

26 00 00 – ELECTRICAL

SECTIONS INCLUDED:

26 00 00

Boxes for outlets, switches etc. shall be 4" x 4" minimum with appropriate mud ring.

Coordinate access doors as required to provide access to boxes in hard ceilings and similar inaccessible areas. Type of access door shall be coordinated with the Architect.

Do not allow back to back boxes.

Site Junction Boxes shall be Polymer Concrete (aka Quazite) boxes. NO PVC Boxes allowed.

WIRE AND CABLE

All conductors shall be copper. Use of aluminum conductors is not permitted. All conductors that attach to devices shall be solid conductors.

Wire and cable shall generally be type THHN, THWN or THW

Do not specify non-metallic cable (type NM or NM-C), Metal clad cable (type AC or MC)

In no case shall conductor smaller than # 12 AWG be used for lighting or receptacle branch circuits. For branch circuits whose length from panel to the furthest outlet exceeds 100 feet for 120V circuits use # 10 AWG or larger.

Wire or cable for specialized installations shall be as recommended by the Project Engineer

Specify a grounding conductor in all branch circuit raceways.

All circuits shall have separate neutral. Do not use handle ties.

Color coding shall be as follows:

<u>VOLTAGE</u>	<u>A PHASE</u>	<u>B PHASE</u>	<u>C PHASE</u>	<u>NEUTRAL</u>	<u>GND</u>
120/208V	Black	Red	Blue	White	Green
277/480V	Brown	Orange	Yellow	Gray	Green

Switch legs shall be separate colors from those identified above.

WIRE JOINTS AND CONNECTIONS

Joints in wires

Provide a minimum of 4 spare conduits out of each panel, routed to an accessible location.

A/E to provide panel schedules on the contract drawings. Drawings and schedules shall be consistent with room numbering as provided by Facilities Management.

All panels to have bolt-in breakers and hinged covers.

All panels to be lockable, and keyed alike for each particular project.

New panels shall be designed with a minimum of 30% spare capacity.

Panel designation shall be by type (Power), Floor (B / 1 / 2 / 3 / ect) and panel (A / B / etc.) ie: L2A, H3B, E1A

Panels to be manufactured by Square D, Cutler Hammer, Siemens.

PANEL LOCATION

Panels shall be located on the same floor as the load served.

Panels are not to be located in custodial or other storage type spaces. Do not locate panels in laboratories, classrooms or behind doors. Locate in dedicated rooms wherever possible.

MAIN SWITCHROOM

Main switchboard rooms shall not contain other systems or equipment not related to the electrical distribution system

Specify filtered, thermostatically controlled ventilation for all main switchboard rooms.

Provide battery powered emergency lighting in all main switchboard rooms.

METERING

- All new buildings shall be individually metered with a switchboard mounted power monitor. Meter shall connect to UNC BAS for remote monitoring. Confirm communication protocol with UNC FM.

Design for 2.5 to 3 foot candles minimum in parking lots with a uniformity ratio of 4 to1.

Lighting for walkways on **West campus** shall be as follows: Lumec 70MH-DMS50-SG3-277-CNI-IA-FB-SC-SM6-14-SC-RAL 5003. (12 ft poles may be appropriate for some locations.) Equivalent by Architectural Area Lighting.

The decorative exterior pole lights in use for walkways on **central campus** are as follows: pole mounted luminaries with cast iron base, acorn globe with solid lid, 15 ft. cast iron pole, powder coat finish and stainless steel tamper resistant hardware. Antique street lamps Inc. by Lithonia Lighting. Product number: Holophane NY15/17-CIS/CM Pole, L_ _ _/5RSL9P_CM-S150/277 Luminaire. 40 watt LED Powder coat color RAL 5003 Sapphire blue.

Design walkway lighting for 1.5 to 2 fc.

Outdoor pole bases shall be 6