

SECTION 01 21 00 – DEMOLITION ALLOWANCES

PART 1 – GENERAL

- A. Allowance items noted are related to Demolition items. Inclusion of these items with the Bid Pricing Form shall not relieve the Contractor from the responsibility to furnish and install work shown on the drawings and in other Specification sections, including coordination and all related costs

- B. Allowances will managed and approved by the Owner, and funds associated with the allowances will be spent only upon direction of the Owner, pre-approved by the Owner, and will include:
 - i. \$5,000 for City of Ann Arbor ROW permitting, if required.
 - ii. \$15,000 for removal and disposal of unforeseen underground elements.
 - iii. \$40,000 for labor to selectively deconstruct and salvage materials with salvage value. This Allowance also includes trucking and delivery of salvaged materials to a site designated by the owner.
 - iv. \$5,000 for felling, limbing, trunk prep, and trunk delivery of select trees.

END OF SECTION 01 21 00

SECTION 02 41 00 – BUILDING AND SITE DEMOLITION

PART 1 – ALLOWANCES

1.01

- A. See section 012100 – Demolition Allowances

PART 2 – SUMMARY

- 2.01 Demolition: The Site shall be completely cleared of buildings and associated site elements and shall be left finish-graded and viably seeded.
 - a. Work of this category includes, but is not limited to, the complete removal and legal off-site disposal of:
 - i. Building structures, including, porches, additions, basements, footings, foundations, and slabs.
 - ii. Sidewalks, pads, and curbs, including portions of sub-grade.
 - iii. Planters and site landscaping
 - iv. Propane tanks, including their pads (if any)
 - v. Patio areas
 - vi. Fencing, including embedments and footings if present
 - vii. Site lighting and associated power poles.
 - viii. Other items shown on the Drawings
 - b. In addition, work of this Category includes:
 - i. SESC Permit as required, from Pittsfield Township. Secure and pay all Fees for all required work on site. All work shall meet or Pittsfield Township Standards.
 - ii. Permit acquisition, if unforeseen circumstances require work to take place in the Right-of-Way (ROW), from the City of Ann Arbor. Secure and pay all Fees for all required work in the ROW. All work shall meet or exceed City of Ann Arbor Standards, or the standards published by the Agency which maintains the roadway in question. If work in the City of Ann Arbor ROW conducted, this will be done under by Allowance, if necessary.
 - iii. Soil Erosion and Sedimentation Control.
 - iv. Backfill and compaction of basements, foundation trenches, utility trenches and other voids / depressions left as a result of the work
 - v. Disconnection of all utility services shown on the Drawings, including electrical, gas, phone, and cable, including all associated ROW work.
 - 1) Not all utilities are necessarily shown on the Drawings.
 - 2) Inspect the site and investigate all conditions.
 - 3) Contact Miss-Dig Prior to commencing with the work.**
 - vi. Site Restoration, including seeding and watering.
 - vii. Removal of drain field and associated septic tank per State of Michigan/EGLE Standards “EGLE Onsite Wastewater Program: Soil Dispersal System and Septic Tank Abandonment”. Must be completed by a contractor certified by the Washtenaw County Environmental Health Division.
 - viii. Removal/abandonment of wells per State of Michigan/EGLE Standards “Michigan Abandoned Water Well Plugging Manual”. Must be completed by a contractor certified by the Washtenaw County Environmental Health Division.
 - ix. Other items shown on the Drawings

2.02 OCCUPANCY:

- A. Occupancy: Structures to be demolished will be vacated and use discontinued prior to start of work.
- B. All structures, sheds, buildings, foundations, are to be abated prior to the start of work.

2.03 CONDITION OF STRUCTURES:

- A. Condition of Structures: Owner assumes no responsibility for actual condition of structures to be demolished.
 - 1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner insofar as practicable.

2.04 TRAFFIC:

- A. Traffic: Conduct demolition operations and removal of debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.
 - 1. Do not close or obstruct streets, walks, or other occupied or used facilities without permits from authorities having jurisdiction. Follow governing agency requirements for road closure and detour planning.

2.05 PROTECTIONS:

- A. Protections: Ensure safe passage of persons around area of demolition. Conduct operations to prevent damage to adjacent properties and injury to persons.
 - 1. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structures to be demolished and adjacent facilities to remain.

2.06 UTILITY SERVICES:

- A. Utility Services: Maintain any existing utilities indicated to stay in service and protect them against damage during demolition operations.
 - 1. Disconnecting, capping, and sealing indicated utilities before starting demolition operations is part of this work.

2.07 DEFINITIONS:

- A. Definitions:
 - 1. Demolition: The dismantling of a building in the quickest and least expensive manner possible, typically by crushing the building into debris; removed and legally disposed of off-site.
 - 2. Demolition Waste: Materials for which no other purpose is practical and the only possible disposition is landfill disposal.
 - 3. Disposal: The removal of demolition and construction waste materials by means other than recovery, reuse, recycling, or salvaging (e.g. landfill, incineration, waste-to-energy disposal), and its disposition in a facility permitted by the prevailing authority for the permanent disposal of waste.
 - 4. Selective: Associated with only a selected portion of a building or structure.
 - 5. Utilities Disconnection: The deactivation of electrical, gas, and other services to the building.

2.08 REGULATORY REQUIREMENTS:

- A. Regulatory Requirements: The Contractor shall be responsible for knowledge of and compliance with all federal, state, and local regulations and Standards that apply to the demolition and related Work.

2.09 EXPLOSIVES AND FIRE:

- A. Explosives and Fire:
 - 1. Use of explosives will not be permitted.
 - 2. Burning demolished materials will not be permitted, neither on site nor off site.
 - 3. Fire Prevention: Torch cutting and similar hot work is not permitted without approval by the Owner. Provide fire extinguishers or other fire suppression methods where combustible materials are exposed to sparks from grinding, cutting or similar methods, as described in the Health and Safety Plan.

2.10 RELATED SECTIONS:

- A. Section 012100 – Demolition Allowances

2.11 INCONSISTENCIES:

- A. In the case that a discrepancy exists between two or more stated or implied characteristics of any product, assembly, technique, and application, etc., between any one or more Sections of this Project Manual, any one or more Paragraphs of this Specification, or between the Drawings and Specifications, the Contractor's Bid amount shall reflect the most costly version or combination of the requirement(s).

PART 3 – EXECUTION

3.01 EXAMINATION:

- A. Site verification of conditions: The Contractor is responsible for verifying that all conditions affecting the Work are consistent with the information provided.
- B. Discrepancies with information provided: Immediately report discrepancies between conditions portrayed in information provided and actual conditions that may affect the progress of the demolition Work and may alter scope and compensation. Do not continue the Work without approval.
- C. Engage a professional engineer, licensed in the State of Michigan, to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during demolition operations.
- D. Survey existing conditions and correlate with requirements indicated to determine extent of work required.

3.02 MECHANICAL/ELECTRICAL SYSTEMS:

- A. Service/System Requirements: Locate, identify, disconnect, and seal or cap off all mechanical / electrical systems serving the Buildings and Sites.

3.03 PREPARATION:

- A. **Site perimeter: Protect the jobsite perimeter from pedestrian access. Perimeter protection shall consist of chain link barrier material a minimum of 72 inches high.**
 - 1. Allow site access only at the designated locations. Secure access locations after working hours and when not supervised during working hours.

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2. Provide warning signs and notices during the removal of hazardous materials, as required by the prevailing hazardous material regulations.
 3. Provide signs at all access locations requiring all personnel to wear personal protective equipment while on the jobsite.
- B. Adjacent properties: Do not disturb adjacent properties.
1. Protect adjacent land areas from compaction and surface damage by vehicles, equipment, and worker traffic.
 2. Provide protective measures to control accumulation and migration of dust, dirt, debris, and other materials and contaminants onto adjacent properties. Remove any debris accumulating on adjacent properties within the day of its occurrence.
 3. Repair or restore all adjacent property damaged as a result of the Work, as approved by the Owner. This work shall be done at no cost to the Owner.
- C. Trees and shrubs: Protect all trees and shrubs which might be damaged during the Work within the project site and on adjacent properties.
1. **Preserve all trees and shrubs unless removal is specifically pre-approved by the Owner.**
 - a. Repair or replace trees and shrubs that are damaged as a result of the Work, as approved by the Owner.
 2. Do not fasten ropes, cables, or guys, or otherwise use trees for anchorage or support for conducting any activities.
 3. Within areas affected by the work, erect and secure a 6 foot high fence a minimum distance of 5 feet from the trunk of individual trees or follow the outer perimeter of branches for clumps of trees.
- D. Air: Prevent airborne discharges.
1. Burning shall not be permitted.
 2. Maintain all excavations, stockpiles, access roads, waste areas and other work to be free from excess dust. Control dust to prevent the creation of a nuisance in areas adjacent to the site. Use of water will not be permitted when it will result in the contamination of runoff, excessive runoff leaving the project site, safety hazard, or other objectionable conditions. Use of potable water for dust control shall not be permitted where other suitable water sources are available.
- E. Erosion control: Limit disturbance of the site and exposure of soil to those areas necessary to perform the Work.
1. Provide all Soil Erosion and Sedimentation Control measures as shown on the SESC Drawings, including Gravel Tracking Mats.
 2. Restore disturbed areas as soon as practicable after completion of the Work.
 3. Control the disposal of fuels, oils, bitumen, calcium chloride, acids or harmful materials both on and outside of the Work area. Implement measures to prevent chemicals, fuels oils, greases, bituminous materials, herbicides, and insecticides from entering public waters. Prevent water used in onsite material processing, concrete curing, demolition, concrete cleanup, and other waste waters from re-entering streams.
 4. **See Pittsfield Township Soil Erosion Details and Notes Sheet attached in the plan set for specification.**
- F. Utility Lines: Coordinate with all utility owners / providers regarding the schedule for interruption or termination, who will perform utilities termination, location of closures or disconnection, capping, filling, and other tasks required for the utilities deactivation.
1. Terminate utilities in accordance with Utility owner / provider requirements.
 2. Prior to beginning utility removal Work, provide the Owner with written verification that each utility is inactive.

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3. Cap the ends of gas lines as shown on the Drawings.
4. Remove electrical drops at the poles as shown on the Drawings.
5. If any electrical service is to remain active within the building during demolition activities:
 - a. Lock and tag deactivated circuit breakers to prevent their activation.
 - b. Prominently label live receptacles, switches, fixtures, equipment and other electrical components as “LIVE” in such a manner to prevent labels from being removed, dislodged, or obscured.
6. Undetected Utilities: Immediately report to the Owner detection of any utilities that are not identified in existing project conditions. If the utility is active and will create a hazard, stop Work until the utility is terminated and the utility provider verifies it is safe to resume Work.
7. Repair or replace utilities designated as remaining in place that are damaged as a result of the Work, as approved by the Owner.
8. Backfill removed utilities in accordance with Pittsfield Township Earthwork Specifications attached to the plan set.

3.04 TEMPORARY MEASURES:

- A. Temporary electrical service: The Contractor is responsible for providing temporary electrical service for the Work.
- B. Road closure: Coordinate with the appropriate jurisdiction regarding closure or obstruction of a street, sidewalk, or other public right of way, as required. Submit to the Owner the authority’s approval at least 2 days in advance of each closure or obstruction.
- C. Waste Control: Prevent building materials, debris, rubbish, and other waste materials from becoming a nuisance or hazard within designated work areas and adjacent areas.
 - a. Police the site for rubbish, trash, and recyclable materials daily, or more frequently if necessary to prevent their blowing and scattering within the work areas and adjacent areas.
 - b. Regularly clean work of nails and other sharp metals that may cause foot injuries and vehicle tire punctures.
 - c. Remove all waste from each building’s site no later than 14 days after that building has been demolished.
 - d. Remove and transport waste in a manner to prevent spillage on streets or adjacent areas. Police any material falling from the vehicle at the time of the spillage.
 - e. Process and store salvaged building materials in a neat and orderly manner as required below. Prevent damage and contamination of materials selected to be salvaged and recycled.
 1. Brick and stone are to be cleaned free of mortar and concrete.
 2. Brick and stone are to be stacked neatly on pallets and shrink wrapped.
 - f. The Contractor shall be responsible for the removal of any waste material dumped by the Contractor or any Subcontractors in unauthorized areas, and for remediation of the dump site.
- D. Temporary Shoring: **See Pittsfield Township Earthwork Specifications attached in the plan set.**

3.06 BUILDING DEMOLITION

- A. Building foundations, footings, associated utility leads are to be demolished and removed from site.
- B. Any excavations left from demolition shall be backfilled with granular material conforming to MDOT Specification Class III granular material compacted to 95% maximum density per AASHTO

T-180 (modified proctor) test requirements. **See Pittsfield Township Earthwork Specifications attached to the Plan Set for information regarding backfilling.**

3.07 DISPOSAL OF DEMOLISHED MATERIALS:

- A. General: Except for items or materials indicated to be salvaged, remove demolished materials from Project site and legally dispose of them.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

3.08 SOIL EROSION AND SEDIMENTATION CONTROL:

- A. See Pittsfield Township Soil Erosion Details and Notes Sheet attached in the plan set for specification.

3.09 ROUGH GRADING AND BACKFILLING:

- A. See Pittsfield Township Earthwork Specifications attached in the plan set.

3.10 CLEANING:

- A. Clean the Sites and any adjacent sites affected by the Work of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing before Work began.
- B. Remove all materials, tools, waste and signs of operations such as work areas, temporary structures, stockpiles of materials, and waste prior to the pre-final inspection.
- C. Remove all physical hazards from the sites. Magnet-sweep the site for nails, screws, and other sharp metal pieces. Remove all broken glass from the site.
- D. Remove all rock and rubble larger than 3 inches from affected site surfaces.**

3.11 SITE RESTORATION:

- A. Drainage and grading: Prevent runoff from accumulating in the deconstructed buildings' footprints and other excavated areas. Meet adjacent elevations and slope to direct runoff into existing drainage patterns. Remove sediment, debris, and other obstacles from culverts, swales, and existing drainage courses within the project boundaries.
- B. Fine Grading:
 - 1. Place a minimum of 4 inches of new and/or cleaned salvaged topsoil over excavated areas to be seeded with Seed Mix.
- C. Seeding: Follow Pittsfield Township Soil Erosion Details and Notes for seeding specifications.
Provide a 1-year warranty on seeded turf.

3.12 PROJECT CLOSE-OUT

- A. Preliminary Punchlist: The CM shall perform a preliminary inspection to develop a pre-punchlist of deficiencies, outstanding Work yet to be performed, items not in conformance of this Contract, and potential change orders. Complete all pre-punch list items prior to requesting a Final Punchlist.
- B. Final Punchlist: The Architect shall perform a final Punchlist upon completion of all Preliminary Punchlist work.

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- C. Documentation: Provide to the Owner all project documentation upon completion of the Work. This may include, but is not limited to the following:
1. Final inspection, acceptance, and/or clearances from permitting, environmental, and other governmental and regulatory jurisdictions and authorities.
 2. Final inspection, acceptance, and/or clearance from utility providers.

END OF SECTION 02 41 00

SECTION 02 41 10 – DECONSTRUCTION AND SALVAGE (ALLOWANCE)

PART 1 - GENERAL

1.01 INTENT:

A. The Intent of this Section is twofold:

1. Deconstruction Category:

Allowances, pre-defined building elements from each existing structure shall be selectively salvaged (and organized) on-site, reducing landfill disposal.

- a. Salvaged elements shall be recovered from the Site by Others after they have been left neatly organized by this Contractor.
- b. Responsibilities for this category shall include the following:
 - i. All necessary Tools and Equipment.
 - ii. Hourly Allowance Labor for skilled building removal methods and techniques which preserve the function and value of building elements.
 - iii. Hourly Allowance Labor for on-site organizing of salvaged elements, by type, including protection from damage by mishandling, improper storage, contamination, inadequate protection, pilferage, and other causes that can diminish materials' value.

1.02 OCCUPANCY:

A. Occupancy: Structures to be demolished will be vacated and use discontinued prior to start of work.

1.03 CONDITION OF STRUCTURES:

A. Condition of Structures: Owner assumes no responsibility for actual condition of structures to be demolished.

1. Conditions existing at time of inspection for bidding purpose will be maintained by Owner insofar as practicable.

1.04 DEFINITIONS:

A. Definitions:

1. Deconstruction: The systematic dismantling and removal of a structure or its parts to salvage and harvest the components, with the purpose of reusing and recycling the reclaimed materials for their maximum value; the disassembly of a building with the explicit intent of recovering building materials for reuse in a safe and economical manner. The primary objective of deconstruction is to preserve the value and utility of building materials, reducing waste.
2. Selective: Associated with only a selected portion of a building or structure.
3. Utilities Disconnection: The deactivation of electrical, domestic water, gas, sanitary, and other services to the building.

1.05 REGULATORY REQUIREMENTS:

A. Regulatory Requirements: The Contractor shall be responsible for knowledge of and compliance with all federal, state, and local regulations and Standards that apply to the deconstruction and related Work.

1.06 EXPLOSIVES AND FIRE:

A. Explosives and Fire:

1. Use of explosives will not be permitted.
2. Burning demolished materials will not be permitted, neither on site nor off site.
3. Fire Prevention: Torch cutting and similar hot work is not permitted without approval by the Owner. Provide fire extinguishers or other fire suppression methods where combustible materials are exposed to sparks from grinding, cutting or similar methods, as described in the Health and Safety Plan.

1.10 INCONSISTENCIES:

- A. In the case that a discrepancy exists between two or more stated or implied characteristics of any product, assembly, technique, and application, etc., between any one or more Sections of this Project Manual, any one or more Paragraphs of this Specification, or between the Drawings and Specifications, the Contractor's Bid amount shall reflect the most costly version or combination of the requirement(s).

PART 3- EXECUTION

3.01 DECONSTRUCTION

- A. **The following requirements partly define methods which shall be employed for Hourly Allowance work for provision of such things as Tools and Equipment.**
- B. Provide Allowance Labor Manhours to deconstruct and remove existing construction in accordance with the types of materials identified for salvage, by location. Use methods required to complete the Work within limitations of governing regulations and as follows:
1. The following are General Guidelines:
 - a. Building materials handling: Preserve the value of recovered materials for reuse. The Contractor shall be responsible for egregious loss or damage incurred during the recovery, handling, processing, staging or storing, loading, and transporting building materials off the jobsite.
 - b. Proceed with deconstruction systematically, from higher to lower level. Complete deconstruction operations above each floor or tier before disturbing supporting members on the next lower level.
 - c. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing, prying or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces.
 - d. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - e. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations. Maintain adequate ventilation when using cutting torches.
 - f. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site in accordance with all federal, state and local regulations.
 - g. Remove structural framing members in such a way as to maintain their highest value. **Remove all nails, other fasteners, and superfluous blocking and accessories down to singular, clean members.**
 - h. Locate deconstruction equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - i. Salvage Scope:
 - Sort and organize salvaged materials as they are removed from the structure.
 - Pack, crate or band materials to keep them contained and organized.
 - Store items in a secure and weather protected area until removed from the site or transferred by the Owner.
 - Sorted and organized stacks shall be placed on presently stable flat ground on each property, outside the general areas affected by the work, near site access points.
 - Brick and stone are to be cleaned free of mortar and concrete.
 - Brick and stone are to be stacked neatly on pallets and shrink wrapped.
 - **Locations shall permit full Site Restoration for all areas affected by the work, up to and around the sorted stacks, but restoration will not be necessary under the stacks due to their chosen locations.**

C. Tools and Equipment Required:

1. **Provide necessary tools and equipment to salvage the following types of items, by location.**

- a. Note: this list is provided mainly to illustrate the types of Tools and Equipment that will be necessary to perform the Hourly Allowance Deconstruction and Salvage work. **Provide all necessary Tools and Equipment.**

3.02 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be salvaged, remove demolished materials from Project site and legally dispose of them.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.

END OF SECTION 02 41 10