

# *Chapter 4*

## Existing Conditions



## Chapter 4.

# Review of Existing Conditions

An assessment of existing conditions included an inventory of current use, bicycle and pedestrian facilities and related plans, policies and programs that affect bicycle and pedestrian travel in the region. The inventory revealed progress being made toward becoming a bicycle and pedestrian-friendly region – both “on the ground” and through the level of public and official support.

### 4.1 Bicycle and Pedestrian Trends

A review was conducted of bicycle and pedestrian travel in the region to determine how frequently people are bicycling and walking. The number, type and location of bicycle and pedestrian-related traffic collisions were also reviewed to identify roadways with unsafe conditions.

#### Bicycling and Walking in the Region

The total number of trips (for all purposes) made in the region by bicycling and walking is unknown; however, information on work-related bicycle and pedestrian trips is available through the U.S. Census. In Jessamine County, the number of walking commutes has continued to decline, from 5.5% in 1990 to 3.4% in 2000. In Fayette County, walking commutes have also declined, from 5.1 to 4.0%. Pedestrian commuting in the region exceeded the national and state averages of 2.7 and 2.1% in the year 2000.

Commutes by bicycle in Jessamine County increased slightly between 1990 and 2000 from 0.09% to 0.14%, while Fayette County saw a 40% increase from 0.35 to 0.57%. Bicycling in Fayette County exceeded the national and state averages of 0.44 and 0.17% in the year 2000. Figures depicting where commuters lived in 2000 are located in Appendix A.

The U.S. Census does not provide information on the number of trips made by bicycling or walking for recreation and for other utilitarian purposes, such as trips to the store, the park, or a friend’s home. Studies show that these utilitarian trips represent four out of five trips, so a random sample travel survey is needed to accurately determine the total number of bicycling and walking trips in the region. While the survey conducted for this plan, as described in Chapter 3,

provides insight into how often respondents bike and walk and for what purposes, the survey was self-selective and not representative of the overall region.

### Pedestrian and Bicycle Crashes

Crash data was provided by the Lexington Area MPO for a three-year period from January 1, 2003, through December 31, 2005. The information was evaluated to determine trends during this period.

#### *Fayette County / Pedestrian*

- Motor vehicle crashes involving a pedestrian: 404
- Number of crashes with injury: 363
- Number of crashes with fatality: 11

#### *Jessamine County / Pedestrian*

- Motor vehicle crashes involving a pedestrian: 23
- Number of crashes with injury: 20
- Number of crashes with fatality: 1

#### *Fayette County / Bicycle*

- Motor vehicle crashes involving a cyclist: 182
- Number of crashes with injury: 132
- Number of crashes with fatality: 1

#### *Jessamine County / Bicycle*

- Motor vehicle crashes involving a cyclist: 13
- Number of crashes with injury: 9
- Number of crashes with fatality: 2

More information on crashes and crash conditions in each county is provided in Appendix A.



## 4.2 Walkability

Pedestrian-friendly communities share many characteristics that encourage walking, including pedestrian-oriented roadway design, site design and land use patterns. Walkable communities have convenient facilities (sidewalks, crosswalks and trails) that allow pedestrians to walk to destinations easily and safely.

### Roadway Design

Pedestrian-scaled streets are designed to encourage appropriate traffic speeds and volumes, provide a buffer between pedestrians and traffic, and provide interest and comfort for the pedestrian (such as shade trees and pedestrian-scale lighting).

Traffic speeds dramatically affect a pedestrian's actual and perceived sense of safety. Pedestrians struck by a motor vehicle traveling at 40 miles per hour (mph) will be fatally injured 85% of the time. Reducing speeds to 30 mph reduces the risk of death to 45%. Only 5% of pedestrians struck by vehicles traveling at 20 mph are fatally injured. Therefore, it is desirable to reduce vehicle speeds in areas where pedestrians are present, especially in neighborhoods and near schools and parks.

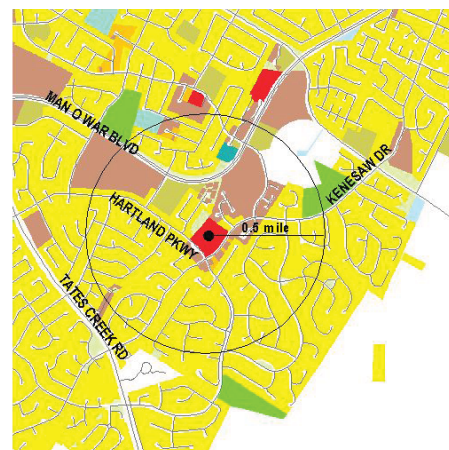
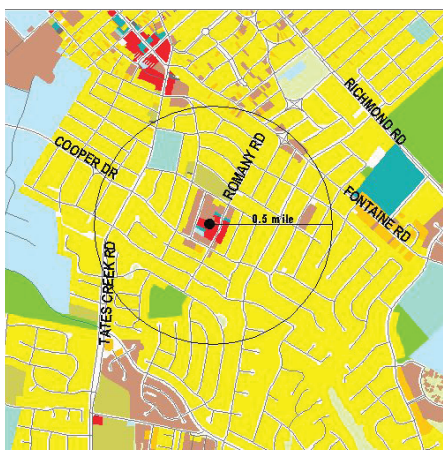
Vehicle speeds are most influenced by roadway design rather than posted speed limits. A narrow, curvilinear street with on-street parking and street trees slows traffic and creates a pedestrian-friendly atmosphere. Neighborhood and residential collector streets that are wide and straight and have very little on-street parking encourage fast moving traffic. These streets frequently receive requests for traffic calming measures.

In response to traffic calming requests, LFUCG initiated a Neighborhood Traffic Calming Program in the year 2000. Engineering studies are required to determine if traffic calming is warranted and neighborhoods must contribute to the cost of installing the recommended calming measures. Funding for the program is approximately \$40,000 annually. There are currently 50 active projects and many inquiries into the program each year.

In Fayette County, street trees and landscape buffers are required between the street pavement and sidewalk in residential areas. There is a provision for narrower streets in traditional neighborhood developments and the expansion area. Pedestrian-scale street lighting is not required, but is provided in the downtown area. A city-wide 25 mph speed limit has been initiated on local neighborhood streets, unless they are signed otherwise.

### Development Patterns and Design

Land use patterns have a significant affect on walkability. Neighborhoods that are compact (higher in density) and have mixed land use have been shown to increase bicycling and walking rates. Such areas have neighborhood-oriented commercial centers and destinations including schools, parks and workplaces within walking distance to where people live. Examples of walkable and less walkable neighborhoods are shown in the figures below.

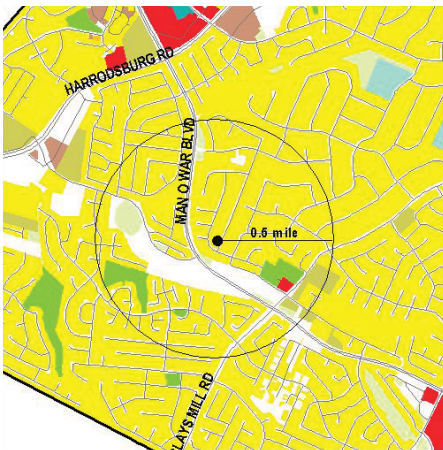


Shown above are Romany Road (left) and Hartland Shopping Center (right) areas, good examples of residential areas with neighborhood-oriented shopping centers and a mix of low and high density housing nearby.

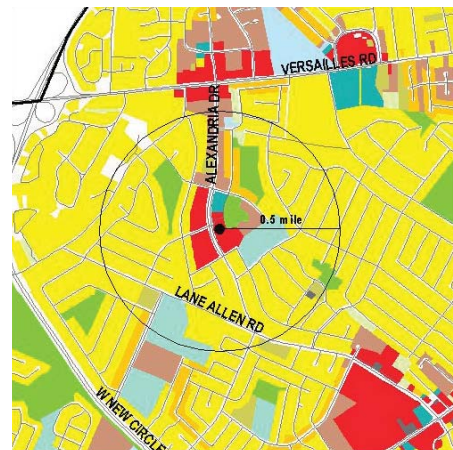


In the Lexington Area MPO region, commercial development is particularly concentrated along the US 27 corridor, the major arterial connecting Fayette and Jessamine Counties. This corridor is auto-oriented with big-box developments and strip shopping centers that are inaccessible to pedestrians due to a lack of continuous sidewalks. There are also deep building setbacks, with large parking lots that separate building entrances from the street, sidewalks and transit stops.

Street patterns and connectivity also influence walkability. Pedestrians are sensitive to long trip distances and out-of-direction travel. Well-connected streets with short blocks provide pedestrians with more direct access to their destination and a variety of routes from which to choose. The two figures on the following page depict how different street patterns found in Fayette County can influence travel distance.



*This single-family residential area in southwest Fayette County does not have access to neighborhood shopping. Palomar Shopping Center is nearby, but is oriented to Harrodsburg Road, a major arterial that acts as a barrier to pedestrians.*



*Gardenside Shopping Center is an example of a mixed neighborhood with schools, parks, professional offices and high and low density housing in close proximity. Many residences are within walking distance to shopping; however the commercial area is oriented more to the major collector street (Alexandria Dr.) than the neighborhood.*



*Pedestrian oriented shopping facility*



*Large parking lot separates pedestrian path from the front door of the business*







*Good and poor street connectivity: new development in north-east Fayette County on the left, development in southeast Fayette County on the right. The two starred properties in the right image are less than one-tenth of a mile apart, yet the walking distance, using the roadway system, is greater than one mile because of the preponderance of cul-de-sac street configurations.*

## Sidewalks

Sidewalks are needed for safe pedestrian travel on all roadways which allow pedestrian traffic. Studies have indicated that fewer pedestrian crashes occur along roadways with sidewalks on both sides of the street compared to streets with no sidewalks or sidewalks on one side only. The location of existing and missing sidewalks in Fayette and Jessamine Counties are depicted in figures 9 and 10.

Sidewalks should be of an adequate width, level, slip-resistant and free of obstacles to provide for safe travel, especially for seniors and people with visual and mobility impairments. A 2005 survey reviewed the condition of the sidewalks on 65% of Fayette County's roadways. The survey revealed that 15% of sidewalks were in poor condition, 40% were in fair condition and 44% were in good condition.

*Table 1. Sidewalks in Fayette and Jessamine Counties*

	Fayette County		Jessamine County	
	Arterial	Collector	Arterial	Collector
No sidewalks	38.1%	10.9%	57.9%	60.9%
Sidewalk on one side	14.9%	7.7%	3.5%	8.2%
Sidewalk on both sides	46.9%	81.3%	38.5%	31%

In Fayette County, 38.1% of arterial streets do not have sidewalks and 14.9% have sidewalks on only one side of the street. In Jessamine County 57.9% of arterials do not have sidewalks on either side of the street. Table 1 depicts the percentages of pedestrian accommodation on arterial and collector streets in each county.

In Fayette and Jessamine Counties, four-foot sidewalks are required in all new subdivisions. The Jessamine County/Wilmore Planning Commission also requires five-foot sidewalks on non-residential collector streets. Waivers to the sidewalk requirements may be granted by each jurisdiction's Planning Commission. Fayette County permits waivers in any development. The Jessamine Wilmore Planning Commission may grant sidewalk waivers in single-family residential develop-





*Coordination is essential - this sidewalk leads directly to a fence around Crawford Middle School property*



*Sidewalk ends along an arterial road*

ments. The Nicholasville Planning Commission allows sidewalk waivers in industrial developments.

Sidewalk maintenance is the responsibility of adjacent property owners in both Fayette and Jessamine County. Local governments are responsible for enforcing maintenance requirements. In Fayette County, the number of Code Enforcement Officers tasked with ensuring sidewalk maintenance has declined over the past five years to one individual. The reduction in staff has resulted in a complaint-driven enforcement pro-



*Fayette County sidewalk in poor condition*

cess. Annual (or bi-annual) proactive sweeps of the city to ensure sidewalk maintenance are not possible, but are desirable.

Fayette County has established a sidewalk assistance program that reimburses property owners 50% of the cost of sidewalk replacement. Funding for the program has decreased dramatically over the last five years from approximately \$300,000 to \$75,000 annually.

## Intersections

The ability and ease of crossing the street impacts the walkability of a community. Safe pedestrian crossings should be provided at intersections. Mid-block crossings should be provided where it is difficult for pedestrians to cross the street to reach key destinations (and where an intersection crossing is not provided nearby). Several recent national studies have provided guidance on appropriate treatments at mid-block crossings so that pedestrian safety is not compromised. Currently, neither LFUCG nor the Kentucky Transportation Cabinet typically install mid-block pedestrian crossings.

Large curb radii and multiple lanes of vehicular traffic increase the length of an intersection that a pedes-



*Difficult intersection with crossing distance of 150 feet*



*Missing mid-block crosswalk between two trail segments in Beaumont subdivision*





trian must successfully navigate. Curb extensions (or bulb-outs) and median refuges can shorten this span on busy streets. Lexington has curb extensions in the downtown area and in some newer developments. The intersection of Richmond Road and Chinoe Road is an example of a median that acts as a pedestrian refuge.



*Median serves as a pedestrian refuge at intersection of Richmond and Chinoe Roads*

Intersections and mid-block crossings should include crosswalks that are wide enough to accommodate pedestrian traffic; should be well-marked by signage and striping; signaled appropriately; and should be ADA compliant.

## Intersection Audits

Sixty intersections were audited in 2006-2007. The intersections selected for evaluation were geographically distributed and representative of each of the following environments in each county:

- Suburban commercial
- Suburban non-commercial
- Urban commercial
- Urban non-commercial

The sample audits noted the presence and visibility of crosswalks; the presence of sidewalks; the presence of pedestrian signals; accessibility of pedestrian actuators; curb ramps and other factors. Thirty intersection audits were performed for each county. This represents a small number of all signalized intersections in each county. Table 2 below depicts the results of some of the data collected for the 60 intersections. Table 3 on the next page depicts the results of five criteria used to determine if curb ramps were ADA compliant. Assuming compliance equates to meeting all five criteria, it can be stated that, in general, curb ramps are not ADA compliant in either county.

*Table 2. Intersection Audit Data for Fayette and Jessamine Counties*

	Fayette County	Jessamine County
Percentage of signalized intersections with crosswalks	93.3%	75%
Crosswalk Condition		
Poor	22.1%	0%
Fair	30.9%	84%
Good	47.0%	16%
Average Crosswalk Distance		
Arterial Street	79.5 feet	68.2 feet
Collector Street	52.6 feet	57.7 feet
Local Street	50.2 feet	32.1 feet
Presence of Pedestrian Signals at Signalized Intersections	76.5%	50%
Presence of Accessible Pedestrian Signal Actuators	84.6%	100%
Percentage of Intersections that have Sidewalks on all Approaches	76.7%	33.3%
Percentage of Sidewalks that have Curb Ramps	88.5%	67.2%



It should be noted that the presence of pedestrian crossing features, such as crosswalks, signals and curb ramps, may not be a direct indicator of whether the public perceives a location to be a safe crossing. Intersections located on major arterials such as Nicholasville Road at Reynolds Road and Man O War at Harrodsburg Road were found to have good pedestrian infrastructure. However, high traffic volumes, multiple travel lanes to cross, and aggressive or distracted drivers may lead people to feel unsafe.

The figures on the following pages depict some of the quantifiable existing conditions affecting the walkability of Fayette and Jessamine Counties. These figures consist of land use in Fayette and Jessamine Counties (figures 2 and 3); the availability of public transportation in Fayette County (figure 4); schools, community centers and libraries in Fayette and Jessamine Counties (figures 5 and 6); recreation areas in Fayette and Jessamine Counties (figures 7 and 8); absent pedestrian facilities in Fayette and Jessamine Counties (figures 9 and 10); and absent pedestrian facilities along major roads in Fayette and Jessamine Counties (figures 11 and 12). Figures showing the intersections audited in Fayette and Jessamine Counties are located in Appendix A.

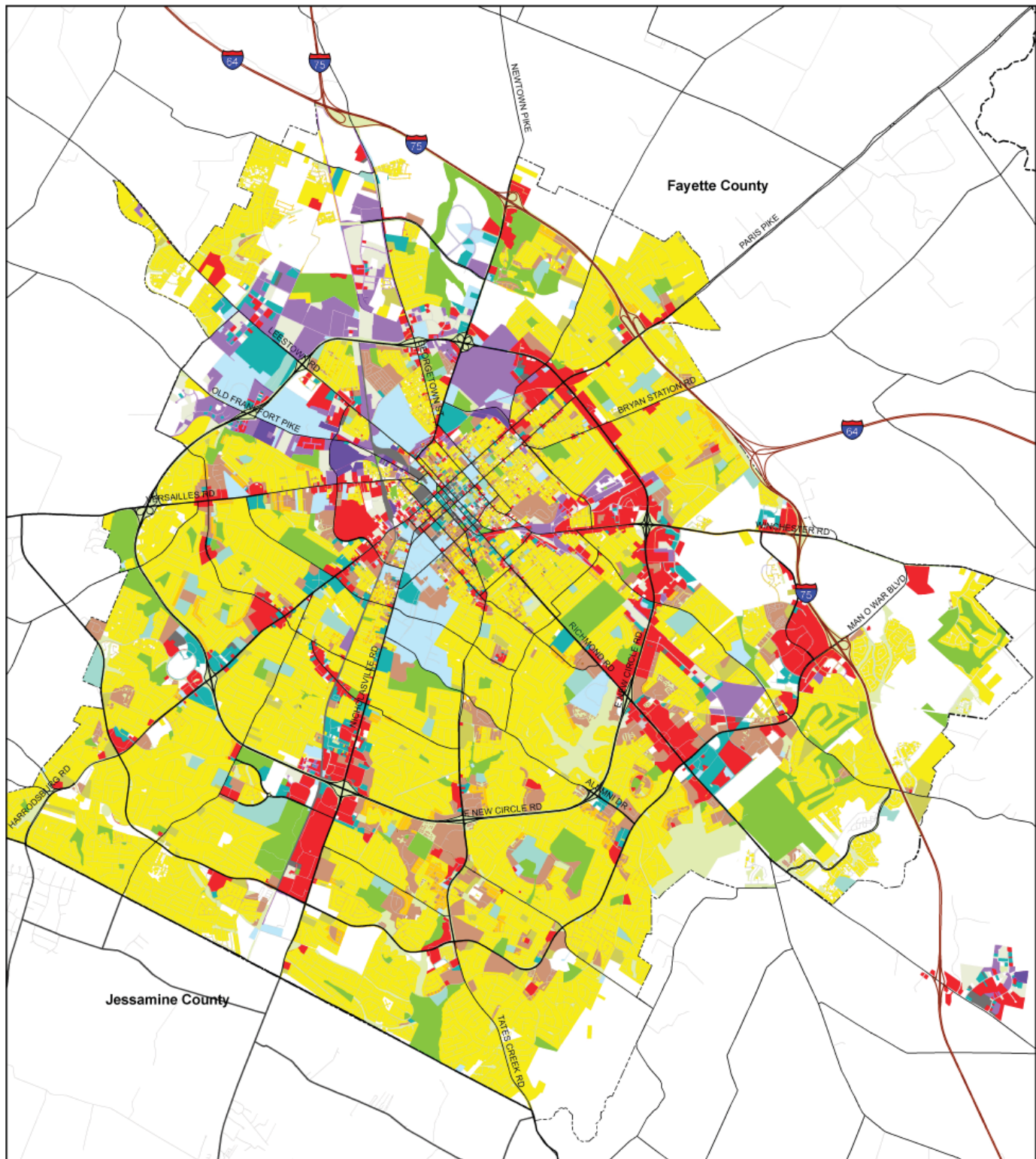
*Table 3. Compliance of Curbs with ADA Criteria*

<b>Number of Criteria Met</b>	<b>Fayette County</b>	<b>Jessamine County</b>
0	5.1%	2.6%
1	2.8%	2.6%
2	9.0%	40.3%
3	19.2%	20.8%
4	53.7%	20.8%
5	10.2%	13.0%





Figure 2. Land Use in Fayette County Urban Service Area



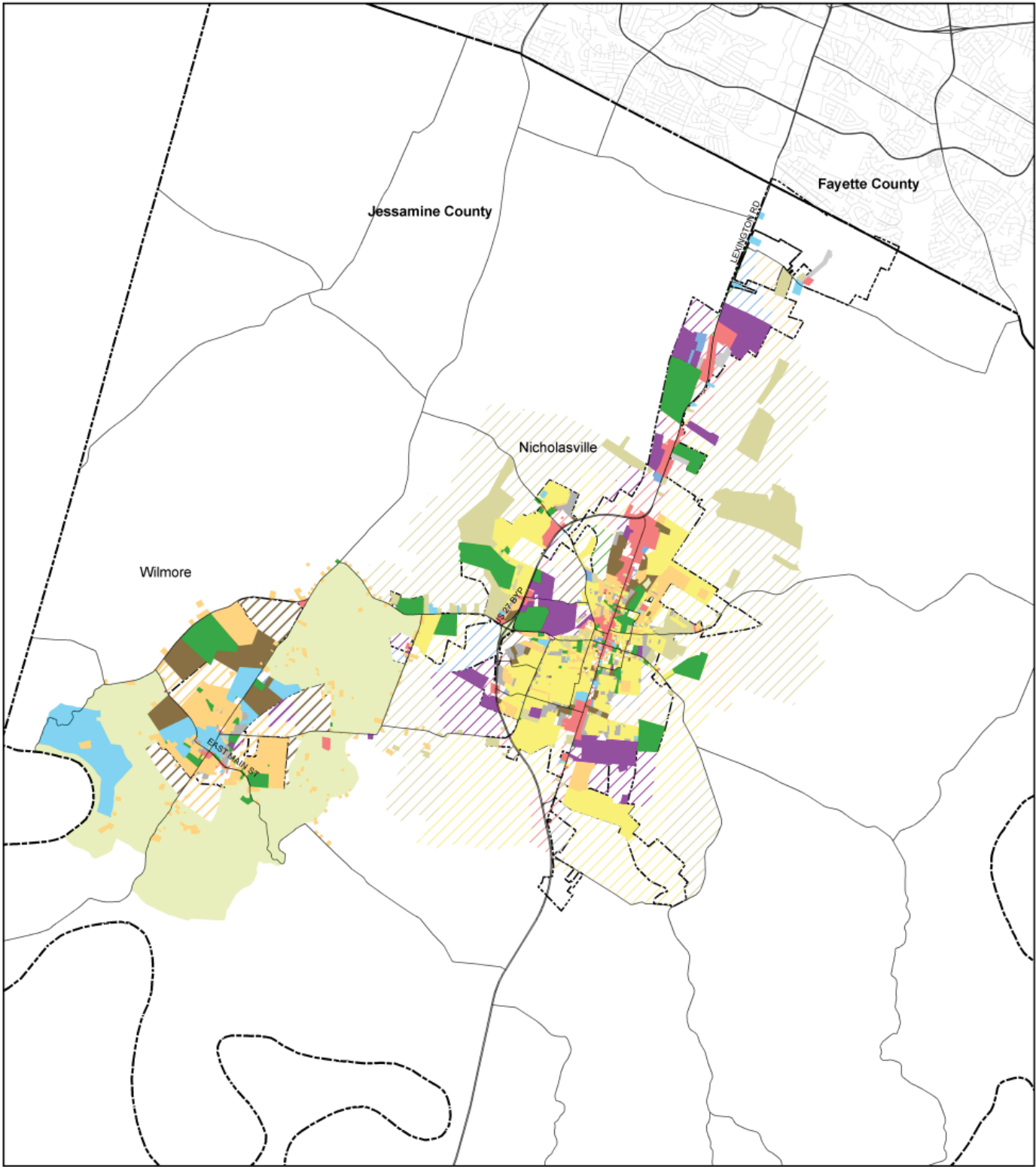
### Legend

- |                        |                    |                    |
|------------------------|--------------------|--------------------|
| Urban Service Area     | Commercial         | Schools            |
| Single Family          | Mixed use          | Greenspace         |
| Duplex housing         | Light Industrial   | Parking lot        |
| Townhomes              | Heavy Industrial   | Recreation         |
| Multi-family housing   | Warehouse          | Vacant lot         |
| Lodging/Group quarters | Places of Worship  | Interstate         |
| Professional Office    | Public/Semi-public | Arterial/Collector |
|                        |                    | Other Road         |

Source: KYTC, KYGEONET, NTAD (2005) and LFUCG (2006)



Figure 3. Land Use in Jessamine County



**Legend**

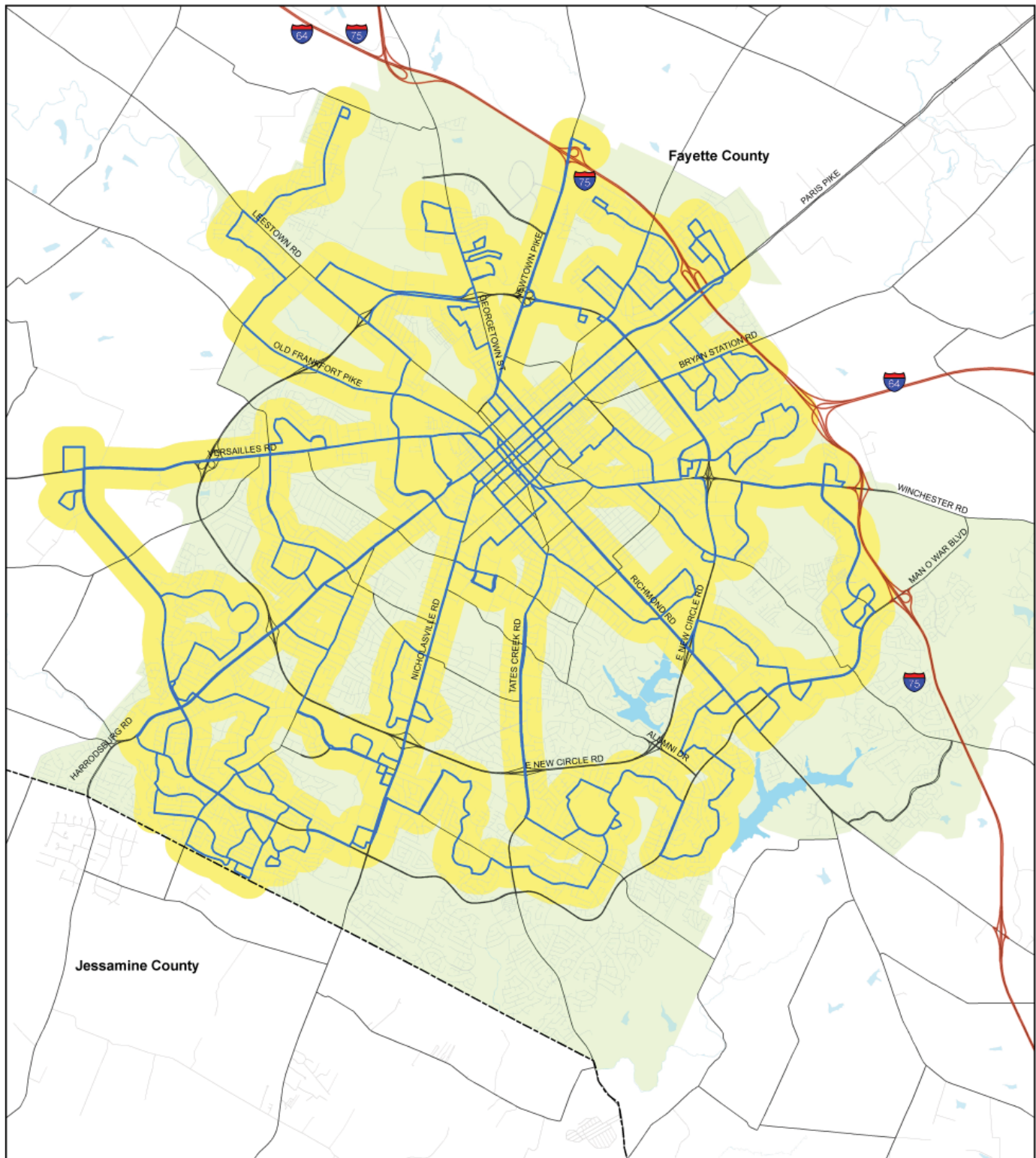
- |                               |                                   |                                     |
|-------------------------------|-----------------------------------|-------------------------------------|
| Urbanized Area                | Low Density Residential           | Future Professional Office          |
| Commercial                    | Future Low Density Residential    | Public/Semi-Public                  |
| Future Commercial             | Medium Density Duplex             | Future Public/Semi-Public           |
| High Density Townhomes        | Future Medium Density Duplex      | Undeveloped / Agricultural          |
| Future High Density Townhomes | Medium Density Residential        | Very Low Density Residential        |
| Industrial                    | Future Medium Density Residential | Future Very Low Density Residential |
| Future Industrial             | Mobile Homes                      | Arterial/Collector Road             |
| Institutional                 | Professional Office               |                                     |

Source: KYTC, KYGEONET, NATD (2005) and BGADD (2006)





Figure 4. Public Transportation in Fayette County



#### Legend

- Lextran Routes
- 1/4 Mile Walk
- Urban Service Area
- Water
- Interstate
- Arterial/Collector Road
- Other Road

Source: KYTC, KYGEONET, NTAD (2005), LFUCG (2006/2008) and PB Analysis (2008)

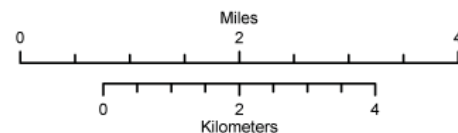
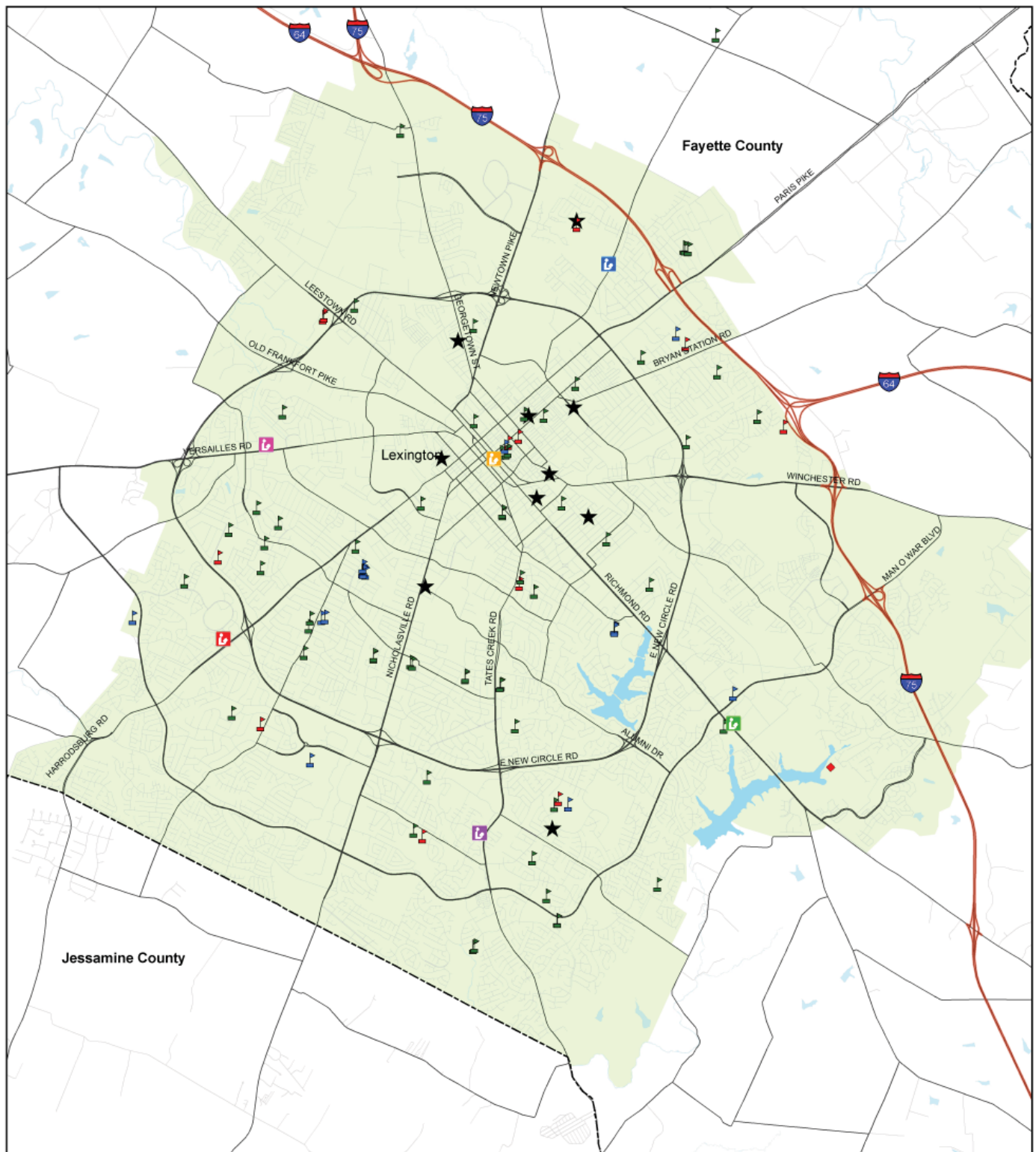


Figure 5. Schools, Community Centers, and Libraries in Fayette County



### Legend

- |                   |                    |                         |
|-------------------|--------------------|-------------------------|
| High School       | Beaumont Branch    | Water                   |
| Middle School     | Central Library    | Urban Service Area      |
| Elementary School | Eagle Creek Branch | Interstate              |
| Community Center  | Northside Branch   | Arterial/Collector Road |
|                   | Tates Creek Branch | Other Road              |
|                   | Village Branch     |                         |

Source: KYTC, KYGEONET, NTAD (2005) and LFUCG (2006)

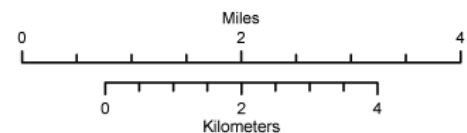
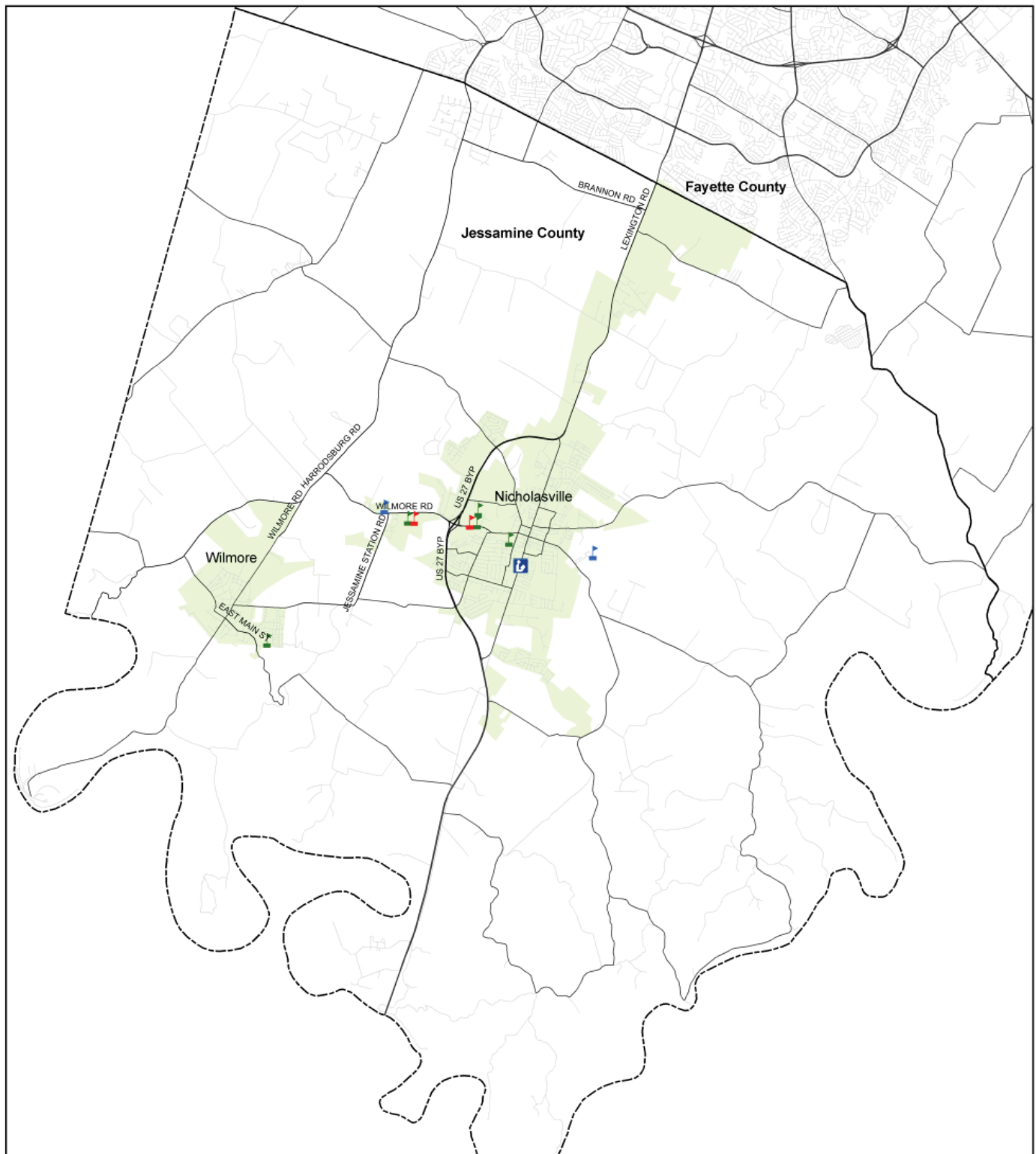





Figure 6. Schools, Community Centers, and Libraries in Jessamine County



**Legend**

-  High School
-  Middle School
-  Elementary School
-  Main Library
-  Urbanized Area
-  Arterial/Collector Road
-  Other Road

Source: KYTC, KYGEONET, NTAD (2005) and BGADD (2006)

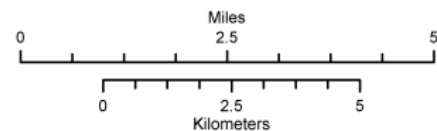
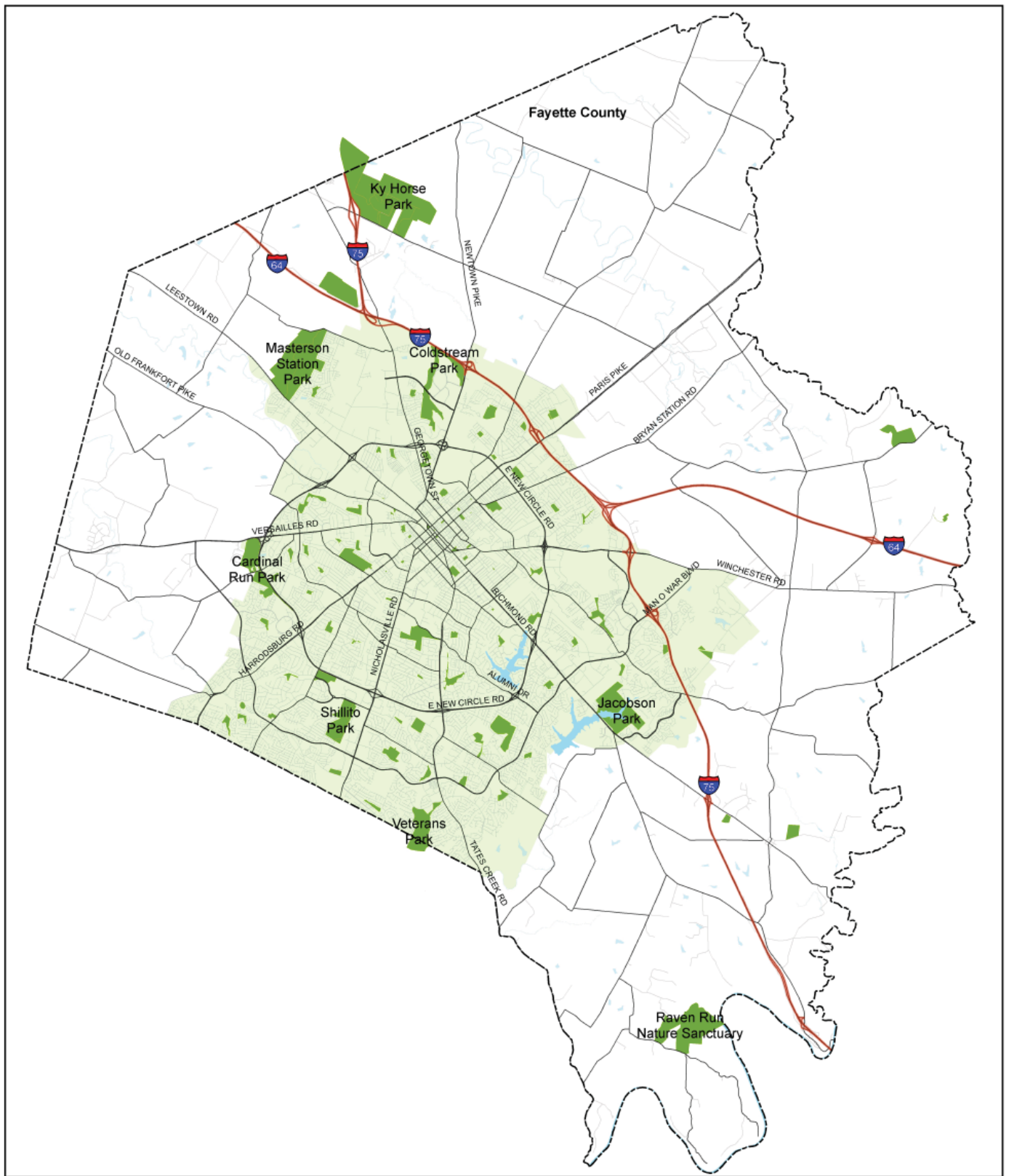
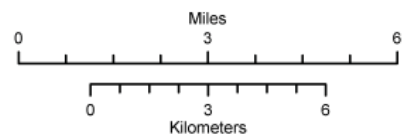


Figure 7. Recreation Areas in Fayette County



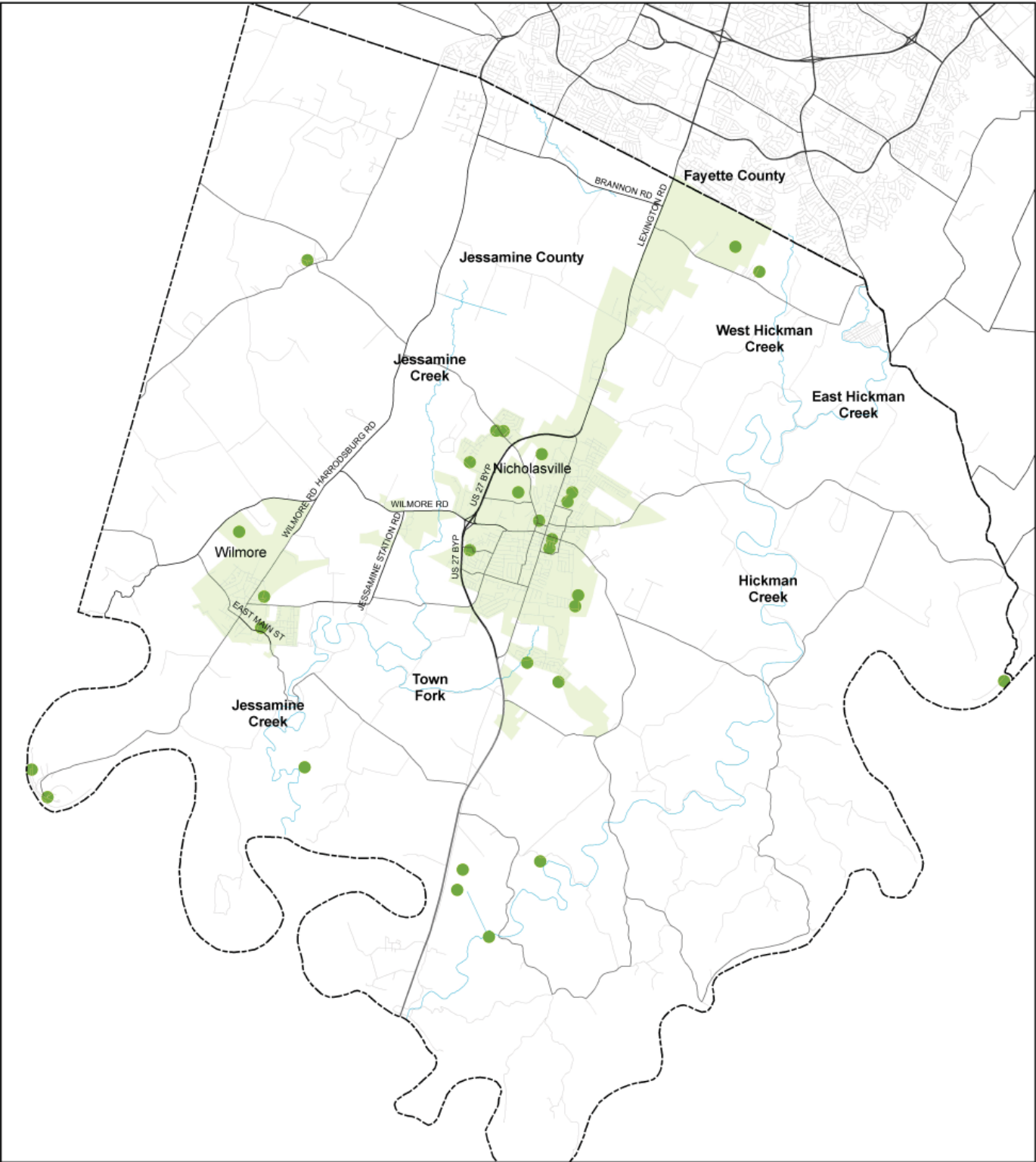
**Legend**

- Water
- Parks
- Urban Service Area
- Interstate
- Arterial/Collector Road
- Other Road



Source: KYTC, KYGEONET, NTAD (2005) and LFUGG (2006)

Figure 8. Recreations Areas in Jessamine County



**Legend**

- Parks
- Creeks
- Urbanized Area
- Arterial/Collector Road
- Other Road

Source: KYTC, KYGEONET, NTAD (2005) and BGADD (2006)

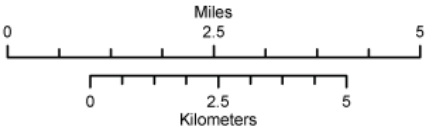
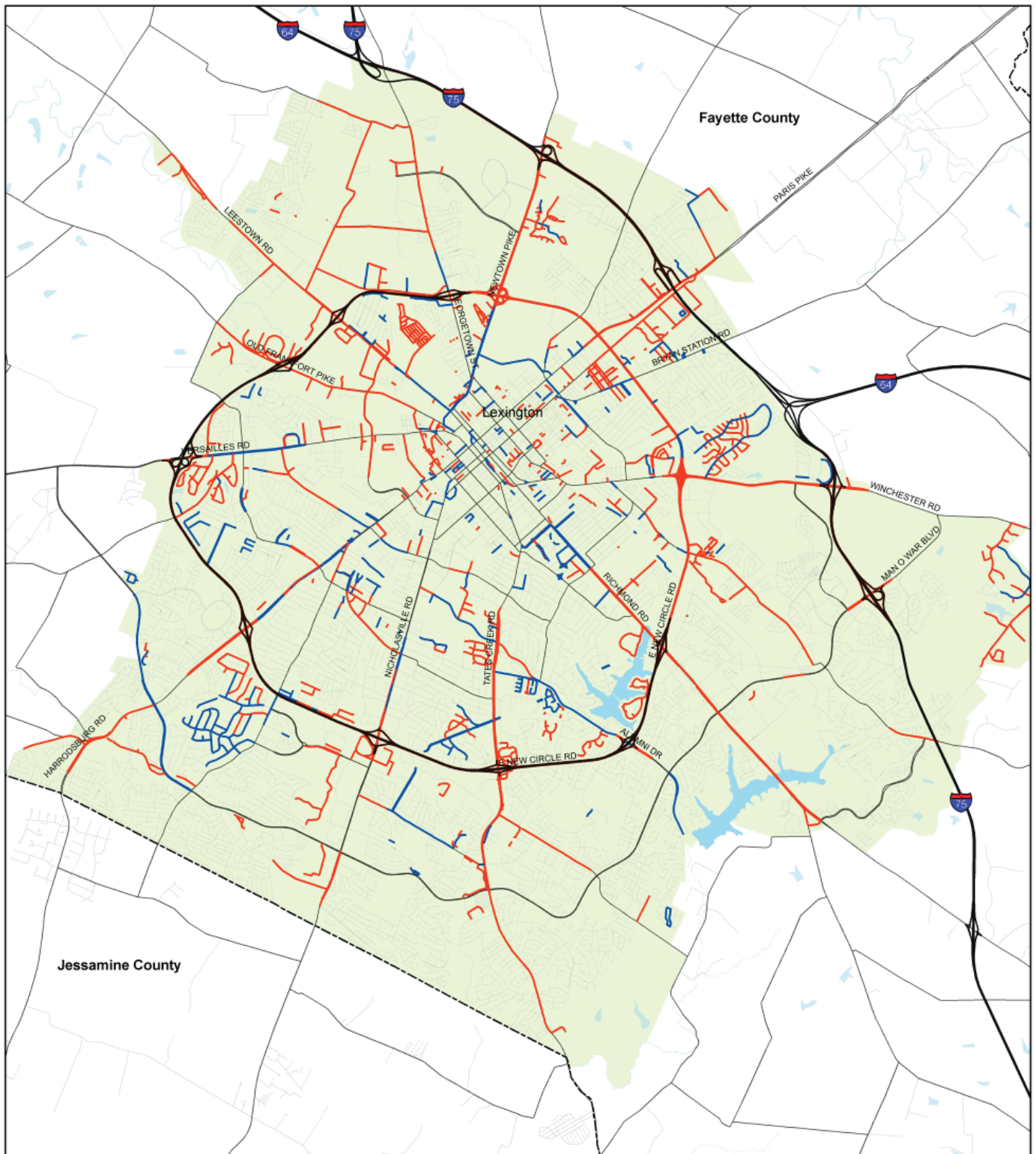




Figure 9. Absent Pedestrian Facilities in Fayette County



### Legend

- Sidewalk Absent Both Sides
- Sidewalk Absent One Side
- Water
- Urban Service Area
- Limited Access Road
- Arterial/Collector Road
- Other Roads

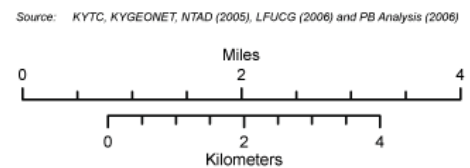
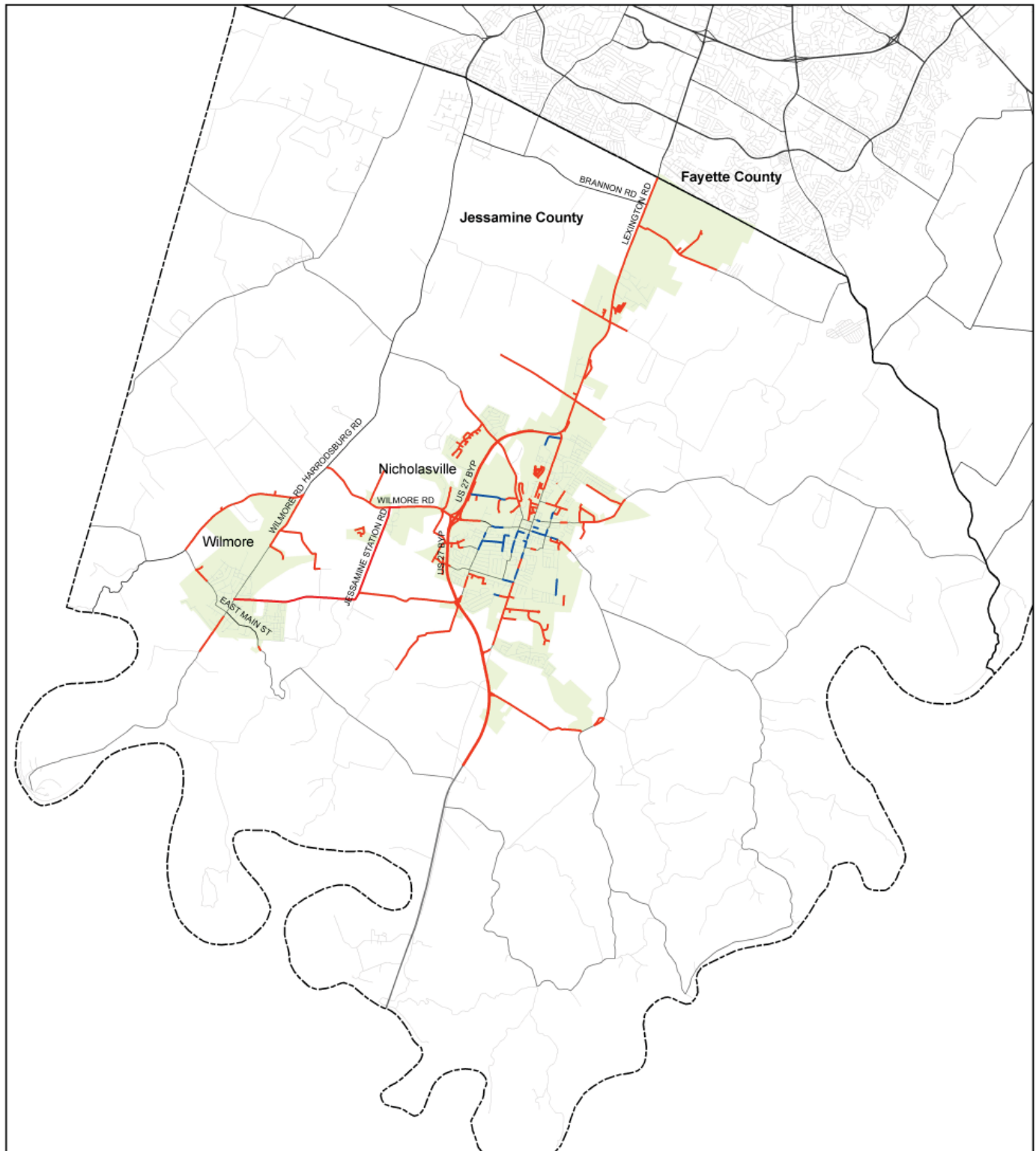




Figure 10. Absent Pedestrian Facilities in Jessamine County



# Legend

- Sidewalk Absent on Both Sides
- Sidewalk Absent on One Side
- Urbanized Area
- Arterial/Collector Road
- Other Road

Source: KYTC, KYGEONET, NTAD (2005), BGADD (2006) and PB Analysis (2006)

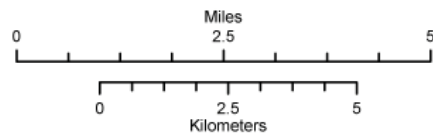
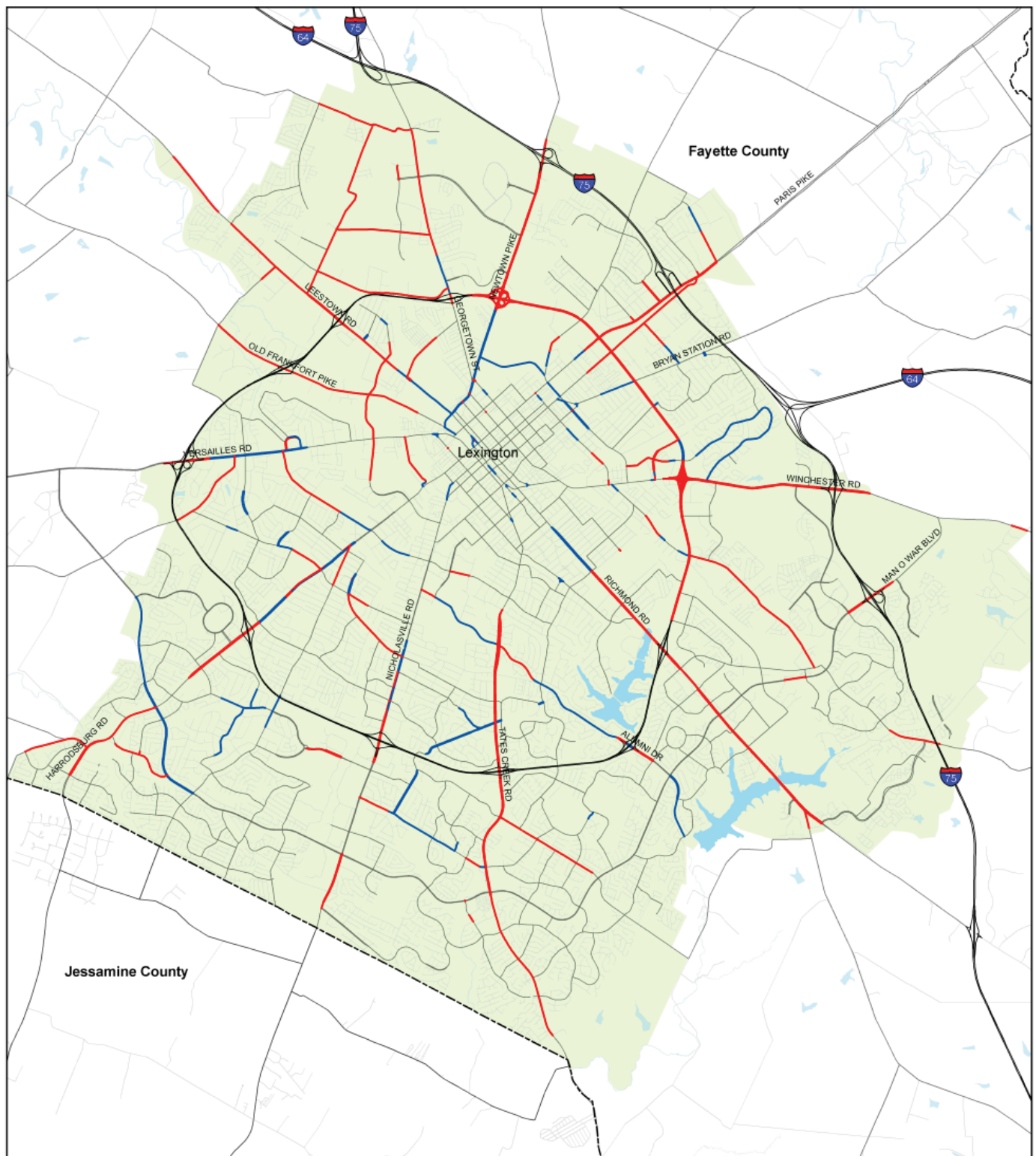


Figure 11. Absent Pedestrian Facilities Along Major Roads in Fayette County



### Legend

- Sidewalk Absent Both Sides
- Sidewalk Absent One Side
- Water
- Urban Service Area
- Limited Access Roads
- Other Roads

Source: KYTC, KYGEONET, NTAD (2005), LFUGG (2006) and PB Analysis (2006)

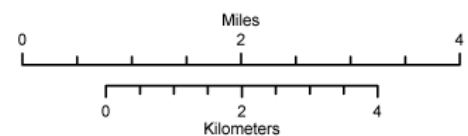
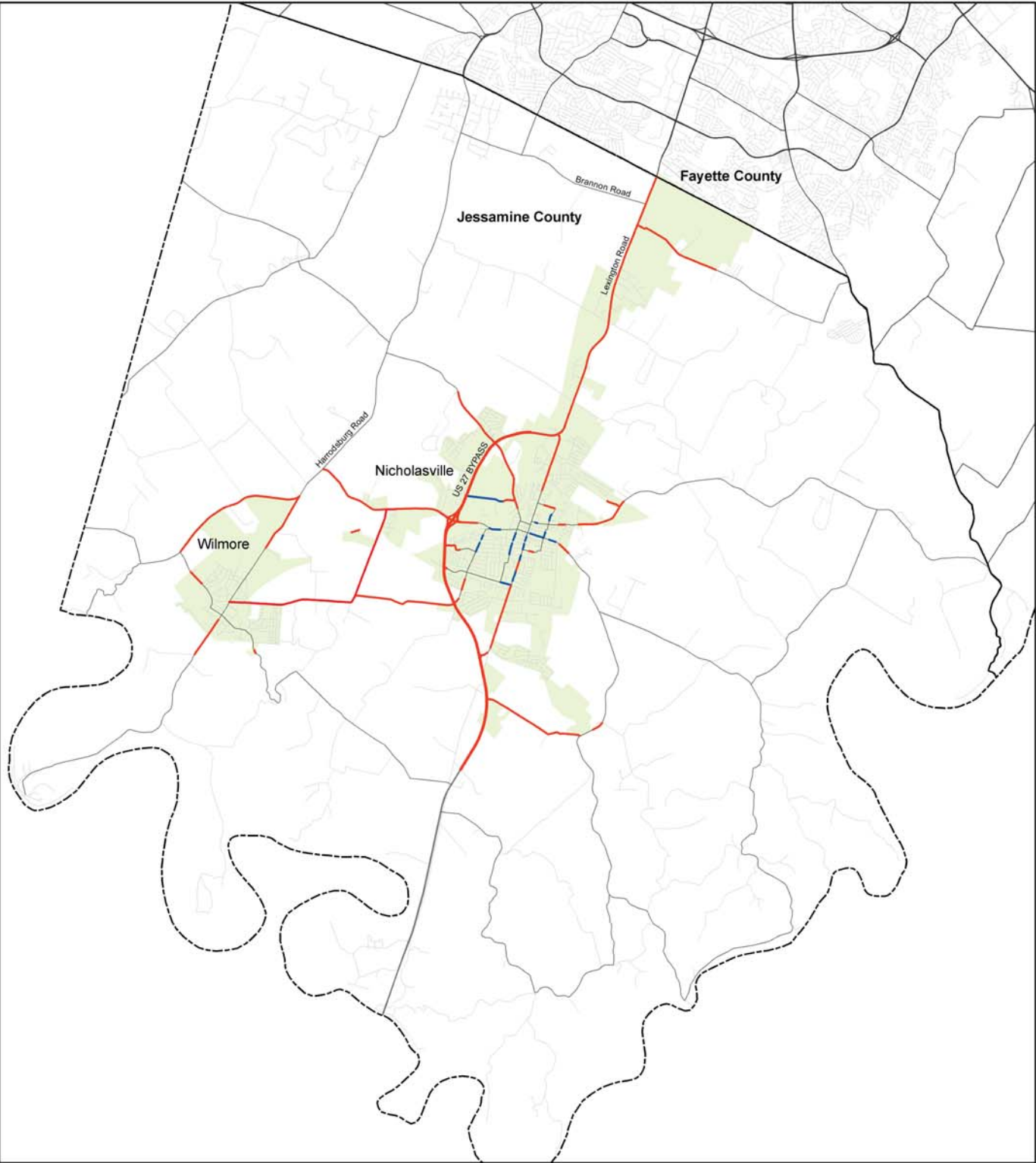


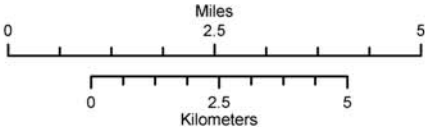
Figure 12. Absent Pedestrian Facilities Along Major Roads in Jessamine County



**Legend**

- Sidewalk Absent on Both Sides
- Sidewalk Absent on One Side
- Urbanized Area
- Arterial/Collector Road
- Other Road

Source: KYTC, KYGEONET, NTAD (2005), BGADD (2006) and PB Analysis (2006)





### 4.3 Bikeability

A bicycle-friendly city ensures safe bicycle access for cyclists of various skill levels and for various types of cycling through off-road trails and on-road bike facilities. Different types of bicycle riding are encouraged throughout the community, including bicycling for recreation, utilitarian trips and transportation. Bicycle-friendly communities provide adequate bicycle parking and have public transit systems that accommodate bicyclists. Bicyclists are easily detected at roadway intersections and can negotiate them safely.

An assessment of existing conditions for bicycling in the MPO region follows.

#### Types of Bicyclists

The American Association of State Highway and Transportation Officials (AASHTO) classifies bicyclists into three categories: A, B and C. Each category describes a bicyclist's skill and comfort level, as well as the types of bike facilities that will best accommodate their needs:

- **A - Advanced** or experienced riders generally use bicycles as they would a motor vehicle. They ride for convenience and speed and want direct access to destinations with minimum detours or delay. They are typically comfortable riding in motor vehicle traffic.
- **B - Basic** or less confident adult riders may use their bikes for transportation purposes, but prefer to avoid roads with fast and busy motor vehicle traffic. Basic riders are comfortable riding on lower volume streets and shared use paths and prefer designated facilities such as bike lanes or wide shoulder lanes.
- **C - Children**, riding on their own or with their parents, may not travel as fast as their adult counterparts but still require access to key destinations in their community. Residential streets with low motor vehicle speeds, linked with shared use paths, and busier streets with well-defined pavement markings, can accommodate children without encouraging them to ride in the travel lane of major roadways.

#### Types of Bicycle Riding

- **Commuting** – Describes bicycle trips to work. Commuter cyclists generally desire direct routes to their destination and very little delay. They require secure bicycle parking and may desire showers and/or changing stations at their place of work.
- **Utilitarian** – Describes bicycle trips to destinations other than a place of work. Bicyclists riding to the store, park or other public facility also require direct access to destinations, but may be more tolerant of some out-of-direction travel and delay. Secure bicycle parking is needed at their destination.
- **Recreational / touring** – Describes bicycle trips for recreation, exercise or tourism. Longer routes are desirable and may include both urban and rural areas. Longer loops and linear routes, and signed (on-road or off-road) routes traversing several counties and/or states is desirable.

#### Types of Bicycle Facilities

The different types of bicycle facilities, as defined by AASHTO, are listed below. Table 4 on the following page depicts a comparison of the types and lengths of bike facilities in Fayette and Jessamine Counties.

- **Shared roadways** – Most bicycle travel currently occurs on these roadways. Signing or striping for bicycle use may be unnecessary for safety, or improvements may be needed before bikeway designation would be appropriate. Unsigned paved shoulders, wide curb lanes, neighborhood streets and rural roads are shared roadways.
- **Signed shared roadways** – Signage may be used to provide continuity to other bicycle facilities or designate preferred routes through high demand corridors.
- **Bike lanes** – Bike facilities established with appropriate pavement markings and signage along street corridors. Bike lanes delineate roadway space for bicyclists. They afford more predictable movements by both drivers and cyclists.





- **Shared use paths** – Trails may offer opportunities not provided by the road system. Trails are designed with bicyclist safety in mind, but other users such as pedestrians and joggers are likely to use these facilities. Recreational walking paths are not classified as shared use paths.



*Winchester Road Shoulder*



*Squires Road Shared Use Path*



*Euclid Avenue Bike Lane*

*Table 4.*

*Bike Facilities in Fayette and Jessamine Counties*

	Fayette County		Jessamine County	
	Existing	Funded	Existing	Funded
Shared roadway				
paved shoulder	15 mi.	7 mi.	18 mi.	1 mi.
wide curb lanes	un-known	n/a	un-known	n/a
Signed routes	4 mi.	0 mi.	0 mi.	0 mi.
Bike lanes	12 mi.	24 mi.	0 mi.	0 mi.
Shared use path	8 mi.	12 mi.	1 mi.	5 mi.

One type of facility will not fit all riders. Ideally, all cyclists, from experienced to novice, should be accommodated for all types of trips, whether for commuting or touring. By law, bicycles are considered a vehicle and have the same rights to the streets as motorized vehicles. Bicycle facilities may be added to certain roadways to add comfort and safety for cyclists, to encourage bicycling by those less inclined to ride with traffic, and where traffic volumes or street geometrics create hazardous conditions.

Existing and funded bike facilities in Fayette County are shown in figure 16. Existing and funded bike facilities in Jessamine County are shown in figure 17.

## **Bicycle Level of Service**

Since there are very few existing bike facilities in Fayette and Jessamine Counties, most bicycling takes place on roadways without designated facilities. A Bicycle Level of Service (BLOS) study was conducted in 2004 on all major streets in Fayette County to determine which ones are currently considered suitable for bicycle riding and which streets are most in need of improvement. The BLOS was determined for arterials and collector streets; local streets are considered to be suitable for bicycling due to low traffic speeds and volumes. The BLOS ratings were used in developing the bicycle facility needs presented in Chapter 5 of this plan.



Table 5. BLOS Ratings

BLOS A	<div style="text-align: center;"> Best Conditions  ↑  ↓  Worst Conditions </div>	Excellent
BLOS B		Good
BLOS C		Adequate - Need Some Improvement
BLOS D		Difficult or Hazardous to Cycle, Require Significant Improvement
BLOS E		
BLOS F		

Bicycle Level of Service is described according to a letter rating system ranging from BLOS 'A' (best conditions) to BLOS 'F' (worst conditions). Table 5 at left depicts this system graphically. The BLOS of a roadway is primarily dependent on traffic volume, motor vehicle speed, width of the outer-most travel lane, the presence or absence of bike facilities, the presence of on-street parking and pavement condition. Segments with an excellent or good BLOS are rated A or B and are considered bikeable for A and B riders. Segments with a BLOS C are considered adequate for bicycling, but may need some minor improvement. Segments with a poor BLOS (BLOS D, E, F) may be difficult or hazardous to cycle, and will require significant improvements to improve their condition. Tables 6 and 7 depict (respectively) the BLOS ratings for arterial and collectors roads in Fayette and Jessamine Counties.

Table 6. BLOS for Fayette County

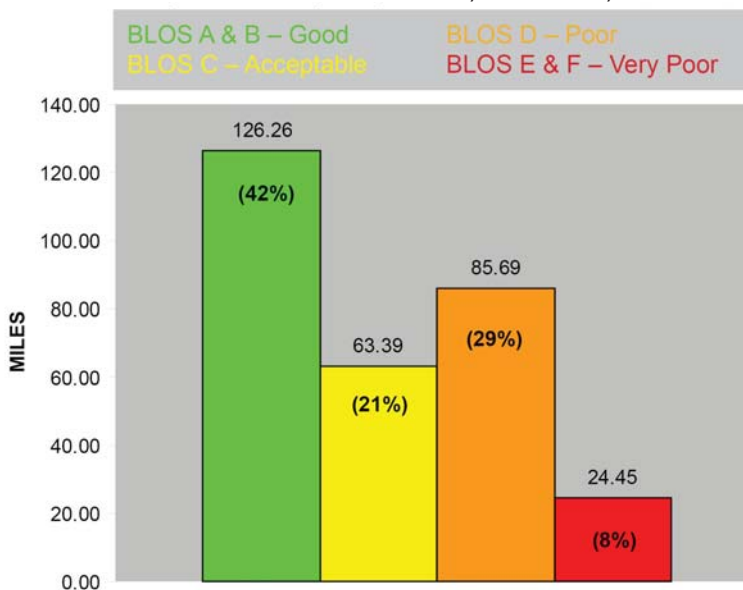
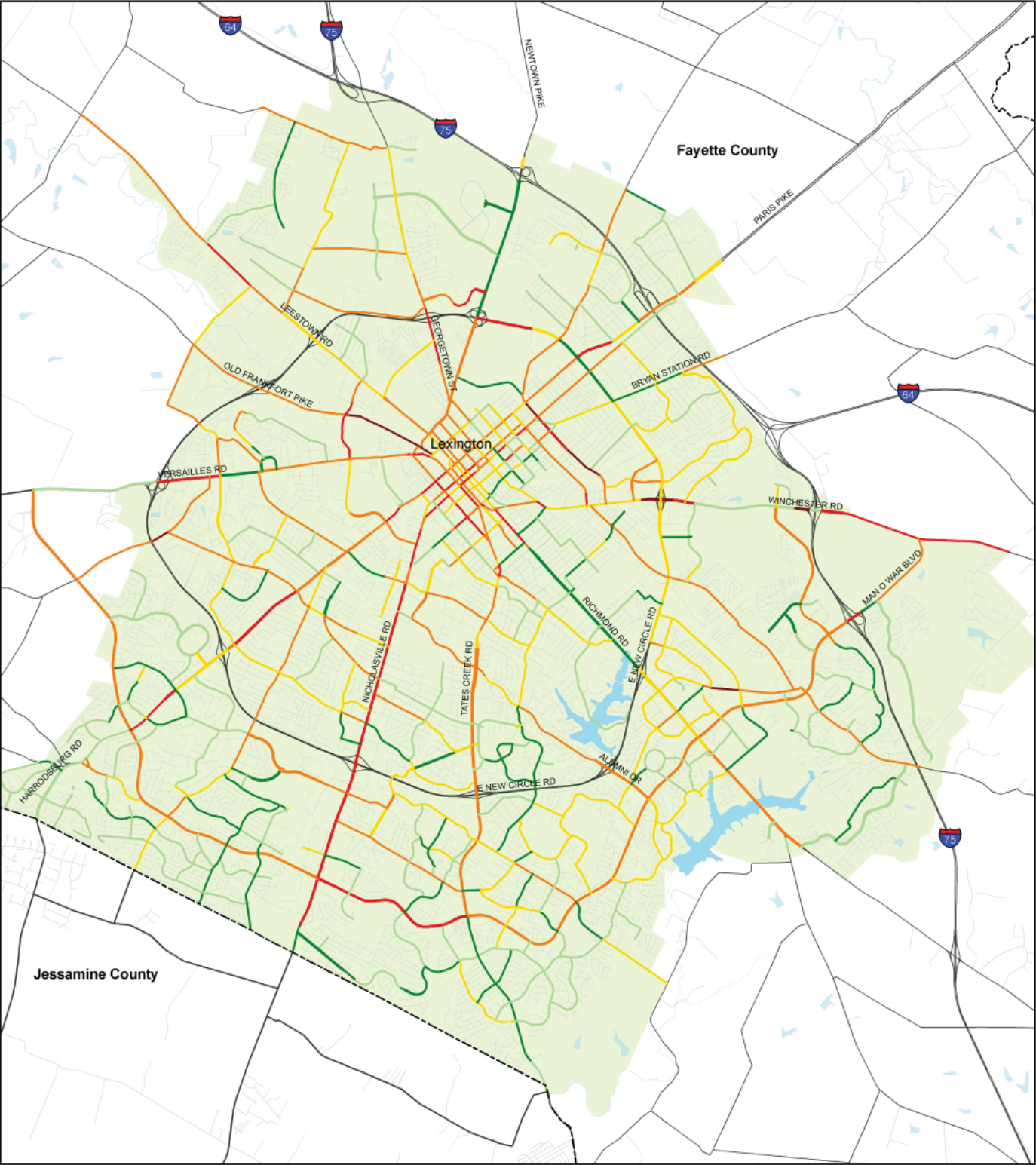


Figure 13 displays the BLOS for the urban service area of Fayette County; figure 14 depicts the BLOS for downtown Lexington. Figure 15 depicts the BLOS for Jessamine County. Many roads in the downtown areas and along most major arterials have poor BLOS ratings (below a BLOS D).

Table 7. BLOS for Jessamine County



Figure 13. Bicycle Level of Service In Fayette County



**Legend**

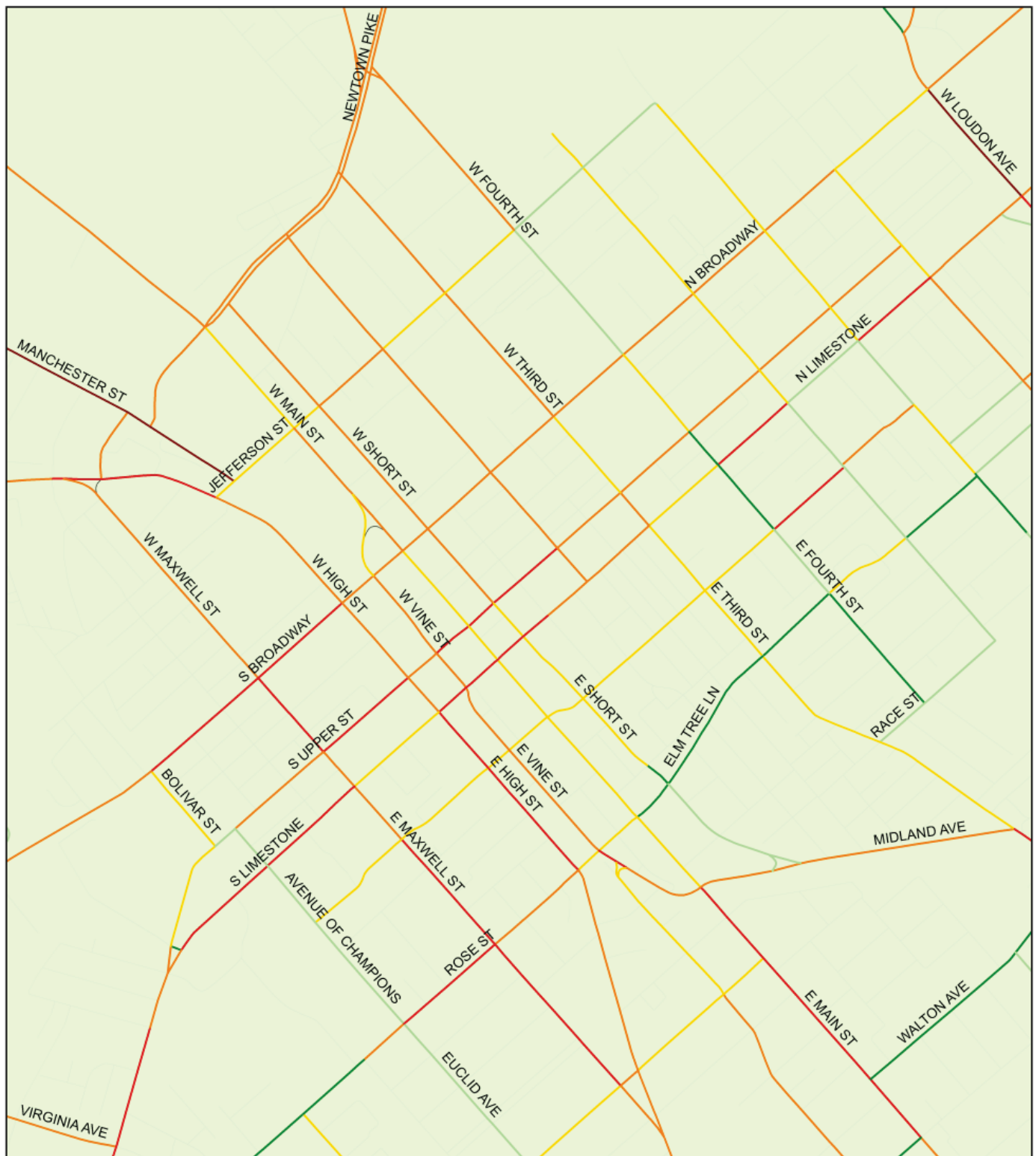
- A Water
- B Urban Service Area
- C Arterial/Collector Road
- D Other Road
- E
- F

Source: KYTC, KYGEONET, NTAD (2005) and LFUCG (2006)





Figure 14. Bicycle Level of Service in Downtown Lexington



**Legend**

- A ■ Urban Service Area
- B — Arterial/Collector Road
- C — Other Road
- D
- E
- F

Source: KYTC, KYGEONET, NTAD (2005) and LFUCG (2006)

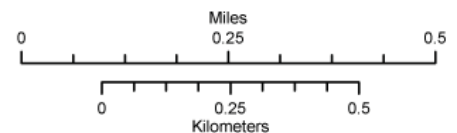
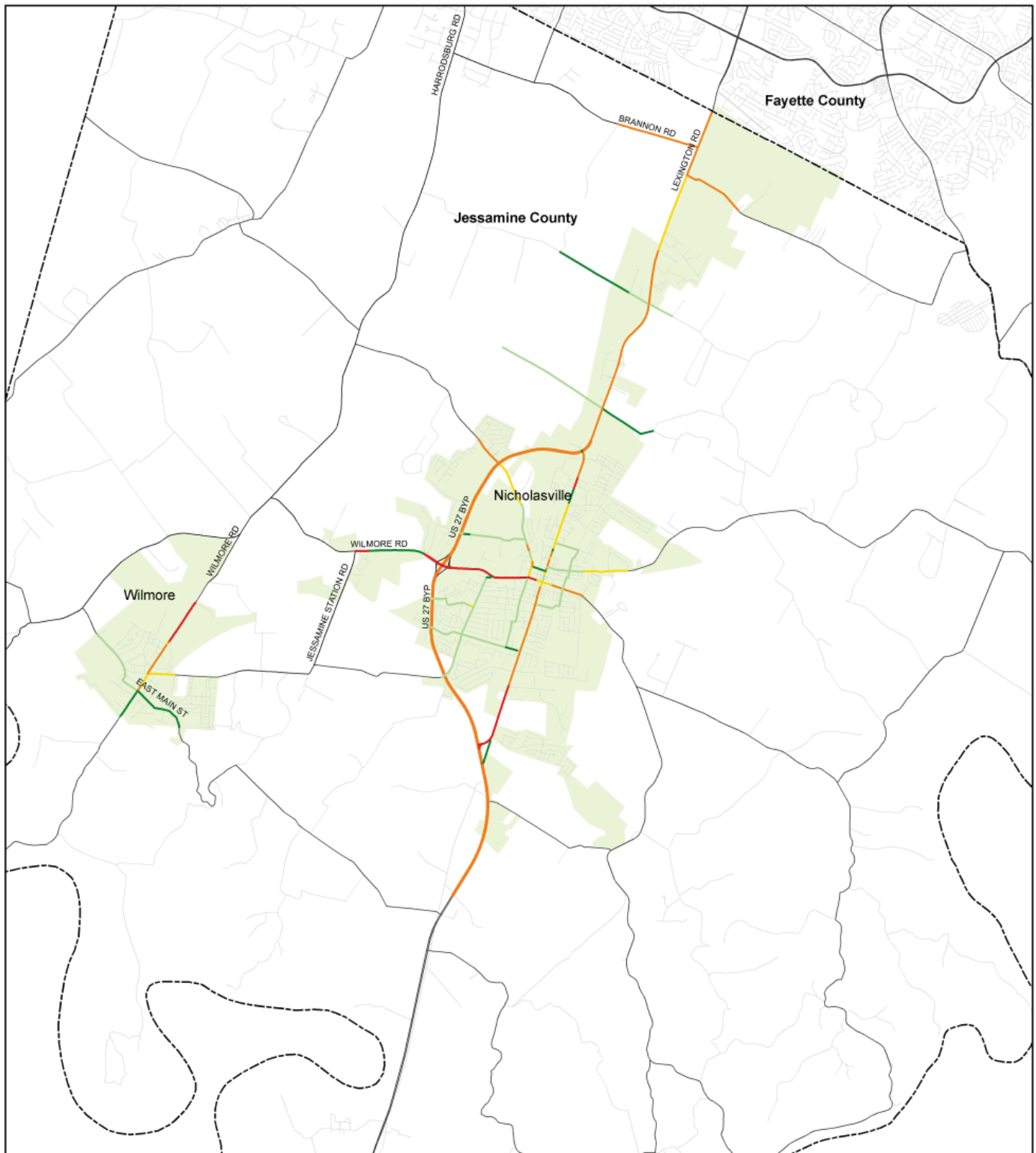


Figure 15. Bicycle Level of Service in Jessamine County



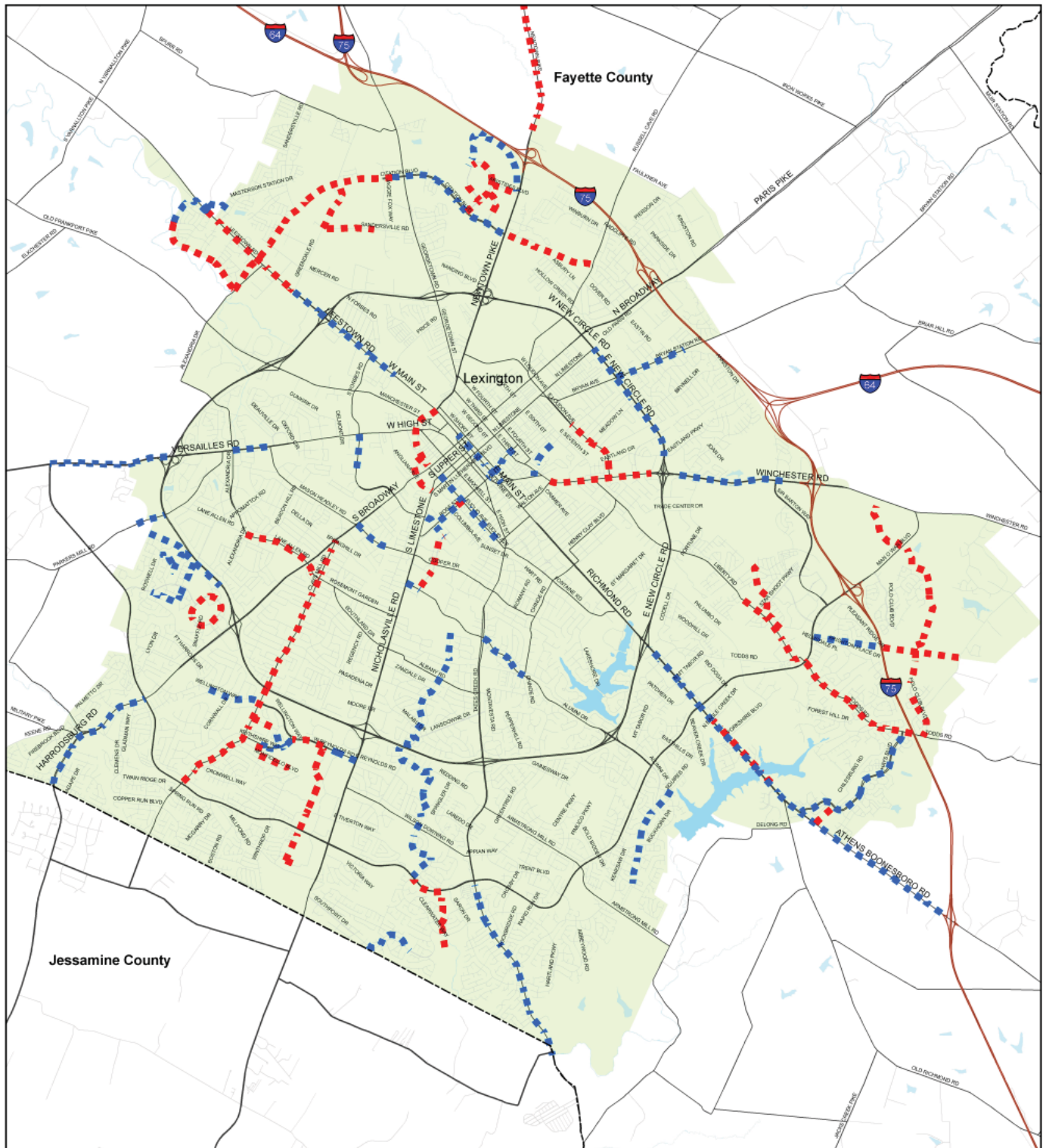
**Legend**

- |   |   |   |                         |
|---|---|---|-------------------------|
|  |  |  | Urbanized Area          |
|  |  |  | Arterial/Collector Road |
|  |  |  | Other Road              |

Source: KYTC, KYGEONET, NTAD (2005) and BGADD (2006)

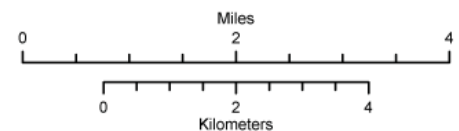


Figure 16. Existing and Funded Bicycle Facilities in Fayette County



**Legend**

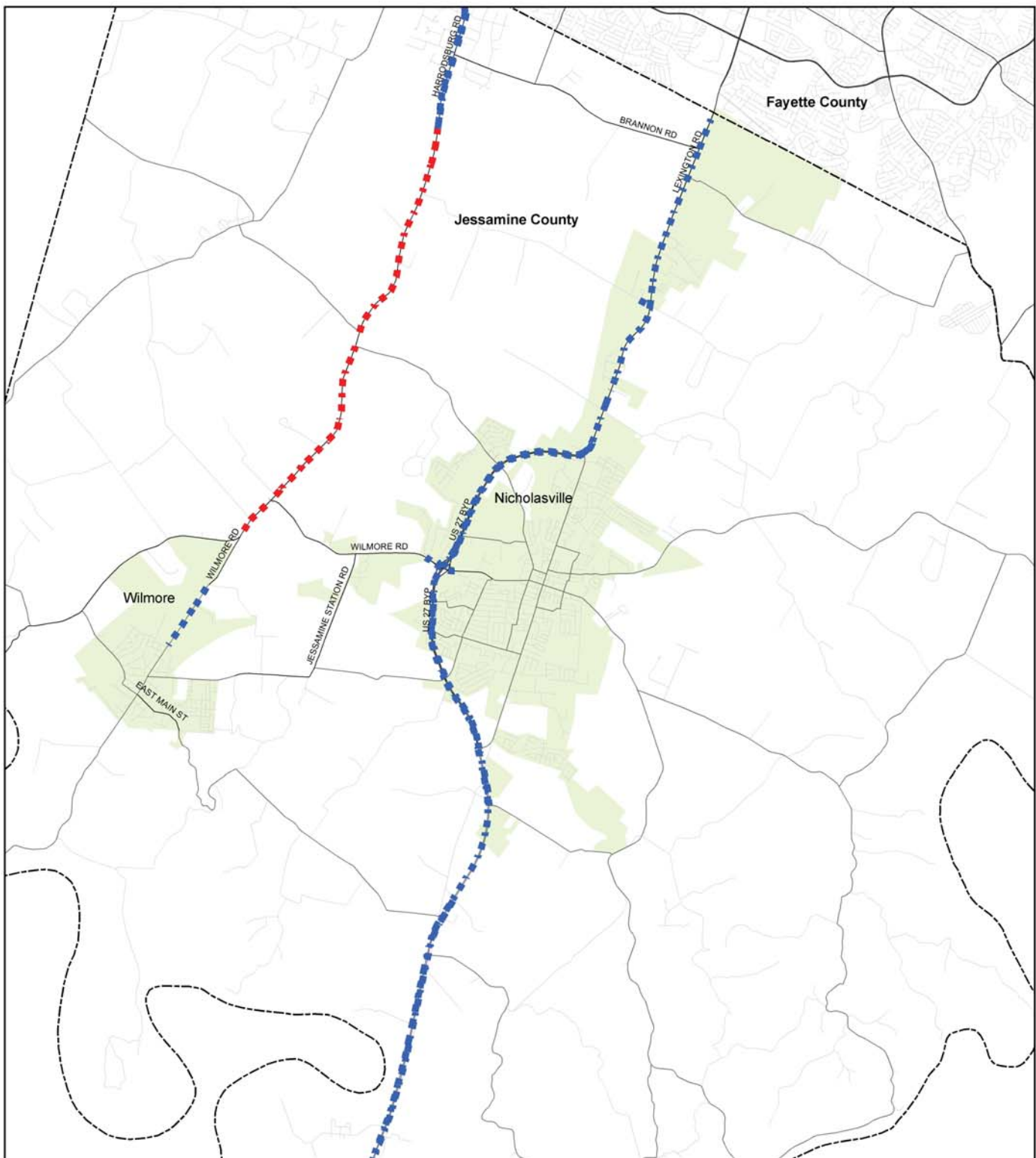
- Existing Bicycle Facility
- Funded Bicycle Facility
- Waterways
- Urban Service Area
- Interstate
- Arterial/Collector Road
- Other Road



Source: KYTC, KYGEONET, NTAD (2005) and LFUGG (2006)



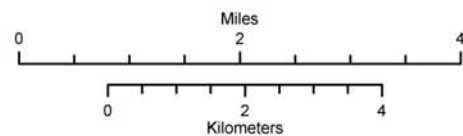
Figure 17. Existing and Funded Bicycle Facilities in Jessamine County



# Legend

- ■ ■ ■ ■ Existing Bicycle Facility
- ■ ■ ■ ■ Funded Bicycle Facility
- Urbanized Area
- Collector/Arterial
- Other Road

Source: KYTC, KYGEONET, NTAD (2005) and BGADD (2006)



## 4.4 Transit

Every transit trip begins and ends with a walking trip. Good pedestrian access is essential to a good transit system. Lextran, the transit agency in Fayette County, has 14 fixed transit routes throughout the city. Many of those routes lack sidewalks. Many transit routes (even those with sidewalks) are not accessible to people with disabilities. Most transit routes also lack shelters and benches at bus stops.

People are typically willing to walk  $\frac{1}{4}$  to  $\frac{1}{2}$  mile (or five to ten minutes) to and from bus stops. A ten minute bicycle ride can extend the transit service area considerably. Integrating bicycling and transit increases the number of destinations that can be reached from a transit stop. All Lextran buses can accommodate two bicycles on racks attached to the front of the buses.

Jessamine County does not currently have fixed-route transit; however there is interest in creating a transit route from Nicholasville to Lexington via US 27.



*Transit buses in Fayette County are equipped with a rack to hold two bicycles*



*Bus stop on Harrodsburg Road*

## 4.5 Document Review

A review of planning documents that are applicable to bicycle and pedestrian planning and implementation in the MPO region are listed below.

### Lexington Area MPO 2030 Long Range Transportation Plan

The Long Range Transportation Plan is required by federal regulations and is updated every three to five years. The purpose of the document is to provide a multimodal transportation plan that addresses the future needs of the MPO area. The Long Range Transportation Plan states that bicycle and pedestrian facilities should be incorporated into all new roadway construction, reconstruction and resurfacing projects. The development of a bicycle and pedestrian plan was also recommended to ensure bicycle and pedestrian needs are identified and supported on a long-term basis.

### LFUCG Greenway Master Plan

This 2002 plan identifies the importance and need for greenways and recommends a county-wide network of on-road bicycle/pedestrian facilities and off-road greenway trails. There are 20 primary trails and associated secondary trails and rural road bike routes that all interconnect into a comprehensive network. Tertiary trails are not mapped, but they are described as neighborhood trails that connect neighborhoods together and to the primary and secondary routes. The Greenway Plan is an element of the Fayette County Comprehensive Plan. Greenway land is required to be dedicated to LFUCG within the Expansion Area; however, trails are not required to be built by the developer. All primary and secondary trails identified in the Greenway Master Plan are incorporated into this plan.

### Comprehensive Plans

Comprehensive Plans direct a community's land use decisions and include a transportation element. By Kentucky statutes, comprehensive plans must be updated every five years. There are three comprehensive land use plans in the study area:

#### *Jessamine County / City of Wilmore Comprehensive Plan*

This 2004 plan addresses the future growth of Jessamine County and the City of Wilmore. An objective of the transportation element of the plan was the promotion of "adequate and safe pedestrian



ways and bike routes.” A conceptual Greenway / Trail Plan for Jessamine County was also included in the plan. The conceptual plan is incorporated into this plan.

#### *Nicholasville Comprehensive Plan*

This 2002 plan states the desire for enhancements to the community that include:

- interconnections such as bikeways;
- to “locate neighborhood commercial areas to allow for maximum accessibility by pedestrians and bicyclists”;
- to “develop a plan for a bike path and bike-way system throughout the city, in coordination with master plans for recreation, schools, and roads”;
- to “minimize pedestrian and automotive conflict via well designed pedestrian and bicycle facilities”.

#### *Lexington-Fayette County Comprehensive Plan Update (2006/2007)*

The LFUCC Comprehensive Plan Update sets the following bicycle and pedestrian goals:

- Provide a balanced and coordinated multi-modal transportation system;
- Encourage the use of all viable modes of transportation;
- Enhance existing downtown open spaces and improve pedestrian connections;
- Promote human-scale, bicycle and pedestrian-friendly neighborhoods;
- Develop residential blocks or patterns that provide a well-organized and compete system of vehicular, pedestrian and bicycle-friendly facilities and have human scale architectural or urban design features and community focus or common area;

The transportation element of the comprehensive plan also includes a discussion of key land use issues and policies that should be addressed to create a bicycle and pedestrian-friendly community. The plan refers to and encourages the implementation of the Long Range Transportation Plan and the related Bicycle and Pedestrian Plan once adopted by the MPO.

## **University of Kentucky Campus Bicycle Plan**

The Campus Bicycle Plan was developed in June 2005. The purpose of the plan is to “increase the safety and mobility of students and employees who bicycle, and to encourage more bicycle travel.” A major goal of the plan is to decrease auto trips and to increase the percentage of bicycle trips to campus from the current estimate of 1 percent (+/-) to 7 percent of trips. Key recommendations include an on-road and off-road campus bike network, additional bicycle parking, bike safety education and the provision of incentives to encourage bicycling to campus. The project, policy and program recommendations in this plan have been reviewed to ensure compatibility with the Campus Bicycle Plan to allow for a seamless bicycle and pedestrian network between the University and the rest of Fayette and Jessamine Counties.

## **Federal and State Documents**

In 2002, the Kentucky Transportation Cabinet adopted a policy requiring the agency to “consider the incorporation of bicycle and pedestrian facilities on all new or reconstructed state-maintained roadways in existing and planned urban and suburban areas.” The policy requires state transportation projects to comply with local bicycle and pedestrian plans to the greatest extent possible.

The U.S. Department of Transportation and the Federal Highway Administration have also adopted a bicycle and pedestrian accommodation policy and have issued guidance on the design of streets and highways to accommodate bicycles and pedestrians (see: <http://www.fhwa.dot.gov/environment/bikeped/design.htm>). This policy is summarized in the following statement:

*“Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction and transportation facilities, except where bicycle and pedestrian use are not permitted.” (23 U.S.C. 217(g) (1))*

Taken together, these state and federal policies speak to a clear conclusion: if the desired outcome is that most people in the region can bicycle and/or walk on a regular, routine basis, then the plans, policies and programs that set the direction for the region must be adapted to ensure that all actions serve to provide and enhance opportunities to bicycle and walk.

