

Chapter 23 TRANSPORTATION DESIGN

INTRODUCTION

Transportation in an urban environment is a complex interplay of different modes of travel, trip purposes, and variability of transportation characteristics through time. This chapter presents criteria established for use in the design of street systems and related features to accommodate these differing needs. These criteria are intended to assure acceptable levels of comfort, safety, quality and durability in completed designs.

Material presented is intended for use by qualified design professionals familiar with municipal street design. A brief overview of important governing regulations is presented together with references to commonly accepted standard publications related to the subject. Designers and others using this manual are expected to familiarize themselves fully with the following regulations, other pertinent regulations and the standard reference publications cited herein.

The purpose of this chapter is to promote consistently sound design of street systems having acceptable performance characteristics, to encourage innovative design, and to assert the need for exercise of sound, responsible, professional judgment by the designer.

While the use of minimum design standards typically results in the lowest cost for a project, the use of above minimum design may result in a more effective design with operational benefits and a more economic life cycle cost. The design values in this chapter represent the minimum standard. However the project designer is encouraged to use values above this minimum.

Section 1. GOVERNING REGULATIONS

Following are overviews of several of the most important City regulatory documents pertaining to street design. The list is not intended to be exhaustive, and the user is cautioned that these regulations are subject to change at any time. The competent designer must maintain a constant familiarity with these and other pertinent regulations as they evolve.

Subdivision Ordinance (Article 14-7 R.O.A. 1994)

The following topics in this Ordinance are particularly important to street design:

The requirement for Traffic Engineer approval of any plat which creates public right-of-way and private access easements.

The general right-of-way standards for streets, based upon roadway classification.

The requirement for the development of detailed design criterion and technical standards for construction in the Development Process Manual.

Comprehensive City Zoning Code (Article 14-16 R.O.A. 1994)

This document contains important regulations relating to access, circulation, and parking on private property; the interface with public right-of-way, to obstructions of sight distances within the right-of-way, and to proximity of landscape elements to the traveled way. This document,

c. Lots facing a Major Local Street with only alley driveway access may be decreased in overall lot size and front yard building setback distance as specified in the Comprehensive Zoning Code's R-1, R-LT, and R-T zones.

~~8. Public right of way location for Primary Trails shall be as designated by the Long Range Bikeway System Map and the Trails and Bikeways Facility Plan. Primary, Secondary and Access Trails shall be built in accordance with the standards provided therein and/or the Subdivision Ordinance, the DPM, the Comprehensive On-Street Bicycle Plan, and Standard Specifications for Public Works Construction or as specified by adopted policies or plans. All new development and redevelopment shall follow the preceding requirements.~~

Commented [RMM1]: Replace with 3.6 – Bikeways and Trails

9. A Major Local Street generally accommodates vehicles collected from and distributed to several Normal and Access Local streets. Major Local Streets shall be designed to discourage high speed driving and to support walking:

a. Roundabouts at intersections, chokers, sidewalk bulb-outs, chicanes, medians, and/or other devices approved by the Traffic Engineer shall be incorporated into street design to calm traffic.

b. Residential Major Local Streets shall contain the following elements:

(1) No more than two (2) vehicle lanes (one in each direction) except at intersections with Collector or Arterial Streets where three (3) vehicle lanes may be provided: two (2) for vehicles exiting and one for vehicles entering the Major Local Street;

~~(2) Curb and gutter (on both sides of the street);~~

Commented [RMM2]: Replace with 3.4 Curb and Gutter Criteria

~~(3) On both sides of the street, minimum 6 foot wide areas for street trees between the back of the curb and the sidewalk that include the following areas: a 1 foot wide no dig area back of the curb, another 2.5 foot wide area to the tree trunk to ensure that the tree is set back 4 feet from the face of the curb, another 1.5 foot wide area to ensure an adequately sized tree planting area, and a 1 foot wide no dig area next to the sidewalk, although wider areas may be required for trees that attain a height greater than 20 feet at maturity;~~

~~(4) On both sides of the street, minimum 6 foot wide sidewalks or sidewalk substitutes in the form of all weather surfaced paths that meet City Construction Standards and ADA Guidelines (The City requires a private maintenance agreement for sidewalk substitutes); and~~

~~(5) A minimum of one street tree per lot selected from a City approved list and as specified in the Street Tree Ordinance. Responsibility for permanent maintenance of street trees and related improvements shall be identified as a condition of final plat approval in a form acceptable to the City.~~

Commented [RMM3]: Replace with 3.5 Pedestrian Facilities

c. Major Local Streets may also contain some of the following elements:

(1) Parking lanes on one or both sides of the street as required by City Engineering staff to ensure adequate parking for adjacent land uses;

(2) If the street is also designated as a bikeway or trail, adequate right-of-way and developed section to accommodate the extra width in accordance with DPM/AASHTO standards;

(3) A landscaped median or other traffic slowing devices;

~~(4) A wider landscape area between the curb and sidewalk, a wider sidewalk or trail, or a landscape area adjacent to rear yard walls.~~

Commented [RMM4]: Replace with 3.5 Pedestrian Facilities

~~d. The centerlines of streets intersecting a major local street shall be a maximum of 850 feet apart provided additional pedestrian access routes to and from the Major Local Street are provided on the side(s) of the Major Local Street being considered for development.~~

Commented [RMM5]: Replace with section 3.1 Network Connectivity

~~Unless existing abutting development precludes providing an opening, pedestrian access routes shall be provided from between lots or from stub streets or cul-de-sacs.~~

~~(1) Pedestrian access routes between lots shall consist of a minimum 6 foot wide path in a 12 foot wide space, shall meet ADA standards as required by law, and shall prevent vehicle entry. Access routes shall have no blind spots and access route exits shall be clearly visible from all points along the route. Pedestrian access routes longer than 120 feet shall be a minimum of 18 feet wide. (See 23.2.A.9.d.4. for exceptions.)~~

~~(2) Pedestrian street crossings associated with pedestrian access routes shall be evaluated for inclusion by City staff. If applicable, pedestrian street crossings shall include ADA accessible routes through street medians.~~

~~(3) On the side(s) of the Major Local Street with front yards facing the street, pedestrian access routes to the Major Local Street shall be located a maximum distance of 500 feet on center.~~

~~(4) On the side(s) of the Major Local Street with rear yards facing the street, pedestrian access routes that are a minimum of 25 feet wide shall be located a maximum distance of 500 feet on center. Pedestrian access routes narrower than 25 feet wide shall be located a maximum distance of 300 feet on center.~~

e. A minimum setback area between the sidewalk and rear yard property line equal to the additional height of the rear yard wall over 5 feet high from sidewalk grade shall be provided. Public utility easement requirements may necessitate a greater wall setback distance.

No property line setback is required for rear yard walls measuring 5 feet high or less from sidewalk grade unless additional space is needed for a public utility easement that is separated sufficiently from required street trees or to accommodate slope or drainage requirements. Walls shall be built in accordance with wall height and design regulations as specified in the Comprehensive Zoning Code Section 14-16-3-19. A wall setback easement may substitute for right-of-way.

~~f. Major Local Streets with on-street parking should be designed and built with sidewalk bulb-outs at street intersections and may also incorporate bulb-outs at other locations along the block to demarcate parking lanes and to shorten the street width for pedestrians at street crossing locations.~~

Commented [RMM6]: Replace with section 3.8 On-Street Parking

If the Major Local Street intersection has an anticipated AWDT of 2000 or more, the intersection shall be designed at a minimum, to allow a standard size school bus to negotiate turns without crossing the centerline of the roadway or encroaching onto curb or sidewalk.

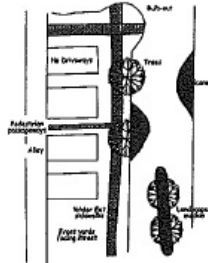


Figure 23-1F

Table 23.2.1A
Public Right-of-Way and Pavement Width Standards
(For All Streets except Local Residential Streets)

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Street or Element Classification (as defined by Subdivision Ordinance)	Minimum Required Right-of-Way Width (see notes: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12)	Recommended Bike-Facility (see note 11)	Minimum Required Sidewalk (See note 7)	Required Pavement Width (See notes 2, 3, 4, 5, 6) (Flowline to Flowline)
Principal Arterial	a)* As required by LRRS ⁽¹⁾ , if not established therein, or b)* 124 feet in Established and Redeveloping Areas, or c)* 156 feet elsewhere d)* Add 12 feet for bike lanes if road is on bikeway system (1, 2, 3, 4, 5, 7, 8, 9, 10, 11)	6-foot minimum bike lane or 5-foot paved shoulder bikeway for posted speeds of 35 mph or less; 7-foot bike lane or 6-foot paved shoulder bikeway for posted speeds of 40 mph or greater	6 feet with a 6-foot setback from back of curb (7)	a) As required by LRRS, or b) As required by Traffic Engineer/Development (2, 3, 4, 5, 6)
Minor Arterial	a)* As required by LRRS ⁽¹⁾ , if not established therein, or b)* 91 feet c)* Add 12 feet for bike lanes if road is on bikeway system (1, 2, 3, 4, 5, 7, 8, 9, 10, 11)	6-foot minimum bike lane or 5-foot paved shoulder bikeway for posted speeds of 35 mph or less; 7-foot bike lane or 6-foot paved shoulder bikeway for posted speeds of 40 mph or greater	6 feet with a 6-foot setback from back of curb (7)	a) As required by LRRS, or b) 66 feet to 74 feet including gutter and median/center turn lane (2, 3, 4, 5, 6)

		greater		
Collector	a)* As required by LRRS ⁽¹⁾ , if not established therein, or b)* 73 feet c)* Add 12 feet for bike lanes if road is on bikeway system (1, 2, 3, 4, 5, 7, 8, 9, 10, 11)	6-foot bike lane or 4-foot paved shoulder bikeway (min-)	6 feet with a 6-foot setback from back of curb (7)	a) As required by LRRS, or b) 48 feet (2, 3, 4, 5, 6)
Major Local	See Table 23.2.1B for local street standards (Major, Normal, and Access)	-	-	
Local Streets – Abutting Lands Zones R-2, 3 – All others** ** One side development only or cul-de-sac	57 feet * 61 feet 53 feet [57' x 100']	—	4 feet with a 6-foot setback from back of curb. ⁽²⁾ ⁽⁴⁾	36 feet 40 feet 32 feet (36') ⁽¹⁰⁾ (2, 3, 4, 5, 6)
Alley	* 20 feet (paved, valley gutter)	—	N/A	20 feet (paved, valley gutter)
Primary Trail (on separate right-of-way)	* 18 feet minimum	—	N/A	10 feet minimum
Secondary Trail (on separate right-of-way)	* 15 feet	—	—	10 feet
Pedestrian Access Route to a street from a stub street, a cul-de-sac, or from between lots	Minimum 12 feet (18 feet for pedestrian access routes longer than 120 feet) (12)	-	-	6 feet (12)

NOTES:

(1) LRMSP - means Long Range Major Street Plan; this document governs in all cases where criteria for the area considered have been incorporated into the plan.

(2) Standards indicated may require increase in individual circumstances to conform to drainage and/or landscaping requirements.

(3) Right-of-way and pavement width may require added widening up to 10 feet on each side at approaches to arterials and collectors.

(4) Right-of-way width requirements may be adjusted by the Traffic Engineer if necessary to properly accommodate existing right-of-way on the same street in the vicinity.

~~—(5) Right of way and pavement widths may be increased by up to 12 feet by the Traffic Engineer to accommodate adopted bicycle facilities. Additional width may be required to accommodate required sidewalk and setback widths.~~

Commented [RMM9]: Replace with 3.6 – Bikeways and Trails

(6) See Standard Details

~~—(7) Minimum sidewalk width shall be 10 feet on arterial streets adjacent to Major Activity Centers and Community Activity Centers as defined in the Albuquerque/Bernalillo County Comprehensive Plan. Minimum sidewalk width shall be 9 feet on collector streets adjacent to Major Activity Centers and Community Activity Centers. Minimum sidewalk width shall be six feet adjacent to arterial and collector streets other than those listed above. Minimum sidewalk width shall be 6 feet on local streets abutting the grounds of schools or churches, land zoned SU-3, or land zoned for a greater residential density than RT Residential Town homes. Otherwise, sidewalks shall be four feet wide adjacent to a local street. Right of way width shall be increased to accommodate increased sidewalk widths.~~

(8) Right-of-way shall be increased if required for public infrastructure.

(9) A developer, with the concurrence of the Traffic Engineer, may elect to dedicate additional R/W for future roadway widening.

(10) Right-of-way and pavement widths need to be increased within a specified distance of an arterial or collector street (measured as the tangent portion of the subject street). This width and required length of tangent is shown in brackets - ex. [56' X 100'].

~~—(11) Width is measured from the gutter edge for a bike lane or from the edge of pavement for a shoulder bikeway toward the lane stripe or roadway centerline. On retrofit of existing roadways where right of way is limited, wide curb lanes, 16 feet from lane stripe to flowline, are recommended. In order to implement wide curb lanes, inner travel lane widths may be reduced within acceptable AASHTO guidelines.~~

~~—(12) Pedestrian access routes shall be as described in 23.2.A.9.d. of the DPM:~~

"The centerlines of streets intersecting a major local street shall be a maximum of 850 feet apart provided additional pedestrian access routes to and from the Major Local Street are provided on the side(s) of the Major Local Street being considered for development.

Unless existing abutting development precludes providing an opening, pedestrian access routes shall be provided from between lots or from stub streets or cul-de-sacs.

~~—(1) Minimum requirements for pedestrian access routes between lots are that they shall contain a minimum 6 foot wide path in a 12 foot wide space, shall meet ADA standards as required by law, and shall prevent vehicle entry. Access routes shall have no blind spots and access route exits shall be clearly visible from all points along the route. Pedestrian access routes longer than 120 feet shall be a minimum of 18 feet wide. (See 23.2.A.9.d.4. for exceptions.)~~

~~(2) Pedestrian street crossings associated with pedestrian access routes shall be evaluated for inclusion by City staff. If applicable, pedestrian street crossings shall include ADA accessible routes through street medians.~~

(3) On the side(s) of the Major Local Street with front yards facing the street, pedestrian access routes to the Major Local Street shall be located a maximum distance of 500 feet on center.

(4) On the side(s) of the Major Local Street with rear yards facing the street, pedestrian access routes that are a minimum of 25 feet wide shall be located a maximum distance of 500 feet on center. Pedestrian access routes narrower than 25 feet wide shall be located a maximum distance of 300 feet on center."

Table 23.2.1.B
Standard Local Residential Street Design - Public Right-of-Way
and Pavement Width Standards

Commented [RMM10]: Replace with Section 3.5 Pedestrian Facilities and 3.6 Bikeway and trails

Street or Element Classification	Required Total Right-of-Way (see notes: 5, 6, 7, 8, 11)	Recommended Bike-Facility and Required Pedestrian Access Routes (see-note-10)	Required Minimum Sidewalk (See notes 1, 3, 4)	Required Sidewalk Setback (see-note-2, 11)	Required Pavement Width - Flowline to Flowline (See notes 8, 9)
Major Local (A Residential Street with an anticipated AWDT of 1000 or more vehicles.)	Minimum total right- of-way includes the following basic elements:(5,7,8) (2) 6 ft wide sidewalks (2) 6 ft wide street tree planting areas between the curb and sidewalk (2) curbs (2) 12 ft wide traffic lanes Additional right-of- way may include: (2) added widths for planting areas to accommodate trees that are greater than 20 feet high at maturity (1 or 2) rear	A signed route without striped lanes. - Minimum 6-foot wide paved paths within minimum 12-foot wide Pedestrian Access Routes between lots or from stub streets or cul-de-sacs (10) -	6 feet (1, 3, 4)	Minimum 6 feet between the back of the curb and the sidewalk to include the following elements: (2,4) 1-foot-wide no-dig area back-of-curb 2.5-foot-wide area to the tree-trunk An additional 1.5-foot wide area from the tree trunk to accommodate tree-planting area A 1-foot-wide no-dig area adjacent to the sidewalk The setback can be wider to	Minimum required pavement width = 22 - 24 feet to include two vehicle lanes.(8) Additional pavement width may include: (1 or 2) 8 ft wide parking lanes (1) minimum 10 foot wide or wider median (See note 9 concerning fire vehicle requirements) (1) additional vehicle lane for exiting to collector or arterial street

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	<p>yard wall setback areas adjacent to walls higher than 5 feet from sidewalk grade</p> <p>(1 or 2) 8 ft wide parking lanes</p> <p>(1) 10 ft wide or wider median</p> <p>(1) additional vehicle lane at egress point to collector or arterial street</p> <p>Additional 4 ft. for bicycle route</p>			<p>accommodate trees that grow higher than 20 feet at maturity. Trees require the following minimum planting areas to thrive. The areas described do not include the no-dig areas next to the curb and the sidewalk:</p> <p>4 x 4 feet in a 6-foot wide area between the curb and sidewalk for street trees that grow to 20-foot high at maturity</p> <p>5 x 5 feet in a 7-foot wide area between the curb and sidewalk for street trees that grow to 40-foot high at maturity</p> <p>A 6 x 6 feet in an 8-foot wide area between the curb and sidewalk for street trees that grow over 40 feet high at maturity.</p>	
<p>a) Normal Local</p> <p>1) wide lots</p> <p>2) adjacent to special land</p>	<p>* 51 feet</p> <p>61 feet</p>	<p>Can be a signed route without striped bicycle lanes</p>	<p>4 feet</p>	<p>Minimum 6 feet</p>	<p>1) Subdivisions, or major subsections thereof, with 90% of lot equal to or exceeding width of 55' = 30' (29' w/mt cb)</p> <p>2) -Adjacent to schools</p> <p>-Within 150'</p>

Commented [RMM12]: Replace with 3.6 – Bikeways and Trails

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uses					of arterial or collector street - Adjacent to Parks – 36' (35' w/mt cb) 3) All others – 32' (31' w/mt cb)
3) all others	* 53 feet				
b)Access Local (6)					
1. Loop	47 feet				1. Streets with a total of 45 D.U.'s or 70 Townhouse units maximum. -28' (27' w/mt.cb.)
2. Cul-de-Sacs	47 feet	N/A	4 feet	Minimum 5 feet - If the street generates less than 250 AWDI, then the minimum sidewalk setback shall be 5 feet.	2. Street with a total of 25 D.U.'s or 40 Townhouse units maximum, and length less than 400' -28' (27' w/mt.cb.)
3. Connecting Streets	47 feet				3. 28' (27' w/mt.cb.)
c)In Areas Covered by City Adopted Plans	-Plan governs-	Recommended Bike Facility (see notes)	Plan governs		-Plan Governs-
d)Special circumstances	Right-of-way less than 50 ft., but not less than 42 ft. may be used if approved by DRB	A signed route without striped lanes.	= none		See Criteria for Local Streets - a) normal, b) loop, and c) cul-de-sac.

NOTES:

~~(1) Minimum sidewalk width shall be 6 feet on all major local streets and on portions of normal local streets that abut the grounds of schools, churches, land zoned SU-3 or land zoned for a greater residential density than R-T (Residential Town homes), Major Activity Centers, or Community Activity Centers as defined and mapped in the Albuquerque/Bernalillo Comprehensive Plan.~~

~~(2) The minimum sidewalk setback width for Major Local Streets shall be 6 feet from back of the curb except where the sidewalk bulbs out. This width includes a one foot wide "no dig" zone next to the curb, a minimum 4 foot wide planting area for small street trees required on Major Local Street, and another one foot wide "no dig" zone next to the sidewalk.~~

The City standard for street tree placement is generally 6 feet from the face of the curb, however, street trees may be permitted 4 feet from the face of the curb on residential streets (including

~~major local streets) if a detailed design acceptable to the City (DRC) is provided that addresses how the structural section of the roadway will be maintained and root effects on the road structure will be mitigated.~~

~~The sidewalk setback area may be increased to conform to drainage and/or landscaping requirements. Planting areas necessary for street trees are as follows: 4 x 4 feet for small trees (trees that attain 15-20 feet in height at maturity), 5 x 5 feet for medium trees (trees that attain 20-40 feet in height at maturity), and 6 x 6 feet for large trees (trees that attain 40 or more feet in height at maturity).~~

~~No large growing trees that can reach a natural final height of over 20 feet tall shall be planted under or within 10 lateral feet of any overhead public utility conductor. No trees shall be planted over or within 5 lateral feet of any underground gas or electric utility facility.~~

Utilities (including, but not limited to electric, gas, telephone, and cable) shall be placed so that they do not interfere with the planting and maintenance of required street trees.

~~(3) Sidewalks are normally required. A variance for sidewalk waiver based upon extraordinary physical constraints caused by geological or geographical conditions that existed prior to subdivision, no development on one side of the street, and/or type of street development such as short cul-de-sac or local access street with no more than an AWDT of 50 may be requested in accordance with the provisions for the Sidewalk Ordinance.~~

~~(4) Where a variance for waiver of sidewalk is granted, the border area (distance from curb to Right of Way edge) may be reduced to 4 feet.~~

(5) Lesser total right-of-way and pavement widths may be considered by the DRB where vehicular access and parking are controlled and less than 100 AWDT are anticipated on a street segment. Lesser pavement widths will be handled as a variance under Section 7-16-7 of the Subdivision Ordinance.

(6) For definition of access streets see narrative section 23.2.B.

(7) Total right-of-way and pavement width shall be adjusted by the Traffic Engineer if necessary to properly accommodate existing right-of-way on the same street in the vicinity.

(8) Right-of-way and pavement widths shall be increased within 150 feet of an arterial or collector street. This will accommodate three vehicle lanes at intersections with Collector or Arterial Streets: two for vehicles exiting and one for vehicles entering the Major Local Street. A curb bulb-out or other traffic-calming device shall be used at the entrance to the residential street from the collector or arterial street.

(9) Fire vehicles and apparatus require a twenty foot wide drivable space.

(a) Major Local Streets with front yards facing the street that have less than 20 feet of pavement between the curb and a median longer than 100 feet are required to add an extra area to the median so that it and the street pavement provide 20 feet of drivable space for fire vehicles and apparatus. It is required to be made of an all-weather surface that differentiates it from the street pavement and that supports the imposed loads of fire apparatus. The mountable surface is in addition to the landscaped portion of the median and may not substitute for it.

(b) Major Local Streets with rear yards facing the street and a median require Fire Department approval.

~~(10) Pedestrian Access Routes shall be provided as described under A.9.d. of this Chapter and Section.~~

~~(11) A minimum setback area between the sidewalk and rear yard property line shall be provided as described under DPM Chapter 23, Section 2 A.9.e.~~

**Table 23.2.1C
Intermittent Parking Design - Residential Areas
Public Right-of-Way and Pavement Width Standards**

Commented [RMM14]: Remove these provisions

In order to use the standards contained in the intermittent parking design table, one of the following criteria must be met or exceeded:

1. Off-street parking per Section 40.A.1.aa of Comprehensive Zoning Code as follows:

Residential use - house or townhouse

- a. Three parking spaces for up to two bedrooms, or
- b. Four parking spaces for three to four bedrooms, or
- c. Five parking spaces for five or more bedrooms.

All lot numbers on streets designated for Intermittent Parking based on this off-street parking criteria shall be followed by the suffix "p1" on the subdivision plat.

- 2. Streets with lots fronting on one side only
- 3. 90% of Lot Widths 75', with 20 foot wide by 20 foot deep parking easement (20 foot wide driveway required)
- 4. 90% of Lot Widths 65', with 30 foot wide by 20 foot deep parking easement (30 foot wide driveway required)
- 5. 90% of Lot Widths 100'

Notes: Parking easement size for intermittent parking design - 10' by 20' per vehicle; all lot numbers on streets designated for Intermittent Parking based on parking easement criteria shall be followed by the suffix "pe" on the subdivision plat. Lots adjacent to streets designated for Intermittent Parking shall be appropriately marked in the Zone Atlas.

<i>Street Type</i>	<i>Required Right-of-Way (1), (3)</i>	<i>Required Sidewalk (2)</i>	<i>Required Pavement Width (1), (3) (Flowline to Flowline)</i>

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Major Local	61' [66' x 150'] See Table 23.2.1.B	6 feet and 6 foot sidewalk setback area behind the curb (includes 1 foot wide no dig area back of curb, 4 foot wide planting area for street trees, and 1 foot wide no dig area next to sidewalk)	36' [allows some parking for front facing lots] [40']
Normal Local	49' (1, 3) [57' x 100']	4 feet and 6 foot sidewalk setback area behind the curb	28' (27' w/mountable curb) [36']
Access Local (4) - Cul-de-sac, loop, and connecting streets	47' (1, 3) [51' x 50']	4 feet and 5 foot sidewalk setback area behind the curb. If the street generates less than 250 AWDT the sidewalk setback area behind the curb shall be 5 feet wide	26' (25' w/mountable curb) [30']

NOTES:

(1) Streets adjacent to schools, parks, and within 150' of an arterial or collector street shall be widened to 36' pavement width curb to curb.

~~(2) The minimum sidewalk setback width for Major Local Streets shall be 6 feet from back of the curb except where the sidewalk bulbs out. This width includes a one foot wide "no dig" zone next to the curb, a minimum 4 foot wide planting area for small street trees required on Major Local Street, and another one foot wide "no dig" zone next to the sidewalk.~~

~~The City standard for street tree placement is generally 6 feet from the face of the curb, however, street trees may be permitted 4 feet from the face of the curb on residential streets (including major local streets) if a detailed design acceptable to the City (DRC) is provided that addresses how the structural section of the roadway will be maintained and root effects on the road structure will be mitigated.~~

~~The sidewalk setback area may be increased to conform to drainage and/or landscaping requirements. Planting areas necessary for street trees are as follows: 4 x 4 feet for small trees (trees that attain 15-20 feet in height at maturity), 5 x 5 feet for medium trees (trees that attain 20-40 feet in height at maturity), and 6 x 6 feet for large trees (trees that attain 40 or more feet in height at maturity).~~

~~No large growing trees that can reach a natural final height of over 20 feet tall shall be planted under or within 10 lateral feet of any overhead public utility conductor. No trees shall be planted over or within 5 lateral feet of any underground gas or electric utility facility.~~

Utilities (including, but not limited to electric, gas, telephone, and cable) shall be placed so that they do not interfere with the planting and maintenance of required street trees.

(3) Where the use of reduced right-of-way and pavement widths are anticipated, utility needs must be reviewed to ensure adequate spacing of utility lines and offset from the street curbs for maintenance purposes.

(4) For definition of access streets see narrative 23.2.B. See also Table 23.2.1.B for definition of access streets for loop and cul-de-sac streets.

(5) An intermittent parking designation on a major local street requires "No Parking" signage.

Table 23.2.1.D
Infrequent Parking Design - Single-Family Residential Areas
Public Right-of-Way and Pavement Width Standards

Commented [RMM15]: Remove these provisions

In order to use the standards in the infrequent parking design table, one of the following criteria must be met or exceeded:

1. Off-street parking per Section 40.A.1.z of Comprehensive Zoning Code

Residential use - house or townhouse

- a. Four spaces for up to two bedrooms, or
- b. Five spaces for three to four bedrooms, or
- c. Six spaces for five or more bedrooms.

All lot numbers on streets designated for infrequent parking based on this off-street parking criteria shall be followed by the suffix "p2" on the subdivision plat.

2. Streets with no lots fronting and with no vehicular access

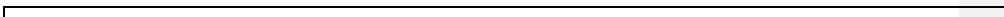
3. 90% of Lot Widths 100 feet, with 20 foot wide by 40 foot deep parking easement (20 foot wide drivepad required)

4. 90% of Lot Widths 100 feet, with 30 foot wide by 20 foot deep parking easement (30 foot wide drivepad required)

5. 90% of Lot Widths 30 feet, with 20 foot wide by 20 foot deep parking easement (20 foot wide drivepad required)

6. 90% of Lot Widths 125 feet

Notes: parking easement size for infrequent parking design - 10' by 20' per vehicle: all lot numbers on streets designated for Infrequent Parking based on parking easement criteria shall be followed by the suffix "pe" on the subdivision plat. Lots adjacent to streets designated for Infrequent parking shall be appropriately marked in the Zone Atlas.



<i>Street Type</i>	<i>Required Right-of-Way (1), (3)</i>	<i>Required Sidewalk (2)</i>	<i>Required Pavement Width (1), (3) (Flowline to Flowline)</i>
Major Local -w/No Parking (5)	57' [61' x 150'] [61' x 150'] See Table 23.2.1.B	6 feet and 6 foot sidewalk setback area behind the curb (includes 1 foot wide no dig area back of curb, 4 foot wide planting area for street trees, and 1 foot wide no dig area next to sidewalk)	32' [36'] 28' [36']
Normal Local	45' [53' x 100']	4 feet and 6 foot sidewalk setback area behind the curb	24' [32']
Access Local (4) - Cul-de-sac, loop, and connecting streets	45' [49' x 50']	4 feet and 5 foot sidewalk setback area behind the curb. If the street generates less than 250 AWDT the sidewalk setback area behind the curb shall be 5 feet wide	24' (22' w/mountable curb) [28']

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NOTES:

(1) Streets adjacent to schools, parks, and within 150' of an arterial or collector street shall be widened to 36' pavement width curb to curb.

~~(2) The minimum sidewalk setback width for Major Local Streets shall be 6 feet from back of the curb except where the sidewalk bulbs out. This width includes a one foot wide "no dig" zone next to the curb, a minimum 4 foot wide planting area for small street trees required on Major Local Street, and another one foot wide "no dig" zone next to the sidewalk.~~

~~The City standard for street tree placement is generally 6 feet from the face of the curb, however, street trees may be permitted 4 feet from the face of the curb on residential streets (including major local streets) if a detailed design acceptable to the City (DRC) is provided that addresses how the structural section of the roadway will be maintained and root effects on the road structure will be mitigated.~~

~~The sidewalk setback area may be increased to conform to drainage and/or landscaping requirements. Planting areas necessary for street trees are as follows: 4 x 4 feet for small trees (trees that attain 15-20 feet in height at maturity), 5 x 5 feet for medium trees (trees that attain 20-40 feet in height at maturity), and 6 x 6 feet for large trees (trees that attain 40 or more feet in height at maturity).~~

~~No large growing trees that can reach a natural final height of over 20 feet tall shall be planted under or within 10 lateral feet of any overhead public utility conductor. No trees shall be planted over or within 5 lateral feet of any underground gas or electric utility facility.~~

** Refer to general design criteria Table 23.3.1

E. Access and Circulation - Private Property

1. The owner seeking access to any public right-of-way shall make application to the City Traffic Engineer for a permit for such access. An application for access is the Curb Cut Permit process described in Section 6.C..
2. An applicant for building permit must submit plans showing location, arrangement, and dimensions of off-street parking, turning spaces, drives, aisles and ingress and egress satisfactory to the Traffic Engineer.
3. Ingress and egress shall be designed to discourage parking lot traffic from using local streets for a distance of more than 150 feet.
4. Curb cut regulations regarding widths, spacing, location, and policy are noted in the Section-Miscellaneous Street Design Criteria.

~~F. Sidewalk, Curb and Gutter~~

- ~~1. All properties within the City shall have sidewalk, curb and gutter unless a variance is obtained.~~
- ~~2. Sidewalk widths, horizontal location, and transverse slope regulations are noted in Section 5A 'Sidewalks'.~~

G. Parking Area Dimensions and Required Improvements

1. Parking space dimensions shall be 8.5 feet by 20 feet.
2. If the premises contains more than 20, spaces one fourth may be 7.5 feet by 15 feet (small car).
3. Parking for the physically disabled shall be 12 feet by 20 feet or 8.5 feet by 20 feet if an additional delineated access aisle 3.5 feet on one side is provided. Two such spaces may share this aisle. Slopes disabled parking spaces and aisles shall not exceed 5%.
4. Parking areas shall be paved with a minimum 2 inches asphaltic concrete or equal.
5. Parking areas shall have barriers which prevent vehicle encroachment and which shall be located two feet from any public sidewalk, public right of way, abutting lot, pedestrian walkway, landscaped area or any wall or fence.
6. The required landscaping plan must be reviewed by the Traffic Engineer to insure that traffic safety needs are met.
7. The number parking spaces required, number of handicap spaces and landscaping requirements are contained in Section 40 of the City Zoning Code.

H. Naming of Streets

This section implements Article 8-1 R.O.A. 1994, governing the naming of streets within the City of Albuquerque and within its extraterritorial planning and platting jurisdiction. The

Portland Cement Related Base - 300 psi compressive strength as measured by ASTM Method D1633.

Asphalt Treated Base - 1000 pound minimum Marshal stability as measured by ASTM Method D1559 (as modified in the Standard Specifications)

Section 5. MISCELLANEOUS STREET DESIGN CRITERIA

~~A. Sidewalks~~

~~Refer to Tables 23.2.1.A and 23.2.1.B for detailed information about sidewalk widths and location.~~

~~Sidewalks must be provided for all properties within the City of Albuquerque as required by the Sidewalk Ordinance. The fundamental requirements governing sidewalk design are established by this ordinance. Sidewalk designs must provide for the mobility, safety and comfort of the pedestrian and provide for adequate pedestrian access to abutting property. Pertinent sidewalk design criteria are collected herein for the convenience of the designer.~~

~~1. *Sidewalk Widths~~

~~a. Six feet (6') width is required when constructed with streets designated as follows:~~

~~(1) Arterial—except that sidewalks on arterial streets adjacent to Major Activity Centers and Community Activity Centers, as defined in the Albuquerque/Bernalillo County Comprehensive Plan, shall be a minimum of 10' wide.~~

~~(2) Collector—except that sidewalks on collector streets adjacent to Major Activity Centers and Community Activity Centers, as defined in the Albuquerque/Bernalillo County Comprehensive Plan, shall be a minimum of 9' wide.~~

~~(3) Major Local.~~

~~(4) Local—abutting grounds of schools or churches, lands zoned SU-3, or land zoned for a greater residential density than R-T Residential Zone.~~

~~b. Four feet (4') width where constructed with local or collector streets for lands zoned other than those designated above.~~

~~c. Special widths as per adopted plans~~

~~2. Sidewalk Location—Horizontal~~

~~a. *Along arterial streets, sidewalks must be located within the right of way so that the street side edge of the walk is 12' from the back of the curb, where sufficient right of way is available. If right of way is insufficient, the walk must be set within the right of way with the property side edge at the property line.~~

~~b. Along collector and major local streets, sidewalks must be located within the right of way so that the property side edge of the walk is a minimum of 12' from the back of the curb to accommodate a 6'-wide setback area between back of curb and sidewalk.~~

~~—e. Along local streets, sidewalks must be located within the right-of-way so that the property side edge of the walk is a minimum of 10' from the back of the curb to accommodate a 6' wide setback area between back-of-curb and sidewalk. If the street generates less than 250 AWDT, then the minimum sidewalk setback shall be 5', as indicated in Table 23.2.1.B.~~

~~—d. *Variances from sidewalk standards will require application through the Development Services Division and approval by the Development Review Board. In most cases, variances for waiver of installation will be approved by the Development Review Board based on the following criteria:~~

~~—e. Sidewalk location adjacent to curbs is discouraged. Interference of other items of street furniture such as street lighting standards and fire hydrants and the resultant close proximity between pedestrian and vehicular traffic make this location highly undesirable. Sidewalk setbacks from the back of the curb shall be consistent with those listed in Tables 23.2.1.A and 23.2.1.B.~~

~~—f. Unless a variance has been granted by the Traffic Engineer, a minimum of 3' of separation must be maintained between sidewalk and the back of any mountable or flat curb.~~

~~3. *Transverse Slope~~

~~—The transverse slope of the sidewalk and setback area shall be no greater than a ratio of 1:50, or 2% sloping toward the street, to include sidewalk sections across intersecting driveways. This proposed slope must remain safe for all pedestrian traffic, including people with physical disabilities.~~

~~4. Sidewalk Location – Vertical~~

~~—The sidewalk must be located vertically such that the top surface of the sidewalk will be at or above the top of curb at the lowest point on the sidewalk and must be appropriate to the overall street section design within the right-of-way.~~

~~5. Sidewalk Materials~~

~~—Sidewalks are to be of Portland-Cement concrete of minimum 4" thickness as shown in the Standard Details. Designs incorporating alternate materials must be approved by the Design Review Committee. The basis for consideration of such approval will be appropriateness, safety and durability resulting in a useful life expectancy equal to that of the standard Portland Cement concrete walks.~~

~~6. Handicap Accessibility~~

~~—Handicap accessibility needs to be designed into sidewalk facilities. The details for construction to accommodate handicapped individuals are as shown in the Standard Details.~~

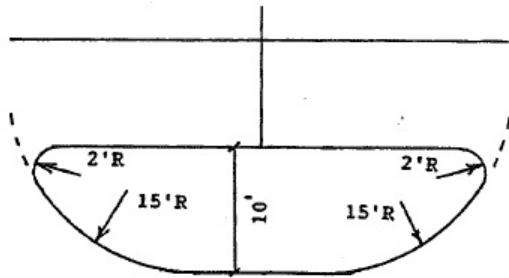
~~*Criteria specifically Regulated by Sidewalk Ordinance~~

~~B. Bus Bays~~

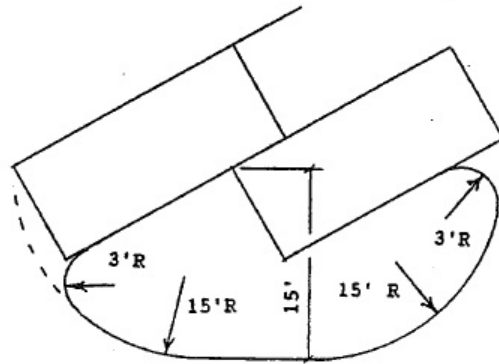
~~—Additional right of way may be required for bus bays on arterial and collector streets at locations determined by the Traffic Engineer. The width of the additional right-of-way will be~~

Commented [RMM26]: Replace with section 3.5 Pedestrian Facilities

Commented [RMM27]: Replace with section 23.3.7 – Transit Facilities



90° PARKING



60° PARKING

5. Sidewalk Connections

A separate pedestrian path, minimum six feet wide needs to be included connecting the sidewalk in the public right of way to the buildings within the development. This path needs to conform to handicap accessibility requirements.

6. Curbing

Curbing should be used to separate landscaping from parking areas and pedestrian ways. Also curbing should be provided to prevent overhang of parking stalls or circulation of vehicles or sidewalk or right of way. A visual barrier needs to be maintained along the public street clearly defining the points of access. This should be accomplished through a landscaping strip between

Commented [RMM34]: Replace with section 3.5 Pedestrian Facilities

Commented [RMM35]: Replaced with 3.4.2 Curb & Gutter Criteria

~~the parking area and the sidewalk with a minimum width of 4 feet (Landscaping regulations may require a greater width). Where this is not feasible, a minimum 2 foot wide island should be used to create this separation.~~

7. Fire and Emergency Access

Provision for access by fire and emergency vehicles needs to be in accordance with the Fire Code.

8. Service Areas

Adequate service areas and circulation need to be provided for in the layout for a site. The analysis for this needs to include circulation, backing, and storage requirements for the design vehicle. Minimum 30 foot aisles at the rear of buildings need to be provided where this kind of service access is to be used. Truck ramps, refuse/compactors and similar facilities need to be separated from the service circulation aisle. Visibility for parking and drive need to be maintained in service areas. The design for service should provide for access without vehicles backing from the street.

9. Layout of Large Parking Areas

In large developments, where significant accumulations of traffic occur, main aisles or circulation roadways need to be established which do not have any parking spaces backing into them. These are needed to provide adequate visibility for vehicles and to increase visibility of pedestrians. A critical area of pedestrian concentration is in the pedestrian entrance to buildings. In developments with more than 400 parking spaces, a circulation aisle needs to be established which will help to provide for pedestrian safety in this area. The perimeter roadway separating the parking area from the building should be narrow enough to discourage parking. A 28 foot roadway accomplishes this need while providing adequate width for 2-way traffic, emergency vehicles, and the passing of loading and unloading vehicles.

In very large developments, perimeter roadways need to be established which circulate vehicles internally between parking areas and to access points. Ring roads or partial ring roads should be provided for centers larger than 250,000 sq. ft. Widths of these roadways need to be based upon traffic volumes which will be using these facilities as well as the numbers of turning vehicles and types of intersections that are incorporated. Flairing of the roadways for separate turning lanes will be dependent upon the type of intersection control that is anticipated. For centers with 500,000 sq. ft. or more dedicated turning lanes or additional lanes may be required.

Long straight roadways within parking areas lead to unacceptable vehicular speeds where a mix of vehicles and pedestrians occur.

Careful attention to design which introduces curves and/or breaks in the pattern should be used to help control speeds.

10. Signing, Striping

Adequate signing and striping needs to be incorporated into the design of the parking area which will help to convey to the motorist the proper use of the facility.

C. Access Point Lanes and Queuing

(b) Landscape island radius for passenger car is 15 feet (see DPM Figure 23.7.2)

(c) Landscape island radius for delivery trucks, fire trucks, etc. is 25 feet or larger (see DPM figure 23.7.2)

(4) Maximum aisle lengths 400 feet without internal circulation between aisles

~~(5) Sidewalk connections:~~

~~(a) Provide a 4' sidewalk from the public sidewalk to the buildings within the development~~

~~(b) Provide a min 5' wide sidewalk when the stall will overhang the sidewalk~~

~~(c) Clear pedestrian route accessible should be provided when the parking space may overhang the sidewalk~~

Commented [RMM36]: Replace with 3.5 Pedestrian Facilities

(6) Curbing: Provide a min 6" or max 8" high concrete barrier curb or other acceptable barrier between landscaping and parking areas and/or drive aisles

(7) Fire and emergency access: Provision for access by fire and emergency vehicles needs to be in accordance with the Albuquerque Fire Plan Checking Division

(8) Service Areas:

(a) Circulation:

1) Design delivery vehicle route needs to be shown

2) No truck ramps, refuse/compactors or similar facilities permitted within circulation aisle

(b) No backing into or from public street allowed

(c) Service vehicle and/or refuse vehicle maneuvering must be contained on-site

(d) Service aisle width required:

1) Two-way traffic is 30'

2) One-way traffic is 20'

(9) Signing, Striping: Adequate signing (one-way, do not enter, etc.) and striping needs to be incorporated into the design of the parking area which will help to convey to the motorist the proper use of the facility

2. Off-site

a. Rights-of-way and easements to accommodate existing or proposed public street infrastructures shall be provided when necessary to support this development

b. Handicap ramps are required at street corner if site abuts the corner

E. Access point lanes and queuing: (See Table 23.7.1)