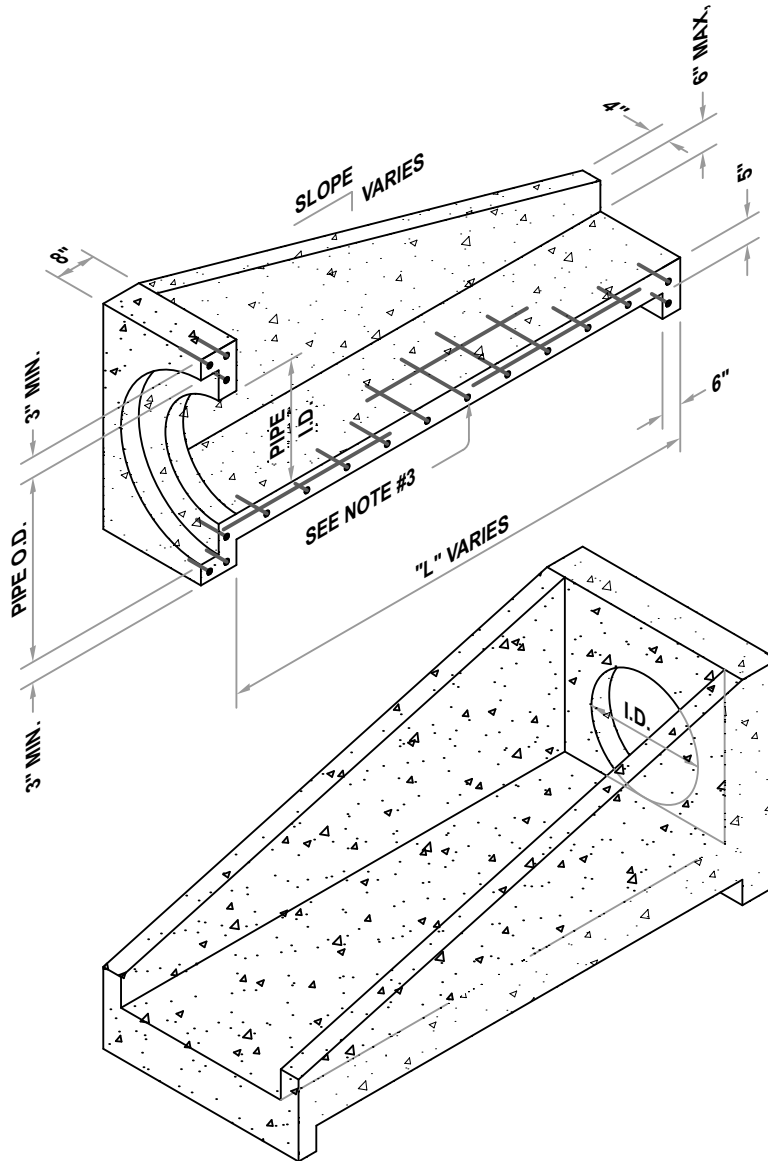


**GENERAL NOTES:**

1. STRUCTURAL DESIGN SPECIFICATIONS CONFORM TO ASTM C913 AND NCDOT STANDARDS 310.02 AND 310.03.
2. CONCRETE COMPRESSIVE STRENGTH 4,000 PSI MINIMUM.
3. STEEL REINFORCING DESIGN TO CONFORM TO THE REQUIREMENTS OF ASTM C890 SPECIFICATIONS FOR "STRUCTURAL DESIGN LOADING FOR WATER AND WASTEWATER STRUCTURES" AND SHALL UTILIZE GRADE 60 RE-BARS CONFORMING TO THE REQUIREMENTS OF ASTM A615 OR WWF CONFORMING TO THE REQUIREMENTS OF ASTM A185 OR BOTH.
4. ADDITIONAL REINFORCING AT OPENINGS.
5. ALL CORNERS EXPOSED TO BE CHAMFERED 1".
6. PIPE PENETRATION TO BE AS PER JOB REQUIREMENTS. PIPE TO BE GROUTED BY CONTRACTOR AS PER NCDOT REQUIREMENTS.



**CROSS AND PARALLEL PIPE END SECTION  
NCDOT STANDARD 310.02/03**

CROSS PIPE END SECTION					PARALLEL PIPE END SECTION				
SLOPE	PIPE ID	PIPE OD	L	WEIGHT	SLOPE	PIPE ID	PIPE OD	L	WEIGHT
4:1	18"	26"	6'-2"	2,340 #	6 : 1	15"	24"	9'-4"	3,350 #
4:1	24"	36"	8'-4"	3,840 #	6 : 1	18"	26"	9'-4"	3,350 #
4:1	30"	42"	12'-11"	6,300 #	6 : 1	24"	36"	12'-10"	5,280 #