

MANHOLE NOTES:

1. FOR CAST IN PLACE CONCRETE BASE ALL REINFORCING STEEL TO BE NO. 4 BARS AT 18 INCH CENTERS TIGHTLY WOUND AT ALL INTERSECTIONS AND EMBEDDED IN CONCRETE AT LEAST 2 INCHES AND BAR ENDS MUST CLEAR CONCRETE SURFACES BY 1-1/2 INCHES.
2. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 202 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR CONCRETE EXPOSED TO FREEZE-THAW ENVIRONMENTS.
3. MANHOLE WITH MORE THAN ONE PIPE-INFLOW, PIPE INVERT ELEVATIONS SHALL BE \geq 0.1 FOOT ABOVE OUTFLOW PIPE ELEVATION FOR STRAIGHT FLOW THROUGH, OR 0.2 FOOT FOR 90° BEND FLOW THROUGH.
4. FOR VALUES OF "H" SEE PLANS. "H" IS THE DIFFERENCE IN ELEVATION BETWEEN THE OUTFLOW PIPE INVERT ELEVATION AND THE TOP OF MANHOLE ELEVATION AT STREET GRADE.
5. DO NOT PLACE PIPES IN TAPERED SECTION.
6. MANHOLE COVER SHALL BEAR "STORM DRAIN" ON LID.
7. IF PIPES OF DIFFERENT DIAMETERS ENTER OR EXIT THE SAME MANHOLE, THE CROWNS OF THE PIPE SHALL BE AT THE SAME ELEVATION. THE LARGEST PIPE IN THE MANHOLE SHALL GOVERN THE DIAMETER OF THE MANHOLE.
8. LADTECH HDPE ADJUSTMENT RINGS FOR MANHOLES MAY BE USED PER MANUFACTURER'S RECOMMENDATIONS. WOOD SHIMS MAY NOT BE USED IN CONJUNCTION WITH LADTECH RINGS. OTHER ADJUSTING RINGS MAY BE CONSIDERED FOR APPROVAL BY ENTITY THAT WILL MAINTAIN THE ROADWAY.
9. T = THICKNESS PIPE WALL.
10. D = DIAMETER.
11. SUBGRADE SHALL BE COMPACTED IN CONFORMANCE WITH SECTION 302 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
12. FOR MANHOLE CONNECTIONS WITH PIPE DIAMETER GREATER THAN 36-INCHES, THE BOOT SHALL NOT BE REQUIRED. ALL PIPE CONNECTIONS GREATER THAN 36-INCH IN DIAMETER SHALL BE GROUTED IN INTERIOR & EXTERIOR OF THE MANHOLE, GROUT SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SECTION 200.04.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION: DOUGLAS COUNTY
			STORM DRAIN MANHOLE NOTES	DATE: JULY 2017
				DWG: D05