

SECTION 220
ADJUSTMENT, REBUILDING AND REMODELING
OF DRAINAGE STRUCTURES

220.20 General.

The work shall consist of rebuilding, removing, replacing and adjusting the masonry and castings of present structures, as required, to conform to newly proposed line and grade changes; to change in type of structure, or changes in type of castings; all in accordance with these specifications and in close conformity with the lines and grades shown on the plans or established by the Engineer.

MATERIALS

220.40 Materials.

Such materials as will be required shall conform to Subsection 201.40.

CONSTRUCTION METHODS

220.60 General.

When the line or grade or both the line and grade of the structure changes by 150 millimeters or less, the structure shall be adjusted to line and grade. The masonry shall be removed to such depth as directed by the Engineer and new masonry shall be constructed to conform to the proposed design and in conformity with the requirements of the applicable parts of Section 201.

When the line or grade or both the line and grade of the structure changes more than 150 millimeters the structure shall be remodeled. The sloped masonry and the vertical masonry shall be removed to such depths as directed by the Engineer and new masonry shall be constructed to conform to the proposed design and in conformity with the requirements of the applicable parts of Section 201.

When a change in type of structure is required, as converting a basin to a manhole, the masonry shall be removed to such a depth as directed by the Engineer and new masonry, including a brick invert, shall be constructed to conform to the proposed design.

When in the judgment of the Engineer the masonry shows deterioration, the structure shall be rebuilt. The casting and deteriorated masonry shall be removed in a neat manner until a clean sound base is obtained upon which concrete blocks and clay bricks may be set to rebuild the structure. Gravel borrow shall be furnished for backfill where required when excavated material is unsuitable. The casting shall be set to line and grade with a concrete collar and surfaced with a minimum of one and one half inches of Class I Bituminous Concrete Top Course as directed.

The new masonry construction, replacing of castings, highly early strength concrete collars, backfilling around structures and other incidental work shall be as specified in Section 201.

220.61 Protection of Work.

The Contractor will be held responsible for the protection of the castings. Any frames, grates, or covers damages in any manner during the progress of the construction shall be replaced with new castings by the Contractor, at his/her expense.

Prior to the actual removal of the present castings a count will be made and recorded of all castings which are in satisfactory condition for reuse. The Contractor shall supply the number of castings recorded in the initial count, when they are required for reuse or when they are to be removed from the project by the Owner.

COMPENSATION

220.80 Method of Measurement.

Adjustment of structures to line or grade or both line and grade when the change is 150 millimeters or less, will be measured in place by the unit each, complete and approved.

When the adjustment of structures to line or grade or both line and grade is greater than 150 millimeters, the structure will be included in the item for structures remodeled.

Structures changed in type will be measured in place by the unit each, complete and approved.

Structures remodeled will be measured in place by the unit each, complete and approved.

Structures rebuilt shall be measured by the average height in vertical meters and to the nearest 10 millimeter increment from the bottom row of rebuilt masonry to the bottom of the casting. The removal and resetting of the casting will be measured by the unit each, complete and approved for all work described above.

Transportation, delivery and installation of all new castings will be included in the contract unit bid price for the kind of structure involved.

220.81 Basis of Payment.

Adjustment of structures to line and/or grade or both line and grade when the change is 150 millimeters or less will be paid for at the contract unit price each under the item for Drainage Structure Adjusted.

Structures, changed in type will be paid for at the contract unit price each under the item for Drainage Structure, Change in Type.

Structures remodeled will be paid for at the contract unit price under the item Drainage Structure Remodeled.

Structures rebuilt will be paid for at the contract unit price per vertical meter.

Castings removed and reset for Drainage Structures Rebuilt will be paid for at the contract unit price each under the item Frame and Grate (or Cover) Removed and Reset.

Furnishing new castings will be paid for at the contract price each under the items for Frame and Grate or Cover, ___ millimeter Hood.

220.82 Payment Items.

220.	Drainage Structure Adjusted	Each
220.2	Drainage Structure Rebuilt	Meter
220.3	Drainage Structure Change in Type	Each
220.5	Drainage Structure Remodeled	Each
220.7	Sanitary Structures Adjusted	Each
221.	Frame and Cover	Each
222.	Frame and Grate	Each
222.1	Frame and Grate MHD Cascade Type	Each
223.	Frame and Grate (or Cover) Removed and Reset	Each
224.*	___ millimeter Hood	Each

*Pipe or appurtenance size will be included as part of the item number in order to differentiate between the sizes.