

**SECTION 024126**  
**SELECTIVE ELECTRICAL DEMOLITION**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. Section Includes:
  - 1. Removal of existing electrical equipment, wiring, and conduit in areas to be remodeled; removal of designated construction; dismantling, cutting and alterations for completion of the Work.
  - 2. Disposal of materials.
  - 3. Storage of removed materials.
  - 4. Identification of utilities.
  - 5. Salvaged items.
  - 6. Protection of items to remain [as scheduled at end of section] [as indicated on Drawings].
  - 7. Relocate existing equipment to accommodate construction.
- B. Related Sections:
  - 1. Section 024100 - Demolition.
  - 2. Section 083113 - Access Doors and Frames: Execution requirements for access doors and panels specified by this section.

**1.2 SUBMITTALS**

- A. General Conditions: Requirements for submittals.
- B. Shop Drawings: Indicate demolition and removal sequence and location of salvageable items; location and construction of temporary work. Describe demolition removal procedures and schedule.

**1.3 CLOSEOUT SUBMITTALS**

- A. General Conditions: Requirements for submittals.
- B. Project Record Documents: Record actual locations of capped utilities, conduits and equipment abandoned in place.

**1.4 SEQUENCING**

- A. General Conditions: Requirements for sequencing.
- B. Sequence as requested for project.

**1.5 SCHEDULING**

- A. General Conditions: Requirements for scheduling.
- B. Schedule work to coincide with new construction or remodeled/renovation area.
- C. Cease operations immediately when structure appears to be in danger and notify Architect/Engineer. Do not resume operations until directed.

**1.6 COORDINATION**

- A. General Conditions: Requirements for coordination.
- B. Conduct demolition to minimize interference with adjacent and occupied building areas.
- C. Coordinate demolition work with General Contractor.
- D. Coordinate and sequence demolition so as not to cause shutdown of operation of surrounding areas.
- E. Shut-down Periods:
  - 1. Arrange timing of shut-down periods of in service panels with COTR. Do not shut down any utility without prior written approval.
  - 2. Keep shut-down period to minimum or use intermittent period as directed by COTR.
  - 3. Maintain life-safety systems in full operation in occupied facilities, or provide notice minimum 3 days in advance.
- F. Identify salvage items in cooperation with Owner.

**1.7 CONTRACTOR'S USE OF PREMISES**

- A. Confine operations at site to areas and limits permitted by law, ordinances, permits; contract documents and general conditions.
- B. Protection and safekeeping of products stored on premises is responsibility of contractor supplying product.
- C. Deliveries and unloading shall be scheduled to prevent traffic congestion blocking of access or interference with work. Arrange deliveries to avoid larger accumulations of materials than can be suitably stored at site.
- D. Contractor shall pay for, or satisfactorily repair, all damages incident to their work, to sidewalks, streets, other public or private property, or to any public utilities occurring during period of work under this contract.

**PART 2 PRODUCTS**

Not Used

**PART 3 EXECUTION**

**3.1 EXAMINATION**

- A. General Conditions: Verification of existing conditions before starting work.
- B. Visit site and survey existing conditions affecting work prior to bid. Include necessary materials and labor to accomplish the electrical work, including relocation of existing services and utilities on building site in bid. No consideration shall be given to future claims due to existing conditions. Any discrepancies or interference shall be reported immediately to the consultant.
- C. Verify wiring and equipment indicated to be demolished serve only abandoned facilities.
- D. Verify termination points for demolished services.

**3.2 PREPARATION**

- A. Erect, and maintain temporary safeguards, including warning signs and lights, barricades, and similar measures, for protection of the public, Owner, Contractor's employees, and existing improvements to remain.
- B. Temporary egress signage and emergency lighting

**3.3 DEMOLITION**

- A. Demolition Drawings are based on casual field observation and existing record documents. Report discrepancies to Architect/Engineer before disturbing existing installation. Demolish existing electrical work, including auxiliary systems, in areas of existing building shown reworked. Coordinate removal of electrical systems with General Contractor and Owner.
- B. Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors and patch surfaces.
- C. Remove conduit, wire, boxes, and fastening devices to avoid any interference with new installation.
- D. Disconnect electrical systems in walls, floors, and ceilings scheduled for removal.
- E. Reconnect equipment being disturbed by renovation work and required for continue service to nearest available panel.
- F. Disconnect or shut off service to areas where electrical work is to be removed. Remove electrical fixtures, equipment, and related switches, outlets, conduit and wiring which are not part of final project.
- G. Install temporary wiring and connections to maintain existing systems in service during construction.

- H. Perform work on energized equipment or circuits with experienced and trained personnel.
- I. Remove, relocate, and extend existing installations to accommodate new construction.
- J. Repair adjacent construction and finishes damaged during demolition and extension work.
- K. Remove exposed abandoned grounding and bonding components, fasteners and supports, and electrical identification components, including abandoned components above accessible ceiling finishes. Cut embedded support elements flush with walls and floors.
- L. Clean existing equipment to remain.
- M. Protect and retain power to existing active equipment remaining.
- N. Cap abandoned empty conduit at both ends.
- O. In reworked areas, remove all electrical equipment; i.e.: Light fixtures, panelboards, switches, receptacles, auxiliary system devices, telephone outlets, etc.; unless otherwise noted. Remove existing branch circuits (conduit, wire, outlet boxes and supports) serving equipment to be removed. Abandon circuits concealed in concrete. Remove conductors from abandoned conduits. Leave existing branch circuits and feeders which run through reworked areas and serve existing equipment to remain in service, continuous and uninterrupted. Repair, re-terminate, re-support, etc., any damaged circuits, feeders or supports.
- P. Abandon outlets in existing masonry and brick walls: provide blank stainless steel cover plates.
- Q. Cut off abandoned conduits concealed in slab one inch below top of base floor slab and patch slab or floor to match existing.

#### **3.4 EXISTING PANELBOARDS TO REMAIN**

- A. Ring out circuits in existing panel affected by the Work. Where additional circuits are needed, reuse circuits available for reuse. Install new breakers.
- B. Tag unused circuits as spare.
- C. Where existing circuits are indicated to be reused, use sensing measuring devices to verify circuits feeding Project area or are not in use.
- D. Remove existing wire no longer in use from panel to equipment.
- E. Provide new updated directories where more than three circuits have been modified or rewired.

#### **3.5 SALVAGE ITEMS**

- A. Electrical equipment, wiring, etc., removed and not required to be part of new electrical installation is classed as salvage.
- B. The Contractor shall submit a list of salvageable equipment and/or parts identified below that are to be removed. Provide list to COTR for review.
- C. The list shall contain the following:
  - 1. type of equipment
  - 2. quantity
  - 3. manufacturer
  - 4. model #
  - 5. condition (with explanation if needed)
- D. Once the list has been reviewed the Contractor will be notified of any equipment deemed reusable by the COTR.
- E. Salvageable equipment not selected to be retained by the COTR becomes property of Contractor. Remove from job site.

**3.6 REUSABLE ELECTRICAL EQUIPMENT**

- A. Carefully remove equipment, materials, or fixtures which are to be reused.
- B. Disconnect, remove, or relocate existing electrical material and equipment interfering with new installation.
- C. Relocate existing lighting fixtures as indicated on Drawings. Clean fixtures and re-lamp. Test fixture to see if it is in good working condition before installation at new location.

**3.7 CUTTING AND REPAIRING**

- A. Cut and repair walls floors, roof, etc., as required for installation of work in this Division. Employ professional installers of repair materials where repair work is major or aesthetics are of primary importance.
- B. Do not pierce exterior walls below grade with hanger bolts. Do not cut building structural members except where accepted by Engineer. Do not use core drilling as a cutting method above telephone, electrical or data equipment. Use hammer drill only (size limited). Contain water below floor at any location of core drilling. Locate final holes to avoid cutting existing rebar as much as possible.
- C. Repair work shall be comparable with work cut. New finishes shall match adjacent finishes. Engineer will review repaired work and may reject unsuitable work.

**3.8 HAZARDOUS MATERIALS**

- A. Submit Material Safety Data Sheets for all materials furnished in this project defined as hazardous by NFPA. All requirements of the Material Safety Data Sheets shall be implemented and followed judiciously when hazardous materials are installed or otherwise used.
- B. All hazardous materials shall be stored and used (mixed, applied, etc.) in strict accordance with the OSHA Standards, and Safety Data Sheets.

**3.9 WELDING AND CUTTING**

- A. Special precautions shall be taken to reduce fire hazards where electric or gas welding or cutting work or soldering is done and suitable fire extinguishing equipment shall be maintained near such operations.

**3.10 CLEANING**

- A. General Conditions: Requirements for cleaning.
- B. Remove demolished materials as work progresses. Legally dispose.
- C. Keep workplace neat.

**3.11 PROTECTION OF FINISHED WORK**

- A. General Conditions: Requirements for protecting finished Work.

**3.12 DISPOSAL PROCEDURES (FLUORESCENT BULBS, BALLASTS & LIGHT FIXTURES)**

- A. These materials do not require special training to remove or package.
- B. The Contractor shall contract with Waste Management LampTracker to recycle the lamps (fluorescent bulbs) and ballasts removed during the project. The costs to recycle these materials is the responsibility of the contractor. The disposal and costs of non-regulated materials (light fixtures) is the responsibility of the Contractor. The Contractor is required to recycle as much material as possible.
- C. LAMPS
  - 1. The lamps contain mercury and are required to be properly recycled. If the lamps were crushed they would no longer be classified as regulated waste but would be hazardous waste which is not permitted.
  - 2. The removed lamps are to be placed into boxes obtained from

LampTracker for recycling. The box is to be closed with clear packing tape. The box is required to also meet the following additional requirements.

- a. Each box is to be properly closed with clear tape.
  - b. The boxes are to be placed on a pallet and shrink-wrapped.
  - c. 4 foot lamps boxes are not to be stacked higher than 66 inches.
  - d. 8 foot lamps boxes are not to be stacked higher than 48 inches.
  - e. Each box is to be properly labeled per the labeling section in this document.
3. The Contractor is required to protect the boxes from the weather. If the boxes become wet for any reason, the Contractor is required to replace the boxes at no cost to UNR.
  4. The recycling facility will not take boxes that have indications that they may have leaked materials. Water stained boxes cannot be accepted.
  5. The Contractor is required to use proper packing and arrange for picking up by Waste Management.

D. BROKEN LAMPS

1. The Contractor is to minimize lamp breakage. However, if breakage does occur and the majority (75%) of the bulb is still intact, place this portion in the lamp boxes for recycling. The smaller pieces are to be swept up and placed into a sealable 5 gallon bucket. The pieces are not to be vacuumed.
2. Broken lamp buckets are required to be labeled per the Labeling Section in this document.

E. BALLAST RECYCLING

1. The Contractor is to separate the ballasts into two types: ballasts with the "NO PCBs" label, and ballast that do not contain the label. Contractor shall order the appropriate size containers depending on the quantity of ballasts. The Contractor properly package and arrange for pickup by Waste Management. The containers are required to be properly labeled, placed on pallets, shrink wrapped and cannot exceed 700 pounds.

F. LABELING

1. The Contractor is required to place a label on all containers/boxes. The label must be accurate and visible once placed on the pallet for shipping. The labels can be pre-printed by the Contractor with the date and number of units in each container marked in the field. If the number of units is not correct and the recycling facility determines that the shipment is not acceptable and returns delivery, the Contractor is responsible for all charges to correct.
2. The following are the requirements for all labels.
  - a. Lamps  
Universal Waste/Used Mercury Lamps for Recycling  
Date: \_\_\_\_\_ Number of Units: \_\_\_\_\_  
Location: Building Name: Street Address, City and State
  - b. Broken Lamps  
Broken Universal Waste/Used Mercury Lamps for Recycling  
Date: \_\_\_\_\_ Number of Units: \_\_\_\_\_  
Location: Building Name: Street Address, City and State
  - c. Non-PCB Ballast  
Non-PCB Ballast for Recycling

BUILDING 1A SEISMIC CORRECTIONS  
VA SIERRA NEVADA HEALTH CARE SYSTEM  
RBB PROJECT #1013700

VA PROJECT #654-336  
VA CONTRACT #VA 261-P-0888

d.      Date: \_\_\_\_\_ Number of Units: \_\_\_\_\_  
         Location: Building Name: Street Address, City and State  
         PCB Ballast  
         PCB Ballast for Recycling  
         Date: \_\_\_\_\_ Number of Units: \_\_\_\_\_  
         Location: Building Name: Street Address, City and State

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