ITEM 495

REMOVING OLD STRUCTURES

495.1 Description. This item shall provide for the removal and disposal of old structures or portions of structures such as bridges, headwalls, box culverts, pipes, timber structures, and other structures, as noted on the plans. This item shall include all excavation and backfill necessary to complete the removal.

495.2 Method of Removal. Culvert or sewer pipe for reuse shall be removed by careful excavation of all material on the top and sides so that the pipe will not be damaged. Removal of sewer appurtenances shall be included for removal with the pipe. Those pipe which are deemed unsatisfactory for reuse, by the Engineer, will be removed and disposed of, off the job site, in any manner the Contractor may select.

When an existing concrete structure is to remain in use, the removal of any portions thereof shall be in accordance with the Item, "Extending Concrete Structures".

Concrete portions of structures below the permanent ground line shall be neatly squared off. Reinforcement shall be cut off close to the concrete.

Steel structures or steel portions of structures shall be dismantled in sections determined by the Engineer. The sections shall be of such weight and dimensions which permit convenient handling, hauling and storing.
Rivets and bolts connecting steel rail members, steel beams or girder spans and steel stringers of truss spans will be removed by cutting the heads with a cold cut then punched or drilled by a method that will not injure the member for reuse and will meet the approval of the Engineer. The removal of rivets and bolts, from connections, will not be required unless specifically called for. Unless otherwise specified, the Contractor shall have the option of dismantling these members by flame cutting immediately adjacent to the connection. Flame-cutting will not be permitted when plans call for the structural unit to be salvaged in such a manner as to permit re-erection. In such case, all members shall be carefully dismantled without damage and match marked with paint in accordance with the plans and all rivets and belts shall be removed from the connections in the manner specified in this section.

Timber structures or timber portions of structures to be reused shall be removed with as little damage to the timber as possible. All bolts and nails shall be removed from such lumber as deemed salvageable by the Engineer.

Unless otherwise specified on the plans, timber piles shall be either pulled or cut off at a point not less than two feet below the ground line, or to final grade, with the choice between these two methods resting with the Engineer.

Brick or stone structures shall be removed by sledging the masonry into removal sizes. Portions of such structures below the permanent groundline,

which will not in any manner interfere with the proposed construction, may be left in place, but removal shall be carried at least two feet below the permanent groundline and neatly squared off.

All material such as pipe, timbers, railing, etc. which the Engineer deems as salvageable for reuse and all structural steel shall be carefully placed in neat piles along the right-of-way at convenient loading points. All of these materials shall be the property of the City.

All timber structural members which are deemed unsatisfactory for reuse, by the Engineer, will be removed and properly disposed of at a permitted landfill. If the timber is treated wood, such as creosote, then the timber shall be disposed of as a hazardous waste, and a copy of the waste manifest shall be provided to the Engineer. The transportation and disposal cost for unsalvageable timber structural members shall be the responsibility of the Contractor. If temporarily stored on site until final disposition, all reusable timber members and waste timber members shall be blocked up off the ground and covered with a tarp.

The I-beams, girders, stringers, etc. which are to be put in storage or specified for reuse, shall be blocked up off the ground to protect the members against damage.

Materials which are not deemed salvageable by the Engineer, shall become the property of the Contractor and shall be removed and disposed of off the site by the Contractor. The Contractor is responsible for the proper protection of all materials that are salvageable.

All excavation made in connection with this item and all openings below the natural groundline caused by the removal of old structures or portions thereof shall be back filled to the level of the original groundline, unless otherwise provided on the plans. No separate payment shall be made for backfill and it shall be considered subsidiary to this item.

That portion of the backfill which will support any portion of the roadbed or embankment shall be placed in layers of the same thickness as those required for placing embankment. Material in each layer shall be wetted uniformly, if required, and shall be compacted to the density required in the adjoining embankment. In places inaccessible to blading and rolling equipment, mechanical or hand tampers shall be used to obtain the required compaction.

That portion of the backfill which will not support any portion of the roadbed or embankment shall be placed as directed by the Engineer in such manner and to such state of compaction as will preclude objectionable amounts of settling.

495.3 Measurement. The work as provided for by this item shall be measured as **each** individual structure to be removed, except that box culverts, pipes and

water lines shall be measured by the **linear foot**. The removal shall include all appurtenances thereto.

495.4 Payment. The work as prescribed for in this item shall be paid for at the unit price bid for "Removing Old Structures" per **each** or "Removing Old Box Culverts, Pipes or Water Lines" per **linear foot**, which price shall be full compensation for all work, labor, tools, equipment, excavation, backfilling, materials, disposal costs and incidentals necessary to complete the work.

END OF ITEM 495