 2, 3, 4, 5
VSD-P-2	ABB	ACH580	P-2	7 1/2	480/3	5%	NONE	NEMA 1	1, 2, 3, 4, 5
VSD-CP-1	ABB	ACH580	CP-1	15	480/3	5%	NONE	NEMA 1	1, 2, 3, 4, 5
VSD-CP-2	ABB	ACH580	CP-2	15	480/3	5%	NONE	NEMA 1	1, 2, 3, 4, 5

REMARKS:
1. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS AND INFORMATION.
2. COORDINATE EXACT MOTOR DATA WITH EQUIPMENT BEING SERVED BY THIS DRIVE.
3. PROVIDE WITH MANUAL LOCKABLE DISCONNECT SWITCH INTEGRAL TO DRIVE.
4. PROVIDE WITH BACNET INTERFACE FOR FULL INTEGRATION INTO BMS.
5. FURNISHED BY TCC.

ELECTRIC CABINET HEATER SCHEDULE

TAG	MFR.	MODEL	LOCATION	INLET	OUTLET	ELEVATION AFF (IN)	CAPACITY (KW)	AIRFLOW (CFM)	ELEC (V/PH)	CONTROL	REMARKS
CUH-1	REZNOR	EMC	DOOR 1 VEST	TOP FRONT	BOTTOM FRONT	8	5.0	250	208/1	EC	1, 2, 3, 4
CUH-2	REZNOR	EMC	DOOR 2 VEST	TOP FRONT	BOTTOM FRONT	8	3.0	250	208/1	EC	1, 2, 3, 4
CUH-3	REZNOR	EMC	DOOR 3 VEST	TOP FRONT	BOTTOM FRONT	8	5.0	250	208/1	EC	1, 2, 3, 4
CUH-4	REZNOR	EMC	DOOR 4 VEST	TOP FRONT	BOTTOM FRONT	8	5.0	250	208/1	EC	1, 2, 3, 4
CUH-5	REZNOR	EMC	DOOR 5 VEST	TOP FRONT	BOTTOM FRONT	8	2.0	250	208/1	EC	1, 2, 3, 4
CUH-6	REZNOR	EMC	DOOR 6 VEST	TOP FRONT	BOTTOM FRONT	8	4.0	250	208/1	EC	1, 2, 3, 4

REMARKS:
1. PROVIDE AND INSTALL WITH FACTORY WIRED ELECTRICAL DISCONNECT.
2. PROVIDE AND INSTALL WITH LINE VOLTAGE THERMOSTAT.
3. PROVIDE AND INSTALL WITH CUSTOM METAL FILTER FRAME AND MEDIA FROM HOMETOWN FILTER, FORT WAYNE, INDIANA, (260) 423-6100.
4. COLOR SHALL BE SELECTED BY OWNER.

ELECTRIC RADIANT CEILING PANEL SCHEDULE

TAG	MFR.	MODEL	SERVICE	SIZE (IN)	CAPACITY (WATTS)	REMARKS
RCP-1	QMARK	CP	LL BOYS RR	24"x48"	750	1, 2
RCP-2	QMARK	CP	LL GIRLS RR	24"x48"	750	1, 2
RCP-3	QMARK	CP	LL BOYS RR	24"x48"	750	1, 2
RCP-4	QMARK	CP	LL GIRLS RR	24"x48"	750	1, 2
RCP-5	QMARK	CP	LL KITCHEN RR	24"x24"	375	1, 3
RCP-6	QMARK	CP	1ST FLR BOYS RR	24"x48"	750	1, 2
RCP-7	QMARK	CP	1ST FLR GIRLS RR	24"x48"	750	1, 2
RCP-8	QMARK	CP	1ST FLR ELEVATOR	24"x48"	750	1, 2
RCP-9	QMARK	CP	2ND FLR BOYS RR	24"x48"	750	1, 2
RCP-10	QMARK	CP	2ND FLR GIRLS RR	24"x48"	750	1, 2
RCP-11	QMARK	CP	2ND FLR ELEVATOR	24"x48"	750	1, 2

REMARKS:
1. FIELD INSTALL WITH FOIL BACKED 2" THICK FIBERGLASS INSULATION ON TOP SIDE OF ENTIRE PANEL SURFACE.
2. PROVIDE AND INSTALL WITH FRAME FOR LAY-IN CEILING INSTALLATION.
3. PROVIDE AND INSTALL WITH SURFACE MOUNTING FRAME.

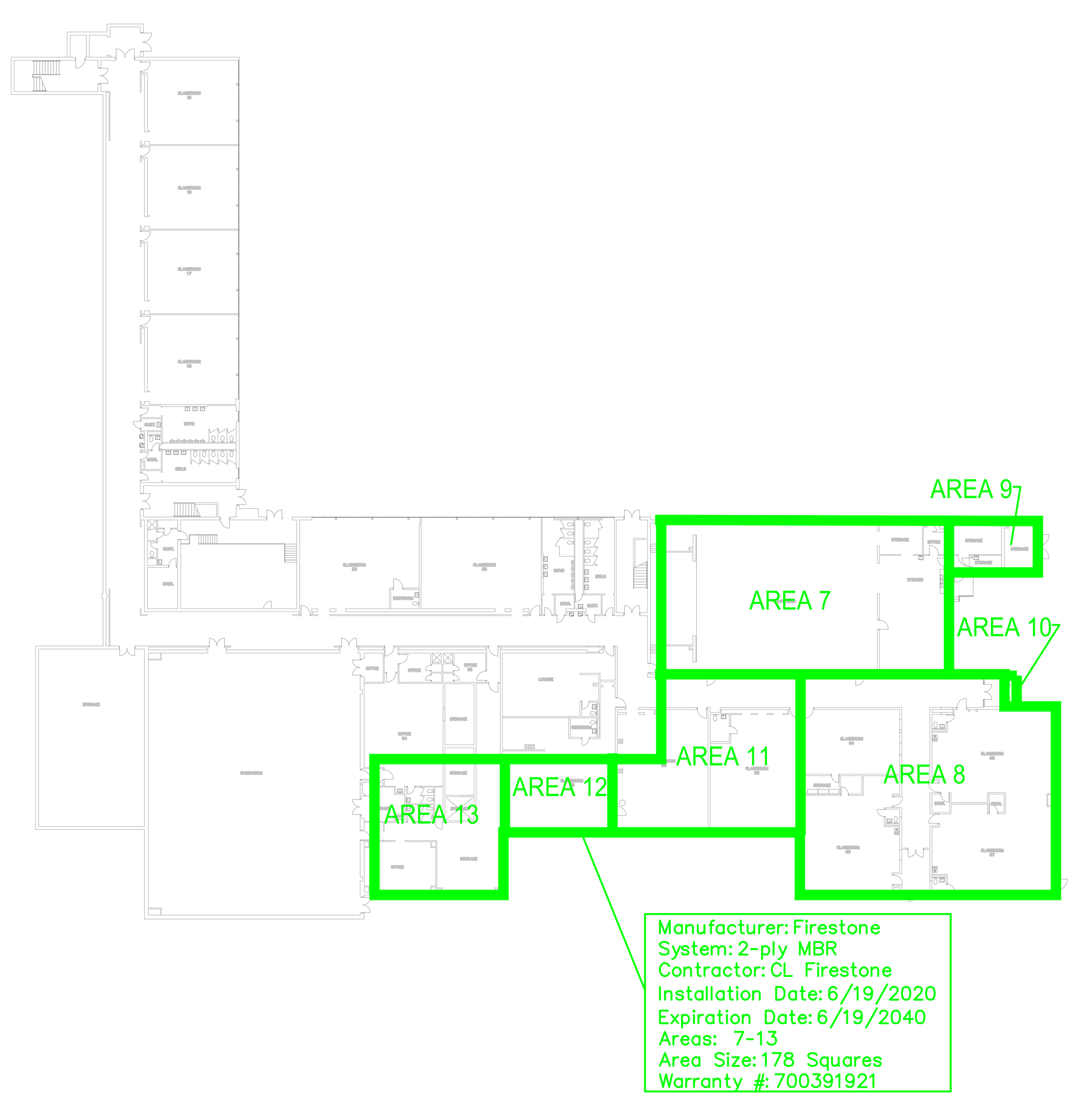
1

AIR AND SEDIMENT SEPARATOR SCHEDULE

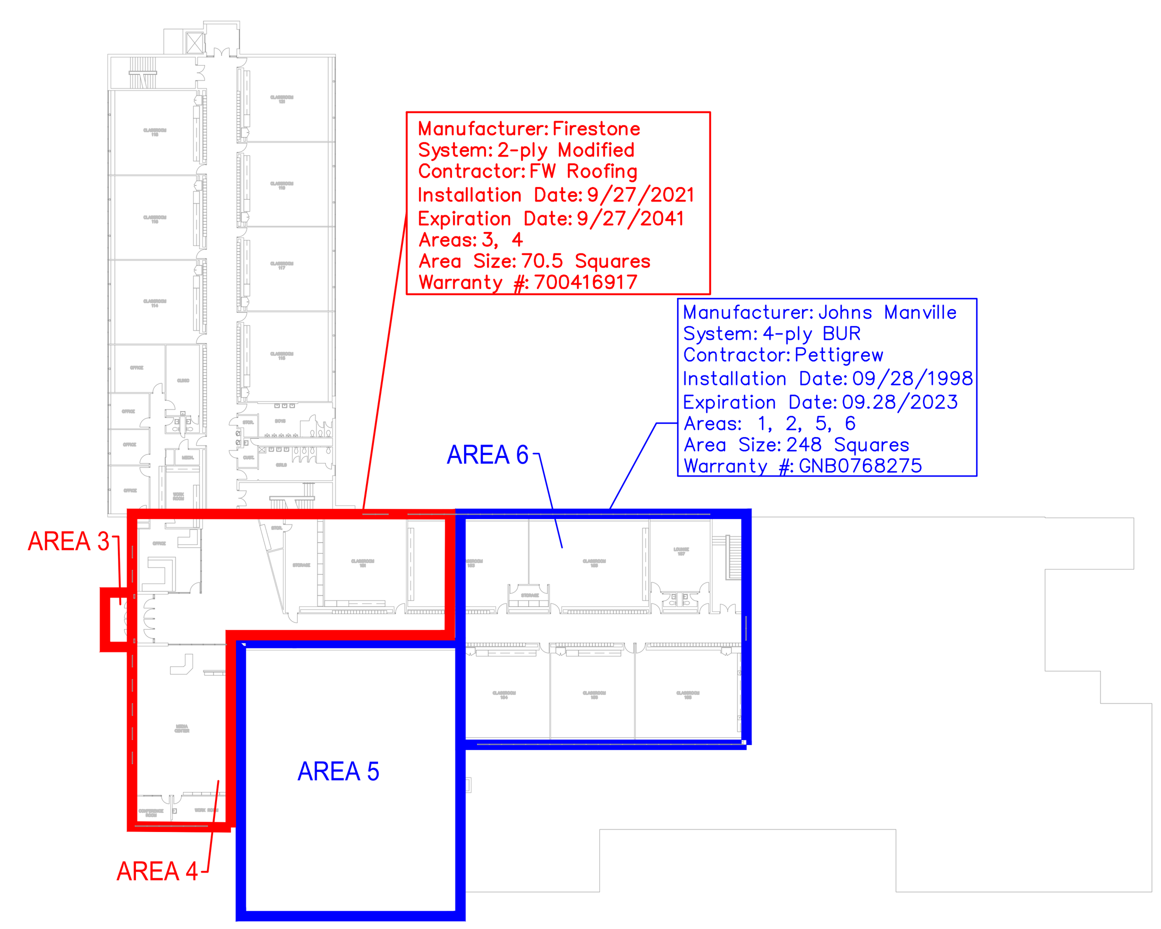
TAG	MFR.	MODEL	SERVICE	PIPE CONN. (IN)	MAX FLOW (GPM)	TANK DIA (IN)	TANK HEIGHT (IN)	WATER VOL (GAL)	REMARKS
ADS-1	BELL & GOSSETT	CRS-6F	HW/CHW	6	550	12	39	19	1, 2, 3
AS-1	**BELL & GOSSETT**	**R-6F**	**GLYOL LOOP**	**6**	**800**	**18**	**44**	**48**	**2**

REMARKS:
1. PROVIDE WITH REMOVABLE BOTTOM FLANGE, SKIMMER VALVE, DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL 107A.
2. PROVIDE WITH STRAINER, FLANGED BOTTOM, DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL 107A.
3. PROVIDE WITH INTEGRAL NEODYMIUM MAGNETIC INSERT ROD WITH SLEEVE TO ALLOW REMOVAL OF IRON FLAKES USING BLOW DOWN PORT.

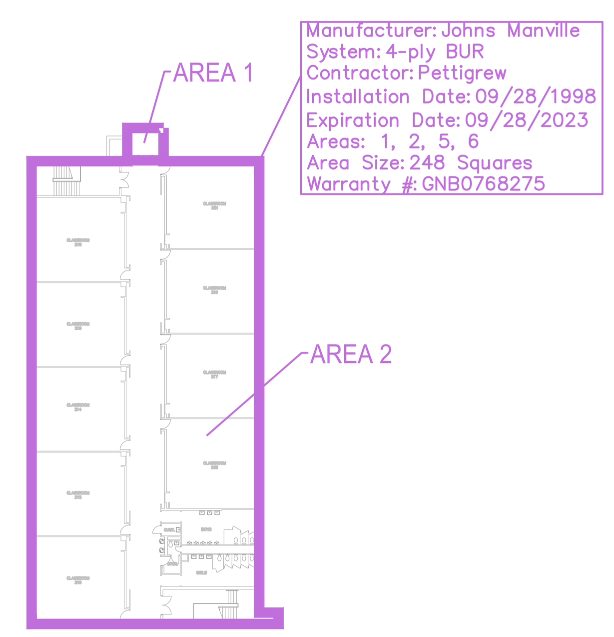
1 ADDENDUM #2 8-12-2022



LOWER LEVEL
ROOF WARRANTY PLAN
SCALE: NTS



FIRST FLOOR
ROOF WARRANTY PLAN
SCALE: NTS



SECOND FLOOR
ROOF WARRANTY PLAN
SCALE: NTS

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FWCS WE ARE YOUR SCHOOLS

FORT WAYNE COMMUNITY SCHOOLS
ESSER 2023 BOILER/CHILLER REPAIRS
Fort Wayne, Indiana

CERTIFICATION:
ANDREW STEPHEN LOUDERBACK
REGISTERED
PE11700017
STATE OF INDIANA
PROFESSIONAL ENGINEER

DATE: 07-25-2022
COMM: 21281
FILE: 281FA-M501

SCHOOL: Fairfield Elementary School
2825 Fairfield Ave.
Fort Wayne Indiana 46807

TITLE:
MECHANICAL SCHEDULES AND ROOF WARRANTIES

SHEET:
FA-M501

LINE TYPE SCHEDULE

- UNDERGROUND COMMUNICATION FEED LINE TYPE AND WEIGHT
- UNDERGROUND FEED LINE TYPE AND WEIGHT
- NEW POWER LINE WEIGHT
- NEW MECHANICAL EQUIPMENT LINE WEIGHT
- NEW LIGHTING LINE WEIGHT
- NEW LIGHTING DEVICE LINE WEIGHT
- NEW EMERGENCY AND FIRE DEVICE LINE WEIGHT
- NEW COMMUNICATION DEVICE LINE WEIGHT
- EXISTING TO REMAIN LINE WEIGHT
- EXISTING TO BE DEMOLISHED LINE TYPE AND WEIGHT

GENERAL ELECTRICAL DEMOLITION NOTES

1. REMOVE ALL EXPOSED RACEWAY AND WIRE THAT ARE NO LONGER TO BE USED.
2. BLANK OFF OR REMOVE ALL ABANDONED JUNCTION AND OUTLET BOXES IN WALLS, FLOORS, AND CEILINGS THAT ARE TO REMAIN.
3. REMOVE ALL ELECTRICAL OUTLETS, DEVICES, AND RACEWAYS FROM WALL THAT ARE TO BE REMOVED.
4. REMOVE ALL FLOOR MOUNTED RACEWAYS.
5. ALL EXISTING EQUIPMENT THAT IS TO REMAIN IS INTENDED TO BE OPERATIONAL AT THE COMPLETION OF THE PROJECT. RECIRCUIT WHERE NECESSARY TO INSURE THIS CONTINUED OPERATION.
6. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL EQUIPMENT THAT IS TO BE REMOVED.
7. ALL EXISTING RECEPTACLES AND LIGHT SWITCHES THAT ARE TO REMAIN WITHIN A REMODELED AREA SHALL BE REPLACED WITH NEW DEVICES AND COVER PLATES.
8. THE EXISTING EQUIPMENT SHOWN ON THE DRAWINGS IS BELIEVED TO BE A REASONABLE INDICATION OF THE EXISTING LAYOUT. EXACT QUANTITY AND LOCATION SHALL BE FIELD VERIFIED BY CONTRACTOR.

GENERAL ELECTRICAL NOTES

1. COORDINATE LOCATION OF LIGHT FIXTURES IN AREAS OF MECHANICAL DUCTWORK AND PIPING WITH MECHANICAL CONTRACTOR. RELOCATE LIGHT FIXTURES, WIRING, AND CONDUIT IF NECESSARY AND AS DIRECTED BY THE ARCHITECT/ENGINEER.
2. THE ELECTRICAL LAYOUT DRAWINGS ARE DIAGRAMMATIC IN NATURE. REFER TO ENTIRE CONSTRUCTION DRAWING SET AND SPECIFICATIONS FOR GUIDANCE ON DIMENSIONS, CEILING HEIGHTS, DOOR SWINGS, ROOM FINISHES, STRUCTURAL DETAILS, LOCATIONS OF PIPING, DUCTWORK, STRUCTURAL MEMBERS, AND OTHER OBSTRUCTIONS. INSTALL THE ELECTRICAL SYSTEMS SO AS NOT TO INTERFERE WITH THE INSTALLATION OR FUNCTION OF ANY WORK BY ANOTHER DISCIPLINE.
3. ALL DIMENSIONS OF EXISTING DEVICES AND EQUIPMENT ARE APPROXIMATE. CONTRACTOR SHALL MAKE ALL NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURES AND EQUIPMENT TO VERIFY DIMENSIONS SHOWN ON THE PLANS. ALL ADDED COSTS TO MODIFY NEW CONSTRUCTION DUE TO A LACK OF COORDINATION AND FIELD MEASUREMENTS SHALL BE BORNE BY THE CONTRACTOR.
4. PROVIDE ADDITIONAL SUPPORT FOR SWITCHES, STARTERS, RACEWAY, GROUNDING SYSTEMS, AND OTHER ELECTRICAL EQUIPMENT WHEREVER THE BUILDING CONSTRUCTION IS NOT SUITABLE FOR DIRECT MOUNTING.
5. ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS, AND CEILINGS SHALL BE SEALED WITH FIRE STOPPING MATERIAL EQUAL TO THOMAS AND BETTS U.L. LISTED FLAME-SAFE FIRE STOP SYSTEM.
6. COORDINATE ALL EQUIPMENT WIRING WITH MFR'S REQUIREMENTS. CHANGES REQUIRED FROM THE USE OF PRODUCTS THAT ARE OTHER THAN THE BASIS OF DESIGN SHALL BE BORNE BY THE CONTRACTOR.
7. SIZING OF BRANCH CIRCUITS AND FEEDERS FOR EQUIPMENT IS BASED ON DESIGN LOADS. PRIOR TO INSTALLATION, CONFIRM EXACT LOADS WITH RELEASED SHOP DRAWINGS. BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER PRIOR TO ROUGH-IN.
8. BRANCH CIRCUITS SHALL BE WIRED WITH 3/4"C, 2-#12, 1-#12G, UNLESS NOTED OTHERWISE. NEUTRAL CONDUCTORS SHALL NOT BE SHARED ON BRANCH CIRCUITS.
9. EXCEPT WHERE NOTED OTHERWISE, SIZE BRANCH CIRCUIT CONDUCTORS WITHIN THE FOLLOWING MAXIMUM LENGTH LIMITS: (MEASURE TO THE CENTER OF THE LOAD FOR LIGHTING AND TO THE MOST REMOTE OUTLET FOR RECEPTACLE CIRCUITS.)

CIRCUIT BREAKER	CIRCUIT LENGTH	CONDUCTOR SIZE
120V, 20 A	100 FEET	#12
	150 FEET	#10
	200 FEET	#8

10. PROVIDE #12 AWG MINIMUM FOR BRANCH CIRCUITS. PROVIDE ADDITIONAL DERATING PER N.E.C. TABLES 310-16 THROUGH 310-31 FOR ALL HOME RUNS WITH MORE THAN THREE CURRENT CARRYING CONDUCTORS IN A RACEWAY.
11. FOR EQUIPMENT THAT IS TO BE FURNISHED BY OTHERS AND WIRED BY THIS CONTRACTOR, REVIEW ALL SPECIFICATION SECTIONS, EQUIPMENT SCHEDULES, AND/OR DRAWING DETAILS THAT PERTAIN TO THIS EQUIPMENT AND INCLUDE ALL WIRING AND DEVICES REFERENCED. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF THIS EQUIPMENT WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN/ INSTALLATION.
12. CONDUIT, BOXES, AND WIRING DEVICES IN ALL AREAS SHALL BE INSTALLED IN CONCEALED SPACES OR RECESSED IN WALLS UNLESS IN MECHANICAL/ELECTRICAL EQUIPMENT ROOMS OR AS DIRECTED BY THE ARCHTECT/ENGINEER.
13. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ROUGH-IN OF TEMPERATURE CONTROL DEVICES. CONTRACTOR SHALL PROVIDE AND INSTALL BACK BOXES AND CONDUIT WITH BUSHING TO NEAREST ACCESSIBLE CEILING. REFER TO MECHANICAL DRAWINGS FOR LOCATIONS. COORDINATE WITH MECHANICAL CONTRACTOR.
14. ALL HVAC CONTROL WIRING SHALL BE THE RESPONSIBILITY OF THE HVAC CONTRACTOR UNLESS NOTED OTHERWISE.

ELECTRICAL ABBREVIATIONS SCHEDULE

A OR AMP	AMPERE	EWH	ELECTRICAL WATER HEATER	MH	METAL HALIDE	UNO	UNLESS NOTED OTHERWISE
AC	ABOVE COUNTER	EXIST	EXISTING	MIN	MINIMUM	UPS	UNINTERRUPTIBLE POWER SUPPLY
A/E	ARCHITECT/ENGINEER	EXT	EXTERIOR	MISC	MISCELLANEOUS	V	VOLTAGE
AFF	ABOVE FINISHED FLOOR	F	FURNACE	MO	MASONRY OPENING	VAV	VARIABLE AIR VOLUME
AFG	ABOVE FINISHED GRADE	FA	FIRE ALARM	#	NUMBER	VERT	VERTICAL
AHU	AIR HANDLING UNIT	FAA	FIRE ALARM ANNUNCIATOR	NC	NORMALLY CLOSED	VFD OR VSD	VARIABLE FREQUENCY DRIVE
ALT	ALTERNATE	FACP	FIRE ALARM CONTROL PANEL	NIC	NOT IN CONTRACT	W	WATT
APPROX	APPROXIMATELY	FCU	FAN COIL UNIT	N/L	NIGHT LIGHT	W/	WITH
AWG	AMERICAN WIRE GAUGE	FDN	FOUNDATION	NO	NORMALLY OPEN	WG	WIRE GUARD
BLDG	BUILDING	FIN	FINISH	NOM	NOMINAL	W/O	WITHOUT
BLKG	BLOCKING	FL	FLUORESCENT	NTS	NOT TO SCALE	WP	WATERPROOF
BTM	BOTTOM	FT	FOOT	OAC	OPENING ABOVE CEILING	XFRMR	TRANSFORMER
C	CONDUIT	FT-C	FOOT CANDLE	OC	ON CENTER	YD	YARD
CB	CIRCUIT BREAKER	G OR EGC	GROUND	OD	OUTSIDE DIAMETER	YR	YEAR
CL	CENTERLINE	GA	GAUGE	OP	OVERHEAD POWER LINES		
CFM	CUBIC FEET PER MINUTE	GFCI OR GFI	GROUND FAULT CIRCUIT INTERRUPTER	LB	POUND		
CUH	CABINET UNIT HEATER	GRC	GALVANIZED RIGID CONDUIT	PH	PHASE		
CLG	CEILING	GWH	GAS WATER HEATER	PC	PLUMBING CONTRACTOR		
CMU	CONCRETE MASONRY UNIT	HT	HEIGHT	PIV	POST INDICATING VALVE		
COL	COLUMN	HORIZ	HORIZONTAL	PVC	POLYVINYL CHLORIDE		
CONC	CONCRETE	HPS	HIGH PRESSURE SODIUM	R	RADIUS		
CONC BLK	CONCRETE BLOCK	HR	HOUR	REQ OR REQ'D	REQUIRED		
CONST	CONSTRUCTION	ID	INSIDE DIAMETER	RM	ROOM		
CONTR	CONTRACTOR	IG	ISOLATED GROUND	RO	ROUGH OPENING		
Cu	COPPER	IMC	INTERMEDIATE METAL CONDUIT	RTU	ROOF TOP UNIT		
DC	DIRECT CURRENT	INSUL	INSULATION	SCHED	SCHEDULE		
DIA	DIAMETER	INT	INTERIOR	SIM	SIMILAR		
DEG	DEGREE	INFO	INFORMATION	SPEC	SPECIFICATION		
DET	DETAIL	KCMIL	THOUSAND CIRCULAR MILLS	SQ	SQUARE		
DIM	DIMENSION	KVA	KILOVOLT-AMPERE	SS	STAINLESS STEEL		
DWG	DRAWING	KWH	KILOWATT-HOUR	STD	STANDARD		
EC	ELECTRICAL CONTRACTOR	KW	KILOWATT	STL	STEEL		
EF	EXHAUST FAN	LP	LIGHT POLE	SUSP	SUSPEND		
ELEC	ELECTRICAL	MAU	MAKE-UP AIR UNIT	TCP	TEMPERATURE CONTROL PANEL		
ELEV	ELEVATION	MAX	MAXIMUM	TS	TEACHER'S STATION		
EM	EMERGENCY	MC	MECHANICAL CONTRACTOR	TTB	TELEPHONE TERMINAL BOARD		
EMT	ELECTRICAL METALLIC TUBING	MCC	MOTOR CONTROL CENTER	TYP	TYPICAL		
EQ	EQUAL	MCM	THOUSAND CIRCULAR MILLS	UH	UNIT HEATER		
EWC	ELECTRIC WATER COOLER	MFR	MANUFACTURER	UL	UNDERWRITERS LABORATORIES		

ELECTRICAL SYMBOLS SCHEDULE

* NOT ALL SYMBOLS USED IN THIS PROJECT

	RECESSED PANELBOARD
	SURFACE MOUNTED PANELBOARD
MCC-X	MOTOR CONTROL CENTER; "X" DENOTES EQUIPMENT TAG.
T-XX	TRANSFORMER: "XX" INDICATES TRANSFORMER TAG. REFER TO SCHEDULES AND/OR RISER DIAGRAM
XXA	FUSIBLE DISCONNECT: "XXA" DENOTES MAX. AMPACITY OF DISCONNECT
XXA	NON-FUSIBLE DISCONNECT: "XXA" DENOTES MAX. AMPACITY OF DISCONNECT
CB XXA	ENCLOSED CIRCUIT BREAKER, SIZE INDICATES BY "XXA" DENOTES FRAME SIZE.
MS-XX	COMBINATION MOTOR STARTER AND FUSED DISCONNECT SWITCH: MS-XX DENOTES STARTER TAG, REFER TO MOTOR STARTER SCHEDULE.
VFD	VARIABLE FREQUENCY/SPEED DRIVE. PROVIDED BY MECHANICAL CONTRACTOR: INSTALLED BY ELECTRICAL CONTRACTOR.
T XXAF	COOPER INDUSTRIES MOTOR GUARD WITH 15A TOGGLE SWITCH AND EDISON BASE FUSE HOLDER. "XXAF" DENOTES THE OVERCURRENT PROTECTION FOR FUSEHOLDER
	RED MUSHROOM HEAD EMERGENCY POWER OFF BUTTON
T	LINE VOLTAGE THERMOSTAT; THERMOSTAT PROVIDED BY MECHANICAL CONTRACTOR, ROUGH-IN AND INSTALLATION BY ELECTRICAL CONTRACTOR.
M	MOTOR CONNECTION
J X	JUNCTION BOX; "X" DENOTES LOCATION (CLG = CEILING MOUNTED)
X	120 V, 20 AMP DUPLEX RECEPTACLE 16" A.F.F., UNO. "X" DENOTES RECEPTACLE TYPE. SEE RECEPTACLE TYPES BELOW.
X	120 V, 20 AMP DUPLEX RECEPTACLE AT 44"A.F.F. OR 6" ABOVE CASEWORK SURFACE, UNO. "X" DENOTES RECEPTACLE TYPE. SEE RECEPTACLE TYPES BELOW.
	120 V, 20 AMP DUPLEX RECEPTACLE WITH 2 PORT USB, 16" A.F.F., UNO

RECEPTACLE TYPES

"C"	RECEPTACLE MOUNTED IN CEILING
"G"	RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER AT 16" A.F.F., UNO.
"WP"	RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER AND "WHILE-IN-USE" WEATHER RESISTANT COVERPLATE MOUNTED HORIZONTAL AT 24" A.F.F., UNO.
	HORIZONTALLY MOUNTED SURFACE RACEWAY
	VERTICALLY MOUNTED SURFACE RACEWAY
TCP	TEMPERATURE CONTROL PANEL; PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR

	CIRCUIT HOME RUN TO PANELBOARD
$X	SWITCH, "X" DENOTES SWITCH TYPE. SEE SWITCH TYPES BELOW.
$x	SWITCH, "x" DENOTES SWITCHING FOR LIGHTS.

SWITCH TYPES

"2"	120/277 V, DOUBLE POLE 20 AMP AC SWITCH
"3"	120/277 V, THREE WAY 20 AMP AC SWITCH
"4"	120/277 V, FOUR WAY 20 AMP AC SWITCH
"D"	120/277 V, 0-10V DIMMER SWITCH
"P"	120/277 V, 20 AMP AC SWITCH WITH PILOT LIGHT
"S"	120/277 V, SPECIAL PURPOSE SWITCH
"T"	120/277 V, TIMER SWITCH
"TP"	120/277 V, MANUAL MOTOR STARTER SWITCH WITH PILOT LIGHT AND THERMAL OVERLOAD PROTECTION
XX ab	LIGHT FIXTURE, "XX" DENOTES FIXTURE TYPE, ab DENOTES SWITCHING
EM	WALL MOUNTED EMERGENCY LIGHT FIXTURE
EM	CEILING MOUNTED EMERGENCY LIGHT FIXTURE
EX	UNIVERSAL CEILING MOUNT EXIT LIGHT WITH DIRECTIONAL ARROW
EX	UNIVERSAL CEILING MOUNT EXIT LIGHT WITH DIRECTIONAL ARROWS
EX	UNIVERSAL CEILING MOUNT EXIT LIGHT WITHOUT DIRECTIONAL ARROWS
EXM	UNIVERSAL CEILING MOUNT EXIT LIGHT WITH EMERGENCY LIGHTING AND WITHOUT DIRECTIONAL ARROWS
EXM	UNIVERSAL CEILING MOUNT EXIT LIGHT WITH EMERGENCY LIGHTING AND WITH DIRECTIONAL ARROW
EX	UNIVERSAL WALL MOUNT EXIT LIGHT WITH DIRECTIONAL ARROW
EX	UNIVERSAL WALL MOUNT EXIT LIGHT WITH DIRECTIONAL ARROWS
EX1	UNIVERSAL WALL MOUNT EXIT LIGHT WITHOUT DIRECTIONAL ARROWS
EXM	UNIVERSAL WALL MOUNT EXIT LIGHT WITH EMERGENCY LIGHTING AND WITHOUT DIRECTIONAL ARROWS
EXM	UNIVERSAL WALL MOUNT EXIT LIGHT WITH EMERGENCY LIGHTING AND WITH DIRECTIONAL ARROW
X / Y	CALL OUT; "X" DENOTES DETAIL NUMBER, "Y" DENOTES DRAWING SHEET NUMBER

F T	FIRE ALARM CEILING MOUNTED HEAT DETECTOR
F	FIRE ALARM DUCT MOUNTED SMOKE DETECTOR, VERIFY QUANTITY WITH DUCT CONFIGURATION
F	FIRE ALARM HORN/VISUAL, 80" A.F.F., UNO.
WG F V	FIRE ALARM VISUAL, 80" A.F.F., UNO. "WG" DENOTES WIRE GUARD
WP F	FIRE ALARM VISUAL, 80" A.F.F., UNO. "WP" DENOTES WEATHER PROOF.
F	FIRE ALARM MANUAL PULL STATION, 44" A.F.F., UNO
F	FIRE ALARM MANUAL PULL STATION AT 44" A.F.F. AND HORN/VISUAL AT 80" A.F.F., UNO.
F SD	FIRE ALARM SMOKE DAMPER, MOUNTED DETECTOR NEAR DAMPER, WITH SET OF NORMALLY OPEN CONTACTS
T F	FIRE SUPPRESSION TAMPER/ FLOW MONITOR MODULE
MM	MONITOR MODULE
FACP	FIRE ALARM CONTROL PANEL
FAA	FIRE ALARM ANNUNCIATOR PANEL
RTS	FIRE ALARM REMOTE TEST STATION
NAC	FIRE ALARM NOTIFICATION APPLIANCE CIRCUIT PANEL
X	DATA OUTLET; MOUNTED AT +16" AFF, UNO, "X" DENOTES NUMBER OF DROPS

PANEL DESIGNATION: HV NEW
MOUNTING TYPE: SURFACE
PANEL REMARKS:
HINGED DOOR WITHIN HINGED COVER, COPPER BUS, 100% RATED NEUTRAL BUS

MCB: 225 AMPERE
K.A.I.C.: 18
FED FROM: EXISTING FEEDER

VOLTAGE: 277/480
PHASE: 3
WIRE: 4+G

REMARKS	CKT NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE	CKT NO	REMARKS
	1			3050 / 0					2	
	3	20A/3P	PUMP P-1 7.5 HP -		3050 / 0		SPARE	15A/3P	4	
	5					3050 / 0			6	
	7			3050 / 0					8	
	9	20A/3P	PUMP P-2 7.5 HP		3050 / 0		SPARE	40A/3P	10	
	11					3050 / 0			12	
	13	X A/1P	SPACE	0 / 2000			PC LIGHT - FRONT BLDG	20A/1P	14	1
1	15	20A/1P	CONTROL XFMR		500 / 2000		LIGHTING - FRONT BLDG	20A/1P	16	1
	17					5000 / 3050			18	
	19	20A/3P	RTU1	5000 / 3050			CHW PUMP CP-1	20A/3P	20	2
	21				5000 / 3050				22	
	23	X A/1P	SPACE			0 / 3050			24	
1	25			12000 / 3050			CHW PUMP CP-2	20A/3P	26	2
1	27	70A/3P	RTU		12000 / 3050				28	
1	29					12000 / 0	SPACE	20A/1P	30	
				31,200	31,700	29,200				

REMARKS
1. EXISTING LOAD TO BE RECONNECTED TO NEW PANEL/BREAKER.
2. NEW LOAD.

1

EQUIPMENT SCHEDULE

EQUIPMENT DESIGNATION	EQUIPMENT LOCATION	EQUIPMENT LOAD	VOLTAGE/PHASE	CIRCUIT INFORMATION: CONDUIT AND CONDUCTOR SIZE	CIRCUIT INFORMATION: BRANCH CIRCUIT DESIGNATION	DISCONNECT: PROVIDED BY	DISCONNECT: FUSED OR NON-FUSED	DISCONNECT: NEMA ENCLOSURE	DISCONNECT: DISCONNECT SWITCH SIZE	DISCONNECT: FUSE RATING	EQUIPMENT MOUNTED CONTROL PANEL	VARIABLE FREQUENCY/SPEED DRIVE (VFD/VSD): PROVIDED BY	VFD/VSD: INSTALLED BY	SOLID STATE MOTOR STARTER: PROVIDED BY	SSMS: NEMA SIZE	SSMS: CONTROL	SSMS: TYPE	SSMS: DISCONNECT SWITCH SIZE	SSMS: FUSE RATING	SSMS: NEMA ENCLOSURE	REMARKS
RTU-1	ROOF	2 HP	480V/3PH	3/4"C, 4-#10, 1-#10 GROUND	HV-17(19,21)	INT	NF	3R				INT									7
RCP-1	LL BOYS RR	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	A-36	EC	NF	1	20/1	NF											2, 4
RCP-2	LL GIRLS RR	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	A-36	EC	NF	1	20/1	NF											2, 4
RCP-3	LL BOYS RR	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	F-29	EC	NF	1	20/1	NF											2, 4
RCP-4	LL GIRLS RR	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	F-29	EC	NF	1	20/1	NF											2, 4
RCP-5	LL KITCHEN RR	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	S-21	EC	NF	1	20/1	NF											2, 4
RCP-6	1ST FLR BOYS RR	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	1A-34	EC	NF	1	20/1	NF											2, 4
RCP-7	1ST FLR GIRLS RR	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	1A-34	EC	NF	1	20/1	NF											2, 4
RCP-8	1ST FL ELEV L	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	1A-32	EC	NF	1	20/1	NF											2, 4
RCP-9	2ND FLR BOYS RR	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	2B-	EC	NF	1	20/1	NF											2, 4
RCP-10	2ND FLR GIRLS RR	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	2B-	EC	NF	1	20/1	NF											2, 4
RCP-11	2ND FL ELEV L	750 W	120V/1PH	3/4"C, 2-#12, 1-#12 GROUND	2A-	EC	NF	1	20/1	NF											2, 4
CUH-1	DOOR 1 VEST	5	208V/1PH	3/4"C, 3-#10, 1-#10 GROUND	ES-23(25)	EC	NF	1	30/2	NF											3. 5
CUH-2	DOOR 2 VEST	3	208V/1PH	3/4"C, 3-#12, 1-#12 GROUND	A-39(41)	EC	NF	1	30/2	NF											3, 6
CUH-3	DOOR 3 VEST	5	208V/1PH	3/4"C, 3-#10, 1-#10 GROUND	A-38(40)	EC	NF	1	30/2	NF											3, 5
CUH-4	DOOR 4 VEST	5	208V/1PH	3/4"C, 3-#10, 1-#10 GROUND	F-25(27)	EC	NF	1	30/2	NF											3, 5
CUH-5	DOOR 5 VEST	2	208V/1PH	3/4"C, 3-#12, 1-#12 GROUND	S-22(24)	EC	NF	1	30/2	NF											3, 6
CUH-6	DOOR 6 VEST	4	208V/1PH	3/4"C, 3-#10, 1-#10 GROUND	G-38(40)	EC	NF	1	30/2	NF											3, 5
P-1	BOILER RM	7.5 HP	480V/3PH	3/4"C, 3-#12, 1-#12 GROUND	HV-1(3,5)							TCC	EC								1, 7
P-2	BOILER RM	7.5 HP	480V/3PH	3/4"C, 3-#12, 1-#12 GROUND	HV-7(9,11)							TCC	EC								1
CP-1	BOILER RM	7.5 HP	480V/3PH	3/4"C, 3-#8, 1-#10 GROUND	HV-18(20,22)							TCC	EC								1, 7
CP-2	BOILER RM	7.5 HP	480V/3PH	3/4"C, 3-#8, 1-#10 GROUND	HV-24(26,28)							TCC	EC								1, 7

SCHEDULE ABBREVATIONS

A	AMPACITY	HL	HIGH/LOW SWITCH	MCA	MIN CIRCUIT AMPACITY	XA/YP	X AMP CIRCUIT BREAKER, Y POLE
EC	ELECTRICAL CONTRACTOR	HLO	HIGH/LOW/OFF SWITCH	MHL	MOMENTARY HIGH/LOW SWITCH	XAF	SWITCH WITH X AMP FUSE(S)
EX	EXISTING EQUIPMENT	HOA	HAND/OFF/AUTO	MHLO	MOMENTARY HIGH/LOW/OFF SWITCH		
F	FUSED	HP	HORSE POWER	NF	NON-FUSED		
FLA	FULL LOAD AMPS	INT	INTEGRAL WITH EQUIPMENT	O	OWNER FURNISHED AND INSTALLED		
FVNR	FULL VOLTAGE NON-REVERSING	LOR	LOCAL/OFF REMOTE SWITCH	RLA	RUNNING LOAD AMPS		
FVR	FULL VOLTAGE REVERSING	M	MOMENTARY ON/OFF SWITCH	S	ON/OFF SWITCH		
G	GENERAL CONTRACTOR	MC	MECHANICAL CONTRACTOR	W	WATTS		

REMARKS
1. PROVIDE AND INSTALL A 4 CONDUCTOR SHIELDED VFD 1000V UL FLEXIBLE MOTOR SUPPLY CABLE IN CONDUIT FROM THE LOAD SIDE OF THE VARIABLE FREQUENCY DRIVE TO MOTOR.
2. PROVIDE AND INSTALL LOCAL TOGGLE DISCONNECT SWITCH WITH EQUIPMENT LABEL.
3. CONNECT MECHANICAL EQUIPMENT THROUGH LINE VOLTAGE THERMOSTAT. THERMOSTAT PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
4. PROVIDE AND INSTALL 120V, 20A/1P BREAKER IN EXISTING PANEL.
5. PROVIDE AND INSTALL 208V, 20A/2P BREAKER IN EXISTING PANEL.
6. PROVIDE AND INSTALL 208V, 30A/2P BREAKER IN EXISTING PANEL.
7. PROVIDE AND INSTALL 480V, 20A/3P BREAKER IN EXISTING PANEL HV (SQ D TYPE NEHB)

PRIMARY ENGINEERING INC
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1 ADDENDUM #2 08-12-22

F W C S
WE ARE YOUR SCHOOLS

FORT WAYNE COMMUNITY SCHOOLS
ESSER 2023 BOILER/CHILLER REPAIRS

Mechanical Projects
Fort Wayne, Indiana

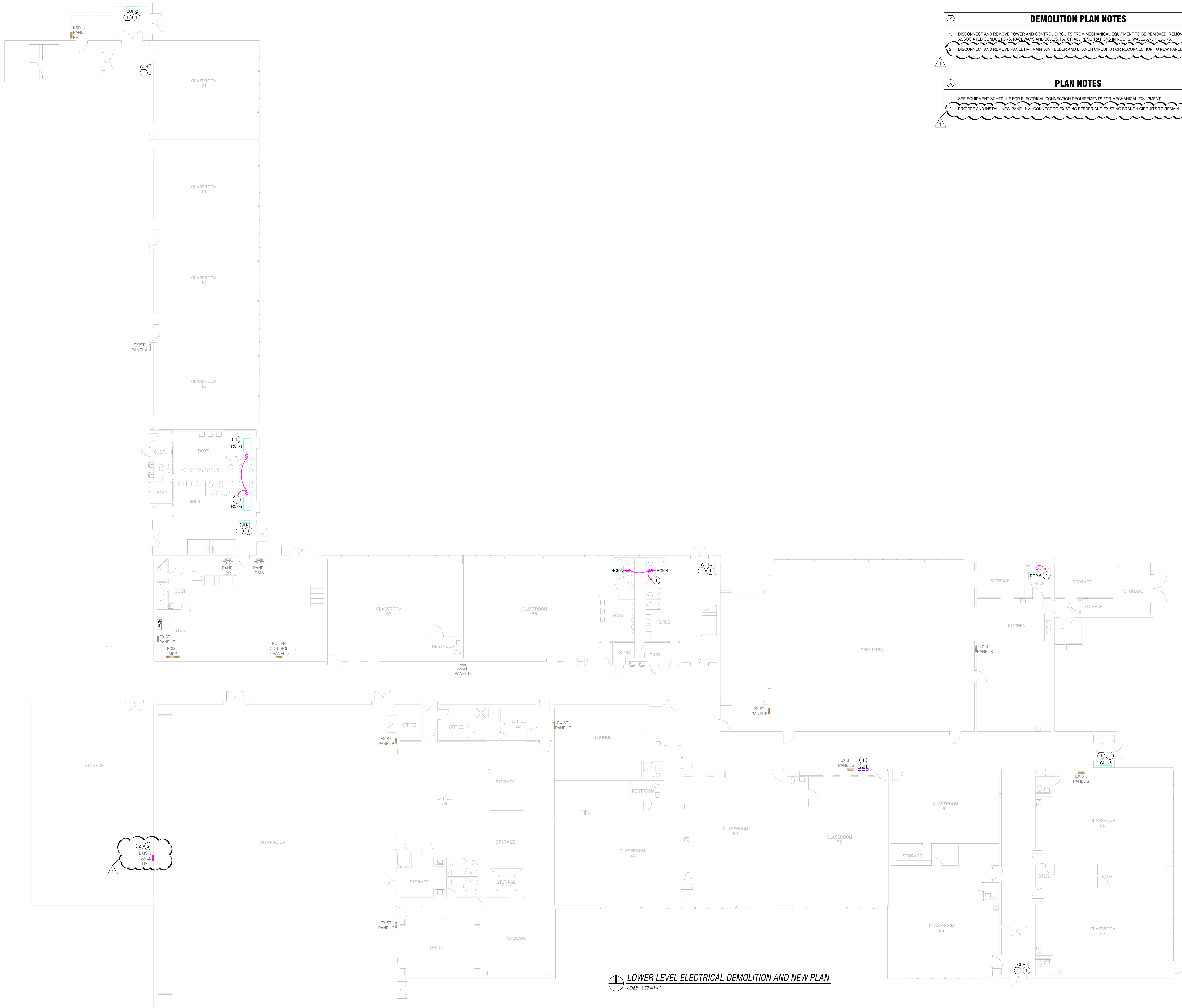
CERTIFICATION:
ANDREW STEPHEN LOUDERBACK
REGISTERED
PE11700017
STATE OF INDIANA
PROFESSIONAL ENGINEER

DATE: 7/25/2022
COMM: 21281

SCHOOL: Fairfield Elementary School
2825 Fairfield Ave.
Fort Wayne Indiana 46807

TITLE:
ELECTRICAL INFORMATION SHEET

SHEET:
FA-E001



LOWER LEVEL ELECTRICAL DEMOLITION AND NEW PLAN

SCALE: 3/32"=1'-0"

SCALE: 1/16" = 1'-0" SCALE: 3/32" = 1'-0" SCALE: 1/8" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0" SCALE: 1" = 1'-0"

DEMOLITION PLAN NOTES

1. DISCONNECT AND REMOVE POWER AND CONTROL CIRCUITS FROM MECHANICAL EQUIPMENT TO BE REMOVED. REMOVE ALL ASSOCIATED CONDUCTORS, RACEWAYS AND BOXES. PATCH ALL PENETRATIONS IN ROOFS, WALLS AND FLOORS.
2. DISCONNECT AND REMOVE PANEL HV. MAINTAIN FEEDER AND BRANCH CIRCUITS FOR RECONNECTION TO NEW PANEL.

PLAN NOTES

1. SEE EQUIPMENT SCHEDULE FOR ELECTRICAL CONNECTION REQUIREMENTS FOR MECHANICAL EQUIPMENT.
2. PROVIDE AND INSTALL NEW PANEL HV. CONNECT TO EXISTING FEEDER AND EXISTING BRANCH CIRCUITS TO REMAIN.

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1 ADDENDUM #2 08-12-22

FWCS WE ARE YOUR SCHOOLS

FORT WAYNE COMMUNITY SCHOOLS ESSER 2023 BOILER/CHILLER REPAIRS

Fort Wayne, Indiana

CERTIFICATION:

ANDREW STEPHEN LOUDERBACK REGISTERED PE11700017 STATE OF INDIANA PROFESSIONAL ENGINEER

DATE: 07-25-2022

COMM: 21281

FILE: 281FA-E102

SCHOOL: Fairfield Elementary School
2825 Fairfield Ave.
Fort Wayne Indiana 46807

TITLE: LOWER LEVEL ELECTRICAL DEMOLITION AND NEW PLAN

SHEET: FA-E102

GAS REGULATOR SCHEDULE

TAG	MFR.	MODEL	CAPACITY (CFH)	TURNDOWN	INLET (PSI)	INLET SIZE (IN)	OUTLET (IN WC)	OUTLET SIZE (IN)	LOCATION	REMARKS
GR-1	PIETRO FIORENTINI	30150-OPD	2000	500:1	5	1"	11	2"	B-1	1, 2, 3
GR-2	PIETRO FIORENTINI	30150-OPD	2000	500:1	5	1"	11	2"	B-2	1, 2, 3
GR-3	SENSUS	121	200	10:1	5	3/4"	11	1"	GWH	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH VENT PIPED TO EXTERIOR.
2. VERIFY EXACT REGULATOR SIZE BASED ON ACTUAL EQUIPMENT INSTALLED PRIOR TO ORDERING.
3. PROVIDE WITH EXTERNAL DOWNSTREAM CONTROL LINE, FIELD INSTALLED.

GENERAL MECHANICAL EQUIPMENT SCHEDULE

TAG: CT-1
TYPE: CONDENSATE NEUTRALIZATION TANK
MFR: TOWN & COUNTRY PLASTICS
MODEL: NT-1
PERFORMANCE: 2 GALLON HDPE DILUTION TANK.
REMARKS:
1. PROVIDE AND INSTALL WITH POLYPROPYLENE COVER.
2. PROVIDE AND INSTALL WITH 1-1/2" INLET AND OUTLET CONNECTIONS.

TAG: FS-1
TYPE: SQUARE CAST IRON FLOOR SINK
MFR: ZURN
MODEL: ZN1910-K
PERFORMANCE: 8"x8" SQUARE SUMP 6" DEEP
REMARKS:
1. PROVIDE AND INSTALL WITH NICKLE BRONZE HALF GRATE AND INTERNAL DOME STRAINER.
2. REFER TO PLANS FOR SIZES

TAG: CO-1
TYPE: SQUARE CAST IRON FLOOR SINK
MFR: ZURN
MODEL: ZN1400-B
PERFORMANCE:
REMARKS:
1. PROVIDE AND INSTALL WITH NICKLE BRONZE COVER AND ABS PLUG.
2. REFER TO PLANS FOR SIZES

BUFFER TANK SCHEDULE

TAG	MFR.	MODEL	SERVICE	TANK VOL (GAL)	DIA. (IN)	HEIGHT (IN)	CONN. SIZE (IN)	SHIP WT (LBS)	TANK FULL WT (LBS)	REMARKS
BT-1	AMTROL	CWBT300-4-150	CHILLED	300	36	80.375	4	828	3336	1, 2, 3
BT-2	AMTROL	CWBT300-4-150	HOT	300	36	80.375	4	828	3336	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH AUTOMATIC AIR VENT ON TOP OF TANK AND DRAIN PORT ON BOTTOM.
2. BAFFEL PLATE SHALL BE WELDED IN PLACE.
3. TANK SHALL BE ASME RATED FOR 150 PSI.

1

BOILER SCHEDULE

TAG	MFR.	MODEL	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	THERMAL EFF (%)	FUEL	BURNER TURNDOWN	T&P RELIEF PRESS (PSI)	FUEL PRESS. (IN W.C.)	GAS CONN (IN)	WATER CONN (IN)	FLUE OUTLET (IN)	FLUE MATL.	DESIGN FLOW (GPM)	MIN FLOW (GPM)	WATER PD (FT)	TEMP RISE (DEG F)	ELEC (V/PH)	MCA	REMARKS
B-1	AERCO	BMK 2000	2000	1860	93.0%	NAT. GAS	20:1	50	4 - 14	2	4	8	PP/AL29-4C	180	25	8	20	120/1	16	1, 2, 3, 4, 5, 6
B-2	AERCO	BMK 2000	2000	1860	93.0%	NAT. GAS	20:1	50	4 - 14	2	4	8	PP/AL29-4C	180	25	8	20	120/1	16	1, 2, 3, 4, 5, 6

REMARKS:
1. PROVIDE AND INSTALL WITH LOW WATER CUT-OFF.
2. PROVIDE AND INSTALL WITH PACKAGED CONTROLS.
3. BOILERS SHALL BE PROVIDED WITH INTEGRAL SEQUENCER TO CONNECT ALL BOILERS INTO A COMMON TEAM. PROVIDE ALL ASSOCIATED CONTROLLERS, WIRING, PROGRAMMING, SETUP, ETC. FOR A FULLY FUNCITONAL SYSTEM IN EVERY RESPECT.
4. BOILER MFR SHALL VERIFY ALL FLUE/INTAKE SIZING AND ROUTING.
5. PROVIDE AND INSTALL BACNET MSTP INTERFACE.
6. PROVIDE AND INSTALL SAFETY RELIEF VALVE.

EXPANSION TANK SCHEDULE

TAG	MFR.	MODEL	SERVICE	APPROX SYS VOL (GAL)	PRE-CHARGE (PSIG)	CALC. ACCEPT FACTOR	TANK VOL. (GAL)	ACCEPT. VOL (GAL)	DIA. (IN)	HEIGHT (IN)	CONN. SIZE (IN)	TANK FULL WT (LBS)	REMARKS
ET-1	BELL & GOSSETT	B-500	DUAL TEMP SYSTEM			0.618	132	82	30	57	3/4	1435	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH LINE SIZE T&P RELIEF VALVE ON INLET.
2. ALL TANKS SHALL BE ASME STAMPED.
3. CONTRACTOR MUST VERIFY THE SYSTEM STATIC WATER PRESSURE PRIOR TO INSTALLING TANK AND ADJUST PRE-CHARGE AS REQUIRED.

WATER FLOW/ENERGY METER SCHEDULE

TAG	MFR.	FLOW METER	SENSOR TYPE	DISPLAY	FLUID	PIPE SIZE (IN)	DESIGN NOMINAL FLOW (GPM)	MIN / MAX FLOW (GPM)	REQ PIPE DIA UP /DOWN STREAM	ACCURACY (% OF FLOW RATE)	ELEC (V/PH)	REMARKS
FM-1	BADGER	M2000	ELECTROMAG	INTEGRAL	WATER			8.4 / 3358	7D / 2D	0.2 %	24 VDC	1, 2, 3, 4, 5

REMARKS:
1. BODY SHALL BE EPOXY COATED CARBON STEEL WITH PTFE LINER.
2. PROVIDE WITH DISPLAY UNIT.
3. CONTRACTOR SHALL VERIFY REQUIRED UPSTREAM AND DOWNSTREAM MINIMUM STRAIGHT PIPE REQUIREMENTS DURING INSTALL.
4. PROVIDE FACTORY AUTHORIZED TECHNICIAN TO CALIBRATE AND CONFIGURE METER FOR SPECIFIC PIPE/FLUID PARAMETERS.
5. FURNISHED BY TCC. TCC SHALL PROVIDE POWER TRANSFORMER DEDICATED TO POWER FLOWMETER.

HYDRONIC PUMP SCHEDULE

TAG	MFR.	MODEL	FRAME SIZE	IMPELLER DIA (IN)	FLUID	FLOW (GPM)	HEAD (FT)	MOTOR (HP)	MOTOR (BHP)	EFF (+/- 5%)	MOTO R RPM	ELEC (V/PH)	SERVICE	REMARKS
P-3	BELL & GOSSETT	E80-3x3x7C	182J	6.5	WATER	180	35	3.0	2.38	74.5	1750	208/3	B-1	1, 2, 3, 4
P-4	BELL & GOSSETT	E80-3x3x7C	182J	6.5	WATER	180	35	3.0	2.38	74.5	1750	208/3	B-2	1, 2, 3, 4

REMARKS:
1. ALL MOTORS SHALL BE NON-OVERLOADING.
2. MOTOR SHALL BE MULTI-TAP 460/240/208 BALDOR SUPER-E WITH INTEGRAL SHAFT GROUNDING RING AND COMPLY WITH NEMA MG1 FOR VARIABLE SPEED OPERATION.
3. MOTOR SHALL HAVE CLASS F INSULATION FOR USE WITH VARIABLE SPEED DRIVE.
4. MFR SHALL ALIGN PUMP SHAFT IN THE FIELD, PRIOR TO START-UP. PROVIDE WRITTEN REPORT OF ALIGNMENT AND STARTUP.

EXHAUST FAN SCHEDULE

TAG	SERVICE	MFR.	MODEL	CFM	TSP (IN W.C.)	MOTOR (HP)	MOTOR (BHP)	RPM	DRIVE TYPE	SONES	ELEC (V/PH)	CONTROL	REMARKS
EF-1	REFRIGERANT PURGE	GREENHECK	SQ-18-07-0700-B	3000	1.0	1.0	0.92	1160	DIRECT	13.7	208/1	TCC	1, 2

REMARKS:
1. PROVIDE AND INSTALL WITH FACTORY WIRED NEMA-1 ELECTRICAL DISCONNECT SWITCH.
2. PROVIDE AND INSTALL WITH NEOPRENE VIBRATION ISOLATOR HANGERS.

NOTES:
TCC = TEMPERATURE CONTROL CONTRACTOR.
EC = ELECTRICAL CONTRACTOR.
ECM BMS = ECM MOTOR CONTROLLED BY BMS REMOTE SPEED SETPOINT (4-20 MA)
ECM FIXED = ECM MOTOR CONTROLLED BY START/STOP WITH A FIXED SPEED SETPOINT ON THE MOTOR
ECM REMOTE = ECM MOTOR CONTROLLED BY REMOTE WALL SPEED CONTROL KNOB

ROOF CAP SCHEDULE

TAG	MFR.	MODEL	THROAT SIZE (IN x IN)	FUNCTION	AIRFLOW (CFM)	MAX P.D. (IN)	MAX HOOD VEL (FPM)	MATERIAL	REMARKS
RC-1	GREENHECK	FGR	20x20	RELIEF	3000	0.28	1075	ALUMINUM	1, 2, 3, 4
RC-2	GREENHECK	FGI	20x20	INTAKE	3000	0.27	530	ALUMINUM	1, 2, 3, 4

REMARKS:
1. PROVIDE WITH ALUMINUM WIRE MESH BIRD SCREEN.
2. PROVIDE WITH HINGED TOP AND LOCKDOWN FASTENER.
3. PROVIDE AND INSTALL WITH BACKDRAFT DAMPER.
4. PROVIDE WITH INSULATED 18" TALL ROOF CURB.

HOT WATER UNIT HEATER SCHEDULE

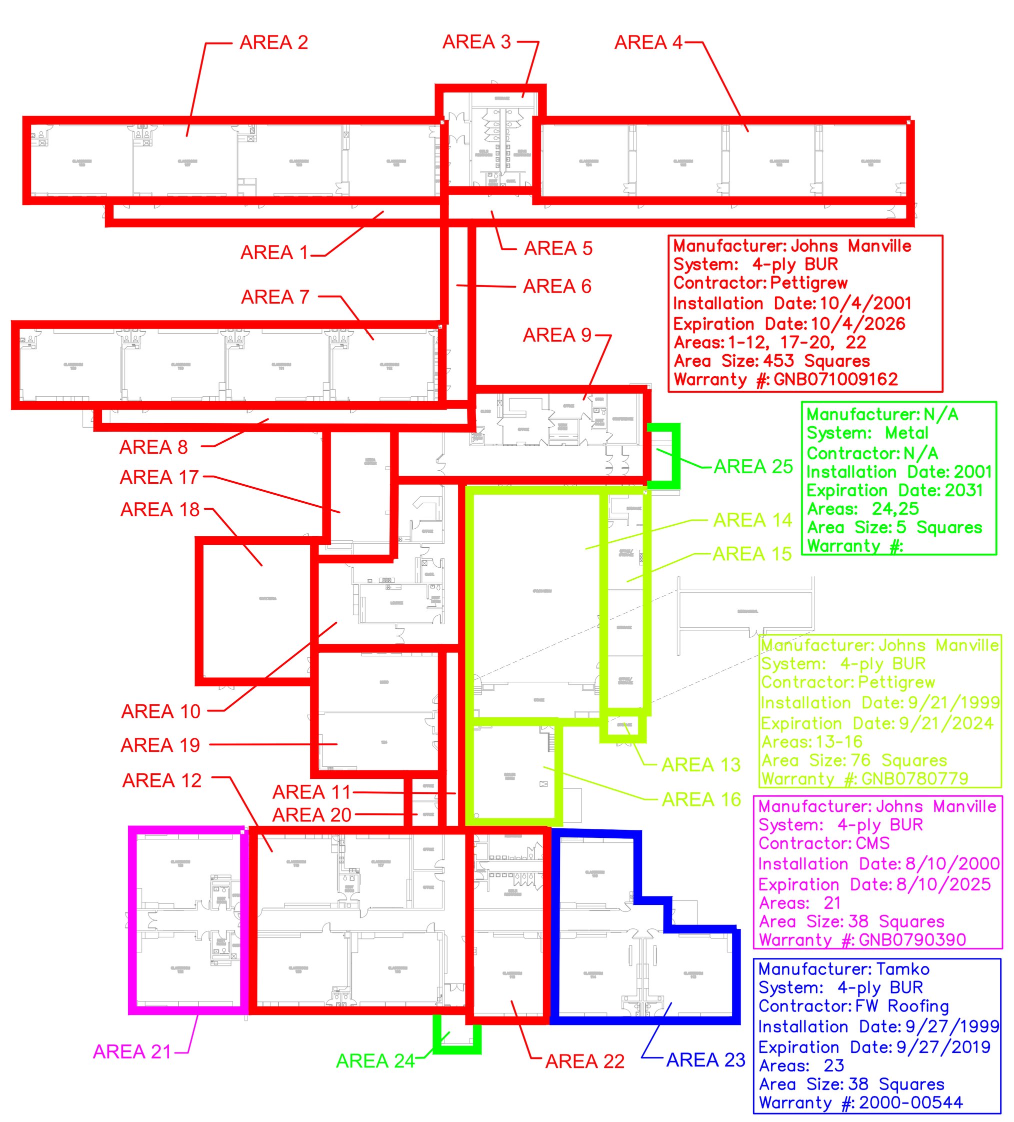
TAG	MFR.	MODEL	TYPE	CAPACITY (MBH)	AIRFLOW (CFM)	EAT (DEG F)	EWT/LWT (DEG F)	FLOW (GPM)	MOTOR (HP)	ELEC (V/PH)	REMARKS
UH-1	STERLING	HS-48	HORIZONTAL	21.4	750	60	130 / 110	3.5	1/20	120/1	1

REMARKS:
1. PROVIDE AND INSTALL WITH OSHA APPROVED FAN GUARD.

DIFFUSER AND GRILLE SCHEDULE

TAG	MFR.	MODEL	NECK SIZE (IN)	FACE SIZE (IN)	THROW PATTERN	MAX CFM	MAX APD (IN)	THROW (FT)	MAX NC	MATERIAL	REMARKS
EG-1	TITUS	33RS	42x18	44x20	0 DEG. DEFL.	2965	0.09	-	35	STEEL	1, 2, 3

REMARKS:
1. COLOR SHALL BE WHITE.
2. PROVIDE AND INSTALLWITH FRAME FOR SURFACE INSTALLATION.
3. PROVIDE AND INSTALL WITH FACE OPERATED BUTTERFLY VOLUME DAMPER.



FIRST FLOOR ROOF WARRANTY PLAN
SCALE: NTS

1 ADDENDUM #2 8-12-2022

PRIMARY ENGINEERING INC
Indianapolis
Fort Wayne
2828 Lake Ave.
Fort Wayne, Indiana 46805
260.424.0444 ph
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www.primary-eng.com

F W C S
WE ARE YOUR SCHOOLS

FORT WAYNE COMMUNITY SCHOOLS
ESSER 2023 BOILER/CHILLER REPAIRS
Fort Wayne, Indiana

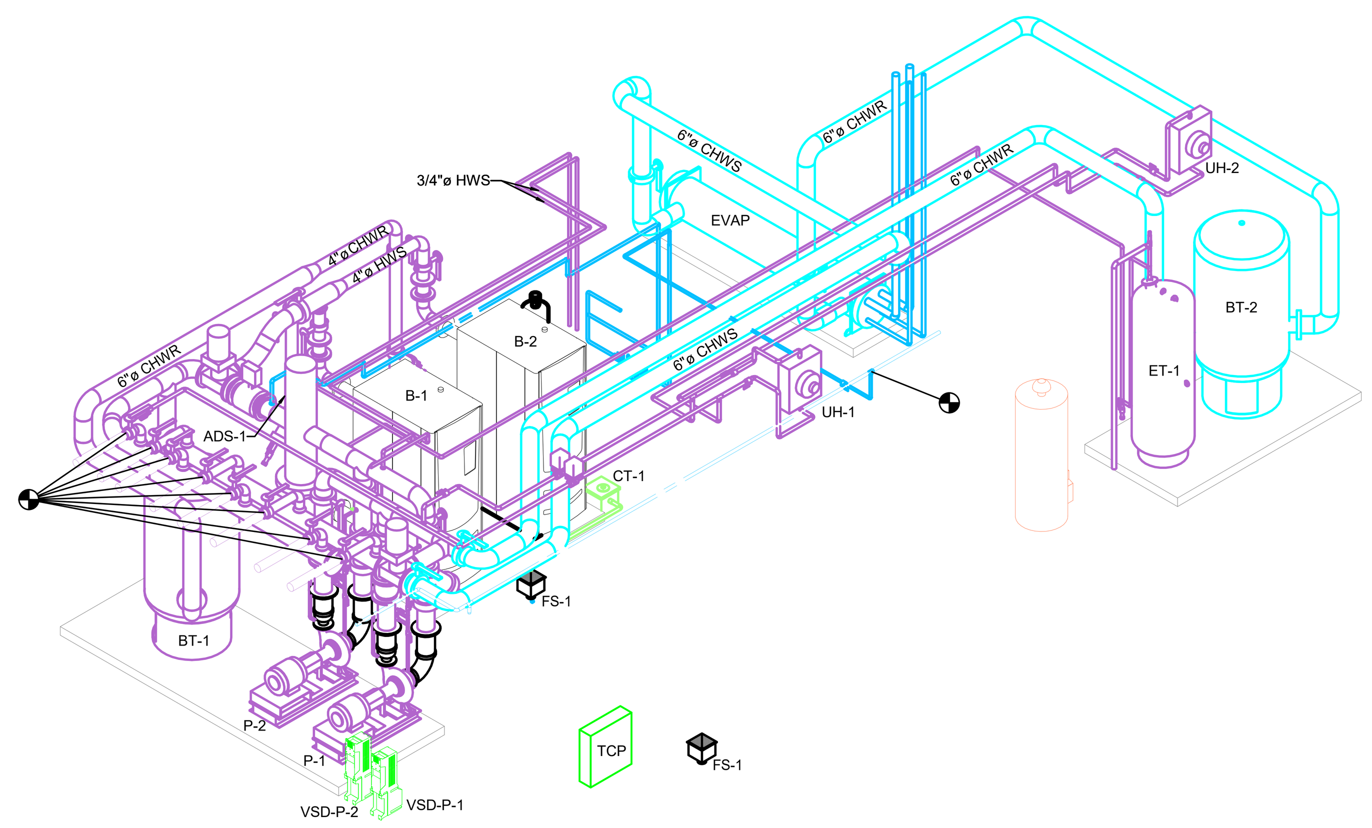
CERTIFICATION:
ANDREW STEPHEN LOUDERBACK
REGISTERED
PE11700017
STATE OF INDIANA
PROFESSIONAL ENGINEER

DATE: 07-25-2022
COMM: 21281
FILE: 281IN-M501

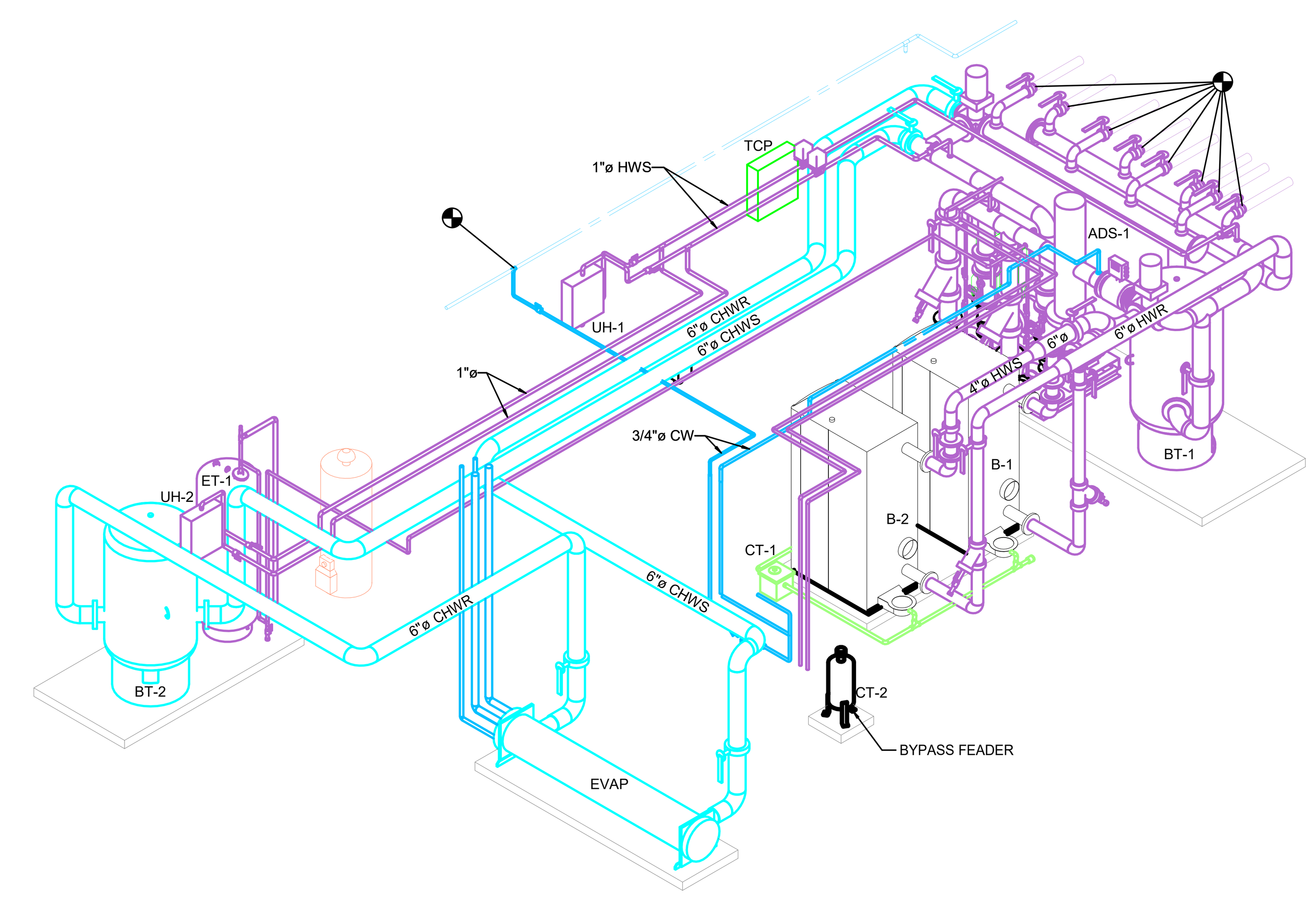
SCHOOL: *Indian Village Elementary School*
3835 Wenonah Lane
Fort Wayne Indiana 46809

TITLE:
MECHANICAL SCHEDULES AND ROOF WARRANTIES

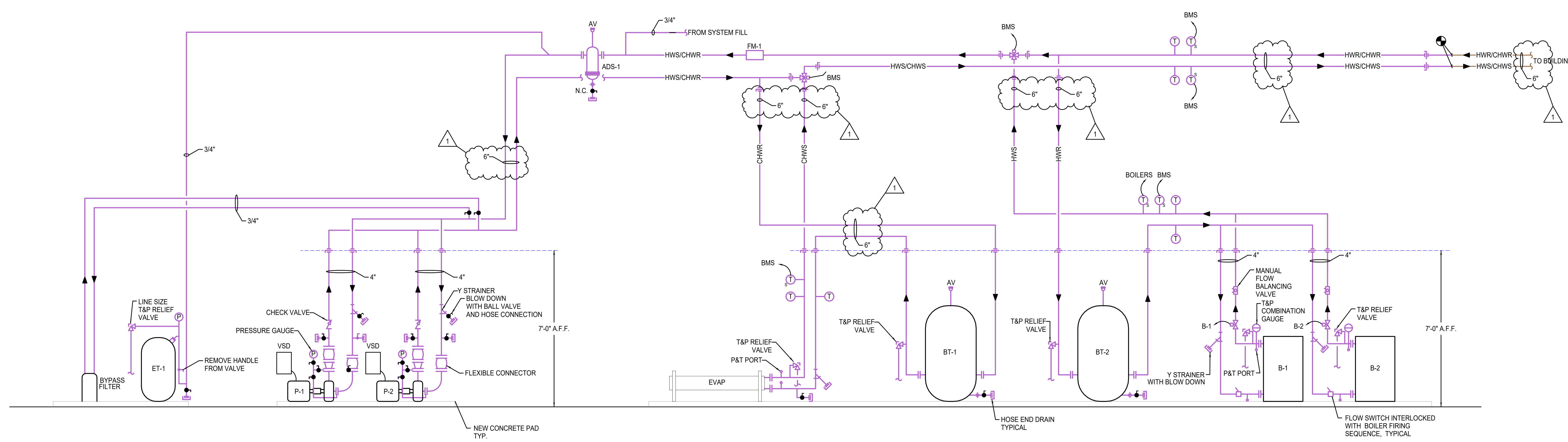
SHEET:
IN-M501



3 BOILER ROOM ISOMETRIC 2



2 BOILER ROOM ISOMETRIC 1



BOILER ROOM FLOW DIAGRAM

NTS

1 ADDENDUM #2 8-12-2022

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FORT WAYNE COMMUNITY SCHOOLS
ESSER 2023 BOILER/CHILLER REPAIRS

Mechanical Projects
Fort Wayne, Indiana

CERTIFICATION:

ANDREW STEPHEN LOUDERBACK
REGISTERED
PE11700017
STATE OF
INDIANA
PROFESSIONAL ENGINEER

DATE: 7/25/2022

COMM: 21281

SCHOOL: Northcrest Elementary School
5301 Archwood Lane
Fort Wayne Indiana 46825

TITLE:
MECHANICAL FLOW DIAGRAMS

SHEET:
NC-M401

HOT WATER UNIT HEATER SCHEDULE

TAG	MFR.	MODEL	TYPE	CAPACITY (MBH)	AIRFLOW (CFM)	EAT (DEG F)	EWT/LWT (DEG F)	FLOW (GPM)	MOTOR (HP)	ELEC (V/PH)	REMARKS
UH-1	STERLING	HS-48	HORIZONTAL	21.4	750	60	130 / 110	3.5	1/20	120/1	1
UH-2	STERLING	HS-48	HORIZONTAL	21.4	750	60	130 / 110	3.5	1/20	120/1	1

REMARKS:
1. PROVIDE AND INSTALL WITH OSHA APPROVED FAN GUARD.

DIFFUSER AND GRILLE SCHEDULE

TAG	MFR.	MODEL	NECK SIZE (IN)	FACE SIZE (IN)	THROW PATTERN	MAX CFM	MAX APD (IN)	THROW (FT)	MAX NC	MATERIAL	REMARKS
EG-1	TITUS	33RS	42x18	44x20	0 DEG. DEFL.	2965	0.09	-	35	STEEL	1, 2, 3

REMARKS:
1. COLOR SHALL BE WHITE.
2. PROVIDE AND INSTALLWITH FRAME FOR SURFACE INSTALLATION.
3. PROVIDE AND INSTALL WITH FACE OPERATED BUTTERFLY VOLUME DAMPER.

AIR COOLED CHILLER SCHEDULE

TAG	MFR.	MODEL	EVAP LOCATION	REFRIG	REFRIG CHARGE (LBS)	CAP (TONS)	FLOW (GPM)	MIN FLOW (GPM)	P.D. (FT)	FLUID TYPE	EWT (DEG F)	(DEG F)	IPLV	EER	ELEC (V/PH)	CIRCUIT #1 MCA	CIRCUIT #1 MOP	CIRCUIT #2 MCA	CIRCUIT #2 MOP	OP. WEIGHT	REMARKS
CHLR-1	CARRIER	30RB130	REMOTE	R410A	239	130	250	156	8.7	WATER	55	43	16.81	10.08	460/3	178.4	200	106.3	125	8046	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

REMARKS:
1. PROVIDE AND INSTALL WITH WIRING FOR DUAL-POINT ELECTRICAL CONNECTION WITH TRANSFORMER FOR 120 V CONTROL VOLTAGE (IF NEEDED).
2. PROVIDE AND INSTALL WITH INTEGRAL LCD GRAPHICAL CONTROL INTERFACE AND BACNET/LON INTEGRATION TO BMS.
3. POWER FACTOR SHALL BE MAINTAINED AT 0.9 OR BETTER AT ALL TIMES. PROVIDE FACTORY WIRED CAPACITORS IF REQUIRED.
4. THE CHILLER MANUFACTURER SHALL BE RESPONSIBLE TO VERIFY ALL ELECTRICAL REQUIREMENTS WITH THE BASIS OF DESIGN AND IF ADDITIONAL CIRCUITS, LARGER BREAKERS/WIRES/CONDUITS, ETC. ARE REQUIRED, THESE COSTS SHALL BE BORNE BY THE CHILLER MANUFACTURER.
5. PROVIDE CHILLER WITH SPRING VIBRATION ISOLATORS WITH 1" DEFLECTION MINIMUM EQUAL TO A KINETICS FMS RESTRAINED SPRING MOUNT.
6. PROVIDE WITH 5 YEAR WARRANTY ON ENTIRE UNIT INCLUDING LABOR, PARTS, AND LOSS OF REFRIGERANT FOR ANY CAUSE.
7. PROVIDE WITH FULLY LOUVERED SIDE PANELS/HAIL GUARDS ON ALL SIDES.
8. WIRING LUGS FOR POWER SHALL BE SIZED FOR FULL LOAD WIRE SIZE AND NOT REDUCED DUE TO DERATE. MFR TO PROVIDE LUGS AS REQUIRED FOR WIRE SIZE SHOWN ON PLANS.
9. UNIT SHALL BE SHIPPED WITH PROTECTION ON ALL EXTERIOR COIL SURFACES TO PREVENT DAMAGE FROM ROCKS, RIGGING, AND HANDLING DURING SHIPPING, HANDLING, AND INSTALLATION.
10. PROVIDE AND INSTALL WITH FACTORY WIRED NON FUSED ELECTRICAL DISCONNECT.
11. PROVIDE AND INSTALL WITH PACKAGED CONTROLS AND BACNET MSTP INTERFACE.

NOTES:
1. FOULING FACTOR SHALL BE 0.00025.
2. OPERATING WEIGHT SHOWN FOR REFERENCE ONLY. REFER TO APPROVED PRODUCT DATA SUBMITTALS FOR EXACT OPERATING WEIGHT.
3. REFRIGERANT CHARGE SHOWN DOES NOT INCLUDE INTERCONNECTED REFRIGERANT PIPING TO REMOTE EVAPORATOR.

ROOF CAP SCHEDULE

TAG	MFR.	MODEL	THROAT SIZE (IN x IN)	FUNCTION	AIRFLOW (CFM)	MAX P.D. (IN)	MAX HOOD VEL (FPM)	MATERIAL	REMARKS
RC-1	GREENHECK	FGR	20x20	RELIEF	3000	0.28	1075	ALUMINUM	1, 2, 3, 4
RC-2	GREENHECK	FGI	20x20	INTAKE	3000	0.27	530	ALUMINUM	1, 2, 3, 4

REMARKS:
1. PROVIDE WITH ALUMINUM WIRE MESH BIRD SCREEN.
2. PROVIDE WITH HINGED TOP AND LOCKDOWN FASTENER.
3. PROVIDE AND INSTALL WITH BACKDRAFT DAMPER.
4. PROVIDE WITH INSULATED 18" TALL ROOF CURB.

BOILER SCHEDULE

TAG	MFR.	MODEL	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	THERMAL EFF (%)	FUEL	BURNER TURNDOWN	T&P RELIEF PRESS (PSI)	FUEL PRESS. (IN W.C.)	GAS CONN (IN)	WATER CONN (IN)	FLUE OUTLET (IN)	FLUE MATL.	DESIGN FLOW (GPM)	MIN FLOW (GPM)	WATER PD (FT)	TEMP RISE (DEG F)	ELEC (V/PH)	MCA	REMARKS
B-1	AERCO	BMK 2000	2000	1860	93.0%	NAT. GAS	20:1	50	4 - 14	2	4	8	PP/AL29-4C	125			20	120/1	16	
B-2	AERCO	BMK 2000	2000	1860	93.0%	NAT. GAS	20:1	50	4 - 14	2	4	8	PP/AL29-4C	125			20	120/1	16	

REMARKS:
1. PROVIDE AND INSTALL WITH LOW WATER CUT-OFF.

3. BOILERS SHALL BE PROVIDED WITH INTEGRAL SEQUENCER TO CONNECT ALL BOILERS INTO A COMMON TEAM. PROVIDE ALL ASSOCIATED CONTROLLERS, WIRING, PROGRAMMING, SETUP, ETC. FOR A FULLY FUNCITONAL SYSTEM IN EVERY RESPECT.
4. BOILER MFR SHALL VERIFY ALL FLUE/INTAKE SIZING AND ROUTING.

WATER FLOW/ENERGY METER SCHEDULE

TAG	MFR.	FLOW METER	SENSOR TYPE	DISPLAY	FLUID	PIPE SIZE (IN)	DESIGN NOMINAL FLOW (GPM)	MIN / MAX FLOW (GPM)	REQ PIPE DIA UP /DOWN STREAM	ACCURACY (% OF FLOW RATE)	ELEC (V/PH)	REMARKS
FM-1	BADGER	M2000	ELECTROMAG	INTEGRAL	WATER			8.4 / 3358	7D / 2D	0.2 %	24 VDC	1, 2, 3, 4, 5

REMARKS:
1. BODY SHALL BE EPOXY COATED CARBON STEEL WITH PTFE LINER.
2. PROVIDE WITH DISPLAY UNIT.
3. CONTRACTOR SHALL VERIFY REQUIRED UPSTREAM AND DOWNSTREAM MINIMUM STRAIGHT PIPE REQUIREMENTS DURING INSTALL.
4. PROVIDE FACTORY AUTHORIZED TECHNICIAN TO CALIBRATE AND CONFIGURE METER FOR SPECIFIC PIPE/FLUID PARAMETERS.
5. FURNISHED BY TCC. TCC SHALL PROVIDE POWER TRANSFORMER DEDICATED TO POWER FLOWMETER.

HYDRONIC PUMP SCHEDULE

TAG	MFR.	MODEL	FRAME SIZE	IMPELLER DIA (IN)	FLUID	FLOW (GPM)	HEAD (FT)	MOTOR (HP)	MOTOR (BHP)	EFF (+/- 5%)	MOTO R RPM	ELEC (V/PH)	SERVICE	REMARKS
P-1	BELL & GOSSETT	E-1510-2EB	215T	10	WATER	125	100	10.0	5.03	64	1750	480/3	HW/CHW DIST	1, 2, 3, 4, 5, 6
P-2	BELL & GOSSETT	E-1510-2EB	215T	10	WATER	125	100	10.0	5.03	64	1750	480/3	HW/CHW DIST	1, 2, 3, 4, 5, 6

REMARKS:
1. ALL MOTORS SHALL BE NON-OVERLOADING.
2. MOTOR SHALL BE MULTI-TAP 460/240/208 BALDOR SUPER-E WITH INTEGRAL SHAFT GROUNDING RING AND COMPLY WITH NEMA MG1 FOR VARIABLE SPEED OPERATION.
3. MOTOR SHALL HAVE CLASS F INSULATION FOR USE WITH VARIABLE SPEED DRIVE.
4. MFR SHALL ALIGN PUMP SHAFT IN THE FIELD, PRIOR TO START-UP. PROVIDE WRITTEN REPORT OF ALIGNMENT AND STARTUP.
5. PROVIDE WITH IMPELLER SIZE LISTED, VSD WILL BE USED TO BALANCE FLOW TO DESIGN POINT.
6. LEAD-LAG PARALLEL PUMPING OPERATION FOR COMBINED FLOW AT 250 GPM AND 100 FEET HEAD.

GENERAL MECHANICAL EQUIPMENT SCHEDULE

TAG: CT-1
TYPE: CONDENSATE NEUTRALIZATION TANK
MFR: TOWN & COUNTRY PLASTICS
MODEL: NT-1
PERFORMANCE: 2 GALLON HDPE DILUTION TANK.
REMARKS:
1. PROVIDE AND INSTALL WITH POLYPROPYLENE COVER.
2. PROVIDE AND INSTALL WITH 1-1/2" INLET AND OUTLET CONNECTIONS.

TAG: FS-1
TYPE: SQUARE CAST IRON FLOOR SINK
MFR: ZURN
MODEL: ZN1910-K
PERFORMANCE: 8"x8" SQUARE SUMP 6" DEEP
REMARKS:
1. PROVIDE AND INSTALL WITH NICKLE BRONZE HALF GRATE AND INTERNAL DOME STRAINER.
2. REFER TO PLANS FOR SIZES

EXHAUST FAN SCHEDULE

TAG	SERVICE	MFR.	MODEL	CFM	TSP (IN W.C.)	MOTOR (HP)	MOTOR (BHP)	RPM	DRIVE TYPE	SONES	ELEC (V/PH)	CONTROL	REMARKS
EF-1	REFRIGERANT PURGE	GREENHECK	SQ-18-07-0700-B	3000	1.0	1.0	0.92	1160	DIRECT	13.7	208/1	TCC	1, 2

REMARKS:
1. PROVIDE AND INSTALL WITH FACTORY WIRED NEMA-1 ELECTRICAL DISCONNECT SWITCH.
2. PROVIDE AND INSTALL WITH NEOPRENE VIBRATION ISOLATOR HANGERS.

NOTES:
TCC = TEMPERATURE CONTROL CONTRACTOR.
EC = ELECTRICAL CONTRACTOR.
ECM BMS = ECM MOTOR CONTROLLED BY BMS REMOTE SPEED SETPOINT (4-20 MA)
ECM FIXED = ECM MOTOR CONTROLLED BY START/STOP WITH A FIXED SPEED SETPOINT ON THE MOTOR
ECM REMOTE = ECM MOTOR CONTROLLED BY REMOTE WALL SPEED CONTROL KNOB

EXPANSION TANK SCHEDULE

TAG	MFR.	MODEL	SERVICE	APPROX SYS VOL (GAL)	PRE-CHARGE (PSIG)	CALC. ACCEPT FACTOR	TANK VOL. (GAL)	ACCEPT. VOL (GAL)	DIA. (IN)	HEIGHT (IN)	CONN. SIZE (IN)	TANK FULL WT (LBS)	REMARKS
ET-1	BELL & GOSSETT	B-500	HW SYSTEM			0.618	132	82	30	57	3/4	1435	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH LINE SIZE T&P RELIEF VALVE ON INLET.
2. ALL TANKS SHALL BE ASME STAMPED.
3. CONTRACTOR MUST VERIFY THE SYSTEM STATIC WATER PRESSURE PRIOR TO INSTALLING TANK AND ADJUST PRE-CHARGE AS REQUIRED.

NATURAL GAS LOAD SCHEDULE

EQUIPMENT	TAG	CFH	PRESSURE	LOCATION	CONN (IN)	REMARKS
WATER HEATER	GWH	200	11" W.C	BOILER ROOM	3/4	1
MOD BOILER	B-1	2,000	11" W.C	BOILER ROOM	2	
MOD BOILER	B-2	2,000	11" W.C	BOILER ROOM	2	
	TOTAL	4,200	CFH			

REMARKS:
1. EXISTING WATER HEATER, FOR REFERENCE ONLY.

VARIABLE SPEED DRIVE SCHEDULE

TAG	MFR.	MODEL	EQUIPMENT SERVED	MOTOR SIZE (HP)	ELEC (V/PH)	MAX HARMONIC DIST.	BYPASS	ENCLOSURE	REMARKS
VSD-P-1	ABB	ACH580	P-1	10.0	480/3	5%	NONE	NEMA 1	1, 2, 3, 4
VSD-P-2	ABB	ACH580	P-2	10.0	480/3	5%	NONE	NEMA 1	1, 2, 3, 4

REMARKS:
1. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS AND INFORMATION.
2. COORDINATE EXACT MOTOR DATA WITH EQUIPMENT BEING SERVED BY THIS DRIVE.
3. PROVIDE WITH MANUAL LOCKABLE DISCONNECT SWITCH INTEGRAL TO DRIVE.
4. PROVIDE WITH BACNET INTERFACE FOR FULL INTEGRATION INTO BMS.

BUFFER TANK SCHEDULE

TAG	MFR.	MODEL	SERVICE	TANK VOL (GAL)	DIA. (IN)	HEIGHT (IN)	CONN. SIZE (IN)	SHIP WT (LBS)	TANK FULL WT (LBS)	REMARKS
BT-1	AMTROL	CWBT300-6-150	HOT WATER	300	36	80.375	6	849	3357	1, 2, 3
BT-2	AMTROL	CWBT300-6-150	CHILLED WATER	300	36	80.375	6	849	3357	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH AUTOMATIC AIR VENT ON TOP OF TANK AND DRAIN PORT ON BOTTOM.
2. BAFFEL PLATE SHALL BE WELDED IN PLACE.
3. TANK SHALL BE ASME RATED FOR 150 PSI.

1

GAS REGULATOR SCHEDULE

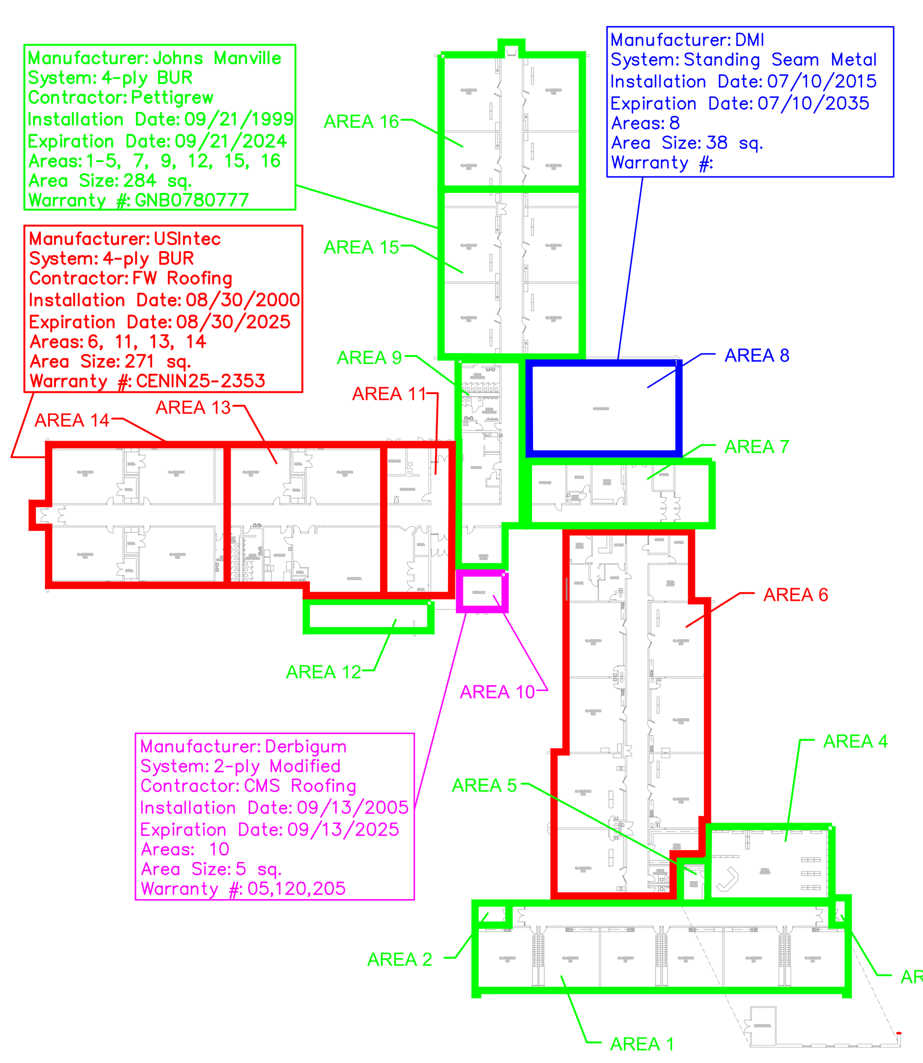
TAG	MFR.	MODEL	CAPACITY (CFH)	TURNDOWN	INLET (PSI)	INLET SIZE (IN)	OUTLET (IN WC)	OUTLET SIZE (IN)	LOCATION	REMARKS
GR-1	PIETRO FIORENTINI	30150-OPD	2000	500:1	5	1"	11	2"	B-1	1, 2, 3
GR-2	PIETRO FIORENTINI	30150-OPD	2000	500:1	5	1"	11	2"	B-2	1, 2, 3
GR-3	SENSUS	121	200	10:1	5	3/4"	11	1"	GWH	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH VENT PIPED TO EXTERIOR.
2. VERIFY EXACT REGULATOR SIZE BASED ON ACTUAL EQUIPMENT INSTALLED PRIOR TO ORDERING.
3. PROVIDE WITH EXTERNAL DOWNSTREAM CONTROL LINE, FIELD INSTALLED.

AIR AND SEDIMENT SEPARATOR SCHEDULE

TAG	MFR.	MODEL	SERVICE	PIPE CONN. (IN)	MAX FLOW (GPM)	TANK DIA (IN)	TANK HEIGHT (IN)	WATER VOL (GAL)	REMARKS
ADS-1	BELL & GOSSETT	CRS-6F	HW/CHW	6	550	12	39	19	1, 2, 3

REMARKS:
1. PROVIDE WITH REMOVABLE BOTTOM FLANGE, SKIMMER VALVE, DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL 107A.
2. PROVIDE WITH STRAINER, FLANGED BOTTOM, DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL 107A.
3. PROVIDE WITH INTEGRAL NEODYMIUM MAGNETIC INSERT ROD WITH SLEEVE TO ALLOW REMOVAL OF IRON FLAKES USING BLOW DOWN PORT.



FIRST FLOOR ROOF WARRANTIES
SCALE: NTS

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COMM: 21281
FILE: 281NC-M001

SCHOOL: *Northcrest Elementary School*
5301 Archwood Ln.
Fort Wayne Indiana 46825

TITLE:
MECHANICAL SCHEDULES

SHEET:
NC-M501

BUFFER TANK SCHEDULE

TAG	MFR.	MODEL	SERVICE	TANK VOL (GAL)	DIA. (IN)	HEIGHT (IN)	CONN. SIZE (IN)	SHIP WT (LBS)	TANK FULL WT (LBS)	REMARKS
BT-1	AMTROL	CWBT300-6-150	HOT WATER	300	36	80.375	4	828	3336	1, 2, 3
BT-2	AMTROL	CWBT300-6-150	CHILLED...	300	36	80.375	4	828	3336	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH AUTOMATIC AIR VENT ON TOP OF TANK AND DRAIN PORT ON BOTTOM.
2. BAFFEL PLATE SHALL BE WELDED IN PLACE.
3. TANK SHALL BE ASME RATED FOR 150 PSI.

BOILER SCHEDULE

TAG	MFR.	MODEL	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	THERMAL EFF (%)	FUEL	BURNER TURNDOWN	T&P RELIEF PRESS...	FUEL PRESS. (IN W.C.)	GAS CONN (IN)	WATER CONN (IN)	FLUE OUTLET (IN)	FLUE MATL.	DESIGN FLOW (GPM)	MIN FLOW (GPM)	WATER PD (FT)	TEMP RISE (DEG F)	ELEC (V/PH)	MCA	REMARKS
B-1	AERCO	BMK 2000	2000	1860	93.0%	NAT. GAS	20:1	50	4 - 14	2	4	8	PP/AL29-4C	175	25	7	20	120/1	16	1, 2, 3, 4, 5, 6
B-2	AERCO	BMK 2000	2000	1860	93.0%	NAT. GAS	20:1	50	4 - 14	2	4	8	PP/AL29-4C	175	25	7	20	120/1	16	1, 2, 3, 4, 5, 6

REMARKS:
1. PROVIDE AND INSTALL WITH LOW WATER CUT-OFF.
2. PROVIDE AND INSTALL WITH PACKAGED CONTROLS.
3. BOILERS SHALL BE PROVIDED WITH INTEGRAL SEQUENCER TO CONNECT ALL BOILERS INTO A COMMON TEAM. PROVIDE ALL ASSOCIATED CONTROLLERS, WIRING, PROGRAMMING, SETUP, ETC. FOR A FULLY FUNCITONAL SYSTEM IN EVERY...
4. BOILER MFR SHALL VERIFY ALL FLUE/INTAKE SIZING AND ROUTING.
5. PROVIDE AND INSTALL BACNET MSTP INTERFACE.
6. PROVIDE AND INSTALL SAFETY RELIEF VALVE.

ELECTRIC CABINET HEATER SCHEDULE

TAG	MFR.	MODEL	LOCATION	INLET	OUTLET	CAPACITY (KW)	AIRFLOW (CFM)	ELEC (V/PH)	CONTROL	REMARKS
CUH-1	REZNOR	EMC	DOOR 1 VEST	TOP FRONT	BOTTOM FRONT	4.0	250	208/1	EC	1, 2, 3, 4
CUH-2	REZNOR	EMC	DOOR 2 VEST	TOP FRONT	BOTTOM FRONT	4.0	250	208/1	EC	1, 2, 3, 4
CUH-3	REZNOR	EMC	DOOR 3 VEST	TOP FRONT	BOTTOM FRONT	2.0	250	208/1	EC	1, 2, 3, 4
CUH-4	REZNOR	EMC	DOOR 4 VEST	TOP FRONT	BOTTOM FRONT	2.0	250	208/1	EC	1, 2, 3, 4
CUH-5	REZNOR	EHC	DOOR 5 VEST	TOP FRONT	BOTTOM FRONT	4.0	250	208/1	EC	1, 2, 3, 4

REMARKS:
1. PROVIDE AND INSTALL WITH FACTORY WIRED ELECTRICAL DISCONNECT.
2. PROVIDE AND INSTALL WITH LINE VOLTAGE THERMOSTAT.
3. PROVIDE AND INSTALL WITH CUSTOM METAL FILTER FRAME AND MEDIA FROM HOMETOWN FILTER, FORT WAYNE, INDIANA, (260)423-6100.
4. COLOR SHALL BE SELECTED BY OWNER.

WATER FLOW/ENERGY METER SCHEDULE

TAG	MFR.	FLOW METER	SENSOR TYPE	DISPLAY	FLUID	PIPE SIZE (IN)	DESIGN NOMINAL FLOW (GPM)	MIN / MAX FLOW (GPM)	REQ PIPE DIA UP /DOWN STREAM	ACCURACY (% OF FLOW RATE)	ELEC (V/PH)	REMARKS
FM-1	BADGER	M2000	ELECTROMAG	INTEGRAL	WATER			8.4 / 3358	7D / 2D	0.2 %	24 VDC	1, 2, 3, 4, 5

REMARK...
1. BODY SHALL BE EPOXY COATED CARBON STEEL WITH PTFE LINER.
2. PROVIDE WITH DISPLAY UNIT.
3. CONTRACTOR SHALL VERIFY REQUIRED UPSTREAM AND DOWNSTREAM MINIMUM STRAIGHT PIPE REQUIREMENTS DURING INSTALL.
4. PROVIDE FACTORY AUTHORIZED TECHNICIAN TO CALIBRATE AND CONFIGURE METER FOR SPECIFIC PIPE/FLUID PARAMETERS.
5. FURNISHED BY TCC. TCC SHALL PROVIDE POWER TRANSFORMER DEDICATED TO POWER FLOWMETER.

DIFFUSER AND GRILLE SCHEDULE

TAG	MFR.	MODEL	NECK SIZE (IN)	FACE SIZE (IN)	THROW PATTERN	MAX CFM	MAX APD (IN)	THROW (FT)	MAX NC	MATERIAL	REMARKS
EG-1	TITUS	33RS	42x18	44x20	0 DEG. DEFL.	2965	0.09	-	35	STEEL	1, 2, 3

REMARKS:
1. COLOR SHALL BE WHITE.
2. PROVIDE AND INSTALLWITH FRAME FOR SURFACE INSTALLATION.
3. PROVIDE AND INSTALL WITH FACE OPERATED BUTTERFLY VOLUME DAMPER.

HYDRONIC PUMP SCHEDULE

TAG	MFR.	MODEL	FRAME SIZE	IMPELLER DIA (IN)	FLUID	FLOW (GPM)	HEAD (FT)	MOTOR (HP)	MOTOR (BHP)	EFF (+/- 5%)	MOTOR RPM	ELEC (V/PH)	SERVICE	REMARKS
P-1	BELL & GOSSETT	E-1510 2BD	213T	9.125	WATER	175	80	7 1/2	4.82	74.3	1750	208/3	HW/CHW DIST	1, 2, 3, 4, 5, 6
P-2	BELL & GOSSETT	E-1510 2BD	213T	9.125	WATER	175	80	7 1/2	4.82	74.3	1750	208/3	HW/CHW DIST	1, 2, 3, 4, 5, 6
BP-1	BELL & GOSSETT	E-80 3x3x7C	182JM	6.5	WATER	175	35	3.0	2.12	74.4	1750	208/1	B-1	1, 2, 3, 4
BP-2	BELL & GOSSETT	E-80 3x3x7C	182JM	6.5	WATER	175	35	3.0	2.12	74.4	1750	208/1	B-2	1, 2, 3, 4

REMARKS:
1. ALL MOTORS SHALL BE NON-OVERLOADING.
2. MOTOR SHALL BE MULTI-TAP 460/240/208 BALDOR SUPER-E WITH INTEGRAL SHAFT GROUNDING RING AND COMPLY WITH NEMA MG1 FOR VARIABLE SPEED OPERATION.
3. MOTOR SHALL HAVE CLASS F INSULATION FOR USE WITH VARIABLE SPEED DRIVE.
4. MFR SHALL ALIGN PUMP SHAFT IN THE FIELD, PRIOR TO START-UP. PROVIDE WRITTEN REPORT OF ALIGNMENT AND STARTUP.
5. PROVIDE WITH IMPELLER SIZE LISTED, VSD WILL BE USED TO BALANCE FLOW TO DESIGN POINT.
6. LEAD-LAG PARALLEL PUMPING OPERATION FOR COMBINED FLOW AT 350 GPM AND 80 FEET HEAD.

ROOF CAP SCHEDULE

TAG	MFR.	MODEL	THROAT SIZE (IN x IN)	FUNCTION	AIRFLOW (CFM)	MAX P.D. (IN)	MAX HOOD VEL (FPM)	MATERIAL	REMARKS
RC-1	GREENHECK	FGR	20x20	RELIEF	3000	0.28	1075	ALUMINUM	1, 2, 3, 4
RC-2	GREENHECK	FGI	20x20	INTAKE	3000	0.27	530	ALUMINUM	1, 2, 3, 4

REMARKS:
1. PROVIDE WITH ALUMINUM WIRE MESH BIRD SCREEN.
2. PROVIDE WITH HINGED TOP AND LOCKDOWN FASTENER.
3. PROVIDE AND INSTALL WITH BACKDRAFT DAMPER.
4. PROVIDE WITH INSULATED 18" TALL ROOF CURB.

EXHAUST FAN SCHEDULE

TAG	SERVICE	MFR.	MODEL	CFM	TSP (IN W.C.)	MOTOR (HP)	MOTOR (BHP)	RPM	DRIVE TYPE	SONES	ELEC (V/PH)	CONTROL	REMARKS
EF-1	REFRIGERANT PURGE	GREENHECK	SQ-18-07-0700-B	3000	1.0	1.0	0.92	1160	DIRECT	13.7	208/1	TCC	1, 2

REMARKS:
1. PROVIDE AND INSTALL WITH FACTORY WIRED NEMA-1 ELECTRICAL DISCONNECT SWITCH.
2. PROVIDE AND INSTALL WITH NEOPRENE VIBRATION ISOLATOR HANGERS.

NOTES:
TCC = TEMPERATURE CONTROL CONTRACTOR.
EC = ELECTRICAL CONTRACTOR.
ECM BMS = ECM MOTOR CONTROLLED BY BMS REMOTE SPEED SETPOINT (4-20 MA)
ECM FIXED = ECM MOTOR CONTROLLED BY START/STOP WITH A FIXED SPEED SETPOINT ON THE MOTOR
ECM REMOTE = ECM MOTOR CONTROLLED BY REMOTE WALL SPEED CONTROL KNOB

HOT WATER UNIT HEATER SCHEDULE

TAG	MFR.	MODEL	TYPE	CAPACITY (MBH)	AIRFLOW (CFM)	EAT (DEG F)	EWT/LWT (DEG F)	FLOW (GPM)	MOTOR (HP)	ELEC (V/PH)	REMARKS
UH-1	STERLING	HS-144	HORIZONTAL	63.8	2200	60	130 / 110	10.5	1/3	120/1	1

REMARKS:
1. PROVIDE AND INSTALL WITH OSHA APPROVED FAN GUARD.

VARIABLE SPEED DRIVE SCHEDULE

TAG	MFR.	MODEL	EQUIPMENT SERVED	MOTOR SIZE (HP)	ELEC (V/PH)	MAX HARMONIC DIST.	BYPASS	ENCLOSURE	REMARKS
VSD-P-1	ABB	ACH580	P-1	7 1/2	208/3	5%	NONE	NEMA 1	1, 2, 3, 4, 5
VSD-P-2	ABB	ACH580	P-2	7 1/2	208/3	5%	NONE	NEMA 1	1, 2, 3, 4, 5

REMARKS:
1. REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS AND INFORMATION.
2. COORDINATE EXACT MOTOR DATA WITH EQUIPMENT BEING SERVED BY THIS DRIVE.
3. PROVIDE WITH MANUAL LOCKABLE DISCONNECT SWITCH INTEGRAL TO DRIVE.
4. PROVIDE WITH BACNET INTERFACE FOR FULL INTEGRATION INTO BMS.
5. FURNISHED BY TCC.

NATURAL GAS LOAD SCHEDULE

EQUIPMENT	TAG	CFH	PRESSURE	LOCATION	CONN (IN)	REMARKS
WATER HEATER	GWH	200	11" W.C	BOILER ROOM	3/4	1
MOD BOILER	B-1	2,000	11" W.C	BOILER ROOM	2	
MOD BOILER	B-2	2,000	11" W.C	BOILER ROOM	2	
	TOTAL	4,200	CFH			

REMARKS:
1. EXISTING WATER HEATER, FOR REFERENCE ONLY.

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AIR AND SEDIMENT SEPARATOR SCHEDULE

TAG	MFR.	MODEL	SERVICE	PIPE CONN. (IN)	MAX FLOW (GPM)	TANK DIA (IN)	TANK HEIGHT (IN)	WATER VOL (GAL)	REMARKS
ADS-1	BELL & GOSSETT	CRS-6F	HW/CHW	6	550	12	39	19	1, 2, 3
AS-1	BELL & GOSSETT	R-6F	GLYOL LOOP	6	800	18	44	48	2

REMARKS:
1. PROVIDE WITH REMOVABLE BOTTOM FLANGE, SKIMMER VALVE, DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL...
2. PROVIDE WITH STRAINER, FLANGED BOTTOM, DRAIN PORT, AND HIGH CAPACITY AUTOMATIC AIR VENT EQUAL TO B&G MODEL 107A.
3. PROVIDE WITH INTEGRAL NEODYMIUM MAGNETIC INSERT ROD WITH SLEEVE TO ALLOW REMOVAL OF IRON FLAKES USING BLOW DOWN PORT.

EXPANSION TANK SCHEDULE

TAG	MFR.	MODEL	SERVICE	APPROX SYS VOL (GAL)	PRE-CHARGE (PSIG)	CALC. ACCEPT FACTOR	TANK VOL. (GAL)	ACCEPT. VOL (GAL)	DIA. (IN)	HEIGHT (IN)	CONN. SIZE (IN)	TANK FULL WT (LBS)	REMARKS
ET-1	BELL & GOSSETT	B-500	HW SYSTEM			0.618	132	82	30	57	3/4	1435	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH LINE SIZE T&P RELIEF VALVE ON INLET.
2. ALL TANKS SHALL BE ASME STAMPED.
3. CONTRACTOR MUST VERIFY THE SYSTEM STATIC WATER PRESSURE PRIOR TO INSTALLING TANK AND ADJUST PRE-CHARGE AS REQUIRED.

GENERAL MECHANICAL EQUIPMENT SCHEDULE

TAG: CT-1
TYPE: CONDENSATE NEUTRALIZATION TANK
MFR: TOWN & COUNTRY PLASTICS
MODEL: NT-1
PERFORMANCE: 2 GALLON HDPE DILUTION TANK.
REMARKS:
1. PROVIDE AND INSTALL WITH POLYPROPYLENE COVER.
2. PROVIDE AND INSTALL WITH 1-1/2" INLET AND OUTLET CONNECTIONS.

TAG: FS-1
TYPE: SQUARE CAST IRON FLOOR SINK
MFR: ZURN
MODEL: ZN1910-K
PERFORMANCE: 8"x8" SQUARE SUMP 6" DEEP
REMARKS:
1. PROVIDE AND INSTALL WITH NICKLE BRONZE HALF GRATE AND INTERNAL DOME STRAINER.
2. REFER TO PLANS FOR SIZES

GAS REGULATOR SCHEDULE

TAG	MFR.	MODEL	CAPACITY (CFH)	TURNDOWN	INLET (PSI)	INLET SIZE (IN)	OUTLET (IN WC)	OUTLET SIZE (IN)	LOCATION	REMARKS
GR-1	PIETRO FIORENTINI	30150-OPD	2000	500:1	5	1"	11	2"	B-1	1, 2, 3
GR-2	PIETRO FIORENTINI	30150-OPD	2000	500:1	5	1"	11	2"	B-2	1, 2, 3

REMARKS:
1. PROVIDE AND INSTALL WITH VENT PIPED TO EXTERIOR.
2. VERIFY EXACT REGULATOR SIZE BASED ON ACTUAL EQUIPMENT INSTALLED PRIOR TO ORDERING.
3. PROVIDE WITH EXTERNAL DOWNSTREAM CONTROL LINE, FIELD INSTALLED.

ELECTRIC RADIANT CEILING PANEL SCHEDULE

TAG	MFR.	MODEL	SERVICE	SIZE (IN)	CAPACITY (WATTS)	REMARKS
RCP-1	QMARK	CP	2ND FLR BOYS RR	24"x48"	750	1
RCP-2	QMARK	CP	2ND FLR GIRLS RR	24"x48"	750	
RCP-3	QMARK	CP	2ND FLR BOYS RR	24"x24"	375	
RCP-4	QMARK	CP	2ND FLR GIRLS RR	24"x48"	750	

REMARKS:
1. FIELD INSTALL WITH FOIL BACKED 2" THICK FIBERGLASS INSULATION ON TOP SIDE OF ENTIRE PANEL SURFACE.

1 ADDENDUM #2 8-12-2022

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WE ARE YOUR SCHOOLS

FORT WAYNE COMMUNITY SCHOOLS
ESSER 2023 BOILER/CHILLER REPAIRS
Mechanical Projects
Fort Wayne, Indiana

CERTIFICATION:
ANDREW STEPHEN LOUDERBACK
REGISTERED
PE11700017
STATE OF INDIANA
PROFESSIONAL ENGINEER

DATE: 07/25/22
COMM: 21281

SCHOOL: Portage Middle School
3521 Taylor Street
Fort Wayne Indiana 46802

TITLE:
MECHANICAL SCHEDULE SHEET

SHEET:
PO-M501

DEMOLITION PLAN NOTES

1. DISCONNECT AND REMOVE POWER AND CONTROL CIRCUITS FROM MECHANICAL EQUIPMENT TO BE REMOVED. REMOVE ALL ASSOCIATED CONDUCTORS, RACEWAYS AND BOXES. PATCH ALL PENETRATIONS IN ROOFS, WALLS AND FLOORS.

PLAN NOTES

1. SEE EQUIPMENT SCHEDULE FOR ELECTRICAL CONNECTION REQUIREMENTS FOR MECHANICAL EQUIPMENT.

FIRST FLOOR ELECTRICAL DEMOLITION AND NEW PLAN
SCALE: 1/16"=1'-0"

SCALE: 1/16" = 1'-0" | SCALE: 3/32" = 1'-0" | SCALE: 1/8" = 1'-0" | SCALE: 1/4" = 1'-0" | SCALE: 1/2" = 1'-0" | SCALE: 3/4" = 1'-0" | SCALE: 1" = 1'-0"

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FWCS WE ARE YOUR SCHOOLS

FORT WAYNE COMMUNITY SCHOOLS ESSER 2023 BOILER/CHILLER REPAIRS

Fort Wayne, Indiana

CERTIFICATION:
ANDREW STEPHEN LOUBERBACH REGISTERED PE11700017 STATE OF INDIANA PROFESSIONAL ENGINEER

DATE: 07-25-2022
COMM: 21281
FILE: 281PO-E102

SCHOOL: Portage Middle School
3521 Taylor Street
Fort Wayne Indiana 46802

TITLE:
FIRST FLOOR ELECTRICAL DEMOLITION AND NEW PLAN

SHEET:
PO-E102