

120 Attachment 2

Town of Windham

Appendix B

Street Design and Construction Standards

[Amended 6-16-2022 by Order No. 22-108; 3-28-2023 by Order No. 23-041; 5-27-2025 by Order No. 25-090]

Table 1 Minimum Sight Distance Standards			
Sight Distance			
Posted Speed	Standard Vehicle	Larger Vehicle	Mobility
20	155	230	n/a
25	200	300	n/a
30	250	375	n/a
35	305	455	n/a
40	360	540	580
45	425	635	710
50	495	740	840
55	570	855	990
60	645	965	1150

Posted speed figures are in miles per hour (mph)

Sight distance figures are in feet (ft.)

Table 2 Access Design Standards for Low and Medium Volume Accesses			
Basic Standards		Low Volume	Medium Volume
Min. access width:*			
	Majority passenger vehicles	12	22
	>30% larger vehicles	30	30
Min. corner clearance to:**			
	Unsignalized intersection	75	100
	Signalized intersection	125	125
Min. access spacing:***			
	MPH of external road		
	35 or less	n/a	n/a
	40	175	175
	45	265	265
	50	350	350
	55 or more	525	525

* Minimum widths for low- or medium-volume accesses shall be either the minimum cross-section width of the internal subdivision street or the minimum access width in Table 2, whichever width is greater.

** Minimum corner clearance shall be the distance measured from the edge of an internal subdivision access, excluding radii, to the edge of an external street, excluding radii.

WINSTON-SALEM ZONING CODE

*** Minimum access spacing shall be the distance measured from the edge of a driveway and entrance, excluding radii, to the edge of a neighboring driveway and entrance, excluding radii.

Table 3 Design and Construction Standards for Town Streets /Private Streets and Access Drive⁽⁴⁾					
Item	Major Local Street	Minor Local Street	Ind./Comm.	Major Private Street	Minor Private Streets
Average daily traffic (ADT)/lots served ⁽¹⁾	> 400 AADT	≤ 400 AADT	n/a	> 10 lots	≤ 10 lots
Surface type	Paved	Paved	Paved	Paved	Gravel
Min. right-of-way width (feet)	60	50	50	50	50
Min. traveled way width ⁽²⁾ (feet)	22	20	24	20	18
Primary shoulder type ⁽³⁾	Paved	Paved	Paved	Paved	Gravel
Min. primary shoulder type without curb (feet)	4	2	4	2	2
Min. primary shoulder type with curb (feet)	5	2	4	2	n/a
Min. primary shoulder type with sidewalk	5	2	4	2	n/a
Secondary shoulder type	Gravel	Gravel	Gravel	Gravel	n/a
Min. secondary shoulder width without curb (feet)	2	2	2	2	n/a
Min. clear zone width (each side) (feet)	8	7	7	n/a	n/a
Min. esplanade width (feet)	n/a	5	n/a	n/a	n/a
Minimum vertical clearance (feet)	14	14	14	14	14
Min. grade	0.50%	0.50%	0.50%	0.50%	0.50%
Min. grade with curb	1%	1%	1%	1%	1%
Max. grade	7%	8%	6%	11%	11%
Min. center-line radius (feet)	350	180	200	100	60
Min. tangent between curves of reverse alignment (feet)	200	100	200	100	n/a
min. angle of street intersection ⁽⁴⁾	90°	60°	90°	60°	60°
Max. grade at intersections ⁽⁵⁾	2%	2%	2%	2%	2%
Min. curb radii (feet)	30	25	30	25	15
Max. dead-end street length	See § 120-555, Streets, and § 120-911M(5)(b)[5], Dead-end streets				
Min. sidewalk width (feet)	5	5	5	n/a	n/a
Min. paved apron ⁽⁶⁾ (feet)					20

Additional Standards

- (1) See § 120-911M for street connection requirements.
- (2) Add eight feet of width for each lane of on-street parking.
- (3) See § 120-911M(5)(b)[6] for shoulder and sidewalk requirements.
- (4) See § 120-814B(6)(b)[1] Multifamily development standards for access drive requirements.

- (5) Angle must be maintained for at least 60 feet from intersection.
- (6) Maximum grade must be maintained for at least 60 feet from the intersection.
- (7) A negative 2.0% grade from the existing edge of pavement must be provided to an appropriate drainageway that is no less than five feet from the travel surface or private way it intersects.

Table 4 Street Construction Standards and Dimensions					
Material	Major Local Street	Minor Local Street	Ind./Comm.	Major Private Road	Minor Private Road
Surface type	Paved	Paved	Paved	Paved	Gravel
Aggregate subbase courses					
Type D*	21"	21"	27"	21"	18"
Crushed aggregate base course**	3"	3"	3"	3"	3"
Hot bituminous pavement					
Total thickness compacted	5"	4"	5"	4"	n/a
Base course, HMA 19.0mm	3.5"	2.5"	3.5"	2.5"	n/a
Surface course, HMA 9.5mm	n/a	1.5"	n/a	1.5"	n/a
Surface course, HMA 12.5mm	1.5"	n/a	1.5"	n/a	n/a
Paved apron					
Aggregate subbase courses					
Type D					18"
Type B					n/a
Crushed aggregate base course**					3"
Hot bituminous pavement					3"
Bituminous concrete sidewalk:					
Crushed aggregate base course	10"	10"	10"	n/a	n/a
Pavement surface course***	(2)-1.25"	(2)-1.25"	(2)-1.25"	n/a	n/a

Notes:

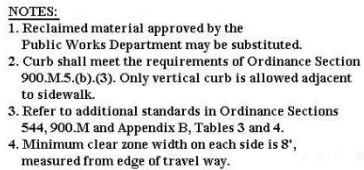
(#) = Required number of courses.

* The Planning Board or Director of Public Works, as appropriate, may reduce the required depth of ASCG Type D from 27 inches to 21 inches if the applicant provides a geotechnical evaluation performed by a professional engineer. The evaluation must include gradations, California Bearing Ratios, and a design (based on AASHTO design methods) which indicates that 21 inches of ASCG Type D will be adequate to handle the estimated vehicular weight loads.

** Material shall be Crushed Aggregate Base Course, Type A, or RECLAIMED asphalt approved by the Public Works Department.

** Material shall be HMA 9.5mm.

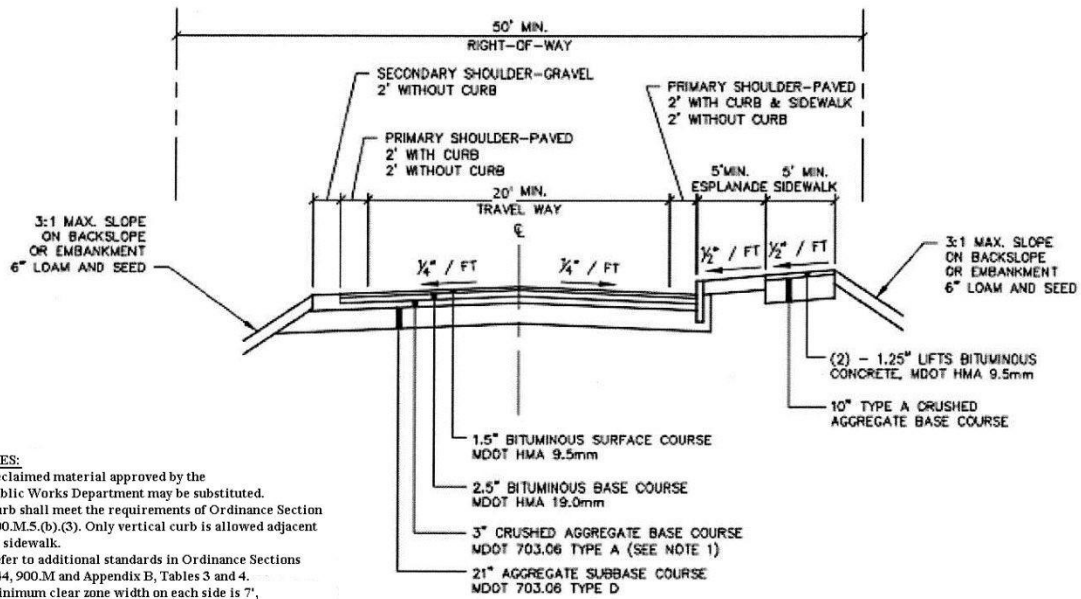
WINDHAMSEDE



MAJOR LOCAL STREET

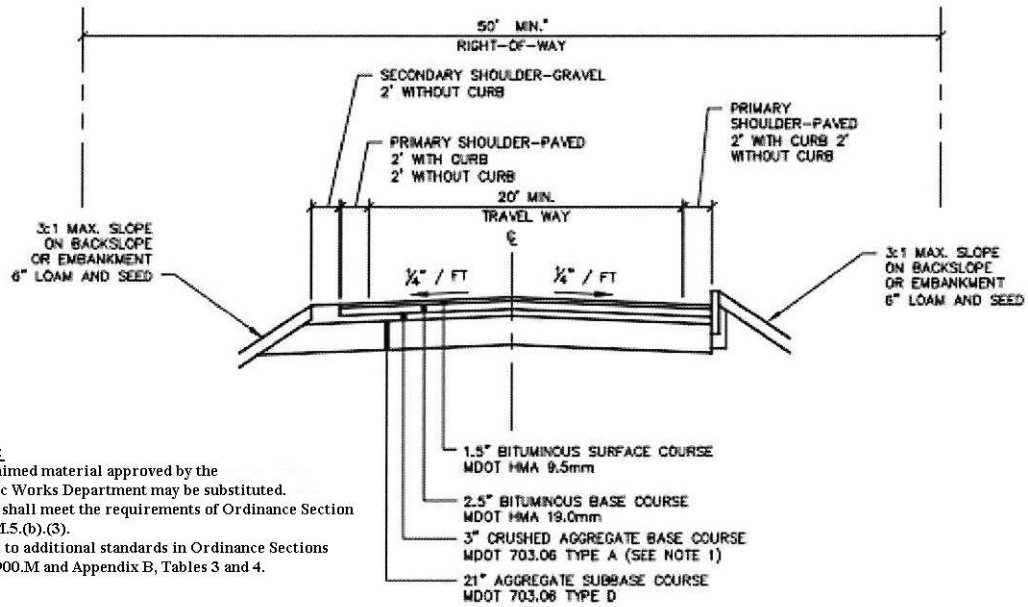
NOT TO SCALE

WINN-DIXIE



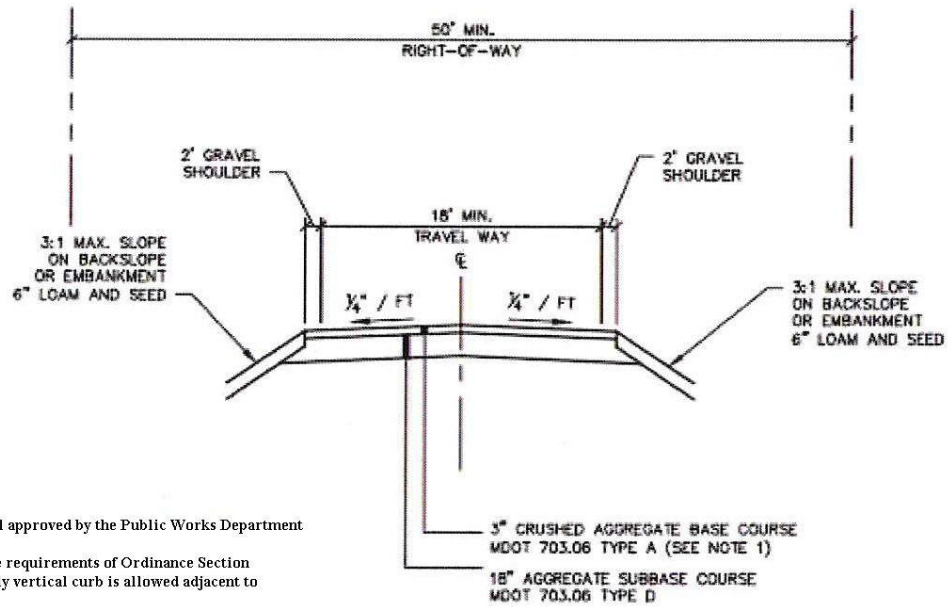
MINOR LOCAL STREET
NOT TO SCALE

WINN-DIXIE



MAJOR PRIVATE ROAD

NOT TO SCALE



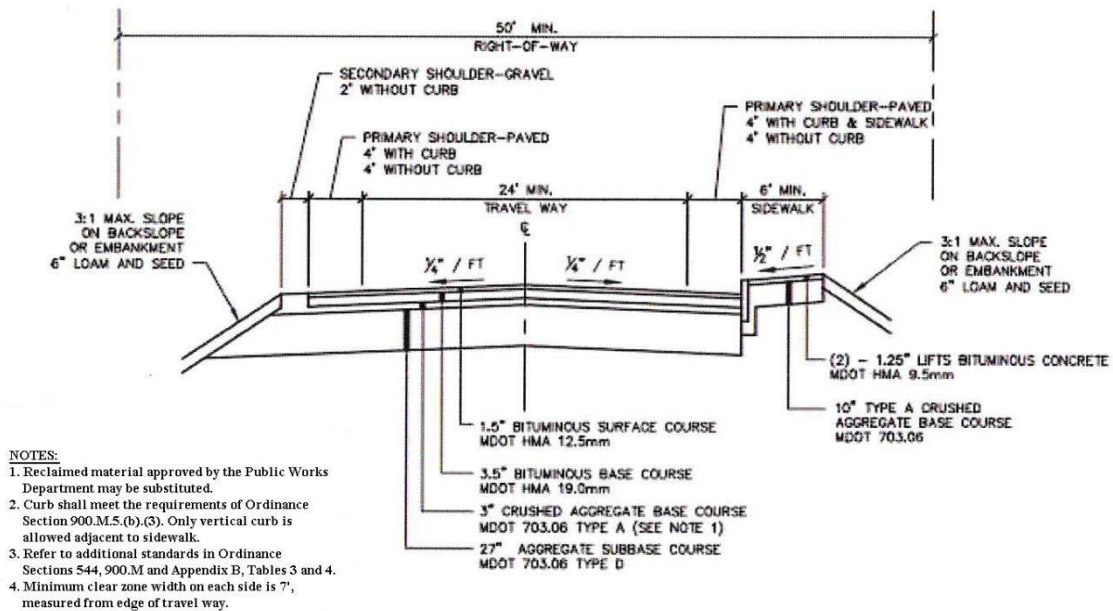
NOTES:

1. Reclaimed material approved by the Public Works Department may be substituted.
2. Curb shall meet the requirements of Ordinance Section 900.M.5.(b).(3). Only vertical curb is allowed adjacent to sidewalk.
3. Refer to additional standards in Ordinance Sections 544, 900.M and Appendix B, Tables 3 and 4.

MINOR PRIVATE ROAD

NOT TO SCALE

WINN-DIXIE



INDUSTRIAL/COMMERCIAL STREET

NOT TO SCALE

THOROUGHFARE STANDARDS

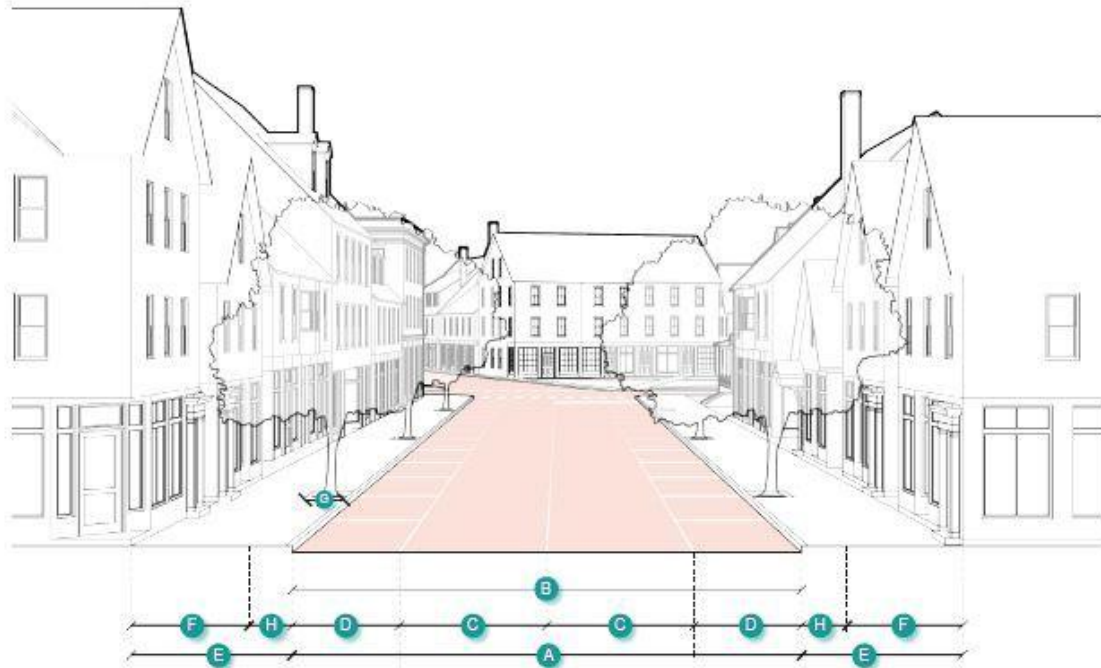
1. Residential Street



a. Roadway			c. Verge		
Right-of-way width	30 ft. min., 50 ft. max.	A	Margin width	3 ft. min., 2 sides	E
Pavement width	18 ft. min., 20 ft. max.	B	Walkway type	None, or sidewalk on 1 or 2 sides (iii)	
Movement	Yield		Walkway width	4 ft. min.	F
No. of traffic lanes	2 lanes, unmarked		Planter type	None or continuous planter or swale (i)	
Traffic lane width	18 ft. min., 20 ft. max.	C	Planter width	3 ft. min. (i)	G
Parking lanes	Opportunistic		Furnishing zone	1.5 ft. min.	H
Parking lane width	Unmarked	D	d. Standards		
b. Curb and drainage			i. Planters are optional on margins less than 9 feet wide, and on thoroughfares with a total ROW width narrower than 40 feet.		
Curb type	None or § 120-911M(5)(b)[3]		ii. Street construction standard must comply with Table 3& 4 Major Private Road or Minor Local Street if intended to be offered for public acceptance.		
Drainage type	Gutter or swale		iii. Refer to § 120-911M(5)(b)[3].		
Curb radius	15 ft. min.				

THOROUGHFARE STANDARDS

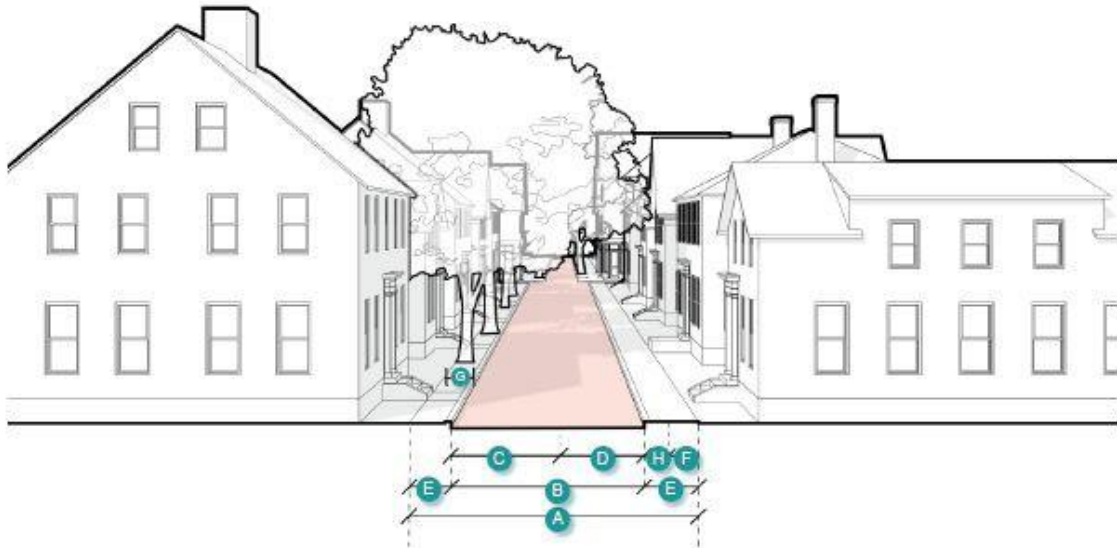
2. Commercial Street



a. Roadway			c. Verge		
Right-of-way width	50 ft. min., 74 ft. max. (v)	A	Margin width	8 ft. min., 2 sides	E
Pavement width	38 ft. max. (v)	B	Walkway type	Sidewalk, 1 or 2 sides	
Movement	Two-way		Walkway width	4 ft. min.	F
No. of traffic lanes	2-lanes		Planter type	Tree pits (ii)	
Traffic lane width	10 ft. min., 11 ft. max.	C	Planter width	3 ft. min. (ii)	G
Parking lanes	2 sides (i)		Furnishing zone	1.5 ft. min, 6 ft. max.	H
Parking lane width	7 ft. min., 8 ft. max.	D	d. Standards		
b. Curb and drainage			i. Commercial streets may drop one or both parking lanes for portions of its length as long as the resulting space is given to the adjacent margin assembly. ii. Planters are optional on margins less than 9 feet wide. iii. Street construction standard must comply with Table 3 & 4 Major Private Road or Minor Local Street if intended to be offered for public acceptance. iv. Refer to § 120-911M(5)(b)[3]. v. If perpendicular or angled parking are accommodated, right-of-way and pavement width may be increased by additional width required by these parking configurations.		
Curb type	§ 120-911M(5)(b)[3]				
Drainage type	Gutter				
Curb radius	12 ft. min.				

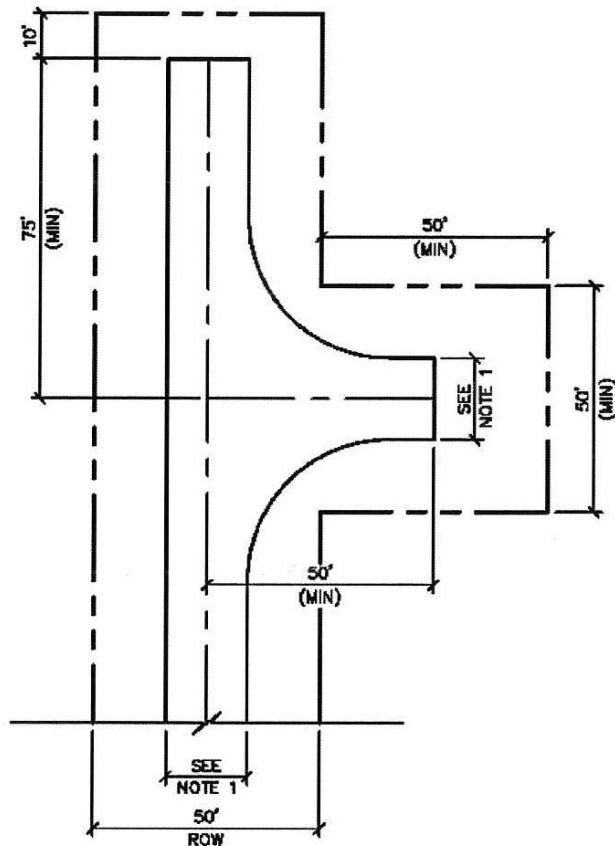
THOROUGHFARE STANDARDS

3. Curbed Lane

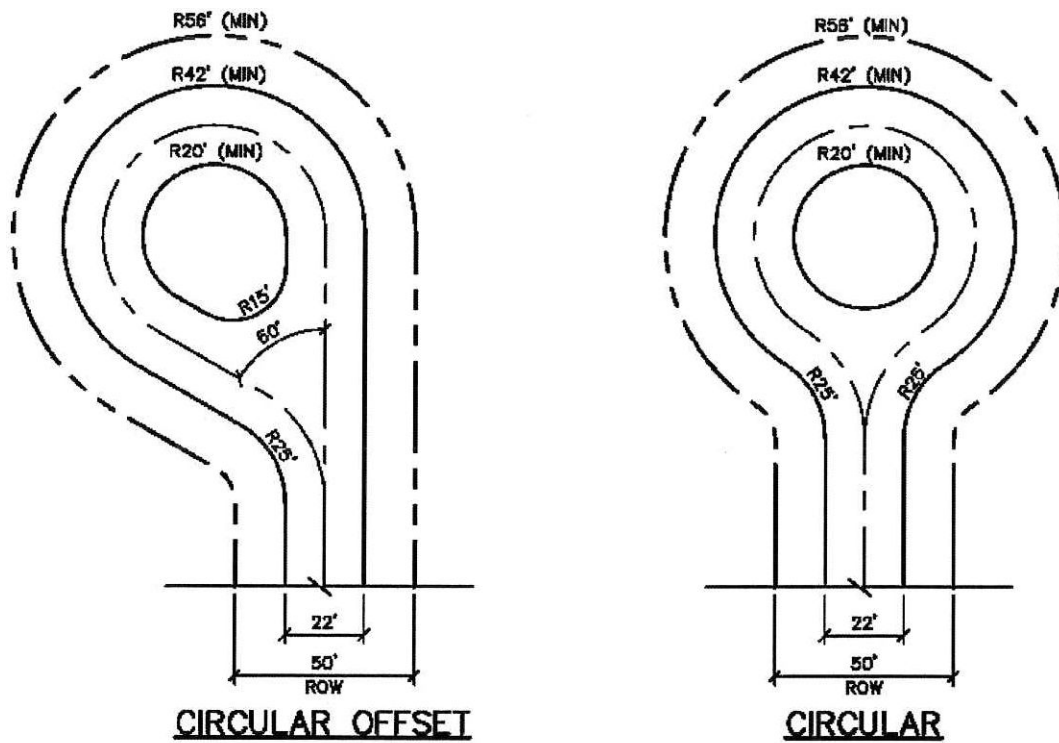


a. Roadway			c. Verge		
Right-of-way width	18 ft. min., 24 ft. max. (iv)	A	Margin width	3 ft. min. on 1 or 2 sides	E
Pavement width	24 ft. max. (iv)	B	Walkway type	None, or sidewalk on 1 or 2 sides	
Movement	Yielding or one-way		Walkway width	3 ft. min.	F
No. of traffic lanes	1 lane		Planter type	Tree pits or continuous planter (ii)	
Traffic lane width	9 ft. min., 18 ft. max., unmarked (i)	C	Planter width	3 ft. min. (ii)	G
Parking lanes	1 side or none, unmarked (i)		Furnishing zone	0 ft. min, 6 ft. max.	H
Parking lane width	7 ft. max.	D	d. Standards		
b. Curb and drainage			i. Curbed lane may drop one or both parking lanes for portions of its length as long as the resulting space is given to the adjacent margin.		
Curb type	§ 120-911M(5)(b)[3]		ii. Planters are optional on margins less than 9 feet wide, and on curbed lanes with a total ROW width narrower than 40 feet.		
Drainage type	Center drain or gutter		iii. Street construction standard must comply with Table 3 & 4 Major Private Road or Minor Local Street if intended to be		
Curb radius	4 ft. min.				

			offered for public acceptance. iv. If perpendicular or angled parking are accommodated, right-of-way and pavement width may be increased by additional width required by these parking configurations.
--	--	--	--



NOTES:
 1. Refer to Ordinance Sections 500.B.8.(f).(2) and 900.M.5.(b).(5).(iv) for hammerhead design criteria.



LOCAL STREET CUL-DE-SAC
NOT TO SCALE