
CATCH BASINS, GRATES AND FRAMES

1.0 GENERAL**1.1 Description**

- .1 This section specifies requirements for constructing new and adjusting catch basins as indicated or as directed.

1.2 Related Work Specified Elsewhere

- .1 Trenching, Backfilling, and Compaction for Utilities Section 02315
- .2 Storm Drainage Pipe and Fittings Section 02635

1.3 Measurement and Payment

.1 Catch Basins

Payment shall be paid at the contract unit price and shall include all equipment, materials and work required to construct the catch basin unit complete including base, barrel, adjusting rings, frame and cover and adjustment to final grade, and backfill.

.2 Catch Basin Frames and Covers

Payment shall be included in the contract unit price paid for catch basin installation.

.3 Connect to Existing Catch Basin

Connection to existing catch basin shall be paid for at the lump sum bid on an individual basis and shall include all labour, equipment and materials required to make the connection.

2.0 PRODUCTS**2.1 Catch Basin Materials**

- .1 Materials used for Catch Basins shall be in accordance with current ASTM Specification C-478 and as per Standard Drawings B3. The precast barrel and base shall be constructed as a single unit.

2.2 Frame and Covers Materials

- .1 Frames and Covers to be installed in vertical faced curbs shall be the barrier curb and gutter inlet Type TF-106 as manufactured by Titan Foundry.
- .2 Rolled frames and covers shall be Type TF-33 COS as manufactured by Titan Foundry.
- .3 Flat top frames and covers shall be Type TF-104 Herzog as manufactured by Titan Foundry, or approved equal.

- .4 Grade rings shall be constructed of 30 MPa concrete with a minimum thickness of 100 mm and a maximum thickness of 200 mm. Final adjustment grade rings shall be INFRA-RISER composite rubber grade rings with a minimum thickness of 25mm and a maximum thickness of 50 mm.

3.0 EXECUTION

3.1 Excavation and Backfill

- .1 Excavate and backfill to Section 02315.
- .2 Excavation requires approval prior to installing catch basins.

3.2 Concrete Work

- .1 Do concrete work to CSA A23.1-M90.

3.3 Installation

- .1 Construct units to details indicated, plumb and true to alignment and grade.
- .2 Complete catch basins as pipe laying progresses.
- .3 Pump excavations dry and remove soft and foreign material before placing concrete base.
- .4 Cast bottom slabs directly on undisturbed ground or when permitted by Engineer, set precast concrete slab on 150 mm minimum of well compacted granular material.
- .5 For Precast Units:
 - .1 Set bottom section of precast unit in bed of mortar and bond to concrete slab. Make each successive joint watertight with approved rubber ring gaskets, mastic joint filler, cement mortar, or combination thereof.
 - .2 Clean surplus mortar and joint compounds from interior surface unit as work progresses.
 - .3 Plug lifting holes with precast concrete plugs set in cement mortar or mastic compound.
 - .4 Place stub outlets and bulkheads at elevations and in positions indicated.
- .6 Set frame and cover to required elevation using adjusting rings. The topmost adjustment grade ring for all manholes and catch basins shall be rubber.
- .7 Clean units of debris and foreign materials; remove fins or sharp protuberances.

- .8 Pre-benched catch basins shall be watertight connections between pipe and units with pipe manufacturers rubber gaskets.
- .9 Catch basins to be made watertight from the outside prior to backfilling.

3.4 Delivery and Stockpiling Materials

- .1 The Contractor shall be responsible for arranging, stockpiling, and protecting the materials from damage and theft.
- .2 The Contractor shall be responsible for the delivery of material and the Owner will not pay for materials ordered by the Contractor and not used in the work, nor pay for shipping charges on the return of such material to the supplier.

3.5 Engineer's Access to the Work

- .1 The Engineer shall be allowed to inspect the work at any time.

END OF SECTION