DRAFT

ACCESS MANAGEMENT GUIDELINES

Lawrence, Kansas

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DEFINITIONS

Access - A means of vehicular or pedestrian approach, entry to, or exit from property.

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

Access Management - The process of providing and managing access to land development while preserving public street traffic flow with respect safety, capacity, and speed.

Access Management Plan - A plan illustrating the design of streets and access for property along an arterial street segment that is developed by the City and, in some cases, other applicable public agencies, e.g., Douglas County or Kansas Department of Transportation.

Arterial Street - A street or highway that provides for rapid and efficient movement of large volumes of through traffic between sections of the city and across the urbanized area. It is not intended to provide primary land access service.

Collector Street - A street which provides traffic circulation away from arterial streets. Land access is a secondary function of the street. The collector distributes traffic from the arterial streets to the local street network.

Cross Access - A service drive providing vehicular access between two or more contiguous sites to facilitate travel without a driver using the public street system.

Downstream – In the direction traffic is flowing, i.e., ahead of a driver.

Driveway - A private roadway or service drive providing for the movement of vehicles within a development and connecting to a public street.

Driveway Spacing - The distance between successive driveways or a driveway and street that intersect a public street.

Freeway - A street or highway which provides for rapid and efficient movement of large volumes of through traffic between major activity concentrations, frequently on a regional scale. No property access is allowed. Access to a freeway is provided through either interchanges or intersecting major streets and is controlled and/or maintained by the Kansas Department of Transportation.

Functional Classification - A system used to group public streets into classes according to their purpose in moving traffic and providing access.

Influence Area (Intersection) - That area beyond the physical intersection of two streets that comprises decision and maneuver distance, plus any vehicle storage length, that is to remain free of any driveway or side street connection.

Intersection Sight Distance - The generally unobstructed view along an uncontrolled street from a side street or driveway wherein drivers have sufficient view to safely enter or cross the uncontrolled street.

Joint Access (or Shared Access) - A driveway connecting two or more contiguous sites to the public street system.

Local Street - A street which provides direct traffic access to abutting land.

Median Break - A break in a raised median that is designed to allow drivers to cross or turn into or from either direction of travel separated by the raised median.

Partial Median Break - A break in a raised median that is designed to allow drivers to turn left across the opposing direction of travel separated by the median, but to physically prohibit drivers from crossing the partial median break from an intersecting street or driveway.

Raised Median - A physical barrier in the roadway that separates traffic traveling in the opposite directions, that is intended to exclude drivers from traveling across it except where designated openings are provided.

Right-of-Way - Land reserved, used, or to be used for a highway, street, alley, walkway, trail, drainage facility or other public purpose.

Sight Distance Triangle - A triangular shaped portion of land established at street intersections in which nothing is erected, placed, planted or allowed to grow in such a manner as to limit or obstruct the sight distance of motorists entering or leaving an intersection.

Upstream – In the direction opposite to which traffic is flowing, i.e., behind a driver.

INTRODUCTORY INFORMATION

Many of the problems on our street system can be traced to the access provided to abutting property via side streets and driveways. Historically, most decisions to allow access were made relative to individual properties and not to the function and characteristic of the street to which access was allowed. This piece-meal approach to access planning has frequently resulted in an illogical and excessive number of access points that have led to increased congestion and accidents.

"Access management" takes a holistic view of property access relative to the function of the streets from which it is provided. The objective of access management is to optimize, or find that right balance, between property access and traffic safety and efficiency, particularly along arterial streets. In other words, access is viewed in the context of the street system instead of the individual property. Even further, access should be viewed in the context of the ultimate traffic volumes. What might appear acceptable today may well be perceived differently in a long-term perspective.

In short, access management can be characterized as the strategic provision of access along streets. This is done to maintain the viability of the street network to safely and efficiently accommodate traffic volumes commensurate with its functions. It is the arterial street network that is key to the success of transportation within a community and it represents perhaps the greatest financial infrastructure investment. The net effect of access management along arterial streets is that the supporting networks of collector and local streets, and even inter-parcel connectivity, become more critical to effective circulation and property access.

The ultimate configuration of a street and its function are typically the result of land use planning, transportation planning, and traffic engineering. Unfortunately, many times these activities are not coordinated. The concept of access management integrates these activities in order to optimize the safety and performance of the public street network, a significant infrastructure investment vital to the well being of the community.

Experience

Every community has experienced safety and traffic operational problems associated with too much or poorly planned access to abutting properties. Many have also found it necessary to retrofit solutions to solve these problems. In the course of this experience, it has been discovered that limiting access to promote safer and more orderly flow has had significant positive effects, including reducing accident experience, lessening congestion, and improving air quality.

Obviously the degree of impact will vary based on the specific circumstances of any street segment, but this experience has provided valuable insight into the factors that have a negative influence on traffic safety and efficiency. Some of these factors include:

- Driveways or side streets in close proximity to major intersections;
- Driveways or side streets spaced too close together;
- Lack of left-turn lanes to store turning vehicles;
- Deceleration of turning traffic in through lanes; and
- Traffic signals too close together.

Sometimes these problems on major streets have unintended and undesirable consequences such as encouraging drivers to find alternate routes on collector and local streets.

Recent studies in this country are finding a definite correlation between the number of side streets and driveways along a street and the capacity and safety of that street. As the number of driveways increases, particularly those serving commercial development, the capacity of the street decreases and the number of accidents increases.

The “change” to more restrictive access control certainly has its critics in the property owners and business operators who perceive that more circuitous travel has a negative effect on property values and income. Studies to ascertain the impact of stricter access management, whether retrofitting an existing condition or imposing it on new development, have been limited. In general though, recent studies are finding that the vast majority of businesses are not negatively impacted by changes in access. Further, customers appreciate safer and more efficient roadway conditions and access is typically not the most important reason someone decides to visit a particular establishment.

Street Hierarchy

Lawrence, like most urban communities, has developed a hierarchical street system - one that contains a balance of arterial, collector, and local streets that, in turn, mesh with the highway system serving the metropolitan area and region. An appropriate access management plan begins with recognition of the function of each street type and strives to preserve the intended function.

Arterial streets are intended to provide the connections with the highway system and tend to serve larger traffic volumes and longer-distance trips. These streets are the backbone of the street network and should provide the highest degree of mobility, i.e., free flow with minimal conflict.

In order to preserve the highest degree of mobility, access to arterial streets is frequently limited to collector streets, which, in turn, connect with other collector

streets and local streets where access to property is provided. Some direct access can be provided if it makes sense in the overall circulation pattern of the street system. For example, a right-in/right-out driveway might lessen the demand on an adjacent signalized intersection.

Local streets, on the other extreme, are intended to provide a high degree of accessibility to property. Because of this function, traffic volumes and traffic speeds tend to be relatively low and traffic safety quite good. Collector streets provide that connection between arterial streets and local streets and tend to have characteristics of both. It is desired that collector streets provide some degree of mobility and some degree of access; hence, traffic volumes and traffic speeds tend to be moderate. While arterial streets and local streets tend to be generally consistent in their function, operation, and appearance, collector streets serve a wide variety of circumstances and consequently can vary in appearance and operation. For example, collector streets in residential areas versus ones in commercial areas may look and function differently due to different types of traffic being served.

The hierarchical street network and the associated functions of each roadway type is the foundation from which access management should be applied. Access management should be considered an integral part of the design criteria of each roadway type to ensure that the resulting traffic operations are safe and efficient relative to the intended function.

The ideal situation would be to plan all arterial, collector, and local streets before development begins. Obviously, this approach is impractical for many reasons. However, the intent or goal of an access management plan, coupled with other policies, is to ultimately achieve a safe and efficient street network in coordination with the process of land development. It cannot be overlooked that access management must be complemented by a true network of arterial, collector, and local streets.

The provisions of the access management plan begin, therefore, with what are deemed appropriate geometric and traffic control configurations for arterial and collector streets. These configurations will vary between the street types because of the means available to effectively control movements to and from side streets and driveways. There are, however, some basic principles to traffic operations that should be incorporated into access management for any street type. These principles are discussed below.

Basic Principles

Spacing of Traffic Signals - As traffic volume increases, the level of service a street provides is dictated by the performance of signalized intersections. In other words, the traffic signals become the limiting factor to a street's capacity.

Traffic signal coordination becomes a critical traffic management tool and the objective is to move platoons of vehicles from one traffic signal to and through another as efficiently as possible in order to maximize the capacity of the street. **Experience has taught us that a minimum desirable spacing of traffic signals for optimum coordination is about one-quarter mile.**

Influence Area of Intersections - One dynamic of traffic flow not evident on a drawing is the relatively complex decision-making of drivers and the vehicle queuing that can occur near intersections, particularly intersections with traffic signals. This dynamic is evident on both the upstream and downstream sides of traffic signals and includes turns from the major street and turns onto the major street. The physical configuration of the intersection, particularly the turn lanes, also defines the influence area of an intersection. This dynamic suggests that no intersecting streets or driveways be situated in the influence area of an intersection.

Spacing of Intersecting Streets and Driveways - The close spacing of driveways increases the complexity of the driving task, and the resulting behavior leads to safety and operational problems. For example, a series of closely spaced driveways makes it difficult for a driver on the major street to clearly identify his/her destination and makes it difficult for drivers on the driveways to ascertain where the other driver might be turning. Further, drivers attempting to turn onto the major street must also observe and account for traffic on the other driveways before maneuvering, all of which leads to indecisiveness and confusion. Closely spaced driveways may provide multiple opportunities for access, but they also create multiple conflict points with resultant safety problems.

Median Breaks - The primary function of medians on a roadway is to control turning and crossing movements in order to maintain a high degree of safety and efficiency. Continuous raised medians can be used on streets with relatively high traffic volumes and/or travel speeds. Due to these conditions, it is imperative that left-turn lanes be provided at every median break. The distance between median breaks, therefore, will be significantly influenced by the design of the left-turn lanes. Another key consideration at median breaks is the degree of access provided. This can either be full access where all intersection movements are allowed or partial access where only the left turns from the major street are allowed. The configuration of a partial access median break physically prohibits the left-turn and crossing movements from the minor street or driveway.

Both the location of median breaks and the degree of access provided could change over time. Whereas the design criteria in this plan focus on a mature roadway corridor, it can take decades for full development to occur. Private development will typically construct the collector and local streets that will provide the full complement of streets to allow an access management plan along a corridor to function effectively. Therefore, median breaks can be otherwise allowed so long as the ultimate configuration of the mature corridor is assured.

For example, a median break that might not fit in the ultimate corridor configuration could be allowed for a single development if the surrounding land is undeveloped and the road system incomplete. This median break, however, might be closed in the future in favor of another location that better fits with the ultimate configuration. If the area were planned well, the original development would have access to another or other median breaks by circulating through local streets and/or adjacent properties. Another example is that full access might be allowed at a median break in the early stages of development along a corridor but might be changed to partial median access or no median access as other streets and median openings develop or as safety experience might dictate. Traffic signal spacing will also factor into the appropriate degree of access provided at a median break.

Sight Distances - The provision of appropriate sight distances is a fundamental design factor on any street. One cornerstone of street design is "stopping" sight distance, the ability to view a potential hazard a sufficient distance in advance that allows a driver to stop the vehicle and avoid the hazard. Appropriate "stopping" sight distances are achieved through the design of the horizontal and vertical alignments of a street. With respect to access management, "intersection" sight distance becomes more critical. "Intersection" sight distance refers to the ability of a driver to look along a street and view traffic a sufficient distance in order to safely turn into or cross the street. "Intersection" sight distances tend to be longer than "stopping" sight distances, primarily because it is preferable to have a condition that does not require drivers on the uncontrolled street to adjust their travel speed or travel path based on the action of the driver on the intersecting street or driveway. A Policy on Geometric Design of Streets and Highways published by the American Association of State Highway and Transportation Officials (AASHTO) includes suggested "stopping" and "intersection" sight distances. "Intersection" sight distances are based on a complex formula based more on the characteristics of accelerating into traffic and it appears to go well beyond the basic need to yield safe operating conditions. More recent studies of driver behavior suggest that a "critical gap", measured in seconds and converted to distance based on operating speeds, reveals an acceptable "intersection" sight distance for passenger car drivers proceeding from a stop condition. This "critical gap" was found to be 7.5 seconds for left-turn, right-turn, and crossing movements. In light of the sometimes complex nature of urban/suburban traffic conditions, **it is recommended that "intersection" sight distance of 8 to 10 seconds be provided from each stop-controlled side street and driveway.** This distance should be based on either the design speed of or the 85th percentile speed on the major street, whichever is higher. Where trucks comprise a significant percentage of the side street or driveway traffic, longer sight distances should be considered due to the slower acceleration of large trucks.

Arterial Street

The Lawrence street network includes many section-line roads that result in one-mile spacing of principal arterial streets. Based on street network hierarchical design, a minor arterial or collector street would typically intersect at the one-half mile point, with collectors at the one-quarter mile points. On the other hand, recent development patterns and accompanying street network planning in Lawrence has modified this "traditional" approach to one that has collector streets occurring at roughly one-third mile intervals. Therefore, both conditions are likely to be encountered in future years.

A special consideration with arterial streets is the approach to freeways. The limited number of interchanges with the freeway system means that traffic volumes will be concentrated. Hence, the potential for longer traffic queues and additional traffic lanes will be present. These conditions suggest that no access be allowed in the interchange influence area and that the first access point should desirably be no closer than 1,000 feet from the nearest ramp intersection with the arterial street.

Intersection Influence Area - A typical arterial street intersection with another arterial street experiences significant left- and right-turn traffic. Depending on the volumes, a prototype intersection could include double left-turn lanes and separate right-turn lanes on all approaches. A typical maximum length for the left-turn lanes is about 250 feet. A right-turn lane generally needs to be long enough to extend beyond vehicle queues in the through lanes to be effective. Another consideration to maximize through capacity is to provide sufficient right-turn lane length such that a trailing vehicle fills the gap of a vehicle entering the turn lane. A minimum recommended right-turn lane would be 250 feet plus a 150-foot taper.

On the upstream side of an intersection, it is desirable to avoid driveways across from the left-turn lanes on the arterial street so drivers do not attempt to cross multiple lanes and risk blocking through traffic. It is also desirable to avoid driveways within the length of the right-turn lane and its taper so that drivers on the driveway or side street are not confused as the intent of the driver on the major street.

On the downstream side, it must be recognized that drivers turning onto the street are primarily focused on the navigation of their vehicles. Further, traffic is typically released in tightly spaced platoons from the signal. Driveways in close proximity to the intersection introduce deceleration and potential conflict to the traffic stream.

The influence area should encompass the turning lanes and tapers as well as the distance over which driver attention is focused on intersection activity. At 45 miles per hour, a driver typically needs about 500 to 600 feet to perceive

conditions and decelerate (to a stop if necessary) on the approach to a major intersection. Therefore, it is recommended that the intersection influence distance on an arterial street should be at least 600 feet at the intersection with arterial streets and 500 feet at the intersection with collector streets. This distanced is measured along the arterial street from the centerline of the intersecting street. In short, access to the arterial street should not be introduced in the influence area.

Minimum Spacing of Median Breaks – A characteristic of some arterial streets that significantly influences access management is the use of continuous raised medians. The raised median introduces both constraints and opportunities to achieve safe and effective traffic operations.

On arterial streets with continuous raised center medians, the left-turn lanes provided at each opening will define the absolute minimum separation between median breaks. The minimum left-turn lane on an arterial street, irrespective of demand, should be 200 feet plus the reverse-curve transition taper of about 100 feet. This distance allows some deceleration to occur in the turning lane but also provides a length so that the lane is evident to the higher-speed traffic. The left-turn lane length actually ends 50 to 75 feet from the center of the median break, so the minimum distance between median breaks merely to satisfy minimum left-turn lane lengths is about 650 feet. Where one of the median breaks is an intersecting arterial street, this distance is approximately 750 to 800 feet due to the longer left-turn lane length and width of the intersecting street. Further, it is desired that some full-width median remain in place between left-turn lanes serving opposing directions of travel. Therefore, an additional criterion is that left-turn lanes shall be separated by at least 150 feet. This distance is measured from the beginning of the tapers introducing the left-turn lanes.

Right Turn Issues - Another access consideration on arterial streets is the provision of driveways limited to right turns in and out. Due to the speed differential created by turning vehicles on an arterial street, right-turn lanes should ideally be provided at every driveway and cross street. A minimum turn lane length of 150 feet plus a 150-foot taper is recommended; lengths of 200 to 300 feet would be preferred. These dimensions suggest that the minimal spacing between any driveway and side street should be about 500 feet (center to center).

Collector Street

The function of collector streets is to distribute traffic between arterial streets and local streets. In a street network developed with sound access management principals, collector streets will play a significant role in the access function to property along arterial streets. Because of this, the appearance and size of a collector street can vary widely depending on the adjacent land uses and traffic

demands created by those land uses. In turn, these varying demands create the need to have varying access considerations for collector streets.

Key issues include spacing of the first intersecting street to the arterial street, the separation of local streets, and the location of private driveways relative to intersecting streets. The focus of these criteria is the separation of conflict points. Access management along a collector street with commercial or multi-family residential development takes into account the separation of conflicts plus the potential for larger traffic volumes and longer vehicle queues.

Local Street

The essential access management issue along local residential streets with single-family development is the spacing of the first driveways from intersecting arterial, collector, and local streets.

Private Driveway

A key access management issue associated with private driveways is the throat depth (separation from the public street to first intersection on the development site). While the practice of conflict separation is aimed at making traffic flow safe and efficient, another objective on private driveways is to eliminate the potential for internal traffic operations to have a negative influence on the public street system. Furthermore, specific consideration shall be given to driveway consolidation, driveway relocation, and inter-parcel connectivity.

SUMMARY

Access management design criteria indicate where access is allowed or prohibited for arterial, collector, and local streets, plus private driveways intersecting public streets and specifies minimum intersection spacing.

These are minimum standards and should be considered with respect to specific development and future (ultimate) conditions.

A network of supporting local and collector streets is necessary to provide primary access to property. Direct access to arterial streets should be limited to right turns in and out of intersecting local streets and driveways, or left turns through partial median breaks; however, such direct access should be allowed only if overall traffic operations on the public street system will benefit.

STANDARDS

The following standards reflect criteria applicable to the location and design of streets and driveways. It is important to note that more than one criterion will apply to any condition. All applicable criteria need to be satisfied.

Unless stated otherwise, distances between streets and/or driveways are measured from centerline to centerline.

These standards are applicable to new development. Existing properties that have an approved site plan by the Planning Commission and/or an approved plat by the City Commission will not be required to comply with this plan. However, any existing property that applies for a new site plan or replat after the adoption of this plan by the City Commission shall be required to comply with the criteria in the plan to the greatest extent possible.

Street Spacing

- No street will be allowed within 1,000 feet of an interchange.
- No street will be allowed within an intersection influence area. The hierarchy of intersections for establishing priority is arterial/arterial, arterial/collector, collector/collector, arterial/local, and collector/local.
- 500 feet minimum on arterial streets.
- 300 feet minimum on collector streets (as specified in the Technical Specifications and Design Criteria).

Intersection Influence Areas

- No street or driveway shall intersect a street within its intersection influence area as shown in Figure 1.

Traffic Signal Spacing

- One-quarter mile (1,320 feet) to one-third mile (1,760 feet) on arterial streets

Median Break Spacing on Arterial Street

- No median break within 1,000 feet of an interchange.
- No median break within an intersection influence area.
- Must accommodate left-turn lanes and tapers along arterial street. Successive left-turn lanes must be separated by at least 150 feet (measured between the beginning of the taper for each turn lane).
- Full median break access allowed where traffic signals, if installed at some time in the future, would be adequately spaced from adjacent traffic signals.

- Partial access allowed at other median breaks.
- Temporary median breaks may be allowed if adequate left-turn lanes and tapers can be developed for near-term conditions and ultimate location of median breaks along arterial street are assured.

Left-turn Lanes

- Required on arterial streets at all intersections with public streets. Minimum length shall be 250 feet plus the taper at the intersection with another arterial street and 200 feet plus the taper at collector and local streets.
- Required on major driveways (as determined by the City Engineer or Traffic Engineer) intersecting arterial streets. Minimum distance shall be 150 feet plus the taper.
- Required on collector streets in non-residential areas at the intersection with any side street or driveway serving non-residential development. A continuous left-turn lane should be provided where successive left-turn lanes are required. Minimum length shall be 100 feet plus the taper.
- The length of the left-turn lane shall be increased as necessary to accommodate estimated queue length. The minimum length shall be exceeded based on the estimated queue length determined for 20-year traffic volume projections. The queue length shall be estimated using analysis procedures outlined in the latest edition of the Highway Capacity Manual published by the Transportation Research Board. Where the analysis is based on traffic signal control, the minimum cycle length used in the analysis shall be 120 seconds. The queue length shall be for a 95 percent confidence level.
- Left-turn lane lengths cover the full-width segment between the taper and the end of the lane at an intersection with a public street or driveway. The end of the lane at the intersection shall be determined as the point of curvature for the turning radius used for design of the particular intersection. On an arterial street, the turning radius shall be no less than 50 feet. On a collector street, the turning radius shall be no less than 30 feet. Where double left-turn lanes are used, the minimum inside turning radius shall be no less than 75 feet.

Right-Turn Lanes

- Required on arterial streets at each intersecting street or driveway. Minimum length shall be 250 feet plus the taper at the intersection with another arterial street and 150 feet plus the taper at other locations.
- Required on collector streets in non-residential areas at the intersection with any street or driveway where the right-turn volume on the collector street is or is projected to be at least 100 vehicles in any hour. The minimum length shall be 100 feet plus the taper.

- The length of the right-turn lane at intersections controlled by traffic signals shall be increased, if necessary, based on the longer of the queues in the turn lane or the adjacent through lane.
- Right-turn lane lengths cover the full-width segment between the taper and the end of the lane at an intersection with a public street or driveway. The end of the lane at the intersection shall be determined as the point of curvature for the corner radius.
- The minimum length on controlled approaches shall be exceeded based on the estimated queue length determined for 20-year traffic volume projections. The turn lane length shall be based on the longer of the queues in the turn lane or the adjacent through lane. The queue length shall be estimated using analysis procedures outlined in the latest edition of the Highway Capacity Manual published by the Transportation Research Board. Where the analysis is based on traffic signal control, the minimum cycle length used in the analysis shall be 120 seconds. The queue length shall be for a 95 percent confidence level.
- The introductory taper shall be a straight line and its length shall be determined by using a rate of 12.5 to 1 based on the width of the right-turn lane.
- The beginning of a taper shall be no closer than 100 feet from the centerline of the nearest street or driveway preceding the turn lane.
- Continuous right-turn lanes will not be allowed.

Private Driveways

- No driveway will be allowed within 1,000 feet of an interchange.
- No driveway will be allowed within an intersection influence area.
- No driveway shall be allowed within the taper or storage area of a turn lane.
- No single-family residential driveway shall intersect an arterial or collector street.
- Internal drives and parking stalls must be at least 100 feet from a collector street. This distance is measured from the near edge of the public street (based on its ultimate configuration) to the near edge of the internal drive or parking stall. (See Figure 2)
- Internal drives and parking stalls must be at least 100 feet from an arterial street where access from the driveway is limited to right turns at the arterial street. This distance is measured from the near edge of the public street (based on its ultimate configuration) to the near edge of the internal drive or parking stall. (See Figure
- Internal drives and parking stalls must be at least 250 feet from an arterial street where full access is provided on the arterial street. This distance is measured from the near edge of the public street (based on its ultimate configuration) to the near edge of the internal drive or parking stall. (See Figure

- Internal drives and parking stalls must be at least 50 feet from a local street. This distance is measured from the near edge of the public street (based on its ultimate configuration) to the near edge of the internal drive or parking stall. (See Figure 

Intersection Sight Distance

- At full access intersections, 8 to 10 seconds of sight distance in both directions from stop sign controlled side street or driveway.
- At partial access intersections, 8 to 10 seconds of sight distance to the left from stop sign controlled side street or driveway.
- Where substantial volumes of heavy vehicles enter the uncontrolled street, the intersection sight distance increases to 12 seconds minimum.
- Sight distance based on the design speed or the 85th percentile speed, whichever is higher.

Intersection Sight Distance

Street Type	**Speed**		**Sight Distance (Feet)**		
	MPH	Ft/Sec	8 sec	9 sec	10 sec
Arterial	45	66	529	594	660
	40	59	472	531	590
Collector	35	51	408	459	510
	30	44	352	396	440
Residential	25	37	296	333	370

APPEALS

An applicant may file a written appeal if the applicant believes the staff comments from the Planning Director, City Engineer, and/or City Traffic Engineer supporting this plan is unreasonable. This written appeal shall be addressed to the Planning Director and comply with the process defined by the City of Lawrence.

The appeal shall provide evidence on the reasonableness of the property's access and shall bear the burden of establishing a preponderance of the evidence that the staff requirements would deprive the applicant of reasonable access to subject property.

Intersection Influence Areas

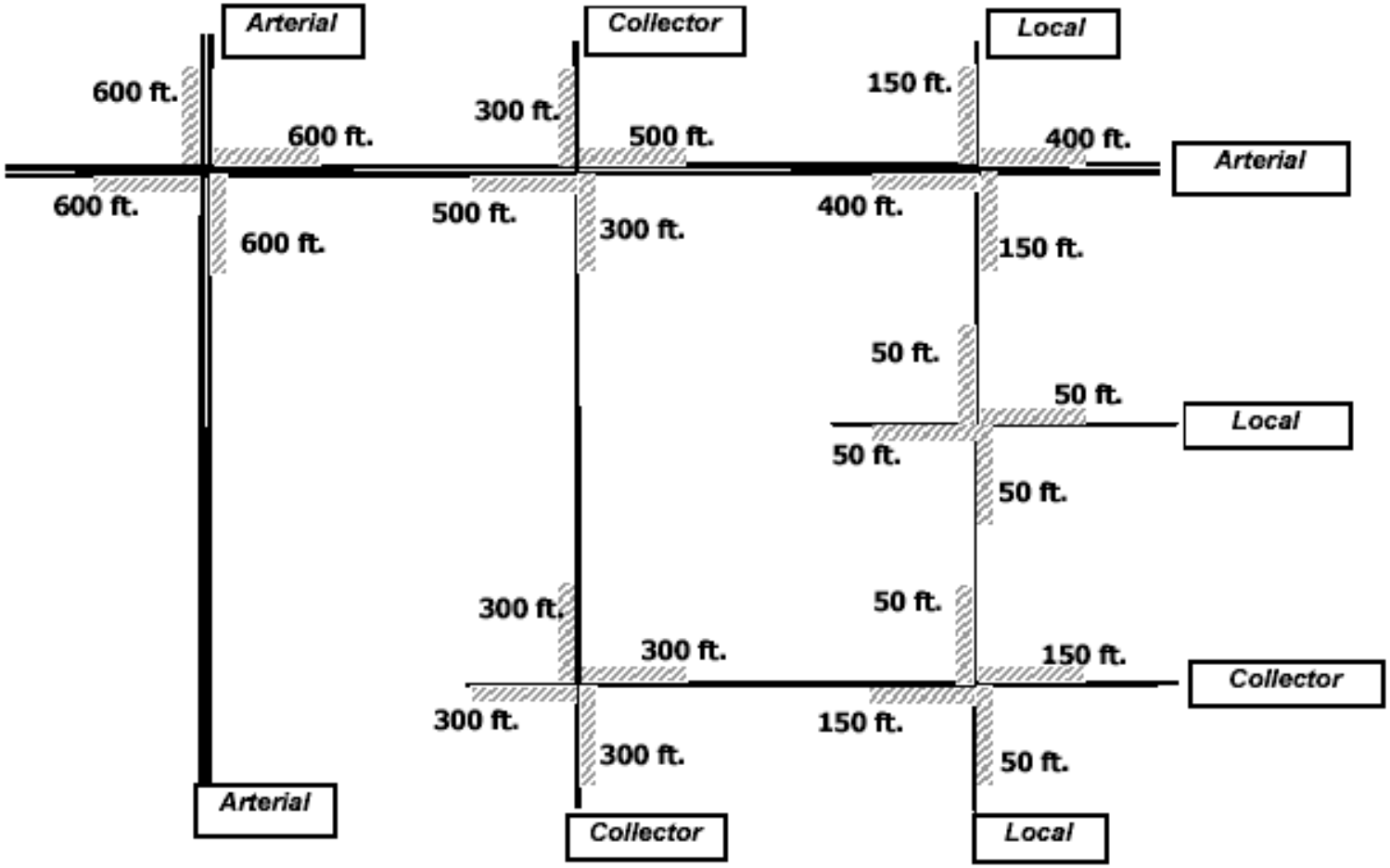

Figure 1

Private Driveway Throat Distances

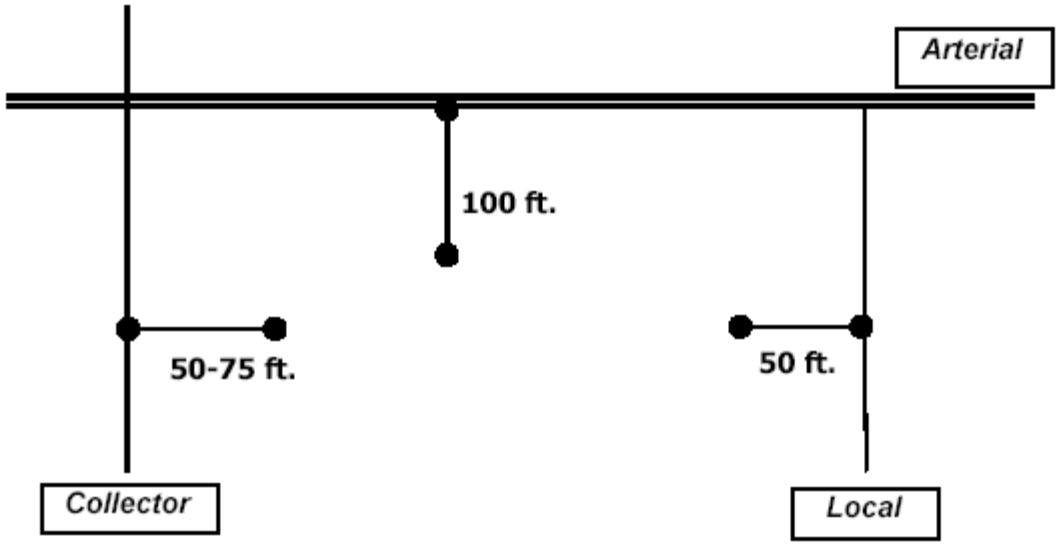

Figure 2