



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Jefferson County Transportation Analysis District Report

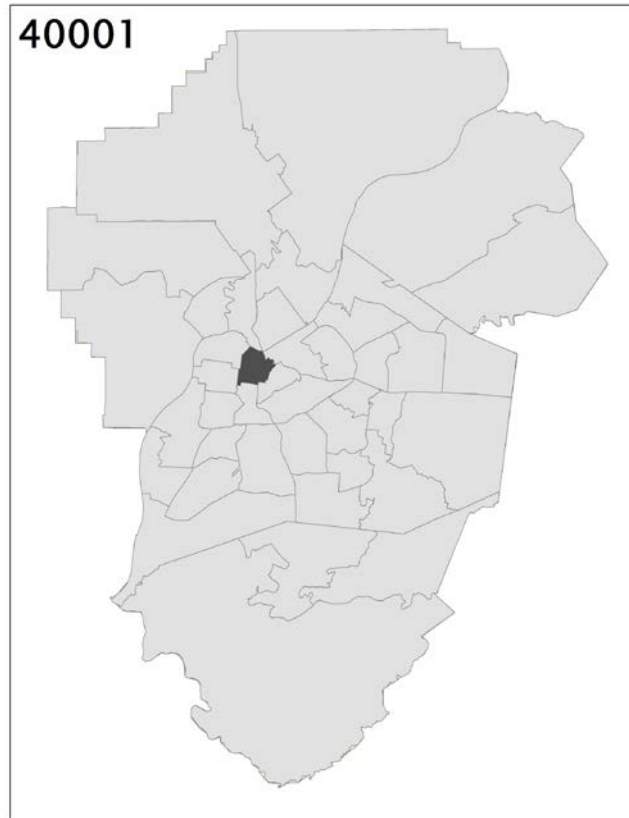




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Metropolitan Transportation Plan Major Update

Transportation Analysis District 40001 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40001 is located in north central Jefferson County within the Urban Services District of the City of Louisville. It is bounded to the north by the Ohio River and Indiana, and includes most of downtown Louisville as well as some of Old Louisville to the south. The core of the downtown area contains high-rise office buildings with some intermittent high density residential land uses as well as hotels, restaurants and other service establishments on a connected grid network of roadways that are lined with sidewalks, and in some areas, bike lanes. 33 of TARC's transit routes connect with stops within this TAD. Multi-family and single-family high density residential uses become more prevalent on the western, southern, and eastern edges while the southwestern portion (from Ninth Street to 15th Street) contains industrial uses. This TAD has more than twice the number of jobs than any other TAD in the region. I-65, I/71, and I-64 all converge at the northwestern edge of this TAD providing access to and from the downtown area from various parts of the region and beyond. Louisville Waterfront Park and built portions of the Louisville Loop are located within this TAD. Development patterns are well established.

Area and Socioeconomic Information

Area: Approximately 3,283 acres
Non-Group Quarters Population (2010): 18,098
Number of Households (2010): 10,212
Number of Jobs (2000): 85,473

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies the majority of TAD 40001 as a Title VI/Environmental Justice area (see Figure 40001-A).

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

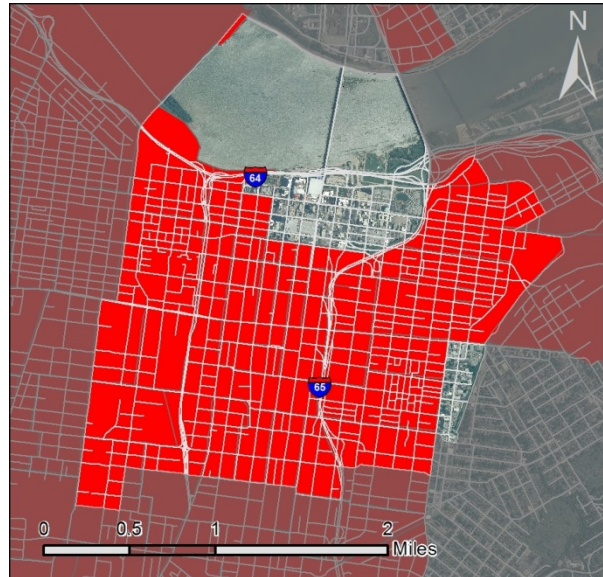


Figure 40001-A: Title VI/Environmental Justice area shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64* from just east of the termini of Northwestern Parkway to I-65 • I-65* from the Indiana State line to East Ormsby Avenue
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • US 31* (North Second Street, including the Second Street Bridge) from Indiana State line to West Jefferson Street
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • First Street from Main Street to Broadway • Second Street from West Jefferson Street to West Ormsby Avenue • Third Street* from River Road to West Ormsby Avenue • Seventh Street from Main Street to US 150 (Broadway) • Eighth Street from Main Street to US 150 (Broadway) • Brook Street* from Main Street to Broadway • Main Street* from US 42 (Brownsboro Road) to North 15th Street • Market Street* from US 31E (Baxter Avenue) to North 15th Street • Roy Wilkins Avenue from West Main Street to West Ormsby Avenue • US 31E (Baxter Avenue)* from US 42 (Brownsboro Road) to Lexington Road • US 150 (Broadway)*~ from Brent Street to South 15th Street
Urban Minor Arterial	<ul style="list-style-type: none"> • First Street from US 150 (Broadway) to East Ormsby Avenue • Fourth Street from US 150 (Broadway) to West Ormsby Avenue • Fifth Street from Main Street to US 150 (Broadway) • Seventh Street from US 150 (Broadway) to West Ormsby Avenue • Eighth Street from US 150 (Broadway) to West Ormsby Avenue • Brook Street from US 150 (Broadway) to East Ormsby Avenue • Campbell Street from East Gray Street to Finzer Street • Chestnut Street from South 15th Street to Chestnut Street • Chestnut Street from Jefferson Street to South Campbell Street • Finzer Street from Logan Street to South Campbell Street • Jackson Street from Main Street to East Oak Street • Jefferson Street* from US 31E (Baxter Avenue) to North 15th Street • KY 864 (Logan Street) from Finzer Street to East Kentucky Street

	<ul style="list-style-type: none"> • Liberty Street* from Roy Wilkerson Avenue to Lexington Road • Logan Street from Finzer Street to East Kentucky Street • Muhammad Ali Boulevard~ from South 15th Street to Chestnut Street • Oak Street from I-65 to South Shelby Street • Oak Street from South 15th Street to South Ninth Street • Preston Street from River Road to East Oak Street • Saint Catherine Street from South Third Street to South Shelby Street • Shelby Street from East Gray Street to East Kentucky Street
Urban Collector	<ul style="list-style-type: none"> • First Street from East Witherspoon Street to Main Street • Second Street* from River Road to Main Street • Fourth Street from River Road to Market Street • Sixth Street from River Road to US 150 (Broadway) • Eighth Street from River Road to Main Street • 15th Street from US 150 (Broadway) to West Hill Street • Breckinridge Street from South Ninth Street to Swan Street • Floyd Street~ from Market Street to US 150 (Broadway) • Kentucky Street from South Ninth Street to Swan Street • Oak Street from South Ninth Street to I-65 • River Road from Washington Street to Witherspoon Street • Saint Catherine Street from South Eighth Street to South Third Street • Shelby Street from East Witherspoon Street to Main Street • Washington Street from North Eighth Street to Witherspoon Street • Witherspoon Street from Second Street to Adams Street
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- | | |
|---|--|
| <ul style="list-style-type: none"> • Brown School • Central High School • Coleridge-Taylor Montessori Elementary School • Engelhard Elementary School • Heuser Hearing and Language Academy • Home of the Innocents School • Jefferson County High School – Ahrens Education Resource Center | <ul style="list-style-type: none"> • Jefferson County High School – Dawson Orman • Lincoln Elementary School • Meyzeek Middle School • Nativity Academy at Saint Boniface • Presentation Academy • Saint Francis High School |
|---|--|

Colleges & Universities

- | | |
|--|--|
| <ul style="list-style-type: none"> • Jefferson Community and Technical College – Downtown Campus & Technical Campus • Jefferson Community and Technical College – Jefferson Technical Campus | <ul style="list-style-type: none"> • Simmons College of Kentucky • Spalding University • University of Louisville School of Dentistry |
|--|--|

Parks

- Ballard Park
- Baxter Square Park
- Ben Washer Park
- Ginny Reichard Park
- Lampton Park
- Louisville Extreme Park
- Memorial Park
- Old Walnut/Beecher Park
- Toonerville Trolley
- Waterfront Park

Other Area of Interest/Significance

- Actors Theater
- Belvedere
- Brown Theater
- Bunbury Theater
- Founder's Square
- Fourth Street Live!
- Frazier International History Museum
- Jefferson Square
- Kentucky Center for the Arts
- KFC Yum Center
- Louisville Convention Center
- Louisville Gardens
- Louisville Loop
- Louisville Palace Theater
- Louisville Science Center
- Louisville Slugger Factory & Museum
- Medical & Health Sciences Center
- Memorial Auditorium
- Muhammad Ali Center
- Museum of Arts & Crafts
- Slugger Field

Historic

- Brown Hotel
- Butchertown
- Fiscal Court Building
- Historic West Main Street
- Jefferson County Courthouse & Courthouse Annex
- Kentucky Theater
- Limerick neighborhood
- Louisville City Hall Complex
- Old Louisville
- Phoenix Hill neighborhood
- Seelbach Hotel
- Smoketown

Transit

TAD 40001 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #2 – Second Street
- Route #4 – Fourth Street
- Route #6 – Sixth Street
- Route #12 – 12th Street
- Route #15 – Market Street
- Route #17 – Bardstown Road
- Route #18 – Preston/Dixie Highway
- Route #19 – Muhammad Ali
- Route #21 – Chestnut Street
- Route #23 – Broadway
- Route #25 – Oak Street/Westport Road
- Route #31 – Shelbyville Road
- Route #40 – Taylorsville Road
- Route #43 – Poplar Level
- Route #45 – Okolona Express
- Route #49 – Westport Express
- Route #50 – Dixie Express
- Route #52 – Medical Center Circulator
- Route #53 – Breckenridge Express
- Route #54 – Manslick Express
- Route #61 – Plainview Express
- Route #63 – Crums Lane
- Route #64 – Fincastle/Forest Springs Express
- Route #66 – Mount Washington/Shepherdsville Express
- Route #67 – Oldham County/I-71 Express
- Route #68 – Prospect Express
- Route #71 – Jeffersonville/Louisville/New Albany
- Route #72 – Clarksville
- Route #78 – Downtown/Bluegrass Express
- Route #93 – UPS/UofL

- Route #99 – UPS/West Louisville
- Route T – Fourth Street Trolley
- Route T – Main/Market Trolley

33 of the 40 routes that TARC operates pass through and have stops within the TAD, providing connections within and beyond the TAD

Park and Ride

There are no identified Park and Ride lots in TAD 4001.

Public Comments

First Street South of Broadway

- First Street south of Broadway where there is an expressway entrance ramp is really dangerous. Convenience store at corner – people pull out and zoom across First Street to get on expressway. Very dangerous!

Second Street

- Traffic builds up in the afternoon due to Second Street bridge traffic and the flux of students going into the parking lot at JCTC.
- Bridge needs to be made much safer than it currently is for cyclists.
- Unsafe for cyclists.

Third Street at Broadway

- Curb is cracked. Wheelchairs can overturn. People walk in the street to avoid it.
- Asphalt coming up.

Broadway

- No left turns when traveling west from Second Street onward. Needs to be adjusted.

Brook Street

- Safe corridor needed. Can it be signed to help bikes find a way OFF of the major arterial?

Brook Street and Jacob Street

- Raised median in the center of Brook Street makes this dangerous for cyclists. Also, Jacob Street needs to be made two-way for cyclists.

Campbell Street

- Can't get safely to and from Big Four Bridge and section of Campbell Street – is important to and from Big Four Bridge and needs to be two-way to Broadway, better lighting, and sidewalks.
- Two-way needed, at least for bikes.

Downtown Louisville

- Encounters high traffic at Second, Fourth, Ninth, 18th Streets, Broadway, and Grinstead. High speeds as well.

Garvin Place at West Oak Street

- Better access for cyclists onto Garvin Place.

Hancock Street at Lampton Street

- Open up north side of the intersection for thru-cyclists.

Jackson Street at Liberty Street

- Why does the #18 bus stop at Jackson and Liberty? The next stop is Preston and Jefferson! For years it has stopped at Jackson and Jefferson. You have to walk two blocks to transfer to the Market bus (eastbound) to Jackson and Market.

East Kentucky Street at South Clay Street

- Road needs to be repaired.

Kentucky Street

- Reduce speed limit timing = more blocks traveled on a bike.

West Kentucky Street

- Cyclists have to cross nine railroad tracks here. Very dangerous for cyclists.

West Kentucky Street at South 15th Street

- West side of intersection unsafe for cyclists.

East Liberty Street

- Should have been repaved several years ago after Liberty Green construction was finished. Could become a primary bicycle commuting route from downtown Louisville.

Logan Street

- Sidewalks need to be repaired.

Market Street

- Bike lanes on Market Street are almost useless. They are right along the car parallel parking area and people practically park in the bike lane and/or open their doors into the bike lane.

West Muhammad Ali Boulevard

- Muhammad Ali Boulevard is very dangerous for children getting on and off the school bus. Motorists don't always stop when the bus's STOP sign is on.

Near Meyzeek Middle School

- The road needs to be repaired.

West Oak Street

- Restore the one-way streets in city (e.g., Oak Street, Saint Catherine Street). Two-way streets make bicycling more difficult. Develop funding for sidewalk repair.

River Road

- Safe ped and bike facilities along River Road.

Saint Paul Court

- Road needs to be repaired.

Shelby Street

- Sidewalks need to be repaired.

Shelby Street at Saint Catherine Street

- Sidewalks at Shelby Street and Saint Catherine are in bad shape. Need repairs badly.

Shelby Street Mall

- Make this pedestrian sidewalk to include commuter cyclists as well.

Safety

8,937 crashes occurred in TAD 40001 in the three-year period from 2009 through 2011. Six of these crashes resulted in a fatality; none of those involved pedestrians or bicyclists. The top crash types for all of the collisions within TAD 40001 are sideswipe same direction (30%), angle (29%), and rear end (24%). The remainder of the crash types accounted for one percent or less of the total with the exception of single vehicle crashes (10%) and backing crashes (4%). 222 crashes involved pedestrians and 88 involved bicyclists. None of the crashes involving a pedestrian or bicyclist resulted in a fatality during this three-year period.

Fatalities

There is no overwhelming pattern concerning crashes involving fatalities in TAD 40001. All six crashes occurred in different locations throughout the TAD, although two of the six took place on I-65 or on a ramp to I-65 approximately 1.2 miles apart. Two of the crashes involved motorcyclists. Speeding was cited as an underlying issue in two of them; aggressive driving was cited as a reason in one of the others. There were no other immediately identifiable reasons for the remaining three.

High Crash Locations

There are several high crash locations (where 50 or more crashes occur within 0.10 mile of each other) in TAD 40001: in the northeastern corner at the convergence of I-64, I-65, and I-71; the downtown core area, which is bounded by I-65 to the east, Main Street to the north, Chestnut Street to the south, and Roy Wilkins Avenue to the west; the US 150 (Broadway) corridor from Hancock Street to 10th Street; and, the I-65/Kentucky Street/Saint Catherine Street area. The heaviest concentrations of crashes occur in the core downtown area and the Broadway corridor.

Convergence of I-64, I-65, and I-71

This high crash location is shared with the neighboring TAD to the east, 40007. It consists of the area where I-64, I-65, and I-71 converge. Over 600 crashes occurred within this area from 2009 through 2011. According to the Average Daily Traffic counts (ADT), these roadways combined see over 300,000 vehicles a day, so while there are a high number of crashes, it happens to relatively few (less than one percent) of the vehicles traversing this location on a daily basis. There are three primary manners of crashes in this location: rear end collisions (44%); single vehicle crashes (28%); and, sideswipe same direction (23%). The remaining crash types made up less than one percent each of the total crashes. Three interstates converge here just south of the Ohio River and as a result, there is a lot of weaving in short distances that does not allow for a lot of reaction time. This may explain the number of crashes and crash types that occur within this high crash location.

The Downtown Louisville Core

This high crash location envelops a large area spanning from Roy Wilkins Avenue to I-65 from west to east, and from Main Street to Chestnut Street from north to south. The heaviest concentration of crashes occurs on East and West Liberty Street and East and West Jefferson Street from South Floyd Street to South First Street, with over 300 crashes from 2009 through 2011. The crashes continue in an outward pattern with their concentration lessening at the outer edges of the above-described boundary, with heavier concentrations on West Liberty Street and West Jefferson Street to South Sixth Street, and the I-65, Brook Street, Muhammad Ali Boulevard area. There are a wide variety of attractions in this area ranging from government services, employment, arts and cultural venues, etc. This area is home to more than twice the number of jobs than any other TAD. There is a large volume of traffic daily on these streets. Three collision types are primary: sideswipe, same direction (36%); angle crashes (30%); and, rear end crashes (20%). 79 of the crashes in this area involved a pedestrian and 17, a bicyclist. In addition to being a heavily traveled area in terms of motor vehicles, this is an area where walking and bicycling are more predominant relative to the rest of the KIPDA region. More crashes occurred on weekdays than on weekends; the number of crashes was relatively the same for each weekday. Crashes during peak hour (6 a.m. to 9 a.m. and 4 p.m. to 6 p.m.) account for approximately 30% of the total crashes. The number of attractions, volume of traffic, unfamiliarity with the downtown area, and distractions may account for the high number of crashes within this high crash location.

Broadway Corridor

Over 1,300 crashes occurred from 2009 through 2011 in the area referred to as the Broadway Corridor. This area includes Broadway from South Hancock Street to South 10th Street, and extends north around the I-65 area to East Gray Street, and south in the same area to East Breckinridge Street. Broadway is often seen as the gateway to the downtown Louisville area, and has three travel lanes in each direction with a turning lane. There are many commercial and other attractions on Broadway ranging from retail shopping and restaurants to Federal offices and hospitals. The downtown core is to the north while the Old Louisville area and the University of Louisville are to the south. I-65 intersects this area along First Street and Brook Street two blocks south of Broadway, which is included as part of this high crash location. The heaviest concentration of crashes centers on the I-65/Broadway area from South Floyd Street to South Fourth Street. Only 98 crashes out of the over 1300 occurred on I-65 within the corridor, so the majority of crashes are occurring on surface streets as opposed to the interstate. On weekdays, there were approximately twice as many crashes compared to the weekends, which is understandable given the number of jobs as well as attractions that are open Monday through Friday. The number of crashes that occurred during peak hours (6 a.m. to 9 a.m. and 4 p.m. to 6 p.m.) was not noticeably higher than at other times of the day. The primary collision types are rear-end crashes (31%), angle crashes (28%), and sideswipe same direction crashes (26%). The factors contributing to the crashes in this corridor may be a combination of jockeying for position, driver inattention, and the volume of traffic. 52 crashes within the identified crash location involved pedestrians and 15, bicyclists. This TAD is home to a greater mix of modes than most others, relatively speaking, and more about crashes involving cyclists and pedestrians is addressed in that section.

I-65/Kentucky Street/Saint Catherine Street

This high crash location extends from just east of I-65 west to South Third Street and from Caldwell Street south to Oak Street. The majority of crashes in this area are along Saint Catherine Street and South Floyd Street in proximity to I-65. Over 400 crashes occurred in this high crash location between 2009 and 2011. Approximately 22% happened on I-65, so the remaining 78% occurred on surface streets. The primary types of collisions are angle crashes (36%), rear-end

crashes (31%) and sideswipe same direction crashes (24%). This segment of I-65 is slightly curved and the interchange area spans a couple of blocks to the north and to the west. For the less familiar driver, this geometry (in addition to the access points) may present some degree of confusion, especially when some of the streets accessed after leaving I-65 are one-way. This location is in the Old Louisville area, which is primarily residential with some commercial. The factors that may be contributing to the number of crashes in this area may be the volume of traffic to and from I-65, the roadway geometry, one-way streets, and driver inattention.

Bicycle and Pedestrian Crashes

222 crashes involved pedestrians and 88 involved bicyclists in TAD 40001 from 2009 through 2011. Of the pedestrian crashes, approximately 70% occurred at intersections. According to the data, the majority of them occurred where a motorist was turning and did not see the pedestrian. A majority of the crashes involving bicyclists also occurred at intersections (61%). While some of them did occur because of turning, it is evenly split between turning and moving straight ahead, so the data is less conclusive. None of the crashes involving bicyclists or pedestrians within TAD 40001 during the study period resulted in a fatality.

There are several areas where more crashes involving pedestrians and bicyclists occurred from 2009 through 2011 in TAD 40001: KY 1020, which in the downtown area, includes both Second and Third Streets (as one runs north and the other south); and, the Broadway corridor almost in its entirety in the TAD. 11% of the crashes involving pedestrians and 13% of the crashes involving bicyclists occurred on either Second Street or Third Street (KY 1020). 19% of the crashes involving bicyclists occurred on Broadway, from South 15th Street to South Campbell Street. 24% of crashes involving pedestrians occurred in proximity to the Broadway corridor from South 15th Street to South Clay Street. The area bordered by Market Street, Sixth Street/Seventh Street, Brook Street and Muhammad Ali Boulevard saw approximately 24 % of the crashes involving pedestrians within the TAD.

Broadway, Second Street, and Third Street are heavy commuter routes to and from the downtown area with large volumes of traffic. Driver inattention and the traffic volumes on these roadways may contribute to crashes with bicyclists along those routes. Crashes involving pedestrians in the locations that see a high concentration of those crashes may also be attributed to driver inattention and traffic volumes as well as surrounding attractions. The heaviest concentration of pedestrians being involved in crashes on Broadway occurs from South First Street to South Fifth Street where the Jefferson Community and Technical College, a high school, several heavily used transit stops, a fast food restaurant, and other community amenities are located. The highest concentration on Broadway occurs at its intersection South First Street, and all of these were attributable to a driver making a turn and not seeing a pedestrian. Some of the government’s core services and locations as well as other amenities are located in the area bounded by Market Street, Sixth Street/Seventh Street, Brook Street, and Muhammad Ali Boulevard, where there is another concentration of pedestrians involved in crashes. Such services and amenities include Louisville Metro City Hall, the Louisville Convention Center, several high-rise office buildings, the main police station, Hall of Justice, and many other attractions. This is the densest area for pedestrians relative to the rest of the KIPDA Metropolitan Planning Area (MPA). There are also several signalized mid-block crossings where these crashes occurred. The volume of traffic, driver distraction, and in some cases, unfamiliarity with the downtown area, may all be contributing factors to the number of crashes involving pedestrians.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • I-64 from I-65/I-71 interchange to Roy Wilkins Avenue • I-65 from the Indiana State Line to US 150 (Broadway) • KY 1020 (Second Street) from Chestnut Street to US 150 (Broadway) • KY 1020 (Third Street) from Main Street to US 150 (Broadway) • Market Street from First Street to Fourth Street • US 31 (Second Street, including the Second Street Bridge) from the Indiana State Line to Main Street
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	<ul style="list-style-type: none"> • US 31E (Baxter Avenue) from Lexington Road to Market Street • US 150 (Broadway) from Brook Street to 15th Street
LOS F:	<ul style="list-style-type: none"> • I-65 from US 150 (Broadway) to KY 61 (Preston Street)/Jackson Street interchange

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are (see Figure 40001-B):

LOS D:	<ul style="list-style-type: none"> • Seventh Street from US 31W (Main Street) to Liberty Street • Seventh Street from Saint Catherine Street to Ormsby Avenue • I-64 from the I-65/I-71 interchange to US 150 (22nd Street) • KY 1020 (Second Street) from Liberty Street to US 150 (Broadway) • KY 1020 (Third Street) from US 31E (Main Street) to US 150 (Broadway) • Roy Wilkins Boulevard from Jefferson Street to Muhammad Ali Boulevard • US 31 (Second Street) from US 31W (Main Street) to US 31E (Market Street) • US 31E (Baxter Avenue) from Lexington Road to US 42 (Main Street) • US 31E (Market Street) from Wenzel Street to Brook Street • US 31E (Market Street) from US 31 (Second Street) to Roy Wilkins Avenue • US 31W (Main Street) from US 31 (Second Street) to Sixth Street • US 31W (Main Street) from Seventh Street to Ninth Street • US 150 (Broadway) from Barret Avenue to 15th Street
LOS F:	<ul style="list-style-type: none"> • I-65 from KY 61 (Preston Street)/Jackson Street interchange • US 31 (Second Street, including the Second Street Bridge) from the Indiana State Line to Main Street

At this time, the level of congestion is affecting travel time for vehicular traffic, freight and transit on the interstates and primary corridors used to access the downtown area. This TAD is home to more than twice the number of jobs of any TAD in the five-county region. It also houses many services, cultural and other unique features, bringing a lot of traffic into and out of this particular TAD. The concern may be more with the growing congestion forecast for 2030. The LOS D and F anticipated in 2030 will affect more roadways causing further delay for more vehicular traffic in the downtown area, which includes transit, freight, and through traffic moving on the interstates. Delay typically equates to lost time, lost money, and poorer air quality.

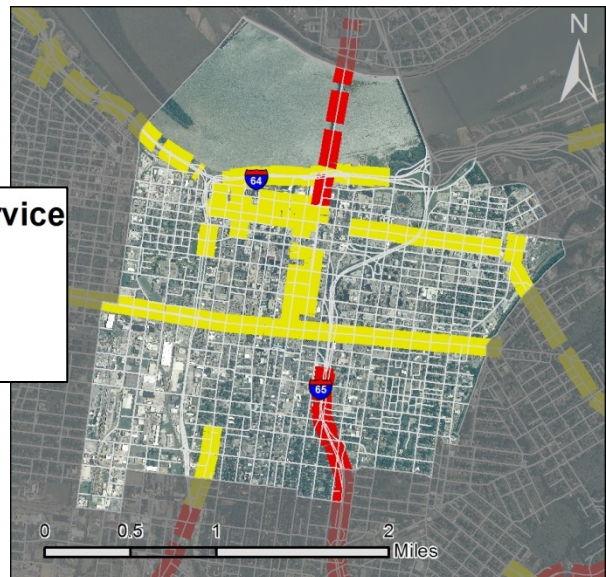
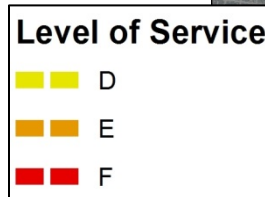


Figure 40001-B: Projected LOS in TAD 40001.

Access to Community Amenities

Community amenities are considered clustered when three or more community amenities (community centers open to the public, senior centers/nutrition sites, public libraries, museums, colleges/universities, schools, government buildings, shopping, entertainment venues, and parks) are located within 0.25 mile or less of each other. Due to the density of attractions and services in the area, most of TAD 40001 is home to a community amenities cluster. This cluster is located from Washington Street south to Breckinridge Street and from Ninth Street east to Preston Street.

Transit service throughout the TAD provides access to the various community amenities within the TAD as well as to other modes, such as motor vehicle, bicycle and pedestrian modes. As stated previously, 33 of the 40 public transit routes provide service in and/or to the area. Several of those are express routes, providing connections to and from Park and Ride lots from outside the TAD. Vehicular access within TAD 40001 is adequate other than the current and forecast LOS issues and the high crash locations, both of which cause added delay. Dedicated bicycle facilities are available in some portions of the downtown area. Within the concentrated Community Amenity area, bike lanes are available on portions of Main Street, Market Street, Second Street, and Third Street. In addition, a shared-use path, the Louisville Waterfront portion of the Louisville Loop is north of the community amenities concentration by less than 0.20 mile, providing another means of accessing downtown. Sidewalks are prevalent throughout the downtown area and practically everyone traveling to a destination in the downtown area completes their trip using sidewalks. Most streets feature sidewalks on both sides in addition to striped crosswalks to indicate crossing areas. In some cases, sidewalks are tree-lined and feature street furniture, such as benches and bus shelters. The sidewalks are relatively wider than in most other TADs, often allowing for three or more people to walk comfortably abreast. Despite the many pedestrian amenities, there are still several issues within this TAD's community amenities cluster: utility poles and street signage in the walking way (as opposed to the edge) of sidewalks in several locations; lack of sidewalks and pedestrian crossings at key locations; overgrown sidewalks; and, driveway interruptions. Utility poles and signage have been, in some locations, installed in the pedestrian right-of-way as opposed to the edge or otherwise located, which may block pedestrian traffic as well as presenting an obstacle for persons with disabilities who use a mobility-assistive device, such as a wheelchair or walker. One of the other issues is the lack of sidewalk or pedestrian crossings within this area, such as around some of the interstate interchanges. Washington Street lacks sidewalks east from Ninth Street for approximately a block, and then just west of the Muhammad Ali Center where it transitions to River Road, sidewalks are either absent, or overgrown with weeds. In several other areas, vegetation is growing along the edges as well as in the expansion joints, where roots break up the concrete. On KY 61 (Preston Street), sidewalks are absent from the west side of the roadway from Liberty Street to Muhammad Ali Boulevard, close to the interchange area. There is a pedestrian refuge area at Sixth Street and Breckinridge Street; however, the sidewalk within the refuge only runs north/south. If you are approaching from Breckinridge, there is no easily accessible landing area, particularly if a pedestrian is using a mobility-assistive device. Further down the 600 block of West Breckinridge, the sidewalk has eroded away, but a worn path is visible due to high use. There are also several locations in which a commercial driveway overtakes the sidewalk, which may be an issue primarily for persons with disabilities due to the cross slope of the driveway. These issues are dotted throughout the cluster; however, this TAD potentially has one of the highest levels of amenities for pedestrians.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Almost the entirety of TAD 40001 is identified as a Title VI/Environmental Justice area (*The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern*. July 2006), which is an additional transportation consideration overall for this TAD, but particularly with access to workplace.

Major Employers

- Aegon USA, Inc.
- American Red Cross
- Andy Frain Services
- AT&T
- Bell South
- Bingham, Greenebaum, Doll, LLP
- Chase Bank
- Courier Journal
- Fifth Third Bank
- Galt House Hotel & Suites
- Hillerich & Bradsby Company
- Hilliard Lyons
- Hilton-Seelbach
- Humana, Inc.
- Hyatt Regency – Louisville
- Jefferson Community & Technical College

- Jefferson County Circuit Court
- Jefferson County Jail
- Jefferson County Metro Sewer District (MSD)
- Kindred Healthcare, Inc.
- Kosair Children’s Hospital
- Louisville Gas and Electric (LG&E)
- Louisville Marriott – Downtown
- Louisville Metro Government
- Louisville Water Company
- McClarty & Associates
- Mercer
- Norton Hospital
- Norton Psychiatric Center
- PNC Bank
- Seven County Services, Inc.
- Social Insurance Department
- Southern Graphic Systems, Inc.
- TransAmerica Life Insurance Company
- Transit Authority of River City (TARC)
- University of Louisville Hospital
- VNA Nazereth Home Care
- Waterford

All of the major employers are located within a high density employment area (where concentrations of 1,000 or more employees are located within 0.25 miles of each other). All but the southwest and southeast corners of the TAD are included in the high density employment area. High density retail also falls within the same area, somewhat smaller than the high density employment area. No commerce parks are located within TAD 40001.

All of the high density employment areas and major employers are either directly on a public transit route or less than 0.25 miles from the closest transit stop, within accepted walking distance. Because TARC also offers bicycle racks on its buses, one may utilize public transit and complete their trip via bicycle. As stated earlier, there is a growing network of dedicated bicycle facilities within this TAD, such as on portions of Main Street and Market Street; however, most of the streets and roadways lack dedicated bicycle facilities. There is also the waterfront portion of the Louisville Loop at the northern end of the TAD that provides pedestrians and cyclists an additional way to connect with the TAD from both inside and outside of it. The frequency of sidewalks allows pedestrians to reach their workplace destinations as well as connect with other modes for the same purpose. There are some issues with sidewalks within the TAD as stated in the above community amenities section, and there are additional geographic areas within the TAD where there are gaps or where the lack of maintenance has taken its toll on a portion of the pedestrian network, creating gaps. Vehicular access appears to be adequate with the exception of high crash locations and current and forecast LOS. The grid network of surface streets provides a high level of connectivity, otherwise. With over 80,000 jobs in the TAD and fewer than 20,000 residents, the majority of people traveling to work in this TAD are traveling from outside of it to get to work. Unless mitigating measures are taken, congestion levels will worsen.

Access for Persons with Disabilities and/or Older Adults

As stated in previous sections, there are a large number of destinations within this TAD, especially jobs, entertainment, social services, medical services, and government services. The majority of streets in TAD 40001 feature sidewalks and have widespread public transit coverage, which also means widespread paratransit coverage. While sidewalks and other pedestrian amenities are likely more abundant within TAD 40001 relative to other TADs, there are still some issues within this TAD that may present obstacles to people using mobility-assistive devices, such as a wheelchair or walker: utility poles and signage within the center of the walkway of the sidewalk as opposed to the edge or elsewhere; gaps in the sidewalk network at specific locations; some non-ADA-compliant curb cuts and ramps; commercial driveway cross slopes; and maintenance of existing sidewalks and shared used paths.

Specific to this TAD, there are four senior nutrition sites: Avenue Plaza (400 South Eighth Street), Guardiacare Adult Day Care (215 West Breckinridge Street), Hillebrand House (1235 South Third Street), and the Kling Center (219 West Ormsby Avenue). As these locations specifically serve older adults, it is important to note the access available to these sites via transit and pedestrian modes. All of these sites are either directly on a public transit line or less than 0.10 mile away from the route, making all of these sites also eligible for public paratransit service should a person be unable to ride regular, fixed-route service. All of these sites are located on blocks which have sidewalks on all sides.

The primary issue facing older adults and persons with disabilities who rely on either pedestrian and/or transit modes to reach destinations within TAD 40001 is the condition of existing sidewalks in some areas. Some of the sidewalks

appear to be in various states of disrepair or have obstacles (such as utility poles or in some cases, simply overgrown vegetation) blocking the sidewalk and not providing enough clearance for a person using a mobility-assistance device. Some of the curb cuts are not yet ADA-compliant. While pedestrian conditions and amenities within TAD 40001 are better than most, there are still some issues that need to be addressed specifically for persons with disabilities and older adults.

Access to Education

Schools, universities and colleges are reviewed for their proximity to each other. When two or more schools fall within 0.25 miles of each other, they are considered clustered. There are thirteen schools and five college campuses within TAD 40001, forming three clusters. Two of the 18 institutions fall outside of a clustered area: Jefferson Community and Technical College – Technical Campus on Chestnut Street and Simmons College on South Seventh Street.

All of the schools except for the Jefferson County High School Dawson-Orman are directly on a public transit line. The closest public transit route from Jefferson County High School Dawson-Orman is approximately 0.15 mile to the east, within accepted walking distance, so all schools and college campuses within TAD 40001, regardless of their clustering, have access to and from public transit.

Motor vehicle access appears to be adequate other than the high crash locations and current and forecast LOS. Travel time to reach these schools by automobile and transit may increase in the future due to forecast LOS. The high crash locations and current LOS impact travel time today, especially during morning peak travel hours when many students and staff are traveling to these locations along with people heading to the downtown area for other jobs. Without mitigation, these travel times will increase in the future.

While most of the streets within TAD 40001 lack dedicated bicycle facilities, there are several streets with bike lanes. Four of the schools are located on roadways with bike lanes. The connected grid network may provide alternate routes with lower volumes of traffic to some of the locations.

The pedestrian system in place around these schools and universities is largely intact and allows for connections to other modes, such as transit, private automobile, and bicycle. The same issues mentioned in the other sections apply here: gaps in the network, utility poles and signage within the walkway as opposed to the edge or otherwise located, maintenance, and ADA-compliant curb cuts.

Access to Government Services

There is a cluster of government services (three or more government service sites within 0.25 miles of each other) within this TAD which stretches from the Louisville Fire Department Headquarters at Congress Street and North 12th Street east to multiple facilities between Preston Street and Jackson Street. The largest concentration of services is in this TAD, which houses two public libraries, five community centers, and more than 60 government facilities, ranging from Louisville City Hall to the Federal Building. The concentration of these services attracts a large number of visitors to these destinations. Over 50 of them are considered close enough to each other to be clustered.

All locations are no more than 0.25 miles from a public transit route. While the majority of roadways within the clustered area lack dedicated bicycle facilities, a network is in the process of being formed, largely as roadways are paved and re-stripped. Five of the roadways currently with bicycle lanes are located within the clustered area. Motor vehicle access appears adequate devoid of the LOS and high crash locations. Sidewalks are available for pedestrians walking to these locations, although there may be an odd gap or obstruction, such as a utility pole, in the sidewalk network.

Access to Medical Facilities

There is a large cluster of medical facilities centrally located within TAD 40001. There are five hospitals that form the heart of the cluster. These are:

- ALSAC Saint Jude Children’s Research Hospital
- Jewish Hospital
- Kosair Children’s Hospital
- Norton Hospital
- University of Louisville Hospital

Physicians’ offices, diagnostic centers, and other associated medical facilities spread from this area to reach north to Market Street, south to Broadway, and from South Jackson Street west to South Fourth Street, an area that is roughly just under half of a square mile. All of these locations are on at least one, if not several public transit routes, or less than 0.25 miles from one, so all of these locations are accessible by public transit. Five of the roadways within the clustered area have dedicated bike lanes for a portion of the roadway. Motor vehicle access is affected by LOS and high crash locations. Future LOS may affect travel time, including adding to the delay of emergency vehicles trying to reach one of the several hospitals in the TAD. The pedestrian network is largely intact, the most pressing issue likely being the commercial driveways interrupting the sidewalk system, and cross slopes of driveways may present obstacles and issues for persons using mobility assistive devices, such as a wheel chair. The notable issues in the pedestrian system within the clustered area are the lack of sidewalks on the west side of Preston Street from Liberty Street to Muhammad Ali Boulevard; the pedestrian crossing in the interchange area in the 300 block of Muhammad Ali Boulevard; and, on Liberty Street at the interchange area, the sidewalk simply stops without a clear direction as to how a pedestrian is supposed to move to the other side of the street. These streets (Preston Street, Muhammad Ali Boulevard, and Liberty Street) form three sides of the same block that houses the interchange area, which provides access to I-64/I-65/I-71. There is not much on the block in terms of pedestrian destinations since it contains the interchange ramps, so the likelihood of finding a pedestrian walking along that side of the street in those areas is not high. At the same time, it does break up the connectivity of the system, and does not provide pedestrians and motorists with a clear indication as to how to proceed, which may contribute to conflicts between pedestrians and motorists at these locations.

Freight Access

There are 20 major freight users within TAD 40001. All but four are in the western half of the TAD, concentrated most heavily in the southwestern quadrant. Freight distribution centers are considered clustered if there are five or more within 0.50 miles of each other; the 16 in the western half are considered clustered, with the cluster continuing west into neighboring TAD 40002. One of the reasons for the heavier concentration in the southwest corner may be the CSX rail line that bisects the area and the P&L rail line that runs north/south between 13th Street and 15th Street. Obviously, being located within this TAD provides ready access to the interstate system as well as being close to rail.

The KIPDA Freight Network includes the following roadways within TAD 40001:

- 12th Street from Broadway to Ormsby Avenue
- I-64
- I-65
- Kentucky Street from 12th Street to 15th Street
- Roy Wilkins Avenue/Ninth Street from I-64 to Broadway
- US 31E (Baxter Avenue) from Lexington Road to US 31W (Main Street)
- US 31W (Main Street) from US 42 (Brownsboro Road) to 15th Street
- US 150 (Broadway) from I-65 to 15th Street

The issues facing the cluster of freight users within this TAD are the same for all major freight users. The major freight users’ cluster abuts traditional forms of development, which are located in an older part of Louisville with a grid network of streets. Some of the smaller streets lack adequate turning radii, which may impede the movements of large trucks or cause the deterioration of sidewalks at corners because trucks may run over them in order to complete a turn. Freight traffic may also face issues stemming from the high crash locations, specifically those close to interchange areas and along the KIPDA Freight Network. Along those same roadways, current and forecast LOS may also present delay issues and lost time. Access to the interstate system is most readily provided to I-64 at the Roy Wilkins Avenue interchange at the northern end of the TAD, but it offers the most direct route for those 16 freight sites located in the

western half of TAD 40001. Considerations for the freight users within this TAD need to be balanced with residents in the south central portion of the TAD as well as surrounding TADs to provide solutions that accommodate all modes of transportation.

Future Socioeconomic Conditions

TAD 40001 is anticipated to remain relatively steady in terms of non-group quarters population and households with just mild gains foreseen by the year 2030. Job growth is anticipated to increase by half, adding a large number of employees traveling to and from the area. Because population is not anticipated to increase at the same rate within the TAD, employees would largely be traveling from other TADs to the downtown area, placing additional demand on the transportation network, including roadways, transit, pedestrian and bicycle modes.

Issues and Opportunities

This TAD is likely one of the most well connected in terms of the transportation networks with the grid network of streets, the highway access, public transit, pedestrian and bicycle modes. With that said, there are still issues facing this TAD now and anticipated in the future, especially with the job growth forecast.

- There are some obstacles for pedestrians within the TAD: location of some utility poles and signage in the sidewalk; non-ADA compliant curb-ramps; cross-slope of commercial driveways, which may present issues for persons using mobility-assistive devices; maintenance issues, such as the sidewalks being overgrown and/or cracked due to vegetation; and, occasionally, gaps in the network.
- Public transit offers good geographic coverage for the TAD, connecting people to places and jobs. There may be a more efficient way to determine routes to eliminate redundancy and produce more overall system efficiency while retaining the geographic coverage.
- There are currently few dedicated bicycle facilities within the TAD, although there are a number of comments from bicyclists who regularly travel in the TAD. Both the TAD review and comments received from the public echo each other in that more dedicated bicycle facilities are both needed and desired. There are additional connections needed for cyclists using the Louisville Loop to connect to the core of the downtown area if the Loop is to be used as a functional commuting route.
- Freight needs within the TAD must be balanced with the other users to make travel safer and more efficient for all modes.
- Congestion as expressed through LOS is an issue within the TAD today. Congestion is anticipated to worsen as additional jobs are expected to come to the downtown area, especially if no effort to mitigate the congestion is made.
- High crash locations seem to be contrated around the interstate interchange areas as well as those high traffic sites, such as the Jefferson Community and Technical College at Second Street and Broadway.
- Broadway, Second Street, and Third Street are heavy commuter routes to and from the downtown area with large volumes of traffic. Driver inattention and the traffic volumes on these roadways may contribute to the crashes involving bicyclists along those routes. The heaviest concentration of pedestrians being involved in crashes is on Broadway from South First Street to South Fifth Street where the Jefferson Community and Technical College, a high school, several heavily used transit stops, a fast food restaurant, and other community amenities are located. The highest concentration on Broadway occurs at its intersection with South First Street, and all of these were attributable to a driver making a turn and not seeing a pedestrian. Some of the government's core services and locations as well as other amenities are located in the area bounded by Market Street, Sixth Street/Seventh Street, Brook Street, and Muhammad Ali Boulevard where there is another concentration of pedestrians involved in crashes. Such services and amenities include Louisville Metro City Hall, the Louisville Convention Center, several high-rise office buildings, the main police station, Hall of Justice, and many other attractions.
- The projected LOS is anticipated to impact not only commuters and visitors to the TAD, but also freight moving in the TAD as well as through it. This TAD is home to the convergence of I-64, I-65, and I-71, all well-used freight routes that are also heavily used commuter and through-traffic routes. Worsening congestion may impact travel times for

freight, roadway and transit modes within mitigation measures, especially in light of the anticipated job growth in this TAD.

Related Plans & Studies

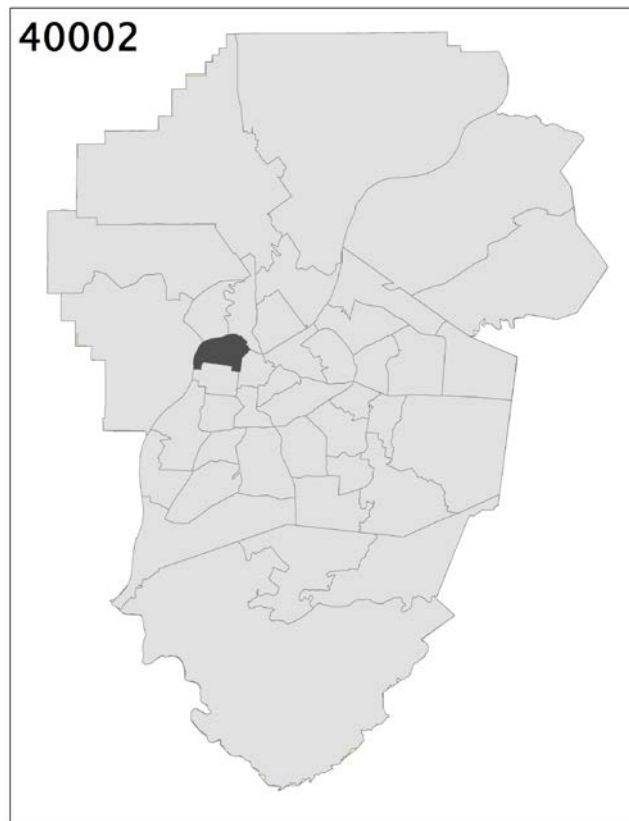
- Cornerstone 2020 Comprehensive Plan (2013)
- East Downtown Connectivity Study (2011)
- I-65 Ramp Modifications Scoping Study (2008)
- Louisville Downtown Development Plan (2002)
- Louisville Loop Master Plan (2013)
- SoBro Neighborhood Plan (2007)
- SoBro Planned Development District (2011)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40002 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40002 is located in northwestern Jefferson County, and is located in Louisville Metro. The TAD is bounded by the Ohio River on the north and west, just east of North 15th Street on the east, and West Muhammad Ali Boulevard and US 150 (West Broadway) on the south. The land use in TAD 40002 is primarily densely populated with a mix of residential and commercial uses with anticipated employment growth. TAD 40002, in its entirety, is a Title VI/Environmental Justice area.

Area and Socioeconomic Information

Area: Approximately 4,778 acres
Non-Group Quarters Population (2010): 21,338
Number of Households (2010): 8,278
Number of Jobs (2000): 4,776

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies the entirety of TAD 40002 as a Title VI/Environmental Justice area.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation



Figure 40002-A: The red area shows the Title VI/Environmental Justice area in TAD 40002.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64*~ from the Indiana state line to the K&I Bridge • I-264*~ from West Muhammad Ali Boulevard to I-64
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 150 (West Broadway) from US 31W (Dr. W.J. Hodge Street) to just east of South 15th Street • US 31W (West Main Street) from US 150 (North 22nd Street) to Monon Avenue • US 31W (West Market Street) from US 150 (North 22nd Street) to Monon Avenue • US 31W (West Main Street) to West Muhammad Ali Boulevard • US 150* (North 22nd Street) from Northwestern Parkway to US 31W (West Main Street) • US 150* (North 22nd Street Connector) from US 150 (North 22nd Street) to Rowan Street • US 150* (North 21st Street) from Rowan Street to US 31W (West Main Street) • US 150* (Dr. W.J. Hodge Street) from US 31W (West Main Street) to US 150 (West Market Street) • US 31W (Dr. W.J. Hodge Street) from US 150 (West Market Street) to West Muhammad Ali Boulevard
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 3064 (Northwestern Parkway) from KY 3216 (North 38th Street) to North 33rd Street • KY 3064 (Portland Avenue) from North 33rd Street to US 150 (North 22nd Street) • Portland Avenue from US 150 (North 22nd Street) to North 15th Street • North 15th Street from Portland Avenue to US 31W (West Main Street) • South 15th Street from US 31W West Main Street to US 31W (West Market Street) • KY 3082 (Bank Street) from KY 3218 (North 38th Street) to US 150 (North 22nd Street) • West Market Street from Southwestern Parkway to US 31W (South 22nd Street). • West Jefferson Street from US 31W (South 22nd Street) to South 13th Street (in TAD 40001)

	<ul style="list-style-type: none"> • West Chestnut Street from US 31W (South 22nd Street) to South 13th Street (in TAD 40001) • West Muhammad Ali Boulevard from US 31W (south 22nd Street) to South 13th Street (in TAD 40001) • Southwestern Parkway from just north of West Market Street to West Muhammad Ali Boulevard • North 35th Street from KY 3064 (Northwestern Parkway) to Parker Avenue • North 34th Street from Parker Avenue to West Main Street • South 34th Street from West Main Street to West Muhammad Ali Boulevard
Urban Collector	<ul style="list-style-type: none"> • Northwestern Parkway from just north of West Market Street to KY 3216 (North 38th Street) • Bank Street from Northwestern Parkway to KY 3216 (North 38th Street) • Bank Street from US 150 North 22nd Street to North 16th Street • North 16th Street from Bank Street to US 31W (West Main Street)
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- | | |
|---|--|
| <ul style="list-style-type: none"> • Academy at Shawnee High School • Atkinson Elementary School • Byck Elementary School • Emma L. Minnis Junior Academy • Northside Christian School | <ul style="list-style-type: none"> • Portland Christian High School • Portland Elementary School • Roosevelt Perry Elementary School • Western Middle School |
|---|--|

Colleges & Universities

- N/A

Parks

- | | |
|--|---|
| <ul style="list-style-type: none"> • Boone Square • Charles Young Park • Ivy Court • Lannan Park • LaPorte Park • Leland Taylor Park | <ul style="list-style-type: none"> • Muhammad Ali Park • Portland Park • Shawnee Park • Sheppard Park • Slevin Park • Westonia Park |
|--|---|

Other Area of Interest/Significance

- | | |
|--|---|
| <ul style="list-style-type: none"> • Louisville Loop • McAlpine Locks • Portland Cemetery | <ul style="list-style-type: none"> • Rail yard west of 30th Street between KY 3082 (Bank Street) and Market Street. • Riverglen/Shawnee Sports Complex • Shawnee Golf Course |
|--|---|

Historic

- Baker Hawkins House
- Benjamin Grove House
- Bernheim Distillery Bottling Plant
- Bridges C.A., Tobacco Warehouse
- Brown Tobacco Warehouse
- Christ the King School and Church
- Firehouse No. 13
- Greve, Buhrlage, and Company
- Hook and Ladder Company No. 4
- Ideal Theatre
- James F. Irvin House
- Jefferson Branch Louisville Free Public Library
- Lower West Market Historic District
- Meek Miller House
- Monon Freight Depot
- Montgomery Street School
- National Tobacco Works Branch Drying House
- National Tobacco Works Warehouse
- Northwestern Parkway Historic District
- Old US Customhouse and Post Office and Fireproof Storage Company Warehouse
- Peaslee-Gaulbert Warehouse
- Portland Historic District
- Russell Historic District
- Saint Anthony's Catholic Church, Rectory, Convent, and School
- Saint Cecilia School Building
- Saint Columbia Catholic Campus
- Shawnee Elementary School
- Shawnee High School
- Shawnee Park Historic District
- Shawnee Parkway Historic District
- Steam Engine Company No. 4
- Theodore Roosevelt Elementary School
- Thornburgh House
- United States Marine Hospital of Louisville
- West Main Street Historic District
- Western Junior High School
- William J. Meier Warehouse

Transit

TAD 40002 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #12 – 12th Street
- Route #15 – Market Street
- Route #18 – Preston/18th Street
- Route #19 – Muhammad Ali Boulevard
- Route #21 – Chestnut Street
- Route #22 – 22nd Street
- Route #27 – Hill Street
- Route #43 – Portland/Poplar Level
- Route #71 – Jeffersonville/New Albany
- Route #99 – UPS (Downtown Louisville)

Park and Ride

There are no identified Park and Ride lots located in TAD 40002.

Public Comments

21st Street

- Road repair needed. Storm drains are clogged.

North 38th Street

- No sidewalk on North 38th Street from Wewoka Avenue to Bank Street.

North 43rd Street

- No sidewalks on both sides of North 43rd Street (Close to Bank Street).

North 44th Street

- No sidewalk on east side of North 44th Street.

Fontaine Landing

- No sidewalk on either side of Fontaine Landing.

I-264/Portland Area

- No southbound ramps.

Jewell Avenue

- No sidewalks on Jewel Avenue.

K&I Railroad Bridge

- Bridge has unused traffic lanes. It should be rehabbed for light rail use.

West Muhammad Ali Boulevard

- Muhammad Ali Boulevard is very dangerous for children getting on and off the school bus. Motorists don't always stop.

Northwestern Parkway

- No sidewalks from golf course to neighborhood.

Riverwalk

- Path is washed out and can't ride using bicycle.

Safety

2,562 crashes were reported in TAD 40002 from 2009 through 2011. There were six fatal crashes with six fatalities reported as a result of crashes from 2009 through 2011. During this three year period, 58 crashes involved a pedestrian and 33 a bicyclist.

Fatalities

The factors identified contributing to the six crashes that resulted in fatalities ranged from an individual falling from their scooter, fatigue, and driver intoxication.

High Crash Locations

Utilizing GIS analysis, there is one area identified as a high crash location during the 2009-2011 with 100-199 crashes within 0.10 mile of each other over the three year period.

North 22nd Street between Portland Avenue and Lyle Street – This high crash location is located at the base of the I-64 ramp. Just south of the ramp (south of Portland Avenue) are several fast food restaurants and a convenience store. During the three year period (2009-2011) three of the accidents in this cluster of crashes resulted in an injury.

Bicycle and Pedestrian Crashes

There were 33 crashes involving bicyclists in TAD 40002 from 2009 through 2011. None of the crashes resulted in a fatality and they were dispersed throughout the TAD.

North 26th Street from Duncan Street south to West Market Street

Within 0.26 miles there were three crashes that involved bicyclists. The area along this corridor is primarily dense urban housing and Atkinson Elementary School is located a block west of North 26th Street at the intersection of Duncan Street and North 29th Street.

North 38th Street from Garfield Avenue south to West Main Street

Within 0.40 miles there were three crashes that involved bicyclists. The area along this corridor is primarily dense urban housing as well as the Shawnee Boys and Girls Club and Leland Taylor Park.

US 150 (North 22nd Street) and Bank Street intersection

There were three crashes involving bicyclists at this intersection. The area around this intersection is primarily dense urban housing. This intersection is also in the edge of a high density Community Access area containing schools, government facilities, and a museum. The closest facility is Northside Christian School. The intersection of US 150 (North 22nd Street) and Bank Street is an offset intersection.

There were 58 crashes involving pedestrians in TAD 40002 from 2009 through 2011. One crash resulted in a fatality. The crashes were dispersed throughout the TAD.

West Market Street from Glendora Avenue east to South 38th Street

Within this 0.50 miles stretch of West Market Street there were four pedestrian crashes. This area is identified as a dense residential area. Located within this corridor and on West Market Street is the Academy at Shawnee. There are currently sidewalks and crosswalks along this section of West Market Street.

North/South 34th Street from West Market Street north to Rowan Street

Within this 0.18 miles corridor there were three pedestrian crashes. The corridor is located within a dense urban residential area. There are also sidewalks along this stretch of North/South 34th Street.

Intersection of KY 3082 (Bank Street) and North 35th Street

From the intersection south approximately 0.04 miles there were three pedestrian crashes. In the immediate vicinity of the intersection area a cemetery, dense urban residential area and a shopping area (Kroger grocery store). There are sidewalks along both KY 3082 (Bank Street) and North 35th Street.

South 26th Street from Cedar Street south to West Muhammad Ali Boulevard

Within this two block section (0.10 mile) there were three pedestrian crashes. This area is a dense urban residential area with sidewalks along both sides of the street.

US 31W (Dr. W.J. Hodge Street) from US 31W (West Market Street) south to Eddy Street

There were four pedestrian crashes within this 0.24 miles corridor. Two of the pedestrian crashes occurred at the intersection of US 31W (Dr. W.J. Hodge Street) and US 31W (West Market Street). This is a dense urban residential area with intermittent sidewalks available along this corridor.

North 22nd Street from Lyle Street north to Portland Avenue

There were two pedestrian crashes within this one block (0.06 miles) corridor. The pedestrian crashes occurred within a dense urban residential area and in proximity to a convenience store and two fast food restaurants. While there are sidewalks in the area, the convenience store and restaurants have separate access points that pedestrians must traverse in order to move along the street.

Congestion

Current Level of Service (LOS)

Currently the roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> West Market Street from South 41st Street east to South 28th Street US 150 (North 22nd Street) from Garfield Avenue north to Bank Street
LOS E:	<ul style="list-style-type: none"> US 150 (North 22nd Street) north to I-64 Ramp

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> I-64 from I-264 west to TAD boundary West Market Street from South 30th Street east to US 31W (South 22nd Street) US 150 (North 22nd Street) from Garfield Avenue north to Bank Street
LOS F:	<ul style="list-style-type: none"> I-64 (Sherman Minton Bridge) from the Indiana state line south to I-64/I-264 interchange

Both current and projected LOS of service raises issues for the TAD. The identified corridors provide both access within the TAD but also provide regional access. The impact of leaving these corridors unmitigated may result in delayed connections.

Access to Community Amenities

An overwhelming majority of this TAD has dense urban residential property with parks scattered throughout the TAD. There are many community amenities in this TAD including schools, government buildings, and libraries. There is one cluster of community amenities contained within TAD 40002 and two others that are shared with neighboring TADs 40001 and 40003.

TAD 40002 is a densely populated area and not anticipated to see additional growth in terms of households and non-group quarters population. There is anticipated growth in terms of employment in the central and eastern portions of TAD 40002.

This area is served by public transit.

There are three clusters of community amenities (3+ facilities within 0.25 miles of each other) located in TAD 40002. One is completely within TAD 40002 and the other two are shared with TADs 40001 and 40003. Outside of the clustered areas are other community amenities such as schools, government buildings, libraries, and other interests. None of the clusters contain high concentrations of shopping or retail facilities (50+ shopping facilities within 0.25 miles of each other).

The community amenities cluster that is completely within TAD 40002 is bordered on the north by the Ohio River, on the east by US 150 (North 22nd Street), south by Griffiths Avenue, and on the west by North 31st Street. This area is primarily densely residential. Public transit is very prominent throughout this clustered area.

Located within the cluster are four parks, two schools, Louisville Fire Department District 1 Engine Company 6, and Portland Museum. All are served by public transit and have pedestrian access to and from the neighboring residential areas.

The clustered area shared with TAD 40003 is contained mostly within TAD 40003. While there are no facilities located within TAD 40002, the clustered area buffer does extend into 40002 itself. The closest facility to TAD 40002 is Young Elementary School. The school campus has good pedestrian access as do the surrounding residential neighborhoods. The campus is also located on a public transit line.

The last clustered area in TAD 40002 contains an elementary school, heritage center, community center, and a park. Traveling north along South 17th Street are the Roosevelt Perry Elementary School, Sheppard Park, the Plymouth Community Renewal Center, and the Kentucky Center for African American Heritage. The amenities in this clustered area are surrounded by high density housing. All four of these amenities are located within 0.20 miles of each other, the closest within 0.10 mile of each other. Transit access is readily available for all four facilities.

Roosevelt Perry Elementary School and Sheppard Park are next to each other, divided only by Magazine Street. There are sidewalks throughout the area, including the abutting neighborhoods, as well as crosswalks at each intersection. The Plymouth Community Renewal Center, one block to the north of Sheppard Park along West Chestnut Street, has equally well established pedestrian and public transit access.

Three blocks north of the Plymouth Community Renewal Center is the Center for African American Heritage located on West Muhammad Ali Boulevard. As with the previous amenities in this cluster, the center is served by public transit and has pedestrian facilities around the center's campus and in surrounding neighborhoods.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

There are no major employers located within TAD 40002

There are no clusters of high density retail or high density employment in TAD 40002.

High density employment is located in the neighboring TADs 20001 to the north, 40003 to the south, and 40001 to the east. Accessing employment to the south (40003) and east (40001) can be readily achieved by auto, public transit, pedestrian, and bicycle modes of travel. Accessing employment to the north (20001) can be achieved by either auto or transit. TAD 20001 employment opportunities are located in the New Albany, Indiana downtown area. The most readily available access from TAD 40002 to 20001 is by the I-64 (Sherman Minton) Bridge. Future anticipated congestion on the bridge may impede access to the employment opportunities in downtown New Albany.

Given that the entirety of TAD 40002 is a Title VI/Environmental Justice Area, consideration must be given to reducing barriers for non-automotive forms of transportation. With the exception of accessing employment opportunities in TAD 20001, there are opportunities for accessing employment in the absence of autos. The forecasted LOS F by 2030 on the I-64 (Sherman Minton) Bridge may impede employment access from TAD 40002 to TAD 20001.

Access for Persons with Disabilities and/or Older Adults

Within TAD 40002, there is one facility that services the needs of persons with disabilities and older adults. Located on North 25th Street, the Neighborhood House has both public transit service and pedestrian facilities.

To the south of TAD 40002, in TAD 40003, are the Shawnee Community Center and the Oak and Acorn facility. The Shawnee Community Center and the Oak and Acorn are both accessible to and from TAD 40002 via automotive, public transit and pedestrian modes of travel.

While there are not any high density shopping, employment, or medical facilities in proximity to the Neighborhood House, access to such facilities located in neighboring TADs 40001 and 40003 can be achieved by auto and public transit options.

Access to Education

None of the nine schools located in TAD 40002 are within 0.25 miles of each other and therefore are not considered clustered.

Because of the dense land use patterns in TAD 40002 the schools are generally surrounded by residential property and pedestrian access between the neighborhoods and the schools is currently exists. As well as having pedestrian options, there are also numerous public transit routes and stops located throughout the TAD to provide transit service for students and faculty wishing to access the schools without an auto. Accompanying the pedestrian and transit options is an extensive bicycle route.

Access to Government Services

There is one cluster of government services (3+ government facilities within 0.25 miles of each other) in TAD 40002. Located within this cluster are two parks, a community center, and a government facility.

This cluster is bounded by Saint Xavier Street to the south, North 30th Street on the west, US 150 (North 22nd Street) on the east, and the Ohio River to the north. The cluster has public transit, pedestrian, and bicycle facilities throughout.

Included in this cluster are the LaPorte Park and the Louisville Fire Department District 1, Engine Company 6. LaPorte Park is located between KY 3064 (Portland Avenue) and KY 3082 (Bank Street). Directly across KY 3082 (Bank Street) is the Louisville Fire Department District 1, Engine Company 6. As with the remainder of this cluster, both points of interest have pedestrian facilities, public transit service, and bicycle facilities. The cluster is surrounded on the east, west, and south by dense residential neighborhoods that have public transit service, pedestrian facilities, and identified bicycle routes.

The Portland Park and Portland Community Center share the same property and are located between Montgomery Street to the south and Northwestern Parkway on the north. As with other facilities in this cluster, they are served by public transit, pedestrian facilities, and bicycle facilities.

Lannan Park rests on the banks of the Ohio River and has public transit service, pedestrian facilities, and bicycle facilities, including the Louisville Loop. Lannan Park is bounded on the south by I-64 and vehicular access is limited to North 27th Street and Lannan Park Road. Pedestrians may access the park via the Louisville Riverwalk and a pedestrian bridge over I-64 that is accessed on the south side of Northwestern Parkway. Given that a majority of the section I-64 that fronts the park is at-grade, there are limited options for providing additional access to and from the park.

Access to Medical Facilities

There are no GIS-identified clusters of medical facilities (25 or more medical facilities within 0.25 miles of each other) in TAD 40002.

Freight Access

TAD 40002 is home to five major freight distributors, three of which are located in a freight access high density cluster (five or more major freight distributors within 0.25 miles of each other) (see Figure 40002-B).

The cluster is split between TAD 40002 and TAD 40001 and extends east from approximately South 19th Street east to the TAD border with TAD 40001. Located in the cluster are:

- Atlas Machine and Supply Incorporated
- Caudill Seed and Warehouse Company
- Magnum Mold and Tool Corporation

The cluster also includes the following segments of the freight network:

- I-64 from approximately South 19th Street to the TAD border with TAD 40001
- US 31W (West Main Street) from South 19th Street east to the TAD border with TAD 40001

It does not appear that the roadway geometry poses much of an issue to the movement of freight throughout the cluster. There is a grid street pattern with adequate turning radii at the major intersections that may be accessed by the freight vehicles. Forecast congestion of LOS D along parts of the freight network (I-64, and US 150 (North 22nd Street)), along with LOS F on the I-64 (Sherman Minton) Bridge, may pose an issue relative to the efficient and timely movement of freight in and through this TAD.

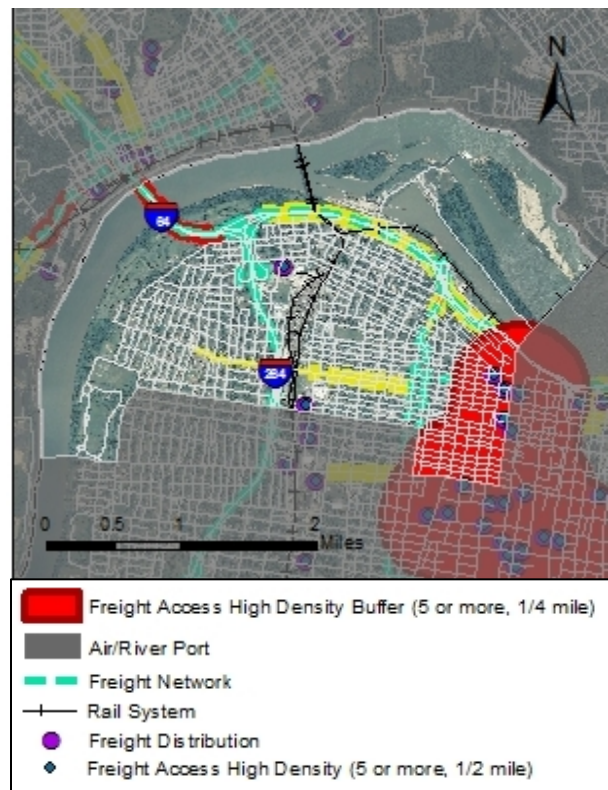


Figure 40002-B: Freight access in TAD 40002.

Future Socioeconomic Conditions

TAD 40002 is currently built-out and not anticipated to see significant changes by the year 2030 in the number of jobs, households, or non-group quarters population. Of the three socioeconomic indicators, only the number of jobs in the TAD is anticipated to realize an increase by the year 2030. This scenario is not unexpected given the built-out nature of the TAD. Given the grid pattern street network that encompasses a majority of this TAD, it is not anticipated that the additional growth in employment will dramatically impact the mobility in the area. In general terms, economic growth is recognized as a positive indicator for the TAD. Yet, the corridors that are anticipated to see degradation in the LOS will suffer without mitigating efforts to reduce the negative impact on the transportation system.

Issues and Opportunities

- The I-64 and I-264 corridors in this TAD play an important role both in the TAD and in the region. The forecast of decreasing LOS on these two corridors will impact both the region and the freight distribution to and from this TAD.
- TAD 40002 benefits from a far-reaching pedestrian and bicycle network. Along with the benefits of such a robust network comes the danger associated with crashes involving pedestrians and bicyclists. TAD 40002 realized 91 pedestrian and bicycle crashes (58 pedestrian and 33 bicycle) over a three year period (2009-2011). Given the geographic size of the TAD, along with its current socioeconomic profile, this is a relatively high number of crashes involving cyclists and pedestrians. The entirety of TAD 40002 has been identified as a Title VI/Environmental Justice area. Improvements to the area must take into consideration steps that will remove barriers to non-automotive travel.

Related Plans and Studies

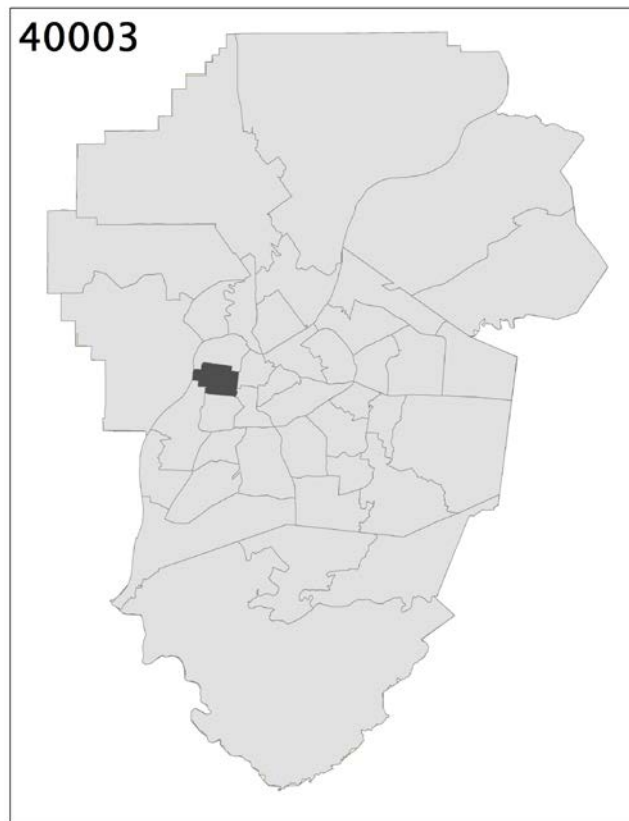
- Cornerstone 2020 Comprehensive Plan (2013)
- Portland Neighborhood Plan (2008)
- SoBro Neighborhood Plan (2007)
- West Market Street Corridor Study (2009)

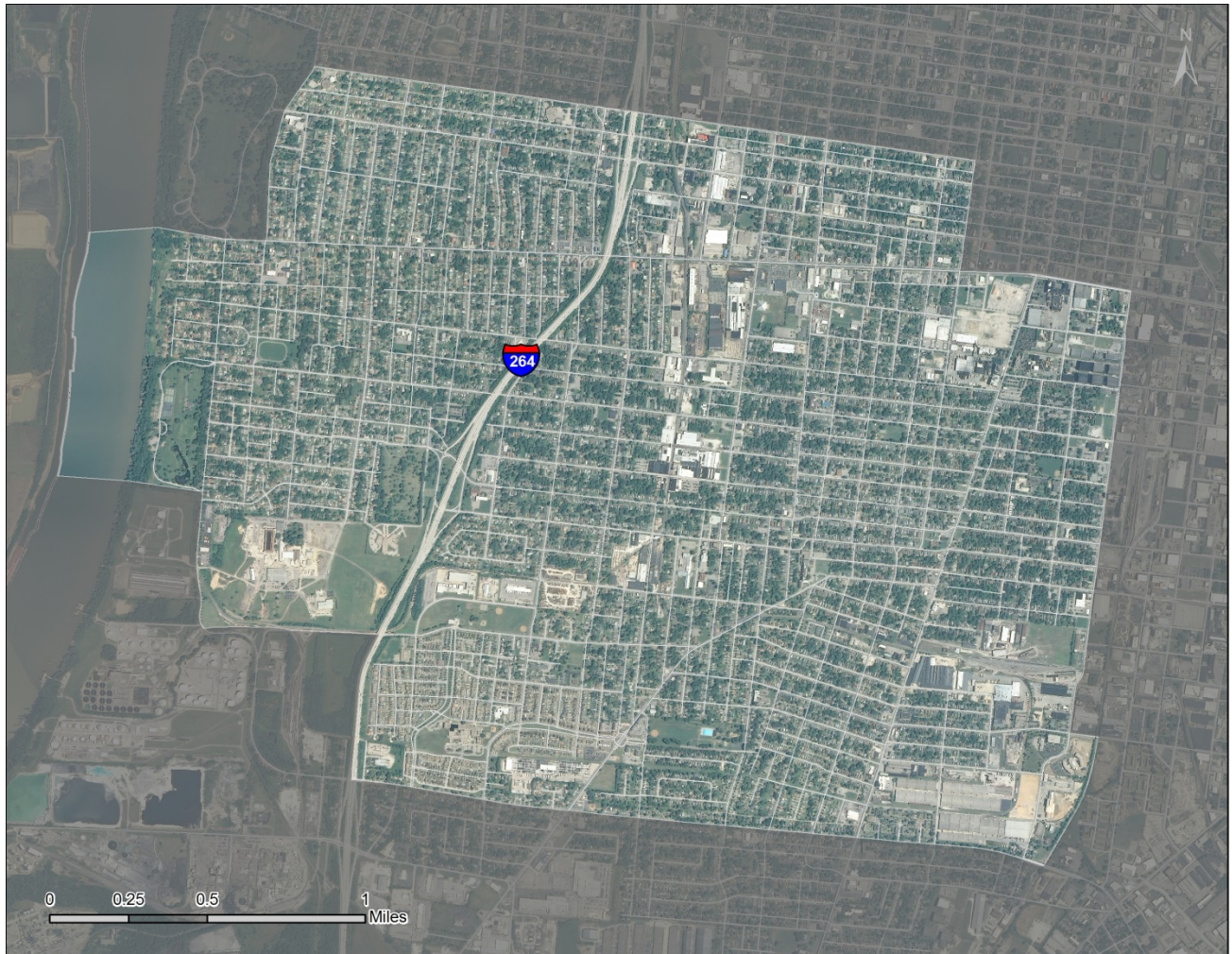


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40003 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40003 is located in western Jefferson County within the Urban Services District of the City of Louisville. It is bounded roughly by West Muhammad Ali Boulevard, South 15th Street, KY 2054 (Algonquin Parkway), and the Ohio River. It contains mostly extremely dense residential land uses on a connected grid network of roadways. Commercial land uses exist primarily on Broadway and Dixie Highway with pockets of industrial development. One of the Olmsted Parks, Chickasaw Park, is located within this TAD as well as built portions of the Louisville Loop. TAD 40003 is largely urban and densely populated. Development patterns are well established; this is one of the older parts of the City of Louisville.

Area and Socioeconomic Information

Area: Approximately 3,919 acres

Non-Group Quarters Population (2010): 31,333

Number of Households (2010): 12,615

Number of Jobs (2000): 9,508

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies the entirety of TAD 40003 as a Title VI/Environmental Justice area (see Figure 40003-A).

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

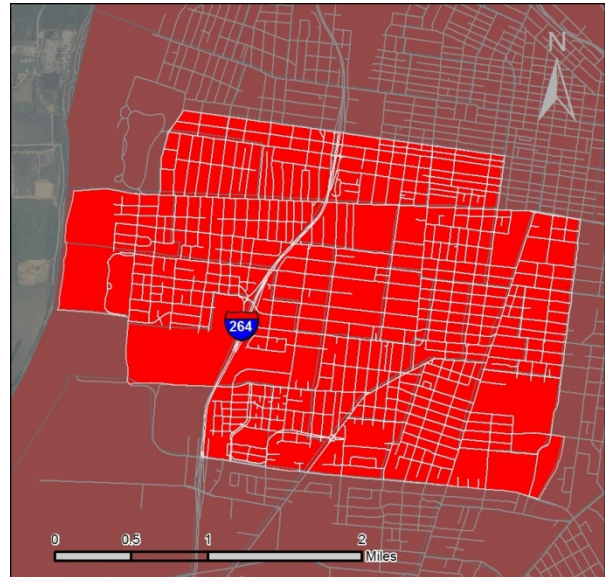


Figure 40003-A: Title VI/Environmental Justice area is shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-264* from West Muhammad Ali Boulevard to KY 2054 (Algonquin Parkway)
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • Dumesnil Street from US 31W (Dr. W.J. Hodge Street) to US 31W (South 22nd Street) • KY 2054 (Algonquin Parkway) from South Seventh Street to US 31W (South 22nd Street) • US 31W* (South 22nd Street) from West Muhammad Ali Boulevard to KY 2054 (Algonquin Parkway) • US 31W* (Dr. W.J. Hodge Street) from West Muhammad Ali Boulevard to Dumesnil Street • US 150 (West Broadway) from South 15th Street to South 34th Street
Urban Minor Arterial	<ul style="list-style-type: none"> • Algonquin Parkway/KY 2054 (Algonquin Parkway) from US 31W (South 22nd Street) to Southwestern Parkway • Dixie Highway from US 150 (West Broadway) to KY 2054 (Algonquin Parkway) • Dumesnil Street from South 17th Street to US 31W (Dr. W.J. Hodge Street) • Dumesnil Street from US 31W (South 22nd Street) to I-264 • South 17th Street from West Oak Street to Dumesnil Street • South 34th Street from West Muhammad Ali Boulevard to KY 2054 (Algonquin Parkway) • South 38th Street from Virginia Avenue to Dumesnil Street • Southwestern Parkway from West Muhammad Ali Boulevard to West Broadway • Southwestern Parkway from West Broadway to Algonquin Parkway • West Broadway from South 34th Street to Southwestern Parkway • West Chestnut Street from US 31W (Dr. W.J. Hodge Street) to West 34th Street • West Hill Street from South 15th Street to US 31W (South 22nd Street) • West Muhammad Ali Boulevard from US 31W (Dr. W.J. Hodge Street) to South 34th Street

	<ul style="list-style-type: none"> • West Oak Street/Virginia Avenue from South 15th Street to I-264 • Wilson Avenue from Dixie Highway to KY 2054 (Algonquin Parkway)
Urban Collector	<ul style="list-style-type: none"> • Hale Avenue from West 38th Street to Southwestern Parkway • South 15th Street from US 150 (West Broadway) to KY 2054 (Algonquin Parkway) • South 32nd Street from West Muhammad Ali Boulevard to Riverpark Drive • South 33rd Street from West Muhammad Ali Boulevard to Riverpark Drive • West Hill Street from US 31W (South 22nd Street) to Wilson Avenue
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- Brandeis Elementary School
- Carter Traditional Elementary School
- DuValle Education Center
- Foster Traditional Academy
- Johnson Traditional Middle School
- Kennedy Montessori Elementary School
- King Elementary School
- Maupin Institute for Creativity and Innovation
- West End School
- Wheatley Elementary School
- Young Elementary School

Colleges & Universities

- N/A

Parks

- 35th Street Park
- Algonquin Park
- California Leisure Park
- California Park
- Chickasaw Park
- Elliot Square
- Flaget Field
- Russell Lee Park
- Saint Louis Park
- Victory Park
- William Britt Park

Other Area of Interest/Significance

- Louisville Loop
- Ohio River

Historic

- Albert S. Brandeis Elementary School
- Anton Diebold House
- Basil Doerhoefer House
- Bernheim Distillery Bottling Plant
- Brown-Forman Corporation, Warehouse A
- Christ the King School and Church
- Columbian School
- Doerhoefer-Hampton House
- Dumesnil Street ME Church
- F.M. Tiller House
- Holy Cross Catholic Church, School and Rectory
- Hook and Ladder Company No. 5
- J.B. McFerran School
- J.W. Diebold, Jr. House
- Marlow Place Bungalows District
- Parkland Evangelical Church
- Parkland Historic District
- Parkland Junior High School

- Peter C. Doerhoefer House
- Russell Historic District
- Saint George's Roman Catholic Church and Rectory
- Southwestern Parkway
- Steam Engine Company No. 22
- Stephen Foster Elementary School
- Thierman Apartments
- Universal Car Company
- Virginia Avenue Colored School
- Wedekind House and Servant's Quarters
- White Mills Distillery Company

Transit

TAD 40003 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #18 – Preston/Dixie Highway
- Route #19 – Muhammad Ali
- Route #21 – Chestnut Street
- Route #22 – 22nd Street
- Route #23 – Broadway
- Route #25 – Oak/Westport Crosstown
- Route #27 – Hill Street
- Route #99 – UPS Shuttle West Louisville

Park and Ride

There are two Park & Ride lots located within this TAD:

- Nia Travel & Jobs Center
- Calvary Baptist Church

Public Comments

16th Street at KY 2054 (Algonquin Parkway)

- Live 16th Algonquin to 18th Hill. Would bus to help me get one bus to another. Would like it very much really would help me. Put a stop. For me.

21st Street

- Roads need repair on 21st Street. Also, storm drains are clogged on 21st.

31st Street at Garland Avenue

- Storm drains clogged here.

South 44th Street

- No sidewalk on South 44th Street from Kentucky Street to Garland Avenue.
- At River Park Drive, there is a curb cut issue at this intersection.
- At West Kentucky Street, the sidewalks to the west of intersection end 20-30 feet before intersection and don't continue.

Dumesnil Street

- Dumesnil is very dangerous. People do not respond well to bus stop signs on one-way streets. It is dangerous for the children crossing in front of the bus.

Garland Avenue

- No sidewalks on Garland Avenue from Southwestern Parkway to South 42nd Street.

Southwestern Parkway

- Sidewalks in disrepair or non-existent.

Safety

3,699 crashes occurred in TAD 40003 between 2009 and 2011. Six of the crashes resulted in a fatality; three of those involved pedestrians. Ninety crashes reported involved pedestrians and forty involved bicyclists. None of the crashes

involving a bicyclist resulted in a fatality. The high crash locations are confined to a segment of Broadway from Dr. W.J. Hodge Street to South 27th Street.

Fatalities

There is no overwhelming pattern concerning crashes involving fatalities in TAD 40003. All six crashes occurred in different locations throughout the TAD, although two of the six took place on Broadway approximately a half-mile apart in 2010. Speeding was cited as an underlying issue in two of them; driving under the influence and distracted driving were cited as reasons for two of the others. One of the crashes resulting in a pedestrian fatality was a hit-and-run incident, so no additional information about the other party was readily available. Three took place during daylight hours, and the remaining three, at night. Ages of the persons involved ranged from 17 years to 65 years with no concentrations of a particular age group.

High Crash Locations

There are several high crash locations (50 or more crashes within 0.10 mile of each other) along Broadway from Dr. W.J. Hodge Street to South 27th Street, approximately a half mile (see Figure 40003-B). West Broadway consists of four travel lanes (two in each direction) with on-street parking available in at least a portion of these segments. There are three signalized intersections within this approximately half-mile stretch: at Dr. W.J. Hodge Street, South 22nd Street, and South 26th Street. There are no dedicated left or right turning lanes at any of these or the unsignalized intersections. This portion of West Broadway provides access to a number of commercial uses, social services, and other attractions, such as churches.

There are small pockets of residential homes in a couple of locations, but it appears that a number of them have been converted to commercial use as well. The high crash locations occur in two segments: from Dr. W.J. Hodge Street to South 23rd Street, and, from around 2500 West Broadway to South 27th Street.

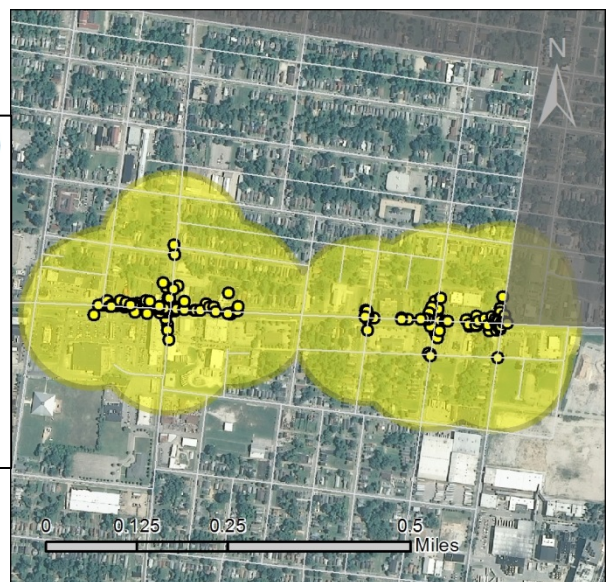
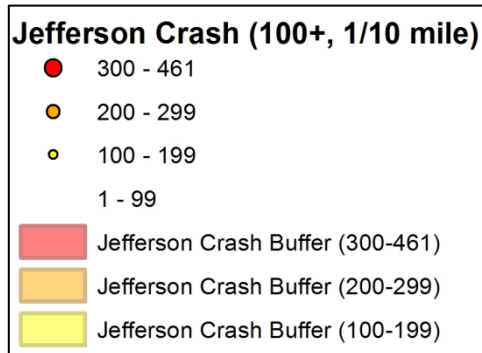


Figure 40003-B: High crash locations on Broadway from 27th Street east to Dr. W.J. Hodge Street.

West Broadway from Dr. W.J. Hodge Street to South 23rd Street

The crashes within this segment are largely centered (over 75%) at the two signalized intersections of West Broadway and Dr. W.J. Hodge Street and West Broadway and 22nd Street. The remaining crashes within the 0.10 mile proximity occurred on side streets close to either of those intersections, or at next intersection heading west (West Broadway at South 23rd Street). 45 of those crashes at the two signalized intersection were recorded as angle crashes, and 33 were rear-end collisions. The other crashes were attributed to other types of collisions, but angle and rear-end collisions made up the majority. Given that and the majority of crashes are concentrated at the two signalized intersections, the signals themselves as well as volume of traffic may be contributing factors to crashes at these two intersections. It appears that drivers involved in these crashes may not be anticipating the signal or it being red, or not anticipating a stopped vehicle on the green which may be stopped due to trying to make a left turn while waiting for oncoming traffic to clear the intersection. Broadway, Dr. W.J. Hodge Street and 22nd Street are functionally classified as Urban Major Arterials and carry high volumes of traffic.

West Broadway from 2500 West Broadway to South 27th Street

Most of the crashes within this segment were concentrated at the intersection of West Broadway and South 26th Street, but crashes included in this high crash location extend west to 27th Street and east to 2500 West Broadway. Within the segment, 121 crashes occurred with 30% being attributed to angle collisions and 27% to rear-end collisions. The remainder was spread between other types of crashes. West Broadway is a major arterial and carries large amounts of traffic. There are no dedicated turning lanes at the signalized intersection, so part of the issue may be drivers not anticipating the signal or stopped traffic at the signal. The other crashes away from the intersection may be due to the number of attractions in this segment, including a grocery store, gas stations, social services, fast food restaurants and other shopping opportunities. There is no center turn lane or access management. While some of the development in the area adheres to the older development patterns, some of it is newer (within the last 30 years) with multiple access points. Multiple access points, the volume of traffic, and lack of dedicated turning lanes at the intersection of West Broadway and 26th Street may be contributing factors to the number of crashes in this particular location.

Bicycle and Pedestrian Crashes

Forty crashes involved bicyclists and 90 pedestrians within TAD 40003. The two main corridors for these occurrences are West Broadway throughout the TAD (from South 15th Street west to Southwestern Parkway) and on Dixie Highway from Algonquin Parkway north to West Oak Street. Both of the corridors are similar in that they offer a variety of destinations, including retail, employment, civic, among others. Broadway is a four-lane roadway with two travel lanes in each direction while Dixie Highway is four lanes in both directions from Algonquin Parkway north to West Lee Street, a distance of about 0.25 miles, while the remainder north is a two-lane roadway with one travel lane in each direction. The remainder of crashes involving a bicyclist or pedestrian occurred across the TAD. 49 of the 90 crashes involving pedestrians occurred at intersections while 30 of the 40 crashes involving cyclists occurred at intersections. It would appear that cyclists' and motorists' behaviors at intersections may be a larger factor in crashes involving bicyclists. The minority of crashes happened at night (42 out of the 130 total involving bicyclists and pedestrians) with the largest contributing factor being distracted driving (27 instances out of the 130), with no real underlying cause being predominant. Distracted driving, while the most cited factor in these crashes is not the primary factor as it is only 21% of the total.

Dixie Highway from Algonquin Parkway to West Oak Street

Dixie Highway from Algonquin Parkway to West Oak Street is approximately one mile in length. For the three year study period (2009-2011), 14 crashes involved a pedestrian (12) or a bicyclist (two). None of these crashes resulted in a fatality. Distracted driving was listed as a factor in two of these crashes, but none were provided in the others. A wide range of ages were involved, and only four occurred at night. All but two occurred at an intersection; three occurred at the intersection of Dixie Highway and Wilson Avenue, and two happened at the intersection of Dixie Highway and West Hill Street. West Hill at Dixie Highway is an offset, signalized intersection with commercial attractions (gas station, drug store, and fast food restaurant) on three of the four corners. One of the crashes at this location involved rainy conditions, and the other, a driver who swerved to miss something in the roadway. There may be no overarching correlation between these two crashes at this particular intersection. Three crashes occurred to the north at the intersection of Wilson Avenue and Dixie Highway. Wilson Avenue tees into Dixie Highway with commercial attractions to the west (convenience store and strip shopping center) and residential uses to the east of the intersection. This is an unsignalized intersection with traffic on Wilson controlled via a stop sign to access Dixie Highway. According to the police report data, it appears that the motor vehicle drivers did not anticipate the pedestrian or cyclist in the roadway as no other underlying causes are provided.

West Broadway from South 15th Street to Southwestern Parkway

Approximately 25% of the crashes involving bicyclists and 26% of the crashes involving pedestrians in TAD 40003 took place on the West Broadway corridor. As stated earlier, this segment of West Broadway is primarily commercial and offers a variety of retail, social, civic, and other destinations. Not surprisingly, the segment of West Broadway from South 26th Street to South 28th Street contains 10 of these crashes. This is the portion of West Broadway (from 2500 West Broadway to South 27th Street) that is also identified as a high crash location. West Broadway is a major arterial and carries large amounts of vehicular traffic. There are no dedicated turning lanes at the signalized intersection, so

part of the issue may be drivers not anticipating bicyclists and/or pedestrians at intersections when turning as all but two of these ten took place at the intersections of West Broadway at South 26th Street, South 27th Street, and South 28th Street. The two crashes away from the intersections may be due to the number of attractions in this segment, including a grocery store, gas stations, social services, fast food restaurants and other shopping opportunities. While some of the development in the area adheres to the older development patterns, some of it is newer (within the last 30 years) with multiple access points. Multiple access points, the volume of traffic, and lack of anticipation of other modes may be contributing to the number of crashes involving bicyclists and pedestrians along this corridor.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none">• US 150 (West Broadway) from South 15th Street to Dixie Highway
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Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none">• US 150 (West Broadway) from South 15th Street to Dixie Highway• US 150 (West Broadway) from US 31W (Dr. W.J. Hodge Street) to South 28th Street
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At this time, the level of congestion is affecting travel time for vehicular traffic, freight and potentially transit on West Broadway, which is a busy commercial corridor. In the future with only the committed projects as programmed in the *FY 2011 – FY 2014 Transportation Improvement Program*, the congestion is anticipated to affect more of the Broadway corridor, further increasing travel times.

Access to Community Amenities

Community amenities are considered clustered when three or more community amenities (community centers open to the public, senior centers/nutrition sites, public libraries, museums, colleges/universities, schools, government buildings, shopping, entertainment venues, and parks) are located within a quarter-mile or less of each other. There are three such clusters in TAD 40003.

Ivy Court Park, Young Elementary School, and the Shawnee Arts & Cultural Center

This cluster of community amenities is shared with TAD 40002 to the north, and TAD 40002 actually contains Ivy Court Park, but the other two destinations are located in 40003. Ivy Court Park is a neighborhood-level pocket park located at Larkwood Avenue and South 34th Street; Young Elementary School is located approximately four blocks away to the southwest, and Shawnee Arts & Cultural Center is located to the southwest also, approximately five blocks from Young Elementary School. The surrounding land use in this area is residential organized on a grid network of streets. This cluster is located just to the west of I-264. Access to this cluster by motor vehicle appears to be adequate; there are no LOS issues in the area, nor are there any high crash locations in proximity. Public transit access is provided by Route #21, which runs along Vermont Avenue in this area. There are no dedicated bicycle facilities; however, the grid network of streets and primarily residential uses within the cluster may not warrant separate bicycle facilities. Sidewalks are present on all of the streets within the cluster. The primary access issue for motorists, bicyclists, and pedestrians to these destinations may be I-264, as there are limited access points across I-264 that may require a person living to the east of I-264 on Larkwood Avenue to travel additional distances. For pedestrians and bicyclists, this may also require travel through the I-264/Muhammad Ali Boulevard interchange, which may not provide an ideal walking and/or biking environment with the flow of traffic on and off I-264.

Nia Neighborhood Travel and Jobs Center, Oak & Acorn Intergenerational Center, Elliot Square Park, and William Britt Park

The surrounding land use in this area is primarily residential organized on a grid network of streets; the exception is Broadway, which is a commercial corridor, and provides access to the Nia Center, the public transit hub in western Louisville. This cluster of amenities begins in the 2900 block of West Broadway and extends north along South 28th and 29th Streets to Magazine Street. LOS within the clustered area on West Broadway is currently above a C, although Broadway east of South 28th Street is anticipated to degrade to a LOS D by 2030. There are also two high crash segments along Broadway to the east of this cluster. The high crash locations in conjunction with a LOS D on the future on Broadway may impede motor vehicle traffic, including public transit, to these destinations. The Nia Neighborhood Travel and Jobs Center as well as the clustered amenities are served by TARC Routes #23, #19, #21, #25, and #99 (this route only operates from 11 p.m. to 4:30 a.m. Monday night through Saturday morning to get commuters to and from later shifts at UPS). There are no dedicated bicycle facilities in the area; crashes involving bicyclists and pedestrians on West Broadway account for 25% of the total crashes involving bicyclists and pedestrians in this TAD with the many of them occurring between South 26th Street and South 28th Street. Sidewalks are abundant throughout the clustered area with the exception of South 29th Street north of Britt Park.

Park DuValle Community Health Center, Louisville Metro Police Department – 2nd Division, Neighborhood Place UJIMA, DuValle Educational Center, and Carter Traditional Elementary School

The Park DuValle neighborhood is a planned community built in the late 1990s and early 2000s based on traditional neighborhood form. Within the neighborhood is a community amenities cluster that includes a community center, Louisville Metro Police Department – 2nd Division, Neighborhood Place UJIMA, the DuValle Educational Center and Carter Traditional Elementary School. Access via automobile and public transit appears to be adequate; there are no current or forecast LOS issues, nor are there any high crash locations close to or within the cluster. These destinations are served by public transit Routes #19, #22, and #27. There are no dedicated bicycle facilities; however, given the residential streets with lower traffic volumes and speeds, separate bicycle facilities may not be necessary. Sidewalks are available on all of the surrounding roadways.

The remaining community amenities within TAD 40003 include several schools, the Shawnee Branch of the Louisville Free Public Library, several parks, and two fire houses. The primary issue facing motorists concerning access within TAD 40003 are the high crash locations on Broadway and Dixie Highway, as well as the current and future LOS on Broadway. All of the remaining community amenities are located on streets with sidewalks and are either directly on a transit route or at most, two blocks from a transit route. The development of a bike lane is underway along Algonquin Parkway for cyclists to be able to connect with the larger Louisville Loop system via Shawnee Park and Southwestern Parkway. The number of crashes along Broadway involving pedestrians and bicyclists may translate to a safety issue, especially given the commercial and civic attractions along the corridor. The other issue facing bicyclists and pedestrians is the barrier that I-264 may present as access points to cross east to west across the expressway are limited to ten streets; the other streets simply dead end and pick up on the other side of the expressway. Depending on their final destination, this may require pedestrians and bicyclists to travel further in order to reach an access point, which they must share with motorists moving through interchanges at four of those access points, which typically mean higher speeds and traffic volumes.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks. The entirety of TAD 40003 is identified as a Title VI/Environmental Justice area (*The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern. July 2006*), which is additional transportation consideration overall for this TAD, but particularly with access to workplace.

Major Employers

- Brown Foreman Corporation
- Coca-Cola Bottling Company

- Reynolds Foods Packaging Corporation
- Sud-Chemie Chemical Company
- Wayne Supply Company

All of the major employers are located in high density employment areas where concentrations of 1,000 or more employees are located within 0.25 miles of each other. A commerce park located along Dixie Highway houses two of the major employers as well as a high density employment area. These concentrations of employment and major employers occur around the following intersections: Cecil Avenue and Fordson Way; South 28th Street and West Broadway; Hale Avenue and South 28th Street; Dixie Highway and West Breckinridge Street; and, West Hill Street and South 17th Street. All of these sites are relatively similar in that they are industrial uses surrounded by residential land use, and in most cases, abutting a major corridor.

- Shopping High Density (100+, 1/4 mile)
- Shopping High Density (50+, 1/4 mile)
- Major Employers (300+, 1/4 mile)
- Employment High Density (1000+ employees, 1/4 mile)
- Shopping High Density Buffer (100+, 1/4 mile)
- Shopping High Density Buffer (50+, 1/4 mile)
- Employment High Density Buffer (1000+ employees, 1/4 mile)

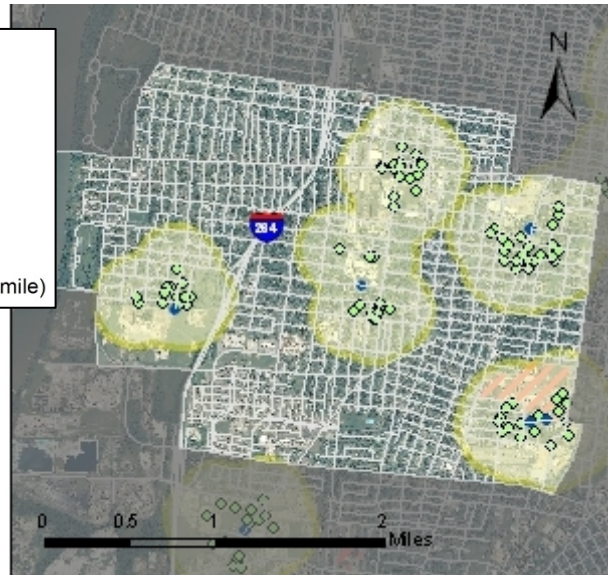


Figure 40003-C: Access to workplace in TAD 40003.

All of the high density employment areas, major employers, and the commerce park are either directly on a public transit routes or less than 0.15 miles from the closest transit stop, well within accepted walking distance. Since these areas typically abut fairly dense residential areas, sidewalks are fairly prevalent around them. The instance where sidewalks appear to be lacking is the location around South 17th Street and West Hill Street: sidewalks are along the outer edge of the industrial area, but are sporadic or nonexistent within it. The area around the site at Dixie Highway and West Breckinridge Street has sidewalks, some of them new, but the ones within the industrial area appear to be in various states of disrepair with utility poles often blocking the sidewalk.

There are no dedicated bicycle facilities within these areas other than some signed routes; however, due to the proximity of residential streets with lower traffic volumes, this may be adequate. The issue concerning both bicycle and pedestrian access is the number of crashes involving cyclists and pedestrians within this TAD.

Access by motor vehicle appears to be good in most cases due to the grid network of streets and I-264 for commuters outside of the TAD. The issues facing drivers would be the high crash locations on West Broadway and the LOS D for a segment of West Broadway now and in the future.

Access for Persons with Disabilities and/or Older Adults

The majority of streets in TAD 40003 feature sidewalks and have widespread public transit coverage, which also means widespread paratransit coverage. In TAD 40003, there are two senior nutrition sites: Oak and Acorn at 631 South 28th Street, and the Shawnee Community Center located at 607 South 37th Street. These two sites provide older adults with nutrition services. Public transit service is provided to the Oak and Acorn site via Routes #19, #21, #23, and #25. Two of those routes have stops directly in front of the site while the other two are less than 0.25 miles from the site. Shawnee Community Center is served by Route #21, but it would require a short walk of approximately 0.20 miles from Vermont Avenue south to the site. Given the location of these sites relative to fixed-route service, both of these destinations fall within the 0.75 miles buffer for paratransit service for eligible paratransit customers. Sidewalks on both sides of the

street provide pedestrian access throughout the surrounding blocks to the Oak and Acorn location and the Shawnee Community Center location.

The primary issue facing older adults and persons with disabilities who rely on either pedestrian and/or transit modes to reach other destinations within TAD 40003 is the condition of existing sidewalks in some areas. Some of the sidewalks appear to be in various states of disrepair or have obstacles (such as utility poles or, in some cases, are simply overgrown) blocking the sidewalk and not providing enough clearance for a person using a mobility-assistance device. Some of the curb cuts are not yet ADA-compliant.

Access to Education

Schools, universities and colleges are reviewed for their proximity to each other. When two or more schools fall within 0.25 miles of each other, they are considered to be clustered. There are eleven schools within TAD 40003 and two of them are considered to form a cluster: Carter Traditional Elementary Schools and the DuValle Education Center, which actually share the same campus and facilities and are part of the Park DuValle neighborhood. The schools are dispersed throughout the TAD and are typically surrounded by residential land use.

Transit access to schools within TAD 40003 is adequate with all of the schools being located either directly on a public transit route or no more than 0.25 miles away from a public transit route in addition to school bus service for schools that use them. In addition to public transit, sidewalks are available on the blocks surrounding each school and beyond with little exception, making it possible to either walk to the school or use public transit and then continue the trip on foot to the school. The only issues apparent in some of the schools are the lack of crosswalks signaling to drivers where they might expect children in the roadway as well as proving a designated place for children to cross the roadway to school.

There are four schools (West End School, Kennedy Montessori School, Brandeis Elementary and the Maupin Institute) that may have barriers to walking and/or bicycling to these schools. In the case of the West End School and Kennedy Montessori, I-264 forms somewhat of a barrier to the west because of the higher traffic volumes and possibly speeds through the interchange areas, creating a less than ideal environment for pedestrians and cyclists. The Maupin Institute and Brandeis Elementary School are abutted by residential land use, but approximately a block to the east are industrial uses and high employment areas. In the case of Maupin, a rail line runs less than a block away to the south of the school through the residential area to connect to the industrial area to the west of the school. Because there may be more traffic present in these locations, including rail traffic and freight, a balanced approach that encompasses the safety for all users should be taken into consideration for any transportation improvements within the area.

While there are no dedicated bicycle facilities, these schools are abutted by residential roadways, which are typically lower in speed and volume, so may be adequate for bicycling purposes.

Access by motor vehicle appears to be adequate. There are no schools located close to the high crash locations on West Broadway, or the segment of West Broadway that is currently operating at a LOS D, and is anticipated to maintain that LOS into the future. The grid network of streets allows for multiple ways to complete the trip.

Access to Government Services

There are two clusters of government services within this TAD: the Park DuValle cluster and the South 28th Street and West Broadway cluster.

South 28th Street and West Broadway: Nia Neighborhood Travel and Jobs Center, United States Social Security Office, Oak & Acorn Intergenerational Center, Elliot Square Park, and William Britt Park

The surrounding land use in this area is primarily residential organized on a grid network of streets; the exception is Broadway, which is a commercial corridor, and provides access to the Nia Center and the public transit hub in western Louisville. This cluster of amenities begins in the 2900 block of West Broadway and extends north along South 28th and 29th streets to Magazine Street. LOS within the clustered area on West Broadway is above a C currently, although

Broadway east of South 28th Street is anticipated to degrade to a LOS D by 2030. There are also two high crash segments along Broadway to the east of this cluster. The high crash locations in conjunction with a LOS D in the future on Broadway may impede motor vehicle traffic, including public transit, to these destinations. The Nia Neighborhood Travel and Jobs Center as well as the clustered amenities are served by TARC Routes #23, #19, #21, #25, and #99 (this route only operates from 11 p.m. to 4:30 a.m. Monday night through Saturday morning to get commuters to and from later shifts at UPS). There are no dedicated bicycle facilities in the area; crashes involving bicyclists and pedestrians on West Broadway account for 25% of the total crashes involving bicyclists and pedestrians in this TAD with the many of them occurring between South 26th Street and South 28th Street. Sidewalks are abundant throughout the clustered area with the exception of South 29th Street north of Britt Park.

Park DuValle Cluster: Park DuValle Community Health Center, Louisville Metro Police Department – 2nd Division, Neighborhood Place UJIMA, DuValle Educational Center, and Carter Traditional Elementary School

The Park DuValle neighborhood is a planned community built in the late 1990s and early 2000s based on traditional neighborhood form. Within the neighborhood is a cluster of government services that includes a community center, Louisville Metro Police Department – 2nd Division, Neighborhood Place UJIMA, the DuValle Educational Center and Carter Traditional Elementary School. Access via automobile and public transit appears to be adequate; there are no current or forecast LOS issues, nor are there any high crash locations close to or within the cluster. These destinations are served by public transit Routes #19, #22, and #27. There are no dedicated bicycle facilities; however, given the residential streets with lower traffic volumes and speeds, separate bicycle facilities may not be necessary. Sidewalks are available on all of the surrounding roadways.

The remaining government services within TAD 40003 include the Shawnee Branch of the Louisville Free Public Library, the Shawnee Arts and Cultural Community Center, and two fire stations. The fire stations are typically not major traffic generators; however, both are located along a public transit route and accessible by bicycle, walking, and motor vehicle. The Shawnee Branch of the Louisville Free Public Library experiences the same benefits as the two fire stations: on a transit route, and due to the surrounding residential area and grid street network, accessible via bicycle, walking or automobile. The Shawnee Arts and Cultural Community Center differs from these other locations only in that it is not directly on a public transit route; however, the distance from the closest stop to the center is less than 0.20 miles, well within accepted walking distance.

Access to Medical Facilities

There are no clusters of medical facilities in this TAD. The closest cluster of medical facilities is located approximately three miles to the east in neighboring TAD 40001, which includes downtown Louisville. Public transit from TAD 40003 to 40001 is readily available throughout the TAD to downtown Louisville. With the distance, access is also readily available via bicycle and automobile.

Freight Access

There are 13 major freight users within TAD 40003. Ten are located along one of the rail lines/spurs within the TAD: the Norfolk Southern line that runs parallel to South 31st Street/Beech Street, heading east south of Woodland Avenue; to the west of this line along Woodland Avenue and a line that runs parallel to Vorster Avenue and Conestoga Avenue (east-west). Three in the upper northeast quadrant of the TAD are those that are considered clustered (five or more within 0.50 miles of each other), and the only three without rail access. Although there are only three in TAD 40003, they share the cluster with several freight users in TAD 40001 to the east.

The issues facing the cluster of freight users within this TAD are the same for all major freight users within this TAD. This is a very traditional form of development, and is an older part of Louisville with primarily residential land use on a grid network of streets. Some of the smaller streets lack adequate turning radii, which may impede large truck movement or cause the deterioration of sidewalks at corners because trucks may run over them in order to complete a turn. Freight traffic may also face issues stemming from the high crash locations on West Broadway and the LOS D that is there currently and anticipated in the future. Access to the interstate system is provided via I-264, but the most direct route for those freight sites located away from rail lines would be through TAD 40002 to I-64 via either 22nd

Street or Dr. W.J. Hodge Street (one-way streets) depending on the direction of travel. Considerations for the freight users within this TAD need to be balanced with residents in order to provide solutions that accommodate all modes of transportation.

Future Socioeconomic Conditions

TAD 40003 is anticipated to remain relative steady in terms of non-group quarters population, households, and employment. A minor decrease is anticipated in population while minor gains are expected in the number of households and jobs by the year 2030.

Issues and Opportunities

- There are a large number of crashes involving cyclists and pedestrians relative to other TADs in the region. Safety for these modes is an issue, primarily along the West Broadway Corridor.
- The current and anticipated LOS issues on West Broadway as well as the high crash locations in the same segment are an issue for traffic flow.
- Despite prevalent sidewalks throughout the TAD, some are in disrepair or in need of reconstruction for ADA compliance. There are also some segments where sidewalks are missing. Public comments identify this issue as well as a visual survey.
- Outside of the Louisville Loop, there are few dedicated bicycle facilities within the TAD, although there are signed routes. 40 of the crashes from 2009 through 2011 involved cyclists. In order to promote cycling, safety and wayfinding for cyclists need to be addressed.
- TAD 40003 has a great deal of public transit coverage, especially considering the locations of schools, community amenities, concentrations of work places, and government services. Most of the residential land use is within 0.25 miles or less of the closest route, which provides access to destinations within this TAD and beyond with the aid of transfers when necessary.
- Freight users are located in areas often surrounded by residential areas. In order to move freight as efficiently as possible on the roadways within the TAD, efforts should look toward identified routes as well as balancing the need for efficient freight movement against the needs of other modes of transportation.

Related Plans and Studies

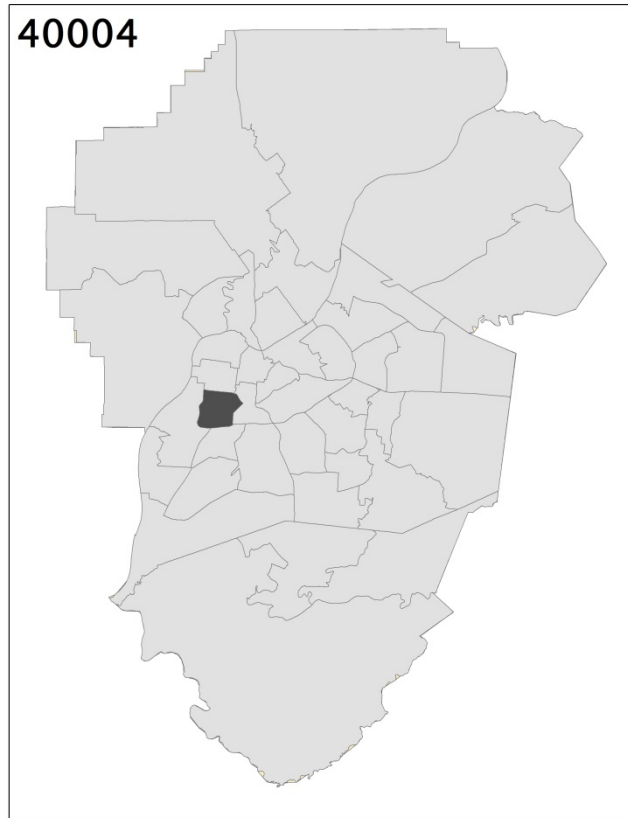
- Algonquin Park Master Plan (2006)
- Chickasaw Park Master Plan (2001)
- Cornerstone 2020 Comprehensive Plan (2013)
- Louisville Loop Master Plan (2013)
- Olmsted Parkways Shared Use Path Master Plan (2007)
- Shawnee Neighborhood Plan (2013)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40004 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40004 is located in the western part of Jefferson County. This TAD contains the City of Shively and is bounded by I-264 to the south and west, Taylor Boulevard to the east and Algonquin parkway to the north. The main corridors that run through-out this TAD 40004 are I-264, US 31W, KY 2049, KY 2054, KY 1934, and US 60A . There are several schools and government facilities located in this TAD 40004. The land use of this TAD is made up of primarily urban, residential, and commercial.

Area and Socioeconomic Information

Area: Approximately 4,328 acres
Non-Group Quarters Population (2010): 27,903
Number of Households (2010): 11,497
Number of Jobs (2000): 9,344

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies the majority of TAD 40004 as a Title VI/Environmental Justice area.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

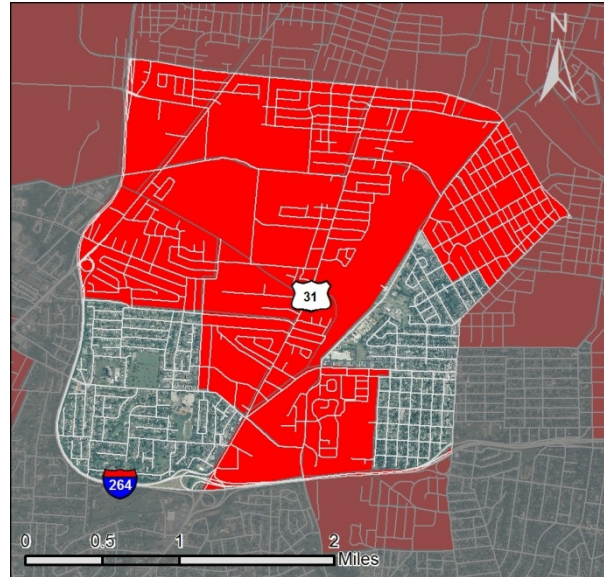


Figure 40004-A: Title VI/Environmental Justice area shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-264*~ from Algonquin Parkway to Taylor Boulevard
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 31W* from Algonquin Parkway to I-264 • US 60 A (Seventh Street/Berry Boulevard) from US 31W to Taylor Boulevard
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 2049 (Crums Lane) from I-264 to US 31W • Ralph Avenue from I-264 to US 31W • KY 1934 (Cane Run Road) from KY 2054 (Algonquin Parkway) to I-264 • KY 2054 (Algonquin Parkway) from I-264 to KY 1934 • Dixie Highway from KY 2054 (Algonquin Parkway) to Berheim Lane • KY 1931 (Seventh Street) from KY 2054 (Algonquin Parkway) to I-264
Urban Collector	<ul style="list-style-type: none"> • KY 2051 (Millers Lane) from I-264 to US 31W • Janell Road from Ralph Avenue to Crums Lane • Crums Lane from US 31W to KY 1931 (Seventh Street) • Arcade Avenue from KY 1931 (Seventh Street) to US 60A • Central Avenue from KY 1931 (Seventh Street) to US 60A
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- Butler High School
- Cane Run Elementary School
- Frayser Elementary School
- Jacob Elementary School (JCPS Bus Compound)
- Mill Creek Elementary School
- Schaffner Elementary School

Colleges & Universities

- National College

Parks

- Shively City Park
- South Central Park
- Watterson Lake Park
- William Harrison Park

Other Area of Interest/Significance

- N/A

Historic

- Arcadia Apartments
- Charles Jacob Elementary School
- Clover Hill

Transit

TAD 40004 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #6 – Sixth Street/Taylor Boulevard
- Route #18 – Preston/18th Street
- Route #19 – Muhammad Ali Boulevard
- Route #29 – Eastern Parkway
- Route #50 – Dixie Express
- Route #54 – Manslick Express
- Route #63 – Crums Lane
- Route #99 – UPS (Downtown/West Louisville)

Park and Ride

There is one park and ride facility located in TAD 40004:

- Shively Heights Baptist Church

Public Comments

Dixie Highway/I-264

- No safe crossing for bikes or pedestrians.

Crums Lane at Park Drive

- This is a congested intersection.

Crums Lane

- No sidewalks available east on Crums Lane near US 31W.

Manslick Road

- No sidewalks available on this part of Manslick Road.

Seventh Street Road

- Unsafe for people riding bikes. Needs road diet and add bike lane.

Parthenia Avenue

- Cut across expressway for bike/pedestrian access.

Safety

3,292 crashes occurred in TAD 40004 in the three-year period between 2009 and 2011, resulting in five fatalities.

Fatalities

Out of the five fatalities, two crashes involved pedestrians. The first fatality occurred on westbound Watterson Expressway between Exit 8 and Exit 5. The next fatality occurred on Berry Boulevard near Manslick Road. The third fatality occurred on KY 1931. The condition of the roadway at the time of all three fatal crashes was dry. The fourth fatality was a fatal pedestrian crash that occurred at the intersection of Manslick Road and March Boulevard. The fifth fatality was a fatal pedestrian crash that occurred at Taylor Boulevard near Berry Boulevard.

High Crash Locations

GIS analysis identified five high crash locations during 2009-2011. High crash locations are where 100 or more crashes occurred within 0.10 mile of each other (see Figure 40004-A).

The first identified high crash location is on Dixie Highway/part of Seventh Street from I-264 to Leroy Avenue. Part of this high crash location problem is that three roadways (Crums Lane, Dixie Highway, and Seventh Street Road) intersect with each other. Dixie Highway is only two lanes at this location and there are high traffic volumes, especially near the Watterson Expressway.

The next high crash location is the Seventh Street/Berry Boulevard and Manslick Road intersection. One of the safety problems is visibility under the bridge on Seventh Street before the intersection of Seventh Street/Berry Boulevard. The roadway is narrow on Seventh Street/Berry Boulevard and there are no center turn lanes along this roadway turning into businesses.

The third high crash location is on Taylor Boulevard from I-264 to south of Camden Avenue which extends into TAD 40005. The fourth location is also on Taylor Boulevard from Carlisle to Southgate Avenue. This high crash location is where a fatal pedestrian crash occurred and this location extends into TAD 40005. The fifth crash location is on Seventh Street Road from Lincoln Avenue to Algonquin Parkway, which also extends into TAD 40005. Contributing factors to these high crash locations are roadway geometry and high traffic volumes on Dixie Highway, Seventh Street Road, Manslick Road, Taylor Boulevard, and Berry Boulevard.

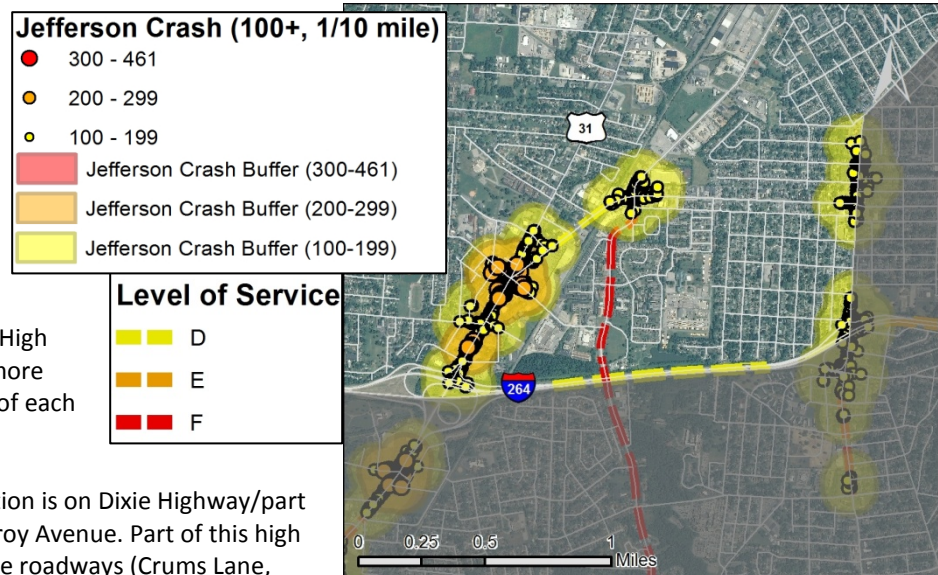


Figure 40004-A: High crash locations and projected LOS in TAD 40004.

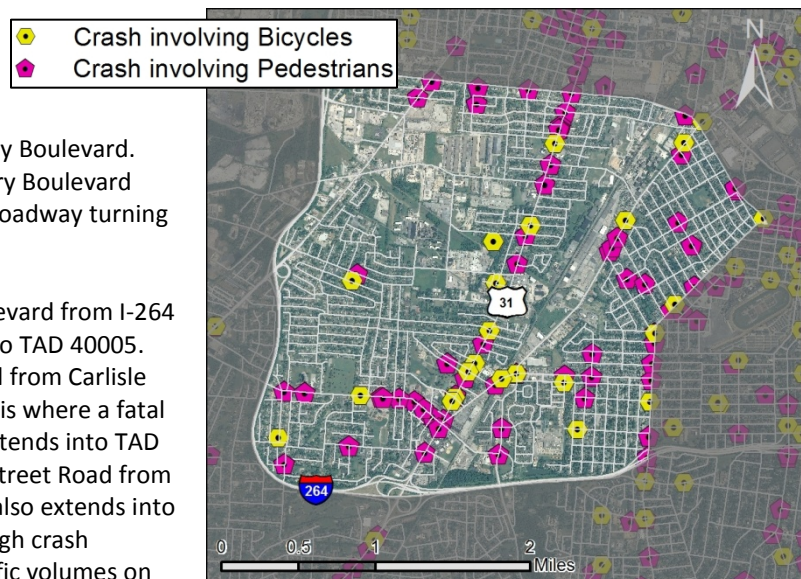


Figure 40004-B: Bicycle and pedestrian crashes in TAD 40004 in the three-year period from 2009 through 2011.

Bicycle and Pedestrian Crashes

During the three year period between 2009 and 2011, there were reported 22 bicycle crashes and 61 pedestrian crashes in this TAD (see Figure 40004-B). The majority of bicycle and pedestrian crashes that occurred in this TAD happened on Dixie Highway. Contributing factors to these bicycle and pedestrian crashes is high traffic volumes and an incomplete sidewalk network along Dixie Highway. Of the fatal crashes in this TAD there were two pedestrian crashes but no bicycle crashes. The two fatal pedestrian crashes occurred at intersection of Manslick Road/March Boulevard and Taylor Boulevard near Berry Boulevard.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • Dixie Highway from Crums Lane to Herbert Avenue • Seventh Street Road from Algonquin Parkway to Central Avenue
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Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • Seventh Street Road from Manslick Road to Dixie Highway • Dixie Highway from Crums Lane to Herbert Avenue • I-264 from Dixie Highway to Taylor Boulevard
LOS F:	<ul style="list-style-type: none"> • Manslick Road from Seventh Street to I-264 • Seventh Street Road from Algonquin Parkway to Central Avenue

Currently, the congestion on Dixie Highway from Crums Lane to Herbert Avenue and KY 1931 from Algonquin Parkway to Central Avenue may cause delays. The projected congestion for the year 2030 is expected to grow to include I-264, Dixie Highway, Seventh Street Road, and Seventh Street, and may cause additional delays.

Access to Community Amenities

There are several community amenities located in this TAD 40004 including schools, senior

- Shopping High Density (100+, 1/4 mile)
- Shopping High Density (50+, 1/4 mile)
- Major Employers (300+, 1/4 mile)
- Employment High Density (1000+ employees, 1/4 mile)
- Shopping High Density Buffer (100+, 1/4 mile)
- Shopping High Density Buffer (50+, 1/4 mile)
- Employment High Density Buffer (1000+ employees, 1/4 mile)
- Commerce Park

centers, nutrition sites, shopping, a library and a park. Within TAD 40004, there is a cluster of community amenities (50 or more within 0.25 miles of each other) located at the five-legged intersection of Dixie Highway, Seventh Street Road, and Crums Lane in Shively. There is public transit which provides access to these community amenities. Out of the eight TARC routes in this TAD, there are three routes that provide stops at or near community amenities. The three TARC routes are Route #63, Route #18,



Figure 40004-C: Community amenities in TAD 40004.

and Route #29. There is pedestrian and bicycle access to these community amenities, as well as adequate vehicular and transit access.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Hi-Lo Industries

There are also two commerce parks located in this TAD:

- Philmore Business Park
- Parker Commercial Storage and Distribution Inc.

There are three clusters of high density employment located in this TAD. The first cluster is located on Cane Run Road, Millers Lane, and Bells Lane. There are 16 businesses located in this cluster along with the major employer Hi-Lo Industries. The second employee high density cluster is located on Taylor Boulevard which extends into TAD 40005. There are 30 businesses located in this cluster along with the major employer All Appliance Repair Service, located in TAD 40005. The third high density employment cluster is located on Crums Lane, Seventh Street, and Dixie Highway, with 64 businesses. There are sidewalks located within these three employment high density and TARC routes which serve these areas.

There is also a cluster of high density retail located in this TAD. There are 43 retail sites located in and around the intersection of Crums Lane, Dixie Highway, and Seventh Street. There are sidewalks and TARC routes that service this high density area. There are also bikeways that provide access to the cluster of high density retails.

Access for Persons with Disabilities and/or Older Adults

There is a senior nutrition site located on Wayside Drive. There are sidewalks for persons with disabilities and older persons to use near the senior nutrition site and TARC Route #19 is 0.25 miles from the senior nutrition site. There are eight public transit routes that provide service in TAD 40004, giving persons with disabilities and older persons a transit option. However, only five of the TARC routes (#6, #18, #19, #29, and #63) provide weekday and weekend service. The other three TARC routes (#50, #54, and #99) are express routes which only provide weekday service. There are sidewalks at the high density retail cluster located at the intersection of Crums Lane, Dixie Highway, and Seventh Street Road for persons with disabilities and older persons to use.

Access to Education

There are six schools located in this TAD 40004: Cane Run Elementary School, Schaffner Elementary School, Mill Creek Elementary School, Jacob Elementary School, Frayser Elementary School, and Butler High School. National College is also located in this TAD.

Cane Run Elementary School is located off Cane Road and there are pedestrian facilities around the school; however, there are no sidewalks in front of the school. There is a pedestrian bridge in front of this school which does not connect to the suburban neighborhood next to the school.

Schaffner Elementary School is located on Crums Lane. There are pedestrian facilities located on Crums Lane surrounding the school.

Mill Creek Elementary School is located on Dixie Highway, but the school is off an access road off Dixie Highway. Mill Creek Elementary School is also located next to Shively Park where there are pedestrian facilities. There are no

sidewalks along the access road leading to the school, but there are sidewalks surrounding the school. There is also a TARC stop at the Mill Creek Elementary School on Dixie Highway.

Jacob Elementary School is located on East Wheatmore Drive. There are sidewalks surrounding the school and there is connection to the suburban neighborhood next to the school. The nearest TARC route to Jacob Elementary School is located on Manslick Road.

Frayser Elementary School is located on Larchmont Avenue. Frayser Elementary School has pedestrian facilities surrounding the school and this school is connected with residential neighborhoods. This school is also near the TARC Route #6.

Butler High School is located on Crums Lane and has pedestrian facilities around the school and in front along Crums Lane. There is also a sidewalk located on East Lane in the suburban neighborhood which connects to Butler High School. TARC Route #63 runs in front of Butler High School on Crums Lane.

National College is located near the off-ramp from westbound Watterson Expressway to Dixie Highway. There are sidewalks in the back of the college, but there are no sidewalks in front of the school due to the location of the building near the ramp. National College is also located on TARC Route #18.

There are bicycle facilities near the six public schools, as well as adequate vehicle access. Four of the six schools are located on TARC routes.

Access to Government Services

There is one cluster of government services located in this TAD. The cluster is in Shively and includes the Shively Police Department, Shively Public Library, and the Shively Professional Building. The Shively Police Department is located on Park Road and there are sidewalks around the building. The Shively Public Library is located on Dixie Highway and the corner of Park Road. There are sidewalks around the library and these sidewalks also connect into the multi-use path around Shively Park. The Shively Professional Building is also located on Dixie Highway near the Shively Public Library and the Shively Police Department. There are sidewalks located in front of the Shively Professional Building. TARC Route #18 provides service to this cluster of government services. There is adequate vehicular and transit access; however there isn't a lot of pedestrian access to these government services from the surrounding high density neighborhoods.

Access to Medical Facilities

There are no medical facilities or hospitals located in TAD 40004. However, there are medical facilities and other hospitals located in neighboring TAD 40011. The nearest hospital for residents living in TAD 40004 is Saints Mary & Elizabeth Hospital in TAD 40011.

Freight Access

I-264, Cane Run Road, Dixie Highway, and Seventh Street Road are all part of the KIPDA Freight Network. The current and projected LOS on the freight network are D and F. According to the current and projected level of service on the freight network there will be expected freight delays now and in the future in TAD 40004.

There are no freight clusters located in this TAD. However, there is a freight cluster located in neighboring TAD 40003. The freight cluster in TAD 40003 travels through TAD 40004 using the freight network to access I-264.

Paducah and Louisville (P&L) railroads travel throughout this TAD. The Paducah and Louisville railroad crosses over the high traffic roadway of Crums Lane, presenting safety issues.

There are ten freight distribution centers that are located in TAD 40004. In addition to the freight distribution centers, there is the Jacob Bus Compound located next to the Jacob Elementary School. This bus compound is a transfer point for many JCPS students throughout the Louisville Metro area. There are several school buses located in this bus compound and these buses make several daily trips to this bus compound.

Future Socioeconomic Conditions

According to 2030 forecasts, the population in this TAD is expected to slightly decrease between 2010 and 2030. The number of households is also expected to slightly decrease during the same period. However employment in the TAD is expected to slightly increase, along with the number of jobs.

Issues and Opportunities

- There are safety issues involving the Dixie Highway, Crums Lane, and Seventh Street Road corridors. There are a high number of crashes which have occurred here along with pedestrian crashes. There are significant traffic volumes along Dixie Highway.
- Two of the five fatal crashes which occurred in this TAD were pedestrian crashes. There is a lot of pedestrian traffic within the TAD but the sidewalk network is incomplete, potentially creating safety issues.
- There are congestion issues on I-264, Dixie Highway and Seventh Street.
- There are clusters of community amenities and government services located on Dixie Highway, Seventh Street Road, Crums Lane and Park Road area which may cause congestion and safety issues.
- Signage for crosswalks at the intersection of Dixie Highway, Seventh Street Road, and Crums Lane for pedestrians to walk across to the shopping area is lacking.
- All six schools in the TAD have sidewalks surrounding them, but some of the schools do not have adequate sidewalks connecting them to nearby suburban neighborhoods.
- Jacob Elementary School has a bus compound next to the school. There are a lot of school buses and students that transfer at the Jacob Bus Compound. There are also a lot of school buses making daily trips to the bus compound as well as to Jacob Elementary school.
- There are major issues facing freight located in this TAD. According to the current and projected level service on the freight network, there are expected delays on this network with the level of service being D and F. There were two fatal crashes that occurred on the freight network.
- TAD 40004 has a lot of freight activity with two commerce parks and ten freight distributions centers. There is a lot of freight which travels throughout this TAD and surrounding TADs using the freight network to access I-264.

Related Plans and Studies

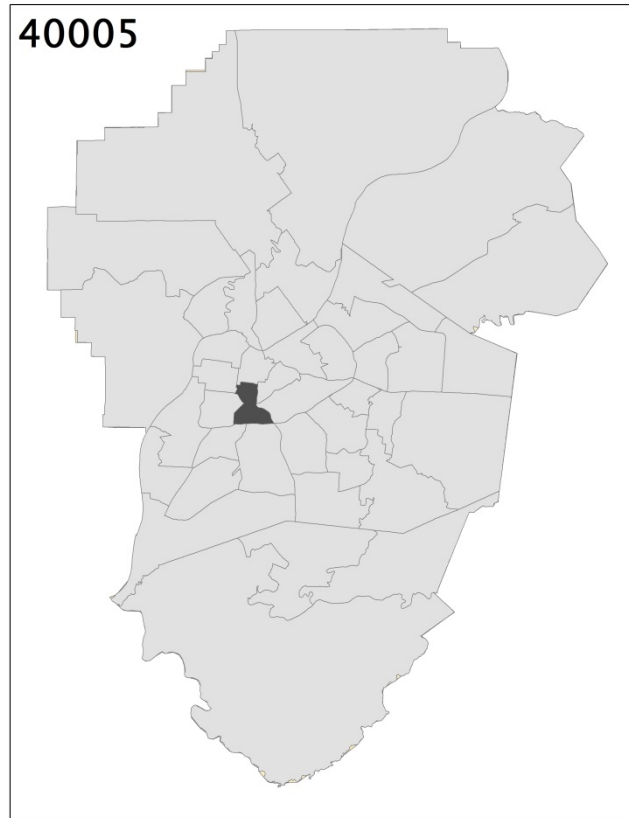
- Cornerstone 2020 Comprehensive Plan (2013)
- Dixie Highway Corridor Master Plan (2013)
- I-264/Manslick Road Interchange Feasibility Study (2007)

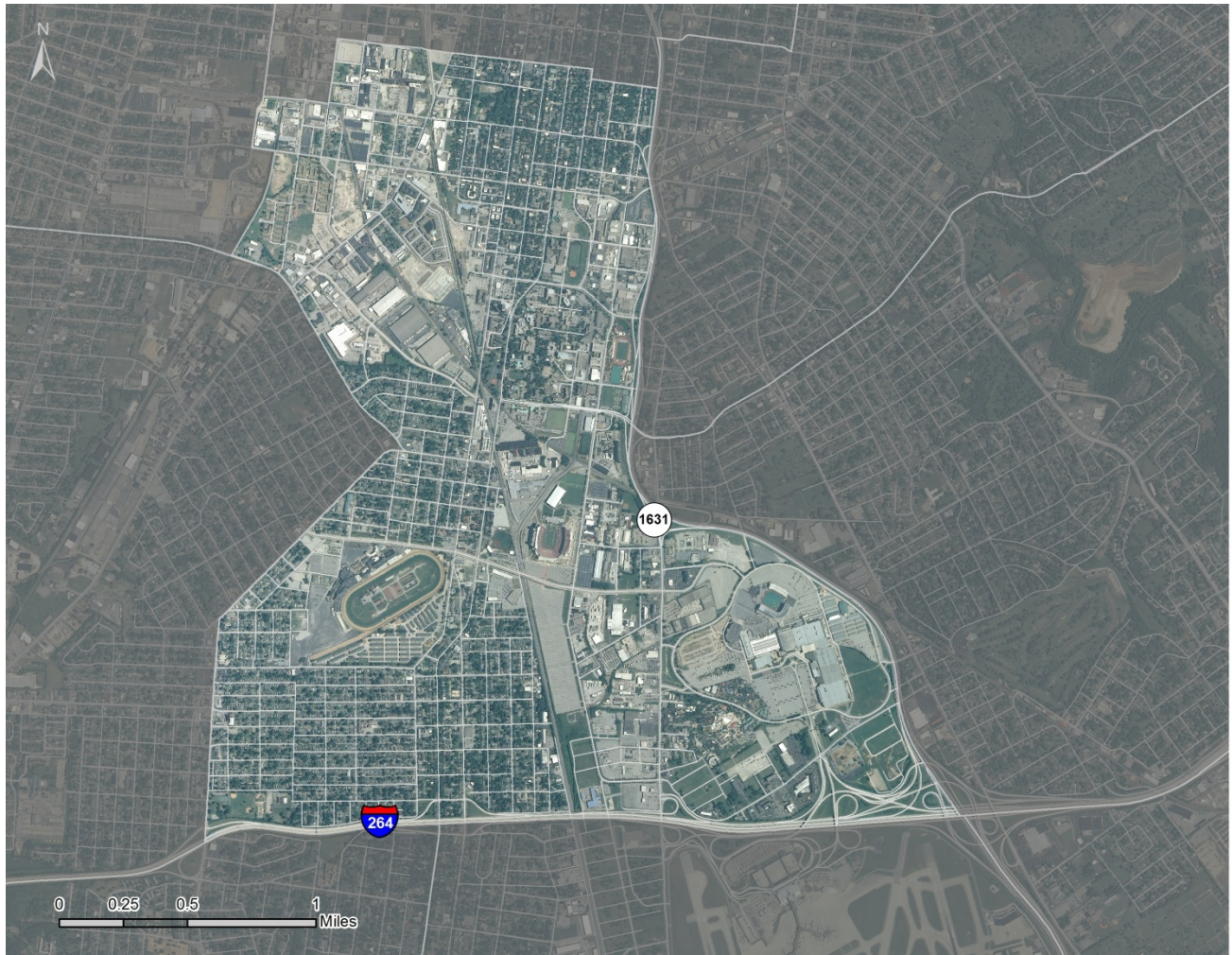


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40005 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40005 is located south of downtown Louisville, north of I-264, west of I-65, and generally east of 12th Street, 15th Street, Algonquin Parkway, and Taylor Boulevard. It contains the portions of Louisville Metro including the all or parts of the Old Louisville, Park Hill, South Louisville, Wyandotte, and Wilder Park neighborhoods. TAD 40005 is relatively well established in terms of development patterns. A significant portion of this TAD is mixed residential development, consisting of a mixture of single-family homes, condominiums, and apartments. In addition, the TAD also includes the University of Louisville Belknap Campus, Churchill Downs, the Kentucky Fair and Exposition Center, and a significant amount of commercial/industrial/ warehousing property. Central Park is located in TAD 40005, as are several smaller parks. There are several historic districts and structures within this TAD.

Area and Socioeconomic Information

Area: Approximately 3,422 acres

Non-Group Quarters Population (2010): 18,269

Number of Households (2010): 8,396

Number of Jobs (2000): 19,926

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies a Title VI/Environmental Justice area in TAD 40005. The area includes all of the TAD except an area in the southwest corner of the TAD and an area in southeast corner of the TAD.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

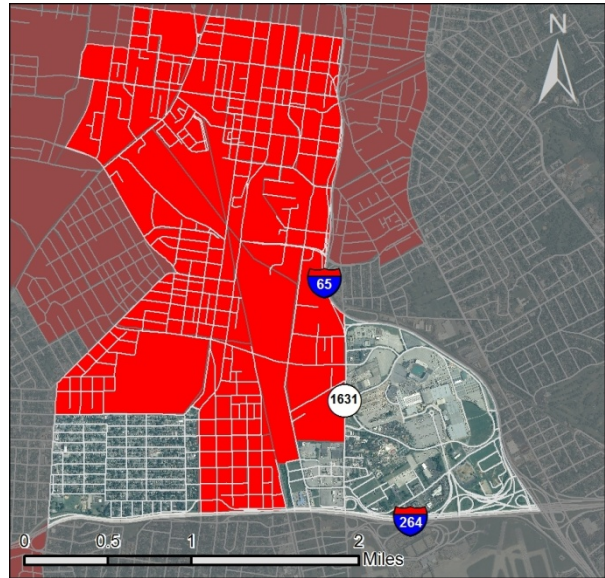


Figure 40005-A: Title VI/Environmental Justice area in TAD 40005 shown in red.

As discussed in the sections below, this area is well-served by a robust pedestrian network and has a significant number of bikeways and transit routes available.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-65* from the I-264 interchange to where it enters/exits the TAD at Ormsby Avenue • I-264* from the KY 1865 (Taylor Boulevard) interchange to the I-65 interchange
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • Taylor Boulevard from US 60A (Berry Boulevard) to KY 2054 (Algonquin Boulevard) • Winkler Avenue from KY 2054 (Algonquin Boulevard) to KY 1020 (Third Street) • Third Street from US 60A (Winkler Avenue) to US 60A (Eastern Parkway) • Eastern Parkway from KY 1020 (Third Street) to the I-65 interchange • Second Street northbound from KY 1020 (Third Street southbound) south of Brandeis Avenue to Ormsby Avenue • Third Street from Ormsby Avenue to US 60A (Eastern Parkway) • Third Street from Southern Parkway to US 60A (Winkler Avenue) • KY 1631 (Crittenden Drive) from I-264 interchange to I-65 interchange • KY 1865* (Taylor Boulevard) from I-264 interchange to US 60A (Berry Boulevard) • KY 2054 (Algonquin Parkway) from KY 1931 (Seventh Street Road) to Taylor Boulevard/Winkler Avenue • Seventh Street from KY 2054 (Algonquin Parkway) to Ormsby Avenue
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 1020 (Southern Parkway) from I-264 interchange to Third Street • First Street from to Ormsby Avenue to Brook Street • Third Street from I-264 interchange to KY 1020 (Southern Parkway) • Fourth Street from Oakdale Avenue to Ormsby Avenue • Arthur Street from I-65 to Brandeis Avenue • Brook Street from Cardinal Boulevard to Ormsby Avenue • Brandeis Avenue from Brook Street to the I-65 overpass • Cardinal Boulevard from Fourth Street to Brook Street

	<ul style="list-style-type: none"> • Central Avenue from Taylor Boulevard to Crittenden Drive • Hill Street from Seventh Street to I-65 overpass • Oakdale Avenue from Southern Parkway to Fourth Street • Preston Street from the I-65 overpass to the I-65 onramp from Brook and Woodbine Streets
Urban Collector	<ul style="list-style-type: none"> • Fourth Street from Longfield Avenue to Oakdale Avenue • Arthur Street from Brandeis Avenue to Warnock Street • Longfield Avenue from US 60A (Taylor Boulevard) to Fourth Street
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- Churchill Park Elementary School
- Cochran Elementary School
- Dupont Manual High School
- Noe Middle School
- McFerran Preparatory Academy Elementary School
- Semple Elementary School
- Youth Performing Arts Middle and High School

Colleges & Universities

- University of Louisville – Belknap Campus

Parks

- Central Park
- Churchill Park
- G.G. Moore Park
- Huston Quin Park
- Magnolia Park
- Parkhill Park
- Stansbury Park
- Wayside Park
- Wyandotte Park

Other Area of Interest/Significance

- Churchill Downs
- Conrad-Caldwell House
- Filson Historical Society
- Gheens Science Hall and Rauch Planetarium
- Kentucky Derby Museum
- Kentucky Fair and Exposition Center
- Laura Kersey Library
- Papa John's Cardinal Stadium
- Speed Art Museum
- University of Louisville Sports Complex
- William Ekstrom Library

Historic

- B.F. Avery and Sons Industrial District
- Churchill Downs
- Confederate Monument
- Epworth Methodist Evangelical Church
- Ford Motor Company, Louisville Plant (Reynolds Building)
- Henry Vogt Machine Company
- Holy Name Church, Rectory, Convent, and School
- Immanuel Chapel Protestant Episcopal Church
- John H. Heywood Elementary School
- Kentucky Wagon Works

- Louisville Fire Department – Steam Engine Company No. 18
- Most Blessed Sacrament School
- Oakdale District
- Old Louisville Residential District
- Olmstead Parkway System (some parkways)
- Saint James – Belgravia Historic District
- University of Louisville (Belknap Campus)

Transit

TAD 40005 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #2 – Second Street
- Route #4 – Fourth Street
- Route #6 – Sixth Street
- Route #12 – 12th Street
- Route #18 – Preston/18th Street
- Route #27 – Hill Street
- Route #29 – Eastern Parkway
- Route #94 – Cardinal Shuttle

There are several express routes which use I-65. Since buses are not allowed to stop to pick up or drop off passengers on an interstate, these routes do not stop in TAD 40005.

Park and Ride

There are no Park and TARC lots identified in TAD 40005.

Public Comments

Brook Street from Cardinal Boulevard to Ormsby Avenue

- Safe corridor needed. Can it be signed to help bikes find a safe way OFF of the major arterial (e.g. Second Street)?

Cardinal Boulevard

- Westbound bike lane ends just before Second Street instead of continuing to intersection or points beyond. MPW can't finish painting it as this is a state road. Louisville Metro and KYTC need coordinate better so this doesn't happen.

North of Eastern Parkway (e.g. Warnock Street)

- Safe corridor needed. Can it be signed to help bikes find a safe way OFF of the major arterial (e.g. Eastern Parkway)?

Hill Street WB

- Left onto Seventh Street from westbound Hill Street is prohibited. Why?

Hill Street at Sixth Street

- Dangerous for people walking.

I-264 (Bike/Ped Access across I-264)

- Cut-across expressway for bike/ped access. Connections were suggested between Seelbach Avenue and Warren Avenue, between Second Street and Southern Heights Avenue, and between Allmond Avenue north of I-264 and Allmond Avenue south of I-264.

Longfield Avenue at Fifth Street

- Only one stop sign at this intersection. Are there one or two signs missing? Accidents occur at this intersection.

Second Street from Cardinal Boulevard to Ormsby Avenue

- Unsafe for cyclists.

Southern Parkway

- Can't get to Iroquois Park on the frontage roads because they aren't complete, or sends on sidewalk, or just doesn't exist in places. Clean it up, pave it, mark it to keep slower bikes off Southern Parkway. Popular route for all ages.

Third Street at Eastern Parkway and at Winkler Avenue

- Misaligned intersection. Align these two intersections to provide better access.

Safety

4,466 crashes were reported in TAD 40005 in the three-year period from 2009 through 2011. There were seven fatalities reported as a result of six crashes from 2009-2011 (three in 2009, two in 2010, and two in 2011). In the same time period, there were a total of 92 crashes resulting in injury in this TAD (29 in 2009, 37 in 2010, and 26 in 2011).

Approximately 60% of the crashes in this TAD occurred on 11 sections of roadways, which are listed below.

- Central Avenue
- Crittenden Drive
- Floyd Street
- Fourth Street
- Hill Street
- I-264
- I-65
- Second Street
- Taylor Boulevard
- Third Street (the two-way portions)
- Third Street (the one-way portion)

Collectively, 2,664 of the crashes in TAD 40005 occurred on one of these 11 sections of these roadways, and each of them had in excess of 100 crashes. An additional nine roadways accounted for another 669 crashes with each roadway having between 50 and 100 crashes. Of the roadways with more than 100 crashes, all of them have at least two lanes available for traffic traveling in the peak period direction with the exception of portions of Floyd Street. Therefore, it is reasonable to expect that these roadways carry significant traffic although most do not experience noticeable congestion except for I-65. Likewise, the roadways with 50 to 100 crashes generally have at least two lanes available for traffic traveling in the peak period direction with the exception of Magnolia Avenue. These roadways can be expected to carry moderate levels of traffic, but only a small section of Seventh Street has congestion, even at a Level of Service (LOS) D.

Fatalities

There were seven fatalities reported as a result of six crashes from 2009-2011 (three in 2009, two in 2010, and two in 2011). Two of the crashes involving pedestrians—both on I-264—resulted in one fatality each.

High Crash Locations

There were numerous high crash density locations in TAD 40005 (see Figure 40005-B). There were thirteen areas and locations in this TAD where the number of crashes over the three-year period was between 100 and 199 crashes within

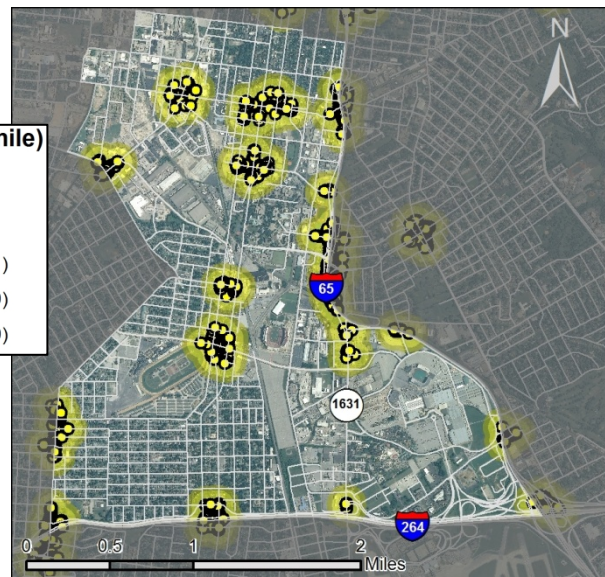
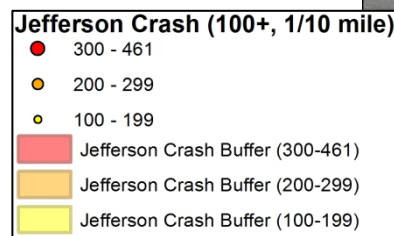


Figure 40005-B: High crash locations in TAD 40005.

0.10 mile. In some cases, the high density crash locations were confined to specific locations, while in other cases the high crash locations spread over a larger area. Following is a list of the areas and locations with 100 to 199 crashes within 0.10 mile including the locations with the highest number of crashes.

I-264/Taylor Boulevard Interchange Area

The high density crash area near the interchange of I-264 and Taylor Boulevard extended along Taylor Boulevard from Carrico Avenue (in TAD 40011) to Strader Avenue. The two locations with the most numerous crashes occurred at or near the intersections of the ramps and Taylor Boulevard.

I-264/Southern Parkway/Third Street Interchange Area

The high density crash area near the interchange of I-264, Southern Parkway, and Third Street extended generally along eastbound and westbound I-264, Southern Heights Avenue (in TAD 40012), and Florence Avenue from Southern Parkway to Third Street. The highest number of crashes in this area occurred along Southern Heights Avenue and Florence Avenue with the crashes particularly concentrated at their signal-controlled intersections with Third Street and, to a lesser degree, Southern Parkway.

I-264/Crittenden Drive Interchange

The high density crash location was at and adjacent to the intersection of Crittenden Drive and its ramp to westbound I-264.

I-264/I-65 Interchange

The high density crash location was along southbound I-65 less than 0.10 mile north of I-264.

Taylor Boulevard from Hathaway Avenue to Clara Avenue

The two locations with the most numerous crashes occurred at or near the intersections of Taylor Boulevard with Berry Boulevard and with Longfield Avenue.

Phillips Lane/I-65 Overpasses

The high density crash locations were along an approximately 0.20 miles section of northbound I-65 about equal distance either side of Phillips Lane and along an approximately 0.13 miles section of Phillips Lane.

Central Avenue/Third Street/Fourth Street

The locations where the highest number of crashes occurred were at the intersections of Central Avenue with Third Street and with Fourth Street and along Fourth Street between Oakdale Avenue and Central Avenue.

Crittenden Drive from Central Avenue to I-65

The two locations with the most numerous crashes occurred along Crittenden Drive at or near its intersections with Central Avenue and with Boxley Avenue.

I-65 near Bradley Avenue/Locust Lane

The location with the highest number of crashes occurred along I-65 near the overpass which used to allow for a connection between Bradley Avenue and Locust Lane with the back side of the Kentucky Fair and Exposition Center.

Winkler Avenue/Third Street/Fourth Street

The locations where the highest number of crashes occurred were at the intersections of Winkler Avenue with Third Street and with Fourth Street.

I-65 from Northwest of Crittenden Drive to Atwood Street

The locations with highest number of crashes occurred along I-65 from northwest of Crittenden Drive to near Atwood Street, along Eastern Parkway and Warnock Street between Crittenden Drive and Floyd Street, along Crittenden Drive mostly at its intersections with Eastern Parkway and Warnock Street, and along Floyd Street mostly at its intersection with Warnock Street.

Seventh Street from Bernheim Lane to Industry Road

The two locations with the most numerous crashes occurred along Seventh Street at or near its intersections with Algonquin Parkway and with Industry Road.

Cardinal Boulevard/Second Street to Fourth Street

The locations where the highest number of crashes occurred were at the intersections of Cardinal Boulevard with Second Street, with Third Street, and with Fourth Street, and, to a lesser degree, along Cardinal Boulevard between those intersections.

Brandeis Avenue from Floyd Street to Arthur Street

The two locations where the highest number of crashes occurred were at the intersections of Brandeis Avenue with Floyd Street and with Arthur Street.

Seventh Street and Hill Street

The locations where the highest number of crashes occurred were at and near the intersection of Seventh Street and Hill Street and Seventh Street between Hill Street and Burnett Avenue. Noticeable but lesser number of crashes occurred at the intersection of Seventh Street and Shipp Avenue and along Hill Street east of its intersection with Seventh Street.

Hill Street from First Street to Fourth Street

The locations with the highest number of crashes occurred at or near the intersections of Hill Street with First Street, Second Street, Third Street, and Fourth Street. Lesser but still noticeable numbers of crashes occurred at the midblock locations between those intersections, along Burnett Avenue between First Street and Third Street, and along Fourth Street between Hill Street and Gaulbert Avenue.

I-65 at the overpass of the CSX Railroad between the KY 61 ramps north and south of the railroad

The locations where the highest number of crashes occurred were along northbound I-65 between the ramp from Preston Street south of the CSX Railroad and the ramps to Preston Street and Woodbine Street north of the CSX Railroad and along southbound I-65 between the ramp from Preston Street/Magnolia Avenue north of the CSX Railroad and the ramp to Arthur Street south of the CSX Railroad.

Bicycle and Pedestrian Crashes

During the three-year period of 2009-2011, 39 of the reported crashes involved bicyclists and 60 involved pedestrians. Two of the crashes involving pedestrians—both on I-264—resulted in one fatality each, but none of the crashes involving bicyclists resulted in a fatality. Eleven of the crashes involving pedestrians resulted in an injured individual, but none of the crashes involving bicyclists involved an injury. Of the crashes involving bicyclists and pedestrians, ten crashes occurred along the two-way portions of Third Street; eight occurred along Fourth Street; and eight occurred along Hill Street.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • I-65 from I-264 to Eastern Parkway • Seventh Street from Algonquin Parkway to Industry Road
LOS F:	<ul style="list-style-type: none"> • I-65 from Warnock Street to Ormsby Avenue

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are (see Figure 40005-C):

LOS D:	<ul style="list-style-type: none"> • I-264 from Third Street to Crittenden Drive • Third Street from Southern Parkway to Central Avenue • Third Street from Eastern Parkway to Second Street • Seventh Street from Myrtle Street to Ormsby Avenue
LOS E:	<ul style="list-style-type: none"> • I-264 from Taylor Boulevard to Southern Parkway • Third Street from Central Avenue to Winkler Avenue
LOS F:	<ul style="list-style-type: none"> • I-65 from I-264 to Eastern Parkway • I-65 from Warnock Street to Ormsby Avenue • Third Street from I-264 to Southern Parkway • Third Street from Winkler Avenue to Eastern Parkway • Seventh Street from Algonquin Parkway to Industry Road • Seventh Street from Industry Road to Myrtle Street

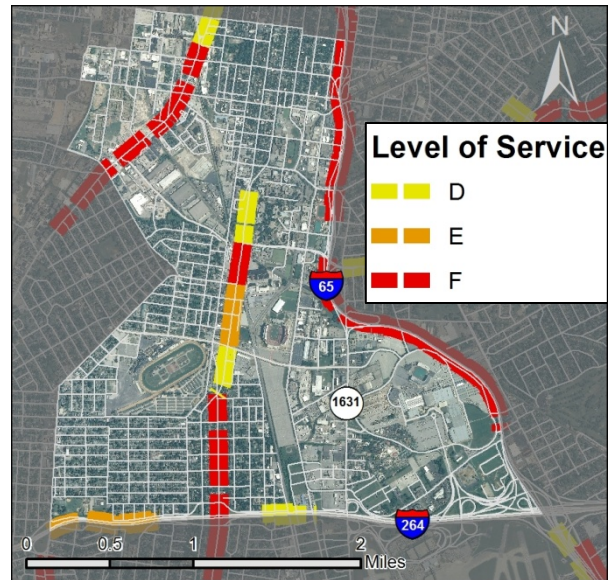


Figure 40005-C: Projected congestion in TAD 40005.

By 2030, most sections of I-65 and Seventh Street and several sections of Third Street in this TAD are expected to be congested at LOS F while several other sections of these streets are expected to be operating at LOS D or E. In addition, some sections of I-264 are expected to be operating at LOS D or E. Projects to be implemented in this area should address the existing and projected congestion.

Access to Community Amenities

There are a number of community amenities in this TAD, including community centers, entertainment venues, museums, historic sites and districts, parks, and two libraries which are associated with the University of Louisville (see Figure 40005-D).

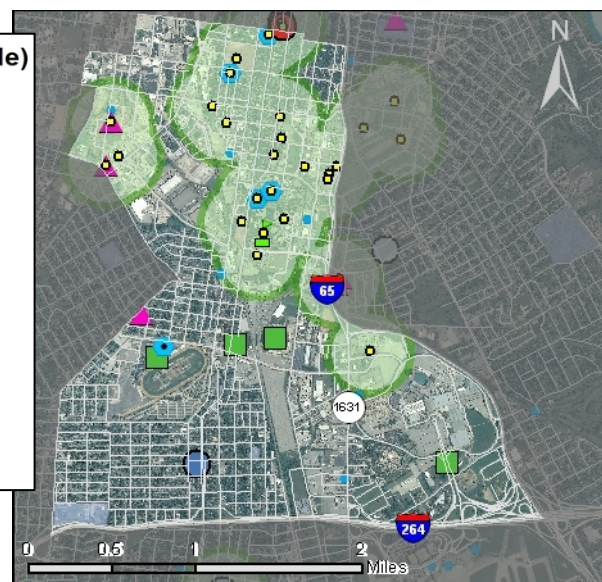
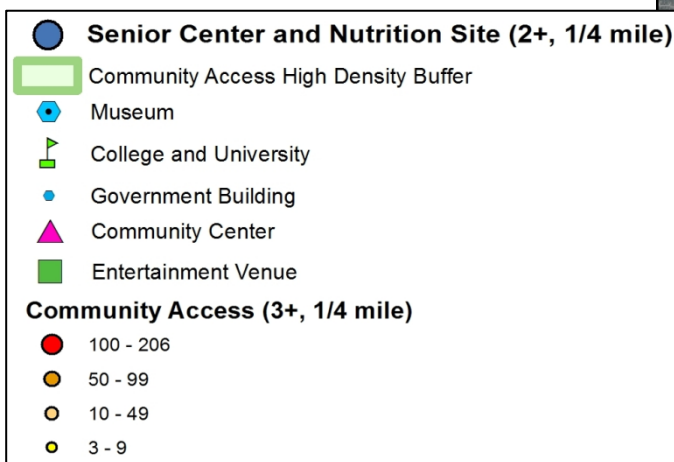


Figure 40005-D: Community access clusters in TAD 40005.

The residential development in this TAD is generally located in the southwest and northeast corners of the TAD with a pocket of residential development located west of

Seventh Street in the northwestern portion of the TAD. There are three community centers in this TAD with two being near or along Thirteenth Street in the northwestern portion of the TAD and the other along Taylor Boulevard in southwestern portion of the TAD.

There are nine parks of varying size in this TAD. The larger parks are Central Park and Wyandotte Park. In contrast, the smaller parks are G.G. Moore Park, Wayside Park, and Magnolia Park. Overall, the parks are well-distributed around the TAD with the exception of the area in the southeast portion near the Kentucky Fair and Exposition Center. However, from time to time, this portion of the TAD has been the area where a theme park has operated.

There are a number of transit routes serving this TAD. These routes include Route #2, Route #4, Route #6, Route #12, Route #18, Route #27, Route #29, and Route #94. Most of these buses provide day-long service and most of them operate seven days a week. The residential areas are reasonably well-served by the transit routes, particularly those in the northern portion of the TAD. Most of the residential area in the southern portion of the TAD are also well-served, although there are areas where the walking distance to the bus line is about 50% greater than what is normally considered to be the maximum. The community amenities are generally well-covered by transit routes. With two exceptions, all of the community amenities are within a reasonable walking distance from the bus route. Even the two exceptions, Churchill Downs and its museum, are only two to three blocks from the nearest transit route. So they could be accessed by transit, albeit with a little extra walking.

In TAD 40005, most of the streets have sidewalks, and there are a significant number of bikeways. So there is generally good pedestrian and bicycle access to the community amenities in this TAD. The community amenities in this TAD are generally within one to two blocks of a bikeway. In the residential areas, the bikeways are not always within one to two blocks. However, for the residential areas and for those community amenities not within one to two blocks, there is a sufficient number of side streets to allow the connection between the amenity and an adjacent bikeway. In general, the street network for much of TAD 40005 is sufficiently close to a rectangular grid that it should be possible for a bicyclist to find a fairly direct path to the nearest bikeway. The main challenge to bike use is that a number of the bikeways are located on functionally-classified streets. The willingness of bicyclists to ride in the traffic lane in order to use these bikeways may vary with the level of experience of the bicyclist. In some cases, the presence of side streets may be adequate substitutes, but this is not always the case. Therefore, access to the community amenities by bicycle is limited on a case-by-case basis.

The street network in TAD 40005 generally follows a rectangular grid pattern in the more residential areas; therefore, access by vehicle should not be a problem with the possible exception of parking availability for events with large crowds. The non-residential areas do not always have a rectangular grid pattern, but some of these areas have internal streets and parking. Access to the community amenities in these areas by vehicle should likewise not be a problem.

As mentioned above in the Congestion section, some sections of major roadways in this TAD are congested or expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access to some of the community amenities may be affected. The effects may be of two types. The congestion on I-65, and to a lesser degree, I-264 will probably affect access to/from the TAD but not have much effect on access within the TAD. On the other hand, additional congestion on Third Street and Seventh Street may have the opposite effect. In particular, the additional congestion on Third Street may have the most significant effect. Nevertheless, with Southern Parkway and, to a lesser degree, Fourth Street being parallel routes for various portions of Third Street—which is projected to operate at LOS F, the effect of the increased congestion may not be pronounced as would otherwise be expected. Further, given the availability of transit service, pedestrian facilities, and bikeways in this TAD, the effect of additional congestion may not be as onerous as it would be in other TADs.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Crowne Plaza
- Kentucky Fair & Exposition Center
- Kimco Corporation
- Pepsi Beverages Corporation
- University of Louisville

The major employers in this TAD are all located on or within approximately one block of a functionally classified street. Two of the employers are located near an entrance/ exit to I-264, and another is located in the vicinity of an entrance/exit to I-65. Not surprisingly, each of the six major employers is located in a high density employment area, where there are 1,000 or more employees within 0.25 miles.

There are two commerce parks in this TAD. One is located between the TAD northern boundary and Myrtle Street and between Eleventh Street and the CSX railroad. The other is located between Industry Road and the Norfolk Southern Railroad extending from Fourth Street about 70% of the distance to Seventh Street.

There are a number of transit routes serving this TAD. These routes include Route #2, Route #4, Route #6, Route #12, Route #18, Route #27, Route #29, and Route #94. Most of these buses provide day-long service and most of them operate seven days a week. The workplaces of the major employers are well served by transit routes. All of those workplaces are within reasonable walking distance of transit routes. The high density employment areas are likewise generally well-served by the transit routes. For a few facilities with the high density employment areas, the walk to transit may be about 10% greater than what is generally considered to be a maximum. Even those locations could be accessed by transit, albeit with a little extra walking.

In TAD 40005, most of the streets have sidewalks, and there are a significant number of bikeways. So there is generally good pedestrian and bicycle access to the workplaces in this TAD. The major employers in this TAD are within one to two blocks of a bikeway, and most of the employers in the high density employment areas are also within a few blocks of a bikeway. The bikeways also provide a synergistic effect to the transit routes providing access to workplace locations which would require the longest walks for access by transit. The main challenge in accessing workplaces by the combination of transit and bicycle is that the path between the bus and the workplace or vice versa may not be a direct path due to the large block sizes in a few of the employment areas. Nevertheless, the bike ride between the bus and the workplace or vice versa is still sufficiently short that the indirect path should not be a major impediment. The main challenge to bike use is that a number of the bikeways are located on functionally-classified streets. The willingness of bicyclists to ride in the traffic lane in order to use these bikeways may vary with the level of experience of the bicyclist. In some cases, the presence of side streets may be adequate substitutes. Therefore, access to workplaces by bicycle is sometimes limited on a case-by-case basis.

The street network in TAD 40005 does not always follow a rectangular grid pattern in the areas where the major employers are located and in the high density employment areas. Nevertheless, access by vehicle should not be a problem. Although large block sizes and/or employment locations facing side streets may require an indirect path in some cases, the additional distance traveled is almost certainly too small to make much difference, so access to the workplaces in this TAD by vehicle should not be a problem.

The congestion on I-65, and to a lesser degree, I-264 will probably affect access to/from the TAD but not have much effect on access within the TAD. On the other hand, additional congestion on surface streets might have the opposite effect. In this case, however, both effects may occur. The additional congestion projected to be on a portion of Third Street may affect one of the major employers. Other than that effect, additional congestion on Third Street and Seventh Street should not have a direct effect on the high employment locations. However, the effect of the increased congestion on I-65 and I-264 may affect the ability of some manufacturing locations to receive raw materials and ship their products. Nevertheless, given the availability of transit service, pedestrian facilities, and bikeways in this TAD, the effect of additional congestion on travel within the TAD may not be as onerous as it would be in other TADs.

Access for Persons with Disabilities and/or Older Adults

The only facility specifically for persons with disabilities and/or older adults in TAD 40005 is the South Louisville Adult Day Care Center at 4100 Southern Parkway. Although the address for South Louisville Adult Day Care Center is listed as being on Southern Parkway, the facility is actually located on Fairmont Avenue near the alley about midblock between Southern Parkway and Fifth Street.

There are a number of transit routes serving this TAD. There are two branches of Route #4 which provides access to the streets east and west of Southern Parkway. Since South Louisville Adult Day Care Center is actually between Southern Parkway and Fifth Street, it is only about half of a block from the branch that uses Fifth Street. Route #4 provides day-long service and operates seven days a week. In addition, since the center is within 0.75 miles of the fixed-route transit service, those wishing to access the South Louisville Adult Day Care Center qualify for paratransit service if the other end of the trip is also within 0.75 miles of a fixed-route transit route. The South Louisville Adult Day Care Center is well-served by transit.

In TAD 40005, most of the streets have sidewalks, and there is a significant number of bikeways. So there is generally good pedestrian and bicycle access in this TAD. There are sidewalks in the area around the South Louisville Adult Day Care Center. In addition, there are bikeways along both Southern Parkway and Fifth Street. Therefore, the South Louisville Adult Day Care Center is only about half of a block from either bikeway. So the South Louisville Adult Day Care Center is well-served by pedestrian and bicycle facilities. The main challenge to bike use would be the availability of acceptable bicycle facilities at the other end of the trip and the path between the two ends.

The street network in the area adjacent to the South Louisville Adult Day Care Center—like much of TAD 40005—has a rectangular grid pattern. This is true east of Fifth Street, but west of Fifth Street, the grid is a bit more irregular with some streets terminating in the neighborhood, and others beginning approximately midblock between the streets from the east. Nevertheless, there is sufficient connectivity such that access to South Louisville Adult Day Care Center by vehicle should not be a problem.

Access to Education

There are educational institutions at all levels located in TAD 40005. The University of Louisville Belknap campus is located in the eastern portion of this TAD. Among the facilities provided at the University of Louisville are two libraries, which were mentioned previously in the discussion of community amenities. In addition, there are a high school, a middle school, a combined middle and high school, and four elementary schools. Three of these schools—Dupont Manual High School, Noe Middle School, and the Youth Performing Arts Center Middle and High School—are clustered along Second Street north of the University of Louisville. The other four schools are dispersed across the TAD.

There are a number of transit routes serving this TAD. These routes include Route #2, Route #4, Route #6, Route #12, Route #18, Route #27, Route #29, and Route #94. Most of these buses provide day-long service and most of them operate seven days a week. The University of Louisville, its libraries, and all of the other schools are within two blocks of a transit line, which is within reasonable walking distance.

In TAD 40005, most of the streets have sidewalks, and there are a significant number of bikeways, so there is generally good pedestrian and bicycle access to educational facilities in this TAD. The University of Louisville, its libraries, and all of the other schools in this TAD are within one to two blocks of a bikeway. However, a number of the bikeways are located on functionally-classified streets. The willingness of bicyclists to ride in the traffic lane in order to use these bikeways may vary with the level of experience of the bicyclist. Using bikeways under these conditions may be more challenging than should be expected of elementary and middle school children. In some cases, the presence of side streets may be adequate substitutes. Therefore, access to the elementary and middle schools by bicycle is sometimes limited on a case-by-case basis.

The street network in this TAD provides good access to the University and its libraries. Some of the students must park several blocks from the main part of the campus, but Route #94 provides the connection between the parking and the

main campus. Four of the seven other schools are located along functionally classified streets, and the others are located within three to four blocks of such streets. For the most part, the presence of these functionally classified streets and the presence of a rectangular grid pattern in the other areas indicate that access to these areas by vehicle should not be a problem. However, since some of the schools are located along major streets, they will need to have locations where students can be dropped off and picked up safely, and it appears that these facilities exist.

For students, staff, and faculty wishing to access the University, the additional congestion along the interstates may lead to longer travel times getting to and from the school. In addition, the additional congestion projected to occur on Third Street north of Eastern Parkway may also cause delays. The additional congestion projected to occur on Third Street north of Eastern Parkway may also cause delays getting to and from Dupont Manual High School, Noe Middle School, and the Youth Performing Arts Center Middle and High school. The additional congestion on Seventh Street may cause additional delays getting to and from McFerran Preparatory Academy Elementary School. However, given the availability of transit service, pedestrian facilities, and bikeways in this TAD, it may be possible for some students to use alternate modes of transportation to partially avoid the effects of the additional congestion.

Access to Government Services

Overall, there are sixteen government service facilities in TAD 40005 (not counting community centers which were discussed with the community amenities). They include three police facilities, four fire houses and/or emergency service facilities, seven facilities at the University of Louisville, and two other facilities. There are several clusters of government services in this TAD. There are two clusters in the eastern part of the TAD along Eastern Parkway. One of these is centered near the western end of Eastern Parkway. A number of facilities associated with the University of Louisville contribute to this being a cluster. The other cluster is at the eastern boundary near I-65. Government service locations in the TAD to the east contribute to this being a cluster. The third cluster is a series of overlapping circular areas, each with a high density of government services. This cluster is located between Second Street and I-65 starting in the northern portion of the University of Louisville and extending to the vicinity of Gaulbert Avenue and Hill Street. In the southern portion of the TAD, the three government service facilities are located near Crittenden Drive.

There are a number of transit routes serving this TAD. These routes include Route #2, Route #4, Route #6, Route #12, Route #18, Route #27, Route #29, and Route #94. Most of these buses provide day-long service and most of them operate seven days a week. All of the government service locations and parks are located within 0.25 miles of a transit line, which is within reasonable walking distance.

In TAD 40005, most of the streets have sidewalks, and there are a significant number of bikeways, so there is generally good pedestrian and bicycle access to government service locations and parks in this TAD. All of the government service facilities and parks are within one to two blocks of a bikeway. However, a number of the bikeways are located on functionally-classified streets. The willingness of bicyclists to ride in the traffic lane in order to use these bikeways may vary with the level of experience of the bicyclist. In some cases, the presence of side streets may be adequate substitutes, but this is not always the case. Therefore, access to the government service locations and parks is limited on a case-by-case basis.

The street network in this TAD provides good access to the government facilities. For the most part, the presence of the functionally classified streets listed above and the presence of a network approximating a rectangular grid pattern—in most areas—indicate that access to these areas by vehicle should not be a problem with respect to the availability of streets.

At present, the levels of congestion on the surface streets in TAD 40005 would not be considered a problem. However, the projected congestion on Third Street and Seventh Street could present a problem. In particular, police, firefighters, and emergency first responders could experience increased response times if the congestion—particularly that at LOS F—is not addressed. The projected congestion could also increase travel times to other government service locations and parks, although it is not likely that the consequences of the increased travel times would be as significant as the effect on the travel times of the first responders.

Access to Medical Facilities

There are no medical facilities in TAD 40005. The nearest hospitals are in the TADs to the north (40001), east (40008), and southwest (40011). There are a number of hospitals in TAD 40001 located in the area to the east of downtown Louisville.

There are a number of surface streets which lead to the hospitals in TAD 40001, TAD 40008, and TAD 40011. In addition, I-65 can be used to travel from some parts of TAD 40005 to the TAD 40001, and I-264 can be used to travel from some parts of TAD 40005 to travel to TAD 40008 and to TAD 40011. The street connections which would be the main concerns in accessing hospitals in TAD 40008 and TAD 40011 are Eastern Parkway and Taylor Boulevard, respectively. These roadways provide the access from TAD 40005 to TAD 40008 and to TAD 40011 via underpasses of I-65 and I-264, respectively. However, in the future, Eastern Parkway is projected to operate at LOS D east of I-65, and Taylor Boulevard is projected to operate at LOS F south of I-264. Therefore, in the future, access to the hospitals in TAD 40008 and particularly in TAD 40011 may be affected by the congestion on these roadways.

All of the medical facilities in the other TADs are located along transit routes. The routes which can be used to access the medical facilities in adjacent TADs include Route #2, Route #4, Route #6, Route #18, Route #27, and Route #29. Most of these buses provide day-long service and most of them operate seven days a week. So access to the medical facilities by transit seems to be a reasonable alternative in non-emergency situations.

Given that the nearest medical facilities for residents of this TAD are in other TADs, the issues raised in the congestion section could play a role in the ability of residents to access to medical facilities in the future. The projected operation of sections of I-65 at LOS F, and to a lesser degree, sections of I-264 at LOS D and E could be problematic.

Freight Access

I-64 and I-264 in this TAD are part of the KIPDA Freight Network. These interstate connections provide a vital role allowing for freight movement north and south, and east to west – basically connecting to the rest of the national interstate system. Other streets in this TAD which are part of the KIPDA Freight Network include Crittenden Drive and portions of Central Avenue, Park Boulevard, Hill Street, Seventh Street, 11th Street, and 12th Street. These streets provide connections directly or indirectly to the interstate system. In addition to the streets in the KIPDA Freight Network, there are three major rail lines operated by two major freight carriers which provide freight access to and/or through this TAD. These lines provide connections: (1) between locations to the south and either Southern Indiana or to the northeast and (2) between locations to the west and to the east.

There is a cluster (five or more users) of major freight users in TAD 40005. The users in the cluster are located in the area north of Hill Street and adjacent to or west of the CSX railroad in the northwestern corner of the TAD. In addition, there are thirteen freight distributors in this TAD. All but two are located along a street on the KIPDA Freight Network or very close to it along a street that intersects a street on the KIPDA Freight Network. One of these is located along Fourth Street where it can access Industry Road to access Seventh Street. The other, however, is located at the south end of Brook Street and must use that street and travel through a portion of the University of Louisville campus to access I-65. This route is plagued with difficult turns at some street corners and narrow lanes in locations where parking is allowed.

There are also a number of industrial parks in TAD 40005, and while most are located near one or more streets on the KIPDA Freight Network, there are two which are not. These two are along the west side of CSX railroad in the vicinity of Central Avenue and further south. The businesses in these industrial parks likely have to use Third Street and a connecting side street to access I-264 or to access Central Avenue to get to Crittenden Drive to get to I-65. These routes no doubt involve the use of narrow streets and streets with narrow lanes and corners with small turning radii. Access between the businesses in these locations and the interstate system is probably hindered by the roadway system. Since many of these businesses are located adjacent to a railroad, access by rail is generally good.

In a more general sense, freight access by truck sometimes faces challenges due to rail lines. A number of streets do not have crossings of the rail lines. Other streets have underpasses at locations where they intersect with rail lines. A number of the underpasses were built years ago when trucks and trailers were not as large as they are today;

therefore, some trucks and trailers have difficulty passing through the underpasses. As a result, truck drivers have occasionally sought alternative routes. This has sometimes led to trucks passing through some parts of the residential portion of the TAD. As might be expected, this has led to conflicts between the land use and the type of traffic using the adjacent streets. Efforts have been made to provide more information to trucking firms about the truck routes through the TAD. At last report, these efforts have helped minimize the problems.

The major issue facing freight in this TAD is the projected levels of service. I-65 is projected to be operating at LOS F by 2030; I-264 is projected to have sections operating at LOS D and E; various sections of Third Street are projected to be operating at LOS D, E, and F; and Seventh Street is projected to be operating at LOS D and F. All of these streets either on the KIPDA Freight Network, or as described above, a necessary link in moving freight from some distributors to the interstate system. Clearly, the projected congestion levels on these streets can make freight distribution problematic in the future. In addition, there are major freight users and industrial parks whose locations make it difficult for freight transporters to connect to the interstate system without using narrow streets and/or intersections with small turning radii. Situations such as these can sometimes lead to freight vehicles choosing alternate routes that traverse residential neighborhoods essentially creating truck route problems. This issue needs to be more fully investigated—probably on a case-by-case basis—and the problems addressed.

Future Socioeconomic Conditions

Most of TAD 40005 is currently built out and not anticipated to see significant changes by the year 2030 in the number of households, or non-group quarters population. The three socioeconomic indicators are forecasted to see low to moderate growth:

- Households: Low to moderate growth in various areas throughout the TAD
- Employment: Moderate to high growth in jobs with the greatest growth forecasted to occur in the area of South Seventh Street and Hill Street. Nearly the entirety of the remainder of the TAD is forecasted to see low to moderate growth in jobs.
- Population: Low to moderate growth in various areas throughout the TAD

This scenario is not unexpected given the current density patterns in TAD 40005. Of the three socioeconomic indicators the increase in the number of jobs in and around the South Seventh Street and Hill Street area raises the most interest. In general terms, economic growth is recognized as a positive indicator for the TAD. Yet the corridors which are anticipated to see degradation in LOS will suffer without the involvement of mitigating efforts to reduce the negative impact on the transportation system and could result in being counterproductive to the forecast growth in jobs. Of particular concern are South Seventh and South Third Streets. South Seventh Street is forecasted at LOS F, while South Third Street is forecasted to see a reduction in LOS to D, E, and F through various segments of roadway stretching from I-264 north to its intersection with South Second Street.

Issues and Opportunities

- A major issue involving TAD 40005 is the high number of crashes occurring on the streets in this TAD.
- Another issue is the increasing congestion which is forecasted for numerous facilities in this TAD.
- Most of the streets in TAD 40005 have sidewalks. Therefore, pedestrian access is generally not a problem. This provides an opportunity to encourage a mode shift to pedestrian travel.
- Bikeways and a side street network generally following a rectangular grid provide a relatively good infrastructure for bicycle use in TAD 40005. However, a number of the bikeways in this TAD are along arterial streets. The use of these bikeways may be uncomfortable for less experienced bicyclists. This situation provides both an issue that projects to be implemented should address and an opportunity to encourage a mode shift to travel by bicycle.
- Transit routes exist along most of the major streets in TAD 40005. This provides an opportunity to encourage a mode shift toward transit usage.

Related Plans and Studies

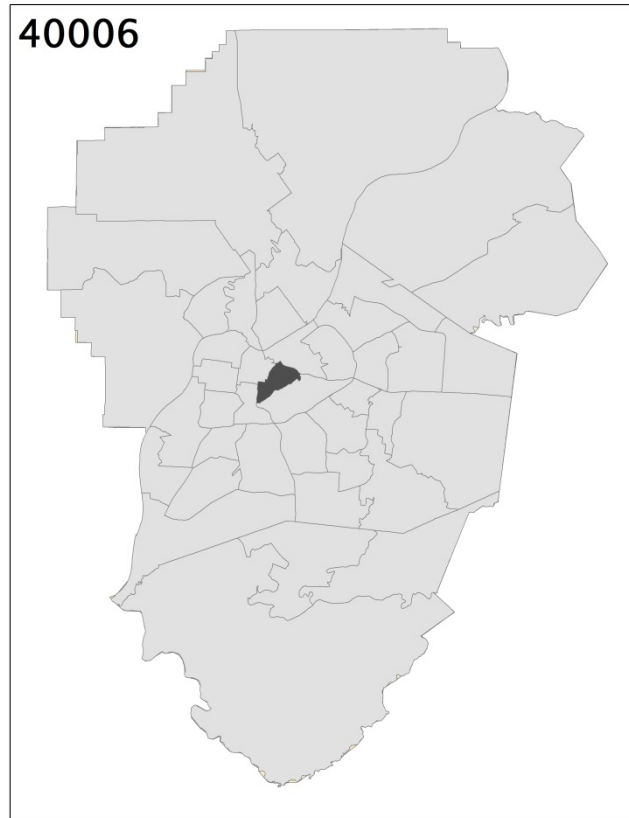
- Cornerstone 2020 Comprehensive Plan (2013)
- I-65 Ramp Modification Scoping Study (2008)
- New Cut Road/Taylor Boulevard Corridor Study (2013)
- Old Louisville/Limerick Neighborhood Plan (2000)
- University Corridor Redevelopment Study (2010)
- University of Louisville 2020 Strategic Plan (2008)
- University of Louisville Bicycle Master Plan (2011)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40006 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40006 is located southeast of downtown Louisville. It includes the area east of I-65; north and west of Eastern Parkway, a small section of US 31E (Bardstown Road), Sherwood Avenue, Cherokee Road, Bonnycastle Avenue, Scenic Loop, and Beals Branch Road; south and west of I-64; and south and east of Mellwood Avenue, Beargrass Creek, Kentucky Street, Shelby Street, and Oak Street. The TAD is located in Louisville Metro and includes all or parts of the following neighborhoods: Saint Joseph, Meriwether, Schnitzelburg, Shelby Park, Paristown Pointe, Germantown, Tyler Park, Bonnycastle, Highlands, Phoenix Hill, Irish Hill, Cherokee Triangle, and Cherokee Seneca. TAD 40006 is relatively well established in terms of development patterns. A significant portion of this TAD has fairly dense residential development. In addition, the TAD also includes a moderately high density shopping area located along Bardstown Road and a noticeable amount of open space in the form of parks and cemeteries.

Area and Socioeconomic Information

Area: Approximately 2,859 acres
Non-Group Quarters Population (2010): 20,691
Number of Households (2010): 10,637
Number of Jobs (2000): 11,257

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies a rather large Title VI/ Environmental Justice area to the north and west of TAD 40006. This area extends into TAD 40006 in two areas. It includes the entirety of the portion of the TAD from Shelby Street westward. It also includes an area in the northeastern portion of TAD 40006 north of Broadway and the southern boundary of Cave Hill Cemetery, west of Etley Avenue between Grinstead Drive and Lexington Road and west of the middle fork of Beargrass Creek between Lexington Road and I-64.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

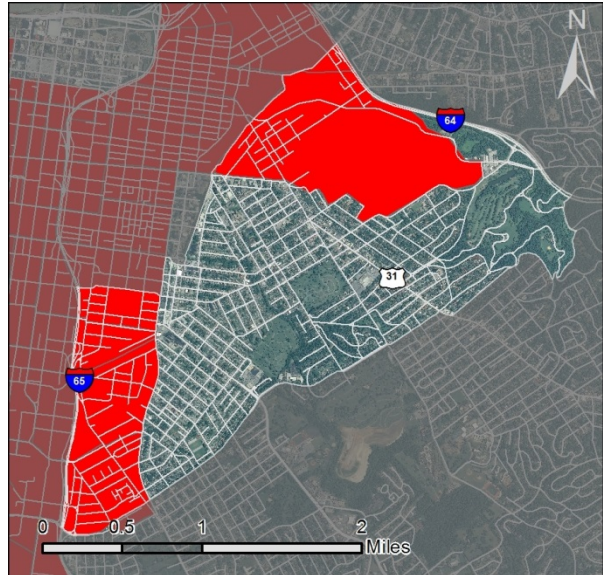


Figure 40006-A: Title VI/Environmental Justice areas in TAD 40006 are shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64* from US 42 (Mellwood Avenue) to Beals Branch Road • I-65* from US 60A (Eastern Parkway) to Oak Street
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 31E* (Bardstown Road) from Sherwood Avenue to Highland Avenue • US 31E* (Baxter Avenue) from Highland Avenue to Beargrass Creek • US 60A (Eastern Parkway) from I-65 to US 31E (Bardstown Road) • US 150 (Broadway)*~ from Beargrass Creek to US 31E (Baxter Avenue)
Urban Minor Arterial	<ul style="list-style-type: none"> • US 60A (Eastern Parkway) from US 31E (Bardstown Road) to US 60A (Willow Avenue) to US 60A (Lexington Road) • KY 61 (Shelby Street) from US 60A (Eastern Parkway) to I-65 • KY 864 (Goss Avenue) from US 60A (Eastern Parkway) to Shelby Street • KY 1703 (Baxter Avenue) from US 60A (Eastern Parkway) to Highland Avenue • KY 2860 (Grinstead Drive) from US 31E (Bardstown Road) to US 60A (Cherokee Parkway) • Barret Avenue from Castlewood Avenue to US 150 (Broadway) • Castlewood Avenue from Barret Avenue to KY 1703 (Baxter Avenue) • Crittenden Drive from US 60A (Eastern Parkway) to Warnock Street • Grinstead Drive from Winter Avenue just west of Baxter Avenue to US 31E (Bardstown Road) • Lexington Road from Liberty Street to US 60A (Grinstead Drive) • Liberty Street from Beargrass Creek to Lexington Road • Mary Street from Oak Street to KY 864 (Shelby Street) • Oak Street from KY 864 (Shelby Street) to Barret Avenue • Shelby Street from KY 61 (Lynn Street) to KY 864 (Goss Avenue)

	<ul style="list-style-type: none"> • Warnock Street from I-65 interchange to Crittenden Drive • Winter Avenue from Barret Avenue to Grinstead Drive just west of Baxter Avenue
Urban Collector	<ul style="list-style-type: none"> • Barret Avenue from US 60A (Eastern Parkway) to Castlewood Avenue • Breckinridge Street from Barret Avenue to Beargrass Creek • Burnett Avenue from Preston Street to Shelby Street • Cherokee Road from US 31E (Baxter Avenue) to KY 2860 (Grinstead Drive) • Kentucky Street from Beargrass Creek to Barret Avenue • Meriwether Avenue from Burnett Avenue to Shelby Street
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- Bloom Elementary School
- Breckinridge Metropolitan High School
- Breckinridge/Franklin Elementary School
- Jefferson County Traditional Middle School
- Louisville Collegiate School
- Saint James Elementary School
- Shelby Traditional Elementary School

Colleges & Universities

- N/A

Parks

- Breslin Park
- Castlewood Park
- Cherokee Golf Course
- Cherokee Park
- Lincoln Park
- Preston Park
- Rubel Park
- Shelby Park
- Tyler Park
- Willow Park

Other Area of Interest/Significance

- Highlands/Shelby Park Public Library

Historic

- August Bloedner Monument
- Bradford Mills
- Cave Hill National Cemetery
- Cherokee Triangle Area Residential District
- Emerson School
- Engelhard House
- German Evangelical Church of Christ Complex
- Hope Worsted Mills
- Howard-Gettys House
- J. Stoddard Johnston Elementary School
- John B. Castleman Monument
- Louisville Cotton Mills
- Louisville Fire Department – Steam Engine Company No. 11
- Louisville Fire Department – Steam Engine Company No. 20
- Louisville Fire Department – Steam Engine Company No. 4
- Nicholas Finzer House
- Saint Elizabeth of Hungary Roman Catholic Church

- Saint James Roman Catholic Church, Rectory, and School
- Saint Therese Roman Catholic Church, Rectory, and School
- Saint Vincent DePaul Church, Rectory, School
- Saint Ursula Home and Convent
- Schuster Building
- Shelby Park Branch Library Building
- Union Monument in Louisville
- Valentine Schneikert House
- Wirth, Lang, and Company – The Louisville Leather Company Tannery Building

Transit

TAD 40006 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #2 – Second Street
- Route #15 – Market Street
- Route #17 – Bardstown Road
- Route #18 – Preston/18th Street
- Route #19 – Muhammad Ali Boulevard
- Route #21 – Chestnut Street
- Route #23 – Broadway
- Route #25 – Oak Street
- Route #27 – Hill Street
- Route #29 – Eastern Parkway
- Route #31 – Shelbyville Road
- Route #40 – Taylorsville Road
- Route #43 – Portland/Poplar Level Road
- Route #55 – Westport Road

There are several express routes which use I-64 or I-65. Since buses are not allowed to stop to pick up or drop off passengers on an interstate, these routes do not stop in TAD 40006.

Park and Ride

There are no identified Park and Ride lots in TAD 40006.

Public Comments

Bardstown Road

- Pedestrian signal at Mid-City Mall

Barret Avenue

- Sidewalk on Barret Avenue is really close to the road and is often obstructed by garbage bins and recycling bins because there is no other place they can go.

Baxter/Bardstown

- Tree base square area lacks mulch – drop creates safety hazard for disabled

Castlewood Avenue

- Sidewalk needs repairing/replacing on Castlewood Avenue from Rufer Avenue to Tyler Park

Eastern Parkway

- Unsafe conditions for people on bikes

Eastern Parkway at Bardstown Road

- Turning onto Bardstown Road from Eastern Parkway, going downtown More signs 150-300 ft before intersection warning drivers which lanes are turn only

Grinstead Drive

- Safe corridor needed. Can it be signed to help bikes find a safe way OFF of the major arterial?

Grinstead Drive/Lexington Road

- Lots of cyclists pass through this intersection. Lots of traffic comes off I-64 here.

I-64

- On I-64, from Spaghetti Junction to Gene Snyder, widen it from 4 to 6 lanes.

Kentucky Street

- Reduce speed limit timing = more blocks traveled on a bike

Logan Street

- Sidewalks need to be repaired.

Mary Street

- Sidewalks need to be repaired.

North of Eastern Parkway (e.g. Warnock Street)

- Safe corridor needed. Can it be signed to help bikes find a safe way OFF of the major arterial?

Oak Street

- Make into two-way street.

Shelby Street

- Sidewalks need to be repaired.

Safety

From 2009 through 2011, 4018 crashes were reported in TAD 40006. There were three fatalities reported as a result of three crashes from 2009-2011 (two in 2009 and one in 2010).

Approximately 59% of the crashes in this TAD occurred on 8 corridors:

- US 31E;
- Mary Street/Oak Street/Winter Avenue/Grinstead Drive;
- I-65 from Eastern Parkway to Oak Street;
- KY 61/Preston Street;
- Barret Avenue/Castlewood Avenue;
- I-64 from Mellwood Avenue to Beals Branch Road;
- KY 864; and
- Baxter Avenue from Eastern Parkway to Highland Avenue.

Collectively, approximately 2380 of the crashes in TAD 40006 occurred in one of these eight corridors. Further, these were the corridors in the TAD in which 100 or more crashes occurred. All eight corridors can be expected to carry a significant amount of traffic. It is surprising, therefore, that only the US 31E, I-65, and I-64 corridors had congestion at the LOS D level or higher. The US 31E corridor presently experiences an LOS of D while the LOS of the I-64 and I-65 corridors have been E and F, respectively. Aside from the eight corridors, there were only three streets which individually had between 50 and 100 crashes, but there were 36 streets which individually had between 10 and 50 crashes. Collectively, more than 840 crashes (about 21%) of the crashes in this TAD occurred on these 39 roadways. There was not a consistent pattern to the cross sections of these corridors/streets. Obviously, the cross sections of the interstates would be expected to be different from the surface streets, but the cross sections for the surface corridors and streets include two- and multi-lane streets with one- and two-way traffic flow. This variety of cross sections indicates that the volumes and speeds of traffic on those streets are probably quite varied, as well.

Fatalities

There were three fatalities reported as a result of three crashes from 2009-2011 (two in 2009 and one in 2010).

High Crash Locations

There were several high density crash areas/locations in TAD 40006 for the three-year period of 2009-2011. There were seven areas/locations where there were 100 to 199 crashes within 0.10 mile of each other. There were two areas/locations with even higher crash densities (200 to 299 crashes within 0.10 mile of each other) (see Figure 40006-B).

Bardstown Road/Eastern Parkway Intersection Area

The higher density (200 to 299 crashes within 0.10 mile) crash area near the intersection of Bardstown Road (US 31E) and Eastern Parkway (US 60A) extended along and on either side of Bardstown Road from south of Sherwood Avenue to slightly north of Baringer Avenue/Edenside Avenue, along Eastern Parkway west of Bardstown Road to Norris Place, along Eastern Parkway east of Bardstown Road to Willow Avenue, and along the side streets south of the intersection. There were also high density (100 to 199 crashes within 0.10 mile) crash areas adjacent to the higher density area. The main one was located to the south and east of the higher density area along and either side of Bardstown Road from north of Alta Avenue (in TAD 40008) to south of Sherwood Avenue. Others were located along side streets either side of Bardstown Road in the general vicinity of its intersection with Eastern Parkway. The larger portion of these crash areas is located in TAD 40006. However, there were some high density locations in the TAD 40008, as well. The discussion will address the whole area without regard to the TAD boundaries.



Figure 40006-B: High crash locations along the Bardstown Road corridor.

In this area, Bardstown Road and Eastern Parkway both have four lanes. Except during peak periods when the reversible lane configuration is used, Bardstown Road has one travel lane in each direction with parking allowed in the curb lane on each side. During peak periods, it has two travel lanes in the more heavily-traveled peak direction, one lane in the opposite direction, and a two-way left turn lane. The western leg of Eastern Parkway has two travel lanes in each direction, and the eastern leg of Eastern Parkway has two westbound lanes and an eastbound lane from the Bardstown Road intersection to approximately one-half distance to Willow Avenue; then it has only one lane in each direction. Parking along this leg of Eastern Parkway roughly coincides with the portion which has one lane in each direction. Both streets have significant traffic volumes. There are a number of side streets, alleys, and driveways along Bardstown Road north of the Eastern Parkway intersection, a smaller number along Bardstown Road south of the intersection, and a still smaller number along Eastern Parkway either side of the intersection.

There were approximately 280 crashes in the higher density area with approximately 90% occurring along Bardstown Road or Eastern Parkway. The categories with the largest number of crashes were angle crashes with approximately 100, rear end crashes with approximately 80, and same direction sideswipe crashes with about 60. There were approximately 340 crashes in the combined high/higher density area with approximately 85% occurring along Bardstown Road or Eastern Parkway. The categories with the largest number of crashes in the high/higher density area were angle and rear end crashes with approximately 100 each, and same direction sideswipe crashes with about 70. There were no fatalities in this area.

The categories of crashes which occurred frequently in these areas are often associated with certain types of situations and/or driver behaviors. In angle crashes, usually one of two situations occurs. One of the vehicles is turning when it struck the other vehicle or was struck by it, or the crash is an intersection right-angle crash in which both vehicles are going straight ahead. The crash data for the high/higher density area indicates that approximately 70% of the angle crashes involved at least one of the vehicles turning. Another 10% of the angle crashes were intersection right-angle crashes. The crash data indicates that almost 75% of the same direction sideswipe crashes involved at least one of the vehicles changing lanes, merging, or overtaking the other vehicle, or making a turn. In conclusion, Bardstown Road and

Eastern Parkway both have significant traffic volumes, which is likely a major contributor to the crash situation at this location.

Bardstown Road/Grinstead Drive Intersection Area

The higher density (200 to 299 crashes within 0.10 mile) crash area near the intersection of Bardstown Road (US 31E) and Grinstead Drive extends along and on either side of Bardstown Road from south of Ellwood Avenue to about halfway between Grinstead Drive and Highland Avenue. Along Grinstead Drive, the higher density crash area extends from slightly west of Baxter Avenue to about three-fourths of the distance from Bardstown Road to Cherokee Road. There were also a series of high density (100 to 199 crashes within 0.10 mile) crash areas adjacent to or near the higher density area. They were located:

- (1) adjacent to the western edge of the higher density area along Baxter Avenue and Winter Avenue;
- (2) adjacent to the southern edge of the higher density area along Bardstown Road;
- (3) slightly removed from the eastern edge of the higher density area along Cherokee Road; and
- (4) a somewhat continuous linear area along and near Bardstown Road and Baxter Avenue from the northern edge of the higher density area to slightly north of Broadway.

In this area, Bardstown Road and Grinstead Drive both have four lanes. Except during peak periods when the reversible lane configuration is used, Bardstown Road has one travel lane in each direction with parking allowed in the curb lane on each side. During peak periods, it has two travel lanes in the more heavily-traveled peak direction, one lane in the opposite direction, and a two-way left turn lane. The western leg of Grinstead Drive has two lanes in each direction to approximately one-fourth distance from Bardstown Road to Baxter Avenue; then it has two eastbound lanes and a travel lane with parking allowed in the curb lane in the westbound direction for the next one-half block; then it returns to two lanes in each direction for the remainder of the block. The eastern leg of Grinstead Drive has two travel lanes in each direction. Both streets have significant traffic volumes. There are a number of side streets, alleys, and driveways along Bardstown Road south of the Grinstead Drive intersection and a smaller number along Bardstown Road north of the intersection and along Grinstead Drive either side of the intersection.

There were approximately 230 crashes in the higher density area with more than 85% occurring along Bardstown Road or Grinstead Drive. The categories with the largest number of crashes were angle crashes with approximately 80, rear end crashes with approximately 60, and same direction sideswipe crashes with about 50. There were approximately 620 crashes in the combined high/higher density areas with over 65% occurring along Bardstown Road or Grinstead Drive. The categories with the largest number of crashes in the high/higher density areas were angle crashes with approximately 190, rear end crashes with approximately 160, and same direction sideswipe crashes with about 140. There were no fatalities in this area.

The crash data for the high/higher density area indicates that approximately 55% of the angle crashes involved at least one of the vehicles turning. An additional 15% of the angle crashes were intersection right-angle crashes. Almost 65% of the rear end crashes in the high/higher density area involved the following vehicle going straight ahead or slowing, and the leading vehicle slowing, stopping, or turning. Almost 55% of the same direction sideswipe crashes in the high/higher density area involved at least one of the vehicles changing lanes, merging, or overtaking the other vehicle, or making a turn. In conclusion, Bardstown Road and Grinstead Drive both have significant traffic volumes, and this is likely a major contributor to the crash situation at this location.

I-65 from Eastern Parkway to Atwood Street

The high density crash area (100 to 199 crashes within 0.10 miles) along I-65 from Eastern Parkway to Atwood Street is part of a larger area with a high density of crashes which extended along I-65 from northwest of Crittenden Drive to Atwood Street. High density locations in this area can be found in TADs 40005 and 40008, as well as TAD 40006. Since the crashes in this area were mainly located along I-65 (the border between TADs 40005 and 40006), the discussion will address the whole area without regard to TAD boundaries.

In this area, the most prominent of the high density crash locations were located along I-65, the I-65 ramps, Warnock Street between I-65 and Crittenden Drive, and a small section of Eastern Parkway between the end of the ramp from I-

65 to eastbound Eastern Parkway and Crittenden Drive. I-65 has a fairly typical freeway cross-section with travel lanes—in this case, 3 lanes—in each direction separated by a median barrier. The I-65 ramps have one lane each with travel obviously only allowed in one direction. Warnock Street in the most prominent high density crash area is a two-lane, two-way street without turning lanes except for eastbound Warnock Street at its intersection with the northbound off- and on-ramps immediately east of I-65. Eastern Parkway in the most prominent high density crash area is a four-lane, two-way street with eastbound left- and right-turn lanes along the western leg and westbound left- and right-turn lanes along the eastern leg of its intersection with Crittenden Drive. There were approximately 290 crashes in the entire high density area with almost 80% occurring along I-65 or its ramps. The categories with the largest number of crashes were rear end crashes with approximately 120 and same direction sideswipe and single vehicle crashes with about 70 each. There were no fatalities.

The crash data indicates that over 70% of the rear end crashes involved the following vehicle going straight ahead or slowing and the leading vehicle slowing or stopping. Almost 55% of the same direction sideswipe crashes involved at least one of the vehicles changing lanes, merging, or overtaking the other vehicle. Over 70% of the single vehicle crashes involved the vehicle going straight ahead. The objects that were struck included concrete barriers for almost 45% of the single vehicle crashes and guardrails for more than 10% of them. No other type of object was struck in 10% or more of the single vehicle crashes.

I-65 at the Overpass of the CSX Railroad Between the KY 61 Ramps North and South of the Railroad

The high density crash area (100 to 199 crashes within 0.10 miles) along I-65 at the overpass of the CSX Railroad between the KY 61 ramps north and south of the railroad is part of a larger area with a high density of crashes which extended along I-65 in that area. Although the larger number of high density locations in this area can be found in TAD 40006, there were some in TAD 40005, as well. Since the crashes in this area were mainly located along I-65 (the border between TADs 40005 and 40006), the discussion will address the whole area without regard to TAD boundaries. Although there are several side streets with some high density crash locations, the majority of the high density crash locations in this area are along I-65. Even the I-65 ramps have only a few high density crash locations. Further, it appears that the high density crash locations on the facilities other than I-65 may be so only because of their proximity to I-65.

I-65 has a fairly typical freeway cross-section with travel lanes—in this case, 3 lanes—in each direction separated by a median barrier. In this high density crash area, both directions of I-65 have weaving sections. In weaving sections, traffic entering a freeway is often attempting to move at least one lane to the left onto a travel lane of the freeway while traffic wishing to exit the freeway is attempting to move at least one lane to the right in order to be able to access the exit ramp. This crisscrossing of traffic creates a scenario where the probability of crashes is increased. The high number of rear end and same direction sideswipe crashes described in the following paragraph may well be related to the crisscrossing of traffic associated with the weaving described above.

There were approximately 120 crashes in the entire high density area with more than 80% occurring along I-65 or its ramps. The categories with the largest number of crashes were rear end crashes with approximately 50 and same direction sideswipe and single vehicle crashes with about 30 each. There were no fatal crashes.

The crash data indicates that almost 70% of the rear end crashes involved the following vehicle going straight ahead or slowing and the leading vehicle slowing or stopping. Approximately 65% of the same direction sideswipe crashes involved at least one of the vehicles changing lanes, merging, or overtaking the other vehicle. The crash data indicates that over 70% of the single vehicle crashes involved the vehicle going straight ahead. The objects that were struck included concrete barriers for over 35% of the single vehicle crashes and guardrails for almost 30% of them.

I-65 in the Vicinity of Oak Street

The high density crash area along I-65 in the vicinity of Oak Street, for the most part, extended along I-65 in that area. All but one of the high density locations in this area can be found along I-65; the other location was along Oak Street. The crashes were more dispersed in this area than in other high density areas. There were only 15 crash locations with 100 to 199 other crash locations within 0.10 mile.

I-65 has a fairly typical freeway cross-section with travel lanes—in this case, 3 lanes—in each direction separated by a median barrier. In this high density crash area, the lanes in both directions of I-65 are near ramps. In the southbound direction, the high density crash locations are about 350 feet or more before the on-ramp; so the effect of the ramp may not be significant in this direction. However, in the northbound direction, most of the high density crash locations are less than 200 feet before the ramp. So the effect of the ramp and the exiting traffic may be contributing to the crashes in this area.

The categories with the largest number of crashes were rear end crashes with seven and angle and same direction sideswipe crashes with three each. There were no fatalities.

The crash data indicates that over 55% of the rear end crashes involved the following vehicle going straight ahead or slowing and the leading vehicle slowing or stopping. Over 65% of the same direction sideswipe crashes involved at least one of the vehicles changing lanes, merging, or overtaking the other vehicle. Each of the three locations with an angle crash had unique circumstances. For one of the crashes, alcohol involvement was indicated. The crash resulted from one vehicle attempting to enter I-65 traveling in the wrong direction. There was also a similar single vehicle crash (including the alcohol involvement), but that vehicle struck a concrete barrier before it entered I-65.

I-64 Near the Mellwood Avenue Interchanges

The high density crash area along I-64 near the Mellwood Avenue interchange was part of a larger area with a high density of crashes which extended along I-64 near the Mellwood Avenue and Story Avenue interchanges in TADs 40006 and 40007. Most of the crashes in the larger areas were in TAD 40007 rather than TAD 40006. The high density crash locations in this area were almost exclusively along I-64 or one of the US 42 one-way pair of streets—Mellwood Avenue and Story Avenue. There were approximately 170 crashes in the entire high density area with more than 85% occurring along I-64 or its ramps and the remainder occurring along Mellwood Avenue or Story Avenue. For those crashes occurring in this area, the categories with the largest number of crashes were rear end crashes with approximately 140 and same direction sideswipe crashes with approximately 20.

Since the crashes in this area were mainly located outside of TAD 40006, no further analysis of the crashes will be made. More information about the crashes in this area can be found in the report concerning TAD 40007.

Preston and Shelby Streets in the Vicinity of Eastern Parkway

The high density crash area along Preston and Shelby streets (KY 61) in the vicinity of Eastern Parkway extended essentially along Preston and Shelby Streets from Harrison Avenue to Fetter Avenue/Presidents Boulevard with a few locations along Eastern Parkway from about one-half block west of Preston Street to about one-half block east of Shelby Street. Most of the high density locations in this area can be found in TAD 40006, but there were some located in TAD 40008, as well. However, the discussion of crashes will address the whole area without regard to TAD boundaries.

In this area, Preston and Shelby Streets are both one-way streets with two travel lanes and left- and right- turn lanes as they approach their intersections with Eastern Parkway. Eastern Parkway is a four-lane street without turning lanes. The intersections of Eastern Parkway with Preston and Shelby streets are only about 80 feet apart. Left turns are not allowed from eastbound Eastern Parkway to northbound Shelby Street or from westbound Eastern Parkway to southbound Preston Street. All three streets have significant traffic volumes. There is also another pair of closely-spaced intersections in this area. The intersections of Harrison Avenue with Preston and Shelby streets are only about 25 feet apart. There are a number of driveways in the area, and parking is allowed along the sides of Preston and Shelby Streets particularly south of their intersections with Eastern Parkway.

There were approximately 130 crash locations in the entire high density area with slightly more than 55% occurring along Preston Street or Shelby Street and almost 40% occurring on Eastern Parkway. The categories with the largest number of crashes were angle crashes with about 40 and rear end and same direction sideswipe crashes with approximately 30 each. There were no fatalities.

The crash data indicates that more than 50% of the angle crashes involved at least one of the vehicles turning. In addition to the angle crashes involving turning vehicles, almost 20% of the angle crashes were intersection right-angle crashes. Over 70% of the rear end crashes in the high density area involved the following vehicle going straight ahead or slowing and the leading vehicle slowing, stopping, or turning. The crash data indicates that 75% of the same direction sideswipe crashes in the high density area involved at least one of the vehicles changing lanes, merging, or overtaking the other vehicle, or making a turn. The traffic volumes, the closeness of the intersections at both Eastern Parkway and Harrison Avenue with Preston and Shelby streets, the number of driveways, and the parking allowed along the sides of Preston and Shelby streets may be contributing to the crash situation in this high density crash area.

Barret Avenue in the Vicinity of Oak Street and Hepburn Avenue

The high density crash area along Barret Avenue in the vicinity of Oak Street and Hepburn Avenue extended along and on either side of Barret Avenue from south of Oak Street/Winter Avenue to slightly north of Hepburn Avenue. The high density locations also extended along Oak Street/Winter Avenue, Kentucky Street, and Hepburn Avenue to approximately Brent Street to the west and about one-half block toward Edward Street to the east.

In this area, Barret Avenue and Oak Street/Winter Avenue are both two-way streets with four lanes. During peak periods, they have two travel lanes in the more heavily-traveled peak direction and one travel lane in the off-peak direction. The curb lane in the off-peak direction is available for parking. During the non-peak periods, there is one travel lane in each direction, and parking is allowed in both curb lanes. Hepburn Avenue is a two-lane, two-way street with parking allowed on both sides. Kentucky Street is a two-lane, one-way eastbound street with parking allowed on both sides. Barret Avenue and Oak Street/Winter Avenue both have significant traffic volumes. There are no side streets in this area except those mentioned above as the edges of the high density area, but there are a few driveways that provide access to some of the businesses.

There were approximately 90 crashes in the high density area with approximately 53% occurring along Barret Avenue, approximately 28% occurring along Oak Street/Winter Avenue, and about 14% occurring along Kentucky Street and Hepburn Avenue. The categories with the largest number of crashes were angle crashes with approximately 40 and same direction sideswipe and rear end crashes with approximately 15 each. There were no fatalities.

The crash data for the high density crash area indicates that almost 35% of the angle crashes involved at least one of the vehicles turning. In addition, intersection right-angle crashes constituted more than 40% of the angle crashes. More than 35% of the same direction sideswipe crashes involved at least one of the vehicles changing lanes, merging, or overtaking the other vehicle. Also, at this location, almost 30% of the same direction sideswipe crashes involved a vehicle going straight ahead and a turning vehicle. Over 85% of the rear end crashes involved the following vehicle going straight ahead or slowing and the leading vehicle slowing or stopping.

Bardstown Road in the Vicinity of Rosewood Avenue and Beechwood Avenue

The high density crash area along Bardstown Road in the vicinity of Rosewood Avenue and Beechwood Avenue extended along and on either side of Bardstown Road from Rosewood Avenue to north of Beechwood Avenue—almost one-half block toward Lucia Avenue. There were also a few high density locations along Beechwood Avenue, Rosewood Avenue, and Longest Avenue—the street approximately across Bardstown Road from Rosewood Avenue.

In this area, Bardstown Road has four lanes. Except during peak periods when the reversible lane configuration is used, Bardstown Road has one travel lane in each direction with parking allowed in the curb lane on each side. During peak periods, it has two travel lanes in the more heavily-traveled peak direction, one lane in the opposite direction, and a two-way left-turn lane. Rosewood and Beechwood Avenues both are two-lane, two-way streets with parking allowed on both sides. Rosewood Avenue has an island at its intersection with Bardstown Road which only allows traffic accessing it from Bardstown Road to do so through right turns and only allows traffic traveling from Rosewood Avenue to Bardstown Road to do so using right turns. Bardstown Road has a significant traffic volume; the other streets have lesser volumes. There are also a number of side streets, alleys, and driveways along Bardstown Road in this area including the entrance to the Mid-City Mall.

There were approximately 100 crashes in the high density area with approximately 65% occurring along Bardstown Road. The categories with the largest number of crashes were rear end and angle crashes with approximately 25 each, opposing left turn crashes with about 20, and same direction sideswipe crashes with about 15. There were no fatalities.

The crash data indicates that almost 85% of the rear end crashes involved the following vehicle going straight ahead or slowing and the leading vehicle slowing or stopping. Approximately 45% of the angle crashes involved at least one of the vehicles turning. At this location, there were also a relatively high number of right-angle crashes, in which both vehicles were traveling straight ahead. These constituted more than 30% of the angle crashes. In this area, there are some side streets and driveways where turning vehicles may be involved in crashes. The streets perpendicular to Bardstown Road in this area generally do not extend to the other side of Bardstown Road, and the only intersection which could be considered major would be the driveway to Mid-City Mall. Almost 95% of the opposing left turn crashes involved a left turning vehicle and a vehicle traveling straight ahead. Only about 25% of the same direction sideswipe crashes involved at least one of the vehicles changing lanes, merging, or overtaking the other vehicle. However, at this location, almost 35% of the same direction sideswipe crashes involved a vehicle going straight ahead and a turning vehicle.

Bicycle and Pedestrian Crashes

During the three-year period of 2009-2011, 45 of the reported crashes involved bicyclists and 68 involved pedestrians. One of the crashes involving pedestrians resulted in a fatality, but none of the crashes involving bicyclists resulted in a fatality. Of the crashes involving bicyclists and pedestrians, 37 crashes occurred along the US 31E corridor (as defined above). Other streets with five or more crashes included Barret Avenue (six crashes), KY 61 (five crashes), and KY 864 (five crashes). For many of these streets, the crashes involving bicyclists and pedestrians were not evenly distributed; rather they were concentrated in certain areas. For example, the crashes along the US 31E showed higher densities of crashes between Windsor Place and the Mid-City Mall and between Highland Avenue and Broadway. Also, all of the crashes along Barret Avenue occurred between Oak Street/Winter Avenue and Broadway. KY 61 and KY 864 also showed sections with high densities and other sections with no crashes.



Figure 40006-C: Crashes involving pedestrians are shown in yellow. Crashes involving bicyclists are shown in pink.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • US 31E (Bardstown Road) from Sherwood Avenue to Highland Avenue • US 31E (Baxter Avenue) from Highland Avenue to Beargrass Creek • KY 1703 (Baxter Avenue) from Eastern Parkway to Castlewood Avenue
LOS E:	<ul style="list-style-type: none"> • I-64 from Mellwood Avenue to Grinstead Drive
LOS F:	<ul style="list-style-type: none"> • I-64 from Grinstead Drive to Beals Branch • I-65 from Warnock Street to Oak Street

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • Goss Avenue from Eastern Parkway to Texas Avenue • Eastern Parkway from Crittenden Drive to Shelby Street • Eastern Parkway from Burnett Avenue to Goss Avenue • Eastern Parkway from Barret Avenue to Bardstown Road • Broadway from Beargrass Creek to Barret Avenue • US 31E (Bardstown Road) from Sherwood Avenue to Highland Avenue • US 31E (Baxter Avenue) from Highland Avenue to Beargrass Creek
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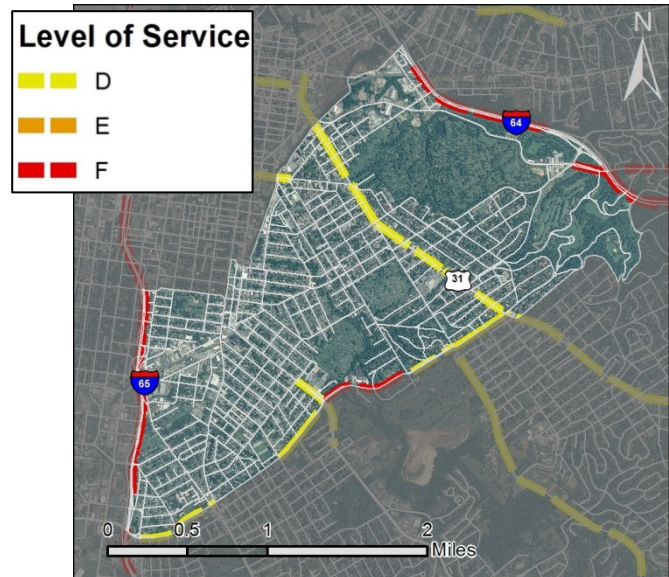


Figure 40006-C: Projected LOS in TAD 40006.

LOS F:	<ul style="list-style-type: none"> • US 60A (Eastern Parkway) from Goss Avenue to Barret Avenue • US 60A (Lexington Road) from Grinstead Drive to I-64 • I-65 from Warnock Street to Oak Street • I-64 from Mellwood Avenue to Grinstead Drive
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By 2030, I-64, I-65, a section of Eastern Parkway, and a section of Lexington Road in this TAD are expected to be congested at LOS F. In addition, all of the US 31E corridor in this TAD, a section of Broadway, most of the remaining four-lane sections of Eastern Parkway, and a section of Goss Avenue in this TAD are expected to be congested at LOS D.

Access to Community Amenities

TAD 40006 is an area that has been developed for some time. Therefore, for the most part, the land use patterns are well-established. A large portion of the TAD is residential development, and most of it is a dense single-family development in a traditional form. The remainder of the land use is split between retail commercial (e.g. along Bardstown Road), non-retail commercial (e.g. along the CSX railroad), and open space occupied by cemeteries, parks, and the Cherokee Golf Course. There are a number of community amenities in this TAD, including community centers, a senior center, entertainment venues, historic properties, schools, parks, and libraries.

The residential areas, commercial activity, and entertainment venues are spread throughout most of the TAD, although different land uses are more heavily concentrated in various sections. The residential development is spread through most of the TAD, even near areas where there is a prominent amount of commercial activity. The retail commercial activity is generally confined to the block faces of some of the more-heavily traveled corridors, such as most of Bardstown Road; parts of Baxter Avenue, Eastern Parkway, Goss Avenue, and Preston Street; and a small portion of Shelby Street. The non-retail commercial is mainly located along the CSX railroad. Much of the railroad corridor has non-retail commercial property adjacent to it with the main exception being near where it crosses Beargrass Creek. The main entertainment venue is located along Baxter Avenue north of Broadway.

There are numerous historic properties and two community centers in this TAD. One of the community centers is located in Shelby Park located along the south side of Oak Street between Jackson Street and Clay Street. The other is located between Barret Avenue and Vine Street northwest of Breckinridge Street. There are historic properties in most of the TAD, but the concentration is greatest in the area bounded by Barret Avenue, Eastern Parkway, Cherokee Park,

Cave Hill Cemetery, and Broadway. Most blocks in this area have several historic properties. There are also a number of historic properties along or near Baxter Avenue north of Broadway.

There are a number of transit routes serving this TAD. Most of these buses provide day-long service and most of them operate seven days a week. Many of the routes intersect with each other allowing travel throughout most of the TAD and a large portion of Louisville Metro through the use of transfers. The residential areas are relatively well-served by the transit routes—particularly those in the western portion of the TAD. Most of the rest of the residential area is also well-served, although there are areas where the walking distances to buses tend to be at or near the limit of what is normally considered to be the maximum people will walk to get to the bus. The retail and non-retail commercial locations tend to be reasonably well-served by transit, particularly those located along Bardstown Road. The entertainment venue, the community centers, and many of the historic properties are particularly well-served by transit.

In TAD 40006, most of the streets have sidewalks, and there is a significant number of bikeways. So there is generally good pedestrian and bicycle access to the community amenities in this TAD. Concerning access by bicycle, the community amenities in this TAD are generally within a few blocks of a bikeway. In the residential areas, the bikeways are not always within one to two blocks. However, for the residential areas and for those community amenities not within one to two blocks, there are side streets which allow the connection between the amenity and an adjacent bikeway. The main challenge to bike use is that a number of the bikeways are located on streets with significant traffic volumes. The willingness of a bicycle rider to ride in a traffic lane in order to use these bikeways may vary with the level of experience of the bicycle rider. In some cases, the presence of side streets may be adequate substitutes. Therefore, access to the community amenities by bicycle will likely be better for the more-experienced bicycle rider than for the less-experienced one.

In general, access to community amenities through the use of the street network in TAD 40006 is quite good. Some roadways in this TAD are already congested, and the number of congested sections and the severity of the congestion are expected to increase in the future. Access to some of the community amenities may be affected. The congestion on I-64 and I-65 will probably affect access to/from the TAD but not have much effect on access within the TAD. On the other hand, the congestion on the surface streets, particularly the US 31E corridor, may make access within the TAD to community amenities more problematic, particularly the retail commercial activity and entertainment venue.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Jefferson County Government Center
- Louisville Solid Waste Management Department
- Parkway Rehabilitation and Nursing Center

There are a number of transit routes serving this TAD. Most of these buses provide day-long service and most of them operate seven days a week. The major employers are, for the most part, well-served by transit. The Jefferson County Government Center is adjacent to Route #21; Parkway Rehabilitation and Nursing Center is adjacent to Route #29; and the Louisville Solid Waste Management Department is located about a block from Route #27. The high density employment locations are generally well-served by Route #17, Route #21, Route #23, Route #25, Route #29, Route #40, Route #43, and Route #55. In addition, to providing direct connections to the workplaces in this TAD, many of these routes intersect with each other and/or the other routes in this TAD allowing a transfer. This increases the possibilities of travel by transit to the workplaces in this TAD.

There is generally good pedestrian and bicycle access to the workplaces in this TAD. All of the major employers and most, if not all, of the high density employment locations are within a few blocks of a bikeway. The main challenge to

bike use is that a number of the bikeways are located on streets with significant traffic volumes. Therefore, access to workplaces by bicycle will likely be better for the more-experienced bicycle rider than for the less-experienced one.

In general, access to workplaces through the use of the street network in TAD 40006 is quite good. This is particularly true for access to high density employment locations. Some roadways in this TAD are already congested, and the number of congested sections and the severity of the congestion are expected to increase in the future. Access to some of the workplaces may be affected. Congestion in the US 31E corridor, and to a lesser degree the congestion on Eastern Parkway and Goss Avenue, may make access within the TAD to the workplaces more problematic, particularly the employment locations in the eastern portion of the TAD and near the intersection of Eastern Parkway and Goss Avenue.

Access for Persons with Disabilities and/or Older Adults

The only facility specifically for persons with disabilities and/or older adults in TAD 40006 is the Lourdes Hall Senior Nutrition Site, located at 735 Eastern Parkway. However, there is a rehabilitation and nursing facility located along Eastern Parkway between Goss Avenue and Barret Avenue, which might provide some services for persons with disabilities and/or older adults.

Since the nutrition site and rehabilitation and nursing site are located adjacent to Eastern Parkway, there is obviously good direct access to them via TARC Route #29. Most of these buses provide day-long service and most of them operate seven days a week. Since Route #29 intersects with most of the other routes serving this TAD, the nutrition site and rehabilitation and nursing site are well-served by transit.

There is generally good pedestrian and bicycle access in this TAD for persons with disabilities and/or older adults. Persons with disabilities and/or older adults may find pedestrian access to this facility challenging. Concerning access by bicycle, the bikeway along Eastern Parkway connects with other bikeways. Therefore, in most cases, it should be possible for a bicycle rider to find a fairly direct path to/from a number of locations from/to the nutrition site. However, the main challenge to bike use is that a number of the bikeways—including the one on Eastern Parkway—are located on streets with significant traffic volumes.

In general, access to the nutrition center and the rehabilitation and nursing site through the use of the street network in TAD 40006 is quite good. As mentioned in the Congestion section, some roadways in this TAD are already congested, and the number of congested sections and the severity of the congestion are expected to increase in the future. Access to most places including the nutrition site and the rehabilitation and nursing site may be affected.

Access to Education

There are seven schools located in TAD 40006. They include a high school, a middle school, four elementary schools, and a combined school with students from kindergarten through the 12th grade. All of the schools are separated from each other by more than 0.25 miles. The two schools which are closest to each other are Breckinridge Metropolitan High School—located along Broadway—and Jefferson Traditional Middle School, which is about 0.4 miles away. Jefferson County Traditional Middle School and Saint James Elementary School—are located about 0.5 miles either side of Bloom Elementary School with all three schools being a short distance west of the US 31E corridor. The other three schools are dispersed across the TAD with Breckinridge/Franklin Elementary School being in the northeastern portion, Collegiate School being in the eastern portion, and Shelby Traditional Elementary School being in the southwestern portion of the TAD. Therefore, there are no clusters of schools in this TAD.

All of the schools in this TAD are within walking distance of one or more bus routes, based on the maximum walking distance being 0.25 miles. Further, some of the schools are probably served by school buses, as well. For those schools near Bardstown Road and Baxter Avenue north of Highland Avenue (the US 31E corridor), service is provided by several bus routes including Route #17, Route #23, and Route #40. Therefore, these schools are particularly well-served by transit.

There is generally good pedestrian and bicycle access to most of the schools in this TAD. There are sidewalks along the streets approaching each of the schools, although Ziegler Street approaching Shelby Traditional Elementary School only has a sidewalk on one side. Also, the sidewalk from the street to that school is along the perimeter of the parking lot, which requires the pedestrian to walk a longer distance from the street to the school than what is walked at the other schools. Another challenge which could be faced by the students would be crossing streets with significant traffic volumes. Concerning access by bicycle, the schools in this TAD are generally within a few blocks of a bikeway. The Breckinridge/Franklin Elementary School is the furthest removed from a bikeway, being within four or five blocks of the nearest bikeway. The main challenge to bike use is that a number of the bikeways are located on streets with significant traffic volumes. Even for the schools which are located along side streets (with lesser volumes), it would probably be necessary for the bicycle rider to use a bikeway on a street with a higher volume in completing her/his trip. Since the majority of those seeking to have access to the schools are children and adolescents, riding on streets with significant traffic volumes is probably not appropriate. Even for the older students and adults associated with the schools, use of these bikeways would likely be challenging. In some cases, the presence of the side streets may be adequate substitutes. Therefore, access to schools by bicycle will likely be better for the more-experienced bicycle rider than for the less-experienced one.

In general, access to the schools through the use of the street network in TAD 40006 is quite good. When children or younger adolescents are driven to school or older adolescents or adults drive to the schools, the street network is certainly sufficient to meet their needs. Some roadways in this TAD are already congested, and the number of congested sections and the severity of the congestion are expected to increase in the future. Access to many places including the schools may be affected. Given that three of the schools are along or near the US 31E and Eastern Parkway corridors, the congestion in these corridors may make access to schools within the TAD more problematic. The congestion forecast for Lexington Road may indirectly contribute to some access challenges for the schools along Grinstead Drive and Winter Avenue.

Access to Government Services

Overall, there are 13 government service facilities in TAD 40006. They include a library, two police and/or medical examiner facilities, three fire houses and/or emergency service facilities, and seven other facilities. Eight of these facilities are located within a block or two along Barret Avenue and between Breckinridge Street and Broadway, on Broadway itself, and on Vine Street. The fire station located along Rubel Avenue and the library located in the Mid-City Mall are also in the east-central portion of the TAD. The remainder of the facilities are located in the western portion of the TAD along or near Preston Street and along Meriwether Avenue.

All of the government facilities in this TAD are within walking distance of one or more bus routes, based on the maximum walking distance being 0.25 miles. The cluster of government facilities along Barret Avenue near Broadway are served by both Route #21 and Route #23, and the library located in the Mid-City Mall near Bardstown Road is served by Route #17, Route #23, and Route #40. In general, all of the government facilities are well-served by transit.

There is generally good pedestrian and bicycle access to the government facilities in this TAD. Concerning access by bicycle, the government facilities in this TAD are generally within a few blocks of a bikeway. None of the government facilities is further than three blocks from a bikeway. The main challenge to bike use is that a number of the bikeways are located on streets with significant traffic volumes. The willingness of a bicycle rider to ride in a traffic lane in order to use these bikeways may vary with the level of experience of the bicycle rider. In some cases, the presence of side streets may be adequate substitutes. Therefore, access to government facilities by bicycle will likely be better for the more-experienced bicycle rider than for the less-experienced one.

In general, access to government facilities through the use of the street network in TAD 40006 is quite good. Cherokee Park even has roadways going through it to allow relatively easy access to the various parts of the park. Many of these roadways are one-way to attempt to prevent the park from being used as a cut-through, but the access is still quite good. Some roadways in this TAD are already congested, and the number of congested sections and the severity of the congestion are expected to increase in the future. Access to the government facilities may be affected. Cherokee Park and Cherokee Golf Course may be affected by the congestion on I-64 and Lexington Road, and the government facilities

near Preston Street and Meriwether Avenue may be affected by the congestion on I-65. Congestion on surface streets, particularly the US 31E corridor, and in the future, the congestion on Broadway may make access within the TAD to the group of government facilities in the Barret Avenue/Broadway area more problematic.

Access to Medical Facilities

There is one hospital and sixteen other medical facilities in TAD 40006.

The mode of access a patient of these hospitals would use would depend on the service/treatment to be provided at the hospital. The expected mode of access for emergency situations and a number of procedures would be by vehicle. There are a number of surface streets which lead to the area near the hospital. Of these, only the US 31E corridor is experiencing congestion at present, and that congestion is at LOS D. For the other medical facilities near the hospital, the same is true. For the two facilities near Eastern Parkway, there is not a street near them experiencing congestion at this time. In the future, the US 31E corridor is expecting to be continuing to experience congestion, but still at LOS D. So the situation for the hospital and the medical facilities in that area, the situation should not be significantly worse. However, in the future, several sections of Eastern Parkway are projected to operate at LOS D or worse, so access to the two medical facilities in the Eastern Parkway area could be more challenging then. In summary, congestion is not a major problem at present, but in the future, access to the medical facilities near Eastern Parkway may be affected by congestion on that roadway.

Aside from the medical situations implicit in the discussion above, other patients and those who are visiting the hospital for another reason might use an alternative mode, such as transit. All of the medical facilities in the other TADs are located along or near one or more of the transit routes serving this TAD. The hospital and the medical facilities along or near Barret Avenue are served by Route #21 and Route #23. The medical facilities between the hospital and Baxter Avenue are served by Route #17, Route #23, Route #40, and Route #55. The medical facilities on Eastern Parkway and Goss Avenue are served by Route #29 and, to a lesser degree, Route #43. In general, all of the medical facilities are well-served by transit.

There is generally good pedestrian and bicycle access to the medical facilities in this TAD. Concerning access by bicycle, the medical facilities in this TAD are generally within a few blocks—and often within one to two blocks—of a bikeway. The main challenge to bike use is that a number of the bikeways are located on streets with significant traffic volumes. The willingness of bicycle rider to ride in a traffic lane in order to use these bikeways may vary with the level of experience of the bicycle rider. In some cases, the presence of side streets may be adequate substitutes. Therefore, access to the hospital and other medical facilities by bicycle will likely be better for the more-experienced bicycle rider than for the less-experienced one.

Freight Access

I-64, I-65, US 31E, and Mellwood Avenue in this TAD are part of the KIPDA Freight Network. The interstate connections, I-64 and I-65, provide a vital role allowing for freight movement north, south, east, and west – basically connecting to the rest of the national interstate system. US 31E in this TAD consists of Bardstown Road and Baxter Avenue north of Highland Avenue. This street provides connections to the interstate system at locations outside of the TAD. Mellwood Avenue forms a portion of the boundary in the northeast corner of the TAD. It provides a connection from US 31E to I-64 in that area. In addition to the streets in the KIPDA Freight Network, there is a major rail line which provides freight access to and/or through this TAD.

There are two freight distributors in this TAD. Neither is located along a street on the KIPDA Freight Network, but one of these is located along Burnett Avenue somewhat close to I-65. The ability to access I-65 from this distributor is fairly straightforward in the southbound direction but not so straightforward in the northbound direction. The other distributor is located along McHenry Street near Goss Avenue. It is closer to I-65 than the other routes in the KIPDA Freight Network in this TAD. Nevertheless, it is somewhat removed from I-65, and any route connecting the two would be challenging for freight vehicles. In general, the routes between the locations of the freight distributors and the KIPDA Freight network to some extent involve the use of streets with narrow lanes and/or corners with small turning

radii. Access between the businesses in these locations and the KIPDA Freight network is probably hindered by the roadway system.

There are two issues facing freight in this TAD. The major issue is traffic congestion. A number of major roadways in this TAD are congested at present, and the number of congested sections and the severity of the congestion are expected to increase in the future. I-64 (LOS E and LOS F) and I-65 (LOS F) are the two main concerns. US 31E is also a concern, although not as great because the congestion at present is only LOS D. However, by 2030, the section of I-64 with LOS E is expected to worsen to LOS F, and a number of sections on Eastern Parkway are expected to be congested (at LOS D and LOS F), as well as the other congested sections remaining at their present level. The congestion in the US 31E corridor, and in the future, the congestion on Eastern Parkway may make access within the TAD somewhat more problematic. The congestion on Eastern Parkway will be most likely to affect the freight access, particularly for the freight distributor located along Goss Avenue. The other issue is the location of freight distributors and other facilities being on street with narrow lanes and/or intersections with small turning radii. Larger trucks will no doubt have difficulty negotiating such streets. Situations such as these can sometimes lead to freight vehicle choosing alternate routes that traverse residential neighborhoods essentially creating truck route problems.

Future Socioeconomic Conditions

In looking at the non-group quarters population data from the US Census compared to the forecasts for 2030, this area is anticipated to see moderate decrease in terms of population and a smaller decrease in the number of households. However, the forecast indicates a significant increase in the number of jobs being added to this TAD by 2030. The anticipated moderate decrease in population and lesser decrease in the number of households are in keeping with a well-established trend of smaller household sizes. The decrease in population and the number of households and the increase in the number of jobs in this TAD probably indicate an anticipated change in the nature of the TAD from being primarily residential to a greater mix of residential and commercial land use.

Issues and Opportunities

- A major issue involving TAD 40006 is the high number of crashes occurring on the streets in this TAD.
- Another issue is the increasing congestion which is forecast for some facilities in this TAD, particularly those sections of I-64, I-65, and Eastern Parkway that are projected to experience LOS F.
- Most of the streets in TAD 40006 have sidewalks. Therefore, pedestrian access is generally not a problem. This provides an opportunity to encourage a mode shift to pedestrian travel.
- Bikeways and a side street network provide a relatively good infrastructure for bicycle use in TAD 40006. However, a number of the bikeways in this TAD are along arterial streets. The use of these bikeways may be uncomfortable for less experienced bicyclists.

Related Plans and Studies

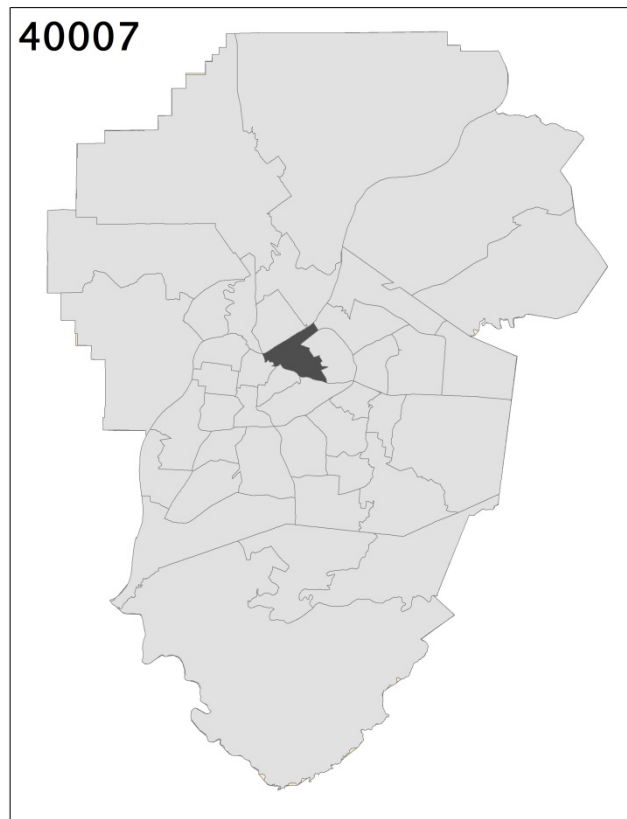
- Cornerstone 2020 Comprehensive Plan (2013)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40007 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40007 is located in north central Jefferson County, just east of downtown Louisville. It contains portions of Louisville Metro, Mockingbird Valley, Indian Hills, and Saint Matthews. TAD 40007 is relatively well established in terms of development patterns; most of this TAD is residential with commercial nodes located mainly along the US 42 and US 60 corridors. There are many historic structures and neighborhoods within this TAD. The industrial area along the river and parks make up the majority of remaining land uses within this TAD.

Area and Socioeconomic Information

Area: Approximately 5,731 acres
Non-Group Quarters Population (2010): 21,123
Number of Households (2010): 11,652
Jobs (2000): 11,156

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies the upper northwest corner of this TAD as a Title VI/Environmental Justice area. This area features largely industrial sites along with a small pocket of residential land use just to the west of Webster Street. This portion of the Title VI area is served by the TARC Routes #15 (Market Street) and #31 (Shelbyville Road) transit routes. There are sidewalks along Story Avenue to connect with transit routes, and a good portion of the area has sidewalk facilities, but moving more towards the industrial areas, the sidewalk may be on only one side or not present at all. These are relatively low-volume roadways.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation



Figure 40007-A: The red area shows the Title VI/Environmental Justice area in TAD 40007.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64* from I-71 to US 42 (Mellwood Avenue) • I-71* from I-64 west to Mockingbird Valley Road
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 42*~ from US 31E to Mockingbird Valley Road • US 60~ from US 42 to Bauer Avenue
Urban Minor Arterial	<ul style="list-style-type: none"> • US 60A (Lexington Road) from I-64 to KY 2048 (Cannons Lane) • KY 2048 (Cannons Lane) from US 60 to US 60A (Lexington Road) • River Road from I-65 to Blankenbaker Lane

	<ul style="list-style-type: none"> • Zorn Avenue from River Road to US 42
Urban Collector	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- Barrett Traditional Middle School
- Chenoweth Elementary School
- Christian Academy – Rock Creek Campus
- Field Elementary School
- Highland Latin School
- Holy Spirit Elementary School
- Kentucky School for the Blind
- Sacred Heart Academy High School
- Sacred Heart Model Elementary School
- Saint Leonard Elementary School

Colleges & Universities

- Boyce College/Southern Baptist Theological Seminary
- Galen College of Nursing
- Webster University

Parks

- Bingham Park
- Caperton Swamp
- Carrie Gaulbert Cox Park
- Champions Park & Soccer Field
- Cherokee Park (partially)
- Clifton Park
- Crescent Hill Park and Golf Course
- Eastover Park
- Eva Bandman Park
- Frankfort Avenue Park
- Hopewell Park
- Kennedy Court Park
- Seneca Park (partially)
- Story Avenue Park
- Thurman Hutchins Park
- Twin Park
- Waterfront Park (partially)

Other Area of Interest/Significance

- American Printing House for the Blind
- Clifton Center
- Louisville Water Tower
- Louisville Water Company Crescent Hill Reservoir and Filtration Plant
- Mellwood Arts Center
- Patriots Peace Memorial
- Robley Rex VA Medical Center
- Saint Joseph Children’s Home
- Whitehall

Historic

- Clifton Historic District
- Crescent Hill Branch Library
- Crescent Hill Historic District
- Crescent Hill Reservoir
- Green Tree Manor Residential Historic District
- Hook and Ladder Company No. 3
- Louisville Water Company Pumping Station
- Mary Alica Hadley House
- Mockingbird Valley Historic District
- Paget House and Heigold House Façade
- Peterson-Dumesnil House
- Repton
- Selema Hall
- Spring Station

- Saint Frances of Rome School
- Steam Engine Company No. 10
- Steam Engine Company No. 21

- Sunnyside
- Three Mile Tollhouse
- Widman's Saloon and Grocery

Transit

TAD 40007 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #15 – Market Street
- Route #19 – Muhammad Ali
- Route #29 – Eastern Parkway
- Route #31 – Shelbyville Road
- Route #55 – Westport Road
- Route #62 – Breckenridge/Shepherdsville

The following are TARC express routes that pass through the TAD, but currently have no stops within the TAD:

- Route #40X – Taylorsville Road Express
- Route #49X – Westport Road Express
- Route #53X – Breckenridge Express
- Route #61X – Plainview Express
- Route #64X – Fincastle/Forest Springs Express
- Route #67X – Oldham County Express
- Route #68X – Prospect Express
- Route #78X – Bluegrass Downtown Express



Figure 40007-B: TARC routes and stops within TAD 40007.

These express routes travel along I-71 primarily from their outer locations to the east to downtown Louisville.

Park and Ride

There are no identified Park and Ride lots located in TAD 40007.

Public Comments

Big Four Bridge

- Need a downtown bicycle hub that allows for bicycle travel in and out of downtown Louisville. Ideally, it would include bike storage and shower facilities. Indianapolis is an example.

Brownsboro Road (US 42)

- On US 42 from Clifton Heights, Hillcrest to Mellwood, there is difficulty with maneuvering wheelchairs. There is a lack of concern for the blind and wheelchair-dependent.

Brownsboro Road (US 42) at Zorn Avenue

- The center lanes back up; some lanes are left turn only, but there is not enough advanced warning.

Cannons Lane

- Sidewalks are needed along Cannons Lane between I-64 and Seneca Park.
- There are no sidewalks on Cannons Lane.

Cannons Lane/Willis Avenue

- There are back-ups at a.m. and p.m. peaks at the 4-way stop sign.

Cherokee Gardens Road

- Cherokee Gardens Road has been in need of repaving for the past several years. It provides access to Seneca Park and is heavily used by bicyclists.

Crescent Hill

- It is dangerous to bike from Crescent Hill to downtown Louisville. Payne Street – good. Frankfort Avenue – dangerous, and Brownsboro Road – worse.
- Would like to see pedestrian access to cross from the east side of the orphanage to the west side without having to cross Frankfort Avenue.

Frankfort Avenue (US 60)

- Take away parking on Frankfort Avenue to make room for bikes.
- A safe bike path is needed along Frankfort Avenue.
- A safe corridor is needed along Frankfort Avenue – can it be signed to help bikes find a safe way off of the major arterial. One possibility is to have part of this trail run along the CSX tracks.

Frankfort Avenue (US 60)/Bayly Avenue

- On-street bike parking is needed at Frankfort Avenue and Bayly.
- Traffic on Frankfort Avenue tends to bottleneck at Stilz Avenue during heavy traffic periods.

lola Road

- Create bicycle arterials by replacing stop signs with yield-controlled traffic circles so cyclists won't have to stop as often.

Kenilworth Road at US 42 (Brownsboro Road)

- It is dangerous for cyclists and pedestrians to cross US 42.

Lexington Road (US 60A)

- There are no sidewalks on Lexington Road to Cherokee Park.
- Sidewalks are needed on Lexington Road between Cherokee Park and the Baptist Seminary.
- There are no sidewalks on Lexington Road. Erosion on road causes dangerous pedestrian traffic.

Lindsay Avenue/US 42 (Brownsboro Road)

- It is dangerous for cyclists and pedestrians to cross US 42 at this location.

Mount Holly Avenue

- Mount Holly Avenue needs ADA-compliant sidewalks to Cleveland.

North Hite Avenue

- 400 block to the 700 block: 400 block has 2' sidewalks. Needs to be ADA-compliant. 500 block has no sidewalks. 600 block has a sidewalk, but it is not accessible to wheelchairs.
- Make the North Hite Avenue intersection with Brownsboro Road (US 42) a 90 degree angle. Cut tree down to improve visibility. Lots of accidents at this intersection.

River Road

- Safe bicycle and pedestrian facilities are needed along River Road.
- A complete widening of River Road is needed to Zorn Avenue. Approximately half of River Road from downtown to Zorn is four lanes while the remainder is two lanes. This would provide a more efficient alternative route in the event I-71 is backed up.
- Improve functions for cyclists. Reduce speed to 35 MPH and maybe include traffic calming infrastructure. Too many motorists use this scenic byway for commuting when US 42 serves the same purpose.

Seneca Park Road/Cannons Lane

- Install roundabout intersection here.

Seneca Park Road/Cherokee Gardens Road

- Install roundabout intersection here.

I-64

- Due to congestion on I-64, widen it from 4 to 6 lanes.

I-71 Northbound

- On I-71, add a spill-over exit for northbound traffic between I-264 and Zorn Avenue.

I-71 Southbound

- On I-71 add a spill-over exit for southbound traffic between Zorn and downtown to accommodate backed-up traffic.

Willis Avenue/Cannons Lane

- Frequent congestion at this intersection.

Safety

3,155 crashes were reported in TAD 40007 from 2009 through 2011. There were no fatalities reported as a result of crashes from 2009 through 2011. In the same time period, there were a total of 35 crashes resulting in injury in this TAD (15 in 2009, 11 in 2010, and 9 in 2011).

Fatalities

There were no fatalities reported as a result of crashes from 2009 through 2011.

High Crash Locations

There are three locations within this TAD where between 100 to 199 crashes have occurred within 0.10 mile of each other over a three-year (2009-2011) period:

- I-71 interchange at Zorn Avenue (crashes in proximity to each other occurring both on I-71 and Zorn in the interchange area)
- I-64 at Story Avenue interchange
- Spaghetti Junction

Bicycle and Pedestrian Crashes

During this three year period, 20 of the reported crashes involved bicyclists and 19 involved pedestrians. None of the crashes involving pedestrians and bicyclists resulted in a fatality. US 60 saw the most amount of crashes involving cyclists and pedestrians; seven crashes along US 60 in this three-year period involved bicyclists and five crashes involved pedestrians, but none of these were at the same location. There are two areas where crashes occurred in close proximity to one another: at the intersections of Zorn and River Road (two crashes involving pedestrians within ¼ mile of each other); and, the intersection of Cannons Lane, Pee Wee Reese Road, and Willis Avenue. There were two crashes involving bicyclists at this location within less than 0.10 mile of each other. This area is known for heavy bicycle use.

Congestion

Current Level of Service (LOS)

Currently, the roadways on the Congestion Management Process (CMP) Network operating at a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • I-65 from I-71 to the Indiana Shoreline • US 42 (Story Avenue) from I-64 to US 42 (Mellwood Avenue)
LOS E:	<ul style="list-style-type: none"> • I-64 from I-71 to Grinstead Drive • I-71 from I-64 to beyond the eastern TAD boundary edge
LOS F:	<ul style="list-style-type: none"> • I-64 from Grinstead Drive to KY 2048 (Cannons Lane), which forms the southwestern TAD boundary

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in 2030 are:

LOS D:	<ul style="list-style-type: none"> • I-71 from I-64 to Zorn Avenue • US 42 (Brownsboro Road) from Drescher Bridge Avenue to North Ewing Avenue
LOS F:	<ul style="list-style-type: none"> • I-64 from US 42 to beyond the southwestern boundary of TAD 40007 • I-71 from Zorn Avenue to beyond the eastern boundary of TAD 40007 • US 42 (Brownsboro Road) from Hillcrest Avenue to beyond the western boundary of TAD 40007 • US 60A (Lexington Road) from Grinstead Drive (just beyond the boundary line in the neighboring TAD to the west) to KY 2048 (Cannons Lane)

Marked improvements in the forecast LOS are I-65 (the downtown Ohio River Bridge is included in this TAD) and US 42 (Story Avenue), which are anticipated to operate at higher than a LOS C by the year 2030. However, the congestion on I-64, I-71, US 42 (Brownsboro Road), and US 60A (Lexington Road) is expected to operate at a level of service below C. This may impact freight movement in the area as well as access to community amenities and workplaces.

Access to Community Amenities

Most of the residential development in this TAD is considered relatively dense. There are many community amenities in this TAD, including schools, libraries, parks, and shopping. The majority of shopping is clustered along US 60 (Frankfort Avenue) from North Keats Avenue to North Bellaire Avenue, and there are additional commercial attractors along US 42 (Brownsboro Road). There is public transit available on both of these routes, however, pedestrian and bicycle access is fragmented or non-existent in areas, cutting off the residential areas from major destinations within this TAD, some of them a regional attraction, such as Riverfront Park, Carrie Gaulbert Cox Park, Cherokee Park, Seneca Park, Crescent Hill Park and Golf Course, Eva Bandman Park, and, Champions Park and Soccer Fields. There is no public transit along River Road, prohibiting access to the parks via transit.

Saint Joseph Children's Home's main entrance is from US 60 (Frankfort Avenue), close to Crescent Avenue. This route is served by public transit; however, there are no sidewalks on the north side of US 60 (Frankfort Avenue), nor are there sidewalks along the main entrance roadway connecting from US 60 (Frankfort Avenue) to the school building. There are sidewalks on the south side of US 60 (Frankfort Avenue) connected to the grounds via a sidewalk on South Birchwood Avenue.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- American Printing House for the Blind
- Southern Baptist Theological Seminary
- JBS Swift, ConAgra, and Liberty Foods

All major employers are located in areas with pedestrian facilities (sidewalks) and public transit access as well as highway and roadway access.

There are three clusters of high density employment within the area: the River Road industrial area at Edith and the area between US 60 (Frankfort Avenue) and US 42 (Brownsboro Road) running west from Payne Street, along to story to the western edge of the TAD close to downtown Louisville, Washington Street; and to the east, the western edge of Saint Matthews bounded by US 60 (Frankfort Avenue), US 60A (Lexington Road) and Wallace Avenue. The other commercial areas within the TAD are also served by public transit being largely located on US 60 (Frankfort Avenue) and US 42 (Brownsboro Road). Five public transit routes make stops within TAD 40007, with a connection to a sixth at the eastern edge.

There are no significant issues with access to workplace within this TAD other than perhaps sidewalk connectivity and bicycle access. The current pedestrian network has gaps in the system where sidewalks are either non-existent or in disrepair. The bicycle network in this TAD is both on street (shared lane), signed route as well as off-street with shared use paths. Safety is an issue with bicyclists on US 60 (Frankfort Avenue). Roadways in the area are relatively well connected in a grid-like pattern, and the TAD is served by two major interstates (I-64 and I-71).

Access for Persons with Disabilities and/or Older Adults

There are several areas with high concentrations of employment as well as retail services, largely clustered in the west of the TAD between Frankfort Avenue (US 60) and Brownsboro Road (US 42), and then to the east on the western edge of Saint Matthews. These areas are served by TARC routes as well as having mostly connected pedestrian networks, although there are gaps along both US 60 (Frankfort Avenue) and US 42 (Brownsboro Road).

The Robley Rex VA Medical Center is located on Zorn Avenue at Country Club Road. There is pedestrian circulation within the hospital grounds; however, there are no pedestrian connections on Country Club Road to Zorn Avenue, and no pedestrian accommodations on Zorn Avenue. Any person walking or in a wheelchair or similar device may find it difficult to walk to or from the Veterans Hospital. There is TARC service to the hospital at this location. The Veterans Administration has recently acquired property for a new VA hospital close to the intersection of US 42 (Brownsboro Road) and I-264, outside of this TAD which is anticipated to open in 2018. Plans for the existing hospital property at Zorn Avenue are unknown at this time.

The United Crescent Hill Ministries, also a senior center and nutrition site, is located at 150 South State Street, in the western portion of this TAD, one block south of US 60 (Frankfort Avenue). There is pedestrian access from US 60 as well as from State Street and Arlington Avenue. Public transit service is available along US 60 and the site falls within the parameters for complimentary paratransit service (up to $\frac{3}{4}$ miles from a fixed-route bus line that is not an express route).

This TAD also contains the Kentucky Printing House for the Blind as well as the Kentucky School for the Blind, both located along US 60 (Frankfort Avenue). There are a large number of persons with vision impairments who live, work, and/or attend school in the area. Any improvements to roadways and pedestrian facilities need to take into account the higher number of persons with low level vision and blindness.

The lack of pedestrian facilities along Zorn Avenue poses a barrier for anyone accessing the hospital on foot or in a wheelchair at its current location. Gaps in the pedestrian network, specifically those along US 42 (Brownsboro Road) and US 60 (Frankfort Avenue) also pose barriers for persons with disabilities and older adults.

Access to Education

The post-secondary institutions, Webster University and Galen College of Nursing, are located on the same campus and the main entrance is off of Zorn Avenue, close to the I-71 interchange. There are no sidewalks along Zorn Avenue for a person walking/taking transit to these institutions.

Sacred Heart Model School, Field Elementary School, and Sacred Heart Academy are all located within $\frac{1}{4}$ mile of each other. The Sacred Heart campus also contains a preschool. These schools are located on US 60A (Lexington Road) between Crabbs Lane and Cherry Lane. There are dual entrances off of Lexington Road to the Sacred Heart campus, and sidewalks along Lexington Road to those entrances. TARC Routes #29 and #55 both serve the area directly from US 60A (Lexington Road), and there is a marked crosswalk at the easternmost entrance. Traffic congestion in the morning peak with parents dropping off children in vehicles as well as the traffic utilizing US 60A (Lexington Road) to get to the downtown area contributes to morning peak congestion, and require a traffic control person stationed at the easternmost entrance. Internal pedestrian circulation on the campus is well served via sidewalks.

Field Elementary School abuts the Sacred Heart campus to the north, and its main entrance is located off of Sacred Heart Lane, accessible from US 60 (Frankfort Avenue). There are sidewalks on the school side of the roadway from US 60 (Frankfort Avenue) to the school as well as on Eastover Court.

The lack of pedestrian facilities along Zorn Avenue poses a barrier for access to Webster University and Galen College of Nursing. Gaps in the pedestrian network along US 60 (Frankfort Avenue) as well as lack of marked crossing locations may prohibit some pedestrian access to these institutions.

Access to Government Services

There is only one cluster of government services in this TAD. It is on US 60 (Frankfort Avenue), and consists of the Crescent Hill Branch of the Louisville Free Public Library, the Fire Department, and the recycling services available at the Fire Department. The library is very well used by the community. There are also a large number of parks in the area, some of them a regional attraction, such as the Waterfront Park, Cherokee Park, Seneca Park, and Champions Park and Soccer Fields, among others.

Public transit service along US 60 (Frankfort Avenue) provides access to the library, fire department and recycling center through a number of routes. Public transit service does not exist along River Road to access the parks located along this corridor, nor is there adequate bicycle and pedestrian access to these parks from the residential areas.

Access to Medical Facilities

The Robley Rex VA Medical Center is located on Zorn Avenue at Country Club Road. There is pedestrian circulation within hospital grounds; however, there are no pedestrian connections on Country Club Road to Zorn Avenue, and no pedestrian accommodations on Zorn Avenue. Any person walking or in a wheelchair or similar device may find it difficult to walk to or from the Veterans Hospital and/or bicycle. There is TARC service to the hospital. The Veterans Administration has recently acquired property for a new VA hospital close to the intersection of US 42 (Brownsboro Road) and I-264, outside of this TAD, which is anticipated to open in 2018. Plans for the existing hospital property at Zorn Avenue are unknown at this time.

Freight Access

I-64, I-65, and I-71 in this TAD are part of the KIPDA Freight Network. These interstate connections play a vital role allowing for freight movement north and south, and east to west – basically connecting to the rest of the national interstate system. While there are no clusters of major freight users in this TAD (five or more), there are several singular major freight users; the two perhaps most significant in this area are River Metals Recycling and Nugent Sand, which utilize intermodal modes of transportation, ranging from trucks to rail as well as river transport. Their location on the Ohio River, the rail spur that runs to the property and the proximity to the interstate system makes these operations well connected.

The major issue facing freight in this TAD is the current and projected levels of service. At this time, I-71 from I-64 to Zorn Avenue performs at a LOS E. In the future, I-71 from I-64 to Zorn Avenue will continue to perform at a low LOS. On I-71 from Zorn Avenue to beyond the eastern boundary of the TAD, the LOS is projected to be an F. As well, the portions of I-64 are projected to operate at a LOS F in the future. While this TAD itself is more residentially-oriented than freight-oriented, the operations of the interstate system, the CMP, and Freight Network are crucial to the economic vitality of the region and being able to move goods. The low LOS on the interstates, in addition to the crashes at I-71/Zorn Avenue, I-64 at Story Avenue, and the Spaghetti Junction area, points to issues that may serve as barriers to efficient freight movement in this particular TAD.

Future Socioeconomic Conditions

In looking at the non-group quarters population data from the US Census compared to the forecasts for 2030, this area is not anticipated to see a significant change in terms of population or the number of households. There are also no significant changes forecast for the number of jobs being added to this TAD by 2030. The anticipated lack of change in population, number of households, and jobs in this TAD is due in large part to the fact the land use within this TAD is fairly well established, and therefore, not anticipated to experience high levels of change.

Issues and Opportunities

- Additional safety measures when implementing projects within this TAD need to improve the safety of bicyclists and pedestrians in general with a primary focus on US 60. The I-71 and Zorn Avenue interchange, I-64 at Story Avenue

interchange, and Spaghetti Junction areas are targeted safety areas. This issue has been identified in the data analysis process as well as supported by comments collected from the public.

- Congestion on I-71, US 42, and US 60A (Lexington Road) is anticipated to stay the same or fall to lower Levels of Service. This may impact freight movement in the area as well as access to community amenities and workplaces.
- Pedestrian and bicycle access may be fragmented and/or non-existent in areas, cutting off the residential areas from major destinations within this TAD, some of them, a regional attraction. This is identified in the data and supported additionally through public comments.
- There are no significant issues with access to workplace within this TAD other than sidewalk connectivity and bicycle access.
- The lack of pedestrian facilities along Zorn Avenue poses a barrier for anyone accessing the current VA hospital on foot or in a wheelchair, as well as Webster University and Galen College of Nursing – or attempting to access these locations via transit in some cases. Gaps in the pedestrian network throughout the TAD pose barriers for persons with disabilities and older adults.
- Gaps in the pedestrian network along US 60 (Frankfort Avenue) as well as lack of marked crossing locations may prohibit some pedestrian access to schools and other destinations along US 60 (Frankfort Avenue). This issue was identified through both public comments and data analysis.
- Public transit service does not exist along River Road to access the parks, nor is there adequate bicycle and pedestrian access to these parks at this time from the residential areas within the TAD.
- The major issue facing freight in this TAD is the current and projected levels of service. At this time, I-71 from I-64 to Zorn Avenue performs at a LOS E. In the future, I-71 from I-64 to Zorn Avenue will continue to perform at a low LOS. On I-71 from Zorn Avenue to beyond the eastern boundary of the TAD, the LOS is projected to be an F. As well, the portions of I-64 are projected to operate at a LOS F in the future. While this TAD itself is more residentially-oriented than freight-oriented, the operations of the interstate system, the CMP, and Freight Network is crucial to the economic vitality of the region and being able to move goods. The low LOS on the interstates in addition to the crashes at I-71/Zorn Avenue, I-64 at Story Avenue, and the Spaghetti Junction area point to issues that may serve as barriers to efficient freight movement in this particular TAD. Public comment also addressed congestion levels at these locations.
- Many of the comments received reinforce the findings from the data and GIS analysis: lack of adequate and safe bicycle and pedestrian facilities lend to disjointedness between the residential areas and destinations in the area, including workplaces, retail, medical services, parks, and other services.
- Other comments supported that congestion is at a low level of service in the same areas as seen in the analysis.

Related Plans and Studies

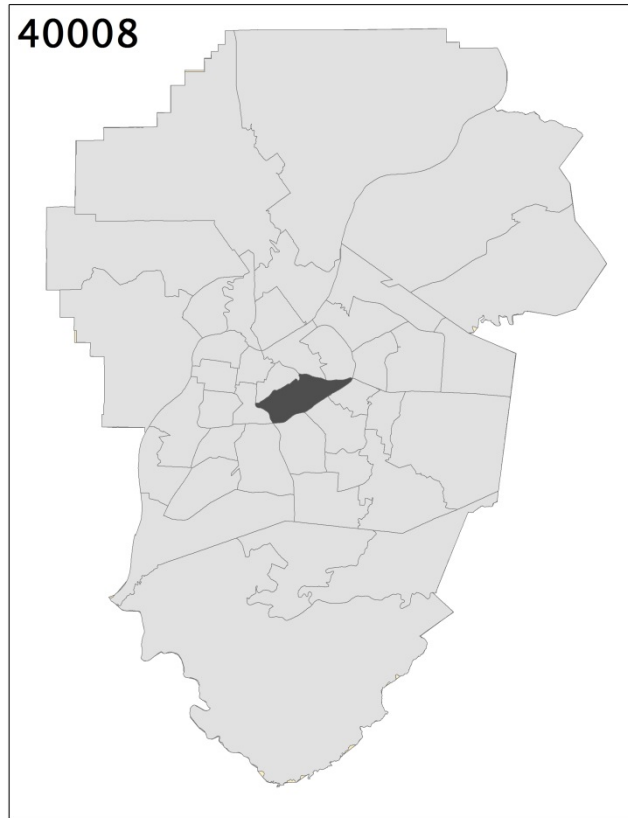
- Clifton Heights Neighborhood Plan (2001)
- Clifton Neighborhood Plan (2002)
- Cornerstone 2020 Comprehensive Plan (2013)
- Louisville Loop Master Plan (2013)
- Mockingbird Valley Neighborhood Plan (2006)
- River Road Scenic Byway Corridor Management Plan (2010)

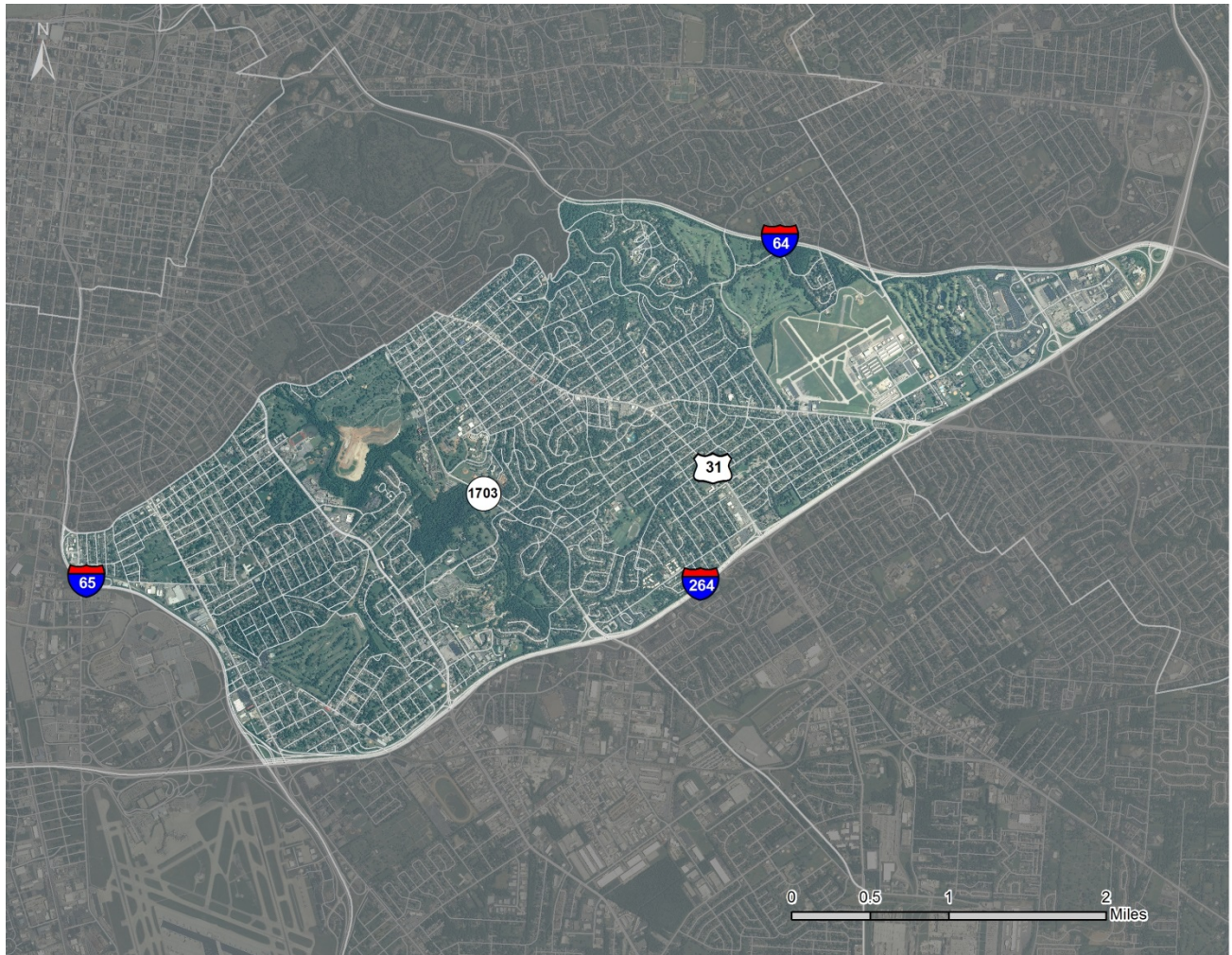


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40008 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40008 is located in central Jefferson County, just east of downtown Louisville. It contains portions of Louisville Metro, City of Audubon Park, City of Parkway Village, City of Saint Matthews, City of Seneca Gardens, City of Strathmoor Village, City of Strathmoor Manor, City of Kingsley, and the City of Wellington. TAD 40008 is well established in terms of development patterns; most of this TAD is a fairly dense residential area with tree-lined streets. The commercial nodes are located mainly along the Bardstown Road and Preston Highway corridors. TAD 40008 is a very active area with access to interstates, an airport, several parks, three universities/colleges, and three hospitals.

Area and Socioeconomic Information

Area: Approximately 7,403 acres
Non-Group Quarters Population (2010): 35,352
Number of Households (2010): 16,757
Number of Jobs (2000): 21,718

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies a small, two block area on the western

side of this TAD as a Title VI/Environmental Justice area (see Figure 40008-A). This area is located on Eastern Parkway between Shelby Street and Bradley Avenue, and includes several retail/service businesses, Our Mother of Sorrows Church, and single and multi-family residences. This portion of the Title VI area is served by TARC Routes #2, #18, and #29. This area has a sidewalk network which connects to the transit routes.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

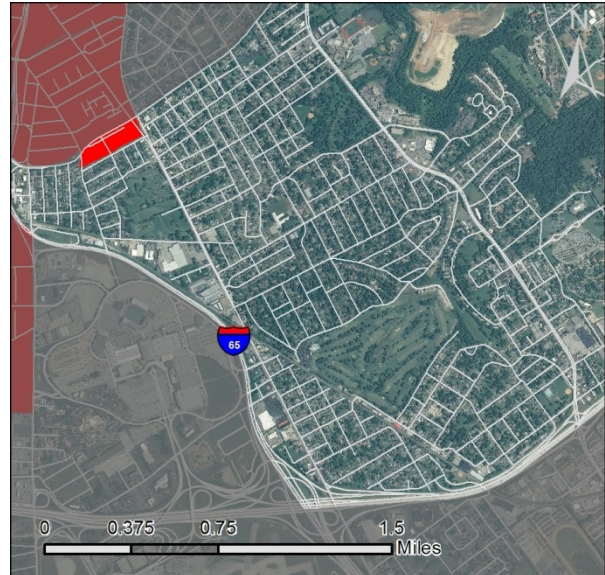


Figure 40008-A: Title VI/Environmental Justice area shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64* from Beals Branch Road to I-264 • I-65* from I-264 to US 60A (Eastern Parkway) • I-264* from I-65 to I-64
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 1932 (Breckenridge Lane) from I-264 to I-64 • KY 155* (Taylorsville Road) from I-264 to US 31E (Bardstown Road) • US 31E* (Bardstown Road) from I-264 to US 60A (Eastern Parkway) • KY 1703* (Newburg Road) from I-264 to US 60A (Eastern Parkway) • KY 864 (Poplar Level Road) from I-264 to US 60A (Eastern Parkway) • KY 61 (Preston Highway) from I-264 to US 60A (Eastern Parkway) • KY 1631 (Crittenden Drive) from I-65 to US 60A (Eastern Parkway) • US 60A (Eastern Parkway) from I-65 to US 31E (Bardstown Road)
Urban Minor Arterial	<ul style="list-style-type: none"> • Dutchmans Lane from KY 155 (Taylorsville Road) to Browns Lane • KY 2048 (Cannons Lane) from Dutchmans Lane to I-64 • Browns Lane from I-264 to I-64 • Trevilian Way from US 31E (Bardstown Road) to KY 864 (Poplar Level Road) • Phillips Lane from KY 61 (Preston Highway) to I-65
Urban Collector	<ul style="list-style-type: none"> • Pee Wee Reese Lane from KY 155 (Taylorsville Road) to I-64 • Douglass Boulevard from US 31E (Bardstown Road) to Norris Place • Norris Place from Douglass Boulevard to US 60A (Eastern Parkway) • Gardiner Lane from US 31E (Bardstown Road) to KY 1703 (Newburg Road) • Belmar Drive from KY 864 (Poplar Level Road) to KY 61 (Preston Highway) • Hess Lane from KY 864 (Poplar Level Road) to KY 61 (Preston Highway) • Clarks Lane from KY 864 (Poplar Level Road) to KY 61 (Preston Highway)
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A

Rural Principal Arterial – Other	• N/A
Rural Minor Arterial	• N/A
Rural Major Collector	• N/A
Rural Minor Collector	• N/A

*Denotes part of the National Highway System (NHS)

Schools

- Assumption High School
- Atherton High School
- Audubon Traditional Elementary School
- Brook-Dupont Alternative School
- Camp Taylor Elementary School
- DePaul School
- Hawthorne Elementary School
- Hayfield Montessori School
- Highland Middle School
- Holy Family School
- Louisville Junior Academy
- Peace Academy
- Saint Agnes Catholic School
- Saint Francis of Assisi Catholic School
- Saint Raphael Elementary School
- Saint Stephen Martyr School
- Saint Xavier High School
- The Academy at Saint Andrews
- The Torah Academy

Colleges & Universities

- Bellarmine University
- Louisville Presbyterian Theological Seminary
- Sullivan University

Parks

- Allgeier Park
- Bradley Park
- Camp Taylor Park
- Cherokee Park (partially)
- Douglass Park
- George Rogers Clark Park
- Joe Creason Park
- Seneca Park & Golf Course (partially)

Other Area of Interest/Significance

- Adath Jeshuron Cemetery
- Anschei Spard Cemetery
- Audubon Country Club
- Big Springs Country Club
- Bnai Jacob Cemetery
- Bowman Field Airport
- Calvary Cemetery
- Jewish Community Center
- Keneseth Israel Cemetery
- Lakeside Swim Club
- Louisville Cemetery
- Louisville Nature Center & Beargrass Creek State Nature Preserve
- Louisville Zoo

Historic

- Adath Israel Cemetery
- Audubon Park Historic District
- Bowman Field Historic District
- Bullock-Clifton House
- Cherokee Park Historic District
- Commodore Apartment Building
- David Wilson House
- Farmington
- Gardencourt Historic District
- Hayfield
- Highlands Historic District
- Humphrey-McMeekin House
- Rose Hill
- Saint Francis of Assisi Complex
- Steam Engine Company No. 20
- Struss House
- William R. Belknap School

Transit

TAD 40008 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #2 – Second Street
- Route #17 – Bardstown Road/Fern Creek
- Route #18 – Preston-Dixie Highway
- Route #19 – Muhammad Ali Boulevard
- Route #21 – Chestnut Street
- Route #23 – Broadway
- Route #27 – Hill Street
- Route #29 – Eastern Parkway
- Route #40 – Taylorsville Road
- Route #45 – Okolona Express
- Route #43 – Portland/Poplar Level Road
- Route #62 – Breckenridge/Shepherdsville
- Route #93 - UPS/UofL/JCTC Shuttle

The following are TARC express routes that pass through the TAD, but currently have no stops within the TAD:

- Route #53X – Breckenridge Express
- Route #61X – Plainview Express
- Route #66X – Shepherdsville/Mount Washington Express
- Route #78X – Bluegrass Express
- Route #99X – UPS/West Louisville Shuttle

These express routes travel primarily along I-64 and I-65 within this TAD from their outer locations to downtown Louisville.

Park and Ride

There are no identified Park and Ride lots in TAD 40008.

Public Comments

Arlington Road at Woodluck Avenue

- Cut across expressway for bike/ped access.

Bardstown Road

- Street light needed at Kroger on Bardstown Road at or near Wrocklage Avenue.
- Southbound on Bardstown Road turning left on Eastern Parkway. Very difficult.
- Lack of sidewalks on east side of Bardstown Road in vicinity of Assumption High School.
- No safe crossing for bikes or peds (at Bardstown Road at I-264).
- Backups in front of Assumption High School.
- Need to widen Bardstown Road at Watterson Expressway.

Bon Air Avenue

- Cut across expressway for bike/ped access.

Bradley Avenue

- Build bike/ped crossing over these RR tracks.

Breckenridge Lane

- The left turn from Breckenridge Lane to Dupont causes major congestion because it takes forever to change.
- Need to widen Breckenridge Lane at Watterson Expressway.

Dutchmans Lane

- Dutchmans Lane needs bike lanes from Cannons Lane to Browns Lane.
- Dutchmans Lane right turn to south Breckenridge Lane has issues with lane signage. Heavy congestion.

- At Breckenridge Lane, backups in AM and PM.
- Unsafe conditions for people on bikes.

Eastern Parkway

- Bike lanes are needed on Eastern Parkway.
- Unsafe conditions for people on bikes.

I-64

- On I-64 from Spaghetti Junction to Gene Snyder, widen it from 4 to 6 lanes.

Indian Creek Court/Tremont Drive

- Cut across expressway for bike/ped access.

Newburg Road

- Newburg Road from Eastern Parkway and Speed Avenue, put more traffic signals.
- Backups in AM near Bellarmine and Richland.
- There are no sidewalks crossing over Watterson Expressway at Newburg Road from the north side of interstate to south towards Bishop Lane and JCPS Van Hoose Building.
- Traffic control device is needed at Newburg Road and Dundee Road.
- Heavy congestion at Newburg Road and Trevilian Way.
- Newburg Road is congested at the I-264 interchange.
- Newburg Road at Richmond – there are several wrecks there at curve. Can't see people coming. Can't turn off Richmond. Traffic is bad.
- Unsafe conditions for people on bikes.

Norris Place & Speed Avenue

- Norris Place and Speed Avenue are very congested around Highland Middle School.

Preston Street/Highway

- Safe corridor needed. Can it be signed to help bikes find a safe way OFF of the major arterial? Current road conditions unsafe for people on bikes.

Robin Road/ Union Avenue

- Build bike/ped crossing over these railroad tracks.

Roosevelt Avenue

- Cut across expressway for bike/ped access.

Schuff Lane/Colonel Sanders Lane

- Cut across expressway for bike/ped access.

Seneca Park Road

- Install a roundabout intersection at Big Rock Parking lot.
- Install a roundabout intersection at Pee Wee Reese Road.

Taylorsville Road

- Safe corridor needed. Can it be signed to help bikes find a safe way OFF of the major arterial?
- Current road conditions unsafe for people on bikes?

Vista Valley Road

- Safe corridor needed. Can it be signed to help bikes find a safe way OFF of the major arterial?

Transit

- Lack of connectivity between Hikes Point and Saint Matthews. Consider adding a minor extension to TARC Route #40 and Route #23 from Route #19.

Safety

5,960 crashes were reported in TAD 40008 in the three-year period from 2009 through 2011. Rear-end collisions were cited as the most common crash type, making up 45% of the total. Side swipe crashes in the same direction were the second most common, with 17% of the total. Rounding out the top three most common types of crashes within this TAD are angle crashes (16%). The remaining crash types constitute less than 10% each of the total number of crashes. 32 crashes involved bicyclist and 56 involved pedestrians.

Fatalities

Three fatalities were reported as a result of crashes during the studied time period (2009-2011). Two involved single vehicle crashes (motorcyclists coming into contact with fixed objects) and the other involved a passenger vehicle and semi tractor-trailer on I-64. There do not appear to be any correlations between the crashes resulting in fatalities.

High Crash Locations

There are several high crash locations within this TAD, all occurring on roadways with the largest traffic volumes: I-65, I-264, Preston Highway, Breckenridge Lane, Bardstown Road, and Eastern

Parkway (see Figure 40008-B). A site is deemed a high crash location when 100 or more crashes occurred within 0.10 mile of each other from 2009 through 2011.

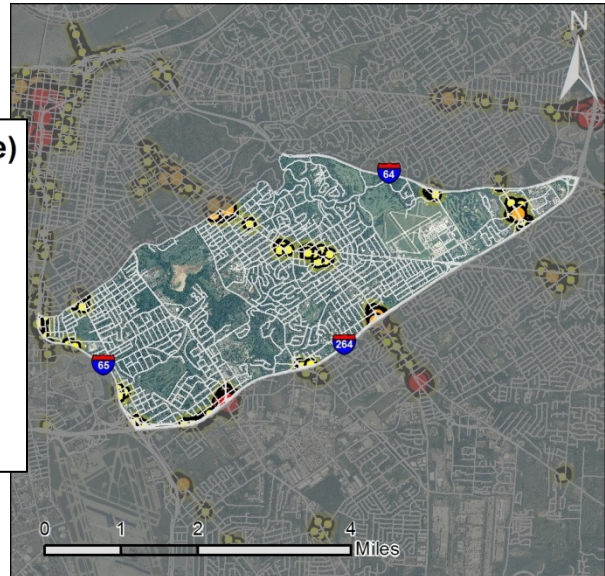
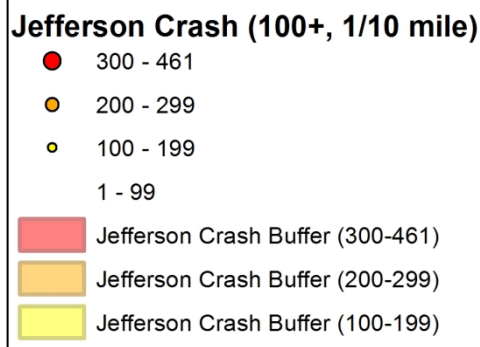


Figure 40008-B: High crash locations in TAD 40008.

I-65 Corridor

I-65 forms the western edge of this TAD's boundary, extending from Eastern Parkway south to I-264. The area surrounding the interchange of I-65 and Eastern Parkway and Crittenden drive form an elongated high crash location with more than 150 crashes. There is a small cluster of crashes on I-65 forming the next high crash location directly over Bradley Avenue. The Phillips Lane interchange/entrance to the Fairgrounds forms the next, with the interchange at I-65 and I-264 forming the southern-most high crash location on I-65 within this TAD. Proximity of interchanges along with traffic volume along the I-65 corridor may be a contributing factor to the number of crashes; the three interchanges involved are less than a mile apart, and two of them, less than 0.50 miles apart. There is a great deal of through traffic, but also a high number of vehicles entering and exiting the corridor in this area, going on to I-264, the University of Louisville, the Kentucky Fairgrounds and surrounding areas.

I-264 Corridor

All but one of the interchange areas (Taylorsville Road) along the I-264 corridor within this TAD are identified as high crash locations, specifically from west to east: I-65, Poplar Level Road, Newburg Road, Bardstown Road, and Breckenridge Lane.

I-264/I-65/Preston Highway – The interchange of I-264 and I-65 along with a short segment of Preston Highway is identified as a high crash location with over 200 crashes occurring with 0.10 mile of each other. This location is shared with neighboring TADs 40005, 40017, and 40012. This interchange between two interstates handles large volumes of traffic, as does Preston Highway at I-264. The compressed nature of the roadway geometry and weaving required may be an additional factor in the number of crashes at this location. Over 75% of the crashes occurred on I-65 or an I-65 ramp while 22 occurred on I-264 and 28 on Preston Highway.

I-264/Poplar Level Road – The heaviest concentration of crashes at this location is within the interchange area, but the segment identified as a high crash location extends along I-264 to the west for approximately 0.70 miles, and to the east for approximately 0.20 miles. This location has the highest density of crashes in this TAD with over 700 crashes over the three-year period in little less than a mile. The majority of these crashes occurred on I-264, while almost 200 occurred on Poplar Level Road. There are a lot of vehicles that travel these roadways daily and the close proximity to I-65 makes this location both a safety and a congestion issue.

I-264/Newburg Road – I-264 at Newburg Road experienced over 100 crashes from 2009 through 2011. While some of the crashes occurred on the ramps to and from I-264, and I-264 itself, the majority of crashes appear to be attributed to Newburg Road south of I-264 to Goldsmith Lane. Newburg Road handles large volumes of traffic in this area due to its proximity to not only I-264, but also the surrounding industrial and office uses.

I-264/Bardstown Road – Although the high crash location extends south beyond the interchange area, I-264 serves as the southern boundary for TAD 40008, so only the 140+ crashes north of I-264 are addressed in this report. The high crash location within the TAD runs along Bardstown Road north of Gardiner Lane. South of I-264 is addressed in TAD Report 40018. The majority of these crashes (57%) took place on Bardstown Road, followed by crashes on I-264 (34%). Of the crashes that took place on I-264, close to half of those occurred on the ramps either exiting or entering the I-264. Along Bardstown Road north of I-264, there is a shopping center to the west and a neighborhood to the east. Sullivan University also has facilities on both the east and west sides of Bardstown Road immediately north of the interchange. Heading north, the number of lanes transitions from three to two whereas heading south, the roadways transitions from two to three lanes. There is a center turn lane and a protected left turns at signals located at the interchange, Gardiner Lane, as well as Brighton Drive, the northern limit of the high crash location. Brighton Drive is to the east while the entrance to the Gardiner Lane Shopping center is to the west at the signal. Most of the crashes (56%) are rear-end collisions, followed by angle crashes (19%) and side-swipe, same direction (14%). Crashes in this location are likely due to the traffic volumes both along I-264 and Bardstown Road, the transition of lanes, and the number of attractions in the area (Sullivan University and the Gardiner Lane Shopping Center).

Preston Street/Highway

Beyond the I-265/I-65 interchange, there is an additional high crash location on Preston Street which occurs at its intersection with Eastern Parkway. This location saw more than 100 crashes from 2009 through 2011. This high crash location extends to the north to Fetter Avenue and to the east to include South Shelby Street. To the south, it extends to Harrison Avenue. This is the portion of South Preston Street that splits into Preston Street and Shelby Street, with each carrying traffic in only one direction. Fetter Avenue and Harrison Avenue are the closest cross streets to the intersection to the north and south, respectively. Approximately 128 crashes occurred within this area within the specified time frame. The largest manner of collision was the angle crash, which occurred most often when one vehicle was going straight, and the other vehicle was either making a left turn or also going straight. The next highest type of collision was the rear-end crash. This area has a lot of commercial destinations as well as carries traffic to the surrounding areas, such as towards downtown or the University of Louisville. There are approximately 18 commercial driveways on Shelby and Preston Streets as well as three intersecting roadways beyond Eastern Parkway, Fetter Avenue and Harrison Avenue. Several of the businesses sandwiched between Shelby and Preston south of Eastern Parkway have a wide expanse of driveway, so that a motor vehicle could enter anywhere along the frontage, which in some cases may be necessary as there is not enough room to include a regular parking lot. That causes its own set of issues as drivers backing out of these businesses must then back out onto Shelby or Preston in order to get back into traffic. All of these factors (number of destinations along with the number of commercial driveways, other intersecting roadways, traffic volume, and the change from two-way to one-way traffic) may be contributing factors to the number of crashes in this location.

KY 1932 (Breckenridge Lane)/I-264/Dutchmans Lane

The Breckenridge Lane corridor within this TAD is approximately 0.60 miles, and contains the high crash location at the I-264 interchange/Dutchmans Lane area. The high crash location begins just south of the I-264 interchange area and extends north for approximately 0.40 miles. This location also includes both the east and west legs of Dutchmans Lane for approximately 0.15 miles on either side of the intersection with Breckenridge Lane. The surrounding land use holds many attractions: Jewish Hospital East, Norton Suburban Hospital, doctor's offices and other medically-related services, additional office space, a cinema, restaurants, and shopping. The hospitals and medically-related services draw people from throughout the region as both employees and visitors, in addition to the other attractions. Abutting these uses are single-family and multi-family residential uses, placing a lot of demand on this intersection. South of Dutchmans Lane, a lane is added to Breckenridge Lane in each direction to accommodate the I-264 ramps. Those lanes continue north to the intersection at Dutchmans, and additional turn lanes have been added. Heading north on Breckenridge, there are two travel lanes, one lane added to accommodate the interchange, which then becomes a right-turn only

lane at the intersection with Dutchmans Lane. There are also two dedicated left turn lanes at the signalized intersection of Breckenridge Lane and Dutchmans Lane. Heading south on Breckenridge, there are two through lanes at the signal, and dedicated right and left turn lanes. Approaching the signal on Dutchmans heading west, there are three lanes: two dedicated left turn lanes and a right turn/through lane. If approaching the signal from the west while heading east on Dutchmans, there are two through lanes, and dedicated right and left turn lanes. Crashes within this area may be due to the amount of weaving from the interchange to the intersection area to gain the proper positioning to reach the required destination. Also, the right turn from Breckenridge Lane heading north, and the right turn lane heading east on Dutchmans are not entirely free flow lanes as there is a signal, but right turns are permitted in almost all phases for a lot of movement on and off of I-264, and to reach the areas near the hospitals. There is also a non-signalized left turn permitted from Breckenridge Lane to the Springs Shopping Center, which is at the northern limit of the high crash location. The majority of the 269 crashes took place on Breckenridge Lane (57%), and then to a lesser extent on Dutchmans Lane (30%). The remaining crashes were on I-264, but out of those 37, 27, or 72% occurred on the interstate access ramp. The majority did occur at intersections (69%), and there are two signalized intersections on Dutchmans Lane less than 0.10 mile from the signalized intersection and Breckenridge and Dutchmans Lane. Rear end collisions were the most common at 64%, followed by side swipe in the same direction (16%), and angle crashes (11%). The high volume of traffic trying to reach the high number of destinations in this area, the number of signals and commercial driveways in proximity to the intersection of Dutchmans Lane and Breckenridge Lane, along with weaving movements to assure a driver of the correct lane placement to reach their destination may all be contributing factors to the number of crashes at this location.

Bardstown Road

Bardstown Road within this TAD (approximately 2.6 miles) has five high crash locations; the northernmost and southernmost are shared with TADs 40006 and 40018, respectively. The southernmost is at the interchange of I-264 and Bardstown Road, which was discussed in the I-264 Corridor section above. The other sites are Bardstown Road at Taylorsville Road, Douglass Boulevard, Maryland Avenue, and Eastern Parkway. Over 700 crashes occurred between these five locations from 2009 through 2011.

Bardstown Road at Taylorsville Road – This high crash location centers on the intersection of Bardstown Road and Taylorsville Road, but extends out from the intersection along Taylorsville Road northeast to Wallace Avenue, and along Bardstown Road from Kaelin Avenue to Wrocklage Avenue. Over 170 crashes occurred within 0.10 mile of each other. Both Taylorsville Road and Bardstown Road in this area are urban principal arterials, and as such, carry a high volume of traffic. Both are four lanes (two travel lanes in either direction). West of the Taylorsville Road intersection, on-street parking is permitted. The surrounding land use is dense; abutting the corridors are commercial uses ranging from drug stores to appliance shops, banks, and so on. Abutting the commercial uses are multi-family and single family residential uses. The form of the surrounding land use is that of a more established, older urban corridor with small lot sizes and larger building footprints. Within 0.30 miles on Bardstown Road and 0.10 mile on Taylorsville Road included in this high crash location, there are 23 commercial driveways. The primary manner of collisions during this time period were rear end crashes (39%), angle crashes (20%), and side-swipe same direction (15%). The remaining crash types constituted ten percent or less. The number of commercial driveways with the volume of traffic, the variety and attraction of commercial destinations within this area, and traffic stopping in a travel lane in order to turn left may all be contributing factors to crashes in this area.

Bardstown Road at Douglass Boulevard – This intersection is approximately 0.50 miles northwest of the intersection of Bardstown Road and Taylorsville Road. Many of the same conditions occur around this intersection: residential uses abutting a busy commercial corridor in an established, older urban pattern. This particular area is a bit more complex due to the five legs of roadways coming together at this signalized intersection as well as the signalized intersection approximately 0.04 miles to the southwest at Harvard Drive and Bardstown Road. There are no left turn lanes, so traffic turning left often stops the flow of traffic to wait for an opening to make a left turn. This, in part, may be a contributing issue to the 54% of collisions within this location being rear-end crashes. 15% are angle crashes, and 15% are side-swipe crashes in the same direction. The number of commercial driveways with the volume of traffic, the variety and attraction of commercial destinations within this area, and traffic stopping in a travel lane in order to turn left may all be contributing factors to crashes in this area.

Bardstown Road at Maryland Avenue – Of the high crash locations on Bardstown Road within TAD 40008, this particular location saw the lowest concentration of crashes, with just over 100 from 2009 through 2011. The high crash area is centered on the Bardstown Road and Maryland Avenue intersection, but extends east to Speed Avenue, and west to Duker Avenue. The area consists of a busy retail and commercial corridor abutted by multi-family and single family residential uses. In this segment, there is a signal at Speed Avenue and Bardstown Road. The roadways consists of four lanes, which typically operate as two travel lanes in each direction with on-street parking permitted in the outside lane. The exception is on weekdays (Monday through Friday) from 7 a.m. to 9 a.m. to accommodate traffic demand and flow, there is no parking permitted on the street, and only one lane flows to the east, two flow to the west (toward downtown), and the other lane operates as a turn lane. This repeats in the afternoon from 4 p.m. to 6 p.m., but in the opposite direction. This directional change does not appear to be a factor in crashes as the majority of crashes (82%) occur outside of the times when the reversible lane is in effect. The day of the week with the most crashes was Saturday with 22%, and the time of day with the most crashes was from 9 a.m. to 4 p.m. Rear-end collisions were the most common crash type in this location (53%) with side-swipe same direction and angle crashes tying for the second most common, both with 15% each. Traffic volumes, parking patterns (drivers realizing they've stopped behind a car that is parking and then moving into the left lane to get into traffic), driver inattention (not realizing when traffic has slowed or stopped) may all be contributing factors to crashes at this location.

Bardstown Road at Eastern Parkway – Most of the same conditions exists at this location as described in the Bardstown Road/Maryland Avenue location: established residential abutting a busy commercial and retail corridor (Bardstown Road) and the reversible lane on Bardstown road on weekdays during morning and afternoon peak hours. The primary use along Eastern Parkway is fairly dense residential. Eastern Parkway also serves as a primary access corridor to Cherokee Park and from this area to the University of Louisville area. Bardstown Road and Eastern Parkway southwest of Bardstown Road are functionally classified as urban principal arterials and carry large volumes of traffic. The actual crash location is centered on the intersection, but on Bardstown Road spans from Alta Avenue to Edenside Drive, and on Eastern Parkway, from Norris Place to Willow Avenue. The same holds true for crashes during the days and times the reversible lanes are in effect; there are fewer crashes during those hours than at other times. Friday was the day with the highest number of crashes (21%) followed by Saturday with 15%. From 9 a.m. to 4 p.m. saw the largest number of crashes (34%), followed by 6 p.m. to midnight, with 27%. The intersection of Bardstown Road and Eastern Parkway is signalized; it is the only signal within the high crash location. On the Bardstown Road legs, there are no protected left turn cycles, but there are on the Eastern Parkway legs of the intersection. The two most common crash types in this location are rear end collisions (28%) and angle crashes (28%), followed by side swipe same direction with 21%. 57% of the crashes at this location did occur within an intersection. The traffic volumes, driver inattention, number of attractions, and parking patterns may all be contributing factors to crashes within this area.

Bicycle and Pedestrian Crashes

During this three year period, 56 crashes involved pedestrians and 32, bicyclists. None of the crashes involving pedestrians and bicyclists resulted in a fatality. Other than the Bardstown Road corridor, these crashes are largely spread throughout the TAD. On Bardstown Road, there were 17 crashes involving pedestrians and eight crashes involving bicyclists from 2009 through 2011. Most of these crashes occurred during daylight (half of the crashes with bicyclists and all but two with pedestrians) in clear conditions. Alcohol was not cited as a factor in any of them. Distracted driving was considered a factor in five. About half of the crashes involving pedestrians occurred on weekdays whereas all but one of the crashes involving bicyclists occurred on a weekday. Left turning movements were often cited as what the driver was doing prior to the crash, so there is some possibility that the driver was not aware of and/or did not think to look for a bicyclist or pedestrian while turning. Crashes were spaced along Bardstown Road; however, the heaviest concentrations of them occur within existing identified high crash locations. Driver inattention and lack of awareness of other modes may be contributing to the crashes involving bicyclists and pedestrians, especially along the Bardstown Road corridor, which often sees a lot of bicyclist and pedestrian traffic.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • I-65 from US 60A (Eastern Parkway) to I-264 • I-264 from I-64 to KY 1703 (Newburg Road) • I-264 from KY 864 (Poplar Level Road) to I-65 • Dutchmans Lane from Browns Lane to Village Shopping Center entrance off of Dutchmans Lane • Dutchmans Parkway from KY 1932 (Breckenridge Lane) to KY 2048 (Cannons Lane) • KY 1703 (Newburg Road) from Speed Avenue to US 60A (Eastern Parkway) • US 31E (Bardstown Road) from I-264 to KY 155 (Taylorsville Road) • US 31E (Bardstown Road) from Bonnycastle Avenue to US 60A (Eastern Parkway)
LOS E:	<ul style="list-style-type: none"> • I-64 from KY 2048 (Cannons Lane) to I-264 • I-264 from KY 1703 (Newburg Road) to KY 864 (Poplar Level Road) • US 31E (Bardstown Road) from Wrocklage Avenue to Village Drive • US 31E (Bardstown Road) from Speed Avenue to Bonnycastle Avenue
LOS F:	<ul style="list-style-type: none"> • I-64 from Grinstead Drive to KY 2048 (Cannons Lane) • Browns Lane from I-64 to I-264 • Dutchmans Lane from Village Shopping Center entrance to KY 1932 (Breckenridge Lane) • KY 1703 (Newburg Road) from I-264 to Speed Avenue • KY 1932 from I-64 to I-264 • US 31E (Bardstown Road) from KY 155 (Taylorsville Road) to Wrocklage Avenue • US 31E (Bardstown Road) from Village Drive to Speed Avenue

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are (see Figure 40008-C):

LOS D:	<ul style="list-style-type: none"> • Dutchmans Lane from KY 1932 (Breckenridge Lane) to Browns Lane • Dutchmans Parkway from KY 2048 (Cannons Lane) to KY 1932 (Breckenridge Lane) • I-264 from US 31E (Bardstown Road) to KY 1703 (Newburg Road) • KY 864 (Poplar Level Road) from US 60 A (Eastern Parkway) to Clarks Lane • KY 864 (Poplar Level Road) from Trevilian Way to Taylor Avenue • KY 1932 (Breckenridge Lane) from I-264 to I-64 • US 31E (Bardstown Road) from Brighton Drive to I-264 • US 31E (Bardstown Road) from US 60A (Eastern Parkway) to KY 155 (Taylorsville Road) • US 60A (Eastern Parkway) from KY 61 (Preston Street) to I-65 • US 60A (Eastern Parkway) from KY 864 (Poplar Level Road) to East Burnett Avenue • US 60A (Eastern Parkway) from US 31E (Bardstown Road) to Barret Avenue
LOS E:	<ul style="list-style-type: none"> • I-264 from I-65 to KY 864 (Poplar Level Road) • I-264 from Us 31E (Bardstown Road) to I-64
LOS F:	<ul style="list-style-type: none"> • Browns Lane from I-64 to Dutchmans Lane • I-64 from Grinstead Drive to I-264 • I-65 from US 60 A (Eastern Parkway) to I-264 • I-264 from KY 864 (Poplar Level Road) to KY 1703 (Newburg Road) • KY 864 from Taylor Avenue to I-264 • KY 2048 (Cannons Lane) from I-64 to Dutchmans Parkway • US 31E (Bardstown Road) from KY 155 (Taylorsville Road) to Brighton Drive • US 60A (Eastern Parkway) from KY 864 (Poplar Level Road) to Barret Avenue

The LOS anticipated by 2030 without any additional mitigation measures will affect movement throughout TAD 40008. The interstate system (I-64, I-65, and I-264) at the outer edges of this TAD will face higher congestion levels for more of their lane miles, which is also true of many of the major roadways within the TAD. Additional congestion will add travel

time to trips for work, school, and freight, costing time and other valuable resources. This is especially true for emergency vehicles and emergency response times with the cluster of hospitals located at the eastern edge of the TAD.

Access to Community Amenities

Most of the residential development in this TAD is fairly dense. There are many community amenities in this TAD, ranging from schools, libraries, parks, shopping, etc. In the southwestern portion of the TAD, none of these locations occur in the density required to be recognized as a cluster (three or more within 0.25 miles of each other). The northern half of TAD 40008 contains several clusters, the largest of which is on Bardstown Road.

Bardstown Road

Beginning on Bardstown Road at the intersection of Taylorsville Road, and moving west to the beyond the edge of the TAD is a cluster of community amenities that contains shopping, Louisville Fire Department District 4 – Engine Company 20, Louisville Metro Police 5th Division, three schools, a community center, and parks. These are located either directly on Bardstown Road or Taylorsville Road, or within proximity to be part of the clustered area. Transit service is fairly well provided within the clustered area with Route #17, Route #23, Route #29, and Route #40. Pedestrian amenities, largely provided in the form of sidewalks are sporadic east of Taylorsville Road on Bardstown Road. In some places there are no sidewalks, while in other locations along this segment, commercial driveways and utility poles disrupt the continuity. That is also the case on Taylorsville Road within the clustered area (from Carolina Avenue to Bardstown Road). Continuing to head west on Bardstown Road to Eastern Parkway, there are sidewalks, but they are occasionally interrupted by commercial driveways and utility poles. Sidewalks do largely exist in the abutting residential areas. There are no bicycle facilities along Bardstown Road or Taylorsville Road within this area; however the neighborhood streets are largely connected on a grid network, and experience less vehicular traffic, which may be a viable alternative to riding on the more heavily traveled roadways. Vehicular access appears to be adequate with the grid network of roadways; however, the current and forecasted congestion along with high crash locations may cause delays for persons traveling along these roadways to one or several of these destinations.

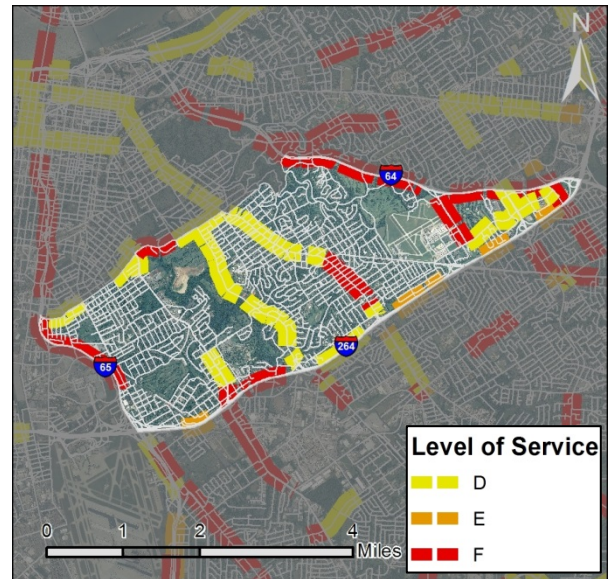


Figure 40008-C: Projected LOS in TAD 40008.

Cannons Lane and Dutchmans Lane

This cluster consists of the Louisville Fire Department District 4 – Company 10, Department of Fish and Wildlife, a senior center/nutrition site, a community center, as well as the Bowman Field Branch of the Department of Motor Vehicles (the only site in Jefferson County that handles written and driving tests for new drivers as well as those relocating to Louisville). Transit service within this area is provided through Route #23 and Route #40. There are two roadways with sidewalks on one side within the clustered area: Dutchmans Lane (south side) and Cannons Lane (east side), so pedestrian facilities to the Department of Motor Vehicles and other locations in the western quadrant of this location are largely non-existent. There are no dedicated bicycle facilities currently within the clustered area. Motor vehicle access appears to be adequate, other than current and forecasted congestion on roadways such as I-64 and Dutchmans Parkway which will cause delays without some mitigation measures. High crash locations identified around this cluster will also add travel time to reach these destinations.

Dupont Area

The Dupont area cluster consists of the destinations located in and around Dutchmans Lane from Breckenridge Lane to Browns lane. There are three hospitals within the cluster, as well as other medical services, physicians' offices, medical supply store, retail shops, a school, a park, a movie theater, and restaurants, etc. Because of the hospitals, there is a regional attraction to this cluster for employees, patients, and visitors. TARC Routes #19, #23, and #62 provide regular fixed-route service within the clustered area. Pedestrian access, largely in the form of sidewalks, is incomplete;

sidewalks start and stop along different property frontages, so there is no continuity of the system. There are no sidewalks on Browns Lane within the clustered area. A pedestrian crossing Breckinridge Lane to reach this area may also be intimidated by the number of lanes of traffic (eight lanes) along with traffic speeds. There are no dedicated bicycle facilities within the clustered area. Motor vehicle access is impeded by the current levels of congestion and high crash locations on Breckenridge. Congestion, safety, and lack of sidewalk continuity are all concerns within this particular cluster.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Bellarmine University
- Hosparus – Hospice of Louisville
- International Association
- Our Lady of Peace

There are four access to workplace clusters in TAD 40008. All of the clusters are served by public transit: Route #17, Route #40, Route #23, Route #21, Route #29, and Route #19. Each of the four clusters abuts or is close to a residential area

Bardstown Road from Lowell Avenue to Eastern Parkway

This access to work cluster is on Bardstown Road beginning at Lowell Road and extending into TAD 40006. For purposes of this analysis, this cluster ends at Eastern Parkway, near the border with TAD 40006. This cluster is a mix of both high density employment and high density shopping (50+ retail businesses within 0.25 miles of each other). Residential property surrounds the employment and shopping clusters. This cluster is well served by TARC Route #17, Route #40, and Route #23. Pedestrian and bicycle facilities extend the entire length of the corridor. Within this cluster, nearly the entire length of Bardstown Road is identified as a high crash location with up to 299 crashes occurring within 0.10 mile of each other from 2009-2011. Most of this same corridor currently operates at LOS E or F, with a forecasted LOS between LOS C and F in this same corridor.

With abundant transit, bicycle, and pedestrian facilities currently in place, the only issues in making connections to this cluster are the congestion and high crash frequency issues. Forecast growth in employment within sections of this cluster may compound these issues if they are left unmitigated.

Bardstown Road from I-264 to Tyler Lane

This access to work cluster extends south into TAD 40008. For purposes of this analysis, the area extending from I-264 to Taylor Avenue will be examined. This cluster is exclusively a high density employment cluster. Residential land use surrounds the high density employment within this cluster. Pedestrian facilities, bicycle facilities, and public transit (Routes #17, #40 and #23) are abundant throughout this cluster. Within this cluster, Bardstown Road has many high crash location up to 299 crashes within 0.10 mile of each other from 2009-2011. The length of Bardstown Road in this cluster currently operates at LOS C with a forecasted LOS at C as well.

There are many access options for this cluster. Public transit, bicycle, and pedestrian facilities are available providing a variety of modal connections. The only issue facing this cluster is the high frequency of crashes occurring primarily in the area of Bardstown Road and I-264. This area is forecast to see an uptick in employment, which, combined with the frequency of crashes, may present a significant issue if left unmitigated.

Newburg Road from Bellarmine Boulevard to Deer Park Avenue

This cluster is a mix of high density employment and two major employers (300+ employees). The major employers are Bellarmine University and Our Lady of Peace. This cluster abuts residential areas to the east and Joe Creason Park to the west. This area is served by public transit Route #21 and has sidewalks along most of the Newburg Road corridor; however, current data does not indicate the existence of any bicycle facilities in the area. While there are no high crash locations within this cluster, Newburg Road is currently operating at LOS F, and is forecasted to improve to a LOS C by 2030.

Primary access to this cluster of high density employment and major employers is along Newburg Road. With pedestrian facilities, public transit, and no high frequency crash issues, the only impediments to accessing this area are the current congestion issues and a lack of bicycle facilities. This cluster is anticipated to see growth in employment, households, and population.

Breckenridge Lane/Dutchmans Lane Area

This cluster includes both TAD 40009 and TAD 40021. For purposes of this analysis, the examination of this area will remain within TAD 40008. The cluster, a mix of high density employment, high density shopping, and a major employer, extends the length of Dutchmans Lane from Browns Lane to Taylorsville Road. A majority of the attractions are located at the Dutchmans Lane/Breckenridge Lane intersection area. Also located within this cluster are numerous medical facilities, many of which are associated with the Baptist Health Medical Area located just north of TAD 40008 in TAD 40009. Residential land uses are to the north and south of the cluster. To its west are golf courses and the Bowman Field Airport; and to the east are open spaces. Socioeconomic forecasts indicate that the cluster is anticipated to see a moderate growth in employment. Households and non-group quarters population are anticipated to remain near current levels.

This area has two interstates providing either immediate access (Watterson Expressway) or access within close proximity to the cluster (I-64). This area is well served by public transit with TARC Route #19, Route #23, and Route #53. Pedestrian facilities exist throughout the area with small gaps located at various points. No bicycle facilities have been identified within the cluster, but do exist on some routes that surround the cluster. Several routes passing through the cluster are currently rated at LOS D and F with forecasted LOS on some routes improving to LOS D while others remain at LOS F by 2030. The intersection of Dutchmans Lane and Breckenridge Lane has been identified as a high crash location with up to 299 crashes occurring within 0.10 mile of each other during the 2009-2011 timeframe. Two other high crash locations exist on Breckenridge Lane that may impede access to the cluster. The first is in TAD 40009 (just north of TAD 40008) at the intersection of Breckenridge Lane and Kresge Way, and the other is at the Breckenridge Lane/Watterson Expressway Interchange area.

With abundant public transit, as well as good roadway access (via the interstates, Breckenridge Lane, and Taylorsville Road (just south of the cluster), and a range of pedestrian facilities, this area currently has good infrastructure in place to help make connections. With future employment growth anticipated, the current and forecast congestion, along with the high frequency crash locations, may continue to impede access and become worse overtime if these issues are not mitigated.

Access for Persons with Disabilities and/or Older Adults

Considerations are given to not only where services for persons with disabilities and/or older persons are located, but also to attractions where persons with disabilities and/or older adults may want or need to go and how they may get there. In TAD 40006 there are two clusters of facilities intended to serve the needs of persons with disabilities and/or older adults.

The first facility, Highland Community Ministries, is located at the intersection of Bardstown Road and Douglass Boulevard. Public transit is readily accessible via TARC Route #17, Route #23, and Route #40. Pedestrian facilities are abundant throughout the area. The availability of public transit provides connections to high density employment, high density shopping, high density medical facilities (up 210 medical offices within 0.25 miles of each other), and clusters of government services (3+ government facilities within 0.25 miles of each other). Current (LOS E and F) and forecasted congestion (LOS D and F by 2030) on Bardstown Road in the immediate area of the Highland Community Ministries as

well as high crash frequency (up to 199 crashes within 0.10 mile of each other from 2009-2011) at the Bardstown Road/Douglass Boulevard intersection, may contribute to diminished access for vehicles.

The second area in TAD 40008 where facilities for persons with disabilities and/or older adults is located in Dutchmans Lane/Cannons Lane intersection at the Jewish Community Center and the Jewish Family & Career Services. TARC Route #23 and Route #40 provide connections from the service areas to surrounding high density employment, high density shopping, and high density medical facilities. Current congestion issues are limited to just east of the facilities along Dutchman's Lane (LOS D), with forecasted congestion degrading to LOS E and F on both Cannon's Lane and Dutchman's Lane. There are no high crash frequency issues within the immediate area of the facilities.

Access to Education

Of the nineteen schools located in TAD 40008, seven are located within three different access to education clusters (2+ schools within 0.25 miles of each other). All three of the access to education clusters are located west of Bardstown Road and surrounded by neighborhoods. All of the schools in the TAD are either directly on a public transit route or within approximately 0.50 miles of a transit route.

Pindell Avenue/Hess Lane

The access to education cluster that is farthest west in the TAD is located at the intersection of Pindell Avenue and Hess Lane. The schools in the cluster are Audubon Traditional Elementary School and Saint Stephen Martyr School. Public transit access is available to clusters via TARC Route #18 and Route #45. Pedestrian facilities are on each school's campus as well as in the surrounding neighborhoods. Pedestrian facilities provide access to the public transit routes that are less than 0.50 miles away from the school. Data does not indicate the existence of bicycle facilities. Current and forecast congestion do not present any issues for this access to education cluster. There are no high crash locations close to the cluster.

Newburg Road/Bellarmine Boulevard/Richmond Drive

This access to education cluster is located at the Newburg Road/Bellarmine Boulevard/Richmond Drive area. Bellarmine University and Peace Academy are within 0.25 miles of each other and form this cluster. Public transit is available to both these schools via TARC Route #21. There are pedestrian facilities that span most of the eastern side of Newburg Road. Both schools are set back from Newburg Road and have sidewalk facilities that reach from the road to and are within each campus. Data does not indicate the existence of bicycle facilities in the area. While there are no high crash locations along Newburg Road, current congestion (LOS F) may impede access to the schools. This corridor's congestion is anticipated to improve to LOS C or better by 2030.

Bardstown Road from Tyler Lane to Watterson Expressway

This access to education cluster has two schools (Assumption High School and Saint Raphael Elementary School) and one university (Sullivan University). With TARC Routes #17, #21, and #23, there are several options for accessing this area via public transit. Pedestrian facilities are on the west side of Bardstown Road from Tyler Lane to Wadsworth Avenue and on both sides of Bardstown Road from Wadsworth Avenue to the Watterson Expressway. From 2009 through 2011 there were six crashes involving pedestrians in this clustered area. Four of the six crashes occurred north of Wadsworth Avenue where the pedestrian facilities are only on the west side of Bardstown Road. Data does not indicate bicycle facilities along this part of Bardstown Road. The current level of service on Bardstown Road in this cluster is at LOS D but it is forecasted to degrade to LOS D and F by 2030. A high crash location (up to 299 crashes within 0.25 mile of each other from 2009 through 2011) has been identified on Bardstown Road just north of the Watterson Expressway to Wendell Avenue. The high crash location does not directly impact Assumption High School or Saint Raphael Elementary School, but does occur at the entry to Sullivan University.

The schools and universities located within the access to education clusters are all well served by public transit and pedestrian facilities. There is no indication of bicycle facilities. Congestion and high crash location may impede access to the schools in the clusters.

Access to Government Services

While there are 14 government service facilities in TAD 40008, there is only one cluster of 3 or more facilities within 0.25 miles of each other. Therefore, a majority of the government services available within TAD 40008 are distributed throughout the TAD.

The access to government services cluster is located in the area of Dutchmans Lane between Cannons Lane and Taylorsville Road. Within this cluster are three facilities: Louisville Fire Department District 4 Truck Company 10, Bowman Field License Branch and Recycling Center, and the State Police Driver Testing Facility. The government services are adjacent to Bowman Field. Bowman Field is an airport that was established in 1919 and serves single engine airplanes, multi-engine airplanes, some jets, and helicopters. Bowman Field does not serve major airlines and therefore is not considered a major traffic generator. Access roads to the three government facilities are on Dutchmans Lane and Cannons Lane. Immediately south of the cluster is Taylorsville Road. Taylorsville Road provides east-west connectivity for the eastern half of Jefferson County. Public transit service to this cluster is along Dutchmans Lane via TARC Route #23 and Route #40. Pedestrian facilities are available along the south side of Dutchmans Lane. While beneficial, the three government services are located along the north side of Dutchmans Lane. Dutchmans Lane is a four lane roadway where crossing may be dangerous should a pedestrian wish to access the facilities from the sidewalks located on the south side of Dutchmans Lane. Currently there are no congestion issues on Dutchmans Lane or along the roadways running alongside it (Cannons Lane and Taylorsville Road). Congestion forecasts to 2030 indicate that Cannons Lane (along the eastern edge of the cluster) is anticipated to see an increase in congestion and degradation to LOS F.

Access to Medical Facilities

Access to medical facilities focuses on clusters of 3 or more medical facilities within 0.25 miles of each other. In TAD 40008 there are two clusters of medical facilities. One of them is shared with TAD 40009 (north of TAD 40008). Each of the clusters has a combination of a hospital and several doctors' offices.

Poplar Level Road/McKinley Avenue/Illinois Avenue Area

The access to medical facilities cluster located in the western half of the TAD is found on Poplar Level Road in the vicinity of McKinley Avenue and Illinois Avenue. This cluster is anchored by Norton Audubon Hospital and has a few doctors' offices adjacent to the hospital campus. West of the cluster is a residential area. Public transit provides service to this cluster via TARC Route #27 and Route #43. Pedestrian facilities are along both sides of Poplar Level Road in the area of the hospital campus, though they become sparser to the north and south of the campus. There are few pedestrian facilities within the residential area. Pedestrian crossings are evident, though pedestrians on the western side of Poplar Level would be required to cross six lanes of traffic in order to access the medical area located on the eastern side of Poplar Level. There are neither current nor forecasted congestion issues identified. Similarly, there are no high crash locations in the immediate area of the cluster.

Breckenridge Lane/Browns Lane Area

This access to medical facilities cluster, located on the eastern edge of the TAD, is larger than the cluster located on Poplar Level Road. The Norton Suburban Hospital is located in this cluster and is surrounded by many medical offices. This cluster is shared with TAD 40009 (Baptist Health Center is located TAD 40009). This cluster is located in the area where the Watterson Expressway and I-64 converge; both interstates providing access to the area. This area is well served by public transit via TARC Routes #19, #23, #53, and #62. The primary intersecting streets in this cluster are Breckenridge Lane and Dutchmans Lane. While there are pedestrian facilities within the hospital complex and most of the surrounding medical offices, there are very limited pedestrian options beyond 0.25 miles of the Breckenridge Lane/Dutchmans Lane intersection. With the multiple transit options in the area, the lack of pedestrian facilities may diminish their use and/or introduce pedestrians to unsafe conditions as they access transit or medical destinations that lie just beyond the transit stops. There are congestion issues today that may degrade by 2030. Currently Breckenridge Lane, Browns Lane, and Dutchmans Lane are classified at LOS F, while another section of Dutchmans Lane is at LOS D. By 2030, congestion is forecasted to degrade as Browns Lane and I-64 are classified at LOS F, Watterson Expressway and Browns Lane and LOS E, and Dutchmans Lane and Breckenridge Lane and LOS D. Compounding the congestion

issues is the intersection of Breckenridge Lane and Dutchmans Lane which has been identified as a high crash location with up to 299 crashes within 0.10 mile of each other from 2009 through 2011.

The congestion, high crash location, and sparse pedestrian options are issues for this cluster. These issues become a greater concern when considering the necessary and impediment free access required for emergency response vehicles where travel time is critical.

Freight Access

When considering access to freight, one of the primary considerations are clusters of major freight distributors that are located within 0.50 miles of each other. In TAD 40008 there are no clusters of major freight distributors. Also reviewed when looking at freight access is the KIPDA Freight Network. TAD 40008 roadways that are included on the freight network are: I-65, I-65, Watterson Expressway, and Bardstown Road. All of the roadways but Bardstown Road are located on the outer edges of TAD 40008.

Currently, I-64 and Bardstown Road and experiencing congestion classified at LOS D, E, and F (only on Bardstown Road). Congestion is anticipated to degrade on these facilities and I-264 and I-65. Bardstown Road is forecasted to have LOS D and F, I-264 LOS E, and I-64 and I-65 LOS F; all by 2030. There are also a few areas of concern relative to high crash locations. Nearly the entire length of Bardstown Road within TAD 40008 has high crash locations, as is I-65 at some intersections, and I-264 at the Poplar Level Road intersection.

The combined congestion and high crash location issues on the segments of the KIPDA Freight Network located within TAD 40008 may diminish freight travel time within the TAD and the remainder of the region. It is generally believed that a reduced freight delivery or pick up time has a negative impact on the area's economy, not to mention heightened safety and access issues.

Future Socioeconomic Conditions

Much of TAD 40008 is currently built out and is not anticipated to see many changes by the year 2030. The three socioeconomic indicators are:

- Households: No growth
- Employment: Low to moderate growth
- Population: Low to moderate growth

This scenario is not unexpected given the current density patterns in TAD 40008. Of the three socioeconomic indicators the increase in employment and non-group quarters population raises the most interest. In general terms, growth is recognized as positive indicators for the TAD. Given the forecasted congestion throughout the TAD the socioeconomic indicators may negatively impact transportation and connections in the TAD if the issues are left unmitigated. The lack of pedestrian facilities in some areas may also impede the use of public transit as a means for getting to and from places of employment. The growth may negatively impact the high crash locations found in the Bardstown Road, Breckenridge Lane, and Watterson Expressway corridors.

Issues and Opportunities

- Public transit is very abundant in TAD 40008. The lack of some pedestrian facilities introduces possible issues relative to fully accessing some of the transit opportunities.
- Forecasted congestion in the eastern half of the TAD has many negative implications with the ability for persons to access employment and other home-based and recreational activities.
- The current and forecasted congestion and high crash location around the Breckenridge Lane/Browns Lane area access to medical facilities cluster introduces not only connection and safety issues, but may also impede access by emergency responders to the medical services located in the cluster.

Related Plans and Studies

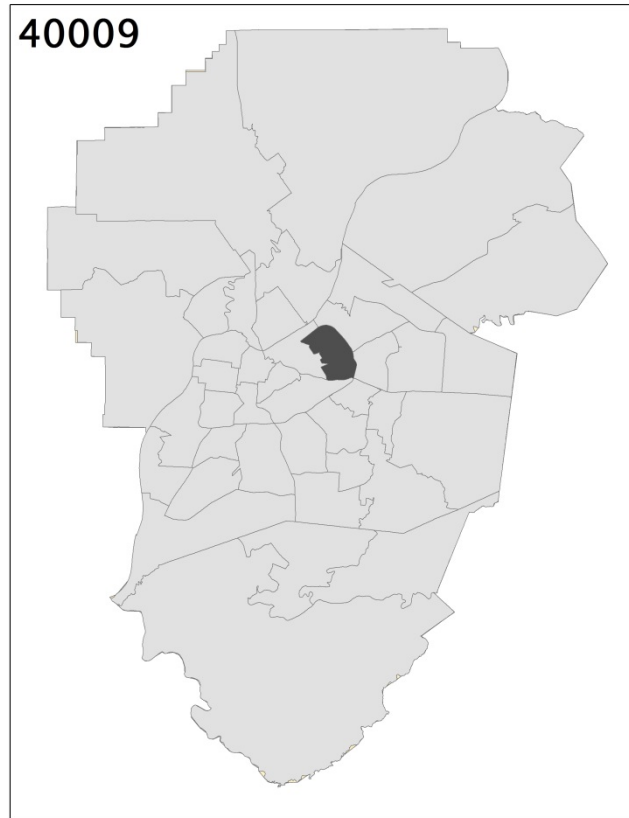
- Belknap Plan (2002)
- Cornerstone 2020 Comprehensive Plan (2013)
- Dupont Planning Transportation Study (2006)
- Highlands-Douglass Plan (2006)
- KIPDA Interchange Bicycle/Pedestrian Safety Study (2008)
- Original Highlands Plan (2006)
- Suitability of Louisville Metro Roads for Bicycling and Walking Level of Service Analysis (2004)
- Walkable Community Workshop Report (2004)

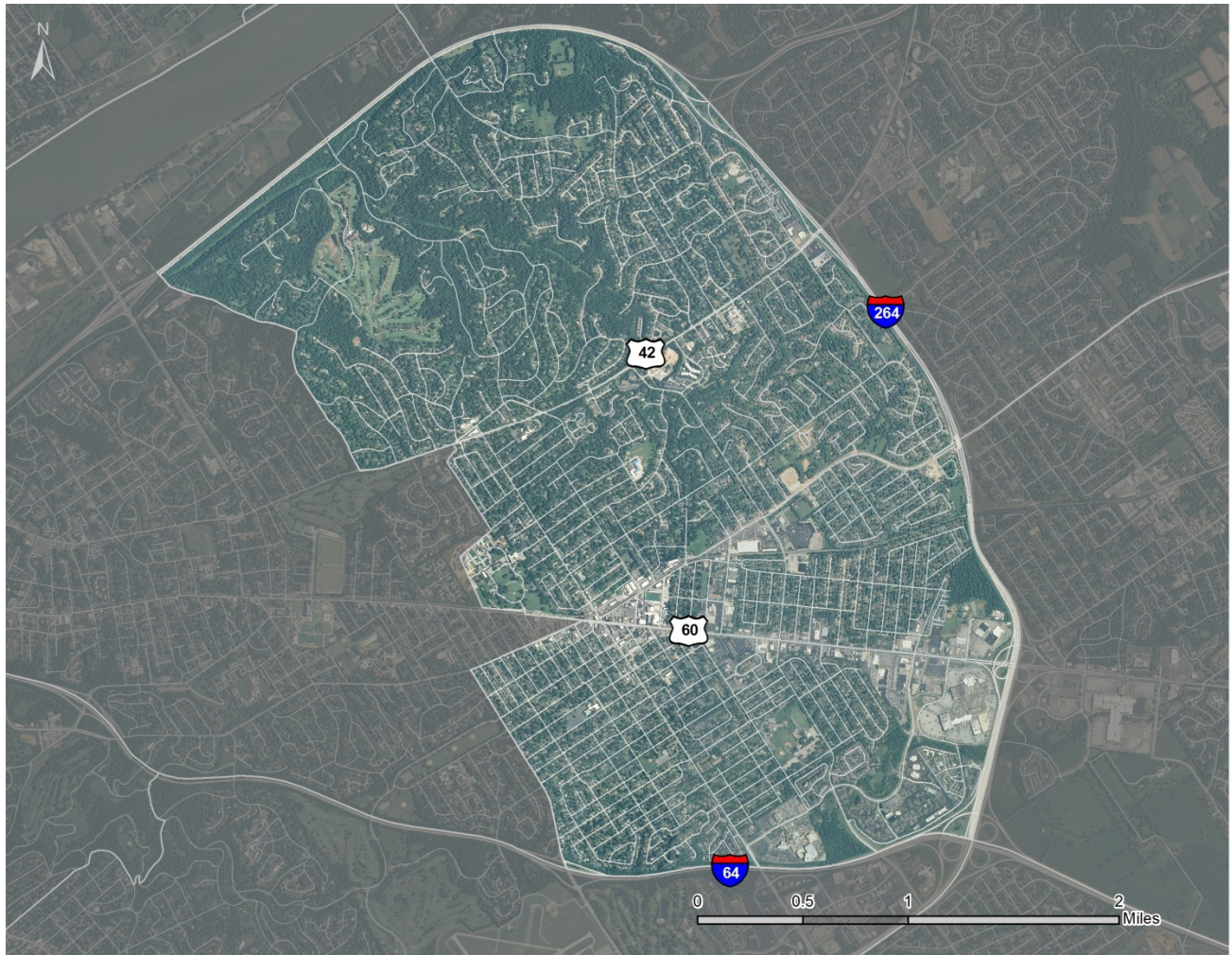


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40009 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40009 is located in northern Jefferson County, is within Louisville Metro, and includes the City of Saint Matthews. TAD 40009 is densely populated, with a mix of residential and commercial land uses with anticipated employment growth. TAD 40009 is a very active area with access to the highway on three of its four sides, the convergence of major surface streets, and major shopping centers and a mall within its boundary. The neighborhoods are generally well established with small to moderate lots. Many of the neighborhoods date back to the 1930s and trees are abundant.

Area and Socioeconomic Information

Area: Approximately 6,058 acres
Non-Group Quarters Population (2010): 26,579
Number of Households (2010): 12,670
Number of Jobs (2000): 17,388

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) does not identify any Title VI/Environmental Justice areas in TAD 40009.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-71* from Zorn Avenue Interchange to I-264 Interchange • I-264* from I-71 Interchange to I-64 Interchange • I-64* from I-264 Interchange to KY 2048 (Cannons Lane) Interchange
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 42 (Brownsboro Road) from I-264 Interchange to Pennington Lane • KY 1447 (Westport Road) from I-264 Interchange to US 60 (Shelbyville Road) • US 60 (Shelbyville Road) from I-264 Interchange to US 60 (Frankfort Avenue) • KY 1932 (Breckenridge Lane) from I-64 to Kresge Way
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 1932 (Breckenridge Lane) from Kresge Way to KY 1447 (Westport Road) • KY 1932 (Chenoweth Lane) from KY 1447 (Westport Road) to US 42 (Brownsboro Road) • Browns Lane from I-264 to Bowling Boulevard • South Hubbards Lane from Bowling Boulevard to US 60 (Shelbyville Road) • North Hubbards Lane from US 60 (Shelbyville Road) to US 42 (Brownsboro Road) • Bowling Boulevard from Kresge Way to US 60 (Shelbyville Road) • KY 2048 (Cannons Lane) from US 60A (Lexington Road) to KY 2048 (Cannons Lane)/I-264 Interchange
Urban Collector	<ul style="list-style-type: none"> • Blankenbaker Lane from I-71 to US 42 (Brownsboro Road) • Rudy Lane from US 42 (Brownsboro Road) to Ambridge Drive • Rudy Lane from North Hubbards Lane to Ambridge Drive • Ambridge Drive from Rudy Lane to KY 1447 (Westport Road) • Browns Lane from US 60 (Shelbyville Road) to Kresge Way • Kresge Way from 1932 (Breckenridge Lane) to Browns Lane • Winchester Road from KY 2048 (Cannons Lane) to Browns Lane • Willis Avenue from KY 2048 (Cannons Lane) to US 60 (Shelbyville Road) • Saint Matthews Avenue from US 60 (Shelbyville Road) to KY 1447 (Westport Road)
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- | | |
|---|--|
| <ul style="list-style-type: none"> • Dunn Elementary School • Friends School • Holy Trinity Elementary School • Our Lady of Lourdes Elementary School | <ul style="list-style-type: none"> • Saint Matthews Elementary School • Trinity High School • Waggener Magnet Career Academy • Walden School |
|---|--|

Colleges & Universities

- N/A

Parks

- Arthur K. Draut Park
- Browns Park
- Saint Matthews Community Center

Other Area of Interest/Significance

- Mall Saint Matthews

Historic

- Ashbourne
- Blankenbaker Station
- Carrie Gaulbert Cox and Attila Cox, Jr. House
- Chenoweth House
- Dr. John Lewis House
- Herr-Rudy Family Houses
- James Brown House
- Locust Grove
- Masonic Widows and Orphans Home
- Midlands
- Ridgeway
- Theodore Brown House
- Winchester House
- Zachary Taylor House
- Zachary Taylor National Cemetery

Transit

TAD 40009 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #49X – Westport Road Express
- Route #64X – Fincastle/Forest Springs Express
- Route #67X – Oldham County Express
- Route #68X – Prospect Express
- Route #15 – Market Street
- Route #55 – Westport Road
- Route #29 – Eastern Parkway
- Route #31 – Shelbyville Road
- Route #62 – Breckenridge/Shelbyville Road
- Route #23 – Broadway
- Route #19 – Muhammad Ali Boulevard

Park and Ride

There are no Park and Ride lots identified in TAD 40009.

Public Comments

I-71 Northbound

- On I-71, add a spill over exit for northbound traffic between Watterson Expressway and Zorn Avenue.

Frankfort Avenue

- Safe bike path along Frankfort Avenue.

Iola Road

- Create bicycle arterials by replacing stop sights with mini traffic calming circles (yield controlled). Cyclists won't have to stop as often.

North Hubbards Lane

- Safe corridor needed. Can it be signed to help bikes find safe way off the major arterial? Current road conditions unsafe for people on bikes.

Blenheim Road

- Create bicycle arterials by replacing stop sights with mini traffic calming circles (yield controlled). Cyclists won't have to stop as often.

Dunn Elementary School

- Jacob drivers have trouble getting out of Dunn Elementary around Rudy Lane and Brownsboro Road. It takes a lot of time with traffic and we get calls from the neighborhood. The turning lanes are too short and heavy congestion.

Chenoweth Elementary School

- Problems also with Chenoweth Elementary. Bad planning with only one in or out at that school. Heavy congestion along with buses and parents having to share same spot. Could be very dangerous if conditions were right, no other route out.

Westport Road

- Westport Road bike lane needs to be swept/cleaned more often.

Willis Avenue

- No access for pedestrian traffic on Willis Avenue to either businesses or to Seneca Park.
- Sidewalks needed on Willis Avenue between Breckenridge Lane and Seneca Park.

I-64

- On I-64, from Spaghetti Junction to Gene Snyder, widen it from 4 to 6 lanes.

Safety

3,090 crashes were reported in TAD 40009 from 2009 through 2011. There were no fatal crashes from 2009-2011. During this three year period, 33 crashes involved a pedestrian and 12 a bicyclist.

Fatalities

There were no fatal crashes from 2009-2011.

High Crash Locations

Utilizing GIS analysis, there are nine areas identified as high crash locations due to crashes that occurred during the 2009-2011 period in TAD 40009. A high crash location is identified by the number of crashes that occurred within 0.10 mile of each other over the three year period. Areas where there were 100 or more crashes occurring within a 0.10 mile of each other are considered high crash locations.

In TAD 40009, the high crash locations are primarily located in interchanges with I-264 and along the Shelbyville Road corridor between Westport Road and the I-264 interchange (see Figure 40009-A).

I-71/I-264 Interchange

This high crash location is divided between TAD 40009 and 40027 and has 100-199 crashes occurring within 0.10 mile of each other. Twelve crashes resulted in an injury. Current Level of Service (LOS) for I-71 immediately north of the interchange is at LOS F, and west of the interchange at LOS E. I-264, east of the interchange, is currently at LOS D.

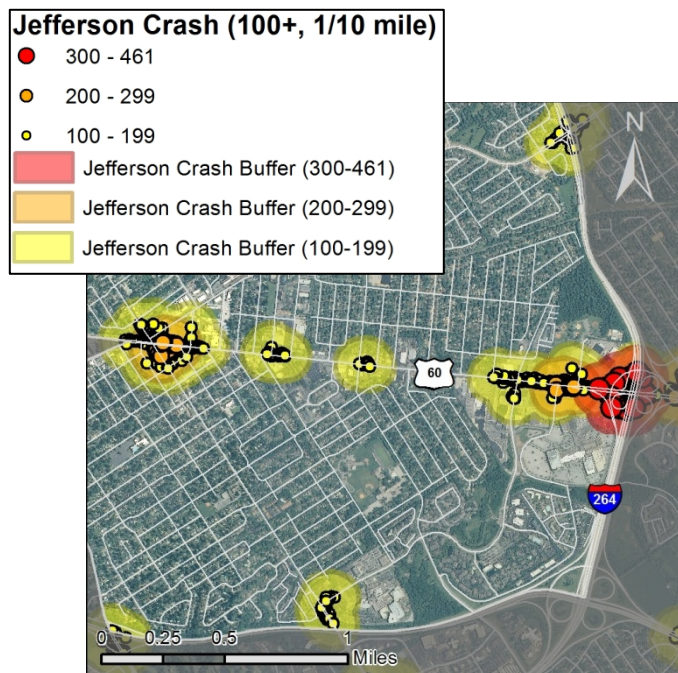


Figure 40009-A: High crash locations in TAD 40009.

Brownsboro Road/I-264 Interchange Area

This high crash location is divided between TAD 40009 and 40027 with a majority of the crashes occurring in TAD 40027 on Brownsboro Road. There was one crash with an injury reported during the three year period. There were between 100-199 crashes within a 0.10 mile of each other at this high crash location. A majority of the crashes occurred in the I-264 ramp area or on the Brownsboro Road/I-264 overpass. In TAD 40009 many of the crashes occur at the ramp area on Brownsboro Road leading to I-264. There is tight weaving for motorists to position themselves to access the I-264 onramp from Brownsboro Road. On the 40027 side of this high crash location, where a majority of the crashes exist, there is also tight weaving for drivers exiting I-264 and accessing Brownsboro Road and Brownsboro Road, less than 1.0 miles from the I-264 exit ramp onto US 42 (Brownsboro Road).

KY 1447/I-264 Interchange Area

This high crash location, with 100-199 crashes within 0.10 mile of each other, is divided between TAD 40009 and 40027. There was one crash that resulted in an injury located in TAD 40027. A majority of the crashes occurred on Westport Road, and many appear to be due to the weaving that occurs as motorists advance from the I-264 ramp to Westport Road southbound direction.

Shelbyville Road/I-264 Interchange Area

This area has the highest number of crashes occurring within a 0.10 mile of each other in the entire TAD. This high crash location can be broken into three small sub-areas, two of which are located in TAD 40009 and the third in 40027. Eleven of the crashes in this high crash location resulted in an injury.

The highest concentration of crashes in this location (300-461 crashes within a 0.10 mile of each other) occurs on Shelbyville Road at the ramp leading from I-264 to Shelbyville Road westbound. The Mall Saint Matthews entrance is located less than 0.25 miles from the end of the exit ramp from I-264. This mall is one of two shopping malls in the immediate area and is a significant shopping attraction (with 130 stores and 4,500 parking spaces). Drivers exiting I-264 to westbound Shelbyville Road wishing to enter the first Mall Saint Matthews entrance must cross three travel lanes and enter one of two left turn lanes within 0.25 miles of exiting the I-264 ramp.

The second concentration of high accidents in this location occurs on Shelbyville Road between Bramton Road and just east of Ten Pin Lane and the main entrance to Mall Saint Matthews. In this area of Shelbyville Road there were 100-299 crashes within a 0.10 mile of each other during the years 2009-2011. In a distance of approximately 0.35 miles, there are many attractions. There are 17 commercial driveways that include the Mall Saint Matthews and other strip shopping centers as well as individual businesses. The I-264 entry ramps are approximately 0.05 miles eastbound from the entrance to Mall Saint Matthews. The Shelbyville Road has three travel lanes in each direction and turning lanes for each direction that assist in providing access to the commercial interests that line the roadway. Lastly, Shelbyville Road drops a lane westbound at Stonehenge Drive (approximately 0.10 mile west of Bramton Road). The conflicting travel behavior resulting from the several attractions using multiple entries, the weaving occurring in order to access both the retail attractions and in order to access I-264, and the lane drop on the westbound side of Shelbyville Road, all likely contribute to this area being identified as a high crash location.

Breckenridge Lane between I-64 overpass and Kresge Way

This high crash location (100-199 crashes within 0.10 miles of each other from 2009 to 2011) is located in a high density employment area with 1,000+ employees within 0.25 miles of each other and is just north of a high density shopping area (50+ retail shopping opportunities within 0.25 miles of each other) located in TAD 40008. Two major employers (300+ employees) are located on Kresge Way east of Breckenridge Lane. They are Baptist Health Care Systems and Baptist Health Louisville (formerly known as Baptist Hospital East). Surrounding the high crash location is dense suburban housing. A little over 0.50 miles south of the high crash location is access to I-264, a key connection for this area to other parts of the region. One notable point concerning this high crash location is a lane drop on Breckenridge Lane immediately north of the high crash location. Given the high density of development, and the access that Breckenridge Lane provides to employers and housing, the lane drop introduces a bottle neck situation which may contribute to the frequency of crashes in this area. There were three injuries resulting from crashes in this high crash

location. Two of the injury crashes resulted from one auto hitting another that had stopped in traffic. The third involved a single auto that hit a telephone pole. No pedestrians or bicyclists were involved in the crashes.

Cannons Lane/I-264 Interchange

The crashes in this high crash location (100-199 crashes within 0.10 miles of each other from 2009 to 2011) occur in TAD 40008, directly south of TAD 40009. The quarter-mile buffer that surrounds this high crash location partially extends into TAD 40009. A very large number of the crashes that occurred in TAD 40008 in this high crash location were rear-end crashes at the intersection of the I-64 westbound off ramp to Cannons Lane. There was one crash that resulted in an injury at the I-64 westbound off ramp to Cannons Lane. There were no fatalities or crashes that involved a pedestrian or bicyclist.

Shelbyville Road between Fairfax Avenue and the Frankfort Avenue/Lexington Road Split

Crashes in this high crash location (100-299 crashes within 0.10 miles between 2009-2011) extend throughout this corridor and extend north along Chenoweth Lane to Staebler Avenue and south following Breckenridge Lane to Willis Avenue. As identified in the Bicycle and Pedestrian crash section, there were several crashes involving bicycles and pedestrians in this area. The highest concentration of auto and truck crashes occurs on Shelbyville Road between Meridian Avenue and Breckenridge Lane and also along Breckenridge Lane from Shelbyville Road south approximately 0.06 miles. This particular area is unique in that it has many attractions (high density shopping and high density employment) as well as a high school. There are four roads that converge in this area that provide non-interstate access to a large portion of eastern Jefferson County and the downtown Louisville area (Shelbyville Road, Westport Road, Frankfort Avenue, Lexington Road, and Chenoweth Lane). There are also several traffic light controlled intersections within a relative short distance of each other. This area is surrounded by residential housing, which adds to the attractions in this area.

The shoulders along Shelbyville Road end east of Saint Matthews Avenue where the sidewalks can be found abutting the street. East of the shoulder drop there are more strip shopping centers that share parking access to Shelbyville Road; west of the shoulder drop there are more stand-alone businesses that have their own access to Shelbyville Road and access behind their businesses. The existence of these stand-alone access points may contribute to the number of crashes in this area.

The Breckenridge Lane and Chenoweth Lane corridors in this high crash area share similar experiences. Both are high density shopping areas where many of the businesses share uncontrolled and open access to their respective roadways. This open access may contribute to the number of crashes as motorists may exit and enter the roadways at various locations that are not clearly marked as entry and exit points.

Shelbyville Road from Sears Avenue to Thierman Lane

In this high crash location (100-199 crashes within 0.10 mile from 2009 through 2011) are several possible contributors to its high crash status. Notably is the lane drop on Shelbyville Road that occurs at Thierman Lane where the lanes reduce from three lanes to two when traveling westbound. This area has several business attractions within its two blocks, including the Saint Matthews Pavilion, Beargrass Christian Church, Walmart, and others which have their own access points along Shelbyville Road resulting in several entrances over a relatively short distance. Along this section of Shelbyville Road is a center turn lane which introduces potential left turn conflict points as drivers may wish to access attractions on both sides of Shelbyville Road. Another possible contributor to the number of crashes in this area may be related to those drivers who must access the center turn lane as they enter Shelbyville Road from Browns Lane or accessing Browns Lane from Shelbyville Road. Drivers coming from or going to Sears Avenue and Thierman Lane must weave to the center lane in order to make left turns within a short distance on a road that is often congested (this section of Shelbyville Road is currently operating at Level of Service D).

Shelbyville Road from North Hubbards Lane to Bonner Avenue

In this relatively short block that stretches approximately 0.08 miles is a high crash location with approximately 100-199 crashes within 0.10 mile of each other. This section of Shelbyville Road has several driveway entrances lining both sides of the road. South of Shelbyville Road along Hubbards Lane is a residential area, a high density medical area (72-

210 medical facilities within 0.25 miles of each other), and a well utilized park. Hubbards Lane north of Shelbyville Road includes a residential area, high density employment area (1000+ jobs within 0.25 miles of each other), high density shopping area (50+ shopping opportunities within 0.25 miles of each other), and access to Westport Road (a key access facility for eastern Jefferson County). These attractions along Hubbards Lane, combined with the congestion on Shelbyville Road and the several entrances within the high crash area, have resulted in an area being identified as a high crash location.

Bicycle and Pedestrian Crashes

None of the crashes involving a bicycle or pedestrian resulted in a fatality. While there are crashes involving bicycles and pedestrians throughout the TAD, 26 of the 45 (9 of 12 bicycle and 17 of 33 pedestrian) crashes involving a bicycle or pedestrian occurred on and within 0.15 miles of Shelbyville Road.

Because of the proximity of the bicycle crashes to each other along the Shelbyville Road corridor from Frankfort Avenue to the Shelbyville Road/I-264 interchange, the following observations have been made:

- Convergence of Shelbyville Road/Westport Road/Frankfort Avenue/Breckenridge Lane – Within 0.20 miles of where these four roads converge were four crashes involving bicyclists. This area has dense retail use and is often referred to as “downtown” Saint Matthews.
- Shelbyville Road and Thierman Lane Intersection – There were three crashes involving bicyclists within 0.20 miles of each other at this intersection. This area is primarily commercial and on the edge of residential areas.
- Shelbyville Road/McArthur Drive Intersection – This area of Shelbyville Road has attractions on the north and south side of the roadway. A bicyclist was struck by an auto as the auto attempted to make a left turn. This area of Shelbyville Road has a mix of commercial and residential uses.
- Shelbyville Road/Ten Pin Lane Intersection – A single crash involving a bicyclist occurred in this area. This is a commercial area with a shopping mall, shopping center, and interchange with I-264 all within 0.05 miles of each other. This is a high traffic volume area for vehicles with a significant amount of weaving as drivers position themselves for one of the two shopping opportunities, accessing I-264, or travelling further east on Shelbyville Road where there are several attractions. At the intersection there are five in lanes each direction or a total of ten lanes. There is no designated bikeway in this area.
- The remaining three crashes involving bicycles are distributed throughout the TAD.

As with the crashes involving bicycles, the proximity of crashes involving pedestrians in the Shelbyville Road corridor is significant relative to the total number of crashes involving pedestrians in TAD 40009. Worth noting are the following:

- Shelbyville Road from Westport Road/Frankfort Avenue/Breckenridge Lane Intersection to North Sherrin Avenue – Within this quarter-mile stretch of the Shelbyville Road corridor, there were seven crashes involving pedestrians. Four of the seven crashes involving pedestrians occurred between Saint Matthews Avenue and North Sherrin Avenue directly in front of Trinity High School. The other three crashes involving pedestrians occurred on Breckenridge Lane between Shelbyville Road and Willis Avenue. Shelbyville Road is a 5-lane roadway (2 travel lanes each direction and a center turn lane). There are sidewalks on both sides of the roadway with a marked cross walk in front of Trinity High School. There are several commercial driveways along this stretch of Shelbyville Road. On Breckenridge Lane, there are several retail and restaurant opportunities in this one block corridor. Each establishment has its own driveway or shares a driveway with other shopping and eating opportunities. There is a sidewalk on the eastern side of Breckenridge Lane and no sidewalks on the west side.
- Shelbyville Road/Thierman Lane Intersection – Two crashes involving pedestrians occurred at this intersection, a third a block north at Thierman Lane and Oechsli Avenue. The crashes at Thierman Lane occurred in an area that is in the midst of commercial/retail use and a church. Shelbyville Road drops a lane just west of Thierman Lane. Beargrass Christian Church hosts a farmer’s market in the warmer months of the year that attracts a large crowd, many of whom are pedestrians. Many of the pedestrians – and several of those who drive but park in the shopping center lot across the street – will cross Shelbyville Road in order to access the farmer’s market. The Oechsli Avenue/Thierman Lane crash is located in between two strip shopping centers. There are pedestrian facilities west of Thierman Lane on Shelbyville Road, but there is a gap in pedestrian facilities east of Shelbyville Road from Thierman Lane until about midblock between Thierman Lane and Hubbards Lane. There are

pedestrian facilities on Thierman Lane north to just past Oechsli Avenue and no pedestrian facilities on Oechsli Avenue.

- Breckenridge Lane/Grandview Avenue Intersection – Two crashes involving pedestrians occurred in this area. The first was at the intersection itself and involved a pedestrian and an auto that was attempting to make a left turn. The second crash in this area was on Grandview Avenue directly in front of the Saint Matthews City Hall and Saint Matthews Public Library (these two facilities share a building along with the Saint Matthews Police Department). This person was struck by an auto travelling straight ahead and not attempting to turn. There are pedestrian facilities on the west side of Breckenridge Lane and approximately 125 feet beyond the intersection on Grandview Avenue. Pedestrian facilities also exist on the cross street east of Breckenridge Lane, Fairfax Avenue.
- Shelbyville Road/Ten Pin Lane Area – Two crashes involving pedestrians occurred in this area. This is a commercial/retail area with autos and trucks entering Shelbyville Road from I-264. This section of Shelbyville Road is a total of nine lanes across with many turning movements occurring as drivers enter the Mall Saint Matthews on the southern side of the roadway and another large strip shopping center and park on the northern side of the roadway. There are pedestrians who use transit when heading east and exit transit in this area in order to access either the Mall Saint Matthews or the strip shopping opportunities and park located on the opposite side of the street.
- Shelbyville Road/Bowling Boulevard and Shelbyville Road/Fairmeade Road Areas – Both of these areas are very similar in their land use and density and each suffered a single crash involving a pedestrian. They both have heavy commercial/retail land uses in the immediate vicinity of the crashes and both involved drivers making turns into commercial/retail establishments. Both have sidewalks along both sides of the respective roadways. The section on the south side of Shelbyville Road just east of Fairmeade Road has many commercial driveways that make pedestrian access more of a challenge.
- The remaining crashes involving pedestrians are dispersed throughout the remainder of the TAD.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • I-264 from the I-71 interchange to the US 42 interchange • Chenoweth Lane from Massie Avenue to Shelbyville Road • Breckenridge Lane from Willis Avenue to Winchester Road • Shelbyville Road from Breckenridge Lane/Chenoweth Lane to Fairmeade Road • Frankfort Avenue from Breckenridge Lane/Chenoweth Lane to Lexington Avenue
LOS E:	<ul style="list-style-type: none"> • I-64 from Cannons Lane interchange to I-264 interchange
LOS F:	<ul style="list-style-type: none"> • Shelbyville Road from Fairmeade Road to I-264 interchange • Breckenridge Lane from Winchester Road to I-264 interchange (in TAD 40008) • Browns Lane from Bowling Boulevard to Brookhaven Avenue (in TAD 40021) • Westport Road from Chenoweth Lane to North Hubbards Lane • North Hubbards Lane from Westport Road to Ledyard Road

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • I-264 from US 42 Interchange to Westport Road Interchange • I-264 from Westport Road Interchange to Shelbyville Road interchange • Shelbyville Road from Breckenridge Lane/Chenoweth Lane to Bowling Boulevard/Stonehenge Drive • Frankfort Avenue from Breckenridge Lane/Chenoweth Lane to Lexington Avenue • Breckenridge Lane from Shelbyville Road to Winchester Avenue
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	<ul style="list-style-type: none"> • Breckenridge Lane from Kresge Way to I-264 interchange (in TAD 40008) • North Hubbards Lane from Westport Road to Ledyard Road
LOS E:	<ul style="list-style-type: none"> • Shelbyville Road from Bowling Boulevard/Stonehenge Drive to I-264 interchange • Browns Lane from Bowling Boulevard to Sherburn Lane
LOS F:	<ul style="list-style-type: none"> • I-71 from Zorn Avenue Interchange to I-264 interchange • I-64 from Taylorsville Road Interchange to I-264 interchange • Brownsboro Road from North Hubbards Lane to Hillcrest Avenue (in TAD 40007)

Both current and projected LOS raises issues for the TAD. The identified corridors provide not only access within the TAD but also provide regional access. The impact of leaving congestion within these corridors unmitigated may result in delayed connections.

Access to Community Amenities

This TAD has dense residential property, high density shopping (50+ shopping opportunities within 0.25 miles of each other and 100+ shopping opportunities within 0.25 miles of each other), a library, community center, shopping mall, museum, and small parks scattered throughout the TAD. There is one community amenity cluster in TAD 40009 which follows the Shelbyville Road corridor and is divided into two focus areas (see Figure 40009-B).

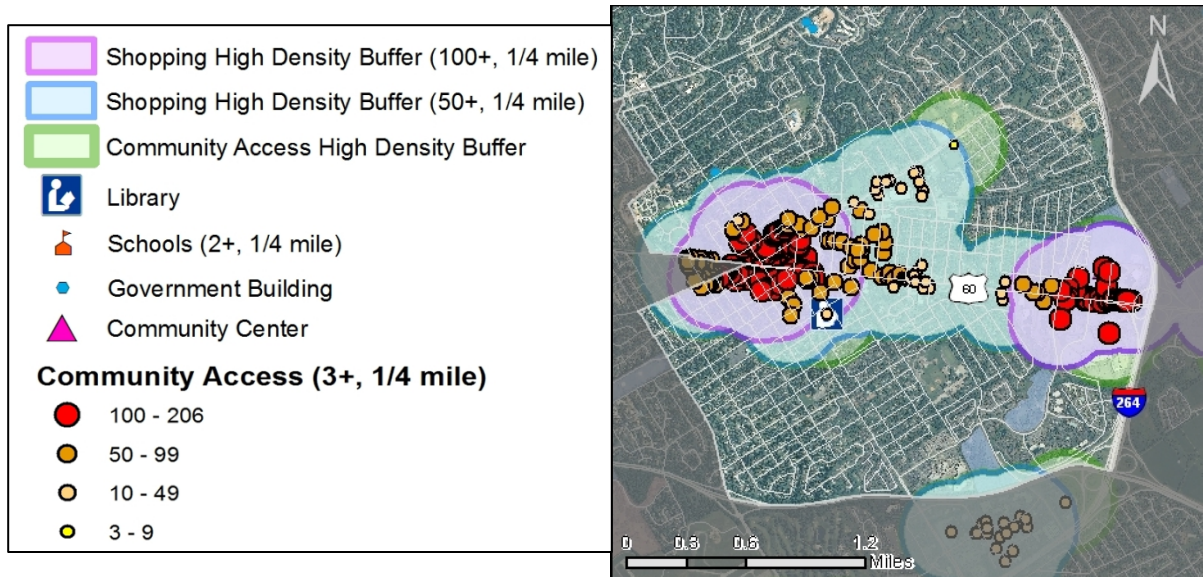


Figure 40009-B: Access to community amenities along the Shelbyville Road and Westport Road corridors.

This area is very well served by transit with routes entering into the residential areas, high density shopping areas (50+ and 100+ shopping opportunities within 0.25 miles of each other), and within proximity of many of the schools in this TAD.

The community amenities cluster in this TAD extends along Shelbyville Road and Frankfort Avenue from Oxford Place east to the I-264 interchange into TAD 40024. It also follows Westport Road from Shelbyville Road to Beechwood Road. Because of the numerous attractions between Shelbyville Road and Westport Road, the entire area is seen as part of a single community amenity cluster.

While this is a single cluster, it has two focus areas each anchored by the mix of community amenities and the high density shopping (100+ shopping opportunities within 0.25 miles of each other). The first focus area is located on the western side of the cluster and includes downtown Saint Matthews and the convergence of Shelbyville Road, Frankfort, Avenue, Westport Road, and Breckenridge Lane. The second focus area is on the eastern edge of the cluster and includes the I-264 interchange area, Mall Saint Matthews, a community center, and several strip shopping centers.

Saint Matthews Community Center and Park, located along Stonehenge Lane, is within reasonable walking distance of public transit service on Shelbyville Road. There are no pedestrian facilities on Stonehenge Lane and, with access being given to strip shopping centers along Stonehenge Lane, pedestrian utilization of the road may be of some concern since transit does not directly serve the Community Center and Park. Also, the Saint Matthews Community Center and Park is located on a segment of Shelbyville Road that currently has both congestion issues and safety issues.

The focus area located on the western side (involving Shelbyville Road, Westport Road, Frankfort Avenue, and Chenoweth Lane) of this cluster has a mix of high density shopping (50+ and 100+ shopping opportunities within 0.25 miles of each other), as well the Saint Matthews Public Library. Within this area, transit is available on all the corridors except the Chenoweth Lane leg where high density shopping (50+ and 100+ shopping opportunities within 0.25 miles of each other). Pedestrian facilities are sporadic with gaps along Shelbyville Road and non-existent on Westport Road. Pedestrian facilities are also available from Breckenridge Lane to the Saint Matthews Public Library. Pedestrian facilities in the residential areas are sporadic, yet many of the roads are of such a low traffic volume that they may be relatively safe for pedestrian use. Vehicular access to this area may be inhibited by current and forecast congestion as well as the high crash location where Shelbyville Road, Breckenridge Lane, Frankfort Avenue, and Chenoweth Lane converge.

The focus area located on the eastern side of the cluster is also anchored by high density shopping (50+ and 100+ shopping opportunities within 0.25 miles of each other). With the Mall Saint Matthews and other strip shopping center opportunities on the south side of Shelbyville Road, coupled with strip shopping center and restaurant opportunities on the north side of Shelbyville Road, this is a major shopping area. Adding to its attraction is the Oxmoor Mall located approximately 0.60 miles to the east of the Mall Saint Matthews in TAD 40024 and I-264 access located in between the two malls. Also located in this area are the Saint Matthews Community Center and Park. Public transit access is available in this area. Pedestrian facilities are sporadic along the Shelbyville Road Corridor, making transit accessibility limited. Vehicular access is diminished by the current and forecast congestion along with the high crash location extending the length of this area on Shelbyville Road. The existing roadway shoulders and other available spaces may make riding a bicycle an option. Though it is often considered very dangerous to ride a bike through interstate interchanges, and this may be the case with the Shelbyville Road/I-264 interchange.

In general, this cluster of community amenities has many attractions with limited access because of the current and forecast congestion, high crash locations, and sporadic pedestrian facilities.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Baptist Health Louisville
- Baptist Health Care Systems
- Masonic Homes of Kentucky

In TAD 40009 there are four clusters of high density employment (1000+ employees within 0.25 miles of each other), one of which includes both high density employment and high density retail (50+ and 100+ shopping opportunities within 0.25 miles of each other).

Brownsboro Road/I-264 Area

In the area of Brownsboro Road and I-264 is a high density employment area that is shared with TAD 40027. This area of high density employment is surrounded by dense housing. A majority of the employment in this cluster is north of Brownsboro Road in the Rudy Lane and Ballard Mill Lane area. There is also high density employment south of Brownsboro Road in between Rudy Lane and I-264. This area is serviced by public transit with TARC Route #15. There are pedestrian facilities along Brownsboro Road and Rudy Lane into the high density employment area. There are also pedestrian facilities both within and up to the high density housing areas. The pedestrian facilities provide both access from the surrounding neighborhoods and to public transit. Current congestion issues on I-264 and US 42 (in TAD 40027)

may make accessing this area by auto and truck problematic. Forecasted congestion along I-264, US 42, and Brownsboro Road is anticipated to get worse and will further impede auto and truck traffic in this area. The congestion issues are compounded by this area being identified as a high crash location (100-199 crashes within 0.10 mile of each other over the years 2009-2011).

In summary, this area has both pedestrian and public transit access, but unmitigated current and future congestion, as well as safety issues, may contribute to not only unsafe travel, but travel delay by auto and truck as well.

Breckenridge Lane/Browns Lane/I-264 Area

In the area of Breckenridge Lane/Browns Lane/I-264 area there is an access to workplace cluster that is shared with TAD 40008. This area contains both high density employment (1000+ employees within 0.25 miles of each other) and two major employers (300+ employees): Baptist Health Care Services and Baptist Health Louisville. This area is also surrounded by dense housing. The high density employment extends along Kresge Way, and Bowling Boulevard. Multiple TARC public transit routes either stop or pass through this TAD, including Route #53X (this route passes through the high density employment area without stopping), Route #61X (this route passes through the high density employment area without stopping), Route #78X (this route passes through the high density employment area without stopping), Route #19, Route #23, and Route #20.

Pedestrian facilities extend throughout the area providing access to a large majority of the businesses that comprise the high density employment cluster, the major employers, and the public transit opportunities. Most of the residential areas have pedestrian facilities or have low volume traffic streets where pedestrians may be relatively safe should they choose to walk along them. Current and forecasted congestion on Breckenridge Lane, Browns Lane, and I-264 may prove an issue for auto and truck access in and out of the high employment area. The congestion issue on Breckenridge Lane is compounded by the high crash location in the immediate area of Breckenridge Lane and Kresge Way. Because of the proximity of this area to I-264, and its access ramps, bicycling is possible, but caution should be utilized in the area of the I-264 ramps.

This high density employment area has both public transit and pedestrian options. The current congestion, combined with forecast congestion and the Breckenridge Lane/Kresge Way high crash location may lead to delayed travel and unsafe driving conditions if left unmitigated.

Frankfort Avenue, Shelbyville Road, Westport Road Area

Relative to the other access to workplace clusters in this TAD, this cluster has the largest number of employment destinations. This cluster extends through the following corridors:

- Frankfort Avenue at Oxford Place east along Shelbyville Road to North Hubbards Lane
- Westport Road from Shelbyville Road to North Bonner Avenue
- Chenoweth Lane from Shelbyville Road to Washington Square
- Breckenridge Lane from Shelbyville Road to Grandview Avenue

Generally, this cluster is centered on the Shelbyville Road intersection and creates spokes on Frankfort Avenue, Chenoweth Lane, Westport Road, Shelbyville Road, and Breckenridge Lane. A major employer (300+ employees), Masonic Homes of Kentucky is located in this cluster and has its main entrance on Frankfort Avenue. This access to workplace cluster is a mixed-use area with residential property in and around the area.

Public transit is available throughout the cluster area with the exception of Chenoweth Lane and a majority of Westport Road. TARC Routes #19, #29, #31, #55, and #62 enter into and/or pass through this cluster.

Pedestrian facilities exist with gaps along Shelbyville Road and are not available on Westport Road. Pedestrian facilities are available on Breckenridge Lane, Chenoweth Lane, and Frankfort Avenue. Pedestrian access is in place to the areas identified as being dense housing, as well as within the residential areas themselves. Where pedestrian facilities do not exist, the neighborhood streets are at a low enough volume to allow pedestrians to use them relatively safely.

Auto and truck access to this area may be inhibited by current and forecasted congestion as well as the high crash location where Shelbyville Road, Breckenridge Lane, Frankfort Avenue, Westport Road and Chenoweth Lane converge.

Shelbyville Road from Marshall Drive to I-264

This cluster is a mix of residential and retail and restaurant opportunities (see Figure 40009-C). Most of the high density employment is associated with retail and restaurant employment which may mean that going to or leaving work may be spread across the day and evening and not necessarily directly associated with A.M. and P.M. peak travel times.

TARC provides public transit to or through this area via Route #19, Route #29, and Route #31.

Gaps exist in the pedestrian network along the Shelbyville Road Corridor making pedestrian use and transit accessibility limited. Auto and truck access is diminished by the current and forecast congestion along with the high crash location extending the length of this area on Shelbyville Road.

Access for Persons with Disabilities and/or Older Adults

Within TAD 40009 there is one facility that services the needs of persons with disabilities and older adults. Located on Frankfort Road, the Masonic Home of Kentucky has both public transit service and pedestrian facilities. Other than the safety issues and congestion issues in the intersection area between Shelbyville Road, Frankfort Avenue, Breckenridge Lane, Chenoweth Lane, and Westport Road, residents and employees at the Masonic Home of Kentucky are able to access the Home via auto, public transit, and pedestrian facilities. Access to shopping and employment opportunities is available through public transit, as is access to the high density medical area located in the Breckenridge Lane/Kresge Way area.

Access to Education

Of the eight schools located in TAD 40009, two of them are clustered. A cluster indicates where two or more schools are located within 0.25 miles of each other.

Waggener Magnet Career Academy and Saint Matthews Elementary School are clustered in the area between Browns Lane and South Hubbards Lane. The two schools have good internal pedestrian facilities and have campuses which abut one another with no roadway dividing them. Both schools also have good pedestrian access to the campus and visible crosswalks for students and others to utilize. The surrounding area is made up of residential property which has good pedestrian access throughout most of the neighborhoods. Where pedestrian facilities do not exist the traffic volume may be low enough to allow for relatively safe pedestrian use. Public transit access is available on the Saint Matthews Elementary School side of the cluster (Browns Lane). Because the campuses are adjoining, public transit service could be utilized by students attending either the elementary school or the magnet school. Neither current/forecasted congestion nor crashes present issues relevant to accessing the two schools.

Two of the remaining six schools in TAD 40009 have less than adequate public transit service. While public transit service is available near Dunn Elementary School, the service is two express routes that do not provide access to the school. Holy Trinity Elementary School is located nearly one mile from the nearest public transit service. Accessing public transit for Holy Trinity would require students to walk through residential property on low volume streets.

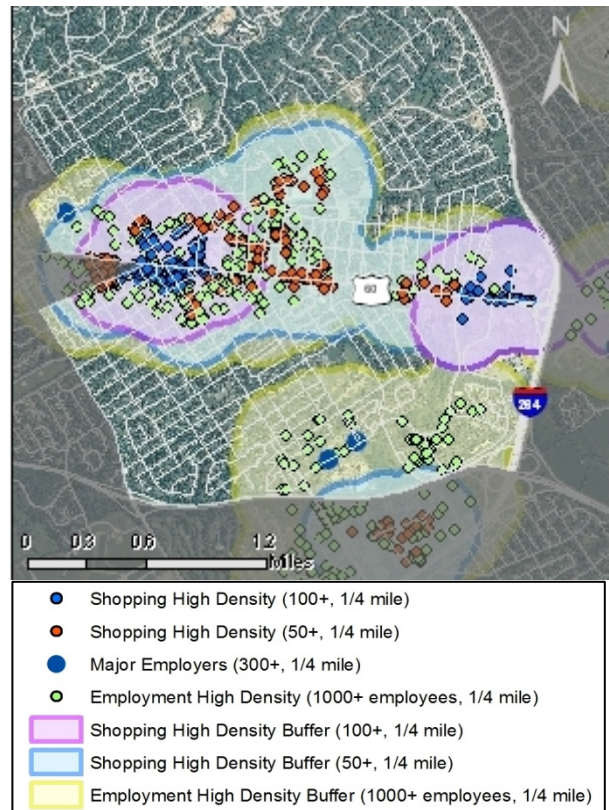


Figure 40009-C: Access to workplace in and around Shelbyville Road and north of I-64.

The remainder of the schools in TAD 40009 have both public transit and pedestrian facilities near their campuses and surrounding neighborhoods.

The following schools may experience delay or safety issues resulting from current and forecasted congestion and because their campus is located within near proximity to a high crash location:

- Friends Elementary School
- Our Lady of Lourdes Elementary School
- Trinity High School

In summary, the schools in TAD 40009 generally have public transit and pedestrian access (with the exception of Holy Trinity Elementary School and Dunn Elementary School). The issue impacting the schools the most is related to delay and safety resulting from current and forecast congestion as well as high crash locations.

Access to Government Services

There are no clusters of Government Services (3+ government facilities within 0.25 mile of each other) in TAD 40009. Yet the following government services are identified within TAD 40009:

- Bellewood City Hall
- First District Public Works Yard
- Saint Matthews City Hall
- Saint Matthews Fire Protection District Station 1 – Headquarters
- Saint Matthews Fire Protection District Station 2

All of the government facilities in TAD 40009 have public transit access with the exception of the Bellewood City Hall. Other than the Saint Matthews Fire Protection District Station 2 and the First District Public Works Yard, the government facilities in this TAD have pedestrian access. Pedestrian access to the fire station and public works yard may not be an issue, as these places are not often attractions for pedestrian use.

Saint Matthews Fire Protection District Stations 1 and 2 may have issues related to current and future congestion and high accident locations. Response time for these two facilities may be impacted by the congestion and safety issues on Shelbyville Road, Brownsboro Road, and Westport Road.

While a majority of the government facilities that people need or want to access have both pedestrian and transit access and limited access issues relating to congestion and high crash locations, it is worth noting that the two fire stations' response time may be impacted by congestion and high crash locations.

Access to Medical Facilities

There are two GIS-identified clusters of medical facilities (25 or more medical facilities within 0.25 miles of each other) in TAD 40009. The first is on the Shelbyville Road area between Meridian Avenue and Heady Avenue. The second cluster of medical facilities is located on Kresge Way and is shared with TAD 40008.

Shelbyville Road from Meridian Avenue to Heady Avenue

This area has between 26-71 medical facilities within .025 miles of each other. Located in what is often referred to as downtown Saint Matthews, this area has both pedestrian and public transit opportunities. Current and forecast congestion, as well as this area being identified as a high crash location, may impede auto and truck traffic accessing this area in a timely manner.

Kresge Way from Breckenridge Lane to Bowling Boulevard

This cluster has between 72-210 medical facilities within 0.25 miles of each other and is anchored by Baptist Health Louisville. Both pedestrian and public transit opportunities exist throughout this area. Current and forecasted congestion on Breckenridge Lane as well as the intersection of Breckenridge Lane and Kresge Way being identified as a

high crash location may impede auto and truck travel in this cluster. The congestion and high crash locations may serve to further impede access by ambulances accessing the emergency services provided by Baptist Health.

In summary, both clusters of medical facilities benefit from pedestrian and public transit options and both clusters may be negatively impacted by current and future congestion issues as well as safety issues do to their proximity to high crash locations.

Freight Access

There are no freight distribution facilities located in TAD 40009, yet the TAD is bordered by interstates that are part of the KIPDA Freight Network. While freight distribution may not be a major component of TAD 40009, there are issues that are worth noting.

TAD 40009 is bordered by I-71, I-64, and I-264 on three of its four sides. Each of these interstate segments are part of the KIPDA Freight Network. Forecasted LOS shows that nearly all of the approximate nine miles that border this TAD will be at either LOS D or F. There are also five high crash locations (100-199 and 300-461 crashes within 0.10 mile). Left unmitigated, the congestion and crash frequency may have a detrimental impact on freight travel into TAD 40009 and the region.

TAD 40009 is home to dense employment and shopping opportunities, especially along the Shelbyville Road corridor from Frankfort Avenue east to I-264. Given the density along the corridor, it is assumed that freight delivery is critical to the operation of the retail and employment points in this corridor. While there are no GIS-identified major freight distributors in TAD 40009, freight remains an important consideration. The Shelbyville Road corridor is forecasted to see an LOS ranging from D to E. This area also has high crash locations (100-199 and 300-461 crashes within 0.10 mile). Given the forecast congestion and frequency of crashes, it is reasonable to assume that freight delivery to this area will be delayed if these issues are left unmitigated.

The KIPDA Freight Network follows the interstates that border TAD 40009 and it is believed that a majority of freight traffic follows the interstate corridors. East of TAD 40009, in TADs 40007 and 40001, are many attractions and clusters of major freight users. Given the current levels (LOS D and E) of congestion on the interstate segments that border TAD 40009 and the crash frequencies, it is reasonable to expect that freight traffic may divert from the interstates to surface roads in TAD 40009 in order to access the major freight users in TAD 40007 and 40001. The surface roads most likely to be used for these circumstances include Shelbyville Road, Brownsboro Road, and Frankfort Avenue. Current LOS on these roadways spans from C to F, with forecast LOS to diminish to D, E, and more segments at F. If left unmitigated, the congestion issues combined with the frequency of crashes on these corridors may lead to delayed access to freight destinations thereby contributing to a negative economic impact.

In summary, the absence of major freight users in TAD 40009 does not diminish from the importance of freight access in this TAD or the role TAD 40009 plays in supporting freight travel in the region. The biggest issue facing freight traffic is the current and worsening congestion and the frequency of crashes in this TAD. Left unmitigated the impacts on freight traffic may negatively impact the community, including its economy.

Future Socioeconomic Conditions

Most of TAD 40009 is currently built out and not anticipated to see significant changes by the year 2030 in the number of jobs, households, or non-group quarters population. Three socioeconomic indicators are forecasted to see low to moderate growth:

- Households: Low to moderate growth in the northwest corner of the TAD
- Employment: Low to moderate growth along the Shelbyville Road corridor and along the eastern segment of Brownsboro Road
- Population: Low to moderate growth in the northwest corner of the TAD

This scenario is not unexpected given the current density patterns in TAD 40009. Of the three socioeconomic indicators, the increase in the number of jobs in the Shelbyville Road corridor raises the most interest. In general terms, economic growth is recognized as a positive indicator for the TAD. The corridors that are anticipated to see degradation in LOS will suffer without the involvement of mitigating efforts to reduce the negative impact on the transportation system and could result in being counterproductive to the forecast growth in jobs.

Issues and Opportunities

- The Shelbyville Road corridor is an important area for TAD 40009. It has many attractions ranging from employment, retail and services, schools, parks, and high density housing within proximity to one another. With the many attractions often come issues, and this is true with this corridor. Not only is this an important corridor for TAD 40009, but it is also important to surrounding TADs and large portion of the five-county region. With the current and forecasted congestion, combined with the frequency of crashes, the intermittent gaps in the pedestrian network become an issue of significance. Both the congestion and the crash frequency can be directly attributed to the volume of traffic on and around this corridor (including on its western end, Breckenridge Lane, Frankfort Avenue, Chenoweth Lane, and Westport Road). Efforts are needed to improve pedestrian connections, and reduce the frequency of crashes.
- At the eastern end of the Shelbyville Road corridor is a significant safety and congestion issue. With current LOS already at a low level and forecast congestion indicating a further degradation, steps are needed to mitigate the congestion and reduce the frequency of crashes. An increase in opportunities to access the Saint Matthews Community Center and Park is warranted and would prove beneficial to the area.
- The interstates (I-64, I-71, and I-264) which serve as the border of TAD 40009 have both high crash frequencies and current and forecasted congestion issues. Left unmitigated, these issues may negatively impact TAD 40009 and the remainder of the region.
- Congestion and crash frequency at the intersection of Breckenridge Lane and Kresge Way serves to impede access to both a high employment area and a high density medical area. Access to these areas is important and made more significant when considering the need for emergency service vehicles to access the hospital (Baptist Health Louisville) located within the high density medical cluster (as well as the neighboring hospitals found in TAD 40008).
- In general, the most significant issues facing TAD 40009 are congestion and crash frequency. All of the major corridors are currently facing congestion issues or are forecast to do so by 2030. All of the major intersections in this TAD have been identified as high crash locations as well.
- While TAD 40009 has a good presence of pedestrian, bicycle, and transit options, the number of crashes involving pedestrians and cyclists is relatively high. Consideration needs to be given to improving pedestrian and bicycle options and the connections with transit; modes that often complement one another.

Related Plans & Studies

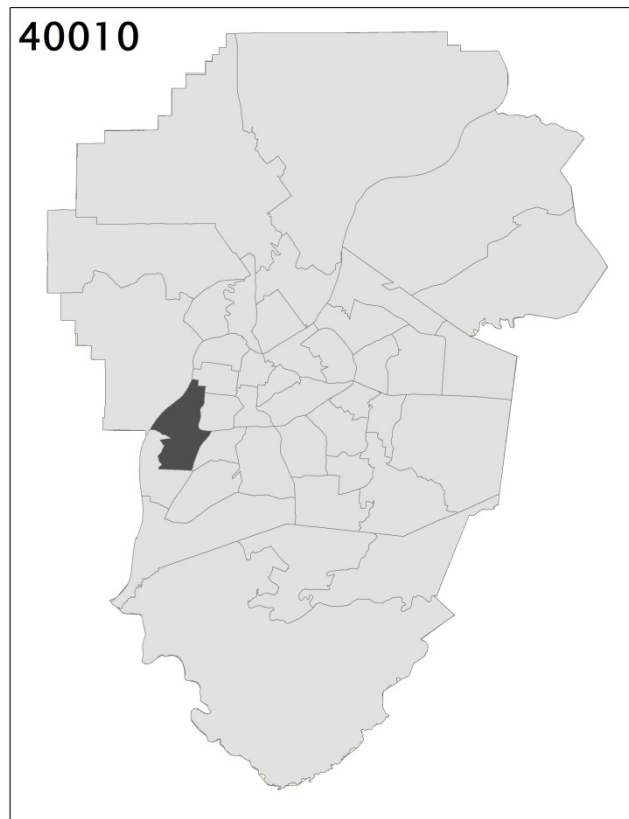
- Cornerstone 2020 Comprehensive Plan (2013)
- I-265/US 42 Interchange Scoping Study (2011)
- Mockingbird Valley Neighborhood Plan (2006)
- Westport Road Corridor Small Area Plan (2010)

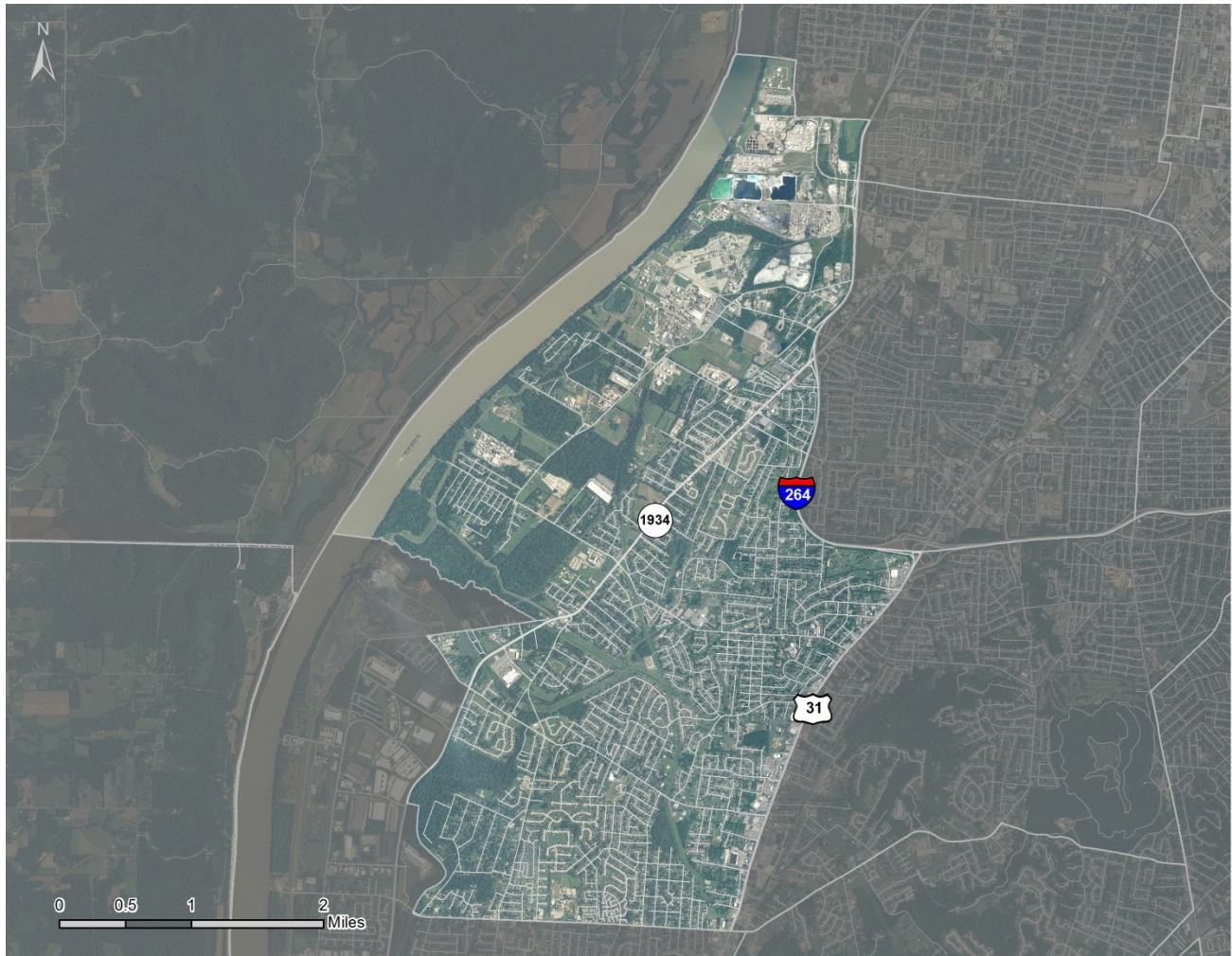


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40010 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40010 is located in western Jefferson County along the Ohio River in suburban Louisville Metro. In addition to being part of Louisville Metro, a portion of the City of Shively is in this TAD as well (although the majority of Shively is located in neighboring TADs).

TAD 40010 is exclusively urban and has been extensively developed with few parcels available for significant new development in the future. There are a variety of land uses in this TAD, including significant residential, commercial, and industrial development.

Area and Socioeconomic Information

Area: Approximately 10,303 acres

Non-Group Quarters Population (2010): 33,667

Number of Households (2010): 13,639

Number of Jobs (2000): 10,062

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern identifies a Title VI/Environmental Justice area in TAD 40010 (see Figure 40010-A), covering the majority of the northern half of the TAD and is contiguous with the large Title VI/Environmental Justice area that includes the West End of Louisville Metro and Old Louisville, among other areas.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

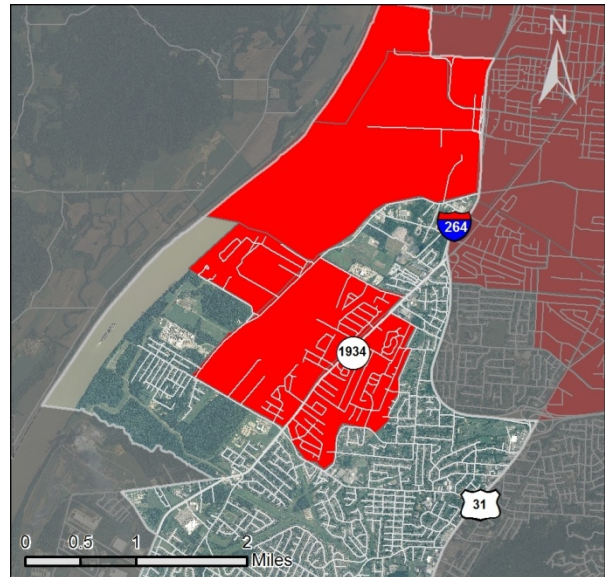


Figure 40010-A: Title VI/Environmental Justice area boundary shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-264* (Watterson Expressway) from US 31W (Dixie Highway) to (north of) Algonquin Parkway
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 31W* (Dixie Highway) from KY 1931 (Greenwood Road) to I-264 • KY 1934*~ (Greenbelt Highway/Cane Run Road) from Intermodal Drive to I-264
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 1931 (Greenwood Road) from (east of) Greenbelt Highway to Dixie Highway • Rockford Lane* from Cane Run Road to US 31W Dixie Highway • Lower Hunters Trace from Cane Run Road to Dixie Highway • KY 1727 (Terry Road) from Greenwood Road to Cane Run Road • KY 2049 (Crums Lane) from Cane Run Road to I-264
Urban Collector	<ul style="list-style-type: none"> • Sky Blue Avenue from Greenwood Road to Lower Hunters Trace • Upper Hunters Trace • Graston Avenue • Cane Run Road* from Lower Hunters Trace to Greenbelt Highway • Kramers Lane • KY 2051 (Lees Lane/Camp Ground Road) from Cane Run Road to I-264 • Ralph Avenue from Camp Ground Road to I-264
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- Conway Middle School
- Crums Lane Elementary School
- Farnsley Middle School
- Greenwood Elementary School
- Holy Cross
- Kerrick Elementary School
- Notre Dame Academy
- Pleasure Ridge Park High School
- Shacklette Elementary School
- Wellington Elementary School
- Western High School

Colleges & Universities

- N/A

Parks

- Riverside Gardens Park
- Sylvania Park

Other Area of Interest/Significance

- N/A

Historic

- David Farnsley House
- Ford Motor Plant
- Lewiston House

Transit

TAD 40010 is currently served by several TARC routes. The following TARC routes pass through and have stops within the TAD, primarily providing connections to downtown Louisville:

- Route #18 – Preston/18th Street
- Route #19 – Muhammad Ali Boulevard
- Route #22 – 22nd Street
- Route #29 – Eastern Parkway
- Route #50X – Dixie Express
- Route #63 – Crums Lane

Park and Ride

There is only one identified Park and Ride lot in TAD 40010:

- Beechland Baptist Church

Public Comments

Greenwood Road

- Needs to be widened.
- Sidewalks need to be installed (comment received 5 times).

Dixie Highway/Greenwood Road Intersection

- The signal for the northbound left turn lane from Dixie Highway to Greenwood Road does not stay green long enough to clear the queue.

I-264 Westbound Off-Ramp to Southbound Dixie Highway

- Redesign to relieve major congestion.

Lees Lane at Cane Run Road

- Identified as being a congested intersection.

Rockford Lane at Dover Road

- Identified as being a congested intersection.

Upper Hunters Trace at Weber Lane

- Identified as being a congested intersection.

Bay Shore Court

- Needs sidewalks.

Safety

From the years 2009 through 2011, 2,799 crashes were reported in TAD 40010. There were eight fatalities reported as a result of eight crashes over this time period. There were 60 crashes that resulted in significant injury. During this three year period, 17 reported crashes involved bicyclists and 39 involved pedestrians.

Fatalities

Of the eight fatal crashes in the TAD over the three-year period, all were in dry conditions, three involved motorcyclists, three involved pedestrians, two involved alcohol, and one involved a bicyclist.

Four of the crashes that resulted in fatalities occurred on Cane Run Road on a two-mile segment between Greenbelt Highway and I-264. This is the most congested section of Cane Run Road. Three of these crashes involved motorcyclists, and alcohol was a factor in two of those.

High Crash Locations

There are six locations in this TAD identified as being high crash locations. All six of these high crash locations are located at intersections of the major roadways in the TAD. For a location to meet the high crash location criteria in this analysis, there must have been 100 or more crashes within 0.10 mile of a location for the three year period from 2009-2011.

Dixie Highway

- Intersection with Greenwood Road/Saint Andrews Church Road
- Between Lower Hunters Trace and Blanton Lane (including the intersections)
- Near intersection with Upper Hunters Trace (including intersections with shopping centers just north of Upper Hunters Trace)
- Between Rockford Lane and I-264

KY 1934 (Greenbelt Highway/Cane Run Road)

- Intersection with Terry Road
- Intersection with Rockford Lane/Lees Lane

Injury crashes occurred throughout the TAD. However there appears to be an abundance of injury crashes along the same segment of Cane Run Road (see Figure 40010-B) where four fatal crashes occurred. Elsewhere in the TAD, there were several injury crashes on Dixie Highway between Greenwood Road/Saint Andrews Church Road and Lower Hunters Trace, as well as on Rockford Lane where there were five injury crashes, which is relatively high when compared to the more heavily traveled roadways in the TAD.

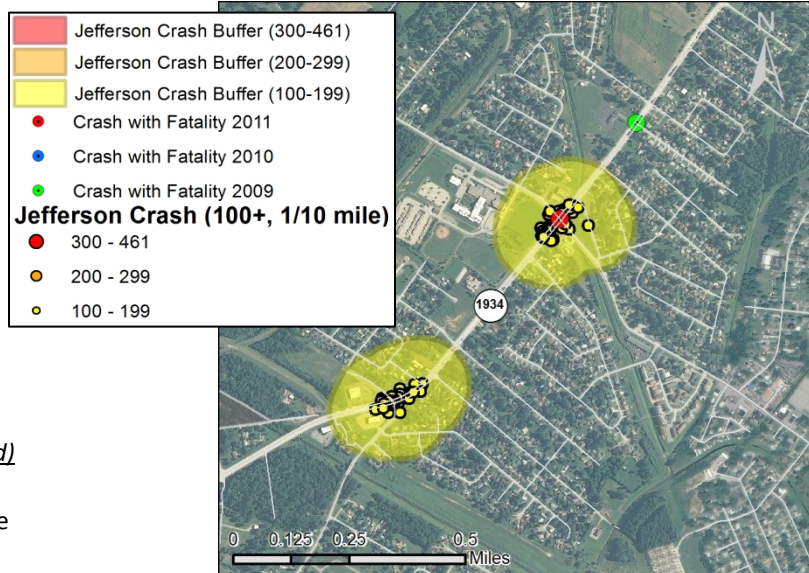


Figure 40010-B: High crash locations and fatalities near the Cane Run Road corridor.

Bicycle and Pedestrian Crashes

During the three year period 2009-2011, 17 reported crashes involved bicyclists and 39 involved pedestrians. Of those, three fatal crashes involved pedestrians and one involved a bicyclist.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> Dixie Highway from Greenwood Road/Saint Andrews Church Road to Rockford Lane Greenwood Road from Terry Road to Dixie Highway
LOS E:	<ul style="list-style-type: none"> Cane Run Road from South Crums Lane to Kramers Lane
LOS F:	<ul style="list-style-type: none"> Dixie Highway from Rockford Lane to I-264

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> Dixie Highway from Greenwood Road/Saint Andrews Church Road to Lower Hunters Trace
LOS F:	<ul style="list-style-type: none"> Dixie Highway from Lower Hunters Trace to I-264 Cane Run Road from Terry Road to I-264

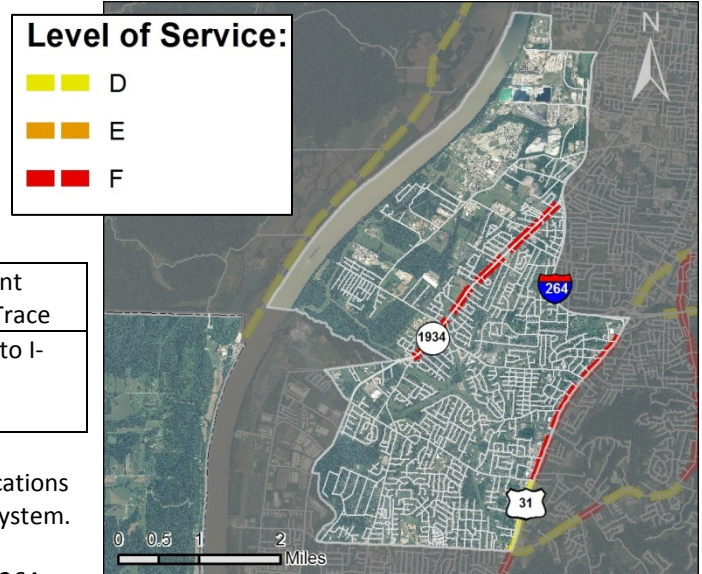


Figure 40010-C: Projected congested roadways. Year 2030 Level of Service (LOS) based on KIPDA Travel Demand Model is shown.

While congestion currently exists at a relatively few locations in TAD 40010, these locations are critical links for the system. The portions of Cane Run Road and Dixie Highway just outside of I-264 are links that are used by all users of I-264 for trips to/from this TAD and for trips to/from downtown Louisville on roads other than I-264. Therefore, congestion on these links can have a significant impact on nearly all users of the system in this TAD.

The projected levels of congestion generated by the KIPDA Travel Demand Model show severe congestion on these same roadways, only more severe and expanded beyond the current limits of congestion based on recent traffic counts. Improving congestion on these links should be a major priority in this TAD.

Access to Community Amenities

The vast majority of land in TAD 40010 is used for typical suburban residential development. At least in part, this is the reason that there are relatively few community amenities that might ordinarily be centrally located within a community, such as schools, parks, libraries, and shopping, in this TAD. Where these community amenities do exist, there are few locations where these types of community amenities are clustered together. There is one cluster of commercial/retail establishments on Dixie Highway near Lower Hunters Trace, although the entire Dixie Highway corridor through the TAD is very similar in terms of land use. A few of these retail establishments are regional traffic generators that attract shopping trips to this TAD from around the region, including many trips from well beyond the boundaries of this TAD. This corridor is very well served by TARC Route #18, which provides frequent, regular service along Dixie Highway. Other TARC routes complement this service as well. Sidewalks exist on at least one side of Dixie Highway throughout the TAD, and on both sides of the road over most of its length in the TAD.

There is another cluster of community amenities in this TAD near the intersection of Cane Run Road and Lees Lane. This cluster contains two schools (Farnsley Middle and Wellington Elementary Schools) and the Neighborhood Place Community Center. This cluster is served by three TARC routes. Sidewalks exist on all major roadways near this cluster, including Cane Run Road, Lees Lane, and Rockford Lane, connecting the cluster to nearby residential areas.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Bob Montgomery Chevrolet Honda
- Walmart Supercenter
- American Synthetic Rubber Company

There is one area in this TAD considered to have a high employment density using the criteria listed above. This is along the congested two-mile segment of Dixie Highway from near Greenwood Road to Rockford Lane. Almost all of this employment is retail employment, including many stores and restaurants. This corridor of high employment density is located near I-264, providing access to the area from throughout the region, and is served very well by TARC Route #18. TARC Route #29 connects to the Environmental Justice area that is located near Cane Run Road to Dixie Highway. Sidewalks exist throughout this corridor. Access to this area for bicyclists could be an issue due to heavy traffic volumes, little to no shoulders, and the general lack of bicycle accommodations on Dixie Highway.

In this TAD, there is one high density retail area. It is a small area within the high density employment area located on Dixie Highway. The high density retail area is centered near the Dixie Manor Shopping Center.

There are no commerce parks in this TAD.

Access for Persons with Disabilities and/or Older Adults

There are no hospitals, senior centers, or nutrition sites in TAD 40010. There are several medical offices in proximity to one another on Dixie Highway near Upper Hunters Trace. TARC Route #18 provides regular service with short headways along the Dixie Highway corridor connecting this TAD with downtown Louisville and the rest of the region via a transfer. Sidewalks exist throughout the Dixie Highway corridor.

Access to Education

Of the 11 schools located in TAD 40010, there is only one cluster of schools that contains two or more schools within 0.25 miles of each other. This cluster is located along Greenwood Road and includes Pleasure Ridge Park High School and Greenwood Elementary School. Another significant cluster of schools exists, but falls just outside the proximity criteria. This is the cluster of schools located near the intersection of Cane Run Road and Lees Lane, where Farnsley Middle and Wellington Elementary Schools are located.

TARC provides service to each of the clusters, and to all four middle and high schools in the TAD. Sidewalks exist in the immediate vicinity of all public schools in the TAD, however sidewalk connections to and between neighborhoods are missing in certain locations. One major gap in the sidewalk network that was addressed in many of the public comments is the lack of sidewalks along Greenwood Road west of Dixie Highway. KYTC has a planned project for this location that is currently scheduled to be open to traffic in 2016.

Access to Government Services

There is one community center in TAD 40010 called Neighborhood Place. It is located at Farnsley Middle School, and is served by TARC Routes #19, #29, and #63. Sidewalks exist along all major roadways in the vicinity of this community center.

Access to Medical Facilities

There are no hospitals located in TAD 40010. Saints Mary & Elizabeth Hospital is located just east of this TAD on Bluegrass Avenue. There is a cluster of doctors' offices located near Dixie Highway and Upper Hunters Trace. TARC Route #18 provides regular service to this area. TARC Route #18 could also be an option for trips to the medical facilities in downtown Louisville. Sidewalks exist in this area, but pedestrian trips made to these facilities are unlikely to make up a significant percentage of these trips.

Freight Access

Safe and efficient access to freight facilities is an important issue for TAD 40010 due to the number of freight facilities located in the TAD, primarily in the northwest portion of the TAD that is west of Cane Run Road.

Freight Network

- Campground Road
- Cane Run Road
- Dixie Highway
- Greenbelt Highway
- I-264
- Lees Lane

There are a number of freight distribution facilities in the northwestern portion of this TAD near the Ohio River. These include:

- | | |
|------------------------------------|------------------------------|
| • American Synthetic Rubber | • Excel Logistics |
| • Arkema | • Hexion Specialty Chemicals |
| • Carbide Industries | • Polyone Corporation |
| • Chevron Texaco Global Lubricants | • Rohm & Haas |
| • DuPont | • Zeon Chemicals |
| • Eckart America Corporation | • Zeon Chemicals |

There are also two pipeline facilities, Campground Road Petroleum Pipeline and Bells Lane Petroleum/Chemical Pipeline, located along the Ohio River in the vicinity of the industries listed above. In addition to the facilities listed above, there are a number of similar industries that are located just west of this TAD between Greenbelt Highway and the Ohio River.

All of these industries are located within a few miles of I-264 and have convenient access to the interstate system via the I-264/Cane Run Road and I-264/Ralph Avenue Interchanges. The only congested roadway in proximity to these facilities is Cane Run Road between Terry Road and I-264.

Future Socioeconomic Conditions

With TAD 40010 being substantially built out at this time, significant changes are not expected in this TAD in the future in terms of the number of people living in the zone and the number of households. Based on the most recent set of 2030 forecasts, the population in this TAD is actually expected to decrease between 2010 and 2030. The number of households is expected to remain constant over this same time period. Employment is a different story; based on the most recent set of forecasts, a more than 50% increase in the number of employees working in the TAD is expected over the 30-year period between 2000 and 2030. Much of this increase in employees is likely to have already occurred over the 13-year period since 2000.

While an increase in the number employees is generally seen as a good thing, consideration is needed to reflect this increase when considering the access to workplace issues. This is particularly true in this TAD, where many of the jobs are located on or near the Cane Run Road and Dixie Highway corridors, which are the locations of significant congestion.

Issues and Opportunities

The issues and opportunities that exist in this TAD vary by location. That is, the issues and opportunities that are present on Dixie Highway may be completely different from those on Cane Run Road, which each may be different from the neighborhoods in between.

Dixie Highway Corridor

Traffic congestion is the major issue on Dixie Highway. In the current and future analyses, Dixie Highway experiences severe congestion near I-264 at the key gateway into the TAD when coming from the north and east. Significant congestion exists on other segments of Dixie Highway to the south as well. Providing safe, reliable, and efficient access for all users of the Dixie Highway corridor is extremely important.

Cane Run Road Corridor

While traffic congestion is also an issue on the Cane Run Road corridor, another major issue that exists on this corridor is safety. There were four crashes on the portion of Cane Run Road between Greenbelt Highway and I-264 that resulted in fatalities over the three-year period that was analyzed (versus only one single crash that resulted in a fatality on the much more heavily traveled Dixie Highway over the same period). Crashes that resulted in significant injury also occurred at a higher rate along this portion of Cane Run Road.

There is nothing about this roadway's geometrics that inherently makes it more dangerous than comparable roadways since it is level with virtually no curves, and has modern lane widths. However, there are many driveways and access points along this segment of Cane Run Road where drivers access businesses and side streets. Each of these points creates the opportunity for additional crashes. There may be an opportunity in the future to explore reducing the number of access points/driveways along Cane Run Road, which would create fewer, but safer locations for traffic to enter or exit Cane Run Road.

Other Issues and Opportunities

Beyond the areas of TAD 40010 that are directly bordering one of the two major roadways through the TAD, there are other areas that have unique issues and opportunities. West of the Cane Run Road corridor, along Camp Ground Road is a major industrial area which borders the Ohio River. Safe and efficient access between this area and I-264 is and will continue to be an issue for this area.

The majority of the TAD is suburban residential development. Issues and opportunities in these areas will be focused on convenient access to Dixie Highway and Cane Run Road, sidewalks to schools and locations of TARC stops, and safety improvements.

Related Plans and Studies

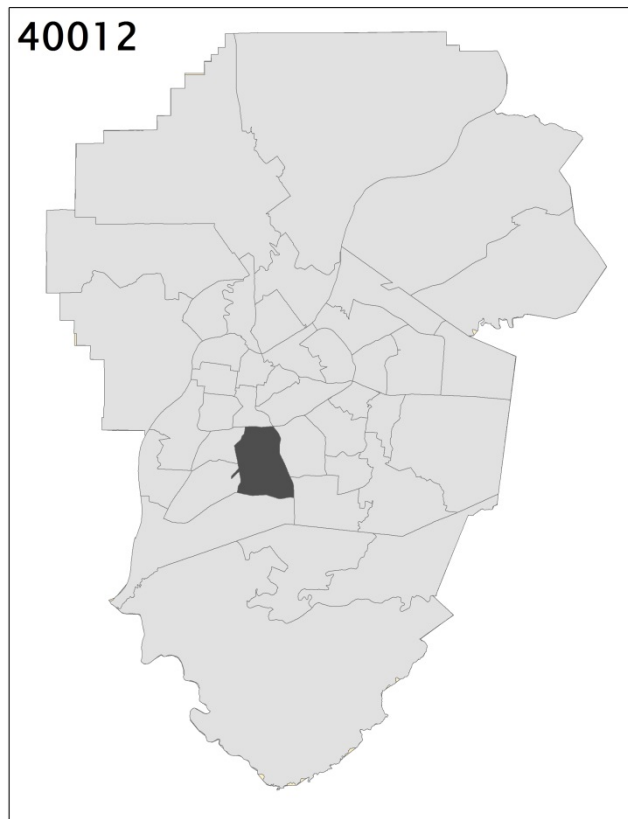
- Cornerstone 2020 Comprehensive Plan (2013)
- Dixie Highway Corridor Master Plan (2013)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40011 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40011 is located in central Jefferson County. South of I-264, it contains Iroquois Park and Southern Parkway, both products of Frederick Law Olmsted. The northwest corner contains a portion of the City of Shively, and the north and east quadrants fall within the Urban Services District of Louisville Metro. The TAD is bounded by I-264, US 31W (Dixie Highway), KY 1931 (Saint Andrews Church Road), KY 1142 (Palatka Road), KY 1865 (New Cut Road), and Southern Parkway. In addition to Iroquois Park, this TAD holds a relatively large area of forested, undeveloped land in the southwest quadrant that is classified as highly erodible, and unlikely to be developed for that reason. Outside of that area and the park, development patterns are fairly well-established. The remainder of the TAD is mostly suburban in nature with the exception of the northeastern quadrant close to and off of Southern Parkway where densities are higher and sites are more closely situated to each other. Dixie Highway serves as a commercial corridor along with New Cut Road and Taylor Boulevard although there are smaller commercial developments sprinkled throughout this TAD.

Area and Socioeconomic Information

Area: Approximately 4,365 acres

Non-Group Quarters Population (2010): 22,136

Number of Households (2010): 9,315

Number of Jobs (2000): 6,455

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies a portion of TAD 40011 as a Title VI/Environmental Justice area (see Figure 40011-A).

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation



Figure 40011-A: Title VI/Environmental Justice area is shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-264*~ from US 31W (Dixie Highway) to KY 1020 (Southern Parkway)
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 31W* (Dixie Highway) from I-264 to KY 1931 (Saint Andrews Church Road) • KY 1865* (Taylor Boulevard) from I-264 to KY 1020 (Southern Parkway) • KY 1865* (New Cut Road) from KY 1020 (Southern Parkway) to KY 1142 (Palatka Road)
Urban Minor Arterial	<ul style="list-style-type: none"> • Blanton Lane from US 31W (Dixie Highway) to KY 1931 (Saint Andrews Church Road) • Gagel Avenue from US 31W (Dixie Highway) to KY 1931 (Manslick Road) • KY 1020 (Southern Parkway) from I-264 to Woodlawn Avenue • KY 1142 (Palatka Road) from KY 1931 (Manslick Road) to KY 1865 (New Cut Road) • KY 1931 (Manslick Road) from I-264 to KY 1142 (Palatka Road) • KY 1931 (Saint Andrews Church Road) from US 31W (Dixie Highway) to KY 1142 (Palatka Road) • Southern Parkway from Woodlawn Avenue to KY 1865 (New Cut Road)
Urban Collector	<ul style="list-style-type: none"> • Bluegrass Avenue from KY 1931 (Manslick Road) to Peachtree Avenue • Bluegrass Avenue from Peachtree Avenue to South Sixth Street • Hazelwood Avenue from KY 1931 (Manslick Road) to Bluegrass Avenue • Peachtree Avenue from Bluegrass Avenue to Bluegrass Avenue (offset intersection) • South Sixth Street from Bluegrass Avenue to West Woodlawn Avenue • Woodlawn Avenue from South Sixth Street to KY 1020 (Southern Parkway)
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul Highway System

Schools

- Gutermuth Elementary School
- Hazelwood Elementary School
- Iroquois High School
- Olmsted Academy North
- Olmsted Academy South
- Saint Paul Catholic School

Colleges & Universities

- Spencerian College

Parks

- Bellevue Park
- Cliff Park
- Dumeyer Park
- Iroquois Golf Course
- Iroquois Park

Other Area of Interest/Significance

- Southern Parkway (an Olmsted Parkway)

Historic

- Iroquois Park
- South Louisville Reformed Church
- Southern Heights – Beechmont Historic District
- Southern Parkway

Transit

TAD 40011 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #4 – Fourth Street
- Route #6 – Sixth Street/Taylor Boulevard
- Route #18 – Preston/Dixie Highway
- Route #50X – Dixie Highway Express
- Route #54X – Manslick Road Express

Park and Ride

There are three Park and Ride lots located within this TAD:

- Cloverleaf Baptist Church
- Dixie Manor Shopping Center
- Iroquois Park

Public Comments

Gagel Avenue

- Lack of sidewalks on Gagel Avenue.

Parthenia Avenue

- Cut across expressway (on Parthenia Avenue) for bike/ped access.

Seelbach Avenue/Warren Avenue

- Cut across expressway (from Seelbach Avenue to Warren Avenue) for bike/ped access.

Southern Parkway

- Concerned about changes to Southern Parkway from New Cut Road to Third Street Road. Specifically concerned about the reduction in lanes (road diet projects as a part of Olmsted Parkways Project).

- Can't get to Iroquois Park on the frontage roads because they aren't complete, or sends on sidewalk, or just doesn't exist in places. Clean it up, pave it, mark it to keep slower bikes off Southern Parkway. Popular route for all ages.

Upper Hunters Trace/Dixie Highway

- Signal timing causes problem. Can take three revolutions of light to get through.

Dixie Highway

- Congested intersection (at Saint Andrews Church Road)

Safety

2,472 crashes occurred in TAD 40011 between 2009 and 2011. Four of those crashes resulted in a fatality. 28 of the crashes involved pedestrians; one of the crashes involving a pedestrian resulted in a fatality. None of the 12 crashes involving bicyclists resulted in a fatality.

Fatalities

Four of the crashes from 2009 through 2011 in TAD 40011 resulted in a fatality; one of those, a pedestrian. The crashes were spread over the TAD. The two that occurred in 2010: Bluegrass Avenue close to Eskridge Avenue, and Taylor Boulevard south of Lynnhurst Avenue. The other two occurring in 2011 happened at Dixie Highway and Blanton Lane, and at Taylor Boulevard/New Cut Road at the intersection of Southern Parkway. Distracted driving, driving under the influence, driving while drowsy, and aggressive driving were cited as primary factors in these events. Other than human behavior, there is no common factor between these crashes.

High Crash Locations

There are several high crash locations where 100 or more crashes occurred within 0.10 mile of each other (see Figure 40011-B).

Dixie Highway Corridor

Dixie Highway from I-264 to San Jose Avenue – In

this roughly 0.30 miles segment of Dixie Highway, over 200 crashes occurred from 2009 through 2011. The vast majority of crashes were rear-end collisions. The highest concentration occurs south of I-264 between Heaton Road and Stewart Avenue, which are less than 0.06 miles apart. There is a large volume of traffic on this segment with a lot of weaving in order to access I-264. In addition, this portion of Dixie Highway is largely commercial with a high number of attractions. There are three travel lanes in each direction. A center turn lane begins south of the signal at Heaton Road ; north of Heaton Road, the roadway is divided with a non-mountable median. Within the 0.30 miles segment, there are 24 commercial driveways. The volume of traffic, the number of attractions, and access to I-264 may all be factors in the number of crashes within this segment.

Dixie Highway from Gagel Avenue to East Rockford Lane – The next high crash location on Dixie Highway falls approximately 0.15 miles south of the location mentioned above. This segment, which spans approximately 0.35 miles from just north of Gagel Avenue to just south of East Rockford Lane, and includes about 0.10 miles on KY 2051 (Rockford Lane), saw over 300 crashes between 2009 and 2011. Dixie Highway is a heavily traveled commercial corridor. This segment also has six travel lanes (three in each direction) with a center turn lane that is, at times, a

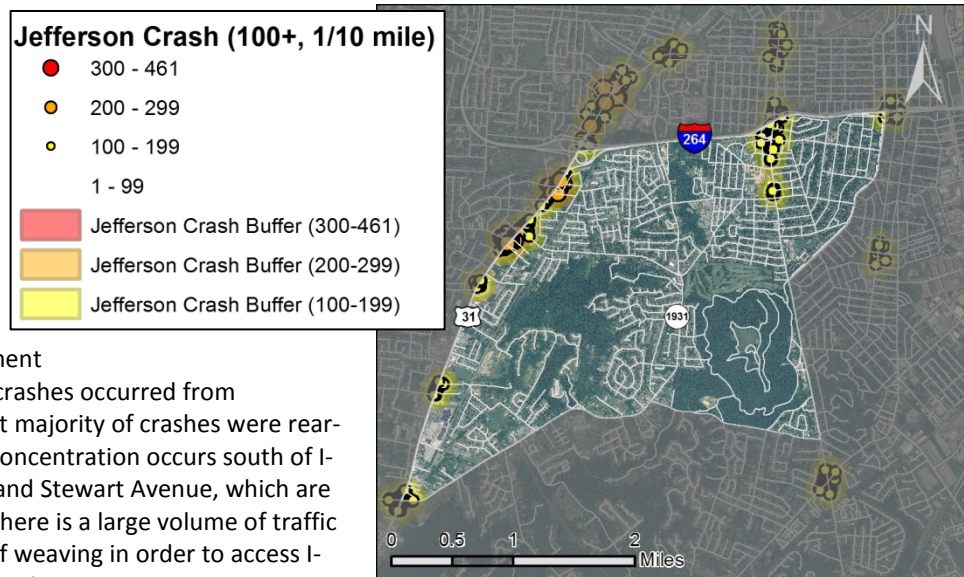


Figure 40011-B: High crash locations within TAD 40011.

dedicated left turn lane. Rear-end collisions constitute approximately 60% of the crash type with angle crashes coming in at 21% for this high crash location. There are over 30 commercial driveways in this segment; many of the businesses have two driveways that open onto Dixie Highway in addition to a driveway that may open up to a side street. Commercial sites also extend to the segment of Rockford Lane included in this high crash location. The lack of access management, number of attractions, and traffic volumes may play a role in the number of crashes in this location.

Dixie Highway north of Upper Hunters Trace – The crashes at this location occurred just north of Upper Hunters Trace, mostly around the entrance to the shopping center on the east side of Dixie Highway. Again, rear-end collisions make up over 50% of the crashes at this location, but this location has fewer crashes than the other two locations mentioned above, relatively speaking. According to the police report data, the majority of crashes occurred in slowed or stopped traffic. There are three lanes in each direction with dedicated turn lanes at the signalized intersection of Upper Hunters Trace and Dixie Highway. Crashes occur approximately 0.03 miles north of the signalized intersection. Inability to anticipate slowed or stopped traffic at this location as well as traffic volumes may be contributing factors in this high crash location.

Dixie Highway from Blanton Lane to Lower Hunters Trace – This 0.10 mile segment begins just north of Blanton Lane and extends south to just south of Lower Hunters Trace. There are a high number of commercial attractions in the area on both sides of the roadway. The intersections of Dixie Highway and Blanton Lane and Lower Hunters Trace are signalized but less than 0.10 mile apart. Welby Road intersects Dixie Highway on the east side; this intersection is not signalized. There are 13 commercial driveways within the six travel lane segment although it looks as if Blanton Lane to the west was extended as an access road for the seven commercial sites at the northwest corner. Rear-end crashes make up approximately 70 % of the crashes at this location. Drivers are not anticipating slowed or stopped traffic according to the police report data. This may be due to the closeness of the signals as well as the volume of traffic and access management issues.

Dixie Highway and Saint Andrews Church Road/Greenwood Road – The majority of crashes were rear-end incidents (over 50%) with angle crashes coming in at 26%. 12% of the crashes were sideswipes in the same direction. This portion of Dixie Highway is three travel lanes in both directions as well as having left turn lanes, all signalized at this intersection. There are at least 12 commercial driveways within 0.10 mile of this intersection (all four legs). Just south of this intersection, Dixie Highway goes from three lanes in each direction to two lanes. The combination of driveways, traffic volumes, and the number of travel lanes changing may be contributing factors.

Taylor Boulevard Corridor

Taylor Boulevard at I-264 – This high crash location is shared with neighboring TADs 40004 and 40005. Crashes are clustered primarily at the bottom of the I-264 ramps north and south of I-264 on Taylor Boulevard, but crashes extend beyond the ramps and go to Strader Avenue to the north and proceed south to Manitou Avenue, approximately 0.40 miles. Within that segment, over 200 crashes occurred between 2009 through 2011. There are some crashes at this location that are attributed to I-264 (71 of them); however, 53 or 75% of those crashes occurred on the ramps rather than I-264. An additional 117 took place on Taylor Boulevard. Out of the total crashes, close to 60% were rear-end collisions while 16% were angle crashes, and the remainder a variety of crash types. The distance between the ramps is approximately 0.20 miles and both are signalized. In the immediate vicinity along Taylor Boulevard, there are a couple of gas stations/convenience stores, but residential development is the primary land use south of the interchange area in TAD 40011. There did not appear to be a correlation between peak hours (6 to 9 a.m. and 4 to 6 p.m.) and crash occurrence as only 33% of crashes occurred during these times. There is the possibility that drivers do not anticipate slowed or stopped traffic on the ramps, which may be a factor in the number of crashes at this location.

Taylor Boulevard from Lehigh Avenue to Bluegrass Avenue – There is a small commercial node occurring on Taylor Boulevard from Lehigh Avenue to Bluegrass Avenue with several commercial properties; however, it appears that a couple of the sites may be vacant. In addition, there are a couple of civic uses. This node is then abutted by primarily single-family residential land use. This segment of Taylor Boulevard is four lanes (two travel lanes in each direction) with no dedicated turn lanes at the signalized intersection with Bluegrass Avenue. While rear-end crashes (40%) comprise the majority of crashes at this location, the other crashes are fairly evenly distributed among other types of

collisions. Bluegrass Avenue and Taylor Boulevard are both fairly heavily traveled roadways. The lack of a dedicated turning area along with traffic volumes may contribute to the number of crashes here.

Bicycle and Pedestrian Crashes

Crashes involving a bicyclist and/or pedestrian occur primarily along the Taylor Boulevard/New Cut Road corridor and the Dixie Highway corridor. On Taylor Boulevard/New Cut Road, there were eight collisions involving bicyclists and pedestrians. On Dixie Highway, there were five crashes involving pedestrians. Out of the 40 crashes in this TAD involving pedestrians and bicyclists, 28 involved pedestrians and 12, bicyclists (see Figure 40011-B). The only location that involved more than one of these crashes is the intersection of Taylor Boulevard and West Ashland Avenue; however, the circumstances surrounding the crashes appear unrelated as one was a backing incident and the other a right turn, so there are no correlations to be drawn between the two.

Given that cyclists and pedestrians are typically trying to reach the same locations as people in motor vehicles, it is no surprise that the two most heavily traveled corridors also have the majority of crashes involving cyclists and pedestrians. At this time, neither corridor has dedicated bicycle facilities. Sidewalks are fairly prominent along these corridors in most locations, although the number of commercial driveways, especially on Dixie Highway, may make it difficult for pedestrians to anticipate drivers' movements and the amount of activity on Dixie Highway may make it difficult to notice a pedestrian. Approximately two-thirds of the pedestrian crashes occurred outside of an intersection, which may explain why a driver may not have been anticipating a pedestrian in the roadway. At the same time, if opportunities to cross these major corridors are too spread out, pedestrians may take the shortest route regardless of the closest intersection. Additional safety measures are needed in TAD 40011 to improve overall safety, specifically for bicyclists and pedestrians.

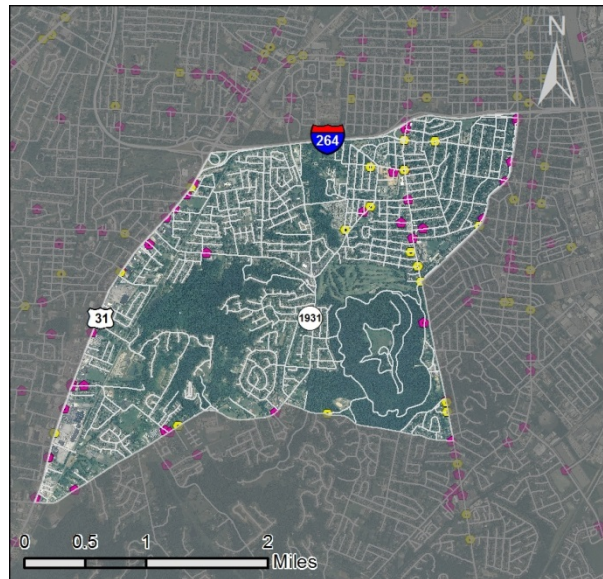


Figure 40011-B: Crashes involving bicycles (yellow) and pedestrians (pink) in TAD 40011.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • I-264 from US 31W (Dixie Highway) to KY 1865 (Taylor Boulevard) • KY 1931 (Manslick Road/Saint Andrews Church Road) from Gagel Avenue to Arnoldtown Road • US 31W (Dixie Highway) from KY 2051 (Rockford Lane) to KY 1931 (Saint Andrews Church Road)
LOS E:	<ul style="list-style-type: none"> • KY 1931 (Saint Andrews Church Road) from US 31W (Dixie Highway) to Arnoldtown Road
LOS F:	<ul style="list-style-type: none"> • US 31W (Dixie Highway) from I-264 to KY 2051 (Rockford Lane)

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are (see Figure 40011-C):

LOS D:	<ul style="list-style-type: none"> • I-264 from US 31W (Dixie Highway) to KY 1865 (Taylor Boulevard) • US 31W (Dixie Highway) from Lower Hunters Trace to KY 1931 (Saint Andrews Church Road) • KY 1931 (Saint Andrews Church Road) from US 31W (Dixie Highway) to Arnoldtown Road • KY 1931 (Saint Andrews Church Road) from Blanton Lane to KY 1142 (Palatka Road)
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LOS E:	<ul style="list-style-type: none"> • I-264 from KY 1865 (Taylor Boulevard) to Southern Parkway
LOS F:	<ul style="list-style-type: none"> • US 31W (Dixie Highway) from I-264 to Lower Hunters Trace • KY 1931 (Saint Andrews Church Road) from Arnoldtown Road to Blanton Lane • KY 1931 (Manslick Road) from I-264 to KY 1142 (Palatka Road) • KY 1865 (Taylor Boulevard) from I-264 to Bluegrass Avenue • KY 1865 (New Cut Road) from Southern Parkway to KY 1142 (Palatka Road)

At this time, the level of congestion is affecting travel time for SOVs, freight and transit. In the future with only the committed projects as programmed in the *FY 2011 – FY 2014 Transportation Improvement Program*, the congestion is anticipated to affect more of the roadways within the TAD, further increasing travel times. This may impact not only travel within the TAD, but also travel in and out of the TAD as many of the affected routes provide connections to the rest of the KIPDA region and beyond.

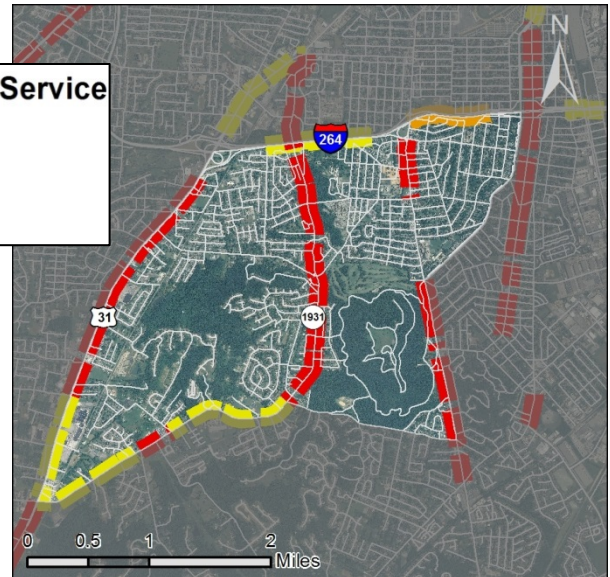
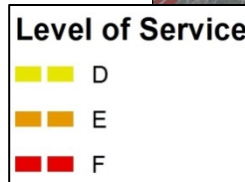


Figure 40011-C: Roadways forecasted to operate at a LOS D or lower in TAD 40011.

Access to Community Amenities

Community amenities are considered clustered when three or more community amenities (community centers open to the public, senior centers/nutrition sites, public libraries, museums, colleges/universities, schools, government buildings, shopping, entertainment venues, and parks) are located within 0.25 miles of each other.

There is only one cluster of community amenities within TAD 40011, and it is shared with TAD 40012 to the east. It consists of Iroquois Park, Iroquois Amphitheater, Louisville Fire & EMS Company 23, and Desales High School. Taylor Boulevard/New Cut Road provides access to Iroquois Park and Amphitheater, as well as to Kenwood Drive, where the Fire Company and Desales High School are located in TAD 40012. There are no dedicated bicycle facilities on Taylor Boulevard/New Cut Road or Kenwood Drive, and there was one crash involving a bicyclist at the five-legged intersection of Taylor Boulevard, Southern Parkway, Southland Boulevard, Iroquois Park Road, and Marret Place, but it was north of the clustered area. Vehicular access appears to be adequate at this time; there are no high crash locations identified within the cluster or in proximity, and LOS is at a C or above, although it is anticipated to degrade to a LOS F by the year 2030 on Taylor Boulevard/New Cut Road. TARC Routes #4 and #6 serve the cluster both on Taylor Boulevard/New Cut Road and Kenwood Drive. Sidewalks are prevalent; on Taylor Boulevard/New Cut Road, there are sidewalks on both sides of the roadway. On the east side, the sidewalks about the street, and to the west, provide a meandering tree-canopied walk close to the edge of the park. On Kenwood Drive, sidewalks are intermittent. On the north side, sidewalks begin at New Cut Road, and end at the parallel frontage street that continues to the school property. With the lower traffic speeds and volumes on the frontage road, additional sidewalks on the north side may not be a priority. On the south side of Kenwood Drive, sidewalks are intermittent. Closest to New Cut Road, there are a couple of driveways for commercial sites that interrupt the continuity; in essence, the entire frontage is a parking area with no sidewalk. There are no sidewalks from that point east until Orchard Hill Road, at which time the sidewalks continue on the south side to Kenwood Hill Road. At this point, the frontage road on the north side ends, but the sidewalk continues into the residential area to the east. Gaps in the pedestrian network appear to be a predominant issue.

The other community amenities are distributed throughout the TAD with no other clusters identified.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks. Clusters of high density employment occur in two areas in TAD 40011: Dixie Highway and Bluegrass Avenue. There are three major employers located within the clustered areas. There is also high density retail occurring along Dixie Highway. There are no commerce or industrial parks located within this TAD.

Major Employers

- Hazelwood Center
- Neil Huffman
- Saints Mary and Elizabeth Hospital

Dixie Highway

The cluster of high density employment runs along the Dixie Highway corridor from Rockford Lane south to Saint Paul's Church Road. The major employer within this cluster is a series of car dealerships that are singularly owned. This cluster also includes a high density retail area beginning at Blanton Lane heading south to Saint Paul's Church Road. There are no dedicated bicycle facilities within the identified clustered area. Vehicular access appears to be hindered by the current LOS, which is an F north of Rockford Lane, and a D to Saint Andrews Church Road. This may be further compounded by the high crash locations identified on Dixie Highway at Rockford Lane and from Blanton Lane to Lower Hunters Trace. Additionally, the LOS on Dixie Highway by the year 2030 in some portions of this area are anticipated to degrade to a LOS F but no segment within the cluster is anticipated to operate higher than a LOS D. Public transit service is available via Routes #18, #50X, and #29. Route #29 only goes as far south as Rockford Lane, but the other two routes provide access within the clustered area on Dixie Highway fully. Sidewalks along the Dixie Highway corridor within the clustered area are fairly continuous with the exception of about two blocks on the west side about the midpoint (absent from just north of Bonnyville Boulevard to south of Meyers Lane).

There are a couple of issues with the pedestrian network within the clustered area: the frequency of commercial driveways break up the continuity as well as adequate safe crossings across Dixie Highway. The number of jobs and attractions in the area in addition to the through traffic make this segment of Dixie Highway heavily traveled. The number of commercial driveways put pedestrians and motor vehicle drivers in conflict. There are three travel lanes in each direction with either a center turn lane, mountable median, or dedicated turn lane, and at some intersections, there are both right and left turn lanes. Toward the southern end of this roughly two-mile segment, there are four traffic signals approximately 0.10 mile away from each other, but as the corridor progresses north, the signals are further apart; the remaining five are more than 0.25 miles apart, with the longest distance between signals being 0.48 miles between Upper Hunters Trace and Rockford Lane. Many people, rather than walking that distance to the closest intersection to cross at a signal, may attempt to cross the seven or more lanes of traffic where it is most convenient, placing pedestrians and motor vehicles in conflict with one another, especially at unexpected locations.

Bluegrass Avenue

There is cluster of high density employment that centers around two major employers: Saints Mary and Elizabeth Hospital and the Hazelwood Center, a rehabilitative facility, on Bluegrass Avenue. The northern half of this cluster is also identified as a Title VI/Environmental Justice area. The clustered area on Bluegrass Avenue extends west from Manslick Road to Taylor Boulevard. There are no dedicated bicycle facilities within the clustered area. Vehicular access appears adequate; there are no current LOS issues and there are no high crash locations within the clustered area, although there are high crashes on Taylor Boulevard north of Bluegrass Avenue which may impede traffic flow to Bluegrass Avenue in those areas. However, by the year 2030 without additional mitigation, Manslick Road and Taylor Boulevard, the two primary roads that a commuter might use if accessing the area by auto or transit, are anticipated to be operating at a LOS F, which would add travel time for those getting to work within this area. Public transit is available Route #6. It does not run all the way down Bluegrass Avenue, but the closest stop is approximately 0.20 miles to the east of the hospital, within the accepted walking distance, and making it eligible for paratransit service if needed. The other route within the clustered area is Route #54X. The closest stop within the clustered area is at Manslick Road

and Lance Drive, approximately 0.50 miles from the hospital location. This is further than the accepted walking distance of 0.25 miles for most walking trips, but may be more convenient for those living closer to that route than Route #6.

One of the issues facing commuters using transit or walking to the center of the clustered area is the lack of sidewalks. From Taylor Boulevard west to the hospital area, there are sidewalks on both sides of the street, but they stop on the north side at Churchman Avenue and on the south side of Bluegrass Avenue at the western edge of the hospital property. Most of the employment is located in this area, however, there are a few sites along Manslick Road included in the cluster. Sidewalks are available on the east side of Manslick Road from Anna Lane to Bluegrass Avenue, but none linking the residential areas on the western side of Manslick Road to Bluegrass Avenue, and then none on the western half of Bluegrass Avenue. This may pose an issue for pedestrians or transit commuters approaching from the west, or for those working at one of the sites on Manslick Road.

Access for Persons with Disabilities and/or Older Adults

The issues facing persons with disabilities and older adults who may use public transit and/or walk to destinations within the TAD are the same for pedestrians and transit users as mentioned in the other sections of this report: pedestrian network connectivity and transit access.

Regular fixed route public transit service is available on the two primary corridors of the TAD: Dixie Highway and Taylor Boulevard/New Cut Road. Both of the routes run north/south, and there is no opportunity to make an east/west trip within the TAD without making a transfer at a location outside of the TAD. Because of the two routes, most destinations and residential areas are within the 0.75 miles range for paratransit service if deemed eligible.

Sidewalks are prevalent along most of the busy corridors within the TAD; however, the frequency of commercial driveways, and especially those driveways that slope towards the roadway interrupting the pedestrian right-of-way pose issues for persons who may have difficulty walking or those who use a mobility device, such as a wheelchair. There are also gaps in the overall pedestrian network that may pose more of an issue for an older adult or person with a disability as there may be no acceptable way for a person using a walker or other device to cross two blocks of vegetation with no sidewalks to reach the next section of sidewalk without entering the roadway. The distance between signals and the width of Dixie Highway (up to eight lanes at intersections with turning lanes) may pose a barrier to some pedestrians who move more slowly or have overall difficult walking.

There are no clusters of senior centers or nutrition sites within this TAD.

These issues are present whether it is access to medical facilities, workplaces, shopping, or government services.

Access to Education

As noted in the earlier inventory, there are six schools within this TAD and one college. Only two of the schools, Iroquois High School and Olmsted Academy South, are located within 0.25 miles of each other and considered clustered.

Iroquois High School and Olmsted Academy South

These two schools abut each other, and are surrounded by fairly dense residential development with some commercial/service establishments interspersed in the residential, mainly along Taylor Boulevard. Iroquois Park sits diagonally adjacent to the school property. The area has no dedicated bicycle facilities. Public transit is available via TARC Route #6. There are stops directly in front of the high school property on Taylor Boulevard. Students, staff, and parents traveling to Olmsted Academy South would use the stops close to the intersection of Taylor Boulevard and Southern Parkway, walking the remaining 0.20 miles to reach the Academy's front entrance. Pedestrian facilities take the form of sidewalks on Taylor Boulevard, where they are available on both sides of the roadway. There are marked crosswalks at the intersection of Southern Parkway and Taylor Boulevard, a signalized intersection. A ladder-type crosswalk exists across from the entrance to Iroquois High School at Arling Avenue. This crosswalk has higher visibility and is signed, but is not signalized; however, there have been no reports from 2009 through 2011 of pedestrians being

involved in crashes at that location. The intersection of Taylor Boulevard and Brookline Avenue is signalized, and the crosswalks are striped at the intersection. Continuing down Brookline, the sidewalks on the south side end at its intersection with South Sixth Street. The sidewalks are continuous on the north side to the intersection with Southern Parkway. Southern Parkway has a combination of sidewalks and frontage roads that are connected via the sidewalks. The lower traffic volumes and speeds on the frontage roads may provide adequate pedestrian facilities in this area. At the intersection of Southern Parkway and Summers Avenue, there are two ladder-style crosswalks with appropriate signage to connect to the residential area on the south side of Southern Parkway. Motor vehicle access appears to be adequate: there are no high crash locations within the 0.25 miles clustered area or LOS issues currently. By the year 2030, Taylor Boulevard is anticipated to degrade to a LOS F south of Southern Parkway. Left unmitigated, this would delay vehicular traffic to these schools, including school buses and public transit.

Gutermuth Elementary School

Gutermuth Elementary School is located on Sanders Lane, and it is completely surrounded by residential land use. There are no dedicated bicycle facilities in the area. There are some sidewalks on roadways around the school, as well as pedestrian paths that serve as access points from dead-end streets to the rear and side of the school. Being that the surrounding area is a typical neighborhood with no commercial use, those living within a walking and/or biking distance of the school may find the low volume and speed of traffic on the surrounding streets acceptable without separate dedicated facilities. Vehicular access does not appear to be an issue as there are no identified high crash locations surrounding the school or LOS issues. Public transit is available via Route #54X. The closest stop is at the intersection of Manslick Road and Anna Lane. This is approximately 0.30 miles from the school; a staff member or parent may find this distance acceptable, although that is probably not the case for an elementary-age student. The issue with this service is that there are only two morning trips during peak hour, and the same in the evening, so access may be more limited than with regular, fixed route service.

Hazelwood Elementary School

Hazelwood Elementary School is located on the north side of Bluegrass Avenue. The area immediately surrounding the school to the west, north, and south is residential. Taylor Boulevard sits approximately 620 feet to the east from the school's driveway entrance, and is more commercial in nature. There are no dedicated bicycle facilities in the area. There are sidewalks on both sides of both Taylor Boulevard and Bluegrass Avenue and a ladder-style crosswalk at the intersection of Lonsdale Avenue and Bluegrass Avenue. Sidewalks throughout the surrounding residential area connecting to Bluegrass Avenue are more sporadic, but current facilities may be adequate given the lower traffic volumes and speeds on residential streets. Public transit access is available via Route #6, which travels down Bluegrass Avenue and features stops directly in front of the school. Automotive access may be impeded by the high crash location identified on Taylor Boulevard just north Bluegrass Avenue and the future LOS F.

Olmsted Academy North

Olmsted Academy North is abutted by neighborhoods to the west, south and east while I-264 is its northern border. There are no dedicated bicycle facilities in the immediate area surrounding the school. Sidewalks are available on most of the surrounding roadways. Due to the residential character of the school's location, the lower traffic volumes and speeds may not require separate, dedicated bicycle and/or pedestrian facilities. Public transit is offered through Route #4, which has a stop at South Sixth Street and West Ashland Avenue, approximately 0.25 miles from the school. Vehicular access immediately surrounding the school appears to be adequate as there are no high crash locations or LOS issues. In order to access Olmsted Academy North, if not coming from the surrounding neighborhood, a person may be required to travel South Third Street in the neighboring TAD to the east, or Manslick Road to the west to gain access to one of the residential streets leading to the school. This is especially true if approaching from the north as I-264 is a barrier to all modes of travel except on these two aforementioned routes and Southern Parkway. Both Manslick Road and South Third Street suffer from high crash locations in this area, and both are anticipated to degrade to a LOS F. These issues would delay motor vehicle traffic to reaching this area, including school buses and public transit.

Saint Paul Catholic School

Saint Paul Catholic School sits in the southeast quadrant of Dixie Highway and Saint Paul's Church Road, across from Crawford Avenue. The surrounding area is highly commercialized; land use consists mostly of retail and service industries. The intersection of Saint Paul's Church Road and Dixie Highway is signalized. The area does not have any dedicated bicycle facilities. Public transit service is available via Route #18 and Route #50X. Stops are located on Dixie Highway close to the signalized intersection. Sidewalks are available on both sides of Dixie Highway and the crosswalks are marked at the intersection. The primary issue with pedestrians here is that Dixie Highway consists of six travel lanes (three in each direction) and a center left-turn lane, requiring the crossing of seven lanes of traffic with no pedestrian refuge area. Automotive access appears to be adequate other than the current LOS D in place on this segment, which is anticipated to remain at a LOS D through the year 2030. High crash locations are also identified on Dixie Highway to the north and south of the school, impeding travel, including buses, when there has been a collision.

Spencerian College

Spencerian College sits on the east side of Dixie Highway between Gagel Avenue and San Jose Avenue. Dixie Highway is highly commercialized with several large and small retailers surrounding this location along the corridor. There are no dedicated bicycle facilities in the area; however, the property does have access from the east off of Stewart Lane, which is a single-family residential area. If approaching from the east, the lower speed volume and residential streets may provide a viable alternative to accessing the site via walking or bicycling. Public transit is available via Route #18, Route #29, and Route #50X. Sidewalks are available on both sides of Dixie Highway in this area; however, there are three travel lanes in each direction with a center turn lane. There is a signalized intersection at Gagel Avenue, less than 0.10 mile to the south, so pedestrians (including transit riders) accessing the site from along Dixie Highway do have a close, signalized crossing. Vehicular access is impeded along Dixie Highway due to the high crash location identified as beginning roughly in front of Spencerian College that runs south to Gagel Avenue. Further access issues involve the current LOS F which is anticipated to remain at a LOS F in the future without any mitigation.

Access to Government Services

There are no clusters of government services within this TAD (three or more government services within 0.25 of a mile of each other). Government services are fairly well dispersed throughout the TAD.

Access to Medical Facilities

There is one hospital in the area, Saints Mary and Elizabeth Hospital, which is the center of the high density (26 or more medical service locations within 0.25 miles of each other). It is located at 1850 Bluegrass Avenue, about halfway between Taylor Boulevard and Manslick Road. Surrounding it are rehabilitative services, doctor offices and other associated medical facilities. There is an additional cluster of medical facilities located on Dixie Highway between Brick Kiln Lane and Trent Avenue, shared with neighboring TAD 40010.

Dixie Highway

The cluster along Dixie Highway includes medical complexes and offices. There are no dedicated bicycle facilities on Dixie Highway. Public transit service is available to this area via TARC Route #18. Vehicular access to these offices may be impeded from the north by the high crash location on Dixie Highway north of Upper Hunters Trace, mostly around the entrance to the shopping center on the east side of Dixie Highway. The other issue that may impede travel to this cluster is the current and projected Level of Service (LOS) on Dixie Highway. Currently, Dixie Highway operates at a LOS D and that is anticipated to degrade to a LOS F by the year 2030. Sidewalks are continuous on both sides of Dixie Highway within the clustered area with the exception of three properties on the west side that sit side-by-side (in the 5100 block), and one of these is a medical complex. The other issues facing pedestrians within the clustered area are the number of commercial driveways, the volume of traffic and its speed. There are three travel lanes in each direction with either a dedicated turn lane, mountable median, or center turn lane, so people walking must cross seven lanes of traffic if their final destination is on the opposite side of the street at a signalized intersection for a safer crossing.

Saints Mary and Elizabeth Hospital

There is cluster of high density medical services that centers around Saints Mary and Elizabeth Hospital and the Hazelwood Center, a rehabilitative facility, on Bluegrass Avenue. The clustered area on Bluegrass Avenue extends west from Manslick Road to Taylor Boulevard, and south to Churchman Avenue and Hazelwood Avenue. There are no dedicated bicycle facilities within this area. Vehicular access appears adequate; there are no current LOS issues and there are no high crash locations within the clustered area, although there are high crashes on Taylor Boulevard north of Bluegrass Avenue which may impede traffic flow, including emergency service vehicles, to Bluegrass Avenue in those areas. However, by the year 2030 without additional mitigation, Manslick Road and Taylor Boulevard, the two primary roads used to access Bluegrass Avenue by motor vehicle, are anticipated to be operating at a LOS F, which would add travel time for those trying to reach the hospital, possibly also affecting emergency vehicle access. Public transit is available via Route #6. It does not go all the way down Bluegrass Avenue, but the closest stop is approximately 0.20 miles to the east of the hospital, within accepted walking distance and making it eligible for paratransit service if needed. The other route within the clustered area is Route #54X. The closest stop within the clustered area is at Manslick Road and Lance Drive, approximately 0.50 miles from the hospital location. This is further than the accepted walking distance of 0.25 miles for most walking trips, but may be an acceptable option for those approaching the area from the west. One of the issues facing travelers using transit or walking to the center of this area is the lack of sidewalks. From Taylor Boulevard west to the hospital area, there are sidewalks on both sides of the street, but they stop on the north side at Churchman Avenue, and on the south side of Bluegrass, at the western edge of the hospital property. Sidewalks are available on the east side of Manslick Road from Anna Lane to Bluegrass Avenue, but none linking the residential areas on the western side of Manslick Road to Bluegrass Avenue, and then none on the western half of Bluegrass Avenue. This may pose an issue for pedestrians or transit riders approaching from the west, especially since Bluegrass Avenue is a two-lane roadway (one travel lane in each direction) with little to no shoulder.

Freight Access

Currently there are no clusters of major freight users within this TAD. There are two roadways that have been identified as part of the KIPDA Freight Network: Dixie Highway and I-264. Both of these roadways play a crucial role in freight movement in the region. Within TAD 40011, both of these roadways suffer from a number of high crash locations and current and projected LOS at a D or below. The current and projected LOS in tandem with high crash locations will impede freight movement within the TAD and beyond.

Future Socioeconomic Conditions

This TAD is forecasted to experience a slight decline in non-group quarters population, yet a slight increase in the number of households in the year 2030. The number of jobs is anticipated to grow by the year 2030, so additional stress on the transportation network in place will be primarily by commuters living within the TAD or coming from another part of the region as it is anticipated there will be more jobs than persons living in the TAD. Additional freight traffic is also anticipated. Improvements in and around the TAD should address all modes: automotive, transit, bicycle, and pedestrian.

Issues and Opportunities

- I-264 at the northern edge of the TAD presents a barrier to other forms of travel to the north/south, such as by walking or bicycling, as reflected in the comments received concerning this TAD.
- High crash locations will continue to impede traffic within the TAD if left unmitigated, especially with the additional demand placed on the system by freight and commuters.
- The frequency of commercial driveways along major corridors may be an issue for all modes of travel due to the additional number of conflict points introduced for all modes of travel.
- Pedestrians may find Dixie Highway intimidating due to the number of commercial driveways, the six travel lanes and turn lanes, traffic volumes and speed, and some of the distances between signalized intersections that would promote safer crossing.
- This TAD lacks dedicated bicycle facilities.

Related Plans and Studies

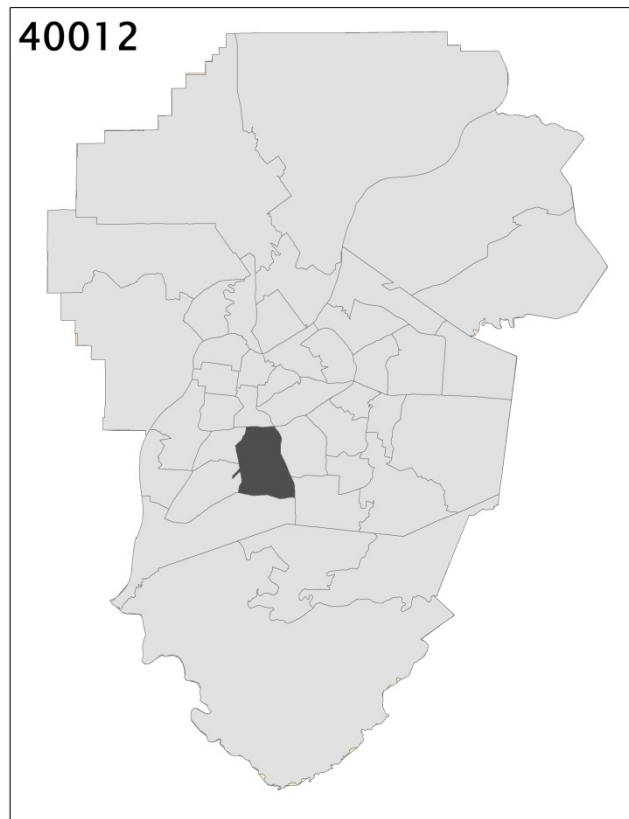
- Cornerstone 2020 Comprehensive Plan (2013)
- Dixie Highway Corridor Master Plan (2013)
- Environmental Justice Community Impact Assessment: Scoping Study for a Proposed Interchange on I-264 at Manslick Road (KY 1931), Jefferson County, Kentucky, KYTC Project #05-436.00; KIPDA Project #516 (2007)
- Manslick Road/I-264 Interchange Study (2007)
- New Cut Road/Taylor Boulevard Corridor Study (2013)
- Suitability of Louisville Metro Roads for Bicycling & Walking: A Level of Service Analysis (2004)
- Third Street Road/Saint Andrews Church Road Area Transportation Study (2008)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40012 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40012 is located in south central Jefferson County and is within Louisville Metro and contains the City of Beechmont. The TAD is bordered to the east by I-65, west by KY 1865 (New Cut Road), north by I-264 (Watterson Expressway) and south by KY 841 (Gene Snyder Freeway). The land use in TAD 40012 is mostly industrial with some residential along its western border. A majority of the land in this TAD is consumed by the Louisville International Airport, UPS World Port, Ford Motor Company Assembly Plant, as well as the CSX Intermodal facility. TAD 40012 is anticipated to see moderate growth in jobs.

Area and Socioeconomic Information

Area: Approximately 14,129 acres
Non-Group Quarters Population (2010): 27,334
Number of Households (2010): 10,662
Number of Jobs (2000): 38,357

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) does not identify any Title VI/Environmental Justice areas in TAD 40012.

The *Community Assessment & Outreach Program* outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-65* from I-264 (Watterson Expressway) to KY 841 (Gene Snyder Freeway) • I-264*~ from KY 1020 (Southern Parkway) to I-65
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • KY 841* (Gene Snyder Freeway) from KY 1865 (New Cut Road) to I-65
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 1865 (New Cut Road) from Southern Parkway to KY 841 (Gene Snyder Freeway) • KY 1020 (National Turnpike) from KY 1020 (Southside Drive) to KY 841 (Gene Snyder Freeway) • KY 1065 (Outer Loop) from KY 1020 (National Turnpike) to I-65 • KY 1747 (Fern Valley Road) from I-65 to Grade Lane
Urban Minor Arterial	<ul style="list-style-type: none"> • Grade Lane from I-65 to KY 1065 (Outer Loop) • KY 1065 from KY 1865 (New Cut Road) to KY 1020 (National Turnpike) • KY 907 (Southside Drive) from KY 1020 (New Cut Road) to KY 1020 (National Turnpike) • KY 1020 (Southside Drive) from KY 1020 (National Turnpike) to West Tenny Avenue • Southern Parkway from KY 1865 (New Cut Road) to I-264 (Watterson Expressway) • KY 1020 (South Third Street) from West Tenny Avenue to I-264 (Watterson Expressway) • West Kenwood Way from KY 1020 (South Third Street) to Southern Parkway • West Woodlawn Avenue from Southern Parkway to South Third Street • East Woodlawn Avenue from South Third Street to Nevada Avenue • Nevada Avenue from East Woodlawn Avenue to Crittenden Drive
Urban Collector	<ul style="list-style-type: none"> • South Park Road from KY 1020 (National Turnpike) (in TAD 40015) to KY 1450 (Blue Lick Road) (in TAD 40017) • Minor Lane from South Park Road to I-65 • Strawberry Lane from KY 1020 (Southside Drive) to E Woodlawn Avenue • East Kenwood Drive from South Third Street to KY 1020 (Southside Drive) • Seneca Trail from South Third Street to KY 1020 Southside Drive • West Kenwood Drive from KY 1865 (New Cut Road) to South Third Street • South Third Street from West Kenwood Drive to West Tenny Avenue • Blue Grass Avenue from KY 1865 (New Cut Road) to Peachtree Avenue • Peach Tree Avenue from Blue Grass Avenue to South Rutland Avenue • Blue Grass Avenue from Peach Tree Avenue to South Sixth Street • South Sixth Street from Blue Grass Avenue to West Woodlawn Avenue • West Woodlawn Avenue from South Sixth Street to Southern Parkway
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- Auburndale Elementary School
- DeSales High School
- Minors Lane Elementary School
- Rutherford Elementary School
- Saint Nicholas Academy

Colleges & Universities

- N/A

Parks

- Auburndale Park
- Beechmont Center
- Louis Ben Israel Park

Other Area of Interest/Significance

- CSX Intermodal Facility
- Ford Motor Company Assembly Plant
- Louisville International Airport
- UPS World Port

Historic

- Cornelia Bush House
- Cornelia Gordon House
- First Street District
- James Russell Lowell Elementary School
- Little Loom House
- S.S. Bush House

Transit

TAD 40012 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #2 – Second Street
- Route #4 – Fourth Street
- Route #66 – Sixth Street/Taylor Boulevard
- Route #93 – UPS/UofL/Downtown Shuttle
- Route #99 – UPS (Downtown West Louisville)

Park and Ride

There are no identified Park and Ride lots in TAD 40012.

Public Comments

Southern Parkway

- Can't get to Iroquois Park on the frontage roads because they aren't complete, or sends on sidewalk, or just doesn't exist in places. Clean it up, pave it, mark it to keep slower bikes off Southern Parkway. Popular route for all ages.
- Concerned about changes to Southern Parkway from New Cut Road to Third Street. Specifically concerned about the reduction in lanes (Road Diet Project as described as part of Olmstead Parkways project).

Southside Drive at Americana Community Center

- There needs to be stoplight in front of the Americana Community Center

National Turnpike

- Need sidewalks and speed bumps. Drivers speed through the neighborhood.

Minor Lane

- Lack of sidewalks

South Second Street/Southern Heights Avenue

- Cut across for bike/ped access

Allmond Avenue

- Cut across expressway for bike/ped access

Safety

3,956 crashes were reported in TAD 40012 from 2009 through 2011. There were 14 fatal crashes from 2009-2011. During this three year period, 40 crashes involved a pedestrian and 18, a bicyclist.

Fatalities

There were 14 fatal crashes in TAD 40012 from 2009 through 2011. Half of the crashes that resulted in a fatality occurred at various locations within the TAD. The other half, or seven, of the crashes that resulted in a fatality occurred on the Southside Drive/National Turnpike corridor with a northern termini at West Woodlawn Avenue and the southern termini at Outer Loop. It is worth noting that only one of the seven fatal crashes in this corridor occurred at a high crash location (addressed in the next section: *High Crash Locations*). This corridor, approximately 4.0 miles in length, runs between a dense residential area and the industrial area found in this TAD. The Southside Drive segment of this corridor, from East Kenwood Drive north to West Woodlawn Avenue currently operates at LOS D. From East Kenwood Drive south to National Turnpike, Southside Drive is currently operating at LOS F. There were no crashes that resulted in a fatality in the section operating at LOS F. National Turnpike is currently operating above LOS D.

According to available police reports, none of the 14 crashes that resulted in a fatality appear to have resulted from issues related to the roadway. Several of the crashes involved a single vehicle hitting a wall or utility pole, a motorcycle, or involved cars making left turns.

High Crash Locations

Utilizing GIS analysis, there are five areas identified as high crash locations during the 2009-2011 time frame in TAD 40012 (see Figure 40012-A). Three of the five locations are shared with neighboring TADs (40005, 40011, and 40014). A high crash location is identified by the number of crashes that occurred within 0.10 mile of each other over the three year period.

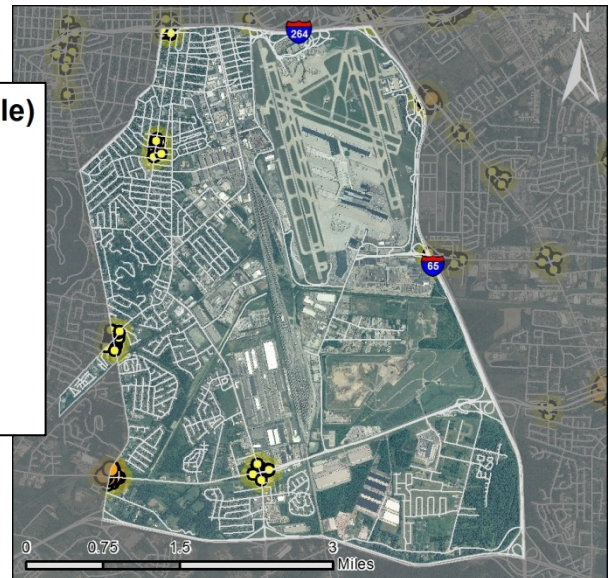
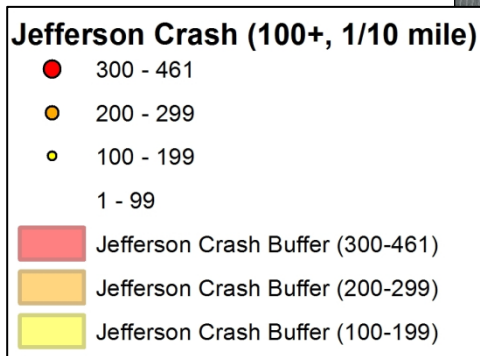


Figure 40012-A: High crash locations in TAD 40012.

I-264/South Third Street Area

This high crash location is shared with TAD 40005. There appears to be one primary location in this high crash location with 100-199 crashes occurring within 0.10 mile of each other from 2009 through 2011. A majority of the crashes in this area occur at the westbound exit/eastbound entry ramps on South Third Street. Most of the crashes at this location were rear end crashes, left turn conflict crashes, or angle crashes. This area is surrounded by dense residential. The eastbound access point to the entry ramp is shared with West Southern Heights Avenue, which provides access to a residential area. While the LOS is below D, the slope from north to south may impede visual distance for some drivers thereby contributing to the frequency of crashes in this area.

South Third Street/West Kingston Avenue Area

The crashes in this high crash location (100-199 crashes within .010 mile of each other from 2009 through 2011) are located completely within TAD 40012. A majority of the crashes occurred at the intersections of South Third Street Road and West Amherst Avenue, West Kingston Avenue, and West Southland Boulevard. According to police reports, the manner of collisions in this straight, grid pattern roadway section are attributed to rear end crashes, left turn conflicts, angle crashes, etc. This section of South Third Street is currently operating above LOS D, and is projected to degrade to LOS F by 2030. The increased congestion may increase the frequency of crashes if no improvements are introduced to mitigate forecast congestion.

Southside Drive/New Cut Road Area

This high crash location, with 100-199 crashes within 0.10 mile of each other, is shared with TAD 40014. The crashes are disbursed on both Southside Drive and New Cut Road with crash frequency density increasing closer to the intersection. Third Street Road, which provides a border between 40012 and 40014, has the greatest number of crashes occurring outside the intersection area. For this review, focus will be directed toward New Cut Road and Southside Drive.

There are several factors that may be contributing to this area being identified as a high crash location. They include:

- Unlike most intersections, this intersection does not have 90 degree intersecting roadways. Drivers on two of the legs have to have extended view sheds which may contribute to an increase in crashes.
- The land use in the immediate area of the intersection is a mix of commercial/retail and education (Saint Nicholas Academy). Extending just beyond the intersection are residential neighborhoods. There are multiple retail establishment entrances with a short distance of each other, including close to the intersection itself. The entrance spacing may create circumstances where vehicles enter into conflicting paths as they enter or exit a retail facility.
- The Southside Drive leg of the intersection currently operates at LOS F. The other three legs of the intersection are currently operating at LOS C or higher. The high congestion may also increase the probability of crashes to occur.
- New Cut Road serves as an access route to I-265, Outer Loop, and I-264. As a result, the volume of traffic may be elevated with vehicles passing through the intersection in order to access one or more of the above routes.

New Cut Road/Outer Loop

This high crash location, with up to 299 crashes between 2009 and 2011 that were in 0.10 mile of each other, is shared with TAD 40014. The crashes are distributed between Outer Loop and New Cut Road, with a majority of them occurring in the intersection or on New Cut Road, just north of the intersection. New Cut Road provides a border for TAD 40012 and this review will focus on Outer Loop and north on New Cut Road, which coincidentally is where a majority of the crashes occur. The land use around this intersection is a mix of residential, retail, and some agriculture. The most obvious feature is the two big box retailers (Kmart and Wal-Mart) that share a single entry on New Cut Road (There are additional entry points on Outer Loop that extend further west of the intersection). Both New Cut Road and Outer Loop have current and forecast Levels of Service above D.

There are several issues that may be contributing to this intersection area being identified as a high crash location. They include:

- I-265 entry and exit ramps sit less than 0.50 miles from the intersection of Outer Loop and New Cut Road. Given the regional nature of both of these roadways, increased volume introduced by accessing I-265 may be an issue.
- There are two retail entrances within 0.50 miles of the intersection. On the west, sitting approximately 0.50 miles from the intersection is the entrance area for Kmart and Wal-Mart. On the eastern side, approximately 0.30 miles from the intersection, is the entrance to a convenience store. The proximity of these two entrances relative to the intersection may introduce areas of conflict as vehicles enter and exit the retail facilities.
- New Cut Road has long queuing lanes (0.50 miles in length) on the northern and southern legs of the intersection. These extended turn lanes may lead to some vehicles finding themselves committed to a through lane when they wish to be in a turning lane. This scenario would increase the probability of crashes to occur. Another issue relative to the turning lanes and the retail establishments is that the entry points for the retail

facilities to New Cut Road are into turning lanes. Vehicles wishing to exit a retail facility and enter a through lane are forced to cross one of the turning lanes. This may lead to crashes due to attempts to weave within a very short distance.

National Turnpike/Outer Loop

This intersection area is a high crash location with up to 199 crashes within 0.10 mile of each other between 2009 and 2011. A majority of the crashes occurred on Outer Loop east of the intersection and National Turnpike, north of the intersection. The land use around this area is almost exclusively automotive scrap yards with a few retail facilities north of the intersection. The current Level of Service for both National Turnpike and Outer Loop is above D. Forecast Level of Service degrades to F on Outer Loop from National Turnpike west to Grade Lane; and on National Turnpike from Outer Loop south to the I-265 ramp

Given the lack of high volume attractions in the area, it appears that the causes behind this area being identified as a high crash location are limited to:

- The distance from the intersection south to I-265 is approximately 0.50 miles. Given the regional significance of National Turnpike and Outer Loop, the volume of traffic in this area may be a contributor to the crash frequency.
- Approaching the intersection on both National Turnpike and Outer Loop, vehicles must weave in order to position themselves for either driving through the intersection or turning. The turning lanes in this intersection are approximately 0.15 miles in length causing motorists to make early decisions and movement in order to position themselves in the proper lane. A large majority of the crashes associated with this high crash location begin soon after the turning lanes are introduced. Weaving may be associated with the high crash frequency.

In general, it can be stated that many of the high crash locations may be attributed to some geometric roadway issue, be it intersection configuration or access management. While roadway geometry may be a contributor to the high crash frequency, it may not be the only one. Additional consideration may be afforded to other contributing factors such as: spacing between entrances to retail establishments, volume shifts relative to peak period travel times, proximity to I-265 and the regional significance of many of the roadways within this TAD.

Bicycle and Pedestrian Crashes

Three of the crashes involving a pedestrian resulted in a fatality. None of the bicycle crashes resulted in a fatality. While the crashes involving bicycles and pedestrians occurred throughout the TAD, ten of the pedestrian crashes and one bicycle crash occurred within a three block area (approximately 0.20 miles in linear distance). One of the pedestrian crashes in this area resulted in a fatality. This particular area is bounded on the south by Southland Boulevard, north by West Amherst Avenue, east by Southside Drive, and west by South Third Street. This area is a mix of residential, retail and includes Rutherford Elementary School. Five of the ten pedestrian crashes occurred at the intersection of West Southland Boulevard and South Third Street (Rutherford Elementary School is located in the northwest corner of the intersection). The pedestrian crash that resulted in a fatality occurred at night on Southside Drive between the West Southland Boulevard and Iroquois Avenue intersections. A review of the police report does not indicate any contributing factor to the pedestrian crash other than it occurring at night and at midblock. Concerning the five pedestrian crashes that occurred at South Third Street and West Southland Boulevard, the immediate area is primarily retail with Rutherford Elementary School occupying the northwest corner. There are sidewalks along both sides of the streets as they pass through the intersection, with the exception of South Third Street where sidewalks are missing on the southwestern leg of the intersection for about 0.15 miles to the south. In general, there are sidewalks lining both sides of the streets located within this three block area.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • Southside Drive from West Tenny Avenue to East Kenwood Drive • I-65 from I-264 to Fern Valley Road
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LOS F:	<ul style="list-style-type: none"> • Southside Drive from East Kenwood Drive to New Cut Road
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Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are (see Figure 40012-B):

LOS D:	<ul style="list-style-type: none"> • I-65 from I-264 to Preston Highway • I-65 from Outer Loop to I-265 • I-265 from National Turnpike to New Cut Road
LOS E:	<ul style="list-style-type: none"> • I-65 from Preston Highway to Fern Valley Road • Fern Valley Road from I-65 to Grade Lane • Grade Lane from Crittenden Drive to Outer Loop
LOS F:	<ul style="list-style-type: none"> • Grade Lane from I-65 to Fern Grade Road • Grade Lane from Fern Valley Road to Crittenden Drive • Outer Loop from Grade Lane to National Turnpike • National Turnpike from Outer Loop to I-265 • Southside Drive from East Kenwood Drive to National Turnpike • South Third Street from I-264 to Seneca Trail • New Cut Road from Southern Parkway to Southside Drive

Projected LOS of service raises issues for the TAD. Many of the identified corridors provide both access within the TAD but also provide regional access. The impact of leaving these corridors unmitigated may result in delayed in travel times and reduced freight travel both within the region and travel to and from the region.

Access to Community Amenities

This TAD is mostly industrial space with some residential, but there is one cluster of community amenities (3+ community amenities within 0.25 miles of each other). The cluster is located along the western edge of the TAD along the New Cut Road corridor. There are a few other schools and government facilities within this TAD, but none are within 0.25 miles of each other and therefore do not form additional clusters beyond the two already identified.

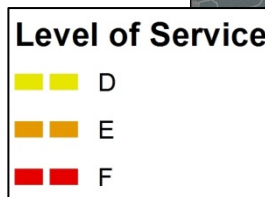


Figure 40012-B: Projected LOS in TAD 40012.

This TAD has public transit available in many areas of the TAD, including access to both clusters of community amenities.

New Cut Road/West Kenwood Drive

This community amenities cluster is shared with TAD 40011 and is comprised of three community attractions: DeSales High School, Louisville Fire Department District 3 - Company 23, and Iroquois Amphitheater (located in TAD 40011). The Louisville Fire Department District 3 - Company 23 is not considered a community attraction to the same degree as the other attractions. Fire stations do serve as a community attraction from time to time as they may host community events.

While public transit is available in this cluster (Route #4 and Route #6) the lack of sidewalks on West Kenwood Drive may make safe utilization of public transit difficult. Both DeSales High School and the Louisville Fire Department District 3 Station are on the West Kenwood Drive leg of this cluster. While pedestrian access may not be critical to the fire station, the lack of sidewalks on West Kenwood Drive and Laughlin Avenue (the western side of the school campus) reduces the probability of walking as a viable modal option in the area. Pedestrian facilities in the surrounding residential area are sporadic at best. There are sidewalks along New Cut Road and within Iroquois Park to the Amphitheater.

There are no high crash locations or current congestion issues within the cluster. New Cut Road may suffer from a Level of Service forecast of F. New Cut Road is a highly used corridor in this TAD, including access to the Amphitheater and high school. A forecast of increased congestion along New Cut Road may impede auto and truck access to the Amphitheater and high school. The forecast degradation in Level of Service may also impede response time for emergency vehicles departing the Louisville Fire Department District 3 fire station.

The primary issues facing this cluster are a lack of sidewalks along West Kenwood Drive and forecast congestion on New Cut Road. The lack of pedestrian facilities directly impacts walking as a viable option and reduces the likelihood of persons using public transit. The forecast congestion, if left unmitigated, may create future access issues for autos and trucks.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Airport Industrial Center
- Ford Motor Company Assembly Plant
- Johnson Controls Interior Manufacturing
- Sysco Louisville Incorporated
- UPS World Port

There are three access to workplace clusters in TAD 40012 (see Figure 40012-C). Each is a combination of high density employment (1,000+ employees within 0.25 miles of each other), major employers (300+ employees), and commerce parks. All of the clusters are served by public transit (Route #2, Route #4, Route #93, or Route #99). Each of the three clusters abuts or is close to a dense residential area.

Rochester Drive/Strawberry Lane Cluster

In this cluster, there are 1,000+ employees within 0.25 miles of each other, the Airport Centre I, II, and III, as well as the Airport Industrial Center. This area is served by public transit, and pedestrian facilities are sporadic and sparsely distributed throughout the industrial sections of this TAD. For the most part, the residential areas located to the west of the high employment areas have a fairly complete pedestrian system.

Part of the roadway network (Southside Drive) is a

segment of the KIPDA Freight Network. Southside Drive also currently operates at a LOS D. Forecast Level of Service for

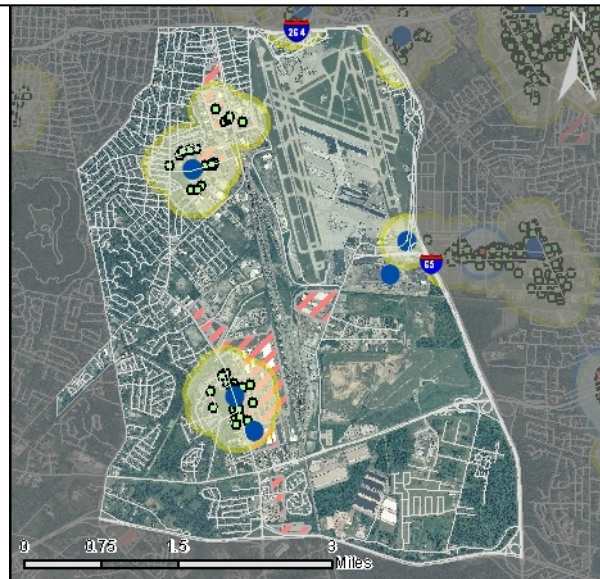
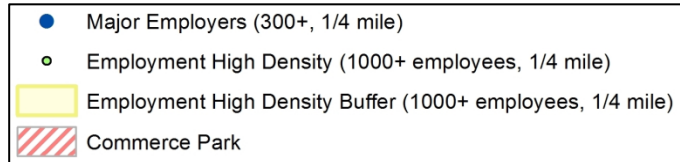


Figure 40012-C: Access to Workplace clusters in TAD 40012.

South Third Street is at LOS F. The eastern edge of the access to work cluster is bordered by the CSX Rail Line. The western edge of the cluster is bordered by Southside Drive and South Third Street (running almost parallel to Southside Drive). A high crash location (100-199 crashes within 0.10 mile of each other) is located within the cluster along Southside Drive between West Amherst Avenue and Iroquois Avenue.

Accessing this cluster is limited by the CSX Rail Line to the east, and to the west by current and forecast congestion and a high crash location. Public transit is available within the cluster along its eastern and western edges. The sporadic nature of pedestrian facilities within the cluster may impede some persons from utilizing public transit as a means to accessing employment.

National Turnpike/Yorktown Road/Tolls Lane Area

This cluster's employment base is primarily industrial. East of National Turnpike is the Louisville Industrial Center and the Airpark Commerce Center. Two major employers are also within the cluster: Johnson Controls Interior Manufacturing and Sysco Louisville, Inc. While industrial use is on the eastern side of National Turnpike, dense housing is on the western side. Public transit is available in this cluster via TARC Route #4. Pedestrian facilities are sporadic at best and exist primarily along National Turnpike. While there are pedestrian facilities to the west of National Turnpike (within the residential area) there are none observed on the eastern side of National Turnpike in the industrial area where jobs exist. National Turnpike, which serves as the spine for this cluster, is part of the KIPDA Freight Network. The southern edge of the cluster is approximately 0.25 miles north of Outer Loop.

Congestion is forecasted to degrade to LOS F at the National Turnpike/Outer Loop intersection (south of the cluster). This same intersection has also been identified as a high crash location with 100-199 crashes occurring within 0.10 mile of each other. Given the regional nature of both of these facilities, the forecast congestion and high crash location may prove detrimental to accessing this cluster. Also within the same intersection, there is a high crash location (100-199 crashes within 0.10 mile of each other).

While public transit may be available within the cluster, the ability to access via pedestrian facilities is limited at best. The lack of pedestrian facilities may serve as a barrier to some persons using public transit as a means to access their jobs.

Fern Valley Road/I-65/Grade Lane Area

While a majority of this cluster is located in TAD 40017, there are two major employers in TAD 40012 that have significant employment. The UPS World Port and the Ford Motor Company Assembly Plant have a combined employment of almost 10,000 employees. The portion of the cluster that is in 40012 is served by public transit (Route #2, Route #93, and Route #99). Pedestrian facilities exist within the cluster and along roadways where public transit is available.

Currently there is little congestion within the cluster. A small section of I-65 between Fern Valley Road and Preston Highway is currently operation at LOS D. I-65, Fern Valley Road, and Grade Lane are all forecasted to operate at LOS E or F by 2030. Access may also be inhibited by the high crash location (in TAD 40017) at the interchange of I-65 and Fern Valley Road.

The KIPDA Freight Network is located along I-65, Fern Valley Road and Grade Lane. Given the industrial nature of the employment in this area, the KIPDA Freight Network is an important piece of accessing this area. The current high frequency crash area, as well as the forecast congestion, may lead to further delays for both employees getting two work and freight moving in and out of the cluster.

Access for Persons with Disabilities and/or Older Adults

The Beechmont Community Center is located in TAD 40012 and is the only senior center or nutrition site within the TAD. TARC Route #4 provides transit access to and from the surrounding residential area and to the high density employment clusters within TAD 40012. Sidewalks are located on many of the streets surrounding the Beechmont Community Center and provide access to the public transit route located one block to the west of the community

center. Destinations points may be impeded by the sporadic nature of pedestrian facilities in some of the employment clusters.

Neither high crash locations nor current congestion poses any concern with accessing the Beechmont Community Center, the surrounding residential area, or the high density employment clusters to its south. South Third Street, located one block east of the community center is forecast to operate at LOS F by 2030. If left unmitigated this high level of congestion could introduce access barriers.

Access to Education

There are five schools identified in TAD 40012 none of which are clustered (2+ schools within 0.25 miles of each other). Four of the five schools are located along the western side of TAD 40012 and each is surrounded by dense residential areas. Four of the five schools also have pedestrian access in and around each campus and into the surrounding neighborhoods. Each of the four schools is also within 0.10 miles of a public transit route. The fifth school, Minors Lane Elementary, is located in the southeastern corner of the TAD in a less densely populated area. There are little to no pedestrian facilities except for directly in front of the school along Minors Lane. There is no transit access to the school.

Both current and forecast congestion may pose an access issue for Rutherford Elementary, DeSales High School, and Saint Nicholas Academy. With portions of Southside Drive, Third Street, and New Cut Road forecast to see LOS F by 2030, access to these schools may be impacted. Both Rutherford Elementary and Saint Nicholas Academy may also have access issues due to high crash locations. Rutherford Elementary, located on Third Street between West Kingston Avenue and West Southland Boulevard, may have access issues due to the high crash location found on Third Street directly in front of the campus. Saint Nicholas Academy is located at the corner of Southside Drive and Third Street Road. This intersection has been identified as a high crash location with 100-199 crashes occurring within 0.10 mile of each other between 2009 through 2011.

With the exception of the congestion and high crash frequency issues, four of the five schools in TAD 40012 are accessible via various modes. Minor Lane Elementary is accessible only by auto or school bus.

Access to Government Services

There are no clusters of Government Services (3+ government facilities within 0.25 miles of each other) in TAD 40012. Though not clustered, the following government services are identified within TAD 40012:

- Americana Community Center
- Beechmont Community Center
- Kentucky Air National Guard Fire Department
- Louisville Fire Department District 3 Hazardous Material Company 1, Engine Company 1
- Louisville Fire Department District 3 Telesquirt Company 23
- Louisville International Airport Aircraft Rescue and Fire
- Louisville Regional Airport Authority
- Okolona Fire Department Station 4
- United States Customs and Border Protection

With a few exceptions, government facilities in TAD 40012 are emergency responders. Since fire departments and police stations are not recognized as being high frequency destinations (with a few exceptions, including personnel, and the occasional community event that may take place at a fire or police station), pedestrian and transit access is not of great concern. Because of their possible impact on response time, congestion and crash frequency are important considerations for emergency responders.

There are both congestion and high crash frequency issues identified in TAD 40012 (see the Congestion section and the Safety section). While congestion and crashes are detriment and a concern for all transportation users, the impact on emergency responders is of even greater concern. Diminished response time may increase risk to those they serve and to themselves.

Access to Medical Facilities

There are no clusters of medical facilities (25+ medical facilities within 0.25 miles of each other) in TAD 40012. The closest medical facility is the Saints Mary & Elizabeth Hospital located on Bluegrass Avenue in TAD 40011. The hospital can be accessed numerous ways from TAD 40012, the most direct being Taylor Boulevard. While Taylor Boulevard does not have any current congestion issues, forecast congestion on Taylor Boulevard is at LOS F. The future congestion may introduce issues relative to accessing the Saints Mary & Elizabeth Hospital located in TAD 40011. Saints Mary & Elizabeth Hospital is also accessible via public transit from TAD 40012. TARC Route #6 directly accesses the hospital (Route #6 is currently accessible from TAD 40012 via Route #4).

Freight Access

There are 35 freight distributors in TAD 40012; and 23 of them are located within two freight clusters (5+ freight distributors within 0.50 miles of each other). There is also a freight intermodal area (CSX Rail), the Louisville International Airport, Ford Motor Assembly Plant, and UPS World Port located in TAD 40012. The KIPDA Freight Network is also prevalent in this TAD (see Figure 40012-D).

The Freight Access cluster is in the area of Strawberry Lane and Crittenden Drive and is adjacent to the Louisville International Airport. Crittenden Drive is part of the KIPDA Freight Network. There are 16 freight distributors located within this cluster. With a few minor exceptions, the roadway geometry within the cluster appears to compliment freight traffic. Current congestion is at LOS C or above and does not introduce any significant issues. Forecast congestion of LOS E and F on some of the roadways outside of the cluster that provide access to the cluster may present some reduction in delivery time. High frequency crash locations on I-264, I-65, Third Street Road, and Outer Loop may diminish travel time and increase time necessitated to transport freight in and out of the area.

The other freight access cluster in TAD 40012 is located in the Grade Lane, Fern Valley Road, Crittenden Drive area and is south of the Louisville International Airport. It has seven freight distributors within its cluster boundaries. As with the earlier cluster, the KIPDA Freight Network is very prevalent in this cluster. Currently, congestion does not present much of an issue relative to accessing this TAD. Forecast Levels of Service and high crash locations may impede timely transportation and lead to delays in transporting freight to and from the area. With LOS E and F forecast on many of the roadways, congestion, if left unmitigated will be an issue for this cluster. The high crash location at the interchange of I-65 and Fern Valley road is of particular concern with its 100-199 crashes within 0.10 mile of each other from 2009 through 2011. The I-65/Fern Valley Road interchange provides direct access to the freight cluster. Additional high crash locations at I-65/Grade Lane/Preston Highway, and Outer Loop/National Turnpike, also raise some concern because of the access they provide to and from this freight cluster.

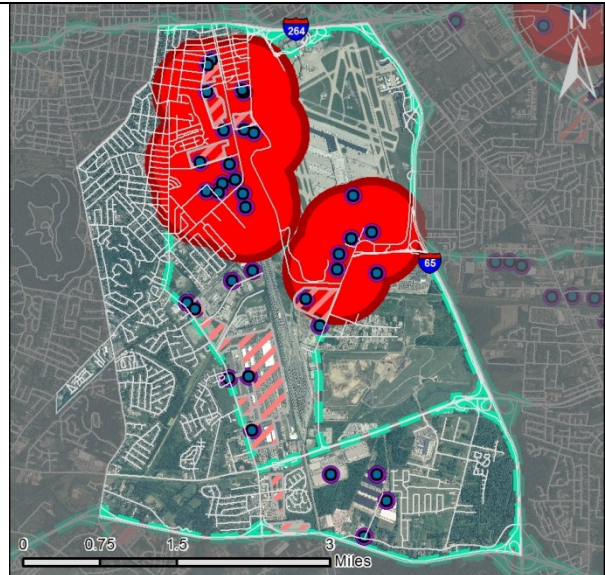
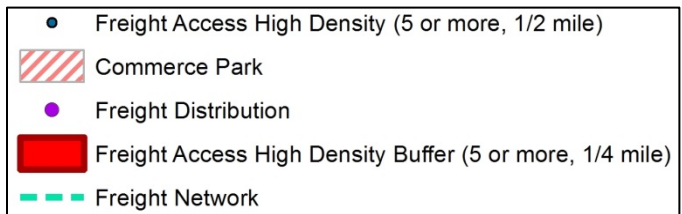


Figure 40012-D: Freight clusters in TAD 40012.

Future Socioeconomic Conditions

Much of TAD 40012 is currently built out and is not anticipated to see many changes by the year 2030 in the number of households and non-group quarters population. The three socioeconomic indicators are forecasted to see low to moderate growth:

- Households: No to low growth
- Employment: Moderate growth
- Population: No to low growth

This scenario is not unexpected given the current density patterns in TAD 40012. Of the three socioeconomic indicators, the increase in employment raises the most interest. In general terms, growth is recognized as a positive indicator for the TAD. Given the forecast congestion throughout the TAD, the socioeconomic indicators may negatively impact transportation and connections in the TAD if the issues are left unmitigated. The lack of pedestrian facilities may impede the use of public transit as a means for getting to and from places of employment. This would result in most of the new employment in this TAD relying on the roadway system, much of which is already anticipated to see LOS at E or F by 2030.

Issues and Opportunities

High Crash Locations on Primary Routes in TAD

When using the number of traffic crashes within 0.10 mile as a determinant for identifying high crash locations, it is anticipated that, for the most part, identified high crash locations are going to be on the roadways with high volumes of traffic. That presumption is true in TAD 40012. Yet given the amount of freight movement occurring in TAD 40012, the relevance of the high crash locations increases. The primary concern of identifying high crash locations is taking steps to mitigate the frequency of crashes and thereby increasing the safety of the transportation user. Given the amount of freight movement in the area, recognition to the impact crashes have of contributing to non-recurring delay is important. Each primary route in TAD 40012 has at least one high crash location identified on it. Since access to regional roadways is usually important to freight movement, the impact of the crashes on being able to access regional roadways is critical as such incidences often result in a delay of freight movement in and out of this TAD. The delay in freight movement is often considered a detriment to the local, regional, and state economies.

With employment anticipated to increase between now and 2030, and the congestion levels anticipated to worsen, it is possible that an increase in the frequency of crashes will also occur unless mitigation steps are taken.

Forecast Congestion

Several of the primary roadways in TAD 40012 are anticipated to see a significant degradation in level of service by 2030. Third Street Road, New Cut Road, Grade Lane, Fern Valley Road, Outer Loop, I-65, I-264, and I-265 are forecast to degrade to LOS E or F by 2030. In some instances, the roadways are going to degrade from above LOS D to F. The increase in congestion may be attributed to the anticipated growth in employment. TAD 40012 has many freight distributors, so the increase in congestion may raise issues for those persons traveling in the TAD, but also the movement of goods. Economic implications resulting from delayed transport of freight may be significant. Many of the routes where forecast levels of congestion are severely degraded are part of the KIPDA Freight Network.

Lack of Pedestrian Facilities

TAD 40012 has several public transit options, yet the lack of pedestrian facilities will diminish the probability of public transit being used as a means of transportation. Not only is it important to have public transit service, it is equally important to ensure that persons wishing to use transit may safely get to and from their destinations. The lack of sidewalks, especially in the high employment areas, diminishes the likelihood that transit will be utilized. Generally speaking, the residential areas have a good pedestrian network. Given the anticipated increase in employment in TAD 40012, the lack of sidewalks may become a greater issue in the future.

Related Plans and Studies

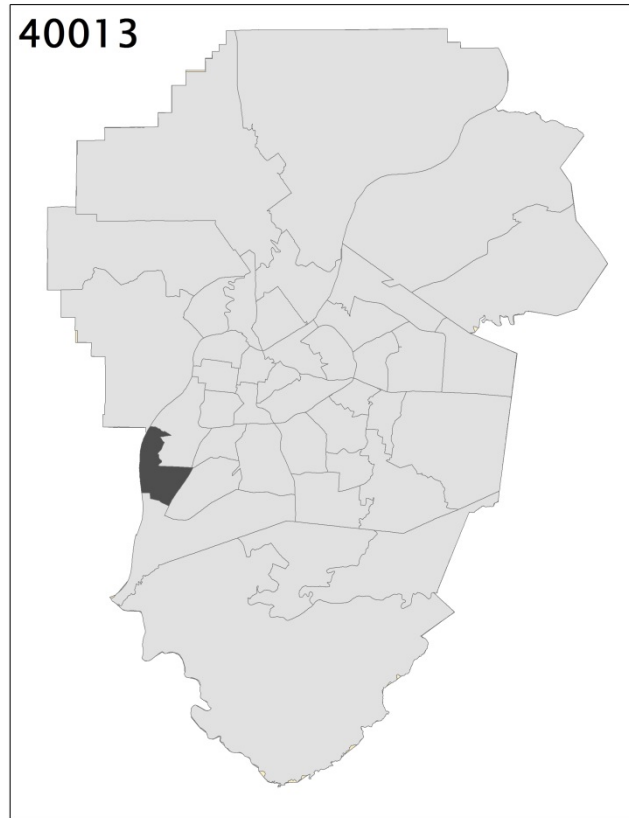
- Cornerstone 2020 Comprehensive Plan (2013)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40013 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40013 is located in southwestern Jefferson County, east of the Ohio River. Development is largely residential, mostly suburban in nature, with industrial uses located along the river. Commercial development, including big box retailers, strip shopping centers, and independent retailers, is primarily located along the US 31W (Dixie Highway) corridor throughout this TAD. The floodwall between the Ohio River and the land uses to the east are home to a portion of the Louisville Loop, known as the Ohio River Levee Trail, a shared used path for bicyclists and pedestrians.

Area and Socioeconomic Information

Area: Approximately 7,317 acres
Non-Group Quarters Population (2010): 20,336
Number of Households (2010): 7,922
Number of Jobs (2000): 9,192

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies no Title VI/Environmental Justice areas within this TAD.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 1934* (Greenbelt Highway) from Lower Hunters Trace to Ashby Lane • US 31W *(Dixie Highway) from KY 1931 (Greenwood Road) to Ashby Lane
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 1727 (Terry Road) from KY 1931 (Greenwood Road) to Johnstontown Road • KY 1931 (Greenwood Road) from KY 1934 (Greenbelt Highway) to P&L rail line, just east of US 31W • Johnstontown Road from Tradeport Drive to US 31W (Dixie Highway) • Tradeport Drive from KY 1934 (Greenbelt Highway) to Johnstontown Road
Urban Collector	<ul style="list-style-type: none"> • KY 1230 (Dover Avenue) from KY 1934 (Greenbelt Highway) to KY 1230 (Cane Run Road) • KY 1230 (Cane Run Road/Lower River Road) from KY 1230 (Dover Avenue) to KY 1934 (Greenbelt Highway) • KY 1931 from KY 1230 (Cane Run Road) to KY 1934 (Greenbelt Highway) • Ashby Lane from KY 1934 (Greenbelt Highway) to US 31W (Dixie Highway) • Distribution Drive from KY 1230 (Cane Run Road) to KY 1934 (Greenbelt Highway) • Global Drive from KY 1230 (Cane Run Road/Lower River Road) to KY 1934 (Greenbelt Highway) • Intermodal Drive from KY 1230 (Cane Run Road) to KY 1934 (Greenbelt Highway) • Johnstontown Road from KY 1230 (Cane Run Road) to Tradeport Drive

	<ul style="list-style-type: none"> • Logistics Drive from KY 1230 (Cane Run Road) to KY 1934 (Greenbelt Highway) • Lower Hunters Trace from KY 1230 (Cane Run Road) to KY 1934 (Greenbelt Highway) • Riverport Drive from KY 1230 (Cane Run Road) to KY 1934 (Greenbelt Highway) • Tradeport Drive from KY 1230 (Lower River Road/Cane Run Road) to KY 1934 (Greenbelt Highway) • West Pages Lane from KY 1727 (Terry Road) to US 31W (Dixie Highway) • Winstead Drive from KY 1230 (Lower River Road/Cane Run Road) to KY 1934 (Greenbelt Highway)
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- Beth Haven Christian School
- Dixie Elementary School
- Eisenhower Elementary School
- Landmark Christian Academy
- Sanders Elementary School
- Saint Andrew Academy
- Valley High School
- Wilkerson Elementary School
- Johnstontown Road Elementary School

Colleges & Universities

- N/A

Parks

- Riverview Park

Other Area of Interest/Significance

- Louisville Loop
- Ohio River
- Ohio River Levee Trail/Louisville Loop Segment
- Riverport Commerce Center

Historic

- N/A

Transit

TAD 40013 is currently served by TARC (see Figure 40013-A). The following routes pass through and have stops within the TAD, providing connections beyond the TAD:

- Route #18 – Preston Street/18th Street
- Route #19 – Muhammad Ali
- Route #50 – Dixie Express
- Route #63 – Crums Lane

Park and Ride

There is one official Park and Ride lot in TAD 40013:

- Park Place Mall

Public Comments

Ashby Lane

- Needs sidewalks from Greenbelt Highway to Dixie Highway.

Cofer Avenue

- There are speeding issues on this neighborhood street. Motorists use this street as a cut-through from Dixie Highway.

Johnsontown Road

- Very narrow; needs sidewalks; widen with shoulders.

Terry Road

- Need more sidewalks and streetlights on Terry Road near the McDonald's.

Greenwood Road

- Greenwood Road off of Dixie Highway needs sidewalks.
- Greenwood Road from Dixie Highway to Sky Blue Avenue needs sidewalks.
- Need sidewalks on Greenwood Road from Dixie Highway to Sky Blue Avenue.
- No sidewalks available on this part of Greenwood Road.
- Needs to be widened; sidewalks installed.

Greenbelt Highway at Ashby Lane

- Apartments are scheduled to be built on either side of Greenbelt Highway and Ashby Lane, and there is a major concern for the lack of traffic signals. Needs to be a signal.

La Plaza Drive

- Need sidewalk on this street.

Dixie Highway

- There needs to be a traffic light at Dixie Highway and Alanadale Drive.
- Dixie Highway is very bumpy by Valley High School.
- Dixie Highway needs more crosswalks, safer crosswalks, and bike lanes.
- When turning left from northbound Dixie Highway onto Greenwood Road, the signal stays for 5-7 seconds allowing 4-5 cars to turn before the light changes.
- The intersection of Dixie Highway and Greenwood Road is a congested intersection.

Dixie Highway at Greenwood Road

- Congested intersection.
- Signal timing causes problem. Can take three revolutions of light to get through.

Dixie Highway at Pages Lane

- Not safe to ride bikes with traffic. Pages Lane needs bike lanes. Dixie Highway needs multi-use paths here too for walkers/cyclists.

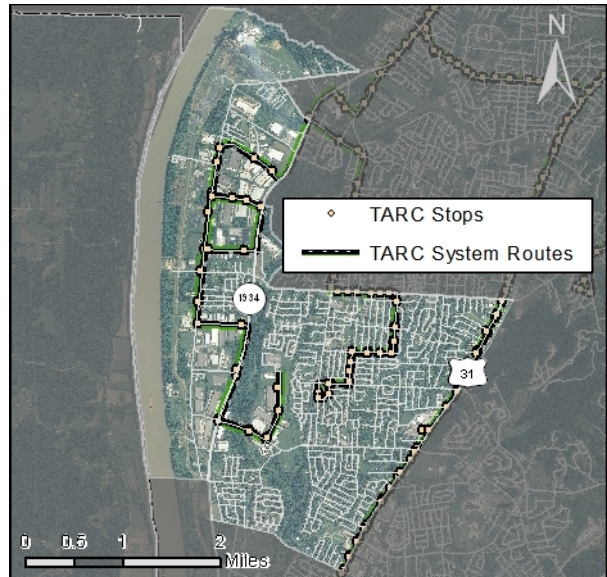


Figure 40013-A: Current transit service in TAD 40013.

Safety

3,198 crashes were reported in TAD 40013 from 2009-2011. Twelve of those crashes resulted in fatalities (three in 2009; five in 2010; and, four in 2011) and 55 crashes of those crashes resulted in injury (20 in 2009; 18 in 2010; and, 17 in 2011). Of those resulting in an injury and/or fatality, approximately 30% occurred on Dixie Highway, 20% on Greenbelt Highway, which carries about half of the average daily traffic (ADT) relative to Dixie Highway, and the remainder of crashes were dispersed throughout the TAD. The majority of fatality and injury crashes occurred between Greenwood Road and Johnstontown Road on Dixie Highway. The majority of these occurred at night, and human factors (driving under the influence, distracted driving, etc.) were cited as the reasons for these crashes.

Fatalities

Twelve crashes in TAD 40013 resulted in fatalities from 2009-2011 (three in 2009; five in 2010; and, four in 2011). The majority of fatality crashes occurred between Greenwood Road and Johnstontown Road on Dixie Highway. The majority of these occurred at night, and human factors (driving under the influence, distracted driving, etc.) were cited as the reasons for these crashes.

High Crash Locations

There are three locations within this TAD where between 100 to 199 crashes have occurred within 0.10 mile of each other over the three-year (2009-2011) crash analysis period (see Figure 40013-B).

Dixie Highway and Greenwood Road

The majority of crashes were rear-end incidents (over 50%) with angle crashes coming in at 26%. 12% of the crashes were sideswipes in the same direction. This portion of Dixie Highway is three travel lanes in both directions as well as having left turn lanes, all signalized at this intersection. There are at least 12 commercial driveways within 0.10 mile of this intersection (all four legs). Just south of this intersection, Dixie Highway goes from three lanes in each direction to two lanes. The combination of driveways and the number of travel lanes changing may be contributing factors.

Dixie Highway and West Pages Lane

70% of crashes at this intersection were rear-end type crashes. This intersection is signalized. Approximately 12 commercial entrances along the four combined legs of this intersection within 0.10 mile; some of the crashes occurred on East Pages Lane, and are located in the TAD to the east, 40014.

Dixie Highway and Johnstontown Road

The majority of crashes at this location were rear-end crashes (over 50%), with angle crashes making up the next highest category at 26%. Again, this intersection is signalized, and on Dixie Highway, there are two travel lanes in each direction with a left turn lane as well as right turn lanes. The cross street, Johnstontown Road (which turns into Stonestreet Road at Dixie Highway, but that portion is in neighboring TAD 40014) has one through travel lane in each direction as well as left and right turn lanes. This location has 12+ commercial driveways within 0.10 mile of the intersection, which may be contributing to the high number of rear-end crashes.

Bicycle and Pedestrian Crashes

During the three-year period 2009-2011, 24 crashes involved cyclists and pedestrians (seven involved bicyclists; pedestrians, 17). Two of the crashes involving pedestrians resulted in a fatality; both of these occurred on Dixie Highway between Greenwood Road and West Pages Lane. In both cases, the automobile was heading straight ahead

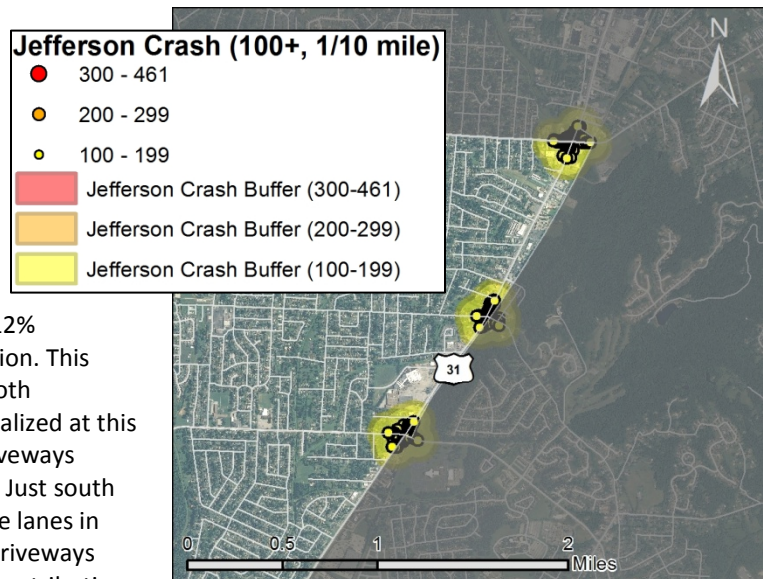


Figure 40013-B: Three high crash locations identified in TAD 40013.

and it was night, but in one of the incidents, the driver was driving under the influence. Neither of the two crashes occurred at a major intersection – one did not occur at an intersection at all, while the other occurred on Dixie Highway at the intersection of Fury Way. Of the remaining crashes involving pedestrians, three of those were reported as hit-and-run incidents. Only four of the 17, according to the data, occurred at intersections. Of the crashes not occurring on Dixie Highway, the majority of them are equally dispersed throughout the residential area in the northeast section of the TAD.

Four of the crashes involving cyclists occurred on Dixie Highway, only one occurring at an intersection (Dixie Highway and Stephan Drive). The similarities of conditions for the crashes were that the conditions were dry and not cloudy, and all occurred on major roadways: Dixie Highway (four), Terry Road (one), Greenwood Road (one), and Ashby Lane (one). Other than that, the crashes appear to be unique and no specific issue can be identified in relating to all of them.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	• Greenwood Road from Dixie Highway to Terry Road
LOS E:	• Saint Andrews Church Road from Dixie Highway east to beyond the eastern boundary of the TAD
LOS F:	• Dixie Highway from Greenwood Road to Valley Station Road

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	• Saint Andrews Church Road from Dixie Highway east to beyond the eastern boundary of the TAD
LOS F:	• Dixie Highway from Greenwood Road to Valley Station Road

Both current and forecasted levels of congestion are an issue. This TAD is home to the Louisville Riverport, which primarily accesses KY 841 (Gene Snyder Freeway) via Greenbelt Highway, which doesn't appear to be affected at this time. However, the LOS on Dixie Highway, a secondary route from the Riverport to Gene Snyder Freeway and an identified KIPDA Freight Route as well as part of the National Highway System, does and will continue to impact travel times in terms of getting to jobs, schools, and community amenities as well as retail locations for area residents, commuters, and buses using Dixie Highway. This congestion may also impact freight movement as Dixie Highway is a freight corridor and it is redundant and parallel to Greenbelt Highway, not to mention the freight traffic making deliveries to and from establishments on Dixie Highway.

Access to Community Amenities

Other than clusters of schools, there are no clusters (locations within 0.25 miles of each other) of community amenities within TAD 40013. Wilkerson Elementary School and Beth Haven Baptist Christian School are clustered, and Dixie Elementary School and Valley Station High School are clustered. Access to these clusters of schools is addressed in the Access to Education section. Several fire houses are dispersed throughout the TAD, which works well for adequate response time for fire protection, and the public does not require access to fire stations on a frequent or regular basis.

At the intersection of Ashby Lane and Dixie Highway, there is a cluster of retail/shopping that occurs primarily in the neighboring TADs 40014 and 40015, but the 0.25 miles buffer spills into the southeastern corner of TAD 40013. There are a number of commercial and retail attractions on Dixie Highway. An issue with reaching Dixie Highway from the neighboring residential neighborhoods to the west is the lack of adequate facilities in terms of bicycle, pedestrian, and public transit. Access via motor vehicle is adequate, although the LOS and crash incidents may impact that mode as well depending on the destination.

There are four public transit routes providing service to this area; however, all of them operate north-south as opposed to east-west, so, for example, a resident living close to Greenbelt Highway and Greenwood Road is not able to access Dixie Highway via transit without heading north, transferring, and then heading south on Dixie Highway. This is the case for most locations within the TAD as there is no direct east-west service.

High traffic volumes and speeds on many of the roadways, especially those that have more commercial attractions, make cycling an unsavory choice for most cyclists with the exception of the Louisville Loop, which runs along the Ohio River Levee, and then at Greenwood Road jogs along the roadway north. At this time, there are connections planned to the Loop on Greenwood Road and on Johnstown Road as well as Dixie Highway, but those have not yet been constructed.

The same issues (high traffic volumes and speeds) as well as the lack of a connected pedestrian network in this area may make the walking environment intimidating along the main roadways. There are segments of sidewalk along many of the main roadways; however, the sidewalks are not continuous, and are sometimes disconnected due to a large driveway entrance. This holds true, also, for Riverview Park. Access to the park via the Louisville Loop works well. Access from Greenwood Road is limited primarily to vehicular access as Greenwood Road largely lacks bicycle and pedestrian facilities to accommodate area residents walking and/or biking to the park.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Dynacraft, Inc.
- Meijer
- Plastech

The Riverport Industrial Area is located within the western portion of this TAD, in addition to three major employers (300+ employees). There is also a cluster of jobs (1000+ jobs within 0.25 mile of each other) at the southeastern corner of this TAD, and this cluster is also shared with TADs 40014 and 40015.

Vehicular access to the sites mentioned above is adequate other than LOS issues on Dixie Highway and Greenwood Road. The low levels of service on these roadways may affect travel times to these locations. KY 841 to the south connects I-265 with Greenbelt Highway and Dixie Highway to allow for travel in and out of the TAD. The majority of roadways in the TAD are a result of residential subdivision development, and do not form an interconnected grid pattern forcing most vehicular trips within the TAD to spill out on functionally classified roadways in order to access their final destination. This may be compounding the current and forecast LOS issues.

Current transit routes serve all of these employment sites identified with the exception of DynaCraft, located at 10901 Greenbelt Highway. This location is approximately 0.60 miles from the closest transit stop located at Greenbelt Highway and Trade Port Drive. There is a sidewalk segment that runs on Greenbelt Highway from Trade Port Drive south, but stops at the frontage of the Dynacraft property. There are wide shoulders on Greenbelt Highway, but the traffic speeds and volumes may make walking a less than desirable alternative from the existing transit stop. The lack of connected pedestrian facilities throughout the TAD may impact transit ridership as there are gaps in the system on classified roadways with posted speeds from 35 MPH to 55 MPH.

Bicycle and pedestrian access to the Riverport is adequate from the Louisville Loop, which runs just to the west of the site. Access for bicyclists and pedestrians to the other sites along Dixie Highway and DynaCraft are not ideal as dedicated bicycling facilities do not exist in the TAD outside of the Louisville Loop, and of the pedestrian facilities exist, there is no systematic connectivity of those facilities.

Access for Persons with Disabilities and/or Older Adults

In TAD 40013, there are no clusters of medical facilities, hospitals, or senior nutrition sites. Access to these services would require traveling outside the TAD either via public transit or vehicle. Access to community amenities, worksites, etc., is readily accessible via vehicle and/or public transit. Most of the TAD is served by public transit, and the routes (with the exception of the express route) would also include the 0.75 miles complimentary paratransit service. The residential areas within the TAD as well as workplaces would have access to those resources. The lack of a connected pedestrian network is the largest barrier to persons traveling by foot or with the aid of a mobility device. Also, the lack of a fully realized pedestrian network would present a challenge to persons with low-vision or who are blind as the sidewalks that do exist end, at times, abruptly without any tactile indication.

Access to Education

There are nine schools within TAD 40013. Valley High School and Dixie Elementary School are within 0.25 miles of each other, although they do not share vehicular access points. There is a small segment of sidewalk across a portion of the frontage located on Dixie Highway to connect to the transit stop in front of the high school. There is also a marked crosswalk across Dixie Highway, so the school is accessible via transit and vehicle. Pedestrian and bicycle access are best served by the path that connects the neighborhood from Donau Lane to the Dixie Elementary School Campus, which then is connected by a path to the high school. The lack of consistent bicycle and pedestrian facilities along Dixie Highway may serve as a barrier to students, parents and faculty trying to access the high school by bicycling and walking. Vehicular access appears to be adequate.

Dixie Elementary School is not accessed via Dixie Highway, but from Casalanda Lane, which is residential, as are its surrounding streets. Because of the walking paths from the high school, Dixie Elementary School is accessible via public transit that runs along Dixie Highway. Because the access for the elementary school falls largely on residential streets, pedestrian and bicycle access may be adequate because of the lower speeds and traffic volumes associated with those roadways. There is also a path from Donau Lane, as mentioned before, that connects Dixie Elementary School to the neighborhood northwest of it. Vehicular access appears to be adequate.

The other cluster of schools within TAD 40013 includes Wilkerson Elementary School and Beth Haven Baptist Christian School (see Figure 40013-C). These schools are on abutting properties, both with entrances off of Johnstontown Road. Wilkerson Elementary School has additional vehicular access via Terry Road while Beth Haven may also be accessed via Seaforth Drive. Terry Road, Johnstontown Road, and Seaforth Drive have sidewalks that connect to the two campuses. In addition, there is a path that connects the two school campuses as well as a path from Cottingham Way (behind Beth Haven) that connects Wilkerson Elementary School to the residential area. The surrounding residential areas largely have sidewalks to accommodate pedestrians, and lower-speed traffic with lower volumes for bicycle access. The only lack of access appears to be via transit; the closest stop is to the north on Cottingham Way, approximately 0.60 miles. While there are sidewalks along the length of Cottingham Way that allow direct access to both schools, the length of the walk may be unreasonable for children attending either school; however, it does provide opportunity for faculty and parents to have access to the school with little more than a 15 to 20 minute walk. Vehicular access appears to be adequate.



Figure 40013-C: Access to and from Wilson Elementary School and Beth Haven Christian School.

Sanders Elementary School is accessible from Terry Road. At this time, there are both adequate vehicular and public transit access. There are no bicycle or pedestrian facilities connecting the school to the surrounding community except

for the segment of sidewalk that connects from the school entrance to West Pages Lane and the sidewalk along the east side of Terry Road, opposite the school side (one may cross at the cross walk to the school after crossing what appears to be a commercial driveway). The surrounding community is residential, and most streets have sidewalks, including West Pages Lane, the closest cross street to the school.

Saint Andrews Academy is located on Columbine Drive, a residential street. Other than the church on the same property, the surrounding land use is residential. Vehicular access is adequate, as is public transit as Route #63 runs less than 0.25 miles to the north on Greenwood Road. There are no sidewalks on Columbine Drive; however, as it is residential with lower speeds and traffic volumes, it may be adequate for cyclists and pedestrians as is.

Eisenhower Elementary School is located in the northeast portion of the TAD on Jessamine Lane. The surrounding land use is residential. In addition to vehicular access, there are a number of paths from the school grounds to the surrounding neighborhoods to allow for bicycle and pedestrian access to the school. Because the surrounding streets are residential, even without sidewalks or other specific facilities, volumes and speeds may be low enough to allow for bicycling and walking to one of the paths if not to Jessamine Lane and the main entrance to the school. The closest public transit stop is located at Daffodil Lane and Jessamine Drive, 0.30 miles away. Given the lack of traffic, even though this is outside of the 0.25 miles typical walking radius for a destination, it may not pose enough of additional burden to be a barrier.

Johnsontown Elementary School is located off of Johnsontown Road, and there is a secondary vehicular access to the school on Nanisinh Way. Vehicular access is adequate. There are sidewalks on Johnstown Road (both sides) and Nanisinh Way (also both sides) providing pedestrian access from the residential areas to the north, east, and south to the school grounds. Because of the low traffic volumes and speeds on residential streets, these would be adequate for cycling, although Johnsontown Road may be a barrier for parents, children, and staff approaching from the south due to the higher traffic volumes and speeds on Johnsontown Road. There is school bus service to this school; however, the closest TARC stop is approximately 0.70 miles away at the corner of Greenbelt Highway and Trade Port Drive. The distance in addition to lack of contiguous sidewalk facilities poses potential barriers for access by public transit.

Landmark Christian Academy is also located on Johnsontown Road, approximately 0.40 miles to the east. The entrance to the school and church property are directly from Johnsontown Road. There are no sidewalks on the north portion of Johnsontown Road, although there are sidewalks on the south side. The residential neighborhoods to the east and west do not connect directly via sidewalk or path to the property, so students, parents, and staff appear to access the school via Johnsontown Road in a motor vehicle. Vehicular access appears to be adequate while access for bicyclists and pedestrians appears to be lacking. The closest public transit stops appear to be about a mile away, making it difficult to access the Academy using transit, especially with the lack of a connected pedestrian system from the stops to Johnstown Road.

Access to Government Services

There are four government service locations within TAD 40013: a park, and three of the Pleasure Ridge Park Fire District Stations, none of which are clustered. In TAD 40114, which directly abuts the TAD to the east, there is the Southwest Public Library located at 10375 Dixie Highway. It should be noted that access to fire and ambulance service usually consists of the first responders coming to the houses of individuals, businesses, and public facilities rather than individuals coming to the ambulance/fire station.

The Southwest Public library is located on Dixie Highway, which is accessible via public transit. Route #18 provides transit service along Dixie Highway where the library is located. Those traveling from TAD 40013 to the library by motor vehicle should not have any significant issues; however, those traveling on foot or by bicycle may find that Dixie Highway and the lack of pedestrian facilities as well as traffic volumes and speeds may present a barrier. At this time, there are no connected alternative mode facilities that provide a connection from Valley High School to the library, which is less than 0.25 miles away.

Riverview Park, located at the western end of Greenwood Road is accessible by public transit, automobile, and in some ways, walking and/or bicycling. The Louisville Loop provides access to those biking and walking; however, if a resident living east of Greenbelt Highway wished to walk or bike to the park, Greenwood Road lacks continuous pedestrian and bicycle facilities. Route #19 travels along Cane Run Road, and there is a stop located close to the intersection of Cane Run Road and Greenwood Road, approximately 0.25 miles from the park, and a transit rider would be able to pick up the Louisville Loop in that location to continue to the park on a bicycle or on foot. Vehicular access is fairly straightforward from Greenwood Road or Greenbelt Highway.

Access to Medical Facilities

There are no clusters of medical facilities within this TAD. The closest hospital is Saints Mary and Elizabeth Hospital to the northeast in TAD 40011. For those residents needing access to medical services (not including emergency) or who work at the hospital, access is available to the Saints Mary and Elizabeth Hospital via public transit and motor vehicle. Distance, the lack of connected facilities, as well as motor vehicle speeds and volumes on the major roadways within the TAD may make accessing the hospital by bicycle and/or pedestrian means somewhat prohibitive.

Freight Access

Freight distribution centers within TAD 40013 are located within Jefferson Riverport International. At this time, there are 38 freight distribution centers within Riverport, while additional marketing is in place to attract additional manufacturers and distribution centers. The Riverport development offers many points of transportation access through a variety of modes. In addition to roadways, the Riverport is served by public port facilities and three railways (CSX, Norfolk Southern, and P&L). The region's largest airport, Louisville International Airport, is approximately eight miles away via highway.

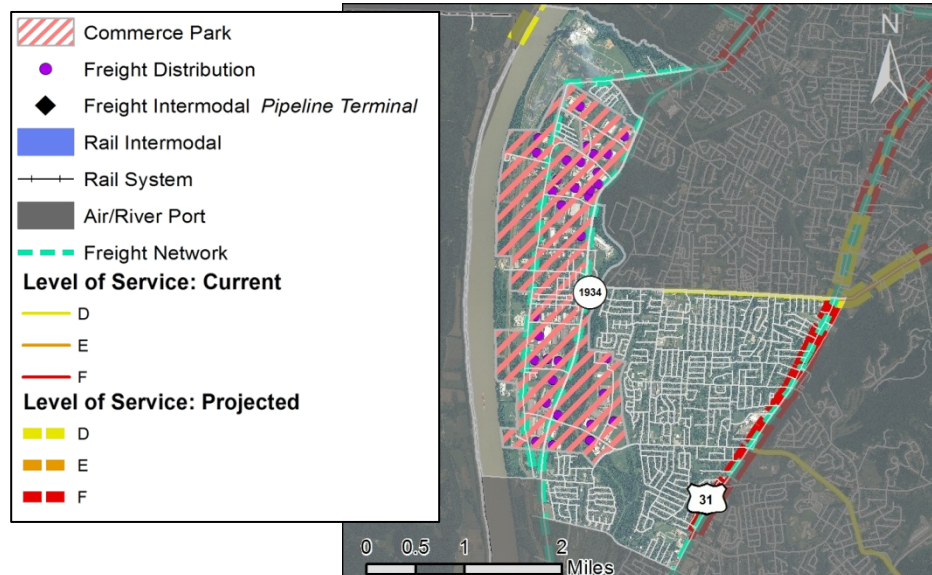


Figure 40013-D: Freight distribution centers and Jefferson Riverport International.

Jefferson Riverport International is located on the Ohio River, and occupies approximately 7,300+ acres from just north of Logistics Drive to just south of Trade Port Drive. Both Greenbelt Highway and Cane Run Road run through or front the commerce park, and both are also identified as Freight Priority Corridors, as is Dixie Highway. Greenbelt Highway and Dixie Highway are also part of the National Highway System, critical for connectivity to other regions across the United States. Freight moving on trucks in and out of the Riverport can access KY 841/I-265 directly from Greenbelt Highway and Dixie Highway in the neighboring TAD to the south. Access to I-264 is provided by Greenbelt Highway in the neighboring TAD to the north.

The largest barrier to freight travel in this TAD may be the current and projected LOS on Greenwood Road and Dixie Highway. At this time, LOS is D for Greenwood Road, which bisects the commerce area and provides another connection to Dixie Highway. Dixie Highway is currently operating at a LOS F, and without any additional projects beyond those in the current Transportation Improvement Program, it is forecasted to remain the same. These low Levels of Service may impact freight movement and delivery times, thus impacting good movement. The other issue at

hand is Greenwood Road; at the western end, Riverside Park and the Louisville Loop are connected to the rest of the TAD through Greenwood Road, so attention is needed on how to safely improve freight movement in the area while also improving bicycle and pedestrian safety so the two do not operate at odds with one another.

Future Socioeconomic Conditions

The overall conditions are anticipated to stay the same with the exception of the increase in jobs in TAD 40013. The non-group quarters population is expected to decrease slightly; however, the number of households is expected to rise slightly as it is anticipated fewer people will live within each household, so the population is expected to be fairly stable through the year 2030. The largest change anticipated is with regard to jobs: a 50% or so increase in the number of jobs is anticipated within this TAD by the year 2030, and most of those are expected to occur due to the Jefferson Riverport International Commerce Park. At this time, the Riverport is a planned development with still over 160 acres available. With the additional development of these industrial/distribution sites, freight traffic within the TAD may increase. Because there is not an increase expected in the TAD's population, most persons working these jobs will likely come from areas outside this TAD. Those trips may place additional strain on the surrounding roadway network unless some of those trips can be moved to other modes.

Issues and Opportunities

- Data analysis and public comments received specific to this TAD support each other in that the main issues appear to be congestion on Dixie Highway, the lack of sidewalks and bicycle facilities throughout the TAD, and crashes.
- Access to origins and destinations in TAD 40013 are best served at this time by motor vehicle. The barrier to adequate motor vehicle trips is the LOS at a D level or below currently on Dixie Highway and Greenwood Road.
- Because there is a lack of an interconnected grid network roadway system, most motor traffic must access a functionally classified roadway prior to reaching their destination. This additional volume in traffic, as well as the speeds, discourages persons from feeling safe using other modes.
- Public transit service is provided to destinations throughout the TAD, but offers no way to directly move east/west. Existing transit routes operate primarily north/south at this time.
- The lack of connected pedestrian and bicycle facilities along the major roadways within the TAD may act as a barrier to those who may like to ride a bike or walk to their destination, especially since the residential areas are typically bounded and/or fronted by at least one of those roadways.
- The anticipated number of additional jobs as well as the increase in freight traffic may cause conflict with those traveling using alternate modes.
- As this TAD houses a portion of the Louisville Loop, connections to the Loop will provide residents within the TAD as well as those using the Loop the opportunity to get to more destinations within the area.
- The high crash locations need to be further examined to determine what factors are contributing to the crashes. The number of commercial driveway entrances, speed, and changes in roadway geometry could all be factors but without looking at each location, it is unknown what specific factors are in play and what treatments may be most effective in reducing the number of crashes.
- Current and forecasted congestion is an issue in this section of Dixie Highway and Greenwood Road. This TAD is home to the Louisville Riverport, which currently accesses KY 841 (Gene Snyder Freeway) via Greenbelt Highway, which is operating at a LOS above a C at this time. The congestion on Dixie Highway does impact travel times in terms of getting to jobs, schools, and community amenities as well as retail locations for area residents – both those that reside within the TAD as well as those that travel to and/or through TAD 40013. This congestion may also impact freight movement as Dixie Highway is a freight corridor and it is redundant and parallel to Greenbelt Highway and is used by residents, commuters outside the TAD, and freight traffic making deliveries to establishments along Dixie Highway, which is also part of the National Highway System.
- The schools in TAD 40013 seem to have good vehicular access, and others do have connections to and from surrounding neighborhoods to the school property allowing for a walking and/or bicycle trip. Other schools seem cut off from their surrounding areas, making motor vehicle access the most likely choice in getting to school.
- Dixie Highway according to comments as well as data, seemed to present the greatest challenge to cyclists and pedestrians, as well as to motorists in terms of volumes, crashes, lack of bicycle and pedestrian facilities, and speed.

Related Plans and Studies

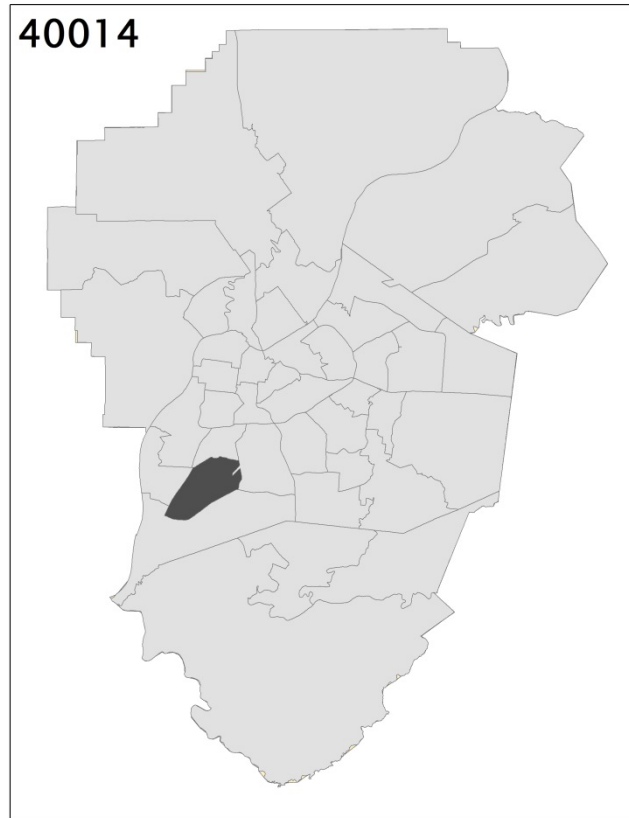
- Cornerstone 2020 Comprehensive Plan (2013)
- Louisville Loop Master Plan (2013)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40014 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40014 is located south of KY 1931 (Saint Andrews Road) and KY 1142 (Palatka Road), north of KY 841 (Gene Snyder Freeway), generally west of KY 1865 (New Cut Road), and generally east of US 31W (Dixie Highway) – from KY 841 to Stonestreet Road – and the Paducah and Louisville railroad – from Stonestreet Road to Saint Andrews Road. It contains a portion of Louisville Metro that was suburban and rural Jefferson County until its merger with the City of Louisville. TAD 40014 is not relatively well established in terms of development patterns. The southwest and most of the northern and northeast portions of this TAD generally exhibit the characteristics of typical suburban residential development. In addition, the TAD also includes the southwest campus of the Jefferson Community and Technical College, a number of schools, Waverly Hills Sanitarium, Waverly Park, Bobby Nichols Golf Course, and several historic structures. However, there are still significant portions of the TAD which have not been developed.

Area and Socioeconomic Information

Area: Approximately 9,146 acres
Non-Group Quarters Population (2010): 28,229
Number of Households (2010): 11,191
Number of Jobs (2000): 4,870

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) does not identify any Title VI/Environmental Justice areas in TAD 40014.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • KY 841* from the Dixie Highway interchange to the New Cut Road interchange
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • Dixie Highway* from KY 841 to Stonestreet Road • New Cut Road* from KY 841 to Palatka Road
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 907 (Valley Station Road) from Dixie Highway to Third Street Road • Third Street Road from Valley Station Road to New Cut Road • KY 1065 (Outer Loop) from Third Street Road to New Cut Road • Arnoldtown Road from Third Street Road to Saint Andrews Church Road • Palatka Road from Saint Andrews Church Road to New Cut Road • Saint Andrews Church Road from Dixie Highway to Palatka Road • Stonestreet Road from Dixie Highway to KY 841
Urban Collector	<ul style="list-style-type: none"> • East Pages Lane from the Paducah and Louisville railroad to Third Street Road • Manslick Road from Wisertown Road to Palatka Road • McNair Road from Third Street Road to Manslick Road • Saint Anthony Church Road from Wisertown Road to Saint Andrews Church Road • Valley Station Road from Third Street Road to Stonestreet Road • West Manslick Road from Third Street Road to KY 841
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- | | |
|--|--|
| <ul style="list-style-type: none"> • Christian Academy Southwest • Doss Magnet Career Academy • Kenwood Elementary School • Lassiter Middle School | <ul style="list-style-type: none"> • Layne Elementary School • Stuart Middle School • Stonestreet Elementary School • Trunnell Elementary School |
|--|--|

Colleges & Universities

- Jefferson Community and Technical College – Southwest Campus

Parks

- Bobby Nichols Golf Course
- Waverly Park

Other Area of Interest/Significance

- Cardinal Hill Reservoir
- Jones House
- Southwest Public Library
- Waverly Hills Sanitarium
- YMCA of Greater Louisville – Southwest

Historic

- Cardinal Hill Reservoir
- Jones House

Transit

TAD 40014 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #6 – Sixth Street
- Route #18 – Preston/18th Street
- Route #54 – Manslick Road Express

Park and Ride

There are no official Park and Ride lots identified in TAD 40014.

Public Comments

Alanadale Drive at Dixie Highway

- Needs a Traffic light

Dixie Highway

- More crosswalks, safer crosswalk, bike lanes.
- Dixie Highway by Valley Traditional is very bumpy.

Grafton Hall Road

- Add sidewalks on portion of Grafton Hall Road from Church Road to Valley Station Road.

Haney Way

- Extend sidewalk from where it ends near Dorton Drive, out to Grafton Hall Road.

I-265 at Dixie Highway

- Numerous accidents at this location.

Valley Station Road

- Add sidewalks on the north side of Valley Station Road close to Stuart Middle School and Layne Elementary School. Students need better access so they don't have to cross the street to walk on a sidewalk.
- Must walk from Stuart Middle School to Dixie Highway or Stone Street to get to TARC stop with no sidewalks.
- No sidewalks for students at Stuart Middle School. Not safe to walk on the trail behind the school. No TARC service there.

Safety

1,903 crashes were reported in TAD 40014 in the three-year period from 2009 through 2011. There were 10 fatalities reported as a result of 10 crashes from 2009-2011 (one in 2009; five in 2010; and, four in 2011). In the same time period, there were a total of 62 crashes resulting in injury in this TAD (20 in 2009; 16 in 2010; and, 26 in 2011). Not surprisingly, a large number of the crashes occurred on functionally classified streets, which are some of the more heavily traveled streets in TAD 40014. Approximately 72% of the crashes occurred on Third Street Road/Valley Station Road, Dixie Highway, KY 841, New Cut Road, and Outer Loop. Collectively, 1,372 of the crashes in TAD 40014 occurred on one of these five roadways, and each of these five roadways had in excess of 100 crashes. Third Street Road/Valley Station Road had, by far, the most crashes with 685—almost half of the total for the five roadways.

Saint Andrews Church Road, Stonestreet Road, Arnoldtown Road, Palatka Road, and Saint Anthony Church Road accounted for another 382 crashes with each roadway having between 50 and 100 crashes. Unlike the roadways in other TADs with a high number of crashes, most of the streets in TAD 40014 with a high number of crashes do not have more than one lane available for traffic traveling in the peak period direction. Of course, few of the streets in TAD 40014 have more than one lane available for traffic traveling in the peak period direction anyway.

Fatalities

There were 10 fatalities reported as a result of 10 crashes from 2009-2011 (one in 2009; five in 2010; and, four in 2011).

High Crash Locations

There is one higher density location within this TAD where the number of crashes within 0.10 mile over the three-year (2009-2011) period has been between 200 and 299, and three other high density areas where the number of crashes with 0.10 mile has been between 100 to 199. Since all of these areas are located at the boundary of the TAD, it should be noted that it is unlikely that all of the crashes occurred within TAD 40014. However, for this analysis, the high crash locations with at least some occurrences of 100+ crashes within 0.10 mile in TAD 40014 will be included below.

The location with 200 to 299 crashes within 0.10 mile is the intersection of Outer Loop with New Cut Road (see Figure 40014-A). This intersection had a higher density (200-299 crashes within 0.10 mile) region surrounded by a high density (100-199 crashes within 0.10 mile) region. However, the number of crashes was not distributed equally in all directions. Approximately 45% of the crashes occurred along the north leg of the intersection; approximately 25%, 20%, and 10% of crashes occurred along the east, west, and south legs, respectively. This distribution may correspond to the land uses along the various legs of the intersection. The northeast and northwest corners of the intersection have commercial developments while the southeastern and southwestern corners are not developed. The commercial developments are attracting traffic from the roadways and generating traffic going to the roadways. As a consequence, the turning movements into and out of these developments provide situations where crashes likely are occurring. Further evidence of this behavior comes from a review of the more serious crashes. There were six injury crashes in this area. Five of the six occurred on the north leg of the intersection, and four of the six involved one of the vehicles turning left. Another factor which may be affecting the distribution of crashes the closeness of curb cuts/driveways to the intersection. For example, the closest curb cut/driveway on the east leg is only about 200 feet from the intersection

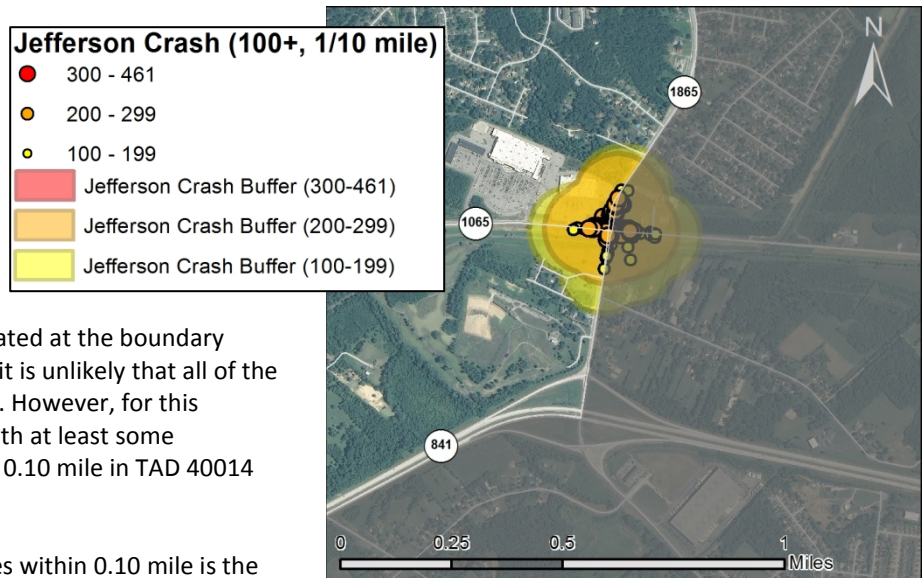


Figure 40014-A: High crash location at the intersection of Outer Loop and New Cut Road.

while the closest curb cut/driveway on the west leg is about twice that far from the intersection. This may provide some explanation of the difference in the number of crashes occurring on those two legs of the intersection.

The areas with 100 to 199 crashes within 0.10 mile are:

- The intersection of Outer Loop with New Cut Road where the number of crashes was in the range of 200 to 299 crashes within 0.10 mile (see above),
- The intersection of Third Street Road/Southside Drive with New Cut Road,
- The intersection of Dixie Highway with Stonestreet Road/Johnsontown Road, and
- The intersection of Dixie Highway with East Pages Lane.

The crashes at and/or near the intersection of Third Street Road/Southside Drive and New Cut Road were most dense along the southwestern leg of the intersection and least dense along the northeastern leg with the northern and southern legs having intermediate crash densities. An unusual feature of the crashes at this intersection was the relatively high number of crashes involving pedestrians. There were six crashes involving pedestrians at this intersection; there was no more than one crash involving a pedestrian at any of the other high crash locations in this TAD. The distribution of crashes involving pedestrians was somewhat similar to that of crashes in general. Two of the crashes resulted in a fatality. Concerning the distribution of the crashes, this may be related to the adjacent land use and the closeness of curb cuts/driveways to the intersection. The properties along all four legs of the intersection are developed. In addition, the curb cuts/driveways which appear to have been actively used are further from the intersection for the east leg. As for the effect of curb cuts/driveways, they are also further from the intersection for the properties on the east side of the north and south legs of New Cut Road than they are for the west leg (Third Street Road). This may help to explain the distribution of the crashes at this intersection.

The crashes at and/or near the intersection of Dixie Highway and Stonestreet Road/Johnsontown Road were most dense along the Dixie Highway (northeastern and southwestern) legs of the intersection. The length of these dense regions was not the same. The dense region on the northeastern leg, which is located in TAD 40013, was more than a block in length while the length of the southwestern leg, which is a portion of the border between TAD 40013 and TAD 40014, was slightly longer than half of a block. Therefore, more of the crashes occurred north of the intersection rather than south of it. There was also a noticeable number of crashes along the Johnsontown Road (western) leg of the intersection, which is in TAD 40013. Only ten crashes occurred on the Stonestreet Road (eastern) leg of the intersection. Three injury crashes occurred in this area—two at the intersection and one on Dixie Highway near the intersection. All of the crashes were rear-end crashes. The land uses of the parcels at this intersection are commercial or an open lot (on the northeastern corner), which was formerly a gas station. The Paducah and Louisville Railroad is located behind the two properties on the eastern side of Dixie Highway. Therefore, there are no active curb cuts/driveways along Stonestreet Road for some distance from the intersection, which may explain the lack of crashes. As for the other legs of the intersection, the commercial properties along Johnsontown Road are only the ones at the intersection in contrast with Dixie Highway where there are almost exclusively commercial properties in the vicinity of the intersection. The properties along Dixie Highway probably generate and attract more traffic than those on Johnsontown Road, which may explain the difference in crashes along those two streets.

The intersection of Dixie Highway and East Pages Lane/West Pages Lane is not in TAD 40014; it is in TAD 40013. However, the boundary between the two TADs is the Paducah and Louisville Railroad, which is approximately 100 feet east of the intersection along East Pages Lane. The crashes at and/or near this intersection were most dense along the Dixie Highway (northeastern and southwestern) legs of the intersection. The length of these dense regions was not the same. The dense region on the northeastern leg, which is located in TAD 40013, was longer than the length of the southwestern leg, which is likewise in TAD 40013. Therefore, more of the crashes occurred north of the intersection rather than south of it. There were seven crashes along the West Pages Lane Road (western) leg of the intersection, which is also in TAD 40013. The number of crashes that occurred on the East Pages Lane (eastern) leg of the intersection was twenty. The major concern about the crashes on East Pages Lane is that two of them resulted in fatalities and one resulted in an injury. In both of the fatality crashes, the crash did not occur at the intersection; rather the vehicles struck a culvert located east of Standing Oak Drive. In one case, the driver was riding a motor scooter or motor bicycle. In the other case, the car overturned. Alcohol use was listed as a factor in one of the crashes. The injury

crash was a rear end crash. Unlike the previous high crash locations in this TAD, the distribution of crashes is probably not related to land use or the location of curb cuts/driveways.

When implementing projects within this TAD, efforts need be made to improve safety in areas where a high number of crashes are occurring. Also, efforts need to be made to identify roadway and roadside hazards and remove them, if possible. Finally, efforts to provide education about the possible negative impacts of alcohol use combined with the operation of motor vehicles need to be continued and strengthened.

Bicycle and Pedestrian Crashes

During the three-year period, eight of the reported crashes involved bicyclists and twenty involved pedestrians. One of the crashes—on KY 907—involving pedestrians resulted in a fatality, but none of the crashes involving bicyclists resulted in a fatality. Four of the crashes involving pedestrians resulted in an injured individual, but none of the crashes involving bicyclists involved an injury. Of the crashes involving bicyclists and pedestrians, six crashes occurred along Dixie Highway, and four occurred along Third Street Road/Valley Station Road.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • Saint Andrews Church Road from Arnoldtown Road to Palatka Road • Stonestreet Road Dixie Highway to Third Street Road
LOS E:	<ul style="list-style-type: none"> • Saint Andrews Church Road from the Paducah and Louisville railroad to Arnoldtown Road • Third Street Road from Arnoldtown Road to Outer Loop
LOS F:	<ul style="list-style-type: none"> • Dixie Highway from Valley Station Road to Stonestreet Road

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • KY 841 from Stonestreet Road to New Cut Road • Saint Andrews Church Road from the Paducah and Louisville railroad to Arnoldtown Road • Saint Andrews Church Road from Blanton Lane to Palatka Road
LOS F:	<ul style="list-style-type: none"> • Dixie Highway from Valley Station Road to Stonestreet Road • New Cut Road from Third Street Road to Palatka Road • Saint Andrews Church Road from Arnoldtown Road to Blanton Lane • Third Street Road from Arnoldtown Road to Outer Loop

In summary, by 2030, a number of the sections of major roadways in this TAD are projected to be congested at LOS F while several other sections are projected to be operating at LOS D. This congestion will likely have an adverse impact on the general traffic flow in the area as well as access to many of the points of interest in the community.

Access to Community Amenities

Approximately 60% of the area of TAD 40014 is typical suburban development in varying densities. The residential development located in the southwest and northeast corners of the TAD and along Saint Andrews Church Road in the northwestern to northern portion – consisting of about 40% of the area – has a higher density than the remainder of the residential development in the TAD. The most significant concentration of the lower density residential is located in the vicinity of Arnoldtown Road. The remainder of the land use in this TAD is predominantly non-residential with a significant portion being open space, a park, and a golf course. There are a number of community amenities in this TAD, including shopping, historic sites, a community center (Southwest YMCA), a senior center (Southwest YMCA Adult Day Care), a museum (Waverly Hills Sanitarium), schools, a park (Waverly Park), and a library. The shopping is concentrated

along Dixie Highway in the southwestern portion of the TAD. There are also commercial establishments along New Cut Road in the northeastern portion of the TAD, although most of the shopping locations are in TAD 40012 rather than TAD 40014. The other amenities are scattered across the TAD.

There is one area where the community amenities are concentrated in a cluster. That cluster is in the southwestern portion of the TAD, is centered along Dixie Highway, and extends from about four blocks south of Ashby Lane to about four blocks north of Valley Station Road.

There is some access to the community amenities—mainly the residences and shopping—by transit. The sites within easy access of transit routes are mainly shopping locations. As mentioned previously, the shopping is concentrated along Dixie Highway and, to a lesser degree, along New Cut Road. Route #6 and Route #18 provide day-long service to the New Cut Road and Dixie Highway areas, respectively. The residences located within a reasonable walking distance—usually considered to be approximately a quarter-mile—of those areas also have access by transit. In addition, the residences located within a reasonable walking distance of Saint Andrews Church Road in the northern portion of the TAD also have some access by transit. However, their access involves the use of Route #54, which only provides service during the morning and afternoon peak periods. Neither of the historic sites is within easy access of transit routes. The site closest to a bus route, Cardinal Hill Reservoir, is approximately 0.70 miles from the route. Further, there are no sidewalks between the bus route and Cardinal Hill Reservoir. Jones House, the other historic site, is located across from a frontage road, but the frontage road does not extend to the nearest transit route. The community center is located in the northern portion of the TAD almost 0.8 mile from the nearest bus route, and that bus only operates during morning and evening peak periods. Further, there are no sidewalks between the bus route and the community center. The museum is located near the center of the TAD at a distance of more than a mile from the nearest transit route, and there are no sidewalks between the bus route and the site. In summary, only the shopping areas and some of the residences have relatively good access by transit.

Access to the community amenities by walking and biking is limited. The sidewalks in this TAD appear to be located mostly along the major streets, and even then, their presence is sporadic. There are some sidewalks in the shopping areas of the TAD. Many of the residences along the major streets have access to sidewalks. However, the Cardinal Hill Reservoir (one of the historic sites), the community center (Southwest YMCA), and the museum (Waverly Hills Sanitarium) generally do not have pedestrian access. In many cases, there are no sidewalks between the site of the amenity and the nearest significant roadway. The exception to this is the Jones House historic site. There is a frontage road across the street which connects with some sidewalks, but even these sidewalks have a limited connectivity. Nevertheless, the major impediment to pedestrian access for many of the amenities is distance. Most of the amenities are located more than 0.25 miles from the nearest major roadway, and it must be remembered that the non-amenity end of the trip is often well beyond the point where the major roadway is reached. Basically, the distances between the trip origins and destinations for these trips are sufficiently large so as to discourage the access of many amenities by walking.

There are a limited number of bikeways in this TAD. They provide access to some of the residences in the TAD. For many other residences, the use of a bikeway has to be augmented by the use of some other facility. Further, to access the shopping areas in the southwestern portion of the TAD, the historic sites, the community center, and the museum, it is necessary for the bicyclist to ride on streets not designated as bikeways; the bikeways themselves provide little benefit. The situation for shopping is similar; the area in the southwestern portion of the TAD with greatest concentration of shopping is more than a mile from the nearest bikeway. The nearest bikeway is 0.70 miles from Cardinal Hill Reservoir, the historic site nearest to a bikeway, and 0.80 miles from the community center. Likewise, the museum is more than a mile from the nearest bikeway. The major exception to this situation is the shopping area in the northeastern portion of the TAD. It does have good access by bicycle via bikeways along Third Street Road and New Cut Road. Nevertheless, the major concern involving access by bicycle in this TAD is that almost all of the bikeways are located on functionally classified streets—some of which have significant traffic volumes. It is likely that less-experienced bicycle riders would find using these bikeways challenging.

The primary means of access for community amenities in TAD 40014 is by vehicle. The areas in the northeastern and southwestern portions of the TAD with the highest concentrations of shopping have good access by vehicle. There are

a number of functionally classified streets in the TAD, and the residences along or near them generally have good access by vehicle. There are other residential locations further removed from the major streets also have access by vehicle. Likewise, the historic sites, the community center, and the museum have some access by vehicle although locating some of these sites may be challenging. The road system in this TAD seems to be a combination of streets which were formerly country roads and subdivision streets. Hence, there is not a rectangular grid system. Rather, the road system apparently reflects the development of this area. So drivers generally need to have a good idea where to go to be able to locate some facilities. However, the Jones House, one of the historic sites, is located is along Valley Station Road, a major roadway. Therefore, access by vehicle for the Jones House, the shopping areas, and a significant portion of the residential areas should not be difficult except for situations of congestion. In that regard, the congestion along Dixie Highway from Valley Station Road to Saint Andrews Church Road, Saint Andrews Church Road from the Paducah and Louisville Railroad to Palatka Road, and Stonestreet Road from Dixie Highway to the KY 841 interchange may affect access to the shopping areas along Dixie Highway, the community center on Fordhaven Road, as well as access to the residential areas along and near these roadways. Further, it should be noted that these roadways are expected to remain congested in the future.

As mentioned above in the congestion section, a number of the sections of major roadways in this TAD are projected to be congested at LOS F by 2030, while several other sections are projected to be operating at LOS D. There is access by alternate modes for some of the community amenities but not for others. This congestion will likely have an adverse impact on the general traffic flow in the area as well as access to many of the community amenities in this TAD.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Meijer
- Southwest YMCA
- Walmart

There are three major employers in this TAD. Two of these, Meijer and Walmart, are located on a functionally classified street, Dixie Highway. The third, Southwest YMCA, is located on Fordhaven Road, approximately 0.80 miles from a functionally classified street, Saint Andrews Church Road. Meijer and Walmart are located in a high density employment area, where there are 1,000 or more employees within 0.25 miles. Given the employment patterns, each of the high employment areas is a series of overlapping quarter-mile circles. The high density employment area for TAD 40014 is located near the southwestern corner along Dixie Highway. It stretches from north of Bethany Lane to north of Citation Road.

The high density employment area for TAD 40014 has relatively good access by transit. Route #18 operates on Dixie Highway along the edge of the TAD—from KY 841 to Stonestreet Road—where the high density employment area is. Therefore, though the availability of sidewalks for transit access in this area is sporadic, it does have relatively good access by transit.

The access to the high density employment area by walking and bicycling is mixed. There are sidewalks in some portions of the high density employment area, but as stated above, their presence is sporadic. In addition, there may be areas where there is a sidewalk on one side of Dixie Highway but not on the other. Given the width of the roadway, crossing it can be a challenge. Nevertheless, the access to this area by walking is at least passable for the most part. Conversely, the high density employment area does not have good access by bicycle. The greatest concentration of employment is approximately a mile or more from the nearest bikeway. Further, as mentioned previously, the major concern involving access by bicycle in this TAD is that almost all of the bikeways are located on functionally classified streets, some of which have significant traffic volumes. Some of the less experienced bicycle riders might find using these bikeways challenging, as well as riding more than a mile along Dixie Highway.

The primary means of access for workplaces in TAD 40014 is probably by vehicle. The road system in this TAD seems to be a combination of streets which were formerly country roads and subdivision streets. Hence, there is not a rectangular grid system. Rather, the road system apparently reflects the development of this area. However, for access to workplaces, their location of the high density employment area is along a major roadway. Therefore, access by vehicle should not be difficult except for situations of congestion. In that regard, the congestion along Dixie Highway from Valley Station Road to Saint Andrews Church Road and Saint Andrews Church Road from the Paducah and Louisville Railroad to Palatka Road may affect access to the workplaces along Dixie Highway and on Fordhaven Road. Further, it should be noted that these roadways are expected to remain congested in the future.

As mentioned above in the congestion section, a number of the sections of major roadways in this TAD are projected to be congested at LOS F by 2030, while several other sections are projected to be operating at LOS D. There is access by alternate modes for some workplaces but not for others. This congestion will likely have an adverse impact on the general traffic flow in the area as well as access to many of the workplaces in this TAD.

Access for Persons with Disabilities and/or Older Adults

The only facility specifically for persons with disabilities and/or older adults in this TAD is the senior center at the Southwest YMCA located at 2800 Fordhaven Road.

The senior center is located almost 0.80 miles from the nearest bus route, and that bus only operates during morning and evening peak periods. Further, there are no sidewalks between the bus route and these sites. Therefore, access to the senior center by transit is not a good option.

Access to the senior center by walking and bicycling are not good options. The senior center is located almost 0.50 miles from the nearest functionally classified roadway, Saint Anthony Church Road, and there are no sidewalks along Fordhaven Road to Saint Anthony Church Road. Further, there are no sidewalks along Saint Anthony Church Road from Fordhaven Road to Saint Andrews Church Road, a distance of approximately 0.25 miles. Finally, the nearest sidewalks along Saint Andrews Church Road are more than 0.10 mile away from Saint Anthony Church Road. In summary, a person attempting to access the senior center by walking would have to walk more than 0.85 miles without sidewalks to do so. Obviously, walking is not a good option for accessing the senior center. The senior center is located almost 0.80 miles from the nearest bikeway. However, the major concern involving access by bicycle in this TAD is not the distance from a bikeway. Rather, the major concern is that almost all of the bikeways are located on functionally classified streets, some of which have significant traffic volumes. Some of the less experienced bicycle riders might find using these bikeways challenging.

The primary means of access to the senior center for persons with disabilities and/or older adults will, by default, be by vehicle. The senior center is less than 0.50 miles from Saint Anthony Church Road and approximately 0.80 mile from Saint Andrews Church Road, which are functionally classified streets. Therefore, access by vehicle should not be difficult except for situations of congestion. In that regard, the congestion along Saint Andrews Church Road from the Paducah and Louisville Railroad to Palatka Road may affect access to the community center on Fordhaven Road, as well as the residential areas along and near Saint Andrews Church Road. Further, it should be noted that these roadways are expected to remain congested in the future.

As mentioned above in the congestion section, a number of the sections of major roadways in this TAD are projected to be congested at LOS F by 2030, while several other sections are projected to be operating at LOS D. There is not good access by alternate modes for the senior center. This congestion will likely have an adverse impact on the general traffic flow in the area as well as access to the senior center in this TAD.

Access to Education

The Jefferson Community and Technical College (JCTC) is located in the southwestern portion of this TAD. In addition, there are five elementary schools, two middle schools, and a high school. Two of these schools, Stuart Middle School and Layne Elementary School, are both located within 0.25 miles of each other near Valley Station Road in the

southwestern portion of the TAD, and they are also near JCTC (see Figure 40014-B). Another pair of these schools, Doss Magnet Career Academy and Trunnell Elementary School, are both located within 0.25 miles of each other along Saint Andrews Church Road in the northern portion of the TAD. The other middle school and the other three elementary schools are dispersed across the TAD with Christian Academy Southwest being in the northwestern portion, Kenwood Elementary School being in the northeastern portion, Lassiter Middle School being in the southeastern portion, and Stonestreet Elementary School being in the southern portion of the TAD.

The access to the educational facilities by public transit varies by facility. Doss High School and Trunnell Elementary School are located adjacent to each other along Saint Andrews Church Road.

Route #54 operates on this portion of Saint Andrews Church Road, but this route operates only during the morning and afternoon peak hours. Of the other schools, Christian Academy Southwest, which is located approximately 0.40 miles from Route #18, and Lassiter Middle School, which is located approximately 0.50 miles from Route #6, have the best opportunities to be accessed by public transit. Both Route #6 and Route #18 provide day-long service. However, sidewalks are missing for part of the path from Route #18 to Christian Academy Southwest, and the distance to be walked in both cases is in excess of the 0.25 miles usually considered the limit for bus patrons. So it is unlikely that these schools would be accessed by public transit. JCTC and the other elementary and middle schools are definitely too far from bus routes to be accessed by public transit. In summary, most of the schools except JCTC probably can be accessed by riding a school bus. For those who cannot and choose to not ride a school bus, Doss High School and Trunnell Elementary School could probably be accessed by public transit if the time constraint of using a bus route that operates only during the morning and afternoon peak periods does not create an insurmountable problem. It is unlikely that JCTC and the other schools would be accessed by public transit.

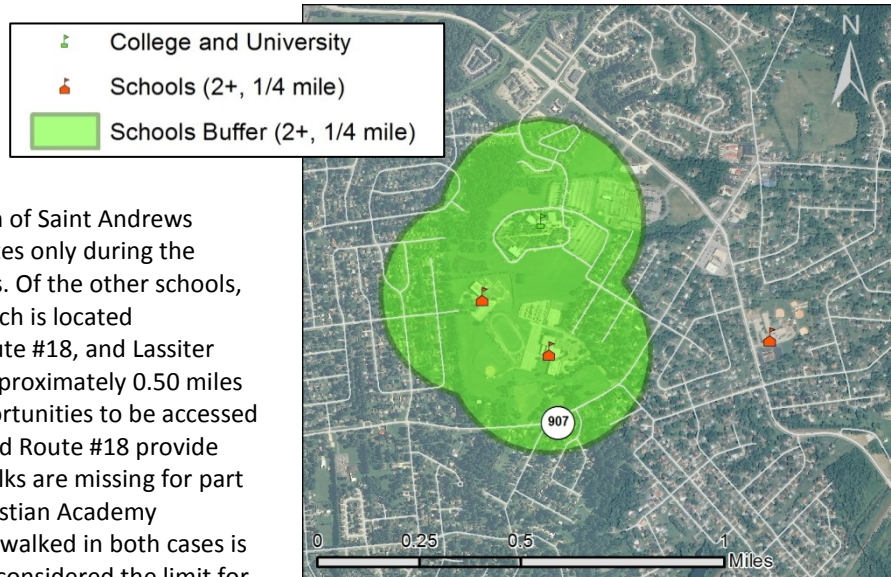


Figure 40014-B: Access to education cluster in TAD 40014 (Layne Elementary School, Stuart Middle School and Jefferson Community and Technical College - Southwest Campus).

Access to the educational facilities by walking and by bicycle is mixed. There are sidewalks around the campus of JCTC and along Valley College Drive, the road that connects the JCTC campus and Stonestreet Road. However, the campus is approximately 0.50 miles from Stonestreet Road, and most trips would probably originate/terminate at some location well beyond the Stonestreet Road/Valley College Drive intersection. Therefore, it is unlikely that many trips to/from JCTC would be made by walking. The elementary, middle, and high schools have sidewalks in the immediate vicinity of the schools. However, the range of the sidewalks varies depending on the size of the neighborhood around or near the school. For example, Kenwood Elementary School is located along Justan Avenue in a fairly well-developed neighborhood. Sidewalks are available along most, if not all, of the streets, and the limitations of walking are more likely a matter of distance rather than the presence/absence of sidewalks. On the other hand, Christian Academy Southwest and Doss High School and Trunnell Elementary School have sidewalks in their immediate vicinity. However, those sidewalks only exist for a limited distance, and there is little, if any, neighborhood infrastructure to provide pedestrian access. In summary, accessing JCTC by walking is unlikely. Accessing the schools by walking can happen in some cases but not to a significant degree in other cases. In contrast, the access to the educational facilities by bicycle is generally good with respect to proximity. Neither JCTC nor any of the schools is more than one mile from a bikeway. Rather, the major concern is that almost all of the bikeways are located on major streets, some of which have significant traffic volumes. Some of these streets have frontage roads adjacent to them, but their presence is sporadic. Therefore, some of the trips to/from school would probably have to use one or more of the major streets. Under these conditions, some of the less experienced bicycle riders might find using these bikeways challenging. Since many of the

schools are elementary or middle schools, their students may not be sufficiently experienced to safely use the bikeway along major roads.

The primary means of access to JCTC and many of the elementary, middle, and high schools will probably be by vehicle. For the younger students, that vehicle may be a school bus or a vehicle driven by an adult. The street system in this TAD is not a rectangular grid. However, most of the schools are along major streets, or there are multiple streets that can be used to access the school. Further, it appears that the schools located along major streets have sufficient space between the school and the street that students can be dropped off and picked up safely. Therefore, access by vehicle should not be difficult except for situations of congestion. At present, the main congestion near a school is along Saint Andrews Church Road near Christian Academy Southwest. However, the section of Saint Andrews Church Road near Doss High School and Trunnell Elementary School is also projected to be congested in the future, as is the section of Saint Andrews Church Road between those two schools and Christian Academy Southwest. Also at present, Stonestreet Road in the vicinity of Stonestreet Elementary School is congested. Fortunately, this congestion is projected to be mitigated in the future. Finally, a section of Third Street Road about 0.75 miles from Lassiter Middle School and a section of New Cut Road about 0.80 miles from Kenwood Elementary School are projected to be congested in the future.

As mentioned above in the congestion section, a number of the sections of major roadways in this TAD are projected to be congested at LOS F by 2030, while several other sections are projected to be operating at LOS D. There is some access by alternate modes for some of the educational facilities but not for others. Access by alternate modes for the educational facilities, although possible in some cases, will still be challenging, at best. This congestion will likely have an adverse impact on the general traffic flow in the area and could affect access to some of the educational facilities in this TAD.

Access to Government Services

The two government service locations in TAD 40014 are the Pleasure Ridge Park Fire District Station 2 located at 5417 Valley Station Road and the Fairdale Fire Department Station 2 located at 7940 Third Street Road. As a point of information, there is another ambulance/fire station located in the TAD to the north which may respond to calls in the northwestern portion of TAD 40014. It should be noted that access to fire and ambulance service usually consists of the first responders coming to the houses of individuals, businesses, and public facilities rather than individuals coming to the ambulance/fire station. Given the nature of access to fire and ambulance service, the previous discussion should suffice for the ambulance/fire stations in TAD 40014.

As mentioned above in the congestion section, a number of the sections of major roadways in this TAD are projected to be congested at LOS F by 2030, while several other sections are projected to be operating at LOS D. There is access by transit for one of the government service locations but not for the others. Access by walking or bicycling is not good for any of the government services locations. The congestion mentioned previously will likely have an adverse impact on the general traffic flow in the area. Luckily, the government service location most likely to be affected by the congestion is the one with the best possibility of being accessed using an alternate mode. Unfortunately, the alternate mode most readily available in the area of congestion is transit, which of course will itself be affected by the congestion.

Access to Medical Facilities

There are no hospitals in TAD 40014. The hospital located nearest to TAD 40014 is Saints Mary and Elizabeth Hospital located along Bluegrass Avenue in TAD 40011. However, the Jewish Hospital Medical Center Southwest and the Park Terrace Health Campus are located along Stonestreet Road near its intersection with Third Street Road.

There are a number of surface streets which lead to Saints Mary and Elizabeth Hospital, and these streets are likely the primary means of access, so access by vehicle should not be difficult except for situations of congestion. Unfortunately, congestion exists on several streets in and around TAD 40014, which may be used to access the hospital in TAD 40011. Presently, Manslick Road/Saint Andrews Church Road from the Paducah and Louisville Railroad to Gagel Avenue

(located in TAD 40011) and Dixie Highway from Valley Station Road to Saint Andrews Church Road, just outside of TAD 40014, are experiencing congestion. In the future, these roadways are projected to remain congested or, for the most part, to get worse. In summary, although there are roadways available to provide good access to the hospital in TAD 40011 from TAD 40014, the present and projected congestion can/could make this access difficult at times.

As for the Jewish Hospital Medical Center Southwest and the Park Terrace Health Campus, they are located in the south central portion of the TAD, and there is a sufficient number of streets in the area that access by vehicle should not be a problem except for congestion. Stonestreet Road is presently operating at LOS D. Therefore, it appears that access to the Jewish Hospital Medical Center Southwest and the Park Terrace Health Campus by vehicle from the western edge of the TAD may be a problem, and access by vehicle from eastern portion of the TAD may encounter some problems also but to a lesser degree.

The hospital in the TAD 40011 is located along a transit route. That route is Route #6, and it provides good access to the hospital for those traveling from the area around New Cut Road at the eastern edge of TAD 40014. Unfortunately, there are no transit routes to provide good access to the hospital from the other parts of TAD 40014. In summary, those in TAD 40014 not located along the eastern edge of the TAD do not have good access to the hospital in TAD 40011 by transit. Concerning medical facilities in TAD 40014, the Jewish Hospital Medical Center Southwest and the Park Terrace Health Campus are not located sufficiently close to a transit route such that access by bus is an option.

The distance to the hospital in TAD 40011 is probably sufficient that it is less likely that walking or biking would be used as a means of travel. Nevertheless, since the shortest distance to be walked from TAD 40014 to the hospital is on the order of two miles, it is highly unlikely that walking would be used to access the hospital from TAD 40014. On the other hand, there is a bikeway along Saint Andrews Church Road that could provide access to a point near the hospital along Bluegrass Avenue. Even so, the major portion of such a trip would require riding along roads such as Saint Andrews Church Road/Manslick Road, which are functionally classified and have a significant amount of traffic. Therefore, it is likely that less experienced bicycle riders may find using this bikeway challenging.

Concerning the Jewish Hospital Medical Center Southwest and the Park Terrace Health Campus, there is a sidewalk to the west of their driveway, but it only extends to Marselle Drive, the next side street. In general, the presence of sidewalks in this portion of the TAD is too sporadic to provide for much access by walking. There are also some side streets that may provide some access to the southern portion of the TAD.

As mentioned above in the congestion section, a number of the sections of major roadways in this TAD are projected to be congested at LOS F by 2030, while several other sections are projected to be operating at LOS D. There is access to the hospital in TAD 40011 by transit from the eastern edge of TAD 40014 but not from other portions of the TAD. There is access by bicycle from the northwestern edge of TAD 40014 for those willing to ride in the roadway with vehicular traffic; there is not access by bicycle for the other portions of the TAD. For the Jewish Hospital Medical Center Southwest and the Park Terrace Health Campus, access by transit and access by walking are not effective options. Access by vehicle is generally good at present except for those who have to use Dixie Highway. In the future, those using Third Street Road may encounter additional problems. Access by bicycle is possible through the use of a number of bikeways. However, these bikeways require riders to ride with vehicular traffic, a practice which may be uncomfortable for the less-experienced riders.

Freight Access

There are no freight distributors in TAD 40014. Further, there are no clusters (five or more users) of major freight users in TAD 40014. However, the Miller Transportation Company is located along Third Street Road. Miller provides tour services using various types of buses. KY 841 and Dixie Highway in this TAD are part of the KIPDA Freight Network. These roads/streets provide connections directly or indirectly to the interstate system.

The major issue facing freight in this TAD is the projected levels of service. As mentioned above in the congestion section, a number of the sections of major roadways in this TAD are projected to be congested at LOS F by 2030, while several other sections are projected to be operating at LOS D. Access by alternate modes is not really an option for

freight except for employees accessing their workplaces. Discussion of those issues is provided above in the section concerning Access to Workplaces. The congestion occurring along Dixie Highway at present and the congestion projected for KY 841 and Dixie Highway in the future, as well as congestion on other streets in the area, will likely have an adverse impact on the general traffic flow and on freight movement in this TAD.

Future Socioeconomic Conditions

Most of TAD 40014 is not anticipated to see significant changes by the year 2030 in the number of jobs, households, or non-group quarters population. The three socioeconomic indicators are forecasted to see low to moderate growth:

- Households: Low to moderate growth in the northwest corner and eastern edge of the TAD
- Employment: Low to moderate growth along the eastern edge of the TAD
- Population: Low to moderate growth in the northwest and eastern edges of the TAD

This scenario is not unexpected given the current density patterns in TAD 40014. All three indicators are anticipated to see growth around the Third Street Road/Arnoldtown Road/Outer Loop area. While growth in these areas is generally seen as a positive impact for the TAD, it is possible that the high frequency of crashes on Outer Loop, and the forecast degradation of LOS to F on Third Street Road could worsen and be counterproductive to the forecast growth in jobs, housing, and population if efforts are not made to mitigate the congestion and safety issues.

Issues and Opportunities

- One of the issues involving TAD 40014 is the present and forecast congestion of certain streets. Significant sections of Dixie Highway and smaller sections of Third Street Road and Saint Andrews Church Road experience and/or are forecasted to experience congestion at LOS E or F. In addition, Stonestreet Road experiences congestion at LOS D. These and other roads are projected to have as much or more congestion in the future. Projects to be implemented in this area will need to address this congestion or access to many opportunities in this TAD will be adversely affected.
- Another of the issues involving TAD 40014 is the lack of pedestrian facilities. Many of the streets which connect across the TAD are functionally classified and have significant traffic volumes. Some of these streets have frontage roads for some sections of the road, but many do not. Projects to be implemented in this area will need to consider the inclusion of pedestrian facilities as part of the project.
- Another of the issues involving TAD 40014 is the type of facilities which serve as bikeways. Most of the bikeways in this TAD are along functionally classified streets, which have significant volumes of traffic and/or narrow roadways. Projects to be implemented in this area should consider improvement of the bikeways to provide safer and more friendly facilities for bicycle use.
- Another of the issues involving TAD 40014 is the lack of transit facilities serving the heart of the TAD. Jefferson Community and Technical College, Waverly Park, and the Bobby Nichols Golf Course are all without transit service within a walkable distance. Consideration should be given to studying if transit service could be expanded in this area.

Related Plans and Studies

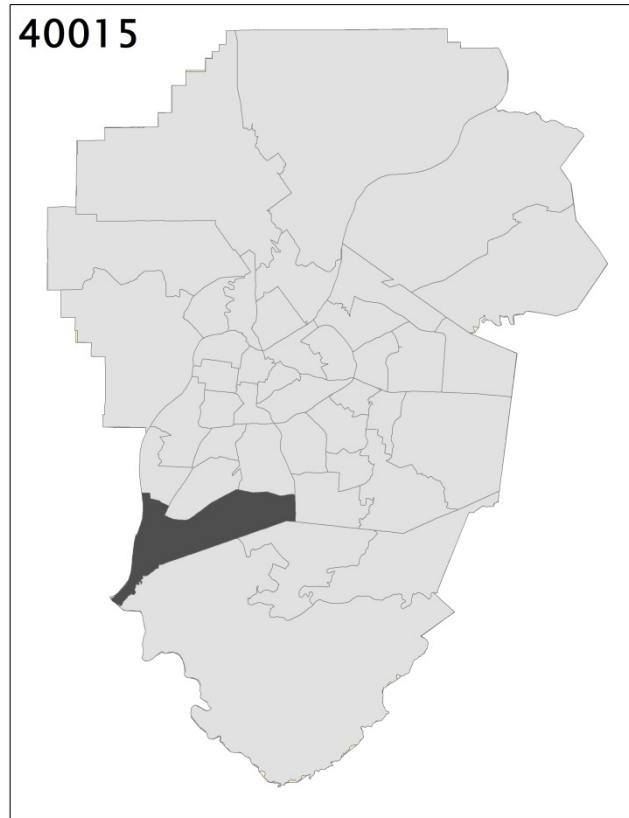
- Cornerstone 2020 Comprehensive Plan (2013)
- Dixie Highway Corridor Master Plan (2013)
- New Cut Road/Taylor Boulevard Corridor Study (2013)
- Southside Drive Feasibility Report (2005)
- Third Street Road/Saint Andrews Church Road Area Transportation Study (2008)

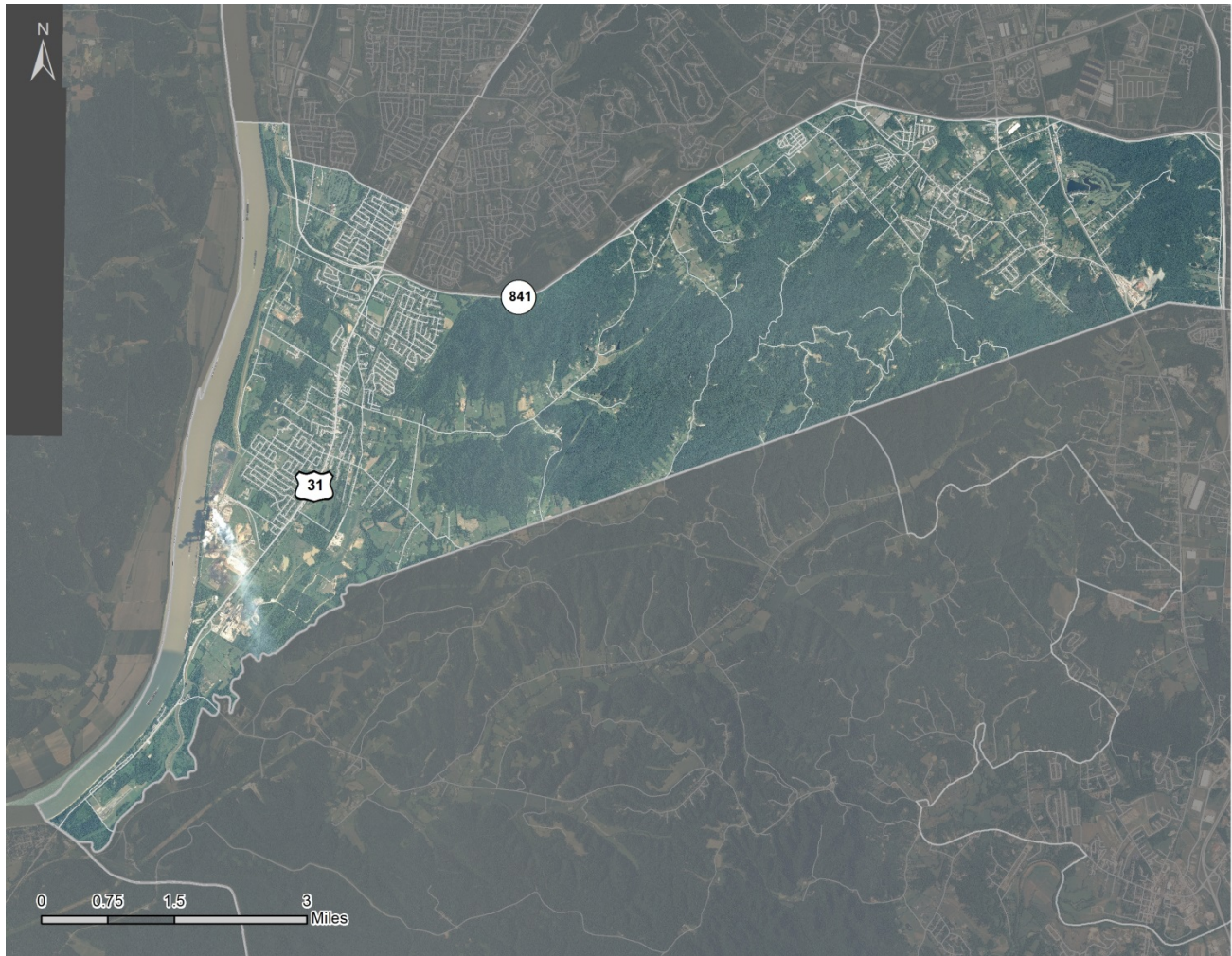


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40015 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40015 is located in southwestern Jefferson County in suburban Louisville Metro. In addition to being part of Louisville Metro, the small city of Hollyvilla and the unincorporated community of Fairdale are also located in this TAD. The TAD is bounded by KY 841 (Gene Snyder Freeway) and Ashby Lane in the north, by Hardin and Bullitt Counties in the south, by I-65 in the east, and by the Ohio River in the west. Even though the majority of the TAD is located within the urbanized area boundary, the TAD is relatively rural as compared to the TAD's in Jefferson County. Among the 28 TADs in Jefferson County, this TAD has the lowest employment density and the second lowest population density. The majority of the development in this TAD is located along the US 31W (Dixie Highway) corridor and in Fairdale. This development is primarily residential, with small areas of commercial and industrial development in certain areas. Additional future development in this TAD is limited due to the presence of the Jefferson Memorial Forest and issues with the terrain, which include much of the TAD being very hilly while other portions of the TAD are in the low-lying areas near the Ohio River.

Area and Socioeconomic Information

Area: Approximately 25,690 acres
Non-Group Quarters Population (2010): 22,101
Number of Households (2010): 8,447
Number of Jobs (2000): 3,148

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies no Title VI/Environmental Justice areas within this TAD.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-65* from Bullitt County to KY 841 (Gene Snyder Freeway)
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • KY 841* (Gene Snyder Freeway) from US 31W (Dixie Highway) to I-65
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 31W* (Dixie Highway) from the Urbanized Area Boundary near Bunger Avenue to Ashby Lane • KY 1934*~ (Greenbelt Highway) from Johnsontown Road to Dixie Highway
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 1020 (South Park Road/National Turnpike) from Bullitt County to Gene Snyder Freeway
Urban Collector	<ul style="list-style-type: none"> • KY 1230 (Lower River Road/Watson Lane) from Greenbelt Highway to Dixie Highway • KY 1849 (Watson Road) from Lower River Road to Dixie Highway • Bethany Lane from Greenbelt Highway to Dixie Highway • Ashby Lane from Greenbelt Highway to Dixie Highway • Blevins Gap Road from Dixie Highway to Greyling Drive • Stonestreet Road from Blevins Gap Road to Gene Snyder Freeway • KY 2055 (Mount Holly Road/West Manslick Road) from National Turnpike to Gene Snyder Freeway • KY 1865 (New Cut Road) from West Manslick Road to Gene Snyder Freeway • Fairdale Road from West Manslick Road/Mount Holly Road to South Park Road • South Park Road from Fairdale Road to Gene Snyder Freeway
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • US 31W* (Dixie Highway) from Hardin County to the Urbanized Area Boundary near Bunger Avenue
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- | | |
|--|--|
| <ul style="list-style-type: none"> • Coral Ridge Elementary School • Fairdale Elementary School • Fairdale High School • Frost Middle School | <ul style="list-style-type: none"> • Medora Elementary School • South Park Teenage Parent Program (TAPP) School • Watson Lane Elementary School |
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Colleges & Universities

- N/A

Parks

- Jefferson Memorial Forest (includes multiple parks)
- Kulmer Reserve
- Medora Park
- Nelson Hornbeck Park

Other Area of Interest/Significance

- N/A

Historic

- Aydelott House
- Bethany Methodist Church
- Dunn House
- Farnsley-Moremen/Riverside Complex
- James Augustus House
- Kosmos Portland Cement Office
- Kosmosdale Depot
- Lebold House
- McCallum House and Farm
- Nellie Horine House
- Old Steel Homeplace
- Orell School
- Penile Baptist Church
- Risinger House
- Tucker House
- W.L. Weller House

Transit

TAD 40015 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #18 – Preston/18th Street
- Route #50 – Dixie Highway Express

Despite there being two TARC routes serving TAD 40015, only a very small portion of this TAD is accessible by transit throughout the majority of the day. This is due to service existing in this TAD only along the Dixie Highway corridor, and due to most trips of Route #18 terminating north of the Gene Snyder Freeway at Bethany Lane. Only two trips of Route #18 serve Dixie Highway south of the Gene Snyder Freeway. TARC service is no longer provided in Fairdale. Both routes that serve this TAD begin and end in the TAD and provide service only in the direction of downtown Louisville. Transit service to other parts of the region is available via transfers along Dixie Highway along Route #18, and in downtown on either of the routes. Route #50 is an express route that only operates during peak hours on weekdays.

In addition to the two TARC routes that regularly serve the TAD, TARC is currently operating a trial service to/from this TAD. This trial service is called the New Cut Trolley Hop and it currently operates only one day a month. This service connects the Jefferson Memorial Forest, the Fairdale Library, and other locations in Fairdale with destinations such as Churchill Downs, Iroquois Park, and others located along New Cut Road and Southern Parkway.

Park and Ride

There is only one official Park and Ride lot located in TAD 40015:

- South Jefferson Christian Church

Public Comments

Dixie Highway

- More crosswalks, safer crosswalks, bike lanes.
- Numerous accidents at US 31W/KY 841 intersection.
- Need sidewalk from Moorman Road to Bethany Lane.

Ashby Lane

- Ashby Lane needs sidewalks from Greenbelt to Dixie.
- Apartments are scheduled to be built on either side of Greenbelt Highway. There needs to be a traffic signal (at Greenbelt/Ashby intersection).

Mount Holly Road/West Manslick Road

- Needs more sidewalks.
- Widen from Fairdale Road to Mason Lane.
- More sidewalks are needed to Coral Ridge Elementary School.
- Manslick/New Cut south of I-265 in dire need of sidewalks to connect to Walmart and KMart on Outer Loop.
- Fairdale Road to Coral Ridge Elementary needs sidewalks.
- Needs sidewalks to and from school and library.

South Park Road/National Turnpike

- No TARC service to South Park TAPP.
- Lack of access to Neighborhood Place. No sidewalks or TARC service. Very unsafe.
- Need sidewalks to connect community to schools, library, grocery, etc. in Fairdale area.

Mitchell Hill Road

- Dangerous along this road for non-motorists. Strollers, cyclists, and pedestrians almost have to walk/ride in the ditch to be safe. Need a multi-use path or a sidewalk to make it safe to get to Jefferson Memorial Forest.
- Bike lane from KY 2055 to Jefferson Memorial Forest Welcome Center.

Scenic Trail

- Need speed bumps in this neighborhood. Lots of speeding occurs here.

Safety

1,301 crashes were reported in TAD 40015 from 2009 through 2011. There were 16 fatalities reported over this time period as a result of 13 crashes. During this three year period, four reported crashes involved bicyclists and 15 involved pedestrians.

Fatalities

All 13 crashes that resulted in fatalities occurred on the major roadways in this TAD. Seven occurred on Dixie Highway, one on Gene Snyder Freeway, two on Greenbelt Highway, and three on West Manslick Road/Mount Holly Road. Eight of these crashes were single vehicle crashes, seven occurred at night, alcohol was suspected to be a factor in three of the crashes, two occurred on wet pavement, drugs are suspected to be a factor in one of the crashes, and three of the fatalities were pedestrians.

High Crash Locations

There is only one location in this TAD that has been identified as a high crash location in this TAD. This is the intersection of Dixie Highway and Moorman Road/Flowervale Lane (see Figure 40015-A). One of the seven crashes resulting in a fatality occurred at this intersection. To be considered a high crash location, there must have been 100 or more crashes occur in 2009-2011 within 0.10 mile from one another.

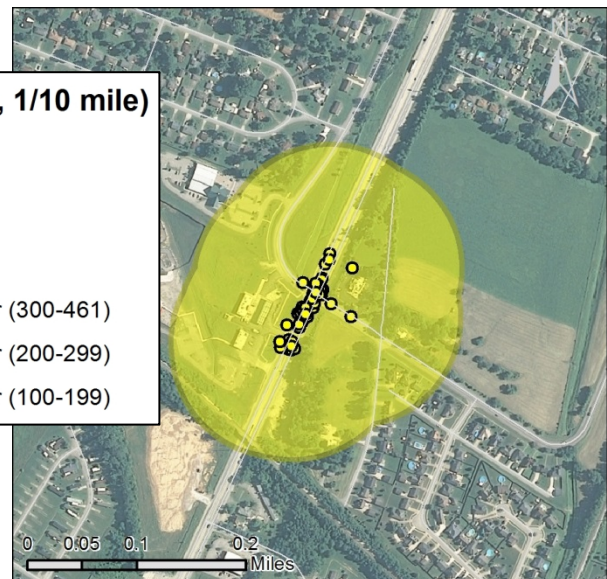
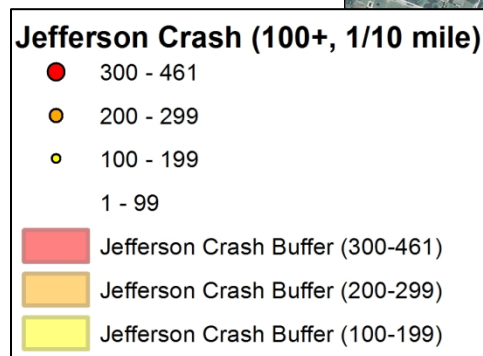


Figure 40015-A: High crash location at Dixie Highway and Moorman Road/Flowervale Lane.

Bicycle and Pedestrian Crashes

There were four crashes involving bicyclists and 15 involving pedestrians in this TAD. The majority of the crashes involving pedestrians occurred at locations where sidewalks are not continuous. All three of the crashes that resulted in pedestrian fatalities occurred on Dixie Highway south of the Gene Snyder Freeway. None of the crashes involving bicycles resulted in a fatality.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> I-65 from Bullitt County to the 8-lane section south of I-265/KY 841 Interchange
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Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are (see Figure 40015-B):

LOS D:	<ul style="list-style-type: none"> Gene Snyder Freeway from Stonestreet Road to National Turnpike National Turnpike from South Park Road to Mount Holly Road National Turnpike from Fairdale Road to Gene Snyder Freeway
LOS E:	<ul style="list-style-type: none"> I-65 from Bullitt County to I-265/KY 841 (Gene Snyder Freeway)
LOS F:	<ul style="list-style-type: none"> US 31W from KY 44 to Gene Snyder Freeway South Park Road from Bullitt County to National Turnpike

Congestion is not a major issue within TAD 40015 at this time. The only roadway that is currently experiencing moderate congestion is the six-lane portion of I-65 just north of Bullitt County. I-65 widens to eight lanes at a point about a mile south of the Gene Snyder Freeway. I-65 is the eastern boundary of this TAD and there are no interchanges on I-65 with surface streets in this TAD, so the congestion on I-65 has little to no impact on this TAD at this time.

Congestion is expected to get worse in this TAD by the year 2030. Each of the major roadways that cross the border to Hardin or Bullitt County are expected to experience significant increases in traffic by 2030. This is driven by significant population and employment growth expected in Bullitt County. Another contributing factor is the high historical traffic growth rate assumed at nearby external stations in the KIPDA travel demand model.

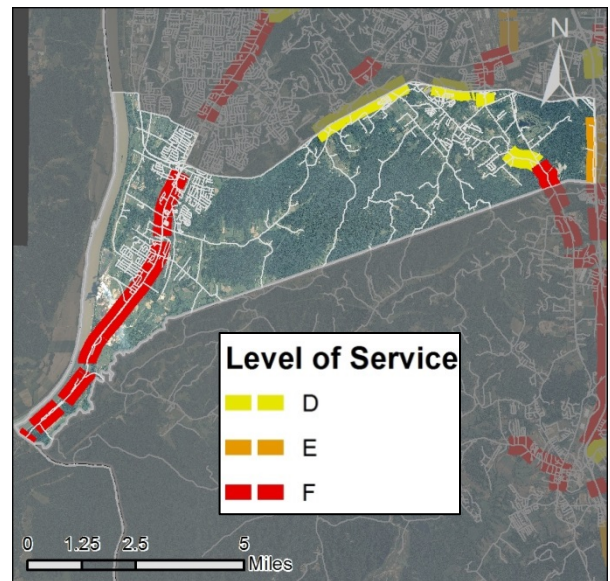


Figure 40015-B: Roadways forecasted to operate at LOS D or lower by 2030 in TAD 40015.

Access to Community Amenities

There are only a few community amenities located in TAD 40015. This is typical of an area that is primarily suburban containing relatively low density residential development. The largest community amenity, certainly in terms of land area, and in terms of trips generated from outside of this TAD, is the Jefferson Memorial Forest. This includes a series of parks and recreational areas that are located between the Dixie Highway corridor and the Fairdale area. This area is only accessible by car, truck, or bicycle (advanced riders only).

There is only one cluster of community amenities centered in this TAD. It is located in the Fairdale area and includes Fairdale Elementary School, the Fairdale Branch of the Louisville Free Public Library, and the Fairdale Fire Department's Headquarters Station. Along the Dixie Highway corridor north of Gene Snyder Freeway, there is a cluster of commercial businesses centered in the neighboring TAD to the north. Even though the entire corridor does not meet the density threshold of 50 or more shops located within 0.25 miles to be considered a high density shopping area in this analysis, there are commercial establishments located throughout the Dixie Highway corridor north of Gene Snyder Freeway that are major traffic generators.

The accessibility to these clusters of community amenities varies. In Fairdale, there is no regularly scheduled TARC service available. There are sidewalks along many, but not all, of the roads in Fairdale that connect most of the surrounding neighborhoods to these amenities located in the center of the community. Access to these areas by bicycle is likely difficult since all of the roadways that connect the surrounding areas to central Fairdale are two-lane roads with little to no shoulders that more closely resemble rural two-lane highways than suburban city streets.

The community amenities located along the Dixie Highway corridor north of Gene Snyder Freeway are generally more accessible than those in Fairdale. TARC Routes #18 and #50 serve the immediate area with nearly 40 trips each day. The service has recently been improved on Route #18 so that headways are no more than 15 minutes on weekdays. Even with this improvement in service, Route #18 remains inaccessible to most residents of this TAD due to only two trips in the morning and afternoon peak hours serving Dixie Highway south of Gene Snyder Freeway. These trips serve the Dixie Highway corridor as far south as Watson Lane. Sidewalks exist in most of the neighborhoods west of Dixie Highway and provide access to the commercial areas along Dixie Highway. However, sidewalks do not exist along Dixie Highway at all in this TAD (with one exception in front of the Kroger located across from Dixie Garden Drive). There are wide shoulders on both sides of Dixie Highway that make the area slightly more accessible for pedestrians and bicyclists.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

There are no major employers located in TAD 40015.

There is one area of high density employment in TAD 40015. It is located along the Dixie Highway corridor north of the Gene Snyder Freeway. It is part of a larger high density employment area that extends north along Dixie Highway into the neighboring TADs. This location is accessible by car and truck due to its proximity to the Gene Snyder Freeway. It is also accessible by transit to those that work in this area but live outside of the TAD via TARC Route #18, which provides service with no more than 15 minute headways on weekdays. Bike and pedestrian access is limited due to the lack of sidewalks on Dixie Highway. There are wide shoulders along Dixie Highway that provide some amount of accessibility for non-motorized users.

There is one area of high density retail in TAD 40015. It is located along the Dixie Highway corridor and is completely contained within the larger high density employment area described above. Accessibility issues are similar to those described above.

There is one commerce park located in TAD 40015 called Prologis Park 265. It is located just southeast of the Gene Snyder Freeway/New Cut Road Interchange. It currently consists of just a single building. Access to this commerce park by truck is very convenient due to its proximity to Gene Snyder Freeway and I-65.

Access for Persons with Disabilities and/or Older Adults

There are two senior centers located in TAD 40015, the Sun Valley Community Center on Bethany Lane west of Dixie Highway and Fairdale Community Center on West Manslick Road. Accessibility issues to these community centers and to shopping areas for persons with disabilities and/or older adults in this TAD are similar issues to those for all users. Only the Sun Valley Community Center is near a TARC route, and it would require about a 0.75 miles walk from the nearest stop on Route #18 at Bethany Lane and Fashion Way (with no sidewalks over a portion of this length), or a paratransit trip on TARC3. Since TARC only provides service to/from the north for the majority of the day, this makes the Sun Valley Community Center inaccessible via transit for most residents of this TAD. The shopping locations on Dixie Highway lack sidewalks along Dixie Highway although there are connections to many of the nearby neighborhoods.

There are no hospitals or major medical centers located in this TAD.

Access to Education

There are seven schools located in TAD 40015. The accessibility of the schools varies greatly. There are two high schools located in the Fairdale area, Fairdale High School and South Park TAPP, and neither is on a TARC route. These schools are easily accessible by car due to their proximity to the Gene Snyder Freeway/National Turnpike interchange. There are a limited number of sidewalk connections that connect the neighborhoods that are nearby, though the Gene Snyder Freeway serves as a barrier for many bicycle and walking trips to school despite the existence of sidewalks along National Turnpike. There are two elementary schools in the Fairdale area, Fairdale and Coral Ridge. There are sidewalks that connect Fairdale Elementary to the nearby neighborhoods, but there are very few sidewalks near Coral Ridge Elementary.

There are three schools in this TAD near Dixie Highway, Frost Middle, Medora Elementary, and Watson Lane Elementary. All three are located near residential areas with sidewalks connecting the schools to the nearby neighborhoods. Frost and Watson Lane appear to be accessible by many modes but are uniquely located next to Louisville Gas & Electric's Mill Creek Power Plant. Medora is also in a unique location, just southeast of the Gene Snyder Freeway/Dixie Highway interchange and just west of the Paducah & Louisville Railroad. These highways and the railroad limit the accessibility to the school by walking or bicycling.

Traffic congestion in the vicinity of these schools is not currently an issue in this TAD. With the forecasted traffic conditions indicating that several roads will be congested by 2030, it is possible that this could impact the access to these schools. However, with most of the schools being located in neighborhoods off the major roadways in the TAD, the impact of traffic congestion will likely be minimal.

Access to Government Services

There are several governmental service facilities located in TAD 40015. Similar to many of the other sections of this report, there are some facilities located along the Dixie Highway corridor and some located in the Fairdale area. With this being a suburban TAD, there are no governmental facilities that generate a large number of trips. Near Dixie Highway, there are two fire stations and the Sun Valley Community Center. The Sun Valley Community Center is relatively inaccessible by any means other than a car due to the lack of sidewalks and the distance to the nearest TARC stop.

In the Fairdale area, there is a library, the Fairdale Community Center, Neighborhood Place-South Jefferson, and a fire station. There is no TARC service available in this area. There are sidewalks along many of the roads in Fairdale that connect most of the surrounding neighborhoods to the services that are located in the center of the community. Access to these areas by bicycle is likely difficult since all of the roadways that connect the surrounding areas to central Fairdale are two-lane roads with narrow or no shoulders that more closely resemble rural two-lane highways than suburban city streets.

Access to Medical Facilities

There are no hospitals or clusters of medical facilities located in TAD 40015. The nearest hospitals to this TAD are Saints. Mary and Elizabeth Hospital, located on Bluegrass Avenue and the Jewish Hospital Medical Center South, located near the I-65/KY 1526 interchange in Bullitt County.

Freight Access

Freight access is not a major issue in TAD 40015. The only roads in the TAD on KIPDA's Freight Network are Gene Snyder Freeway, Dixie Highway, and Greenbelt Highway. Congestion is not currently a major issue on these roadways. Additional congestion on Dixie Highway could be a factor for certain truck trips in the future, but there are only a few freight facilities located nearby and the majority of north/south truck trips would likely use I-65 instead.

There is one freight distribution facility in the TAD, CEMEX Kosmos Cement on Dixie Highway near Hardin County. There is also the Mill Creek Power Plant located near this same location. These facilities are served by the Paducah & Louisville Railroad and by barges on the Ohio River.

Future Socioeconomic Conditions

Despite a relatively large amount of land area in this TAD being underdeveloped, only modest growth is expected to occur in TAD 40015 in the coming decades. Based on the most recent set of forecasts for the year 2030, the number of people living in this TAD is expected to increase by about 15% from 2010 to 2030, while the number of households is expected to increase by about 25% over the same time period. Employment is expected to increase by about 50% over the 30-year period between 2000 and 2030. While this may seem like a large increase in employment, much of this increase has already occurred since 2000 and this is not a major employment area to begin with.

Issues and Opportunities

The lack of transit service to the majority of the TAD, the lack of accessibility for pedestrians and bicyclists to walk or bike to many locations in the TAD, safety, and congestion can all be considered to be transportation issues for this TAD. These are described below:

Transit Inaccessibility

Only a small portion of this TAD near Dixie Highway is accessible by public transit at all, and only an even smaller area north of the Gene Snyder Freeway has access to transit throughout the day. Transit is virtually inaccessible to residents of the remainder of the TAD, including the Fairdale area, where many of this TAD's residents live and where many of the most major destinations in this TAD are located. Having said this, the relative lack of population density and the location of this TAD at the edge of the county make major public transit improvements difficult.

Lack of Accessibility for Pedestrians and Bicyclists

The lack of sidewalks on Dixie Highway, particularly in the more densely developed portion of the corridor that is north of Gene Snyder Freeway, is an issue in this TAD. There are other gaps in the network in the Fairdale area as well, though not located along a major roadway. A portion of the planned Louisville Loop project will pass through this TAD, primarily through the Jefferson Memorial Forest. This should increase the number of bicyclists in the area, but it does little to connect the area along Dixie Highway that is most in need of additional connections.

Safety

While there was only one location identified as being a high crash location in this analysis, this does not necessarily indicate that there are no safety issues in this TAD. There were 13 crashes that resulted in at least one fatality in this TAD over the three-year period that was analyzed. This is a high number when compared to other suburban TADs, especially when considering how relatively little traffic is in the TAD. Seven of these crashes occurred along Dixie Highway, and three of these involved pedestrians at locations where there are no sidewalks. Many of the roads in this TAD were designed to carry inter-city traffic (Dixie Highway) or were designed as narrow two-lane rural roadways.

Suburban development has occurred since these roads were built and the uses of the road have evolved. Should traffic increase on these roadways as is expected, safety problems are likely to persist as well.

Congestion

Congestion is not currently an issue in this TAD, though it is expected to get worse. With only modest population and employment growth expected in this TAD, much of the additional traffic is likely to come from development outside of the TAD, particularly in Bullitt and Hardin Counties. Trips to/from these counties (and points beyond) are likely to utilize freeways and arterials, but heavy congestion on those roadways could eventually spill over to the more minor roadways in the TAD.

Related Plans and Studies

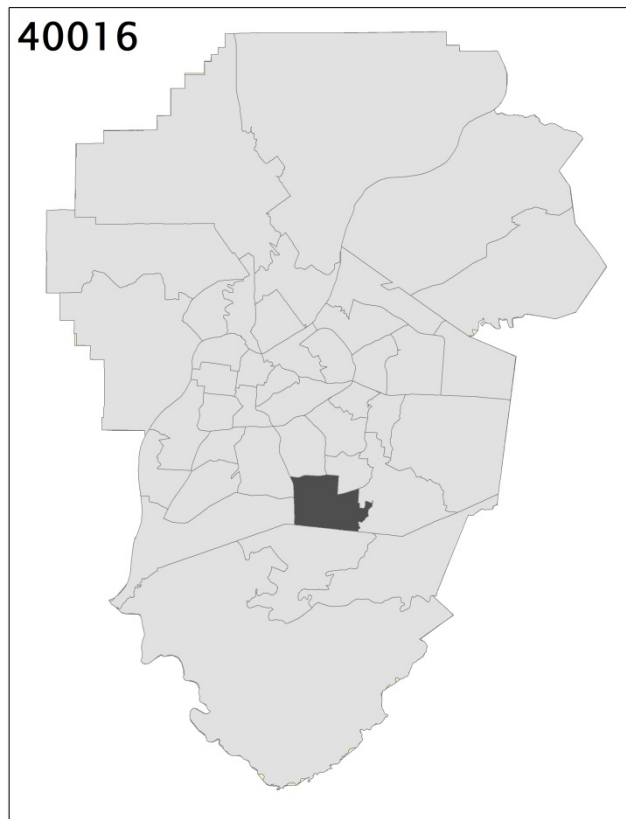
- Cornerstone 2020 Comprehensive Plan (2013)
- Fairdale Neighborhood Plan (2006)
- KIPDA Interchanges Study (2005)
- KY 841/Stonestreet Road Interchange Pre-Design Scoping Study (2011)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40016 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40016 is located in southern Jefferson County, is within Louisville Metro, and is on the border with Bullitt County. It is boarded on the west by I-65, Cedar Creek Road to the east, and KY 1065 (Outer Loop) to the north. The land use in TAD 40016 is a mix of residential, commercial, and agricultural uses. McNeely Park and McNeely Golf Course are prominent in this TAD. TAD 40016 is bisected from east to west by I-265 and north to south by KY 61 (Preston Highway). TAD 40016 is forecast to see low to moderate growth in households, jobs, and non-group quarters population.

Area and Socioeconomic Information

Area: Approximately 10,915 acres
Non-Group Quarters Population (2010): 38,996
Number of Households (2010): 15,216
Number of Jobs (2000): 5,386

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) does not identify any Title VI/Environmental Justice areas in TAD 40016.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-265* from I-65 to KY 864 (Beulah Church Road) Interchange
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 61 (Preston Highway) from Bullitt County line to KY 1065 (Outer Loop)
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 1450 (Blue Lick Road) from Bullitt County line to KY 61 (Preston Highway) • Shepherdsville Road from KY 2845 (Manslick Road) to KY 1065 (Outer Loop) • Smyrna Parkway from Cooper Chapel Road to I-265 • South Park Road from KY 1450 (Blue Lick Road) to KY 61 (Preston Highway) • KY 2845 (East Manslick Road) from KY 61 (Preston Highway) to Shepherdsville Road • Cooper Chapel Road from KY 61 (Preston Highway) to Smyrna Parkway • KY 2053 (Mount Washington Road) from KY 61 (Preston Highway) to KY 864 (Cedar Creek Road)
Urban Collector	<ul style="list-style-type: none"> • South Park Road from I-65 to KY 1450 (Blue Lick Road) • Miles Lane from KY 61 (Preston Highway) to Shepherdsville Road • Shepherdsville Road from Miles Lane to KY 2845 (East Manslick Road) • Robbs Lane from KY 1065 (Outer Loop) to Shepherdsville Road • Applegate Lane from Shepherdsville Road to Smyrna Parkway • Cooper Chapel Road from Smyrna Parkway to KY 864 (Beulah Church Road) • Mud Lane from KY 1450 (Blue Lick Road) to KY 61 (Preston Highway) • KY 6299 (Commerce Crossing) from Cooper Chapel Road to KY 61 (Preston Highway) • KY 6304 (Old Preston Highway) from KY 61 (Preston Highway) to KY 61 (Preston Highway)
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- | | |
|---|--|
| <ul style="list-style-type: none"> • Blake Elementary School • Blue Lick Elementary School • Laukhuf Elementary School • Saint Rita Elementary School | <ul style="list-style-type: none"> • Southern Magnet Career Academy • T. T. Knight Middle School • Wilt Elementary School |
|---|--|

Colleges & Universities

- N/A

Parks

- Blue Lick Park
- Farman Park
- McNeely Park

Other Area of Interest/Significance

- McNeely Golf Course

Historic

- Cooper Memorial Church
- Fishpool Plantation

Transit

TAD 40016 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #18 – Preston/18th Street
- Route #45X – Okolona Express
- Route #66X – Bullitt County Express

Park and Ride

There are two Park and Ride lots identified in TAD 40016:

- Okolona Christian Church
- Gethsemane Baptist Church

Public Comments

I-265 Eastbound

- Going home from Neighborhood Place to Fern Creek. Snyder between Preston Highway and Smyrna Parkway is slow and stopped. Possibly due to merger.

McNeely Park

- Not enough access for bicycles into McNeely Park.

Cooper Chapel Road

- No sidewalk on right side from Preston Highway to Leisure Lane through sharp turn.

Mount Washington Road

- Road is too narrow with no shoulder.

Mount Washington Road/Standiford Plaza Drive

- Installment of new street lights on high accident crossing, such as Mount Washington Road and Standiford Plaza Drive by Okolona Christian Church.

Old Preston Highway

- Motorists use this road to avoid stop lights and traffic off of Preston Highway, and they often speed. Pedestrians often use the road as a walking path.

Safety

3,182 crashes were reported in TAD 40016 from 2009 through 2011. There were 17 fatal crashes from 2009-2011. During this three year period, 37 crashes involved a pedestrian and six a bicyclist.

Fatalities

Fatal crashes occurred throughout the TAD. Five fatal crashes occurred in the I-265 corridor. When reviewing the information concerning the crashes that resulted in a fatality the most common factor was a collision between two or more autos or trucks. A few of the crashes involved persons running off the road, colliding with fixed objects, such as trees, or overturning following initial impact.

Each of the four fatal crashes that involved a pedestrian occurred at night. Two occurred as persons were attempting to cross I-265, one occurred at Preston Highway and the last on Outer Loop. The two surface street incidents occurred at the midblock point of the roadway.

High Crash Locations

Utilizing GIS analysis there are four areas identified as high crash locations that occurred during the 2009-2011 time frame in TAD 40016 (see Figure 40016-A). Two of the high crash locations are shared with TAD 40017 (located north of 40016), and three of them are located on Preston Highway. A high crash location is identified by the number of crashes that occurred within 0.10 mile of each other over the three year period. Areas where there were between 100-299 crashes occurring within 0.10 mile of each other are considered high crash locations.

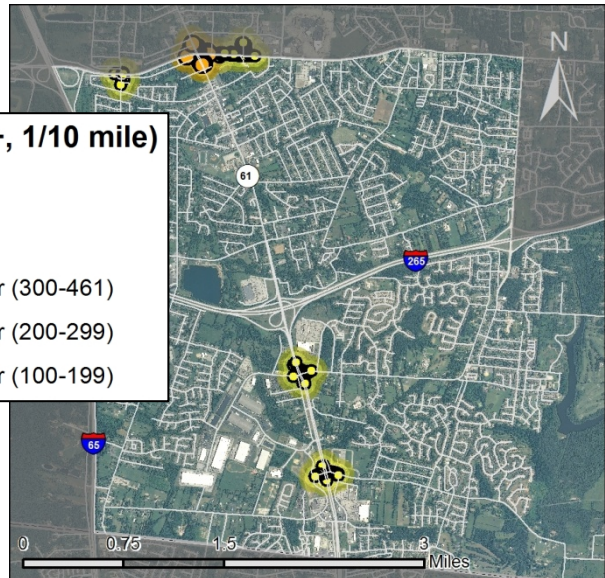
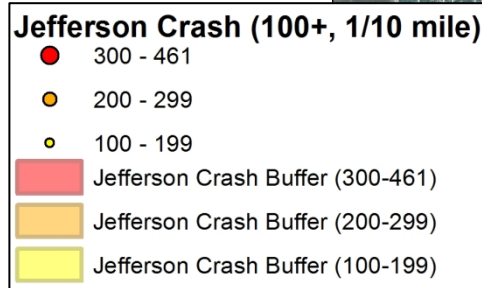


Figure 40016-A: High crash locations in TAD 40016.

Preston Highway/Mud Lane and Mount Washington Intersection

A majority of these crashes occur in the intersection area at Preston Highway and Mud Lane/Mount Washington Road. This area is located on the southern edge of the TAD where the land use is primarily agricultural with residential property along the edge of the highway. Both Mud Lane and Mount Washington Road provide access to shopping centers anchored by Walmart and Kohl's (Mount Washington Road) and Kroger (Mud Lane). Mount Washington Road also provides a connection to Okolona Christian Church. On Mud Lane, the crashes extend 0.07 miles west of Preston Highway to Antonia Way. On Mount Washington Road, the crashes spread from Preston Highway east approximately 0.03 miles east to Standiford Plaza Drive. While this section of Preston Highway currently operates above a Level of Service (LOS) D, it is forecasted to be operating at LOS F by 2030.

Preston Highway/Commerce Crossing Drive and Cooper Chapel Road Intersection

A majority of the crashes (100-199 within 0.10 mile of each other) occur on Preston Highway with others spreading east on Cooper Chapel Road to Preston Crossing Boulevard. The land use immediately surrounding this high crash location is a mix of residential and commercial. Both Commerce Crossing Drive and Cooper Chapel Road provide access to large shopping centers and other similar attractions as well as residential neighborhoods. This section of Preston Highway currently operates at LOS F (north of the intersection) and D (south of the intersection). Forecasted LOS for this area degrades to F by 2030.

Preston Highway/Outer Loop Intersection

This high crash location, with 100-299 crashes within 0.10 mile of each other, is divided between TAD 40016 and 40017. The crashes in 40016 stretch on Preston Highway from Outer Loop south to Okolona Terrace. On Outer Loop the crashes range from just west of the Preston Highway/Outer Loop intersection east to Noltemeyer Wynde Court. Both Preston Highway and Outer Loop are currently operating at an LOS above D and both are forecasted to operate at LOS F by 2030. Contributing to the high frequency of crashes in this intersection may be the full access driveways to commercial facilities on the Preston Highway segment south of Outer Loop. With two travel lanes southbound and two travel lanes northbound with three turning lanes also northbound, drivers wishing to turn left into the establishments close to the intersection may be forced to weave within relatively short distances within the intersection area. The same phenomenon may be occurring on the eastern leg of Outer Loop. While there are access roadways to shopping centers on both sides of Outer Loop, the limited space between access roads may have resulted in a tight weaving situation where drivers must cross two travel lanes in each direction in order to access the center turn lane.

Outer Loop/Briarcliff Road intersection

This area experienced between 100-199 crashes within 0.10 mile from 2009 through 2011. The land use in this area is primarily residential. While this high crash location is shared with TAD 40017, a majority of the crashes occurred in TAD 40016 south of Outer Loop. Running parallel to Outer Loop is Old Outer Loop. The distance between Outer Loop and Old Outer Loop is approximately 0.03 miles. This relatively short distance may contribute to the high crash frequency in this area. This situation may be compounded as Briarcliff carries more vehicles than a typical neighborhood roadway as it provides access to Pinecroft Drive and Foreman Lane (which are south of Briarcliff Road and run parallel to Outer Loop). Pinecroft Drive and Foreman Lane may provide an alternative route around the Preston Highway/Outer Loop intersection as both have access to Preston Highway. Foreman Lane may also provide an alternative access route to Blue Lick Road as Blue Lick Road intersects Foreman Lane. The alternative access from Outer Loop to Preston Highway and from Preston Highway to Outer Loop and the Briarcliff Road/Outer Loop intersection may be operating beyond its intended vehicle capacity.

While limited access to Preston Highway may prove beneficial in many ways, limited access may also be placing much greater volume into the intersections where there are high accident locations. The commercial attractions near these intersections generally have considerable patronage that may overload the intersection and contribute to the frequency of crashes.

Bicycle and Pedestrian Crashes

None of the crashes involving a bicycle resulted in a fatality. Four crashes involving a pedestrian resulted in a fatality. While there were crashes involving bicycles and pedestrians throughout the TAD, of all the crashes, 17 of the 43 (13 of 37 pedestrian and four of six bicyclists) crashes involving a bicycle or pedestrian occurred on or within 0.15 miles of Preston Highway.

Preston Highway, which travels north/south the entire length of TAD 40016, has two travel lanes in each direction, and either a median or center turn lane. It also has an interchange with I-265. While there are shoulders, there are no sidewalks south of Boerste Way. Pedestrian facilities extend north of Boerste Way for the remainder of Preston Highway within TAD 40016. The land uses vary along the Preston Highway Corridor. At its northern end there is primarily commercial property with multiple business driveways providing access to the roadway. In the middle section of Preston Highway there is primarily residential property with each having its own driveway on Preston Highway. The land use at the southern end of Preston Highway is primarily rural with less direct access from surrounding properties. A majority of the pedestrian crashes in this corridor occurred in the northern section of the roadway from Miles Lane north to the Outer Loop. The pedestrian and bicycle crashes south of Miles Lane are fairly evenly dispersed south to Mud Lane.

Preston Highway from Miles Lane to Outer Loop

While there are pedestrian facilities on both sides of the roadway, this area (approximately 1.0 mile in length) experienced eleven crashes beginning in 2009 through 2011 involving pedestrians or bicycles (eight pedestrian and three bicyclists). The continuity of the pedestrian system is disrupted by numerous driveway entrances to commercial establishments. Some entrances are of such a width that the sidewalk itself becomes hard to distinguish against the slope of the driveway. The verge (space between the outer edge of the sidewalk and the edge of the road) is very narrow and may contribute to a lack of pedestrian utility of the sidewalk. This section of Preston Highway is densely developed with many attractions.

Each of the four fatal crashes that involved a pedestrian occurred at night. Two occurred as persons were attempting to cross I-265, one occurred at Preston Highway and the last on Outer Loop. The two surface street incidents occurred at the midblock point of the roadway.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> I-265 from the I-65 interchange to the Preston Highway Interchange
LOS E:	<ul style="list-style-type: none"> I-265 from the Preston Highway Interchange to the Smyrna Parkway Interchange
LOS F:	<ul style="list-style-type: none"> Preston Highway from the Commerce Crossing/Cooper Chapel Road intersection to the Preston Highway/I-265 Interchange

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> I-265 from I-65 Interchange to the Preston Highway interchange East Manslick Road from Preston Highway to Shepherdsville Road
LOS E:	<ul style="list-style-type: none"> Shepherdsville Road from Outer Loop to Robbs Lane
LOS F:	<ul style="list-style-type: none"> I-265 from Preston Highway interchange to Beulah Church Road interchange Outer Loop from the I-65 interchange to Smyrna Parkway Shepherdsville Road from Robbs Lane to East Manslick Road Preston Highway from Outer Loop to Blue Lick Road Preston Highway from East Manslick Road to southern TAD border Smyrna Parkway from Theiler Lane to Cooper Chapel Road

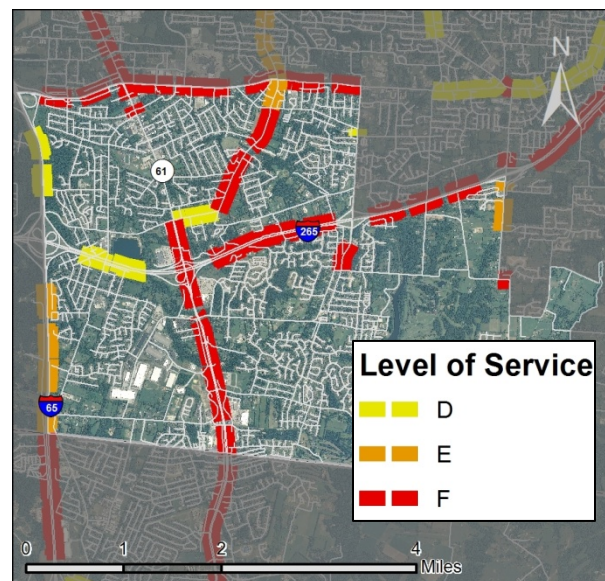


Figure 40016-B: Forecasted LOS in TAD 40016.

Projected LOS of service raises issues for the TAD. Many of the identified corridors provide not only access within the TAD but also provide regional access. The impact of leaving congestion in these corridors unmitigated may result in delayed connections.

Access to Community Amenities

Much of this TAD has dense residential property with high density shopping (50+ shopping opportunities within 0.25 miles of each other and 100+ shopping opportunities within 0.25 miles of each other), schools, government facilities, and parks scattered throughout the TAD. There is one community amenity cluster in the southern portion of TAD 40016 and two that are shared with TAD 40017.

This TAD has public transit with routes on the main roadways and pedestrian facilities on some of the roads and neighborhoods.

Preston Highway/Antle Drive Area

The community amenities cluster in this TAD is in the area of Preston Highway and Antle Drive. There is a combination of high density shopping (50+ retail/service opportunities within 0.25 miles of each other) and dense housing south of Antle Drive. High density shopping is on both sides of Preston Highway and anchored by big box stores. The roads in

the immediate vicinity of Preston Highway have pedestrian access, though there are no pedestrian facilities on Preston Highway, nor are there sidewalks that lead from the shopping on both sides of Preston Highway to the crosswalk that crosses Preston Highway. Public transit is available in the area (TARC Route #45X), but because it is an express route, it makes limited trips in the area. Access by auto and truck is not currently an issue, though forecasted congestion on Preston Highway (LOS F) may introduce issues for people attempting to reach the shopping attractions in the area. Forecasted congestion combined with a lack of pedestrian options on Preston Highway and public transit limitations may make future access to this cluster problematic.

Preston Highway/Outer Loop Area

The community amenities cluster in this area of Preston Highway and Outer Loop is shared with TAD 40017 and has between 10 and 99 community amenities within 0.25 miles of each other. A significant majority of the items that make up the cluster are shopping opportunities (50+ within 0.25 miles of each other). There is also a library and school that are located in TAD 40017. High density housing surrounds the cluster. This area is served by public transit (Route #18 and Route #45X). There are also pedestrian facilities on both Preston Highway and Outer Loop. The neighborhoods surrounding this area have some sidewalks, but a majority of these neighborhoods do not. The traffic volumes within the neighborhoods are of such a low volume that pedestrian usage of the roadways may be relatively safe. Of some concern, though not significant, is the proximity of the sidewalks to the roadway on Outer Loop east of Preston Highway. These sidewalks abut the roadway and may leave some pedestrians feeling unsafe as they walk close to traffic. Another concern is the multiple commercial entrances on Preston Highway south of Outer Loop. In this area traversing the entrances may leave pedestrians also feeling unsafe. This area was also identified as a high crash location.

Outer Loop in the Area of Laurel Ridge Road and Judge Boulevard

A majority of the attractions that comprise this community amenities cluster are located in TAD 40017. This cluster has 100-206 attractions within 0.25 miles of each other. The primary attraction in this cluster is Jefferson Mall, located on the north side of Outer Loop in TAD 40017. The south side of Outer Loop in TAD 40016 has a small strip shopping center in this cluster. The land use in the TAD 40016 section of this cluster is a mix between high density shopping and dense housing. These neighborhoods have a fair amount of sidewalks throughout, the roadways in the neighborhoods where sidewalks do not exist, are of such low volume that a person wishing to walk on the street, might be able to do so relatively safely. Pedestrian facilities line both sides of Outer Loop. On the south side the businesses are located relatively close to Outer Loop and the sidewalks, with parking for autos and trucks behind the commercial establishments. This particular layout provides easier access from the sidewalk to the desired destination. On the north side, there are sidewalks along Outer Loop, but the sidewalks do not provide access to the Jefferson Mall itself. Pedestrians must access the mall area by walking along the entrance driveway and then cross a large parking area. This area is served by two TARC routes. Public transit is provided via Routes #18 and 62. Both routes provide direct access to the mall and to the shopping center located in TAD 40016.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1,000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Insight Communications
- Kroger
- National Tobacco Company
- Yum Brands Inc.

In TAD 40016 there are three clusters of high density employment, one of which includes only high density employment, and the other two containing both high density employment and high density shopping (50+ and 100+ shopping opportunities within 0.25 miles of each other).

Outer Loop/Preston Highway Area

This cluster of jobs stretches along Outer Loop for a mile from Preston Highway east to Robbs Lane (see Figure 40016-C). It also extends 0.70 miles down Preston Highway from Outer Loop to just south of Saint Rita Drive.

Beginning with the Preston Highway corridor, there are many small businesses in this area with one big box retailer in the western side of Preston Highway in between Lambert Road and Trio Avenue. There are sidewalks along both sides of Preston Highway throughout the corridor. There are also many entrances to the commercial facilities that may contribute to unsafe pedestrian access as there are cars and trucks that will cross the sidewalks as they access the commercial opportunities. TARC provides transit in the area in the form of Route #18 and Route #45. The most prominent issue facing this workplace cluster is the frequency of crashes; this area is a high crash location from approximately Okolona Terrace to Outer Loop and beyond into TAD 40017. The frequency of crashes combined with the forecast LOS F may present both safety and delay issues for those persons wishing to access employment opportunities within this cluster.

Along the Outer Loop section of this high density workplace cluster there are several small businesses, big box retailers, and the Jefferson Mall. Most of the businesses along this corridor are north of Outer Loop in TAD 40017, including the Jefferson Mall and other big box retailers. On the south side of Outer Loop in TAD 40016, there are several small businesses. This section of Outer Loop has well defined pedestrian facilities on both sides of the roadway, providing access to the employment opportunities; especially on the south side of Outer Loop in TAD 40016. In TAD 40017 the commercial facilities are set back from Outer Loop and lack direct pedestrian access to their facilities as the sidewalk and the commercial buildings are separated by large parking lots that lack any clear pedestrian option from Outer Loop. This section of Outer Loop has public transit service via TARC Routes #18 and #45. The most significant set of issues facing this particular corridor are on the frequency of crashes and the forecast congestion. This area has been identified as a high crash location with 100-199 crashes from 2009 through 2011. This same corridor is forecasted to see LOS degrade from LOS above D to LOS F by 2030. The combined impact of the frequency of crashes along with the forecast congestion may result in delayed access for automotive traffic and delayed delivery of freight to the area.

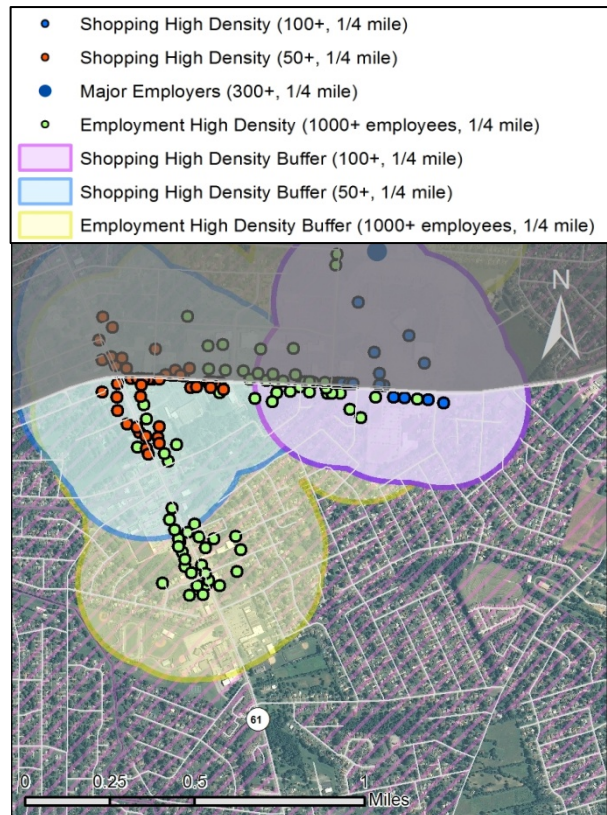


Figure 40016-C: Access to workplace shown for the Preston Highway and Outer Loop area.

Preston Highway/Commerce Crossing Drive Area

This access to workplace cluster is comprised of three major employers (Yum Brands, Insight Communications, and National Tobacco Company) as well as individual businesses whose total employment equals 1000+ employees within 0.25 miles of each other. All of these businesses are located in the Commerce Crossing Commerce Park. There are two primary entrances into the Commerce Crossing Commerce Park; they are Commerce Crossing Drive and Interchange Drive. The land use is primarily industrial with large tracts, parking areas, and freight usage. Public transit service is available in this area via TARC Route #45. Route #45 is the Okolona Express and provides limited access to the area as it is an express route. With limited gaps, there are pedestrian facilities on all of the major corridors in this cluster. Congestion is an issue today for persons and freight wishing to access the commerce park and its employment opportunities. Preston Highway, from the I-265 ramp to Interchange Drive has a current LOS of E and F, with a 2030 congestion forecast at LOS F. The intersection of Commerce Drive Crossing and Preston Highway has also been identified as a high crash location. The frequency of crashes and congestion may serve as an issue for employees and

freight traffic accessing the commerce park from various regional access points, including Preston Highway, I-265, and Outer Loop.

Preston Highway/Antle Drive Area

A major employer (Kroger), as well as retail and other businesses serve as the basis for this area being defined as a high density employment area. This area is a mix of retail and residential areas. Public transit is available through TARC Route #45. Route #45 is the Okolona Express and provides limited access to the area from the north of the cluster. Transit access is not available to the south of the cluster where the high density housing is located. Pedestrian access is available on the roadways within the cluster, but not to the businesses themselves, some of which are set back and would require the pedestrian to cross, in some cases, large parking lots. While this section of Preston Highway has shoulders, there are no sidewalks on the roadway. This may make pedestrian access difficult for some persons. Currently this section of Preston Highway is operating above a LOS D. The LOS is forecasted to degrade to LOS F by 2030. The frequency of crashes may also inhibit timely access to this cluster. The intersection of Preston Highway and Mount Washington Road is a high crash location. The frequency of crashes, combined with the forecast congestion, may introduce significant issues relative to accessing this cluster of workplace opportunities.

Access for Persons with Disabilities and/or Older Adults

Within TAD 40016 there is one facility that specifically services the needs of persons with disabilities and older adults. Located on Blue Lick Road, just west of Preston Highway, the Okolona Wilderness Road sits within a cluster of high density employment and high density shopping. While public transit (Route #18) is available on Preston Highway (approximately 0.17 miles from Okolona Wilderness Road to Preston Highway), there are no sidewalks available on Blue Lick Road that would allow persons to access public transit in a safe manner. Not only would it be difficult for persons to access public transit from Okolona Wilderness Road, it would be equally as difficult to access the shopping and employment opportunities in the immediate vicinity by foot. While persons could walk to Preston Highway (where public transit, pedestrian facilities, and shopping opportunities are located) from Okolona Wilderness Road, the only safe manner of transportation would be by auto; which may not be a viable option for some older adults or persons with disabilities. While neither congestion nor crash frequency pose much of an issue today, the Preston Highway corridor immediately north of Blue Lick Road is forecast to see LOS F by 2030, making the automotive option an even less viable option, especially for some older adults and persons with disabilities.

While there are no hospitals or high density clusters of medical facilities located in TAD 40016, such services can be found north of TAD 40016 in TAD 40008 and south in TAD 30001. The medical services in TAD 40008 may be accessed via public transit and auto. The medical services in TAD 30001 can only be accessed by auto. The lack of a public transit option for Okolona Wilderness Road leaves only the auto option for accessing either cluster of medical facilities, which then introduces both congestion and high frequency crash location issues (there are clusters of high crash locations between Okolona Wilderness Road and the medical services in both TAD 40008 and 30001).

Given that Okolona Wilderness Road serves older adults and persons with disabilities, relying solely on automotive access to and from the facility is less than adequate when considering that some older adults and persons with disabilities are unable or should not drive. Those clients who drive or those who provide transportation for them may encounter future access issues when taking into account the forecast LOS and the high crash frequency that exists between Okolona Wilderness Road and available medical services.

Access to Education

Of the seven schools located in TAD 40016, four of them are located in two separate clusters of two schools each. A cluster indicates where two or more schools are located within 0.25 miles of each other.

Blue Lick Elementary School and T.T. Knight Middle School share a campus located between Blue Lick Road on the west, Kurtz Avenue to the north, and Caven Avenue to the east (see Figure 40016-D). The schools are surrounded by residential neighborhoods. Both schools have good internal pedestrian facilities making movement by students, faculty and visitors unencumbered within the campus boundaries. There are two entrances to the school campus: on the west

by Blue Lick Road and the east via Caven Avenue. When examining the eastern side of campus (Caven Avenue), pedestrian facilities are apparent throughout the neighborhood, including connections to the neighborhood on the northern side of campus (Kurtz Avenue) which also has pedestrian facilities throughout. The driveway accessing the school for Caven Avenue also has sidewalks resulting in seamless pedestrian access to the two schools from both the north and east of campus. While the east and north sides of the campus have a complete pedestrian system, the west side of campus does not. While the Blue Lick Road side of the campus property has sidewalks along Blue Lick Road, there are no pedestrian facilities beyond the campus boundaries along Blue Lick Road.

The neighborhood west of the campus does not have pedestrian facilities. Because the neighborhood is bounded on the west and north by interstates (I-65 and I-265), there are no opportunities for the neighborhood streets to be used as a cut-through. Because only local access uses the roadways within the neighborhood, they may be relatively safe for pedestrian use. There are pedestrian facilities along the Kurtz Avenue (north side of campus) that extend the length of the campus property and beyond to the east. Of greater concern is the lack of sidewalks along Blue Lick Road, which carries a much greater volume of traffic than the other roadways bordering the school (Kurtz Avenue and Caven Avenue). None of the public transit routes within 0.50 miles are an option as they are all express routes with two located on the interstate. There are no current/forecasted congestion or crash frequency issues for these schools. Bicycle access to the campus is viable from the surrounding high density neighborhoods.

In summary, there are no automotive access issues for this cluster of schools. Public transit is not an option and pedestrian access is good with the exception of Blue Lick Road where the greatest volume of traffic exists in the immediate area.

Southern Magnet Career Academy (a high school) and Saint Rita Elementary share a school cluster. Both schools are located along Preston Highway: Southern Magnet Career Academy on the western side of the roadway and Saint Rita Elementary on the eastern side. On the south sides of each campus are High School Drive (Southern Magnet Career Academy) and Miles Lane (Saint Rita Elementary); on the north side of the campuses are Foreman Drive (Southern Magnet Career Academy) and Saint Rita Drive (Saint Rita Elementary). Saint Rita Elementary is bordered on the east by Newstead Avenue. Southern Magnet Career Academy is bordered by a stream on its western side. Both campuses are surrounded by residential neighborhoods and some commercial activity just north and south of the campuses.

Saint Rita Elementary and Southern Magnet Career Academy have good internal pedestrian facilities. Both campuses only have entrances to Preston Highway as the remaining three sides of each campus are fenced thereby preventing access. Preston Highway has sidewalks stretching well beyond both campuses to the north and the south. Because the campuses are fenced, residences in the surrounding neighborhoods must access Preston Highway in order to access the campuses. Accessing Preston Highway from its western side (Southern Magnet Career Academy side) can be achieved via Trio Lane to the north and High School Drive to the south; neither of which have pedestrian facilities. There are some sidewalks in the neighborhoods to the west of Preston Highway, and where there are no sidewalks the local neighborhood roadways could be used by pedestrians as they may be relatively safe due to low traffic volume. Once getting on Trio Lane or High School Drive (which pedestrians would have to do in order to access Preston Highway) the risk of pedestrian injury might increase as these two roadways carry a high volume of traffic. Looking at the eastern side of Preston Highway one can see pedestrian facilities throughout most of the neighborhoods surrounding Saint Rita Elementary. As with Southern Magnet Career Academy, Saint Rita Elementary is fenced on all

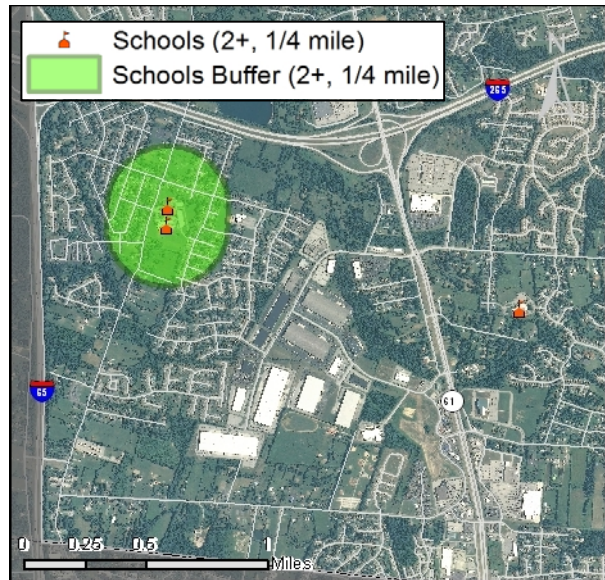


Figure 40016-D: Access to education cluster of Blue Lick Elementary and T.T. Knight Middle Schools and transit routes.

sides except for the Preston Highway side. Therefore, pedestrian access to the Saint Rita Elementary campus can only be made via Preston Highway. South of Saint Rita Elementary is Miles Lane. Miles Lane runs perpendicular to Preston Highway and has pedestrian facilities along its northern edge that provide access from the neighborhood, to Preston Highway, and then to the school campus. On the north side of Saint Rita Elementary is Saint Rita Drive. Unlike its counterpart to the south, Saint Rita Drive does not have pedestrian facilities. Given that Saint Rita Drive is a narrow roadway providing access to numerous attractions, it may be unwise for pedestrians to use this roadway as access to Preston Highway.

TARC Route #18 and Route #45 are within proximity of both schools. Route #18 does not travel south of Saint Rita Drive and Route #45 does not provide afternoon service at or around the time school dismisses for the day. Route #18 may be accessed by students, faculty, and school visitors going to and departing both schools.

While there are currently few issues accessing either school by auto, forecasted congestion at LOS D, E, and F on roadways in the immediate area of the school cluster may result in some difficulty if the congestion issues are left unmitigated.

In summary, both schools benefit from public transit access, and pedestrian access along Preston Highway. However, getting from the surrounding neighborhoods may be more difficult by pedestrians as the roadways that provide access to Preston Highway are lacking in sidewalks (with the exception of Miles Lane) and have a higher volume of traffic due to the providing access to other attractions within the TAD.

Three additional elementary schools are in TAD 40016 but are not clustered with another school. The schools are:

- Blake Elementary, located in the northwestern corner of TAD 40016 on Bonaventure Boulevard
- Laukhuf Elementary School, located in the southern portion of this TAD on Charleswood Road
- Wilt Elementary School, located in the southeastern corner of the TAD on Park Lake Drive

The three schools share the following traits:

- Abut suburban residential neighborhoods
- Have a good pedestrian network in the surrounding neighborhoods that provides direct access to the schools
- Lack reasonably accessible public transit options

Automobile access to Blake and Wilt Elementary Schools is currently not impacted by congestion due to levels of service greater than LOS D. Forecasted congestion will not be an issue for either of these schools. Automobile access to Laukhuf Elementary School, located on Charleswood Road, may currently be impacted by congestion and forecasted congestion. Accessing Laukhuf Elementary School is primarily achieved via Preston Highway to Cooper Chapel Road to Charleswood Road. Preston Highway is demonstrating a current level of service of LOS E and is forecasted to see LOS F by 2030. The current and forecasted congestion, combined with a lack of public transit, may result in access issues for Laukhuf Elementary School.

Access to Government Services

There is no cluster of government services (3+ government facilities within 0.25 miles of each other) in TAD 40016. However, the following government services are identified within TAD 40016:

- City of Heritage Creek Police Department
- Highview Fire District – Station 3
- Okolona Fire Department – Station 1
- Okolona Fire Department – Station 2

All of the government facilities in TAD 40016 are emergency responders. Since fire departments and police stations are not recognized as being destinations (with a few exceptions, including personnel, and the occasional community event which may take place at a fire or police station), pedestrian and transit access is not of great concern. Because of their

possible impact on response time, congestion and crash frequency are important considerations for emergency responders.

The City of Heritage Police Department and the Highview Fire District – Station 3 are located in the southeastern corner of the TAD on Cedar Creek Road. There are no crash frequency or congestion issues within reasonable proximity to either of these emergency responders. Okolona Fire Department – Stations 1 and 2 have a different story.

Okolona Fire Department – Stations 1 and 2 are located on Preston Highway. Station 1 is located near the intersection of Preston Highway and Trio Avenue in the northwestern corner of the TAD; Station 2 is located in the southwestern portion of the TAD at the intersection of Old Preston Highway and Interchange Drive. The potential issues that may affect response time for Stations 1 and 2 are current and forecasted congestion, as well as high crash frequency.

Okolona Fire Department – Station 1

Station 1 is located at the intersection of Trio Avenue and Preston Highway. A segment of Preston Highway from Blue Lick Road south to East Manslick Road has a current and forecasted level of service above LOS D; meaning congestion is not an issue in the immediate vicinity of Station 1. Future congestion may impact response time for Station 1 as its north and south congestion is forecasted to degrade to LOS F by 2030. East Manslick Road, Shepherdsville Road, and Outer Loop are also forecasted to see degradation in level of service (LOS F) by 2030. While congestion may not be an issue directly in front of Station 1, the forecasted congestion on the roadways near the station that may provide access to emergency situations raises some concern. North of Station 1, at the intersection of Outer Loop, the high crash frequency (200+ crashes within 0.10 miles of each other) may pose an issue for Station 1 and its accessing emergency situations in a timely manner.

Okolona Fire Department – Station 2

Preston Highway has a current congestion (LOS E and F) issue on Preston Highway from Interchange Drive north to I-265 and a forecasted congestion issue (LOS F) from East Manslick Road south beyond the border of TAD 40016 into TAD 30001 in Bullitt County. Station 2 is located at the southern end of the current congestion issue and in the middle of the segment in TAD 40016 that has a forecasted congestion issue. The intersections of Preston Highway/Mount Washington Road and Preston Highway/Commerce Crossing Drive have been identified as high crash locations with 100+ crashes within 0.10 mile of each other. Mount Washington Road and Commerce Crossing Drive are intersections just to the south and north of Station 2.

Pedestrian and transit access to the government facilities in TAD 40016 are not an issue because all of the government facilities in TAD 40016 are emergency responders and are not typically viewed as high attractions for the public. The current and forecasted congestion on Preston Highway and surrounding roadways may negatively impact response time for two of the fire stations in TAD 40016.

Access to Medical Facilities

There are no clusters of medical facilities (25+ medical facilities within 0.25 mile of each other) in TAD 40016. The closest medical facility is the Jewish Medical Center South located on Blue Lick Road in TAD 30001. The medical center can be accessed a number of ways from TAD 40016, the two most likely being Preston Highway and I-65. Both congestion (current and forecasted) and high crash frequency may raise access issues for persons wishing to access the Jewish Medical Center South from TAD 40016. There are several high crash locations on Preston Highway and I-65 (ranging from 100+ crashes within 0.10 mile in Jefferson County and 75+ crashes within 0.10 mile in Bullitt County). The high crash frequency issue is accompanied by current and forecasted levels of congestion (LOS E to F) on I-65 and Preston Highway. Given the distance one would have to travel to access the hospital from TAD 40016, walking is not a reasonable access option. The only public transit route that enters into TAD 30001 is TARC Route #66X. Because this is an express route on I-65 it does not provide service to the hospital.

While there are no clusters of medical facilities in TAD 40016, access to the nearest hospital (TAD 30001) may be impeded by the frequency of crashes, current and forecasted levels of service on facilities that would most likely be used to access the hospital from TAD 40016, and a lack of a public transit option.

Freight Access

There is one cluster of major freight users (5+ freight users within 0.50 miles of each other) in TAD 40016. Located near Preston Highway and Interchange Drive, the Commerce Crossing Commerce Center is home to six freight distributors. There are several freight related issues worth noting in TAD 40016. While there is only one cluster of major freight users, there are numerous destinations that rely on freight access in a timely manner in order to conduct business. The KIPDA Freight Network is also present in TAD 40016. Both bisecting the TAD and forming one of its borders, the KIPDA Freight Network is an important consideration in TAD 40016 as I-265 and I-65 are segments of the network.

TAD 40016 is both bisected by I-265 and bordered by I-65. Forecasted LOS shows that nearly all of the approximate 12.5 miles of interstate that are within or border this TAD will be at LOS D, E, or F by 2030. The congestion may have a detrimental impact on freight travel within and passing through this TAD, as well as the rest of the region.

Commerce Crossing Commerce Park

With approximately 280 acres, the Commerce Crossing Commerce Park has six major freight users within its boundaries (see Figure 40016-E). In terms of freight movement within the Commerce Park, there are no issues. There are wide roadways, clearly demarked entrances and driveways, and intersections with long curving corners providing a turning radius that supports freight movement. In terms of pedestrian and transit access, the park has sidewalks along most of its roads and down to the Preston Highway entrance. TARC Route #45X drives through the Commerce Park and provides public transit access for the employees and potential employees. The entire stretch of Preston Highway that fronts the Commerce Crossing Commerce Park has both current (LOS E) and forecasted (LOS F) levels of service that will significantly impede freight access to and from the commerce park. Two of the three entrance roads into Commerce Crossing Commerce Park are high crash locations (Preston Highway/Commerce Crossing Drive and Preston Highway/Mud Lane) with 100+ crashes within 0.10 mile from 2009 through 2011. The middle entrance (Interchange Drive) is unlike the other two entrances (Mud Lane and Commerce Crossing Drive) in that it does not have retail shopping and employment opportunities clustered at its Preston Highway intersection, nor is it a high crash location. Either the congestion or the frequency of crashes alone would introduce concern over the ability of freight to access the Commerce Crossing Commerce Park. In this particular circumstance there are both congestion and crash frequency issues that increase the concern of freight accessing the Commerce Center that may result in a delay in deliveries to businesses within TAD 40016 and areas outside the TAD.

Preston Highway, Mud Lane, Outer Loop

There are two clusters of high density employment and high density shopping which may be destination points for freight. Located on Preston Highway at Mud Lane and Outer Loop, these two clusters of high density attractions are forecasted to have congestion issues (LOS F) by 2030 on Preston Highway, as well as high crash locations. The

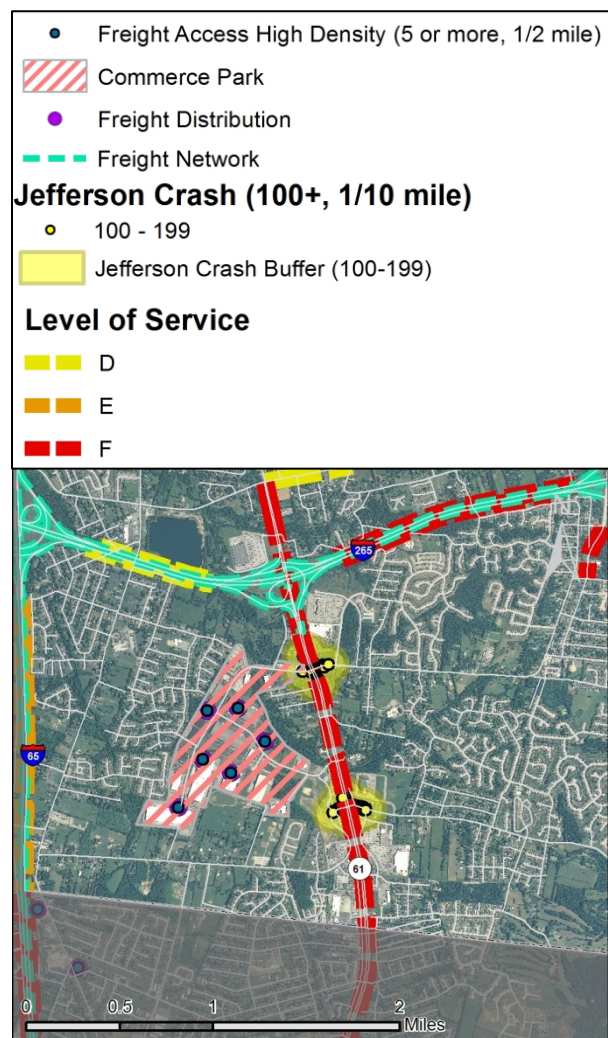


Figure 40016-E: Freight access, high crash locations, and projected Year 2030 LOS at Commerce Crossing Commerce Park.

congestion and crash frequency may negatively impact freight access to these points and result in a delay in freight deliveries and pickups.

In summary, freight access to and through TAD 40016 may be negatively impacted by congestion and crashes on Preston Highway. Not only would this impact TAD 40016, but it would also impact the region as the KIPDA Freight Network may be impacted by the degradation of level of service on the interstates within and bordering TAD. Left unmitigated the impacts on freight traffic may negatively impact the community, and possibly its economy.

Future Socioeconomic Conditions

Much of TAD 40016 is currently built out and not anticipated to see significant changes by the year 2030 in the number of jobs, households, or non-group quarters population. These three socioeconomic indicators are forecasted to see low to moderate growth:

- Households: Low to moderate growth in the southeast corner of the TAD
- Employment: Low to moderate growth in the northwest corner of the TAD
- Population: Low to moderate growth in the southeast corner of the TAD

This scenario is not unexpected given the current density patterns in TAD 40016. Of the three socioeconomic indicators, the increase in the number of jobs and households raises the most interest. In general terms, economic and housing growth is recognized as positive indicators for the TAD. Given the current and forecasted congestion and crash frequency issues on Preston Highway, I-265, and Outer Loop the socioeconomic indicators may be negatively impacted if the congestion and safety issues left unmitigated.

Issues and Opportunities

Frequency of Crashes and Forecasted Congestion on Preston Highway

Preston Highway serves as one of the main routes traveling through TAD 40016. It is used to access many attractions in the TAD as well as a primary means of accessing I-265 and then other attractions both in and out of the KIPDA region. Nearly the entire length of Preston Highway is forecasted to degrade to LOS F by 2030. All but one of the high crash locations in TAD 40016 are on Preston Highway.

Given that Preston Highway is the main artery for TAD 40016 its functionality serves as the barometer for how the remainder of the TAD transportation system operates and one's ability to access points of interest. As evidence to the importance of Preston Highway to TAD 40016, all of the previous sections of this report reference accessing Preston Highway.

Limited Public Transit Opportunities

Three public transit routes serve TAD 40016. They primarily provide access along the Preston Highway Corridor. While access to and along Preston Highway is very important, there is also a lack of transit access to other points of interests within TAD 40016. For instance, none of the parks, including McNeely Park, have transit access, two of the seven schools benefit from public transit access, and many sections of high density housing do not have access to transit.

Both the public comment and the data analysis for TAD 40016 points to a pedestrian network that has gaps that may prevent some persons for accessing destination points on foot. There were 37 crashes involving pedestrians on or within 0.15 miles of Preston Highway. While there are pedestrian facilities along Preston Highway, there are also gaps. The inconsistency of sidewalks may leave some persons hesitant to use walking as an option if they are uncertain whether or not sidewalks will be available for them to use.

Related Plans and Studies

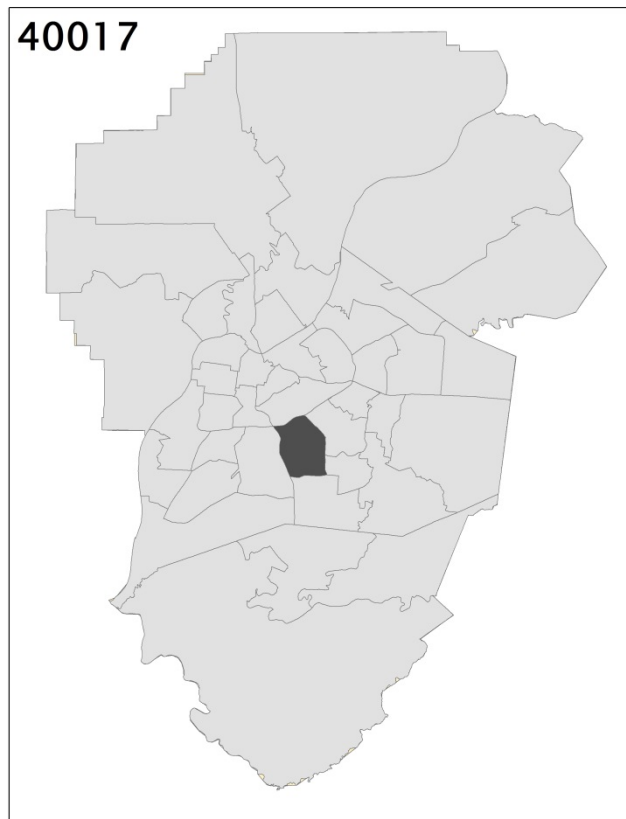
- Cornerstone 2020 Comprehensive Plan (2013)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40017 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40017 is centrally located in Jefferson County. This TAD contains the City of Newburg and is located near the Louisville International Airport. The boundaries of this TAD are I-264, KY 2052, I-65, and KY 1065. The main corridors that run throughout this TAD 40017 are I-264, I-65, KY 61, KY 864, KY 1747, KY 1703, and KY 1065. A major employer General Electrical is to the west of this TAD and will have an impact on this TAD. There are several schools and government facilities located in this TAD 40017. The land use of this TAD is made up of primarily urban, residential, and commercial. The current density of this TAD is suburban residential neighborhoods.

Area and Socioeconomic Information

Area: Approximately 7,967 acres
Non-Group Quarters Population (2010): 32,962
Number of Households (2010): 13,393
Number of Jobs (2000): 32,592

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies a portion of TAD 40017 as a Title VI/Environmental Justice area (see Figure 40017-A).

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

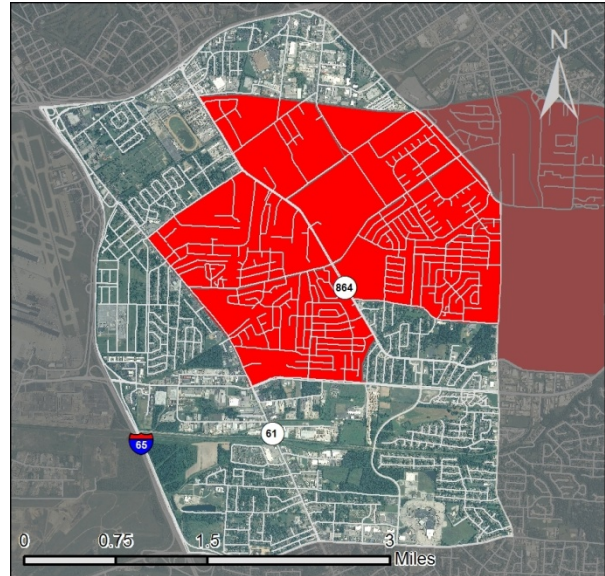


Figure 40017-A: Title VI/Environmental Justice area shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-65* from I-264 to KY 1065 (Outer Loop) • I-264*~ from I-65 to KY 1703 (Newburg Road)
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 1747 (Fern Valley Road) from I-65 to KY 2052 (Old Shepherdsville Road) • KY 61 (Preston Hwy) from I-264 to KY 1065 (Outer Loop) • KY 864 (Poplar Level Road) from I-264 to KY 2052 (Shepherdsville Road)
Urban Minor Arterial	<ul style="list-style-type: none"> • Jefferson Blvd from KY 1747 (Hurstbourne Road) to KY 1065 (Outer Loop) • East Indian Trail from KY 61 (Preston Highway) to KY 1703 (Newburg Road) • Gilmore Lane from KY 61 (Preston Highway) to KY 864 (Poplar Level Road) • Produce Road from KY 864 (Poplar Level Road) to KY 1703 (Newburg Road) • Grade Lane from I-65 to KY 61 (Preston Hwy)
Urban Collector	<ul style="list-style-type: none"> • Gardiner Lane from KY 864 (Poplar Level Road) to KY 1703 (Newburg Road) • Robards Lane from Gardiner Lane to Bishop Lane • Bishop Lane from KY 1703 (Newburg Road) to Jennings Lane • Jennings Lane from Bishop Lane to East Indian Trail • Jeanine Drive from East Indian Trail to KY 1747 (Fern Valley Road) • Rangeland Road from KY 864 (Poplar Level Road) to KY 2052 (Old Shepherdsville Road) • Jefferson Boulevard from KY 864 (Poplar Level Road) to KY 1747 (Fern Valley Road)
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- Evangel Christian School
- Gilmore Lane Elementary School
- Hartstern Elementary School
- Indian Trail Elementary School
- Liberty High School
- Louisville Male Traditional High School
- Newburg Middle School
- Okolona Elementary School
- Pitt Academy
- Price Elementary School
- Rangeland Elementary School
- Slaughter Elementary School
- Thomas Jefferson Middle School

Colleges & Universities

- Brown Mackie College
- Daymar College
- Sullivan College of Technology and Design

Parks

- Petersburg
- Black Mudd
- Okolona

Other Area of Interest/Significance

- None

Historic

- Locust Avenue on 1814 Fern Valley Road

Transit

TAD 40017 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #2 – Second Street
- Route #17 – Bardstown Road/Fern Creek
- Route #18 – Preston Highway
- Route #23 – Broadway
- Route #43 – Portland/Poplar Level Road
- Route #93 – UPS/U of L Downtown Shuttle
- Route #99 – UPS (Downtown West Louisville)

Park and Ride

There is only one park and ride facility located in TAD 40017:

- Bethlehem Baptist Church

Public Comments

KY 61 (Preston Highway)

- Safe corridor needed. Can it be signed to help bikes find a safe way OFF of the major arterial? Current road conditions unsafe for people on bikes.

KY 1703 (Newburg Road)

- There are no sidewalks crossing over Watterson Expressway at Newburg Road from north side of interstate to south towards Bishop Lane and the JCPS Van Hoose building.

KY 1703 (Newburg Road)/I-264 Interchange

- Newburg Road is congested at the I-264 Interchange
-

KY 1747 (Fern Valley Road/Hurstbourne Parkway)

- Change name of Fern Valley Road (east of I-65) to Hurstbourne Parkway for consistency purpose. Leave it as Fern Valley Road west of I-65.

KY 1747 (Fern Valley Road)/Geil Lane

- Add turn signal to eastbound/westbound Fern Valley Road. Accidents have occurred at this intersection.

Roosevelt Avenue

- Cut across expressway for bike/pedestrian access.

Schuff Lane/Colonel Sanders Lane

- Cut across expressway for bike/pedestrian access.

Shasta Trail/Kilmer Boulevard

- Bus stop was moved from Shasta Trail and Kilmer Boulevard to Shasta Trail and Unsel.

Safety

4,455 crashes occurred in TAD 40017 in the three-year period from 2009 and 2011. 19 of those crashes resulted in fatalities, 59 crashes involved pedestrians and 19, a bicyclist. Six of the crashes involving pedestrians and one involving a bicyclist resulted in fatalities.

Fatalities

Of the 19 crashes resulting in fatalities from 2009 through 2011, five occurred on Preston Highway, five occurred on Poplar Level Road, and three on Fern Valley Road. The remaining six occurred throughout the TAD. After looking more closely at the police report data associated with the crashes, there is no one pattern or factor that is common to all of the crashes. The most common factor in about half of the crashes was speed, but in other cases, it was attributed to weather (snow), distracted driving, and driving under the influence, as well as other factors.

High Crash Locations

There are a number of high crash locations identified in TAD 40017 (see Figure 40017-B). High crash locations are defined where 100 or more crashes occur within 0.10 mile of each other from 2009 through 2011. All of the defined high crash locations occur in the western half of the TAD.

I-264/I-65/Preston Highway

The interchange of I-264 and I-65 along with a short segment of Preston Highway is identified as a high crash location with over 200 crashes occurring with 0.10 mile of each other. This location is shared with neighboring TADs 40005, 40008, and 40012. However there was a fatal crash that occurred at the I-65 ramp near I-264. This interchange between two interstates handles large volumes of traffic, as does Preston Highway at I-264. The compressed nature of the roadway geometry and weaving required may be an additional factor in the number of crashes at this location. Over 75% of the crashes occurred on I-65 or an I-65 ramp while 22 occurred on I-264 and 28 on Preston Highway.

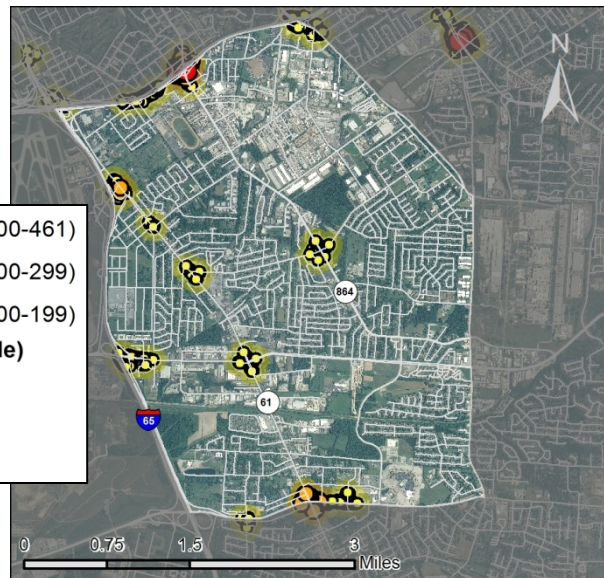
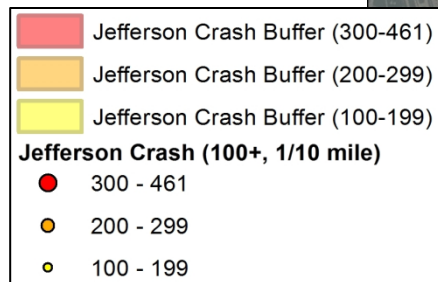


Figure 40017-B: High crash locations within TAD 40017.

I-264/Poplar Level Road Interchange

The heaviest concentration of crashes at this location is within the interchange area, but the segment identified as a high crash location extends along I-264 to the west for approximately 0.70 mile, and to the east for approximately 0.20 miles. This location has the highest density of crashes in this TAD with over 700 crashes over the three year period in little less than a mile. The majority of these crashes occurred on I-264, while almost 200 occurred on Poplar Level Road. There are a lot of vehicles that travel these roadways daily and the proximity to I-65 makes this location a safety issue and congestion issue.

I-264/Newburg Road Interchange

I-264 at Newburg Road experienced over 100 crashes. While some of the crashes occurred on the ramps to and from I-264, and I-264 itself, the majority of crashes appear to be attributed to Newburg Road south of I-264 to Goldsmith Lane. Newburg Road handles large volumes of traffic in this area due to its proximity to not only I-264, but also the surrounding industrial and office uses

Preston Highway at Grade Lane

The intersection of Preston Highway and Grade Lane saw over 200 crashes. The intersection is a T-intersection. Grade Lane provides access to I-65 about 0.20 miles southwest of the T-intersection, and, as such, high volumes of traffic move from and to Preston Highway via Grade Lane. South of this area on Preston Highway is a commercial corridor, and to the west, I-65 and the Louisville International Airport. To the east is a cemetery. The vast majority of crash types at this intersection were rear-end collisions. The traffic volume on both roadways, roadway geometry, the level of congestion (LOS F, currently), and the intersection's proximity to the interstate may all be factors in the number of crashes at this location.

Preston Highway from Pigeon Pass Road to Gilmore Lane

Over 100 crashes occurred between Pigeon Pass Road to Gilmore Lane. This is a heavily traveled roadway with suburban residential abutting the commercial uses that abut the roadway. This segment is less than 0.20 miles in length. Pigeon Pass Road provides the main entrance to a large residential subdivision to the east of Preston Highway while Gilmore Lane provides access from Preston Highway to Poplar Level Road. There are numerous commercial attractions on both sides of the roadway, each with at least one if not several driveway entrances. There is a traffic signal at Gilmore Lane and Preston Highway, but no signal at Pigeon Pass Road and Preston Highway. The number of commercial attractions, associated driveways, and the Preston Highway five lane road section (two travel lanes in each direction with a center turn lane) may all be contributing factors to crashes within this identified high crash location.

Preston Highway at Indian Trail

Preston Highway from West Indian Trail south 0.20 miles has been identified as a high crash location with many of the crashes occurring at the intersection of East Indian Trail and Preston Highway. There were over 100 crashes in the three year period in this segment. Some of the contributing factors may be the high volume of traffic, the large number of commercial attractions and lack of access management, and the offset intersections of West and East Indian Trail, these two intersect Preston Highway less than 0.10 mile apart.

Preston Highway at Fern Valley Road

Fern Valley Road provides a through connection from this portion of Jefferson County and I-65 to the west to the northeastern part of the county, where it is referred to as Hurstbourne Parkway. It connects to several major roadways, as well as to Ford, and as such, carries a high volume of traffic. The intersection of Preston Highway and Fern Valley Road has been identified as a high crash location as over 100 crashes occurred within 0.10 mile of each other. On Preston Highway, these crashes extend north to Ulrich Avenue and south to Old Fern Valley Road. A number of commercial establishments are located on Preston Highway and Fern Valley Road in proximity to the intersection. Within the identified high crash boundary, there are 24 commercial driveways within the 0.20 miles on Preston Highway and the same distance on Fern Valley Road. Both roadways are four travel lanes with a center turning lane or median, but at the intersection, these expand to include seven lanes on Fern Valley Road and Preston Highway with the addition of dedicated turning lanes. Storage for these turning lanes runs almost the entire high crash segment. The number of commercial entrances, roadway complexity (a driver may have to jockey for position once they realize they

are in a turning lane and meant to go straight or vice versa), and traffic volumes may be contributing factors to the number of crashes at this location.

Preston Highway at Outer Loop

The intersection of Preston Highway at Outer Loop saw over 200 crashes. The highest concentration of crashes occurred close to or at the intersection, but the High Crash Location as defined extends east on Outer Loop just shy of Lambert Road. This high crash location is shared with the neighboring TAD 40016 to the south. The two eastern corners of the intersection feature shopping centers and out-lot development. The pattern of strip shopping centers and out lot development continues throughout the high crash area on both sides of Outer Loop. Traffic volumes on both Preston Highway and Outer Loop, the number of commercial attractions within the crash area as well as the number of commercial driveways associated with these businesses may be contributing factors to the number of crashes in this location.

Poplar Level Road at East Indian Trail

Poplar Level Road at East Indian Trail realized over 100 crashes within 0.10 mile of each other. The concentration of crashes is confined to approximately 0.10 mile in each direction from the intersection. 90 of the crashes occurred on Poplar Level Road while 69 occurred on East Indian Trail. All four corners of this intersection contain commercial uses which continue beyond the immediate intersection along both of these corridors; however, several of these uses in the vicinity, such as auto-service establishments, are not high traffic generators. There are also suburban residential neighborhoods nearby as well some industrial uses. The majority of crashes at this location were rear-end collisions followed by angle crashes. Both Indian Trail and Poplar Level Road carry large volumes of traffic daily.

Outer Loop and Briarcliff Road

The intersection of Outer Loop and Briarcliff Drive is just west of I-65. There were over 100 crashes within this identified high crash location, with the collisions primarily at the intersection of Outer Loop and Briarcliff Road, but some additional crashes attributed to this location continue south of Briarcliff Drive to Briarcliff Court. To the north and south of the intersection are suburban residential areas. The intersection is signalized, and Outer Loop consists of two travel lanes in each direction with a dedicated left turn lane on both approaches and a dedicated right turn lane onto Briarcliff Road. Briarcliff Road is three lanes as approaching Outer Loop: a travel lane in each direction shared with a left turning movement, and a dedicated right turn lane onto Outer Loop. The same holds true north of the intersection, except there are two travel lanes near north. Old Outer Loop is less than 0.04 miles to the south of the intersection, now functioning as a frontage road for the multi-use housing along it. The proximity of Old Outer Loop and I-65 to the intersection as well as the large volume of traffic may be contributing factors to crashes within this high crash location.

Fern Valley Road from I-65 east to Paramount Park Drive

The sixth identified high crash location is on Fern Valley Road from I-65 to Paramount Park Drive. There are concentrations of 100-199 crashes within 0.10 mile of each other located at this section of roadway on Fern Valley Road. Also included in this high crash location buffer are crashes that have occurred on I-65 just below the Fern Valley Road. There are many vehicles which travel this four lane highway daily.

Bicycle and Pedestrian Crashes

During the three year between 2009 and 2011, there were 19 crashes reported involving bicyclists and 59 involving pedestrians (see Figure 40017-C). Seven of those crashes resulted in fatalities.

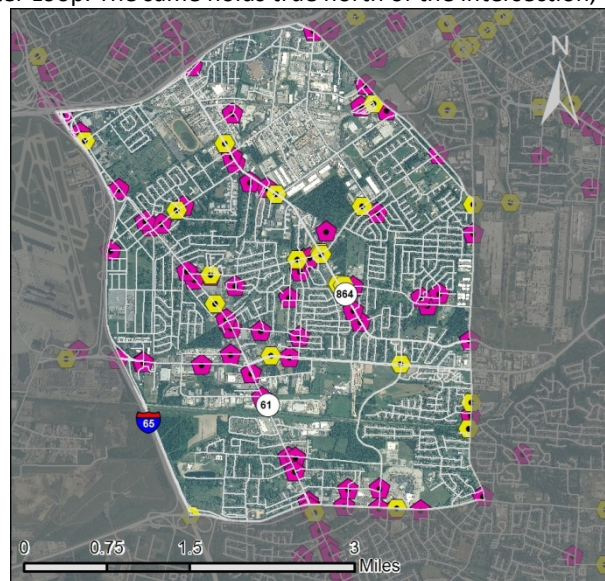


Figure 40017-C: Bicycle (yellow) and pedestrian (pink) crashes in TAD 40017.

Out of 59 pedestrian crashes that occurred in this TAD there were six fatal pedestrian crashes. The first pedestrian fatal crash occurred on Rangeland Road in between Ridgecrest Drive and Robinwood Drive. The second pedestrian fatal crash occurred on East Indian Trail at Indiana Oaks Circle. The third pedestrian fatal crash happened on I-65 near the Watterson Expressway. The other three pedestrian fatal crashes occurred along the roadway on Preston Highway. These three pedestrian fatal crashes were spread out throughout the Preston Highway corridor.

There were also several bicycle and pedestrian crashes that occurred on Poplar Level Road between Bishop Lane and Hanses Drive. The contributing factors to these bicycle and pedestrian crashes are high traffic volumes and gaps in the sidewalk network along these roadways in TAD 40017.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • East Indian Trail from KY 61 (Preston Highway) to KY 864 (Poplar Level Road)
LOS F:	<ul style="list-style-type: none"> • KY 1747 (Fern Valley Road) from the I-65 northbound off ramp to Industrial Boulevard • KY 61 (Preston Highway) from I-65 ramp to KY 1747

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • East Indian Trail from Jennings Lane to KY 864 (Poplar Level Road) • I-65 from I-264 to Grade Lane • Newburg Road from Goldsmith Lane to Meadowcreek Drive • KY 2052 (Shepherdsville Road) from Buechel Bank Road to Rangeland Drive
LOS E:	<ul style="list-style-type: none"> • I-264 from the I-264 ramp of KY 61 to the I-264 ramp of KY 864 • I-65 NB from ramp of KY 61 to ramp of KY 1747

Currently, the congestion on East Indian Trail, KY 1747, and KY 61 may cause delays. The projected congestion for the year 2030 is expected to grow to include East Indian Trail, Newburg Road, KY 2052, I-264, and I-65 may cause additional delays.

Access to Community Amenities

There are several community amenities located in this TAD 40017 including schools, senior centers, nutrition sites, shopping, libraries, and parks. Within TAD 40017 there is one cluster of community amenities (50 or more with 0.25 mile of each other). This cluster is located in the Okolona area. This cluster area goes above Outer Loop between Preston Highway and Judge Boulevard. Among community amenities that make up this cluster are the two schools of Okolona Elementary and Harstern Elementary Schools. Also included in this cluster are the Okolona Public Library and the Jefferson Mall. TARC Routes #18 and #62 provides transit service to this cluster. There are adequate transit and pedestrian facilities located in these areas.

There is also a smaller cluster of community amenities (3 to 9 within 0.25 miles of each other) located in the Newburg area. The community amenities in this cluster are the Louisville Metro Park Petersburg, Newburg Library, Newburg Community Center, Newburg Boys and Girls Club, Newburg Middle School, and Price Elementary School. TARC Route #23 provides service to this cluster and there are adequate pedestrian facilities located on East Indian Trail.

Both of these clusters of community amenities are surrounded by typical suburban development. The first cluster of community amenities in the Okolona area doesn't have good access to surrounding suburban residential

neighborhoods. The second cluster of community amenities located in In the Newburg Area has good access to surrounding suburban residential neighborhoods.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Bank of America Merchant, LLC
- Commonwealth Dodge
- GFS Marketplace
- Jefferson County Public Schools Van Hoose Building
- LAB Corp
- YUM! Brands

There are four clusters of high density employment located in this area. The first cluster is located on Preston Highway at Durrett Lane south of the Watterson Expressway. There are 28 business located in this cluster along with a major employer, Bank of America Merchant. There are sidewalks on Preston Highway and Durrett Lane that access Bank of America Merchant. TARC Route #18 provides transit services on Preston Highway but there are no TARC routes located on Durrett Lane.

The second cluster is located on Poplar Level Road, Gardiner Lane, Bishop Lane, and Newburg Road just south of the Watterson Expressway. There are 616 businesses located in this cluster along with three major employers (YUM! Brands, LAB Corp, and Jefferson County Public Schools). There are pedestrian facilities on Poplar Level Road, Gardiner Lane and Newburg Road but there are no sidewalks on Bishop Lane. There are three TARC routes that provide transit services to this cluster (Route #21, #23, and #43).

The third cluster is located on Fern Valley Road and Preston Highway near I-65. There are 196 businesses located in this cluster along with a major employer (Commonwealth Dodge). However, there are no pedestrian facilities located on Fern Valley Road from Preston Highway to I-65 except for a segment of sidewalk in front of Preslar's Western Shop, Grizzly Creek Outfitters, and Chain Saw World. TARC Route #18 provides transit service to this cluster.

The fourth cluster is located in the Okolona area in between Preston Highway and Shepherdsville Road. There are 264 businesses located in this cluster, along with GFS Marketplace which is located on Jefferson Boulevard behind the Jefferson Mall. There are adequate pedestrian facilities located on Preston Highway, Outer Loop, Shepherdsville Road, and Jefferson Boulevard. TARC Routes #18 and #23 provide transit service to this cluster.

There are two high density shopping areas identified within this TAD. The first is located in the Okolona area along Outer Loop between Preston Highway and Shepherdsville Road. This buffer is centered around the Jefferson Mall and other town centers near the Jefferson Mall. There are sidewalks, and TARC Route #18 and #23 services this cluster. The second is located on Fern Valley Road between I-65 and Preston Highway. There is a lack of pedestrian facilities on Fern Valley Road especially near Ulrich Avenue where the center of the high density shopping cluster is located. However, TARC Route #18 provides transit service to this area.

There are four commerce parks centrally located in this TAD. The first commerce park is Jefferson County Commerce Park located on Produce Road near Petersburg Road. This section of Produce Road has pedestrian facilities in front of the Jefferson County Commerce Park. TARC Route #23 is the nearest transit route, and is 0.15 miles from the park. The other commerce parks are Dixie Park Central and Dixie Park Watterson, which are also located on Produce Road near Poplar Level Road. However, there are no sidewalks located on this section of Produce Road. TARC Route #43 on Poplar Level Road provides transit service to Dixie Park Central and Dixie Park Watterson. The last commerce park is

Watterson Business Park located on Poplar Level Road. There are pedestrian facilities on Poplar Level Road where the Watterson Business Park is located. TARC Route #43 is the transit route provides direct service to the Watterson Business Park.

Access for Persons with Disabilities and/or Older Adults

Within TAD 40017 there are no identified facilities or clusters for persons with disabilities or older adults. The overall pedestrian and transit service to workplaces and shopping areas located in this TAD is adequate for persons with disabilities or older adults. However there are gaps in the pedestrian and transit service throughout this TAD.

Access to Education

There are thirteen schools and three colleges located in TAD 40017. There are two access to education clusters (see Figure 40017-D).

Newburg Middle and Price Elementary Schools are both part of a cluster (two or more schools with 0.25 miles of each other). Newburg Middle School is located on Exeter Avenue which is off of East Indian Trail. Newburg Middle School has pedestrian facilities surrounding the school. There are also pedestrian facilities located on Exeter Avenue and the sidewalks connect into the suburban residential area across the street from the school. TARC Route #23 is located on East Indian Trail which is 0.15 miles from Newburg Middle School. Price Elementary School is located on Garden Green Way. Price Elementary School has pedestrian facilities surrounding the school and there are sidewalks on Garden Green Way. The sidewalks on Garden Green Way connect into the residential high density neighborhood next to the Price Elementary School. TARC Route #23 provides service to Garden Green Way. There are no bicycle facilities within this cluster. There are no issues with auto access and auto crashes in this school cluster.



Figure 40017-D: Access to education clusters in TAD 40017.

Slaughter Elementary School and Brown Mackie College are clustered on Fern Valley Road. Brown Mackie College has adequate pedestrian facilities. There is not a TARC route located on Fern Valley Road; however TARC Route #18 is 0.10 mile from Brown Mackie College. Slaughter Elementary School has pedestrian facilities and there are sidewalks that connect into the high density neighborhoods. The nearest TARC route to the Slaughter Elementary School is TARC Route #18. Daymar College is also located on Fern Valley Road near this cluster. There are no sidewalks in front of the Daymar College on Fern Valley Road and no TARC route. In this cluster of schools there are no bicycle facilities. There is an issue with auto crashes and level of service within this school cluster.

Thomas Jefferson Middle School is located on Rangeland Road. Thomas Jefferson Middle School has pedestrian facilities surrounding the school. There are sidewalks in front of the school on Rangeland Road. Sidewalks connect on the east side of the Thomas Jefferson Middle School to the residential neighborhood. Rangeland Elementary is located on Rangeland Road. Rangeland Elementary has pedestrian facilities surrounding the school. Sidewalks connect to the residential neighborhood. TARC Route #43 provides service to the both Thomas Jefferson Middle School and Rangeland Elementary School.

Louisville Male Traditional High School is located on Durrett Lane off of Preston Highway. Louisville Male Traditional High School has pedestrian facilities surrounding the school and there are sidewalks in front of the school on Preston

Highway. TARC Route #18 stops in front of the school. Also, next to Louisville Male Traditional High School is the Gheens Training Center for Jefferson County Public Schools.

Pitt Academy is located on Preston Highway. Pitt Academy does have pedestrian facilities; however there are no sidewalks on Preston Highway. TARC Route #18 provides service to the Pitt Academy.

Okolona Elementary School is located on Preston Highway. There are pedestrian facilities around the school. TARC Route #18 provides transit services to Okolona Elementary School.

Gilmore Lane Elementary School is located on Gilmore Lane. In front of the school are sidewalks, as well sidewalks in back of the school which connect to a high density neighborhood. The nearest TARC route to the Gilmore Lane is Route #18 on Preston Highway.

Liberty High School is located on East Indian Trail. Liberty High School has pedestrian facilities surrounding the school. Behind the school there is a sidewalk that is connected to the school but does not connect to the suburban residential neighborhood. There nearest TARC route to the Liberty School is Route #18.

Indian Trail Elementary School is located on East Indian Trail. There are sidewalks in front of the school as well as a sidewalk that connects on the west side of the school to a suburban residential neighborhood. The nearest TARC route to the Indian Trail Elementary School is Route #43.

Evangel Christian School is located on Minors Lane. There are no sidewalks located on Minors Lane; however there are sidewalks located on Dupin Drive next to Evangel Christian School. The nearest TARC route to the school is approximately half mile from the school and is on Preston Highway (Route #18).

Hartstern Elementary School is located on Morningside Way. There are sidewalks around the Hartstern Elementary school but there are no sidewalks located on Morningside Way. The nearest TARC route to Hartstern Elementary School is Route #18.

Currently, there is only one bicycle facility located on Poplar Level Road between I-264 and Shepherdsville Road. The nearest schools to this bicycle facility are Indian Trail Elementary School and Thomas Jefferson Middle School.

Access to Government Services

There is one cluster of government services located in TAD 40017. This cluster is located on East Indian Trail and consists of Louisville Metro Park Petersburg, Newburg Community Center, and Newburg Library. These government services are connected with pedestrian facilities along the roadway of East Indian Trail. There is also a community center that is outside of this cluster of government services, and it is the First Neighborhood Place located on Rangeland Road. First Neighborhood Place has pedestrian facilities and is surrounded by suburban residential neighborhoods. TARC Route #23 provides service to this cluster of government services. There is adequate vehicular and transit access to the government services.

Access to Medical Facilities

There are no identified clusters of medical facilities in TAD 40017. The nearest hospital for residents living in TAD 40017 is Norton Audubon Hospital, located in TAD 40008.

Freight Access

There are two major railroads that run through this TAD. They are CSX and Norfolk Southern. There is also a rail intermodal facility located in TAD 40017. The rail intermodal facility is the Norfolk Southern Intermodal facility located on Jennings Lane. There is a lot of freight that moves throughout the Norfolk Southern Intermodal facility daily by truck and rail.

The KIPDA Freight Network is located throughout this TAD. I-264, I-65, Fern Valley, Poplar Level Road, Produce Road, Newburg Road, and Shepherdsville Road are all part of the KIPDA Freight Network. The current level of service on the freight network is a D and E. However, the projected levels of service on the freight network are D, E, and F. According to crash data, there were crashes that occurred on the freight network in this TAD. The crashes resulting in fatalities occurred on I-65, Poplar Level Road, and Fern Valley Road. There were also high crash locations in this TAD that are located on the freight network.

There was a cluster of freight users (five or more within 0.50 miles) identified in this TAD. This cluster is located south of I-264 below between Poplar Level Road and Newburg Road. This cluster includes nine freight distributions centers (Irving Materials, Gateway Press, 2 Derby Industries, United Mail Sorting, Dean Milk Company, Louisville Tile Distributor, Kentucky Association, and Sapa HE Tubing).

Future Socioeconomic Conditions

According to 2030 forecasts, the population in this TAD is expected to slightly decrease between 2010 and 2030. The number of households is also expected to slightly decrease during the same time. However, employment in this TAD is expected to slightly increase. The job growth at General Electric will have any impact on roadways and population in this TAD.

Issues and Opportunities

- There are a number of high crash locations that have been identified in this TAD. There were nineteen fatalities. Safety is a major issue.
- Out of the 19 fatalities, there were six pedestrian crashes. The majority of crashes resulting in pedestrian fatalities occurred on Preston Highway from around Fern Valley to Grade Lane. There is a major issue along Preston Highway in this area.
- There are thirteen schools located in this TAD. Most of the schools have pedestrian facilities but there are some schools that do not.
- There are no pedestrian facilities and no transit service located on Produce Road where there are two commerce parks.
- Another issue is the lack of pedestrian facilities and public transit along Fern Valley Road from I-65 to Shepherdsville Road. There are several businesses and three schools along the Fern Valley Road corridor from I-65 to Shepherdsville Road that may benefit from access to pedestrian facilities and transit services.
- Another issue is there is a large Environmental Justice area located in this TAD. There is adequate pedestrian and transit service that services this Environmental Justice area for people accessing to the workplace. However there are issues with gaps in the pedestrian and transit service.
- Socioeconomic conditions for population and households are forecasted to slightly decline in this TAD. However, the employment is slightly increasing due to seven major employers, twenty-five freight distribution centers and four commerce parks located in this TAD.
- There are major issues facing freight located in this TAD. According to the current level of service on the freight network is D and E in this TAD. The projected level of service for future years are is D, E, and F.
- There are also fatal crashes that have occurred on the freight network. These fatal crashes will have an effect on the freight network in this TAD.

Related Plans and Studies

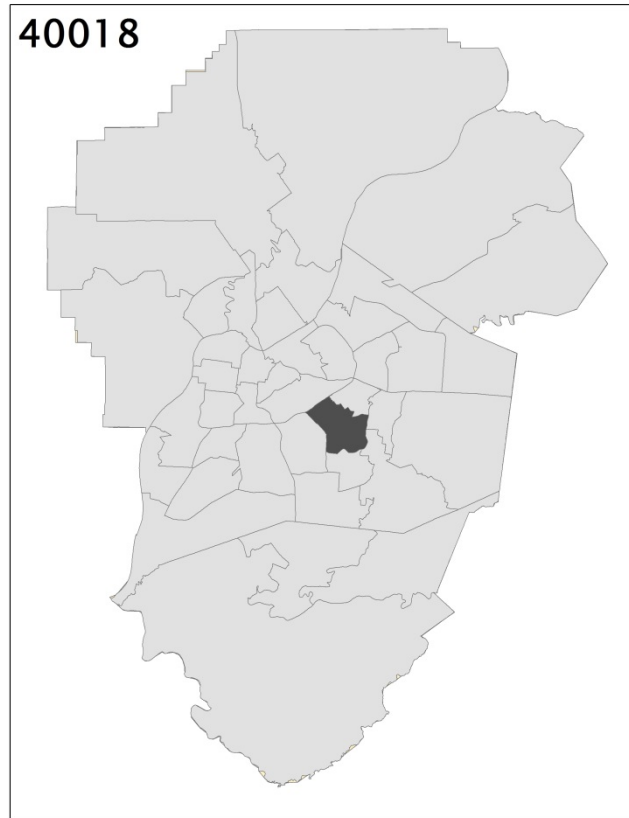
- Cornerstone 2020 Comprehensive Plan (2013)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40018 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40018 is located in central Jefferson County. It is bounded by I-264, KY 1747, and is divided by US 31E (Bardstown Road), which runs through the center of the TAD from northwest to southeast. The northeast portion of the TAD contains part of the Louisville Urban Services District, formerly the City of Louisville. Bardstown Road is almost exclusively commercial with many retail and service industries located along it, ranging from big box retail to local restaurants and retailers. Abutting the commercial development in the northern half and southeastern quadrant are fairly dense residential developments. Housing varies from multi-unit apartment buildings to single family homes. There are small pockets of commercial and other uses within some of the residential areas away from Bardstown Road; most of these amount to neighborhood-scale services, such as libraries, convenience stores, small restaurants, etc. The land use changes in the southwestern quadrant of the TAD to include industrial uses, including General Electric, a major employer and freight distributor. KY 1747 (Hurstbourne Parkway) forms the southeast boundary of the TAD, and the land uses transition back to primarily commercial along this corridor with surrounding suburban residential. The land uses within the TAD are fairly well established, and although there have been some changes over time, the largest opportunity for new development would come from infill development.

Area and Socioeconomic Information

Area: Approximately 7,154 acres

Non-Group Quarters Population (2010): 34,068

Number of Households (2010): 15,142

Number of Jobs (2000): 21,545

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies a portion of TAD 40018 as a Title VI/Environmental Justice area (see Figure-40018-A).

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

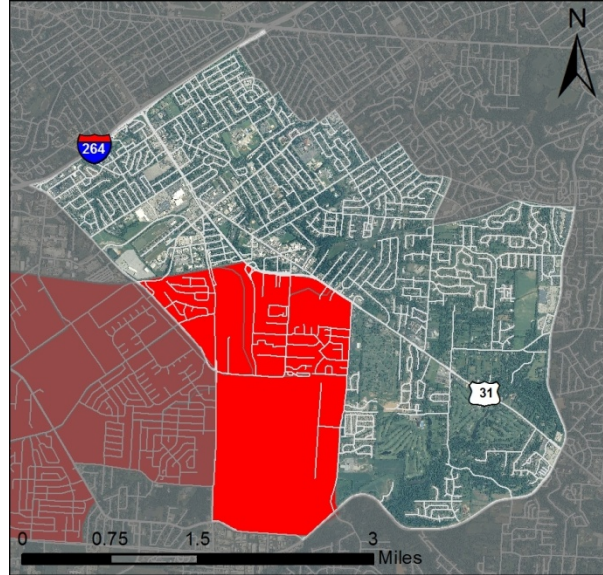


Figure 40018-A: Title VI/Environmental Justice area is shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-264*~ from KY 1703 (Newburg Road) to KY 155 (Taylorsville Road)
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • Hikes Lane from US 31E (Bardstown Road) to Klondike Lane • KY 1703 (Newburg Road) from I-264 to KY 2052 (Shepherdsville Road) • KY 1747* (Hurstbourne Parkway) from just north of Six Mile Lane to Fegenbush Lane • KY 1932 (Breckenridge Lane) from US 31E to Manner Dale Drive • US 31E* (Bardstown Road/Buechel Bypass) from I-264 to KY 1747 (Hurstbourne Parkway)
Urban Minor Arterial	<ul style="list-style-type: none"> • Buechel Bank Road from KY 2052 (Shepherdsville Road) to Buechel Bank Road south of Cottage Meadows Drive • Fegenbush Lane from US 31E to KY 1747 (Hurstbourne Parkway) • Hikes Lane from US 31E to KY 1703 (Newburg Road) • KY 864 (Poplar Level Road) from KY 1747 (Hurstbourne Parkway) to KY 2052 (Shepherdsville Road) • KY 1747 (Fern Valley Road) from Fegenbush Lane to KY 864 (Poplar Level Road) • KY 2052 (Shepherdsville Road) from Hikes Lane to KY 864 (Poplar Level Road) • KY 2251 (Bardstown Road) from US 31E to US 31E (Buechel Bypass) • Six Mile Lane from just east of Westwood Farms Drive to KY 1747 (Hurstbourne Parkway)
Urban Collector	<ul style="list-style-type: none"> • Bashford Manor Lane from KY 1703 (Newburg Road) to US 31E • Buechel Bank Road from just south of Cottage Meadows Drive to KY 2251 (Bardstown Road) • Buechel Bypass Ramp from Progress Boulevard to US 31E

	<ul style="list-style-type: none"> • East Indian Trail from KY 1703 (Newburg Road) to KY 2052 (Shepherdsville Road) • Goldsmith Lane from KY 1703 (Newburg Road) to Hikes Lane • Klondike Lane from Hikes Lane to Six Mile Lane • Progress Boulevard from US 31E to Buechel Bank Road • Six Mile Lane from KY 2251 (Bardstown Road) to KY 1932 (Breckenridge Lane) • South Watterson Trail from US 31E (Bardstown Road) to KY 1747 (Hurstbourne Parkway) • Watterson Trail from KY 1747 (Hurstbourne Parkway) to US 31E (Bardstown Road)
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- | | |
|---|---|
| <ul style="list-style-type: none"> • Binet School • Boy’s Haven Alternative School • Brooklawn Child & Family Services • Buechel Metropolitan High School • Goldsmith Lane Elementary School • John Paul II Academy | <ul style="list-style-type: none"> • Mercy Academy • Myers Middle School • Nur Islamic School of Louisville • Saint Martha Elementary School • Seneca High School • Watterson Elementary School |
|---|---|

Colleges & Universities

- N/A

Parks

- | | |
|--|---|
| <ul style="list-style-type: none"> • Buechel Park • Norfolk Acres Park | <ul style="list-style-type: none"> • PeeWee Park |
|--|---|

Other Area of Interest/Significance

- | | |
|--|---|
| <ul style="list-style-type: none"> • City of West Buechel | <ul style="list-style-type: none"> • General Electric Appliance Park |
|--|---|

Historic

- | | |
|--|---|
| <ul style="list-style-type: none"> • Beech Lawn • Bray Place • Diamond Fruit Farm • Gaar-Fenton House • Hikes-Hunsinger House | <ul style="list-style-type: none"> • Martin Jeff (M.J.) Bannon House • Patrick Bannon House • Saint Bartholomew Parish School • Simeon Lewis Rural Historic District • Taggart House |
|--|---|

Transit

TAD 40018 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within as well as beyond the TAD:

- Route #17 – Bardstown Road/Fern Creek
- Route #21 – Chestnut Street

- Route #23 – Broadway
- Route #43 – Portland/Poplar Level Road
- Route #53X – Breckenridge Lane Express
- Route #62 – Breckenridge Lane/Shepherdsville Road

Park and Ride

There are two Park and Ride lots located within this TAD:

- Fairview Christian Church
- Bashford Manor Baptist Church

Public Comments

Bon Air Avenue

- Cut across expressway for bike/ped access.

Indian Creek Court & Tremont Drive

- Cut across expressway for bike/ped access.

Klondike Lane & Furman Boulevard

- Misaligned intersection. Align these two intersections to provide better access.

KY 2251 (Bardstown Road) & Hikes Lane

- Hikes Lane and Bardstown Road are very congested in the afternoon.

Old Shepherdsville Road/Ethel Avenue

- Dangerous crossing near this intersection.

US 31E (Bardstown Road)

- Need to widen Bardstown Road at Watterson Expressway.
- Bardstown Road near Bashford Manor needs [to be] repaved really bad. I broke the strut on my car due to the awful roadway.

Safety

3,105 crashes occurred in TAD 40018 in the three-year period from 2009 through 2011. Three of those crashes resulted in fatalities. 32 crashes involved pedestrians, including one crash resulting in a fatality. 19 crashes were reported involving bicyclists; none of those 19 resulted in a fatality.

Fatalities

Of the three crashes resulting in fatalities, all occurred on US 31E (Bardstown Road), but in different locations. All three happened in 2010. At the US 31E/I-264 interchange, the fatality occurred when one of the two vehicles disregarded the signal. Close to the intersection of US 31E and Central Avenue, a single vehicle overturned. The underlying factor cited was distracted driving. The third crash close to the intersection of Watterson Trail and US 31E involved a single vehicle and pedestrian. No additional underlying cause was reported. The common issue with all three crash locations is the roadway. Bardstown Road carries a large volume of traffic, and it provides connections not only within the TAD, but to the region and beyond.

High Crash Locations

There are several high crash locations (where 100 or more crashes occur within 0.10 mile of each other).

US 31E (Bardstown Road) Corridor from I-264 to Hikes Lane

Over this roughly one-mile segment, 1,018 crashes occurred from 2009 through 2011 (see Figure 40018-B). The areas that saw the highest number are centered around the I-264/Bardstown Road interchange, and the Bardstown Road and Hikes Lane intersection. Both of those locations saw over 300 crashes within 0.10 mile of each other. 100 or more crashes occurred within 0.10 mile of each other on the remainder of this segment. This portion of the corridor is highly commercial offering a number of retail and service locations from big box retailers to smaller sites located in strip shopping centers and out-lot development, which is surrounded by fairly dense residential use. This approximate one-

mile segment features five signalized intersections, ten intersecting streets, six travel lanes (three in both directions), and more than 30 commercial driveway entrances/exits.

The intersection at the southeastern end of this segment involves an unusual intersection configuration: the intersection of Hikes Lane with US 31E (Buechel Bypass) and KY

2251 (Bardstown Road), and the intersection of Bardstown Road with Gerald Court. More crashes occurred at this location than at the interchange of Bardstown Road and I-264.

Motorists wishing to continue south on Bardstown Road (as opposed to Buechel Bypass) will queue in a left turn lane and cross three lanes of oncoming traffic at an unsignalized intersection onto Bardstown Road, which is a three-lane section (two travel lanes and a center turn lane). At times, traffic can back up on Bardstown Road from the signalized intersection at Hikes Lane, perhaps contributing some to the hesitation for southbound travelers. Those on Bardstown Road wishing to continue north on Bardstown Road also have no signal, but must be able to adequately judge the speed of traffic heading north on Buechel Bypass/Bardstown Road. Compounding this issue is that the first signalized entrance to the Bashford Manor Shopping area, containing several big box retailers, is little more than 200 feet from this intersection and some of the travelers heading north may be trying to cut across three lanes of traffic to reach the turning lane at this signalized entrance. The unsignalized intersection of Bardstown Road and Buechel Bypass is where the heaviest concentration of crashes occurred.

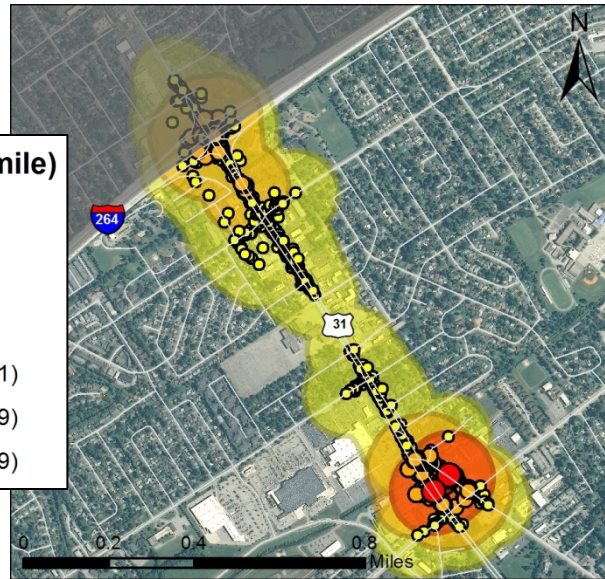
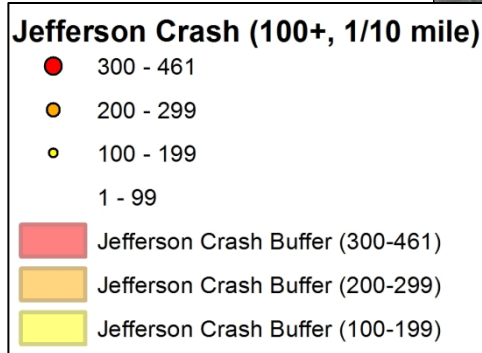


Figure 40018-B: High crash locations along the approximately one-mile segment of the US 31E (Bardstown Road) corridor from I-264 to Hikes Lane.

Compounding this issue is the number of commercial attractions available on this portion of Bardstown Road: there is one intersecting roadway (Gerald Court) and seven commercial driveways within this less than 0.20 miles segment. Adding to this are the signalized intersections of Hikes Lane and Bardstown Road; and, Hikes Lane and Buechel Bypass. These two intersections are less than 0.10 mile apart, surrounded on the north side by commercial attractions. There is also a left turn lane from northbound Buechel Bypass into a shopping center approximately 200 feet south of the unsignalized intersection of Buechel Bypass and Bardstown Road where a number of these crashes have occurred. A driver from this lot heading north, or heading south from this lot would be required to cross three lanes of oncoming traffic.

14 of the 51 (slightly more than 25%) crashes involving bicyclists and pedestrians within TAD 40018 occurred within this segment of Bardstown Road. The majority of these 14 crashes seems to be due to motorists not anticipating a pedestrian or bicyclist in their path when making a turn, as most of them involved a motor vehicle making a right or left turn, and then colliding with a bicycle or pedestrian.

The number of travel lanes, turn lanes, commercial entrances and exits, lack of dedicated bicycle facilities, limited access management, and volume of vehicles within this segment may all be contributing factors concerning the number of crashes involving a cyclist or pedestrian (seven of each occurred from 2009 through 2011) as well as the total number of crashes within this segment of Bardstown Road.

US 31E (Bardstown Road) at KY 1932 (Breckenridge Lane)

This location experienced over 100 crashes from 2009 through 2011. The intersection is a signalized T-intersection, with Breckenridge Lane intersecting Bardstown Road at the southern end of Breckenridge Lane. Over 50% of the crashes were rear end collisions and most of these were recorded as happening at the intersection itself. There are commercial and office uses on the north side of the intersection. To the south of the intersection is a preschool/daycare. Surrounding these uses in proximity to the high crash buffer are multi-family and single-family residential areas. In addition to the residential and commercial destinations in the vicinity, Bardstown Road carries a large volume of traffic, as does Breckenridge Lane and a lot of the traffic is through-traffic. Within 0.25 miles of the intersection, there are a total of twenty entrance/exits to the surrounding land uses and residential streets. The geometry at the intersection may also be part of the issue. Less than 0.10 mile from the intersection, Breckenridge Lane curves slightly in order to meet Bardstown Road at more of a 90 degree angle, but this may also lessen the visual cues or expectation that traffic is stopped or slowed ahead at the signal, at least from the approach from Breckenridge Lane. The volume of traffic, proximity of access points, and roadway geometry may all be contributing to the number of crashes at this intersection.

US 31E (Bardstown Road) at KY 1747 (Hurstbourne Parkway)

This high crash location is shared with neighboring TAD 40020 to the east. Both Bardstown Road and Hurstbourne Parkway are functionally classified as Urban Principal Arterials in this location, and as such, both carry high volumes of traffic (22,000 or more on each leg according to the most recent KYTC traffic counts). The intersection is signalized. There are four travel lanes (two in each direction) on each leg of the intersection. The intersection also includes both dedicated right turn and left turn lanes. The high crash location is located primarily at the intersection, but crashes included extend to include the following area: on Bardstown Road from Del Maria Way to Emrich Avenue; and, on Hurstbourne Parkway, from Hames Trace to Stonybrook Drive. Over 250 crashes occurred within this area within 0.10 mile of each other from 2009 through 2011. Almost half (46%) of the crashes were rear-end collisions. 31% of the crashes were attributed to angle collisions. The northeast quadrant is occupied by LG&E property (substation), which does not create much traffic. The other three quadrants contain commercial uses that abut the intersection, and those are surrounded to the outside by multi-family and single-family residential areas. There are six intersecting roadways and 10 commercial driveways within this area. The number of driveways, intersecting roadways, complexity of the intersection, and volume of traffic may all be contributing factors to crashes at this location.

Bicycle and Pedestrian Crashes

In TAD 40018 from 2009 through 2011, there were 32 crashes involving pedestrians and 19 crashes involving bicyclists. The majority of these crashes (17 involving pedestrians and six involving cyclists) occurred on Bardstown Road. 16 of the crashes occurred in an area identified in this report as a high crash location: 13 of those 16 occurred in the Bardstown Road segment from I-264 to Hikes Lane with four clustered close to the Hikes Lane and Bardstown Road intersection, and five are clustered around the Bardstown Road and Goldsmith Lane intersection. The remainder of crashes is distributed evenly throughout the TAD, although it should be noted that three crashes involving pedestrians occurred on Breckenridge Lane; two involving cyclists occurred on Hikes Lane; and, nine crashes involving both cyclists and pedestrians happened on Goldsmith Lane. None of those occurred at the same location on those roadways.

There are no dedicated bicycle facilities on Bardstown Road within this TAD, although there has been the recent addition of a bicycle lane on Goldsmith Lane (striping at the intersection) to indicate where cyclists are supposed to position themselves relative to traffic turning right. Sidewalks are present on both sides of the roadway from I-264 southwest until the northern intersection of Buechel Bypass and Bardstown Road. From that point continuing to Hurstbourne Parkway, sidewalks and/or shoulders are intermittent at best on Bardstown Road. At times there are no shoulders, and in areas where a shoulder is present, it is often used a right turning lane for motor vehicles to access businesses. Where sidewalks are present on Bardstown Road/Buechel Bypass, commercial driveways often disrupt the sidewalk's continuity. Compounding this lack of facilities as well as alternative routes, whether walking or by bicycle, Bardstown Road/Buechel Bypass is at a minimum two travel lanes in each direction with at least one dedicated left turn lane at each intersection. At intersections, with the addition of right and left turning lanes, pedestrians must cross up to eight lanes of traffic increasing their exposure time to automotive traffic. Once US 31E transitions from Bardstown Road to Buechel Bypass, the speed limit increases from 35 MPH to 45 MPH, perhaps making it less than desirable in

terms of a walking and/or bicycling environment. There are a high number of attractions on Bardstown Road/Buechel Bypass, meaning people will continue to travel to these locations regardless of mode.

One of the crashes involving a pedestrian resulted in a fatality. This occurred in October of 2010 just after seven a.m. according to police data. There were no other mitigating circumstances cited other than it was prior to daylight. The crash occurred approximately 0.30 miles northeast of the intersection of Bardstown Road and Watterson Trail on Bardstown Road. It is difficult to discern the underlying cause of this crash without additional data; however, it can be noted that this portion of Bardstown Road has no sidewalks or shoulders and the speed limit is 45 MPH. It is unknown why the pedestrian crossed outside of the marked crosswalk at the intersection, which may have allowed the pedestrian to cross with the signal, allowing for additional protection from vehicular traffic.

A large number of commercial businesses and service industries are located on Bardstown Road. The lack of facilities for bicyclists and pedestrians along with the volume of traffic, distance between signalized intersections, number of lanes, and traffic speeds may contribute to the number of crashes involving bicyclists and pedestrians in this TAD.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • I-264 from KY 1703 (Newburg Road) to KY 155 (Taylorsville Road) • KY 1703 (Newburg Road) from East Indian Trail to KY 2052 (Shepherdsville Road) • US 31E (Bardstown Road) from Goldsmith Lane to Hikes Lane • Hikes Lanes from US 31E (Buechel Bypass) to KY 2251 (Bardstown Road)
LOS E:	<ul style="list-style-type: none"> • US 31E (Bardstown Road) from Gardiner Lane to Goldsmith Lane • KY 1703 (Newburg Road) from I-264 to Goldsmith Lane

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • I-264 from KY 1703 (Newburg Road) to US 31E (Bardstown Road) • KY 1703 (Newburg Road) from Gardiner Lane to Goldsmith Lane • KY 1747 (Hurstbourne Parkway) from Fegenbush Lane to South Watterson Trail • KY 1747 (Hurstbourne Parkway) from Watterson Trail to Ridgehurst Place • KY 2052 (Shepherdsville Road) from KY 1703 (Newburg Road) to Rangeland Road • US 31E (Bardstown Road) from Goldsmith Lane to Hikes Lane • US 31E (Bardstown Road) from KY 864 (Fegenbush Lane) to KY 1932 (Breckenridge Lane)
LOS E:	<ul style="list-style-type: none"> • Hikes Lane from US 31E (Buechel Bypass) to KY 2251 (Bardstown Road) • I-264 from US 31E (Bardstown Road) to KY 155 (Taylorsville Road) • US 31E (Bardstown Road) from I-264 to Goldsmith Lane
LOS F:	<ul style="list-style-type: none"> • Hikes Lane from Leghorn Drive to US 31E (Buechel Bypass) • Hikes Lane from Goldsmith Lane to Furman Boulevard • KY 1703 (Newburg Road) from I-264 to Goldsmith Lane • KY 1703 (Newburg Road) from Gardiner Lane to Bashford Manor Lane • KY 1747 (Fern Valley Road) from KY 864 (Poplar Level Road) to Fegenbush Lane • KY 1747 (Hurstbourne Parkway) from South Watterson Trail to US 31E (Bardstown Road) • KY 1747 (Hurstbourne Parkway) from Ridgehurst Place to Raintree Drive • KY 1932 (Breckenridge Lane) from Six Mile Lane to US 31E (Bardstown Road) • KY 2052 (Shepherdsville Road) from Rangeland Road to KY 1747 (Fern Valley Road) • US 31E (Bardstown Road) from KY 1932 (Breckenridge Lane) to KY 1747 (Hurstbourne Parkway)

At this time, the level of congestion is fairly confined to I-264 and Bardstown Road north of Hikes Lane with small pockets of congestion on Newburg Road. In the future with only the committed projects as programmed in the *FY 2011- FY 2014 Transportation Improvement Program*, the congestion is anticipated to affect many more of the roadways within the TAD, further increasing travel times. This is especially true of the Shepherdsville Road and Fern Valley Road/Hurstbourne Parkway corridors as there are several industrial businesses in the southwestern quadrant of the TAD that use those facilities to reach those businesses as well as send goods out from those locations. This includes the General Electric Appliance Park. This may impact not only travel within the TAD for freight, transit and automobiles, but also travel in and out of the TAD as many of the affected routes provide connections to the rest of the KIPDA region and beyond.

Access to Community Amenities

Community amenities are considered clustered when three or more community amenities (community centers open to the public, senior centers/nutrition sites, public libraries, museums, colleges/universities, schools, government buildings, shopping, entertainment venues, and parks) are located within 0.25 mile or less of each other. There are three such clusters in TAD 40018.

Goldsmith Lane at Meadow Drive

The first cluster consists of four schools: Seneca High School, Binet School, Goldsmith Lane Elementary, and John Paul II Academy. Three of the schools (Binet, Seneca, and Goldsmith) share a campus that is bounded by Goldsmith Lane, Meadow Drive, Masemure Court, and Bon Air Avenue. John Paul II Academy sits across Goldsmith Lane from the campus of these three schools. This cluster is surrounded by fairly dense residential land use. Vehicular access appears to be adequate, although the entrances of John Paul II Academy and Seneca High School/Goldsmith Elementary sit directly across from one another. From 2009 through 2011, there were seven crashes that involved a second vehicle during school hours (2 in the morning prior to 9 a.m., and the remainder occurred in the afternoon between 2:30 and 5:15 p.m.). The crashes were either turning or rear-end collisions due to stopped or slowed traffic, which may be a result of the entrance locations and traffic queuing to pick up or drop off students. There are no dedicated bicycle facilities along the surrounding streets, although with them being residential and relatively low volume, separate facilities may not be warranted. Pedestrian facilities are available on one side of the street on Goldsmith Lane, Meadow Drive, and Bon Air Avenue, and there is a pedestrian path which connects Autumn Way to the school campus. The crosswalk at the entrance to John II Academy and Seneca/Goldsmith Elementary Schools is well marked. No other crosswalks are apparent in the area. The residential streets surrounding this cluster have the same issue of sidewalks on only one side of the street, but it may not be an issue given that the surrounding streets are residential and have relatively low volumes of automotive traffic. Public transit service is available via Route #23, and there are six transit stops on Goldsmith Lane along the front of the schools' campus. The connection to the Binet School appears to be primarily via Bon Air Avenue, although it is possible to reach the school from the Goldsmith Lane entrance. There is a sidewalk on the west side of Bon Air in the block closest to the school, but it does not continue across Meadow Drive.

Bardstown Road (KY 2251) in Buechel

This cluster of community amenities is formed by the number of businesses (this is also considered a high density area for shopping) located along Bardstown Road and Six Mile Lane in Buechel. These include automotive establishments, a skating rink, YMCA, and convenience stores, among others. This area is served by public transit through TARC Route #17 with a number of stops located within the clustered area. There are no dedicated bicycle facilities in this area. Automotive access appears to be adequate; there are no current or future LOS degradations nor is this location identified as a high crash location. The roadway is a three-lane section (one travel lane in each direction with a center turn lane). There are no dedicated bicycle facilities on the roadways within this cluster of attractions. Sidewalks are not available on the south side of the roadway, but there are sidewalks on the north side, although they are intermittent in areas either due to commercial driveways or simply were not constructed.

Progress Boulevard and Buechel Bank Road

There is a cluster of three establishments within 0.25 miles of each other located close to the intersection of Progress Boulevard and Buechel Bank Road: an outpost of the Kentucky National Guard, Louisville Metro Police – Sixth Division, and the General Electric Corporation Ambulance, Fire, and EMS Service. Given the services these particular

organizations provide, they are not high traffic generators, nor typical attractions for the general public. This was identified as a community amenities cluster as these are government and/or emergency-related services; however, after further review of the services and associated traffic issues, it is more appropriate to include the transportation issues associated with this cluster under the Access to Workplace section. It is worthwhile to note that there are no high crash locations or degraded LOS issues with the roadways closest to these sites, so emergency-response time does not appear to be impacted.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- C&I Engineering
- General Electric
- Multi Packaging Solutions, Inc.
- Radical Rehab Solutions
- UPS Supply Chain Solutions

There are four identified clusters of high density employment with 1,000 or more employees within a quarter of a mile of each other. The cluster in Buechel along KY 2251 (Bardstown Road) also contains a high density retail area with 50 or more locations within 0.25 miles of each other.

There are two major employers located outside of high density employment areas: Multi-Packaging Solutions, located on Shepherdsville Road west of the General Electric Appliance Park, and Radical Rehab Solutions, just west of the intersection of Bardstown Road and Breckenridge Lane. Both of these locations are served by public transit by Route #62 and Route #17, respectively. Neither location features dedicated bicycle facilities. The location on Shepherdsville Road falls within an identified Title VI/Environmental Justice area.

At this time, both Shepherdsville Road and Bardstown Road are operating above a LOS C, so congestion is not an issue at present for either site. By the year 2030, it is anticipated that the segment of Bardstown Road will degrade to a LOS D and Breckenridge Lane will degrade to a LOS F barring any mitigating factors. The LOS on Shepherdsville Road is anticipated to remain above a LOS D. The Bardstown Road site sits just outside (northwest) of the High Crash Location identified at the intersection of Bardstown Road and Breckenridge Lane intersection. Access via motor vehicle and transit appear to be adequate at the Shepherdsville Road site; however, the number of crashes and future LOS may increase delays in accessing the site on Bardstown Road. This segment of Bardstown Road lacks sidewalks along the site's frontage, although there are sidewalks on the opposite side of the roadway in front of a newly developed subdivision. This site is surrounded to the north and east by suburban residential, but the lack of sidewalks in conjunction with traffic volumes and speeds may present a less than desirable environment for commuters who live close enough to walk. On Shepherdsville Road, there are sidewalks on the west side of the road and on the east side, only for the frontage of the site; and, on the north side of Indian Trail, across from the site, which provides some pedestrian connection from the adjoining neighborhood. Shepherdsville Road is a five lane-section (two travel lanes in each direction with a center turn lane). There is no traffic signal at the intersection, nor is there a crosswalk. Traffic volumes and speeds as well as the lack of an identified crossing area may make walking prohibitive to commuters.

Goldsmith Lane and KY 1703 (Newburg Road)

A major employer as well as a cluster of high density employment is located between Goldsmith Lane and I-264, and bounded by Newburg Road and Kemmons Lane. The area to the south and east consists of dense suburban residential housing, both multi-family and single family. The proximity to I-264 allows for vehicular access to and from the interstate. The LOS from just south of I-264 to Goldsmith Lane in this section is currently an E and anticipated to degrade to a LOS F in the future. South of Goldsmith Lane, there is no current congestion in the immediate vicinity;

however, it is anticipated to evolve to a LOS D from Goldsmith Lane to Meadow Creek Drive, and then back to an F from Meadow Creek Drive to Bashford Manor Lane. I-264 is anticipated to degrade to a LOS D by the year 2030 without any mitigating projects. While outside the bounds of TAD 40018, just west of Newburg Road is an industrial area that houses several freight-oriented businesses and is part of this high density employment area. While not a high crash location, the anticipated delays brought on by congestion may produce longer travel times for commuters reaching this area via automobile or transit as well as freight traffic. Public transit service is provided by Route #21, which provides service not only on Newburg Road, but also on Goldsmith Lane and Bishop Lane within the cluster of high density employment. There are no dedicated bicycle facilities within the cluster. Sidewalks are available on both sides of Newburg Road from Bashford Manor Lane north to Bishop Lane, where the sidewalk ends and no pedestrian facilities are available through the I-264 interchange connecting the residential areas from the neighboring TAD to this high employment area. There are also no sidewalks or other pedestrian facilities on Bishop Lane, Kemmons Drive or Leith Lane within this cluster. Goldsmith Lane sidewalks are available on the south side of the roadway from Kemmons Drive to Leith Lane, but there are no other sidewalks on Goldsmith with the exception of one site's frontage approximately one block from Newburg Road. The residential areas to the south and east within walking distance have intermittent sidewalks making walking less than an ideal choice, especially if the commuting employee has a disability.

US 31E (Bardstown Road) from I-264 to Hikes Lane

This segment of Bardstown Road from I-264 to Hikes Lane is a high density employment corridor with 1,000 or more employees within 0.25 miles of each other; this high density employment area extends just beyond Hikes Lane to include a small portion of KY 2251 (Bardstown Road) and US 31E (Buechel Bypass). This area is served by TARC Routes #17, #21, and #23. There are no dedicated bicycle facilities within this segment. Current Level of Service (LOS) on this segment from I-264 to Goldsmith Lane is an E, and from Goldsmith Lane to Hikes Lane, LOS is a D as it is on Hikes Lane from Buechel Bypass to Bardstown Road. The LOS anticipated by the year 2030 remains the same, except for the Hikes Lane portion: it degrades to a LOS E and then continues at a LOS F from Shepherdsville Road to Buechel Bypass. This segment of Bardstown Road has been identified as a high crash location. Between the LOS and number of crashes, without any mitigating factors, access to locations along this segment may involve increased delays to commuters arriving to work via automobile, public transit, and freight traffic. Pedestrian facilities, namely sidewalks, are available on both sides of the roadway from I-264 south to KY 2251 (Bardstown Road). From there, US 31E becomes Buechel Bypass, and there are no sidewalks for an approximate 0.25 miles from the intersection of KY 2251 (Bardstown Road) within the high density employment area. Hikes Lane features sidewalks on both sides within the area while KY 2251 (Bardstown Road) has sidewalks on the north side of the roadway. The high density employment area is abutted by residential land use, both single family and multi-family structures. Considering the lack of dedicated pedestrian facilities within portions of this area, some commuters living within a quarter of a mile may choose another means of transportation besides walking due to the intermittent nature of pedestrian facilities, volume of traffic, and traffic speeds on Bardstown Road although there are sidewalks in many of the surrounding neighborhoods.

KY 2251 (Bardstown Road) and US 31E (Buechel Bypass)

This area is identified as both a cluster of high density employment as well as a high density shopping area. This area includes sites off of KY 2251 (Bardstown Road) and US 31E (Buechel Bank Road) south of Six Mile Lane. This area is served by public transit by TARC Route #17 with a number of stops located within the clustered area. There are no dedicated bicycle facilities in this area. Automotive access appears to be adequate; there are no current or future LOS degradations nor is this location identified as a high crash location. The roadway is a three-lane section (one travel lane in each direction with a center turn lane). There are no dedicated bicycle facilities on the roadways within this cluster of attractions. Sidewalks are not available on the south side of Bardstown Road, but there are sidewalks on the north side, although they are intermittent in areas either due to commercial driveways or simply were not constructed. There are no pedestrian facilities located on Buechel Bypass. This area includes some residential sprinkled throughout, typically abutting the business sites. A portion of this cluster falls within an identified Title VI/Environmental Justice area.

KY 2052 (Shepherdsville Road)/KY 1747 (Fern Valley Road)/KY 864 (Poplar Level Road)

This cluster of high density employment contains the General Electric Appliance Park (a major employer), the Global Distribution Commerce Park, and a concentration of high density employment and another major employer which spills

over the boundary of TAD 40018 into neighboring 40019 to the south. This is also the cluster that contains the community amenities cluster referenced in that section. The portion of the cluster that falls within TAD 40018 falls completely within an identified Title VI/Environmental Justice area. This cluster is abutted by suburban housing primarily to the west, although there are some pockets of residential land use to the north, south, and east as well. Public transit service is available within the clustered area via Routes #23, #43, and #62. There are no dedicated bicycle facilities within the clustered area. Access via motor vehicle appears to be adequate currently. At this time, this area does not contain any high crash locations nor are the roadways currently experiencing a LOS worse than a C. However, by 2030, Shepherdsville Road is anticipated to degrade to a LOS D from Newburg Road to Rangeland Road, and then from Rangeland Road to Poplar Level Road, the LOS is anticipated to be an F. Similarly, on Fern Valley Road/Hurstbourne Parkway, by 2030, the LOS F is anticipated from Poplar Level Road to Fegenbush Lane, and a LOS D from Fegenbush Lane to South Watterson Trail. Commuters relying on access via motor vehicle, including transit, in the future may experience delays in this area due to the worsening LOS. There are few pedestrian facilities within this cluster of employment; no sidewalks exist on Fern Valley Road/Hurstbourne Parkway or Poplar Level Road. Sidewalks are present on the west side of Shepherdsville Road and a portion of Fegenbush Lane. Shoulders are present on portions of these roadways; however, at intersections, shoulders transform into turning lanes leaving little room for pedestrians. Given traffic volumes and speeds, pedestrians and transit commuters may find the walking environment in this clustered area less than desirable.

Access for Persons with Disabilities and/or Older Adults

There are no clusters of medical facilities in TAD 40018. The clusters of high density employment areas as well as retail shopping have been covered in the Access to Community Amenities and Access to Workplace sections, with one of the primary barriers for persons with disabilities and older adults being the lack of continuity of the pedestrian network in areas with a high number of attractions. There is a senior center and nutrition site located at the Buechel Park Baptist Church at 2403 Hikes Lane, which is less than 0.30 miles east of the intersection of Hikes Lane and KY 2251 (Bardstown Road). The surrounding land uses along Hikes Lane transform from mainly commercial at the intersection of Bardstown Road to mostly residential in the area directly surrounding this site. Hikes Lane features sidewalks on both sides of the roadway; however, the roadway is a five lane section (two travel lanes in each direction with a center turn lane), and the closest signalized intersections are Goldsmith Lane (over 0.40 miles to the east) or Bardstown Road (approximately 0.28 miles to the west). Persons who live in the surrounding residential areas wishing to reach this site as a pedestrian would have to choose between jaywalking across the five lanes of traffic on Hikes Lane, or traveling at a minimum 0.50 miles to go to the closest signalized crossing. Pedestrians living in the neighborhoods on the north side of Hikes Lane would likely find the pedestrian access adequate because of the continuous sidewalk, and the low volume and speed of traffic on the surrounding residential streets. This site is not served by a public transit fixed route; however, the site does fall within the 0.75 miles parameter for paratransit service, so if a person is found eligible for paratransit service, this site would be reachable. Access by motor-vehicle appears to be adequate; there are no high crash locations identified in the immediate area, and the current LOS on Hikes Lane is above a D currently and anticipated to operate at that same level in the future.

Access to Education

Schools and universities were looked at in terms of two or more schools located within 0.25 miles of each other. The Binet School, Seneca High School, Goldsmith Lane Elementary School, and John Paul II Academy comprise one of the clusters. Saint Martha Elementary and Myers Middle School comprise the other cluster that falls within TAD 40018. The third cluster is shared with the neighboring TAD to the north, and in TAD 40018 contains the Boys and Girls Haven Alternative School.

Binet School, Seneca High School, Goldsmith Lane Elementary School, and John Paul II Academy

Three of these schools (Binet, Seneca, and Goldsmith) share a campus bounded by Goldsmith Lane, Meadow Drive, Masemure Court, and Bon Air Avenue. John Paul II Academy sits across Goldsmith Lane from the campus of these three schools. This cluster is surrounded by residential neighborhoods. Vehicular access appears to be adequate, although the entrances of John Paul II Academy and Seneca High School/Goldsmith Elementary sit directly across from one another. From 2009 through 2011, there were seven crashes that involved a second vehicle during school activity hours

(two crashes in the morning prior to 9 a.m., and the remainder occurred in the afternoon between 2:30 and 5:15 p.m.). The crashes were either turning or rear-end collisions due to stopped or slowed traffic, which may be a result of the entrance locations and traffic queuing to pick up or drop off students. There are no dedicated bicycle facilities along the surrounding streets, although with them being residential and relatively low volume, separate facilities may not be warranted. There is a bike lane installed along Goldsmith Lane from Bardstown Road to Bon Air Avenue, but it ends approximately 0.65 miles away from the main entrance to the schools. Pedestrian facilities are available on one side of the street on Goldsmith Lane, Meadow Drive, and Bon Air Avenue, and there is a pedestrian path which connects Autumn Way to the school campus. The crosswalk at the entrance to John II Academy and Seneca/Goldsmith Elementary Schools is well marked. No other crosswalks are apparent in the area. The residential streets surrounding this cluster have the same issue of sidewalks on only one side of the street, but it may not be an issue given that the surrounding streets are residential and have relatively low volumes of automotive traffic. Public transit service is available via Route #23, and there are six transit stops on Goldsmith Lane along the front of the schools' campus. The connection to the Binet School appears to be primarily via Bon Air Avenue, although it is possible to reach the school from the Goldsmith Lane entrance via internal circulation. There is a sidewalk on the west side of Bon Air in the block closest to the school, but it does not continue across Meadow Drive.

Saint Martha Elementary School and Myers Middle School

Saint Martha Elementary School is located on Klondike Lane, next to Pulliam Drive, which serves as the entrance to Myers Middle School; the campuses for these schools abut one another, with Myers being located just on the north side of Saint Martha Elementary. To the west, south and east are residential neighborhoods. To the north, between the Myers campus and Hikes Lane, is a large church. This cluster is not served by public transit; the closest stop is located at Hikes Lane and Glenmeade Road, which would require a bike ride or walk from the bus stop of about 0.50 miles to Pulliam Drive, which may be an acceptable option for parents and/or staff getting to either school. There are no dedicated bicycle facilities within the clustered area although with the exception of Klondike Lane, the roadways are mostly residential and have lower traffic volumes and speeds which may not warrant dedicated bicycle facilities. Vehicular access appears to be adequate: there are no high crash locations within the cluster, nor is Klondike Lane currently suffering from congestion issues, and it is anticipated to maintain a LOS above a C or higher by the year 2030. Continuous sidewalks are present on the north side of Klondike Lane for the 0.25 miles walking radius, but absent on the south side until the western edge of Saint Martha's campus, at which time they are continuous beyond 0.25 miles boundary on the south side of Klondike Lane. Klondike Lane is a two-lane roadway with no shoulder; however the sidewalks that are present are set back from the roadway in most cases allowing pedestrians some distance from automotive traffic. Many of the surrounding neighborhoods also feature sidewalks connecting to Klondike Lane. Pulliam Drive, which in essence, serves as the driveway for Myers Middle School, has sidewalks on the east side, but there appears to be no crosswalk across Pulliam warning drivers that pedestrians may be present and guiding pedestrians across the roadway to the sidewalk. There are no sidewalks along the driveway of Saint Martha Elementary School.

Boys and Girls Haven Alternative School

Boys and Girls Haven is actually part of a cluster that extends to the north to the neighboring TAD, but is physically separated by I-264 from the other schools in that cluster. For that reason, the Boys and Girls Haven is not actually considered clustered because of the I-264 barrier and the impact of having two or more schools located closely together is lost due to that barrier. In addition, many of the students attending this school and/or receiving services live on site, lessening the need for daily transportation to and from the school for students, but it would still apply to staff and other involved parties. This site is located on Goldsmith Lane to the east of Bardstown Road, and provides not only schooling but a number of other services to boys and girls up to age 21. Access is available to the school via public transit through Route #23, which actually runs along Goldsmith Lane in front of the school. In addition, Route #17 and Route #21 provide service along Bardstown Road, less than 0.20 miles from the entrance to the site. Vehicular access on Goldsmith Lane appears to be adequate, but accessing the site from Bardstown Road may be problematic due to current and future congestion issues and that portion of Bardstown Road being identified as a high crash location. To the north of the site is I-264, which may present somewhat of a barrier if traveling on foot or by bicycle, although there are sidewalks on both sides of Bardstown Road through the interchange. This segment of Goldsmith Lane has dedicated bicycle facilities from Bardstown Road to Bon Air Avenue. To the west of the site are commercial businesses.

To the east and south are residential land uses. Sidewalks are available on both sides of Goldsmith Lane from Bardstown Road to Bon Air Avenue, beyond the quarter-mile walking radius assigned for GIS analysis. Sidewalks are available from some of the intersecting residential streets to Goldsmith Lane, and of those without sidewalks or other pedestrian accommodations, traffic speeds and volumes are low that additional amenities may not be warranted.

Brooklawn Child & Family Services

Brooklawn is located on Goldsmith Lane west of Bardstown Road. Students attending this school and/or receiving services live primarily on site, lessening the need for daily transportation to and from the school for students, but it would still apply to staff and other involved parties. Brooklawn sits just south of I-264, and its campus is bounded by Trafalgar Square, Goldsmith Lane, and Dukehart Drive in addition to I-264. Multi-family and single-family residential uses abut the campus to the south and west. To the east, approaching Bardstown Road, land uses become more commercial. Public transit is available on Goldsmith Lane via Route #21. Additionally, Route #17 and Route #23 are available from Bardstown Road and Goldsmith Lane, approximately 0.25 miles from the Brooklawn campus. There are no dedicated bicycle facilities on this portion of Goldsmith Lane or the surrounding streets. Motor vehicle access to the site may be impaired due to the high crash location and current and future congestion on the Bardstown Road corridor to the east. Continuous sidewalks are available on both sides of Goldsmith Lane from Bardstown Road to just east of Dukehart Drive, but then are discontinued or are intermittent on Goldsmith Lane further to the west.

Buechel Metropolitan High School

Buechel Metropolitan High School is located to the west of the commercial development on Bashford Manor Lane. Residential neighborhoods are across Bashford Manor Lane to the north, while to the east is commercial development. To the south there is a mixture of multi-family housing, shared high school athletic fields (not any relation to Buechel Metropolitan High School) and commercial businesses. Public transit is available on Bashford Manor Lane via Route #23. Route #17, and Route #21 also come down Bashford Manor Lane to Mall Road from Bardstown Road, approximately 0.20 miles from the school. There are no dedicated bicycle facilities on Bashford Manor Lane or the streets that fall within 0.25 miles of the school. Vehicular access appears to be adequate; this particular location does not contain any high crash locations, and Bashford Manor Lane is operating at a LOS above D and anticipated to continue to do so by 2030. Access issues in the future may be caused by the LOS on Newburg Road (LOS F) and Bardstown Road (LOS D) that provide access to Bashford Manor Lane. The congestion on those two roadways may cause delays in reaching the school via public transit or motor vehicle. Sidewalks are available on both sides of Bashford Manor Lane with amenities, such as benches, for transit in certain locations. Many of the surrounding residential streets do not feature sidewalks; however, given the lower traffic volumes and speeds on these roadways in addition to this school serving students from all over Jefferson County and not likely walking from nearby neighborhoods, this may not be an issue.

Mercy Academy

Located on Fegenbush Lane, Mercy Academy is east of the General Electric Appliance Park and other industrial uses and south of a suburban residential area. To the south are open fields and Hurstbourne Lane, and to the east, additional open fields and a country club. Public transit is available to Mercy Academy in the form of Route #23. There are no dedicated bicycle facilities in the immediate area. Vehicular access appears to be adequate; Fegenbush Lane does not have any identified high crash locations, nor is it currently operating below a LOS C, and it is anticipated to maintain a LOS C or higher through the year 2030. Sidewalks are present on the west side of Fegenbush Lane from Hurstbourne Parkway, and then beginning at the Mercy campus, available on both sides providing a connection to the neighborhood to the north, approximately 0.25 miles away from the campus entrance. The neighborhood also contains sidewalks throughout. There is no crosswalk across Fegenbush Lane to the school entrance; however, there may not be enough pedestrian traffic coming from the industrial area of Fegenbush Lane to the west to warrant a crosswalk. According to the crash data, there were no crashes in the area from 2009-2011 that involved a pedestrian.

Nur Islamic School of Louisville

The Nur Islamic School is located off of Six Mile Lane, and is surrounded on all sides by suburban neighborhoods, including both single family and multi-family homes. The closest public transit routes – #62 and #23 – are approximately 0.50 miles away at the intersection of Six Mile Lane and Breckenridge Lane, which may provide an

option for staff and parents, but may be too far for unaccompanied elementary and middle school students attending the school. There are no dedicated bicycle facilities in the immediate area surrounding the school. Vehicular access appears to be adequate; there are no high crash locations identified nearby, nor is congestion an issue on Six Mile Lane, now or in the future. Sidewalks are available on the north side of Six Mile Lane, opposite the school, and appear to be mostly continuous within 0.25 miles, but there are no sidewalks on the south side of Six Mile Lane, the side where the school sits. The residential areas surrounding the schools have some sidewalks while others do not; however, given the lower speeds and traffic volumes on these roadways, it may not be an issue for those walking until having to cross Six Mile Lane. A rail line sits at the rear of the school's property, creating a barrier between the school and Buechel Park and surrounding neighborhoods to the south as streets running north-south simply dead-end at the rail line. This may pose an issue for all modes with the exception of public transit as students, parents and staff going and coming from the school from these areas would be forced to take Six Mile Lane to either Buechel Avenue/Crawford Avenue (approximately one mile to the west) or Breckenridge Lane to Redding Road (approximately 0.75 miles to the west and south) for a distance that from the closest street in the neighborhood to the south at the rear of the school is less than 0.25 miles away.

Watterson Elementary School

Watterson Elementary School is located on the west side of Breckenridge Lane between Heavrin Avenue and Redding Road. Residential uses, including both single family and multi-family units surround the school campus. Public transit is available via Route #62, and there are stops directly in front of the school on both sides of Breckenridge Lane. Automotive access appears to be adequate currently; there are no high crash locations identified in the immediate area and the LOS is currently a C or above. By the year 2030, the LOS on Breckenridge Lane is anticipated to degrade to an F, which will likely cause delays for transit and vehicles accessing the school. There is a secondary access point to the school from Frederica Drive and Redding Road, which may provide an alternative route for those approaching from the west. There are no bicycle facilities within the immediate vicinity surrounding the school. Sidewalks are available on both sides of Breckenridge Lane, and both Breckenridge Lane and the school's driveway feature marked crosswalks. All of the neighborhoods surrounding the school within 0.25 miles have sidewalks on at least the main roadways that connect with Breckenridge Lane if not all the roadways within the neighborhood. The only issue concerning pedestrians appears to be Breckenridge Lane, which is a four-lane roadway (two travel lanes in each direction) with a speed limit of 45 MPH. There were no reports of crashes involving pedestrians from 2009 through 2011 on the segment of Breckenridge Lane in front of the school campus, however.

Access to Government Services

There is a cluster of three establishments within 0.25 miles of each other located close to the intersection of Progress Boulevard and Buechel Bank Road. This consists of an outpost of the Kentucky National Guard, Louisville Metro Police – Sixth Division, and the General Electric Corporation Ambulance, Fire, and EMS Service. Given the services these particular organizations at these sites provide, they are not high traffic generators, nor typical attractions for the general public. This was identified as a cluster of government services as these are government and/or emergency-related services; however, after further review of the services and associated traffic issues, the transportation issues associated with this cluster was included in the Access to Workplace section. It is worthwhile to note that there are no high crash locations or degraded LOS issues with the roadways closest to these sites, so emergency-response time does not appear to be impacted.

Access to Medical Facilities

There are no clusters of medical facilities in this TAD.

Freight Access

There are several major freight users within TAD 40018, all within the southwest quadrant of the TAD. This includes the General Electric Appliance Park as well as the surrounding industrial businesses and commerce park as well as the rail intermodal center and surrounding businesses north of Buechel Bank Road off of Heller Street (see Figure 40018-C). None of these locations are clustered (located within 0.50 miles of each other); however, the general concentration of freight users and rail intermodal center in the area warrant a closer look at freight movement within this TAD. An additional reason these may not be considered clustered is due to the overall size of each site. Clusters were determined by address, rather than accounting for the full site, and many of these locations actually abut one another but the street addresses were not found to be within 0.50 miles of the next location.

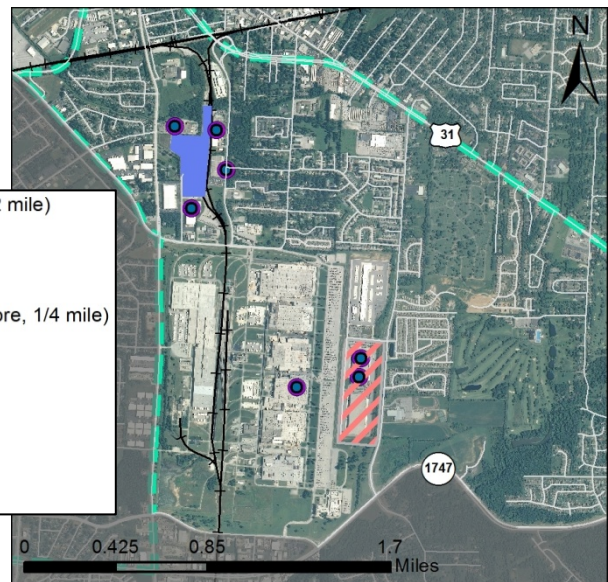
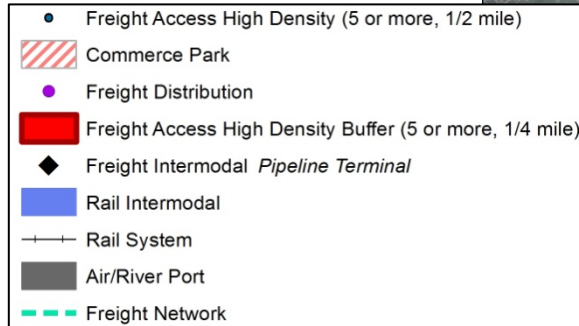


Figure 40018-C: A concentration of freight users and the Rail Intermodal Center around the General Electric Appliance Park.

Two rail lines run through TAD 40018. A CSX line runs north from beyond the TAD boundary at Poplar Level Road through the General Electric Site, across Buechel Bank Road to the Intermodal Rail Center, and then it tees into a second rail line that runs east/west. The roadways within the TAD identified as part of the KIPDA Freight Network include Hikes Lane (from US 31E [Bardstown Road] to Newburg Road), I-264, Newburg Road from Shepherdsville Road to I-264, and, US 31E (Bardstown Road/Buechel Bypass) from I-264 to Hurstbourne Parkway. In addition, there is a cluster of freight users in the neighboring TAD to the west 40017, close to the interchange of I-264 and Newburg Road. Fern Valley Road/Hurstbourne Parkway in TAD 40017 is also part of the KIPDA Freight Network, which provides access to the Louisville International Airport and UPS Hub located there.

Current LOS on roadways identified in the KIPDA Freight Network are currently operating at a LOS C or above with the exceptions of I-264 (LOS D), Bardstown Road from Goldsmith Lane to Hikes Lane (LOS D), Newburg Road from East Indian Trail to Shepherdsville Road (LOS D), and on Bardstown Road from I-264 to Goldsmith Lane (LOS E). By the year 2030, congestion is anticipated to affect more of the roadways identified on the KIPDA Freight Network:

Projected LOS D

- I-264 from Newburg Road to US 31E (Bardstown Road)
- Newburg Road from Gardiner Lane to Goldsmith Lane
- Shepherdsville Road from Newburg Road to Rangeland Road
- US 31E (Bardstown Road) from Goldsmith Lane to Hikes Lane
- US 31E (Bardstown Road) from Fegenbush Lane to Breckenridge Lane

Projected LOS E

- I-264 from US 31E (Bardstown Road) to Taylorsville Road
- US 31E (Bardstown Road) from I-264 to Goldsmith Lane

Projected LOS F

- Hikes Lane from Leghorn Drive to US 31E (Buechel Bypass)
- Newburg Road from I-264 to Goldsmith Lane
- Newburg Road from Gardiner Lane to Bashford Manor Lane
- Shepherdsville Road from Rangeland Road to Fern Valley Road
- US 31E (Bardstown Road) from Breckenridge Lane to Hurstbourne Parkway

Current and anticipated congestion combined with high crash locations on Bardstown Road from I-264 to Hikes Lane, and at the intersections of Bardstown Road and Breckenridge Lane and Hurstbourne Parkway as well as the high crash location at the Newburg Road and I-264 interchange will cause additional delays for freight in the future without any mitigating projects. In addition, the area where freight users are concentrated within TAD 40018 has been identified as a Title VI/Environmental Justice Area, so the needs of freight traffic and providing better and faster access to roadways must be balanced against reducing barriers to non-automotive forms of travel and mitigating disproportionate burdens resulting from transportation projects and programs within that area.

Future Socioeconomic Conditions

This TAD is forecast to experience slight growth in non-group quarters population and the number of households, primarily in the southern half of the TAD. The number of jobs is anticipated to rise more dramatically, possibly by a third by the year 2030. Most of the job growth is forecast to occur at the outer western and eastern edges of the TAD. While the slight gain in population and households may not place much additional demand on the transportation network, the additional jobs may as people from outside the TAD will be traveling to these jobs. This information helps to better explain the LOS issues anticipated by the year 2030 without any additional mitigating projects. In addition to the LOS, crash-related issues may increase with additional traffic on the roadways.

Issues and Opportunities

- The high crash location on Bardstown Road from I-264 to Hikes Lane combined with the current and future anticipated LOS is an issue for automotive traffic, freight, and transit.
- The lack of connected pedestrian facilities from neighborhoods to surrounding amenities may prevent some people from choosing to walk and use transit.
- The needs of freight traffic need to be balanced against those identified in Title VI/Environmental Justice areas, especially for people reliant on an alternate mode to reach their workplace.
- The lack of a connected pedestrian network within the TAD affects pedestrians and transit riders as well as persons with disabilities and older adults.
- The lack of bicycle facilities, especially given traffic volumes and speeds on some of the more major roadways may prevent potential cyclists from riding to and from their destinations within this TAD.
- Future congestion may well impact travel times for transit, freight, and SOV traffic as additional travel time will be needed to reach destinations.

Related Plans and Studies

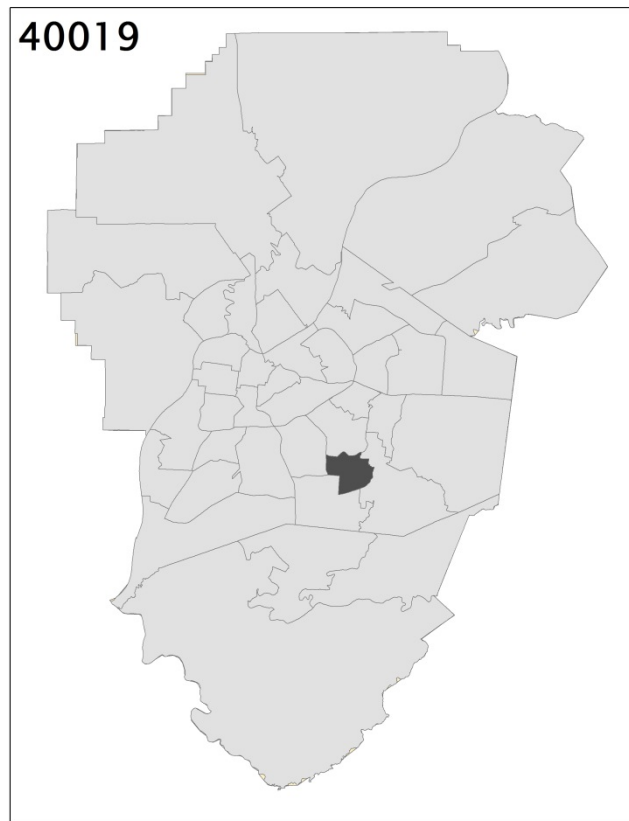
- Cornerstone 2020 Comprehensive Plan (2013)

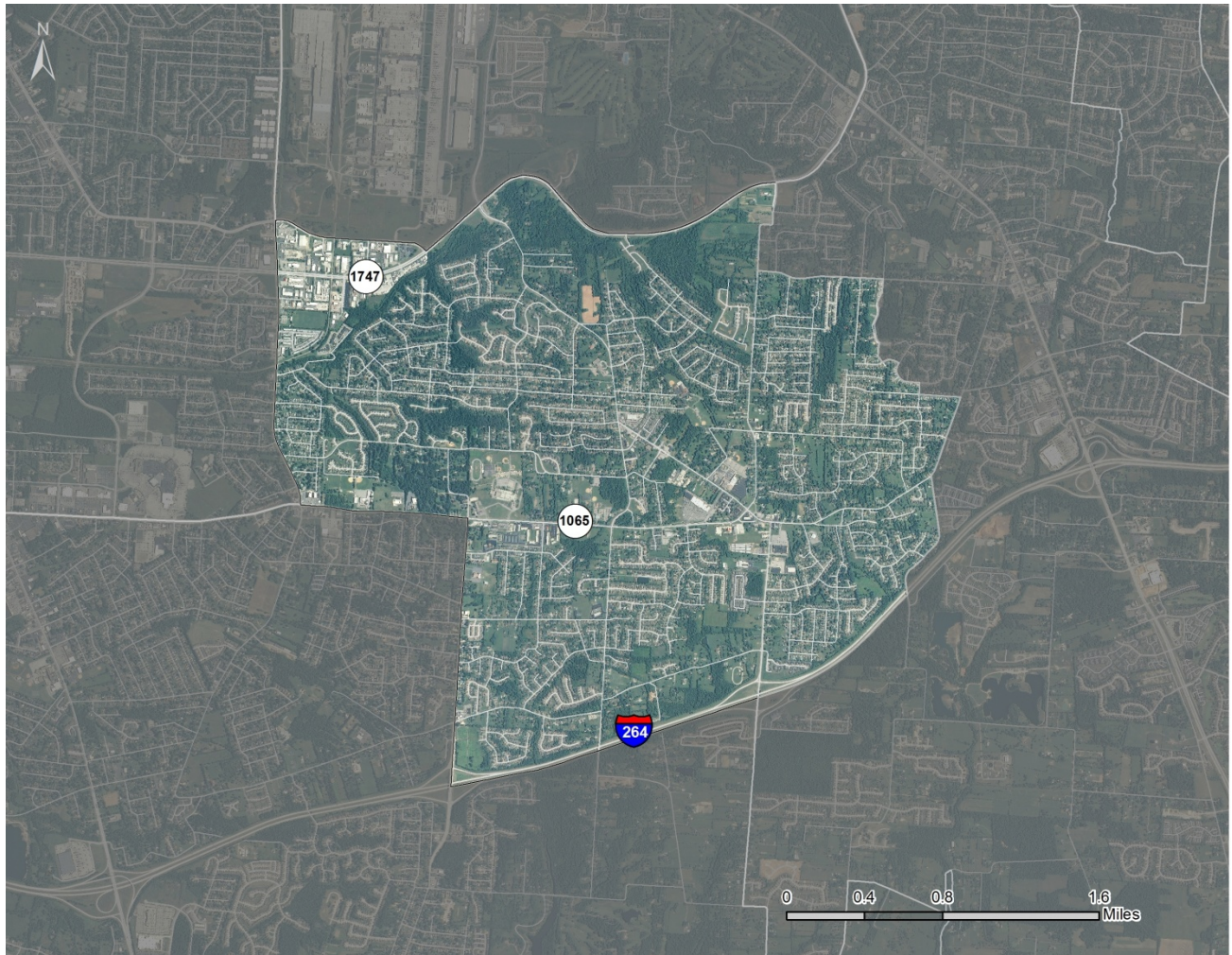


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40019 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40019 is located in southeastern Jefferson County in suburban Louisville Metro. In addition to being part of Louisville Metro, most of the TAD is considered to be a part of the unincorporated community of Highview. Additionally, the small cities of Hollow Creek and Spring Mill are located in this TAD. The TAD is bounded by KY 1747 (Hurstbourne Parkway/Fern Valley Road) and KY 864 (Poplar Level Road) in the north, by I-265 (Gene Snyder Freeway) in the south, by a series of roadways (including Johnson School Road, Ferndale Road, and South Watterson Trail) in the east, and by Smyrna Parkway and KY 2052 (Shepherdsville Road) in the west. The TAD is exclusively urban and the vast majority of the development in this TAD is suburban residential development, consisting of numerous subdivisions with single family homes as well as a number of apartment and condominium developments. The TAD is significantly developed, with a clear exception being near the newest segment of Hurstbourne Parkway, which was extended to Fern Valley Road in the past decade. In the northwest corner of the TAD, there is a pocket of industrial development near the intersection of Fern Valley Road and Shepherdsville Road. This is near General Electric's Appliance Park, which is located in neighboring TAD 40018 to the north.

Area and Socioeconomic Information

Area: Approximately 4,528 acres

Non-Group Quarters Population (2010): 20,758

Number of Households (2010): 8,260

Number of Jobs (2000): 4,050

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies no Title VI/Environmental Justice areas within this TAD.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-265* (Gene Snyder Freeway) from Smyrna Parkway to Johnson School Road
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 1747* (Hurstbourne Parkway/Fern Valley Road) from KY 2052 (Shepherdsville Road) to South Watterson Trail
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 864 (Beulah Church Road/Fegenbush Lane/Fern Valley Road/Poplar Level Road) from I-265 to Shepherdsville Road • KY 1065 (Outer Loop/Beulah Church Road) from Shepherdsville Road to Fern Creek Road • KY 2052 (Shepherdsville Road) from Outer Loop to Poplar Level Road • Smyrna Parkway from I-265 to Outer Loop
Urban Collector	<ul style="list-style-type: none"> • KY 2845 (East Manslick Road) from Smyrna Parkway to Beulah Church Road • South Watterson Trail from Fegenbush Lane to Hurstbourne Parkway • Vaughn Mill Road from Pennsylvania Run Road to Fegenbush Lane • Pennsylvania Run Road from I-265 to Vaughn Mill Road • Applegate Lane from Smyrna Parkway to Vaughn Mill Road
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- | | |
|---|---|
| <ul style="list-style-type: none"> • Luhr Elementary School • Moore High School • Smyrna Elementary School | <ul style="list-style-type: none"> • Saint Athanasius Elementary School • Saint Bernard Elementary School • Whitefield Academy |
|---|---|

Colleges & Universities

- N/A

Parks

- Highview Park

Other Areas of Interest/Significance

- N/A

Historic

- Pennsylvania Run Presbyterian Church

Transit

TAD 40019 is currently served by TARC. The following routes pass through and have stops within the TAD:

- Route #23 – Broadway
- Route #43 – Poplar Level (see Figure 40019-A)
- Route #62 – Breckenridge Lane/Shepherdsville Road

Only one of Route #23's three variations serves this TAD and it serves the industrial and commercial area in the extreme northwest corner. Similarly, Route #62 provides service along Shepherdsville Road on the western boundary. Route #43 is the only route that serves the interior of the TAD as it originates/terminates in Highview near the intersection of Outer Loop and Fegenbush Lane. Because of this, a large percentage of residents do not have access to transit due to the distance from most residential areas to these routes.

Park and Ride

There is only one official Park and Ride lot located in TAD 40019:

- Okolona Church of Christ



Figure 40019-A: TARC Route #43 in TAD 40019.

Public Comments

Highview Park

- No sidewalk access from nearby residential areas

Safety

1,127 crashes were reported in TAD 40019 from 2009 through 2011. There was one fatality and 20 crashes which resulted in significant injury. During this three year period, four crashes involved bicyclists and six involved pedestrians.

Fatalities

The single crash that resulted in a fatality in this TAD was a head-on collision which occurred on a straight, level portion of Smyrna Parkway on a dry, summer afternoon.

High Crash Locations

There are no high crash locations in this TAD.

Bicycle and Pedestrian Crashes

There were six crashes involving pedestrians and four involving bicyclists in this TAD. Only two of the crashes involving pedestrians occurred at locations where sidewalks are continuous (between nearby intersections). Sidewalks were

non-existent at the locations of crashes involving pedestrians at four locations on Outer Loop near Fegenbush Lane, on Fegenbush Lane near Outer Loop, and on Beulah Church Road.

Congestion

Current Level of Service (LOS)

Based on recent traffic count data, the only roadways on the Congestion Management Process (CMP) network with a LOS worse than C are:

LOS D:	<ul style="list-style-type: none"> • Beulah Church Road from E. Manslick Road to Fegenbush Lane • Fegenbush Lane from Outer Loop to Beulah Church Road • Smyrna Parkway from E. Manslick Road to Applegate Lane (southern intersection) • Smyrna Parkway from Applegate Lane (northern intersection) to Outer Loop
LOS E:	<ul style="list-style-type: none"> • I-265 from Smyrna Parkway to Johnson School Road (entire length within TAD)
LOS F:	<ul style="list-style-type: none"> • Smyrna Parkway between intersections with Applegate Lane

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the roadways on the CMP network with a LOS forecast to be worse than C in the Year 2030 are (see Figure 40019-B):

LOS D:	<ul style="list-style-type: none"> • Hurstbourne Parkway from Fegenbush Lane to South Watterson Trail • Fegenbush Lane from Vaughn Mill Road to Hurstbourne Parkway/Fern Valley Road • Smyrna Parkway between intersections with Applegate Lane • Outer Loop from Vaughn Mill Road to Fegenbush Lane • Beulah Church Road from Fegenbush Lane to Fern Creek Road
LOS E:	<ul style="list-style-type: none"> • Shepherdsville Road from Outer Loop to the railroad tracks south of Fern Valley Road
LOS F:	<ul style="list-style-type: none"> • I-265 from Smyrna Parkway to Johnson School Road (entire length within TAD) • Beulah Church Road from I-265 to East Manslick Road • Fegenbush Lane from Outer Loop to Beulah Church Road • Shepherdsville Road from the railroad tracks south of Fern Valley Road to Fern Valley Road • Fern Valley Road from Poplar Level Road to Fegenbush Lane

Congestion is not a major issue within TAD 40019 at this time, with the exception of I-265. The only section that is currently experiencing severe congestion is the short section of Smyrna Parkway between the non-aligned intersections with Applegate Lane.

Congestion is expected to get worse in this TAD by the year 2030. I-265 is expected to become more congested and many sections of other roadways are expected to become congested as well. Only Shepherdsville Road and Beulah Church Road are expected to be congested over their entire lengths within this TAD, while the others are only expected to be congested over shorter sections.

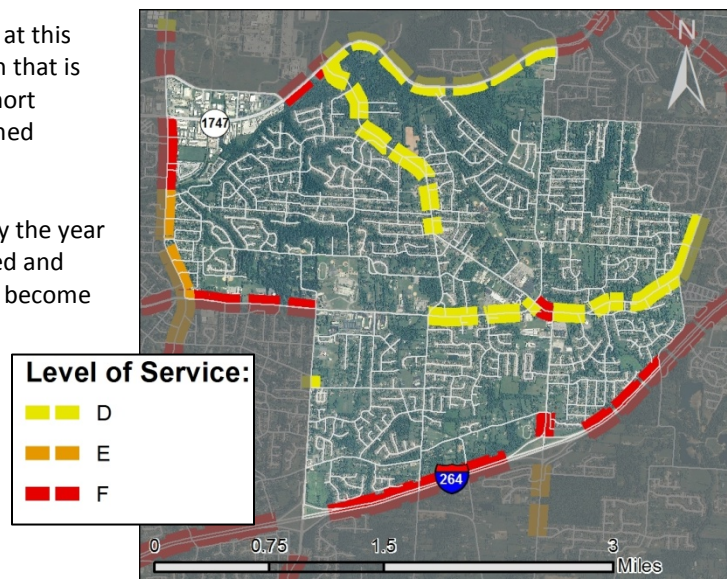


Figure 40019-B: Projected congestion in TAD 40019.

Access to Community Amenities

There are no clusters of community amenities in TAD 40019. This is not atypical of an area that is primarily a suburban, residential area. While there are no high density shopping areas that meet the threshold of 50 or more shops within 0.25 miles, there are several small to mid-sized shopping centers located throughout this TAD. They are located near the following intersections: Outer Loop at Fegenbush Lane, Outer Loop at Shepherdsville Road, Fegenbush Lane and Vaughn Mill Road, and Fern Valley Road at Shepherdsville Road. Additionally, the Jefferson Mall is a major shopping destination and employer that is located just west of this TAD at the intersection of Outer Loop and Jefferson Boulevard. All of these locations are served by one or more TARC route; however the TARC routes are not necessarily easily accessible from many of the residential areas in the TAD. The shopping areas near Outer Loop at Fegenbush Lane and near Fegenbush Lane at Vaughn Mill Road lack sidewalk connections to/from the neighborhoods that are nearby.

Access to Highview Park from the nearby residential areas is an issue for the TAD. The park is located between Outer Loop and Briscoe Lane, directly behind Louisville Metro's South Central Government Center. TARC Route #43 provides service to this location. Sidewalk access from the nearby neighborhoods is lacking, particularly along Outer Loop east of the government center and along Vaughn Mill Road north of Outer Loop. There are no dedicated bicycle facilities providing access to the park from the residential areas.

Access to Workplace

Access to Workplace was examined on several different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

There are no major employers located in TAD 40019.

There are no areas of high density employment, high density retail, or commerce parks located in TAD 40019.

Access for Persons with Disabilities and/or Older Adults

There are no senior centers, nutrition sites, or hospitals located in TAD 40019. Accessibility issues for persons with disabilities and/or older adults in this TAD are similar issues to those for all users. The retail and shopping locations within the TAD lack sidewalk connections to the neighborhoods and TARC is inaccessible from many of the residential areas.

Access to Education

There are six schools located in TAD 40019. There is one cluster of schools near the intersection of Outer Loop and Smyrna Parkway. This is the campus including Moore High School and Smyrna Elementary School. Sidewalks along Outer Loop and Briscoe Lane connect the campus to nearby neighborhoods. TARC Route #43 provides service to this campus; however, it provides few connections to the schools from within the TAD.

The other public school in the TAD, Luhr Elementary School, is located near residential areas. Sidewalks connect it to neighborhoods on both sides of Fegenbush Lane. All three private schools in the TAD lack sidewalks nearby.

All three of the public schools are located along major roadways in the TAD, Outer Loop and Fegenbush Lane. They are easily accessible by car and by bicycle, though the lack of dedicated bicycle facilities and the amount of vehicular traffic on these roads may discourage bicycling by novice riders.

Access to Government Services

There is one primary government facility located in TAD 40019. It is Louisville Metro's South Central Government Center, located on Outer Loop just west of Vaughn Mill Road. This location provides driver's licensing services, a

recycling center, and serves as a police station as well. Highview Park is located just north of the government center. This is a regional facility that attracts trips from well beyond the TAD. The facility is served by TARC Route #43, which connects the area directly with downtown Louisville and points beyond, via a transfer to another route. Pedestrian access to the facility is lacking, particularly east of the government center on Outer Loop and on Vaughn Mill Road north of Outer Loop.

Access to Medical Facilities

There are no hospitals or clusters of medical facilities located in TAD 40019.

Freight Access

Freight access is not a major issue in TAD 40019. The only road in the TAD on KIPDA's Freight Network is I-265. Congestion on I-265 could impact the non-interstate facilities in this TAD, although it is unlikely that large trucks would travel through the TAD on a regular basis.

There are no freight distribution facilities in the TAD. General Electric Appliance Park is located just north of the TAD. A rail line serving Appliance Park passes through the northwest corner of the TAD, though there are no facilities in TAD 40019 that have direct access to this line.

Future Socioeconomic Conditions

Only modest growth is expected to occur in TAD 40019 in the coming decades. Based on the most recent set of forecasts for the year 2030, the number of people living in this TAD is expected to increase by about 6% from 2010 to 2030, while the number of households is expected to increase by about 25% over the same time period. Employment is expected to increase by about 50% over the 30-year period between 2000 and 2030. While this may seem like a large increase in employment, much of this increase has already occurred since 2000 and this is not a major employment area to begin with.

Issues and Opportunities

As compared to other TAD's across the region, there are relatively few transportation issues in TAD 40019. While congestion is expected to increase, the worst congestion is expected to be on I-265 and on a few short segments off of the interstate within the TAD.

With this TAD being almost exclusively a residential area, many of the issues that do exist relate to access to the schools and to the community amenities that are located near the subdivisions. There are no dedicated bicycling facilities in this TAD that could potentially enhance the safety of riding a bicycle in the TAD or potentially encourage new riders to do so. There are also gaps in the network of sidewalks that limit pedestrians' options available to them to safely access certain locations. Most notably, gaps in the network of sidewalks exist at the following locations:

- Outer Loop between the Louisville Metro South Central Government Center and Fegenbush Lane
- Vaughn Mill Road north of Outer Loop
- Fegenbush Lane east of Vaughn Mill Road
- Beulah Church Road
- South Watterson Trail

A limited network of sidewalks also limits the accessibility of transit in this TAD. Even though there are three TARC routes that serve some portion of this TAD, only Route #43 serves more than the corridors along the western border of the TAD. This means that Route #43 is the only option for the vast majority of residents of this TAD to use TARC. This route originates/terminates in the center of the TAD and provides service to and between this area and downtown Louisville. Without expanding the route to directly serve other roadways in the TAD, the best option for many residents is to walk to a distant transit stop. Filling the gaps in the network at the locations listed above could provide a better opportunity for residents of this TAD to utilize public transit if desire to do so.

Related Plans and Studies

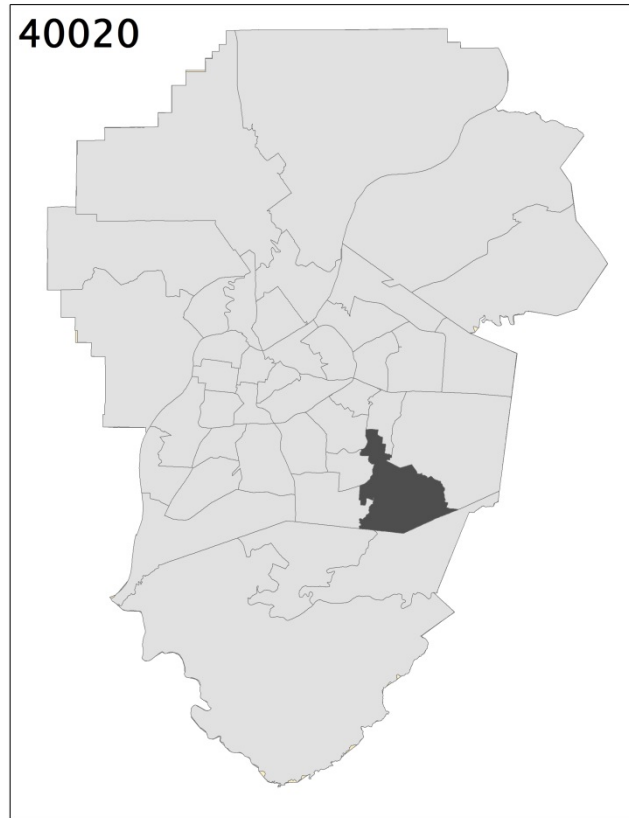
- Cornerstone 2020 Comprehensive Plan (2013)
- Fern Creek Small Area Plan (2001)

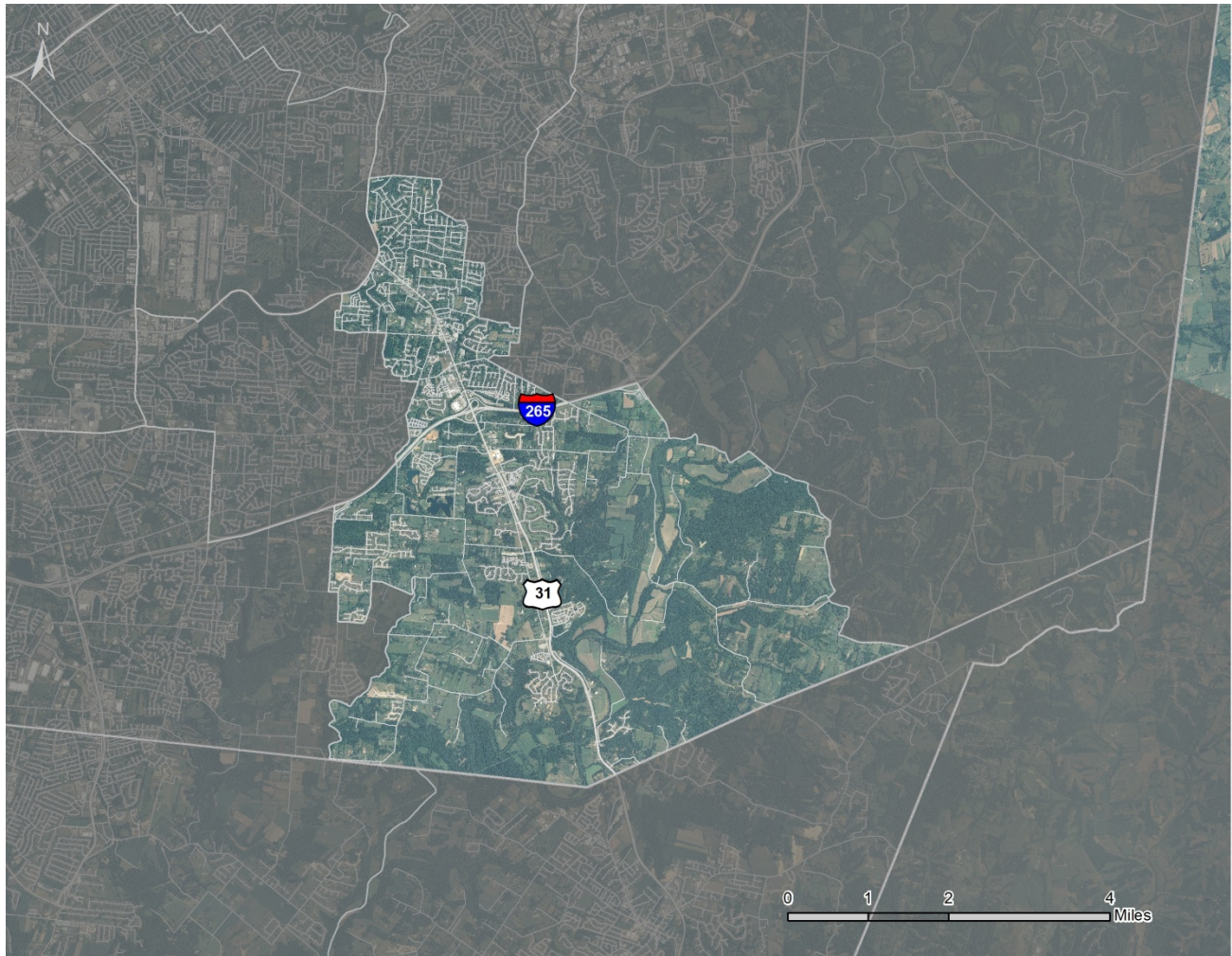


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40020 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40020 is located in southeastern Jefferson County in suburban Louisville Metro. The TAD borders Bullitt County, and the largest city in Bullitt County, Mount Washington, is less than a mile away from the southern boundary. In addition to being part of Louisville Metro, most of this area is considered to be a part of the unincorporated community of Fern Creek. A very small portion of the TAD is located within the City of Jeffersontown. TAD 40020 is primarily within the Urbanized Area Boundary, although there is a relatively small area near Bullitt County which is considered a rural area. The TAD is split by I-265 (Gene Snyder Freeway) which passes through the TAD in the east/west direction, and it is bisected by US 31E/US 150 (Bardstown Road) in the north/south direction. The portion of the TAD north of I-265 is exclusively urban and has been extensively developed with few parcels available for significant new development in the future. To the south of I-265, there is a mix of relatively recent commercial and residential developments near Bardstown Road, along with significant undeveloped areas, which are primarily located away from Bardstown Road. There are a variety of land uses throughout this TAD, including significant commercial development along the Bardstown Road corridor and residential development spread throughout the remainder of the TAD.

Area and Socioeconomic Information

Area: Approximately 17,850 acres

Non-Group Quarters Population (2010): 27,518

Number of Households (2010): 11,036

Number of Jobs (2000): 2,464

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies no Title VI/Environmental Justice areas within this TAD.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-265* (Gene Snyder Freeway) from Johnson School Road to Seatonville Road
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 31E/US 150* (Bardstown Road) from I-265 to Hurstbourne Parkway • KY 1747* (Hurstbourne Parkway) from South Watterson Trail to Watterson Trail
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 1819 (Seatonville Road/Billtown Road) from the Urbanized Area Boundary (near Echo Trail) to I-265 • US 31E/US 150* (Bardstown Road) from the Urbanized Area Boundary (approximately 2/3 miles north of Bullitt County) to I-265 • KY 1065 (Beulah Church Road) from Johnson School Road to Bardstown Road • Fern Creek Road from Beulah Church Road to Bardstown Road • Watterson Trail from Hurstbourne Parkway to Lochridge Parkway
Urban Collector	<ul style="list-style-type: none"> • Fairground Road from Bardstown Road to Villa Fair Road • Ferndale Road from Fern Creek Road to Bardstown Road • South Watterson Trail from Ferndale Road to Hurstbourne Parkway • Seatonville Road from Bardstown Road to Billtown Road • KY 1065 (Lovers Lane) from Seatonville Road to Fern Creek Road • KY 864 (Cooper Chapel Road/Beulah Church Road) from Cedar Creek Road to I-265 • Old Bardstown Road from Thixton Lane to Bardstown Road • KY 2053 (Thixton Lane) from Independence School Road to Bardstown Road
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • US 31E/US 150* (Bardstown Road) from Bullitt County to the Urbanized Area Boundary (approximately 2/3 miles north of Bullitt County) to I-265
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • KY 2053 (Thixton Lane) from Cedar Creek Road to Independence School Road • KY 660 (Waterford Road) from Bardstown Road to Bullitt County

*Denotes part of the National Highway System (NHS)

All roads in this TAD other than those listed above are classified as Urban or Rural Local roadways, with the vast majority of the roads being located within the Urbanized Area Boundary and therefore classified as Urban Local Roadways.

Schools

- Bates Elementary School
- Fern Creek Elementary School
- Fern Creek High School
- Saint Gabriel the Archangel Elementary School
- Valor Academy

Colleges & Universities

- N/A

Parks

- Fairmount Falls Park
- Fern Creek Park
- The Parklands – Broad Run
- The Parklands – Turkey Run

Other Area of Interest/Significance

- N/A

Historic

- Abraham Funk House
- Beulah Church
- Boston Estate
- Bronzewing Farm
- Carroll Smith House
- Carwardon Place
- Cedar Creek Bridge
- Cottage on Dawson Hill Road
- Earl Garr House
- Farmer House
- Glenmary House
- Hall Place
- Henry Mills/James Stout House
- James Standiford House
- Jean House
- Johnson School
- Levin Bates House
- Miller House
- Mills-Wheeler House
- Morrison School
- Seatonville Graveyard
- Sentinal Station Ruin
- Skaggs House
- Snapp House
- Spring House
- Stone Lodge
- Stout House
- Thixton
- Triaero
- Tyler/Wingfield House
- Ziegler House

Transit

TAD 40020 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #17 – Bardstown Road
- Route #17X – Bardstown Road Express
- Route #66X – Bullitt County Express

Route #17X avoids Bardstown Road north of I-264 into downtown Louisville by continuing its route on I-264 and I-65. There are currently three AM and PM trips of Route #17X.

Park and Ride

There are two official Park and Ride lots in TAD 40020:

- Fern Creek United Methodist Church near the intersection of Bardstown Road and Seatonville Road
- Fern Creek Baptist Church north of the intersection of Bardstown Road and Fern Creek Road

Public Comments

The majority of the public comments received focus on Bardstown Road. Many of these focus specifically on congestion along the Bardstown Road corridor. The comments that were received have been summarized below:

Bardstown Road Corridor

- Do something about congestion on Bardstown Road in Fern Creek.
- A bike trail is needed along both sides of the road, and it needs to be kept clean.
- At the I-265 Interchange: Difficulty getting through the interchanges as a bicyclist or as a pedestrian.
- At the Kroger Shopping Center Entrance: Hazardous walking from the store to the traffic signal.
- At the Brentlinger Lane intersection: Heavy congestion in the peak hours due to traffic from Bullitt and Spencer Counties.
- Near Bates Elementary School: Morning peak hour traffic is pretty bad.
- Near Fern Creek High School: Traffic regularly backs up with students commuting to school.
- Near intersection with Ichabod Drive (south of Brentlinger): There are a lot of accidents at this location.

Beulah Church Road

- Sidewalks or bicycle lanes on this road are recommended since the road is thought to be very narrow.
- The flashing yellow light at the intersection with Fern Creek Road is thought to be very dangerous and the location of many crashes.

Seatonville Road

- There is no room on this roadway for a car and bicycle to share the road.

Safety

2,163 crashes were reported in TAD 40020 in the three year period from 2009 through 2011. There were nine fatalities reported as a result of nine crashes over this time period. There were 30 crashes that resulted in significant injury. During this three year period, six reported crashes involved bicyclists and eight involved pedestrians.

Fatalities

There were nine fatalities reported as a result of nine crashes over this time period. Of the nine fatal crashes in the TAD over the three year period, one occurred in wet conditions, one involved a motorcyclist, one involved a pedestrian, and two involved alcohol. None of the crashes that resulted in a fatality occurred in the high crash areas on Bardstown Road. None occurred in proximity to any of the others. Only one of the crashes occurred in the more densely-developed portion of this TAD that is north of I-265.

High Crash Locations

All locations in this TAD that have been identified as high crash locations are along Bardstown Road (see Figure 40020-A). For a location to meet the high crash location criteria in this analysis, there must have been 100 or more crashes within 0.10 miles of a location for the three year period from 2009-2011. The high crash locations are listed and are described further below:

Bardstown Road near I-265

This is a significant high crash location, not only in terms of density of crashes (the area near Kroger and Wal-Mart Shopping Centers had more than 200 crashes within 0.10 mile), but also the number of crashes (over 600), and the area that it covers

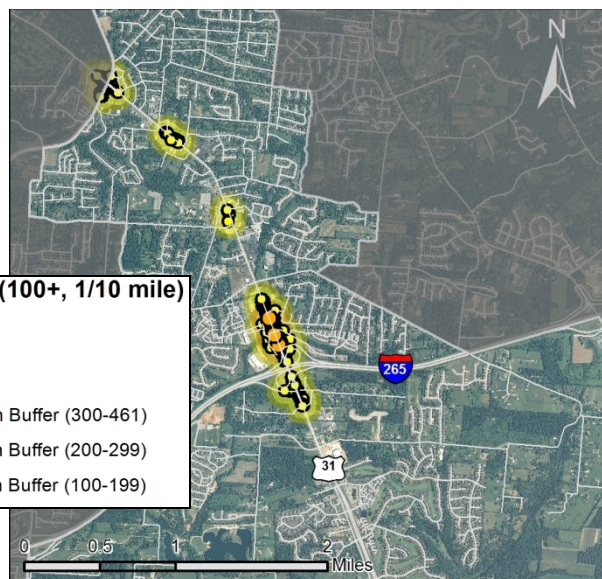
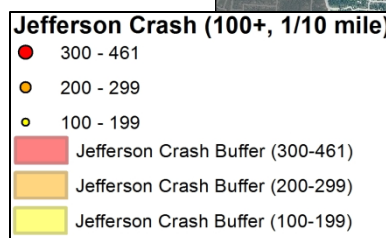


Figure 40020-A: High crash locations on Bardstown Road between I-265 and Hurstbourne Parkway.

(nearly one mile). It stretches from near Bates Elementary School in the South to near the intersection with Beulah Church Road/Seatonville Road. There were no fatalities from any of the crashes in this segment and only two resulted in significant injury. Most of the crashes along this segment occurred at the major intersections, most notably at the I-265 Eastbound off-ramp, Cedar Springs Boulevard (Wal-Mart entrance), and at Cedar Look Drive (Kroger entrance). There were improvements made to Bardstown Road near I-265 since this analysis period that should eliminate some of the conflicts and reduce some amount of exposure to crashes.

Bardstown Road near Ferndale Road and Fern Creek Road

This area barely meets the crash density criteria and exists due to crashes occurring at two intersections in proximity to each other. Crashes are spread fairly evenly throughout this quarter mile section. There were no injury crashes at this location.

Bardstown Road near Fairground Road and Hudson Lane

Similar to the high crash location that is near Ferndale and Fern Creek Roads, this location meets the criteria for a high crash location due to the two intersections being in proximity to one another. There was only one injury crash at this location.

Bardstown Road and Hurstbourne Parkway

This intersection is between two of the busiest roadways in the entire region. The number of crashes at major intersections is expected to be higher than at intersections of minor roadways, and therefore it is not surprising that this intersection exceeds the criteria to be a high crash location in this analysis.

Injury crashes occurred throughout the TAD. 13 out of the 30 crashes that resulted in significant injury occurred on Bardstown Road. Several of these injury crashes occurred in the high crash locations on Bardstown Road. There are no obvious locations where the frequency of crashes that resulted in significant injury is obviously disproportionate to the frequency of all crashes.

Bicycle and Pedestrian Crashes

During this three year period, six reported crashes involved bicyclists and eight involved pedestrians.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • I-265 from Bardstown Road to Billtown Road
LOS E:	<ul style="list-style-type: none"> • I-265 from Beulah Church Road to Bardstown Road
LOS F:	<ul style="list-style-type: none"> • Bardstown Road from Fairmount Road to I-265 • Bardstown Road from Fern Creek Road to Hurstbourne Parkway

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • Beulah Church Road from Johnson School Road to Fern Creek Road
LOS F:	<ul style="list-style-type: none"> • Bardstown Road from Bullitt County to Hurstbourne Parkway • I-265 from Beulah Church Road to Billtown Road

While congestion is not a major issue on a large number of roadways in TAD 40020, congestion is a major issue on the two most critical roadways in this TAD, Bardstown Road and I-265. Currently, the most severe congestion exists on the portions of Bardstown Road just south of I-265 interchange and south of the major intersection with Hurstbourne

Parkway. This would appear to validate the concerns of the public as most all of the comments that were received about this TAD were concerning congestion along Bardstown Road. The area to the south of I-265 has experienced tremendous residential and commercial growth over the past couple of decades. This growth extends beyond the county boundaries as northeastern Bullitt County has grown as well. As a tangible example of this growth, the traffic volumes on the segment of Bardstown Road south of I-265 nearly doubled in the past 10 years and have nearly quadrupled over the past 25 years.

In the future, the congestion on these two major roadways is expected to be significantly worse. In the KIPDA travel demand model runs used for this analysis, LOS F conditions are expected to exist in 2030 on Bardstown Road and I-265 throughout this TAD. Much of the additional congestion that the model forecasts can be attributable to additional growth in both the area between I-265 and the county boundary, as well as growth in and near Mount Washington in Bullitt County.

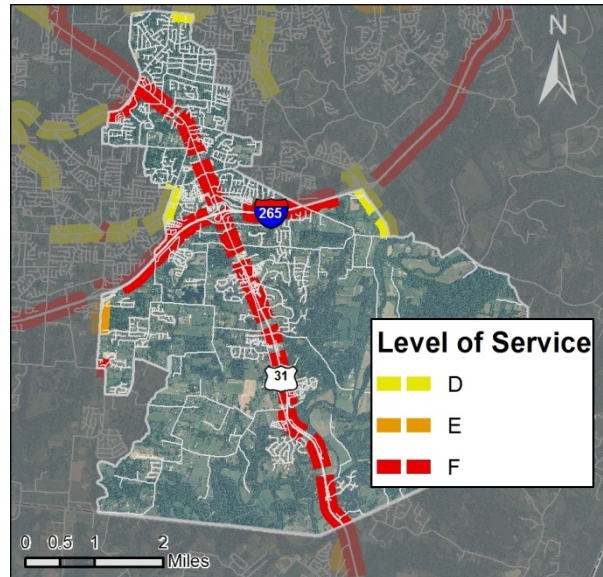


Figure 40020-B: Projected Year 2030 congested roadways in TAD 40020.

Access to Community Amenities

With TAD 40020 being on the outer edge of Jefferson County and with it containing exclusively suburban type development, there are currently very few community amenities within the TAD. There is one cluster of community amenities in proximity to each other near the intersections of Bardstown Road with Fern Creek Road and with Ferndale Road. This area could be characterized as being the unofficial center of the Fern Creek community. In this small area, there are two schools (Fern Creek High School and Fern Creek Elementary School), the Fern Creek Community Center, a park, a fire station, a post office, and several commercial developments.

Within this cluster, there is good sidewalk access for trips to be made between the community amenities. For the most part, sidewalks are located along the links that connect the surrounding areas to this cluster. Sidewalks exist on both sides of Bardstown Road near this cluster. However, there are few residential areas that are located within walking distance of the cluster. Also, there is one link in this area that does not have sidewalks: Ferndale Road between Fern Creek Road and Bardstown Road. TARC Route #17 serves this area with regular service on Bardstown Road from just south of I-265 to downtown Louisville. This route provides transit connections to the rest of the region via transfers to other TARC routes in downtown Louisville.

Beyond this one small cluster, very few community amenities exist in this TAD, and those that do exist are not near any others. As the TAD continues to develop along Bardstown Road near Bullitt County and with the construction of major new parks as a part of the larger Parklands projects, community amenities are likely to be added.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

There are no major employers with more than 300 employees at a single location in this TAD.

There is one area in TAD 40020 that meets the criteria to be considered a high density employment area. This is the area near the intersections of Bardstown Road with Fern Creek Road and Ferndale Road in the center of Fern Creek. This includes the schools, the fire station, the post office, and other public sector employers, as well as the large

number of restaurants and other commercial businesses along this portion of Bardstown Road which contribute to the large number of employees in this area.

Sidewalks exist throughout the high density employment area, which complement TARC Route #17 service along Bardstown Road.

There are no high density retail areas in TAD 40020. However there is a Walmart Supercenter and two shopping centers just northwest of the I-265/Bardstown Road interchange that are major shopping destinations. TARC Route #17 provides service to these along Bardstown Road. All of these locations lack quality pedestrian access. There are crosswalks to the east side of Bardstown Road at each of the signalized intersection, but there are no pedestrian (or bicycle) facilities connecting these stores with the area south of I-265.

There are no commerce parks in TAD 40020.

Access for Persons with Disabilities and/or Older Adults

There is one senior center or nutrition site in TAD 40020. It is the Fern Creek/Highview Adult Day Center and it is located near the intersection of Bardstown Road and Beulah Church Road near Beulah Presbyterian Church. It is located only a few hundred feet from Bardstown Road and therefore TARC service is very convenient to this location. TARC Route #17 provides connections to all of the other major attractions within the TAD along Bardstown Road. There are no major medical facilities in this TAD.

Access to Education

There are five schools located in TAD 40020. This includes one location where two or more schools are within 0.25 miles of each other. This is where Fern Creek High School and Fern Creek Elementary School are located, near the intersection of Fern Creek Road and Ferndale Road. This location coincides with the cluster of community amenities and the high density employment areas as described above. Sidewalks exist in the vicinity of this campus except for Ferndale Road between Fern Creek High School and Bardstown Road. TARC Route #17 serves this area, providing connections along Bardstown Road and to the remainder of the TARC system via a transfer in downtown Louisville. Bates Elementary School is located in an area that has experienced significant development over the last couple of decades. It is located along the congested portion of Bardstown Road south of I-265. There are no sidewalks in this area and, even if there were sidewalks, the school is not really close enough to any neighborhoods so that walking to school could be a realistic option for elementary school aged children. There are no obvious solutions to providing better access to this school as it seems to be a case where the area around it has grown so much that now the school is in a location where significant access issues will persist. Any additional congestion along Bardstown Road as a result of the additional development that is expected has the potential to make this issue much worse.

Access to Government Services

There are no clusters of government services located in TAD 40020. There is a small branch of the Louisville Free Public Library in the shopping center where Kroger is located, and a community center near Fern Creek Road. Each of these locations is served by TARC Route #17.

Access to Medical Facilities

There are no hospitals or clusters of medical facilities located in TAD 40020.

Freight Access

Freight access is not a major issue in TAD 40020, though Bardstown Road and I-265 are each on KIPDA's Freight Network. These two roads are projected to be severely congested in 2030 throughout the TAD, which will be an issue for freight trips that pass through the TAD. There are no major generators of freight trips or any freight distribution facilities located in this TAD.

Future Socioeconomic Conditions

When analyzing the most recent set of socioeconomic forecasts for the year 2030, it is apparent that significant growth is expected to occur in TAD 40020 in the coming decades. This is most apparent in the employment forecasts, which predict that the number of jobs in the TAD could nearly double between 2000 and 2030. Much of this job growth has occurred as significant retail developments have been built along the Bardstown Road corridor since 2000. While a significant increase in the number employees is generally seen as a positive thing, this increase should be reflected in the consideration of access to workplace issues. This is particularly true in this TAD, where many of the jobs are located along the heavily congested Bardstown Road corridor.

The population and the number of households in the TAD are expected to grow at more modest rates of approximately 25% and 10%, respectively, between 2010 and 2030. Similar to the issue with job growth, if the additional development occurs between I-265 and Bullitt County as is expected, this would likely exacerbate existing congestion issues on Bardstown Road in this area. Further, residents of Bullitt County and Spencer County, two of the fastest growing counties in Kentucky utilize Bardstown Road for access to I-265 and into Louisville Metro. As these counties grow, they could create additional issues for this TAD should appropriate investments in infrastructure not be made.

Issues and Opportunities

The issues in TAD 40020 can be primarily focused on US 31E/150 (Bardstown Road). In each of the sections of this analysis, Bardstown Road is either the issue itself when it comes to congestion and safety issues, or the issues deal with the availability and/or quality of access to Bardstown Road where the amenities are located. These issues on Bardstown Road can be categorized as congestion issues, safety issues, or access issues.

Bardstown Road - Congestion Issues

Issues with current congestion on Bardstown Road impact nearly every section in the body of this report since nearly every destination in this TAD is located near this road. This issue is expected to get worse in the future as the entire length of Bardstown Road through the TAD is projected to operate at LOS F in 2030. All options should be explored to improve the congestion because the additional development, both within Jefferson County and in the adjacent counties, is likely to occur with or without improvements to Bardstown Road.

Bardstown Road - Safety Issues

In the analysis used for this report, the number of crashes at locations was examined, so it is not unexpected that major intersections on such a heavily travelled roadway have experienced a lot of crashes. There were no locations where there was an abundance of severe crashes. As this area continues to develop to the south, it would not be unexpected to see the intersections between I-265 and Bullitt County experience an increase in the number of crashes in the future as the traffic volumes increase.

Bardstown Road - Access Issues

TARC Route #17 is the only regular (non-express) route that serves this TAD. It serves trips that are internal to this TAD along Bardstown Road as well as longer distance trips to and from downtown Louisville, and points beyond via a transfer. Access to Bardstown Road from the residential areas to the east and west of Bardstown Road via sidewalks is extremely important for transit to truly be a viable option for residents of this TAD. Headways on this route vary depending on the time of day, but are approximately 45 minutes on average, with more frequent service available in the peak hours. More frequent, or at least more consistent, headways could be an opportunity to improve this route.

Other Issues and Opportunities

Beyond Bardstown Road, another issue in this TAD is interstate congestion on I-265. The level of congestion that has been forecast for the year 2030 as part of this analysis is likely to become a major issue for not only this TAD, but for the region as well.

The series of planned parks along Floyds Fork in eastern Jefferson County known as The Parklands should be considered as a major opportunity for this TAD. However, access to (and through) the series of parks could also

become a significant issue once The Parklands project is completed. Entrances to these parks will be located on Bardstown Road, Broad Run Road, and Seatonville Road, with the entrances on Bardstown and Seatonville Roads designated as major gateways to the parks. The major gateways will be connected by a newly constructed north/south road through this portion of the park. Currently, the local roads near where these parks will be located are narrow, rural roadways that have not been designed to handle significant additional vehicular traffic or additional bicycle traffic that these parks are likely to generate.

Related Plans and Studies

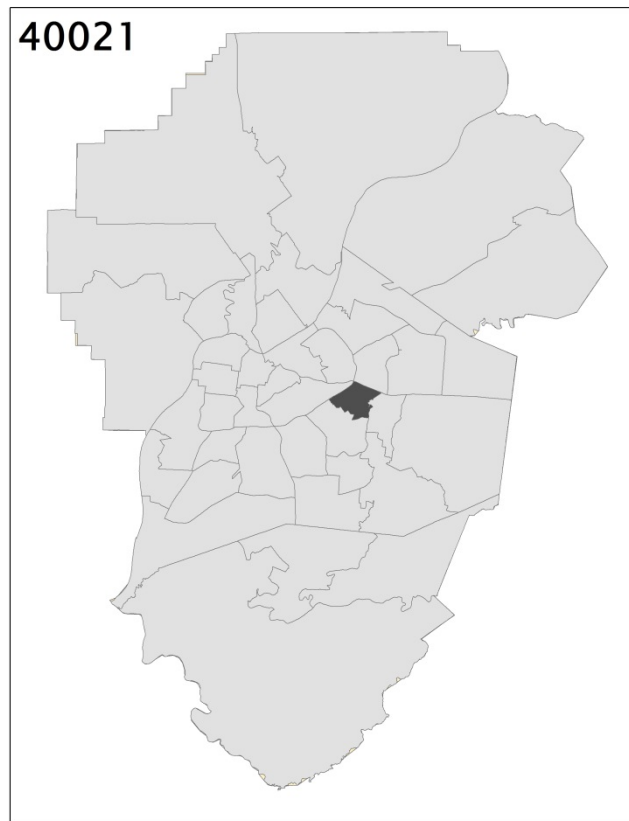
- Cornerstone 2020 Comprehensive Plan (2013)
- Fern Creek Small Area Plan (2001)
- KIPDA Interchanges Study (2005)
- Louisville Metro Eastern Thoroughfare Study (2009)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40021 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40021 is located in the central portion of Jefferson County, just south of the intersection of I-64 and I-264. It contains portions of Louisville Metro, Avondale, Meadowview Estates, Melbourne Heights, Highgate Springs, Saint Regis Park, Lincolnshire, Cambridge, and Houston Acres. TAD 40021 is relatively well established in terms of development patterns with the exception of a small undeveloped section in the northeast corner of the TAD and a larger farm south of KY 155 (Taylorsville Road) and about 0.50 miles to 1.0 mile west of KY 1747 (Hurstbourne Parkway). A significant portion of this TAD is typical suburban residential development; however, there is a prominent commercial area in the western central portion of the TAD in the region where Taylorsville Road, KY 1932 (Breckenridge Lane), and Hikes Lane/Browns Lane converge. Moderate-sized commercial areas exist along the east side of Breckenridge Lane between Six Mile Lane and Manner Dale Drive and in the region near the intersection of Hikes Lane and Klondike Lane. Smaller scale commercial areas exist along Taylorsville Road near the western and eastern boundaries where it enters/exits the TAD. There are several historic structures within this TAD.

Area and Socioeconomic Information

Area: Approximately 3,508 acres

Non-Group Quarters Population (2010): 21,263

Number of Households (2010): 9,737

Number of Jobs (2000): 5,982

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies no Title VI/Environmental Justice areas within this TAD.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64* from I-264 interchange to where it enters/exits the TAD west of Hurstbourne Parkway • I-264* from the Taylorsville Road interchange to the I-64 interchange
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • Breckenridge Lane from Norfolk Southern Railroad overpass to I-264 interchange • Hurstbourne Parkway from Norfolk Southern Railroad overpass to Stony Brook Drive • Taylorsville Road from I-264 interchange to Blowing Tree Boulevard/Stony Brook Drive* • Hikes Lane from Stanton Boulevard to Taylorsville Road
Urban Minor Arterial	<ul style="list-style-type: none"> • Browns Lane from Taylorsville Road to I-264 overpass • Lowe Road from Browns Lane to Taylorsville Road • McMahan Boulevard from Taylorsville Road to Browns Lane • Six Mile Lane from Manner Dale Drive to the Norfolk Southern Railroad crossing
Urban Collector	<ul style="list-style-type: none"> • Furman Boulevard from Taylorsville Road to Hikes Lane • Klondike Lane from Hikes Lane to Klonway Drive • Manner Dale Drive from Breckenridge Lane to Six Mile Lane • Six Mile Lane from Breckenridge Lane to Manner Dale Drive
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- | | |
|---|--|
| <ul style="list-style-type: none"> • Ascension Elementary School • Greathouse/Shyrock Traditional Elementary School • Immaculata Classical Academy | <ul style="list-style-type: none"> • Kennedy Metro Middle School • Klondike Elementary School • Meredith-Dunn Learning Center |
|---|--|

Colleges & Universities

- N/A

Parks

- Des Pres Park
- Farnsley Park
- Klondike Park

Other Area of Interest/Significance

- N/A

Historic

- Hikes Family House at 3026 Hikes Lane
- Hikes Family House at 4118 Taylorsville Road
- Kennedy-Hunsinger Farm
- Westwood Farm
- Yenowine-Kennedy Farm

Transit

TAD 40021 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #23 – Broadway (Hikes/Hurstbourne branch)
- Routes #40 – Taylorsville Road
- Route #40X – Taylorsville Road Express
- Route #53X – Breckenridge Lane Express
- Route #62 – Breckenridge Lane/Shepherdsville Road

Park and Ride

There is one official Park and TARC lot in TAD 40021:

- Melbourne Heights Baptist Church

Public Comments

Breckenridge Lane

- Traffic signals could be synchronized due to the heavy volumes of traffic that hit every light as they travel down the roadway.
- Increase in traffic on Breckenridge Lane between Six Mile Lane and Taylorsville Road during morning and evening commute.

Breckenridge Lane at Hikes Lane

- One of the worst intersections. People run the red light all the time.

Breckenridge Lane at I-264

- Need to widen Breckenridge Lane at Watterson Expressway. In the late 1980's to early 1990's, the interchange design—with signal control of the ramp from northbound Breckenridge Lane to westbound I-264 and a similar design at the Taylorsville Road interchange—was discussed with staff of KYTC-District 5 at meetings of the Hikes Point Neighborhoods and Business Council, and it was noted that congestion could be a problem because of this design.

Furman Boulevard at Stanton Boulevard

- People drive through stop signs at this 4-way intersection. Bad spot for a 4-way.

Hurstbourne Parkway at Raintree Drive

- Despite lines painted on road to keep motorists from blocking intersection, residents in apartments still have difficulty leaving complex.

Hurstbourne Parkway at Stony Brook Drive

- Has become much busier recently.

I-264 (Bike/Ped Access Across I-264)

- Cut-across expressway for bike/ped access. A connection between Arlington Road and Woodluck Avenue was suggested. In the late 1980's, the possibility of connecting Commander Drive with Betty Lane, over or under I-264, to provide this sort of access was discussed with staff of KYTC-District 5 at a meeting of the Hikes Point Neighborhoods and Business Council.

Taylorsville Road

- Safe corridor needed. Can it be signed to help bikes find a safe way OFF of the major arterial? Current road conditions unsafe for people on bikes.
- Traffic signals could be synchronized due to the heavy volumes of traffic that hit every light as they travel down the roadway.

Taylorsville Road at Browns Lane

- Light to cross Taylorsville Road at Browns Lane (heading north) doesn't turn green every time others do. Have to wait for the light.

Taylorsville Road at I-264

- Taylorsville Road at I-264 is dangerous for cyclists. Speeds are high; intersection is long.
- No safe crossing for bikes or peds.

Safety

1,727 crashes were reported in TAD 40021 in the three-year period from 2009 through 2011. In the same time period, there were a total of 65 crashes resulting in injury in this TAD (16 in 2009; 21 in 2010; and, 28 in 2011). As might be expected, the larger number of crashes occurred on the roadways with the higher traffic volumes – Taylorsville Road, Breckenridge Lane, I-64, I-264, and Hikes Lane. Collectively, 1,243 of the crashes in TAD 40021 occurred on one of these five roadways, and each of them had in excess of 100 crashes. Additionally, Hunsinger Lane and Browns Lane each had between 50 and 100 crashes while six other roadways had more than 10 but less than 50 crashes.

Fatalities

There were six fatalities reported as a result of crashes from 2009-2011 (none in 2009; three in 2010; and, three in 2011). Three of the crashes involving pedestrians resulted in a fatality.

High Crash Locations

There were some high density and higher density crash locations in TAD 40021. There was one higher density crash location (200-299 crashes within 0.10 mile), and there were two high crash locations (100-199 crashes within 0.10 mile). There was also a high density crash location just outside of the TAD, in which crashes occurring in TAD 40021 may be contributing to the density of the crashes in the other TAD. This location is also discussed below. The higher density crash location was Breckenridge Lane between its intersections with Taylorsville Road and Hikes Lane (This location is part of the third area below with 100 to 199 crashes within 0.10 mile.)

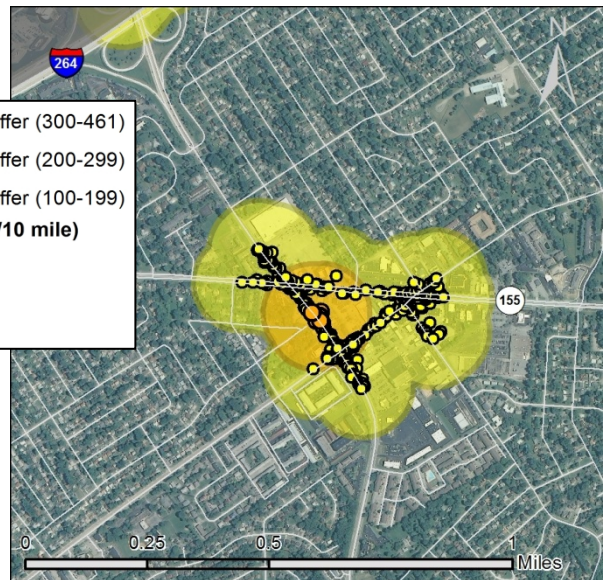
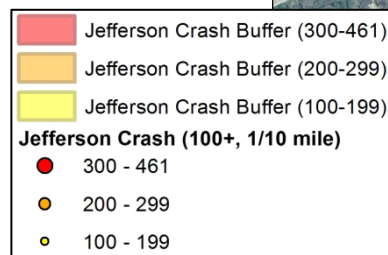


Figure 40021-A: High crash locations in the Hikes Point triangle.

The high density crash locations were:

- A section approximately 0.35 miles long along I-64 starting at the I-64/I-264 interchange;
- The area near the I-264/Breckenridge Lane interchange just north of TAD 40021; and
- The area in and around the Hikes Point triangle (see Figure 40021-A and the description below).

The high density crash location along I-64 exists from near the end of the ramp from eastbound I-264 to eastbound I-64 and the accompanying ramp from westbound I-64 to I-264. On the eastbound I-64 side, the location of the crashes relative to the interchange and ramps may indicate that merging maneuvers were occurring. On the westbound side, the location of the crashes was in the area where traffic diverged from westbound I-64 to the ramps to I-264. There are two lanes exiting I-64 at this point, but the ramp to westbound I-264 narrows to one lane after the ramp to the eastbound I-264 collector-distributor diverges. This causes the ramp traffic to slow considerably and back up onto the two right-hand lanes of westbound I-64 in the area where the high density crash location occurred.

The high density crash location of the crashes near the I-264/Breckenridge Lane interchange occurred on Breckenridge Lane just north of where it overpasses I-264, and this location would seem to indicate that these crashes are more likely related to activities occurring on surface streets rather than interstates. There were two areas in this section of Breckenridge Lane where the accidents most often occurred. The area further south was between where the ramps from eastbound I-264 to northbound Breckenridge Lane and from westbound I-264 to southbound Breckenridge Lane entered the roadway. This is a location where merging vehicles may have been entering the roadway. The area further north is at the intersection where the ramp from westbound I-264 meets northbound Breckenridge Lane. The high density crash location was located between these areas, and its density is probably a function being within 0.10 mile of the two areas.

The higher crash density location and the most extensive high crash density location in TAD 40021 occurred in the vicinity of the Hikes Point triangle, the area where Taylorsville Road, Breckenridge Lane, Hikes Lane/Browns Lane, and a number of less-traveled streets intersect. There were 521 crashes which occurred within approximately one block of the Hikes Point triangle, about 30% of the TAD total. The land use in this area is overwhelmingly commercial, and there are many driveways/curb cuts. There are also traffic signals at each corner of the Hikes Point triangle and one at the midblock location where Yorkshire Avenue intersects Taylorsville Road. Further, observation has shown that this area is highly congested at times, particularly the evening peak periods. The level of congestion, along with the numerous driveways/curb cuts probably contribute to the high number of crashes in this area.

When implementing projects within this TAD, efforts need be made to improve safety, particularly in the vicinity of the Hikes Point triangle. The area of I-64 near the interchange with I-264 and, and to a lesser degree, the I-264/Breckenridge Lane interchange are also targeted safety areas.

Bicycle and Pedestrian Crashes

During this the three-year period, two of the reported crashes involved bicyclists and 14 involved pedestrians. Three of the crashes involving pedestrians resulted in a fatality, but none of the crashes involving bicyclists resulted in a fatality. One of the crashes involving pedestrians also resulted in an injured individual. Of the crashes involving cyclists and pedestrians, seven crashes occurred along Taylorsville Road; four occurred along Hikes Lane; and three occurred along Breckenridge Lane.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

<i>LOS D:</i>	<ul style="list-style-type: none"> • I-264 from Taylorsville Road to I-64
<i>LOS E:</i>	<ul style="list-style-type: none"> • I-64 from I-264 to Hurstbourne Parkway • Browns Lane from McMahan Boulevard/Lowe Road to Brookhaven Avenue
<i>LOS F:</i>	<ul style="list-style-type: none"> • Breckenridge Lane from Hikes Lane to I-264 • Browns Lane from Brookhaven Avenue to I-264

Projected 2030 Level of Service (LOS)

For the most part, the roadways in TAD 40021 that are currently congested are projected to remain so or worsen. The only exception is a slight improvement to a small section of Breckenridge Lane, but even this section continues to

operate with congestion worse than LOS C. On the other hand, there are several roadways which are not presently congested but expect to be so by 2030.

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • Hikes Lane from Breckenridge Lane to Taylorsville Road • Hurstbourne Parkway from Norfolk Southern Railroad to Stony Brook Drive
LOS E:	<ul style="list-style-type: none"> • Breckenridge Lane from Hikes Lane to Taylorsville Road • 64 from I-264 to Hurstbourne Parkway • I-264 from Taylorsville Road to I-64
LOS F:	<ul style="list-style-type: none"> • Breckenridge Lane from the Norfolk Southern Railroad to Six Mile Lane • Breckenridge Lane from Taylorsville Road to I-264 • Browns Lane from McMahan Boulevard/Lowe Road to Brookhaven Avenue • Browns Lane from Brookhaven Avenue to I-264 • Hikes Lane from Stanton Boulevard to Furman Boulevard • Taylorsville Road from Breckenridge Lane to Stony Brook Drive

In summary, by 2030, many of the sections of the major roadways in this TAD are expected to be congested at LOS E or F while several other sections are expected to be operating at LOS D. This may impact freight movement and the general traffic flow in the area as well as access to many of the sites where community services are provided.

Access to Community Amenities

Most of the residential development in this TAD is considered typical suburban development. There are a number of community amenities in this TAD (including schools, parks, shopping), and there is a library just beyond its western boundary in the Bon Air neighborhood. Although it is present in other areas of the TAD, the majority of the shopping is clustered in and around the Hikes Point triangle. The other amenities are scattered across the TAD.

There is some access to residences, shopping and historic sites by public transit in TAD 40021. As described above, there are a number of transit routes serving this TAD, including three – Route #23, Route #40, and Route #62) – which provide day-long service. Route #62 has longer headways and operates for fewer hours and only on weekdays. Nevertheless, collectively these routes provide good access along Taylorsville Road, Breckenridge Lane, and Hikes Lane, including most of the Hikes Point triangle. Therefore, there is good access by transit to much of the shopping and probably about 40% of the residences based on transit users walking to the bus 0.25 miles or less. The area served by the other transit routes increases the percentages of residences that can walk to a bus by another 10% to 15% percent but has little effect on the service area for other amenities. It should be noted that the other routes are express routes, which means that they generally operate only during peak periods on weekdays.

The highest concentration of shopping in this TAD is in or near the Hikes Point triangle. The smaller shopping areas include one along the east side of Breckenridge Lane between Six Mile Lane and Manner Dale Drive, the region near the intersection of Hikes Lane and Klondike Lane, and a pair of areas along Taylorsville Road near the western and eastern boundaries of the TAD. All of these areas are generally well-served by the Route #23 and/or the Route #40 buses. The historic sites are located along Taylorsville Road, Hikes Lane, and Six Mile Lane. As was the case with shopping, all of these areas are generally well-served by the Route #23 and/or the Route #40 buses.

There is some pedestrian access to residences, shopping, and historic sites in this TAD, but access by bicycle is more limited. Sidewalks are available through much of the area, particularly the portions north, south, and west of the Hikes Point triangle. However, pedestrian access within the triangle is more limited due to the need to cross a four- or six-lane roadway and the lack of sidewalks in a few places, such as along the eastern side of Breckenridge Lane. Access to the area within the triangle is accomplished by use of the crosswalks located at the signal-controlled intersections at

the corners of the triangle and the midblock intersection of Yorkshire Boulevard with Taylorsville Road and is, therefore, possible though challenging. East of the triangle along Taylorsville Road and in the area either side of it, the presence of sidewalks is more sporadic. For example, although Taylorsville Road in this area has paved shoulders which could be used for walking, it does not have sidewalks, per se. However, the biggest challenge to access by walking—particularly for shopping—is the size of the TAD. Some residences are too far from some of the other residences and from shopping to expect that many would walk to those destinations. The same is true for some of the historic sites, such as the Kennedy-Hunsinger Farm, the Yenowine Farm, and Westwood Farm. The first two are located along Taylorsville Road near the eastern end of the TAD, and the third is located along Six Mile Lane in the southern section of the TAD. All of these locations are beyond normal walking distance from much of the TAD.

As for access by bicycle, there are few bikeways in this TAD, and most would require the bicyclist to ride in the traffic lane, a practice that inexperienced riders would probably prefer not to do. The exception is the portion of Taylorsville Road east of McMahan Boulevard, which has bikeways on both sides of the road as part of paved shoulders. There are right-turn lanes which interrupt the bikeways in a few places, but generally bicyclists can ride without being in the same lane as vehicles. Other than Taylorsville Road, the side streets provide the alternative for biking, and they generally provide sufficient connections to allow most amenities to be accessed by bike. However, there are three challenges. First, for some trips, a major street may have to be crossed, which must be done carefully. This is particularly true for the area within the Hikes Point triangle. The second challenge is that the lack of connectivity of side streets, particularly in the eastern portion of the TAD. This would require the bicyclist to ride in a traffic lane unless Taylorsville Road east of McMahan Boulevard could be used. The third challenge is that the side street network is not a rectangular grid nor is it consistent throughout the area. This can make it difficult for the bicyclist to find an efficient path through the neighborhoods along the trip.

In contrast, the roadway network in TAD 40021 is well-developed. It is probably possible to access any point in the TAD using public roadways. The challenge with using this mode of travel is congestion. At present, congestion is probably most significant in the vicinity of the Hikes Point triangle. The large number of curb cuts, closely spaced traffic signals, and a significant amount of traffic, particularly during the peak periods, all contribute to the problem. As mentioned previously, the major concentration of shopping is in this area. At present, it is usually possible to access the businesses in the area in and around the Hikes Point triangle without much difficulty. The possible exception to this situation is during the afternoon peak period. However, in the future, the period of congestion may extend to other parts of the day. Aside from the Hikes Point triangle, the other areas presently experiencing congestion are Breckenridge Lane and Browns Lane. This congestion, although problematic at peak periods, is somewhat confined geographically. Other parts of the TAD where the majority of residences and most of the historic sites exist are not presently subject to major problems of congestion. However, projections indicate that the existing areas of congestion will worsen and that a significant portion of Taylorsville Road will also become congested in the future. Access to a larger proportion of the residences and more of the historic sites will likely be affected by congestion in the future.

Some sections of the major roadways in this TAD are presently congested. Many sections of these roadways are expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access to many of the community amenities may well be affected. For those wishing to travel on foot and by bicycle, the combination of sidewalks along major roadways (for pedestrians) and side streets may provide reasonable access within some portions of this TAD. However, crossing the major roadways will likely be challenging, and using the side streets to find the best path through the residential areas is challenging at present. For those wishing to travel by bus, access will be good to those portions of the TAD along bus routes but not so good in those areas away from the bus routes.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

There are no Major Employers (300+ employees) in TAD 40021. However, there is a cluster of high density employment within the area. It is located in the Hikes Point triangle.

As described above, there are a number of transit routes serving this TAD, including three—Route #23, Route #40, and Route #62—which provide day-long service. Route #62 has longer headways and operates for fewer hours only on weekdays. Nevertheless, collectively these routes provide good access along Taylorsville Road, Breckenridge Lane, and Hikes Lane, including most of the Hikes Point triangle. Therefore, there is good access by transit to many of the workplaces in the TAD based on transit users having a reasonable proximity to bus stops.

There is some pedestrian access to workplaces in this TAD, but access by bicycle is more limited. Sidewalks are available through much of the area, particularly the portions north, south, and, west of the Hikes Point triangle. However, pedestrian access within the triangle is more limited due to the need to cross a four- or six-lane roadway and the lack of sidewalks in a few places, such as along the eastern side of Breckenridge Lane. Access to the area within the triangle is accomplished by use of the crosswalks located at the signal-controlled intersections at the corners of the triangle and the intersection of Yorkshire Boulevard with Taylorsville Road and is, therefore, possible though challenging. East of the triangle along Taylorsville Road and in the area either side of it, the presence of sidewalks is more sporadic. For example, although Taylorsville Road in this area has paved shoulders which could be used for walking, it does not have sidewalks, per se. However, the biggest challenge to access by walking may be the size of the TAD. Some locations are far enough from workplaces that it is unlikely that many would walk to those destinations. As for access by bicycle, there are few bikeways in this TAD, and most would require the bicyclist to ride in the traffic lane, a practice that inexperienced riders would probably prefer not to do. The exception is the portion of Taylorsville Road east of McMahan Boulevard, which has bikeways on both sides of the road as part of paved shoulders. There are right-turn lanes which interrupt the bikeways in a few places, but generally bicyclists can ride without being in the same lane as vehicles. Other than Taylorsville Road, the side streets provide an alternative for biking, and they generally provide sufficient connections to allow most amenities to be accessed by bike. However, there are three challenges. First, for some trips, a major street may have to be crossed, which must be done carefully. This is particularly true for the area within the Hikes Point triangle. The second challenge is that the lack of connectivity of side streets, particularly in the eastern portion of the TAD. This would require the bicyclist to ride in the traffic lane unless Taylorsville Road east of McMahan Boulevard could be used. The third challenge is that the side street network is not a rectangular grid nor is it consistent throughout the area. This can make it difficult for the bicyclist to find an efficient path through the neighborhoods along the trip.

In contrast, the roadway network in TAD 40021 is well-developed. It is possible to access the workplaces in the TAD using public roadways. The challenge with using this mode of travel is congestion. Congestion is probably most significant in the vicinity of the Hikes Point triangle which is where most of the workplaces are. The large number of curb cuts, closely-spaced traffic signals, and a significant amount of traffic, particularly during the peak periods, all contribute to the problem. As mentioned previously, the major concentration of shopping is in this area. Therefore, this area also has a significant amount of employment. At present, it is usually possible to access the businesses in the area in and around the triangle without much difficulty. The possible exception is during the afternoon peak period. However, in the future, the period of congestion may extend to other parts of the day. The other areas presently experiencing congestion are Breckenridge Lane and Browns Lane. This congestion, although problematic at peak periods, is somewhat confined geographically, and there is not a large amount of employment along the sections of these roadways except in the vicinity of the triangle. However, projections indicate that the existing areas of congestion will worsen and that a significant portion of Taylorsville Road will also become congested in the future. Access to a larger proportion of the workplaces will likely be affected by congestion in the future.

Some sections of the major roadways in this TAD are presently congested. Many sections of these roadways are expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access to many of the workplaces may well be affected given that the majority of workplaces are in the vicinity of the Hikes Point triangle, where congestion is—or is projected to be—the worst. For those wishing to travel on foot and by bicycle, the combination of sidewalks along major roadways (for pedestrians) and side streets may provide reasonable

access within some portions of this TAD. However, crossing the major roadways will likely be challenging. For those wishing to travel by bus, access will be good to those portions of the TAD along bus routes but not so good in those areas away from the bus routes.

Access for Persons with Disabilities and/or Older Adults

There are no senior centers in TAD 40021. The closest locations are near the intersection of Cannons Lane and Dutchmans Lane in TAD 40008. The other types of facilities that would be utilized by persons with disabilities and/or older adults are those also used by other persons and are discussed in the sections concerning access to community amenities, workplaces, government services, and medical facilities.

As described above, there are a number of transit routes serving this TAD, including three—Route #23, Route #40, and Route #62—which provide day-long service. Route #62 bus has longer headways and operates for fewer hours only on weekdays. Nevertheless, collectively these routes provide good access along Taylorsville Road, Breckenridge Lane, and Hikes Lane, including most of the Hikes Point triangle. These transit routes can be used when making trips to the senior centers in TAD 40008. However, the trips currently require a transfer, either at Taylorsville Road and Dutchmans Lane or at Breckenridge Lane and Dutchmans Parkway. Depending on the type of disability, the transfer may be challenging. Another challenge may be the time of the trip. As mentioned above, Route #62 operates for fewer hours (approximately 7:15 am to 6:15 pm). The Dutchmans/Dupont branch of Route#23, which provides the connection between the buses which access TAD 40021 and TAD 40008 and the senior centers, also operates with similar schedule. This means that there will be some portions of the day when the senior centers cannot be accessed by public transit. Nevertheless, the main challenge may be accessing transit inside TAD 40021. In spite of the several challenges described above, there is reasonable access by public transit to the senior centers in TAD 40008 for many of those with disabilities and/or older adults who can access the transit routes at the end of the trip which is in TAD 40021. In addition, for those with disabilities and/or older adults living within 0.75 miles of the fixed-route transit service in TAD 40021, access to the senior centers in TAD 40008 can be accomplished by the use of paratransit service, as well.

In TAD 40021, there is access to some locations by walking, but access by bicycle is more limited. Sidewalks are available through much of the area, particularly the portions north, south, and, west of the Hikes Point triangle. In accessing the senior centers in TAD 40008, however, pedestrian access is unlikely due to the distance that would have to be walked. As for accessing the senior centers by bicycle, distance may be a concern for trips from the southern parts of TAD 40021, but there are areas particularly in the northern and western parts of TAD 40021 which are within a reasonable riding distance. The challenge for those seeking to access the senior centers by bicycle is in traveling through the sections of Taylorsville Road and Breckenridge Lane where TAD 40021 meets TAD 40008. Both of these locations are at interchanges of I-264 and those roads. There are numerous traffic movements occurring at those locations, and less experienced bicyclists may be hesitant to attempt to access the senior centers by traveling through them. As an alternative, particularly for those residing in the eastern portion of TAD 40021, there is a bikeway that utilizes Browns Lane and intersects one that utilizes Dutchmans Lane and Dutchmans Parkway. This bikeway could be used to access the senior centers by bicycle. However, it does require riding in a traffic lane of a road which has significant traffic. Further, its use by persons residing in the western portion of the TAD would require backtracking.

In contrast, the roadway network in TAD 40021 is well developed. The roadway network in TAD 40008 is also well developed such that it is possible to access the senior centers using public roadways. The challenge, in some cases, with using this mode of travel is congestion. There is presently congestion along Breckenridge Lane from Hikes Lane to the I-264 interchange. Congestion is projected to continue along that portion of Breckenridge Lane and worsen on Taylorsville Road, Hikes Lane, and Browns Lane east and northeast of the Hikes Point triangle. For those who reside west of the triangle, the congestion does not appear to be a significant impediment to access the senior centers by vehicle.

Some sections of the major roadways in this TAD are presently congested. Many sections of these roadways are expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access for persons with disabilities and/or older adults to the senior centers in TAD 40008 may well be affected. For those who reside in the eastern portion of TAD 40021, the congestion may make the trip more time-consuming. For

those who reside in the western and southern portions of TAD 40021, the effect on a vehicle trip would not be as significant. For those wishing to travel by bus, access will be reasonable to/from those portions of the TAD along bus routes—but not so good in those areas away from the bus routes. In addition, there is the limitation concerning the time of day when the travel can be accomplished. For those able to travel on foot and by bicycle, the combination of sidewalks along major roadways (for pedestrians) and side streets may provide reasonable access within portions of TAD 40021. However, the distance necessary to walk to the senior centers probably precludes walking as an option. Further, the locations where pedestrians and bicyclists could cross from TAD 40021 to TAD 40008 present challenges because of heavy and varied traffic flows.

Access to Education

There are no post-secondary institutions or high schools in this TAD. However, there are six elementary or middle schools in the TAD. None of the schools are sufficiently close to qualify as a cluster. All of the schools have parking lots, which appear to serve as locations for parents to drop off and pick up children.

Access by transit to these schools in this TAD is mixed. Immaculata Academy is located along one of the branches of Route #23, and Kennedy Metro Middle School, is located along Route #40. One of the other schools, Meredith-Dunn Learning Center, is located between the Routes #23 and Route #40, approximately 0.10 mile to 0.15 miles from each. Klondike Elementary School is located about 0.30 miles from a branch of Route #23, slightly further than the 0.25 miles normally considered to be the limit for walking to a bus. Ascension Elementary and Greathouse/Shyrook Traditional Elementary are located beyond normal walking distance from any transit route, so it is unlikely that they would be accessed by transit alone.

With the exception of Kennedy Metro Middle School, there are sidewalks along the major roads which provide some pedestrian access to these schools. However, for Klondike Elementary, there are many curb cuts in the section of the sidewalks along Klondike Lane near Hikes Lane. Given that the pedestrians accessing the school are mostly children, the pedestrian access in that area is less than perfect. For some of the schools, sidewalks exist along some side streets but not others. For example, there are sidewalks along some of the streets needed to access the Meredith-Dunn Learning Center from some directions but not from others. In general, there may be sidewalks near the school but not along streets in the neighborhood further from the school. The main limitation for pedestrian access for the students is in the case where they have to cross major streets. Opportunities to safely cross major streets are limited to intersections generally controlled by traffic signals. The exception is the crosswalk at Immaculata Academy.

In this TAD, there are bikeways along Taylorsville Road and Browns Lane. Of the six schools in this TAD, these bikeways could be used to provide access to Kennedy Metro Middle School and Greathouse/Shyrook Traditional Elementary, respectively. Further, Ascension Elementary is only a few blocks along a side street from the Browns Lane bikeway, thus allowing some access by a combination of the bikeway and some side streets. However, Browns Lane has no shoulders. Therefore, those using the bikeway along it have to ride in the traffic lanes, and less experienced riders may find this an uncomfortable option. It is an option which is probably not appropriate for school children. For the Taylorsville Road bikeway, this is not a problem, the bikeway lanes are striped as part of the paved shoulders. So riding in a traffic lane is not a consideration. In this TAD, there are side streets which provide some opportunity for access by bicycle for all of the schools although the use of the side streets may not provide a path all the way to the school. In addition, as with pedestrian access, there may be access by bicycle using side streets from some directions but not from others. Also as with pedestrian access, the side streets which can be used for bicycle access may exist in some parts of the neighborhood but not in others and may require bicyclists to follow a circuitous path to access the school. A third point also in common with pedestrian access is that a main limitation for bicycle access is in the case where bicyclists have to cross major streets. Opportunities to safely cross major streets are generally limited to intersections controlled by traffic signals. In summary, access to the schools by bicycle is possible but challenging. It is a mode more likely used by an adult than by children.

The roadway network in TAD 40021 is well-developed. It is possible to access all of the schools in the TAD using public roadways. The challenge with using this mode of travel is congestion. Congestion is probably most significant in the vicinity of the Hikes Point triangle. The Meredith-Dunn Learning Center is located near the triangle, although accessing the school by vehicle is not usually accomplished by approaching from the direction of the triangle. The other school in

an area presently experiencing congestion is Greathouse/Shyrock Traditional Elementary, which is located on Browns Lane. Ascension Elementary is only a few blocks from Browns Lane; therefore, it is likely the congestion on Browns Lane would affect travel to Ascension Elementary, as well. The other schools are not presently near congested areas, but the projected congestion on Taylorsville Road will likely impact travel to Kennedy Metro Middle School, and congestion on Hikes Lane near Klondike Lane could impact travel to Immaculata Academy and Klondike Elementary. The actual degree of the impact for all the schools will vary depending on whether the children are dropped off by an adult or are taken to the school by school bus. The flexibility of travel path afforded to the adult dropping off the children may allow for some of the impact of the congestion to be avoided relative to the generally inflexible path used by a school bus. Nevertheless, the impact is likely to be greatest in the morning when travel to school coincides with the general morning peak period for traffic.

Some sections of the major roadways in this TAD are presently congested. Many sections of these roadways are expected to be congested at LOS E or F by 2030, while several other sections are expected to be operating at LOS D. The bikeways in this TAD provide direct or indirect access to three of the schools, but riding in the traffic lanes of major roads may be required—probably not a good option for children. Public transit service provides some access to four of the schools, but it will be using congested roads in the future. Sidewalks help provide access to five of the schools and are the only mode which will suffer little effect due to the existing and/or projected congestion of the roadways in this TAD. Access to the schools will likely be affected either directly—in the case of students traveling by vehicle—or indirectly—in the case of students traveling by bike and/or transit—by the congestion of the roadways in this TAD.

Access to Government Services

There are no clusters of government services in this TAD. There are four government facilities in or near this TAD: one city hall, one library, and two ambulance/fire stations.

The Cambridge City Hall is located at 2913 Cambridge Road. It can be fairly-easily accessed by drivers and pedestrians but not by bus. Lowe Road is the street which connects the streets in Cambridge. Although Lowe Road is a local street, it has significant traffic due to its being a connector between the Browns Lane and McMahan Boulevard to the west and Taylorsville Road to the east. There are sidewalks along the south (Cambridge) side of Lowe Road. There are no sidewalks along Cambridge Road. However, it is a dead-end street. Therefore, the traffic volume along this street is likely small and consists of traffic with destinations on the street. Therefore, the impact of this traffic inhibiting pedestrian use of the edge of the roadway may not be as great as it would be for higher-volume, higher-speed traffic.

The Bon Air Library is located at 2816 Del Rio Place. This is approximately one block into TAD 40018, the TAD west of TAD 40021. It can be accessed by bus riders with a short walk, as well as drivers, pedestrians, and bicyclists. Bus riders have to use a branch of the Route #23 bus traveling through TAD 40018 and walk approximately 0.15 miles to access the library. Since the bus route crosses from TAD 40021 to TAD 40018 on Hikes Lane rather than near the library, the residents of TAD 40021 living closest to the library would probably not access it by bus. The residents of TAD 40021 who would access the library by bus are most likely those living along the Route #23 line including those living near Hikes Lane or near Breckenridge Lane south of Hikes Lane. The street systems at the western edge of TAD 40021 and the eastern edge of TAD 40018 are linked at a few locations. The main impasse to auto access to the library from the nearby areas of TAD 40021 is a drainage ditch which prevents many of the streets in TAD 40021 from continuing to the west into TAD 40018. The bridges/culverts that do exist north of Hikes Lane are located at Brockton Lane, Herb Lane, Talisman Road, and Johnston Way. For auto access, these connections are sufficient to allow residents of that area of TAD 40021 to access the library. There are sidewalks along many of the streets leading to the library which allow good pedestrian access. Because of the drainage ditch, many pedestrians face the same problems as drivers in traveling to the library. Their trips are made longer by the limited connections, but many residences are still within walking distances of the library. There are residents of TAD 40021 who do not face this problem. Those residents living in TAD 40021 closest to the library—on Commander Drive, Doreen Way, and the east/northeast side of Rio Rita Avenue—are already west of the drainage ditch. Therefore, it is not an impediment to them in accessing the library. Since the streets in the western portion of TAD 40021 and the eastern portion of TAD 40018 are side streets with low traffic volumes, accessing the library by bicycle is also a possibility. Bicyclists face the same problems as pedestrians with drainage ditch, but since they are usually willing to ride a longer distance, the concern may not be as great.

There are two ambulance/fire stations in or near TAD 40021. The Louisville Fire Department District 4 station is located at 2900 Hikes Lane, and the McMahan Fire District station is located at 4318 Taylorsville Road. Both can be accessed by bus riders and drivers. There are sidewalks and side streets which provide pedestrians and bicyclists access to the Louisville Fire Department District 4 station, but there are no sidewalks in the vicinity of the McMahan Fire District station. However, paved shoulders along Taylorsville Road allow some pedestrian access to the McMahan station. There is also a striped bikeway along Taylorsville Road as part of the shoulder, which can be used to access the McMahan station. That being said, it should be noted that access to fire and ambulance service usually consists of the first responders coming to the houses of individuals, businesses, and public facilities rather than individuals coming to the ambulance/fire station. In that regard, the Louisville Fire Department District 4 station is well-positioned to serve the western 2/3 of the TAD. The McMahan Fire District station is well-positioned to serve the eastern portion of the TAD along and north of Taylorsville Road. South of Taylorsville Road, the first responders from the McMahan station can easily access Houston Acres and the area adjacent to it, but they must use a rather circuitous route to reach the residential area north of Norfolk Southern Railroad. Travel from the McMahan station to this area typically involves the use of Hunsinger Lane (a two-lane road which is rather winding south of the vicinity of the Hikes Point triangle) or Hurstbourne Parkway and possibly Stony Brook Drive. Taylorsville Road east of the triangle and Hurstbourne Parkway at the eastern boundary of the TAD are projected to be congested in the future.

Some sections of the major roadways in this TAD are presently congested. Many sections of these roadways are expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Given the directionality of travel discussed above for ambulance/fire stations, the most significant issue with access to government services within or near this TAD is the projected congestion of sections of Taylorsville Road, Hurstbourne Parkway, and Hikes Lane relative to the ambulance/fire station personnel providing service in the southern and southeast portions of the TAD. The rising level of congestion will likely affect response times in the future. The other problem is with network connectivity described above with the drainage ditch affecting access to the Bon Air Library. For those wishing to travel on foot and by bicycle, the combination of sidewalks along major roadways and some side streets (for pedestrians) and side streets (for bicyclists) can provide some access for the other government service locations. However, crossing the major roadways will likely be challenging. For those wishing to travel by bus, access is available to the locations providing government services except for the Cambridge City Hall although the congestion described above may lengthen the time necessary to complete the trip. Projects to be implemented in this TAD should address the projected congestion on the roadways so that emergency response times will not suffer. An opportunity exists to enhance the pedestrian and bicycle facilities so that those modes, particularly in concert with transit, could be considered to provide an alternative to travel by vehicle.

Access to Medical Facilities

Aside from some doctors' offices, there are no medical facilities in TAD 40021. The closest hospital is Norton Suburban Hospital located at 4001 Dutchmans Lane. This facility is located north of I-264 in TAD 40008, which is north of the western portion of TAD 40021. The next closest hospital is Baptist Hospital East, located north of I-64 in TAD 40009, which is north of the TAD in which Norton Suburban Hospital is located.

The mode of access a patient of either hospital would use would depend on the service/treatment to be provided at the hospital. The expected mode of access for a number of procedures would be by vehicle. Certainly, it would seem reasonable that those taken to the hospital in an emergency situation would access the hospital by vehicle. There are two main street connections between TAD 40021 and TADs 40008 and 40009—Breckenridge Lane and Browns Lane. Both streets are heavily traveled during peak periods and have significant traffic volumes at other times of the day. In particular, the interchange between Breckenridge Lane and I-264 tends to make the traffic congestion at that location even more pronounced. This is particularly problematic given that both roads are highly congested at present and projected to remain so in the future. This congestion would be concern for access to any type of facility. Therefore, given that this discussion concerns access to hospitals, this is a situation that definitely needs addressing.

Aside from the medical situations implicit in the discussion above, other patients and those who are visiting the hospital for another reason might use alternative modes as well as access by vehicle. A possible alternative would be the use of public transit. Both hospitals are located along public transit routes. Unfortunately, there are no transit

routes which directly connect TAD 40021 with the hospitals. Route #62 travels along Breckenridge Lane and there are stops at Dutchmans Lane, Dupont Road, and Kresge Way for those wishing to access the hospitals by transit. However, as mentioned above, the Route #62 bus has longer headways than most buses and operates only weekdays and for a shorter period of time each day. Further, since it travels on Breckenridge Lane, it is subject to the same congestion that an automobile would face. An alternative approach for access by transit would be to use the Route #40 bus and transfer to the Dutchmans Lane branch of the Route #23 bus or vice versa. Unfortunately, this approach is limited by the schedule of that branch of the Route #23 bus, which has similar limitations to that of Route #62. In summary, the challenges of accessing either of the hospitals from TAD 40021 by public transit are significant.

There are sidewalks and side streets which would support pedestrian and bicycle usage within TAD 40021 to travel toward these hospitals. However, there are neither sidewalks nor bike lanes along Breckenridge Lane to connect to the other TADs. Browns Lane does have a bikeway, but that bikeway requires the bicyclist to ride in the traffic lane—a practice that probably only the more experienced bicyclist might attempt. There are shoulders along the Browns Lane overpass over I-264 that would allow pedestrian access, but these shoulders are rougher than most sidewalks and, being shoulders, apparently are not cleaned as frequently as sidewalks would normally be. The Browns Lane overpass over I-64 has four traffic lanes and narrower shoulders. So the likelihood of pedestrian use is probably less at that location. Also, the maximum distance most pedestrians are expected to walk is 0.25 miles. The distance one would walk in TAD 40008 to access Norton Suburban Hospital—the one closer to TAD 40021—is about 0.25 miles, and that does not include any distance walked in TAD 40021. Therefore, walking from TAD 40021 is possible although unlikely to Norton Suburban Hospital and essentially improbable to Baptist Hospital East.

Since there are no major medical facilities in this TAD, any significant issues with access to medical facilities has to do with travel to the adjacent TADs. As discussed above, pedestrian access is possible for the hospital closer to TAD 40021, although it would be challenging. There is a bikeway that could provide access to one hospital and within about two blocks of the other hospital for those bicyclists experienced enough to be willing in traffic lanes. There is a combination of buses which could provide access to both hospitals, but the use of these requires transfers, and there are schedule limitations. Therefore, the mode of access to these facilities would be most likely automobile. Given this situation, the congestion presently experienced and projected along Breckenridge Lane and Browns Lane needs to be addressed not only for emergency trips but also for the non-emergency trips, as well.

Freight Access

I-64 and I-264 in this TAD are part of the KIPDA Freight Network. These interstate connections provide a vital role allowing for freight movement north and south, and east to west – basically connecting to the rest of the national interstate system. There are no clusters of Major Freight Users in this TAD (five or more). In addition, there is only one significant freight facility in TAD 40021—a public storage facility located along Breckenridge Lane south of Dale Ann Drive.

The major issue facing freight in this TAD is the current and projected levels of service. As described above, currently there are several roadways in TAD 40021 with a LOS below C. These include I-64 from I-264 to Hurstbourne Parkway (LOS E), I-264 from Taylorsville Road to I-64 (LOS D), Breckenridge Lane from I-264 to Hikes Lane (LOS F), and Browns Lane from I-264 to Brookhaven Avenue (LOS F) and from Brookhaven Avenue to McMahan Boulevard/Lowe Road (LOS E).

Further, the projected LOS for 2030 indicates that the roadways in TAD 40021 that are currently congested are expected to remain so or worsen. I-64 from I-264 to Hurstbourne Parkway is projected to remain at LOS E. I-264 from Taylorsville Road to I-64 is projected to worsen to LOS E. Breckenridge Lane from I-264 to Taylorsville Road is projected to remain at LOS F although the section from Taylorsville Road to Hikes Lane is projected to improve slightly to LOS E. Conversely, Browns Lane from I-264 to Brookhaven Avenue is projected to remain at LOS F, and the section from Brookhaven Avenue to McMahan Boulevard/Lowe Road is expected to worsen to LOS F.

Some sections of the major roadways in this TAD are presently congested. Many sections of these roadways are expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. The

existing level of congestion may be affecting freight access at present, and the rising level of congestion will be more likely to do so in the future. In addition, the higher number of crashes in the areas where freight access is needed may be resulting in excess travel time for the larger freight vehicles. Access by alternate modes is not really an option for freight except for employees accessing their workplaces. Discussion of those issues is provided above in the section concerning access to workplace. Projects to be implemented in this TAD should address the existing and projected congestion on the roadways.

Future Socioeconomic Conditions

TAD 40021 is expected to be the location of some decrease in population and some increase in households and employment in the coming decades. Based on the most recent set of forecasts for the Year 2030, the number of people living in this TAD is expected to decrease by about 12% between 2010 and 2030. The number of households is expected to increase by about 13% in that same timeframe. Employment is expected to increase even more and be about 53% greater by 2030. This equates to about 3,100 additional jobs being located in this TAD. The patterns of growth and decline area are different for population and households. For population, the decline occurs both before and after 2010 with the rate of decline slowing slightly after 2010. For households, there was decrease between 2000 and 2010. However, projections indicate the decline will be recovered and net growth will occur by 2030. The net decline in population and net increase in households indicates that the average household size will be decreasing noticeably. Most of the TAD has sections of increasing and decreasing population and households intermixed. The area with the most notable change was in the eastern portion of the TAD south of Taylorsville Road and east of Houston Acres. It is projected to have a noticeable increase in population, households, and employment. This area is presently relatively undeveloped.

A consequence of these changes is the possible increase in congestion. As discussed in previous sections, many sections of these roadways are expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. In particular, Taylorsville Road is projected to be operating at LOS F from Breckenridge Lane to the eastern edge of the TAD by 2030, and Hurstbourne Parkway along the eastern boundary is projected to be operating at LOS D. These projections would seem to be consistent with a high level of growth in the area described in the preceding paragraph. Consideration of the growth of population, households, employment and congestion in this area should figure promptly in determining the projects to be implemented in this TAD. The projects should address the existing and projected congestion on the roadways of the TAD and particularly in this area of the TAD.

Issues and Opportunities

- There are a number of issues involving the portion of TAD 40021 in the vicinity of the Hikes Point triangle, the area where Taylorsville Road, Breckenridge Lane, Hikes Lane/Browns Lane, and a number of less-traveled streets intersect. This area is somewhat congested and is projected to get worse. There are also a high number of crashes in this area. In addition, there are many curb cuts and commercial driveways (with significant traffic volumes), which may be contributing to these problems. Consequently, since this portion of the TAD contains many retail businesses, the bad and/or worsening congestion coupled with the high number of crashes will likely increase the difficulty with freight (merchandise) delivery. There is also limited pedestrian and bicycle access to the inner portion of the triangle. Projects to be implemented in this area will need to be able to address the congestion and crash potential challenges occurring there.
- In general, pedestrian facilities are available, but there are gaps in those facilities. As mentioned above, access to the inner portion of the triangle is limited. Projects to be implemented in this area need to consider including improved pedestrian facilities in areas where they are missing.
- With one exception, bicycle facilities are generally not available except through the use of side streets and on two roads where the bicyclist must ride in the traffic lanes with the vehicles. Side streets often do not follow a rectangular grid pattern, and the patterns that do exist are not consistent from one section of the TAD to the next. In this TAD, there is an opportunity to establish and sign bike paths.
- Public transit routes generally follow the major streets in TAD 40021. Because there are large areas which are not adjacent to the major streets, the distance necessary to access transit by walking is often beyond the maximum

many would find acceptable. There is an opportunity in this TAD to consider ways to improve access to transit routes and to encourage a mode shift to travel by transit.

Related Plans and Studies

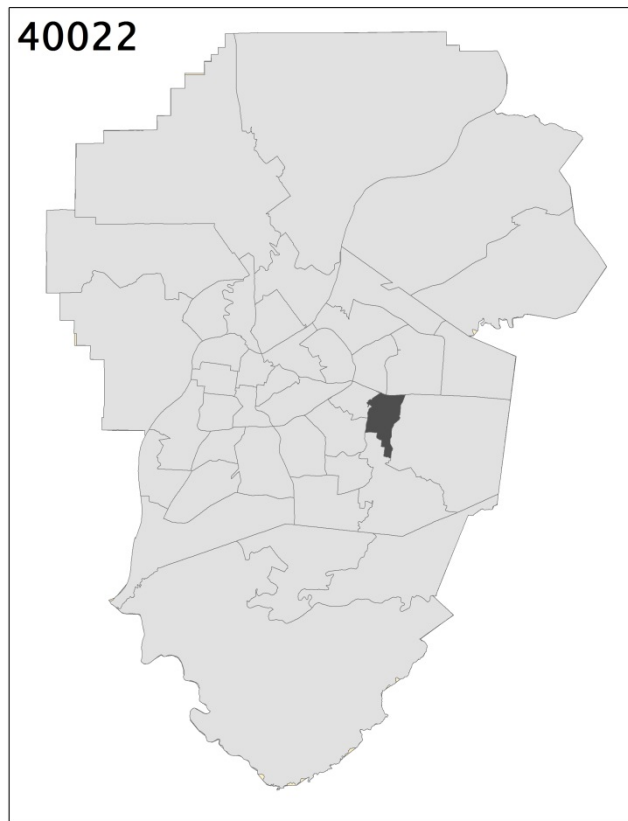
- Cornerstone 2020 Comprehensive Plan (2013)

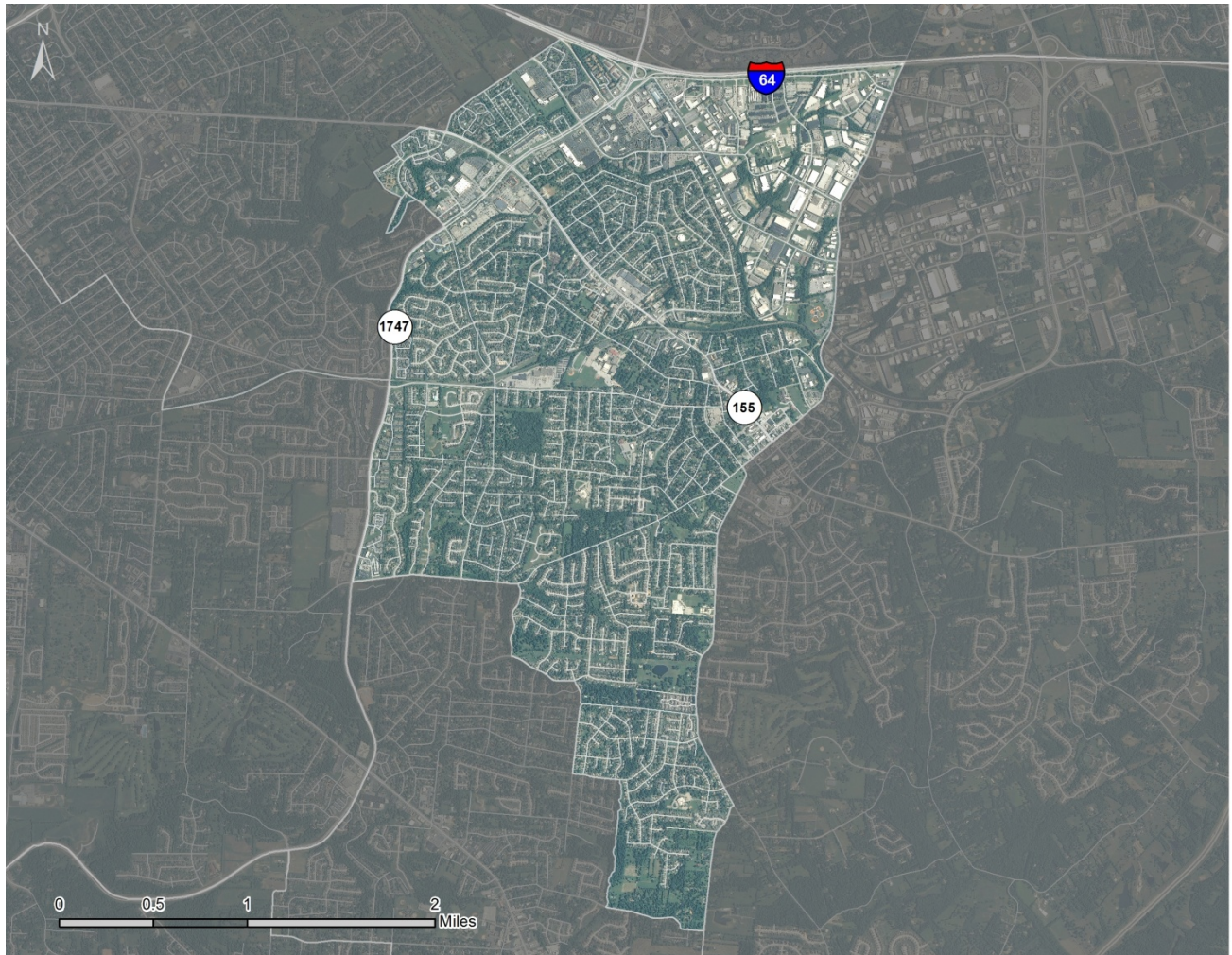


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40022 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40022 is located in eastern Jefferson County in suburban Louisville Metro. In addition to being part of Louisville Metro, the vast majority of the TAD is also located within the City of Jeffersontown. The small cities of Forest Hills and Hurstbourne Acres are also located in this TAD.

TAD 40022 is exclusively urban and has been extensively developed with few parcels available for significant new development in the future. There is a variety of land uses in this TAD, including significant residential, commercial, and industrial development.

Area and Socioeconomic Information

Area: Approximately 4,726 acres

Non-Group Quarters Population (2010): 25,578

Number of Households (2010): 10,912

Number of Jobs (2000): 16,385

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies no Title VI/Environmental Justice areas within this TAD.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64* from just west of KY 1747 (Hurstbourne Parkway) to KY 1819 (Watterson Trail)
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 1747* (Hurstbourne Parkway) from its northern intersection with Watterson Trail to I-64 • KY 155* (Taylorsville Road) from Watterson Trail to Stony Brook Drive/Blowing Tree Boulevard
Urban Minor Arterial	<ul style="list-style-type: none"> • Bluegrass Parkway from Hurstbourne Parkway to Watterson Trail • Plantside Drive from Bluegrass Parkway to Watterson Trail • Six Mile Lane from Hurstbourne Parkway to Stony Brook Drive • Watterson Trail from Hurstbourne Parkway to I-64 • Billtown Road from KY 1065 (Lovers Lane) to Watterson Trail • Ruckriegel Parkway from Watterson Trail to Billtown Road
Urban Collector	<ul style="list-style-type: none"> • Stony Brook Drive from Watterson Trail to Taylorsville Road • Six Mile Lane from Stony Brook Drive to Taylorsville Road • Bunsen Way from Hurstbourne Parkway to Watterson Trail • Grand Avenue • Fairground Road from Villa Fair Road to Billtown Road • KY 1065 (Lovers Lane) from Fern Creek Road to Billtown Road
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- | | |
|--|--|
| <ul style="list-style-type: none"> • Carrithers Middle School • Cochrane Elementary School • Jeffersontown Elementary School • Jeffersontown High School | <ul style="list-style-type: none"> • Saint Edward Catholic School • Tully Elementary School • Wheeler Elementary School |
|--|--|

Colleges & Universities

- Campbellsville University – Louisville

Parks

- Skyview Park

Other Area of Interest/Significance

- Bluegrass Commerce Park

Historic

- | | |
|--|--|
| <ul style="list-style-type: none">• Andrew Hoke House• Beechland• Confederate Martyrs Monument• James H. Funk House | <ul style="list-style-type: none">• Jeffersontown Colored School• Judge Kirby House• Stucky House• Tyler Settlement Rural Historic District |
|--|--|

Transit

TAD 40022 is currently served by several TARC routes. The following TARC routes pass through and have stops within the TAD, primarily providing connections to downtown Louisville:

- Route #23 – Broadway
- Route #40 – Taylorsville Road
- Route #75 – Bluegrass Circulator

Park and Ride

There is only one identified Park and Ride lot in TAD 40022:

- Jeffersontown United Methodist Church

Public Comments

Hurstbourne Parkway Corridor

- Connect Bunsen Way to Taylorsville Road to provide alternate connection to Bluegrass Commerce Park.
- Intersection with Bunsen Way is a terrible intersection at 5:00-5:30 in the afternoon.
- Traffic in southbound direction gets backed up to I-64 because majority of people are turning left on Taylorsville Road.
- Frequent red light violators make it difficult for pedestrians to cross.
- Intersection with Taylorsville Road is dangerous for cyclists.
- Despite lines painted on road to keep motorists from blocking intersection at Raintree Drive, residents in apartments still have difficulty leaving complex.
- Congestion has become much worse recently near Stony Brook Drive.

Bluegrass Parkway

- No bike/pedestrian access causes a safety issue. A sidewalk on one side would solve problem.

Taylorsville Road

- Debris is often encountered in bike lanes because there hasn't been an agreement to clean the bike lanes.

Billtown Road

- Add a bike trail or sidewalk to connect neighborhood near Carrithers Middle and Farmer Elementary Schools.

Safety

2,172 crashes were reported in TAD 40022 in the three-year period from 2009 through 2011. There were four fatalities reported as a result of four crashes over this time period. There were 50 crashes that resulted in significant injury. During this three year period, seven reported crashes involved bicyclists and seven involved pedestrians.

Fatalities

Of the four fatal crashes in the TAD over the three year period, three occurred in dry conditions, one involved a motorcyclist, two involved pedestrians, one involved alcohol, and one involved a bicyclist. None of the crashes that resulted in a fatality occurred in the high crash area on Hurstbourne Parkway. None occurred in close proximity to any of the others.

High Crash Locations

There is only one location in this TAD that has been identified as being a high crash location. This is the congested segment of Hurstbourne Parkway between Taylorsville Road and I-64 (see Figure 40022-A). For a location to meet the high crash location criteria in this analysis there must have been 100 or more crashes within 0.10 mile of a location for the three year period from 2009-2011.

Injury crashes occurred throughout the TAD. There are no obvious locations where the frequency of crashes that resulted in significant injury is obviously disproportionate to the frequency of all crashes. There is a segment of Billtown Road where four crashes involving pedestrians occurred over less than one mile between Mary Dell Lane and Bayport Drive.

Sidewalks do exist along Billtown Road north of Fairground Road, but do not exist to the south between Mary ell Lane and Fairground Road.

Bicycle and Pedestrian Crashes

During this three year period, seven reported crashes involved bicyclists and seven involved pedestrians. Of the fatal crashes in the TAD over the three year period, two involved pedestrians and one involved a bicyclist.

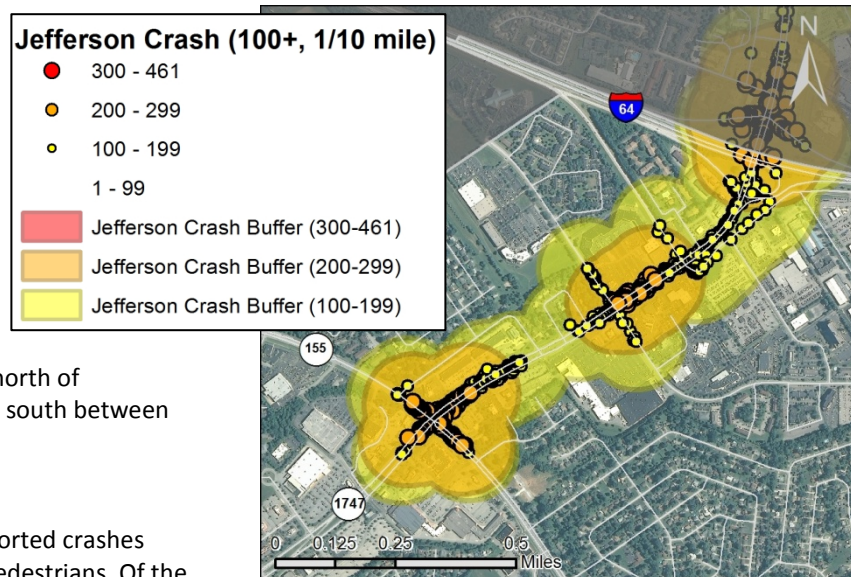


Figure 40022-A: High crash location on Hurstbourne Parkway and I-64 in TAD 40002.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> I-64 from Hurstbourne Parkway to Watterson Trail Watterson Trail from Ruckriegel Parkway to Plantside Drive Billtown Road from Mary Dell Lane to Ruckriegel Parkway
LOS E:	<ul style="list-style-type: none"> Taylorsville Road from Six Mile Lane to Hurstbourne Parkway
LOS F:	<ul style="list-style-type: none"> Hurstbourne Parkway from Taylorsville Road to I-64

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • I-64 from Hurstbourne Parkway to Watterson Trail • Hurstbourne Parkway from Watterson Trail to Ambrosse Lane • Hurstbourne Parkway from Six Mile Lane to Bluegrass Parkway • Taylorsville Road from Patti Lane to Six Mile Lane • Watterson Trail from Stony Brook Drive to Billtown Road • Watterson Trail from Old Taylorsville Road to Ruckriegel Parkway • Billtown Road from Lovers Lane to Watterson Trail
LOS E:	<ul style="list-style-type: none"> • Hurstbourne Parkway from Bluegrass Parkway to I-64
LOS F:	<ul style="list-style-type: none"> • Hurstbourne Parkway from Ambrosse Lane to Six Mile Lane • Taylorsville Road from Old Six Mile Lane to Patti Lane • Taylorsville Road from Six Mile Lane to Stony Brook Drive/Blowing Tree Road • Watterson Trail from Ruckriegel Parkway to Plantside Drive • Watterson Trail from Bluegrass Parkway to Moser Road

Significant or severe congestion currently exists on only two critical links in TAD 40022. These are the seven-lane portion of Hurstbourne Parkway south of I-64 and the segment of Taylorsville Road just east of Hurstbourne Parkway. Other than these locations, congestion is not currently a widespread issue throughout TAD 40022. However, the KIPDA Travel Demand Model projects that congestion will indeed become a major, widespread issue in this TAD by 2030. Congestion on Hurstbourne Parkway expands to other segments beyond the current limits of congestion and severe congestion is expected to plague portions of Taylorsville Road and Watterson Trail as well.

Access to Community Amenities

Community amenities exist in two major clusters in TAD 40022. One cluster includes the congested retail corridor of Hurstbourne Parkway south of I-64, and the other is in downtown Jeffersontown.

The first cluster located along Hurstbourne Parkway consists of almost exclusively retail businesses. This includes major car dealerships, restaurants, major big box retailers, and other shopping centers. With its proximity to I-64 and its wide right of way, it is not very convenient for pedestrians, bicyclists, and/or transit riders at this time. In fact, sidewalks do not exist along the severely congested segment of Hurstbourne Parkway north of Taylorsville Road. There is TARC service in this area, but connections cannot be made north or south on Hurstbourne, only toward downtown Louisville via Taylorsville Road or into the nearby Bluegrass Commerce Park. Until pedestrian accommodations are improved, adding significant TARC service along this portion of Hurstbourne may provide limited benefit.

In contrast to the area along Hurstbourne Parkway containing many community amenities that are commercial businesses, downtown Jeffersontown contains a wide variety of amenities. These include a branch of the Louisville Free Public Library, Jeffersontown City Hall, a branch of the Jefferson County Clerk’s office, an elementary school, a senior center, and many smaller retail establishments. For the most part, sidewalks connect most of these amenities. Connections to the surrounding residential areas via sidewalk are more sporadic, most notably on Taylorville Road west of Ruckriegel Parkway and on much of Ruckriegel Parkway as well. TARC Route #40 provides service toward/from downtown Louisville in this area.

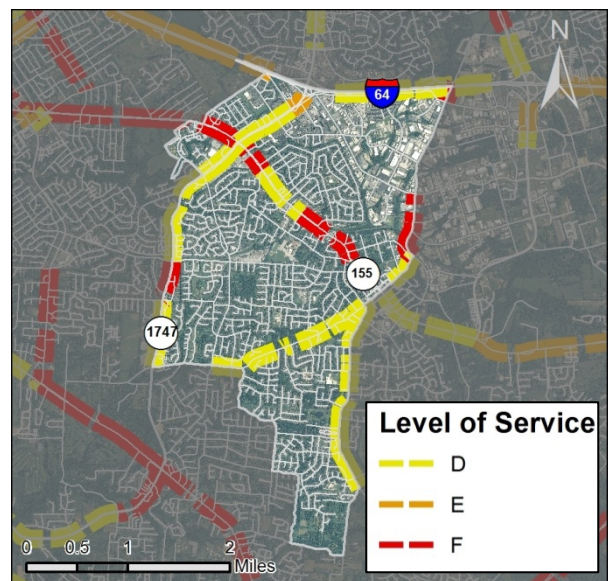


Figure 40022-B: Projected congestion on roadways in TAD 40022. Year 2030 LOS based on KIPDA’s Travel Demand Model is shown.

Elsewhere in the TAD, there are a limited number of isolated community amenities. Access to much of the TAD is limited to/from I-64 due to severe congestion along Hurstbourne Parkway. Schools in the TAD have sidewalks that provide connections to the nearby neighborhoods. TARC Route #40 is the only major transit route that provides regular (non-express route or non-circulator route) service in this TAD.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Kentucky Farm Bureau Insurance
- Sam Swope Auto Group

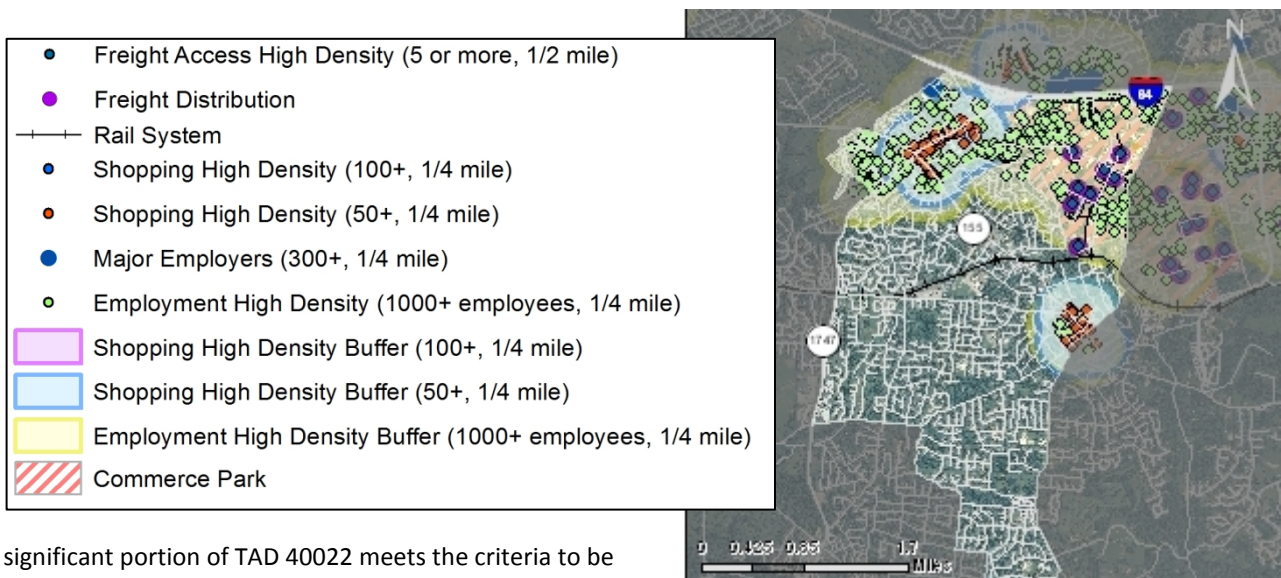


Figure 40022-C: Access to workplace and freight without density buffer and without LOS.

A significant portion of TAD 40022 meets the criteria to be considered a high density employment area. This includes three separate, smaller areas that are located near one another: downtown Jeffersontown, Bluegrass Commerce Park, and the Hurstbourne Parkway Corridor. Downtown Jeffersontown has a mix of employment types including government and retail employment. The Bluegrass Commerce Park also has a mix of employment types, but also includes manufacturing and warehouse employment. The high density employment along Hurstbourne Parkway is almost exclusively retail employment. Despite it being a TAD with a large number of total employees working within it, there are only two major employers that meet the criteria of employing 300 or more employees.

TARC service exists in all three of these areas. Route #40 provides service to downtown Louisville from Jeffersontown, while Route #75 is a circulator route that serves the Bluegrass Commerce Park. Sidewalks are only prevalent in the downtown Jeffersontown area. There are no sidewalks along the most congested portion of the Hurstbourne Corridor and sidewalks are sporadic in the Bluegrass Commerce Park.

The high density retail areas in this TAD match the high density employment areas with the exception of the Bluegrass Commerce Park (see Figure 40022-C).

The Bluegrass Commerce Park is one of the largest commerce parks in the entire region and a portion of it is located in TAD 40022. Quality access to the Bluegrass Commerce Park from I-64 is provided via the Hurstbourne Parkway/I-64 Interchange in this TAD and the Blankenbaker Parkway/I-64 Interchange in the neighboring TAD to the east. TARC Route #75 is a circulator route that circulates through the Bluegrass Commerce Park. Transfers to/from Route #40 are

available near Hurstbourne Parkway and transfers to/from Route #78X (Bluegrass Express) are available at multiple locations in the eastern portion of the Bluegrass Commerce Park. Sidewalks are very sporadic within the Bluegrass Commerce Park.

Access for Persons with Disabilities and/or Older Adults

There are two senior centers or nutrition sites in TAD 40022. One is located near the intersection of Taylorsville Road and Six Mile Lane and the other is located on Watterson Trail near Bluebird Lane. There are no clusters of medical facilities in proximity to one another in this TAD. TARC service and sidewalks exist in the vicinity of each of the senior centers. Each of these locations is within a high density retail area on Taylorsville Road or in downtown Jeffersontown. In both instances, sidewalks connect these senior centers to the nearby high density retail area. TARC Route #40 provides service directly to the senior center near Taylorsville Road and Six Mile Lane. Route #40 also serves the senior center on Watterson Trail, though the route gets no closer to the senior center than about 0.30 miles, so access to this stop could be an issue for some seniors. Since this senior center is within 0.75 miles from a TARC fixed route, complementary TARC3 paratransit service could be an option for those seniors that may be unable to walk to the stop at Taylorsville Road.

Access to Education

There are seven schools located in TAD 40022. However, there are no locations where a cluster of schools containing two or more schools within 0.25 miles of each other. Most of the schools in this TAD are located within residential neighborhoods and are located off of major roadways, with the exception of Carrithers Middle School on Billtown Road. Sidewalks provide access to all schools in the TAD. TARC Route #40 serves Jeffersontown High School and Carrithers Middle School.

Access to Government Services

Government services exist primarily in just one location in TAD 40022, in downtown Jeffersontown. Jeffersontown City Hall, a branch of the Jefferson County Clerk, Jeffersontown Police Department Headquarters, and Jeffersontown Fire Department are all located in this area. Sidewalks connect all of these facilities and TARC Route #40 serves this area.

Access to Medical Facilities

There are no hospitals or clusters of medical facilities located in TAD 40022.

Freight Access

Safe and efficient access to freight facilities is an issue for TAD 40022, primarily in the northern portion of the TAD which includes the Bluegrass Commerce Park and its roadway connections to I-64. Several roadways in this TAD are a part of the KIPDA Freight Network, including:

- Bluegrass Parkway
- Bunsen Way
- Hurstbourne Parkway from Bluegrass Parkway to I-64
- I-64
- Plantside Drive

There are a number of freight distribution facilities that are located in the portion of the Bluegrass Commerce Park in this TAD. These include:

- | | |
|-------------------------------|------------------------------|
| • ANCO-Votator | • Louisville Bedding Company |
| • Derby Industries | • Rev-A-Shelf |
| • Jones Plastic & Engineering | • Southern Standard Cartons |
| • Kentuckiana Curb Company | • Winston Products |

A major east-west Norfolk Southern rail line passes through this TAD, although limited local access to the rail system exists in this TAD. While an old rail spur from the Norfolk Southern Railway bisects the Bluegrass Commerce Park in this TAD, it is no longer active.

All of these industries are located within a few miles of I-64 and have convenient access to the interstate system via the I-64/Hurstbourne Parkway and I-64/Blankenbaker Parkway Interchanges. Additional congestion on Hurstbourne Parkway or Blankenbaker Parkway could become a major issue for these industries.

Future Socioeconomic Conditions

With TAD 40022 significantly built out at this time, there are no major changes expected in this TAD in the future in terms of the number of people living in the district and the number of households. Based on the most recent set of 2030 forecasts, the population in this TAD is actually expected to decrease slightly between 2010 and 2030. The number of households is expected to increase slightly over this same time period. Employment is a different story; based on the most recent set of forecasts, a more than 50% increase in the number of employees working in the TAD is expected over the 30-year period between 2000 and 2030. Much of this increase in employees is likely to have already occurred over the 13-year period since 2000.

While an increase in the number of employees is generally seen as a good thing, consideration is needed to reflect this increase when considering the access to workplace issues. This is particularly true in this TAD, where many of the jobs are located in the Bluegrass Commerce Park and on Hurstbourne Parkway, near the locations of the most significant congestion.

Issues and Opportunities

The issues in TAD 40022 can be primarily focused on the approximately one mile segment of Hurstbourne Parkway between Taylorsville Road and I-64. Both the comments received from the public and the analyses performed to generate this report would tend to support this. Not only is this portion of Hurstbourne Parkway itself a major activity center due to the large number and diverse commercial retail establishments located on it, but this portion is also utilized to access the remainder of the TAD from I-64, including trips being made to/from downtown Jeffersontown and the Bluegrass Commerce Park. This makes it an even more important link since improvements there could create benefits throughout the TAD.

This segment of Hurstbourne Parkway is currently seven lanes wide and is severely congested based on recent traffic count data. It is also the only high crash location in the entire TAD based on the criteria that has been utilized for this analysis. There are currently no projects planned to widen this portion of Hurstbourne Parkway, and adding additional lanes could be prohibitively expensive due to right-of-way costs and other considerations. With the expected job growth in the Bluegrass Commerce Park and additional development expected within and near the TAD, traffic congestion is expected to remain a major issue in the future.

Since the criteria to be a high crash location in this analysis is based purely on the number of crashes in proximity to one another, it is not unexpected that this portion of Hurstbourne Parkway is considered to be a high crash location with the amount of traffic on it and with it having several major intersections along it. While there were no fatalities which occurred on this portion of Hurstbourne Parkway, there were approximately 25 crashes which resulted in significant injury. One opportunity to improve safety appears to exist at the unsignalized mid-block entrance of the TaylorHurst Shopping Center (and the businesses across Hurstbourne Parkway from it), where several of these injury crashes occurred.

The issues and opportunities at locations elsewhere in this TAD are likely to be focused on those that are typical of suburban residential development. These include safe access to the major arterials on the side streets and within the neighborhoods, a network of sidewalks and trails to accommodate those users of the system that do not drive, and other safety improvements throughout the TAD.

Related Plans and Studies

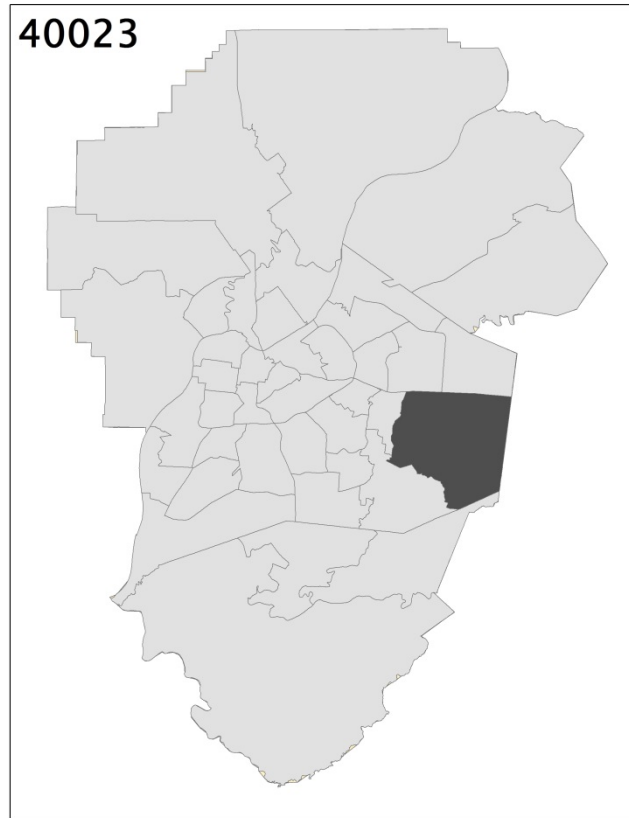
- A Vision for Today and Tomorrow: A Strategic Plan for the Jeffersontown Bluegrass Industrial Park (2007)
- Billtown Road Scoping Study (2007)
- Cornerstone 2020 Comprehensive Plan (2013)
- Jeffersontown Transportation Study (2007)
- Taylorsville Road Scoping Study (2007)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40023 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40023 is located in eastern Jefferson County in suburban Louisville Metro. In addition to being part of Louisville Metro, a small portion (approximately 5%) of the TAD is also located within the City of Jeffersontown. The TAD is bounded by I-64 in the north, by Bullitt County and several roadways in the south, by Shelby County in the east, and by Watterson Trail and KY 1065 (Lovers Lane/Seatonville Road) in the west.

TAD 40023 contains a diverse mix of land uses. In the portion of the TAD in and near Jeffersontown, there are large industrial developments at the Bluegrass Commerce Park, which are near the typical suburban retail and residential developments. The portion of the TAD near the I-265 corridor and east of I-265 is still primarily undeveloped at this time. Significant development is expected in the future in this portion of the TAD, including new parks, additional industrial development, and significant additional residential development.

Area and Socioeconomic Information

Area: Approximately 35,518 acres

Non-Group Quarters Population (2010): 20,875

Number of Households (2010): 7,676

Number of Jobs (2000): 13,540

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) does not identify any Title VI/Environmental Justice areas within TAD 40023.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64* from KY 1819 (Watterson Trail) to I-265 (Gene Snyder Freeway) • I-265* (Gene Snyder Freeway) from KY 1065 (Seatonville Road) to I-64
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 913* (Blankenbaker Parkway) from KY 155 (Taylorsville Road) to I-64 • KY 155* (Taylorsville Road) from I-265 to Watterson Trail
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 1819 (Ruckriegel Parkway) from Billtown Road to Watterson Trail (northern intersection) • Watterson Trail from Billtown Road to I-64 • Billtown Road from Seatonville Road to Watterson Trail • Seatonville Road from Floyds Fork to Billtown Road • Plantside Drive from KY 1819 (Watterson Trail) to KY 913 (Blankenbaker Parkway) • Bluegrass Parkway from KY 1819 (Watterson Trail) to Tucker Station Road • KY 155 (Taylorsville Road) from KY 148/Taylorsville Lake Road to I-265
Urban Collector	<ul style="list-style-type: none"> • Electron Drive from KY 1819 (Watterson Trail) to KY 913 (Blankenbaker Parkway) • KY 913C (Blankenbaker Access Drive) • Rehl Road from KY 913 (Blankenbaker Parkway) to Tucker Station Road • Tucker Station Road from KY 155 (Taylorsville Road) to I-64 • Chenoweth Run Road from Gellhaus Lane to KY 155 (Taylorsville Road) • Gellhaus Lane • KY 148 from KY 155 to Old Taylorsville Road
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64* from I-265 (Gene Snyder Freeway) to Shelby County
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • KY 155 from Spencer County to KY 148
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • KY 148 from Old Taylorsville Road to Shelby County • KY 1531 (Eastwood-Fisherville Road) from KY 148 to I-64 • KY 1531 (Routt Road) from Dawson Hill Road to KY 155 (Taylorsville Lake Road) • KY 1819 (Brush Run Road) from Floyds Fork to KY 1531 (Routt Road)

*Denotes part of the National Highway System (NHS)

All roads in TAD 40023 other than those listed above are classified as Urban or Rural Local roadways. As a reference, the Urban/Rural boundary through this TAD generally follows Floyds Fork.

Schools

- Farmer Elementary School
- Ramsey Middle School
- Saint Michael Catholic School

Colleges & Universities

- Indiana Tech – Louisville Campus
- Indiana Wesleyan – Louisville Campus

Parks

- Charlie Vettiner Park
- Fishermans Park
- The Parklands – Beckley Creek
- The Parklands – Pope Lick
- The Parklands – The Strand
- Veterans Park

Other Areas of Interest/Significance

- N/A

Historic

- Conrad-Seaton House and Archaeological Site
- Fisher House
- Hazael Tucker Farm
- Leatherman House
- Masonic Hall
- Moses Tyler House
- Omer/Pound House
- Robert Tylor Place
- Rockdale
- Simeon Moore House

Transit

TAD 40023 is currently served by several TARC routes. The following TARC routes pass through and have stops within the TAD, primarily providing connections to downtown Louisville:

- Route #40 – Taylorsville Road
- Route #75 – Bluegrass Circulator
- Route #78X – Bluegrass Express

All three routes are in the urbanized area only and end well inside of I-265.

Park and Ride

There are no identified Park and Ride lots located in TAD 40023. However, there are Park and Ride lots in nearby suburban locations where TARC riders park their vehicles in order to ride TARC into downtown Louisville.

Public Comments

I-64

- Add interchange on I-64 near Gilliland Road.

I-265

- From Taylorsville Road to Old Henry Road: Extreme congestion on a daily basis; Taylorsville Road exit to I-64 interchange in the AM, and from Old Henry exit to Taylorsville Road in the PM.
- Add road from Rehl Road to Taylorsville Road parallel to I-265. It would create a new way to bring business to Bluegrass Commerce Park.

KY 1819 (Billtown Road)

- Need bike trails or sidewalks to connect neighborhood near Carrithers Middle and Farmer Elementary.
- There is no way to get from Carrithers Middle to Farmer Elementary safely or via transit.
- Road is not safe for cyclists. Needs to have bike lanes.

KY 155 (Taylorsville Road)

- Add center turn lane on KY 155, particularly in the vicinity of Old Heady Road, but no stoplight.
- We need to widen Taylorsville Road to 4 lanes from Chenoweth Run Road to I-265. It is a nightmare and Saint Michael's Parish is growing and this growth impacts our travel.

KY 1531 (Routt Road/Eastwood-Fisherville Road)

- Widen/straighten Eastwood-Fisherville Road.
- Connect Routt Road with Eastwood-Fisherville Road.
- Turning from Routt Road to Taylorsville Lake Road in the morning can be dangerous. People heading to the lake at that time seem to be travelling at near highway speeds.

Bluegrass Commerce Park

- Need sidewalk from Puzzles Fun Dome to Backyard Burger (near Bluegrass Parkway/Decimal Drive).
- Limited access to the commerce park from the southwest. New connections need to be implemented in the not too distant future (i.e., 2015-2020).

Echo Trail

- No room on roadway for car and bicycle to share road.

Seatonville Road

- No room on roadway for car and bicycle to share road.

Stone Lakes Drive

- Add fire station and water tower near Saint Michael Church or on other side of I-265.

Safety

1,923 crashes were reported in TAD 40023 from 2009 through 2011. There were six fatalities reported as a result of five crashes over this time period. There were 36 crashes that resulted in significant injury. During this three year period, two reported crashes involved bicyclists and 12 involved pedestrians.

Fatalities

Of the five crashes that resulted in a fatality in the TAD over the three year period, four occurred in dry conditions, one involved alcohol (resulting in two deaths), and none involved motorcyclists, bicyclists, or pedestrians. Four of the crashes occurred outside of I-265 on two-lane highways where speeds are typically higher, particularly as compared to speeds in the more developed portion of the TAD that is inside of I-265.

High Crash Locations

There are two locations in this TAD that have been identified as being a high crash location, one is at the cloverleaf interchange of I-64 and I-265, and the other is at the intersection of Blankenbaker Parkway and Bluegrass Parkway. For a location to meet the high crash location criteria in this analysis, there must have been 100 or more crashes within 0.10 mile of a location for the three year period from 2009 through 2011.

As the I-64/I-265 interchange is such a busy interchange with heavy ramp movements, it should come as no surprise that so many crashes occurred in proximity to one another near this location. There are high crash locations within the interchange, including the weaving section on northbound I-265, the I-265 northbound ramp to I-64 westbound, the I-64 eastbound ramp to I-265 northbound, and the weaving sections in both directions of I-64. There were four crashes near this interchange that resulted in significant injury and one crash resulted in a fatality. The crash resulting in a fatality was a single vehicle drunk driving accident on the ramp from southbound I-265 to westbound I-64.

At the other high crash location in the TAD at the intersection Blankenbaker Parkway and Bluegrass Parkway, the intersection itself does not actually meet the high crash criteria of 100+ crashes within 0.10 mile. There were a number of crashes that occurred at each of the intersections nearby: Bluegrass Parkway at Kentucky Mills Drive, Bluegrass Parkway at Alliant Avenue, and Blankenbaker Parkway at the shared entrance to Thornton's & Burger King. Cumulatively, these locations meet the high crash location criteria, but any solutions proposed should address each of these four individual intersections independently. Only one crash in this area resulted in injury. No crashes in this area involved bicyclists or pedestrians.

Injury crashes occurred throughout the TAD. There are no locations identified where the frequency of crashes that resulted in significant injury is obviously disproportionate to the frequency of all crashes.

Bicycle and Pedestrian Crashes

From 2009 through 2011, two reported crashes involved bicyclists and 12 involved pedestrians. No further information is available.

Congestion

Current Level of Service (LOS)

Based on recent traffic count data, the only roadways on the Congestion Management Process (CMP) network with a LOS worse than C are:

LOS D:	<ul style="list-style-type: none"> • I-64 from KY 1819 (Watterson Trail) to I-265 • I-265 (Gene Snyder Freeway) from KY 1819 (Billtown Road) to I-64 • KY 155 (Taylorsville Road) from KY 1819 (Ruckriegel Parkway) to Tucker Station Road • KY 155 (Taylorsville Lake Road) from KY 148/KY 155 (Taylorsville Road) to KY 1531 (Routt Road) • KY 1819 (Watterson Trail) from KY 1819 (Ruckriegel Parkway) to Plantside Drive • KY 1819 (Billtown Road) from Mary Dell Lane to Ruckriegel Parkway
LOS F:	<ul style="list-style-type: none"> • KY 155 (Taylorsville Road) from Tucker Station Road to KY 148/KY 155 (Taylorsville Lake Road) • KY 913 (Blankenbaker Parkway) from Bluegrass Parkway to I-64

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are (see Figure 40023-A):

LOS D:	<ul style="list-style-type: none"> • I-64 from KY 1819 (Watterson Trail) to KY 913 (Blankenbaker Parkway) • KY 155 (Taylorsville Road) from Watterson Trail to KY 913 (Blankenbaker Parkway) • KY 155 (Taylorsville Road) from Tucker Station Road to South Pope Lick Road • KY 913 (Blankenbaker Parkway) from Commonwealth Drive to Bluegrass Parkway • KY 1819 (Billtown Road) from Seatonville Road to Gellhaus Lane • Billtown Road from KY 1065 (Lovers Lane) to Watterson Trail • Watterson Trail from Old Taylorsville Road to KY 1819 (Ruckriegel Parkway)
LOS E:	<ul style="list-style-type: none"> • I-64 from KY 913 (Blankenbaker Parkway) to I-265 (Gene Snyder Freeway) • KY 155 (Taylorsville Road) from KY 913 (Blankenbaker Parkway) to Tucker Station Road • KY 155 (Taylorsville Lake Road) from KY 1531 (Routt Road) to Spencer County • KY 913 (Blankenbaker Parkway) from Bluegrass Parkway to I-64
LOS F:	<ul style="list-style-type: none"> • I-265 (Gene Snyder Freeway) from KY 1819 (Billtown Road) to I-64 • KY 155 (Taylorsville Road) from South Pope Lick Road to KY 148/KY 155 (Taylorsville Lake Road) • KY 155 (Taylorsville Lake Road) from KY 148/KY 155 (Taylorsville Road) to KY 1531 (Routt Road) • KY 1819 (Watterson Trail) from its northern intersection with Ruckriegel Parkway to Plantside Drive • KY 1819 (Watterson Trail) from Bluegrass Parkway to Moser Road

Severe congestion currently exists on only two critical segments in TAD 40023. These are Taylorsville Road near the interchange with I-265 and the portion of Blankenbaker Parkway north of Bluegrass Parkway. These two locations are critical segments since they both provide access to the Bluegrass Commerce Park from the interstate network, both by freight users and by the large number of employees that work in the commerce park. Other than these locations, only moderate congestion currently exists elsewhere in TAD 40022 based on a review of recent traffic counts.

Congestion in the future is expected to get much worse in this TAD by the year 2030. Based on significant population and employment growth, the KIPDA Travel Demand Model forecasts that essentially all of the functionally classified roadways in this TAD will experience some amount of congestion by 2030.

Access to Community Amenities

There are very few community amenities in TAD 40023 other than parks. There are two clusters of high density shopping areas in the TAD, one near downtown Jeffersontown (known as Gaslight Square) and the other is along the Blankenbaker Parkway corridor. Many of the shops in Gaslight Square are located west of Watterson Trail and therefore in the neighboring TAD 40022. Along Blankenbaker Parkway, there a number of fast-food restaurants, gas stations, banks, and other retail businesses near the interchange with I-64. This is currently a congested area and will likely become more congested with additional development that is expected in this area in the future.

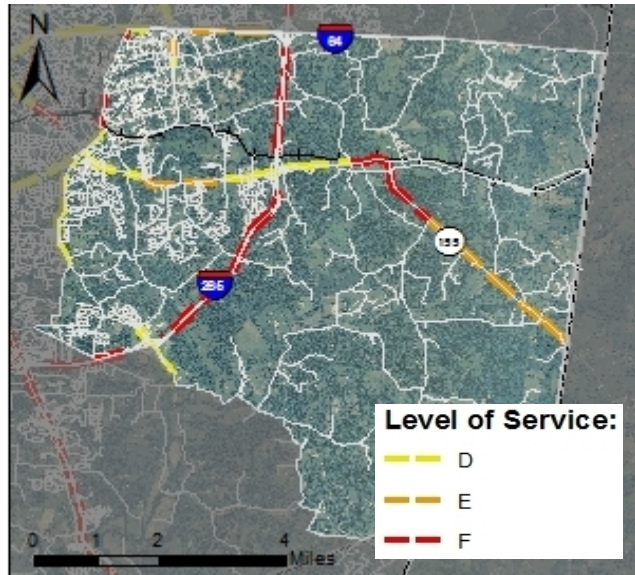


Figure 40023-A: Projected congested roadways in TAD 40023. Year 2030 LOS based on KIPDA Travel Demand Model is shown.

Access to all of the parks, especially the new series of parks in extreme eastern Jefferson County known as The Parklands, is a significant issue for this TAD. For the most part, the parks in this TAD are currently situated away from most of the residential development. Therefore, it is likely that people will drive their vehicles to the parks, making roadway access a high priority. As The Parklands develops, improvements to the existing roadways will be necessary since these parks are typically only accessible by narrow, two-lane roadways with no shoulders or sidewalks.

Access to Workplace

Access to Workplace was examined on several different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Lantech
- Papa John's International Inc.
- PJ Food SVC Inc.
- Preferred Marketing Solutions
- SHPS Inc.

Each of these employers is located very close to the interchange of I-64 and KY 913 (Blankenbaker Parkway).

There is one major area of high density employment in TAD 40023 that is located in the Bluegrass Commerce Park. This high density employment area is bounded by I-64 in the north, Blankenbaker Access Road in the south, Watterson Trail in the west, and Tucker Station Road in the east. All of the major employers listed above are located in this area. There is a wide variety of employment types in this area, ranging from retail employment located near the Blankenbaker Parkway corridor to manufacturing and other industrial employment that is prevalent throughout the Bluegrass Commerce Park.

Limited TARC service exists in this area. Route #78X provides service to downtown Louisville from this area, while Route #75 is a circulator route that serves the Bluegrass Commerce Park. Sidewalks typically do not exist in this area, which may impede transit use.

There is one high density retail area in TAD 40023 that is located within the Bluegrass Commerce Park. This area is centered near the Blankenbaker Parkway/Bluegrass Parkway intersection. It includes many fast-food restaurants, gas stations, banks, and other retail businesses. This is also the location of one of the high crash locations in this TAD. TARC Routes #75 and #78X serve this area. There are very few sidewalks located in this area.

The Bluegrass Commerce Park is one of the largest commerce parks in the entire region and (a portion of it) is located in TAD 40023 (see Figure 40023-B). Interstate access to the Bluegrass Commerce Park is provided via the Blankenbaker Parkway/I-64 interchange in this TAD and the Hurstbourne Parkway/I-64 interchange in the neighboring TAD to the west. There is significant congestion at these two major gateways to the Bluegrass Commerce Park.



Figure 40023-B: Bluegrass Commerce Park in Jeffersontown in TAD 40023 is highlighted.

Access for Persons with Disabilities and/or Older Adults

There are no senior centers or nutrition sites located in TAD 40023. The Jeffersontown Community Center is located on Taylorsville Road just east of Ruckriegel Parkway. TARC Route #40 provides service near this location, and sidewalks exist within Jeffersontown near the community center, but do not exist outside the city limits. Access to retail locations is limited further by the lack of residential development near the primary retail areas near Blankenbaker Parkway. There are no clusters of medical facilities in proximity to one another in this TAD.

Access to Education

There are only three schools located in TAD 40022. There is one cluster of schools that are in close proximity to each other near the I-265/Billtown Road interchange. This site provides convenient access for drivers with its close proximity to this interchange, yet this cluster has no TARC access and there is poor access to the site via sidewalks.

Access to Government Services

There are very few government facilities located in TAD 40023. The only ones that the public is likely to access regularly are Jeffersontown City Hall and a branch of the Jefferson County Clerk’s office. These two facilities are next door to each other on Watterson Trail in Gaslight Square. TARC Route #40 provides service toward/from downtown Louisville from/to this location, but service to this immediate area from other areas within this TAD is sporadic at best.

Access to Medical Facilities

There are no hospitals or clusters of medical facilities located in TAD 40023.

Freight Access

Safe and efficient access to freight facilities is an issue for TAD 40023, primarily in the northwestern portion of the TAD, which includes the Bluegrass Commerce Park and its roadway connections to I-64 and I-265. Several roadways in this TAD are a part of the KIPDA Freight Network, including:

- Bluegrass Parkway
- Electron Drive
- I-265 (Gene Snyder Freeway)
- I-64
- KY 155 (Taylorsville Road/Taylorsville Lake Road)

- KY 1819 (Watterson Trail/Ruckriegel Parkway)
- Plantside Drive

There are a number of freight distribution facilities that are located in a portion of the Bluegrass Commerce Park in this TAD. These include:

- Alcoa Electrical and Electronic Solutions
- AmGen Inc.
- Blendex Co.
- Captive Plastics Inc.
- Donan Engineering
- FCI
- Lantech Inc.
- Lyons Co.
- Owens Corning
- Papa John's International
- Printing and Promotions Inc.
- ProLift Industrial Equipment Co.
- RC Bigelow Inc.
- Reinhart Food Service
- Southern Wine & Spirits of Kentucky
- Trillium Industries Inc.
- Werner Co.
- White Castle Distributing

Norfolk Southern Railway has a major east-west rail line that bisects TAD 40023 north of KY 155. However, there are few, if any, industries that have direct rail access to their facility in this TAD.

All of these industries are located within a few miles of I-64 and I-265 and have convenient access to the interstate system via the I-64/Blankenbaker Parkway and I-64/Hurstbourne Parkway interchanges. Additional congestion on Hurstbourne Parkway and/or Blankenbaker Parkway could become a major issue for these industries in the future.

Future Socioeconomic Conditions

TAD 40023 is expected to be the location of substantial population, households, and employment growth in the coming decades. Based on the most recent set of forecasts for the Year 2030, the number of people living in this TAD and the number of households in this TAD are expected to increase by about 30% between 2010 and 2030. The growth in employment is expected to be even greater. Over the 30 year period between 2000 and 2030, the number of employees is expected to increase by about 70%, which equates to about 10,000 additional jobs being located in the TAD. While some of the increase has already occurred since 2000, these estimates would seem to be very reasonable when considering the planned growth of the Bluegrass Commerce Park and the area near the I-265 corridor, which is currently relatively undeveloped.

While an increase in the number employees is generally seen as a good thing, consideration is needed to reflect this increase when considering the access to workplace issues. This is particularly true in this TAD, where many of the jobs are located in the Bluegrass Commerce Park. The roadways that currently access the park are currently the locations of the most significant congestion.

Issues and Opportunities

The Parklands

With a large portion of TAD 40023 remaining relatively undeveloped, there are probably more opportunities for this TAD than nearly any other TAD around the KIPDA Region. The focus of many these opportunities, both currently and for years to come, is the development of and around The Parklands of Floyds Fork. This project is a series of parks in far eastern Jefferson County that stretches from as far south as US 31E/Bardstown Road to as far north as Shelbyville Road. This series of parks will open in phases through 2015. The majority of the new parks will be located within this TAD. These parks are expected to generate additional new development in this area, which will include significant residential development. Gateways to these parks are planned at several locations along existing roadways.

Additional Transit

As this TAD develops, both in additional employment growth as the Bluegrass Commerce Park expands to the east toward I-265, in residential growth throughout the remainder of the TAD, and with the new parks and park-related

development, additional TARC service will likely become a high priority. Current TARC service is limited in this TAD to within the current boundaries of the Bluegrass Commerce Park via Routes #75 and #78X, and to the Billtown Road corridor at the far western boundary of this TAD via Route #40. With this TAD being a major employment center, it is imperative that the area is easily accessible by transit. Expanded service along the KY 155 (Taylorsville Road) corridor could be an opportunity for TARC to explore. This extension could potentially serve the Jeffersontown Community Center, the planned expansions of the Bluegrass Commerce Park and other nearby commercial developments, existing residential developments along the corridor, and a major gateway to The Parklands development that is planned to be located near South Pope Lick Road.

Access to Bluegrass Commerce Park

Over the nearly 50 years since it was first developed in the 1960s, the Bluegrass Commerce Park has continually expanded its footprint, primarily to the east and south. The addition of the I-64/Blankenbaker Parkway interchange in the late 1980s and the recent completion of the Blankenbaker Parkway corridor to Shelbyville Road in the north and to Taylorsville Road in the south have changed how the park has developed, and also have changed how trucks and employees of the numerous businesses access the park today. The expansion continues to the east today with new developments in various stages along Tucker Station Road.

Congestion

Should this TAD continue to grow and thrive in the future as it is projected, congestion is likely to become a major issue throughout the TAD. The addition of The Parklands will attract a large number of trips to the area located east of I-265 that currently has narrow two-lane roads that are neither designed for significant amounts of traffic, nor do they currently carry much traffic today. While freight traffic may not be an issue in the immediate vicinity of The Parklands, the same cannot be said for the portion of the TAD that is west of I-265 centered near and including the Bluegrass Commerce Park. Safe, reliable access to the interstate network for trucks has been a major reason why the Bluegrass Commerce Park has experienced so much success. Currently, all three of the major gateways to the Park from the interstates (I-64 at Hurstbourne Parkway, I-64 at Blankenbaker Parkway, and I-265 at Taylorsville Road) are experiencing significant congestion. By using the KIPDA Travel Demand Model to forecast future traffic, the congestion in the Year 2030 in this TAD is expected to be much more widespread throughout the TAD, even when including several projects that are in the current KIPDA TIP.

Related Plans and Studies

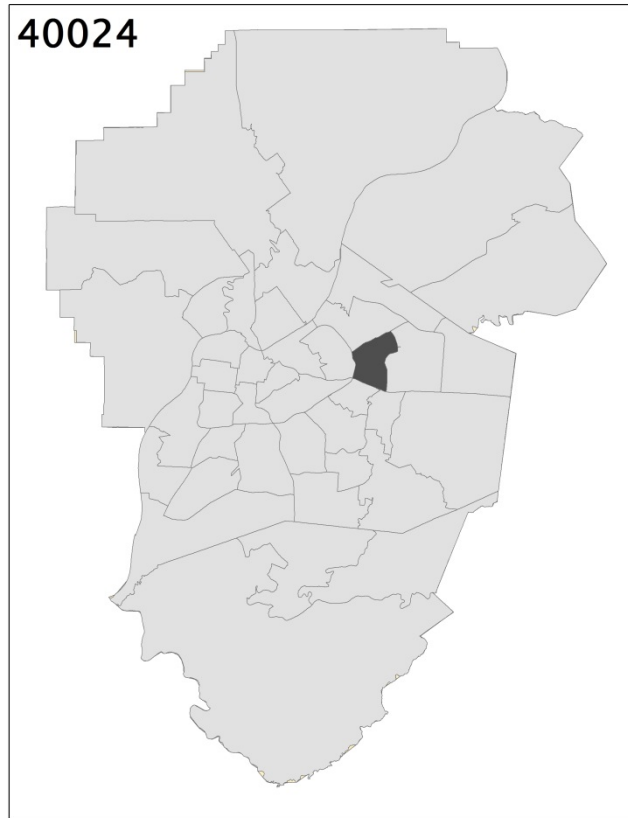
- A Vision for Today and Tomorrow: A Strategic Plan for the Jeffersontown Bluegrass Industrial Park (2007)
- Billtown Road Scoping Study (2007)
- Cornerstone 2020 Comprehensive Plan (2013)
- I-64 Interchange and New Connector Alternatives Planning Study (2008)
- Jeffersontown Transportation Study (2007)
- KIPDA Interchanges Study (2005)
- Louisville Metro Eastern Thoroughfare Plan (2009)
- Rehl Road/I-265 Interchange Study (2009)
- Taylorsville Road Area/Urton Lane Study (2007)
- Taylorsville Road Scoping Study (2007)
- Tyler Rural Settlement District Neighborhood Plan (2008)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40024 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40024 is located in the eastern part of Jefferson County. This TAD contains the City of Hurstbourne and the City of Lyndon. The boundaries of this TAD are I-264, I-64, KY 1747 and KY 1447. The main corridors in this TAD are I-264, US 60, KY 1447 (Westport Road), and KY 1747 (Hurstbourne Parkway). There are several schools, parks and government facilities in TAD 40024.

Area and Socioeconomic Information

Area: Approximately 5,619 acres
Non-Group Quarters Population (2010): 25,071
Number of Households (2010): 11,980
Number of Jobs (2000): 17,226

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) does not identify any Title VI/Environmental Justice areas within TAD 40024.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-264* from KY 1447 (Westport Road) to I-64 • I-64* from I-264 to KY 1747 (Hurstbourne Parkway)
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 1447 (Westport Road) from I-264 to KY 1747 (Hurstbourne Parkway) • KY 1747 (Hurstbourne Parkway) from 1447 (Westport Road) to I-64 • US 60~ (Shelbyville Road) from I-264 to KY 1747 (Hurstbourne Parkway)
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 146 (New LaGrange Road/LaGrange Road) from US 60 (Shelbyville Road) to KY 1747 (Hurstbourne Parkway) • KY 2050 (Herr Lane) from KY 146 (New LaGrange Road) to KY 1447 (Westport Road) • Dorsey Lane from KY 146 (New LaGrange Road) to KY 1747 (Hurstbourne Parkway)
Urban Collector	<ul style="list-style-type: none"> • LaGrange Road from KY 2050 (Herr Lane) to KY 146 (New LaGrange Road/LaGrange Road) • Lyndon Lane from US 60 (Shelbyville Road) to KY 146 (New LaGrange Road) • Ormsby Lane from KY 1447 (Westport Road) to LaGrange Road • Washburn Avenue from KY 1447 (Westport Road) to KY 146 (New LaGrange Road)
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- | | |
|---|--|
| <ul style="list-style-type: none"> • Audubon Youth Development Center • Bowen Elementary School • Brook KMI Alternative School • Jefferson County High School-Education Center • Louisville Day Treatment Center • Lowe Elementary School | <ul style="list-style-type: none"> • Our Savior Lutheran School • Saint Margaret Mary School • Waldorf School of Louisville • Westport Middle School • Westport TAPP School • Zachary Taylor Elementary School |
|---|--|

Colleges & Universities

- N/A

Parks

- | | |
|---|--|
| <ul style="list-style-type: none"> • A.B. Sawyer Park • Hounz Lane Park | <ul style="list-style-type: none"> • Warwick Park |
|---|--|

Other Area of Interest/Significance

- University of Louisville Shelby Campus

Historic

- Bellevoir-Ormsby Village
- Lindenberger-Grant House
- Lyndon Cottage
- Lynnford-Lyndon Hall
- Maghera Glass-Ormsby Hall
- Oxmoor Farm
- Soldiers Retreat

Transit

TAD 40024 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #15 – Market Street
- Route #19 – Muhammad Ali Boulevard
- Route #29 – Eastern Parkway
- Route #31 – Middletown
- Route #49 – Westport Road Express
- Route #55 – Westport Road
- Route #61 – Plainview Express

Park and Ride

There are two park and ride facilities located in TAD 40024:

- Rolling Hills Shopping Center
- Hurstbourne Baptist Church

Public Comments

Columbia Avenue and Beaver Road

- Cut across expressway for bike/pedestrian access.

Hurstbourne Parkway

- Lots of traffic on Hurstbourne Parkway from Stony Brook to Westport Road.
- No sidewalks and difficulty crossing around Hurstbourne and I-64. Hotel guests included.
- At Whittington Parkway the red light phase is abnormally long. When the light does turn green, there is not enough time to cross the street.
- At Williamsburg Plaza the red light phase is abnormally long.

Safety

2,668 crashes occurred in TAD 40024 in the three-year period from 2009 through 2011. Four of those crashes resulted in fatalities and of those four, one involved a bicyclist and one, pedestrians. There were a total of 14 crashes involving pedestrians and six, bicyclists.

Fatalities

The four crashes resulting in fatalities occurred in 2009 and 2010, and are distributed widely throughout the TAD. Visibility and timing may be the primary contributing factors concerning the crashes involving pedestrians and bicyclist. The crash involving the cyclist on Hurstbourne Parkway occurred at 5 a.m., with the cyclist not wearing reflective clothing and not having reflectors on the bicycle. According to reports, the motorist did not see the cyclist in the roadway. Similar factors occurred with the crash resulting in the death of two pedestrians. A fender-bender type crash occurred, and the involved motorists got out of their vehicle (becoming pedestrians), possibly blocking the tail lights of the stopped vehicle (according to reports), when the driver of another vehicle did not see them. Weather conditions

were reported to be foggy, and it was after 6 p.m. in January so likely dusk or dark. In the remaining two crashes, speeding was a probable factor in one, and driving while under the influence a likely factor in the other. None of these four crashes occurred within an identified high crash location.

High Crash Locations

Several high crash locations were identified in TAD 40024. High crash locations are where 100 or more crashes occurred within a 0.10 mile of each other. All of these locations occur on major roadways within the TAD: I-64, I-264, LaGrange Road, Westport Road, Hurstbourne Parkway, and Shelbyville Road.

I-64 at Hurstbourne Parkway

The majority of crashes at this location take place on the approximately one mile stretch of Hurstbourne Parkway from Linn Station Road south to Hurstbourne Circle. This high crash location is shared with neighboring TADs 40021, 40022, and 40025. Over 800 crashes occurred along this segment from 2009 through 2011. 60% of the crashes were rear-end collisions, 19% were angle collisions, and 14%, sideswipes (in the same direction). The remaining crashes were relatively small in number and fairly equally distributed among other crash types. The heaviest concentration of crashes in the segment occurs on Hurstbourne Parkway, north of I-64. This particular area has a high number of destinations, including hotels, restaurants, retail services, offices, and others. There are also suburban residential neighborhoods abutting the commercial uses on the Hurstbourne Parkway corridor. There are over 10 commercial driveways from I-64 to Linn Station Road, and some measure of access management has been implemented. There is a non-mountable median with breaks in it to provide limited and directed opportunities for oncoming traffic to cross into a destination on their left. There are total of six travel lanes just north of the interchange: three going north and two south with the third lane south being a dedicated right turn lane for I-64 access. There is also an access road on the east side of Hurstbourne that provides entry into the shopping center located there. The volume of traffic on Hurstbourne Parkway along this segment is 51,800 ADT according to a 2012 KYTC traffic count. The volume of traffic as well as the number of destinations and the lack of way to get them may be the leading factors to the number of crashes. Drivers traveling along Hurstbourne Parkway may realize that they only have a one or two opportunities to reach their destinations, be it the proper lane to access I-64 or one of the commercial developments along the corridor. When the traffic volume is so high, drivers who hesitate because they are unsure of how to access their destination may be contributing to the number of collision. The same may also hold true for the sideswipe crashes: drivers may realize their access point is the next turn, but are in the wrong lane and move aggressively toward their location without looking properly or not seeing a vehicle moving quickly from the exit ramp or to the dedicated turning lane. The Kentucky Transportation Cabinet is in the process of implementing improvements to this area.

I-64 East of the I-264 Interchange

The segment of I-64 just east of the I-264 has been identified as a high crash location. According to data, approximately 80% of the crashes were rear-end collisions. Over half of these crashes took place between 7 a.m. and 9 a.m., or between 4 p.m. and 6 p.m. This area is just beyond the two interstates meeting, and contributing factors may be traffic volumes, weaving, driver inattention, and speed, especially during peak travel times.

New LaGrange Road at Herr Lane and Lyndon Lane (see Figure 40024-A)

Unlike most other identified high crash locations, the primary manner of collision in this location was the angle crash, reported for 58% of the crashes at this location. Rear-end collisions made up 16%, whereas in most other locations, rear-end collisions are typically the highest crash type. This location extends northwest from the intersection on Lyndon Lane for approximately 0.05 miles, and northeast on New LaGrange Road for approximately 0.025 miles. Each of the four corners of this intersection is commercially developed, and this area serves somewhat as a city/village center for the City of Lyndon. New LaGrange Road provides through access to and from eastern Jefferson County and Oldham County, and carries significant volume of traffic, and Lyndon Lane/Herr Lane continues and eventually connects with Westport Road as well as KY 22 and US 42. The intersection is signalized. There are three lanes on Lyndon Lane/Herr Lane: a center turn lane and a travel lane in each direction. The five lanes on New LaGrange Road consist of two travel lanes in each direction and a center turn lane. According to the data contained in the police reports, the majority of initial motorists were moving straight ahead (51%) or slowing or stopped in traffic (33%) when the crash occurred involving another making a left (37%) going straight ahead (33%) or making a right turn (10%). On

the two legs of the intersection identified as part of the high crash location, there are six commercial driveways within 0.05 miles of the signalized intersection. Also, the northeastern corner of the intersection where these crashes have occurred houses a convenience store and gas station, which typically generates a lot of traffic. The number of crashes in this location may be attributable to the number of commercial driveways within proximity to the signalized intersection, the traffic volumes, and driver inattentiveness/speed (not allowing enough time to make a turn or not realizing the speed of oncoming traffic).

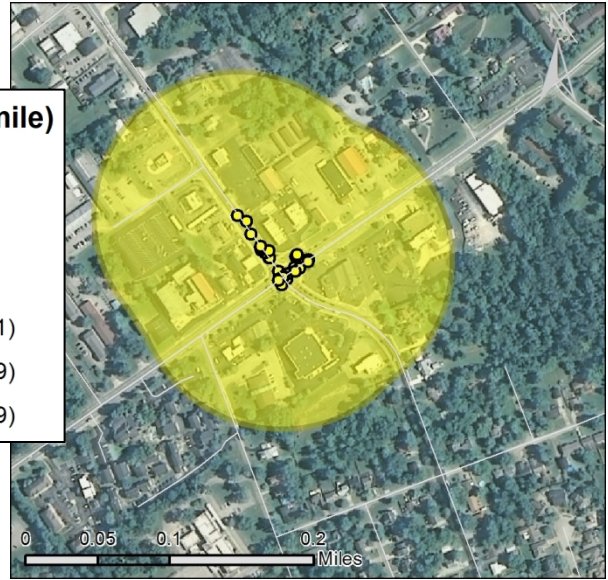
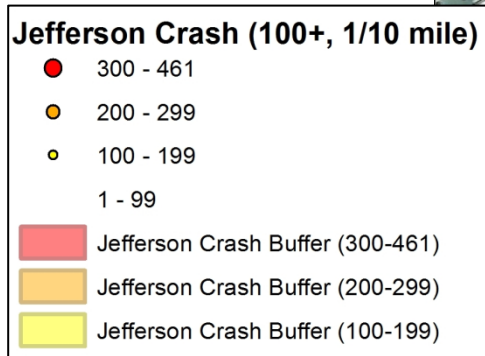


Figure 40024-A: High crash location at New LaGrange Road and Lyndon Lane.

Westport Road at I-264

The majority of crashes at this interchange area are rear-end collisions (over 55%), with sideswipe collisions making up just under 20% of the total number of crashes. Crashes are evenly split between on Westport Road and on I-264, with very few taking place on the ramps. Given the relative newness of the interchange (it opened April 2010), some of the crashes may be due to the new traffic patterns which have emerged since its opening (only nine of the 100+ crashes took place in 2009; the remainder occurred between 2010 and 2011), in addition to the larger traffic volumes in the area.

Westport Road at Herr Lane and Lyndon Lane

This high crash location extends from Marlemont Court to Lyndon Lane (approximately 0.15 miles) and on both legs of Herr Lane less than 0.10 mile from the Westport Road intersection. Again, the majority of crashes were rear-end collisions. This area is primarily suburban residential with the eastern quadrant of the intersection being commercial. Herr Lane is used as a convenient cut-through from Westport Road to US 42 and KY 22 to the northwest. The shopping center has recently been redeveloped and has a high number of attractions ranging from restaurants to retail shops and other services. The intersection of Westport Road and Herr Lane is signalized, but the intersection of Lyndon Lane and Westport Road is not. The majority of crashes centers on the signalized intersection, and are concentrated primarily on Westport Road. Most motorists, according to police report data, were either moving straight ahead or attempting to make a left turn. Given that the majority of crashes are rear-end collisions, motorists are not allowing enough stopping time or traveling too fast to stop in time. The traffic volumes and speeds are likely factors contributing to the number.

Westport Road at Hurstbourne Parkway

This high crash location is centered on the intersection of Westport Road and Hurstbourne Parkway. These roadways serve as two major commercial corridors abutted by suburban residential uses. Approximately 0.10 mile of each leg of the intersection is included in this high crash location. The southern quadrant is home to Zachary Taylor Elementary School, and the northern quadrant, a church. Both the eastern and western quadrants are occupied by commercial developments, consisting of big box retailers, gas stations, and smaller strip shopping centers. There are 14 driveways within the identified high crash area providing access to those surrounding uses. Both Westport Road and Hurstbourne Lane are functionally classified as Urban Principal Arterials here and carry large volumes of traffic. Each leg of this signalized intersection is seven lanes: two travel lanes in each direction, dual left turn lanes, and a right turn lane. The majority of crashes are rear-end collisions, and approximately 50% of the crashes occurred while the motorist was

either going straight ahead or slowing or stopped. The volume of traffic, speed, number of attractions and driveways in addition to the complexity of the intersection may be contributing factors to crashes at this location.

Shelbyville Road at I-264

This interchange area provides access to two malls as well as other shopping and residential uses along the Shelbyville Road corridor. This high crash location is also shared to the west with TAD 40009. In assessing this high crash location, only the crashes that are within TAD 40024 are being assessed (a total of 407). There are several crashes that took place on I-264 (13%) in the interchange area, which includes the ramps on the eastern side of the interchange. There is a lot of weaving that takes place as well as stopping on the ramps for motorists waiting to merge into traffic moving along Shelbyville Road. The breakdown of crash types supports this with 50% of the crashes attributed to I-264 being rear-end collisions and 31% being sideswipes in the same direction within the I-264 interchange area. This high crash location extends east from the interchange on Shelbyville Road for approximately 0.50 miles, and also includes 0.15 miles on LaGrange Road, 0.10 mile on Oxmoor Lane, and 0.04 miles on Norwood Drive. 61% of the crashes occurred on Shelbyville Road, followed by 16% on LaGrange Road with the smallest percentage occurring on Oxmoor Lane/Norwood Drive (less than 10%). LaGrange Road is approximately 0.20 miles from the I-264 interchange and Oxmoor Lane/Norwood Drive is 0.30 miles from the interchange. LaGrange Road meets Shelbyville Road at a right angle; however it immediately curves, which may be contributing to some of the crashes along LaGrange Road. Oxmoor Lane provides one of the main entrances to the Oxmoor Mall as well as surrounding multi-family residential, commercial, and office land uses off of Bullitt Lane. To the north of Shelbyville Road, Oxmoor Lane is Norwood Drive. All of the crashes occurring on Norwood are angle crashes. The intersection of Shelbyville Road, Norwood Drive, and Oxmoor Lane is signalized. Recently, there was an improvement to the signal to provide a protected left turn (when it used to be a permissive left) from Norwood onto Shelbyville Road and from Oxmoor Lane onto Shelbyville Road. Traffic from Oxmoor Lane would often disregard traffic from Norwood as its volume was so much greater; this situation may now be corrected on Norwood as only one of these crashes occurred in 2011. Rear-end collisions make up the majority of crash types on LaGrange and Shelbyville Roads in this area, followed by a sideswipe in the same direction. Motorists traveling west on Shelbyville Road wishing to access I-264, or turning right onto Shelbyville Road from LaGrange Road often jockey for position to access the correct lanes for I-264. This also occurs after motorists have turned onto LaGrange Road from Shelbyville Road, as well as those turned onto Oxmoor Lane from Shelbyville Road. Drivers are given a short time to figure out what lane they need to be in to make correct access point or lane. This may be contributing to the higher than normal (relative to other TADs and high crash locations) sideswipe crashes which account for almost a quarter of all crashes in this location. Driver inattention, the volume of traffic and traffic patterns (jockeying for position) may be contributing factors to crashes within this area.

Shelbyville Road at KY 1747 (Hurstbourne Parkway)

The high crash location includes approximately 0.10 mile of each leg of each roadway (Shelbyville Road and Hurstbourne Parkway) at this signalized intersection. This high crash location is shared with the TAD to the east 40025. Both Shelbyville Road and Hurstbourne Parkway are functionally classified as Urban Principal Arterials in this area and as such, carry high volumes of traffic. The intersection is surrounded by commercial and office land uses. Approximately twice as many crashes occurred on Shelbyville Road as on Hurstbourne Parkway in this location with the majority of crashes concentrated at the intersection. All four legs of the intersection have two travel lanes in each direction with at least one turning lane-three of the legs have six lanes total and the portion of Hurstbourne Parkway south of Shelbyville Road contains seven, but the difference is in the number of turning lanes, not travel lanes. There are at least 18 commercial driveways within this high crash location. Access is controlled on the south side of Shelbyville Road west of Hurstbourne Parkway, and on the west side of Hurstbourne Parkway south of Shelbyville Road, and those segments have the fewest crashes. Rear-end collisions made up most 50% of the crashes, with angle crashes making up 38%. The other crashes were evenly distributed among other collisions types with each being less than 10% of the total. The number of commercial driveways, traffic volumes, and lack of access management in proximity to the intersection may be contributing factors to the number of crashes in this particular location.

Bicycle and Pedestrian Crashes

During the three year period between 2009 and 2011, there were six crashes reported involving bicyclists and 14 involving pedestrians. Two of those crashes resulted in fatalities. The crashes resulting in fatalities (one crash involving

pedestrians and one crash involving a bicyclist) were discussed in the Fatalities section above. Visibility appeared to be a factor in those two crashes.

The crashes involving pedestrians occurred throughout the TAD at a variety of times. 11 of them occurred outside of intersections, which may be the primary factor in these crashes. A possible issue may be that signalized intersections are too far apart, or in simpler terms, people tend not to walk a great deal out of their way to get to a signalized intersection. Motorists do not typically anticipate pedestrians in the roadway outside an intersection. Seven of the crashes occurred at identified high crash locations (two at the I-64/Hurstbourne Parkway area, one within the Shelbyville Road/Hurstbourne Parkway area, three within the Herr/Lyndon Lane/New LaGrange Road area, and one with the Shelbyville Road/I-264 interchange area), but all seven happened outside of an intersection.

Crashes involving bicyclists were also distributed throughout the TAD with no commonality between the crashes. Half occurred at intersections while the other half did not. Distracted driving was cited in a few of the cases, but not all or even the majority. Crashes occurred from between 5 a.m. and 8:30 a.m., or between 3 p.m. and 9 p.m., so most occurred during daylight hours when visibility should not have been an issue. Half of the crashes occurred on Fridays, but the others were scattered throughout the week. As the sample size is small, and there are no common factors relating these crashes to each other, the largest factor may be that motorists were simply unaware of the bicyclist or did not anticipate a bicyclist in the roadway.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • US 60 (Shelbyville Road) from Whipps Mill Road to KY 1747 (Hurstbourne Parkway) • KY 1747 (Hurstbourne Road) from US 60 to Timberwood Circle
LOS E:	<ul style="list-style-type: none"> • KY 1747 (Hurstbourne Lane) from Timberwood Circle to Linn Station Road • I-64 from I-264 (Watterson Expressway) to KY 1747 (Hurstbourne Parkway)
LOS F:	<ul style="list-style-type: none"> • US 60 from I-264 to Whipps Mill Road • KY 1747 (Hurstbourne Parkway) from Linn Station Road to I-64 • KY 1447 (Westport Road) from I-264 to Washburn Avenue

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are (see Figure 40024-B):

LOS D:	<ul style="list-style-type: none"> • I-264 from KY 1447 (Westport Road) to US 60 (Shelbyville Road) • KY 146 (LaGrange Road) from Lyndon Lane to Ashmoor Lane • KY 1747 (Hurstbourne Parkway) from KY 146 (LaGrange Road) to Linn Station Road • US 60 (Shelbyville Road) from I-264 to Lyndon Lane
LOS E:	<ul style="list-style-type: none"> • I-64 from I-264 to KY 1747 (Hurstbourne Parkway) • KY 1447 (Westport Road) from I-264 to Washburn Avenue

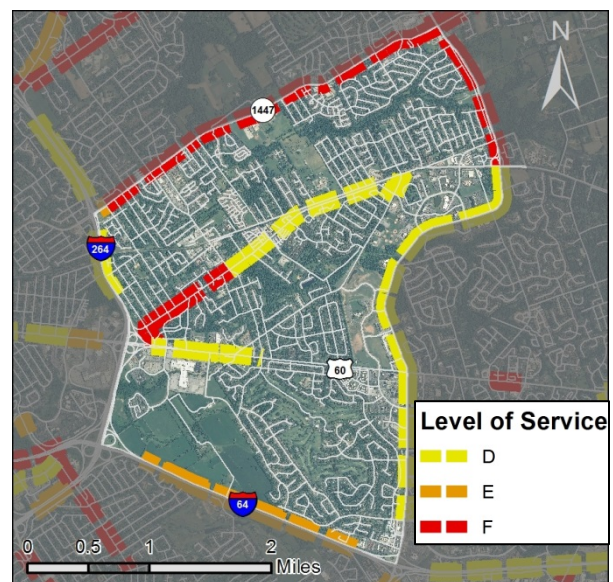


Figure 40024-B: Projected LOS in TAD 40024.

LOS F:	<ul style="list-style-type: none"> • KY 146 from US 60 (Shelbyville Road) to KY 2050 (Herr Lane/Lyndon Lane) • KY 1447 (Westport Road) from Washburn Avenue to KY 1747 (Hurstbourne Lane) • KY 1747 (Hurstbourne Parkway) from KY 1447 (Westport Road) to KY 146 (LaGrange Road)
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The current congestion on roadways operating at a LOS lower than D is an issue now, and anticipated to worsen by the year 2030 without any additional mitigation. TAD 40024 is home to residents, shopping, and other community amenities, and its major corridors provide not only internal circulation but needed connections to the rest of the region. The additional congestion forecast will further delay commuters, deliveries, shoppers, and residents trying to reach their destinations equating to lost time and resources.

Access to Community Amenities

There are several community amenities located in TAD 40024 including schools, shopping, libraries and parks. Several of these are considered to be clustered (three or more within 0.25 miles of each other). There are six such clustered locations within this TAD.

The largest cluster is along Shelbyville Road from Oxmoor Lane to Whipps Mill Road, and it is anchored by the Oxmoor Mall and surrounding commercial development along the corridor. There is also a school included within this cluster. There are no dedicated bicycle facilities along Shelbyville Road in this area. Transit service is available via two public regular fixed routes: Route #19 and Route #29. The routes loop in the Oxmoor Mall area, and so there is a small gap that extends from Christian Way to Lyndon Lane, but the total length of the gap is less than 0.50 miles, so a person using transit to reach a destination in the identified gap could choose to ride one of the two routes mentioned above, or elect to go with Route #31, which provides service on Shelbyville Road from Lyndon Lane east. Vehicular access to the area may be impeded by the high crash location identified on Shelbyville Road which runs from I-264 to Oxmoor Lane as well as the current LOS F and D on the segments of Shelbyville Road within the clustered area. There are no sidewalks on the south side of Shelbyville Road within the clustered area. There are some sidewalks on the north side, but they are not connected and run along only three to four frontages of properties, but no continually.

This clustered area bleeds into the cluster of locations to the north, located on New LaGrange Road from Sundance Drive to Lyndon Lane, and extending down Lyndon Lane from New LaGrange Road to Vinecrest Avenue, which forms a commercial center for Lyndon. Community amenities making up this cluster include schools, shopping, Lyndon City Hall, and Lyndon Fire and EMS building. There are no dedicated bicycle facilities within this cluster. The current LOS is adequate for vehicular access unless a motorist elects to use Shelbyville Road to reach this area as the LOS F would impede travel time. There is also an identified high crash location at the intersection of Lyndon Lane and New LaGrange Road, and forecast LOS F would also impede traffic to the destinations here. There are sidewalks along both sides of the roadway within this area, although there are a few gaps primarily along the west side of New LaGrange Road. Public transit service is provided via Route #15 and Route #31.

Westport Road from West Creek Way to Japonica Way houses and identified cluster of community amenities: the Westport Branch of the Louisville Free Public Library, Westport Middle School, the Islamic School of Louisville, the Lyndon Fire District Station 2, the McDowell Center, and the Kentucky Transportation Cabinet District 5 Office. This area has no dedicated bicycle facilities. This portion of Westport Road is largely residential other than the aforementioned uses. Public transit service is provided via Route #49 and Route #55. Vehicular access may be an issue due to the identified high crash locations at I-264 and Westport Road, Herr Lane and Westport Road, and Hurstbourne Parkway and Westport Road. The future LOS F anticipated by the year 2030 may cause additional travel delays because of congestion; however, that is not an issue currently. There are sidewalks along both sides of Westport Road connecting the surrounding neighborhoods to these uses.

Further east on Westport Road, from Goose Creek Drive to Hurstbourne Parkway, is another identified cluster of community amenities. This area includes shopping, retail, restaurants, and civic uses. The surrounding land use is suburban residential. There are no dedicated bicycle facilities within this clustered area. The identified high crash location at Westport Road and Hurstbourne Parkway as well as the future LOS F on both of those roadways may

impede traffic to destinations within the cluster. This cluster is also served by public transit Route #49 and Route #55. There are sidewalks on both sides of Westport Road in this area and on the east side of Goose Creek Road.

The land uses surrounding the Hurstbourne Parkway and Shelbyville Road intersection form a cluster of community amenities. Most of these retail and service industries located in strip shopping centers around the intersection. There are no dedicated bicycle facilities on either roadway segment that fall within the clustered area. Public transit service is provided via Route #31. Vehicular access may not be as timely as one might expect due to the high crash location centered around this intersection as well as the LOS D on Shelbyville Road west from Hurstbourne Parkway and on Hurstbourne Parkway south of Shelbyville Road. LOS E exists on Shelbyville Road. There are sidewalks on the south side of Shelbyville Road west of Hurstbourne Parkway, and then they move to the north side of Shelbyville Road east of Hurstbourne Parkway.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Ceridan Stored Value
- Lending Tree
- Macy's in Oxmoor Shopping Center
- SHPS Inc.
- UPS Air Cargo
- YMCA

There are four clusters of high density employment located in this TAD.

The first cluster is located on Hurstbourne Parkway, Westport Road, and Goose Creek Road. There are 10 businesses located in this cluster with the majority of the business being in TAD 40027. There are pedestrian facilities on Westport Road and TARC Route #49 provides service to this area. However, there is a lack of transit service on Hurstbourne Parkway below the intersection of Hurstbourne Parkway and Westport Road. There is a bike way located on Goose Creek Road that provides access to this cluster and there is adequate motor vehicle access. There is also a high crash location area at the intersection of Westport and Hurstbourne that may have an effect on access to this cluster.

The second cluster is located on Hurstbourne Parkway and New LaGrange Road. There are 60 businesses located in this cluster along with three major employers (YMCA, Lending Tree, and UPS Air Cargo). There are pedestrian facilities located on Hurstbourne Parkway; however there is a lack of sidewalks on LaGrange Road. There is also a bikeway located on North Whittington Parkway which provides access to this cluster and there is adequate motor vehicle access. A high crash location located at the intersection of Hurstbourne Parkway and Shelbyville Road may have an effect on access to this cluster.

The third cluster is located on Hurstbourne Parkway between Porter Place and I-64. Shelbyville Road is also part of this cluster. This cluster also extends into the neighboring TAD 40022. There are several businesses located in this cluster along with a major employer (SHPS Inc.). There are no bikeways located in this cluster and the motor vehicle access can be difficult to access to high density employment. This cluster is located in a high crash location area and the level of service is projected to be LOS D which will have an effect on access in this cluster.

The fourth cluster is located in between Westport Road and Shelbyville Road. There are several businesses located in this cluster along with two major employers (Macy's and Ceridan Stored Value). There are no bikeways located in this cluster. This cluster also is in a high crash location area and the level of service is projected to be an F which will have an effect on access in this cluster.

There is one shopping high density area with 100+ within .025 miles. This shopping high density buffer area is located along Shelbyville Road in between LaGrange Road and Lyndon Lane. This area includes the Oxmoor Mall and there are several shopping areas located on Shelbyville Road near the Oxmoor Mall. There is a lack of pedestrian facilities in front of Oxmoor Mall and along Shelbyville Road. TARC Route #19 provides service to this shopping high density buffer. There is adequate motor vehicle access in this shopping high density area. The nearest bikeway is located on Lyndon Lane next to the shopping high density area.

There are four shopping high density areas with 50+ within 0.25 miles. The first shopping high density buffer is located in the Lyndon area along Lyndon Lane from Lake Avenue to New LaGrange Road. There are adequate pedestrian facilities and transit service which serve this area. The next shopping high density area is located on Westport Road at Goose Creek. The majority of the shopping high density area is located in the TAD 40027. There are adequate pedestrian and transit that serve this area. The third shopping high density area is located on Shelbyville and Hurstbourne intersection. Part of this shopping high density area is located in TAD 40025. There are sidewalks that are located in this area however there is a lack of transit on Hurstbourne Parkway. The fourth shopping high density area is located on Hurstbourne Parkway between Linn Station Road and I-64. There are sidewalks and transit service provides service to this buffer.

There are no commerce parks located in this TAD.

Access for Persons with Disabilities and/or Older Adults

Within TAD 40017, there are no identified facilities specific to persons with disabilities. The overall pedestrian and transit service to workplace and shopping areas is adequate. However, there are gaps in the pedestrian and transit service network in this TAD.

Access to Education

There are twelve schools located in TAD 40024, and three education clusters (see Figure 40024-C).

Waldorf School of Louisville and Jefferson County High School-Jaeger Education Center are clustered (two or more schools within 0.25 mile of each other). Waldorf School is located on New Lagrange Road. Waldorf School has no pedestrian facilities located in front of the school; however there are sidewalks next to the school. TARC Route #31 provides service to Waldorf School. Jefferson County High School-Jaeger Education Center is located on Wood Road. There are no pedestrian facilities in front of this school on Wood Avenue or in the surrounding high density neighborhood. TARC Route #31 is 0.10 mile away from the school. There are bicycle facilities located on Lyndon Lane and east of the Lyndon Lane on New Lagrange Road. There is a high crash location inside this school cluster and the level of service of New LaGrange Road is classified as F. Audubon Youth Development Center and the Louisville Day Treatment are clustered. Audubon Youth Development Center is located on LaGrange Road. Audubon Youth Development Center has pedestrian facilities that surround the center. Louisville Day Treatment Center is also located on LaGrange Road and has sidewalks surrounding the center. However, there are no sidewalks in front of Audubon Youth Development Center or Louisville Day Treatment Center. There are bicycle facilities proposed for LaGrange Road. TARC Route #15 provides transit service for both Audubon Youth Development Center and Louisville Day Treatment Center.

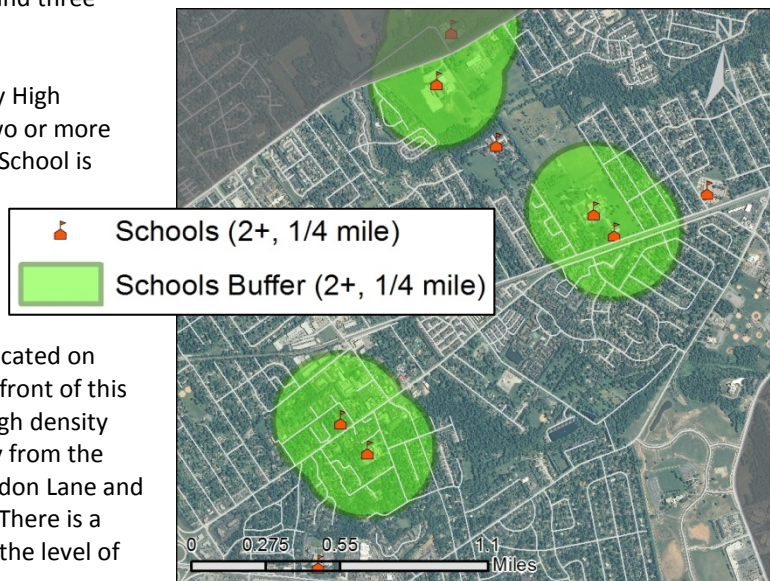


Figure 40024-C: Access to education clusters in TAD 40024.

Westport Middle School and Islamic School of Louisville are clustered. Islamic School of Louisville is in TAD 40027 on the north side of Westport Road. Islamic School of Louisville has sidewalks in front of the school; however, there are no sidewalks along Old Westport Road. Westport Middle School is located on Westport Road on the south side. Westport Middle School has sidewalks around the school and there are sidewalks in front of the school on Westport Road. TARC Route #49 provides transit service to this cluster.

Westport TAPP School is located on Westport Road. There are sidewalks in front of and around the school. This school is connected via sidewalks with the suburban residential neighborhood located nearby. TARC Route # 49 provides transit service to this school.

Zachary Taylor Elementary School is located on Westport Road and at the intersection of Westport and Hurstbourne Road. There are sidewalks in front of the school and on the Hurstbourne Lane side. Zachary Taylor is not connected with the suburban residential neighborhood located behind the school. TARC Route #49 provides transit service to this school.

Brook KMI Alternative School is located on LaGrange Road. Brook KMI Alternative School has sidewalks surrounding the school; however, there are no sidewalks connected with the nearby suburban residential neighborhood. There are no bikeways. Motor vehicle access is adequate.

Bowen Elementary School is located on Roosevelt Avenue, off of Lagrange Road. There are sidewalks located on Roosevelt Avenue and sidewalks connecting to the suburban residential neighborhood located behind the school. There are bicycle facilities proposed for LaGrange Road. TARC Route #15 provides transit service to this school. Motor vehicle access is adequate.

Saint Margaret Mary School is located on Shelbyville Road. There are no sidewalks in front of Saint Margaret Mary School on Shelbyville. Saint Margaret Mary does have sidewalks around the school and the back parking lot has a connector road, South Park Place, which connects to Arteburn Drive in the suburban residential neighborhoods near the school. There are no bicycle facilities. TARC Route #19 provides service to this school. Motor vehicle access is adequate.

Our Savior of Lutheran School is located on Nottingham Parkway. There are sidewalks around the school, but no sidewalks on Nottingham Parkway. There are no sidewalks and connections to suburban residential neighborhood near Our Savior of Lutheran School. There are no bicycle facilities and no transit service. The nearest TARC Route #31 is 0.15 miles away from the school. There is adequate motor vehicle access.

Lowe Elementary School is located on Oxfordshire Lane in the City of Hurstbourne. Lowe Elementary School has sidewalks surrounding the school; however, there are no sidewalks on Oxfordshire Lane. There are no bicycle facilities and no transit service. The nearest public transit Route #31 is 0.15 miles away from the school, and may be too far for unaccompanied elementary-aged students, but would provide reasonable access for parents and staff.

Access to Government Services

There are two clusters of government services located in TAD 40024.

The first cluster of government services is the Lyndon Fire Protection, McDowell Center, KYTC District 5 Office, and the Westport Public Library. These government services are located on Westport Road and have sidewalks on both sides of the roadway. TARC Route #49 provides service to this cluster of government services. The nearest dedicated bike access is located on Westport Road, but only goes from the Watterson Expressway to Herr Lane. Motor vehicle access is adequate.

The second cluster of government services is located on Whittington Parkway, and includes Medical Licensure – Hurstbourne, Barberly Board Office, and Auctioneers Board Office. There are pedestrian facilities along Whittington Parkway. The nearest TARC Route #31 is 0.25 miles away.

Access to Medical Facilities

There are no hospitals located in TAD 40024. The nearest hospitals are located in TAD 40008 and 40009 (Baptist East Hospital and Norton Suburban Hospital).

There is a medical complex high density buffer located in TAD 40024 on New LaGrange Road and Herr Lane. There are sidewalks and TARC Route #31 provides access to these medical facilities.

Freight Access

There is one major railroad that runs throughout this TAD. Part of this CSX railroad runs adjacent to the roadway of LaGrange Road between Lyndon Lane and Hurstbourne Parkway.

The KIPDA freight network is located throughout this TAD. I-264, I-64, Shelbyville Road, Hurstbourne Parkway from Shelbyville Road to I-64 are all part of the KIPDA freight network. The current level of service on the freight network is a D, E, and F. However, the projected levels of service on the freight network are D and E. There are also high crash locations on the KIPDA Freight Network in this TAD.

There are no freight distribution centers located in this TAD.

Future Socioeconomic Conditions

According to 2030 forecasts, the population and the number of households in this TAD are expected to slightly decrease between 2010 and 2030. However the employment and number of jobs are expected to slightly increase between 2010 and 2030. The area is relatively developed; few households and population are expected to be added to this TAD; however, additional jobs are anticipated in higher numbers. These jobs will likely be held by members of households outside of this TAD, therefore the LOS along roadways will be degraded as employees will be traveling from outside the TAD to reach their jobs within 40024.

Issues and Opportunities

- There are a number of high crash locations identified in this TAD. Safety is a major issue in this TAD. Of special concern is the education cluster of Waldorf School of Louisville and Jefferson County High School Education Center which are located in a high crash location.
- There are no bicycle lanes or other dedicated bicycle facilities on Hurstbourne Parkway from New LaGrange Road to I-64.
- There is a lack of pedestrian facilities located along Shelbyville Road in front of Oxmoor Shopping Center which is part of a shopping high density buffer.
- There is a lack of transit service located on Hurstbourne Parkway from Westport Road to Linn Station Road. There are four employment high density areas, two shopping high density areas, and a government services cluster located on Hurstbourne Parkway.
- The current and projected LOS on the KIPDA freight network located in this TAD may have an effect on the freight movement throughout this TAD.

Related Plans and Studies

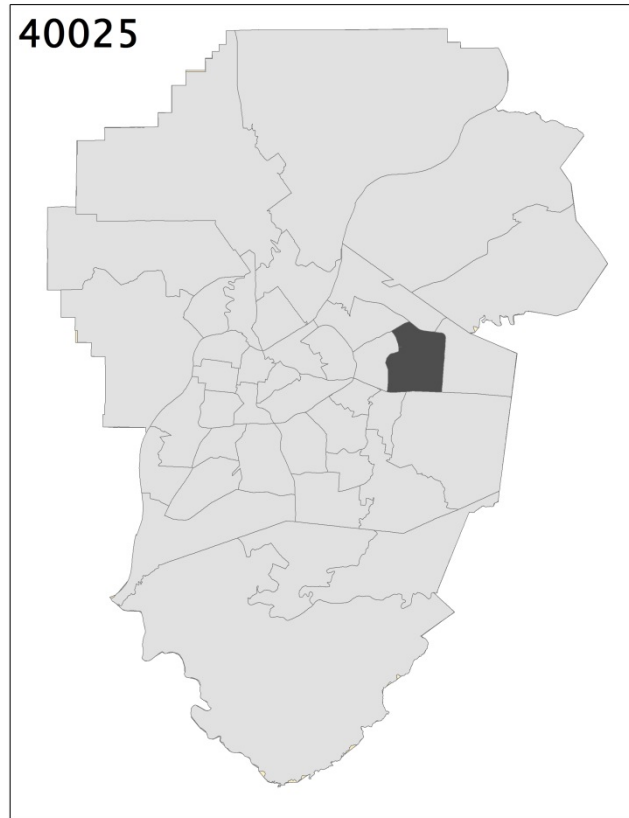
- Cornerstone 2020 Comprehensive Plan (2013)
- Hurstbourne Transportation Study and Small Area Plan (2006)

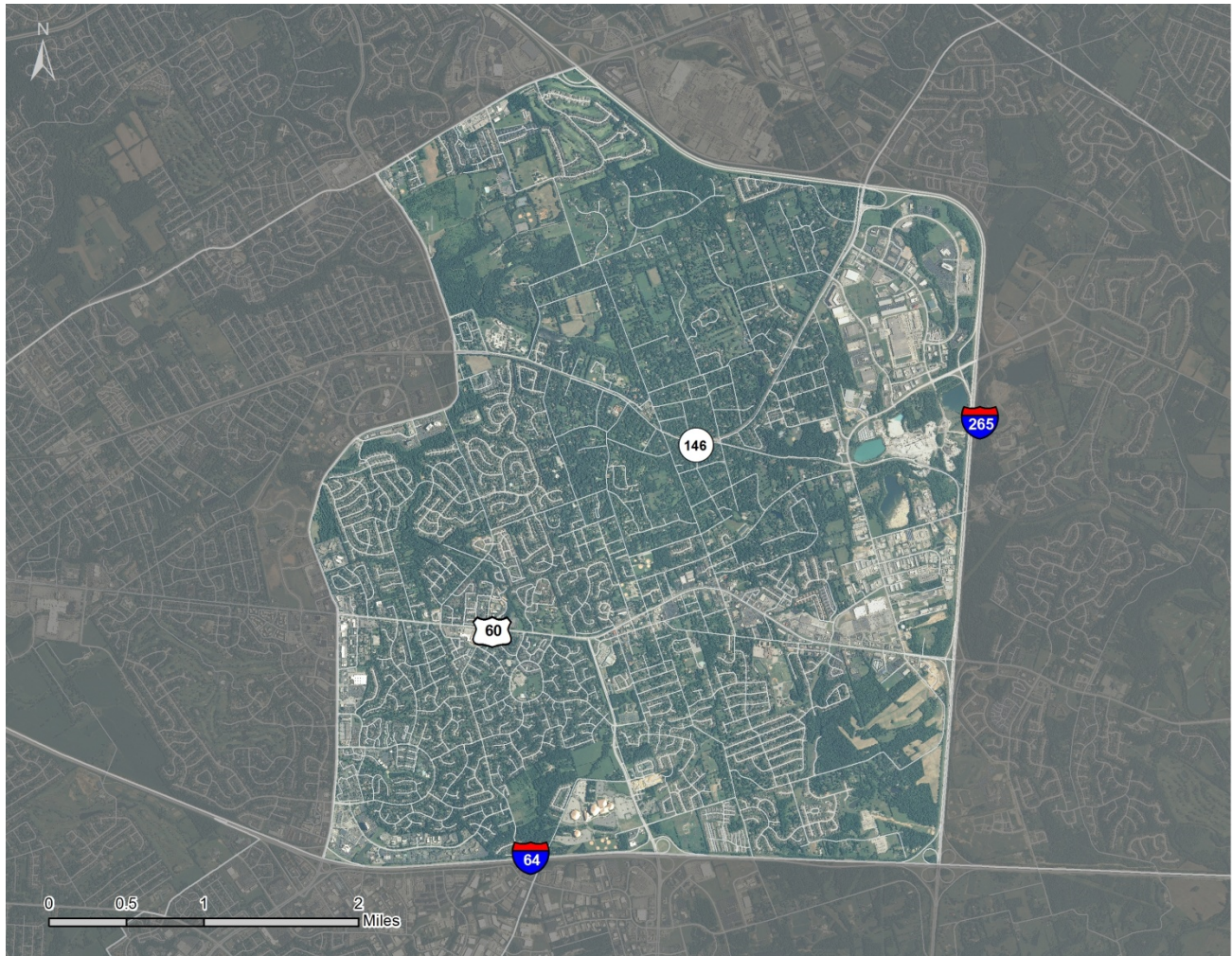


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40025 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40025 is located in the eastern portion of Jefferson County, north of I-64, south of KY 1447 (Westport Road), east of KY 1747 (Hurstbourne Parkway), and west of I-265 (Gene Snyder Freeway). It contains portions of Louisville Metro, Anchorage, Blue Ridge Manor, Douglas Hills, Middletown, and Woodland Hills. TAD 40025 is relatively well established in terms of development patterns with the exception of an undeveloped section in the southeast corner of the TAD and other smaller undeveloped parcels scattered around the TAD. Approximately 75% of this area of this TAD consists of typical suburban residential development. About 80% of the area south of Shelbyville Road and about 30% of the area north of Shelbyville Road and south of the CSX railroad contains the more dense residential development. There are several prominent commercial areas in the southwestern portion (Plainview area), in the east central portion (in and near Eastpoint Business Center), and along portions of US 60 (Shelbyville Road), Westport Road and Hurstbourne Parkway. Aside from the undeveloped areas, the open space in the TAD includes two golf courses, a large park (E.P. Tom Sawyer Park), and several smaller parks. There are numerous historic structures within this TAD.

Area and Socioeconomic Information

Area: Approximately 11,350 acres
Non-Group Quarters Population (2010): 32,368
Number of Households (2010): 14,069
Number of Jobs (2000): 23,068

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) identifies a Title VI/Environmental Justice area in TAD 40025. The area is located in the eastern portion of the TAD and is bounded by two branches of the CSX railroad on the west and south and by I-265 on the north and the east. It includes the Berrytown community and the Eastpoint Business Center.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

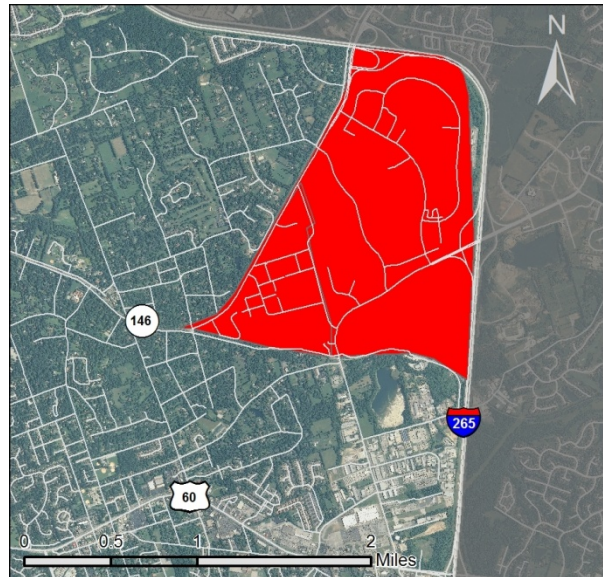


Figure 40025-A: Title VI/Environmental Justice area is shown in red.

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-64* from the Hurstbourne Parkway interchange to the I-265 interchange • I-265* from the I-64 interchange to the Westport Road interchange
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • KY 913* (Blankenbaker Parkway) from the I-64 interchange to Shelbyville Road • Hurstbourne Parkway* from the I-64 interchange to Westport Road • Shelbyville Road*~ from Hurstbourne Parkway to the I-265 interchange • Westport Road* from Hurstbourne Parkway to the I-265 interchange
Urban Minor Arterial	<ul style="list-style-type: none"> • LaGrange Road from Hurstbourne Parkway to Old Harrods Creek Road • Park Road from Old Harrods Creek Road to Bellwood Road • Bellwood Road from Park Road to Ridge Road • Ridge Road from Bellwood Road to Glenbrook Road • Glenbrook Road from Ridge Road to LaGrange Road • LaGrange Road from Glenbrook Road to the I-265 interchange • KY 1819 (Watterson Trail) from I-64 to Blankenbaker Parkway • KY 3084 (Old Henry Road) from Avoca Road to the I-265 interchange • Dorsey Lane from Shelbyville Road to Hurstbourne Parkway • English Station Road from Shelbyville Road to Old Henry Road
Urban Collector	<ul style="list-style-type: none"> • KY 2840 from Blankenbaker Parkway to Main Street in Middletown • Aiken Road from Shelbyville Road to English Station Road • Beech Road from Old Harrods Creek Road to Bellewood Road • Bellewood Road from Cedardale Road to KY 146 (Ridge Road) • Evergreen Road from Old Shelbyville Road to Freys Hill Road • Freys Hill Road from Evergreen Road to Westport Road • Linn Station Road from Hurstbourne Parkway to Moser Road • Madison Avenue from Tucker Station Road to Cedardale Road

	<ul style="list-style-type: none"> • Main Street (in Middletown) from KY 2840 to Old Shelbyville Road • Moser Road from Watterson Trail to Shelbyville Road • Nelson Miller Parkway from Old Henry Road to LaGrange Road • Old Shelbyville Road (in Middletown) from Main Street to Shelbyville Road • Stanley Gault Parkway from Old Henry Road to LaGrange Road • Tucker Station Road from I-64 to Madison Avenue • Ward Avenue from Dorsey Lane to Old Harrods Creek Road
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul System

Schools

- | | |
|--|---|
| <ul style="list-style-type: none"> • Anchorage Public School • Crosby Middle School • Eastern High School • Highlands Latin School • Hite Elementary School | <ul style="list-style-type: none"> • Holy Angels Academy • Maryhurst Elementary School • Middletown Elementary School • Summit Academy (Middletown) |
|--|---|

Colleges & Universities

- | | |
|--|--|
| <ul style="list-style-type: none"> • ATA College • ITT Technical Institute • McKendree University | <ul style="list-style-type: none"> • Strayer University • University of Phoenix – Louisville |
|--|--|

Parks

- | | |
|---|--|
| <ul style="list-style-type: none"> • Berrytown Park • Crosby Park • Douglas Hills Park | <ul style="list-style-type: none"> • E.P. “Tom” Sawyer State Park • Plainview Swim & Tennis Club |
|---|--|

Other Area of Interest/Significance

- Bellewood Home for Children

Historic

- | | |
|---|--|
| <ul style="list-style-type: none"> • Abell House • Anchorage Historic District • Arthur P. Stitzel House • Bank of Middletown • Bayless House • Bellevoir Ormsby Village • Beynroth House • Bonavita Weller House • Boyyncott • Central Kentucky Lunatic Asylum • Chenoweth Fort Springhouse | <ul style="list-style-type: none"> • Citizens National Life Insurance Building • Coldeway House • Davis Tavern • Dr. Winston’s House • Eustace Williams House • Forrester House • Garr House • George B. Yenowine House • Hannah House • Hausgen House • Head House |
|---|--|

- Henry Frank House
- Hillcrest
- Hite Foree Log House
- James Courtney House
- James Thompson House
- James Walker House
- Jefferson Marders House
- John Marshall Sr. House
- John Webb House
- Jones Estate
- Middletown Inn
- Middletown United Methodist Church
- Nash McDonald House
- Newland Log House
- Nock House
- Otto F. Eitel House
- Presbyterian Manse
- Railway Depot
- Richard Gwathmey House
- Robert May House
- Saint Luke Church
- Shallcross
- Sherley Mansion
- Simrall Warfield House
- Tway House
- Twin Gates Carriage House
- Twin Gates Carriage House
- William Bull House

Transit

TAD 40025 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #15 – Market Street (Central State Hospital Branch)
- Route #31 – Shelbyville Road
- Route #49X – Westport Road Express
- Route #55 – Westport Road
- Route #61X – Plainview Express
- Route #78X – Bluegrass Express

Park and Ride

There are two official Park and Ride lots in TAD 40025:

- Southeastern Christian Church
- Trinity Presbyterian Church Road

Public Comments

Aiken Road

- Lives in patio homes behind Eastgate Shopping Center. Can't go to Walmart shopping center because it's too dangerous to cross Aiken Road.

Avoca Road

- Why is Avoca Road barricaded/closed?

Hurstbourne Parkway

- Lots of traffic on Hurstbourne Parkway (from Stonybrook to Westport Road)

Hurstbourne Parkway at I-64

- No sidewalks and difficulty crossing around Hurstbourne Parkway and I-64. Hotel guests included.

Hurstbourne Parkway at I-64 Westbound Exit Ramp

- Heavy traffic on ramp coming off from I-64 westbound.

Juneau Drive

- No sidewalks on Juneau Drive.

Moser Road/Dorsey Lane

- Misaligned intersection. Align these two intersections to provide better access.

Multi-Use Trail

- Extension of multi-use trail.

North English Station Road

- North English Station Road should be aligned with an S-curve between Shelbyville Road and Walmart so that North English Station Road connects to Marketplace Road at Shelbyville Road.

North Madison Avenue

- Turning lane southbound North Madison onto Shelbyville Road eastbound.

Old Harrods Creek Road

- Traffic lights too long from Old Harrods Creek Road onto Shelbyville Road.
- Sidewalk needed on Old Harrods Creek Road from Shelbyville Road.

Old Shelbyville Road

- Sidewalks from Old Main Street to Evergreen Road are in bad shape.

Shelbyville Road

- Timing of lights on Shelbyville Road.

Shelbyville Road at Juneau Drive

- Needs audible crossing. Dangerous intersection for pedestrians.

Urton Lane

- Extend Urton Lane corridor before development of land (apartments).

Urton Lane Extension

- Urton Lane extension timeline/progress?

Whittington Parkway at Hurstbourne Parkway

- Red light phase abnormally long. When the light does turn green, not enough time to cross street.

Williamsburg Plaza at Hurstbourne Parkway

- Red light phase abnormally long.

Safety

2,896 crashes were reported in TAD 40025 in the three-year period from 2009 through 2011. There were six fatalities reported as a result of crashes from 2009-2011 (two in 2009, one in 2010, and three in 2011). In the same time period, there were a total of 48 crashes resulting in injury in this TAD (11 in 2009, 18 in 2010, and, 19 in 2011).

As might be expected, the larger number of crashes occurred on the roadways with the higher traffic volumes: Shelbyville Road, Hurstbourne Parkway, I-64, I-265, Blankenbaker Parkway, and Westport Road. Collectively, 1,870 – or almost 65% – of the crashes occurred on one of these six roadways, and each of these roadways had in excess of 100 crashes. An amazing 783 – or approximately 27% – of the crashes occurred along Shelbyville Road. Additionally, English Station Road, LaGrange Road, and Linn Station Road each had between 50 and 100 crashes while nine other roadways had more than 20 but less than 50 crashes. Among the latter nine roadways was KY 2840/Main Street which had 44 crashes, a rather high number for a roadway less than 0.6 miles long.

Fatalities

There were six fatalities reported as a result of crashes from 2009-2011 (two in 2009, one in 2010, and three in 2011). None of the fatalities involved a bicyclist or pedestrian. No other information is available.

High Crash Locations

There is one higher density location within this TAD where the number of crashes within 0.10 mile over the three-year (2009-2011) period has been between 200 and 299, and seven high density areas where the number of crashes with 0.10 mile has been between 100 to 199. Several of these areas are located at the boundary of the TAD; therefore, it is unlikely that all of the crashes occurred within TAD 40025.

Hurstbourne Parkway at the I-64 Interchange and Extending Northward to Linn Station Road

This area had a higher density (200-299 crashes within 0.1 mile) region extending from the interchange to about halfway between Blairwood Road and Caritas Way. Beyond that point was another region with a high density (100-199 crashes within 0.1 mile) of crashes which extended to region around Linn Station Road. The crashes in this area primarily occurred along I-64, its ramps, and Hurstbourne Parkway. Because I-64 is one of the boundaries of the TAD,

the south half of this particular interchange is in another TAD. However, to estimate the proportion of crashes occurring along I-64, its ramps, and Hurstbourne Parkway, the number of crashes for the complete interchange and the section of Hurstbourne Parkway from the south edge of the interchange to Linn Station Road was estimated. As expected, there were a few crashes occurring on other streets. Removing those crashes from the analysis, the proportions of crashes occurring along I-64, its ramps, and Hurstbourne Parkway were approximately 11%, 18%, and 71%, respectively. Rear end crashes were the predominant form of crash for all three facilities. The percentages of crashes which were rear end on I-64, its ramps, and Hurstbourne Parkway were approximately 69%, 87%, and 50%, respectively. Only Hurstbourne Parkway had crashes of other types in significant numbers. The percentages of angle and sideswipe crashes occurring along Hurstbourne Parkway were approximately 22% and 18%, respectively. The high number of rear end crashes is likely related to the slowing and stopping of traffic that occurs in the westbound direction on I-64 in the afternoon peak period and the length of the queues on the I-64 ramps. For Hurstbourne Parkway, the high number of rear end and sideswipe crashes may also be due to the frequent slowing and stopping of traffic that occurs at several times of the day. Given the number of crashes in this area, it is surprising that only nine of the crashes involved an injury, and none resulted in a fatality. The types of crashes resulting in an injury included angle, pedestrian, rear end, and single vehicle (hitting a barrier or support structure) with the number of occurrences of each being two, one, three, and three, respectively.

The areas discussed below each had 100 to 199 crashes within 0.10 mile.

Hurstbourne Parkway/Shelbyville Road Intersection

There were approximately 330 crashes in the area around this intersection including six crashes involving injuries. The crashes that happened at or near the intersection of Hurstbourne Parkway and Shelbyville Road did not occur equally along the legs of the intersection. The crashes along the eastern leg of were more numerous and more dense than those along the other legs while the crashes along the southern leg were the least numerous with the density diminishing most quickly. The crashes occurring along the northern and western legs of the intersection happened in numbers and at densities between the levels of the eastern and southern legs. Overall, the percentages of crashes occurring along the eastern, northern, western, and southern legs were approximately 38%, 24%, 21, and 17%, respectively. Rear end, and to a lesser degree, angle crashes were the most common for all of the legs of the intersection, but the percentages of each varied by direction. For the eastern and northern legs, rear end crashes were approximately 45% of the total, but for the southern and western legs, rear end crashes accounted for between 60% and 65% of the total. For the eastern and northern legs, angle crashes were approximately 40% to 45% of the total, but for the southern and western legs, angle crashes accounted for between 20% and 30% of the total. Rear end crashes are often associated with traffic stopping or slowing while angle crashes may be associated with turning vehicles. The crash history seems to be correlated with the adjacent land use. The properties on the southwestern corner of the intersection do not have direct access to Hurstbourne Parkway and Shelbyville Road. The first intersecting street to the west and the first intersecting street to the south are on the order of 0.2 miles to 0.3 miles from the intersection. Therefore, it follows that traffic would be less likely to be turning from the southern and western legs of the intersection, and angle crashes would not be as prevalent, which is what has happened. The injury crashes included three along the eastern leg of the intersection, one in the intersection, and 1 each along the northern leg and along the southern leg.

Hurstbourne Parkway/Westport Road Intersection

There were approximately 280 crashes in the area around this intersection including one crash involving an injury. The crashes that happened at or near the intersection of Hurstbourne Parkway and Westport Road were not equally distributed along the legs of the intersection, but the locations of the crashes within 0.1 mile of 100 or more crashes was somewhat symmetric. The differences in total crashes were attributable to the density of crashes beyond the high density regions. The crashes along the western leg of were more numerous, but the crashes along the northern leg were more dense than the crashes along the other legs. The crashes along the eastern leg were the least numerous with the density diminishing most quickly. Overall, the percentages of crashes occurring along the western, northern, southern, and eastern legs were approximately 29%, 28%, 25%, and 18%, respectively. Rear end, and to a lesser degree, angle crashes were the most common for all of the legs of the intersection, but the percentages of each varied by direction. For the western leg, rear end crashes were slightly more than 60% of the total, but for the northern and

southern legs, rear end crashes accounted for between 45% and 50% of the total. Rear end crashes accounted for approximately 55% of the total crashes along the eastern leg. For the northern and southern legs, angle crashes were approximately 30% to 35% of the total, but for the eastern and western legs, angle crashes accounted for between 15% and 25% of the total. In addition to rear end and angle crashes, sideswipe crashes accounted for 10% to 20% of the crashes occurring along the northern, southern, and western legs of the intersection. Less than ten sideswipe crashes occurred along the eastern leg. Rear end crashes are often associated with traffic stopping or slowing. The crash history may be correlated to the traffic flow particularly for the western leg of the intersection. Although this leg is presently operating at a level of service of C or above, the density of traffic signals probably causes traffic to slow down frequently and sometimes stop. The number of crashes along the western leg may be related to this slowing and stopping. The injury crash also occurred on the western leg of the intersection and involved a pedestrian.

Westport Road Near the Springhurst Boulevard/Freys Hill Road Intersection

The crashes that happened at or near the intersection of Westport Road and Springhurst Boulevard/Freys Hill Road were not equally distributed along the legs of the intersection; far more crashes occurred along the eastern and western (Westport Road) legs than along the other two legs. Overall, the percentages of crashes occurring along the western, eastern, northern, and southern legs were approximately 48%, 30%, 8%, and 14%, respectively. Rear end, and to a lesser degree, angle crashes were the most common for all of the legs of the intersection, but the percentages of each varied by direction. The percentages of rear end crashes ranged from a high of 67% for the western leg to a low of 54% for the southern leg. For the northern and southern legs of the intersection, the number of crashes was sufficiently low that a difference of one crash represented a difference of 8% to 13%. Nevertheless, the percentage of crashes which were rear end crashes was in the range of 60% plus or minus 7%. Rear end crashes are often associated with traffic stopping or slowing. For approximately 80% of the rear end crashes at this intersection, at least one of the vehicles was stopped or slowing. The range of percentages of angle crashes was significantly larger, from about 10% for the northern leg to slightly more than 30% for the southern leg. The injury crash occurred on the eastern leg of the intersection and involved a pair of vehicles, one turning left and one traveling straight through the intersection.

Shelbyville Road/Evergreen Road Intersection

There were approximately 100 crashes in the area around this intersection including two crashes involving a pedestrian, one resulting in an injury. The crashes that happened at or near the intersection of Shelbyville Road and Evergreen Road were not equally distributed along the legs of the intersection; far more crashes occurred along the eastern and western (Shelbyville Road) legs than along the other two legs. Overall, the percentages of crashes occurring along the eastern, western, northern, and southern legs were approximately 44%, 31%, 13%, and 12%, respectively. Although the eastern leg had the most crashes, the most dense groups of crashes occurred along regions of the western and northern legs within 0.02 miles and 0.01 mile of the intersection, respectively. Rear end, and to a lesser degree, angle crashes were the most common for all of the legs of the intersection, but the percentages of each varied by direction. The percentages of rear end crashes ranged from a high of 64% for the northern leg to a low of 36% for the eastern leg. The percentages for the western and southern legs were approximately 54% and 40%, respectively. Consequently, it can be seen that there was a wide range for the percentage of crashes which were rear end crashes. Rear end crashes are often associated with traffic stopping or slowing. For approximately 90% of the rear end crashes at this intersection, at least one of the vehicles was stopped or slowing. The range of percentages of angle crashes was significantly lower, from about 18% for the northern leg to approximately 31% for the eastern leg. Sometimes angle crashes are associated with turning vehicles. More than 65% of the angle crashes at this intersection involved a turning vehicle. The crashes involving a pedestrian both occurred on the eastern leg of the intersection, one very near the intersection and the other approximately 0.05 miles from the intersection. The crash further from the intersection is the one that resulted in an injury.

I-265/Shelbyville Road Interchange

The I-265/Shelbyville Road interchange is located at the eastern boundary of this TAD with one half of the interchange in TAD 40025 and the other half in TAD 40026. The following discussion focuses on the interchange as a whole without regard to where (which TAD) the crashes occurred. With respect to location, there were three groups of crashes: those occurring along I-265, those occurring along Shelbyville Road, and those occurring along the ramps which connect the two roadways. The crashes with 100 or more crashes within 0.1 mile occurred within 0.08 miles of the center of the

interchange. However, strings of crashes continued from those crashes to at least the intersection of the ramps with I-265 or Shelbyville Road and, in the case of the eastern leg of Shelbyville Road, slightly beyond that point. Therefore, the section of I-265 that was included in the analysis was from exit ramp to entrance ramp, a distance of approximately 0.25 miles each direction from the center of the interchange, and the section of Shelbyville Road that was included was from the entrance ramp from the western leg to a point equal distance on the eastern leg, a distance of approximately 0.15 miles each direction from the center of the interchange. There were approximately 170 crashes in the area around this interchange. Placing the crashes into the three groups described above, approximately 11% of the crashes occurred along I-265; approximately 61% of the crashes occurred along Shelbyville Road; and approximately 28% of the crashes occurred along the ramps. Most of the crashes in each category were rear end crashes. Rear end crashes accounted for 78% of the crashes occurring along I-265, 71% of the crashes occurring along Shelbyville Road, and 81% of the crashes occurring along the ramps. Rear end crashes are often associated with traffic stopping or slowing. The percentages of rear crashes which involved a stopped or slowed vehicle were approximately 79% for I-265, approximately 85% for Shelbyville Road, and approximately 70% for the ramps. None of the crashes at this location resulted in an injury or a fatality.

I-64/I-265 Interchange

The I-64/I-265 interchange is located in the southeastern corner of this TAD with one half of the interchange in TAD 40023, one quarter in TAD 40025, and one quarter in TAD 40026. The following discussion focuses on the interchange as a whole without regard to where (which TAD) the crashes occurred. This interchange is a cloverleaf interchange with four outer ramps used to accomplish right turns from one interstate to the other and four inner loop ramps used to accomplish what would be the equivalent of left turns for surface street intersections. The section of roadway between where traffic enters from one inner ramp and where traffic exits to the next inner ramp is known as the weaving section. In the weaving section, traffic entering the roadway frequently is attempting to move at least one lane to the left while traffic exiting the roadway is attempting to move at least one lane to the right. This lane changing behavior is known as weaving, and numerous conflict points can occur creating the possibility for crashes. With respect to location, there were three groups of crashes: those occurring along I-64 or I-265 excluding the weaving sections, those occurring along the outer ramps, and those occurring along the inner ramps and weaving sections.

With a few exceptions, the locations with 100 or more crashes within 0.1 mile only occurred along the inner ramps and weaving sections. However, to provide perspective concerning the crashes in those areas, all crashes occurring along the inner and outer ramps and along the non-ramp sections of the interstates between the exit point of the first outer ramp and the entrance point of the second outer ramp were considered. Therefore, the sections of I-64 and I-265 that were included in the analysis were a distance of approximately 0.3 miles in each direction from the center of the interchange. There were approximately 300 crashes in the area around this interchange. Placing the crashes into the three groups described above, approximately 17% of the crashes occurred along I-64 and I-265; approximately 8% of the crashes occurred along the outer ramps; and approximately 75% of the crashes occurred along the inner ramps and the weaving sections. Rear end crashes accounted for 55% of the crashes along I-64 and I-265, which was more than double the percentage of the next highest type of crash. However, single vehicle crashes were more common along the outer ramps and the inner ramps and weaving sections accounting for 81% and 67% of the crashes, respectively. Among the objects struck by these vehicles were guardrails, embankments, light supports, bridge piers/rails, utility poles, signs, and, for one crash, a crash attenuator, which apparently served his intended purpose. Although the outer ramps had the fewest crashes, both of the fatalities that happened in this area occurred along or at the end of the ramp from southbound I-265 to westbound I-64. Both were single vehicle crashes; it was raining when one of these crashes occurred; alcohol involvement was indicated for the other. One of the four injury crashes also occurred along the ramp from southbound I-265 to westbound I-64. This crash was a single vehicle crash involving a motorcycle which struck an embankment. Two of the other injury crashes occurred weaving sections of I-64. One of these was a single vehicle crash in which the vehicle struck a guardrail. The other was a rear end crash in which one vehicle was avoiding an object in the roadway; it was raining when this crash occurred. The remaining injury crash occurred on the ramp from southbound I-265 along Shelbyville Road to eastbound I-64. This was a head on crash in which one of the vehicles was traveling in the wrong direction.

Bicycle and Pedestrian Crashes

During the three-year period of 2009-2011, four of the reported crashes involved bicyclists and 17 involved pedestrians. None of the crashes involving pedestrians or bicyclists resulted in a fatality. Four of the crashes involving pedestrians resulted in an injured individual. Of the crashes involving cyclists and pedestrians, seven crashes occurred along Shelbyville Road, and two crashes each occurred along LaGrange Road, Blankenbaker Parkway, and Hurstbourne Parkway.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> • I-64 from Hurstbourne Parkway to Blankenbaker Parkway • I-64 from Blankenbaker Parkway to I-265 • I-265 from Shelbyville Road to Old Henry Road • I-265 from Old Henry Road to LaGrange Road • English Station Road from Middletown Industrial Boulevard to Aiken Road (east leg) • Hurstbourne Parkway from Timberwood Circle to Shelbyville Road • Shelbyville Road from Old Shelbyville Road to I-265
LOS E:	<ul style="list-style-type: none"> • I-265 from I-64 to Shelbyville Road • English Station Road from Aiken Road (west leg) to Middletown Industrial Boulevard • Hurstbourne Parkway from Linn Station Road to Timberwood Circle • Shelbyville Road from Hurstbourne Parkway to Dorsey Lane • Shelbyville Road from Evergreen Road to Old Shelbyville Road
LOS F:	<ul style="list-style-type: none"> • Hurstbourne Parkway from I-64 to Linn Station Road • Shelbyville Road from Dorsey Lane to Evergreen Road

Projected 2030 Level of Service (LOS)

The roadways in TAD 40025 which are currently congested are projected to remain so or worsen, with the exception of Shelbyville Road where some presently-congested sections improve to LOS C or better (see Figure 40025-B). This may be due to the widening of Shelbyville Road for its entire length through TAD 40025. On the other hand, there are several roadways which are not presently congested but expect to be so by 2030.

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

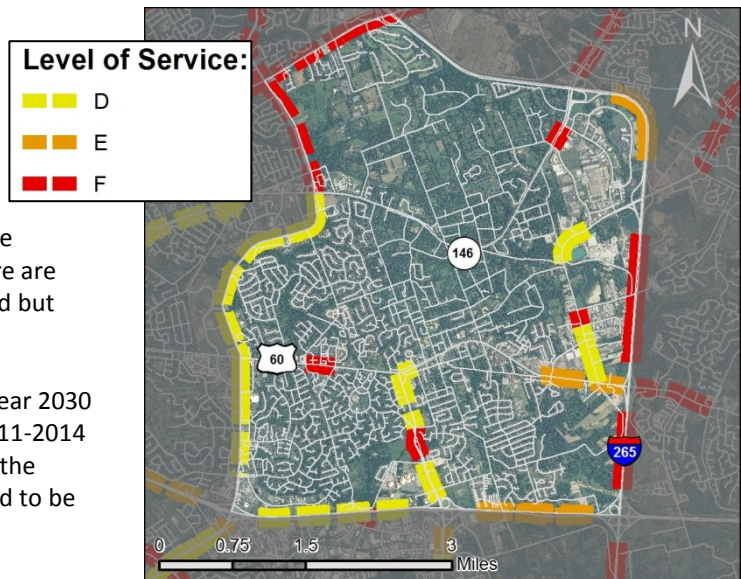


Figure 40025-B: Projected LOS shown.

LOS D:	<ul style="list-style-type: none"> • I-64 from Hurstbourne Parkway to Blankenbaker Parkway • Blankenbaker Parkway from I-64 to Watterson Trail (west leg) • Blankenbaker Parkway from Watterson Trail (east leg) to Shelbyville Road • English Station Road from Shelbyville Road to Middletown Industrial Boulevard • Hurstbourne Parkway from Linn Station Road to LaGrange Road • Old Henry Road from Avoca Road to Stanley Gault Parkway
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	<ul style="list-style-type: none"> • Shelbyville Road from Blankenbaker Parkway to Watterson Trail
LOS E:	<ul style="list-style-type: none"> • I-64 from Blankenbaker Parkway to I-265 • I-265 from Old Henry Road to LaGrange Road • Shelbyville Road from Old Shelbyville Road to I-265
LOS F:	<ul style="list-style-type: none"> • I-265 from I-64 to Shelbyville Road • I-265 from Shelbyville Road to Old Henry Road • Blankenbaker Parkway from Watterson Trail (west leg) to Watterson Trail (east leg) • English Station Road from Middletown Industrial Boulevard to Aiken Road (east leg) • Hurstbourne Parkway from LaGrange Road to Westport Road • LaGrange Road from Stanley Gault Parkway to Nelson Miller Parkway • Shelbyville Road from Dorsey Lane to Moser Road • Watterson Trail from I-64 to Moser Road • Westport Road from Hurstbourne Parkway to I-265

By 2030, many of the sections of the major roadways in this TAD are expected to be congested at LOS E or F while several other sections are expected to be operating at LOS D. This may impact freight movement and the general traffic flow in the area as well as access to many of the community amenities and workplaces.

Access to Community Amenities

TAD 40025 is relatively well established in terms of development patterns with the exception of an undeveloped section in the southeast corner of the TAD and other smaller undeveloped parcels scattered around the TAD. Approximately 75% of this area of this TAD consists of typical suburban residential development. About 80% of the area south of Shelbyville Road and about 30% of the area north of Shelbyville Road and south of the CSX railroad contains the more dense residential development. There are several prominent areas with various forms of commercial activity. They can be found in the southwestern portion (Plainview area), the east central portion (in and near Eastpoint Business Center), and along portions of Shelbyville Road, Westport Road and Hurstbourne Parkway. In the commercial areas, there are areas where the predominant activity is shopping. The highest concentration of shopping can be found along and near Shelbyville Road in the Middletown area with a smaller cluster of shopping locations near the Shelbyville Road/Hurstbourne Parkway intersection and a still smaller cluster around and near Hurstbourne Parkway and Linn Station Road in the Plainview area. Aside from the undeveloped areas, the open space in the TAD includes two golf courses, a large park (E.P. Tom Sawyer Park), and several smaller parks. Other community amenities include historic sites, a senior citizens community center in the Berrytown area, two community centers (in Berrytown and in Middletown), a library in Middletown, and a museum in Middletown.

As described above, there are a number of transit routes serving this area, including three—Route #15, Route #31, and Route #55—which provide day-long service. Unfortunately, Route #15 only travels a short distance into TAD 40025 in the area near LaGrange Road. Likewise, Route #55 only travels in this TAD along Westport Road; so its impact is similarly limited. Route #49X, Route #61X, and Route #78X, being express routes, only provide service during morning and afternoon peak periods. Despite these limitations, many of the community amenities do have access by transit. As previously mentioned, much of the shopping, the community centers in Middletown, and the museum are all along or within 0.25 mile of Shelbyville Road and could probably be accessed using Route #31. The community center in Berrytown can also be accessed by that bus. For those whose schedules would allow their travel to be limited to the morning and afternoon peak periods, the shopping area along Hurstbourne Parkway near I-64 could also be accessed by transit—specifically the Route #61X or the Route #78X. Unfortunately, much of the residential property in this TAD would require more than a 0.25 miles (the usually accepted limit) walk to have access to transit.

The pedestrian and bicycle access in TAD 40025 is rather limited. There are sidewalks in some areas, mostly along portions of major streets. It can be expected that pedestrian access is likely limited to short walks in localized portions of this TAD or as a means to access some other form of transportation, such as transit. There are some community amenities which can be accessed by walking. Shopping areas in the Middletown area, the area near the intersection of Shelbyville Road and Hurstbourne Parkway, the section of Hurstbourne Parkway between I-64 and Linn Station Road,

and the area of Linn Station Road near Hurstbourne Parkway can each be accessed from the residential areas near them. The community center and the museum in Middletown can likewise be accessed from the residential and shopping areas near them. The community center in Berrytown can be accessed from the residential area in Berrytown. However, it is unlikely that these areas would be accessed from each other by only walking. As for bicycle access, the amenities which are near bikeways include the residential area and the community center in Berrytown and a limited portion of the residential area and some of the shopping area in Middletown. The community center, the museum, and additional shopping area in Middletown could be accessed by bicycle if the rider is willing to ride on streets not listed as being bikeways. The challenge to bicycle use in this TAD is that the bikeways are almost exclusively on two-lane roads with little or no shoulders. Bicyclists could use side streets as a means to access some locations, but the side street network is not a rectangular grid nor does it have a consistent pattern from area to area. Consequently, bicyclists unfamiliar with a neighborhood would likely encounter difficulty attempting to travel through that neighborhood. Therefore, since the most likely route for bicycling will probably involve using the bikeways described previously, it is likely that only experienced bicyclists would attempt to access most of the amenities in this TAD by bicycle.

In contrast, the roadway system in TAD 40025 is generally well-developed. All of the community amenities could be accessed by vehicle. The problem associated with this form of access is congestion. As discussed above, several roadways including Shelbyville Road from Hurstbourne Parkway to I-265 and Hurstbourne Parkway from I-64 to Shelbyville Road are experiencing or projected to experience congestion at LOS D or worse. As previously mentioned, a large number of the amenities are located along or near those roads. For travel within the TAD, those familiar with the side streets may use them to avoid the congestion. This creates problems by increasing the traffic volumes on these neighborhood streets which were likely not designed either geometrically or structurally to accommodate this level of traffic. Further, those who are not residents of this TAD, who are likely to be less familiar with the neighborhood street system, may be reluctant to visit some of the amenities, such as shopping, due to the congestion.

Many sections of the major roadways in this TAD are congested or expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access by vehicle to the community amenities may well be affected. At present, the only likely alternative for most trips is transit. While it serves many amenities at present, it does not provide access for many of the residences. Further, since some of the buses operate on roadways which have or are projected to have significant congestion, the quality of the transit service will likely be compromised eventually. As described previously, pedestrian and bicycle access presently does not provide a generally acceptable alternative to vehicle travel. Projects to be implemented in this TAD should address the present and projected congestion on the roadways and enhance the pedestrian and bicycle facilities so that those modes can provide an alternative to travel by vehicle either by themselves or in concert with transit.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

- Bluegrass Health Network
- Central State Hospital
- Cummins Crosspoint LLC
- Kentucky Higher Education
- Kroger Administration Office
- NTS Development Company
- Rescare Homecare
- Southeast Christian Church
- UPS Air Cargo
- VMS

- Vogt Power International Inc.

There are eleven major employers (300+ employees) in TAD 40025. In addition to the major employers, there are also numerous—generally overlapping—locations where businesses are located in sufficient proximity that the employment density equals or exceeds 1,000 in a quarter-mile radius. In this TAD, these high density locations are clustered in several areas. In the I-64/Plainview area, the high density areas are located along Hurstbourne Parkway between I-64 and Linn Station Road and along Linn Station Road between Hurstbourne Parkway and Bentwood Way. Another high density area is located in the vicinity of the intersection of Shelbyville Road and Hurstbourne Parkway and extends along Hurstbourne Parkway from Seaton Springs Parkway to Weakley Way and along Shelbyville Road from Hurstbourne Parkway to east of Wildwood Lane. There is also a high density employment area in the Middletown area mainly along Shelbyville Road between Blankenbaker Parkway and English Station Road. These three areas tend to coincide with the high density shopping areas in the TAD, suggesting that much of this employment may be retail.

There are four other high density employment areas in the TAD. The larger ones are along Hurstbourne Parkway extending from Forest Green Boulevard to east of Dorsey Lane and in and near the Eastpoint Business Center in the vicinity of I-265, LaGrange Road, and Old Henry Road. The two smaller ones are near Westport Road near its intersections with Hurstbourne Parkway and with Freys Hill Road. For both of these smaller areas, achieving the high density status may be the result of being in proximity to businesses in other TADs on the other side of the road.

As described above, there are a number of transit routes serving this area. However, only Route #31 provides day-long service and access to a significant portion of the TAD. This route provides good access to the high employment area in the Eastpoint Business Center, generally good access to the high employment area in the Middletown area, and good access for about half of the businesses in the area near the intersection of Shelbyville Road and Hurstbourne Parkway. Access to the other half of the businesses is limited by the distance walking or biking from/to the bus and a lack of continuous sidewalks and bikeways. Access to workplaces in the I-64/Plainview area is good during the morning and afternoon peak periods but is missing at other times. The Route #61X and Route #78X buses which serve this area only operate during the morning and afternoon peak periods. A sidewalk exists along Linn Station Road to facilitate the use of transit; otherwise, bike and pedestrian facilities are sparse in this area. For the high employment areas along Westport Road, Route #55 provides good access by transit, and there are sidewalks to facilitate the use of this bus. The high employment area in TAD 40025 which has the poorest access by transit is the one along Hurstbourne Parkway from Forest Green Boulevard to east of Dorsey Lane. Route #15 operates on north of this area on LaGrange Road. However, there is a railroad which parallels LaGrange Road just to the south and inhibits movement between the LaGrange Road and the Ormsby Station development just south of the railroad and north of the high employment area in TAD 40025. Until a few years ago, there was a bus route that provided somewhat better access to this high employment area than what exists today. The route was discontinued in a budget-cutting move. Today, if someone wished to access the high employment area in TAD 40025 along Hurstbourne Parkway between Forest Green Boulevard and east of Dorsey Lane by transit, he/she would need to use the Route #15 (Market Street) bus and walk or ride a bike a minimum of 0.5 miles to do so. There are sidewalks to facilitate this access through walking, but the use of a bike would require riding on the streets.

The pedestrian and bicycle access in TAD 40025 is rather limited. There are sidewalks in some areas, mostly along portions of major streets. It can be expected that pedestrian access is likely limited to short walks in localized portions of this TAD or as a means to access some other form of transportation, such as transit. Consequently, it is likely that access to workplaces by walking will occur only when the walk is short and in the limited portion of the TAD where walking facilities are available. As for access to workplaces by bicycle, the bikeways in this TAD are almost exclusively on two lane roads with little or no shoulders. Even these bikeways do not provide access to many of the high employment areas. The exceptions are portions of the high employment area in the Middletown area and the edge of the high employment area in the Eastpoint Business Center. To access these high employment areas to a greater degree, bicyclists could use side streets. As for the rest of the TAD, bicyclists generally may choose to use side streets as a means to access many locations, but the side street network is not a rectangular grid nor does it have a consistent pattern from area to area. Consequently, bicyclists unfamiliar with a neighborhood would likely encounter difficulty attempting to travel through that neighborhood. Further, the circuitous nature of the routes they would have to follow

would most likely make the trip significantly longer than using the roads designated as being bikeways. Therefore, since the most likely route for bicycling will probably involve using the bikeways described previously, it is likely that only experienced bicyclists would attempt to access most of the workplaces in this TAD by bicycle.

In contrast, the roadway system in TAD 40025 is generally well developed. All of the workplaces may be accessed by vehicle. The problem associated with this form of access is congestion. As discussed above, several roadways including Shelbyville Road from Hurstbourne Parkway to I-265 and Hurstbourne Parkway from I-64 to Shelbyville Road are experiencing or projected to experience congestion at LOS D or worse. For travel within the TAD, those familiar with the side streets may use them to avoid the congestion. This creates problems by increasing the traffic volumes on these neighborhood streets which were likely not designed to accommodate this level of traffic. Further, those who are not residents of this TAD, who are likely to be less familiar with the neighborhood street system, will probably not use the side streets, which is likely a good thing, but may tire of driving in the congestion and eventually seek employment in another location, which could be a good thing or bad thing but which should not have to happen in either case.

Many sections of the major roadways in this TAD are congested or expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access by vehicle to workplaces may be affected. At present, the only likely alternative for most trips is transit. However, since some of the buses operate on roadways which have or are projected to have significant congestion, the quality of the transit service will likely be compromised eventually. As described previously, pedestrian and bicycle access presently does not provide a generally acceptable alternative to vehicle travel. Projects to be implemented in this TAD should address the present and projected congestion on the roadways and enhance the pedestrian and bicycle facilities, either along the roadways or as separate facilities, so that those modes can provide an alternative to travel by vehicle either by themselves or in concert with transit. Consideration should be given to reestablishing the transit route (or a portion of it) that was discontinued during the budget-cutting move.

Access for Persons with Disabilities and/or Older Adults

There are several facilities specifically for persons with disabilities and/or older adults or often utilized by these groups. There is a senior center, which serves as a nutrition site, located on Heafer Road in Berrytown. There are also several medical facilities located along or near US 60 in Middletown. However, there are no hospitals located in this TAD. The nearest hospital is located about two miles north of the northern corner of TAD 40025. There are also two hospitals located about four miles west of the southwestern corner of this TAD. (There is further discussion of this topic below in the section concerning "Access to Medical Facilities.")

As described above, there are a number of transit routes serving this area. Two of these—Route #31 and Route #55—provide day-long service in the areas where there are facilities for, or frequently used by, persons with disabilities and/or older adults. Most of the facilities described above can be accessed through the use of the Route #31 bus. The overwhelming majority of the facilities along or near US 60 in Middletown can be accessed using the Route #31 route, as can the senior center on Heafer Road in Berrytown. The facilities accessible using the Route #31 can also be accessed using paratransit buses.

The pedestrian and bicycle access in TAD 40025 is rather limited. There are sidewalks in some areas, mostly along portions of major streets. It can be expected that pedestrian access is likely limited to short walks in localized portions of this TAD or as a means to access some other form of transportation, such as transit. For this TAD, accessing the facilities for, or frequented by, persons with disabilities and/or older adults may occur when they live within walking distances of the facilities along or near US 60 in Middletown. Otherwise, there is no reason to expect their trips to be made by walking. As for bicycle access, the senior center in Berrytown could probably be accessed by bicycle. To access the medical facilities in Middletown by bicycle would require riding on streets not listed as bikeways. The challenge with bicycle use in this TAD is that the bikeways almost exclusively on two-lane roads with little or no shoulders. Bicyclists could use side streets as a means to access some locations, but the side street network is not a rectangular grid nor does it have a consistent pattern from area to area. Consequently, bicyclists unfamiliar with a neighborhood would likely encounter difficulty attempting to travel through that neighborhood. Therefore, since the most likely route

for bicycling will probably involve using the bikeways described previously, it is probably unlikely that persons with disabilities and/or older adults would attempt to access most facilities in this TAD by bicycle.

In contrast, the roadway system in TAD 40025 is generally well-developed. All of the facilities for persons with disabilities and/or older adults could be accessed by vehicle. The problem associated with this form of access is congestion. As discussed above, several roadways including Shelbyville Road from Hurstbourne Parkway to I-265 and Hurstbourne Parkway from I-64 to Shelbyville Road are experiencing or projected to experience congestion at LOS D or worse. For travel within the TAD, those familiar with the side streets may use them to avoid the congestion. This creates problems by increasing the traffic volumes on these neighborhood streets which were likely not designed to accommodate this level of traffic.

Many sections of the major roadways in this TAD are congested or expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access by vehicle to the facilities for, or frequented by, persons with disabilities and/or older adults may well be affected. At present, the main alternative for some trips is transit. However, since some of the buses operate on roadways which have or are projected to have significant congestion, the quality of the transit service will likely be compromised eventually. For a few trips in limited circumstances, access by walking or by bicycle may be an alternative, but for most trips, pedestrian and bicycle access does not provide a generally acceptable alternative to vehicle travel. Projects to be implemented in this TAD should address the present and projected congestion on the roadways. Enhancement of the pedestrian and bicycle facilities should be considered so that those modes, primarily in concert with transit, could provide an alternative to travel by vehicle.

Access to Education

There are five colleges/institutions in TAD 40025. Four of these are located in the southwestern portion of the TAD in the Plainview area with three clustered along Linn Station Road and one near Timberwood Circle. The fifth college is located in the Eastpoint Business Center. There are ten elementary, middle, or high schools in the TAD. All of the schools have parking lots, which appear to serve as locations for students to be dropped off and picked up.

As described above, there are a number of transit routes serving this area. Of these, the Route #31 provides day-long service and the best access to a significant portion of the TAD. This route provides good access to Shelbyville Road from Hurstbourne Parkway through the Middletown area to English Station Road and also to the Eastpoint Business Center. As such, it provides good access to four of the schools and one of the colleges. Access is also available to another of the schools for those willing to walk approximately 0.3 miles. There is still another school approximately 0.55 miles from Route #31, but since it is an elementary school, it is unlikely that many students from that school will use public transit and walk that distance. For those whose schedule allows them to travel only during the morning and afternoon peak periods, Route #61X and Route #78X, which serve the Plainview area, could provide good access for three of the colleges and access to the remaining college for those willing to walk 0.45 miles. For the remaining elementary schools, access by public transit does not seem to provide a reasonable alternative.

The pedestrian and bicycle access in TAD 40025 is rather limited. There are sidewalks in some areas, mostly along portions of major streets. It can be expected that pedestrian access is likely limited to short walks in localized portions of this TAD or as a means to access some other form of transportation, such as transit. Consequently, it is likely that access to the schools and colleges by walking will likely occur only when the walk is short and in the limited portion of the TAD where walking facilities are available. Walking facilities seem to be sufficient for these short walks in the areas around most of the college and schools. However, sidewalks are not as plentiful in the areas around Maryhurst Elementary School and Strayer University, the college in the Eastpoint Business Center. In these areas, the schools/colleges are not connected to surrounding residential areas, as with the other schools/colleges. Nevertheless, in general, walking to/from the educational facilities would seem to be a reasonable alternative for many of the schools/colleges. As for access to educational facilities by bicycle, the bikeways in this TAD are almost exclusively on two lane roads with little or no shoulders. Even these bikeways do not provide access to most of the areas where there are educational facilities. However, the bikeways do provide a connection to two of the schools in the Middletown area and to the Anchorage Public School. Two other schools in the Middletown area can be accessed using the bikeways and

one or two side streets and/or lower-volume streets. A third school in the area might also have access except it is an elementary school and some riding along a major (albeit lower-volume) street would be necessary. Therefore, it is unlikely that that school would be accessed by bicycle. As for the other school, Strayer University in the Eastpoint Business Center also can be accessed by the use of a bikeway and two or three side streets. However, the other schools and colleges are not generally accessible by bicycle. For the other schools along side streets, it would seem that bicyclists could use side streets as a means to access these schools, but the side street network is not a rectangular grid nor does it have a consistent pattern from area to area. Consequently, bicyclists unfamiliar with a neighborhood would likely encounter difficulty attempting to travel through that neighborhood. Further, the circuitous nature of the routes they would have to follow would most likely make the trip significantly longer than using the roads designated as being bikeways. Therefore, since the most likely route for bicycling for the other schools will probably involve using the bikeways described previously, it is unlikely that parents would allow their elementary-school age children to access their schools by bicycle and questionable whether older students would attempt to access the other educational facilities by bicycle. In summary, it is likely that only experienced bicyclists would attempt to access most of the educational facilities in this TAD by bicycle.

In contrast, the roadway system in TAD 40025 is generally well developed. All of the educational facilities may be accessed by vehicle, regardless of whether the student or a parent was driving. The problem associated with this form of access is congestion. As discussed above, several roadways including Shelbyville Road from Hurstbourne Parkway to I-265 and Hurstbourne Parkway from I-64 to Shelbyville Road are experiencing or projected to experience congestion at LOS D or worse. Travel to/from the four colleges in the Plainview area and the seven schools near Shelbyville Road in or near the Middletown area may be affected by the congestion those roads are presently experiencing. Although projects are under consideration which might alleviate some of that congestion, travel to/from these colleges/schools will likely continue to be affected somewhat. Further, the areas near Strayer University, the college in the Eastpoint Business Center, and Maryhurst Elementary School are projected to have increased congestion in the future. In general, for travel within the TAD, those familiar with the side streets may use them to avoid the congestion. This will create problems by increasing the traffic volumes on these neighborhood streets which were likely not designed to accommodate this level of traffic. Further, those who are not residents of this TAD, who are likely to be less familiar with the neighborhood street system, will probably not use the side streets, but they will still endure the problems of delay and increased accident risk associated with higher congestion.

Many sections of the major roadways in this TAD are congested or expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access by vehicle to educational facilities may well be affected. At present, the only likely alternative for some trips is transit. For a few other trips, access by walking or bicycling may be an alternative, but for many of the other trips, there is not a good alternative. Further, since some of the buses operate on roadways which have or are projected to have significant congestion, the quality of the transit service will likely be compromised eventually. As described previously, pedestrian and bicycle access presently does not provide a generally acceptable alternative to vehicle travel except for a limited number of trips. Projects to be implemented in this TAD should address the present and projected congestion on the roadways. Consideration should be given to enhancing the pedestrian and bicycle facilities in this TAD so that those modes, particularly in concert with transit, can provide a better alternative to travel by vehicle.

Access to Government Services

There are 22 government facilities in or near TAD 40025: four city halls, one library, three ambulance/fire stations, one police station, a large park, three smaller parks, a swim and tennis club, and eight miscellaneous offices. Eight of these are located along or near Shelbyville Road from near the western edge of the TAD through Middletown to English Station Road; one is located along Heafer Road in Berrytown; one is located in the Eastpoint Business Center; four are located along Linn Station Road and Timberwood Circle in the Plainview area; five are located in northwestern portion of the TAD around and near the E.P. "Tom" Sawyer Park—including the park itself; and three are associated with the City of Anchorage which are located near Park Road. There is one cluster of government services in this TAD, located in the eastern portion of Middletown essentially from the Evergreen Road area to the area where Shelbyville Road and Old Shelbyville Road intersect.

As described above, there are a number of transit routes serving this area. Two of these—Route #15 and Route #31—provide day-long service and provide access to at least one location where there is government service. The eight facilities described above along Shelbyville Road, the one along Heafer Road, and the one in the Eastpoint Business Center can be accessed through the use of Route #31. The four in the Plainview area can be accessed using Route #61X or Route #78X. However, these are express routes and only provide service during morning and afternoon peak periods. One of the sites located near the E.P. “Tom” Sawyer Park and the south edge of the park itself can be accessed using Route #15. Another of the sites in or near the park can be accessed using the paratransit service that complements the fixed-route service. Accessing the other sites by transit requires walking a significantly distance longer than the 0.25 miles that is normally expected of transit riders. Therefore, these sites are considered inaccessible using transit alone.

The pedestrian and bicycle access in TAD 40025 is rather limited. There are sidewalks in some areas, mostly along portions of major streets. It can be expected that pedestrian access is likely limited to short walks in localized portions of this TAD or as a means to access some other form of transportation, such as transit. There are residential areas within walking distance of sixteen of the government service locations. So it can be expected that it is likely that some of these locations may be accessed by walking. Otherwise, there is little reason to expect that many trips will be made by walking. As for bicycle access, the bikeways in this TAD are almost exclusively on two-lane roads with little or no shoulders. Even these bikeways do not provide access to most of the areas where there are sites providing governmental services. However, there are several instances where the bikeways can provide access between the transit system and some sites providing government services. Some of the bikeways provide a connection between Route #15 and Route #31, and four of the six sites providing government services, which are otherwise inaccessible by transit. Therefore, bikeways can be used to augment the transit service to allow most, if not all, of the sites providing government services to be accessed by a bus route. As an alternative to the bikeways, bicyclists could use side streets as a means to access some locations, but the side street network is not a rectangular grid nor does it have a consistent pattern from area to area. Consequently, bicyclists unfamiliar with a neighborhood would likely encounter difficulty attempting to travel through that neighborhood. Nevertheless, because the nature of the bikeways requires bicyclists to ride in the lanes with vehicular traffic, their use will likely be limited to experienced bicyclists.

In contrast, the roadway system in TAD 40025 is generally well-developed. All of the facilities may be accessed by vehicle. The problem associated with this form of access is congestion. As discussed above, several roadways including Shelbyville Road from Hurstbourne Parkway to I-265 and Hurstbourne Parkway from I-64 to Shelbyville Road are experiencing or projected to experience congestion at LOS D or worse. As previously mentioned, eight of the locations providing government services are located along or near Shelbyville Road. Four others are in the Plainview area near Hurstbourne Parkway. Five other government services facilities are near Hurstbourne Parkway and Westport Road, where congestion is projected to occur in the future. The congestion occurring or projected to occur in these areas is presenting or will present a problem for those wishing to access the government services facilities located there. For travel within the TAD, those familiar with the side streets may use them to avoid the congestion. This creates problems by increasing the traffic volumes on these neighborhood streets which were likely not designed to accommodate this level of traffic.

Many sections of the major roadways in this TAD are congested or expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access by vehicle to the sites providing government services may well be affected. At present, the only likely alternative for some trips is transit. For other trips, the alternative is a combination of transit and the use of bikeways, but this alternative is probably only for experienced bicyclists. For non-experienced bicyclists and non-bike riders, there is probably not a good alternative. Further, since some of the buses operate on roadways which have or are projected to have significant congestion, the quality of the transit service will likely be compromised eventually. As described previously, pedestrian and bicycle access presently does not provide a generally acceptable alternative to vehicle travel for some of the trips to sites providing government services. Projects to be implemented in this TAD should address the present and projected congestion on the roadways. Consideration should be given to enhancing the pedestrian and bicycle facilities so that those modes, particularly in concert with transit, could be considered to provide an alternative to travel by vehicle.

Access to Medical Facilities

There are no hospitals in TAD 40025. The nearest hospital is Norton Brownsboro Hospital located at 4960 Norton Healthcare Boulevard. It is located in TAD 40028 about two miles north of the northern corner of TAD 40025. There are also two hospitals located about four miles west of the southwestern corner of this TAD. One is Norton Suburban Hospital located at 4001 Dutchmans Lane in TAD 40008, and the other is Baptist Hospital East, which is located north of I-64 in TAD 40009. Although there is no hospital, there are a significant number of medical and associated facilities located in this TAD. There is a cluster of doctor's and dentist's offices and therapy locations located in the area along Shelbyville Road between Daisy Lane and Juneau Drive and along Evergreen Road between Old Shelbyville Road and Brinley Avenue. Access to the hospitals in the other TADs will be discussed first; then access to the cluster of doctor's and dentist's offices and therapy locations will be discussed.

The mode of access a patient of any hospital would use would depend on the service/treatment to be provided at the hospital. The expected mode of access for a number of procedures would be by vehicle. Certainly, it would seem reasonable that those taken to the hospital in an emergency situation would access the hospital by vehicle. Probably the majority of times a patient goes to a hospital, he/she would travel by vehicle. The main street connection between TAD 40025 and TAD 40028 is I-265, although a path utilizing Hurstbourne Parkway and KY 22 (Brownsboro Road) could be used. I-265 is presently congested at LOS D, and the congestion is projected to worsen to LOS E in the future. The projected congestion along the Hurstbourne Parkway/Brownsboro Road path is expected to range from LOS D to LOS F. So access to the hospital in TAD 40028 is affected by congestion at present and is projected to be worse in the future. The path used in accessing the hospitals in TADs 40008 and 40009 would likely involve using I-64, I-264, Breckenridge Lane, and either Dutchmans Lane—for the hospital in TAD 40008—or Kresge Way—for the hospital in TAD 40009. I-64 and I-264 are presently congested at LOS E and LOS D, respectively, and are projected to remain so or worsen. Breckenridge Lane and Dutchmans Lane are presently congested at LOS F but are projected to improve to LOS D. Nevertheless, they are projected to remain congested. Only Kresge Way is presently operating at better than LOS D and projected to remain that way. However, the path necessary to reach Kresge Way requires a greater distance travelled on the congestion sections of Breckenridge Lane. In summary, the paths used to access any of the hospitals generally involve congestion and are projected to remain congested in the future. This congestion would be concern for access to any type of facility. However, given that this discussion concerns access to hospitals, this is a situation that definitely needs consideration.

Aside from the medical situations implicit in the discussion above, other patients and those who are visiting the hospital for another reason might use an alternative mode. A possible alternative would be the use of transit. Travel from the northern edge of TAD 40025 to the hospital in TAD 40028 could be accomplished using Route #55 without the need to transfer to another route. For a very few living near the I-265/LaGrange Road interchange, they could possibly access Route #64 in or near the interchange and ride to the hospital without a transfer. However, Route #64 is an express route and only operates during the morning and afternoon peak periods. Further, it only operates in a westbound direction during the morning and in the eastbound direction in the afternoon peak periods. The rider could travel to the hospital in the morning and from the hospital in the afternoon. It is probable that only someone working at the hospital would consider traveling in this manner. Otherwise, to use transit, there would be the need to transfer from one route to another, and possibly to another route, and it is likely that the trip would be lengthy and time consuming. Travel to the hospitals in TADs 40008 and 40009 would require at least one transfer from any part of TAD 40025. From most parts of TAD 40025, a second transfer would be required. Therefore, it is likely that the trip from TAD 40025 to the hospitals in either TAD 40008 or TAD 40009 would be lengthy and time consuming if taken by transit. In summary, those at the northern edge of TAD 40025 might use transit to access the hospital in TAD 40028. Otherwise, accessing the hospitals by transit is probably impractical.

It is unlikely that any of the hospitals would be accessed by walking or by bicycling. The length of the trip to any of the hospitals is such that it is unreasonable to expect that it would be made by walking. Accessing any of these hospitals by bicycle would mean using two or more bikeways and some other streets traveling to/from the hospital. The trips would not follow a direct path to/from the hospital and would likely be quite time-consuming.

There are a number of modes which can be used to access the cluster of doctor's and dentist's offices and therapy locations located near the intersection of Shelbyville Road and Evergreen Road. As previously discussed, the roadway system is generally well-developed. The problem associated with this form of access is congestion. In particular, Shelbyville Road from Hurstbourne Parkway to I-265 is experiencing or projected to experience congestion at LOS D or worse. The congestion occurring or projected to occur in this area is presenting or will present a problem for those wishing to access the medical facilities located here. A potential alternative mode is public transit. Route #31 provides day-long service to this area. Further, paratransit service, which complements the fixed-route service, may be used by persons with disabilities and older adults. While the pedestrian and bicycle access in TAD 40025 is rather limited, this area is better served than most of the TAD. There are sidewalks along one or both sides of Shelbyville Road and Evergreen Road in the area where the medical facilities exist. So walking is a reasonable mode once a person arrives in the general area of Shelbyville Road and Evergreen Road. As for bicycle access, there is also a bikeway along Madison Avenue, which parallels Evergreen Road and is about four to five blocks to the west. This bikeway provides a path to the southern border of the TAD and connects with other bikeways to reach a large area in the northern portion of the TAD. However, these bikeways generally require the bicyclist to ride in the lanes with the vehicular traffic. Because of this, their use will likely be limited to experienced bicyclists.

Access to medical facilities in TAD 40025 involves two issues: access to a hospital and access to doctor's and dentist's offices and therapy locations. For the hospitals, any significant issues with access have to do with travel to the other TADs. The most direct paths involve the use of various interstate facilities, as well as any surface streets within TAD 40025 that are used to access the interstate system. As described above, sections of I-64, I-264, and I-265 along the path to the hospitals are presently congested at LOS D or E and are expected to remain so or get worse in the future. In addition, sections of surface streets such as Shelbyville Road, Hurstbourne Parkway, Blankenbaker Parkway, Brownsboro Road, LaGrange Road, Old Henry Road, and English Station Road that may be used to access the hospitals or to access the interstate system to access the hospitals are congested or are projected to be congested at those levels in the future. For the doctor's and dentist's offices and therapy locations, there is a wider range of choices. Access by vehicle is possible subject to the congestion problems described above. Public transit can be used to provide access along the Shelbyville Road corridor, although the buses would be subject to the congestion on that street. A bikeway is available near the area where the other medical facilities are located, but there challenge for those who do wish to ride in the lanes with vehicular traffic. Finally, there are sidewalks in the immediate area, but the range for walking is probably the immediate area. In summary, public transit in concert with walking or the use of the bikeways probably can provide an alternative to the use of a vehicle, but many may still choose access by vehicle. Projects to be implemented in and near this TAD should address the present and projected congestion on the roadways. Good access to hospitals would seem to depend on relieving this present and projected congestion. Although the access to the doctor's and dentist's offices and therapy locations by alternate modes is better than for most of the TAD, projects to be implemented in that area should consider continuing to improve access by those modes. As an example, sidewalks on both sides of the streets could be considered.

Freight Access

The roadways in TAD 40025 that are part of the KIPDA Freight Network include I-64, I-265, Shelbyville Road, Blankenbaker Parkway, Hurstbourne Parkway between I-64 and Shelbyville Road, KY 3084 (Old Henry Road), English Station Road, Stanley Gault Parkway, and a small section of LaGrange Road between I-265 and Stanley Gault Parkway. The interstate connections provide a vital role allowing for freight movement north and south, and east to west—basically connecting to the rest of the national interstate system. The other roadways allow connections to freight distributors and to businesses that need freight deliveries. There are nine freight distributors in this TAD. All but one are located in the Eastpoint Business Center. The freight distributors located in the Eastpoint Business Center are located in the Title VI/Environmental Justice area of this TAD. The other one is located near I-265 north of Aiken Road and south of Avoca Road.

The major issue facing freight in this TAD is the current and projected levels of service. The roadways presently operating at a LOS worse than C are listed in the section above concerning congestion. Many of the roadways that serve as part of the KIPDA Freight Network in this TAD are also among those which are operating at a LOS worse than C. Specifically, I-64, I-265, Shelbyville Road, Hurstbourne Parkway between I-64 and Shelbyville Road, and a section of

English Station Road can be found in both groups. This group constitutes all of the roadways in TAD 40025 on the KIPDA Freight Network except for a few near the eastern edge of the TAD. Further, the projected level of service (LOS) for 2030 indicates that the many of the roadways in TAD 40025 that are currently congested are expected to remain so or worsen. Specifically, I-64 from Blankenbaker Parkway to I-265, I-265 from I-64 to LaGrange Road, Shelbyville Road from Old Shelbyville Road to English Station Road, and a small section of English Station Road from Middletown Industrial Boulevard to Aiken Road (east) are projected to worsen. Some of the congestion along some sections of Shelbyville Road and Hurstbourne Parkway between I-64 and Shelbyville Road lessens, so that the LOS is C or better, presumably due the addition of travel lanes. However, Blankenbaker Parkway, Westport Road, Hurstbourne Parkway between Shelbyville Road and Westport Road, and small sections of LaGrange Road and Old Henry Road are all projected to be operating at a LOS worse than C in the future as opposed to operating at LOS C or better at present.

Many sections of the major roadways in this TAD are congested or expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Freight access by vehicle may well be affected. Access by alternate modes is not really an option for freight except for employees accessing their workplaces. Projects to be implemented in this TAD should address the present and projected congestion on the roadways.

Future Socioeconomic Conditions

Most of TAD 40025 is currently mostly built out and not anticipated to see significant changes by the year 2030 in the number of jobs, households, or non-group quarters population. The three socioeconomic indicators are forecasted to see low to moderate growth are:

- Households: Low to moderate growth in the northwest corner of the TAD
- Employment: Low to moderate growth along the Shelbyville Road corridor and along the eastern segment of Brownsboro Road
- Population: Low to moderate growth in the northwest corner of the TAD

This scenario is not unexpected given the current density patterns in TAD 40025. Of the three socio-economic indicators the increase in the number of jobs and households raises the most interest. In general terms, economic growth is recognized as a positive indicator for the TAD. Yet, the corridors that are anticipated to see degradation in the LOS will suffer without the involvement of mitigating efforts to reduce the negative impact on the transportation system and could result in being counterproductive to the forecast growth in jobs.

Issues and Opportunities

- The major issue of concern in TAD 40025 is the present and projected future congestion along many sections of the major roadways. Major sections of I-64, I-265, Shelbyville Road, Blankenbaker Parkway, Westport Road, Hurstbourne Parkway, and small sections of LaGrange Road and English Station Road are congested or expected to be congested at LOS E or F by 2030 while several other sections are expected to be operating at LOS D. Access by vehicle to the sites providing many types of services may well be affected. Projects to be implemented need to consider ways to address this congestion.
- At present, the only likely alternative to accessing sites by vehicle for most trips is transit. For some trips, the use of bikeways in concert with transit may be an alternative, but this alternative is probably only for experienced bicyclists. For non-experienced bicyclists and non-bike riders, there is a good alternative only in those areas with sidewalks. Further, since some of the buses operate on roadways which have or are projected to have significant congestion, the quality of the transit service will likely be compromised eventually. Projects to be implemented should consider if transit service can be an effective alternative, and if so, determine how to provide it.
- Pedestrian and bicycle access presently does not provide a generally acceptable alternative to vehicle travel for most of the trips to sites in this TAD, except when used in concert with transit, and then only in limited cases. This situation occurs, in part, because sidewalks are scarce in some areas and the bikeways often utilize two-lane roads without shoulders, and in part, because the network of side streets is not a rectangular grid nor does it have a consistent pattern from area to area thus impeding both walkers and bicyclists from traveling a reasonably direct path from the origin of their trip to its destination. This situation presents an opportunity to increase the number of alternatives for those traveling in this TAD. Projects to be implemented need to consider if pedestrian and/or bicycle

facilities can be an alternative to or an enhancement of the existing transportation system. If they can be, consideration should be given determining how to implement them.

Related Plans and Studies

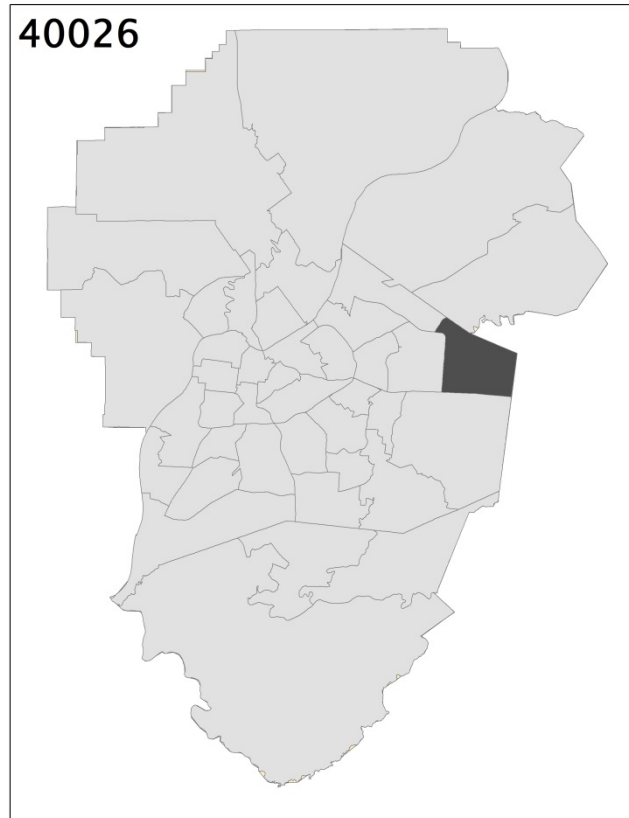
- Cornerstone 2020 Comprehensive Plan (2013)
- Hurstbourne Transportation Study and Small Area Plan (2006)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40026 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40026 is located in eastern Jefferson County, is within Louisville Metro, and borders with Oldham and Shelby Counties. The TAD is also bordered to its west and south by I-265 and I-64. The land use in TAD 40026 is a mix of residential and agricultural along with forested tracts of property. The agricultural property is a combination of open pasture and crop land. Two parks that are a regional attraction are Long Run Park and The Parklands – Beckley Creek. TAD 40026 is anticipated to see moderate growth in households and non-group quarters population and low to moderate growth in jobs.

Area and Socioeconomic Information

Area: Approximately 14,129 acres
Non-Group Quarters Population (2010): 22,074
Number of Households (2010): 8,039
Number of Jobs (2000): 1,837

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) does not identify any Title VI/Environmental Justice areas in TAD 40026.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-265* from I-64 to KY 146 (La Grange Road) • I-64* from Shelby County line to I-265
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • N/A
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 60* (Shelbyville Road) from I-265 to Bircham Road
Urban Minor Arterial	<ul style="list-style-type: none"> • KY 146 (La Grange Road) from I-265 to Oldham County line • KY 3084 (Old Henry Road) from I-265 to just east of Arnold Palmer Boulevard
Urban Collector	<ul style="list-style-type: none"> • Factory Lane from Chamberlain Lane (in TAD 40028) to KY 3084 (Old Henry Road) • KY 3084 (Old Henry Road) from just east of Arnold Palmer Boulevard to Oldham County line
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • US 60 (Shelbyville Road) from Bircham Road to Shelby County line
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • KY 1531 (Eastwood Fisherville Road) from KY 148 (Taylorsville Road)(in TAD 40023) to US 60 (Shelbyville Road) • KY 1531 (Johnson Road) from US 60 (Shelbyville Road) to Aiken Road • Aiken Road from KY 1531 (Johnson Road) to Shelby County line

*Denotes part of the National Highway System (NHS)

Schools

- | | |
|---|--|
| <ul style="list-style-type: none"> • Christian Academy English Station • Covenant Christian Academy | <ul style="list-style-type: none"> • Saint Patrick Middle School • Stopher Elementary School |
|---|--|

Colleges & Universities

- N/A

Parks

- | | |
|--|---|
| <ul style="list-style-type: none"> • Eastwood Park • Long Run Park | <ul style="list-style-type: none"> • The Parklands – Beckley Creek |
|--|---|

Other Area of Interest/Significance

- Long Run Golf Course

Historic

- Long Run Baptist Church and Cemetery
- Robert Hord House
- Yager House

Transit

TAD 40026 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections within and beyond the TAD:

- Route #64X – Fincastle/Forest Springs Express

Park and Ride

There are no identified Park and Ride lots in TAD 40026.

Public Comments

I-64

- I-64 interchange south of Eastwood would help create a village community where businesses can be developed around it. This project is important to this area.

Safety

836 crashes were reported in TAD 40026 from 2009 through 2011. There was one fatal crash from 2009-2011. During this three year period, three crashes involved a pedestrian and four a bicyclist.

Fatalities

There was one fatal crash in TAD 40026 that occurred on Gilliland Road in the southeastern section of the TAD. According to the crash information, this crash involved a single speeding vehicle that hit a fence and then a tree. The area around the crash location is rural and wooded, with some agricultural uses.

High Crash Locations

Utilizing GIS analysis, there were three areas identified as high crash locations during the 2009-2011 time frame in TAD 40026. All three locations are shared with neighboring TADs (40023, 40025 and 40028). Two of the high crash locations occurred on I-64 and I-265 with the third in the ramp area of I-265 and LaGrange Road. A high crash location is identified by the number of crashes that occurred within 0.10 mile of each other over the three year period. Areas where there were between 100-199 crashes occurring within a 0.10 mile of each other are considered high crash locations.

LaGrange Road/I-265 Area (see Figure 40026-A)

This high crash location is shared with TAD 40028. There are several possible contributing factors to this area being identified as a high crash location with 100-199 crashes occurring within 0.10 mile of each other from 2009 through 2011. The interchange area of I-265 and LaGrange Road is an access point for large industry (Kentucky Ford Plant, Westport Industrial Center, Westport Distribution Center) and a dense residential area. LaGrange Road serves as one access point for those persons in Oldham County wishing to access opportunities in the larger, more metropolitan, Jefferson County, and I-265 serves as an access point to the remainder of the KIPDA region and beyond. A majority of these crashes in the interchange area occur between the I-265 exit ramp and Factory Lane. In this area are a couple of small strip shopping centers which may introduce some weaving left turn movements. An issue that may also contribute to the frequency of crashes in this area is found on LaGrange Road, where the northbound traffic must deal with a lane drop at the Factory Lane intersection necessitating additional weaving for persons wishing to continue to travel north on LaGrange Road instead of turning right into the strip shopping opportunities. This area currently operates above Level of Service D, but is anticipated to degrade to LOS F by 2030. Given the utilization of LaGrange Road for industrial, commercial and residential uses, this high crash location may negatively impact access and economic activity if left unmitigated.

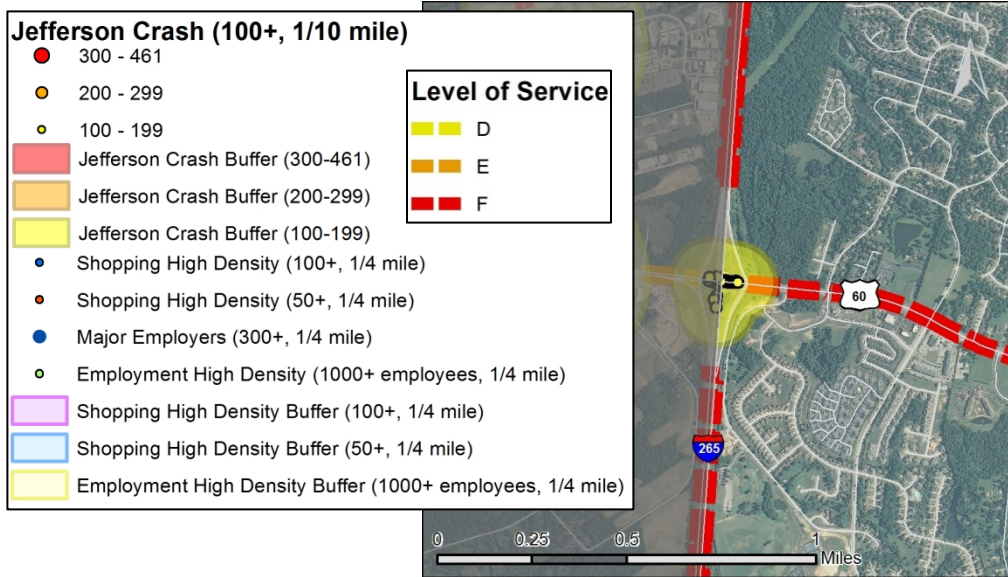


Figure 40026-B: High crash location at Shelbyville Road and I-265 between TAD 40025 and TAD 40026.

Shelbyville Road/I-265 Interchange (see Figure 40026-B)

The crashes in this high crash location (100-199 crashes within 0.10 mile of each other from 2009 through 2011) are equally disbursed between TAD 40027 (west of TAD 40026) and TAD 40026. This interchange is a convergence of two roadways which serve both regional access and local access. Shelbyville Road is one of the primary access points for persons in Shelby County (a rapidly growing county) to access Jefferson County, a larger, more metropolitan area. There are also attractions both in the immediate vicinity (high density employment and shopping opportunities along Shelbyville Road just west of the interchange area) and further west into Jefferson County. Aggravating this situation is the level of service (LOS) in this area. Currently level of service on Shelbyville Road west of I-265 is at LOS D and east of I-265 at LOS E with a forecast LOS E for west of I-265 and LOS F for east of I-265. This section of I-265 provides regional access, but also serves as a local access road for those persons who may elect to use I-265 as a means of accessing other roadways in this eastern portion of Jefferson County. When exiting from I-265 to westbound Shelbyville Road there are two lanes available to make this movement that cross over the left turn lane used for going from Shelbyville Road west to I-265 south. The crossing movement on Shelbyville Road related to these two actions may increase the likelihood of a crash, in part, due to the limited space for weaving and lane crossing to occur. Another contributing issue to his particular set of movements may be associated with the vehicle queue for the left turn from Shelbyville Road west to I-

When exiting from I-265 to westbound Shelbyville Road there are two lanes available to make this movement that cross over the left turn lane used for going from Shelbyville Road west to I-265 south. The crossing movement on Shelbyville Road related to these two actions may increase the likelihood of a crash, in part, due to the limited space for weaving and lane crossing to occur. Another contributing issue to his particular set of movements may be associated with the vehicle queue for the left turn from Shelbyville Road west to I-

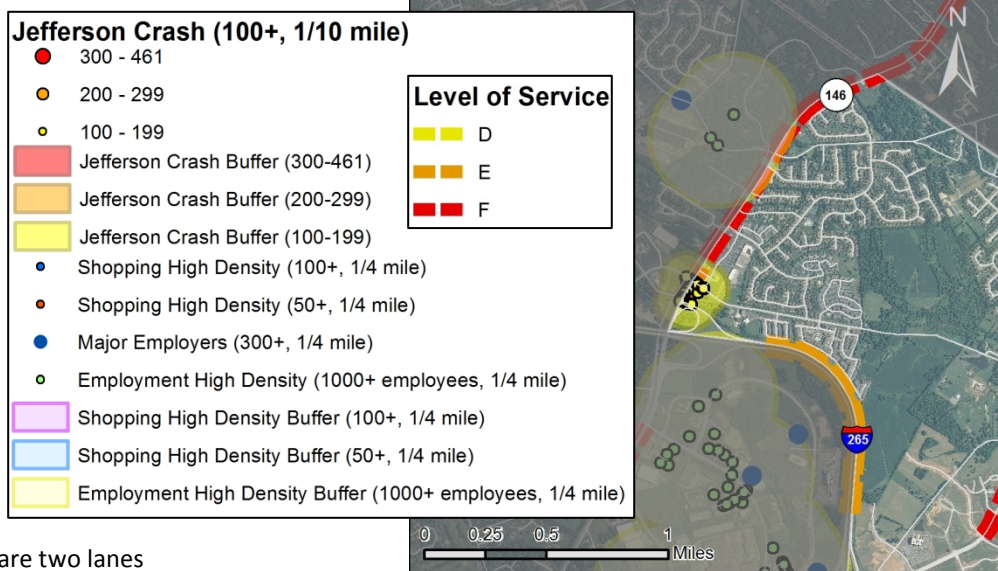


Figure 40026-A: High crash area at LaGrange Road and I-265 and projected Year 2030 LOS.

265 south stretching across the exit ramp from I-265 north to Shelbyville Road west. Given the role this area plays in both local and regional access, leaving this area unmitigated may result in delayed travel times and economic impacts resulting from an extended delay in freight distribution.

I-64/I-265 Interchange Area

This high crash location, with 100-199 crashes within 0.10 mile of each other, is shared with TAD 40023 (south of TAD 40026) and 40025 (west of 40026). The crashes are dispersed on both the ramps and on I-265 between the ramps to I-64. The primary issue here may be the stop-and-go traffic of vehicles both on the ramps and on I-265 leading to the ramps. A majority of the crashes occur in the southern portion of the ramp area on I-265 (in TAD 40023) and may likely be a result of the vehicle weave occurring as traffic travels from I-64 east to I-265 north. The crashes occurred on all segments of the ramps to and from I-64 and I-265, indicating that the volume of traffic is stacking on the ramps, resulting in conditions favorable for crashes. Given this is the convergence of two interstates that serve the region and beyond, this area will continue to produce travel delays and a slowdown in freight travel if left unmitigated.

Bicycle and Pedestrian Crashes

None of the crashes involving a bicycle or pedestrian resulted in a fatality. While the crashes involving bicycles and pedestrians occurred throughout the TAD, three of the crashes (two bicycle and one pedestrian) occurred within 0.70 miles of each other on or in proximity to Factory Lane between LaGrange Road and Emperor Lane. A review of the area and crash information reveals no clear indication as to the cause of the bicycle and pedestrian crashes. The area around the crash locations is primarily a dense residential area with a strip shopping center at the intersection of Factory Lane and LaGrange Road.

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

<i>LOS D:</i>	<ul style="list-style-type: none"> • I-265 from LaGrange Road to Shelbyville Road • Shelbyville Road from Eastwood Cut Off Road to Eastwood Cut Off Road
<i>LOS E:</i>	<ul style="list-style-type: none"> • I-265 from Shelbyville Road to I-64 • Shelbyville Road from I-265 to South English Station Road/Lake Forest Parkway

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are:

<i>LOS E:</i>	<ul style="list-style-type: none"> • I-265 from LaGrange Road to Old Henry Road
<i>LOS F:</i>	<ul style="list-style-type: none"> • LaGrange Road from Oldham County line to Collins Lane • Reamers Road from Village Green Boulevard to Old Henry Road • Old Henry Road from Reamers Road to Bush Farm Road • Shelbyville Road from I-265 to South Beckley Station Road/North Beckley Station Road • Shelbyville Road from Eastwood Cut Off Road to Long Run Road • I-265 from Old Henry Road to I-64

Projected LOS of service raises issues for the TAD. Many of the identified corridors provide not only access within the TAD but also provide regional access. The impact of leaving these corridors unmitigated may result in delayed in travel times and reduced freight travel both within the region and travel to and from the region.

Access to Community Amenities

In this TAD that is mostly open space with some residential, there are no clusters of community amenities (3+ community amenities within 0.25 miles of each other). Given the overall density of this TAD, this is expected. There are

four schools, two government facilities, and parks, but none of them are close enough to each other to constitute a significant attraction in and of itself. The closest cluster of community amenities lies west of TAD 40026 in a high density shopping and employment area west of I-265 on Shelbyville Road in TAD 40025.

TAD 40026 has very little public transit with one express route that serves along the edge of the TAD on LaGrange Road. There is a transit route (Route #31 – Shelbyville Road) just west of the TAD in TAD 40025 that could be used for access to other areas of the region. Accessing Route #31 may be hazardous for persons on foot or bicycle as they would have to traverse I-265 interchanges at Old Henry Road and LaGrange Road.

Evergreen Road/Shelbyville Road Area (in TAD 40025)

This community amenities cluster is in TAD 40025 and is comprised of several community attractions, including high density retail (50+ shopping opportunities within 0.25 miles of each other), schools, community center, public library, museum, and government facilities. For purposes of this report, access from TAD 40026 to this cluster will be examined.

Currently, the only available access from TAD 40026 to this cluster is by auto, truck, or shared use path that extends from Beckley Station Road, through the interchange area, west to English Station Road. The shared use path does provide pedestrian and/or bicycle access from the residential area just east of the interchange. Yet there are limited sidewalks east of the residential area on Shelbyville Road. In the cluster itself, there are intermittent sidewalks and public transit, but walkers would need to traverse nearly 0.50 miles after getting past the interchange along a high volume roadway, high crash area to reach them. This area is also anticipated to degrade in terms of level of service to LOS F by 2030. Just east of the TAD 40026 border is a dense residential area which may benefit from additional options to access the Community Amenities Cluster in TAD 40025.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks.

Major Employers

There are no major employers or clusters of workplace areas in TAD 40026. There are some opportunities in neighboring TADs 40025 and 40028. Because of the absence of public transit and only intermittent suburban residential patterns that, due to the distance between them, have resulted in limited pedestrian facilities on the major roadways they share, there are few transportation options. This report will examine the connections from TAD 40026 to the workplace options found in TADs 40025 and 40028.

LaGrange Road and Westport Road Area (in TAD 40028)

In TAD 40028 there is a cluster of high density employment (1000+ employees within 0.25 miles of each other) that abuts TAD 40026 on LaGrange Road. Just north of KY 146 near Westport Road in TAD 40028 is the Kentucky Ford Motor Plant, Westport Road Distribution Center, and Westport Road Industrial Center. There are also businesses associated with providing services and materials to the above mentioned industries. South of LaGrange Road is a dense residential area. With the lack of public transit and pedestrian facilities, as well as a railroad track extending parallel to Westport Road, the only current viable option for accessing the workplace cluster is by motor vehicle and bicycle.

Old Henry Road/I-265 Interchange Area (in TAD 40025)

This cluster of jobs found in TAD 40025 abuts TAD 40026 in the area of Old Henry Road and I-265. It contains a commerce park, as well as a cluster of high density employment and freight distribution. This area has also been identified as a Title VI/Environmental Justice Area. While public transit is readily available in this cluster, there is no access available to it in TAD 40026. Pedestrian facilities along Old Henry Road east of I-265 and west of I-265 are not existent (pedestrian facilities begin in TAD 40025 approximately 0.50 miles east of the interchange). Therefore, persons wishing to access this area from TAD 40026 must use either car or truck to do so, with no other available option at this time.

Shelbyville Road Area West of I-265 (in TAD 40025)

This cluster has both high density retail and high density employment opportunities. Public transit is available from the workplace cluster and west of TAD 40026 further into TAD 40025. Pedestrian access is available from just east of the I-265 interchange until the midway point between North Beckley Station Road and Valhalla View Drive. The frequency of crashes combined with the forecast LOS E and F may present both safety and delay issues for those persons wishing to access employment opportunities within this cluster.

Access for Persons with Disabilities and/or Older Adults

Within TAD 40026 there are no identified facilities or clusters of facilities for persons with disabilities or older adults.

Access to Education

There are four schools identified in TAD 40026, none of which are clustered (2+ schools within 0.25 miles of each other).

The most common issue between all four schools is the lack of a public transit option. None of the schools are within proximity to a public transit route. Two of the schools (Saint Patrick and Covenant Christian Academy) have no pedestrian access to their campuses. Stopher Elementary and Christian Academy English Station are within proximity to residential areas and have complete (Christian Academy English Station) or limited pedestrian access. Both schools have a good internal pedestrian network.

While these four schools are not clustered, there are access issues that warrant attention. Auto or truck access is the most immediate form of connecting with these schools. Public transit is absent and pedestrian facilities are intermittent. Given the age of the children, bicycling to these schools may present some issues as the roadways lack shoulders upon which they could safely ride.

Access to Government Services

There is no cluster of Government Services (3+ government facilities within 0.25 mile of each other) in TAD 40026. Yet the following government services are identified within TAD 40026:

- Eastwood Fire Department Headquarters 1
- Middletown Fire Protection District Station 3

Both of the government facilities in TAD 40026 are emergency responders. Since fire departments and police stations are not recognized as being destinations (with a few exceptions, including personnel, and the occasional community event that may take place at a fire or police station), pedestrian and transit access is not of great concern. Because of their possible impact on response time, congestion and crash frequency are important considerations for emergency responders.

Eastwood Fire Department Headquarters 1

There are two sections that may raise concern relative to response time for Eastwood Fire Department Headquarters 1. Immediately east of the fire station, from the intersection of Shelbyville Road and Eastwood Cut Off Road to the eastern Eastwood Cut Off Road intersection with Shelbyville Road, congestion is an issue as this segment is currently at LOS D. Further west on Shelbyville Road, beginning at Lake Forest Parkway to I-265 congestion is currently at LOS E. Forecast congestion (2030) indicates the level of service will degrade in these two segments of Shelbyville Road. The section between Lake Forest Parkway and I-265 is forecast to degrade to LOS F; while the section between Eastwood Cut Off Road is forecast to expand east to Long Run Road and degrade to LOS F. Dense housing currently exists between Lake Forest Parkway and I-265. An obvious concern is the possible negative impact the congestion may have on response time if left unmitigated.

Middletown Fire Protection District Station 3

Middletown Fire Protection District Station 3 is located on Factory Lane, approximately 0.20 miles from LaGrange Road. Located east and north of the fire station is a dense residential area. Factory Lane does not present current or future transportation issues until it reaches LaGrange Road.

The intersection of LaGrange Road and Factory Lane has been identified as part of a high crash location (this high crash location extends south along LaGrange Road to the I-265 ramp exiting from I-265 to LaGrange Road). Current congestion levels do not present an issue for the fire station. Subsequently, forecast congestion on LaGrange Road from the I-265 exit ramp into Oldham County is anticipated to degrade to LOS F. Along this section of LaGrange Road are a residential area, retail and service opportunities, as well as major industry. Left unmitigated, the crash frequency and forecast congestion issues may impact response time for the fire station.

Access to Medical Facilities

There are no clusters of medical facilities (25+ medical facilities within 0.25 miles of each other) in TAD 40026. The closest medical facility is the Norton Brownsboro Hospital located on Norton Health Care Boulevard, close to Brownsboro Road and the I-71/I-265 interchange in TAD 40028. The hospital may be accessed numerous ways from TAD 40026, but the most obvious connection is I-265. Currently I-265 has sections which are functioning at LOS D and E between I-64 and I-71. Forecasted congestion on I-265 is LOS D and F by 2030. Other considerations are the I-265 access points in TAD 40026. I-265 can be accessed from TAD 40026 at Shelbyville Road, Old Henry Road, and LaGrange Road. All three of the roads accessing I-265 are forecast to degrade to LOS F by 2030, and two of the three (Shelbyville Road and LaGrange Road) have been identified as high crash locations. The current and future congestion, as well as the crash frequency at interchanges, may introduce issues relative to accessing the North Brownsboro Hospital located in TAD 40028.

A second cluster of medical facilities exists (26-71 medical facilities within 0.25 miles of each other) in TAD 40025 on Shelbyville Road just west of TAD 40026. As has been stated in previous sections of this report, access to the medical area cluster may be negatively impacted by the lack of public transit, safe pedestrian and bicycle access, high crash frequency, and both current and forecast congestion.

Congestion, crash frequency, and lack of a public transit option, may limit connectivity to the medical cluster in TAD 40025 and to the North Brownsboro Hospital located in TAD 40028.

Freight Access

There are no freight distributors identified in TAD 40026, nor are there any clusters of freight users (5+ major freight users within 0.50 miles of each other). There are also no significant freight destinations identified in TAD 40026. Lastly, the KIPDA Freight Network does not enter into TAD 40026, though it does travel along the interstates bordering the TAD.

Given that the interstates border TAD 40026, it is worth noting that I-265 has been identified as having current level of service ranging from LOS D to E from I-64 north to LaGrange Road. Forecast levels of service indicate a degradation to LOS E and F along the same sections of I-265.

Given the regional importance of I-265 for freight and other travel, the current and forecast levels of service may negatively impact freight movement in the area, including delays in accessing destinations within and outside the region if left unmitigated.

Future Socioeconomic Conditions

Much of TAD 40026 is currently open space and is anticipated to see changes by the year 2030 in the number of households and non-group quarters population. These three socioeconomic indicators are forecasted to see low to moderate growth:

- Households: Moderate growth
- Employment: No to Low growth
- Population: Moderate growth

This scenario is not unexpected given the current density patterns in TAD 40026. Of the three socioeconomic indicators, the increase in the number of non-group quarters population and households raises the most interest. In general terms, growth is recognized as positive indicators for the TAD. Given the forecast congestion throughout the TAD, the socioeconomic indicators may negatively impact transportation and connections in the TAD if the issues previously stated are left unmitigated.

Issues and Opportunities

Lack of Public Transit as a Viable Option

There are no public transit options in TAD 40026, yet there are several attractions that may be of interest to those persons who reside within the TAD or who are in the TAD from other parts of the region. For those who reside within the TAD, there are public and private schools for whom public transit is not an option. There are also attractions (Long Run Park and The Parklands – Beckley Creek) that may attract persons from other parts of the region. At this time, the only option for accessing these areas is by auto or truck.

This area is anticipated to see a moderate increase in the number of households and the non-group quarters population by 2030. The lack of public transit may induce further transportation related concerns as the anticipated growth is realized.

Forecast Congestion

Several of the primary roadways in TAD 40026 are anticipated to see a significant degradation in level of service by 2030. LaGrange Road, Old Henry Road, Shelbyville Road, and I-265 are forecast to degrade to LOS F by 2030. In some instances, the roadways are going to degrade from above LOS D to F. The increase in congestion may be attributed to the anticipated growth in households and non-group quarters population within the TAD, but also in the anticipated growth in neighboring counties (Oldham and Shelby counties are anticipated to see moderate to high growth in households, non-group quarters population, and jobs by 2030). Some of the routes travelling to and from Oldham and Shelby counties into Jefferson County (a more urban area with many attractions) are anticipated to see a significant increase in congestion.

The anticipated future congestion issues (as well as the anticipated growth forecast to occur by 2030) may negatively impact the safety on the roadways in TAD 40026.

Lack of Alternative Means of Transportation to Attractions in Neighboring TADs

While TAD 40026 is primarily a TAD with open spaces, there are attractions west of I-265 that abut TAD 40026. While I-265 fulfills an important role for the region, it also has a limiting effect on those persons wishing to travel to and from the neighboring attractions found on the outer edges of TAD 40026 in that the few surface roadways that traverse I-265 are either high crash locations, have current and forecast congestion issues, or both. Compounding this situation is a lack of public transit, bicycle, and pedestrian facilities that may serve as an alternative for persons to travel to and from TAD 40026 to the attractions in neighboring TADs. The crash frequency and forecast levels of service may also contribute to an unsafe or intimidating scenario that will reduce pedestrian and bicycle activity.

Related Plans and Studies

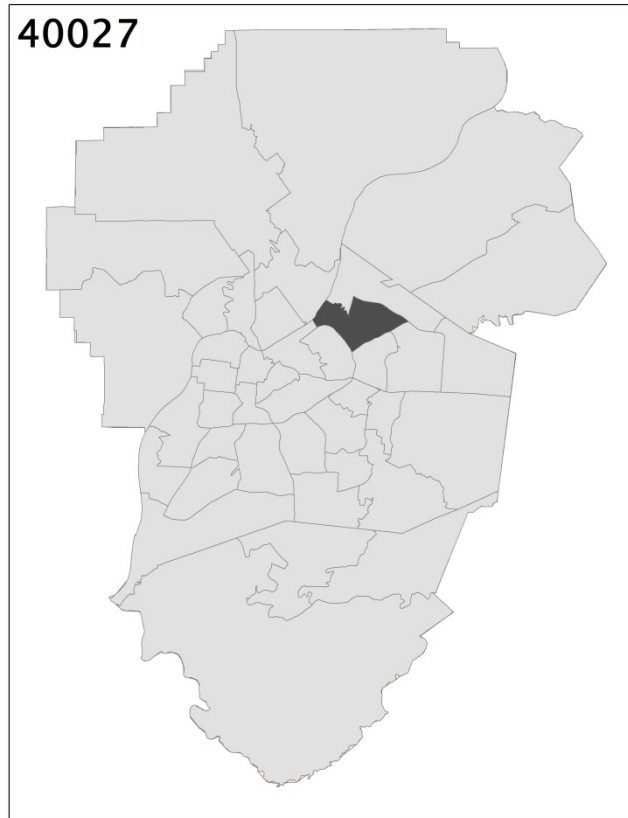
- Cornerstone 2020 Comprehensive Plan (2013)
- I-64 Interchange and New Connector Planning Study (2008)
- KY 3084 DNA Scoping Study (2013)
- Old Henry DNA Scoping Study (2011)
- Rehl Road/I-265 Interchange Feasibility Study (2009)
- Taylorsville Road/Urton Lane Study (2009)

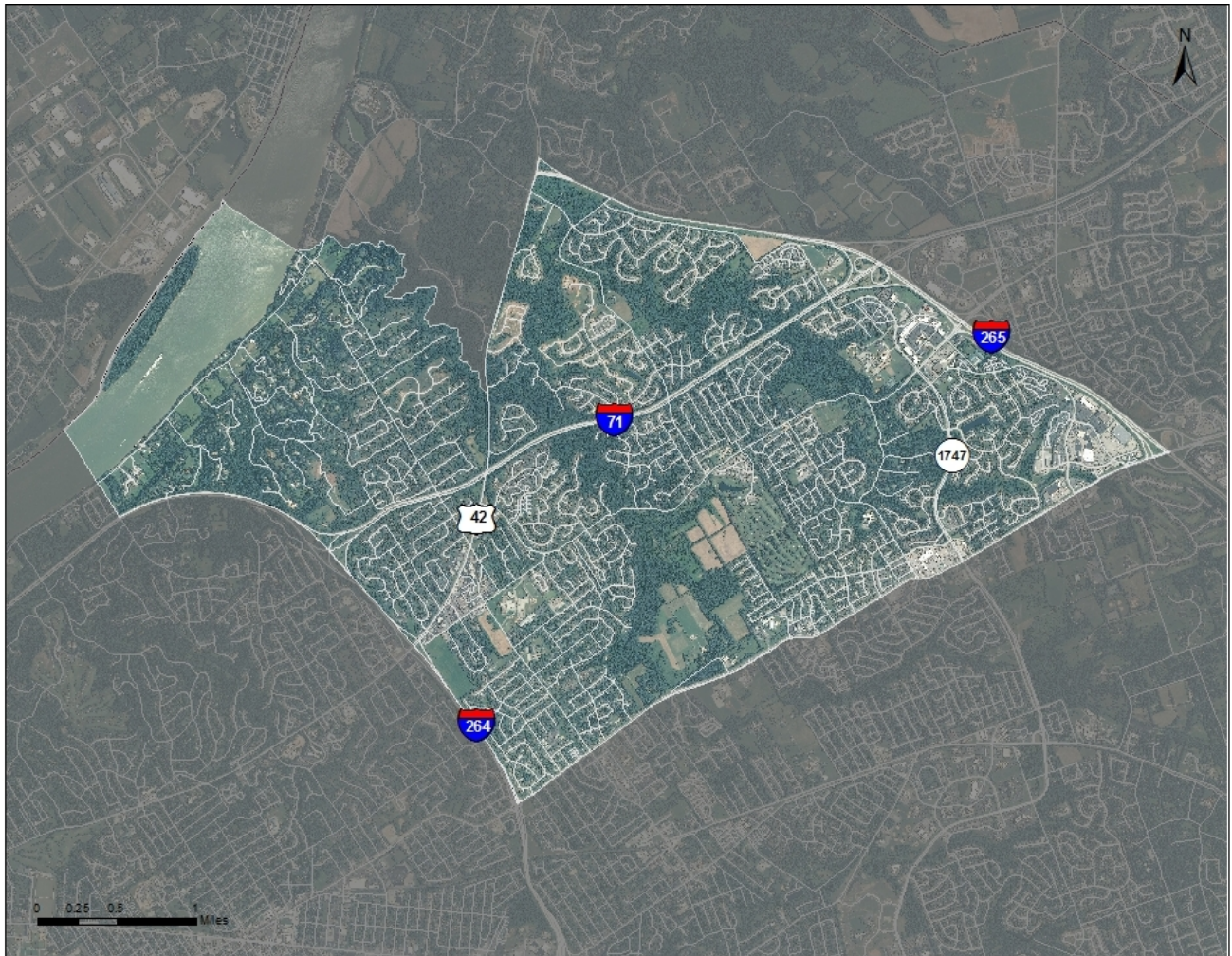


RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40027 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40027 is located in northeastern Jefferson County in suburban Louisville Metro. In addition to being part of Louisville Metro, there are 22 smaller incorporated cities in this TAD as well. These cities are Bancroft, Barbourmeade, Broeck Pointe, Brownsboro Farm, Creekside, Crossgate, Glenview, Glenview Hills, Glenview Manor, Goose Creek, Graymoor-Devondale, Green Spring, Hills and Dales, Langdon Place, Manor Creek, Murray Hill, Northfield, Old Brownsboro Place, Plantation, Spring Valley, Ten Broeck, and Thornhill. These small cities are neighborhoods that make up the majority of the residential areas in the TAD, and only three cities – Graymoor-Devondale (4th class), Plantation (5th class), and Northfield (5th class) – are of a higher class than sixth class, which is the lowest class city in the state of Kentucky. The TAD is bounded by I-264, KY 1447 (Westport Road), I-265/KY 841 (Gene Snyder Freeway), I-71, Goose Creek, the Ohio River, and Blankenbaker Lane.

TAD 40027 is exclusively urban and is predominantly residential. There is little industrial land use in the TAD, and many of the jobs in the TAD are attributable to commercial businesses along the most heavily traveled arterials: US 42, KY 22, and KY 1447 (Westport Road). The TAD has been fully developed with only a few parcels available for significant development in the future.

Area and Socioeconomic Information

Area: Approximately 8,908 acres

Non-Group Quarters Population (2010): 25,104

Number of Households (2010): 10,380

Number of Jobs (2000): 6,206

Title VI/Environmental Justice

The Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006) did not identify any Title VI/Environmental Justice areas in TAD 40027.

The Community Assessment & Outreach Program outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-71* from the Blankenbaker Lane overpass to I-265/KY 841 (Gene Snyder Freeway) • I-264* (Watterson Expressway) from KY 1447 (Westport Road) to I-71 • I-265* (Gene Snyder Freeway) from KY 1447 (Westport Road) to I-71
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • KY 841* (Gene Snyder Freeway) from I-71 to US 42
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 42* from I-264 (Watterson Expressway) to KY 841 (Gene Snyder Freeway) • KY 1747* (Hurstbourne Parkway) from KY 1447 (Westport Road) to KY 22 (Brownsboro Road) • KY 22* (Brownsboro Road) from KY 1747 (Hurstbourne Parkway) to I-265 (Gene Snyder Freeway) • KY 1447 (Westport Road) from I-264 (Watterson Expressway) to I-265 (Gene Snyder Freeway)
Urban Minor Arterial	<ul style="list-style-type: none"> • River Road from Blankenbaker Lane to Goose Creek Road • KY 22 (Brownsboro Road/Seminary Drive) from US 42 to KY 1747 (Hurstbourne Parkway) • KY 2050 (Herr Lane/Lime Kiln Lane) from KY 1447 (Westport Road) to US 42 • Brownsboro Road from US 42 to Herr Lane/Lime Kiln Lane
Urban Collector	<ul style="list-style-type: none"> • Blankenbaker Lane from I-71 to River Road • Lime Kiln Lane from US 42 to River Road • Springhurst Boulevard • Springdale Road • Barbour Lane • Wolf Pen Branch Road from Springdale Road to River Road • Goose Creek Road
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

Schools

- Ballard High School
- Chance School
- Islamic School of Louisville
- Kammerer Middle School
- Kentucky Country Day School
- Montessori School of Louisville
- Norton Elementary School
- Portland Christian School
- Saint Albert the Great School
- Wilder Elementary School

Colleges & Universities

- N/A

Parks

- N/A

Other Areas of Interest/Significance

- N/A

Historic

- Allison-Barrickman House
- Atherton Carriage House
- Berry Hill
- Cedarbrook Farm
- Country Estates of River Road
- Dr. John Murray Farm
- Edgewood
- Glenview Historic District
- Haldeman House
- Ladless Hill
- Lincliff
- Pirtle House
- Rogers Clark Ballard Memorial School
- Winkworth
- Woodside/John T. Bate House

Transit

TAD 40027 is currently served by TARC. The following TARC routes pass through and have stops within the TAD, primarily providing connections to downtown Louisville:

- Route #15 – Market Street
- Route #25 – Oak/Westport Crosstown
- Route #49X – Westport Road Express
- Route #64X – Fincastle/Forest Springs Express
- Route #68X – Prospect Express

The three express routes are designed to provide public transit service for commuters living in suburban locations that make peak hour work trips to downtown Louisville. Therefore, Routes #49X, #64X, and #68X provide very limited service within the TAD and to other areas nearby. More frequent headways and off-peak transit service is provided by Routes #15 and #25.

Park and Ride

There are no identified Park and Ride lots located in TAD 40027.

Public Comments

I-264/US 42 Interchange

- Redesign intersection to limit traffic to the planned VA Hospital.
- What is being done now to prepare for the planned VA Hospital?

Springdale Road

- Pedestrian access: There are no crosswalks or bike lane.

Springhurst Boulevard

- At Towne Center Drive: Stop signs are needed and it takes too long to turn out of Towne Center Drive.
- Springhurst Boulevard is too narrow to accommodate the motorists and the many cyclists that use it.

Brownsboro Road/KY 22

- TARC stops lack pads for easy access to them. Concerned that this is a possible ADA issue.

General

- Add a new road between LaGrange Road and KY 22 in the vicinity of Ormsby Lane.

Safety

2,419 crashes were reported in TAD 40027 from 2009 through 2011. There were three fatalities reported as a result of three crashes over this time period. There were 51 crashes that resulted in significant injury. During this three year period, five reported crashes involved bicyclists and eight involved pedestrians.

Fatalities

Two of the crashes that resulted in fatalities occurred within 0.25 miles of each other along the curvy portion of KY 22 (Brownsboro Road) near Barbour Lane. In addition to these two crashes that resulted in fatalities, there were two other crashes resulting in significant injuries on this segment of KY 22 (Brownsboro Road), along with dozens of other non-injury crashes. The third fatality occurred when a vehicle struck a pedestrian in a neighborhood. This was the only crash during this three-year period in the vicinity.

High Crash Locations

There are eight locations in this TAD identified as being high crash locations. It is important to note that all eight of these high crash locations are located at intersections or interchanges on the major roadways that are boundaries of the TAD, and can therefore be considered as high crash locations for other TAD's as well. For a location to meet the high crash location criteria in this analysis, there must have been 100 or more crashes within 0.10 mile of a location for the three year period from 2009 through 2011.

I-71

- Interchange with I-264 (particularly high on the ramps from I-71 northbound to I-71 northbound, and I-71 southbound to I-264 westbound)
- Interchange with I-265/KY 841 (particularly high in the weaving section on I-71 southbound)

US 42

- Between I-264 westbound ramps and Brownsboro Road/Northfield Drive

KY 1447 (Westport Road)

- At the main intersection with the I-264 ramps
- Intersection with KY 2050 (Herr Lane)
- Intersection with KY 1747 (Hurstbourne Parkway)
- Intersection with Springhurst Boulevard/Freys Hill Road

KY 22

- On the I-265 southbound off-ramp to KY 22

Injury crashes occurred throughout the TAD. At the interchange of I-71 with I-264 (Watterson Expressway), there appears to be an abundance of injury crashes. This interchange has some sharp curves, short weaving sections between this interchange and the I-264/US 42 interchange, and on the ramp from I-71 Southbound to I-264 westbound, traffic merges into I-264 westbound traffic from the left. All of these factors could have contributed to the abundance of injury crashes based on the locations of the crashes. The Kentucky Transportation Cabinet has a project

in the current KIPDA Transportation Improvement Program (TIP) that is scheduled to be open to traffic in 2014 that is expected to increase the capacity of this interchange as well as improve safety.

Bicycle and Pedestrian Crashes

From 2009 through 2011, five reported crashes involved bicyclists and eight involved pedestrians, including one pedestrian fatality. No further information is available.

Congestion

Current Level of Service (LOS)

Based on recent traffic count data, the only roadways on the Congestion Management Process (CMP) network with a LOS worse than C are:

LOS D:	<ul style="list-style-type: none"> • I-264 (Watterson Expressway) from US 42 (Brownsboro Road) to I-71 • I-265 (Gene Snyder Freeway) from KY 1447 (Westport Road) to KY 22 (Brownsboro Road) • US 42 from Brownsboro Road to Lime Kiln Lane
LOS E:	<ul style="list-style-type: none"> • I-71 from Zorn Avenue to I-264 (Watterson Expressway)
LOS F:	<ul style="list-style-type: none"> • I-71 from I-264 (Watterson Expressway) to I-265 (Gene Snyder Freeway) • US 42 from I-264 to Brownsboro Road • KY 22 (Seminary Drive) from US 42 to Brownsboro Road • KY 1447 (Westport Road) from I-264 (Watterson Expressway) to Washburn Avenue

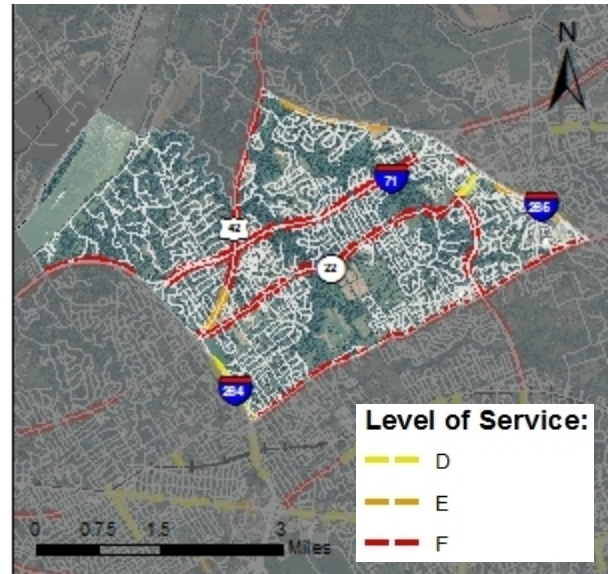


Figure 40027-A: Congested roadways in TAD 40027. Year 2030 LOS based on KIPDA Travel Demand Model is shown.

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecast to be worse than C in the Year 2030 are:

LOS D:	<ul style="list-style-type: none"> • I-264 (Watterson Expressway) from KY 1447 (Westport Road) to US 42 (Brownsboro Road) • KY 22 (Brownsboro Road) from KY 1747 (Hurstbourne Parkway) to I-265 (Gene Snyder Freeway)
LOS E:	<ul style="list-style-type: none"> • I-265 (Gene Snyder Freeway) from KY 1447 (Westport Road) to KY 22 (Brownsboro Road) • US 42 from Brownsboro Road to Lime Kiln Lane • KY 1447 (Westport Road) from I-264 (Watterson Expressway) to Washburn Avenue • KY 841 (Gene Snyder Freeway) from I-71 to US 42
LOS F:	<ul style="list-style-type: none"> • I-71 from Zorn Avenue to I-265 (Gene Snyder Freeway) • I-265 (Gene Snyder Freeway) from KY 22 (Brownsboro Road) to I-71 • US 42 (Brownsboro Road) from I-264 (Watterson Expressway) to Brownsboro Road • US 42 from Lime Kiln Lane to KY 841 (Gene Snyder Freeway) • KY 1747 (Hurstbourne Parkway) from KY 1447 (Westport Road) to KY 22 (Brownsboro Road) • KY 1447 (Westport Road) from Washburn Avenue to I-265 (Gene Snyder Freeway) • KY 22 from Brownsboro Road to KY 1747 (Hurstbourne Parkway) • Brownsboro Road from US 42 to KY 22 (Seminary Drive)

Significant congestion exists at many locations in TAD 40027, and congestion at most locations is only expected to get worse based on current forecasts. The most notable congested location is along I-71, where severe congestion exists

currently and there are no projects planned to mitigate further congestion. In fact, in the year 2030 scenario that has been analyzed, the severe congestion extends not only to both the north and south of this TAD on I-71, but also to all of the major parallel routes (US 42, KY 22, and KY 1447) as well.

Access to Community Amenities

The vast majority of land in TAD 40027 is used for typical suburban residential development. With no one area recognized as being a community center, this is the reason why there are relatively few community amenities (schools, parks, libraries, shopping, etc.) in this TAD. Where these community amenities do exist, they are clustered together near major freeway interchanges. There are three major shopping areas located in this TAD: Holiday Manor, The Summit, and Springhurst Towne Center. These are regional traffic generators located conveniently near major interstate interchanges that attract shopping trips to this TAD from around the region, including many trips from well beyond the boundaries of this TAD. TARC service to each of these shopping centers exists, but for the most part only allows trips to be made toward/from the west, and not from the other suburbs, including nearby Oldham County. All of these clusters of community amenities have sidewalks that connect them to the surrounding residential areas, with some exceptions along Brownsboro Road near the Holiday Manor Shopping Center.

Access to Workplace

Access to workplace was examined on several different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks (see Figure 40027-B).

Major Employers

- Meijer

There are four areas of high employment density using the criteria listed above. All of these areas include shopping centers. While there are a limited number of office buildings in these areas as well, the vast majority of the employment is retail employment. These areas of high density employment are near Holiday Manor Shopping Center, The Summit, Springhurst Towne Center, and the shopping center at the KY 1747 (Hurstbourne Parkway)/KY 1447 (Westport Road) intersection. These locations are all served very well by interstates and arterials. TARC service and sidewalks exist near these areas. While the recent traffic counts reflect a minor amount of congestion near these shopping centers currently, the projected levels of congestion are expected to be severe near all of these locations.

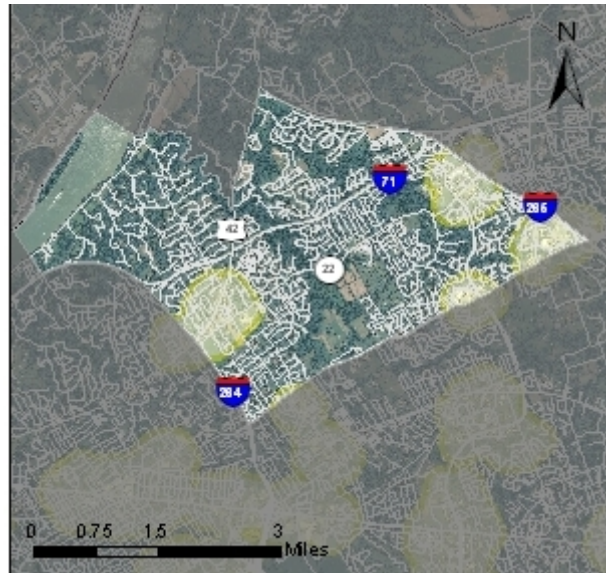


Figure 40027-B: High density employment areas, which coincide with shopping centers, are shown in yellow.

In this TAD, the high density retail locations are identical to the high density employment locations.

There are no commerce parks in this TAD.

Access for Persons with Disabilities and/or Older Adults

There are no hospitals, senior centers, or nutrition sites in this TAD. There are several medical offices near the Holiday Manor Shopping Center. TARC service exists in this area via Route #15. Sidewalks also exist in this area, although there are short gaps in the sidewalk network along Brownsboro Road.

Each of the shopping centers (which coincide with the employment centers) in this TAD are served by TARC Route #15 or #25. Sidewalks connect the nearby residential areas to each of these shopping centers.

Access to Education

Of the ten schools located in TAD 40027, there is only one cluster of schools where two or more schools are located within 0.25 miles of each other. This cluster is located along KY 1447 (Westport Road) and includes Westport Middle School (also the site of a branch of the Louisville Free Public Library) and two small private schools, Portland Christian School and the Islamic School of Louisville. Another significant cluster of schools exists where a large number of students attend, but it falls just outside the criteria. This is the cluster of schools located near Herr Lane that includes Ballard High, Kammerer Middle, and Wilder Elementary Schools.

TARC provides service to both of these clusters. Sidewalks exist along the major roadways near these schools and within the neighborhoods nearby.

Access to Government Services

There are no significant government facilities in TAD 40027.

Access to Medical Facilities

There are currently no hospitals located in TAD 40027. There are several hospitals located near I-264 and I-265 that serve the residents of this TAD. The new VA medical center is expected to open in 2018 and will be located near the I-264/US 42 interchange. There is a cluster of doctor's offices located near the Holiday Manor Shopping Center near the I-264/US 42 interchange as well. This area is in proximity to several interstates and to major arterials, which was a major factor in the site selection for the new VA hospital. TARC service is provided to this area via Route #15. Sidewalks are abundant in this area, but gaps still exist between residential areas and attractions.

Freight Access

There are no clusters of high density freight users in TAD 40027. All three interstates that pass through this TAD or are a boundary of this TAD are on the KIPDA Freight Network. US 42 is a part of the freight network as well.

Extreme congestion on I-71 and on other major roadways is a major issue for freight traffic. This will be especially true in the future when increased congestion is expected on all of the major routes in the TAD after the new East End Bridge is built (connecting the portions of I-265 in Kentucky and Indiana).

Future Socioeconomic Conditions

With TAD 40027 being nearly completely built out at this time, no significant changes are expected in this TAD in the future in terms of the number of people living in the zone and the number of households. Based on the most recent set of 2030 forecasts, the population and households in this TAD are expected to increase by about 20% between 2010 and 2030. Employment is a different story; based on the most recent set of forecasts, the number of employees working in the TAD is expected to approximately double over the 30-year period between 2000 and 2030. Much of this increase in employees is likely to have already occurred over the 13-year period since 2000, as the major shopping centers have experienced significant growth.

While an increase in the number employees is generally seen as a positive thing, this increase should be reflected in the consideration of access to workplace issues. This is particularly true in this TAD, where much of the anticipated congestion in the future is expected to be near the major shopping centers that are near the congested freeway interchanges.

Issues and Opportunities

Congestion

Congestion is currently a significant issue at numerous locations throughout the TAD, and this is expected to get significantly worse in the future. Much of the congestion is on I-71. Not only is I-71 a major north-south interstate that connects Louisville with Cincinnati and points beyond, but it also is a major commuter route between the suburbs of northeastern Jefferson County (including TAD 40027) and Oldham County to downtown Louisville. Severe congestion on I-71 due to a crash or even just typical peak-hour traffic can result in congestion elsewhere in this TAD when drivers choose to divert to other routes. There is only one interchange on I-71 with a non-freeway facility (Zorn Avenue) in Jefferson County, which contributes to congestion on the other freeways and on other roadways as well, especially when there is a crash on I-71. There are currently no major projects in the KIPDA Metropolitan Transportation Plan (MTP) to add additional lanes to I-71 throughout the KIPDA Region, although there are interchange improvements planned at the I-264 (Watterson Expressway) and I-265 (Gene Snyder Freeway) interchanges.

Not only is additional development in suburban northeastern Jefferson County and in Oldham County expected to increase, but the Ohio River Bridges Project (specifically the East End Bridge that will connect the Gene Snyder Freeway in Kentucky with the Lee Hamilton Highway in Indiana) is expected to drastically alter travel patterns throughout the region. The true impacts of the new bridge will be unknown until it is open to traffic (currently scheduled to be 2016), but it is certain to add demand to the already congested I-71/I-265 (Gene Snyder Freeway) interchange as well as to the other nearby segments of I-265 (Gene Snyder Freeway).

TARC

Currently, the only local (non-express) TARC service in this TAD is via Route #15, which serves Ballard High School and Holiday Manor Shopping Center, and Route #25, which provides service along KY 1447 (Westport Road) through the TAD. The other routes are express routes that only operate during peak hours and are designed for commuters living in the suburbs who work in downtown Louisville. All of the routes in this TAD, express and local, are oriented toward downtown Louisville. This requires a rider that would like to make a trip to/from this TAD to any other suburban location take TARC into downtown Louisville, then transfer to another route that would take them back out to another suburb. This results in extremely long travel times to make these types of trips and in some cases makes it impossible to make certain trips due to the times of day that certain routes operate.

Related Plans and Studies

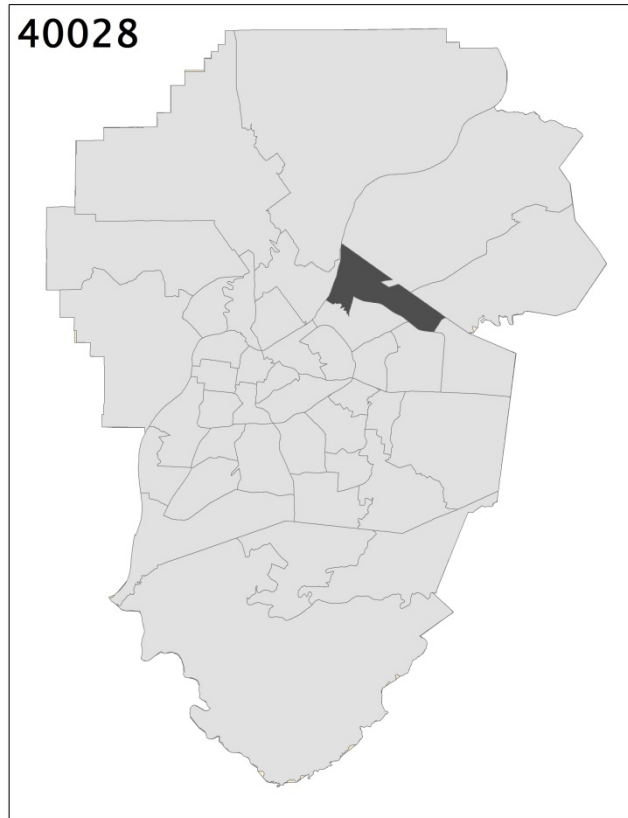
- Alternatives Study for I-71/I-265 (2010)
- Cornerstone 2020 Comprehensive Plan (2013)
- Glenview Area Neighborhood Plan (2010)
- I-264/US 42 Interchange Scoping Study (2011)
- KY 22 Scoping Study (2005)
- Westport Road Corridor Small Area Plan (2010)



RETHINKING TRANSPORTATION

Metropolitan Transportation Plan Major Update

Transportation Analysis District 40028 Report





Location & General Characteristics

Transportation Analysis District (TAD) 40028 is located in northeastern Jefferson County. This majority of this TAD is part of suburban Louisville Metro, with the remainder divided among one medium-sized incorporated city, Prospect, and three smaller incorporated cities: Coldstream, Fincastle, and Worthington Hills. Prospect is classified as a 3rd class Kentucky city, while Coldstream, Fincastle, and Worthington Hills are all 6th class cities. The TAD is bounded by Goose Creek, US 42, I-265/KY 841 (Gene Snyder Freeway), KY 146 (LaGrange Road), the Jefferson/Oldham county boundary, and the Ohio River.

TAD 40028 is exclusively urban and is predominantly residential. There is little industrial land-use in the TAD, and many of the jobs in the TAD are attributable to commercial businesses along the most heavily traveled arterials: US 42, KY 22, and KY 1447 (Westport Road). The TAD has been fully developed with only a few parcels available for significant development in the future.

Area and Socioeconomic Information

Area: Approximately 12,821 acres
Non-Group Quarters Population (2010): 25,697
Number of Households (2010): 10,430
Number of Jobs (2000): 14,205

Title VI/Environmental Justice

The *Community Assessment & Outreach Program for the Louisville (KY-IN) Metropolitan Planning Area for Environmental Justice and Other Communities of Concern (July, 2006)* does not identify any Title VI/Environmental Justice areas in TAD 40028.

The *Community Assessment & Outreach Program* outlines various measures to be undertaken when considering the issues and potential solutions for Title VI/Environmental Justice areas. While Title VI/Environmental Justice is best addressed at the project level, considerations appropriate for the metropolitan transportation plan level include:

- Mitigating disproportionate burdens placed upon Title VI/Environmental Justice areas that may result from transportation projects and programs.
- Reducing barriers to non-automotive forms of transportation

Functionally Classified Roadways

Urban Principal Arterial – Interstate	<ul style="list-style-type: none"> • I-71* from I-265/KY 841 (Gene Snyder Freeway) to the Oldham County line • I-265* (Gene Snyder Freeway) from I-71 to KY 146 (LaGrange Road)
Urban Principal Arterial – Freeway/Expressway	<ul style="list-style-type: none"> • KY 841* (Gene Snyder Freeway) from US 42 to I-71
Urban Principal Arterial – Other	<ul style="list-style-type: none"> • US 42* from Goose Creek to KY 841 (Gene Snyder Freeway)
Urban Minor Arterial	<ul style="list-style-type: none"> • River Road from Goose Creek to US 42 • US 42 from KY 841 (Gene Snyder Freeway) to the Oldham County line • KY 22 (Brownsboro Road/Ballardsville Road) from I-265 (Gene Snyder Freeway) to the Oldham County line • KY 1694 (Ballardsville Road) from KY 22 (Brownsboro Road/Ballardsville Road) to the Oldham County line • KY 1447 (Westport Road) from I-265 (Gene Snyder Freeway) to KY 146 (LaGrange Road) • KY 146 (LaGrange Road) from I-265 (Gene Snyder Freeway) to the Oldham County line
Urban Collector	<ul style="list-style-type: none"> • KY 3222 (Rose Island Road) from US 42 to the Oldham County line • Wolf Pen Branch Road from River Road to US 42 • KY 329 (Covered Bridge Road) from US 42 to the Oldham County line • Chamberlain Lane from KY 1694 (Brownsboro Road) to KY 146 (LaGrange Road) • Murphy Lane from KY 22 (Ballardsville Road) to KY 1447 (Westport Road) • Collins Lane from KY 1447 (Westport Road) to Chamberlain Lane
Rural Principal Arterial – Interstate	<ul style="list-style-type: none"> • N/A
Rural Principal Arterial – Other	<ul style="list-style-type: none"> • N/A
Rural Minor Arterial	<ul style="list-style-type: none"> • N/A
Rural Major Collector	<ul style="list-style-type: none"> • N/A
Rural Minor Collector	<ul style="list-style-type: none"> • N/A

*Denotes part of the National Highway System (NHS)

~Denotes part of the Coal Haul Highway System

Schools

- Chancey Elementary School
- Saint Mary Academy

Colleges & Universities

- N/A

Parks

- Hays Kennedy Park

Other Area of Interest/Significance

- Harrods Creek
- Norton Brownsboro Hospital
- Ohio River

Historic

- Allison-Barrickman House
- Atherton Carriage House
- Berry Hill
- Cedarbrook Farm
- Country Estates of River Road
- Dr. John Murray Farm
- Edgewood
- Glenview Historic District
- Haldeman House
- Ladless Hill
- Lincliff
- Pirtle House
- Rogers Clark Ballard Memorial School
- Winkworth
- Woodside/John T. Bate House

Transit

TAD 40028 is currently served by TARC. The following routes pass through and have stops within the TAD, providing connections to various local and adjacent-TAD destinations as well as to downtown Louisville.

- Route #55 – Westport Road
- Route #64X – Fincastle/Forest Springs Express
- Route #68X – Prospect Express

The express routes are designed to provide public transit service for commuters living in suburban locations that make peak hour work trips to and from downtown Louisville. Therefore, Routes #64X and #68X provide very limited service within the TAD and to other areas nearby. More frequent headways and off-peak transit service is provided by Route #55. Route #55 provides local transit access along Westport Road throughout the TAD.

Route #67X (Oldham County Express) currently passes through the TAD on I-71 in morning and afternoon peak hours, but does not make stops within TAD 40028.

Park and Ride

There are two official Park and Ride lots in TAD 40028:

- Hope Lutheran Church
- Prospect Point Shopping Center

Public Comments

I-71

- Make six lanes from LaGrange on to downtown Louisville. More traffic now today than in previous years.
- Need more improvement on I-71 at I-265. Always a bottleneck. Lots of fatalities.

I-265

- Traffic has gotten progressively worse near I-71 for the past few years.

KY 1447 (Westport Road)

- Oldham County residents work outside the county and Westport Road backs up to the train station as the residents drive into town.

Murphy Lane

- People drive too fast on Murphy Lane despite it being a residential area and school zone.

River Road

- Safe ped and bike facilities along River Road.

Wolf Pen Branch Road

- Need more sidewalks between Green Spring Drive (City of Green Spring) and River Road.

Safety

1,600 crashes were reported in TAD 40028 in the three year period from 2009 to 2011. There were nine fatalities reported as a result of crashes from 2009 through 2011: four in 2009; two in 2010; and three in 2011.

As might be expected, the larger number of crashes occurred on the roadways with higher traffic volumes: US 42, KY 22, Westport Road, I-265, I-71, and Chamberlain Lane. Collectively, 1,110—almost 70%—of crashes in TAD 40028 occurred on one of these six roadways, with each having in excess of 100 crashes. Six hundred ninety-seven—approximately 43%—of the crashes occurred along US 42, KY 22, and Westport Road, with more than 200 crashes occurring along each roadway. LaGrange Road, Murphy Lane, Norton Healthcare Boulevard, KY 841 (the two-lane section), River Road, and Wolf Pen Branch Road each had between 20 and 60 crashes.

Fatalities

There were a total of nine crashes which resulted in fatalities from 2009 through 2011. All nine occurred outside of identified high crash locations. One involved a pedestrian and two, a bicyclist. There are no common factors found among these crashes; some were attributed to speed while others were attributed to the use of alcohol, aggressive driving, and/or distracted driving.

High Crash Locations

There are three identified high crash locations where the number of crashes within 0.10 of a mile is 100 or more. All of these are located at or near the boundary of the TAD and are shared with neighboring TADs 40025, 40026, and 40027.

I-71/I-265 interchange (see Figure 40028-A)

The I-71/I-265 interchange is located along the southwestern edge of TAD 40028 with one-half of the interchange in TAD 40027 and one-half in TAD 40028. This analysis considers the interchange as a whole without regard to where the crashes occurred. The interchange is a cloverleaf design, comprised of four outer and four inner ramps to provide access from one interstate roadway to the other. The area with a higher density of crashes is generally within the inner ramps of the

interchange. The section of mainline interstate between where traffic enters from one inner ramp and where traffic exits to the next inner ramp is known as the weaving section. In the weaving section, traffic entering the roadway frequently is attempting to move at least one lane to the left while traffic exiting the roadway is attempting to move at least one lane to the right. This lane changing behavior is known as weaving, and numerous conflict points can occur creating the possibility for crashes. With respect to location, there were three groups of crashes—(1) those occurring along or near southbound I-71 in the weaving section, (2) those occurring along or near northbound

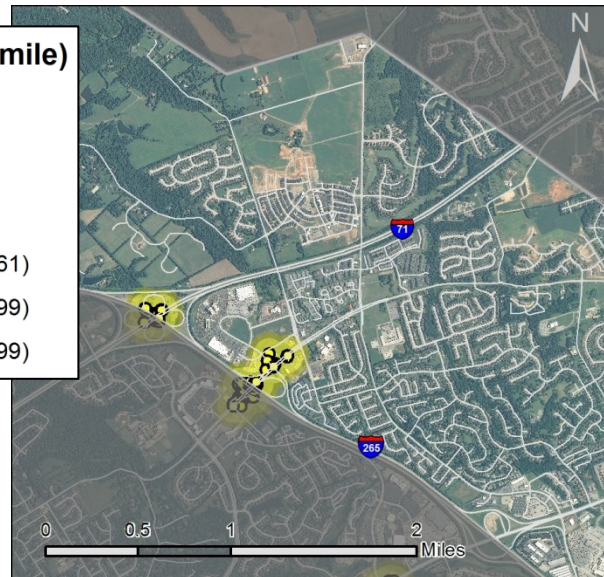
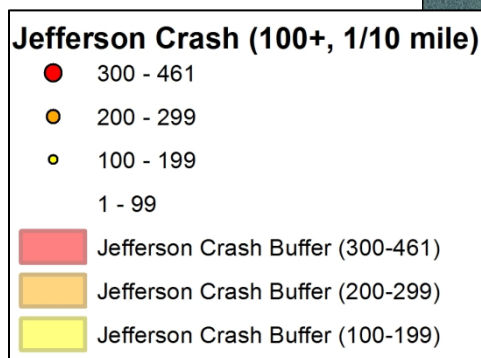


Figure 40028-A: High crash locations shown at the I-71/I-265 interchange and the I-265/KY 22 interchange.

(officially eastbound) I-265 in the weaving section leading to the ramp to southbound I-71, and (3) those occurring along or near southbound (officially westbound) I-265 in the weaving section. Although there were some concentrations of crashes along two of the inner ramps and one of the outer ramps, the crashes with 100 or more crashes within 0.10 mile only occurred in the areas mentioned above. There were approximately 225 crashes in the area around this interchange.

Placing the crashes into the three groups described above, approximately 25% of the crashes occurred along or near the weaving section of I-71; almost 10% of the crashes occurred along or near the weaving section of northbound (officially eastbound) I-265; and only about 5% of the crashes occurred along or near the weaving section of southbound (officially westbound) I-265. It appears that the only reason that the crashes occurring along or near southbound (officially westbound) I-265 weaving section are among the crashes with 100 or more crashes within 0.1 mile was their proximity to the other crashes in the interchange—not because of the density of that group of crashes. In the other two roadway sections, rear end, same direction sideswipe, and single crashes were the most common types of crashes, but the dominant type(s) varied by roadway section. For the southbound I-71 weaving section, single vehicle crashes accounted for almost 53% of the crashes, and rear end crashes accounted for another 28%. For the single vehicles crashes, the most common items struck by these vehicles were cable barriers and guardrails. Another commonality among these single vehicle crashes was the presence of rainy or snowy weather for approximately 63% of the crashes. For the northbound (officially eastbound) I-265 weaving section, rear end crashes were the most common type of crash. Approximately 73% of the crashes in this section were rear end crashes. There were no crashes resulting in fatalities in either of the two sections. However, there was one accident resulting in each section. There was a same direction sideswipe crash that resulted in an injury on the I-71 section and a rear end crash resulting in an injury on the I-265 section.

I-265/KY 22 interchange (see Figure 40028-A)

The I-265/KY 22 interchange is located along the southwestern edge of TAD 40028 with one-half of the interchange in TAD 40027 and one-half in TAD 40028. The following discussion focuses on the interchange as a whole without regard to where the crashes occurred. With respect to location, there were three groups of crashes—(1) those occurring in the interchange of I-265 and KY 22 or west of that interchange, (2) those occurring along or near Norton Healthcare Boulevard, and (3) those occurring at an intersection of KY 22 and a frontage road located approximately 0.10 mile northeast of Norton Healthcare Boulevard. Most of the crashes with 100 or more crashes within 0.10 mile occurred along I-265, the ramps, or KY 22 between Simcoe Lane in TAD 40027 and the northeastern edge of the interchange in TAD 40028. In general, most of these crashes were located in TAD 40027. A smaller group of crashes with 100 or more crashes within 0.10 mile occurred along Norton Healthcare Boulevard and near its intersection of KY 22. A much smaller group of crashes with 100 or more crashes within 0.10 mile occurred near the intersection of KY 22 and the frontage road. Almost 150 crashes occurred in the interchange of I-265 and KY 22 and west of that interchange to Simcoe Lane. These were divided almost equally between I-265, KY 22, and the ramps with each having between 28% and 36% of the crashes. Rear end crashes were predominant for all three roadways accounting for 71% to 87% of the crashes. There were no fatalities as a result of these crashes.

More than 70 crashes occurred along or near Norton Healthcare Boulevard. Approximately 45% of these crashes occurred at one of two intersections: Norton Healthcare Boulevard and either KY 22 or Von Allmen Court. In addition, more than 35% of the crashes occurred along KY 22 near Norton Healthcare Boulevard. Rear end crashes were the most common type along KY 22 accounting for almost 64% of the crashes while angle crashes were the most frequent along Norton Healthcare Boulevard accounting for over 57%. There were no fatalities or injuries as a result of the crashes in this area. As mentioned above, there were several locations which had 100 or more crashes within 0.10 mile located at the intersection of KY 22 and a frontage road located approximately 0.10 mile northeast of Norton Healthcare Boulevard. These apparently achieved this density due to their location within a number of crashes located around and between Norton Healthcare Boulevard and Chamberlain Lane. The density of crashes in the immediate vicinity of the intersection of KY 22 and the frontage road did not appear to be significantly different from the average density throughout the section of KY 22 between Norton Healthcare Boulevard and Chamberlain Lane. There does not appear to be anything unusual about these crashes. Further, none of them resulted in a fatality or an injury.

KY 146 Around and Near Its Intersection with Chamberlain Lane/Factory Lane

The intersection of KY 146 with Chamberlain Lane/Factory Lane is located near the southern edge of TAD 40028 with one-half of the intersection in TAD 40026 and one-half in TAD 40028. The following discussion focuses on the intersection as a whole without regard to where the crashes occurred. There were approximately 120 crashes in the area around this intersection. None of the crashes resulted in a fatality. Over 40% of the crashes occurred at or near an intersection. The facilities where crashes most often occurred were KY 146, the ramp from northbound I-265 to KY 146, and Factory Lane with 46%, 22%, and 20% of the crashes, respectively. The types of crashes that occurred at these locations were predominantly angle and rear end crashes, but the dominant type varied depending on location. On Factory Lane, 60% of the crashes were angle crashes while rear end crashes were the only other significant type with 20%. In contrast, over 96% of the crashes on the I-265 ramp were rear end crashes. On KY 146, both angle crashes and rear end crashes were common accounting for 45% and 41% of the crashes, respectively.

Bicycle and Pedestrian Crashes

During this three-year (2009-2011) period, five of the reported crashes involved pedestrians and three involved bicyclists. One of the crashes involving pedestrians and two of the crashes involving bicyclists resulted in one fatality each. These crashes all occurred outside of identified high crash locations, and none of them close enough to each other to draw any conclusions about the commonality relating to these crashes. Of the crashes involving pedestrians and bicyclists, two crashes each occurred along Chamberlain Lane (approximately 1.75 miles apart) and Shenandoah Drive (approximately 0.25 miles apart).

Congestion

Current Level of Service (LOS)

Currently the only roadways on the Congestion Management Process (CMP) network with a LOS below C are:

LOS D:	<ul style="list-style-type: none"> I-71 from I-265/KY 841 to the Oldham County line I-265 from KY 1447 (Westport Road) to I-71 KY 22 from KY 1694 (New Chamberlain Lane) to Hickory Forest Drive/Silver Wing Boulevard KY 841 from I-71 to US 42
LOS F:	<ul style="list-style-type: none"> KY 22 from Chamberlain Lane to KY 1694 (New Chamberlain Lane)

Projected 2030 Level of Service (LOS)

Based on a travel demand model scenario for the Year 2030 that includes only those projects included in the 2011-2014 KIPDA Transportation Improvement Program (TIP), the corridors on the CMP network with a LOS forecasted to be worse than C in the Year 2030 are (see Figure 40028-B):

LOS D:	<ul style="list-style-type: none"> KY 22 from Silver Wing Boulevard to Murphy Lane Westport Road from Murphy Lane to Collins Lane
LOS E:	<ul style="list-style-type: none"> I-265 from Westport Road to KY 22 KY 841 from I-71 to US 42
LOS F:	<ul style="list-style-type: none"> I-71 from I-265/KY 841 to the Oldham County Line I-265 from KY 22 to I-71 KY 22 from Murphy Lane to the Oldham County Line Westport Road from I-265 to Murphy Lane US 42 from Falls Creek Road to the Oldham County line

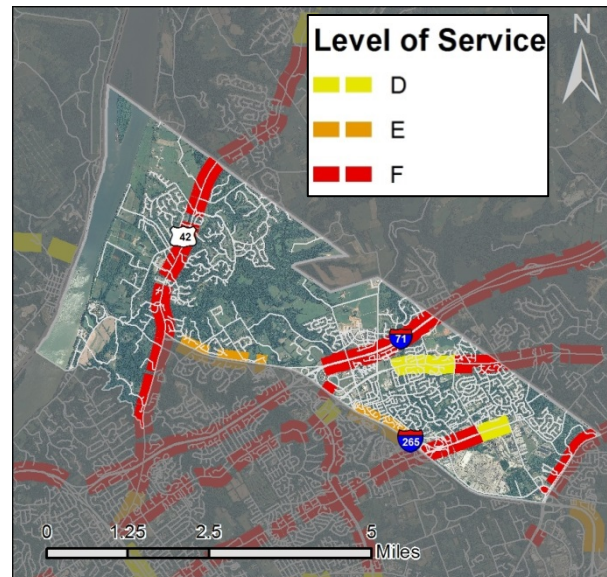


Figure 40028-B: Projected LOS within TAD 40028.

Significant congestion exists at several locations in TAD 40028 currently, and congestion at most locations is anticipated to worsen based on current forecasts. The most notable congested location is along I-71, where severe congestion exists currently and there are no projects planned to mitigate further congestion. In fact, in the year 2030 scenario analysis, severe congestion extends to not only the north and south of this TAD on I-71, but also to all of the major parallel routes (US 42, KY 22, and KY 1447) as well.

Access to Community Amenities

The vast majority of land in TAD 40028 is typical suburban residential development. There are relatively few community amenities (two schools, City of Prospect City Hall and Police Department, and two fire stations) in the area, and those are scattered throughout the TAD for better geographic coverage. The police and fire stations as well as Prospect City Hall are not typically high traffic generators. The access to the two schools will be further addressed in the Access to Education section of this report.

Access to Workplace

Access to workplace was examined on different levels: major employers (300+ employees), high density employment (1000+ employees within 0.25 miles of each other), high density retail (50 to 99 and 100+ retail facilities within 0.25 miles of each other), and commerce parks. Within TAD 40028, these are located in the southern most portion of the TAD: south of KY 1447 (Westport Road) to KY 146 (LaGrange Road) between the Oldham County line and I-265.

Major Employers

- Ford Motor Company
- Ralcorp Frozen Bakery Products

In this southern portion, there are two major employers: Ford Motor Company on Chamberlain Lane, and Ralcorp Frozen Bakery Products on Westport Road. Ralcorp is also included in a high density employment area and sits inside the Westport Industrial Center/Westport Distribution Center/Westport Bend Commerce Park. The Jefferson Trade Center, and industrial/commerce center, is also located in this portion of the TAD, close to the southeast quadrant of the I-265/Westport Road interchange. The industries within this southern portion of TAD 40028 are very reliant on LaGrange Road, I-265, Westport Road, Collins Lane, and Chamberlain Lane for moving people to and from jobs as well as moving goods. There is a high crash location identified at the I-265/LaGrange Road interchange area, which increases travel times for commuters.

While there are no LOS issues currently, future LOS will impede traffic flow in this area as LOS F is forecast on LaGrange Road and a portion of Westport Road. LOS E and F are anticipated on I-265 in the closest segments to the area. The increased congestion will place additional travel time burdens on commuters who are using either public transit or their own vehicle to access these worksites without mitigation measures. There are no dedicated bicycle facilities in the area, so bicyclists commuting to these sites would rely upon heavily trafficked roads with speed limits of 45 mph, which is typically uncomfortable for most bicyclists. Pedestrians and transit riders (this southern portion is served by TARC Route #55 and #64X) share the lack of pedestrian facilities as most sites would require a walk from the transit stop to the worksite. There are some shoulders along Westport Road, but those transform into turning lanes at intersections. Westport Road then goes from four lanes to two lanes, and there are no shoulders. Along KY 146, there are sidewalks closer to the I-265 interchange area, but only on one side of the roadway, and there are gaps in other areas.

Access for Persons with Disabilities and/or Older Adults

Other than workplaces, the majority of destinations within TAD 40028 are not clustered; there are no high density retail areas, medical facilities, or school areas. There are no facilities in the TAD specifically for older persons or persons with disabilities. There is one hospital, Norton Brownsboro Hospital, which is located in the southeast quadrant of the I-265 and I-71 interchange area on Norton Healthcare Boulevard.

The primary issue facing persons with mobility issues who wish to reach the various destinations in the TAD is the lack of continuous pedestrian facilities and limited public transit. Most of the development within the TAD has occurred south of I-71; this area contains clusters of workplaces, commerce areas, and major employers. This area is served by TARC Route #55 and Route #64X. There are some shoulders along Westport Road, but those transform into turning lanes at intersections. Westport Road then goes from four lanes to two lanes, and there are no shoulders. Along KY 146, there are sidewalks closer to the I-265 interchange area, but only on one side of the roadway, and there are gaps in other areas. To the north, US 42 is served by TARC Route #68X. The express route is designed primarily to take residents from the Prospect area to downtown Louisville in the morning peak hour and return them during the afternoon peak hour on weekdays. There is no service that provides ready access from Prospect to the area south of I-71 and vice versa, although it would be possible with a transfer, but then only at certain times due to the limited trips made only during morning and afternoon peak hours.

There are no pedestrian facilities on US 42 with the exception of approximately 0.20 miles of sidewalk on the northwest side of US 42 from just west of Timber Ridge Drive to just east of Carslaw Court. This stretch is a commercially developed with a grocery store, pharmacy, and several other retail locations. There are shoulders in some locations on US 42, but they are not continuous. With US 42 serving as a commuting route for Prospect residents and residents of Oldham County, as well as an alternate route to I-71, it carries a large volume of traffic. The speed limit along US 42 is 45 mph, which may also discourage pedestrians from using it.

Access to Education

There are two schools within TAD 40028, but they are not close enough to each other to consider them clustered (within 0.25 miles of each other).

Chancey Elementary School

Chancey Elementary School is situated in a suburban residential area on Murphy Lane in eastern Jefferson County. There are no dedicated bicycle facilities in the area. Public transit service to the school is available via Route #55 and Route #64X. There are sidewalks on the east side of Murphy Lane that connect to the school; however, there are no sidewalks or marked crossings within 0.25 miles radius to provide a safe crossing area for students, parents, and staff who live in the neighborhoods on the western side of Murphy Lane. Vehicular access appears to be adequate for the time being; however, by the year 2030, both KY 22 and Westport Road, which Murphy Lane runs between, are anticipated to be operating at LOS D and LOS F, which will cause increased travel time to the school for those living beyond Murphy Lane.

Saint Mary Academy

Saint Mary Academy is located at the intersection of Brownsboro Road and Schuler Lane, close to the Oldham County/Jefferson County line. At this time, it is surrounded on all sides by agricultural uses. The closest residential neighborhood is approximately 0.50 miles to the south (Worthington Lane). There are no bicycle, pedestrian, or public transit facilities in the area. Being that this is a private school, access would be expected to be by automobile. Vehicular access appears to be adequate; there are no identified high crash locations in proximity to the school, nor are there current or future LOS issues.

Access to Government Services

Outside of Prospect City Hall, there are no government services which would regularly require trips by the public as the other government services located in the TAD are fire departments; the Prospect Police are located adjacent to the Prospect City Hall on US 42. Access to the City Hall is not available via public transit. There are no bicycle facilities in the area. There are no sidewalks or other pedestrian facilities providing access to Prospect City Hall. Vehicular access is adequate; there are no high crash locations identified in the immediate vicinity nor are there any current LOS issues. By the year 2030, however, US 42 is expected to degrade to a LOS F, which increase travel time for persons wishing to travel to the Prospect City Hall.

Access to Medical Facilities

There are no clusters of medical facilities within TAD 40028. There is one hospital, Norton Brownsboro Hospital, which is located in the southeast quadrant of the I-265 and I-71 interchange area on Norton Healthcare Boulevard. There are no bicycle facilities in the area. Access via public transit is available via Route #55 and Route #64X. Pedestrian facilities take the form of sidewalks along both sides of Chamberlain Lane beginning roughly at the frontage of the hospital site and continuing south to KY 22. Motor vehicle access, including that of ambulances and other emergency vehicles may be somewhat impaired by the high crash locations identified at the I-265/KY 22 interchange area, which includes an alternate entrance to the hospital from KY 22. Adding to that, the current LOS on KY 22 east of Chamberlain Lane is F. The current LOS on I-265 and I-71 in proximity to the TAD is D. By the year 2030, congestion is anticipated to worsen: LOS D on KY 22 west of I-265; LOS E on I-265 north to KY 22; and, LOS F on I-265 from KY 22 to I-71 and on I-71. These LOS issues combined with the high crash locations, left unmitigated, may present delay and access issues.

Freight Access

There is one cluster of high density freight users (five or more within 0.50 miles of each other) within TAD 40028 (See Figure 40028-C). This cluster is located in the southeastern portion of the TAD in the same area of high density employment and major employers. There are also several industrial and commerce parks located in this area. The industries within this southern portion of TAD 40028 are very reliant on LaGrange Road, I-265, Westport Road, Collins Lane, and Chamberlain Lane for moving goods. There is a high crash location identified at the I-265/LaGrange Road interchange area, which can increase travel times.

I-265, KY 841 from US 42 to I-265, I-71, US 42 to KY 841, Westport Road from I-265 to Collins Lane, LaGrange Road from I-265 to Collins Lane, Collins Lane from Westport Road to LaGrange Road, and Chamberlain Lane from Westport Road to LaGrange Road are the roadways identified within TAD 40028 as being part of the KIPDA Freight Network (see Figure 40028-C). Current LOS issues on I-71 (LOS D) and I-265 (LOS D) may impede the movement of freight traffic now. Further degradations to the LOS on the KIPDA Freight Network are expected to affect more of the roadways in this TAD the future: KY 841 (LOS E), I-265 (LOS D, E, and F), US 42 (LOS F), Westport Road (LOS D and F), and LaGrange Road (LOS F). The increased congestion will place additional travel time needs for freight users located within the TAD as well as freight movement through it. This will be especially true in the future when increased congestion is expected on all of the major routes in the TAD after the new East End Bridge is built (connecting the portions of I-265 in Kentucky and Indiana).

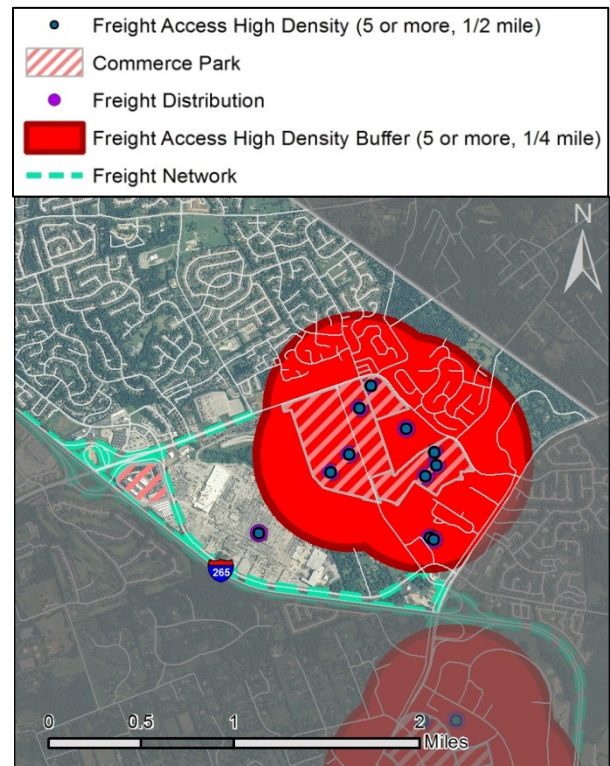


Figure 40028-C: KIPDA Freight Network and concentration of Major Freight Users within TAD 40028.

Future Socioeconomic Conditions

TAD 40028 is forecasted to see some growth in the number of households and in the number of jobs while non-group quarters population is anticipated to remain fairly constant with only a slight increase from current conditions by the year 2030. The rising number of jobs and households in the TAD will bring additional traffic, to which the LOS issues are attributed. Additional traffic without mitigation measures may bring about additional identified high crash locations, and/or more crashes occurring at existing high crash locations. Freight traffic is already impeded by LOS issues within

the TAD, and as congestion is anticipated to worsen, more roadways will fall to a LOS D or below, causing longer travel times for not only freight, but also commuters traveling by bus or car.

Issues and Opportunities

The southern portion of this TAD is anticipated to experience growth, which will also be influenced by the completion of the East End Bridge of the Ohio River Bridges Project. The same holds true for the neighboring TADs in this general area. With this anticipated growth, there will be additional demands on the transportation network. There are opportunities that occur with development to ensure that all modes are accommodated in future developments. One of the concerns raised most frequently in the comments received concern the current levels of congestion, which are anticipated to worsen over time. The other comments in this area have to do with providing additional transportation choices, the absence of which was confirmed by data analysis.

Safety is a concern for the traveling public as well as freight. As freight levels continue to rise and congestion worsens, the probability of high crash locations further impacting already congested roadways is likely. This will impact traveling time for persons traveling within as well as through the TAD. Mitigation is needed to address these issues.

Related Plans & Studies

- Cornerstone 2020 Comprehensive Plan (2013)
- Glenview Area Neighborhood Plan (2010)
- I-71/I-265 Interchange Alternatives Study (2010)
- KY 22 Scoping Study (2005)
- Ohio River Bridges Environmental Impact Statement (2003)
- Ohio River Bridges Record of Decision (2012)
- Ohio River Bridges Supplemental Environmental Impact Statement (2012)
- River Road Scenic Byway Corridor Management Plan (2010)
- Wolf Pen Branch Neighborhood Area Study (2012)