

September 2024



Access Management Standards



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A. Purpose

The City of Newark aspires to ensure safe and efficient movement of people and goods along its street network, both now and into the future. To this end, the City has established the following Access Management Standards to provide a framework for regulating the number, type, size, and location of access points while also balancing the need to maintain adequate access to property.

1. What is Access Management?

The addition of access points to streets often increases the potential for crashes and creates congestion, and is a particular problem on multi-lane roads, those with higher speed limits, and/or those with higher traffic volumes. For existing streets, the Federal Highway Administration (FHWA) has recognized corridor Access Management as a proven safety countermeasure with the potential to reduce injury and fatal crashes on urban/suburban arterials by 25-31%. Access Management regulations are a proactive step to prevent these issues from happening by integrating safety and efficiency into how we develop our built environment, balancing the need for safety and mobility with the need for adequate access.

More specifically, access management principles help prevent and remedy safety issues and growth-related congestion. Access management issues may present as increased crashes at driveways, concerns around traffic gaps or sight distance, increased conflict between motorists and vulnerable roadway users, decreased efficiency or Level of Service (LOS), or increased volume or wear and tear on roadways initially designed for lower vehicular volumes.

These guidelines, coupled with an engineering review and approval process, help address these concerns by informing new development design, and may be applied to existing sites as new uses or intensities are sought through the development process.

2. Authority

The authority to adopt and enforce Access Management Standards is granted by the State of Ohio to the City of Newark by the following Ohio Revised Code (ORC) Sections:

- ORC 713.02 permits City Planning Commissions the authority to make plans, maps, and recommendations concerning the physical, environmental, social, economic, and governmental characteristics, including transportation systems, and long-range programming for capital projects and facilities.
- ORC 711.09 authorizes cities and villages to regulate the design and construction of streets within their jurisdictions and to base subdivision approval on the developer's compliance with these regulations.

These access management guidelines apply to all roadways and roadway rights-of-way within the City of Newark, as well as to all properties within the city that abut these roadways. Further, these access management guidelines are a supplemental documentation for the City of Newark's Thoroughfare Plan, referencing its development and street classifications, as well as supplementing Chapter 1032 of the City of Newark's Codified Ordinances.

3. Applicability

Access management review and approval for existing and proposed driveways is required under the following conditions:

- Whenever the use of a parcel of land changes, is modified, or otherwise upgraded. This includes change of use, increased density, zoning changes, and site plan alterations affecting parking or traffic flow internal to the site, and
- Where two or more parcels of land are assembled under one purpose, plan, entity, or usage.

B. Driveways

1. Driveway Access Guidelines

The following strategies and guidance should be followed by those requesting a driveway to maximize safety and mobility:

1. One driveway is permitted per parcel, or group of parcels of common ownership, use, and/or development¹. Additional access may be permitted if, and only if:
 - a. The access will not adversely affect the safety and operation of the street,
 - b. Such access is necessary for the safe and efficient use of the property,
 - c. Such access will not adversely affect access to adjacent or nearby properties, and
 - d. Driveway spacing requirements in Table 2 are met.
2. Rear or side access is required where feasible to limit the number of conflict points for those traveling on streets. **When multiple options are available for access to a property, the City of Newark will grant access only to the lowest classified roadway.** Access shall be provided by an existing (or developer proposed) rear or side access drive or street in Town Center contexts and streets identified in Ordinance 1032.01².
 - a. Where adjacent properties are developable, shared driveways and cross-access easements shall be established to permit combining of access points when those properties redevelop. **Cross access easements may be a condition of site development approval when additional development or redevelopment takes place or when otherwise feasible.**
3. Previously granted full access driveways contributing to unsafe conditions may be restricted at a future date if the driveway does not meet access spacing requirements identified in Table 2 or if an alternate access that improves safety, and/or spacing distance becomes available.
4. Driveways and parking areas shall be interconnected for existing and future adjacent developments, including non-residential uses as well as mixed-use developments with or without residential uses. This does not apply to secured parking areas such as truck or equipment yards.
5. All properties with on-site drive-thrus must provide the results of queuing study showing that the drive-thru queue will not impact adjacent street traffic during the properties peak hour of operation or the adjacent street's peak hour. For further information about queuing study, please refer to the City of Newark's Traffic Impact Study Standards.

¹ The City of Newark Fire Department requires 2 access points when there are more than 30 residential units. This additional access may be dedicated for emergency use only, provided it satisfies the fire departments requirements.

² Ordinance 1032.01 prohibits new curb cuts or driveways on North Park Place, South Park Place, North Second between Church Street and South Park Place and North Third between Church Street and South Park Place.

2. Driveway Location

a. Design Considerations and Sight Distance

Drivers need clear sightlines and ample distance to react and maneuver to avoid collisions. Obstructions to visibility to consider include, but are not limited to, buildings, vegetation, large signs, parked vehicles, humps or curves in the roadways, and hillsides or slopes. Driveways should be located where motorists can safely see other vehicles and yield the right-of-way or stop to avoid a collision. The following are key design considerations to keep sightlines clear and supply ample stopping distance:

- Intersection Sight Distance (ISD) is defined as the distance a motorist should be able to see other traffic operating on the intersecting roadway in order to enter or cross the roadway safely and to avoid or stop short of any unexpected conflicts in the intersection area. This distance varies based on the posted speed limit of the roadway, the number of lanes a vehicle merging from a driveway needs to cross, and the class of vehicle making this merge. **ISD should be provided at all proposed driveways.**
- Stopping Site Distance (SSD) is the distance required for a driver to react and come to a full stop.

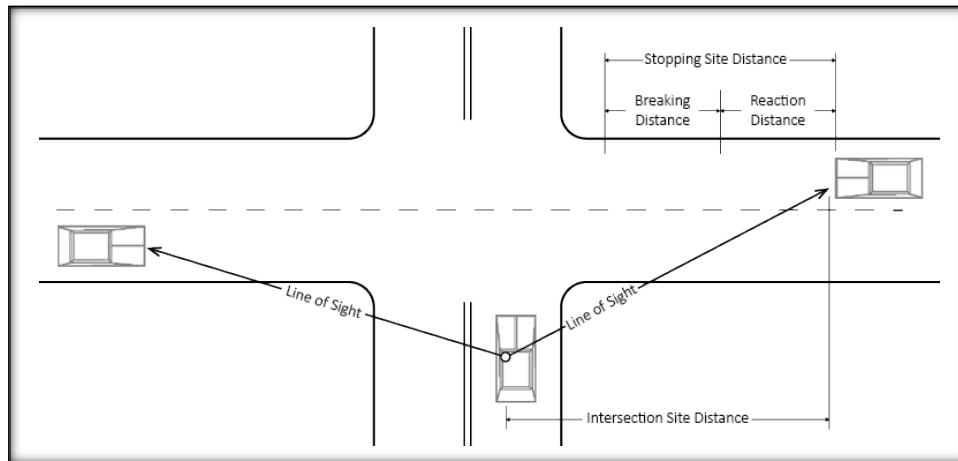


Figure 1. Intersection Sight Distance (ISD) and Stopping Sight Distance (SSD)

If ISD cannot be provided for reasons agreed to by the City, then as a minimum, the SSD for vehicles on the major road should be provided. By providing only SSD, this will require the major-road vehicle to stop or slow down to accommodate the maneuver of the minor-road vehicle. If the ISD cannot be attained and is granted an exception by the City, additional safety measures should be provided. These may include, but are not limited to, advance warning signs and flashers and/or reduced speed limit zones in the vicinity of the intersection. Refer to Table 1 of this document and Chapter 9 of the American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highways and Streets 2018* for *minimum* Sight Distance guidance. Driveway spacing should be maximized where feasible.

Table 1: Minimum Sight Distance

Posted Speed Limit (mph)	Stopping Sight Distance (ft) ²	Intersection Sight Distance (ft) ¹	
		Full Movement Driveways ²	Right Turn Only Driveways ²
25	155	280	240
30	200	335	290
35	250	390	335
40	305	445	385
45	360	500	430

Table Notes:

¹The ISD values are for a stopped passenger vehicle to enter/cross a two-lane highway with no median from a driveway with a 3% grade or less. For all other conditions, see ODOT L&D Figure 201-5 for appropriate values.

²Distances measured from adjacent driveway throat.

b. Driveway Spacing

Driveway spacing is important to allow drivers to maintain adequate attention for potential vehicular conflicts at upcoming driveways, and the presence of pedestrian and/or bicycle traffic that might be crossing or using these driveways. Driveways shall adhere to the minimum driveway spacing criteria as presented in Table 2 on page 6. Driveway spacing will be measured per Figure 2 below.

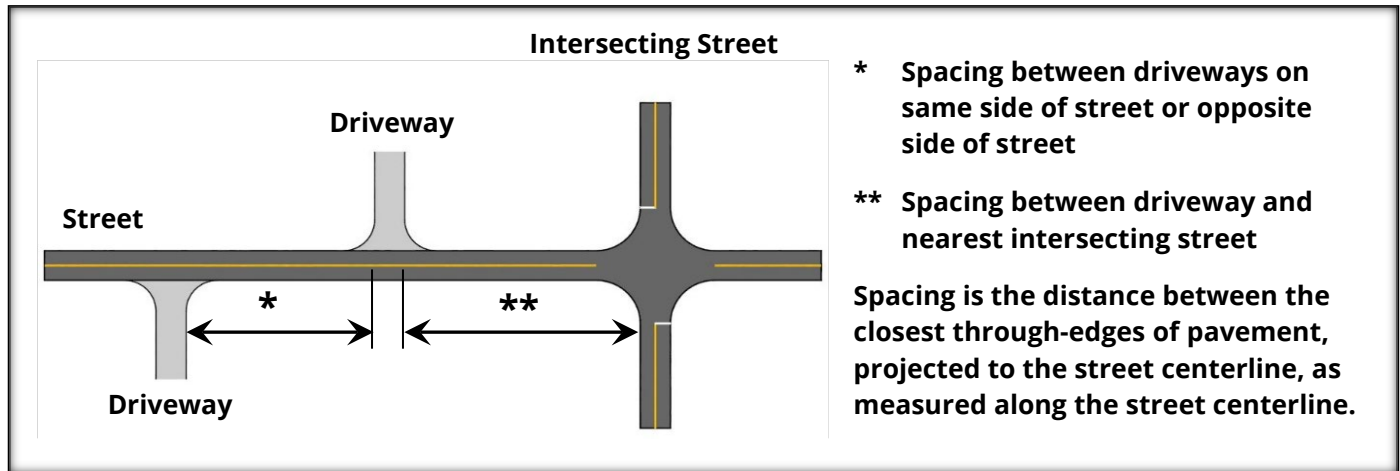


Figure 2. Driveway Spacing Method of Measurement

c. Proximity to Intersections

Driveways located too close to an intersection can cause operational and/or safety problems. Driveways should be located outside of the functional area (see A Policy on Geometric Design of Highways and Streets, 7th Edition³) of the intersection. The functional area is defined as the area required for traffic queues (for design year) and slowing and stopping prior to the queues. If the driveway cannot feasibly be located outside of the intersection functional area, Table 3 should be used to determine the minimum corner clearance distance. In most cases, driveways near intersections should not allow full movements in and out if those movements are required to cross anticipated traffic queues from the intersection on the adjacent street. Driveways should not be permitted within the boundaries of a turn lane, but if there is no other option, consideration may be given to limiting the drive to right-in/right-out or right-in only.

³ (AASHTO), American Association of State Highway and Transportation Officials. Policy on Geometric Design of Highways and Streets (7th Edition). 7th ed., American Association of State Highway and Transportation Officials, 2018.

Table 2: Driveway Spacing Criteria^{1,2}

Driveway by Volume Classifications	Minimum Spacing by Driveway Type		Traffic Control ⁷
	Full Access Driveways ³	RTO Driveways	
Major and Minor Arterials			
Lower Volume Driveway Zero to 20 vehicles in peak hour	Discouraged ⁴ ISD Preferred SSD Minimum	SSD	Driveway Stop
Moderate Volume Driveway 20 to 100 vehicles in peak hour	Discouraged ⁴ ISD Preferred SSD Minimum	SSD	Driveway Stop
Higher Volume Driveways Over 100 vehicles in peak hour	Discouraged 1,000 feet ⁵	SSD	Driveway Stop, Roundabout or Signal ^{5,6}
Major and Minor Collector			
Lower Volume Driveway Zero to 20 vehicles in peak hour	ISD Preferred SSD Minimum	SSD	Driveway Stop
Moderate Volume Driveway 20 to 100 vehicles in peak hour	ISD Preferred SSD Minimum	SSD	Driveway Stop
Higher Volume Driveways Over 100 vehicles in peak hour	Discouraged ⁵ ISD Preferred SSD Minimum	SSD	Driveway Stop, Roundabout or Signal ⁶

Table Notes:

¹Driveway Spacing Criteria correspond to typical conditions. The City reserves the right to call for greater spacing, allow tighter spacing, or prohibit specific movements based on site conditions, safety, congestion, and other factors.

²Spacing between driveways of different volume classifications should provide the greatest applicable spacing criteria. Town Center contexts may vary, where street blocks are encouraged with block faces of 300-600 feet in length to encourage walkability as well as development and backage drives/alleyways behind frontage properties.

³Full-access driveways are discouraged within the influence area of adjacent intersections. Areas of influence are assumed to be 600 feet from signals and 400 feet from roundabouts unless shown to be shorter by a Traffic Impact Study (TIS).

⁴Low- and moderate-volume driveways are discouraged on Major and Minor Arterials. Where possible, alleyways, local streets, and shared-access drives are recommended to consolidate access points.

⁵Where possible, access should be accommodated at an existing or planned side-street location, not directly to Major and Minor Arterials. Higher Volume Driveways should be assumed to require roundabout or, if not feasible, traffic signal control. Adequate distance is required to allow for the development of turn lanes and storage length between such intersections.

⁶The City prefers the use of roundabouts over signals to manage driveway access. Proposals for a new signal must include analysis of a roundabout alternative, show the signal meets signal warranting criteria per the Ohio Manual of Uniform Traffic Control Devices (OMUTCD), and show the proposed signal will not degrade performance of nearby existing signals and coordinated signal corridors. The City reserves the right to waive these requirements when appropriate.

⁷Full details about design criteria for different intersection types available in the City of Newark's TIS Requirements.

3. Driveway Geometric Design

a. Driveway Overlap

Closely spaced driveways on opposite sides of a roadway could introduce turning conflicts and should be avoided (see Figure 3). To prevent this condition and allow for the alignment of opposing driveways, the City may require adjustments to design requirements set forth in Table 2 for driveways on the same side of the street. In these circumstances, restricting turning movement can improve the safety and operations of the intersection. For more information, see Section 2.

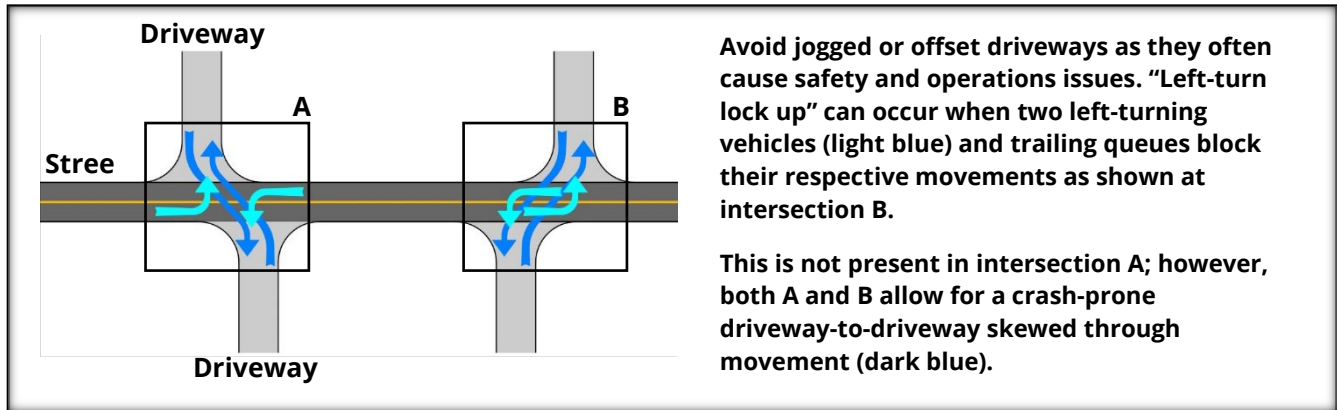


Figure 3. Examples of Driveway Overlap

b. Driveway Width and Radii

Table 3 provides the minimum and maximum allowable driveway widths and radii returns based on design vehicle and adjacent street speed. To maximize pedestrian safety by designing for slower turning speeds and shorter pedestrian crossings, width and radii should be minimized while providing for the appropriate design vehicle. The need for multiple entering or exiting lanes must be shown through the completion of a TIS. For driveways that require multiple entering or exiting lanes, or if a driveway must accommodate design vehicles larger than an AASHTO WB-50, the driveway width and radii should be based on geometric design using vehicle swept path templates or appropriate design software (i.e. AutoTurn).

Table 3: Minimum and Maximum Driveway Throat Width and Curb Return Radii

Development Type and Design Vehicle	Adjacent Street Speed Limit (mph)	Throat Width ¹ Two-Way Drive (feet)		Throat Width ¹ One-Way Drive (feet)		Curb Return Radii (feet)	
		Min	Max	Min	Max	Min	Max
Multi-unit Residential (SU-30) ²	≤40	20	24	16	20	20	30
	>40	20	24	16	20	25	35
Commercial (WB-50) ³	≤40	26	32	16	20	30	50
	>40	26	32	16	20	40	60
Industrial (WB-67) ⁴	≤40	26	38	16	26	50	60
	>40	26	38	16	26	50	70

1. Driveway throat width does not include turn radii

2. SU-30: Single Unit Trucks

3. WB-50: Semi-trailer Truck (55 ft. wheel-base length)

4. WB-67: Semi-trailer Truck (74 ft. wheel-base length)

Note: Refer to AASHTO's A Policy on Geometric Design for design vehicle information.

c. Driveway Depth

Proposed driveways should provide enough throat depth (Figure 4) to ensure that vehicles entering a facility do not queue into the public street system. Generally, entering movements should flow freely into the parking area without the need to yield or stop for vehicles exiting or moving through the parking area. The city requires enough throat length (beyond the right-of-way limits) to protect traffic flow on the connecting roadway. Necessary throat lengths should be determined during the site design and TIS process. For signalized intersections, a TIS is required to determine appropriate throat length. For unsignalized intersections, when a TIS is not required, the throat length should be maximized with a minimum allowable throat length of 50 feet. If a development has a gated entrance or a check-in station, the throat length should contain the anticipated peak hour queue.

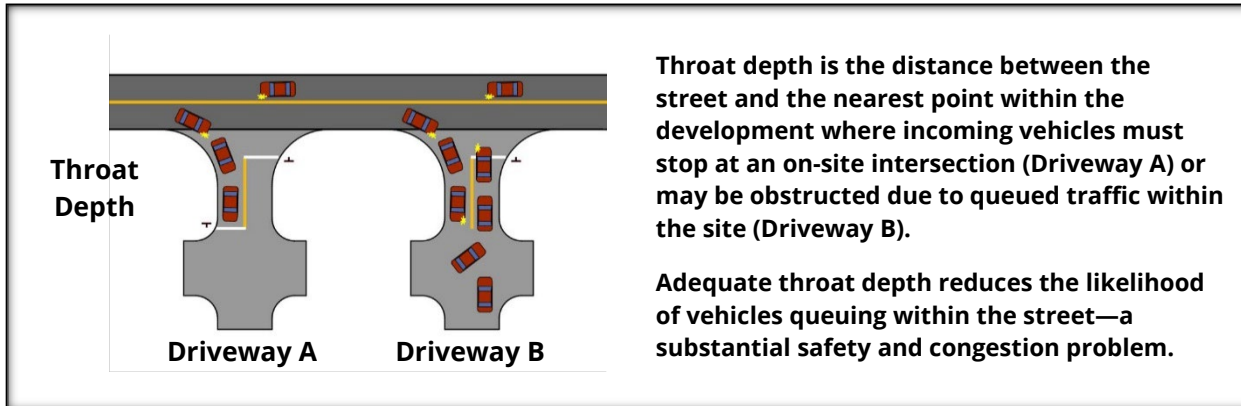


Figure 4. Driveway Throat Depth

d. Driveway Medians

Per ODOT, a median is the portion of the highway separating opposing directions of the traveled way. Medians are highly desirable elements on all streets or roads with four or more lanes. Requirements for medians include:

- When a median is used to separate opposing traffic on a driveway, it must be between 4 feet and 12 feet in width.
- When the median width is larger than 4 feet, the end cap, or “nose” shall be defined with a 2-foot radius and the control turning radius (the largest turning radii of all movements adjacent to the median).
- The median nose should not stretch into the normal shoulder width of the roadway.
- Landscape plants on the median and within 15 feet from the edge of traveled through way shall be limited to low growing plants not exceeding 2½ feet in height. These plants shall not negatively affect sight distance.

C. Intersections

1. Intersection Type and Location

a. Unsignalized Intersection Spacing

Short distances between intersections should be avoided if possible as they tend to impede traffic operations. Short spacing between intersections may hinder or even restrict effective left-turn movements. Roadways should be realigned to form a single intersection whenever possible. To operate efficiently, intersections should be a minimum of 500 feet apart.

b. Signalized Intersection Spacing

The decision to install and the design of any traffic signal must comply with the Ohio Manual of Uniform Traffic Control Devices (OMUTCD), Part 4, and must be approved by the City Engineer or another designated Registered Professional Engineer. Under no circumstance will a traffic signal be installed that does not meet one or more of the warrants defined in the OMUTCD. However, as stated in the OMUTCD, meeting one of the warrants does not necessitate the installation of a traffic signal. The proliferation of traffic signals is detrimental to traffic flow and often traffic safety. Signals should only be installed when a signal is deemed the best option on a roadway for long-term access and safety. Meeting the eight-hour volume warrant (Warrant 1) will generally be required for the consideration of a traffic signal. Other warrants will only be considered in unique circumstances. To maintain efficient operation of traffic signals and coordinated traffic flow, minimum spacing requirements for traffic signals are provided in Table 4.

Table 4: Signalized Intersection Spacing Distance

Classification	Recommended Spacing	Minimum Spacing*
Major Arterial	1 mile	½ mile
Minor Arterial	½ mile	¼ mile
Collector	½ mile	¼ mile
Local	½ mile	¼ mile

*Approved variance required

c. Roundabouts

Applicants who seek signalized access should also evaluate the use of a roundabout as an alternative. Roundabout analysis is required when asking for an exception to signal spacing criteria. While guidance regarding roundabout design and spacing requirements is not addressed in this document, their use and design is subject to guidance as set forth in the City of Newark's TIS Requirements and approval of the City Engineer.

2. Intersection Design

a. Stop Control

The need for turn lanes for stop-controlled intersections where signals are not anticipated to be met by the design year or would not be installed due to access management controls will be based on *ODOT Location & Design Manual Volume 1* (L&D, Vol. 1)⁴ Figures 401-5a thru 401-6d. The stopped approaches may be evaluated using the appropriate analysis software to determine the necessary number and type of lanes to improve LOS.

The stopped approaches may be evaluated using the latest edition of the Highway Capacity Manual (HCM) to determine the necessary number and type of lanes to improve LOS. Refer to City of Newark's TIS Requirements for more information about signal warrants.

b. Turn Lanes

The Federal Highway Administration (FHWA) has recognized Auxiliary Turn Lanes as a proven safety countermeasure. Auxiliary turn lanes—either for left turns or right turns—provide physical separation between turning traffic that is slowing or stopped and adjacent through traffic at approaches to intersections. Turn lanes can be designed to provide for deceleration prior to a turn, as well as for storage of vehicles that are stopped and waiting for the opportunity to complete a turn. The FHWA has concluded that Left Turn Lanes can reduce total crashes at an intersection by 28-48% and right turn lanes can reduce crashes by 14-26%. Therefore, **left turn lanes will be required for driveways on Major and Minor Arterials and driveways on Moderate to High Volume driveways on Major Collectors. The cost of constructing required turn lanes is the responsibility of the applicant.**

Right-of-way limitations and existing conditions may make turn lane construction impractical. The City Engineer has the discretion to deem turn lanes unnecessary based on site-specific conditions. Refer to City of Newark's TIS Requirements for more information about turn lane warrants.

c. Restricting Turning Movements

Right Turn Only driveways should include physical features which prohibit left turns to and from a street. If left turns to a property are restricted, redundant access or turnaround points must be accessible within a reasonable distance so visitors arriving from all directions can access the property. Raised medians and right-in right-out driveways are proven designs for restricting turning movements at driveways.

Raised Medians

Raised medians are the preferred physical feature to restrict left turn movements within the street (see Figure 5). If a raised median is not feasible, a channelizing island can be placed within the driveway to discourage left-turn. If neither of these options are feasible, channelizing devices may be permitted⁵.

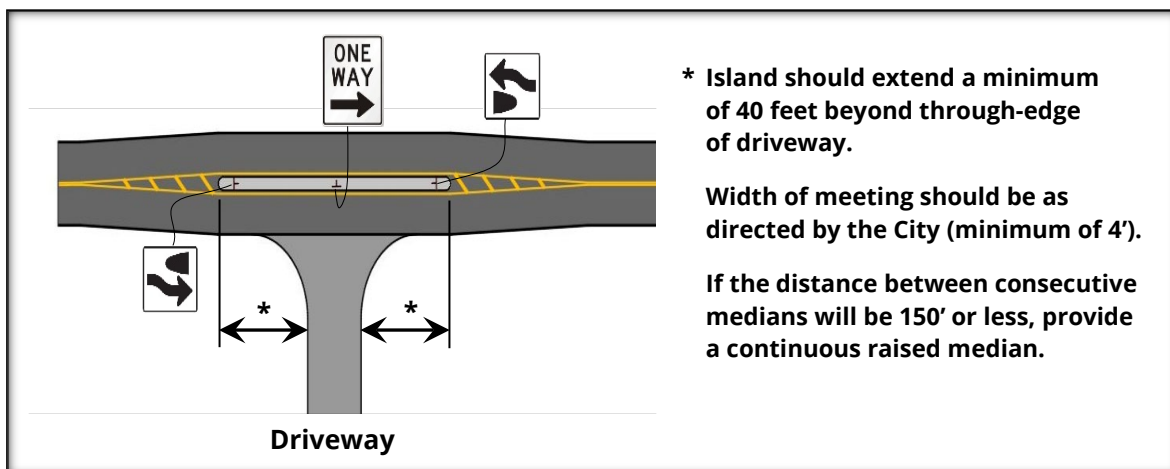


Figure 5. Raised Median to Restrict Left Turns

⁴ ODOT Location & Design Manual Volume 1: <https://www.transportation.ohio.gov/working/engineering/roadway/manuals-standards/location-design-vol-1/>

⁵ Continuous Curb Mega Marker System by Qwick Kurb Channelizing Systems or approved substitute may be permitted with approval from the City of Newark.

Driveways Right-in, Right-out (RIRO)

RIROs (as shown in Figure 6) are necessary in some locations to remove left turn and through movement conflict without making changes to the street cross section. The following are key considerations to designing a RIRO that fulfills its designed purpose:

- A RIRO driveway should incorporate a triangular (pork chop) raised concrete island no smaller than 100 square feet with sides a minimum of 12 feet in length after rounding of the corners. RIRO driveways that do not include these physical restrictions are not likely to function as intended.
- When a RIRO driveway is implemented on an undivided roadway, the use of a restrictive median in concurrence with the “pork chop” island is preferred; however, adjacent impacts must be evaluated prior to implementing restrictive medians. A 4-foot-wide raised concrete median is recommended.

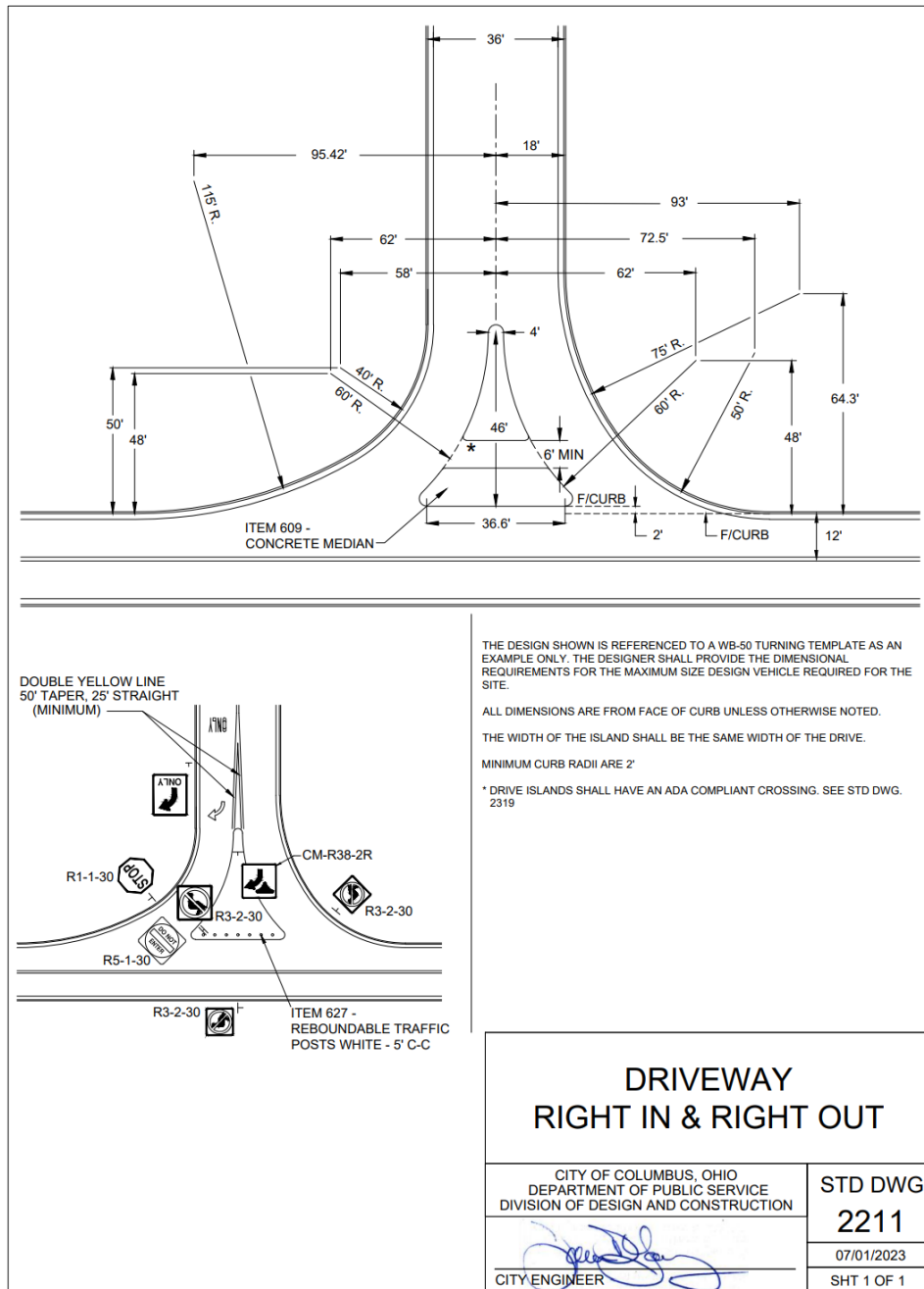


Figure 6. City of Columbus standard drawing for a RIRO driveway.

D. Multimodal Connectivity

1. Multimodal Mobility and Safety

The road network should be compatible with other transportation modes and conflicts between different modes should be kept to a minimum. Access Management strategies that reduce the number of driveways or full access intersections will also reduce the number of potential conflict points between vehicles and non-motorized traffic (see Figure 7).

As mentioned in the Section 3, minimizing driveway width and radii to the greatest extent possible can help maximize pedestrian safety by reducing vehicle turning speeds and pedestrian crossing distances. The installation of raised medians on multi-lane roads could also facilitate safer crossings for pedestrians. ADA-compliant curb ramps should also be installed at intersections to ensure that the City's streets and sidewalks are accessible for all users, including people with disabilities who rely on wheelchairs to aid their mobility.

Developments should align their site's planned sidewalk or shared use path access to existing and planned infrastructure investments to promote mobility and access and prevent inconsistent bicycle and pedestrian facilities within a corridor. Proposed changes to vehicular access should also consider pedestrian and bicyclist access in accordance with the City of Newark's 2011 Complete Streets legislation⁶. If not built as part of the same project, space should be preserved for adding these facilities in ways which limit potential conflict points with motorists. Where crossings exist or will be provided, appropriate design treatments and signage should be applied.

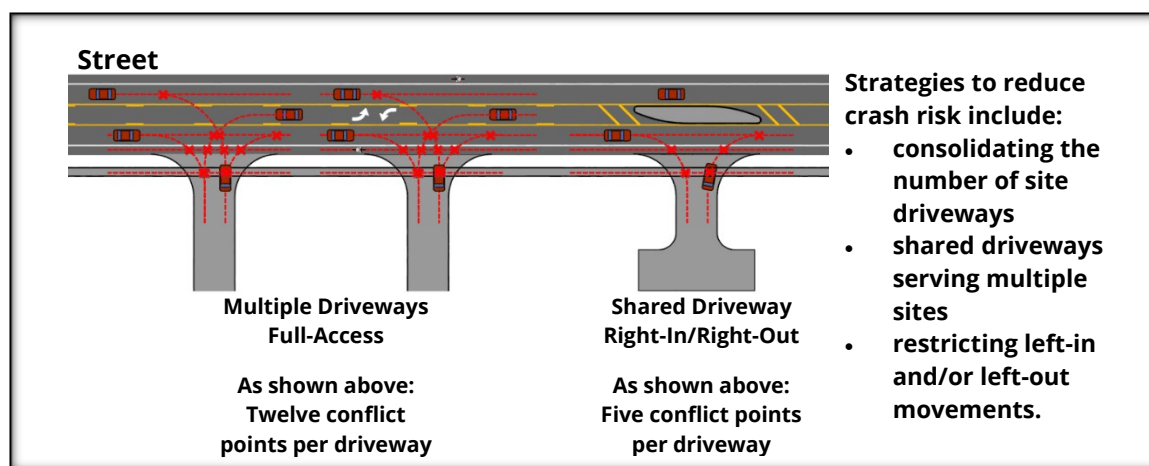


Figure 7. Methods to Reduce Crash Risk at Driveways

2. Connections to Properties

Access will be provided between the City of Newark's street network and pedestrian/bicycle destinations to the greatest extent possible. These guidelines apply to new development or redevelopment of sites for all land uses. A minimum of one separated pedestrian and bicycle connection will be provided per driveway to provide access between the existing street corridor and non-residential or multi-unit residential structures on the site. Where a signal is to be provided, pedestrian push buttons and signal heads will be required. In addition, if a site is adjacent to an existing or proposed multi-use path, a connection must be provided to that path upon site development or redevelopment.

⁶ <https://www.newarkohio.gov/wp-content/uploads/2022/08/NewarkCompleteStreetsLegislation.pdf>

E. Review Process and Considerations

To expedite site plan review, the applicant is encouraged to follow the strategies and guidance listed below. Deviations from the guidance will require demonstration of a hardship and, if applicable, a TIS.

1. Process

1. **Site Layout and Use:** Submit proposed site plan labeling parcel(s), adjacent streets and alleys, adjacent shared-access easements, building footprints, parking and driveway layout and measurements, as well as a description of changes to the site (use or zoning change, lot splits and combinations).
2. **Driveway Number:** Provide a narrative of how the site is currently accessed and any proposed changes to existing and proposed access points. Demonstrate rationale for proposed number of access points, based on requirements in Section B.1. Driveway Number and Orientation. Applicants must justify why they need more than one driveway if desired.
3. **Driveway Orientation:** Demonstrate that alternatives for rear, side, or shared access have been evaluated. If direct access on a frontage street is proposed, include a rationale for why a rear, side, or shared access is not feasible. See Section B.1.
4. **Connectivity:** Evaluate potential to connect parking areas and provide shared-access easements to allow for vehicular connectivity between the applicant's site and existing and potential abutting developments.
5. **Geometric Review:** Include a description of compliance with ISD, SSD, driveway location and spacing, and design guidance laid out in Section B.3.
6. **Bicycle and Pedestrian Connectivity:** Include proposed pedestrian and bicycle accommodations on the site, and connections to existing infrastructure in the right-of-way and on adjacent sites. If no public bicycle or pedestrian infrastructure is present, depict proposed improvements that connect to existing or planned City of Newark bike/ped infrastructure. See Section D.

2. Traffic Impact Studies

The City of Newark reserves the right to require a traffic study for any application if, in its judgment, there is a concern for the public safety or public good that needs further investigation. There are two general types of traffic studies that could be required, a TLA or a TIS. Refer to City of Newark's TIS Requirements for more information. These requirements are included in the City of Newark Thoroughfare Plan as Appendix C.