

FIGURE 3-4

TECHNICAL DESIGN REQUIREMENTS BY STREET CLASSIFICATION

ITEM	SUB ITEM	CLASSIFICATION						
		Major Arterial	Minor Arterial	Collector (8)	Residential	Residential Cul-De-Sac (3)	Existing Alley (5)	Emergency Access
Minimum Right-of-Way (Public/Private)		130' (4)	110' (4)	60' to 80'	50'	50' Throat 50' Radius	Varies	20'
Minimum Street Width (Face of Curb to Face of Curb)		(8)	(8)	(8)	32'	45' Radius To Face of Curb	Pavement Full Width of Alley Up to 24'	20'
Curbing (MAG Std. Det. 220)		Vertical Curb & Gutter			Single Family Residential - Roll Curb & Gutter, Unless Curb is Required for Drainage. All Other, Including Multi-Family - Vertical Curb & Gutter		N/A	N/A
Sidewalk (MAG Std. Det. 230)		8' Wide (Detach)		6' Wide (9)	5' Wide			
Minimum Pavement Structure (1)	Asphaltic Concrete (MAG Spec. 710)	5"		4"	3" Minimum			Note 13
	Base Depth	12"		8"	6" Minimum			
Longitudinal Slope		0.4% Minimum 6% Maximum - 600' Maximum Length		0.4% Minimum 9% Maximum - 600' Maximum Length	12% (Hillside w/ City Engineer's Approval)	0.4% Minimum 9% Maximum	0.40%	10%
Cross Slope (Straight Crown)		2% Minimum - 3% Maximum						5%
Vertical Curve (6)	Required When	Grade Change Exceeds 1.5%			Grade Change Exceeds 1.5%			N/A
	Crest Curve (2)	(12)	(12)	(12)	(12)			
	Sag Curve (2)	(12)	(12)	(12)	(12)			10%

Figure 3-4 (a)

**FIGURE 3-4  
TECHNICAL DESIGN REQUIREMENTS BY STREET CLASSIFICATION - Continued**

ITEM	SUB ITEM		CLASSIFICATION					Existing Alley (5)	Emergency Access
			Major Arterial	Minor Arterial	Collector (8)	Residential	Residential Cul-De-Sac (3)		
Horizontal Curves	Required When:		Tangent Centerlines Deflect More Than 5 Degrees		Tangent Centerlines Deflect More Than 5 degrees			N/A	WB-50 (inside 19.8') (Outside 45')
	Minimum Radius	No Superelevation	1200' <sup>(10)</sup>		670' <sup>(11)</sup>				
		2% Superelevation	1050' <sup>(10)</sup>		600' <sup>(11)</sup>				
Minimum Tangent Centerline Between Reverse Curves		150'	100'						
Tapers	Length		Speed Limit x Width (7)		$\frac{(\text{Speed Limit})^2 \cdot (\text{Width})}{60}$			N/A	N/A
	Pavement Structure		1. Remove Existing Taper, and Match to Full Width and Structural. 2. When Required, a New Taper = 3" A.C. Over 8" Base and Reconstructed with Future Improvements.						

**NOTES**

- (1) Other structural sections may be required if so indicated by the Soils Report and approved by the City.
- (2) A = Algebraic difference of the two slopes.
- (3) In all cul-de-sacs: The maximum length from the intersecting street center lines to the radius point shall be 400'.
- (4) Full Row for Arterial to Arterial intersections shall be 150' for a distance of 500' as measured from the center line intersection.
- (5) Alley entrances to public streets shall be reconstructed per MAG Std. Detail 250 modified to 9" thick Class "A" concrete per MAG Section 725.
- (6) Length of vertical curve shall be adjusted to up to an even one-half station (i.e.  $160 \times A = 532'$  - use 550')
- (7) Width = difference of the two widths.
- (8) See City of Peoria Details PE-010-2, PE-010-3, PE-010-4, and PE-010-5.
- (9) Residential collector to have 5' wide S/W attached. Collector to have 6' wide S/W detached where right-of-way permits.
- (10) Based on a 50 mph design speed.
- (11) Based on a 40 mph design speed.
- (12) See Section 3-4-G.
- (13) All-weather surface for Max load 75,000 pounds.
- (14) Fire signing and striping per MUTCD.

**Figure 3-4 (b)**