



GENERAL MECHANICAL NOTES

- ITEMS SHOWN ON FLOOR PLANS IN LIGHT LINE WEIGHT ARE EXISTING. ITEMS SHOWN ON FLOOR PLANS IN BOLDER LINE WEIGHT ARE NEW.
- THE SUBMISSION OF A PROPOSAL WILL BE CONSIDERED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF WITH THE PLANS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND LABOR BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED IF THEY COULD HAVE BEEN FORESEEN HAD PROPER EXAMINATION BEEN MADE.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL COSTS FOR LOCATING, REMOVING, REPLACING OR RELOCATING THESE UTILITIES SHALL BE INCIDENTAL TO CONSTRUCTION. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIAL AT NO ADDITIONAL COST TO THE OWNER.
- MECHANICAL TRADE SHALL COORDINATE ROOF AND WALL FLASHING AND EXACT PENETRATION LOCATIONS.
- DRAWINGS ARE DIAGRAMMATIC AND GENERALLY INDICATIVE OF THE WORK. PIPING AND SYSTEMS SHALL FOLLOW ARRANGEMENT AS MUCH AS POSSIBLE, HOWEVER, ACTUAL FIELD CONDITIONS SHALL DICTATE. PROVIDE NECESSARY MODIFICATIONS TO MEET FIELD CONDITIONS AND AVOID CONFLICT WITH OTHER TRADES. IF RESOLUTION CANNOT BE REACHED WITHOUT COMPROMISING THE DESIGN, THESE CONFLICTS SHALL BE PRESENTED TO THE ENGINEER/ARCHITECT FOR RESOLUTION. IN CONFLICT AREAS, COMPLETE ONLY WORK NOT AFFECTED BY THE CONFLICT PRIOR TO RESOLUTION.
- THE FLOOR PLANS DO NOT SHOW ALL VALVES, FITTINGS, APPURTENANCES, DUCT TRANSITIONS, ACCESS PANELS, ELEVATION CHANGES, AND VARIOUS OTHER ITEMS CALLED FOR BY DETAILS AND SPECIFICATIONS. REFER TO DETAILS AND SPECIFICATIONS AND WHERE REQUIRED, THESE ITEMS SHALL BE PROVIDED WITHOUT ADDITIONAL COST FOR A COMPLETE AND OPERATING SYSTEM.
- CONTRACTOR SHALL VERIFY DEPTH, SIZE, AND LOCATION OF ALL EXISTING UTILITIES IN FIELD BEFORE STARTING WORK.
- CONNECTIONS TO EQUIPMENT SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS.
- ALL HANGER SYSTEMS FOR PIPING AND EQUIPMENT SHALL BE SECURED TO BUILDING STRUCTURAL SYSTEM.
- PRIOR TO REMOVAL, NOTIFY THE OWNER AND ARCHITECT IF ANY HAZARDOUS MATERIALS ARE ENCOUNTERED.
- ALL CONDENSATE DRAINS SHOULD BE PROPERLY TRAPPED AND HAVE PIPING UNIONS TO ALLOW FOR EASE OF DISASSEMBLY AND CLEANING.
- VERIFY VOLTAGE AND PHASE CHARACTERISTICS OF THE ELECTRICAL SERVICE AND COORDINATE WITH MECHANICAL EQUIPMENT AS REQUIRED.
- CONTRACTOR SHALL VERIFY CIRCUIT AMPACITY AND OVER CURRENT PROTECTION REQUIREMENTS WITH ACTUAL EQUIPMENT PROVIDED PRIOR TO ROUGH-IN.
- ALL WORK AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE ORDINANCES AND REGULATIONS HAVING JURISDICTION. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL APPROVALS.

GENERAL ELECTRICAL DEMOLITION NOTES

- THE DEMOLITION DRAWINGS INDICATE MAJOR ELECTRICAL ITEMS TO BE REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE GENERAL SCOPE OF ELECTRICAL DEMOLITION WORK REQUIRED AND DO NOT INDICATE EVERY LIGHT FIXTURE, ELECTRICAL OUTLET, CONDUIT, WIRE OR OTHER ELECTRICAL DEVICE THAT MUST BE REMOVED, RELOCATED OR OTHERWISE MODIFIED TO FACILITATE NEW CONSTRUCTION. THE ELECTRICAL CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTING A BID AND DETERMINE THE EXACT SCOPE OF DEMOLITION WORK.
- WHERE THE MECHANICAL CONTRACTOR IS REMOVING EXISTING MECHANICAL EQUIPMENT, THIS CONTRACTOR SHALL ALSO REMOVE ALL ASSOCIATED CONDUIT, WIRE, DISCONNECT SWITCHES, MOTOR STARTERS, ETC. REFER TO DRAWING M101 FOR ADDITIONAL WORK BY THIS CONTRACTOR ASSOCIATED WITH MECHANICAL EQUIPMENT REMOVAL.
- IF EXISTING CIRCUITS TO REMAIN ARE DISRUPTED DURING DEMOLITION OR CONSTRUCTION REPAIR AND REROUTE AS REQUIRED.

GENERAL ELECTRICAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH NATIONAL, STATE, AND LOCAL CODES IN FORCE AT THE TIME OF BIDDING, INCLUDING, BUT NOT LIMITED TO, THE INDIANA CONSTRUCTION RULES AND NATIONAL ELECTRICAL CODE WITH INDIANA AMENDMENTS.
- DRAWINGS ARE DIAGRAMMATIC AND GENERALLY INDICATIVE OF WORK REQUIRED. THIS CONTRACTOR SHALL VERIFY IN FIELD ACTUAL DIMENSIONS AND LOCATIONS AND COORDINATE ELECTRICAL EQUIPMENT LOCATIONS WITH ACTUAL FIELD DIMENSIONS. WHERE REQUIRED, ELECTRICAL ITEM LOCATIONS, MOUNTING HEIGHTS, ETC. SHALL BE REVISED AS REQUIRED TO ACCOMMODATE EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
- MAINTAIN ACCURATE RECORDS OF ALL CHANGES MADE DURING CONSTRUCTION. PROVIDE A NEATLY MARKED SET OF BLUEPRINTS TO THE ENGINEER AT COMPLETION OF THE PROJECT, INDICATING ALL FIELD CHANGES.
- ALL DEVICES, EQUIPMENT, FIXTURES, ETC., MUST BE GROUNDED BY USE OF A PROPERLY SIZED GROUNDING CONDUCTOR. MECHANICAL/ELECTRICAL BONDING OF THE METALLIC RACEWAY SYSTEM SHALL ALSO BE MAINTAINED.
- REFER TO MECHANICAL SPECIFICATIONS FOR ADDITIONAL ELECTRICAL WORK AND INCLUDE ALL COST IN BASE BID.
- INCLUDE ADDITIONAL WIRING AND CONDUIT TO EXTEND EXISTING FEEDS TO NEW EQUIPMENT. COORDINATE ALL ELECTRICAL WORK WITH WORK OF OTHER TRADES AND EXISTING FIELD CONDITIONS AS REQUIRED.

ELECTRICAL LEGEND

C	CONDUIT
C.B.	CIRCUIT BREAKER
E.C.	ELECTRICAL CONTRACTOR/TRADE
⊙	JUNCTION BOX
⊞	CONTROL/POWER CONNECTION
⊞	BOX COVER FUSED SWITCH
⊞	DISCONNECT SWITCH
⊞	MOTOR LOCATION
■	SURFACE MOUNTED PANELBOARD
■	RECESSED PANELBOARD
3/10 - 3/4"	WIRE AND CONDUIT SIZE OTHER THAN MINIMUM SPECIFIED.
—	CONDUIT SIZE
—	WIRE SIZE
—	NUMBER OF WIRES
—	CONDUIT AND WIRE
—	CONDUIT AND WIRE RUN TO BE CONTINUED ON THE DRAWING OF ADJACENT AREAS.
—	HOME RUN TO PANELBOARD. A1,3 = PANELBOARD
—	"A", CIRCUITS 1 AND 3, THREE CROSS LINES = 3 WIRES. UNLESS OTHERWISE NOTED, THE CONDUIT AND WIRE SIZES ARE THE MINIMUM AS REQUIRED BY THE SPECIFICATIONS. LONG CROSS LINE = NEUTRAL.

MECHANICAL AND PLUMBING LEGEND

EXT'G	EXISTING
G	GAS
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
⊞	GAS STOP COCK
⊞	SHUT-OFF VALVE
⊞	PRESSURE RELIEF VALVE
⊞	BALANCING VALVE
⊞	GAS STOP COCK
⊞	THERMOMETER
⊞	REDUCER
—	CONNECT TO EXISTING AT POINT INDICATED
—	PIPING DOWN
—	PIPING UP
—	EQUIPMENT DRAIN LINES
⊞	THERMOSTAT
⊞	CONNECT TO EXISTING AT POINT INDICATED

GENERAL MECHANICAL DEMOLITION NOTES

- ITEMS SHOWN ON THE DEMOLITION DRAWINGS IN BOLD LINE WEIGHT ARE TO BE EITHER REMOVED OR RELOCATED. ITEMS SHOWN LIGHT ARE TO REMAIN.
- DEMOLITION PLANS ARE INTENDED SOLELY TO INDICATE KEY EXISTING ITEMS TO REMAIN AND TO PROVIDE A GENERAL IDEA OF EXISTING SYSTEM TYPES. NOT ALL EQUIPMENT, PIPING AND DUCTWORK ARE SHOWN.
- THE SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF WITH THE PLANS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND LABOR BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED IF THEY COULD HAVE BEEN FORESEEN HAD PROPER EXAMINATION BEEN MADE.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROTECTION OF ALL EXISTING BUILDING COMPONENTS DURING DEMOLITION/CONSTRUCTION. ALL COSTS FOR LOCATING, REMOVING, REPLACING, OR RELOCATING SHALL BE INCIDENTAL TO DEMOLITION/CONSTRUCTION. ALL DAMAGES WHICH OCCUR DURING DEMOLITION/CONSTRUCTION SHALL BE REPAIRED WITH LIKE MATERIAL AT NO ADDITIONAL COST TO THE OWNER.
- COORDINATE SHUTDOWN OF ALL SERVICES WITH OWNER.
- WHERE REMOVAL OF PIPING, EQUIPMENT, ETC. IS NOTED, IT SHALL INCLUDE REMOVAL OF ALL ASSOCIATED APPURTENANCES, HANGERS, INSULATION, ETC. REMOVAL OF PIPING SHALL BE COMPLETE BACK TO THE NEAREST ACTIVE MAIN OR RISER, WHERE THE BRANCH CONNECTION SHALL BE CAPPED OR PLUGGED. COORDINATE EXACT EXTENTS WITH NEW CONSTRUCTION.
- THE OWNER RETAINS FIRST SALVAGE RIGHTS TO ALL EQUIPMENT. VERIFY IN FIELD THE ITEMS TO BE RETAINED WITH OWNERS REPRESENTATIVE. ALL OTHER MATERIALS SHALL BE REMOVED FROM THE SITE IMMEDIATELY.
- COORDINATE SCHEDULE OF DEMOLITION WORK WITH OWNER. COORDINATE SHUTDOWN OF MAIN SERVICES WITH OWNER (I.E. COLD WATER, GAS, ETC.).
- ANY ITEMS TO REMAIN THAT ARE DAMAGED SHALL BE REPAIRED AT NO ADDITIONAL COST.
- PIPING SHOWN ON DRAWINGS IS INTENDED TO INDICATE GENERAL PIPING EXTENT AND LAYOUT OF MAJOR COMPONENTS ONLY. FIELD VERIFY ACTUAL CONDITIONS, LOCATIONS, ARRANGEMENT, SIZES, LENGTHS, ETC.

WATERFALL – MECHANICAL EQUIPMENT SCHEDULE

MARK NO.	DESCRIPTION
B-1	BOILER NATURAL GAS FIRED, CONDENSING HYDRONIC BOILER, 2065 MBH INPUT, 1735 MBH OUTPUT CAPACITY, 82% MINIMUM EFF, 160 DEGREE EWT, 180 DEGREE LWT, 3.0 FT. PRESSURE DROP, 120 VOLT/1 PHASE/60 HZ POWER SUPPLY. LOCHINVAR, MODEL NO. CBN2067. COMPLETE WITH FM/CSD CONTROLS AND AIR FILTER.
P-1 P-2	CIRCULATION PUMP MATCH EXISTING B&G PUMPS.

RIVERSIDE – ROOF TOP UNIT SCHEDULE

MARK NO.	CFM	MIN OAZ	STATIC PRESSURE	FAN MOTOR			D/X COOLING COIL	HEATING		REMARKS
			EXT.	V	P	HZ	NOMINAL COOLING TONS	INPUT (MBH)	OUTPUT (MBH)	
RTU-1	5500	10%	0.7"	480	3	60	7.5	GAS 200/140	GAS 160/112	PACKAGED GAS/ELECTRIC UNIT TRANE YSC090 SERIES OR EQUAL NOTES 1, 2, 3, 4, 5, 6, 7, 8
RTU-2	1500	10%	0.5"	208	3	60	4.0	N/A	ELECTRIC 13.1 KW ⌀ 208V	PACKAGED ELECTRIC/ELECTRIC UNIT TRANE TSC048 SERIES OR EQUAL NOTES 1, 3, 4, 7, 9, 10, 11

- NOTE:
- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 - PROVIDE ECONOMIZER WITH POWER EXHAUST.
 - PROVIDE AND INSTALL ALL UNIT ACCESSORIES, COMPLETE WITH POWER WIRING AND ALL REQUIRED CONTROLS. COORDINATE WITH ALL APPLICABLE TRADES AS REQUIRED.
 - CONTRACTOR TO PROVIDE ANY ADDITIONAL WIRING FOR ECONOMIZER/EXHAUST AND SERVICE RECEPTACLE IF REQUIRED.
 - PROVIDE COMPLETE WITH RETURN AIR DUCT MOUNTED SMOKE DETECTOR WITH REMOTE TEST/ANNUNCIATOR PANEL ON RTU-1.
 - PROVIDE RTU-1 COMPLETE WITH ROOF CURB ADAPTOR. FIELD VERIFY PRIOR TO ORDERING AND FABRICATION.
 - PROVIDE HONEYWELL "VISIONPRO" OR SIMILAR PROGRAMMABLE THERMOSTAT.
 - PROVIDE RTU-1 WITH 2-STAGE HEAT SYSTEM AND VARIABLE SPEED FAN.
 - PROVIDE RTU-2 COMPLETE WITH NEW FULL ROOF CURB.
 - PROVIDE ECONOMIZER WITH BAROMETRIC RELIEF.
 - TWO STAGE ELECTRIC HEAT.