

SECTION 02 41 19

SELECTIVE DEMOLITION

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Selective demolition as designated or required to provide for new Work. Refer to Drawings for additional demolition notes. Work includes, but is not necessarily limited to, the following:
 - 1. Selective demolition of designated construction.
 - 2. Removal of designated materials and finishes.
 - 3. Disconnecting and capping identified utilities.
 - 4. [Selective demolition of parts of existing utilities as required to connect to and construct the new facility.]
 - 5. [Protection of items to remain as indicated on Drawings.]
 - 6. Removal of demolished materials from site.
- B. Related Sections:
 - 1. Section 01 50 00 - Temporary Facilities and Controls. Temporary enclosures.

1.02 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or recycled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to University.
- C. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or recycled.

1.03 REFERENCE STANDARDS

- A. American National Standards Institute
 - 1. ANSI A10.6 - American National Standard Safety Requirements for Demolition.

1.04 PERFORMANCE REQUIREMENTS

- A. Salvage and recycle demolition waste in accordance with requirements of Section 01 74 29 - Construction Waste Management and Disposal.

1.05 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Coordinate utility and building services interruptions with University.
 - 2. Coordinate Work to ensure fire sprinklers, fire alarms, smoke detectors, emergency lighting, exit signs and other life safety systems remain in full operation in occupied areas.
- B. Pre-Demolition Meeting: Conduct pre-demolition meeting in accordance with Section 01 31 19 - Project Meetings requirements for a pre-installation meeting. Convene pre-demolition meeting one week prior to commencing work of this Section

- C. Sequencing:
 - 1. Sequence operations to maintain safe working conditions and preserve existing work that is to remain.
 - 2. Sequence demolition so as not to undermine or compromise vertical and lateral load carrying capacity of structures that are to remain.

- D. Scheduling:
 - 1. Schedule work at University's convenience to cause minimal interference with University's normal operations.
 - 2. Schedule utility and building services interruptions with University.
 - a. Do not disable or disrupt building fire or life safety systems without 7 days prior written notice to University.
 - b. Schedule tie-ins to existing systems to minimize disruption.
 - 3. Cooperate with University in scheduling noisy, dirty, or wet work.
 - 4. Cooperate with University in scheduling waste removal that may impact University's operations.
 - 5. [Obtain University's approval of times scheduled for jack hammering.]

1.06 SUBMITTALS

- A. Program of methods and time schedule for accomplishing this Work.

- B. Existing Building Documentation: Submit the following for existing buildings indicated to remain.
 - 1. Report of inspections conducted with University both before and after performing work.
 - 2. Survey indicating position and elevation of exterior building features.
 - 3. Photographic survey indicating conditions before, during, and after demolition work.

1.07 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies:
 - 1. Perform Work in accordance with rules and regulations of state and local agencies having jurisdiction for demolition of structures, safety of adjacent structures, dust control, runoff control, and disposal of debris.
 - 2. Conform to rules and regulations of state and local agencies having jurisdiction when hazardous or contaminated materials are discovered.

1.08 SITE CONDITIONS

- A. Conduct demolition to minimize interference with adjacent [and occupied] building areas.

- B. University assumes no responsibility for actual condition of buildings to be demolished.

- C. Conduct demolition and debris removal operations to minimize interference with adjacent roads, streets, walks, and other adjacent occupied and used facilities.

- D. Conduct demolition and debris removal operations with minimum interference to public or private access. Maintain [protected] egress and access from adjacent structures at all times.

- E. Cease demolition immediately if structures appear to be in danger. Notify University's Representative. Do not resume operations until directed.

- F. Where existing conditions conflict with representations of the Contract Documents, notify University's Representative and obtain clarification. See also inspection requirements under

Existing Building Documentation Article. Do not perform work affecting the conflicting conditions until clarification of the conflict is received.

- G. Hazardous Materials:
1. [It is not expected that hazardous materials will be encountered in the Work.]
 2. [Known hazardous materials will be removed before start of Work.]
 3. Hazardous materials are excluded from work of this Section. Immediately inform University's Representative if hazardous materials are encountered or suspected and stop work in suspect area. Do not proceed with work in suspected area until approved by University's Representative.
 4. [Hazardous materials will be removed by University under a separate contract.]

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.01 EXISTING BUILDING DOCUMENTATION

- A. Before performance of work, make inspection and report defects and structural weaknesses of structures to be partially demolished, cut, or removed, of adjacent structures, and of improvements remaining.
- B. After performance of work, make inspection and document conditions including defects and structural weaknesses of:
1. Adjacent structures indicated to remain.
 2. Structures partially demolished, cut, or removed.
 3. Improvements indicated to remain.
- C. University will accompany Contractor before and after performance of Work to confirm physical condition of existing structures or improvements indicated to remain.

3.02 EXAMINATION

- A. Review Project Record Documents of existing construction provided by University's Representative does not guarantee that existing conditions are same as those indicated in Project Record Documents.
- B. Determine where removals may result in structural deficiency or unplanned building collapse during demolition. Coordinate demolition sequence and procedures to prevent structures from becoming unstable.
- C. Determine where demolition may affect structural integrity or weather resistance of adjacent buildings indicated to remain.
1. Identify measures required to protect buildings from damage.
 2. Identify remedial work including patching, repairing, bracing, and other work required to leave buildings indicated to remain in structurally sound and weathertight and watertight condition.
- D. Verify hazardous material abatement is complete before beginning demolition.
- E. Examine areas affected by work of this Section and verify following:
1. [Disconnection of utilities as required.]
 2. Those utilities serving occupied portions of buildings will not be disturbed.

3. Removal by University of University's personal property, movable furniture, and equipment items not designated for relocation.

- F. [Inventory and record the condition of items to be removed and salvaged.]
- G. When unanticipated mechanical, electrical, or structural elements are encountered, investigate and measure the nature and extent of the element. Promptly submit a written report to University.

3.03 PREPARATION

- A. [Consult with University prior to commencing demolition work and determine which existing items are to be salvaged and retained or can be reused in the work. These items shall be carefully removed to avoid damage and shall be delivered to University or stored as directed.]
- B. Lay out work to be demolished at job site and coordinate with related work for which cutting is required.
- C. Review proposed layout with University's Representative prior to performing demolition.
- D. [Erection and maintenance temporary enclosures is specified Section 01 50 00 - Temporary Facilities and Controls.]
- E. [Erect and maintain weatherproof closures for exterior openings]
- F. [Erect and maintain temporary partitions to prevent spread of dust, odors, and noise to permit continued University occupancy.]
- G. [Erect and maintain temporary enclosures [at locations indicated, including, and security devices lighting, warning signs, and guards necessary to protect [public and]University's employees, finishes, and existing improvements to remain and adjoining property from damage, all in accordance with applicable regulations.]
- H. Existing Utilities:
 1. Notify affected utility companies before starting work and comply with their requirements.
 2. Mark location and termination of utilities.
 3. Refer to Divisions 21, 22, 23, 25, 26, 27, and 28 Sections for shutting off, disconnecting, removing, and sealing or capping mechanical or electrical utilities.
 4. Do not start demolition work until utility disconnection and sealing have been completed and verified in writing.
 5. Take care to ensure that utilities to remain and portions thereof which are not required to be demolished or removed.
 6. [Locate, identify, disconnect, and seal or cap off indicated utilities serving areas to be demolished.]
 7. [Locate, identify, and protect known utilities indicated to remain from damage. Should damage occur, notify University's Representative and repair at no additional cost to the Contract.]
 8. [Verify that those utilities serving occupied portions of buildings will not be disturbed.]
- I. [Prevent movement or settlement of adjacent structures. Provide bracing and shoring.]
- J. [Protect existing improvements indicated to remain from damage during demolition.]
- K. Locate, identify, and protect known utilities indicated to remain from damage. Should damage occur, notify University's Representative and repair at no additional cost to the Contract.

3.04 SALVAGE REQUIREMENTS

- A. Coordinate with University to identify building components and equipment required to be removed and delivered to University.
- B. Tag components and equipment University designates for salvage.
- C. Protect designated salvage items from demolition operations until items can be removed.
- D. Carefully remove building components and equipment indicated to be salvaged or reinstalled. Remove materials to be reinstalled or retained in a manner to prevent damage.
- E. Disassemble as required to permit removal from building.
- F. Package small and loose parts to avoid loss.
- G. Mark equipment and packaged parts to permit identification and consolidation of components of each salvaged item.
- H. Prepare assembly instructions consistent with disassembled parts. Package assembly instructions in protective envelope and securely attach to each disassembled salvaged item.
- I. Deliver salvaged items to University. Obtain signed receipt from University.
- J. Carefully store building components and equipment indicated to be reinstalled.

3.05 DEMOLITION REQUIREMENTS

- A. Disposition of Existing Improvements:
 - 1. Materials forming portions of permanent structure designated for demolition shall become Contractor's property, and Contractor shall be responsible for their removal unless otherwise noted.
 - 2. Personal property and movable furniture remain University's property. Contractor to store items in future storage area and protect from damage. Consider items not claimed by University as debris. University's final verification is required before removal.
- B. Sprinkle or wet down Work and areas affected by this Work as required to prevent dust and dirt from rising. Provide hoses and water connections required for this purpose.

3.06 DEMOLITION

- A. Perform work in accordance with ANSI A10.6 unless otherwise noted.
- B. Conduct demolition to minimize interference with adjacent [and occupied] building areas.
- C. Maintain protected egress from and access to adjacent existing buildings at all times.
- D. Do not close or obstruct [roadways] [sidewalks] without permits.
- E. Cease operations immediately when structure appears to be in danger and notify University's Representative
- F. Disconnect, cap, and identify designated utilities within demolition areas.

- G. Remove designated interior structures, parts, and finishes at beginning of work to minimize hazardous working conditions and to provide comparatively clean surfaces for installation of new work.
- H. Perform demolitions as much as possible with small tools. Demolish in small sections. Remove loading before cutting or removing structural members/
- I. Demolish in an orderly and careful manner. Protect existing supporting structural members.
- J. Concrete:
 - 1. Demolish by means of saw cutting, drilling, chipping, breaking, or a combination thereof, as indicated or required to satisfactory accomplish the Work without damage to existing improvements not being removed.
 - 2. [If jack hammering is permitted do not jack hammer within 2 inches of reinforcing or structural steel; remove final 2 inches of material with chipping gun.]
 - 3. Demolish concrete and masonry in small sections, less than 3 feet in any direction.
 - 4. Cut concrete at nearest control joint to line shown on the Drawings, so that new concrete can be installed continuing the adjacent existing joint pattern.
- K. At concrete and other materials where edges of cuts and holes will remain exposed in the completed work, make cuts using power sawing and coring equipment. Do not over cut at corners of cut openings.
- L. Where existing resilient flooring, carpeting, carpet padding, tile and other similar adhesive or mortar applied finishes are required to be removed to permit application of new finishes, grind, stone, sand or otherwise remove all adhesives, mortar, fasteners, and similar materials to the extent that no ridges, lumps, or other protrusions will telegraph through surface of new finish or be apparent when the substrate is left exposed.
- M. Lower heavy structural framing members by hoist or crane.

3.07 CUTTING

- A. Cutting of concrete and asphalt shall be made clean and neat.
- B. At limits of demolition Work shown or specified, provide neat, orderly, and clean joints, lines, and edges of surfaces, whether for junctions with new materials or surfaces or whether to be left as existing. Where demolitions methods or controls may not permit the intended jointure, submit conditions and alternatives to University's Representative, and obtain resolutions prior to commencing.
- C. Cutting of concrete and asphalt shall be made clean and neat.
- D. Do not cut or alter structural members unless indicated to do so on the Drawings or written approval is received from University's Representative.
- E. Take care not to damage reinforcing or structural steel scheduled to remain in place.

3.08 REMOVAL OF DEBRIS

- A. Remove debris in accordance with requirements of Section 01 74 29 - Construction Waste Management and Disposal.
- B. Remove demolished materials from site except where specifically noted otherwise.

- C. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.
- D. Remove salvage and debris as they accumulate. Do not permit presence of debris to delay progress of related work.
- E. Remove materials in a manner to prevent spillage.
- F. Nothing to be removed from site shall be stored, sold, burned, or buried on site.

3.09 REPAIRS

- A. Promptly repair damage to adjacent construction caused by demolition operations.
- B. Where repairs to existing surfaces are required, patch to restore surface to original or better condition.
- C. Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

3.10 CLEANING

- A. Clean adjacent improvements scheduled to remain of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing before building demolition operations began.

3.11 SCHEDULES

- A. [Disconnect, carefully remove, and store at University -designated locations within the Contract Boundary the following items which University will dispose of either off or on site in manner not to interfere with [Contractor's] operations:]

- 1. All equipment items unless otherwise noted.
- 2. [_____].
- 3. [_____].
- 4. [_____].
- 5. [_____].
- 6. [_____].

- B. [The following items will be removed by University before start of construction:]

- 1. [_____].
- 2. [_____].
- 3. [_____].
- 4. [_____].
- 5. [_____].
- 6. [_____].

- C. [The following items are to be protected:]

- 1. [_____].
- 2. [_____].
- 3. [_____].
- 4. [_____].
- 5. [_____].
- 6. [_____].

- D. [The following items are to be removed, stored, and protected for reinstallation:]

1. [].
2. [].
3. [].
4. [].
5. [].
6. [].

END OF SECTION