

SECTION 01731 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Requirements and limitations for cutting and patching Work.
 - 2. Products for patching and extending Work.
 - 3. Transitions and adjustments.
 - 4. Repair of damaged surfaces, finishes and cleaning.
- B. Related Requirements:
 - 1. Construction Contract Between Walmart and Contractor (Par 3.12): Additional requirements for cutting and patching.
 - 2. Section 01351 – Regulatory Compliance:
 - a. Disposal and removal of hazardous construction and universal waste.
 - b. Work practice control methods for airborne respirable dust.
 - 3. Section 01500 - Temporary Facilities and Controls: Temporary barriers.
 - 4. Section 02023 - Selective Site Demolition: Procedures for removing existing materials and equipment.

1.2 REFERENCES

- A. Occupational Safety and Health Administration (OSHA):
 - 1. OSHA 01926.1153 Respirable Crystalline Silica

1.3 ENVIRONMENTAL REQUIREMENTS

- A. Minimize dust emissions or provide equipment that suppresses dust.

1.4 PERFORMANCE REQUIREMENTS

- A. Cutting and patching shall be performed as required for cutting into existing construction to provide for installation or performance of other work and subsequent fitting and patching required for restoration of surfaces to their original condition.
- B. Cut into or partially remove portions of the existing building as required for new construction. Include such work as:
 - 1. Cutting, moving or removal of items shown to be cut, moved or removed.
 - 2. Cutting, moving or removal of items not shown to be cut, moved, or removed, but which must be cut, moved, or removed to allow for new construction. Work or items which are to remain in the finished work shall be patched or reinstalled after cutting, moving, or removal, and joints and finishes shall match adjacent or similar work.
 - 3. Removal of existing surface finishes as needed to install new work and finishes.
 - 4. Removal of abandoned items and removal of items rendered no longer required resulting from alterations such as abandoned piping and electrical conduits to nearest J-boxes.
 - 5. Repair or removal of dangerous or unsanitary conditions resulting from alterations work.
- C. Structural Work:
 - 1. Do not cut and patch structural work in manner resulting in reduction of load-carrying capacity or load and deflection ratio.
 - 2. Submit proposed methods of cutting and patching of structural work and obtain Walmart Construction Manager's approval prior to the structural alterations.
- D. Operational Limitations:

1. Do not cut and patch in manner resulting in decreased performance, shortened useful life, or increased maintenance.
 2. Submit proposed methods of cutting and patching operational elements and safety components and obtain Walmart Construction Manager's acceptance prior to the work.
- E. Quality Limitations: Do not cut and patch work exposed to view (exterior and interior) in manner resulting in noticeable reduction of aesthetic qualities and similar qualities, as determined by the Walmart Construction Manager.
- F. Limitation on Acceptance: Walmart Construction Manager's acceptance to proceed with cutting and patching shall not waive right to later require removal or replacement of work found to be cut and patched in unsatisfactory manner as determined by Walmart Construction Manager.
- G. Obtain all required inspections and approvals from authorities having jurisdiction for Temporary Certificate of Occupancy for Offices and Stockroom at least seven calendar days prior to Walmart scheduled move into new Office and Stockroom areas.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Use materials for cutting and patching that are identical to existing materials. If identical materials are not available or cannot be used, use materials that match existing adjacent surfaces to fullest extent possible with regard to visual effect. Use materials for cutting and patching that will result in equal or better performance characteristics.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which work is to be performed before cutting. Take corrective action before proceeding with work if unsafe or otherwise unsatisfactory conditions are encountered.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of work to be cut to prevent failure.
- B. Protection:
1. Protect other work during cutting and patching to prevent damage.
 2. Provide protection from adverse weather conditions for that part of project that may be exposed during cutting and patching operations.
 3. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
 4. Take precautions not to cut existing pipe, conduit, or duct serving building but scheduled to be relocated until provisions have been made to bypass them.

3.3 CUTTING AND PATCHING

- A. Remove, cut and patch work in a manner to minimize damage and to provide means of restoring products, materials, and finishes to match original condition.
- B. Cutting and removal work shall be performed so as not to cut or remove more than is necessary and that are least likely to damage work to be retained or adjoining work.
- C. Conduct work in such a manner as to minimize noise and to minimize accumulation and spread of dirt and dust.
- D. Use hand tools or small power tools designed for sawing or grinding. Avoid hammering and chopping.

- E. Where cutting cured concrete or masonry is required, use saws equipped with integrated water delivery systems that continuously feed water to the blade, or a HEPA-rated filter dust collection vacuum system recommended by the manufacturer to maintain dust emissions below the permissible level.
- F. Where core drilling or grinding concrete is required, use power tools equipped with HEPA-rated filter dust collection vacuum system recommended by the manufacturer to maintain dust emissions below the permissible level.
- G. To avoid marring existing finished surfaces, cut and drill from exposed or finished side into concealed surfaces. Temporarily cover openings when not in use.
- H. Cut holes and slots neatly to size required with minimum disturbance of adjacent work. Use HEPA-rated filter vacuums to clean holes and slots.
- I. Dispose of construction waste in accordance with the requirements of Section 01351.
- J. Patch with seams that are durable and as invisible as possible. Comply with specified tolerances for work.
- K. If the surrounding surface cannot be matched, repaint or recoat the entire surface to nearest corner or transition point.

3.4 TRANSITIONS

- A. Where new work abuts or aligns with existing work, provide a smooth and even transition. Patched work shall match existing adjacent work in texture and appearance.
- B. Where finished surfaces are cut in such a way that a smooth transition with new work is not possible, terminate the existing surface along a straight line at a natural line of division.
- C. Where two or more spaces are indicated to become one space, reconstruct ceilings to provide horizontal planes without breaks, steps or bulkheads.
- D. In cases of extreme change of ceiling or floor, obtain instructions from Walmart Construction Manager as to method of making an acceptable transition.

3.5 REPAIR OF DAMAGED SURFACES

- A. Patch or replace portions of existing surfaces which are damaged, discolored, or showing imperfections. Repair substrate prior to patching finish.
- B. Restore existing work that is damaged during construction to a condition equal to its condition at the time of the start of the Work.
- C. At locations in existing areas where partitions are removed, patch the floors, walls and ceilings with finish materials to match new finishes.
- D. Where plumbing is removed and capped below finish floor, core drill concrete floor as required using proper dust control methods as specified herein. Cap a minimum of 8" below floor. Patch hole with new concrete to match existing floor.

3.6 REMOVAL AND REPLACEMENT OF EXISTING WORK

- A. Remove existing items, services, finishes or surfaces as required for installation of new construction.
- B. Repair, re-route, and extend services, piping and conduit of existing items and equipment as required during construction operations for installation and operation of new items and equipment. When existing equipment to remain is removed or relocated, re-install as required for proper operation.

END OF SECTION