

GENERAL NOTES:

1. UNLESS OTHERWISE DETERMINED BY THE DIRECTOR OF ENGINEERING, 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 CROSSINGS 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 DIRECTOR OF ENGINEERING, ADDITIONAL MEASURES MAY BE REQUIRED.
7. INSTALLATION OF SAFETY RAIL IS REQUIRED ON BOTH SIDES OF STREET IF SIDEWALK IS REQUIRED ON BOTH SIDES.
8. INSTALLATION OF SAFETY RAIL IS REQUIRED ON BOTH SIDES OF STREET IF NO SIDEWALK IS REQUIRED EXCEPT WHEN A 15-FOOT 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 STREET IF SIDEWALK IS ONLY REQUIRED ON ONE SIDE OF STREET. INSTALL EITHER SAFTEY RAIL OR 15-FT 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. NO. 132A FOR PLAN AND CROSS SECTIONAL SCHEMATICS.

NOT TO SCALE



**CULVERT CROSSINGS ON  
RESIDENTIAL AND COMMERCIAL  
STREETS**

SEPTEMBER 2022

132B