1. GENERAL

1.01 SECTION INCLUDES

.1 Work in existing facilities.

.2 Electrical demolition.

1.02 RELATED REQUIREMENTS

.1 Section 02 41 19 – Selective Demolition.

1.03 SCHEDULING

.1 Refer to Section 01 14 00, and Section 01 73 00.

.2 All work in the existing building, other than minor works required to permit construction of the new Work, is to be performed in such a manner as to not disrupt the building operations.

.3 All systems are to be kept in full operation during normal building hours.

.4 Coordinate any noise generating works that disrupt the building operation to be carried out after/before normal operating hours.

2. PRODUCTS

2.01 MATERIALS

.1 Materials and equipment for patching and extending work: As specified in individual sections.

3. EXECUTION

3.01 EXAMINATION

.1 Verification of Conditions

.1 Verify field measurements and circuiting arrangements are as shown on Drawings.

.2 Verify that abandoned wiring and equipment serve only abandoned facilities.

.3 Demolition drawings are based on visual field observations and conditions derived from existing drawings, and do not assess the interiors of electrical equipment. Report discrepancies to the Consultant before disturbing existing installation.

.4 Beginning of demolition means installer accepts existing conditions.

.2 Tracing Existing Electrical Circuits

.1 Trace all circuits in the area of work listed as existing, and verify existing conditions prior to any modifications as indicated.

.2 Where drawings indicate "connect to existing circuit", use a spare breaker, where available. Otherwise, verify existing load with a meter and advise the Consultant if the additional load will cause a circuit to trip.

.3 Where provided panelboard schedules indicate "Existing Circuit" or similar, provide the correct description for the circuit. Existing Circuit will not be acceptable in the final panelboard schedules submitted as part of closeout submittals.

.3 Existing Cabling in Return Air Plenums

.1 In ceilings being used as a return air-plenum, Contractor to review existing low-voltage cabling uncovered as part of the work.

.2 Immediately notify the Consultant if any cables identified are not plenum rated (i.e. CMP, or FT6 rated).

.4 Existing feeders to remain.

.1 Where the drawings call for the re-use of existing feeders and re-connection to new equipment, (such as when equipment is replaced like-for-like), confirm the size and quantity of conductors of the existing feeder, and provide lug kits on new equipment suitable for the existing feeder.

3.02 PREPARATION

.1 Coordinate utility service outages with utility company.

.2 Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits, use personnel experienced in such operations.

.3 Existing electrical service: Maintain existing system in service until new system is complete and ready for service. Disable system only to make switch overs and connections. Obtain permission from Owner at least 24 hours before partially or completely disabling system. Minimize outage duration. Make temporary connections to maintain service in areas adjacent to work area.

.4 Existing Telephone System: Maintain existing system in service. Notify Owner at least 24 hours before partially or completely disabling system. Minimize outage duration. Make temporary connections to maintain service in areas adjacent to work area.

.5 Existing Fire Alarm System: Maintain existing system in service. Minimize outage duration. Provide fire watch as required. Make temporary connections to maintain service in areas adjacent to work area.

3.03 DEMOLITION

.1 Disconnect electrical systems in walls, floors, and ceilings scheduled for removal.

.2 Demolish and extend existing electrical work to Section 02 41 19, and this Section.

.3 Remove, relocate, and extend existing installations to accommodate new construction.

.4 Remove abandoned wiring to source of supply.

.5 When relocating or removing equipment, should any circuits be abandoned, the conductors to these circuits must be removed or properly terminated as detailed in Ontario Electrical Safety Code (OESC) bulletin 12-25-5, or latest revision.

.6 Provide knockout fillers when removing circuits from any panelboard or splitter.

.7 Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.

.8 Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit servicing them is abandoned and removed. Provide blank cover for abandoned outlets which are not removed.

.9 Disconnect and remove abandoned panelboards and distribution equipment.

.10 Disconnect and remove electrical devices and equipment serving utilization equipment that has been removed.

.11 Disconnect and remove abandoned luminaires. Remove brackets, stems, hangers, and other accessories.

.12 Repair adjacent construction and finishes damaged during demolition and extension work.

.13 Extend existing installations using materials and methods compatible with existing electrical installations, or as specified.

.14 Maintain continuity of existing services for other circuits/devices serving areas outside the Work area. Provide additional wiring/conduits/boxes etc. to suit existing services to be maintained, and also implement new Work as detailed.

.15 During demolition, the contractor must exercise great care to preserve the architecturally significant features that are to remain intact. Refer to the architectural drawings for existing features that must be preserved. The contractor's bid should account for the intensive labour required to carry out the demolition scope of work.

3.04 RESTORATION

.1 Install relocated materials and equipment under the provisions of Division 01.

3.05 CLEANING

.1 Clean and repair existing materials and equipment which remain or are to be reused.

.2 Luminaires: Remove existing luminaires for cleaning. Use mild detergent to clean all exterior and interior surfaces; rinse with clean water and wipe dry. Replace lamps, ballasts, and broken electrical parts.

.3 Waste Management

.1 Turn over designated equipment to the Owner.

.2 Dispose of unwanted materials and equipment.

3.06 PROTECTION

.1 Maintain access to existing electrical installations which remain active. Modify installation or provide access panels as appropriate.

End of Section