



**NOTES:**

1. A KNOCKOUT SHAFT SECTION MAY BE SUBSTITUTED FOR CAST IN PLACE BASE, IN WHICH CASE THE PRECAST UNIT SHALL CONFORM TO A.S.T.M. C-478
2. FOR 24 INCH PIPE AND LARGER, THE TOP HALF OF THE PIPE SHALL BE REMOVED TO THE CONTOUR OF THE INSIDE OF THE MANHOLE AND THE BROKEN EDGES PLASTERED SMOOTH WITH CEMENT MORTAR.
3. THE PCC COLLAR SHALL BE 1 1/2 INCHES FROM FINISH GRADE AND 3 INCHES BELOW THE RING AND CONE JOINT. THE MIX DESIGN SHALL BE 560-C-3250.
4. ALL MORTAR SHALL BE CLASS "B".
5. MANHOLE TYPE "D" FOR 8 INCHES TO 27 INCHES PIPE DIAMETERS
6. SEE TABLE 1 FOR MINIMUM DROP ACROSS MANHOLE

TABLE 1 - MINIMUM DROP ACROSS MANHOLE (FT)

PIPE SIZE	CHANNEL CONFIGURATION		
	STRAIGHT	TURN	RIGHT ANGLE
NO CHANGE	0.1	0.1	0.2
CHANGE	0.2*	0.2*	0.2*

\* MATCH PIPE SOFFITS

7. INSTALL TWO 2-FOOT SECTIONS OF PIPE AT INLET(S) AND OUTLET(S) OF MANHOLE. JOIN 2-FOOT SECTIONS WITH MISSION CLAY BAND SEAL OR APPROVED EQUAL.

**MANHOLE TYPE "D"**

**WDS - 502**



**LONG BEACH  
WATER DEPARTMENT**

RECOMMEND  
*Robert J. [Signature]*  
DIVISION ENGINEER

APPROVED  
*[Signature]*  
DIRECTOR OF ENGINEERING

DATE: 8/3/15

SCALE: N.T.S.

SHEET 1 OF 1