

GENERAL NOTES

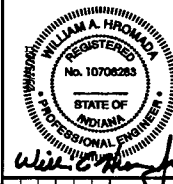
- A. WORK SHALL COMPLY WITH LOCAL, STATE AND NATIONAL ELECTRIC CODES, AND THE AMERICANS WITH DISABILITIES ACT
- B. COORDINATE EQUIPMENT ELECTRICAL REQUIREMENTS (VOLTAGES PHASE LOAD, ETC.) TO AVOID CONFLICTS.
- C. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR ADDITIONAL ELECTRICAL INFORMATION AND REQUIREMENTS. IN ALL CASES DEVICE MOUNTING HEIGHTS AND LOCATIONS SHALL CONFORM TO THE LATEST AMERICANS WITH DISABILITIES FEDERAL STANDARDS
- D. REFER TO THE PLANS FOR ADDITIONAL ELECTRICAL WORK AND REQUIREMENTS. FURNISH, INSTALL AND LOCATE DISCONNECT SWITCHES AT EQUIPMENT/MOTOR LOCATION, AS REQUIRED, AND IN ACCORDANCE WITH CODE. IF THE WORK OF OTHER TRADES CAUSES A LOSS OF CONTINUITY OF THE EXISTING ELECTRICAL DISTRIBUTION, GROUNDING SYSTEM OR CIRCUITRY, IT SHALL BE RECONNECTED OR REPAIRED AT NO ADDITIONAL COST
- E. FIELD VERIFY IF EXISTING ASBESTOS WILL BE ENCOUNTERED PRIOR TO STARTING ANY WORK. IF ASBESTOS IS PRESENT, THE OWNER WILL PROVIDE FOR THE REMOVAL OF ANY MATERIAL CONTAINING ASBESTOS. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS
- F. COORDINATE PHASING OF WORK AND PROVIDE TEMPORARY POWER AND SERVICES AS REQUIRED FOR THE IMPLEMENTATION OF WORK WHILE MAINTAINING SERVICES TO PORTIONS OF BUILDING TO REMAIN OCCUPIED
- SCHEDULE WORK TO AVOID DOWNTIME AND INCONVENIENCE TO OWNER. OWNER'S EXISTING FACILITY SHALL REMAIN IN OPERATION AT ALL TIMES, INCLUDING FIA AND OTHER SPECIAL SYSTEMS, ELECTRICAL POWER DISTRIBUTION, ETC. REQUIRED SHUTDOWN OF EXISTING FACILITY UTILITIES SHALL BE SCHEDULED WITH OWNER'S OPERATING PERSONNEL
- G. LAYOUT IS DIAGNOSTIC AND INSTALL DEVICES, CONDUIT AND EQUIPMENT TO MEET ACTUAL FIELD CONDITIONS. REVIEW PROJECT SPECIFICATIONS BEFORE STARTING WORK AND SUBMIT COMPLETE SHOP DRAWINGS AS PER SPECIFICATIONS.
- H. VISIT SITE PRIOR TO BID TO DETERMINE AND VERIFY EXISTING INTERIOR AND EXTERIOR ELECTRICAL SYSTEMS TO VERIFY QUANTITIES AND LOCATIONS OF EXISTING SYSTEMS TO DETERMINE FULL EXTENT OF WORK. INCLUDE THE NECESSARY MODIFICATIONS TO THE EXISTING CONDITIONS (INCLUDING CEILING, WALLS, FLOORS, PIPES, CONDUIT, ROOF WORK, ETC.) AS REQUIRED, TO ALLOW FOR PROPER INSTALLATION OF WORK. ADJUST INSTALLATIONS TO MEET FIELD CONDITIONS AS REQUIRED FOR A COMPLETE AND PROPER INSTALLATION. NO EXTRAS WILL BE ALLOWED AFTER BIDDING FOR ANY REWORK OF EXISTING FIELD CONDITIONS TO RESOLVE CONFLICTS OR NOT FULLY UNDERSTANDING THE SCOPE OF THE WORK REQUIRED. EXISTING EQUIPMENT, CONDUIT, PIPING, ETC SHALL BE REMOVED AS NOTED ON DRAWINGS AND AS REQUIRED TO MEET NEW SCOPE OF WORK.
- I. HIDDEN CONDITIONS IDENTIFIED THROUGH THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY BROUGHT TO ATTENTION IN WRITTEN FORM FOR REVIEW AND DIRECTION. FAILURE TO DO SO SHALL REQUIRE THE CHANGES AND COSTS TO CORRECT SAID HIDDEN CONDITION TO BE COMPLETED AT NO COST. EXISTING EQUIPMENT NOT IDENTIFIED SHALL BE BROUGHT TO ATTENTION FOR REVIEW AS TO WHETHER THE EQUIPMENT SHALL REMAIN AND BE RECONNECTED TO THE NEW SERVICES, BE RELOCATED, BE ABANDONED, ETC.
- J. REMOVE AND REINSTALL EXISTING CEILING NOT BEING REPLACED (INCLUDING LIGHTS, MOTION SENSORS, FIRE ALARM DEVICES AND ANY OTHER ELECTRICAL DEVICES AS REQUIRED) WHERE NECESSARY TO PERFORM WORK. THIS ALSO INCLUDES EXISTING CEILING OF PLASTER, DRYWALL, ETC. COORDINATE WORK IN CEILING SPACE SO AS TO MINIMIZE THE AMOUNT OF CEILING WHICH MUST BE REMOVED AND REINSTALLED. REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS IN ORDER TO FULLY UNDERSTAND AND INCLUDE CEILING WORK NECESSARY FOR WORK ON THE PROJECT. WHEN THE WORK IS COMPLETED IN THE SPACE, REINSTALL OR PATCH EXISTING CEILING, REINSTALL DEVICES AND EQUIPMENT AND REPAIR DAMAGE AS REQUIRED TO COMPLETELY MATCH EXISTING CONDITIONS. REPAIR OR REPLACE ANY DAMAGE CAUSED TO EXISTING CEILING AREAS
- K. REMOVE EXISTING CONSTRUCTION AS REQUIRED AT EXISTING WALLS FLOORS PIPE CHASES, SURFACE FINISHES, ETC. WHICH ARE AFFECTED. REPAIR EXISTING SURFACES AFFECTED TO MATCH EXISTING SURFACE OF EQUAL OR BETTER QUALITY TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE
- L. COORDINATE NEW INSTALLATIONS WITH EXISTING SYSTEMS. RELOCATE EXISTING LIGHTING, CONDUIT, EQUIPMENT, ETC., AS NECESSARY FOR NEW INSTALLATIONS
- M. PROVIDE NEW PANEL DIRECTORIES IN EXISTING MODIFIED PANELBOARDS TO CORRECTLY IDENTIFY EXISTING AND NEW LOADS. FINAL DIRECTORIES SHALL BE TYPE WRITTEN.
- N. EXISTING LIGHTING FIXTURES ELECTRICAL DEVICES, CONDUIT, ETC., SHALL BE REMOVED AS NOTED ON DRAWINGS AND AS REQUIRED TO MEET NEW SCOPE OF WORK. EXISTING ELECTRICAL EQUIPMENT SHALL REMAIN PROPERTY OF THE OWNER AND SHALL BE PROPERLY STORED ON SITE OR DESIGNATED TO BE ABANDONED AND REMOVED FROM SITE AS DIRECTED BY OWNER.
- O. PERFORM CUTTING AND PATCHING OF EXISTING FLOOR SLABS AND WALLS AS REQUIRED FOR THE INSTALLATION OF ELECTRICAL SYSTEMS
- P. EXISTING ELECTRICAL DEVICES (RECEPTACLES, SWITCHES, OUTLET BOXES, CONDUIT, ETC.) WITHIN WALLS TO BE REMOVED SHALL BE DISCONNECTED COMPLETELY. REROUTE AND EXTEND EXISTING CIRCUITRY, ELECTRICAL FEEDERS AND GROUNDING SYSTEMS AS REQUIRED TO MAINTAIN CIRCUIT FEEDER AND GROUNDING SYSTEM INTEGRITY FOR ALL REMAINING DEVICES/EQUIPMENT. VERIFY EXACT CONDITIONS AND REQUIREMENTS IN FIELD
- Q. WHERE NEW CIRCUIT BREAKERS, FUSES AND SWITCHES ARE TO BE ADDED TO EXISTING PANELBOARDS, SWITCHBOARDS, ETC., THEY SHALL BE OF THE SAME MANUFACTURER AND DESIGN AS THE EXISTING BREAKERS OR SWITCHES IF NOT OBSOLETE AND SHALL BE OF THE SIZES AS INDICATED. REARRANGE CIRCUIT BREAKERS WITHIN THE EXISTING EQUIPMENT TO ACCOMMODATE THE NEW CIRCUIT BREAKERS OR SWITCHES. BRANCH CIRCUIT NUMBERS ASSIGNED TO EXISTING PANELBOARDS ARE ARBITRARY AND ARE INTENDED TO INDICATE BRANCH CIRCUIT REQUIREMENTS ONLY. ACTUAL PANEL NUMBER ASSIGNMENTS FOR DESIGNATED BRANCH CIRCUITS SHALL BE ADJUSTED TO MEET FIELD CONDITIONS. PROVIDE ADDITIONAL BUS, BUS EXTENSION, BOLTS AND HARDWARE ENCLOSURE MODIFICATIONS, DIRECTORY MODIFICATIONS, ETC., AS REQUIRED TO ACCOMPLISH THE WORK
- R. VERIFY CEILING STYLES/FRAMES AND TYPES BEFORE ORDERING FIXTURES AND CEILING MOUNTED DEVICES. PROVIDE APPROPRIATE STYLES/FRAMES AS REQUIRED TO MATCH CEILING STYLE AND TYPES.

- S. COORDINATE LIGHTING LAYOUTS WITH CEILING REGISTERS, GRILLES, DIFFUSERS, SPRINKLER HEADS AND CEILING GRID (SEE ARCHITECTURAL REFLECTED CEILING PLAN). VERIFY LOCATION WITH OWNER'S REPRESENTATIVE IN FIELD PRIOR TO INSTALLATION.
- T. PROVIDE PLENUM RATED LIGHT FIXTURES IN PLENUM CEILING AREAS WHERE REQUIRED BY LOCAL OR NATIONAL CODES.
- U. SOME CEILING SPACES ARE RETURN AIR PLENUMS. EXAMINE PLENUM BEFORE CEILING IS INSTALLED (OR REPLACED) AND SEAL ALL OPENINGS AROUND CONDUIT, CABLE, ETC. PROVIDE PLENUM RATED CABLE (UNLESS IN CONDUIT), DEVICES AND EQUIPMENT PER CODE.
- V. THE MINIMUM DISTANCE BETWEEN SMOKE OR HEAT DETECTORS AND CEILING MOUNTED SUPPLY DIFFUSERS SHALL BE A MINIMUM OF 4 FEET AND WALL MOUNTED DIFFUSERS SHALL BE 10 FEET
- W. WHERE INDICATED ON THE DRAWINGS IN UNFINISHED SPACES, RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALL
- X. NO RACEWAYS SHALL BE INSTALLED WITHIN 6" OF HOT WATER PIPES OR SIMILAR HEAT PRODUCING APPLIANCES.
- Y. PROVIDE PULL WIRE IN EACH RACEWAY IN WHICH WIRING IS NOT INSTALLED
- Z. COVERS OF JUNCTION OR PULL BOXES SHALL BE ACCESSIBLE AND IDENTIFIED PER SPECIFICATIONS. FIRE ALARM JUNCTION BOXES SHALL BE PAINTED RED. JUNCTION OR PULL BOXES AND THE LIKE SHALL BE INDEPENDENTLY SUPPORTED TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS
- AA. WIRE COLOR CODING SHALL BE COORDINATED THROUGHOUT THE ENTIRE PROJECT/BUILDING FOR NEW AND EXISTING SYSTEMS
- BB. IF MORE THAN THREE (3) PHASE (UNGROUND) CONDUCTORS ARE RUN IN THE SAME RACEWAY, CONDUCTOR AMPACITY SHALL BE DERATED IN ACCORDANCE WITH NEC ARTICLE 310
- CC. CONDUIT LIGHTING, EQUIPMENT, ETC. SHALL NOT BE SUPPORTED FROM THE BOTTOM CHORD OF ENGINEERED JOISTS WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER. CONDUITS ROUTED THROUGH AREAS WITH NO CEILING, SHALL BE ROUTED WITHIN THE WEBSING OF THE JOISTS AND SHALL NOT BE ROUTED BELOW THE BOTTOM CHORD OF THE JOIST
- DD. SMOKE OR HEAT DETECTORS SHALL BE SURFACE MOUNTED TO CEILING, ROOF DECK MATERIALS, ETC. IN LIEU OF MOUNTING TO BOTTOM CHORD OF ENGINEERED JOIST OR ANY OTHER COMPONENTS NOT AN INTEGRAL PART OF THE HORIZONTAL CEILING.
- EE. VERIFY EXISTING AND NEW MECHANICAL, ELECTRICAL AND FIRE PROTECTION SYSTEMS PRIOR TO START OF NEW CONSTRUCTION. COORDINATE AND ADJUST NEW WORK AS REQUIRED TO AVOID CONFLICTS WITH EXISTING SERVICES AND NEW SERVICES PROVIDED
- FF. WIRING DEVICES SHOWN BACK-TO-BACK IN WALLS SHALL BE SEPARATED BY 8" MINIMUM.
- GG. UNLESS OTHERWISE NOTED, DEVICE ELEVATIONS REFER TO CENTER LINE OF JUNCTION BOX. VERIFY JUNCTION BOX LOCATIONS WITH FINAL EQUIPMENT LAYOUT PRIOR TO ROUGHING IN SAME.
- HH. FURNISH AND INSTALL A GREEN GROUND WIRE IN POWER CONDUITS (NOT LIGHTING). ALL DEVICES, EQUIPMENT, FIXTURES AND THE LIKE, MUST BE GROUNDING MECHANICAL/ELECTRICAL BONDS OF THE METALLIC RACEWAY SYSTEM SHALL BE MAINTAINED
- II. PROVIDE CONDUIT AND WIRE AND MAKE FINAL POWER CONNECTIONS AS REQUIRED TO EXHAUST FANS AND MISCELLANEOUS EQUIPMENT FURNISHED WITH MOTORIZED BACKDRAFT DAMPERS. DAMPERS SHALL BE CONNECTED TO EQUIPMENT 120 VOLT POWER CIRCUIT SO AS TO INTERLOCK THE MOTORIZED DAMPER WITH THE EXHAUST FAN. FOR TURBINE MOTORS, PROVIDE AN ADDITIONAL 120 VOLT CIRCUIT ROUTED THROUGH AN AUXILIARY CONTACT IN THE MOTOR STARTER.
- JJ. AT NEW FIRE OR SMOKE/FIRE DAMPER LOCATIONS WIRE EACH SMOKE/FIRE DAMPER TO NEAREST EMERGENCY PANEL TO LOCAL ACTIVATION SMOKE DETECTORS ON EITHER SIDE OF THE DAMPER (WITHIN 3'-6") AND ALSO WIRE THE SAME TO THE FIRE ALARM CONTROL PANEL AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM. REFER TO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR LOCATIONS WHERE DUCTS PASS THROUGH SMOKE OR FIRE BARRIERS.
- KK. MODIFY EXISTING FIRE ALARM SYSTEM AS INDICATED ON DRAWINGS AND SPECIFICATIONS AND AS REQUIRED FOR A COMPLETE, CODE COMPLIANT INSTALLATION. FURNISH AND INSTALL INTERFACE WIRING INTEGRAL TO THE FIRE ALARM SYSTEM AS WELL AS INTERFACE TO NEW ELEVATOR CONTROL PANEL, BUILDING AUTOMATION SYSTEM, ETC. FOR A COMPLETE AND OPERATING INSTALLATION. QUESTIONS REGARDING THE REQUIREMENTS OF THE FIRE ALARM SYSTEM OR THE INTENT OF THE CODE SHALL BE DIRECTED TO THE ARCHITECT/ENGINEER FOR REVIEW PRIOR TO BID
- LL. CONDUIT INSTALLED FOR LOW VOLTAGE SYSTEMS SHALL BE COORDINATED WITH THE LOW VOLTAGE INSTALLER IN FIELD PRIOR TO ROUGH-IN. SUCH CONDUIT SHALL BE ROUTED TO MINIMIZE CABLE LENGTH AND COMPLY WITH LOW VOLTAGE CABLING DISTANCE LIMITATIONS.
- MM. SINGLE POLE CIRCUITS SHALL HAVE SEPARATE INDEPENDENT NEUTRAL CONDUCTORS (NON-NETWORKED), WHICH (PER CODE) ARE CONSIDERED CURRENT CARRYING CONDUCTORS. THEREFORE, IF MORE THAN THREE (3) CURRENT CARRYING CONDUCTORS ARE RUN IN THE SAME RACEWAY, CONDUCTOR AMPACITY SHALL BE DERATED IN ACCORDANCE WITH NEC ARTICLE 310. AS SUCH, MULTIPLE BRANCH CIRCUIT HOME RUNS SHALL, AT A MINIMUM UTILIZE 10 AWG CONDUCTORS TO COMPLY WITH REQUIREMENTS HEREIN. COORDINATE REQUIREMENTS IN FIELD WITH SPECIFIC HOME RUN CONFIGURATION AND NEC 2008.
- NN. PRIOR TO THE START OF WORK AND THE ORDERING OF EQUIPMENT, CONTRACTOR SHALL CAREFULLY MEASURE AND VERIFY THE VOLTAGE, PHASE AND WIRING CONFIGURATION OF EXISTING PANELS AND EXISTING GEAR THAT ARE PART OF WORK AND SHALL CAREFULLY VERIFY THAT ALL ELECTRICAL CONNECTIONS, GEAR AND EQUIPMENT HAVE BEEN CAREFULLY COORDINATED TO ELIMINATE CONFLICTS. COORDINATE WITH OTHER TRADES AS REQUIRED TO ELIMINATE ELECTRICAL CONFLICTS PRIOR TO START OF WORK.
- OO. CAREFULLY VERIFY COLOR TEMPERATURES OF FIXTURES WITH ARCHITECT PRIOR TO ORDERING.



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