

**ITEM 202 REMOVAL OF STRUCTURES AND OBSTRUCTIONS****202.01 Description****202.02 General Construction Requirements****202.03 Structures Removed****202.04 Pipe Removal****202.041 Pipe Filled In Place****202.05 Pavement, Walks, Curbs, Steps, Gutters, or Traffic Dividers Removed****202.06 Buildings Demolished****202.07 Septic Tanks and Privy Vaults Removed****202.08 Underground Storage Tanks Removed****202.09 Guardrail and Fence Removed****202.11 Manhole, Catch Basin, and Inlet Removed****202.12 Manhole, Catch Basin, and Inlet Abandoned****202.13 Method of Measurement****202.14 Basis of Payment**

**202.01 Description.** This work consists of removing, entirely or in part, and disposing of all buildings, fences, guardrails, structures, old pavements, abandoned pipe lines, storage tanks, septic tanks, privy vaults, and other obstructions not designated or permitted to remain, except for utilities and obstructions to be removed and disposed of under other items in the Contract. This work also consists of backfilling the resulting trenches, holes, and pits, and salvaging designated materials.

When specific pay items for removal of structures and obstructions are not listed in the Contract Documents, perform this work under Item 203.

**202.02 General Construction Requirements.** Raze, remove, and dispose of all buildings and foundations, structures, fences, guardrails, old pavements, abandoned pipe lines, storage tanks, septic tanks, privy vaults, and other obstructions within the Right-of-Way, except for utilities and those items where other provisions have been made for removal. Remove and store, at the specified locations within the Project limits, or reuse all designated salvageable materials.

The City will take ownership of all salvageable items specified for storage. Reuse all salvageable items specified for reuse on the project. When the Contract Documents do not indicate for storage or for reuse, take ownership of the material.

Use removed or excavated materials in the Work when the material conforms to the specifications; if not, then recycle or dispose of the material according to 105.16 and 105.19.

Do not remove any item in use by traffic until after making arrangements to accommodate traffic.

When backfilling is required, backfill the resulting cavities, voids, or trenches with either Item 203 embankment material or Item 603 Structural Backfill Type 1 or 2. Use Item 603 Structural Backfill when the removed item is under the proposed pavement or paved shoulder and when the site limits the use of compaction equipment larger than an 8-ton (7 metric tons) roller; otherwise the Contractor may use Item 203 embankment material. Place and compact the embankment or Item 603 Structural Backfill according to 203.

For backfilled areas outside the plan construction limits, provide a final grade that presents a neat, well-drained appearance that conforms to the final topography and prevents water from draining onto adjacent properties.

**202.03 Structures Removed.** Remove bridges, culverts, and other structures indicated for removal in the Contract Documents. If within a stream, remove the substructures of existing structures, including piling, down to the proposed stream bottom. For those parts outside the stream, remove substructures to a minimum of 1 foot (0.3 m) below proposed ground surface. Remove, as necessary, those portions of existing structures that lie entirely or partially within the limits for a new structure to accommodate the construction of the proposed structure.

Where alteration of an existing structure requires removal of portions of the structure, remove those portions with sufficient care as to avoid damage to the remaining portion of the structure. In case of damage to the existing structure, repair or replace the structure at no expense to the City.

If removing a bridge or portion of a bridge with an asphalt wearing course, remove the wearing course separately before removing the bridge or portion of the bridge.

Backfill the cavity created by the removal item according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

**202.04 Pipe Removal.** Remove and reuse, store, or dispose of pipe, or culvert as specified in the Contract Documents.

If removing an existing concrete waterline pipe that was constructed before 1980, it may be an asbestos pipe. Test the pipe by using an ODOT prequalified environmental consultant to determine if it is an asbestos pipe. If it is determined that the pipe is asbestos, then a certified asbestos Contractor must perform the removal. Dispose of all asbestos pipe at a solid waste facility that is licensed by the Local Health Department and permitted by the OEPA.

Seal openings left in walls of manholes or catch basins that are to remain in place, and remove and dispose of pipe headwalls.

If an adjacent existing pipe is encountered during removal operations and the pipe is inactive or is to be abandoned, plug or seal the remaining ends of the pipe before proceeding with backfilling operations. Perform plugging by using approved precast stoppers. Perform sealing by using masonry bulkheads.

Remove a sufficient section of the pipe to allow the Engineer to determine the quality of the pipe and the possibility of its removal without damage to pipe specified for reuse or storage. If the Engineer determines the pipe is salvageable, carefully remove the remainder of the pipe to avoid breaking or damaging the pipe. Transport and store the removed pipe, as necessary before relaying. Replace sections of pipe lost or damaged by negligence or by use of improper methods at no additional cost to the City. Clean all pipe before reusing. Remove salvageable pipe under Item 202 Pipe Removed for Reuse or Storage.

If the Engineer determines the pipe is unusable, take ownership of the pipe, and dispose of or recycle it according to 202.02. Remove unusable pipe under Item 202 Pipe Removed.

## 202.04

Before backfilling the trench, excavate the caved material, as necessary.

Backfill trenches resulting from the removal of pipe according to 202.02, except when the trench lies within the limits of subsequent excavation or other work.

**202.041 Pipe Filled In Place.** This work consists of leaving specified lengths in place and constructing masonry bulkheads or placing precast stoppers and filling the pipe's internal void. The fill material shall be controlled density fill mix as specified on the plans unless other materials are specified.

**202.05 Pavement, Walks, Curbs, Steps, Gutters, or Traffic Dividers Removed.** As designated, remove and dispose of the existing wearing course, concrete base course, concrete pavement, asphalt wearing course on brick or concrete base, concrete walks, concrete steps, concrete gutters, stone or concrete curbs, and concrete traffic dividers. If removing only a portion of an existing pavement, walk, step, gutter, curb, or traffic divider, saw or otherwise cut a neat joint at the removal limit if it does not occur at an existing joint.

If Item 202 Pavement Removed is specified in the Contract, remove all asphalt, concrete, or brick from the surface to the bottom of the pavement courses as shown on the plans. If 202 Base Removed is specified in the Contract, remove the specific layer as shown on the plans. If Item 202 Wearing Course Removed is specified in the Contract, remove all asphalt from the surface to the top of the concrete or brick or remove the specific layer or layers shown on the plans.

Backfill the cavity created by the removal item according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

In areas where curb and gutter is to be replaced, ensure that the existing underdrains are not damaged when removing curb and gutter concrete.

**202.06 Buildings Demolished.** Do not disturb buildings and appurtenances designated for demolition until the Engineer provides a Notice of Possession and Approval to Proceed. Immediately after receiving approval, schedule and perform the demolition under the Engineer's direction in order to accommodate utility rearrangements and clearance of structures. Whether the building is located partially or totally on temporary or permanent Right-of-Way perform the demolition the same.

The Contractor may use buildings located partially on and off the permanent Right-of-Way for storage, office, living quarters, or other purposes. The agreement shall allow such use during the period of the Contract and save the City harmless from any claims whatsoever by reason of such use.

Remove foundations; floors; floor slabs; and basement, pit, well, and cistern walls to a minimum of 1 foot (0.3 m) below the grade of the surrounding area.

Completely remove all tanks and clear basements of all materials, debris, appliances, wood or metal partitions, and wood floors so only masonry walls and concrete basement floors remain. Break up and remove all floor slabs under which a pit, well, cistern, or tank exists. Break up basement floors to be left in place, and seal remaining drains with masonry or with precast clay or concrete stoppers.

Take ownership of all materials, except those belonging to a public or private utility. Notify the owners of water, electric, or gas meters when the meters are ready for removal. Disconnect all utilities according to local requirements.

After completing demolition work and obtaining the Engineer's approval, immediately backfill the cavity created by the removal item according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

**202.07 Septic Tanks and Privy Vaults Removed.** Empty all septic tanks and privy vaults. Dispose of the removed contents in a manner that conforms to the requirements of the State and Local Boards of Health or other authorities having jurisdiction.

Completely remove and dispose of septic tanks and privy vaults located above the subgrade or finished ground surface. For septic tanks and privy vaults located below the subgrade or finished ground surface, remove tops and walls to a minimum depth of 3 feet (1 m) below subgrade or 1 foot (0.3 m) below finished ground surface. Break up floors and seal remaining drains with masonry or with precast clay or concrete stoppers.

Backfill the cavity created by the removal, partial removal, or emptying operation according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

**202.08 Underground Storage Tank Removed.** Remove and dispose of underground storage tanks or regulated underground storage tanks, as designated in the Contract Documents, and according to the requirements of the authorities having jurisdiction.

If Item 202 Regulated Underground Storage Tank Removed is specified in the Contract, remove the tank according to the Bureau of Underground Storage Tank Regulations of the Division of Fire Marshal (BUSTR), Ohio EPA, and all applicable Federal, State, and local regulations. Removal includes obtaining the required permit, disposing of the tank and its contents, testing the excavated material, and preparing the closure report. Provide a Certified Tank Installer to supervise the removal. Provide an independent non-Contractor employee BUSTR inspector or a State Certified BUSTR inspector to perform the BUSTR required inspections. For tanks containing hazardous substances other than petroleum, use the Ohio EPA regulations in addition to State Fire Marshal regulations.

Completely remove regulated underground storage tank and contents. Take ownership and dispose of tanks according to 202.02 and the above requirements. If because of leakage from the tank, any contaminated water or soil disposal or remediation is required, perform the necessary work under other items in the Contract or according to 109.05.

If Item 202 Underground Storage Tank Removed is specified in the Contract, completely remove and dispose of the tank. Dispose of the removed contents in a manner that conforms to the requirements of the State and local Boards of Health, or other authorities having jurisdiction.

Backfill the cavity created by the removal items according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

**202.09 Guardrail and Fence Removed.** Carefully dismantle and store existing guardrail (including anchor assemblies and terminal assemblies, and any attached posts, signs, and delineators) and fence when designated for reuse or storage by the City. Dispose of wood posts and other materials not considered salvageable according to 202.02.

## 202.11

When fence is designated for replacement, do not remove the existing fence until the replacement material is on site. Begin the new installation within 7 workdays of beginning the removal process.

When guardrail is designated to be replaced and traffic is being maintained in the adjacent lane, do not leave hazards unprotected except for the actual time required to remove the existing guardrail and install the proposed guardrail in a continuous operation. Do not remove the guardrail until the replacement material is on the site and ready for installation. The Engineer will suspend work for failure to comply with this requirement.

Backfill the cavity created by the removal item according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

**202.11 Manhole, Catch Basin, and Inlet Removed.** Remove existing drainage structures of the types designated for removal. Take ownership of castings unless otherwise noted on the plans.

Backfill the cavity created by the removal item according to 202.02, except when the cavity lies within the limits of subsequent excavation or other work.

**202.12 Manhole, Catch Basin, and Inlet Abandoned.** Remove existing drainage structures of the types designated to be abandoned to a minimum of 1 foot (0.3 m) below the finished subgrade or ground surface. Do not damage pipes that are to remain. Take ownership of castings unless otherwise noted on the plans.

Connect existing pipes with new pipe through the structures. Seal the existing inlet and outlet pipes with precast vitrified or concrete stoppers or with masonry of a type and thickness to fill the inlet or outlet pipe.

After connecting or sealing the existing pipes and removing the walls to the required depth, backfill the remaining cavities according to 202.02. If using connecting pipes, carefully hand tamp backfill under and around the pipe according to 202.02.

**202.13 Method of Measurement.** If the Contract specifies that removal of structures and obstructions is on a lump sum basis, the work will include all structures or obstructions encountered at locations or within areas designated in the Contract Documents. However, the City will measure asphalt wearing course removal on a bridge separate from the lump sum item for structure removal.

If the Contract specifies that removal of specific items is on a unit basis, the City will measure the quantity of each item by the unit stipulated in the Contract.

**202.14 Basis of Payment.** Payment is full compensation for all work involved in the removal and storage, reuse, or disposal of structures and obstructions, including excavation and backfill incidental to their removal, removing the contents of the underground storage and septic tanks and the custody, preservation, storage on the Right-of-Way, and disposal as provided in this specification.

For pipe removed and reused or stored, the City will pay for the accepted work under Item 202 Pipe Removed for Reuse or Storage. For unusable pipe removed, the City will pay for the accepted work under Item 202 Pipe Removed.

If the Contract Documents do not include a pay item for Item 202 Asbestos Pipe Removed, then the City will pay for removal and disposal of asbestos pipe according to 109.05.

When removed pavement is replaced with embankment material, the City will pay for the embankment material under the applicable 203 or 204 pay item. When pipe is removed from beneath existing pavement, the City will pay for pavement removal under the applicable pay item for pavement removal or excavation, and the City will pay for new pavement under the applicable pavement pay item.

Include all of the costs and work associated with compliance of the rules or regulations under Item 202 Regulated Underground Storage Tank Removed. If the underground storage tank is not regulated, the work does not include obtaining inspection services, permits, testing excavated material, or closure reporting and the payment will be under Item 202 Underground Storage Tank Removed.

The City will pay for accepted quantities at the contract prices as follows:

| <b>Item</b> | <b>Unit</b>   | <b>Description</b>                                      |
|-------------|---|---|
| 202         | Lump Sum  | Structure Removed                                       |
| 202         | Lump Sum, or<br>Cubic Yard or Pound<br>(Cubic Meter<br>or Kilogram) | Portions of Structure<br>Removed                        |
| 202         | Foot (Meter)  | Pipe Removed for Reuse or Storage                       |
| 202         | Foot (Meter)  | Pipe Removed  |
| 202         | Foot (Meter)  | Pipe Filled in Place                                    |
| 202         | Foot (Meter)  | Asbestos Pipe Removed                                   |
| 202         | Square Yard<br>(Square Meter)                                       | Pavement Removed  |
| 202         | Square Yard<br>(Square Meter)                                       | Wearing Course Removed                                  |
| 202         | Square Yard<br>(Square Meter)                                       | Base Removed  |
| 202         | Square Foot<br>(Square Meter)                                       | Walk Removed  |
| 202         | Lump Sum  | Steps Removed   |
| 202         | Foot (Meter)  | Curb Removed  |
| 202         | Foot (Meter)  | Curb and Gutter Removed                                 |
| 202         | Foot or<br>Square Yard<br>(Meter or<br>Square Meter)                | Gutter Removed  |
| 202         | Foot (Meter)  | Curb Removed for Storage                                |
| 202         | Each  | Precast Traffic Divider<br>Removed for Reuse or Storage |
| 202         | Lump Sum  | Building Demolished                                     |
| 202         | Each  | Underground Storage Tank Removed                        |
| 202         | Each  | Regulated Underground<br>Storage Tank Removed           |
| 202         | Each  | Septic Tank Removed                                     |
| 202         | Each  | Privy Vault Removed                                     |

**202.14**

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|-----|--------------|--|
| 202 | Foot (Meter) | Guardrail Removed                      |
| 202 | Foot (Meter) | Guardrail Removed for Reuse or Storage |
| 202 | Foot (Meter) | Fence Removed for Reuse or Storage     |
| 202 | Each         | Manhole Removed                        |
| 202 | Each         | Manhole Abandoned                      |
| 202 | Each         | Catch Basin or Inlet Removed           |