

SECTION 02023 - SELECTIVE SITE DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Procedures for demolition and removal of existing building elements.
2. Protection of existing construction.
3. Salvaged material and items.
4. Schedule of building demolition.
5. Disposal of demolished materials (non-hazardous and hazardous).

B. Related Requirements:

1. Section 01100 - Summary: Restrictions for Work within and adjacent to existing building areas.
2. Section 01351 - Compliance:
 - a. Removal and disposal of resilient flooring and acoustical ceiling tile to be recycled.
 - b. Removal and disposal of hazardous construction and demolition waste.
 - c. Removal and disposal of non-hazardous demolition waste and debris and management of salvaged items.
 - d. Work practice control methods for airborne respirable dust.
3. Section 01500 - Temporary Facilities and Controls: Temporary protection and barriers. Removal and disposal of demolished materials.
4. Section 01700 - Execution Requirements.
5. Section 01731 - Cutting and Patching: Requirements and limitations for cutting and patching Work.
6. Section 02251 - Shoring: Requirements for shoring and bracing.

1.2 REFERENCES

A. Occupational Safety and Health Administration (OSHA):

1. OSHA 01926.1153 Respirable Crystalline Silica.

1.3 SYSTEM DESCRIPTION

A. Selective Demolition Requirements:

1. Perform demolition in construction sequence phases as required by the scope of Work and as agreed upon with the Walmart Construction Manager.
2. Work necessary and required to facilitate the new construction indicated.
3. Demolish so that construction, new and existing, can be performed and completed in accordance with construction documents.
4. Visit the project site and become familiar with the existing conditions and project requirements.
5. Clarify the scope of the Work under this Section including salvage material. The Owner will be responsible for removing materials and equipment which the Owner wishes to salvage prior to the beginning of this Work.
6. Retain existing fire protection sprinkler system in place and active.
7. Contractor is responsible for damage to existing structure and replacement or repair of damage.
8. Repair, replace, or rebuild existing construction as required or as directed which has been removed, altered, or disrupted to allow for new construction. Correct existing construction to match adjacent construction, new or existing as specified in Section 01731.

B. Regulatory Requirements:

1. Conform to applicable code for demolition of structures, safety of adjacent structures, runoff control, and disposal.
2. Comply with applicable local and state dust control regulations.

3. Obtain required permits from authorities having jurisdiction and submit to Walmart.
4. Notify affected utility companies before starting work and comply with their requirements. Submit Certificates for severance of utility services and submit confirmation documentation of all utility company contacts to Walmart.
5. Do not close or obstruct roadways, sidewalks, or hydrants without permits from authorities having jurisdiction and Walmart Construction Manager.
6. Conform to applicable regulatory procedures when discovering hazardous, contaminated, and universal waste materials.
7. Test soils around buried tanks for contamination (where buried tanks occur).

1.4 PROJECT CONDITIONS

- A. Owner will continuously occupy areas of building immediately adjacent to areas of selective demolition. Work within and adjacent to existing building areas will be restricted to areas and hours specified in Section 01700.
- B. Conditions of Structure:
 1. Owner assumes no responsibility for actual condition of items or structures to be demolished.
 2. Conditions existing at time of inspection for bidding purposes will be maintained by Owner insofar as practical.
 3. Variations within structure may occur by Owner's removal and salvage operations prior to start of selective demolition work.
- C. Traffic: Conduct selective demolition and debris removal in manner to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities. Provide traffic controls as specified in Section 01500.

1.5 QUALITY ASSURANCE

- A. Qualifications: Engage only personnel who can demonstrate not less than five (5) years successful experience in Work of similar character.
- B. Performance Criteria:
 1. Requirements of Structural Work: Do not cut structural work in a manner resulting in a reduction of load-carrying capacity of load/deflection ratio.
 2. Operational and Safety Limitations: Do not cut operational elements and safety-related components in a manner resulting in a reduction of capacities to perform in a manner intended or resulting in a decreased operational life, increased maintenance, or decreased safety.
 3. Visual Requirements: Do not cut work which is exposed on the exterior or exposed in occupied spaces of the building in a manner resulting in a reduction of visual qualities or resulting in substantial evidence of the demolition work judged by the Architect to be cut and patched in a visually unsatisfactory manner.
 4. Loading: Do not superimpose loads at any point upon existing structure beyond design capacity including loads attributable to materials, construction equipment, demolition operations, and shoring and bracing.
 5. Vibration: Do not use means, methods, techniques, or procedures which would induce vibration into any element of the structure.
 6. Fire: Do not use means, methods, techniques, or procedures which would produce any fire hazard.
 7. Water: Do not use means, methods, techniques, or procedures which would produce water run-off, and water pollution. Refer to Section 01500 for related requirements.
 8. Air Pollution: Do not use means, methods, techniques or procedures which would produce uncontrolled dust, fumes, or other damaging air pollution.

1.6 UTILITY SERVICES

- A. Maintain existing utilities. Keep in service and protect against damage during demolition operations.
- B. Do not interrupt existing utilities serving occupied or used facilities except when authorized in writing by authorities having jurisdiction and approval by Walmart Construction Manager.

- C. Provide temporary services during interruptions to existing utilities as acceptable to governing authorities.
- D. Locate, identify, stub off, and disconnect utility services not to remain.
- E. Provide by-pass connections as necessary to maintain continuity of service to occupied areas of building.
- F. Provide advance notice to Walmart if shut-down of service is necessary during change-over.

1.7 PROJECT SITE

- A. Indicated "Existing Construction" was obtained from existing drawings. Verify existing conditions and notify the Walmart Construction Manager of discrepancies before proceeding with the Work.
- B. Perform removal, cutting, drilling, etc., of existing work with extreme care, and use small tools in order not to jeopardize the structural integrity of the building.
- C. Occupancy: Contractor will have limited use of the facility during construction as specified in Section 01700.
- D. Condition of Structure: The Owner assumes no responsibility for the actual condition of portions of the structure to be demolished.
- E. Protection: Ensure that the safe passage of persons around the area of demolition is provided. Conduct operations to prevent damage to adjacent buildings, structures, and other facilities, and injury to persons.

1.8 SEQUENCING AND SCHEDULING

- A. Comply with Walmart approved schedule for sequence of operations for selective demolition work.
- B. Include coordination for shut-off, capping, and continuation of utility services as required, together with details for dust and noise control.
- C. Provide detailed sequence of demolition and removal work to ensure uninterrupted progress of Owner's on-site operations.
- D. Conduct selective demolition work in manner to minimize disruption of Owner's normal operations.
- E. Provide Walmart advance notice of demolition activities impacting Walmart's normal operations as specified in Section 01700.

1.9 SHORING AND BRACING

- A. Provide temporary shoring, bracing and supports for building structure as required for support of structure during demolition of existing structural elements and to prevent movement, settlement of existing building and adjacent buildings and facilities to remain as specified in Section 02251.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Designated materials and equipment for re-installation: Carefully remove, store, and protect.
- B. Walmart Salvage: Clean, store, and transfer designated materials and equipment to Owner, and obtain receipt. Walmart salvage items include but are not limited to:
 - 1. Store fixtures.
 - 2. Storage racks.
 - 3. Store equipment.

4. Salvage items as indicated on Drawings.
- C. Contractor's Salvage:
 1. Contractor shall verify with and obtain approval from Walmart Construction Manager for all Contractor salvage items prior to their removal from site.
 2. Transport salvaged items from site as items are removed.
 3. Storage or sale of removed items on site not permitted.
- D. Replace materials scheduled for reuse which are damaged to the extent that they cannot be reused. Replace with equal quality material at no additional cost to the Owner as specified in Section 01700.
- E. Coordinate with the Owner on disposition of salvage items not scheduled for reuse, demolished materials, and equipment. Deliver salvaged materials, not reused, as directed, by or to the Owner.
- F. Prior to performing any demolition, coordinate with EMS contractor for EMS controls/equipment required to be reused or salvaged.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine surfaces and adjacent areas of Work under this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.
- B. Starting Work constitutes acceptance of existing conditions.

3.2 PREPARATION

- A. Ensure safe passage of persons around area of demolition.
- B. Erect temporary covered passageways as specified in Section 01500.
- C. Protect existing finish work to remain in place.
- D. Protect floors with suitable coverage.
- E. Construct temporary insulated solid dustproof partitions where noise or extensive dirt or dust operations are performed. Equip partitions with dustproof doors and security locks if required as specified in Section 01500.
- F. Provide temporary weather protection between demolition and removal of existing construction on exterior surfaces and installation of new construction to ensure no water leakage or damage occurs to structure or interior areas of existing building as specified in Section 01500.
- G. Cease operations and notify Walmart Construction Manager immediately if safety of structure appears to be endangered.
- H. Take precautions to support structure until determination is made for continuing operations.
- I. Cover and protect furniture, equipment, and fixtures to remain from soiling or damage when demolition work is performed in rooms or areas from which such items have not been removed.

3.3 DEMOLITION

- A. Demolition work within existing building shall be scheduled with the Walmart Construction Manager for approved times of day.
 1. Submit written request for approval to the Walmart Construction Manager 14 calendar days in advance of

the date Contractor demolition work is required to begin in the existing building.

- B. The Owner will remove or, under separate contract, have materials and equipment which the Owner requires removed, prior to commencement of Work under this Section. Coordinate scheduling of removal of Owner materials and equipment with Walmart Construction Manager and Store Manager.
- C. Demolition:
 - 1. Perform demolition work in systematic manner.
 - 2. Demolish concrete and masonry in small sections.
 - 3. Perform cutting or existing concrete and masonry construction with saws and core drills using proper dust control methods as specified herein. Do not use jack-hammers, except as specified herein. Do not use explosives.
 - a. Cut concrete and masonry at junctures with construction to remain, using masonry saws or hand tools, and make cuts straight and square with building.
 - 4. Do not use powder-driven impact tools.
 - 5. Locate demolition equipment throughout structure and promptly remove debris to avoid imposing excessive loads on supporting walls, floor, or framing.
 - 6. Patch with seams which are durable and as invisible as possible. Comply with specified tolerances for the work.
 - 7. Where selective demolition terminates at a "surface" or construction "to remain," completely remove all traces of material selectively demolished, including mortar beds. Provide smooth, even substrate transition as specified in Section 01731.
 - 8. Demolition shall be carried out in a safe manner and in strict accordance with OSHA regulations.
 - 9. The Contractor shall field verify the extent of demolition. The Work includes, but is not limited to, the demolition and removal of walls, doors, fixtures, plumbing, mechanical and electrical items including conduits and ductwork as shown on Drawing or as required for the installation of the new Work for a complete job.
 - 10. When utilities are removed, cap and seal a minimum of 8" below finish floor or a minimum of 6" above finish ceiling.
 - 11. When removing existing structural items, provide adequate shoring, bracing and support systems to keep the existing structure intact and in a safe condition. Refer to Section 02251.
- D. Demolition of Interior Slabs on Grade:
 - 1. Use removal methods that will not crack, undermine or structurally disturb adjacent slabs or partitions.
 - 2. At interior concrete slabs on grade to receive floor coverings as final finish, minimum width of trench shall be as required to allow for compacting machine to properly compact the base. Manual compaction methods are not acceptable.
 - 3. At interior concrete slabs on grade to receive exposed concrete finish (sealed or unsealed), demolish existing interior slab on grade as shown on the Drawings. No trenching shall be allowed in areas to receive exposed concrete finish.
 - 4. Prior to proposed cutting, install 36" wide rosin paper outside of area to be removed in order to reduce scarring of slab which is to remain.
- E. Environmental Controls:
 - 1. Use water sprinkling, temporary enclosures, and other proper control methods to maintain airborne dust and dirt below permissible levels.
 - 2. Comply with governing regulations pertaining to environmental protection.
 - 3. Do not use water when it may create hazardous or objectionable conditions, such as ice, flooding, or pollution.
 - 4. For work scheduled in this section including cutting and breaking of masonry, concrete slab below or on grade, walls, foundation work, or footings, use tools 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. Below Grade Demolition:
 - 1. Demolish and remove below grade wood or metal construction.

2. Break up below grade concrete slabs using proper dust control methods as specified herein.

G. Filling Below-Grade Voids:

1. Fill below grade areas and voids resulting from demolition work.
2. Use fill consisting of earth, gravel, or sand, free of trash and debris, stones over 6 inches diameter, roots, or other organic matter.

H. If unanticipated mechanical, electrical, or structural elements conflicting with intended function or design are encountered, submit written report of nature and extent of conflict to Architect and Walmart Construction Manager. Rearrange demolition schedule to continue job progress without delay.

3.4 DISPOSAL OF DEMOLISHED MATERIALS

A. Dispose of non-hazardous and universal waste demolished materials as specified in Regulatory Compliance Section 01351.

B. Deposit waste materials, rubbish, and debris in waste containers.

C. Do not allow waste materials, rubbish, and debris to accumulate and become an unsightly or hazardous condition.

D. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution. Notify Walmart Construction Manager, in writing, of hazardous materials encountered.

E. Comply with the requirements of Regulatory Compliance Section 01351 (Par 3.6.2 of the Supplement) for hazardous construction and demolition waste management and disposal.

3.5 POLLUTION CONTROLS

A. Use temporary enclosures and other proper control methods to maintain airborne dust and dirt below permissible levels.

B. Comply with governing authorities pertaining to environmental protection.

C. Clean adjacent portion of the structure and improvement of dust, dirt and debris caused by demolition operations, as directed by the Walmart Construction Manager and governing authorities. Return adjacent areas to conditions existing prior to the start of the work.

D. Burning of trash, debris, or removed materials not permitted on site.

3.6 SCHEDULE OF SELECTIVE DEMOLITION

A. Remove and dispose of existing building items and adjacent sitework items as required for Work and as indicated on Drawings.

B. Sitework Adjacent to Building:

1. Fencing, gates and concrete post footings.
2. Asphalt concrete paving.
3. Metal handrails and railings.

C. Interior or Exterior Slab on Grade:

1. Locate portion of existing concrete slab to be removed. Saw cut perimeter or existing slab minimum of 50-percent of slab thickness to provide a breaking point to remove existing concrete.
2. Wet saw concrete slabs along straight lines to minimum depth of 2-inches where concrete is to be removed. The method of removal shall maintain the undamaged slab edge within the sawed line. Jack hammers may be used only "after hours" and with permission from the Owner's Construction Manager. Jack hammers may

- not be used at any time to remove/cut concrete from the existing slab, but only to break up concrete which has already been saw cut from the concrete slab.
- a. Jack hammers shall be equipped with field assembled water delivery systems that supply a continuous stream or spray of water at the point of impact or HEPA-rated filter dust collection vacuum system recommended by the manufacturer to maintain dust emissions below the permissible level.
 3. Break concrete slab to be removed into portions easily removed, maximum 30-inch dimension at any side.
 4. Remove concrete pieces within area of slab demolition down to the existing subgrade.
- D. Exterior Masonry:
1. Locate portion of existing masonry wall to be removed. Units which are removed: "tooth" from existing construction.
 2. Verify that temporary supports, enclosures, and bracing are in place and adequate for intended purpose.
 3. Remove only that portion of the exterior wall which is required for the indicated new construction.
- E. Below Grade Construction:
1. Remove below grade construction including foundation work, column footings, and abandon mechanical, plumbing, and electrical work as indicated.
- F. Interior Walls and Partitions:
1. Remove interior walls and partitions as indicated.
 2. Remove all top and bottom framing tracks and overhead braces of partitions being removed.
- G. Doors and Frames:
1. Remove hollow metal doors and frames.
 2. Remove aluminum storefront doors and frames.
 3. Remove aluminum automatic doors and frames, unless otherwise noted on Drawings.
- H. Interior Finishes:
1. Remove carpet and carpet adhesives.
 2. Removal and recycling or reclamation of vinyl composition tile flooring (VCT) acoustical ceiling tile (ACT) and Polyvinyl Chloride (PVC) plank flooring is specified in the Attachments to Compliance Specification Section 01351.
- I. Mechanical System:
1. Remove mechanical equipment and related ductwork as indicated.
 2. Provide temporary weathertight protection of openings in roof and exterior walls.
 3. Remove accessories to the mechanical system including, but not limited to, hanger straps.
- J. Plumbing:
1. Remove plumbing fixtures and accessories including exposed supply, waste, and vent piping as indicated.
 2. Identify concealed piping within and below slab construction, and cap a minimum of 3 inches below finish floor unless otherwise noted.
- K. Electrical Service:
1. Remove abandoned electrical fixtures, conduit, boxes, and wiring as indicated.
 2. Remove electrical circuits including conduit as indicated.
- L. Lighting:
1. Remove existing light fixtures as indicated or as required for new construction.

END OF SECTION