

5.1 Purpose

The purpose of these standards is to provide and manage access to land development, while preserving the regional flow of traffic in terms of safety, capacity and speed. Major thoroughfares, including highways, arterials and collectors serve as the primary network for moving people and goods. These transportation corridors also provide access to businesses and homes and have served as the focus for commercial and residential development. If access systems are not properly designed, these thoroughfares will be unable to accommodate the access needs of development and retain their primary transportation function. These standards balance the right of reasonable access to private property, with the right of the citizens of Radcliff to safe and efficient travel.

To achieve this policy purpose, state and local thoroughfares have been categorized by function and classified for access purposes based upon their level of importance. Regulations have been applied to these thoroughfares for the purpose of reducing traffic accidents, personal injury, and property damage attributable to poorly designed access systems, and to thereby improve the safety and operation of the roadway network. This will protect the substantial public investment in the existing transportation system and reduce the need for expensive remedial measures. These regulations also further the orderly layout and use of land, protect community character, and conserve natural resources by promoting well-designed road and access systems and discouraging the unplanned subdivision of land.

5.2 Conformance with Plans, Regulations, and Statutes

These standards are adopted to implement goal nine of the City of Radcliff Comprehensive Plan. This goal is to promote quality transportation facilities for the movement of people and goods. In addition, these standards conform with the US 31W Access Management Partnership Memorandum of Understanding, the US 31W Access Management Study and the planning policies of the KYTC set forth in the Kentucky Statewide Transportation Plan. These standards also conform with the access classification system and standards of the KYTC, and policy and planning directives of the Federal Highway Administration.

5.3 Applicability

These standards shall apply to all arterial and collector streets within Radcliff and to all properties that abut these roadways.

Subdivision plats, improvement plans, site plans and driveway apron permits must conform with these access management standards prior to approval.

The access classification system and standards of the Kentucky Transportation Cabinet (KYTC) shall apply to all roadways on the State Primary Road System.

5.4 Access Management Classification System and Standards

Arterial and collector streets with the City of Radcliff are classified by the following functional categories:

Access Class 1: Principal (Major) Arterials – High volume roadways that provide priority to mobility over access. They often provide service to traffic entering and exiting the city and between major activity centers within the city.

Access Class 2: Minor Arterials – Moderate volume roadways that provide priority to mobility over access. They often feed the major arterial system, support moderate length trips, and serve activity centers.

Access Class 3: Collectors – Roads with moderate to low volumes that provide a balance between mobility and access. They often link Local Streets with the Arterials.

5.5 Driveway and Signal Spacing

All access connections on facility segments that have been assigned an access classification shall meet or exceed the minimum connection spacing requirements of that access classification as specified in Table 1.

Table 1: Minimum Driveway and Signal Spacing

Access Class	Minimum Adjacent Spacing for ≤45mph (ft)	Minimum Adjacent Spacing for >45mph (ft)	Signal Spacing	Median Treatment
1	600	1200	2400	Restrictive
2	450	600	2400	Restrictive Preferred
3	300	450	1200	Non-Restrictive

- A. Driveway spacing shall be measured from the closest edge of the pavement to the next closest edge of the pavement. The projected future edge of the pavement of the intersecting road shall be used in measuring corner clearance, where widening, relocation, or other improvement is indicated in an adopted transportation plan.
- B. The Engineering Department may reduce the connection spacing requirements in situations where they prove impractical, but in no case shall the permitted spacing be less than 85% of the applicable standard.
- C. If the connection spacing of this code cannot be achieved, then a system of joint use driveways and cross access easements may be required in accordance with Section 5.7.
- D. Variation from these standards shall be permitted at the discretion of the Planning Commission where the effect would be to enhance the safety or operation of the roadway. Examples might include a pair of one-way driveways in lieu of a two-way driveway, or alignment of median openings with existing access connections. Applicants may be required to submit a study

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prepared by a registered engineer to assist the City of Radcliff in determining whether the proposed change would exceed roadway safety or operational benefits of the prescribed standard.

5.6 Access Connection and Driveway Design

- A. Driveway apron grades should not exceed 8% and the change in grade between the driveway apron grade and the street cross-slope should not exceed 10%. Driveway grades should not exceed 8% for commercial or industrial land uses. Driveway grades should not exceed 15% for residential land uses. A level landing area should be provided at the approach to the roadway; however, the effect of a vertical curve on sight distances should also be considered.
- B. Driveway approaches must be designed and located to provide an exiting vehicle with an unobstructed view.
- C. Construction of driveways along acceleration or deceleration lanes and tapers is prohibited due to the potential for vehicular weaving conflicts.
- D. Driveways with more than one entry and one exit lane shall incorporate channelization features to separate the entry and exit sides of the driveway. Double yellow lines may be considered instead of medians where truck off-tracking is a problem.
- E. Driveways across from median openings must be consolidated to coordinate access at the median opening.
- F. Driveway width and flair shall be adequate to serve the volume of traffic and provide for rapid movement of vehicles off of the major thoroughfare, but standards shall not be so excessive as to pose safety hazards for pedestrians, bicycles or other vehicles (Suggested standards appear in Table 2).

Table 2: Suggested Access Connection Design Form

Trips/Day	1-20	21-600	601-4000*
Trips/Hour	Or 1-5	Or 6-60	Or 61-400
Connection Width (2-Way)	12' min 24' max	24' min 36' max	24' min 36' max
Flare	10' min	10' min	N/A
Returns (Radius)	N/A	Small radii may be used	25' min 50' std 75' max
Angle of Drive		60-90°	60-90°
Divisional Island		4-22' wide	4-22' wide

Note: These standards are not intended for major access connections carrying over 4000 vehicles per day.

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- G. The length of driveways or "Throat Length" shall be designed in accordance with the anticipated storage length for entering and exiting vehicles to prevent vehicles from backing into the flow of traffic on the public street or causing unsafe conflicts with on-site circulation. General standards appear in Table 3 but these requirements will vary according to the projected volume of the individual driveway. These measures generally are acceptable for the principle access to a property and are not intended for minor driveways. Variation from these shall be permitted for good cause upon approval of the Engineering Department.

Table 3: Generally Adequate Driveway Throat Lengths

Signalized with 2 Egress Lanes	75'
Signalized with 3 Egress Lanes	200'
Signalized with 4 Egress Lanes	300'
Unsignalized Driveway with 2 Egress Lanes	50-75'

5.7 Joint and Cross Access

- A. Adjacent commercial or office properties classified as major traffic generators (i.e. shopping plazas, office parks), shall provide a cross access drive and pedestrian access to allow circulation between sites.
- B. A system of joint use driveways and cross access easements shall be established along all arterial and collector streets and the building site shall incorporate the following:
1. A continuous service drive or cross access corridor extending the entire length of each block served to provide for driveway separation consistent with the access management classification system and standards.
 2. A design speed of 10 mph and sufficient width to accommodate two-way travel aisles designed to accommodate automobiles, service vehicles, and loading vehicles;
 3. Stub-outs and other design features to make it visually obvious that the abutting properties may be tied in to provide cross-access via a service drive;
 4. A unified access and circulation system plan that includes coordinated or shared parking areas is encouraged wherever feasible.
- C. Pursuant to this section, property owners shall:
1. Record an easement with the deed allowing cross access to and from other properties served by the joint use driveways and cross access or service drive;
 2. Record an agreement with the deed that remaining access rights along the thoroughfare will be dedicated to the City of Radcliff and pre-existing driveways will be closed and eliminated after construction of the joint-use driveway;
 3. Record a joint maintenance agreement with the deed defining maintenance

responsibilities of property owners.

- D. The Engineering Department may reduce required separation distance of access points where they prove impractical, provided all of the following requirements are met:
 - 1. Joint access driveways and cross access easements are provided wherever feasible in accordance with this section.
 - 2. The site plan incorporates a unified access and circulation system in accordance with this section.
 - 3. The property owner shall enter a written agreement with the City of Radcliff, recorded with the deed, that pre-existing connections on the site will be closed and eliminated after construction of each side of the joint use driveway.
 - 4. The Engineering Department may modify or waive the requirements of this section where the characteristics or layout of abutting properties would make development of a unified or shared access and circulation system impractical.

5.8 Corner Clearance

- A. Corner clearance for connections shall meet or exceed the minimum access connection spacing requirements for that street.
- B. New access connections shall not be permitted within the functional area of an intersection or interchange as defined by the connection spacing standards of this code, unless:
 - 1. No other reasonable access to the property is available, and
 - 2. The Engineering Department determines that the access connection does not create a safety or operational problem upon review of a site-specific study of the proposed connection prepared by a registered engineer and submitted by the applicant.
- C. Where no other alternatives exist, the Engineering Department may allow construction of an access connection along the property line farthest from the intersection. In such cases, directional connections (i.e. right in/out, right in only, or right out only) may be required.

5.9 Alignment of Access Connections

Access points on opposite sides of arterial and collector streets shall be located opposite each other. If not so located, turning movement restrictions may be imposed as determined necessary by the Planning Commission or their authorized agent.

5.10 Turning Movement Restriction

The Planning Commission or its authorized agent may require access connections to provide for only limited turning movements (ie. right in/out, right in only, or right out only) where necessary for the safe and efficient movement of traffic.

5.11 Turning Lanes and Deceleration Lane Provision

At those access connections where vehicles turning to and from the street will affect the capacity of the street, the developer shall dedicate sufficient right-of-way and construct turning lanes or deceleration lanes as necessary to maintain the capacity of the street. If the street in question has bike lanes, the developer shall also include adequate right-of-way for the bike lane and continue the bike lane through the access connection. Acceleration lanes are prohibited, with the exception of freeway applications.

5.12 Number of Access Connections

A. The minimum lot frontage for all parcels with frontage on all arterial and collector streets shall not be less than the minimum connection spacing standards of that thoroughfare, except as otherwise provided in this Section.

B. All land in a parcel having a single tax code number, as of December 3, 2009, fronting on an arterial or collector street, shall be entitled one (1) driveway/connection per parcel as of right on said public thoroughfare(s). When subdivided as a recorded plat, parcels designated herein shall provide access to all newly created lots via the permitted access connection. This may be achieved through subdivision roads, joint and cross access, service drives, and other reasonable means of ingress and egress in accordance with the requirements of these standards. The following standards shall also apply:

1. Parcels with large frontages may be permitted additional driveways at the time of adoption of these requirements provided they are consistent with the applicable driveway spacing standards.
2. Existing parcels with frontage less than the minimum connection spacing for that corridor may not be permitted a direct connection to the thoroughfare under this Section where the Planning Commission or its authorized agent determines alternative reasonable access is available to the site. [Note: The Planning Commission or its authorized agent could allow for a temporary driveway as provided in Section 5.7 with the stipulation that joint and cross access be established as adjacent properties develop).
3. Additional access connections may be allowed where the property owner demonstrates that safety and efficiency of travel on the thoroughfare will be improved by providing more than one access to the site.

5.13 Outparcels and Phased Site Plans

A. In the interest of promoting unified access and circulation systems, development sites under the same ownership or consolidated for the purposes of development and comprised of more than one building site shall not be considered separate properties in relation to the access standards of this code. The number of connections permitted shall be the minimum number necessary to provide reasonable access to these properties, not the maximum available for that frontage. All necessary easements, agreements, and stipulations required under Section 5.7 shall be met. This shall also apply to phased site plans. The owner and all tenants within the affected area are responsible for compliance with the requirements of this code .

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- B. All access to the outparcel must be internalized using the shared circulation system of the principal development or retail center. Access to outparcels shall be designed to avoid excessive movement across parking aisles and queuing across surrounding parking and driving aisles.
- C. The number of outparcels shall not exceed one per ten acres of site area, with a minimum linear frontage of 300 feet per outparcel or greater where access spacing standards for that roadway require. This frontage requirement may be waived where access is internalized using the shared circulation system of the principal development or retail center. In such cases the right of direct access to the roadway shall be dedicated to the City of Radcliff and recorded with the deed.

5.14 Non-Conforming Access Features

- A. Permitted access connections in place as of December 3, 2009, that do not conform with the standards herein shall be designated as nonconforming features and shall be brought into compliance with applicable standards under the following conditions:
 - 1. Subdivision plats and improvement plans are required;
 - 2. Site plans are required;
 - 3. Driveway apron permits are required;
 - 4. Significant change in trip generation; or
 - 5. As roadway improvements allow.
- B. If the principal activity on a property with nonconforming access features is discontinued for a consecutive period of 180 days or discontinued for any period of time without a present intention of resuming that activity, then that property must thereafter be brought into conformity with all applicable connection spacing and design requirements, unless otherwise exempted by the permitting authority. For uses that are vacant or discontinued upon the effective date of this code, the 180 day period begins on the effective date of this code.

5.15 Flag Lots

Flag lots are not permitted. Interior parcels shall be required to obtain access via a public or private street in accordance with the Radcliff Subdivision Regulations. Minimum street frontage requirements for each lot must be met in accordance with the corresponding zoning classification for each property.

5.16 Reverse Frontage Lots

- A. Access to double frontage lots shall be required on the street with the lower functional classification.
- B. When a residential subdivision is proposed that would abut an arterial, it shall be designed to provide through lots along the arterial with access from a

backage road or interior local road. Access rights of these lots to the arterial shall be dedicated to the City of Radcliff and recorded with the deed.

5.17 Interchange Areas

- A. New interchanges or significant modification of an existing interchange will be subject to special access management requirements to protect the safety and operational efficiency of the limited access facility and the interchange area, pursuant to the preparation and adoption of an access management plan. The plan shall address current and future connections and median openings within 1/4 mile of an interchange area (measured from the end of the taper of the ramp furthest from the interchange) or up to the first intersection with an arterial road, whichever is less.
- B. The distance to the first connection shall comply with the minimum driveway spacing standards. However, no connection will be less than 400'. This distance shall be measured from the end of the taper for that quadrant of the interchange.
- C. The minimum distance to the first median opening shall be at least 1200 feet as measured from the end of the taper of the egress ramp.

5.18 Emergency Access

In addition to minimum side, front, and rear yard setback and building spacing requirements specified in the Radcliff Zoning Ordinance and Development Regulations, all buildings and other development activities such as landscaping, shall be arranged on site so as to provide safe and convenient access for emergency vehicles.

5.19 Transit Access

In commercial zoning districts where transit service is available or is planned to be available within five years, provisions shall be made for adequate transit access, in the form of turn around loops or turnout bays. At a minimum, in the case of a loop or cul-de-sac, entrance curves shall have a radius of 35 feet, and the internal circle shall have an inside radius of 30 feet and an outside radius of 52.5 feet. In the case of turnout bays, the curve radius shall be 35 feet the distance from the roadside edge to the inside edge of the outside radius shall be 52.5 feet.

5.20 Traffic Studies

The City of Radcliff reserves the right to require traffic and safety analysis studies where safety is an issue or where significant problems already exist.