

SECTION 260100 - ELECTRICAL GENERAL

PART 1 – GENERAL

1.1 SCOPE

- A. Division 26 includes all Specifications in the 260000 series and the accompanying Electrical Drawings. Provide all labor, materials and equipment, and all necessary operations to provide the complete scope of the electrical systems intended under this Division. Division 26 is not a standalone document, but a part of the complete Project Documents.
- B. Attention is called to the fact that there are many interfaces between the work required in this Division and the work required in other Divisions. Provide the necessary interface and coordination with other Divisions to provide a complete project.

1.2 CODES AND REGULATIONS

- A. All work under this Division shall comply with all local building codes, laws, regulations, ordinances and the requirements of the 2014 National Electrical Code.
- B. Where conflicts of installation requirements occur between the aforementioned codes, regulations or the Contract Documents, the most restrictive shall govern.
- C. Obtain all permits and licenses and pay all fees required by local authorities. Arrange for all necessary inspections required by the authorities having jurisdiction and provide written certificates of approval to the project Owner or his designated representative.

1.3 DEFINITIONS

- A. Contract Documents: The complete set of project Drawings and Specifications.
- B. Provide: Furnish, install and connect.
- C. Work: All materials installed, including all labor to provide complete system.
- D. Wiring or Wired: All wire or cable installed in conduit from panelboard to equipment and connected at both ends with all required boxes, connectors, couplings, etc.
- E. Conduit: Rigid steel conduit intermediate metal conduit (I.M.C.), electrical metallic tubing (EMT) plastic conduit (PVC), electrical non-metal tubing (ENT), or flexible steel conduit.

1.4 DRAWINGS AND SPECIFICATIONS

- A. The Drawings and Specifications together are to be considered as the Contract Documents. Any work shown in one and not shown in the other, or implied by either, shall be provided to give a complete project.
- B. Should any conflicts exist between the Drawings and Specifications or there is an item shown/called for which is not clearly defined, immediately submit a request for clarification. No additional monies will be granted later when a conflict is resolved or an item is more clearly defined.
- C. The Drawings are schematic and are not intended to show the exact location outlets, etc. or the

routing of conduit.

- D. The exact location of equipment requiring electrical connections (mechanical equipment, elevators, lights, etc.) shall be as located by other Divisions of the Contract Documents. Refer to the Architectural, Structural and Mechanical Documents for dimensions and details of building construction and provide work described in this Division so that it conforms to the details of the project. The right is reserved to relocate any receptacle, switch or other outlet a maximum of 10'-0" before it is permanently installed without incurring additions to the Contract amount.

1.5 SITE VISIT

- A. Visit the site and become familiar with all aspects of the site and existing conditions before submitting Contract price.
- B. No allowance will be made for lack of knowledge of existing conditions.

1.6 DEVIATIONS

- A. No deviations from the Contract Documents shall be made without the full knowledge and written consent of the Architect.
- B. If the existing conditions make it desirable to modify the Contract Documents in regard to any item, provide a written request to the Architect.

PART 2 – PRODUCTS

2.1 STANDARDS FOR MATERIALS AND WORKMANSHIP

- A. All materials used shall be new and shall be stamped with the label of Underwriters Laboratories, Inc. (UL).
- B. All materials shall meet the standards of the following associations and institutes where applicable:
 - 1. National Fire Protection Association (NFPA)
 - 2. American Society of Testing Materials (ASTM)
 - 3. American National Standards Institute (ANSI)
 - 4. National Electrical Manufacturer's Association (NEMA)
 - 5. Institute of Electrical and Electronic Engineers (IEEE)
- C. Manufacturer's names and catalog numbers specified herein are intended to describe the material and set the standard of quality. All bids shall be based on material specified. Requests for approval of material not specified shall be considered if the request is in written form and submitted to the Architect no later than fourteen (14) days before bid date. All requests shall conform with the provisions of the general and supplementary conditions.
- D. Samples of materials requested to be substituted shall be furnished upon the request of the Architect.

2.2 SHOP DRAWINGS AND SUBMITTAL

- A. The Engineer's review of shop drawings or submittals is a cursory review to check for general compliances of submittals with the design intent of the Contract Documents. The Engineer's review does not relieve the Contractor of his responsibility of complying with the Contract Documents. All coordination of the work in strict compliance with the Contract Documents is the sole responsibility of the Contractor.
- B. The following items shall be submitted for review:
 - 1. Conduit and wire
 - 2. Grounding system
 - 3. Devices
 - 4. Coverplates
 - 5. Metering equipment
 - 6. Panelboards
 - 7. Switchboards
 - 8. Transformers
 - 9. Fuses
 - 10. Overcurrent devices
 - 11. Busway
 - 12. Ground fault system
 - 13. Disconnect switches
 - 14. Lighting fixtures
 - 15. Lighting control system
 - 16. Life safety system
 - 17. Motor starters
 - 18. Surge Protective Devices
- C. All shop drawings and submittals shall be submitted in compliance with the requirements of the general and supplementary conditions. Electronic submittals are acceptable. If hard copies are submitted, no more than four (4) copies of submittal data will be reviewed. Any additional copies will be returned unmarked. The responsibility of copying review comments on any additional copies will rest solely with the contractor.
- D. All submittals shall bear the name of the manufacturer to be used.
- E. All shop drawings and submittals shall include a stamped indication signifying that the submittal has been reviewed for compliance with the Contract Documents by the Contractor. This stamped indication also represents the fact that the Contractor has checked this submittal for its interaction with all other Divisions and certifies by his signature or initials that all coordination has taken place. The stamp shall include the date, name of the Contracting Firm, the signature of the Contractor, certification of compliance and approval. This stamp shall be on the submittal before the Engineer will review it.
- F. The engineer will review an individual submittal not more than twice. If the submittal is rejected again on the second review, the contractor will bare all responsibility for paying for the engineer's time for additional reviews. Such payments to the engineer shall be withheld from the next monthly pay application.

2.3 RECORD (AS-BUILT) DRAWINGS AND MAINTENANCE MANUALS

- A. At job completion, submit to the Architect, a set of prints showing all deviations from the Contract Documents. The Drawings shall also have dimensions locating all underground

conduits.

- B. At job completion, submit to the Architect, three (3) sets of maintenance and instruction manuals for all equipment furnished on the project.

PART 3 - EXECUTION

3.1 COORDINATION

- A. Coordinate all space requirements with all other Divisions before installing any work. Install work such that adequate space will be allotted for all other work from other Divisions to be installed and also will allow room for future access for repair and maintenance.
- B. Any work installed without proper coordination shall be relocated at the Architect's direction without increasing the Contract price.
- C. During the bidding process or the pricing for a guaranteed maximum price, coordinate with all other Divisions for the total amount of work required in Division 26. Any work shown or implied in another Division requiring work in Division 26 shall be included in the Contract price regardless of whether or not it is addressed in Division 26.

3.2 PROTECTION OF MATERIALS

- A. All equipment shall have the original finish when the building is turned over to the Owner.
- B. Protect equipment during construction from dirt, water, chemical, mechanical damage, etc. Protect all conduit openings so that no foreign material will enter the conduit.

3.3 TESTS, DEMONSTRATION AND INSTRUCTIONS

- A. Test all systems described in this Division in the presence of the Owner or a designated representative upon completion of the work. Demonstrate that the installation is in accordance with Contract Documents.
- B. Any work found not to be in compliance with the Contract Documents shall be repaired or replaced without incurring any additions to the Contract price.
- C. Provide to the Owner, all instruction on maintenance and operation of all systems and equipment provided under this Division. Provide all necessary tools and personnel to thoroughly present these instructions.

3.4 GUARANTEE

- A. All systems, equipment, components, work, etc. provided under this Division shall be covered by a one year guarantee starting at the time of final acceptance of the work by the Owner. Any defects in the work, systems, equipment or components found during this year shall be corrected at no charge. The guarantee shall include providing all necessary cutting, patchwork, repainting, etc. to make the work complete and new.
- B. Present this guarantee and any additional warranties or guarantees on furnished equipment or systems to the Architect. All equipment or system guarantees are in addition to the general guarantee.

END OF SECTION 260100