

29.16 ACCESS DESIGN AND SITE CIRCULATION

29.16.010 Access and Site Design

Access is defined as any driveway or other point of ingress/egress such as a street, road, highway or driveway that connects to the public street system. This chapter defines the types of accesses, their locations, and geometric requirements.

Acceptable site design is achieved when three major elements – access location and design, site circulation and parking, building footprint and location – are integrated. Site circulation can directly affect the safety, traffic operations and the assigned functional purpose of the street system. Good site circulation is necessary to protect the integrity of the public streets as well as public safety within the site.

On collector and arterial streets, shared accesses will be required wherever possible to minimize the number of access points along a street. Shared access provides for safer and more efficient operation of the flow of traffic on the street and shall minimally meet the above requirements. Access easements are required.

29.16.020 Access Locations

All entrances and exits to vehicular traffic areas shall be located and constructed to minimize traffic congestion on the public street system.

29.16.030 Spacing and Offsets

On local residential streets, single-family residential driveways on the same side of the street shall be located a minimum of 5 feet, from property line, to allow for maneuvering to occur without trespass. In locations where the 5 feet minimum spacing cannot be met due to limited lot frontage or other field constraint, the Development Engineer may permit a variance from the spacing standard.

On local commercial and industrial streets, driveways on the same (spacing) or opposite side (offset) of the street shall be spaced a minimum of 50 feet apart, measured from edge of access to edge of access. On collector streets, driveways on the same or opposite side of the street shall be spaced a minimum of 150 feet apart. (see [Driveway Spacing, Width, and Offset Requirements by Street Classification](#)). On minor arterial streets where no other access to lower order streets is available, driveways on the same or opposite side of the street may be allowed but must be spaced a minimum of 150 feet apart and may be restricted to right-in, right-out movements. On principal arterial streets where no other

access to lower order streets is available, driveways on the same or opposite side of the street may be allowed but must be spaced a minimum of 300 feet apart and may be restricted to right-in, right-out movements. Greater distances may be required for left turn storage lanes.

No new residential driveways shall be allowed on arterial streets serving less than three units and allowable driveways must be designed so vehicles are not backing into the street.

29.16.050 Corner Clearance

Corner clearances are defined as the distance between the edge of a driveway (exclusive of the taper) and the edge of the nearest intersecting street. The clearance is necessary so that accesses do not interfere with street intersection operations and should provide drivers with adequate perception-reaction time to potential conflicts. On corner lots, the access location shall be on the street of lowest functional classification.

Minimum Corner Clearance (ft)
Measured from Flowline to Near Edge of Access

Street Classification Of Street Where Access Is Proposed	Clearance From Unsignalized Intersections	Clearance From Signalized Intersections	Single Family Residential Driveways
Local (\leq 300 ADT)	50'	150'	35'
Local ($>$ 300 ADT)	50'	150'	50'
Collector	150'	150'	100'
Minor Arterial	150' *	300' *	N/A*
Major Arterial	300' *	300' *	N/A*

*May be restricted to right-in, right-out only access. Single family access to arterial streets is not acceptable practice and will be permitted only in extreme hardship cases.

29.16.060 Access Design - Types of Access

Generally, all new private property access shall be designed as curb cuts. Radii type curb returns with handicap ramps will be required for accesses when the peak hour right turn entering volume exceeds 20 vehicles in the peak hour. Auxiliary lanes shall be constructed when turn volumes meet the minimum criteria in the right turn warrant chart in section 29.28.170.

29.16.070 Design Vehicles

All accesses shall be designed to accommodate the turning characteristics of the largest vehicle that will most commonly utilize the proposed access. Most residential and small commercial driveways only need to accommodate passenger cars; other commercial or industrial developments will usually require at least one access that can accommodate the efficient entry or exit of larger vehicles.

29.16.080 Curb Cut Width

The width of the curb cut for a driveway will be wider than the driveway width to accommodate the turning radius of the entering and existing vehicles. The design turning radius shall be at least 15 feet. The effective turn radius (which accounts for on-street bike lanes or parking if applicable) shall be 20 feet for multi-family residential access and 25 feet for commercial access. The effective radii for industrial uses or truck delivery accesses shall be individually designed for the type of truck that will frequently use the access, with a maximum required radius of 50 feet.

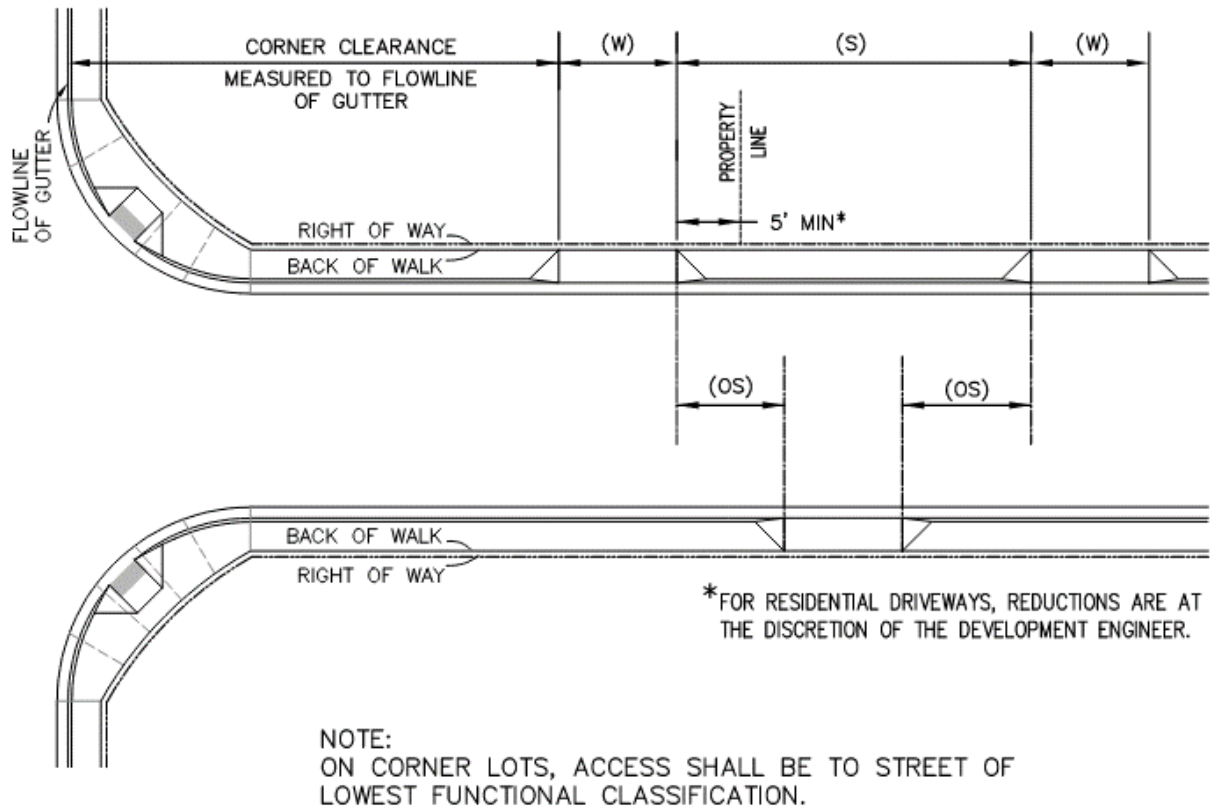
29.16.090 Driveway Width

Single-family residential driveway widths shall be between no more than 33 feet. All other access drive widths shall be between 25 feet and 36 feet. Multi-lane driveways shall be designed to accommodate a standard ingress lane of 14 feet and egress lanes of 11 feet.

Driveway Spacing, Width, and Offset Requirements by Street Classification

Street Classification (Land Use)	Driveway Spacing (S)	Driveway Width (W)	Offset (OS)
Local (Residential)	10' Min.	33' Max.	No Requirement
Local (Commercial and Industrial)	50' Min.	25' Min. 36' Max.	50' Min.*
Collector	150' Min.	25' Min. 36' Max.	150' Min.*
Minor Arterial	150' Min	25' Min. 36' Max.	150' Min.*
Principal Arterial	300' Min.	25' Min. 36' Max.	300' Min.*

* Greater offsets may be required for left turn storage lanes.



29.16.100 Throat Lengths and Vehicle Storage

Adequate vehicle storage capacity shall be provided for both inbound and outbound vehicles. Adequate storage facilitates the safe and efficient movement of vehicles between the street and the development.

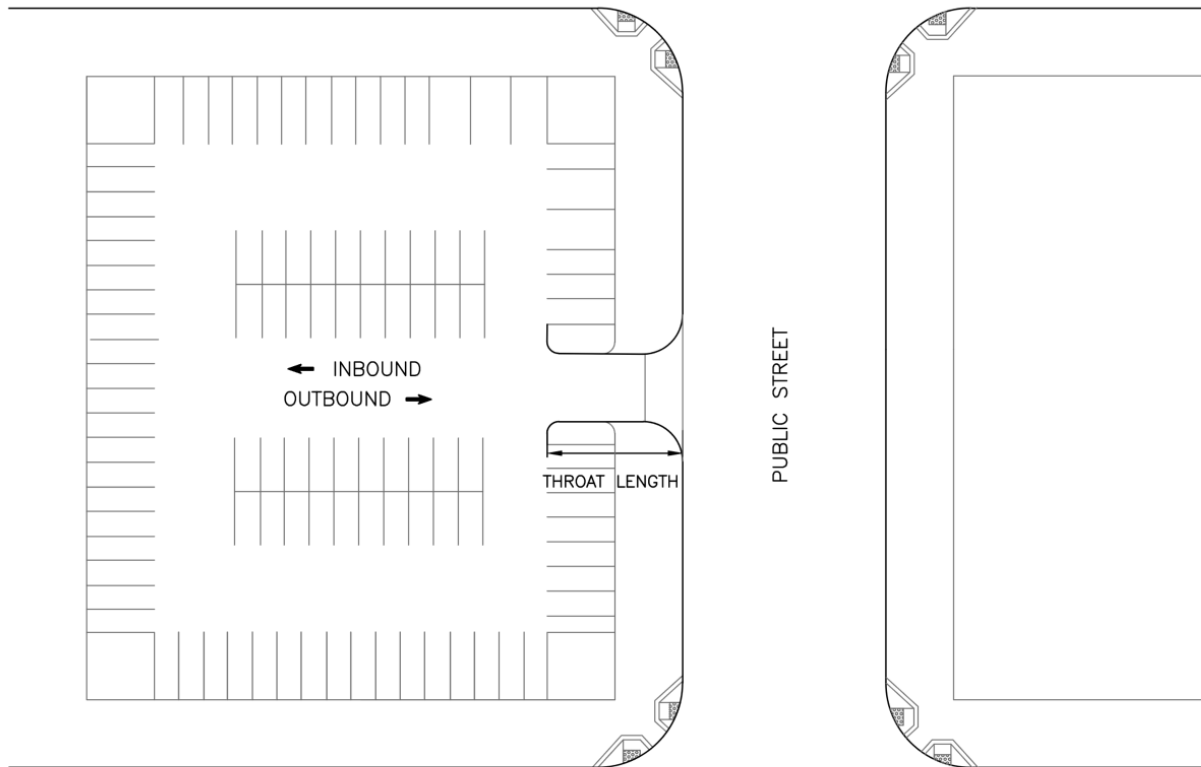
The access throat shall be of sufficient length to prevent vehicles from spilling onto the public street system. Inbound vehicle storage areas shall be of sufficient size to ensure that vehicles will not obstruct the adjacent street, sidewalk, or circulation within the facility. The throat shall be of sufficient length to provide adequate storage of outbound vehicles without them interfering with on-site circulation. Outbound vehicle storage areas shall be provided to eliminate backup and delay of vehicles within the development. At signalized intersections, adequate storage for the outbound movement must be provided to enable vehicles to exit efficiently on green.

The requirements for vehicle storage (see [On-Site Driveway Vehicle Storage Lengths](#)) in parking lots and at drive-up type facilities are generally based on a typical vehicle spacing of 20 feet, but may be increased where larger vehicles can be expected.

29.16.110 Accesses Serving Off-Street Parking Lots

On-site storage is measured from the flowline of the street to the first parking stall or aisle of a parking lot (see Throat Length Extents). Vehicle storage equivalent to or greater than the minimum distances shall be provided at accesses serving the site. The recommended distance for accesses with two approach lanes may be adjusted, subject to the TIS findings, roadway geometry, traffic volumes, and site layout.

Throat Length Extents



On-Site Driveway Vehicle Storage Lengths (feet)

Parking Spaces Per Exit Lane	Storage Length Required ¹			
	Multi-Family Residential	Retail	Office	Industrial
0-50	25	25	25	25
50-200	40	40	40	40
201-400	40	75	100	150
401-600	50	150	200	More Lanes
601-700	100	200	More Lanes	More Lanes
> 700	200	More Lanes	More Lanes	More Lanes

¹ High volume land uses or streets may necessitate greater storage lengths than shown.

Vehicle Storage Requirements for Drive-Up Facilities

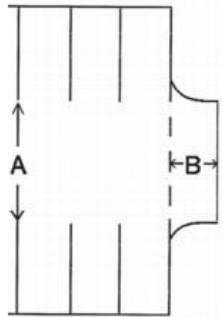
Type of Facility	Vehicle Storage
Automated Tellers	4 spaces per machine
Drive-In Bank	3 spaces per 1,000 sf
Drive-In Restaurant	Identified through TIS
Automatic Car Wash	7 spaces per wash line
Self-Service Car Wash	2 spaces per wash line
Drive-In Theater	15% of the total parking capacity
Service Stations	1 space per nozzle + 1 space/island/direction
Drive-In Liquor Store	3 spaces per window ¹
Drive-In Dry Cleaners	2 spaces per window ¹

Adapted from Table 9-4, NCHRP 348 *Access Management Guidelines for Activity Centers*

¹Measured from the pick-up window and includes the vehicle at the window.

29.16.115 Dead-End Parking Aisles

Parking stalls located at the end of a dead-end parking aisle must be provided with adequate backing and turnaround space. The required depth of the turnaround space shall be determined as follows:



Depth of Dead-End Parking Aisles

Width of Driving Aisle (A)	Depth of Turnaround Space (B)
24' or less	6'
25'	5'
26'	4'
27'	3'
28'	2'
29'	1'
30' or more	0'

29.16.120 Commercial Uses

The vehicle storage area that shall be provided for various drive-through commercial uses shall be:

- (a) Based on a 20' length vehicle and a 12' wide lane.
- (b) Separated from normal parking circulation aisles.
- (c) Designed using the appropriate design vehicle turning template.

29.16.130 Grades

Access grades shall meet the same standard grades identified for intersections in Chapter 29.28.

29.16.140 Sight Distance

Adequate sight distance (see GJMC 29.28.140) and sight zones (see GJMC 29.28.150) shall be provided at all access intersections and internal street or drive aisle intersections within a development.

29.16.150 Channelization Islands

Channelizing islands are discouraged. Use of medians to control turning movements will be required where physical conditions allow.

Channelized islands will only be allowed in situations where medians to control access are not feasible. If allowed, the islands shall not be smaller than 100 square feet and shall provide vertical curb and exposed colored aggregate or patterned concrete treatment. Patterns and color shall match those of any nearby islands or medians. Additional right-of-way or easement may be required to accommodate these designs. The ends of the islands shall typically be constructed with 2-foot flowline radii.

Refer to the Intersection Chapter (Chapter 8 in the 2023 version) of the [CDOT Roadway Design Guide](#) for additional guidance.

29.16.160 Pedestrians and Bicycles

Pedestrians and bicyclists are especially vulnerable to turning vehicles at access drives. The consolidation of access points benefits pedestrians and bicyclists by reducing the number of conflict points along the roadway. Access designs for pedestrian and bicycle facilities shall conform to Chapter 29.20 and Chapter 29.28 requirements and with the Grand Junction Standard Contract Documents for Capital Improvements Construction.

29.16.170 Transit

Where applicable, accesses shall be designed to accommodate busses or other transit vehicles in accordance with the Mesa County Transit Design Standards and Guidelines. These accommodations shall occur at shopping centers, malls, multifamily developments, or other mixed-use developments where transit vehicles may be frequent users of the on-site circulation system.

29.16.180 Emergency Vehicles

All accesses shall be designed to readily accommodate emergency vehicles that would ordinarily respond at the particular establishment (Refer to the current version of the Grand Junction Fire Department Access document and the locally adopted fire code).

29.16.190 Utilities and Lighting

Accesses shall be located to ensure that utility poles, electric boxes, and signs do not interfere with the visibility of the access or available sight distances. The design of site lighting shall maximize the visibility and location of the access.

29.16.210 Delivery and Service

Proposed development that includes truck loading/unloading shall provide adequate space for all truck operations. Adequate space minimally means that all truck operations be performed entirely on-site and off the public street system. Sufficient apron space shall be provided at all loading/unloading areas. Sufficient apron space is the area required for truck backing maneuvers. Delivery areas shall be separated from general traffic areas. Separation of delivery vehicle traffic from customer traffic shall occur entirely on-site. On-site roadways used by delivery vehicles shall be designed to accommodate the heavier payloads and turning characteristics of the largest vehicle expected to use the site.

29.16.220 Transit and Pedestrians

In larger mixed-use developments, multi-family developments, shopping centers, and malls, on-site roadways shall be designed to accommodate transit. This includes the design of pick-up/drop-off areas as well as the circulating roadways. Transit stops shall be located within a reasonable walking distance of the main building entrance while minimizing potential conflicts with circulating vehicles. Continuous pedestrian walkways and crossings that meet ADA standards and follow a direct (non-circuitous alignment) must be designed on-site and connected with each other and to the adjacent pedestrian network to reduce conflicts between pedestrians and vehicles and provide convenient access between the land uses and transit.

29.16.230 Inter-parcel Circulation

Inter-parcel circulation with shared access is required between adjacent commercial properties for vehicles, bicycles, and pedestrians. Inter-parcel circulation with shared access may be required between residential and commercial. This will be evaluated on a case-by-case basis to consider the context of the situation. This will reduce the number of curb cuts on public streets and will increase the safety and comfort for all modes of transportation on the adjacent street and capacity of the street system. Within larger development sites public streets may be required as part of a connected network to facilitate inter-parcel circulation of vehicles, pedestrians, and bicyclists.

29.16.240 Landscaping

Site landscaping requirements are detailed in the Zoning and Development Code. Landscaping at access points must meet the requirements for sight distance (see GJMC 29.28.140) and the sight zone (see GJMC 29.28.150). Landscaping islands shall also consider the same requirements.