



①	FRAME AND COVER. SEE DETAIL #404
②	DROP BOWL (RELINER PRODUCT), MOUNT TO CONCRETE WALL WITH RELINER STAINLESS STEEL ANCHOR BOLT ASSEMBLIES.
③	PIPE CONNECTIONS TO MANHOLE SHALL BE MADE BY UTILIZING MANHOLE ADAPTORS OR ELASTOMERIC SEAL RING EMBEDDED IN THE CONCRETE. INCOMING PIPE SHALL BE SOLIDLY ATTACHED TO THE MANHOLE WALL AND DROP BOWL.
④	INSIDE DROP PIPE - INSTALL INSIDE DROP BOWL ATTACHING INCOMING PIPE AND DROP PIPE. DROP BOWL SHALL BE MANUFACTURED BY RELINER/DURAN INC OR APPROVED EQUAL.
⑤	$\frac{3}{32}$ " BY 2 INCH TYPE 316 STAINLESS STEEL STRAP ANCHORED TO MANHOLE WALL WITH $\frac{5}{8}$ " STAINLESS STEEL ANCHOR BOLTS. 3 FEET MAXIMUM SPACING 2 STRAPS MIN. PER DROP
⑥	PVC ELBOW. CHIP OUT CHANNEL AS SHOWN. FILL VOIDS WITH NON-SHRINK GROUT
⑦	SEWER MAIN (EXISTING OR TO BE CONSTRUCTED)
⑧	MIN 4,000 PSI CONCRETE COLLAR WITH LAMP BLACK PIGMENT ADDED TO MATCH COLOR OF AC PAVEMENT. COLLAR SHALL MATCH ROADWAY SURFACE LEVEL.
⑨	STREET STRUCTURAL SECTION
⑩	EPOXY OR COLD TAR COATING REQUIRED OVER INTERIOR DROP AND INTERIOR ON MANHOLE PER DIVISION IV, SECTION 14.02G. THIS REQUIREMENT APPLIES TO MANHOLES NO MATTER THE SIZE OF THE MAIN LINE SEWER.
⑪	MINIMUM SIX 6" OF $\frac{3}{4}$ " CRUSHED ROCK PER ASTM D448 #67 COMPACTED TO 95% RELATIVE COMPACTION
⑫	FLEXIBLE PIPE COUPLER

**NOTE:**

- A. INSIDE DROP CONNECTIONS SHALL BE ALLOWED ONLY UPON PRIOR APPROVAL OF THE CITY ENGINEER.
- B. ALL STANDARD DETAILS 404 CIRCLE NOTES SHALL APPLY TO MANHOLE CONSTRUCTION AS APPROPRIATE.
- C. IF SEWER SERVICE FLOW LINE ELEVATION DIFFERENCE TO SEWER MAIN FLOW LINE IS EIGHTEEN (18) INCHES OR LESS, THIS DETAIL SHALL NOT BE USED. ADJUST UNIFORM SLOPE OF SERVICE FROM THE SERVICE CLEANOUT AND MANHOLE TO MATCH STANDARD DETAIL #404 OR #407.



APPROVED: Aug. X, 2025

STANDARD  
DETAIL #  
**405**

TITLE:  
**SEWER MANHOLE  
WITH INSIDE DROP  
CONNECTION**

