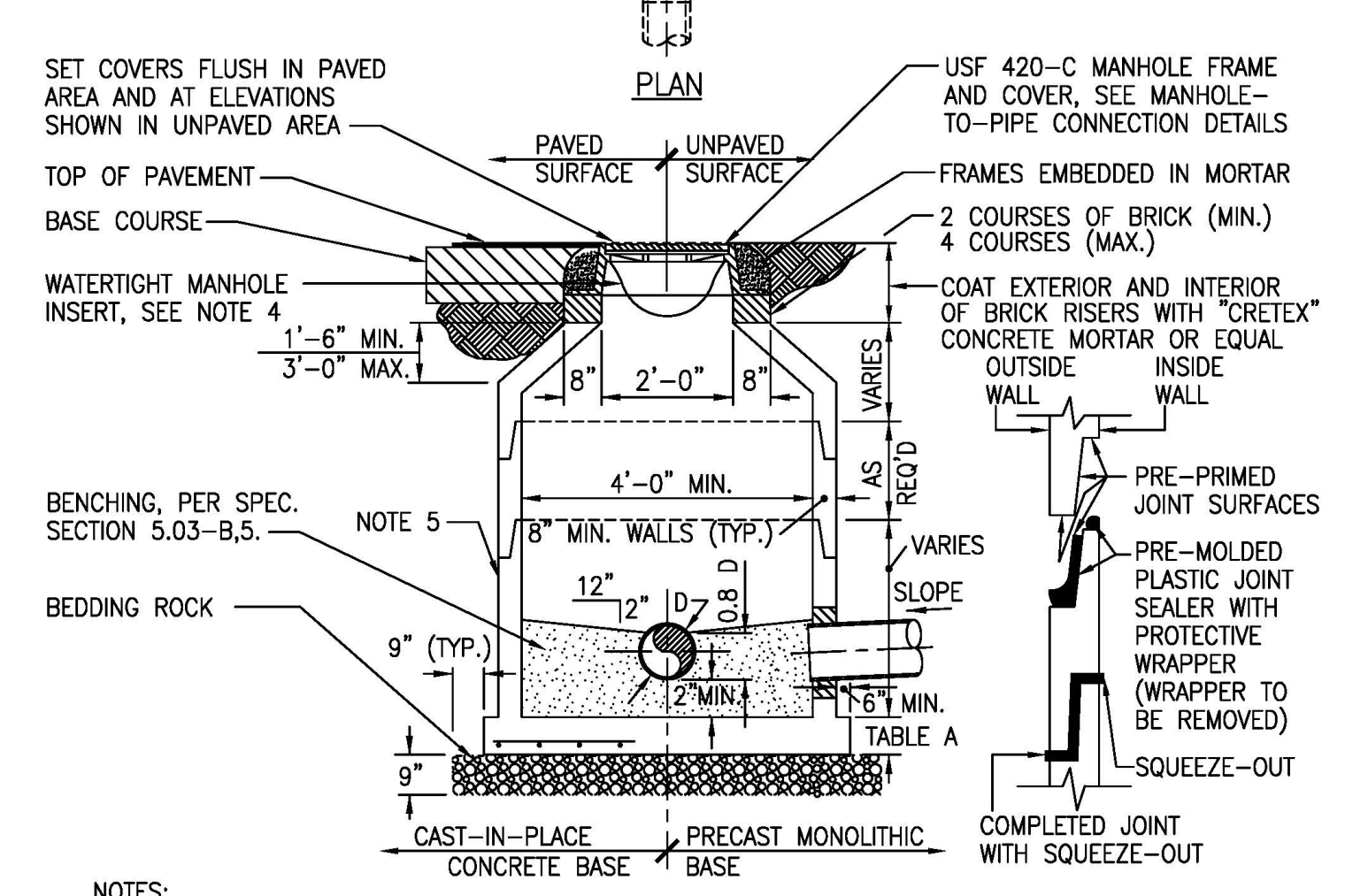


- NOTES:**
- CLEAN-OUT SHALL BE INSTALLED BY THE BUILDER IN ACCORDANCE WITH STANDARD PLUMBING CODE.
 - LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE, 25' MAXIMUM.
 - INVERT OF SERVICE LATERAL SHALL NOT ENTER SEWER MAIN BELOW SPRING LINE.
 - SERVICE LATERALS SHALL HAVE A MINIMUM 18" OF COVER BETWEEN R/W TIE-IN AND BUILDING.
 - ROTATE BENDS AS REQUIRED TO ALIGN SERVICE BRANCH WITH THE SERVICE PIPE.
 - CLEANOUT SHALL BE LOCATED IN A UTILITY EASEMENT. IF UTILITY EASEMENT DOES NOT EXIST, CLEANOUT SHALL BE LOCATED AT THE RIGHT-OF-WAY LINE.

SANITARY SERVICE DETAIL

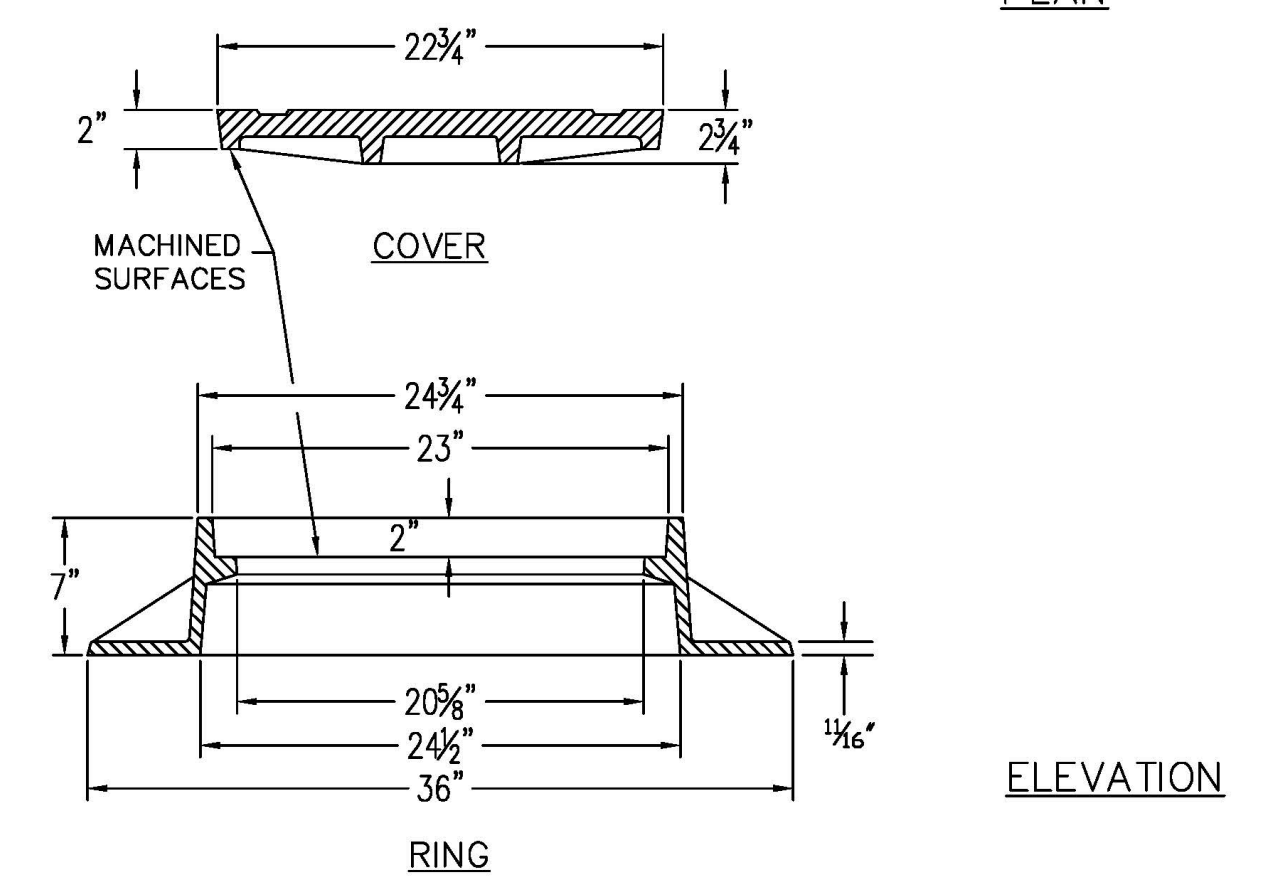
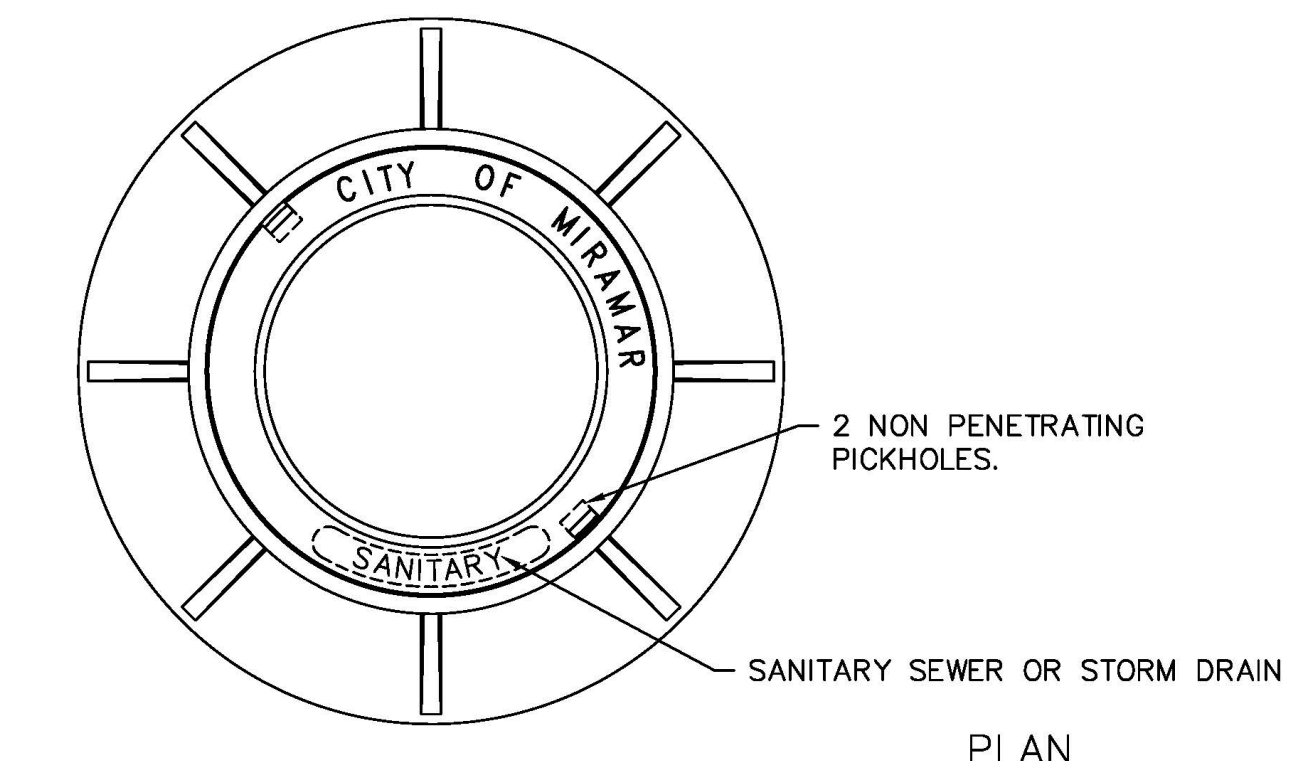
TABLE A

M.H. I.D.	BASE THICKNESS
LESS THAN 13'	8"
13' OR MORE	12"



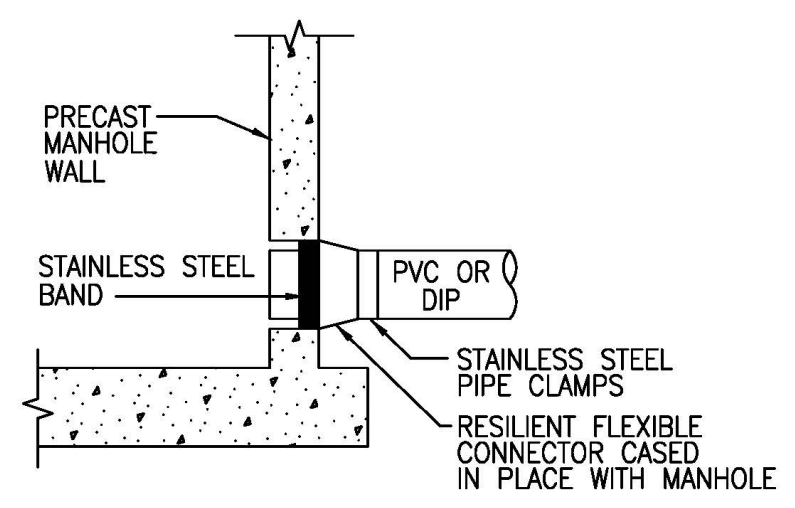
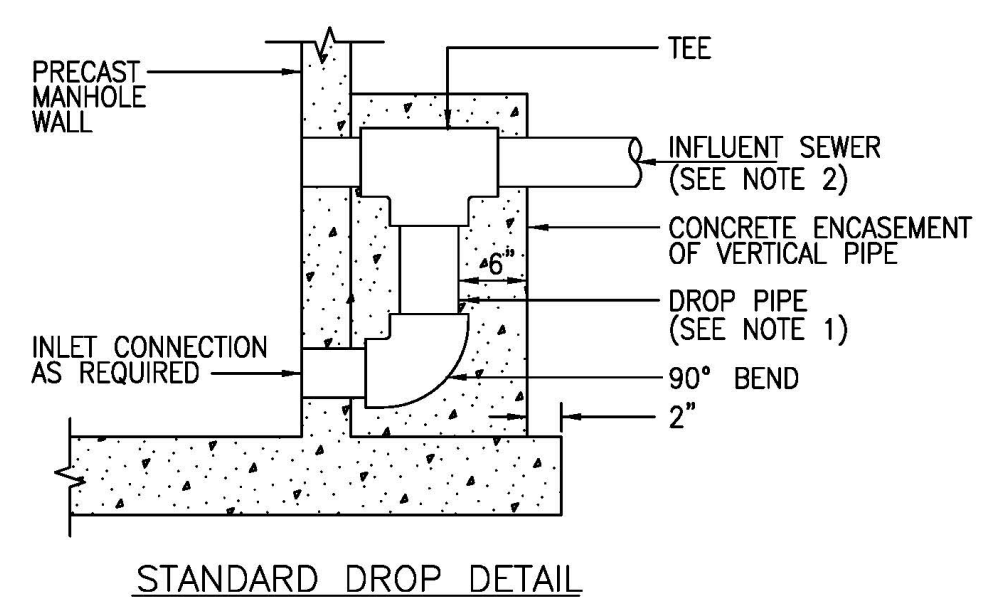
- NOTES:**
- MANHOLE SHOWN IS FOR SEWER SIZE 8" THRU 24".
 - DROP CONNECTIONS ARE REQUIRED WHENEVER INVERT OF INFLUENT SEWER IS 24" OR MORE ABOVE THE INVERT OF THE MANHOLE. SEE MANHOLE CONNECTION DETAILS.
 - APPROVED ECCENTRIC CONE DESIGN MAY BE USED AS AN ALTERNATIVE.
 - SEWERGUARD INSERT REQUIRED TO PREVENT INFLOW.
 - INTERIOR AND EXTERIOR COATING: EXTERIOR COATING SHALL BE COOPER BLACK NO. 775 EPOXY TAR COATING. INTERIOR COATING SHALL BE COOPER RED NO. 775 EPOXY TAR COATING WITH A SECOND COAT OF COOPER BLACK NO. 775 WITHIN 48 HOURS OF FIRST COAT.
 - ALL CONCRETE SHALL BE MADE WITH PORTLAND CEMENT TYPE II.

PRECAST MANHOLE DETAIL



- NOTES:**
- MATERIAL: ASTM A48 CLASS 30B GRAY IRON.
 - COVER WT: 160 LBS. APP.
 - RING WT: 240 LBS. APP.

SANITARY/STORM MANHOLE COVER



- NOTES:**
- DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
 - AN OUTSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT WHICH HAVE AN INVERT 2' OR MORE ABOVE THE MANHOLE INVERT.

MANHOLE-TO-PIPE CONNECTION DETAILS

REQUIREMENTS FOR CCTV INSPECTION DATA

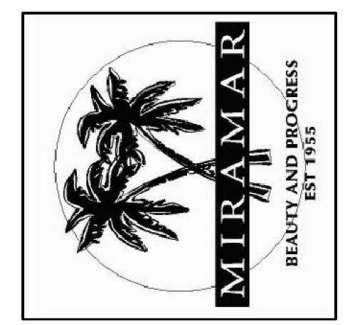
Please note: Prior to submitting TV inspection data to the Department of Utilities/ Construction & Facilities Management Department, the following criteria for the data being submitted must be met.

- Code system of the CCTV inspection data submitted must be in NASSCO's PACP (Pipe Assessment and Certification Program) format
- Must be able to export the data in NASSCO PACP Version 6 Exchange Access Database with video and image files provided
- Must use exact Manhole IDs as supplied by the City (e.g. MH017-031).
- Pictures of defects are required to be taken and furnished to the city.
- Contractor is to submit a reference binder as the final report containing the following:
 - Name of the company
 - Profile Report/ Main Section for each section videotaped
 - Inspection Report
 - In addition to other required NASSCO pipe conditions, it is required that upstream and downstream manhole rim to invert measurements are reported for every segment of pipe reported.
 - Inspection photos
 - DVDs with the company logo affixed to the DVDs containing video data in PACP format as mentioned above.

NO.	DATE	REVISIONS
1	7/20/16	ADD CITY NOTES
2	9/5/16	REVISE CITY NOTES
3	5/11/16	REVISE CITY NOTES
3	7/11/16	REVISE CITY NOTES

UTILITIES

CITY OF MIRAMAR
 DEPARTMENT OF
 CONSTRUCTION & FACILITIES MANAGEMENT
 ENGINEERING STANDARDS



SCALE:
N.T.S.

SHEET NO.
4 OF 11