

BILL NO. 10-3-12

ORDINANCE NO. 4789

**AN ORDINANCE AMENDING ARTICLE II, DIVISION 1 OF CHAPTER 20 OF THE CODE OF ORDINANCES OF THE CITY OF WARRENSBURG, MISSOURI, CONCERNING RIGHT-OF-WAY ACCESS MANAGEMENT**

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF WARRENSBURG AS FOLLOWS:**

Section 1. Sections 20-21 through 20-29 are hereby codified into Chapter 20, Article II, Division One, Major Street Plan, without alteration or amendment.

Section 2. Article II, Division Two of Chapter 20 of the Code of Ordinances of the City of Warrensburg is hereby adopted to read as it appears in this ordinance's "ATTACHMENT A."

Section 3. It is intended that the provision of "ATTACHMENT A" as referred in Section 1 shall be incorporated into the Code of Ordinances of the City of Warrensburg.

Section 4. It is intended that the provisions of "ATTACHMENT A" shall be in full force and effect from and after its passage.

Passed by the City Council for the City of Warrensburg, Missouri, this 20<sup>th</sup> day of October, 2012.

ATTEST:

Don Butterfield  
Don Butterfield, Mayor

Cindy Gabel  
Cindy Gabel, City Clerk

ATTACHMENT A

STREETS, SIDEWALKS AND OTHER PUBLIC PLACES

ARTICLE II.

DIVISION 2. RIGHT OF WAY ACCESS MANAGEMENT POLICY

Sec. 20-30. Definitions.

For the purpose of this division, the following terms shall be defined as set forth below.

**Access**-Any way or means of approach to provide vehicular or pedestrian entrance to a property.

**Access Management** - Measures to assure the appropriate location, design, and operation of driveways, median openings, interchanges, and connections to a street, as well as the application of median treatments and turning lanes in street design, and the appropriate separation of traffic signals for the purpose of maintaining the safety and operational performance of streets.

**Access Management Permit**- A written authorization from the City of Warrensburg for a driveway to be connected to the City's right of way.

**At-Grade** - When two or more facilities meet in the same plane of elevation.

**Change in Use** - A change in use may include, but is not limited to, structural modifications, remodeling, a change in the type of business conducted, expansion of an existing business, a change in zoning, intensification of traffic to an access by means of internal connections, or a subdivision of property creating new parcels, but does not include modifications in advertising, landscaping, general maintenance or aesthetics that do not affect internal or external traffic flow or safety.

**Connection** - Any driveway, street, turnout or other means of providing for the movement of vehicles to or from the public street system.

**Connection Spacing** - The distance between connections, measured from centerline to centerline (center of right-of-way for public streets) along the edge of the traveled way.

**Driveway** - An entrance used to access residential, commercial, or other property from an abutting public street.

Driveway Spacing - (See Connection Spacing)

Driveway Width - The width of a driveway measured from one side to the other at the point of tangency.

Facility - A transportation asset designed to facilitate the movement of traffic, including streets, Intersections, auxiliary Lanes, frontage streets, backage streets, bike paths, etc.

Frontage - The length of a property that directly abuts a highway.

Full Project - The complete project, meaning all portions, parts and phases without regard to the developers time table to implement each phase, both in commercial and residential developments.

Functional Area - The area surrounding an Interchange or Intersection that includes the space needed for drivers to make decisions, accelerate, decelerate, weave, maneuver, and queue for turns and stop situations.

Grade-Separated - Two or more facilities that intersect in separate planes of elevation.

I.T.E.— The most recent edition of the Institute of Transportation Engineers publication, Trip Generation.

Interchange - A grade-separated facility that provides for movement between two or more streets.

Intersection - An at-grade facility that provides mobility between two or more streets.

Lane - The portion of a street used in the movement of a single line of vehicles.

Left-Turn Lane - A lane used for acceleration, deceleration, and/or storage of vehicles conducting left-turning maneuvers.

Level of Service— The functionality designation of a street as determined by standards and methods set forth in the Highway Capacity Manual produced by the Transportation Research Board, or by use of a computer software model that incorporates those standards, as approved by the City Traffic Engineer.

Median - A barrier that separates opposing flows of traffic.

Median Width - The distance between the near edge of the through travel lanes in each direction when separated by a median.

Outparcel - Lots on the perimeter of a large parcel that break its frontage along a street.

Peak Hour Traffic - The number of vehicles passing over a section of street during its most active 60-minute period each day.

Right-of-Way - Land reserved, used, or slated for use for a highway, street, alley, walkway, drainage facility, or other public purpose related to transportation or utilities.

Sight Distance- The distance visible to the driver of a passenger vehicle measured along the normal travel path of a street to a specified height above the street when the view is unobstructed to oncoming traffic.

Spacing - For purposes of this policy, the distance between two streets and or drives measured from the center of one street to the center of the next street, unless otherwise defined for a specific application.

Storage Length - That portion of a traffic lane that is used to temporarily hold traffic that is waiting to make a turn or proceed through a traffic control device such as a stop sign or traffic signal.

Street- A public right of way used for vehicular or pedestrian travel.

Taper - The transitional area of a street where lanes are added or dropped.

Throat Length -The distance parallel to the centerline of a driveway to the first on-site location at which a driver can make a right-turn or a left turn. On streets with curb and gutter, the throat length shall be measured from the back of the curb. On streets without a curb and gutter, the throat length shall be measured from the edge of the shoulder.

Temporary - Conditions existing during the construction of developments that end upon the completion of the development projects.

Traffic Engineer - The City staff position, as described in Sec. 23-39 of the Code of Ordinances.

Traffic Flow - The actual amount of traffic movement.

Traffic Impact Study - A report that compares relative street conditions with and without a proposed development and that includes analysis of mitigation measures to assure acceptable levels of service at intersections surrounding the development, and safe entry and exit to driveways.

Trip Generation - The estimated volume of entering and exiting traffic caused by a particular development.

Turning Radius (or Radius) - The radius of an arc that approximates the turning path of a vehicle.

Two-Way Left-Turn Lane (TWLTL) – A lane located between opposing traffic flows which provides a transition area for left-turning vehicles.

#### Sec. 20-31. Permit is Required.

(a) It shall be unlawful to construct or modify any access connection to a Warrensburg street without approval from the City in the form of an access permit and payment of an access permit fee as set by resolution of the City Council from time to time. The requirements of this Chapter for an access permit do not alter or replace the requirements of a driveway permit for construction of driveway improvements within a street right of way.

(b) Access connections that do not conform to this policy and were constructed before the effective date of this policy shall be considered legal nonconforming connections and may continue until a new or re-development occurs as provided in Sec. 20-36.

(c) All driveways must meet the spacing requirements set forth herein.

(d) Any access connection constructed without approval after the adoption of this policy shall be considered an illegal nonconforming connection and shall be issued a violation notice and may be closed or removed at expense of owner.

(e) Access connections deemed in conformance with this policy may be authorized by the City Traffic Engineer (or designee).

(f) Waiver for nonconforming situations may be granted where the existing configuration of properties and Driveways in the vicinity of the subject site precludes spacing of an access point in accordance with the spacing standards of this policy. The City Traffic Engineer (or designee), in consultation with appropriate City departments, shall be authorized to waive the spacing requirement if all of the following conditions have been met:

(1) No other reasonable access to the property is available.

- (2) The connection does not create a potential safety or operational problem as determined by the City Traffic Engineer (or designee) based on a review of a transportation impact study prepared by the applicant's professional engineer.
- (3) The construction of a median may be required on the street or on driveway to restrict movements to right-in/right-out.
- (4) The City Traffic Engineer finds that the level of service at the closest intersection, after the proposed connection, will be "C" or better.

Sec. 20-32. Temporary Access.

- (a) Temporary access may be granted when a development that cannot meet the connection spacing standards of this policy and has no reasonable alternative means of access to the public street system. Temporary access connections are legal nonconforming connections until such time as the temporary condition expires. Temporary access connections shall conform to all construction and material standards as found Chapter 6 of the Code of Ordinances.

Sec. 20-33. Permit Process.

- (a) Access permits shall be acquired through the Director of Public Works.

Sec. 20-34. Traffic Impact Study Required.

- (a) For every Access permit applied for, for a property abutting an Arterial or Collector Street, the developer shall supply a Traffic Impact Study when the proposed use of a driveway, or any combination of driveways, exceeds 100 trips per hour according to the following table, or the most recent trip generation figures published by the I.T.E., whichever is more stringent.

ITE Code	Description	Unit of Measure	Trips Per Unit
<b>PORT AND TERMINAL</b>			
30	Truck Terminal	Acres	6.55
90	Park and Ride Lot with Bus Service	Parking Spaces	0.62
<b>INDUSTRIAL</b>			
110	General Light Industrial	1,000 SF	0.97
120	General Heavy Industrial	Acres	2.16
130	Industrial Park	1,000 SF	0.88
140	Manufacturing	1,000 SF	0.73
160	Warehousing	1,000 SF	0.32
151	Mini-Warehouse	1,000 SF	0.28
152	High-Cube Warehouse	1,000 SF	0.1
170	Utilities	1,000 SF	0.78
<b>RESIDENTIAL</b>			
210	Single-Family Detached Housing	Dwelling Units	1.01
220	Apartment	Dwelling Units	0.62
230	Residential Condominium/Townhouse	Dwelling Units	0.52
240	Mobile Home Park	Dwelling Units	0.59
251	Senior Adult Housing-Detached	Dwelling Units	0.27
252	Senior Adult Housing-Attached	Dwelling Units	0.16
253	Congregate Care Facility	Dwelling Units	0.17
254	Assisted Living	Beds	0.22
255	Continuing Care Retirement Community	Dwelling Units	0.29
<b>LODGING</b>			
310	Hotel	Rooms	0.59
320	Motel	Rooms	0.47
330	Resort Hotel	Rooms	0.42
<b>RECREATIONAL</b>			
411	City Park	Acres	0.16
412	County Park	Acres	0.06
413	State Park	Acres	0.07
415	Beach Park	Acres	1.3
416	Campground/Recreation Vehicle Park	Camp Sites	0.37
417	Regional Park	Acres	0.2
420	Marina	Berths	0.19
430	Golf Course	Acres	0.3
431	Miniature Golf Course	Holes	0.33
432	Golf Driving Range	Trees/Driving Positions	1.25
433	Battling Cages	Cages	2.22
435	Multi-Purpose Recreational Facility	Acres	5.77
437	Bowling Alley	1,000 SF	3.54
441	Live Theater	Seats	0.02
443	Movie Theater without Matinee	1,000 SF	6.16
444	Movie Theater with Matinee	1,000 SF	3.8
445	Multiplex Movie Theater	1,000 SF	4.91
452	Horse Race Track	Acres	4.3
454	Dog Race Track	Attendance Capacity	0.15
460	Arena	Acres	3.33
473	Casino/Video Lottery Establishment	1,000 SF	13.43
480	Amusement park	Acres	3.89
488	Soccer Complex	Fields	20.67
490	Tennis Courts	Courts	3.88
491	Racquet/Tennis Club	Courts	3.35
492	Health/Fitness Club	1,000 SF	3.53
493	Athletic Club	1,000 SF	5.96
495	Recreational Community Center	1,000 SF	1.48
<b>INSTITUTIONAL</b>			
520	Elementary School	1,000 SF	1.21
522	Middle School/Junior High School	1,000 SF	1.19
530	High School	1,000 SF	0.97
536	Private School (K-12)	Students	0.17
540	Junior/Community College	1,000 SF	2.54
590	Church	1,000 SF	0.55
565	Daycare Center	1,000 SF	12.46
568	Cemetery	Acres	0.84
571	Prison	1,000 SF	2.91
590	Library	1,000 SF	7.3
591	Lodge/Fraternal Organization	Members	0.03

ITE Code	Description	Unit of Measure	Trips Per Unit
<b>MEDICAL</b>			
610	Hospital	1,000 SF	1.14
620	Nursing Home	1,000 SF	0.74
630	Clinic	1,000 SF	5.18
640	Animal Hospital/Veterinary Clinic	1,000 SF	4.72
<b>OFFICE</b>			
710	General Office Building	1,000 SF	1.49
714	Corporate Headquarters Building	1,000 SF	1.4
715	Single Tenant Office Building	1,000 SF	1.73
720	Medical-Dental Office Building	1,000 SF	3.46
730	Government Office Building	1,000 SF	1.21
732	United States Post Office	1,000 SF	11.12
733	Government Office Complex	1,000 SF	2.85
750	Office Park	1,000 SF	1.48
760	Research and Development Center	1,000 SF	1.07
770	Business Park	1,000 SF	1.29
<b>RETAIL</b>			
812	Building Materials and Lumber Store	1,000 SF	4.49
813	Free-Standing Discount Superstore	1,000 SF	4.61
814	Specialty Retail Center	1,000 SF	2.71
815	Free Standing Discount Store	1,000 SF	5
816	Hardware/Paint Store	1,000 SF	4.84
817	Nursery (Garden Center)	1,000 SF	3.8
818	Nursery (wholesale)	1,000 SF	5.17
820	Shopping Center	1,000 SF	3.73
823	Factory Outlet Center	1,000 SF	2.29
841	New Car Sales	1,000 SF	2.69
843	Automobile Parts Sales	1,000 SF	5.98
848	Tire Store	1,000 SF	4.15
850	Supermarket	1,000 SF	10.5
851	Convenience Market (Open 24 Hours)	1,000 SF	52.41
852	Convenience Market (Open 15-16 Hours)	1,000 SF	34.67
853	Convenience Market with Gasoline Pumps	1,000 SF	56.66
854	Discount Supermarket	1,000 SF	8.9
857	Discount Club	1,000 SF	4.24
860	Wholesale Market	1,000 SF	0.88
861	Sporting Goods Superstore	1,000 SF	3.1
862	Home Improvement Superstore	1,000 SF	2.37
863	Electronics Superstore	1,000 SF	4.5
864	Toy/Children's Superstore	1,000 SF	4.99
866	Pet Supply Superstore	1,000 SF	3.38
867	Office Supply Superstore	1,000 SF	3.4
875	Department Store	1,000 SF	1.78
878	Apparel Store	1,000 SF	3.83
879	Arts and Craft Store	1,000 SF	6.21
880	Pharmacy/Drugstore without Drive-Through Window	1,000 SF	8.42
881	Pharmacy/Drugstore with Drive-Through Window	1,000 SF	10.25
890	Furniture store	1,000 SF	0.45
896	Video Rental Store	1,000 SF	13.6
<b>SERVICES</b>			
911	Walk-In Bank	1,000 SF	12.13
912	Drive-In Bank	1,000 SF	25.82
925	Drinking Place	1,000 SF	11.34
931	Quality Restaurant	1,000 SF	7.49
932	High-Turnover (Sit-Down) Restaurant	1,000 SF	11.15
933	Fast Food Restaurant without Drive-Through Window	1,000 SF	26.15
934	Fast Food Restaurant with Drive-Through Window	1,000 SF	33.84
935	Fast Food Restaurant with Drive-Through Window and No Indoor Seating	1,000 SF	163.85
936	Coffee/Donut Shop without Drive-Through Window	1,000 SF	40.75
937	Coffee/Donut Shop with Drive-Through Window	1,000 SF	42.83
938	Coffee/Donut Shop with Drive-Through Window and No Indoor Seating	1,000 SF	75
940	Bread/Donut/Bagel Shop with Drive-Through Window	1,000 SF	19.55
941	Quick Lubrication Vehicle Shop	Service Bays	5.19
942	Automobile Care Center	1,000 SF	3.38
943	Automobile Parts and Service Center	1,000 SF	4.46
944	Gasoline/Service Station	Fueling Positions	13.87
945	Gasoline/Service Station with Convenience Market	Fueling Positions	13.38
946	Gasoline/Service Station with Convenience Market and Car Wash	Fueling Positions	13.94
947	Self Service Car Wash	Stalls	5.54
948	Automated Car Wash	1,000 SF	14.12

- (b) For each access permit requiring a traffic impact study, such study shall be performed prior to the developer's permit application submission.
- (c) A traffic impact study shall not be required for any multi-family residential use that seeks access onto an arterial or collector street, but that can otherwise meet all other spacing requirements of this ordinance.
- (d) For any development seeking to modify the spacing requirements set forth in this ordinance by greater than 10 percent (10%) of the allowable spacing standard or 100 feet, whichever is less, the permit application shall be accompanied by documentation justifying the need for the modification and a traffic impact study for the site.

Sec. 20-35. Traffic Impact Study, Specifications

- (a) Such traffic impact study shall follow the methodology and practices of the Institute of Transportation Engineers (ITE) at the time of the development proposal and will be completed by a license professional traffic engineer. All figures for trip estimates as related to the below requirements shall be based on the standards set forth by the ITE at the time of the development proposal.
- (b) All traffic impact studies must be done for the full project as defined herein, and shall not be done for only one part or phase of a project.
- (c) The following information shall be included in the traffic impact study:
  - (1) Identify the specific development plan under study and any existing development on and/or approved plans for the site (land use types and intensities and the arrangement of buildings, parking and access). Also identify land uses (including types and the arrangement of buildings, parking and access) on property abutting the proposed development site, including property across public streets.
  - (2) Identify the land uses shown in the Warrensburg Comprehensive City Plan for the proposed development site under study, as well as the ultimate arterial and collector street network in the vicinity of the site (at least the first arterial or collector street in

each direction around the site).

(3) Identify the functional classification of the public street(s) bordering the site and those streets on which access for the development is proposed. The functional classification is shown on the latest major street map.

(4) Document current public street characteristics adjacent to the site, including the nearest arterial and collector streets (number and types of lanes, speed limits or 85<sup>th</sup> percentile speeds, and sight distances along the public street(s) from proposed access).

(5) Compare proposed Access with established design criteria (driveway spacing, width of driveway, and minimum sight distances).

(6) Estimate the number of trips generated by existing and proposed development on the site for a typical weekday and weekday peak hours using the latest edition of Trip Generation published by the ITE. If local trip generation characteristics are available, they may be used if determined to be appropriate by the City Traffic Engineer. Calculate the net difference in trips between existing and proposed uses. If the development site already has an approved plan, also estimate the number of trips that would be generated by the approved land uses. If the development application is proposing a land use different than indicated in the Warrensburg Comprehensive City Plan, also estimate the number of trips that would be generated by the land use indicated by the Comprehensive City Plan. The City's Traffic Engineer shall approve the potential land use intensity in such cases.

(7) Document current Peak Hour Traffic volumes on a typical weekday (Tuesday, Wednesday and/or Thursday), and estimate the total hourly trips generated by the development during a 24 hour typical weekday. Traffic volumes should be measured at any existing site driveway(s) and on the adjacent collector streets, including the nearest collector/arterial street intersection in each direction along streets bordering the development site. The time periods in which existing traffic is counted should generally coincide with the highest combination of existing traffic plus traffic expected to be generated by the proposed development. Traffic volume counts shall include left-turns through and right-turn movements on all approaches and shall be tabulated in no greater than 15-minute increments. The City's Traffic Engineer shall determine, based on the nature of the development, additional time periods in which

current traffic volumes shall be documented.

(8) Estimate future P.M. Peak Hour Traffic volumes for the Intersection included in the study area using the recommendations of the City's Traffic Engineer.

(9) Distribute and assign the net development trips through the site driveway(s) plus the nearest collector and arterial street intersections in each direction along streets bordering the development site. If applicable, this and subsequent tasks shall be repeated based on approved land uses and/or land uses identified in the Warrensburg Comprehensive City Plan.

(10) Conduct volume/capacity and queuing analyses for the peak hours at site driveway(s) and other Intersections using methodologies approved by the ITE and in conjunction with direction from the City Traffic Engineer on which methods would be most appropriate. Such analyses should be for:

(A) Existing conditions,

(B) Existing conditions plus development conditions, and

(C) Future conditions.

(11) Compare existing plus development conditions and future conditions with established City guidelines/policies for acceptable levels of service and turn lane requirements.

(12) Identify geometric and traffic control improvements needed to mitigate deficiencies and/or comply with established guidelines for acceptable Levels of service.

(13) Extend the study, on the request of the City Traffic Engineer, to additional street segments and/or intersections on the public street system. The City Traffic Engineer shall make this determination based on the scale, location, and/or nature of the proposed development and the condition or state of development of the street network in the vicinity of the site.

#### Sec. 20-36. Traffic Impact Study Results.

- (a) All traffic impact study results shall be reviewed by the City's Traffic Engineer who shall make the determination of the number and type

of connections needed by the development, and any required geometric, traffic control or other improvements recommended for mitigation to improve the level of service to the minimum level required by this ordinance.

- (b) For any traffic impact study showing an estimated level of service at the nearest Intersections of "D" or lower, such study shall include recommended suggestions for mitigation to improve the level of service to "C" or better.
- (c) An access management permit will be granted when the mitigation steps recommended in the approved traffic impact study have become a condition of the permit.

#### Sec. 20-37. Residential Subdivisions.

(a) When a subdivision is proposed that would abut or contain an arterial or collector street, it shall be designed to provide lots abutting the classified street with access from an interior local street.

(b) Direct residential driveway access to individual one-family and two-family dwellings is prohibited on arterial and collector streets.

(c) Residential corner lots shall obtain access from the street with the lowest functional classification, and access shall be placed as far from the Intersection as possible to achieve the maximum available corner clearance.

(d) Connectivity of supporting streets. New residential subdivisions shall be designed to coordinate with existing, proposed and anticipated streets.

(1) Proposed streets shall be extended to the boundary lines of the proposed development where such an extension would connect with streets in another existing, platted or planned development.

(2) When a proposed development abuts unplatted land or a future development phase of the same development, stub streets shall be provided to provide access to abutting properties or to logically extend the street system into the surrounding areas. All street stubs serving more or other than two residential units shall be provided with a temporary turn-around or cul-de-sac, and the restoration and extension of the street would be the responsibility of any future developer of the abutting land.

Sec. 20-39. Non-Residential Subdivisions.

(a) Outparcels and Shopping Center Access. The number of connections shall be the minimum number necessary to provide reasonable access to the overall development site and not the maximum available for that frontage under the connection spacing requirements in this policy. When use of an access is intensified by additional development, or by new internal connections to that access, a new access permit is required based upon the post-development or interconnection trip generation. When multiple access points are available through interconnection, the total trip generation shall be divided equally among the available access points.

Sec. 20-40. Redevelopment and Existing Non-Conformance.

(a) Requirements. Properties with nonconforming access connections shall be allowed to continue, but must be brought into compliance with the access management provisions herein to the maximum extent possible when modifications to the street are made or when a change in use results in one or more of the following conditions:

- (1) When a new connection is requested or required.
- (2) When a preliminary plat is proposed or required.
- (3) When a building permit is requested for the property, except for projects consisting only of repair or upgrade of an existing use when the use after completion of the work remains the same as the use prior to issuance of the building permit.
- (4) When a site experiences an increase of ten percent (10%) or greater in peak hour trips or 100 vehicles per hour in the peak hour, whichever is less, as determined by one of the following methods:
  - (i) An estimation based on the ITE Trip Generation manual (latest edition) for typical land uses, or
  - (ii) Traffic counts made at similar traffic generators in the City, or
  - (iii) Actual traffic monitoring conducted during the peak hour of the adjacent street traffic for the property.

(b) If the principal activity on a property is discontinued for a period of one year or more then that property must thereafter be brought into

conformance with all applicable access management requirements of this policy. This shall include the need to update any previously approved traffic impact study where new traffic projections are available. For uses or approved plats in existence upon adoption of this policy, the one-year period for the purposes of this section begins upon the effective date of these requirements.

(c) Access to all properties which experience a change in use shall be approved by a new access permit. All requirements of this Chapter shall apply.

#### Sec. 20-41. Interchange Areas.

(a) The standards in this section apply to areas where grade-separated facilities, e.g. interstates and other freeways, interchange with surface streets and highways. In such cases, adequate areas need to be provided for traffic to make the transition from a high-speed highway to the surface street system.

(b) These requirements shall be applied in the vicinity of interchanges where substantial development has not yet occurred, as determined by the City Traffic Engineer. In developed areas, these standards may be difficult to achieve, however they should be considered the desirable standard. The connection spacing standards will be the minimum standards.

(c) Requirements. In order to provide a safe distance for transitional activity to occur, the spacings shall be provided from the end of the off ramp to the first connection as follows:

(1) From the near edge of the ramp to the center of the first private drive, the desired distance shall be 750 feet, or that distance which the City Traffic Engineer may deem practicable.

(2) From the near edge of the ramp to the center of the first public Intersection, the desired distance shall be 1,320 feet, or that distance which the City Traffic Engineer may deem practicable.

(d) Local streets or private interior access roads shall be used for direct access to property within Interchange areas.

#### Sec. 20-42. Required Spacing Standards

The following spacing standards are required:

- (1) For arterial streets, intersections shall be a minimum of 1,320 feet apart.
- (2) For collector streets, intersections shall be a minimum of 330 feet apart.
- (3) For local Streets, spacing shall be, at a minimum, as follows:

**Minimum Intersection Spacing**

Design Speed	Minimum Spacing (ft)
25 mph	150
30 mph	210
35 mph	280
40 mph	320
45 mph	360

- (4) Traffic signal spacing shall conform to the following requirements:

**Recommended Traffic Signal Spacing**

Street Classification	Desirable Spacing (ft)	Minimum Spacing (ft)
Arterial Street (New)	2,640	1,320
Arterial Street (Existing)	2,640	660
Collector Street	2,640	660

- (5) Driveways shall conform to the following spacing requirements and geometric standards:

**Driveway Spacing Special Criteria**

Dimension	Dimension Reference Refer Figure 1)	Land Use Classification Proposed Standards		
		Residential	Commercial	Industrial
Width	W			
Minimum		12'	30'	30'
Maximum		30' (36' for three car garage)	40'	40'
Radii (Curved or Flared)	R			
Minimum		5'	15'	25'
Maximum		10'	25'	50'
Minimum Spacing*				
From Property Line	p**	R	R	R
From Street Corner (On Collector or Local)	C	30'	50'	50'
From Street Corner (On an Arterial)	C	40'	50'	50'
Between Driveways (On a Collector or Local)	P+P	10'	30'	50'
Between Driveways (On an Arterial)	P+P	10'	30'	50'

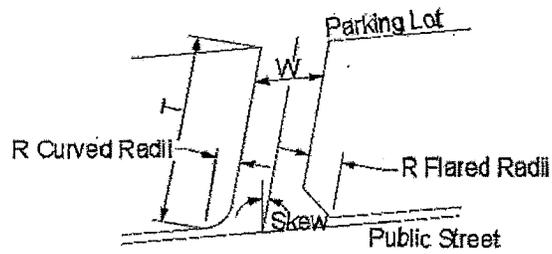
\*Measured from extension of tangent. "R" is the width of the flare or curb return utilized at the location. To be applied only if multiple drives are demonstrated as needed through a traffic study.

\*\*Unless joint access shared by two properties and one driveway is provided.

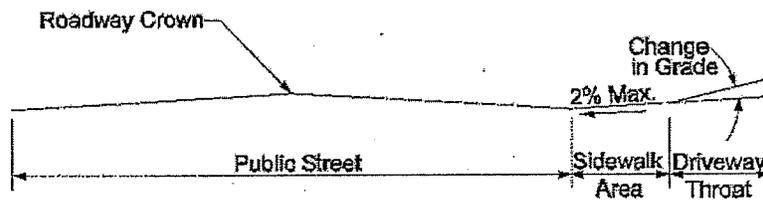
**Driveway Geometric Standards**

Dimension	Land Use Classification		
	Residential	Commercial	Industrial
Width (W)			
Minimum	12'	30'	30'
Maximum	24'	40'	40'
Radii (Curved or Flared) (R)			
Minimum	5'	15'	25'
Maximum	10'	25'	50'
Change in Grade	10%	6%	6%
Minimum Throat Length (T)	25'	25'	50'
Maximum Skew	15 degrees	15 degrees	15 degrees

Figure 1



**Driveway Plan View**

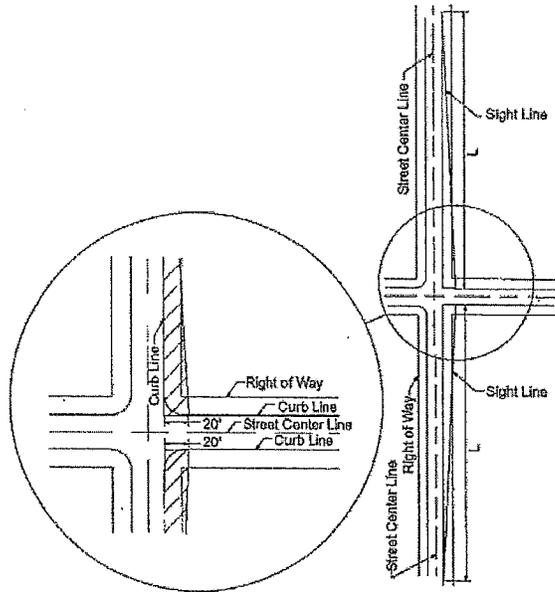


**Driveway Profile View**

- (6) Intersection sight distance, shall conform to the following guidelines:

**Intersection Sight Distance**

Posted Speed (MPH)	Min. Sight Distance (feet) (L)
30	335
35	390
40	445
45	500
50	555



- (7) Flared openings for driveways shall not exceed forty feet in width for residential driveways and fifty feet in width for commercial driveways.
- (8) Median opening spacing where medians already exist, or where medians are required as a mitigation recommendation to improve level of service, shall be at least 1,320 feet apart for a full access opening, and 660 feet apart for a left in, no left out access.
- (9) Two way left turn Lanes shall have a minimum width of 12 feet.
- (10) Auxiliary turn lanes have a minimum width of 12 feet, and shall conform to the following guidelines.

**Minimum Left Turn Lengths**

Posted Speed (mph)	Minimum Vehicle Storage Length (feet) ( $S_L$ )	Deceleration Length (feet) ( $D_L$ )	Taper Length (12' long) ( $T_L$ )	Total Minimum Length (feet) ( $L_L$ )
50	80'	410'	100'	590'
45	80'	340'	100'	520'
40	80'	275'	100'	455'
35	80'	230'	100'	410'
≤30	80'	200'	100'	380'

**Minimum Right Turn Lengths**

Posted Speed (mph)	Deceleration Length (feet) ( $D_R$ )	Taper Length (12' lane) ( $T_R$ )	Total Length (feet) ( $L_R$ )
50	410'	180'	590'
45	340'	180'	520'
40	275'	180'	455'
35	230'	180'	410'
≤30	200'	180'	380'

