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III. Project Specific Scope

Furnish all necessary labor, materials, supervision, services, tools, equipment, taxes, transportation, shop drawings, samples, and all other things necessary to fully perform and complete in every respect, the following work in accordance with the full set of Contract Documents detailed herein, all applicable federal, state, and local requirements, and clarifications as specified herein:

- a. Electrical
- b. Lighting
- c. Site Electrical
- d. Fire Alarm
- 1. All electrical work to be in accordance with all applicable national and local codes as well as incorporate the requirements of and satisfy the local governing authority. Include all permits required for your work.
- 2. Submit catalog cuts and shop drawings of all distribution equipment, load centers, light fixtures and emergency devices for approval within two weeks of contract date.
- 3. Provide material and equipment tracking log and information within 2 weeks of submittal approvals. Provide updates at least monthly.
- 4. Provide temporary power for jobsite and construction trailer. Provide sufficient number of power stands for single extension cords to be used throughout the building. Provide sufficient type (volt, amp, phase...etc) of power for all construction equipment needs (ie. Wood floor sanding equipment) Verify with BCCG Superintendent.
- 5. Provide temporary lighting for jobsite. Provide lighting to meet OSHA required levels, at a minimum of one light per room and sufficient lighting in warehouse/open spaces. Temporary lighting to be removed before overhead cover-up inspections.
- 6. Provide all trenching with engineered backfill compacted to 95% required by this trade. For all trenching below pavement backfill compacted to 98%.
- 7. Provide primary service feeds if required by the local power company. If provided by others, provide underground conduit and concrete transformer pad for the electrical service.
- 8. Furnish and install 1" conduit with pull string and handholes from 1st floor electrical room to proposed location of future monument sign. See sheet E003 for location.
- 9. Furnish and install 2" conduit with pull string from 1st floor electrical room to location shown on E003 for future sports lighting.
- 10. Provide underground in the footing concrete for grounding or as required per plans and specs.
- 11. Provide and install junction boxes and fixture housing into the reinforcement of the concrete walls.
- 12. Furnish and install (2) -4" conduit for low voltage service (telephone, security, cable, etc.). From Hicks Rd ROW stubbed into first floor electrical room.
- 13. Furnish and install switchgear, metering cabinet, complete secondary transformer pad and other distribution equipment as required for servicing this facility.
- 14. Provide lighting systems including boxes, conduit, raceways, wire, etc. and the following, or as specified in plans and specs:
 - 2 x 4 recessed fixtures
 - 2x 4 high bay fixtures
 - 2 x 2 recessed fixtures
 - Recessed down lights
 - Recessed accent lights
 - Emergency lights (with battery as specified)
 - Exit lights (with battery as specified)
 Combination exit/emergency lights (with battery as specified)
 - Strip lighting
 - Wall packs
 - Wet rated canopy lighting (recessed if specified)
 - Elevator pit lighting

All light fixtures to be per fixture schedule and notes on sheet E202

Gym lighting quantity and layout per electrical sheet E201 (not reflected ceiling plans)

All high bay fixtures and sensors in Gym to have metal protective cages.

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- 15. Include all lighting controls as required per plans and specs including all switching, dimming, occupancy sensors and related power packs, controllers and control panels as required. See detail 4 on sheet E004 for dimmer/occupancy sensor diagram. Provide key switch controlled photocell per plans.
- 16. All lighting shall have a UL label.
- 17. Provide wiring devices including boxes, conduit, raceways, wire, etc. and the following, or as specified in plans and specs:
 - 120V duplex outlets
 - 120 V duplex outlets with isolated ground
 - 220V outlets
 - Floor outlets, power boxes, duct, power poles, etc.
 - Special outlets
 - GFI outlets
 - GFCI surface mount waterproof outlets on roof
 - Communication outlets and stubs (wire by others)
 - Communication floor boxes, outlets, etc. (wire by others)
 - Switches as shown in plans and specs
- 18. Provide miscellaneous power wiring including boxes, conduit, raceways, wire, etc. and the following, or as specified in plans and specs:
 - Electric water cooler
 - Hot water heater(s)
 - Telephone outlets
 - Alarm outlets
 - Junction boxes for Owner's equipment
 - Flow switch and alarm connection or fire protection riser
 - Bleachers
 - Retractable stage
 - Overhead basketball equipment/nets
 - Overhead divider partition/curtain

Note the limited wall depth, specifically in Rooms A128 and A129 and select outlet boxes and junction boxes appropriately for a flush and NEC compliant installation

Furnish and install disconnects and key switches for all gym equipment per plan.

- 19. Provide power wiring for HVAC and other equipment including boxes, conduit, raceways, wire, disconnect switches, motor starters, etc. and the following, or as specified in plans and specs:
 - Fans
 - Unit heaters
 - Exhaust fans
 - Motorized dampers
 - Make-up air units
 - Roof top package units
 - Mini split systems

(Quote deduct price for fused disconnect at RTU's if provided by Mechanical)

- 20. Design and install a complete fire alarm system to meet the requirements of the contract documents and AHJ. System to be certified and stamped by certified designer. Drawings to be submitted in a timely manner to AHJ for review, approval and permit as to not delay schedule. Secure and pay for fire alarm permit. Refer to Fire Alarm Riser and System Matrix on sheet E004 for notes and requirements. Paint FA junction boxes and conduits every 10' with red paint. Furnish and install duct mounted smoke detectors in return air and wired to FACP (provide auxiliary contact for Mechanical use). Wire from FACP to each individual air handler control circuit to install shut down contact as required by NFPA. Provide cages on FA devices in Gym if required by AHJ.
- 21. Provide fire alarm device map for display in FACP room.
- 22. Provie pathway and power supply for all electronic door hardware.
- 23. Provide and install plywood tor telephone/low voltage equipment backer board in the electrical room.
- 24. Layout and furnish electrical sleeves in foundation walls, concrete slabs and roof decks.
- 25. Install hard-pipe conduit out of all panels to a height of at least 8' AFF and higher, or complete for runs as required by the contract documents.

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- 26. Coordinate with structural engineer for all required openings through the floor, roof and/or exterior wall panels, on any penetration greater than 2" diameter. Provide all cutting and coring of foundations, floors, roofs and walls required for this trade, including patching. Install all sleeves as required.
- 27. Furnish and install access panels for hard ceilings where required to access electrical equipment. Coordinate layout and framing with drywall subcontractor.
- 28. Keep and maintain current as built drawings. Will be checked weekly for accuracy by BCCG Superintendent. Satisfactory verification of current as-builts by BCCG will be a pre-requisite for approving monthly payments.
- 29. Furnish as-built drawings, system Operation and Maintenance manuals and conduct Owner training, two weeks after Certificate of Occupancy.
- 30. Provide check, test and start-up of electrical systems and equipment.
- 31. Provide and install conduit and wiring for elevator. Furnish and install external disconnect and/or integral shunt trip disconnects as required, pit lighting, power to elevator sump pump and elevator video systems as required per contract documents and/or AHJ.
- 32. Provide two way communications system at elevator landings including all notes on detail 6, sheet E004.
- 33. If required by the contract documents, provide area of refuge communication system.
- 34. Seal all penetrations through walls or floors. If not rated, use acoustic sealant. If through a fire rated assembly, use a listed fire seal installed per UL 1479.
- 35. All cabling above ceiling shall be plenum rated.
- 36. All 120V homeruns over 75 feet in length shall be upsized to the next larger wire gauge to account for voltage drop. Increase conduit size accordingly.
- 37. Coordinate all overhead work and lighting with other MEP trades to prevent interferences.



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