



**A ELECTRICAL SITE PLAN**  
SCALE: 1" = 50'-0"

**GENERAL NOTES:**

- ALL WIRE SIZE SHOWN ARE COPPER.
- PROVIDE LIGHT POLE BASE PER DETAIL 6 ON SHEET 4.
- PROVIDE MINIMUM #10 AWG WIRES INSTALLED IN MINIMUM 1" PVC OR RIGID CONDUIT, UNLESS OTHERWISE NOTED.
- PROVIDE PULL AND JUNCTION BOXES WHERE REQUIRED WHETHER OR NOT THEY ARE SHOWN ON DRAWINGS. INSTALL PULL AND JUNCTION BOXES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. LABEL ALL BOXES. SPLICES ARE NOT ALLOWED IN BOX.
- POWER AND SYSTEM CONDUITS CROSSING UTILITY EASEMENTS SHALL CROSS AT RIGHT ANGLES THROUGH EASEMENTS. COORDINATE CROSSING LOCATIONS AND DEPTHS WITH UTILITY COMPANIES.
- COORDINATE SITE ELECTRICAL WORK WITH OWNER.
- CONTRACTOR SHALL COORDINATE TRENCHING AND CONDUIT ROUTING WITH CIVIL AND LANDSCAPE.
- ALL LIGHT POLES TO BE PRIVATELY MAINTAINED.

**KEYED NOTES:**

- INSTALL 1-1/4" C. WITH 2-1/2" SCHEDULE 80 PVC SLEEVE WITH PULL CORD. CAP AT BOTH ENDS AND LABEL CLEARLY. COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN.
- STUB OUT (1) 1-1/4" CONDUIT FOR FUTURE MONUMENT LIGHTS. TERMINATE WITH CONDUIT MARKER. VERIFY EXACT LOCATION WITH ARCHITECT/OWNER PRIOR TO INSTALL.
- SEE ELECTRICAL PEDESTAL 'A' DIAGRAM DETAIL 1 ON SHEET 2. VERIFY EXACT LOCATION WITH ARCHITECT/OWNER PRIOR TO INSTALL.
- UTILITY PAD MOUNTED TRANSFORMER. ELECTRICAL CONTRACTOR SHALL VERIFY AND SATISFY ALL REQUIREMENTS WITH UTILITY COMPANY. TRANSFORMER PAD INSTALLED BY ELECTRICAL CONTRACTOR.

**ELECTRICAL SPECIFICATIONS**

- SCOPE OF SERVICES**  
WORK SHALL INCLUDE THE FURNISHING AND INSTALLING OF COMPLETE FUNCTIONING SYSTEMS AS INDICATED ON THE DRAWINGS AND THESE SPECIFICATIONS, OR REASONABLY INFERRED; INCLUDING EVERY ARTICLE, DEVICE OR ACCESSORY NECESSARY TO FACILITATE EACH SYSTEM FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT SPECIFIED.
- MATERIAL AND WORKMANSHIP**  
ALL MATERIAL AND APPARATUS SHALL BE NEW AND IN FIRST CLASS CONDITION. ALL WORKMANSHIP SHALL BE OF THE FINEST POSSIBLE BY EXPERIENCED ELECTRICIANS OR JOURNEYMEN. ALL TOOLS, MACHINERY AND EQUIPMENT REQUIRED OF THE PERFORMANCE OF THE ELECTRICAL WORK SHALL BE FURNISHED BY THIS CONTRACTOR.
- COORDINATION**  
THE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER CONTRACTORS AND SUBCONTRACTORS SO THAT VARIOUS COMPONENTS OF THE ELECTRICAL SYSTEMS WILL BE INSTALLED AT THE PROPER TIME, WILL FIT THE AVAILABLE SPACE, AND WILL ALLOW PROPER SERVICE ACCESS TO ALL EQUIPMENT. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND TO RELEVANT EQUIPMENT DRAWINGS TO DETERMINE THE EXTENT OF CLEAR SPACES.
- ORDINANCES AND CODES**  
CONTRACTOR'S PERFORMANCE, WORKMANSHIP AND MATERIALS SHALL COMPLY WITH NATIONAL FIRE PROTECTION ASSOCIATION CODES STATE AND LOCAL BUILDING CODES, AND/OR ALL OTHER APPLICABLE CODES AND ORDINANCES. ALL PERMITS, LICENSES AND FEES THAT ARE REQUIRED BY THE GOVERNING AUTHORITIES FOR THE PERFORMANCE OF THE ELECTRICAL WORK SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.
- TESTING, CHECK-OUT AND CLEANING**  
ALL MOTORS SHALL BE VERIFIED FOR PROPER ROTATION. PRIOR TO START-UP OF THE ELECTRICAL SYSTEMS, THE CONTRACTOR SHALL CHECK ALL COMPONENTS AND DEVICES, LUBRICATE ITEMS ACCORDINGLY, AND TIGHTEN ALL SCREWED AND BOLTED CONNECTIONS. ADJUST TAPS ON EACH TRANSFORMER FOR RATED SECONDARY VOLTAGE. BALANCE ALL SINGLE PHASE LOADS AT EACH PANELBOARD, REDISTRIBUTING BRANCH CIRCUIT CONNECTIONS UNTIL BALANCE IS ACHIEVED. REPLACE ALL BURNED-OUT LAMPS. THE CONTRACTOR SHALL CLEAN ALL MATERIAL AND EQUIPMENT INSTALLED UNDER THE ELECTRICAL CONTRACT. DIRT, DUST, PLASTER, STAINS AND FOREIGN MATTER SHALL BE REMOVED FROM ALL SURFACES.
- GUARANTEE**  
GUARANTEE AGAINST DEFECTIVE WORKMANSHIP AND MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL PAYMENT. GUARANTEE SHALL INCLUDE MATERIAL TO BE REPLACED AND ALL LABOR REQUIRED.
- CUTTING AND PATCHING**  
THIS CONTRACTOR SHALL DO ALL CUTTING OF WALLS, FLOORS, CEILINGS, ETC. AS REQUIRED TO INSTALL WORK UNDER THIS SECTION. CONTRACTOR SHALL PATCH WALLS, FLOORS, ETC. TO MATCH THE ORIGINAL MATERIAL AND CONSTRUCTION.
- DEMOLITION**  
REMOVE ALL EXISTING WIRING, FIXTURES, EXPOSED CONDUITS AND OTHER ELECTRICAL INSTALLATIONS NOT REUSED.
- CONDUIT UNDERGROUND**  
SCHEDULE 40 PVC WITH IMC TRANSITION TO ABOVE GRADE.
- EXTERIOR**  
IMC
- INTERIOR**  
EMT
- FLEXIBLE METALLIC CONDUIT**  
CONNECTIONS TO MOTORS AND TRANSFORMERS, AND TO ANY DEVICE WHICH WOULD OTHERWISE TRANSMIT MOTION, VIBRATION OR NOISE
- LIQUID-TIGHT**  
CONNECTIONS TO MOTORS AND TRANSFORMERS, AND TO ANY DEVICE WHICH WOULD OTHERWISE TRANSMIT MOTION, VIBRATION OR NOISE, WHERE EXPOSED TO LIQUIDS

- CONDUIT INSTALLATION**  
ALL WIRING SHALL BE RUN IN CONDUIT. CONDUIT SHALL BE INSTALLED CONCEALED ABOVE SUSPENDED CEILINGS OR CONCEALED IN WALLS OR FLOORS WHEREVER POSSIBLE. RUN PARALLEL TO BUILDING LINES. CONDUITS SHALL BE SECURELY FASTENED IN PLACE WITH APPROVED STRAPS, HANGERS AND STEEL SUPPORTS. EXPOSED CONDUIT IN FINISHED SPACES SHALL BE PAINTED TO MATCH SURROUNDINGS.
- WIRE**  
ALL WIRE SHALL HAVE COPPER CONDUCTORS, WITH U.L. LABEL. SERVICE ENTRANCE CABLE SHALL BE TYPE USE, THWN OR XHHW WITH STRANDED CONDUCTORS. ALL FEEDER AND BRANCH CIRCUIT WIRE #8 AWG AND LARGER SHALL BE TYPE THWN OR XHHW, BOTH WITH STRANDED CONDUCTORS. ALL WIRE #10 AWG AND SMALLER SHALL BE TYPE THWN (WET OR DAMP LOCATIONS, OR IN CONDUIT BELOW GRADE OR SLAB) OR THHN (DRY LOCATIONS ONLY AND ABOVE GROUND). BOTH WITH SOLID CONDUCTORS. ALL BRANCH CIRCUITS WIRING SHALL BE NOT SMALLER THAN #10 AWG WIRE.
- WIRING INSTALLATION**  
ALL WIRING SHALL BE INSTALLED IN APPROVED RACEWAY AND ENCLOSURES. ALL SPLICES OR RAPS SHALL OCCUR IN APPROVED BOXES AND ENCLOSURES, AND SHALL BE MADE UP WITH APPROVED SOLDERLESS CONNECTORS. CONDUCTORS SHALL HAVE INSULATION OF THE PROPER COLOR TO MATCH NEC COLOR CODE SYSTEM. ALL BRANCH CIRCUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR INSTALLED IN THE RACEWAY, SIZED IN ACCORDANCE WITH NEC TABLE 250-95. VOLTAGE DROP IN BRANCH CIRCUITS SHALL NOT EXCEED 2%.
- OUTLET BOXES**  
ALL OUTLETS INCLUDING LIGHT, SWITCH, RECEPTACLE, AND SIMILAR OUTLETS, SHALL BE STEEL CITY OR GALVANIZED STEEL KNOCKOUT BOXES, SUITABLE IN DESIGN TO THE PURPOSE THEY SERVE AND THE SPACE THEY OCCUPY. ALL OUTLET BOXES SHALL BE SET IN WALLS, COLUMNS, FLOORS, OR CEILINGS SO AS TO BE FLUSH WITH THE FINISHED SURFACE AND RIGIDLY SECURED IN POSITION. PROVIDE PLASTER RINGS, EXTENSION RINGS AND MASONRY RINGS AS REQUIRED FOR FLUSH MOUNTING.
- CONNECTION TO SERVING UTILITIES**  
CONTRACTOR SHALL PROVIDE PROPER TERMINATION, METERING PROVISIONS, ETC. FOR ELECTRICAL AND TELEPHONE SERVICES FOR CONNECTION BY THE SERVING UTILITY, IN STRICT COMPLIANCE WITH THE REQUIREMENTS OF ALL CODES HAVING JURISDICTION AND OF THE SERVING UTILITY INVOLVED.
- GROUNDING**  
ALL CONDUCTORS, CONDUITS, MOTOR FRAMES, ETC. WHICH REQUIRE GROUNDING SHALL BE PERMANENTLY AND EFFECTIVELY GROUNDED BY THIS CONTRACTOR IN A THOROUGH AND EFFICIENT MANNER CONFORMING IN ALL PARTICULARS TO THE NATIONAL ELECTRICAL CODE.
- SAFETY SWITCHES**  
FURNISH AND INSTALL SQUARE D, GENERAL ELECTRIC, OR EQUAL FUSED OR NON-FUSES (AS REQUIRED) GENERAL DUTY SAFETY SWITCHES WHERE NOT FURNISHED WITH THE EQUIPMENT, AND AT ALL OTHER POINTS REQUIRED BY CODE. CONSTRUCTION SHALL BE OF A NEMA DESIGN SUITABLE FOR THE ENVIRONMENT INSTALLED. FUSES SHALL BE BUSSMAN OR EQUAL SHAWMUT, SIZE AND TYPE AS REQUIRED OR INDICATED.
- DRY TYPE TRANSFORMERS**  
FURNISH AND INSTALL SQUARE D, GENERAL ELECTRIC OR EQUAL WITH CLASS H INSULATION. PHASE, VOLTAGE, AND SIZE SHALL BE AS NOTED ON THE DRAWINGS.
- LIGHT FIXTURES AND LAMPS**  
INSTALL FIXTURES AND SCHEDULED ON DRAWINGS, INCLUDING ALL LAMPS. MATERIAL AND LABOR TO SECURELY HANG FIXTURES AND MAKE THEM READY FOR USE. PROVIDE TRIM TO FIT EACH CEILING CONDITION ACTUALLY ENCOUNTERED. PROVIDE ADDITIONAL TIE WIRES CONNECTED TO STRUCTURE TO CONFORM TO UBC 25-2 SEISMIC REQUIREMENTS WHERE REQUIRED.
- SHOP DRAWINGS**  
SUBMIT FOR APPROVAL SIX SETS OF MANUFACTURERS SHOP DRAWINGS OF ALL MAJOR ITEMS OF EQUIPMENT AND ALL ITEMS REQUIRING COORDINATION BETWEEN CONTRACTORS, BEFORE SUBMITTING SHOP DRAWINGS AND MATERIALS LISTS THE CONTRACTOR SHALL VERIFY THAT ALL EQUIPMENT SUBMITTED IS MUTUALLY COMPATIBLE AND SUITABLE FOR THE INTENDED USE, AND SHALL FIT THE AVAILABLE SPACE AND ALLOW AMPLE ROOM FOR MAINTENANCE. THE ARCHITECT'S CHECKING AND SUBSEQUENT APPROVAL OF SUCH SHOP DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS IN DIMENSIONS, DETAILS, SIZE OF MEMBERS, OR QUANTITIES; OR OMISSIONS OF COMPONENTS OR FITTINGS; OR FOR COORDINATING ITEMS WITH ACTUAL BUILDING CONDITIONS.

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