

GENERAL NOTES:

1. UNLESS OTHERWISE DETERMINED BY THE CITY, THE MEASURES ILLUSTRATED SHALL BE USED WHEN CULVERT DIAMETER, 'D', IS GREATER THAN OR EQUAL TO 24 INCHES AND WHEN THE DIFFERENCE IN ELEVATION BETWEEN THE CULVERT INVERT AND THE TOP OF SLOPE, 'H', IS GREATER THAN OR EQUAL TO 5 FEET.
2. INSTALLATION OF 2'-6" CURB AND GUTTER MAY NOT BE REQUIRED WHEN AN ADEQUATE CLEAR ZONE IS PROVIDED FOR VEHICLES WITH A MAXIMUM OF 6:1 SLOPE (SEE TABLE 1).
3. INSTALLATION OF SAFETY RAIL MAY NOT BE REQUIRED WHEN A 10-FOOT PEDESTRIAN CLEAR ZONE IS PROVIDED BEHIND THE SIDEWALK WITH A MAXIMUM OF 6:1 SLOPE. WHERE NO SIDEWALK IS REQUIRED, INSTALLATION OF SAFETY RAIL MAY NOT BE REQUIRED WHEN A 15-FOOT PEDESTRIAN CLEAR ZONE IS PROVIDED BEHIND THE CURB WITH A MAXIMUM OF 6:1 SLOPE.
4. FOR CULVERT CROSSING WITHOUT ENDWALLS, LH AND LC2 SHALL BE MEASURED FROM THE OUTSIDE OF THE NEAREST WALL OF THE CULVERT BARREL.
5. FOR MULTIPLE BARREL CULVERT CROSSINGS, LC1 SHALL BE MEASURED FROM THE CENTERLINES OF THE OUTBOARD CULVERT BARRELS.
6. WHEN NECESSARY, AS DETERMINED BY THE CITY, ADDITIONAL MEASURES MAY BE REQUIRED.
7. INSTALLATION OF SAFETY RAIL IS REQUIRED ON BOTH SIDES OF THE STREET IF SIDEWALK IS REQUIRED ON BOTH SIDES.
8. INSTALLATION OF SAFETY RAIL IS REQUIRED ON BOTH SIDES OF THE STREET IF NO SIDEWALK IS REQUIRED EXCEPT WHEN A 15-FT PEDESTRIAN CLEAR ZONE IS PROVIDED BEHIND THE CURB WITH A MAXIMUM OF 6:1 SLOPE.
9. INSTALLATION OF SAFETY RAIL IS REQUIRED ON THE SIDEWALK SIDE OF THE STREET IF SIDEWALK IS ONLY REQUIRED ON ONE SIDE OF THE STREET. INSTALL EITHER SAFETY RAIL OR 15-FOOT CLEAR ZONE ON SIDE WITHOUT SIDEWALK.
10. DESIGN ADT IS CALCULATED ASSUMING A TRIP GENERATION OF 10 DAILY TRIPS PER SINGLE FAMILY DWELLING UNIT.

TABLE 1.  
CLEAR ZONE DISTANCES  
LOCAL, COLLECTOR, AND COMMERCIAL STREETS

DESIGN ADT	CLEAR ZONE FROM EDGE OF PAVEMENT	
	TANGENT SECTION	CURVE (WITHIN 125' OF CULVERT)
UNDER 750	10'	15'
750 – 1500	12'	18'
1501 – 6000	14'	21'
OVER 6000	16'	24'

SEE STD DETAIL 02.03.05 FOR  
PLAN AND SECTIONAL SCHEMATICS

NO.	REVISIONS	DATE	DESCRIPTION



CULVERT CROSSING  
(2 of 2)

CITY OF MONROE  
UNION COUNTY  
NORTH CAROLINA

PREPARED BY:

ENGINEERING DEPARTMENT

FILE: 1:Maps-Detail/Detail/Manual/Details  
DRAWN BY: KMM DATE: 04-14-25  
CHECKED BY: SAM SCALE: N.T.S.  
DETAIL 02.03.05B