

DIVISION 16 ELECTRICAL SPECIFICATIONS

01 GENERAL
THE CONTRACTOR SHALL VISIT THE JOB SITE... PRIOR TO ANY SUBMISSION OF BID AND REVIEW ALL CONTRACT DOCUMENTS TO FAMILIARIZE HIMSELF WITH EXTENT OF WORK REQUIRED...

11 SUBMITTALS
SHOP DRAWINGS OF MATERIALS, EQUIPMENT, LIGHTING FIXTURES AND WIRING DEVICES SHALL BE SUBMITTED FOR APPROVAL... ALL EQUIPMENT SHALL BE AS SPECIFIED HEREON...

12 CONDUIT SYSTEMS
ALL WIRING SHALL BE IN CONDUIT OR TYPE "MC" CABLE WHICH IS ALLOWABLE IN CONCEALED LOCATIONS ONLY FOR SIZES #12 AWG AND SMALLER CONDUCTORS WITH INSULATED THROAT CONNECTIONS...

13 LIGHTING FIXTURES
FINISH AND INSTALL LIGHTING FIXTURES AS SHOWN AND SCHEDULED ON THE DRAWINGS... THE CATALOG NUMBERS GIVEN IDENTIFY THE SERIES OF LIGHT FIXTURE ONLY AND MAY NOT SPECIFY ALL MOUNTING HARDWARE...

14 BALLASTS
BALLASTS SHALL BE ELECTRONIC TYPE <10% THD MINIMUM OR AS SPECIFIED IN THE LIGHTING FIXTURE SCHEDULE... LIGHTING FIXTURES IN COLD ATMOSPHERE SHALL HAVE BALLASTS SUITABLE FOR THE TEMPERATURE TO BE ENCOUNTERED.

15 LED DRIVERS
LED ELECTRONIC DRIVERS SHALL BE UL CLASS 2 AND HAVE A SOUND RATING OF CLASS "A" WITH A LIFE EXPECTANCY OF 50,000 HOURS... LED DRIVERS SHALL BE CAPABLE OF REDUCING OUTPUT POWER IF CASE TEMPERATURE EXCEEDS 90 DEG. DRIVERS SHALL BE CAPABLE OF 0-10V DIMMING.

16 LAMPS
THE CONTRACTOR SHALL FURNISH LAMPS WITH ALL LIGHT FIXTURES... ALL LAMPS SHALL BE AS SPECIFIED IN THE LIGHTING FIXTURE SCHEDULE... INCANDESCENT LAMPS SHALL BE "LONG LIFE" TYPE WHEN THE LIGHTING FIXTURE IS SUCH THAT IT WILL ACCEPT THE LONGER LAMP NECK.

17 OUTLET BOXES
OUTLET BOXES SHALL BE METAL TYPE (STEEL OR ALUMINUM) AS MANUFACTURED BY STEEL CITY, RACO, APLETON, OR APPROVED EQUAL... OUTLET BOXES SHALL BE 4" SQUARE MINIMUM AND SIZED PER NEC. THE USE OF GANGABLE BOXES SHALL BE PROHIBITED.

18 WIRING DEVICES
SWITCHES SHALL BE "120" SPECIFICATION GRADE, DECORA TYPE, GRAY COLOR UNLESS OTHERWISE NOTED AND AS MANUFACTURED BY HUBBELL P. & S. LEVISON, APPROVED EQUAL... TERMINATIONS TO DEVICES WITH THE USE OF STRANDED WIRE SHALL BE MADE INSULATED STA-KON TERMINAL STUDS.

19 PANELBOARDS
PANELBOARDS SHALL BE MANUFACTURED BY GENERAL ELECTRIC, SIKEMIS, CUTLER-HAMMER, OR SQUARE-D, MANUFACTURE SPECIFIC EQUIPMENT IS SHOWN ON THE DRAWINGS TO INDICATE THE MINIMUM STANDARDS REQUIRED... CIRCUIT BREAKERS SHALL BE MOLDED CASE, FULL SIZE, BOLTED TO THE SUPPLY BUS UNLESS OTHERWISE NOTED.

20 MECHANICAL EQUIPMENT
THIS CONTRACTOR SHALL FURNISH AND INSTALL A DISCONNECTING MEANS, WHERE REQUIRED BY CODE OR AS INDICATED ON THE CONTRACT DOCUMENTS, FOR ALL MOTORS, HVAC EQUIPMENT, HEATERS, APPLIANCES, WATER HEATERS, PUMPS, AND OTHER EQUIPMENT... ALL POWER WIRING AND TERMINATIONS TO HVAC, PLUMBING, AND OTHER EQUIPMENT SHALL BE BY THIS CONTRACTOR.

21 SAFETY SWITCHES
ALL DISCONNECT SWITCHES SHALL BE HORSEPOWER RATED, FUSED, HEAVY-DUTY TYPE WITH AMPERE RATINGS AND POLES AS REQUIRED TO ACCOMMODATE THE EQUIPMENT SERVED... CONTRACTOR SHALL VERIFY PROTECTED DEVICE RATINGS FOR EQUIPMENT PRIOR TO CONNECTION.

22 DRY TYPE TRANSFORMERS
ACCEPTABLE MANUFACTURERS: SQUARE D COMPANY, GENERAL ELECTRIC COMPANY, CUTLER-HAMMER OR SIKEMIS... PROVIDE FACTORY-ASSEMBLED TRANSFORMERS COMPLYING WITH APPLICABLE PORTIONS OF NEMA STANDARDS PUBLICATIONS ST 20 AND TR 27, RATED FOR CONTINUOUS OPERATION AT RATED KVA.

23 SEISMIC REQUIREMENTS
THE ELECTRICAL CONTRACTOR SHALL RETAIN THE SERVICES OF A STRUCTURAL ENGINEER TO DETERMINE SITE CLASSIFICATION AND SEISMIC RESTRAINT REQUIREMENTS FOR THE INSTALLATION OF ELECTRICAL EQUIPMENT AND SYSTEMS... THE ELECTRICAL CONTRACTOR SHALL INCLUDE SUBMITTALS OF THE SPECIFIC METHODS AND SYSTEMS.

24 SERVICES TO BUILDING
COORDINATE THE EXACT LOCATION AND REQUIREMENTS OF THE ELECTRICAL SERVICE WITH LOCAL POWER COMPANY BEFORE INSTALLATION... THE CONTRACTOR SHALL PROVIDE ALL NECESSARY FORMS AND DELIVER SAID FORMS TO THE OWNER FOR THEIR COMPLETION.

25 TEMPORARY
THIS CONTRACTOR SHALL PROVIDE ALL TEMPORARY LIGHTING AND POWER AS REQUIRED FOR ALL TRADES... ALL TEMPORARY WIRING INSTALLED SHALL BE REMOVED BY THIS CONTRACTOR.

26 TRAINING AND INSTRUCTION
THIS CONTRACTOR SHALL INSTRUCT ALL SYSTEMS INSTALLERS AND SUBCONTRACTORS OF ALL SPECIALTY SYSTEMS SHALL DEMONSTRATE THE SYSTEM OPERATION AND TRAIN AND INSTRUCT THE OWNER HOW THE SYSTEMS ARE TO BE OPERATED AND MAINTAINED.

27 RECORD DRAWINGS
DURING THE CONSTRUCTION OF THIS PROJECT, THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF ELECTRICAL CONTRACT DRAWINGS ON WHICH SHALL BE CIRCLED ALL, BUT NOT LIMITED TO, SIGNIFICANT CHANGES IN EQUIPMENT LOCATIONS, REROUT ASSIGNMENT DEVIATIONS, EQUIPMENT SIZE...

28 INSULATION
INSULATION: TRANSFORMER 45 KVA OR LESS - CLASS 150; TRANSFORMER ABOVE 45 KVA - CLASS 220... VIBRATION ISOLATION: INTEGRALLY MOUNTED VIBRATION ISOLATION SUPPORTS BETWEEN CORE AND COIL ASSEMBLY AND TRANSFORMER ENCLOSURE.

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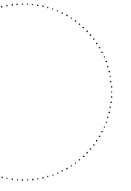
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ISSUANCE
ISSUED FOR CONSTRUCTION
20191113
REVISIONS
NO. DATE DESCRIPTION

FILE NUMBER: 19199
PROJECT MANAGER: CAD
PROFESSIONAL: CAD
DRAWN BY: CLD
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