

5-2(L) PREVENTING AND MITIGATING CONSTRUCTION IMPACT

Construction on a lot abutting Major Public Open Space or on a lot with a sensitive land shall prevent and mitigate potential negative impact. See the DPM for additional standards.

- 5-2(L)(1) The property owner shall provide photographs of any sensitive land indentified on the property and/or the property edge abutting Major Public Open Space and a site plan with a keyed location of each photograph.
- 5-2(L)(2) The property owner's contractor shall hold a pre-construction meeting with City Parks & Recreation staff about Major Public Open Space and City Planning staff about sensitive lands to establish construction work activities and any access points, if necessary, to the Major Public Open Space or sensitive land.
- 5-2(L)(3) The property line abutting Major Public Open Space shall be fenced and signed to disallow entry during construction.
- 5-2(L)(4) Grading plans must ensure that the sensitive land is not compromised or damaged. Extensive fill adjacent to sensitive land shall be avoided to the maximum extent practicable.
- 5-2(L)(5) Before a Certificate of Occupancy may be granted, a post-construction meeting with Parks & Recreation or Planning staff, as relevant, shall be held to verify that the Major Public Open Space or sensitive land has been adequately protected during construction or that any damage has been restored pursuant to the DPM or relevant City Standard Specifications.

5-3 ACCESS AND CONNECTIVITY**5-3(A) PURPOSE**

This Section 14-16-5-3 is intended to improve connectivity in existing and future development areas by:

- 5-3(A)(1) Encouraging transportation connections consistent with long-range system maps.
- 5-3(A)(2) Providing adequate street connectivity.
- 5-3(A)(3) Supporting a multi-modal transportation network.
- 5-3(A)(4) Ensuring convenient and efficient access to current and future neighborhoods.
- 5-3(A)(5) Mitigating the traffic impacts of new development.
- 5-3(A)(6) Reducing vehicle miles traveled.
- 5-3(A)(7) Increasing the effectiveness of local service delivery and reducing emergency response times.

5-3(B) APPLICABILITY

- 5-3(B)(1) The design standards in this section are minimum standards. The City may impose more restrictive standards if necessary to comply with applicable engineering standards, design standards, DPM standards, or other standards in this IDO.

- 5-3(B)(2) Standards in Subsection 14-16-5-3(C) (General Access and Circulation) and Subsection 14-16-5-3(D) (Pedestrian Circulation) apply to all site development and new subdivisions, unless explicitly exempted elsewhere in this IDO.
- 5-3(B)(3) Standards in Section 14-16-5-3(E) (Subdivision Access and Circulation) apply to all new subdivisions, unless explicitly exempted elsewhere in this IDO.

5-3(C) GENERAL ACCESS AND CIRCULATION

5-3(C)(1) Americans with Disabilities Act (ADA)

- 5-3(C)(1)(a) All “places of public accommodation,” as defined in the federal Americans with Disabilities Act (42 USC 12101 et. seq.) shall comply with the requirements of that Act concerning on-site circulation and access.
- 5-3(C)(1)(b) All properties subject to the federal Americans with Disabilities Act shall comply with applicable Public Right-of-way Guidelines (PROWAG), as amended. Where PROWAG standards conflict with ADA standards, the ADA standards shall prevail.

5-3(C)(2) Complete Streets

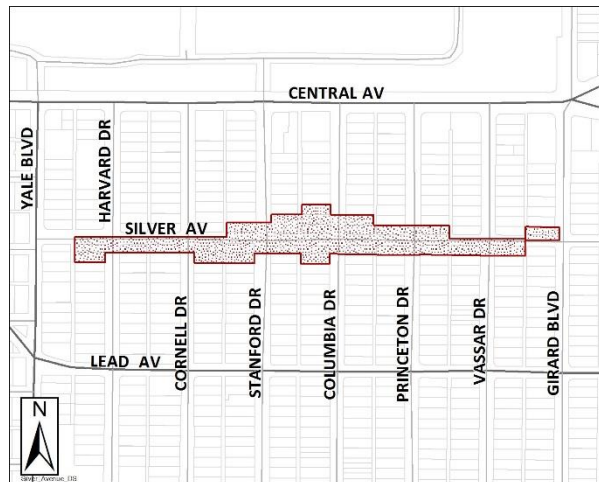
Complete streets shall be designed to the specifications in the DPM, which incorporates implementation of Part 6-5-6 of ROA 1994 (Complete Streets).

5-3(C)(3) Driveways, Drive Aisles, and Access

- 5-3(C)(3)(a) Development shall comply with the driveway, drive aisle, and access standards in the DPM.
- 5-3(C)(3)(b) For all low-density residential development, driveways accessed from the front or street side of the property shall be at least 20 feet long, exclusive of the sidewalk or drive pad.



- 5-3(C)(3)(c) No new curb cuts may be added in the following mapped small area within the University Neighborhoods Area.

**5-3(C)(4) Pedestrian Circulation**

Development shall comply with the pedestrian circulation standards in Subsection 14-16-5-3(D) (Pedestrian Circulation) and the DPM.

5-3(C)(5) Bicycle Circulation

5-3(C)(5)(a) New development involving more than 1 lot or sites over 5 acres in size adjacent to existing bikeways shall provide at least 1 access point to the bikeways to allow residents and users of the development to easily and safely access those bikeways. Access location and design shall be coordinated with City Parks and Recreation Department.

5-3(C)(5)(b) Development shall comply with the bicycle circulation standards in Section 14-16-5-3(E)(4) (Bicycle Facilities) and the DPM.

5-3(D) PEDESTRIAN CIRCULATION**5-3(D)(1) Sidewalks in Residential Development**

5-3(D)(1)(a) Perimeter sidewalks shall be provided in accordance with the DPM, except as noted in Subsection (b) below.

5-3(D)(1)(b) In the Los Duranes – CPO-6, a sidewalk at least 4 feet wide shall be provided on at least 1 side of new public residential subdivision streets or on residential private ways that have been dedicated as public right-of-way. A sidewalk on such a street that serves 10 or fewer dwelling units may be accommodated within the minimum required roadway width.

5-3(D)(2) Sidewalks in Mixed-use and Non-residential Development**5-3(D)(2)(a) Applicability**

These standards apply to the following mixed-use and non-residential development, except in the NR-SU and NR-PO zone districts unless specified otherwise in this IDO:

1. Construction of a new building.
2. Expansion of an existing building that increases the existing square footage by 25 percent.

5-3(D)(2)(b) Sidewalks

Sidewalks meeting the standards of the DPM shall be provided along the entire frontage of each lot.

5-3(D)(3) On-site Pedestrian Connections

All multi-family residential, mixed-use, and non-residential development shall comply with all of the following standards.

5-3(D)(3)(a) General

1. For the purposes of this Subsection 14-16-5-3(D)(3), the building's overall footprint will be considered the area for calculation of sidewalk width. A collection of smaller buildings linked by common walls will be considered as 1 building.
2. Where primary pedestrian entrances are located adjacent to a public sidewalk, the width of the public sidewalk may be included in the calculation.
3. Shade trees along required pedestrian walkways are required pursuant to Subsection 14-16-5-6(C)(4)(i) (Required Plant Materials and Site Amenities).

5-3(D)(3)(b) Network of Pedestrian Walkways

1. On-site pedestrian walkways that meet the minimum width required by the DPM shall be provided between the pedestrian entrances of each primary building on the site.
2. A 4-foot wide clear path shall be maintained along the pedestrian walkway at all times. Site amenities, other uses of the sidewalk, the overhang of parked cars, and landscaping may not encroach upon the 4-foot wide clear path.
3. On-site pedestrian walkways shall connect to all of the following:
 - a. A sidewalk meeting the standards of the DPM along at least one lot frontage.
 - b. Any abutting City park or trail, Major Public Open Space, or other Civic or Institutional uses, as long as such access is coordinated with and approved by the Parks and Recreation Department or the property owner of the civic or institutional use.
 - c. Any abutting public transit facility.
4. Pedestrian walkways shall be installed along any street-facing façade with a pedestrian entrance of a building containing any of the following development:
 - a. Mixed-use or non-residential development in any Mixed-use zone district.
 - b. Development of uses in the Civic and Institutional or Commercial categories in Table 4-2-1 in any Non-residential zone district.

- c. Pedestrian walkways required by this Subsection shall meet the standards of the DPM, except where Table 5-3-1 requires a wider walkway.

Table 5-3-1: Required Walkway Width	
Building Size (sq. ft.)	Minimum Walkway Width (ft.)
≤10,000	8
>10,000 and ≤50,000	10
>50,000 and ≤60,000	11
>60,000 and ≤70,000	12
>70,000 and ≤80,000	13
>80,000 and ≤90,000	14
>90,000	15

- d. The width of the required walkway may vary along the entire length of the façade provided that the average required width is maintained and provided that the width of the walkway along the façade is a minimum of 8 feet.

5-3(D)(3)(c) Materials to Alert Motorists

On-site pedestrian walkways and crosswalks shall be identified to motorists and pedestrians through the use of one or more of the following:

1. Changing material, patterns, or paving color (i.e., changing the color of the paving itself, not painting the paving material).
2. Changing paving height.
3. Decorative bollards or planters.
4. Raised median walkways with landscaped buffers.
5. Stamped or stained concrete.

5-3(D)(4) Trails

Trails shall be dedicated on alignments that connect to any planned or existing trails on adjacent properties, as necessary to serve the residents, occupants, and users of the proposed development, and shall be constructed pursuant to the DPM.

5-3(E) SUBDIVISION ACCESS AND CIRCULATION

5-3(E)(1) Street Connectivity

5-3(E)(1)(a) Level of Connectivity Required

The street network in new subdivisions shall be created through block standards in Subsection 14-16-5-4(E) (Block Design and Layout). The connectivity and classification of each street shall be consistent with the Mid-region Council of Governments (MRCOG) Long Range Roadway System Map, the Long Range Transportation System Guide of the Metropolitan Transportation Plan, and the DPM, intended to create a hierarchy of street classifications for arterials, collectors, and local streets spaced adequately for a complete network that provides circulation throughout the city to accommodate various travel modes.

5-3(E)(1)(b) Detailed Design

1. Detailed intersection spacing, geometry, and horizontal alignment for streets shall meet all DPM standards.
2. Streets shall be designed to the standards of the DPM.
3. The character, extent, width, and location of all streets shall conform to the MRCOG Long Range Roadway System Map, the Long Range Transportation System Guide of the Metropolitan Transportation Plan, the DPM, and other policies, plans, and ordinances adopted by the City and shall be consistent in their relationship to existing and planned streets, topographic conditions, public convenience, safety, and the proposed uses of the land to be served by the streets.

5-3(E)(1)(c) Roadway Dimensions

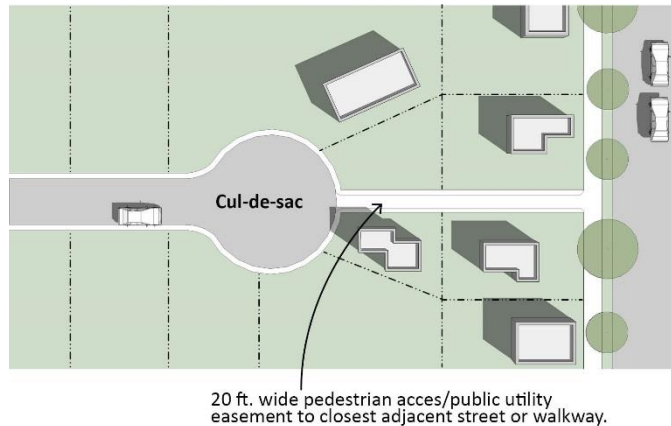
1. The design of each new subdivision street shall comply with the dimensional ranges shown in the DPM.
2. Where an arterial or collector street is not shown in the MRCOG Long Range Roadway System Map or the Long Range Transportation System Guide of the Metropolitan Transportation Plan and there is no adopted future street line, the arrangement of streets in a subdivision shall do 1 of the following:
 - a. Provide for the continuation of existing arterial and collector streets in surrounding areas.
 - b. Conform to a plan approved by the City to address a particular situation where topographic or other conditions make continuance of, or conformance to, existing streets impractical.
 - c. Conform to spacing standards for various street classifications to provide and enhance circulation for various travel modes as specified in the DPM and best suited to provide appropriate access to the predominant land uses allowable on abutting lands within ½ mile.

5-3(E)(1)(d) Stub Streets and Cul-de-sacs

Stub streets and cul-de-sacs that terminate the road are prohibited, with the following exceptions.

1. Cul-de-sacs are allowed where necessary to avoid those types of sensitive lands listed in Section 14-16-5-2(C), or where vehicular safety factors make a connection impractical, including but not limited to size or shape or lots, topography, surrounding development patterns, and physical characteristics.
2. Permanent stub streets are allowed only where a connection to an existing street and a future road extension is not possible or feasible. Where allowed, stub streets are limited to 150 feet in length.

3. Mid-block “bubble” cul-de-sacs without throats are allowed.
4. Whenever cul-de-sacs are created, 1 pedestrian access/public utility easement that is a minimum of 20 feet wide shall be provided between the cul-de-sac head or street turnaround and the sidewalk system of the closest adjacent street or walkway, unless the City Engineer determines that public access in that location is not practicable due to site or topography constraints. Walls or fences are not allowed within the easement.



5-3(E)(1)(e) **Street Signs and Lights**

1. Street name signs and traffic control signs shall be required as specified in the DPM.
2. Street lights on local streets are required to be installed at the applicant's expense and provided as approved in the Infrastructure Improvements Agreement (IIA) pursuant to Subsection 14-16-5-4(O).

5-3(E)(1)(f) **Private Ways**

Private ways to provide access to subdivision lots shall be created only where public right-of-way would not better serve public purposes and where private ways can adequately serve all identified transportation, utility, and stormwater handling requirements. Private ways shall be subject to all of the following requirements.

1. Private ways may be platted only where the City Engineer determines that such ways will clearly function as a local street.
2. The City Engineer may require private ways to include public or private utility easements, including easements for stormwater drainage.
3. If a private way is approved, it shall clearly be identified as such on the final plat, which shall also state the beneficiaries and maintenance responsibilities of the private way. Any legal instrument intended to assure future maintenance of such

private way, such as an instrument creating a homeowners association, shall be included in the subdivider's submittals to the DHO pursuant to Subsections 14-16-6-6(K) (Subdivision of Land – Minor) and 14-16-6-6(L) (Subdivision of Land – Major).

4. All storm drain systems within private ways shall remain private unless they receive water from public facilities and the runoff is drained downstream to another public facility.

5-3(E)(2) Connections to Adjacent Land

5-3(E)(2)(a) Where land adjacent to a proposed subdivision has been platted with stub streets, or with a street ending at a street between the new subdivision and the adjacent land, the streets in the proposed subdivision shall be designed to align with those streets to allow through circulation, unless the City Engineer requires otherwise due to physical constraints, natural features, or traffic safety concerns, pursuant to Subsection 14-16-1-7(B)(2).

5-3(E)(2)(b) Where adjacent land has not been platted, subdivisions shall be designed with stub street(s) intended as future through connection(s) to adjacent land, pursuant to the block lengths in Table 5-4-1, unless the City Engineer requires otherwise due to physical constraints, natural features, or traffic safety concerns, pursuant to Subsection 14-16-1-7(B)(2).

5-3(E)(3) Driveways, Drive Aisles, and Access

5-3(E)(3)(a) General

1. Every lot shall have sufficient access to afford a reasonable means of ingress and egress for emergency vehicles, as well as for those needing to access the property for its intended use.
2. Driveways, drive aisles, and access points shall be constructed to the standards of the DPM.
3. Driveway and drive aisle entrances and other openings onto streets shall be constructed so that:
 - a. Vehicles may safely enter and exit from the lot.
 - b. Interference with the free and convenient flow of traffic in abutting or surrounding streets is minimized.
 - c. Shared driveways and drive aisles are established to minimize the number of access points to streets.

5-3(E)(3)(b) Residential Development

1. There shall be no direct driveway access from any low-density residential development lots to any arterial street or interstate highway unless no alternative access is feasible.
2. Multi-family residential development on sites greater than 5 acres shall include a minimum of 2 through-access drives, unless deemed impracticable by the City Engineer due to physical constraints or natural features.

5-3(E)(3)(c) Mixed-use and Non-residential Development

1. Each property shall have no more than 2 access points on any one street unless deemed necessary by the City Engineer to increase traffic safety or avoid traffic congestion.
2. Drive aisles shall be located at least the minimum distance from street intersections required by the DPM.

5-3(E)(4) Bicycle Facilities along Streets

Each street designated in the Metropolitan Transportation Plan and/or the Rank 2 Bikeways and Trails Facility Plan as an existing or proposed route to accommodate bicycles shall be incorporated into the development and shall be designed to comply with the standards of the DPM. The DHO may increase the public right-of-way and pavement widths for those streets up to 12 feet on adopted bike routes and lanes based on considerations of bicycle, pedestrian, and motor vehicle safety.