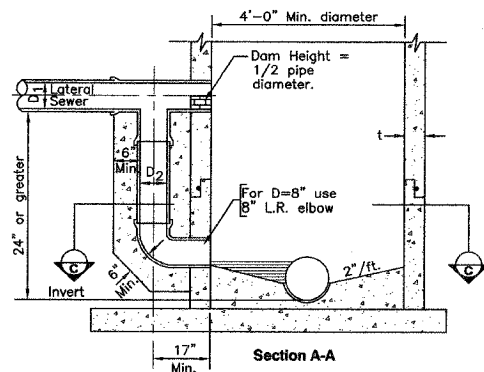


ASTM C-923 Resilient connector between concrete manhole and pipe when opening is closed.

D ₁ (Inches)	D ₂ (Inches)
6	8
8	8
10	8
12	8
15	10
18	12
21	15
24	18

Section C-C



Section A-A

Notes:

D₂ shall be no smaller than two (2) nominal diameters less than D₁, but not less than 8".

Details and material for drop manhole shall be same as for standard manhole except for lateral sewer connection as shown.

Manhole to be cast-in-place concrete or Type "A" w/ precast concrete sections and bottom (as shown).

Invert of elbow to be placed even with the level of the bench.

Minimum wall thickness "t" for drop manhole:

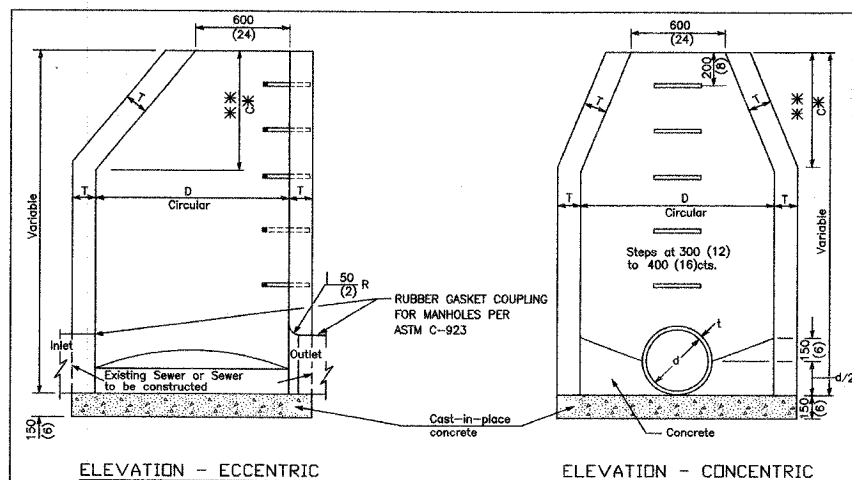
- a. 6" for cast-in-place concrete
- b. 1/12 manhole diameter for precast concrete.

Concrete for encasement shall be 3000 psi @ 28 days, minimum.

Manhole steps are omitted for clarity.

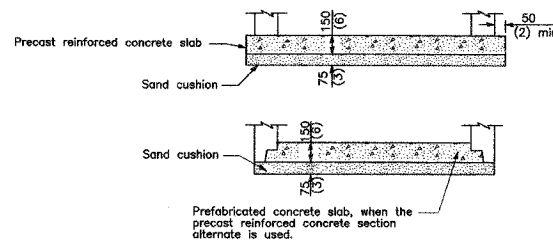
Standard Drop Manhole

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO ENGINEERING DEPARTMENT 1042 Local Sewer Systems TRR-SDO



ELEVATION - ECCENTRIC

ELEVATION - CONCENTRIC



ALTERNATE BOTTOM SLAB

ALTERNATE MATERIALS FOR WALLS	D	C	T (min.)
Concrete-Masonry Unit	1.2 m (4'-0") 1.5 m (5'-0")	750 (30) 115 m (3'-9")	125 (5) 125 (5)
Brick-Masonry	1.2 m (4'-0") 1.5 m (5'-0")	750 (30) 115 m (3'-9")	200 (8) 200 (8)
Precast Reinforced Concrete Section	1.2 m (4'-0") 1.5 m (5'-0")	750 (30) 115 m (3'-9")	100 (4) 125 (5)
Cast-in-place Concrete	1.2 m (4'-0") 1.5 m (5'-0")	750 (30) 115 m (3'-9")	150 (6) 150 (6)

GENERAL NOTES

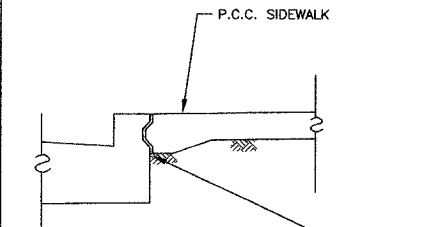
See Standard 602701 for details of steps.

* Dimension "c" for Precast Reinforced Concrete Sections may vary from the dimension given to plus 150 mm (6").

** See Standard 602601 for Optional Precast Reinforced Concrete Flat Slab Top.

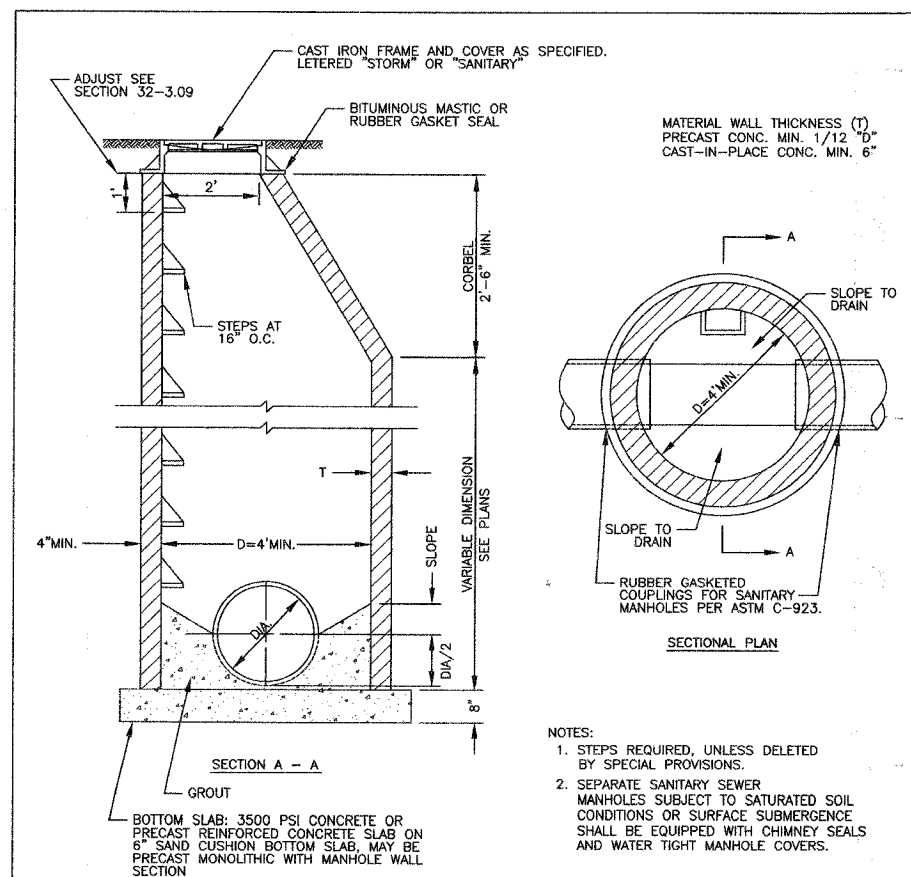
All dimensions are in millimeters (inches) unless otherwise shown.

MANHOLE TYPE A



PROPOSED CURB AND GUTTER SHALL BE CONSTRUCTED WITH KEYWAY TO SUPPORT ADJACENT SIDEWALK. (COST SHALL BE INCIDENTAL TO CURB AND GUTTER AND SIDEWALK ITEMS)

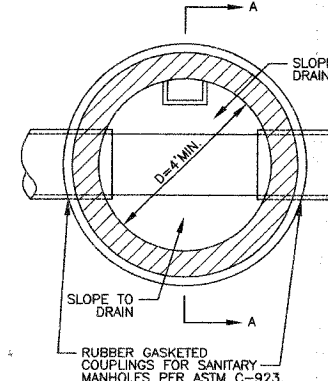
SIDEWALK ADJACENT TO NEW CURB AND GUTTER



SECTION A - A

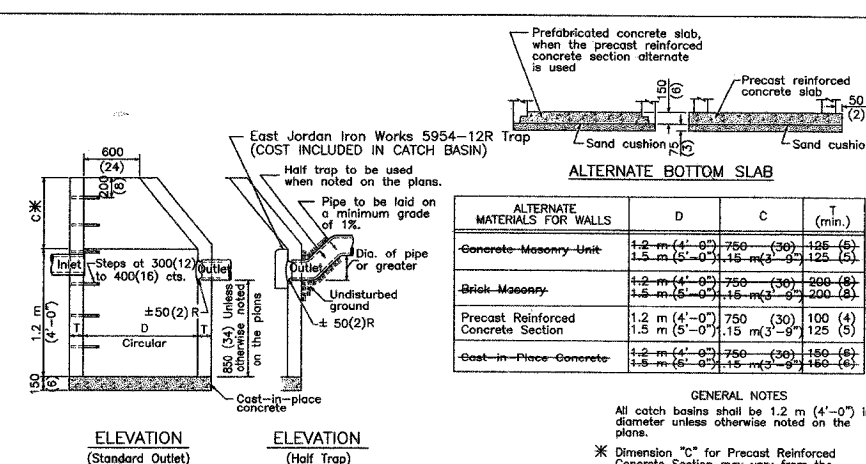
SANITARY SEWER MANHOLE

MATERIAL WALL THICKNESS (T) PRECAST CONC. MIN. 1/12 "D" CAST-IN-PLACE CONC. MIN. 6"



SECTIONAL PLAN

- NOTES:**
1. STEPS REQUIRED, UNLESS DELETED BY SPECIAL PROVISIONS.
 2. SEPARATE SANITARY SEWER MANHOLES SUBJECT TO SATURATED SOIL CONDITIONS OR SURFACE SUBMERGENCE SHALL BE EQUIPPED WITH CHIMNEY SEALS AND WATER TIGHT MANHOLE COVERS.



ALTERNATE BOTTOM SLAB

ALTERNATE MATERIALS FOR WALLS	D	C	T (min.)
Concrete-Masonry Unit	1.2 m (4'-0") 1.5 m (5'-0")	750 (30) 115 m (3'-9")	125 (5) 125 (5)
Brick-Masonry	1.2 m (4'-0") 1.5 m (5'-0")	750 (30) 115 m (3'-9")	200 (8) 200 (8)
Precast Reinforced Concrete Section	1.2 m (4'-0") 1.5 m (5'-0")	750 (30) 115 m (3'-9")	100 (4) 125 (5)
Cast-in-Place Concrete	1.2 m (4'-0") 1.5 m (5'-0")	750 (30) 115 m (3'-9")	150 (6) 150 (6)

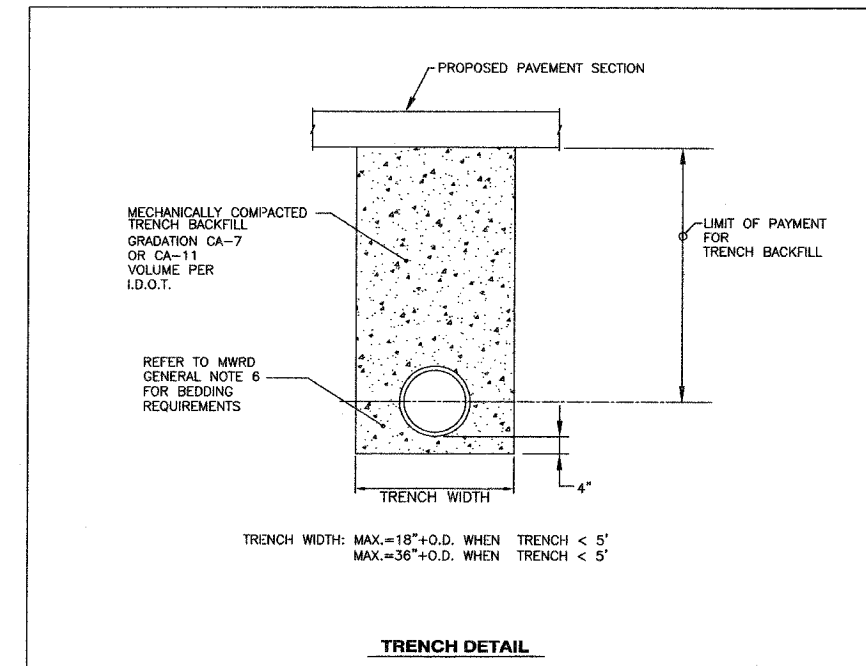
GENERAL NOTES
All catch basins shall be 1.2 m (4'-0") in diameter unless otherwise noted on the plans.
* Dimension "c" for Precast Reinforced Concrete Section may vary from the dimension given to plus 150 mm (6").
See Standard 602601 for optional precast reinforced concrete flat top slab.
All dimensions are in millimeters (inches) unless otherwise shown.

CATCH BASIN TYPE A

ELEVATION (Standard Outlet)

ELEVATION (Half Trap)

ALL CATCH BASINS SHALL HAVE TRAPS INSTALLED.



TRENCH DETAIL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.U. 3783
BURLINGTON AVENUE

CONSTRUCTION DETAILS

SCALE: NTS
DATE: 8/15/07
DRAWN BY SMP
CHECKED BY BDH