

SECTION 260500

GENERAL REQUIREMENTS FOR ELECTRICAL WORK

PART 1 - GENERAL

- 1.1 REFERENCES
1.2 EXAMINATION OF SITE
1.3 SCOPE

- 1.4 RELATED WORK IN OTHER SECTIONS
1.5 CODES, STANDARDS, AND AUTHORITIES

1.6 CONTRACT DRAWINGS

- A. Work to be performed under this section is shown on the Contract Drawings and described in the specifications.
B. The listing of electrical drawings does not limit responsibility of determining the full extent of work required by contract documents.

1.7 DISCREPANCIES IN DOCUMENTS

- A. It shall be the responsibility of each bidder to examine the drawings and specifications carefully before submitting his bid.

1.8 EQUIPMENT AND MATERIALS

- A. All equipment and materials shall be new and of the quality specified.
B. All equipment installed on this project shall have local representation, local factory authorized service and a local stock of repair parts.

1.9 RECORD DRAWINGS

- A. As work progresses, and for duration of the Contract, the Contractor shall maintain a complete and separate set of prints of Contract Documents at the job site at all times and record work completed and all changes from original Contract.

1.10 SHOP DRAWINGS

- A. The Electrical Contractor shall obtain complete shop drawings, product data (and samples when requested) from manufacturers, suppliers, vendors, and Subcontractors for all materials and equipment specified herein, and submit data and details of such materials and equipment for review by the Architect and Engineer.

1.11 SPACE, EQUIPMENT ARRANGEMENT AND ACCESS

- A. The size of equipment shown on the drawings is based on the dimensions of a particular manufacturer.
B. Locate all equipment that must be serviced, operated or maintained in fully accessible positions.

1.12 MARKING AND LABELING

- A. All switchboards, distribution panels, panelboards, indoor transformers and transfer switches shall be labeled with the equipment tag number and the system voltage by engraved laminated plastic nameplates, minimum 3/4" high with 3/8" engraved letters.
B. All variable frequency drives, starters, disconnect switches and fire alarm panels shall be marked with engraved laminated plastic plates, minimum 1/2" high with 1/4" engraved letters.

1.13 WIRING METHODS

- A. Above Grade Wiring.
Unless otherwise noted all wiring shall be installed in raceway.
1. All feeders and motor branch circuit wiring shall be installed in electrical metallic tubing (EMT).
2. All raceway shall be concealed from within finished rooms.

SECTION 260519
LOW VOLTAGE ELECTRICAL CONDUCTORS

PART 1 - GENERAL

- 1.1 GENERAL
A. The provisions of Section 260500, General Requirements for Electrical Work apply to the Work of this Section.

1.2 CODES AND STANDARDS

- A. Products shall comply with the following codes and standards and shall be UL-listed and labeled:
ASTM B-3 Soft or Annealed Copper Wire
ASTM B-8 Concentric Lay Stranded Copper Conductors
NEMA WC-5 Thermoplastic Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

1.3 SUBMITTALS

- A. Manufacturer's product data sheets.

PART 2 - PRODUCTS

- 1.1 GENERAL
A. All conductors shall be annealed copper in accordance with ASTM B-3.
B. The jacket of all wire shall be printed with the following information:
1. Manufacturer
2. Size
3. Insulation type
4. Maximum voltage
5. UL label

2.2 POWER WIRING

- A. Feeders and motor branch circuits shall be type XHHW-2.
B. All power wiring shall be stranded, Class B strand in accordance with ASTM B-8, minimum size #12 AWG.

2.3 BRANCH CIRCUITS

- A. All lighting and convenience receptacle branch circuit wiring shall be type THHN/THWN.
B. Branch circuit wiring shall be solid or stranded conductor, minimum size #12 AWG.

2.4 CONTROL WIRING

- A. Wiring for control circuits shall be THHN/THWN.
B. Control wiring shall be stranded, Class B strand in accordance with ASTM B-8, minimum size #14 AWG.

2.5 FIXTURE WIRE

- A. Where high temperature fixture wire is required it shall be silicone rubber type SF-2.

PART 3 - EXECUTION

- 3.1 GENERAL
A. All wire shall be installed in accordance with Section 260560, Installation of Wire and Cable.

END OF SECTION 260519

SECTION 260526

GROUNDING

PART 1 - GENERAL

- 1.1 GENERAL
A. The provisions of Section 260500, General Requirements for Electrical Work, apply to the work of this Section.
B. The Electrical Contractor shall provide grounding where required including grounding electrode conductors, bonding jumpers, equipment grounding conductors, connections and other materials as may be required.
1.2 CODES AND STANDARDS:
A. Products shall comply with the following codes and standards and shall be UL listed and labeled.

PART 2 - PRODUCTS

- 2.1 CONDUCTORS
A. Bare grounding conductors shall be soft drawn stranded copper, sized in accordance with NEC Article 250, unless otherwise noted on the drawings.
B. Insulated grounding conductors shall be stranded copper with Type TW, THW or THHN/THWN insulation colored green.

2.2 CONNECTIONS

- A. Welded connections shall be exothermic reaction type, Cadweld or approved equal.
B. Lugs shall be long barrel, two hole compression type for No. 3/0 AWG wire and larger and short barrel, one hole compression type for grounding conductors No. 2/0 AWG and smaller.

PART 3 - EXECUTION

- 3.1 EQUIPMENT GROUNDING CONDUCTORS
A. A separate insulated green copper conductor shall be installed as an equipment grounding conductor in all raceway and with every feeder, branch circuit and control circuit.
B. All equipment grounding conductors shall be terminated at both ends.
3.2 CONNECTIONS
A. All connections to building steel shall be exothermic weld.
B. Connections to equipment ground buses or pads shall be compression type lugs, bolted to the bus or pad.
C. Grounding connections shall be made to clean, dry surfaces. All scale, rust, paint, grease and other contamination shall be removed prior to making connections.
3.3 RACEWAY AND EQUIPMENT
A. All raceway and non-current carrying metal equipment and enclosures shall be electrically continuous and bonded to the grounding system.
B. Where equipment is provided with a ground bus, all equipment grounding conductors shall be terminated on the bus.

END OF SECTION 260526

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MAINE MEDICAL CENTER
ANGIO SINGLE PLANE - ROOM 2
PORTLAND, ME
ISSUED FOR PERMITTING
01.27.12
CURRENT USE STATUS:

GRAPHIC SCALE
SCALE: 1/2" = 1'-0"
PROJECT MANAGER: DM
DRAWN BY: CUS
DATE OF RECORD: JPP
PROJECT NO.: 11127
DATE:
SHEET TITLE:
SPECIFICATIONS
SHEET 1
SHEET No.
E-002