

## ITEM 473

### ADJUSTING MANHOLES AND INLETS

- 473.1 Description. This item shall govern for the furnishing of materials and for adjusting, abandoning or capping existing sewer manholes, inlets, or cleanouts where required by the plans. Manholes and inlets shall be adjusted to positions and/or elevations as shown on the plans or as ordered by the Engineer and in accordance with these specifications. Subject to the approval of the Engineer, pre-fabricated steel extension rings may be furnished for the adjustment of manholes.
- 473.2 Materials. Manholes or inlet rings, plates, grates and covers and brick in good condition, removed from the manholes and inlets in the process of abandonment, capping or adjustment, may be reused. Additional materials required shall conform to the pertinent provisions for those materials of the ASTM C55 "Standard Specification for Concrete Brick", Item 471, "Precast Manholes" or the Item 472, "Inlets". When prefabricated, steel rings are furnished, the material shall conform to ASTM A36, "Standard Specification for Carbon Structural Steel"
- 473.3 Construction. Manholes or inlet rings, covers, plates, and grates shall be removed carefully and the contact areas shall be cleaned of all mortar and grease. Rings, covers, plates or grates broken in the process of removal and cleaning shall be replaced in kind, by the Contractor, at his expense. When prefabricated steel extension rings are furnished, they shall be either of the one-piece or two-piece type, as necessary, for the amount of adjustment. They shall be installed in accordance with the manufacturer's instructions.
- If the adjustment involves lowering the top of the manhole or inlet, a sufficient depth of concrete or brick courses shall be removed to permit reconstruction on a batter not exceeding 1-inch horizontal to 2-inches vertical. In the case of brickwork, the mortar shall be cleaned from the top course of brick remaining in place and from all brick to be re-used and the manhole or inlet rebuilt to the original top dimensions. The manhole or inlet ring, cover, plate, or grate shall then be installed with the top conforming to the proposed new surface of street or grading as the case may be.
- If the adjustment involves raising the elevation of the top of manhole or inlet, the top course of brick shall be cleaned of mortar and built up vertically to the new elevation using new brick, brick salvaged from other manhole or inlet adjustments, or Class "A" concrete, and the ring, cover, plate or grate installed with top conforming to the proposed new surface of street or grading as the case may be. Grade rings where used shall have ½" thick cement mortar coat inside and outside or the grade rings shall be installed with grout or mastic joint compound e.g. Flex-Seal Utility Sealant or approved equal, to provide a sealed grade ring area. Alternately, the grade

rings may be sealed from outside with Infi-Shield Uni-Band or approved equal.

If abandonment of an inlet or manhole is required, it shall be removed to an elevation a minimum of one foot below subgrade elevation, or as otherwise indicated on the plans and capped or backfilled from the flow line to subgrade with special sewer backfill.

Excavation and backfill shall conform to the Item 430, "Construction of Underground Utilities".

473.4 Measurement. Manholes or inlets completely adjusted, abandoned, or capped as prescribed above, will be measured by the unit of each manhole or inlet adjusted.

473.5 Payment. Each manhole or inlet adjusted, measured as prescribed above, complete in accordance with these specifications, will be paid for at the unit price bid for "Adjusting Manholes", or "Adjusting Inlets", as the case may be, which price shall be full compensation for furnishing all required materials, including backfill as required, excavation, tools, labor, equipment and incidentals required to complete the work.

END OF ITEM 473