

ITEM 010122

Item 0101221 - CONVERT CATCH BASIN TO MANHOLE

**Item 0101222 - CONVERT TYPE "C" CATCH BASIN TO TYPE "CL" CATCH
BASIN**

DESCRIPTION

Work under this item shall include furnishing materials, equipment and labor for the removal and disposal of the existing catch basin frame and cover, fill sump with sand and 6" concrete cap and furnish and install a new manhole frame and cover, or furnish and install type "CL" catch basin frame onto the existing catch basin structure to meet the required grades at the locations shown on the plans or as ordered by the Engineer.

REFERENCED ITEMS

Item 0111401, 0101303, and 0101605

REQUIRED SUBMITTALS

Shop Drawings:

Submit 5 copies of shop drawings for manhole frame and cover or Type CL catch basin frame in accordance with the contract general requirements.

MATERIALS

Brick intended for use below ground level shall conform to ASTM specifications for sewer brick, ASTM C-32-04 except that the table therein is amended to provide that the required minimum compressive strength in pounds per square inch shall be for any individual brick 3,000 pounds, and the maximum absorption of water by five-hour boiling test shall not exceed 18% for any individual brick or 15% for the average of any five brick selected at random. The above strength and absorption requirements, being somewhat less exacting than part of those requirements, being somewhat less exacting than part of those of ASTM, are intended to admit the use of the product of most, but not all, of the brick manufacturing plants in the vicinity of Hartford.

Mortar shall be composed of one part Portland cement and two parts, by volume, of surface dry fine aggregate. Frame and cover shall be Metropolitan District Commission standard storm drain manhole frame and cover meeting the requirements of item 0101605 or "CL" frame and grate.

Sand shall consist of clean, hard, durable uncoated particles of quartz or other rock, free from lumps of clay, soft or flaky material, loam, organic or other injurious material. In no case shall sand containing lumps of frozen material be used.

Concrete shall conform to Item 0111401 for "MISCELLANEOUS CONCRETE".

Type CL Catch Basin frames shall conform to the requirements of Item 0101303.

Any material furnished by the Metropolitan District Commission must be picked up at the Metropolitan District Commission Yard at Maxim Road. Contractors are to be accompanied by the City of Hartford Construction Inspector assigned to the project.

CONSTRUCTION METHODS

Catch Basin walls or sides shall be rebuilt to conform to the required elevation and shape of the new frame. Top frame must be set on not less than 6" of brickwork to provide for future adjustments of grades. Frames shall be set in place on full mortar beds. Each brick shall be thoroughly wet before sufficient mortar on the bed and forcing the brick into it; so as to fill every joint with mortar in one operation, whether on the bottom side, or end of the brick.

Mortar joints shall not be over 1/4" except on the outside curved manhole walls. All brick work shall be raked brick, unless toothing is specifically ordered by the Engineer.

The outside of all brickwork, which is below ground, shall be covered, as soon as possible after laying with a coat of mortar not less than 1/4" in thickness.

The trap shall be removed and the sump filled to 6" below the lower most outlet with sand. The sand fill shall be capped with 6" Portland Cement concrete. Concrete shall be poured to meet the lower most flow line elevation of the catch basin. There will be no additional payment for sand or concrete. The cost of these materials shall be included in the unit price for each catch basin converted to a manhole or a type CL catch basin. At the completion of the work, the contractor shall be required to clean the sumps of catch basins of any debris or foreign matter regardless of whether the material is related to the conversion work or not.

METHOD OF MEASUREMENT

This work will be measured for payment by each catch basin converted to a drainage manhole, or each type "C" Catch Basin converted to type "CL" Catch Basin.

BASIS OF PAYMENT

This work shall be paid for at the contract unit price per each "CONVERT CATCH BASIN MANHOLE" or "CONVERT TYPE "C" CATCH BASIN TO TYPE "CL" CATCH BASIN" completed, which price shall include excavation, backfill, disposal of unused excavated materials, labor and other incidental expenses required.

<u>PAY ITEM</u>	<u>DESCRIPTION</u>	<u>PAY UNIT</u>
0101221	Convert Catch Basin to Manhole	EA
0101222	Convert Type "C" Catch Basin To Type "CL" Catch Basin	EA